



# FCC SAR Test Report

Report No. : W7L-P23100014SA01

Applicant : Nokia of America Corp

Address : 3201, Olympus Blvd, Dallas, TX 75019, USA

Manufacturer : Nokia of America Corp

Address : 3201, Olympus Blvd, Dallas, TX 75019, USA

Product : Nokia Industrial 5G handheld HHRA501x

FCC ID : 2AVO2-HHRA501A

Brand : Nokia

Model No. : HHRA501a

Marketing Name : Nokia Industrial 5G handheld HHRA501a

Standards : FCC 47 CFR Part 2 (2.1093) / IEEE C95.1:1992 / IEEE 1528:2013  
KDB 865664 D01 v01r04 / KDB 865664 D02 v01r02 / KDB 248227 D01 v02r02  
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**CERTIFICATION:** The above equipment have been tested by **BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample’s SAR characteristics under the conditions specified in this report. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product certification, approval, or endorsement by A2LA or any government agencies.

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## Table of Contents

Release Control Record .....	3
<b>1. Summary of Maximum SAR Value .....</b>	<b>4</b>
<b>2. Description of Equipment Under Test .....</b>	<b>5</b>
<b>3. SAR Measurement System .....</b>	<b>7</b>
3.1 Definition of Specific Absorption Rate (SAR) .....	7
3.2 SPEAG DASY System .....	7
3.2.1 Robot.....	8
3.2.2 Probes.....	9
3.2.3 Data Acquisition Electronics (DAE) .....	9
3.2.4 Phantoms .....	10
3.2.5 Device Holder.....	11
3.2.6 System Validation Dipoles .....	11
3.2.7 Tissue Simulating Liquids.....	12
3.3 SAR System Verification .....	14
3.4 SAR Measurement Procedure .....	15
3.4.1 Area & Zoom Scan Procedure .....	15
3.4.2 Volume Scan Procedure.....	15
3.4.3 Power Drift Monitoring.....	16
3.4.4 Spatial Peak SAR Evaluation .....	16
3.4.5 SAR Averaged Methods.....	16
<b>4. SAR Measurement Evaluation .....</b>	<b>17</b>
4.1 EUT Configuration and Setting.....	17
4.2 EUT Testing Position .....	25
4.2.1 Head Exposure Conditions.....	26
4.2.2 Body-worn Accessory Exposure Conditions .....	28
4.2.3 Hotspot Mode Exposure Conditions .....	29
4.2.4 Extremity Exposure Conditions .....	30
4.2.5 SAR Text Exclusion Evaluations .....	30
4.3 Tissue Verification .....	31
4.4 System Verification.....	32
4.5 Maximum Output Power.....	34
4.5.1 Maximum Conducted Power .....	34
4.5.2 Measured Conducted Power Result.....	34
4.6 SAR Testing Results .....	34
4.6.1 SAR Test Reduction Considerations .....	34
4.6.2 SAR Results for Head Exposure Condition .....	37
4.6.3 SAR Results for Body-worn Exposure Condition (Separation Distance is 1.5 cm Gap).....	50
4.6.4 SAR Results for Hotspot Exposure Condition (Separation Distance is 1.0 cm Gap).....	56
4.6.5 SAR Results for Extremity Exposure Condition (Separation Distance is 0 cm Gap).....	69
4.6.6 SAR Measurement Variability.....	70
4.6.7 Simultaneous Multi-band Transmission Evaluation .....	71
<b>5. Calibration of Test Equipment.....</b>	<b>79</b>
<b>6. Measurement Uncertainty.....</b>	<b>80</b>
<b>7. Information on the Testing Laboratories.....</b>	<b>82</b>

- Appendix A. SAR Plots of System Verification
- Appendix B. SAR Plots of SAR Measurement
- Appendix C. Calibration Certificate for Probe and Dipole
- Appendix D. Conducted RF Output Power Table
- Appendix E. Simultaneous Multi-band Transmission Evaluation
- Appendix F. Photographs of EUT and Setup





## 1. Summary of Maximum SAR Value

Equipment Class	Mode	Highest Reported Head SAR <sub>1g</sub> (W/kg)	Highest Reported Body-worn SAR <sub>1g</sub> (1.5 cm Gap) (W/kg)	Highest Reported Hotspot SAR <sub>1g</sub> (1.0 cm Gap) (W/kg)	Highest Reported Extremity SAR <sub>10g</sub> (0 cm Gap) (W/kg)
PCE	GSM850	0.42	0.31	0.79	N/A
	GSM1900	1.01	0.28	0.49	N/A
	WCDMA II	0.47	0.12	0.24	N/A
	WCDMA IV	0.44	0.06	0.10	N/A
	WCDMA V	0.36	0.28	0.44	N/A
	LTE Band 5	0.31	0.28	0.47	N/A
	LTE Band 7	1.11	0.47	1.00	N/A
	LTE Band 12 / 17	0.28	0.30	0.26	N/A
	LTE Band 13	0.34	0.31	0.32	N/A
	LTE Band 14	0.32	0.27	0.35	N/A
	LTE Band 25 / 2	1.08	0.48	0.62	N/A
	LTE Band 26	0.33	0.25	0.42	N/A
	LTE Band 30	0.95	0.30	0.46	N/A
	LTE Band 41 / 38	0.97	0.40	0.60	N/A
	LTE 42(Part27Q)	0.74	0.25	0.66	N/A
	LTE Band 48 / 43 / 42	0.92	0.23	0.77	N/A
	LTE Band 66 / 4	1.12	0.42	0.62	N/A
	LTE Band 71	0.24	0.21	0.27	N/A
	NR Band n5	0.31	0.26	0.41	N/A
	NR Band n7	1.11	0.72	1.07	N/A
	NR Band n12	0.25	0.26	0.26	N/A
	NR Band n25 / n2	0.99	0.47	0.62	N/A
	NR Band n30	1.00	0.37	0.49	N/A
NR Band n41 / n38	1.06	0.29	0.49	N/A	
NR Band n48	0.95	0.15	0.40	N/A	
NR Band n66	1.07	0.34	0.62	N/A	
NR Band n71	0.21	0.26	0.23	N/A	
NR Band n77 / n78	1.01	0.15	0.44	N/A	
DTS	2.4G WLAN	0.42	0.35	0.50	N/A
	Bluetooth LE	0.02	0.03	0.06	N/A
NII	5.2G WLAN	N/A	N/A	0.19	N/A
	5.3G WLAN	0.37	0.12	N/A	0.24
	5.6G WLAN	0.38	0.24	N/A	0.27
	5.8G WLAN	0.21	0.13	0.17	N/A
DSS	Bluetooth	0.01	0.02	0.03	N/A
DXX	NFC	N/A	N/A	N/A	N/A
Highest Simultaneous Transmission SAR	PCE (W/kg)		DTS (W/kg)	NII (W/kg)	DSS (W/kg)
		1.58	1.58	1.58	1.47

**Note:**

- The SAR limit (Head & Body: SAR<sub>1g</sub> 1.6 W/kg, Extremity: SAR<sub>10g</sub> 4.0 W/kg) for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.



## 2. Description of Equipment Under Test

<b>EUT Type</b>	Nokia Industrial 5G handheld HHRA501x
<b>FCC ID</b>	2AVO2-HHRA501a
<b>Brand Name</b>	Nokia
<b>Model Name</b>	HHRA501a
<b>Marketing Name</b>	Nokia Industrial 5G handheld HHRA501a
<b>HW Version</b>	V02
<b>SW Version</b>	IS540_ROW_00.00_1_20221017
<b>Tx Frequency Bands (Unit: MHz)</b>	<p>GSM850 : 824.2 ~ 848.8          GSM1900 : 1850.2 ~ 1909.8          WCDMA Band II : 1852.4 ~ 1907.6          WCDMA Band IV : 1712.4 ~ 1752.6          WCDMA Band V : 826.4 ~ 846.6          LTE Band 2 : 1850.7 ~ 1909.3          LTE Band 4 : 1710.7 ~ 1754.3          LTE Band 5 : 824.7 ~ 848.3          LTE Band 7 : 2502.5 ~ 2567.5          LTE Band 12 : 699.7 ~ 715.3          LTE Band 13 : 779.5 ~ 784.5          LTE Band 14 : 790.5 ~ 795.5          LTE Band 17 : 706.5 ~ 713.5          LTE Band 26 : 814.7 ~ 848.3          LTE Band 30 : 2307.5 ~ 2312.5          LTE Band 38 : 2572.5 ~ 2617.5          LTE Band 41 : 2498.5 ~ 2687.5          LTE Band 42 : 3452.5 ~ 3547.5, 3552.5 ~ 3597.5          LTE Band 43 : 3602.5 ~ 3697.5          LTE Band 48 : 3552.5 ~ 3697.5          LTE Band 66 : 1710.7 ~ 1779.3          LTE Band 71 : 665.5 ~ 695.5          NR Band n2 : 1852.5~ 1907.5          NR Band n5 : 826.5~ 846.5          NR Band n7 : 2502.5 ~ 2567.5          NR Band n12 : 701.5~ 713.5          NR Band n25 : 1852.5~ 1912.5          NR Band n30 : 2307.5 ~ 2312.5          NR Band n38 : 2582.52 ~ 2607.48          NR Band n41 : 2506.02 ~ 2679.99          NR Band n48 : 3555 ~ 3694.98          NR Band n66 : 1712.5~ 1777.5          NR Band n71 : 665.5 ~ 695.5          NR Band n77 : 3460.02 ~ 3540, 3710.01 ~ 3969.99          NR Band n78 : 3460.02 ~ 3540          WLAN : 2412 ~ 2462, 5180 ~ 5240, 5260 ~ 5320, 5500 ~ 5700, 5745 ~ 5825          Bluetooth : 2402 ~ 2480          NFC : 13.56</p>
<b>Uplink Modulations</b>	<p>GSM &amp; GPRS &amp; EDGE : GMSK, 8PSK          WCDMA : QPSK          LTE : QPSK, 16QAM, 64QAM          NR : Pi/2 BPSK (DFT-s-OFDM), QPSK (DFT-s-OFDM, CP-OFDM), 16QAM (DFT-s-OFDM, CP-OFDM), 64QAM (DFT-s-OFDM, CP-OFDM), 256QAM DFT-s-OFDM, CP-OFDM)          802.11b : DSSS          802.11a/g/n/ac : OFDM          802.11ax : OFDMA          Bluetooth : GFSK, <math>\pi/4</math>-DQPSK, 8-DPSK          NFC : ASK</p>
<b>Subcarrier Spacing</b>	15 kHz (FDD) / 30 kHz (TDD)
<b>Uplink Transmission Duty Cycle</b>	40% for TDD Band
<b>LTE Anchor Band for NR Band n2</b>	LTE Band 5/7/12/13/14/66/71
<b>LTE Anchor Band for NR Band n5</b>	LTE Band 2/7/48/66
<b>LTE Anchor Band for NR Band n7</b>	LTE Band 2/5/12/13/66/71
<b>LTE Anchor Band for NR Band n12</b>	LTE Band 2/7/66



LTE Anchor Band for NR Band n25	LTE Band 12/48/66
LTE Anchor Band for NR Band n38	LTE Band 2/4/5/12/66/71
LTE Anchor Band for NR Band n41	LTE Band 2/4/5/12/25/66/71
LTE Anchor Band for NR Band n48	LTE Band 2/5/13/66
LTE Anchor Band for NR Band n66	LTE Band 2/5/7/12/13/14/48/71
LTE Anchor Band for NR Band n71	LTE Band 2/7/66
LTE Anchor Band for NR Band n77	LTE Band 2/5/7/12/13/14/41/66
LTE Anchor Band for NR Band n78	LTE Band 2/4/5/12/13/26/38/41/66/71
Maximum Tune-up Conducted Power (Unit: dBm)	Please refer to section 4.5.1 of this report.
Antenna Type	WLAN / BT: PIFA Antenna WWAN: PIFA Antenna NFC : FPC Antenna
EUT Stage	Identical Prototype

**Note:**

1. The above EUT information is declared by manufacturer and for more detailed features description please refers to the manufacturer's specifications or User's Manual.
2. This device supports both LTE Band 2/4/17/38 and LTE Band 25/66/12/41. Since the supported frequency span for LTE Band 2/4/17/38 falls completely within the LTE Band 25/66/12/41, they have the same target power, and share the same transmission path, therefore SAR was only assessed for LTE Band 25/66/12/41.
3. The SAR of LTE Band 42 (3552.5MHz ~ 3597.5 MHz), LTE Band 43 is covered by LTE Band 48 due to same power level and with repeated frequency range.
4. This device supports both NR Band n2/n38/n78 and NR Band n25/n41/n77. Since the supported frequency span for NR Band n2/n38/n78 falls completely within the NR Band n25/n41/n77, they have the same target power, and share the same transmission path, therefore SAR was only assessed for NR Band n25/n41/n77.
5. WWAN Antenna 2/3/5 of NR Band n41 and WWAN Antenna 4/5/6 of NR Band n77/78 are used as SRS dedicated antennas, the antennas are used for receive and Sound Reference Signal transmission (SRS) only (not traffic transmission).
6. For WWAN Antenna 1, when the audio is actively routed through the earpiece receiver on head exposure condition, and the LCD display is off, power reduction will be implemented immediately.
7. For WWAN Antenna 1, hotspot mode is enabled and ENDC is active, power reduction will be activated to limit the maximum power.

WWAN Antenna 1 Head Exposure scenarios:

Power table	Test Scenario	Receiver	LCD display	WIFI State	ENDC state
Reduced power 1	Standalone& Simultaneous transmission	On	Off	On	unactivated
Reduced power 2	EN-DC& Simultaneous transmission	On	Off	On	activated

WWAN Antenna 1 Hotspot Exposure scenarios:

Power table	Test Scenario	Receiver	Hotspot	WIFI State	ENDC state
Reduced power 3	EN-DC& Simultaneous transmission	Off	On	On	activated



### **3. SAR Measurement System**

#### **3.1 Definition of Specific Absorption Rate (SAR)**

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.

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 ( $\rho$ ). The equation description is as below:

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

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

SAR measurement can be related to the electrical field in the tissue by

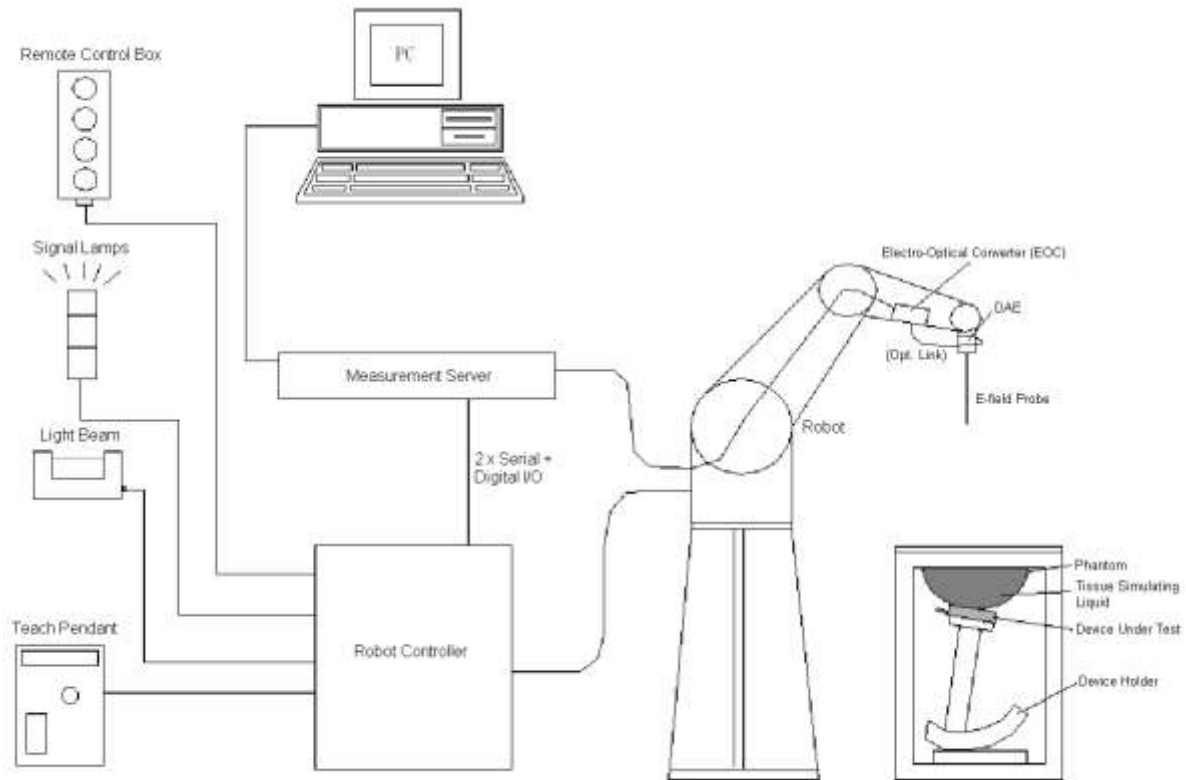
$$\text{SAR} = \frac{\sigma |E|^2}{\rho}$$

Where:  $\sigma$  is the conductivity of the tissue,  $\rho$  is the mass density of the tissue and E is the RMS electrical field strength.

#### **3.2 SPEAG DASY System**

DASY system consists of high precision robot, probe alignment sensor, phantom, robot controller, controlled measurement server and near-field probe. The robot includes six axes that can move to the precision position of the DASY5 software defined. The DASY software can define the area that is detected by the probe. The robot is connected to controlled box. Controlled measurement server is connected to the controlled robot box. The DAE includes amplifier, signal multiplexing, AD converter, offset measurement and surface detection. It is connected to the Electro-optical coupler (ECO). The ECO performs the conversion from the optical into digital electric signal of the DAE and transfers data to the PC.





**Fig-3.1 DASY System Setup**

### 3.2.1 Robot

The DASY system uses the high precision robots from Stäubli SA (France). For the 6-axis controller system, the robot controller version (DASY5: CS8c) from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability  $\pm 0.035$  mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)





**Fig-3.2 DASY5**




### 3.2.2 Probes

The SAR measurement is conducted with the dosimetric probe. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency.


<b>Model</b>	EX3DV4	
<b>Construction</b>	Symmetrical design with triangular core. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
<b>Frequency</b>	10 MHz to 6 GHz Linearity: $\pm 0.2$ dB	
<b>Directivity</b>	$\pm 0.3$ dB in HSL (rotation around probe axis) $\pm 0.5$ dB in tissue material (rotation normal to probe axis)	
<b>Dynamic Range</b>	10 $\mu$ W/g to 100 mW/g Linearity: $\pm 0.2$ dB (noise: typically $< 1$ $\mu$ W/g)	
<b>Dimensions</b>	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	


<b>Model</b>	ES3DV3	
<b>Construction</b>	Symmetrical design with triangular core. Interleaved sensors. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE).	
<b>Frequency</b>	10 MHz to 4 GHz Linearity: $\pm 0.2$ dB	
<b>Directivity</b>	$\pm 0.2$ dB in HSL (rotation around probe axis) $\pm 0.3$ dB in tissue material (rotation normal to probe axis)	
<b>Dynamic Range</b>	5 $\mu$ W/g to 100 mW/g Linearity: $\pm 0.2$ dB	
<b>Dimensions</b>	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 3.9 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.0 mm	

### 3.2.3 Data Acquisition Electronics (DAE)


<b>Model</b>	DAE3, DAE4	
<b>Construction</b>	Signal amplifier, multiplexer, A/D converter and control logic. Serial optical link for communication with DASY embedded system (fully remote controlled). Two step probe touch detector for mechanical surface detection and emergency robot stop.	
<b>Measurement Range</b>	-100 to +300 mV (16 bit resolution and two range settings: 4mV, 400mV)	
<b>Input Offset Voltage</b>	$< 5\mu$ V (with auto zero)	
<b>Input Bias Current</b>	$< 50$ fA	
<b>Dimensions</b>	60 x 60 x 68 mm	


### 3.2.4 Phantoms

<b>Model</b>	Twin SAM	
<b>Construction</b>	The shell corresponds to the specifications of the Specific Anthropomorphic Mannequin (SAM) phantom defined in IEEE 1528 and IEC 62209-1. It enables the dosimetric evaluation of left and right hand phone usage as well as body mounted usage at the flat phantom region. A cover prevents evaporation of the liquid. Reference markings on the phantom allow the complete setup of all predefined phantom positions and measurement grids by teaching three points with the robot.	
<b>Material</b>	Vinylester, glass fiber reinforced (VE-GF)	
<b>Shell Thickness</b>	2 ± 0.2 mm (6 ± 0.2 mm at ear point)	
<b>Dimensions</b>	Length: 1000 mm Width: 500 mm Height: adjustable feet	
<b>Filling Volume</b>	approx. 25 liters	


<b>Model</b>	ELI	
<b>Construction</b>	Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.	
<b>Material</b>	Vinylester, glass fiber reinforced (VE-GF)	
<b>Shell Thickness</b>	2.0 ± 0.2 mm (bottom plate)	
<b>Dimensions</b>	Major axis: 600 mm Minor axis: 400 mm	
<b>Filling Volume</b>	approx. 30 liters	

### 3.2.5 Device Holder

<b>Model</b>	Mounting Device	
<b>Construction</b>	In combination with the Twin SAM Phantom or ELI4, the Mounting Device enables the rotation of the mounted transmitter device in spherical coordinates. Rotation point is the ear opening point. Transmitter devices can be easily and accurately positioned according to IEC, IEEE, FCC or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat).	
<b>Material</b>	POM	

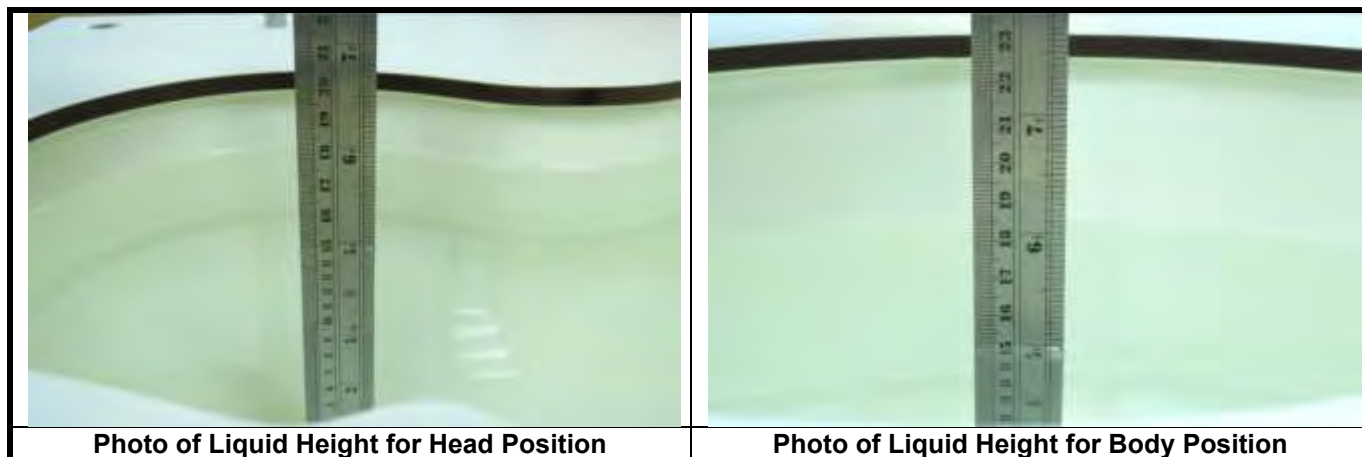
<b>Model</b>	Laptop Extensions Kit	
<b>Construction</b>	Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (e.g., laptops, cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device in place of the phone positioner.	
<b>Material</b>	POM, Acrylic glass, Foam	

### 3.2.6 System Validation Dipoles

<b>Model</b>	D-Serial	
<b>Construction</b>	Symmetrical dipole with 1/4 balun. Enables measurement of feed point impedance with NWA. Matched for use near flat phantoms filled with tissue simulating solutions.	
<b>Frequency</b>	750 MHz to 5800 MHz	
<b>Return Loss</b>	> 20 dB	
<b>Power Capability</b>	> 100 W (f < 1GHz), > 40 W (f > 1GHz)	

### 3.2.7 Tissue Simulating Liquids

For SAR measurement of the field distribution inside the phantom, the phantom must be filled with homogeneous tissue simulating liquid to a depth of at least 15 cm. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5% are listed in Table-3.1.



The dielectric properties of the head tissue simulating liquids are defined in IEEE 1528, and KDB 865664 D01 Appendix A. For the body tissue simulating liquids, the dielectric properties are defined in KDB 865664 D01 Appendix A. The dielectric properties of the tissue simulating liquids were verified prior to the SAR evaluation using a dielectric assessment kit and a network analyzer.

**Table-3.1 Targets of Tissue Simulating Liquid**

Frequency (MHz)	Target Permittivity	Range of $\pm 5\%$	Target Conductivity	Range of $\pm 5\%$
<b>For Head</b>				
750	41.9	39.8 ~ 44.0	0.89	0.85 ~ 0.93
835	41.5	39.4 ~ 43.6	0.90	0.86 ~ 0.95
900	41.5	39.4 ~ 43.6	0.97	0.92 ~ 1.02
1450	40.5	38.5 ~ 42.5	1.20	1.14 ~ 1.26
1640	40.3	38.3 ~ 42.3	1.29	1.23 ~ 1.35
1750	40.1	38.1 ~ 42.1	1.37	1.30 ~ 1.44
1800	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
1900	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2000	40.0	38.0 ~ 42.0	1.40	1.33 ~ 1.47
2300	39.5	37.5 ~ 41.5	1.67	1.59 ~ 1.75
2450	39.2	37.2 ~ 41.2	1.80	1.71 ~ 1.89
2600	39.0	37.1 ~ 41.0	1.96	1.86 ~ 2.06
3500	37.9	36.0 ~ 39.8	2.91	2.76 ~ 3.06
5200	36.0	34.2 ~ 37.8	4.66	4.43 ~ 4.89
5300	35.9	34.1 ~ 37.7	4.76	4.52 ~ 5.00
5500	35.6	33.8 ~ 37.4	4.96	4.71 ~ 5.21
5600	35.5	33.7 ~ 37.3	5.07	4.82 ~ 5.32
5800	35.3	33.5 ~ 37.1	5.27	5.01 ~ 5.53



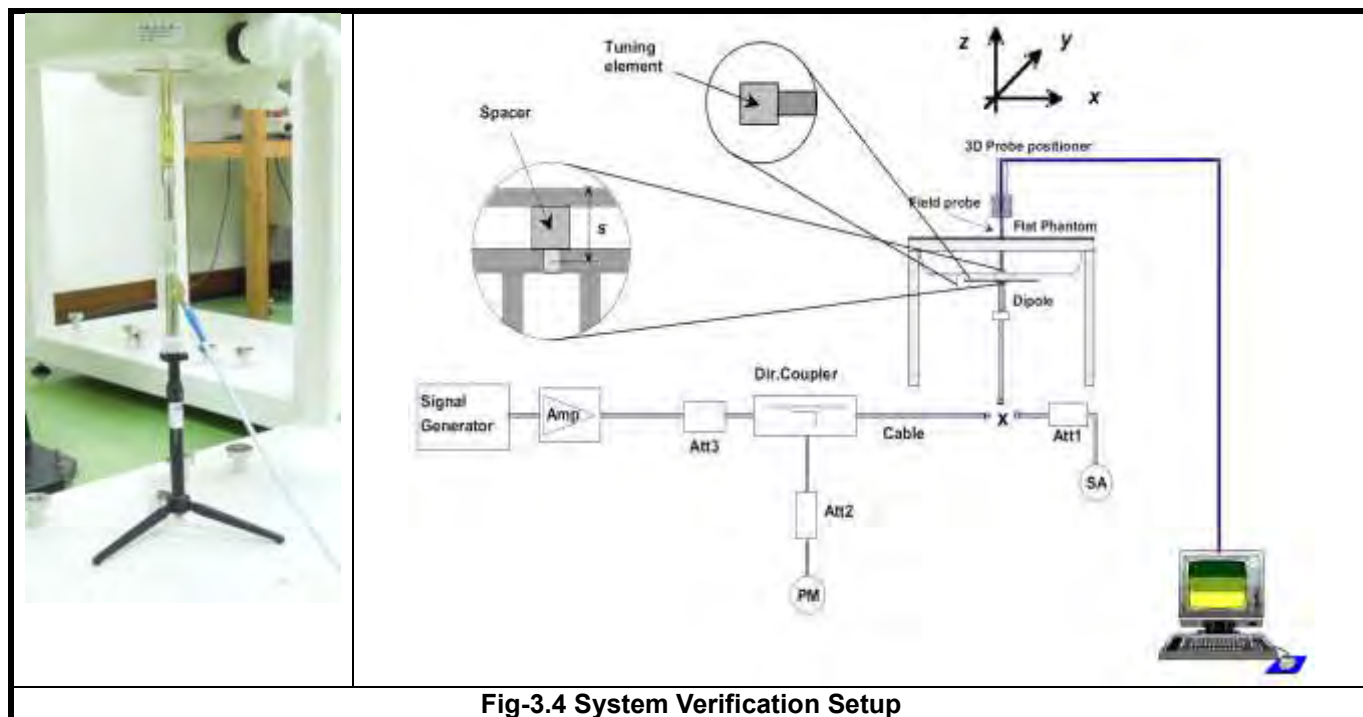
The following table gives the recipes for tissue simulating liquids.

**Table-3.2 Recipes of Tissue Simulating Liquid**

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
H750	0.2	-	0.2	1.5	56.0	-	42.1	-
H835	0.2	-	0.2	1.5	57.0	-	41.1	-
H900	0.2	-	0.2	1.4	58.0	-	40.2	-
H1450	-	43.3	-	0.6	-	-	56.1	-
H1640	-	45.8	-	0.5	-	-	53.7	-
H1750	-	47.0	-	0.4	-	-	52.6	-
H1800	-	44.5	-	0.3	-	-	55.2	-
H1900	-	44.5	-	0.2	-	-	55.3	-
H2000	-	44.5	-	0.1	-	-	55.4	-
H2300	-	44.9	-	0.1	-	-	55.0	-
H2450	-	45.0	-	0.1	-	-	54.9	-
H2600	-	45.1	-	0.1	-	-	54.8	-
H3500	-	28.0	-	0.2	-	20.0	71.8	-
H5G	-	-	-	-	-	17.2	65.5	17.3

### 3.3 SAR System Verification

The system check verifies that the system operates within its specifications. It is performed daily or before every SAR measurement. The system check uses normal SAR measurements in the flat section of the phantom with a matched dipole at a specified distance. The system verification setup is shown as below.



**Fig-3.4 System Verification Setup**

The validation dipole is placed beneath the flat phantom with the specific spacer in place. The distance spacer is touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The spectrum analyzer measures the forward power at the location of the system check dipole connector. The signal generator is adjusted for the desired forward power (250 mW is used for 700 MHz to 3 GHz, 100 mW is used for 3.5 GHz to 6 GHz) at the dipole connector and the power meter is read at that level. After connecting the cable to the dipole, the signal generator is readjusted for the same reading at power meter.

After system check testing, the SAR result will be normalized to 1W forward input power and compared with the reference SAR value derived from validation dipole certificate report. The deviation of system check should be within 10 %.



### 3.4 SAR Measurement Procedure

According to the SAR 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

The SAR measurement procedures for each of test conditions are as follows:

- (a) Make EUT to transmit maximum output power
- (b) Measure conducted output power through RF cable
- (c) Place the EUT in the specific position of phantom
- (d) Perform SAR testing steps on the DASY system
- (e) Record the SAR value

#### 3.4.1 Area & Zoom Scan Procedure

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution over 10 g. According to KDB 865664 D01, the resolution for Area and Zoom scan is specified in the table below.

Items	<= 2 GHz	2-3 GHz	3-4 GHz	4-5 GHz	5-6 GHz
Area Scan ( $\Delta x, \Delta y$ )	<= 15 mm	<= 12 mm	<= 12 mm	<= 10 mm	<= 10 mm
Zoom Scan ( $\Delta x, \Delta y$ )	<= 8 mm	<= 5 mm	<= 5 mm	<= 4 mm	<= 4 mm
Zoom Scan ( $\Delta z$ )	<= 5 mm	<= 5 mm	<= 4 mm	<= 3 mm	<= 2 mm
Zoom Scan Volume	>= 30 mm	>= 30 mm	>= 28 mm	>= 25 mm	>= 22 mm

**Note:**

When zoom scan is required and report SAR is <= 1.4 W/kg, the zoom scan resolution of  $\Delta x / \Delta y$  (2-3GHz: <= 8 mm, 3-4GHz: <= 7 mm, 4-6GHz: <= 5 mm) may be applied.

#### 3.4.2 Volume Scan Procedure

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.





### 3.4.3 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 drift more than 5%, the SAR will be retested.

### 3.4.4 Spatial Peak SAR Evaluation

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

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

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

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

### 3.4.5 SAR Averaged Methods

In DASY, the interpolation and extrapolation are both based on the modified Quadratic Shepard's method. The interpolation scheme combines a least-square fitted function method and a weighted average method which are the two basic types of computational interpolation and approximation.

Extrapolation routines are used to obtain SAR values between the lowest measurement points and the inner phantom surface. The extrapolation distance is determined by the surface detection distance and the probe sensor offset. The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5 mm.



## 4. SAR Measurement Evaluation

### 4.1 EUT Configuration and Setting

#### <Connections between EUT and System Simulator>

For WWAN SAR testing, the EUT was linked and controlled by base station emulator (Agilent E5515C is used for GSM/WCDMA/CDMA, and Anritsu MT8820C is used for LTE). Communication between the EUT and the emulator was established by air link. The distance between the EUT and the communicating antenna of the emulator is larger than 50 cm and the output power radiated from the emulator antenna is at least 30 dB smaller than the output power of EUT. The EUT was set from the emulator to radiate maximum output power during SAR testing.

#### <Considerations Related to GSM / GPRS / EDGE for Setup and Testing>

The maximum multi-slot capability supported by this device is as below.

1. This EUT is class B device
2. This EUT supports GPRS multi-slot class 33 (max. uplink: 4, max. downlink: 5, total timeslots: 6)
3. This EUT supports EDGE multi-slot class 33 (max. uplink: 4, max. downlink: 5, total timeslots: 6)

For GSM850 frequency band, the power control level is set to 5 for GSM mode and GPRS (GMSK: CS1), and set to 8 for EDGE (GMSK: MCS1, 8PSK: MCS9). For GSM1900 frequency band, the power control level is set to 0 for GSM mode and GPRS (GMSK: CS1), and set to 2 for EDGE (GMSK: MCS1, 8PSK: MCS9).

SAR test reduction for GPRS and EDGE modes is determined by the source-based time-averaged output power specified for production units, including tune-up tolerance. The data mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.

The frame-averaged power is linearly proportion to the slot number configured and it is linearly scaled the maximum burst-averaged power based on time slots. The calculated method is shown as below:

Frame-averaged power = 10 x log (Burst-averaged power mW x Slot used / 8)

#### <Considerations Related to WCDMA for Setup and Testing>

##### WCDMA Handsets Head SAR

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode.

##### WCDMA Handsets Body-worn SAR

SAR for body-worn configurations is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to other spreading codes and multiple DPDCH<sub>n</sub> configurations supported by the handset with 12.2 kbps RMC as the primary mode.

##### Handsets with Release 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body-worn configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSDPA using the HSDPA body SAR procedures in the "Release 5 HSDPA Data Devices", for the highest reported SAR body-worn exposure configuration in 12.2 kbps RMC. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.



### Handsets with Release 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body-worn configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for HSPA using the HSPA body SAR procedures in the “Release 6 HSPA Data Devices”, for the highest reported body-worn exposure SAR configuration in 12.2 kbps RMC. When VOIP is applicable for next to the ear head exposure in HSPA, the 3G SAR test reduction procedure is applied to HSPA with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body-worn measurements is tested for next to the ear head exposure.

### Release 5 HSDPA Data Devices

The 3G SAR test reduction procedure is applied to body SAR with 12.2 kbps RMC as the primary mode. Otherwise, body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, for the highest reported SAR configuration in 12.2 kbps RMC without HSDPA. HSDPA is configured according to the applicable UE category of a test device. The number of HS-DSCH / HS-PDSCHs, HARQ processes, minimum inter-TTI interval, transport block sizes and RV coding sequence are defined by the H-set. To maintain a consistent test configuration and stable transmission conditions, QPSK is used in the H-set for SAR testing. HS-DPCCH should be configured with a CQI feedback cycle of 4 ms and a CQI repetition factor of 2 to maintain a constant rate of active CQI slots. DPCCH and DPDCH gain factors ( $\beta_c$ ,  $\beta_d$ ), and HS-DPCCH power offset parameters ( $\Delta_{ACK}$ ,  $\Delta_{NACK}$ ,  $\Delta_{CQI}$ ) are set according to values indicated in below. The CQI value is determined by the UE category, transport block size, number of HS-PDSCHs and modulation used in the H-set.

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c / \beta_d$	$\beta_{hs}^{(1)}$	CM (dB) <sup>(2)</sup>	MPR
1	2 / 15	15 / 15	64	2 / 15	4 / 15	0.0	0
2	12 / 15 <sup>(3)</sup>	15 / 15 <sup>(3)</sup>	64	12 / 15 <sup>(3)</sup>	24 / 15	1.0	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:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs} / \beta_c = 30 / 15 \Leftrightarrow \beta_{hs} = 30 / 15 * \beta_c$   
 Note 2: CM = 1 for  $\beta_c / \beta_d = 12 / 15$ ,  $\beta_{hs} / \beta_c = 24 / 15$ .  
 Note 3: For subtest 2 the  $\beta_c / \beta_d$  ratio of 12 / 15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 11 / 15$  and  $\beta_d = 15 / 15$ .

### Release 6 HSUPA Data Devices

The 3G SAR test reduction procedure is applied to body SAR with 12.2 kbps RMC as the primary mode. Otherwise, body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA. When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode. Otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing. Due to inner loop power control requirements in HSPA, a communication test set is required for output power and SAR tests. The 12.2 kbps RMC, FRC H-set 1 and E-DCH configurations for HSPA are configured according to the  $\beta$  values indicated in below.



Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c / \beta_d$	$\beta_{hs}^{(1)}$	$\beta_{cc}$	$\beta_{ed}$	$\beta_{ed}$ (SF)	$\beta_{ed}$ (codes)	CM <sup>(2)</sup> (dB)	MPR (dB)	AG <sup>(4)</sup> Index	E-TFCI
1	11 / 15 <sup>(3)</sup>	15 / 15 <sup>(3)</sup>	64	11 / 15 <sup>(3)</sup>	22 / 15	209 / 225	1039 / 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	$\beta_{ed1}: 47/15$ $\beta_{ed2}: 47/15$	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 <sup>(4)</sup>	15 / 15 <sup>(4)</sup>	64	15 / 15 <sup>(4)</sup>	30 / 15	24 / 15	134 / 15	4	1	1.0	0.0	21	81

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 8 \Leftrightarrow A_{HS} = \beta_{hs} / \beta_c = 30 / 15 \Leftrightarrow \beta_{hs} = 30 / 15 * \beta_c$ .  
 Note 2: CM = 1 for  $\beta_c / \beta_d = 12 / 15$ ,  $\beta_{hs} / \beta_c = 24 / 15$ . 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  $\beta_c / \beta_d$  ratio of 11 / 15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 10 / 15$  and  $\beta_d = 15 / 15$ .  
 Note 4: For subtest 5 the  $\beta_c / \beta_d$  ratio of 15 / 15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 14 / 15$  and  $\beta_d = 15 / 15$ .  
 Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g.  
 Note 6:  $\beta_{ed}$  cannot be set directly; it is set by Absolute Grant Value.

### HSPA+ SAR Guidance

The 3G SAR test reduction procedure is applied to HSPA+ (uplink) with 12.2 kbps RMC as the primary mode. Otherwise, when SAR is required for Rel. 6 HSPA, SAR is required for Rel. 7 HSPA+. Power is measured for HSPA+ that supports uplink 16QAM according to configurations in Table C.11.1.4 of 3GPP TS 34.121-1 to determine SAR test reduction.

### DC-HSDPA SAR Guidance

The 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Otherwise, when SAR is required for Rel. 5 HSDPA, SAR is required for Rel. 8 DC-HSDPA. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

### <Considerations Related to LTE for Setup and Testing>

This device contains LTE transmitter which follows 3GPP standards, supports QPSK 16QAM and 64QAM modulations, and supported LTE band and channel bandwidth is listed in below. The output power was tested per 3GPP TS 36.521-1 maximum transmit procedures for QPSK 16QAM and 64QAM modulation. The results please refer to section 4.5 of this report.

EUT Supported LTE Band and Channel Bandwidth						
LTE Band	BW 1.4 MHz	BW 3 MHz	BW 5 MHz	BW 10 MHz	BW 15 MHz	BW 20 MHz
2	V	V	V	V	V	V
4	V	V	V	V	V	V
5	V	V	V	V		
7			V	V	V	V
12	V	V	V	V		
13			V	V		
14			V	V		
17			V	V		
25	V	V	V	V	V	V
26	V	V	V	V	V	
30			V	V		
38			V	V	V	V
41			V	V	V	V

42			V	V	V	V
43			V	V	V	V
48			V	V	V	V
66	V	V	V	V	V	V
71			V	V	V	V

The LTE maximum power reduction (MPR) in accordance with 3GPP TS 36.101 is active all times during LTE operation. The allowed MPR for the maximum output power is specified in below.

**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3**

Modulation	Channel bandwidth / Transmission bandwidth ( $N_{RB}$ )						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	$\leq 1$
16 QAM	$\leq 5$	$\leq 4$	$\leq 8$	$\leq 12$	$\leq 16$	$\leq 18$	$\leq 1$
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	$\leq 2$
64 QAM	$\leq 5$	$\leq 4$	$\leq 8$	$\leq 12$	$\leq 16$	$\leq 18$	$\leq 2$
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	$\leq 3$

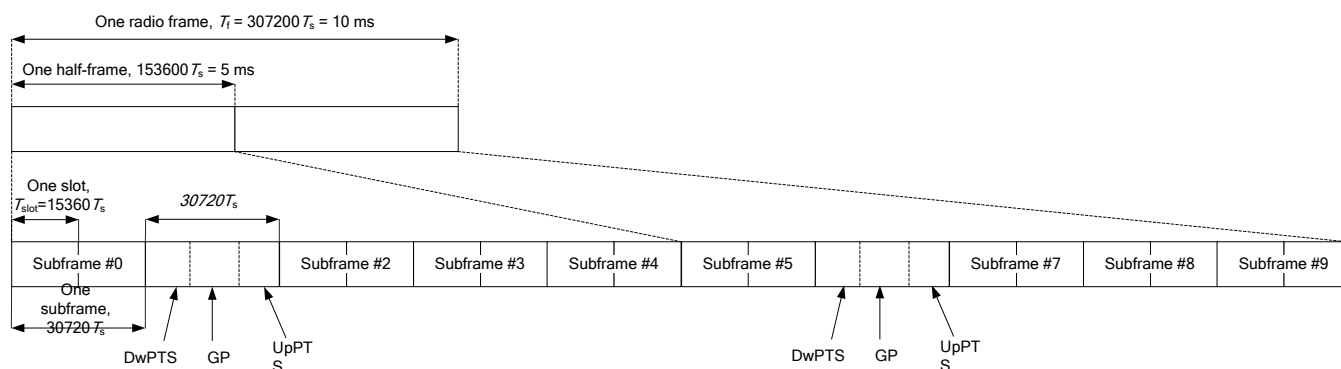
**Note:** MPR is according to the standard and implemented in the circuit (mandatory).

In addition, the device is compliant with additional maximum power reduction (A-MPR) requirements defined in 3GPP TS 36.101 section 6.2.4 that was disabled for all FCC compliance testing.

During LTE SAR testing, the related parameters of operating band, channel bandwidth, uplink channel number, modulation type, and RB was set in base station simulator. When the EUT has registered and communicated to base station simulator, the simulator set to make EUT transmitting the maximum radiated power.

**TDD-LTE Setup Configurations**

According to KDB 941225 D05, SAR testing for TDD-LTE device must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP TDD-LTE configurations. The TDD-LTE of this device supports frame structure type 2 defined in 3GPP TS 36.211 section 4.2, and the frame structure configuration can be referred to below.



**3GPP TS 36.211 Figure 4.2-1: Frame Structure Type 2**



Special Subframe Configuration	Normal Cyclic Prefix in Downlink			Extended Cyclic Prefix in Downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal Cyclic Prefix in Uplink	Extended Cyclic Prefix in Uplink		Normal Cyclic Prefix in Uplink	Extended Cyclic Prefix in Uplink
0	6592 • Ts	2192 • Ts	2560 • Ts	7680 • Ts	2192 • Ts	2560 • Ts
1	19760 • Ts			20480 • Ts		
2	21952 • Ts			23040 • Ts		
3	24144 • Ts			25600 • Ts		
4	26336 • Ts	4384 • Ts	5120 • Ts	7680 • Ts	4384 • Ts	5120 • Ts
5	6592 • Ts			20480 • Ts		
6	19760 • Ts			23040 • Ts		
7	21952 • Ts			12800 • Ts		
8	24144 • Ts			-		
9	13168 • Ts			-		

3GPP TS 36.211 Table 4.2-1: Configuration of Special Subframe

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-Point Periodicity	Subframe Number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

3GPP TS 36.211 Table 4.2-2: Uplink-Downlink Configurations

The variety of different TD-LTE uplink-downlink configurations allows a network operator to allocate the network's capacity between uplink and downlink traffic to meet the needs of the network. The uplink duty cycle of these seven configurations can readily be computed and shown in below.

UL-DL Configuration	0	1	2	3	4	5	6
Highest Duty-Cycle	63.33%	43.33%	23.33%	31.67%	21.67%	11.67%	53.33%

### LTE Downlink Carrier Aggregation (CA) Setup Configurations

1. LTE Carrier Aggregation (CA) was defined in 3GPP release 10 and higher. The LTE device in CA mode has one Primary Component Carrier (PCC) and one or more Secondary Component Carriers (SCC). PCC acts as the anchor carrier and can optionally cross-schedule data transmission on SCC. The RRC connection is only handled by one cell, the PCC for downlink and uplink communications. After making a data connection to the PCC, the LTE device adds the SCC on the downlink only. All uplink communications and acknowledgements remain identical to release 8 specifications on the PCC. The combinations of downlink carrier aggregation supported by this device are listed in below.
2. Uplink maximum output power with downlink carrier aggregation active does not show more than 1/4 dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.

### EUT Supported Combinations of Downlink Carrier Aggregation 2CC Downlink Carrier Aggregation





**CA\_7C**

**LTE Uplink Carrier Aggregation (CA) Setup Configurations**

1. The conducted power for uplink CA active was measured on the highest reported SAR configuration for each exposure condition with both two carrier components was set to largest channel bandwidth.
2. The SAR testing was performed with the single carrier (uplink CA is inactive) for all test positions for each exposure condition. The LTE uplink CA active was verified with maximum output power on the highest SAR configuration of single carrier for each exposure condition. For intra-band contiguous CA, the SCC channel was set to closest available contiguous channel.

<b>EUT Supported Combinations of Uplink Carrier Aggregation</b>
<b>Intra-Band 2CC Uplink CA Operating Bands</b>
<b>CA_7C, CA_38C, CA_41C, CA_42C, CA_48C</b>

**<Considerations Related to 5G NR for Setup and Testing>**

1. The 5G NR supports both SA and NSA modes. The details are as follows

Mode	Band	Duplex	SCS(KHz)	BW(M)
<b>SA</b>	5G NR n2	FDD	15	5, 10, 15, 20
	5G NR n5	FDD	15	5, 10, 15, 20
	5G NR n7	FDD	15	5, 10, 15, 20
	5G NR n12	FDD	15	5, 10, 15
	5G NR n25	FDD	15	5, 10, 15, 20, 25, 30, 40
	5G NR n30	FDD	15	5, 10
	5G NR n38	TDD	30	20, 30, 40
	5G NR n41	TDD	30	20, 30, 40, 50, 60, 80, 90, 100
	5G NR n48	TDD	30	10, 20, 40
	5G NR n66	FDD	15	5, 10, 15, 20, 30, 40
	5G NR n71	FDD	15	5, 10, 15
	5G NR n77	TDD	30	20, 30, 40, 50, 60, 80, 100
	5G NR n78	TDD	30	20, 30, 40, 50, 60, 80, 90, 100
<b>NSA</b>	5G NR n2	FDD	15	5, 10, 15, 20
	5G NR n5	FDD	15	5, 10, 15, 20
	5G NR n7	FDD	15	5, 10, 15, 20
	5G NR n12	FDD	15	5, 10, 15
	5G NR n25	FDD	15	5, 10, 15, 20, 25, 30, 40
	5G NR n38	TDD	30	20, 30, 40
	5G NR n41	TDD	30	20, 30, 40, 50, 60, 80, 90, 100
	5G NR n48	TDD	30	10, 20, 40
	5G NR n66	FDD	15	5, 10, 15, 20, 30, 40
	5G NR n71	FDD	15	5, 10, 15
	5G NR n77	TDD	30	20, 30, 40, 50, 60, 80, 100
	5G NR n78	TDD	30	20, 30, 40, 50, 60, 80, 90, 100



2. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
  - (1) For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg, CP-OFDM testing is not required.
  - (2) For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
  - (3) SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offset at the upper edge, middle and lower edge of each required test channel.
  - (4) 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
  - (5) 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% RB and 1RB allocations and the highest reported SAR for 1RB 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) Pi/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, Pi/2 BPSK/16QAM/64QAM/256QAM SAR testing are not required.
  - (7) Smaller bandwidth output power for each RB allocation configuration for this device will 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, smaller bandwidth SAR testing is not required for this device.

**Table 6.2.2.3-1: Maximum power reduction (MPR) for power class 3**

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5 <sup>1</sup>	≤ 1.2 <sup>1</sup>	≤ 0.2 <sup>1</sup>
		≤ 0.5 <sup>2</sup>		0 <sup>2</sup>
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		
NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability <i>powerBoosting-pi2BPSK</i> and if the IE <i>powerBoostPi2BPSK</i> is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0dB MPR is 26dBm. NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 and if the IE <i>powerBoostPi2BPSK</i> is set to 0 and if more than 40% of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.				

3. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level. So SA SAR can represent NSA mode SAR.



4. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
5. Due to test setup limitations, SAR testing for NR was performed using Factory Test Mode software to establish the connection.

#### <Considerations Related to WLAN for Setup and Testing>

In general, various vendor specific external test software and chipset based internal test modes are typically used for SAR measurement. These chipset based test mode utilities are generally hardware and manufacturer dependent, and often include substantial flexibility to reconfigure or reprogram a device. A Wi-Fi device must be configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools for SAR measurement. The test frequencies established using test mode must correspond to the actual channel frequencies. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. In addition, a periodic transmission duty factor is required for current generation SAR systems to measure SAR correctly. The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

According to KDB 248227 D01, this device has installed WLAN engineering testing software which can provide continuous transmitting RF signal. During WLAN SAR testing, this device was operated to transmit continuously at the maximum transmission duty with specified transmission mode, operating frequency, lowest data rate, and maximum output power.

#### Initial Test Configuration

An initial test configuration is determined for OFDM transmission modes in 2.4 GHz and 5 GHz bands according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band. 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 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band.

#### Subsequent Test Configuration

SAR measurement requirements for the remaining 802.11 transmission mode configurations that have not been tested in the initial test configuration are determined separately for each standalone and aggregated frequency band, in each exposure condition, according to the maximum output power specified for production units. Additional power measurements may be required to determine if SAR measurements are required for subsequent highest output power channels in a subsequent test configuration. When the highest reported SAR for the initial test configuration according to the initial test position or fixed exposure position requirements, is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg, SAR is not required for that subsequent test configuration.

#### SAR Test Configuration and Channel Selection

When multiple channel bandwidth configurations in a frequency band have the same specified maximum output



power, the initial test configuration is using largest channel bandwidth, lowest order modulation, lowest data rate, and lowest order 802.11 mode (i.e., 802.11a is chosen over 802.11n then 802.11ac or 802.11g is chosen over 802.11n). After an initial test configuration is determined, if multiple test channels have the same measured maximum output power, the channel chosen for SAR measurement is determined according to the following.

- 1) The channel closest to mid-band frequency is selected for SAR measurement.
- 2) For channels with equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.

### Test Reduction for U-NII-1 (5.2 GHz) and U-NII-2A (5.3 GHz) Bands

For devices that operate in both U-NII bands using the same transmitter and antenna(s), SAR test reduction is determined according to the following.

- 1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is  $\leq 1.2$  W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition).
- 2) When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is  $\leq 1.2$  W/kg, SAR is not required for the band with lower maximum output power in that test configuration.

### <Considerations Related to Bluetooth for Setup and Testing>

This device has installed Bluetooth engineering testing software which can provide continuous transmitting RF signal. During Bluetooth SAR testing, this device was operated to transmit continuously at the maximum transmission duty with specified transmission mode, operating frequency, lowest data rate, and maximum output power.

### <Duty Cycle of BT Test Signal>

**BT\_GFSK:** Duty cycle =  $2.87 / 3.75 = 0.7653$

**BLE\_S8:** Duty cycle =  $3.09 / 3.75 = 0.824$



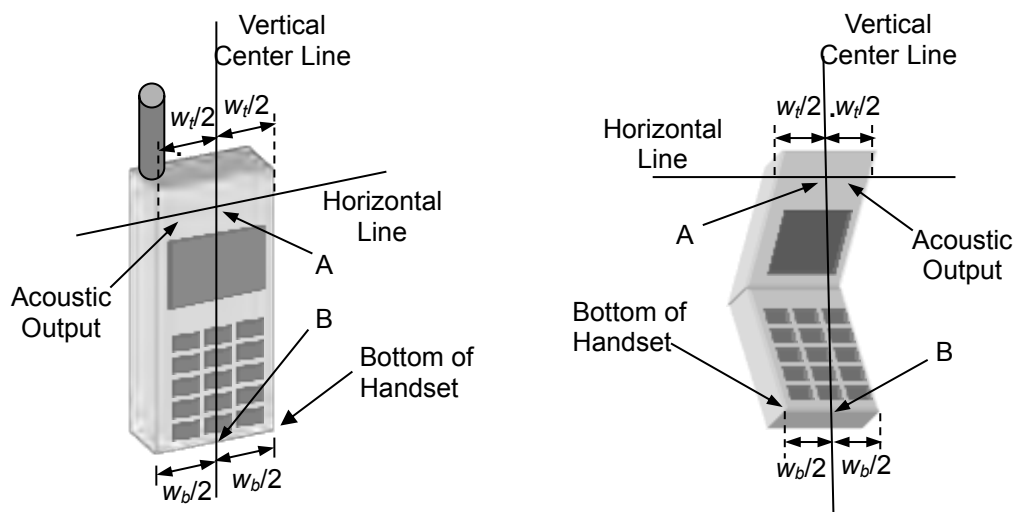
## 4.2 EUT Testing Position

According to KDB 648474 D04, handsets are tested for SAR compliance in head, body-worn accessory and other use configurations described in the following subsections.

#### 4.2.1 Head Exposure Conditions

Head exposure is limited to next to the ear voice mode operations. Head SAR compliance is tested according to the test positions defined in IEEE 1528:2013 using the SAM phantom illustrated as below.

1. Define two imaginary lines on the handset
  - (a) The vertical centerline passes through two points on the front side of the handset - the midpoint of the width  $w_t$  of the handset at the level of the acoustic output, and the midpoint of the width  $w_b$  of the bottom of the handset.
  - (b) The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output. The horizontal line is also tangential to the face of the handset at point A.
  - (c) The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset, especially for clamshell handsets, handsets with flip covers, and other irregularly shaped handsets.



**Fig-4.1 Illustration for Handset Vertical and Horizontal Reference Lines**

#### 2. Cheek Position

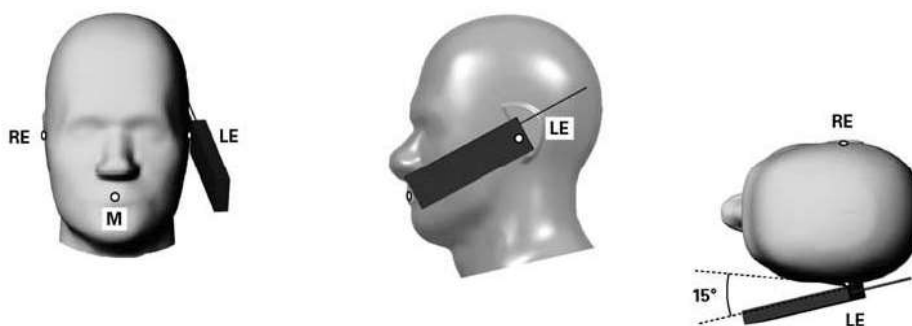
- (a) To position the device with the vertical center line of the body of the device and the horizontal line crossing the center piece in a plane parallel to the sagittal plane of the phantom. While maintaining the device in this plane, align the vertical center line with the reference plane containing the three ear and mouth reference point (M: Mouth, RE: Right Ear, and LE: Left Ear) and align the center of the ear piece with the line RE-LE.
- (b) To move the device towards the phantom with the ear piece aligned with the line LE-RE until the phone touched the ear. While maintaining the device in the reference plane and maintaining the phone contact with the ear, move the bottom of the phone until any point on the front side is in contact with the cheek of the phantom or until contact with the ear is lost (see Fig-4.2).



**Fig-4.2 Illustration for Cheek Position**

**3. Tilted Position**

- (a) To position the device in the “cheek” position described above.
- (b) While maintaining the device the reference plane described above and pivoting against the ear, moves it outward away from the mouth by an angle of 15 degrees or until contact with the ear is lost (see Fig-4.3).



**Fig-4.3 Illustration for Tilted Position**



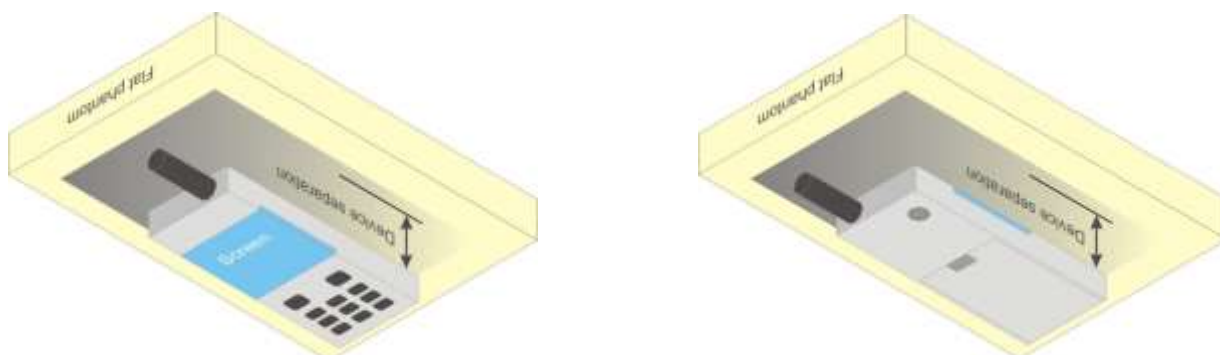
#### 4.2.2 Body-worn Accessory Exposure Conditions

Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in KDB 447498 D01 are used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is  $> 1.2$  W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

Body-worn accessories that do not contain metallic or conductive components may be tested according to worst-case exposure configurations, typically according to the smallest test separation distance required for the group of body-worn accessories with similar operating and exposure characteristics. All body-worn accessories containing metallic components are tested in conjunction with the host device.

Body-worn accessory SAR compliance is based on a single minimum test separation distance for all wireless and operating modes applicable to each body-worn accessory used by the host, and according to the relevant voice and/or data mode transmissions and operations. If a body-worn accessory supports voice only operations in its normal and expected use conditions, testing of data mode for body-worn compliance is not required.

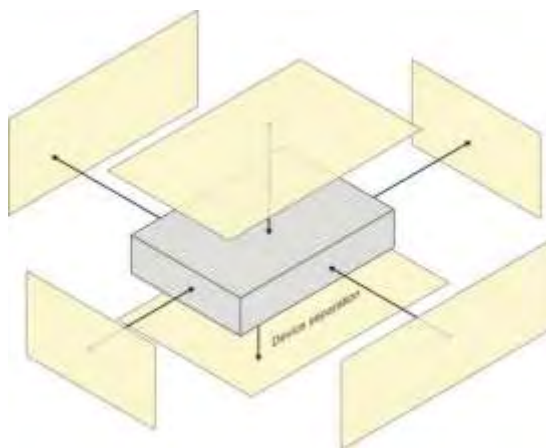
A conservative minimum test separation distance for supporting off-the-shelf body-worn accessories that may be acquired by users of consumer handsets is used to test for body-worn accessory SAR compliance. This distance is determined by the handset manufacturer, according to the requirements of Supplement C 01-01. Devices that are designed to operate on the body of users using lanyards and straps, or without requiring additional body-worn accessories, will be tested using a conservative minimum test separation distance  $\leq 5$  mm to support compliance.



**Fig-4.4 Illustration for Body Worn Position**

### 4.2.3 Hotspot Mode Exposure Conditions

For handsets that support hotspot mode operations, with wireless router capabilities and various web browsing functions, the relevant hand and body exposure conditions are tested according to the hotspot SAR procedures in KDB 941225 D06. A test separation distance of 10 mm is required between the phantom and all surfaces and edges with a transmitting antenna located within 25 mm from that surface or edge. When the form factor of a handset is smaller than 9 cm x 5 cm, a test separation distance of 5 mm (instead of 10 mm) is required for testing hotspot mode. When the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, in the same wireless mode and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface).



Based on the antenna location shown on appendix D of this report, the SAR testing required for hotspot mode is listed as below.

Antenna	Front Face	Rear Face	Left Side	Right Side	Top Side	Bottom Side
WWAN Ant 1	V	V	V			V
WWAN Ant 2	V	V	V	V		V
WWAN Ant 3	V	V		V	V	
WWAN Ant 4	V	V		V		V
WWAN Ant 5	V	V	V		V	
WWAN Ant 6	V	V	V		V	
WWAN Ant 7	V	V	V		V	
WLAN/BT Ant 8	V	V		V	V	
WLAN Ant 9	V	V		V	V	





#### 4.2.4 Extremity Exposure Conditions

For smart phones with a display diagonal dimension > 15 cm or an overall diagonal dimension > 16 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance.

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at <= 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g SAR > 1.2 W/kg. The normal tablet procedures in KDB 616217 are required when the over diagonal dimension of the device is > 20 cm. Hotspot mode SAR is not required when normal tablet procedures are applied. Extremity 10-g SAR is also not required for the front (top) surface of large form factor full size tablets. The more conservative tablet SAR results can be used to support the 10-g extremity SAR for phablet mode.
3. The simultaneous transmission operating configurations applicable to voice and data transmissions for both phone and mini-tablet modes must be taken into consideration separately for 1-g and 10-g SAR to determine the simultaneous transmission SAR test exclusion and measurement requirements for the relevant wireless modes and exposure conditions.

#### 4.2.5 SAR Text Exclusion Evaluations

**For NFC:**

1. Maximum output power = 1500 mW
2. Duty Cycle = 99%
3. Length of each event = 0.5 second
4. Events per observation period = 2 times
5. Observation period = 360 seconds

Based on the above data, calculated the time-averaged power:  $(1500 \times 0.99 \times 0.5 \times 2) / 360 = 4.125$  mW.

According to KDB 447498 D04 and 2022 TCB workshop, the SAR test exclusion condition is based on source-based time-averaged maximum conducted output power, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The SAR exclusion threshold is determined by the following.

Mode	Max. Tune-up Power (mW)	Ant. to Surface (mm)	Exemption limit (mW)	Require SAR Testing?
NFC (13.56MHz)	4.125	5	442	No



### 4.3 Tissue Verification

The measuring results for tissue simulating liquid are shown as below.

Test Date	Tissue Type	Frequency (MHz)	Liquid Temp. (°C)	Measured Conductivity ( $\sigma$ )	Measured Permittivity ( $\epsilon_r$ )	Target Conductivity ( $\sigma$ )	Target Permittivity ( $\epsilon_r$ )	Conductivity Deviation (%)	Permittivity Deviation (%)
Nov. 27, 2022	Head	750	22.6	0.896	40.267	0.89	41.90	0.67	-3.90
Dec. 04, 2022	Head	750	22.4	0.882	42.658	0.89	41.90	-0.90	1.81
Dec. 15, 2022	Head	750	22.7	0.888	40.092	0.89	41.90	-0.22	-4.32
Nov. 28, 2022	Head	835	22.6	0.894	41.663	0.90	41.50	-0.67	0.39
Dec. 05, 2022	Head	835	22.7	0.914	42.093	0.90	41.50	1.56	1.43
Dec. 16, 2022	Head	835	22.5	0.922	43.154	0.90	41.50	2.44	3.99
Nov. 29, 2022	Head	1750	22.4	1.348	41.854	1.37	40.10	-1.61	4.37
Dec. 06, 2022	Head	1750	22.3	1.328	39.635	1.37	40.10	-3.07	-1.16
Jan. 08, 2023	Head	1750	22.6	1.413	41.340	1.37	40.10	3.14	3.09
Dec. 07, 2022	Head	1900	22.6	1.416	39.544	1.40	40.00	1.14	-1.14
Jan. 03, 2023	Head	1900	22.5	1.442	40.609	1.40	40.00	3.00	1.52
Jan. 09, 2023	Head	1900	22.5	1.401	39.322	1.40	40.00	0.07	-1.69
Dec. 08, 2022	Head	2300	22.2	1.676	39.633	1.67	39.50	0.36	0.34
Dec. 17, 2022	Head	2300	22.2	1.670	38.754	1.67	39.50	0.00	-1.89
Jan. 04, 2023	Head	2300	22.1	1.647	40.583	1.67	39.50	-1.38	2.74
Nov. 30, 2022	Head	2450	22.2	1.843	38.054	1.80	39.20	2.39	-2.92
Dec. 08, 2022	Head	2450	22.5	1.788	39.575	1.80	39.20	-0.67	0.96
Dec. 18, 2022	Head	2450	22.1	1.823	37.591	1.80	39.20	1.28	-4.10
Dec. 09, 2022	Head	2600	22.6	1.896	39.209	1.96	39.00	-3.27	0.54
Jan. 05, 2023	Head	2600	22.4	1.955	38.732	1.96	39.00	-0.26	-0.69
Jan. 07, 2023	Head	2600	22.8	1.984	37.444	1.96	39.00	1.22	-3.99
Jan. 09, 2023	Head	2600	22.3	2.054	37.977	1.96	39.00	4.80	-2.62
Jan. 10, 2023	Head	2600	22.5	2.056	37.575	1.96	39.00	4.90	-3.65
Dec. 10, 2022	Head	3500	22.2	3.012	39.721	2.91	37.90	3.51	4.80
Dec. 19, 2022	Head	3500	22.3	3.013	39.686	2.91	37.90	3.54	4.71
Jan. 06, 2023	Head	3500	22.6	3.014	39.693	2.91	37.90	3.57	4.73
Jan. 11, 2023	Head	3500	22.1	3.022	39.770	2.91	37.90	3.85	4.93
Jan. 12, 2023	Head	3500	22.5	3.022	39.756	2.91	37.90	3.85	4.90
Dec. 10, 2022	Head	3700	22.5	3.004	39.288	3.12	37.70	-3.72	4.21
Dec. 19, 2022	Head	3700	22.5	3.005	39.297	3.12	37.70	-3.69	4.24
Jan. 06, 2023	Head	3700	22.7	3.004	39.290	3.12	37.70	-3.72	4.22
Jan. 11, 2023	Head	3700	22.6	3.005	39.297	3.12	37.70	-3.69	4.24
Jan. 12, 2023	Head	3700	22.6	3.005	39.292	3.12	37.70	-3.69	4.22
Dec. 10, 2022	Head	3900	22.6	3.207	38.996	3.32	37.50	-3.40	3.99
Dec. 19, 2022	Head	3900	22.3	3.207	39.004	3.32	37.50	-3.40	4.01
Jan. 06, 2023	Head	3900	22.4	3.207	38.998	3.32	37.50	-3.40	3.99
Jan. 11, 2023	Head	3900	22.5	3.207	39.003	3.32	37.50	-3.40	4.01
Jan. 12, 2023	Head	3900	22.3	3.207	38.999	3.32	37.50	-3.40	4.00
Dec. 01, 2022	Head	5250	22.2	4.725	36.522	4.71	35.90	0.32	1.73
Dec. 12, 2022	Head	5250	22.2	4.591	36.753	4.71	35.90	-2.53	2.38
Dec. 20, 2022	Head	5250	22.6	4.703	36.115	4.71	35.90	-0.15	0.60
Dec. 02, 2022	Head	5600	22.6	5.155	35.916	5.07	35.50	1.68	1.17
Dec. 13, 2022	Head	5600	22.1	4.986	36.112	5.07	35.50	-1.66	1.72
Dec. 21, 2022	Head	5600	22.4	5.129	35.495	5.07	35.50	1.16	-0.01
Dec. 03, 2022	Head	5800	22.3	5.387	35.545	5.27	35.30	2.22	0.69
Dec. 14, 2022	Head	5800	22.5	5.206	35.773	5.27	35.30	-1.21	1.34
Dec. 22, 2022	Head	5800	22.2	5.358	35.122	5.27	35.30	1.67	-0.50

**Note:**

The dielectric properties of the tissue simulating liquid must be measured within 24 hours before the SAR testing and within  $\pm 5\%$  of the target values. Liquid temperature during the SAR testing must be within  $\pm 2$  °C.



### 4.4 System Verification

The measuring result for system verification is tabulated as below.

Test Date	Mode	Frequency (MHz)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Nov. 27, 2022	Head	750	8.34	2.17	8.68	4.08	1067	3873	1389
Dec. 04, 2022	Head	750	8.34	2.14	8.56	2.64	1067	3873	1389
Dec. 15, 2022	Head	750	8.34	2.15	8.60	3.12	1067	3873	1389
Nov. 28, 2022	Head	835	9.47	2.42	9.68	2.22	4d139	3873	1389
Dec. 05, 2022	Head	835	9.47	2.51	10.04	6.02	4d139	3873	1389
Dec. 16, 2022	Head	835	9.47	2.54	10.16	7.29	4d139	3873	1389
Nov. 29, 2022	Head	1750	36.60	8.58	34.32	-6.23	1071	3873	1389
Dec. 06, 2022	Head	1750	36.60	8.47	33.88	-7.43	1071	3873	1389
Jan. 08, 2023	Head	1750	36.60	8.61	34.44	-5.90	1071	3873	1389
Dec. 07, 2022	Head	1900	39.70	9.34	37.36	-5.89	5d159	3873	1389
Jan. 03, 2023	Head	1900	39.70	9.52	38.08	-4.08	5d159	3873	1389
Jan. 09, 2023	Head	1900	39.70	9.24	36.96	-6.90	5d159	3873	1389
Dec. 08, 2022	Head	2300	49.10	13.00	52.00	5.91	1053	3873	1389
Dec. 17, 2022	Head	2300	49.10	12.50	50.00	1.83	1053	3873	1389
Jan. 04, 2023	Head	2300	49.10	11.31	45.24	-7.86	1053	3873	1389
Nov. 30, 2022	Head	2450	53.60	12.40	49.60	-7.46	893	3873	1389
Dec. 08, 2022	Head	2450	53.60	13.90	55.60	3.73	893	3873	1389
Dec. 18, 2022	Head	2450	53.60	12.60	50.40	-5.97	893	3873	1389
Dec. 09, 2022	Head	2600	55.80	13.50	54.00	-3.23	1110	3873	1389
Jan. 05, 2023	Head	2600	55.80	13.10	52.40	-6.09	1110	3873	1389
Jan. 07, 2023	Head	2600	55.80	13.40	53.60	-3.94	1110	3873	1389
Jan. 09, 2023	Head	2600	55.80	13.50	54.00	-3.23	1110	3873	1389
Jan. 10, 2023	Head	2600	55.80	13.90	55.60	-0.36	1110	3873	1389
Dec. 10, 2022	Head	3500	65.50	6.49	64.90	-0.92	1111	3873	1389
Dec. 19, 2022	Head	3500	65.50	6.43	64.30	-1.83	1111	3873	1389
Jan. 06, 2023	Head	3500	65.50	6.77	67.70	3.36	1111	3873	1389
Jan. 11, 2023	Head	3500	65.50	6.79	67.90	3.66	1111	3873	1389
Jan. 12, 2023	Head	3500	65.50	6.51	65.10	-0.61	1111	3873	1389
Dec. 10, 2022	Head	3700	66.80	6.71	67.10	0.45	1082	3873	1389
Dec. 19, 2022	Head	3700	66.80	6.27	62.70	-6.14	1082	3873	1389
Jan. 06, 2023	Head	3700	66.80	6.61	66.10	-1.05	1082	3873	1389
Jan. 11, 2023	Head	3700	66.80	6.75	67.50	1.05	1082	3873	1389
Jan. 12, 2023	Head	3700	66.80	6.67	66.70	-0.15	1082	3873	1389
Dec. 10, 2022	Head	3900	67.90	6.32	63.20	-6.92	1055	3873	1389
Dec. 19, 2022	Head	3900	67.90	6.54	65.40	-3.68	1055	3873	1389
Jan. 06, 2023	Head	3900	67.90	6.68	66.80	-1.62	1055	3873	1389
Jan. 11, 2023	Head	3900	67.90	6.72	67.20	-1.03	1055	3873	1389
Jan. 12, 2023	Head	3900	67.90	6.59	65.90	-2.95	1055	3873	1389
Dec. 01, 2022	Head	5250	76.90	7.46	74.60	-2.99	1133	3873	1389
Dec. 12, 2022	Head	5250	76.90	7.42	74.20	-3.51	1133	3873	1389
Dec. 20, 2022	Head	5250	76.90	7.60	76.00	-1.17	1133	3873	1389
Dec. 02, 2022	Head	5600	81.20	7.51	75.10	-7.51	1133	3873	1389
Dec. 13, 2022	Head	5600	81.20	7.59	75.90	-6.53	1133	3873	1389
Dec. 21, 2022	Head	5600	81.20	7.65	76.50	-5.79	1133	3873	1389
Dec. 03, 2022	Head	5800	78.00	7.23	72.30	-7.31	1133	3873	1389
Dec. 14, 2022	Head	5800	78.00	7.20	72.00	-7.69	1133	3873	1389
Dec. 22, 2022	Head	5800	78.00	7.32	73.20	-6.15	1133	3873	1389



Test Date	Mode	Frequency (MHz)	1W Target SAR-10g (W/kg)	Measured SAR-10g (W/kg)	Normalized to 1W SAR-10g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Dec. 20, 2022	Head	5250	22.10	2.17	21.70	-1.81	1133	3873	1389
Dec. 21, 2022	Head	5600	23.10	2.10	21.00	-9.09	1133	3873	1389
Dec. 22, 2022	Head	5800	22.10	2.11	21.10	-4.52	1133	3873	1389

**Note:**

Comparing to the reference SAR value provided by SPEAG, the validation data should be within its specification of 10 %. The result indicates the system check can meet the variation criterion and the plots can be referred to Appendix A of this report.



## **4.5 Maximum Output Power**

### **4.5.1 Maximum Conducted Power**

The maximum conducted average power (Unit: dBm) including tune-up tolerance please refer to Appendix D.

### **4.5.2 Measured Conducted Power Result**

The measuring conducted average power (Unit: dBm) please refer to Appendix D.

## **4.6 SAR Testing Results**

### **4.6.1 SAR Test Reduction Considerations**

#### **<KDB 447498 D04, General RF Exposure Guidance>**

Testing of other required channels within the operating mode of a frequency band is not required when the reported SAR for the mid-band or highest output power channel is:

- (1)  $\leq 0.8$  W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\leq 100$  MHz
- (2)  $\leq 0.6$  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
- (3)  $\leq 0.4$  W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\geq 200$  MHz

#### **<KDB 941225 D01, 3G SAR Measurement Procedures>**

The mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq 1/4$  dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is  $\leq 1.2$  W/kg, SAR measurement is not required for the secondary mode.

#### **<KDB 941225 D05, SAR Evaluation Considerations for LTE Devices>**

- (1) QPSK with 1 RB and 50% RB allocation

Start with the largest channel bandwidth and measure SAR, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is  $\leq 0.8$  W/kg, testing of the remaining RB offset configurations and required test channels is not required; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel. When the reported SAR of a required test channel is  $> 1.45$  W/kg, SAR is required for all three RB offset configurations for that required test channel.

- (2) 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  $\leq 0.8$  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.

- (3) Higher order modulations

SAR is required only when the highest maximum output power for the configuration in the higher order modulation is



> 1/2 dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

(4) Other channel bandwidth

SAR is required when the highest maximum output power of the smaller channel bandwidth is > 1/2 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 W/kg.

**<KDB 941225 D05, SAR Evaluation Considerations for 5G NR Devices>**

- (1) For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not 1/2 dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg, CP-OFDM testing is not required.
- (2) For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not 1/2 dB higher than the same configuration in the largest supported bandwidth.
- (3) SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offset at the upper edge, middle and lower edge of each required test channel.
- (4) 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
- (5) 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% RB and 1RB allocations and the highest reported SAR for 1RB 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) Pi/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not 1/2 dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, Pi/2 BPSK/16QAM/64QAM/256QAM SAR testing are not required.
- (7) Smaller bandwidth output power for each RB allocation configuration for this device will not. 1/2 dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device.





**<KDB 248227 D01, SAR Guidance for Wi-Fi Transmitters>**

- (1) For handsets operating next to ear, hotspot mode or mini-tablet configurations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When the reported SAR of initial test position is  $\leq 0.4$  W/kg, SAR testing for remaining test positions is not required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is  $\leq 0.8$  W/kg or all test positions are measured.
- (2) For WLAN 2.4 GHz, the highest measured maximum output power channel for DSSS was selected for SAR measurement. When the reported SAR is  $\leq 0.8$  W/kg, no further SAR testing is required. Otherwise, SAR is evaluated at the next highest measured output power channel. When any reported SAR is  $> 1.2$  W/kg, SAR is required for the third channel. For OFDM modes (802.11g/n), SAR is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and it is  $\leq 1.2$  W/kg.
- (3) For WLAN 5 GHz, the initial test configuration was selected according to the transmission mode with the highest maximum output power. When the reported SAR of initial test configuration is  $> 0.8$  W/kg, SAR is required for the subsequent highest measured output power channel until the reported SAR result is  $\leq 1.2$  W/kg or all required channels are measured. For other transmission modes, SAR is not required when the highest reported SAR for initial test configuration is adjusted by the ratio of subsequent test configuration to initial test configuration specified maximum output power and it is  $\leq 1.2$  W/kg.
- (4) For WLAN MIMO mode, the power-based standalone SAR test exclusion or the sum of SAR provision in KDB 447498 to determine simultaneous transmission SAR test exclusion should be applied. Otherwise, SAR for MIMO mode will be measured with all applicable antennas transmitting simultaneously at the specified maximum output power of MIMO operation.





4.6.2 SAR Results for Head Exposure Condition

Table with 17 columns: Plot No., Band, Mode, Test Position, Ch., Ant, Power Reduction, RB#, RB Offset, Duty Cycle %, Max. Tune-up Power (dBm), Measured Conducted Power (dBm), Power Drift (dB), Measured SAR-1g (W/kg), Duty Cycle Scaling Factor, Tune-up Scaling Factor, Scaled SAR-1g (W/kg). Rows include various test configurations for GSM850, GSM1900, WCDMA II, WCDMA IV, WCDMA V, LTE 5, and LTE 7.



# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	LTE 7	QPSK20M	Right Tilted	20850	1	Reduced 2	50	50	-	16.5	15.69	-0.06	0.373	1.00	1.21	0.45
	LTE 7	QPSK20M	Left Cheek	20850	1	Reduced 2	50	50	-	16.5	15.69	-0.12	0.211	1.00	1.21	0.25
	LTE 7	QPSK20M	Left Tilted	20850	1	Reduced 2	50	50	-	16.5	15.69	-0.16	0.297	1.00	1.21	0.36
	LTE 7	QPSK20M	Right Tilted	21100	1	Reduced 2	1	99	-	17.5	16.50	0	0.396	1.00	1.26	0.50
	LTE 7	QPSK20M	Right Tilted	21350	1	Reduced 2	1	99	-	17.5	16.52	0.11	0.325	1.00	1.25	0.41
	LTE 7(CA)	QPSK20M	Right Tilted	PCC:20850 SCC:21048	1	Reduced 1	1 0	99 0	-	21.0	20.02	0.11	0.883	1.00	1.25	1.11
	LTE 12	QPSK10M	Right Cheek	23130	2	Full	1	49	-	24.0	22.42	-0.07	0.187	1.00	1.44	0.27
	LTE 12	QPSK10M	Right Tilted	23130	2	Full	1	49	-	24.0	22.42	0.15	0.091	1.00	1.44	0.13
	LTE 12	QPSK10M	Left Cheek	23130	2	Full	1	49	-	24.0	22.42	-0.04	0.162	1.00	1.44	0.23
	LTE 12	QPSK10M	Left Tilted	23130	2	Full	1	49	-	24.0	22.42	-0.01	0.093	1.00	1.44	0.13
	LTE 12	QPSK10M	Right Cheek	23130	2	Full	25	25	-	23.0	21.47	-0.1	0.147	1.00	1.42	0.21
	LTE 12	QPSK10M	Right Tilted	23130	2	Full	25	25	-	23.0	21.47	-0.04	0.074	1.00	1.42	0.10
	LTE 12	QPSK10M	Left Cheek	23130	2	Full	25	25	-	23.0	21.47	0.09	0.138	1.00	1.42	0.20
	LTE 12	QPSK10M	Left Tilted	23130	2	Full	25	25	-	23.0	21.47	0.05	0.080	1.00	1.42	0.11
	LTE 12	QPSK10M	Right Cheek	23060	2	Full	1	49	-	24.0	22.35	-0.06	0.174	1.00	1.46	0.25
P08	LTE 12	QPSK10M	Right Cheek	23095	2	Full	1	49	-	24.0	22.27	0.05	0.187	1.00	1.49	0.28
P09	LTE 13	QPSK10M	Right Cheek	23230	2	Full	1	24	-	24.0	22.65	0.03	0.246	1.00	1.36	0.34
	LTE 13	QPSK10M	Right Tilted	23230	2	Full	1	24	-	24.0	22.65	0.01	0.123	1.00	1.36	0.17
	LTE 13	QPSK10M	Left Cheek	23230	2	Full	1	24	-	24.0	22.65	0.01	0.231	1.00	1.36	0.32
	LTE 13	QPSK10M	Left Tilted	23230	2	Full	1	24	-	24.0	22.65	0.09	0.152	1.00	1.36	0.21
	LTE 13	QPSK10M	Right Cheek	23230	2	Full	25	12	-	23.0	21.79	0.08	0.186	1.00	1.32	0.25
	LTE 13	QPSK10M	Right Tilted	23230	2	Full	25	12	-	23.0	21.79	-0.05	0.096	1.00	1.32	0.13
	LTE 13	QPSK10M	Left Cheek	23230	2	Full	25	12	-	23.0	21.79	-0.11	0.188	1.00	1.32	0.25
	LTE 13	QPSK10M	Left Tilted	23230	2	Full	25	12	-	23.0	21.79	0.13	0.119	1.00	1.32	0.16
P10	LTE 14	QPSK10M	Right Cheek	23330	2	Full	1	24	-	24.0	22.72	-0.01	0.236	1.00	1.34	0.32
	LTE 14	QPSK10M	Right Tilted	23330	2	Full	1	24	-	24.0	22.72	0.13	0.121	1.00	1.34	0.16
	LTE 14	QPSK10M	Left Cheek	23330	2	Full	1	24	-	24.0	22.72	0.03	0.203	1.00	1.34	0.27
	LTE 14	QPSK10M	Left Tilted	23330	2	Full	1	24	-	24.0	22.72	-0.15	0.133	1.00	1.34	0.18
	LTE 14	QPSK10M	Right Cheek	23330	2	Full	25	12	-	23.0	21.84	-0.01	0.180	1.00	1.31	0.24
	LTE 14	QPSK10M	Right Tilted	23330	2	Full	25	12	-	23.0	21.84	-0.05	0.096	1.00	1.31	0.12
	LTE 14	QPSK10M	Left Cheek	23330	2	Full	25	12	-	23.0	21.84	0.01	0.168	1.00	1.31	0.22
	LTE 14	QPSK10M	Left Tilted	23330	2	Full	25	12	-	23.0	21.84	0.02	0.106	1.00	1.31	0.14
P11	LTE 25	QPSK20M	Right Cheek	26140	1	Reduced 1	1	0	-	21.5	20.64	0.03	0.890	1.00	1.22	1.08
	LTE 25	QPSK20M	Right Tilted	26140	1	Reduced 1	1	0	-	21.5	20.64	0.02	0.726	1.00	1.22	0.88
	LTE 25	QPSK20M	Left Cheek	26140	1	Reduced 1	1	0	-	21.5	20.64	0.01	0.545	1.00	1.22	0.66
	LTE 25	QPSK20M	Left Tilted	26140	1	Reduced 1	1	0	-	21.5	20.64	0.08	0.434	1.00	1.22	0.53
	LTE 25	QPSK20M	Right Cheek	26140	1	Reduced 1	50	25	-	20.5	19.75	0.01	0.714	1.00	1.19	0.85
	LTE 25	QPSK20M	Right Tilted	26140	1	Reduced 1	50	25	-	20.5	19.75	-0.01	0.608	1.00	1.19	0.72
	LTE 25	QPSK20M	Left Cheek	26140	1	Reduced 1	50	25	-	20.5	19.75	-0.05	0.445	1.00	1.19	0.53
	LTE 25	QPSK20M	Left Tilted	26140	1	Reduced 1	50	25	-	20.5	19.75	-0.09	0.356	1.00	1.19	0.42
	LTE 25	QPSK20M	Right Cheek	26340	1	Reduced 1	1	0	-	21.5	20.63	0.02	0.854	1.00	1.22	1.04
	LTE 25	QPSK20M	Right Cheek	26590	1	Reduced 1	1	0	-	21.5	20.64	0.04	0.815	1.00	1.22	0.99
	LTE 25	QPSK20M	Right Tilted	26340	1	Reduced 1	1	0	-	21.5	20.63	-0.08	0.644	1.00	1.22	0.79
	LTE 25	QPSK20M	Right Tilted	26590	1	Reduced 1	1	0	-	21.5	20.64	0.05	0.612	1.00	1.22	0.75
	LTE 25	QPSK20M	Right Cheek	26340	1	Reduced 1	50	25	-	20.5	19.73	0.02	0.742	1.00	1.19	0.89
	LTE 25	QPSK20M	Right Cheek	26590	1	Reduced 1	50	25	-	20.5	19.69	0.09	0.692	1.00	1.21	0.83
	LTE 25	QPSK20M	Right Cheek	26140	1	Reduced 1	100	0	-	20.5	19.72	0.01	0.775	1.00	1.20	0.93
	LTE 25	QPSK20M	Right Tilted	26140	1	Reduced 1	100	0	-	20.5	19.72	0.03	0.546	1.00	1.20	0.65
	LTE 25	QPSK20M	Right Cheek	26140	1	Reduced 2	1	0	-	18.5	17.66	-0.08	0.427	1.00	1.21	0.52
	LTE 25	QPSK20M	Right Tilted	26140	1	Reduced 2	1	0	-	18.5	17.66	-0.01	0.346	1.00	1.21	0.42
	LTE 25	QPSK20M	Left Cheek	26140	1	Reduced 2	1	0	-	18.5	17.66	-0.09	0.261	1.00	1.21	0.32
	LTE 25	QPSK20M	Left Tilted	26140	1	Reduced 2	1	0	-	18.5	17.66	0.07	0.208	1.00	1.21	0.25
	LTE 25	QPSK20M	Right Cheek	26140	1	Reduced 2	50	25	-	17.5	16.74	-0.05	0.350	1.00	1.19	0.42
	LTE 25	QPSK20M	Right Tilted	26140	1	Reduced 2	50	25	-	17.5	16.74	0.01	0.288	1.00	1.19	0.34
	LTE 25	QPSK20M	Left Cheek	26140	1	Reduced 2	50	25	-	17.5	16.74	0.05	0.214	1.00	1.19	0.25
	LTE 25	QPSK20M	Left Tilted	26140	1	Reduced 2	50	25	-	17.5	16.74	0.11	0.171	1.00	1.19	0.20
	LTE 25	QPSK20M	Right Cheek	26340	1	Reduced 2	1	0	-	18.5	17.58	0	0.409	1.00	1.24	0.51
	LTE 25	QPSK20M	Right Cheek	26590	1	Reduced 2	1	0	-	18.5	17.63	0.05	0.390	1.00	1.22	0.48
	LTE 26	QPSK15M	Right Cheek	26965	2	Full	1	37	-	24.0	22.48	0.11	0.208	1.00	1.42	0.30
	LTE 26	QPSK15M	Right Tilted	26965	2	Full	1	37	-	24.0	22.48	-0.18	0.114	1.00	1.42	0.16
	LTE 26	QPSK15M	Left Cheek	26965	2	Full	1	37	-	24.0	22.48	-0.03	0.186	1.00	1.42	0.26
	LTE 26	QPSK15M	Left Tilted	26965	2	Full	1	37	-	24.0	22.48	0.03	0.119	1.00	1.42	0.17
	LTE 26	QPSK15M	Right Cheek	26965	2	Full	36	39	-	23.0	21.54	0.06	0.146	1.00	1.40	0.20
	LTE 26	QPSK15M	Right Tilted	26965	2	Full	36	39	-	23.0	21.54	0.09	0.083	1.00	1.40	0.12
	LTE 26	QPSK15M	Left Cheek	26965	2	Full	36	39	-	23.0	21.54	0.05	0.138	1.00	1.40	0.19
	LTE 26	QPSK15M	Left Tilted	26965	2	Full	36	39	-	23.0	21.54	-0.14	0.091	1.00	1.40	0.13
	LTE 26	QPSK15M	Right Cheek	26765	2	Full	1	37	-	24.0	22.36	-0.04	0.212	1.00	1.46	0.31



# BUREAU VERITAS FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
P12	LTE 26	QPSK15M	Right Cheek	26865	2	Full	1	37	-	24.0	22.37	-0.06	0.229	1.00	1.46	0.33
P13	LTE 30	QPSK10M	Right Cheek	27710	1	Reduced 1&2	1	0	-	22.5	22.05	0.1	0.858	1.00	1.11	0.95
	LTE 30	QPSK10M	Right Tilted	27710	1	Reduced 1&2	1	0	-	22.5	22.05	0.01	0.748	1.00	1.11	0.83
	LTE 30	QPSK10M	Left Cheek	27710	1	Reduced 1&2	1	0	-	22.5	22.05	-0.1	0.433	1.00	1.11	0.48
	LTE 30	QPSK10M	Left Tilted	27710	1	Reduced 1&2	1	0	-	22.5	22.05	0.05	0.459	1.00	1.11	0.51
	LTE 30	QPSK10M	Right Cheek	27710	1	Reduced 1&2	25	25	-	21.5	21.03	0.04	0.698	1.00	1.11	0.78
	LTE 30	QPSK10M	Right Tilted	27710	1	Reduced 1&2	25	25	-	21.5	21.03	0.06	0.613	1.00	1.11	0.68
	LTE 30	QPSK10M	Left Cheek	27710	1	Reduced 1&2	25	25	-	21.5	21.03	-0.01	0.358	1.00	1.11	0.40
	LTE 30	QPSK10M	Left Tilted	27710	1	Reduced 1&2	25	25	-	21.5	21.03	-0.07	0.372	1.00	1.11	0.41
	LTE 30	QPSK10M	Right Cheek	27710	1	Reduced 1&2	50	0	-	21.5	20.97	-0.05	0.649	1.00	1.13	0.73
	LTE 30	QPSK10M	Right Tilted	27710	1	Reduced 1&2	50	0	-	21.5	20.97	0.05	0.537	1.00	1.13	0.61
	LTE 41	QPSK20M	Right Cheek	40185	1	Reduced 1	1	0	62.9	22.5	21.56	0.03	0.763	1.01	1.24	0.95
	LTE 41	QPSK20M	Right Tilted	40185	1	Reduced 1	1	0	62.9	22.5	21.56	0.01	0.726	1.01	1.24	0.91
	LTE 41	QPSK20M	Left Cheek	40185	1	Reduced 1	1	0	62.9	22.5	21.56	0.05	0.426	1.01	1.24	0.53
	LTE 41	QPSK20M	Left Tilted	40185	1	Reduced 1	1	0	62.9	22.5	21.56	0.09	0.503	1.01	1.24	0.63
	LTE 41	QPSK20M	Right Cheek	40185	1	Reduced 1	50	25	62.9	21.5	20.60	-0.01	0.563	1.01	1.23	0.70
	LTE 41	QPSK20M	Right Tilted	40185	1	Reduced 1	50	25	62.9	21.5	20.60	-0.04	0.558	1.01	1.23	0.69
	LTE 41	QPSK20M	Left Cheek	40185	1	Reduced 1	50	25	62.9	21.5	20.60	-0.09	0.333	1.01	1.23	0.41
	LTE 41	QPSK20M	Left Tilted	40185	1	Reduced 1	50	25	62.9	21.5	20.60	-0.07	0.390	1.01	1.23	0.48
P14	LTE 41	QPSK20M	Right Cheek	39750	1	Reduced 1	1	0	62.9	22.5	21.56	0.1	0.779	1.01	1.24	0.97
	LTE 41	QPSK20M	Right Cheek	40620	1	Reduced 1	1	0	62.9	22.5	21.35	0.11	0.554	1.01	1.30	0.73
	LTE 41	QPSK20M	Right Cheek	41055	1	Reduced 1	1	0	62.9	22.5	21.09	0.12	0.353	1.01	1.38	0.49
	LTE 41	QPSK20M	Right Cheek	41490	1	Reduced 1	1	0	62.9	22.5	21.09	0.1	0.351	1.01	1.38	0.49
	LTE 41	QPSK20M	Right Tilted	39750	1	Reduced 1	1	0	62.9	22.5	21.56	0.06	0.715	1.01	1.24	0.89
	LTE 41	QPSK20M	Right Tilted	40620	1	Reduced 1	1	0	62.9	22.5	21.35	0.04	0.425	1.01	1.30	0.56
	LTE 41	QPSK20M	Right Tilted	41055	1	Reduced 1	1	0	62.9	22.5	21.09	0.09	0.271	1.01	1.38	0.38
	LTE 41	QPSK20M	Right Tilted	41490	1	Reduced 1	1	0	62.9	22.5	21.09	0.08	0.371	1.01	1.38	0.52
	LTE 41	QPSK20M	Right Cheek	40185	1	Reduced 1	100	0	62.9	21.5	20.58	0.01	0.581	1.01	1.24	0.72
	LTE 41	QPSK20M	Right Tilted	40185	1	Reduced 1	100	0	62.9	21.5	20.58	0.03	0.541	1.01	1.24	0.67
	LTE 41	QPSK20M	Right Cheek	40185	1	Reduced 2	1	0	62.9	19.5	18.52	0.09	0.384	1.01	1.25	0.48
	LTE 41	QPSK20M	Right Tilted	40185	1	Reduced 2	1	0	62.9	19.5	18.52	0.01	0.381	1.01	1.25	0.48
	LTE 41	QPSK20M	Left Cheek	40185	1	Reduced 2	1	0	62.9	19.5	18.52	0.01	0.214	1.01	1.25	0.27
	LTE 41	QPSK20M	Left Tilted	40185	1	Reduced 2	1	0	62.9	19.5	18.52	0.12	0.253	1.01	1.25	0.32
	LTE 41	QPSK20M	Right Cheek	40185	1	Reduced 2	50	25	62.9	18.5	17.53	0.13	0.288	1.01	1.25	0.36
	LTE 41	QPSK20M	Right Tilted	40185	1	Reduced 2	50	25	62.9	18.5	17.53	0.09	0.283	1.01	1.25	0.36
	LTE 41	QPSK20M	Left Cheek	40185	1	Reduced 2	50	25	62.9	18.5	17.53	0.09	0.168	1.01	1.25	0.21
	LTE 41	QPSK20M	Left Tilted	40185	1	Reduced 2	50	25	62.9	18.5	17.53	-0.1	0.196	1.01	1.25	0.25
	LTE 41	QPSK20M	Right Cheek	39750	1	Reduced 2	1	0	62.9	19.5	18.48	-0.09	0.403	1.01	1.26	0.51
	LTE 41	QPSK20M	Right Cheek	40620	1	Reduced 2	1	0	62.9	19.5	18.30	0.05	0.274	1.01	1.32	0.36
	LTE 41	QPSK20M	Right Cheek	41055	1	Reduced 2	1	0	62.9	19.5	18.02	0.08	0.181	1.01	1.41	0.26
	LTE 41	QPSK20M	Right Cheek	41490	1	Reduced 2	1	0	62.9	19.5	18.01	-0.03	0.189	1.01	1.41	0.27
	LTE 41(CA)	QPSK20M	Right Cheek	PCC:39750 SCC:39948	1	Reduced 1	1 0	0 0	62.9	22.5	21.13	0.06	0.701	1.01	1.37	0.97
	LTE 42 (Part27Q)	QPSK20M	Right Cheek	42190	7	Reduced 1	1	0	62.9	22.0	20.86	-0.01	0.434	1.01	1.30	0.57
	LTE 42 (Part27Q)	QPSK20M	Right Tilted	42190	7	Reduced 1	1	0	62.9	22.0	20.86	0.06	0.315	1.01	1.30	0.41
	LTE 42 (Part27Q)	QPSK20M	Left Cheek	42190	7	Reduced 1	1	0	62.9	22.0	20.86	0.04	0.192	1.01	1.30	0.25
	LTE 42 (Part27Q)	QPSK20M	Left Tilted	42190	7	Reduced 1	1	0	62.9	22.0	20.86	0.08	0.259	1.01	1.30	0.34
	LTE 42 (Part27Q)	QPSK20M	Right Cheek	42190	7	Reduced 1	50	0	62.9	21.0	19.91	-0.01	0.355	1.01	1.29	0.46
	LTE 42 (Part27Q)	QPSK20M	Right Tilted	42190	7	Reduced 1	50	0	62.9	21.0	19.91	0.01	0.263	1.01	1.29	0.34
	LTE 42 (Part27Q)	QPSK20M	Left Cheek	42190	7	Reduced 1	50	0	62.9	21.0	19.91	0.01	0.153	1.01	1.29	0.20
	LTE 42 (Part27Q)	QPSK20M	Left Tilted	42190	7	Reduced 1	50	0	62.9	21.0	19.91	-0.02	0.219	1.01	1.29	0.28
	LTE 42	QPSK20M	Right Cheek	42590	7	Reduced 1	1	0	62.9	22.0	20.73	-0.08	0.474	1.01	1.34	0.64



# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)	
P15	(Part27Q)																
	LTE 42 (Part27Q)	QPSK20M	Right Cheek	42990	7	Reduced 1	1	0	62.9	22.0	20.82	-0.05	0.562	1.01	1.31	<b>0.74</b>	
	LTE 42 (Part27Q)	QPSK20M	Right Cheek	42190	7	Reduced 2	1	0	62.9	19.0	17.81	0.08	0.226	1.01	1.32	0.30	
	LTE 42 (Part27Q)	QPSK20M	Right Tilted	42190	7	Reduced 2	1	0	62.9	19.0	17.81	0.03	0.162	1.01	1.32	0.21	
	LTE 42 (Part27Q)	QPSK20M	Left Cheek	42190	7	Reduced 2	1	0	62.9	19.0	17.81	0.01	0.100	1.01	1.32	0.13	
	LTE 42 (Part27Q)	QPSK20M	Left Tilted	42190	7	Reduced 2	1	0	62.9	19.0	17.81	0.03	0.135	1.01	1.32	0.18	
	LTE 42 (Part27Q)	QPSK20M	Right Cheek	42190	7	Reduced 2	50	0	62.9	18.0	16.87	-0.13	0.188	1.01	1.30	0.25	
	LTE 42 (Part27Q)	QPSK20M	Right Tilted	42190	7	Reduced 2	50	0	62.9	18.0	16.87	0.02	0.138	1.01	1.30	0.18	
	LTE 42 (Part27Q)	QPSK20M	Left Cheek	42190	7	Reduced 2	50	0	62.9	18.0	16.87	0.01	0.080	1.01	1.30	0.10	
	LTE 42 (Part27Q)	QPSK20M	Left Tilted	42190	7	Reduced 2	50	0	62.9	18.0	16.87	0.09	0.114	1.01	1.30	0.15	
	LTE 42 (Part27Q)	QPSK20M	Right Cheek	42590	7	Reduced 2	1	0	62.9	19.0	17.66	0.16	0.248	1.01	1.36	0.34	
	LTE 42 (Part27Q)	QPSK20M	Right Cheek	42990	7	Reduced 2	1	0	62.9	19.0	17.79	0	0.284	1.01	1.32	0.38	
	LTE 42(CA) (Part27Q)	QPSK20M	Right Cheek	PCC:42990 SCC:42792	7	Reduced 1	1	0	0	62.9	22.0	20.43	0.13	0.508	1.01	1.44	0.73
	LTE 48	QPSK20M	Right Cheek	56640	7	Reduced 1	1	0	62.9	22.0	21.27	0.09	0.742	1.01	1.18	0.88	
LTE 48	QPSK20M	Right Tilted	56640	7	Reduced 1	1	0	62.9	22.0	21.27	0.09	0.372	1.01	1.18	0.44		
LTE 48	QPSK20M	Left Cheek	56640	7	Reduced 1	1	0	62.9	22.0	21.27	0.05	0.273	1.01	1.18	0.33		
LTE 48	QPSK20M	Left Tilted	56640	7	Reduced 1	1	0	62.9	22.0	21.27	0.06	0.169	1.01	1.18	0.20		
LTE 48	QPSK20M	Right Cheek	56640	7	Reduced 1	50	0	62.9	21.0	20.32	0.06	0.673	1.01	1.17	0.79		
LTE 48	QPSK20M	Right Tilted	56640	7	Reduced 1	50	0	62.9	21.0	20.32	0.01	0.309	1.01	1.17	0.36		
LTE 48	QPSK20M	Left Cheek	56640	7	Reduced 1	50	0	62.9	21.0	20.32	-0.05	0.211	1.01	1.17	0.25		
LTE 48	QPSK20M	Left Tilted	56640	7	Reduced 1	50	0	62.9	21.0	20.32	-0.02	0.119	1.01	1.17	0.14		
LTE 48	QPSK20M	Right Cheek	55340	7	Reduced 1	1	0	62.9	22.0	20.89	0.07	0.598	1.01	1.29	0.78		
LTE 48	QPSK20M	Right Cheek	55830	7	Reduced 1	1	0	62.9	22.0	21.06	0.16	0.691	1.01	1.24	0.86		
P16	LTE 48	QPSK20M	Right Cheek	56150	7	Reduced 1	1	0	62.9	22.0	21.23	-0.02	0.763	1.01	1.19	<b>0.92</b>	
LTE 48	QPSK20M	Right Cheek	56640	7	Reduced 1	100	0	62.9	21.0	20.18	-0.04	0.600	1.01	1.21	0.73		
LTE 48	QPSK20M	Right Cheek	56640	7	Reduced 2	1	0	62.9	19.0	18.26	0.08	0.389	1.01	1.19	0.46		
LTE 48	QPSK20M	Right Tilted	56640	7	Reduced 2	1	0	62.9	19.0	18.26	0.06	0.198	1.01	1.19	0.24		
LTE 48	QPSK20M	Left Cheek	56640	7	Reduced 2	1	0	62.9	19.0	18.26	0.12	0.143	1.01	1.19	0.17		
LTE 48	QPSK20M	Left Tilted	56640	7	Reduced 2	1	0	62.9	19.0	18.26	0.01	0.089	1.01	1.19	0.11		
LTE 48	QPSK20M	Right Cheek	56640	7	Reduced 2	50	0	62.9	18.0	17.30	0.1	0.353	1.01	1.17	0.42		
LTE 48	QPSK20M	Right Tilted	56640	7	Reduced 2	50	0	62.9	18.0	17.30	0.07	0.160	1.01	1.17	0.19		
LTE 48	QPSK20M	Left Cheek	56640	7	Reduced 2	50	0	62.9	18.0	17.30	-0.09	0.111	1.01	1.17	0.13		
LTE 48	QPSK20M	Left Tilted	56640	7	Reduced 2	50	0	62.9	18.0	17.30	0.11	0.062	1.01	1.17	0.07		
LTE 48	QPSK20M	Right Cheek	55340	7	Reduced 2	1	0	62.9	19.0	17.87	0.05	0.319	1.01	1.30	0.42		
LTE 48	QPSK20M	Right Cheek	55830	7	Reduced 2	1	0	62.9	19.0	18.02	-0.05	0.370	1.01	1.25	0.47		
LTE 48	QPSK20M	Right Cheek	56150	7	Reduced 2	1	0	62.9	19.0	18.21	-0.04	0.382	1.01	1.20	0.46		
LTE 48(CA)	QPSK20M	Right Cheek	PCC:56150 SCC:56348	7	Reduced 1	1	0	0	62.9	22.0	20.99	0.05	0.711	1.01	1.26	0.90	
LTE 66	QPSK20M	Right Cheek	132572	1	Reduced 1	1	99	-	22.0	21.78	-0.1	1.010	1.00	1.05	1.06		
LTE 66	QPSK20M	Right Tilted	132572	1	Reduced 1	1	99	-	22.0	21.78	0.04	0.996	1.00	1.05	1.05		
LTE 66	QPSK20M	Left Cheek	132572	1	Reduced 1	1	99	-	22.0	21.78	0.01	0.607	1.00	1.05	0.64		
LTE 66	QPSK20M	Left Tilted	132572	1	Reduced 1	1	99	-	22.0	21.78	0.03	0.533	1.00	1.05	0.56		
LTE 66	QPSK20M	Right Cheek	132572	1	Reduced 1	50	50	-	21.0	20.94	-0.12	0.910	1.00	1.01	0.92		
LTE 66	QPSK20M	Right Tilted	132572	1	Reduced 1	50	50	-	21.0	20.94	0.01	0.839	1.00	1.01	0.85		
LTE 66	QPSK20M	Left Cheek	132572	1	Reduced 1	50	50	-	21.0	20.94	0.03	0.502	1.00	1.01	0.51		
LTE 66	QPSK20M	Left Tilted	132572	1	Reduced 1	50	50	-	21.0	20.94	0.01	0.433	1.00	1.01	0.44		
P17	LTE 66	QPSK20M	Right Cheek	132072	1	Reduced 1	1	99	-	22.0	21.57	0	1.010	1.00	1.10	<b>1.12</b>	
LTE 66	QPSK20M	Right Cheek	132322	1	Reduced 1	1	99	-	22.0	21.64	-0.12	1.010	1.00	1.09	1.10		
LTE 66	QPSK20M	Right Tilted	132072	1	Reduced 1	1	99	-	22.0	21.57	-0.06	0.800	1.00	1.10	0.88		
LTE 66	QPSK20M	Right Tilted	132322	1	Reduced 1	1	99	-	22.0	21.64	0.03	0.829	1.00	1.09	0.90		
LTE 66	QPSK20M	Right Cheek	132072	1	Reduced 1	50	50	-	21.0	20.68	0.07	0.838	1.00	1.08	0.90		
LTE 66	QPSK20M	Right Cheek	132322	1	Reduced 1	50	50	-	21.0	20.83	0.01	0.844	1.00	1.04	0.88		
LTE 66	QPSK20M	Right Tilted	132072	1	Reduced 1	50	50	-	21.0	20.68	0.09	0.659	1.00	1.08	0.71		
LTE 66	QPSK20M	Right Tilted	132322	1	Reduced 1	50	50	-	21.0	20.83	0.05	0.683	1.00	1.04	0.71		
LTE 66	QPSK20M	Right Cheek	132572	1	Reduced 1	100	0	-	21.0	20.82	0.13	0.944	1.00	1.04	0.98		
LTE 66	QPSK20M	Right Tilted	132572	1	Reduced 1	100	0	-	21.0	20.82	-0.01	0.772	1.00	1.04	0.80		
LTE 66	QPSK20M	Right Cheek	132572	1	Reduced 2	1	99	-	18.5	18.23	-0.14	0.417	1.00	1.06	0.44		





# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	LTE 66	QPSK20M	Right Tilted	132572	1	Reduced 2	1	99	-	18.5	18.23	-0.15	0.365	1.00	1.06	0.39
	LTE 66	QPSK20M	Left Cheek	132572	1	Reduced 2	1	99	-	18.5	18.23	0.01	0.228	1.00	1.06	0.24
	LTE 66	QPSK20M	Left Tilted	132572	1	Reduced 2	1	99	-	18.5	18.23	0.09	0.200	1.00	1.06	0.21
	LTE 66	QPSK20M	Right Cheek	132572	1	Reduced 2	50	50	-	17.5	17.42	0.15	0.340	1.00	1.02	0.35
	LTE 66	QPSK20M	Right Tilted	132572	1	Reduced 2	50	50	-	17.5	17.42	0.04	0.299	1.00	1.02	0.30
	LTE 66	QPSK20M	Left Cheek	132572	1	Reduced 2	50	50	-	17.5	17.42	0.01	0.189	1.00	1.02	0.19
	LTE 66	QPSK20M	Left Tilted	132572	1	Reduced 2	50	50	-	17.5	17.42	0.01	0.163	1.00	1.02	0.17
	LTE 66	QPSK20M	Right Cheek	132072	1	Reduced 2	1	99	-	18.5	18.01	-0.05	0.397	1.00	1.12	0.44
	LTE 66	QPSK20M	Right Cheek	132322	1	Reduced 2	1	99	-	18.5	18.07	-0.03	0.407	1.00	1.10	0.45
P18	LTE 71	QPSK20M	Right Cheek	133322	2	Full	1	99	-	24.0	22.84	-0.18	0.180	1.00	1.31	0.24
	LTE 71	QPSK20M	Right Tilted	133322	2	Full	1	99	-	24.0	22.84	0.15	0.111	1.00	1.31	0.14
	LTE 71	QPSK20M	Left Cheek	133322	2	Full	1	99	-	24.0	22.84	0.01	0.176	1.00	1.31	0.23
	LTE 71	QPSK20M	Left Tilted	133322	2	Full	1	99	-	24.0	22.84	0.03	0.111	1.00	1.31	0.14
	LTE 71	QPSK20M	Right Cheek	133322	2	Full	50	0	-	23.0	21.81	-0.04	0.145	1.00	1.32	0.19
	LTE 71	QPSK20M	Right Tilted	133322	2	Full	50	0	-	23.0	21.81	0.08	0.085	1.00	1.32	0.11
	LTE 71	QPSK20M	Left Cheek	133322	2	Full	50	0	-	23.0	21.81	0.15	0.141	1.00	1.32	0.19
	LTE 71	QPSK20M	Left Tilted	133322	2	Full	50	0	-	23.0	21.81	0.11	0.080	1.00	1.32	0.11
	LTE 71	QPSK20M	Right Cheek	133222	2	Full	1	99	-	24.0	22.71	0.12	0.170	1.00	1.35	0.23
	LTE 71	QPSK20M	Right Cheek	133372	2	Full	1	99	-	24.0	22.73	0.07	0.173	1.00	1.34	0.23
	5G NR n5	DFT-s-OFDM QPSK20M	Right Cheek	167300	2	Full	1	1	-	24.0	22.89	0.05	0.213	1.00	1.29	0.28
	5G NR n5	DFT-s-OFDM QPSK20M	Right Tilted	167300	2	Full	1	1	-	24.0	22.89	0.04	0.106	1.00	1.29	0.14
	5G NR n5	DFT-s-OFDM QPSK20M	Left Cheek	167300	2	Full	1	1	-	24.0	22.89	0	0.225	1.00	1.29	0.29
	5G NR n5	DFT-s-OFDM QPSK20M	Left Tilted	167300	2	Full	1	1	-	24.0	22.89	-0.09	0.129	1.00	1.29	0.17
	5G NR n5	DFT-s-OFDM QPSK20M	Right Cheek	167300	2	Full	50	28	-	24.0	22.81	0.01	0.217	1.00	1.32	0.29
	5G NR n5	DFT-s-OFDM QPSK20M	Right Tilted	167300	2	Full	50	28	-	24.0	22.81	-0.08	0.120	1.00	1.32	0.16
	5G NR n5	DFT-s-OFDM QPSK20M	Left Cheek	167300	2	Full	50	28	-	24.0	22.81	-0.14	0.197	1.00	1.32	0.26
	5G NR n5	DFT-s-OFDM QPSK20M	Left Tilted	167300	2	Full	50	28	-	24.0	22.81	0.05	0.122	1.00	1.32	0.16
P19	5G NR n5	DFT-s-OFDM QPSK20M	Left Cheek	166800	2	Full	1	1	-	24.0	22.84	0.1	0.234	1.00	1.31	0.31
	5G NR n5	DFT-s-OFDM QPSK20M	Left Cheek	167800	2	Full	1	1	-	24.0	22.78	-0.06	0.207	1.00	1.32	0.27
	5G NR n7	DFT-s-OFDM QPSK20M	Right Cheek	507000	1	Reduced 1	1	1	-	21.0	20.83	0.01	1.040	1.00	1.04	1.08
	5G NR n7	DFT-s-OFDM QPSK20M	Right Tilted	507000	1	Reduced 1	1	1	-	21.0	20.83	0.03	1.000	1.00	1.04	1.04
	5G NR n7	DFT-s-OFDM QPSK20M	Left Cheek	507000	1	Reduced 1	1	1	-	21.0	20.83	0.06	0.594	1.00	1.04	0.62
	5G NR n7	DFT-s-OFDM QPSK20M	Left Tilted	507000	1	Reduced 1	1	1	-	21.0	20.83	0.04	0.652	1.00	1.04	0.68
	5G NR n7	DFT-s-OFDM QPSK20M	Right Cheek	507000	1	Reduced 1	50	28	-	21.0	20.74	0.03	1.000	1.00	1.06	1.06
	5G NR n7	DFT-s-OFDM QPSK20M	Right Tilted	507000	1	Reduced 1	50	28	-	21.0	20.74	0.01	0.820	1.00	1.06	0.87
	5G NR n7	DFT-s-OFDM QPSK20M	Left Cheek	507000	1	Reduced 1	50	28	-	21.0	20.74	0.01	0.513	1.00	1.06	0.54
	5G NR n7	DFT-s-OFDM QPSK20M	Left Tilted	507000	1	Reduced 1	50	28	-	21.0	20.74	-0.09	0.556	1.00	1.06	0.59
P20	5G NR n7	DFT-s-OFDM QPSK20M	Right Cheek	502000	1	Reduced 1	1	1	-	21.0	20.74	-0.01	1.050	1.00	1.06	1.11
	5G NR n7	DFT-s-OFDM QPSK20M	Right Cheek	512000	1	Reduced 1	1	1	-	21.0	20.61	0.05	1.010	1.00	1.09	1.10
	5G NR n7	DFT-s-OFDM QPSK20M	Right Tilted	502000	1	Reduced 1	1	1	-	21.0	20.74	0.06	1.010	1.00	1.06	1.07
	5G NR n7	DFT-s-OFDM QPSK20M	Right Tilted	512000	1	Reduced 1	1	1	-	21.0	20.61	0.08	0.971	1.00	1.09	1.06
	5G NR n7	DFT-s-OFDM QPSK20M	Right Cheek	502000	1	Reduced 1	50	28	-	21.0	20.73	0.01	1.020	1.00	1.06	1.09
	5G NR n7	DFT-s-OFDM QPSK20M	Right Cheek	512000	1	Reduced 1	50	28	-	21.0	20.52	0.03	0.969	1.00	1.12	1.08
	5G NR n7	DFT-s-OFDM QPSK20M	Right Tilted	502000	1	Reduced 1	50	28	-	21.0	20.73	-0.06	0.861	1.00	1.06	0.92
	5G NR n7	DFT-s-OFDM	Right Tilted	512000	1	Reduced 1	50	28	-	21.0	20.52	-0.02	0.796	1.00	1.12	0.89



# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
		QPSK20M														
	5G NR n7	DFT-s-OFDM QPSK20M	Right Cheek	507000	1	Reduced 1	100	0	-	20.5	19.78	-0.01	0.929	1.00	1.18	1.10
	5G NR n7	DFT-s-OFDM QPSK20M	Right Tilted	507000	1	Reduced 1	100	0	-	20.5	19.78	0.05	0.774	1.00	1.18	0.91
	5G NR n7	DFT-s-OFDM QPSK20M	Right Cheek	507000	1	Reduced 2	1	1	-	17.5	17.27	0.06	0.478	1.00	1.05	0.50
	5G NR n7	DFT-s-OFDM QPSK20M	Right Tilted	507000	1	Reduced 2	1	1	-	17.5	17.27	0.04	0.398	1.00	1.05	0.42
	5G NR n7	DFT-s-OFDM QPSK20M	Left Cheek	507000	1	Reduced 2	1	1	-	17.5	17.27	0.05	0.247	1.00	1.05	0.26
	5G NR n7	DFT-s-OFDM QPSK20M	Left Tilted	507000	1	Reduced 2	1	1	-	17.5	17.27	0.01	0.284	1.00	1.05	0.30
	5G NR n7	DFT-s-OFDM QPSK20M	Right Cheek	507000	1	Reduced 2	50	28	-	17.5	17.25	0.01	0.451	1.00	1.06	0.48
	5G NR n7	DFT-s-OFDM QPSK20M	Right Tilted	507000	1	Reduced 2	50	28	-	17.5	17.25	0.09	0.369	1.00	1.06	0.39
	5G NR n7	DFT-s-OFDM QPSK20M	Left Cheek	507000	1	Reduced 2	50	28	-	17.5	17.25	0.04	0.230	1.00	1.06	0.24
	5G NR n7	DFT-s-OFDM QPSK20M	Left Tilted	507000	1	Reduced 2	50	28	-	17.5	17.25	-0.06	0.250	1.00	1.06	0.26
	5G NR n7	DFT-s-OFDM QPSK20M	Right Cheek	502000	1	Reduced 2	1	1	-	17.5	17.24	0.04	0.490	1.00	1.06	0.52
	5G NR n7	DFT-s-OFDM QPSK20M	Right Cheek	512000	1	Reduced 2	1	1	-	17.5	17.12	-0.11	0.427	1.00	1.09	0.47
	5G NR n12	DFT-s-OFDM QPSK15M	Right Cheek	141500	2	Full	1	1	-	24.0	22.70	-0.01	0.181	1.00	1.35	0.24
	5G NR n12	DFT-s-OFDM QPSK15M	Right Tilted	141500	2	Full	1	1	-	24.0	22.70	0.08	0.084	1.00	1.35	0.11
	5G NR n12	DFT-s-OFDM QPSK15M	Left Cheek	141500	2	Full	1	1	-	24.0	22.70	-0.07	0.180	1.00	1.35	0.24
	5G NR n12	DFT-s-OFDM QPSK15M	Left Tilted	141500	2	Full	1	1	-	24.0	22.70	-0.01	0.084	1.00	1.35	0.11
P21	5G NR n12	DFT-s-OFDM QPSK15M	Right Cheek	141500	2	Full	36	19	-	24.0	22.66	0.04	0.186	1.00	1.36	<b>0.25</b>
	5G NR n12	DFT-s-OFDM QPSK15M	Right Tilted	141500	2	Full	36	19	-	24.0	22.66	0.08	0.099	1.00	1.36	0.13
	5G NR n12	DFT-s-OFDM QPSK15M	Left Cheek	141500	2	Full	36	19	-	24.0	22.66	0.06	0.182	1.00	1.36	0.25
	5G NR n12	DFT-s-OFDM QPSK15M	Left Tilted	141500	2	Full	36	19	-	24.0	22.66	-0.16	0.089	1.00	1.36	0.12
	5G NR n12	DFT-s-OFDM QPSK15M	Right Cheek	141300	2	Full	36	19	-	24.0	22.61	-0.04	0.184	1.00	1.38	0.25
	5G NR n12	DFT-s-OFDM QPSK15M	Right Cheek	141700	2	Full	36	19	-	24.0	22.58	-0.07	0.180	1.00	1.39	0.25
	5G NR n25	DFT-s-OFDM QPSK40M	Right Cheek	376500	1	Reduced 1	1	1	-	21.5	21.30	0.03	0.904	-	1.05	0.95
	5G NR n25	DFT-s-OFDM QPSK40M	Right Tilted	376500	1	Reduced 1	1	1	-	21.5	21.30	-0.02	0.693	-	1.05	0.73
	5G NR n25	DFT-s-OFDM QPSK40M	Left Cheek	376500	1	Reduced 1	1	1	-	21.5	21.30	-0.01	0.529	-	1.05	0.55
	5G NR n25	DFT-s-OFDM QPSK40M	Left Tilted	376500	1	Reduced 1	1	1	-	21.5	21.30	0.03	0.493	-	1.05	0.52
P22	5G NR n25	DFT-s-OFDM QPSK40M	Right Cheek	376500	1	Reduced 1	108	54	-	21.5	21.25	0.11	0.934	-	1.06	<b>0.99</b>
	5G NR n25	DFT-s-OFDM QPSK40M	Right Tilted	376500	1	Reduced 1	108	54	-	21.5	21.25	0.05	0.874	-	1.06	0.93
	5G NR n25	DFT-s-OFDM QPSK40M	Left Cheek	376500	1	Reduced 1	108	54	-	21.5	21.25	0.08	0.648	-	1.06	0.69
	5G NR n25	DFT-s-OFDM QPSK40M	Left Tilted	376500	1	Reduced 1	108	54	-	21.5	21.25	0.09	0.619	-	1.06	0.66
	5G NR n25	DFT-s-OFDM QPSK40M	Right Cheek	374000	1	Reduced 1	1	1	-	21.5	21.27	0.02	0.922	-	1.05	0.97
	5G NR n25	DFT-s-OFDM QPSK40M	Right Cheek	379000	1	Reduced 1	1	1	-	21.5	21.25	-0.16	0.836	-	1.06	0.89
	5G NR n25	DFT-s-OFDM QPSK40M	Right Cheek	374000	1	Reduced 1	108	54	-	21.5	21.21	-0.12	0.913	-	1.07	0.98
	5G NR n25	DFT-s-OFDM QPSK40M	Right Cheek	379000	1	Reduced 1	108	54	-	21.5	21.19	-0.06	0.864	-	1.07	0.93
	5G NR n25	DFT-s-OFDM QPSK40M	Right Tilted	374000	1	Reduced 1	108	54	-	21.5	21.21	0.06	0.756	-	1.07	0.81



# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n25	DFT-s-OFDM QPSK40M	Right Tilted	379000	1	Reduced 1	108	54	-	21.5	21.19	-0.04	0.685	-	1.07	0.74
	5G NR n25	DFT-s-OFDM QPSK40M	Right Cheek	376500	1	Reduced 1	216	0	-	21.0	20.25	0.03	0.814	-	1.19	0.97
	5G NR n25	DFT-s-OFDM QPSK40M	Right Tilted	376500	1	Reduced 1	216	0	-	21.0	20.25	0.01	0.803	-	1.19	0.95
	5G NR n25	DFT-s-OFDM QPSK40M	Right Cheek	376500	1	Reduced 2	1	1	-	18.5	18.31	0.01	0.421	1.00	1.04	0.44
	5G NR n25	DFT-s-OFDM QPSK40M	Right Tilted	376500	1	Reduced 2	1	1	-	18.5	18.31	0.02	0.327	1.00	1.04	0.34
	5G NR n25	DFT-s-OFDM QPSK40M	Left Cheek	376500	1	Reduced 2	1	1	-	18.5	18.31	0.09	0.246	1.00	1.04	0.26
	5G NR n25	DFT-s-OFDM QPSK40M	Left Tilted	376500	1	Reduced 2	1	1	-	18.5	18.31	0.08	0.230	1.00	1.04	0.24
	5G NR n25	DFT-s-OFDM QPSK40M	Right Cheek	376500	1	Reduced 2	108	54	-	18.5	18.22	0.06	0.457	1.00	1.07	0.49
	5G NR n25	DFT-s-OFDM QPSK40M	Right Tilted	376500	1	Reduced 2	108	54	-	18.5	18.22	-0.11	0.407	1.00	1.07	0.43
	5G NR n25	DFT-s-OFDM QPSK40M	Left Cheek	376500	1	Reduced 2	108	54	-	18.5	18.22	-0.02	0.302	1.00	1.07	0.32
	5G NR n25	DFT-s-OFDM QPSK40M	Left Tilted	376500	1	Reduced 2	108	54	-	18.5	18.22	-0.15	0.288	1.00	1.07	0.31
	5G NR n25	DFT-s-OFDM QPSK40M	Right Cheek	374000	1	Reduced 2	108	54	-	18.5	18.19	-0.11	0.460	1.00	1.07	0.49
	5G NR n25	DFT-s-OFDM QPSK40M	Right Cheek	379000	1	Reduced 2	108	54	-	18.5	18.18	-0.05	0.355	1.00	1.08	0.38
	5G NR n30	DFT-s-OFDM QPSK10M	Right Cheek	462000	1	Reduced 1&2	1	1	-	22.5	22.37	0.05	0.881	1.00	1.03	0.91
	5G NR n30	DFT-s-OFDM QPSK10M	Right Tilted	462000	1	Reduced 1&2	1	1	-	22.5	22.37	0.03	0.898	1.00	1.03	0.93
	5G NR n30	DFT-s-OFDM QPSK10M	Left Cheek	462000	1	Reduced 1&2	1	1	-	22.5	22.37	0.02	0.465	1.00	1.03	0.48
	5G NR n30	DFT-s-OFDM QPSK10M	Left Tilted	462000	1	Reduced 1&2	1	1	-	22.5	22.37	0.01	0.510	1.00	1.03	0.53
P23	5G NR n30	DFT-s-OFDM QPSK10M	Right Cheek	462000	1	Reduced 1&2	25	14	-	22.5	22.28	0.13	0.950	1.00	1.05	<b>1.00</b>
	5G NR n30	DFT-s-OFDM QPSK10M	Right Tilted	462000	1	Reduced 1&2	25	14	-	22.5	22.28	0.08	0.876	1.00	1.05	0.92
	5G NR n30	DFT-s-OFDM QPSK10M	Left Cheek	462000	1	Reduced 1&2	25	14	-	22.5	22.28	0.01	0.558	1.00	1.05	0.59
	5G NR n30	DFT-s-OFDM QPSK10M	Left Tilted	462000	1	Reduced 1&2	25	14	-	22.5	22.28	-0.09	0.599	1.00	1.05	0.63
	5G NR n30	DFT-s-OFDM QPSK10M	Right Cheek	462000	1	Reduced 1&2	50	0	-	22.0	21.38	0.06	0.750	1.00	1.15	0.87
	5G NR n30	DFT-s-OFDM QPSK10M	Right Tilted	462000	1	Reduced 1&2	50	0	-	22.0	21.38	0.01	0.744	1.00	1.15	0.86
P24	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	509202	1	Full	1	1	-	24.0	23.10	0.03	0.860	1.00	1.23	<b>1.06</b>
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	509202	1	Full	1	1	-	24.0	23.10	-0.03	0.700	1.00	1.23	0.86
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	509202	1	Full	1	1	-	24.0	23.10	-0.07	0.421	1.00	1.23	0.52
	5G NR n41	DFT-s-OFDM QPSK100M	Left Tilted	509202	1	Full	1	1	-	24.0	23.10	-0.07	0.465	1.00	1.23	0.57
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	509202	1	Full	135	69	-	24.0	22.91	0.06	0.731	1.00	1.29	0.94
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	509202	1	Full	135	69	-	24.0	22.91	0.07	0.589	1.00	1.29	0.76
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	509202	1	Full	135	69	-	24.0	22.91	0.01	0.414	1.00	1.29	0.53
	5G NR n41	DFT-s-OFDM QPSK100M	Left Tilted	509202	1	Full	135	69	-	24.0	22.91	0.02	0.426	1.00	1.29	0.55
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	518598	1	Full	1	1	-	24.0	23.08	0.05	0.755	1.00	1.24	0.93
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	528000	1	Full	1	1	-	24.0	22.96	0.09	0.513	1.00	1.27	0.65
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	518598	1	Full	1	1	-	24.0	23.08	0.01	0.615	1.00	1.24	0.76
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	528000	1	Full	1	1	-	24.0	22.96	-0.01	0.418	1.00	1.27	0.53
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	518598	1	Full	135	69	-	24.0	22.85	-0.02	0.642	1.00	1.30	0.84





# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
		QPSK100M														
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	528000	1	Full	135	69	-	24.0	22.74	-0.09	0.436	1.00	1.34	0.58
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	509202	1	Full	270	0	-	23.0	21.86	-0.01	0.707	1.00	1.30	0.92
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	509202	1	Full	270	0	-	23.0	21.86	0.06	0.644	1.00	1.30	0.84
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	509202	1	Reduced 2	1	1	-	21.0	20.54	0.1	0.450	1.00	1.11	0.50
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	509202	1	Reduced 2	1	1	-	21.0	20.54	0.06	0.374	1.00	1.11	0.42
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	509202	1	Reduced 2	1	1	-	21.0	20.54	0.01	0.225	1.00	1.11	0.25
	5G NR n41	DFT-s-OFDM QPSK100M	Left Tilted	509202	1	Reduced 2	1	1	-	21.0	20.54	0.02	0.249	1.00	1.11	0.28
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	509202	1	Reduced 2	135	69	-	21.0	20.33	-0.01	0.383	1.00	1.17	0.45
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	509202	1	Reduced 2	135	69	-	21.0	20.33	-0.09	0.315	1.00	1.17	0.37
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	509202	1	Reduced 2	135	69	-	21.0	20.33	0.01	0.221	1.00	1.17	0.26
	5G NR n41	DFT-s-OFDM QPSK100M	Left Tilted	509202	1	Reduced 2	135	69	-	21.0	20.33	0.03	0.228	1.00	1.17	0.27
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	518598	1	Reduced 2	1	1	-	21.0	20.50	0.07	0.403	1.00	1.12	0.45
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	528000	1	Reduced 2	1	1	-	21.0	20.44	0.01	0.274	1.00	1.14	0.31
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	509202	2	Full	1	1	-	24.0	23.07	-0.02	0.032	1.00	1.24	0.04
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	509202	2	Full	1	1	-	24.0	23.07	-0.06	0.011	1.00	1.24	0.01
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	509202	2	Full	1	1	-	24.0	23.07	-0.01	0.073	1.00	1.24	0.09
	5G NR n41	DFT-s-OFDM QPSK100M	Left Tilted	509202	2	Full	1	1	-	24.0	23.07	-0.06	0.033	1.00	1.24	0.04
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	509202	2	Full	135	69	-	24.0	22.83	0.02	0.018	1.00	1.31	0.02
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	509202	2	Full	135	69	-	24.0	22.83	0.03	0.009	1.00	1.31	0.01
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	509202	2	Full	135	69	-	24.0	22.83	0.01	0.116	1.00	1.31	0.15
	5G NR n41	DFT-s-OFDM QPSK100M	Left Tilted	509202	2	Full	135	69	-	24.0	22.83	0.04	0.041	1.00	1.31	0.05
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	518598	2	Full	135	69	-	24.0	22.70	0.04	0.067	1.00	1.35	0.09
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	528000	2	Full	135	69	-	24.0	22.76	0.02	0.096	1.00	1.33	0.13
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	509202	3	Full	1	1	-	24.0	23.06	-0.04	0.141	1.00	1.24	0.18
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	509202	3	Full	1	1	-	24.0	23.06	-0.06	0.052	1.00	1.24	0.06
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	509202	3	Full	1	1	-	24.0	23.06	-0.02	0.098	1.00	1.24	0.12
	5G NR n41	DFT-s-OFDM QPSK100M	Left Tilted	509202	3	Full	1	1	-	24.0	23.06	0.01	0.034	1.00	1.24	0.04
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	509202	3	Full	135	69	-	24.0	22.86	0.03	0.121	1.00	1.30	0.16
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	509202	3	Full	135	69	-	24.0	22.86	0.01	0.044	1.00	1.30	0.06
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	509202	3	Full	135	69	-	24.0	22.86	0.05	0.083	1.00	1.30	0.11
	5G NR n41	DFT-s-OFDM QPSK100M	Left Tilted	509202	3	Full	135	69	-	24.0	22.86	0.01	0.027	1.00	1.30	0.04
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	518598	3	Full	1	1	-	24.0	22.95	0.07	0.157	1.00	1.27	0.20
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	528000	3	Full	1	1	-	24.0	22.87	-0.01	0.155	1.00	1.30	0.20
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	509202	5	Full	1	1	-	24.0	23.08	0.05	0.060	1.00	1.24	0.07
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	509202	5	Full	1	1	-	24.0	23.08	0.03	0.018	1.00	1.24	0.02



# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	509202	5	Full	1	1	-	24.0	23.08	0.1	0.059	1.00	1.24	0.07
	5G NR n41	DFT-s-OFDM QPSK100M	Left Tilted	509202	5	Full	1	1	-	24.0	23.08	0.04	0.013	1.00	1.24	0.02
	5G NR n41	DFT-s-OFDM QPSK100M	Right Cheek	509202	5	Full	135	69	-	24.0	22.88	0.04	0.081	1.00	1.29	0.10
	5G NR n41	DFT-s-OFDM QPSK100M	Right Tilted	509202	5	Full	135	69	-	24.0	22.88	0.06	0.028	1.00	1.29	0.04
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	509202	5	Full	135	69	-	24.0	22.88	0.04	0.096	1.00	1.29	0.12
	5G NR n41	DFT-s-OFDM QPSK100M	Left Tilted	509202	5	Full	135	69	-	24.0	22.88	-0.09	0.034	1.00	1.29	0.04
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	518598	5	Full	135	69	-	24.0	22.69	0.01	0.107	1.00	1.35	0.14
	5G NR n41	DFT-s-OFDM QPSK100M	Left Cheek	528000	5	Full	135	69	-	24.0	22.73	0.01	0.154	1.00	1.34	0.21
	5G NR n48	DFT-s-OFDM QPSK40M	Right Cheek	641666	7	Full	1	1	-	24.0	23.69	-0.02	0.732	1.00	1.07	0.79
	5G NR n48	DFT-s-OFDM QPSK40M	Right Tilted	641666	7	Full	1	1	-	24.0	23.69	0.01	0.500	1.00	1.07	0.54
	5G NR n48	DFT-s-OFDM QPSK40M	Left Cheek	641666	7	Full	1	1	-	24.0	23.69	0.06	0.316	1.00	1.07	0.34
	5G NR n48	DFT-s-OFDM QPSK40M	Left Tilted	641666	7	Full	1	1	-	24.0	23.69	0.03	0.242	1.00	1.07	0.26
	5G NR n48	DFT-s-OFDM QPSK40M	Right Cheek	641666	7	Full	50	28	-	24.0	23.53	0.01	0.796	1.00	1.11	0.89
	5G NR n48	DFT-s-OFDM QPSK40M	Right Tilted	641666	7	Full	50	28	-	24.0	23.53	0.01	0.509	1.00	1.11	0.57
	5G NR n48	DFT-s-OFDM QPSK40M	Left Cheek	641666	7	Full	50	28	-	24.0	23.53	0.01	0.330	1.00	1.11	0.37
	5G NR n48	DFT-s-OFDM QPSK40M	Left Tilted	641666	7	Full	50	28	-	24.0	23.53	0.08	0.252	1.00	1.11	0.28
	5G NR n48	DFT-s-OFDM QPSK40M	Right Cheek	638000	7	Full	50	28	-	24.0	23.43	-0.04	0.694	1.00	1.14	0.79
P25	5G NR n48	DFT-s-OFDM QPSK40M	Right Cheek	645332	7	Full	50	28	-	24.0	23.48	0.05	0.846	1.00	1.13	<b>0.95</b>
	5G NR n48	DFT-s-OFDM QPSK40M	Right Cheek	641666	7	Full	100	0	-	23.0	22.46	-0.06	0.741	1.00	1.13	0.84
	5G NR n48	DFT-s-OFDM QPSK40M	Right Cheek	641666	7	Reduced 2	1	1	-	21.5	21.34	0.04	0.511	1.00	1.04	0.53
	5G NR n48	DFT-s-OFDM QPSK40M	Right Tilted	641666	7	Reduced 2	1	1	-	21.5	21.34	0.01	0.315	1.00	1.04	0.33
	5G NR n48	DFT-s-OFDM QPSK40M	Left Cheek	641666	7	Reduced 2	1	1	-	21.5	21.34	-0.04	0.199	1.00	1.04	0.21
	5G NR n48	DFT-s-OFDM QPSK40M	Left Tilted	641666	7	Reduced 2	1	1	-	21.5	21.34	0.07	0.152	1.00	1.04	0.16
	5G NR n48	DFT-s-OFDM QPSK40M	Right Cheek	641666	7	Reduced 2	50	28	-	21.5	21.19	0.01	0.510	1.00	1.07	0.55
	5G NR n48	DFT-s-OFDM QPSK40M	Right Tilted	641666	7	Reduced 2	50	28	-	21.5	21.19	0.01	0.320	1.00	1.07	0.34
	5G NR n48	DFT-s-OFDM QPSK40M	Left Cheek	641666	7	Reduced 2	50	28	-	21.5	21.19	0.03	0.208	1.00	1.07	0.22
	5G NR n48	DFT-s-OFDM QPSK40M	Left Tilted	641666	7	Reduced 2	50	28	-	21.5	21.19	0.02	0.159	1.00	1.07	0.17
	5G NR n48	DFT-s-OFDM QPSK40M	Right Cheek	638000	7	Reduced 2	50	28	-	21.5	21.05	0.09	0.427	1.00	1.11	0.47
	5G NR n48	DFT-s-OFDM QPSK40M	Right Cheek	645332	7	Reduced 2	50	28	-	21.5	21.13	0.07	0.521	1.00	1.09	0.57
	5G NR n66	DFT-s-OFDM QPSK40M	Right Cheek	346000	1	Reduced 1	1	1	-	22.0	21.83	0.03	0.956	1.00	1.04	0.99
	5G NR n66	DFT-s-OFDM QPSK40M	Right Tilted	346000	1	Reduced 1	1	1	-	22.0	21.83	-0.09	0.791	1.00	1.04	0.82
	5G NR n66	DFT-s-OFDM QPSK40M	Left Cheek	346000	1	Reduced 1	1	1	-	22.0	21.83	-0.11	0.442	1.00	1.04	0.46
	5G NR n66	DFT-s-OFDM QPSK40M	Left Tilted	346000	1	Reduced 1	1	1	-	22.0	21.83	0.01	0.404	1.00	1.04	0.42
	5G NR n66	DFT-s-OFDM QPSK40M	Right Cheek	346000	1	Reduced 1	108	54	-	22.0	21.81	0.02	0.961	1.00	1.04	1.00
	5G NR n66	DFT-s-OFDM QPSK40M	Right Tilted	346000	1	Reduced 1	108	54	-	22.0	21.81	0.03	0.899	1.00	1.04	0.94
	5G NR n66	DFT-s-OFDM QPSK40M	Left Cheek	346000	1	Reduced 1	108	54	-	22.0	21.81	0.05	0.578	1.00	1.04	0.60



# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
		QPSK40M														
	5G NR n66	DFT-s-OFDM QPSK40M	Left Tilted	346000	1	Reduced 1	108	54	-	22.0	21.81	0.07	0.529	1.00	1.04	0.55
	5G NR n66	DFT-s-OFDM QPSK40M	Right Cheek	349000	1	Reduced 1	1	1	-	22.0	21.73	-0.05	0.944	1.00	1.06	1.00
	5G NR n66	DFT-s-OFDM QPSK40M	Right Cheek	352000	1	Reduced 1	1	1	-	22.0	21.82	-0.04	1.000	1.00	1.04	1.04
	5G NR n66	DFT-s-OFDM QPSK40M	Right Tilted	349000	1	Reduced 1	1	1	-	22.0	21.73	-0.01	0.784	1.00	1.06	0.83
	5G NR n66	DFT-s-OFDM QPSK40M	Right Tilted	352000	1	Reduced 1	1	1	-	22.0	21.82	0.02	0.821	1.00	1.04	0.86
	5G NR n66	DFT-s-OFDM QPSK40M	Right Cheek	349000	1	Reduced 1	108	54	-	22.0	21.70	0.04	0.955	1.00	1.07	1.02
P26	5G NR n66	DFT-s-OFDM QPSK40M	Right Cheek	352000	1	Reduced 1	108	54	-	22.0	21.74	-0.07	1.010	1.00	1.06	<b>1.07</b>
	5G NR n66	DFT-s-OFDM QPSK40M	Right Tilted	349000	1	Reduced 1	108	54	-	22.0	21.70	-0.16	0.891	1.00	1.07	0.95
	5G NR n66	DFT-s-OFDM QPSK40M	Right Tilted	352000	1	Reduced 1	108	54	-	22.0	21.74	0.06	0.933	1.00	1.06	0.99
	5G NR n66	DFT-s-OFDM QPSK40M	Right Cheek	346000	1	Reduced 1	216	0	-	21.5	20.83	0.01	0.912	1.00	1.17	1.06
	5G NR n66	DFT-s-OFDM QPSK40M	Right Tilted	346000	1	Reduced 1	216	0	-	21.5	20.83	0.01	0.803	1.00	1.17	0.94
	5G NR n66	DFT-s-OFDM QPSK40M	Right Cheek	346000	1	Reduced 2	1	1	-	18.5	18.34	-0.01	0.466	1.00	1.04	0.48
	5G NR n66	DFT-s-OFDM QPSK40M	Right Tilted	346000	1	Reduced 2	1	1	-	18.5	18.34	0.02	0.351	1.00	1.04	0.36
	5G NR n66	DFT-s-OFDM QPSK40M	Left Cheek	346000	1	Reduced 2	1	1	-	18.5	18.34	0.09	0.196	1.00	1.04	0.20
	5G NR n66	DFT-s-OFDM QPSK40M	Left Tilted	346000	1	Reduced 2	1	1	-	18.5	18.34	-0.01	0.179	1.00	1.04	0.19
	5G NR n66	DFT-s-OFDM QPSK40M	Right Cheek	346000	1	Reduced 2	108	54	-	18.5	18.29	-0.01	0.470	1.00	1.05	0.49
	5G NR n66	DFT-s-OFDM QPSK40M	Right Tilted	346000	1	Reduced 2	108	54	-	18.5	18.29	0.05	0.399	1.00	1.05	0.42
	5G NR n66	DFT-s-OFDM QPSK40M	Left Cheek	346000	1	Reduced 2	108	54	-	18.5	18.29	-0.09	0.256	1.00	1.05	0.27
	5G NR n66	DFT-s-OFDM QPSK40M	Left Tilted	346000	1	Reduced 2	108	54	-	18.5	18.29	-0.16	0.235	1.00	1.05	0.25
	5G NR n66	DFT-s-OFDM QPSK40M	Right Cheek	349000	1	Reduced 2	108	54	-	18.5	18.21	0.04	0.461	1.00	1.07	0.49
	5G NR n66	DFT-s-OFDM QPSK40M	Right Cheek	352000	1	Reduced 2	108	54	-	18.5	18.27	0.01	0.488	1.00	1.05	0.51
	5G NR n71	DFT-s-OFDM QPSK15M	Right Cheek	136100	2	Full	1	1	-	24.0	23.09	0.06	0.139	1.00	1.23	0.17
	5G NR n71	DFT-s-OFDM QPSK15M	Right Tilted	136100	2	Full	1	1	-	24.0	23.09	-0.06	0.083	1.00	1.23	0.10
	5G NR n71	DFT-s-OFDM QPSK15M	Left Cheek	136100	2	Full	1	1	-	24.0	23.09	0.04	0.141	1.00	1.23	0.17
	5G NR n71	DFT-s-OFDM QPSK15M	Left Tilted	136100	2	Full	1	1	-	24.0	23.09	0.14	0.086	1.00	1.23	0.11
	5G NR n71	DFT-s-OFDM QPSK15M	Right Cheek	136100	2	Full	36	19	-	24.0	22.93	0.07	0.136	1.00	1.28	0.17
	5G NR n71	DFT-s-OFDM QPSK15M	Right Tilted	136100	2	Full	36	19	-	24.0	22.93	0.06	0.087	1.00	1.28	0.11
	5G NR n71	DFT-s-OFDM QPSK15M	Left Cheek	136100	2	Full	36	19	-	24.0	22.93	-0.08	0.139	1.00	1.28	0.18
	5G NR n71	DFT-s-OFDM QPSK15M	Left Tilted	136100	2	Full	36	19	-	24.0	22.93	0.02	0.097	1.00	1.28	0.12
	5G NR n71	DFT-s-OFDM QPSK15M	Left Cheek	134100	2	Full	1	1	-	24.0	23.06	0.01	0.128	1.00	1.24	0.16
P27	5G NR n71	DFT-s-OFDM QPSK15M	Left Cheek	138100	2	Full	1	1	-	24.0	22.89	0	0.165	1.00	1.29	<b>0.21</b>
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Cheek	633334	7	Full	1	1	-	24.0	23.16	0.03	0.479	1.00	1.21	0.58
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Tilted	633334	7	Full	1	1	-	24.0	23.16	-0.04	0.380	1.00	1.21	0.46
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Cheek	633334	7	Full	1	1	-	24.0	23.16	0.01	0.226	1.00	1.21	0.27
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Tilted	633334	7	Full	1	1	-	24.0	23.16	0.06	0.301	1.00	1.21	0.37



# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
P28	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Cheek	633334	7	Full	135	69	-	24.0	22.69	0.07	0.533	1.00	1.35	0.72
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Tilted	633334	7	Full	135	69	-	24.0	22.69	0.07	0.409	1.00	1.35	0.55
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Cheek	633334	7	Full	135	69	-	24.0	22.69	0.09	0.242	1.00	1.35	0.33
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Tilted	633334	7	Full	135	69	-	24.0	22.69	-0.04	0.315	1.00	1.35	0.43
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Cheek	633334	7	Reduced 2	1	1	-	21.0	20.56	0.04	0.258	1.00	1.11	0.29
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Tilted	633334	7	Reduced 2	1	1	-	21.0	20.56	0.08	0.220	1.00	1.11	0.24
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Cheek	633334	7	Reduced 2	1	1	-	21.0	20.56	0.01	0.131	1.00	1.11	0.14
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Tilted	633334	7	Reduced 2	1	1	-	21.0	20.56	-0.02	0.175	1.00	1.11	0.19
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Cheek	633334	7	Reduced 2	135	69	-	21.0	20.09	0.04	0.309	1.00	1.23	0.38
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Tilted	633334	7	Reduced 2	135	69	-	21.0	20.09	0.06	0.237	1.00	1.23	0.29
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Cheek	633334	7	Reduced 2	135	69	-	21.0	20.09	0.01	0.140	1.00	1.23	0.17
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Tilted	633334	7	Reduced 2	135	69	-	21.0	20.09	0.04	0.183	1.00	1.23	0.23
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Cheek	633334	4	Full	1	1	-	24.0	23.14	0.01	0.031	1.00	1.22	0.04
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Tilted	633334	4	Full	1	1	-	24.0	23.14	0.05	0.013	1.00	1.22	0.02
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Cheek	633334	4	Full	1	1	-	24.0	23.14	0.05	0.028	1.00	1.22	0.03
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Tilted	633334	4	Full	1	1	-	24.0	23.14	0.01	0.010	1.00	1.22	0.01
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Cheek	633334	4	Full	135	69	-	24.0	22.63	0.06	0.033	1.00	1.37	0.05
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Tilted	633334	4	Full	135	69	-	24.0	22.63	0.09	0.013	1.00	1.37	0.02
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Cheek	633334	4	Full	135	69	-	24.0	22.63	-0.04	0.029	1.00	1.37	0.04
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Tilted	633334	4	Full	135	69	-	24.0	22.63	0.04	0.012	1.00	1.37	0.02
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Cheek	633334	5	Full	1	1	-	24.0	23.13	0.11	0.042	1.00	1.22	0.05
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Tilted	633334	5	Full	1	1	-	24.0	23.13	0.01	0.020	1.00	1.22	0.02
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Cheek	633334	5	Full	1	1	-	24.0	23.13	0.01	0.056	1.00	1.22	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Tilted	633334	5	Full	1	1	-	24.0	23.13	0.06	0.026	1.00	1.22	0.03
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Cheek	633334	5	Full	135	69	-	24.0	22.61	-0.04	0.067	1.00	1.38	0.09
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Tilted	633334	5	Full	135	69	-	24.0	22.61	0.01	0.031	1.00	1.38	0.04
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Cheek	633334	5	Full	135	69	-	24.0	22.61	-0.07	0.100	1.00	1.38	0.14
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Tilted	633334	5	Full	135	69	-	24.0	22.61	0.01	0.052	1.00	1.38	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Cheek	633334	6	Full	1	1	-	24.0	23.07	-0.05	0.033	1.00	1.24	0.04
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Tilted	633334	6	Full	1	1	-	24.0	23.07	0.01	0.016	1.00	1.24	0.02
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Cheek	633334	6	Full	1	1	-	24.0	23.07	0.05	0.027	1.00	1.24	0.03
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Tilted	633334	6	Full	1	1	-	24.0	23.07	0.08	0.019	1.00	1.24	0.02
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Cheek	633334	6	Full	135	69	-	24.0	22.53	0.06	0.043	1.00	1.40	0.06
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Tilted	633334	6	Full	135	69	-	24.0	22.53	0.01	0.020	1.00	1.40	0.03
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Cheek	633334	6	Full	135	69	-	24.0	22.53	0.01	0.036	1.00	1.40	0.05
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Tilted	633334	6	Full	135	69	-	24.0	22.53	0.09	0.016	1.00	1.40	0.02



# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	(Part27Q)	QPSK100M														
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	662000	7	Full	1	1	-	24.0	23.35	-0.03	0.450	1.00	1.16	0.52
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Tilted	662000	7	Full	1	1	-	24.0	23.35	0.01	0.359	1.00	1.16	0.42
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Cheek	662000	7	Full	1	1	-	24.0	23.35	0.01	0.192	1.00	1.16	0.22
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Tilted	662000	7	Full	1	1	-	24.0	23.35	0.03	0.172	1.00	1.16	0.20
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	662000	7	Full	135	69	-	24.0	23.29	0.03	0.383	1.00	1.18	0.45
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Tilted	662000	7	Full	135	69	-	24.0	23.29	-0.06	0.357	1.00	1.18	0.42
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Cheek	662000	7	Full	135	69	-	24.0	23.29	-0.04	0.186	1.00	1.18	0.22
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Tilted	662000	7	Full	135	69	-	24.0	23.29	-0.01	0.139	1.00	1.18	0.16
P29	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	650000	7	Full	1	1	-	24.0	23.16	0.16	0.831	1.00	1.21	<b>1.01</b>
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	656000	7	Full	1	1	-	24.0	23.24	0.19	0.589	1.00	1.19	0.70
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	662000	7	Full	270	0	-	23.0	22.29	-0.19	0.369	1.00	1.18	0.43
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	662000	7	Reduced 2	1	1	-	21.0	20.58	0.09	0.231	1.00	1.10	0.25
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Tilted	662000	7	Reduced 2	1	1	-	21.0	20.58	0.01	0.187	1.00	1.10	0.21
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Cheek	662000	7	Reduced 2	1	1	-	21.0	20.58	-0.05	0.100	1.00	1.10	0.11
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Tilted	662000	7	Reduced 2	1	1	-	21.0	20.58	0.02	0.089	1.00	1.10	0.10
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	662000	7	Reduced 2	135	69	-	21.0	20.49	-0.06	0.206	1.00	1.12	0.23
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Tilted	662000	7	Reduced 2	135	69	-	21.0	20.49	0.01	0.185	1.00	1.12	0.21
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Cheek	662000	7	Reduced 2	135	69	-	21.0	20.49	0.03	0.097	1.00	1.12	0.11
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Tilted	662000	7	Reduced 2	135	69	-	21.0	20.49	0.01	0.072	1.00	1.12	0.08
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	650000	7	Reduced 2	1	1	-	21.0	20.47	0.07	0.448	1.00	1.13	0.51
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	656000	7	Reduced 2	1	1	-	21.0	20.41	0.09	0.309	1.00	1.15	0.35
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	662000	4	Full	1	1	-	24.0	23.33	0.06	0.053	1.00	1.17	0.06
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Tilted	662000	4	Full	1	1	-	24.0	23.33	0.03	0.038	1.00	1.17	0.04
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Cheek	662000	4	Full	1	1	-	24.0	23.33	0.01	0.036	1.00	1.17	0.04
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Tilted	662000	4	Full	1	1	-	24.0	23.33	0.02	0.029	1.00	1.17	0.03
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	662000	4	Full	135	69	-	24.0	23.20	0.05	0.074	1.00	1.20	0.09
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Tilted	662000	4	Full	135	69	-	24.0	23.20	0.09	0.044	1.00	1.20	0.05
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Cheek	662000	4	Full	135	69	-	24.0	23.20	0.07	0.048	1.00	1.20	0.06
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Tilted	662000	4	Full	135	69	-	24.0	23.20	-0.04	0.029	1.00	1.20	0.03
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	650000	4	Full	135	69	-	24.0	22.99	-0.06	0.076	1.00	1.26	0.10
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	662000	5	Full	1	1	-	24.0	23.31	0.01	0.041	1.00	1.17	0.05
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Tilted	662000	5	Full	1	1	-	24.0	23.31	-0.05	0.029	1.00	1.17	0.03
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Cheek	662000	5	Full	1	1	-	24.0	23.31	0.15	0.034	1.00	1.17	0.04
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Left Tilted	662000	5	Full	1	1	-	24.0	23.31	0.03	0.021	1.00	1.17	0.02
	5G NR n77 (Part27O)	DFT-s-OFDM QPSK100M	Right Cheek	662000	5	Full	135	69	-	24.0	23.25	0.01	0.063	1.00	1.19	0.07





Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Right Tilted	662000	5	Full	135	69	-	24.0	23.25	0.05	0.041	1.00	1.19	0.05
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Left Cheek	662000	5	Full	135	69	-	24.0	23.25	0.09	0.055	1.00	1.19	0.07
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Left Tilted	662000	5	Full	135	69	-	24.0	23.25	-0.14	0.036	1.00	1.19	0.04
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Right Cheek	650000	5	Full	135	69	-	24.0	22.99	0.06	0.052	1.00	1.26	0.07
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Right Cheek	656000	5	Full	135	69	-	24.0	23.12	0.03	0.058	1.00	1.22	0.07
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Right Cheek	662000	6	Full	1	1	-	24.0	23.34	0.01	0.033	1.00	1.16	0.04
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Right Tilted	662000	6	Full	1	1	-	24.0	23.34	-0.01	0.018	1.00	1.16	0.02
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Left Cheek	662000	6	Full	1	1	-	24.0	23.34	-0.01	0.047	1.00	1.16	0.05
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Left Tilted	662000	6	Full	1	1	-	24.0	23.34	0.01	0.013	1.00	1.16	0.02
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Right Cheek	662000	6	Full	135	69	-	24.0	23.33	-0.08	0.036	1.00	1.17	0.04
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Right Tilted	662000	6	Full	135	69	-	24.0	23.33	0.05	0.020	1.00	1.17	0.02
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Left Cheek	662000	6	Full	135	69	-	24.0	23.33	0.07	0.062	1.00	1.17	0.07
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Left Tilted	662000	6	Full	135	69	-	24.0	23.33	0.09	0.026	1.00	1.17	0.03
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Left Cheek	650000	6	Full	135	69	-	24.0	23.16	0.04	0.060	1.00	1.21	0.07
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Left Cheek	656000	6	Full	135	69	-	24.0	23.18	0	0.056	1.00	1.21	0.07
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Right Cheek	662000	6	Full	1	1	-	24.0	23.34	0.01	0.033	1.00	1.16	0.04
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Right Tilted	662000	6	Full	1	1	-	24.0	23.34	-0.01	0.018	1.00	1.16	0.02
	WLAN2.4G	802.11b	Right Cheek	1	8	Full	-	-	97.78	15.5	15.00	0.09	0.023	1.02	1.12	0.03
	WLAN2.4G	802.11b	Right Tilted	1	8	Full	-	-	97.78	15.5	15.00	0	0.028	1.02	1.12	0.03
	WLAN2.4G	802.11b	Left Cheek	1	8	Full	-	-	97.78	15.5	15.00	-0.01	0.062	1.02	1.12	0.07
	WLAN2.4G	802.11b	Left Tilted	1	8	Full	-	-	97.78	15.5	15.00	0.04	0.068	1.02	1.12	0.08
	WLAN2.4G	802.11b	Left Tilted	6	8	Full	-	-	97.78	15.5	14.55	-0.01	0.064	1.02	1.24	0.08
	WLAN2.4G	802.11b	Left Tilted	11	8	Full	-	-	97.78	15.5	14.64	-0.07	0.061	1.02	1.22	0.08
	WLAN2.4G	802.11b	Right Cheek	11	9	Full	-	-	97.78	15.5	14.98	0.03	0.115	1.02	1.13	0.13
	WLAN2.4G	802.11b	Right Tilted	11	9	Full	-	-	97.78	15.5	14.98	0.09	0.101	1.02	1.13	0.12
	WLAN2.4G	802.11b	Left Cheek	11	9	Full	-	-	97.78	15.5	14.98	0	0.230	1.02	1.13	0.27
	WLAN2.4G	802.11b	Left Tilted	11	9	Full	-	-	97.78	15.5	14.98	0	0.217	1.02	1.13	0.25
	WLAN2.4G	802.11b	Left Cheek	1	9	Full	-	-	97.78	15.5	14.97	-0.08	0.276	1.02	1.13	0.32
	WLAN2.4G	802.11b	Left Cheek	6	9	Full	-	-	97.78	15.5	14.90	0.03	0.226	1.02	1.15	0.27
	WLAN2.4G	802.11b	Right Cheek	1	8+9	Full	-	-	97.98	19.0	18.30	0.03	0.203	1.02	1.17	0.24
	WLAN2.4G	802.11b	Right Tilted	1	8+9	Full	-	-	97.98	19.0	18.30	0.01	0.208	1.02	1.17	0.25
	WLAN2.4G	802.11b	Left Cheek	1	8+9	Full	-	-	97.98	19.0	18.30	0.05	0.324	1.02	1.17	0.39
	WLAN2.4G	802.11b	Left Tilted	1	8+9	Full	-	-	97.98	19.0	18.30	0.09	0.336	1.02	1.17	0.40
P30	WLAN2.4G	802.11b	Left Tilted	6	8+9	Full	-	-	97.98	19.0	18.04	0	0.326	1.02	1.25	0.42
	WLAN2.4G	802.11b	Left Tilted	11	8+9	Full	-	-	97.98	19.0	18.13	0.09	0.330	1.02	1.22	0.41
	WLAN5.3G	802.11a	Right Cheek	52	8	Full	-	-	96.72	14.0	13.58	0.06	0.247	1.03	1.10	0.28
	WLAN5.3G	802.11a	Right Tilted	52	8	Full	-	-	96.72	14.0	13.58	0.02	0.305	1.03	1.10	0.35
	WLAN5.3G	802.11a	Left Cheek	52	8	Full	-	-	96.72	14.0	13.58	-0.04	0.265	1.03	1.10	0.30
	WLAN5.3G	802.11a	Left Tilted	52	8	Full	-	-	96.72	14.0	13.58	0.1	0.297	1.03	1.10	0.34
	WLAN5.3G	802.11a	Right Tilted	56	8	Full	-	-	96.72	14.0	13.55	0.01	0.290	1.03	1.11	0.33
	WLAN5.3G	802.11a	Right Tilted	60	8	Full	-	-	96.72	14.0	13.50	-0.12	0.295	1.03	1.12	0.34
	WLAN5.3G	802.11a	Right Tilted	64	8	Full	-	-	96.72	14.0	13.52	-0.07	0.259	1.03	1.12	0.30
	WLAN5.3G	802.11a	Right Cheek	64	9	Full	-	-	96.72	13.0	12.71	0.03	0.073	1.03	1.07	0.08
	WLAN5.3G	802.11a	Right Tilted	64	9	Full	-	-	96.72	13.0	12.71	0.07	0.066	1.03	1.07	0.07
	WLAN5.3G	802.11a	Left Cheek	64	9	Full	-	-	96.72	13.0	12.71	0.09	0.082	1.03	1.07	0.09
	WLAN5.3G	802.11a	Left Tilted	64	9	Full	-	-	96.72	13.0	12.71	-0.07	0.078	1.03	1.07	0.09
	WLAN5.3G	802.11a	Left Cheek	52	9	Full	-	-	96.72	13.0	12.47	-0.05	0.118	1.03	1.13	0.14
	WLAN5.3G	802.11a	Left Cheek	56	9	Full	-	-	96.72	13.0	12.58	-0.02	0.120	1.03	1.10	0.14
	WLAN5.3G	802.11a	Left Cheek	60	9	Full	-	-	96.72	13.0	12.70	0.01	0.110	1.03	1.07	0.12
	WLAN5.3G	802.11a	Right Cheek	64	8+9	Full	-	-	96.72	16.5	16.22	0.05	0.279	1.03	1.07	0.31
	WLAN5.3G	802.11a	Right Tilted	64	8+9	Full	-	-	96.72	16.5	16.22	0.09	0.320	1.03	1.07	0.35
P31	WLAN5.3G	802.11a	Left Cheek	64	8+9	Full	-	-	96.72	16.5	16.22	0	0.339	1.03	1.07	0.37
	WLAN5.3G	802.11a	Left Tilted	64	8+9	Full	-	-	96.72	16.5	16.22	-0.06	0.337	1.03	1.07	0.37





Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	WLAN5.3G	802.11a	Left Cheek	52	8+9	Full	-	-	96.72	16.5	16.14	0.04	0.297	1.03	1.09	0.33
	WLAN5.3G	802.11a	Left Cheek	56	8+9	Full	-	-	96.72	16.5	16.18	-0.01	0.318	1.03	1.08	0.35
	WLAN5.3G	802.11a	Left Cheek	60	8+9	Full	-	-	96.72	16.5	16.20	0.01	0.316	1.03	1.07	0.35
	WLAN5.6G	802.11a	Right Cheek	140	8	Full	-	-	96.72	14.5	13.97	0.01	0.251	1.03	1.13	0.29
	WLAN5.6G	802.11a	Right Tilted	140	8	Full	-	-	96.72	14.5	13.97	0	0.253	1.03	1.13	0.30
	WLAN5.6G	802.11a	Left Cheek	140	8	Full	-	-	96.72	14.5	13.97	-0.06	0.257	1.03	1.13	0.30
	WLAN5.6G	802.11a	Left Tilted	140	8	Full	-	-	96.72	14.5	13.97	-0.08	0.263	1.03	1.13	0.31
	WLAN5.6G	802.11a	Left Tilted	100	8	Full	-	-	96.72	13.5	13.22	-0.07	0.300	1.03	1.07	0.33
	WLAN5.6G	802.11a	Left Tilted	116	8	Full	-	-	96.72	13.5	13.09	0.01	0.271	1.03	1.10	0.31
	WLAN5.6G	802.11a	Left Tilted	124	8	Full	-	-	96.72	14.0	13.28	0.06	0.279	1.03	1.18	0.34
	WLAN5.6G	802.11a	Left Tilted	132	8	Full	-	-	96.72	14.5	13.56	0.06	0.285	1.03	1.24	0.37
	WLAN5.6G	802.11a	Left Tilted	144	8	Full	-	-	96.72	14.5	13.89	0.01	0.241	1.03	1.15	0.29
	WLAN5.6G	802.11a	Right Cheek	116	9	Full	-	-	96.72	12.5	12.08	0.02	0.097	1.03	1.10	0.11
	WLAN5.6G	802.11a	Right Tilted	116	9	Full	-	-	96.72	12.5	12.08	0.01	0.076	1.03	1.10	0.09
	WLAN5.6G	802.11a	Left Cheek	116	9	Full	-	-	96.72	12.5	12.08	0.02	0.168	1.03	1.10	0.19
	WLAN5.6G	802.11a	Left Tilted	116	9	Full	-	-	96.72	12.5	12.08	-0.06	0.121	1.03	1.10	0.14
	WLAN5.6G	802.11a	Left Cheek	100	9	Full	-	-	96.72	12.5	11.88	0.01	0.163	1.03	1.15	0.19
	WLAN5.6G	802.11a	Left Cheek	124	9	Full	-	-	96.72	12.5	11.85	0.06	0.180	1.03	1.16	0.22
	WLAN5.6G	802.11a	Left Cheek	132	9	Full	-	-	96.72	12.5	11.81	0.06	0.193	1.03	1.17	0.23
	WLAN5.6G	802.11a	Left Cheek	140	9	Full	-	-	96.72	12.5	11.85	-0.01	0.112	1.03	1.16	0.13
	WLAN5.6G	802.11a	Left Cheek	144	9	Full	-	-	96.72	12.5	11.78	0.04	0.119	1.03	1.18	0.15
	WLAN5.6G	802.11a	Right Cheek	140	8+9	Full	-	-	96.72	16.5	16.12	0.02	0.225	1.03	1.09	0.25
	WLAN5.6G	802.11a	Right Tilted	140	8+9	Full	-	-	96.72	16.5	16.12	0.06	0.241	1.03	1.09	0.27
	WLAN5.6G	802.11a	Left Cheek	140	8+9	Full	-	-	96.72	16.5	16.12	0.01	0.241	1.03	1.09	0.27
	WLAN5.6G	802.11a	Left Tilted	140	8+9	Full	-	-	96.72	16.5	16.12	0.01	0.253	1.03	1.09	0.29
P32	WLAN5.6G	802.11a	Left Tilted	100	8+9	Full	-	-	96.72	16.5	15.69	-0.09	0.301	1.03	1.21	0.38
	WLAN5.6G	802.11a	Left Tilted	116	8+9	Full	-	-	96.72	16.5	15.70	-0.01	0.276	1.03	1.20	0.34
	WLAN5.6G	802.11a	Left Tilted	124	8+9	Full	-	-	96.72	16.5	15.95	0.01	0.311	1.03	1.14	0.36
	WLAN5.6G	802.11a	Left Tilted	132	8+9	Full	-	-	96.72	16.5	15.99	0.06	0.314	1.03	1.12	0.37
	WLAN5.6G	802.11a	Left Tilted	144	8+9	Full	-	-	96.72	16.5	16.05	0.07	0.234	1.03	1.11	0.27
	WLAN5.8G	802.11a	Right Cheek	157	8	Full	-	-	97.72	14.0	13.61	-0.06	0.167	1.02	1.09	0.19
P33	WLAN5.8G	802.11a	Right Tilted	157	8	Full	-	-	97.72	14.0	13.61	0.07	0.192	1.02	1.09	0.21
	WLAN5.8G	802.11a	Left Cheek	157	8	Full	-	-	97.72	14.0	13.61	0.06	0.152	1.02	1.09	0.17
	WLAN5.8G	802.11a	Left Tilted	157	8	Full	-	-	97.72	14.0	13.61	0.01	0.142	1.02	1.09	0.16
	WLAN5.8G	802.11a	Right Tilted	149	8	Full	-	-	97.72	14.0	13.34	0.05	0.182	1.02	1.16	0.22
	WLAN5.8G	802.11a	Right Tilted	165	8	Full	-	-	97.72	14.0	13.31	0.07	0.158	1.02	1.17	0.19
	WLAN5.8G	802.11a	Right Cheek	165	9	Full	-	-	97.72	12.5	12.00	-0.06	0.063	1.02	1.12	0.07
	WLAN5.8G	802.11a	Right Tilted	165	9	Full	-	-	97.72	12.5	12.00	0.01	0.033	1.02	1.12	0.04
	WLAN5.8G	802.11a	Left Cheek	165	9	Full	-	-	97.72	12.5	12.00	0.09	0.085	1.02	1.12	0.10
	WLAN5.8G	802.11a	Left Tilted	165	9	Full	-	-	97.72	12.5	12.00	0.01	0.041	1.02	1.12	0.05
	WLAN5.8G	802.11a	Left Cheek	149	9	Full	-	-	97.72	12.5	11.06	-0.05	0.054	1.02	1.39	0.08
	WLAN5.8G	802.11a	Left Cheek	157	9	Full	-	-	97.72	12.5	11.77	-0.07	0.070	1.02	1.18	0.08
	WLAN5.8G	802.11a	Right Cheek	157	8+9	Full	-	-	97.72	16.5	16.00	0.06	0.133	1.02	1.12	0.15
	WLAN5.8G	802.11a	Right Tilted	157	8+9	Full	-	-	97.72	16.5	16.00	0.01	0.128	1.02	1.12	0.15
	WLAN5.8G	802.11a	Left Cheek	157	8+9	Full	-	-	97.72	16.5	16.00	0.05	0.143	1.02	1.12	0.16
	WLAN5.8G	802.11a	Left Tilted	157	8+9	Full	-	-	97.72	16.5	16.00	0.01	0.142	1.02	1.12	0.16
	WLAN5.8G	802.11a	Left Cheek	149	8+9	Full	-	-	97.72	16.5	15.56	-0.09	0.164	1.02	1.24	0.21
	WLAN5.8G	802.11a	Left Cheek	165	8+9	Full	-	-	97.72	16.5	15.91	-0.03	0.133	1.02	1.15	0.16
	BT	GFSK	Right Cheek	39	8	Full	-	-	76.53	7.0	6.16	0.07	0.000	1.31	1.21	0.00
	BT	GFSK	Right Tilted	39	8	Full	-	-	76.53	7.0	6.16	0.08	0.000	1.31	1.21	0.00
	BT	GFSK	Left Cheek	39	8	Full	-	-	76.53	7.0	6.16	0.01	0.004	1.31	1.21	0.01
P34	BT	GFSK	Left Tilted	39	8	Full	-	-	76.53	7.0	6.16	-0.09	0.006	1.31	1.21	0.01
	BT	GFSK	Left Tilted	0	8	Full	-	-	76.53	7.0	5.69	-0.01	0.004	1.31	1.35	0.01
	BT	GFSK	Left Tilted	78	8	Full	-	-	76.53	7.0	5.28	0.03	0.005	1.31	1.49	0.01
	BLE	S8	Right Cheek	19	8	Full	-	-	82.4	10.0	9.35	-0.06	0.004	1.21	1.16	0.01
	BLE	S8	Right Tilted	19	8	Full	-	-	82.4	10.0	9.35	-0.08	0.005	1.21	1.16	0.01
	BLE	S8	Left Cheek	19	8	Full	-	-	82.4	10.0	9.35	0.01	0.014	1.21	1.16	0.02
P35	BLE	S8	Left Tilted	19	8	Full	-	-	82.4	10.0	9.35	0.09	0.014	1.21	1.16	0.02
	BLE	S8	Left Tilted	0	8	Full	-	-	82.4	10.0	8.49	-0.08	0.009	1.21	1.42	0.02
	BLE	S8	Left Tilted	39	8	Full	-	-	82.4	10.0	8.63	-0.11	0.011	1.21	1.37	0.02

4.6.3 SAR Results for Body-worn Exposure Condition (Separation Distance is 1.5 cm Gap)

Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	GSM850	GPRS 3Tx slot	Front Face	189	2	Full	-	-	-	29.5	28.73	0.01	0.225	1.00	1.19	0.27



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
P36	GSM850	GPRS 3Tx slot	Rear Face	189	2	Full	-	-	-	29.5	28.73	-0.07	0.201	1.00	1.19	0.24
	GSM850	GPRS 3Tx slot	Front Face	128	2	Full	-	-	-	29.5	28.64	0.02	0.253	1.00	1.22	<b>0.31</b>
	GSM850	GPRS 3Tx slot	Front Face	251	2	Full	-	-	-	29.5	28.65	-0.14	0.178	1.00	1.22	0.22
P37	GSM1900	GPRS 3Tx slot	Front Face	661	1	Full	-	-	-	26.5	25.56	-0.02	0.169	1.00	1.24	0.21
	GSM1900	GPRS 3Tx slot	Rear Face	661	1	Full	-	-	-	26.5	25.56	-0.19	0.227	1.00	1.24	<b>0.28</b>
	GSM1900	GPRS 3Tx slot	Rear Face	512	1	Full	-	-	-	26.5	25.54	-0.12	0.198	1.00	1.25	0.25
P38	GSM1900	GPRS 3Tx slot	Rear Face	810	1	Full	-	-	-	26.5	25.50	-0.08	0.219	1.00	1.26	0.28
	WCDMA II	RMC12.2K	Front Face	9400	1	Full	-	-	-	24.0	23.38	0.02	0.063	1.00	1.15	0.07
	WCDMA II	RMC12.2K	Rear Face	9400	1	Full	-	-	-	24.0	23.38	0.01	0.091	1.00	1.15	0.10
P39	WCDMA II	RMC12.2K	Rear Face	9262	1	Full	-	-	-	24.0	23.35	-0.01	0.100	1.00	1.16	<b>0.12</b>
	WCDMA II	RMC12.2K	Rear Face	9538	1	Full	-	-	-	24.0	23.26	0.06	0.082	1.00	1.19	0.10
	WCDMA IV	RMC12.2K	Front Face	1513	1	Full	-	-	-	24.0	23.33	-0.09	0.040	1.00	1.17	0.05
P40	WCDMA IV	RMC12.2K	Rear Face	1513	1	Full	-	-	-	24.0	23.33	-0.02	0.050	1.00	1.17	<b>0.06</b>
	WCDMA IV	RMC12.2K	Rear Face	1312	1	Full	-	-	-	24.0	23.24	0.04	0.049	1.00	1.19	0.06
	WCDMA IV	RMC12.2K	Rear Face	1413	1	Full	-	-	-	24.0	23.26	0.01	0.048	1.00	1.19	0.06
P41	WCDMA V	RMC12.2K	Front Face	4132	2	Full	-	-	-	24.0	22.78	-0.08	0.194	1.00	1.32	0.26
	WCDMA V	RMC12.2K	Rear Face	4132	2	Full	-	-	-	24.0	22.78	-0.01	0.180	1.00	1.32	0.24
	WCDMA V	RMC12.2K	Front Face	4182	2	Full	-	-	-	24.0	22.76	0	0.214	1.00	1.33	<b>0.28</b>
P42	WCDMA V	RMC12.2K	Front Face	4233	2	Full	-	-	-	24.0	22.75	0.03	0.184	1.00	1.33	0.25
	LTE 5	QPSK10M	Front Face	20525	2	Full	1	0	-	24.0	22.73	0	0.179	1.00	1.34	0.24
	LTE 5	QPSK10M	Rear Face	20525	2	Full	1	0	-	24.0	22.73	-0.04	0.208	1.00	1.34	<b>0.28</b>
P43	LTE 5	QPSK10M	Front Face	20525	2	Full	25	25	-	23.0	21.62	0.05	0.147	1.00	1.37	0.20
	LTE 5	QPSK10M	Rear Face	20525	2	Full	25	25	-	23.0	21.62	0	0.137	1.00	1.37	0.19
	LTE 5	QPSK10M	Rear Face	20450	2	Full	1	0	-	24.0	22.51	0.06	0.163	1.00	1.41	0.23
P44	LTE 5	QPSK10M	Rear Face	20600	2	Full	1	0	-	24.0	22.52	0.01	0.151	1.00	1.41	0.21
	LTE 7	QPSK20M	Front Face	20850	1	Full	1	99	-	24.0	23.20	-0.01	0.191	1.00	1.20	0.23
	LTE 7	QPSK20M	Rear Face	20850	1	Full	1	99	-	24.0	23.20	0.09	0.331	1.00	1.20	0.40
P45	LTE 7	QPSK20M	Front Face	20850	1	Full	50	50	-	23.0	22.35	-0.01	0.154	1.00	1.16	0.18
	LTE 7	QPSK20M	Rear Face	20850	1	Full	50	50	-	23.0	22.35	-0.06	0.291	1.00	1.16	0.34
	LTE 7	QPSK20M	Rear Face	21100	1	Full	1	99	-	24.0	23.11	0.05	0.331	1.00	1.23	0.41
P46	LTE 7	QPSK20M	Rear Face	21350	1	Full	1	99	-	24.0	23.08	0.09	0.380	1.00	1.24	<b>0.47</b>
	LTE 7(CA)	QPSK20M	Rear Face	PCC:21350 SCC:21152	1	Full	1	99	0	24.0	23.17	-0.07	0.384	1.00	1.21	0.46
	LTE 12	QPSK10M	Front Face	23130	2	Full	1	49	-	24.0	22.42	-0.03	0.209	1.00	1.44	<b>0.30</b>
P47	LTE 12	QPSK10M	Rear Face	23130	2	Full	1	49	-	24.0	22.42	-0.09	0.131	1.00	1.44	0.19
	LTE 12	QPSK10M	Front Face	23130	2	Full	25	25	-	23.0	21.47	-0.06	0.166	1.00	1.42	0.24
	LTE 12	QPSK10M	Rear Face	23130	2	Full	25	25	-	23.0	21.47	0.01	0.109	1.00	1.42	0.16
P48	LTE 12	QPSK10M	Front Face	23060	2	Full	1	49	-	24.0	22.35	0.01	0.164	1.00	1.46	0.24
	LTE 12	QPSK10M	Front Face	23095	2	Full	1	49	-	24.0	22.27	0.07	0.168	1.00	1.49	0.25
	LTE 13	QPSK10M	Front Face	23230	2	Full	1	24	-	24.0	22.65	-0.03	0.229	1.00	1.36	<b>0.31</b>
P49	LTE 13	QPSK10M	Rear Face	23230	2	Full	1	24	-	24.0	22.65	0.01	0.177	1.00	1.36	0.24
	LTE 13	QPSK10M	Front Face	23230	2	Full	25	12	-	23.0	21.79	0.08	0.176	1.00	1.32	0.23
	LTE 13	QPSK10M	Rear Face	23230	2	Full	25	12	-	23.0	21.79	0.09	0.137	1.00	1.32	0.18
P50	LTE 14	QPSK10M	Front Face	23330	2	Full	1	24	-	24.0	22.72	-0.03	0.204	1.00	1.34	<b>0.27</b>
	LTE 14	QPSK10M	Rear Face	23330	2	Full	1	24	-	24.0	22.72	0.03	0.147	1.00	1.34	0.20
	LTE 14	QPSK10M	Front Face	23330	2	Full	25	12	-	23.0	21.84	0.07	0.154	1.00	1.31	0.20
P51	LTE 14	QPSK10M	Rear Face	23330	2	Full	25	12	-	23.0	21.84	-0.01	0.114	1.00	1.31	0.15
	LTE 25	QPSK20M	Front Face	26140	1	Full	1	0	-	24.0	23.05	0.02	0.313	1.00	1.24	0.39
	LTE 25	QPSK20M	Rear Face	26140	1	Full	1	0	-	24.0	23.05	0.09	0.374	1.00	1.24	0.47
P52	LTE 25	QPSK20M	Front Face	26140	1	Full	50	25	-	23.0	22.24	0.12	0.276	1.00	1.19	0.33
	LTE 25	QPSK20M	Rear Face	26140	1	Full	50	25	-	23.0	22.24	0.16	0.338	1.00	1.19	0.40
	LTE 25	QPSK20M	Rear Face	26340	1	Full	1	0	-	24.0	23.00	0.01	0.383	1.00	1.26	<b>0.48</b>
P53	LTE 25	QPSK20M	Rear Face	26590	1	Full	1	0	-	24.0	23.02	-0.07	0.347	1.00	1.25	0.43
	LTE 26	QPSK15M	Front Face	26965	2	Full	1	37	-	24.0	22.48	0	0.173	1.00	1.42	<b>0.25</b>
	LTE 26	QPSK15M	Rear Face	26965	2	Full	1	37	-	24.0	22.48	0.02	0.158	1.00	1.42	0.22
P54	LTE 26	QPSK15M	Front Face	26965	2	Full	36	39	-	23.0	21.54	0.11	0.136	1.00	1.40	0.19
	LTE 26	QPSK15M	Rear Face	26965	2	Full	36	39	-	23.0	21.54	-0.03	0.124	1.00	1.40	0.17
	LTE 26	QPSK15M	Front Face	26765	2	Full	1	37	-	24.0	22.36	0.01	0.153	1.00	1.46	0.22
P55	LTE 26	QPSK15M	Front Face	26865	2	Full	1	37	-	24.0	22.37	0.03	0.141	1.00	1.46	0.21
	LTE 30	QPSK10M	Front Face	27710	1	Full	1	0	-	24.0	23.37	0.06	0.136	1.00	1.16	0.16
	LTE 30	QPSK10M	Rear Face	27710	1	Full	1	0	-	24.0	23.37	0	0.257	1.00	1.16	<b>0.30</b>
P56	LTE 30	QPSK10M	Front Face	27710	1	Full	25	25	-	23.0	22.45	-0.07	0.108	1.00	1.14	0.12
	LTE 30	QPSK10M	Rear Face	27710	1	Full	25	25	-	23.0	22.45	0.01	0.212	1.00	1.14	0.24
	LTE 41	QPSK20M	Front Face	40185	1	Full	1	0	62.9	24.0	22.94	0.06	0.173	1.01	1.28	0.22
P57	LTE 41	QPSK20M	Rear Face	40185	1	Full	1	0	62.9	24.0	22.94	-0.05	0.312	1.01	1.28	<b>0.40</b>
	LTE 41	QPSK20M	Front Face	40185	1	Full	50	25	62.9	23.0	21.93	0.07	0.135	1.01	1.28	0.17
	LTE 41	QPSK20M	Rear Face	40185	1	Full	50	25	62.9	23.0	21.93	0.01	0.255	1.01	1.28	0.33



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	LTE 41	QPSK20M	Rear Face	39750	1	Full	1	0	62.9	24.0	22.86	0.01	0.230	1.01	1.30	0.30
	LTE 41	QPSK20M	Rear Face	40620	1	Full	1	0	62.9	24.0	22.64	-0.13	0.279	1.01	1.37	0.38
	LTE 41	QPSK20M	Rear Face	41055	1	Full	1	0	62.9	24.0	22.53	-0.02	0.102	1.01	1.40	0.14
	LTE 41	QPSK20M	Rear Face	41490	1	Full	1	0	62.9	24.0	22.40	0.08	0.077	1.01	1.45	0.11
	LTE 41(CA)	QPSK20M	Rear Face	PCC:40185 SCC:40383	1	Full	1	0	62.9	24.0	22.54	0.09	0.284	1.01	1.40	0.40
	LTE 42 (Part27Q)	QPSK20M	Front Face	42190	7	Full	1	0	62.9	24.0	22.72	-0.11	0.142	1.01	1.34	0.19
	LTE 42 (Part27Q)	QPSK20M	Rear Face	42190	7	Full	1	0	62.9	24.0	22.72	-0.06	0.169	1.01	1.34	0.23
	LTE 42 (Part27Q)	QPSK20M	Front Face	42190	7	Full	50	0	62.9	23.0	21.70	-0.07	0.116	1.01	1.35	0.16
	LTE 42 (Part27Q)	QPSK20M	Rear Face	42190	7	Full	50	0	62.9	23.0	21.70	-0.03	0.135	1.01	1.35	0.18
	LTE 42 (Part27Q)	QPSK20M	Rear Face	42590	7	Full	1	0	62.9	24.0	22.58	0.01	0.178	1.01	1.39	0.25
P50	LTE 42 (Part27Q)	QPSK20M	Rear Face	42990	7	Full	1	0	62.9	24.0	22.60	-0.04	0.182	1.01	1.38	0.25
	LTE 42(CA) (Part27Q)	QPSK20M	Rear Face	PCC:42990 SCC:42792	7	Full	1	0	62.9	24.0	22.51	0.1	0.171	1.01	1.41	0.24
	LTE 48	QPSK20M	Front Face	56640	7	Full	1	0	62.9	24.0	22.85	0.09	0.125	1.01	1.30	0.16
P51	LTE 48	QPSK20M	Rear Face	56640	7	Full	1	0	62.9	24.0	22.85	-0.01	0.176	1.01	1.30	0.23
	LTE 48	QPSK20M	Front Face	56640	7	Full	50	0	62.9	23.0	21.77	0.01	0.101	1.01	1.33	0.13
	LTE 48	QPSK20M	Rear Face	56640	7	Full	50	0	62.9	23.0	21.77	0.08	0.144	1.01	1.33	0.19
	LTE 48	QPSK20M	Rear Face	55340	7	Full	1	0	62.9	24.0	22.34	-0.01	0.151	1.01	1.47	0.22
	LTE 48	QPSK20M	Rear Face	55830	7	Full	1	0	62.9	24.0	22.58	0.01	0.164	1.01	1.39	0.23
	LTE 48	QPSK20M	Rear Face	56150	7	Full	1	0	62.9	24.0	22.80	-0.09	0.171	1.01	1.32	0.23
	LTE 48(CA)	QPSK20M	Rear Face	PCC:56640 SCC:56442	7	Full	1	0	62.9	24.0	22.26	0.07	0.150	1.01	1.49	0.23
	LTE 66	QPSK20M	Front Face	132572	1	Full	1	99	-	24.0	23.68	0.09	0.365	1.00	1.08	0.39
P52	LTE 66	QPSK20M	Rear Face	132572	1	Full	1	99	-	24.0	23.68	0.02	0.390	1.00	1.08	0.42
	LTE 66	QPSK20M	Front Face	132572	1	Full	50	50	-	23.0	22.82	-0.05	0.294	1.00	1.04	0.31
	LTE 66	QPSK20M	Rear Face	132572	1	Full	50	50	-	23.0	22.82	-0.01	0.324	1.00	1.04	0.34
	LTE 66	QPSK20M	Rear Face	132072	1	Full	1	99	-	24.0	23.08	0.01	0.308	1.00	1.24	0.38
	LTE 66	QPSK20M	Rear Face	132322	1	Full	1	99	-	24.0	23.15	0.06	0.336	1.00	1.22	0.41
P53	LTE 71	QPSK20M	Front Face	133322	2	Full	1	99	-	24.0	22.84	-0.08	0.159	1.00	1.31	0.21
	LTE 71	QPSK20M	Rear Face	133322	2	Full	1	99	-	24.0	22.84	-0.05	0.144	1.00	1.31	0.19
	LTE 71	QPSK20M	Front Face	133322	2	Full	50	0	-	23.0	21.81	0.06	0.124	1.00	1.32	0.16
	LTE 71	QPSK20M	Rear Face	133322	2	Full	50	0	-	23.0	21.81	0.07	0.115	1.00	1.32	0.15
	LTE 71	QPSK20M	Front Face	133222	2	Full	1	99	-	24.0	22.71	0.04	0.153	1.00	1.35	0.21
	LTE 71	QPSK20M	Front Face	133372	2	Full	1	99	-	24.0	22.73	0.06	0.150	1.00	1.34	0.20
	5G NR n5	DFT-s-OFDM QPSK20M	Front Face	167300	2	Full	1	1	-	24.0	22.89	0.06	0.189	1.00	1.29	0.24
	5G NR n5	DFT-s-OFDM QPSK20M	Rear Face	167300	2	Full	1	1	-	24.0	22.89	0.05	0.173	1.00	1.29	0.22
	5G NR n5	DFT-s-OFDM QPSK20M	Front Face	167300	2	Full	50	28	-	24.0	22.81	-0.04	0.176	1.00	1.32	0.23
	5G NR n5	DFT-s-OFDM QPSK20M	Rear Face	167300	2	Full	50	28	-	24.0	22.81	0.1	0.164	1.00	1.32	0.22
	5G NR n5	DFT-s-OFDM QPSK20M	Front Face	166800	2	Full	1	1	-	24.0	22.84	0.01	0.175	1.00	1.31	0.23
P54	5G NR n5	DFT-s-OFDM QPSK20M	Front Face	167800	2	Full	1	1	-	24.0	22.78	-0.07	0.197	1.00	1.32	0.26
	5G NR n7	DFT-s-OFDM QPSK20M	Front Face	507000	1	Full	1	1	-	24.0	23.15	-0.09	0.336	1.00	1.22	0.41
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	507000	1	Full	1	1	-	24.0	23.15	0.01	0.559	1.00	1.22	0.68
	5G NR n7	DFT-s-OFDM QPSK20M	Front Face	507000	1	Full	50	28	-	24.0	23.09	0.06	0.317	1.00	1.23	0.39
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	507000	1	Full	50	28	-	24.0	23.09	0.05	0.541	1.00	1.23	0.67
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	502000	1	Full	1	1	-	24.0	23.10	-0.08	0.506	1.00	1.23	0.62
P55	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	512000	1	Full	1	1	-	24.0	22.94	-0.08	0.564	1.00	1.28	0.72
	5G NR n12	DFT-s-OFDM QPSK15M	Front Face	141500	2	Full	1	1	-	24.0	22.70	0.02	0.180	1.00	1.35	0.24
	5G NR n12	DFT-s-OFDM QPSK15M	Rear Face	141500	2	Full	1	1	-	24.0	22.70	0.15	0.144	1.00	1.35	0.19



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n12	DFT-s-OFDM QPSK15M	Front Face	141500	2	Full	36	19	-	24.0	22.66	-0.08	0.172	1.00	1.36	0.23
	5G NR n12	DFT-s-OFDM QPSK15M	Rear Face	141500	2	Full	36	19	-	24.0	22.66	-0.04	0.170	1.00	1.36	0.23
	5G NR n12	DFT-s-OFDM QPSK15M	Front Face	141300	2	Full	1	1	-	24.0	22.61	-0.16	0.181	1.00	1.38	0.25
P56	5G NR n12	DFT-s-OFDM QPSK15M	Front Face	141700	2	Full	1	1	-	24.0	22.58	-0.08	0.187	1.00	1.39	<b>0.26</b>
	5G NR n25	DFT-s-OFDM QPSK40M	Front Face	376500	1	Full	1	1	-	24.0	23.41	-0.09	0.254	1.00	1.15	0.29
	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	376500	1	Full	1	1	-	24.0	23.41	0.01	0.304	1.00	1.15	0.35
	5G NR n25	DFT-s-OFDM QPSK40M	Front Face	376500	1	Full	108	54	-	24.0	23.26	0.06	0.320	1.00	1.19	0.38
	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	376500	1	Full	108	54	-	24.0	23.26	0.03	0.396	1.00	1.19	0.47
P57	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	374000	1	Full	108	54	-	24.0	23.37	-0.05	0.403	1.00	1.16	<b>0.47</b>
	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	379000	1	Full	108	54	-	24.0	23.33	0.04	0.316	1.00	1.17	0.37
	5G NR n30	DFT-s-OFDM QPSK10M	Front Face	462000	1	Full	1	1	-	24.0	23.40	0.06	0.170	1.00	1.15	0.20
	5G NR n30	DFT-s-OFDM QPSK10M	Rear Face	462000	1	Full	1	1	-	24.0	23.40	-0.01	0.289	1.00	1.15	0.33
	5G NR n30	DFT-s-OFDM QPSK10M	Front Face	462000	1	Full	25	14	-	24.0	23.36	0.06	0.181	1.00	1.16	0.21
P58	5G NR n30	DFT-s-OFDM QPSK10M	Rear Face	462000	1	Full	25	14	-	24.0	23.36	-0.17	0.315	1.00	1.16	<b>0.37</b>
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	1	Full	1	1	-	24.0	23.10	-0.03	0.115	1.00	1.23	0.14
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	1	Full	1	1	-	24.0	23.10	-0.16	0.186	1.00	1.23	0.23
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	1	Full	135	69	-	24.0	22.91	0.01	0.118	1.00	1.29	0.15
P59	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	1	Full	135	69	-	24.0	22.91	-0.08	0.223	1.00	1.29	<b>0.29</b>
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	518598	1	Full	135	69	-	24.0	22.85	0.03	0.160	1.00	1.30	0.21
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	528000	1	Full	135	69	-	24.0	22.74	0.02	0.102	1.00	1.34	0.14
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	2	Full	1	1	-	24.0	23.07	0.09	0.049	1.00	1.24	0.06
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	2	Full	1	1	-	24.0	23.07	-0.06	0.149	1.00	1.24	0.18
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	2	Full	135	69	-	24.0	22.83	-0.1	0.083	1.00	1.31	0.11
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	2	Full	135	69	-	24.0	22.83	0.02	0.205	1.00	1.31	0.27
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	518598	2	Full	135	69	-	24.0	22.70	0.06	0.186	1.00	1.35	0.25
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	528000	2	Full	135	69	-	24.0	22.76	0.01	0.219	1.00	1.33	0.29
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	3	Full	1	1	-	24.0	23.06	0.03	0.053	1.00	1.24	0.07
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	3	Full	1	1	-	24.0	23.06	0.01	0.091	1.00	1.24	0.11
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	3	Full	135	69	-	24.0	22.86	0.06	0.039	1.00	1.30	0.05
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	3	Full	135	69	-	24.0	22.86	-0.01	0.083	1.00	1.30	0.11
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	518598	3	Full	1	1	-	24.0	22.95	-0.08	0.104	1.00	1.27	0.13
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	528000	3	Full	1	1	-	24.0	22.87	0.01	0.118	1.00	1.30	0.15
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	5	Full	1	1	-	24.0	23.08	-0.04	0.028	1.00	1.24	0.03
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	5	Full	1	1	-	24.0	23.08	-0.01	0.040	1.00	1.24	0.05
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	5	Full	135	69	-	24.0	22.88	0.05	0.033	1.00	1.29	0.04





# BUREAU VERITAS FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	5	Full	135	69	-	24.0	22.88	0.01	0.054	1.00	1.29	0.07
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	518598	5	Full	135	69	-	24.0	22.69	0.07	0.063	1.00	1.35	0.09
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	528000	5	Full	135	69	-	24.0	22.73	0.01	0.070	1.00	1.34	0.09
	5G NR n48	DFT-s-OFDM QPSK40M	Front Face	641666	7	Full	1	1	-	24.0	23.69	-0.06	0.109	1.00	1.07	0.12
	5G NR n48	DFT-s-OFDM QPSK40M	Rear Face	641666	7	Full	1	1	-	24.0	23.69	-0.03	0.117	1.00	1.07	0.13
	5G NR n48	DFT-s-OFDM QPSK40M	Front Face	641666	7	Full	50	28	-	24.0	23.53	0.01	0.121	1.00	1.11	0.13
P60	5G NR n48	DFT-s-OFDM QPSK40M	Rear Face	641666	7	Full	50	28	-	24.0	23.53	-0.08	0.134	1.00	1.11	<b>0.15</b>
	5G NR n48	DFT-s-OFDM QPSK40M	Rear Face	638000	7	Full	50	28	-	24.0	23.43	0.02	0.100	1.00	1.14	0.11
	5G NR n48	DFT-s-OFDM QPSK40M	Rear Face	645332	7	Full	50	28	-	24.0	23.48	0.09	0.112	1.00	1.13	0.13
	5G NR n66	DFT-s-OFDM QPSK40M	Front Face	346000	1	Full	1	1	-	24.0	23.47	0.06	0.112	1.00	1.13	0.13
	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	346000	1	Full	1	1	-	24.0	23.47	-0.08	0.153	1.00	1.13	0.17
	5G NR n66	DFT-s-OFDM QPSK40M	Front Face	346000	1	Full	108	54	-	24.0	23.44	-0.01	0.151	1.00	1.14	0.17
	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	346000	1	Full	108	54	-	24.0	23.44	0.01	0.199	1.00	1.14	0.23
	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	349000	1	Full	108	54	-	24.0	23.35	-0.18	0.277	1.00	1.16	0.32
P61	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	352000	1	Full	108	54	-	24.0	23.42	0.02	0.294	1.00	1.14	<b>0.34</b>
	5G NR n71	DFT-s-OFDM QPSK15M	Front Face	136100	2	Full	1	1	-	24.0	23.09	0.03	0.178	1.00	1.23	0.22
	5G NR n71	DFT-s-OFDM QPSK15M	Rear Face	136100	2	Full	1	1	-	24.0	23.09	0.05	0.159	1.00	1.23	0.20
	5G NR n71	DFT-s-OFDM QPSK15M	Front Face	136100	2	Full	36	19	-	24.0	22.93	0.06	0.189	1.00	1.28	0.24
	5G NR n71	DFT-s-OFDM QPSK15M	Rear Face	136100	2	Full	36	19	-	24.0	22.93	0.01	0.167	1.00	1.28	0.21
	5G NR n71	DFT-s-OFDM QPSK15M	Front Face	134100	2	Full	36	19	-	24.0	22.95	0.05	0.155	1.00	1.27	0.20
P62	5G NR n71	DFT-s-OFDM QPSK15M	Front Face	138100	2	Full	36	19	-	24.0	22.80	0.02	0.199	1.00	1.32	<b>0.26</b>
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	7	Full	1	1	-	24.0	23.16	0.03	0.081	1.00	1.21	0.10
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	7	Full	1	1	-	24.0	23.16	0.01	0.110	1.00	1.21	0.13
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	7	Full	135	69	-	24.0	22.69	0.07	0.085	1.00	1.35	0.11
P63	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	7	Full	135	69	-	24.0	22.69	0.04	0.114	1.00	1.35	<b>0.15</b>
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	4	Full	1	1	-	24.0	23.14	0.03	0.043	1.00	1.22	0.05
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	4	Full	1	1	-	24.0	23.14	-0.14	0.053	1.00	1.22	0.06
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	4	Full	135	69	-	24.0	22.63	-0.1	0.049	1.00	1.37	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	4	Full	135	69	-	24.0	22.63	0.01	0.059	1.00	1.37	0.08
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	5	Full	1	1	-	24.0	23.13	0.09	0.000	1.00	1.22	0.00
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	5	Full	1	1	-	24.0	23.13	-0.05	0.065	1.00	1.22	0.08
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	5	Full	135	69	-	24.0	22.61	0.01	0.000	1.00	1.38	0.00
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	5	Full	135	69	-	24.0	22.61	0.04	0.097	1.00	1.38	0.13
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	6	Full	1	1	-	24.0	23.07	-0.06	0.032	1.00	1.24	0.04
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	6	Full	1	1	-	24.0	23.07	0.02	0.038	1.00	1.24	0.05



# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	6	Full	135	69	-	24.0	22.53	0.03	0.041	1.00	1.40	0.06
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	6	Full	135	69	-	24.0	22.53	0.06	0.051	1.00	1.40	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	7	Full	1	1	-	24.0	23.35	-0.12	0.079	1.00	1.16	0.09
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	7	Full	1	1	-	24.0	23.35	0.04	0.081	1.00	1.16	0.09
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	7	Full	135	69	-	24.0	23.29	0.09	0.072	1.00	1.18	0.09
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	7	Full	135	69	-	24.0	23.29	0.01	0.078	1.00	1.18	0.09
P64	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	650000	7	Full	1	1	-	24.0	23.16	-0.1	0.126	1.00	1.21	<b>0.15</b>
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	656000	7	Full	1	1	-	24.0	23.24	-0.03	0.092	1.00	1.19	0.11
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	4	Full	1	1	-	24.0	23.33	-0.06	0.045	1.00	1.17	0.05
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	4	Full	1	1	-	24.0	23.33	-0.01	0.089	1.00	1.17	0.10
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	4	Full	135	69	-	24.0	23.20	0.01	0.059	1.00	1.20	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	4	Full	135	69	-	24.0	23.20	0.06	0.101	1.00	1.20	0.12
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	650000	4	Full	135	69	-	24.0	22.99	0.05	0.121	1.00	1.26	0.15
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	656000	4	Full	135	69	-	24.0	23.13	0.05	0.104	1.00	1.22	0.13
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	5	Full	1	1	-	24.0	23.31	-0.04	0.000	1.00	1.17	0.00
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	5	Full	1	1	-	24.0	23.31	0.04	0.059	1.00	1.17	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	5	Full	135	69	-	24.0	23.25	0.01	0.000	1.00	1.19	0.00
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	5	Full	135	69	-	24.0	23.25	0.03	0.073	1.00	1.19	0.09
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	650000	5	Full	135	69	-	24.0	22.99	0	0.108	1.00	1.26	0.14
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	656000	5	Full	135	69	-	24.0	23.12	0.01	0.090	1.00	1.22	0.11
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	6	Full	1	1	-	24.0	23.34	-0.06	0.021	1.00	1.16	0.02
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	6	Full	1	1	-	24.0	23.34	0.01	0.062	1.00	1.16	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	6	Full	135	69	-	24.0	23.33	0.02	0.000	1.00	1.17	0.00
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	6	Full	135	69	-	24.0	23.33	0.06	0.092	1.00	1.17	0.11
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	650000	6	Full	135	69	-	24.0	23.16	0.07	0.035	1.00	1.21	0.04
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	656000	6	Full	135	69	-	24.0	23.18	0.01	0.041	1.00	1.21	0.05
	WLAN2.4G	802.11b	Front Face	1	8	Full	-	-	97.78	15.5	15.00	0	0.000	1.02	1.12	0.00
	WLAN2.4G	802.11b	Rear Face	1	8	Full	-	-	97.78	15.5	15.00	-0.04	0.092	1.02	1.12	0.11
	WLAN2.4G	802.11b	Rear Face	6	8	Full	-	-	97.78	15.5	14.55	0.01	0.085	1.02	1.24	0.11
	WLAN2.4G	802.11b	Rear Face	11	8	Full	-	-	97.78	15.5	14.64	-0.01	0.109	1.02	1.22	0.14
	WLAN2.4G	802.11b	Front Face	11	9	Full	-	-	97.78	15.5	14.98	-0.01	0.056	1.02	1.13	0.06
	WLAN2.4G	802.11b	Rear Face	11	9	Full	-	-	97.78	15.5	14.98	0.09	0.113	1.02	1.13	0.13
	WLAN2.4G	802.11b	Rear Face	1	9	Full	-	-	97.78	15.5	14.97	0.07	0.118	1.02	1.13	0.14
	WLAN2.4G	802.11b	Rear Face	6	9	Full	-	-	97.78	15.5	14.90	-0.06	0.110	1.02	1.15	0.13
	WLAN2.4G	802.11b	Front Face	1	8+9	Full	-	-	97.98	19.0	18.30	0.01	0.093	1.02	1.17	0.11
	WLAN2.4G	802.11b	Rear Face	1	8+9	Full	-	-	97.98	19.0	18.30	0.03	0.220	1.02	1.17	0.26
	WLAN2.4G	802.11b	Rear Face	6	8+9	Full	-	-	97.98	19.0	18.04	0.09	0.240	1.02	1.25	0.31
P65	WLAN2.4G	802.11b	Rear Face	11	8+9	Full	-	-	97.98	19.0	18.13	-0.02	0.283	1.02	1.22	<b>0.35</b>
	WLAN5.3G	802.11a	Front Face	52	8	Full	-	-	96.72	14.0	13.58	-0.01	0.053	1.03	1.10	0.06
	WLAN5.3G	802.11a	Rear Face	52	8	Full	-	-	96.72	14.0	13.58	-0.06	0.092	1.03	1.10	0.10
	WLAN5.3G	802.11a	Rear Face	56	8	Full	-	-	96.72	14.0	13.55	0	0.095	1.03	1.11	0.11
	WLAN5.3G	802.11a	Rear Face	60	8	Full	-	-	96.72	14.0	13.50	-0.01	0.082	1.03	1.12	0.10
	WLAN5.3G	802.11a	Rear Face	64	8	Full	-	-	96.72	14.0	13.52	-0.13	0.077	1.03	1.12	0.09
	WLAN5.3G	802.11a	Front Face	64	9	Full	-	-	96.72	13.0	12.71	0.03	0.066	1.03	1.07	0.07





Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	WLAN5.3G	802.11a	Rear Face	64	9	Full	-	-	96.72	13.0	12.71	-0.04	0.090	1.03	1.07	0.10
	WLAN5.3G	802.11a	Rear Face	52	9	Full	-	-	96.72	13.0	12.47	0.05	0.071	1.03	1.13	0.08
	WLAN5.3G	802.11a	Rear Face	56	9	Full	-	-	96.72	13.0	12.58	0.09	0.072	1.03	1.10	0.08
	WLAN5.3G	802.11a	Rear Face	60	9	Full	-	-	96.72	13.0	12.70	0.01	0.085	1.03	1.07	0.09
	WLAN5.3G	802.11a	Front Face	64	8+9	Full	-	-	96.72	16.5	16.22	-0.15	0.066	1.03	1.07	0.07
	WLAN5.3G	802.11a	Rear Face	64	8+9	Full	-	-	96.72	16.5	16.22	-0.11	0.097	1.03	1.07	0.11
	WLAN5.3G	802.11a	Rear Face	52	8+9	Full	-	-	96.72	16.5	16.14	0.01	0.104	1.03	1.09	0.12
P66	WLAN5.3G	802.11a	Rear Face	56	8+9	Full	-	-	96.72	16.5	16.18	0	0.110	1.03	1.08	0.12
	WLAN5.3G	802.11a	Rear Face	60	8+9	Full	-	-	96.72	16.5	16.20	0.01	0.104	1.03	1.07	0.12
	WLAN5.6G	802.11a	Front Face	140	8	Full	-	-	96.72	14.5	13.97	0.07	0.074	1.03	1.13	0.09
	WLAN5.6G	802.11a	Rear Face	140	8	Full	-	-	96.72	14.5	13.97	0.06	0.108	1.03	1.13	0.13
	WLAN5.6G	802.11a	Rear Face	100	8	Full	-	-	96.72	13.5	13.22	0.04	0.071	1.03	1.07	0.08
	WLAN5.6G	802.11a	Rear Face	116	8	Full	-	-	96.72	13.5	13.09	0.02	0.080	1.03	1.10	0.09
	WLAN5.6G	802.11a	Rear Face	124	8	Full	-	-	96.72	14.0	13.28	0.06	0.106	1.03	1.18	0.13
	WLAN5.6G	802.11a	Rear Face	132	8	Full	-	-	96.72	14.5	13.56	-0.02	0.122	1.03	1.24	0.16
	WLAN5.6G	802.11a	Rear Face	144	8	Full	-	-	96.72	14.5	13.89	-0.09	0.099	1.03	1.15	0.12
	WLAN5.6G	802.11a	Front Face	116	9	Full	-	-	96.72	12.5	12.08	-0.03	0.049	1.03	1.10	0.06
	WLAN5.6G	802.11a	Rear Face	116	9	Full	-	-	96.72	12.5	12.08	0.03	0.122	1.03	1.10	0.14
	WLAN5.6G	802.11a	Rear Face	100	9	Full	-	-	96.72	12.5	11.88	0.01	0.110	1.03	1.15	0.13
	WLAN5.6G	802.11a	Rear Face	124	9	Full	-	-	96.72	12.5	11.85	0.07	0.133	1.03	1.16	0.16
	WLAN5.6G	802.11a	Rear Face	132	9	Full	-	-	96.72	12.5	11.81	0.03	0.135	1.03	1.17	0.16
	WLAN5.6G	802.11a	Rear Face	140	9	Full	-	-	96.72	12.5	11.85	0.03	0.101	1.03	1.16	0.12
	WLAN5.6G	802.11a	Rear Face	144	9	Full	-	-	96.72	12.5	11.78	0.1	0.101	1.03	1.18	0.12
	WLAN5.6G	802.11a	Front Face	140	8+9	Full	-	-	96.72	16.5	16.12	-0.16	0.060	1.03	1.09	0.07
	WLAN5.6G	802.11a	Rear Face	140	8+9	Full	-	-	96.72	16.5	16.12	-0.04	0.172	1.03	1.09	0.19
	WLAN5.6G	802.11a	Rear Face	100	8+9	Full	-	-	96.72	16.5	15.69	0.01	0.136	1.03	1.21	0.17
	WLAN5.6G	802.11a	Rear Face	116	8+9	Full	-	-	96.72	16.5	15.70	0.03	0.148	1.03	1.20	0.18
	WLAN5.6G	802.11a	Rear Face	124	8+9	Full	-	-	96.72	16.5	15.95	0.06	0.185	1.03	1.14	0.22
P67	WLAN5.6G	802.11a	Rear Face	132	8+9	Full	-	-	96.72	16.5	15.99	-0.06	0.208	1.03	1.12	0.24
	WLAN5.6G	802.11a	Rear Face	144	8+9	Full	-	-	96.72	16.5	16.05	0.01	0.175	1.03	1.11	0.20
	WLAN5.8G	802.11a	Front Face	157	8	Full	-	-	97.72	14.0	13.61	-0.04	0.055	1.02	1.09	0.06
	WLAN5.8G	802.11a	Rear Face	157	8	Full	-	-	97.72	14.0	13.61	-0.01	0.081	1.02	1.09	0.09
	WLAN5.8G	802.11a	Rear Face	149	8	Full	-	-	97.72	14.0	13.34	-0.12	0.077	1.02	1.16	0.09
	WLAN5.8G	802.11a	Rear Face	165	8	Full	-	-	97.72	14.0	13.31	0.01	0.078	1.02	1.17	0.09
	WLAN5.8G	802.11a	Front Face	165	9	Full	-	-	97.72	12.5	12.00	0.12	0.050	1.02	1.12	0.06
	WLAN5.8G	802.11a	Rear Face	165	9	Full	-	-	97.72	12.5	12.00	-0.07	0.093	1.02	1.12	0.11
	WLAN5.8G	802.11a	Rear Face	149	9	Full	-	-	97.72	12.5	11.06	0.1	0.071	1.02	1.39	0.10
	WLAN5.8G	802.11a	Rear Face	157	9	Full	-	-	97.72	12.5	11.77	0.01	0.085	1.02	1.18	0.10
	WLAN5.8G	802.11a	Front Face	157	8+9	Full	-	-	97.72	16.5	16.00	0.03	0.055	1.02	1.12	0.06
	WLAN5.8G	802.11a	Rear Face	157	8+9	Full	-	-	97.72	16.5	16.00	0.06	0.106	1.02	1.12	0.12
P68	WLAN5.8G	802.11a	Rear Face	149	8+9	Full	-	-	97.72	16.5	15.56	-0.08	0.104	1.02	1.24	0.13
	WLAN5.8G	802.11a	Rear Face	165	8+9	Full	-	-	97.72	16.5	15.91	0.08	0.105	1.02	1.15	0.12
	BT	GFSK	Front Face	39	8	Full	-	-	76.53	7.0	6.16	-0.01	0.000	1.31	1.21	0.00
P69	BT	GFSK	Rear Face	39	8	Full	-	-	76.53	7.0	6.16	-0.05	0.010	1.31	1.21	0.02
	BT	GFSK	Rear Face	0	8	Full	-	-	76.53	7.0	5.69	0.01	0.007	1.31	1.35	0.01
	BT	GFSK	Rear Face	78	8	Full	-	-	76.53	7.0	5.28	0.03	0.010	1.31	1.49	0.02
	BLE	S8	Front Face	19	8	Full	-	-	82.4	10.0	9.35	-0.06	0.000	1.21	1.16	0.00
P70	BLE	S8	Rear Face	19	8	Full	-	-	82.4	10.0	9.35	0	0.023	1.21	1.16	0.03
	BLE	S8	Rear Face	0	8	Full	-	-	82.4	10.0	8.49	0.05	0.016	1.21	1.42	0.03
	BLE	S8	Rear Face	39	8	Full	-	-	82.4	10.0	8.63	0.03	0.019	1.21	1.37	0.03

4.6.4 SAR Results for Hotspot Exposure Condition (Separation Distance is 1.0 cm Gap)

Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
P71	GSM850	GPRS 3Tx slot	Front Face	128	2	Full	-	-	-	29.5	28.73	-0.06	0.658	1.00	1.19	0.79
	GSM850	GPRS 3Tx slot	Rear Face	128	2	Full	-	-	-	29.5	28.73	0.05	0.545	1.00	1.19	0.65
	GSM850	GPRS 3Tx slot	Left Side	128	2	Full	-	-	-	29.5	28.73	-0.01	0.199	1.00	1.19	0.24
	GSM850	GPRS 3Tx slot	Right Side	128	2	Full	-	-	-	29.5	28.73	0.04	0.218	1.00	1.19	0.26
	GSM850	GPRS 3Tx slot	Bottom Side	128	2	Full	-	-	-	29.5	28.73	-0.06	0.312	1.00	1.19	0.37
	GSM850	GPRS 3Tx slot	Front Face	189	2	Full	-	-	-	29.5	28.64	-0.08	0.326	1.00	1.22	0.40
	GSM850	GPRS 3Tx slot	Front Face	251	2	Full	-	-	-	29.5	28.65	-0.12	0.330	1.00	1.22	0.40
	GSM1900	GPRS 3Tx slot	Front Face	512	1	Full	-	-	-	26.5	25.56	-0.03	0.241	1.00	1.24	0.30
	GSM1900	GPRS 3Tx slot	Rear Face	512	1	Full	-	-	-	26.5	25.56	0.15	0.285	1.00	1.24	0.35



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	GSM1900	GPRS 3Tx slot	Left Side	512	1	Full	-	-	-	26.5	25.56	0.1	0.146	1.00	1.24	0.18
	GSM1900	GPRS 3Tx slot	Top Side	512	1	Full	-	-	-	26.5	25.56	0.09	0.193	1.00	1.24	0.24
P72	GSM1900	GPRS 3Tx slot	Rear Face	661	1	Full	-	-	-	26.5	25.54	-0.1	0.394	1.00	1.25	<b>0.49</b>
	GSM1900	GPRS 3Tx slot	Rear Face	810	1	Full	-	-	-	26.5	25.50	-0.02	0.375	1.00	1.26	0.47
	WCDMA II	RMC12.2K	Front Face	9400	1	Full	-	-	-	24.0	23.38	0.03	0.166	1.00	1.15	0.19
	WCDMA II	RMC12.2K	Rear Face	9400	1	Full	-	-	-	24.0	23.38	0.01	0.200	1.00	1.15	0.23
	WCDMA II	RMC12.2K	Left Side	9400	1	Full	-	-	-	24.0	23.38	0.05	0.101	1.00	1.15	0.12
	WCDMA II	RMC12.2K	Top Side	9400	1	Full	-	-	-	24.0	23.38	0.06	0.145	1.00	1.15	0.17
P73	WCDMA II	RMC12.2K	Rear Face	9262	1	Full	-	-	-	24.0	23.35	-0.17	0.203	1.00	1.16	<b>0.24</b>
	WCDMA II	RMC12.2K	Rear Face	9538	1	Full	-	-	-	24.0	23.26	0.01	0.187	1.00	1.19	0.22
	WCDMA IV	RMC12.2K	Front Face	1513	1	Full	-	-	-	24.0	23.33	-0.01	0.068	1.00	1.17	0.08
	WCDMA IV	RMC12.2K	Rear Face	1513	1	Full	-	-	-	24.0	23.33	0.02	0.079	1.00	1.17	0.09
	WCDMA IV	RMC12.2K	Left Side	1513	1	Full	-	-	-	24.0	23.33	0.02	0.028	1.00	1.17	0.03
	WCDMA IV	RMC12.2K	Top Side	1513	1	Full	-	-	-	24.0	23.33	-0.06	0.044	1.00	1.17	0.05
	WCDMA IV	RMC12.2K	Rear Face	1312	1	Full	-	-	-	24.0	23.24	0.01	0.078	1.00	1.19	0.09
P74	WCDMA IV	RMC12.2K	Rear Face	1413	1	Full	-	-	-	24.0	23.26	0.18	0.081	1.00	1.19	<b>0.10</b>
	WCDMA V	RMC12.2K	Front Face	4132	2	Full	-	-	-	24.0	22.78	-0.05	0.316	1.00	1.32	0.42
P75	WCDMA V	RMC12.2K	Rear Face	4132	2	Full	-	-	-	24.0	22.78	-0.14	0.330	1.00	1.32	<b>0.44</b>
	WCDMA V	RMC12.2K	Left Side	4132	2	Full	-	-	-	24.0	22.78	0.06	0.105	1.00	1.32	0.14
	WCDMA V	RMC12.2K	Right Side	4132	2	Full	-	-	-	24.0	22.78	0.01	0.127	1.00	1.32	0.17
	WCDMA V	RMC12.2K	Bottom Side	4132	2	Full	-	-	-	24.0	22.78	0.1	0.216	1.00	1.32	0.29
	WCDMA V	RMC12.2K	Rear Face	4182	2	Full	-	-	-	24.0	22.76	-0.06	0.293	1.00	1.33	0.39
	WCDMA V	RMC12.2K	Rear Face	4233	2	Full	-	-	-	24.0	22.75	0.02	0.253	1.00	1.33	0.34
	LTE 5	QPSK10M	Front Face	20525	2	Full	1	0	-	24.0	22.73	0.06	0.283	1.00	1.34	0.38
	LTE 5	QPSK10M	Rear Face	20525	2	Full	1	0	-	24.0	22.73	-0.08	0.269	1.00	1.34	0.36
	LTE 5	QPSK10M	Left Side	20525	2	Full	1	0	-	24.0	22.73	0.01	0.087	1.00	1.34	0.12
	LTE 5	QPSK10M	Right Side	20525	2	Full	1	0	-	24.0	22.73	0.03	0.116	1.00	1.34	0.16
	LTE 5	QPSK10M	Bottom Side	20525	2	Full	1	0	-	24.0	22.73	0.06	0.189	1.00	1.34	0.25
	LTE 5	QPSK10M	Front Face	20525	2	Full	25	25	-	23.0	21.62	0.09	0.213	1.00	1.37	0.29
	LTE 5	QPSK10M	Rear Face	20525	2	Full	25	25	-	23.0	21.62	-0.02	0.207	1.00	1.37	0.28
	LTE 5	QPSK10M	Left Side	20525	2	Full	25	25	-	23.0	21.62	-0.05	0.072	1.00	1.37	0.10
	LTE 5	QPSK10M	Right Side	20525	2	Full	25	25	-	23.0	21.62	-0.01	0.089	1.00	1.37	0.12
	LTE 5	QPSK10M	Bottom Side	20525	2	Full	25	25	-	23.0	21.62	0.06	0.141	1.00	1.37	0.19
P76	LTE 5	QPSK10M	Front Face	20450	2	Full	1	0	-	24.0	22.51	0.01	0.330	1.00	1.41	<b>0.47</b>
	LTE 5	QPSK10M	Front Face	20600	2	Full	1	0	-	24.0	22.52	0.01	0.286	1.00	1.41	0.40
	LTE 7	QPSK20M	Front Face	20850	1	Full	1	99	-	24.0	23.20	-0.01	0.516	1.00	1.20	0.62
	LTE 7	QPSK20M	Rear Face	20850	1	Full	1	99	-	24.0	23.20	0.06	0.815	1.00	1.20	0.98
	LTE 7	QPSK20M	Left Side	20850	1	Full	1	99	-	24.0	23.20	0.07	0.288	1.00	1.20	0.35
	LTE 7	QPSK20M	Top Side	20850	1	Full	1	99	-	24.0	23.20	-0.05	0.799	1.00	1.20	0.96
	LTE 7	QPSK20M	Front Face	20850	1	Full	50	50	-	23.0	22.35	-0.11	0.425	1.00	1.16	0.49
	LTE 7	QPSK20M	Rear Face	20850	1	Full	50	50	-	23.0	22.35	0.11	0.649	1.00	1.16	0.75
	LTE 7	QPSK20M	Left Side	20850	1	Full	50	50	-	23.0	22.35	0.12	0.226	1.00	1.16	0.26
	LTE 7	QPSK20M	Top Side	20850	1	Full	50	50	-	23.0	22.35	0.06	0.659	1.00	1.16	0.77
P77	LTE 7	QPSK20M	Rear Face	21100	1	Full	1	99	-	24.0	23.11	0.13	0.815	1.00	1.23	<b>1.00</b>
	LTE 7	QPSK20M	Rear Face	21350	1	Full	1	99	-	24.0	23.08	0.09	0.660	1.00	1.24	0.82
	LTE 7	QPSK20M	Top Side	21100	1	Full	1	99	-	24.0	23.11	0.01	0.777	1.00	1.23	0.95
	LTE 7	QPSK20M	Top Side	21350	1	Full	1	99	-	24.0	23.08	0.09	0.611	1.00	1.24	0.76
	LTE 7	QPSK20M	Rear Face	20850	1	Full	100	0	-	23.0	22.27	-0.13	0.637	1.00	1.18	0.75
	LTE 7	QPSK20M	Top Side	20850	1	Full	100	0	-	23.0	22.27	0.01	0.616	1.00	1.18	0.73
	LTE 7	QPSK20M	Front Face	20850	1	Reduced 3	1	99	-	21.0	20.08	0.03	0.290	1.00	1.24	0.36
	LTE 7	QPSK20M	Rear Face	20850	1	Reduced 3	1	99	-	21.0	20.08	0.05	0.440	1.00	1.24	0.54
	LTE 7	QPSK20M	Left Side	20850	1	Reduced 3	1	99	-	21.0	20.08	0.01	0.176	1.00	1.24	0.22
	LTE 7	QPSK20M	Top Side	20850	1	Reduced 3	1	99	-	21.0	20.08	-0.08	0.432	1.00	1.24	0.53
	LTE 7	QPSK20M	Front Face	20850	1	Reduced 3	50	50	-	20.0	19.21	0.14	0.245	1.00	1.20	0.29
	LTE 7	QPSK20M	Rear Face	20850	1	Reduced 3	50	50	-	20.0	19.21	-0.03	0.357	1.00	1.20	0.43
	LTE 7	QPSK20M	Left Side	20850	1	Reduced 3	50	50	-	20.0	19.21	-0.09	0.145	1.00	1.20	0.17
	LTE 7	QPSK20M	Top Side	20850	1	Reduced 3	50	50	-	20.0	19.21	0.1	0.362	1.00	1.20	0.43
	LTE 7	QPSK20M	Rear Face	21100	1	Reduced 3	1	99	-	21.0	20.01	-0.05	0.442	1.00	1.26	0.56
	LTE 7	QPSK20M	Rear Face	21350	1	Reduced 3	1	99	-	21.0	20.04	-0.09	0.364	1.00	1.25	0.45
	LTE 7(CA)	QPSK20M	Rear Face	PCC:21100 SCC:21298	1	Full	1	99 0	-	24.0	23.27	0.09	0.823	1.00	1.18	0.97
	LTE 12	QPSK10M	Front Face	23130	2	Full	1	49	-	24.0	22.42	0.08	0.175	1.00	1.44	0.25
	LTE 12	QPSK10M	Rear Face	23130	2	Full	1	49	-	24.0	22.42	0.09	0.166	1.00	1.44	0.24
	LTE 12	QPSK10M	Left Side	23130	2	Full	1	49	-	24.0	22.42	0.07	0.117	1.00	1.44	0.17
	LTE 12	QPSK10M	Right Side	23130	2	Full	1	49	-	24.0	22.42	0.09	0.133	1.00	1.44	0.19
	LTE 12	QPSK10M	Bottom Side	23130	2	Full	1	49	-	24.0	22.42	-0.07	0.117	1.00	1.44	0.17
	LTE 12	QPSK10M	Front Face	23130	2	Full	25	25	-	23.0	21.47	-0.01	0.140	1.00	1.42	0.20
	LTE 12	QPSK10M	Rear Face	23130	2	Full	25	25	-	23.0	21.47	-0.01	0.145	1.00	1.42	0.21



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	LTE 12	QPSK10M	Left Side	23130	2	Full	25	25	-	23.0	21.47	0.06	0.098	1.00	1.42	0.14
	LTE 12	QPSK10M	Right Side	23130	2	Full	25	25	-	23.0	21.47	-0.16	0.112	1.00	1.42	0.16
	LTE 12	QPSK10M	Bottom Side	23130	2	Full	25	25	-	23.0	21.47	-0.15	0.092	1.00	1.42	0.13
P78	LTE 12	QPSK10M	Front Face	23060	2	Full	1	49	-	24.0	22.35	-0.05	0.179	1.00	1.46	0.26
	LTE 12	QPSK10M	Front Face	23095	2	Full	1	49	-	24.0	22.27	0.03	0.174	1.00	1.49	0.26
P79	LTE 13	QPSK10M	Front Face	23230	2	Full	1	24	-	24.0	22.65	-0.07	0.238	1.00	1.36	0.32
	LTE 13	QPSK10M	Rear Face	23230	2	Full	1	24	-	24.0	22.65	0.04	0.234	1.00	1.36	0.32
	LTE 13	QPSK10M	Left Side	23230	2	Full	1	24	-	24.0	22.65	0.04	0.101	1.00	1.36	0.14
	LTE 13	QPSK10M	Right Side	23230	2	Full	1	24	-	24.0	22.65	0.06	0.144	1.00	1.36	0.20
	LTE 13	QPSK10M	Bottom Side	23230	2	Full	1	24	-	24.0	22.65	0.01	0.167	1.00	1.36	0.23
	LTE 13	QPSK10M	Front Face	23230	2	Full	25	12	-	23.0	21.79	0.06	0.196	1.00	1.32	0.26
	LTE 13	QPSK10M	Rear Face	23230	2	Full	25	12	-	23.0	21.79	0.09	0.182	1.00	1.32	0.24
	LTE 13	QPSK10M	Left Side	23230	2	Full	25	12	-	23.0	21.79	-0.16	0.085	1.00	1.32	0.11
	LTE 13	QPSK10M	Right Side	23230	2	Full	25	12	-	23.0	21.79	0.01	0.116	1.00	1.32	0.15
	LTE 13	QPSK10M	Bottom Side	23230	2	Full	25	12	-	23.0	21.79	0.08	0.139	1.00	1.32	0.18
P80	LTE 14	QPSK10M	Front Face	23330	2	Full	1	24	-	24.0	22.72	-0.04	0.257	1.00	1.34	0.35
	LTE 14	QPSK10M	Rear Face	23330	2	Full	1	24	-	24.0	22.72	0.06	0.247	1.00	1.34	0.33
	LTE 14	QPSK10M	Left Side	23330	2	Full	1	24	-	24.0	22.72	0.01	0.080	1.00	1.34	0.11
	LTE 14	QPSK10M	Right Side	23330	2	Full	1	24	-	24.0	22.72	0.02	0.133	1.00	1.34	0.18
	LTE 14	QPSK10M	Bottom Side	23330	2	Full	1	24	-	24.0	22.72	0.03	0.167	1.00	1.34	0.22
	LTE 14	QPSK10M	Front Face	23330	2	Full	25	12	-	23.0	21.84	0.05	0.209	1.00	1.31	0.27
	LTE 14	QPSK10M	Rear Face	23330	2	Full	25	12	-	23.0	21.84	-0.09	0.198	1.00	1.31	0.26
	LTE 14	QPSK10M	Left Side	23330	2	Full	25	12	-	23.0	21.84	-0.05	0.081	1.00	1.31	0.11
	LTE 14	QPSK10M	Right Side	23330	2	Full	25	12	-	23.0	21.84	0.05	0.109	1.00	1.31	0.14
	LTE 14	QPSK10M	Bottom Side	23330	2	Full	25	12	-	23.0	21.84	0.1	0.136	1.00	1.31	0.18
P81	LTE 25	QPSK20M	Front Face	26140	1	Full	1	0	-	24.0	23.05	0.03	0.433	1.00	1.24	0.54
	LTE 25	QPSK20M	Rear Face	26140	1	Full	1	0	-	24.0	23.05	-0.04	0.500	1.00	1.24	0.62
	LTE 25	QPSK20M	Left Side	26140	1	Full	1	0	-	24.0	23.05	-0.06	0.191	1.00	1.24	0.24
	LTE 25	QPSK20M	Top Side	26140	1	Full	1	0	-	24.0	23.05	0.01	0.374	1.00	1.24	0.47
	LTE 25	QPSK20M	Front Face	26140	1	Full	50	25	-	23.0	22.24	0.06	0.370	1.00	1.19	0.44
	LTE 25	QPSK20M	Rear Face	26140	1	Full	50	25	-	23.0	22.24	0.04	0.432	1.00	1.19	0.51
	LTE 25	QPSK20M	Left Side	26140	1	Full	50	25	-	23.0	22.24	0.14	0.160	1.00	1.19	0.19
	LTE 25	QPSK20M	Top Side	26140	1	Full	50	25	-	23.0	22.24	-0.09	0.308	1.00	1.19	0.37
	LTE 25	QPSK20M	Rear Face	26340	1	Full	1	0	-	24.0	23.00	0.09	0.477	1.00	1.26	0.60
	LTE 25	QPSK20M	Rear Face	26590	1	Full	1	0	-	24.0	23.02	-0.1	0.458	1.00	1.25	0.57
	LTE 25	QPSK20M	Front Face	26140	1	Reduced 3	1	0	-	21.0	20.05	0.04	0.258	1.00	1.24	0.32
	LTE 25	QPSK20M	Rear Face	26140	1	Reduced 3	1	0	-	21.0	20.05	-0.09	0.291	1.00	1.24	0.36
	LTE 25	QPSK20M	Left Side	26140	1	Reduced 3	1	0	-	21.0	20.05	0	0.137	1.00	1.24	0.17
	LTE 25	QPSK20M	Top Side	26140	1	Reduced 3	1	0	-	21.0	20.05	0.15	0.228	1.00	1.24	0.28
	LTE 25	QPSK20M	Front Face	26140	1	Reduced 3	50	25	-	20.0	19.24	0.03	0.226	1.00	1.19	0.27
	LTE 25	QPSK20M	Rear Face	26140	1	Reduced 3	50	25	-	20.0	19.24	0.08	0.257	1.00	1.19	0.31
	LTE 25	QPSK20M	Left Side	26140	1	Reduced 3	50	25	-	20.0	19.24	-0.06	0.121	1.00	1.19	0.14
	LTE 25	QPSK20M	Top Side	26140	1	Reduced 3	50	25	-	20.0	19.24	-0.01	0.195	1.00	1.19	0.23
	LTE 25	QPSK20M	Rear Face	26340	1	Reduced 3	1	0	-	21.0	19.95	0.11	0.280	1.00	1.27	0.36
	LTE 25	QPSK20M	Rear Face	26590	1	Reduced 3	1	0	-	21.0	20.01	0.08	0.270	1.00	1.26	0.34
	LTE 26	QPSK15M	Front Face	26965	2	Full	1	37	-	24.0	22.48	-0.13	0.251	1.00	1.42	0.36
	LTE 26	QPSK15M	Rear Face	26965	2	Full	1	37	-	24.0	22.48	0.12	0.239	1.00	1.42	0.34
	LTE 26	QPSK15M	Left Side	26965	2	Full	1	37	-	24.0	22.48	0.11	0.084	1.00	1.42	0.12
	LTE 26	QPSK15M	Right Side	26965	2	Full	1	37	-	24.0	22.48	0.09	0.100	1.00	1.42	0.14
	LTE 26	QPSK15M	Bottom Side	26965	2	Full	1	37	-	24.0	22.48	0.01	0.164	1.00	1.42	0.23
	LTE 26	QPSK15M	Front Face	26965	2	Full	36	39	-	23.0	21.54	0.05	0.196	1.00	1.40	0.27
	LTE 26	QPSK15M	Rear Face	26965	2	Full	36	39	-	23.0	21.54	0.03	0.187	1.00	1.40	0.26
	LTE 26	QPSK15M	Left Side	26965	2	Full	36	39	-	23.0	21.54	0.02	0.070	1.00	1.40	0.10
	LTE 26	QPSK15M	Right Side	26965	2	Full	36	39	-	23.0	21.54	0.08	0.078	1.00	1.40	0.11
	LTE 26	QPSK15M	Bottom Side	26965	2	Full	36	39	-	23.0	21.54	-0.09	0.125	1.00	1.40	0.17
	LTE 26	QPSK15M	Front Face	26765	2	Full	1	37	-	24.0	22.36	0.04	0.286	1.00	1.46	0.42
P82	LTE 26	QPSK15M	Front Face	26865	2	Full	1	37	-	24.0	22.37	0.06	0.287	1.00	1.46	0.42
	LTE 30	QPSK10M	Front Face	27710	1	Full	1	0	-	24.0	23.37	-0.09	0.268	1.00	1.16	0.31
P83	LTE 30	QPSK10M	Rear Face	27710	1	Full	1	0	-	24.0	23.37	0.17	0.394	1.00	1.16	0.46
	LTE 30	QPSK10M	Left Side	27710	1	Full	1	0	-	24.0	23.37	0.01	0.144	1.00	1.16	0.17
	LTE 30	QPSK10M	Top Side	27710	1	Full	1	0	-	24.0	23.37	0.06	0.348	1.00	1.16	0.40
	LTE 30	QPSK10M	Front Face	27710	1	Full	25	25	-	23.0	22.45	-0.05	0.228	1.00	1.14	0.26
	LTE 30	QPSK10M	Rear Face	27710	1	Full	25	25	-	23.0	22.45	-0.01	0.324	1.00	1.14	0.37
	LTE 30	QPSK10M	Left Side	27710	1	Full	25	25	-	23.0	22.45	0.02	0.121	1.00	1.14	0.14
	LTE 30	QPSK10M	Top Side	27710	1	Full	25	25	-	23.0	22.45	0.03	0.281	1.00	1.14	0.32
	LTE 41	QPSK20M	Front Face	40185	1	Full	1	0	62.9	24.0	22.94	0.03	0.269	1.01	1.28	0.35
P84	LTE 41	QPSK20M	Rear Face	40185	1	Full	1	0	62.9	24.0	22.94	-0.03	0.466	1.01	1.28	0.60
	LTE 41	QPSK20M	Left Side	40185	1	Full	1	0	62.9	24.0	22.94	0.09	0.144	1.01	1.28	0.18



# FCC SAR Test Report

Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	LTE 41	QPSK20M	Top Side	40185	1	Full	1	0	62.9	24.0	22.94	-0.02	0.421	1.01	1.28	0.54
	LTE 41	QPSK20M	Front Face	40185	1	Full	50	25	62.9	23.0	21.93	0.03	0.199	1.01	1.28	0.26
	LTE 41	QPSK20M	Rear Face	40185	1	Full	50	25	62.9	23.0	21.93	-0.01	0.352	1.01	1.28	0.45
	LTE 41	QPSK20M	Left Side	40185	1	Full	50	25	62.9	23.0	21.93	0.01	0.112	1.01	1.28	0.14
	LTE 41	QPSK20M	Top Side	40185	1	Full	50	25	62.9	23.0	21.93	0.02	0.328	1.01	1.28	0.42
	LTE 41	QPSK20M	Rear Face	39750	1	Full	1	0	62.9	24.0	22.86	0.07	0.389	1.01	1.30	0.51
	LTE 41	QPSK20M	Rear Face	40620	1	Full	1	0	62.9	24.0	22.64	-0.05	0.303	1.01	1.37	0.42
	LTE 41	QPSK20M	Rear Face	41055	1	Full	1	0	62.9	24.0	22.53	-0.09	0.142	1.01	1.40	0.20
	LTE 41	QPSK20M	Rear Face	41490	1	Full	1	0	62.9	24.0	22.40	0.05	0.147	1.01	1.45	0.21
	LTE 41	QPSK20M	Front Face	40185	1	Reduced 3	1	0	62.9	21.0	19.90	0.03	0.173	1.01	1.29	0.22
	LTE 41	QPSK20M	Rear Face	40185	1	Reduced 3	1	0	62.9	21.0	19.90	-0.09	0.271	1.01	1.29	0.35
	LTE 41	QPSK20M	Left Side	40185	1	Reduced 3	1	0	62.9	21.0	19.90	-0.05	0.110	1.01	1.29	0.14
	LTE 41	QPSK20M	Top Side	40185	1	Reduced 3	1	0	62.9	21.0	19.90	0.17	0.249	1.01	1.29	0.32
	LTE 41	QPSK20M	Front Face	40185	1	Reduced 3	50	25	62.9	20.0	18.91	0.05	0.138	1.01	1.29	0.18
	LTE 41	QPSK20M	Rear Face	40185	1	Reduced 3	50	25	62.9	20.0	18.91	0.01	0.214	1.01	1.29	0.28
	LTE 41	QPSK20M	Left Side	40185	1	Reduced 3	50	25	62.9	20.0	18.91	0	0.094	1.01	1.29	0.12
	LTE 41	QPSK20M	Top Side	40185	1	Reduced 3	50	25	62.9	20.0	18.91	0.05	0.202	1.01	1.29	0.26
	LTE 41	QPSK20M	Rear Face	39750	1	Reduced 3	1	0	62.9	21.0	19.85	-0.12	0.233	1.01	1.30	0.31
	LTE 41	QPSK20M	Rear Face	40620	1	Reduced 3	1	0	62.9	21.0	19.56	0.06	0.190	1.01	1.39	0.27
	LTE 41	QPSK20M	Rear Face	41055	1	Reduced 3	1	0	62.9	21.0	19.51	-0.09	0.109	1.01	1.41	0.15
	LTE 41	QPSK20M	Rear Face	41490	1	Reduced 3	1	0	62.9	21.0	19.34	-0.13	0.112	1.01	1.47	0.17
	LTE 41(CA)	QPSK20M	Rear Face	PCC:40185 SCC:40383	1	Full	1	0	62.9	24.0	22.54	-0.16	0.409	1.01	1.40	0.58
	LTE 42 (Part27Q)	QPSK20M	Front Face	42190	7	Full	1	0	62.9	24.0	22.72	-0.15	0.211	1.01	1.34	0.29
	LTE 42 (Part27Q)	QPSK20M	Rear Face	42190	7	Full	1	0	62.9	24.0	22.72	-0.08	0.283	1.01	1.34	0.38
	LTE 42 (Part27Q)	QPSK20M	Left Side	42190	7	Full	1	0	62.9	24.0	22.72	-0.01	0.432	1.01	1.34	0.58
P85	LTE 42 (Part27Q)	QPSK20M	Top Side	42190	7	Full	1	0	62.9	24.0	22.72	0	0.486	1.01	1.34	<b>0.66</b>
	LTE 42 (Part27Q)	QPSK20M	Front Face	42190	7	Full	50	0	62.9	23.0	21.70	0.01	0.169	1.01	1.35	0.23
	LTE 42 (Part27Q)	QPSK20M	Rear Face	42190	7	Full	50	0	62.9	23.0	21.70	0.08	0.220	1.01	1.35	0.30
	LTE 42 (Part27Q)	QPSK20M	Left Side	42190	7	Full	50	0	62.9	23.0	21.70	-0.04	0.336	1.01	1.35	0.46
	LTE 42 (Part27Q)	QPSK20M	Top Side	42190	7	Full	50	0	62.9	23.0	21.70	0.02	0.384	1.01	1.35	0.52
	LTE 42 (Part27Q)	QPSK20M	Top Side	42590	7	Full	1	0	62.9	24.0	22.58	-0.11	0.399	1.01	1.39	0.56
	LTE 42 (Part27Q)	QPSK20M	Top Side	42990	7	Full	1	0	62.9	24.0	22.60	-0.09	0.407	1.01	1.38	0.57
	LTE 42 (Part27Q)	QPSK20M	Front Face	42190	7	Reduced 3	1	0	62.9	21.0	19.67	0.04	0.142	1.01	1.36	0.19
	LTE 42 (Part27Q)	QPSK20M	Rear Face	42190	7	Reduced 3	1	0	62.9	21.0	19.67	0.09	0.178	1.01	1.36	0.24
	LTE 42 (Part27Q)	QPSK20M	Left Side	42190	7	Reduced 3	1	0	62.9	21.0	19.67	-0.01	0.252	1.01	1.36	0.34
	LTE 42 (Part27Q)	QPSK20M	Top Side	42190	7	Reduced 3	1	0	62.9	21.0	19.67	0.03	0.279	1.01	1.36	0.38
	LTE 42 (Part27Q)	QPSK20M	Front Face	42190	7	Reduced 3	50	0	62.9	20.0	18.66	0	0.121	1.01	1.36	0.17
	LTE 42 (Part27Q)	QPSK20M	Rear Face	42190	7	Reduced 3	50	0	62.9	20.0	18.66	0.03	0.146	1.01	1.36	0.20
	LTE 42 (Part27Q)	QPSK20M	Left Side	42190	7	Reduced 3	50	0	62.9	20.0	18.66	-0.18	0.204	1.01	1.36	0.28
	LTE 42 (Part27Q)	QPSK20M	Top Side	42190	7	Reduced 3	50	0	62.9	20.0	18.66	0	0.228	1.01	1.36	0.31
	LTE 42 (Part27Q)	QPSK20M	Top Side	42590	7	Reduced 3	1	0	62.9	21.0	19.51	0.05	0.236	1.01	1.41	0.33
	LTE 42 (Part27Q)	QPSK20M	Top Side	42990	7	Reduced 3	1	0	62.9	21.0	19.55	0.05	0.240	1.01	1.40	0.34
	LTE 42(CA) (Part27Q)	QPSK20M	Top Side	PCC:42190 SCC:42388	7	Full	1	0	62.9	24.0	22.50	0.06	0.431	1.01	1.41	0.61
	LTE 48	QPSK20M	Front Face	56640	7	Full	1	0	62.9	24.0	22.85	-0.06	0.412	1.01	1.30	0.54
	LTE 48	QPSK20M	Rear Face	56640	7	Full	1	0	62.9	24.0	22.85	0.01	0.319	1.01	1.30	0.42
	LTE 48	QPSK20M	Left Side	56640	7	Full	1	0	62.9	24.0	22.85	0.01	0.502	1.01	1.30	0.66
	LTE 48	QPSK20M	Top Side	56640	7	Full	1	0	62.9	24.0	22.85	0.06	0.320	1.01	1.30	0.42
	LTE 48	QPSK20M	Front Face	56640	7	Full	50	0	62.9	23.0	21.77	0.06	0.321	1.01	1.33	0.43





# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	LTE 48	QPSK20M	Rear Face	56640	7	Full	50	0	62.9	23.0	21.77	0.05	0.265	1.01	1.33	0.35
	LTE 48	QPSK20M	Left Side	56640	7	Full	50	0	62.9	23.0	21.77	-0.05	0.414	1.01	1.33	0.55
	LTE 48	QPSK20M	Top Side	56640	7	Full	50	0	62.9	23.0	21.77	0.09	0.244	1.01	1.33	0.33
	LTE 48	QPSK20M	Left Side	55340	7	Full	1	0	62.9	24.0	22.34	-0.13	0.452	1.01	1.47	0.67
P86	LTE 48	QPSK20M	Left Side	55830	7	Full	1	0	62.9	24.0	22.58	0.12	0.551	1.01	1.39	0.77
	LTE 48	QPSK20M	Left Side	56150	7	Full	1	0	62.9	24.0	22.80	-0.11	0.529	1.01	1.32	0.70
	LTE 48	QPSK20M	Front Face	56640	7	Reduced 3	1	0	62.9	21.0	19.80	0.04	0.233	1.01	1.32	0.31
	LTE 48	QPSK20M	Rear Face	56640	7	Reduced 3	1	0	62.9	21.0	19.80	-0.07	0.187	1.01	1.32	0.25
	LTE 48	QPSK20M	Left Side	56640	7	Reduced 3	1	0	62.9	21.0	19.80	-0.09	0.278	1.01	1.32	0.37
	LTE 48	QPSK20M	Top Side	56640	7	Reduced 3	1	0	62.9	21.0	19.80	0.01	0.187	1.01	1.32	0.25
	LTE 48	QPSK20M	Front Face	56640	7	Reduced 3	50	0	62.9	20.0	18.75	0	0.188	1.01	1.33	0.25
	LTE 48	QPSK20M	Rear Face	56640	7	Reduced 3	50	0	62.9	20.0	18.75	0.05	0.160	1.01	1.33	0.21
	LTE 48	QPSK20M	Left Side	56640	7	Reduced 3	50	0	62.9	20.0	18.75	-0.07	0.234	1.01	1.33	0.31
	LTE 48	QPSK20M	Top Side	56640	7	Reduced 3	50	0	62.9	20.0	18.75	0	0.149	1.01	1.33	0.20
	LTE 48	QPSK20M	Left Side	55340	7	Reduced 3	1	0	62.9	21.0	19.26	-0.13	0.253	1.01	1.49	0.38
	LTE 48	QPSK20M	Left Side	55830	7	Reduced 3	1	0	62.9	21.0	19.54	0	0.303	1.01	1.40	0.43
	LTE 48	QPSK20M	Left Side	56150	7	Reduced 3	1	0	62.9	21.0	19.75	0.06	0.292	1.01	1.33	0.39
	LTE 48(CA)	QPSK20M	Left Side	PCC:55830 SCC:56028	7	Full	1 0	0 0	62.9	24.0	22.37	0.03	0.528	1.01	1.46	0.77
	LTE 66	QPSK20M	Front Face	132572	1	Full	1	99	-	24.0	23.68	-0.01	0.492	1.00	1.08	0.53
P87	LTE 66	QPSK20M	Rear Face	132572	1	Full	1	99	-	24.0	23.68	0.06	0.578	1.00	1.08	0.62
	LTE 66	QPSK20M	Left Side	132572	1	Full	1	99	-	24.0	23.68	0.02	0.194	1.00	1.08	0.21
	LTE 66	QPSK20M	Top Side	132572	1	Full	1	99	-	24.0	23.68	0.03	0.354	1.00	1.08	0.38
	LTE 66	QPSK20M	Front Face	132572	1	Full	50	50	-	23.0	22.82	0.06	0.404	1.00	1.04	0.42
	LTE 66	QPSK20M	Rear Face	132572	1	Full	50	50	-	23.0	22.82	0.06	0.460	1.00	1.04	0.48
	LTE 66	QPSK20M	Left Side	132572	1	Full	50	50	-	23.0	22.82	0.01	0.179	1.00	1.04	0.19
	LTE 66	QPSK20M	Top Side	132572	1	Full	50	50	-	23.0	22.82	0.08	0.290	1.00	1.04	0.30
	LTE 66	QPSK20M	Rear Face	132072	1	Full	1	99	-	24.0	23.08	-0.04	0.427	1.00	1.24	0.53
	LTE 66	QPSK20M	Rear Face	132322	1	Full	1	99	-	24.0	23.15	0.08	0.431	1.00	1.22	0.52
	LTE 66	QPSK20M	Front Face	132572	1	Reduced 3	1	99	-	21.0	20.63	0.04	0.267	1.00	1.09	0.29
	LTE 66	QPSK20M	Rear Face	132572	1	Reduced 3	1	99	-	21.0	20.63	-0.01	0.310	1.00	1.09	0.34
	LTE 66	QPSK20M	Left Side	132572	1	Reduced 3	1	99	-	21.0	20.63	-0.19	0.118	1.00	1.09	0.13
	LTE 66	QPSK20M	Top Side	132572	1	Reduced 3	1	99	-	21.0	20.63	0	0.198	1.00	1.09	0.22
	LTE 66	QPSK20M	Front Face	132572	1	Reduced 3	50	50	-	20.0	19.80	0.05	0.223	1.00	1.05	0.23
	LTE 66	QPSK20M	Rear Face	132572	1	Reduced 3	50	50	-	20.0	19.80	-0.07	0.251	1.00	1.05	0.26
	LTE 66	QPSK20M	Left Side	132572	1	Reduced 3	50	50	-	20.0	19.80	-0.03	0.111	1.00	1.05	0.12
	LTE 66	QPSK20M	Top Side	132572	1	Reduced 3	50	50	-	20.0	19.80	0	0.166	1.00	1.05	0.17
	LTE 66	QPSK20M	Rear Face	132072	1	Reduced 3	1	99	-	21.0	20.02	0.05	0.235	1.00	1.25	0.29
	LTE 66	QPSK20M	Rear Face	132322	1	Reduced 3	1	99	-	21.0	20.08	0.05	0.237	1.00	1.24	0.29
P88	LTE 71	QPSK20M	Front Face	133322	2	Full	1	99	-	24.0	22.84	0	0.205	1.00	1.31	0.27
	LTE 71	QPSK20M	Rear Face	133322	2	Full	1	99	-	24.0	22.84	-0.09	0.186	1.00	1.31	0.24
	LTE 71	QPSK20M	Left Side	133322	2	Full	1	99	-	24.0	22.84	0.01	0.138	1.00	1.31	0.18
	LTE 71	QPSK20M	Right Side	133322	2	Full	1	99	-	24.0	22.84	0.02	0.142	1.00	1.31	0.19
	LTE 71	QPSK20M	Bottom Side	133322	2	Full	1	99	-	24.0	22.84	0.05	0.118	1.00	1.31	0.15
	LTE 71	QPSK20M	Front Face	133322	2	Full	50	0	-	23.0	21.81	0.09	0.163	1.00	1.32	0.21
	LTE 71	QPSK20M	Rear Face	133322	2	Full	50	0	-	23.0	21.81	-0.05	0.150	1.00	1.32	0.20
	LTE 71	QPSK20M	Left Side	133322	2	Full	50	0	-	23.0	21.81	-0.01	0.111	1.00	1.32	0.15
	LTE 71	QPSK20M	Right Side	133322	2	Full	50	0	-	23.0	21.81	-0.06	0.106	1.00	1.32	0.14
	LTE 71	QPSK20M	Bottom Side	133322	2	Full	50	0	-	23.0	21.81	0.05	0.071	1.00	1.32	0.09
	LTE 71	QPSK20M	Front Face	133222	2	Full	1	99	-	24.0	22.71	0.06	0.183	1.00	1.35	0.25
	LTE 71	QPSK20M	Front Face	133372	2	Full	1	99	-	24.0	22.73	0.01	0.187	1.00	1.34	0.25
P89	5G NR n5	DFT-s-OFDM QPSK20M	Front Face	167300	2	Full	1	1	-	24.0	22.89	0.07	0.318	1.00	1.29	0.41
	5G NR n5	DFT-s-OFDM QPSK20M	Rear Face	167300	2	Full	1	1	-	24.0	22.89	0.09	0.286	1.00	1.29	0.37
	5G NR n5	DFT-s-OFDM QPSK20M	Left Side	167300	2	Full	1	1	-	24.0	22.89	-0.09	0.124	1.00	1.29	0.16
	5G NR n5	DFT-s-OFDM QPSK20M	Right Side	167300	2	Full	1	1	-	24.0	22.89	0.02	0.153	1.00	1.29	0.20
	5G NR n5	DFT-s-OFDM QPSK20M	Bottom Side	167300	2	Full	1	1	-	24.0	22.89	-0.06	0.217	1.00	1.29	0.28
	5G NR n5	DFT-s-OFDM QPSK20M	Front Face	167300	2	Full	50	28	-	24.0	22.81	-0.02	0.312	1.00	1.32	0.41
	5G NR n5	DFT-s-OFDM QPSK20M	Rear Face	167300	2	Full	50	28	-	24.0	22.81	0.08	0.276	1.00	1.32	0.36
	5G NR n5	DFT-s-OFDM QPSK20M	Left Side	167300	2	Full	50	28	-	24.0	22.81	-0.03	0.118	1.00	1.32	0.16
	5G NR n5	DFT-s-OFDM QPSK20M	Right Side	167300	2	Full	50	28	-	24.0	22.81	-0.02	0.148	1.00	1.32	0.19



# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n5	DFT-s-OFDM QPSK20M	Bottom Side	167300	2	Full	50	28	-	24.0	22.81	-0.09	0.218	1.00	1.32	0.29
	5G NR n5	DFT-s-OFDM QPSK20M	Front Face	166800	2	Full	1	1	-	24.0	22.84	0.06	0.295	1.00	1.31	0.39
	5G NR n5	DFT-s-OFDM QPSK20M	Front Face	167800	2	Full	1	1	-	24.0	22.78	-0.01	0.289	1.00	1.32	0.38
	5G NR n7	DFT-s-OFDM QPSK20M	Front Face	507000	1	Full	1	1	-	24.0	23.15	-0.1	0.489	1.00	1.22	0.59
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	507000	1	Full	1	1	-	24.0	23.15	-0.11	0.866	1.00	1.22	1.05
	5G NR n7	DFT-s-OFDM QPSK20M	Left Side	507000	1	Full	1	1	-	24.0	23.15	0.11	0.279	1.00	1.22	0.34
	5G NR n7	DFT-s-OFDM QPSK20M	Top Side	507000	1	Full	1	1	-	24.0	23.15	0.06	0.789	1.00	1.22	0.96
	5G NR n7	DFT-s-OFDM QPSK20M	Front Face	507000	1	Full	50	28	-	24.0	23.09	0.05	0.465	1.00	1.23	0.57
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	507000	1	Full	50	28	-	24.0	23.09	0.06	0.819	1.00	1.23	1.01
	5G NR n7	DFT-s-OFDM QPSK20M	Left Side	507000	1	Full	50	28	-	24.0	23.09	0.08	0.243	1.00	1.23	0.30
	5G NR n7	DFT-s-OFDM QPSK20M	Top Side	507000	1	Full	50	28	-	24.0	23.09	0.01	0.759	1.00	1.23	0.94
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	502000	1	Full	1	1	-	24.0	23.10	0.06	0.723	1.00	1.23	0.89
P90	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	512000	1	Full	1	1	-	24.0	22.94	-0.04	0.835	1.00	1.28	1.07
	5G NR n7	DFT-s-OFDM QPSK20M	Top Side	502000	1	Full	1	1	-	24.0	23.10	0.03	0.659	1.00	1.23	0.81
	5G NR n7	DFT-s-OFDM QPSK20M	Top Side	512000	1	Full	1	1	-	24.0	22.94	0.02	0.761	1.00	1.28	0.97
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	502000	1	Full	50	28	-	24.0	23.04	0.05	0.684	1.00	1.25	0.85
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	512000	1	Full	50	28	-	24.0	22.90	0.08	0.790	1.00	1.29	1.02
	5G NR n7	DFT-s-OFDM QPSK20M	Top Side	502000	1	Full	50	28	-	24.0	23.04	-0.07	0.634	1.00	1.25	0.79
	5G NR n7	DFT-s-OFDM QPSK20M	Top Side	512000	1	Full	50	28	-	24.0	22.90	-0.09	0.732	1.00	1.29	0.94
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	507000	1	Full	100	0	-	23.0	22.05	-0.1	0.677	1.00	1.24	0.84
	5G NR n7	DFT-s-OFDM QPSK20M	Top Side	507000	1	Full	100	0	-	23.0	22.05	0.1	0.613	1.00	1.24	0.76
	5G NR n7	DFT-s-OFDM QPSK20M	Front Face	507000	1	Reduced 3	1	1	-	21.0	20.48	0.02	0.322	1.00	1.13	0.36
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	507000	1	Reduced 3	1	1	-	21.0	20.48	0.06	0.450	1.00	1.13	0.51
	5G NR n7	DFT-s-OFDM QPSK20M	Left Side	507000	1	Reduced 3	1	1	-	21.0	20.48	0.03	0.222	1.00	1.13	0.25
	5G NR n7	DFT-s-OFDM QPSK20M	Top Side	507000	1	Reduced 3	1	1	-	21.0	20.48	0.01	0.442	1.00	1.13	0.50
	5G NR n7	DFT-s-OFDM QPSK20M	Front Face	507000	1	Reduced 3	50	28	-	21.0	20.38	0.02	0.297	1.00	1.15	0.34
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	507000	1	Reduced 3	50	28	-	21.0	20.38	0.04	0.432	1.00	1.15	0.50
	5G NR n7	DFT-s-OFDM QPSK20M	Left Side	507000	1	Reduced 3	50	28	-	21.0	20.38	0.06	0.216	1.00	1.15	0.25
	5G NR n7	DFT-s-OFDM QPSK20M	Top Side	507000	1	Reduced 3	50	28	-	21.0	20.38	-0.09	0.432	1.00	1.15	0.50
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	502000	1	Reduced 3	1	1	-	21.0	20.47	0.05	0.385	1.00	1.13	0.43
	5G NR n7	DFT-s-OFDM QPSK20M	Rear Face	512000	1	Reduced 3	1	1	-	21.0	20.32	0.02	0.479	1.00	1.17	0.56
	5G NR n12	DFT-s-OFDM QPSK15M	Front Face	141500	2	Full	1	1	-	24.0	22.70	-0.03	0.187	1.00	1.35	0.25
	5G NR n12	DFT-s-OFDM QPSK15M	Rear Face	141500	2	Full	1	1	-	24.0	22.70	0.02	0.166	1.00	1.35	0.22
	5G NR n12	DFT-s-OFDM QPSK15M	Left Side	141500	2	Full	1	1	-	24.0	22.70	0.01	0.122	1.00	1.35	0.16
	5G NR n12	DFT-s-OFDM QPSK15M	Right Side	141500	2	Full	1	1	-	24.0	22.70	0	0.136	1.00	1.35	0.18





# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n12	DFT-s-OFDM QPSK15M	Bottom Side	141500	2	Full	1	1	-	24.0	22.70	-0.13	0.111	1.00	1.35	0.15
	5G NR n12	DFT-s-OFDM QPSK15M	Front Face	141500	2	Full	36	19	-	24.0	22.66	-0.02	0.184	1.00	1.36	0.25
	5G NR n12	DFT-s-OFDM QPSK15M	Rear Face	141500	2	Full	36	19	-	24.0	22.66	-0.04	0.165	1.00	1.36	0.22
	5G NR n12	DFT-s-OFDM QPSK15M	Left Side	141500	2	Full	36	19	-	24.0	22.66	-0.01	0.119	1.00	1.36	0.16
	5G NR n12	DFT-s-OFDM QPSK15M	Right Side	141500	2	Full	36	19	-	24.0	22.66	0.06	0.129	1.00	1.36	0.18
	5G NR n12	DFT-s-OFDM QPSK15M	Bottom Side	141500	2	Full	36	19	-	24.0	22.66	0.08	0.110	1.00	1.36	0.15
P91	5G NR n12	DFT-s-OFDM QPSK15M	Front Face	141300	2	Full	1	1	-	24.0	22.61	0	0.189	1.00	1.38	<b>0.26</b>
	5G NR n12	DFT-s-OFDM QPSK15M	Front Face	141700	2	Full	1	1	-	24.0	22.58	0.04	0.175	1.00	1.39	0.24
	5G NR n25	DFT-s-OFDM QPSK40M	Front Face	376500	1	Full	1	1	-	24.0	23.41	0.06	0.427	1.00	1.15	0.49
	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	376500	1	Full	1	1	-	24.0	23.41	-0.07	0.512	1.00	1.15	0.59
	5G NR n25	DFT-s-OFDM QPSK40M	Left Side	376500	1	Full	1	1	-	24.0	23.41	-0.07	0.181	1.00	1.15	0.21
	5G NR n25	DFT-s-OFDM QPSK40M	Top Side	376500	1	Full	1	1	-	24.0	23.41	-0.04	0.373	1.00	1.15	0.43
	5G NR n25	DFT-s-OFDM QPSK40M	Front Face	376500	1	Full	108	54	-	24.0	23.26	0.01	0.448	1.00	1.19	0.53
	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	376500	1	Full	108	54	-	24.0	23.26	-0.06	0.519	1.00	1.19	0.62
	5G NR n25	DFT-s-OFDM QPSK40M	Left Side	376500	1	Full	108	54	-	24.0	23.26	-0.05	0.198	1.00	1.19	0.23
	5G NR n25	DFT-s-OFDM QPSK40M	Top Side	376500	1	Full	108	54	-	24.0	23.26	-0.05	0.396	1.00	1.19	0.47
P92	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	374000	1	Full	108	54	-	24.0	23.39	0.01	0.536	1.00	1.15	<b>0.62</b>
	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	379000	1	Full	108	54	-	24.0	23.36	-0.01	0.510	1.00	1.16	0.59
	5G NR n25	DFT-s-OFDM QPSK40M	Front Face	376500	1	Reduced 3	1	1	-	21.0	20.66	0.06	0.335	1.00	1.08	0.36
	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	376500	1	Reduced 3	1	1	-	21.0	20.66	0.03	0.402	1.00	1.08	0.43
	5G NR n25	DFT-s-OFDM QPSK40M	Left Side	376500	1	Reduced 3	1	1	-	21.0	20.66	0.02	0.142	1.00	1.08	0.15
	5G NR n25	DFT-s-OFDM QPSK40M	Top Side	376500	1	Reduced 3	1	1	-	21.0	20.66	0.01	0.293	1.00	1.08	0.32
	5G NR n25	DFT-s-OFDM QPSK40M	Front Face	376500	1	Reduced 3	108	54	-	21.0	20.61	-0.04	0.352	1.00	1.09	0.39
	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	376500	1	Reduced 3	108	54	-	21.0	20.61	-0.06	0.408	1.00	1.09	0.45
	5G NR n25	DFT-s-OFDM QPSK40M	Left Side	376500	1	Reduced 3	108	54	-	21.0	20.61	-0.03	0.156	1.00	1.09	0.17
	5G NR n25	DFT-s-OFDM QPSK40M	Top Side	376500	1	Reduced 3	108	54	-	21.0	20.61	0.01	0.311	1.00	1.09	0.34
	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	374000	1	Reduced 3	108	54	-	21.0	20.54	0.03	0.421	1.00	1.11	0.47
	5G NR n25	DFT-s-OFDM QPSK40M	Rear Face	379000	1	Reduced 3	108	54	-	21.0	20.57	0.02	0.401	1.00	1.10	0.44
	5G NR n30	DFT-s-OFDM QPSK10M	Front Face	462000	1	Full	1	1	-	24.0	23.40	0.01	0.283	1.00	1.15	0.32
	5G NR n30	DFT-s-OFDM QPSK10M	Rear Face	462000	1	Full	1	1	-	24.0	23.40	0.01	0.421	1.00	1.15	0.48
	5G NR n30	DFT-s-OFDM QPSK10M	Left Side	462000	1	Full	1	1	-	24.0	23.40	0.03	0.136	1.00	1.15	0.16
	5G NR n30	DFT-s-OFDM QPSK10M	Top Side	462000	1	Full	1	1	-	24.0	23.40	0.05	0.379	1.00	1.15	0.44
	5G NR n30	DFT-s-OFDM QPSK10M	Front Face	462000	1	Full	25	14	-	24.0	23.36	0.08	0.292	1.00	1.16	0.34
P93	5G NR n30	DFT-s-OFDM QPSK10M	Rear Face	462000	1	Full	25	14	-	24.0	23.36	-0.03	0.427	1.00	1.16	<b>0.49</b>
	5G NR n30	DFT-s-OFDM QPSK10M	Left Side	462000	1	Full	25	14	-	24.0	23.36	-0.01	0.156	1.00	1.16	0.18



# FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n30	DFT-s-OFDM QPSK100M	Top Side	462000	1	Full	25	14	-	24.0	23.36	-0.01	0.407	1.00	1.16	0.47
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	1	Full	1	1	-	24.0	23.10	-0.06	0.202	1.00	1.23	0.25
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	1	Full	1	1	-	24.0	23.10	0.01	0.350	1.00	1.23	0.43
	5G NR n41	DFT-s-OFDM QPSK100M	Left Side	509202	1	Full	1	1	-	24.0	23.10	0.02	0.103	1.00	1.23	0.13
	5G NR n41	DFT-s-OFDM QPSK100M	Top Side	509202	1	Full	1	1	-	24.0	23.10	0.05	0.317	1.00	1.23	0.39
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	1	Full	135	69	-	24.0	22.91	0.09	0.209	1.00	1.29	0.27
P94	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	1	Full	135	69	-	24.0	22.91	0.03	0.383	1.00	1.29	<b>0.49</b>
	5G NR n41	DFT-s-OFDM QPSK100M	Left Side	509202	1	Full	135	69	-	24.0	22.91	-0.02	0.122	1.00	1.29	0.16
	5G NR n41	DFT-s-OFDM QPSK100M	Top Side	509202	1	Full	135	69	-	24.0	22.91	0.02	0.343	1.00	1.29	0.44
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	518598	1	Full	135	69	-	24.0	22.85	-0.08	0.257	1.00	1.30	0.33
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	528000	1	Full	135	69	-	24.0	22.74	-0.01	0.166	1.00	1.34	0.22
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	2	Full	1	1	-	24.0	23.07	0.03	0.082	1.00	1.24	0.10
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	2	Full	1	1	-	24.0	23.07	0.05	0.294	1.00	1.24	0.36
	5G NR n41	DFT-s-OFDM QPSK100M	Left Side	509202	2	Full	1	1	-	24.0	23.07	0.06	0.079	1.00	1.24	0.10
	5G NR n41	DFT-s-OFDM QPSK100M	Bottom Side	509202	2	Full	1	1	-	24.0	23.07	0.11	0.273	1.00	1.24	0.34
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	2	Full	135	69	-	24.0	22.83	-0.01	0.139	1.00	1.31	0.18
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	2	Full	135	69	-	24.0	22.83	0.01	0.322	1.00	1.31	0.42
	5G NR n41	DFT-s-OFDM QPSK100M	Left Side	509202	2	Full	135	69	-	24.0	22.83	0.05	0.131	1.00	1.31	0.17
	5G NR n41	DFT-s-OFDM QPSK100M	Bottom Side	509202	2	Full	135	69	-	24.0	22.83	-0.1	0.312	1.00	1.31	0.41
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	518598	2	Full	135	69	-	24.0	22.70	-0.12	0.337	1.00	1.35	0.45
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	528000	2	Full	135	69	-	24.0	22.76	0.01	0.315	1.00	1.33	0.42
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	3	Full	1	1	-	24.0	23.06	0.06	0.045	1.00	1.24	0.06
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	3	Full	1	1	-	24.0	23.06	0.05	0.158	1.00	1.24	0.20
	5G NR n41	DFT-s-OFDM QPSK100M	Right Side	509202	3	Full	1	1	-	24.0	23.06	0.04	0.214	1.00	1.24	0.27
	5G NR n41	DFT-s-OFDM QPSK100M	Top Side	509202	3	Full	1	1	-	24.0	23.06	0.08	0.029	1.00	1.24	0.04
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	3	Full	135	69	-	24.0	22.86	0.09	0.045	1.00	1.30	0.06
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	3	Full	135	69	-	24.0	22.86	0.1	0.144	1.00	1.30	0.19
	5G NR n41	DFT-s-OFDM QPSK100M	Right Side	509202	3	Full	135	69	-	24.0	22.86	-0.12	0.187	1.00	1.30	0.24
	5G NR n41	DFT-s-OFDM QPSK100M	Top Side	509202	3	Full	135	69	-	24.0	22.86	-0.05	0.033	1.00	1.30	0.04
	5G NR n41	DFT-s-OFDM QPSK100M	Right Side	518598	3	Full	1	1	-	24.0	22.95	-0.06	0.251	1.00	1.27	0.32
	5G NR n41	DFT-s-OFDM QPSK100M	Right Side	528000	3	Full	1	1	-	24.0	22.87	0.04	0.287	1.00	1.30	0.37
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	5	Full	1	1	-	24.0	23.08	-0.06	0.035	1.00	1.24	0.04
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	5	Full	1	1	-	24.0	23.08	0.01	0.063	1.00	1.24	0.08
	5G NR n41	DFT-s-OFDM QPSK100M	Left Side	509202	5	Full	1	1	-	24.0	23.08	0.06	0.071	1.00	1.24	0.09
	5G NR n41	DFT-s-OFDM QPSK100M	Top Side	509202	5	Full	1	1	-	24.0	23.08	-0.07	0.027	1.00	1.24	0.03



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n41	DFT-s-OFDM QPSK100M	Front Face	509202	5	Full	135	69	-	24.0	22.88	0.13	0.041	1.00	1.29	0.05
	5G NR n41	DFT-s-OFDM QPSK100M	Rear Face	509202	5	Full	135	69	-	24.0	22.88	0.11	0.095	1.00	1.29	0.12
	5G NR n41	DFT-s-OFDM QPSK100M	Left Side	509202	5	Full	135	69	-	24.0	22.88	0.01	0.101	1.00	1.29	0.13
	5G NR n41	DFT-s-OFDM QPSK100M	Top Side	509202	5	Full	135	69	-	24.0	22.88	0.1	0.030	1.00	1.29	0.04
	5G NR n41	DFT-s-OFDM QPSK100M	Left Side	518598	5	Full	135	69	-	24.0	22.69	-0.16	0.104	1.00	1.35	0.14
	5G NR n41	DFT-s-OFDM QPSK100M	Left Side	528000	5	Full	135	69	-	24.0	22.73	-0.13	0.124	1.00	1.34	0.17
	5G NR n48	DFT-s-OFDM QPSK40M	Front Face	641666	7	Full	1	1	-	24.0	23.69	0.16	0.229	1.00	1.07	0.25
	5G NR n48	DFT-s-OFDM QPSK40M	Rear Face	641666	7	Full	1	1	-	24.0	23.69	0.1	0.282	1.00	1.07	0.30
	5G NR n48	DFT-s-OFDM QPSK40M	Left Side	641666	7	Full	1	1	-	24.0	23.69	0.04	0.317	1.00	1.07	0.34
	5G NR n48	DFT-s-OFDM QPSK40M	Top Side	641666	7	Full	1	1	-	24.0	23.69	0.02	0.286	1.00	1.07	0.31
	5G NR n48	DFT-s-OFDM QPSK40M	Front Face	641666	7	Full	50	28	-	24.0	23.53	0.05	0.219	1.00	1.11	0.24
	5G NR n48	DFT-s-OFDM QPSK40M	Rear Face	641666	7	Full	50	28	-	24.0	23.53	0.01	0.277	1.00	1.11	0.31
	5G NR n48	DFT-s-OFDM QPSK40M	Left Side	641666	7	Full	50	28	-	24.0	23.53	-0.05	0.302	1.00	1.11	0.34
	5G NR n48	DFT-s-OFDM QPSK40M	Top Side	641666	7	Full	50	28	-	24.0	23.53	-0.06	0.271	1.00	1.11	0.30
	5G NR n48	DFT-s-OFDM QPSK40M	Left Side	638000	7	Full	1	1	-	24.0	23.63	-0.07	0.319	1.00	1.09	0.35
P95	5G NR n48	DFT-s-OFDM QPSK40M	Left Side	645332	7	Full	1	1	-	24.0	23.65	-0.07	0.366	1.00	1.08	<b>0.40</b>
	5G NR n66	DFT-s-OFDM QPSK40M	Front Face	346000	1	Full	1	1	-	24.0	23.47	0.01	0.446	1.00	1.13	0.50
	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	346000	1	Full	1	1	-	24.0	23.47	-0.07	0.512	1.00	1.13	0.58
	5G NR n66	DFT-s-OFDM QPSK40M	Left Side	346000	1	Full	1	1	-	24.0	23.47	-0.02	0.193	1.00	1.13	0.22
	5G NR n66	DFT-s-OFDM QPSK40M	Top Side	346000	1	Full	1	1	-	24.0	23.47	0.01	0.334	1.00	1.13	0.38
	5G NR n66	DFT-s-OFDM QPSK40M	Front Face	346000	1	Full	108	54	-	24.0	23.44	-0.05	0.476	1.00	1.14	0.54
P96	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	346000	1	Full	108	54	-	24.0	23.44	0.05	0.548	1.00	1.14	<b>0.62</b>
	5G NR n66	DFT-s-OFDM QPSK40M	Left Side	346000	1	Full	108	54	-	24.0	23.44	-0.03	0.203	1.00	1.14	0.23
	5G NR n66	DFT-s-OFDM QPSK40M	Top Side	346000	1	Full	108	54	-	24.0	23.44	0.06	0.349	1.00	1.14	0.40
	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	349000	1	Full	108	54	-	24.0	23.35	0.03	0.521	1.00	1.16	0.61
	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	352000	1	Full	108	54	-	24.0	23.45	-0.05	0.487	1.00	1.14	0.55
	5G NR n66	DFT-s-OFDM QPSK40M	Front Face	346000	1	Reduced 3	1	1	-	21.0	20.76	0.01	0.383	1.00	1.06	0.40
	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	346000	1	Reduced 3	1	1	-	21.0	20.76	0.06	0.439	1.00	1.06	0.46
	5G NR n66	DFT-s-OFDM QPSK40M	Left Side	346000	1	Reduced 3	1	1	-	21.0	20.76	0.01	0.166	1.00	1.06	0.18
	5G NR n66	DFT-s-OFDM QPSK40M	Top Side	346000	1	Reduced 3	1	1	-	21.0	20.76	0.09	0.287	1.00	1.06	0.30
	5G NR n66	DFT-s-OFDM QPSK40M	Front Face	346000	1	Reduced 3	108	54	-	21.0	20.75	-0.01	0.408	1.00	1.06	0.43
	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	346000	1	Reduced 3	108	54	-	21.0	20.75	0.02	0.437	1.00	1.06	0.46
	5G NR n66	DFT-s-OFDM QPSK40M	Left Side	346000	1	Reduced 3	108	54	-	21.0	20.75	0.02	0.174	1.00	1.06	0.18
	5G NR n66	DFT-s-OFDM QPSK40M	Top Side	346000	1	Reduced 3	108	54	-	21.0	20.75	0.01	0.299	1.00	1.06	0.32
	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	349000	1	Reduced 3	108	54	-	21.0	20.65	-0.03	0.447	1.00	1.08	0.48



# BUREAU VERITAS FCC SAR Test Report



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n66	DFT-s-OFDM QPSK40M	Rear Face	352000	1	Reduced 3	108	54	-	21.0	20.72	0.03	0.418	1.00	1.07	0.45
	5G NR n71	DFT-s-OFDM QPSK15M	Front Face	136100	2	Full	1	1	-	24.0	23.09	0.06	0.180	1.00	1.23	0.22
	5G NR n71	DFT-s-OFDM QPSK15M	Rear Face	136100	2	Full	1	1	-	24.0	23.09	-0.09	0.174	1.00	1.23	0.21
	5G NR n71	DFT-s-OFDM QPSK15M	Left Side	136100	2	Full	1	1	-	24.0	23.09	0.05	0.124	1.00	1.23	0.15
	5G NR n71	DFT-s-OFDM QPSK15M	Right Side	136100	2	Full	1	1	-	24.0	23.09	0.01	0.128	1.00	1.23	0.16
	5G NR n71	DFT-s-OFDM QPSK15M	Bottom Side	136100	2	Full	1	1	-	24.0	23.09	0.05	0.089	1.00	1.23	0.11
P97	5G NR n71	DFT-s-OFDM QPSK15M	Front Face	136100	2	Full	36	19	-	24.0	22.93	-0.01	0.182	1.00	1.28	<b>0.23</b>
	5G NR n71	DFT-s-OFDM QPSK15M	Rear Face	136100	2	Full	36	19	-	24.0	22.93	-0.01	0.178	1.00	1.28	0.23
	5G NR n71	DFT-s-OFDM QPSK15M	Left Side	136100	2	Full	36	19	-	24.0	22.93	0.03	0.135	1.00	1.28	0.17
	5G NR n71	DFT-s-OFDM QPSK15M	Right Side	136100	2	Full	36	19	-	24.0	22.93	-0.07	0.136	1.00	1.28	0.17
	5G NR n71	DFT-s-OFDM QPSK15M	Bottom Side	136100	2	Full	36	19	-	24.0	22.93	0.01	0.130	1.00	1.28	0.17
	5G NR n71	DFT-s-OFDM QPSK15M	Front Face	134100	2	Full	1	1	-	24.0	23.06	0.01	0.172	1.00	1.24	0.21
	5G NR n71	DFT-s-OFDM QPSK15M	Front Face	138100	2	Full	1	1	-	24.0	22.89	0.09	0.179	1.00	1.29	0.23
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	7	Full	1	1	-	24.0	23.16	-0.01	0.163	1.00	1.21	0.20
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	7	Full	1	1	-	24.0	23.16	0.05	0.217	1.00	1.21	0.26
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Side	633334	7	Full	1	1	-	24.0	23.16	0.03	0.242	1.00	1.21	0.29
P98	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Top Side	633334	7	Full	1	1	-	24.0	23.16	0.18	0.360	1.00	1.21	<b>0.44</b>
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	7	Full	135	69	-	24.0	22.69	0.1	0.151	1.00	1.35	0.20
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	7	Full	135	69	-	24.0	22.69	0.11	0.213	1.00	1.35	0.29
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Side	633334	7	Full	135	69	-	24.0	22.69	-0.11	0.230	1.00	1.35	0.31
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Top Side	633334	7	Full	135	69	-	24.0	22.69	0.06	0.322	1.00	1.35	0.44
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	4	Full	1	1	-	24.0	23.14	0.01	0.086	1.00	1.22	0.10
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	4	Full	1	1	-	24.0	23.14	0.02	0.084	1.00	1.22	0.10
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Side	633334	4	Full	1	1	-	24.0	23.14	0.03	0.059	1.00	1.22	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Bottom Side	633334	4	Full	1	1	-	24.0	23.14	-0.05	0.139	1.00	1.22	0.17
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	4	Full	135	69	-	24.0	22.63	-0.05	0.097	1.00	1.37	0.13
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	4	Full	135	69	-	24.0	22.63	-0.04	0.083	1.00	1.37	0.11
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Side	633334	4	Full	135	69	-	24.0	22.63	0.03	0.061	1.00	1.37	0.08
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Bottom Side	633334	4	Full	135	69	-	24.0	22.63	0.03	0.151	1.00	1.37	0.21
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	5	Full	1	1	-	24.0	23.13	0.07	0.057	1.00	1.22	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	5	Full	1	1	-	24.0	23.13	0.03	0.114	1.00	1.22	0.14
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Side	633334	5	Full	1	1	-	24.0	23.13	0.05	0.102	1.00	1.22	0.12
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Top Side	633334	5	Full	1	1	-	24.0	23.13	0.06	0.039	1.00	1.22	0.05
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	5	Full	135	69	-	24.0	22.61	0.09	0.048	1.00	1.38	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	5	Full	135	69	-	24.0	22.61	0.07	0.196	1.00	1.38	0.27



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Side	633334	5	Full	135	69	-	24.0	22.61	-0.05	0.187	1.00	1.38	0.26
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Top Side	633334	5	Full	135	69	-	24.0	22.61	-0.19	0.051	1.00	1.38	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	6	Full	1	1	-	24.0	23.07	0.02	0.049	1.00	1.24	0.06
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	6	Full	1	1	-	24.0	23.07	0.06	0.043	1.00	1.24	0.05
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Side	633334	6	Full	1	1	-	24.0	23.07	0.09	0.045	1.00	1.24	0.06
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Top Side	633334	6	Full	1	1	-	24.0	23.07	-0.05	0.060	1.00	1.24	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	633334	6	Full	135	69	-	24.0	22.53	-0.16	0.051	1.00	1.40	0.07
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	633334	6	Full	135	69	-	24.0	22.53	0.02	0.068	1.00	1.40	0.10
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Side	633334	6	Full	135	69	-	24.0	22.53	-0.16	0.059	1.00	1.40	0.08
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Top Side	633334	6	Full	135	69	-	24.0	22.53	0.01	0.056	1.00	1.40	0.08
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	7	Full	1	1	-	24.0	23.35	0.08	0.164	1.00	1.16	0.19
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	7	Full	1	1	-	24.0	23.35	0.07	0.176	1.00	1.16	0.20
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Side	662000	7	Full	1	1	-	24.0	23.35	0.01	0.203	1.00	1.16	0.24
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Top Side	662000	7	Full	1	1	-	24.0	23.35	0.03	0.085	1.00	1.16	0.10
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	7	Full	135	69	-	24.0	23.29	0.05	0.143	1.00	1.18	0.17
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	7	Full	135	69	-	24.0	23.29	0.04	0.169	1.00	1.18	0.20
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Side	662000	7	Full	135	69	-	24.0	23.29	0.06	0.177	1.00	1.18	0.21
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Top Side	662000	7	Full	135	69	-	24.0	23.29	-0.01	0.081	1.00	1.18	0.10
P99	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Side	650000	7	Full	1	1	-	24.0	23.16	0.05	0.346	1.00	1.21	<b>0.42</b>
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Side	656000	7	Full	1	1	-	24.0	23.24	-0.06	0.258	1.00	1.19	0.31
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	4	Full	1	1	-	24.0	23.33	0.03	0.148	1.00	1.17	0.17
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	4	Full	1	1	-	24.0	23.33	0.01	0.184	1.00	1.17	0.21
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Side	662000	4	Full	1	1	-	24.0	23.33	0.06	0.079	1.00	1.17	0.09
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Bottom Side	662000	4	Full	1	1	-	24.0	23.33	-0.05	0.248	1.00	1.17	0.29
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	4	Full	135	69	-	24.0	23.20	-0.01	0.192	1.00	1.20	0.23
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	4	Full	135	69	-	24.0	23.20	-0.01	0.234	1.00	1.20	0.28
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Right Side	662000	4	Full	135	69	-	24.0	23.20	0.06	0.104	1.00	1.20	0.13
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Bottom Side	662000	4	Full	135	69	-	24.0	23.20	0.07	0.274	1.00	1.20	0.33
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Bottom Side	650000	4	Full	135	69	-	24.0	22.99	0.03	0.329	1.00	1.26	0.42
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Bottom Side	656000	4	Full	135	69	-	24.0	23.13	0.01	0.290	1.00	1.22	0.35
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	5	Full	1	1	-	24.0	23.31	-0.06	0.037	1.00	1.17	0.04
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Rear Face	662000	5	Full	1	1	-	24.0	23.31	-0.01	0.091	1.00	1.17	0.11
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Left Side	662000	5	Full	1	1	-	24.0	23.31	0.01	0.066	1.00	1.17	0.08
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Top Side	662000	5	Full	1	1	-	24.0	23.31	0.05	0.042	1.00	1.17	0.05
	5G NR n77 (Part27Q)	DFT-s-OFDM QPSK100M	Front Face	662000	5	Full	135	69	-	24.0	23.25	0.06	0.039	1.00	1.19	0.05





Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Rear Face	662000	5	Full	135	69	-	24.0	23.25	0.05	0.114	1.00	1.19	0.14
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Left Side	662000	5	Full	135	69	-	24.0	23.25	0.09	0.072	1.00	1.19	0.09
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Top Side	662000	5	Full	135	69	-	24.0	23.25	0.06	0.045	1.00	1.19	0.05
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Rear Face	650000	5	Full	135	69	-	24.0	22.99	0.01	0.177	1.00	1.26	0.22
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Rear Face	656000	5	Full	135	69	-	24.0	23.12	-0.01	0.149	1.00	1.22	0.18
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Front Face	662000	6	Full	1	1	-	24.0	23.34	-0.03	0.027	1.00	1.16	0.03
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Rear Face	662000	6	Full	1	1	-	24.0	23.34	-0.03	0.079	1.00	1.16	0.09
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Left Side	662000	6	Full	1	1	-	24.0	23.34	-0.08	0.087	1.00	1.16	0.10
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Bottom Side	662000	6	Full	1	1	-	24.0	23.34	0.01	0.037	1.00	1.16	0.04
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Front Face	662000	6	Full	135	69	-	24.0	23.33	0.02	0.037	1.00	1.17	0.04
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Rear Face	662000	6	Full	135	69	-	24.0	23.33	-0.09	0.115	1.00	1.17	0.13
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Left Side	662000	6	Full	135	69	-	24.0	23.33	-0.11	0.121	1.00	1.17	0.14
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Bottom Side	662000	6	Full	135	69	-	24.0	23.33	0.13	0.050	1.00	1.17	0.06
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Bottom Side	650000	6	Full	135	69	-	24.0	23.16	0.01	0.072	1.00	1.21	0.09
	5G NR n77 (Part270)	DFT-s-OFDM QPSK100M	Bottom Side	656000	6	Full	135	69	-	24.0	23.18	0.02	0.066	1.00	1.21	0.08
	WLAN2.4G	802.11b	Front Face	1	8	Full	-	-	97.78	15.5	15.00	0.06	0.040	1.02	1.12	0.05
	WLAN2.4G	802.11b	Rear Face	1	8	Full	-	-	97.78	15.5	15.00	-0.09	0.172	1.02	1.12	0.20
	WLAN2.4G	802.11b	Right Side	1	8	Full	-	-	97.78	15.5	15.00	0.08	0.045	1.02	1.12	0.05
	WLAN2.4G	802.11b	Top Side	1	8	Full	-	-	97.78	15.5	15.00	-0.07	0.081	1.02	1.12	0.09
	WLAN2.4G	802.11b	Rear Face	6	8	Full	-	-	97.78	15.5	14.55	0.01	0.153	1.02	1.24	0.19
	WLAN2.4G	802.11b	Rear Face	11	8	Full	-	-	97.78	15.5	14.64	-0.06	0.191	1.02	1.22	0.24
	WLAN2.4G	802.11b	Front Face	11	9	Full	-	-	97.78	15.5	14.98	0.03	0.099	1.02	1.13	0.11
	WLAN2.4G	802.11b	Rear Face	11	9	Full	-	-	97.78	15.5	14.98	0.06	0.195	1.02	1.13	0.22
	WLAN2.4G	802.11b	Right Side	11	9	Full	-	-	97.78	15.5	14.98	-0.09	0.074	1.02	1.13	0.09
	WLAN2.4G	802.11b	Top Side	11	9	Full	-	-	97.78	15.5	14.98	0.03	0.089	1.02	1.13	0.10
	WLAN2.4G	802.11b	Rear Face	1	9	Full	-	-	97.78	15.5	14.97	-0.07	0.227	1.02	1.13	0.26
	WLAN2.4G	802.11b	Rear Face	6	9	Full	-	-	97.78	15.5	14.90	0.01	0.197	1.02	1.15	0.23
	WLAN2.4G	802.11b	Front Face	1	8+9	Full	-	-	97.98	19.0	18.30	0.02	0.144	1.02	1.17	0.17
	WLAN2.4G	802.11b	Rear Face	1	8+9	Full	-	-	97.98	19.0	18.30	0.03	0.348	1.02	1.17	0.42
	WLAN2.4G	802.11b	Right Side	1	8+9	Full	-	-	97.98	19.0	18.30	0.01	0.117	1.02	1.17	0.14
	WLAN2.4G	802.11b	Top Side	1	8+9	Full	-	-	97.98	19.0	18.30	-0.01	0.184	1.02	1.17	0.22
P100	WLAN2.4G	802.11b	Rear Face	6	8+9	Full	-	-	97.98	19.0	18.04	-0.04	0.395	1.02	1.25	<b>0.50</b>
	WLAN2.4G	802.11b	Rear Face	11	8+9	Full	-	-	97.98	19.0	18.13	-0.01	0.371	1.02	1.22	0.46
	WLAN5.2G	802.11a	Front Face	40	8	Full	-	-	96.72	14.0	13.80	0.01	0.093	1.03	1.05	0.10
	WLAN5.2G	802.11a	Rear Face	40	8	Full	-	-	96.72	14.0	13.80	0.05	0.151	1.03	1.05	0.16
	WLAN5.2G	802.11a	Right Side	40	8	Full	-	-	96.72	14.0	13.80	0.09	0.053	1.03	1.05	0.06
P101	WLAN5.2G	802.11a	Top Side	40	8	Full	-	-	96.72	14.0	13.80	0.06	0.172	1.03	1.05	<b>0.19</b>
	WLAN5.2G	802.11a	Top Side	36	8	Full	-	-	96.72	14.0	13.70	-0.04	0.164	1.03	1.07	0.18
	WLAN5.2G	802.11a	Top Side	44	8	Full	-	-	96.72	14.0	13.65	-0.04	0.158	1.03	1.08	0.18
	WLAN5.2G	802.11a	Top Side	48	8	Full	-	-	96.72	14.0	13.56	0.06	0.155	1.03	1.11	0.18
	WLAN5.2G	802.11a	Front Face	40	9	Full	-	-	96.72	13.0	12.94	-0.04	0.046	1.03	1.01	0.05
	WLAN5.2G	802.11a	Rear Face	40	9	Full	-	-	96.72	13.0	12.94	0.05	0.080	1.03	1.01	0.08
	WLAN5.2G	802.11a	Right Side	40	9	Full	-	-	96.72	13.0	12.94	0.06	0.059	1.03	1.01	0.06
	WLAN5.2G	802.11a	Top Side	40	9	Full	-	-	96.72	13.0	12.94	-0.01	0.048	1.03	1.01	0.05
	WLAN5.2G	802.11a	Rear Face	36	9	Full	-	-	96.72	13.0	12.85	0.03	0.081	1.03	1.04	0.09
	WLAN5.2G	802.11a	Rear Face	44	9	Full	-	-	96.72	13.0	12.63	-0.01	0.084	1.03	1.09	0.09
	WLAN5.2G	802.11a	Rear Face	48	9	Full	-	-	96.72	13.0	12.49	0.05	0.081	1.03	1.12	0.09
	WLAN5.2G	802.11a	Front Face	40	8+9	Full	-	-	96.72	16.5	16.47	0.03	0.080	1.03	1.01	0.08
	WLAN5.2G	802.11a	Rear Face	40	8+9	Full	-	-	96.72	16.5	16.47	0.01	0.131	1.03	1.01	0.14
	WLAN5.2G	802.11a	Right Side	40	8+9	Full	-	-	96.72	16.5	16.47	0.09	0.048	1.03	1.01	0.05
	WLAN5.2G	802.11a	Top Side	40	8+9	Full	-	-	96.72	16.5	16.47	0.04	0.160	1.03	1.01	0.17
	WLAN5.2G	802.11a	Top Side	36	8+9	Full	-	-	96.72	16.5	16.38	0	0.166	1.03	1.03	0.18
	WLAN5.2G	802.11a	Top Side	44	8+9	Full	-	-	96.72	16.5	16.32	0.06	0.162	1.03	1.04	0.17
	WLAN5.2G	802.11a	Top Side	48	8+9	Full	-	-	96.72	16.5	16.14	-0.01	0.146	1.03	1.09	0.16



Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	WLAN5.8G	802.11a	Front Face	157	8	Full	-	-	97.72	14.0	13.61	0.15	0.050	1.02	1.09	0.06
	WLAN5.8G	802.11a	Rear Face	157	8	Full	-	-	97.72	14.0	13.61	0.13	0.098	1.02	1.09	0.11
	WLAN5.8G	802.11a	Right Side	157	8	Full	-	-	97.72	14.0	13.61	0.01	0.030	1.02	1.09	0.03
	WLAN5.8G	802.11a	Top Side	157	8	Full	-	-	97.72	14.0	13.61	0.05	0.057	1.02	1.09	0.06
	WLAN5.8G	802.11a	Rear Face	149	8	Full	-	-	97.72	14.0	13.34	0.08	0.093	1.02	1.16	0.11
	WLAN5.8G	802.11a	Rear Face	165	8	Full	-	-	97.72	14.0	13.31	0	0.100	1.02	1.17	0.12
	WLAN5.8G	802.11a	Front Face	165	9	Full	-	-	97.72	12.5	12.00	-0.01	0.041	1.02	1.12	0.05
	WLAN5.8G	802.11a	Rear Face	165	9	Full	-	-	97.72	12.5	12.00	-0.05	0.131	1.02	1.12	0.15
	WLAN5.8G	802.11a	Right Side	165	9	Full	-	-	97.72	12.5	12.00	-0.01	0.068	1.02	1.12	0.08
	WLAN5.8G	802.11a	Top Side	165	9	Full	-	-	97.72	12.5	12.00	-0.02	0.033	1.02	1.12	0.04
	WLAN5.8G	802.11a	Rear Face	149	9	Full	-	-	97.72	12.5	11.06	0.03	0.086	1.02	1.39	0.12
	WLAN5.8G	802.11a	Rear Face	157	9	Full	-	-	97.72	12.5	11.77	0.06	0.103	1.02	1.18	0.12
	WLAN5.8G	802.11a	Front Face	157	8+9	Full	-	-	97.72	16.5	16.00	0.08	0.072	1.02	1.12	0.08
	WLAN5.8G	802.11a	Rear Face	157	8+9	Full	-	-	97.72	16.5	16.00	0.04	0.143	1.02	1.12	0.16
	WLAN5.8G	802.11a	Right Side	157	8+9	Full	-	-	97.72	16.5	16.00	0.09	0.059	1.02	1.12	0.07
	WLAN5.8G	802.11a	Top Side	157	8+9	Full	-	-	97.72	16.5	16.00	-0.01	0.077	1.02	1.12	0.09
P102	WLAN5.8G	802.11a	Rear Face	149	8+9	Full	-	-	97.72	16.5	15.56	-0.04	0.134	1.02	1.24	<b>0.17</b>
	WLAN5.8G	802.11a	Rear Face	165	8+9	Full	-	-	97.72	16.5	15.91	0.03	0.133	1.02	1.15	0.16
	BT	GFSK	Front Face	39	8	Full	-	-	76.53	7.0	6.16	-0.04	0.001	1.31	1.21	0.00
P103	BT	GFSK	Rear Face	39	8	Full	-	-	76.53	7.0	6.16	-0.08	0.017	1.31	1.21	<b>0.03</b>
	BT	GFSK	Right Side	39	8	Full	-	-	76.53	7.0	6.16	-0.06	0.001	1.31	1.21	0.00
	BT	GFSK	Top Side	39	8	Full	-	-	76.53	7.0	6.16	-0.07	0.005	1.31	1.21	0.01
	BT	GFSK	Rear Face	0	8	Full	-	-	76.53	7.0	5.69	0.01	0.012	1.31	1.35	0.02
	BT	GFSK	Rear Face	78	8	Full	-	-	76.53	7.0	5.28	0.06	0.013	1.31	1.49	0.03
	BLE	S8	Front Face	19	8	Full	-	-	82.4	10.0	9.35	0.09	0.006	1.21	1.16	0.01
P104	BLE	S8	Rear Face	19	8	Full	-	-	82.4	10.0	9.35	-0.03	0.040	1.21	1.16	<b>0.06</b>
	BLE	S8	Right Side	19	8	Full	-	-	82.4	10.0	9.35	0.06	0.013	1.21	1.16	0.02
	BLE	S8	Top Side	19	8	Full	-	-	82.4	10.0	9.35	-0.04	0.014	1.21	1.16	0.02
	BLE	S8	Rear Face	0	8	Full	-	-	82.4	10.0	8.49	-0.01	0.025	1.21	1.42	0.04
	BLE	S8	Rear Face	39	8	Full	-	-	82.4	10.0	8.63	-0.1	0.032	1.21	1.37	0.05



4.6.5 SAR Results for Extremity Exposure Condition (Separation Distance is 0 cm Gap)

Plot No.	Band	Mode	Test Position	Ch.	Ant	Power Reduction	RB#	RB Offset	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift (dB)	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
	WLAN5.3G	802.11a	Front Face	52	8		-	-	96.72	14.0	13.58	0.02	0.113	1.03	1.10	0.13
	WLAN5.3G	802.11a	Rear Face	52	8		-	-	96.72	14.0	13.58	0.05	0.199	1.03	1.10	0.23
	WLAN5.3G	802.11a	Right Side	52	8		-	-	96.72	14.0	13.58	-0.01	0.092	1.03	1.10	0.10
P105	WLAN5.3G	802.11a	Top Side	52	8		-	-	96.72	14.0	13.58	0.05	0.209	1.03	1.10	<b>0.24</b>
	WLAN5.3G	802.11a	Rear Face	56	8		-	-	96.72	14.0	13.55	-0.06	0.194	1.03	1.11	0.22
	WLAN5.3G	802.11a	Rear Face	60	8		-	-	96.72	14.0	13.50	0.01	0.186	1.03	1.12	0.22
	WLAN5.3G	802.11a	Rear Face	64	8		-	-	96.72	14.0	13.52	0.05	0.180	1.03	1.12	0.21
	WLAN5.3G	802.11a	Front Face	64	9		-	-	96.72	13.0	12.71	-0.01	0.055	1.03	1.07	0.06
	WLAN5.3G	802.11a	Rear Face	64	9		-	-	96.72	13.0	12.71	0.03	0.127	1.03	1.07	0.14
	WLAN5.3G	802.11a	Right Side	64	9		-	-	96.72	13.0	12.71	-0.06	0.075	1.03	1.07	0.08
	WLAN5.3G	802.11a	Top Side	64	9		-	-	96.72	13.0	12.71	0.01	0.020	1.03	1.07	0.02
	WLAN5.3G	802.11a	Rear Face	52	9		-	-	96.72	13.0	12.47	0.01	0.064	1.03	1.13	0.07
	WLAN5.3G	802.11a	Rear Face	56	9		-	-	96.72	13.0	12.58	0.05	0.075	1.03	1.10	0.09
	WLAN5.3G	802.11a	Rear Face	60	9		-	-	96.72	13.0	12.70	0.06	0.084	1.03	1.07	0.09
	WLAN5.3G	802.11a	Front Face	64	8+9		-	-	96.72	16.5	16.22	-0.05	0.110	1.03	1.07	0.12
	WLAN5.3G	802.11a	Rear Face	64	8+9		-	-	96.72	16.5	16.22	0.04	0.155	1.03	1.07	0.17
	WLAN5.3G	802.11a	Right Side	64	8+9		-	-	96.72	16.5	16.22	0.06	0.074	1.03	1.07	0.08
	WLAN5.3G	802.11a	Top Side	64	8+9		-	-	96.72	16.5	16.22	-0.04	0.193	1.03	1.07	0.21
	WLAN5.3G	802.11a	Top Side	52	8+9		-	-	96.72	16.5	16.14	0.08	0.208	1.03	1.09	0.23
	WLAN5.3G	802.11a	Top Side	56	8+9		-	-	96.72	16.5	16.18	0.01	0.189	1.03	1.08	0.21
	WLAN5.3G	802.11a	Top Side	60	8+9		-	-	96.72	16.5	16.20	0.14	0.187	1.03	1.07	0.21
	WLAN5.6G	802.11a	Front Face	140	8		-	-	96.72	14.5	13.97	0.03	0.086	1.03	1.13	0.10
	WLAN5.6G	802.11a	Rear Face	140	8		-	-	96.72	14.5	13.97	0.04	0.125	1.03	1.13	0.15
	WLAN5.6G	802.11a	Right Side	140	8		-	-	96.72	14.5	13.97	0.08	0.046	1.03	1.13	0.05
	WLAN5.6G	802.11a	Top Side	140	8		-	-	96.72	14.5	13.97	-0.1	0.089	1.03	1.13	0.10
	WLAN5.6G	802.11a	Rear Face	100	8		-	-	96.72	13.5	13.22	0	0.142	1.03	1.07	0.16
	WLAN5.6G	802.11a	Rear Face	116	8		-	-	96.72	13.5	13.09	0.09	0.120	1.03	1.10	0.14
	WLAN5.6G	802.11a	Rear Face	124	8		-	-	96.72	14.0	13.28	-0.14	0.129	1.03	1.18	0.16
	WLAN5.6G	802.11a	Rear Face	132	8		-	-	96.72	14.5	13.56	0.01	0.119	1.03	1.24	0.15
	WLAN5.6G	802.11a	Rear Face	144	8		-	-	96.72	14.5	13.89	0.02	0.105	1.03	1.15	0.12
	WLAN5.6G	802.11a	Front Face	116	9		-	-	96.72	12.5	12.08	0.02	0.062	1.03	1.10	0.07
	WLAN5.6G	802.11a	Rear Face	116	9		-	-	96.72	12.5	12.08	0.13	0.100	1.03	1.10	0.11
	WLAN5.6G	802.11a	Right Side	116	9		-	-	96.72	12.5	12.08	0.04	0.103	1.03	1.10	0.12
	WLAN5.6G	802.11a	Top Side	116	9		-	-	96.72	12.5	12.08	0.05	0.020	1.03	1.10	0.02
	WLAN5.6G	802.11a	Right Side	100	9		-	-	96.72	12.5	11.88	-0.04	0.086	1.03	1.15	0.10
	WLAN5.6G	802.11a	Right Side	124	9		-	-	96.72	12.5	11.85	0.04	0.126	1.03	1.16	0.15
	WLAN5.6G	802.11a	Right Side	132	9		-	-	96.72	12.5	11.81	-0.07	0.144	1.03	1.17	0.17
	WLAN5.6G	802.11a	Right Side	140	9		-	-	96.72	12.5	11.85	-0.06	0.086	1.03	1.16	0.10
	WLAN5.6G	802.11a	Right Side	144	9		-	-	96.72	12.5	11.78	0.01	0.085	1.03	1.18	0.10
	WLAN5.6G	802.11a	Front Face	140	8+9		-	-	96.72	16.5	12.12	0.03	0.089	1.03	2.74	0.25
	WLAN5.6G	802.11a	Rear Face	140	8+9		-	-	96.72	16.5	16.12	0.03	0.151	1.03	1.09	0.17
	WLAN5.6G	802.11a	Right Side	140	8+9		-	-	96.72	16.5	16.12	0	0.136	1.03	1.09	0.15
	WLAN5.6G	802.11a	Top Side	140	8+9		-	-	96.72	16.5	16.12	-0.01	0.112	1.03	1.09	0.13
	WLAN5.6G	802.11a	Rear Face	100	8+9		-	-	96.72	16.5	15.69	0.01	0.172	1.03	1.21	0.21
	WLAN5.6G	802.11a	Rear Face	116	8+9		-	-	96.72	16.5	15.70	0.05	0.163	1.03	1.20	0.20
	WLAN5.6G	802.11a	Rear Face	124	8+9		-	-	96.72	16.5	15.95	0.06	0.188	1.03	1.14	0.22
P106	WLAN5.6G	802.11a	Rear Face	132	8+9		-	-	96.72	16.5	15.99	-0.07	0.229	1.03	1.12	<b>0.27</b>
	WLAN5.6G	802.11a	Rear Face	144	8+9		-	-	96.72	16.5	16.05	0.06	0.153	1.03	1.11	0.18



#### 4.6.6 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are  $\leq 1.45$  W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is  $\leq 1.10$ , the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. 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.

SAR repeated measurement procedure:

1. When the highest measured SAR is  $< 0.80$  W/kg, repeated measurement is not required.
2. When the highest measured SAR is  $\geq 0.80$  W/kg, repeat that measurement once.
3. 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  $\geq 1.45$  W/kg, perform a second repeated measurement.
4. If the ratio of largest to smallest SAR for the original, first and second repeated measurements is  $> 1.20$ , and the original, first or second repeated measurement is  $\geq 1.5$  W/kg, perform a third repeated measurement.

Band	Test Position	Separation Distance (cm)	Ch.	Original Measured SAR-1g (W/kg)	1st Repeated SAR-1g (W/kg)	L/S Ratio	2nd Repeated SAR-1g (W/kg)	L/S Ratio	3rd Repeated SAR-1g (W/kg)	L/S Ratio
LTE 66	Right Cheek	0	132072	1.01	0.994	1.02	N/A	N/A	N/A	N/A
n25	Right Cheek	0	376500	0.934	0.921	1.01	N/A	N/A	N/A	N/A
n30	Right Cheek	0	462000	0.950	0.937	1.01	N/A	N/A	N/A	N/A
n7	Right Cheek	0	502000	1.05	0.989	1.06	N/A	N/A	N/A	N/A
n48	Right Cheek	0	645332	0.846	0.819	1.03	N/A	N/A	N/A	N/A
n77(Part27O)	Right Cheek	0	650000	0.831	0.817	1.02	N/A	N/A	N/A	N/A



#### 4.6.7 Simultaneous Multi-band Transmission Evaluation

The simultaneous transmission possibilities for this device are listed as below.

Simultaneous TX Combination	Capable Transmit Configurations	Head	Body worn	Hotspot	Extremity
1	WWAN + WLAN2.4G Ant 8			Yes	
2	WWAN + WLAN2.4G Ant 9			Yes	
3	WWAN + WLAN5G Ant 8			Yes	
4	WWAN + WLAN5G Ant 9			Yes	
5	WWAN + BT Ant 8			Yes	
6	WWAN + WLAN2.4G Ant 8 + WLAN5G Ant 9			Yes	
7	WWAN + WLAN2.4G Ant 9 + WLAN5G Ant 8			Yes	
8	WWAN + WLAN5G Ant 8 + BT Ant 8			Yes	
9	WWAN + WLAN5G Ant 9 + BT Ant 8			Yes	
10	WWAN + WLAN2.4G Ant 8+9			Yes	
10	WWAN + WLAN5G Ant 8+9			Yes	
11	WWAN + WLAN5G Ant 8+9 + BT Ant 8			Yes	

#### <SAR Summation Analysis>

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmitting antenna. When the sum of SAR<sub>1g</sub> of all simultaneously transmitting antennas in an operating mode and exposure condition combination is within the SAR limit (SAR<sub>1g</sub> 1.6 W/kg), the simultaneous transmission SAR is not required. When the sum of SAR<sub>1g</sub> is greater than the SAR limit (SAR<sub>1g</sub> 1.6 W/kg), SAR test exclusion is determined by the SPLSR.

#### < EN-DC combination and Maximum Power >

The single uplink 1g SAR values for each LTE Anchors Bands and 5G NR are both less than 0.8W/kg and the algebraic summation of the 1g SAR value are less than 1.45W/kg, additional measurement are not required according to TCB workshop guidance.

#### Head Exposure condition:

EN-DC Combination					Combination
LTE Single Carrier			NR Single Carrier		
LTE Anchors Band	Standalone Max Tune up power(dBm)	EN-DC Active Max Tune up power(dBm)	Band	EN-DC Active Max Tune up power(dBm)	
LTE Band 5	24.0	24.0	n2	18.5	DC_5A_n2A;DC_7A_n2A;DC_12A_n2A;DC_13A_n2A DC_14A_n2A;DC_66A_n2A;DC_71A_n2A
LTE Band 7	21.0	17.5	n2	18.5	
LTE Band 12	24.0	24.0	n2	18.5	
LTE Band 13	24.0	24.0	n2	18.5	
LTE Band 14	24.0	24.0	n2	18.5	
LTE Band 66	22.0	18.5	n2	18.5	
LTE Band 71	24.0	24.0	n2	18.5	
LTE Band 2	21.5	18.5	n5	24.0	DC_2A_n5A;;DC_7A_n5A;DC_48A_n5A;DC_66A_n5A;
LTE Band 7	21.0	17.5	n5	24.0	





EN-DC Combination					Combination
LTE Single Carrier			NR Single Carrier		
LTE Anchors Band	Standalone Max Tune up power(dBm)	EN-DC Active Max Tune up power(dBm)	Band	EN-DC Active Max Tune up power(dBm)	
LTE Band 48	22.0	19.0	n5	24.0	
LTE Band 66	22.0	18.5	n5	24.0	
LTE Band 2	21.5	18.5	n7	17.5	DC_2A_n7A;DC_5A_n7A;DC_12A_n7A DC_13A_n7A;DC_66A_n7A;DC_71A_n7A
LTE Band 5	24.0	24.0	n7	17.5	
LTE Band 12	24.0	24.0	n7	17.5	
LTE Band 13	24.0	24.0	n7	17.5	
LTE Band 66	22.0	18.5	n7	17.5	
LTE Band 71	24.0	24.0	n7	17.5	
LTE Band 2	21.5	18.5	n12	24.0	
LTE Band 7	21.0	17.5	n12	24.0	
LTE Band 66	22.0	18.5	n12	24.0	
LTE Band 12	24.0	24.0	n25	18.5	DC_12A_n25A;DC_48A_n25A;DC_66A_n25A;
LTE Band 48	22.0	19.0	n25	18.5	
LTE Band 66	22.0	18.5	n25	18.5	
LTE Band 2	21.5	18.5	n38	21.0	DC_2A_n38A;DC_4A_n38A;DC_5A_n38A;DC_12A_n38A DC_66A_n38A;DC_71A_n38A
LTE Band 4	22.0	18.5	n38	21.0	
LTE Band 5	24.0	24.0	n38	21.0	
LTE Band 12	24.0	24.0	n38	21.0	
LTE Band 66	22.0	18.5	n38	21.0	
LTE Band 71	24.0	24.0	n38	21.0	
LTE Band 2	21.5	18.5	n41	21.0	DC_2A_n41A;DC_4A_n41A;DC_5A_n41A;DC_12A_n41A DC_25A_n41A;DC_66A_n41A;DC_71A_n41A;
LTE Band 4	22.0	18.5	n41	21.0	
LTE Band 5	24.0	24.0	n41	21.0	
LTE Band 12	24.0	24.0	n41	21.0	
LTE Band 25	21.5	18.5	n41	21.0	
LTE Band 66	22.0	18.5	n41	21.0	
LTE Band 71	24.0	24.0	n41	21.0	
LTE Band 2	21.5	18.5	n48	21.5	DC_2A_n48A;DC_5A_n48A;DC_13A_n48A;DC_66A_n48A;
LTE Band 5	24.0	24.0	n48	21.5	
LTE Band 13	24.0	24.0	n48	21.5	
LTE Band 66	22.0	18.5	n48	21.5	
LTE Band 2	21.5	18.5	n66	18.5	DC_2A_n66A;DC_5A_n66A;DC_7A_n66A;DC_12A_n66A DC_13A_n66A;DC_14A_n66A;DC_48A_n66A;DC_71A_n66A



EN-DC Combination					Combination
LTE Single Carrier			NR Single Carrier		
LTE Anchors Band	Standalone Max Tune up power(dBm)	EN-DC Active Max Tune up power(dBm)	Band	EN-DC Active Max Tune up power(dBm)	
LTE Band 5	24.0	24.0	n66	18.5	
LTE Band 7	21.0	17.5	n66	18.5	
LTE Band 12	24.0	24.0	n66	18.5	
LTE Band 13	24.0	24.0	n66	18.5	
LTE Band 14	24.0	24.0	n66	18.5	
LTE Band 48	22.0	18.5	n66	18.5	
LTE Band 71	24.0	24.0	n66	18.5	
LTE Band 2	21.5	18.5	n71	24.0	DC_2A_n71A;DC_7A_n71A;DC_66A_n71A;
LTE Band 7	21.0	17.5	n71	24.0	
LTE Band 66	22.0	18.5	n71	24.0	
LTE Band 2	21.5	18.5	n77	21.0	DC_2A_n77A;DC_5A_n77A;DC_7A_n77A;DC_12A_n77A DC_13A_n77A;DC_14A_n77A;DC_41A_n77A;DC_66A_n77A
LTE Band 5	24.0	24.0	n77	21.0	
LTE Band 7	21.0	17.5	n77	21.0	
LTE Band 12	24.0	24.0	n77	21.0	
LTE Band 13	24.0	24.0	n77	21.0	
LTE Band 14	24.0	24.0	n77	21.0	
LTE Band 41	22.5	19.5	n77	21.0	
LTE Band 66	22.0	18.5	n77	21.0	
LTE Band 2	21.5	18.5	n78	21.0	DC_2A_n78A;DC_4A_n78A;DC_5A_n78A;DC_12A_n78A DC_13A_n78A;DC_26A_n78A;DC_38A_n78A;DC_41A_n78A DC_66A_n78A;DC_71A_n78A
LTE Band 4	22.0	18.5	n78	21.0	
LTE Band 5	24.0	24.0	n78	21.0	
LTE Band 12	24.0	24.0	n78	21.0	
LTE Band 13	24.0	24.0	n78	21.0	
LTE Band 26	24.0	24.0	n78	21.0	
LTE Band 38	22.5	19.5	n78	21.0	
LTE Band 41	22.5	19.5	n78	21.0	
LTE Band 66	22.0	18.5	n78	21.0	
LTE Band 71	24.0	24.0	n78	21.0	



Body worn Exposure condition:

EN-DC Combination					Combination
LTE Single Carrier			NR Single Carrier		
LTE Anchors Band	Standalone Max Tune up power(dBm)	EN-DC Active Max Tune up power(dBm)	Band	EN-DC Active Max Tune up power(dBm)	
LTE Band 5	24.0	24.0	n2	24.0	DC_5A_n2A;DC_7A_n2A;DC_12A_n2A;DC_13A_n2A DC_14A_n2A;DC_66A_n2A;DC_71A_n2A
LTE Band 7	24.0	24.0	n2	24.0	
LTE Band 12	24.0	24.0	n2	24.0	
LTE Band 13	24.0	24.0	n2	24.0	
LTE Band 14	24.0	24.0	n2	24.0	
LTE Band 66	24.0	24.0	n2	24.0	
LTE Band 71	24.0	24.0	n2	24.0	
LTE Band 2	24.0	24.0	n5	24.0	DC_2A_n5A;;DC_7A_n5A;DC_48A_n5A;DC_66A_n5A;
LTE Band 7	24.0	24.0	n5	24.0	
LTE Band 48	24.0	24.0	n5	24.0	
LTE Band 66	24.0	24.0	n5	24.0	
LTE Band 2	24.0	24.0	n7	24.0	DC_2A_n7A;DC_5A_n7A;DC_12A_n7A DC_13A_n7A;DC_66A_n7A;DC_71A_n7A
LTE Band 5	24.0	24.0	n7	24.0	
LTE Band 12	24.0	24.0	n7	24.0	
LTE Band 13	24.0	24.0	n7	24.0	
LTE Band 66	24.0	24.0	n7	24.0	
LTE Band 71	24.0	24.0	n7	24.0	
LTE Band 2	24.0	24.0	n12	24.0	DC_2A_n12A;DC_7A_n12A;DC_66A_n12A;
LTE Band 7	24.0	24.0	n12	24.0	
LTE Band 66	24.0	24.0	n12	24.0	
LTE Band 12	24.0	24.0	n25	24.0	DC_12A_n25A;DC_48A_n25A;DC_66A_n25A;
LTE Band 48	24.0	24.0	n25	24.0	
LTE Band 66	24.0	24.0	n25	24.0	
LTE Band 2	24.0	24.0	n38	24.0	DC_2A_n38A;DC_4A_n38A;DC_5A_n38A;DC_12A_n38A DC_66A_n38A;DC_71A_n38A
LTE Band 4	24.0	24.0	n38	24.0	
LTE Band 5	24.0	24.0	n38	24.0	
LTE Band 12	24.0	24.0	n38	24.0	
LTE Band 66	24.0	24.0	n38	24.0	
LTE Band 71	24.0	24.0	n38	24.0	
LTE Band 2	24.0	24.0	n41	24.0	DC_2A_n41A;DC_4A_n41A;DC_5A_n41A;DC_12A_n41A DC_25A_n41A;DC_66A_n41A;DC_71A_n41A;



EN-DC Combination					Combination
LTE Single Carrier			NR Single Carrier		
LTE Anchors Band	Standalone Max Tune up power(dBm)	EN-DC Active Max Tune up power(dBm)	Band	EN-DC Active Max Tune up power(dBm)	
LTE Band 4	24.0	24.0	n41	24.0	
LTE Band 5	24.0	24.0	n41	24.0	
LTE Band 12	24.0	24.0	n41	24.0	
LTE Band 25	24.0	24.0	n41	24.0	
LTE Band 66	24.0	24.0	n41	24.0	
LTE Band 71	24.0	24.0	n41	24.0	
LTE Band 2	24.0	24.0	n48	24.0	DC_2A_n48A;DC_5A_n48A;DC_13A_n48A;DC_66A_n48A;
LTE Band 5	24.0	24.0	n48	24.0	
LTE Band 13	24.0	24.0	n48	24.0	
LTE Band 66	24.0	24.0	n48	24.0	
LTE Band 2	24.0	24.0	n66	24.0	DC_2A_n66A;DC_5A_n66A;DC_7A_n66A;DC_12A_n66A DC_13A_n66A;DC_14A_n66A;DC_48A_n66A;DC_71A_n66A
LTE Band 5	24.0	24.0	n66	24.0	
LTE Band 7	24.0	24.0	n66	24.0	
LTE Band 12	24.0	24.0	n66	24.0	
LTE Band 13	24.0	24.0	n66	24.0	
LTE Band 14	24.0	24.0	n66	24.0	
LTE Band 48	24.0	24.0	n66	24.0	
LTE Band 71	24.0	24.0	n66	24.0	
LTE Band 2	24.0	24.0	n71	24.0	DC_2A_n71A;DC_7A_n71A;DC_66A_n71A;
LTE Band 7	24.0	24.0	n71	24.0	
LTE Band 66	24.0	24.0	n71	24.0	
LTE Band 2	24.0	24.0	n77	24.0	DC_2A_n77A;DC_5A_n77A;DC_7A_n77A;DC_12A_n77A DC_13A_n77A;DC_14A_n77A;DC_41A_n77A;DC_66A_n77A
LTE Band 5	24.0	24.0	n77	24.0	
LTE Band 7	24.0	24.0	n77	24.0	
LTE Band 12	24.0	24.0	n77	24.0	
LTE Band 13	24.0	24.0	n77	24.0	
LTE Band 14	24.0	24.0	n77	24.0	
LTE Band 41	24.0	24.0	n77	24.0	
LTE Band 66	24.0	24.0	n77	24.0	
LTE Band 2	24.0	24.0	n78	24.0	DC_2A_n78A;DC_4A_n78A;DC_5A_n78A;DC_12A_n78A DC_13A_n78A;DC_26A_n78A;DC_38A_n78A;DC_41A_n78A DC_66A_n78A;DC_71A_n78A
LTE Band 4	24.0	24.0	n78	24.0	
LTE Band 5	24.0	24.0	n78	24.0	



EN-DC Combination					Combination
LTE Single Carrier			NR Single Carrier		
LTE Anchors Band	Standalone Max Tune up power(dBm)	EN-DC Active Max Tune up power(dBm)	Band	EN-DC Active Max Tune up power(dBm)	
LTE Band 12	24.0	24.0	n78	24.0	
LTE Band 13	24.0	24.0	n78	24.0	
LTE Band 26	24.0	24.0	n78	24.0	
LTE Band 38	24.0	24.0	n78	24.0	
LTE Band 41	24.0	24.0	n78	24.0	
LTE Band 66	24.0	24.0	n78	24.0	
LTE Band 71	24.0	24.0	n78	24.0	

**Hotspot Exposure condition:**

EN-DC Combination					Combination
LTE Single Carrier			NR Single Carrier		
LTE Anchors Band	Standalone Max Tune up power(dBm)	EN-DC Active Max Tune up power(dBm)	Band	EN-DC Active Max Tune up power(dBm)	
LTE Band 5	24.0	24.0	n2	21.0	DC_5A_n2A;DC_7A_n2A;DC_12A_n2A;DC_13A_n2A DC_14A_n2A;DC_66A_n2A;DC_71A_n2A
LTE Band 7	24.0	21.0	n2	21.0	
LTE Band 12	24.0	24.0	n2	21.0	
LTE Band 13	24.0	24.0	n2	21.0	
LTE Band 14	24.0	24.0	n2	21.0	
LTE Band 66	24.0	21.0	n2	21.0	
LTE Band 71	24.0	24.0	n2	21.0	
LTE Band 2	24.0	21.0	n5	24.0	DC_2A_n5A;;DC_7A_n5A;DC_48A_n5A;DC_66A_n5A;
LTE Band 7	24.0	21.0	n5	24.0	
LTE Band 48	24.0	24.0	n5	24.0	
LTE Band 66	24.0	24.0	n5	24.0	
LTE Band 2	24.0	21.0	n7	21.0	DC_2A_n7A;DC_5A_n7A;DC_12A_n7A DC_13A_n7A;DC_66A_n7A;DC_71A_n7A
LTE Band 5	24.0	24.0	n7	21.0	
LTE Band 12	24.0	24.0	n7	21.0	
LTE Band 13	24.0	24.0	n7	21.0	
LTE Band 66	24.0	21.0	n7	21.0	
LTE Band 71	24.0	24.0	n7	21.0	
LTE Band 2	24.0	21.0	n12	24.0	DC_2A_n12A;DC_7A_n12A;DC_66A_n12A;
LTE Band 7	24.0	21.0	n12	24.0	





EN-DC Combination					Combination
LTE Single Carrier		NR Single Carrier			
LTE Anchors Band	Standalone Max Tune up power(dBm)	EN-DC Active Max Tune up power(dBm)	Band	EN-DC Active Max Tune up power(dBm)	
LTE Band 66	24.0	21.0	n12	24.0	DC_12A_n25A;DC_48A_n25A;DC_66A_n25A;
LTE Band 12	24.0	24.0	n25	21.0	
LTE Band 48	24.0	24.0	n25	21.0	
LTE Band 66	24.0	21.0	n25	21.0	
LTE Band 2	24.0	21.0	n38	24.0	DC_2A_n38A;DC_4A_n38A;DC_5A_n38A;DC_12A_n38A DC_66A_n38A;DC_71A_n38A
LTE Band 4	24.0	21.0	n38	24.0	
LTE Band 5	24.0	24.0	n38	24.0	
LTE Band 12	24.0	24.0	n38	24.0	
LTE Band 66	24.0	21.0	n38	24.0	
LTE Band 71	24.0	24.0	n38	24.0	
LTE Band 2	24.0	21.0	n41	24.0	DC_2A_n41A;DC_4A_n41A;DC_5A_n41A;DC_12A_n41A DC_25A_n41A;DC_66A_n41A;DC_71A_n41A;
LTE Band 4	24.0	21.0	n41	24.0	
LTE Band 5	24.0	24.0	n41	24.0	
LTE Band 12	24.0	24.0	n41	24.0	
LTE Band 25	24.0	21.0	n41	24.0	
LTE Band 66	24.0	21.0	n41	24.0	
LTE Band 71	24.0	24.0	n41	24.0	
LTE Band 2	24.0	21.0	n48	24.0	DC_2A_n48A;DC_5A_n48A;DC_13A_n48A;DC_66A_n48A;
LTE Band 5	24.0	24.0	n48	24.0	
LTE Band 13	24.0	24.0	n48	24.0	
LTE Band 66	24.0	21.0	n48	24.0	
LTE Band 2	24.0	21.0	n66	21.0	DC_2A_n66A;DC_5A_n66A;DC_7A_n66A;DC_12A_n66A DC_13A_n66A;DC_14A_n66A;DC_48A_n66A;DC_71A_n66A
LTE Band 5	24.0	24.0	n66	21.0	
LTE Band 7	24.0	21.0	n66	21.0	
LTE Band 12	24.0	24.0	n66	21.0	
LTE Band 13	24.0	24.0	n66	21.0	
LTE Band 14	24.0	24.0	n66	21.0	
LTE Band 48	24.0	24.0	n66	21.0	
LTE Band 71	24.0	24.0	n66	21.0	
LTE Band 2	24.0	21.0	n71	24.0	DC_2A_n71A;DC_7A_n71A;DC_66A_n71A;
LTE Band 7	24.0	21.0	n71	24.0	
LTE Band 66	24.0	21.0	n71	24.0	



EN-DC Combination					Combination
LTE Single Carrier		NR Single Carrier			
LTE Anchors Band	Standalone Max Tune up power(dBm)	EN-DC Active Max Tune up power(dBm)	Band	EN-DC Active Max Tune up power(dBm)	
LTE Band 2	24.0	21.0	n77	24.0	DC_2A_n77A;DC_5A_n77A;DC_7A_n77A;DC_12A_n77A DC_13A_n77A;DC_14A_n77A;DC_41A_n77A;DC_66A_n77A
LTE Band 5	24.0	24.0	n77	24.0	
LTE Band 7	24.0	21.0	n77	24.0	
LTE Band 12	24.0	24.0	n77	24.0	
LTE Band 13	24.0	24.0	n77	24.0	
LTE Band 14	24.0	24.0	n77	24.0	
LTE Band 41	24.0	21.0	n77	24.0	
LTE Band 66	24.0	21.0	n77	24.0	
LTE Band 2	24.0	21.0	n78	24.0	DC_2A_n78A;DC_4A_n78A;DC_5A_n78A;DC_12A_n78A DC_13A_n78A;DC_26A_n78A;DC_38A_n78A;DC_41A_n78A DC_66A_n78A;DC_71A_n78A
LTE Band 4	24.0	21.0	n78	24.0	
LTE Band 5	24.0	24.0	n78	24.0	
LTE Band 12	24.0	24.0	n78	24.0	
LTE Band 13	24.0	24.0	n78	24.0	
LTE Band 26	24.0	24.0	n78	24.0	
LTE Band 38	24.0	21.0	n78	24.0	
LTE Band 41	24.0	21.0	n78	24.0	
LTE Band 66	24.0	21.0	n78	24.0	
LTE Band 71	24.0	24.0	n78	24.0	

**Note:** The detail sim-tx analysis please refer to Appendix E.

**Test Engineer :** Rikou Lu, and Dennis Ye.



### 5. Calibration of Test Equipment

Equipment	Manufacturer	Model	SN	Cal. Date	Cal. Interval
System Validation Dipole	SPEAG	D750V3	1067	Sep. 16, 2021	3 Years
System Validation Dipole	SPEAG	D835V2	4d139	Sep. 17, 2021	3 Years
System Validation Dipole	SPEAG	D1750V2	1071	Sep. 18, 2021	3 Years
System Validation Dipole	SPEAG	D1900V2	5d159	Sep. 16, 2021	3 Years
System Validation Dipole	SPEAG	D2300V2	1053	Sep. 22, 2021	3 Years
System Validation Dipole	SPEAG	D2450V2	893	Sep. 18, 2021	3 Years
System Validation Dipole	SPEAG	D2600V2	1110	Sep. 16, 2021	3 Years
System Validation Dipole	SPEAG	D3500V2	1111	Oct. 21, 2021	3 Years
System Validation Dipole	SPEAG	D3700V2	1082	Oct. 20, 2021	3 Years
System Validation Dipole	SPEAG	D3900V2	1055	Oct. 25, 2021	3 Years
System Validation Dipole	SPEAG	D5GHzV2	1133	Sep. 14, 2021	3 Years
Data Acquisition Electronics	SPEAG	DAE4	1389	Nov. 09, 2022	1 Year
Dosimetric E-Field Probe	SPEAG	EX3DV4	3873	Aug. 31, 2022	1 Year
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 15, 2022	1 Year
Wireless Communication Test Set	Agilent	E5515C	MY50260600	May. 12, 2022	1 Year
ENA Series Network Analyzer	Agilent	E5071C	MY46214638	May. 07, 2022	1 Year
Spectrum Analyzer	KEYSIGHT	N9010A	MY54510355	May. 14, 2022	1Year
MXG Analog Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 18, 2022	1 Year
Power Meter	Agilent	N1914A	MY52180044	Feb. 19, 2022	1 Year
Power Sensor	Agilent	E9304A H18	MY52050011	Feb. 20, 2022	1 Year
Power Meter	ANRITSU	ML2495A	1506002	Feb. 22, 2022	1 Year
Power Sensor	ANRITSU	MA2411B	1339352	May. 14, 2022	1 Year
Temp. & Humi. Recorder	CLOCK	HTC-1	157248	May. 11, 2022	1 Year
Electronic Thermometer	YONGFA	YF-160A	120100323	May. 14, 2022	1 Year
Coupler	Woken	0110A056020-10	COM27RW1A 3	May. 11, 2022	1 Year

**Note:**

- Referring to KDB 865664 D01 v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipole are also not physically damaged, or repaired during the interval. The dipole justification can be found in appendix C.  
The return loss is < -20dB, within 20% of prior calibration, the impedance is with 5ohm of prior calibration.



## 6. Measurement Uncertainty

DASY5 Uncertainty Budget								
Error Description	Uncertainty Value (±%)	Probability	Divisor	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)	(Vi) Veff
<b>Measurement System</b>								
Probe Calibration	6.0	N	1	1	1	6.0	6.0	∞
Axial Isotropy	4.7	R	1.732	0.7	0.7	1.9	1.9	∞
Hemispherical Isotropy	9.6	R	1.732	0.7	0.7	3.9	3.9	∞
Boundary Effects	1.0	R	1.732	1	1	0.6	0.6	∞
Linearity	4.7	R	1.732	1	1	2.7	2.7	∞
System Detection Limits	1.0	R	1.732	1	1	0.6	0.6	∞
Modulation Response	3.2	R	1.732	1	1	1.8	1.8	∞
Readout Electronics	0.3	N	1	1	1	0.3	0.3	∞
Response Time	0.0	R	1.732	1	1	0.0	0.0	∞
Integration Time	2.6	R	1.732	1	1	1.5	1.5	∞
RF Ambient Noise	3.0	R	1.732	1	1	1.7	1.7	∞
RF Ambient Reflections	3.0	R	1.732	1	1	1.7	1.7	∞
Probe Positioner	0.4	R	1.732	1	1	0.2	0.2	∞
Probe Positioning	2.9	R	1.732	1	1	1.7	1.7	∞
Max. SAR Eval.	2.0	R	1.732	1	1	1.2	1.2	∞
<b>Test Sample Related</b>								
Device Positioning	3.0	N	1	1	1	3.0	3.0	35
Device Holder	3.6	N	1	1	1	3.6	3.6	12
Power Drift	5.0	R	1.732	1	1	2.9	2.9	∞
Power Scaling	0.0	R	1.732	1	1	0.0	0.0	∞
<b>Phantom and Setup</b>								
Phantom Uncertainty	6.1	R	1.732	1	1	3.5	3.5	∞
SAR correction	0.0	R	1.732	1	0.84	0.0	0.0	∞
Liquid Conductivity Repeatability	0.2	N	1	0.78	0.71	0.1	0.1	5
Liquid Conductivity (target)	5.0	R	1.732	0.78	0.71	2.3	2.0	∞
Liquid Conductivity (mea.)	2.5	R	1.732	0.78	0.71	1.1	1.0	∞
Temp. unc. - Conductivity	3.4	R	1.732	0.78	0.71	1.5	1.4	∞
Liquid Permittivity Repeatability	0.15	N	1	0.23	0.26	0.0	0.0	5
Liquid Permittivity (target)	5.0	R	1.732	0.23	0.26	0.7	0.8	∞
Liquid Permittivity (mea.)	2.5	R	1.732	0.23	0.26	0.3	0.4	∞
Temp. unc. - Permittivity	0.83	R	1.732	0.23	0.26	0.1	0.1	∞
<b>Combined Std. Uncertainty</b>						11.4%	11.4%	1013
<b>Coverage Factor for 95 %</b>						K=2	K=2	
<b>Expanded STD Uncertainty</b>						22.9%	22.7%	

Uncertainty budget for frequency range 30 MHz to 3 GHz



**DASY5 Uncertainty Budget**

Error Description	Uncertainty Value (±%)	Probability	Divisor	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)	(Vi) Veff
<b>Measurement System</b>								
Probe Calibration	6.55	N	1	1	1	6.5	6.5	∞
Axial Isotropy	4.7	R	1.732	0.7	0.7	1.9	1.9	∞
Hemispherical Isotropy	9.6	R	1.732	0.7	0.7	3.9	3.9	∞
Boundary Effects	2.0	R	1.732	1	1	1.2	1.2	∞
Linearity	4.7	R	1.732	1	1	2.7	2.7	∞
System Detection Limits	1.0	R	1.732	1	1	0.6	0.6	∞
Modulation Response	3.2	R	1.732	1	1	1.8	1.8	∞
Readout Electronics	0.3	N	1	1	1	0.3	0.3	∞
Response Time	0.0	R	1.732	1	1	0.0	0.0	∞
Integration Time	2.6	R	1.732	1	1	1.5	1.5	∞
RF Ambient Noise	3.0	R	1.732	1	1	1.7	1.7	∞
RF Ambient Reflections	3.0	R	1.732	1	1	1.7	1.7	∞
Probe Positioner	0.4	R	1.732	1	1	0.2	0.2	∞
Probe Positioning	6.7	R	1.732	1	1	3.9	3.9	∞
Max. SAR Eval.	4.0	R	1.732	1	1	2.3	2.3	∞
<b>Test Sample Related</b>								
Device Positioning	3.0	N	1	1	1	3.0	3.0	35
Device Holder	3.6	N	1	1	1	3.6	3.6	12
Power Drift	5.0	R	1.732	1	1	2.9	2.9	∞
Power Scaling	0.0	R	1.732	1	1	0.0	0.0	∞
<b>Phantom and Setup</b>								
Phantom Uncertainty	6.6	R	1.732	1	1	3.8	3.8	∞
SAR correction	0.0	R	1.732	1	0.84	0.0	0.0	∞
Liquid Conductivity Repeatability	0.2	N	1	0.78	0.71	0.1	0.1	5
Liquid Conductivity (target)	5.0	R	1.732	0.78	0.71	2.3	2.0	∞
Liquid Conductivity (mea.)	2.5	R	1.732	0.78	0.71	1.1	1.0	∞
Temp. unc. - Conductivity	3.4	R	1.732	0.78	0.71	1.5	1.4	∞
Liquid Permittivity Repeatability	0.15	N	1	0.23	0.26	0.0	0.0	5
Liquid Permittivity (target)	5.0	R	1.732	0.23	0.26	0.7	0.8	∞
Liquid Permittivity (mea.)	2.5	R	1.732	0.23	0.26	0.3	0.4	∞
Temp. unc. - Permittivity	0.83	R	1.732	0.23	0.26	0.1	0.1	∞
<b>Combined Std. Uncertainty</b>						12.5%	12.5%	1458
<b>Coverage Factor for 95 %</b>						K=2	K=2	
<b>Expanded STD Uncertainty</b>						25.0%	24.9%	

**Uncertainty budget for frequency range 3 GHz to 6 GHz**





## **7. Information on the Testing Laboratories**

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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The road map of all our labs can be found in our web site also.

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## Appendix A. SAR Plots of System Verification

The plots for system verification with largest deviation for each SAR system combination are shown as follows.

## System Check\_HSL750\_20221127

**DUT: Dipole:750 MHz;Type:D750V3**

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1

Medium: HSL750\_1127 Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.896$  S/m;  $\epsilon_r = 40.267$ ;  $\rho = 1000$  kg/m<sup>3</sup>

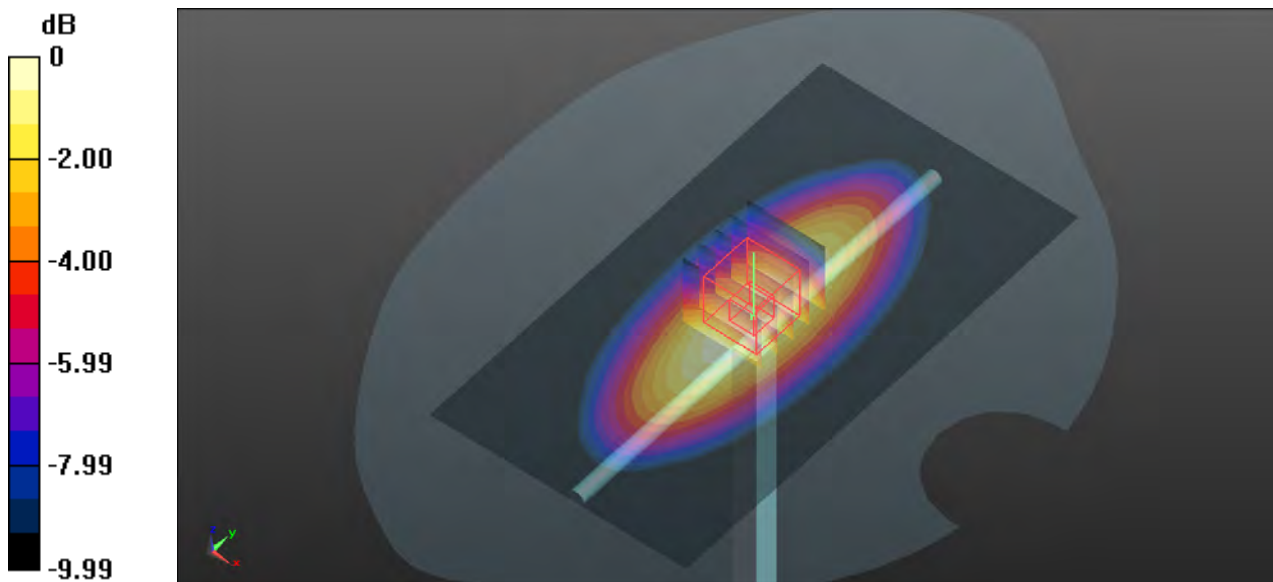
Ambient Temperature : 23.2°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.59, 9.59, 9.59) @ 750 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 20212/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (71x131x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 2.80 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 60.52 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 3.17 W/kg  
**SAR(1 g) = 2.17 W/kg; SAR(10 g) = 1.46 W/kg**  
Maximum value of SAR (measured) = 2.71 W/kg



0 dB = 2.71 W/kg

## System Check\_HSL750\_20221204

### DUT: Dipole:750 MHz;Type:D750V3

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1

Medium: HSL750\_1204 Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.882 \text{ S/m}$ ;  $\epsilon_r = 42.658$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.1^\circ\text{C}$ ; Liquid Temperature :  $22.4^\circ\text{C}$

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.59, 9.59, 9.59) @ 750 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

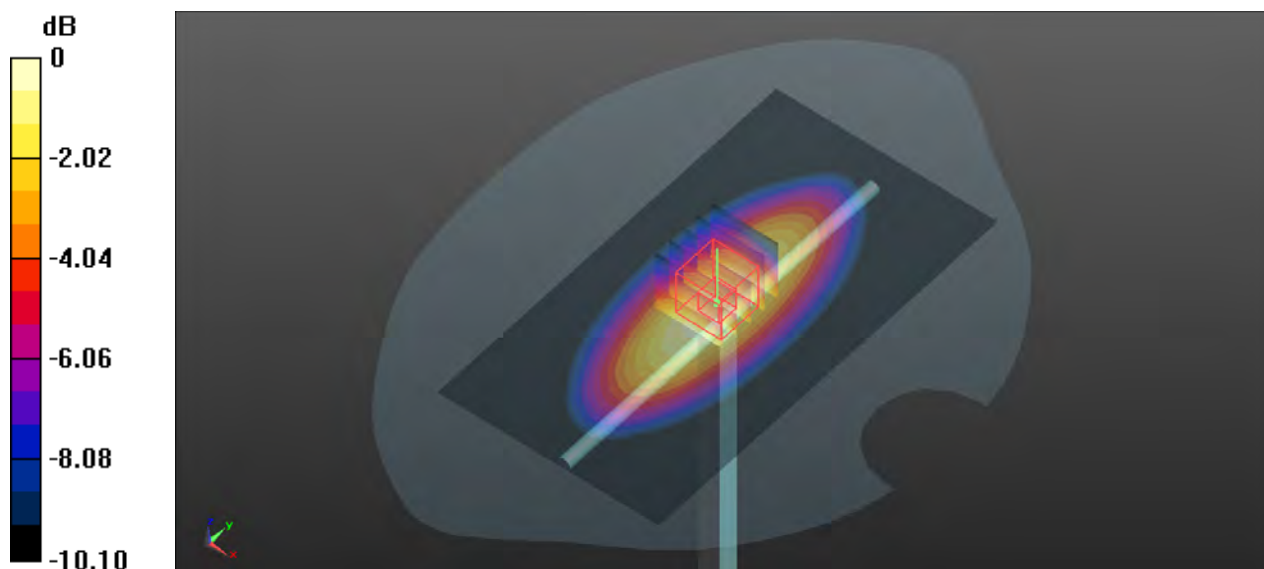
**Pin=250mW/Area Scan (71x131x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
 Maximum value of SAR (interpolated) =  $2.55 \text{ W/kg}$

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
 Reference Value =  $55.68 \text{ V/m}$ ; Power Drift =  $0.11 \text{ dB}$

Peak SAR (extrapolated) =  $3.13 \text{ W/kg}$

**SAR(1 g) =  $2.14 \text{ W/kg}$ ; SAR(10 g) =  $1.43 \text{ W/kg}$**

Maximum value of SAR (measured) =  $2.68 \text{ W/kg}$



0 dB =  $2.68 \text{ W/kg}$

## System Check\_HSL750\_20221215

**DUT: Dipole:750 MHz;Type:D750V3**

Communication System: CW; Frequency: 750 MHz;Duty Cycle: 1:1

Medium: HSL750\_1215 Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.888 \text{ S/m}$ ;  $\epsilon_r = 40.092$ ;  $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature :  $23.1^\circ\text{C}$ ; Liquid Temperature :  $22.7^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.59, 9.59, 9.59) @ 750 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (71x131x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
 Maximum value of SAR (interpolated) =  $2.62 \text{ W/kg}$

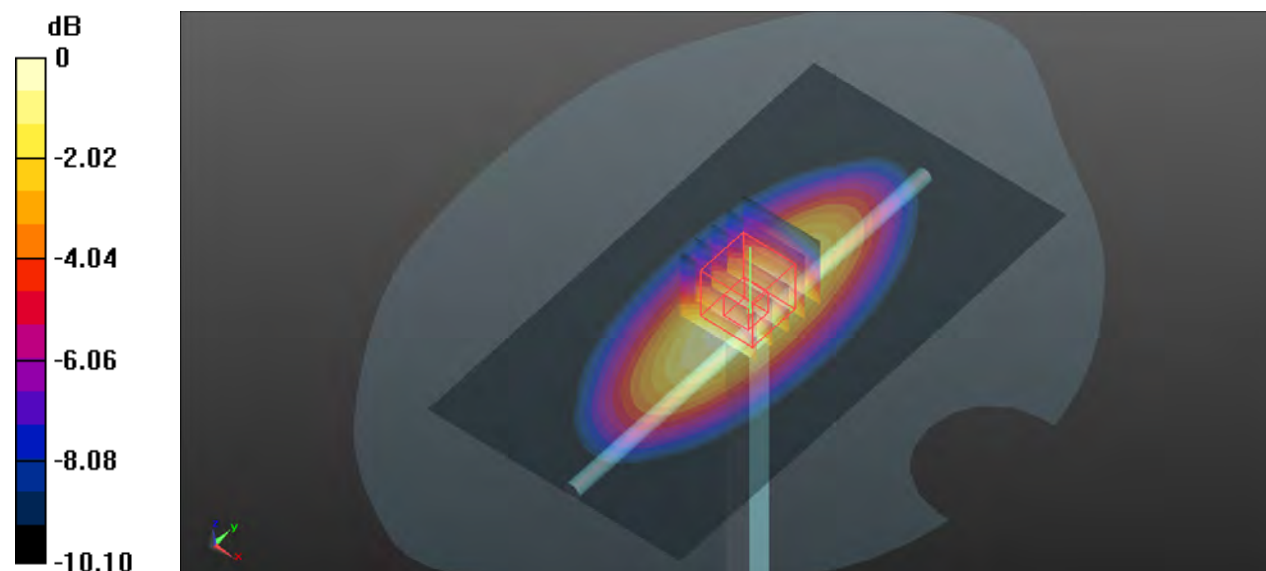
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$

Reference Value =  $58.32 \text{ V/m}$ ; Power Drift =  $0.01 \text{ dB}$

Peak SAR (extrapolated) =  $3.14 \text{ W/kg}$

**SAR(1 g) =  $2.15 \text{ W/kg}$ ; SAR(10 g) =  $1.44 \text{ W/kg}$**

Maximum value of SAR (measured) =  $2.68 \text{ W/kg}$



0 dB =  $2.68 \text{ W/kg}$



## System Check\_HSL835\_20221128

**DUT: Dipole:835 MHz;Type:D835V2**

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium: HSL835\_1128 Medium parameters used:  $f = 835$  MHz;  $\sigma = 0.894$  S/m;  $\epsilon_r = 41.663$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.4, 9.4, 9.4) @ 835 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (71x121x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 2.99 W/kg

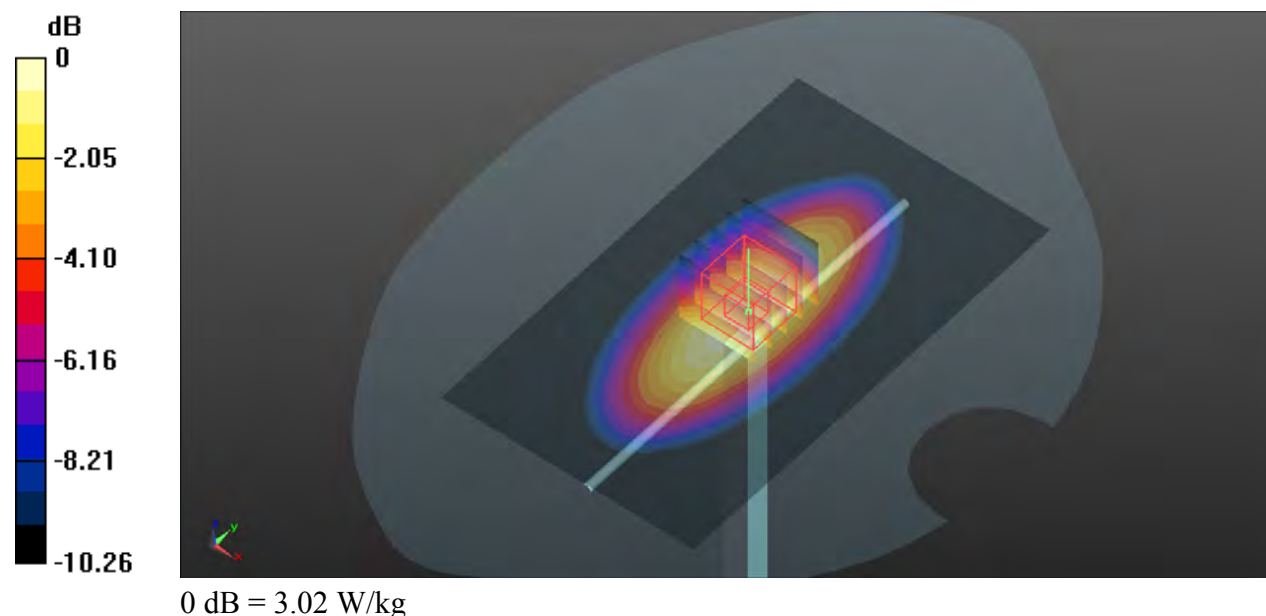
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 63.21 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 3.53 W/kg

**SAR(1 g) = 2.42 W/kg; SAR(10 g) = 1.61 W/kg**

Maximum value of SAR (measured) = 3.02 W/kg



## System Check\_HSL835\_20221205

**DUT: Dipole:835 MHz;Type:D835V2**

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium: HSL835\_1205 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.914 \text{ S/m}$ ;  $\epsilon_r = 42.093$ ;  $\rho = 1000 \text{ kg/m}^3$

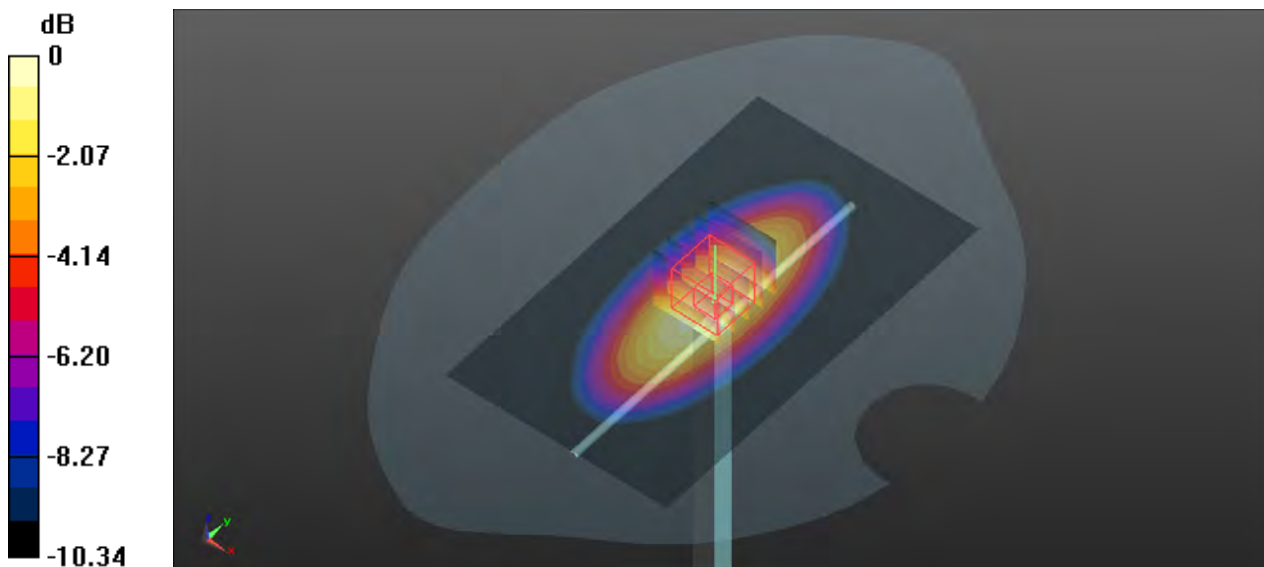
Ambient Temperature :  $23.5^\circ\text{C}$ ; Liquid Temperature :  $22.7^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.4, 9.4, 9.4) @ 835 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) =  $3.08 \text{ W/kg}$

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $59.43 \text{ V/m}$ ; Power Drift =  $0.06 \text{ dB}$   
Peak SAR (extrapolated) =  $3.65 \text{ W/kg}$   
**SAR(1 g) =  $2.51 \text{ W/kg}$ ; SAR(10 g) =  $1.66 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $3.15 \text{ W/kg}$



0 dB =  $3.15 \text{ W/kg}$

## System Check\_HSL835\_20221216

**DUT: Dipole:835 MHz;Type:D835V2**

Communication System: CW; Frequency: 835 MHz;Duty Cycle: 1:1

Medium: HSL835\_1216 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.922 \text{ S/m}$ ;  $\epsilon_r = 43.154$ ;  $\rho = 1000 \text{ kg/m}^3$

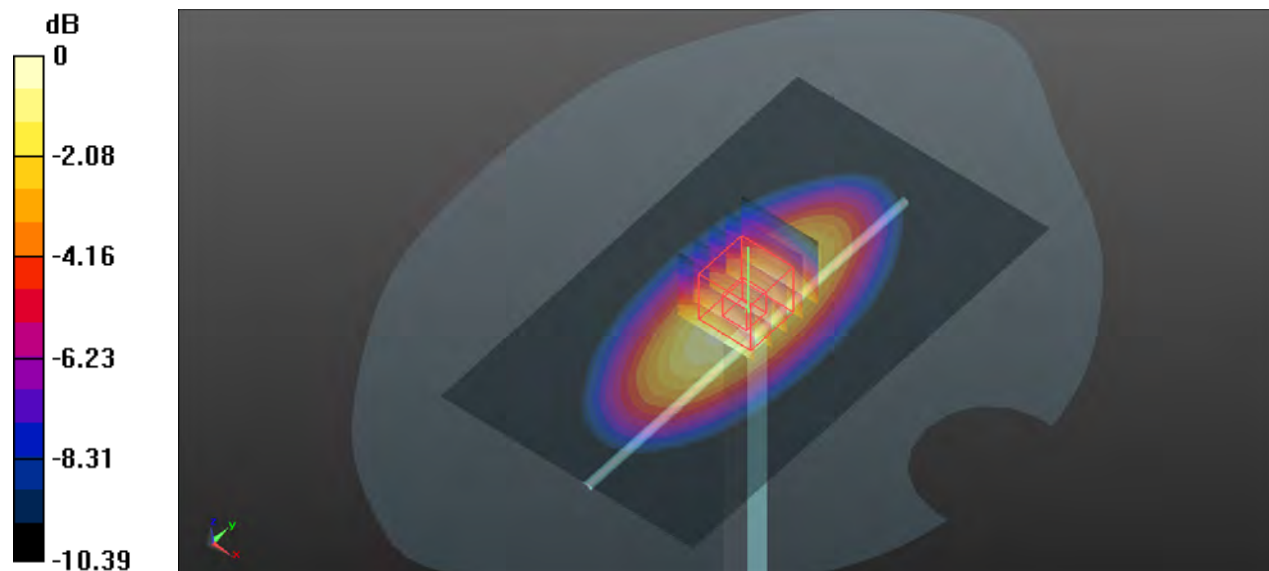
Ambient Temperature :  $23.4^\circ\text{C}$ ; Liquid Temperature :  $22.5^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(9.4, 9.4, 9.4) @ 835 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (71x121x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) =  $3.09 \text{ W/kg}$

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $61.56 \text{ V/m}$ ; Power Drift =  $0.09 \text{ dB}$   
Peak SAR (extrapolated) =  $3.70 \text{ W/kg}$   
**SAR(1 g) =  $2.54 \text{ W/kg}$ ; SAR(10 g) =  $1.68 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $3.19 \text{ W/kg}$



0 dB =  $3.19 \text{ W/kg}$

## System Check\_HSL1750\_20221129

**DUT: Dipole:1750 MHz;Type:D1750V2**

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1

Medium: HSL1750\_1129 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.348$  S/m;  $\epsilon_r = 41.854$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4°C; Liquid Temperature : 22.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.25, 8.25, 8.25) @ 1750 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

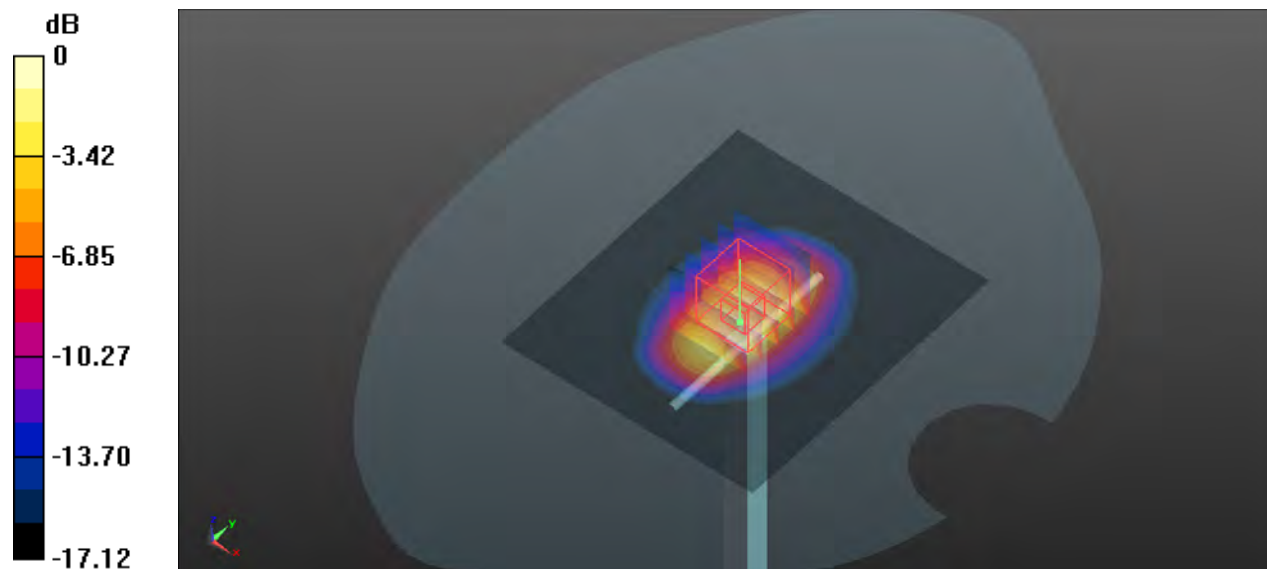
**Pin=250mW/Area Scan (71x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 12.4 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 91.35 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 14.6 W/kg

**SAR(1 g) = 8.58 W/kg; SAR(10 g) = 4.4 W/kg**

Maximum value of SAR (measured) = 12.3 W/kg



0 dB = 12.3 W/kg

## System Check\_HSL1750\_20221206

**DUT: Dipole:1750 MHz;Type:D1750V2**

Communication System: CW; Frequency: 1750 MHz;Duty Cycle: 1:1

Medium: HSL1750\_1206 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.328$  S/m;  $\epsilon_r = 39.635$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3°C; Liquid Temperature : 22.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.25, 8.25, 8.25) @ 1750 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

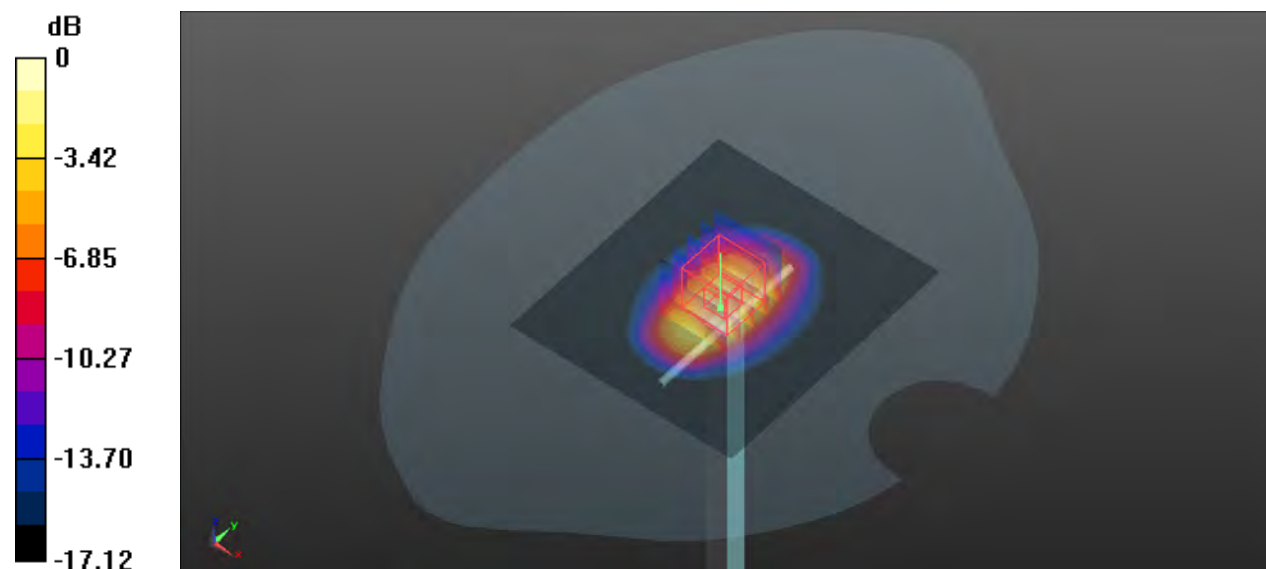
**Pin=250mW/Area Scan (71x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 12.2 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 98.38 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 14.4 W/kg

**SAR(1 g) = 8.47 W/kg; SAR(10 g) = 4.43 W/kg**

Maximum value of SAR (measured) = 12.1 W/kg



0 dB = 12.1 W/kg



## System Check\_HSL1750\_20230108

**DUT: Dipole:1750 MHz;Type:D1750V2**

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: HSL1750\_0108 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.413$  S/m;  $\epsilon_r = 41.34$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.6°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.25, 8.25, 8.25) @ 1750 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

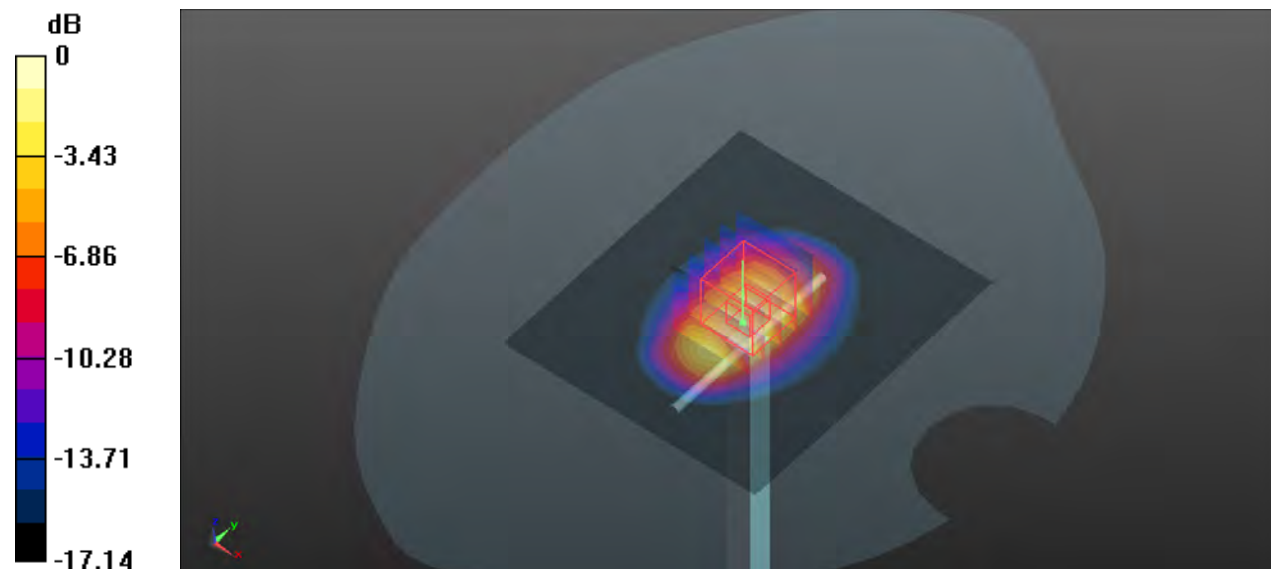
**Pin=250mW/Area Scan (71x81x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 13.1 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 92.33 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 15.3 W/kg

**SAR(1 g) = 8.61 W/kg; SAR(10 g) = 4.62 W/kg**

Maximum value of SAR (measured) = 13.0 W/kg



0 dB = 13.0 W/kg

## System Check\_HSL1900\_20221207

### DUT: Dipole:1900MHz;Type:D1900V2

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900\_1207 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.416$  S/m;  $\epsilon_r = 39.544$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.02, 8.02, 8.02) @ 1900 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 14.1 W/kg

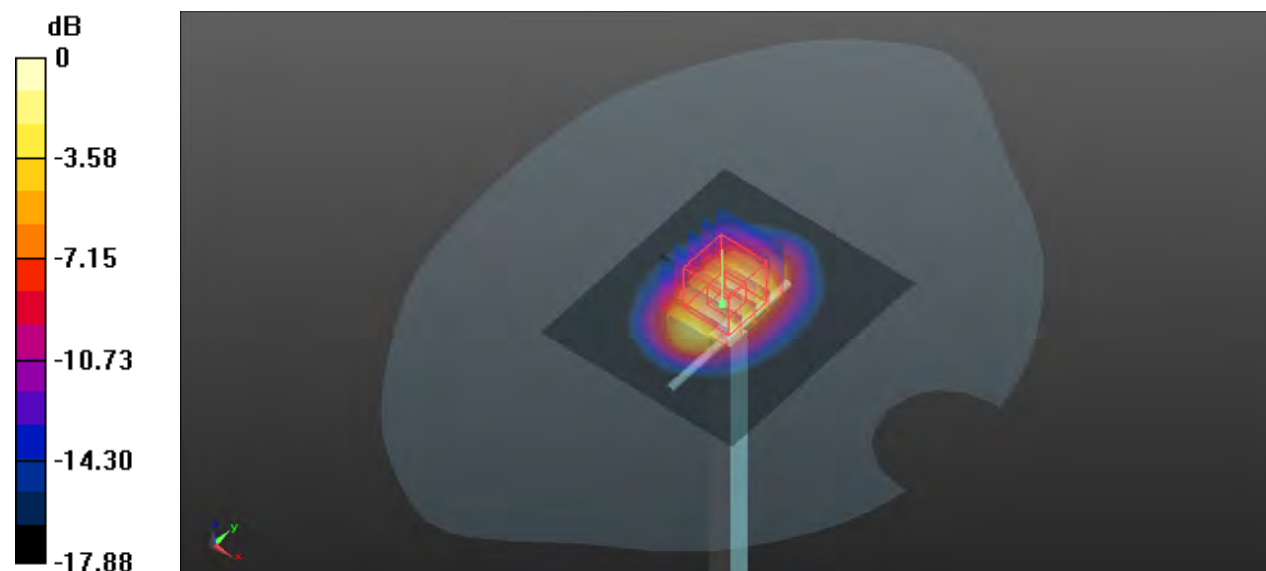
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 95.37 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 17.0 W/kg

**SAR(1 g) = 9.34 W/kg; SAR(10 g) = 4.89 W/kg**

Maximum value of SAR (measured) = 13.3 W/kg



0 dB = 13.3 W/kg

## System Check\_HSL1900\_20230103

### DUT: Dipole:1900MHz;Type:D1900V2

Communication System: CW; Frequency: 1900 MHz;Duty Cycle: 1:1

Medium: HSL1900\_0103 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.442$  S/m;  $\epsilon_r = 40.609$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.7°C; Liquid Temperature : 22.5°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.02, 8.02, 8.02) @ 1900 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 14.4 W/kg

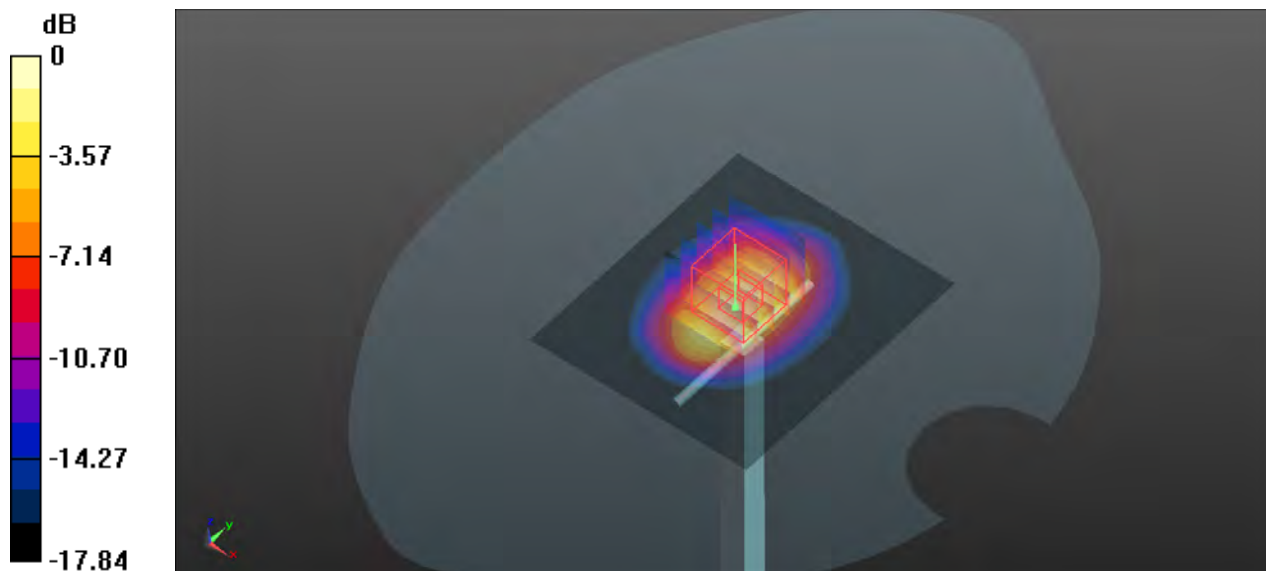
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 91.36 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 17.2 W/kg

**SAR(1 g) = 9.52 W/kg; SAR(10 g) = 4.98 W/kg**

Maximum value of SAR (measured) = 13.5 W/kg



0 dB = 13.5 W/kg

## System Check\_HSL1900\_20230109

### DUT: Dipole:1900MHz;Type:D1900V2

Communication System: CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL1900\_0109 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.401$  S/m;  $\epsilon_r = 39.322$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3°C; Liquid Temperature : 22.5°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.02, 8.02, 8.02) @ 1900 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 14.0 W/kg

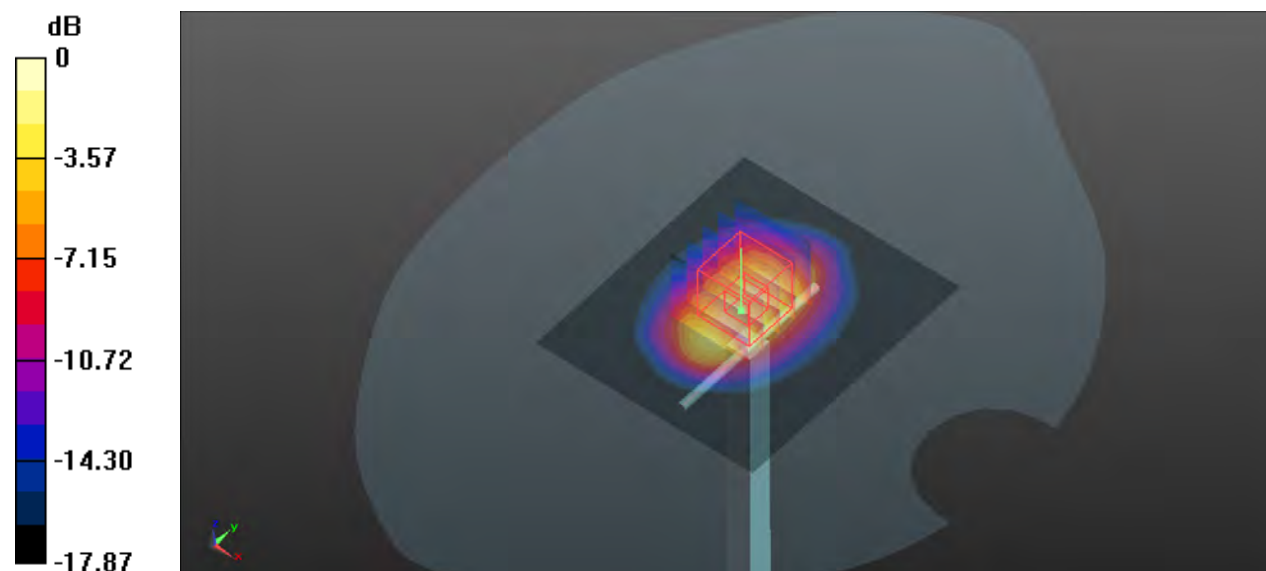
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 93.55 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 16.8 W/kg

**SAR(1 g) = 9.24 W/kg; SAR(10 g) = 4.83 W/kg**

Maximum value of SAR (measured) = 13.1 W/kg



0 dB = 13.1 W/kg

## System Check\_HSL2300\_20221208

**DUT: Dipole:2300 MHz;Type:D2300V2**

Communication System: CW; Frequency: 2300 MHz;Duty Cycle: 1:1

Medium: HSL2300\_1208 Medium parameters used:  $f = 2300$  MHz;  $\sigma = 1.676$  S/m;  $\epsilon_r = 39.633$ ;  $\rho = 1000$  kg/m<sup>3</sup>

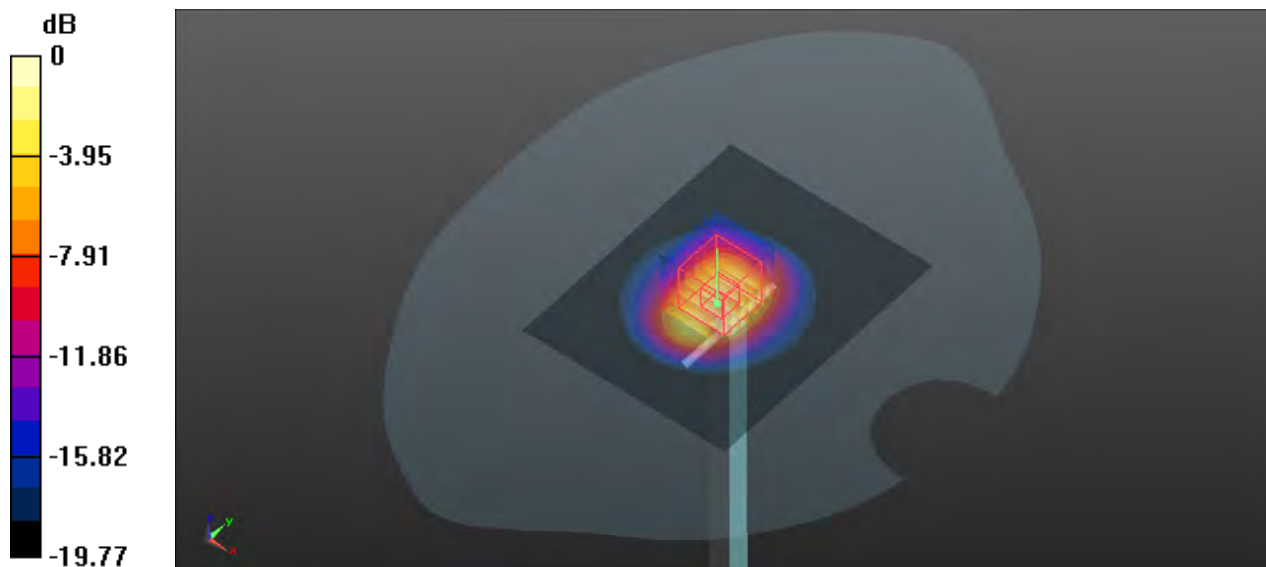
Ambient Temperature : 23.1°C; Liquid Temperature : 22.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.01, 8.01, 8.01) @ 2300 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (81x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 20.4 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 108.9 V/m; Power Drift = -0.06 dB  
Peak SAR (extrapolated) = 24.9 W/kg  
**SAR(1 g) = 13 W/kg; SAR(10 g) = 6.39 W/kg**  
Maximum value of SAR (measured) = 19.0 W/kg



0 dB = 19.0 W/kg

## System Check\_HSL2300\_20221217

**DUT: Dipole:2300 MHz;Type:D2300V2**

Communication System: CW; Frequency: 2300 MHz;Duty Cycle: 1:1

Medium: HSL2300\_1217 Medium parameters used:  $f = 2300$  MHz;  $\sigma = 1.67$  S/m;  $\epsilon_r = 38.754$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.01, 8.01, 8.01) @ 2300 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

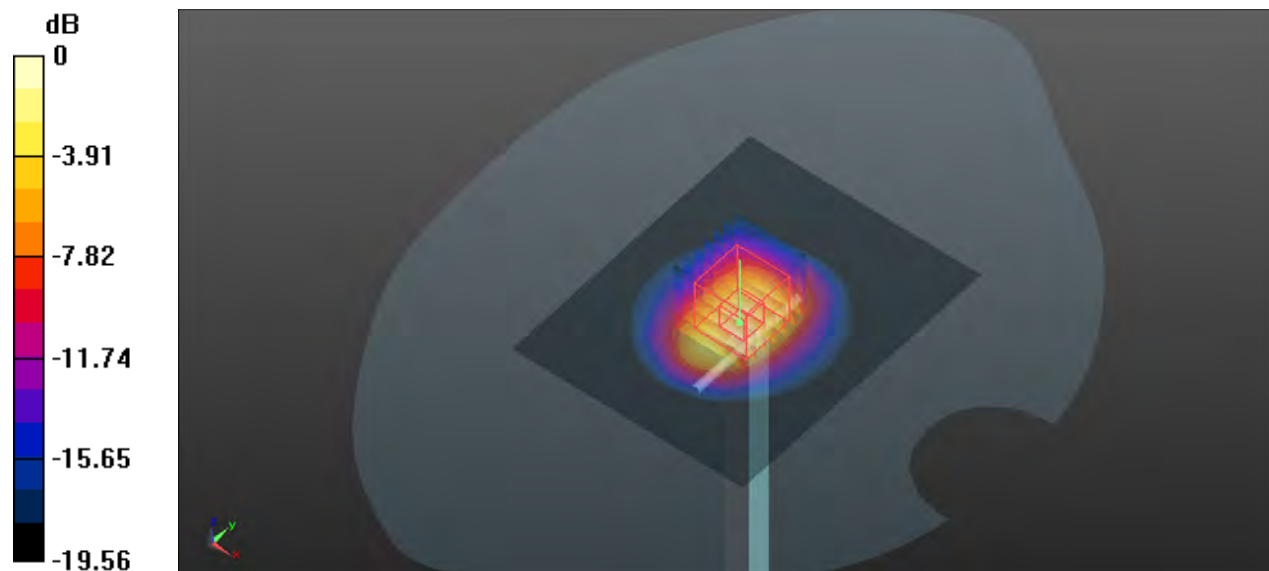
**Pin=250mW/Area Scan (81x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 19.2 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 111.52 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 23.8 W/kg

**SAR(1 g) = 12.5 W/kg; SAR(10 g) = 6.18 W/kg**

Maximum value of SAR (measured) = 18.4 W/kg





## System Check\_HSL2300\_20230104

### DUT: Dipole:2300 MHz;Type:D2300V2

Communication System: CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium: HSL2300\_0104 Medium parameters used:  $f = 2300$  MHz;  $\sigma = 1.647$  S/m;  $\epsilon_r = 40.583$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3°C; Liquid Temperature : 22.1°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(8.01, 8.01, 8.01) @ 2300 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (81x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 16.4 W/kg

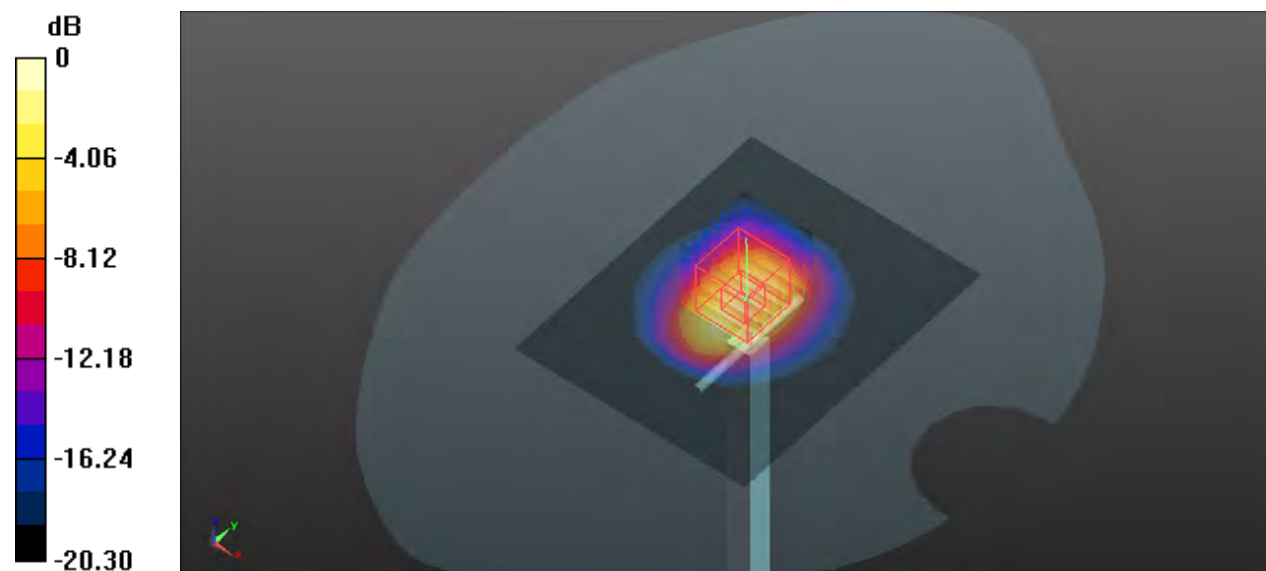
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.41 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 21.2 W/kg

**SAR(1 g) = 11.31 W/kg; SAR(10 g) = 5.23 W/kg**

Maximum value of SAR (measured) = 16.1 W/kg



0 dB = 16.1 W/kg

## System Check\_HSL2450\_20221130

**DUT: Dipole:2450 MHz;Type:D2450V2**

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1

Medium: HSL2450\_1130 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.843$  S/m;  $\epsilon_r = 38.054$ ;  $\rho = 1000$  kg/m<sup>3</sup>

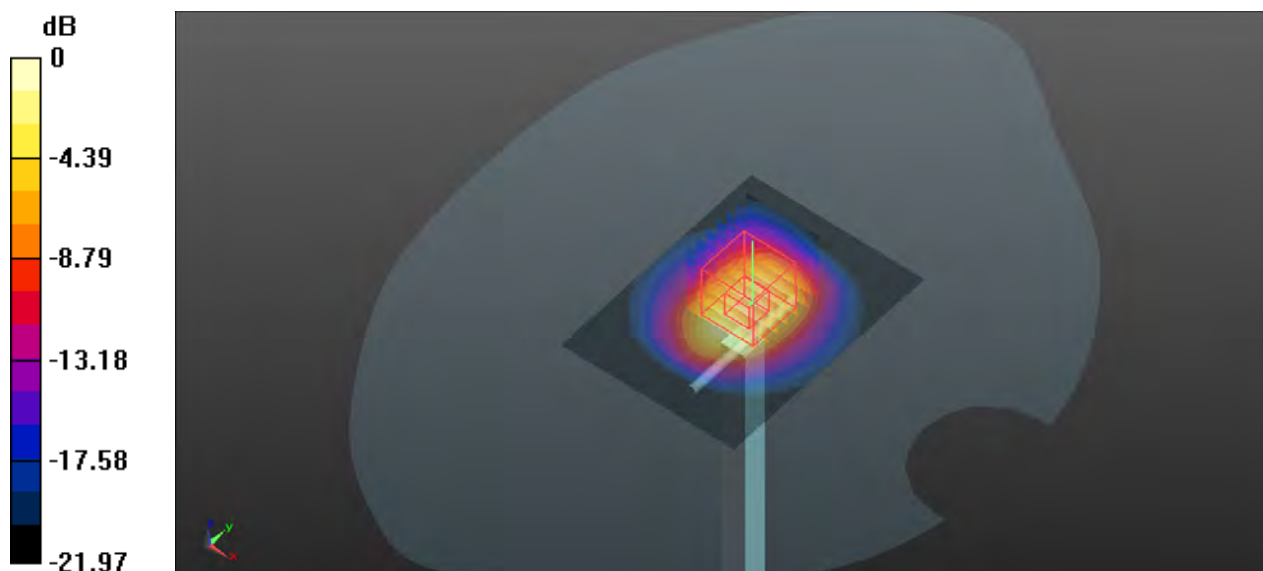
Ambient Temperature : 23.5°C; Liquid Temperature : 22.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.59, 7.59, 7.59) @ 2450 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (61x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 19.3 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 110.22 V/m; Power Drift = -0.03 dB  
Peak SAR (extrapolated) = 24.6 W/kg  
**SAR(1 g) = 12.4 W/kg; SAR(10 g) = 5.81 W/kg**  
Maximum value of SAR (measured) = 18.5 W/kg



0 dB = 18.5 W/kg

## System Check\_HSL2450\_20221208

**DUT: Dipole:2450 MHz;Type:D2450V2**

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1

Medium: HSL2450\_1208 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.788$  S/m;  $\epsilon_r = 39.575$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.59, 7.59, 7.59) @ 2450 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (91x101x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
 Maximum value of SAR (interpolated) = 23.4 W/kg

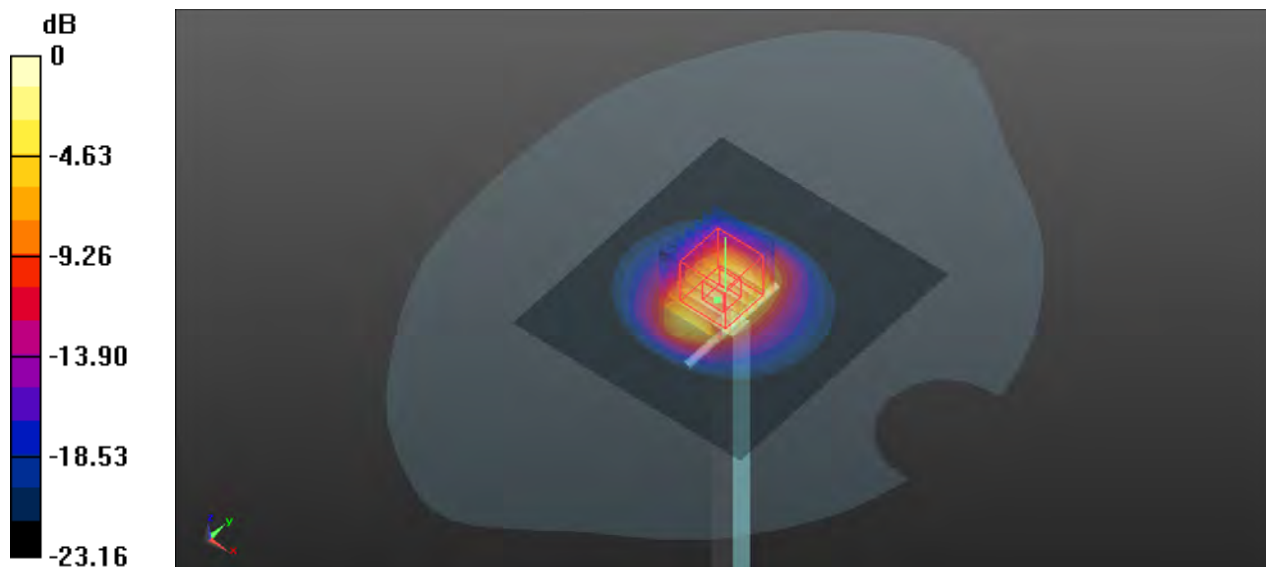
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 112.5 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 29.5 W/kg

**SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.4 W/kg**

Maximum value of SAR (measured) = 23.4 W/kg



0 dB = 23.4 W/kg

## System Check\_HSL2450\_20221218

**DUT: Dipole:2450 MHz;Type:D2450V2**

Communication System: CW; Frequency: 2450 MHz;Duty Cycle: 1:1

Medium: HSL2450\_1218 Medium parameters used:  $f = 2450$  MHz;  $\sigma = 1.823$  S/m;  $\epsilon_r = 37.591$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.1°C; Liquid Temperature : 22.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.59, 7.59, 7.59) @ 2450 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (61x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 19.7 W/kg

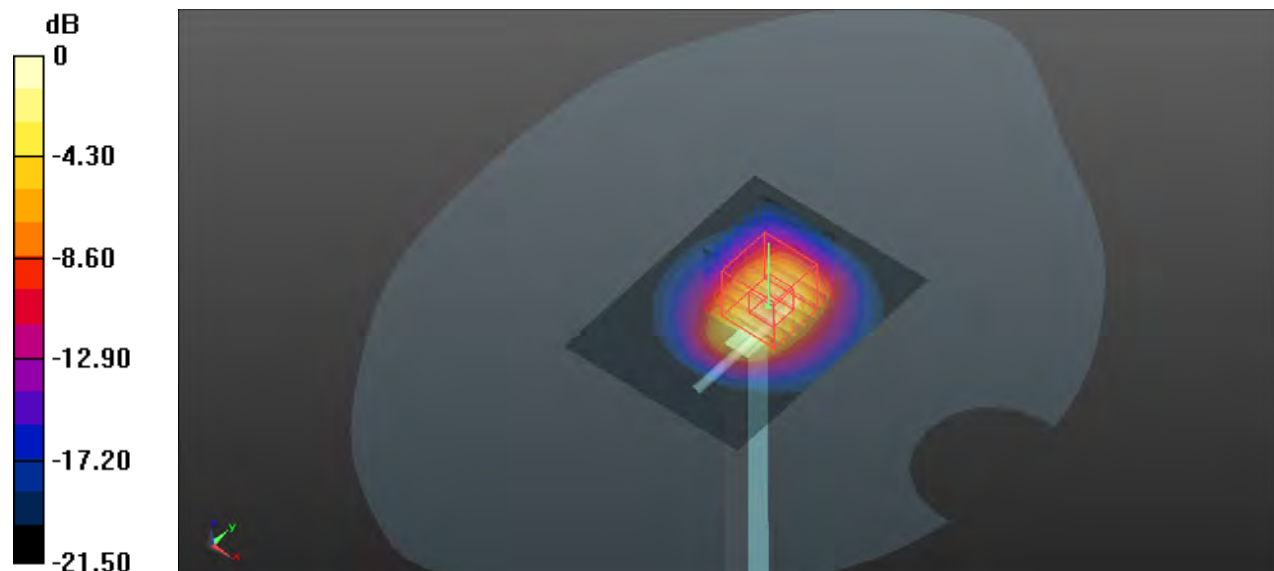
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 93.21 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 25.0 W/kg

**SAR(1 g) = 12.6 W/kg; SAR(10 g) = 5.78 W/kg**

Maximum value of SAR (measured) = 19.1 W/kg



0 dB = 19.1 W/kg

## System Check\_HSL2600\_20221209

### DUT: Dipole:2600 MHz;Type:D2600V2

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: HSL2600\_1209 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.896$  S/m;  $\epsilon_r = 39.209$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4°C; Liquid Temperature : 22.6°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.47, 7.47, 7.47) @ 2600 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (61x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 22.3 W/kg

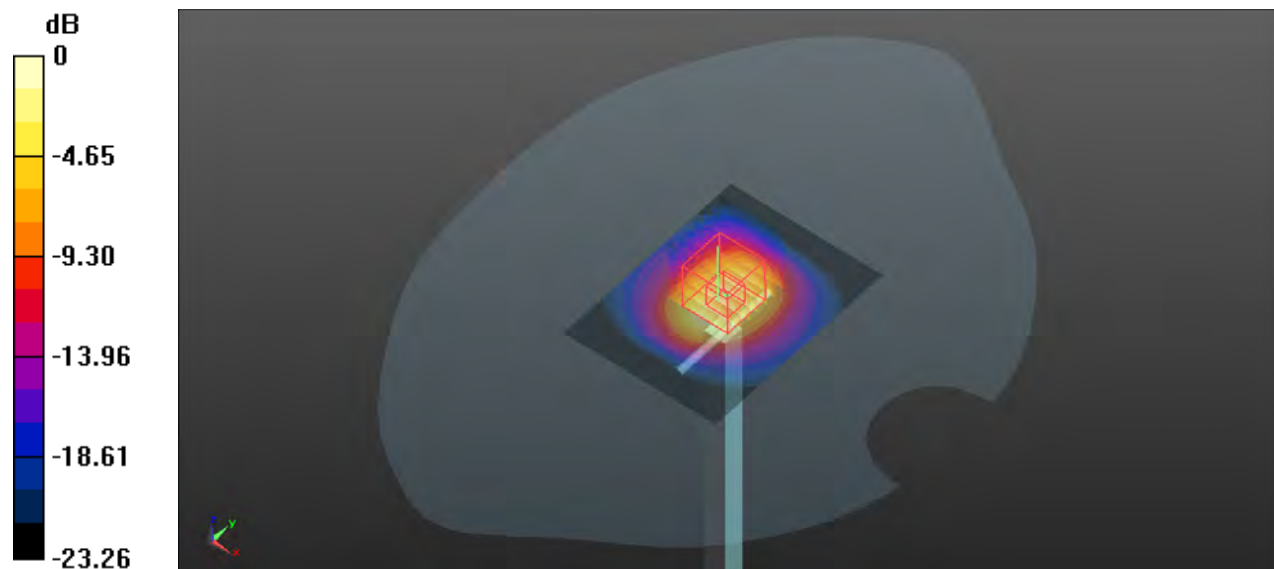
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 119.9 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 28.2 W/kg

**SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.21 W/kg**

Maximum value of SAR (measured) = 20.3 W/kg



0 dB = 20.3 W/kg

## System Check\_HSL2600\_20230105

**DUT: Dipole:2600 MHz;Type:D2600V2**

Communication System: CW; Frequency: 2600 MHz;Duty Cycle: 1:1

Medium: HSL2600\_0105 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.955$  S/m;  $\epsilon_r = 38.732$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3°C; Liquid Temperature : 22.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.47, 7.47, 7.47) @ 2600 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (61x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 19.4 W/kg

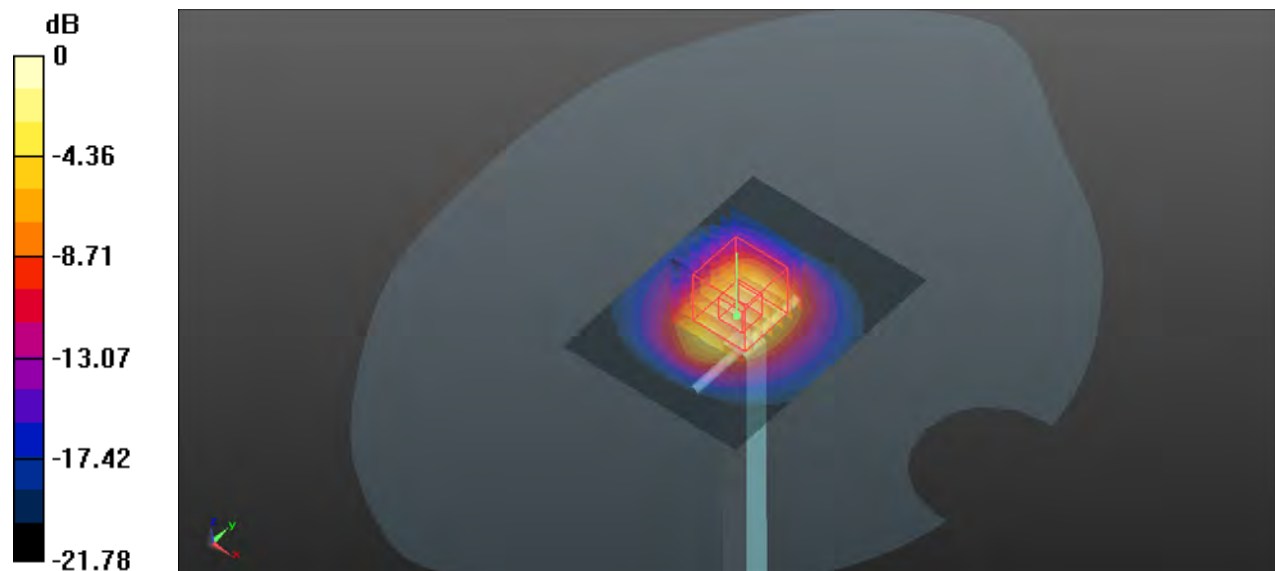
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 112.1 V/m; Power Drift = -0.09 dB

Peak SAR (extrapolated) = 25.6 W/kg

**SAR(1 g) = 13.1 W/kg; SAR(10 g) = 6 W/kg**

Maximum value of SAR (measured) = 19.2 W/kg





## System Check\_HSL2600\_20230107

### DUT: Dipole:2600 MHz;Type:D2600V2

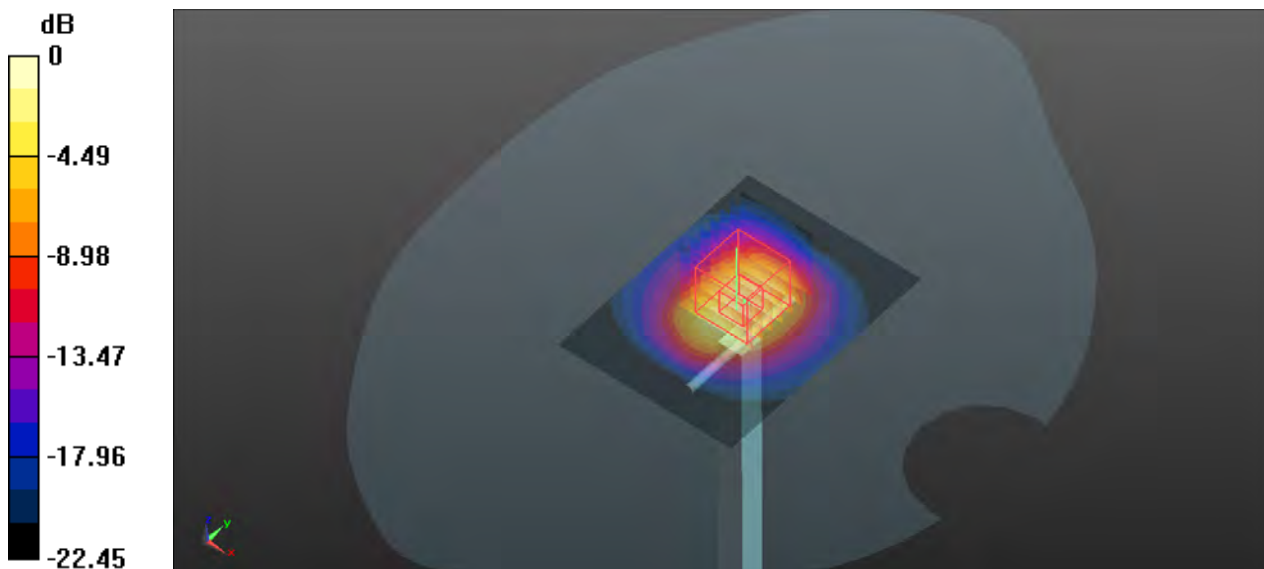
Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1  
Medium: HSL2600\_0107 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 1.984$  S/m;  $\epsilon_r = 37.444$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.4°C; Liquid Temperature : 22.8°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.47, 7.47, 7.47) @ 2600 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (61x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 20.5 W/kg

**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm  
Reference Value = 108.12 V/m; Power Drift = 0.12 dB  
Peak SAR (extrapolated) = 23.3 W/kg  
**SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.12 W/kg**  
Maximum value of SAR (measured) = 19.5 W/kg



0 dB = 19.5 W/kg

## System Check\_HSL2600\_20230109

### DUT: Dipole:2600 MHz;Type:D2600V2

Communication System: CW; Frequency: 2600 MHz;Duty Cycle: 1:1

Medium: HSL2600\_0109 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.054$  S/m;  $\epsilon_r = 37.977$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.6°C; Liquid Temperature : 22.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.47, 7.47, 7.47) @ 2600 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (61x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 20.4 W/kg

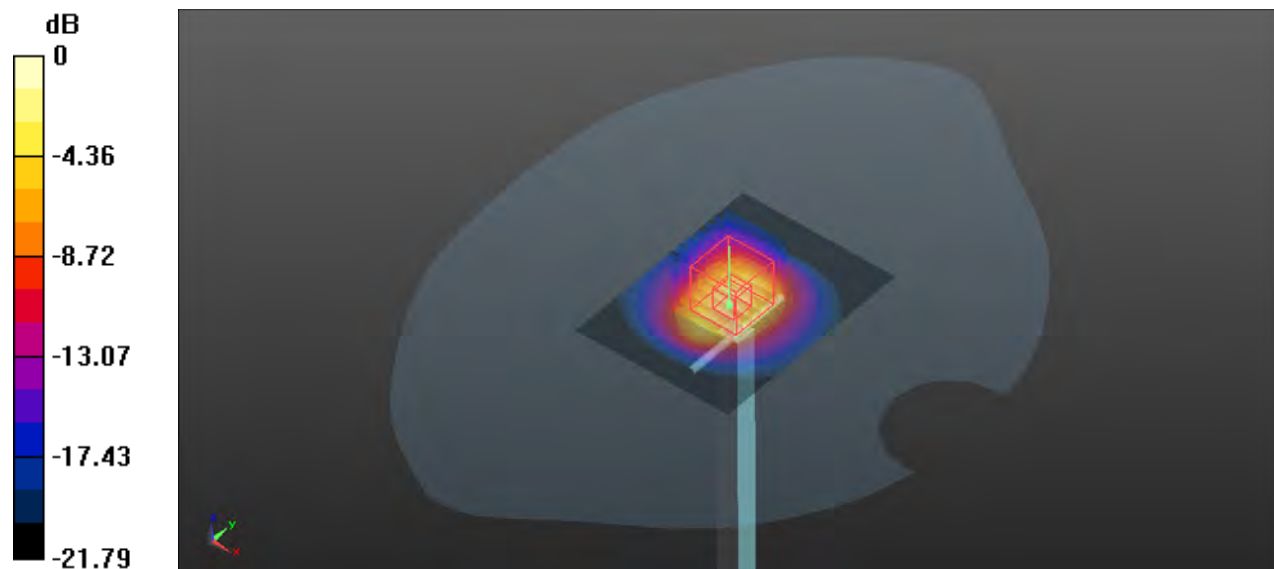
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 107.5 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 26.9 W/kg

**SAR(1 g) = 13.5 W/kg; SAR(10 g) = 6.3 W/kg**

Maximum value of SAR (measured) = 20.2 W/kg



## System Check\_HSL2600\_20230110

**DUT: Dipole:2600 MHz;Type:D2600V2**

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium: HSL2600\_0110 Medium parameters used:  $f = 2600$  MHz;  $\sigma = 2.056$  S/m;  $\epsilon_r = 37.575$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(7.47, 7.47, 7.47) @ 2600 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=250mW/Area Scan (61x81x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm  
Maximum value of SAR (interpolated) = 21.3 W/kg

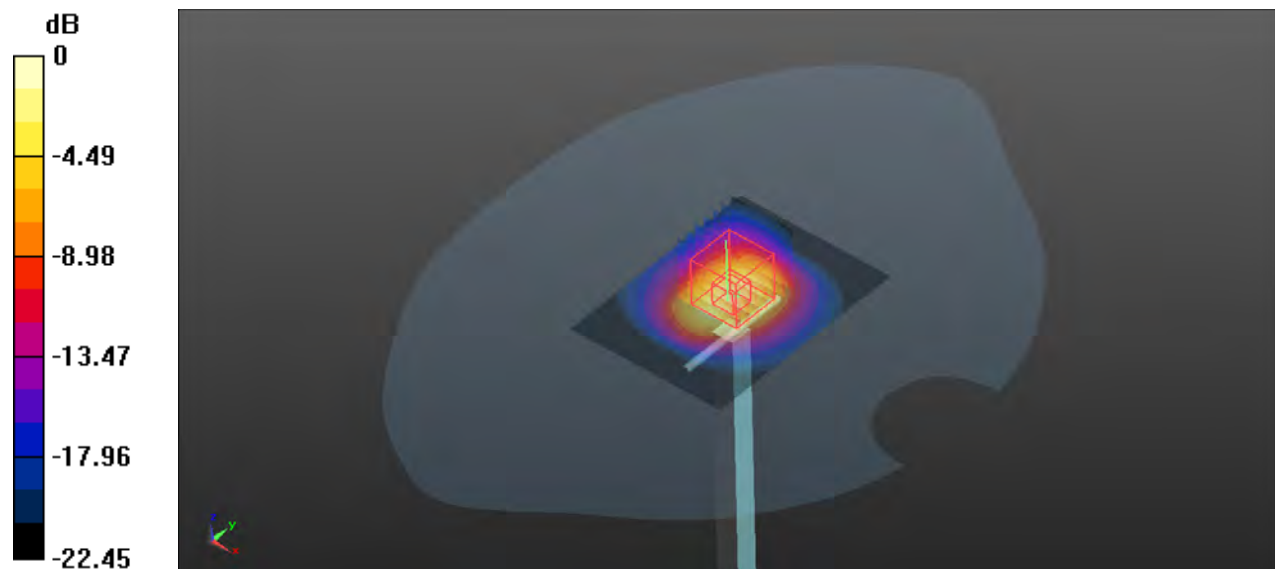
**Pin=250mW/Zoom Scan (7x7x7)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 104.6 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 24.1 W/kg

**SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.34 W/kg**

Maximum value of SAR (measured) = 20.2 W/kg



0 dB = 20.2 W/kg

## System Check\_HSL3500\_20221210

**DUT: Dipole:3500 MHzV2;Type:D3500V2**

Communication System: CW; Frequency: 3500 MHz; Duty Cycle: 1:1

Medium: HSL3500\_1210 Medium parameters used:  $f = 3500$  MHz;  $\sigma = 3.012$  S/m;  $\epsilon_r = 39.721$ ;  $\rho = 1000$  kg/m<sup>3</sup>

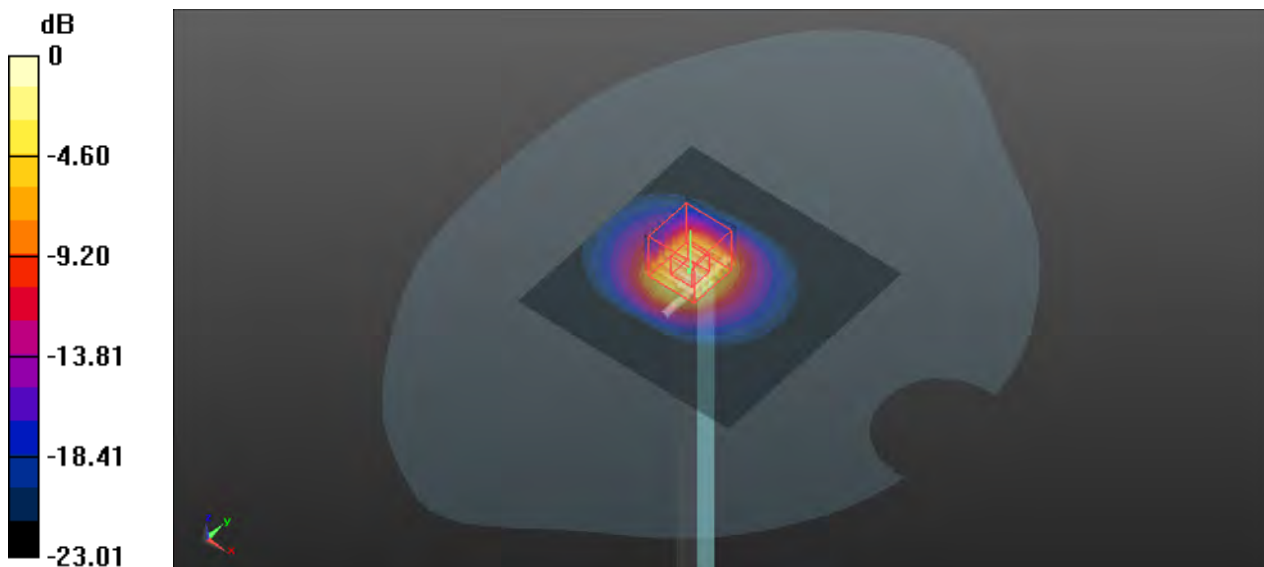
Ambient Temperature : 23.2°C; Liquid Temperature : 22.2°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.77, 6.77, 6.77) @ 3500 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 12.6 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 59.21 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 16.9 W/kg  
**SAR(1 g) = 6.49 W/kg; SAR(10 g) = 2.47 W/kg**  
Maximum value of SAR (measured) = 12.5 W/kg



0 dB = 12.5 W/kg

## System Check\_HSL3500\_20221219

**DUT: Dipole:3500 MHzV2;Type:D3500V2**

Communication System: CW; Frequency: 3500 MHz;Duty Cycle: 1:1

Medium: HSL3500\_1219 Medium parameters used:  $f = 3500$  MHz;  $\sigma = 3.013$  S/m;  $\epsilon_r = 39.686$ ;  $\rho = 1000$  kg/m<sup>3</sup>

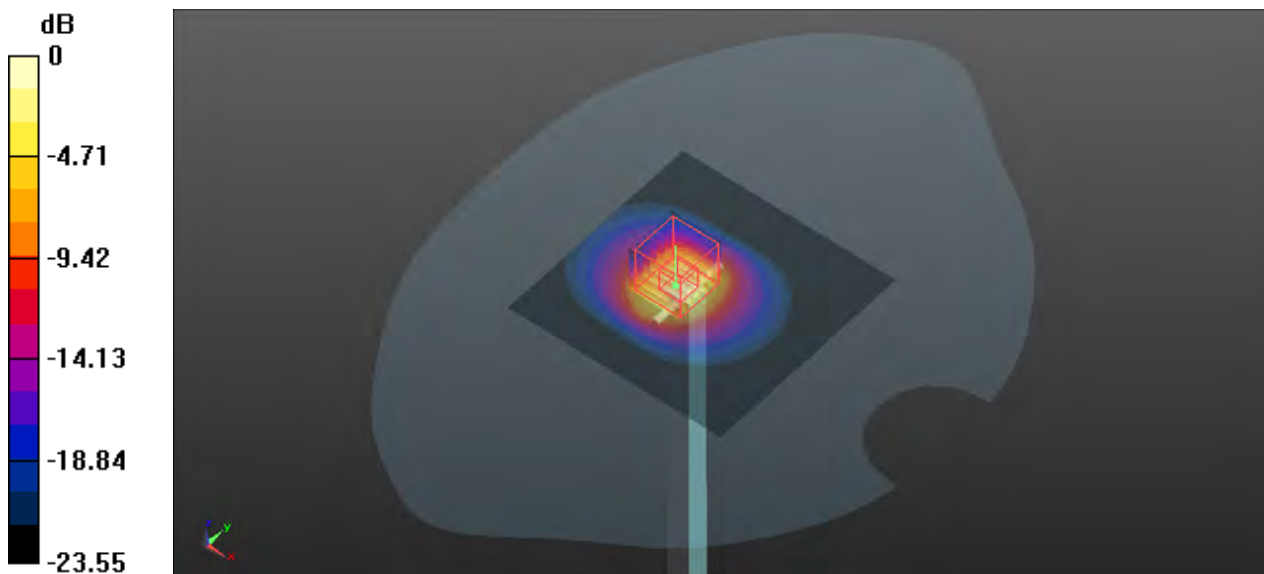
Ambient Temperature : 23.6°C; Liquid Temperature : 22.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.77, 6.77, 6.77) @ 3500 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 12.6 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 60.06 V/m; Power Drift = 0.14 dB  
Peak SAR (extrapolated) = 16.8 W/kg  
**SAR(1 g) = 6.43 W/kg; SAR(10 g) = 2.46 W/kg**  
Maximum value of SAR (measured) = 12.6 W/kg



0 dB = 12.6 W/kg

## System Check\_HSL3500\_20230106

**DUT: Dipole:3500 MHzV2;Type:D3500V2**

Communication System: CW; Frequency: 3500 MHz; Duty Cycle: 1:1

Medium: HSL3500\_0106 Medium parameters used:  $f = 3500$  MHz;  $\sigma = 3.014$  S/m;  $\epsilon_r = 39.693$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.6°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.77, 6.77, 6.77) @ 3500 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 12.9 W/kg

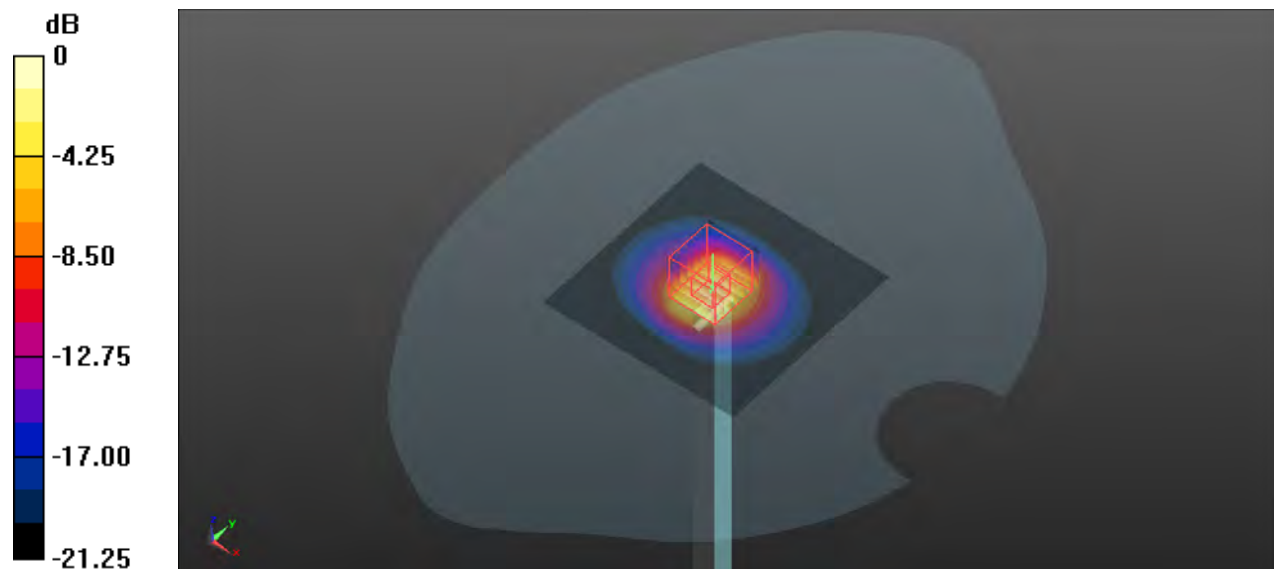
**Pin=100mW/Zoom Scan (7x7x11)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 63.32 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 17.0 W/kg

**SAR(1 g) = 6.77 W/kg; SAR(10 g) = 2.63 W/kg**

Maximum value of SAR (measured) = 12.9 W/kg



0 dB = 12.9 W/kg



## System Check\_HSL3500\_20230111

**DUT: Dipole:3500 MHz;Type:D3500V2**

Communication System: CW; Frequency: 3500 MHz;Duty Cycle: 1:1

Medium: HSL3500\_0111 Medium parameters used:  $f = 3500$  MHz;  $\sigma = 3.022$  S/m;  $\epsilon_r = 39.77$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.1°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.77, 6.77, 6.77) @ 3500 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 13.0 W/kg

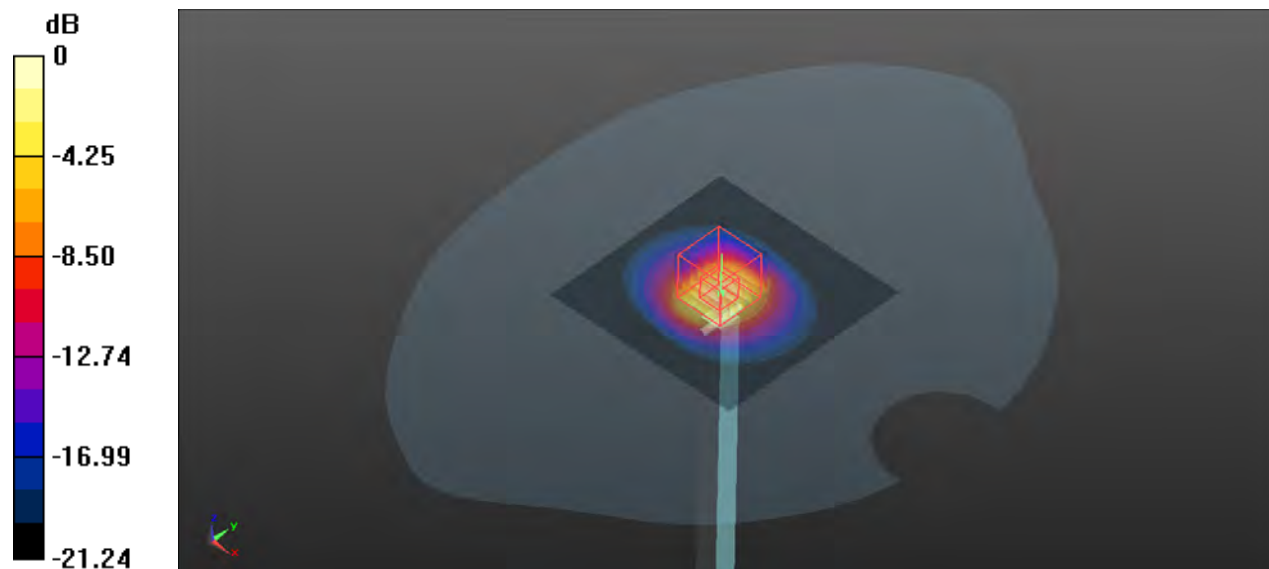
**Pin=100mW/Zoom Scan (7x7x11)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 65.11 V/m; Power Drift = 0.15 dB

Peak SAR (extrapolated) = 17.4 W/kg

**SAR(1 g) = 6.79 W/kg; SAR(10 g) = 2.64 W/kg**

Maximum value of SAR (measured) = 13.1 W/kg



## System Check\_HSL3500\_20230112

**DUT: Dipole:3500 MHz;Type:D3500V2**

Communication System: CW; Frequency: 3500 MHz; Duty Cycle: 1:1

Medium: HSL3500\_0112 Medium parameters used:  $f = 3500$  MHz;  $\sigma = 3.022$  S/m;  $\epsilon_r = 39.756$ ;  $\rho = 1000$  kg/m<sup>3</sup>

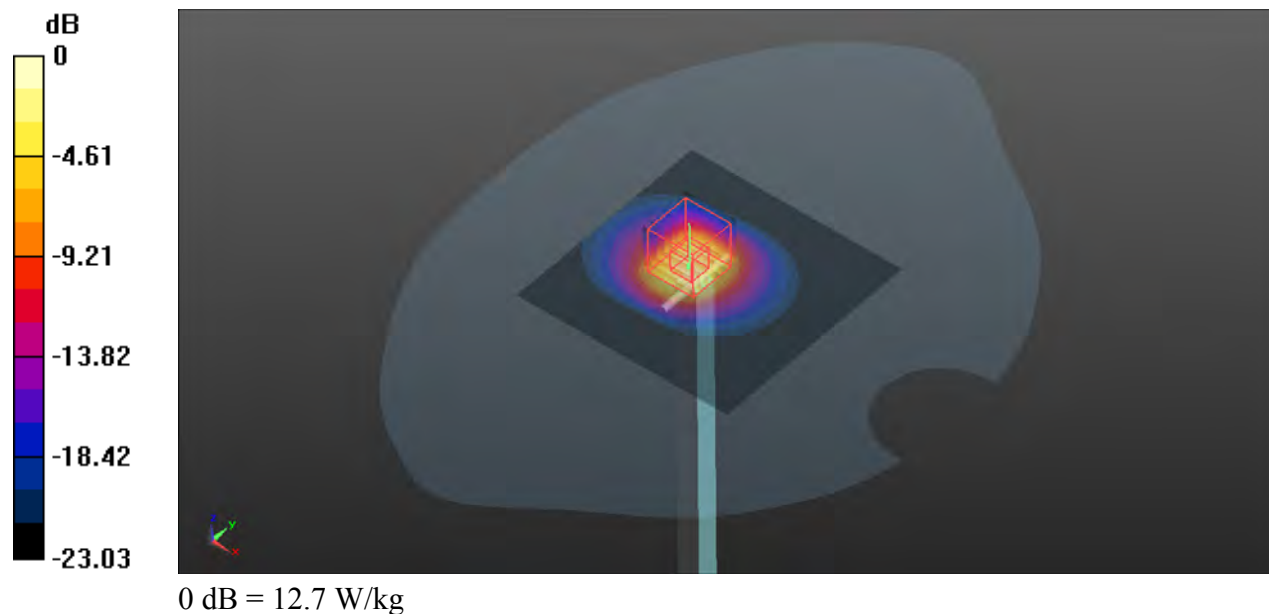
Ambient Temperature : 23.5°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.77, 6.77, 6.77) @ 3500 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 12.8 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 60.05 V/m; Power Drift = 0.09 dB  
Peak SAR (extrapolated) = 17.2 W/kg  
**SAR(1 g) = 6.51 W/kg; SAR(10 g) = 2.48 W/kg**  
Maximum value of SAR (measured) = 12.7 W/kg



## System Check\_HSL3700\_20221210

**DUT: Dipole:3700 MHzV2;Type:D3700V2**

Communication System: CW; Frequency: 3700 MHz; Duty Cycle: 1:1

Medium: HSL3700\_1210 Medium parameters used:  $f = 3700$  MHz;  $\sigma = 3.004$  S/m;  $\epsilon_r = 39.288$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.61, 6.61, 6.61) @ 3700 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

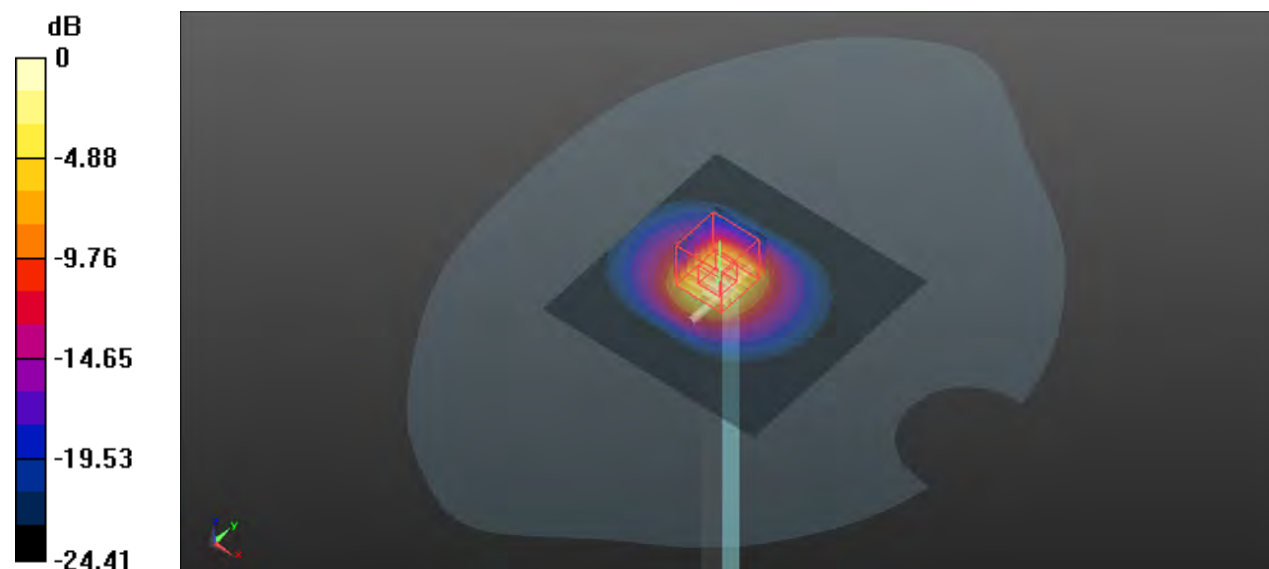
**Pin=100mW/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 13.4 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 54.30 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 18.3 W/kg

**SAR(1 g) = 6.71 W/kg; SAR(10 g) = 2.49 W/kg**

Maximum value of SAR (measured) = 13.4 W/kg



0 dB = 13.4 W/kg

## System Check\_HSL3700\_20221219

**DUT: Dipole:3700 MHzV2;Type:D3700V2**

Communication System: CW; Frequency: 3700 MHz; Duty Cycle: 1:1

Medium: HSL3700\_1219 Medium parameters used:  $f = 3700$  MHz;  $\sigma = 3.005$  S/m;  $\epsilon_r = 39.297$ ;  $\rho = 1000$  kg/m<sup>3</sup>

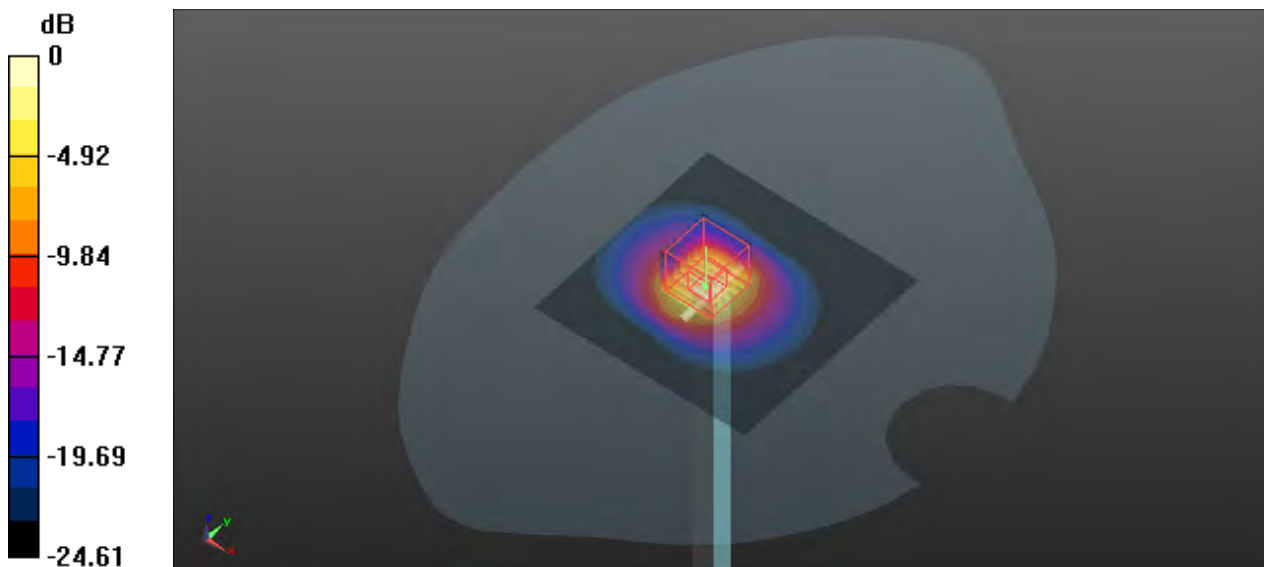
Ambient Temperature : 23.4°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.61, 6.61, 6.61) @ 3700 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 12.4 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 57.08 V/m; Power Drift = 0.04 dB  
Peak SAR (extrapolated) = 16.2 W/kg  
**SAR(1 g) = 6.27 W/kg; SAR(10 g) = 2.25 W/kg**  
Maximum value of SAR (measured) = 12.1 W/kg



0 dB = 12.1 W/kg

## System Check\_HSL3700\_20230106

**DUT: Dipole:3700 MHzV2;Type:D3700V2**

Communication System: CW; Frequency: 3700 MHz;Duty Cycle: 1:1

Medium: HSL3700\_0106 Medium parameters used:  $f = 3700$  MHz;  $\sigma = 3.004$  S/m;  $\epsilon_r = 39.29$ ;  $\rho = 1000$  kg/m<sup>3</sup>

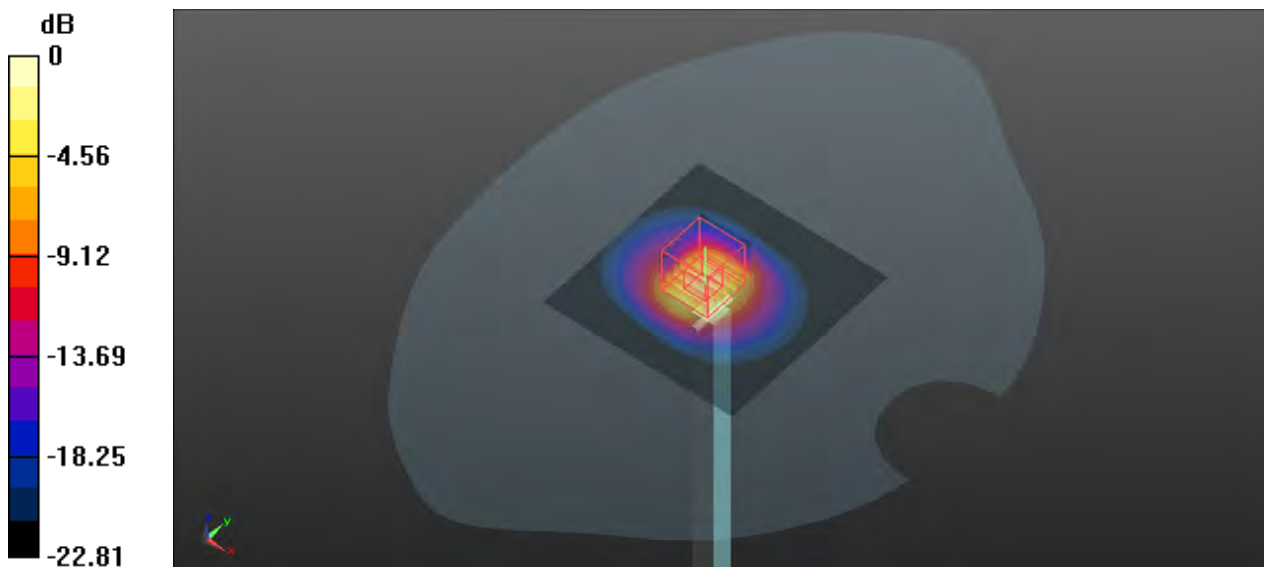
Ambient Temperature : 23.8°C; Liquid Temperature : 22.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.61, 6.61, 6.61) @ 3700 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 13.6 W/kg

**Pin=100mW/Zoom Scan (7x7x11)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 57.93 V/m; Power Drift = -0.07 dB  
Peak SAR (extrapolated) = 18.3 W/kg  
**SAR(1 g) = 6.61 W/kg; SAR(10 g) = 2.48 W/kg**  
Maximum value of SAR (measured) = 13.2 W/kg



0 dB = 13.2 W/kg

## System Check\_HSL3700\_20230111

**DUT: Dipole:3700 MHz;Type:D3700V2**

Communication System: CW; Frequency: 3700 MHz; Duty Cycle: 1:1

Medium: HSL3700\_0111 Medium parameters used:  $f = 3700$  MHz;  $\sigma = 3.005$  S/m;  $\epsilon_r = 39.297$ ;  $\rho = 1000$  kg/m<sup>3</sup>

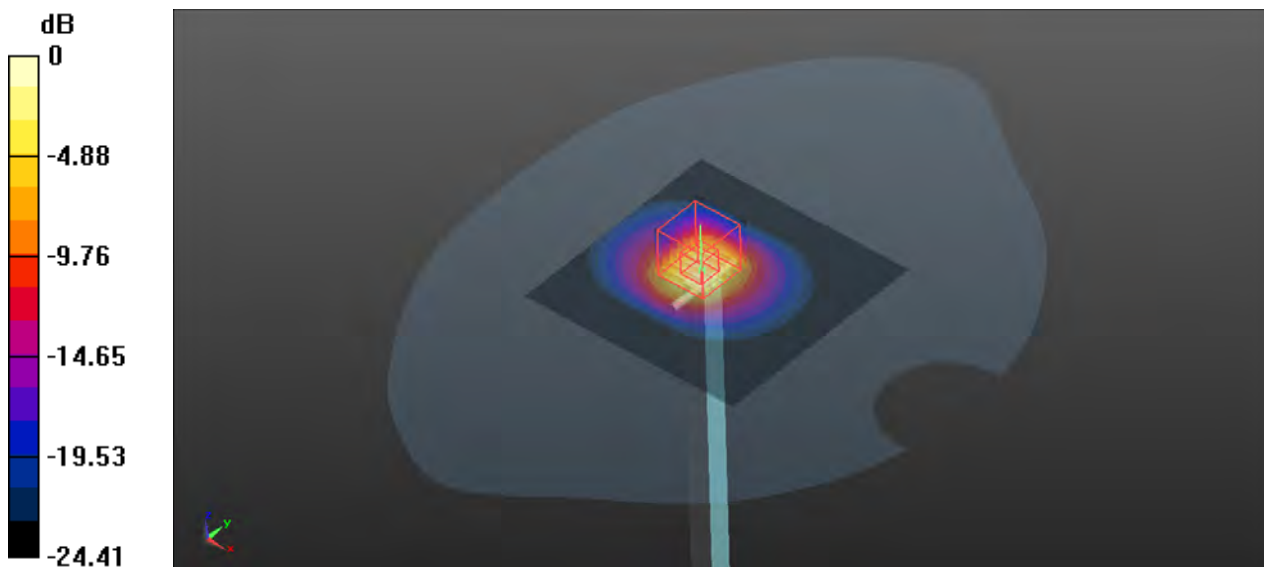
Ambient Temperature : 23.7°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.61, 6.61, 6.61) @ 3700 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 13.9 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 57.51 V/m; Power Drift = 0.08 dB  
Peak SAR (extrapolated) = 18.8 W/kg  
**SAR(1 g) = 6.75 W/kg; SAR(10 g) = 2.51 W/kg**  
Maximum value of SAR (measured) = 13.5 W/kg



0 dB = 13.5 W/kg



## System Check\_HSL3700\_20230112

**DUT: Dipole:3700 MHz;Type:D3700V2**

Communication System: CW; Frequency: 3700 MHz;Duty Cycle: 1:1

Medium: HSL3700\_0112 Medium parameters used:  $f = 3700$  MHz;  $\sigma = 3.005$  S/m;  $\epsilon_r = 39.292$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.3°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.61, 6.61, 6.61) @ 3700 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 13.9 W/kg

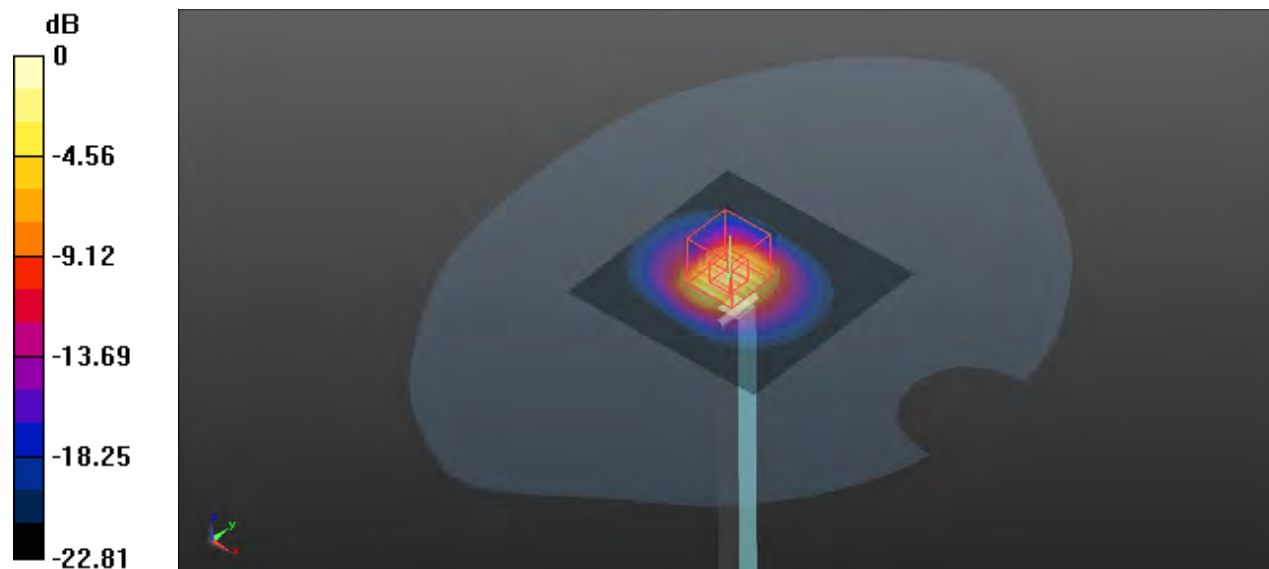
**Pin=100mW/Zoom Scan (7x7x11)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 58.09 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 18.5 W/kg

**SAR(1 g) = 6.67 W/kg; SAR(10 g) = 2.49 W/kg**

Maximum value of SAR (measured) = 13.6 W/kg



0 dB = 13.6 W/kg

## System Check\_HSL3900\_20221210

**DUT: Dipole:3900 MHzV2;Type:D3900V2**

Communication System: CW; Frequency: 3900 MHz; Duty Cycle: 1:1

Medium: HSL3900\_1210 Medium parameters used:  $f = 3900$  MHz;  $\sigma = 3.207$  S/m;  $\epsilon_r = 38.996$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.21, 6.21, 6.21) @ 3900 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

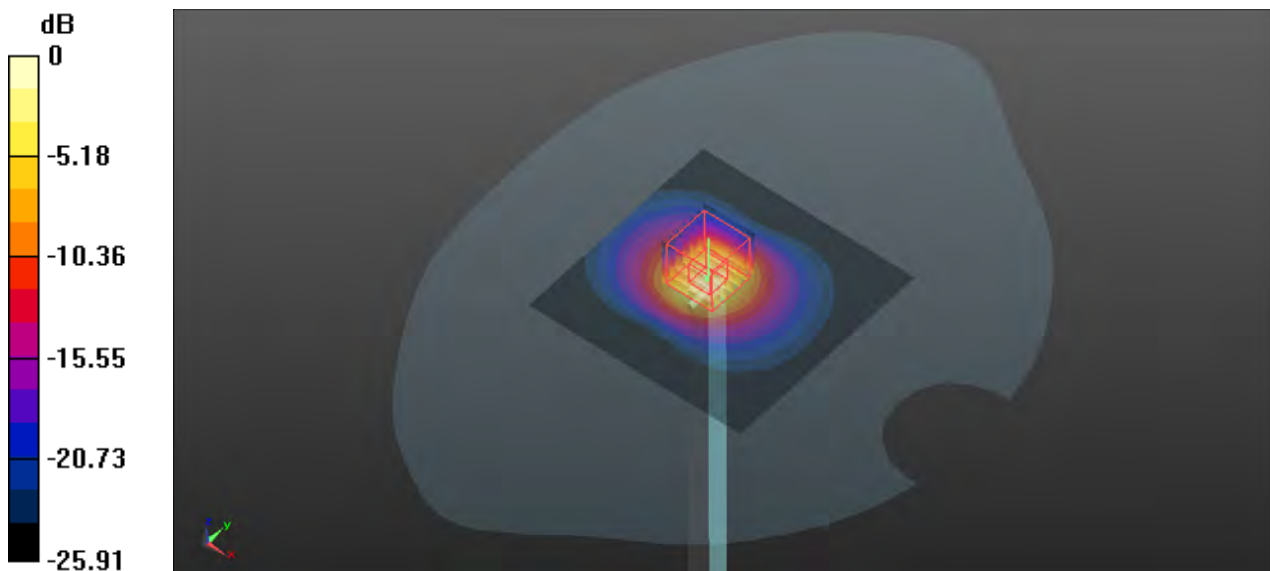
**Pin=100mW/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 12.9 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 55.34 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 17.8 W/kg

**SAR(1 g) = 6.32 W/kg; SAR(10 g) = 2.22 W/kg**

Maximum value of SAR (measured) = 12.7 W/kg



0 dB = 12.7 W/kg

## System Check\_HSL3900\_20221219

**DUT: Dipole:3900 MHzV2;Type:D3900V2**

Communication System: CW; Frequency: 3900 MHz; Duty Cycle: 1:1

Medium: HSL3700\_1219 Medium parameters used:  $f = 3900$  MHz;  $\sigma = 3.207$  S/m;  $\epsilon_r = 39.004$ ;  $\rho = 1000$  kg/m<sup>3</sup>

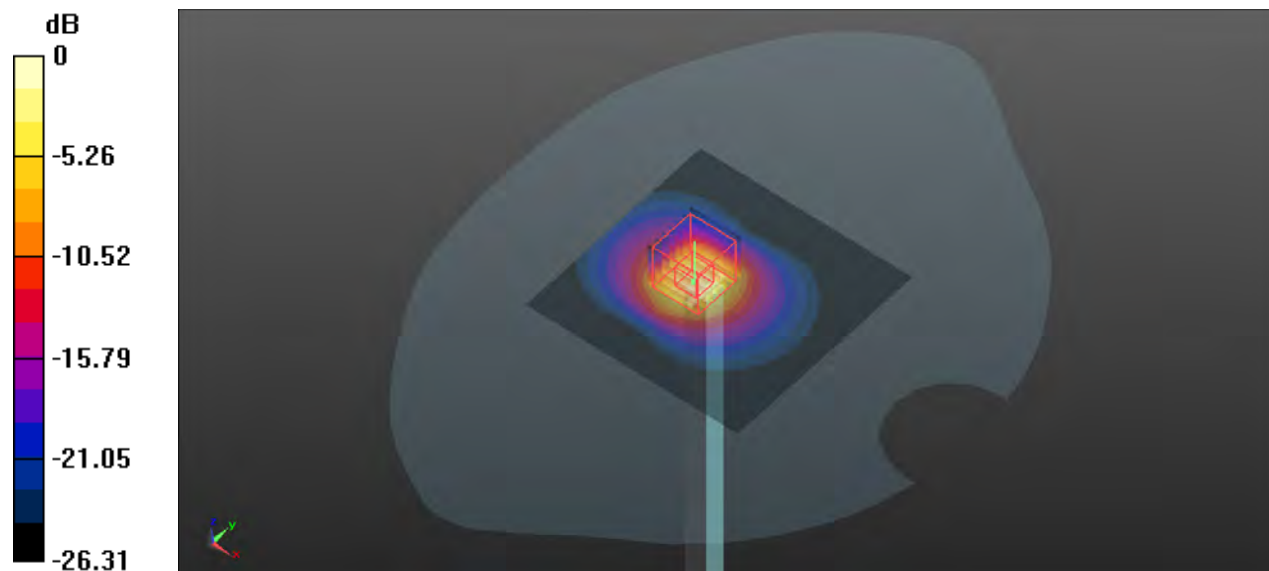
Ambient Temperature : 23.4°C; Liquid Temperature : 22.3°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.21, 6.21, 6.21) @ 3900 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 13.6 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 60.04 V/m; Power Drift = 0.09 dB  
Peak SAR (extrapolated) = 18.5 W/kg  
**SAR(1 g) = 6.54 W/kg; SAR(10 g) = 2.31 W/kg**  
Maximum value of SAR (measured) = 13.6 W/kg



0 dB = 13.6 W/kg

## System Check\_HSL3900\_20230106

**DUT: Dipole:3900 MHzV2;Type:D3900V2**

Communication System: CW; Frequency: 3900 MHz; Duty Cycle: 1:1

Medium: HSL3900\_0106 Medium parameters used:  $f = 3900$  MHz;  $\sigma = 3.207$  S/m;  $\epsilon_r = 38.998$ ;  $\rho = 1000$  kg/m<sup>3</sup>

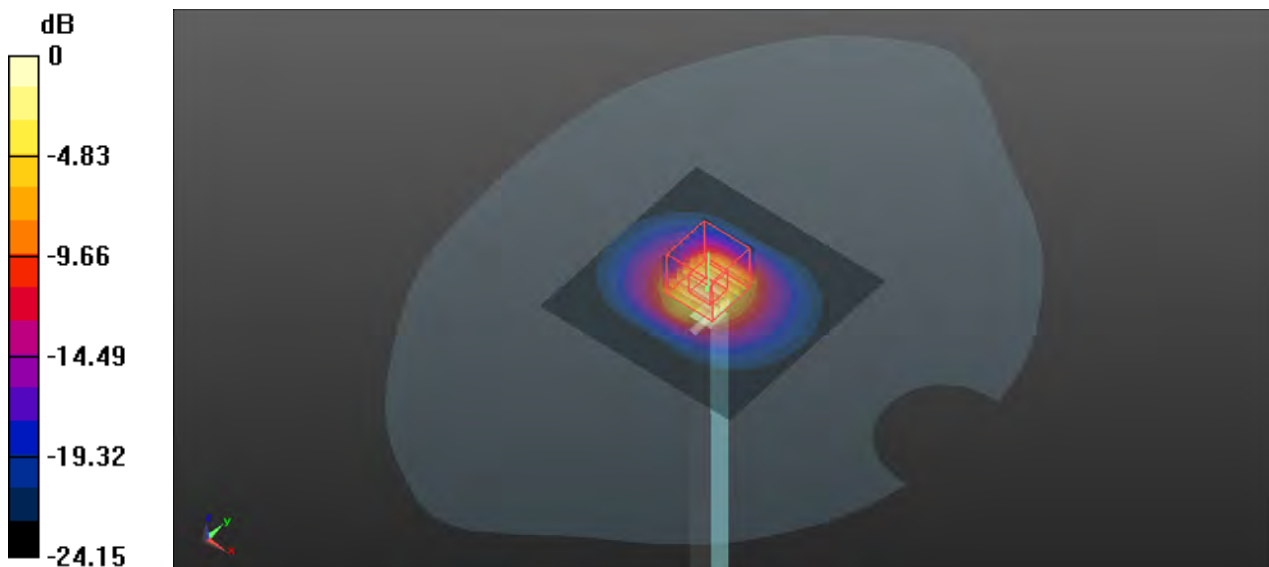
Ambient Temperature : 23.5°C; Liquid Temperature : 22.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.21, 6.21, 6.21) @ 3900 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 13.8 W/kg

**Pin=100mW/Zoom Scan (7x7x11)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 60.93 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 19.0 W/kg  
**SAR(1 g) = 6.68 W/kg; SAR(10 g) = 2.38 W/kg**  
Maximum value of SAR (measured) = 13.6 W/kg



0 dB = 13.6 W/kg

## System Check\_HSL3900\_20230111

**DUT: Dipole:3900 MHz;Type:D3900V2**

Communication System: CW; Frequency: 3900 MHz;Duty Cycle: 1:1

Medium: HSL3900\_0111 Medium parameters used:  $f = 3900$  MHz;  $\sigma = 3.207$  S/m;  $\epsilon_r = 39.003$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.4°C; Liquid Temperature : 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.21, 6.21, 6.21) @ 3900 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 14.1 W/kg

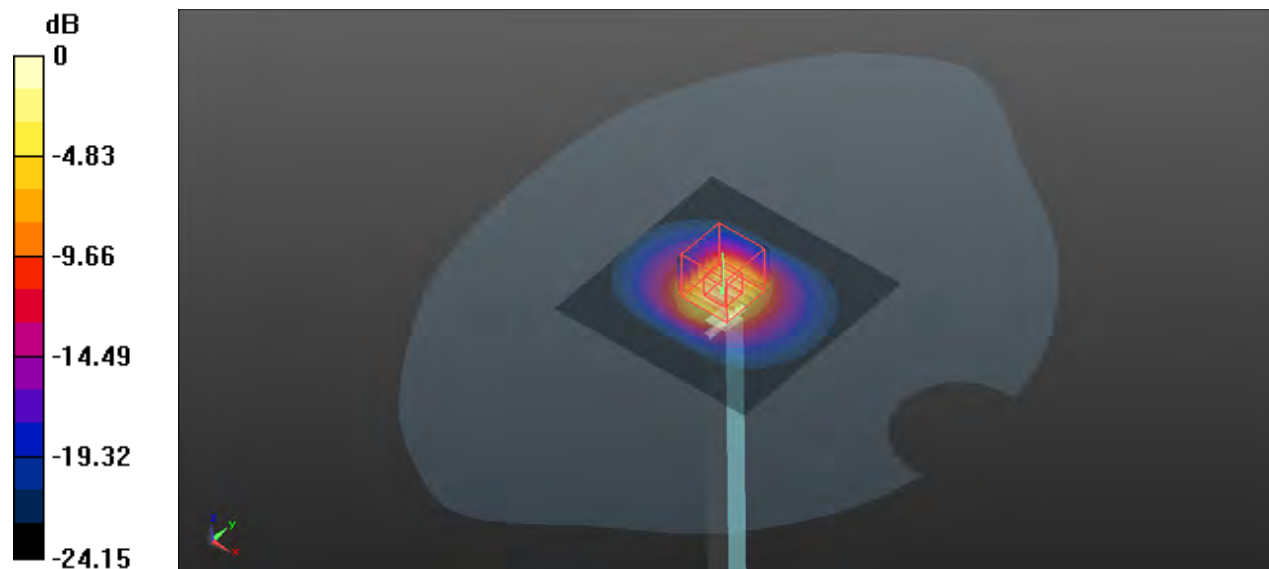
**Pin=100mW/Zoom Scan (7x7x11)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 62.41 V/m; Power Drift = -0.07 dB

Peak SAR (extrapolated) = 19.0 W/kg

**SAR(1 g) = 6.72 W/kg; SAR(10 g) = 2.43 W/kg**

Maximum value of SAR (measured) = 13.9 W/kg



0 dB = 13.9 W/kg

## System Check\_HSL3900\_20230112

### DUT: Dipole:3900 MHz;Type:D3900V2

Communication System: CW; Frequency: 3900 MHz;Duty Cycle: 1:1

Medium: HSL3700\_0112 Medium parameters used:  $f = 3900$  MHz;  $\sigma = 3.207$  S/m;  $\epsilon_r = 38.999$ ;  $\rho = 1000$  kg/m<sup>3</sup>

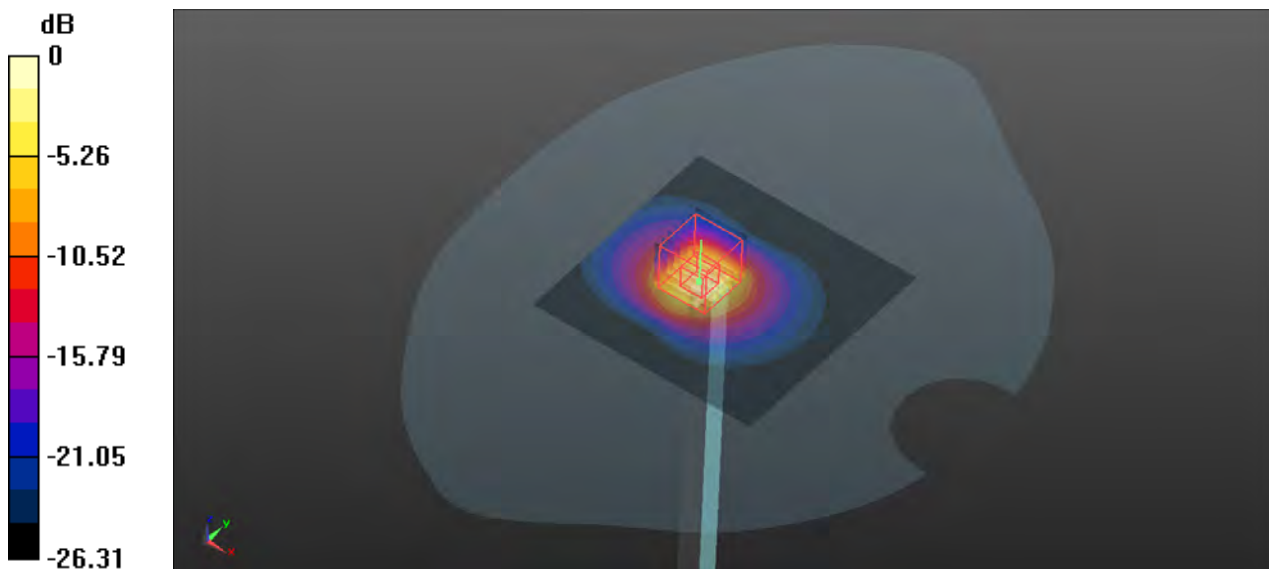
Ambient Temperature : 23.5°C; Liquid Temperature : 22.3°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(6.21, 6.21, 6.21) @ 3900 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (101x101x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 13.9 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 62.11 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 18.7 W/kg  
**SAR(1 g) = 6.59 W/kg; SAR(10 g) = 2.35 W/kg**  
Maximum value of SAR (measured) = 13.8 W/kg



0 dB = 13.8 W/kg



## System Check\_HSL5250\_20221201

### DUT: Dipole 5GHzV2;Type:D5GHzV2

Communication System: CW; Frequency: 5250 MHz;Duty Cycle: 1:1

Medium: HSL5G\_1201 Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.725$  S/m;  $\epsilon_r = 36.522$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.1°C; Liquid Temperature : 22.2°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.75, 4.75, 4.75) @ 5250 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 14.8 W/kg

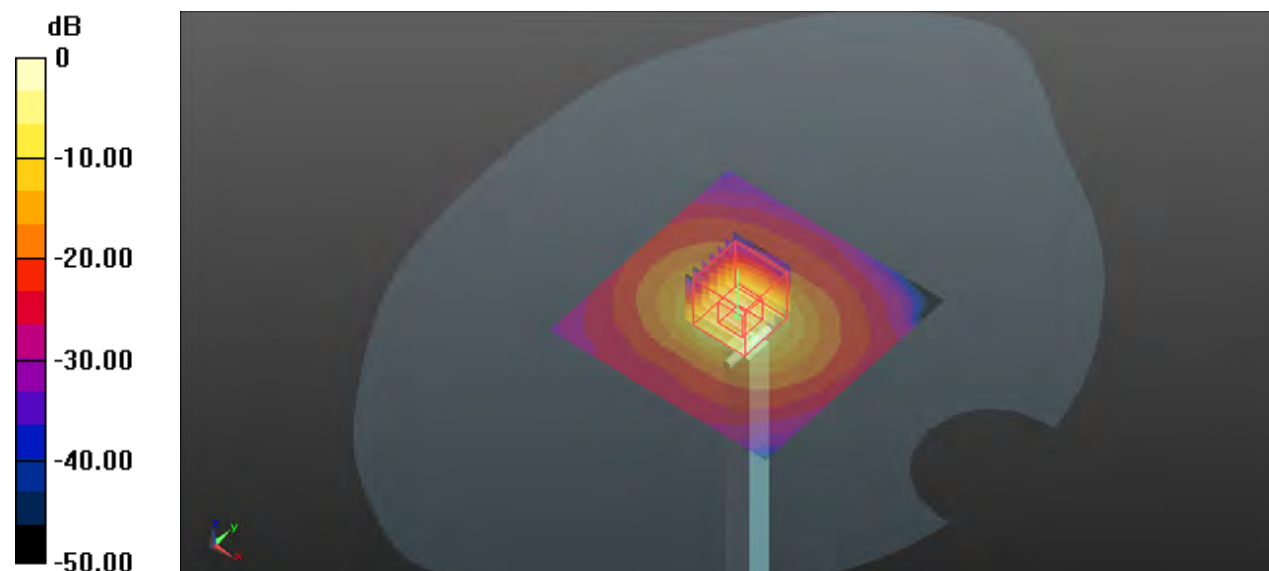
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 55.15 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 29.0 W/kg

**SAR(1 g) = 7.46 W/kg; SAR(10 g) = 2.15 W/kg**

Maximum value of SAR (measured) = 15.2 W/kg



0 dB = 15.2 W/kg

## System Check\_HSL5250\_20221212

### DUT: Dipole 5GHzV2;Type:D5GHzV2

Communication System: CW; Frequency: 5250 MHz;Duty Cycle: 1:1

Medium: HSL5G\_1212 Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.591$  S/m;  $\epsilon_r = 36.753$ ;  $\rho = 1000$  kg/m<sup>3</sup>

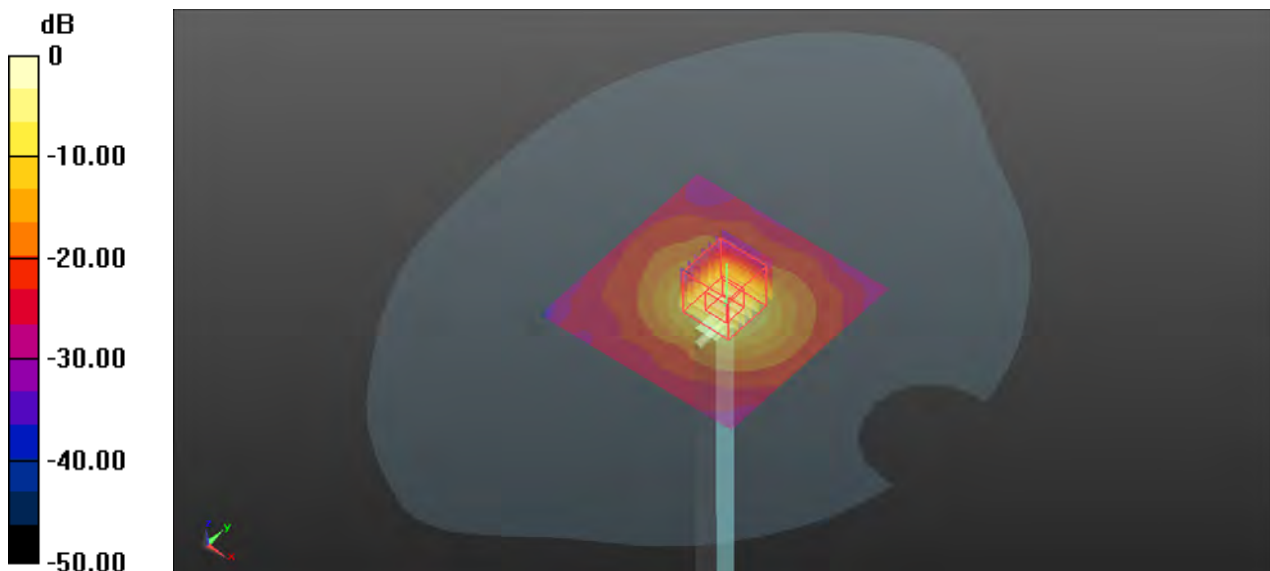
Ambient Temperature : 23.3°C; Liquid Temperature : 22.2°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.75, 4.75, 4.75) @ 5250 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 16.3 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 56.52 V/m; Power Drift = -0.02 dB  
Peak SAR (extrapolated) = 31.3 W/kg  
**SAR(1 g) = 7.42 W/kg; SAR(10 g) = 2.12 W/kg**  
Maximum value of SAR (measured) = 14.7 W/kg



0 dB = 14.7 W/kg

## System Check\_HSL5250\_20221220

### DUT: Dipole 5GHzV2;Type:D5GHzV2

Communication System: CW; Frequency: 5250 MHz;Duty Cycle: 1:1

Medium: HSL5G\_1220 Medium parameters used:  $f = 5250$  MHz;  $\sigma = 4.703$  S/m;  $\epsilon_r = 36.115$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.5°C; Liquid Temperature : 22.6°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.75, 4.75, 4.75) @ 5250 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 16.7 W/kg

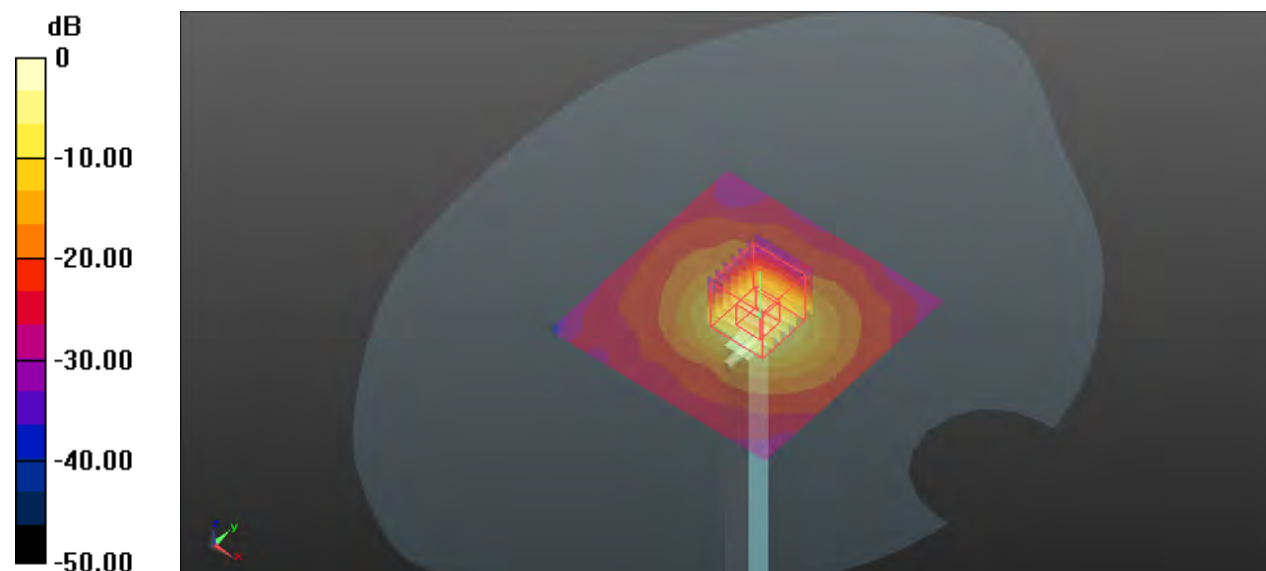
**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 55.21 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 32.1 W/kg

**SAR(1 g) = 7.6 W/kg; SAR(10 g) = 2.17 W/kg**

Maximum value of SAR (measured) = 15.0 W/kg



0 dB = 15.0 W/kg

## System Check\_HSL5600\_20221202

### DUT: Dipole 5GHzV2;Type:D5GHzV2

Communication System: CW; Frequency: 5600 MHz;Duty Cycle: 1:1

Medium: HSL5G\_1202 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 5.155$  S/m;  $\epsilon_r = 35.916$ ;  $\rho = 1000$  kg/m<sup>3</sup>

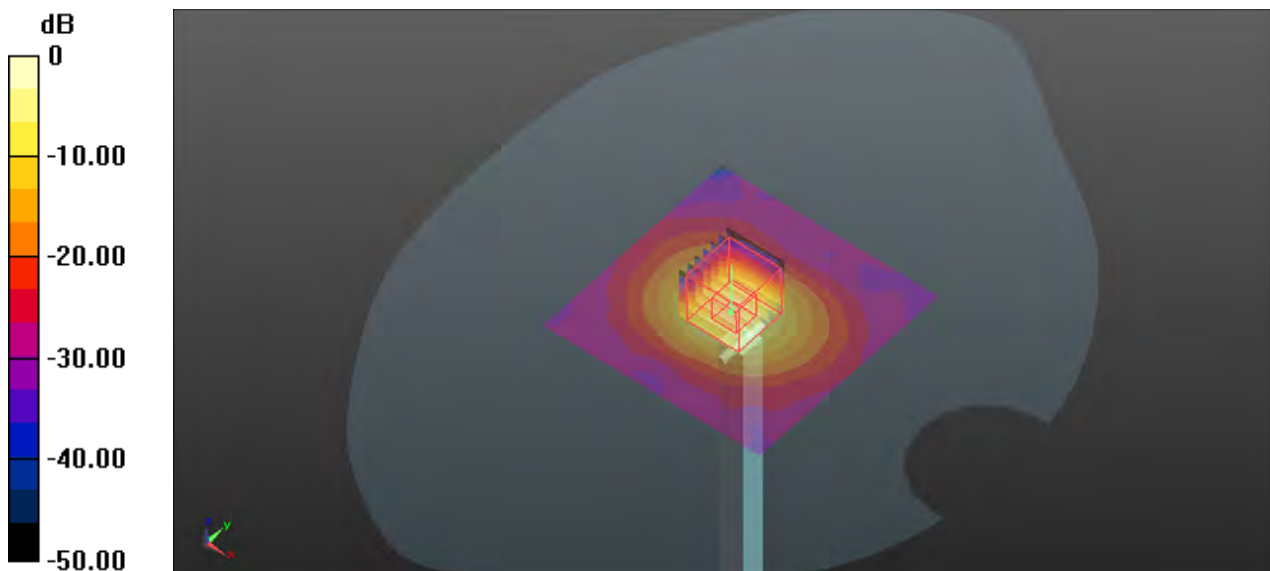
Ambient Temperature : 23.4°C; Liquid Temperature : 22.6°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.47, 4.47, 4.47) @ 5600 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
Maximum value of SAR (interpolated) = 14.3 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
Reference Value = 51.56 V/m; Power Drift = 0.17 dB  
Peak SAR (extrapolated) = 31.5 W/kg  
**SAR(1 g) = 7.51 W/kg; SAR(10 g) = 2.12 W/kg**  
Maximum value of SAR (measured) = 15.6 W/kg



0 dB = 15.6 W/kg

## System Check\_HSL5600\_20221213

### DUT: Dipole 5GHzV2;Type:D5GHzV2

Communication System: CW; Frequency: 5600 MHz;Duty Cycle: 1:1

Medium: HSL5G\_1213 Medium parameters used:  $f = 5600$  MHz;  $\sigma = 4.986$  S/m;  $\epsilon_r = 36.112$ ;  $\rho = 1000$  kg/m<sup>3</sup>

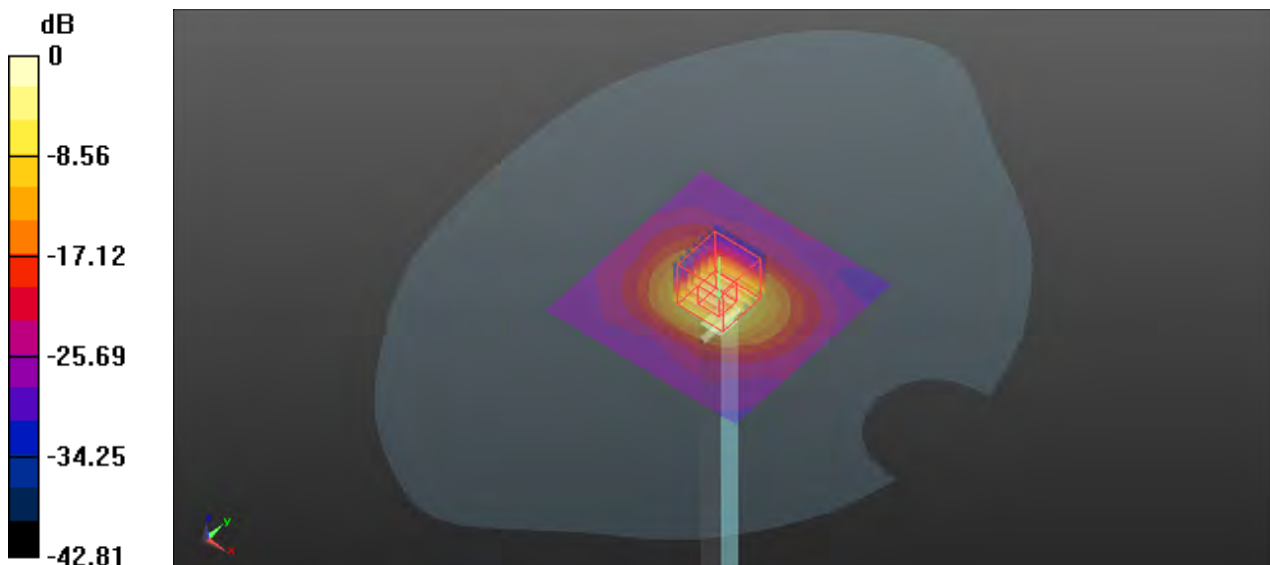
Ambient Temperature : 23.1°C; Liquid Temperature : 22.1°C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3873; ConvF(4.47, 4.47, 4.47) @ 5600 MHz; Calibrated: 2022/8/31
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1389; Calibrated: 2022/11/9
- Phantom: SAM (30deg probe tilt) with CRP v5.0; Type: QD000P40CD; Serial: TP:1781
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

**Pin=100mW/Area Scan (91x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm  
 Maximum value of SAR (interpolated) = 16.5 W/kg

**Pin=100mW/Zoom Scan (7x7x12)/Cube 0:** Measurement grid: dx=4mm, dy=4mm, dz=2mm  
 Reference Value = 62.79 V/m; Power Drift = -0.09 dB  
 Peak SAR (extrapolated) = 32.1 W/kg  
**SAR(1 g) = 7.59 W/kg; SAR(10 g) = 2.18 W/kg**  
 Maximum value of SAR (measured) = 16.3 W/kg



0 dB = 16.3 W/kg