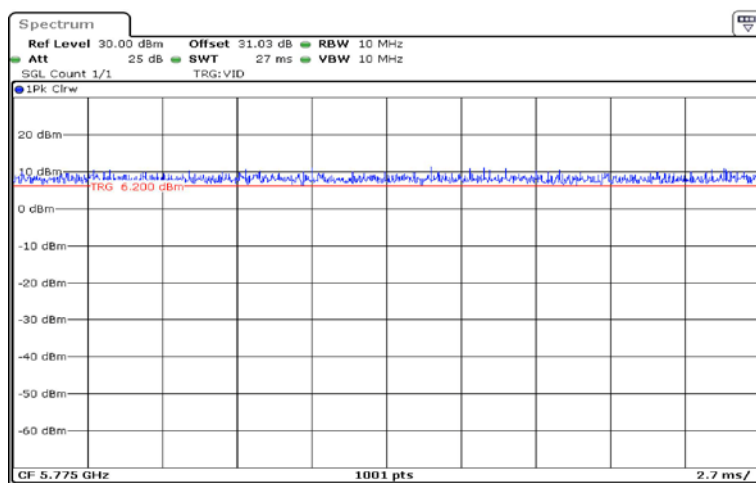


11AC80SISO_Ant1_5775



Date: 6.FEB.2023 15:33:02

AUX Wi-Fi 2.4G:

Mode	Channel frequency (MHz)	Data Rate	Conducted Average Output(dBm)
802.11b	2412	1Mbps	13.02
	2442		13.55
	2472		12.23
802.11g	2412	6Mbps	7.69
	2442		8.15
	2472		6.90
802.11n HT20	2412	MCS0	7.64
	2442		8.22
	2472		6.79
802.11n HT40	2422	MCS0	8.00
	2442		8.32
	2462		7.78

AUX WLAN 5.2G:

Mode	Channel frequency (MHz)	Data Rate	Conducted Average Output(dBm)
802.11a	5180	6Mbps	9.71
	5200		9.34
	5240		10.01
802.11n HT20	5180	MCS0	9.67
	5200		9.29
	5240		10.09
802.11n HT40	5190	MCS0	9.62
	5230		10.05
802.11AC20	5180	MCS0	9.78
	5200		9.26
	5240		9.94
802.11AC40	5190	MCS0	9.84
	5230		9.25
802.11AC80	5210	MCS0	9.87

AUX WLAN 5.8G:

Mode	Channel frequency (MHz)	Data Rate	Conducted Average Output(dBm)
802.11a	5745	6Mbps	7.63
	5785		8.39
	5825		8.96
802.11n HT20	5745	MCS0	7.29
	5785		8.03
	5825		9.03
802.11n HT40	5755	MCS0	6.96
	5795		7.74
802.11AC20	5745	MCS0	7.92
	5785		8.15
	5825		9.22
802.11AC40	5755	MCS0	7.00
	5795		7.38
802.11AC80	5775	MCS0	7.01

AUX Bluetooth:

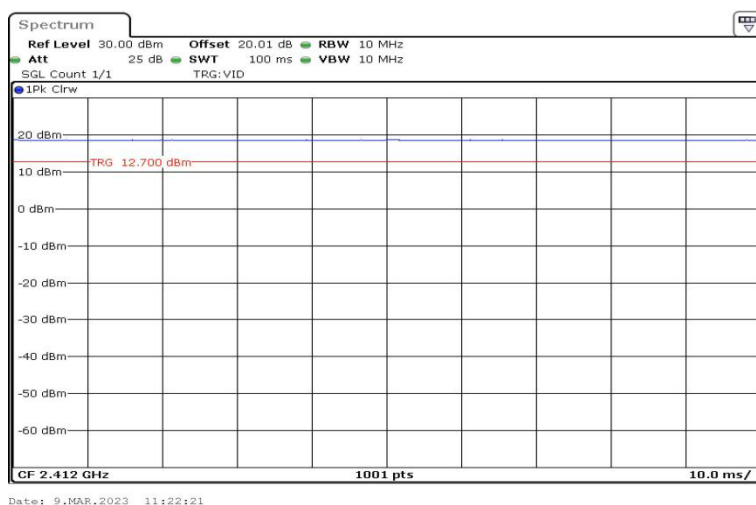
Mode	Channel frequency (MHz)	RF Output Power (dBm)
BDR(GFSK)	2402	8.93
	2441	9.97
	2480	9.65
EDR($\pi/4$ -DQPSK)	2402	8.33
	2441	8.13
	2480	9.88
EDR(8DPSK)	2402	8.79
	2441	7.57
	2480	8.05
BLE_1M	2402	-4.24
	2440	-3.18
	2480	-4.79
BLE_2M	2402	-4.22
	2440	-3.22
	2480	-4.90

AUX Duty Cycle:

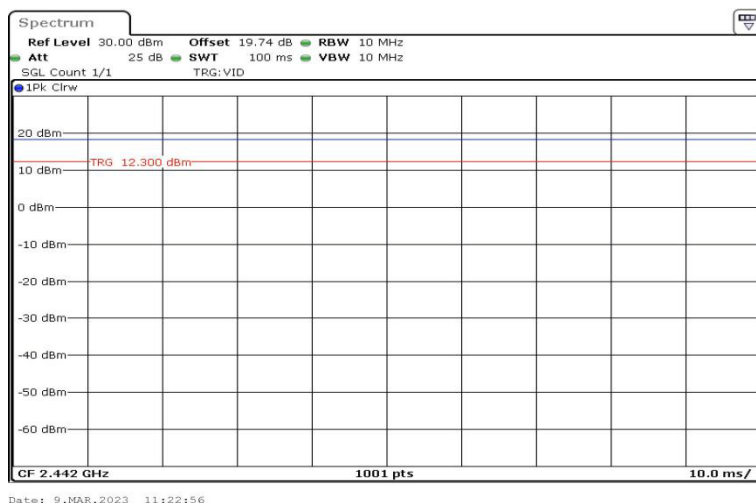
Test Mode	Duty Cycle [%]
802.11b	100.00
802.11g	100.00
802.11n HT20	100.00
802.11n HT40	100.00

Test Graphs

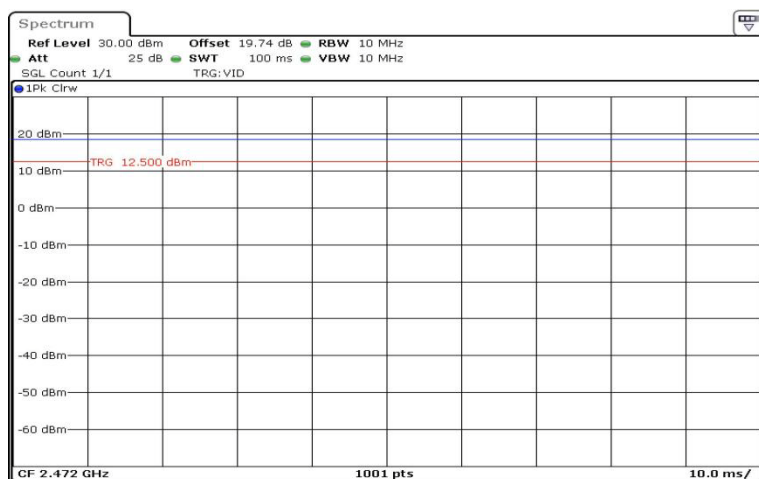
11B_Ant2_2412



11B_Ant2_2442

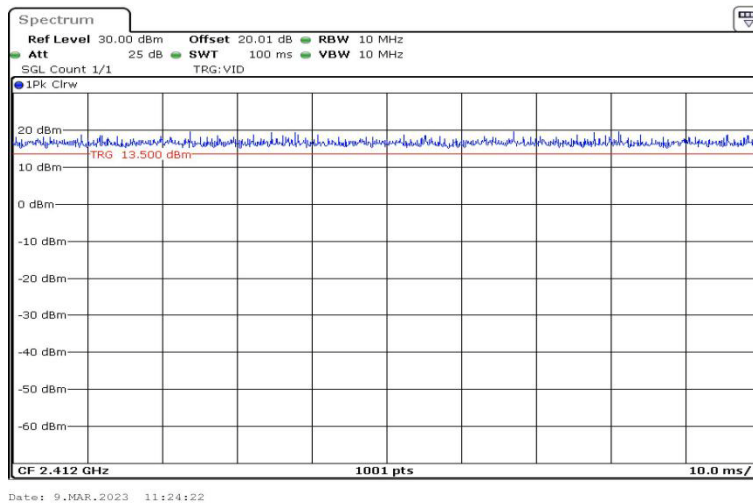


11B_Ant2_2472

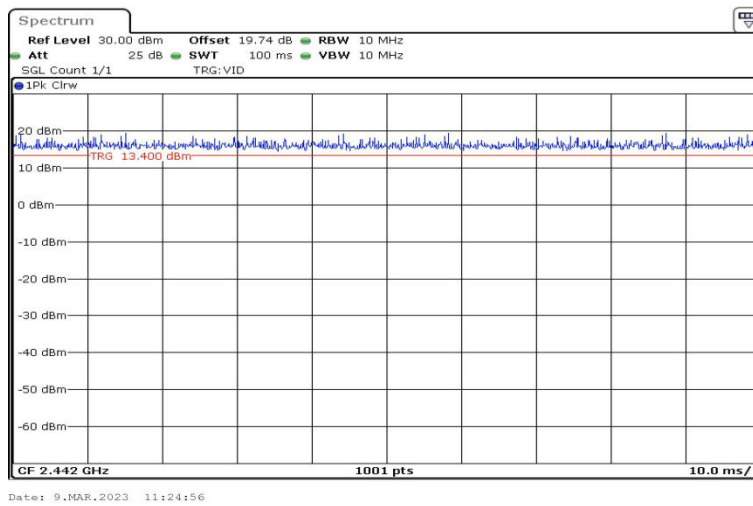


Date: 9.MAR.2023 11:23:36

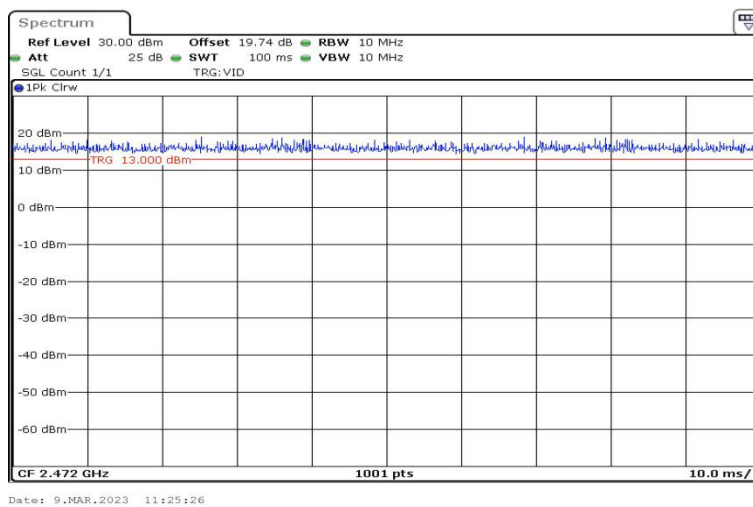
11G_Ant2_2412



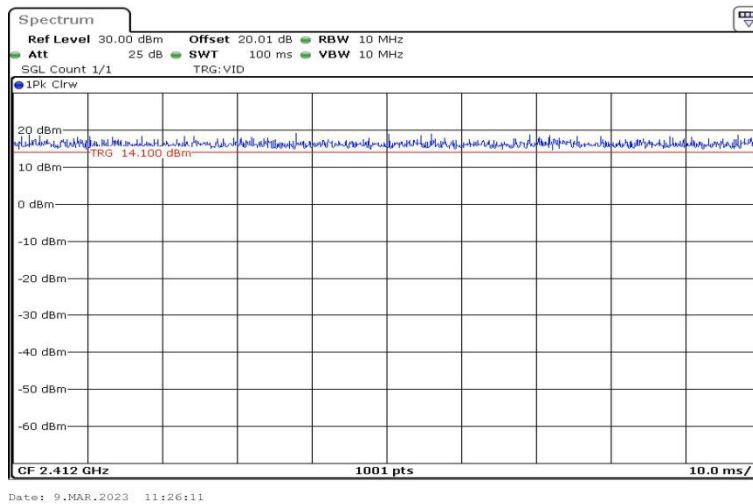
11G_Ant2_2442



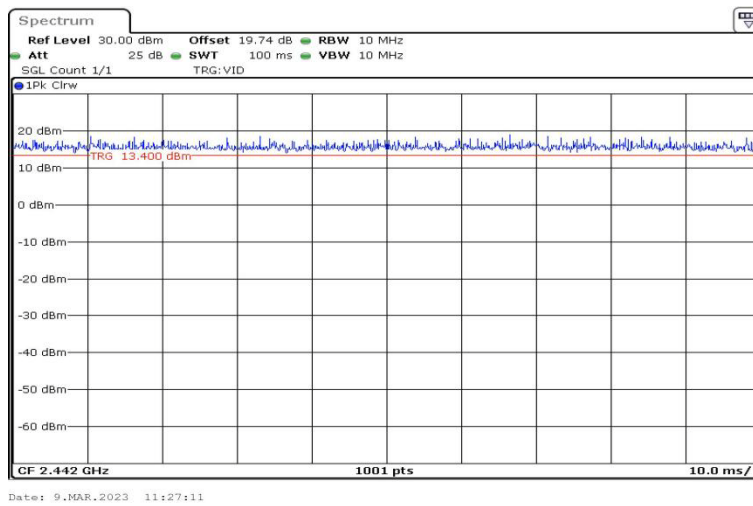
11G_Ant2_2472



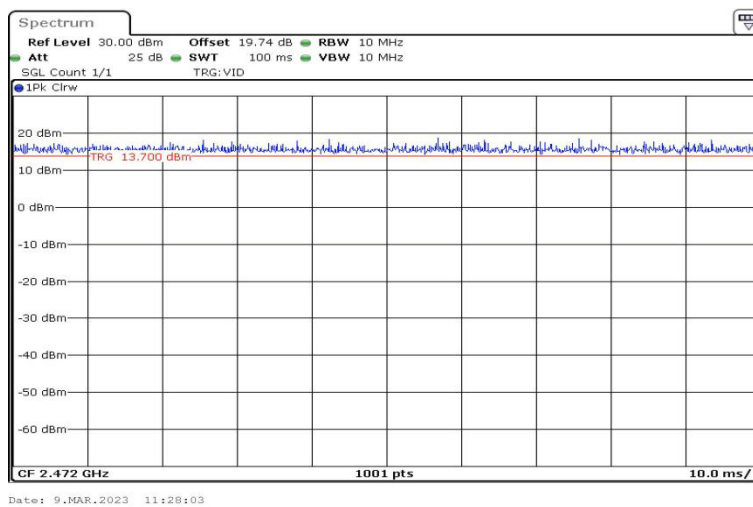
11N20SISO_Ant2_2412



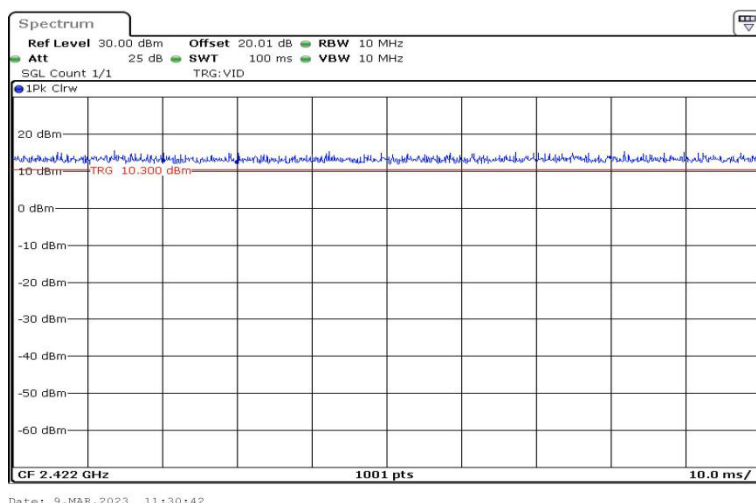
11N20SISO_Ant2_2442



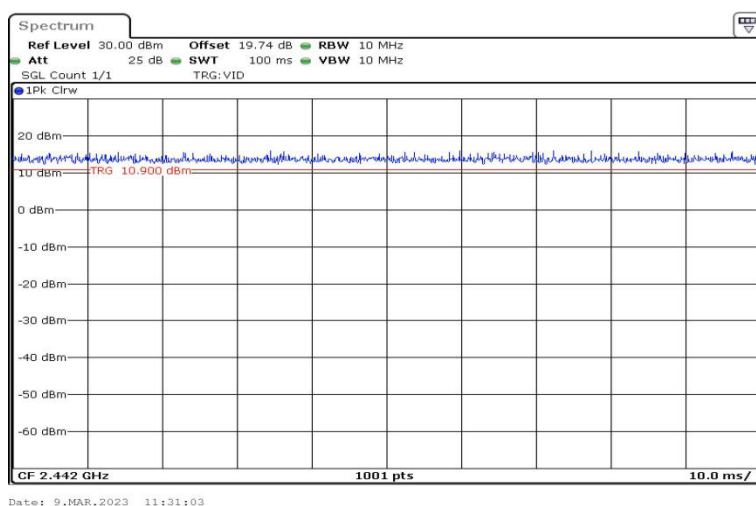
11N20SISO_Ant2_2472



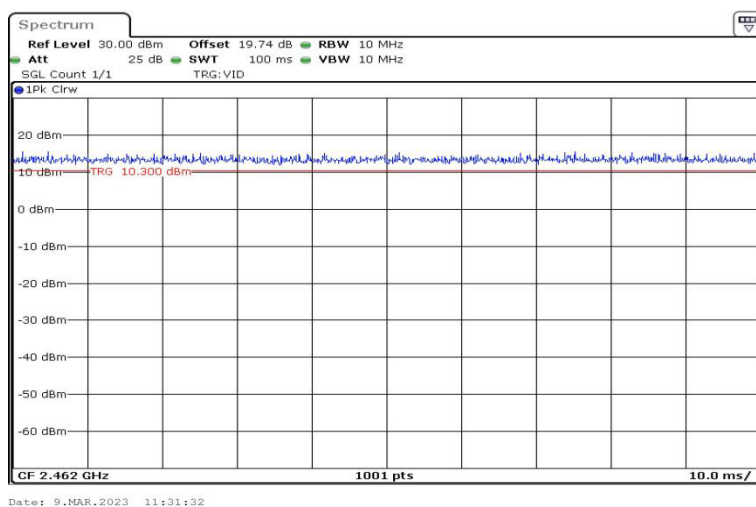
11N40SISO_Ant2_2422



11N40SISO_Ant2_2442



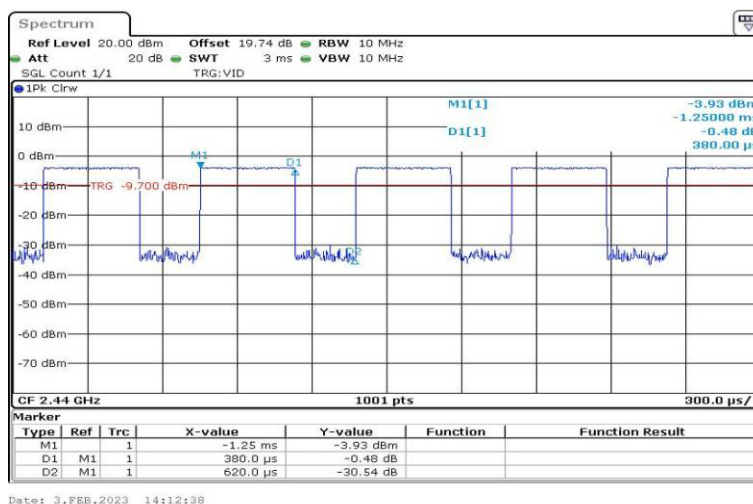
11N40SISO_Ant2_2462



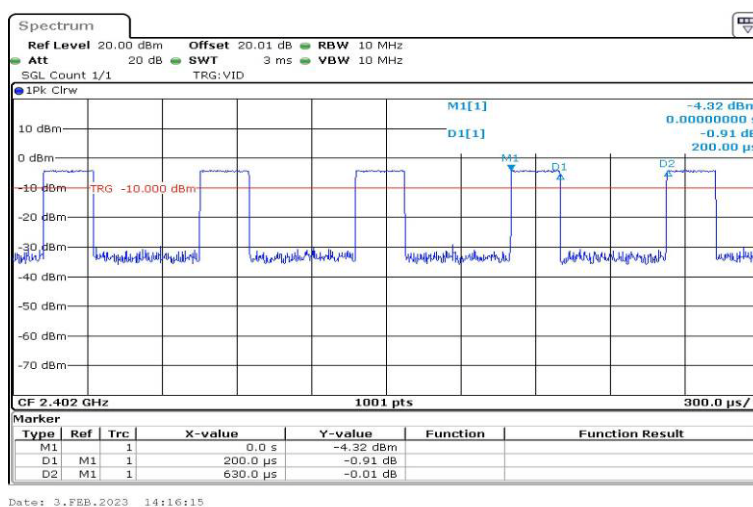
Test Mode	Duty Cycle [%]
BLE_1M	61.29
BLE_2M	31.75

Test Graphs

BLE_1M_Ant2_2440



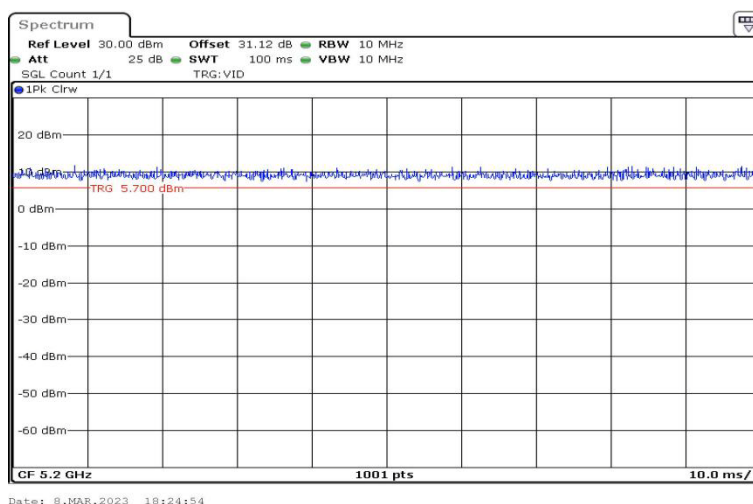
BLE_2M_Ant2_2440



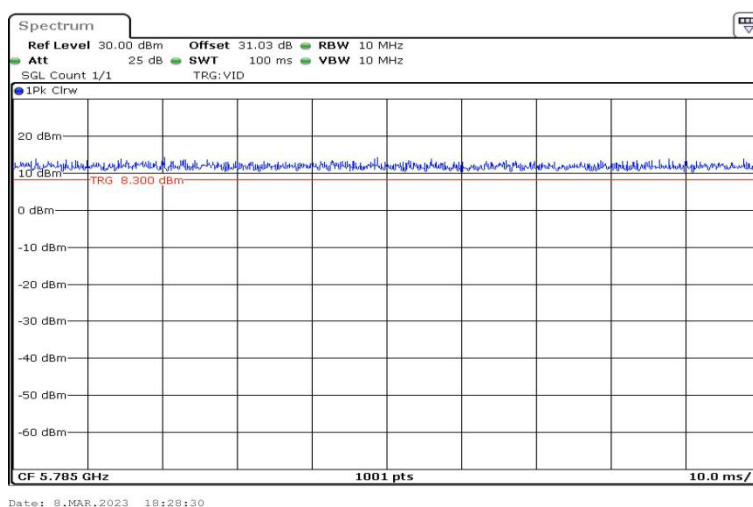
Test Mode	Duty Cycle [%]
11A	100.00
	100.00
11N20SISO	100.00
	100.00
11N40SISO	100.00
	100.00
11AC20SISO	100.00
	100.00
11AC40SISO	100.00
	100.00
11AC80SISO	100.00
	100.00

Test Graphs

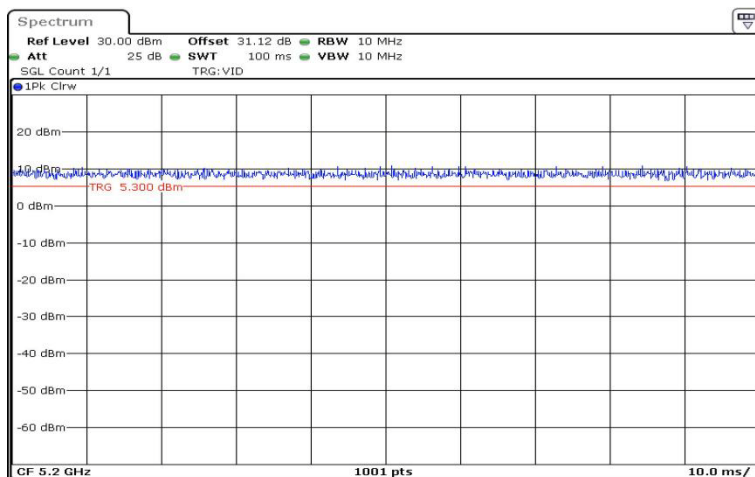
11A_Ant2_5200



11A_Ant2_5785

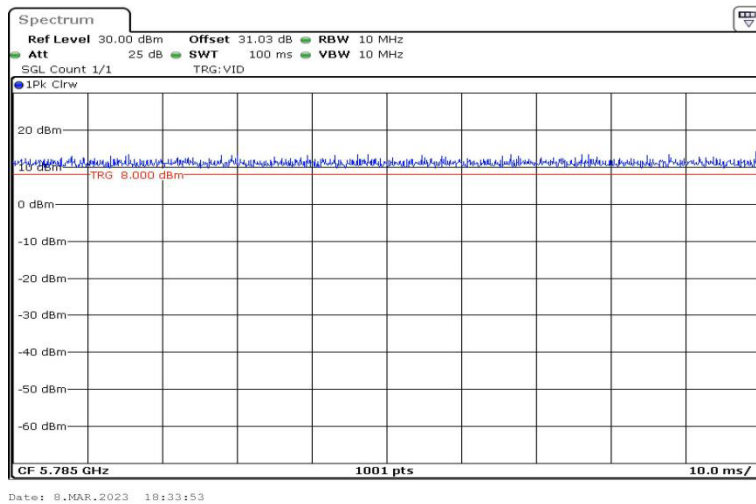


11N20SISO_Ant2_5200

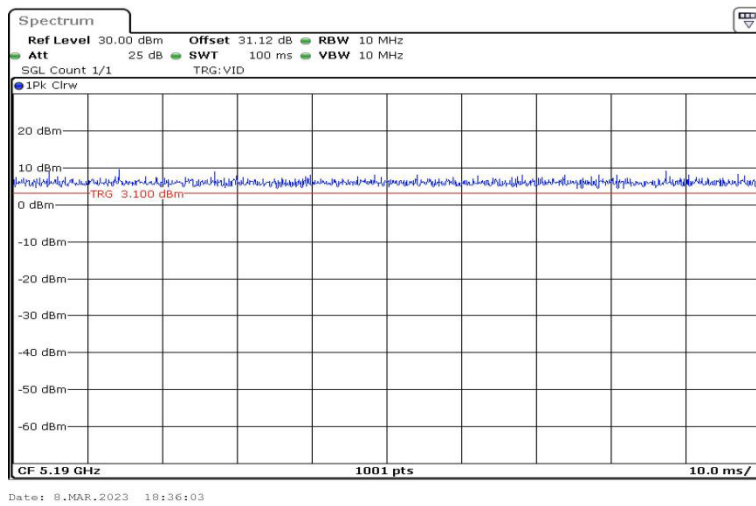


Date: 8.MAR.2023 18:32:42

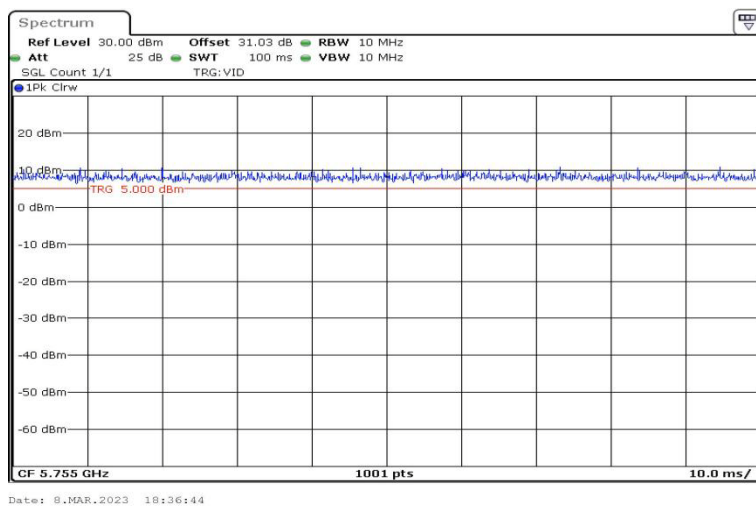
11N20SISO_Ant2_5785



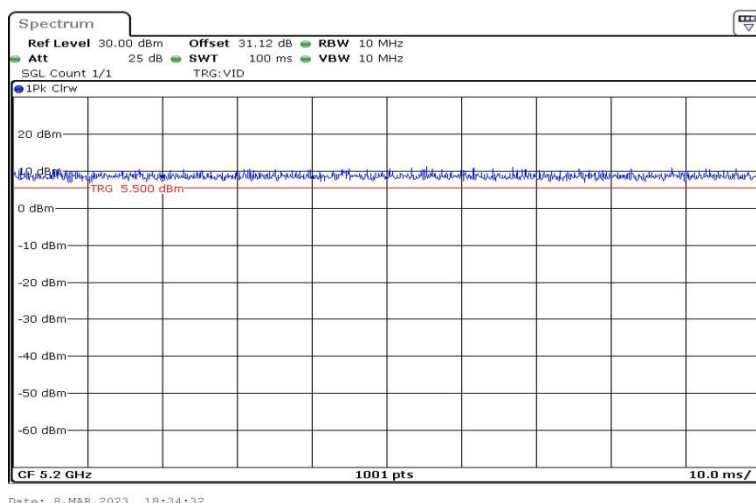
11N40SISO_Ant2_5190



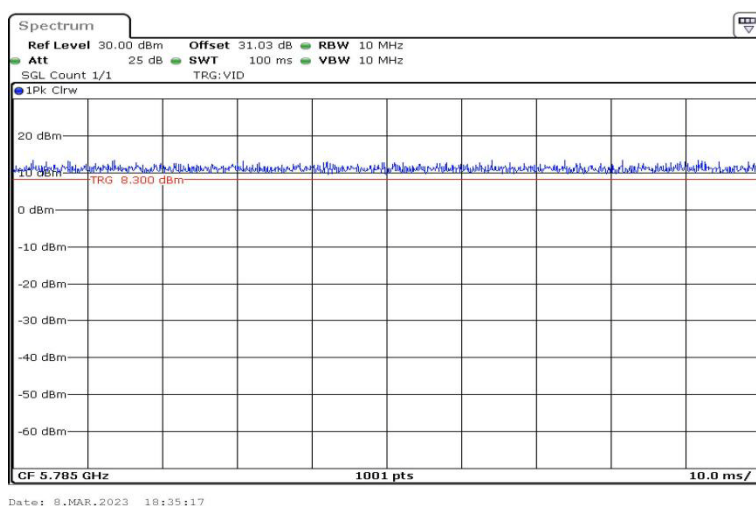
11N40SISO_Ant2_5755



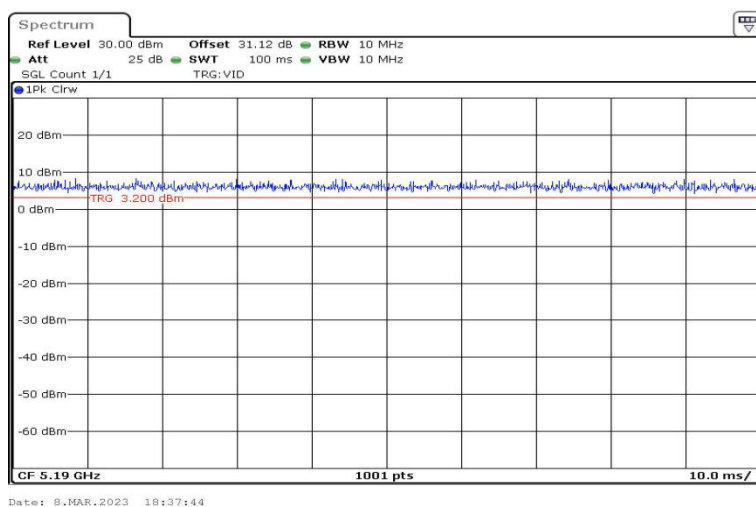
11AC20SISO_Ant2_5200



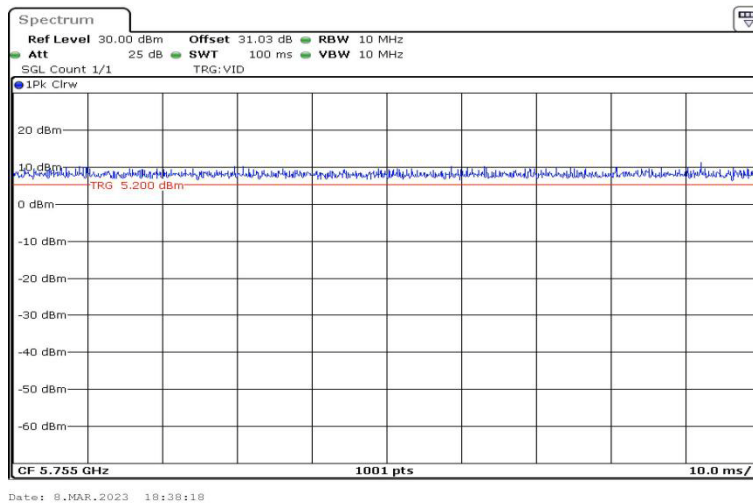
11AC20SISO_Ant2_5785



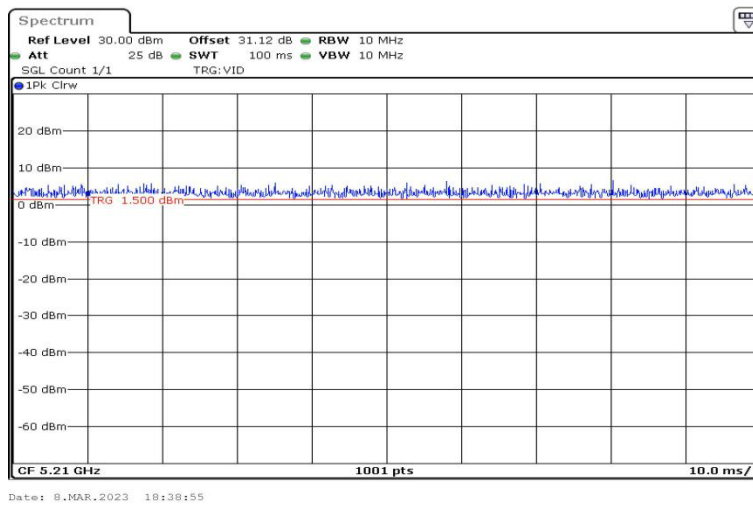
11AC40SISO_Ant2_5190



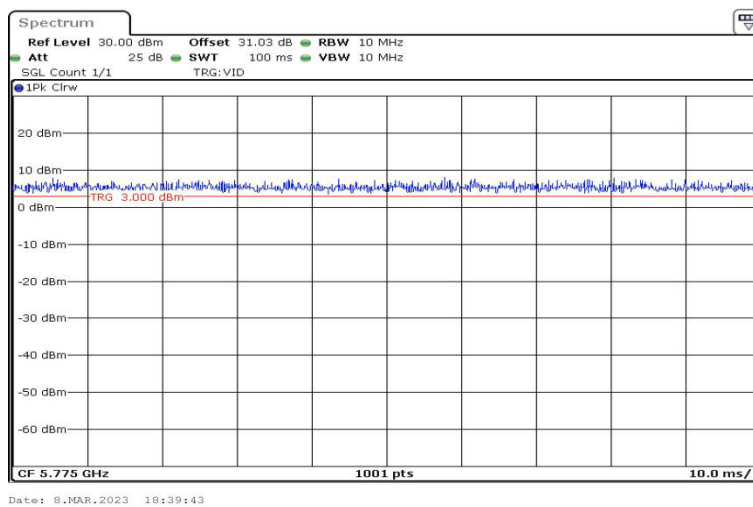
11AC40SISO_Ant2_5755



11AC80SISO_Ant2_5210

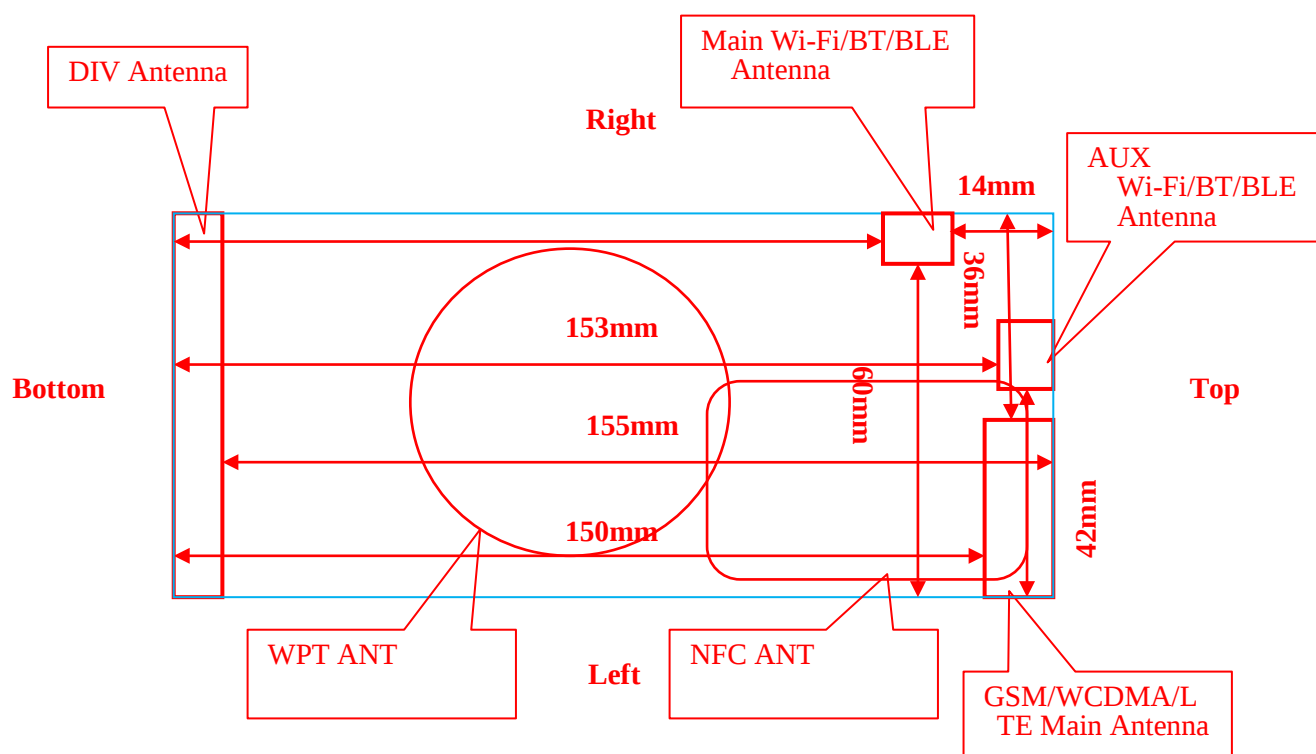


11AC80SISO_Ant2_5775



Standalone SAR test exclusion considerations

Antennas Location:



EUT Back View

Note: The DIV antenna can only receive.

Antenna Distance To Edge

Antenna Distance To Edge(mm)						
Antenna	Front	Back	Left	Right	Top	Bottom
Main Wi-Fi/Bluetooth	< 5	< 5	67	< 5	12	153
AUX Wi-Fi/Bluetooth	< 5	< 5	42	15	< 5	140
Main Ant (GSM/WCDMA/LTE)	< 5	< 5	< 5	38	< 5	150

Standalone SAR test exclusion considerations(KDB):

Mode	Frequency (MHz)	Output Power (dBm)	Output Power (mW)	Distance (mm)	Calculated value	Threshold (1-g)	SAR Test Exclusion
Main Bluetooth	2480	10	10.00	0	3.1	3.0	No
Main2.4G WLAN	2472	14	25.12	0	7.9	3.0	No
Main5.2G WLAN	5240	11.5	14.13	0	6.5	3.0	No
Main5.8G WLAN	5825	10	10.00	0	4.8	3.0	No
AUX Bluetooth	2480	10	10.00	0	3.1	3.0	No
AUX 2.4G WLAN	2472	14	25.12	0	7.9	3.0	No
AUX 5.2G WLAN	5240	7	5.01	0	2.3	3.0	YES
AUX 5.8G WLAN	5825	10	10.00	0	4.6	3.0	No

NOTE:

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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

1. $f(\text{GHz})$ is the RF channel transmit frequency in GHz.
2. Power and distance are rounded to the nearest mW and mm before calculation.
3. The result is rounded to one decimal place for comparison.
4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

According to KDB 447498 D01 General RF Exposure Guidance v06, clause 4.3. General SAR test exclusion guidance:

c) For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C):

- 1) For test separation distances > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by $[1 + \log(100/f(\text{MHz}))]$
- 2) For test separation distances ≤ 50 mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$
- 3) SAR measurement procedures are not established below 100 MHz.

For NFC SAR test exclusion consideration as follow:

$$P_{th} = [474 * (1 + \log(100/f_{(\text{MHz})}))] / 2 = 443 \text{ mW.}$$

$$E[\text{dB } \mu \text{ V/m}] = \text{EIRP}[\text{dBm}] + 95.2$$

$$E[\text{dB } \mu \text{ V/m}] = 54.96 \text{ dB } \mu \text{ V/m} @ 3\text{m,}$$

The antenna gain is 0dBi

$$\text{EIRP} = 54.96 \text{ dB } \mu \text{ V/m} - 95.2 = -40.24 \text{ dBm} = 0.00009 \text{ mW} < P_{th} = 443 \text{ mW}$$

Conclusion:

The NFC SAR evaluation can be exempted.

SAR test exclusion for the EUT edge considerations Result

Antenna Distance To Edge(mm)						
Mode	Front	Back	Left	Right	Top	Bottom
Main Bluetooth	Required	Required	Exclusion	Required	Required	Exclusion
Main 2.4G Wi-Fi	Required	Required	Exclusion	Required	Required	Exclusion
Main 5.2G Wi-Fi	Required	Required	Exclusion	Required	Required	Exclusion
Main 5.8G Wi-Fi	Required	Required	Exclusion	Required	Required	Exclusion
AUX Bluetooth	Required	Required	Exclusion	Required	Required	Exclusion
AUX 2.4G Wi-Fi	Required	Required	Exclusion	Required	Required	Exclusion
AUX 5.2G Wi-Fi	Exclusion*	Exclusion*	Exclusion	Exclusion*	Exclusion*	Exclusion
AUX 5.8G Wi-Fi	Required	Required	Exclusion	Required	Required	Exclusion
Main ANT(GSM/WCDMA/LTE)	Required	Required	Required	Exclusion	Required	Exclusion

Note:

Required: The distance to Edge is less than 25mm, testing is required.

Exclusion: The distance to Edge is more than 25 mm, testing is not required.

Exclusion*: To better reflect the RF exposure of portable devices, SAR tests were performed

Extremity Exposure Configurations

Per KDB 648474 D04v01r03, this device is considered a “Phablet” since the diagonal dimension is >160 mm and <200 mm, when hotspot mode applies, extremity SAR is required only for the surfaces and edges with hotspot mode scaled to the maximum output power (with tolerance is 1g SAR >1.2 W/kg)

Extremity Exposure Condition		
Worst Mode	Hotspot SAR value	Extremity Condition Test
WCDMA Band 2	1.18W/kg@1g	Exclusion

Exclusion: Extremity Condition SAR testing is not required.

SAR MEASUREMENT RESULTS

This page summarizes the results of the performed dosimetric evaluation.

SAR Test Data

Environmental Conditions

Temperature:	22.5-23.2 °C	22.2-23.8 °C	22.0-23.4 °C	22.8-24.5 °C	22.6-24.1 °C	22.2-24.8°C
Relative Humidity:	51-60%	45-59 %	43-56 %	42-58 %	41-55 %	44-57 %
ATM Pressure:	101.4 kPa	101.6 kPa	101.4 kPa	101.3 kPa	101.2 kPa	101.2 kPa
Test Date:	2023/01/28	2023/01/29	2023/02/04	2023/02/05	2023/02/14	2023/02/15

Testing was performed by Seven Liang, Jack Yang, Ryse Chai.

GSM 850 :

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	824.2	GSM	/	/	/	/	/	/
	836.6	GSM	32.86	33.0	1.033	0.147	0.15	1#
	848.8	GSM	/	/	/	/	/	/
Head Left Tilt	824.2	GSM	/	/	/	/	/	/
	836.6	GSM	32.86	33.0	1.033	0.145	0.15	2#
	848.8	GSM	/	/	/	/	/	/
Head Right Cheek	824.2	GSM	/	/	/	/	/	/
	836.6	GSM	32.86	33.0	1.033	0.305	0.31	3#
	848.8	GSM	/	/	/	/	/	/
Head Right Tilt	824.2	GSM	/	/	/	/	/	/
	836.6	GSM	32.86	33.0	1.033	0.298	0.31	4#
	848.8	GSM	/	/	/	/	/	/
Body Worn Back (10mm)	824.2	GSM	/	/	/	/	/	/
	836.6	GSM	32.86	33.0	1.033	0.093	0.10	5#
	848.8	GSM	/	/	/	/	/	/
Body Front (10mm)	824.2	GPRS	/	/	/	/	/	/
	836.6	GPRS	31.98	32.0	1.005	0.156	0.16	6#
	848.8	GPRS	/	/	/	/	/	/
Body Back (10mm)	824.2	GPRS	/	/	/	/	/	/
	836.6	GPRS	31.98	32.0	1.005	0.146	0.15	7#
	848.8	GPRS	/	/	/	/	/	/
Body Left (10mm)	824.2	GPRS	/	/	/	/	/	/
	836.6	GPRS	31.98	32.0	1.005	0.122	0.12	8#
	848.8	GPRS	/	/	/	/	/	/
Body Top (10mm)	824.2	GPRS	/	/	/	/	/	/
	836.6	GPRS	31.98	32.0	1.005	0.199	0.20	9#
	848.8	GPRS	/	/	/	/	/	/

Note:

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. The EUT transmit and receive through the same GSM antenna while testing SAR.
3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
4. When the maximum output power variation across the required test channels is $> 0.5\text{ dB}$, instead of the middle channel, the highest output power channel must be used.
5. The Multi-slot Classes of EUT is Class 12 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 3DL+2UL is the worst case.

PCS 1900 :

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	1850.2	GSM	/	/	/	/	/	/
	1880	GSM	30.16	30.5	1.081	0.266	0.29	10#
	1909.8	GSM	/	/	/	/	/	/
Head Left Tilt	1850.2	GSM	/	/	/	/	/	/
	1880	GSM	30.16	30.5	1.081	0.322	0.35	11#
	1909.8	GSM	/	/	/	/	/	/
Head Right Cheek	1850.2	GSM	/	/	/	/	/	/
	1880	GSM	30.16	30.5	1.081	0.535	0.58	12#
	1909.8	GSM	/	/	/	/	/	/
Head Right Tilt	1850.2	GSM	/	/	/	/	/	/
	1880	GSM	30.16	30.5	1.081	0.662	0.72	13#
	1909.8	GSM	/	/	/	/	/	/
Body Worn Back (10mm)	1850.2	GSM	/	/	/	/	/	/
	1880	GSM	30.16	30.5	1.081	0.223	0.24	14#
	1909.8	GSM	/	/	/	/	/	/
Body Front (10mm)	1850.2	GPRS	/	/	/	/	/	/
	1880	GPRS	28.94	29.0	1.014	0.243	0.25	15#
	1909.8	GPRS	/	/	/	/	/	/
Body Back (10mm)	1850.2	GPRS	/	/	/	/	/	/
	1880	GPRS	28.94	29.0	1.014	0.559	0.57	16#
	1909.8	GPRS	/	/	/	/	/	/
Body Left (10mm)	1850.2	GPRS	/	/	/	/	/	/
	1880	GPRS	28.94	29.0	1.014	0.16	0.16	17#
	1909.8	GPRS	/	/	/	/	/	/
Body Top (10mm)	1850.2	GPRS	/	/	/	/	/	/
	1880	GPRS	28.94	29.0	1.014	0.642	0.65	18#
	1909.8	GPRS	/	/	/	/	/	/

Note:

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. The EUT transmit and receive through the same GSM antenna while testing SAR.
3. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
4. When the maximum output power variation across the required test channels is $> 0.5\text{ dB}$, instead of the middle channel, the highest output power channel must be used.
5. The Multi-slot Classes of EUT is Class 12 which has maximum 4 Downlink slots and 4 Uplink slots, the maximum active slots is 5, when perform the multiple slots scan, 3DL+2UL is the worst case.

WCDMA Band 2 :

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	1852.4	RMC	/	/	/	/	/	/
	1880	RMC	23.49	23.5	1.002	0.329	0.33	19#
	1907.6	RMC	/	/	/	/	/	/
Head Left Tilt	1852.4	RMC	/	/	/	/	/	/
	1880	RMC	23.49	23.5	1.002	0.437	0.44	20#
	1907.6	RMC	/	/	/	/	/	/
Head Right Cheek	1852.4	RMC	/	/	/	/	/	/
	1880	RMC	23.49	23.5	1.002	0.572	0.57	21#
	1907.6	RMC	/	/	/	/	/	/
Head Right Tilt	1852.4	RMC	/	/	/	/	/	/
	1880	RMC	23.49	23.5	1.002	0.733	0.73	22#
	1907.6	RMC	/	/	/	/	/	/
Body Front (10mm)	1852.4	RMC	/	/	/	/	/	/
	1880	RMC	23.49	23.5	1.002	0.434	0.44	23#
	1907.6	RMC	/	/	/	/	/	/
Body Back (10mm)	1852.4	RMC	23.48	23.5	1.005	0.888	0.89	24#
	1880	RMC	23.49	23.5	1.002	0.923	0.93	25#
	1907.6	RMC	23.44	23.5	1.014	1	1.01	26#
Body Left (10mm)	1852.4	RMC	/	/	/	/	/	/
	1880	RMC	23.49	23.5	1.002	0.216	0.22	27#
	1907.6	RMC	/	/	/	/	/	/
Body Top (10mm)	1852.4	RMC	23.48	23.5	1.005	1.07	1.07	28#
	1880	RMC	23.49	23.5	1.002	1.14	1.14	29#
	1907.6	RMC	23.44	23.5	1.014	1.16	1.18	30#

WCDMA Band 4 :

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	23.43	23.5	1.016	0.313	0.32	31#
	1752.6	RMC	/	/	/	/	/	/
Head Left Tilt	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	23.43	23.5	1.016	0.407	0.41	32#
	1752.6	RMC	/	/	/	/	/	/
Head Right Cheek	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	23.43	23.5	1.016	0.543	0.55	33#
	1752.6	RMC	/	/	/	/	/	/
Head Right Tilt	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	23.43	23.5	1.016	0.667	0.68	34#
	1752.6	RMC	/	/	/	/	/	/
Body Front (10mm)	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	23.43	23.5	1.016	0.437	0.44	35#
	1752.6	RMC	/	/	/	/	/	/
Body Back (10mm)	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	23.43	23.5	1.016	0.781	0.79	36#
	1752.6	RMC	/	/	/	/	/	/
Body Left (10mm)	1712.4	RMC	/	/	/	/	/	/
	1732.6	RMC	23.43	23.5	1.016	0.246	0.25	37#
	1752.6	RMC	/	/	/	/	/	/
Body Top (10mm)	1712.4	RMC	23.38	23.5	1.028	0.923	0.95	38#
	1732.6	RMC	23.43	23.5	1.016	0.931	0.95	39#
	1752.6	RMC	23.44	23.5	1.014	0.9	0.91	40#

WCDMA Band 5 :

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)			
					Scaled Factor	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.45	24.0	1.135	0.233	0.26	41#
	846.6	RMC	/	/	/	/	/	/
Head Left Tilt	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.45	24.0	1.135	0.213	0.24	42#
	846.6	RMC	/	/	/	/	/	/
Head Right Cheek	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.45	24.0	1.135	0.313	0.36	43#
	846.6	RMC	/	/	/	/	/	/
Head Right Tilt	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.45	24.0	1.135	0.383	0.43	44#
	846.6	RMC	/	/	/	/	/	/
Body Front (10mm)	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.45	24.0	1.135	0.163	0.19	45#
	846.6	RMC	/	/	/	/	/	/
Body Back (10mm)	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.45	24.0	1.135	0.125	0.14	46#
	846.6	RMC	/	/	/	/	/	/
Body Left (10mm)	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.45	24.0	1.135	0.116	0.13	47#
	846.6	RMC	/	/	/	/	/	/
Body Top (10mm)	826.4	RMC	/	/	/	/	/	/
	836.6	RMC	23.45	24.0	1.135	0.19	0.22	48#
	846.6	RMC	/	/	/	/	/	/

Note:

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. The EUT transmit and receive through the same antenna while testing SAR.
3. The default test configuration is to measure SAR with an established radio link between the EUT and a communication test set using a 12.2 kbps RMC (reference measurement Channel) Configured in Test Loop Model.
4. KDB 941225 D01-Body SAR is not required for HSDPA/HSUPA/ HSPA+ when the maximum average output of each RF channel is less than $\frac{1}{4}$ dB higher than measured 12.2kbps RMC or the maximum SAR for 12.2kbps RMC is $< 75\%$ of SAR limit.
5. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.

LTE Band 2 :

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	1860	20	1RB	/	/	/	/	/	/
	1880	20	1RB	21.7	22.0	1.072	0.331	0.35	49#
	1900	20	1RB	/	/	/	/	/	/
	1880	20	50%RB	21.53	22.0	1.114	0.258	0.29	50#
Head Left Tilt	1860	20	1RB	/	/	/	/	/	/
	1880	20	1RB	21.7	22.0	1.072	0.344	0.37	51#
	1900	20	1RB	/	/	/	/	/	/
	1880	20	50%RB	21.53	22.0	1.114	0.271	0.30	52#
Head Right Cheek	1860	20	1RB	/	/	/	/	/	/
	1880	20	1RB	21.7	22.0	1.072	0.552	0.59	53#
	1900	20	1RB	/	/	/	/	/	/
	1880	20	50%RB	21.53	22.0	1.114	0.43	0.48	54#
Head Right Tilt	1860	20	1RB	/	/	/	/	/	/
	1880	20	1RB	21.7	22.0	1.072	0.683	0.73	55#
	1900	20	1RB	/	/	/	/	/	/
	1880	20	50%RB	21.53	22.0	1.114	0.537	0.60	56#
Body Front (10mm)	1860	20	1RB	/	/	/	/	/	/
	1880	20	1RB	21.7	22.0	1.072	0.423	0.45	57#
	1900	20	1RB	/	/	/	/	/	/
	1880	20	50%RB	21.53	22.0	1.114	0.333	0.37	58#
Body Back (10mm)	1860	20	1RB	/	/	/	/	/	/
	1880	20	1RB	21.7	22.0	1.072	0.607	0.65	59#
	1900	20	1RB	/	/	/	/	/	/
	1880	20	50%RB	21.53	22.0	1.114	0.479	0.53	60#
Body Left (10mm)	1860	20	1RB	/	/	/	/	/	/
	1880	20	1RB	21.7	22.0	1.072	0.222	0.24	61#
	1900	20	1RB	/	/	/	/	/	/
	1880	20	50%RB	21.53	22.0	1.114	0.153	0.17	62#
Body Top (10mm)	1860	20	1RB	/	/	/	/	/	/
	1880	20	1RB	21.7	22.0	1.072	0.526	0.56	63#
	1900	20	1RB	/	/	/	/	/	/
	1880	20	50%RB	21.53	22.0	1.114	0.412	0.46	64#

LTE Band 4 :

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max Power (dBm)		Scaled Factor	1g SAR (W/kg)		Plot
				Meas.	Rated		Meas.	Scaled	
Head Left Cheek	1720	20	1RB	/	/	/	/	/	/
	1732.5	20	1RB	21.58	22.0	1.102	0.318	0.35	65#
	1745	20	1RB	/	/	/	/	/	/
	1732.5	20	50%RB	21.42	22.0	1.143	0.252	0.29	66#
Head Left Tilt	1720	20	1RB	/	/	/	/	/	/
	1732.5	20	1RB	21.58	22.0	1.102	0.34	0.37	67#
	1745	20	1RB	/	/	/	/	/	/
	1732.5	20	50%RB	21.42	22.0	1.143	0.274	0.31	68#
Head Right Cheek	1720	20	1RB	/	/	/	/	/	/
	1732.5	20	1RB	21.58	22.0	1.102	0.406	0.45	69#
	1745	20	1RB	/	/	/	/	/	/
	1732.5	20	50%RB	21.42	22.0	1.143	0.318	0.36	70#
Head Right Tilt	1720	20	1RB	/	/	/	/	/	/
	1732.5	20	1RB	21.58	22.0	1.102	0.545	0.60	71#
	1745	20	1RB	/	/	/	/	/	/
	1732.5	20	50%RB	21.42	22.0	1.143	0.433	0.49	72#
Body Front (10mm)	1720	20	1RB	/	/	/	/	/	/
	1732.5	20	1RB	21.58	22.0	1.102	0.414	0.46	73#
	1745	20	1RB	/	/	/	/	/	/
	1732.5	20	50%RB	21.42	22.0	1.143	0.326	0.37	74#
Body Back (10mm)	1720	20	1RB	/	/	/	/	/	/
	1732.5	20	1RB	21.58	22.0	1.102	0.497	0.55	75#
	1745	20	1RB	/	/	/	/	/	/
	1732.5	20	50%RB	21.42	22.0	1.143	0.394	0.45	76#
Body Left (10mm)	1720	20	1RB	/	/	/	/	/	/
	1732.5	20	1RB	21.58	22.0	1.102	0.295	0.32	77#
	1745	20	1RB	/	/	/	/	/	/
	1732.5	20	50%RB	21.42	22.0	1.143	0.226	0.26	78#
Body Top (10mm)	1720	20	1RB	/	/	/	/	/	/
	1732.5	20	1RB	21.58	22.0	1.102	0.442	0.49	79#
	1745	20	1RB	/	/	/	/	/	/
	1732.5	20	50%RB	21.42	22.0	1.143	0.34	0.39	80#

LTE Band 5 :

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	22.55	23.0	1.109	0.201	0.22	81#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	22.41	23.0	1.146	0.2	0.23	82#
Head Left Tilt	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	22.55	23.0	1.109	0.2	0.22	83#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	22.41	23.0	1.146	0.188	0.22	84#
Head Right Cheek	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	22.55	23.0	1.109	0.363	0.40	85#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	22.41	23.0	1.146	0.362	0.41	86#
Head Right Tilt	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	22.55	23.0	1.109	0.385	0.43	87#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	22.41	23.0	1.146	0.387	0.44	88#
Body Front (10mm)	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	22.55	23.0	1.109	0.138	0.15	89#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	22.41	23.0	1.146	0.14	0.16	90#
Body Back (10mm)	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	22.55	23.0	1.109	0.113	0.13	91#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	22.41	23.0	1.146	0.114	0.13	92#
Body Left (10mm)	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	22.55	23.0	1.109	0.127	0.14	93#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	22.41	23.0	1.146	0.125	0.14	94#
Body Top (10mm)	829	10	1RB	/	/	/	/	/	/
	836.5	10	1RB	22.55	23.0	1.109	0.16	0.18	95#
	844	10	1RB	/	/	/	/	/	/
	836.5	10	50%RB	22.41	23.0	1.146	0.159	0.18	96#

LTE Band 7 :

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	2510	20	1RB	/	/	/	/	/	/
	2535	20	1RB	20.86	21.0	1.033	0.27	0.28	97#
	2560	20	1RB	/	/	/	/	/	/
	2535	20	50%RB	20.70	21.0	1.072	0.205	0.22	98#
Head Left Tilt	2510	20	1RB	/	/	/	/	/	/
	2535	20	1RB	20.86	21.0	1.033	0.279	0.29	99#
	2560	20	1RB	/	/	/	/	/	/
	2535	20	50%RB	20.70	21.0	1.072	0.216	0.23	100#
Head Right Cheek	2510	20	1RB	20.74	21.0	1.062	1.16	1.23	101#
	2535	20	1RB	20.86	21.0	1.033	0.932	0.96	102#
	2560	20	1RB	20.63	21.0	1.089	0.77	0.84	103#
	2535	20	50%RB	20.70	21.0	1.072	0.709	0.76	104#
	2535	20	100%RB	20.64	21.0	1.086	0.727	0.79	105#
Head Right Tilt	2510	20	1RB	20.74	21.0	1.062	1.09	1.16	106#
	2535	20	1RB	20.86	21.0	1.033	0.879	0.91	107#
	2560	20	1RB	20.63	21.0	1.089	0.721	0.79	108#
	2535	20	50%RB	20.70	21.0	1.072	0.593	0.64	109#
	2535	20	100%RB	20.64	21.0	1.086	0.574	0.62	110#
Body Front (10mm)	2510	20	1RB	/	/	/	/	/	/
	2535	20	1RB	20.86	21.0	1.033	0.178	0.18	111#
	2560	20	1RB	/	/	/	/	/	/
	2535	20	50%RB	20.70	21.0	1.072	0.133	0.14	112#
Body Back (10mm)	2510	20	1RB	/	/	/	/	/	/
	2535	20	1RB	20.86	21.0	1.033	0.447	0.46	113#
	2560	20	1RB	/	/	/	/	/	/
	2535	20	50%RB	20.70	21.0	1.072	0.338	0.36	114#
Body Left (10mm)	2510	20	1RB	/	/	/	/	/	/
	2535	20	1RB	20.86	21.0	1.033	0.666	0.69	115#
	2560	20	1RB	/	/	/	/	/	/
	2535	20	50%RB	20.70	21.0	1.072	0.511	0.55	116#
Body Top (10mm)	2510	20	1RB	/	/	/	/	/	/
	2535	20	1RB	20.86	21.0	1.033	0.149	0.15	117#
	2560	20	1RB	/	/	/	/	/	/
	2535	20	50%RB	20.70	21.0	1.072	0.097	0.10	118#

LTE Band 41&38 :

EUT Position	Frequency (MHz)	Bandwidth (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)			
						Scaled Factor	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	2545	20	1RB	/	/	/	/	/	/
	2570	20	1RB	/	/	/	/	/	/
	2595	20	1RB	21.48	21.5	1.005	0.054	0.05	119#
	2620	20	1RB	/	/	/	/	/	/
	2645	20	1RB	/	/	/	/	/	/
	2595	20	50%RB	21.20	21.5	1.072	0.041	0.04	120#
Head Left Tilt	2545	20	1RB	/	/	/	/	/	/
	2570	20	1RB	/	/	/	/	/	/
	2595	20	1RB	21.48	21.5	1.005	0.08	0.08	121#
	2620	20	1RB	/	/	/	/	/	/
	2645	20	1RB	/	/	/	/	/	/
	2595	20	50%RB	21.20	21.5	1.072	0.061	0.07	122#
Head Right Cheek	2545	20	1RB	/	/	/	/	/	/
	2570	20	1RB	/	/	/	/	/	/
	2595	20	1RB	21.48	21.5	1.005	0.314	0.32	123#
	2620	20	1RB	/	/	/	/	/	/
	2645	20	1RB	/	/	/	/	/	/
	2595	20	50%RB	21.20	21.5	1.072	0.24	0.26	124#
Head Right Tilt	2545	20	1RB	/	/	/	/	/	/
	2570	20	1RB	/	/	/	/	/	/
	2595	20	1RB	21.48	21.5	1.005	0.245	0.25	125#
	2620	20	1RB	/	/	/	/	/	/
	2645	20	1RB	/	/	/	/	/	/
	2595	20	50%RB	21.20	21.5	1.072	0.178	0.19	126#
Body Front (10mm)	2545	20	1RB	/	/	/	/	/	/
	2570	20	1RB	/	/	/	/	/	/
	2595	20	1RB	21.48	21.5	1.005	0.101	0.10	127#
	2620	20	1RB	/	/	/	/	/	/
	2645	20	1RB	/	/	/	/	/	/
	2595	20	50%RB	21.20	21.5	1.072	0.079	0.08	128#
Body Back (10mm)	2545	20	1RB	/	/	/	/	/	/
	2570	20	1RB	/	/	/	/	/	/
	2595	20	1RB	21.48	21.5	1.005	0.208	0.21	129#
	2620	20	1RB	/	/	/	/	/	/
	2645	20	1RB	/	/	/	/	/	/
	2595	20	50%RB	21.20	21.5	1.072	0.132	0.14	130#
Body Left (10mm)	2545	20	1RB	/	/	/	/	/	/
	2570	20	1RB	/	/	/	/	/	/
	2595	20	1RB	21.48	21.5	1.005	0.322	0.32	131#
	2620	20	1RB	/	/	/	/	/	/
	2645	20	1RB	/	/	/	/	/	/
	2595	20	50%RB	21.20	21.5	1.072	0.249	0.27	132#

Body Top (10mm)	2545	20	1RB	/	/	/	/	/	/
	2570	20	1RB	/	/	/	/	/	/
	2595	20	1RB	21.48	21.5	1.005	0.04	0.04	133#
	2620	20	1RB	/	/	/	/	/	/
	2645	20	1RB	/	/	/	/	/	/
	2595	20	50%RB	21.20	21.5	1.072	0.031	0.03	134#

Note:

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. SAR for LTE band exposure configurations is measured according to the procedures of KDB 941225 D05 SAR for LTE Devices v02.
3. KDB941225D05-SAR for higher order modulation is required only when the highest maximum output power for the configuration in the higher order modulation is $> 0.5\text{ dB}$ higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is $> 1.45\text{ W/kg}$
4. KDB941225D05-For QPSK with 100% RB allocation, when the reported SAR measured for the Highest output power channel is $< 1.45\text{ W/kg}$, tests for the remaining required test channels are optional.
5. KDB941225D05- 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 $\leq 0.8\text{ W/kg}$.
6. KDB941225D05- 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 among RB offset the upper edge, middle and lower edge of each required test channel.
7. KDB941225D05- other channel bandwidths SAR test is required when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is $> 0.5\text{ dB}$ higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is $> 1.45\text{ W/kg}$.
8. Worst case SAR for 50% RB allocation is selected to be tested.
9. KDB 648474 D04-When the peak SAR located in regions that probe is unable to access, a flat phantom is used for SAR measurement.
10. The E-UTRA Operating Band 38 is a subset of band 41, and they are same in modulation type, therefore, they were considered as one frequency band during SAR measurement, LTE Band 41 (the wide frequency range) was selected to test.
11. This device only support Power Class 3 for LTE Band 41.

Main WLAN 2.4G:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)				
					Scaled Factor	Duty Cycle [%]	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.63	14.0	1.089	100	0.278	0.30	135#
	2472	802.11b	/	/	/	/	/	/	/
Head Left Tilt	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.63	14.0	1.089	100	0.105	0.11	136#
	2472	802.11b	/	/	/	/	/	/	/
Head Right Cheek	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.63	14.0	1.089	100	0.112	0.12	137#
	2472	802.11b	/	/	/	/	/	/	/
Head Right Tilt	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.63	14.0	1.089	100	0.108	0.12	138#
	2472	802.11b	/	/	/	/	/	/	/
Body Front (10mm)	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.63	14.0	1.089	100	0.096	0.10	139#
	2472	802.11b	/	/	/	/	/	/	/
Body Back (10mm)	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.63	14.0	1.089	100	0.269	0.29	140#
	2472	802.11b	/	/	/	/	/	/	/
Body Right (10mm)	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.63	14.0	1.089	100	0.06	0.07	141#
	2472	802.11b	/	/	/	/	/	/	/
Body Top (10mm)	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.63	14.0	1.089	100	0.036	0.04	142#
	2472	802.11b	/	/	/	/	/	/	/

Note:

1. When the highest *reported* SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR is not required.
2. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
3. When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11b/g/n mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.
4. According to 2016 Oct. TCB, for SAR testing of 2.4G WIFI 802.11b signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)".

Main WLAN 5.2G:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)				
					Scaled Factor	Duty Cycle (%)	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	10.71	11.5	1.199	100	0.174	0.21	143#
	5240	802.11a	/	/	/	/	/	/	/
Head Left Tilt	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	10.71	11.5	1.199	100	0.06	0.07	144#
	5240	802.11a	/	/	/	/	/	/	/
Head Right Cheek	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	10.71	11.5	1.199	100	0.031	0.04	145#
	5240	802.11a	/	/	/	/	/	/	/
Head Right Tilt	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	10.71	11.5	1.199	100	0.013	0.02	146#
	5240	802.11a	/	/	/	/	/	/	/
Body Front (10mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	10.71	11.5	1.199	100	0.051	0.06	147#
	5240	802.11a	/	/	/	/	/	/	/
Body Back (10mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	10.71	11.5	1.199	100	0.069	0.08	148#
	5240	802.11a	/	/	/	/	/	/	/
Body Right (10mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	10.71	11.5	1.199	100	0.073	0.09	149#
	5240	802.11a	/	/	/	/	/	/	/
Body Top (10mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	10.71	11.5	1.199	100	0.16	0.19	150#
	5240	802.11a	/	/	/	/	/	/	/

Main WLAN 5.8G:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)				
					Scaled Factor	Duty Cycle (%)	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	/	/	/	/	/	/	/
	5825	802.11a	9.62	10.0	1.091	100	0.327	0.36	151#
Head Left Tilt	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	/	/	/	/	/	/	/
	5825	802.11a	9.62	10.0	1.091	100	0.307	0.34	152#
Head Right Cheek	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	/	/	/	/	/	/	/
	5825	802.11a	9.62	10.0	1.091	100	0.129	0.14	153#
Head Right Tilt	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	/	/	/	/	/	/	/
	5825	802.11a	9.62	10.0	1.091	100	0.128	0.14	154#
Body Front (10mm)	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	/	/	/	/	/	/	/
	5825	802.11a	9.62	10.0	1.091	100	0.113	0.12	155#
Body Back (10mm)	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	/	/	/	/	/	/	/
	5825	802.11a	9.62	10.0	1.091	100	0.149	0.16	156#
Body Right (10mm)	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	/	/	/	/	/	/	/
	5825	802.11a	9.62	10.0	1.091	100	0.172	0.19	157#
Body Top (10mm)	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	/	/	/	/	/	/	/
	5825	802.11a	9.62	10.0	1.091	100	0.039	0.04	158#

Note:

1. When the SAR value is less than half of the limit, testing for other channels are optional.
2. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance
3. According 2016 Oct. TCB, for SAR testing of 5G WIFI 802.11a signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)".

Main Bluetooth:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)				
					Scaled Factor	Duty Cycle [%]	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.04	10	1.247	76.74	0.136	0.17	159#
	2480	GFSK	/	/	/	/	/	/	/
Head Left Tilt	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.04	10	1.247	76.74	0.102	0.13	160#
	2480	GFSK	/	/	/	/	/	/	/
Head Right Cheek	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.04	10	1.247	76.74	0.043	0.05	161#
	2480	GFSK	/	/	/	/	/	/	/
Head Right Tilt	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.04	10	1.247	76.74	0.054	0.07	162#
	2480	GFSK	/	/	/	/	/	/	/
Body Front (10mm)	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.04	10	1.247	76.74	0.034	0.04	163#
	2480	GFSK	/	/	/	/	/	/	/
Body Back (10mm)	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.04	10	1.247	76.74	0.034	0.04	164#
	2480	GFSK	/	/	/	/	/	/	/
Body Right (10mm)	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.04	10	1.247	76.74	0.027	0.03	165#
	2480	GFSK	/	/	/	/	/	/	/
Body Top (10mm)	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.04	10	1.247	76.74	0.021	0.03	166#
	2480	GFSK	/	/	/	/	/	/	/

Note:

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
3. According 2016 Oct. TCB, for SAR testing of GFSK signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)".

AUX WLAN 2.4G:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)				
					Scaled Factor	Duty Cycle [%]	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.55	14.0	1.109	100	0.057	0.06	167#
	2472	802.11b	/	/	/	/	/	/	/
Head Left Tilt	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.55	14.0	1.109	100	0.064	0.07	168#
	2472	802.11b	/	/	/	/	/	/	/
Head Right Cheek	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.55	14.0	1.109	100	0.024	0.03	169#
	2472	802.11b	/	/	/	/	/	/	/
Head Right Tilt	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.55	14.0	1.109	100	0.026	0.03	170#
	2472	802.11b	/	/	/	/	/	/	/
Body Front (10mm)	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.55	14.0	1.109	100	0.018	0.02	171#
	2472	802.11b	/	/	/	/	/	/	/
Body Back (10mm)	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.55	14.0	1.109	100	0.023	0.03	172#
	2472	802.11b	/	/	/	/	/	/	/
Body Right (10mm)	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.55	14.0	1.109	100	0.013	0.01	173#
	2472	802.11b	/	/	/	/	/	/	/
Body Top (10mm)	2412	802.11b	/	/	/	/	/	/	/
	2442	802.11b	13.55	14.0	1.109	100	0.014	0.02	174#
	2472	802.11b	/	/	/	/	/	/	/

Note:

1. When the highest *reported* SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, OFDM SAR is not required.
2. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
3. When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11b/g/n mode is use for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.
4. According 2016 Oct. TCB, for SAR testing of 2.4G WIFI 802.11b signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)".

AUX WLAN 5.2G:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)				
					Scaled Factor	Duty Cycle (%)	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	9.34	10.5	1.306	100	0.078	0.10	175#
	5240	802.11a	/	/	/	/	/	/	/
Head Left Tilt	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	9.34	10.5	1.306	100	0.099	0.13	176#
	5240	802.11a	/	/	/	/	/	/	/
Head Right Cheek	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	9.34	10.5	1.306	100	0.115	0.15	177#
	5240	802.11a	/	/	/	/	/	/	/
Head Right Tilt	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	9.34	10.5	1.306	100	0.162	0.21	178#
	5240	802.11a	/	/	/	/	/	/	/
Body Front (10mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	9.34	10.5	1.306	100	0.056	0.07	179#
	5240	802.11a	/	/	/	/	/	/	/
Body Back (10mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	9.34	10.5	1.306	100	0.065	0.08	180#
	5240	802.11a	/	/	/	/	/	/	/
Body Right (10mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	9.34	10.5	1.306	100	0.031	0.04	181#
	5240	802.11a	/	/	/	/	/	/	/
Body Top (10mm)	5180	802.11a	/	/	/	/	/	/	/
	5200	802.11a	9.34	10.5	1.306	100	0.074	0.10	182#
	5240	802.11a	/	/	/	/	/	/	/

AUX WLAN 5.8G:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)				
					Scaled Factor	Duty Cycle (%)	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	8.39	9.5	1.291	100	0.072	0.09	183#
	5825	802.11a	/	/	/	/	/	/	/
Head Left Tilt	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	8.39	9.5	1.291	100	0.115	0.15	184#
	5825	802.11a	/	/	/	/	/	/	/
Head Right Cheek	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	8.39	9.5	1.291	100	0.103	0.13	185#
	5825	802.11a	/	/	/	/	/	/	/
Head Right Tilt	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	8.39	9.5	1.291	100	0.174	0.22	186#
	5825	802.11a	/	/	/	/	/	/	/
Body Front (10mm)	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	8.39	9.5	1.291	100	0.019	0.02	187#
	5825	802.11a	/	/	/	/	/	/	/
Body Back (10mm)	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	8.39	9.5	1.291	100	0.016	0.02	188#
	5825	802.11a	/	/	/	/	/	/	/
Body Right (10mm)	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	8.39	9.5	1.291	100	0.00767	0.01	189#
	5825	802.11a	/	/	/	/	/	/	/
Body Top (10mm)	5745	802.11a	/	/	/	/	/	/	/
	5785	802.11a	8.39	9.5	1.291	100	0.092	0.12	190#
	5825	802.11a							/

Note:

1. When the SAR value is less than half of the limit, testing for other channels are optional.
2. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance
3. According 2016 Oct. TCB, for SAR testing of 5G WIFI 802.11a signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)".

AUX Bluetooth:

EUT Position	Frequency (MHz)	Test Mode	Max. Meas. Power (dBm)	Max. Rated Power (dBm)	1g SAR (W/kg)				
					Scaled Factor	Duty Cycle [%]	Meas. SAR	Scaled SAR	Plot
Head Left Cheek	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.97	10.0	1.007	76.74	0.00571	0.01	191#
	2480	GFSK	/	/	/	/	/	/	/
Head Left Tilt	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.97	10.0	1.007	76.74	0.011	0.01	192#
	2480	GFSK	/	/	/	/	/	/	/
Head Right Cheek	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.97	10.0	1.007	76.74	0.00191	0.01	193#
	2480	GFSK	/	/	/	/	/	/	/
Head Right Tilt	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.97	10.0	1.007	76.74	0.00327	0.01	194#
	2480	GFSK	/	/	/	/	/	/	/
Body Front (10mm)	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.97	10.0	1.007	76.74	0.00657	0.01	195#
	2480	GFSK	/	/	/	/	/	/	/
Body Back (10mm)	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.97	10.0	1.007	76.74	0.00074	0.01	196#
	2480	GFSK	/	/	/	/	/	/	/
Body Right (10mm)	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.97	10.0	1.007	76.74	0.014	0.02	197#
	2480	GFSK	/	/	/	/	/	/	/
Body Top (10mm)	2402	GFSK	/	/	/	/	/	/	/
	2441	GFSK	9.97	10.0	1.007	76.74	0.00518	0.01	198#
	2480	GFSK	/	/	/	/	/	/	/

Note:

1. When the 1-g SAR is $\leq 0.8\text{W/Kg}$, testing for other channels are optional.
2. When SAR or MPE is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance.
3. According 2016 Oct. TCB, for SAR testing of GFSK signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)".

SAR Measurement Variability

In accordance with published RF Exposure KDB procedure 865664 D01 SAR measurement 100 MHz to 6 GHz v01. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

The Highest Measured SAR Configuration in Each Frequency Band

Head

SAR probe calibration point	Frequency Band	Freq.(MHz)	EUT Position	Meas. SAR (W/kg)		Largest to Smallest SAR Ratio
				Original	Repeated	
2600MHz (2550-2700 MHz)	LTE Band 7	2510	Head Right Cheek	1.16	1.07	1.08

Body

SAR probe calibration point	Frequency Band	Freq.(MHz)	EUT Position	Meas. SAR (W/kg)		Largest to Smallest SAR Ratio
				Original	Repeated	
1900MHz (1850-1950 MHz)	WCDMA Band 2	1907.6	Body Top	1.16	1.09	1.06
1750MHz (1650-1850 MHz)	WCDMA Band 4	1732.6	Body Top	0.931	0.921	1.01

Note:

1. Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20 .
2. The measured SAR results **do not** have to be scaled to the maximum tune-up tolerance to determine if repeated measurements are required.
3. SAR measurement variability must be assessed for each frequency band, which is determined by the **SAR probe calibration point and tissue-equivalent medium** used for the device measurements..

SAR SIMULTANEOUS TRANSMISSION DESCRIPTION

Simultaneous Transmission:

Description of Simultaneous Transmit Capabilities		
Transmitter Combination	Simultaneous?	Hotspot?
WWAN(GSM/WCDMA/LTE) + Main ANT (Bluetooth)	√	×
WWAN(GSM/WCDMA/LTE) + Main ANT (WLAN)	√	√
WWAN(GSM/WCDMA/LTE) + AUX ANT (Bluetooth)	√	×
WWAN(GSM/WCDMA/LTE) + AUX ANT (WLAN)	√	√
Main ANT (WLAN)+ Main ANT (Bluetooth)	×	×
AUX ANT (WLAN)+ AUX ANT (Bluetooth)	×	×
Main ANT (WLAN)+ AUX ANT (WLAN)	×	×
Main ANT (Bluetooth)+ AUX ANT (Bluetooth)	×	×

Note: NFC and WPT can be transmitted simultaneously or with any combination of the above, and the WPT function is for Mobile use only.

Simultaneous and Hotspot SAR test exclusion considerations:

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		Σ SAR < 1.6W/kg
		SAR1	SAR2	
WWAN+ Main 2.4G WLAN	Head	1.23	0.30	1.53
	Body	1.18	0.29	1.47
WWAN+ Main 5.2G WLAN	Head	1.23	0.21	1.44
	Body	1.18	0.19	1.37
WWAN+ Main 5.8G WLAN	Head	1.23	0.36	1.59
	Body	1.18	0.19	1.37
WWAN+ Main BT	Head	1.23	0.17	1.40
	Body	1.18	0.04	1.22
WWAN+Main WLAN(Hotspots)	Body	1.18	0.29	1.47

Mode(SAR1+SAR2)	Position	Reported SAR(W/kg)		Σ SAR < 1.6W/kg
		SAR1	SAR2	
WWAN+ AUX 2.4G WLAN	Head	1.23	0.07	1.30
	Body	1.18	0.03	1.21
WWAN+ AUX 5.2G WLAN	Head	1.23	0.21	1.44
	Body	1.18	0.10	1.28
WWAN+ AUX 5.8G WLAN	Head	1.23	0.22	1.45
	Body	1.18	0.12	1.30
WWAN+ AUX BT	Head	1.23	0.01	1.24
	Body	1.18	0.02	1.20
WWAN+AUX WLAN(Hotspots)	Body	1.18	0.12	1.30

Note:

1. Hotspot mode SAR is measured for all edges and surfaces of the device with a transmitting antenna located within 25 mm from that surface or edge; for the data modes, wireless technologies and frequency bands supporting hotspot mode.
2. Hotspot Mode is not feasible during voice calls.
3. For the EIRP of NFC is 0.00009mW, per KDB447498 D01 clause 4.3, the estimated SAR is so lower, so the NFC almost have no influence on the results of simultaneous transmission.
4. EUT supports the WPT function and complies with the RF exposure requirements specified in FCC Part 2.1091.

Conclusion:

Sum of SAR: Σ SAR $\leq$ 1.6 W/kg therefore simultaneous transmission SAR with Volume Scans is **not required**.

SAR Plots

Please Refer to the Attachment.

APPENDIX A MEASUREMENT UNCERTAINTY

The uncertainty budget has been determined for the measurement system and is given in the following Table.

Measurement uncertainty evaluation for IEEE1528-2013 SAR test

Source of uncertainty	Tolerance/ uncertainty ± %	Probability distribution	Divisor	ci (1 g)	ci (10 g)	Standard uncertainty ± %, (1 g)	Standard uncertainty ± %, (10 g)
Measurement system							
Probe calibration	6.55	N	1	1	1	6.6	6.6
Axial Isotropy	4.7	R	$\sqrt{3}$	1	1	2.7	2.7
Hemispherical Isotropy	9.6	R	$\sqrt{3}$	0	0	0.0	0.0
Boundary effect	1.0	R	$\sqrt{3}$	1	1	0.6	0.6
Linearity	4.7	R	$\sqrt{3}$	1	1	2.7	2.7
Detection limits	1.0	R	$\sqrt{3}$	1	1	0.6	0.6
Readout electronics	0.3	N	1	1	1	0.3	0.3
Response time	0.0	R	$\sqrt{3}$	1	1	0.0	0.0
Integration time	0.0	R	$\sqrt{3}$	1	1	0.0	0.0
RF ambient conditions – noise	1.0	R	$\sqrt{3}$	1	1	0.6	0.6
RF ambient conditions–reflections	1.0	R	$\sqrt{3}$	1	1	0.6	0.6
Probe positioner mech. Restrictions	0.8	R	$\sqrt{3}$	1	1	0.5	0.5
Probe positioning with respect to phantom shell	6.7	R	$\sqrt{3}$	1	1	3.9	3.9
Post-processing	2.0	R	$\sqrt{3}$	1	1	1.2	1.2
Test sample related							
Test sample positioning	2.8	N	1	1	1	2.8	2.8
Device holder uncertainty	6.3	N	1	1	1	6.3	6.3
Drift of output power	5.0	R	$\sqrt{3}$	1	1	2.9	2.9
Phantom and set-up							
Phantom uncertainty (shape and thickness tolerances)	4.0	R	$\sqrt{3}$	1	1	2.3	2.3
Liquid conductivity target)	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2
Liquid conductivity meas.)	2.5	N	1	0.64	0.43	1.6	1.1
Liquid permittivity target)	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4
Liquid permittivity meas.)	2.5	N	1	0.6	0.49	1.5	1.2
Combined standard uncertainty		RSS				12.2	12.0
Expanded uncertainty 95 % confidence interval)						24.3	23.9

APPENDIX B EUT TEST POSITION PHOTOS

Please Refer to the Attachment.

APPENDIX C PROBE CALIBRATION CERTIFICATES

Please Refer to the Attachment.

APPENDIX D DIPOLE CALIBRATION CERTIFICATES

Please Refer to the Attachment.

******* END OF REPORT *******