



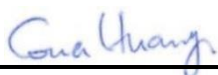
FCC SAR TEST REPORT

FCC ID : R9C-CPH2025
Equipment : Mobile Phone
Brand Name : OPPO
Model Name : CPH2025
Applicant : GUANGDONG OPPO MOBILE
TELECOMMUNICATIONS CORP.,LTD.
NO. 18 HaiBin Road, WuSha village, Chang An
Town, DongGuan City , Guangdong,China
Manufacturer : GUANGDONG OPPO MOBILE
TELECOMMUNICATIONS CORP.,LTD.
NO. 18 HaiBin Road, WuSha village, Chang An
Town, DongGuan City , Guangdong,China
Standard : FCC 47 CFR Part 2 (2.1093)
ANSI/IEEE C95.1-1992
IEEE 1528-2013

The product was received on Feb. 05, 2020 and testing was started from Mar. 09, 2020 and completed on Mar. 19, 2020. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Cona Huang / Deputy Manager

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History of this test report

Report No.	Version	Description	Issued Date
FA020103	01	Initial issue of report	Mar. 25, 2020



1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP.,LTD., Mobile Phone, CPH2025, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary				Highest Simultaneous Transmission 1g SAR (W/kg)
		Head (Separation 0mm)	Body-worn (Separation 15mm)	Hotspot (Separation 10mm)	Product Specific (Separation 0mm)	
		1g SAR (W/kg)			10g SAR (W/kg)	
Licensed	GSM850	0.39	0.20	0.35		1.47
	GSM1900	1.19	0.19	0.56		
	WCDMA II	1.04	0.22	0.68		
	WCDMA IV	1.03	0.20	0.56		
	WCDMA V	0.65	0.22	0.57		
	LTE Band 4	Cover by B66	0.04	0.10		
	LTE Band 5	0.88	0.30	0.75		
	LTE Band 7	1.09	0.20	0.81		
	LTE Band 12/17	0.44	0.19	0.51		
	LTE Band 13	0.19	0.24	0.39		
	LTE Band 2/25	0.96	0.28	0.76		
	LTE Band 26	0.63	0.23	0.58		
	LTE Band 38	0.23	0.20	0.52		
	LTE Band 41	1.20	0.23	0.89		
	LTE Band 66	0.97	0.32	0.84		
DTS	2.4GHz WLAN	0.67	0.36	0.77		1.47
NII	5GHz WLAN	0.98	0.44	0.17	1.35	1.47
DSS	Bluetooth	0.21	0.02	0.05		1.47
Date of Testing:		Mar. 09, 2020 ~ Mar. 19, 2020				

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC test. This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR, 4.0 W/kg for Product Specific 10g SAR) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications

Reviewed by: Jason Wang
Report Producer: Daisy Peng

2. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01
- FCC KDB 941225 D07 UMPC Mini Tablet v01r02

3. Equipment Under Test (EUT) Information

3.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	OPPO
Model Name	CPH2025
FCC ID	R9C-CPH2025
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Mode	GSM/GPRS/EGPRS/DTM RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA LTE: QPSK, 16QAM, 64QAM WLAN: 802.11a/b/g/n/ac/ax HT20 / HT40 / VHT20 / VHT40 / VHT80 / HE20 / HE40 / HE80 Bluetooth BR/EDR/LE/HS NFC:ASK
HW Version	11
SW Version	ColorOS V7.1
EUT Stage	Identical Prototype
Remark: 1. This device use the receiver detection mechanism, the main purpose is to minimize triggering associated with power reduction scenarios by receiver detection mechanisms and provide enhanced user experience. It uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. 2. For WLAN SAR testing was performed on dual antenna, due to the single antenna RF power in MIMO mode is larger or equal than the single antenna RF power in SISO mode.	



3.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05									
FCC ID		R9C-CPH2025							
Equipment Name		Mobile Phone							
Operating Frequency Range of each LTE transmission band		LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz							
Channel Bandwidth		LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz							
uplink modulations used		QPSK / 16QAM / 64QAM							
LTE Voice / Data requirements		Voice and Data							
LTE MPR permanently built-in by design		Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3							
		Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)
			1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
		QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
		16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
		16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
		64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
		64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
256 QAM		≥ 1						≤ 5	
LTE A-MPR		In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)							
Spectrum plots for RB configuration		A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.							
Power reduction applied to satisfy SAR compliance		Yes, when operating LTE B2/B4/B5/B7/B25/B26/B38/B41/B66 power reduction applied to satisfy SAR compliance.							
LTE Carrier Aggregation Combinations		Intra-Band possible combinations and the detail power measurement please referred to section 13.							
LTE Carrier Aggregation Additional Information		1. This device supports LTE Carrier Aggregation (CA) in the uplink for LTE B7/B38/B41 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 2 carriers in the downlink. Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.							

Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829				
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5				
H	20643	848.3	20635	847.5	20625	846.5	20600	844				
LTE Band 7												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510				
M	21100	2535	21100	2535	21100	2535	21100	2535				
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560				
LTE Band 12												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704				
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5				
H	23173	715.3	23165	714.5	23155	713.5	23130	711				
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)					
L	23205		779.5		23230		782					
M	23230		782									
H	23255		784.5									
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)					
L	23755		706.5		23780		709					
M	23790		710		23790		710					
H	23825		713.5		23800		711					
LTE Band 25												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905

LTE Band 26												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz			
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5		
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5		
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5		
LTE Band 38												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580				
M	38000	2595	38000	2595	38000	2595	38000	2595				
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610				
LTE Band 41												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506				
L M	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5				
M	40620	2593	40620	2593	40620	2593	40620	2593				
H M	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5				
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680				
LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

3.3 Maximum Output Power

General Note:

1. This device use the receiver detection mechanism, the main purpose is to minimize triggering associated with power reduction scenarios by receiver detection mechanisms and provide enhanced user experience. It uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism.
2. Below table shows maximum tune up output power configured for this EUT for various transmit conditions by manufacturer, and the detail power measurement and tune-up limit refer to appendix D
3. in the table below which the power level may have difference output power level. If some level output power measurement was not include in the appendix D, because the same output power level has been presented within power level 1 or level 4 and use the same level to doing SAR tested.
3. For WWAN antenna 0/1/2/3 (6 sets of power levels), the detail output level as following table
 - a. Head exposure conditions:
 - power level 1:**
While the device WWAN is transmitting and earpiece receiver worked, the device will limit different power level for SAR compliance.
 - power level 2:**
While the device 2.4GHz WLAN / 5GHz WLAN / Bluetooth are transmitting simultaneously at the same time with the WWAN transmitter, and earpiece receiver worked, the device will limit different power level for SAR compliance.
 - power level 3:**
While the device 2.4GHz WLAN/BT or 5GHz WLAN/BT are transmitting simultaneously at the same time with the WWAN transmitter, and earpiece receiver worked, the device will limit different power level for SAR compliance.
 - b. Body exposure conditions:
 - power level 4:**
While the device WWAN is transmitting and earpiece receiver inactive, the device will limit different power level for SAR compliance.
 - power level 5:**
While the device 2.4GHz WLAN / 5GHz WLAN / Bluetooth are transmitting simultaneously at the same time with the WWAN transmitter, and earpiece receiver inactive, the device will limit different power level for SAR compliance.
 - power level 6:**
While the device 2.4GHz WLAN/BT or 5GHz WLAN/BT are transmitting simultaneously at the same time with the WWAN transmitter, and earpiece receiver inactive, the device will limit different power level for SAR compliance.
4. For WLAN transmitter (6 sets of power levels), the detail output level refer appendix D.
 - a. Head exposure conditions:
 - power level 1:**
While the device WLAN is transmitting standalone or simultaneous with Bluetooth, and earpiece receiver worked, the device will limit different power level for SAR compliances.
 - power level 2:**
While the device 2.4GHz WLAN and 5GHz WLAN is transmitting simultaneously with the Bluetooth, and earpiece receiver worked, the device will limit different power level for SAR compliances
 - power level 3:**
While the device 2.4GHz WLAN or/and 5GHz WLAN is transmitting simultaneously with the Bluetooth and WWAN, and earpiece receiver worked, the device will limit different power level for SAR compliances
 - b. Body exposure conditions:
 - power level 4:**
While the device WLAN is transmitting standalone or simultaneous with Bluetooth, and earpiece receiver inactive,, the device will limit different power level for SAR compliances.
 - power level 5:**
While the device 2.4GHz WLAN and 5GHz WLAN is transmitting simultaneously with the Bluetooth, and earpiece receiver inactive, the device will limit different power level for SAR compliances
 - power level 6:**
While the device 2.4GHz WLAN or/and 5GHz WLAN is transmitting simultaneously with the Bluetooth and WWAN, and earpiece receiver inactive, the device will limit different power level for SAR compliances



Exposure Scenario:			Head Standalone	Head WWAN+ 2.4G+5G	Head WWAN+2.4G or WWAN+5G	Body Standalone	Body WWAN+ 2.4G+5G	Body WWAN+2.4G or WWAN+5G
Averaging Volume:			1g	1g	1g	1g	1g	1g
Power Table			1	2	3	4	5	6
Band	Antenna		Maximum Tune-up Limit (dBm)					
GSM850 Voice	A	1	33.5	33.5	33.5	31.0	29.5	30.0
GSM850 GPRS 1 Tx slot	A	1	33.5	33.5	33.5	31.0	29.5	30.0
GSM850 GPRS 2 Tx slot	A	1	31.5	31.5	31.5	29.0	27.0	27.5
GSM850 GPRS 3 Tx slot	A	1	30.0	30.0	30.0	27.5	25.5	26.0
GSM850 GPRS 4 Tx slot	A	1	29.5	29.5	29.5	27.0	25.0	25.5
GSM850 EDGE 1 Tx slot	A	1	28.5	28.5	28.5	26.5	27.5	28.0
GSM850 EDGE 2 Tx slot	A	1	26.0	26.0	26.0	25.0	25.5	26.0
GSM850 EDGE 3 Tx slot	A	1	24.5	24.5	24.5	23.5	24.0	24.5
GSM850 EDGE 4 Tx slot	A	1	24.0	24.0	24.0	23.0	23.5	24.0
GSM1900 Voice	A	3	30.5	30.5	30.5	29.5	27.5	28.0
GSM1900 GPRS 1 Tx slot	A	3	30.5	30.5	30.5	29.5	27.5	28.0
GSM1900 GPRS 2 Tx slot	A	3	28.0	28.0	28.0	27.0	25.0	25.5
GSM1900 GPRS 3 Tx slot	A	3	27.0	27.0	27.0	26.0	24.0	24.5
GSM1900 GPRS 4 Tx slot	A	3	25.5	25.5	25.5	24.5	22.5	23.0
GSM1900 EDGE 1 Tx slot	A	3	27.5	27.5	27.5	26.5	26.5	27.0
GSM1900 EDGE 2 Tx slot	A	3	25.0	25.0	25.0	24.0	24.0	24.5
GSM1900 EDGE 3 Tx slot	A	3	24.0	24.0	24.0	23.0	23.0	23.5
GSM1900 EDGE 4 Tx slot	A	3	23.0	23.0	23.0	22.0	21.5	22.0
WCDMA II	A	3	24.0	24.0	24.0	22.0	20.0	20.5
WCDMA IV	A	3	24.0	24.0	24.0	21.5	19.5	20.0
WCDMA V	A	1	25.0	25.0	25.0	24.5	23.0	23.5
LTE Band 2	A	3	24.0	24.0	24.0	22.5	20.5	21.0
LTE Band 4	A	3	24.0	24.0	24.0	22.5	20.5	21.0
LTE Band 5	A	1	25.0	25.0	25.0	24.5	22.0	22.5
LTE Band 7	A	3	24.5	24.5	24.5	21.0	18.5	19.0
LTE Band 12	A	1	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 13	A	1	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 17	A	1	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 25	A	3	24.0	24.0	24.0	22.5	21.0	21.5
LTE Band 26	A	1	24.0	24.0	24.0	24.0	22.0	22.5
LTE Band 38	A	3	25.0	25.0	25.0	23.5	21.0	21.5
LTE Band 41	A	3	24.5	24.5	24.5	22.0	20.5	21.0
LTE Band 41(HPUE)	A	3	26.0	26.0	26.0	22.0	20.5	21.0
LTE Band 66	A	3	24.0	24.0	24.0	22.0	20.0	20.5



Exposure scenario:			Head Standalone	Head WWAN+ 2.4G+5G	Head WWAN+2.4G or WWAN+5G	Body Standalone	Body WWAN+ 2.4G+5G	Body WWAN+2.4G or WWAN+5G
Averaging Volume:			1g	1g	1g	1g	1g	1g
Power Table			1	2	3	4	5	6
Band	Antenna		Maximum Tune-up Limit (dBm)					
GSM850 Voice	B	0	33.0	30.0	30.5	32.0	30.0	30.5
GSM850 GPRS 1 Tx slot	B	0	33.0	30.0	30.5	32.0	30.0	30.5
GSM850 GPRS 2 Tx slot	B	0	31.0	28.0	28.5	30.0	28.0	28.5
GSM850 GPRS 3 Tx slot	B	0	29.5	26.5	27.0	28.5	26.5	27.0
GSM850 GPRS 4 Tx slot	B	0	29.0	26.0	26.5	28.0	26.0	26.5
GSM850 EDGE 1 Tx slot	B	0	28.0	28.0	28.5	27.5	27.5	28.0
GSM850 EDGE 2 Tx slot	B	0	25.5	25.5	26.0	25.5	25.5	26.0
GSM850 EDGE 3 Tx slot	B	0	24.0	24.0	24.5	24.0	24.0	24.5
GSM850 EDGE 4 Tx slot	B	0	23.5	23.5	24.0	23.5	23.5	24.0
GSM1900 Voice	B	2	25.0	22.0	22.5	26.5	25.0	25.0
GSM1900 GPRS 1 Tx slot	B	2	25.0	22.0	22.5	26.5	25.0	25.0
GSM1900 GPRS 2 Tx slot	B	2	22.5	19.5	20.0	24.0	22.5	22.5
GSM1900 GPRS 3 Tx slot	B	2	21.0	18.5	19.0	23.0	21.5	21.5
GSM1900 GPRS 4 Tx slot	B	2	19.5	17.0	17.5	20.5	20.0	20.0
GSM1900 EDGE 1 Tx slot	B	2	23.5	21.5	22.0	25.5	23.5	23.5
GSM1900 EDGE 2 Tx slot	B	2	21.0	18.0	18.5	22.5	21.0	21.0
GSM1900 EDGE 3 Tx slot	B	2	20.5	17.5	18.0	21.5	20.0	20.0
GSM1900 EDGE 4 Tx slot	B	2	17.5	16.0	16.5	20.0	17.0	17.0
WCDMA II	B	2	17.0	14.0	14.5	19.5	17.5	18.0
WCDMA IV	B	2	16.5	13.5	14.0	19.0	17.0	17.5
WCDMA V	B	0	25.0	23.5	24.0	25.0	23.0	23.5
LTE Band 2	B	2	16.5	13.5	14.0	20.0	18.0	18.5
LTE Band 4	B	2	16.5	13.5	14.0	20.5	18.5	19.0
LTE Band 5	B	0	25.0	23.5	24.0	25.0	23.0	23.5
LTE Band 7	B	2	15.5	12.5	13.0	18.0	16.5	17.0
LTE Band 12	B	0	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 13	B	0	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 17	B	0	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 25	B	2	16.5	13.5	14.0	20.0	18.0	18.5
LTE Band 26	B	0	24.0	23.5	24.0	24.0	23.0	23.5
LTE Band 38	B	2	17.5	14.5	15.0	20.5	19.0	19.5
LTE Band 41	B	2	18.5	15.5	16.0	20.5	19.5	20.0
LTE Band 41(HPUE)	B	2	18.5	15.5	16.0	20.5	19.5	20.0
LTE Band 66	B	2	16.5	13.5	14.0	20.5	18.5	19.0
LTE Band 7	C	0	18.5	15.5	16.0	20.0	18.5	19.0
LTE Band 38	C	0	20.5	17.5	18.0	21.5	20.0	20.5
LTE Band 41	C	0	20.5	17.5	18.0	22.0	19.0	19.5
LTE Band 41(HPUE)	C	0	20.5	17.5	18.0	22.0	19.0	19.5

4. RF Exposure Limits

4.1 Uncontrolled Environment

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

4.2 Controlled Environment

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. The exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

1. Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

5. Specific Absorption Rate (SAR)

5.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

5.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

$$SAR = \frac{d}{dt} \left(\frac{dW}{dm} \right) = \frac{d}{dt} \left(\frac{dW}{\rho dv} \right)$$

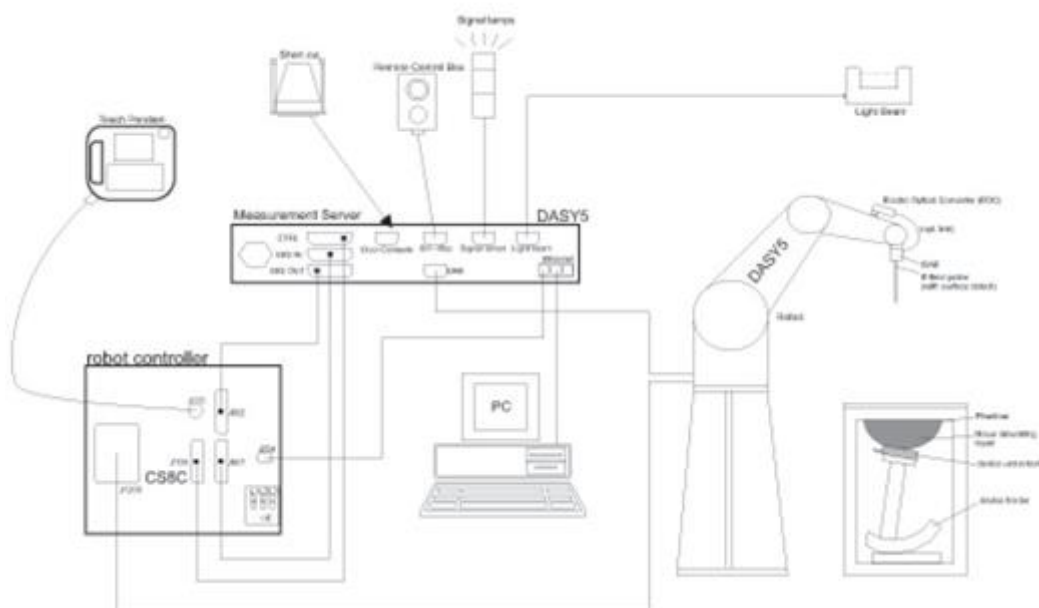
SAR is expressed in units of Watts per kilogram (W/kg)

$$SAR = \frac{\sigma |E|^2}{\rho}$$

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

6. System Description and Setup

The DASY system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

6.1 E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG). The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

<ES3DV3 Probe>

Construction	Symmetric design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – 4 GHz; Linearity: ± 0.2 dB (30 MHz – 4 GHz)	
Directivity	± 0.2 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 μ W/g – >100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 3.9 mm (body: 12 mm) Distance from probe tip to dipole centers: 3.0 mm	

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – >6 GHz Linearity: ± 0.2 dB (30 MHz – 6 GHz)	
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 μ W/g – >100 mW/g Linearity: ± 0.2 dB (noise: typically <1 μ W/g)	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

6.2 Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

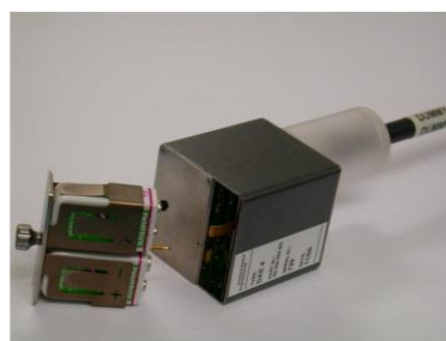


Fig 5.1 Photo of DAE

6.3 Phantom

<SAM Twin Phantom>

Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm	
Filling Volume	Approx. 25 liters	
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet	
Measurement Areas	Left Hand, Right Hand, Flat Phantom	

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

<ELI Phantom>

Shell Thickness	2 ± 0.2 mm (sagging: <1%)	
Filling Volume	Approx. 30 liters	
Dimensions	Major ellipse axis: 600 mm Minor axis: 400 mm	

The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

6.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

In combination with the Twin SAM V5.0/V5.0c or ELI phantoms, the Mounting Device for Hand-Held Transmitters enables rotation of the mounted transmitter device to specified spherical coordinates. At the heads, the rotation axis is at the ear opening. Transmitter devices can be easily and accurately positioned according to IEC 62209-1, IEEE 1528, FCC, or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat). And upgrade kit to Mounting Device to enable easy mounting of wider devices like big smart-phones, e-books, small tablets, etc. It holds devices with width up to 140 mm.



Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

<Mounting Device for Laptops and other Body-Worn Transmitters>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.



Mounting Device for Laptops

7. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

- (a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
- (b) Read the WWAN RF power level from the base station simulator.
- (c) For WLAN/BT power measurement, use engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band
- (d) Connect EUT RF port through RF cable to the power meter, and measure WLAN/BT output power

<SAR measurement>

- (a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.
- (b) Place the EUT in the positions as Appendix D demonstrates.
- (c) Set scan area, grid size and other setting on the DASY software.
- (d) Measure SAR results for the highest power channel on each testing position.
- (e) Find out the largest SAR result on these testing positions of each band
- (f) Measure SAR results for other channels in worst SAR testing position if the reported SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- (a) Power reference measurement
- (b) Area scan
- (c) Zoom scan
- (d) Power drift measurement

7.1 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values from the measurement grid to the high-resolution grid
- (e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- (f) Calculation of the averaged SAR within masses of 1g and 10g

7.2 Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

7.3 Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

Area scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}	≤ 2 GHz: ≤ 15 mm $2 - 3$ GHz: ≤ 12 mm	$3 - 4$ GHz: ≤ 12 mm $4 - 6$ GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

7.4 Zoom Scan

Zoom scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.				
* When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

7.5 Volume Scan Procedures

The volume scan is used to assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

7.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASy measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

8. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1107	Mar. 08, 2019	Mar. 06, 2021
SPEAG	835MHz System Validation Kit	D835V2	4d167	Nov. 25, 2019	Nov. 24, 2020
SPEAG	1750MHz System Validation Kit	D1750V2	1112	Mar. 07, 2019	Mar. 05, 2021
SPEAG	1900MHz System Validation Kit	D1900V2	5d041	Sep. 11, 2018	Sep. 09, 2020
SPEAG	1900MHz System Validation Kit	D1900V2	5d185	Mar. 07, 2019	Mar. 05, 2021
SPEAG	2450MHz System Validation Kit	D2450V2	929	Nov. 21, 2019	Nov. 20, 2020
SPEAG	2600MHz System Validation Kit	D2600V2	1008	Aug. 31, 2018	Aug. 29, 2020
SPEAG	2600MHz System Validation Kit	D2600V2	1078	Mar. 06, 2019	Mar. 04, 2021
SPEAG	5GHz System Validation Kit	D5GHzV2	1128	Dec. 16, 2019	Dec. 15, 2020
SPEAG	Data Acquisition Electronics	DAE4	699	Feb. 26, 2020	Feb. 25, 2021
SPEAG	Data Acquisition Electronics	DAE4	854	May. 21, 2019	May. 20, 2020
SPEAG	Data Acquisition Electronics	DAE4	1305	Apr. 30, 2019	Apr. 29, 2020
SPEAG	Data Acquisition Electronics	DAE4	1386	Sep. 09, 2019	Sep. 08, 2020
SPEAG	Data Acquisition Electronics	DAE4	1303	Jan. 08, 2020	Jan. 07, 2021
SPEAG	Dosimetric E-Field Probe	ES3DV3	3184	Sep. 25, 2019	Sep. 24, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3642	Apr. 29, 2019	Apr. 28, 2020
SPEAG	Dosimetric E-Field Probe	ES3DV3	3169	May. 24, 2019	May. 23, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3753	Jun. 19, 2019	Jun. 18, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	7576	Jan. 22, 2020	Jan. 21, 2021
RCPTWN	Thermometer	HTC-1	TM685-1	Nov. 12, 2019	Nov. 11, 2020
RCPTWN	Thermometer	HTC-1	TM560-2	Nov. 12, 2019	Nov. 11, 2020
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Oct. 31, 2019	Oct. 30, 2020
Agilent	Wireless Communication Test Set	E5515C	MY50266977	May. 27, 2019	May. 26, 2020
R&S	BT Base Station	CBT32	100522	Mar. 18, 2019	Mar. 17, 2020
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Nov. 20, 2019	Nov. 19, 2020
Agilent	ENA Network Analyzer	E5071C	MY46104758	Sep. 06, 2019	Sep. 05, 2020
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 18, 2019	Sep. 17, 2020
LINE SEIKI	Digital Thermometer	DTM3000-spezial	3169	Sep. 10, 2019	Sep. 09, 2020
Anritsu	Power Meter	ML2495A	1036004	Aug. 08, 2019	Aug. 07, 2020
Anritsu	Power Sensor	MA2411B	1027253	Aug. 08, 2019	Aug. 07, 2020
Anritsu	Power Meter	ML2495A	1419002	May. 29, 2019	May. 28, 2020
Anritsu	Power Sensor	MA2411B	1339124	May. 29, 2019	May. 28, 2020
Agilent	Spectrum Analyzer	E4408B	MY44211028	Aug. 27, 2019	Aug. 26, 2020
Mini-Circuits	Power Amplifier	ZVE-8G+	6382	Aug. 12, 2019	Aug. 11, 2020
Mini-Circuits	Power Amplifier	ZHL-42W+	321501827	Aug. 12, 2019	Aug. 11, 2020
ATM	Dual Directional Coupler	C122H-10	P610410z-02	Note 1	
Woken	Attenuator 1	WK0602-XX	N/A	Note 1	
PE	Attenuator 2	PE7005-10	N/A	Note 1	
PE	Attenuator 3	PE7005- 3	N/A	Note 1	

General Note:

1. Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check source.
2. Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
3. The justification data of dipole D750V2, SN: 1170, D1750V2, SN: 1112, D1900V2, SN: 5d041, D1900V2, SN: 5d185, D2600V2, SN: 1008, D2600V2, SN: 1078 can be found in appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

9. System Verification

9.1 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.2.

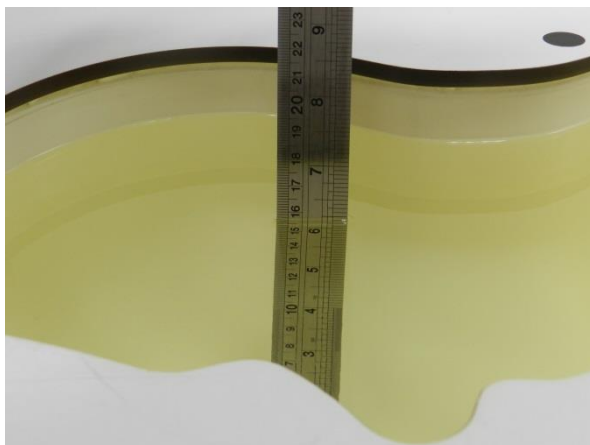


Fig 10.1 Photo of Liquid Height for Head SAR



Fig 10.2 Photo of Liquid Height for Body SAR

9.2 Tissue Verification

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (ϵ_r)
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
2600	54.8	0	0	0.1	0	45.1	1.96	39.0

Simulating Liquid for 5GHz, Manufactured by SPEAG

Ingredients	(% by weight)
Water	64~78%
Mineral oil	11~18%
Emulsifiers	9~15%
Additives and Salt	2~3%

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Conductivity Target (σ)	Permittivity Target (ϵ_r)	Delta (σ) (%)	Delta (ϵ_r) (%)	Limit (%)	Date
750	22.7	0.891	40.582	0.89	41.90	0.11	-3.15	±5	2020/3/10
750	22.6	0.907	40.873	0.89	41.90	1.91	-2.45	±5	2020/3/15
750	22.6	0.895	41.421	0.89	41.90	0.56	-1.14	±5	2020/3/16
835	22.2	0.875	41.363	0.90	41.50	-2.78	-0.33	±5	2020/3/9
835	22.3	0.892	41.651	0.90	41.50	-0.89	0.36	±5	2020/3/11
835	22.7	0.916	40.919	0.90	41.50	1.78	-1.40	±5	2020/3/12
835	22.6	0.917	42.646	0.90	41.50	1.89	2.76	±5	2020/3/15
835	22.4	0.897	42.405	0.90	41.50	-0.33	2.18	±5	2020/3/16
835	22.6	0.906	40.773	0.90	41.50	0.67	-1.75	±5	2020/3/17
835	22.3	0.871	42.925	0.90	41.50	-3.22	3.43	±5	2020/3/18
835	22.5	0.913	40.799	0.90	41.50	1.44	-1.69	±5	2020/3/18
1750	22.5	1.347	41.808	1.37	40.10	-1.68	4.26	±5	2020/3/10
1750	22.5	1.360	38.953	1.37	40.10	-0.73	-2.86	±5	2020/3/14
1750	22.4	1.341	40.609	1.37	40.10	-2.12	1.27	±5	2020/3/16
1750	22.3	1.353	40.792	1.37	40.10	-1.24	1.73	±5	2020/3/17
1750	22.2	1.395	40.719	1.37	40.10	1.82	1.54	±5	2020/3/18
1900	22.5	1.446	39.046	1.40	40.00	3.29	-2.39	±5	2020/3/9
1900	22.3	1.456	39.166	1.40	40.00	4.00	-2.09	±5	2020/3/13
1900	22.5	1.420	38.867	1.40	40.00	1.43	-2.83	±5	2020/3/15
1900	22.6	1.443	39.909	1.40	40.00	3.07	-0.23	±5	2020/3/17
1900	22.3	1.435	41.003	1.40	40.00	2.50	2.51	±5	2020/3/17
1900	22.2	1.416	40.429	1.40	40.00	1.14	1.07	±5	2020/3/18
2450	22.2	1.865	37.492	1.80	39.20	3.61	-4.36	±5	2020/3/12
2600	22.6	1.984	39.103	1.96	39.00	1.22	0.26	±5	2020/3/11
2600	22.3	1.991	38.405	1.96	39.00	1.58	-1.53	±5	2020/3/12
2600	22.3	1.997	39.223	1.96	39.00	1.89	0.57	±5	2020/3/12
2600	22.3	2.046	38.711	1.96	39.00	4.39	-0.74	±5	2020/3/14
2600	22.5	1.983	39.423	1.96	39.00	1.17	1.08	±5	2020/3/15
2600	22.2	2.008	38.668	1.96	39.00	2.45	-0.85	±5	2020/3/16
2600	22.2	1.997	37.730	1.96	39.00	1.89	-3.26	±5	2020/3/17
2600	22.5	1.911	39.498	1.96	39.00	-2.50	1.28	±5	2020/3/18
2600	22.2	1.996	37.720	1.96	39.00	1.84	-3.28	±5	2020/3/19
2600	22.5	2.009	38.356	1.96	39.00	2.50	-1.65	±5	2020/3/19
5250	22.2	4.767	36.978	4.71	35.95	1.21	2.86	±5	2020/3/13
5600	22.2	5.211	36.230	5.07	35.50	2.78	2.06	±5	2020/3/14
5750	22.2	5.384	35.949	5.22	35.35	3.14	1.69	±5	2020/3/15

9.3 System Performance Check Results

Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix A of this report.

Date	Frequency (MHz)	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2020/3/10	750	250	D750V3-1107	ES3DV3 - SN3169	DAE4 Sn699	1.97	8.32	7.88	-5.29
2020/3/15	750	250	D750V3-1107	EX3DV4 - SN3642	DAE4 Sn854	2.06	8.32	8.24	-0.96
2020/3/16	750	250	D750V3-1107	EX3DV4 - SN3642	DAE4 Sn854	2.04	8.32	8.16	-1.92
2020/3/9	835	250	D835V2-4d167	ES3DV3 - SN3169	DAE4 Sn699	2.29	9.55	9.16	-4.08
2020/3/11	835	250	D835V2-4d167	ES3DV3 - SN3169	DAE4 Sn699	2.46	9.55	9.84	3.04
2020/3/12	835	250	D835V2-4d167	EX3DV4 - SN3642	DAE4 Sn854	2.46	9.55	9.84	3.04
2020/3/15	835	250	D835V2-4d167	EX3DV4 - SN3642	DAE4 Sn854	2.50	9.55	10	4.71
2020/3/16	835	250	D835V2-4d167	EX3DV4 - SN3642	DAE4 Sn854	2.58	9.55	10.32	8.06
2020/3/17	835	250	D835V2-4d167	EX3DV4 - SN3642	DAE4 Sn854	2.47	9.55	9.88	3.46
2020/3/18	835	250	D835V2-4d167	ES3DV3 - SN3169	DAE4 Sn699	2.40	9.55	9.6	0.52
2020/3/18	835	250	D835V2-4d167	EX3DV4 - SN3642	DAE4 Sn854	2.46	9.55	9.84	3.04
2020/3/10	1750	250	D1750V2-1112	ES3DV3 - SN3184	DAE4 Sn1305	8.67	36.70	34.68	-5.50
2020/3/14	1750	250	D1750V2-1112	ES3DV3 - SN3184	DAE4 Sn1305	8.75	36.70	35	-4.63
2020/3/16	1750	250	D1750V2-1112	ES3DV3 - SN3169	DAE4 Sn699	8.89	36.70	35.56	-3.11
2020/3/17	1750	250	D1750V2-1112	ES3DV3 - SN3169	DAE4 Sn699	8.97	36.70	35.88	-2.23
2020/3/18	1750	250	D1750V2-1112	EX3DV4 - SN3642	DAE4 Sn854	9.78	36.70	39.12	6.59
2020/3/9	1900	250	D1900V2-5d185	ES3DV3 - SN3184	DAE4 Sn1305	9.82	39.40	39.28	-0.30
2020/3/13	1900	250	D1900V2-5d185	ES3DV3 - SN3184	DAE4 Sn1305	9.89	39.40	39.56	0.41
2020/3/15	1900	250	D1900V2-5d041	ES3DV3 - SN3169	DAE4 Sn699	9.65	40.20	38.6	-3.98
2020/3/17	1900	250	D1900V2-5d041	EX3DV4 - SN3642	DAE4 Sn854	10.10	40.20	40.4	0.50
2020/3/17	1900	250	D1900V2-5d041	ES3DV3 - SN3169	DAE4 Sn699	10.20	40.20	40.8	1.49
2020/3/18	1900	250	D1900V2-5d041	ES3DV3 - SN3169	DAE4 Sn699	10.00	40.20	40	-0.50
2020/3/12	2450	250	D2450V2-929	EX3DV4 - SN3753	DAE4 Sn1386	12.90	53.10	51.6	-2.82
2020/3/11	2600	250	D2600V2-1008	ES3DV3 - SN3184	DAE4 Sn1305	14.20	56.40	56.8	0.71
2020/3/12	2600	250	D2600V2-1078	ES3DV3 - SN3169	DAE4 Sn699	14.60	57.60	58.4	1.39
2020/3/12	2600	250	D2600V2-1008	ES3DV3 - SN3184	DAE4 Sn1305	14.30	56.40	57.2	1.42
2020/3/14	2600	250	D2600V2-1078	ES3DV3 - SN3169	DAE4 Sn699	14.10	57.60	56.4	-2.08
2020/3/15	2600	250	D2600V2-1008	ES3DV3 - SN3184	DAE4 Sn1305	14.20	56.40	56.8	0.71
2020/3/16	2600	250	D2600V2-1008	ES3DV3 - SN3184	DAE4 Sn1305	13.40	56.40	53.6	-4.96
2020/3/17	2600	250	D2600V2-1008	ES3DV3 - SN3184	DAE4 Sn1305	13.30	56.40	53.2	-5.67
2020/3/18	2600	250	D2600V2-1008	ES3DV3 - SN3184	DAE4 Sn1305	12.80	56.40	51.2	-9.22
2020/3/19	2600	250	D2600V2-1078	ES3DV3 - SN3169	DAE4 Sn699	13.70	57.60	54.8	-4.86
2020/3/19	2600	250	D2600V2-1008	ES3DV3 - SN3184	DAE4 Sn1305	13.40	56.40	53.6	-4.96
2020/3/13	5250	100	D5GHzV2-1128-5250	EX3DV4 - SN7576	DAE4 Sn1303	7.89	80.00	78.9	-1.38
2020/3/14	5600	100	D5GHzV2-1128-5600	EX3DV4 - SN7576	DAE4 Sn1303	8.98	82.40	89.8	8.98
2020/3/15	5750	100	D5GHzV2-1128-5750	EX3DV4 - SN7576	DAE4 Sn1303	8.37	79.10	83.7	5.82

Date	Frequency (MHz)	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2020/3/13	5250	100	D5GHzV2-1128-5250	EX3DV4 - SN7576	DAE4 Sn1303	2.26	22.90	22.6	-1.31
2020/3/14	5600	100	D5GHzV2-1128-5600	EX3DV4 - SN7576	DAE4 Sn1303	2.57	23.60	25.7	8.90

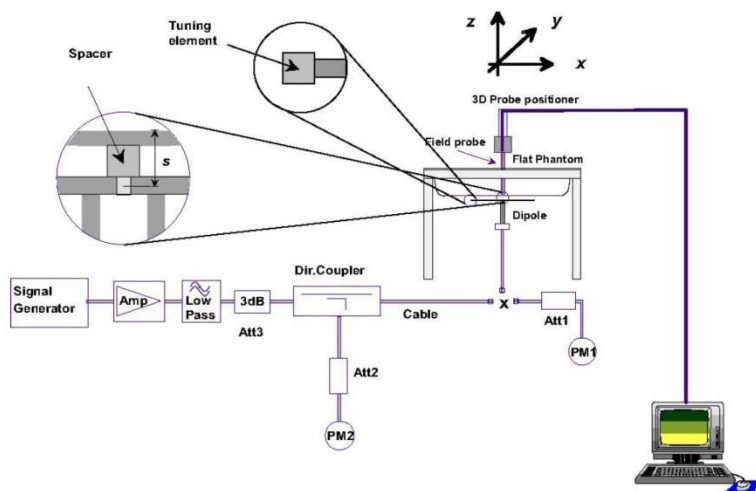

Fig 8.3.1 System Performance Check Setup

Fig 8.3.2 Setup Photo

10. RF Exposure Positions

10.1 Ear and handset reference point

Figure 9.1.1 shows the front, back, and side views of the SAM phantom. The center-of-mouth reference point is labeled “M,” the left ear reference point (ERP) is marked “LE,” and the right ERP is marked “RE.” Each ERP is 15 mm along the B-M (back-mouth) line behind the entrance-to-ear-canal (EEC) point, as shown in Figure 9.1.2 The Reference Plane is defined as passing through the two ear reference points and point M. The line N-F (neck-front), also called the reference pivoting line, is normal to the Reference Plane and perpendicular to both a line passing through RE and LE and the B-M line (see Figure 9.1.3). Both N-F and B-M lines should be marked on the exterior of the phantom shell to facilitate handset positioning. Posterior to the N-F line the ear shape is a flat surface with 6 mm thickness at each ERP, and forward of the N-F line the ear is truncated, as illustrated in Figure 9.1.2. The ear truncation is introduced to preclude the ear lobe from interfering with handset tilt, which could lead to unstable positioning at the cheek.

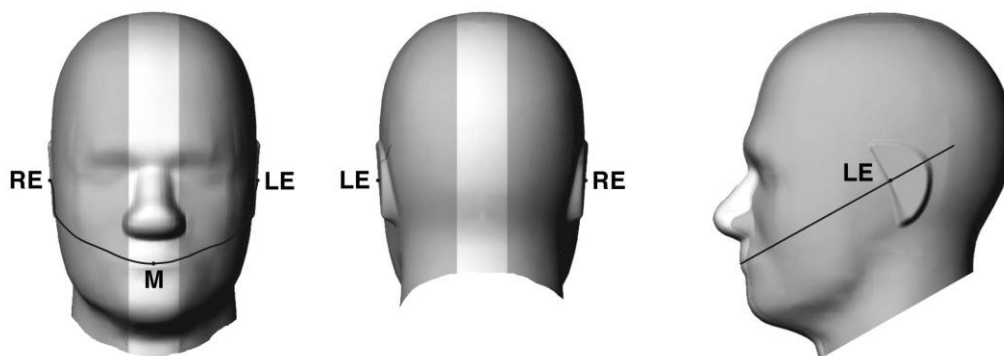


Fig 9.1.1 Front, back, and side views of SAM twin phantom

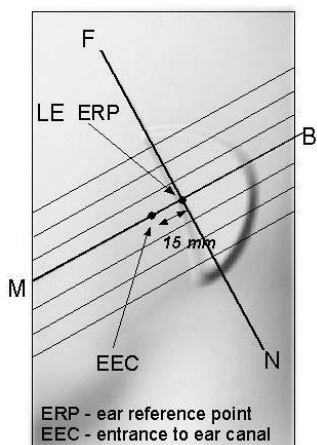


Fig 9.1.2 Close-up side view of phantom showing the ear region.

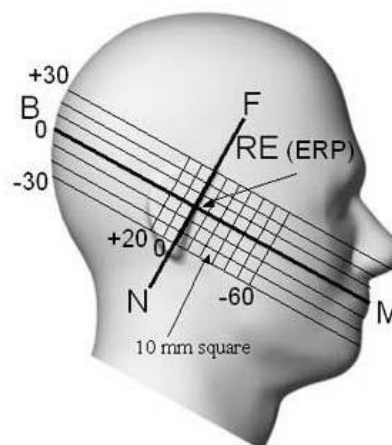


Fig 9.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

10.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width w_t of the handset at the level of the acoustic output (point A in Figure 9.2.1 and Figure 9.2.2), and the midpoint of the width w_b of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 9.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 9.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 9.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 9.2.3. The actual rotation angles should be documented in the test report.

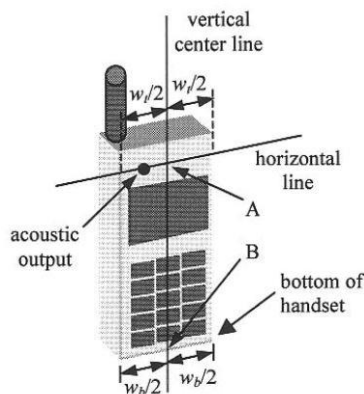


Fig 9.2.1 Handset vertical and horizontal reference lines—"fixed case"

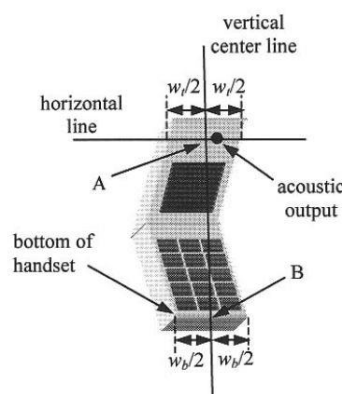


Fig 9.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

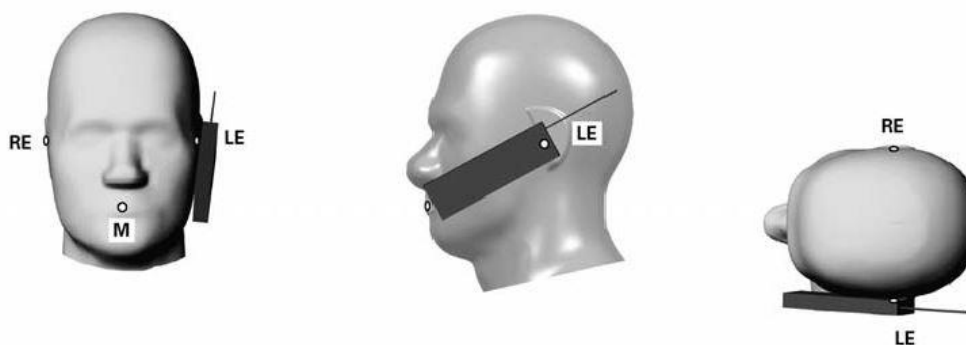


Fig 9.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

10.3 Definition of the tilt position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. While maintaining the orientation of the handset, move the handset away from the pinna along the line passing through RE and LE far enough to allow a rotation of the handset away from the cheek by 15°.
3. Rotate the handset around the horizontal line by 15°.
4. While maintaining the orientation of the handset, move the handset towards the phantom on the line passing through RE and LE until any part of the handset touches the ear. The tilt position is obtained when the contact point is on the pinna. See Figure 9.3.1. If contact occurs at any location other than the pinna, e.g., the antenna at the back of the phantom head, the angle of the handset should be reduced. In this case, the tilt position is obtained if any point on the handset is in contact with the pinna and a second point

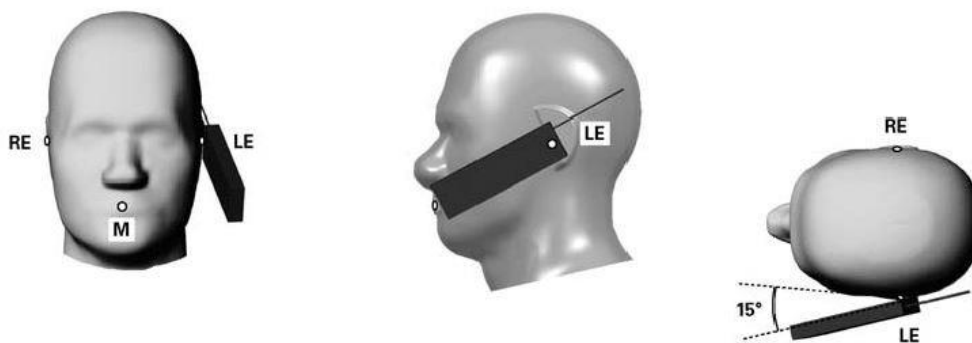


Fig 9.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

10.4 Body Worn Accessory

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 9.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is $> 1.2 \text{ W/kg}$, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Accessories for body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are test with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-chip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

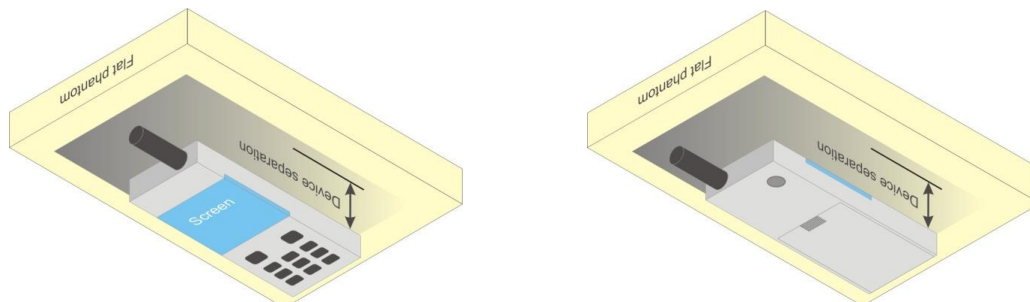


Fig 9.4 Body Worn Position



10.5 Product Specific Exposure

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, According to KDB648474 D04v01r03, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions.⁶ The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

10.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v06 publication procedures. The "Portable Hotspot" feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

11. DL/UL carrier aggregation

<LTE Carrier Aggregation combinations>

General Note:

1. This device supports Carrier Aggregation on downlink only for inter and intra band, Uplink CA is not supported. For the device supports combination bands and configurations are according to 3GPP.
2. In applying the existing power measurement procedure of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of the frequency band and CCs in each row need consideration, and that configurations require power measurement should be highlighted in the below table.

2CC Downlink Carrier Aggregation			
Number	Combination	Restriction	Covered by Measurement Superset
1	7C		
2	41C		
3	7A-7A		
4	41A-41A		

<Power verification when LTE Carrier Aggregation Active>
General Note:

- According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.
- Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
- The device supports downlink two carrier aggregation. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
- Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.
- For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.
- For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

$$\text{Nominal channel spacing} = \left\lceil \frac{BW_{\text{Channel}(1)} + BW_{\text{Channel}(2)} - 0.1 |BW_{\text{Channel}(1)} - BW_{\text{Channel}(2)}|}{0.6} \right\rceil 0.3 \text{ [MHz]}$$

<Two Carrier power verification>

Configure		PCC							SCC				Power		Note	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)		
Intra-Band	Non-Contiguous	7	20	2560	21350	QPSK	1	99	7	5	2622.5	2775	23.65	23.71	7A-7A	Ant A
		41	20	2593	40620	QPSK	1	49	41	5	2687.5	41565	23.91	23.99	41A-41A	
		7	20	2560	21350	QPSK	1	99	7	5	2622.5	2775	23.85	23.90	7A-7A	Ant B
		41	20	2593	40620	QPSK	1	49	41	5	2687.5	41565	23.82	23.91	41A-41A	
		7	20	2535	21100	QPSK	1	99	7	5	2687.5	3425	22.86	22.90	7A-7A	Ant C
		41	20	2593	40620	QPSK	1	49	41	5	2687.5	41565	23.36	23.41	41A-41A	
	Contiguous	7	20	2560	21350	QPSK	1	99	7	20	2660.2	3152	23.65	23.71	7C	Ant A
		41	20	2593	40620	QPSK	1	49	41	20	2612.8	40818	23.97	23.99	41C	
		7	20	2560	21350	QPSK	1	99	7	20	2660.2	3152	23.84	23.90	7C	Ant B
		41	20	2593	40620	QPSK	1	49	41	20	2612.8	40818	23.88	23.91	41C	
		7	20	2535	21100	QPSK	1	99	7	20	2635.2	2902	22.85	22.90	7C	Ant C
		41	20	2593	40620	QPSK	1	49	41	20	2612.8	40818	23.40	23.41	41C	

<LTE Uplink carrier aggregation>**<Intra-band>****General Note:**

- i. The device supports intra-band uplink carrier aggregation for LTE B66/B41/B48 with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.
- ii. The device supports uplink carrier aggregation with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the 3GPP requirement.
- iii. According TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- iv. According TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- v. Additional SAR measurement for LTE UL CA with other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

<WWAN Ant. 3 UL CA Power>

CA_7C_Power Table 1/2/3										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	22.52	24.5
21100	20902	QPSK	1	0	1	99	2	0	11.81	13.0
21350	21152	QPSK	1	0	1	99	2	0	11.75	13.0

CA_7C_Power Table 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	17.33	17.5
21100	20902	QPSK	1	0	1	99	2	0	12.09	13.0
21350	21152	QPSK	1	0	1	99	2	0	12.18	13.0

CA_7C_Power Table 5										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	15.80	17.5
21100	20902	QPSK	1	0	1	99	2	0	12.07	13.0
21350	21152	QPSK	1	0	1	99	2	0	11.82	13.0

CA_7C_Power Table 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	16.14	17.5
21100	20902	QPSK	1	0	1	99	2	0	11.91	13.0
21350	21152	QPSK	1	0	1	99	2	0	12.04	13.0

CA_38C_Power Table 1/2/3										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	23.41	25.0
37901	38099	QPSK	1	0	0	0	1	0	23.38	25.0
38150	37952	QPSK	1	0	1	99	2	0	12.87	14.5

CA_38C_Power Table 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	19.73	21.5
37901	38099	QPSK	1	0	0	0	1	0	19.67	21.5
38150	37952	QPSK	1	0	1	99	2	0	12.73	14.5

CA_38C_Power Table 5										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	18.45	20.0
37901	38099	QPSK	1	0	0	0	1	0	18.42	20.0
38150	37952	QPSK	1	0	1	99	2	0	12.51	14.5

CA_38C_Power Table 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	19.01	21.0
37901	38099	QPSK	1	0	0	0	1	0	19.06	21.0
38150	37952	QPSK	1	0	1	99	2	0	12.52	14.5

CA_41C_Power Table 1/2/3										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	21.94	23.5
40185	39987	QPSK	1	0	1	99	2	0	11.89	13.5
40620	40422	QPSK	1	0	1	99	2	0	12.21	13.5
41055	40857	QPSK	1	0	1	99	2	0	12.07	13.5
41490	41292	QPSK	1	0	1	99	2	0	12.15	13.5

CA_41C_Power Table 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	19.64	21.5
40185	39987	QPSK	1	0	1	99	2	0	11.91	13.5
40620	40422	QPSK	1	0	1	99	2	0	12.14	13.5
41055	40857	QPSK	1	0	1	99	2	0	12.01	13.5
41490	41292	QPSK	1	0	1	99	2	0	12.11	13.5

CA_41C_Power Table 5										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	18.65	20.5
40185	39987	QPSK	1	0	1	99	2	0	11.85	13.5
40620	40422	QPSK	1	0	1	99	2	0	12.16	13.5
41055	40857	QPSK	1	0	1	99	2	0	11.99	13.5
41490	41292	QPSK	1	0	1	99	2	0	12.07	13.5

CA_41C_Power Table 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	19.17	21.0
40185	39987	QPSK	1	0	1	99	2	0	11.86	13.5
40620	40422	QPSK	1	0	1	99	2	0	12.17	13.5
41055	40857	QPSK	1	0	1	99	2	0	12.02	13.5
41490	41292	QPSK	1	0	1	99	2	0	12.07	13.5

<WWAN Ant. 2 UL CA Power>

CA_7C_Power Table 1										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	14.79	15.5
21100	20902	QPSK	1	0	1	99	2	0	12.12	13.0
21350	21152	QPSK	1	0	1	99	2	0	12.05	13.0

CA_7C_Power Table 2										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	11.89	12.5
21100	20902	QPSK	1	0	1	99	2	0	12.11	12.5
21350	21152	QPSK	1	0	1	99	2	0	12.15	12.5

CA_7C_Power Table 3										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	12.36	13.0
21100	20902	QPSK	1	0	1	99	2	0	12.13	13.0
21350	21152	QPSK	1	0	1	99	2	0	12.04	13.0

CA_7C_Power Table 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	17.26	18.0
21100	20902	QPSK	1	0	1	99	2	0	12.14	13.0
21350	21152	QPSK	1	0	1	99	2	0	11.99	13.0

CA_7C_Power Table 5										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	15.72	16.5
21100	20902	QPSK	1	0	1	99	2	0	12.04	13.0
21350	21152	QPSK	1	0	1	99	2	0	12.01	13.0

CA_7C_Power Table 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	16.21	17.0
21100	20902	QPSK	1	0	1	99	2	0	12.13	13.0
21350	21152	QPSK	1	0	1	99	2	0	12.05	13.0

CA_38C_Power Table 1										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	16.48	17.5
37901	38099	QPSK	1	0	0	0	1	0	16.51	17.5
38150	37952	QPSK	1	0	1	99	2	0	12.53	14.5

CA_38C_Power Table 2										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	14.39	14.5
37901	38099	QPSK	1	0	0	0	1	0	14.42	14.5
38150	37952	QPSK	1	0	1	99	2	0	12.52	14.5

CA_38C_Power Table 3										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	14.88	15.0
37901	38099	QPSK	1	0	0	0	1	0	14.83	15.0
38150	37952	QPSK	1	0	1	99	2	0	12.51	14.5

CA_38C_Power Table 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	19.43	20.5
37901	38099	QPSK	1	0	0	0	1	0	19.41	20.5
38150	37952	QPSK	1	0	1	99	2	0	12.55	14.5

CA_38C_Power Table 5										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	18.44	19.0
37901	38099	QPSK	1	0	0	0	1	0	18.40	19.0
38150	37952	QPSK	1	0	1	99	2	0	12.56	14.5

CA_38C_Power Table 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
37850	38048	QPSK	1	0	0	0	1	0	18.93	19.5
37901	38099	QPSK	1	0	0	0	1	0	18.92	19.5
38150	37952	QPSK	1	0	1	99	2	0	12.63	14.5

CA_41C_Power Table 1										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	17.70	18.5
40185	39987	QPSK	1	0	1	99	2	0	11.92	13.5
40620	40422	QPSK	1	0	1	99	2	0	12.14	13.5
41055	40857	QPSK	1	0	1	99	2	0	12.02	13.5
41490	41292	QPSK	1	0	1	99	2	0	12.03	13.5

CA_41C_Power Table 2										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	14.83	15.5
40185	39987	QPSK	1	0	1	99	2	0	11.93	13.5
40620	40422	QPSK	1	0	1	99	2	0	12.12	13.5
41055	40857	QPSK	1	0	1	99	2	0	12.04	13.5
41490	41292	QPSK	1	0	1	99	2	0	12.03	13.5

CA_41C_Power Table 3										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	15.33	16.0
40185	39987	QPSK	1	0	1	99	2	0	11.92	13.5
40620	40422	QPSK	1	0	1	99	2	0	12.11	13.5
41055	40857	QPSK	1	0	1	99	2	0	12.02	13.5
41490	41292	QPSK	1	0	1	99	2	0	12.02	13.5

CA_41C_Power Table 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	19.65	20.5
40185	39987	QPSK	1	0	1	99	2	0	11.93	13.5
40620	40422	QPSK	1	0	1	99	2	0	12.14	13.5
41055	40857	QPSK	1	0	1	99	2	0	12.03	13.5
41490	41292	QPSK	1	0	1	99	2	0	11.95	13.5

CA_41C_Power Table 5										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	18.67	19.5
40185	39987	QPSK	1	0	1	99	2	0	11.93	13.5
40620	40422	QPSK	1	0	1	99	2	0	12.12	13.5
41055	40857	QPSK	1	0	1	99	2	0	12.03	13.5
41490	41292	QPSK	1	0	1	99	2	0	12.04	13.5

CA_41C_Power Table 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	19.16	20.0
40185	39987	QPSK	1	0	1	99	2	0	11.92	13.5
40620	40422	QPSK	1	0	1	99	2	0	12.12	13.5
41055	40857	QPSK	1	0	1	99	2	0	12.03	13.5
41490	41292	QPSK	1	0	1	99	2	0	12.03	13.5

<WWAN Ant. 0 UL CA Power>

CA_7C_Power Table 1										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	14.31	16.0
21100	20902	QPSK	1	0	1	99	2	0	11.53	13.0
21350	21152	QPSK	1	0	1	99	2	0	11.52	13.0

CA_7C_Power Table 2										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	11.31	13.0
21100	20902	QPSK	1	0	1	99	2	0	11.62	13.0
21350	21152	QPSK	1	0	1	99	2	0	11.58	13.0

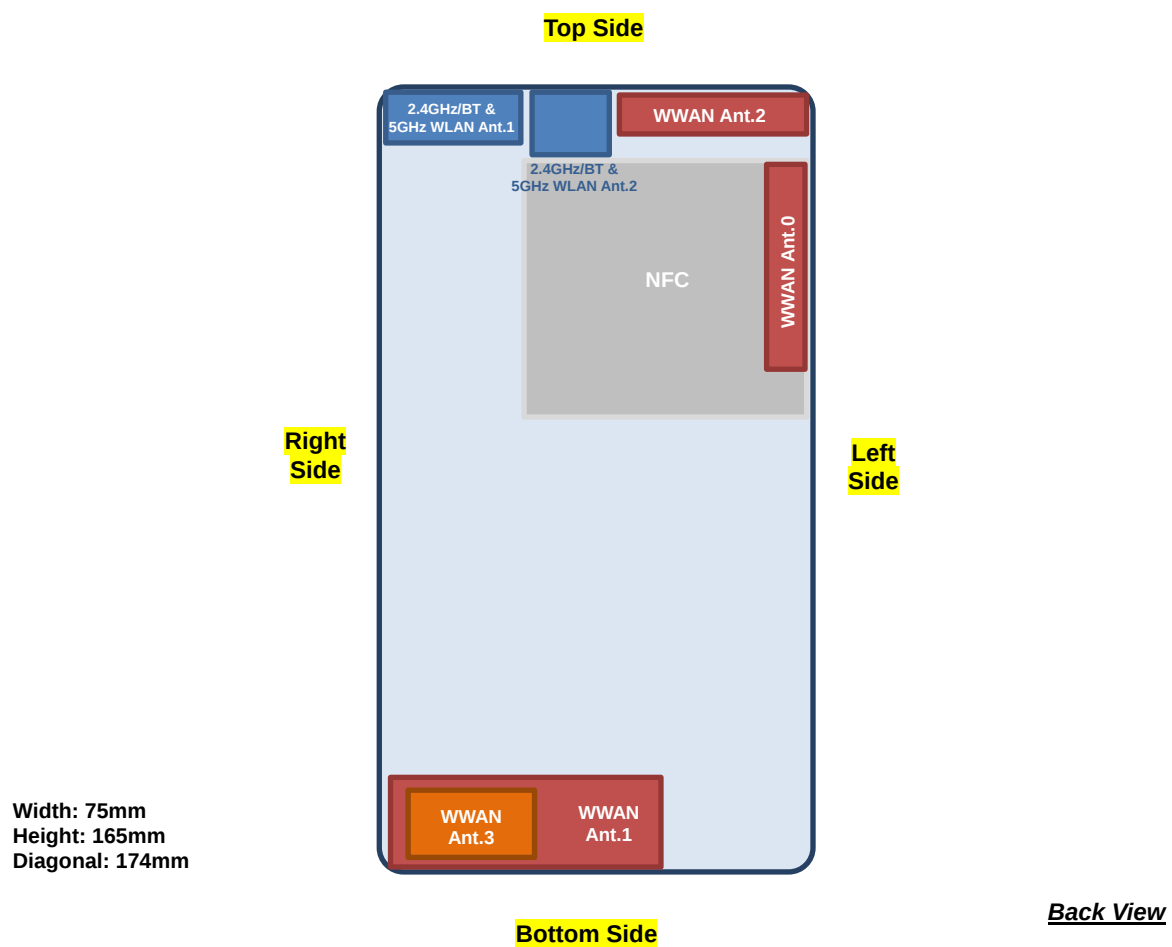
CA_7C_Power Table 3										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	11.83	13.0
21100	20902	QPSK	1	0	1	99	2	0	11.59	13.0
21350	21152	QPSK	1	0	1	99	2	0	11.68	13.0

CA_7C_Power Table 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	15.28	16.0
21100	20902	QPSK	1	0	1	99	2	0	11.60	13.0
21350	21152	QPSK	1	0	1	99	2	0	11.70	13.0

CA_7C_Power Table 5										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	15.25	16.0
21100	20902	QPSK	1	0	1	99	2	0	11.54	13.0
21350	21152	QPSK	1	0	1	99	2	0	11.65	13.0

CA_7C_Power Table 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	15.78	16.0
21100	20902	QPSK	1	0	1	99	2	0	11.54	13.0
21350	21152	QPSK	1	0	1	99	2	0	11.60	13.0

12. Antenna Location



Antennas	Support Bands
WWAN Ant.0	GSM850, WCDMA B5, LTE B7/12/13/17/26/38/41
WWAN Ant.1	GSM850, WCDMA B5, LTE B12/13/17/26
WWAN Ant.2	GSM1900, WCDMA B2/4, LTE B2/4/7/25/38/41/66
WWAN Ant.3	GSM1900, WCDMA B2/4, LTE B2/4/7/25/38/41/66
WLAN Ant.1	2.4GHz / 5GHz WLAN / BT
WLAN Ant.2	2.4GHz / 5GHz WLAN / BT

Distance of the Antenna to the EUT surface/edge						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN Ant.0	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm
WWAN Ant.1	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	≤ 25mm
WWAN Ant.2	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm
WWAN Ant.3	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	≤ 25mm
WLAN Ant.1	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm
WLAN Ant.2	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm

Positions for SAR tests; Hotspot mode						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN Ant.0	Yes	Yes	Yes	No	Yes	Yes
WWAN Ant.1	Yes	Yes	No	Yes	Yes	Yes
WWAN Ant.2	Yes	Yes	Yes	No	Yes	Yes
WWAN Ant.3	Yes	Yes	No	Yes	Yes	Yes
WLAN Ant.1	Yes	Yes	Yes	No	Yes	Yes
WLAN Ant.2	Yes	Yes	Yes	No	Yes	Yes

General Note:

- Referring to KDB 941225 D06 v02r01, when the overall device length and width are $\geq 9\text{cm} \times 5\text{cm}$, the test distance is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge

13. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - d. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix $63.3\%/62.9\% = 1.006$ is applied to scale-up the measured SAR result.
The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
5. For 5.3GHz / 5.5GHz WLAN product specific SAR is necessary too, due to an overall diagonal dimension is > 16 cm.

GSM Note:

1. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (4Tx slots) for GSM850 and GPRS (3Tx slots) for GSM1900 are considered as the primary mode.
2. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

UMTS Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is $\leq \frac{1}{4}$ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSUPA, HSDPA, DC-HSDPA) are less than $\frac{1}{4}$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is $> \text{not } \frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is $> \text{not } \frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. This device supports both Power Class 2 (PC2) and Power Class 3 (PC3) for LTE Band 41. Per May 2017
7. TCB Workshop Notes, SAR tests were performed with Power Class 3 (given the specific UL/DL limitations for Power Class 2). Additionally, SAR testing for the power class condition was evaluated for the highest configuration in Power Class 3 for each test configuration to confirm the results were scalable linearly.
8. For LTE B4 / B5 / B12 / B17 / B26 / B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. According to TCB workshop, for smaller band SAR test for overlapping LTE bands can be reduced if
 - a. The maximum output power, including tolerance, for the smaller band is $\leq$ the larger band to qualify for the SAR test exclusion.
 - b. The channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band.

WLAN Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.



13.1 Head SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	1/2/3	128	824.2	26.60	27.00	1.096	-0.03	0.224	0.246
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Tilted	0mm	1/2/3	128	824.2	26.60	27.00	1.096	0.12	0.066	0.072
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Cheek	0mm	1/2/3	128	824.2	26.60	27.00	1.096	-0.04	0.160	0.175
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Tilted	0mm	1/2/3	128	824.2	26.60	27.00	1.096	0.15	0.094	0.103
01	GSM850_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	1	128	824.2	28.56	29.00	1.107	0.07	0.354	0.392
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Tilted	0mm	1	128	824.2	28.56	29.00	1.107	0.02	0.069	0.076
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	1	128	824.2	28.56	29.00	1.107	-0.02	0.302	0.334
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Tilted	0mm	1	128	824.2	28.56	29.00	1.107	0.12	0.056	0.062
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	2	128	824.2	25.38	26.00	1.153	-0.07	0.201	0.232
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Tilted	0mm	2	128	824.2	25.38	26.00	1.153	0	0.037	0.043
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	2	128	824.2	25.38	26.00	1.153	-0.08	0.158	0.182
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Tilted	0mm	2	128	824.2	25.38	26.00	1.153	-0.12	0.030	0.035
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	3	128	824.2	25.38	26.50	1.294	-0.07	0.201	0.260
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Tilted	0mm	3	128	824.2	25.38	26.50	1.294	0	0.037	0.048
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	3	128	824.2	25.38	26.50	1.294	-0.08	0.158	0.204
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Tilted	0mm	3	128	824.2	25.38	26.50	1.294	-0.12	0.030	0.039

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM1900_Ant 3	GPRS (3 Tx slots)	Right Cheek	0mm	1/2/3	810	1909.8	25.74	27.00	1.337	-0.08	0.272	0.364
	GSM1900_Ant 3	GPRS (3 Tx slots)	Right Tilted	0mm	1/2/3	810	1909.8	25.74	27.00	1.337	-0.02	0.134	0.179
	GSM1900_Ant 3	GPRS (3 Tx slots)	Left Cheek	0mm	1/2/3	810	1909.8	25.74	27.00	1.337	-0.04	0.135	0.180
	GSM1900_Ant 3	GPRS (3 Tx slots)	Left Tilted	0mm	1/2/3	810	1909.8	25.74	27.00	1.337	-0.01	0.119	0.159
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Cheek	0mm	1	661	1880	19.22	21.00	1.507	-0.08	0.729	1.098
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Cheek	0mm	1	512	1850.2	19.12	21.00	1.542	-0.01	0.694	1.070
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Cheek	0mm	1	810	1909.8	19.19	21.00	1.517	0.03	0.722	1.095
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Tilted	0mm	1	661	1880	19.22	21.00	1.507	-0.03	0.710	1.070
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Tilted	0mm	1	512	1850.2	19.12	21.00	1.542	-0.05	0.709	1.093
02	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Tilted	0mm	1	810	1909.8	19.19	21.00	1.517	-0.09	0.787	1.194
	GSM1900_Ant 2	GPRS (3 Tx slots)	Left Cheek	0mm	1	661	1880	19.22	21.00	1.507	-0.09	0.424	0.639
	GSM1900_Ant 2	GPRS (3 Tx slots)	Left Tilted	0mm	1	661	1880	19.22	21.00	1.507	0	0.491	0.740
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Cheek	0mm	2	661	1880	17.63	18.50	1.222	-0.08	0.379	0.463
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Tilted	0mm	2	661	1880	17.63	18.50	1.222	-0.05	0.496	0.606
	GSM1900_Ant 2	GPRS (3 Tx slots)	Left Cheek	0mm	2	661	1880	17.63	18.50	1.222	0.14	0.231	0.282
	GSM1900_Ant 2	GPRS (3 Tx slots)	Left Tilted	0mm	2	661	1880	17.63	18.50	1.222	0.07	0.274	0.335
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Cheek	0mm	3	661	1880	17.63	19.00	1.371	-0.08	0.379	0.520
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Tilted	0mm	3	661	1880	17.63	19.00	1.371	-0.05	0.496	0.680
	GSM1900_Ant 2	GPRS (3 Tx slots)	Left Cheek	0mm	3	661	1880	17.63	19.00	1.371	0.14	0.231	0.317
	GSM1900_Ant 2	GPRS (3 Tx slots)	Left Tilted	0mm	3	661	1880	17.63	19.00	1.371	0.07	0.274	0.376

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 3	RMC 12.2Kbps	Right Cheek	0mm	1/2/3	9538	1907.6	22.96	24.00	1.271	-0.01	0.323	0.410
	WCDMA II_Ant 3	RMC 12.2Kbps	Right Tilted	0mm	1/2/3	9538	1907.6	22.96	24.00	1.271	-0.14	0.158	0.201
	WCDMA II_Ant 3	RMC 12.2Kbps	Left Cheek	0mm	1/2/3	9538	1907.6	22.96	24.00	1.271	-0.19	0.171	0.217
	WCDMA II_Ant 3	RMC 12.2Kbps	Left Tilted	0mm	1/2/3	9538	1907.6	22.96	24.00	1.271	-0.18	0.144	0.183
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	1	9262	1852.4	15.87	17.00	1.297	-0.04	0.743	0.964
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	1	9400	1880	15.85	17.00	1.303	-0.01	0.715	0.932
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	1	9538	1907.6	15.83	17.00	1.309	-0.13	0.719	0.941
03	WCDMA II_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	1	9262	1852.4	15.87	17.00	1.297	-0.03	0.804	1.043
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	1	9400	1880	15.85	17.00	1.303	-0.15	0.754	0.983
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	1	9538	1907.6	15.83	17.00	1.309	-0.02	0.756	0.990
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	1	9262	1852.4	15.87	17.00	1.297	-0.09	0.410	0.532
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Tilted	0mm	1	9262	1852.4	15.87	17.00	1.297	-0.04	0.462	0.599
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2	9400	1880	12.88	14.00	1.294	-0.02	0.306	0.396
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	2	9400	1880	12.88	14.00	1.294	-0.03	0.399	0.516
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	2	9400	1880	12.88	14.00	1.294	0.02	0.200	0.259
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Tilted	0mm	2	9400	1880	12.88	14.00	1.294	-0.04	0.233	0.302
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	3	9400	1880	12.88	14.50	1.452	-0.02	0.306	0.444
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	3	9400	1880	12.88	14.50	1.452	-0.03	0.399	0.579
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	3	9400	1880	12.88	14.50	1.452	0.02	0.200	0.290
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Tilted	0mm	3	9400	1880	12.88	14.50	1.452	-0.04	0.233	0.338

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA IV_Ant 3	RMC 12.2Kbps	Right Cheek	0mm	1/2/3	1413	1732.6	22.97	24.00	1.268	0	0.083	0.105
	WCDMA IV_Ant 3	RMC 12.2Kbps	Right Tilted	0mm	1/2/3	1413	1732.6	22.97	24.00	1.268	0.13	0.040	0.051
	WCDMA IV_Ant 3	RMC 12.2Kbps	Left Cheek	0mm	1/2/3	1413	1732.6	22.97	24.00	1.268	0.09	0.034	0.043
	WCDMA IV_Ant 3	RMC 12.2Kbps	Left Tilted	0mm	1/2/3	1413	1732.6	22.97	24.00	1.268	-0.1	0.036	0.046
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	1	1413	1732.6	15.36	16.50	1.300	-0.08	0.535	0.696
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	1	1413	1732.6	15.36	16.50	1.300	-0.04	0.778	1.012
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	1	1312	1712.4	15.31	16.50	1.315	-0.03	0.722	0.950
04	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	1	1513	1752.6	15.34	16.50	1.306	0.03	0.788	1.029
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	1	1413	1732.6	15.36	16.50	1.300	0	0.345	0.449
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Tilted	0mm	1	1413	1732.6	15.36	16.50	1.300	-0.08	0.467	0.607
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	2	1413	1732.6	12.41	13.50	1.285	-0.09	0.255	0.328
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	2	1413	1732.6	12.41	13.50	1.285	-0.14	0.380	0.488
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	2	1413	1732.6	12.41	13.50	1.285	0.01	0.172	0.221
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Tilted	0mm	2	1413	1732.6	12.41	13.50	1.285	0.03	0.236	0.303
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	3	1413	1732.6	12.41	14.00	1.442	-0.09	0.255	0.368
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	3	1413	1732.6	12.41	14.00	1.442	-0.14	0.380	0.548
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	3	1413	1732.6	12.41	14.00	1.442	0.01	0.172	0.248
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Tilted	0mm	3	1413	1732.6	12.41	14.00	1.442	0.03	0.236	0.340

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	1/2/3	4182	836.4	24.03	25.00	1.250	-0.01	0.177	0.221
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Tilted	0mm	1/2/3	4182	836.4	24.03	25.00	1.250	0.05	0.090	0.113
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Cheek	0mm	1/2/3	4182	836.4	24.03	25.00	1.250	0.08	0.138	0.173
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Tilted	0mm	1/2/3	4182	836.4	24.03	25.00	1.250	0.04	0.086	0.108
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	1	4132	826.4	24.03	25.00	1.250	-0.16	0.492	0.615
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	1	4132	826.4	24.03	25.00	1.250	0	0.092	0.115
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	1	4132	826.4	24.03	25.00	1.250	-0.06	0.421	0.526
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	1	4132	826.4	24.03	25.00	1.250	-0.01	0.071	0.089
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	2	4182	836.4	22.49	23.50	1.262	0.03	0.458	0.578
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	2	4182	836.4	22.49	23.50	1.262	-0.01	0.080	0.101
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	2	4182	836.4	22.49	23.50	1.262	-0.02	0.337	0.425
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	2	4182	836.4	22.49	23.50	1.262	-0.01	0.060	0.076
05	WCDMA V_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	3	4182	836.4	22.49	24.00	1.416	0.03	0.458	0.648
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	3	4182	836.4	22.49	24.00	1.416	-0.01	0.080	0.113
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	3	4182	836.4	22.49	24.00	1.416	-0.02	0.337	0.477
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	3	4182	836.4	22.49	24.00	1.416	-0.01	0.060	0.085

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 5_Ant 1	10M	QPSK	1	49	Right Cheek	0mm	1/2/3	20525	836.5	24.13	25.00	1.222	0.02	0.153	0.187
	LTE Band 5_Ant 1	10M	QPSK	25	12	Right Cheek	0mm	1/2/3	20525	836.5	23.23	24.00	1.194	-0.01	0.108	0.129
	LTE Band 5_Ant 1	10M	QPSK	1	49	Right Tilted	0mm	1/2/3	20525	836.5	24.13	25.00	1.222	-0.05	0.070	0.086
	LTE Band 5_Ant 1	10M	QPSK	25	12	Right Tilted	0mm	1/2/3	20525	836.5	23.23	24.00	1.194	-0.14	0.067	0.080
	LTE Band 5_Ant 1	10M	QPSK	1	49	Left Cheek	0mm	1/2/3	20525	836.5	24.13	25.00	1.222	0.07	0.107	0.131
	LTE Band 5_Ant 1	10M	QPSK	25	12	Left Cheek	0mm	1/2/3	20525	836.5	23.23	24.00	1.194	-0.07	0.075	0.090
	LTE Band 5_Ant 1	10M	QPSK	1	49	Left Tilted	0mm	1/2/3	20525	836.5	24.13	25.00	1.222	-0.05	0.063	0.077
	LTE Band 5_Ant 1	10M	QPSK	25	12	Left Tilted	0mm	1/2/3	20525	836.5	23.23	24.00	1.194	-0.07	0.048	0.057
06	LTE Band 5_Ant 0	10M	QPSK	1	49	Right Cheek	0mm	1	20525	836.5	24.13	25.00	1.222	-0.06	0.716	0.875
	LTE Band 5_Ant 0	10M	QPSK	25	12	Right Cheek	0mm	1	20525	836.5	23.18	24.00	1.208	-0.07	0.523	0.632
	LTE Band 5_Ant 0	10M	QPSK	1	49	Right Tilted	0mm	1	20525	836.5	24.13	25.00	1.222	-0.01	0.137	0.167
	LTE Band 5_Ant 0	10M	QPSK	25	12	Right Tilted	0mm	1	20525	836.5	23.18	24.00	1.208	-0.03	0.098	0.118
	LTE Band 5_Ant 0	10M	QPSK	1	49	Left Cheek	0mm	1	20525	836.5	24.13	25.00	1.222	-0.12	0.596	0.728
	LTE Band 5_Ant 0	10M	QPSK	25	12	Left Cheek	0mm	1	20525	836.5	23.18	24.00	1.208	-0.04	0.420	0.507
	LTE Band 5_Ant 0	10M	QPSK	1	49	Left Tilted	0mm	1	20525	836.5	24.13	25.00	1.222	-0.02	0.110	0.134
	LTE Band 5_Ant 0	10M	QPSK	25	12	Left Tilted	0mm	1	20525	836.5	23.18	24.00	1.208	-0.01	0.078	0.094



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Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 3	20M	QPSK	1	99	Right Cheek	0mm	1/2/3	21350	2560	23.71	24.50	1.199	-0.16	0.541	0.649
	LTE Band 7_Ant 3	20M	QPSK	50	50	Right Cheek	0mm	1/2/3	21350	2560	22.79	23.50	1.178	-0.09	0.443	0.522
	LTE Band 7_Ant 3	20M	QPSK	1	99	Right Tilted	0mm	1/2/3	21350	2560	23.71	24.50	1.199	0.14	0.112	0.134
	LTE Band 7_Ant 3	20M	QPSK	50	50	Right Tilted	0mm	1/2/3	21350	2560	22.79	23.50	1.178	0.03	0.098	0.115
	LTE Band 7_Ant 3	20M	QPSK	1	99	Left Cheek	0mm	1/2/3	21350	2560	23.71	24.50	1.199	-0.04	0.235	0.282
	LTE Band 7_Ant 3	20M	QPSK	50	50	Left Cheek	0mm	1/2/3	21350	2560	22.79	23.50	1.178	0	0.189	0.223
	LTE Band 7_Ant 3	20M	QPSK	1	99	Left Tilted	0mm	1/2/3	21350	2560	23.71	24.50	1.199	0.19	0.171	0.205
	LTE Band 7_Ant 3	20M	QPSK	50	50	Left Tilted	0mm	1/2/3	21350	2560	22.79	23.50	1.178	0.15	0.142	0.167
	LTE Band 7C_Ant 3	20M	QPSK	1	0	Right Cheek	0mm	1/2/3	20850+21048	2510	22.52	24.50	1.578	0.06	0.393	0.620
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	1	21350	2560	14.63	15.50	1.222	-0.04	0.794	0.970
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	1	20850	2510	14.55	15.50	1.245	-0.12	0.780	0.971
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	1	21100	2535	14.62	15.50	1.225	-0.16	0.791	0.969
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Cheek	0mm	1	21350	2560	14.76	15.50	1.186	-0.04	0.823	0.976
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Cheek	0mm	1	20850	2510	14.66	15.50	1.213	-0.11	0.798	0.968
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Cheek	0mm	1	21100	2535	14.74	15.50	1.191	0.04	0.833	0.992
	LTE Band 7_Ant 2	20M	QPSK	100	0	Right Cheek	0mm	1	21350	2560	14.59	15.50	1.233	-0.06	0.817	1.007
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Tilted	0mm	1	21350	2560	14.63	15.50	1.222	-0.05	0.854	1.043
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Tilted	0mm	1	20850	2510	14.55	15.50	1.245	-0.01	0.860	1.070
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Tilted	0mm	1	21100	2535	14.62	15.50	1.225	0.11	0.869	1.064
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	1	21350	2560	14.76	15.50	1.186	-0.1	0.904	1.072
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	1	20850	2510	14.66	15.50	1.213	-0.17	0.901	1.093
07	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	1	21100	2535	14.74	15.50	1.191	0.04	0.918	1.094
	LTE Band 7_Ant 2	20M	QPSK	100	0	Right Tilted	0mm	1	21350	2560	14.59	15.50	1.233	-0.11	0.884	1.090
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Cheek	0mm	1	21350	2560	14.63	15.50	1.222	-0.06	0.386	0.472
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Cheek	0mm	1	21350	2560	14.76	15.50	1.186	0.11	0.401	0.475
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Tilted	0mm	1	21350	2560	14.63	15.50	1.222	-0.06	0.447	0.546
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Tilted	0mm	1	21350	2560	14.76	15.50	1.186	0.05	0.465	0.551
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	1	20850+21048	2510	14.79	15.50	1.178	0.17	0.891	1.049
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	2	21350	2560	11.67	12.50	1.211	-0.07	0.403	0.488
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Cheek	0mm	2	21350	2560	11.78	12.50	1.180	0.03	0.436	0.515
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Tilted	0mm	2	21350	2560	11.67	12.50	1.211	-0.1	0.400	0.484
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	2	21350	2560	11.78	12.50	1.180	-0.17	0.418	0.493
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Cheek	0mm	2	21350	2560	11.67	12.50	1.211	0.04	0.219	0.265
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Cheek	0mm	2	21350	2560	11.78	12.50	1.180	0.1	0.229	0.270
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Tilted	0mm	2	21350	2560	11.67	12.50	1.211	-0.01	0.256	0.310
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Tilted	0mm	2	21350	2560	11.78	12.50	1.180	-0.01	0.264	0.312
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2	21350+21152	2560	12.15	12.50	1.084	0.09	0.446	0.483
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	3	21350	2560	11.67	13.00	1.358	-0.07	0.403	0.547
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Cheek	0mm	3	21350	2560	11.78	13.00	1.324	0.03	0.436	0.577
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Tilted	0mm	3	21350	2560	11.67	13.00	1.358	-0.1	0.400	0.543
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	3	21350	2560	11.78	13.00	1.324	-0.17	0.418	0.554
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Cheek	0mm	3	21350	2560	11.67	13.00	1.358	0.04	0.219	0.297
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Cheek	0mm	3	21350	2560	11.78	13.00	1.324	0.1	0.229	0.303
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Tilted	0mm	3	21350	2560	11.67	13.00	1.358	-0.01	0.256	0.348
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Tilted	0mm	3	21350	2560	11.78	13.00	1.324	-0.01	0.264	0.350
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	3	20850+21048	2510	12.36	13.00	1.159	0.08	0.465	0.539
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Cheek	0mm	1	21100	2535	17.31	18.50	1.315	0.06	0.791	1.040
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Cheek	0mm	1	20850	2510	17.31	18.50	1.315	0.04	0.766	1.007
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Cheek	0mm	1	21350	2560	17.29	18.50	1.321	0.02	0.801	1.058
	LTE Band 7_Ant 0	20M	QPSK	50	50	Right Cheek	0mm	1	21100	2535	17.45	18.50	1.274	0.03	0.790	1.006
	LTE Band 7_Ant 0	20M	QPSK	50	50	Right Cheek	0mm	1	20850	2510	17.44	18.50	1.276	0.05	0.765	0.976
	LTE Band 7_Ant 0	20M	QPSK	50	50	Right Cheek	0mm	1	21350	2560	17.43	18.50	1.279	0.07	0.805	1.030
	LTE Band 7_Ant 0	20M	QPSK	100	0	Right Cheek	0mm	1	20850	2510	17.35	18.50	1.303	0.05	0.764	0.996



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LTE Band 7_Ant 0	20M	QPSK	1	99	Right Tilted	0mm	1	21100	2535	17.31	18.50	1.315	0.01	0.187	0.246
LTE Band 7_Ant 0	20M	QPSK	50	50	Right Tilted	0mm	1	21100	2535	17.45	18.50	1.274	0.07	0.188	0.239
LTE Band 7_Ant 0	20M	QPSK	1	99	Left Cheek	0mm	1	21100	2535	17.31	18.50	1.315	-0.09	0.274	0.360
LTE Band 7_Ant 0	20M	QPSK	50	50	Left Cheek	0mm	1	21100	2535	17.45	18.50	1.274	-0.1	0.274	0.349
LTE Band 7_Ant 0	20M	QPSK	1	99	Left Tilted	0mm	1	21100	2535	17.31	18.50	1.315	-0.1	0.061	0.080
LTE Band 7_Ant 0	20M	QPSK	50	50	Left Tilted	0mm	1	21100	2535	17.45	18.50	1.274	-0.16	0.065	0.083
LTE Band 7C_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	1	20850+21048	2510	14.31	16.00	1.476	0.07	0.389	0.574
LTE Band 7_Ant 0	20M	QPSK	1	99	Right Cheek	0mm	2	21100	2535	14.28	15.50	1.324	0.01	0.375	0.497
LTE Band 7_Ant 0	20M	QPSK	50	50	Right Cheek	0mm	2	21100	2535	14.41	15.50	1.285	-0.04	0.381	0.490
LTE Band 7_Ant 0	20M	QPSK	1	99	Right Tilted	0mm	2	21100	2535	14.28	15.50	1.324	0.05	0.108	0.143
LTE Band 7_Ant 0	20M	QPSK	50	50	Right Tilted	0mm	2	21100	2535	14.41	15.50	1.285	-0.01	0.117	0.150
LTE Band 7_Ant 0	20M	QPSK	1	99	Left Cheek	0mm	2	21100	2535	14.28	15.50	1.324	-0.09	0.140	0.185
LTE Band 7_Ant 0	20M	QPSK	50	50	Left Cheek	0mm	2	21100	2535	14.41	15.50	1.285	0.05	0.127	0.163
LTE Band 7_Ant 0	20M	QPSK	1	99	Left Tilted	0mm	2	21100	2535	14.28	15.50	1.324	0.17	0.044	0.058
LTE Band 7_Ant 0	20M	QPSK	50	50	Left Tilted	0mm	2	21100	2535	14.41	15.50	1.285	0.06	0.046	0.059
LTE Band 7C_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	2	21100+20902	2535	11.62	13.00	1.374	0.08	0.187	0.257
LTE Band 7_Ant 0	20M	QPSK	1	99	Right Cheek	0mm	3	21100	2535	14.28	16.00	1.486	0.01	0.375	0.557
LTE Band 7_Ant 0	20M	QPSK	50	50	Right Cheek	0mm	3	21100	2535	14.41	16.00	1.442	-0.04	0.381	0.549
LTE Band 7_Ant 0	20M	QPSK	1	99	Right Tilted	0mm	3	21100	2535	14.28	16.00	1.486	0.05	0.108	0.160
LTE Band 7_Ant 0	20M	QPSK	50	50	Right Tilted	0mm	3	21100	2535	14.41	16.00	1.442	-0.01	0.117	0.169
LTE Band 7_Ant 0	20M	QPSK	1	99	Left Cheek	0mm	3	21100	2535	14.28	16.00	1.486	-0.09	0.140	0.208
LTE Band 7_Ant 0	20M	QPSK	50	50	Left Cheek	0mm	3	21100	2535	14.41	16.00	1.442	0.05	0.127	0.183
LTE Band 7_Ant 0	20M	QPSK	1	99	Left Tilted	0mm	3	21100	2535	14.28	16.00	1.486	0.17	0.044	0.065
LTE Band 7_Ant 0	20M	QPSK	50	50	Left Tilted	0mm	3	21100	2535	14.41	16.00	1.442	0.06	0.046	0.066
LTE Band 7C_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	3	20850+21048	2510	11.83	13.00	1.309	0.16	0.202	0.264

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 1	10M	QPSK	1	49	Right Cheek	0mm	1/2/3	23095	707.5	23.20	24.00	1.202	0.05	0.041	0.049
	LTE Band 12_Ant 1	10M	QPSK	25	12	Right Cheek	0mm	1/2/3	23095	707.5	22.23	23.00	1.194	0.03	0.031	0.037
	LTE Band 12_Ant 1	10M	QPSK	1	49	Right Tilted	0mm	1/2/3	23095	707.5	23.20	24.00	1.202	-0.02	0.023	0.028
	LTE Band 12_Ant 1	10M	QPSK	25	12	Right Tilted	0mm	1/2/3	23095	707.5	22.23	23.00	1.194	-0.12	0.021	0.025
	LTE Band 12_Ant 1	10M	QPSK	1	49	Left Cheek	0mm	1/2/3	23095	707.5	23.20	24.00	1.202	-0.08	0.035	0.042
	LTE Band 12_Ant 1	10M	QPSK	25	12	Left Cheek	0mm	1/2/3	23095	707.5	22.23	23.00	1.194	-0.03	0.026	0.031
	LTE Band 12_Ant 1	10M	QPSK	1	49	Left Tilted	0mm	1/2/3	23095	707.5	23.20	24.00	1.202	-0.08	0.023	0.028
	LTE Band 12_Ant 1	10M	QPSK	25	12	Left Tilted	0mm	1/2/3	23095	707.5	22.23	23.00	1.194	-0.06	0.015	0.018
08	LTE Band 12_Ant 0	10M	QPSK	1	49	Right Cheek	0mm	1/2/3	23095	707.5	23.10	24.00	1.230	0.04	0.361	0.444
	LTE Band 12_Ant 0	10M	QPSK	25	12	Right Cheek	0mm	1/2/3	23095	707.5	22.23	23.00	1.194	-0.01	0.259	0.309
	LTE Band 12_Ant 0	10M	QPSK	1	49	Right Tilted	0mm	1/2/3	23095	707.5	23.10	24.00	1.230	-0.01	0.071	0.087
	LTE Band 12_Ant 0	10M	QPSK	25	12	Right Tilted	0mm	1/2/3	23095	707.5	22.23	23.00	1.194	0.03	0.050	0.060
	LTE Band 12_Ant 0	10M	QPSK	1	49	Left Cheek	0mm	1/2/3	23095	707.5	23.10	24.00	1.230	-0.19	0.353	0.434
	LTE Band 12_Ant 0	10M	QPSK	25	12	Left Cheek	0mm	1/2/3	23095	707.5	22.23	23.00	1.194	-0.04	0.251	0.300
	LTE Band 12_Ant 0	10M	QPSK	1	49	Left Tilted	0mm	1/2/3	23095	707.5	23.10	24.00	1.230	-0.05	0.063	0.078
	LTE Band 12_Ant 0	10M	QPSK	25	12	Left Tilted	0mm	1/2/3	23095	707.5	22.23	23.00	1.194	0.03	0.045	0.054



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
09	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	1/2/3	23230	782	23.15	24.00	1.216	0.14	0.155	0.189
	LTE Band 13_Ant 1	10M	QPSK	25	25	Right Cheek	0mm	1/2/3	23230	782	22.21	23.00	1.199	-0.17	0.114	0.137
	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Tilted	0mm	1/2/3	23230	782	23.15	24.00	1.216	-0.08	0.050	0.061
	LTE Band 13_Ant 1	10M	QPSK	25	25	Right Tilted	0mm	1/2/3	23230	782	22.21	23.00	1.199	-0.04	0.036	0.043
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Cheek	0mm	1/2/3	23230	782	23.15	24.00	1.216	-0.08	0.116	0.141
	LTE Band 13_Ant 1	10M	QPSK	25	25	Left Cheek	0mm	1/2/3	23230	782	22.21	23.00	1.199	-0.09	0.077	0.092
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Tilted	0mm	1/2/3	23230	782	23.15	24.00	1.216	-0.02	0.080	0.097
	LTE Band 13_Ant 1	10M	QPSK	25	25	Left Tilted	0mm	1/2/3	23230	782	22.21	23.00	1.199	-0.08	0.052	0.062
	LTE Band 13_Ant 0	10M	QPSK	1	0	Right Cheek	0mm	1/2/3	23230	782	23.12	24.00	1.225	-0.02	0.003	0.004
	LTE Band 13_Ant 0	10M	QPSK	25	25	Right Cheek	0mm	1/2/3	23230	782	22.17	23.00	1.211	-0.06	0.002	0.003
	LTE Band 13_Ant 0	10M	QPSK	1	0	Right Tilted	0mm	1/2/3	23230	782	23.12	24.00	1.225	0.03	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	25	25	Right Tilted	0mm	1/2/3	23230	782	22.17	23.00	1.211	0.02	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	1	0	Left Cheek	0mm	1/2/3	23230	782	23.12	24.00	1.225	0.03	0.003	0.004
	LTE Band 13_Ant 0	10M	QPSK	25	25	Left Cheek	0mm	1/2/3	23230	782	22.17	23.00	1.211	0.07	0.002	0.003
	LTE Band 13_Ant 0	10M	QPSK	1	0	Left Tilted	0mm	1/2/3	23230	782	23.12	24.00	1.225	0	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	25	25	Left Tilted	0mm	1/2/3	23230	782	22.17	23.00	1.211	0	0.001	0.001

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 3	20M	QPSK	1	0	Right Cheek	0mm	1/2/3	26140	1860	23.31	24.00	1.172	-0.12	0.281	0.329
	LTE Band 25_Ant 3	20M	QPSK	50	24	Right Cheek	0mm	1/2/3	26140	1860	22.35	23.00	1.161	-0.1	0.238	0.276
	LTE Band 25_Ant 3	20M	QPSK	1	0	Right Tilted	0mm	1/2/3	26140	1860	23.31	24.00	1.172	-0.03	0.124	0.145
	LTE Band 25_Ant 3	20M	QPSK	50	24	Right Tilted	0mm	1/2/3	26140	1860	22.35	23.00	1.161	-0.09	0.099	0.115
	LTE Band 25_Ant 3	20M	QPSK	1	0	Left Cheek	0mm	1/2/3	26140	1860	23.31	24.00	1.172	-0.14	0.144	0.169
	LTE Band 25_Ant 3	20M	QPSK	50	24	Left Cheek	0mm	1/2/3	26140	1860	22.35	23.00	1.161	-0.11	0.120	0.139
	LTE Band 25_Ant 3	20M	QPSK	1	0	Left Tilted	0mm	1/2/3	26140	1860	23.31	24.00	1.172	-0.17	0.140	0.164
	LTE Band 25_Ant 3	20M	QPSK	50	24	Left Tilted	0mm	1/2/3	26140	1860	22.35	23.00	1.161	-0.13	0.114	0.132
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	1	26140	1860	15.75	16.50	1.189	0.02	0.688	0.818
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	1	26340	1880	15.64	16.50	1.219	-0.01	0.676	0.824
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	1	26590	1905	15.67	16.50	1.211	-0.06	0.654	0.792
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	1	26140	1860	15.79	16.50	1.178	-0.09	0.740	0.871
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	1	26340	1880	15.74	16.50	1.191	0.06	0.732	0.872
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	1	26590	1905	15.74	16.50	1.191	-0.05	0.703	0.837
	LTE Band 25_Ant 2	20M	QPSK	100	0	Right Cheek	0mm	1	26590	1905	15.67	16.50	1.211	-0.06	0.682	0.826
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	1	26140	1860	15.75	16.50	1.189	-0.07	0.796	0.946
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	1	26340	1880	15.64	16.50	1.219	-0.01	0.767	0.935
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	1	26590	1905	15.67	16.50	1.211	-0.04	0.743	0.899
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	1	26140	1860	15.79	16.50	1.178	-0.06	0.817	0.962
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	1	26340	1880	15.74	16.50	1.191	-0.05	0.780	0.929
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	1	26590	1905	15.74	16.50	1.191	-0.04	0.755	0.899
	LTE Band 25_Ant 2	20M	QPSK	100	0	Right Tilted	0mm	1	26590	1905	15.67	16.50	1.211	-0.05	0.724	0.876
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	1	26140	1860	15.75	16.50	1.189	0.05	0.465	0.553
	LTE Band 25_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	1	26140	1860	15.79	16.50	1.178	-0.08	0.473	0.557
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	1	26140	1860	15.75	16.50	1.189	-0.07	0.528	0.628
	LTE Band 25_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	1	26140	1860	15.79	16.50	1.178	-0.04	0.533	0.628
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	2	26140	1860	12.62	13.50	1.225	-0.05	0.323	0.396
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	2	26140	1860	12.71	13.50	1.199	-0.09	0.322	0.386
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	2	26140	1860	12.62	13.50	1.225	-0.02	0.400	0.490
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	2	26140	1860	12.71	13.50	1.199	-0.06	0.411	0.493
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	2	26140	1860	12.62	13.50	1.225	0.07	0.208	0.255
	LTE Band 25_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	2	26140	1860	12.71	13.50	1.199	0.02	0.206	0.247
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	2	26140	1860	12.62	13.50	1.225	-0.02	0.276	0.338
	LTE Band 25_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	2	26140	1860	12.71	13.50	1.199	0.02	0.277	0.332
	LTE Band 25_Ant 2-	20M	QPSK	1	0	Right Cheek	0mm	3	26140	1860	12.62	14.00	1.374	-0.05	0.323	0.444
	LTE Band 25_Ant 2-	20M	QPSK	50	0	Right Cheek	0mm	3	26140	1860	12.71	14.00	1.346	-0.09	0.322	0.433
	LTE Band 25_Ant 2-	20M	QPSK	1	0	Right Tilted	0mm	3	26140	1860	12.62	14.00	1.374	-0.02	0.400	0.550
	LTE Band 25_Ant 2-	20M	QPSK	50	0	Right Tilted	0mm	3	26140	1860	12.71	14.00	1.346	-0.06	0.411	0.553
	LTE Band 25_Ant 2-	20M	QPSK	1	0	Left Cheek	0mm	3	26140	1860	12.62	14.00	1.374	0.07	0.208	0.286
	LTE Band 25_Ant 2-	20M	QPSK	50	0	Left Cheek	0mm	3	26140	1860	12.71	14.00	1.346	0.02	0.206	0.277
	LTE Band 25_Ant 2-	20M	QPSK	1	0	Left Tilted	0mm	3	26140	1860	12.62	14.00	1.374	-0.02	0.276	0.379
	LTE Band 25_Ant 2-	20M	QPSK	50	0	Left Tilted	0mm	3	26140	1860	12.71	14.00	1.346	0.02	0.277	0.373



FCC SAR TEST REPORT

Report No. : FA020103

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 1	15M	QPSK	1	37	Right Cheek	0mm	1/2/3	26865	831.5	23.22	24.00	1.197	0.16	0.127	0.152
	LTE Band 26_Ant 1	15M	QPSK	36	20	Right Cheek	0mm	1/2/3	26865	831.5	22.26	23.00	1.186	0.19	0.085	0.101
	LTE Band 26_Ant 1	15M	QPSK	1	37	Right Tilted	0mm	1/2/3	26865	831.5	23.22	24.00	1.197	0.14	0.064	0.077
	LTE Band 26_Ant 1	15M	QPSK	36	20	Right Tilted	0mm	1/2/3	26865	831.5	22.26	23.00	1.186	-0.09	0.063	0.075
	LTE Band 26_Ant 1	15M	QPSK	1	37	Left Cheek	0mm	1/2/3	26865	831.5	23.22	24.00	1.197	-0.01	0.093	0.111
	LTE Band 26_Ant 1	15M	QPSK	36	20	Left Cheek	0mm	1/2/3	26865	831.5	22.26	23.00	1.186	-0.09	0.063	0.075
	LTE Band 26_Ant 1	15M	QPSK	1	37	Left Tilted	0mm	1/2/3	26865	831.5	23.22	24.00	1.197	-0.06	0.055	0.066
	LTE Band 26_Ant 1	15M	QPSK	36	20	Left Tilted	0mm	1/2/3	26865	831.5	22.26	23.00	1.186	-0.11	0.067	0.079
11	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Cheek	0mm	1	26865	831.5	23.24	24.00	1.191	-0.14	0.531	0.633
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Cheek	0mm	1	26865	831.5	22.22	23.00	1.197	-0.09	0.385	0.461
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Tilted	0mm	1	26865	831.5	23.24	24.00	1.191	0.04	0.108	0.129
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Tilted	0mm	1	26865	831.5	22.22	23.00	1.197	0	0.078	0.093
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Cheek	0mm	1	26865	831.5	23.24	24.00	1.191	-0.03	0.432	0.515
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Cheek	0mm	1	26865	831.5	22.22	23.00	1.197	-0.01	0.324	0.388
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Tilted	0mm	1	26865	831.5	23.24	24.00	1.191	-0.04	0.084	0.100
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Tilted	0mm	1	26865	831.5	22.22	23.00	1.197	-0.02	0.063	0.075
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Cheek	0mm	2	26865	831.5	23.24	23.50	1.062	-0.14	0.531	0.564
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Cheek	0mm	2	26865	831.5	22.22	23.00	1.197	-0.09	0.385	0.461
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Tilted	0mm	2	26865	831.5	23.24	23.50	1.062	0.04	0.108	0.115
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Tilted	0mm	2	26865	831.5	22.22	23.00	1.197	0	0.078	0.093
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Cheek	0mm	2	26865	831.5	23.24	23.50	1.062	-0.03	0.432	0.459
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Cheek	0mm	2	26865	831.5	22.22	23.00	1.197	-0.01	0.324	0.388
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Tilted	0mm	2	26865	831.5	23.24	23.50	1.062	-0.04	0.084	0.089
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Tilted	0mm	2	26865	831.5	22.22	23.00	1.197	-0.02	0.063	0.075
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Cheek	0mm	3	26865	831.5	23.24	24.00	1.191	-0.14	0.531	0.633
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Cheek	0mm	3	26865	831.5	22.22	23.00	1.197	-0.09	0.385	0.461
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Tilted	0mm	3	26865	831.5	23.24	24.00	1.191	0.04	0.108	0.129
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Tilted	0mm	3	26865	831.5	22.22	23.00	1.197	0	0.078	0.093
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Cheek	0mm	3	26865	831.5	23.24	24.00	1.191	-0.03	0.432	0.515
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Cheek	0mm	3	26865	831.5	22.22	23.00	1.197	-0.01	0.324	0.388
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Tilted	0mm	3	26865	831.5	23.24	24.00	1.191	-0.04	0.084	0.100
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Tilted	0mm	3	26865	831.5	22.22	23.00	1.197	-0.02	0.063	0.075



FCC SAR TEST REPORT

Report No. : FA020103

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 3	20M	QPSK	1	0	Right Cheek	0mm	1/2/3	132572	1770	23.33	24.00	1.167	0.01	0.051	0.060
	LTE Band 66_Ant 3	20M	QPSK	50	24	Right Cheek	0mm	1/2/3	132572	1770	22.40	23.00	1.148	0.02	0.040	0.046
	LTE Band 66_Ant 3	20M	QPSK	1	0	Right Tilted	0mm	1/2/3	132572	1770	23.33	24.00	1.167	0.16	0.020	0.023
	LTE Band 66_Ant 3	20M	QPSK	50	24	Right Tilted	0mm	1/2/3	132572	1770	22.40	23.00	1.148	0.01	0.014	0.016
	LTE Band 66_Ant 3	20M	QPSK	1	0	Left Cheek	0mm	1/2/3	132572	1770	23.33	24.00	1.167	-0.06	0.042	0.049
	LTE Band 66_Ant 3	20M	QPSK	50	24	Left Cheek	0mm	1/2/3	132572	1770	22.40	23.00	1.148	-0.06	0.032	0.037
	LTE Band 66_Ant 3	20M	QPSK	1	0	Left Tilted	0mm	1/2/3	132572	1770	23.33	24.00	1.167	-0.06	0.042	0.049
	LTE Band 66_Ant 3	20M	QPSK	50	24	Left Tilted	0mm	1/2/3	132572	1770	22.40	23.00	1.148	0.13	0.030	0.034
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	1	132572	1770	15.68	16.50	1.208	-0.08	0.672	0.812
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	1	132072	1720	15.56	16.50	1.242	0.03	0.573	0.711
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	1	132322	1745	15.63	16.50	1.222	-0.09	0.634	0.775
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Cheek	0mm	1	132572	1770	15.81	16.50	1.172	-0.1	0.729	0.855
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Cheek	0mm	1	132072	1720	15.75	16.50	1.189	-0.18	0.625	0.743
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Cheek	0mm	1	132322	1745	15.7	16.50	1.202	0.06	0.681	0.819
	LTE Band 66_Ant 2	20M	QPSK	100	0	Right Cheek	0mm	1	132572	1770	15.74	16.50	1.191	-0.17	0.722	0.860
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	1	132572	1770	15.68	16.50	1.208	-0.09	0.783	0.946
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	1	132072	1720	15.56	16.50	1.242	-0.17	0.720	0.894
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	1	132322	1745	15.63	16.50	1.222	0	0.765	0.935
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	1	132572	1770	15.81	16.50	1.172	-0.08	0.818	0.959
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	1	132072	1720	15.75	16.50	1.189	0.02	0.763	0.907
12	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	1	132322	1745	15.7	16.50	1.202	-0.09	0.806	0.969
	LTE Band 66_Ant 2	20M	QPSK	100	0	Right Tilted	0mm	1	132572	1770	15.74	16.50	1.191	0.06	0.801	0.954
	LTE Band 66_Ant 2	20M	QPSK	1	49	Left Cheek	0mm	1	132572	1770	15.68	16.50	1.208	-0.03	0.419	0.506
	LTE Band 66_Ant 2	20M	QPSK	50	24	Left Cheek	0mm	1	132572	1770	15.81	16.50	1.172	0.01	0.431	0.505
	LTE Band 66_Ant 2	20M	QPSK	1	49	Left Tilted	0mm	1	132572	1770	15.68	16.50	1.208	-0.04	0.559	0.675
	LTE Band 66_Ant 2	20M	QPSK	50	24	Left Tilted	0mm	1	132572	1770	15.81	16.50	1.172	-0.01	0.576	0.675
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	2	132572	1770	12.52	13.50	1.253	0.02	0.315	0.395
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Cheek	0mm	2	132572	1770	12.69	13.50	1.205	0	0.351	0.423
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	2	132572	1770	12.52	13.50	1.253	-0.17	0.412	0.516
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	2	132572	1770	12.69	13.50	1.205	-0.12	0.422	0.509
	LTE Band 66_Ant 2	20M	QPSK	1	49	Left Cheek	0mm	2	132572	1770	12.52	13.50	1.253	0.09	0.201	0.252
	LTE Band 66_Ant 2	20M	QPSK	50	24	Left Cheek	0mm	2	132572	1770	12.69	13.50	1.205	-0.13	0.203	0.245
	LTE Band 66_Ant 2	20M	QPSK	1	49	Left Tilted	0mm	2	132572	1770	12.52	13.50	1.253	0.05	0.262	0.328
	LTE Band 66_Ant 2	20M	QPSK	50	24	Left Tilted	0mm	2	132572	1770	12.69	13.50	1.205	0.08	0.273	0.329
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	3	132572	1770	12.52	14.00	1.406	0.02	0.315	0.443
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Cheek	0mm	3	132572	1770	12.69	14.00	1.352	0	0.351	0.475
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	3	132572	1770	12.52	14.00	1.406	-0.17	0.412	0.579
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	3	132572	1770	12.69	14.00	1.352	-0.12	0.422	0.571
	LTE Band 66_Ant 2	20M	QPSK	1	49	Left Cheek	0mm	3	132572	1770	12.52	14.00	1.406	0.09	0.201	0.283
	LTE Band 66_Ant 2	20M	QPSK	50	24	Left Cheek	0mm	3	132572	1770	12.69	14.00	1.352	-0.13	0.203	0.274
	LTE Band 66_Ant 2	20M	QPSK	1	49	Left Tilted	0mm	3	132572	1770	12.52	14.00	1.406	0.05	0.262	0.368
	LTE Band 66_Ant 2	20M	QPSK	50	24	Left Tilted	0mm	3	132572	1770	12.69	14.00	1.352	0.08	0.273	0.369



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 38_Ant 3	20M	QPSK	1	0	Right Cheek	0mm	1/2/3	38000	2595	24.38	25.00	1.153	62.9	1.006	-0.05	0.188	0.218
13	LTE Band 38_Ant 3	20M	QPSK	50	24	Right Cheek	0mm	1/2/3	38000	2595	23.42	24.00	1.143	62.9	1.006	-0.1	0.201	0.231
	LTE Band 38_Ant 3	20M	QPSK	1	0	Right Tilted	0mm	1/2/3	38000	2595	24.38	25.00	1.153	62.9	1.006	0.06	0.040	0.046
	LTE Band 38_Ant 3	20M	QPSK	50	24	Right Tilted	0mm	1/2/3	38000	2595	23.42	24.00	1.143	62.9	1.006	0.05	0.039	0.045
	LTE Band 38_Ant 3	20M	QPSK	1	0	Left Cheek	0mm	1/2/3	38000	2595	24.38	25.00	1.153	62.9	1.006	0.09	0.068	0.079
	LTE Band 38_Ant 3	20M	QPSK	50	24	Left Cheek	0mm	1/2/3	38000	2595	23.42	24.00	1.143	62.9	1.006	0.16	0.070	0.080
	LTE Band 38_Ant 3	20M	QPSK	1	0	Left Tilted	0mm	1/2/3	38000	2595	24.38	25.00	1.153	62.9	1.006	-0.02	0.055	0.064
	LTE Band 38_Ant 3	20M	QPSK	50	24	Left Tilted	0mm	1/2/3	38000	2595	23.42	24.00	1.143	62.9	1.006	-0.1	0.055	0.063
	LTE Band 38C_Ant 3	20M	QPSK	1	0	Right Cheek	0mm	1/2/3	37850+38048	2580	23.41	25.00	1.442	62.9	1.006	0.05	0.152	0.221

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41_Ant 3	20M	QPSK	1	49	Right Cheek	0mm	1/2/3	40620	2593	23.99	24.50	1.125	62.9	1.006	-0.12	0.335	0.379
	LTE Band 41_Ant 3	20M	QPSK	50	24	Right Cheek	0mm	1/2/3	40620	2593	23.13	23.50	1.089	62.9	1.006	-0.01	0.249	0.273
	LTE Band 41_Ant 3	20M	QPSK	1	49	Right Tilted	0mm	1/2/3	40620	2593	23.99	24.50	1.125	62.9	1.006	0.11	0.066	0.075
	LTE Band 41_Ant 3	20M	QPSK	50	24	Right Tilted	0mm	1/2/3	40620	2593	23.13	23.50	1.089	62.9	1.006	0.12	0.053	0.058
	LTE Band 41_Ant 3	20M	QPSK	1	49	Left Cheek	0mm	1/2/3	40620	2593	23.99	24.50	1.125	62.9	1.006	-0.13	0.136	0.154
	LTE Band 41_Ant 3	20M	QPSK	50	24	Left Cheek	0mm	1/2/3	40620	2593	23.13	23.50	1.089	62.9	1.006	0.01	0.111	0.122
	LTE Band 41_Ant 3	20M	QPSK	1	49	Left Tilted	0mm	1/2/3	40620	2593	23.99	24.50	1.125	62.9	1.006	0.12	0.104	0.118
	LTE Band 41_Ant 3	20M	QPSK	50	24	Left Tilted	0mm	1/2/3	40620	2593	23.13	23.50	1.089	62.9	1.006	0.09	0.084	0.092
	LTE Band 41 HPUE_Ant 3	20M	QPSK	1	49	Right Cheek	0mm	1/2/3	40620	2593	25.21	26.00	1.199	42.9	1.009	0.04	0.327	0.396
	LTE Band 41C_Ant 3	20M	QPSK	1	0	Right Cheek	0mm	1/2/3	39750+39948	2506	21.94	23.50	1.432	62.9	1.006	-0.09	0.182	0.262
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	1	40620	2593	17.85	18.50	1.161	62.9	1.006	-0.02	0.901	1.053
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	1	39750	2506	17.84	18.50	1.164	62.9	1.006	-0.06	0.965	1.130
	LTE Band 41_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	1	40185	2549.5	17.83	18.50	1.167	62.9	1.006	-0.03	0.968	1.136
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	1	41055	2636.5	17.66	18.50	1.213	62.9	1.006	-0.04	0.869	1.061
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	1	41490	2680	17.70	18.50	1.202	62.9	1.006	0.07	0.782	0.946
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Cheek	0mm	1	40620	2593	17.95	18.50	1.135	62.9	1.006	0.07	0.983	1.122
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	1	39750	2506	17.93	18.50	1.140	62.9	1.006	-0.1	0.975	1.118
	LTE Band 41_Ant 2	20M	QPSK	50	50	Right Cheek	0mm	1	40185	2549.5	17.94	18.50	1.138	62.9	1.006	-0.03	1.010	1.156
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Cheek	0mm	1	41055	2636.5	17.72	18.50	1.197	62.9	1.006	0.02	0.853	1.027
	LTE Band 41_Ant 2	20M	QPSK	50	50	Right Cheek	0mm	1	41490	2680	17.81	18.50	1.172	62.9	1.006	-0.03	0.790	0.932
	LTE Band 41_Ant 2	20M	QPSK	100	0	Right Cheek	0mm	1	40620	2593	17.97	18.50	1.130	62.9	1.006	-0.03	0.944	1.073
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	1	40620	2593	17.85	18.50	1.161	62.9	1.006	-0.03	1.010	1.180
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	1	39750	2506	17.84	18.50	1.164	62.9	1.006	0.03	1.020	1.195
	LTE Band 41_Ant 2	20M	QPSK	1	99	Right Tilted	0mm	1	40185	2549.5	17.83	18.50	1.167	62.9	1.006	0.13	1.020	1.197
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	1	41055	2636.5	17.66	18.50	1.213	62.9	1.006	-0.05	0.871	1.063
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	1	41490	2680	17.70	18.50	1.202	62.9	1.006	-0.05	0.818	0.989
14	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	1	40620	2593	17.95	18.50	1.135	62.9	1.006	-0.14	1.050	1.199
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	1	39750	2506	17.93	18.50	1.140	62.9	1.006	-0.07	1.042	1.195
	LTE Band 41_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	1	40185	2549.5	17.94	18.50	1.138	62.9	1.006	-0.14	1.043	1.194
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	1	41055	2636.5	17.72	18.50	1.197	62.9	1.006	0.02	0.920	1.108
	LTE Band 41_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	1	41490	2680	17.81	18.50	1.172	62.9	1.006	-0.04	0.846	0.998
	LTE Band 41_Ant 2	20M	QPSK	100	0	Right Tilted	0mm	1	40620	2593	17.97	18.50	1.130	62.9	1.006	-0.07	1.051	1.195
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Cheek	0mm	1	40620	2593	17.85	18.50	1.161	62.9	1.006	0.06	0.500	0.584
	LTE Band 41_Ant 2	20M	QPSK	50	24	Left Cheek	0mm	1	40620	2593	17.95	18.50	1.135	62.9	1.006	-0.05	0.511	0.583
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Tilted	0mm	1	40620	2593	17.85	18.50	1.161	62.9	1.006	-0.07	0.574	0.671
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Tilted	0mm	1	39750	2506	17.84	18.50	1.164	62.9	1.006	-0.01	0.697	0.816
	LTE Band 41_Ant 2	20M	QPSK	1	99	Left Tilted	0mm	1	40185	2549.5	17.83	18.50	1.167	62.9	1.006	-0.05	0.549	0.644
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Tilted	0mm	1	41055	2636.5	17.66	18.50	1.213	62.9	1.006	-0.07	0.560	0.684
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Tilted	0mm	1	41490	2680	17.70	18.50	1.202	62.9	1.006	-0.01	0.475	0.575



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	LTE Band 41_Ant 2	20M	QPSK	50	24	Left Tilted	0mm	1	40620	2593	17.95	18.50	1.135	62.9	1.006	-0.05	0.589	0.673
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	1	39750	2506	17.93	18.50	1.140	62.9	1.006	-0.01	0.745	0.855
	LTE Band 41_Ant 2	20M	QPSK	50	50	Left Tilted	0mm	1	40185	2549.5	17.94	18.50	1.138	62.9	1.006	-0.07	0.591	0.676
	LTE Band 41_Ant 2	20M	QPSK	50	24	Left Tilted	0mm	1	41055	2636.5	17.72	18.50	1.197	62.9	1.006	-0.06	0.568	0.684
	LTE Band 41_Ant 2	20M	QPSK	50	50	Left Tilted	0mm	1	41490	2680	17.81	18.50	1.172	62.9	1.006	-0.11	0.488	0.575
	LTE Band 41_Ant 2	20M	QPSK	100	0	Left Tilted	0mm	1	40620	2593	17.97	18.50	1.130	62.9	1.006	0.09	0.609	0.692
	LTE Band 41_HPUE_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	1	40620	2593	17.91	18.50	1.146	42.9	1.009	-0.11	0.682	0.788
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	1	39750+39948	2506	17.70	18.50	1.202	62.9	1.006	0.17	0.962	1.164
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	2	40620	2593	15.00	15.50	1.122	62.9	1.006	0	0.473	0.534
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Cheek	0mm	2	40620	2593	15.05	15.50	1.109	62.9	1.006	0	0.480	0.536
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	2	40620	2593	15.00	15.50	1.122	62.9	1.006	-0.02	0.528	0.596
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	2	39750	2506	14.72	15.50	1.197	62.9	1.006	-0.12	0.540	0.650
	LTE Band 41_Ant 2	20M	QPSK	1	99	Right Tilted	0mm	2	40185	2549.5	14.75	15.50	1.189	62.9	1.006	-0.09	0.547	0.654
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	2	41055	2636.5	14.60	15.50	1.230	62.9	1.006	-0.1	0.444	0.550
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	2	41490	2680	14.63	15.50	1.222	62.9	1.006	-0.08	0.407	0.500
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	2	40620	2593	15.05	15.50	1.109	62.9	1.006	-0.03	0.541	0.604
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	2	39750	2506	14.80	15.50	1.175	62.9	1.006	-0.09	0.552	0.652
	LTE Band 41_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	2	40185	2549.5	14.85	15.50	1.161	62.9	1.006	-0.19	0.570	0.666
	LTE Band 41_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	2	41055	2636.5	14.70	15.50	1.202	62.9	1.006	0.01	0.446	0.539
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	2	41490	2680	14.74	15.50	1.191	62.9	1.006	-0.02	0.409	0.490
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Cheek	0mm	2	40620	2593	15.00	15.50	1.122	62.9	1.006	0.09	0.269	0.304
	LTE Band 41_Ant 2	20M	QPSK	50	24	Left Cheek	0mm	2	40620	2593	15.05	15.50	1.109	62.9	1.006	0.07	0.272	0.304
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Tilted	0mm	2	40620	2593	15.00	15.50	1.122	62.9	1.006	0.13	0.329	0.371
	LTE Band 41_Ant 2	20M	QPSK	50	24	Left Tilted	0mm	2	40620	2593	15.05	15.50	1.109	62.9	1.006	0.13	0.336	0.375
	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	2	40620	2593	14.67	15.50	1.211	42.9	1.009	-0.03	0.341	0.417
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	2	39750+39948	2506	14.83	15.50	1.167	62.9	1.006	0.02	0.550	0.646
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	3	40620	2593	15.00	16.00	1.259	62.9	1.006	0	0.473	0.599
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Cheek	0mm	3	40620	2593	15.05	16.00	1.245	62.9	1.006	0	0.480	0.601
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	3	40620	2593	15.00	16.00	1.259	62.9	1.006	-0.02	0.528	0.669
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	3	39750	2506	14.72	16.00	1.343	62.9	1.006	-0.12	0.540	0.729
	LTE Band 41_Ant 2	20M	QPSK	1	99	Right Tilted	0mm	3	40185	2549.5	14.75	16.00	1.334	62.9	1.006	-0.09	0.547	0.734
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	3	41055	2636.5	14.60	16.00	1.380	62.9	1.006	-0.1	0.444	0.617
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	3	41490	2680	14.63	16.00	1.371	62.9	1.006	-0.08	0.407	0.561
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	3	40620	2593	15.05	16.00	1.245	62.9	1.006	-0.03	0.541	0.677
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	3	39750	2506	14.80	16.00	1.318	62.9	1.006	-0.09	0.552	0.732
	LTE Band 41_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	3	40185	2549.5	14.85	16.00	1.303	62.9	1.006	-0.19	0.570	0.747
	LTE Band 41_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	3	41055	2636.5	14.70	16.00	1.349	62.9	1.006	0.01	0.446	0.605
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	3	41490	2680	14.74	16.00	1.337	62.9	1.006	-0.02	0.409	0.550
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Cheek	0mm	3	40620	2593	15.00	16.00	1.259	62.9	1.006	0.09	0.269	0.341
	LTE Band 41_Ant 2	20M	QPSK	50	24	Left Cheek	0mm	3	40620	2593	15.05	16.00	1.245	62.9	1.006	0.07	0.272	0.341
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Tilted	0mm	3	40620	2593	15.00	16.00	1.259	62.9	1.006	0.13	0.329	0.417
	LTE Band 41_Ant 2	20M	QPSK	50	24	Left Tilted	0mm	3	40620	2593	15.05	16.00	1.245	62.9	1.006	0.13	0.336	0.421
	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	2	40620	2593	14.67	16.00	1.358	42.9	1.009	-0.03	0.341	0.467
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	3	39750+39948	2506	15.33	16.00	1.167	62.9	1.006	0.09	0.612	0.718
	LTE Band 41_Ant 0	20M	QPSK	1	49	Right Cheek	0mm	1	40185	2549.5	19.88	20.50	1.153	62.9	1.006	0.11	0.796	0.924
	LTE Band 41_Ant 0	20M	QPSK	1	49	Right Cheek	0mm	1	39750	2506	19.88	20.50	1.153	62.9	1.006	0.03	0.842	0.977
	LTE Band 41_Ant 0	20M	QPSK	1	49	Right Cheek	0mm	1	40620	2593	19.86	20.50	1.159	62.9	1.006	0.04	0.895	1.043
	LTE Band 41_Ant 0	20M	QPSK	1	49	Right Cheek	0mm	1	41055	2636.5	19.78	20.50	1.180	62.9	1.006	0.1	0.822	0.976
	LTE Band 41_Ant 0	20M	QPSK	1	49	Right Cheek	0mm	1	41490	2680	19.80	20.50	1.175	62.9	1.006	0.14	0.865	1.022
	LTE Band 41_Ant 0	20M	QPSK	50	24	Right Cheek	0mm	1	40620	2593	19.95	20.50	1.135	62.9	1.006	0.1	0.852	0.973
	LTE Band 41_Ant 0	20M	QPSK	50	24	Right Cheek	0mm	1	39750	2506	19.90	20.50	1.148	62.9	1.006	0.03	0.860	0.993
	LTE Band 41_Ant 0	20M	QPSK	50	24	Right Cheek	0mm	1	40185	2549.5	19.87	20.50	1.156	62.9	1.006	0.03	0.879	1.022
	LTE Band 41_Ant 0	20M	QPSK	50	0	Right Cheek	0mm	1	41055	2636.5	19.83	20.50	1.167	62.9	1.006	0.02	0.901	1.058
	LTE Band 41_Ant 0	20M	QPSK	50	0	Right Cheek	0mm	1	41055	2636.5	19.86	20.50	1.159	62.9	1.006	0.16	0.886	1.033
	LTE Band 41_Ant 0	20M	QPSK	50	50	Right Cheek	0mm	1	41490	2680	19.89	20.50	1.151	62.9	1.006	0.01	0.885	1.025
	LTE Band 41_Ant 0	20M	QPSK	100	0	Right Cheek	0mm	1	40620	2593	19.86	20.50	1.159	62.9	1.006	0.15	0.862	1.005



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	LTE Band 41_Ant 0	20M	QPSK	1	49	Right Tilted	0mm	1	40185	2549.5	19.88	20.50	1.153	62.9	1.006	0.15	0.197	0.229
	LTE Band 41_Ant 0	20M	QPSK	50	24	Right Tilted	0mm	1	40620	2593	19.95	20.50	1.135	62.9	1.006	0.16	0.211	0.241
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Cheek	0mm	1	40185	2549.5	19.88	20.50	1.153	62.9	1.006	0.12	0.286	0.332
	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Cheek	0mm	1	40620	2593	19.95	20.50	1.135	62.9	1.006	0.07	0.277	0.316
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Tilted	0mm	1	40185	2549.5	19.88	20.50	1.153	62.9	1.006	0.17	0.065	0.075
	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Tilted	0mm	1	40620	2593	19.95	20.50	1.135	62.9	1.006	-0.01	0.068	0.078
	LTE Band 41_Ant 0_HPUE	20M	QPSK	1	0	Right Cheek	0mm	1	39750	2506	19.78	20.50	1.180	42.9	1.009	0.18	0.563	0.671
	LTE Band 41_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	2	39750	2506	16.94	17.50	1.138	62.9	1.006	0.01	0.425	0.486
	LTE Band 41_Ant 0	20M	QPSK	50	24	Right Cheek	0mm	2	39750	2506	17.04	17.50	1.112	62.9	1.006	0.09	0.427	0.478
	LTE Band 41_Ant 0	20M	QPSK	1	0	Right Tilted	0mm	2	39750	2506	16.94	17.50	1.138	62.9	1.006	-0.05	0.143	0.164
	LTE Band 41_Ant 0	20M	QPSK	50	24	Right Tilted	0mm	2	39750	2506	17.04	17.50	1.112	62.9	1.006	-0.04	0.138	0.154
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	2	39750	2506	16.94	17.50	1.138	62.9	1.006	0.1	0.142	0.163
	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Cheek	0mm	2	39750	2506	17.04	17.50	1.112	62.9	1.006	-0.08	0.142	0.159
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Tilted	0mm	2	39750	2506	16.94	17.50	1.138	62.9	1.006	0.14	0.054	0.062
	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Tilted	0mm	2	39750	2506	17.04	17.50	1.112	62.9	1.006	0.11	0.055	0.062
	LTE Band 41_Ant 0_HPUE	20M	QPSK	1	0	Right Cheek	0mm	2	39750	2506	16.83	17.50	1.167	42.9	1.009	0.13	0.277	0.326
	LTE Band 41_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	3	39750	2506	16.94	18.00	1.276	62.9	1.006	0.01	0.425	0.546
	LTE Band 41_Ant 0	20M	QPSK	50	24	Right Cheek	0mm	3	39750	2506	17.04	18.00	1.247	62.9	1.006	0.09	0.427	0.536
	LTE Band 41_Ant 0	20M	QPSK	1	0	Right Tilted	0mm	3	39750	2506	16.94	18.00	1.276	62.9	1.006	-0.05	0.143	0.184
	LTE Band 41_Ant 0	20M	QPSK	50	24	Right Tilted	0mm	3	39750	2506	17.04	18.00	1.247	62.9	1.006	-0.04	0.138	0.173
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	3	39750	2506	16.94	18.00	1.276	62.9	1.006	0.1	0.142	0.182
	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Cheek	0mm	3	39750	2506	17.04	18.00	1.247	62.9	1.006	-0.08	0.142	0.178
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Tilted	0mm	3	39750	2506	16.94	18.00	1.276	62.9	1.006	0.14	0.054	0.069
	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Tilted	0mm	3	39750	2506	17.04	18.00	1.247	62.9	1.006	0.11	0.055	0.069
	LTE Band 41_Ant 0_HPUE	20M	QPSK	1	0	Right Cheek	0mm	3	39750	2506	16.83	18.00	1.309	42.9	1.009	0.13	0.277	0.366



<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz-	802.11b 1Mbps	Right Cheek	0mm	Ant 1+2	1	6	2437	19.86	20.00	1.033	100	1.000	-0.15	0.288	0.297
	WLAN2.4GHz-	802.11b 1Mbps	Right Tilted	0mm	Ant 1+2	1	6	2437	19.86	20.00	1.033	100	1.000	0.05	0.304	0.314
	WLAN2.4GHz-	802.11b 1Mbps	Left Cheek	0mm	Ant 1+2	1	6	2437	19.86	20.00	1.033	100	1.000	0.09	0.635	0.656
15	WLAN2.4GHz-	802.11b 1Mbps	Left Tilted	0mm	Ant 1+2	1	6	2437	19.86	20.00	1.033	100	1.000	0.04	0.650	0.671
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 1+2	2	6	2437	17.76	18.00	1.057	100	1.000	0.11	0.174	0.184
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 1+2	2	6	2437	17.76	18.00	1.057	100	1.000	0.05	0.194	0.205
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 1+2	2	6	2437	17.76	18.00	1.057	100	1.000	0.09	0.393	0.415
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 1+2	2	6	2437	17.76	18.00	1.057	100	1.000	-0.1	0.395	0.417
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 1+2	3	11	2462	15.87	16.50	1.155	100	1.000	0.02	0.129	0.149
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 1+2	3	11	2462	15.87	16.50	1.155	100	1.000	0.13	0.129	0.149
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 1+2	3	11	2462	15.87	16.50	1.155	100	1.000	0.08	0.312	0.360
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 1+2	3	11	2462	15.87	16.50	1.155	100	1.000	0.09	0.293	0.338
	WLAN5GHz-	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 1+2	1	54	5270	14.87	16.00	1.298	98.47	1.016	0.13	0.225	0.297
	WLAN5GHz-	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 1+2	1	54	5270	14.87	16.00	1.298	98.47	1.016	-0.05	0.164	0.216
16	WLAN5GHz-	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 1+2	1	54	5270	14.87	16.00	1.298	98.47	1.016	0.16	0.475	0.627
	WLAN5GHz-	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 1+2	1	54	5270	14.87	16.00	1.298	98.47	1.016	-0.13	0.390	0.514
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 1+2	2	54	5270	12.87	14.00	1.298	98.47	1.016	-0.18	0.195	0.257
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 1+2	2	54	5270	12.87	14.00	1.298	98.47	1.016	0.05	0.146	0.193
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 1+2	2	54	5270	12.87	14.00	1.298	98.47	1.016	0.07	0.377	0.497
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 1+2	2	54	5270	12.87	14.00	1.298	98.47	1.016	-0.01	0.272	0.359
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 1+2	3	54	5270	10.97	12.00	1.269	98.47	1.016	-0.11	0.128	0.165
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 1+2	3	54	5270	10.97	12.00	1.269	98.47	1.016	0.07	0.112	0.144
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 1+2	3	54	5270	10.97	12.00	1.269	98.47	1.016	-0.15	0.243	0.313
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 1+2	3	54	5270	10.97	12.00	1.269	98.47	1.016	0.02	0.225	0.290
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 1+2	3	54	5270	10.97	12.00	1.269	98.47	1.016	-0.11	0.128	0.165
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 1+2	3	54	5270	10.97	12.00	1.269	98.47	1.016	0.07	0.112	0.144
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 1+2	3	54	5270	10.97	12.00	1.269	98.47	1.016	-0.15	0.243	0.313
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 1+2	3	54	5270	10.97	12.00	1.269	98.47	1.016	0.02	0.225	0.290

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5GHz-	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1+2	1	122	5610	14.82	16.00	1.311	96.28	1.039	0.15	0.214	0.291
	WLAN5GHz-	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 1+2	1	122	5610	14.82	16.00	1.311	96.28	1.039	0.03	0.161	0.219
17	WLAN5GHz-	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 1+2	1	122	5610	14.82	16.00	1.311	96.28	1.039	0.11	0.510	0.695
	WLAN5GHz-	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 1+2	1	122	5610	14.82	16.00	1.311	96.28	1.039	0.07	0.389	0.530
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1+2	2	122	5610	12.77	14.00	1.328	96.28	1.039	0.02	0.201	0.277
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 1+2	2	122	5610	12.77	14.00	1.328	96.28	1.039	0.05	0.163	0.225
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 1+2	2	122	5610	12.77	14.00	1.328	96.28	1.039	0.11	0.444	0.613
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 1+2	2	122	5610	12.77	14.00	1.328	96.28	1.039	0.03	0.304	0.420
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1+2	3	138	5690	10.88	12.00	1.293	96.28	1.039	0.05	0.146	0.196
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 1+2	3	138	5690	10.88	12.00	1.293	96.28	1.039	0.11	0.153	0.206
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 1+2	3	138	5690	10.88	12.00	1.293	96.28	1.039	0.13	0.299	0.402
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 1+2	3	138	5690	10.88	12.00	1.293	96.28	1.039	0.08	0.231	0.310
	WLAN5GHz-	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1+2	1	155	5775	15.04	16.00	1.247	96.28	1.039	0.16	0.227	0.294
	WLAN5GHz-	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 1+2	1	155	5775	15.04	16.00	1.247	96.28	1.039	0.05	0.197	0.255
18	WLAN5GHz-	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 1+2	1	155	5775	15.04	16.00	1.247	96.28	1.039	0.14	0.757	0.981
	WLAN5GHz-	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 1+2	1	155	5775	15.04	16.00	1.247	96.28	1.039	-0.11	0.623	0.807
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1+2	2	155	5775	12.94	14.00	1.276	96.28	1.039	0.1	0.222	0.294
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 1+2	2	155	5775	12.94	14.00	1.276	96.28	1.039	-0.05	0.196	0.260
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 1+2	2	155	5775	12.94	14.00	1.276	96.28	1.039	0.01	0.562	0.745
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 1+2	2	155	5775	12.94	14.00	1.276	96.28	1.039	-0.13	0.486	0.645
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 1+2	3	155	5775	11.94	12.00	1.014	96.28	1.039	0.15	0.147	0.155
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 1+2	3	155	5775	11.94	12.00	1.014	96.28	1.039	0.09	0.105	0.111
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 1+2	3	155	5775	11.94	12.00	1.014	96.28	1.039	0.03	0.452	0.476
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 1+2	3	155	5775	11.94	12.00	1.014	96.28	1.039	0.17	0.324	0.341

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 1	1/2/3	39	2441	13.62	14.00	1.091	77.22	1.079	0.18	0.088	0.104
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 1	1/2/3	39	2441	13.62	14.00	1.091	77.22	1.079	0.15	0.090	0.106
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 1	1/2/3	39	2441	13.62	14.00	1.091	77.22	1.079	0.08	0.155	0.183
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 1	1/2/3	39	2441	13.62	14.00	1.091	77.22	1.079	0.11	0.164	0.193
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 2	1/2/3	39	2441	13.33	14.00	1.167	77.22	1.079	0.09	0.079	0.100
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 2	1/2/3	39	2441	13.33	14.00	1.167	77.22	1.079	0.14	0.086	0.108
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 2	1/2/3	39	2441	13.33	14.00	1.167	77.22	1.079	0.08	0.162	0.204
19	Bluetooth	1Mbps	Left Tilted	0mm	Ant 2	1/2/3	39	2441	13.33	14.00	1.167	77.22	1.079	0.12	0.166	0.209

13.2 Hotspot SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	4	128	824.2	26.60	27.00	1.096	0.12	0.286	0.314
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	4	128	824.2	26.60	27.00	1.096	0	0.246	0.270
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Side	10mm	4	128	824.2	26.60	27.00	1.096	-0.08	0.071	0.078
20	GSM850_Ant 1	GPRS (4 Tx slots)	Right Side	10mm	4	128	824.2	26.60	27.00	1.096	-0.03	0.316	0.346
	GSM850_Ant 1	GPRS (4 Tx slots)	Bottom Side	10mm	4	128	824.2	26.60	27.00	1.096	-0.01	0.264	0.289
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	5	128	824.2	24.27	25.00	1.183	0.07	0.166	0.196
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	5	128	824.2	24.27	25.00	1.183	0.08	0.148	0.175
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Side	10mm	5	128	824.2	24.27	25.00	1.183	0.07	0.037	0.044
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Side	10mm	5	128	824.2	24.27	25.00	1.183	-0.17	0.175	0.207
	GSM850_Ant 1	GPRS (4 Tx slots)	Bottom Side	10mm	5	128	824.2	24.27	25.00	1.183	-0.11	0.155	0.183
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	6	128	824.2	24.27	25.50	1.327	0.07	0.166	0.220
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	6	128	824.2	24.27	25.50	1.327	0.08	0.148	0.196
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Side	10mm	6	128	824.2	24.27	25.50	1.327	0.07	0.037	0.049
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Side	10mm	6	128	824.2	24.27	25.50	1.327	-0.17	0.175	0.232
	GSM850_Ant 1	GPRS (4 Tx slots)	Bottom Side	10mm	6	128	824.2	24.27	25.50	1.327	-0.11	0.155	0.206
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	4	128	824.2	27.39	28.00	1.151	-0.18	0.108	0.124
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	4	128	824.2	27.39	28.00	1.151	0.01	0.188	0.216
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	4	128	824.2	27.39	28.00	1.151	0.08	0.271	0.312
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Side	10mm	4	128	824.2	27.39	28.00	1.151	0.16	0.007	0.008
	GSM850_Ant 0	GPRS (4 Tx slots)	Top Side	10mm	4	128	824.2	27.39	28.00	1.151	0.06	0.005	0.005
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	5	128	824.2	25.39	26.00	1.151	0.01	0.084	0.097
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	5	128	824.2	25.39	26.00	1.151	0.08	0.132	0.152
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	5	128	824.2	25.39	26.00	1.151	-0.06	0.193	0.222
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Side	10mm	5	128	824.2	25.39	26.00	1.151	-0.03	0.004	0.005
	GSM850_Ant 0	GPRS (4 Tx slots)	Top Side	10mm	5	128	824.2	25.39	26.00	1.151	0.01	0.002	0.002
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	6	128	824.2	25.39	26.50	1.291	0.01	0.084	0.108
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	6	128	824.2	25.39	26.50	1.291	0.08	0.132	0.170
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	6	128	824.2	25.39	26.50	1.291	-0.06	0.193	0.249
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Side	10mm	6	128	824.2	25.39	26.50	1.291	-0.03	0.004	0.005
	GSM850_Ant 0	GPRS (4 Tx slots)	Top Side	10mm	6	128	824.2	25.39	26.50	1.291	0.01	0.002	0.003

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM1900_Ant 3	GPRS (3 Tx slots)	Front	10mm	4	810	1909.8	25.67	26.00	1.079	-0.14	0.227	0.245
	GSM1900_Ant 3	GPRS (3 Tx slots)	Back	10mm	4	810	1909.8	25.67	26.00	1.079	0.01	0.193	0.208
	GSM1900_Ant 3	GPRS (3 Tx slots)	Left Side	10mm	4	810	1909.8	25.67	26.00	1.079	0.08	0.019	0.020
	GSM1900_Ant 3	GPRS (3 Tx slots)	Right Side	10mm	4	810	1909.8	25.67	26.00	1.079	-0.13	0.253	0.273
	GSM1900_Ant 3	GPRS (3 Tx slots)	Bottom Side	10mm	4	810	1909.8	25.67	26.00	1.079	-0.15	0.176	0.190
	GSM1900_Ant 3	GPRS (3 Tx slots)	Front	10mm	5	661	1880	23.42	24.00	1.143	-0.17	0.161	0.184
	GSM1900_Ant 3	GPRS (3 Tx slots)	Back	10mm	5	661	1880	23.42	24.00	1.143	-0.15	0.154	0.176
	GSM1900_Ant 3	GPRS (3 Tx slots)	Left Side	10mm	5	661	1880	23.42	24.00	1.143	-0.08	0.024	0.027
	GSM1900_Ant 3	GPRS (3 Tx slots)	Right Side	10mm	5	661	1880	23.42	24.00	1.143	-0.13	0.191	0.218
	GSM1900_Ant 3	GPRS (3 Tx slots)	Bottom Side	10mm	5	661	1880	23.42	24.00	1.143	-0.11	0.119	0.136
	GSM1900_Ant 3	GPRS (3 Tx slots)	Front	10mm	6	661	1880	23.42	24.50	1.282	-0.17	0.161	0.206
	GSM1900_Ant 3	GPRS (3 Tx slots)	Back	10mm	6	661	1880	23.42	24.50	1.282	-0.15	0.154	0.197
	GSM1900_Ant 3	GPRS (3 Tx slots)	Left Side	10mm	6	661	1880	23.42	24.50	1.282	-0.08	0.024	0.031
	GSM1900_Ant 3	GPRS (3 Tx slots)	Right Side	10mm	6	661	1880	23.42	24.50	1.282	-0.13	0.191	0.245
	GSM1900_Ant 3	GPRS (3 Tx slots)	Bottom Side	10mm	6	661	1880	23.42	24.50	1.282	-0.11	0.119	0.153
	GSM1900_Ant 2	GPRS (3 Tx slots)	Front	10mm	4	661	1880	22.53	23.00	1.114	-0.04	0.263	0.293
	GSM1900_Ant 2	GPRS (3 Tx slots)	Back	10mm	4	661	1880	22.53	23.00	1.114	-0.1	0.324	0.361
	GSM1900_Ant 2	GPRS (3 Tx slots)	Left Side	10mm	4	661	1880	22.53	23.00	1.114	0.19	0.050	0.056
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Side	10mm	4	661	1880	22.53	23.00	1.114	0.12	0.036	0.040
21	GSM1900_Ant 2	GPRS (3 Tx slots)	Top Side	10mm	4	661	1880	22.53	23.00	1.114	0.01	0.506	0.564
	GSM1900_Ant 2	GPRS (3 Tx slots)	Front	10mm	5	661	1880	21.49	21.50	1.002	0.03	0.192	0.192
	GSM1900_Ant 2	GPRS (3 Tx slots)	Back	10mm	5	661	1880	21.49	21.50	1.002	0.01	0.229	0.230
	GSM1900_Ant 2	GPRS (3 Tx slots)	Left Side	10mm	5	661	1880	21.49	21.50	1.002	-0.09	0.001	0.001
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Side	10mm	5	661	1880	21.49	21.50	1.002	-0.04	0.001	0.001
	GSM1900_Ant 2	GPRS (3 Tx slots)	Top Side	10mm	5	661	1880	21.49	21.50	1.002	0.06	0.426	0.427
	GSM1900_Ant 2	GPRS (3 Tx slots)	Front	10mm	6	661	1880	21.49	21.50	1.002	0.03	0.192	0.192
	GSM1900_Ant 2	GPRS (3 Tx slots)	Back	10mm	6	661	1880	21.49	21.50	1.002	0.01	0.229	0.230
	GSM1900_Ant 2	GPRS (3 Tx slots)	Left Side	10mm	6	661	1880	21.49	21.50	1.002	-0.09	0.001	0.001
	GSM1900_Ant 2	GPRS (3 Tx slots)	Right Side	10mm	6	661	1880	21.49	21.50	1.002	-0.04	0.001	0.001
	GSM1900_Ant 2	GPRS (3 Tx slots)	Top Side	10mm	6	661	1880	21.49	21.50	1.002	0.06	0.426	0.427

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 3	RMC 12.2Kbps	Front	10mm	4	9538	1907.6	21.00	22.00	1.259	-0.14	0.241	0.303
	WCDMA II_Ant 3	RMC 12.2Kbps	Back	10mm	4	9538	1907.6	21.00	22.00	1.259	0	0.197	0.248
	WCDMA II_Ant 3	RMC 12.2Kbps	Left Side	10mm	4	9538	1907.6	21.00	22.00	1.259	0.13	0.022	0.028
	WCDMA II_Ant 3	RMC 12.2Kbps	Right Side	10mm	4	9538	1907.6	21.00	22.00	1.259	-0.14	0.261	0.329
	WCDMA II_Ant 3	RMC 12.2Kbps	Bottom Side	10mm	4	9538	1907.6	21.00	22.00	1.259	-0.05	0.172	0.217
	WCDMA II_Ant 3	RMC 12.2Kbps	Front	10mm	5	9400	1880	18.93	20.00	1.279	0.11	0.147	0.188
	WCDMA II_Ant 3	RMC 12.2Kbps	Back	10mm	5	9400	1880	18.93	20.00	1.279	0.09	0.138	0.177
	WCDMA II_Ant 3	RMC 12.2Kbps	Left Side	10mm	5	9400	1880	18.93	20.00	1.279	-0.17	0.020	0.026
	WCDMA II_Ant 3	RMC 12.2Kbps	Right Side	10mm	5	9400	1880	18.93	20.00	1.279	-0.07	0.179	0.229
	WCDMA II_Ant 3	RMC 12.2Kbps	Bottom Side	10mm	5	9400	1880	18.93	20.00	1.279	0.14	0.138	0.177
	WCDMA II_Ant 3	RMC 12.2Kbps	Front	10mm	6	9400	1880	18.93	20.50	1.435	0.11	0.147	0.211
	WCDMA II_Ant 3	RMC 12.2Kbps	Back	10mm	6	9400	1880	18.93	20.50	1.435	0.09	0.138	0.198
	WCDMA II_Ant 3	RMC 12.2Kbps	Left Side	10mm	6	9400	1880	18.93	20.50	1.435	-0.17	0.020	0.029
	WCDMA II_Ant 3	RMC 12.2Kbps	Right Side	10mm	6	9400	1880	18.93	20.50	1.435	-0.07	0.179	0.257
	WCDMA II_Ant 3	RMC 12.2Kbps	Bottom Side	10mm	6	9400	1880	18.93	20.50	1.435	0.14	0.138	0.198
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	10mm	4	9538	1907.6	18.36	19.50	1.300	-0.11	0.269	0.350
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	4	9538	1907.6	18.36	19.50	1.300	-0.11	0.325	0.423
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Side	10mm	4	9538	1907.6	18.36	19.50	1.300	-0.14	0.051	0.066
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Side	10mm	4	9538	1907.6	18.36	19.50	1.300	-0.02	0.036	0.047
22	WCDMA II_Ant 2	RMC 12.2Kbps	Top Side	10mm	4	9538	1907.6	18.36	19.50	1.300	0.08	0.522	0.679
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	10mm	5	9538	1907.6	16.35	17.50	1.303	0.01	0.166	0.216
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	5	9538	1907.6	16.35	17.50	1.303	0.03	0.194	0.253
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Side	10mm	5	9538	1907.6	16.35	17.50	1.303	0.12	0.032	0.042
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Side	10mm	5	9538	1907.6	16.35	17.50	1.303	-0.03	0.017	0.022
	WCDMA II_Ant 2	RMC 12.2Kbps	Top Side	10mm	5	9538	1907.6	16.35	17.50	1.303	0.11	0.333	0.434
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	10mm	6	9538	1907.6	16.35	18.00	1.462	0.01	0.166	0.243
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	6	9538	1907.6	16.35	18.00	1.462	0.03	0.194	0.284
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Side	10mm	6	9538	1907.6	16.35	18.00	1.462	0.12	0.032	0.047
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Side	10mm	6	9538	1907.6	16.35	18.00	1.462	-0.03	0.017	0.025
	WCDMA II_Ant 2	RMC 12.2Kbps	Top Side	10mm	6	9538	1907.6	16.35	18.00	1.462	0.11	0.333	0.487



Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA IV_Ant 3	RMC 12.2Kbps	Front	10mm	4	1413	1732.6	20.58	21.50	1.236	-0.08	0.067	0.083
	WCDMA IV_Ant 3	RMC 12.2Kbps	Back	10mm	4	1413	1732.6	20.58	21.50	1.236	0.1	0.066	0.082
	WCDMA IV_Ant 3	RMC 12.2Kbps	Left Side	10mm	4	1413	1732.6	20.58	21.50	1.236	0.11	0.013	0.016
	WCDMA IV_Ant 3	RMC 12.2Kbps	Right Side	10mm	4	1413	1732.6	20.58	21.50	1.236	-0.05	0.106	0.131
	WCDMA IV_Ant 3	RMC 12.2Kbps	Bottom Side	10mm	4	1413	1732.6	20.58	21.50	1.236	-0.1	0.101	0.125
	WCDMA IV_Ant 3	RMC 12.2Kbps	Front	10mm	5	1413	1732.6	18.55	19.50	1.245	0.04	0.026	0.032
	WCDMA IV_Ant 3	RMC 12.2Kbps	Back	10mm	5	1413	1732.6	18.55	19.50	1.245	0.12	0.045	0.056
	WCDMA IV_Ant 3	RMC 12.2Kbps	Left Side	10mm	5	1413	1732.6	18.55	19.50	1.245	0.16	0.013	0.016
	WCDMA IV_Ant 3	RMC 12.2Kbps	Right Side	10mm	5	1413	1732.6	18.55	19.50	1.245	0	0.053	0.066
	WCDMA IV_Ant 3	RMC 12.2Kbps	Bottom Side	10mm	5	1413	1732.6	18.55	19.50	1.245	-0.17	0.047	0.058
	WCDMA IV_Ant 3	RMC 12.2Kbps	Front	10mm	6	1413	1732.6	18.55	20.00	1.396	0.04	0.026	0.036
	WCDMA IV_Ant 3	RMC 12.2Kbps	Back	10mm	6	1413	1732.6	18.55	20.00	1.396	0.12	0.045	0.063
	WCDMA IV_Ant 3	RMC 12.2Kbps	Left Side	10mm	6	1413	1732.6	18.55	20.00	1.396	0.16	0.013	0.018
	WCDMA IV_Ant 3	RMC 12.2Kbps	Right Side	10mm	6	1413	1732.6	18.55	20.00	1.396	0	0.053	0.074
	WCDMA IV_Ant 3	RMC 12.2Kbps	Bottom Side	10mm	6	1413	1732.6	18.55	20.00	1.396	-0.17	0.047	0.066
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	4	1413	1732.6	17.85	19.00	1.303	-0.01	0.351	0.457
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	4	1413	1732.6	17.85	19.00	1.303	0	0.424	0.552
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Side	10mm	4	1413	1732.6	17.85	19.00	1.303	0.03	0.087	0.114
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Side	10mm	4	1413	1732.6	17.85	19.00	1.303	0.09	0.030	0.039
23	WCDMA IV_Ant 2	RMC 12.2Kbps	Top Side	10mm	4	1413	1732.6	17.85	19.00	1.303	-0.04	0.432	0.563
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	5	1413	1732.6	15.91	17.00	1.285	0.01	0.179	0.230
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	5	1413	1732.6	15.91	17.00	1.285	0.05	0.203	0.261
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Side	10mm	5	1413	1732.6	15.91	17.00	1.285	0.03	0.045	0.058
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Side	10mm	5	1413	1732.6	15.91	17.00	1.285	0	0.020	0.026
	WCDMA IV_Ant 2	RMC 12.2Kbps	Top Side	10mm	5	1413	1732.6	15.91	17.00	1.285	-0.15	0.272	0.350
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	6	1413	1732.6	15.91	17.50	1.442	0.01	0.179	0.258
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	6	1413	1732.6	15.91	17.50	1.442	0.05	0.203	0.293
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Side	10mm	6	1413	1732.6	15.91	17.50	1.442	0.03	0.045	0.065
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Side	10mm	6	1413	1732.6	15.91	17.50	1.442	0	0.020	0.029
	WCDMA IV_Ant 2	RMC 12.2Kbps	Top Side	10mm	6	1413	1732.6	15.91	17.50	1.442	-0.15	0.272	0.392

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	10mm	4	4182	836.4	23.56	24.50	1.242	-0.18	0.299	0.371
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	4	4182	836.4	23.56	24.50	1.242	0	0.296	0.368
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Side	10mm	4	4182	836.4	23.56	24.50	1.242	-0.13	0.046	0.057
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Side	10mm	4	4182	836.4	23.56	24.50	1.242	0	0.281	0.349
	WCDMA V_Ant 1	RMC 12.2Kbps	Bottom Side	10mm	4	4182	836.4	23.56	24.50	1.242	0.01	0.264	0.328
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	10mm	5	4182	836.4	22.07	23.00	1.239	0.09	0.193	0.239
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	5	4182	836.4	22.07	23.00	1.239	0.08	0.191	0.237
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Side	10mm	5	4182	836.4	22.07	23.00	1.239	0.17	0.041	0.051
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Side	10mm	5	4182	836.4	22.07	23.00	1.239	-0.18	0.195	0.242
	WCDMA V_Ant 1	RMC 12.2Kbps	Bottom Side	10mm	5	4182	836.4	22.07	23.00	1.239	-0.17	0.191	0.237
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	10mm	6	4182	836.4	22.07	23.50	1.390	0.09	0.193	0.268
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	6	4182	836.4	22.07	23.50	1.390	0.08	0.191	0.265
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Side	10mm	6	4182	836.4	22.07	23.50	1.390	0.17	0.041	0.057
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Side	10mm	6	4182	836.4	22.07	23.50	1.390	-0.18	0.195	0.271
	WCDMA V_Ant 1	RMC 12.2Kbps	Bottom Side	10mm	6	4182	836.4	22.07	23.50	1.390	-0.17	0.191	0.265
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	10mm	4	4132	826.4	24.03	25.00	1.250	0.07	0.191	0.239
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	4	4132	826.4	24.03	25.00	1.250	-0.07	0.311	0.389
24	WCDMA V_Ant 0	RMC 12.2Kbps	Left Side	10mm	4	4132	826.4	24.03	25.00	1.250	0.17	0.456	0.570
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Side	10mm	4	4132	826.4	24.03	25.00	1.250	-0.05	0.019	0.024
	WCDMA V_Ant 0	RMC 12.2Kbps	Top Side	10mm	4	4132	826.4	24.03	25.00	1.250	0.04	0.009	0.011
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	10mm	5	4132	826.4	21.97	23.00	1.268	0.01	0.126	0.160
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	5	4132	826.4	21.97	23.00	1.268	0.03	0.207	0.262
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Side	10mm	5	4132	826.4	21.97	23.00	1.268	-0.07	0.276	0.350
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Side	10mm	5	4132	826.4	21.97	23.00	1.268	-0.05	0.012	0.015
	WCDMA V_Ant 0	RMC 12.2Kbps	Top Side	10mm	5	4132	826.4	21.97	23.00	1.268	-0.03	0.006	0.007
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	10mm	6	4132	826.4	21.97	23.50	1.422	0.01	0.126	0.179
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	6	4132	826.4	21.97	23.50	1.422	0.03	0.207	0.294
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Side	10mm	6	4132	826.4	21.97	23.50	1.422	-0.07	0.276	0.393
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Side	10mm	6	4132	826.4	21.97	23.50	1.422	-0.05	0.012	0.017
	WCDMA V_Ant 0	RMC 12.2Kbps	Top Side	10mm	6	4132	826.4	21.97	23.50	1.422	-0.03	0.006	0.008



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 4_Ant 3	20M	QPSK	1	49	Front	10mm	4	20175	1732.5	21.73	22.50	1.194	-0.08	0.050	0.060
	LTE Band 4_Ant 3	20M	QPSK	50	24	Front	10mm	4	20175	1732.5	21.81	22.50	1.172	-0.04	0.051	0.060
	LTE Band 4_Ant 3	20M	QPSK	1	49	Back	10mm	4	20175	1732.5	21.73	22.50	1.194	-0.03	0.046	0.055
	LTE Band 4_Ant 3	20M	QPSK	50	24	Back	10mm	4	20175	1732.5	21.81	22.50	1.172	0.06	0.047	0.055
	LTE Band 4_Ant 3	20M	QPSK	1	49	Left Side	10mm	4	20175	1732.5	21.73	22.50	1.194	0.02	0.007	0.009
	LTE Band 4_Ant 3	20M	QPSK	50	24	Left Side	10mm	4	20175	1732.5	21.81	22.50	1.172	-0.13	0.009	0.010
25	LTE Band 4_Ant 3	20M	QPSK	1	49	Right Side	10mm	4	20175	1732.6	21.73	22.50	1.194	-0.11	0.081	0.097
	LTE Band 4_Ant 3	20M	QPSK	50	24	Right Side	10mm	4	20175	1732.6	21.81	22.50	1.172	-0.12	0.082	0.096
	LTE Band 4_Ant 3	20M	QPSK	1	49	Bottom Side	10mm	4	20175	1732.5	21.73	22.50	1.194	-0.03	0.071	0.085
	LTE Band 4_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	4	20175	1732.5	21.81	22.50	1.172	-0.09	0.071	0.083
	LTE Band 4_Ant 3	20M	QPSK	1	49	Front	10mm	5	20175	1732.5	19.73	20.50	1.194	-0.01	0.042	0.050
	LTE Band 4_Ant 3	20M	QPSK	50	24	Front	10mm	5	20175	1732.5	19.80	20.50	1.175	-0.05	0.041	0.048
	LTE Band 4_Ant 3	20M	QPSK	1	49	Back	10mm	5	20175	1732.5	19.73	20.50	1.194	0.14	0.041	0.049
	LTE Band 4_Ant 3	20M	QPSK	50	24	Back	10mm	5	20175	1732.5	19.80	20.50	1.175	-0.01	0.041	0.048
	LTE Band 4_Ant 3	20M	QPSK	1	49	Left Side	10mm	5	20175	1732.5	19.73	20.50	1.194	-0.03	0.008	0.010
	LTE Band 4_Ant 3	20M	QPSK	50	24	Left Side	10mm	5	20175	1732.5	19.80	20.50	1.175	-0.15	0.008	0.010
	LTE Band 4_Ant 3	20M	QPSK	1	49	Right Side	10mm	5	20175	1732.5	19.73	20.50	1.194	-0.15	0.064	0.076
	LTE Band 4_Ant 3	20M	QPSK	50	24	Right Side	10mm	5	20175	1732.5	19.80	20.50	1.175	-0.17	0.065	0.076
	LTE Band 4_Ant 3	20M	QPSK	1	49	Bottom Side	10mm	5	20175	1732.5	19.73	20.50	1.194	-0.09	0.062	0.074
	LTE Band 4_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	5	20175	1732.5	19.80	20.50	1.175	0.02	0.060	0.070
	LTE Band 4_Ant 3	20M	QPSK	1	49	Front	10mm	6	20175	1732.5	19.73	21.00	1.340	-0.01	0.042	0.056
	LTE Band 4_Ant 3	20M	QPSK	50	24	Front	10mm	6	20175	1732.5	19.80	21.00	1.318	-0.05	0.041	0.054
	LTE Band 4_Ant 3	20M	QPSK	1	49	Back	10mm	6	20175	1732.5	19.73	21.00	1.340	0.14	0.041	0.055
	LTE Band 4_Ant 3	20M	QPSK	50	24	Back	10mm	6	20175	1732.5	19.80	21.00	1.318	-0.01	0.041	0.054
	LTE Band 4_Ant 3	20M	QPSK	1	49	Left Side	10mm	6	20175	1732.5	19.73	21.00	1.340	-0.03	0.008	0.011
	LTE Band 4_Ant 3	20M	QPSK	50	24	Left Side	10mm	6	20175	1732.5	19.80	21.00	1.318	-0.15	0.008	0.011
	LTE Band 4_Ant 3	20M	QPSK	1	49	Right Side	10mm	6	20175	1732.5	19.73	21.00	1.340	-0.15	0.064	0.086
	LTE Band 4_Ant 3	20M	QPSK	50	24	Right Side	10mm	6	20175	1732.5	19.80	21.00	1.318	-0.17	0.065	0.086
	LTE Band 4_Ant 3	20M	QPSK	1	49	Bottom Side	10mm	6	20175	1732.5	19.73	21.00	1.340	-0.09	0.062	0.083
	LTE Band 4_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	6	20175	1732.5	19.80	21.00	1.318	0.02	0.060	0.079

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 5_Ant 1	10M	QPSK	1	0	Front	10mm	4	20525	836.5	23.54	24.50	1.247	0.12	0.200	0.249
	LTE Band 5_Ant 1	10M	QPSK	25	12	Front	10mm	4	20525	836.5	23.17	23.50	1.079	0.16	0.202	0.218
	LTE Band 5_Ant 1	10M	QPSK	1	0	Back	10mm	4	20525	836.5	23.54	24.50	1.247	-0.04	0.189	0.236
	LTE Band 5_Ant 1	10M	QPSK	25	12	Back	10mm	4	20525	836.5	23.17	23.50	1.079	-0.1	0.191	0.206
	LTE Band 5_Ant 1	10M	QPSK	1	0	Left Side	10mm	4	20525	836.5	23.54	24.50	1.247	0	0.034	0.042
	LTE Band 5_Ant 1	10M	QPSK	25	12	Left Side	10mm	4	20525	836.5	23.17	23.50	1.079	-0.18	0.032	0.035
	LTE Band 5_Ant 1	10M	QPSK	1	0	Right Side	10mm	4	20525	836.5	23.54	24.50	1.247	-0.04	0.197	0.246
	LTE Band 5_Ant 1	10M	QPSK	25	12	Right Side	10mm	4	20525	836.5	23.17	23.50	1.079	-0.02	0.194	0.209
	LTE Band 5_Ant 1	10M	QPSK	1	0	Bottom Side	10mm	4	20525	836.5	23.54	24.50	1.247	0.02	0.166	0.207
	LTE Band 5_Ant 1	10M	QPSK	25	12	Bottom Side	10mm	4	20525	836.5	23.17	23.50	1.079	0.02	0.168	0.181
	LTE Band 5_Ant 0	10M	QPSK	1	49	Front	10mm	4	20525	836.5	24.13	25.00	1.222	0.07	0.261	0.319
	LTE Band 5_Ant 0	10M	QPSK	25	12	Front	10mm	4	20525	836.5	23.18	24.00	1.208	-0.11	0.183	0.221
	LTE Band 5_Ant 0	10M	QPSK	1	49	Back	10mm	4	20525	836.5	24.13	25.00	1.222	-0.07	0.453	0.553
	LTE Band 5_Ant 0	10M	QPSK	25	12	Back	10mm	4	20525	836.5	23.18	24.00	1.208	-0.09	0.325	0.393
26	LTE Band 5_Ant 0	10M	QPSK	1	49	Left Side	10mm	4	20525	836.5	24.13	25.00	1.222	0.16	0.617	0.754
	LTE Band 5_Ant 0	10M	QPSK	25	12	Left Side	10mm	4	20525	836.5	23.18	24.00	1.208	0.13	0.451	0.545
	LTE Band 5_Ant 0	10M	QPSK	1	49	Right Side	10mm	4	20525	836.5	24.13	25.00	1.222	-0.07	0.013	0.016
	LTE Band 5_Ant 0	10M	QPSK	25	12	Right Side	10mm	4	20525	836.5	23.18	24.00	1.208	-0.09	0.009	0.011
	LTE Band 5_Ant 0	10M	QPSK	1	49	Top Side	10mm	4	20525	836.5	24.13	25.00	1.222	0.03	0.014	0.017
	LTE Band 5_Ant 0	10M	QPSK	25	12	Top Side	10mm	4	20525	836.5	23.18	24.00	1.208	-0.11	0.009	0.011



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Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 3	20M	QPSK	1	99	Front	10mm	4	21350	2560	20.45	21.00	1.135	0.13	0.193	0.219
	LTE Band 7_Ant 3	20M	QPSK	50	50	Front	10mm	4	21350	2560	20.56	21.00	1.107	0.1	0.196	0.217
	LTE Band 7_Ant 3	20M	QPSK	1	99	Back	10mm	4	21350	2560	20.45	21.00	1.135	0.04	0.259	0.294
	LTE Band 7_Ant 3	20M	QPSK	50	50	Back	10mm	4	21350	2560	20.56	21.00	1.107	0.17	0.254	0.281
	LTE Band 7_Ant 3	20M	QPSK	1	99	Left Side	10mm	4	21350	2560	20.45	21.00	1.135	0.14	0.012	0.014
	LTE Band 7_Ant 3	20M	QPSK	50	50	Left Side	10mm	4	21350	2560	20.56	21.00	1.107	0.06	0.011	0.012
	LTE Band 7_Ant 3	20M	QPSK	1	99	Right Side	10mm	4	21350	2560	20.45	21.00	1.135	-0.06	0.630	0.715
	LTE Band 7_Ant 3	20M	QPSK	50	50	Right Side	10mm	4	21350	2560	20.56	21.00	1.107	-0.01	0.615	0.681
	LTE Band 7_Ant 3	20M	QPSK	1	99	Bottom Side	10mm	4	21350	2560	20.45	21.00	1.135	-0.08	0.146	0.166
	LTE Band 7_Ant 3	20M	QPSK	50	50	Bottom Side	10mm	4	21350	2560	20.56	21.00	1.107	-0.06	0.153	0.169
	LTE Band 7C_Ant 3	20M	QPSK	1	0	Right Side	10mm	4	20850+21048	2510	17.33	17.50	1.040	0.07	0.292	0.304
	LTE Band 7_Ant 3	20M	QPSK	1	99	Front	10mm	5	21350	2560	17.96	18.50	1.132	-0.13	0.109	0.123
	LTE Band 7_Ant 3	20M	QPSK	50	50	Front	10mm	5	21350	2560	18.12	18.50	1.091	-0.17	0.113	0.123
	LTE Band 7_Ant 3	20M	QPSK	1	99	Back	10mm	5	21350	2560	17.96	18.50	1.132	0.16	0.128	0.145
	LTE Band 7_Ant 3	20M	QPSK	50	50	Back	10mm	5	21350	2560	18.12	18.50	1.091	0.13	0.135	0.147
	LTE Band 7_Ant 3	20M	QPSK	1	99	Left Side	10mm	5	21350	2560	17.96	18.50	1.132	0.01	0.001	0.001
	LTE Band 7_Ant 3	20M	QPSK	50	50	Left Side	10mm	5	21350	2560	18.12	18.50	1.091	-0.01	0.001	0.001
	LTE Band 7_Ant 3	20M	QPSK	1	99	Right Side	10mm	5	21350	2560	17.96	18.50	1.132	-0.08	0.319	0.361
	LTE Band 7_Ant 3	20M	QPSK	50	50	Right Side	10mm	5	21350	2560	18.12	18.50	1.091	-0.06	0.321	0.350
	LTE Band 7_Ant 3	20M	QPSK	1	99	Bottom Side	10mm	5	21350	2560	17.96	18.50	1.132	0.01	0.089	0.101
	LTE Band 7_Ant 3	20M	QPSK	50	50	Bottom Side	10mm	5	21350	2560	18.12	18.50	1.091	0.12	0.090	0.098
	LTE Band 7C_Ant 3	20M	QPSK	1	0	Right Side	10mm	5	20850+21048	2510	15.80	17.5	1.479	0.04	0.183	0.271
	LTE Band 7_Ant 3	20M	QPSK	1	99	Front	10mm	6	21350	2560	17.96	19.00	1.271	-0.13	0.109	0.138
	LTE Band 7_Ant 3	20M	QPSK	50	50	Front	10mm	6	21350	2560	18.12	19.00	1.225	-0.17	0.113	0.138
	LTE Band 7_Ant 3	20M	QPSK	1	99	Back	10mm	6	21350	2560	17.96	19.00	1.271	0.16	0.128	0.163
	LTE Band 7_Ant 3	20M	QPSK	50	50	Back	10mm	6	21350	2560	18.12	19.00	1.225	0.13	0.135	0.165
	LTE Band 7_Ant 3	20M	QPSK	1	99	Left Side	10mm	6	21350	2560	17.96	19.00	1.271	0.01	0.001	0.001
	LTE Band 7_Ant 3	20M	QPSK	50	50	Left Side	10mm	6	21350	2560	18.12	19.00	1.225	-0.01	0.001	0.001
	LTE Band 7_Ant 3	20M	QPSK	1	99	Right Side	10mm	6	21350	2560	17.96	19.00	1.271	-0.08	0.319	0.405
	LTE Band 7_Ant 3	20M	QPSK	50	50	Right Side	10mm	6	21350	2560	18.12	19.00	1.225	-0.06	0.321	0.393
	LTE Band 7_Ant 3	20M	QPSK	1	99	Bottom Side	10mm	6	21350	2560	17.96	19.00	1.271	0.01	0.089	0.113
	LTE Band 7_Ant 3	20M	QPSK	50	50	Bottom Side	10mm	6	21350	2560	18.12	19.00	1.225	0.12	0.090	0.110
	LTE Band 7C_Ant 3	20M	QPSK	1	0	Right Side	10mm	6	20850+21048	2510	16.14	17.50	1.368	0.09	0.202	0.276
	LTE Band 7_Ant 2	20M	QPSK	1	99	Front	10mm	4	21350	2560	17.25	18.00	1.189	-0.03	0.226	0.269
	LTE Band 7_Ant 2	20M	QPSK	50	50	Front	10mm	4	21350	2560	17.39	18.00	1.151	0	0.243	0.280
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	10mm	4	21350	2560	17.25	18.00	1.189	-0.04	0.315	0.374
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	4	21350	2560	17.39	18.00	1.151	-0.05	0.326	0.375
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Side	10mm	4	21350	2560	17.25	18.00	1.189	-0.17	0.058	0.069
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Side	10mm	4	21350	2560	17.39	18.00	1.151	-0.16	0.060	0.069
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Side	10mm	4	21350	2560	17.25	18.00	1.189	-0.19	0.036	0.043
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Side	10mm	4	21350	2560	17.39	18.00	1.151	0.13	0.039	0.045
	LTE Band 7_Ant 2	20M	QPSK	1	99	Top Side	10mm	4	21350	2560	17.25	18.00	1.189	-0.02	0.467	0.555
	LTE Band 7_Ant 2	20M	QPSK	50	50	Top Side	10mm	4	21350	2560	17.39	18.00	1.151	-0.06	0.480	0.552
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Top Side	10mm	4	20850+21048	2510	17.26	18.00	1.186	0.13	0.436	0.517
	LTE Band 7_Ant 2	20M	QPSK	1	99	Front	10mm	5	21350	2560	15.74	16.50	1.191	0.03	0.148	0.176
	LTE Band 7_Ant 2	20M	QPSK	50	50	Front	10mm	5	21350	2560	15.88	16.50	1.153	0.08	0.151	0.174
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	10mm	5	21350	2560	15.74	16.50	1.191	-0.03	0.194	0.231
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	5	21350	2560	15.88	16.50	1.153	-0.01	0.200	0.231
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Side	10mm	5	21350	2560	15.74	16.50	1.191	-0.12	0.040	0.048
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Side	10mm	5	21350	2560	15.88	16.50	1.153	0.07	0.039	0.045
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Side	10mm	5	21350	2560	15.74	16.50	1.191	0.06	0.025	0.030
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Side	10mm	5	21350	2560	15.88	16.50	1.153	0	0.028	0.032
	LTE Band 7_Ant 2	20M	QPSK	1	99	Top Side	10mm	5	21350	2560	15.74	16.50	1.191	0.04	0.331	0.394



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	LTE Band 7_Ant 2	20M	QPSK	50	50	Top Side	10mm	5	21350	2560	15.88	16.50	1.153	0.01	0.292	0.337
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Top Side	10mm	5	20850+21048	2510	15.72	16.50	1.197	0.18	0.303	0.363
	LTE Band 7_Ant 2	20M	QPSK	1	99	Front	10mm	6	21350	2560	15.74	17.00	1.337	0.03	0.148	0.198
	LTE Band 7_Ant 2	20M	QPSK	50	50	Front	10mm	6	21350	2560	15.88	17.00	1.294	0.08	0.151	0.195
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	10mm	6	21350	2560	15.74	17.00	1.337	-0.03	0.194	0.259
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	6	21350	2560	15.88	17.00	1.294	-0.01	0.200	0.259
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Side	10mm	6	21350	2560	15.74	17.00	1.337	-0.12	0.040	0.053
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Side	10mm	6	21350	2560	15.88	17.00	1.294	0.07	0.039	0.050
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Side	10mm	6	21350	2560	15.74	17.00	1.337	0.06	0.025	0.033
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Side	10mm	6	21350	2560	15.88	17.00	1.294	0	0.028	0.036
	LTE Band 7_Ant 2	20M	QPSK	1	99	Top Side	10mm	6	21350	2560	15.74	17.00	1.337	0.04	0.331	0.442
	LTE Band 7_Ant 2	20M	QPSK	50	50	Top Side	10mm	6	21350	2560	15.88	17.00	1.294	0.01	0.292	0.378
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Top Side	10mm	6	20850+21048	2510	16.21	17.00	1.199	-0.18	0.349	0.419
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	10mm	4	21100	2535	18.80	20.00	1.318	0.07	0.213	0.281
	LTE Band 7_Ant 0	20M	QPSK	50	50	Front	10mm	4	21100	2535	18.91	20.00	1.285	0.02	0.224	0.288
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	4	21100	2535	18.80	20.00	1.318	-0.05	0.288	0.380
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	4	21100	2535	18.91	20.00	1.285	-0.02	0.302	0.388
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Side	10mm	4	21100	2535	18.80	20.00	1.318	-0.06	0.594	0.783
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Side	10mm	4	21100	2535	18.91	20.00	1.285	-0.08	0.627	0.806
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Side	10mm	4	20850	2510	18.90	20.00	1.288	-0.08	0.614	0.791
27	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Side	10mm	4	21350	2560	18.90	20.00	1.288	-0.09	0.630	0.812
	LTE Band 7_Ant 0	20M	QPSK	100	0	Left Side	10mm	4	20850	2510	18.87	20.00	1.297	-0.06	0.608	0.789
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Side	10mm	4	21100	2535	18.80	20.00	1.318	0.01	0.002	0.003
	LTE Band 7_Ant 0	20M	QPSK	50	50	Right Side	10mm	4	21100	2535	18.91	20.00	1.285	-0.04	0.005	0.006
	LTE Band 7_Ant 0	20M	QPSK	1	99	Top Side	10mm	4	21100	2535	18.80	20.00	1.318	0.08	0.037	0.049
	LTE Band 7_Ant 0	20M	QPSK	50	50	Top Side	10mm	4	21100	2535	18.91	20.00	1.285	0.09	0.036	0.046
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Left Side	10mm	4	20850+21048	2510	15.28	16.00	1.180	-0.18	0.267	0.315
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	10mm	5	20850	2510	17.37	18.50	1.297	-0.09	0.143	0.185
	LTE Band 7_Ant 0	20M	QPSK	50	50	Front	10mm	5	20850	2510	17.52	18.50	1.253	-0.03	0.148	0.185
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	5	20850	2510	17.37	18.50	1.297	-0.03	0.201	0.261
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	5	20850	2510	17.52	18.50	1.253	-0.06	0.211	0.264
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Side	10mm	5	20850	2510	17.37	18.50	1.297	-0.09	0.413	0.536
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Side	10mm	5	20850	2510	17.52	18.50	1.253	-0.05	0.433	0.543
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Side	10mm	5	20850	2510	17.37	18.50	1.297	0.07	0.001	0.001
	LTE Band 7_Ant 0	20M	QPSK	50	50	Right Side	10mm	5	20850	2510	17.52	18.50	1.253	0.01	0.001	0.001
	LTE Band 7_Ant 0	20M	QPSK	1	99	Top Side	10mm	5	20850	2510	17.37	18.50	1.297	0.02	0.028	0.036
	LTE Band 7_Ant 0	20M	QPSK	50	50	Top Side	10mm	5	20850	2510	17.52	18.50	1.253	0.06	0.030	0.038
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Left Side	10mm	5	20850+21048	2510	15.25	16.00	1.189	-0.12	0.245	0.291
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	10mm	6	20850	2510	17.37	19.00	1.455	-0.09	0.143	0.208
	LTE Band 7_Ant 0	20M	QPSK	50	50	Front	10mm	6	20850	2510	17.52	19.00	1.406	-0.03	0.148	0.208
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	6	20850	2510	17.37	19.00	1.455	-0.03	0.201	0.293
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	6	20850	2510	17.52	19.00	1.406	-0.06	0.211	0.297
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Side	10mm	6	20850	2510	17.37	19.00	1.455	-0.09	0.413	0.601
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Side	10mm	6	20850	2510	17.52	19.00	1.406	-0.05	0.433	0.609
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Side	10mm	6	20850	2510	17.37	19.00	1.455	0.07	0.001	0.001
	LTE Band 7_Ant 0	20M	QPSK	50	50	Right Side	10mm	6	20850	2510	17.52	19.00	1.406	0.01	0.001	0.001
	LTE Band 7_Ant 0	20M	QPSK	1	99	Top Side	10mm	6	20850	2510	17.37	19.00	1.455	0.02	0.028	0.041
	LTE Band 7_Ant 0	20M	QPSK	50	50	Top Side	10mm	6	20850	2510	17.52	19.00	1.406	0.06	0.030	0.042
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Left Side	10mm	6	20850+21048	2510	15.78	16.00	1.052	0.12	0.277	0.291



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 1	10M	QPSK	1	49	Front	10mm	4/5/6	23095	707.5	23.20	24.00	1.202	-0.03	0.092	0.111
	LTE Band 12_Ant 1	10M	QPSK	25	12	Front	10mm	4/5/6	23095	707.5	22.23	23.00	1.194	-0.04	0.063	0.075
	LTE Band 12_Ant 1	10M	QPSK	1	49	Back	10mm	4/5/6	23095	707.5	23.20	24.00	1.202	0.02	0.075	0.090
	LTE Band 12_Ant 1	10M	QPSK	25	12	Back	10mm	4/5/6	23095	707.5	22.23	23.00	1.194	-0.1	0.059	0.070
	LTE Band 12_Ant 1	10M	QPSK	1	49	Left Side	10mm	4/5/6	23095	707.5	23.20	24.00	1.202	0.08	0.031	0.037
	LTE Band 12_Ant 1	10M	QPSK	25	12	Left Side	10mm	4/5/6	23095	707.5	22.23	23.00	1.194	0.11	0.024	0.029
	LTE Band 12_Ant 1	10M	QPSK	1	49	Right Side	10mm	4/5/6	23095	707.5	23.20	24.00	1.202	-0.04	0.112	0.135
	LTE Band 12_Ant 1	10M	QPSK	25	12	Right Side	10mm	4/5/6	23095	707.5	22.23	23.00	1.194	0.08	0.081	0.097
	LTE Band 12_Ant 1	10M	QPSK	1	49	Bottom Side	10mm	4/5/6	23095	707.5	23.20	24.00	1.202	0.18	0.098	0.118
	LTE Band 12_Ant 1	10M	QPSK	25	12	Bottom Side	10mm	4/5/6	23095	707.5	22.23	23.00	1.194	0.15	0.079	0.094
	LTE Band 12_Ant 0	10M	QPSK	1	49	Front	10mm	4/5/6	23095	707.5	23.10	24.00	1.230	-0.17	0.163	0.201
	LTE Band 12_Ant 0	10M	QPSK	25	12	Front	10mm	4/5/6	23095	707.5	22.23	23.00	1.194	-0.08	0.115	0.137
	LTE Band 12_Ant 0	10M	QPSK	1	49	Back	10mm	4/5/6	23095	707.5	23.10	24.00	1.230	0.01	0.289	0.356
	LTE Band 12_Ant 0	10M	QPSK	25	12	Back	10mm	4/5/6	23095	707.5	22.23	23.00	1.194	0.02	0.207	0.247
28	LTE Band 12_Ant 0	10M	QPSK	1	25	Left Side	10mm	4/5/6	23095	707.5	23.10	24.00	1.230	0.11	0.417	0.513
	LTE Band 12_Ant 0	10M	QPSK	25	12	Left Side	10mm	4/5/6	23095	707.5	22.23	23.00	1.194	0.07	0.307	0.367
	LTE Band 12_Ant 0	10M	QPSK	1	49	Right Side	10mm	4/5/6	23095	707.5	23.10	24.00	1.230	0.06	0.013	0.016
	LTE Band 12_Ant 0	10M	QPSK	25	12	Right Side	10mm	4/5/6	23095	707.5	22.23	23.00	1.194	-0.06	0.009	0.011
	LTE Band 12_Ant 0	10M	QPSK	1	49	Top Side	10mm	4/5/6	23095	707.5	23.10	24.00	1.230	0.07	0.008	0.010
	LTE Band 12_Ant 0	10M	QPSK	25	12	Top Side	10mm	4/5/6	23095	707.5	22.23	23.00	1.194	-0.02	0.006	0.007

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_Ant 1	10M	QPSK	1	0	Front	10mm	4/5/6	23230	782	23.15	24.00	1.216	0.05	0.283	0.344
	LTE Band 13_Ant 1	10M	QPSK	25	25	Front	10mm	4/5/6	23230	782	22.21	23.00	1.199	0.01	0.217	0.260
	LTE Band 13_Ant 1	10M	QPSK	1	0	Back	10mm	4/5/6	23230	782	23.15	24.00	1.216	0.04	0.271	0.330
	LTE Band 13_Ant 1	10M	QPSK	25	25	Back	10mm	4/5/6	23230	782	22.21	23.00	1.199	0.04	0.211	0.253
	LTE Band 13_Ant 1	10M	QPSK	1	0	Left Side	10mm	4/5/6	23230	782	23.15	24.00	1.216	0.1	0.111	0.135
	LTE Band 13_Ant 1	10M	QPSK	25	25	Left Side	10mm	4/5/6	23230	782	22.21	23.00	1.199	0.13	0.077	0.092
29	LTE Band 13_Ant 1	10M	QPSK	1	0	Right Side	10mm	4/5/6	23230	782	23.15	24.00	1.216	-0.18	0.324	0.394
	LTE Band 13_Ant 1	10M	QPSK	25	25	Right Side	10mm	4/5/6	23230	782	22.21	23.00	1.199	-0.14	0.238	0.285
	LTE Band 13_Ant 1	10M	QPSK	1	0	Bottom Side	10mm	4/5/6	23230	782	23.15	24.00	1.216	-0.12	0.292	0.355
	LTE Band 13_Ant 1	10M	QPSK	25	25	Bottom Side	10mm	4/5/6	23230	782	22.21	23.00	1.199	-0.18	0.226	0.271
	LTE Band 13_Ant 0	10M	QPSK	1	0	Front	10mm	4/5/6	23230	782	23.12	24.00	1.225	0.05	0.002	0.003
	LTE Band 13_Ant 0	10M	QPSK	25	25	Front	10mm	4/5/6	23230	782	22.17	23.00	1.211	0	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	1	0	Back	10mm	4/5/6	23230	782	23.12	24.00	1.225	0	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	25	25	Back	10mm	4/5/6	23230	782	22.17	23.00	1.211	0.01	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	1	0	Left Side	10mm	4/5/6	23230	782	23.12	24.00	1.225	0.06	0.003	0.004
	LTE Band 13_Ant 0	10M	QPSK	25	25	Left Side	10mm	4/5/6	23230	782	22.17	23.00	1.211	-0.05	0.002	0.002
	LTE Band 13_Ant 0	10M	QPSK	1	0	Right Side	10mm	4/5/6	23230	782	23.12	24.00	1.225	-0.02	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	25	25	Right Side	10mm	4/5/6	23230	782	22.17	23.00	1.211	0.18	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	1	0	Top Side	10mm	4/5/6	23230	782	23.12	24.00	1.225	0.02	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	25	25	Top Side	10mm	4/5/6	23230	782	22.17	23.00	1.211	0.01	0.001	0.001



FCC SAR TEST REPORT

Report No. : FA020103

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 3	20M	QPSK	1	0	Front	10mm	4	26140	1860	21.88	22.50	1.153	-0.01	0.213	0.246
	LTE Band 25_Ant 3	20M	QPSK	50	0	Front	10mm	4	26140	1860	21.92	22.50	1.143	-0.09	0.213	0.243
	LTE Band 25_Ant 3	20M	QPSK	1	0	Back	10mm	4	26140	1860	21.88	22.50	1.153	-0.01	0.181	0.209
	LTE Band 25_Ant 3	20M	QPSK	50	0	Back	10mm	4	26140	1860	21.92	22.50	1.143	-0.06	0.187	0.214
	LTE Band 25_Ant 3	20M	QPSK	1	0	Left Side	10mm	4	26140	1860	21.88	22.50	1.153	-0.05	0.024	0.028
	LTE Band 25_Ant 3	20M	QPSK	50	0	Left Side	10mm	4	26140	1860	21.92	22.50	1.143	0.06	0.024	0.027
	LTE Band 25_Ant 3	20M	QPSK	1	0	Right Side	10mm	4	26140	1860	21.88	22.50	1.153	-0.12	0.246	0.284
	LTE Band 25_Ant 3	20M	QPSK	50	0	Right Side	10mm	4	26140	1860	21.92	22.50	1.143	-0.11	0.250	0.286
	LTE Band 25_Ant 3	20M	QPSK	1	0	Bottom Side	10mm	4	26140	1860	21.88	22.50	1.153	-0.05	0.167	0.193
	LTE Band 25_Ant 3	20M	QPSK	50	0	Bottom Side	10mm	4	26140	1860	21.92	22.50	1.143	-0.07	0.169	0.193
	LTE Band 25_Ant 3	20M	QPSK	1	0	Front	10mm	5	26140	1860	20.36	21.00	1.159	-0.1	0.170	0.197
	LTE Band 25_Ant 3	20M	QPSK	50	0	Front	10mm	5	26140	1860	20.38	21.00	1.153	-0.1	0.176	0.203
	LTE Band 25_Ant 3	20M	QPSK	1	0	Back	10mm	5	26140	1860	20.36	21.00	1.159	0.13	0.145	0.168
	LTE Band 25_Ant 3	20M	QPSK	50	0	Back	10mm	5	26140	1860	20.38	21.00	1.153	0.06	0.150	0.173
	LTE Band 25_Ant 3	20M	QPSK	1	0	Left Side	10mm	5	26140	1860	20.36	21.00	1.159	0.17	0.030	0.035
	LTE Band 25_Ant 3	20M	QPSK	50	0	Left Side	10mm	5	26140	1860	20.38	21.00	1.153	0.19	0.030	0.035
	LTE Band 25_Ant 3	20M	QPSK	1	0	Right Side	10mm	5	26140	1860	20.36	21.00	1.159	0	0.231	0.268
	LTE Band 25_Ant 3	20M	QPSK	50	0	Right Side	10mm	5	26140	1860	20.38	21.00	1.153	-0.04	0.237	0.273
	LTE Band 25_Ant 3	20M	QPSK	1	0	Bottom Side	10mm	5	26140	1860	20.36	21.00	1.159	-0.04	0.170	0.197
	LTE Band 25_Ant 3	20M	QPSK	50	0	Bottom Side	10mm	5	26140	1860	20.38	21.00	1.153	-0.05	0.152	0.175
	LTE Band 25_Ant 3	20M	QPSK	1	0	Front	10mm	6	26140	1860	20.36	21.50	1.300	-0.1	0.170	0.221
	LTE Band 25_Ant 3	20M	QPSK	50	0	Front	10mm	6	26140	1860	20.38	21.50	1.294	-0.1	0.176	0.228
	LTE Band 25_Ant 3	20M	QPSK	1	0	Back	10mm	6	26140	1860	20.36	21.50	1.300	0.13	0.145	0.189
	LTE Band 25_Ant 3	20M	QPSK	50	0	Back	10mm	6	26140	1860	20.38	21.50	1.294	0.06	0.150	0.194
	LTE Band 25_Ant 3	20M	QPSK	1	0	Left Side	10mm	6	26140	1860	20.36	21.50	1.300	0.17	0.030	0.039
	LTE Band 25_Ant 3	20M	QPSK	50	0	Left Side	10mm	6	26140	1860	20.38	21.50	1.294	0.19	0.030	0.039
	LTE Band 25_Ant 3	20M	QPSK	1	0	Right Side	10mm	6	26140	1860	20.36	21.50	1.300	0	0.231	0.300
	LTE Band 25_Ant 3	20M	QPSK	50	0	Right Side	10mm	6	26140	1860	20.38	21.50	1.294	-0.04	0.237	0.307
	LTE Band 25_Ant 3	20M	QPSK	1	0	Bottom Side	10mm	6	26140	1860	20.36	21.50	1.300	-0.04	0.170	0.221
	LTE Band 25_Ant 3	20M	QPSK	50	0	Bottom Side	10mm	6	26140	1860	20.38	21.50	1.294	-0.05	0.152	0.197
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	10mm	4	26140	1860	19.26	20.00	1.186	-0.02	0.338	0.401
	LTE Band 25_Ant 2	20M	QPSK	50	0	Front	10mm	4	26140	1860	19.28	20.00	1.180	-0.12	0.340	0.401
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	10mm	4	26140	1860	19.26	20.00	1.186	-0.11	0.399	0.473
	LTE Band 25_Ant 2	20M	QPSK	50	0	Back	10mm	4	26140	1860	19.28	20.00	1.180	-0.1	0.404	0.477
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Side	10mm	4	26140	1860	19.26	20.00	1.186	0.03	0.072	0.085
	LTE Band 25_Ant 2	20M	QPSK	50	0	Left Side	10mm	4	26140	1860	19.28	20.00	1.180	-0.02	0.073	0.086
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Side	10mm	4	26140	1860	19.26	20.00	1.186	-0.11	0.067	0.079
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Side	10mm	4	26140	1860	19.28	20.00	1.180	-0.07	0.067	0.079
	LTE Band 25_Ant 2	20M	QPSK	1	0	Top Side	10mm	4	26140	1860	19.26	20.00	1.186	0	0.635	0.753
30	LTE Band 25_Ant 2	20M	QPSK	50	0	Top Side	10mm	4	26140	1860	19.28	20.00	1.180	0.07	0.645	0.761
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Side	10mm	4	26140	1860	19.26	20.00	1.186	0.03	0.072	0.085
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	10mm	5	26140	1860	17.29	18	1.178	0.02	0.232	0.273
	LTE Band 25_Ant 2	20M	QPSK	50	0	Front	10mm	5	26140	1860	17.36	18	1.159	-0.09	0.235	0.272
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	10mm	5	26140	1860	17.29	18	1.178	0	0.276	0.325
	LTE Band 25_Ant 2	20M	QPSK	50	0	Back	10mm	5	26140	1860	17.36	18	1.159	0.08	0.282	0.327
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Side	10mm	5	26140	1860	17.29	18	1.178	-0.12	0.001	0.001
	LTE Band 25_Ant 2	20M	QPSK	50	0	Left Side	10mm	5	26140	1860	17.36	18	1.159	-0.11	0.001	0.001
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Side	10mm	5	26140	1860	17.29	18	1.178	0.06	0.008	0.009
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Side	10mm	5	26140	1860	17.36	18	1.159	0.02	0.001	0.001
	LTE Band 25_Ant 2	20M	QPSK	1	0	Top Side	10mm	5	26140	1860	17.29	18	1.178	0.09	0.397	0.468
	LTE Band 25_Ant 2	20M	QPSK	50	0	Top Side	10mm	5	26140	1860	17.36	18	1.159	-0.01	0.382	0.443
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	10mm	6	26140	1860	17.29	18.50	1.321	0.02	0.232	0.307
	LTE Band 25_Ant 2	20M	QPSK	50	0	Front	10mm	6	26140	1860	17.36	18.50	1.300	-0.09	0.235	0.306
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	10mm	6	26140	1860	17.29	18.50	1.321	0	0.276	0.365
	LTE Band 25_Ant 2	20M	QPSK	50	0	Back	10mm	6	26140	1860	17.36	18.50	1.300	0.08	0.282	0.367
	LTE Band 25_Ant 2	20M	QPSK	1	0	Left Side	10mm	6	26140	1860	17.29	18.50	1.321	-0.12	0.001	0.001
	LTE Band 25_Ant 2	20M	QPSK	50	0	Left Side	10mm	6	26140	1860	17.36	18.50	1.300	-0.11	0.001	0.001
	LTE Band 25_Ant 2	20M	QPSK	1	0	Right Side	10mm	6	26140	1860	17.29	18.50	1.321	0.06	0.008	0.011
	LTE Band 25_Ant 2	20M	QPSK	50	0	Right Side	10mm	6	26140	1860	17.36	18.50	1.300	0.02	0.001	0.001
	LTE Band 25_Ant 2	20M	QPSK	1	0	Top Side	10mm	6	26140	1860	17.29	18.50	1.321	0.09	0.397	0.525
	LTE Band 25_Ant 2	20M	QPSK	50	0	Top Side	10mm	6	26140	1860	17.36	18.50	1.300	-0.01	0.382	0.497



FCC SAR TEST REPORT

Report No. : FA020103

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 1	15M	QPSK	1	37	Front	10mm	4	26865	831.5	23.22	24.00	1.197	0.07	0.237	0.284
	LTE Band 26_Ant 1	15M	QPSK	36	20	Front	10mm	4	26865	831.5	22.26	23.00	1.186	-0.01	0.160	0.190
	LTE Band 26_Ant 1	15M	QPSK	1	37	Back	10mm	4	26865	831.5	23.22	24.00	1.197	-0.1	0.215	0.257
	LTE Band 26_Ant 1	15M	QPSK	36	20	Back	10mm	4	26865	831.5	22.26	23.00	1.186	-0.04	0.154	0.183
	LTE Band 26_Ant 1	15M	QPSK	1	37	Left Side	10mm	4	26865	831.5	23.22	24.00	1.197	0.08	0.041	0.049
	LTE Band 26_Ant 1	15M	QPSK	36	20	Left Side	10mm	4	26865	831.5	22.26	23.00	1.186	-0.14	0.034	0.040
	LTE Band 26_Ant 1	15M	QPSK	1	37	Right Side	10mm	4	26865	831.5	23.22	24.00	1.197	-0.05	0.226	0.270
	LTE Band 26_Ant 1	15M	QPSK	36	20	Right Side	10mm	4	26865	831.5	22.26	23.00	1.186	-0.02	0.171	0.203
	LTE Band 26_Ant 1	15M	QPSK	1	37	Bottom Side	10mm	4	26865	831.5	23.22	24.00	1.197	0.06	0.217	0.260
	LTE Band 26_Ant 1	15M	QPSK	36	20	Bottom Side	10mm	4	26865	831.5	22.26	23.00	1.186	0.01	0.179	0.212
	LTE Band 26_Ant 1	15M	QPSK	1	0	Front	10mm	5	26865	831.5	21.27	22.00	1.183	0.14	0.131	0.155
	LTE Band 26_Ant 1	15M	QPSK	36	20	Front	10mm	5	26865	831.5	21.30	22.00	1.175	0.08	0.155	0.182
	LTE Band 26_Ant 1	15M	QPSK	1	0	Back	10mm	5	26865	831.5	21.27	22.00	1.183	-0.07	0.126	0.149
	LTE Band 26_Ant 1	15M	QPSK	36	20	Back	10mm	5	26865	831.5	21.30	22.00	1.175	-0.09	0.151	0.177
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Side	10mm	5	26865	831.5	21.27	22.00	1.183	-0.12	0.025	0.030
	LTE Band 26_Ant 1	15M	QPSK	36	20	Left Side	10mm	5	26865	831.5	21.30	22.00	1.175	0	0.024	0.028
	LTE Band 26_Ant 1	15M	QPSK	1	0	Right Side	10mm	5	26865	831.5	21.27	22.00	1.183	-0.15	0.142	0.168
	LTE Band 26_Ant 1	15M	QPSK	36	20	Right Side	10mm	5	26865	831.5	21.30	22.00	1.175	-0.18	0.154	0.181
	LTE Band 26_Ant 1	15M	QPSK	1	0	Bottom Side	10mm	5	26865	831.5	21.27	22.00	1.183	-0.15	0.117	0.138
	LTE Band 26_Ant 1	15M	QPSK	36	20	Bottom Side	10mm	5	26865	831.5	21.30	22.00	1.175	-0.12	0.132	0.155
	LTE Band 26_Ant 1	15M	QPSK	1	0	Front	10mm	6	26865	831.5	21.27	22.50	1.327	0.14	0.131	0.174
	LTE Band 26_Ant 1	15M	QPSK	36	20	Front	10mm	6	26865	831.5	21.30	22.50	1.318	0.08	0.155	0.204
	LTE Band 26_Ant 1	15M	QPSK	1	0	Back	10mm	6	26865	831.5	21.27	22.50	1.327	-0.07	0.126	0.167
	LTE Band 26_Ant 1	15M	QPSK	36	20	Back	10mm	6	26865	831.5	21.30	22.50	1.318	-0.09	0.151	0.199
	LTE Band 26_Ant 1	15M	QPSK	1	0	Left Side	10mm	6	26865	831.5	21.27	22.50	1.327	-0.12	0.025	0.033
	LTE Band 26_Ant 1	15M	QPSK	36	20	Left Side	10mm	6	26865	831.5	21.30	22.50	1.318	0	0.024	0.032
	LTE Band 26_Ant 1	15M	QPSK	1	0	Right Side	10mm	6	26865	831.5	21.27	22.50	1.327	-0.15	0.142	0.188
	LTE Band 26_Ant 1	15M	QPSK	36	20	Right Side	10mm	6	26865	831.5	21.30	22.50	1.318	-0.18	0.154	0.203
	LTE Band 26_Ant 1	15M	QPSK	1	0	Bottom Side	10mm	6	26865	831.5	21.27	22.50	1.327	-0.15	0.117	0.155
	LTE Band 26_Ant 1	15M	QPSK	36	20	Bottom Side	10mm	6	26865	831.5	21.30	22.50	1.318	-0.12	0.132	0.174
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	10mm	4	26865	831.5	23.24	24.00	1.191	-0.17	0.203	0.242
	LTE Band 26_Ant 0	15M	QPSK	36	20	Front	10mm	4	26865	831.5	22.22	23.00	1.197	-0.13	0.146	0.175
	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	10mm	4	26865	831.5	23.24	24.00	1.191	-0.05	0.354	0.422
	LTE Band 26_Ant 0	15M	QPSK	36	20	Back	10mm	4	26865	831.5	22.22	23.00	1.197	-0.02	0.257	0.308
31	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Side	10mm	4	26865	831.5	23.24	24.00	1.191	0.03	0.489	0.583
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Side	10mm	4	26865	831.5	22.22	23.00	1.197	0.03	0.350	0.419
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Side	10mm	4	26865	831.5	23.24	24.00	1.191	0.1	0.010	0.012
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Side	10mm	4	26865	831.5	22.22	23.00	1.197	0.12	0.007	0.009
	LTE Band 26_Ant 0	15M	QPSK	1	74	Top Side	10mm	4	26865	831.5	23.24	24.00	1.191	0.1	0.010	0.012
	LTE Band 26_Ant 0	15M	QPSK	36	20	Top Side	10mm	4	26865	831.5	22.22	23.00	1.197	-0.14	0.007	0.008
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	10mm	5	26865	831.5	22.14	23.00	1.219	-0.01	0.172	0.210
	LTE Band 26_Ant 0	15M	QPSK	36	20	Front	10mm	5	26865	831.5	22.20	23.00	1.202	0.12	0.153	0.184
	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	10mm	5	26865	831.5	22.14	23.00	1.219	0.16	0.276	0.336
	LTE Band 26_Ant 0	15M	QPSK	36	20	Back	10mm	5	26865	831.5	22.20	23.00	1.202	-0.13	0.256	0.308
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Side	10mm	5	26865	831.5	22.14	23.00	1.219	-0.08	0.382	0.466
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Side	10mm	5	26865	831.5	22.20	23.00	1.202	-0.02	0.348	0.418
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Side	10mm	5	26865	831.5	22.14	23.00	1.219	0.06	0.008	0.010
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Side	10mm	5	26865	831.5	22.20	23.00	1.202	0.09	0.007	0.008
	LTE Band 26_Ant 0	15M	QPSK	1	74	Top Side	10mm	5	26865	831.5	22.14	23.00	1.219	-0.02	0.006	0.007
	LTE Band 26_Ant 0	15M	QPSK	36	20	Top Side	10mm	5	26865	831.5	22.20	23.00	1.202	-0.01	0.004	0.005
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	10mm	6	26865	831.5	22.14	23.50	1.368	-0.01	0.172	0.235
	LTE Band 26_Ant 0	15M	QPSK	36	20	Front	10mm	6	26865	831.5	22.20	23.00	1.202	0.12	0.153	0.184
	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	10mm	6	26865	831.5	22.14	23.50	1.368	0.16	0.276	0.377
	LTE Band 26_Ant 0	15M	QPSK	36	20	Back	10mm	6	26865	831.5	22.20	23.00	1.202	-0.13	0.256	0.308
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Side	10mm	6	26865	831.5	22.14	23.50	1.368	-0.08	0.382	0.522
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Side	10mm	6	26865	831.5	22.20	23.00	1.202	-0.02	0.348	0.418
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Side	10mm	6	26865	831.5	22.14	23.50	1.368	0.06	0.008	0.011
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Side	10mm	6	26865	831.5	22.20	23.00	1.202	0.09	0.007	0.008
	LTE Band 26_Ant 0	15M	QPSK	1	74	Top Side	10mm	6	26865	831.5	22.14	23.50	1.368	-0.02	0.006	0.008
	LTE Band 26_Ant 0	15M	QPSK	36	20	Top Side	10mm	6	26865	831.5	22.20	23.00	1.202	-0.01	0.004	0.005



FCC SAR TEST REPORT

Report No. : FA020103

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 3	20M	QPSK	1	0	Front	10mm	4	132322	1745	21.07	22.00	1.239	-0.04	0.041	0.051
	LTE Band 66_Ant 3	20M	QPSK	50	24	Front	10mm	4	132322	1745	21.36	22.00	1.159	-0.04	0.048	0.056
	LTE Band 66_Ant 3	20M	QPSK	1	0	Back	10mm	4	132322	1745	21.07	22.00	1.239	0.04	0.040	0.050
	LTE Band 66_Ant 3	20M	QPSK	50	24	Back	10mm	4	132322	1745	21.36	22.00	1.159	0.07	0.047	0.054
	LTE Band 66_Ant 3	20M	QPSK	1	0	Left Side	10mm	4	132322	1745	21.07	22.00	1.239	-0.02	0.001	0.001
	LTE Band 66_Ant 3	20M	QPSK	50	24	Left Side	10mm	4	132322	1745	21.36	22.00	1.159	-0.1	0.016	0.019
	LTE Band 66_Ant 3	20M	QPSK	1	0	Right Side	10mm	4	132322	1745	21.07	22.00	1.239	-0.08	0.070	0.087
	LTE Band 66_Ant 3	20M	QPSK	50	24	Right Side	10mm	4	132322	1745	21.36	22.00	1.159	-0.06	0.083	0.096
	LTE Band 66_Ant 3	20M	QPSK	1	0	Bottom Side	10mm	4	132322	1745	21.07	22.00	1.239	-0.04	0.060	0.074
	LTE Band 66_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	4	132322	1745	21.36	22.00	1.159	-0.06	0.068	0.079
	LTE Band 66_Ant 3	20M	QPSK	1	0	Front	10mm	5	132572	1770	19.36	20.00	1.159	-0.15	0.028	0.032
	LTE Band 66_Ant 3	20M	QPSK	50	24	Front	10mm	5	132572	1770	19.45	20.00	1.135	-0.05	0.030	0.034
	LTE Band 66_Ant 3	20M	QPSK	1	0	Back	10mm	5	132572	1770	19.36	20.00	1.159	0.13	0.047	0.054
	LTE Band 66_Ant 3	20M	QPSK	50	24	Back	10mm	5	132572	1770	19.45	20.00	1.135	-0.02	0.049	0.056
	LTE Band 66_Ant 3	20M	QPSK	1	0	Left Side	10mm	5	132572	1770	19.36	20.00	1.159	0.12	0.008	0.010
	LTE Band 66_Ant 3	20M	QPSK	50	24	Left Side	10mm	5	132572	1770	19.45	20.00	1.135	-0.16	0.008	0.009
	LTE Band 66_Ant 3	20M	QPSK	1	0	Right Side	10mm	5	132572	1770	19.36	20.00	1.159	-0.01	0.070	0.081
	LTE Band 66_Ant 3	20M	QPSK	50	24	Right Side	10mm	5	132572	1770	19.45	20.00	1.135	-0.11	0.079	0.090
	LTE Band 66_Ant 3	20M	QPSK	1	0	Bottom Side	10mm	5	132572	1770	19.36	20.00	1.159	-0.17	0.063	0.073
	LTE Band 66_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	5	132572	1770	19.45	20.00	1.135	-0.02	0.062	0.070
	LTE Band 66_Ant 3	20M	QPSK	1	0	Front	10mm	6	132572	1770	19.36	20.50	1.300	-0.15	0.028	0.036
	LTE Band 66_Ant 3	20M	QPSK	50	24	Front	10mm	6	132572	1770	19.45	20.50	1.274	-0.05	0.030	0.038
	LTE Band 66_Ant 3	20M	QPSK	1	0	Back	10mm	6	132572	1770	19.36	20.50	1.300	0.13	0.047	0.061
	LTE Band 66_Ant 3	20M	QPSK	50	24	Back	10mm	6	132572	1770	19.45	20.50	1.274	-0.02	0.049	0.062
	LTE Band 66_Ant 3	20M	QPSK	1	0	Left Side	10mm	6	132572	1770	19.36	20.50	1.300	0.12	0.008	0.011
	LTE Band 66_Ant 3	20M	QPSK	50	24	Left Side	10mm	6	132572	1770	19.45	20.50	1.274	-0.16	0.008	0.010
	LTE Band 66_Ant 3	20M	QPSK	1	0	Right Side	10mm	6	132572	1770	19.36	20.50	1.300	-0.01	0.070	0.091
	LTE Band 66_Ant 3	20M	QPSK	50	24	Right Side	10mm	6	132572	1770	19.45	20.50	1.274	-0.11	0.079	0.101
	LTE Band 66_Ant 3	20M	QPSK	1	0	Bottom Side	10mm	6	132572	1770	19.36	20.50	1.300	-0.17	0.063	0.082
	LTE Band 66_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	6	132572	1770	19.45	20.50	1.274	-0.02	0.062	0.079
	LTE Band 66_Ant 2	20M	QPSK	1	49	Front	10mm	4	132572	1770	19.67	20.50	1.211	-0.08	0.370	0.448
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	10mm	4	132572	1770	19.77	20.50	1.183	-0.13	0.381	0.451
	LTE Band 66_Ant 2	20M	QPSK	1	49	Back	10mm	4	132572	1770	19.67	20.50	1.211	0.12	0.451	0.546
	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	10mm	4	132572	1770	19.77	20.50	1.183	-0.16	0.463	0.548
	LTE Band 66_Ant 2	20M	QPSK	1	49	Left Side	10mm	4	132572	1770	19.67	20.50	1.211	0.02	0.106	0.128
	LTE Band 66_Ant 2	20M	QPSK	50	24	Left Side	10mm	4	132572	1770	19.77	20.50	1.183	-0.03	0.103	0.122
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Side	10mm	4	132572	1770	19.67	20.50	1.211	-0.04	0.063	0.076
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Side	10mm	4	132572	1770	19.77	20.50	1.183	-0.08	0.065	0.077
	LTE Band 66_Ant 2	20M	QPSK	1	49	Top Side	10mm	4	132572	1770	19.67	20.50	1.211	0.04	0.685	0.829
	LTE Band 66_Ant 2	20M	QPSK	1	49	Top Side	10mm	4	132072	1720	19.50	20.50	1.259	0.04	0.556	0.700
	LTE Band 66_Ant 2	20M	QPSK	1	49	Top Side	10mm	4	132322	1745	19.53	20.50	1.250	0.01	0.633	0.791
	LTE Band 66_Ant 2	20M	QPSK	50	24	Top Side	10mm	4	132572	1770	19.77	20.50	1.183	0.04	0.706	0.835
	LTE Band 66_Ant 2	20M	QPSK	50	24	Top Side	10mm	4	132072	1720	19.73	20.50	1.194	-0.04	0.582	0.695
	LTE Band 66_Ant 2	20M	QPSK	50	24	Top Side	10mm	4	132322	1745	19.66	20.50	1.213	0.02	0.646	0.784
32	LTE Band 66_Ant 2	20M	QPSK	100	0	Top Side	10mm	4	132572	1770	19.70	20.50	1.202	0.04	0.695	0.836
	LTE Band 66_Ant 2	20M	QPSK	1	49	Front	10mm	5	132572	1770	17.69	18.50	1.205	0.01	0.273	0.329
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	10mm	5	132572	1770	17.84	18.50	1.164	0.12	0.276	0.321
	LTE Band 66_Ant 2	20M	QPSK	1	49	Back	10mm	5	132572	1770	17.69	18.50	1.205	0.09	0.301	0.363
	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	10mm	5	132572	1770	17.84	18.50	1.164	-0.05	0.305	0.355
	LTE Band 66_Ant 2	20M	QPSK	1	49	Left Side	10mm	5	132572	1770	17.69	18.50	1.205	-0.03	0.066	0.080
	LTE Band 66_Ant 2	20M	QPSK	50	24	Left Side	10mm	5	132572	1770	17.84	18.50	1.164	0	0.062	0.072
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Side	10mm	5	132572	1770	17.69	18.50	1.205	0.01	0.041	0.049
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Side	10mm	5	132572	1770	17.84	18.50	1.164	0.07	0.040	0.047



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	LTE Band 66_Ant 2	20M	QPSK	1	49	Top Side	10mm	5	132572	1770	17.69	18.50	1.205	-0.02	0.412	0.496
	LTE Band 66_Ant 2	20M	QPSK	50	24	Top Side	10mm	5	132572	1770	17.84	18.50	1.164	0.1	0.442	0.515
	LTE Band 66_Ant 2	20M	QPSK	1	49	Front	10mm	6	132572	1770	17.69	19.00	1.352	0.01	0.273	0.369
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	10mm	6	132572	1770	17.84	19.00	1.306	0.12	0.276	0.361
	LTE Band 66_Ant 2	20M	QPSK	1	49	Back	10mm	6	132572	1770	17.69	19.00	1.352	0.09	0.301	0.407
	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	10mm	6	132572	1770	17.84	19.00	1.306	-0.05	0.305	0.398
	LTE Band 66_Ant 2	20M	QPSK	1	49	Left Side	10mm	6	132572	1770	17.69	19.00	1.352	-0.03	0.066	0.089
	LTE Band 66_Ant 2	20M	QPSK	50	24	Left Side	10mm	6	132572	1770	17.84	19.00	1.306	0	0.062	0.081
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Side	10mm	6	132572	1770	17.69	19.00	1.352	0.01	0.041	0.055
	LTE Band 66_Ant 2	20M	QPSK	50	24	Right Side	10mm	6	132572	1770	17.84	19.00	1.306	0.07	0.040	0.052
	LTE Band 66_Ant 2	20M	QPSK	1	49	Top Side	10mm	6	132572	1770	17.69	19.00	1.352	-0.02	0.412	0.557
	LTE Band 66_Ant 2	20M	QPSK	50	24	Top Side	10mm	6	132572	1770	17.84	19.00	1.306	0.1	0.442	0.577



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 38_Ant 3	20M	QPSK	1	49	Front	10mm	4	38000	2595	22.93	23.50	1.140	62.9	1.006	-0.03	0.225	0.258
	LTE Band 38_Ant 3	20M	QPSK	50	24	Front	10mm	4	38000	2595	22.98	23.50	1.127	62.9	1.006	0.07	0.222	0.252
	LTE Band 38_Ant 3	20M	QPSK	1	49	Back	10mm	4	38000	2595	22.93	23.50	1.140	62.9	1.006	0.17	0.277	0.318
	LTE Band 38_Ant 3	20M	QPSK	50	24	Back	10mm	4	38000	2595	22.98	23.50	1.127	62.9	1.006	0.01	0.160	0.181
	LTE Band 38_Ant 3	20M	QPSK	1	49	Left Side	10mm	4	38000	2595	22.93	23.50	1.140	62.9	1.006	0	0.001	0.001
	LTE Band 38_Ant 3	20M	QPSK	50	24	Left Side	10mm	4	38000	2595	22.98	23.50	1.127	62.9	1.006	-0.08	0.002	0.002
	LTE Band 38_Ant 3	20M	QPSK	1	49	Right Side	10mm	4	38000	2595	22.93	23.50	1.140	62.9	1.006	-0.04	0.387	0.444
	LTE Band 38_Ant 3	20M	QPSK	50	24	Right Side	10mm	4	38000	2595	22.98	23.50	1.127	62.9	1.006	-0.02	0.386	0.438
	LTE Band 38_Ant 3	20M	QPSK	1	49	Bottom Side	10mm	4	38000	2595	22.93	23.50	1.140	62.9	1.006	-0.08	0.092	0.106
	LTE Band 38_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	4	38000	2595	22.98	23.50	1.127	62.9	1.006	-0.06	0.093	0.105
	LTE Band 38C_Ant 3	20M	QPSK	1	0	Right Side	10mm	4	37850+38048	2580	19.73	21.5	1.503	62.9	1.006	0.07	0.181	0.274
	LTE Band 38_Ant 3	20M	QPSK	1	49	Front	10mm	5	38000	2595	20.47	21.00	1.130	62.9	1.006	0.04	0.133	0.151
	LTE Band 38_Ant 3	20M	QPSK	50	24	Front	10mm	5	38000	2595	20.49	21.00	1.125	62.9	1.006	0.18	0.133	0.150
	LTE Band 38_Ant 3	20M	QPSK	1	49	Back	10mm	5	38000	2595	20.47	21.00	1.130	62.9	1.006	-0.05	0.149	0.169
	LTE Band 38_Ant 3	20M	QPSK	50	24	Back	10mm	5	38000	2595	20.49	21.00	1.125	62.9	1.006	-0.1	0.151	0.171
	LTE Band 38_Ant 3	20M	QPSK	1	49	Left Side	10mm	5	38000	2595	20.47	21.00	1.130	62.9	1.006	-0.05	0.008	0.009
	LTE Band 38_Ant 3	20M	QPSK	50	24	Left Side	10mm	5	38000	2595	20.49	21.00	1.125	62.9	1.006	0.04	0.008	0.009
	LTE Band 38_Ant 3	20M	QPSK	1	49	Right Side	10mm	5	38000	2595	20.47	21.00	1.130	62.9	1.006	0.01	0.362	0.411
	LTE Band 38_Ant 3	20M	QPSK	50	24	Right Side	10mm	5	38000	2595	20.49	21.00	1.125	62.9	1.006	0.02	0.369	0.417
	LTE Band 38_Ant 3	20M	QPSK	1	49	Bottom Side	10mm	5	38000	2595	20.47	21.00	1.130	62.9	1.006	0	0.091	0.103
	LTE Band 38_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	5	38000	2595	20.49	21.00	1.125	62.9	1.006	0.08	0.090	0.102
	LTE Band 38C_Ant 3	20M	QPSK	1	0	Right Side	10mm	5	37850+38048	2580	18.45	20.00	1.429	62.9	1.006	0.07	0.220	0.316
	LTE Band 38_Ant 3	20M	QPSK	1	49	Front	10mm	6	38000	2595	20.47	21.50	1.268	62.9	1.006	0.04	0.133	0.170
	LTE Band 38_Ant 3	20M	QPSK	50	24	Front	10mm	6	38000	2595	20.49	21.50	1.262	62.9	1.006	0.18	0.133	0.169
	LTE Band 38_Ant 3	20M	QPSK	1	49	Back	10mm	6	38000	2595	20.47	21.50	1.268	62.9	1.006	-0.05	0.149	0.190
	LTE Band 38_Ant 3	20M	QPSK	50	24	Back	10mm	6	38000	2595	20.49	21.50	1.262	62.9	1.006	-0.1	0.151	0.192
	LTE Band 38_Ant 3	20M	QPSK	1	49	Left Side	10mm	6	38000	2595	20.47	21.50	1.268	62.9	1.006	-0.05	0.008	0.010
	LTE Band 38_Ant 3	20M	QPSK	50	24	Left Side	10mm	6	38000	2595	20.49	21.50	1.262	62.9	1.006	0.04	0.008	0.010
	LTE Band 38_Ant 3	20M	QPSK	1	49	Right Side	10mm	6	38000	2595	20.47	21.50	1.268	62.9	1.006	0.01	0.362	0.462
	LTE Band 38_Ant 3	20M	QPSK	50	24	Right Side	10mm	6	38000	2595	20.49	21.50	1.262	62.9	1.006	0.02	0.369	0.468
	LTE Band 38_Ant 3	20M	QPSK	1	49	Bottom Side	10mm	6	38000	2595	20.47	21.50	1.268	62.9	1.006	0	0.091	0.116
	LTE Band 38_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	6	38000	2595	20.49	21.50	1.262	62.9	1.006	0.08	0.090	0.114
	LTE Band 38C_Ant 3	20M	QPSK	1	0	Right Side	10mm	6	37850+38048	2580	19.01	21.00	1.581	62.9	1.006	0.06	0.250	0.398
	LTE Band 38_Ant 0	20M	QPSK	50	24	Front	10mm	5	38000	2595	19.37	20.00	1.156	62.9	1.006	0.1	0.139	0.162
	LTE Band 38_Ant 0	20M	QPSK	1	0	Back	10mm	5	38000	2595	19.40	20.00	1.148	62.9	1.006	-0.15	0.211	0.244
	LTE Band 38_Ant 0	20M	QPSK	50	24	Back	10mm	5	38000	2595	19.37	20.00	1.156	62.9	1.006	-0.12	0.203	0.236
	LTE Band 38_Ant 0	20M	QPSK	1	0	Left Side	10mm	5	38000	2595	19.40	20.00	1.148	62.9	1.006	-0.08	0.399	0.461
	LTE Band 38_Ant 0	20M	QPSK	50	24	Left Side	10mm	5	38000	2595	19.37	20.00	1.156	62.9	1.006	-0.04	0.384	0.447
	LTE Band 38_Ant 0	20M	QPSK	1	0	Right Side	10mm	5	38000	2595	19.40	20.00	1.148	62.9	1.006	0.06	0.001	0.001
	LTE Band 38_Ant 0	20M	QPSK	50	24	Right Side	10mm	5	38000	2595	19.37	20.00	1.156	62.9	1.006	-0.07	0.001	0.001
	LTE Band 38_Ant 0	20M	QPSK	1	0	Top Side	10mm	5	38000	2595	19.40	20.00	1.148	62.9	1.006	-0.11	0.028	0.032
	LTE Band 38_Ant 0	20M	QPSK	50	24	Top Side	10mm	5	38000	2595	19.37	20.00	1.156	62.9	1.006	-0.08	0.028	0.033
	LTE Band 38_Ant 0	20M	QPSK	1	0	Front	10mm	6	38000	2595	19.40	20.50	1.288	62.9	1.006	-0.07	0.148	0.192
	LTE Band 38_Ant 0	20M	QPSK	50	24	Front	10mm	6	38000	2595	19.37	20.50	1.297	62.9	1.006	0.1	0.139	0.181
	LTE Band 38_Ant 0	20M	QPSK	1	0	Back	10mm	6	38000	2595	19.40	20.50	1.288	62.9	1.006	-0.15	0.211	0.273
	LTE Band 38_Ant 0	20M	QPSK	50	24	Back	10mm	6	38000	2595	19.37	20.50	1.297	62.9	1.006	-0.12	0.203	0.265
33	LTE Band 38_Ant 0	20M	QPSK	1	0	Left Side	10mm	6	38000	2595	19.40	20.50	1.288	62.9	1.006	-0.08	0.399	0.517
	LTE Band 38_Ant 0	20M	QPSK	50	24	Left Side	10mm	6	38000	2595	19.37	20.50	1.297	62.9	1.006	-0.04	0.384	0.501
	LTE Band 38_Ant 0	20M	QPSK	1	0	Right Side	10mm	6	38000	2595	19.40	20.50	1.288	62.9	1.006	0.06	0.001	0.001
	LTE Band 38_Ant 0	20M	QPSK	50	24	Right Side	10mm	6	38000	2595	19.37	20.50	1.297	62.9	1.006	-0.07	0.001	0.001
	LTE Band 38_Ant 0	20M	QPSK	1	0	Top Side	10mm	6	38000	2595	19.40	20.50	1.288	62.9	1.006	-0.11	0.028	0.036
	LTE Band 38_Ant 0	20M	QPSK	50	24	Top Side	10mm	6	38000	2595	19.37	20.50	1.297	62.9	1.006	-0.08	0.028	0.037
	LTE Band 38_Ant 0	20M	QPSK	1	0	Front	10mm	5	38000	2595	19.40	20.00	1.148	62.9	1.006	-0.07	0.148	0.171



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Report No. : FA020103

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41_Ant 3	20M	QPSK	1	49	Front	10mm	4	40620	2593	21.57	22.00	1.104	62.9	1.006	0.12	0.156	0.173
	LTE Band 41_Ant 3	20M	QPSK	50	24	Front	10mm	4	40620	2593	21.68	22.00	1.076	62.9	1.006	-0.07	0.161	0.174
	LTE Band 41_Ant 3	20M	QPSK	1	49	Back	10mm	4	40620	2593	21.57	22.00	1.104	62.9	1.006	0.12	0.193	0.214
	LTE Band 41_Ant 3	20M	QPSK	50	24	Back	10mm	4	40620	2593	21.68	22.00	1.076	62.9	1.006	0.07	0.196	0.212
	LTE Band 41_Ant 3	20M	QPSK	1	49	Left Side	10mm	4	40620	2593	21.57	22.00	1.104	62.9	1.006	0.19	0.005	0.006
	LTE Band 41_Ant 3	20M	QPSK	50	24	Left Side	10mm	4	40620	2593	21.68	22.00	1.076	62.9	1.006	0.18	0.006	0.006
	LTE Band 41_Ant 3	20M	QPSK	1	49	Right Side	10mm	4	40620	2593	21.57	22.00	1.104	62.9	1.006	-0.14	0.433	0.481
	LTE Band 41_Ant 3	20M	QPSK	50	24	Right Side	10mm	4	40620	2593	21.68	22.00	1.076	62.9	1.006	-0.19	0.442	0.479
	LTE Band 41_Ant 3	20M	QPSK	1	49	Bottom Side	10mm	4	40620	2593	21.57	22.00	1.104	62.9	1.006	-0.01	0.121	0.134
	LTE Band 41_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	4	40620	2593	21.68	22.00	1.076	62.9	1.006	-0.01	0.119	0.129
	LTE Band 41_Ant 3_HPUE	20M	QPSK	1	49	Right Side	10mm	4	40620	2593	21.45	22.00	1.135	42.9	1.009	-0.15	0.280	0.321
	LTE Band 41C_Ant 3	20M	QPSK	1	0	Right Side	10mm	4	39750+39948	2506	19.64	21.50	1.535	62.9	1.006	0.07	0.262	0.404
	LTE Band 41_Ant 3	20M	QPSK	1	49	Front	10mm	5	40620	2593	20.08	20.50	1.102	62.9	1.006	-0.12	0.101	0.112
	LTE Band 41_Ant 3	20M	QPSK	50	24	Front	10mm	5	40620	2593	20.17	20.50	1.079	62.9	1.006	0.07	0.104	0.113
	LTE Band 41_Ant 3	20M	QPSK	1	49	Back	10mm	5	40620	2593	20.08	20.50	1.102	62.9	1.006	-0.1	0.122	0.135
	LTE Band 41_Ant 3	20M	QPSK	50	24	Back	10mm	5	40620	2593	20.17	20.50	1.079	62.9	1.006	-0.08	0.126	0.137
	LTE Band 41_Ant 3	20M	QPSK	1	49	Left Side	10mm	5	40620	2593	20.08	20.50	1.102	62.9	1.006	0.04	0.001	0.001
	LTE Band 41_Ant 3	20M	QPSK	50	24	Left Side	10mm	5	40620	2593	20.17	20.50	1.079	62.9	1.006	0.05	0.001	0.001
	LTE Band 41_Ant 3	20M	QPSK	1	49	Right Side	10mm	5	40620	2593	20.08	20.50	1.102	62.9	1.006	0.05	0.300	0.332
	LTE Band 41_Ant 3	20M	QPSK	50	24	Right Side	10mm	5	40620	2593	20.17	20.50	1.079	62.9	1.006	0.18	0.308	0.334
	LTE Band 41_Ant 3	20M	QPSK	1	49	Bottom Side	10mm	5	40620	2593	20.08	20.50	1.102	62.9	1.006	0.01	0.082	0.091
	LTE Band 41_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	5	40620	2593	20.17	20.50	1.079	62.9	1.006	0.09	0.071	0.077
	LTE Band 41_Ant 3_HPUE	20M	QPSK	1	49	Right Side	10mm	5	40620	2593	19.95	20.50	1.135	42.9	1.009	0.03	0.190	0.218
	LTE Band 41C_Ant 3	20M	QPSK	1	0	Right Side	10mm	5	39750+39948	2506	18.65	20.5	1.531	62.9	1.006	0.06	0.208	0.320
	LTE Band 41_Ant 3	20M	QPSK	1	49	Front	10mm	6	40620	2593	20.08	21.00	1.236	62.9	1.006	-0.12	0.101	0.126
	LTE Band 41_Ant 3	20M	QPSK	50	24	Front	10mm	6	40620	2593	20.17	21.00	1.211	62.9	1.006	0.07	0.104	0.127
	LTE Band 41_Ant 3	20M	QPSK	1	49	Back	10mm	6	40620	2593	20.08	21.00	1.236	62.9	1.006	-0.1	0.122	0.152
	LTE Band 41_Ant 3	20M	QPSK	50	24	Back	10mm	6	40620	2593	20.17	21.00	1.211	62.9	1.006	-0.08	0.126	0.153
	LTE Band 41_Ant 3	20M	QPSK	1	49	Left Side	10mm	6	40620	2593	20.08	21.00	1.236	62.9	1.006	0.04	0.001	0.001
	LTE Band 41_Ant 3	20M	QPSK	50	24	Left Side	10mm	6	40620	2593	20.17	21.00	1.211	62.9	1.006	0.05	0.001	0.001
	LTE Band 41_Ant 3	20M	QPSK	1	49	Right Side	10mm	6	40620	2593	20.08	21.00	1.236	62.9	1.006	0.05	0.300	0.373
	LTE Band 41_Ant 3	20M	QPSK	50	24	Right Side	10mm	6	40620	2593	20.17	21.00	1.211	62.9	1.006	0.18	0.308	0.375
	LTE Band 41_Ant 3	20M	QPSK	1	49	Bottom Side	10mm	6	40620	2593	20.08	21.00	1.236	62.9	1.006	0.01	0.082	0.102
	LTE Band 41_Ant 3	20M	QPSK	50	24	Bottom Side	10mm	6	40620	2593	20.17	21.00	1.211	62.9	1.006	0.09	0.071	0.086
	LTE Band 41_Ant 3_HPUE	20M	QPSK	1	49	Right Side	10mm	6	40620	2593	19.95	21.00	1.274	42.9	1.009	0.03	0.190	0.244
	LTE Band 41C_Ant 3	20M	QPSK	1	0	Right Side	10mm	6	39750+39948	2506	19.17	21.00	1.524	62.9	1.006	0.05	0.234	0.359
	LTE Band 41_Ant 2	20M	QPSK	1	49	Front	10mm	4	40620	2593	19.83	20.50	1.167	62.9	1.006	-0.06	0.224	0.263
	LTE Band 41_Ant 2	20M	QPSK	50	24	Front	10mm	4	40620	2593	19.95	20.50	1.135	62.9	1.006	-0.06	0.231	0.264
	LTE Band 41_Ant 2	20M	QPSK	1	49	Back	10mm	4	40620	2593	19.83	20.50	1.167	62.9	1.006	-0.1	0.359	0.421
	LTE Band 41_Ant 2	20M	QPSK	50	24	Back	10mm	4	40620	2593	19.95	20.50	1.135	62.9	1.006	-0.09	0.363	0.414
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Side	10mm	4	40620	2593	19.83	20.50	1.167	62.9	1.006	-0.15	0.102	0.120
	LTE Band 41_Ant 2	20M	QPSK	50	24	Left Side	10mm	4	40620	2593	19.95	20.50	1.135	62.9	1.006	0.03	0.105	0.120
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Side	10mm	4	40620	2593	19.83	20.50	1.167	62.9	1.006	-0.05	0.032	0.037
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Side	10mm	4	40620	2593	19.95	20.50	1.135	62.9	1.006	0.02	0.033	0.038
	LTE Band 41_Ant 2	20M	QPSK	1	49	Top Side	10mm	4	40620	2593	19.83	20.50	1.167	62.9	1.006	-0.02	0.591	0.694
	LTE Band 41_Ant 2	20M	QPSK	1	49	Top Side	10mm	4	39750	2506	19.78	20.50	1.180	62.9	1.006	-0.04	0.561	0.666
	LTE Band 41_Ant 2	20M	QPSK	1	49	Top Side	10mm	4	40185	2549.5	19.8	20.50	1.175	62.9	1.006	-0.03	0.484	0.572
	LTE Band 41_Ant 2	20M	QPSK	1	49	Top Side	10mm	4	41055	2636.5	19.76	20.50	1.186	62.9	1.006	-0.01	0.684	0.816
	LTE Band 41_Ant 2	20M	QPSK	1	49	Top Side	10mm	4	41490	2680	19.74	20.50	1.191	62.9	1.006	-0.11	0.563	0.675
	LTE Band 41_Ant 2	20M	QPSK	50	24	Top Side	10mm	4	40620	2593	19.95	20.50	1.135	62.9	1.006	-0.01	0.602	0.687
	LTE Band 41_Ant 2	20M	QPSK	50	24	Top Side	10mm	4	39750	2506	19.82	20.50	1.169	62.9	1.006	-0.06	0.583	0.686
	LTE Band 41_Ant 2	20M	QPSK	50	24	Top Side	10mm	4	40185	2549.5	19.84	20.50	1.164	62.9	1.006	-0.18	0.492	0.576



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	LTE Band 41_Ant 2	20M	QPSK	50	24	Top Side	10mm	4	41055	2636.5	19.73	20.50	1.194	62.9	1.006	0	0.685	0.823
	LTE Band 41_Ant 2	20M	QPSK	50	24	Top Side	10mm	4	41490	2680	19.79	20.50	1.178	62.9	1.006	-0.13	0.570	0.675
	LTE Band 41_Ant 2	20M	QPSK	100	0	Top Side	10mm	4	40620	2593	19.85	20.50	1.161	62.9	1.006	0.02	0.599	0.700
	LTE Band 41_Ant 2_HPUE	20M	QPSK	50	24	Top Side	10mm	4	41055	2636.5	19.73	20.50	1.194	42.9	1.009	0.05	0.455	0.548
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Top Side	10mm	4	39750+39948	2506	19.65	20.50	1.216	62.9	1.006	-0.11	0.658	0.805
	LTE Band 41_Ant 2	20M	QPSK	1	49	Front	10mm	5	40620	2593	18.82	19.50	1.169	62.9	1.006	0.12	0.159	0.187
	LTE Band 41_Ant 2	20M	QPSK	50	24	Front	10mm	5	40620	2593	18.92	19.50	1.143	62.9	1.006	0.02	0.166	0.191
	LTE Band 41_Ant 2	20M	QPSK	1	49	Back	10mm	5	40620	2593	18.82	19.50	1.169	62.9	1.006	-0.17	0.203	0.239
	LTE Band 41_Ant 2	20M	QPSK	50	24	Back	10mm	5	40620	2593	18.92	19.50	1.143	62.9	1.006	0.08	0.207	0.238
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Side	10mm	5	40620	2593	18.82	19.50	1.169	62.9	1.006	-0.11	0.065	0.076
	LTE Band 41_Ant 2	20M	QPSK	50	24	Left Side	10mm	5	40620	2593	18.92	19.50	1.143	62.9	1.006	-0.13	0.063	0.072
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Side	10mm	5	40620	2593	18.82	19.50	1.169	62.9	1.006	0.02	0.001	0.001
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Side	10mm	5	40620	2593	18.92	19.50	1.143	62.9	1.006	0.09	0.001	0.001
	LTE Band 41_Ant 2	20M	QPSK	1	49	Top Side	10mm	5	40620	2560	18.82	19.50	1.169	62.9	1.006	0.14	0.472	0.555
	LTE Band 41_Ant 2	20M	QPSK	50	24	Top Side	10mm	5	40620	2593	18.92	19.50	1.143	62.9	1.006	-0.18	0.469	0.539
	LTE Band 41_Ant 2_HPUE	20M	QPSK	1	49	Top Side	10mm	5	40620	2593	18.73	19.50	1.194	42.9	1.009	0.09	0.293	0.353
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Top Side	10mm	5	39750+39948	2506	18.67	19.50	1.211	62.9	1.006	0.05	0.436	0.531
	LTE Band 41_Ant 2	20M	QPSK	1	49	Front	10mm	6	40620	2593	18.82	20.00	1.312	62.9	1.006	0.12	0.159	0.210
	LTE Band 41_Ant 2	20M	QPSK	50	24	Front	10mm	6	40620	2593	18.92	20.00	1.282	62.9	1.006	0.06	0.166	0.214
	LTE Band 41_Ant 2	20M	QPSK	1	49	Back	10mm	6	40620	2593	18.82	20.00	1.312	62.9	1.006	0.07	0.203	0.268
	LTE Band 41_Ant 2	20M	QPSK	50	24	Back	10mm	6	40620	2593	18.92	20.00	1.282	62.9	1.006	-0.08	0.207	0.267
	LTE Band 41_Ant 2	20M	QPSK	1	49	Left Side	10mm	6	40620	2593	18.82	20.00	1.312	62.9	1.006	0.15	0.065	0.086
	LTE Band 41_Ant 2	20M	QPSK	50	24	Left Side	10mm	6	40620	2593	18.92	20.00	1.282	62.9	1.006	-0.07	0.063	0.081
	LTE Band 41_Ant 2	20M	QPSK	1	49	Right Side	10mm	6	40620	2593	18.82	20.00	1.312	62.9	1.006	0.12	0.001	0.001
	LTE Band 41_Ant 2	20M	QPSK	50	24	Right Side	10mm	6	40620	2593	18.92	20.00	1.282	62.9	1.006	0.17	0.001	0.001
	LTE Band 41_Ant 2	20M	QPSK	1	49	Top Side	10mm	6	40620	2560	18.82	20.00	1.312	62.9	1.006	0.14	0.472	0.623
	LTE Band 41_Ant 2	20M	QPSK	50	24	Top Side	10mm	6	40620	2593	18.92	20.00	1.282	62.9	1.006	-0.09	0.469	0.605
	LTE Band 41_Ant 2_HPUE	20M	QPSK	1	49	Top Side	10mm	6	40620	2593	18.73	20.00	1.340	42.9	1.009	0.01	0.293	0.396
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Top Side	10mm	6	39750+39948	2506	19.16	20.00	1.213	62.9	1.006	0.05	0.492	0.601
	LTE Band 41_Ant 0	20M	QPSK	1	49	Front	10mm	4	40620	2593	21.37	22.00	1.156	62.9	1.006	0.06	0.248	0.288
	LTE Band 41_Ant 0	20M	QPSK	50	24	Front	10mm	4	40620	2593	21.47	22.00	1.130	62.9	1.006	0.01	0.246	0.280
	LTE Band 41_Ant 0	20M	QPSK	1	49	Back	10mm	4	40620	2593	21.37	22.00	1.156	62.9	1.006	0.18	0.373	0.434
	LTE Band 41_Ant 0	20M	QPSK	50	24	Back	10mm	4	40620	2593	21.47	22.00	1.130	62.9	1.006	-0.03	0.387	0.440
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Side	10mm	4	40620	2593	21.37	22.00	1.156	62.9	1.006	0.1	0.673	0.783
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Side	10mm	4	39750	2506	21.36	22.00	1.159	62.9	1.006	0.13	0.739	0.861
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Side	10mm	4	40185	2549.5	21.33	22.00	1.167	62.9	1.006	0.17	0.734	0.862
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Side	10mm	4	41055	2636.5	21.25	22.00	1.189	62.9	1.006	0.11	0.591	0.707
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Side	10mm	4	41490	2680	21.28	22.00	1.180	62.9	1.006	0.1	0.619	0.735
	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Side	10mm	4	40620	2593	21.47	22.00	1.130	62.9	1.006	0.16	0.696	0.791
34	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Side	10mm	4	39750	2506	21.44	22.00	1.138	62.9	1.006	0.19	0.775	0.887
	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Side	10mm	4	40185	2549.5	21.38	22.00	1.153	62.9	1.006	0.13	0.754	0.875
	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Side	10mm	4	41055	2636.5	21.28	22.00	1.180	62.9	1.006	0.09	0.601	0.714
	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Side	10mm	4	41490	2680	21.34	22.00	1.164	62.9	1.006	0.13	0.622	0.728
	LTE Band 41_Ant 0	20M	QPSK	100	0	Left Side	10mm	4	40620	2593	21.36	22.00	1.159	62.9	1.006	0.11	0.682	0.795
	LTE Band 41_Ant 0	20M	QPSK	1	49	Right Side	10mm	4	40620	2593	21.37	22.00	1.156	62.9	1.006	-0.06	0.001	0.001
	LTE Band 41_Ant 0	20M	QPSK	50	24	Right Side	10mm	4	40620	2593	21.47	22.00	1.130	62.9	1.006	-0.07	0.001	0.001
	LTE Band 41_Ant 0	20M	QPSK	1	49	Top Side	10mm	4	40620	2593	21.37	22.00	1.156	62.9	1.006	0.04	0.056	0.065
	LTE Band 41_Ant 0	20M	QPSK	50	24	Top Side	10mm	4	40620	2593	21.47	22.00	1.130	62.9	1.006	-0.04	0.058	0.066
	LTE Band 41_Ant 0_HPUE	20M	QPSK	1	0	Left Side	10mm	4	39750	2506	21.30	22.00	1.175	42.9	1.009	0.09	0.465	0.551
	LTE Band 41_Ant 0	20M	QPSK	1	49	Front	10mm	5	40620	2593	18.45	19.00	1.135	62.9	1.006	-0.15	0.117	0.134
	LTE Band 41_Ant 0	20M	QPSK	50	24	Front	10mm	5	40620	2593	18.53	19.00	1.114	62.9	1.006	0.1	0.118	0.132
	LTE Band 41_Ant 0	20M	QPSK	1	49	Back	10mm	5	40620	2593	18.45	19.00	1.135	62.9	1.006	-0.18	0.167	0.191
	LTE Band 41_Ant 0	20M	QPSK	50	24	Back	10mm	5	40620	2593	18.53	19.00	1.114	62.9	1.006	-0.17	0.169	0.189
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Side	10mm	5	40620	2593	18.45	19.00	1.135	62.9	1.006	-0.05	0.315	0.360
	LTE Band 41_Ant 0	20M	QPSK	50	24	Left Side	10mm	5	40620	2593	18.53	19.00	1.114	62.9	1.006	-0.04	0.320	0.359
	LTE Band 41_Ant 0	20M	QPSK	1	49	Right Side	10mm	5	40620	2593	18.45	19.00	1.135	62.9	1.006	-0.08	0.001	0.001



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LTE Band 41_Ant 0	20M	QPSK	50	24	Right Side	10mm	5	40620	2593	18.53	19.00	1.114	62.9	1.006	0.05	0.001	0.001
LTE Band 41_Ant 0	20M	QPSK	1	49	Top Side	10mm	5	40620	2593	18.45	19.00	1.135	62.9	1.006	0	0.027	0.031
LTE Band 41_Ant 0	20M	QPSK	50	24	Top Side	10mm	5	40620	2593	18.53	19.00	1.114	62.9	1.006	0.01	0.029	0.033
LTE Band 41_Ant 0_HPUE	20M	QPSK	1	49	Left Side	10mm	5	40620;HPUE	2593	18.30	19.00	1.175	42.9	1.009	-0.07	0.194	0.230
LTE Band 41_Ant 0	20M	QPSK	1	49	Front	10mm	6	40620	2593	18.45	19.50	1.274	62.9	1.006	-0.15	0.117	0.150
LTE Band 41_Ant 0	20M	QPSK	50	24	Front	10mm	6	40620	2593	18.53	19.50	1.250	62.9	1.006	0.1	0.118	0.148
LTE Band 41_Ant 0	20M	QPSK	1	49	Back	10mm	6	40620	2593	18.45	19.50	1.274	62.9	1.006	-0.18	0.167	0.214
LTE Band 41_Ant 0	20M	QPSK	50	24	Back	10mm	6	40620	2593	18.53	19.50	1.250	62.9	1.006	-0.17	0.169	0.213
LTE Band 41_Ant 0	20M	QPSK	1	49	Left Side	10mm	6	40620	2593	18.45	19.50	1.274	62.9	1.006	-0.05	0.315	0.404
LTE Band 41_Ant 0	20M	QPSK	50	24	Left Side	10mm	6	40620	2593	18.53	19.50	1.250	62.9	1.006	-0.04	0.320	0.402
LTE Band 41_Ant 0	20M	QPSK	1	49	Right Side	10mm	6	40620	2593	18.45	19.50	1.274	62.9	1.006	-0.08	0.001	0.001
LTE Band 41_Ant 0	20M	QPSK	50	24	Right Side	10mm	6	40620	2593	18.53	19.50	1.250	62.9	1.006	0.05	0.001	0.001
LTE Band 41_Ant 0	20M	QPSK	1	49	Top Side	10mm	6	40620	2593	18.45	19.50	1.274	62.9	1.006	0	0.027	0.035
LTE Band 41_Ant 0	20M	QPSK	50	24	Top Side	10mm	6	40620	2593	18.53	19.50	1.250	62.9	1.006	0.01	0.029	0.036
LTE Band 41_Ant 0_HPUE	20M	QPSK	1	49	Left Side	10mm	6	40620	2593	18.30	19.50	1.318	42.9	1.009	-0.07	0.194	0.258

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
35	WLAN2.4GHz-	802.11b 1Mbps	Front	10mm	Ant 1+2	4	6	2437	21.86	22.00	1.033	100	1.000	-0.02	0.205	0.212
	WLAN2.4GHz-	802.11b 1Mbps	Back	10mm	Ant 1+2	4	6	2437	21.86	22.00	1.033	100	1.000	-0.15	0.748	0.773
	WLAN2.4GHz-	802.11b 1Mbps	Left Side	10mm	Ant 1+2	4	6	2437	21.86	22.00	1.033	100	1.000	0.14	0.032	0.033
	WLAN2.4GHz-	802.11b 1Mbps	Right Side	10mm	Ant 1+2	4	6	2437	21.86	22.00	1.033	100	1.000	0.09	0.140	0.145
	WLAN2.4GHz-	802.11b 1Mbps	Top Side	10mm	Ant 1+2	4	6	2437	21.86	22.00	1.033	100	1.000	0.02	0.369	0.381
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 1+2	5	11	2462	19.81	20.00	1.045	100	1.000	0.04	0.119	0.124
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	5	11	2462	19.81	20.00	1.045	100	1.000	0.11	0.416	0.435
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 1+2	5	11	2462	19.81	20.00	1.045	100	1.000	0.09	0.018	0.019
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	5	11	2462	19.81	20.00	1.045	100	1.000	0.07	0.073	0.077
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1+2	5	11	2462	19.81	20.00	1.045	100	1.000	0.12	0.209	0.218
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 1+2	6	6	2437	18.41	18.50	1.021	100	1.000	0.11	0.091	0.093
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	6	6	2437	18.41	18.50	1.021	100	1.000	0.09	0.358	0.365
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 1+2	6	6	2437	18.41	18.50	1.021	100	1.000	0.02	0.013	0.013
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	6	6	2437	18.41	18.50	1.021	100	1.000	-0.13	0.066	0.067
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1+2	6	6	2437	18.41	18.50	1.021	100	1.000	0.17	0.179	0.183
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1+2	4/5/6	155	5775	15.04	16.00	1.247	96.28	1.039	0.19	0.100	0.129
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1+2	4/5/6	155	5775	15.04	16.00	1.247	96.28	1.039	-0.13	0.110	0.143
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 1+2	4/5/6	155	5775	15.04	16.00	1.247	96.28	1.039	-0.15	0.008	0.010
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 1+2	4/5/6	155	5775	15.04	16.00	1.247	96.28	1.039	0.07	0.060	0.078
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 1+2	4/5/6	155	5775	15.04	16.00	1.247	96.28	1.039	0.14	0.130	0.168

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 1	4/5/6	39	2441	13.62	14.00	1.091	77.22	1.079	0.11	0.018	0.022
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 1	4/5/6	39	2441	13.62	14.00	1.091	77.22	1.079	0.03	0.024	0.028
	Bluetooth	DH5 1Mbps	Left Side	10mm	Ant 1	4/5/6	39	2441	13.62	14.00	1.091	77.22	1.079	0.08	0.002	0.002
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 1	4/5/6	39	2441	13.62	14.00	1.091	77.22	1.079	0.17	0.015	0.017
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 1	4/5/6	39	2441	13.62	14.00	1.091	77.22	1.079	0.03	0.028	0.033
37	Bluetooth	DH5 1Mbps	Front	10mm	Ant 2	4/5/6	39	2441	13.33	14.00	1.167	77.22	1.079	0.08	0.029	0.037
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 2	4/5/6	39	2441	13.33	14.00	1.167	77.22	1.079	0.13	0.040	0.050
	Bluetooth	DH5 1Mbps	Left Side	10mm	Ant 2	4/5/6	39	2441	13.33	14.00	1.167	77.22	1.079	0.12	0.004	0.005
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 2	4/5/6	39	2441	13.33	14.00	1.167	77.22	1.079	0.05	0.012	0.015
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 2	4/5/6	39	2441	13.33	14.00	1.167	77.22	1.079	0.09	0.037	0.047

13.3 Body Worn Accessory SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	15mm	4	128	824.2	26.60	27.00	1.096	0.19	0.154	0.169
38	GSM850_Ant 1	GPRS (4 Tx slots)	Back	15mm	4	128	824.2	26.60	27.00	1.096	-0.05	0.178	0.195
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	15mm	5	128	824.2	24.27	25.00	1.183	0.16	0.068	0.080
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	15mm	5	128	824.2	24.27	25.00	1.183	-0.06	0.071	0.084
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	15mm	6	128	824.2	24.27	25.50	1.327	0.16	0.068	0.090
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	15mm	6	128	824.2	24.27	25.50	1.327	-0.06	0.071	0.094
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	15mm	4	128	824.2	27.39	28.00	1.151	-0.06	0.059	0.068
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	15mm	4	128	824.2	27.39	28.00	1.151	-0.12	0.100	0.115
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	15mm	5	128	824.2	25.39	26.00	1.151	0.042	0.042	0.048
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	15mm	5	128	824.2	25.39	26.00	1.151	-0.11	0.070	0.081
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	15mm	6	128	824.2	25.39	26.50	1.291	0.042	0.042	0.054
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	15mm	6	128	824.2	25.39	26.50	1.291	-0.11	0.070	0.090

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM1900_Ant 3	GPRS (3 Tx slots)	Front	15mm	4	810	1909.8	25.67	26.00	1.079	-0.11	0.125	0.135
	GSM1900_Ant 3	GPRS (3 Tx slots)	Back	15mm	4	810	1909.8	25.67	26.00	1.079	-0.11	0.104	0.112
	GSM1900_Ant 3	GPRS (3 Tx slots)	Front	15mm	5	661	1880	23.42	24.00	1.143	0.02	0.068	0.078
	GSM1900_Ant 3	GPRS (3 Tx slots)	Back	15mm	5	661	1880	23.42	24.00	1.143	-0.1	0.062	0.071
	GSM1900_Ant 3	GPRS (3 Tx slots)	Front	15mm	6	661	1880	23.42	24.50	1.282	0.02	0.068	0.087
	GSM1900_Ant 3	GPRS (3 Tx slots)	Back	15mm	6	661	1880	23.42	24.50	1.282	-0.1	0.062	0.080
	GSM1900_Ant 2	GPRS (3 Tx slots)	Front	15mm	4	661	1880	22.53	23.00	1.114	-0.06	0.124	0.138
39	GSM1900_Ant 2	GPRS (3 Tx slots)	Back	15mm	4	661	1880	22.53	23.00	1.114	-0.03	0.171	0.191
	GSM1900_Ant 2	GPRS (3 Tx slots)	Front	15mm	5	661	1907.6	21.49	21.50	1.002	0.06	0.117	0.117
	GSM1900_Ant 2	GPRS (3 Tx slots)	Back	15mm	5	661	1907.6	21.49	21.50	1.002	-0.15	0.150	0.150
	GSM1900_Ant 2	GPRS (3 Tx slots)	Front	15mm	6	661	1907.6	21.49	21.50	1.002	0.06	0.117	0.117
	GSM1900_Ant 2	GPRS (3 Tx slots)	Back	15mm	6	661	1907.6	21.49	21.50	1.002	-0.15	0.150	0.150

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 3	RMC 12.2Kbps	Front	15mm	4	9538	1907.6	21.00	22.00	1.259	-0.13	0.122	0.154
	WCDMA II_Ant 3	RMC 12.2Kbps	Back	15mm	4	9538	1907.6	21.00	22.00	1.259	0	0.102	0.128
	WCDMA II_Ant 3	RMC 12.2Kbps	Front	15mm	5	9400	1880	18.93	20.00	1.279	0.07	0.076	0.097
	WCDMA II_Ant 3	RMC 12.2Kbps	Back	15mm	5	9400	1880	18.93	20.00	1.279	0.11	0.066	0.084
	WCDMA II_Ant 3	RMC 12.2Kbps	Front	15mm	6	9400	1880	18.93	20.50	1.435	0.07	0.076	0.109
	WCDMA II_Ant 3	RMC 12.2Kbps	Back	15mm	6	9400	1880	18.93	20.50	1.435	0.11	0.066	0.095
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	15mm	4	9538	1907.6	18.36	19.50	1.300	-0.08	0.132	0.172
40	WCDMA II_Ant 2	RMC 12.2Kbps	Back	15mm	4	9538	1907.6	18.36	19.50	1.300	-0.15	0.168	0.218
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	15mm	5	9538	1907.6	16.35	17.50	1.303	0.01	0.092	0.120
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	15mm	5	9538	1907.6	16.35	17.50	1.303	-0.02	0.117	0.152
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	15mm	6	9538	1907.6	16.35	18.00	1.462	0.01	0.092	0.135
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	15mm	6	9538	1907.6	16.35	18.00	1.462	-0.02	0.117	0.171

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA IV_Ant 3	RMC 12.2Kbps	Front	15mm	4	1413	1732.6	20.58	21.50	1.236	0.02	0.046	0.057
	WCDMA IV_Ant 3	RMC 12.2Kbps	Back	15mm	4	1413	1732.6	20.58	21.50	1.236	0.05	0.039	0.048
	WCDMA IV_Ant 3	RMC 12.2Kbps	Front	15mm	5	1413	1732.6	18.55	19.50	1.245	-0.14	0.008	0.010
	WCDMA IV_Ant 3	RMC 12.2Kbps	Back	15mm	5	1413	1732.6	18.55	19.50	1.245	0.05	0.013	0.016
	WCDMA IV_Ant 3	RMC 12.2Kbps	Front	15mm	6	1413	1732.6	18.55	20.00	1.396	-0.14	0.008	0.012
	WCDMA IV_Ant 3	RMC 12.2Kbps	Back	15mm	6	1413	1732.6	18.55	20.00	1.396	0.05	0.013	0.018
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	15mm	4	1413	1732.6	17.85	19.00	1.303	0.01	0.121	0.157
41	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	15mm	4	1413	1732.6	17.85	19.00	1.303	-0.04	0.151	0.197
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	15mm	5	1413	1732.6	15.91	17.00	1.285	-0.02	0.093	0.120
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	15mm	5	1413	1732.6	15.91	17.00	1.285	-0.13	0.101	0.130
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	15mm	6	1413	1732.6	15.91	17.50	1.442	-0.02	0.093	0.134
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	15mm	6	1413	1732.6	15.91	17.50	1.442	-0.13	0.101	0.146

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	15mm	4	4182	836.4	23.56	24.50	1.242	-0.07	0.135	0.168
42	WCDMA V_Ant 1	RMC 12.2Kbps	Back	15mm	4	4182	836.4	23.56	24.50	1.242	-0.01	0.175	0.217
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	15mm	5	4182	836.4	22.07	23.00	1.239	0.11	0.103	0.128
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	15mm	5	4182	836.4	22.07	23.00	1.239	0.16	0.124	0.154
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	15mm	6	4182	836.4	22.07	23.50	1.390	0.11	0.103	0.143
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	15mm	6	4182	836.4	22.07	23.50	1.390	0.16	0.124	0.172
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	15mm	4	4132	826.4	24.03	25.00	1.250	-0.18	0.103	0.129
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	15mm	4	4132	826.4	24.03	25.00	1.250	-0.04	0.170	0.213
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	15mm	5	4132	826.4	21.97	23.00	1.268	-0.05	0.068	0.086
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	15mm	5	4132	826.4	21.97	23.00	1.268	-0.11	0.106	0.134
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	15mm	6	4132	826.4	21.97	23.50	1.422	-0.05	0.068	0.097
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	15mm	6	4132	826.4	21.97	23.50	1.422	-0.11	0.106	0.151

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
43	LTE Band 4_Ant 3	20M	QPSK	1	49	Front	15mm	4	20175	1732.5	21.73	22.50	1.194	-0.1	0.035	0.042
	LTE Band 4_Ant 3	20M	QPSK	50	24	Front	15mm	4	20175	1732.5	21.81	22.50	1.172	0.05	0.035	0.041
	LTE Band 4_Ant 3	20M	QPSK	1	49	Back	15mm	4	20175	1732.5	21.73	22.50	1.194	0.06	0.028	0.033
	LTE Band 4_Ant 3	20M	QPSK	50	24	Back	15mm	4	20175	1732.5	21.81	22.50	1.172	0.07	0.029	0.034
	LTE Band 4_Ant 3	20M	QPSK	1	49	Front	15mm	5	20175	1732.5	19.73	20.50	1.194	0.11	0.027	0.032
	LTE Band 4_Ant 3	20M	QPSK	50	24	Front	15mm	5	20175	1732.5	19.80	20.50	1.175	-0.13	0.022	0.026
	LTE Band 4_Ant 3	20M	QPSK	1	49	Back	15mm	5	20175	1732.5	19.73	20.50	1.194	0.02	0.018	0.021
	LTE Band 4_Ant 3	20M	QPSK	50	24	Back	15mm	5	20175	1732.5	19.80	20.50	1.175	-0.13	0.026	0.031
	LTE Band 4_Ant 3	20M	QPSK	1	49	Front	15mm	6	20175	1732.5	19.73	21.00	1.340	0.11	0.027	0.036
	LTE Band 4_Ant 3	20M	QPSK	50	24	Front	15mm	6	20175	1732.5	19.80	21.00	1.318	-0.13	0.022	0.029
	LTE Band 4_Ant 3	20M	QPSK	1	49	Back	15mm	6	20175	1732.5	19.73	21.00	1.340	0.02	0.018	0.024
	LTE Band 4_Ant 3	20M	QPSK	50	24	Back	15mm	6	20175	1732.5	19.80	21.00	1.318	-0.13	0.026	0.034

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 5_Ant 1	10M	QPSK	1	0	Front	15mm	4	20525	836.5	23.54	24.50	1.247	-0.06	0.090	0.112
	LTE Band 5_Ant 1	10M	QPSK	25	12	Front	15mm	4	20525	836.5	23.17	23.50	1.079	-0.04	0.091	0.098
	LTE Band 5_Ant 1	10M	QPSK	1	0	Back	15mm	4	20525	836.5	23.54	24.50	1.247	-0.04	0.124	0.155
	LTE Band 5_Ant 1	10M	QPSK	25	12	Back	15mm	4	20525	836.5	23.17	23.50	1.079	-0.04	0.122	0.132
	LTE Band 5_Ant 0	10M	QPSK	1	49	Front	15mm	4	20525	836.5	24.13	25.00	1.222	-0.13	0.147	0.180
	LTE Band 5_Ant 0	10M	QPSK	25	12	Front	15mm	4	20525	836.5	23.18	24.00	1.208	-0.06	0.104	0.126
44	LTE Band 5_Ant 0	10M	QPSK	1	49	Back	15mm	4	20525	836.5	24.13	25.00	1.222	-0.03	0.245	0.299
	LTE Band 5_Ant 0	10M	QPSK	25	12	Back	15mm	4	20525	836.5	23.18	24.00	1.208	-0.03	0.170	0.205



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 3	20M	QPSK	1	99	Front	15mm	4	21350	2560	20.45	21.00	1.135	-0.19	0.109	0.124
	LTE Band 7_Ant 3	20M	QPSK	50	50	Front	15mm	4	21350	2560	20.56	21.00	1.107	0.16	0.115	0.127
	LTE Band 7_Ant 3	20M	QPSK	1	99	Back	15mm	4	21350	2560	20.45	21.00	1.135	0.15	0.134	0.152
	LTE Band 7_Ant 3	20M	QPSK	50	50	Back	15mm	4	21350	2560	20.56	21.00	1.107	0.19	0.142	0.157
	LTE Band 7C_Ant 3	20M	QPSK	1	0	Back	15mm	4	20850+21048	2510	17.33	17.50	1.040	-0.02	0.065	0.068
	LTE Band 7_Ant 3	20M	QPSK	1	99	Front	15mm	5	21350	2560	17.96	18.5	1.132	0.13	0.052	0.059
	LTE Band 7_Ant 3	20M	QPSK	50	50	Front	15mm	5	21350	2560	18.12	18.5	1.091	-0.03	0.051	0.056
	LTE Band 7_Ant 3	20M	QPSK	1	99	Back	15mm	5	21350	2560	17.96	18.5	1.132	0.17	0.053	0.060
	LTE Band 7_Ant 3	20M	QPSK	50	50	Back	15mm	5	21350	2560	18.12	18.5	1.091	-0.05	0.055	0.060
	LTE Band 7C_Ant 3	20M	QPSK	1	0	Back	15mm	5	20850+21048	2510	15.80	17.5	1.479	0.07	0.031	0.046
	LTE Band 7_Ant 3	20M	QPSK	1	99	Front	15mm	6	21350	2560	17.96	19.00	1.271	0.13	0.052	0.066
	LTE Band 7_Ant 3	20M	QPSK	50	50	Front	15mm	6	21350	2560	18.12	19.00	1.225	-0.03	0.051	0.062
	LTE Band 7_Ant 3	20M	QPSK	1	99	Back	15mm	6	21350	2560	17.96	19.00	1.271	0.17	0.053	0.067
	LTE Band 7_Ant 3	20M	QPSK	50	50	Back	15mm	6	21350	2560	18.12	19.00	1.225	-0.05	0.055	0.067
	LTE Band 7C_Ant 3	20M	QPSK	1	0	Back	15mm	6	20850+21048	2510	16.14	17.50	1.368	0.01	0.032	0.044
	LTE Band 7_Ant 2	20M	QPSK	1	99	Front	15mm	4	21350	2560	17.25	18.00	1.189	-0.03	0.132	0.157
	LTE Band 7_Ant 2	20M	QPSK	50	50	Front	15mm	4	21350	2560	17.39	18.00	1.151	-0.11	0.140	0.161
45	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	15mm	4	21350	2560	17.25	18.00	1.189	-0.09	0.170	0.202
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	15mm	4	21350	2560	17.39	18.00	1.151	0.05	0.174	0.200
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Back	15mm	4	20850+21048	2510	17.26	18.00	1.186	0.07	0.156	0.185
	LTE Band 7_Ant 2	20M	QPSK	1	99	Front	15mm	5	21350	2560	15.74	16.50	1.191	0.14	0.094	0.112
	LTE Band 7_Ant 2	20M	QPSK	50	50	Front	15mm	5	21350	2560	15.88	16.50	1.153	0.06	0.081	0.093
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	15mm	5	21350	2560	15.74	16.50	1.191	-0.08	0.124	0.148
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	15mm	5	21350	2560	15.88	16.50	1.153	-0.17	0.100	0.115
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Back	15mm	5	20850+21048	2510	15.72	16.50	1.197	0.13	0.108	0.129
	LTE Band 7_Ant 2	20M	QPSK	1	99	Front	15mm	6	21350	2560	15.74	17.00	1.337	0.01	0.094	0.126
	LTE Band 7_Ant 2	20M	QPSK	50	50	Front	15mm	6	21350	2560	15.88	17.00	1.294	0.09	0.081	0.105
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	15mm	6	21350	2560	15.74	17.00	1.337	-0.08	0.124	0.166
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	15mm	6	21350	2560	15.88	17.00	1.294	-0.12	0.100	0.129
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Back	15mm	6	20850+21048	2510	16.21	17.00	1.199	0.14	0.125	0.150
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	15mm	4	21100	2535	18.80	20.00	1.318	0.02	0.107	0.141
	LTE Band 7_Ant 0	20M	QPSK	50	50	Front	15mm	4	21100	2535	18.91	20.00	1.285	-0.01	0.116	0.149
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	15mm	4	21100	2535	18.80	20.00	1.318	0.19	0.133	0.175
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	15mm	4	21100	2535	18.91	20.00	1.285	-0.07	0.137	0.176
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Back	15mm	4	20850+21048	2510	15.28	16.00	1.180	0.12	0.055	0.065
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	15mm	5	20850	2510	17.37	18.50	1.297	0.13	0.067	0.087
	LTE Band 7_Ant 0	20M	QPSK	50	50	Front	15mm	5	20850	2510	17.52	18.50	1.253	0.13	0.072	0.090
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	15mm	5	20850	2510	17.37	18.50	1.297	0.15	0.091	0.118
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	15mm	5	20850	2510	17.52	18.50	1.253	0.06	0.094	0.118
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Back	15mm	5	20850+21048	2510	15.25	16.00	1.189	0.11	0.053	0.063
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	15mm	6	20850	2510	17.37	19.00	1.455	0.13	0.067	0.098
	LTE Band 7_Ant 0	20M	QPSK	50	50	Front	15mm	6	20850	2510	17.52	19.00	1.406	0.13	0.072	0.101
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	15mm	6	20850	2510	17.37	19.00	1.455	0.15	0.091	0.132
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	15mm	6	20850	2510	17.52	19.00	1.406	0.06	0.094	0.132
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Back	15mm	6	20850+21048	2510	15.78	16.00	1.052	-0.14	0.060	0.063



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 1	10M	QPSK	1	49	Front	15mm	4/5/6	23095	707.5	23.20	24.00	1.202	0.17	0.064	0.077
	LTE Band 12_Ant 1	10M	QPSK	25	12	Front	15mm	4/5/6	23095	707.5	22.23	23.00	1.194	0.01	0.050	0.060
	LTE Band 12_Ant 1	10M	QPSK	1	49	Back	15mm	4/5/6	23095	707.5	23.20	24.00	1.202	0.11	0.083	0.100
	LTE Band 12_Ant 1	10M	QPSK	25	12	Back	15mm	4/5/6	23095	707.5	22.23	23.00	1.194	0.05	0.058	0.069
	LTE Band 12_Ant 0	10M	QPSK	1	49	Front	15mm	4/5/6	23095	707.5	23.10	24.00	1.230	-0.01	0.091	0.112
	LTE Band 12_Ant 0	10M	QPSK	25	12	Front	15mm	4/5/6	23095	707.5	22.23	23.00	1.194	-0.06	0.064	0.076
46	LTE Band 12_Ant 0	10M	QPSK	1	49	Back	15mm	4/5/6	23095	707.5	23.10	24.00	1.230	-0.04	0.153	0.188
	LTE Band 12_Ant 0	10M	QPSK	25	12	Back	15mm	4/5/6	23095	707.5	22.23	23.00	1.194	-0.07	0.109	0.130

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_Ant 1	10M	QPSK	1	0	Front	15mm	4/5/6	23230	782	23.15	24.00	1.216	0.12	0.169	0.206
	LTE Band 13_Ant 1	10M	QPSK	25	25	Front	15mm	4/5/6	23230	782	22.21	23.00	1.199	0.06	0.121	0.145
47	LTE Band 13_Ant 1	10M	QPSK	1	0	Back	15mm	4/5/6	23230	782	23.15	24.00	1.216	0.02	0.197	0.240
	LTE Band 13_Ant 1	10M	QPSK	25	25	Back	15mm	4/5/6	23230	782	22.21	23.00	1.199	0.09	0.141	0.169
	LTE Band 13_Ant 0	10M	QPSK	1	0	Front	15mm	4/5/6	23230	782	23.12	24.00	1.225	0.02	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	25	25	Front	15mm	4/5/6	23230	782	22.17	23.00	1.211	0.01	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	1	0	Back	15mm	4/5/6	23230	782	23.12	24.00	1.225	0	0.001	0.001
	LTE Band 13_Ant 0	10M	QPSK	25	25	Back	15mm	4/5/6	23230	782	22.17	23.00	1.211	0.01	0.001	0.001

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 3	20M	QPSK	1	0	Front	15mm	4	26140	1860	21.88	22.50	1.153	-0.13	0.104	0.120
	LTE Band 25_Ant 3	20M	QPSK	50	0	Front	15mm	4	26140	1860	21.92	22.50	1.143	-0.08	0.109	0.125
	LTE Band 25_Ant 3	20M	QPSK	1	0	Back	15mm	4	26140	1860	21.88	22.50	1.153	-0.02	0.098	0.113
	LTE Band 25_Ant 3	20M	QPSK	50	0	Back	15mm	4	26140	1860	21.92	22.50	1.143	-0.03	0.101	0.115
	LTE Band 25_Ant 3	20M	QPSK	1	0	Front	15mm	5	26140	1860	20.36	21.00	1.159	0.15	0.087	0.101
	LTE Band 25_Ant 3	20M	QPSK	50	0	Front	15mm	5	26140	1860	20.38	21.00	1.153	-0.13	0.090	0.104
	LTE Band 25_Ant 3	20M	QPSK	1	0	Back	15mm	5	26140	1860	20.36	21.00	1.159	-0.08	0.075	0.087
	LTE Band 25_Ant 3	20M	QPSK	50	0	Back	15mm	5	26140	1860	20.38	21.00	1.153	0.14	0.078	0.090
	LTE Band 25_Ant 3	20M	QPSK	1	0	Front	15mm	6	26140	1860	20.36	21.50	1.300	0.15	0.087	0.113
	LTE Band 25_Ant 3	20M	QPSK	50	0	Front	15mm	6	26140	1860	20.38	21.50	1.294	-0.13	0.090	0.116
	LTE Band 25_Ant 3	20M	QPSK	1	0	Back	15mm	6	26140	1860	20.36	21.50	1.300	-0.08	0.075	0.098
	LTE Band 25_Ant 3	20M	QPSK	50	0	Back	15mm	6	26140	1860	20.38	21.50	1.294	0.14	0.078	0.101
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	15mm	4	26140	1860	19.26	20.00	1.186	-0.04	0.170	0.202
	LTE Band 25_Ant 2	20M	QPSK	50	0	Front	15mm	4	26140	1860	19.28	20.00	1.180	-0.08	0.171	0.202
48	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	15mm	4	26140	1860	19.26	20.00	1.186	-0.12	0.236	0.280
	LTE Band 25_Ant 2	20M	QPSK	50	0	Back	15mm	4	26140	1860	19.28	20.00	1.180	-0.1	0.236	0.279
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	15mm	5	26140	1860	17.29	18.00	1.178	0.02	0.119	0.140
	LTE Band 25_Ant 2	20M	QPSK	50	0	Front	15mm	5	26140	1860	17.36	18.00	1.159	0.06	0.114	0.132
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	15mm	5	26140	1860	17.29	18.00	1.178	-0.01	0.142	0.167
	LTE Band 25_Ant 2	20M	QPSK	50	0	Back	15mm	5	26140	1860	17.36	18.00	1.159	-0.12	0.161	0.187
	LTE Band 25_Ant 2	20M	QPSK	1	0	Front	15mm	6	26140	1860	17.29	18.50	1.321	0.02	0.119	0.157
	LTE Band 25_Ant 2	20M	QPSK	50	0	Front	15mm	6	26140	1860	17.36	18.50	1.300	0.06	0.114	0.148
	LTE Band 25_Ant 2	20M	QPSK	1	0	Back	15mm	6	26140	1860	17.29	18.50	1.321	-0.01	0.142	0.188
	LTE Band 25_Ant 2	20M	QPSK	50	0	Back	15mm	6	26140	1860	17.36	18.50	1.300	-0.12	0.161	0.209

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 1	15M	QPSK	1	37	Front	15mm	4	26865	831.5	23.22	24.00	1.197	-0.16	0.116	0.139
	LTE Band 26_Ant 1	15M	QPSK	36	20	Front	15mm	4	26865	831.5	22.26	23.00	1.186	-0.13	0.095	0.113
	LTE Band 26_Ant 1	15M	QPSK	1	37	Back	15mm	4	26865	831.5	23.22	24.00	1.197	-0.03	0.154	0.184
	LTE Band 26_Ant 1	15M	QPSK	36	20	Back	15mm	4	26865	831.5	22.26	23.00	1.186	-0.01	0.125	0.148
	LTE Band 26_Ant 1	15M	QPSK	1	0	Front	15mm	5	26865	831.5	21.27	22.00	1.183	0.02	0.072	0.085
	LTE Band 26_Ant 1	15M	QPSK	36	20	Front	15mm	5	26865	831.5	21.30	22.00	1.175	0.07	0.082	0.096
	LTE Band 26_Ant 1	15M	QPSK	1	0	Back	15mm	5	26865	831.5	21.27	22.00	1.183	0	0.087	0.103
	LTE Band 26_Ant 1	15M	QPSK	36	20	Back	15mm	5	26865	831.5	21.30	22.00	1.175	-0.04	0.101	0.119
	LTE Band 26_Ant 1	15M	QPSK	1	0	Front	15mm	6	26865	831.5	21.27	22.50	1.327	0.02	0.072	0.096
	LTE Band 26_Ant 1	15M	QPSK	36	20	Front	15mm	6	26865	831.5	21.30	22.50	1.318	0.07	0.082	0.108
	LTE Band 26_Ant 1	15M	QPSK	1	0	Back	15mm	6	26865	831.5	21.27	22.50	1.327	0	0.087	0.115
	LTE Band 26_Ant 1	15M	QPSK	36	20	Back	15mm	6	26865	831.5	21.30	22.50	1.318	-0.04	0.101	0.133
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	15mm	4	26865	831.5	23.24	24.00	1.191	-0.13	0.115	0.137
	LTE Band 26_Ant 0	15M	QPSK	36	20	Front	15mm	4	26865	831.5	22.22	23.00	1.197	-0.08	0.081	0.097
49	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	15mm	4	26865	831.5	23.24	24.00	1.191	0.01	0.191	0.228
	LTE Band 26_Ant 0	15M	QPSK	36	20	Back	15mm	4	26865	831.5	22.22	23.00	1.197	-0.03	0.137	0.164
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	15mm	5	26865	831.5	22.14	23.00	1.219	-0.12	0.095	0.116
	LTE Band 26_Ant 0	15M	QPSK	36	20	Front	15mm	5	26865	831.5	22.20	23.00	1.202	0.09	0.080	0.096
	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	15mm	5	26865	831.5	22.14	23.00	1.219	-0.06	0.153	0.187
	LTE Band 26_Ant 0	15M	QPSK	36	20	Back	15mm	5	26865	831.5	22.20	23.00	1.202	0.11	0.130	0.156
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	15mm	6	26865	831.5	22.14	23.50	1.368	-0.02	0.095	0.130
	LTE Band 26_Ant 0	15M	QPSK	36	20	Front	15mm	6	26865	831.5	22.20	23.00	1.202	0.09	0.080	0.096
	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	15mm	6	26865	831.5	22.14	23.50	1.368	-0.06	0.153	0.209
	LTE Band 26_Ant 0	15M	QPSK	36	20	Back	15mm	6	26865	831.5	22.20	23.00	1.202	-0.17	0.130	0.156

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 3	20M	QPSK	1	0	Front	15mm	4	132322	1745	21.07	22.00	1.239	-0.02	0.029	0.036
	LTE Band 66_Ant 3	20M	QPSK	50	24	Front	15mm	4	132322	1745	21.36	22.00	1.159	-0.03	0.033	0.038
	LTE Band 66_Ant 3	20M	QPSK	1	0	Back	15mm	4	132322	1745	21.07	22.00	1.239	0.12	0.025	0.031
	LTE Band 66_Ant 3	20M	QPSK	50	24	Back	15mm	4	132322	1745	21.36	22.00	1.159	0.03	0.028	0.032
	LTE Band 66_Ant 3	20M	QPSK	1	0	Front	15mm	5	132572	1770	19.36	20.00	1.159	0.16	0.022	0.025
	LTE Band 66_Ant 3	20M	QPSK	50	24	Front	15mm	5	132572	1770	19.45	20.00	1.135	-0.03	0.024	0.027
	LTE Band 66_Ant 3	20M	QPSK	1	0	Back	15mm	5	132572	1770	19.36	20.00	1.159	-0.16	0.020	0.023
	LTE Band 66_Ant 3	20M	QPSK	50	24	Back	15mm	5	132572	1770	19.45	20.00	1.135	-0.1	0.022	0.025
	LTE Band 66_Ant 3	20M	QPSK	1	0	Front	15mm	6	132572	1770	19.36	20.50	1.300	0.16	0.022	0.029
	LTE Band 66_Ant 3	20M	QPSK	50	24	Front	15mm	6	132572	1770	19.45	20.50	1.274	-0.03	0.024	0.031
	LTE Band 66_Ant 3	20M	QPSK	1	0	Back	15mm	6	132572	1770	19.36	20.50	1.300	-0.16	0.020	0.026
	LTE Band 66_Ant 3	20M	QPSK	50	24	Back	15mm	6	132572	1770	19.45	20.50	1.274	-0.1	0.022	0.028
	LTE Band 66_Ant 2	20M	QPSK	1	49	Front	15mm	4	132572	1770	19.67	20.50	1.211	-0.1	0.192	0.232
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	15mm	4	132572	1770	19.77	20.50	1.183	-0.16	0.188	0.222
	LTE Band 66_Ant 2	20M	QPSK	1	49	Back	15mm	4	132572	1770	19.67	20.50	1.211	-0.17	0.260	0.315
50	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	15mm	4	132572	1770	19.77	20.50	1.183	-0.08	0.267	0.316
	LTE Band 66_Ant 2	20M	QPSK	1	49	Front	15mm	5	132572	1770	17.69	18.50	1.205	-0.08	0.131	0.158
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	15mm	5	132572	1770	17.84	18.50	1.164	0.03	0.133	0.155
	LTE Band 66_Ant 2	20M	QPSK	1	49	Back	15mm	5	132572	1770	17.69	18.50	1.205	-0.07	0.154	0.186
	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	15mm	5	132572	1770	17.84	18.50	1.164	0.02	0.158	0.184
	LTE Band 66_Ant 2	20M	QPSK	1	49	Front	15mm	6	132572	1770	17.69	19.00	1.352	-0.08	0.131	0.177
	LTE Band 66_Ant 2	20M	QPSK	50	24	Front	15mm	6	132572	1770	17.84	19.00	1.306	0.03	0.133	0.174
	LTE Band 66_Ant 2	20M	QPSK	1	49	Back	15mm	6	132572	1770	17.69	19.00	1.352	-0.07	0.154	0.208
	LTE Band 66_Ant 2	20M	QPSK	50	24	Back	15mm	6	132572	1770	17.84	19.00	1.306	0.02	0.158	0.206



<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 38_Ant 3	20M	QPSK	1	49	Front	15mm	4	38000	2595	22.93	23.50	1.140	62.9	1.006	-0.08	0.113	0.130
	LTE Band 38_Ant 3	20M	QPSK	50	24	Front	15mm	4	38000	2595	22.98	23.50	1.127	62.9	1.006	0	0.113	0.128
51	LTE Band 38_Ant 3	20M	QPSK	1	49	Back	15mm	4	38000	2595	22.93	23.50	1.140	62.9	1.006	0.14	0.171	0.196
	LTE Band 38_Ant 3	20M	QPSK	50	24	Back	15mm	4	38000	2595	22.98	23.50	1.127	62.9	1.006	0.15	0.171	0.194
	LTE Band 38C_Ant 3	20M	QPSK	1	0	Back	15mm	4	37850+38048	2580	19.73	21.50	1.503	62.9	1.006	-0.05	0.080	0.121
	LTE Band 38_Ant 3	20M	QPSK	1	49	Front	15mm	5	38000	2595	20.47	21.00	1.130	62.9	1.006	-0.09	0.047	0.053
	LTE Band 38_Ant 3	20M	QPSK	50	24	Front	15mm	5	38000	2595	20.49	21.00	1.125	62.9	1.006	0.07	0.049	0.055
	LTE Band 38_Ant 3	20M	QPSK	1	49	Back	15mm	5	38000	2595	20.47	21.00	1.130	62.9	1.006	0.18	0.083	0.094
	LTE Band 38_Ant 3	20M	QPSK	50	24	Back	15mm	5	38000	2595	20.49	21.00	1.125	62.9	1.006	0.13	0.084	0.095
	LTE Band 38C_Ant 3	20M	QPSK	1	0	Back	15mm	5	37850+38048	2580	18.45	20.00	1.429	62.9	1.006	0.08	0.051	0.073
	LTE Band 38_Ant 3	20M	QPSK	1	49	Front	15mm	6	38000	2595	20.47	21.50	1.268	62.9	1.006	-0.09	0.047	0.060
	LTE Band 38_Ant 3	20M	QPSK	50	24	Front	15mm	6	38000	2595	20.49	21.50	1.262	62.9	1.006	0.07	0.049	0.062
	LTE Band 38_Ant 3	20M	QPSK	1	49	Back	15mm	6	38000	2595	20.47	21.50	1.268	62.9	1.006	0.18	0.083	0.106
	LTE Band 38_Ant 3	20M	QPSK	50	24	Back	15mm	6	38000	2595	20.49	21.50	1.262	62.9	1.006	0.13	0.084	0.107
	LTE Band 38C_Ant 3	20M	QPSK	1	0	Back	15mm	6	37850+38048	2580	19.01	21.00	1.581	62.9	1.006	-0.08	0.062	0.099
	LTE Band 38_Ant 0	20M	QPSK	1	0	Front	15mm	5	38000	2595	19.40	20.00	1.148	62.9	1.006	0.03	0.063	0.073
	LTE Band 38_Ant 0	20M	QPSK	50	24	Front	15mm	5	38000	2595	19.37	20.00	1.156	62.9	1.006	0.15	0.062	0.072
	LTE Band 38_Ant 0	20M	QPSK	1	0	Back	15mm	5	38000	2595	19.40	20.00	1.148	62.9	1.006	-0.1	0.087	0.100
	LTE Band 38_Ant 0	20M	QPSK	50	24	Back	15mm	5	38000	2595	19.37	20.00	1.156	62.9	1.006	0.13	0.088	0.102
	LTE Band 38_Ant 0	20M	QPSK	1	0	Front	15mm	6	38000	2595	19.40	20.50	1.288	62.9	1.006	0.03	0.063	0.082
	LTE Band 38_Ant 0	20M	QPSK	50	24	Front	15mm	6	38000	2595	19.37	20.50	1.297	62.9	1.006	0.15	0.062	0.081
	LTE Band 38_Ant 0	20M	QPSK	1	0	Back	15mm	6	38000	2595	19.40	20.50	1.288	62.9	1.006	-0.1	0.087	0.113
	LTE Band 38_Ant 0	20M	QPSK	50	24	Back	15mm	6	38000	2595	19.37	20.50	1.297	62.9	1.006	0.13	0.088	0.115



FCC SAR TEST REPORT

Report No. : FA020103

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41_Ant 3	20M	QPSK	1	49	Front	15mm	4	40620	2593	21.57	22.00	1.104	62.9	1.006	0.03	0.082	0.091
	LTE Band 41_Ant 3	20M	QPSK	50	24	Front	15mm	4	40620	2593	21.68	22.00	1.076	62.9	1.006	-0.02	0.085	0.092
	LTE Band 41_Ant 3	20M	QPSK	1	49	Back	15mm	4	40620	2593	21.57	22.00	1.104	62.9	1.006	0.04	0.111	0.123
	LTE Band 41_Ant 3	20M	QPSK	50	24	Back	15mm	4	40620	2593	21.68	22.00	1.076	62.9	1.006	0.12	0.113	0.122
	LTE Band 41_Ant 3_HPUE	20M	QPSK	1	49	Back	15mm	4	40620	2593	21.45	22.00	1.135	42.9	1.009	0.15	0.078	0.089
	LTE Band 41C_Ant 3	20M	QPSK	1	0	Back	15mm	4	39750+39948	2506	19.64	21.50	1.535	62.9	1.006	-0.17	0.074	0.114
	LTE Band 41_Ant 3	20M	QPSK	1	49	Front	15mm	5	40620	2593	20.08	20.50	1.102	62.9	1.006	0.06	0.051	0.057
	LTE Band 41_Ant 3	20M	QPSK	50	24	Front	15mm	5	40620	2593	20.17	20.50	1.079	62.9	1.006	0.1	0.054	0.059
	LTE Band 41_Ant 3	20M	QPSK	1	49	Back	15mm	5	40620	2593	20.08	20.50	1.102	62.9	1.006	0.19	0.067	0.074
	LTE Band 41_Ant 3	20M	QPSK	50	24	Back	15mm	5	40620	2593	20.17	20.50	1.079	62.9	1.006	0.08	0.067	0.073
	LTE Band 41_Ant 3_HPUE	20M	QPSK	1	49	Back	15mm	5	40620	2593	19.95	20.50	1.135	42.9	1.009	0.04	0.041	0.047
	LTE Band 41C_Ant 3	20M	QPSK	1	0	Back	15mm	5	39750+39948	2506	18.65	20.5	1.531	62.9	1.006	0.08	0.044	0.068
	LTE Band 41_Ant 3	20M	QPSK	1	49	Front	15mm	6	40620	2593	20.08	21.00	1.236	62.9	1.006	0.06	0.051	0.063
	LTE Band 41_Ant 3	20M	QPSK	50	24	Front	15mm	6	40620	2593	20.17	21.00	1.211	62.9	1.006	0.1	0.054	0.066
	LTE Band 41_Ant 3	20M	QPSK	1	49	Back	15mm	6	40620	2593	20.08	21.00	1.236	62.9	1.006	0.19	0.067	0.083
	LTE Band 41_Ant 3	20M	QPSK	50	24	Back	15mm	6	40620	2593	20.17	21.00	1.211	62.9	1.006	0.08	0.067	0.082
	LTE Band 41_Ant 3_HPUE	20M	QPSK	1	49	Back	15mm	6	40620	2593	19.95	21.00	1.274	42.9	1.009	0.04	0.041	0.053
	LTE Band 41C_Ant 3	20M	QPSK	1	0	Back	15mm	6	39750+39948	2506	19.17	21.00	1.524	62.9	1.006	0.08	0.051	0.078
	LTE Band 41_Ant 2	20M	QPSK	1	49	Front	15mm	4	40620	2593	19.83	20.50	1.167	62.9	1.006	0.12	0.122	0.143
	LTE Band 41_Ant 2	20M	QPSK	50	24	Front	15mm	4	40620	2593	19.95	20.50	1.135	62.9	1.006	-0.04	0.125	0.143
52	LTE Band 41_Ant 2	20M	QPSK	1	49	Back	15mm	4	40620	2593	19.83	20.50	1.167	62.9	1.006	-0.03	0.193	0.227
	LTE Band 41_Ant 2	20M	QPSK	50	24	Back	15mm	4	40620	2593	19.95	20.50	1.135	62.9	1.006	-0.08	0.198	0.226
	LTE Band 41_HPUE_Ant 2	20M	QPSK	1	49	Back	15mm	4	40620	2593	19.71	20.50	1.199	42.9	1.009	-0.02	0.129	0.156
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Back	15mm	4	39750+39948	2506	19.65	20.50	1.216	62.9	1.006	0.15	0.179	0.219
	LTE Band 41_Ant 2	20M	QPSK	1	49	Front	15mm	5	40620	2593	18.82	19.50	1.169	62.9	1.006	0.12	0.086	0.101
	LTE Band 41_Ant 2-	20M	QPSK	50	24	Front	15mm	5	40620	2593	18.92	19.50	1.143	62.9	1.006	0.09	0.094	0.108
	LTE Band 41_Ant 2-	20M	QPSK	1	49	Back	15mm	5	40620	2593	18.82	19.50	1.169	62.9	1.006	-0.18	0.124	0.146
	LTE Band 41_Ant 2-	20M	QPSK	50	24	Back	15mm	5	40620	2560	18.92	19.50	1.143	62.9	1.006	-0.05	0.160	0.184
	LTE Band 41_HPUE_Ant 2	20M	QPSK	50	24	Back	15mm	5	40620	2593	18.73	19.50	1.194	42.9	1.009	0.17	0.079	0.095
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Back	15mm	5	39750+39948	2506	18.67	19.50	1.211	62.9	1.006	0.12	0.135	0.164
	LTE Band 41_Ant 2	20M	QPSK	1	49	Front	15mm	6	40620	2593	18.82	20.00	1.312	62.9	1.006	0.08	0.086	0.114
	LTE Band 41_Ant 2	20M	QPSK	50	24	Front	15mm	6	40620	2593	18.92	20.00	1.282	62.9	1.006	0.17	0.094	0.121
	LTE Band 41_Ant 2	20M	QPSK	1	49	Back	15mm	6	40620	2593	18.82	20.00	1.312	62.9	1.006	-0.11	0.124	0.164
	LTE Band 41_Ant 2	20M	QPSK	50	24	Back	15mm	6	40620	2560	18.92	20.00	1.282	62.9	1.006	-0.05	0.160	0.206
	LTE Band 41_HPUE_Ant 2	20M	QPSK	50	24	Back	15mm	6	40620	2593	18.73	20.00	1.340	42.9	1.009	0.09	0.079	0.107
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Back	15mm	6	39750+39948	2506	19.16	20.00	1.213	62.9	1.006	-0.12	0.155	0.189
	LTE Band 41_Ant 0	20M	QPSK	1	49	Front	15mm	4	40620	2593	21.37	22.00	1.156	62.9	1.006	0.18	0.111	0.129
	LTE Band 41_Ant 0	20M	QPSK	50	24	Front	15mm	4	40620	2593	21.47	22.00	1.130	62.9	1.006	0.1	0.114	0.130
	LTE Band 41_Ant 0	20M	QPSK	1	49	Back	15mm	4	40620	2593	21.37	22.00	1.156	62.9	1.006	0.14	0.165	0.192
	LTE Band 41_Ant 0	20M	QPSK	50	24	Back	15mm	4	40620	2593	21.47	22.00	1.130	62.9	1.006	-0.07	0.170	0.193
	LTE Band 41_Ant 0_HPUE	20M	QPSK	1	0	Back	15mm	4	39750	2506	21.30	22.00	1.175	42.9	1.009	0.09	0.110	0.130
	LTE Band 41_Ant 0	20M	QPSK	1	49	Front	15mm	5	40620	2593	18.45	19.00	1.135	62.9	1.006	0.1	0.054	0.062
	LTE Band 41_Ant 0	20M	QPSK	50	24	Front	15mm	5	40620	2593	18.53	19.00	1.114	62.9	1.006	0.12	0.054	0.061
	LTE Band 41_Ant 0	20M	QPSK	1	49	Back	15mm	5	40620	2593	18.45	19.00	1.135	62.9	1.006	0.12	0.070	0.080
	LTE Band 41_Ant 0	20M	QPSK	50	24	Back	15mm	5	40620	2593	18.53	19.00	1.114	62.9	1.006	0.1	0.072	0.081
	LTE Band 41_Ant 0_HPUE	20M	QPSK	1	49	Back	15mm	5	40620	2593	18.30	19.00	1.175	42.9	1.009	0.05	0.059	0.070
	LTE Band 41_Ant 0	20M	QPSK	1	49	Front	15mm	6	40620	2593	18.45	19.50	1.274	62.9	1.006	0.1	0.054	0.069
	LTE Band 41_Ant 0	20M	QPSK	50	24	Front	15mm	6	40620	2593	18.53	19.50	1.250	62.9	1.006	0.12	0.054	0.068
	LTE Band 41_Ant 0	20M	QPSK	1	49	Back	15mm	6	40620	2593	18.45	19.50	1.274	62.9	1.006	0.12	0.070	0.090
	LTE Band 41_Ant 0	20M	QPSK	50	24	Back	15mm	6	40620	2593	18.53	19.50	1.250	62.9	1.006	0.1	0.072	0.091
	LTE Band 41_Ant 0_HPUE	20M	QPSK	1	49	Back	15mm	6	40620	2593	18.30	19.50	1.318	42.9	1.009	0.05	0.059	0.078

<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz-	802.11b 1Mbps	Front	15mm	Ant 1+2	4	6	2437	21.86	22.00	1.033	100	1.000	-0.17	0.102	0.105
53	WLAN2.4GHz-	802.11b 1Mbps	Back	15mm	Ant 1+2	4	6	2437	21.86	22.00	1.033	100	1.000	0.11	0.349	0.360
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 1+2	5	11	2462	19.81	20.00	1.045	100	1.000	-0.09	0.059	0.062
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	5	11	2462	19.81	20.00	1.045	100	1.000	0.13	0.180	0.188
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 1+2	6	6	2437	18.41	18.50	1.021	100	1.000	0.11	0.044	0.045
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	6	6	2437	18.41	18.50	1.021	100	1.000	0.02	0.158	0.161
	WLAN5GHz-	802.11n-HT40 MCS0	Front	15mm	Ant 1+2	4	54	5270	19.45	20.50	1.274	98.47	1.016	-0.11	0.125	0.162
54	WLAN5GHz-	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	4	54	5270	19.45	20.50	1.274	98.47	1.016	0.17	0.338	0.437
	WLAN5GHz	802.11n-HT40 MCS0	Front	15mm	Ant 1+2	5	54	5270	17.46	18.50	1.271	98.47	1.016	0.18	0.076	0.098
	WLAN5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	5	54	5270	17.46	18.50	1.271	98.47	1.016	0.04	0.203	0.262
	WLAN5GHz	802.11n-HT40 MCS0	Front	15mm	Ant 1+2	6	54	5270	16.01	17.00	1.256	98.47	1.016	0.09	0.053	0.068
	WLAN5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	6	54	5270	16.01	17.00	1.256	98.47	1.016	-0.13	0.138	0.176
	WLAN5GHz-	802.11ac-VHT80 MCS0	Front	15mm	Ant 1+2	4	122	5610	19.34	20.50	1.306	96.28	1.039	-0.12	0.135	0.183
55	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	15mm	Ant 1+2	4	122	5610	19.34	20.50	1.306	96.28	1.039	-0.06	0.202	0.274
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 1+2	5	122	5610	17.58	18.50	1.236	96.28	1.039	-0.04	0.093	0.119
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 1+2	5	122	5610	17.58	18.50	1.236	96.28	1.039	0.19	0.115	0.148
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 1+2	6	122	5610	15.92	17.00	1.282	96.28	1.039	0.08	0.054	0.071
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 1+2	6	122	5610	15.92	17.00	1.282	96.28	1.039	-0.13	0.079	0.106
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 1+2	4/5/6	155	5775	15.04	16.00	1.247	96.28	1.039	0.07	0.058	0.075
56	WLAN5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 1+2	4/5/6	155	5775	15.04	16.00	1.247	96.28	1.039	0	0.060	0.078

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Output Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 1	4/5/6	CH 39	2441	13.62	14.00	1.091	77.22	1.079	0.02	0.015	0.017
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 1	4/5/6	CH 39	2441	13.62	14.00	1.091	77.22	1.079	0.17	0.010	0.012
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 2	4/5/6	CH 39	2441	13.33	14.00	1.167	77.22	1.079	0.11	0.012	0.014
57	Bluetooth	DH5 1Mbps	Back	15mm	Ant 2	4/5/6	CH 39	2441	13.33	14.00	1.167	77.22	1.079	-0.14	0.017	0.021

**13.4 Product Specific SAR**

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Output Power state	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WLAN5GHz-	802.11n-HT40 MCS0	Front	0mm	Ant 1+2	4	54	5270	19.45	20.50	1.274	98.47	1.016	-0.08	0.806	1.043
	WLAN5GHz-	802.11n-HT40 MCS0	Back	0mm	Ant 1+2	4	54	5270	19.45	20.50	1.274	98.47	1.016	0.11	0.687	0.889
	WLAN5GHz-	802.11n-HT40 MCS0	Left Side	0mm	Ant 1+2	4	54	5270	19.45	20.50	1.274	98.47	1.016	0.14	0.051	0.065
	WLAN5GHz-	802.11n-HT40 MCS0	Right Side	0mm	Ant 1+2	4	54	5270	19.45	20.50	1.274	98.47	1.016	0.03	0.417	0.540
58	WLAN5GHz-	802.11n-HT40 MCS0	Top Side	0mm	Ant 1+2	4	54	5270	19.45	20.50	1.274	98.47	1.016	0.12	1.020	1.320
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 1+2	5	54	5270	17.46	18.50	1.271	98.47	1.016	0.07	0.507	0.654
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 1+2	5	54	5270	17.46	18.50	1.271	98.47	1.016	0.09	0.431	0.556
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 1+2	5	54	5270	17.46	18.50	1.271	98.47	1.016	0.13	0.039	0.051
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 1+2	5	54	5270	17.46	18.50	1.271	98.47	1.016	0.17	0.248	0.320
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 1+2	5	54	5270	17.46	18.50	1.271	98.47	1.016	0.09	0.582	0.751
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 1+2	6	54	5270	12.5	16.01	17.00	1.256	98.47	1.016	0.336	0.429
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 1+2	6	54	5270	12.5	16.01	17.00	1.256	98.47	1.016	0.272	0.347
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 1+2	6	54	5270	12.5	16.01	17.00	1.256	98.47	1.016	0.027	0.034
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 1+2	6	54	5270	12.5	16.01	17.00	1.256	98.47	1.016	0.204	0.260
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 1+2	6	54	5270	12.5	16.01	17.00	1.256	98.47	1.016	0.459	0.586
59	WLAN5GHz-	802.11ac-VHT80 MCS0	Front	0mm	Ant 1+2	4	122	5610	19.34	20.50	1.306	96.28	1.039	0.13	0.993	1.348
	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	0mm	Ant 1+2	4	122	5610	19.34	20.50	1.306	96.28	1.039	-0.15	0.661	0.897
	WLAN5GHz-	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 1+2	4	122	5610	19.34	20.50	1.306	96.28	1.039	-0.08	0.030	0.041
	WLAN5GHz-	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 1+2	4	122	5610	19.34	20.50	1.306	96.28	1.039	0.13	0.374	0.508
	WLAN5GHz-	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 1+2	4	122	5610	19.34	20.50	1.306	96.28	1.039	0.07	0.689	0.935
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 1+2	5	122	5610	17.58	18.50	1.236	96.28	1.039	0.03	0.553	0.710
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 1+2	5	122	5610	17.58	18.50	1.236	96.28	1.039	0.14	0.385	0.494
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 1+2	5	122	5610	17.58	18.50	1.236	96.28	1.039	0.08	0.014	0.018
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 1+2	5	122	5610	17.58	18.50	1.236	96.28	1.039	-0.11	0.191	0.245
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 1+2	5	122	5610	17.58	18.50	1.236	96.28	1.039	0.09	0.475	0.610
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 1+2	6	122	5610	12.5	15.92	17.00	1.282	96.28	1.039	0.308	0.410
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 1+2	6	122	5610	12.5	15.92	17.00	1.282	96.28	1.039	0.272	0.362
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 1+2	6	122	5610	12.5	15.92	17.00	1.282	96.28	1.039	0.011	0.015
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 1+2	6	122	5610	12.5	15.92	17.00	1.282	96.28	1.039	0.160	0.213
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 1+2	6	122	5610	12.5	15.92	17.00	1.282	96.28	1.039	0.368	0.490

13.5 LTE Band 41 Power Class 2 and Power Class 3 Linearity

This device support Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg, Separate SAR testing for Power Class 2 is not required

ANT 3 Head	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	24.5	26
Reported 1g SAR (W/kg)	0.379	0.396
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	178.40	172.38
Linearity SAR(W/kg)	0.37	
% deviation from expected linearity		8.14%
ANT 2 Head	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	18.5	18.5
Reported 1g SAR (W/kg)	1.199	0.788
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	44.81	30.65
Linearity SAR(W/kg)	0.82	
% deviation from expected linearity		-3.92%
ANT 3 Hotspot	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	22	22
Reported 1g SAR (W/kg)	0.481	0.321
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	100.32	68.63
Linearity SAR(W/kg)	0.33	
% deviation from expected linearity		-2.44%

ANT 2 Hotspot	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	20.5	20.5
Reported 1g SAR (W/kg)	0.823	0.548
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	71.02	48.58
Linearity SAR(W/kg)	0.56	
% deviation from expected linearity		-2.66%
ANT 0 Hotspot	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	22	22
Reported 1g SAR (W/kg)	0.887	0.551
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	100.32	68.63
Linearity SAR(W/kg)	0.61	
% deviation from expected linearity		-9.19%

ANT 3 Body-worn	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	22	22
Reported 1g SAR (W/kg)	0.123	0.089
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	100.32	68.63
Linearity SAR(W/kg)	0.08	
% deviation from expected linearity		5.78%
ANT 2 Body-worn	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	20.5	20.5
Reported 1g SAR (W/kg)	0.227	0.156
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	71.02	48.58
Linearity SAR(W/kg)	0.16	
% deviation from expected linearity		0.46%
ANT 0 Body-worn	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	22	22
Reported 1g SAR (W/kg)	0.193	0.13
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	100.32	68.63
Linearity SAR(W/kg)	0.13	
% deviation from expected linearity		-1.53%

14. Simultaneous Transmission Analysis

NO.	Simultaneous Transmission Configurations	Portable Handset	
		Head/Body-worn/ Product Specific	Hotspot
1.	GSM Voice + 2.4GHz WLAN SISO/MIMO	Yes	No
2.	GPRS/EDGE + 2.4GHz WLAN SISO/MIMO	Yes	Yes
3.	WCDMA + 2.4GHz WLAN SISO/MIMO	Yes	Yes
4.	LTE + 2.4GHz WLAN SISO/MIMO	Yes	Yes
5.	GSM Voice + 5GHz WLAN SISO/MIMO	Yes	No
6.	GPRS/EDGE + 5GHz WLAN SISO/MIMO	Yes	Yes
7.	WCDMA + 5GHz WLAN SISO/MIMO	Yes	Yes
8.	LTE + 5GHz WLAN SISO/MIMO	Yes	Yes
9.	GSM Voice + Bluetooth	Yes	No
10.	GPRS/EDGE + Bluetooth	Yes	Yes
11.	WCDMA + Bluetooth	Yes	Yes
12.	LTE + Bluetooth	Yes	Yes
13.	5GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes
14.	GSM Voice + 5GHz WLAN SISO/MIMO + Bluetooth	Yes	No
15.	GPRS/EDGE + 5GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes
16.	WCDMA + 5GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes
17.	LTE + 5GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes
18.	5GHz WLAN SISO/MIMO + 2.4GHz WLAN SISO/MIMO	Yes	Yes
19.	GSM Voice + 5GHz WLAN SISO/MIMO + 2.4GHz WLAN SISO/MIMO	Yes	Yes
20.	GPRS/EDGE + 5GHz WLAN SISO/MIMO + 2.4GHz WLAN SISO/MIMO	Yes	Yes
21.	WCDMA + 5GHz WLAN SISO/MIMO + 2.4GHz WLAN SISO/MIMO	Yes	Yes
22.	LTE + 5GHz WLAN SISO/MIMO + 2.4GHz WLAN SISO/MIMO	Yes	Yes
23.	2.4GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes
24.	GSM Voice + 2.4GHz WLAN SISO/MIMO + Bluetooth	Yes	No
25.	GPRS/EDGE + 2.4GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes
26.	WCDMA + 2.4GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes
27.	LTE + 2.4GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes
28.	5GHz WLAN SISO/MIMO + 2.4GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes
29.	GSM Voice + 5GHz WLAN SISO/MIMO + 2.4GHz WLAN SISO/MIMO + Bluetooth	Yes	No
30.	GPRS/EDGE + 5GHz WLAN SISO/MIMO + 2.4GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes
31.	WCDMA + 5GHz WLAN SISO/MIMO + 2.4GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes
32.	LTE + 5GHz WLAN SISO/MIMO + 2.4GHz WLAN SISO/MIMO + Bluetooth	Yes	Yes

General Note:

- The worst case WLAN SAR for each configuration was used for SAR summation.
- The Scaled SAR summation is calculated based on the same configuration and test position.
- For WLAN SAR testing was performed on dual antenna, due to the single antenna RF power in MIMO mode is larger or equal than the single antenna RF power in SISO mode. Therefore, the following summations in MIMO mode can represent the absolute worst cases in SISO mode for simultaneous transmission.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - Scalar SAR summation < 1.6W/kg.
 - $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - If $SPLSR \leq 0.04$, simultaneously transmission SAR measurement is not necessary.
 - Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.

14.1 Head Exposure Conditions
<WiFi standalone only>

Exposure Position	1	2	3	4	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2				
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
Right Cheek	0.297	0.297	0.104	0.100	0.401	0.397	0.401	0.397
Right Tilted	0.314	0.255	0.106	0.108	0.420	0.422	0.361	0.363
Left Cheek	0.656	0.981	0.183	0.204	0.839	0.860	1.164	1.185
Left Tilted	0.671	0.807	0.193	0.209	0.864	0.880	1.000	1.016

<WiFi 2.4GHz + 5GHz only>

Exposure Position	1	2	3	4	1+2+3 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2		
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
Right Cheek	0.184	0.294	0.104	0.100	0.582	0.578
Right Tilted	0.205	0.260	0.106	0.108	0.571	0.573
Left Cheek	0.415	0.745	0.183	0.204	1.343	1.364
Left Tilted	0.417	0.645	0.193	0.209	1.255	1.271

<WWAN standalone>

WWAN Band		Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
			WWAN	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_Ant 1	Right Cheek	0.246	0.104	0.100	0.350	0.346
		Right Tilted	0.072	0.106	0.108	0.178	0.180
		Left Cheek	0.175	0.183	0.204	0.358	0.379
		Left Tilted	0.103	0.193	0.209	0.296	0.312
	GSM1900_Ant 3	Right Cheek	0.364	0.104	0.100	0.468	0.464
		Right Tilted	0.179	0.106	0.108	0.285	0.287
		Left Cheek	0.180	0.183	0.204	0.363	0.384
		Left Tilted	0.159	0.193	0.209	0.352	0.368
WCDMA	WCDMA II_Ant 3	Right Cheek	0.410	0.104	0.100	0.514	0.510
		Right Tilted	0.201	0.106	0.108	0.307	0.309
		Left Cheek	0.217	0.183	0.204	0.400	0.421
		Left Tilted	0.183	0.193	0.209	0.376	0.392
	WCDMA IV_Ant 3	Right Cheek	0.105	0.104	0.100	0.209	0.205
		Right Tilted	0.051	0.106	0.108	0.157	0.159
		Left Cheek	0.043	0.183	0.204	0.226	0.247
		Left Tilted	0.046	0.193	0.209	0.239	0.255
	WCDMA V_Ant 1	Right Cheek	0.221	0.104	0.100	0.325	0.321
		Right Tilted	0.113	0.106	0.108	0.219	0.221
		Left Cheek	0.173	0.183	0.204	0.356	0.377
		Left Tilted	0.108	0.193	0.209	0.301	0.317
LTE	LTE Band 5_Ant 1	Right Cheek	0.187	0.104	0.100	0.291	0.287
		Right Tilted	0.086	0.106	0.108	0.192	0.194
		Left Cheek	0.131	0.183	0.204	0.314	0.335
		Left Tilted	0.077	0.193	0.209	0.270	0.286
	LTE Band 7_Ant 3	Right Cheek	0.649	0.104	0.100	0.753	0.749
		Right Tilted	0.134	0.106	0.108	0.240	0.242
		Left Cheek	0.282	0.183	0.204	0.465	0.486
		Left Tilted	0.205	0.193	0.209	0.398	0.414
	LTE Band 12_Ant 1	Right Cheek	0.049	0.104	0.100	0.153	0.149
		Right Tilted	0.028	0.106	0.108	0.134	0.136
		Left Cheek	0.042	0.183	0.204	0.225	0.246
		Left Tilted	0.028	0.193	0.209	0.221	0.237
	LTE Band 13_Ant 1	Right Cheek	0.189	0.104	0.100	0.293	0.289
		Right Tilted	0.061	0.106	0.108	0.167	0.169
		Left Cheek	0.141	0.183	0.204	0.324	0.345
		Left Tilted	0.097	0.193	0.209	0.290	0.306
	LTE Band 25_Ant 3	Right Cheek	0.329	0.104	0.100	0.433	0.429
		Right Tilted	0.145	0.106	0.108	0.251	0.253
		Left Cheek	0.169	0.183	0.204	0.352	0.373
		Left Tilted	0.164	0.193	0.209	0.357	0.373
	LTE Band 26_Ant 1	Right Cheek	0.152	0.104	0.100	0.256	0.252
		Right Tilted	0.077	0.106	0.108	0.183	0.185
		Left Cheek	0.111	0.183	0.204	0.294	0.315
		Left Tilted	0.079	0.193	0.209	0.272	0.288



WWAN Band		Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
			WWAN	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 38_Ant 3	Right Cheek	0.231	0.104	0.100	0.335	0.331
		Right Tilted	0.046	0.106	0.108	0.152	0.154
		Left Cheek	0.080	0.183	0.204	0.263	0.284
		Left Tilted	0.064	0.193	0.209	0.257	0.273
	LTE Band 41_Ant 3	Right Cheek	0.396	0.104	0.100	0.500	0.496
		Right Tilted	0.075	0.106	0.108	0.181	0.183
		Left Cheek	0.154	0.183	0.204	0.337	0.358
		Left Tilted	0.118	0.193	0.209	0.311	0.327
	LTE Band 66_Ant 3	Right Cheek	0.060	0.104	0.100	0.164	0.160
		Right Tilted	0.023	0.106	0.108	0.129	0.131
		Left Cheek	0.049	0.183	0.204	0.232	0.253
		Left Tilted	0.049	0.193	0.209	0.242	0.258

WWAN Band		Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
			WWAN	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_Ant 0	Right Cheek	0.392	0.104	0.100	0.496	0.492
		Right Tilted	0.076	0.106	0.108	0.182	0.184
		Left Cheek	0.334	0.183	0.204	0.517	0.538
		Left Tilted	0.062	0.193	0.209	0.255	0.271
	GSM1900_Ant 2	Right Cheek	1.098	0.104	0.100	1.202	1.198
		Right Tilted	1.194	0.106	0.108	1.300	1.302
		Left Cheek	0.639	0.183	0.204	0.822	0.843
		Left Tilted	0.740	0.193	0.209	0.933	0.949
WCDMA	WCDMA II_Ant 2	Right Cheek	0.964	0.104	0.100	1.068	1.064
		Right Tilted	1.043	0.106	0.108	1.149	1.151
		Left Cheek	0.532	0.183	0.204	0.715	0.736
		Left Tilted	0.599	0.193	0.209	0.792	0.808
	WCDMA IV_Ant 2	Right Cheek	0.696	0.104	0.100	0.800	0.796
		Right Tilted	1.029	0.106	0.108	1.135	1.137
		Left Cheek	0.449	0.183	0.204	0.632	0.653
		Left Tilted	0.607	0.193	0.209	0.800	0.816
	WCDMA V_Ant 0	Right Cheek	0.615	0.104	0.100	0.719	0.715
		Right Tilted	0.115	0.106	0.108	0.221	0.223
		Left Cheek	0.526	0.183	0.204	0.709	0.730
		Left Tilted	0.089	0.193	0.209	0.282	0.298
LTE	LTE Band 5_Ant 0	Right Cheek	0.875	0.104	0.100	0.979	0.975
		Right Tilted	0.167	0.106	0.108	0.273	0.275
		Left Cheek	0.728	0.183	0.204	0.911	0.932
		Left Tilted	0.134	0.193	0.209	0.327	0.343
	LTE Band 7_Ant 2	Right Cheek	1.007	0.104	0.100	1.111	1.107
		Right Tilted	1.094	0.106	0.108	1.200	1.202
		Left Cheek	0.475	0.183	0.204	0.658	0.679
		Left Tilted	0.551	0.193	0.209	0.744	0.760
	LTE Band 12_Ant 0	Right Cheek	0.444	0.104	0.100	0.548	0.544
		Right Tilted	0.087	0.106	0.108	0.193	0.195
		Left Cheek	0.434	0.183	0.204	0.617	0.638
		Left Tilted	0.078	0.193	0.209	0.271	0.287
	LTE Band 13_Ant 0	Right Cheek	0.004	0.104	0.100	0.108	0.104
		Right Tilted	0.001	0.106	0.108	0.107	0.109
		Left Cheek	0.004	0.183	0.204	0.187	0.208
		Left Tilted	0.001	0.193	0.209	0.194	0.210
	LTE Band 25_Ant 2	Right Cheek	0.872	0.104	0.100	0.976	0.972
		Right Tilted	0.962	0.106	0.108	1.068	1.070
		Left Cheek	0.557	0.183	0.204	0.740	0.761
		Left Tilted	0.628	0.193	0.209	0.821	0.837
	LTE Band 26_Ant 0	Right Cheek	0.633	0.104	0.100	0.737	0.733
		Right Tilted	0.129	0.106	0.108	0.235	0.237
		Left Cheek	0.515	0.183	0.204	0.698	0.719
		Left Tilted	0.100	0.193	0.209	0.293	0.309
	LTE Band 41_Ant 2	Right Cheek	1.156	0.104	0.100	1.260	1.256
		Right Tilted	1.199	0.106	0.108	1.305	1.307
		Left Cheek	0.584	0.183	0.204	0.767	0.788
		Left Tilted	0.855	0.193	0.209	1.048	1.064
	LTE Band 66_Ant 2	Right Cheek	0.860	0.104	0.100	0.964	0.960
		Right Tilted	0.969	0.106	0.108	1.075	1.077
		Left Cheek	0.506	0.183	0.204	0.689	0.710
		Left Tilted	0.675	0.193	0.209	0.868	0.884



FCC SAR TEST REPORT

Report No. : FA020103

WWAN Band		Exposure Position	1	6	7	1+6 Summed 1g SAR (W/kg)	1+7 Summed 1g SAR (W/kg)
			WWAN	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 7_Ant 0	Right Cheek	1.058	0.104	0.100	1.160	1.160
		Right Tilted	0.246	0.106	0.108	0.350	0.350
		Left Cheek	0.360	0.183	0.204	0.540	0.560
		Left Tilted	0.083	0.193	0.209	0.280	0.290
	LTE Band 41_Ant 0	Right Cheek	1.058	0.104	0.100	1.160	1.160
		Right Tilted	0.241	0.106	0.108	0.350	0.350
		Left Cheek	0.332	0.183	0.204	0.520	0.540
		Left Tilted	0.078	0.193	0.209	0.270	0.290



FCC SAR TEST REPORT

Report No. : FA020103

<1g_Sim-Tx WWAN + 2.4GHz or 5GHz>

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)	1+6 Summed 1g SAR (W/kg)	1+2+7 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	Estimated 1g SAR (W/kg)	Estimated 1g SAR (W/kg)				
GSM	GSM850_Ant 1	Right Cheek	0.246	0.149	0.196	0.104	0.100	0.499	0.495	0.546	0.542
		Right Tilted	0.072	0.149	0.206	0.106	0.108	0.327	0.329	0.384	0.386
		Left Cheek	0.175	0.360	0.476	0.183	0.204	0.718	0.739	0.834	0.855
		Left Tilted	0.103	0.338	0.341	0.193	0.209	0.634	0.650	0.637	0.653
	GSM1900_Ant 3	Right Cheek	0.364	0.149	0.196	0.104	0.100	0.617	0.613	0.664	0.660
		Right Tilted	0.179	0.149	0.206	0.106	0.108	0.434	0.436	0.491	0.493
		Left Cheek	0.180	0.360	0.476	0.183	0.204	0.723	0.744	0.839	0.860
		Left Tilted	0.159	0.338	0.341	0.193	0.209	0.690	0.706	0.693	0.709
WCDMA	WCDMA II_Ant 3	Right Cheek	0.410	0.149	0.196	0.104	0.100	0.663	0.659	0.710	0.706
		Right Tilted	0.201	0.149	0.206	0.106	0.108	0.456	0.458	0.513	0.515
		Left Cheek	0.217	0.360	0.476	0.183	0.204	0.760	0.781	0.876	0.897
		Left Tilted	0.183	0.338	0.341	0.193	0.209	0.714	0.730	0.717	0.733
	WCDMA IV_Ant 3	Right Cheek	0.105	0.149	0.196	0.104	0.100	0.358	0.354	0.405	0.401
		Right Tilted	0.051	0.149	0.206	0.106	0.108	0.306	0.308	0.363	0.365
		Left Cheek	0.043	0.360	0.476	0.183	0.204	0.586	0.607	0.702	0.723
		Left Tilted	0.046	0.338	0.341	0.193	0.209	0.577	0.593	0.580	0.596
	WCDMA V_Ant 1	Right Cheek	0.221	0.149	0.196	0.104	0.100	0.474	0.470	0.521	0.517
		Right Tilted	0.113	0.149	0.206	0.106	0.108	0.368	0.370	0.425	0.427
		Left Cheek	0.173	0.360	0.476	0.183	0.204	0.716	0.737	0.832	0.853
		Left Tilted	0.108	0.338	0.341	0.193	0.209	0.639	0.655	0.642	0.658
LTE	LTE Band 5_Ant 1	Right Cheek	0.187	0.149	0.196	0.104	0.100	0.440	0.436	0.487	0.483
		Right Tilted	0.086	0.149	0.206	0.106	0.108	0.341	0.343	0.398	0.400
		Left Cheek	0.131	0.360	0.476	0.183	0.204	0.674	0.695	0.790	0.811
		Left Tilted	0.077	0.338	0.341	0.193	0.209	0.608	0.624	0.611	0.627
	LTE Band 7_Ant 3	Right Cheek	0.649	0.149	0.196	0.104	0.100	0.902	0.898	0.949	0.945
		Right Tilted	0.134	0.149	0.206	0.106	0.108	0.389	0.391	0.446	0.448
		Left Cheek	0.282	0.360	0.476	0.183	0.204	0.825	0.846	0.941	0.962
		Left Tilted	0.205	0.338	0.341	0.193	0.209	0.736	0.752	0.739	0.755
	LTE Band 12_Ant 1	Right Cheek	0.049	0.149	0.196	0.104	0.100	0.302	0.298	0.349	0.345
		Right Tilted	0.028	0.149	0.206	0.106	0.108	0.283	0.285	0.340	0.342
		Left Cheek	0.042	0.360	0.476	0.183	0.204	0.585	0.606	0.701	0.722
		Left Tilted	0.028	0.338	0.341	0.193	0.209	0.559	0.575	0.562	0.578
	LTE Band 13_Ant 1	Right Cheek	0.189	0.149	0.196	0.104	0.100	0.442	0.438	0.489	0.485
		Right Tilted	0.061	0.149	0.206	0.106	0.108	0.316	0.318	0.373	0.375
		Left Cheek	0.141	0.360	0.476	0.183	0.204	0.684	0.705	0.800	0.821
		Left Tilted	0.097	0.338	0.341	0.193	0.209	0.628	0.644	0.631	0.647
	LTE Band 25_Ant 3	Right Cheek	0.329	0.149	0.196	0.104	0.100	0.582	0.578	0.629	0.625
		Right Tilted	0.145	0.149	0.206	0.106	0.108	0.400	0.402	0.457	0.459
		Left Cheek	0.169	0.360	0.476	0.183	0.204	0.712	0.733	0.828	0.849
		Left Tilted	0.164	0.338	0.341	0.193	0.209	0.695	0.711	0.698	0.714
	LTE Band 26_Ant 1	Right Cheek	0.152	0.149	0.196	0.104	0.100	0.405	0.401	0.452	0.448
		Right Tilted	0.077	0.149	0.206	0.106	0.108	0.332	0.334	0.389	0.391
		Left Cheek	0.111	0.360	0.476	0.183	0.204	0.654	0.675	0.770	0.791
		Left Tilted	0.079	0.338	0.341	0.193	0.209	0.610	0.626	0.613	0.629



FCC SAR TEST REPORT

Report No. : FA020103

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)	1+6 Summed 1g SAR (W/kg)	1+2+7 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	Estimated 1g SAR (W/kg)	Estimated 1g SAR (W/kg)				
LTE	LTE Band 38_Ant 3	Right Cheek	0.231	0.149	0.196	0.104	0.100	0.484	0.480	0.531	0.527
		Right Tilted	0.046	0.149	0.206	0.106	0.108	0.301	0.303	0.358	0.360
		Left Cheek	0.080	0.360	0.476	0.183	0.204	0.623	0.644	0.739	0.760
		Left Tilted	0.064	0.338	0.341	0.193	0.209	0.595	0.611	0.598	0.614
	LTE Band 41_Ant 3	Right Cheek	0.396	0.149	0.196	0.104	0.100	0.649	0.645	0.696	0.692
		Right Tilted	0.075	0.149	0.206	0.106	0.108	0.330	0.332	0.387	0.389
		Left Cheek	0.154	0.360	0.476	0.183	0.204	0.697	0.718	0.813	0.834
		Left Tilted	0.118	0.338	0.341	0.193	0.209	0.649	0.665	0.652	0.668
	LTE Band 66_Ant 3	Right Cheek	0.060	0.149	0.196	0.104	0.100	0.313	0.309	0.360	0.356
		Right Tilted	0.023	0.149	0.206	0.106	0.108	0.278	0.280	0.335	0.337
		Left Cheek	0.049	0.360	0.476	0.183	0.204	0.592	0.613	0.708	0.729
		Left Tilted	0.049	0.338	0.341	0.193	0.209	0.580	0.596	0.583	0.599



WWAN Band		Exposure Position	1	2	3	4	5	1+2+4 Summed 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM	GSM850_Ant 0-	Right Cheek	0.260	0.149	0.196	0.104	0.100	0.513	0.509	0.560	0.556
		Right Tilted	0.048	0.149	0.206	0.106	0.108	0.303	0.305	0.360	0.362
		Left Cheek	0.204	0.360	0.476	0.183	0.204	0.747	0.768	0.863	0.884
		Left Tilted	0.039	0.338	0.341	0.193	0.209	0.570	0.586	0.573	0.589
	GSM1900_Ant 2-	Right Cheek	0.520	0.149	0.196	0.104	0.100	0.773	0.769	0.820	0.816
		Right Tilted	0.680	0.149	0.206	0.106	0.108	0.935	0.937	0.992	0.994
		Left Cheek	0.317	0.360	0.476	0.183	0.204	0.860	0.881	0.976	0.997
		Left Tilted	0.376	0.338	0.341	0.193	0.209	0.907	0.923	0.910	0.926
WCDMA	WCDMA II_Ant 2-	Right Cheek	0.444	0.149	0.196	0.104	0.100	0.697	0.693	0.744	0.740
		Right Tilted	0.579	0.149	0.206	0.106	0.108	0.834	0.836	0.891	0.893
		Left Cheek	0.290	0.360	0.476	0.183	0.204	0.833	0.854	0.949	0.970
		Left Tilted	0.338	0.338	0.341	0.193	0.209	0.869	0.885	0.872	0.888
	WCDMA IV_Ant 2-	Right Cheek	0.368	0.149	0.196	0.104	0.100	0.621	0.617	0.668	0.664
		Right Tilted	0.548	0.149	0.206	0.106	0.108	0.803	0.805	0.860	0.862
		Left Cheek	0.248	0.360	0.476	0.183	0.204	0.791	0.812	0.907	0.928
		Left Tilted	0.340	0.338	0.341	0.193	0.209	0.871	0.887	0.874	0.890
	WCDMA V_Ant 0-	Right Cheek	0.648	0.149	0.196	0.104	0.100	0.901	0.897	0.948	0.944
		Right Tilted	0.113	0.149	0.206	0.106	0.108	0.368	0.370	0.425	0.427
		Left Cheek	0.477	0.360	0.476	0.183	0.204	1.020	1.041	1.136	1.157
		Left Tilted	0.085	0.338	0.341	0.193	0.209	0.616	0.632	0.619	0.635
LTE	LTE Band 7_Ant 2-	Right Cheek	0.577	0.149	0.196	0.104	0.100	0.830	0.826	0.877	0.873
		Right Tilted	0.554	0.149	0.206	0.106	0.108	0.809	0.811	0.866	0.868
		Left Cheek	0.303	0.360	0.476	0.183	0.204	0.846	0.867	0.962	0.983
		Left Tilted	0.350	0.338	0.341	0.193	0.209	0.881	0.897	0.884	0.900
	LTE Band 12_Ant 0	Right Cheek	0.444	0.149	0.196	0.104	0.100	0.697	0.693	0.744	0.740
		Right Tilted	0.087	0.149	0.206	0.106	0.108	0.342	0.344	0.399	0.401
		Left Cheek	0.434	0.360	0.476	0.183	0.204	0.977	0.998	1.093	1.114
		Left Tilted	0.078	0.338	0.341	0.193	0.209	0.609	0.625	0.612	0.628
	LTE Band 13_Ant 0	Right Cheek	0.004	0.149	0.196	0.104	0.100	0.257	0.253	0.304	0.300
		Right Tilted	0.001	0.149	0.206	0.106	0.108	0.256	0.258	0.313	0.315
		Left Cheek	0.004	0.360	0.476	0.183	0.204	0.547	0.568	0.663	0.684
		Left Tilted	0.001	0.338	0.341	0.193	0.209	0.532	0.548	0.535	0.551
	LTE Band 25_Ant 2-	Right Cheek	0.444	0.149	0.196	0.104	0.100	0.697	0.693	0.744	0.740
		Right Tilted	0.553	0.149	0.206	0.106	0.108	0.808	0.810	0.865	0.867
		Left Cheek	0.277	0.360	0.476	0.183	0.204	0.820	0.841	0.936	0.957
		Left Tilted	0.379	0.338	0.341	0.193	0.209	0.910	0.926	0.913	0.929
	LTE Band 26_Ant 0	Right Cheek	0.633	0.149	0.196	0.104	0.100	0.886	0.882	0.933	0.929
		Right Tilted	0.129	0.149	0.206	0.106	0.108	0.384	0.386	0.441	0.443
		Left Cheek	0.515	0.360	0.476	0.183	0.204	1.058	1.079	1.174	1.195
		Left Tilted	0.100	0.338	0.341	0.193	0.209	0.631	0.647	0.634	0.650
	LTE Band 41_Ant 2-	Right Cheek	0.601	0.149	0.196	0.104	0.100	0.854	0.850	0.901	0.897
		Right Tilted	0.747	0.149	0.206	0.106	0.108	1.002	1.004	1.059	1.061
		Left Cheek	0.341	0.360	0.476	0.183	0.204	0.884	0.905	1.000	1.021
		Left Tilted	0.421	0.338	0.341	0.193	0.209	0.952	0.968	0.955	0.971
	LTE Band 66_Ant 2-	Right Cheek	0.475	0.149	0.196	0.104	0.100	0.728	0.724	0.775	0.771
		Right Tilted	0.579	0.149	0.206	0.106	0.108	0.834	0.836	0.891	0.893
		Left Cheek	0.283	0.360	0.476	0.183	0.204	0.826	0.847	0.942	0.963
		Left Tilted	0.369	0.338	0.341	0.193	0.209	0.900	0.916	0.903	0.919

WWAN Band		Exposure Position	1	2	3	4	5	1+2+4 Summed 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	Estimated 1g SAR (W/kg)	Estimated 1g SAR (W/kg)				
LTE	LTE Band 7_Ant 0	Right Cheek	0.557	0.149	0.196	0.104	0.100	0.810	0.806	0.857	0.853
		Right Tilted	0.169	0.149	0.206	0.106	0.108	0.424	0.426	0.481	0.483
		Left Cheek	0.208	0.360	0.476	0.183	0.204	0.751	0.772	0.867	0.888
		Left Tilted	0.066	0.338	0.341	0.193	0.209	0.597	0.613	0.600	0.616
	LTE Band 41_Ant 0	Right Cheek	0.546	0.149	0.196	0.104	0.100	0.799	0.795	0.846	0.842
		Right Tilted	0.184	0.149	0.206	0.106	0.108	0.439	0.441	0.496	0.498
		Left Cheek	0.182	0.360	0.476	0.183	0.204	0.725	0.746	0.841	0.862
		Left Tilted	0.069	0.338	0.341	0.193	0.209	0.600	0.616	0.603	0.619



<1g_Sim-Tx WWAN+2.4GHz+5GHz>

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_Ant 1	Right Cheek	0.246	0.149	0.196	0.104	0.100	0.695	0.691
		Right Tilted	0.072	0.149	0.206	0.106	0.108	0.533	0.535
		Left Cheek	0.175	0.360	0.476	0.183	0.204	1.194	1.215
		Left Tilted	0.103	0.338	0.341	0.193	0.209	0.975	0.991
	GSM1900_Ant 3	Right Cheek	0.364	0.149	0.196	0.104	0.100	0.813	0.809
		Right Tilted	0.179	0.149	0.206	0.106	0.108	0.640	0.642
		Left Cheek	0.180	0.360	0.476	0.183	0.204	1.199	1.220
		Left Tilted	0.159	0.338	0.341	0.193	0.209	1.031	1.047
WCDMA	WCDMA II_Ant 3	Right Cheek	0.410	0.149	0.196	0.104	0.100	0.859	0.855
		Right Tilted	0.201	0.149	0.206	0.106	0.108	0.662	0.664
		Left Cheek	0.217	0.360	0.476	0.183	0.204	1.236	1.257
		Left Tilted	0.183	0.338	0.341	0.193	0.209	1.055	1.071
	WCDMA IV_Ant 3	Right Cheek	0.105	0.149	0.196	0.104	0.100	0.554	0.550
		Right Tilted	0.051	0.149	0.206	0.106	0.108	0.512	0.514
		Left Cheek	0.043	0.360	0.476	0.183	0.204	1.062	1.083
		Left Tilted	0.046	0.338	0.341	0.193	0.209	0.918	0.934
	WCDMA V_Ant 1	Right Cheek	0.221	0.149	0.196	0.104	0.100	0.670	0.666
		Right Tilted	0.113	0.149	0.206	0.106	0.108	0.574	0.576
		Left Cheek	0.173	0.360	0.476	0.183	0.204	1.192	1.213
		Left Tilted	0.108	0.338	0.341	0.193	0.209	0.980	0.996
LTE	LTE Band 5_Ant 1	Right Cheek	0.187	0.149	0.196	0.104	0.100	0.636	0.632
		Right Tilted	0.086	0.149	0.206	0.106	0.108	0.547	0.549
		Left Cheek	0.131	0.360	0.476	0.183	0.204	1.150	1.171
		Left Tilted	0.077	0.338	0.341	0.193	0.209	0.949	0.965
	LTE Band 7_Ant 3	Right Cheek	0.649	0.149	0.196	0.104	0.100	1.098	1.094
		Right Tilted	0.134	0.149	0.206	0.106	0.108	0.595	0.597
		Left Cheek	0.282	0.360	0.476	0.183	0.204	1.301	1.322
		Left Tilted	0.205	0.338	0.341	0.193	0.209	1.077	1.093
	LTE Band 12_Ant 1	Right Cheek	0.049	0.149	0.196	0.104	0.100	0.498	0.494
		Right Tilted	0.028	0.149	0.206	0.106	0.108	0.489	0.491
		Left Cheek	0.042	0.360	0.476	0.183	0.204	1.061	1.082
		Left Tilted	0.028	0.338	0.341	0.193	0.209	0.900	0.916
	LTE Band 13_Ant 1	Right Cheek	0.189	0.149	0.196	0.104	0.100	0.638	0.634
		Right Tilted	0.061	0.149	0.206	0.106	0.108	0.522	0.524
		Left Cheek	0.141	0.360	0.476	0.183	0.204	1.160	1.181
		Left Tilted	0.097	0.338	0.341	0.193	0.209	0.969	0.985
	LTE Band 25_Ant 3	Right Cheek	0.329	0.149	0.196	0.104	0.100	0.778	0.774
		Right Tilted	0.145	0.149	0.206	0.106	0.108	0.606	0.608
		Left Cheek	0.169	0.360	0.476	0.183	0.204	1.188	1.209
		Left Tilted	0.164	0.338	0.341	0.193	0.209	1.036	1.052
	LTE Band 26_Ant 1	Right Cheek	0.152	0.149	0.196	0.104	0.100	0.601	0.597
		Right Tilted	0.077	0.149	0.206	0.106	0.108	0.538	0.540
		Left Cheek	0.111	0.360	0.476	0.183	0.204	1.130	1.151
		Left Tilted	0.079	0.338	0.341	0.193	0.209	0.951	0.967
	LTE Band 38_Ant 3	Right Cheek	0.231	0.149	0.196	0.104	0.100	0.680	0.676
		Right Tilted	0.046	0.149	0.206	0.106	0.108	0.507	0.509
		Left Cheek	0.080	0.360	0.476	0.183	0.204	1.099	1.120
		Left Tilted	0.064	0.338	0.341	0.193	0.209	0.936	0.952



WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 41_Ant 3	Right Cheek	0.396	0.149	0.196	0.104	0.100	0.845	0.841
		Right Tilted	0.075	0.149	0.206	0.106	0.108	0.536	0.538
		Left Cheek	0.154	0.360	0.476	0.183	0.204	1.173	1.194
		Left Tilted	0.118	0.338	0.341	0.193	0.209	0.990	1.006
	LTE Band 66_Ant 3	Right Cheek	0.060	0.149	0.196	0.104	0.100	0.509	0.505
		Right Tilted	0.023	0.149	0.206	0.106	0.108	0.484	0.486
		Left Cheek	0.049	0.360	0.476	0.183	0.204	1.068	1.089
		Left Tilted	0.049	0.338	0.341	0.193	0.209	0.921	0.937

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_Ant 0	Right Cheek	0.232	0.149	0.196	0.104	0.100	0.681	0.677
		Right Tilted	0.043	0.149	0.206	0.106	0.108	0.504	0.506
		Left Cheek	0.182	0.360	0.476	0.183	0.204	1.201	1.222
		Left Tilted	0.035	0.338	0.341	0.193	0.209	0.907	0.923
	GSM1900_Ant 2	Right Cheek	0.463	0.149	0.196	0.104	0.100	0.912	0.908
		Right Tilted	0.606	0.149	0.206	0.106	0.108	1.067	1.069
		Left Cheek	0.282	0.360	0.476	0.183	0.204	1.301	1.322
		Left Tilted	0.335	0.338	0.341	0.193	0.209	1.207	1.223
WCDMA	WCDMA II_Ant 2	Right Cheek	0.396	0.149	0.196	0.104	0.100	0.845	0.841
		Right Tilted	0.516	0.149	0.206	0.106	0.108	0.977	0.979
		Left Cheek	0.259	0.360	0.476	0.183	0.204	1.278	1.299
		Left Tilted	0.302	0.338	0.341	0.193	0.209	1.174	1.190
	WCDMA IV_Ant 2	Right Cheek	0.328	0.149	0.196	0.104	0.100	0.777	0.773
		Right Tilted	0.488	0.149	0.206	0.106	0.108	0.949	0.951
		Left Cheek	0.221	0.360	0.476	0.183	0.204	1.240	1.261
		Left Tilted	0.303	0.338	0.341	0.193	0.209	1.175	1.191
	WCDMA V_Ant 0	Right Cheek	0.578	0.149	0.196	0.104	0.100	1.027	1.023
		Right Tilted	0.101	0.149	0.206	0.106	0.108	0.562	0.564
		Left Cheek	0.425	0.360	0.476	0.183	0.204	1.444	1.465
		Left Tilted	0.076	0.338	0.341	0.193	0.209	0.948	0.964
LTE	LTE Band 7_Ant 2	Right Cheek	0.515	0.149	0.196	0.104	0.100	0.964	0.960
		Right Tilted	0.493	0.149	0.206	0.106	0.108	0.954	0.956
		Left Cheek	0.270	0.360	0.476	0.183	0.204	1.289	1.310
		Left Tilted	0.312	0.338	0.341	0.193	0.209	1.184	1.200
	LTE Band 12_Ant 0	Right Cheek	0.444	0.149	0.196	0.104	0.100	0.893	0.889
		Right Tilted	0.087	0.149	0.206	0.106	0.108	0.548	0.550
		Left Cheek	0.434	0.360	0.476	0.183	0.204	1.453	1.474
		Left Tilted	0.078	0.338	0.341	0.193	0.209	0.950	0.966
	LTE Band 13_Ant 0	Right Cheek	0.004	0.149	0.196	0.104	0.100	0.453	0.449
		Right Tilted	0.001	0.149	0.206	0.106	0.108	0.462	0.464
		Left Cheek	0.004	0.360	0.476	0.183	0.204	1.023	1.044
		Left Tilted	0.001	0.338	0.341	0.193	0.209	0.873	0.889
	LTE Band 25_Ant 2	Right Cheek	0.396	0.149	0.196	0.104	0.100	0.845	0.841
		Right Tilted	0.493	0.149	0.206	0.106	0.108	0.954	0.956
		Left Cheek	0.247	0.360	0.476	0.183	0.204	1.266	1.287
		Left Tilted	0.338	0.338	0.341	0.193	0.209	1.210	1.226
	LTE Band 26_Ant 0	Right Cheek	0.564	0.149	0.196	0.104	0.100	1.013	1.009
		Right Tilted	0.115	0.149	0.206	0.106	0.108	0.576	0.578
		Left Cheek	0.388	0.360	0.476	0.183	0.204	1.407	1.428
		Left Tilted	0.089	0.338	0.341	0.193	0.209	0.961	0.977
	LTE Band 41_Ant 2	Right Cheek	0.536	0.149	0.196	0.104	0.100	0.985	0.981
		Right Tilted	0.666	0.149	0.206	0.106	0.108	1.127	1.129
		Left Cheek	0.304	0.360	0.476	0.183	0.204	1.323	1.344
		Left Tilted	0.375	0.338	0.341	0.193	0.209	1.247	1.263
	LTE Band 66_Ant 2	Right Cheek	0.423	0.149	0.196	0.104	0.100	0.872	0.868
		Right Tilted	0.516	0.149	0.206	0.106	0.108	0.977	0.979
		Left Cheek	0.252	0.360	0.476	0.183	0.204	1.271	1.292
		Left Tilted	0.329	0.338	0.341	0.193	0.209	1.201	1.217

WWAN Band		Exposure Position	1	2	4	6	7	1+2+4+6 Summed 1g SAR (W/kg)	1+2+4+7 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 7_Ant 0	Right Cheek	0.497	0.149	0.196	0.104	0.100	0.950	0.940
		Right Tilted	0.150	0.149	0.206	0.106	0.108	0.610	0.610
		Left Cheek	0.185	0.360	0.476	0.183	0.204	1.200	1.230
		Left Tilted	0.059	0.338	0.341	0.193	0.209	0.930	0.950
	LTE Band 41_Ant 0	Right Cheek	0.486	0.149	0.196	0.104	0.100	0.635	0.682
		Right Tilted	0.164	0.149	0.206	0.106	0.108	0.313	0.370
		Left Cheek	0.163	0.360	0.476	0.183	0.204	0.523	0.639
		Left Tilted	0.062	0.338	0.341	0.193	0.209	0.400	0.403

14.2 Hotspot Exposure Conditions

<WiFi standalone only>

Exposure Position	1	2	3	4	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)	Bluetooth Ant 2 1g SAR (W/kg)				
Front	0.212	0.129	0.022	0.037	0.234	0.249	0.151	0.166
Back	0.773	0.143	0.028	0.050	0.801	0.823	0.171	0.193
Left side	0.033	0.010	0.002	0.005	0.035	0.038	0.012	0.015
Right side	0.145	0.078	0.017	0.015	0.162	0.160	0.095	0.093
Top side	0.381	0.168	0.033	0.047	0.414	0.428	0.201	0.215

<WiFi 2.4GHz + 5GHz only>

Exposure Position	1	2	3	4	1+2+3 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)	Bluetooth Ant 2 1g SAR (W/kg)		
Front	0.124	0.129	0.022	0.037	0.275	0.290
Back	0.435	0.143	0.028	0.050	0.606	0.628
Left side	0.019	0.010	0.002	0.005	0.031	0.034
Right side	0.077	0.078	0.017	0.015	0.172	0.170
Top side	0.218	0.168	0.033	0.047	0.419	0.433

<WWAN standalone>

WWAN Band		Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
			WWAN	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_Ant 1	Front	0.314	0.022	0.037	0.336	0.351
		Back	0.270	0.028	0.050	0.298	0.320
		Left side	0.078	0.002	0.005	0.080	0.083
		Right side	0.346	0.017	0.015	0.363	0.361
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.289			0.289	0.289
	GSM1900_Ant 3	Front	0.245	0.022	0.037	0.267	0.282
		Back	0.208	0.028	0.050	0.236	0.258
		Left side	0.020	0.002	0.005	0.022	0.025
		Right side	0.273	0.017	0.015	0.290	0.288
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.190			0.190	0.190
WCDMA	WCDMA II_Ant 3	Front	0.303	0.022	0.037	0.325	0.340
		Back	0.248	0.028	0.050	0.276	0.298
		Left side	0.028	0.002	0.005	0.030	0.033
		Right side	0.329	0.017	0.015	0.346	0.344
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.217			0.217	0.217
	WCDMA IV_Ant 3	Front	0.083	0.022	0.037	0.105	0.120
		Back	0.082	0.028	0.050	0.110	0.132
		Left side	0.016	0.002	0.005	0.018	0.021
		Right side	0.131	0.017	0.015	0.148	0.146
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.125			0.125	0.125
	WCDMA V_Ant 1	Front	0.371	0.022	0.037	0.393	0.408
		Back	0.368	0.028	0.050	0.396	0.418
		Left side	0.057	0.002	0.005	0.059	0.062
		Right side	0.349	0.017	0.015	0.366	0.364
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.328			0.328	0.328
LTE	LTE Band 4_Ant 3	Front	0.060	0.022	0.037	0.082	0.097
		Back	0.055	0.028	0.050	0.083	0.105
		Left side	0.010	0.002	0.005	0.012	0.015
		Right side	0.097	0.017	0.015	0.114	0.112
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.085			0.085	0.085
	LTE Band 5_Ant 1	Front	0.249	0.022	0.037	0.271	0.286
		Back	0.236	0.028	0.050	0.264	0.286
		Left side	0.042	0.002	0.005	0.044	0.047
		Right side	0.246	0.017	0.015	0.263	0.261
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.207			0.207	0.207
	LTE Band 7_Ant 3	Front	0.219	0.022	0.037	0.241	0.256
		Back	0.294	0.028	0.050	0.322	0.344
		Left side	0.014	0.002	0.005	0.016	0.019
		Right side	0.715	0.017	0.015	0.732	0.730
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.169			0.169	0.169



WWAN Band		Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)	Bluetooth Ant 2 1g SAR (W/kg)		
LTE	LTE Band 12_Ant 1	Front	0.111	0.022	0.037	0.133	0.148
		Back	0.090	0.028	0.050	0.118	0.140
		Left side	0.037	0.002	0.005	0.039	0.042
		Right side	0.135	0.017	0.015	0.152	0.150
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.118			0.118	0.118
	LTE Band 13_Ant 1	Front	0.344	0.022	0.037	0.366	0.381
		Back	0.330	0.028	0.050	0.358	0.380
		Left side	0.135	0.002	0.005	0.137	0.140
		Right side	0.394	0.017	0.015	0.411	0.409
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.355			0.355	0.355
	LTE Band 25_Ant 3	Front	0.246	0.022	0.037	0.268	0.283
		Back	0.214	0.028	0.050	0.242	0.264
		Left side	0.028	0.002	0.005	0.030	0.033
		Right side	0.286	0.017	0.015	0.303	0.301
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.193			0.193	0.193
	LTE Band 26_Ant 1	Front	0.284	0.022	0.037	0.306	0.321
		Back	0.257	0.028	0.050	0.285	0.307
		Left side	0.049	0.002	0.005	0.051	0.054
		Right side	0.270	0.017	0.015	0.287	0.285
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.260			0.260	0.260
	LTE Band 38_Ant 3	Front	0.258	0.022	0.037	0.280	0.295
		Back	0.318	0.028	0.050	0.346	0.368
		Left side	0.002	0.002	0.005	0.004	0.007
		Right side	0.444	0.017	0.015	0.461	0.459
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.106			0.106	0.106
	LTE Band 41_Ant 3	Front	0.174	0.022	0.037	0.196	0.211
		Back	0.214	0.028	0.050	0.242	0.264
		Left side	0.006	0.002	0.005	0.008	0.011
		Right side	0.481	0.017	0.015	0.498	0.496
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.134			0.134	0.134
	LTE Band 66_Ant 3	Front	0.056	0.022	0.037	0.078	0.093
		Back	0.054	0.028	0.050	0.082	0.104
		Left side	0.019	0.002	0.005	0.021	0.024
		Right side	0.096	0.017	0.015	0.113	0.111
		Top side		0.033	0.047	0.033	0.047
		Bottom side	0.079			0.079	0.079

WWAN Band		Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
			WWAN	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_Ant 0	Front	0.124	0.022	0.037	0.146	0.161
		Back	0.216	0.028	0.050	0.244	0.266
		Left side	0.312	0.002	0.005	0.314	0.317
		Right side	0.008	0.017	0.015	0.025	0.023
		Top side	0.005	0.033	0.047	0.038	0.052
	GSM1900_Ant 2	Front	0.293	0.022	0.037	0.315	0.330
		Back	0.361	0.028	0.050	0.389	0.411
		Left side	0.056	0.002	0.005	0.058	0.061
		Right side	0.040	0.017	0.015	0.057	0.055
		Top side	0.564	0.033	0.047	0.597	0.611
WCDMA	WCDMA II_Ant 2	Front	0.350	0.022	0.037	0.372	0.387
		Back	0.423	0.028	0.050	0.451	0.473
		Left side	0.066	0.002	0.005	0.068	0.071
		Right side	0.047	0.017	0.015	0.064	0.062
		Top side	0.679	0.033	0.047	0.712	0.726
	WCDMA IV_Ant 2	Front	0.457	0.022	0.037	0.479	0.494
		Back	0.552	0.028	0.050	0.580	0.602
		Left side	0.114	0.002	0.005	0.116	0.119
		Right side	0.039	0.017	0.015	0.056	0.054
		Top side	0.563	0.033	0.047	0.596	0.610
	WCDMA V_Ant 0	Front	0.239	0.022	0.037	0.261	0.276
		Back	0.389	0.028	0.050	0.417	0.439
		Left side	0.570	0.002	0.005	0.572	0.575
		Right side	0.024	0.017	0.015	0.041	0.039
		Top side	0.011	0.033	0.047	0.044	0.058
LTE	LTE Band 5_Ant 0	Front	0.319	0.022	0.037	0.341	0.356
		Back	0.553	0.028	0.050	0.581	0.603
		Left side	0.754	0.002	0.005	0.756	0.759
		Right side	0.016	0.017	0.015	0.033	0.031
		Top side	0.017	0.033	0.047	0.050	0.064
	LTE Band 7_Ant 2	Front	0.280	0.022	0.037	0.302	0.317
		Back	0.375	0.028	0.050	0.403	0.425
		Left side	0.069	0.002	0.005	0.071	0.074
		Right side	0.045	0.017	0.015	0.062	0.060
		Top side	0.555	0.033	0.047	0.588	0.602
	LTE Band 12_Ant 0	Front	0.201	0.022	0.037	0.223	0.238
		Back	0.356	0.028	0.050	0.384	0.406
		Left side	0.513	0.002	0.005	0.515	0.518
		Right side	0.016	0.017	0.015	0.033	0.031
		Top side	0.010	0.033	0.047	0.043	0.057
	LTE Band 13_Ant 0	Front	0.003	0.022	0.037	0.025	0.040
		Back	0.001	0.028	0.050	0.029	0.051
		Left side	0.004	0.002	0.005	0.006	0.009
		Right side	0.001	0.017	0.015	0.018	0.016
		Top side	0.001	0.033	0.047	0.034	0.048
	LTE Band 25_Ant 2	Front	0.401	0.022	0.037	0.423	0.438
		Back	0.477	0.028	0.050	0.505	0.527
		Left side	0.086	0.002	0.005	0.088	0.091
		Right side	0.079	0.017	0.015	0.096	0.094
		Top side	0.761	0.033	0.047	0.794	0.808

WWAN Band		Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
			WWAN	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 26_Ant 0	Front	0.242	0.022	0.037	0.264	0.279
		Back	0.422	0.028	0.050	0.450	0.472
		Left side	0.583	0.002	0.005	0.585	0.588
		Right side	0.012	0.017	0.015	0.029	0.027
		Top side	0.012	0.033	0.047	0.045	0.059
	LTE Band 41_Ant 2	Front	0.264	0.022	0.037	0.286	0.301
		Back	0.421	0.028	0.050	0.449	0.471
		Left side	0.120	0.002	0.005	0.122	0.125
		Right side	0.038	0.017	0.015	0.055	0.053
		Top side	0.823	0.033	0.047	0.856	0.870
	LTE Band 66_Ant 2	Front	0.451	0.022	0.037	0.473	0.488
		Back	0.548	0.028	0.050	0.576	0.598
		Left side	0.128	0.002	0.005	0.130	0.133
		Right side	0.077	0.017	0.015	0.094	0.092
		Top side	0.836	0.033	0.047	0.869	0.883

WWAN Band		Exposure Position	1	6	7	1+6 Summed 1g SAR (W/kg)	1+7 Summed 1g SAR (W/kg)
			WWAN	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 7_Ant 0	Front	0.288	0.022	0.037	0.310	0.330
		Back	0.388	0.028	0.050	0.420	0.440
		Left side	0.812	0.002	0.005	0.810	0.820
		Right side	0.006	0.017	0.015	0.020	0.020
		Top side	0.049	0.033	0.047	0.080	0.100
	LTE Band 41_Ant 0	Front	0.288	0.022	0.037	0.310	0.330
		Back	0.440	0.028	0.050	0.470	0.490
		Left side	0.887	0.002	0.005	0.890	0.890
		Right side	0.001	0.017	0.015	0.020	0.020
		Top side	0.066	0.033	0.047	0.100	0.110


<1g_Sim-Tx WWAN + 2.4GHz or 5GHz>

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)	1+6 Summed 1g SAR (W/kg)	1+2+7 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	Estimated 1g SAR (W/kg)	Estimated 1g SAR (W/kg)				
GSM	GSM850_Ant 1-	Front	0.220	0.093	0.129	0.022	0.037	0.335	0.350	0.371	0.386
		Back	0.196	0.365	0.143	0.028	0.050	0.589	0.611	0.367	0.389
		Left side	0.049	0.013	0.010	0.002	0.005	0.064	0.067	0.061	0.064
		Right side	0.232	0.067	0.078	0.017	0.015	0.316	0.314	0.327	0.325
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.206					0.206	0.206	0.206	0.206
	GSM1900_Ant 3-	Front	0.206	0.093	0.129	0.022	0.037	0.321	0.336	0.357	0.372
		Back	0.197	0.365	0.143	0.028	0.050	0.590	0.612	0.368	0.390
		Left side	0.031	0.013	0.010	0.002	0.005	0.046	0.049	0.043	0.046
		Right side	0.245	0.067	0.078	0.017	0.015	0.329	0.327	0.340	0.338
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.153					0.153	0.153	0.153	0.153
WCDMA	WCDMA II_Ant 3-	Front	0.211	0.093	0.129	0.022	0.037	0.326	0.341	0.362	0.377
		Back	0.198	0.365	0.143	0.028	0.050	0.591	0.613	0.369	0.391
		Left side	0.029	0.013	0.010	0.002	0.005	0.044	0.047	0.041	0.044
		Right side	0.257	0.067	0.078	0.017	0.015	0.341	0.339	0.352	0.350
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.198					0.198	0.198	0.198	0.198
	WCDMA IV_Ant 3-	Front	0.036	0.093	0.129	0.022	0.037	0.151	0.166	0.187	0.202
		Back	0.063	0.365	0.143	0.028	0.050	0.456	0.478	0.234	0.256
		Left side	0.018	0.013	0.010	0.002	0.005	0.033	0.036	0.030	0.033
		Right side	0.074	0.067	0.078	0.017	0.015	0.158	0.156	0.169	0.167
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.066					0.066	0.066	0.066	0.066
	WCDMA V_Ant 1-	Front	0.268	0.093	0.129	0.022	0.037	0.383	0.398	0.419	0.434
		Back	0.265	0.365	0.143	0.028	0.050	0.658	0.680	0.436	0.458
		Left side	0.057	0.013	0.010	0.002	0.005	0.072	0.075	0.069	0.072
		Right side	0.271	0.067	0.078	0.017	0.015	0.355	0.353	0.366	0.364
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.265					0.265	0.265	0.265	0.265
LTE	LTE Band 4_Ant 3-	Front	0.056	0.093	0.129	0.022	0.037	0.171	0.186	0.207	0.222
		Back	0.055	0.365	0.143	0.028	0.050	0.448	0.470	0.226	0.248
		Left side	0.011	0.013	0.010	0.002	0.005	0.026	0.029	0.023	0.026
		Right side	0.086	0.067	0.078	0.017	0.015	0.170	0.168	0.181	0.179
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.083					0.083	0.083	0.083	0.083
	LTE Band 5_Ant 1	Front	0.249	0.093	0.129	0.022	0.037	0.364	0.379	0.400	0.415
		Back	0.236	0.365	0.143	0.028	0.050	0.629	0.651	0.407	0.429
		Left side	0.042	0.013	0.010	0.002	0.005	0.057	0.060	0.054	0.057
		Right side	0.246	0.067	0.078	0.017	0.015	0.330	0.328	0.341	0.339
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.207					0.207	0.207	0.207	0.207
	LTE Band 7_Ant 3-	Front	0.138	0.093	0.129	0.022	0.037	0.253	0.268	0.289	0.304
		Back	0.165	0.365	0.143	0.028	0.050	0.558	0.580	0.336	0.358
		Left side	0.001	0.013	0.010	0.002	0.005	0.016	0.019	0.013	0.016
		Right side	0.405	0.067	0.078	0.017	0.015	0.489	0.487	0.500	0.498
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.113					0.113	0.113	0.113	0.113



WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)	1+6 Summed 1g SAR (W/kg)	1+2+7 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	Estimated 1g SAR (W/kg)	Estimated 1g SAR (W/kg)				
LTE	LTE Band 12_Ant 1	Front	0.111	0.093	0.129	0.022	0.037	0.226	0.241	0.262	0.277
		Back	0.090	0.365	0.143	0.028	0.050	0.483	0.505	0.261	0.283
		Left side	0.037	0.013	0.010	0.002	0.005	0.052	0.055	0.049	0.052
		Right side	0.135	0.067	0.078	0.017	0.015	0.219	0.217	0.230	0.228
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.118					0.118	0.118	0.118	0.118
	LTE Band 13_Ant 1	Front	0.344	0.093	0.129	0.022	0.037	0.459	0.474	0.495	0.510
		Back	0.330	0.365	0.143	0.028	0.050	0.723	0.745	0.501	0.523
		Left side	0.135	0.013	0.010	0.002	0.005	0.150	0.153	0.147	0.150
		Right side	0.394	0.067	0.078	0.017	0.015	0.478	0.476	0.489	0.487
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.355					0.355	0.355	0.355	0.355
	LTE Band 25_Ant 3	Front	0.228	0.093	0.129	0.022	0.037	0.343	0.358	0.379	0.394
		Back	0.194	0.365	0.143	0.028	0.050	0.587	0.609	0.365	0.387
		Left side	0.039	0.013	0.010	0.002	0.005	0.054	0.057	0.051	0.054
		Right side	0.307	0.067	0.078	0.017	0.015	0.391	0.389	0.402	0.400
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.221					0.221	0.221	0.221	0.221
	LTE Band 26_Ant 1	Front	0.204	0.093	0.129	0.022	0.037	0.319	0.334	0.355	0.370
		Back	0.199	0.365	0.143	0.028	0.050	0.592	0.614	0.370	0.392
		Left side	0.033	0.013	0.010	0.002	0.005	0.048	0.051	0.045	0.048
		Right side	0.203	0.067	0.078	0.017	0.015	0.287	0.285	0.298	0.296
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.174					0.174	0.174	0.174	0.174
	LTE Band 38_Ant 3	Front	0.170	0.093	0.129	0.022	0.037	0.285	0.300	0.321	0.336
		Back	0.192	0.365	0.143	0.028	0.050	0.585	0.607	0.363	0.385
		Left side	0.010	0.013	0.010	0.002	0.005	0.025	0.028	0.022	0.025
		Right side	0.468	0.067	0.078	0.017	0.015	0.552	0.550	0.563	0.561
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.116					0.116	0.116	0.116	0.116
	LTE Band 41_Ant 3	Front	0.127	0.093	0.129	0.022	0.037	0.242	0.257	0.278	0.293
		Back	0.153	0.365	0.143	0.028	0.050	0.546	0.568	0.324	0.346
		Left side	0.001	0.013	0.010	0.002	0.005	0.016	0.019	0.013	0.016
		Right side	0.375	0.067	0.078	0.017	0.015	0.459	0.457	0.470	0.468
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.102					0.102	0.102	0.102	0.102
	LTE Band 66_Ant 3	Front	0.038	0.093	0.129	0.022	0.037	0.153	0.168	0.189	0.204
		Back	0.062	0.365	0.143	0.028	0.050	0.455	0.477	0.233	0.255
		Left side	0.011	0.013	0.010	0.002	0.005	0.026	0.029	0.023	0.026
		Right side	0.101	0.067	0.078	0.017	0.015	0.185	0.183	0.196	0.194
		Top side		0.183	0.168	0.033	0.047	0.216	0.230	0.201	0.215
		Bottom side	0.082					0.082	0.082	0.082	0.082



FCC SAR TEST REPORT

Report No. : FA020103

WWAN Band		Exposure Position	1	2	3	4	5	1+2+4 Summed 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	5GHz WLAN Ant 1	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM	GSM850_Ant 0-	Front	0.108	0.093	0.129	0.022	0.037	0.223	0.238	0.259	0.274
		Back	0.170	0.365	0.142	0.028	0.050	0.563	0.585	0.340	0.362
		Left side	0.249	0.013	0.010	0.002	0.005	0.264	0.267	0.261	0.264
		Right side	0.005	0.067	0.077	0.017	0.015	0.089	0.087	0.099	0.097
		Top side	0.003	0.183	0.168	0.033	0.047	0.219	0.233	0.204	0.218
	GSM1900_Ant 2	Front	0.192	0.093	0.129	0.022	0.037	0.307	0.322	0.343	0.358
		Back	0.230	0.365	0.142	0.028	0.050	0.623	0.645	0.400	0.422
		Left side	0.001	0.013	0.010	0.002	0.005	0.016	0.019	0.013	0.016
		Right side	0.001	0.067	0.077	0.017	0.015	0.085	0.083	0.095	0.093
		Top side	0.427	0.183	0.168	0.033	0.047	0.643	0.657	0.628	0.642
WCDMA	WCDMA II_Ant 2	Front	0.243	0.093	0.129	0.022	0.037	0.358	0.373	0.394	0.409
		Back	0.284	0.365	0.142	0.028	0.050	0.677	0.699	0.454	0.476
		Left side	0.047	0.013	0.010	0.002	0.005	0.062	0.065	0.059	0.062
		Right side	0.025	0.067	0.077	0.017	0.015	0.109	0.107	0.119	0.117
		Top side	0.487	0.183	0.168	0.033	0.047	0.703	0.717	0.688	0.702
	WCDMA IV_Ant 2	Front	0.258	0.093	0.129	0.022	0.037	0.373	0.388	0.409	0.424
		Back	0.293	0.365	0.142	0.028	0.050	0.686	0.708	0.463	0.485
		Left side	0.065	0.013	0.010	0.002	0.005	0.080	0.083	0.077	0.080
		Right side	0.029	0.067	0.077	0.017	0.015	0.113	0.111	0.123	0.121
		Top side	0.392	0.183	0.168	0.033	0.047	0.608	0.622	0.593	0.607
	WCDMA V_Ant 0	Front	0.179	0.093	0.129	0.022	0.037	0.294	0.309	0.330	0.345
		Back	0.294	0.365	0.142	0.028	0.050	0.687	0.709	0.464	0.486
		Left side	0.393	0.013	0.010	0.002	0.005	0.408	0.411	0.405	0.408
		Right side	0.017	0.067	0.077	0.017	0.015	0.101	0.099	0.111	0.109
		Top side	0.008	0.183	0.168	0.033	0.047	0.224	0.238	0.209	0.223
LTE	LTE Band 7_Ant 2	Front	0.198	0.093	0.129	0.022	0.037	0.313	0.328	0.349	0.364
		Back	0.259	0.365	0.142	0.028	0.050	0.652	0.674	0.429	0.451
		Left side	0.050	0.013	0.010	0.002	0.005	0.065	0.068	0.062	0.065
		Right side	0.036	0.067	0.077	0.017	0.015	0.120	0.118	0.130	0.128
		Top side	0.442	0.183	0.168	0.033	0.047	0.658	0.672	0.643	0.657
	LTE Band 12_Ant 0	Front	0.201	0.093	0.129	0.022	0.037	0.316	0.331	0.352	0.367
		Back	0.356	0.365	0.142	0.028	0.050	0.749	0.771	0.526	0.548
		Left side	0.513	0.013	0.010	0.002	0.005	0.528	0.531	0.525	0.528
		Right side	0.016	0.067	0.077	0.017	0.015	0.100	0.098	0.110	0.108
		Top side	0.010	0.183	0.168	0.033	0.047	0.226	0.240	0.211	0.225
	LTE Band 13_Ant 0	Front	0.003	0.093	0.129	0.022	0.037	0.118	0.133	0.154	0.169
		Back	0.001	0.365	0.142	0.028	0.050	0.394	0.416	0.171	0.193
		Left side	0.004	0.013	0.010	0.002	0.005	0.019	0.022	0.016	0.019
		Right side	0.001	0.067	0.077	0.017	0.015	0.085	0.083	0.095	0.093
		Top side	0.001	0.183	0.168	0.033	0.047	0.217	0.231	0.202	0.216
	LTE Band 25_Ant 2	Front	0.307	0.093	0.129	0.022	0.037	0.422	0.437	0.458	0.473
		Back	0.367	0.365	0.142	0.028	0.050	0.760	0.782	0.537	0.559
		Left side	0.001	0.013	0.010	0.002	0.005	0.016	0.019	0.013	0.016
		Right side	0.011	0.067	0.077	0.017	0.015	0.095	0.093	0.105	0.103
		Top side	0.525	0.183	0.168	0.033	0.047	0.741	0.755	0.726	0.740
	LTE Band 26_Ant 0-	Front	0.235	0.093	0.129	0.022	0.037	0.350	0.365	0.386	0.401
		Back	0.377	0.365	0.142	0.028	0.050	0.770	0.792	0.547	0.569
		Left side	0.522	0.013	0.010	0.002	0.005	0.537	0.540	0.534	0.537
		Right side	0.011	0.067	0.077	0.017	0.015	0.095	0.093	0.105	0.103
		Top side	0.008	0.183	0.168	0.033	0.047	0.224	0.238	0.209	0.223

WWAN Band		Exposure Position	1	2	3	4	5	1+2+4 Summed 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	5GHz WLAN Ant 1	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
LTE	LTE Band 41_Ant 2-	Front	0.214	0.093	0.129	0.022	0.037	0.329	0.344	0.365	0.380
		Back	0.268	0.365	0.142	0.028	0.050	0.661	0.683	0.438	0.460
		Left side	0.081	0.013	0.010	0.002	0.005	0.096	0.099	0.093	0.096
		Right side	0.001	0.067	0.077	0.017	0.015	0.085	0.083	0.095	0.093
		Top side	0.623	0.183	0.168	0.033	0.047	0.839	0.853	0.824	0.838
	LTE Band 66_Ant 2-	Front	0.369	0.093	0.129	0.022	0.037	0.484	0.499	0.520	0.535
		Back	0.407	0.365	0.142	0.028	0.050	0.800	0.822	0.577	0.599
		Left side	0.089	0.013	0.010	0.002	0.005	0.104	0.107	0.101	0.104
		Right side	0.055	0.067	0.077	0.017	0.015	0.139	0.137	0.149	0.147
		Top side	0.577	0.183	0.168	0.033	0.047	0.793	0.807	0.778	0.792

WWAN Band		Exposure Position	1	2	3	4	5	1+2+4 Summed 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	Estimated 1g SAR (W/kg)	Estimated 1g SAR (W/kg)				
LTE	LTE Band 7_Ant 0	Front	0.208	0.093	0.129	0.022	0.037	0.323	0.338	0.359	0.374
		Back	0.297	0.365	0.142	0.028	0.050	0.690	0.712	0.467	0.489
		Left side	0.609	0.013	0.010	0.002	0.005	0.624	0.627	0.621	0.624
		Right side	0.001	0.067	0.077	0.017	0.015	0.085	0.083	0.095	0.093
		Top side	0.042	0.183	0.168	0.033	0.047	0.258	0.272	0.243	0.257
	LTE Band 38_Ant 0	Front	0.192	0.093	0.129	0.022	0.037	0.307	0.322	0.343	0.358
		Back	0.273	0.365	0.142	0.028	0.050	0.666	0.688	0.443	0.465
		Left side	0.517	0.013	0.010	0.002	0.005	0.532	0.535	0.529	0.532
		Right side	0.001	0.067	0.077	0.017	0.015	0.085	0.083	0.095	0.093
		Top side	0.037	0.183	0.168	0.033	0.047	0.253	0.267	0.238	0.252
	LTE Band 41_Ant 0	Front	0.150	0.093	0.129	0.022	0.037	0.265	0.280	0.301	0.316
		Back	0.214	0.365	0.142	0.028	0.050	0.607	0.629	0.384	0.406
		Left side	0.404	0.013	0.010	0.002	0.005	0.419	0.422	0.416	0.419
		Right side	0.001	0.067	0.077	0.017	0.015	0.085	0.083	0.095	0.093
		Top side	0.036	0.183	0.168	0.033	0.047	0.252	0.266	0.237	0.251

<1g_Sim-Tx WWAN+2.4GHz+5GHz>

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_Ant 1	Front	0.196	0.093	0.129	0.022	0.037	0.440	0.455
		Back	0.175	0.365	0.143	0.028	0.050	0.711	0.733
		Left side	0.044	0.013	0.010	0.002	0.005	0.069	0.072
		Right side	0.207	0.067	0.078	0.017	0.015	0.369	0.367
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.183					0.183	0.183
	GSM1900_Ant 3	Front	0.184	0.093	0.129	0.022	0.037	0.428	0.443
		Back	0.176	0.365	0.143	0.028	0.050	0.712	0.734
		Left side	0.027	0.013	0.010	0.002	0.005	0.052	0.055
		Right side	0.218	0.067	0.078	0.017	0.015	0.380	0.378
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.136					0.136	0.136
WCDMA	WCDMA II_Ant 3	Front	0.188	0.093	0.129	0.022	0.037	0.432	0.447
		Back	0.177	0.365	0.143	0.028	0.050	0.713	0.735
		Left side	0.026	0.013	0.010	0.002	0.005	0.051	0.054
		Right side	0.229	0.067	0.078	0.017	0.015	0.391	0.389
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.177					0.177	0.177
	WCDMA IV_Ant 3	Front	0.032	0.093	0.129	0.022	0.037	0.276	0.291
		Back	0.056	0.365	0.143	0.028	0.050	0.592	0.614
		Left side	0.016	0.013	0.010	0.002	0.005	0.041	0.044
		Right side	0.066	0.067	0.078	0.017	0.015	0.228	0.226
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.058					0.058	0.058
	WCDMA V_Ant 1	Front	0.239	0.093	0.129	0.022	0.037	0.483	0.498
		Back	0.237	0.365	0.143	0.028	0.050	0.773	0.795
		Left side	0.051	0.013	0.010	0.002	0.005	0.076	0.079
		Right side	0.242	0.067	0.078	0.017	0.015	0.404	0.402
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.237					0.237	0.237
LTE	LTE Band 4_Ant 3	Front	0.050	0.093	0.129	0.022	0.037	0.294	0.309
		Back	0.049	0.365	0.143	0.028	0.050	0.585	0.607
		Left side	0.010	0.013	0.010	0.002	0.005	0.035	0.038
		Right side	0.076	0.067	0.078	0.017	0.015	0.238	0.236
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.074					0.074	0.074
	LTE Band 5_Ant 1	Front	0.249	0.093	0.129	0.022	0.037	0.493	0.508
		Back	0.236	0.365	0.143	0.028	0.050	0.772	0.794
		Left side	0.042	0.013	0.010	0.002	0.005	0.067	0.070
		Right side	0.246	0.067	0.078	0.017	0.015	0.408	0.406
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.207					0.207	0.207
	LTE Band 7_Ant 3	Front	0.123	0.093	0.129	0.022	0.037	0.367	0.382
		Back	0.147	0.365	0.143	0.028	0.050	0.683	0.705
		Left side	0.001	0.013	0.010	0.002	0.005	0.026	0.029
		Right side	0.361	0.067	0.078	0.017	0.015	0.523	0.521
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.101					0.101	0.101



FCC SAR TEST REPORT

Report No. : FA020103

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)	Bluetooth Ant 2 1g SAR (W/kg)		
LTE	LTE Band 12_Ant 1	Front	0.111	0.093	0.129	0.022	0.037	0.355	0.370
		Back	0.090	0.365	0.143	0.028	0.050	0.626	0.648
		Left side	0.037	0.013	0.010	0.002	0.005	0.062	0.065
		Right side	0.135	0.067	0.078	0.017	0.015	0.297	0.295
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.118					0.118	0.118
	LTE Band 13_Ant 1	Front	0.344	0.093	0.129	0.022	0.037	0.588	0.603
		Back	0.330	0.365	0.143	0.028	0.050	0.866	0.888
		Left side	0.135	0.013	0.010	0.002	0.005	0.160	0.163
		Right side	0.394	0.067	0.078	0.017	0.015	0.556	0.554
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.355					0.355	0.355
	LTE Band 25_Ant 3-	Front	0.203	0.093	0.129	0.022	0.037	0.447	0.462
		Back	0.173	0.365	0.143	0.028	0.050	0.709	0.731
		Left side	0.035	0.013	0.010	0.002	0.005	0.060	0.063
		Right side	0.273	0.067	0.078	0.017	0.015	0.435	0.433
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.197					0.197	0.197
	LTE Band 26_Ant 1-	Front	0.182	0.093	0.129	0.022	0.037	0.426	0.441
		Back	0.177	0.365	0.143	0.028	0.050	0.713	0.735
		Left side	0.030	0.013	0.010	0.002	0.005	0.055	0.058
		Right side	0.181	0.067	0.078	0.017	0.015	0.343	0.341
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.155					0.155	0.155
	LTE Band 38_Ant 3-	Front	0.151	0.093	0.129	0.022	0.037	0.395	0.410
		Back	0.171	0.365	0.143	0.028	0.050	0.707	0.729
		Left side	0.009	0.013	0.010	0.002	0.005	0.034	0.037
		Right side	0.417	0.067	0.078	0.017	0.015	0.579	0.577
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.103					0.103	0.103
	LTE Band 41_Ant 3-	Front	0.113	0.093	0.129	0.022	0.037	0.357	0.372
		Back	0.137	0.365	0.143	0.028	0.050	0.673	0.695
		Left side	0.001	0.013	0.010	0.002	0.005	0.026	0.029
		Right side	0.334	0.067	0.078	0.017	0.015	0.496	0.494
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.091					0.091	0.091
	LTE Band 66_Ant 3-	Front	0.034	0.093	0.129	0.022	0.037	0.278	0.293
		Back	0.056	0.365	0.143	0.028	0.050	0.592	0.614
		Left side	0.010	0.013	0.010	0.002	0.005	0.035	0.038
		Right side	0.090	0.067	0.078	0.017	0.015	0.252	0.250
		Top side		0.183	0.168	0.033	0.047	0.384	0.398
		Bottom side	0.073					0.073	0.073

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	5GHz WLAN Ant 1	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_Ant 0	Front	0.097	0.093	0.129	0.022	0.037	0.341	0.356
		Back	0.152	0.365	0.143	0.028	0.050	0.688	0.710
		Left side	0.222	0.013	0.010	0.002	0.005	0.247	0.250
		Right side	0.005	0.067	0.078	0.017	0.015	0.167	0.165
		Top side	0.002	0.183	0.168	0.033	0.047	0.386	0.400
	GSM1900_Ant 2	Front	0.192	0.093	0.129	0.022	0.037	0.436	0.451
		Back	0.230	0.365	0.143	0.028	0.050	0.766	0.788
		Left side	0.001	0.013	0.010	0.002	0.005	0.026	0.029
		Right side	0.001	0.067	0.078	0.017	0.015	0.163	0.161
		Top side	0.427	0.183	0.168	0.033	0.047	0.811	0.825
WCDMA	WCDMA II_Ant 2	Front	0.216	0.093	0.129	0.022	0.037	0.460	0.475
		Back	0.253	0.365	0.143	0.028	0.050	0.789	0.811
		Left side	0.042	0.013	0.010	0.002	0.005	0.067	0.070
		Right side	0.022	0.067	0.078	0.017	0.015	0.184	0.182
		Top side	0.434	0.183	0.168	0.033	0.047	0.818	0.832
	WCDMA IV_Ant 2	Front	0.230	0.093	0.129	0.022	0.037	0.474	0.489
		Back	0.261	0.365	0.143	0.028	0.050	0.797	0.819
		Left side	0.058	0.013	0.010	0.002	0.005	0.083	0.086
		Right side	0.026	0.067	0.078	0.017	0.015	0.188	0.186
		Top side	0.350	0.183	0.168	0.033	0.047	0.734	0.748
	WCDMA V_Ant 0	Front	0.160	0.093	0.129	0.022	0.037	0.404	0.419
		Back	0.262	0.365	0.143	0.028	0.050	0.798	0.820
		Left side	0.350	0.013	0.010	0.002	0.005	0.375	0.378
		Right side	0.015	0.067	0.078	0.017	0.015	0.177	0.175
		Top side	0.007	0.183	0.168	0.033	0.047	0.391	0.405
LTE	LTE Band 7_Ant 2	Front	0.176	0.093	0.129	0.022	0.037	0.420	0.435
		Back	0.231	0.365	0.143	0.028	0.050	0.767	0.789
		Left side	0.045	0.013	0.010	0.002	0.005	0.070	0.073
		Right side	0.032	0.067	0.078	0.017	0.015	0.194	0.192
		Top side	0.394	0.183	0.168	0.033	0.047	0.778	0.792
	LTE Band 12_Ant 0	Front	0.201	0.093	0.129	0.022	0.037	0.445	0.460
		Back	0.356	0.365	0.143	0.028	0.050	0.892	0.914
		Left side	0.513	0.013	0.010	0.002	0.005	0.538	0.541
		Right side	0.016	0.067	0.078	0.017	0.015	0.178	0.176
		Top side	0.010	0.183	0.168	0.033	0.047	0.394	0.408
	LTE Band 13_Ant 0	Front	0.003	0.093	0.129	0.022	0.037	0.247	0.262
		Back	0.001	0.365	0.143	0.028	0.050	0.537	0.559
		Left side	0.004	0.013	0.010	0.002	0.005	0.029	0.032
		Right side	0.001	0.067	0.078	0.017	0.015	0.163	0.161
		Top side	0.001	0.183	0.168	0.033	0.047	0.385	0.399
	LTE Band 25_Ant 2	Front	0.273	0.093	0.129	0.022	0.037	0.517	0.532
		Back	0.327	0.365	0.143	0.028	0.050	0.863	0.885
		Left side	0.001	0.013	0.010	0.002	0.005	0.026	0.029
		Right side	0.009	0.067	0.078	0.017	0.015	0.171	0.169
		Top side	0.468	0.183	0.168	0.033	0.047	0.852	0.866
	LTE Band 26_Ant 0	Front	0.210	0.093	0.129	0.022	0.037	0.454	0.469
		Back	0.336	0.365	0.143	0.028	0.050	0.872	0.894
		Left side	0.466	0.013	0.010	0.002	0.005	0.491	0.494
		Right side	0.010	0.067	0.078	0.017	0.015	0.172	0.170
		Top side	0.007	0.183	0.168	0.033	0.047	0.391	0.405

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	5GHz WLAN Ant 1	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 41_Ant 2	Front	0.191	0.093	0.129	0.022	0.037	0.435	0.450
		Back	0.239	0.365	0.143	0.028	0.050	0.775	0.797
		Left side	0.072	0.013	0.010	0.002	0.005	0.097	0.100
		Right side	0.001	0.067	0.078	0.017	0.015	0.163	0.161
		Top side	0.555	0.183	0.168	0.033	0.047	0.939	0.953
	LTE Band 66_Ant 2-	Front	0.329	0.093	0.129	0.022	0.037	0.573	0.588
		Back	0.363	0.365	0.143	0.028	0.050	0.899	0.921
		Left side	0.080	0.013	0.010	0.002	0.005	0.105	0.108
		Right side	0.049	0.067	0.078	0.017	0.015	0.211	0.209
		Top side	0.515	0.183	0.168	0.033	0.047	0.899	0.913

WWAN Band		Exposure Position	1	2	4	6	7	1+2+4+6 Summed 1g SAR (W/kg)	1+2+4+7 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 7_Ant 0-	Front	0.185	0.093	0.129	0.022	0.037	0.430	0.440
		Back	0.264	0.365	0.143	0.028	0.050	0.800	0.820
		Left side	0.543	0.013	0.010	0.002	0.005	0.570	0.570
		Right side	0.001	0.067	0.078	0.017	0.015	0.160	0.160
		Top side	0.038	0.183	0.168	0.033	0.047	0.420	0.440
	LTE Band 38_Ant 0-	Front	0.171	0.093	0.129	0.022	0.037	0.420	0.430
		Back	0.244	0.365	0.143	0.028	0.050	0.780	0.800
		Left side	0.461	0.013	0.010	0.002	0.005	0.490	0.490
		Right side	0.001	0.067	0.078	0.017	0.015	0.160	0.160
		Top side	0.033	0.183	0.168	0.033	0.047	0.420	0.430
	LTE Band 41_Ant 0-	Front	0.134	0.093	0.129	0.022	0.037	0.227	0.263
		Back	0.191	0.365	0.143	0.028	0.050	0.556	0.334
		Left side	0.360	0.013	0.010	0.002	0.005	0.373	0.370
		Right side	0.001	0.067	0.078	0.017	0.015	0.068	0.079
		Top side	0.033	0.183	0.168	0.033	0.047	0.216	0.201

14.3 Body-Worn Accessory Exposure Conditions

<WiFi standalone only>

Exposure Position	1	2	3	4	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+3 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)	Bluetooth Ant 2 1g SAR (W/kg)				
Front	0.105	0.183	0.017	0.014	0.122	0.119	0.200	0.197
Back	0.360	0.437	0.012	0.021	0.372	0.381	0.449	0.458

<WiFi 2.4GHz + 5GHz only>

Exposure Position	1	2	3	4	1+2+3 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)	Bluetooth Ant 2 1g SAR (W/kg)		
Front	0.062	0.119	0.017	0.014	0.198	0.195
Back	0.188	0.262	0.012	0.021	0.462	0.471

<WWAN standalone>

WWAN Band		Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)	Bluetooth Ant 2 1g SAR (W/kg)		
GSM	GSM850_Ant 1	Front	0.169	0.017	0.014	0.186	0.183
		Back	0.195	0.012	0.021	0.207	0.216
	GSM1900_Ant 3	Front	0.135	0.017	0.014	0.152	0.149
		Back	0.112	0.012	0.021	0.124	0.133
WCDMA	WCDMA II_Ant 3	Front	0.154	0.017	0.014	0.171	0.168
		Back	0.128	0.012	0.021	0.140	0.149
	WCDMA IV_Ant 3	Front	0.057	0.017	0.014	0.074	0.071
		Back	0.048	0.012	0.021	0.060	0.069
	WCDMA V_Ant 1	Front	0.168	0.017	0.014	0.185	0.182
		Back	0.217	0.012	0.021	0.229	0.238
LTE	LTE Band 4_Ant 3	Front	0.042	0.017	0.014	0.059	0.056
		Back	0.034	0.012	0.021	0.046	0.055
	LTE Band 5_Ant 1	Front	0.112	0.017	0.014	0.129	0.126
		Back	0.155	0.012	0.021	0.167	0.176
	LTE Band 7_Ant 3	Front	0.127	0.017	0.014	0.144	0.141
		Back	0.157	0.012	0.021	0.169	0.178
	LTE Band 12_Ant 1	Front	0.077	0.017	0.014	0.094	0.091
		Back	0.100	0.012	0.021	0.112	0.121
	LTE Band 13_Ant 1	Front	0.206	0.017	0.014	0.223	0.220
		Back	0.240	0.012	0.021	0.252	0.261
	LTE Band 25_Ant 3	Front	0.125	0.017	0.014	0.142	0.139
		Back	0.115	0.012	0.021	0.127	0.136
	LTE Band 26_Ant 1	Front	0.139	0.017	0.014	0.156	0.153
		Back	0.184	0.012	0.021	0.196	0.205
	LTE Band 38_Ant 3	Front	0.130	0.017	0.014	0.147	0.144
		Back	0.196	0.012	0.021	0.208	0.217
	LTE Band 41_Ant 3	Front	0.092	0.017	0.014	0.109	0.106
		Back	0.123	0.012	0.021	0.135	0.144
	LTE Band 66_Ant 3	Front	0.038	0.017	0.014	0.055	0.052
		Back	0.032	0.012	0.021	0.044	0.053



WWAN Band		Exposure Position	1	2	3	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)
			WWAN	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_Ant 0	Front	0.068	0.017	0.014	0.085	0.082
		Back	0.115	0.012	0.021	0.127	0.136
	GSM1900_Ant 2	Front	0.138	0.017	0.014	0.155	0.152
		Back	0.191	0.012	0.021	0.203	0.212
WCDMA	WCDMA II_Ant 2	Front	0.172	0.017	0.014	0.189	0.186
		Back	0.218	0.012	0.021	0.230	0.239
	WCDMA IV_Ant 2	Front	0.157	0.017	0.014	0.174	0.171
		Back	0.197	0.012	0.021	0.209	0.218
	WCDMA V_Ant 0	Front	0.129	0.017	0.014	0.146	0.143
		Back	0.213	0.012	0.021	0.225	0.234
LTE	LTE Band 5_Ant 0	Front	0.180	0.017	0.014	0.197	0.194
		Back	0.299	0.012	0.021	0.311	0.320
	LTE Band 7_Ant 2	Front	0.161	0.017	0.014	0.178	0.175
		Back	0.202	0.012	0.021	0.214	0.223
	LTE Band 12_Ant 0	Front	0.112	0.017	0.014	0.129	0.126
		Back	0.188	0.012	0.021	0.200	0.209
	LTE Band 13_Ant 0	Front	0.001	0.017	0.014	0.018	0.015
		Back	0.001	0.012	0.021	0.013	0.022
	LTE Band 25_Ant 2	Front	0.202	0.017	0.014	0.219	0.216
		Back	0.280	0.012	0.021	0.292	0.301
	LTE Band 26_Ant 0	Front	0.137	0.017	0.014	0.154	0.151
		Back	0.228	0.012	0.021	0.240	0.249
	LTE Band 41_Ant 2	Front	0.143	0.017	0.014	0.160	0.157
		Back	0.227	0.012	0.021	0.239	0.248
	LTE Band 66_Ant 2	Front	0.232	0.017	0.014	0.249	0.246
		Back	0.316	0.012	0.021	0.328	0.337

WWAN Band		Exposure Position	1	6	7	1+6 Summed 1g SAR (W/kg)	1+7 Summed 1g SAR (W/kg)
			WWAN	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 7_Ant 0	Front	0.149	0.017	0.014	0.170	0.160
		Back	0.176	0.012	0.021	0.190	0.200
	LTE Band 41_Ant 0	Front	0.130	0.017	0.014	0.150	0.140
		Back	0.193	0.012	0.021	0.210	0.210



<1g_Sim-Tx WWAN + 2.4GHz or 5GHz>

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)	1+6 Summed 1g SAR (W/kg)	1+2+7 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM	GSM850_Ant 1-	Front	0.090	0.045	0.075	0.017	0.014	0.152	0.149	0.182	0.179
		Back	0.094	0.161	0.176	0.012	0.021	0.267	0.276	0.282	0.291
	GSM1900_Ant 3	Front	0.087	0.045	0.075	0.017	0.014	0.149	0.146	0.179	0.176
		Back	0.080	0.161	0.176	0.012	0.021	0.253	0.262	0.268	0.277
WCDMA	WCDMA II_Ant 3	Front	0.109	0.045	0.075	0.017	0.014	0.171	0.168	0.201	0.198
		Back	0.095	0.161	0.176	0.012	0.021	0.268	0.277	0.283	0.292
	WCDMA IV_Ant 3	Front	0.012	0.045	0.075	0.017	0.014	0.074	0.071	0.104	0.101
		Back	0.018	0.161	0.176	0.012	0.021	0.191	0.200	0.206	0.215
	WCDMA V_Ant 1	Front	0.143	0.045	0.075	0.017	0.014	0.205	0.202	0.235	0.232
		Back	0.172	0.161	0.176	0.012	0.021	0.345	0.354	0.360	0.369
LTE	LTE Band 4_Ant 3	Front	0.036	0.045	0.075	0.017	0.014	0.098	0.095	0.128	0.125
		Back	0.034	0.161	0.176	0.012	0.021	0.207	0.216	0.222	0.231
	LTE Band 5_Ant 1	Front	0.112	0.045	0.075	0.017	0.014	0.174	0.171	0.204	0.201
		Back	0.155	0.161	0.176	0.012	0.021	0.328	0.337	0.343	0.352
	LTE Band 7_Ant 3	Front	0.066	0.045	0.075	0.017	0.014	0.128	0.125	0.158	0.155
		Back	0.067	0.161	0.176	0.012	0.021	0.240	0.249	0.255	0.264
	LTE Band 12_Ant 1	Front	0.077	0.045	0.075	0.017	0.014	0.139	0.136	0.169	0.166
		Back	0.100	0.161	0.176	0.012	0.021	0.273	0.282	0.288	0.297
	LTE Band 13_Ant 1	Front	0.206	0.045	0.075	0.017	0.014	0.268	0.265	0.298	0.295
		Back	0.240	0.161	0.176	0.012	0.021	0.413	0.422	0.428	0.437
	LTE Band 25_Ant 3	Front	0.116	0.045	0.075	0.017	0.014	0.178	0.175	0.208	0.205
		Back	0.101	0.161	0.176	0.012	0.021	0.274	0.283	0.289	0.298
	LTE Band 26_Ant 1	Front	0.108	0.045	0.075	0.017	0.014	0.170	0.167	0.200	0.197
		Back	0.133	0.161	0.176	0.012	0.021	0.306	0.315	0.321	0.330
	LTE Band 38_Ant 3	Front	0.062	0.045	0.075	0.017	0.014	0.124	0.121	0.154	0.151
		Back	0.107	0.161	0.176	0.012	0.021	0.280	0.289	0.295	0.304
	LTE Band 41_Ant 3	Front	0.066	0.045	0.075	0.017	0.014	0.128	0.125	0.158	0.155
		Back	0.083	0.161	0.176	0.012	0.021	0.256	0.265	0.271	0.280
	LTE Band 66_Ant 3	Front	0.031	0.045	0.075	0.017	0.014	0.093	0.090	0.123	0.120
		Back	0.028	0.161	0.176	0.012	0.021	0.201	0.210	0.216	0.225

WWAN Band		Exposure Position	1	2	3	4	5	1+2+4 Summed 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	5GHz WLAN Ant 1	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM	GSM850_Ant 0-	Front	0.054	0.045	0.075	0.017	0.014	0.116	0.113	0.146	0.143
		Back	0.090	0.161	0.176	0.012	0.021	0.263	0.272	0.278	0.287
	GSM1900_Ant 2	Front	0.117	0.045	0.075	0.017	0.014	0.179	0.176	0.209	0.206
		Back	0.150	0.161	0.176	0.012	0.021	0.323	0.332	0.338	0.347
WCDMA	WCDMA II_Ant 2	Front	0.135	0.045	0.075	0.017	0.014	0.197	0.194	0.227	0.224
		Back	0.171	0.161	0.176	0.012	0.021	0.344	0.353	0.359	0.368
	WCDMA IV_Ant 2	Front	0.134	0.045	0.075	0.017	0.014	0.196	0.193	0.226	0.223
		Back	0.146	0.161	0.176	0.012	0.021	0.319	0.328	0.334	0.343
	WCDMA V_Ant 0	Front	0.097	0.045	0.075	0.017	0.014	0.159	0.156	0.189	0.186
		Back	0.151	0.161	0.176	0.012	0.021	0.324	0.333	0.339	0.348
LTE	LTE Band 7_Ant 2	Front	0.126	0.045	0.075	0.017	0.014	0.188	0.185	0.218	0.215
		Back	0.166	0.161	0.176	0.012	0.021	0.339	0.348	0.354	0.363
	LTE Band 12_Ant 0	Front	0.112	0.045	0.075	0.017	0.014	0.174	0.171	0.204	0.201
		Back	0.188	0.161	0.176	0.012	0.021	0.361	0.370	0.376	0.385
	LTE Band 13_Ant 0	Front	0.001	0.045	0.075	0.017	0.014	0.063	0.060	0.093	0.090
		Back	0.001	0.161	0.176	0.012	0.021	0.174	0.183	0.189	0.198
	LTE Band 25_Ant 2	Front	0.157	0.045	0.075	0.017	0.014	0.219	0.216	0.249	0.246
		Back	0.209	0.161	0.176	0.012	0.021	0.382	0.391	0.397	0.406
	LTE Band 26_Ant 0	Front	0.130	0.045	0.075	0.017	0.014	0.192	0.189	0.222	0.219
		Back	0.209	0.161	0.176	0.012	0.021	0.382	0.391	0.397	0.406
	LTE Band 41_Ant 2	Front	0.121	0.045	0.075	0.017	0.014	0.183	0.180	0.213	0.210
		Back	0.206	0.161	0.176	0.012	0.021	0.379	0.388	0.394	0.403
	LTE Band 66_Ant 2	Front	0.177	0.045	0.075	0.017	0.014	0.239	0.236	0.269	0.266
		Back	0.208	0.161	0.176	0.012	0.021	0.381	0.390	0.396	0.405

WWAN Band		Exposure Position	1	2	3	4	5	1+2+4 Summed 1g SAR (W/kg)	1+2+5 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
LTE	LTE Band 7_Ant 0-	Front	0.101	0.045	0.075	0.017	0.014	0.163	0.160	0.193	0.190
		Back	0.132	0.161	0.176	0.012	0.021	0.305	0.314	0.320	0.329
	LTE Band 38_Ant 0-	Front	0.082	0.045	0.075	0.017	0.014	0.144	0.141	0.174	0.171
		Back	0.115	0.161	0.176	0.012	0.021	0.288	0.297	0.303	0.312
	LTE Band 41_Ant 0-	Front	0.069	0.045	0.075	0.017	0.014	0.131	0.128	0.161	0.158
		Back	0.091	0.161	0.176	0.012	0.021	0.264	0.273	0.279	0.288



<1g_Sim-Tx WWAN+2.4GHz+5GHz>

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_Ant 1	Front	0.080	0.045	0.075	0.017	0.014	0.217	0.214
		Back	0.084	0.161	0.176	0.012	0.021	0.433	0.442
	GSM1900_Ant 3	Front	0.078	0.045	0.075	0.017	0.014	0.215	0.212
		Back	0.071	0.161	0.176	0.012	0.021	0.420	0.429
WCDMA	WCDMA II_Ant 3	Front	0.097	0.045	0.075	0.017	0.014	0.234	0.231
		Back	0.084	0.161	0.176	0.012	0.021	0.433	0.442
	WCDMA IV_Ant 3	Front	0.010	0.045	0.075	0.017	0.014	0.147	0.144
		Back	0.016	0.161	0.176	0.012	0.021	0.365	0.374
	WCDMA V_Ant 1	Front	0.128	0.045	0.075	0.017	0.014	0.265	0.262
		Back	0.154	0.161	0.176	0.012	0.021	0.503	0.512
LTE	LTE Band 4_Ant 3	Front	0.032	0.045	0.075	0.017	0.014	0.169	0.166
		Back	0.031	0.161	0.176	0.012	0.021	0.380	0.389
	LTE Band 5_Ant 1	Front	0.112	0.045	0.075	0.017	0.014	0.249	0.246
		Back	0.155	0.161	0.176	0.012	0.021	0.504	0.513
	LTE Band 7_Ant 3	Front	0.059	0.045	0.075	0.017	0.014	0.196	0.193
		Back	0.060	0.161	0.176	0.012	0.021	0.409	0.418
	LTE Band 12_Ant 1	Front	0.077	0.045	0.075	0.017	0.014	0.214	0.211
		Back	0.100	0.161	0.176	0.012	0.021	0.449	0.458
	LTE Band 13_Ant 1	Front	0.206	0.045	0.075	0.017	0.014	0.343	0.340
		Back	0.240	0.161	0.176	0.012	0.021	0.589	0.598
	LTE Band 25_Ant 3	Front	0.104	0.045	0.075	0.017	0.014	0.241	0.238
		Back	0.090	0.161	0.176	0.012	0.021	0.439	0.448
	LTE Band 26_Ant 1	Front	0.096	0.045	0.075	0.017	0.014	0.233	0.230
		Back	0.119	0.161	0.176	0.012	0.021	0.468	0.477
	LTE Band 38_Ant 3	Front	0.055	0.045	0.075	0.017	0.014	0.192	0.189
		Back	0.095	0.161	0.176	0.012	0.021	0.444	0.453
	LTE Band 41_Ant 3	Front	0.059	0.045	0.075	0.017	0.014	0.196	0.193
		Back	0.074	0.161	0.176	0.012	0.021	0.423	0.432
	LTE Band 66_Ant 3	Front	0.027	0.045	0.075	0.017	0.014	0.164	0.161
		Back	0.025	0.161	0.176	0.012	0.021	0.374	0.383

WWAN Band		Exposure Position	1	2	3	4	5	1+2+3+4 Summed 1g SAR (W/kg)	1+2+3+5 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	5GHz WLAN Ant 1	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_Ant 0	Front	0.048	0.045	0.075	0.017	0.014	0.185	0.182
		Back	0.081	0.161	0.176	0.012	0.021	0.430	0.439
	GSM1900_Ant 2	Front	0.117	0.045	0.075	0.017	0.014	0.254	0.251
		Back	0.150	0.161	0.176	0.012	0.021	0.499	0.508
WCDMA	WCDMA II_Ant 2	Front	0.120	0.045	0.075	0.017	0.014	0.257	0.254
		Back	0.152	0.161	0.176	0.012	0.021	0.501	0.510
	WCDMA IV_Ant 2	Front	0.120	0.045	0.075	0.017	0.014	0.257	0.254
		Back	0.130	0.161	0.176	0.012	0.021	0.479	0.488
	WCDMA V_Ant 0	Front	0.086	0.045	0.075	0.017	0.014	0.223	0.220
		Back	0.134	0.161	0.176	0.012	0.021	0.483	0.492
LTE	LTE Band 7_Ant 2	Front	0.112	0.045	0.075	0.017	0.014	0.249	0.246
		Back	0.148	0.161	0.176	0.012	0.021	0.497	0.506
	LTE Band 12_Ant 0	Front	0.112	0.045	0.075	0.017	0.014	0.249	0.246
		Back	0.188	0.161	0.176	0.012	0.021	0.537	0.546
	LTE Band 13_Ant 0	Front	0.001	0.045	0.075	0.017	0.014	0.138	0.135
		Back	0.001	0.161	0.176	0.012	0.021	0.350	0.359
	LTE Band 25_Ant 2	Front	0.140	0.045	0.075	0.017	0.014	0.277	0.274
		Back	0.187	0.161	0.176	0.012	0.021	0.536	0.545
	LTE Band 26_Ant 0	Front	0.116	0.045	0.075	0.017	0.014	0.253	0.250
		Back	0.187	0.161	0.176	0.012	0.021	0.536	0.545
	LTE Band 41_Ant 2	Front	0.108	0.045	0.075	0.017	0.014	0.245	0.242
		Back	0.184	0.161	0.176	0.012	0.021	0.533	0.542
	LTE Band 66_Ant 2	Front	0.158	0.045	0.075	0.017	0.014	0.295	0.292
		Back	0.186	0.161	0.176	0.012	0.021	0.535	0.544

WWAN Band		Exposure Position	1	2	4	6	7	1+2+4+6 Summed 1g SAR (W/kg)	1+2+4+7 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Bluetooth Ant 2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 7_Ant 0	Front	0.090	0.045	0.075	0.017	0.014	0.230	0.220
		Back	0.118	0.161	0.176	0.012	0.021	0.470	0.480
	LTE Band 38_Ant 0	Front	0.073	0.045	0.075	0.017	0.014	0.210	0.210
		Back	0.102	0.161	0.176	0.012	0.021	0.450	0.460
	LTE Band 41_Ant 0	Front	0.062	0.045	0.075	0.017	0.014	0.107	0.137
		Back	0.081	0.161	0.176	0.012	0.021	0.242	0.257

14.4 Product Specific Exposure Conditions

<WiFi standalone only>

Exposure Position	1	2	3	4	1+3 Summed 10g SAR (W/kg)	1+4 Summed 10g SAR (W/kg)	2+3 Summed 10g SAR (W/kg)	2+4 Summed 10g SAR (W/kg)
	2.4GHz WLAN Ant 1+2 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)	Bluetooth Ant 1 10g SAR (W/kg)	Bluetooth Ant 2 10g SAR (W/kg)				
Front		1.348					1.348	1.348
Back		0.897					0.897	0.897
Left side		0.065					0.065	0.065
Right side		0.540					0.540	0.540
Top side		1.320					1.320	1.320

<WiFi 2.4GHz + 5GHz only>

Exposure Position	1	2	3	4	1+2+3 Summed 10g SAR (W/kg)	1+2+4 Summed 10g SAR (W/kg)
	2.4GHz WLAN Ant 1+2 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)	Bluetooth Ant 1 10g SAR (W/kg)	Bluetooth Ant 2 10g SAR (W/kg)		
Front		0.710			0.710	0.710
Back		0.556			0.556	0.556
Left side		0.051			0.051	0.051
Right side		0.320			0.320	0.320
Top side		0.751			0.751	0.751

Test Engineer : Jerry Hsu, White Huang, Iran Wang, Charles Shen and Jack Yang



15. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg. Therefore, the measurement uncertainty table is not required in this report.

16. References

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
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- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [6] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [7] FCC KDB 648474 D04 v01r03, "SAR Evaluation Considerations for Wireless Handsets", Oct 2015.
- [8] FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
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- [10] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [11] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [12] FCC KDB 941225 D07 v01r02, " SAR Evaluation Procedures for UMPC Mini-Tablet Devices", Oct 2015.
- [13] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [14] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.