FCC SAR Test Report

APPLICANT	**:**	**Hewlett-Packard Company**
EQUIPMENT	**:**	**Tablet PC**
BRAND NAME	**:**	**HP**
MODEL NAME	**:**	**HSTNN-I19C**
FCC ID	**:**	**B94HNI19CFX468**
STANDARD	**:**	**FCC 47 CFR Part 2 (2.1093)**
		ANSI/IEEE C95.1-1992
		IEEE 1528-2003

We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and had been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.
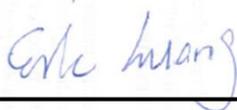
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 Reviewed by: Eric Huang / Deputy Manager

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 Approved by: Jones Tsai / Manager

SPORTON INTERNATIONAL INC.
No. 52, Hwa Ya 1ˢᵗ Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA441846-01	Rev. 01	Initial issue of report	Jul. 09, 2014
FA441846-01	Rev. 02	1. Revised note2 and add final action date in section4.1. 2. Add LTE release number on page12. 3. Revised note1 for remove DC-HSDPA on page29. 4. Add WLAN module transmission configuration in section14 and section16.2. 5. Add note3 on page61.	Jul. 29, 2014

SPORTON INTERNATIONAL INC.

TEL : 886-3-327-3456 / FAX : 886-3-328-4978   Issued Date : Jul. 29, 2014
FCC ID : B94HNI19CFX468   Page 3 of 90   Form version. : 140422

1. *Statement of Compliance*

The maximum results of Specific Absorption Rate (SAR) found during testing for **Hewlett-Packard Company, Tablet PC, HSTNN-I19C**, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary	
		Body 1g SAR (W/kg)	Simultaneous Transmission 1g SAR (W/kg)
PCB	GSM850	1.34	1.59
	GSM1900	1.19	
	WCDMA Band V	1.26	
	WCDMA Band IV	1.30	
	WCDMA Band II	1.23	
	CDMA 2000 BC0	1.09	
	CDMA 2000 BC1	1.11	
	LTE Band 17	1.25	
	LTE Band 13	1.13	
	LTE Band 5	1.23	
	LTE Band 4	**1.35**	
	LTE Band 2	1.15	
	LTE Band 25	1.22	
Date of Testing:		05/04/2014 ~ 06/13/2014	

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) 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 1528-2003.

2. *Administration Data*

Testing Laboratory	
Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978

Applicant	
Company Name	Hewlett-Packard Company
Address	3000 Hanover Street, Palo Alto, California 94304, USA

Manufacturer	
Company Name	Inventec Corporation
Address	Inventec Building, No.66 Hou-Kang Street Shilin District, Taipei 11170, Taiwan

3. *Guidance Standard*

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 1528-2003
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r03
- FCC KDB 865664 D02 SAR Reporting v01r01
- FCC KDB 447498 D01 General RF Exposure Guidance v05r02
- FCC KDB 616217 D04 SAR for laptop and tablets v01r01
- FCC KDB 941225 D01 SAR test for 3G devices v02
- FCC KDB 941225 D02 HSPA and 1x Advanced v02r02
- FCC KDB 941225 D03 SAR Test Reduction GSM GPRS EDGE v01
- FCC KDB 941225 D05 SAR for LTE Devices v02r03

4. Equipment Under Test (EUT)

4.1 General Information

Product Feature & Specification	
Equipment Name	Tablet PC
Brand Name	HP
Model Name	HSTNN-I19C
FCC ID	B94HNI19CFX468
Integrated WWAN Module	Brand Name: Foxconn Model Name: T77H468
IMEI Code	359339050001675
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz CDMA2000 BC0: 824.7 MHz ~ 848.31 MHz CDMA 2000 BC1: 1851.25 MHz ~ 1908.75 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz
Mode	・GPRS/EGPRS ・RMC 12.2Kbps ・HSDPA ・HSUPA ・CDMA2000 : 1xRTT/1xEv-Do(Rev.0)/1xEv-Do(Rev.A) ・LTE: QPSK, 16QAM
EUT Stage	Identical Prototype

Remark:
1. The above EUT's information is declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. The below table WLAN modules are also integrated into this host and the 2.4GHz WLAN and Bluetooth SAR testing results are also used perform transmission simultaneous analysis, and these WLAN modules were also integrated into the same location and used the same antenna in this host (TSTNN-I19C) separately tested.

WLAN Module Information		
Integrated Module 1	Brand Name	Broadcom
	Model Name	BCM943142Y
	FCC ID	QDS-BRCM1079
	Report No	FA440180
	Final Action Date	06/26/2014
	Mode	・802.11 b/g/n ・Bluetooth
Integrated Module 2	Brand Name	Intel
	Model Name	Intel® Dual Band Wireless-AC 3160 (Model 3160NGW)
	FCC ID	PD93160NG
	Report No	SAR.20140503
	Final Action Date	06/19/2014
	Mode	・802.11 a/b/g/n/ac ・Bluetooth
Integrated Module 3	Brand Name	Intel
	Model Name	Intel® Dual Band Wireless-AC 7260 (Model 7260NGW, 7260NGW AN, 7260NGW BN, 7260NGW NB)
	FCC ID	PD97260NG
	Report No	SAR.20140502
	Final Action Date	06/20/2014
	Mode	・802.11 a/b/g/n/ac ・Bluetooth

4.2 Maximum Tune-up Limit

Mode / Band	Burst Average Power (dBm)			
	GSM 850		GSM 1900	
Output Power Status	Full Power Mode	Reduce Power Mode	Full Power Mode	Reduce Power Mode
GPRS (GMSK, 1 Tx slot)	33.50	28.50	31.00	28.50
GPRS (GMSK, 2 Tx slots)	33.00	28.00	30.50	28.00
GPRS (GMSK, 3 Tx slots)	31.00	26.00	28.00	24.50
GPRS (GMSK, 4 Tx slots)	29.00	24.00	26.00	22.50
EDGE (8PSK, 1 Tx slot)	28.00	28.00	27.00	27.00
EDGE (8PSK, 2 Tx slots)	27.00	27.00	26.00	26.00
EDGE (8PSK, 3 Tx slot)	27.00	26.00	26.00	26.00
EDGE (8PSK, 4 Tx slots)	25.00	25.00	24.00	24.00

Mode / Band	Average Power (dBm)					
	WCDMA Band V		WCDMA Band II		WCDMA Band IV	
Output Power Status	Full Power Mode	Reduce Power Mode	Full Power Mode	Reduce Power Mode	Full Power Mode	Reduce Power Mode
RMC 12.2Kbps	24.50	21.50	24.50	21.00	24.50	21.50
HSDPA Subtest-1	23.00	21.00	23.00	20.00	23.00	21.50
HSUPA Subtest-5	22.50	20.50	22.50	19.50	22.50	21.00

Mode / Band	Average Power (dBm)			
	CDMA BC0		CDMA BC1	
Output Power Status	Full Power Mode	Reduce Power Mode	Full Power Mode	Reduce Power Mode
1xRTT RC1 SO55	24.50	21.50	24.50	21.00
1xRTT RC3 SO55	24.50	21.50	24.50	21.00
1xEV-DO Rev 0	24.50	21.50	24.50	21.00
1xEV-DO Rev A	24.50	21.50	24.50	21.00

LTE Band 17						
Modulation	BW (MHz)	RB size	Full Power Mode		Reduce Power Mode	
			MPR	Average Power (dBm)	MPR	Average Power (dBm)
QPSK	10	≤ 12	0	24.00	0	23.00
QPSK	10	> 12	1	23.00	0	23.00
16QAM	10	≤ 12	1	23.00	0	23.00
16QAM	10	> 12	2	22.00	0	23.00
QPSK	5	≤ 8	0	24.00	0	23.00
QPSK	5	> 8	1	23.00	0	23.00
16QAM	5	≤ 8	1	23.00	0	23.00
16QAM	5	> 8	2	22.00	0	23.00

LTE Band 13						
Modulation	BW (MHz)	RB size	Full Power Mode		Reduce Power Mode	
			MPR	Average Power (dBm)	MPR	Average Power (dBm)
QPSK	10	≤ 12	0	24.00	0	21.00
QPSK	10	> 12	1	23.00	0	21.00
16QAM	10	≤ 12	1	23.00	0	21.00
16QAM	10	> 12	2	22.00	0	21.00
QPSK	5	≤ 8	0	24.00	0	21.00
QPSK	5	> 8	1	23.00	0	21.00
16QAM	5	≤ 8	1	23.00	0	21.00
16QAM	5	> 8	2	22.00	0	21.00

LTE Band 5						
Modulation	BW (MHz)	RB size	Full Power Mode		Reduce Power Mode	
			MPR	Average Power (dBm)	MPR	Average Power (dBm)
QPSK	10	≤ 12	0	24.00	0	22.00
QPSK	10	> 12	1	23.00	0	22.00
16QAM	10	≤ 12	1	23.00	0	22.00
16QAM	10	> 12	2	22.00	0	22.00
QPSK	5	≤ 8	0	24.00	0	22.00
QPSK	5	> 8	1	23.00	0	22.00
16QAM	5	≤ 8	1	23.00	0	22.00
16QAM	5	> 8	2	22.00	0	22.00
QPSK	3	≤ 4	0	24.00	0	22.00
QPSK	3	> 4	1	23.00	0	22.00
16QAM	3	≤ 4	1	23.00	0	22.00
16QAM	3	> 4	2	22.00	0	22.00
QPSK	1.4	≤ 5	0	24.00	0	22.00
QPSK	1.4	> 5	1	23.00	0	22.00
16QAM	1.4	≤ 5	1	23.00	0	22.00
16QAM	1.4	> 5	2	22.00	0	22.00

LTE Band 4						
Modulation	BW (MHz)	RB size	Full Power Mode		Reduce Power Mode	
			MPR	Average Power (dBm)	MPR	Average Power (dBm)
QPSK	20	≤ 18	0	24.00	0	22.00
QPSK	20	> 18	1	23.00	0	22.00
16QAM	20	≤ 18	1	23.00	0	22.00
16QAM	20	> 18	2	22.00	0	22.00
QPSK	15	≤ 16	0	24.00	0	22.00
QPSK	15	> 16	1	23.00	0	22.00
16QAM	15	≤ 16	1	23.00	0	22.00
16QAM	15	> 16	2	22.00	0	22.00
QPSK	10	≤ 12	0	24.00	0	22.00
QPSK	10	> 12	1	23.00	0	22.00
16QAM	10	≤ 12	1	23.00	0	22.00
16QAM	10	> 12	2	22.00	0	22.00
QPSK	5	≤ 8	0	24.00	0	22.00
QPSK	5	> 8	1	23.00	0	22.00
16QAM	5	≤ 8	1	23.00	0	22.00
16QAM	5	> 8	2	22.00	0	22.00
QPSK	3	≤ 4	0	24.00	0	22.00
QPSK	3	> 4	1	23.00	0	22.00
16QAM	3	≤ 4	1	23.00	0	22.00
16QAM	3	> 4	2	22.00	0	22.00
QPSK	1.4	≤ 5	0	24.00	0	22.00
QPSK	1.4	> 5	1	23.00	0	22.00
16QAM	1.4	≤ 5	1	23.00	0	22.00
16QAM	1.4	> 5	2	22.00	0	22.00

LTE Band 2						
Modulation	BW (MHz)	RB size	Full Power Mode		Reduce Power Mode	
			MPR	Average Power (dBm)	MPR	Average Power (dBm)
QPSK	20	≤ 18	0	24.00	0	21.00
QPSK	20	> 18	1	23.00	0	21.00
16QAM	20	≤ 18	1	23.00	0	21.00
16QAM	20	> 18	2	22.00	0	21.00
QPSK	15	≤ 16	0	24.00	0	21.00
QPSK	15	> 16	1	23.00	0	21.00
16QAM	15	≤ 16	1	23.00	0	21.00
16QAM	15	> 16	2	22.00	0	21.00
QPSK	10	≤ 12	0	24.00	0	21.00
QPSK	10	> 12	1	23.00	0	21.00
16QAM	10	≤ 12	1	23.00	0	21.00
16QAM	10	> 12	2	22.00	0	21.00
QPSK	5	≤ 8	0	24.00	0	21.00
QPSK	5	> 8	1	23.00	0	21.00
16QAM	5	≤ 8	1	23.00	0	21.00
16QAM	5	> 8	2	22.00	0	21.00
QPSK	3	≤ 4	0	24.00	0	21.00
QPSK	3	> 4	1	23.00	0	21.00
16QAM	3	≤ 4	1	23.00	0	21.00
16QAM	3	> 4	2	22.00	0	21.00
QPSK	1.4	≤ 5	0	24.00	0	21.00
QPSK	1.4	> 5	1	23.00	0	21.00
16QAM	1.4	≤ 5	1	23.00	0	21.00
16QAM	1.4	> 5	2	22.00	0	21.00

LTE Band 25						
Modulation	BW (MHz)	RB size	Full Power Mode		Reduce Power Mode	
			MPR	Average Power (dBm)	MPR	Average Power (dBm)
QPSK	20	≤ 18	0	24.00	0	21.00
QPSK	20	> 18	1	23.00	0	21.00
16QAM	20	≤ 18	1	23.00	0	21.00
16QAM	20	> 18	2	22.00	0	21.00
QPSK	15	≤ 16	0	24.00	0	21.00
QPSK	15	> 16	1	23.00	0	21.00
16QAM	15	≤ 16	1	23.00	0	21.00
16QAM	15	> 16	2	22.00	0	21.00
QPSK	10	≤ 12	0	24.00	0	21.00
QPSK	10	> 12	1	23.00	0	21.00
16QAM	10	≤ 12	1	23.00	0	21.00
16QAM	10	> 12	2	22.00	0	21.00
QPSK	5	≤ 8	0	24.00	0	21.00
QPSK	5	> 8	1	23.00	0	21.00
16QAM	5	≤ 8	1	23.00	0	21.00
16QAM	5	> 8	2	22.00	0	21.00
QPSK	3	≤ 4	0	24.00	0	21.00
QPSK	3	> 4	1	23.00	0	21.00
16QAM	3	≤ 4	1	23.00	0	21.00
16QAM	3	> 4	2	22.00	0	21.00
QPSK	1.4	≤ 5	0	24.00	0	21.00
QPSK	1.4	> 5	1	23.00	0	21.00
16QAM	1.4	≤ 5	1	23.00	0	21.00
16QAM	1.4	> 5	2	22.00	0	21.00

4.3 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r03	
FCC ID	B94HNI19CFX468
Equipment Name	Tablet PC
Operating Frequency Range of each LTE transmission band	LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz
Channel Bandwidth	LTE Band 17: 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 5: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 4: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 2: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 25: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
Release version	Release9, cat3
uplink modulations used	QPSK, and 16QAM
LTE Voice / Data requirements	Data only
LTE MPR permanently built-in by design	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3** Modulation / Channel bandwidth / Transmission bandwidth (RB) / MPR (dB): QPSK: 1.4MHz >5, 3.0MHz >4, 5MHz >8, 10MHz >12, 15MHz >16, 20MHz >18, MPR ≤1 16 QAM: 1.4MHz ≤5, 3.0MHz ≤4, 5MHz ≤8, 10MHz ≤12, 15MHz ≤16, 20MHz ≤18, MPR ≤1 16 QAM: 1.4MHz >5, 3.0MHz >4, 5MHz >8, 10MHz >12, 15MHz >16, 20MHz >18, MPR ≤2
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, proximity sensor.

Transmission (H, M, L) channel numbers and frequencies in each LTE band

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 13

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	23205	779.5		
M	23230	782	23230	782
H	23255	784.5		

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)
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 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 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 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

SPORTON INTERNATIONAL INC.

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5. *Proximity Sensor Triggering Test*

Proximity sensor power reduction

Exposure Position / wireless mode	Bottom Face[1]	Edge 1[1]	Curved surface of Edge1[1]	Edge 2	Edge 3	Edge 4
GSM850 GPRS (GMSK 1 Tx slot) - CS1	5.0 dB	5.0 dB	5.0 dB			
GSM850 GPRS (GMSK 2 Tx slots) - CS1	5.0 dB	5.0 dB	5.0 dB			
GSM850 GPRS (GMSK 3 Tx slots) - CS1	5.0 dB	5.0 dB	5.0 dB			
GSM850 GPRS (GMSK 4 Tx slots) - CS1	5.0 dB	5.0 dB	5.0 dB			
GSM850 EDGE (8PSK 1 Tx slot) - MCS5	0.0 dB	0.0 dB	0.0 dB			
GSM850 EDGE (8PSK 2 Tx slots) - MCS5	0.0 dB	0.0 dB	0.0 dB			
GSM850 EDGE (8PSK 3 Tx slots) - MCS5	1.0 dB	1.0 dB	1.0 dB			
GSM850 EDGE (8PSK 4 Tx slots) - MCS5	0.0 dB	0.0 dB	0.0 dB			
GSM1900 GPRS (GMSK 1 Tx slot) - CS1	2.5 dB	2.5 dB	2.5 dB			
GSM1900 GPRS (GMSK 2 Tx slots) - CS1	2.5 dB	2.5 dB	2.5 dB			
GSM1900 GPRS (GMSK 3 Tx slots) - CS1	3.5 dB	3.5 dB	3.5 dB			
GSM1900 GPRS (GMSK 4 Tx slots) - CS1	3.5 dB	3.5 dB	3.5 dB			
GSM1900 EDGE (8PSK 1 Tx slots) - MCS5	0.0 dB	0.0 dB	0.0 dB			
GSM1900 EDGE (8PSK 2 Tx slots) - MCS5	0.0 dB	0.0 dB	0.0 dB	0 dB	0 dB	0 dB
GSM1900 EDGE (8PSK 3 Tx slots) - MCS5	0.0 dB	0.0 dB	0.0 dB			
GSM1900 EDGE (8PSK 4 Tx slots) - MCS5	0.0 dB	0.0 dB	0.0 dB			
WCDMA Band V	3.0 dB	3.0 dB	3.0 dB			
WCDMA Band II	3.5 dB	3.5 dB	3.5 dB			
WCDMA Band IV	3.0 dB	3.0 dB	3.0 dB			
CDMA2000 BC0	3.0 dB	3.0 dB	3.0 dB			
CDMA2000 BC1	3.5 dB	3.5 dB	3.5 dB			
LTE Band 17	1.0 dB	1.0 dB	1.0 dB			
LTE Band 13	3.0 dB	3.0 dB	3.0 dB			
LTE Band 5	2.0 dB	2.0 dB	2.0 dB			
LTE Band 4	2.0 dB	2.0 dB	2.0 dB			
LTE Band 2	3.0 dB	3.0 dB	3.0 dB			
LTE Band 25	3.0 dB	3.0 dB	3.0 dB			

Remark:
1. [1]: Reduced maximum limit applied by activation of proximity sensor.
2. Tests were performed in accordance with KDB 616217 D04 section 6.1, 6.2, 6.3, 6.4 and 6.5 and compliant results are shown and described in exhibit "P-Sensor operational description
3. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance was performed:
   · Bottom Face: 10 mm
   · Edge1: 10 mm
   · Curved surface of Edge1: 10 mm

Power Measurement during Sensor Trigger distance testing

Band/Mode	Ch #	Measured power reduction (dBm)		Reduction Levels
		w/o power back-off	w/ power back-off	(dB)
GSM850 GPRS (GMSK 1 Tx slot)	189	31.65	27.63	4.02
GSM1900 GPRS (GMSK 1 Tx slot)	512	28.95	26.73	2.22
WCDMA Band V (RMC 12.2Kbps)	4132	22.53	20.67	1.86
WCDMA Band IV (RMC 12.2Kbps)	1312	22.72	21.58	1.14
WCDMA Band II (RMC 12.2Kbps)	9400	22.73	19.74	2.99
EVDO BC0 (RTAP 153.6Kbps)	384	23.82	21.41	2.41
EVDO BC1 (RTAP 153.6Kbps)	600	24.27	20.45	3.82
LTE Band 17 1RB 24 offset	23780	23.75	22.89	0.86
LTE Band 13 1RB 24 offset	23230	23.64	20.87	2.77
LTE Band 5 1RB 0offset	20450	23.80	21.95	1.85
LTE Band 4 1RB 0offset	20050	23.60	21.80	1.80
LTE Band 2 1RB 0offset	18900	23.79	20.80	2.99
LTE Band 25 1RB 0offset	26340	23.55	20.85	2.70

Curved surface of Edge 1

Legend:
- GSM850 (GMSK 2 Tx slots)
- GSM1900 (GMSK 2 Tx slots)
- WCDMA Band V
- WCDMA Band IV
- WCDMA Band II
- CDMA BC 0
- CDMA BC 1
- LTE Band 17
- LTE Band 13
- LTE Band 5
- LTE Band 4
- LTE Band 2
- LTE Band 25

X-axis: Gap (mm)
Y-axis: Power (dBm)
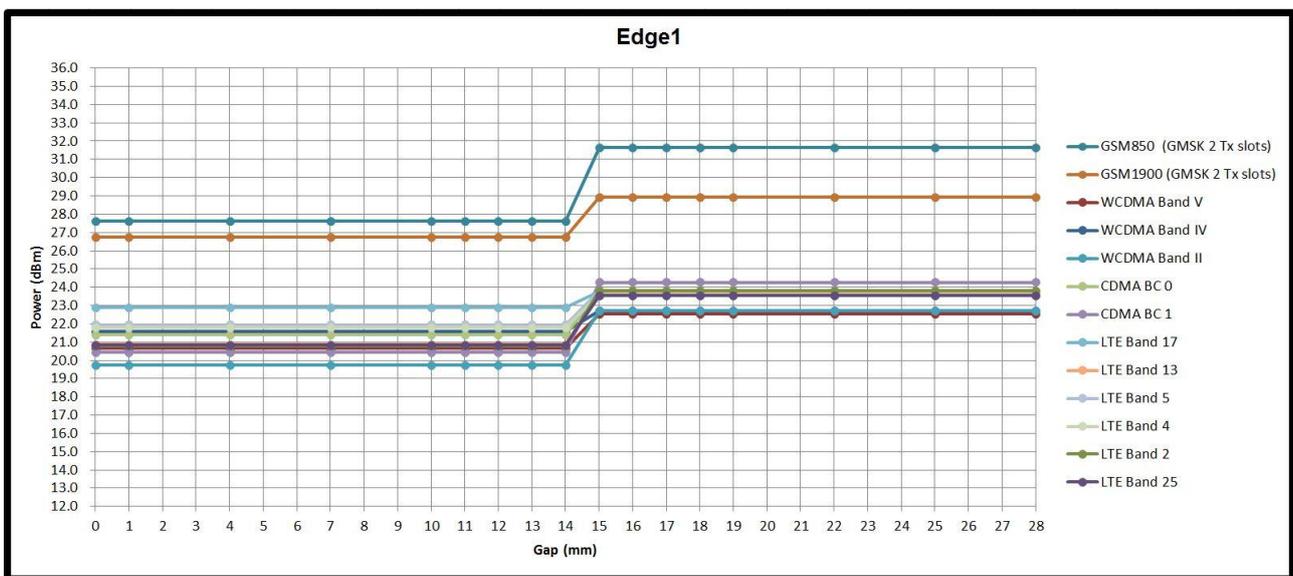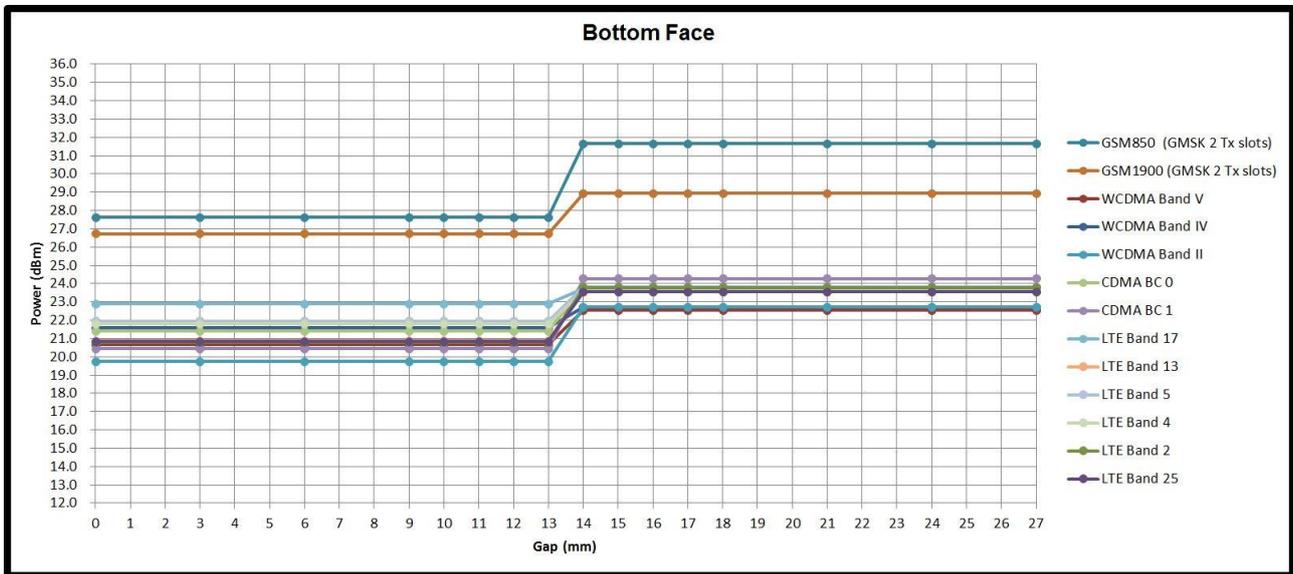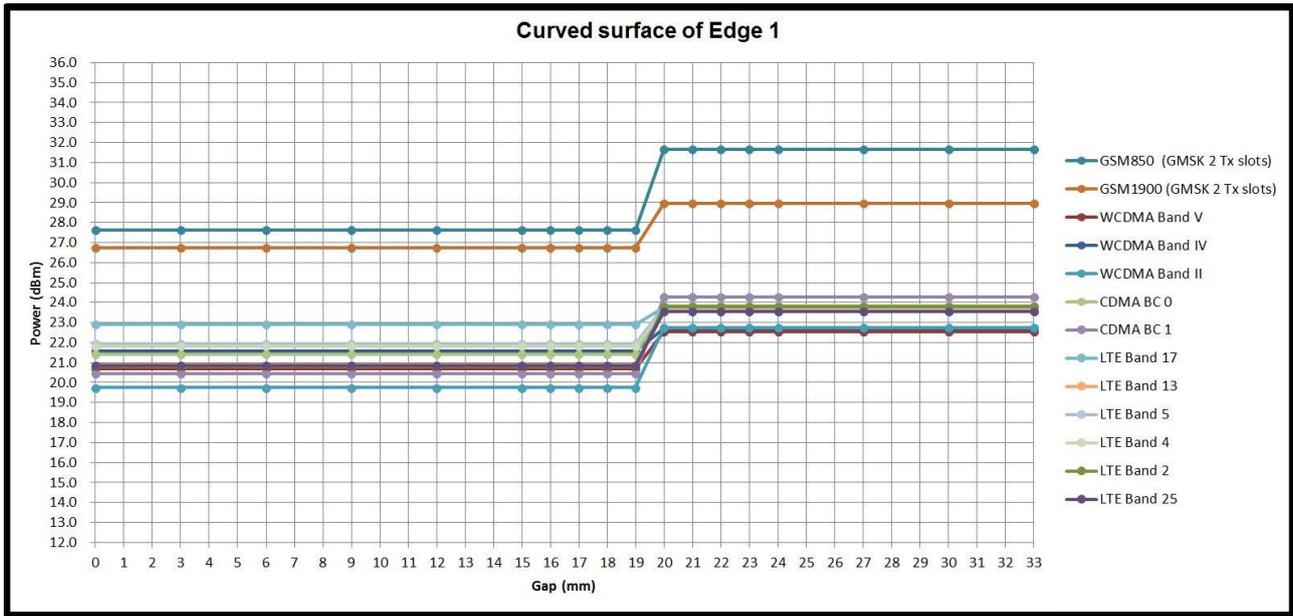
6. *RF Exposure Limits*

6.1 *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.

6.2 *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.

7. *Specific Absorption Rate (SAR)*

7.1 *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.

7.2 *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.

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8. *System Description and Setup*

The DASY system used for performing compliance tests consists of the following items:
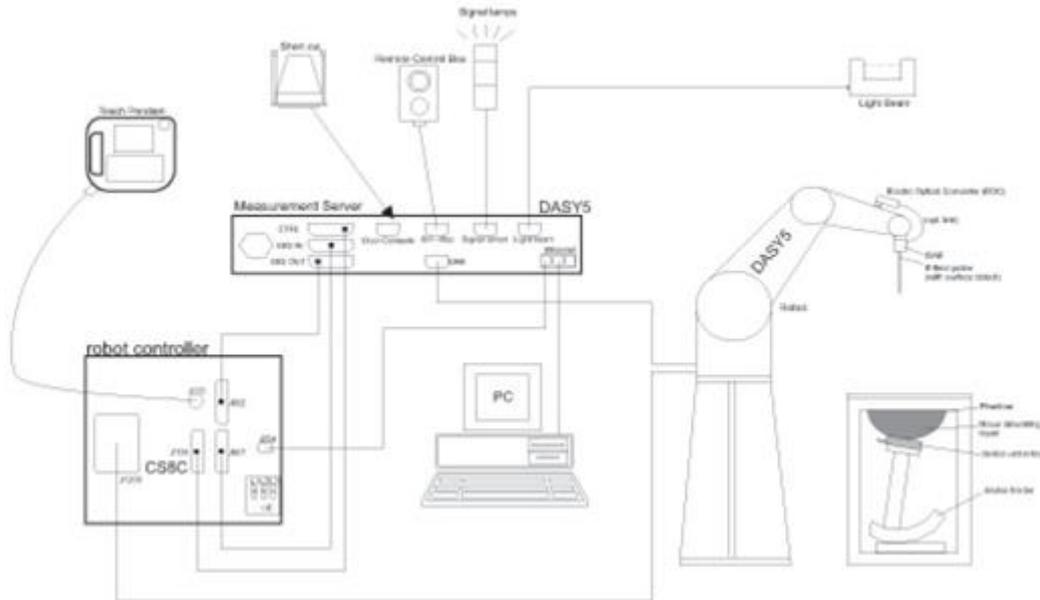
- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the 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.

9. *Measurement Procedures*

The measurement procedures are as follows:

<u>Conducted power measurement</u>
(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

<u>SAR measurement</u>
(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

9.1 *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 form 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

9.2 *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.

9.3 *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 dB0 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 D01v01r03 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	$30° \pm 1°$	$20° \pm 1°$
Maximum area scan spatial resolution: $\Delta x_{Area}, \Delta y_{Area}$	≤ 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.	

9.4 Zoom Scan

Zoom scans are used 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 shoes 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 D01v01r03 SAR measurement 100 MHz to 6 GHz.

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{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: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
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 *reported* SAR from the *area scan based 1-g SAR estimation* 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.

9.5 Volume Scan Procedures

The volume scan is used for 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.

9.6 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.

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10. *Test Equipment List*

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1099	Nov. 11, 2013	Nov. 10, 2014
SPEAG	835MHz System Validation Kit	D835V2	499	Mar. 24, 2014	Mar. 23, 2015
SPEAG	1750MHz System Validation Kit	D1750V2	1068	Nov. 27, 2013	Nov. 26, 2014
SPEAG	1900MHz System Validation Kit	D1900V2	5d041	Mar. 21, 2014	Mar. 20, 2015
SPEAG	Data Acquisition Electronics	DAE4	778	Aug. 21, 2013	Aug. 20, 2014
SPEAG	Data Acquisition Electronics	DAE4	914	Dec. 18, 2013	Dec. 17, 2014
SPEAG	Data Acquisition Electronics	DAE4	1279	Jan. 30, 2014	Jan. 29, 2015
SPEAG	Data Acquisition Electronics	DAE4	1399	Nov. 07, 2013	Nov. 06, 2014
SPEAG	Dosimetric E-Field Probe	EX3DV4	3770	Apr. 24, 2014	Apr. 23, 2015
SPEAG	Dosimetric E-Field Probe	ES3DV3	3270	Sep. 24, 2013	Sep. 23, 2014
SPEAG	Dosimetric E-Field Probe	EX3DV4	3954	Nov. 04, 2013	Nov. 03, 2014
SPEAG	Dosimetric E-Field Probe	EX3DV4	3955	Nov. 12, 2013	Nov. 11, 2014
Wisewind	Thermometer	ETP-101	TM560	Oct. 22, 2013	Oct. 21, 2014
Wisewind	Thermometer	ETP-101	TM685	Oct. 22, 2013	Oct. 21, 2014
Wisewind	Thermometer	HTC-1	TM642	Oct. 22, 2013	Oct. 21, 2014
Wisewind	Thermometer	HTC-1	TM281	Oct. 22, 2013	Oct. 21, 2014
Anritsu	Radio Communication Analyzer	MT8820C	6201074414	Feb. 11, 2014	Feb. 10, 2015
Anritsu	Radio Communication Analyzer	MT8820C	6201341950	Dec. 25, 2013	Dec. 24, 2014
Agilent	Wireless Communication Test Set	E5515C	MY48360820	Jan. 10, 2014	Jan. 09, 2015
R&S	Radio communication Tester	CMW500	113998	Oct. 04, 2013	Oct. 03, 2014
SPEAG	Device Holder	N/A	N/A	NCR	NCR
Agilent	Signal Generator	E4438C	MY49070755	Oct. 08, 2013	Oct. 07, 2014
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Jul. 23, 2013	Jul. 22, 2014
Agilent	ENA Network Analyzer	E5071C	MY46316648	Feb. 07, 2014	Feb. 06, 2015
Anritsu	Power Meter	ML2495A	1349001	Dec. 04, 2013	Dec. 03, 2014
Anritsu	Power Sensor	MA2411B	1306099	Dec. 03, 2013	Dec. 02, 2014
R&S	Spectrum Analyzer	FSP30	101067	Nov. 20, 2013	Nov. 19, 2014
Agilent	Dual Directional Coupler	778D	50422	Note 1	
Woken	Attenuator	WK0602-XX	N/A	Note 1	
PE	Attenuator	PE7005-10	N/A	Note 1	
PE	Attenuator	PE7005- 3	N/A	Note 1	
AR	Power Amplifier	5S1G4M2	0328767	Note 1	
Mini-Circuits	Power Amplifier	ZVE-3W	162601250	Note 1	
Mini-Circuits	Power Amplifier	ZHL-42W+	13440021344	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.

11. *System Verification*

11.1 *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 (εr)
For Head								
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
For Body								
750	51.7	47.2	0	0.9	0.1	0	0.96	55.5
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
900	50.8	48.2	0	0.9	0.1	0	1.05	55.0
1800, 1900, 2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0	0	31.4	1.95	52.7
2600	68.1	0	0	0.1	0	31.8	2.16	52.5

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)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (εr)	Conductivity Target (σ)	Permittivity Target (εr)	Delta (σ) (%)	Delta (εr) (%)	Limit (%)	Date
750	Body	22.3	0.970	54.633	0.96	55.50	1.04	-1.56	±5	2014/6/7
835	Body	22.6	0.981	55.337	0.97	55.20	1.13	0.25	±5	2014/5/4
835	Body	22.6	0.963	54.540	0.97	55.20	-0.72	-1.20	±5	2014/5/5
835	Body	22.3	0.978	53.389	0.97	55.20	0.82	-3.28	±5	2014/6/6
1750	Body	22.4	1.526	52.021	1.49	53.39	2.42	-2.56	±5	2014/6/6
1900	Body	22.6	1.532	52.506	1.52	53.30	0.79	-1.49	±5	2014/5/5
1900	Body	22.5	1.517	50.767	1.52	53.30	-0.20	-4.75	±5	2014/6/5
1900	Body	22.4	1.532	52.328	1.52	53.30	0.79	-1.82	±5	2014/6/9
1900	Body	22.2	1.531	52.652	1.52	53.30	0.72	-1.22	±5	2014/6/13

Table of Low/Middle/High Channel for Liquid Validation

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11.2 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)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured SAR (W/kg)	Targeted SAR (W/kg)	Normalized SAR (W/kg)	Deviation (%)
2014/6/7	750	Body	250	D750V3-1099	3770	914	2.01	8.56	8.04	-6.07
2014/5/4	835	Body	250	D835V2-499	3954	1279	2.50	9.46	10.00	5.71
2014/5/5	835	Body	250	D835V2-499	3954	1279	2.45	9.46	9.80	3.59
2014/6/6	835	Body	250	D835V2-499	3954	1279	2.49	9.46	9.96	5.29
2014/6/6	1750	Body	250	D1750V2-1068	3270	778	8.93	37.50	35.72	-4.75
2014/5/5	1900	Body	250	D1900V2-5d041	3954	1279	10.80	41.00	43.20	5.37
2014/6/5	1900	Body	250	D1900V2-5d041	3954	1279	10.20	41.00	40.80	-0.49
2014/6/9	1900	Body	250	D1900V2-5d041	3270	778	9.70	41.00	38.80	-5.37
2014/6/13	1900	Body	250	D1900V2-5d041	3955	1399	10.30	41.00	41.20	0.49
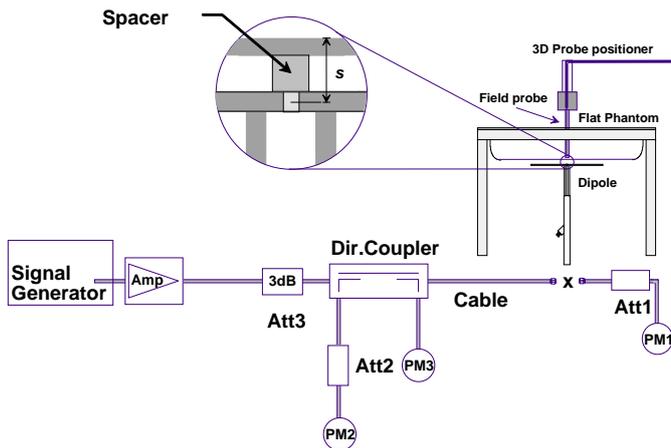
Fig 8.3.1 System Performance Check Setup   Fig 8.3.2 Setup Photo

12. RF Exposure Positions

12.1 SAR Testing for Tablet

This device can be used also in full sized tablet exposure conditions, due to its size. Per FCC KDB 616217, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. The SAR exclusion threshold in KDB 447498 D01v05r02 can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

13. Conducted RF Output Power (Unit: dBm)

<GSM Conducted Power>

General Note:
1. Per KDB 447498 D01v05r02, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. For Body SAR testing was following KDB 941225 D03v01, the GPRS 2Tx slots modes was selected when EUT operating without power back-off, the GPRS 2Tx slots modes was selected when EUT operating with power back-off, according to the highest source-based time-averaged output power.

Full Power mode (Proximity Sensor Inactive)

Band GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GPRS (GMSK, 1 Tx slot)	32.78	32.92	32.89	33.50	23.78	23.92	23.89	24.50
GPRS (GMSK, 2 Tx slots)	31.64	31.65	31.52	33.00	25.64	25.65	25.52	27.00
GPRS (GMSK, 3 Tx slots)	29.00	29.04	29.02	31.00	24.74	24.78	24.76	26.74
GPRS (GMSK, 4 Tx slots)	28.13	28.14	28.08	29.00	25.13	25.14	25.08	26.00
EDGE (8PSK, 1 Tx slot)	27.33	27.41	27.32	28.00	18.33	18.41	18.32	19.00
EDGE (8PSK, 2 Tx slots)	26.51	26.52	26.41	27.00	20.51	20.52	20.41	21.00
EDGE (8PSK, 3 Tx slots)	26.26	26.28	26.25	27.00	22.00	22.02	21.99	22.74
EDGE (8PSK, 4 Tx slots)	24.01	23.97	23.87	25.00	21.01	20.97	20.87	22.00

Band GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GPRS (GMSK, 1 Tx slot)	29.50	29.18	29.36	31.00	20.50	20.18	20.36	22.00
GPRS (GMSK, 2 Tx slots)	28.95	28.92	28.90	30.50	22.95	22.92	22.90	24.50
GPRS (GMSK, 3 Tx slots)	26.95	27.02	26.95	28.00	22.69	22.76	22.69	23.74
GPRS (GMSK, 4 Tx slots)	24.84	24.88	24.81	26.00	21.84	21.88	21.81	23.00
EDGE (8PSK, 1 Tx slot)	26.49	26.30	26.28	27.00	17.49	17.30	17.28	18.00
EDGE (8PSK, 2 Tx slots)	25.50	25.30	25.27	26.00	19.50	19.30	19.27	20.00
EDGE (8PSK, 3 Tx slots)	25.44	25.30	25.21	26.00	21.18	21.04	20.95	21.74
EDGE (8PSK, 4 Tx slots)	23.37	23.28	23.16	24.00	20.37	20.28	20.16	21.00

Reduced Power Mode (Proximity Sensor active)

Band GSM850	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	128	189	251		128	189	251	
Frequency (MHz)	824.2	836.4	848.8		824.2	836.4	848.8	
GPRS (GMSK, 1 Tx slot)	28.30	28.25	28.23	28.50	19.30	19.25	19.23	19.50
GPRS (GMSK, 2 Tx slots)	27.63	27.54	27.44	28.00	21.63	21.54	21.44	22.00
GPRS (GMSK, 3 Tx slots)	25.88	25.88	25.71	26.00	21.62	21.62	21.45	21.74
GPRS (GMSK, 4 Tx slots)	23.72	23.66	23.46	24.00	20.72	20.66	20.46	21.00
EDGE (8PSK, 1 Tx slot)	27.33	27.41	27.32	28.00	18.33	18.41	18.32	19.00
EDGE (8PSK, 2 Tx slots)	26.51	26.52	26.41	27.00	20.51	20.52	20.41	21.00
EDGE (8PSK, 3 Tx slots)	25.26	25.28	25.25	26.00	21.00	21.02	20.99	21.74
EDGE (8PSK, 4 Tx slots)	24.01	23.97	23.87	25.00	21.01	20.97	20.87	22.00

Band GSM1900	Burst Average Power (dBm)			Tune-up Limit (dBm)	Frame-Average Power (dBm)			Tune-up Limit (dBm)
TX Channel	512	661	810		512	661	810	
Frequency (MHz)	1850.2	1880	1909.8		1850.2	1880	1909.8	
GPRS (GMSK, 1 Tx slot)	27.10	27.09	27.01	27.50	18.10	18.09	18.01	18.50
GPRS (GMSK, 2 Tx slots)	26.75	26.58	26.62	28.00	20.75	20.58	20.62	22.00
GPRS (GMSK, 3 Tx slots)	24.37	24.38	24.49	24.50	20.11	20.12	20.23	20.24
GPRS (GMSK, 4 Tx slots)	22.39	22.35	22.42	22.50	19.39	19.35	19.42	19.50
EDGE (8PSK, 1 Tx slot)	26.49	26.30	26.28	27.00	17.49	17.30	17.28	18.00
EDGE (8PSK, 2 Tx slots)	25.50	25.30	25.27	26.00	19.50	19.30	19.27	20.00
EDGE (8PSK, 3 Tx slots)	25.44	25.30	25.21	26.00	21.18	21.04	20.95	21.74
EDGE (8PSK, 4 Tx slots)	23.37	23.28	23.16	24.00	20.37	20.28	20.16	21.00

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<WCDMA Conducted Power>

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.

2. The procedures in KDB 941225 D01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.

A summary of these settings are illustrated below:

HSDPA Setup Configuration:
    a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
    b. The RF path losses were compensated into the measurements.
    c. A call was established between EUT and Base Station with following setting:
        i. Set Gain Factors (β_c and β_d) and parameters were set according to each
        ii. Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
        iii. Set RMC 12.2Kbps + HSDPA mode.
        iv. Set Cell Power = -86 dBm
        v. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
        vi. Select HSDPA Uplink Parameters
        vii. Set Delta ACK, Delta NACK and Delta CQI = 8
        viii. Set Ack-Nack Repetition Factor to 3
        ix. Set CQI Feedback Cycle (k) to 4 ms
        x. Set CQI Repetition Factor to 2
        xi. Power Ctrl Mode = All Up bits
    d. The transmitted maximum output power was recorded.

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c.

Note 2:   For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA, Δ_{ACK} and Δ_{NACK} = 30/15 with β_{hs} = 30/15 * β_c, and Δ_{CQI} = 24/15 with β_{hs} = 24/15 * β_c.

Note 3:   CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4:   For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 11/15 and β_d = 15/15.

Setup Configuration

HSUPA Setup Configuration:

    a.   The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.

    b.   The RF path losses were compensated into the measurements.

    c.   A call was established between EUT and Base Station with following setting * :

        i.   Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK

        ii.   Set the Gain Factors (β_c and β_d) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121

        iii.   Set Cell Power = -86 dBm

        iv.   Set Channel Type = 12.2k + HSPA

        v.   Set UE Target Power

        vi.   Power Ctrl Mode= Alternating bits

        vii.   Set and observe the E-TFCI

        viii.   Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI

    d.   The transmitted maximum output power was recorded.

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (Note 5) (Note 6)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 6)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed}1: 47/15 β_{ed}2: 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15 (Note 4)	15/15 (Note 4)	64	15/15 (Note 4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c .

Note 2:   CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3:   For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 10/15 and β_d = 15/15.

Note 4:   For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 14/15 and β_d = 15/15.

Note 5:   In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 6: β_{ed} can not be set directly, it is set by Absolute Grant Value.

Setup Configuration

<WCDMA Conducted Power>

General Note:
1. Per KDB 941225 D02v02r02, RMC 12.2kbps setting is used to evaluate SAR. If HSDPA/HSUPA output power is < 0.25dB higher than RMC, or reported SAR with RMC 12.2kbps setting is ≤ 1.2W/kg, HSDPA/HSUPA SAR evaluation can be excluded..

Full Power mode (Proximity Sensor Inactive)

Band			WCDMA V			WCDMA II			WCDMA IV		
TX Channel			4132	4182	4233	9262	9400	9538	1312	1413	1513
Rx Channel			4357	4407	4458	9662	9800	9938	1537	1638	1738
Frequency (MHz)			826.4	836.4	846.6	1852.4	1880	1907.6	1712.4	1732.6	1752.6
MPR (dB)	3GPP Rel 99	RMC 12.2Kbps	22.53	22.51	22.50	22.57	22.73	22.64	22.72	22.53	22.52
0	3GPP Rel 6	HSDPA Subtest-1	21.57	21.47	21.28	21.68	21.90	21.76	22.01	21.66	21.76
0	3GPP Rel 6	HSDPA Subtest-2	21.49	21.44	21.21	21.62	21.84	21.74	21.93	21.62	21.69
0.5	3GPP Rel 6	HSDPA Subtest-3	21.06	20.92	20.78	21.22	21.40	21.30	21.56	21.14	21.25
0.5	3GPP Rel 6	HSDPA Subtest-4	21.01	20.88	20.75	21.18	21.33	21.28	21.52	21.09	21.15
0	3GPP Rel 6	HSUPA Subtest-1	21.45	21.30	21.25	21.49	21.88	21.62	21.89	21.65	21.49
2	3GPP Rel 6	HSUPA Subtest-2	20.68	20.54	20.53	21.30	21.49	21.47	21.38	21.10	21.01
1	3GPP Rel 6	HSUPA Subtest-3	19.88	19.77	19.64	20.10	20.25	20.22	20.48	20.15	20.30
2	3GPP Rel 6	HSUPA Subtest-4	19.78	19.62	19.35	19.38	19.80	19.58	20.84	20.66	20.48
0	3GPP Rel 6	HSUPA Subtest-5	21.52	21.45	21.15	21.77	21.93	21.85	21.99	21.71	21.86

Reduced Power Mode (Proximity Sensor active)

Band			WCDMA V			WCDMA II			WCDMA IV		
TX Channel			4132	4182	4233	9262	9400	9538	1312	1413	1513
Rx Channel			4357	4407	4458	9662	9800	9938	1537	1638	1738
Frequency (MHz)			826.4	836.4	846.6	1852.4	1880	1907.6	1712.4	1732.6	1752.6
MPR (dB)	3GPP Rel 99	RMC 12.2Kbps	20.67	20.43	20.42	19.70	19.74	19.72	21.58	21.07	21.17
0	3GPP Rel 6	HSDPA Subtest-1	19.63	19.50	19.32	18.77	18.78	18.69	20.58	20.06	20.13
0	3GPP Rel 6	HSDPA Subtest-2	19.71	19.40	19.33	18.80	18.81	18.75	20.62	20.07	20.10
0.5	3GPP Rel 6	HSDPA Subtest-3	19.09	19.01	19.03	18.24	18.26	18.22	20.13	19.60	19.71
0.5	3GPP Rel 6	HSDPA Subtest-4	19.16	19.04	19.05	18.28	18.29	18.23	20.10	19.70	19.71
0	3GPP Rel 6	HSUPA Subtest-1	19.51	19.20	19.34	18.72	18.74	18.62	20.61	20.20	20.32
2	3GPP Rel 6	HSUPA Subtest-2	19.05	18.83	18.91	17.64	17.66	17.21	20.00	19.83	19.80
1	3GPP Rel 6	HSUPA Subtest-3	18.05	18.18	18.32	17.59	17.70	17.20	19.49	18.67	19.08
2	3GPP Rel 6	HSUPA Subtest-4	18.16	18.00	18.03	17.62	17.98	17.81	19.24	18.90	19.00
0	3GPP Rel 6	HSUPA Subtest-5	19.73	19.46	19.53	18.74	18.82	18.63	20.75	20.17	20.20

<CDMA2000 Conducted Power>

General Note:
1. Per KDB 941225 D01v02, when in body SAR testing, EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps). If 1xRTT and Ev-Do Rev A (RETAP 4096 bits) power is high than 1/4dB higher than Re v0, SAR tests with those settings are necessary.

Full Power mode (Proximity Sensor Inactive)

Band	CDMA2000 BC0			CDMA2000 BC1		
TX Channel	1013	384	777	25	600	1175
Frequency (MHz)	824.7	836.52	848.31	1851.25	1880	1908.75
1xRTT RC1 SO55	23.51	23.77	23.64	24.22	24.22	24.09
1xRTT RC3 SO55	23.54	23.80	23.60	24.18	24.26	24.08
1xEVDO RTAP 153.6Kbps	23.60	23.82	23.66	24.22	24.27	24.11
1xEVDO RETAP 4096Bits	23.64	23.76	23.80	24.21	24.26	24.00

Reduced Power Mode (Proximity Sensor active)

Band	CDMA2000 BC0			CDMA2000 BC1		
TX Channel	1013	384	777	25	600	1175
Frequency (MHz)	824.7	836.52	848.31	1851.25	1880	1908.75
1xRTT RC1 SO55	21.32	21.35	21.28	20.23	20.30	20.11
1xRTT RC3 SO55	21.33	21.37	21.29	20.25	20.31	20.14
1xEVDO RTAP 153.6Kbps	21.38	21.41	21.35	20.35	20.45	20.20
1xEVDO RETAP 4096Bits	21.34	21.39	21.33	20.37	20.42	20.25

<LTE Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.

2. Per KDB 941225 D05v02r03, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.

3. Per KDB 941225 D05v02r03, 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.

4. Per KDB 941225 D05v02r03, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.

5. Per KDB 941225 D05v02r03, 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.

6. Per KDB 941225 D05v02r03, 16QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r03, 16QAM SAR testing is not required.

7. Per KDB 941225 D05v02r03, Smaller bandwidth output power for each RB allocation configuration is > not ½ 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 D05v02r03, smaller bandwidth SAR testing is not required.

Maximum Average RF Power (Proximity Sensor Inactive)

<LTE Band 17>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
Channel				23780	23790	23800	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				709	710	711		
10	QPSK	1	0	23.75	23.66	23.74	24	0
10	QPSK	1	24	23.55	23.44	23.48	24	0
10	QPSK	1	49	23.70	23.56	23.57		
10	QPSK	25	0	22.95	22.85	22.82	23	1
10	QPSK	25	12	22.85	22.58	22.68		
10	QPSK	25	24	23.00	22.91	22.82		
10	QPSK	50	0	22.81	22.68	22.54		
10	16QAM	1	0	22.96	22.95	22.92	23	1
10	16QAM	1	24	22.90	22.62	22.71		
10	16QAM	1	49	22.92	23.00	22.89		
10	16QAM	25	0	21.94	21.82	21.89	22	2
10	16QAM	25	12	21.88	21.80	21.60		
10	16QAM	25	24	21.94	21.86	21.65		
10	16QAM	50	0	21.76	21.69	21.65		
Channel				23755	23790	23825	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	23.62	23.70	23.73	24	0
5	QPSK	1	12	23.44	23.37	23.41		
5	QPSK	1	24	23.51	23.52	23.46		
5	QPSK	12	0	22.79	22.86	22.91	23	1
5	QPSK	12	6	22.65	22.81	22.62		
5	QPSK	12	11	22.85	22.94	22.88		
5	QPSK	25	0	22.75	22.69	22.66		
5	16QAM	1	0	22.98	22.90	22.97	23	1
5	16QAM	1	12	22.79	22.81	22.83		
5	16QAM	1	24	22.81	22.95	23.00		
5	16QAM	12	0	21.84	21.78	21.66	22	2
5	16QAM	12	6	21.86	21.67	21.81		
5	16QAM	12	11	21.85	21.87	21.72		
5	16QAM	25	0	21.48	21.51	21.53		

<LTE Band 13>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
Channel					23230		Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)					782			
10	QPSK	1	0		23.64		24	0
10	QPSK	1	24		23.42			
10	QPSK	1	49		23.27			
10	QPSK	25	0		22.97		23	1
10	QPSK	25	12		22.74			
10	QPSK	25	24		22.75			
10	QPSK	50	0		22.56			
10	16QAM	1	0		22.94		23	1
10	16QAM	1	24		22.85			
10	16QAM	1	49		22.94			
10	16QAM	25	0		21.92		22	2
10	16QAM	25	12		21.73			
10	16QAM	25	24		21.85			
10	16QAM	50	0		21.65			
Channel				23205	23230	23255	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	23.54	23.47	23.51	24	0
5	QPSK	1	12	23.14	23.21	23.42		
5	QPSK	1	24	23.38	23.45	23.50		
5	QPSK	12	0	22.85	22.96	22.98	23	1
5	QPSK	12	6	22.72	22.86	22.93		
5	QPSK	12	11	22.84	22.70	23.00		
5	QPSK	25	0	22.83	22.70	22.86		
5	16QAM	1	0	22.90	22.98	22.92	23	1
5	16QAM	1	12	22.77	22.81	22.98		
5	16QAM	1	24	22.67	22.80	22.97		
5	16QAM	12	0	21.97	21.97	21.94	22	2
5	16QAM	12	6	21.77	21.93	22.00		
5	16QAM	12	11	21.80	21.89	21.98		
5	16QAM	25	0	21.74	21.70	21.75		

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<u>**<LTE Band 5>**</u>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
			Channel	20450	20525	20600		
		Frequency (MHz)		829	836.5	844		
10	QPSK	1	0	23.80	23.72	23.60	24	0
10	QPSK	1	24	23.65	23.40	23.52		
10	QPSK	1	49	23.76	23.55	23.45		
10	QPSK	25	0	22.78	22.55	22.50	23	1
10	QPSK	25	12	22.69	22.65	22.65		
10	QPSK	25	24	22.73	22.75	22.62		
10	QPSK	50	0	22.71	22.64	22.63		
10	16QAM	1	0	22.86	22.75	22.66	23	1
10	16QAM	1	24	22.91	22.99	22.89		
10	16QAM	1	49	22.98	22.95	22.91		
10	16QAM	25	0	21.77	21.49	21.47	22	2
10	16QAM	25	12	21.85	21.67	21.56		
10	16QAM	25	24	21.95	21.82	21.76		
10	16QAM	50	0	21.69	21.45	21.51		
			Channel	20425	20525	20625	Tune up Limit (dBm)	MPR (dB)
		Frequency (MHz)		826.5	836.5	846.5		
5	QPSK	1	0	23.44	23.37	23.24	24	0
5	QPSK	1	12	23.53	23.40	23.63		
5	QPSK	1	24	23.65	23.53	23.52		
5	QPSK	12	0	22.52	22.62	22.71	23	1
5	QPSK	12	6	22.73	22.85	22.65		
5	QPSK	12	11	22.57	22.73	22.62		
5	QPSK	25	0	22.69	22.68	22.46		
5	16QAM	1	0	22.60	22.77	22.83	23	1
5	16QAM	1	12	22.90	22.92	22.97		
5	16QAM	1	24	22.94	22.96	22.94		
5	16QAM	12	0	21.61	21.56	21.52	22	2
5	16QAM	12	6	21.72	21.63	21.84		
5	16QAM	12	11	21.71	21.83	21.69		
5	16QAM	25	0	21.57	21.60	21.68		
			Channel	20415	20525	20635	Tune up Limit (dBm)	MPR (dB)
		Frequency (MHz)		825.5	836.5	847.5		
3	QPSK	1	0	23.47	23.47	23.39	24	0
3	QPSK	1	7	23.58	23.36	23.57		
3	QPSK	1	14	23.75	23.56	23.78		
3	QPSK	8	0	22.67	22.68	22.74	23	1
3	QPSK	8	4	22.86	22.60	22.74		
3	QPSK	8	7	22.52	22.55	22.61		
3	QPSK	15	0	22.61	22.53	22.48		
3	16QAM	1	0	22.59	22.74	22.75	23	1
3	16QAM	1	7	22.81	22.82	22.98		
3	16QAM	1	14	22.92	22.90	22.94		
3	16QAM	8	0	21.51	21.70	21.61	22	2
3	16QAM	8	4	21.85	21.80	21.84		
3	16QAM	8	7	21.72	21.87	21.83		
3	16QAM	15	0	21.39	21.42	21.67		

Channel				20407	20525	20643	Tune up Limit (dBm)	Target MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	23.47	23.48	23.22	24	0
1.4	QPSK	1	2	23.46	23.54	23.57		
1.4	QPSK	1	5	23.57	23.55	23.58		
1.4	QPSK	3	0	22.97	22.99	23.00		
1.4	QPSK	3	1	22.91	23.04	22.95		
1.4	QPSK	3	2	22.88	22.94	22.91		
1.4	QPSK	6	0	22.59	22.55	22.65	23	1
1.4	16QAM	1	0	22.71	22.64	22.56	23	1
1.4	16QAM	1	2	23.00	22.80	22.81		
1.4	16QAM	1	5	22.93	22.89	23.00		
1.4	16QAM	3	0	21.97	21.97	21.88		
1.4	16QAM	3	1	21.90	21.98	21.94		
1.4	16QAM	3	2	21.96	22.14	21.98		
1.4	16QAM	6	0	21.55	21.39	21.39	22	2

<LTE Band 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
		Channel		20050	20175	20300	Tune up Limit (dBm)	MPR (dB)
		Frequency (MHz)		1720	1732.5	1745		
20	QPSK	1	0	23.60	23.55	23.46	24	0
20	QPSK	1	49	23.36	23.28	23.20		
20	QPSK	1	99	23.35	23.23	23.11		
20	QPSK	50	0	22.59	22.58	22.49	23	1
20	QPSK	50	24	22.38	22.29	22.01		
20	QPSK	50	49	22.45	22.50	22.41		
20	QPSK	100	0	22.40	22.37	22.29		
20	16QAM	1	0	22.90	23.00	22.85	23	1
20	16QAM	1	49	22.62	22.70	22.63		
20	16QAM	1	99	22.79	22.63	22.47		
20	16QAM	50	0	21.66	21.49	21.27	22	2
20	16QAM	50	24	21.45	21.28	21.27		
20	16QAM	50	49	21.34	21.29	21.04		
20	16QAM	100	0	21.31	21.33	21.13		
		Channel		20025	20175	20325	Tune up Limit (dBm)	MPR (dB)
		Frequency (MHz)		1717.5	1732.5	1747.5		
15	QPSK	1	0	23.54	23.45	23.35	24	0
15	QPSK	1	37	23.27	23.23	23.13		
15	QPSK	1	74	23.11	23.18	23.15		
15	QPSK	36	0	22.43	22.30	22.50	23	1
15	QPSK	36	18	22.29	22.26	22.02		
15	QPSK	36	37	22.35	22.33	22.46		
15	QPSK	75	0	22.26	22.32	22.41		
15	16QAM	1	0	22.82	22.79	22.70	23	1
15	16QAM	1	37	22.67	22.68	22.58		
15	16QAM	1	74	22.44	22.61	22.55		
15	16QAM	36	0	21.28	21.20	21.21	22	2
15	16QAM	36	18	21.21	21.02	21.17		
15	16QAM	36	37	21.09	21.22	21.11		
15	16QAM	75	0	21.24	21.15	21.13		
		Channel		20000	20175	20350	Tune up Limit (dBm)	MPR (dB)
		Frequency (MHz)		1715	1732.5	1750		
10	QPSK	1	0	23.32	23.52	23.28	24	0
10	QPSK	1	24	23.28	23.10	23.24		
10	QPSK	1	49	23.20	23.21	23.19		
10	QPSK	25	0	22.48	22.35	22.57	23	1
10	QPSK	25	12	22.18	22.06	22.13		
10	QPSK	25	24	22.27	22.48	22.43		
10	QPSK	50	0	22.31	22.34	22.21		
10	16QAM	1	0	22.96	22.88	22.84	23	1
10	16QAM	1	24	22.58	22.65	22.40		
10	16QAM	1	49	22.57	22.44	22.35		
10	16QAM	25	0	21.23	21.46	21.30	22	2
10	16QAM	25	12	21.11	21.21	20.99		
10	16QAM	25	24	21.13	21.10	21.21		
10	16QAM	50	0	21.23	21.07	21.06		

Channel				19975	20175	20375	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	23.51	23.46	23.50	24	0
5	QPSK	1	12	22.98	23.21	23.28		
5	QPSK	1	24	23.00	23.04	23.20		
5	QPSK	12	0	22.52	22.40	22.32	23	1
5	QPSK	12	6	22.29	22.27	22.21		
5	QPSK	12	11	22.36	22.41	22.42		
5	QPSK	25	0	22.41	22.18	22.41		
5	16QAM	1	0	22.75	22.96	22.71	23	1
5	16QAM	1	12	22.60	22.63	22.61		
5	16QAM	1	24	22.36	22.53	22.47		
5	16QAM	12	0	21.40	21.35	21.34	22	2
5	16QAM	12	6	21.26	21.22	21.19		
5	16QAM	12	11	21.07	21.06	21.25		
5	16QAM	25	0	21.22	21.16	21.28		
Channel				19965	20175	20385	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	23.52	23.34	23.30	24	0
3	QPSK	1	7	22.98	22.99	23.19		
3	QPSK	1	14	23.22	22.97	22.96		
3	QPSK	8	0	22.32	22.51	22.36	23	1
3	QPSK	8	4	22.24	22.18	22.08		
3	QPSK	8	7	22.46	22.39	22.40		
3	QPSK	15	0	22.26	22.32	22.31		
3	16QAM	1	0	22.85	22.73	22.95	23	1
3	16QAM	1	7	22.47	22.42	22.59		
3	16QAM	1	14	22.49	22.33	22.53		
3	16QAM	8	0	21.42	21.45	21.40	22	2
3	16QAM	8	4	21.15	21.01	21.15		
3	16QAM	8	7	21.29	20.99	21.11		
3	16QAM	15	0	21.06	21.13	21.18		
Channel				19957	20175	20393	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	23.36	23.19	23.37	24	0
1.4	QPSK	1	2	23.27	23.11	23.02		
1.4	QPSK	1	5	23.03	22.99	23.21		
1.4	QPSK	3	0	22.72	22.62	22.77		
1.4	QPSK	3	1	22.68	22.52	22.72		
1.4	QPSK	3	2	22.69	22.51	22.69		
1.4	QPSK	6	0	22.47	22.37	22.37	23	1
1.4	16QAM	1	0	22.90	22.83	22.92	23	1
1.4	16QAM	1	2	22.67	22.49	22.62		
1.4	16QAM	1	5	22.59	22.42	22.33		
1.4	16QAM	3	0	21.87	21.97	21.72		
1.4	16QAM	3	1	21.77	21.73	21.74		
1.4	16QAM	3	2	21.78	21.64	21.72		
1.4	16QAM	6	0	21.10	21.10	21.21	22	2

SPORTON INTERNATIONAL INC.

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<LTE Band 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
Channel				18700	18900	19100	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1880	1900		
20	QPSK	1	0	23.78	23.79	23.30	24	0
20	QPSK	1	49	23.64	23.38	23.20		
20	QPSK	1	99	23.69	23.32	23.22		
20	QPSK	50	0	22.57	22.60	22.43	23	1
20	QPSK	50	24	22.56	22.43	22.40		
20	QPSK	50	49	22.55	22.34	22.07		
20	QPSK	100	0	22.39	22.40	22.06		
20	16QAM	1	0	22.78	22.72	22.36	23	1
20	16QAM	1	49	22.47	22.71	22.25		
20	16QAM	1	99	22.65	22.47	22.35		
20	16QAM	50	0	21.35	21.23	21.12	22	2
20	16QAM	50	24	21.45	21.39	21.03		
20	16QAM	50	49	21.23	21.32	21.09		
20	16QAM	100	0	21.16	21.35	21.04		
Channel				18675	18900	19125	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1902.5		
15	QPSK	1	0	23.69	23.78	23.45	24	0
15	QPSK	1	37	23.56	23.77	23.54		
15	QPSK	1	74	23.22	23.56	23.19		
15	QPSK	36	0	22.35	22.56	22.10	23	1
15	QPSK	36	18	22.33	22.50	22.20		
15	QPSK	36	37	22.36	22.46	22.42		
15	QPSK	75	0	22.21	22.40	22.08		
15	16QAM	1	0	22.76	22.70	22.30	23	1
15	16QAM	1	37	22.58	22.69	22.29		
15	16QAM	1	74	22.15	22.53	22.28		
15	16QAM	36	0	21.36	21.51	21.07	22	2
15	16QAM	36	18	21.33	21.47	21.18		
15	16QAM	36	37	21.23	21.48	21.30		
15	16QAM	75	0	21.20	21.35	20.98		
Channel				18650	18900	19150	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1905		
10	QPSK	1	0	23.61	23.73	23.62	24	0
10	QPSK	1	24	23.57	23.72	23.61		
10	QPSK	1	49	23.42	23.65	23.24		
10	QPSK	25	0	22.47	22.69	22.29	23	1
10	QPSK	25	12	22.38	22.61	22.55		
10	QPSK	25	24	22.33	22.64	22.55		
10	QPSK	50	0	22.15	22.48	22.21		
10	16QAM	1	0	22.76	22.71	22.60	23	1
10	16QAM	1	24	22.58	22.70	22.59		
10	16QAM	1	49	22.38	22.70	22.27		
10	16QAM	25	0	21.40	21.66	21.19	22	2
10	16QAM	25	12	21.41	21.59	21.50		
10	16QAM	25	24	21.37	21.63	21.60		
10	16QAM	50	0	21.13	21.46	21.14		

Channel				18625	18900	19175	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	23.74	23.68	23.77	24	0
5	QPSK	1	12	23.66	23.78	23.70		
5	QPSK	1	24	23.63	23.69	23.46		
5	QPSK	12	0	22.70	22.87	22.86	23	1
5	QPSK	12	6	22.60	22.75	22.73		
5	QPSK	12	11	22.57	22.81	22.61		
5	QPSK	25	0	22.46	22.63	22.50		
5	16QAM	1	0	22.71	22.84	22.79	23	1
5	16QAM	1	12	22.68	22.78	22.75		
5	16QAM	1	24	22.55	22.80	22.38		
5	16QAM	12	0	21.72	21.86	21.83	22	2
5	16QAM	12	6	21.72	21.87	21.76		
5	16QAM	12	11	21.65	21.89	21.68		
5	16QAM	25	0	21.49	21.65	21.49		
Channel				18615	18900	19185	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	23.74	23.65	23.72	24	0
3	QPSK	1	7	23.72	23.77	23.54		
3	QPSK	1	14	23.61	23.78	23.35		
3	QPSK	8	0	22.81	22.83	22.76	23	1
3	QPSK	8	4	22.68	22.87	22.57		
3	QPSK	8	7	22.67	22.87	22.45		
3	QPSK	15	0	22.69	22.82	22.52		
3	16QAM	1	0	22.76	22.87	22.77	23	1
3	16QAM	1	7	22.68	22.80	22.60		
3	16QAM	1	14	22.59	22.77	22.41		
3	16QAM	8	0	21.75	21.77	21.68	22	2
3	16QAM	8	4	21.71	21.81	21.56		
3	16QAM	8	7	21.71	21.86	21.42		
3	16QAM	15	0	21.71	21.83	21.53		
Channel				18607	18900	19193	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	23.76	23.69	23.42	24	0
1.4	QPSK	1	2	23.75	23.75	23.31		
1.4	QPSK	1	5	23.75	23.73	23.34		
1.4	QPSK	3	0	23.75	23.75	23.36		
1.4	QPSK	3	1	23.74	23.77	23.31		
1.4	QPSK	3	2	23.73	23.68	23.36		
1.4	QPSK	6	0	22.78	22.87	22.45	23	1
1.4	16QAM	1	0	22.80	22.85	22.43	23	1
1.4	16QAM	1	2	22.77	22.81	22.37		
1.4	16QAM	1	5	22.72	22.82	22.45		
1.4	16QAM	3	0	22.79	22.84	22.42		
1.4	16QAM	3	1	22.79	22.84	22.42		
1.4	16QAM	3	2	22.77	22.83	22.47		
1.4	16QAM	6	0	21.86	21.92	21.45	22	2

<LTE Band 25>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
		Channel		26140	26340	26590		
		Frequency (MHz)		1860	1880	1905		
20	QPSK	1	0	23.14	23.13	22.97	24	0
20	QPSK	1	49	23.41	23.55	23.36	24	0
20	QPSK	1	99	23.22	23.00	22.75	24	0
20	QPSK	50	0	22.63	22.90	22.69	23	1
20	QPSK	50	24	22.75	22.96	22.68	23	1
20	QPSK	50	49	22.71	22.73	22.59	23	1
20	QPSK	100	0	22.72	22.95	22.89	23	1
20	16QAM	1	0	22.76	22.98	22.93	23	1
20	16QAM	1	49	22.98	22.93	22.92	23	1
20	16QAM	1	99	21.95	21.94	21.93	23	1
20	16QAM	50	0	21.72	21.84	21.83	22	2
20	16QAM	50	24	21.63	21.91	21.65	22	2
20	16QAM	50	49	21.47	21.70	21.57	22	2
20	16QAM	100	0	21.89	21.89	21.75	22	2
		Channel		26115	26340	26615	Tune up Limit (dBm)	MPR (dB)
		Frequency (MHz)		1857.5	1880	1907.5		
15	QPSK	1	0	23.07	23.05	23.02	24	0
15	QPSK	1	37	23.44	23.34	23.43	24	0
15	QPSK	1	74	22.82	22.70	23.00	24	0
15	QPSK	36	0	22.67	22.61	22.90	23	1
15	QPSK	36	18	22.75	22.68	22.92	23	1
15	QPSK	36	37	22.64	22.52	22.48	23	1
15	QPSK	75	0	22.91	22.72	22.74	23	1
15	16QAM	1	0	22.81	22.80	22.76	23	1
15	16QAM	1	37	22.90	22.97	22.98	23	1
15	16QAM	1	74	22.95	22.98	22.97	23	1
15	16QAM	36	0	21.61	21.56	21.79	22	2
15	16QAM	36	18	21.79	21.78	21.73	22	2
15	16QAM	36	37	21.54	21.55	21.62	22	2
15	16QAM	75	0	21.80	21.61	21.86	22	2
		Channel		26090	26340	26640	Tune up Limit (dBm)	MPR (dB)
		Frequency (MHz)		1855	1880	1910		
10	QPSK	1	0	22.90	23.07	22.91	24	0
10	QPSK	1	24	23.53	23.53	23.54	24	0
10	QPSK	1	49	22.89	22.98	23.00	24	0
10	QPSK	25	0	22.75	22.84	22.67	23	1
10	QPSK	25	12	22.79	22.75	22.84	23	1
10	QPSK	25	24	22.45	22.52	22.51	23	1
10	QPSK	50	0	22.82	22.69	22.78	23	1
10	16QAM	1	0	22.76	23.00	22.80	23	1
10	16QAM	1	24	22.99	22.97	22.95	23	1
10	16QAM	1	49	22.94	23.00	22.98	23	1
10	16QAM	25	0	21.74	21.72	21.75	22	2
10	16QAM	25	12	21.64	21.80	21.91	22	2
10	16QAM	25	24	21.66	21.55	21.41	22	2
10	16QAM	50	0	21.75	21.59	21.79	22	2

Channel				26065	26340	26665	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	22.98	22.86	23.06	24	0
5	QPSK	1	12	23.54	23.44	23.36		
5	QPSK	1	24	22.91	22.85	22.95		
5	QPSK	12	0	22.63	22.78	22.82	23	1
5	QPSK	12	6	22.79	22.71	22.82		
5	QPSK	12	11	22.60	22.58	22.53		
5	QPSK	25	0	22.79	22.87	22.76		
5	16QAM	1	0	22.91	22.77	22.94	23	1
5	16QAM	1	12	22.94	22.95	22.93		
5	16QAM	1	24	22.94	22.99	22.98		
5	16QAM	12	0	21.84	21.57	21.77	22	2
5	16QAM	12	6	21.67	21.85	21.66		
5	16QAM	12	11	21.67	21.51	21.40		
5	16QAM	25	0	21.76	21.78	21.60		
Channel				26055	26340	26675	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	23.07	23.07	22.93	24	0
3	QPSK	1	7	23.36	23.49	23.29		
3	QPSK	1	14	22.86	22.85	22.90		
3	QPSK	8	0	22.90	22.82	22.73	23	1
3	QPSK	8	4	22.91	22.72	22.70		
3	QPSK	8	7	22.63	22.58	22.52		
3	QPSK	15	0	22.71	22.67	22.65		
3	16QAM	1	0	22.89	22.77	22.86	23	1
3	16QAM	1	7	22.92	22.90	22.97		
3	16QAM	1	14	22.93	22.95	22.88		
3	16QAM	8	0	21.81	21.72	21.74	22	2
3	16QAM	8	4	21.64	21.77	21.85		
3	16QAM	8	7	21.70	21.52	21.61		
3	16QAM	15	0	21.83	21.73	21.74		
Channel				26047	26340	26683	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	23.08	22.86	23.17	24	0
1.4	QPSK	1	2	23.27	23.32	23.49		
1.4	QPSK	1	5	22.89	22.85	22.88		
1.4	QPSK	3	0	22.80	22.77	22.81		
1.4	QPSK	3	1	22.67	22.83	22.80		
1.4	QPSK	3	2	22.67	22.64	22.79		
1.4	QPSK	6	0	22.92	22.81	22.81	23	1
1.4	16QAM	1	0	22.96	22.98	22.86	23	1
1.4	16QAM	1	2	22.93	22.93	22.99		
1.4	16QAM	1	5	22.92	23.00	22.97		
1.4	16QAM	3	0	21.72	21.65	21.86		
1.4	16QAM	3	1	21.83	21.67	21.80		
1.4	16QAM	3	2	21.65	21.65	21.79		
1.4	16QAM	6	0	21.75	21.69	21.65	22	2

Reduced Average RF Power (Proximity Sensor active)

<u>**<LTE Band 17>**</u>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
Channel				23780	23790	23800	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				709	710	711		
10	QPSK	1	0	22.89	22.73	22.61	23	0
10	QPSK	1	24	22.81	22.64	22.76		
10	QPSK	1	49	22.80	22.79	22.73		
10	QPSK	25	0	22.55	22.54	22.53	23	0
10	QPSK	25	12	22.63	22.62	22.61		
10	QPSK	25	24	22.66	22.65	22.58		
10	QPSK	50	0	22.47	22.43	22.46		
10	16QAM	1	0	22.81	22.69	22.61	23	0
10	16QAM	1	24	22.63	22.64	22.70		
10	16QAM	1	49	22.73	22.86	22.67		
10	16QAM	25	0	22.21	22.19	22.31	23	0
10	16QAM	25	12	22.20	22.15	22.35		
10	16QAM	25	24	22.19	22.13	22.09		
10	16QAM	50	0	22.20	22.16	22.12		
Channel				23755	23790	23825	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				706.5	710	713.5		
5	QPSK	1	0	22.79	22.63	22.65	23	0
5	QPSK	1	12	22.72	22.66	22.72		
5	QPSK	1	24	22.74	22.72	22.73		
5	QPSK	12	0	22.81	22.70	22.63	23	0
5	QPSK	12	6	22.67	22.72	22.77		
5	QPSK	12	11	22.65	22.77	22.80		
5	QPSK	25	0	22.58	22.53	22.70		
5	16QAM	1	0	22.84	22.64	22.65	23	0
5	16QAM	1	12	22.74	22.71	22.70		
5	16QAM	1	24	22.68	22.71	22.73		
5	16QAM	12	0	22.35	22.22	22.23	23	0
5	16QAM	12	6	22.20	22.27	22.30		
5	16QAM	12	11	22.28	22.34	22.36		
5	16QAM	25	0	22.20	22.05	22.07		

<LTE Band 13>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
Channel					23230			
Frequency (MHz)					782			
10	QPSK	1	0		20.87		21	0
10	QPSK	1	24		20.74			
10	QPSK	1	49		20.79			
10	QPSK	25	0		20.68		21	0
10	QPSK	25	12		20.65			
10	QPSK	25	24		20.61			
10	QPSK	50	0		20.47			
10	16QAM	1	0		20.63		21	0
10	16QAM	1	24		20.68			
10	16QAM	1	49		20.76			
10	16QAM	25	0		20.55		21	0
10	16QAM	25	12		20.60			
10	16QAM	25	24		20.56			
10	16QAM	50	0		20.37			
Channel				23205	23230	23255	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				779.5	782	784.5		
5	QPSK	1	0	20.66	20.82	20.70	21	0
5	QPSK	1	12	20.73	20.66	20.54		
5	QPSK	1	24	20.77	20.62	20.60		
5	QPSK	12	0	20.70	20.77	20.64	21	0
5	QPSK	12	6	20.76	20.79	20.63		
5	QPSK	12	11	20.84	20.69	20.62		
5	QPSK	25	0	20.58	20.67	20.51		
5	16QAM	1	0	20.64	20.83	20.68	21	0
5	16QAM	1	12	20.78	20.70	20.58		
5	16QAM	1	24	20.78	20.67	20.66		
5	16QAM	12	0	20.72	20.82	20.62	21	0
5	16QAM	12	6	20.80	20.86	20.61		
5	16QAM	12	11	20.82	20.74	20.67		
5	16QAM	25	0	20.52	20.56	20.39		

<u>LTE Band 5</u>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
Channel				20450	20525	20600	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				829	836.5	844		
10	QPSK	1	0	21.95	21.78	21.60	22	0
10	QPSK	1	24	21.84	21.68	21.31		
10	QPSK	1	49	21.82	21.35	21.49		
10	QPSK	25	0	21.70	21.69	21.32	22	0
10	QPSK	25	12	21.63	21.54	21.18		
10	QPSK	25	24	21.66	21.33	21.32		
10	QPSK	50	0	21.44	21.34	21.16		
10	16QAM	1	0	21.58	21.75	21.47	22	0
10	16QAM	1	24	21.82	21.71	21.32		
10	16QAM	1	49	21.90	21.31	21.59		
10	16QAM	25	0	21.56	21.64	21.12	22	0
10	16QAM	25	12	21.61	21.47	21.27		
10	16QAM	25	24	21.62	21.29	21.30		
10	16QAM	50	0	21.35	21.28	21.10		
Channel				20425	20525	20625	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				826.5	836.5	846.5		
5	QPSK	1	0	21.63	21.94	21.45	22	0
5	QPSK	1	12	21.75	21.69	21.55		
5	QPSK	1	24	21.85	21.46	21.61		
5	QPSK	12	0	21.70	21.74	21.52	22	0
5	QPSK	12	6	21.67	21.71	21.57		
5	QPSK	12	11	21.74	21.72	21.63		
5	QPSK	25	0	21.58	21.54	21.54		
5	16QAM	1	0	21.59	21.91	21.42	22	0
5	16QAM	1	12	21.77	21.73	21.56		
5	16QAM	1	24	21.83	21.45	21.59		
5	16QAM	12	0	21.65	21.80	21.55	22	0
5	16QAM	12	6	21.71	21.71	21.61		
5	16QAM	12	11	21.73	21.66	21.61		
5	16QAM	25	0	21.55	21.51	21.51		
Channel				20415	20525	20635	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				825.5	836.5	847.5		
3	QPSK	1	0	21.64	21.76	21.58	22	0
3	QPSK	1	7	21.74	21.73	21.60		
3	QPSK	1	14	21.81	21.67	21.51		
3	QPSK	8	0	21.69	21.73	21.55	22	0
3	QPSK	8	4	21.71	21.60	21.63		
3	QPSK	8	7	21.76	21.70	21.58		
3	QPSK	15	0	21.62	21.74	21.62		
3	16QAM	1	0	21.61	21.76	21.54	22	0
3	16QAM	1	7	21.73	21.72	21.56		
3	16QAM	1	14	21.73	21.53	21.44		
3	16QAM	8	0	21.58	21.62	21.44	22	0
3	16QAM	8	4	21.66	21.52	21.63		
3	16QAM	8	7	21.60	21.54	21.62		
3	16QAM	15	0	21.66	21.60	21.59		

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Channel				20407	20525	20643	Tune up Limit (dBm)	Target MPR (dB)
Frequency (MHz)				824.7	836.5	848.3		
1.4	QPSK	1	0	21.61	21.72	21.69	22	0
1.4	QPSK	1	2	21.63	21.73	21.65		
1.4	QPSK	1	5	21.65	21.60	21.50		
1.4	QPSK	3	0	21.58	21.73	21.64		
1.4	QPSK	3	1	21.59	21.64	21.62		
1.4	QPSK	3	2	21.65	21.65	21.59		
1.4	QPSK	6	0	21.65	21.64	21.58	22	0
1.4	16QAM	1	0	21.50	21.65	21.63	22	0
1.4	16QAM	1	2	21.57	21.64	21.62		
1.4	16QAM	1	5	21.59	21.58	21.48		
1.4	16QAM	3	0	21.63	21.70	21.66		
1.4	16QAM	3	1	21.64	21.73	21.65		
1.4	16QAM	3	2	21.60	21.71	21.63		
1.4	16QAM	6	0	21.66	21.65	21.67	22	0

<LTE Band 4>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
Channel				20050	20175	20300	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1720	1732.5	1745		
20	QPSK	1	0	21.80	21.71	21.48	22	0
20	QPSK	1	49	21.60	21.50	21.40		
20	QPSK	1	99	21.61	21.39	21.37		
20	QPSK	50	0	21.51	21.33	21.15	22	0
20	QPSK	50	24	21.39	21.19	21.14		
20	QPSK	50	49	21.28	21.20	21.12		
20	QPSK	100	0	21.42	21.15	21.29		
20	16QAM	1	0	21.40	21.64	21.53	22	0
20	16QAM	1	49	21.35	21.50	21.49		
20	16QAM	1	99	21.51	21.38	21.48		
20	16QAM	50	0	21.26	21.25	21.05	22	0
20	16QAM	50	24	21.34	21.15	21.03		
20	16QAM	50	49	21.26	21.03	21.02		
20	16QAM	100	0	21.20	21.18	21.16		
Channel				20025	20175	20325	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1717.5	1732.5	1747.5		
15	QPSK	1	0	21.70	21.70	21.57	22	0
15	QPSK	1	37	21.78	21.53	21.48		
15	QPSK	1	74	21.66	21.48	21.52		
15	QPSK	36	0	21.41	21.37	21.17	22	0
15	QPSK	36	18	21.47	21.22	21.11		
15	QPSK	36	37	21.36	21.14	21.13		
15	QPSK	75	0	21.44	21.20	21.07		
15	16QAM	1	0	21.65	21.64	21.53	22	0
15	16QAM	1	37	21.68	21.43	21.46		
15	16QAM	1	74	21.60	21.42	21.42		
15	16QAM	36	0	21.40	21.28	21.10	22	0
15	16QAM	36	18	21.45	21.17	21.12		
15	16QAM	36	37	21.35	21.10	21.08		
15	16QAM	75	0	21.34	21.05	21.00		
Channel				20000	20175	20350	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1715	1732.5	1750		
10	QPSK	1	0	21.54	21.60	21.42	22	0
10	QPSK	1	24	21.65	21.43	21.48		
10	QPSK	1	49	21.66	21.34	21.51		
10	QPSK	25	0	21.47	21.43	21.24	22	0
10	QPSK	25	12	21.50	21.32	21.28		
10	QPSK	25	24	21.54	21.16	21.22		
10	QPSK	50	0	21.32	21.10	21.02		
10	16QAM	1	0	21.61	21.59	21.41	22	0
10	16QAM	1	24	21.64	21.41	21.39		
10	16QAM	1	49	21.66	21.29	21.44		
10	16QAM	25	0	21.41	21.30	21.21	22	0
10	16QAM	25	12	21.50	21.28	21.17		
10	16QAM	25	24	21.49	21.15	21.17		
10	16QAM	50	0	21.30	21.06	20.99		

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Channel				19975	20175	20375	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1712.5	1732.5	1752.5		
5	QPSK	1	0	21.58	21.53	21.47	22	0
5	QPSK	1	12	21.59	21.43	21.41		
5	QPSK	1	24	21.64	21.35	21.54		
5	QPSK	12	0	21.59	21.45	21.39	22	0
5	QPSK	12	6	21.53	21.45	21.41		
5	QPSK	12	11	21.60	21.35	21.45		
5	QPSK	25	0	21.40	21.33	21.36		
5	16QAM	1	0	21.56	21.54	21.44	22	0
5	16QAM	1	12	21.67	21.40	21.40		
5	16QAM	1	24	21.63	21.36	21.47		
5	16QAM	12	0	21.61	21.49	21.45	22	0
5	16QAM	12	6	21.55	21.43	21.44		
5	16QAM	12	11	21.62	21.43	21.51		
5	16QAM	25	0	21.37	21.25	21.32		
Channel				19965	20175	20385	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1711.5	1732.5	1753.5		
3	QPSK	1	0	21.56	21.51	21.44	22	0
3	QPSK	1	7	21.52	21.49	21.57		
3	QPSK	1	14	21.63	21.43	21.57		
3	QPSK	8	0	21.59	21.49	21.46	22	0
3	QPSK	8	4	21.58	21.48	21.57		
3	QPSK	8	7	21.62	21.45	21.60		
3	QPSK	15	0	21.50	21.43	21.57		
3	16QAM	1	0	21.54	21.46	21.44	22	0
3	16QAM	1	7	21.55	21.45	21.52		
3	16QAM	1	14	21.62	21.37	21.47		
3	16QAM	8	0	21.55	21.44	21.41	22	0
3	16QAM	8	4	21.52	21.41	21.45		
3	16QAM	8	7	21.55	21.39	21.48		
3	16QAM	15	0	21.50	21.42	21.48		
Channel				19957	20175	20393	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1710.7	1732.5	1754.3		
1.4	QPSK	1	0	21.61	21.51	21.60	22	0
1.4	QPSK	1	2	21.65	21.49	21.59		
1.4	QPSK	1	5	21.64	21.43	21.57		
1.4	QPSK	3	0	21.56	21.51	21.60		
1.4	QPSK	3	1	21.61	21.50	21.55		
1.4	QPSK	3	2	21.64	21.49	21.56		
1.4	QPSK	6	0	21.60	21.49	21.55	22	0
1.4	16QAM	1	0	21.52	21.44	21.49	22	0
1.4	16QAM	1	2	21.53	21.41	21.52		
1.4	16QAM	1	5	21.56	21.37	21.51		
1.4	16QAM	3	0	21.60	21.48	21.60		
1.4	16QAM	3	1	21.60	21.47	21.58		
1.4	16QAM	3	2	21.64	21.46	21.59		
1.4	16QAM	6	0	21.62	21.51	21.62	22	0

<LTE Band 2>

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
		Channel		18700	18900	19100	Tune up Limit (dBm)	MPR (dB)
		Frequency (MHz)		1860	1880	1900		
20	QPSK	1	0	20.75	20.80	20.62	21	0
20	QPSK	1	49	20.63	20.69	20.40		
20	QPSK	1	99	20.60	20.45	20.55		
20	QPSK	50	0	20.50	20.52	20.35	21	0
20	QPSK	50	24	20.40	20.46	20.30		
20	QPSK	50	49	20.50	20.47	20.16		
20	QPSK	100	0	20.31	20.38	20.16		
20	16QAM	1	0	20.69	20.34	20.36	21	0
20	16QAM	1	49	20.53	20.56	20.20		
20	16QAM	1	99	20.30	20.42	20.55		
20	16QAM	50	0	20.29	20.16	20.20	21	0
20	16QAM	50	24	20.31	20.36	20.23		
20	16QAM	50	49	20.30	20.44	20.06		
20	16QAM	100	0	20.30	20.35	20.01		
		Channel		18675	18900	19125	Tune up Limit (dBm)	MPR (dB)
		Frequency (MHz)		1857.5	1880	1902.5		
15	QPSK	1	0	20.60	20.35	20.17	21	0
15	QPSK	1	37	20.65	20.70	20.50		
15	QPSK	1	74	20.27	20.66	20.56		
15	QPSK	36	0	20.41	20.50	20.20	21	0
15	QPSK	36	18	20.30	20.45	20.22		
15	QPSK	36	37	20.26	20.42	20.45		
15	QPSK	75	0	20.19	20.32	20.09		
15	16QAM	1	0	20.53	20.34	20.10	21	0
15	16QAM	1	37	20.52	20.50	20.46		
15	16QAM	1	74	20.25	20.64	20.52		
15	16QAM	36	0	20.40	20.45	20.13	21	0
15	16QAM	36	18	20.26	20.44	20.18		
15	16QAM	36	37	20.22	20.48	20.36		
15	16QAM	75	0	20.26	20.34	20.03		
		Channel		18650	18900	19150	Tune up Limit (dBm)	MPR (dB)
		Frequency (MHz)		1855	1880	1905		
10	QPSK	1	0	20.66	20.60	20.18	21	0
10	QPSK	1	24	20.60	20.71	20.65		
10	QPSK	1	49	20.44	20.75	20.46		
10	QPSK	25	0	20.51	20.63	20.25	21	0
10	QPSK	25	12	20.44	20.54	20.44		
10	QPSK	25	24	20.35	20.58	20.61		
10	QPSK	50	0	20.20	20.50	20.19		
10	16QAM	1	0	20.66	20.71	20.30	21	0
10	16QAM	1	24	20.64	20.63	20.67		
10	16QAM	1	49	20.45	20.68	20.41		
10	16QAM	25	0	20.43	20.66	20.16	21	0
10	16QAM	25	12	20.39	20.57	20.47		
10	16QAM	25	24	20.32	20.55	20.53		
10	16QAM	50	0	20.07	20.33	20.17		

Channel				18625	18900	19175	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1907.5		
5	QPSK	1	0	20.69	20.68	20.72	21	0
5	QPSK	1	12	20.56	20.59	20.69		
5	QPSK	1	24	20.53	20.70	20.34		
5	QPSK	12	0	20.63	20.68	20.63	21	0
5	QPSK	12	6	20.50	20.59	20.62		
5	QPSK	12	11	20.48	20.61	20.59		
5	QPSK	25	0	20.36	20.46	20.45		
5	16QAM	1	0	20.63	20.69	20.67	21	0
5	16QAM	1	12	20.58	20.64	20.71		
5	16QAM	1	24	20.55	20.74	20.37		
5	16QAM	12	0	20.60	20.69	20.70	21	0
5	16QAM	12	6	20.56	20.67	20.64		
5	16QAM	12	11	20.52	20.63	20.61		
5	16QAM	25	0	20.30	20.39	20.48		
Channel				18615	18900	19185	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1908.5		
3	QPSK	1	0	20.69	20.79	20.71	21	0
3	QPSK	1	7	20.73	20.73	20.65		
3	QPSK	1	14	20.63	20.77	20.36		
3	QPSK	8	0	20.67	20.72	20.71	21	0
3	QPSK	8	4	20.72	20.74	20.60		
3	QPSK	8	7	20.69	20.73	20.44		
3	QPSK	15	0	20.72	20.69	20.53		
3	16QAM	1	0	20.78	20.77	20.67	21	0
3	16QAM	1	7	20.77	20.74	20.66		
3	16QAM	1	14	20.66	20.79	20.34		
3	16QAM	8	0	20.66	20.63	20.66	21	0
3	16QAM	8	4	20.65	20.64	20.58		
3	16QAM	8	7	20.61	20.69	20.47		
3	16QAM	15	0	20.65	20.69	20.55		
Channel				18607	18900	19193	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1909.3		
1.4	QPSK	1	0	20.78	20.63	20.61	21	0
1.4	QPSK	1	2	20.73	20.68	20.55		
1.4	QPSK	1	5	20.69	20.70	20.40		
1.4	QPSK	3	0	20.52	20.72	20.54		
1.4	QPSK	3	1	20.52	20.55	20.46		
1.4	QPSK	3	2	20.59	20.63	20.46		
1.4	QPSK	6	0	20.48	20.66	20.45	21	0
1.4	16QAM	1	0	20.68	20.68	20.52	21	0
1.4	16QAM	1	2	20.67	20.72	20.43		
1.4	16QAM	1	5	20.65	20.74	20.28		
1.4	16QAM	3	0	20.60	20.70	20.59		
1.4	16QAM	3	1	20.54	20.61	20.56		
1.4	16QAM	3	2	20.63	20.65	20.46		
1.4	16QAM	6	0	20.44	20.72	20.55	21	0

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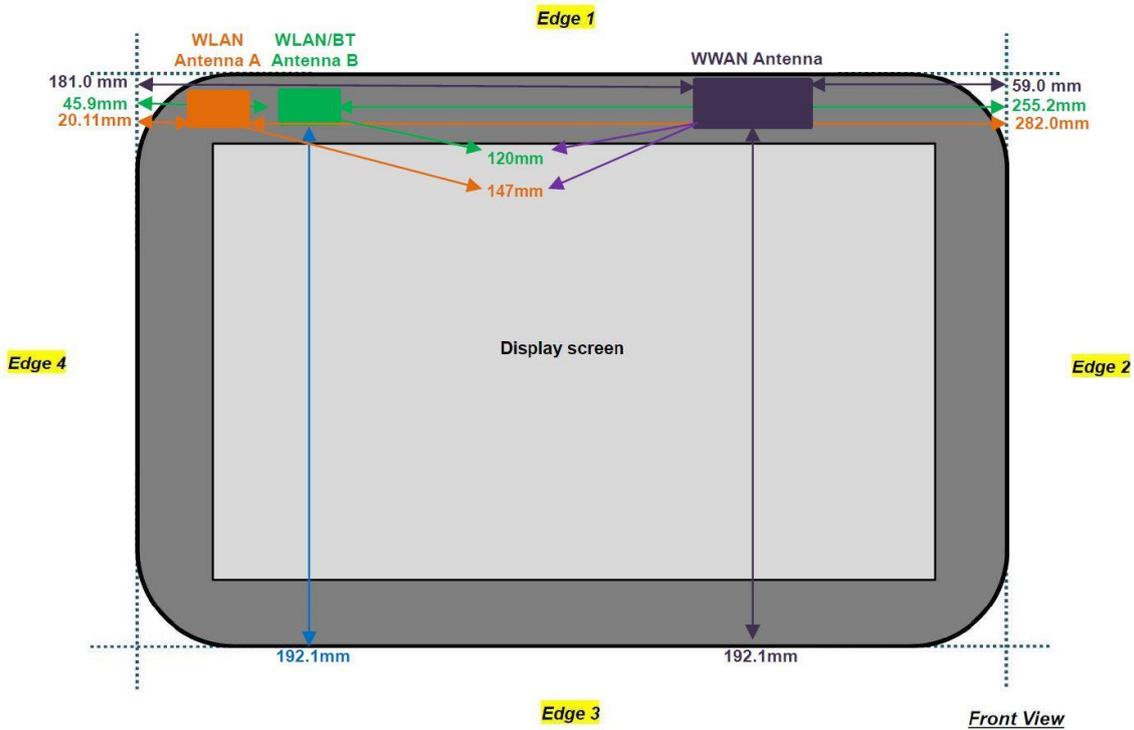
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<LTE Band 25>

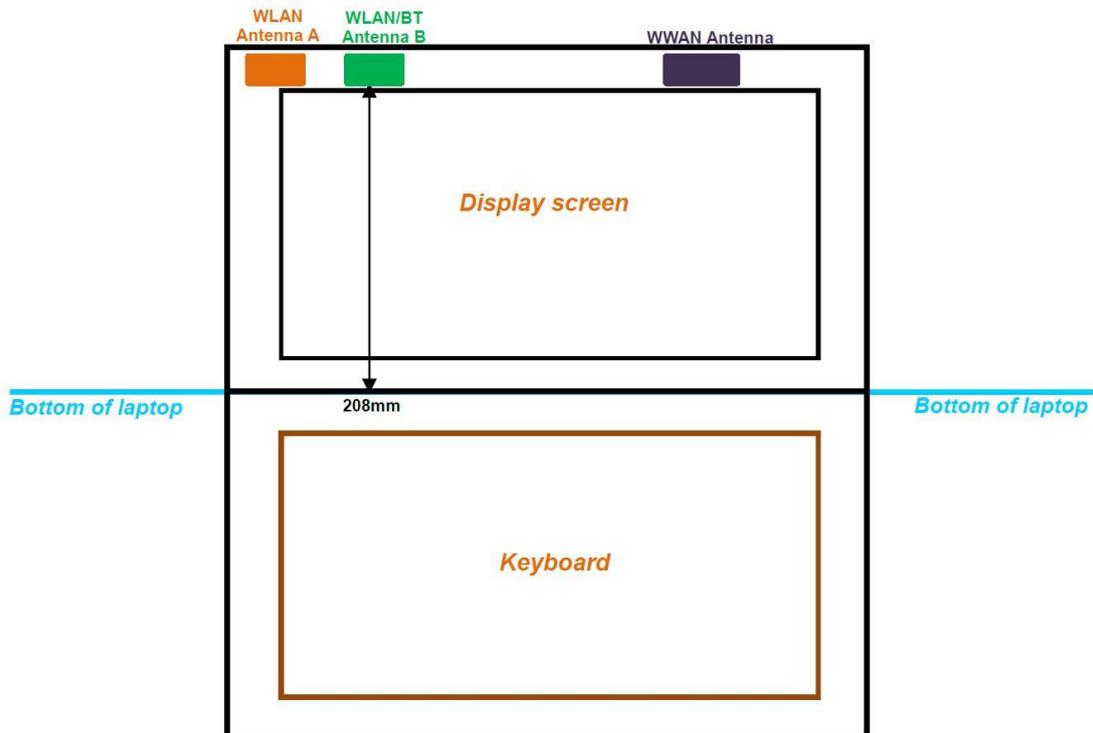| BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Tune up Limit (dBm)	MPR (dB)
Channel				26140	26340	26590	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1860	1880	1905		
20	QPSK	1	0	20.48	20.44	20.68	21	0
20	QPSK	1	49	20.79	20.85	20.71		
20	QPSK	1	99	20.55	20.34	20.70		
20	QPSK	50	0	20.32	20.43	20.60	21	0
20	QPSK	50	24	20.40	20.65	20.62		
20	QPSK	50	49	20.40	20.54	20.57		
20	QPSK	100	0	20.39	20.64	20.61		
20	16QAM	1	0	20.69	20.51	20.65	21	0
20	16QAM	1	49	20.48	20.72	20.60		
20	16QAM	1	99	20.35	20.33	20.66		
20	16QAM	50	0	20.23	20.38	20.40	21	0
20	16QAM	50	24	20.30	20.55	20.53		
20	16QAM	50	49	20.32	20.30	20.56		
20	16QAM	100	0	20.38	20.46	20.52		
Channel				26115	26340	26615	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1857.5	1880	1907.5		
15	QPSK	1	0	20.70	20.42	20.70	21	0
15	QPSK	1	37	20.43	20.74	20.62		
15	QPSK	1	74	20.23	20.32	20.72		
15	QPSK	36	0	20.26	20.39	20.65	21	0
15	QPSK	36	18	20.25	20.35	20.67		
15	QPSK	36	37	20.20	20.22	20.47		
15	QPSK	75	0	20.11	20.21	20.30		
15	16QAM	1	0	20.63	20.38	20.23	21	0
15	16QAM	1	37	20.32	20.67	20.33		
15	16QAM	1	74	20.31	20.23	20.68		
15	16QAM	36	0	20.13	20.32	20.62	21	0
15	16QAM	36	18	20.06	20.31	20.36		
15	16QAM	36	37	20.11	20.16	20.33		
15	16QAM	75	0	20.07	20.16	20.25		
Channel				26090	26340	26640	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1855	1880	1910		
10	QPSK	1	0	20.62	20.57	20.72	21	0
10	QPSK	1	24	20.38	20.65	20.75		
10	QPSK	1	49	20.23	20.44	20.65		
10	QPSK	25	0	20.36	20.45	20.50	21	0
10	QPSK	25	12	20.26	20.46	20.46		
10	QPSK	25	24	20.28	20.40	20.36		
10	QPSK	50	0	20.19	20.29	20.51		
10	16QAM	1	0	20.68	20.60	20.64	21	0
10	16QAM	1	24	20.45	20.79	20.80		
10	16QAM	1	49	20.28	20.51	20.71		
10	16QAM	25	0	20.32	20.44	20.73	21	0
10	16QAM	25	12	20.29	20.47	20.65		
10	16QAM	25	24	20.25	20.38	20.18		
10	16QAM	50	0	20.01	20.25	20.50		

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Channel				26065	26340	26665	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1852.5	1880	1912.5		
5	QPSK	1	0	20.66	20.63	20.67	21	0
5	QPSK	1	12	20.54	20.67	20.66		
5	QPSK	1	24	20.41	20.58	20.70		
5	QPSK	12	0	20.59	20.67	20.47	21	0
5	QPSK	12	6	20.52	20.66	20.20		
5	QPSK	12	11	20.51	20.60	20.44		
5	QPSK	25	0	20.39	20.49	20.13		
5	16QAM	1	0	20.66	20.69	20.50	21	0
5	16QAM	1	12	20.53	20.71	20.43		
5	16QAM	1	24	20.40	20.62	20.43		
5	16QAM	12	0	20.62	20.69	20.58	21	0
5	16QAM	12	6	20.53	20.69	20.34		
5	16QAM	12	11	20.45	20.64	20.20		
5	16QAM	25	0	20.27	20.43	20.05		
Channel				26055	26340	26675	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1851.5	1880	1913.5		
3	QPSK	1	0	20.65	20.63	20.83	21	0
3	QPSK	1	7	20.57	20.64	20.83		
3	QPSK	1	14	20.49	20.70	20.72		
3	QPSK	8	0	20.60	20.65	20.80	21	0
3	QPSK	8	4	20.55	20.63	20.84		
3	QPSK	8	7	20.57	20.62	20.74		
3	QPSK	15	0	20.50	20.55	20.82		
3	16QAM	1	0	20.61	20.64	20.77	21	0
3	16QAM	1	7	20.56	20.68	20.72		
3	16QAM	1	14	20.51	20.70	20.64		
3	16QAM	8	0	20.60	20.63	20.80	21	0
3	16QAM	8	4	20.50	20.61	20.80		
3	16QAM	8	7	20.50	20.59	20.76		
3	16QAM	15	0	20.57	20.62	20.81		
Channel				26047	26340	26683	Tune up Limit (dBm)	MPR (dB)
Frequency (MHz)				1850.7	1880	1914.3		
1.4	QPSK	1	0	20.69	20.73	20.78	21	0
1.4	QPSK	1	2	20.70	20.72	20.80		
1.4	QPSK	1	5	20.61	20.68	20.75		
1.4	QPSK	3	0	20.64	20.74	20.79		
1.4	QPSK	3	1	20.66	20.73	20.75		
1.4	QPSK	3	2	20.66	20.72	20.77		
1.4	QPSK	6	0	20.67	20.73	20.78	21	0
1.4	16QAM	1	0	20.59	20.70	20.77	21	0
1.4	16QAM	1	2	20.59	20.72	20.63		
1.4	16QAM	1	5	20.54	20.70	20.75		
1.4	16QAM	3	0	20.69	20.74	20.65		
1.4	16QAM	3	1	20.66	20.76	20.73		
1.4	16QAM	3	2	20.66	20.76	20.68		
1.4	16QAM	6	0	20.72	20.75	20.70	21	0

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14. <u>Antenna Location</u>

<Tablet Mode>

<Laptop Mode>

General Note:

1. When the WLAN and BT operated at the same antenna B cannot simultaneously transmit.

<For QDS-BRCM1079 Simultaneous transmission configuration>

Combination no.	Wireless Interface	Antennas	
		Antenna A SISO (Tx / Rx)	Antenna B SISO (Tx / Rx)
1	Bluetooth		yes
	802.11b / g / n	yes	
2	Bluetooth		yes
	802.11b / g / n		yes[1]

<For PD93160NG Simultaneous transmission configuration>

Combination no.	Wireless Interface	Antennas	
		Antenna A SISO (Tx / Rx)	Antenna B SISO (Tx / Rx)
1	Bluetooth		yes
	802.11 a / b / g / n / ac		yes[1]

<For PD97260NG Simultaneous transmission configuration>

Combination no.	Wireless Interface	Antennas		
		Antenna A SISO (Tx / Rx)	Antenna B SISO (Tx / Rx)	Antenna A+B MIMO (Tx / Rx)
1	Bluetooth		yes	
	802.11 a / b / g / n / ac	yes		
2	Bluetooth		yes	
	802.11 a / b / g / n / ac		yes[1]	
3	Bluetooth		yes	
	802.11 a / b / g / n / ac			yes

<SAR test exclusion table>

General Note:

1. The below table, when the distance is < 50 mm exclusion threshold is "Ratio", when the distance is > 50 mm exclusion threshold is "mW"
2. Maximum power is the source-based time-average power and represents the maximum RF output power among production units
3. Per KDB 447498 D01v05r02, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
4. Per KDB 447498 D01v05r02, standalone SAR test exclusion threshold is applied; If the test separation distance is < 5mm, 5mm is used to determine SAR exclusion threshold.
5. Per KDB 447498 D01v05r02, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:

   [(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] $\cdot [\sqrt{f(GHz)}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR
   - · $f(GHz)$ is the RF channel transmit frequency in GHz
   - ·   Power and distance are rounded to the nearest mW and mm before calculation
   - ·   The result is rounded to one decimal place for comparison
6. Per KDB 447498 D01v05r02, at 100 MHz to 6 GHz and for *test separation distances* > 50 mm, the SAR test exclusion threshold is determined according to the following
   - a) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·($f(MHz)/150$)] mW, at 100 MHz to 1500 MHz
   - b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·10] mW at > 1500 MHz and ≤ 6 GHz

Exposure Position	Wireless Interface	GPRS 850 Class 10	GPRS 1900 Class 10	WCDMA Band V	WCDMA Band IV	WCDMA Band II	CDMA BC0	CDMA BC1	LTE Band 17	LTE Band 13	LTE Band 5	LTE Band 4	LTE Band 2	LTE Band 25
	Calculated Frequency	848MHz	1909MHz	846MHz	1750MHz	1907MHz	848MHz	1907MHz	713MHz	784MHz	848MHz	1754MHz	1909MHz	1914MHz
	Maximum power (dBm)	27	24.5	24.5	24.5	24.5	24.5	24.5	24	24	24	24	24	24
	Maximum rated power(mW)	501	282	282	282	282	282	282	251	251	251	251	251	251
Bottom Face	Separation distance(mm)	5												
	exclusion threshold	92	78	52	75	78	52	78	42	44	46	66	69	69
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 1	Separation distance(mm)	5												
	exclusion threshold	92	78	52	75	78	52	78	42	44	46	66	69	69
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 2	Separation distance(mm)	59												
	exclusion threshold	214	199	214	203	199	214	199	220	216	214	203	199	198
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Edge 3	Separation distance(mm)	192.1												
	exclusion threshold	966	1530	965	1534	1530	966	1530	853	912	966	1534	1530	1529
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No
Edge 4	Separation distance(mm)	181												
	exclusion threshold	903	1419	902	1423	1419	903	1419	800	854	903	1423	1419	1418
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No
Bottom of Laptop	Separation distance(mm)	208												
	exclusion threshold	1056	1689	1054	1693	1689	1056	1689	929	995	1056	1693	1689	1688
	Testing required?	No	No	No	No	No	No	No	No	No	No	No	No	No

15. SAR Test Results

General Note:

1. Per KDB 447498 D01v05r02, 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 WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
2. Per KDB 447498 D01v05r02, 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. For the exposure positions that proximity sensor power reduction is applied for SAR compliance, additional SAR testing with EUT transmitting full power in normal mode was performed; 1.0cm for bottom face, 1.0cm for edge1, 1.0cm for curved surface of edge1.
4. When the minimum distance between antenna and device edge along the curve is less than bottom face and surface edge, the curved SAR is necessary, more detail information which can be referred to setup photo.
5. For SAR testing of the curved region of the device, the device was placed directly against the phantom at the point where the distance between the antenna and device exterior is a minimum.

15.1 Body SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Power Reduction	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	GPRS (2 Tx slots)	Bottom Face	0cm	128	824.2	ON	27.63	28.00	1.089	-0.18	0.809	0.881
	GSM850	GPRS (2 Tx slots)	Bottom Face	0cm	189	836.4	ON	27.54	28.00	1.112	-0.07	0.863	0.959
	GSM850	GPRS (2 Tx slots)	Bottom Face	0cm	251	848.8	ON	27.44	28.00	1.138	-0.14	0.833	0.948
	GSM850	GPRS (2 Tx slots)	Edge 1	0cm	128	824.2	ON	27.63	28.00	1.089	-0.13	0.614	0.669
	GSM850	GPRS (2 Tx slots)	Curved surface of Edge1	0cm	128	824.2	ON	27.63	28.00	1.089	0.08	0.974	1.061
	GSM850	GPRS (2 Tx slots)	Curved surface of Edge1	0cm	189	836.4	ON	27.54	28.00	1.112	0.04	0.958	1.065
	GSM850	GPRS (2 Tx slots)	Curved surface of Edge1	0cm	251	848.8	ON	27.44	28.00	1.138	0.04	0.882	1.003
	GSM850	GPRS (2 Tx slots)	Bottom Face	1cm	189	836.4	OFF	31.65	33.00	1.365	-0.1	0.562	0.767
	GSM850	GPRS (2 Tx slots)	Edge 1	1cm	189	836.4	OFF	31.65	33.00	1.365	-0.09	0.579	0.790
	GSM850	GPRS (2 Tx slots)	Curved surface of Edge1	1cm	189	836.4	OFF	31.65	33.00	1.365	-0.08	0.918	1.253
01	GSM850	GPRS (2 Tx slots)	Curved surface of Edge1	1cm	128	824.2	OFF	31.64	33.00	1.368	0	0.979	**1.339**
	GSM850	GPRS (2 Tx slots)	Curved surface of Edge1	1cm	251	848.8	OFF	31.52	33.00	1.406	-0.01	0.786	1.105
	GSM850	GPRS (2 Tx slots)	Edge 2	0cm	189	836.4	OFF	31.65	33.00	1.365	-0.13	0.132	0.180
	GSM1900	GPRS (2 Tx slots)	Bottom Face	0cm	512	1850.2	ON	26.75	28.00	1.334	-0.1	0.599	0.799
	GSM1900	GPRS (2 Tx slots)	Edge 1	0cm	512	1850.2	ON	26.75	28.00	1.334	-0.14	0.457	0.609
	GSM1900	GPRS (2 Tx slots)	Curved surface of Edge1	0cm	512	1850.2	ON	26.75	28.00	1.334	-0.19	0.756	1.008
	GSM1900	GPRS (2 Tx slots)	Curved surface of Edge1	0cm	661	1880	ON	26.58	28.00	1.387	-0.16	0.813	1.127
02	GSM1900	GPRS (2 Tx slots)	Curved surface of Edge1	0cm	810	1909.8	ON	26.62	28.00	1.374	-0.16	0.869	**1.194**
	GSM1900	GPRS (2 Tx slots)	Bottom Face	1cm	512	1850.2	OFF	28.95	30.50	1.429	-0.15	0.331	0.473
	GSM1900	GPRS (2 Tx slots)	Edge 1	1cm	512	1850.2	OFF	28.95	30.50	1.429	-0.09	0.213	0.304
	GSM1900	GPRS (2 Tx slots)	Curved surface of Edge1	1cm	512	1850.2	OFF	28.95	30.50	1.429	-0.14	0.311	0.444
	GSM1900	GPRS (2 Tx slots)	Edge 2	0cm	512	1850.2	OFF	28.95	30.50	1.429	-0.15	0.065	0.093

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Power Reduction	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	RMC 12.2Kbps	Bottom Face	0cm	4132	826.4	ON	20.67	21.50	1.211	-0.09	0.873	1.057
	WCDMA V	RMC 12.2Kbps	Bottom Face	0cm	4182	836.4	ON	20.43	21.50	1.279	-0.02	0.842	1.077
	WCDMA V	RMC 12.2Kbps	Bottom Face	0cm	4233	846.6	ON	20.42	21.50	1.282	-0.02	0.855	1.096
	WCDMA V	RMC 12.2Kbps	Edge 1	0cm	4132	826.4	ON	20.67	21.50	1.211	0.01	0.615	0.745
	WCDMA V	RMC 12.2Kbps	Curved surface of Edge1	0cm	4132	826.4	ON	20.67	21.50	1.211	-0.1	1.010	1.223
	WCDMA V	RMC 12.2Kbps	Curved surface of Edge1	0cm	4182	836.4	ON	20.43	21.50	1.279	-0.03	0.929	1.189
03	WCDMA V	RMC 12.2Kbps	Curved surface of Edge1	0cm	4233	846.6	ON	20.42	21.50	1.282	-0.02	0.984	**1.262**
	WCDMA V	RMC 12.2Kbps	Bottom Face	1cm	4132	826.4	OFF	22.53	24.50	1.574	0.07	0.359	0.565
	WCDMA V	RMC 12.2Kbps	Edge 1	1cm	4132	826.4	OFF	22.53	24.50	1.574	0.08	0.331	0.521
	WCDMA V	RMC 12.2Kbps	Curved surface of Edge1	1cm	4132	826.4	OFF	22.53	24.50	1.574	-0.03	0.509	0.801
	WCDMA V	RMC 12.2Kbps	Curved surface of Edge1	1cm	4182	836.4	OFF	22.51	24.50	1.581	-0.07	0.489	0.773
	WCDMA V	RMC 12.2Kbps	Curved surface of Edge1	1cm	4233	846.6	OFF	22.50	24.50	1.585	-0.06	0.496	0.786
	WCDMA V	RMC 12.2Kbps	Edge 2	0cm	4132	826.4	OFF	22.53	24.50	1.574	-0.05	0.080	0.126
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0cm	1312	1712.4	ON	21.58	21.50	0.982	-0.08	1.110	1.090
04	WCDMA IV	RMC 12.2Kbps	Bottom Face	0cm	1413	1732.6	ON	21.07	21.50	1.104	-0.08	1.180	**1.303**
	WCDMA IV	RMC 12.2Kbps	Bottom Face	0cm	1513	1752.6	ON	21.17	21.50	1.079	0	1.040	1.122
	WCDMA IV	RMC 12.2Kbps	Edge 1	0cm	1312	1712.4	ON	21.58	21.50	0.982	0.02	0.505	0.496
	WCDMA IV	RMC 12.2Kbps	Curved surface of Edge1	0cm	1312	1712.4	ON	21.58	21.50	0.982	-0.11	1.070	1.050
	WCDMA IV	RMC 12.2Kbps	Curved surface of Edge1	0cm	1413	1732.6	ON	21.07	21.50	1.104	0.05	1.170	1.292
	WCDMA IV	RMC 12.2Kbps	Curved surface of Edge1	0cm	1513	1752.6	ON	21.17	21.50	1.079	0.02	1.030	1.111
	WCDMA IV	RMC 12.2Kbps	Bottom Face	1cm	1312	1712.4	OFF	22.72	24.50	1.507	0	0.283	0.426
	WCDMA IV	RMC 12.2Kbps	Edge 1	1cm	1312	1712.4	OFF	22.72	24.50	1.507	0.06	0.153	0.231
	WCDMA IV	RMC 12.2Kbps	Curved surface of Edge1	1cm	1312	1712.4	OFF	22.72	24.50	1.507	-0.1	0.260	0.392
	WCDMA IV	RMC 12.2Kbps	Edge 2	0cm	1312	1712.4	OFF	22.72	24.50	1.507	0.04	0.040	0.060
	WCDMA II	RMC 12.2Kbps	Bottom Face	0cm	9400	1880	ON	19.74	21.00	1.337	-0.06	0.706	0.944
	WCDMA II	RMC 12.2Kbps	Bottom Face	0cm	9262	1852.4	ON	19.70	21.00	1.349	-0.09	0.731	0.986
	WCDMA II	RMC 12.2Kbps	Bottom Face	0cm	9538	1907.6	ON	19.72	21.00	1.343	-0.12	0.807	1.084
	WCDMA II	RMC 12.2Kbps	Edge 1	0cm	9400	1880	ON	19.74	21.00	1.337	-0.15	0.467	0.624
	WCDMA II	RMC 12.2Kbps	Curved surface of Edge1	0cm	9400	1880	ON	19.74	21.00	1.337	-0.11	0.845	1.129
	WCDMA II	RMC 12.2Kbps	Curved surface of Edge1	0cm	9262	1852.4	ON	19.70	21.00	1.349	-0.17	0.598	0.807
05	WCDMA II	RMC 12.2Kbps	Curved surface of Edge1	0cm	9538	1907.6	ON	19.72	21.00	1.343	-0.11	0.917	**1.231**
	WCDMA II	RMC 12.2Kbps	Bottom Face	1cm	9400	1880	OFF	22.73	24.50	1.503	-0.17	0.380	0.571
	WCDMA II	RMC 12.2Kbps	Edge 1	1cm	9400	1880	OFF	22.73	24.50	1.503	-0.18	0.243	0.365
	WCDMA II	RMC 12.2Kbps	Curved surface of Edge1	1cm	9400	1880	OFF	22.73	24.50	1.503	-0.16	0.421	0.633
	WCDMA II	RMC 12.2Kbps	Edge 2	0cm	9400	1880	OFF	22.73	24.50	1.503	-0.14	0.111	0.167

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Power Reduction	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0	RTAP 153.6Kbps	Bottom Face	0cm	384	836.52	ON	21.41	21.50	1.021	-0.11	0.937	0.957
	CDMA BC0	RTAP 153.6Kbps	Bottom Face	0cm	1013	824.7	ON	21.38	21.50	1.028	-0.12	0.878	0.903
	CDMA BC0	RTAP 153.6Kbps	Bottom Face	0cm	777	848.31	ON	21.35	21.50	1.035	-0.08	0.975	1.009
	CDMA BC0	RTAP 153.6Kbps	Edge 1	0cm	384	836.52	ON	21.41	21.50	1.021	-0.19	0.684	0.698
	CDMA BC0	RTAP 153.6Kbps	Curved surface of Edge1	0cm	384	836.52	ON	21.41	21.50	1.021	-0.12	1.040	1.062
06	CDMA BC0	RTAP 153.6Kbps	Curved surface of Edge1	0cm	1013	824.7	ON	21.38	21.50	1.028	-0.13	1.060	**1.090**
	CDMA BC0	RTAP 153.6Kbps	Curved surface of Edge1	0cm	777	848.31	ON	21.35	21.50	1.035	-0.1	1.050	1.087
	CDMA BC0	RTAP 153.6Kbps	Bottom Face	1cm	384	836.52	OFF	23.82	24.50	1.169	-0.06	0.445	0.520
	CDMA BC0	RTAP 153.6Kbps	Edge 1	1cm	384	836.52	OFF	23.82	24.50	1.169	-0.08	0.488	0.571
	CDMA BC0	RTAP 153.6Kbps	Curved surface of Edge1	1cm	384	836.52	OFF	23.82	24.50	1.169	-0.1	0.691	0.808
	CDMA BC0	RTAP 153.6Kbps	Curved surface of Edge1	1cm	1013	824.7	OFF	23.60	24.50	1.230	-0.08	0.659	0.811
	CDMA BC0	RTAP 153.6Kbps	Curved surface of Edge1	1cm	777	848.31	OFF	23.66	24.50	1.213	-0.08	0.687	0.834
	CDMA BC0	RTAP 153.6Kbps	Edge 2	0cm	384	836.52	OFF	23.82	24.50	1.169	-0.11	0.119	0.139
	CDMA BC1	RTAP 153.6Kbps	Bottom Face	0cm	600	1880	ON	20.45	21.00	1.135	-0.01	0.821	0.932
	CDMA BC1	RTAP 153.6Kbps	Bottom Face	0cm	25	1851.25	ON	20.35	21.00	1.161	-0.07	0.588	0.683
	CDMA BC1	RTAP 153.6Kbps	Bottom Face	0cm	1175	1908.75	ON	20.20	21.00	1.202	-0.07	0.820	0.986
	CDMA BC1	RTAP 153.6Kbps	Edge 1	0cm	600	1880	ON	20.45	21.00	1.135	0	0.546	0.620
	CDMA BC1	RTAP 153.6Kbps	Curved surface of Edge1	0cm	600	1880	ON	20.45	21.00	1.135	-0.16	0.973	1.104
	CDMA BC1	RTAP 153.6Kbps	Curved surface of Edge1	0cm	25	1851.25	ON	20.35	21.00	1.161	-0.1	0.676	0.785
07	CDMA BC1	RTAP 153.6Kbps	Curved surface of Edge1	0cm	1175	1908.75	ON	20.20	21.00	1.202	-0.17	0.925	**1.112**
	CDMA BC1	RTAP 153.6Kbps	Bottom Face	1cm	600	1880	OFF	24.27	24.50	1.054	-0.13	0.459	0.484
	CDMA BC1	RTAP 153.6Kbps	Edge 1	1cm	600	1880	OFF	24.27	24.50	1.054	-0.14	0.315	0.332
	CDMA BC1	RTAP 153.6Kbps	Curved surface of Edge1	1cm	600	1880	OFF	24.27	24.50	1.054	-0.01	0.464	0.489
	CDMA BC1	RTAP 153.6Kbps	Edge 2	0cm	600	1880	OFF	24.27	24.50	1.054	-0.1	0.127	0.134

<LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Power Reduction	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 17	10M	QPSK	1	0	Bottom Face	0cm	23780	709	ON	22.89	23.00	1.026	-0.06	0.506	0.519
	LTE Band 17	10M	QPSK	25	24	Bottom Face	0cm	23780	709	ON	22.66	23.00	1.081	-0.09	0.571	0.617
	LTE Band 17	10M	QPSK	1	0	Edge1	0cm	23780	709	ON	22.89	23.00	1.026	0.03	0.669	0.686
	LTE Band 17	10M	QPSK	25	24	Edge1	0cm	23780	709	ON	22.66	23.00	1.081	-0.09	0.736	0.796
	LTE Band 17	10M	QPSK	1	0	Curved surface of Edge1	0cm	23780	709	ON	22.89	23.00	1.026	-0.03	0.998	1.024
08	LTE Band 17	10M	QPSK	25	24	Curved surface of Edge1	0cm	23780	709	ON	22.66	23.00	1.081	0.02	1.160	**1.254**
	LTE Band 17	10M	QPSK	50	0	Curved surface of Edge1	0cm	23780	709	ON	22.47	23.00	1.130	0.04	1.070	1.209
	LTE Band 17	10M	QPSK	1	0	Bottom Face	1cm	23780	709	OFF	23.75	24.00	1.059	-0.01	0.186	0.197
	LTE Band 17	10M	QPSK	25	0	Bottom Face	1cm	23780	709	OFF	23.00	23.00	1.000	0	0.172	0.172
	LTE Band 17	10M	QPSK	1	0	Edge1	1cm	23780	709	OFF	23.75	24.00	1.059	-0.1	0.185	0.196
	LTE Band 17	10M	QPSK	25	24	Edge1	1cm	23780	709	OFF	23.00	23.00	1.000	0.05	0.173	0.173
	LTE Band 17	10M	QPSK	1	0	Curved surface of Edge1	1cm	23780	709	OFF	23.75	24.00	1.059	0.01	0.237	0.251
	LTE Band 17	10M	QPSK	25	0	Curved surface of Edge1	1cm	23780	709	OFF	23.00	23.00	1.000	0.02	0.221	0.221
	LTE Band 17	10M	QPSK	1	0	Edge2	0cm	23780	709	OFF	23.75	24.00	1.059	-0.05	0.016	0.017
	LTE Band 17	10M	QPSK	25	24	Edge2	0cm	23780	709	OFF	23.00	23.00	1.000	-0.16	0.018	0.018

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Power Reduction	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	10M	QPSK	1	0	Bottom Face	0cm	23230	782	ON	20.87	21.00	1.030	0.03	0.940	0.969
	LTE Band 13	10M	QPSK	25	0	Bottom Face	0cm	23230	782	ON	20.68	21.00	1.076	0.01	0.983	1.058
	LTE Band 13	10M	QPSK	50	0	Bottom Face	0cm	23230	782	ON	20.47	21.00	1.130	-0.04	0.915	1.034
	LTE Band 13	10M	QPSK	1	0	Edge1	0cm	23230	782	ON	20.87	21.00	1.030	0.01	0.733	0.755
	LTE Band 13	10M	QPSK	25	0	Edge1	0cm	23230	782	ON	20.68	21.00	1.076	-0.02	0.722	0.777
	LTE Band 13	10M	QPSK	1	0	Curved surface of Edge1	0cm	23230	782	ON	20.87	21.00	1.030	-0.05	1.030	1.061
	LTE Band 13	10M	QPSK	25	0	Curved surface of Edge1	0cm	23230	782	ON	20.68	21.00	1.076	-0.07	1.010	1.087
09	LTE Band 13	10M	QPSK	50	0	Curved surface of Edge1	0cm	23230	782	ON	20.47	21.00	1.130	-0.08	1.000	**1.130**
	LTE Band 13	10M	QPSK	1	0	Bottom Face	1cm	23230	782	OFF	23.64	24.00	1.086	0.04	0.523	0.568
	LTE Band 13	10M	QPSK	25	0	Bottom Face	1cm	23230	782	OFF	22.97	23.00	1.007	0.01	0.544	0.548
	LTE Band 13	10M	QPSK	1	0	Edge1	1cm	23230	782	OFF	23.64	24.00	1.086	-0.18	0.497	0.540
	LTE Band 13	10M	QPSK	25	0	Edge1	1cm	23230	782	OFF	22.97	23.00	1.007	0.01	0.501	0.504
	LTE Band 13	10M	QPSK	1	0	Curved surface of Edge1	1cm	23230	782	OFF	23.64	24.00	1.086	0.05	0.723	0.785
	LTE Band 13	10M	QPSK	25	0	Curved surface of Edge1	1cm	23230	782	OFF	22.97	23.00	1.007	0	0.731	0.736
	LTE Band 13	10M	QPSK	1	0	Edge2	0cm	23230	782	OFF	23.64	24.00	1.086	-0.03	0.091	0.099
	LTE Band 13	10M	QPSK	25	0	Edge2	0cm	23230	782	OFF	22.97	23.00	1.007	0.03	0.092	0.093
	LTE Band 5	10M	QPSK	1	0	Bottom Face	0cm	20450	829	ON	21.95	22.00	1.012	-0.04	1.010	1.022
	LTE Band 5	10M	QPSK	1	0	Bottom Face	0cm	20525	836.5	ON	21.78	22.00	1.052	-0.07	1.150	1.210
	LTE Band 5	10M	QPSK	1	0	Bottom Face	0cm	20600	844	ON	21.60	22.00	1.096	-0.03	0.917	1.005
	LTE Band 5	10M	QPSK	25	0	Bottom Face	0cm	20450	829	ON	21.70	22.00	1.072	-0.04	0.999	1.070
	LTE Band 5	10M	QPSK	25	0	Bottom Face	0cm	20525	836.5	ON	21.69	22.00	1.074	-0.01	1.090	1.171
	LTE Band 5	10M	QPSK	25	0	Bottom Face	0cm	20600	844	ON	21.32	22.00	1.169	-0.02	0.846	0.989
	LTE Band 5	10M	QPSK	50	0	Bottom Face	0cm	20450	829	ON	21.44	22.00	1.138	0.01	1.020	1.160
	LTE Band 5	10M	QPSK	1	0	Edge 1	0cm	20450	829	ON	21.95	22.00	1.012	-0.11	0.737	0.746
	LTE Band 5	10M	QPSK	25	0	Edge 1	0cm	20450	829	ON	21.70	22.00	1.072	-0.06	0.726	0.778
	LTE Band 5	10M	QPSK	1	0	Curved surface of Edge1	0cm	20450	829	ON	21.95	22.00	1.012	0.03	1.110	1.123
	LTE Band 5	10M	QPSK	1	0	Curved surface of Edge1	0cm	20525	836.5	ON	21.78	22.00	1.052	0.03	1.140	1.199
	LTE Band 5	10M	QPSK	1	0	Curved surface of Edge1	0cm	20600	844	ON	21.60	22.00	1.096	0.05	1.060	1.162
	LTE Band 5	10M	QPSK	25	0	Curved surface of Edge1	0cm	20450	829	ON	21.70	22.00	1.072	0	1.110	1.189
	LTE Band 5	10M	QPSK	25	0	Curved surface of Edge1	0cm	20525	836.5	ON	21.69	22.00	1.074	-0.01	1.100	1.181
10	LTE Band 5	10M	QPSK	25	0	Curved surface of Edge1	0cm	20600	844	ON	21.32	22.00	1.169	0.02	1.050	**1.228**
	LTE Band 5	10M	QPSK	50	0	Curved surface of Edge1	0cm	20450	829	ON	21.44	22.00	1.138	0.01	1.040	1.183
	LTE Band 5	10M	QPSK	1	0	Bottom Face	1cm	20450	829	OFF	23.80	24.00	1.047	-0.02	0.459	0.481
	LTE Band 5	10M	QPSK	25	0	Bottom Face	1cm	20450	829	OFF	22.78	23.00	1.052	-0.12	0.378	0.398
	LTE Band 5	10M	QPSK	1	0	Edge 1	1cm	20450	829	OFF	23.80	24.00	1.047	-0.05	0.542	0.568
	LTE Band 5	10M	QPSK	25	0	Edge 1	1cm	20450	829	OFF	22.78	23.00	1.052	-0.04	0.433	0.455
	LTE Band 5	10M	QPSK	1	0	Curved surface of Edge1	1cm	20450	829	OFF	23.80	24.00	1.047	-0.05	0.688	0.720
	LTE Band 5	10M	QPSK	25	0	Curved surface of Edge1	1cm	20450	829	OFF	22.78	23.00	1.052	-0.04	0.560	0.589
	LTE Band 5	10M	QPSK	1	0	Edge2	0cm	20450	829	OFF	23.80	24.00	1.047	-0.05	0.104	0.109
	LTE Band 5	10M	QPSK	25	0	Edge2	0cm	20450	829	OFF	22.78	23.00	1.052	-0.04	0.090	0.095

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Power Reduction	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	20M	QPSK	1	0	Bottom Face	0cm	20050	1720	ON	21.80	22.00	1.047	-0.11	1.100	1.152
	LTE Band 4	20M	QPSK	1	0	Bottom Face	0cm	20175	1732.5	ON	21.71	22.00	1.069	-0.01	1.110	1.187
	LTE Band 4	20M	QPSK	1	0	Bottom Face	0cm	20300	1745	ON	21.48	22.00	1.127	-0.15	1.120	1.262
	LTE Band 4	20M	QPSK	50	0	Bottom Face	0cm	20050	1720	ON	21.51	22.00	1.119	-0.16	1.080	1.209
11	LTE Band 4	20M	QPSK	50	0	Bottom Face	0cm	20175	1732.5	ON	21.33	22.00	1.167	-0.1	1.160	**1.353**
	LTE Band 4	20M	QPSK	50	0	Bottom Face	0cm	20300	1745	ON	21.15	22.00	1.216	-0.18	0.963	1.171
	LTE Band 4	20M	QPSK	100	0	Bottom Face	0cm	20050	1720	ON	21.42	22.00	1.143	-0.16	1.160	1.326
	LTE Band 4	20M	QPSK	1	0	Edge 1	0cm	20050	1720	ON	21.80	22.00	1.047	-0.04	0.486	0.509
	LTE Band 4	20M	QPSK	50	0	Edge 1	0cm	20050	1720	ON	21.51	22.00	1.119	-0.09	0.465	0.521
	LTE Band 4	20M	QPSK	1	0	Curved surface of Edge1	0cm	20050	1720	ON	21.80	22.00	1.047	-0.17	1.030	1.079
	LTE Band 4	20M	QPSK	1	0	Curved surface of Edge1	0cm	20175	1732.5	ON	21.71	22.00	1.069	-0.19	1.190	1.272
	LTE Band 4	20M	QPSK	1	0	Curved surface of Edge1	0cm	20300	1745	ON	21.48	22.00	1.127	-0.15	1.080	1.217
	LTE Band 4	20M	QPSK	50	0	Curved surface of Edge1	0cm	20050	1720	ON	21.51	22.00	1.119	-0.14	0.996	1.115
	LTE Band 4	20M	QPSK	50	0	Curved surface of Edge1	0cm	20175	1732.5	ON	21.33	22.00	1.167	-0.15	1.100	1.283
	LTE Band 4	20M	QPSK	50	0	Curved surface of Edge1	0cm	20300	1745	ON	21.15	22.00	1.216	-0.13	0.915	1.113
	LTE Band 4	20M	QPSK	100	0	Curved surface of Edge1	0cm	20050	1720	ON	21.42	22.00	1.143	-0.08	1.060	1.211
	LTE Band 4	20M	QPSK	1	0	Bottom Face	1cm	20050	1720	OFF	23.60	24.00	1.096	0.01	0.345	0.378
	LTE Band 4	20M	QPSK	50	0	Bottom Face	1cm	20050	1720	OFF	22.59	23.00	1.099	0	0.298	0.328
	LTE Band 4	20M	QPSK	1	0	Edge 1	1cm	20050	1720	OFF	23.60	24.00	1.096	-0.02	0.165	0.181
	LTE Band 4	20M	QPSK	50	0	Edge 1	1cm	20050	1720	OFF	22.59	23.00	1.099	-0.04	0.146	0.160
	LTE Band 4	20M	QPSK	1	0	Curved surface of Edge1	1cm	20050	1720	OFF	23.60	24.00	1.096	-0.08	0.297	0.326
	LTE Band 4	20M	QPSK	50	0	Curved surface of Edge1	1cm	20050	1720	OFF	22.59	23.00	1.099	-0.01	0.253	0.278
	LTE Band 4	20M	QPSK	1	0	Edge 2	0cm	20050	1720	OFF	23.60	24.00	1.096	0.02	0.090	0.099
	LTE Band 4	20M	QPSK	50	0	Edge 2	0cm	20050	1720	OFF	22.59	23.00	1.099	0.05	0.080	0.088
	LTE Band 2	20M	QPSK	1	0	Bottom Face	0cm	18900	1880	ON	20.80	21.00	1.047	-0.1	0.851	0.891
	LTE Band 2	20M	QPSK	1	0	Bottom Face	0cm	18700	1860	ON	20.75	21.00	1.059	-0.1	0.729	0.772
	LTE Band 2	20M	QPSK	1	0	Bottom Face	0cm	19100	1900	ON	20.62	21.00	1.091	-0.02	0.840	0.917
	LTE Band 2	20M	QPSK	50	0	Bottom Face	0cm	18900	1880	ON	20.52	21.00	1.117	-0.06	0.919	1.026
	LTE Band 2	20M	QPSK	50	0	Bottom Face	0cm	18700	1860	ON	20.50	21.00	1.122	-0.01	0.630	0.707
	LTE Band 2	20M	QPSK	50	0	Bottom Face	0cm	19100	1900	ON	20.35	21.00	1.161	-0.07	0.846	0.983
	LTE Band 2	20M	QPSK	100	0	Bottom Face	0cm	18900	1880	ON	20.38	21.00	1.153	-0.06	0.885	1.021
	LTE Band 2	20M	QPSK	1	0	Edge 1	0cm	18900	1880	ON	20.80	21.00	1.047	0	0.594	0.622
	LTE Band 2	20M	QPSK	50	0	Edge 1	0cm	18900	1880	ON	20.52	21.00	1.117	0.13	0.612	0.684
	LTE Band 2	20M	QPSK	1	0	Curved surface of Edge1	0cm	18900	1880	ON	20.80	21.00	1.047	-0.14	1.050	1.099
	LTE Band 2	20M	QPSK	1	0	Curved surface of Edge1	0cm	18700	1860	ON	20.75	21.00	1.059	-0.03	0.836	0.886
	LTE Band 2	20M	QPSK	1	0	Curved surface of Edge1	0cm	19100	1900	ON	20.62	21.00	1.091	-0.15	0.980	1.070
	LTE Band 2	20M	QPSK	50	0	Curved surface of Edge1	0cm	18900	1880	ON	20.52	21.00	1.117	-0.09	1.030	1.150
	LTE Band 2	20M	QPSK	50	0	Curved surface of Edge1	0cm	18700	1860	ON	20.50	21.00	1.122	-0.13	0.731	0.820
	LTE Band 2	20M	QPSK	50	0	Curved surface of Edge1	0cm	19100	1900	ON	20.35	21.00	1.161	-0.09	0.976	1.134
12	LTE Band 2	20M	QPSK	100	0	Curved surface of Edge1	0cm	18900	1880	ON	20.38	21.00	1.153	-0.07	0.998	**1.151**
	LTE Band 2	20M	QPSK	1	0	Bottom Face	1cm	18900	1880	OFF	23.79	24.00	1.050	-0.18	0.393	0.412
	LTE Band 2	20M	QPSK	50	0	Bottom Face	1cm	18900	1880	OFF	22.60	23.00	1.096	-0.11	0.314	0.344
	LTE Band 2	20M	QPSK	1	0	Edge 1	1cm	18900	1880	OFF	23.79	24.00	1.050	-0.16	0.231	0.242
	LTE Band 2	20M	QPSK	50	0	Edge 1	1cm	18900	1880	OFF	22.60	23.00	1.096	-0.16	0.190	0.208
	LTE Band 2	20M	QPSK	1	0	Curved surface of Edge1	1cm	18900	1880	OFF	23.79	24.00	1.050	-0.09	0.394	0.414
	LTE Band 2	20M	QPSK	50	0	Curved surface of Edge1	1cm	18900	1880	OFF	22.60	23.00	1.096	-0.12	0.319	0.350
	LTE Band 2	20M	QPSK	1	0	Edge 2	0cm	18900	1880	OFF	23.79	24.00	1.050	-0.07	0.124	0.130
	LTE Band 2	20M	QPSK	50	0	Edge 2	0cm	18900	1880	OFF	22.60	23.00	1.096	-0.11	0.081	0.089

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Power Reduction	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	20M	QPSK	1	49	Bottom Face	0cm	26340	1880	ON	20.85	21.00	1.035	-0.05	0.642	0.665
	LTE Band 25	20M	QPSK	50	24	Bottom Face	0cm	26340	1880	ON	20.65	21.00	1.084	-0.07	0.664	0.720
	LTE Band 25	20M	QPSK	1	49	Edge1	0cm	26340	1880	ON	20.85	21.00	1.035	0	0.447	0.463
	LTE Band 25	20M	QPSK	50	24	Edge1	0cm	26340	1880	ON	20.65	21.00	1.084	-0.05	0.427	0.463
	LTE Band 25	20M	QPSK	1	49	Curved surface of Edge1	0cm	26340	1880	ON	20.85	21.00	1.035	-0.11	0.883	0.914
	LTE Band 25	20M	QPSK	1	49	Curved surface of Edge1	0cm	26140	1860	ON	20.79	21.00	1.050	-0.11	0.598	0.628
13	LTE Band 25	20M	QPSK	1	49	Curved surface of Edge1	0cm	26590	1905	ON	20.71	21.00	1.069	-0.16	1.140	**1.219**
	LTE Band 25	20M	QPSK	50	24	Curved surface of Edge1	0cm	26340	1880	ON	20.65	21.00	1.084	-0.18	0.813	0.881
	LTE Band 25	20M	QPSK	50	24	Curved surface of Edge1	0cm	26140	1860	ON	20.39	21.00	1.151	-0.15	0.568	0.654
	LTE Band 25	20M	QPSK	50	24	Curved surface of Edge1	0cm	26590	1905	ON	20.61	21.00	1.094	-0.04	0.921	1.008
	LTE Band 25	20M	QPSK	100	0	Curved surface of Edge1	0cm	26340	1880	ON	20.64	21.00	1.086	-0.12	0.704	0.765
	LTE Band 25	20M	QPSK	1	49	Bottom Face	1cm	26340	1880	OFF	23.55	24.00	1.109	0.03	0.324	0.359
	LTE Band 25	20M	QPSK	50	24	Bottom Face	1cm	26340	1880	OFF	22.96	23.00	1.009	0.01	0.296	0.299
	LTE Band 25	20M	QPSK	1	49	Edge1	1cm	26340	1880	OFF	23.55	24.00	1.109	-0.07	0.199	0.221
	LTE Band 25	20M	QPSK	50	24	Edge1	1cm	26340	1880	OFF	22.96	23.00	1.009	-0.04	0.181	0.183
	LTE Band 25	20M	QPSK	1	49	Curved surface of Edge1	1cm	26340	1880	OFF	23.55	24.00	1.109	-0.07	0.441	0.489
	LTE Band 25	20M	QPSK	50	24	Curved surface of Edge1	1cm	26340	1880	OFF	22.96	23.00	1.009	-0.04	0.399	0.403
	LTE Band 25	20M	QPSK	1	49	Edge2	0cm	26340	1880	OFF	23.55	24.00	1.109	-0.13	0.099	0.110
	LTE Band 25	20M	QPSK	50	24	Edge2	0cm	26340	1880	OFF	22.96	23.00	1.009	-0.09	0.091	0.092

15.2 *Repeated SAR Measurement*

No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (cm)	Ch.	Freq. (MHz)	Power Reduction	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	LTE Band 17	10M	QPSK	25	24	Curved surface of Edge1	0cm	23780	709	ON	22.66	23.00	1.081	0.02	1.160	-	1.254
2nd	LTE Band 17	10M	QPSK	25	24	Curved surface of Edge1	0cm	23780	709	ON	22.66	23.00	1.081	-0.01	1.150	1.01	1.244
1st	LTE Band 5	10M	QPSK	1	0	Bottom Face	0cm	20525	836.5	ON	21.78	22.00	1.052	-0.07	1.150	-	1.210
2nd	LTE Band 5	10M	QPSK	1	0	Bottom Face	0cm	20525	836.5	ON	21.78	22.00	1.052	-0.04	1.130	1.02	1.189
1st	LTE Band 4	20M	QPSK	1	0	Curved surface of Edge1	0cm	20175	1732.5	ON	21.71	22.00	1.069	-0.19	1.190	-	1.272
2nd	LTE Band 4	20M	QPSK	1	0	Curved surface of Edge1	0cm	20175	1732.5	ON	21.71	22.00	1.069	-0.17	1.150	1.03	1.229
1st	LTE Band 25	20M	QPSK	1	49	Curved surface of Edge1	0cm	26590	1905	ON	20.71	21.00	1.069	-0.16	1.140	-	1.219
2nd	LTE Band 25	20M	QPSK	1	49	Curved surface of Edge1	0cm	26590	1905	ON	20.71	21.00	1.069	-0.13	1.040	1.10	1.112

General Note:

1. Per KDB 865664 D01v01r03, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/kg
2. Per KDB 865664 D01v01r03, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR <1.45W/kg, only one repeated measurement is required.
3. The ratio is the difference in percentage between original and repeated *measured SAR*.
4. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

16. *Simultaneous Transmission Analysis*

NO.	Simultaneous Transmission Configurations	Portable Tablet Body	Note
1.	GPRS/EDGE(Data) + WLAN2.4GHz(data)	Yes	Hotspot / WiFi Direct
2.	WCDMA(Data) + WLAN2.4GHz(data)	Yes	Hotspot / WiFi Direct
3.	CDMA(Data) + WLAN2.4GHz(data)	Yes	Hotspot / WiFi Direct
4.	LTE(Data) + WLAN2.4GHz(data)	Yes	Hotspot / WiFi Direct
5.	GPRS/EDGE(Data) + Bluetooth(data)	Yes	
6.	WCDMA(Data) + Bluetooth(data)	Yes	
7.	CDMA(Data) + Bluetooth(data)	Yes	
8.	LTE(Data) + Bluetooth(data)	Yes	
9.	GPRS/EDGE(data) + WLAN5GHz(data)	No	
10.	WCDMA(data) + WLAN5GHz(data)	No	
11.	CDMA(data) + WLAN5 GHz(data)	No	
12.	LTE(data) + WLAN5GHz(data)	No	

General Note:

1. The below table WLAN modules are also integrated into this host and the 2.4GHz WLAN and Bluetooth SAR testing results are also used perform transmission simultaneous analysis.

2. The worst case 2.4 GHz WLAN and Bluetooth SAR for each configuration in below each WLAN report was used for SAR summation; therefore, the following summations represent the absolute worst cases for simultaneous transmission with WLAN and Bluetooth.

3. This device supports 2.4GHz WLAN hotspot and WiFi direct operation only, therefore when the device operate in 5GHz WLAN transmit cannot be transmitted simultaneously with WWAN

4. For simultaneous transmission analysis for exposure position of edge1 1cm, Curved surface of Edge1 1cm and bottom face 1cm, WLAN SAR tested at 0mm separation is worse and the test data is used for conservative SAR summation.

5. The Scaled SAR summation is calculated based on the same configuration and test position.

6. Per KDB 447498 D01v05r02, simultaneous transmission SAR is compliant if,
   i) Scalar SAR summation < 1.6W/kg.
   ii) SPLSR = $(SAR1 + SAR2)^{1.5}$ / (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.
   iii) If SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary.
   iv) Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.
   v) The SPLSR calculated results please refer to section 16.2.

WLAN Module Information		
Integrated Module 1	Brand Name	Broadcom
	Model Name	BCM943142Y
	FCC ID	QDS-BRCM1079
	Report No	FA440180
	Final Action Date	06/26/2014
	Mode	・802.11 b/g/n ・Bluetooth
Integrated Module 2	Brand Name	Intel
	Model Name	Intel® Dual Band Wireless-AC 3160 (Model 3160NGW)
	FCC ID	PD93160NG
	Report No	SAR.20140503
	Final Action Date	06/19/2014
	Mode	・802.11 a/b/g/n/ac ・Bluetooth
Integrated Module 3	Brand Name	Intel
	Model Name	Intel® Dual Band Wireless-AC 7260 (Model 7260NGW, 7260NGW AN, 7260NGW BN, 7260NGW NB)
	FCC ID	PD97260NG
	Report No	SAR.20140502
	Final Action Date	06/20/2014
	Mode	・802.11 a/b/g/n/ac ・Bluetooth

SPORTON INTERNATIONAL INC.

TEL : 886-3-327-3456 / FAX : 886-3-328-4978   Issued Date : Jul. 29, 2014
FCC ID : B94HNI19CFX468   Page 61 of 90   Form version. : 140422

16.1 Body Exposure Conditions

16.1.1 Transmit simultaneous with Broadcom BCM943142Y

WWAN Band		Exposure Position	WWAN SAR (W/kg)	2.4GHz WLAN Antenna A SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
GSM	GSM850	Bottom Face at 0 cm	0.959	0.584	**1.54**		
		Edge1 at 0 cm	0.669	0.134	**0.80**		
		Curved surface of Edge1 at 0cm	1.065	0.277	**1.34**		
		Bottom Face at 1cm	0.767	0.584	**1.35**		
		Edge1 at 1cm	0.790	0.134	**0.92**		
		Curved surface of Edge1 at 1cm	1.339	0.277	**1.62**	0.01	Case 1
		Edge2 at 0cm	0.180		**0.18**		
	GSM1900	Bottom Face at 0 cm	0.799	0.584	**1.38**		
		Edge1 at 0 cm	0.609	0.134	**0.74**		
		Curved surface of Edge1 at 0cm	1.194	0.277	**1.47**		
		Bottom Face at 1cm	0.473	0.584	**1.06**		
		Edge1 at 1cm	0.304	0.134	**0.44**		
		Curved surface of Edge1 at 1cm	0.444	0.277	**0.72**		
		Edge2 at 0cm	0.093		**0.09**		
WCMDA	Band V	Bottom Face at 0 cm	1.096	0.584	**1.68**	0.01	Case 2
		Edge1 at 0 cm	0.745	0.134	**0.88**		
		Curved surface of Edge1 at 0cm	1.262	0.277	**1.54**		
		Bottom Face at 1cm	0.565	0.584	**1.15**		
		Edge1 at 1cm	0.521	0.134	**0.66**		
		Curved surface of Edge1 at 1cm	0.801	0.277	**1.08**		
		Edge2 at 0cm	0.126		**0.13**		
	Band IV	Bottom Face at 0 cm	1.303	0.584	**1.89**	0.01	Case 3
		Edge1 at 0 cm	0.496	0.134	**0.63**		
		Curved surface of Edge1 at 0cm	1.292	0.277	**1.57**		
		Bottom Face at 1cm	0.426	0.584	**1.01**		
		Edge1 at 1cm	0.231	0.134	**0.37**		
		Curved surface of Edge1 at 1cm	0.392	0.277	**0.67**		
		Edge2 at 0cm	0.060		**0.06**		
	Band II	Bottom Face at 0 cm	1.084	0.584	**1.67**	0.01	Case 5
		Edge1 at 0 cm	0.624	0.134	**0.76**		
		Curved surface of Edge1 at 0cm	1.231	0.277	**1.51**		
		Bottom Face at 1cm	0.571	0.584	**1.16**		
		Edge1 at 1cm	0.365	0.134	**0.50**		
		Curved surface of Edge1 at 1cm	0.633	0.277	**0.91**		
		Edge2 at 0cm	0.167		**0.17**		
CDMA	BC0	Bottom Face at 0 cm	1.009	0.584	**1.59**		
		Edge1 at 0 cm	0.698	0.134	**0.83**		
		Curved surface of Edge1 at 0cm	1.090	0.277	**1.37**		
		Bottom Face at 1cm	0.520	0.584	**1.10**		
		Edge1 at 1cm	0.571	0.134	**0.71**		
		Curved surface of Edge1 at 1cm	0.834	0.277	**1.11**		
		Edge2 at 0cm	0.139		**0.14**		
	BC1	Bottom Face at 0 cm	0.986	0.584	**1.57**		
		Edge1 at 0 cm	0.620	0.134	**0.75**		
		Curved surface of Edge1 at 0cm	1.112	0.277	**1.39**		
		Bottom Face at 1cm	0.484	0.584	**1.07**		
		Edge1 at 1cm	0.332	0.134	**0.47**		
		Curved surface of Edge1 at 1cm	0.489	0.277	**0.77**		
		Edge2 at 0cm	0.134		**0.13**		

WWAN Band		Exposure Position	WWAN SAR (W/kg)	2.4GHz WLAN Antenna A SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
LTE	Band 17	Bottom Face at 0 cm	0.617	0.584	**1.20**		
		Edge1 at 0 cm	0.796	0.134	**0.93**		
		Curved surface of Edge1 at 0cm	1.254	0.277	**1.53**		
		Bottom Face at 1cm	0.197	0.584	**0.78**		
		Edge1 at 1cm	0.196	0.134	**0.33**		
		Curved surface of Edge1 at 1cm	0.251	0.277	**0.53**		
		Edge2 at 0cm	0.018		**0.02**		
	Band 13	Bottom Face at 0 cm	1.058	0.584	**1.64**	0.01	Case 6
		Edge1 at 0 cm	0.777	0.134	**0.91**		
		Curved surface of Edge1 at 0cm	1.130	0.277	**1.41**		
		Bottom Face at 1cm	0.568	0.584	**1.15**		
		Edge1 at 1cm	0.540	0.134	**0.67**		
		Curved surface of Edge1 at 1cm	0.785	0.277	**1.06**		
		Edge2 at 0cm	0.099		**0.10**		
	Band 5	Bottom Face at 0 cm	1.210	0.584	**1.79**	0.01	Case 7
		Edge1 at 0 cm	0.778	0.134	**0.91**		
		Curved surface of Edge1 at 0cm	1.228	0.277	**1.51**		
		Bottom Face at 1cm	0.481	0.584	**1.07**		
		Edge1 at 1cm	0.568	0.134	**0.70**		
		Curved surface of Edge1 at 1cm	0.720	0.277	**1.00**		
		Edge2 at 0cm	0.109		**0.11**		
	Band 4	Bottom Face at 0 cm	1.353	0.584	**1.94**	0.01	Case 8
		Edge1 at 0 cm	0.521	0.134	**0.66**		
		Curved surface of Edge1 at 0cm	1.283	0.277	**1.56**		
		Bottom Face at 1cm	0.378	0.584	**0.96**		
		Edge1 at 1cm	0.181	0.134	**0.32**		
		Curved surface of Edge1 at 1cm	0.326	0.277	**0.60**		
		Edge2 at 0cm	0.099		**0.10**		
	Band 2	Bottom Face at 0 cm	1.026	0.584	**1.61**	0.01	Case 10
		Edge1 at 0 cm	0.684	0.134	**0.82**		
		Curved surface of Edge1 at 0cm	1.151	0.277	**1.43**		
		Bottom Face at 1cm	0.412	0.584	**1.00**		
		Edge1 at 1cm	0.242	0.134	**0.38**		
		Curved surface of Edge1 at 1cm	0.414	0.277	**0.69**		
		Edge2 at 0cm	0.130		**0.13**		
	Band 25	Bottom Face at 0 cm	0.720	0.584	**1.30**		
		Edge1 at 0 cm	0.463	0.134	**0.60**		
		Curved surface of Edge1 at 0cm	1.219	0.277	**1.50**		
		Bottom Face at 1cm	0.359	0.584	**0.94**		
		Edge1 at 1cm	0.221	0.134	**0.36**		
		Curved surface of Edge1 at 1cm	0.489	0.277	**0.77**		
		Edge2 at 0cm	0.110		**0.11**		

WWAN Band		Exposure Position	WWAN SAR (W/kg)	2.4GHz WLAN Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
GSM	GSM850	Bottom Face at 0 cm	0.959	0.318	**1.28**		
		Edge1 at 0 cm	0.669	0.173	**0.84**		
		Curved surface of Edge1 at 0cm	1.065	0.151	**1.22**		
		Bottom Face at 1cm	0.767	0.318	**1.09**		
		Edge1 at 1cm	0.790	0.173	**0.96**		
		Curved surface of Edge1 at 1cm	1.339	0.151	**1.49**		
		Edge2 at 0cm	0.180		**0.18**		
	GSM1900	Bottom Face at 0 cm	0.799	0.318	**1.12**		
		Edge1 at 0 cm	0.609	0.173	**0.78**		
		Curved surface of Edge1 at 0cm	1.194	0.151	**1.35**		
		Bottom Face at 1cm	0.473	0.318	**0.79**		
		Edge1 at 1cm	0.304	0.173	**0.48**		
		Curved surface of Edge1 at 1cm	0.444	0.151	**0.60**		
		Edge2 at 0cm	0.093		**0.09**		
WCMDA	Band V	Bottom Face at 0 cm	1.096	0.318	**1.41**		
		Edge1 at 0 cm	0.745	0.173	**0.92**		
		Curved surface of Edge1 at 0cm	1.262	0.151	**1.41**		
		Bottom Face at 1cm	0.565	0.318	**0.88**		
		Edge1 at 1cm	0.521	0.173	**0.69**		
		Curved surface of Edge1 at 1cm	0.801	0.151	**0.95**		
		Edge2 at 0cm	0.126		**0.13**		
	Band IV	Bottom Face at 0 cm	1.303	0.318	**1.62**	0.01	Case 4
		Edge1 at 0 cm	0.496	0.173	**0.67**		
		Curved surface of Edge1 at 0cm	1.292	0.151	**1.44**		
		Bottom Face at 1cm	0.426	0.318	**0.74**		
		Edge1 at 1cm	0.231	0.173	**0.40**		
		Curved surface of Edge1 at 1cm	0.392	0.151	**0.54**		
		Edge2 at 0cm	0.060		**0.06**		
	Band II	Bottom Face at 0 cm	1.084	0.318	**1.40**		
		Edge1 at 0 cm	0.624	0.173	**0.80**		
		Curved surface of Edge1 at 0cm	1.231	0.151	**1.38**		
		Bottom Face at 1cm	0.571	0.318	**0.89**		
		Edge1 at 1cm	0.365	0.173	**0.54**		
		Curved surface of Edge1 at 1cm	0.633	0.151	**0.78**		
		Edge2 at 0cm	0.167		**0.17**		
CDMA	BC0	Bottom Face at 0 cm	1.009	0.318	**1.33**		
		Edge1 at 0 cm	0.698	0.173	**0.87**		
		Curved surface of Edge1 at 0cm	1.090	0.151	**1.24**		
		Bottom Face at 1cm	0.520	0.318	**0.84**		
		Edge1 at 1cm	0.571	0.173	**0.74**		
		Curved surface of Edge1 at 1cm	0.834	0.151	**0.99**		
		Edge2 at 0cm	0.139		**0.14**		
	BC1	Bottom Face at 0 cm	0.986	0.318	**1.30**		
		Edge1 at 0 cm	0.620	0.173	**0.79**		
		Curved surface of Edge1 at 0cm	1.112	0.151	**1.26**		
		Bottom Face at 1cm	0.484	0.318	**0.80**		
		Edge1 at 1cm	0.332	0.173	**0.51**		
		Curved surface of Edge1 at 1cm	0.489	0.151	**0.64**		
		Edge2 at 0cm	0.134		**0.13**		

WWAN Band		Exposure Position	WWAN SAR (W/kg)	2.4GHz WLAN Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
LTE	Band 17	Bottom Face at 0 cm	0.617	0.318	**0.94**		
		Edge1 at 0 cm	0.796	0.173	**0.97**		
		Curved surface of Edge1 at 0cm	1.254	0.151	**1.41**		
		Bottom Face at 1cm	0.197	0.318	**0.52**		
		Edge1 at 1cm	0.196	0.173	**0.37**		
		Curved surface of Edge1 at 1cm	0.251	0.151	**0.40**		
		Edge2 at 0cm	0.018		**0.02**		
	Band 13	Bottom Face at 0 cm	1.058	0.318	**1.38**		
		Edge1 at 0 cm	0.777	0.173	**0.95**		
		Curved surface of Edge1 at 0cm	1.130	0.151	**1.28**		
		Bottom Face at 1cm	0.568	0.318	**0.89**		
		Edge1 at 1cm	0.540	0.173	**0.71**		
		Curved surface of Edge1 at 1cm	0.785	0.151	**0.94**		
		Edge2 at 0cm	0.099		**0.10**		
	Band 5	Bottom Face at 0 cm	1.210	0.318	**1.53**		
		Edge1 at 0 cm	0.778	0.173	**0.95**		
		Curved surface of Edge1 at 0cm	1.228	0.151	**1.38**		
		Bottom Face at 1cm	0.481	0.318	**0.80**		
		Edge1 at 1cm	0.568	0.173	**0.74**		
		Curved surface of Edge1 at 1cm	0.720	0.151	**0.87**		
		Edge2 at 0cm	0.109		**0.11**		
	Band 4	Bottom Face at 0 cm	1.353	0.318	**1.67**	0.01	Case 9
		Edge1 at 0 cm	0.521	0.173	**0.69**		
		Curved surface of Edge1 at 0cm	1.283	0.151	**1.43**		
		Bottom Face at 1cm	0.378	0.318	**0.70**		
		Edge1 at 1cm	0.181	0.173	**0.35**		
		Curved surface of Edge1 at 1cm	0.326	0.151	**0.48**		
		Edge2 at 0cm	0.099		**0.10**		
	Band 2	Bottom Face at 0 cm	1.026	0.318	**1.34**		
		Edge1 at 0 cm	0.684	0.173	**0.86**		
		Curved surface of Edge1 at 0cm	1.151	0.151	**1.30**		
		Bottom Face at 1cm	0.412	0.318	**0.73**		
		Edge1 at 1cm	0.242	0.173	**0.42**		
		Curved surface of Edge1 at 1cm	0.414	0.151	**0.57**		
		Edge2 at 0cm	0.130		**0.13**		
	Band 25	Bottom Face at 0 cm	0.720	0.318	**1.04**		
		Edge1 at 0 cm	0.463	0.173	**0.64**		
		Curved surface of Edge1 at 0cm	1.219	0.151	**1.37**		
		Bottom Face at 1cm	0.359	0.318	**0.68**		
		Edge1 at 1cm	0.221	0.173	**0.39**		
		Curved surface of Edge1 at 1cm	0.489	0.151	**0.64**		
		Edge2 at 0cm	0.110		**0.11**		

WWAN Band		Exposure Position	WWAN SAR (W/kg)	Bluetooth Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
GSM	GSM850	Bottom Face at 0 cm	0.959	0.014	**0.97**		
		Edge1 at 0 cm	0.669	0.014	**0.68**		
		Curved surface of Edge1 at 0cm	1.065	0.014	**1.08**		
		Bottom Face at 1cm	0.767	0.014	**0.78**		
		Edge1 at 1cm	0.790	0.014	**0.80**		
		Curved surface of Edge1 at 1cm	1.339	0.014	**1.35**		
		Edge2 at 0cm	0.180		**0.18**		
	GSM1900	Bottom Face at 0 cm	0.799	0.014	**0.81**		
		Edge1 at 0 cm	0.609	0.014	**0.62**		
		Curved surface of Edge1 at 0cm	1.194	0.014	**1.21**		
		Bottom Face at 1cm	0.473	0.014	**0.49**		
		Edge1 at 1cm	0.304	0.014	**0.32**		
		Curved surface of Edge1 at 1cm	0.444	0.014	**0.46**		
		Edge2 at 0cm	0.093		**0.09**		
WCMDA	Band V	Bottom Face at 0 cm	1.096	0.014	**1.11**		
		Edge1 at 0 cm	0.745	0.014	**0.76**		
		Curved surface of Edge1 at 0cm	1.262	0.014	**1.28**		
		Bottom Face at 1cm	0.565	0.014	**0.58**		
		Edge1 at 1cm	0.521	0.014	**0.54**		
		Curved surface of Edge1 at 1cm	0.801	0.014	**0.82**		
		Edge2 at 0cm	0.126		**0.13**		
	Band IV	Bottom Face at 0 cm	1.303	0.014	**1.32**		
		Edge1 at 0 cm	0.496	0.014	**0.51**		
		Curved surface of Edge1 at 0cm	1.292	0.014	**1.31**		
		Bottom Face at 1cm	0.426	0.014	**0.44**		
		Edge1 at 1cm	0.231	0.014	**0.25**		
		Curved surface of Edge1 at 1cm	0.392	0.014	**0.41**		
		Edge2 at 0cm	0.060		**0.06**		
	Band II	Bottom Face at 0 cm	1.084	0.014	**1.10**		
		Edge1 at 0 cm	0.624	0.014	**0.64**		
		Curved surface of Edge1 at 0cm	1.231	0.014	**1.25**		
		Bottom Face at 1cm	0.571	0.014	**0.59**		
		Edge1 at 1cm	0.365	0.014	**0.38**		
		Curved surface of Edge1 at 1cm	0.633	0.014	**0.65**		
		Edge2 at 0cm	0.167		**0.17**		
CDMA	BC0	Bottom Face at 0 cm	1.009	0.014	**1.02**		
		Edge1 at 0 cm	0.698	0.014	**0.71**		
		Curved surface of Edge1 at 0cm	1.090	0.014	**1.10**		
		Bottom Face at 1cm	0.520	0.014	**0.53**		
		Edge1 at 1cm	0.571	0.014	**0.59**		
		Curved surface of Edge1 at 1cm	0.834	0.014	**0.85**		
		Edge2 at 0cm	0.139		**0.14**		
	BC1	Bottom Face at 0 cm	0.986	0.014	**1.00**		
		Edge1 at 0 cm	0.620	0.014	**0.63**		
		Curved surface of Edge1 at 0cm	1.112	0.014	**1.13**		
		Bottom Face at 1cm	0.484	0.014	**0.50**		
		Edge1 at 1cm	0.332	0.014	**0.35**		
		Curved surface of Edge1 at 1cm	0.489	0.014	**0.50**		
		Edge2 at 0cm	0.134		**0.13**		

WWAN Band		Exposure Position	WWAN SAR (W/kg)	Bluetooth Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
LTE	Band 17	Bottom Face at 0 cm	0.617	0.014	0.63		
		Edge1 at 0 cm	0.796	0.014	0.81		
		Curved surface of Edge1 at 0cm	1.254	0.014	1.27		
		Bottom Face at 1cm	0.197	0.014	0.21		
		Edge1 at 1cm	0.196	0.014	0.21		
		Curved surface of Edge1 at 1cm	0.251	0.014	0.27		
		Edge2 at 0cm	0.018		0.02		
	Band 13	Bottom Face at 0 cm	1.058	0.014	1.07		
		Edge1 at 0 cm	0.777	0.014	0.79		
		Curved surface of Edge1 at 0cm	1.130	0.014	1.14		
		Bottom Face at 1cm	0.568	0.014	0.58		
		Edge1 at 1cm	0.540	0.014	0.55		
		Curved surface of Edge1 at 1cm	0.785	0.014	0.80		
		Edge2 at 0cm	0.099		0.10		
	Band 5	Bottom Face at 0 cm	1.210	0.014	1.22		
		Edge1 at 0 cm	0.778	0.014	0.79		
		Curved surface of Edge1 at 0cm	1.228	0.014	1.24		
		Bottom Face at 1cm	0.481	0.014	0.50		
		Edge1 at 1cm	0.568	0.014	0.58		
		Curved surface of Edge1 at 1cm	0.720	0.014	0.73		
		Edge2 at 0cm	0.109		0.11		
	Band 4	Bottom Face at 0 cm	1.353	0.014	1.37		
		Edge1 at 0 cm	0.521	0.014	0.54		
		Curved surface of Edge1 at 0cm	1.283	0.014	1.30		
		Bottom Face at 1cm	0.378	0.014	0.39		
		Edge1 at 1cm	0.181	0.014	0.20		
		Curved surface of Edge1 at 1cm	0.326	0.014	0.34		
		Edge2 at 0cm	0.099		0.10		
	Band 2	Bottom Face at 0 cm	1.026	0.014	1.04		
		Edge1 at 0 cm	0.684	0.014	0.70		
		Curved surface of Edge1 at 0cm	1.151	0.014	1.17		
		Bottom Face at 1cm	0.412	0.014	0.43		
		Edge1 at 1cm	0.242	0.014	0.26		
		Curved surface of Edge1 at 1cm	0.414	0.014	0.43		
		Edge2 at 0cm	0.130		0.13		
	Band 25	Bottom Face at 0 cm	0.720	0.014	0.73		
		Edge1 at 0 cm	0.463	0.014	0.48		
		Curved surface of Edge1 at 0cm	1.219	0.014	1.23		
		Bottom Face at 1cm	0.359	0.014	0.37		
		Edge1 at 1cm	0.221	0.014	0.24		
		Curved surface of Edge1 at 1cm	0.489	0.014	0.50		
		Edge2 at 0cm	0.110		0.11		

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16.1.2 *Transmit simultaneous with Intel 3160NGW*

WWAN Band		Exposure Position	WWAN SAR (W/kg)	2.4GHz WLAN Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
GSM	GSM850	Bottom Face at 0 cm	0.959	0.370	**1.33**		
		Edge1 at 0 cm	0.669	0.120	**0.79**		
		Curved surface of Edge1 at 0cm	1.065	0.620	**1.69**	0.02	Case 11
		Bottom Face at 1cm	0.767	0.370	**1.14**		
		Edge1 at 1cm	0.790	0.120	**0.91**		
		Curved surface of Edge1 at 1cm	1.339	0.620	**1.96**	0.02	Case 12
		Edge2 at 0cm	0.180		**0.18**		
	GSM1900	Bottom Face at 0 cm	0.799	0.370	**1.17**		
		Edge1 at 0 cm	0.609	0.120	**0.73**		
		Curved surface of Edge1 at 0cm	1.194	0.620	**1.81**	0.02	Case 13
		Bottom Face at 1cm	0.473	0.370	**0.84**		
		Edge1 at 1cm	0.304	0.120	**0.42**		
		Curved surface of Edge1 at 1cm	0.444	0.620	**1.06**		
		Edge2 at 0cm	0.093		**0.09**		
WCMDA	Band V	Bottom Face at 0 cm	1.096	0.370	**1.47**		
		Edge1 at 0 cm	0.745	0.120	**0.87**		
		Curved surface of Edge1 at 0cm	1.262	0.620	**1.88**	0.02	Case 14
		Bottom Face at 1cm	0.565	0.370	**0.94**		
		Edge1 at 1cm	0.521	0.120	**0.64**		
		Curved surface of Edge1 at 1cm	0.801	0.620	**1.42**		
		Edge2 at 0cm	0.126		**0.13**		
	Band IV	Bottom Face at 0 cm	1.303	0.370	**1.67**	0.02	Case 15
		Edge1 at 0 cm	0.496	0.120	**0.62**		
		Curved surface of Edge1 at 0cm	1.292	0.620	**1.91**	0.02	Case 16
		Bottom Face at 1cm	0.426	0.370	**0.80**		
		Edge1 at 1cm	0.231	0.120	**0.35**		
		Curved surface of Edge1 at 1cm	0.392	0.620	**1.01**		
		Edge2 at 0cm	0.060		**0.06**		
	Band II	Bottom Face at 0 cm	1.084	0.370	**1.45**		
		Edge1 at 0 cm	0.624	0.120	**0.74**		
		Curved surface of Edge1 at 0cm	1.231	0.620	**1.85**	0.02	Case 17
		Bottom Face at 1cm	0.571	0.370	**0.94**		
		Edge1 at 1cm	0.365	0.120	**0.49**		
		Curved surface of Edge1 at 1cm	0.633	0.620	**1.25**		
		Edge2 at 0cm	0.167		**0.17**		
CDMA	BC0	Bottom Face at 0 cm	1.009	0.370	**1.38**		
		Edge1 at 0 cm	0.698	0.120	**0.82**		
		Curved surface of Edge1 at 0cm	1.090	0.620	**1.71**	0.02	Case 18
		Bottom Face at 1cm	0.520	0.370	**0.89**		
		Edge1 at 1cm	0.571	0.120	**0.69**		
		Curved surface of Edge1 at 1cm	0.834	0.620	**1.45**		
		Edge2 at 0cm	0.139		**0.14**		
	BC1	Bottom Face at 0 cm	0.986	0.370	**1.36**		
		Edge1 at 0 cm	0.620	0.120	**0.74**		
		Curved surface of Edge1 at 0cm	1.112	0.620	**1.73**	0.02	Case 19
		Bottom Face at 1cm	0.484	0.370	**0.85**		
		Edge1 at 1cm	0.332	0.120	**0.45**		
		Curved surface of Edge1 at 1cm	0.489	0.620	**1.11**		
		Edge2 at 0cm	0.134		**0.13**		

WWAN Band		Exposure Position	WWAN SAR (W/kg)	2.4GHz WLAN Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
LTE	Band 17	Bottom Face at 0 cm	0.617	0.370	0.99		
		Edge1 at 0 cm	0.796	0.120	0.92		
		Curved surface of Edge1 at 0cm	1.254	0.620	1.87	0.02	Case 20
		Bottom Face at 1cm	0.197	0.370	0.57		
		Edge1 at 1cm	0.196	0.120	0.32		
		Curved surface of Edge1 at 1cm	0.251	0.620	0.87		
		Edge2 at 0cm	0.018		0.02		
	Band 13	Bottom Face at 0 cm	1.058	0.370	1.43		
		Edge1 at 0 cm	0.777	0.120	0.90		
		Curved surface of Edge1 at 0cm	1.130	0.620	1.75	0.02	Case 21
		Bottom Face at 1cm	0.568	0.370	0.94		
		Edge1 at 1cm	0.540	0.120	0.66		
		Curved surface of Edge1 at 1cm	0.785	0.620	1.41		
		Edge2 at 0cm	0.099		0.10		
	Band 5	Bottom Face at 0 cm	1.210	0.370	1.58		
		Edge1 at 0 cm	0.778	0.120	0.90		
		Curved surface of Edge1 at 0cm	1.228	0.620	1.85	0.02	Case 22
		Bottom Face at 1cm	0.481	0.370	0.85		
		Edge1 at 1cm	0.568	0.120	0.69		
		Curved surface of Edge1 at 1cm	0.720	0.620	1.34		
		Edge2 at 0cm	0.109		0.11		
	Band 4	Bottom Face at 0 cm	1.353	0.370	1.72	0.02	Case 23
		Edge1 at 0 cm	0.521	0.120	0.64		
		Curved surface of Edge1 at 0cm	1.283	0.620	1.90	0.02	Case 24
		Bottom Face at 1cm	0.378	0.370	0.75		
		Edge1 at 1cm	0.181	0.120	0.30		
		Curved surface of Edge1 at 1cm	0.326	0.620	0.95		
		Edge2 at 0cm	0.099		0.10		
	Band 2	Bottom Face at 0 cm	1.026	0.370	1.40		
		Edge1 at 0 cm	0.684	0.120	0.80		
		Curved surface of Edge1 at 0cm	1.151	0.620	1.77	0.02	Case 25
		Bottom Face at 1cm	0.412	0.370	0.78		
		Edge1 at 1cm	0.242	0.120	0.36		
		Curved surface of Edge1 at 1cm	0.414	0.620	1.03		
		Edge2 at 0cm	0.130		0.13		
	Band 25	Bottom Face at 0 cm	0.720	0.370	1.09		
		Edge1 at 0 cm	0.463	0.120	0.58		
		Curved surface of Edge1 at 0cm	1.219	0.620	1.84	0.02	Case 26
		Bottom Face at 1cm	0.359	0.370	0.73		
		Edge1 at 1cm	0.221	0.120	0.34		
		Curved surface of Edge1 at 1cm	0.489	0.620	1.11		
		Edge2 at 0cm	0.110		0.11		

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WWAN Band		Exposure Position	WWAN SAR (W/kg)	Bluetooth Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
GSM	GSM850	Bottom Face at 0 cm	0.959	0.010	**0.97**		
		Edge1 at 0 cm	0.669	0.010	**0.68**		
		Curved surface of Edge1 at 0cm	1.065	0.010	**1.08**		
		Bottom Face at 1cm	0.767	0.010	**0.78**		
		Edge1 at 1cm	0.790	0.010	**0.80**		
		Curved surface of Edge1 at 1cm	1.339	0.010	**1.35**		
		Edge2 at 0cm	0.180		**0.18**		
	GSM1900	Bottom Face at 0 cm	0.799	0.010	**0.81**		
		Edge1 at 0 cm	0.609	0.010	**0.62**		
		Curved surface of Edge1 at 0cm	1.194	0.010	**1.20**		
		Bottom Face at 1cm	0.473	0.010	**0.48**		
		Edge1 at 1cm	0.304	0.010	**0.31**		
		Curved surface of Edge1 at 1cm	0.444	0.010	**0.45**		
		Edge2 at 0cm	0.093		**0.09**		
WCMDA	Band V	Bottom Face at 0 cm	1.096	0.010	**1.11**		
		Edge1 at 0 cm	0.745	0.010	**0.76**		
		Curved surface of Edge1 at 0cm	1.262	0.010	**1.27**		
		Bottom Face at 1cm	0.565	0.010	**0.58**		
		Edge1 at 1cm	0.521	0.010	**0.53**		
		Curved surface of Edge1 at 1cm	0.801	0.010	**0.81**		
		Edge2 at 0cm	0.126		**0.13**		
	Band IV	Bottom Face at 0 cm	1.303	0.010	**1.31**		
		Edge1 at 0 cm	0.496	0.010	**0.51**		
		Curved surface of Edge1 at 0cm	1.292	0.010	**1.30**		
		Bottom Face at 1cm	0.426	0.010	**0.44**		
		Edge1 at 1cm	0.231	0.010	**0.24**		
		Curved surface of Edge1 at 1cm	0.392	0.010	**0.40**		
		Edge2 at 0cm	0.060		**0.06**		
	Band II	Bottom Face at 0 cm	1.084	0.010	**1.09**		
		Edge1 at 0 cm	0.624	0.010	**0.63**		
		Curved surface of Edge1 at 0cm	1.231	0.010	**1.24**		
		Bottom Face at 1cm	0.571	0.010	**0.58**		
		Edge1 at 1cm	0.365	0.010	**0.38**		
		Curved surface of Edge1 at 1cm	0.633	0.010	**0.64**		
		Edge2 at 0cm	0.167		**0.17**		
CDMA	BC0	Bottom Face at 0 cm	1.009	0.010	**1.02**		
		Edge1 at 0 cm	0.698	0.010	**0.71**		
		Curved surface of Edge1 at 0cm	1.090	0.010	**1.10**		
		Bottom Face at 1cm	0.520	0.010	**0.53**		
		Edge1 at 1cm	0.571	0.010	**0.58**		
		Curved surface of Edge1 at 1cm	0.834	0.010	**0.84**		
		Edge2 at 0cm	0.139		**0.14**		
	BC1	Bottom Face at 0 cm	0.986	0.010	**1.00**		
		Edge1 at 0 cm	0.620	0.010	**0.63**		
		Curved surface of Edge1 at 0cm	1.112	0.010	**1.12**		
		Bottom Face at 1cm	0.484	0.010	**0.49**		
		Edge1 at 1cm	0.332	0.010	**0.34**		
		Curved surface of Edge1 at 1cm	0.489	0.010	**0.50**		
		Edge2 at 0cm	0.134		**0.13**		

WWAN Band		Exposure Position	WWAN SAR (W/kg)	Bluetooth Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
LTE	Band 17	Bottom Face at 0 cm	0.617	0.010	0.63		
		Edge1 at 0 cm	0.796	0.010	0.81		
		Curved surface of Edge1 at 0cm	1.254	0.010	1.26		
		Bottom Face at 1cm	0.197	0.010	0.21		
		Edge1 at 1cm	0.196	0.010	0.21		
		Curved surface of Edge1 at 1cm	0.251	0.010	0.26		
		Edge2 at 0cm	0.018		0.02		
	Band 13	Bottom Face at 0 cm	1.058	0.010	1.07		
		Edge1 at 0 cm	0.777	0.010	0.79		
		Curved surface of Edge1 at 0cm	1.130	0.010	1.14		
		Bottom Face at 1cm	0.568	0.010	0.58		
		Edge1 at 1cm	0.540	0.010	0.55		
		Curved surface of Edge1 at 1cm	0.785	0.010	0.80		
		Edge2 at 0cm	0.099		0.10		
	Band 5	Bottom Face at 0 cm	1.210	0.010	1.22		
		Edge1 at 0 cm	0.778	0.010	0.79		
		Curved surface of Edge1 at 0cm	1.228	0.010	1.24		
		Bottom Face at 1cm	0.481	0.010	0.49		
		Edge1 at 1cm	0.568	0.010	0.58		
		Curved surface of Edge1 at 1cm	0.720	0.010	0.73		
		Edge2 at 0cm	0.109		0.11		
	Band 4	Bottom Face at 0 cm	1.353	0.010	1.36		
		Edge1 at 0 cm	0.521	0.010	0.53		
		Curved surface of Edge1 at 0cm	1.283	0.010	1.29		
		Bottom Face at 1cm	0.378	0.010	0.39		
		Edge1 at 1cm	0.181	0.010	0.19		
		Curved surface of Edge1 at 1cm	0.326	0.010	0.34		
		Edge2 at 0cm	0.099		0.10		
	Band 2	Bottom Face at 0 cm	1.026	0.010	1.04		
		Edge1 at 0 cm	0.684	0.010	0.69		
		Curved surface of Edge1 at 0cm	1.151	0.010	1.16		
		Bottom Face at 1cm	0.412	0.010	0.42		
		Edge1 at 1cm	0.242	0.010	0.25		
		Curved surface of Edge1 at 1cm	0.414	0.010	0.42		
		Edge2 at 0cm	0.130		0.13		
	Band 25	Bottom Face at 0 cm	0.720	0.010	0.73		
		Edge1 at 0 cm	0.463	0.010	0.47		
		Curved surface of Edge1 at 0cm	1.219	0.010	1.23		
		Bottom Face at 1cm	0.359	0.010	0.37		
		Edge1 at 1cm	0.221	0.010	0.23		
		Curved surface of Edge1 at 1cm	0.489	0.010	0.50		
		Edge2 at 0cm	0.110		0.11		

16.1.3 *Transmit simultaneous with Intel 7260NGW, 7260NGW AN, 7260NGW BN, 7260NGW NB*

WWAN Band		Exposure Position	WWAN SAR (W/kg)	2.4GHz WLAN Antenna A SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
GSM	GSM850	Bottom Face at 0 cm	0.959	0.240	**1.20**		
		Edge1 at 0 cm	0.669	0.110	**0.78**		
		Curved surface of Edge1 at 0cm	1.065	0.230	**1.30**		
		Bottom Face at 1cm	0.767	0.240	**1.01**		
		Edge1 at 1cm	0.790	0.110	**0.90**		
		Curved surface of Edge1 at 1cm	1.339	0.230	**1.57**		
		Edge2 at 0cm	0.180		**0.18**		
	GSM1900	Bottom Face at 0 cm	0.799	0.240	**1.04**		
		Edge1 at 0 cm	0.609	0.110	**0.72**		
		Curved surface of Edge1 at 0cm	1.194	0.230	**1.42**		
		Bottom Face at 1cm	0.473	0.240	**0.71**		
		Edge1 at 1cm	0.304	0.110	**0.41**		
		Curved surface of Edge1 at 1cm	0.444	0.230	**0.67**		
		Edge2 at 0cm	0.093		**0.09**		
WCMDA	Band V	Bottom Face at 0 cm	1.096	0.240	**1.34**		
		Edge1 at 0 cm	0.745	0.110	**0.86**		
		Curved surface of Edge1 at 0cm	1.262	0.230	**1.49**		
		Bottom Face at 1cm	0.565	0.240	**0.81**		
		Edge1 at 1cm	0.521	0.110	**0.63**		
		Curved surface of Edge1 at 1cm	0.801	0.230	**1.03**		
		Edge2 at 0cm	0.126		**0.13**		
	Band IV	Bottom Face at 0 cm	1.303	0.240	**1.54**		
		Edge1 at 0 cm	0.496	0.110	**0.61**		
		Curved surface of Edge1 at 0cm	1.292	0.230	**1.52**		
		Bottom Face at 1cm	0.426	0.240	**0.67**		
		Edge1 at 1cm	0.231	0.110	**0.34**		
		Curved surface of Edge1 at 1cm	0.392	0.230	**0.62**		
		Edge2 at 0cm	0.060		**0.06**		
	Band II	Bottom Face at 0 cm	1.084	0.240	**1.32**		
		Edge1 at 0 cm	0.624	0.110	**0.73**		
		Curved surface of Edge1 at 0cm	1.231	0.230	**1.46**		
		Bottom Face at 1cm	0.571	0.240	**0.81**		
		Edge1 at 1cm	0.365	0.110	**0.48**		
		Curved surface of Edge1 at 1cm	0.633	0.230	**0.86**		
		Edge2 at 0cm	0.167		**0.17**		
CDMA	BC0	Bottom Face at 0 cm	1.009	0.240	**1.25**		
		Edge1 at 0 cm	0.698	0.110	**0.81**		
		Curved surface of Edge1 at 0cm	1.090	0.230	**1.32**		
		Bottom Face at 1cm	0.520	0.240	**0.76**		
		Edge1 at 1cm	0.571	0.110	**0.68**		
		Curved surface of Edge1 at 1cm	0.834	0.230	**1.06**		
		Edge2 at 0cm	0.139		**0.14**		
	BC1	Bottom Face at 0 cm	0.986	0.240	**1.23**		
		Edge1 at 0 cm	0.620	0.110	**0.73**		
		Curved surface of Edge1 at 0cm	1.112	0.230	**1.34**		
		Bottom Face at 1cm	0.484	0.240	**0.72**		
		Edge1 at 1cm	0.332	0.110	**0.44**		
		Curved surface of Edge1 at 1cm	0.489	0.230	**0.72**		
		Edge2 at 0cm	0.134		**0.13**		

WWAN Band		Exposure Position	WWAN SAR (W/kg)	2.4GHz WLAN Antenna A SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
LTE	Band 17	Bottom Face at 0 cm	0.617	0.240	**0.86**		
		Edge1 at 0 cm	0.796	0.110	**0.91**		
		Curved surface of Edge1 at 0cm	1.254	0.230	**1.48**		
		Bottom Face at 1cm	0.197	0.240	**0.44**		
		Edge1 at 1cm	0.196	0.110	**0.31**		
		Curved surface of Edge1 at 1cm	0.251	0.230	**0.48**		
		Edge2 at 0cm	0.018		**0.02**		
	Band 13	Bottom Face at 0 cm	1.058	0.240	**1.30**		
		Edge1 at 0 cm	0.777	0.110	**0.89**		
		Curved surface of Edge1 at 0cm	1.130	0.230	**1.36**		
		Bottom Face at 1cm	0.568	0.240	**0.81**		
		Edge1 at 1cm	0.540	0.110	**0.65**		
		Curved surface of Edge1 at 1cm	0.785	0.230	**1.02**		
		Edge2 at 0cm	0.099		**0.10**		
	Band 5	Bottom Face at 0 cm	1.210	0.240	**1.45**		
		Edge1 at 0 cm	0.778	0.110	**0.89**		
		Curved surface of Edge1 at 0cm	1.228	0.230	**1.46**		
		Bottom Face at 1cm	0.481	0.240	**0.72**		
		Edge1 at 1cm	0.568	0.110	**0.68**		
		Curved surface of Edge1 at 1cm	0.720	0.230	**0.95**		
		Edge2 at 0cm	0.109		**0.11**		
	Band 4	Bottom Face at 0 cm	1.353	0.240	**1.59**		
		Edge1 at 0 cm	0.521	0.110	**0.63**		
		Curved surface of Edge1 at 0cm	1.283	0.230	**1.51**		
		Bottom Face at 1cm	0.378	0.240	**0.62**		
		Edge1 at 1cm	0.181	0.110	**0.29**		
		Curved surface of Edge1 at 1cm	0.326	0.230	**0.56**		
		Edge2 at 0cm	0.099		**0.10**		
	Band 2	Bottom Face at 0 cm	1.026	0.240	**1.27**		
		Edge1 at 0 cm	0.684	0.110	**0.79**		
		Curved surface of Edge1 at 0cm	1.151	0.230	**1.38**		
		Bottom Face at 1cm	0.412	0.240	**0.65**		
		Edge1 at 1cm	0.242	0.110	**0.35**		
		Curved surface of Edge1 at 1cm	0.414	0.230	**0.64**		
		Edge2 at 0cm	0.130		**0.13**		
	Band 25	Bottom Face at 0 cm	0.720	0.240	**0.96**		
		Edge1 at 0 cm	0.463	0.110	**0.57**		
		Curved surface of Edge1 at 0cm	1.219	0.230	**1.45**		
		Bottom Face at 1cm	0.359	0.240	**0.60**		
		Edge1 at 1cm	0.221	0.110	**0.33**		
		Curved surface of Edge1 at 1cm	0.489	0.230	**0.72**		
		Edge2 at 0cm	0.110		**0.11**		

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| WWAN Band		Exposure Position	WWAN SAR (W/kg)	2.4GHz WLAN Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
GSM	GSM850	Bottom Face at 0 cm	0.959	0.360	**1.32**		
		Edge1 at 0 cm	0.669	0.120	**0.79**		
		Curved surface of Edge1 at 0cm	1.065	0.610	**1.68**	0.02	Case 27
		Bottom Face at 1cm	0.767	0.360	**1.13**		
		Edge1 at 1cm	0.790	0.120	**0.91**		
		Curved surface of Edge1 at 1cm	1.339	0.610	**1.95**	0.02	Case 28
		Edge2 at 0cm	0.180		**0.18**		
	GSM1900	Bottom Face at 0 cm	0.799	0.360	**1.16**		
		Edge1 at 0 cm	0.609	0.120	**0.73**		
		Curved surface of Edge1 at 0cm	1.194	0.610	**1.80**	0.02	Case 29
		Bottom Face at 1cm	0.473	0.360	**0.83**		
		Edge1 at 1cm	0.304	0.120	**0.42**		
		Curved surface of Edge1 at 1cm	0.444	0.610	**1.05**		
		Edge2 at 0cm	0.093		**0.09**		
WCMDA	Band V	Bottom Face at 0 cm	1.096	0.360	**1.46**		
		Edge1 at 0 cm	0.745	0.120	**0.87**		
		Curved surface of Edge1 at 0cm	1.262	0.610	**1.87**	0.02	Case 30
		Bottom Face at 1cm	0.565	0.360	**0.93**		
		Edge1 at 1cm	0.521	0.120	**0.64**		
		Curved surface of Edge1 at 1cm	0.801	0.610	**1.41**		
		Edge2 at 0cm	0.126		**0.13**		
	Band IV	Bottom Face at 0 cm	1.303	0.360	**1.66**	0.02	Case 31
		Edge1 at 0 cm	0.496	0.120	**0.62**		
		Curved surface of Edge1 at 0cm	1.292	0.610	**1.90**	0.02	Case 32
		Bottom Face at 1cm	0.426	0.360	**0.79**		
		Edge1 at 1cm	0.231	0.120	**0.35**		
		Curved surface of Edge1 at 1cm	0.392	0.610	**1.00**		
		Edge2 at 0cm	0.060		**0.06**		
	Band II	Bottom Face at 0 cm	1.084	0.360	**1.44**		
		Edge1 at 0 cm	0.624	0.120	**0.74**		
		Curved surface of Edge1 at 0cm	1.231	0.610	**1.84**	0.02	Case 33
		Bottom Face at 1cm	0.571	0.360	**0.93**		
		Edge1 at 1cm	0.365	0.120	**0.49**		
		Curved surface of Edge1 at 1cm	0.633	0.610	**1.24**		
		Edge2 at 0cm	0.167		**0.17**		
CDMA	BC0	Bottom Face at 0 cm	1.009	0.360	**1.37**		
		Edge1 at 0 cm	0.698	0.120	**0.82**		
		Curved surface of Edge1 at 0cm	1.090	0.610	**1.70**	0.02	Case 34
		Bottom Face at 1cm	0.520	0.360	**0.88**		
		Edge1 at 1cm	0.571	0.120	**0.69**		
		Curved surface of Edge1 at 1cm	0.834	0.610	**1.44**		
		Edge2 at 0cm	0.139		**0.14**		
	BC1	Bottom Face at 0 cm	0.986	0.360	**1.35**		
		Edge1 at 0 cm	0.620	0.120	**0.74**		
		Curved surface of Edge1 at 0cm	1.112	0.610	**1.72**	0.02	Case 35
		Bottom Face at 1cm	0.484	0.360	**0.84**		
		Edge1 at 1cm	0.332	0.120	**0.45**		
		Curved surface of Edge1 at 1cm	0.489	0.610	**1.10**		
		Edge2 at 0cm	0.134		**0.13**		

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WWAN Band		Exposure Position	WWAN SAR (W/kg)	2.4GHz WLAN Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
LTE	Band 17	Bottom Face at 0 cm	0.617	0.360	**0.98**		
		Edge1 at 0 cm	0.796	0.120	**0.92**		
		Curved surface of Edge1 at 0cm	1.254	0.610	**1.86**	0.02	Case 36
		Bottom Face at 1cm	0.197	0.360	**0.56**		
		Edge1 at 1cm	0.196	0.120	**0.32**		
		Curved surface of Edge1 at 1cm	0.251	0.610	**0.86**		
		Edge2 at 0cm	0.018		**0.02**		
	Band 13	Bottom Face at 0 cm	1.058	0.360	**1.42**		
		Edge1 at 0 cm	0.777	0.120	**0.90**		
		Curved surface of Edge1 at 0cm	1.130	0.610	**1.74**	0.02	Case 37
		Bottom Face at 1cm	0.568	0.360	**0.93**		
		Edge1 at 1cm	0.540	0.120	**0.66**		
		Curved surface of Edge1 at 1cm	0.785	0.610	**1.40**		
		Edge2 at 0cm	0.099		**0.10**		
	Band 5	Bottom Face at 0 cm	1.210	0.360	**1.57**		
		Edge1 at 0 cm	0.778	0.120	**0.90**		
		Curved surface of Edge1 at 0cm	1.228	0.610	**1.84**	0.02	Case 38
		Bottom Face at 1cm	0.481	0.360	**0.84**		
		Edge1 at 1cm	0.568	0.120	**0.69**		
		Curved surface of Edge1 at 1cm	0.720	0.610	**1.33**		
		Edge2 at 0cm	0.109		**0.11**		
	Band 4	Bottom Face at 0 cm	1.353	0.360	**1.71**	0.01	Case 39
		Edge1 at 0 cm	0.521	0.120	**0.64**		
		Curved surface of Edge1 at 0cm	1.283	0.610	**1.89**	0.02	Case 40
		Bottom Face at 1cm	0.378	0.360	**0.74**		
		Edge1 at 1cm	0.181	0.120	**0.30**		
		Curved surface of Edge1 at 1cm	0.326	0.610	**0.94**		
		Edge2 at 0cm	0.099		**0.10**		
	Band 2	Bottom Face at 0 cm	1.026	0.360	**1.39**		
		Edge1 at 0 cm	0.684	0.120	**0.80**		
		Curved surface of Edge1 at 0cm	1.151	0.610	**1.76**	0.02	Case 41
		Bottom Face at 1cm	0.412	0.360	**0.77**		
		Edge1 at 1cm	0.242	0.120	**0.36**		
		Curved surface of Edge1 at 1cm	0.414	0.610	**1.02**		
		Edge2 at 0cm	0.130		**0.13**		
	Band 25	Bottom Face at 0 cm	0.720	0.360	**1.08**		
		Edge1 at 0 cm	0.463	0.120	**0.58**		
		Curved surface of Edge1 at 0cm	1.219	0.610	**1.83**	0.02	Case 42
		Bottom Face at 1cm	0.359	0.360	**0.72**		
		Edge1 at 1cm	0.221	0.120	**0.34**		
		Curved surface of Edge1 at 1cm	0.489	0.610	**1.10**		
		Edge2 at 0cm	0.110		**0.11**		

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WWAN Band		Exposure Position	WWAN SAR (W/kg)	Bluetooth Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
GSM	GSM850	Bottom Face at 0 cm	0.959	0.040	**1.00**		
		Edge1 at 0 cm	0.669	0.010	**0.68**		
		Curved surface of Edge1 at 0cm	1.065	0.050	**1.12**		
		Bottom Face at 1cm	0.767	0.040	**0.81**		
		Edge1 at 1cm	0.790	0.010	**0.80**		
		Curved surface of Edge1 at 1cm	1.339	0.050	**1.39**		
		Edge2 at 0cm	0.180		**0.18**		
	GSM1900	Bottom Face at 0 cm	0.799	0.040	**0.84**		
		Edge1 at 0 cm	0.609	0.010	**0.62**		
		Curved surface of Edge1 at 0cm	1.194	0.050	**1.24**		
		Bottom Face at 1cm	0.473	0.040	**0.51**		
		Edge1 at 1cm	0.304	0.010	**0.31**		
		Curved surface of Edge1 at 1cm	0.444	0.050	**0.49**		
		Edge2 at 0cm	0.093		**0.09**		
WCMDA	Band V	Bottom Face at 0 cm	1.096	0.040	**1.14**		
		Edge1 at 0 cm	0.745	0.010	**0.76**		
		Curved surface of Edge1 at 0cm	1.262	0.050	**1.31**		
		Bottom Face at 1cm	0.565	0.040	**0.61**		
		Edge1 at 1cm	0.521	0.010	**0.53**		
		Curved surface of Edge1 at 1cm	0.801	0.050	**0.85**		
		Edge2 at 0cm	0.126		**0.13**		
	Band IV	Bottom Face at 0 cm	1.303	0.040	**1.34**		
		Edge1 at 0 cm	0.496	0.010	**0.51**		
		Curved surface of Edge1 at 0cm	1.292	0.050	**1.34**		
		Bottom Face at 1cm	0.426	0.040	**0.47**		
		Edge1 at 1cm	0.231	0.010	**0.24**		
		Curved surface of Edge1 at 1cm	0.392	0.050	**0.44**		
		Edge2 at 0cm	0.060		**0.06**		
	Band II	Bottom Face at 0 cm	1.084	0.040	**1.12**		
		Edge1 at 0 cm	0.624	0.010	**0.63**		
		Curved surface of Edge1 at 0cm	1.231	0.050	**1.28**		
		Bottom Face at 1cm	0.571	0.040	**0.61**		
		Edge1 at 1cm	0.365	0.010	**0.38**		
		Curved surface of Edge1 at 1cm	0.633	0.050	**0.68**		
		Edge2 at 0cm	0.167		**0.17**		
CDMA	BC0	Bottom Face at 0 cm	1.009	0.040	**1.05**		
		Edge1 at 0 cm	0.698	0.010	**0.71**		
		Curved surface of Edge1 at 0cm	1.090	0.050	**1.14**		
		Bottom Face at 1cm	0.520	0.040	**0.56**		
		Edge1 at 1cm	0.571	0.010	**0.58**		
		Curved surface of Edge1 at 1cm	0.834	0.050	**0.88**		
		Edge2 at 0cm	0.139		**0.14**		
	BC1	Bottom Face at 0 cm	0.986	0.040	**1.03**		
		Edge1 at 0 cm	0.620	0.010	**0.63**		
		Curved surface of Edge1 at 0cm	1.112	0.050	**1.16**		
		Bottom Face at 1cm	0.484	0.040	**0.52**		
		Edge1 at 1cm	0.332	0.010	**0.34**		
		Curved surface of Edge1 at 1cm	0.489	0.050	**0.54**		
		Edge2 at 0cm	0.134		**0.13**		

WWAN Band		Exposure Position	WWAN SAR (W/kg)	Bluetooth Antenna B SAR (W/kg)	Summed SAR (W/kg)	SPLSR	Case No
LTE	Band 17	Bottom Face at 0 cm	0.617	0.040	**0.66**		
		Edge1 at 0 cm	0.796	0.010	**0.81**		
		Curved surface of Edge1 at 0cm	1.254	0.050	**1.30**		
		Bottom Face at 1cm	0.197	0.040	**0.24**		
		Edge1 at 1cm	0.196	0.010	**0.21**		
		Curved surface of Edge1 at 1cm	0.251	0.050	**0.30**		
		Edge2 at 0cm	0.018		**0.02**		
	Band 13	Bottom Face at 0 cm	1.058	0.040	**1.10**		
		Edge1 at 0 cm	0.777	0.010	**0.79**		
		Curved surface of Edge1 at 0cm	1.130	0.050	**1.18**		
		Bottom Face at 1cm	0.568	0.040	**0.61**		
		Edge1 at 1cm	0.540	0.010	**0.55**		
		Curved surface of Edge1 at 1cm	0.785	0.050	**0.84**		
		Edge2 at 0cm	0.099		**0.10**		
	Band 5	Bottom Face at 0 cm	1.210	0.040	**1.25**		
		Edge1 at 0 cm	0.778	0.010	**0.79**		
		Curved surface of Edge1 at 0cm	1.228	0.050	**1.28**		
		Bottom Face at 1cm	0.481	0.040	**0.52**		
		Edge1 at 1cm	0.568	0.010	**0.58**		
		Curved surface of Edge1 at 1cm	0.720	0.050	**0.77**		
		Edge2 at 0cm	0.109		**0.11**		
	Band 4	Bottom Face at 0 cm	1.353	0.040	**1.39**		
		Edge1 at 0 cm	0.521	0.010	**0.53**		
		Curved surface of Edge1 at 0cm	1.283	0.050	**1.33**		
		Bottom Face at 1cm	0.378	0.040	**0.42**		
		Edge1 at 1cm	0.181	0.010	**0.19**		
		Curved surface of Edge1 at 1cm	0.326	0.050	**0.38**		
		Edge2 at 0cm	0.099		**0.10**		
	Band 2	Bottom Face at 0 cm	1.026	0.040	**1.07**		
		Edge1 at 0 cm	0.684	0.010	**0.69**		
		Curved surface of Edge1 at 0cm	1.151	0.050	**1.20**		
		Bottom Face at 1cm	0.412	0.040	**0.45**		
		Edge1 at 1cm	0.242	0.010	**0.25**		
		Curved surface of Edge1 at 1cm	0.414	0.050	**0.46**		
		Edge2 at 0cm	0.130		**0.13**		
	Band 25	Bottom Face at 0 cm	0.720	0.040	**0.76**		
		Edge1 at 0 cm	0.463	0.010	**0.47**		
		Curved surface of Edge1 at 0cm	1.219	0.050	**1.27**		
		Bottom Face at 1cm	0.359	0.040	**0.40**		
		Edge1 at 1cm	0.221	0.010	**0.23**		
		Curved surface of Edge1 at 1cm	0.489	0.050	**0.54**		
		Edge2 at 0cm	0.110		**0.11**		

16.2 SPLSR Evaluation and Analysis
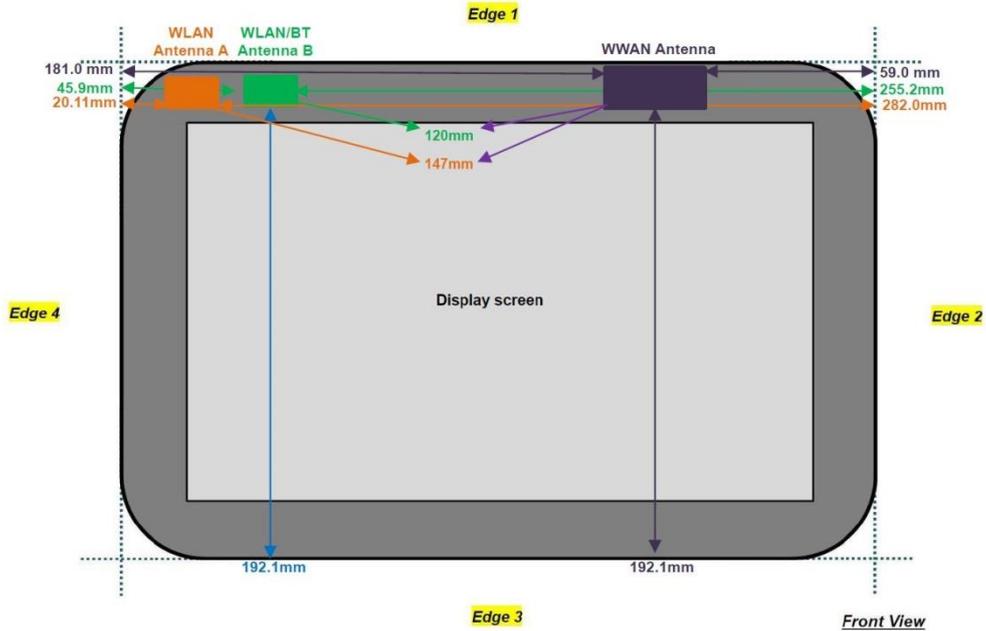
General Note:

1. When the WLAN and BT operated at the same antenna B cannot simultaneously transmit.
2. Either WLAN/Bluetooth module of FCC ID: PD97260NG or WLAN/Bluetooth module of FCC ID: PD93160NG would be integrated into this host, and the identical WLAN antenna is used for either one module integration.
3. For SPLSR analysis of colocation with PD97260NG and PD93160NG, the minimum distances between each antenna pair was used for conservative SPLSR calculation. This is justified to compare the SAR peak separation in SPLSR analysis case 1 ~ case10 with SPLSR analysis case11 ~ case42.
4. SPLSR = $(SAR_1 + SAR_2)^{1.5}$ / (*min. separation distance, mm*). If SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary.

<For QDS-BRCM1079 Simultaneous transmission configuration>

Combination no.	Wireless Interface	Antennas	
		Antenna A SISO (Tx / Rx)	Antenna B SISO (Tx / Rx)
1	Bluetooth		yes
	802.11 b / g / n	yes	
2	Bluetooth		yes
	802.11 b / g / n		yes[1]

<For PD93160NG Simultaneous transmission configuration>

Combination no.	Wireless Interface	Antennas	
		Antenna A SISO (Tx / Rx)	Antenna B SISO (Tx / Rx)
1	Bluetooth		yes
	802.11 a / b / g / n / ac		yes[1]

<For PD97260NG Simultaneous transmission configuration>

| Combination no.	Wireless Interface	Antennas		
		Antenna A SISO (Tx / Rx)	Antenna B SISO (Tx / Rx)	Antenna A+B MIMO (Tx / Rx)
1	Bluetooth		yes	
	802.11 a / b / g / n / ac	yes		
2	Bluetooth		yes	
	802.11 a / b / g / n / ac		yes[1]	
3	Bluetooth		yes	
	802.11 a / b / g / n / ac			yes

Case 1	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	GSM850	Curved surface of Edge1 at 1cm	1.339	1	0.0685	0.075	-0.181	215.2	1.62	0.01	Not required
	WLAN Antenna A		0.277	0	0.0612	-0.14	-0.177				
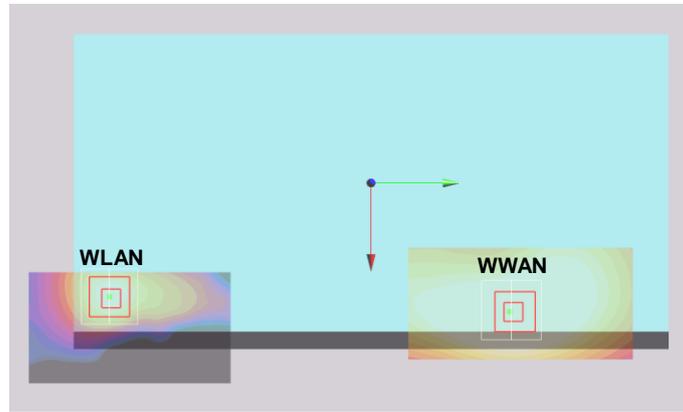
Case 2	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WCDMA V	Bottom Face at 0 cm	1.096	0	0.106	0.07	-0.178	208.2	1.68	0.01	Not required
	WLAN Antenna A		0.584	0	0.0644	-0.134	-0.176				

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	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 3	WCDMA IV	Bottom Face at 0 cm	1.303	0	0.088	0.0645	-0.178	199.9	1.89	0.01	Not required
	WLAN Antenna A		0.584	0	0.0644	-0.134	-0.176				

	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
Case 4	WCDMA IV	Bottom Face at 0 cm	1.303	0	0.088	0.0645	-0.178	165.5	1.62	0.01	Not required
	WLAN Antenna B		0.318	0	0.0884	-0.101	-0.179				

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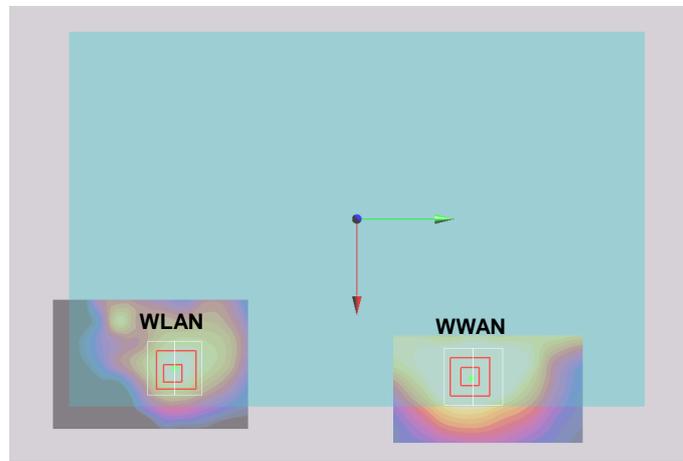
Case 5	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	WCDMA II	Bottom Face at 0 cm	1.084	0	0.0925	0.063	-0.178	199.0	1.67	0.01	Not required
	WLAN Antenna A		0.584	0	0.0644	-0.134	-0.176				
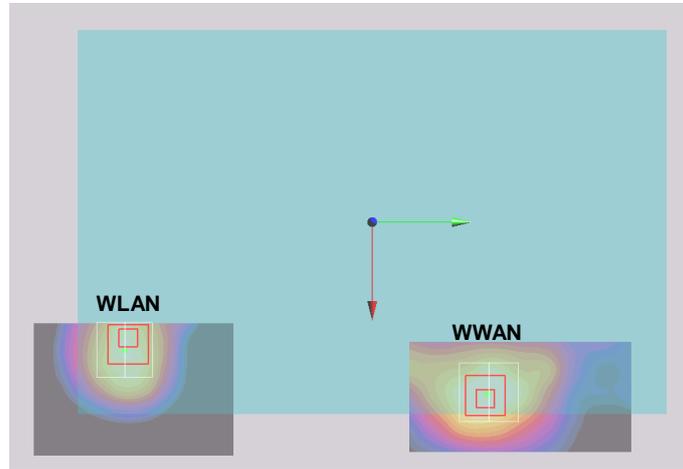
Case 6	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 13	Bottom Face at 0 cm	1.058	0	0.0985	0.082	-0.179	218.7	1.64	0.01	Not required
	WLAN Antenna A		0.584	0	0.0644	-0.134	-0.176				
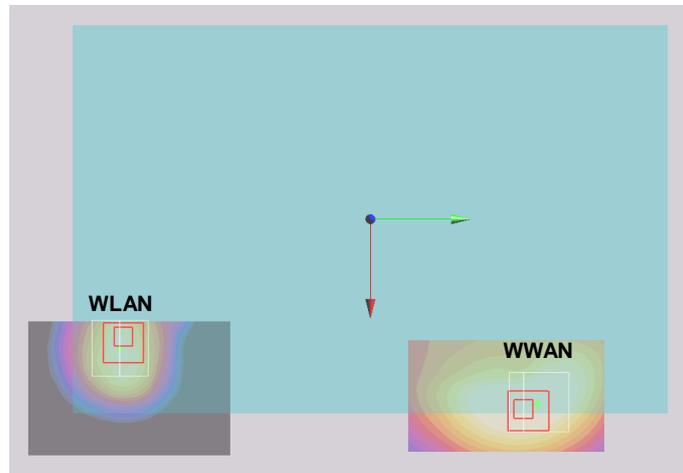
Case 7	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 5	Bottom Face at 0 cm	1.21	0	0.0985	0.0735	-0.179	210.3	1.79	0.01	Not required
	WLAN Antenna A		0.584	0	0.0644	-0.134	-0.176				
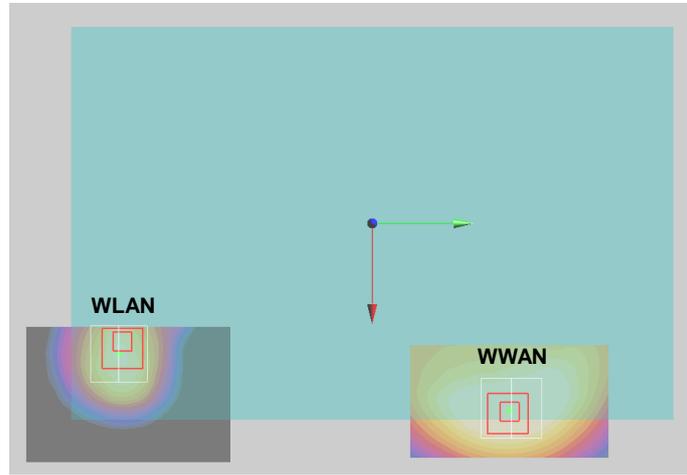
Case 8	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 4	Bottom Face at 0 cm	1.353	0	0.0895	0.054	-0.179	189.7	1.94	0.01	Not required
	WLAN Antenna A		0.584	0	0.0644	-0.134	-0.176				
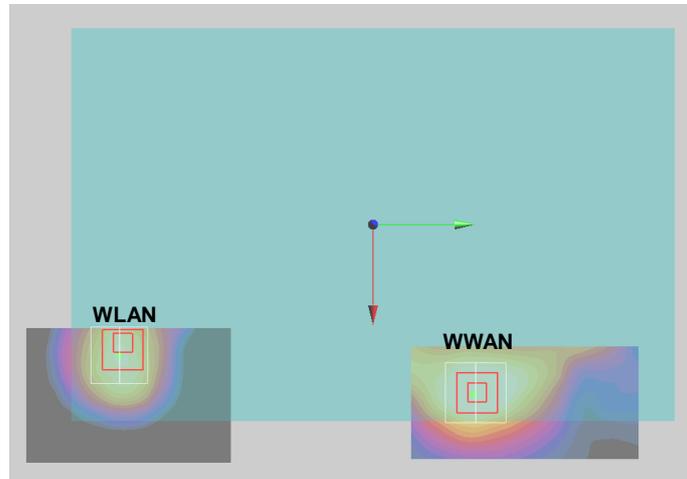
Case 9	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 4	Bottom Face at 0 cm	1.353	0	0.0895	0.054	-0.179	155.0	1.67	0.01	Not required
	WLAN Antenna B		0.318	0	0.0884	-0.101	-0.179				
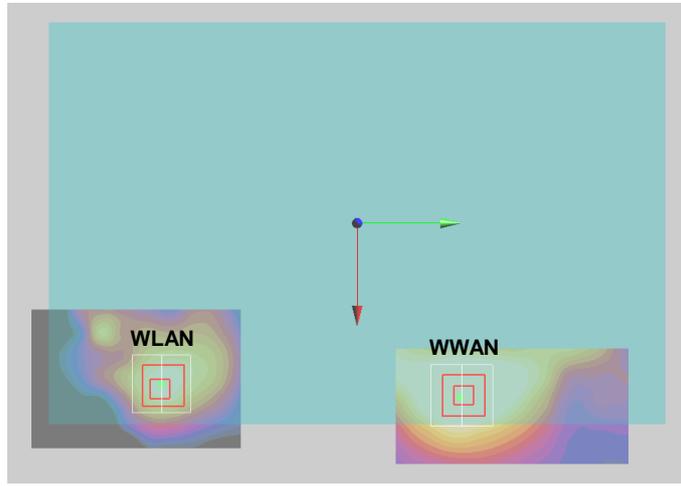
Case 10	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					X	Y	Z				
	LTE Band 2	Bottom Face at 0 cm	1.026	0	0.091	0.054	-0.178	189.9	1.61	0.01	Not required
	WLAN Antenna A		0.584	0	0.0644	-0.134	-0.176				
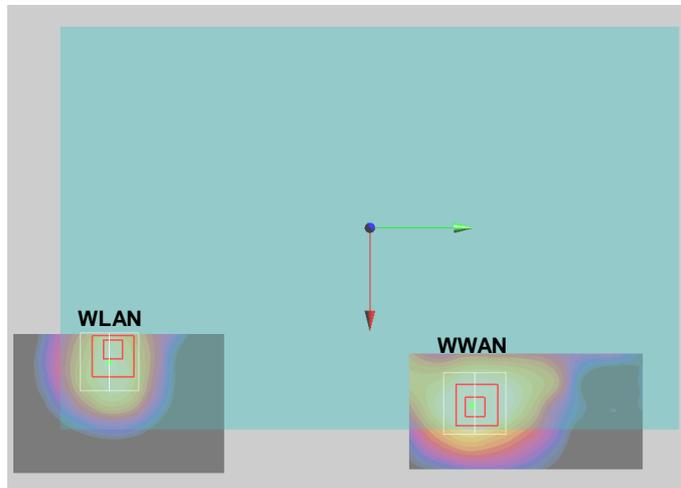
Case 11	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850	Curved surface of Edge1 at 0cm	1.065	0	120.0	1.69	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 12	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850	Curved surface of Edge1 at 1cm	1.339	1	120.0	1.96	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 13	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900	Curved surface of Edge1 at 0cm	1.194	0	120.0	1.81	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 14	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA V	Curved surface of Edge1 at 0cm	1.262	0	120.0	1.88	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 15	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA IV	Bottom Face at 0 cm	1.303	0	120.0	1.67	0.02	Not required
	WLAN Antenna B		0.370	0				

Case 16	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA IV	Curved surface of Edge1 at 0cm	1.292	0	120.0	1.91	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 17	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA II	Curved surface of Edge1 at 0cm	1.231	0	120.0	1.85	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 18	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA BC0	Curved surface of Edge1 at 0cm	1.090	0	120.0	1.71	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 19	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA BC1	Curved surface of Edge1 at 0cm	1.112	0	120.0	1.73	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 20	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 17	Curved surface of Edge1 at 0cm	1.254	0	120.0	1.87	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 21	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 13	Curved surface of Edge1 at 0cm	1.130	0	120.0	1.75	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 22	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 5	Curved surface of Edge1 at 0cm	1.228	0	120.0	1.85	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 23	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 4	Bottom Face at 0 cm	1.353	0	120.0	1.72	0.02	Not required
	WLAN Antenna B		0.370	0				

Case 24	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 4	Curved surface of Edge1 at 0cm	1.283	0	120.0	1.90	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 25	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 2	Curved surface of Edge1 at 0cm	1.151	0	120.0	1.77	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 26	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Curved surface of Edge1 at 0cm	1.219	0	120.0	1.84	0.02	Not required
	WLAN Antenna B		0.620	0				

Case 27	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850	Curved surface of Edge1 at 0cm	1.065	0	120.0	1.68	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 28	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850	Curved surface of Edge1 at 1cm	1.339	1	120.0	1.95	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 29	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900	Curved surface of Edge1 at 0cm	1.194	0	120.0	1.80	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 30	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA V	Curved surface of Edge1 at 0cm	1.262	0	120.0	1.87	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 31	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA IV	Bottom Face at 0 cm	1.303	0	120.0	1.66	0.02	Not required
	WLAN Antenna B		0.360	0				

Case 32	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA IV	Curved surface of Edge1 at 0cm	1.292	0	120.0	1.90	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 33	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA II	Curved surface of Edge1 at 0cm	1.231	0	120.0	1.84	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 34	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA DC0	Curved surface of Edge1 at 0cm	1.09	0	120.0	1.70	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 35	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	CDMA BC1	Curved surface of Edge1 at 0cm	1.112	0	120.0	1.72	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 36	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 17	Curved surface of Edge1 at 0cm	1.254	0	120.0	1.86	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 37	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 13	Curved surface of Edge1 at 0cm	1.13	0	120.0	1.74	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 38	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 5	Curved surface of Edge1 at 0cm	1.228	0	120.0	1.84	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 39	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 4	Bottom Face at 0 cm	1.353	0	120.0	1.71	0.02	Not required
	WLAN Antenna B		0.360	0				

Case 40	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 4	Curved surface of Edge1 at 0cm	1.283	0	120.0	1.89	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 41	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 2	Curved surface of Edge1 at 0cm	1.151	0	120.0	1.76	0.02	Not required
	WLAN Antenna B		0.610	0				

Case 42	Band	Position	SAR (W/kg)	Gap (cm)	Minimum distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Curved surface of Edge1 at 0cm	1.219	0	120.0	1.83	0.02	Not required
	WLAN Antenna B		0.610	0				

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17. *Uncertainty Assessment*

The component of uncertainly may generally be categorized according to the methods used to evaluate them. The evaluation of uncertainly by the statistical analysis of a series of observations is termed a Type An evaluation of uncertainty. The evaluation of uncertainty by means other than the statistical analysis of a series of observation is termed a Type B evaluation of uncertainty. Each component of uncertainty, however evaluated, is represented by an estimated standard deviation, termed standard uncertainty, which is determined by the positive square root of the estimated variance.

A Type A evaluation of standard uncertainty may be based on any valid statistical method for treating data. This includes calculating the standard deviation of the mean of a series of independent observations; using the method of least squares to fit a curve to the data in order to estimate the parameter of the curve and their standard deviations; or carrying out an analysis of variance in order to identify and quantify random effects in certain kinds of measurement.

A type B evaluation of standard uncertainty is typically based on scientific judgment using all of the relevant information available. These may include previous measurement data, experience, and knowledge of the behavior and properties of relevant materials and instruments, manufacture's specification, data provided in calibration reports and uncertainties assigned to reference data taken from handbooks. Broadly speaking, the uncertainty is either obtained from an outdoor source or obtained from an assumed distribution, such as the normal distribution, rectangular or triangular distributions indicated in table below.

Uncertainty Distributions	Normal	Rectangular	Triangular	U-Shape
Multi-plying Factor[a]	$1/k$[b]	$1/\sqrt{3}$	$1/\sqrt{6}$	$1/\sqrt{2}$

(a) standard uncertainty is determined as the product of the multiplying factor and the estimated range of variations in the measured quantity

(b) κ is the coverage factor

Table 14.1. Standard Uncertainty for Assumed Distribution

The combined standard uncertainty of the measurement result represents the estimated standard deviation of the result. It is obtained by combining the individual standard uncertainties of both Type A and Type B evaluation using the usual "root-sum-squares" (RSS) methods of combining standard deviations by taking the positive square root of the estimated variances.

Expanded uncertainty is a measure of uncertainty that defines an interval about the measurement result within which the measured value is confidently believed to lie. It is obtained by multiplying the combined standard uncertainty by a coverage factor. Typically, the coverage factor ranges from 2 to 3. Using a coverage factor allows the true value of a measured quantity to be specified with a defined probability within the specified uncertainty range. For purpose of this document, a coverage factor two is used, which corresponds to confidence interval of about 95 %. The DASY uncertainty Budget is shown in the following tables.

Error Description	Uncertainty Value (±%)	Probability Distribution	Divisor	Ci (1g)	Ci (10g)	Standard Uncertainty (1g)	Standard Uncertainty (10g)
Measurement System							
Probe Calibration	6.0	Normal	1	1	1	± 6.0 %	± 6.0 %
Axial Isotropy	4.7	Rectangular	√3	0.7	0.7	± 1.9 %	± 1.9 %
Hemispherical Isotropy	9.6	Rectangular	√3	0.7	0.7	± 3.9 %	± 3.9 %
Boundary Effects	1.0	Rectangular	√3	1	1	± 0.6 %	± 0.6 %
Linearity	4.7	Rectangular	√3	1	1	± 2.7 %	± 2.7 %
System Detection Limits	1.0	Rectangular	√3	1	1	± 0.6 %	± 0.6 %
Readout Electronics	0.3	Normal	1	1	1	± 0.3 %	± 0.3 %
Response Time	0.8	Rectangular	√3	1	1	± 0.5 %	± 0.5 %
Integration Time	2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %
RF Ambient Noise	3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %
RF Ambient Reflections	3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %
Probe Positioner	0.4	Rectangular	√3	1	1	± 0.2 %	± 0.2 %
Probe Positioning	2.9	Rectangular	√3	1	1	± 1.7 %	± 1.7 %
Max. SAR Eval.	1.0	Rectangular	√3	1	1	± 0.6 %	± 0.6 %
Test Sample Related							
Device Positioning	2.9	Normal	1	1	1	± 2.9 %	± 2.9 %
Device Holder	3.6	Normal	1	1	1	± 3.6 %	± 3.6 %
Power Drift	5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %
Phantom and Setup							
Phantom Uncertainty	4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %
Liquid Conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %
Liquid Conductivity (Meas.)	2.5	Normal	1	0.64	0.43	± 1.6 %	± 1.1 %
Liquid Permittivity (Target)	5.0	Rectangular	√3	0.6	0.49	± 1.7 %	± 1.4 %
Liquid Permittivity (Meas.)	2.5	Normal	1	0.6	0.49	± 1.5 %	± 1.2 %
Combined Standard Uncertainty						± 11.0 %	± 10.8 %
Coverage Factor for 95 %						K=2	
Expanded Uncertainty						± 22.0 %	± 21.5 %

Table 14.2. Uncertainty Budget for frequency range 300 MHz to 3 GHz

18. *References*

[1]　FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"

[2]　ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992

[3]　IEEE Std. 1528-2003, "Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", December 2003

[4]　SPEAG DASY System Handbook

[5]　FCC KDB 447498 D01 v05r02, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Feb 2014

[6]　FCC KDB 941225 D01 v02, "SAR Measurement Procedures for 3G Devices – CDMA 2000 / Ev-Do / WCDMA / HSDPA / HSPA", October 2007

[7]　FCC KDB 941225 D02 v02r02, "SAR Guidance for HSPA, HSPA+, DC-HSDPA and 1x-Advanced", May 2013.

[8]　FCC KDB 941225 D03 v01, "Recommended SAR Test Reduction Procedures for GSM / GPRS / EDGE", December 2008

[9]　FCC KDB 941225 D04 v01, "Evaluating SAR for GSM/(E)GPRS Dual Transfer Mode", January 2010

[10]　FCC KDB 941225 D05 v02r03, "SAR Evaluation Considerations for LTE Devices", Dec 2013

[11]　FCC KDB 941225 D06 v01r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", May 2013.

[12]　FCC KDB 616217 D04 v01r01, "SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers", May 2013

[13]　FCC KDB 865664 D01 v01r03, "SAR Measurement Requirements for 100 MHz to 6 GHz", Feb 2014.

[14]　FCC KDB 865664 D02 v01r01, "RF Exposure Compliance Reporting and Documentation Considerations" May 2013.