REPORT No.: SZ25050350S01

TEST REPORT

APPLICANT	:	BLU Products, Inc.
PRODUCT NAME	:	Smart Phone
MODEL NAME	:	N4
BRAND NAME	:	BOLD
FCC ID	:	YHLBLU4NC
STANDARD(S)	:	FCC 47 CFR Part 2 (2.1093) IEEE 1528-2013
RECEIPT DATE	:	2025-07-08
TEST DATE	:	2025-07-11 to 2025-08-02
ISSUE DATE	:	2025-08-18

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DIRECTORY

Changed History		
Version	Date	Reason for Change
1.0	2025-08-18	First edition

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during test as bellows:
<Highest Reported SAR Summary>

Frequency Band		Highest SAR Summary			
		Head (Gap 0 mm)	Hotspot (Gap 10 mm)	Body-worn (Gap 10 mm)	Extremity (Gap 0 mm)
		1 g SAR (W/kg)			10 g SAR (W/kg)
GSM	GSM 850	0.245	0.125	0.138	N/A
	GSM 1900	0.988	0.554	0.271	N/A
WCDMA	WCDMA II	1.009	0.851	0.369	N/A
	WCDMA IV	0.875	1.050	0.531	N/A
	WCDMA V	0.226	0.283	0.209	N/A
LTE	LTE Band 7	0.999	1.009	0.506	N/A
	LTE Band 12/17	0.183	0.317	0.299	N/A
	LTE Band 13	0.254	0.328	0.307	N/A
	LTE Band 25/2	0.867	0.917	0.484	N/A
	LTE Band 26/5	0.208	0.317	0.194	N/A
	LTE Band 40	1.027	0.330	0.242	N/A
	LTE Band 41/38	1.002	0.710	0.341	N/A
	LTE Band 42	0.879	0.851	0.243	N/A
	LTE Band 66/4	0.992	1.033	0.385	N/A
	LTE Band 71	0.146	0.307	0.224	N/A
5G NR	n2	1.036	0.702	0.348	N/A
	n5	0.288	0.354	0.154	N/A
	n7	1.054	0.863	0.573	N/A
	n25	0.988	1.048	0.583	N/A
	n26	0.167	0.255	0.158	N/A
	n38	1.072	0.954	0.659	3.311
	n40	0.992	0.735	0.285	N/A
	n41	1.017	0.960	0.796	3.016
	n66	1.043	1.001	0.308	3.161
	n71	0.143	0.219	0.152	N/A
	n77	0.891	0.994	0.933	3.253
	n78	0.892	0.919	1.131	2.611
WLAN	2.4GHz WLAN	0.466	0.309	0.212	N/A
	5GHz WLAN	0.382	0.309	0.225	0.703

2.4GHz Band	Bluetooth	N/A	0.113	0.029	N/A

Highest Simultaneous Transmission SAR_{1g} (W/Kg):	1.590	Limit (W/kg): 1.6
Highest Simultaneous Transmission SAR_{10g} (W/Kg):	3.311	Limit (W/kg): 4.0

Note:

1. This device is in compliance with Specific Absorption Rate (SAR) for general population or uncontrolled exposure limits (1.6 W/kg as averaged over any 1 gram of tissue; specified in FCC 47 CFR part 1 (1.1310) and ANSI/IEEE C95.1-1992), and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.
2. For FDD-LTE Bands 2/4/5/17 are full covered by FDD-LTE Bands 25/66/26/12, therefore only FDD-LTE Bands 25/66/26/12 were tested.
3. The declarations of EUT presented in the report are provided by applicant and/or manufacturer, and the test laboratory is not responsible for the accuracy of the information.

2. Technical Information

Note: Provide by applicant.

2.1. Applicant and Manufacturer Information

Applicant:	BLU Products, Inc.
Applicant Address:	8600 NW 36th Street, Suite #300 | Miami, FL 33166 USA
Manufacturer:	BLU Products, Inc.
Manufacturer Address:	8600 NW 36th Street, Suite #300 | Miami, FL 33166 USA

2.2. Equipment under Test (EUT) Description

Product Name:	Smart Phone
EUT No.:	3#, 4#
Hardware Version:	KX10GF_06
Software Version:	BOLD_N0090_V15.0.03.00_GENERIC 01-08-2025 21:45
Frequency Bands:	GSM 850: 824 MHz ~ 849 MHz GSM 1900: 1850 MHz ~ 1910 MHz WCDMA II: 1850 MHz ~ 1910 MHz WCDMA IV: 1710 MHz ~ 1755 MHz WCDMA V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 40: 2300 MHz ~ 2400 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n25: 1850 MHz ~ 1915 MHz

	5G NR n26: 814 MHz ~ 849 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n40: 2300 MHz ~ 2400 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n71: 663 MHz ~ 698 MHz 5G NR n77: 3300 MHz ~ 4200 MHz 5G NR n78: 3300 MHz ~ 3800 MHz WLAN 2.4GHz: 2412 MHz ~ 2462 MHz WLAN 5.2GHz: 5180 MHz ~ 5240 MHz WLAN 5.3GHz: 5260 MHz ~ 5320 MHz WLAN 5.5GHz: 5500 MHz ~ 5700 MHz WLAN 5.8GHz: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz	
Modulation Mode:	GSM/GPRS: GMSK EDGE: 8PSK WCDMA: QPSK, 16QAM LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: DFT-s-OFDM/CP-OFDM, PI/2 BPSK, BPSK, QPSK, 16QAM, 64QAM, 256QAM 802.11b: DSSS 802.11g/n-HT20/40: OFDM 802.11a/ac-VHT20/40/80: OFDM 802.11ax-HEW20/40/80: OFDMA BR+EDR: GFSK (1Mbps), π/4-DQPSK (2Mbps), 8-DPSK (3Mbps) Bluetooth LE: GFSK (1Mbps, 1Mbps) NFC: ASK	
Multi-slot Class:	GPRS: Multi-slot Class 12 EDGE: Multi-slot Class 12	
Operation Class:	Class B	
VoLTE Mode:	Support	
VoWIFI Mode:	Support	
Hotspot Mode:	Support (WLAN 5G for B1 & B4)	
Antenna Type:	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna	
SIM Cards Description:	SIM 1	GSM+WCDMA+LTE+5G NR
	SIM 2	GSM+WCDMA+LTE+5G NR

Note: For more detailed description, please refer to specification or user manual supplied by the applicant and/or manufacturer.

2.3. Environment of Test Site/Conditions

Normal Temperature (NT):	20-25 °C
Relative Humidity:	30-75 %

During SAR test, EUT is in Traffic Mode (Channel Allocated) at Normal Voltage Condition. A communication link is set up with a System Simulator (SS) by air link, and a call is established.

The EUT shall use its internal transmitter. The antenna(s), battery and accessories shall be those specified by the Factory. The EUT battery must be fully charged and checked periodically during the test to ascertain uniform power output. If a wireless link is used, the antenna connected to the output of the base station simulator shall be placed at least 50 cm away from the handset.
The signal transmitted by the simulator to the antenna feeding point shall be lower than the output power level of the handset by at least 35 dB.

3. Specific Absorption Rate (SAR)

3.1. Introduction

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

3.2. SAR Definition

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

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

SAR is expressed in units of Watts per kilogram (W/kg).
SAR measurement can be either related to the temperature elevation in tissue by,

$$\mathbf{SAR} = \mathbf{C}\left(\frac{\boldsymbol{\delta}\mathbf{T}}{\boldsymbol{\delta}\mathbf{t}}\right)$$

Where C is the specific head capacity, δT is the temperature rise and δt the exposure duration, or related to the electrical field in the tissue by

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

Where σ is the conductivity of the tissue, ρ is the mass density of the tissue and $|E|$ is the rmselectrical field strength.

However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

4. RF Exposure Limits

4.1. Uncontrolled Environment

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

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

Type Exposure	Uncontrolled Environment Limit
Spatial Peak SAR (1g cube tissue for head and trunk)	1.6 W/kg
Spatial Peak SAR (10g cube tissue for limbs)	4.0 W/kg
Spatial Peak SAR (1g cube tissue for whole body)	0.08 W/kg

Note:

1. Occupational/Uncontrolled Environments are defined as locations where there is exposure that may be incurred by people who are aware of the potential for exposure (i.e. as a result of employment or occupation).
2. Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

4.2. Controlled Environment

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

5. Applied Reference Documents

Leading reference documents for testing:

Identity	Document Title	Remark
FCC 47 CFR Part 2 (2.1093)	Radio Frequency Radiation Exposure Evaluation: Portable Devices	/
IEEE 1528-2013	IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques	/
KDB 447498 D01v06	General RF Exposure Guidance	/
KDB 248227 D01v02r02	SAR Measurement Procedures for 802.11 Transmitters	/
KDB 865664 D01v01r04	SAR Measurement 100 MHz to 6 GHz	/
KDB 865664 D02v01r02	RF Exposure Reporting	/
KDB 648474 D04v01r03	Handset SAR	/
KDB 941225 D01v03r01	3G SAR MEAUREMENT PROCEDURES	/
KDB 941225 D05v02r05	SAR Evaluation Consideration for LTE Devices	/
KDB 941225 D06v02r01	SAR Evaluation Procedures For Portable Devices With Wireless Router Capabilities	/
Note: Any additions, deviation, or exclusions from the method shall be noted in the “Remark”.		

6. SAR Measurement System

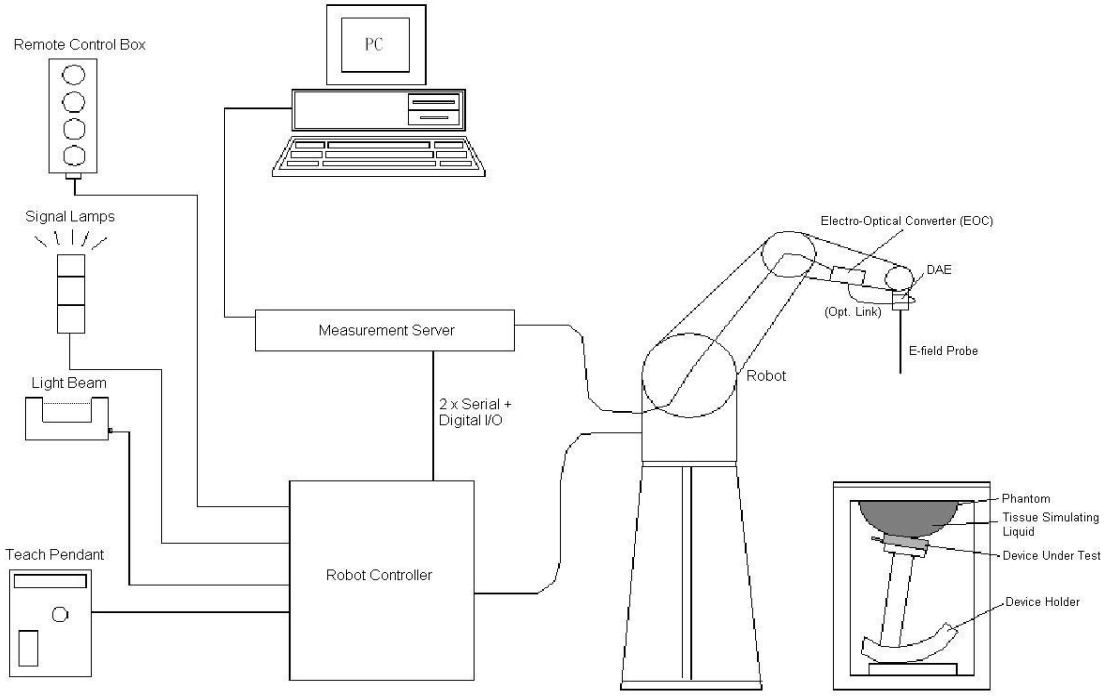


Fig 6.1 SPEAG DASY System Configurations

The DASY system for performance compliance tests is illustrated above graphically. This system consists of the following items:

- A standard high precision 6-axis robot with controller, a teach pendant and software.
- A data acquisition electronic (DAE) attached to the robot arm extension.
- A dosimetric probe equipped with an optical surface detector system.
- The electro-optical converter (ECO) performs the conversion between optical and electrical signals
- A measurement server performs the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- A probe alignment unit which improves the accuracy of the probe positioning.
- A computer operating Windows XP.
- DASY software.
- Remove control with teach pendant and additional circuitry for robot safety such as warming lamps, etc.
- The SAM twin phantom.
- A device holder.
- Tissue simulating liquid.
- Dipole for evaluating the proper functioning of the system.
- Some of the components are described in details in the following sub-sections.

6.1. E-Field Probe

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

➢ **E-Field Probe Specification**

<ES3DV3 Probe>

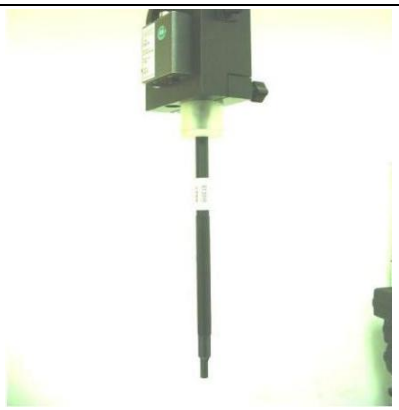
Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system. Built-in shielding against static charges. PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 3 GHz; Linearity: ± 0.2 dB	
Directivity	± 0.2 dB in HSL (rotation around probe axis) ± 0.4 dB in HSL (rotation normal to probe axis)	
Dynamic Range	5 µW/g to 100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 330 mm (Tip: 16 mm) Tip diameter: 6.8 mm (Body: 12 mm) Distance from probe tip to dipole centers: 2.7 mm	

Fig 6.2 Photo of ES3DV3

<EX3DV4 Probe>

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz to 6 GHz; Linearity: ± 0.2 dB	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 µW/g to 100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 330 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

Fig 6.3 Photo of EX3DV4

➢ **E-Field Probe Calibration**

Each probe needs to be calibrated according to a dosimetric assessment procedure with accuracy better than ± 10%. The spherical isotropy shall be evaluated and within ± 0.25 dB. The sensitivity parameters (NormX, NormY, and NormZ), the diode compression parameter (DCP) and the conversion factor (ConvF) of the probe are tested. The calibration data can be referred to annex C of this report.

6.2. Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast16 bit AD-converter and a command decoder and control logic unit. AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock. The input impedance of the DAE is 200MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Fig 6.4 Photo of DAE

6.3. Robot

The SPEAG DASY system uses the high precision robots (DASY4: RX90BL; DASY5: TX90XL) type from Stäubli SA (France). For the 6-axis controller system, the robot controller version (DASY4: CS7MB; DASY5: CS8c) from Stäubli is used. The Stäubli robot series have many features that are important for our application:
High precision (repeatability ±0.035 mm)
High reliability (industrial design)
Jerk-free straight movements
Low ELF interference (the closed metallic construction shields against motor control fields)

Fig 6.5 Photo of DASY5

6.4. Measurement Server

The measurement server is based on a PC/104 CPU board with CPU (DASY4: 166 MHz, Intel Pentium; DASY5: 400 MHz, Intel Celeron), chip disk (DASY4: 32 MB; DASY5: 128 MB), RAM (DASY4: 64 MB, DASY5: 128 MB). The necessary circuits for communication with the DAE electronic box, as well as the 16 bits AD converter system for optical detection and digital I/O interface are contained on the DASY I/O board, which is directly connected to the PC/104 bus of the CPU board. The measurement server performs all the real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operations.

Fig 6.6 Photo of Server for DASY5

6.5. Light Beam Unit

The light beam switch allows automatic "tooling" of the probe. During the process, the actual position of the probe tip with respect to the robot arm is measured, as well as the probe length and the horizontal probe offset. The software then corrects all movements, such that the robot coordinates are valid for the probe tip.

The repeatability of this process is better than 0.1 mm. If a position has been taught with an aligned probe, the same position will be reached with another aligned probe within 0.1 mm, even if the other probe has different dimensions. During probe rotations, the probe tip will keep its actual position.

Fig. 6.7 Photo of Light Beam

6.6. Phantom

<SAM Twin Phantom>

Shell Thickness	2 ± 0.2 mm (sagging: <1%) Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Head, Right Head, Flat Phantom

Fig. 6.8 Photo of SAM Phantom

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

6.7. Device Holder

<Device Holder for SAM Twin Phantom>

The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5 mm distance, a positioning uncertainty of ± 0.5 mm would produce a SAR uncertainty of ± 20 %. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.

The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR). Thus the device needs no repositioning when changing the angles.

The DASY device holder is constructed of low-loss POM material having the following dielectric parameters: relative permittivity ε = 3 and loss tangent δ = 0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

<Laptop Extension Kit>

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

Fig 6.9 Device Holder

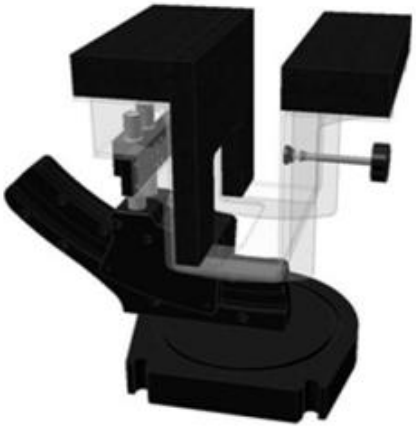


Fig 6.10 Laptop Extension Kit

6.8. Data Storage and Evaluation

➢ **Data Storage**

The DASY software stores the assessed data from the data acquisition electronics as raw data (in microvolt readings from the probe sensors), together with all the necessary software parameters for the data evaluation (probe calibration data, liquid parameters and device frequency and modulation data) in measurement files. The post-processing software evaluates the desired unit and format for output each time the data is visualized or exported. This allows verification of the complete software setup even after the measurement and allows correction of erroneous parameter settings. For example, if a measurement has been performed with an incorrect crest factor parameter in the device setup, the parameter can be corrected afterwards and the data can be reevaluated.
The measured data can be visualized or exported in different units or formats, depending on the selected probe type (e.g., [V/m], [A/m], [Mw/g]). Some of these units are not available in certain situations or give meaningless results, e.g., a SAR-output in a non-lose media, will always be zero. Raw data can also be exported to perform the evaluation with other software packages.

➢ **Data Evaluation**

The DASY post-processing software (SEMCAD) automatically executes the following procedures to calculate the field units from the microvolt readings at the probe connector. The parameters used in the evaluation are stored in the configuration modules of the software.

Probe parameters:	- Sensitivity	$Norm_i$, a_{i0}, a_{i1}, a_{i2}
	- Conversion factor	$ConvF_i$
	- Diode compression point	dcpi
Device parameters:	- Frequency	f
	- Crest factor	cf
Media parameters:	- Conductivity	σ
	- Density	ρ

These parameters must be set correctly in the software. They can be found in the component documents or they can be imported into the software from the configuration files issued for the DASY components. In the direct measuring mode of the multi-meter option, the parameters of the actual system setup are used. In the scan visualization and export modes, the parameters stored in the corresponding document files are used.

The first step of the evaluation is a linearization of the filtered input signal to account for the compression characteristics of the detector diode. The compensation depends on the input signal, the diode type and the DC-transmission factor from the diode to the evaluation electronics. If the

exciting field is pulsed, the crest factor of the signal must be known to correctly compensate for peak power.

The formula for each channel can be given as:

$$V_i = U_i + U_i^2 \times \frac{cf}{dcp_i}$$

With Vi = compensated signal of channel I, (I = x, y, z)
Ui = input signal of channel I, (I = x, y, z)
cf = crest factor of exciting field (DASY parameter)
dcpi = diode compression point (DASY parameter)

From the compensated input signals, the primary field data for each channel can be evaluated:

E-field Probes: $E_i = \sqrt{\frac{V_i}{Norm_i \times ConvF}}$

H-field Probes: $H_i = \sqrt{V_i} \times \frac{a_{i0} + a_{i1} + a_{i2} f^2}{f}$

With V_i = compensated signal of channel I, (I = x, y, z)
$Norm_i$ = sensor sensitivity of channel I, (I = x, y, z), Mv/(V/m)^2 forE-field
Probes ConvF = sensitivity enhancement in solution
a_{ij} = sensor sensitivity factors for H-field probes
f = carrier frequency [GHz]
E_i = electric field strength of channel I in V/m
H_i = magnetic field strength of channel I in A/m

The RSS value of the field components gives the total field strength (Hermitian magnitude):

$$E_{tot} = \sqrt{E_x^2 + E_y^2 + E_z^2}$$

The primary field data are used to calculate the derived field units.

$$SAR = E_{tot}^2 \times \frac{\sigma}{\rho \times 1000}$$

with SAR = local specific absorption rate in mW/g
E_{tot} = total field strength in V/m
σ = conductivity in [mho/m] or [Siemens/m]
ρ = equivalent tissue density in g/cm^3

Note that the density is set to 1, to account for actual head tissue density rather than the density of the tissue simulating liquid.

6.9. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial No./ SW Version	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1223	2022.08.22	2025.08.21
SPEAG	900MHz System Validation Kit	D900V2	1d064	2024.10.21	2027.10.20
SPEAG	1800MHz System Validation Kit	D1800V2	2d158	2024.10.21	2027.10.20
SPEAG	2300MHz System Validation Kit	D2300V2	1107	2024.10.21	2027.10.20
SPEAG	2450MHz System Validation Kit	D2450V2	805	2024.10.22	2027.10.21
SPEAG	2600MHz System Validation Kit	D2600V2	1198	2024.10.23	2027.10.22
SPEAG	3500MHz System Validation Kit	D3500V2	1104	2024.10.21	2027.10.20
SPEAG	3700MHz System Validation Kit	D3700V2	1076	2024.10.23	2027.10.22
SPEAG	3900MHz System Validation Kit	D3900V2	1046	2024.10.21	2027.10.20
SPEAG	5000MHz System Validation Kit	D5GHzV2	1176	2024.10.22	2027.10.21
SPEAG	DOSIMETRIC ASSESSMENT SYSTEM Software	DASY52	52.10.4.1527	NCR	NCR
SPEAG	Dosimetric E-Field Probe	EX3DV4	3974	2025.04.10	2026.04.09
SPEAG	Data Acquisition Electronics	DAE4	1423	2025.03.17	2026.03.16
SPEAG	SAM 1	QD000P40CD	1811	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
R&S	Network Emulator	CMW500	165755	2025.01.06	2026.01.05
Anritsu	Network Emulator	MT8820C	6201274521	2025.01.06	2026.01.05
Agilent	Network Analyzer	E5071B	MY42404762	2025.01.06	2026.01.05
SPEAG	Dielectric Assessment KIT	DAK-3.5	1279	2025.03.18	2026.03.17
mini-circuits	Amplifier	ZHL-42W+	608501717	NCR	NCR
mini-circuits	Amplifier	ZVE-8G+	754401735	NCR	NCR
Agilent	Signal Generator	N5182B	MY53050509	2024.09.11	2025.09.10
R&S	Power Senor	NRP8S	103215	2025.01.06	2026.01.05
Agilent	Power Meter	E4416A	MY45102093	2024.09.11	2025.09.10
R&S	Power Sensor	NRP8S	103240	2025.01.06	2026.01.05
Anritsu	Power Meter	E4418B	GB43318055	2025.05.15	2026.05.14
Agilent	Dual Directional Coupler	778D	50422	NA	NA
MCL	Attenuation	351-218-010	N/A	NA	NA
R&S	Spectrum Analyzer	N9030A	MY54170556	2024.09.18	2025.09.17
KTJ	Thermo meter	TA298	N/A	2024.11.20	2025.11.19

SPEAG	Tissue Simulating Liquids	HBBL600-10000V6	24H

Note:

1. The calibration certificate of DASY can be referred to annex G of this report.
2. The Insertion Loss calibration of Dual Directional Coupler and Attenuator were characterized via the network analyzer and compensated during system check.
3. The dielectric probe kit was calibrated via the network analyzer, with the specified procedure (calibrated in pure water) and calibration kit (standard) short circuit, before the dielectric measurement. The specific procedure and calibration kit are provided by SPEAG.
4. In system check we need to monitor the level on the power meter, and adjust the power amplifier level to have precise power level to the dipole; the measured SAR will be normalized to 1 W input power according to the ratio of 1 W to the input power to the dipole. For system check, the calibration of the power amplifier is deemed not critically required for correct measurement; the power meter is critical and we do have calibration for it.
5. Attenuator insertion loss is calibrated by the network Analyzer, which the calibration is valid, before system check.
6. N.C.R means No Calibration Requirement.

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, which is shown in Fig. 7.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 7.2. The nominal dielectric values of the tissue simulating liquids in the phantom and the tolerance of 5% are listed in below table.

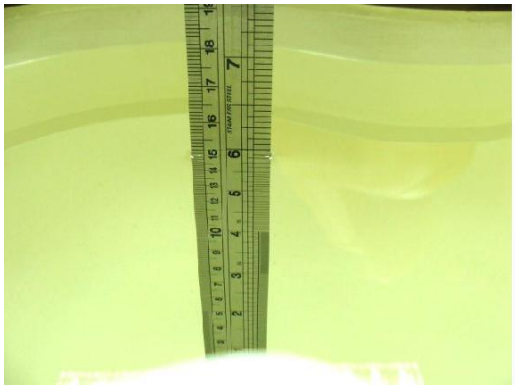


Fig 7.1 Photo of Liquid Height for Head SAR

Fig 7.2 Photo of Liquid Height for Body SAR

The following table gives the recipes for tissue simulating liquids

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (εr)
Head								
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
1800,1900,2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
2600	54.8	0	0	0.1	0	45.1	1.96	39.0
Body								
750	51.7	47.2	0	0.9	0.1	0	0.96	55.5
835	50.8	48.2	0	0.9	0.1	0	0.97	55.2
1800,1900,2000	70.2	0	0	0.4	0	29.4	1.52	53.3
2450	68.6	0	0	0	0	31.4	1.95	52.7
2600	68.1	0	0	0.1	0	31.8	2.16	52.5

Simulating Liquid for 5GHz, Manufactured by SPEAG.

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

Note: Please refer to the validation results for dielectric parameters of each frequency band.
The dielectric properties of the tissue simulating liquids were verified prior to the SAR evaluation using a SPEAG Dielectric Assessment KIT and an Agilent Network Analyzer.

Table 1: Dielectric Performance of Tissue Simulating Liquid

Frequency (MHz)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Conductivity Target (σ)	Delta (σ) (%)	Limit (%)	Date
750	HSL	22.1	0.896	0.89	0.67	±5	2025.07.11
750	HSL	22.2	0.901	0.89	1.24	±5	2025.07.22
900	HSL	22.3	0.964	0.97	-0.62	±5	2025.07.12
900	HSL	22.3	0.971	0.97	0.10	±5	2025.07.23
1800	HSL	22.2	1.419	1.40	1.36	±5	2025.07.13
1800	HSL	22.1	1.407	1.40	0.50	±5	2025.07.24
1800	HSL	22.2	1.409	1.40	0.64	±5	2025.07.25
2000	HSL	22.4	1.426	1.40	1.86	±5	2025.07.14
2300	HSL	22.3	1.692	1.67	1.32	±5	2025.07.15
2300	HSL	22.3	1.688	1.67	1.08	±5	2025.07.26
2450	HSL	22.3	1.824	1.80	1.33	±5	2025.07.29
2600	HSL	22.1	1.984	1.96	1.22	±5	2025.07.16
2600	HSL	22.1	1.979	1.96	0.97	±5	2025.07.17
2600	HSL	22.1	1.987	1.96	1.38	±5	2025.07.27
2600	HSL	22.1	1.991	1.96	1.58	±5	2025.07.28
3500	HSL	22.2	2.863	2.91	-1.62	±5	2025.07.18
3500	HSL	22.3	2.869	2.91	-1.41	±5	2025.07.19
3700	HSL	22.3	2.985	3.05	-2.13	±5	2025.07.20
3900	HSL	22.1	3.124	3.15	-0.83	±5	2025.07.21
5250	HSL	22.2	4.625	4.71	-1.80	±5	2025.07.30
5250	HSL	22.2	4.628	4.71	-1.74	±5	2025.07.31
5600	HSL	22.1	4.973	5.07	-1.91	±5	2025.08.01
5750	HSL	22.3	5.116	5.22	-1.99	±5	2025.08.02
Frequency (MHz)	**Tissue Type**	**Liquid Temp. (℃)**	**Permittivity (εr)**	**Permittivity Target (εr)**	**Delta (εr) (%)**	**Limit (%)**	**Date**
750	HSL	22.1	41.735	41.90	-0.39	±5	2025.07.11
750	HSL	22.2	41.479	41.90	-1.00	±5	2025.07.22
900	HSL	22.3	41.231	41.50	-0.65	±5	2025.07.12
900	HSL	22.3	41.008	41.50	-1.19	±5	2025.07.23
1800	HSL	22.2	39.854	40.00	-0.37	±5	2025.07.13

1800	HSL	22.1	40.137	40.00	0.34	±5	2025.07.24
1800	HSL	22.2	40.094	40.00	0.24	±5	2025.07.25
2000	HSL	22.4	39.307	40.00	-1.73	±5	2025.07.14
2300	HSL	22.3	38.863	39.50	-1.61	±5	2025.07.15
2300	HSL	22.3	39.015	39.50	-1.23	±5	2025.07.26
2450	HSL	22.3	38.667	39.20	-1.36	±5	2025.07.29
2600	HSL	22.1	38.298	39.00	-1.80	±5	2025.07.16
2600	HSL	22.1	38.527	39.00	-1.21	±5	2025.07.17
2600	HSL	22.1	38.116	39.00	-2.27	±5	2025.07.27
2600	HSL	22.1	38.022	39.00	-2.51	±5	2025.07.28
3500	HSL	22.2	37.644	37.90	-0.68	±5	2025.07.18
3500	HSL	22.3	37.616	37.90	-0.75	±5	2025.07.19
3700	HSL	22.3	37.257	37.70	-1.18	±5	2025.07.20
3900	HSL	22.1	36.887	37.50	-1.63	±5	2025.07.21
5250	HSL	22.2	35.258	35.95	-1.92	±5	2025.07.30
5250	HSL	22.2	35.198	35.95	-2.09	±5	2025.07.31
5600	HSL	22.1	34.643	35.50	-2.41	±5	2025.08.01
5750	HSL	22.3	34.491	35.35	-2.43	±5	2025.08.02

8. SAR System Verification

Each DASY system is equipped with one or more system validation kits. These units, together with the predefined measurement procedures within the DASY software, enable the user to conduct the system performance check and system validation. System validation kit includes a dipole, tripod holder to fix it underneath the flat phantom and a corresponding distance holder.

8.1. Purpose of System Performance Check

The system performance check verifies that the system operates within its specifications. System and operator errors can be detected and corrected. It is recommended that the system performance check be performed prior to any usage of the system in order to guarantee reproducible results. The system performance check uses normal SAR measurements in a simplified setup with a well characterized source. This setup was selected to give a high sensitivity to all parameters that might fail or vary over time. The system check does not intend to replace the calibration of the components, but indicates situations where the system uncertainty is exceeded due to drift or failure.

8.2. System Setup

The output power on dipole port must be calibrated to 250 mW or 100 mW before dipole is connected. In the simplified setup for system evaluation, the DUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave which comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. 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 8.1 Photo of Dipole Setup

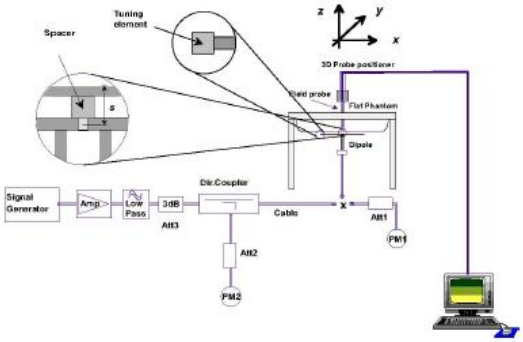


Fig 8.2 System Setup for System Evaluation

8.3. Validation Results

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%.

<Validation Setup>

Frequency (MHz)	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N
750	250	D750V3-1223	3974	1423
900	250	D900V2-1d064	3974	1423
1800	250	D1800V2-2d158	3974	1423
2000	250	D2000V2-1050	3974	1423
2300	100	D2300V2-1107	3974	1423
2450	100	D2450V2-805	3974	1423
2600	100	D2600V2-1198	3974	1423
3500	100	D3500V2-1104	3974	1423
3700	100	D3700V2-1076	3974	1423
3900	100	D3900V2-1046	3974	1423
5250	100	D5GHzV2-1176-5250	3974	1423
5600	100	D5GHzV2-1176-5600	3974	1423
5750	100	D5GHzV2-1176-5750	3974	1423

<System Validation>

Frequency (MHz)	Tissue Type	Conductivity (σ)	Permittivity (εr)	CW Signal Validation		
				Sensitivity	Probe Linearity	Probe Isotropy
750	HSL	0.851	42.43	PASS	PASS	PASS
835	HSL	0.898	41.88	PASS	PASS	PASS
1750	HSL	1.386	39.91	PASS	PASS	PASS
1800	HSL	1.449	41.26	PASS	PASS	PASS
1900	HSL	1.435	39.65	PASS	PASS	PASS
2000	HSL	1.451	39.42	PASS	PASS	PASS
2300	HSL	1.764	38.99	PASS	PASS	PASS
2450	HSL	1.863	38.85	PASS	PASS	PASS
2600	HSL	1.973	38.58	PASS	PASS	PASS
3400	HSL	2.88	38.10	PASS	PASS	PASS
3500	HSL	2.91	37.90	PASS	PASS	PASS
3700	HSL	3.05	37.70	PASS	PASS	PASS

3900	HSL	3.15	37.50	PASS	PASS	PASS
4100	HSL	3.25	37.20	PASS	PASS	PASS
4200	HSL	3.34	37.00	PASS	PASS	PASS
4400	HSL	3.58	36.70	PASS	PASS	PASS
4600	HSL	3.70	36.60	PASS	PASS	PASS
4800	HSL	3.82	36.40	PASS	PASS	PASS
4900	HSL	3.96	36.20	PASS	PASS	PASS
5250	HSL	4.528	35.32	PASS	PASS	PASS
5600	HSL	4.905	34.89	PASS	PASS	PASS
5750	HSL	5.077	34.28	PASS	PASS	PASS

Frequency (MHz)	Tissue Type	Conductivity (σ)	Permittivity (εr)	Modulation Signal Validation		
				Mod. Type	Duty Factor	PAR
750	HSL	0.851	42.43	N/A	N/A	N/A
835	HSL	0.898	41.88	GMSK	PASS	N/A
1750	HSL	1.386	39.91	N/A	N/A	N/A
1800	HSL	1.449	41.26	N/A	N/A	N/A
1900	HSL	1.435	39.65	GMSK	PASS	N/A
2000	HSL	1.451	39.42	GMSK	PASS	N/A
2300	HSL	1.764	38.99	OFDM	PASS	PASS
2450	HSL	1.863	38.85	OFDM	PASS	PASS
2600	HSL	1.973	38.58	TDD	PASS	N/A
3400	HSL	2.88	38.10	OFDM	PASS	PASS
3500	HSL	2.91	37.90	OFDM	PASS	PASS
3700	HSL	3.05	37.70	OFDM	PASS	PASS
3900	HSL	3.15	37.50	OFDM	PASS	PASS
4100	HSL	3.25	37.20	OFDM	PASS	PASS
4200	HSL	3.34	37.00	OFDM	PASS	PASS
4400	HSL	3.58	36.70	OFDM	PASS	PASS
4600	HSL	3.70	36.60	OFDM	PASS	PASS
4800	HSL	3.82	36.40	OFDM	PASS	PASS
4900	HSL	3.96	36.20	OFDM	PASS	PASS
5250	HSL	4.528	35.32	OFDM	N/A	PASS
5600	HSL	4.905	34.89	OFDM	N/A	PASS
5750	HSL	5.077	34.28	OFDM	N/A	PASS

<Validation Results>

Date	Frequency (MHz)	Tissue Type	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2025.07.11	750	HSL	2.18	8.54	8.72	2.11
2025.07.22	750	HSL	2.21	8.54	8.84	3.51
2025.07.12	900	HSL	2.75	10.90	11	0.92
2025.07.23	900	HSL	2.71	10.90	10.84	-0.55
2025.07.13	1800	HSL	9.73	39.20	38.92	-0.71
2025.07.24	1800	HSL	9.64	39.20	38.56	-1.63
2025.07.25	1800	HSL	9.74	39.20	38.96	-0.61
2025.07.14	2000	HSL	10.4	41.40	41.6	0.48
2025.07.15	2300	HSL	5.19	48.80	51.9	6.35
2025.07.26	2300	HSL	5.15	48.80	51.5	5.53
2025.07.29	2450	HSL	5.63	52.80	56.3	6.63
2025.07.16	2600	HSL	5.88	55.90	58.8	5.19
2025.07.17	2600	HSL	5.85	55.90	58.5	4.65
2025.07.27	2600	HSL	5.91	55.90	59.1	5.72
2025.07.28	2600	HSL	5.94	55.90	59.4	6.26
2025.07.18	3500	HSL	7.09	66.70	70.9	6.30
2025.07.19	3500	HSL	7.05	66.70	70.5	5.70
2025.07.20	3700	HSL	7.11	67.50	71.1	5.33
2025.07.21	3900	HSL	7.24	68.00	72.4	6.47
2025.07.30	5250	HSL	8.02	77.30	80.2	3.75
2025.07.31	5250	HSL	7.89	77.30	78.9	2.07
2025.08.01	5600	HSL	8.61	82.40	86.1	4.49
2025.08.02	5750	HSL	8.18	77.20	81.8	5.96

Date	Frequency (MHz)	Tissue Type	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2025.07.11	750	HSL	1.44	5.57	5.76	3.41
2025.07.22	750	HSL	1.46	5.57	5.84	4.85
2025.07.12	900	HSL	1.77	7.00	7.08	1.14
2025.07.23	900	HSL	1.74	7.00	6.96	-0.57
2025.07.13	1800	HSL	5.12	20.70	20.48	-1.06
2025.07.24	1800	HSL	5.07	20.70	20.28	-2.03
2025.07.25	1800	HSL	5.11	20.70	20.44	-1.26
2025.07.14	2000	HSL	5.29	21.00	21.16	0.76

2025.07.15	2300	HSL	2.48	23.20	24.8	6.90
2025.07.26	2300	HSL	2.46	23.20	24.6	6.03
2025.07.29	2450	HSL	2.61	24.50	26.1	6.53
2025.07.16	2600	HSL	2.63	24.90	26.3	5.62
2025.07.17	2600	HSL	2.61	24.90	26.1	4.82
2025.07.27	2600	HSL	2.66	24.90	26.6	6.83
2025.07.28	2600	HSL	2.67	24.90	26.7	7.23
2025.07.18	3500	HSL	2.72	25.30	27.2	7.51
2025.07.19	3500	HSL	2.68	25.30	26.8	5.93
2025.07.20	3700	HSL	2.65	24.70	26.5	7.29
2025.07.21	3900	HSL	2.52	23.60	25.2	6.78
2025.07.30	5250	HSL	2.25	21.50	22.5	4.65
2025.07.31	5250	HSL	2.21	21.50	22.1	2.79
2025.08.01	5600	HSL	2.39	22.80	23.9	4.82
2025.08.02	5750	HSL	2.25	21.20	22.5	6.13

Note: System checks the specific test data please see annex C.

9. EUT Testing Position

This EUT was tested in ten different positions. They are right cheek/right tilted/left cheek/left tilted for head, Front/Back/Left/Right/Top/Bottom of the EUT with phantom 10 mm gap, as illustrated below, please refer to annex B for the test setup photos.

9.1. Handset Reference Points

The vertical centre line passes through two points on the front side of the handset – the midpoint of the width wt of the handset at the level of the acoustic output, and the midpoint of the width wb of the bottom of the handset.
The horizontal line is perpendicular to the vertical centre line and passes the center of the acoustic output. The horizontal line is also tangential to the handset at point A.
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 centre line 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. 9.1 Illustration for Cheek Position

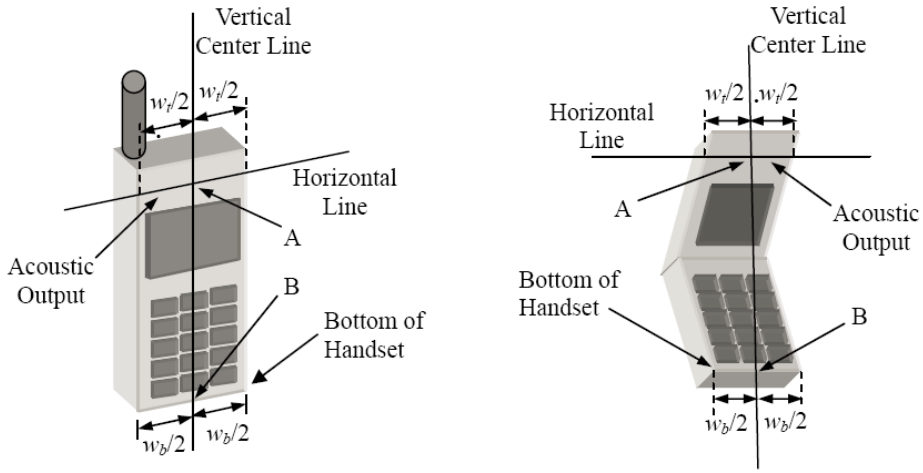


Fig. 9.2 Illustration for Handset Vertical and Horizontal Reference Lines

9.2. Positioning for Cheek / Touch

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.

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 below figure)

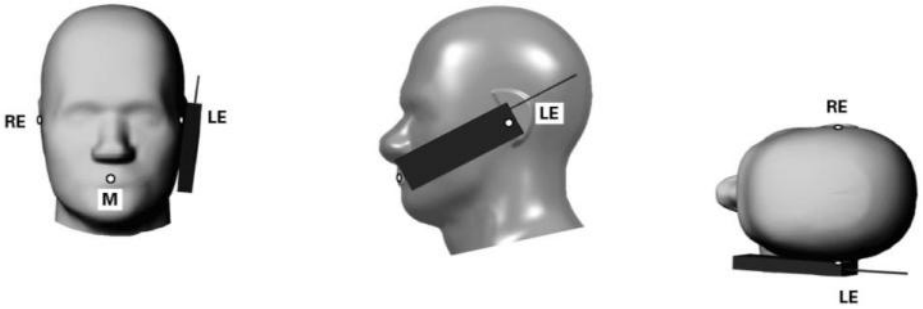


Fig 9.3 Illustration for Cheek Position

9.3. Positioning for Ear / 15º Tilt

To position the device in the “cheek” position described above.
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 figure below).

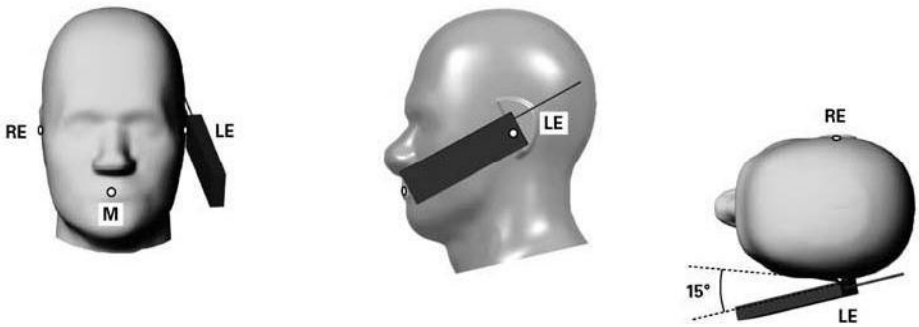


Fig 9.4 Illustration for Tilted Position

9.4. SAR Evaluation near the Mouth/Jaw Regions of the Phantom

Antennas located near the bottom of a phone may require SAR measurements around the mouth and jaw regions of the SAM head phantom. This typically applies to clam-shell style phones that are generally longer in the unfolded normal use positions or to certain older style long rectangular phones.

Under these circumstances, the following procedures apply, adopted from the FCC guidance on SAR handsets document FCC KDB Publication 648474 D04v01r03. The SAR required in these regions of SAM should be measured using a flat phantom. The phone should be positioned with a separation distance of 4 mm between the ear reference point (ERP) and the outer surface of the flat phantom shell. While maintaining this distance at the ERP location, the low (bottom) edge of the phone should be lowered from the phantom to establish the same separation distance between the peak SAR locations identified by the truncated partial SAR distribution measured with the SAM phantom. The distance from the peak SAR location to the phone is determined by the straight line passing perpendicularly through the phantom surface. When it is not feasible to maintain 4 mm separation at the ERP while also establishing the required separation at the peak SAR location, the top edge of the phone will be allowed to touch the phantom with a separation < 4 mm at the ERP. The phone should not be tilted to the left or right while placed in this inclined position to the flat phantom.

9.5. Body-worn Configurations

The body-worn configurations shall be tested with the supplied accessories (belt-clips, holsters, etc.) attached to the device in normal use configuration.

For body-worn and other configurations a flat phantom shall be used which is comprised of material with electrical properties similar to the corresponding tissues.

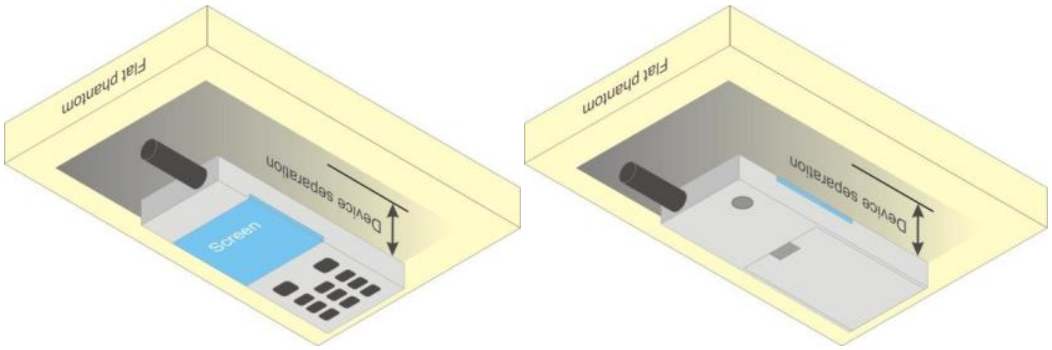


Fig 9.5 Illustration for Body Worn Position

9.6. Hotspot Mode Exposure Position 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. 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).

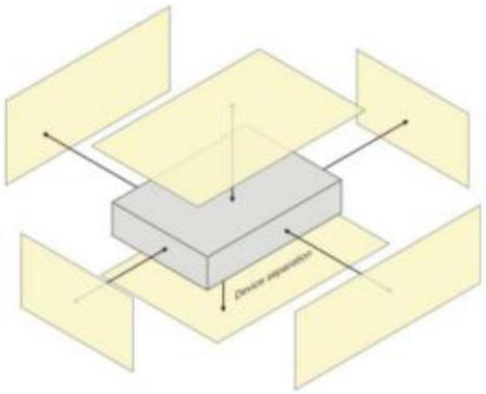


Fig 9.6 Illustration for Hotspot Position

10. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

(a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.

(b) Read the WWAN RF power level from the base station simulator.

(c) For WLAN/BT power measurement, use engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band.

(d) Connect EUT RF port through RF cable to the power meter, and measure WLAN/BT output power.

<SAR measurement>

(a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.

(b) Place the EUT in the positions as annex B demonstrates.

(c) Set scan area, grid size and other setting on the DASY software.

(d) Measure SAR results for the highest power channel on each testing position.

(e) Find out the largest SAR result on these testing positions of each band.

(f) Measure SAR results for other channels in worst SAR testing position if the reported SAR of highest power channel is larger than 0.8 W/kg.

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

(a) Power reference measurement.

(b) Area scan.

(c) Zoom scan.

(d) Power drift measurement.

10.1. Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1 g and 10 g, 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 1 g and 10 g 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 1 g and 10 g 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 1 g and 10 g.

10.2. Power Reference Measurement

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

10.3. Area Scan Procedures

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for FCC applications utilize a 10 mm^2 step integral, with 1 mm interpolation used to locate the peak SAR area used for zoom scan assessments.

When an Area Scan has measured all reachable points, it computes the field maxima founding the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE 1528-2003.

10.4. Zoom Scan Procedures

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. A density of 1000 kg/m^3 is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1 g cube is 10 mm, with the side

length of the 10 g cube 21.5 mm. The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications utilize a physical step of 5 x 5 x 7 (8 mm x 8 mm x 5 mm) providing a volume of 32 mm in the X & Y axis, and 30 mm in the Z axis.

10.5. SAR Averaged Methods

In DASY, the interpolation and extrapolation are both based on the modified Quadratic Sheppard'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.

10.6. Power Drift Monitoring

All SAR testing is under the DUT 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 DUT 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.

11. SAR Test Procedure

11.1. General Scan Requirements

Probe boundary effect error compensation is required for measurements with the probe tip closer than half a probe tip diameter to the phantom surface. Both the probe tip diameter and sensor offset distance must satisfy measurement protocols; to ensure probe boundary effect errors are minimized and the higher fields closest to the phantom surface can be correctly measured and extrapolated to the phantom surface for computing 1-g SAR. Tolerances of the post-processing algorithms must be verified by the test laboratory for the scan resolutions used in the SAR measurements, according to the reference distribution functions specified in IEEE Std. 1528-2013.

<table>
<tr><td colspan="3"></td><td>≤ 3 GHz</td><td>> 3 GHz</td></tr>
<tr><td colspan="3">Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5 mm ± 1 mm</td><td>½·δ·ln(2) mm ± 0.5 mm</td></tr>
<tr><td colspan="3">Maximum probe angle from probe axis to phantom surface normal at the measurement location</td><td>30° ± 1°</td><td>20° ± 1°</td></tr>
<tr><td colspan="3" rowspan="2">Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}</td><td>≤ 2 GHz: ≤ 15 mm
2 – 3 GHz: ≤ 12 mm</td><td>3 – 4 GHz: ≤ 12 mm
4 – 6 GHz: ≤ 10 mm</td></tr>
<tr><td colspan="2">When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.</td></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}</td><td>≤ 2 GHz: ≤ 8 mm
2 – 3 GHz: ≤ 5 mm*</td><td>3 – 4 GHz: ≤ 5 mm*
4 – 6 GHz: ≤ 4 mm*</td></tr>
<tr><td rowspan="3">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2">uniform grid: $\Delta z_{Zoom}(n)$</td><td>≤ 5 mm</td><td>3 – 4 GHz: ≤ 4 mm
4 – 5 GHz: ≤ 3 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td rowspan="2">graded grid</td><td>$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface</td><td>≤ 4 mm</td><td>3 – 4 GHz: ≤ 3 mm
4 – 5 GHz: ≤ 2.5 mm
5 – 6 GHz: ≤ 2 mm</td></tr>
<tr><td>$\Delta z_{Zoom}(n>1)$: between subsequent points</td><td colspan="2">≤ 1.5·$\Delta z_{Zoom}(n-1)$ mm</td></tr>
<tr><td>Minimum zoom scan volume</td><td colspan="2">x, y, z</td><td>≥ 30 mm</td><td>3 – 4 GHz: ≥ 28 mm
4 – 5 GHz: ≥ 25 mm
5 – 6 GHz: ≥ 22 mm</td></tr>
<tr><td colspan="5">Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details.
* When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB Publication 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.</td></tr>
</table>

11.2. Test Procedure

The Following steps are used for each test position

1. Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface.
2. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
3. Measurement of the SAR distribution with a grid of 8 to 16 mm * 8 to 16 mm and a constant distance to the inner surface of the phantom. Since the sensors cannot directly measure at the inner phantom surface, the values between the sensors and the inner phantom surface are extrapolated. With these values the area of the maximum SAR is calculated by an interpolation scheme.
4. Around this point, a cube of 30 * 30 * 30 mm or 32 * 32 * 32 mm is assessed by measuring 5 or 8 * 5 or 8*4 or 5 mm. With these data, the peak spatial-average SAR value can be calculated.

11.3. Description of Interpolation/Extrapolation Scheme

The local SAR inside the phantom is measured using small dipole sensing elements inside a probe body. The probe tip must not be in contact with the phantom surface in order to minimize measurements errors, but the highest local SAR will occur at the surface of the phantom.

An extrapolation is using to determinate this highest local SAR values. The extrapolation is based on a fourth-order least-square polynomial fit of measured data. The local SAR value is then extrapolated from the liquid surface with a 1 mm step.

The measurements have to be performed over a limited time (due to the duration of the battery) so the step of measurement is high. It could vary between 5 and 8 mm. To obtain an accurate assessment of the maximum SAR averaged over 10 grams and 1 gram requires a very fine resolution in the three dimensionals scanned data array.

11.4. Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10 from the front, back and edges of the device containing transmitting antennas within 2.5 cm of their edges,

determined form general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

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

12. SAR Test Configuration

<GSM Mode>

A summary of these settings is illustrated below:
For GSM850 frequency band, the power control is set to 5 for GSM/GPRS mode (GSMK-CS1) and set to 8 for EDGE mode (MCS5); For GSM1900 frequency band, the power control is set to 0 for GSM/GPRS mode (GSMK-CS1) and set to 2 for EDGE mode (MCS5).

1. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (4Tx slots) for GSM850/GSM1900 is considered as the primary mode.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes.

Timeslot consignations:

Remark:

1. The frame-averaged power is linearly reported the maximum burst averaged power over 8 time slots. The calculated methods are shown as below:
   The duty cycle “x” of different time slots as below:
   1 TX slot is 1/8, 2 TX slots is 2/8, 3 TX slots is 3/8 and 4 TX slots is 4/8
   Based on the calculation formula:
   Frame-averaged power = Burst averaged power + 10 1og (x)
   So,
   Frame-averaged power (1 TX slot) = Burst averaged power (1 TX slot)– 9.03
   Frame-averaged power (2 TX slots) = Burst averaged power (2 TX slots)– 6.02
   Frame-averaged power (3 TX slots) = Burst averaged power (3 TX slots)– 4.26
   Frame-averaged power (4 TX slots) = Burst averaged power (4 TX slots) – 3.01
2. CS1 coding scheme was used in GPRS conducted power measurements and SAR testing, MCS5 coding scheme was used in EGPRS conducted power measurements and SAR testing (if necessary).

No. of Slots:	Slot 1	Slot 2	Slot 3	Slot 4
Slot Consignation:	1Up 4Down	2Up 3Down	3Up 2Down	4Up 1Down
Duty Cycle:	1:8.3	1:4.15	1:2.77	1:2.08
Correct Factor:	-9.03dB	-6.02dB	-4.26dB	-3.01dB

<WCDMA Mode>

Summary of UMTS conducted power measurement:

1. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode.
2. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
3. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
4. For HSPA+ devices supporting 16 QAM in the uplink, power measurements procedure is according to the configurations in Table C.11.1.4 of 3GPP TS 34.121-1.
5. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA / HSPA+ is ≤ ¼ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA / HSPA+ to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA / HSPA+) are less than ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+.
6. A fixed level power reduction is applied for WCDMA Band II when handset open Hotspot mode, the power reduction triggered.

HSDPA Setup Configuration

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (1)	CM (dB) (2)
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15 (3)	15/15 (3)	64	12/15 (3)	24/15	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5

Note 1: Δ_{ACK}, Δ_{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 β_c/β_d =12/15, β_{hs}/β_c=24/15.
Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to β_c = 11/15 and β_d = 15/15.

HSUPA Setup Configuration

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs}(1)	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM(2) (dB)	MPR (dB)	AG(4) Index	E-TFCI
1	11/15(3)	15/15(3)	64	11/15(3)	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	β_{ed1}: 47/15 β_{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(4)	15/15(4)	64	15/15(4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: Δ_{ACK}, Δ_{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 β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.
Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to β_c = 10/15 and β_d = 15/15.
Note 4: For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to β_c = 14/15 and β_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: β_{ed} cannot be set directly; it is set by Absolute Grant Value.

HSPA+ 3GPP release 7 (uplink category 7) 16QAM, Setup Configuration:

Table C.11.1.4: β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed}1: 30/15 β_{ed}2: 30/15	β_{ed}3: 24/15 β_{ed}4: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with $\beta_{hs} = 30/15 * \beta_c$.
Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
Note 3: DPDCH is not configured, therefore the β_c is set to 1 and β_d = 0 by default.
Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.
Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signaled to use the extrapolation algorithm.

DC-HSDPA Setup Configuration

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS34.108 v9.5.0. A summary of these settings are illustrated below:
Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.

Table E.5.0: Levels for HSDPA connection setup

Parameter During Connection setup	Unit	Value
P-CPICH_Ec/Ior	dB	-10
P-CCPCH and SCH_Ec/Ior	dB	-12
PICH _Ec/Ior	dB	-15
HS-PDSCH	dB	off
HS-SCCH_1	dB	off
DPCH_Ec/Ior	dB	-5
OCNS_Ec/Ior	dB	-3.1

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13

The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table. Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

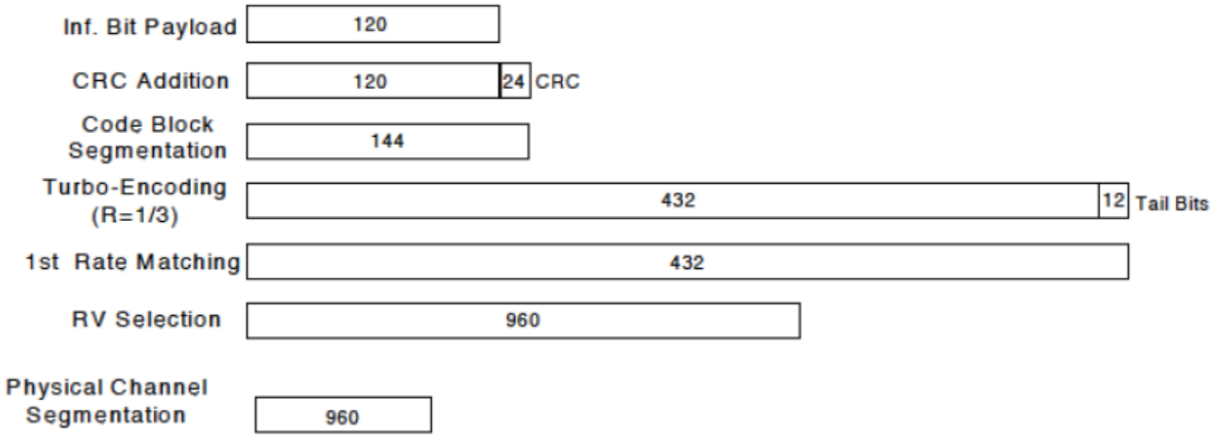


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

<CDMA Mode>

1xEV-DO Rev. B

Call box setup procedure
1xEV-DO Release B
1> CMW 500 Signal Generator > 1xEV-DO Taskbar Enable
2> CMW 500 1xEV-DO Signaling Configuration Window >
3> 1xEV-DO Signaling On Window:
Under Access Network Control:
Band Class: BC0: US Cellular
RF Channel: 31
1xEV-DO Power: -70 dBm
4> 1xEV-DO Signaling Configuration Window
Under RF Frequency Band / Channel: Enter Ch. Frequency

- Under Carrier Configuration: RF Frequency

For Two Carriers: Low Channel (1013)

	RF Channel	RF Channel Offset
Carrier [0]	31	0
Carrier [1]	1013	982

- Under Carrier Configuration: RF Pilot

	Carrier Sector	Active on AN	Assigned to AT
Pilot [0]	C0/S0	✓	✓
	CA/S1	✓	✓

For Three Carriers: Low Channel (1013)

	RF Channel	RF Channel Offset
Carrier [0]	72	0
Carrier [1]	31	-41
Carrier [2]	1013	941

- Under Carrier Configuration: RF Pilot

	Carrier Sector	Active on AN	Assigned to AT
Pilot [0]	C0/S0	✓	✓
Pilot [1]	C1/S1	✓	✓
Pilot [2]	C2/S2	✓	✓

<LTE Mode>

LTE Target MPR level

The device implements maximum power reduction per 3GPP 36.101 requirements where the MPR target is as below table. The MPR settings are implemented configured into firmware and cannot be disabled by the end user or LTE carrier network.

Modulation	Channel bandwidth / Transmission bandwidth configuration [RB]						MPR	3GPP
	1.4	3.0	5	10	15	20	Target	MPR
	MHz	MHz	MHz	MHz	MHz	MHz	(dB)	(dB)
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	1	≤ 1
16QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	1	≤ 1
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	2	≤ 2
256 QAM	≥ 1						1	≤5

Note: The measurement result showed some difference from the target MPR level, due to expected 0.5 dB measurement tolerance

LTE Bands

LTE Bands	Channel bandwidth / Transmission bandwidth configuration [RB]					
	1.4	3.0	5	10	15	20
	MHz	MHz	MHz	MHz	MHz	MHz
2	√	√	√	√	√	√
4	√	√	√	√	√	√
5	√	√	√	√	N/A	N/A
7	N/A	N/A	√	√	√	√
12	√	√	√	√	N/A	N/A
13	N/A	N/A	√	√	N/A	N/A
17	N/A	N/A	√	√	N/A	N/A
25	√	√	√	√	√	√
26	√	√	√	√	√	N/A
38	N/A	N/A	√	√	√	√
40	N/A	N/A	√	√	N/A	N/A
41	N/A	N/A	√	√	√	√
42	N/A	N/A	√	√	√	√
66	√	√	√	√	√	√
71	N/A	N/A	√	√	√	√

Note:

1. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.

2. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
3. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
4. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
5. Per KDB 941225 D05v02r05, 16QAM/64QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
6. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ Db higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported band width is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
7. For LTE B4 / B5 / B7 / B17 the maximum bandwidth does not support three non-overlapping channels, per KDB941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
8. LTE band 2 / 4 / 5 / 12 SAR test was covered by Band 25 / 66 / 26 / 17; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. The maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion.
   b. The channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band.
9. According to 2017 TCB workshop, for 64 QAM and 16 QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >>constellation" mode of the device connect to the CMW500 base station, therefore, the device 64QAM and 16QAMsignal modulation are correct. Identify if Maximum Power Reduction (MPR) is optional or mandatory, i.e. built-in by design: only mandatory MPR may be considered during SAR testing, when the maximum output power is permanently limited by the MPR implemented within the UE; and only for the applicable RB (resource block) configurations specified in LTE standards: b) A-MPR (additional MPR) must be disabled.

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

<WLAN 2.4GHz>

1. SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:
    a. When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
    b. When the reported SAR is > 0.8 W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.
2. 2.4 GHz 802.11 g/n OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is > 1.2

W/kg. When SAR is required for OFDM modes in 2.4 GHz band, the Initial Test configuration Procedures should be followed.

3. For held-to-ear and hotspot operations, 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 reported SAR for the initial test position is ≤ 0.4 W/kg, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured.
4. Justification for test configurations for WLAN per KDB Publication 248227 D02DR02-41929 for 2.4 GHz WI-FI single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz802.11g/n) was not required due to the maximum allowed powers and the highest reported DSSSSAR.
5. A fixed level power reduction is applied for WiFi when handset operates "held to the body" condition or "held to the ear" condition, the power reduction triggered by audio receiver detection and call establish status.
6. Per KDB 248227 D01v02r02, In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements.SAR is not required for the following 2.4 GHz OFDM conditions:
   a. When KDB Publication 447498 SAR test exclusion applies to the OFDM configuration.
   b. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

<WLAN 5GHz>

A) U-NII-1 and U-NII-2A Bands

For devices that operate in only one of the U-NII-1 and U-NII-2A bands, the normally required SAR procedures for OFDM configurations are applied. 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 ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, both bands are tested independently for SAR.
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 ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, both bands are tested independently for SAR.

3. The two U-NII bands may be aggregated to support a 160 MHz channel on channel number 50.
4. Without additional testing, the maximum output power for this is limited to the lower of the maximum output power certified for the two bands. When SAR measurement is required for at least one of the bands and the highest reported SAR adjusted by the ratio of specified maximum output power of aggregated to standalone band is > 1.2 W/kg, SAR is required for the 160 MHz channel. This procedure does not apply to an aggregated band with maximum output higher than the standalone band(s); the aggregated band must be tested independently for SAR. SAR is not required when the 160 MHz channel is operating at a reduced maximum power and also qualifies for SAR test exclusion.

B) U-NII-2C and U-NII-3 Bands

The frequency range covered by these bands is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. when Terminal Doppler Weather Radar (TDWR) restriction applies, all channels that operate at 5.60 – 5.65 GHz must be included to apply the SAR test reduction and measurement procedures.
When the same transmitter and antenna(s) are used for U-NII-2C band and U-NII-3 band or 5.8 GHz band of §15.247, the bands may be aggregated to enable additional channels with 20, 40 or 80 MHz bandwidth to span across the band gap, as illustrated in Appendix B. The maximum output power for the additional band gap channels is limited to the lower of those certified for the bands. Unless band gap channels are permanently disabled, they must be considered for SAR testing. The frequency range covered by these bands is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. To maintain SAR measurement accuracy and to facilitate test reduction, the channels in U-NII-2C band above 5.65 GHz may be grouped with the 5.8 GHz channels in U-NII-3 or §15.247 band to enable two SAR probe calibration frequency points to cover the bands, including the band gap channels. When band gap channels are supported and the bands are not aggregated for SAR testing, band gap channels must be considered independently in each band according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

C) OFDM Transmission Mode SAR Test Configuration and Channel Selection Requirements

The initial test configuration for 5 GHz OFDM transmission modes is determined by the 802.11 configuration with the highest maximum output power specified for production units, including tune-up tolerance, in each standalone and aggregated frequency band. SAR for the initial test configuration is measured using the highest maximum output power channel determined by the default power measurement procedures. When multiple configurations in a frequency band have the same specified maximum output power, the initial test configuration is determined according to the following steps applied sequentially.

1. The largest channel bandwidth configuration is selected among the multiple configurations with the same specified maximum output power.
2. If multiple configurations have the same specified maximum output power and largest channel bandwidth, the lowest order modulation among the largest channel bandwidth configurations is selected.
3. If multiple configurations have the same specified maximum output power, largest channel band width and lowest order modulation, the lowest data rate configuration among these configurations is selected.
4. When multiple transmission modes (802.11a/g/n/ac) have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; 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. These channel selection procedures apply to both the initial test configuration and subsequent test configuration(s), with respect to the default power measurement procedures or additional power measurements required for further SAR test reduction. The same procedures also apply to subsequent highest output power channel(s) selection.
5. The channel closest to mid-band frequency is selected for SAR measurement.
6. 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.

D) SAR Test Requirements for OFDM configurations

When SAR measurement is required for 802.11 a/n/ac OFDM configurations, each standalone and frequency aggregated band is considered separately for SAR test reduction. When the sametransmitter and antenna(s) are used for U-NII-1 and U-NII-2A bands, additional SAR test reduction Vapplies. When band gap channels between U-NII-2C band and 5.8 GHz U-NII-3 or §15.247 bandare supported, the highest maximum output power transmission mode configuration and maximumoutput power channel across the bands must be used to determine SAR test reduction, accordingto the initial test configuration and subsequent test configuration requirements. In applying theinitial test configuration and subsequent test configuration procedures, the 802.11 transmissionconfiguration with the highest specified maximum output power and the channel within a testconfiguration with the highest measured maximum output power should be clearly distinguished toapply the procedures.

13. Conducted Power List

Remark: The output power of GSM/WCDMA/LTE/5G NR/WLAN/Bluetooth was recorded in annex E of this report.

14. LTE Carrier Aggregation

14.1. LTE Uplink Carrier Aggregation

➢ **Carrier Aggregation Configuration**

<Intra-band>

2CC Uplink Carrier Aggregation for Intra-band				
No.	Combination	4X4 MIMO	Restriction	Completely Covered by Measurement Superset
1	CA_41C	-	-	No

Note:

1. According to the 3GPP 36.101 table 6.2.2A-1 specifics that the aggregation maximum allowed output power is equivalent to the signal carrier scenario for intra-band contiguous carrier aggregation scenarios. When the non-contiguous RB allocation is applied the MPR shell complies with the table 6.2.3A defined in 3GPP 36.101.
2. According to the TCB Workshop publication, the output power of uplink CA would be measured with the wideband signal integration over the component carriers. And SAR measurement would be performed at the worst exposure condition of each band.
3. Additional SAR measurement for LTE UL CA with other DL CA combinations are not required when the maximum output power of this configuration is not ＞1/4 dB higher than the maximum output power for UL CA active.

<Inter-band>

2CC Uplink Carrier Aggregation for Inter-band				
No.	Combination	4X4 MIMO	Restriction	Completely Covered by Measurement Superset
1	CA_2A-5A	-	-	No
2	CA_4A-5A	-	-	No
3	CA_2A-4A	-	-	No
4	CA_2A-66A	-	-	No
5	CA_2A-12A	-	-	No
6	CA_4A-12A	-	-	No
7	CA_12A-66A	-	-	No

Note:

According to October 2018 TCB Workshop publication, LTE uplink CA SAR assessment should follow:

a. If the signal uplink 1-g SAR values for each band are both less than 0.8 W/kg and the algebraic summation of the 1-g SAR values are less than 1.45 W/kg no additional measurements need to be performed.

b. If one or the signal uplink1-g SAR values is greater than 0.8 W/kg, instead of algebraically summing the 1-g SAR values, sum up the SAR distributions, similar to the enlarged zoom scan (volume scan) procedures found in FCC KDB Publication 865664 D01. And PAG is required for this case.

c. If the algebraic sum of the 1-g SAR values is > 1.45 W/kg additional measurements may have to be made. Submit a KDB inquiry for additional guidance. And PAG is required for this case.

14.2. LTE Downlink Carrier Aggregation

➢ **Carrier Aggregation Configuration**

For the device supports bands and bandwidths and configurations are provided as follow table was according to 3GPP.

2CC Downlink Carrier Aggregation				
No.	Combination	MIMO	Restriction	Completely Covered by Measurement Superset
1	CA_2A-5A	4*2	-	No
2	CA_4A-5A	4*2	-	No
3	CA_2A-2A	4*4	-	No
4	CA_2C	4*4	-	No
5	CA_66B	4*4	-	No
6	CA_66C	4*4	-	No
7	CA_66A-66A	4*4	-	No
8	CA_2A-4A	4*2	-	No
9	CA_4A-4A	4*4	-	No
10	CA_2A-66A	4*2	-	No
11	CA_2A-12A	4*2	-	No
12	CA_4A-12A	4*2	-	No
13	CA_12A-66A	2*4	-	No
14	CA_2A-71A	4*2	-	No
15	CA_4A-71A	4*2	-	No
16	CA_66A-71A	4*2	-	No
17	CA_4A-17A	4*2	-	No
18	CA_2A-17A	4*2	-	No
19	CA_41A-41A	4*4	-	No
20	CA_41C	4*4	-	No

3CC Downlink Carrier Aggregation				
No.	Combination	MIMO	Restriction	Completely Covered by Measurement Superset
1	CA_2A-4A-12A	4*2*2	-	No
2	CA_4A-4A-12A	4*4*2	-	No
3	CA_2A-4A-4A	4*2*2	-	No
4	CA_2A-2A-12A	4*4*2	-	No
5	CA_2A-2A-4A	4*4*2	-	No
6	CA_2A-12A-66A	4*2*2	-	No

7	CA_2A-2A-66A	4*4*2	-	No
8	CA_2A-66A-66A	4*2*2	-	No
9	CA_2A-66C	4*2*2	-	No
10	CA_12A-66A-66A	2*4*4	-	No
11	CA_12A-66C	2*4*4	-	No
12	CA_2A-5A-66A	4*2*2	-	No
13	CA_2A_4A_71A	4*2*2	-	No
14	CA_2A_66A_71A	4*2*2	-	No
15	CA_66A_66A_71A	4*4*2	-	No
16	CA_66C_71A	4*4*2	-	No
17	CA_4A_4A_71A	4*4*2	-	No
18	CA_2A_2A_71A	4*4*2	-	No

➢ **LTE Downlink Carrier Aggregation Conducted Power**

1. According to KDB 941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.
2. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
3. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
4. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.
5. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.
6. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy
7. 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

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

8. The output power of CA downlink refers to the annex E of this report.

15. 5G NR EN-DC Consideration

➢ **General Guidance**

1. It is limited to operate at EN-DC (NSA)/SA for 5G NR implementation According to the character of the device. SAR measurement should be performed separately for the limitations of the probe calculation factors.
2. When the EN-DC is active the output power of the LTE anchors is equal or less than the standalone carrier, therefore the LTE output power and SAR were estimated based on the standalone carrier to performed sim-TX analysis with 5G NR, WLAN and Bluetooth.
3. According to October 2020 TCB Workshop publication, EN-DC SAR assessment should follow:
   a. If the signal uplink 1-g SAR values for each band are both less than 0.8 W/kg and the algebraic summation of the 1-g SAR values are less than 1.45 W/kg no additional measurements need to be performed.
   b. If one or the signal uplink1-g SAR values is greater than 0.8 W/kg, instead of algebraically summing the 1-g SAR values, sum up the SAR distributions, similar to the enlarged zoom scan (volume scan) procedures found in FCC KDB Publication 865664 D01. And PAG is required for this case.
   c. If the algebraic sum of the 1-g SAR values is > 1.45 W/kg additional measurements may have to be made. Submit a KDB inquiry for additional guidance and PAG is required for this case.
   d. When the algebraic sum of the 1-g SAR values is > 1.6 W/kg, SPLSR analysis procedure should be applied.

➢ **5G NR anchor combination**

EN-DC Combination	LTE Uplink	5G-NR Uplink	SCS (kHz)	Maximum Bandwidth (MHz)
DC_2A_n41	2A	n41	30	100
DC_66A_n41	66A	n41	30	100
DC_2A_n71	2A	n71	15	20
DC_66A_n71	66A	n71	15	20

16. Hotspot Mode Evaluation Procedure

➢ **EUT Antenna Location**

The location of antenna was recorded in annex B	
Antenna	Support Band
Ant 0	GSM: 850/1900 DRX
	WCDMA: 5 TRX; 2/4 DRX
	LTE: B5/12/13/17/26/71 TRX
	B2/4/7/25/38/40/41/66 DRX
	NR: n5/26/71 TRX
	n2/7/25/38/40/41/66 DRX
Ant 1	LTE: B2/4/25/40/66 PRX2
	NR: n2/25/40/66 PRX2
	n77 DRX
Ant 2	GSM: 850 TRX;
	WCDMA: 5 DRX
	LTE: B5/12/13/17/26/71 DRX
	NR: n5/26/71 DRX
Ant 3	LTE: B7/38/41 PRX2
	NR: n77 DRX2
Ant 4	GSM: 1900 TRX
	WCDMA: 2/4 TRX
	LTE: B2/4/7/25/38/40/41/66 TRX
	NR: n2/7/25/38/40/41/66 TRX
Ant 5	GPS L5
	NR: n77 PRX2
Ant 6	5g WIFI(CHANNEL 0)
	NR: n77 PRX2
Ant 7	LTE: B42 TRX, B2/4/7/25/38/40/41 DRX2
	NR: n77/78 TRX, n2/7/25/38/40/41/66 DRX2
Ant 8	2.4g WIFI(CHANNEL 0)
	GPS L1
Ant 9	2.4g WIFI(CHANNEL 1)
	5g WIFI(CHANNEL 1)

➢ **EUT Antenna Distance**

Antenna	Antenna distance to surface or edges (mm)					
	Front	Back	Left	Right	Top	Bottom
Ant0	<5	<5	>25	<5	>25	<5
Ant1	<5	<5	<5	>25	>25	<5
Ant2	<5	<5	<5	>25	>25	>25
Ant4	<5	<5	<5	>25	<5	>25
Ant6	<5	<5	>25	<5	<5	>25
Ant7	<5	<5	>25	<5	<25	>25
Ant8	<5	<5	>25	<5	<5	>25
Ant9	<5	<5	>25	<5	>25	>25

➢ **Hotspot Evaluation**

Assessment	Hotspot Side for SAR Test Distance: 10 mm					
Antenna	Front	Back	Left	Right	Top	Bottom
Ant0	Yes	Yes	No	Yes	No	Yes
Ant1	Yes	Yes	Yes	No	No	Yes
Ant2	Yes	Yes	Yes	No	No	No
Ant4	Yes	Yes	Yes	No	Yes	No
Ant6	Yes	Yes	No	Yes	Yes	No
Ant7	Yes	Yes	No	Yes	Yes	No
Ant8	Yes	Yes	No	Yes	Yes	No
Ant9	Yes	Yes	No	Yes	No	No

Note :

1. The SAR evaluation procedures for Portable Devices with Wireless Router function is according to KDB 941225 D06 Hotspot SAR v02r01.
2. Head/Body-worn/Hotspot mode SAR assessments are required.
3. Referring to KDB 941225 D06, when the overall device length and width are ≥ 9 cm * 5 cm, the test distance is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25 mm from that surface or edge.

17. Proximity Sensor Considerations

17.1. Proximity Sensor Triggering Distances

➢ **P-Sensor Triggering Distance Testing**

The EUT should be moved further away from and toward the flat phantom that fill with the tissue simulating liquid to determine the proximity sensor triggering distances. Conducted power is monitored qualitatively to identify the general triggering characteristics and recorded quantitatively, versus spacing, as required by the procedures.

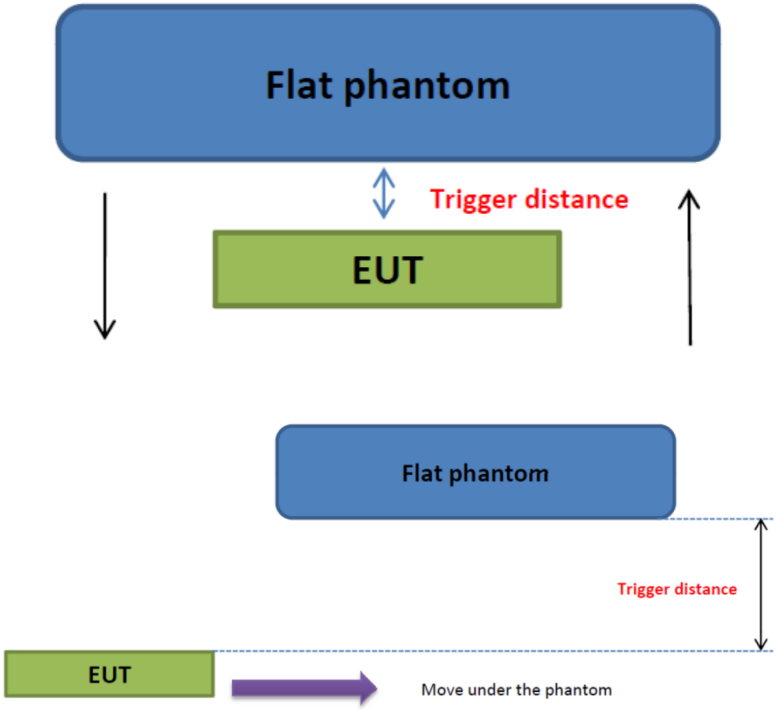


Fig.15.1 Illustration for proximity sensor trigger

➢ **P-Sensor Triggering Distance for Ant2/Ant4/Ant6/Ant7/Ant8/Ant9**

Proximity Sensor Trigger Distance (mm)			
Front Side	Back Side	Left Side	Bottom Side
9	10	9	13

➢ **P-Sensor Triggering Distance for Ant0/Ant1**

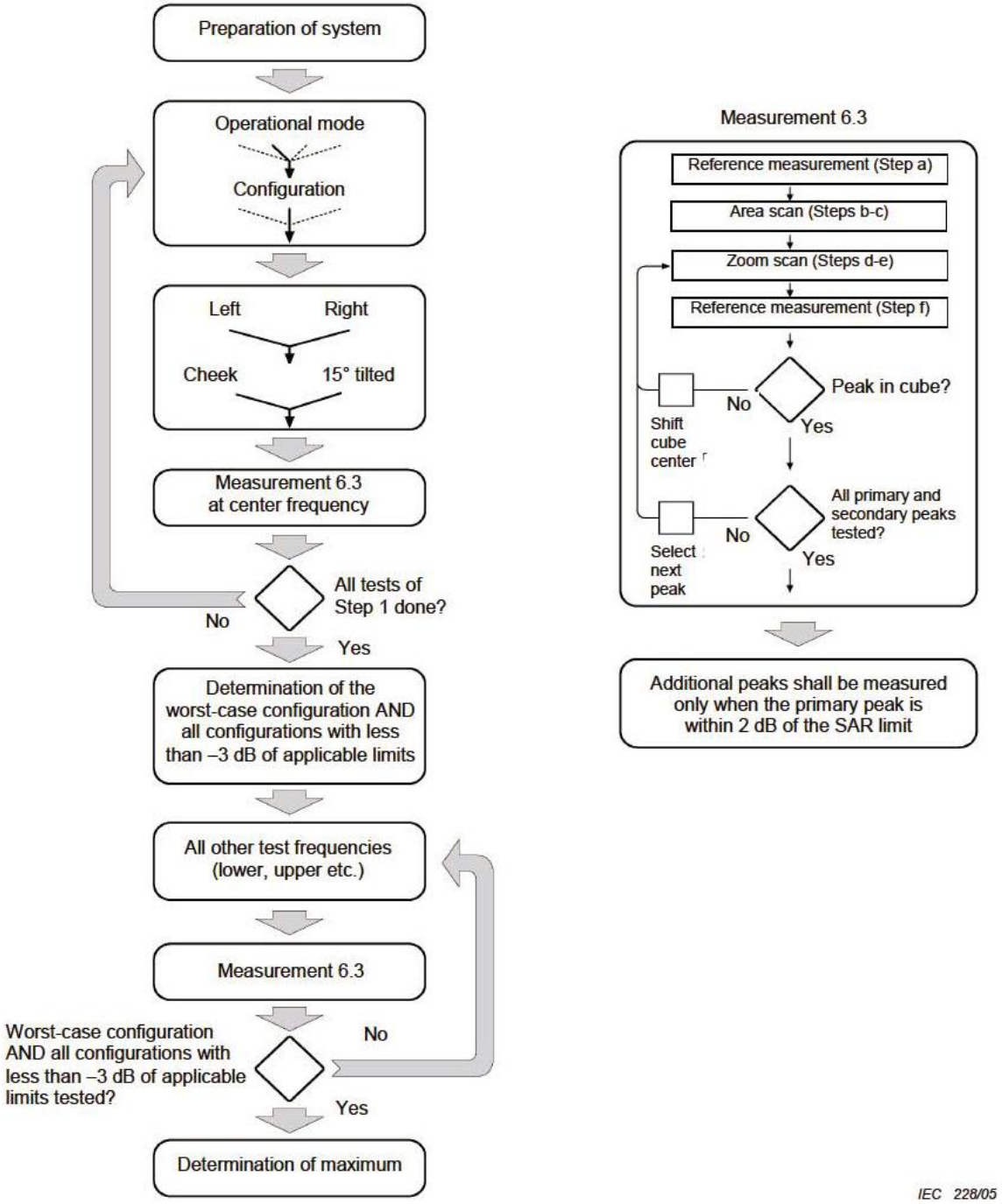
Proximity Sensor Trigger Distance (mm)			
Front Side	Back Side	Right Side	Bottom Side
10	13	8	18

17.2. Proximity Sensor Coverage

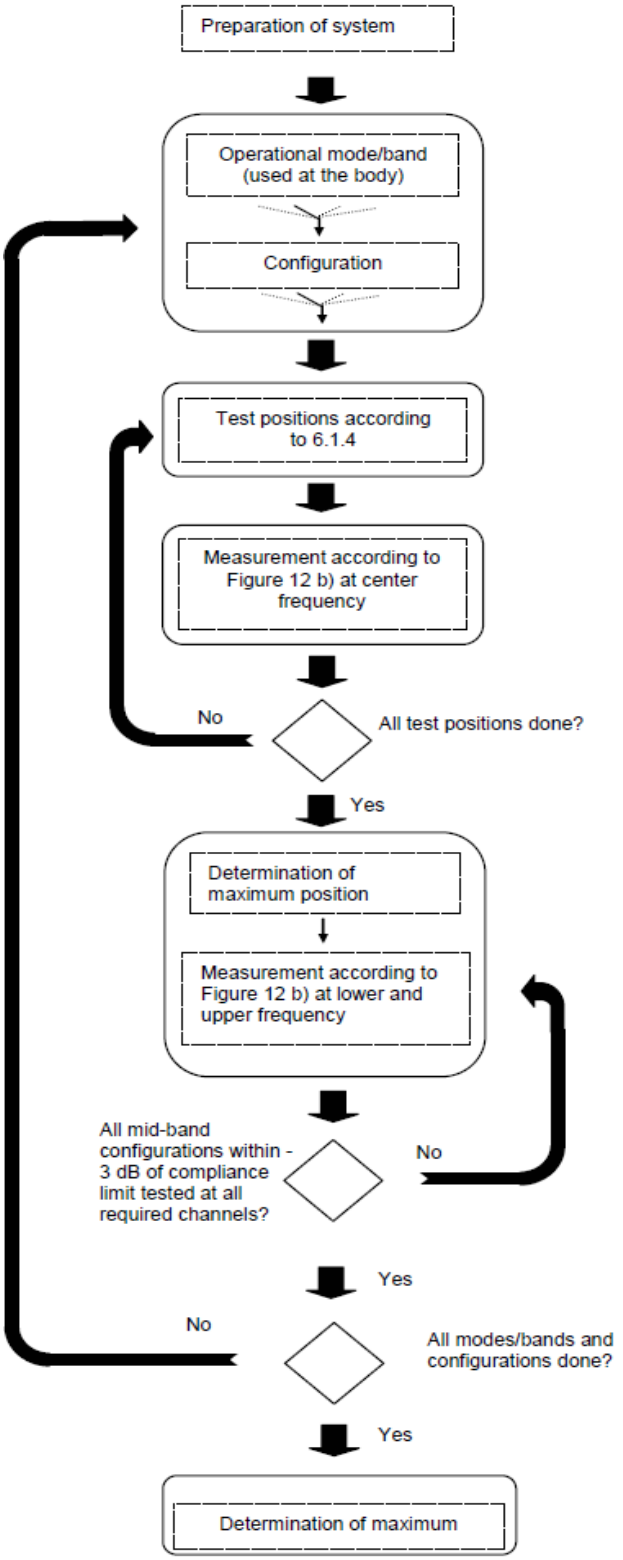
Proximity sensors are not normally designed to cover the entire back surface or edges of a tablet. The sensing regions are usually limited to areas near the sensor element. If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For P-sensor coverage testing, the device is moved and “along the direction of maximum antenna and sensor offset”. Illustrating in the internal photo exhibit, although the sensor spatially offset, there is no trigger condition where the antenna is next to the user, the sensor is laterally further away, therefore proximity sensor coverage testing is not required.
This procedure is not required since the antenna, sensor and peak SAR location is overlapped with the sensor.

18. Block Diagram of the Tests to be Performed

18.1. Head



18.2. Body



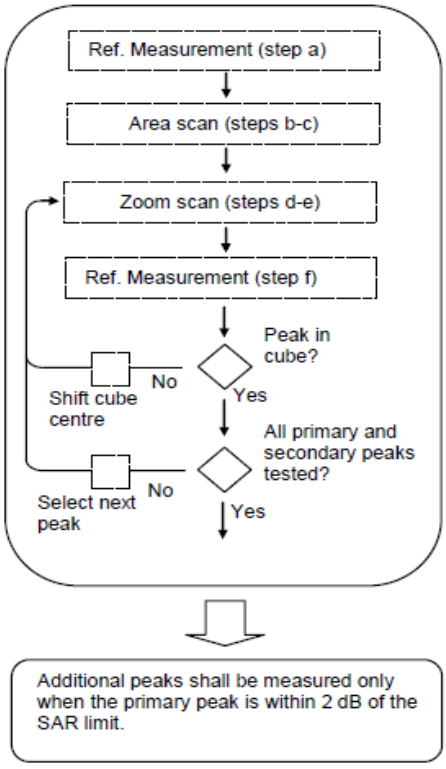


Figure 12b – General procedure

19. Test Results List

19.1. Test Guidance

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1 / (duty cycle)".
   c. For WWAN: Reported SAR (W/kg) = Measured SAR (W/kg) * Tune-up Scaling Factor.
   d. For WLAN/Bluetooth: Reported SAR (W/kg) = Measured SAR (W/kg) * Duty Cycle scaling factor * Tune-up scaling factor.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   a. ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
   b. ≤ 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
   c. ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8W/kg.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
5. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for tablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
6. Per KDB248227 D01v02r02, 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 required for operations in the U.S. 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. Unless it is permitted by specific KDB procedures or continuous transmission is specifically restricted by the device, the reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. When a device is not capable of sustaining continuous transmission or the output can become nonlinear, and it is limited by hardware design and unable to transmit at higher than 85% duty factor, a periodic duty factor within 15% of the maximum duty factor the device is capable of transmitting should be used. The reported SAR must be scaled to the maximum transmission duty factor to determine compliance. Descriptions of the procedures applied to establish the specific duty factor used for SAR testing are required in SAR reports to support the test results.

7. The NSA supports two simultaneous transmission modes:
   LTE (MAX) + NR (MIN), where NR power is minimized (NR=0)
   NR (MAX) + LTE (MIN), where LTE power is minimized (LTE=0)
   Thus, NSA and SA share the same data.
8. This device supports power reduction machine according to different using condition, and the power level applied follows below.

Power Level	Senor Configuration	Test Position
Full Power	N/A	Head/Hotspot/Body-worn
Reduced Power Level 1	Receiver on	Head
Reduced Power Level 2	Hotspot on	Hotspot
Reduced Power Level 3	Sensor on	Extremity

19.2. Head SAR Data

➢ GSM Head SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Full Power (Ant2)								
1#	GPRS 850 (4TX slots)	Right Cheek	189	27.97	29.50	1.422	0.172	0.245
	GPRS 850 (4TX slots)	Right Tilt	189	27.97	29.50	1.422	0.091	0.129
	GPRS 850 (4TX slots)	Left Cheek	189	27.97	29.50	1.422	0.123	0.175
	GPRS 850 (4TX slots)	Left Tilt	189	27.97	29.50	1.422	0.074	0.105
Reduced Power Level 1 (Ant4)								
	GPRS 1900 (4 TX slots)	Right Cheek	661	22.34	23.50	1.306	0.739	0.965
	GPRS 1900 (4 TX slots)	Right Tilt	661	22.34	23.50	1.306	0.422	0.551
	GPRS 1900 (4 TX slots)	Left Cheek	661	22.34	23.50	1.306	0.348	0.455
	GPRS 1900 (4 TX slots)	Left Tilt	661	22.34	23.50	1.306	0.353	0.461
2#	GPRS 1900 (4 TX slots)	Right Cheek	512	22.29	23.50	1.321	0.748	0.988
	GPRS 1900 (4 TX slots)	Right Cheek	810	22.28	23.50	1.324	0.716	0.948

➢ WCDMA Head SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Reduced Power Level 1 (Ant4)								
3#	Band II/RMC 12.2Kbps	Right Cheek	9400	18.33	20.00	1.469	0.687	1.009
	Band II/RMC 12.2Kbps	Right Tilt	9400	18.33	20.00	1.469	0.390	0.573
	Band II/RMC 12.2Kbps	Left Cheek	9400	18.33	20.00	1.469	0.313	0.460
	Band II/RMC 12.2Kbps	Left Tilt	9400	18.33	20.00	1.469	0.335	0.492
	Band II/RMC 12.2Kbps	Right Cheek	9262	18.26	20.00	1.493	0.645	0.963
	Band II/RMC 12.2Kbps	Right Cheek	9538	18.27	20.00	1.489	0.603	0.898
Reduced Power Level 1 (Ant4)								
4#	Band IV/RMC 12.2Kbps	Right Cheek	1413	18.25	20.00	1.496	0.585	0.875
	Band IV/RMC 12.2Kbps	Right Tilt	1413	18.25	20.00	1.496	0.331	0.495
	Band IV/RMC 12.2Kbps	Left Cheek	1413	18.25	20.00	1.496	0.249	0.373
	Band IV/RMC 12.2Kbps	Left Tilt	1413	18.25	20.00	1.496	0.264	0.395
	Band IV/RMC 12.2Kbps	Right Cheek	1312	18.21	20.00	1.510	0.485	0.732
	Band IV/RMC 12.2Kbps	Right Cheek	1513	18.17	20.00	1.524	0.464	0.707
Full Power (Ant0)								
5#	Band V/RMC 12.2Kbps	Right Cheek	4182	23.17	25.00	1.524	0.148	0.226
	Band V/RMC 12.2Kbps	Right Tilt	4182	23.17	25.00	1.524	0.082	0.125

	Band V/RMC 12.2Kbps	Left Cheek	4182	23.17	25.00	1.524	0.119	0.181
	Band V/RMC 12.2Kbps	Left Tilt	4182	23.17	25.00	1.524	0.071	0.108

➢ LTE QPSK Head SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Reduced Power Level 1 (Ant4)								
6#	LTE Band 7/1RB#0 20M	Right Cheek	21100	16.66	18.00	1.361	0.734	0.999
	LTE Band 7/1RB#0 20M	Right Tilt	21100	16.66	18.00	1.361	0.417	0.568
	LTE Band 7/1RB#0 20M	Left Cheek	21100	16.66	18.00	1.361	0.194	0.264
	LTE Band 7/1RB#0 20M	Left Tilt	21100	16.66	18.00	1.361	0.209	0.285
	LTE Band 7/1RB#0 20M	Right Cheek	20850	16.60	18.00	1.380	0.646	0.892
	LTE Band 7/1RB#0 20M	Right Cheek	21350	16.65	18.00	1.365	0.702	0.958
	LTE Band 7/50RB#0 20M	Right Cheek	21100	15.66	17.00	1.361	0.655	0.892
	LTE Band 7/50RB#0 20M	Right Tilt	21100	15.66	17.00	1.361	0.372	0.506
	LTE Band 7/50RB#0 20M	Left Cheek	21100	15.66	17.00	1.361	0.171	0.233
	LTE Band 7/50RB#0 20M	Left Tilt	21100	15.66	17.00	1.361	0.192	0.261
	LTE Band 7/50RB#0 20M	Right Cheek	20850	15.59	17.00	1.384	0.596	0.825
	LTE Band 7/50RB#0 20M	Right Cheek	21350	15.65	17.00	1.365	0.631	0.861
	LTE Band 7/100RB#0 20M	Right Cheek	21100	15.17	17.00	1.524	0.508	0.774
Full Power (Ant0)								
7#	LTE Band 12/1RB#0 10M	Right Cheek	23095	23.25	25.00	1.496	0.122	0.183
	LTE Band 12/1RB#0 10M	Right Tilt	23095	23.25	25.00	1.496	0.064	0.096
	LTE Band 12/1RB#0 10M	Left Cheek	23095	23.25	25.00	1.496	0.094	0.141
	LTE Band 12/1RB#0 10M	Left Tilt	23095	23.25	25.00	1.496	0.056	0.084
	LTE Band 12/25RB#0 10M	Right Cheek	23095	22.38	23.50	1.294	0.088	0.114
	LTE Band 12/25RB#0 10M	Right Tilt	23095	22.38	23.50	1.294	0.046	0.060
	LTE Band 12/25RB#0 10M	Left Cheek	23095	22.38	23.50	1.294	0.079	0.102
	LTE Band 12/25RB#0 10M	Left Tilt	23095	22.38	23.50	1.294	0.044	0.057
Full Power (Ant0)								
8#	LTE Band 13/1RB#0 10M	Right Cheek	23230	23.29	25.00	1.483	0.171	0.254
	LTE Band 13/1RB#0 10M	Right Tilt	23230	23.29	25.00	1.483	0.095	0.141
	LTE Band 13/1RB#0 10M	Left Cheek	23230	23.29	25.00	1.483	0.111	0.165
	LTE Band 13/1RB#0 10M	Left Tilt	23230	23.29	25.00	1.483	0.070	0.104
	LTE Band 13/25RB#0 10M	Right Cheek	23230	22.55	23.50	1.245	0.110	0.137
	LTE Band 13/25RB#0 10M	Right Tilt	23230	22.55	23.50	1.245	0.067	0.083
	LTE Band 13/25RB#0 10M	Left Cheek	23230	22.55	23.50	1.245	0.093	0.116
	LTE Band 13/25RB#0 10M	Left Tilt	23230	22.55	23.50	1.245	0.057	0.071

Reduced Power Level 1 (Ant4)								
9#	LTE Band 25/1RB#0 20M	Right Cheek	26365	18.67	20.00	1.358	0.638	0.867
	LTE Band 25/1RB#0 20M	Right Tilt	26365	18.67	20.00	1.358	0.301	0.409
	LTE Band 25/1RB#0 20M	Left Cheek	26365	18.67	20.00	1.358	0.293	0.398
	LTE Band 25/1RB#0 20M	Left Tilt	26365	18.67	20.00	1.358	0.310	0.421
	LTE Band 25/1RB#0 20M	Right Cheek	26140	18.58	20.00	1.387	0.549	0.761
	LTE Band 25/1RB#0 20M	Right Cheek	26590	18.64	20.00	1.368	0.535	0.732
	LTE Band 25/50RB#0 20M	Right Cheek	26365	17.68	18.50	1.208	0.571	0.690
	LTE Band 25/50RB#0 20M	Right Tilt	26365	17.68	18.50	1.208	0.269	0.325
	LTE Band 25/50RB#0 20M	Left Cheek	26365	17.68	18.50	1.208	0.262	0.316
	LTE Band 25/50RB#0 20M	Left Tilt	26365	17.68	18.50	1.208	0.277	0.335
	LTE Band 25/100RB#0 20M	Right Cheek	26365	17.08	18.50	1.387	0.418	0.580
Full Power for ENDC (Ant1)								
	LTE Band 25/1RB#0 20M	Right Cheek	26365	23.67	25.00	1.358	0.049	0.067
	LTE Band 25/1RB#0 20M	Right Tilt	26365	23.67	25.00	1.358	0.029	0.039
	LTE Band 25/1RB#0 20M	Left Cheek	26365	23.67	25.00	1.358	0.091	0.124
	LTE Band 25/1RB#0 20M	Left Tilt	26365	23.67	25.00	1.358	0.047	0.064
	LTE Band 25/50RB#0 20M	Right Cheek	26365	22.68	24.00	1.355	0.043	0.058
	LTE Band 25/50RB#0 20M	Right Tilt	26365	22.68	24.00	1.355	0.025	0.034
	LTE Band 25/50RB#0 20M	Left Cheek	26365	22.68	24.00	1.355	0.081	0.110
	LTE Band 25/50RB#0 20M	Left Tilt	26365	22.68	24.00	1.355	0.041	0.056
Full Power (Ant0)								
10#	LTE Band 26/1RB#0 15M	Right Cheek	26865	23.55	25.00	1.396	0.149	0.208
	LTE Band 26/1RB#0 15M	Right Tilt	26865	23.55	25.00	1.396	0.088	0.123
	LTE Band 26/1RB#0 15M	Left Cheek	26865	23.55	25.00	1.396	0.122	0.170
	LTE Band 26/1RB#0 15M	Left Tilt	26865	23.55	25.00	1.396	0.075	0.105
	LTE Band 26/36RB#0 15M	Right Cheek	26865	22.75	23.50	1.189	0.120	0.143
	LTE Band 26/36RB#0 15M	Right Tilt	26865	22.75	23.50	1.189	0.070	0.083
	LTE Band 26/36RB#0 15M	Left Cheek	26865	22.75	23.50	1.189	0.106	0.126
	LTE Band 26/36RB#0 15M	Left Tilt	26865	22.75	23.50	1.189	0.057	0.068
Reduced Power Level 1 (Ant4)								
	LTE Band 40/1RB#0 10M	Right Cheek	38750	21.74	23.00	1.337	0.715	0.961
	LTE Band 40/1RB#0 10M	Right Tilt	38750	21.74	23.00	1.337	0.313	0.421
	LTE Band 40/1RB#0 10M	Left Cheek	38750	21.74	23.00	1.337	0.272	0.366
	LTE Band 40/1RB#0 10M	Left Tilt	38750	21.74	23.00	1.337	0.317	0.426
	LTE Band 40/25RB#0 10M	Right Cheek	38750	20.88	22.00	1.294	0.643	0.837
	LTE Band 40/25RB#0 10M	Right Tilt	38750	20.88	22.00	1.294	0.243	0.316

	LTE Band 40/25RB#0 10M	Left Cheek	38750	20.88	22.00	1.294	0.254	0.331
	LTE Band 40/25RB#0 10M	Left Tilt	38750	20.88	22.00	1.294	0.276	0.359
Reduced Power Level 1 (Ant4)								
11#	LTE Band 40/1RB#0 10M	Right Cheek	39200	21.70	23.00	1.349	0.757	1.027
	LTE Band 40/1RB#0 10M	Right Tilt	39200	21.70	23.00	1.349	0.339	0.460
	LTE Band 40/1RB#0 10M	Left Cheek	39200	21.70	23.00	1.349	0.296	0.402
	LTE Band 40/1RB#0 10M	Left Tilt	39200	21.70	23.00	1.349	0.350	0.475
	LTE Band 40/25RB#0 10M	Right Cheek	39200	20.81	22.00	1.315	0.677	0.896
	LTE Band 40/25RB#0 10M	Right Tilt	39200	20.81	22.00	1.315	0.299	0.396
	LTE Band 40/25RB#0 10M	Left Cheek	39200	20.81	22.00	1.315	0.269	0.356
	LTE Band 40/25RB#0 10M	Left Tilt	39200	20.81	22.00	1.315	0.290	0.384
Reduced Power Level 1 (Ant4)								
12#	LTE Band 41/1RB#0 20M	Right Cheek	40620	20.48	22.00	1.419	0.702	1.002
	LTE Band 41/1RB#0 20M	Right Tilt	40620	20.48	22.00	1.419	0.291	0.415
	LTE Band 41/1RB#0 20M	Left Cheek	40620	20.48	22.00	1.419	0.158	0.226
	LTE Band 41/1RB#0 20M	Left Tilt	40620	20.48	22.00	1.419	0.237	0.338
	LTE Band 41/1RB#0 20M	Right Cheek	39750	20.40	22.00	1.445	0.616	0.896
	LTE Band 41/1RB#0 20M	Right Cheek	40185	20.41	22.00	1.442	0.615	0.892
	LTE Band 41/1RB#0 20M	Right Cheek	41055	20.36	22.00	1.459	0.596	0.875
	LTE Band 41/1RB#0 20M	Right Cheek	41490	20.38	22.00	1.452	0.654	0.955
	CA 41/1RB#0 20M	Right Cheek	40521	19.75	21.00	1.334	0.588	0.789
	LTE Band 41/50RB#0 20M	Right Cheek	40620	19.67	20.50	1.211	0.627	0.764
	LTE Band 41/50RB#0 20M	Right Tilt	40620	19.67	20.50	1.211	0.261	0.318
	LTE Band 41/50RB#0 20M	Left Cheek	40620	19.67	20.50	1.211	0.142	0.173
	LTE Band 41/50RB#0 20M	Left Tilt	40620	19.67	20.50	1.211	0.213	0.259
Reduced Power Level 1 (Ant7)								
	LTE Band 42/1RB#0 20M	Right Cheek	42590	23.20	24.00	1.202	0.169	0.204
	LTE Band 42/1RB#0 20M	Right Tilt	42590	23.20	24.00	1.202	0.135	0.163
13#	LTE Band 42/1RB#0 20M	Left Cheek	42590	23.20	24.00	1.202	0.727	0.879
	LTE Band 42/1RB#0 20M	Left Tilt	42590	23.20	24.00	1.202	0.256	0.310
	LTE Band 42/1RB#0 20M	Left Cheek	41690	23.11	24.00	1.227	0.704	0.869
	LTE Band 42/1RB#0 20M	Left Cheek	42140	23.10	24.00	1.230	0.638	0.790
	LTE Band 42/1RB#0 20M	Left Cheek	43040	23.09	24.00	1.233	0.667	0.827
	LTE Band 42/1RB#0 20M	Left Cheek	43490	23.04	24.00	1.247	0.686	0.861
	LTE Band 42/50RB#0 20M	Right Cheek	42590	22.52	23.00	1.117	0.134	0.151
	LTE Band 42/50RB#0 20M	Right Tilt	42590	22.52	23.00	1.117	0.109	0.122
	LTE Band 42/50RB#0 20M	Left Cheek	42590	22.52	23.00	1.117	0.585	0.657
	LTE Band 42/50RB#0 20M	Left Tilt	42590	22.52	23.00	1.117	0.206	0.231

Reduced Power Level 1 (Ant4)								
14#	LTE Band 66/1RB#0 20M	Right Cheek	132322	18.76	19.50	1.186	0.837	0.992
	LTE Band 66/1RB#0 20M	Right Tilt	132322	18.76	19.50	1.186	0.397	0.471
	LTE Band 66/1RB#0 20M	Left Cheek	132322	18.76	19.50	1.186	0.393	0.466
	LTE Band 66/1RB#0 20M	Left Tilt	132322	18.76	19.50	1.186	0.459	0.544
	LTE Band 66/1RB#0 20M	Right Cheek	132072	18.70	19.50	1.202	0.755	0.908
	LTE Band 66/1RB#0 20M	Right Cheek	132572	18.74	19.50	1.191	0.805	0.959
	LTE Band 66/50RB#0 20M	Right Cheek	132322	17.49	18.50	1.262	0.747	0.943
	LTE Band 66/50RB#0 20M	Right Tilt	132322	17.49	18.50	1.262	0.354	0.447
	LTE Band 66/50RB#0 20M	Left Cheek	132322	17.49	18.50	1.262	0.351	0.443
	LTE Band 66/50RB#0 20M	Left Tilt	132322	17.49	18.50	1.262	0.410	0.517
	LTE Band 66/50RB#0 20M	Right Cheek	132072	17.34	18.50	1.306	0.674	0.880
	LTE Band 66/50RB#0 20M	Right Cheek	132572	17.48	18.50	1.265	0.719	0.909
	LTE Band 66/100RB#0 20M	Right Cheek	132322	16.87	18.50	1.455	0.534	0.777
Full Power for ENDC (Ant1)								
	LTE Band 66/1RB#0 20M	Right Cheek	132322	23.56	25.00	1.393	0.042	0.059
	LTE Band 66/1RB#0 20M	Right Tilt	132322	23.56	25.00	1.393	0.025	0.035
	LTE Band 66/1RB#0 20M	Left Cheek	132322	23.56	25.00	1.393	0.078	0.109
	LTE Band 66/1RB#0 20M	Left Tilt	132322	23.56	25.00	1.393	0.043	0.060
	LTE Band 66/50RB#0 20M	Right Cheek	132322	22.49	23.50	1.262	0.037	0.047
	LTE Band 66/50RB#0 20M	Right Tilt	132322	22.49	23.50	1.262	0.021	0.026
	LTE Band 66/50RB#0 20M	Left Cheek	132322	22.49	23.50	1.262	0.069	0.087
	LTE Band 66/50RB#0 20M	Left Tilt	132322	22.49	23.50	1.262	0.038	0.048
Full Power (Ant0)								
15#	LTE Band 71/1RB#0 20M	Right Cheek	133322	23.22	25.00	1.507	0.097	0.146
	LTE Band 71/1RB#0 20M	Right Tilt	133322	23.22	25.00	1.507	0.058	0.087
	LTE Band 71/1RB#0 20M	Left Cheek	133322	23.22	25.00	1.507	0.089	0.134
	LTE Band 71/1RB#0 20M	Left Tilt	133322	23.22	25.00	1.507	0.050	0.075
	LTE Band 71/50RB#0 20M	Right Cheek	133322	22.54	23.50	1.247	0.081	0.101
	LTE Band 71/50RB#0 20M	Right Tilt	133322	22.54	23.50	1.247	0.045	0.056
	LTE Band 71/50RB#0 20M	Left Cheek	133322	22.54	23.50	1.247	0.068	0.085
	LTE Band 71/50RB#0 20M	Left Tilt	133322	22.54	23.50	1.247	0.037	0.046

➢ **5G NR DFT-S-QPSK Head SAR**

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Reduced Power Level 1 (Ant4)								
16#	5G NR n2/1RB#1 20M	Right Cheek	376000	19.35	20.00	1.161	0.892	1.036
	5G NR n2/1RB#1 20M	Right Tilt	376000	19.35	20.00	1.161	0.544	0.632
	5G NR n2/1RB#1 20M	Left Cheek	376000	19.35	20.00	1.161	0.441	0.512
	5G NR n2/1RB#1 20M	Left Tilt	376000	19.35	20.00	1.161	0.446	0.518
	5G NR n2/1RB#1 20M	Right Cheek	372000	19.33	20.00	1.167	0.861	1.005
	5G NR n2/1RB#1 20M	Right Cheek	380000	19.30	20.00	1.175	0.849	0.997
	5G NR n2/50RB#25 20M	Right Cheek	376000	19.13	20.00	1.222	0.795	0.971
	5G NR n2/50RB#25 20M	Right Tilt	376000	19.13	20.00	1.222	0.486	0.594
	5G NR n2/50RB#25 20M	Left Cheek	376000	19.13	20.00	1.222	0.394	0.481
	5G NR n2/50RB#25 20M	Left Tilt	376000	19.13	20.00	1.222	0.399	0.487
	5G NR n2/50RB#25 20M	Right Cheek	372000	19.10	20.00	1.230	0.767	0.944
	5G NR n2/50RB#25 20M	Right Cheek	380000	19.06	20.00	1.242	0.759	0.942
Full Power (Ant0)								
	5G NR n5/1RB#1 20M	Right Cheek	167300	24.10	25.00	1.230	0.233	0.287
	5G NR n5/1RB#1 20M	Right Tilt	167300	24.10	25.00	1.230	0.169	0.208
	5G NR n5/1RB#1 20M	Left Cheek	167300	24.10	25.00	1.230	0.219	0.269
	5G NR n5/1RB#1 20M	Left Tilt	167300	24.10	25.00	1.230	0.157	0.193
17#	5G NR n5/50RB#25 20M	Right Cheek	167300	23.63	24.50	1.222	0.236	0.288
	5G NR n5/50RB#25 20M	Right Tilt	167300	23.63	24.50	1.222	0.163	0.199
	5G NR n5/50RB#25 20M	Left Cheek	167300	23.63	24.50	1.222	0.225	0.275
	5G NR n5/50RB#25 20M	Left Tilt	167300	23.63	24.50	1.222	0.162	0.198
Reduced Power Level 1 (Ant4)								
18#	5G NR n7/1RB#1 40M	Right Cheek	507000	18.76	19.50	1.186	0.889	1.054
	5G NR n7/1RB#1 40M	Right Tilt	507000	18.76	19.50	1.186	0.504	0.598
	5G NR n7/1RB#1 40M	Left Cheek	507000	18.76	19.50	1.186	0.232	0.275
	5G NR n7/1RB#1 40M	Left Tilt	507000	18.76	19.50	1.186	0.251	0.298
	5G NR n7/1RB#1 40M	Right Cheek	504000	18.66	19.50	1.213	0.838	1.017
	5G NR n7/1RB#1 40M	Right Cheek	510000	18.71	19.50	1.199	0.851	1.021
	5G NR n7/108RB#54 40M	Right Cheek	507000	18.42	19.50	1.282	0.794	1.018
	5G NR n7/108RB#54 40M	Right Tilt	507000	18.42	19.50	1.282	0.451	0.578
	5G NR n7/108RB#54 40M	Left Cheek	507000	18.42	19.50	1.282	0.206	0.264
	5G NR n7/108RB#54 40M	Left Tilt	507000	18.42	19.50	1.282	0.223	0.286
	5G NR n7/108RB#54 40M	Right Cheek	504000	18.39	19.50	1.291	0.741	0.957

	5G NR n7/108RB#54 40M	Right Cheek	510000	18.36	19.50	1.300	0.555	0.722
Reduced Power Level 1 (Ant4)								
19#	5G NR n25/1RB#1 40M	Right Cheek	376500	19.20	20.00	1.202	0.822	0.988
	5G NR n25/1RB#1 40M	Right Tilt	376500	19.20	20.00	1.202	0.647	0.778
	5G NR n25/1RB#1 40M	Left Cheek	376500	19.20	20.00	1.202	0.546	0.656
	5G NR n25/1RB#1 40M	Left Tilt	376500	19.20	20.00	1.202	0.489	0.588
	5G NR n25/1RB#1 40M	Right Cheek	374000	19.18	20.00	1.208	0.798	0.964
	5G NR n25/1RB#1 40M	Right Cheek	379000	19.16	20.00	1.213	0.791	0.960
	5G NR n25/108RB#54 40M	Right Cheek	376500	19.07	20.00	1.239	0.734	0.909
	5G NR n25/108RB#54 40M	Right Tilt	376500	19.07	20.00	1.239	0.578	0.716
	5G NR n25/108RB#54 40M	Left Cheek	376500	19.07	20.00	1.239	0.488	0.605
	5G NR n25/108RB#54 40M	Left Tilt	376500	19.07	20.00	1.239	0.437	0.541
	5G NR n25/108RB#54 40M	Right Cheek	374000	18.87	20.00	1.297	0.713	0.925
	5G NR n25/108RB#54 40M	Right Cheek	379000	19.03	20.00	1.250	0.706	0.883
Full Power (Ant0)								
20#	5G NR n26/1RB#1 10M	Right Cheek	163800	24.02	25.00	1.253	0.133	0.167
	5G NR n26/1RB#1 10M	Right Tilt	163800	24.02	25.00	1.253	0.083	0.104
	5G NR n26/1RB#1 10M	Left Cheek	163800	24.02	25.00	1.253	0.114	0.143
	5G NR n26/1RB#1 10M	Left Tilt	163800	24.02	25.00	1.253	0.079	0.099
	5G NR n26/25RB#12 10M	Right Cheek	163800	23.42	24.00	1.143	0.119	0.136
	5G NR n26/25RB#12 10M	Right Tilt	163800	23.42	24.00	1.143	0.074	0.085
	5G NR n26/25RB#12 10M	Left Cheek	163800	23.42	24.00	1.143	0.102	0.117
	5G NR n26/25RB#12 10M	Left Tilt	163800	23.42	24.00	1.143	0.068	0.078
Full Power (Ant0)								
	5G NR n26/1RB#1 20M	Right Cheek	167300	24.11	25.00	1.227	0.116	0.142
	5G NR n26/1RB#1 20M	Right Tilt	167300	24.11	25.00	1.227	0.072	0.088
	5G NR n26/1RB#1 20M	Left Cheek	167300	24.11	25.00	1.227	0.099	0.122
	5G NR n26/1RB#1 20M	Left Tilt	167300	24.11	25.00	1.227	0.066	0.081
	5G NR n26/50RB#25 20M	Right Cheek	167300	23.65	24.50	1.216	0.103	0.125
	5G NR n26/50RB#25 20M	Right Tilt	167300	23.65	24.50	1.216	0.064	0.078
	5G NR n26/50RB#25 20M	Left Cheek	167300	23.65	24.50	1.216	0.089	0.108
	5G NR n26/50RB#25 20M	Left Tilt	167300	23.65	24.50	1.216	0.059	0.072
Reduced Power Level 1 (Ant4)								
21#	5G NR n38/1RB#1 40M	Right Cheek	519000	15.71	16.50	1.199	0.894	1.072
	5G NR n38/1RB#1 40M	Right Tilt	519000	15.71	16.50	1.199	0.515	0.618
	5G NR n38/1RB#1 40M	Left Cheek	519000	15.71	16.50	1.199	0.301	0.361
	5G NR n38/1RB#1 40M	Left Tilt	519000	15.71	16.50	1.199	0.356	0.427
	5G NR n38/1RB#1 40M	Right Cheek	518000	15.67	16.50	1.211	0.854	1.034

	5G NR n38/1RB#1 40M	Right Cheek	520000	15.62	16.50	1.225	0.836	1.024
	5G NR n38/108RB#54 40M	Right Cheek	519000	15.26	16.00	1.186	0.798	0.946
	5G NR n38/108RB#54 40M	Right Tilt	519000	15.26	16.00	1.186	0.461	0.547
	5G NR n38/108RB#54 40M	Left Cheek	519000	15.26	16.00	1.186	0.269	0.319
	5G NR n38/108RB#54 40M	Left Tilt	519000	15.26	16.00	1.186	0.317	0.376
	5G NR n38/108RB#54 40M	Right Cheek	518000	15.20	16.00	1.202	0.756	0.909
	5G NR n38/108RB#54 40M	Right Cheek	520000	15.16	16.00	1.213	0.741	0.899
Reduced Power Level 1 (Ant4)								
	5G NR n40/1RB#1 10M	Right Cheek	462000	17.31	18.50	1.315	0.753	0.990
	5G NR n40/1RB#1 10M	Right Tilt	462000	17.31	18.50	1.315	0.441	0.580
	5G NR n40/1RB#1 10M	Left Cheek	462000	17.31	18.50	1.315	0.361	0.475
	5G NR n40/1RB#1 10M	Left Tilt	462000	17.31	18.50	1.315	0.355	0.467
	5G NR n40/12RB#6 10M	Right Cheek	462000	16.93	17.50	1.140	0.674	0.769
	5G NR n40/12RB#6 10M	Right Tilt	462000	16.93	17.50	1.140	0.391	0.446
	5G NR n40/12RB#6 10M	Left Cheek	462000	16.93	17.50	1.140	0.299	0.341
	5G NR n40/12RB#6 10M	Left Tilt	462000	16.93	17.50	1.140	0.298	0.340
Reduced Power Level 1 (Ant4)								
22#	5G NR n40/1RB#1 10M	Right Cheek	471000	17.61	18.50	1.227	0.808	0.992
	5G NR n40/1RB#1 10M	Right Tilt	471000	17.61	18.50	1.227	0.471	0.578
	5G NR n40/1RB#1 10M	Left Cheek	471000	17.61	18.50	1.227	0.388	0.476
	5G NR n40/1RB#1 10M	Left Tilt	471000	17.61	18.50	1.227	0.373	0.458
	5G NR n40/12RB#6 10M	Right Cheek	471000	17.37	18.00	1.156	0.721	0.834
	5G NR n40/12RB#6 10M	Right Tilt	471000	17.37	18.00	1.156	0.419	0.484
	5G NR n40/12RB#6 10M	Left Cheek	471000	17.37	18.00	1.156	0.327	0.378
	5G NR n40/12RB#6 10M	Left Tilt	471000	17.37	18.00	1.156	0.318	0.368
Reduced Power Level 1 (Ant4) (PC2)								
23#	5G NR n41/1RB#1 100M	Right Cheek	518598	14.22	15.00	1.197	0.850	1.017
	5G NR n41/1RB#1 100M	Right Tilt	518598	14.22	15.00	1.197	0.625	0.748
	5G NR n41/1RB#1 100M	Left Cheek	518598	14.22	15.00	1.197	0.319	0.382
	5G NR n41/1RB#1 100M	Left Tilt	518598	14.22	15.00	1.197	0.338	0.404
	5G NR n41/1RB#1 100M	Right Cheek	509202	14.02	15.00	1.253	0.739	0.926
	5G NR n41/1RB#1 100M	Right Cheek	513900	13.94	15.00	1.276	0.738	0.942
	5G NR n41/1RB#1 100M	Right Cheek	523296	14.20	15.00	1.202	0.715	0.860
	5G NR n41/1RB#1 100M	Right Cheek	528000	14.05	15.00	1.245	0.785	0.977
	5G NR n41/137RB#67 100M	Right Cheek	518598	13.93	14.50	1.140	0.773	0.881
	5G NR n41/137RB#67 100M	Right Tilt	518598	13.93	14.50	1.140	0.605	0.690
	5G NR n41/137RB#67 100M	Left Cheek	518598	13.93	14.50	1.140	0.284	0.324
	5G NR n41/137RB#67 100M	Left Tilt	518598	13.93	14.50	1.140	0.288	0.328

	5G NR n41/137RB#67 100M	Right Cheek	509202	13.82	14.50	1.169	0.661	0.773
	5G NR n41/137RB#67 100M	Right Cheek	513900	13.90	14.50	1.148	0.652	0.749
	5G NR n41/137RB#67 100M	Right Cheek	523296	13.21	14.50	1.346	0.637	0.857
	5G NR n41/137RB#67 100M	Right Cheek	528000	12.80	14.50	1.479	0.629	0.930
Reduced Power Level 1 (Ant4) (PC3)								
	5G NR n41/1RB#1 100M	Right Cheek	518598	14.38	15.00	1.153	0.850	0.980
	5G NR n41/1RB#1 100M	Right Tilt	518598	14.38	15.00	1.153	0.625	0.721
	5G NR n41/1RB#1 100M	Left Cheek	518598	14.38	15.00	1.153	0.319	0.368
	5G NR n41/1RB#1 100M	Left Tilt	518598	14.38	15.00	1.153	0.338	0.390
	5G NR n41/1RB#1 100M	Right Cheek	509202	14.30	15.00	1.175	0.739	0.868
	5G NR n41/1RB#1 100M	Right Cheek	513900	14.08	15.00	1.236	0.738	0.912
	5G NR n41/1RB#1 100M	Right Cheek	523296	14.25	15.00	1.189	0.715	0.850
	5G NR n41/1RB#1 100M	Right Cheek	528000	14.24	15.00	1.191	0.785	0.935
	5G NR n41/137RB#67 100M	Right Cheek	518598	14.07	14.50	1.104	0.773	0.853
	5G NR n41/137RB#67 100M	Right Tilt	518598	14.07	14.50	1.104	0.605	0.668
	5G NR n41/137RB#67 100M	Left Cheek	518598	14.07	14.50	1.104	0.284	0.314
	5G NR n41/137RB#67 100M	Left Tilt	518598	14.07	14.50	1.104	0.288	0.318
	5G NR n41/137RB#67 100M	Right Cheek	509202	13.97	14.50	1.130	0.661	0.747
	5G NR n41/137RB#67 100M	Right Cheek	513900	14.06	14.50	1.107	0.652	0.722
	5G NR n41/137RB#67 100M	Right Cheek	523296	14.00	14.50	1.122	0.637	0.715
	5G NR n41/137RB#67 100M	Right Cheek	528000	14.01	14.50	1.119	0.629	0.704
Reduced Power Level 1 (Ant4)								
24#	5G NR n66/1RB#1 40M	Right Cheek	349000	18.05	19.00	1.245	0.838	1.043
	5G NR n66/1RB#1 40M	Right Tilt	349000	18.05	19.00	1.245	0.641	0.798
	5G NR n66/1RB#1 40M	Left Cheek	349000	18.05	19.00	1.245	0.519	0.646
	5G NR n66/1RB#1 40M	Left Tilt	349000	18.05	19.00	1.245	0.602	0.749
	5G NR n66/1RB#1 40M	Right Cheek	346000	17.98	19.00	1.265	0.811	1.026
	5G NR n66/1RB#1 40M	Right Cheek	352000	17.88	19.00	1.294	0.792	1.025
	5G NR n66/108RB#54 40M	Right Cheek	349000	17.96	18.50	1.132	0.825	0.934
	5G NR n66/108RB#54 40M	Right Tilt	349000	17.96	18.50	1.132	0.629	0.712
	5G NR n66/108RB#54 40M	Left Cheek	349000	17.96	18.50	1.132	0.504	0.571
	5G NR n66/108RB#54 40M	Left Tilt	349000	17.96	18.50	1.132	0.591	0.669
	5G NR n66/108RB#54 40M	Right Cheek	346000	17.95	18.50	1.135	0.802	0.910
	5G NR n66/108RB#54 40M	Right Cheek	352000	17.76	18.50	1.186	0.788	0.934
Full Power (Ant0) (PC2)								
25#	5G NR n71/1RB#1 20M	Right Cheek	136100	23.90	25.00	1.288	0.111	0.143
	5G NR n71/1RB#1 20M	Right Tilt	136100	23.90	25.00	1.288	0.094	0.121
	5G NR n71/1RB#1 20M	Left Cheek	136100	23.90	25.00	1.288	0.095	0.122

	5G NR n71/1RB#1 20M	Left Tilt	136100	23.90	25.00	1.288	0.071	0.091
	5G NR n71/50RB#25 20M	Right Cheek	136100	23.25	24.00	1.189	0.102	0.121
	5G NR n71/50RB#25 20M	Right Tilt	136100	23.25	24.00	1.189	0.078	0.093
	5G NR n71/50RB#25 20M	Left Cheek	136100	23.25	24.00	1.189	0.091	0.108
	5G NR n71/50RB#25 20M	Left Tilt	136100	23.25	24.00	1.189	0.064	0.076
Reduced Power Level 1 (Ant7) (PC2)								
	5G NR n77/1RB#1 100M	Right Cheek	633334	18.42	20.00	1.439	0.164	0.236
	5G NR n77/1RB#1 100M	Right Tilt	633334	18.42	20.00	1.439	0.083	0.119
26#	5G NR n77/1RB#1 100M	Left Cheek	633334	18.42	20.00	1.439	0.619	0.891
	5G NR n77/1RB#1 100M	Left Tilt	633334	18.42	20.00	1.439	0.165	0.237
	5G NR n77/135RB#67 100M	Right Cheek	633334	17.85	18.50	1.161	0.146	0.170
	5G NR n77/135RB#67 100M	Right Tilt	633334	17.85	18.50	1.161	0.074	0.086
	5G NR n77/135RB#67 100M	Left Cheek	633334	17.85	18.50	1.161	0.554	0.643
	5G NR n77/135RB#67 100M	Left Tilt	633334	17.85	18.50	1.161	0.148	0.172
Reduced Power Level 1 (Ant7) (PC2)								
	5G NR n77/1RB#1 100M	Right Cheek	656000	18.39	20.00	1.449	0.117	0.170
	5G NR n77/1RB#1 100M	Right Tilt	656000	18.39	20.00	1.449	0.051	0.074
	5G NR n77/1RB#1 100M	Left Cheek	656000	18.39	20.00	1.449	0.444	0.643
	5G NR n77/1RB#1 100M	Left Tilt	656000	18.39	20.00	1.449	0.121	0.175
	5G NR n77/135RB#67 100M	Right Cheek	656000	17.75	18.50	1.189	0.104	0.124
	5G NR n77/135RB#67 100M	Right Tilt	656000	17.75	18.50	1.189	0.046	0.055
	5G NR n77/135RB#67 100M	Left Cheek	656000	17.75	18.50	1.189	0.396	0.471
	5G NR n77/135RB#67 100M	Left Tilt	656000	17.75	18.50	1.189	0.108	0.128
Reduced Power Level 1 (Ant7) (PC3)								
	5G NR n77/1RB#1 100M	Right Cheek	633334	18.02	19.00	1.253	0.164	0.206
	5G NR n77/1RB#1 100M	Right Tilt	633334	18.02	19.00	1.253	0.083	0.104
	5G NR n77/1RB#1 100M	Left Cheek	633334	18.02	19.00	1.253	0.619	0.776
	5G NR n77/1RB#1 100M	Left Tilt	633334	18.02	19.00	1.253	0.165	0.207
	5G NR n77/135RB#1 100M	Right Cheek	633334	17.82	18.50	1.169	0.146	0.171
	5G NR n77/135RB#1 100M	Right Tilt	633334	17.82	18.50	1.169	0.074	0.087
	5G NR n77/135RB#1 100M	Left Cheek	633334	17.82	18.50	1.169	0.554	0.648
	5G NR n77/135RB#1 100M	Left Tilt	633334	17.82	18.50	1.169	0.148	0.173
Reduced Power Level 1 (Ant7) (PC3)								
	5G NR n77/1RB#1 100M	Right Cheek	656000	18.23	19.00	1.194	0.117	0.140
	5G NR n77/1RB#1 100M	Right Tilt	656000	18.23	19.00	1.194	0.051	0.061
	5G NR n77/1RB#1 100M	Left Cheek	656000	18.23	19.00	1.194	0.444	0.530
	5G NR n77/1RB#1 100M	Left Tilt	656000	18.23	19.00	1.194	0.121	0.144
	5G NR n77/135RB#67 100M	Right Cheek	656000	17.90	18.50	1.148	0.104	0.119

	5G NR n77/135RB#67 100M	Right Tilt	656000	17.90	18.50	1.148	0.046	0.053
	5G NR n77/135RB#67 100M	Left Cheek	656000	17.90	18.50	1.148	0.396	0.455
	5G NR n77/135RB#67 100M	Left Tilt	656000	17.90	18.50	1.148	0.108	0.124
Reduced Power Level 1 (Ant7) (PC2)								
	5G NR n78/1RB#1 100M	Right Cheek	633334	17.71	19.00	1.346	0.205	0.276
	5G NR n78/1RB#1 100M	Right Tilt	633334	17.71	19.00	1.346	0.082	0.110
27#	5G NR n78/1RB#1 100M	Left Cheek	633334	17.71	19.00	1.346	0.663	0.892
	5G NR n78/1RB#1 100M	Left Tilt	633334	17.71	19.00	1.346	0.174	0.234
	5G NR n78/135RB#67 100M	Right Cheek	633334	17.31	18.00	1.172	0.183	0.215
	5G NR n78/135RB#67 100M	Right Tilt	633334	17.31	18.00	1.172	0.074	0.087
	5G NR n78/135RB#67 100M	Left Cheek	633334	17.31	18.00	1.172	0.591	0.693
	5G NR n78/135RB#67 100M	Left Tilt	633334	17.31	18.00	1.172	0.156	0.183
Reduced Power Level 1 (Ant7) (PC2)								
	5G NR n78/1RB#1 100M	Right Cheek	650000	17.66	19.00	1.361	0.191	0.260
	5G NR n78/1RB#1 100M	Right Tilt	650000	17.66	19.00	1.361	0.077	0.105
	5G NR n78/1RB#1 100M	Left Cheek	650000	17.66	19.00	1.361	0.649	0.884
	5G NR n78/1RB#1 100M	Left Tilt	650000	17.66	19.00	1.361	0.168	0.229
	5G NR n78/135RB#67 100M	Right Cheek	650000	17.28	18.00	1.180	0.172	0.203
	5G NR n78/135RB#67 100M	Right Tilt	650000	17.28	18.00	1.180	0.069	0.081
	5G NR n78/135RB#67 100M	Left Cheek	650000	17.28	18.00	1.180	0.578	0.682
	5G NR n78/135RB#67 100M	Left Tilt	650000	17.28	18.00	1.180	0.151	0.178
Reduced Power Level 1 (Ant7) (PC3)								
	5G NR n78/1RB#1 100M	Right Cheek	633334	17.46	18.50	1.271	0.205	0.260
	5G NR n78/1RB#1 100M	Right Tilt	633334	17.46	18.50	1.271	0.082	0.104
	5G NR n78/1RB#1 100M	Left Cheek	633334	17.46	18.50	1.271	0.663	0.842
	5G NR n78/1RB#1 100M	Left Tilt	633334	17.46	18.50	1.271	0.174	0.221
	5G NR n78/135RB#1 100M	Right Cheek	633334	17.36	18.00	1.159	0.183	0.212
	5G NR n78/135RB#1 100M	Right Tilt	633334	17.36	18.00	1.159	0.074	0.086
	5G NR n78/135RB#1 100M	Left Cheek	633334	17.36	18.00	1.159	0.591	0.685
	5G NR n78/135RB#1 100M	Left Tilt	633334	17.36	18.00	1.159	0.156	0.181
Reduced Power Level 1 (Ant7) (PC3)								
	5G NR n78/1RB#1 100M	Right Cheek	650000	17.38	18.50	1.294	0.191	0.247
	5G NR n78/1RB#1 100M	Right Tilt	650000	17.38	18.50	1.294	0.077	0.100
	5G NR n78/1RB#1 100M	Left Cheek	650000	17.38	18.50	1.294	0.649	0.840
	5G NR n78/1RB#1 100M	Left Tilt	650000	17.38	18.50	1.294	0.168	0.217
	5G NR n78/135RB#1 100M	Right Cheek	650000	17.25	18.00	1.189	0.172	0.204
	5G NR n78/135RB#1 100M	Right Tilt	650000	17.25	18.00	1.189	0.069	0.082
	5G NR n78/135RB#1 100M	Left Cheek	650000	17.25	18.00	1.189	0.578	0.687

	5G NR n78/135RB#1 100M	Left Tilt	650000	17.25	18.00	1.189	0.151	0.179

➢ WLAN Head SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Reduced Power Level 1 (Ant8)								
	WLAN2.4GHz/802.11b	Right Cheek	11	13.36	15.00	1.459	0.141	0.224
	WLAN2.4GHz/802.11b	Right Tilt	11	13.36	15.00	1.459	0.135	0.215
	WLAN2.4GHz/802.11b	Left Cheek	11	13.36	15.00	1.459	0.184	0.293
28#	WLAN2.4GHz/802.11b	Left Tilt	11	13.36	15.00	1.459	0.293	0.466
Full Power (Ant9)								
	WLAN2.4GHz/802.11b	Right Cheek	1	19.22	21.00	1.507	0.136	0.223
	WLAN2.4GHz/802.11b	Right Tilt	1	19.22	21.00	1.507	0.013	0.021
	WLAN2.4GHz/802.11b	Left Cheek	1	19.22	21.00	1.507	0.173	0.284
	WLAN2.4GHz/802.11b	Left Tilt	1	19.22	21.00	1.507	0.017	0.028
Reduced Power Level 1 (Ant8+9)								
	WLAN2.4GHz/802.11n20	Right Cheek	11	17.09	19.00	1.552	0.077	0.120
	WLAN2.4GHz/802.11n20	Right Tilt	11	17.09	19.00	1.552	0.071	0.110
	WLAN2.4GHz/802.11n20	Left Cheek	11	17.09	19.00	1.552	0.076	0.118
	WLAN2.4GHz/802.11n20	Left Tilt	11	17.09	19.00	1.552	0.083	0.129
Reduced Power Level 1 (Ant6)								
	WLAN5.2GHz/802.11n20	Right Cheek	44	16.77	18.50	1.489	0.076	0.113
	WLAN5.2GHz/802.11n20	Right Tilt	44	16.77	18.50	1.489	0.071	0.106
29#	WLAN5.2GHz/802.11n20	Left Cheek	44	16.77	18.50	1.489	0.241	0.359
	WLAN5.2GHz/802.11n20	Left Tilt	44	16.77	18.50	1.489	0.172	0.256
Full Power (Ant9)								
	WLAN5.2GHz/802.11a	Right Cheek	36	19.42	21.00	1.439	0.072	0.104
	WLAN5.2GHz/802.11a	Right Tilt	36	19.42	21.00	1.439	0.056	0.081
	WLAN5.2GHz/802.11a	Left Cheek	36	19.42	21.00	1.439	0.125	0.180
	WLAN5.2GHz/802.11a	Left Tilt	36	19.42	21.00	1.439	0.058	0.083
Full Power (Ant6+9)								
	WLAN5.2GHz/802.11n20	Right Cheek	36	21.43	23.00	1.435	0.073	0.105
	WLAN5.2GHz/802.11n20	Right Tilt	36	21.43	23.00	1.435	0.103	0.148
	WLAN5.2GHz/802.11n20	Left Cheek	36	21.43	23.00	1.435	0.231	0.332
	WLAN5.2GHz/802.11n20	Left Tilt	36	21.43	23.00	1.435	0.173	0.248
Reduced Power Level 1 (Ant6)								
	WLAN5.3GHz/802.11n20	Right Cheek	52	16.65	18.50	1.531	0.065	0.100
	WLAN5.3GHz/802.11n20	Right Tilt	52	16.65	18.50	1.531	0.073	0.112

	WLAN5.3GHz/802.11n20	Left Cheek	52	16.65	18.50	1.531	0.201	0.308
	WLAN5.3GHz/802.11n20	Left Tilt	52	16.65	18.50	1.531	0.151	0.231
Full Power (Ant9)								
	WLAN5.3GHz/802.11n20	Right Cheek	64	19.63	21.50	1.538	0.063	0.097
	WLAN5.3GHz/802.11n20	Right Tilt	64	19.63	21.50	1.538	0.053	0.082
	WLAN5.3GHz/802.11n20	Left Cheek	64	19.63	21.50	1.538	0.174	0.268
	WLAN5.3GHz/802.11n20	Left Tilt	64	19.63	21.50	1.538	0.085	0.131
Full Power (Ant6+9)								
	WLAN5.3GHz/802.11n20	Right Cheek	52	21.44	23.00	1.432	0.103	0.148
	WLAN5.3GHz/802.11n20	Right Tilt	52	21.44	23.00	1.432	0.105	0.150
30#	WLAN5.3GHz/802.11n20	Left Cheek	52	21.44	23.00	1.432	0.267	0.382
	WLAN5.3GHz/802.11n20	Left Tilt	52	21.44	23.00	1.432	0.260	0.372
Full Power (Ant6)								
	WLAN5.5GHz/802.11a	Right Cheek	116	17.95	19.50	1.429	0.076	0.109
	WLAN5.5GHz/802.11a	Right Tilt	116	17.95	19.50	1.429	0.072	0.103
	WLAN5.5GHz/802.11a	Left Cheek	116	17.95	19.50	1.429	0.131	0.187
	WLAN5.5GHz/802.11a	Left Tilt	116	17.95	19.50	1.429	0.125	0.179
Full Power (Ant9)								
	WLAN5.5GHz/802.11n20	Right Cheek	100	19.16	21.00	1.528	0.105	0.160
	WLAN5.5GHz/802.11n20	Right Tilt	100	19.16	21.00	1.528	0.058	0.089
	WLAN5.5GHz/802.11n20	Left Cheek	100	19.16	21.00	1.528	0.128	0.196
	WLAN5.5GHz/802.11n20	Left Tilt	100	19.16	21.00	1.528	0.057	0.087
Full Power (Ant6+9)								
	WLAN5.5GHz/802.11n20	Right Cheek	100	20.67	22.50	1.524	0.087	0.133
	WLAN5.5GHz/802.11n20	Right Tilt	100	20.67	22.50	1.524	0.125	0.191
	WLAN5.5GHz/802.11n20	Left Cheek	100	20.67	22.50	1.524	0.163	0.248
31#	WLAN5.5GHz/802.11n20	Left Tilt	100	20.67	22.50	1.524	0.202	0.308
Full Power (Ant6)								
	WLAN5.8GHz/802.11a	Right Cheek	165	17.99	19.50	1.416	0.117	0.166
	WLAN5.8GHz/802.11a	Right Tilt	165	17.99	19.50	1.416	0.115	0.163
32#	WLAN5.8GHz/802.11a	Left Cheek	165	17.99	19.50	1.416	0.171	0.242
	WLAN5.8GHz/802.11a	Left Tilt	165	17.99	19.50	1.416	0.152	0.215
Full Power (Ant9)								
	WLAN5.8GHz/802.11n20	Right Cheek	149	18.03	20.00	1.574	0.074	0.116
	WLAN5.8GHz/802.11n20	Right Tilt	149	18.03	20.00	1.574	0.067	0.105
	WLAN5.8GHz/802.11n20	Left Cheek	149	18.03	20.00	1.574	0.074	0.116
	WLAN5.8GHz/802.11n20	Left Tilt	149	18.03	20.00	1.574	0.044	0.069
Full Power (Ant6+9)								

	WLAN5.8GHz/802.11n20	Right Cheek	149	19.80	21.50	1.479	0.099	0.146
	WLAN5.8GHz/802.11n20	Right Tilt	149	19.80	21.50	1.479	0.096	0.142
	WLAN5.8GHz/802.11n20	Left Cheek	149	19.80	21.50	1.479	0.103	0.152
	WLAN5.8GHz/802.11n20	Left Tilt	149	19.80	21.50	1.479	0.095	0.141

Note:

1. Per KDB 447498 D01v06, for each exposure position, if the highest output power channel Reported SAR ≤ 0.8 W/kg, other channels SAR testing is not necessary.
2. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8W/kg.
3. Per KDB 941225 D05v02r05, 100% RB allocation SAR measurement is not required when the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg.
4. Per KDB 248227 D01v02r02, for 802.11b DSSS , when the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.
5. Per KDB 248227 D01v02r02, OFDM 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 the adjusted SAR is ≤ 1.2 W/kg.
6. According to KDB 865664 D02v01r02, SAR plot is required for the highest measured SAR in each exposure configuration, wireless mode and frequency band combination.
7. For TDD-LTE, the reported SAR should be scaled with the duty cycle scaling factor 1.006.
8. The WLAN 2.4GHz 802.11b reported 1g SAR (W/kg) should be scaled with the duty cycle scaling factor 1.091(ANT8) & 1.089(ANT9).

19.3. Hotspot SAR Data

➢ GSM Hotspot SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Full Power (Ant2)								
	GPRS 850 (4TX slots)	Front Side	189	27.97	29.50	1.422	0.047	0.067
33#	GPRS 850 (4TX slots)	Back Side	189	27.97	29.50	1.422	0.088	0.125
	GPRS 850 (4TX slots)	Left Side	189	27.97	29.50	1.422	0.068	0.097
	GPRS 850 (4TX slots)	Top Side	189	27.97	29.50	1.422	0.044	0.063
Full Power (Ant4)								
	GPRS 1900 (4 TX slots)	Front Side	661	25.34	27.00	1.466	0.186	0.273
	GPRS 1900 (4 TX slots)	Back Side	661	25.34	27.00	1.466	0.228	0.334
	GPRS 1900 (4 TX slots)	Left Side	661	25.34	27.00	1.466	0.142	0.208
34#	GPRS 1900 (4 TX slots)	Top Side	661	25.34	27.00	1.466	0.378	0.554

➢ WCDMA Hotspot SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Full Power (Ant4)								
	Band II/RMC 12.2Kbps	Front Side	9400	23.33	25.00	1.469	0.328	0.482
	Band II/RMC 12.2Kbps	Back Side	9400	23.33	25.00	1.469	0.399	0.586
	Band II/RMC 12.2Kbps	Left Side	9400	23.33	25.00	1.469	0.172	0.253
35#	Band II/RMC 12.2Kbps	Top Side	9400	23.33	25.00	1.469	0.579	0.851
	Band II/RMC 12.2Kbps	Top Side	9262	23.26	25.00	1.493	0.501	0.748
	Band II/RMC 12.2Kbps	Top Side	9538	23.27	25.00	1.489	0.545	0.812
Full Power (Ant4)								
	Band IV/RMC 12.2Kbps	Front Side	1413	23.25	25.00	1.496	0.354	0.530
	Band IV/RMC 12.2Kbps	Back Side	1413	23.25	25.00	1.496	0.437	0.654
	Band IV/RMC 12.2Kbps	Left Side	1413	23.25	25.00	1.496	0.175	0.262
36#	Band IV/RMC 12.2Kbps	Top Side	1413	23.25	25.00	1.496	0.702	1.050
	Band IV/RMC 12.2Kbps	Top Side	1312	23.21	25.00	1.510	0.668	1.009
	Band IV/RMC 12.2Kbps	Top Side	1513	23.17	25.00	1.524	0.651	0.992
Full Power (Ant0)								
	Band V/RMC 12.2Kbps	Front Side	4182	23.17	25.00	1.524	0.119	0.181
37#	Band V/RMC 12.2Kbps	Back Side	4182	23.17	25.00	1.524	0.186	0.283
	Band V/RMC 12.2Kbps	Left Side	4182	23.17	25.00	1.524	0.102	0.155
	Band V/RMC 12.2Kbps	Right Side	4182	23.17	25.00	1.524	0.164	0.250

	Band V/RMC 12.2Kbps	Bottom Side	4182	23.17	25.00	1.524	0.147	0.224

➢ LTE QPSK Hotspot SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Reduced Power Level 2 (Ant4)								
	LTE Band 7/1RB#0 20M	Front Side	21100	22.66	24.00	1.361	0.430	0.585
38#	LTE Band 7/1RB#0 20M	Back Side	21100	22.66	24.00	1.361	0.741	1.009
	LTE Band 7/1RB#0 20M	Left Side	21100	22.66	24.00	1.361	0.272	0.370
	LTE Band 7/1RB#0 20M	Top Side	21100	22.66	24.00	1.361	0.580	0.790
	LTE Band 7/50RB#0 20M	Front Side	21100	21.66	23.00	1.361	0.356	0.485
	LTE Band 7/50RB#0 20M	Back Side	21100	21.66	23.00	1.361	0.709	0.965
	LTE Band 7/50RB#0 20M	Left Side	21100	21.66	23.00	1.361	0.227	0.309
	LTE Band 7/50RB#0 20M	Top Side	21100	21.66	23.00	1.361	0.462	0.629
Full Power (Ant0)								
	LTE Band 12/1RB#0 10M	Front Side	23095	23.25	25.00	1.496	0.131	0.196
	LTE Band 12/1RB#0 10M	Back Side	23095	23.25	25.00	1.496	0.182	0.272
	LTE Band 12/1RB#0 10M	Left Side	23095	23.25	25.00	1.496	0.131	0.196
39#	LTE Band 12/1RB#0 10M	Right Side	23095	23.25	25.00	1.496	0.212	0.317
	LTE Band 12/1RB#0 10M	Bottom Side	23095	23.25	25.00	1.496	0.117	0.175
	LTE Band 12/25RB#0 10M	Front Side	23095	22.38	23.50	1.294	0.104	0.135
	LTE Band 12/25RB#0 10M	Back Side	23095	22.38	23.50	1.294	0.125	0.162
	LTE Band 12/25RB#0 10M	Left Side	23095	22.38	23.50	1.294	0.092	0.119
	LTE Band 12/25RB#0 10M	Right Side	23095	22.38	23.50	1.294	0.196	0.254
	LTE Band 12/25RB#0 10M	Bottom Side	23095	22.38	23.50	1.294	0.095	0.123
Full Power (Ant0)								
	LTE Band 13/1RB#0 10M	Front Side	23230	23.29	25.00	1.483	0.120	0.178
	LTE Band 13/1RB#0 10M	Back Side	23230	23.29	25.00	1.483	0.194	0.288
	LTE Band 13/1RB#0 10M	Left Side	23230	23.29	25.00	1.483	0.078	0.116
40#	LTE Band 13/1RB#0 10M	Right Side	23230	23.29	25.00	1.483	0.221	0.328
	LTE Band 13/1RB#0 10M	Bottom Side	23230	23.29	25.00	1.483	0.155	0.230
	LTE Band 13/25RB#0 10M	Front Side	23230	22.55	23.50	1.245	0.098	0.122
	LTE Band 13/25RB#0 10M	Back Side	23230	22.55	23.50	1.245	0.143	0.178
	LTE Band 13/25RB#0 10M	Left Side	23230	22.55	23.50	1.245	0.062	0.077
	LTE Band 13/25RB#0 10M	Right Side	23230	22.55	23.50	1.245	0.157	0.195
	LTE Band 13/25RB#0 10M	Bottom Side	23230	22.55	23.50	1.245	0.121	0.151
Full Power (Ant4)								
	LTE Band 25/1RB#0 20M	Front Side	26365	23.67	25.00	1.358	0.373	0.507

	LTE Band 25/1RB#0 20M	Back Side	26365	23.67	25.00	1.358	0.555	0.754
	LTE Band 25/1RB#0 20M	Left Side	26365	23.67	25.00	1.358	0.212	0.288
41#	LTE Band 25/1RB#0 20M	Top Side	26365	23.67	25.00	1.358	0.675	0.917
	LTE Band 25/1RB#0 20M	Top Side	26140	23.58	25.00	1.387	0.636	0.882
	LTE Band 25/1RB#0 20M	Top Side	26590	23.64	25.00	1.368	0.642	0.878
	LTE Band 25/50RB#0 20M	Front Side	26365	22.68	23.50	1.208	0.267	0.322
	LTE Band 25/50RB#0 20M	Back Side	26365	22.68	23.50	1.208	0.472	0.570
	LTE Band 25/50RB#0 20M	Left Side	26365	22.68	23.50	1.208	0.176	0.213
	LTE Band 25/50RB#0 20M	Top Side	26365	22.68	23.50	1.208	0.553	0.668
Full Power for ENDC(Ant1)								
	LTE Band 25/1RB#0 20M	Front Side	26365	23.67	25.00	1.358	0.111	0.151
	LTE Band 25/1RB#0 20M	Back Side	26365	23.67	25.00	1.358	0.165	0.224
	LTE Band 25/1RB#0 20M	Left Side	26365	23.67	25.00	1.358	0.235	0.319
	LTE Band 25/1RB#0 20M	Bottom Side	26365	23.67	25.00	1.358	0.077	0.105
	LTE Band 25/50RB#0 20M	Front Side	26365	22.68	23.50	1.208	0.099	0.120
	LTE Band 25/50RB#0 20M	Back Side	26365	22.68	23.50	1.208	0.147	0.178
	LTE Band 25/50RB#0 20M	Left Side	26365	22.68	23.50	1.208	0.211	0.255
	LTE Band 25/50RB#0 20M	Bottom Side	26365	22.68	23.50	1.208	0.068	0.082
Full Power (Ant0)								
	LTE Band 26/1RB#0 15M	Front Side	26865	23.55	25.00	1.396	0.122	0.170
42#	LTE Band 26/1RB#0 15M	Back Side	26865	23.55	25.00	1.396	0.227	0.317
	LTE Band 26/1RB#0 15M	Left Side	26865	23.55	25.00	1.396	0.059	0.082
	LTE Band 26/1RB#0 15M	Right Side	26865	23.55	25.00	1.396	0.156	0.218
	LTE Band 26/1RB#0 15M	Bottom Side	26865	23.55	25.00	1.396	0.174	0.243
	LTE Band 26/36RB#0 15M	Front Side	26865	22.75	23.50	1.189	0.108	0.128
	LTE Band 26/36RB#0 15M	Back Side	26865	22.75	23.50	1.189	0.171	0.203
	LTE Band 26/36RB#0 15M	Left Side	26865	22.75	23.50	1.189	0.047	0.056
	LTE Band 26/36RB#0 15M	Right Side	26865	22.75	23.50	1.189	0.130	0.155
	LTE Band 26/36RB#0 15M	Bottom Side	26865	22.75	23.50	1.189	0.141	0.168
Full Power (Ant4)								
	LTE Band 40/1RB#0 10M	Front Side	38750	23.24	25.00	1.500	0.146	0.220
	LTE Band 40/1RB#0 10M	Back Side	38750	23.24	25.00	1.500	0.207	0.312
	LTE Band 40/1RB#0 10M	Left Side	38750	23.24	25.00	1.500	0.071	0.107
	LTE Band 40/1RB#0 10M	Top Side	38750	23.24	25.00	1.500	0.182	0.275
	LTE Band 40/25RB#0 10M	Front Side	38750	22.38	23.50	1.294	0.115	0.150
	LTE Band 40/25RB#0 10M	Back Side	38750	22.38	23.50	1.294	0.185	0.241
	LTE Band 40/25RB#0 10M	Left Side	38750	22.38	23.50	1.294	0.054	0.070
	LTE Band 40/25RB#0 10M	Top Side	38750	22.38	23.50	1.294	0.149	0.194

Full Power (Ant4)								
	LTE Band 40/1RB#0 10M	Front Side	39200	23.20	25.00	1.514	0.149	0.227
43#	LTE Band 40/1RB#0 10M	Back Side	39200	23.20	25.00	1.514	0.217	0.330
	LTE Band 40/1RB#0 10M	Left Side	39200	23.20	25.00	1.514	0.070	0.107
	LTE Band 40/1RB#0 10M	Top Side	39200	23.20	25.00	1.514	0.185	0.282
	LTE Band 40/25RB#0 10M	Front Side	39200	22.31	23.50	1.315	0.115	0.152
	LTE Band 40/25RB#0 10M	Back Side	39200	22.31	23.50	1.315	0.184	0.243
	LTE Band 40/25RB#0 10M	Left Side	39200	22.31	23.50	1.315	0.056	0.074
	LTE Band 40/25RB#0 10M	Top Side	39200	22.31	23.50	1.315	0.147	0.194
Full Power (Ant4)								
	LTE Band 41/1RB#0 20M	Front Side	40620	23.48	25.00	1.419	0.218	0.311
44#	LTE Band 41/1RB#0 20M	Back Side	40620	23.48	25.00	1.419	0.497	0.710
	LTE Band 41/1RB#0 20M	Left Side	40620	23.48	25.00	1.419	0.115	0.164
	LTE Band 41/1RB#0 20M	Top Side	40620	23.48	25.00	1.419	0.386	0.551
	CA_41/1RB#0 20M	Back Side	40521	22.75	24.00	1.334	0.377	0.506
	LTE Band 41/50RB#0 20M	Front Side	40620	22.67	23.50	1.211	0.175	0.213
	LTE Band 41/50RB#0 20M	Back Side	40620	22.67	23.50	1.211	0.372	0.453
	LTE Band 41/50RB#0 20M	Left Side	40620	22.67	23.50	1.211	0.095	0.116
	LTE Band 41/50RB#0 20M	Top Side	40620	22.67	23.50	1.211	0.306	0.373
Full Power (Ant7)								
	LTE Band 42/1RB#0 20M	Front Side	42590	23.20	24.00	1.202	0.172	0.208
	LTE Band 42/1RB#0 20M	Back Side	42590	23.20	24.00	1.202	0.237	0.287
	LTE Band 42/1RB#0 20M	Left Side	42590	23.20	24.00	1.202	0.041	0.050
	LTE Band 42/1RB#0 20M	Right Side	42590	23.20	24.00	1.202	0.670	0.810
	LTE Band 42/1RB#0 20M	Top Side	42590	23.20	24.00	1.202	0.051	0.062
45#	LTE Band 42/1RB#0 20M	Right Side	41690	23.11	24.00	1.227	0.689	0.851
	LTE Band 42/1RB#0 20M	Right Side	42140	23.10	24.00	1.230	0.644	0.797
	LTE Band 42/1RB#0 20M	Right Side	43040	23.09	24.00	1.233	0.638	0.791
	LTE Band 42/1RB#0 20M	Right Side	43490	23.04	24.00	1.247	0.674	0.846
	LTE Band 42/50RB#0 20M	Front Side	42590	22.52	23.00	1.117	0.138	0.155
	LTE Band 42/50RB#0 20M	Back Side	42590	22.52	23.00	1.117	0.191	0.215
	LTE Band 42/50RB#0 20M	Left Side	42590	22.52	23.00	1.117	0.033	0.037
	LTE Band 42/50RB#0 20M	Right Side	42590	22.52	23.00	1.117	0.536	0.602
	LTE Band 42/50RB#0 20M	Top Side	42590	22.52	23.00	1.117	0.042	0.047
Reduced Power Level 2 (Ant4)								
	LTE Band 66/1RB#0 20M	Front Side	132322	23.16	24.50	1.361	0.324	0.441
	LTE Band 66/1RB#0 20M	Back Side	132322	23.16	24.50	1.361	0.453	0.617
	LTE Band 66/1RB#0 20M	Left Side	132322	23.16	24.50	1.361	0.166	0.226

46#	LTE Band 66/1RB#0 20M	Top Side	132322	23.16	24.50	1.361	0.759	1.033
	LTE Band 66/1RB#0 20M	Top Side	132072	23.10	24.50	1.380	0.721	0.995
	LTE Band 66/1RB#0 20M	Top Side	132572	23.14	24.50	1.368	0.732	1.001
	LTE Band 66/50RB#0 20M	Front Side	132322	21.99	23.00	1.262	0.281	0.355
	LTE Band 66/50RB#0 20M	Back Side	132322	21.99	23.00	1.262	0.452	0.570
	LTE Band 66/50RB#0 20M	Left Side	132322	21.99	23.00	1.262	0.143	0.180
	LTE Band 66/50RB#0 20M	Top Side	132322	21.99	23.00	1.262	0.585	0.738
Full Power for EDNC (Ant1)								
	LTE Band 66/1RB#0 20M	Front Side	132322	23.56	25.00	1.393	0.104	0.145
	LTE Band 66/1RB#0 20M	Back Side	132322	23.56	25.00	1.393	0.148	0.206
	LTE Band 66/1RB#0 20M	Left Side	132322	23.56	25.00	1.393	0.152	0.212
	LTE Band 66/1RB#0 20M	Bottom Side	132322	23.56	25.00	1.393	0.170	0.237
	LTE Band 66/50RB#0 20M	Front Side	132322	22.49	23.50	1.262	0.093	0.117
	LTE Band 66/50RB#0 20M	Back Side	132322	22.49	23.50	1.262	0.123	0.155
	LTE Band 66/50RB#0 20M	Left Side	132322	22.49	23.50	1.262	0.138	0.174
	LTE Band 66/50RB#0 20M	Bottom Side	132322	22.49	23.50	1.262	0.154	0.194
Full Power (Ant0)								
	LTE Band 71/1RB#0 20M	Front Side	133322	23.22	25.00	1.507	0.130	0.196
	LTE Band 71/1RB#0 20M	Back Side	133322	23.22	25.00	1.507	0.146	0.220
	LTE Band 71/1RB#0 20M	Left Side	133322	23.22	25.00	1.507	0.141	0.212
47#	LTE Band 71/1RB#0 20M	Right Side	133322	23.22	25.00	1.507	0.204	0.307
	LTE Band 71/1RB#0 20M	Bottom Side	133322	23.22	25.00	1.507	0.116	0.175
	LTE Band 71/50RB#0 20M	Front Side	133322	22.54	23.50	1.247	0.092	0.115
	LTE Band 71/50RB#0 20M	Back Side	133322	22.54	23.50	1.247	0.118	0.147
	LTE Band 71/50RB#0 20M	Left Side	133322	22.54	23.50	1.247	0.086	0.107
	LTE Band 71/50RB#0 20M	Right Side	133322	22.54	23.50	1.247	0.186	0.232
	LTE Band 71/50RB#0 20M	Bottom Side	133322	22.54	23.50	1.247	0.089	0.111

➢ **5G NR DFT-S-QPSK Hotspot SAR**

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Full Power (Ant4)								
	5G NR n2/1RB#1 20M	Front Side	376000	24.35	25.00	1.161	0.387	0.449
	5G NR n2/1RB#1 20M	Back Side	376000	24.35	25.00	1.161	0.465	0.540
	5G NR n2/1RB#1 20M	Left Side	376000	24.35	25.00	1.161	0.222	0.258
48#	5G NR n2/1RB#1 20M	Top Side	376000	24.35	25.00	1.161	0.604	0.702
	5G NR n2/50RB#25 20M	Front Side	376000	24.13	25.00	1.222	0.341	0.417
	5G NR n2/50RB#25 20M	Back Side	376000	24.13	25.00	1.222	0.359	0.439
	5G NR n2/50RB#25 20M	Left Side	376000	24.13	25.00	1.222	0.253	0.309
	5G NR n2/50RB#25 20M	Top Side	376000	24.13	25.00	1.222	0.523	0.639
Full Power (Ant0)								
	5G NR n5/1RB#1 20M	Front Side	167300	24.10	25.00	1.230	0.259	0.319
49#	5G NR n5/1RB#1 20M	Back Side	167300	24.10	25.00	1.230	0.288	0.354
	5G NR n5/1RB#1 20M	Left Side	167300	24.10	25.00	1.230	0.033	0.041
	5G NR n5/1RB#1 20M	Right Side	167300	24.10	25.00	1.230	0.102	0.125
	5G NR n5/1RB#1 20M	Bottom Side	167300	24.10	25.00	1.230	0.255	0.314
	5G NR n5/50RB#25 20M	Front Side	167300	23.63	24.50	1.222	0.288	0.352
	5G NR n5/50RB#25 20M	Back Side	167300	23.63	24.50	1.222	0.270	0.330
	5G NR n5/50RB#25 20M	Left Side	167300	23.63	24.50	1.222	0.025	0.031
	5G NR n5/50RB#25 20M	Right Side	167300	23.63	24.50	1.222	0.096	0.117
	5G NR n5/50RB#25 20M	Bottom Side	167300	23.63	24.50	1.222	0.250	0.305
Full Power (Ant4)								
	5G NR n7/1RB#1 40M	Front Side	507000	23.76	24.50	1.186	0.488	0.579
	5G NR n7/1RB#1 40M	Back Side	507000	23.76	24.50	1.186	0.521	0.618
	5G NR n7/1RB#1 40M	Left Side	507000	23.76	24.50	1.186	0.215	0.255
50#	5G NR n7/1RB#1 40M	Top Side	507000	23.76	24.50	1.186	0.728	0.863
	5G NR n7/1RB#1 40M	Top Side	504000	23.66	24.50	1.213	0.702	0.852
	5G NR n7/1RB#1 40M	Top Side	510000	23.71	24.50	1.199	0.713	0.855
	5G NR n7/108RB#54 40M	Front Side	507000	23.42	24.50	1.282	0.436	0.559
	5G NR n7/108RB#54 40M	Back Side	507000	23.42	24.50	1.282	0.466	0.598
	5G NR n7/108RB#54 40M	Left Side	507000	23.42	24.50	1.282	0.191	0.245
	5G NR n7/108RB#54 40M	Top Side	507000	23.42	24.50	1.282	0.651	0.835
	5G NR n7/108RB#54 40M	Top Side	504000	23.39	24.50	1.291	0.527	0.680
	5G NR n7/108RB#54 40M	Top Side	510000	23.36	24.50	1.300	0.635	0.826
Full Power (Ant4)								

	5G NR n25/1RB#1 40M	Front Side	376500	24.20	25.00	1.202	0.569	0.684
	5G NR n25/1RB#1 40M	Back Side	376500	24.20	25.00	1.202	0.588	0.707
	5G NR n25/1RB#1 40M	Left Side	376500	24.20	25.00	1.202	0.391	0.470
51#	5G NR n25/1RB#1 40M	Top Side	376500	24.20	25.00	1.202	0.872	1.048
	5G NR n25/1RB#1 40M	Top Side	374000	24.18	25.00	1.208	0.858	1.036
	5G NR n25/1RB#1 40M	Top Side	379000	24.16	25.00	1.213	0.829	1.006
	5G NR n25/108RB#54 40M	Front Side	376500	24.07	25.00	1.239	0.539	0.668
	5G NR n25/108RB#54 40M	Back Side	376500	24.07	25.00	1.239	0.562	0.696
	5G NR n25/108RB#54 40M	Left Side	376500	24.07	25.00	1.239	0.300	0.372
	5G NR n25/108RB#54 40M	Top Side	376500	24.07	25.00	1.239	0.837	1.037
	5G NR n25/108RB#54 40M	Top Side	374000	23.87	25.00	1.297	0.803	1.042
	5G NR n25/108RB#54 40M	Top Side	379000	24.03	25.00	1.250	0.807	1.009
	5G NR n25/216RB#0 40M	Top Side	376500	23.17	25.00	1.524	0.552	0.841
Full Power (Ant0)								
	5G NR n26/1RB#1 10M	Front Side	163800	24.02	25.00	1.253	0.172	0.216
	5G NR n26/1RB#1 10M	Back Side	163800	24.02	25.00	1.253	0.199	0.249
	5G NR n26/1RB#1 10M	Left Side	163800	24.02	25.00	1.253	0.003	0.004
	5G NR n26/1RB#1 10M	Right Side	163800	24.02	25.00	1.253	0.057	0.071
	5G NR n26/1RB#1 10M	Bottom Side	163800	24.02	25.00	1.253	0.146	0.183
	5G NR n26/25RB#12 10M	Front Side	163800	23.42	24.00	1.143	0.191	0.218
52#	5G NR n26/25RB#12 10M	Back Side	163800	23.42	24.00	1.143	0.223	0.255
	5G NR n26/25RB#12 10M	Left Side	163800	23.42	24.00	1.143	0.006	0.007
	5G NR n26/25RB#12 10M	Right Side	163800	23.42	24.00	1.143	0.064	0.073
	5G NR n26/25RB#12 10M	Bottom Side	163800	23.42	24.00	1.143	0.164	0.187
Full Power (Ant0)								
	5G NR n26/1RB#1 20M	Front Side	167300	24.11	25.00	1.227	0.166	0.204
	5G NR n26/1RB#1 20M	Back Side	167300	24.11	25.00	1.227	0.194	0.238
	5G NR n26/1RB#1 20M	Left Side	167300	24.11	25.00	1.227	0.005	0.006
	5G NR n26/1RB#1 20M	Right Side	167300	24.11	25.00	1.227	0.056	0.069
	5G NR n26/1RB#1 20M	Bottom Side	167300	24.11	25.00	1.227	0.143	0.176
	5G NR n26/50RB#25 20M	Front Side	167300	23.65	24.50	1.216	0.150	0.182
	5G NR n26/50RB#25 20M	Back Side	167300	23.65	24.50	1.216	0.173	0.210
	5G NR n26/50RB#25 20M	Left Side	167300	23.65	24.50	1.216	0.007	0.009
	5G NR n26/50RB#25 20M	Right Side	167300	23.65	24.50	1.216	0.058	0.071
	5G NR n26/50RB#25 20M	Bottom Side	167300	23.65	24.50	1.216	0.146	0.178
Reduced Power Level 2 (Ant4)								
	5G NR n38/1RB#1 40M	Front Side	519000	21.71	22.50	1.199	0.476	0.571
	5G NR n38/1RB#1 40M	Back Side	519000	21.71	22.50	1.199	0.581	0.697

	5G NR n38/1RB#1 40M	Left Side	519000	21.71	22.50	1.199	0.243	0.291
53#	5G NR n38/1RB#1 40M	Top Side	519000	21.71	22.50	1.199	0.795	0.954
	5G NR n38/1RB#1 40M	Top Side	518000	21.67	22.50	1.211	0.746	0.903
	5G NR n38/1RB#1 40M	Top Side	520000	21.62	22.50	1.225	0.763	0.934
	5G NR n38/108RB#54 40M	Front Side	519000	21.26	22.00	1.186	0.425	0.504
	5G NR n38/108RB#54 40M	Back Side	519000	21.26	22.00	1.186	0.519	0.615
	5G NR n38/108RB#54 40M	Left Side	519000	21.26	22.00	1.186	0.218	0.258
	5G NR n38/108RB#54 40M	Top Side	519000	21.26	22.00	1.186	0.711	0.843
	5G NR n38/108RB#54 40M	Top Side	518000	21.20	22.00	1.202	0.664	0.798
	5G NR n38/108RB#54 40M	Top Side	520000	21.16	22.00	1.213	0.679	0.824
Full Power (Ant4)								
	5G NR n40/1RB#1 10M	Front Side	462000	23.81	25.00	1.315	0.396	0.521
	5G NR n40/1RB#1 10M	Back Side	462000	23.81	25.00	1.315	0.469	0.617
	5G NR n40/1RB#1 10M	Left Side	462000	23.81	25.00	1.315	0.266	0.350
54#	5G NR n40/1RB#1 10M	Top Side	462000	23.81	25.00	1.315	0.559	0.735
	5G NR n40/12RB#6 10M	Front Side	462000	23.43	24.00	1.140	0.351	0.400
	5G NR n40/12RB#6 10M	Back Side	462000	23.43	24.00	1.140	0.419	0.478
	5G NR n40/12RB#6 10M	Left Side	462000	23.43	24.00	1.140	0.238	0.271
	5G NR n40/12RB#6 10M	Top Side	462000	23.43	24.00	1.140	0.497	0.567
Full Power (Ant4)								
	5G NR n40/1RB#1 10M	Front Side	471000	24.11	25.00	1.227	0.360	0.442
	5G NR n40/1RB#1 10M	Back Side	471000	24.11	25.00	1.227	0.426	0.523
	5G NR n40/1RB#1 10M	Left Side	471000	24.11	25.00	1.227	0.244	0.299
	5G NR n40/1RB#1 10M	Top Side	471000	24.11	25.00	1.227	0.509	0.625
	5G NR n40/12RB#6 10M	Front Side	471000	23.87	24.50	1.156	0.321	0.371
	5G NR n40/12RB#6 10M	Back Side	471000	23.87	24.50	1.156	0.379	0.438
	5G NR n40/12RB#6 10M	Left Side	471000	23.87	24.50	1.156	0.218	0.252
	5G NR n40/12RB#6 10M	Top Side	471000	23.87	24.50	1.156	0.454	0.525
Reduced Power Level 2 (Ant4) (PC2)								
	5G NR n41/1RB#1 100M	Front Side	518598	22.22	23.00	1.197	0.658	0.787
	5G NR n41/1RB#1 100M	Back Side	518598	22.22	23.00	1.197	0.761	0.911
	5G NR n41/1RB#1 100M	Left Side	518598	22.22	23.00	1.197	0.319	0.382
55#	5G NR n41/1RB#1 100M	Top Side	518598	22.22	23.00	1.197	0.802	0.960
	5G NR n41/1RB#1 100M	Back Side	509202	22.02	23.00	1.253	0.698	0.875
	5G NR n41/1RB#1 100M	Back Side	513900	21.94	23.00	1.276	0.711	0.908
	5G NR n41/1RB#1 100M	Back Side	523296	22.20	23.00	1.202	0.726	0.873
	5G NR n41/1RB#1 100M	Back Side	528000	22.05	23.00	1.245	0.735	0.915
	5G NR n41/1RB#1 100M	Top Side	509202	22.02	23.00	1.253	0.724	0.907

	5G NR n41/1RB#1 100M	Top Side	513900	21.94	23.00	1.276	0.733	0.936
	5G NR n41/1RB#1 100M	Top Side	523296	22.20	23.00	1.202	0.741	0.891
	5G NR n41/1RB#1 100M	Top Side	528000	22.05	23.00	1.245	0.756	0.941
	5G NR n41/137RB#67 100M	Front Side	518598	21.93	22.50	1.140	0.352	0.401
	5G NR n41/137RB#67 100M	Back Side	518598	21.93	22.50	1.140	0.399	0.455
	5G NR n41/137RB#67 100M	Left Side	518598	21.93	22.50	1.140	0.174	0.198
	5G NR n41/137RB#67 100M	Top Side	518598	21.93	22.50	1.140	0.410	0.468
	5G NR n41/137RB#67 100M	Top Side	509202	21.82	22.50	1.169	0.352	0.412
	5G NR n41/137RB#67 100M	Top Side	513900	21.90	22.50	1.148	0.399	0.458
	5G NR n41/137RB#67 100M	Top Side	523296	21.61	22.50	1.227	0.174	0.214
	5G NR n41/137RB#67 100M	Top Side	528000	21.70	22.50	1.202	0.410	0.493
Reduced Power Level 2 (Ant4) (PC3)								
	5G NR n41/1RB#1 100M	Front Side	518598	19.38	20.00	1.153	0.658	0.759
	5G NR n41/1RB#1 100M	Back Side	518598	19.38	20.00	1.153	0.761	0.878
	5G NR n41/1RB#1 100M	Left Side	518598	19.38	20.00	1.153	0.319	0.368
	5G NR n41/1RB#1 100M	Top Side	518598	19.38	20.00	1.153	0.802	0.925
	5G NR n41/1RB#1 100M	Top Side	509202	19.30	20.00	1.175	0.724	0.851
	5G NR n41/1RB#1 100M	Top Side	513900	19.08	20.00	1.236	0.733	0.906
	5G NR n41/1RB#1 100M	Top Side	523296	19.25	20.00	1.189	0.741	0.881
	5G NR n41/1RB#1 100M	Top Side	528000	19.24	20.00	1.191	0.756	0.901
	5G NR n41/137RB#67 100M	Front Side	518598	19.07	19.50	1.104	0.352	0.389
	5G NR n41/137RB#67 100M	Back Side	518598	19.07	19.50	1.104	0.399	0.441
	5G NR n41/137RB#67 100M	Left Side	518598	19.07	19.50	1.104	0.174	0.192
	5G NR n41/137RB#67 100M	Top Side	518598	19.07	19.50	1.104	0.410	0.453
	5G NR n41/137RB#67 100M	Top Side	509202	18.97	19.50	1.130	0.352	0.398
	5G NR n41/137RB#67 100M	Top Side	513900	19.06	19.50	1.107	0.399	0.442
	5G NR n41/137RB#67 100M	Top Side	523296	19.00	19.50	1.122	0.174	0.195
	5G NR n41/137RB#67 100M	Top Side	528000	19.01	19.50	1.119	0.410	0.459
Reduced Power Level 2 (Ant4)								
	5G NR n66/1RB#1 40M	Front Side	349000	22.05	23.00	1.245	0.424	0.528
	5G NR n66/1RB#1 40M	Back Side	349000	22.05	23.00	1.245	0.538	0.670
	5G NR n66/1RB#1 40M	Left Side	349000	22.05	23.00	1.245	0.252	0.314
56#	5G NR n66/1RB#1 40M	Top Side	349000	22.05	23.00	1.245	0.804	1.001
	5G NR n66/1RB#1 40M	Top Side	346000	21.98	23.00	1.265	0.775	0.980
	5G NR n66/1RB#1 40M	Top Side	352000	21.88	23.00	1.294	0.762	0.986
	5G NR n66/108RB#54 40M	Front Side	349000	21.96	22.50	1.132	0.379	0.429
	5G NR n66/108RB#54 40M	Back Side	349000	21.96	22.50	1.132	0.481	0.545
	5G NR n66/108RB#54 40M	Left Side	349000	21.96	22.50	1.132	0.222	0.251

	5G NR n66/108RB#54 40M	Top Side	349000	21.96	22.50	1.132	0.715	0.810
	5G NR n66/108RB#54 40M	Top Side	346000	21.95	22.50	1.135	0.691	0.784
	5G NR n66/108RB#54 40M	Top Side	352000	21.76	22.50	1.186	0.673	0.798
Full Power (Ant0) (PC2)								
	5G NR n71/1RB#1 20M	Front Side	136100	23.90	25.00	1.288	0.140	0.180
	5G NR n71/1RB#1 20M	Back Side	136100	23.90	25.00	1.288	0.151	0.195
	5G NR n71/1RB#1 20M	Left Side	136100	23.90	25.00	1.288	0.008	0.010
	5G NR n71/1RB#1 20M	Right Side	136100	23.90	25.00	1.288	0.083	0.107
57#	5G NR n71/1RB#1 20M	Bottom Side	136100	23.90	25.00	1.288	0.170	0.219
	5G NR n71/50RB#25 20M	Front Side	136100	23.25	24.00	1.189	0.118	0.140
	5G NR n71/50RB#25 20M	Back Side	136100	23.25	24.00	1.189	0.122	0.145
	5G NR n71/50RB#25 20M	Left Side	136100	23.25	24.00	1.189	0.005	0.006
	5G NR n71/50RB#25 20M	Right Side	136100	23.25	24.00	1.189	0.085	0.101
	5G NR n71/50RB#25 20M	Bottom Side	136100	23.25	24.00	1.189	0.154	0.183
Reduced Power Level 2 (Ant7) (PC2)								
	5G NR n77/1RB#1 100M	Front Side	633334	18.12	20.00	1.542	0.174	0.268
	5G NR n77/1RB#1 100M	Back Side	633334	18.12	20.00	1.542	0.252	0.389
58#	5G NR n77/1RB#1 100M	Right Side	633334	18.12	20.00	1.542	0.645	0.994
	5G NR n77/1RB#1 100M	Top Side	633334	18.12	20.00	1.542	0.053	0.082
	5G NR n77/135RB#67 100M	Front Side	633334	17.85	18.50	1.161	0.155	0.180
	5G NR n77/135RB#67 100M	Back Side	633334	17.85	18.50	1.161	0.225	0.261
	5G NR n77/135RB#67 100M	Right Side	633334	17.85	18.50	1.161	0.576	0.669
	5G NR n77/135RB#67 100M	Top Side	633334	17.85	18.50	1.161	0.047	0.055
Reduced Power Level 2 (Ant7) (PC2)								
	5G NR n77/1RB#1 100M	Front Side	656000	18.39	20.00	1.449	0.116	0.168
	5G NR n77/1RB#1 100M	Back Side	656000	18.39	20.00	1.449	0.169	0.245
	5G NR n77/1RB#1 100M	Right Side	656000	18.39	20.00	1.449	0.431	0.624
	5G NR n77/1RB#1 100M	Top Side	656000	18.39	20.00	1.449	0.036	0.052
	5G NR n77/135RB#67 100M	Front Side	656000	17.75	18.50	1.189	0.116	0.138
	5G NR n77/135RB#67 100M	Back Side	656000	17.75	18.50	1.189	0.169	0.201
	5G NR n77/135RB#67 100M	Right Side	656000	17.75	18.50	1.189	0.431	0.512
	5G NR n77/135RB#67 100M	Top Side	656000	17.75	18.50	1.189	0.036	0.043
Reduced Power Level 2 (Ant7) (PC3)								
	5G NR n77/1RB#1 100M	Front Side	633334	18.02	19.00	1.253	0.174	0.218
	5G NR n77/1RB#1 100M	Back Side	633334	18.02	19.00	1.253	0.252	0.316
	5G NR n77/1RB#1 100M	Right Side	633334	18.02	19.00	1.253	0.645	0.808
	5G NR n77/1RB#1 100M	Top Side	633334	18.02	19.00	1.253	0.053	0.066
	5G NR n77/135RB#1 100M	Front Side	633334	17.82	18.50	1.169	0.155	0.181

	5G NR n77/135RB#1 100M	Back Side	633334	17.82	18.50	1.169	0.225	0.263
	5G NR n77/135RB#1 100M	Right Side	633334	17.82	18.50	1.169	0.576	0.674
	5G NR n77/135RB#1 100M	Top Side	633334	17.82	18.50	1.169	0.047	0.055
Reduced Power Level 2 (Ant7) (PC3)								
	5G NR n77/1RB#1 100M	Front Side	656000	18.23	19.00	1.194	0.116	0.139
	5G NR n77/1RB#1 100M	Back Side	656000	18.23	19.00	1.194	0.169	0.202
	5G NR n77/1RB#1 100M	Right Side	656000	18.23	19.00	1.194	0.431	0.515
	5G NR n77/1RB#1 100M	Top Side	656000	18.23	19.00	1.194	0.036	0.043
	5G NR n77/135RB#67 100M	Front Side	656000	17.90	18.50	1.148	0.116	0.133
	5G NR n77/135RB#67 100M	Back Side	656000	17.90	18.50	1.148	0.169	0.194
	5G NR n77/135RB#67 100M	Right Side	656000	17.90	18.50	1.148	0.431	0.495
	5G NR n77/135RB#67 100M	Top Side	656000	17.90	18.50	1.148	0.036	0.041
Reduced Power Level 2 (Ant7) (PC2)								
	5G NR n78/1RB#1 100M	Front Side	633334	17.71	19.00	1.346	0.167	0.225
	5G NR n78/1RB#1 100M	Back Side	633334	17.71	19.00	1.346	0.229	0.308
59#	5G NR n78/1RB#1 100M	Right Side	633334	17.71	19.00	1.346	0.683	0.919
	5G NR n78/1RB#1 100M	Top Side	633334	17.71	19.00	1.346	0.079	0.106
	5G NR n78/135RB#67 100M	Front Side	633334	17.31	18.00	1.172	0.149	0.175
	5G NR n78/135RB#67 100M	Back Side	633334	17.31	18.00	1.172	0.204	0.239
	5G NR n78/135RB#67 100M	Right Side	633334	17.31	18.00	1.172	0.611	0.716
	5G NR n78/135RB#67 100M	Top Side	633334	17.31	18.00	1.172	0.072	0.084
Reduced Power Level 2 (Ant7) (PC2)								
	5G NR n78/1RB#1 100M	Front Side	650000	17.66	19.00	1.361	0.155	0.211
	5G NR n78/1RB#1 100M	Back Side	650000	17.66	19.00	1.361	0.216	0.294
	5G NR n78/1RB#1 100M	Right Side	650000	17.66	19.00	1.361	0.662	0.901
	5G NR n78/1RB#1 100M	Top Side	650000	17.66	19.00	1.361	0.073	0.099
	5G NR n78/135RB#67 100M	Front Side	650000	17.28	18.00	1.180	0.135	0.159
	5G NR n78/135RB#67 100M	Back Side	650000	17.28	18.00	1.180	0.191	0.225
	5G NR n78/135RB#67 100M	Right Side	650000	17.28	18.00	1.180	0.588	0.694
	5G NR n78/135RB#67 100M	Top Side	650000	17.28	18.00	1.180	0.062	0.073
Reduced Power Level 2 (Ant4) (PC3)								
	5G NR n78/1RB#1 100M	Front Side	633334	17.46	18.50	1.271	0.167	0.212
	5G NR n78/1RB#1 100M	Back Side	633334	17.46	18.50	1.271	0.229	0.291
	5G NR n78/1RB#1 100M	Right Side	633334	17.46	18.50	1.271	0.683	0.868
	5G NR n78/1RB#1 100M	Top Side	633334	17.46	18.50	1.271	0.079	0.100
	5G NR n78/135RB#1 100M	Front Side	633334	17.36	18.00	1.159	0.149	0.173
	5G NR n78/135RB#1 100M	Back Side	633334	17.36	18.00	1.159	0.204	0.236
	5G NR n78/135RB#1 100M	Right Side	633334	17.36	18.00	1.159	0.611	0.708

	5G NR n78/135RB#1 100M	Top Side	633334	17.36	18.00	1.159	0.072	0.083
Reduced Power Level 2 (Ant7) (PC3)								
	5G NR n78/1RB#1 100M	Front Side	650000	17.38	18.50	1.294	0.155	0.201
	5G NR n78/1RB#1 100M	Back Side	650000	17.38	18.50	1.294	0.216	0.280
	5G NR n78/1RB#1 100M	Right Side	650000	17.38	18.50	1.294	0.662	0.857
	5G NR n78/1RB#1 100M	Top Side	650000	17.38	18.50	1.294	0.073	0.094
	5G NR n78/135RB#1 100M	Front Side	650000	17.25	18.00	1.189	0.135	0.160
	5G NR n78/135RB#1 100M	Back Side	650000	17.25	18.00	1.189	0.191	0.227
	5G NR n78/135RB#1 100M	Right Side	650000	17.25	18.00	1.189	0.588	0.699
	5G NR n78/135RB#1 100M	Top Side	650000	17.25	18.00	1.189	0.062	0.074

➢ WLAN Hotspot SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Reduced Power Level 2 (Ant8)								
	WLAN2.4GHz/802.11b	Front Side	11	17.56	19.00	1.393	0.142	0.216
	WLAN2.4GHz/802.11b	Back Side	11	17.56	19.00	1.393	0.154	0.234
	WLAN2.4GHz/802.11b	Right Side	11	17.56	19.00	1.393	0.032	0.049
60#	WLAN2.4GHz/802.11b	Top Side	11	17.56	19.00	1.393	0.203	0.309
Full Power (Ant9)								
	WLAN2.4GHz/802.11b	Front Side	1	19.22	21.00	1.507	0.044	0.072
	WLAN2.4GHz/802.11b	Back Side	1	19.22	21.00	1.507	0.107	0.176
	WLAN2.4GHz/802.11b	Right Side	1	19.22	21.00	1.507	0.087	0.143
	WLAN2.4GHz/802.11b	Top Side	1	19.22	21.00	1.507	0.032	0.053
Full Power (Ant8+9)								
	WLAN2.4GHz/802.11n20	Front Side	11	22.09	24.00	1.552	0.108	0.168
	WLAN2.4GHz/802.11n20	Back Side	11	22.09	24.00	1.552	0.080	0.124
	WLAN2.4GHz/802.11n20	Right Side	11	22.09	24.00	1.552	0.045	0.070
	WLAN2.4GHz/802.11n20	Top Side	11	22.09	24.00	1.552	0.184	0.286
Full Power (Ant6)								
	WLAN5.2GHz/802.11n20	Front Side	44	18.77	20.50	1.489	0.102	0.152
61#	WLAN5.2GHz/802.11n20	Back Side	44	18.77	20.50	1.489	0.137	0.204
	WLAN5.2GHz/802.11n20	Right Side	44	18.77	20.50	1.489	0.086	0.128
	WLAN5.2GHz/802.11n20	Top Side	44	18.77	20.50	1.489	0.127	0.189
Full Power (Ant9)								
	WLAN5.2GHz/802.11a	Front Side	36	19.42	21.00	1.439	0.014	0.020
	WLAN5.2GHz/802.11a	Back Side	36	19.42	21.00	1.439	0.098	0.141
	WLAN5.2GHz/802.11a	Right Side	36	19.42	21.00	1.439	0.090	0.129

	WLAN5.2GHz/802.11a	Top Side	36	19.42	21.00	1.439	0.074	0.106
Full Power (Ant6+9)								
	WLAN5.2GHz/802.11n20	Front Side	36	21.43	23.00	1.435	0.038	0.055
	WLAN5.2GHz/802.11n20	Back Side	36	21.43	23.00	1.435	0.114	0.164
	WLAN5.2GHz/802.11n20	Right Side	36	21.43	23.00	1.435	0.069	0.099
	WLAN5.2GHz/802.11n20	Top Side	36	21.43	23.00	1.435	0.097	0.139
Full Power (Ant6)								
	WLAN5.8GHz/802.11a	Front Side	165	17.99	19.50	1.416	0.060	0.085
62#	WLAN5.8GHz/802.11a	Back Side	165	17.99	19.50	1.416	0.218	0.309
	WLAN5.8GHz/802.11a	Right Side	165	17.99	19.50	1.416	0.064	0.091
	WLAN5.8GHz/802.11a	Top Side	165	17.99	19.50	1.416	0.074	0.105
Full Power (Ant9)								
	WLAN5.8GHz/802.11n20	Front Side	149	18.03	20.00	1.574	0.069	0.109
	WLAN5.8GHz/802.11n20	Back Side	149	18.03	20.00	1.574	0.133	0.209
	WLAN5.8GHz/802.11n20	Right Side	149	18.03	20.00	1.574	0.090	0.142
	WLAN5.8GHz/802.11n20	Top Side	149	18.03	20.00	1.574	0.077	0.121
Full Power (Ant6+9)								
	WLAN5.8GHz/802.11n20	Front Side	149	19.80	21.50	1.479	0.061	0.090
	WLAN5.8GHz/802.11n20	Back Side	149	19.80	21.50	1.479	0.128	0.189
	WLAN5.8GHz/802.11n20	Right Side	149	19.80	21.50	1.479	0.097	0.143
	WLAN5.8GHz/802.11n20	Top Side	149	19.80	21.50	1.479	0.149	0.220
Full Power (Ant8)								
	Bluetooth/DH5	Front Side	0	12.10	13.00	1.230	0.045	0.060
	Bluetooth/DH5	Back Side	0	12.10	13.00	1.230	0.048	0.064
	Bluetooth/DH5	Right Side	0	12.10	13.00	1.230	0.038	0.051
63#	Bluetooth/DH5	Top Side	0	12.10	13.00	1.230	0.085	0.113

Note:

1. For TDD-LTE, the reported SAR should be scaled with the duty cycle scaling factor 1.006.
2. The WLAN 2.4GHz 802.11b reported 1g SAR (W/kg) should be scaled with the duty cycle scaling factor 1.091(ANT8) & 1.089(ANT9).
3. According to 2016 Oct. TCB workshop for Bluetooth SAR consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation. The duty cycle of Bluetooth is 76.85 %, Therefore the duty cycle scaling factor 1.084 should be used to calculating the reported SAR.

19.4. Body-worn SAR Data

➢ GSM Body-worn SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Full Power (Ant2)								
	GPRS 850 (4TX slots)	Front Side	189	27.97	29.50	1.422	0.059	0.084
64#	GPRS 850 (4TX slots)	Back Side	189	27.97	29.50	1.422	0.097	0.138
Full Power (Ant4)								
	GPRS 1900 (4 TX slots)	Front Side	661	25.34	27.00	1.466	0.105	0.154
65#	GPRS 1900 (4 TX slots)	Back Side	661	25.34	27.00	1.466	0.185	0.271

➢ WCDMA Body-worn SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Full Power (Ant4)								
	Band II/RMC 12.2Kbps	Front Side	9400	23.33	25.00	1.469	0.157	0.231
66#	Band II/RMC 12.2Kbps	Back Side	9400	23.33	25.00	1.469	0.251	0.369
Full Power (Ant4)								
	Band IV/RMC 12.2Kbps	Front Side	1413	23.25	25.00	1.496	0.223	0.334
67#	Band IV/RMC 12.2Kbps	Back Side	1413	23.25	25.00	1.496	0.355	0.531
Full Power (Ant0)								
	Band V/RMC 12.2Kbps	Front Side	4182	23.17	25.00	1.524	0.111	0.169
68#	Band V/RMC 12.2Kbps	Back Side	4182	23.17	25.00	1.524	0.137	0.209

➢ LTE QPSK Body-worn SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Full Power (Ant4)								
	LTE Band 7/1RB#0 20M	Front Side	21100	23.16	24.50	1.361	0.218	0.297
69#	LTE Band 7/1RB#0 20M	Back Side	21100	23.16	24.50	1.361	0.372	0.506
	LTE Band 7/50RB#0 20M	Front Side	21100	22.16	23.50	1.361	0.195	0.265
	LTE Band 7/50RB#0 20M	Back Side	21100	22.16	23.50	1.361	0.332	0.452
Full Power (Ant0)								
	LTE Band 12/1RB#0 10M	Front Side	23095	23.25	25.00	1.496	0.053	0.079
70#	LTE Band 12/1RB#0 10M	Back Side	23095	23.25	25.00	1.496	0.200	0.299
	LTE Band 12/25RB#0 10M	Front Side	23095	22.38	23.50	1.294	0.047	0.061

	LTE Band 12/25RB#0 10M	Back Side	23095	22.38	23.50	1.294	0.178	0.230
Full Power (Ant0)								
	LTE Band 13/1RB#0 10M	Front Side	23230	23.29	25.00	1.483	0.054	0.080
71#	LTE Band 13/1RB#0 10M	Back Side	23230	23.29	25.00	1.483	0.207	0.307
	LTE Band 13/25RB#0 10M	Front Side	23230	22.55	23.50	1.245	0.048	0.060
	LTE Band 13/25RB#0 10M	Back Side	23230	22.55	23.50	1.245	0.185	0.230
Full Power (Ant4)								
	LTE Band 25/1RB#0 20M	Front Side	26365	23.67	25.00	1.358	0.183	0.249
72#	LTE Band 25/1RB#0 20M	Back Side	26365	23.67	25.00	1.358	0.356	0.484
	LTE Band 25/50RB#0 20M	Front Side	26365	22.68	23.50	1.208	0.163	0.197
	LTE Band 25/50RB#0 20M	Back Side	26365	22.68	23.50	1.208	0.318	0.384
Full Power for ENDC(Ant1)								
	LTE Band 25/1RB#0 20M	Front Side	26365	23.67	25.00	1.358	0.057	0.077
	LTE Band 25/1RB#0 20M	Back Side	26365	23.67	25.00	1.358	0.093	0.126
	LTE Band 25/50RB#0 20M	Front Side	26365	22.68	23.50	1.208	0.051	0.062
	LTE Band 25/50RB#0 20M	Back Side	26365	22.68	23.50	1.208	0.083	0.100
Full Power (Ant0)								
	LTE Band 26/1RB#0 15M	Front Side	26865	23.55	25.00	1.396	0.101	0.141
73#	LTE Band 26/1RB#0 15M	Back Side	26865	23.55	25.00	1.396	0.139	0.194
	LTE Band 26/36RB#0 15M	Front Side	26865	22.75	23.50	1.189	0.090	0.107
	LTE Band 26/36RB#0 15M	Back Side	26865	22.75	23.50	1.189	0.124	0.147
Full Power (Ant4)								
	LTE Band 40/1RB#0 10M	Front Side	38750	23.24	25.00	1.500	0.081	0.122
	LTE Band 40/1RB#0 10M	Back Side	38750	23.24	25.00	1.500	0.145	0.219
	LTE Band 40/25RB#0 10M	Front Side	38750	22.38	23.50	1.294	0.072	0.094
	LTE Band 40/25RB#0 10M	Back Side	38750	22.38	23.50	1.294	0.128	0.167
Full Power (Ant4)								
	LTE Band 40/1RB#0 10M	Front Side	39200	23.20	25.00	1.514	0.088	0.134
74#	LTE Band 40/1RB#0 10M	Back Side	39200	23.20	25.00	1.514	0.159	0.242
	LTE Band 40/25RB#0 10M	Front Side	39200	22.31	23.50	1.315	0.078	0.103
	LTE Band 40/25RB#0 10M	Back Side	39200	22.31	23.50	1.315	0.142	0.188
Full Power (Ant4)								
	LTE Band 41/1RB#0 20M	Front Side	40620	23.48	25.00	1.419	0.116	0.166
75#	LTE Band 41/1RB#0 20M	Back Side	40620	23.48	25.00	1.419	0.239	0.341
	LTE Band 41/1RB#0 20M	Back Side	40521	22.75	24.00	1.334	0.198	0.266
	LTE Band 41/50RB#0 20M	Front Side	40620	22.67	23.50	1.211	0.104	0.127
	LTE Band 41/50RB#0 20M	Back Side	40620	22.67	23.50	1.211	0.213	0.259
Full Power (Ant7)								

	LTE Band 42/1RB#0 20M	Front Side	42590	23.20	24.00	1.202	0.113	0.137
76#	LTE Band 42/1RB#0 20M	Back Side	42590	23.20	24.00	1.202	0.201	0.243
	LTE Band 42/50RB#0 20M	Front Side	42590	22.52	23.00	1.117	0.101	0.113
	LTE Band 42/50RB#0 20M	Back Side	42590	22.52	23.00	1.117	0.179	0.201
Full Power (Ant4)								
	LTE Band 66/1RB#0 20M	Front Side	132322	23.56	25.00	1.393	0.147	0.205
77#	LTE Band 66/1RB#0 20M	Back Side	132322	23.56	25.00	1.393	0.276	0.385
	LTE Band 66/50RB#0 20M	Front Side	132322	22.49	23.50	1.262	0.131	0.165
	LTE Band 66/50RB#0 20M	Back Side	132322	22.49	23.50	1.262	0.245	0.309
Full Power for ENDC (Ant1)								
	LTE Band 66/1RB#0 20M	Front Side	132322	23.56	25.00	1.393	0.052	0.072
	LTE Band 66/1RB#0 20M	Back Side	132322	23.56	25.00	1.393	0.088	0.123
	LTE Band 66/50RB#0 20M	Front Side	132322	22.49	23.50	1.262	0.048	0.061
	LTE Band 66/50RB#0 20M	Back Side	132322	22.49	23.50	1.262	0.079	0.100
Full Power (Ant0)								
	LTE Band 71/1RB#0 20M	Front Side	133322	23.22	25.00	1.507	0.115	0.173
78#	LTE Band 71/1RB#0 20M	Back Side	133322	23.22	25.00	1.507	0.149	0.224
	LTE Band 71/50RB#0 20M	Front Side	133322	22.54	23.50	1.247	0.103	0.128
	LTE Band 71/50RB#0 20M	Back Side	133322	22.54	23.50	1.247	0.133	0.166

➢ **5G NR DFT-S-QPSK Body-worn SAR**

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Full Power (Ant4)								
	5G NR n2/1RB#1 20M	Front Side	376000	24.35	25.00	1.161	0.167	0.194
79#	5G NR n2/1RB#1 20M	Back Side	376000	24.35	25.00	1.161	0.300	0.348
	5G NR n2/50RB#25 20M	Front Side	376000	24.13	25.00	1.222	0.149	0.182
	5G NR n2/50RB#25 20M	Back Side	376000	24.13	25.00	1.222	0.268	0.327
Full Power (Ant0)								
	5G NR n5/1RB#1 20M	Front Side	167300	24.10	25.00	1.230	0.095	0.117
80#	5G NR n5/1RB#1 20M	Back Side	167300	24.10	25.00	1.230	0.125	0.154
	5G NR n5/50RB#25 20M	Front Side	167300	23.63	24.50	1.222	0.084	0.103
	5G NR n5/50RB#25 20M	Back Side	167300	23.63	24.50	1.222	0.111	0.136
Full Power (Ant4)								
	5G NR n7/1RB#1 40M	Front Side	507000	23.76	24.50	1.186	0.291	0.345
81#	5G NR n7/1RB#1 40M	Back Side	507000	23.76	24.50	1.186	0.483	0.573
	5G NR n7/108RB#54 40M	Front Side	507000	23.42	24.50	1.282	0.259	0.332

	5G NR n7/108RB#54 40M	Back Side	507000	23.42	24.50	1.282	0.432	0.554
Full Power (Ant4)								
	5G NR n25/1RB#1 40M	Front Side	376500	24.20	25.00	1.202	0.302	0.363
82#	5G NR n25/1RB#1 40M	Back Side	376500	24.20	25.00	1.202	0.485	0.583
	5G NR n25/108RB#54 40M	Front Side	376500	24.07	25.00	1.239	0.271	0.336
	5G NR n25/108RB#54 40M	Back Side	376500	24.07	25.00	1.239	0.433	0.536
Full Power (Ant0)								
	5G NR n26/1RB#1 10M	Front Side	163800	24.02	25.00	1.253	0.099	0.124
83#	5G NR n26/1RB#1 10M	Back Side	163800	24.02	25.00	1.253	0.126	0.158
	5G NR n26/25RB#12 10M	Front Side	163800	23.42	24.00	1.143	0.092	0.105
	5G NR n26/25RB#12 10M	Back Side	163800	23.42	24.00	1.143	0.123	0.141
Full Power (Ant0)								
	5G NR n26/1RB#1 20M	Front Side	167300	24.11	25.00	1.227	0.085	0.104
	5G NR n26/1RB#1 20M	Back Side	167300	24.11	25.00	1.227	0.119	0.146
	5G NR n26/50RB#25 20M	Front Side	167300	23.65	24.50	1.216	0.079	0.096
	5G NR n26/50RB#25 20M	Back Side	167300	23.65	24.50	1.216	0.105	0.128
Full Power (Ant4)								
	5G NR n38/1RB#1 40M	Front Side	519000	24.21	25.00	1.199	0.277	0.332
84#	5G NR n38/1RB#1 40M	Back Side	519000	24.21	25.00	1.199	0.549	0.659
	5G NR n38/108RB#54 40M	Front Side	519000	23.76	24.50	1.186	0.247	0.293
	5G NR n38/108RB#54 40M	Back Side	519000	23.76	24.50	1.186	0.491	0.582
Full Power (Ant4)								
	5G NR n40/1RB#1 10M	Front Side	462000	23.81	25.00	1.315	0.131	0.172
85#	5G NR n40/1RB#1 10M	Back Side	462000	23.81	25.00	1.315	0.217	0.285
	5G NR n40/12RB#6 10M	Front Side	462000	23.43	24.00	1.140	0.117	0.133
	5G NR n40/12RB#6 10M	Back Side	462000	23.43	24.00	1.140	0.193	0.220
Full Power (Ant4) (PC2)								
	5G NR n40/1RB#1 10M	Front Side	471000	24.11	25.00	1.227	0.119	0.146
	5G NR n40/1RB#1 10M	Back Side	471000	24.11	25.00	1.227	0.197	0.242
	5G NR n40/50RB#25 10M	Front Side	471000	23.87	24.50	1.156	0.106	0.123
	5G NR n40/50RB#25 10M	Back Side	471000	23.87	24.50	1.156	0.175	0.202
Full Power (Ant4) (PC2)								
	5G NR n41/1RB#1 100M	Front Side	518598	27.22	28.00	1.197	0.393	0.470
86#	5G NR n41/1RB#1 100M	Back Side	518598	27.22	28.00	1.197	0.665	0.796
	5G NR n41/137RB#67 100M	Front Side	518598	26.93	27.50	1.140	0.351	0.400
	5G NR n41/137RB#67 100M	Back Side	518598	26.93	27.50	1.140	0.625	0.713
Full Power (Ant4) (PC3)								
	5G NR n41/1RB#1 100M	Front Side	518598	24.38	25.00	1.153	0.277	0.320

	5G NR n41/1RB#1 100M	Back Side	518598	24.38	25.00	1.153	0.424	0.489
	5G NR n41/137RB#67 100M	Front Side	518598	24.07	24.50	1.104	0.247	0.273
	5G NR n41/137RB#67 100M	Back Side	518598	24.07	24.50	1.104	0.379	0.418
Full Power (Ant4)								
	5G NR n66/1RB#1 40M	Front Side	349000	24.05	25.00	1.245	0.166	0.207
87#	5G NR n66/1RB#1 40M	Back Side	349000	24.05	25.00	1.245	0.305	0.380
	5G NR n66/108RB#54 40M	Front Side	349000	23.96	24.50	1.132	0.148	0.168
	5G NR n66/108RB#54 40M	Back Side	349000	23.96	24.50	1.132	0.272	0.308
Full Power (Ant0) (PC2)								
	5G NR n71/1RB#1 20M	Front Side	136100	23.90	25.00	1.288	0.089	0.115
88#	5G NR n71/1RB#1 20M	Back Side	136100	23.90	25.00	1.288	0.118	0.152
	5G NR n71/50RB#25 20M	Front Side	136100	23.25	24.00	1.189	0.079	0.094
	5G NR n71/50RB#25 20M	Back Side	136100	23.25	24.00	1.189	0.105	0.125
Full Power (Ant7) (PC2)								
	5G NR n77/1RB#1 100M	Front Side	633334	26.12	28.00	1.542	0.334	0.515
89#	5G NR n77/1RB#1 100M	Back Side	633334	26.12	28.00	1.542	0.605	0.933
	5G NR n77/135RB#67 100M	Front Side	633334	25.85	26.50	1.161	0.315	0.366
	5G NR n77/135RB#67 100M	Back Side	633334	25.85	26.50	1.161	0.579	0.672
Full Power (Ant7) (PC2)								
	5G NR n77/1RB#1 100M	Front Side	656000	26.39	28.00	1.449	0.284	0.411
	5G NR n77/1RB#1 100M	Back Side	656000	26.39	28.00	1.449	0.543	0.787
	5G NR n77/135RB#67 100M	Front Side	656000	25.75	26.50	1.189	0.269	0.320
	5G NR n77/135RB#67 100M	Back Side	656000	25.75	26.50	1.189	0.517	0.614
Full Power (Ant7) (PC3)								
	5G NR n77/1RB#1 100M	Front Side	633334	23.02	24.00	1.253	0.196	0.246
	5G NR n77/1RB#1 100M	Back Side	633334	23.02	24.00	1.253	0.334	0.419
	5G NR n77/135RB#1 100M	Front Side	633334	22.82	23.50	1.169	0.190	0.222
	5G NR n77/135RB#1 100M	Back Side	633334	22.82	23.50	1.169	0.285	0.333
Full Power (Ant7) (PC3)								
	5G NR n77/1RB#1 100M	Front Side	656000	23.23	24.00	1.194	0.193	0.230
	5G NR n77/1RB#1 100M	Back Side	656000	23.23	24.00	1.194	0.324	0.387
	5G NR n77/135RB#67 100M	Front Side	656000	22.90	23.50	1.148	0.189	0.217
	5G NR n77/135RB#67 100M	Back Side	656000	22.90	23.50	1.148	0.279	0.320
Full Power (Ant7) (PC2)								
	5G NR n78/1RB#1 100M	Front Side	633334	26.21	28.00	1.510	0.556	0.840
90#	5G NR n78/1RB#1 100M	Back Side	633334	26.21	28.00	1.510	0.749	1.131
	5G NR n78/135RB#67 100M	Front Side	633334	25.81	26.50	1.172	0.496	0.581
	5G NR n78/135RB#67 100M	Back Side	633334	25.81	26.50	1.172	0.668	0.783

Full Power (Ant7) (PC2)								
	5G NR n78/1RB#1 100M	Front Side	650000	26.16	28.00	1.528	0.501	0.765
	5G NR n78/1RB#1 100M	Back Side	650000	26.16	28.00	1.528	0.675	1.031
	5G NR n78/135RB#67 100M	Front Side	650000	25.78	26.50	1.180	0.447	0.528
	5G NR n78/135RB#67 100M	Back Side	650000	25.78	26.50	1.180	0.602	0.711
Full Power (Ant7) (PC3)								
	5G NR n78/1RB#1 100M	Front Side	633334	22.96	24.00	1.271	0.279	0.354
	5G NR n78/1RB#1 100M	Back Side	633334	22.96	24.00	1.271	0.376	0.478
	5G NR n78/135RB#1 100M	Front Side	633334	22.86	23.50	1.159	0.249	0.289
	5G NR n78/135RB#1 100M	Back Side	633334	22.86	23.50	1.159	0.336	0.389
Full Power (Ant7) (PC3)								
	5G NR n78/1RB#1 100M	Front Side	650000	22.88	24.00	1.294	0.252	0.326
	5G NR n78/1RB#1 100M	Back Side	650000	22.88	24.00	1.294	0.339	0.439
	5G NR n78/135RB#1 100M	Front Side	650000	22.75	23.50	1.189	0.225	0.267
	5G NR n78/135RB#1 100M	Back Side	650000	22.75	23.50	1.189	0.303	0.360

➢ WLAN Body-worn SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{1g} (W/kg)	Reported SAR_{1g} (W/kg)
Full Power (Ant8)								
	WLAN2.4GHz/802.11b	Front Side	11	20.16	22.00	1.528	0.124	0.207
91#	WLAN2.4GHz/802.11b	Back Side	11	20.16	22.00	1.528	0.127	0.212
Full Power (Ant9)								
	WLAN2.4GHz/802.11b	Front Side	1	19.22	21.00	1.507	0.029	0.048
	WLAN2.4GHz/802.11b	Back Side	1	19.22	21.00	1.507	0.053	0.087
Full Power (Ant8+9)								
	WLAN2.4GHz/802.11n20	Front Side	11	22.09	24.00	1.552	0.063	0.098
	WLAN2.4GHz/802.11n20	Back Side	11	22.09	24.00	1.552	0.060	0.093
Full Power (Ant6)								
	WLAN5.2GHz/802.11n20	Front Side	44	18.77	20.50	1.489	0.081	0.121
	WLAN5.2GHz/802.11n20	Back Side	44	18.77	20.50	1.489	0.092	0.137
Full Power (Ant9)								
	WLAN5.2GHz/802.11a	Front Side	36	19.42	21.00	1.439	0.089	0.128
	WLAN5.2GHz/802.11a	Back Side	36	19.42	21.00	1.439	0.054	0.078
Full Power (Ant6+9)								
	WLAN5.2GHz/802.11n20	Front Side	36	21.43	23.00	1.435	0.087	0.125
92#	WLAN5.2GHz/802.11n20	Back Side	36	21.43	23.00	1.435	0.107	0.154
Full Power (Ant6)								

	WLAN5.3GHz/802.11n20	Front Side	52	18.65	20.50	1.531	0.091	0.139
93#	WLAN5.3GHz/802.11n20	Back Side	52	18.65	20.50	1.531	0.147	0.225
Full Power (Ant9)								
	WLAN5.3GHz/802.11n20	Front Side	64	19.63	21.50	1.538	0.059	0.091
	WLAN5.3GHz/802.11n20	Back Side	64	19.63	21.50	1.538	0.053	0.082
Full Power (Ant6+9)								
	WLAN5.3GHz/802.11n20	Front Side	52	21.44	23.00	1.432	0.092	0.132
	WLAN5.3GHz/802.11n20	Back Side	52	21.44	23.00	1.432	0.152	0.218
Full Power (Ant6)								
	WLAN5.5GHz/802.11a	Front Side	116	17.95	19.50	1.429	0.051	0.073
94#	WLAN5.5GHz/802.11a	Back Side	116	17.95	19.50	1.429	0.061	0.088
Full Power (Ant9)								
	WLAN5.5GHz/802.11n20	Front Side	100	19.16	21.00	1.528	0.047	0.072
	WLAN5.5GHz/802.11n20	Back Side	100	19.16	21.00	1.528	0.053	0.081
Full Power (Ant6+9)								
	WLAN5.5GHz/802.11n20	Front Side	100	20.67	22.50	1.524	0.042	0.064
	WLAN5.5GHz/802.11n20	Back Side	100	20.67	22.50	1.524	0.055	0.084
Full Power (Ant6)								
	WLAN5.8GHz/802.11a	Front Side	165	17.99	19.50	1.416	0.047	0.067
95#	WLAN5.8GHz/802.11a	Back Side	165	17.99	19.50	1.416	0.105	0.149
Full Power (Ant9)								
	WLAN5.8GHz/802.11n20	Front Side	149	18.03	20.00	1.574	0.082	0.129
	WLAN5.8GHz/802.11n20	Back Side	149	18.03	20.00	1.574	0.080	0.126
Full Power (Ant6+9)								
	WLAN5.8GHz/802.11n20	Front Side	149	19.80	21.50	1.479	0.082	0.121
	WLAN5.8GHz/802.11n20	Back Side	149	19.80	21.50	1.479	0.099	0.146
Full Power (Ant8)								
	Bluetooth/DH5	Front Side	0	12.10	13.00	1.230	0.012	0.016
96#	Bluetooth/DH5	Back Side	0	12.10	13.00	1.230	0.022	0.029

Note:

1. For TDD-LTE, the reported SAR should be scaled with the duty cycle scaling factor 1.006.
2. The WLAN 2.4GHz 802.11b reported 1g SAR (W/kg) should be scaled with the duty cycle scaling factor 1.091(ANT8) & 1.089(ANT9).
3. According to 2016 Oct. TCB workshop for Bluetooth SAR consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation. The duty cycle of Bluetooth is 76.85 %, Therefore the duty cycle scaling factor 1.084 should be used to calculating the reported SAR.

19.5. Extremity SAR Assessment

➢ **General Guidance**

1. According to KDB 648474 D04v01r03 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 Publication 865664 D01 to address interactive hand use exposure conditions.
2. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg; however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold per KDB 648474 D04v01r03.
3. According to the user manual, the EUT diagonal size is greater than 16cm, therefore the 0mm extremity SAR of WLAN 5GHz is required.

➢ **Extremity SAR**

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR_{10g} (W/kg)	Reported SAR_{10g} (W/kg)
Reduced Power Level 3 (Ant4)								
	5G NR n38/1RB#1 40M	Front Side	519000	21.21	22.00	1.199	1.440	1.727
	5G NR n38/1RB#1 40M	Back Side	519000	21.21	22.00	1.199	1.790	2.147
	5G NR n38/1RB#1 40M	Left Side	519000	21.21	22.00	1.199	0.736	0.883
97#	5G NR n38/1RB#1 40M	Top Side	519000	21.21	22.00	1.199	2.760	3.311
	5G NR n38/1RB#1 40M	Top Side	518000	21.17	22.00	1.211	2.570	3.111
	5G NR n38/1RB#1 40M	Top Side	520000	21.12	22.00	1.225	2.490	3.049
	5G NR n38/108RB#54 40M	Front Side	519000	20.76	21.50	1.186	1.290	1.530
	5G NR n38/108RB#54 40M	Back Side	519000	20.76	21.50	1.186	1.600	1.897
	5G NR n38/108RB#54 40M	Left Side	519000	20.76	21.50	1.186	0.657	0.779
	5G NR n38/108RB#54 40M	Top Side	519000	20.76	21.50	1.186	2.460	2.917
	5G NR n38/108RB#54 40M	Top Side	518000	20.70	21.50	1.202	2.370	2.849
	5G NR n38/108RB#54 40M	Top Side	520000	20.66	21.50	1.213	2.290	2.779
Reduced Power Level 3 (Ant4) (PC2)								
	5G NR n41/1RB#1 100M	Front Side	518598	20.22	21.00	1.197	1.330	1.592
	5G NR n41/1RB#1 100M	Back Side	518598	20.22	21.00	1.197	1.370	1.640

	5G NR n41/1RB#1 100M	Left Side	518598	20.22	21.00	1.197	0.504	0.603
98#	5G NR n41/1RB#1 100M	Top Side	518598	20.22	21.00	1.197	2.520	3.016
	5G NR n41/1RB#1 100M	Top Side	509202	20.02	21.00	1.253	2.380	2.982
	5G NR n41/1RB#1 100M	Top Side	513900	19.94	21.00	1.276	2.350	3.000
	5G NR n41/1RB#1 100M	Top Side	523296	20.20	21.00	1.202	2.490	2.994
	5G NR n41/1RB#1 100M	Top Side	528000	20.05	21.00	1.245	2.410	2.999
	5G NR n41/137RB#67 100M	Front Side	518598	19.93	20.50	1.140	1.090	1.243
	5G NR n41/137RB#67 100M	Back Side	518598	19.93	20.50	1.140	1.120	1.277
	5G NR n41/137RB#67 100M	Left Side	518598	19.93	20.50	1.140	0.413	0.471
	5G NR n41/137RB#67 100M	Top Side	518598	19.93	20.50	1.140	2.070	2.360
	5G NR n41/137RB#67 100M	Top Side	509202	19.82	20.50	1.169	2.080	2.433
	5G NR n41/137RB#67 100M	Top Side	513900	19.90	20.50	1.148	2.050	2.354
	5G NR n41/137RB#67 100M	Top Side	523296	19.61	20.50	1.227	1.990	2.443
	5G NR n41/137RB#67 100M	Top Side	528000	19.70	20.50	1.202	2.010	2.417
Reduced Power Level 3 (Ant4) (PC3)								
	5G NR n41/1RB#1 100M	Front Side	518598	20.38	21.00	1.153	1.330	1.534
	5G NR n41/1RB#1 100M	Back Side	518598	20.38	21.00	1.153	1.370	1.580
	5G NR n41/1RB#1 100M	Left Side	518598	20.38	21.00	1.153	0.504	0.581
	5G NR n41/1RB#1 100M	Top Side	518598	20.38	21.00	1.153	2.520	2.907
	5G NR n41/1RB#1 100M	Top Side	509202	20.30	21.00	1.175	2.380	2.796
	5G NR n41/1RB#1 100M	Top Side	513900	20.08	21.00	1.236	2.350	2.904
	5G NR n41/1RB#1 100M	Top Side	523296	20.25	21.00	1.189	2.490	2.959
	5G NR n41/1RB#1 100M	Top Side	528000	20.24	21.00	1.191	2.410	2.871
	5G NR n41/137RB#67 100M	Front Side	518598	20.07	20.50	1.104	1.090	1.203
	5G NR n41/137RB#67 100M	Back Side	518598	20.07	20.50	1.104	1.120	1.237
	5G NR n41/137RB#67 100M	Left Side	518598	20.07	20.50	1.104	0.413	0.456
	5G NR n41/137RB#67 100M	Top Side	518598	20.07	20.50	1.104	2.070	2.285
	5G NR n41/137RB#67 100M	Top Side	509202	19.97	20.50	1.130	2.080	2.350
	5G NR n41/137RB#67 100M	Top Side	513900	20.06	20.50	1.107	2.050	2.269
	5G NR n41/137RB#67 100M	Top Side	523296	20.00	20.50	1.122	1.990	2.233
	5G NR n41/137RB#67 100M	Top Side	528000	20.01	20.50	1.119	2.010	2.250
Reduced Power Level 3 (Ant4) (Ant4)								
	5G NR n66/1RB#1 40M	Front Side	349000	22.05	23.00	1.245	1.580	1.966
	5G NR n66/1RB#1 40M	Back Side	349000	22.05	23.00	1.245	1.490	1.854
	5G NR n66/1RB#1 40M	Left Side	349000	22.05	23.00	1.245	0.857	1.067
99#	5G NR n66/1RB#1 40M	Top Side	349000	22.05	23.00	1.245	2.540	3.161
	5G NR n66/1RB#1 40M	Top Side	346000	21.98	23.00	1.265	2.440	3.086
	5G NR n66/1RB#1 40M	Top Side	352000	21.88	23.00	1.294	2.380	3.080

	5G NR n66/108RB#54 40M	Front Side	349000	21.96	22.50	1.132	1.370	1.551
	5G NR n66/108RB#54 40M	Back Side	349000	21.96	22.50	1.132	1.290	1.461
	5G NR n66/108RB#54 40M	Left Side	349000	21.96	22.50	1.132	0.738	0.836
	5G NR n66/108RB#54 40M	Top Side	349000	21.96	22.50	1.132	2.070	2.344
	5G NR n66/108RB#54 40M	Top Side	346000	21.95	22.50	1.135	2.140	2.429
	5G NR n66/108RB#54 40M	Top Side	352000	21.76	22.50	1.186	1.980	2.348
Reduced Power Level 3 (Ant7) (PC2)								
	5G NR n77/1RB#1 100M	Front Side	633334	18.12	20.00	1.542	0.528	0.814
	5G NR n77/1RB#1 100M	Back Side	633334	18.12	20.00	1.542	0.739	1.139
100#	5G NR n77/1RB#1 100M	Right Side	633334	18.12	20.00	1.542	2.110	3.253
	5G NR n77/1RB#1 100M	Top Side	633334	18.12	20.00	1.542	0.212	0.327
	5G NR n77/135RB#67 100M	Front Side	633334	17.85	18.50	1.161	0.459	0.533
	5G NR n77/135RB#67 100M	Back Side	633334	17.85	18.50	1.161	0.643	0.747
	5G NR n77/135RB#67 100M	Right Side	633334	17.85	18.50	1.161	1.750	2.033
	5G NR n77/135RB#67 100M	Top Side	633334	17.85	18.50	1.161	0.183	0.213
Reduced Power Level 3 (Ant7) (PC2)								
	5G NR n77/1RB#1 100M	Front Side	656000	18.39	20.00	1.449	0.481	0.697
	5G NR n77/1RB#1 100M	Back Side	656000	18.39	20.00	1.449	0.672	0.974
	5G NR n77/1RB#1 100M	Right Side	656000	18.39	20.00	1.449	1.920	2.782
	5G NR n77/1RB#1 100M	Top Side	656000	18.39	20.00	1.449	0.193	0.280
	5G NR n77/1RB#1 100M	Right Side	650000	18.28	20.00	1.486	1.910	2.838
	5G NR n77/1RB#1 100M	Right Side	653000	18.25	20.00	1.496	1.890	2.828
	5G NR n77/1RB#1 100M	Right Side	659000	18.26	20.00	1.493	1.850	2.762
	5G NR n77/1RB#1 100M	Right Side	662000	18.08	20.00	1.556	1.820	2.832
	5G NR n77/135RB#67 100M	Front Side	656000	17.75	18.50	1.189	0.417	0.496
	5G NR n77/135RB#67 100M	Back Side	656000	17.75	18.50	1.189	0.585	0.695
	5G NR n77/135RB#67 100M	Right Side	656000	17.75	18.50	1.189	1.590	1.890
	5G NR n77/135RB#67 100M	Top Side	656000	17.75	18.50	1.189	0.166	0.197
Reduced Power Level 3 (Ant7) (PC3)								
	5G NR n77/1RB#1 100M	Front Side	633334	18.02	19.00	1.253	0.528	0.662
	5G NR n77/1RB#1 100M	Back Side	633334	18.02	19.00	1.253	0.739	0.926
	5G NR n77/1RB#1 100M	Right Side	633334	18.02	19.00	1.253	2.110	2.644
	5G NR n77/1RB#1 100M	Top Side	633334	18.02	19.00	1.253	0.212	0.266
	5G NR n77/135RB#1 100M	Front Side	633334	17.82	18.50	1.169	0.459	0.537
	5G NR n77/135RB#1 100M	Back Side	633334	17.82	18.50	1.169	0.643	0.752
	5G NR n77/135RB#1 100M	Right Side	633334	17.82	18.50	1.169	1.750	2.047
	5G NR n77/135RB#1 100M	Top Side	633334	17.82	18.50	1.169	0.183	0.214
Reduced Power Level 3 (Ant7) (PC3)								

	5G NR n77/1RB#1 100M	Front Side	656000	18.23	19.00	1.194	0.481	0.574
	5G NR n77/1RB#1 100M	Back Side	656000	18.23	19.00	1.194	0.672	0.802
	5G NR n77/1RB#1 100M	Right Side	656000	18.23	19.00	1.194	1.920	2.292
	5G NR n77/1RB#1 100M	Top Side	656000	18.23	19.00	1.194	0.193	0.230
	5G NR n77/1RB#1 100M	Right Side	650000	18.12	19.00	1.225	1.910	2.339
	5G NR n77/1RB#1 100M	Right Side	653000	18.18	19.00	1.208	1.890	2.283
	5G NR n77/1RB#1 100M	Right Side	659000	18.06	19.00	1.242	1.850	2.297
	5G NR n77/1RB#1 100M	Right Side	662000	18.10	19.00	1.230	1.820	2.239
	5G NR n77/135RB#67 100M	Front Side	656000	17.90	18.50	1.148	0.417	0.479
	5G NR n77/135RB#67 100M	Back Side	656000	17.90	18.50	1.148	0.585	0.672
	5G NR n77/135RB#67 100M	Right Side	656000	17.90	18.50	1.148	1.590	1.826
	5G NR n77/135RB#67 100M	Top Side	656000	17.90	18.50	1.148	0.166	0.191
Reduced Power Level 3 (Ant7) (PC2)								
	5G NR n78/1RB#1 100M	Front Side	633334	17.71	19.00	1.346	0.480	0.646
	5G NR n78/1RB#1 100M	Back Side	633334	17.71	19.00	1.346	0.687	0.925
101#	5G NR n78/1RB#1 100M	Right Side	633334	17.71	19.00	1.346	1.940	2.611
	5G NR n78/1RB#1 100M	Top Side	633334	17.71	19.00	1.346	0.206	0.277
	5G NR n78/135RB#67 100M	Front Side	633334	17.31	18.00	1.172	0.429	0.503
	5G NR n78/135RB#67 100M	Back Side	633334	17.31	18.00	1.172	0.613	0.719
	5G NR n78/135RB#67 100M	Right Side	633334	17.31	18.00	1.172	1.730	2.028
	5G NR n78/135RB#67 100M	Top Side	633334	17.31	18.00	1.172	0.184	0.216
Reduced Power Level 3 (Ant7) (PC2)								
	5G NR n78/1RB#1 100M	Front Side	650000	17.66	19.00	1.361	0.436	0.594
	5G NR n78/1RB#1 100M	Back Side	650000	17.66	19.00	1.361	0.625	0.851
	5G NR n78/1RB#1 100M	Right Side	650000	17.66	19.00	1.361	1.760	2.396
	5G NR n78/1RB#1 100M	Top Side	650000	17.66	19.00	1.361	0.187	0.255
	5G NR n78/135RB#67 100M	Front Side	650000	17.28	18.00	1.180	0.391	0.462
	5G NR n78/135RB#67 100M	Back Side	650000	17.28	18.00	1.180	0.557	0.657
	5G NR n78/135RB#67 100M	Right Side	650000	17.28	18.00	1.180	1.570	1.853
	5G NR n78/135RB#67 100M	Top Side	650000	17.28	18.00	1.180	0.167	0.197
Reduced Power Level 3 (Ant7) (PC3)								
	5G NR n78/1RB#1 100M	Front Side	633334	17.46	18.50	1.271	0.417	0.530
	5G NR n78/1RB#1 100M	Back Side	633334	17.46	18.50	1.271	0.585	0.743
	5G NR n78/1RB#1 100M	Right Side	633334	17.46	18.50	1.271	1.590	2.020
	5G NR n78/1RB#1 100M	Top Side	633334	17.46	18.50	1.271	0.166	0.211
	5G NR n78/135RB#1 100M	Front Side	633334	17.36	18.00	1.159	0.480	0.556
	5G NR n78/135RB#1 100M	Back Side	633334	17.36	18.00	1.159	0.687	0.796
	5G NR n78/135RB#1 100M	Right Side	633334	17.36	18.00	1.159	1.940	2.248

	5G NR n78/135RB#1 100M	Top Side	633334	17.36	18.00	1.159	0.206	0.239
Reduced Power Level 3 (Ant7) (PC3)								
	5G NR n78/1RB#1 100M	Front Side	650000	17.38	18.50	1.294	0.429	0.555
	5G NR n78/1RB#1 100M	Back Side	650000	17.38	18.50	1.294	0.613	0.793
	5G NR n78/1RB#1 100M	Right Side	650000	17.38	18.50	1.294	1.730	2.239
	5G NR n78/1RB#1 100M	Top Side	650000	17.38	18.50	1.294	0.184	0.238
	5G NR n78/135RB#1 100M	Front Side	650000	17.25	18.00	1.189	0.436	0.518
	5G NR n78/135RB#1 100M	Back Side	650000	17.25	18.00	1.189	0.625	0.743
	5G NR n78/135RB#1 100M	Right Side	650000	17.25	18.00	1.189	1.760	2.092
	5G NR n78/135RB#1 100M	Top Side	650000	17.25	18.00	1.189	0.187	0.222
Full Power (Ant6)								
	WLAN5.3GHz/802.11n20	Front Side	52	18.65	20.50	1.531	0.261	0.400
102#	WLAN5.3GHz/802.11n20	Back Side	52	18.65	20.50	1.531	0.459	0.703
Full Power (Ant9)								
	WLAN5.3GHz/802.11n20	Front Side	64	19.63	21.50	1.538	0.098	0.151
	WLAN5.3GHz/802.11n20	Back Side	64	19.63	21.50	1.538	0.194	0.298
Full Power (Ant6+9)								
	WLAN5.3GHz/802.11n20	Front Side	52	21.44	23.00	1.432	0.250	0.358
	WLAN5.3GHz/802.11n20	Back Side	52	21.44	23.00	1.432	0.422	0.604
Full Power (Ant6)								
	WLAN5.5GHz/802.11a	Front Side	116	17.95	19.50	1.429	0.104	0.149
103#	WLAN5.5GHz/802.11a	Back Side	116	17.95	19.50	1.429	0.282	0.403
Full Power (Ant9)								
	WLAN5.5GHz/802.11n20	Front Side	100	19.16	21.00	1.528	0.080	0.122
	WLAN5.5GHz/802.11n20	Back Side	100	19.16	21.00	1.528	0.151	0.231
Full Power (Ant6+9)								
	WLAN5.5GHz/802.11n20	Front Side	100	20.67	22.50	1.524	0.099	0.151
	WLAN5.5GHz/802.11n20	Back Side	100	20.67	22.50	1.524	0.263	0.401

19.6. Repeated SAR Assessment

➢ **General Note**

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

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

➢ **Head Repeated SAR**

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR1g (W/kg)	Reported SAR1g (W/kg)
Reduced Power Level 1 (ANT4)								
OR.	LTE Band 66/1RB#0 20M	Right Cheek	132322	18.76	19.50	1.186	0.837	0.992
1st	LTE Band 66/1RB#0 20M	Right Cheek	132322	18.76	19.50	1.186	0.817	0.969
Reduced Power Level 1 (ANT4)								
OR.	5G NR n2/1RB#1 20M	Right Cheek	376000	19.35	20.00	1.161	0.892	1.036
1st	5G NR n2/1RB#1 20M	Right Cheek	376000	19.35	20.00	1.161	0.867	1.007
Reduced Power Level 1 (ANT4)								
OR.	5G NR n7/1RB#1 40M	Right Cheek	507000	18.76	19.50	1.186	0.889	1.054
1st	5G NR n7/1RB#1 40M	Right Cheek	507000	18.76	19.50	1.186	0.875	1.038
Reduced Power Level 1 (ANT4)								
OR.	5G NR n25/1RB#1 40M	Right Cheek	376500	19.20	20.00	1.202	0.822	0.988
1st	5G NR n25/1RB#1 40M	Right Cheek	376500	19.20	20.00	1.202	0.815	0.980
Reduced Power Level 1 (ANT4)								
OR.	5G NR n38/1RB#1 40M	Right Cheek	519000	15.71	16.50	1.199	0.894	1.072
1st	5G NR n38/1RB#1 40M	Right Cheek	519000	15.71	16.50	1.199	0.874	1.048
Reduced Power Level 1 (ANT4)								
OR.	5G NR n40/1RB#1 10M	Right Cheek	471000	17.61	18.50	1.227	0.808	0.992

1st	5G NR n40/1RB#1 10M	Right Cheek	471000	17.61	18.50	1.227	0.789	0.968
Reduced Power Level 1 (ANT4) (PC2)								
OR.	5G NR n41/1RB#1 100M	Right Cheek	518598	14.22	15.00	1.197	0.850	1.017
1st	5G NR n41/1RB#1 100M	Right Cheek	518598	14.22	15.00	1.197	0.842	1.008
Reduced Power Level 1 (ANT4)								
OR.	5G NR n66/1RB#1 40M	Right Cheek	349000	18.05	19.00	1.245	0.838	1.043
1st	5G NR n66/1RB#1 40M	Right Cheek	349000	18.05	19.00	1.245	0.825	1.027

➢ Hotspot Repeated SAR

Plot No.	Band/Mode	Test Position	CH.	Ave. Power (dBm)	Tune-up Limit (dBm)	Tune-up Scaling Factor	Meas. SAR1g (W/kg)	Reported SAR1g (W/kg)
Full Power (ANT4)								
OR.	5G NR n25/1RB#1 40M	Top Side	376500	24.20	25.00	1.202	0.872	1.048
1st	5G NR n25/1RB#1 40M	Top Side	376500	24.20	25.00	1.202	0.855	1.028
Reduced Power Level 2 (ANT4) (PC2)								
OR.	5G NR n41/1RB#1 100M	Top Side	518598	22.22	23.00	1.197	0.802	0.960
1st	5G NR n41/1RB#1 100M	Top Side	518598	22.22	23.00	1.197	0.789	0.944
Reduced Power Level 2 (ANT4)								
OR.	5G NR n66/1RB#1 40M	Top Side	349000	22.05	23.00	1.245	0.804	1.001
1st	5G NR n66/1RB#1 40M	Top Side	349000	22.05	23.00	1.245	0.795	0.989

20. Simultaneous Transmission Evaluation

20.1. Simultaneous Transmission Consideration

No.	Simultaneous Transmission Consideration	Head	Body-Worn	Hotspot	Extremity
1	WWAN + WLAN 2.4GHz(chain 0)/(chain 1)/MIMO	Yes	Yes	Yes	No
2	WWAN + WLAN 5GHz(chain 0)/(chain 1)/MIMO	Yes	Yes	Yes	Yes
3	WWAN + BT	No	Yes	Yes	No
4	WWAN + WLAN 2.4GHz(chain 1) + BT	No	Yes	Yes	No
5	WWAN + WLAN 5GHz(chain 0)/(chain 1)/MIMO + BT	No	Yes	Yes	No
6	WWAN + WLAN 2.4GHz (chain 0) + WLAN 5GHz(chain 0)	Yes	Yes	Yes	No
7	WWAN + WLAN 2.4GHz (chain 0) + WLAN 5GHz(chain 1)	Yes	Yes	Yes	No
8	WWAN + WLAN 2.4GHz (chain 0) + WLAN 5GHz MIMO	Yes	Yes	Yes	No
9	WWAN + WLAN 2.4GHz (chain 1) + WLAN 5GHz(chain 0)	Yes	Yes	Yes	No
10	WWAN + WLAN 2.4GHz (chain 1) + WLAN 5GHz MIMO	Yes	Yes	Yes	No
11	WWAN + WLAN 2.4GHz MIMO + WLAN 5GHz(chain 0)	Yes	Yes	Yes	No
12	WWAN + WLAN 2.4GHz MIMO + WLAN 5GHz(chain 1)	Yes	Yes	Yes	No
13	WWAN + WLAN 2.4GHz MIMO + WLAN 5GHz MIMO	Yes	Yes	Yes	No
14	WWAN + WLAN 2.4GHz (chain 1) + WLAN 5GHz (chain 0) + BT	No	Yes	Yes	No
15	WWAN + WLAN 2.4GHz (chain 1) + WLAN 5GHz MIMO + BT	No	Yes	Yes	No

Note:

1. When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of the WWAN and WLAN transmitters. The "Portable Hotspot" feature on the handset was NOT activated, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal.
2. The hotspot SAR result may overlap with the body-worn accessory SAR requirements, per KDB 941225 D06, the more conservative configurations can be considered, thus excluding some unnecessary body-worn accessory SAR tests.
3. Per KDB 447498D01v06, simultaneous transmission SAR evaluation procedures is as followed:
   Step 1: If sum of 1 g SAR < 1.6 W/kg, Simultaneous SAR measurement is not required.
   Step 2: If sum of 1 g SAR > 1.6 W/kg, ratio of SAR to peak separation distance for pair of transmitters calculated.
   Step 3: If the ratio of SAR to peak separation distance is ≤ 0.04, Simultaneous SAR measurement is not required.
   Step 4: If the ratio of SAR to peak separation distance is > 0.04, Simultaneous SAR measurement

is required and simultaneous transmission SAR value is calculated.
(The ratio is determined by: (SAR_1 + SAR_2) ^ 1.5 / R_i ≤ 0.04,
R_i is the separation distance between the peak SAR locations for the antenna pair in mm.

20.2. Simultaneous Transmission Analysis

Remark: The simultaneous transmission data was recorded in annex F.

21. Uncertainty Assessment

According to KDB 865664 D01 SAR measurement 100 MHz to 6GHz, when the highest measured 1-g SAR is less than 1.5 W/kg and 10-g extremity SAR less than 3.75 W/kg, the expanded SAR measurement uncertainty must be less than 30% with a confidence interval of k=2. When these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE 1528-2013 is not required in the SAR report and submitted for equipment approval. For this device, both the 1-g SAR is less than 1.5 W/kg. Therefore the measurement uncertainty table is not required in this report.

Annex A General Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Facilities and Accreditations

The FCC designation number is CN1192, the test firm registration number is 226174.

Note：

The main report is end here and the other annex (B,C,D,E,F,G) will be submitted separately.

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