FCC SAR EVALUATION REPORT

In accordance with the requirements of
FCC 47 CFR Part 2(2.1093) and
IEEE Std 1528-2013

Product Name :	Mobile Phone
Brand Name :	ulefone
Model Name :	GQ5011
Family Model :	Armor 28 Ultra, Armor 28, Armor 28 Pro, Armor 28T Ultra, Armor 28T Pro, Armor 28 Lite, Armor 28s, Armor 28s Pro
Report No. :	S24111904706001
FCC ID :	2AOWK-5011

Prepared for

Shenzhen Gotron Electronic CO.,LTD.

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Prepared by

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TEST RESULT CERTIFICATION

Applicant's name	Shenzhen Gotron Electronic CO.,LTD.
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Manufacturer's Name .	Shenzhen Gotron Electronic CO.,LTD.
Address.....	7B01, Building A, Block 1, Anhongji Tianyao Plaza, Longhua District, Shenzhen City, Guangdong Province China
Product description	
Product name	Mobile Phone
Brand Name	ulefone
Model and/or type reference	GQ5011
Family Model	Armor 28 Ultra, Armor 28, Armor 28 Pro, Armor 28T Ultra, Armor 28T Pro, Armor 28 Lite, Armor 28s, Armor 28s Pro
	FCC 47 CFR Part 2(2.1093)
Standards	IEEE Std 1528-2013
	Published RF exposure KDB procedures

This device described above has been tested by Shenzhen NTEK. In accordance with the measurement methods and procedures specified in IEEE Std 1528-2013 and KDB 865664 D01. Testing has shown that this device is capable of compliance with localized specific absorption rate (SAR) specified in FCC 47 CFR Part 2(2.1093). The test results in this report apply only to the tested sample of the stated device/equipment. Other similar device/equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

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Test Sample Number S241119047006

Date of Test

Date (s) of performance of tests... Dec.05, 2024~ Dec.26, 2024

Date of Issue Feb.20, 2025

Test Result ..... **Pass**

Prepared By :	Reviewed By :	Approved By :
Owen Xiao	Aaron Cheng	Alex Li
(Project Engineer)	(Supervisor)	(Manager)

※ ※ Revision History ※ ※

REV.	DESCRIPTION	ISSUED DATE	REMARK
Rev.1.0	Initial Test Report Release	Feb.20, 2025	Owen Xiao

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1. General Information

1.1. RF exposure limits

(A).Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

NOTE: ***Whole-Body SAR*** is averaged over the entire body, ***partial-body SAR*** is averaged over any 1 gram 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.

Occupational/Controlled 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).

General Population/Uncontrolled Environments:

Are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

NOTE
HEAD AND TRUNK LIMIT
1.6 W/kg
APPLIED TO THIS EUT

1.2. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for GQ5011 are as follows.

RF Exposure Conditions		Equipment Class -Highest Reported SAR (W/kg)				Max. Reported SAR (W/kg)
		PCE	DTS	NII	DSS	
1-g Head		0.259	0.485	0.535	0.297	0.535
1-g Body-Worn (Separation distance of 10mm)		1.195	0.191	0.342	0.149	1.195
1-g Hotspot (Separation distance of 10mm)		1.195	0.191	0.556	0.149	
10-g Extremity (Separation distance of 0mm)		1.075	0.166	0.217	N/A	
Max Simultaneous Tx	Head	0.794	0.744	0.794	0.556	0.794
	Body-Worn	1.517	1.320	1.517	1.344	1.517
	Hotspot	1.517	1.320	1.517	1.344	
	Extremity	1.292	1.241	1.292	N/A	1.292

Note: The Max Simultaneous Tx is calculated based on the same configuration and test position.

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR Part 2(2.1093), and had been tested in accordance with the measurement methods and procedures specified in IEEE Std 1528-2013 & KDB 865664 D01.

1.3. EUT Description

Device Information	
Product Name	Mobile Phone
Brand Name	ulefone
Model Name	GQ5011
Family Model	Armor 28 Ultra, Armor 28, Armor 28 Pro, Armor 28T Ultra, Armor 28T Pro, Armor 28 Lite, Armor 28s, Armor 28s Pro
Model Difference	All models are the same circuit and RF module, except for model names.
FCC ID	2AOWK-5011
Device Phase	Identical Prototype
Exposure Category	General population / Uncontrolled environment
Antenna Type	LDS Antenna
Battery	DC 7.74V, 5300mAh, 41.022Wh

Information			
HW Version	M190-MUB-V		
SW Version	N/A		
Device Operating Configurations			
Supporting Mode(s)	GSM850/1900,WCDMABand2/4/5,LTEBand2/4/5/12/17/41/66/71, NR SA n66, n71,WLAN 2.4G/5G, Bluetooth, NFC		
Test Modulation	GSM(GMSK), WCDMA(QPSK), LTE(QPSK/16QAM), NR(DFT-s-OFDM:PI/2 BPSK/QPSK/16-QAM/64QAM/256QAMCP-OFDM:QPSK/16-QAM/64QAM/256QAM), WLAN(DSSS/OFDM), Bluetooth(GFSK, π/4-DQPSK, 8DPSK), NFC(ASK)		
Device Class	B		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	GSM 850	824-849	869-894
	GSM 1900	1850-1910	1930-1990
	WCDMA Band 2	1850-1910	1930-1990
	WCDMA Band 4	1710-1755	2110-2155
	WCDMA Band 5	824-849	869-894
	LTE Band 2	1850-1910	1930-1990
	LTE Band 4	1710-1755	2110-2155
	LTE Band 5	824-849	869-894
	LTE Band 12	699-716	729-746
	LTE Band 17	704-716	734-746
	LTE Band 41	2496-2690	
	LTE Band 66	1710-1780	2110-2200
	LTE Band 71	663-698	617-652
	NR n66	1710-1780	2110-2200
	NR n71	663-698	617-652
	WLAN 2.4G	2412-2462	
	WLAN 5.2G	5180-5240	
	WLAN 5.8G	5745-5825	
	Bluetooth	2402-2480	
	NFC	13.56	
Power Class	4, tested with power level 5(GSM 850)		
	1, tested with power level 0(GSM 1900)		
	3, tested with power control “all 1”(WCDMA Band 2)		
	3, tested with power control “all 1”(WCDMA Band 4)		
	3, tested with power control “all 1”(WCDMA Band 5)		
	3, tested with power control all Max.(LTE Band 2)		
	3, tested with power control all Max.(LTE Band 4)		
	3, tested with power control all Max.(LTE Band 5)		
	3, tested with power control all Max.(LTE Band 12)		

	3, tested with power control all Max.(LTE Band 17)
	3, tested with power control all Max.(LTE Band 41)
	3, tested with power control all Max.(LTE Band 66)
	3, tested with power control all Max.(LTE Band 71)
	3, tested with power control all Max.(NR SA 66)
	3, tested with power control all Max.(NR SA 71)
NOTE	This product does not support ENDC

1.4. Test specification(s)

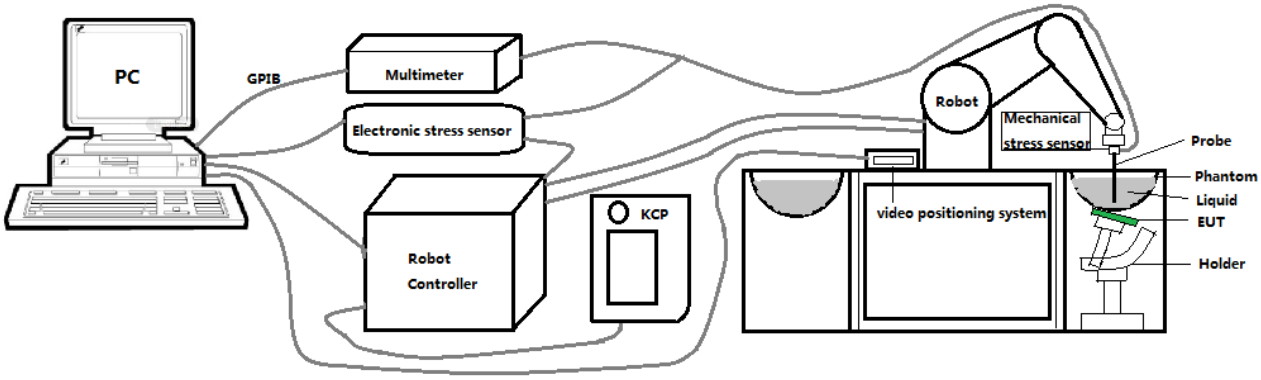
FCC 47 CFR Part 2(2.1093)
IEEE Std 1528-2013
KDB 865664 D01 SAR measurement 100 MHz to 6 GHz
KDB 865664 D02 RF Exposure Reporting
KDB 447498 D01 General RF Exposure Guidance
KDB 248227 D01 802.11 Wi-Fi SAR
KDB 941225 D01 3G SAR Procedures
KDB 941225 D05 SAR for LTE Devices
KDB 941225 D06 Hotspot SAR
KDB 648474 D04 Handset SAR

1.5. Ambient Condition

Ambient temperature	20°C – 24°C
Relative Humidity	30% – 70%

2. SAR Measurement System

2.1. SATIMO SAR Measurement Set-up Diagram



These measurements were performed with the automated near-field scanning system OPENSAR from SATIMO. The system is based on a high precision robot (working range: 901 mm), which positions the probes with a positional repeatability of better than ±0.03 mm. The SAR measurements were conducted with dosimetric probe (manufactured by SATIMO), designed in the classical triangular configuration and optimized for dosimetric evaluation.

The first step of the field measurement is the evaluation of the voltages induced on the probe by the device under test. Probe diode detectors are nonlinear. Below the diode compression point, the output voltage is proportional to the square of the applied E-field; above the diode compression point, it is linear to the applied E-field. The compression point depends on the diode, and a calibration procedure is necessary for each sensor of the probe.

The Keithley multimeter reads the voltage of each sensor and send these three values to the PC. The corresponding E field value is calculated using the probe calibration factors, which are stored in the working directory. This evaluation includes linearization of the diode characteristics. The field calculation is done separately for each sensor. Each component of the E field is displayed on the "Dipole Area Scan Interface" and the total E field is displayed on the "3D Interface"

2.2. Robot

The SATIMO SAR system uses the high precision robots from KUKA. For the 6-axis controller system, the robot controller version (KUKA) from KUKA is used. The KUKA robot series have many features that are important for our application:

- High precision (repeatability ±0.03 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)

2.3. E-Field Probe

This E-field detection probe is composed of three orthogonal dipoles linked to special Schottky diodes with low detection thresholds. The probe allows the measurement of electric fields in liquids such as the one defined in the IEEE and CENELEC standards.

For the measurements the Specific Dosimetric E-Field Probe 4024-EPGO-442 with following specifications is used

- Dynamic range: 0.01-100 W/kg
- Tip Diameter : 2.5 mm
- Distance between probe tip and sensor center: 1 mm
- Distance between sensor center and the inner phantom surface: 2 mm (repeatability better than ±1 mm).
- Probe linearity: ±0.06 dB
- Axial isotropy: ±0.01 dB
- Hemispherical Isotropy: ±0.01 dB
- Calibration range: 650MHz to 5900MHz for head & body simulating liquid.
- Lower detection limit: 8mW/kg

Angle between probe axis (evaluation axis) and surface normal line: less than 30°.

2.3.1. 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 ±0.25dB. The sensitivity parameters (Norm X, Norm Y, and Norm Z), the diode compression parameter (DCP) and the conversion factor (Conv F) of the probe are tested. The calibration data can be referred to appendix D of this report.

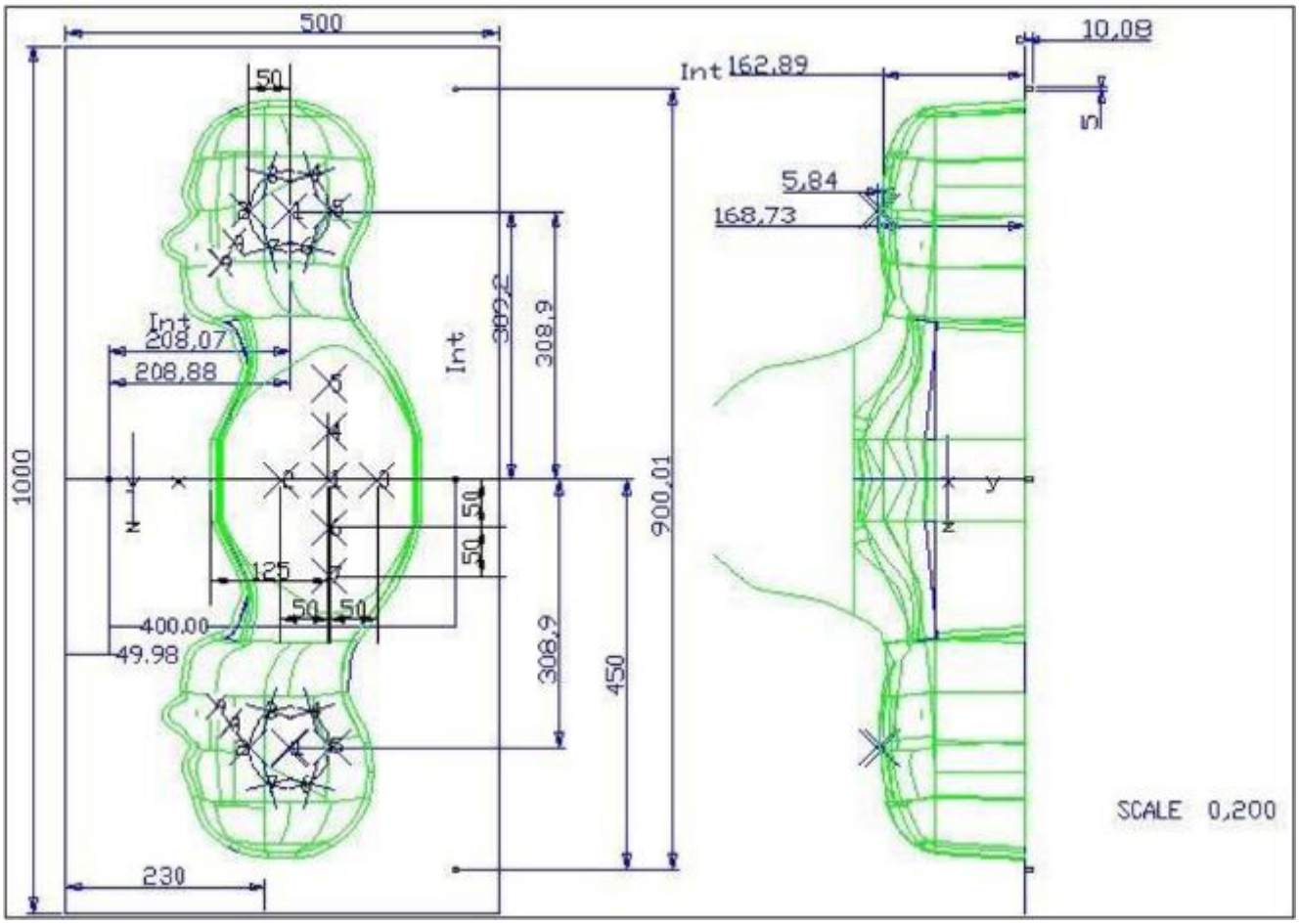
2.4. SAM phantoms

Photo of SAM phantom SN 16/15 SAM119

The SAM phantom is used to measure the SAR relative to people exposed to electro-magnetic field radiated by Mobile Phones.

2.4.1. Technical Data

Serial Number	Shell thickness	Filling volume	Dimensions	Positionner Material	Permittivity	Loss Tangent
SN 16/15 SAM119	2 mm ±0.2 mm	27 liters	Length:1000 mm Width:500 mm Height:200 mm	Gelcoat with fiberglass	3.4	0.02

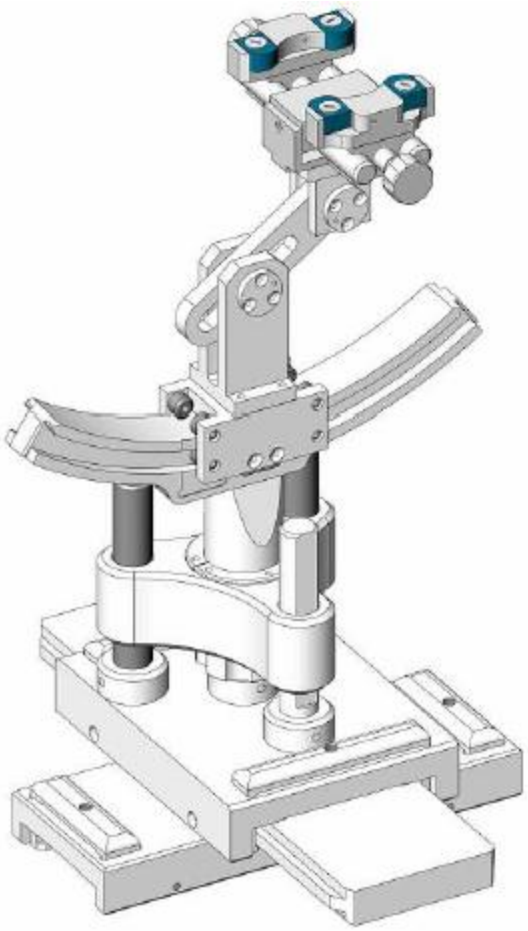


Serial Number	Left Head(mm)		Right Head(mm)		Flat Part(mm)	
SN 16/15 SAM119	2	2.02	2	2.08	1	2.09
	3	2.05	3	2.06	2	2.06
	4	2.07	4	2.07	3	2.08
	5	2.08	5	2.08	4	2.10
	6	2.05	6	2.07	5	2.10
	7	2.05	7	2.05	6	2.07
	8	2.07	8	2.06	7	2.07
	9	2.08	9	2.06	-	-

The test, based on ultrasonic system, allows measuring the thickness with an accuracy of 10 µm.

2.5. Device Holder

The positioning system allows obtaining cheek and tilting position with a very good accuracy. In compliance with CENELEC, the tilt angle uncertainty is lower than 1 degree.



Serial Number	Holder Material	Permittivity	Loss Tangent
SN 16/15 MSH100	Delrin	3.7	0.005

2.6. Test Equipment List

This table gives a complete overview of the SAR measurement equipment.

Devices used during the test described are marked ☒

	Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
					Last Cal.	Due Date
☒	MVG	E FIELD PROBE	SSE2	4024-EPGO-442	Oct.4.2024	Oct.3.2025
☒	MVG	750 MHz Dipole	SID750	SN 03/15 DIP 0G750-355	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	835 MHz Dipole	SID835	SN 03/15 DIP 0G835-347	Feb. 21, 2024	Feb. 20, 2027
☐	MVG	900 MHz Dipole	SID900	SN 03/15 DIP 0G900-348	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	1800 MHz Dipole	SID1800	SN 03/15 DIP 1G800-349	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	1900 MHz Dipole	SID1900	SN 03/15 DIP 1G900-350	Feb. 21, 2024	Feb. 20, 2027
☐	MVG	2000 MHz Dipole	SID2000	SN 03/15 DIP 2G000-351	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	2450 MHz Dipole	SID2450	SN 03/15 DIP 2G450-352	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	2600 MHz Dipole	SID2600	SN 03/15 DIP 2G600-356	Feb. 21, 2024	Feb. 20, 2027
☐	MVG	3500 MHz Dipole	SID3500	SN 09/12 DIP 3G500-360	Oct. 15, 2022	Oct. 14, 2025
☐	MVG	3700 MHz Dipole	SID3700	SN 09/12 DIP 3G/700-361	Oct. 15 2022	Oct. 14 2025
☐	MVG	5000 MHz Dipole	SWG5500	SN 13/14 WGA 33	Feb. 21, 2024	Feb. 20, 2027
☒	MVG	Liquid measurement Kit	SCLMP	SN 21/15 OCPG 72	NCR	NCR
☒	MVG	Power Amplifier	N.A	AMPLISAR_28/14_003	NCR	NCR
☒	KEITHLEY	Millivoltmeter	2000	4072790	Nov. 29, 2024	Nov. 28, 2025
☒	R&S	Universal radio communication tester	CMU200	105747	Apr. 26, 2024	Apr. 25, 2025

☒	R&S	Wideband radio communication tester	CMW500	103917	Apr. 26, 2024	Apr. 25, 2025
☒	Anritsu	4G LTE comprehensive tester	MT8821C	6262192315	2024/7/17	2025/7/16
☒	Anritsu	5G NR comprehensive tester	MT8000A	6262186364	2024/7/17	2025/7/16
☒	HP	Network Analyzer	E5071C	LPS-461	Oct. 15, 2024	Oct. 14, 2025
☒	Agilent	MXG Vector Signal Generator	N5182A	MY47070317	Apr. 25, 2024	Apr. 24, 2025
☒	Agilent	Power meter	E4419B	MY45102538	Apr. 25, 2024	Apr. 24, 2025
☒	Agilent	Power sensor	E9301A	US39212148	Apr. 25, 2024	Apr. 24, 2025
☒	Agilent	Power sensor	E9301A	US39212148	Apr. 25, 2024	Apr. 24, 2025
☒	MCLI/USA	Directional Coupler	CB11-20	0D2L51502	Apr. 26, 2024	Apr. 25, 2027
☒	N/A	Thermometer	N/A	LES-085	Mar. 27, 2023	Mar. 26, 2026
☒	MVG	SAM Phantom	SSM2	SN 16/15 SAM119	NCR	NCR
☒	MVG	Device Holder	SMPPD	SN 16/15 MSH100	NCR	NCR

Measurement Software

Manufacturer	Software Name	Software Version
SATIMO	OpenSAR	V4_02_31

3. SAR 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 Wi-Fi/BT power measurement, use engineering software to configure EUT Wi-Fi/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 Wi-Fi/BT output power.

<SAR measurement>

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

(b) Place the EUT in the positions as Appendix A demonstrates.

(c) Set scan area, grid size and other setting on the OPENSAR 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

3.1. Power Reference

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.

3.2. Area scan & Zoom scan

The area scan is a 2D scan to find the hot spot location on the DUT. The zoom scan is a 3D scan

above the hot spot to calculate the 1g and 10g SAR value.

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. 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.

From the scanned SAR distribution, identify the position of the maximum SAR value, in addition identify the positions of any local maxima with SAR values within 2 dB of the maximum value that will not be within the zoom scan of other peaks; additional peaks shall be measured only when the primary peak is within 2 dB of the SAR compliance limit (e.g., 1 W/kg for 1,6 W/kg 1 g limit, or 1,26 W/kg for 2 W/kg, 10 g limit).

Area scan & Zoom scan scan parameters extracted from FCC KDB 865664 D01 SAR measurement 100 MHz to 6 GHz.

<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 ± 1 mm</td><td>½·δ·ln(2) ± 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·$\Delta z_{Zoom}(n-1)$</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 draft standard IEEE P1528-2011 for details.
* When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.</td></tr>
</table>

3.3. 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 minimise 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 dimensional scanned data array.

3.4. Volumetric Scan

The volumetric scan consists to a full 3D scan over a specific area. This 3D scan is useful form multi Tx SAR measurement. Indeed, it is possible with OpenSAR to add, point by point, several volumetric scan to calculate the SAR value of the combined measurement as it is define in the standard IEEE1528 and IEC62209.

3.5. Power Drift

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

4. System Verification Procedure

4.1. Tissue Verification

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

Ingredients (% of weight)	Head Tissue									
Frequency Band (MHz)	750	835	900	1800	1900	2000	2450	2600	5200	5800
Water	34.40	34.40	34.40	55.36	55.36	57.87	57.87	57.87	65.53	65.53
NaCl	0.79	0.79	0.79	0.35	0.35	0.16	0.16	0.16	0.00	0.00
1,2-Propanediol	64.81	64.81	64.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Triton X-100	0.00	0.00	0.00	30.45	30.45	19.97	19.97	19.97	24.24	24.24
DGBE	0.00	0.00	0.00	13.84	13.84	22.00	22.00	22.00	10.23	10.23

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 depth from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm.

Photo of Liquid depth for Head Position	Photo of Liquid depth for Body Position
	

4.1.1. Tissue Dielectric Parameter Check Results

The simulating liquids should be checked at the beginning of a series of SAR measurements to determine of the dielectric parameter are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within ±5% of the target values.

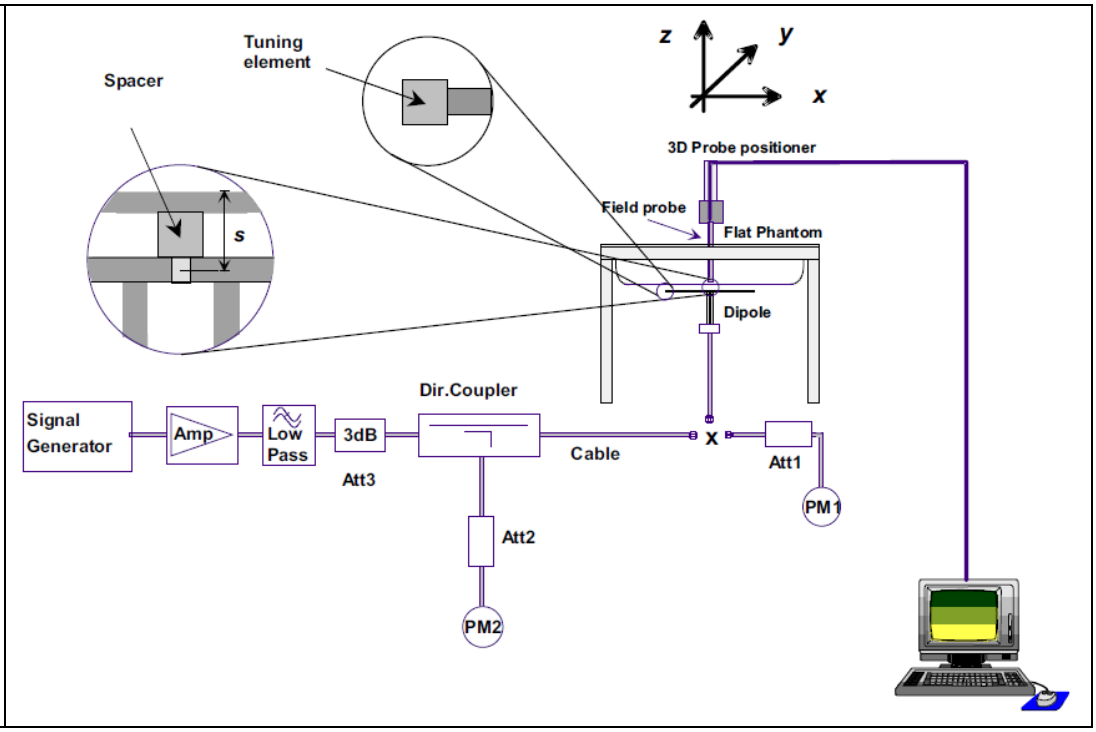
Tissue Type	Measured Frequency (MHz)	Target Tissue		Measured Tissue		Liquid Temp.	Test Date
		εr (±5%)	σ (S/m) (±5%)	εr	σ (S/m)		
Head 750	750	41.96 (39.86~44.06)	0.89 (0.85~0.93)	40.77	0.90	21.6 °C	Dec. 13, 2024
Head 850	835	41.50 (39.43~43.58)	0.90 (0.86~0.95)	41.83	0.91	21.2 °C	Dec. 11, 2024
Head 1800	1800	40.00 (38.00~42.00)	1.40 (1.33~1.47)	38.97	1.37	21.5 °C	Dec. 06, 2024
Head 1800	1800	40.00 (38.00~42.00)	1.40 (1.33~1.47)	38.91	1.37	21.3 °C	Dec. 25, 2024
Head 1900	1900	40.00 (38.00~42.00)	1.40 (1.33~1.47)	38.46	1.46	21.6 °C	Dec. 09, 2024
Head 1900	1900	40.00 (38.00~42.00)	1.40 (1.33~1.47)	38.53	1.46	21.4 °C	Dec. 26, 2024
Head 2450	2450	39.20 (37.24~41.16)	1.80 (1.71~1.89)	37.81	1.78	21.6 °C	Dec. 12, 2024
Head 2600	2600	39.01 (37.06~40.96)	1.96 (1.86~2.06)	38.78	1.97	21.3 °C	Dec. 16, 2024
Head 5200	5200	36.00 (34.20~37.80)	4.66 (4.43~4.89)	34.65	4.50	21.3 °C	Dec. 11, 2024
Head 5800	5800	35.30 (33.54~37.07)	5.27 (5.01~5.53)	33.90	5.13	21.2 °C	Dec. 17, 2024

NOTE: The dielectric parameters of the tissue-equivalent liquid should be measured under similar ambient conditions and within 2 °C of the conditions expected during the SAR evaluation to satisfy protocol requirements.

4.2. System Verification Procedure

The system verification is performed for verifying the accuracy of the complete measurement system and performance of the software. The dipole is connected to the signal source consisting of signal generator and amplifier via a directional coupler, N-connector cable and adaption to SMA. To adjust this power a power meter is used. The power sensor is connected to the cable before the system verification to measure the power at this point and do adjustments at the signal generator. At the outputs of the directional coupler both return loss as well as forward power are controlled during the system verification to make sure that emitted power at the dipole is kept constant. This can also be checked by the power drift measurement after the test (result on plot).

The system verification is shown as below picture:



4.2.1. System Verification Results

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

System Verification	Target SAR (1W) (±10%)		Measured SAR			Measured SAR (Normalized to 1W)		Liquid Temp.	Test Date
	1-g (W/Kg)	10-g (W/Kg)	Input Power	1-g (W/Kg)	10-g (W/Kg)	1-g (W/Kg)	10-g (W/Kg)		
750MHz	8.60 (7.74~9.46)	5.78 (5.20~6.36)	20dBm	0.905	0.554	9.05	5.54	21.6 °C	Dec. 13, 2024
835MHz	9.40 (8.46~10.34)	6.28 (5.65~6.91)	18dBm	0.595	0.384	9.43	6.09	21.2 °C	Dec. 11, 2024
1800MHz	37.06 (33.35~40.77)	20.01 (18.01~22.01)	18dBm	2.273	1.176	36.02	18.64	21.5 °C	Dec. 06, 2024
1800MHz	37.06 (33.35~40.77)	20.01 (18.01~22.01)	18dBm	2.272	1.176	36.01	18.64	21.3 °C	Dec. 25, 2024
1900MHz	39.69 (35.72~43.66)	20.92 (18.83~23.01)	18dBm	2.396	1.181	37.97	18.72	21.6 °C	Dec. 09, 2024
1900MHz	39.69 (35.72~43.66)	20.92 (18.83~23.01)	18dBm	2.398	1.180	38.01	18.70	21.4 °C	Dec. 26, 2024
2450MHz	50.05 (45.05~55.06)	23.80 (21.42~26.18)	20dBm	4.962	2.217	49.62	22.17	21.6 °C	Dec. 12, 2024
2600MHz	54.16 (48.74~59.58)	24.85 (22.37~27.34)	20dBm	5.859	2.452	58.59	24.52	21.3 °C	Dec. 16, 2024
5200MHz	162.59 (146.33~178.85)	56.21 (50.59~61.83)	20dBm	15.654	5.450	156.54	54.50	21.3 °C	Dec. 11, 2024
5800MHz	182.20 (163.98~200.42)	61.32 (55.19~67.45)	20dBm	19.065	6.479	190.65	64.79	21.2 °C	Dec. 17, 2024

5. SAR Measurement variability and uncertainty

5.1. SAR measurement variability

Per KDB865664 D01 SAR measurement 100 MHz to 6 GHz, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. The additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

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

5.2. SAR measurement uncertainty

Per KDB865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. The equivalent ratio (1.5/1.6) is applied to extremity and occupational exposure conditions.

6. RF Exposure Positions

6.1. Ear and handset reference point

Figure 6.1.1 shows the front, back, and side views of the SAM phantom. The center-of-mouth reference point is labeled “M”, the left ear reference point (ERP) is marked “LE”, and the right ERP is marked “RE”.

Fig 6.1.1 Front, back, and side views of SAM phantom

6.2. Definition of the cheek position

1. Define two imaginary lines on the handset, the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset: the midpoint of the width w_t of the handset at the level of the acoustic output (point A in Figure 6.2.1 and Figure 6.2.2), and the midpoint of the width w_b of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 6.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 6.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
2. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 6.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
3. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP
4. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
5. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.

6. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 6.2.3. The actual rotation angles should be documented in the test report.

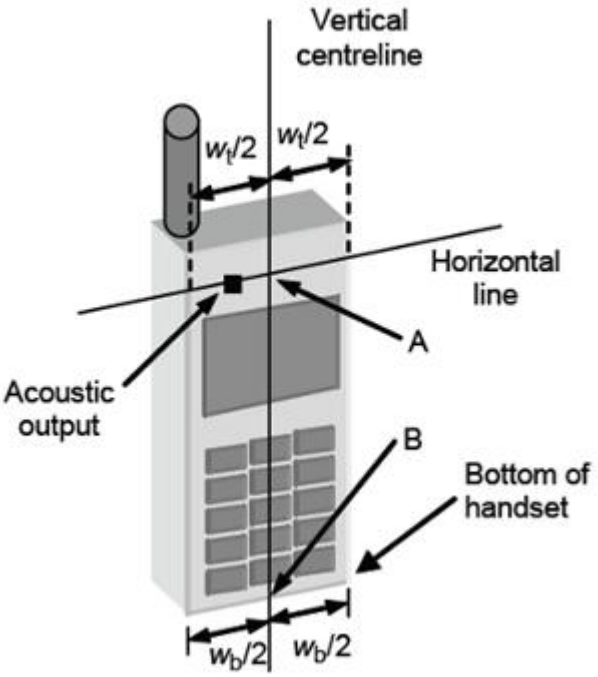


Fig 6.2.1 Handset vertical and horizontal reference lines—"fixed case

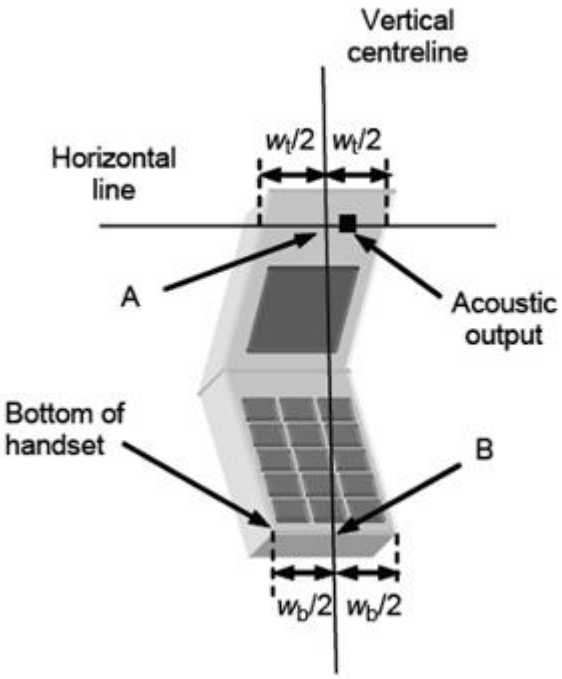


Fig 6.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

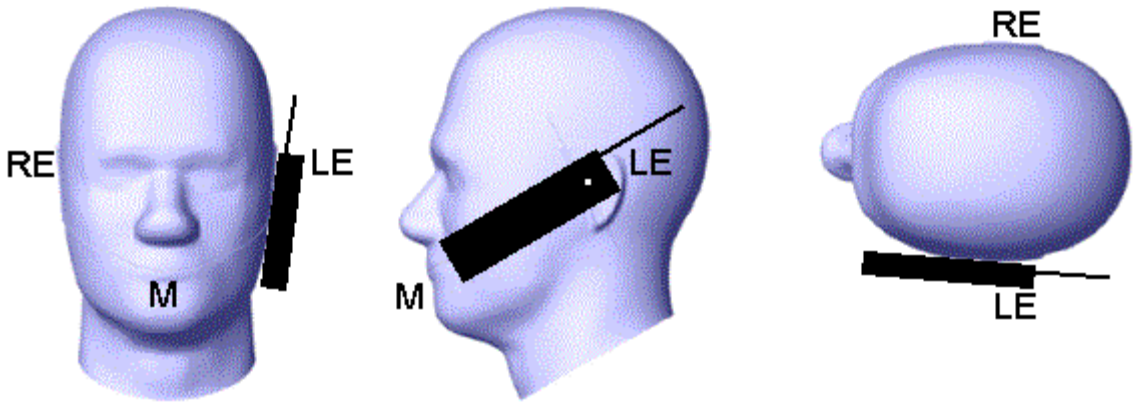


Fig 6.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

6.3. Definition of the tilt position

1. While maintaining the orientation of the handset, retract the handset parallel to the reference plane far enough away from the phantom to enable a rotation of the device by 15 degree.
2. Rotate the Handset around the horizontal line by 15 degree (see Figure 6.3.1).
3. While maintaining the orientation of the handset, move the handset towards the phantom on a line passing through RE and LE until any part of the handset touches the ear. The tilt position is obtained when the contact is on the pinna. If the contact is at any location other than the pinna, e.g., the antenna with the back of the phantom head, the angle of the handset shall be reduced. In this case, the tilt position is obtained if any part of the handset is in contact with the pinna as well as a second part of the handset is in contact with the phantom, e.g., the antenna with the back of the head.

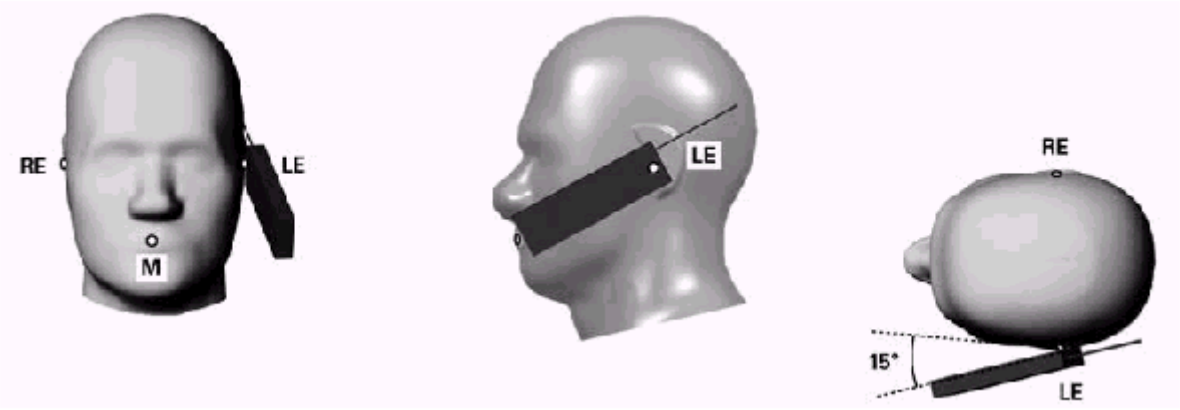


Figure 6.3.1 – Tilt position of the wireless device on the left side of SAM

6.4. Body Worn Accessory

1. Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 6.4.1). Per KDB 648474 D04, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is < 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a handset attached to the handset.
2. Accessories for body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest

spacing to the body. Then multiple accessories that contain metallic components are test with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-chip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

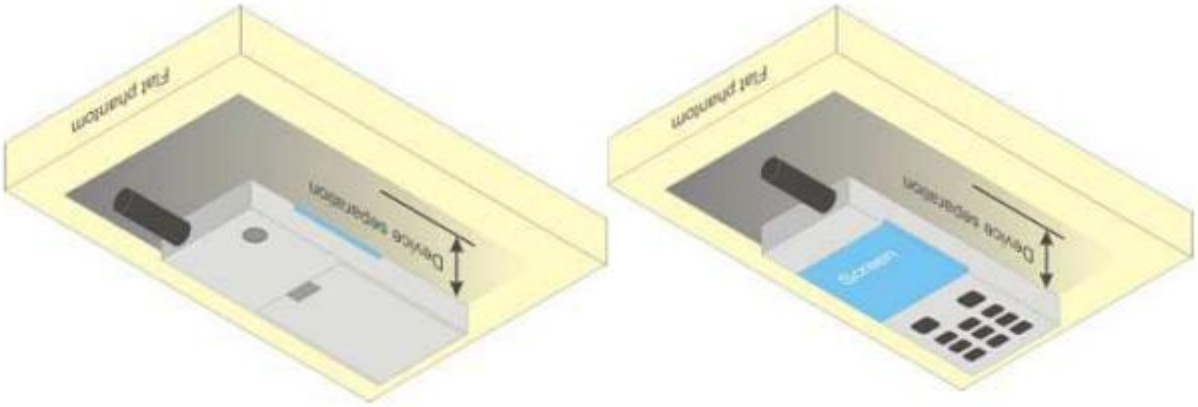


Figure 6.4.1 – Test positions for body-worn devices

6.5. Wireless Router Devices

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WLAN simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined 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 WLAN 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 WLAN transmitter according to FCC KDB Publication 447498 D01 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.

7. RF Output Power

7.1. GSM Conducted Power

Band GSM850	Burst-Averaged output Power (dBm)				Frame-Averaged output Power (dBm)			
Tx Channel	Tune-up	128	189	251	Tune-up	128	189	251
Frequency (MHz)	(dBm)	824.2	836.4	848.8		824.2	836.4	848.8
GSM (GMSK)	32.00	31.80	31.75	31.76	22.97	22.77	22.72	22.73
GPRS(GMSK,1 Tx slot)	32.00	31.78	31.74	31.73	22.97	22.75	22.71	22.70
GPRS(GMSK,2 Tx slot)	31.50	31.02	30.95	30.96	25.48	25.00	24.93	24.94
GPRS(GMSK,3 Tx slot)	29.50	29.23	29.17	29.18	25.24	24.97	24.91	24.92
GPRS(GMSK,4 Tx slot)	28.50	28.07	28.03	28.04	25.49	25.06	25.02	25.03
EGPRS(8PSK,1 Tx slot)	27.00	26.74	26.25	26.51	17.97	17.71	17.22	17.48
EGPRS(8PSK,2 Tx slot)	26.00	25.55	25.57	25.72	19.98	19.53	19.55	19.70
EGPRS(8PSK,3 Tx slot)	24.00	23.84	23.40	23.62	19.74	19.58	19.14	19.36
EGPRS(8PSK,4 Tx slot)	22.50	22.27	22.07	22.13	19.49	19.26	19.06	19.12

Band GSM1900	Burst-Averaged output Power (dBm)				Frame-Averaged output Power (dBm)			
Tx Channel	Tune-up	512	661	810	Tune-up	512	661	810
Frequency (MHz)	(dBm)	1850.2	1880	1909.8		1850.2	1880	1909.8
GSM (GMSK)	29.00	28.35	28.56	28.39	19.97	19.32	19.53	19.36
GPRS(GMSK,1 Tx slot)	29.00	28.32	28.50	28.33	19.97	19.29	19.47	19.30
GPRS(GMSK,2 Tx slot)	28.00	27.72	27.93	27.76	21.98	21.70	21.91	21.74
GPRS(GMSK,3 Tx slot)	26.00	25.77	25.95	25.89	21.74	21.51	21.69	21.63
GPRS(GMSK,4 Tx slot)	25.00	24.72	24.93	24.88	21.99	21.71	21.92	21.87
EGPRS(8PSK,1 Tx slot)	25.00	24.93	24.36	24.49	15.97	15.90	15.33	15.46
EGPRS(8PSK,2 Tx slot)	24.00	23.98	23.83	23.67	17.98	17.96	17.81	17.65
EGPRS(8PSK,3 Tx slot)	22.50	22.26	21.88	21.87	18.24	18.00	17.62	17.61
EGPRS(8PSK,4 Tx slot)	21.50	21.22	21.15	21.12	18.49	18.21	18.14	18.11

7.2. WCDMA Conducted Power

WCDMA Band 2	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up	9262	9400	9538
Frequency (MHz)	(dBm)	1852.4	1880	1907.6
RMC12.2K	22.00	21.60	21.65	21.69
HSDPA Sub 1	21.00	20.66	20.76	20.75
HSDPA Sub 2	20.50	20.23	20.31	20.21

HSDPA Sub 3	19.50	18.92	18.86	19.21
HSDPA Sub 4	19.50	19.15	19.21	19.16
HSUPA Sub 1	21.00	19.49	20.51	20.51
HSUPA Sub 2	21.00	20.51	20.61	20.60
HSUPA Sub 3	19.50	18.86	19.49	19.47
HSUPA Sub 4	21.00	20.61	20.68	20.68
HSUPA Sub 5	20.50	18.90	20.12	20.07
WCDMA Band 4	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up	1312	1413	1513
Frequency (MHz)	(dBm)	1712.4	1732.6	1752.6
RMC12.2K	22.00	22.00	21.75	21.84
HSDPA Sub 1	21.50	21.03	20.76	20.83
HSDPA Sub 2	21.00	20.62	20.34	20.32
HSDPA Sub 3	20.00	19.50	19.10	19.26
HSDPA Sub 4	19.50	19.42	19.38	19.42
HSUPA Sub 1	21.00	19.98	20.56	20.64
HSUPA Sub 2	21.00	20.91	20.67	20.74
HSUPA Sub 3	20.00	19.37	19.54	19.58
HSUPA Sub 4	21.00	21.00	20.78	20.84
HSUPA Sub 5	20.50	19.84	19.84	20.20
WCDMA Band 5	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up	4132	4182	4233
Frequency (MHz)	(dBm)	826.4	836.4	846.6
RMC12.2K	23.00	22.88	22.85	22.73
HSDPA Sub 1	22.00	21.90	21.88	21.75
HSDPA Sub 2	21.50	21.24	21.45	21.26
HSDPA Sub 3	20.50	20.06	20.48	20.34
HSDPA Sub 4	20.50	20.38	20.44	20.39
HSUPA Sub 1	22.00	20.71	21.68	21.57
HSUPA Sub 2	22.00	21.90	21.68	21.56
HSUPA Sub 3	21.00	20.18	20.47	20.59
HSUPA Sub 4	22.00	21.92	21.91	21.81
HSUPA Sub 5	21.50	20.44	21.10	21.01

7.3. LTE Conducted Power

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18607/1850.7	18900/1880	19193/1909.3
LTE Band 2	1.4MHz	QPSK	1	0	22.50	21.78	21.77	22.03
			1	2	22.50	21.73	21.75	22.03
			1	5	22.50	21.69	21.79	22.05
			3	0	22.50	21.66	21.73	22.07
			3	1	22.50	21.71	21.75	22.05
			3	2	22.50	21.73	21.71	22.07
			6	0	21.50	20.67	20.75	21.01
		16QAM	1	0	21.50	20.98	20.73	21.35
			1	2	21.50	20.83	20.98	21.34
			1	5	21.50	20.97	21.06	21.25
			3	0	21.50	20.79	20.68	21.10
			3	1	21.50	20.75	20.76	21.01
			3	2	21.50	20.71	20.79	20.95
			6	0	20.50	19.76	19.82	20.12
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18615/1851.5	18900/1880	19185/1908.5
LTE Band 2	3MHz	QPSK	1	0	22.50	21.70	21.75	21.99
			1	7	22.50	21.70	21.78	22.04
			1	14	22.50	21.70	21.81	22.03
			8	0	21.50	20.78	20.75	20.99
			8	4	21.50	20.71	20.69	21.02
			8	7	21.50	20.72	20.76	21.03
			15	0	21.50	20.72	20.73	21.06
		16QAM	1	0	21.50	20.99	21.09	21.27
			1	7	21.50	21.01	21.00	21.16
			1	14	21.50	20.90	21.05	21.23
			8	0	20.50	19.75	19.78	20.08
			8	4	20.50	19.77	19.78	20.10
			8	7	20.50	19.74	19.80	20.14
			15	0	20.50	19.70	19.68	20.03
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18625/1852.5	18900/1880	19175/1907.5
LTE	5MHz	QPSK	1	0	22.50	21.80	21.90	22.03

Band 2			1	12	22.50	21.72	21.79	22.11
			1	24	22.50	21.71	21.86	22.12
			12	0	21.50	20.70	20.72	20.96
			12	6	21.50	20.75	20.78	21.10
			12	11	21.50	20.69	20.82	21.10
			25	0	21.50	20.73	20.83	21.08
		16QAM	1	0	21.50	21.16	21.24	21.23
			1	12	21.50	21.07	21.10	21.27
			1	24	21.50	21.01	21.21	21.43
			12	0	20.50	19.70	19.81	19.97
			12	6	20.50	19.72	19.79	20.08
			12	11	20.50	19.64	19.77	20.13
			25	0	20.50	19.69	19.76	20.05
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18650/1855	18900/1880	19150/1905
LTE Band 2	10MHz	QPSK	1	0	22.50	21.85	21.78	21.86
			1	24	22.50	21.62	21.78	22.03
			1	49	22.50	21.67	21.80	22.14
			25	0	21.50	20.63	20.69	20.99
			25	12	21.50	20.64	20.86	21.06
			25	24	21.50	20.72	20.85	21.20
			50	0	21.50	20.70	20.80	21.07
		16QAM	1	0	21.50	20.99	21.04	21.24
			1	24	21.50	20.89	21.07	21.22
			1	49	21.50	20.83	21.18	21.43
			25	0	20.50	19.61	19.69	19.98
			25	12	20.50	19.69	19.81	20.00
			25	24	20.50	19.64	19.83	20.19
			50	0	20.50	19.67	19.75	20.05
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18675/1857.5	18900/1880	19125/1902.5
LTE Band 2	15MHz	QPSK	1	0	22.50	21.80	21.72	21.81
			1	37	22.50	21.63	21.84	21.97
			1	74	22.50	21.59	21.79	22.03
			36	0	21.50	20.62	20.76	20.96
			36	18	21.50	20.61	20.77	20.98
			36	37	21.50	20.59	20.76	21.10

			75	0	21.50	20.56	20.82	21.09
		16QAM	1	0	21.50	21.01	20.99	21.07
			1	37	21.50	20.97	21.09	21.28
			1	74	21.50	20.82	21.05	21.38
			36	0	20.50	19.61	19.68	19.92
			36	18	20.50	19.63	19.70	19.94
			36	37	20.50	19.67	19.83	20.06
			75	0	20.50	19.63	19.79	20.04

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		18700/1860	18900/1880	19100/1900
LTE Band 2	20MHz	QPSK	1	0	22.50	21.72	21.70	21.84
			1	49	22.50	21.60	21.79	21.96
			1	99	22.50	21.69	21.78	22.09
			50	0	21.50	20.51	20.75	21.03
			50	24	21.50	20.68	20.75	20.92
			50	49	21.50	20.54	20.94	21.05
			100	0	21.50	20.53	20.84	21.08
		16QAM	1	0	21.50	21.14	20.89	21.13
			1	49	21.50	20.69	21.13	21.21
			1	99	21.50	20.92	20.90	21.45
			50	0	20.50	19.46	19.71	20.02
			50	24	20.50	19.66	19.80	19.94
			50	49	20.50	19.53	19.86	20.01
			100	0	20.50	19.56	19.81	20.03

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		19957/1710.7	20175/1732.5	20393/1754.3
LTE Band 4	1.4MHz	QPSK	1	0	22.50	22.25	22.05	22.00
			1	2	22.50	22.23	22.12	22.04
			1	5	22.50	22.20	22.08	22.06
			3	0	22.50	22.18	22.02	22.05
			3	1	22.50	22.16	22.02	22.08
			3	2	22.50	22.20	22.01	22.02
			6	0	21.50	21.09	21.02	21.04
		16QAM	1	0	21.50	21.40	21.30	21.26
			1	2	21.50	21.34	21.31	21.32
			1	5	21.50	21.32	21.30	21.30
			3	0	21.50	21.11	21.03	20.94

			3	1	21.50	21.10	20.99	20.99
			3	2	21.50	21.11	21.03	21.03
			6	0	20.50	20.19	20.10	20.14
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		19965/1711.5	20175/1732.5	20385/1753.5
LTE Band 4	3MHz	QPSK	1	0	22.50	22.16	22.05	21.94
			1	7	22.50	22.07	22.03	21.99
			1	14	22.50	22.06	22.07	22.07
			8	0	21.50	21.16	21.03	20.98
			8	4	21.50	21.06	21.00	20.98
			8	7	21.50	21.07	21.01	21.04
			15	0	21.50	21.18	21.07	20.97
		16QAM	1	0	22.00	21.50	21.35	21.30
			1	7	22.00	21.40	21.25	21.38
			1	14	22.00	21.34	21.29	21.38
			8	0	20.50	20.20	20.06	20.05
			8	4	20.50	20.19	20.07	20.06
			8	7	20.50	20.15	20.09	20.17
			15	0	20.50	20.11	20.04	20.06
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		19975/1712.5	20175/1732.5	20375/1752.5
LTE Band 4	5MHz	QPSK	1	0	22.50	22.29	22.17	22.06
			1	12	22.50	22.16	22.05	21.98
			1	24	22.50	22.18	22.19	22.15
			12	0	21.50	21.12	20.99	20.89
			12	6	21.50	21.08	21.03	20.99
			12	11	21.50	21.04	21.09	21.02
			25	0	21.50	21.12	21.09	21.04
		16QAM	1	0	21.50	21.44	21.35	21.37
			1	12	21.50	21.34	21.16	21.30
			1	24	21.50	21.47	21.39	21.39
			12	0	20.50	20.16	20.01	19.96
			12	6	20.50	20.12	20.08	19.97
			12	11	20.50	20.12	20.07	20.08
			25	0	20.50	20.06	20.08	20.00
Band	Band	Modulation	RB Configuration		Tune-up	Channel/Frequency(MHz)		

	Width		RB Size	RB Offset	(dBm)	20000/1715	20175/1732.5	20350/1750
LTE Band 4	10MHz	QPSK	1	0	22.50	22.17	22.19	22.07
			1	24	22.50	22.05	22.03	22.04
			1	49	22.50	22.09	22.12	22.13
			25	0	21.50	21.17	21.02	21.07
			25	12	21.50	21.08	21.16	21.04
			25	24	21.50	21.04	21.10	21.09
			50	0	21.50	21.06	21.07	21.06
		16QAM	1	0	22.00	21.50	21.45	21.31
			1	24	22.00	21.25	21.28	21.16
			1	49	22.00	21.42	21.41	21.50
			25	0	20.50	20.09	19.98	19.97
			25	12	20.50	20.09	20.08	19.98
			25	24	20.50	20.06	20.09	20.03
			50	0	20.50	20.04	20.06	20.09

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20025/1717.5	20175/1732.5	20325/1747.5
LTE Band 4	15MHz	QPSK	1	0	22.50	22.14	22.07	22.10
			1	37	22.50	22.13	22.11	22.03
			1	74	22.50	22.09	22.06	22.10
			36	0	21.50	21.06	21.02	21.10
			36	18	21.50	21.09	21.04	20.97
			36	37	21.50	21.08	21.18	21.04
			75	0	21.50	21.18	21.00	21.03
		16QAM	1	0	21.50	21.43	21.44	21.35
			1	37	21.50	21.41	21.31	21.32
			1	74	21.50	21.35	21.31	21.31
			36	0	20.50	20.12	19.96	20.07
			36	18	20.50	20.09	20.07	20.06
			36	37	20.50	20.03	20.14	19.98
			75	0	20.50	20.12	19.98	20.02

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20050/1720	20175/1732.5	20300/1745
LTE Band 4	20MHz	QPSK	1	0	22.50	22.18	22.09	22.10
			1	49	22.50	22.12	22.11	22.12
			1	99	22.50	22.08	22.16	22.10

			50	0	21.50	21.18	20.85	21.13
			50	24	21.50	21.13	21.10	21.01
			50	49	21.50	21.30	21.10	21.01
			100	0	21.50	21.22	20.98	21.06
		16QAM	1	0	22.00	21.52	21.32	21.23
			1	49	22.00	21.36	21.25	21.30
			1	99	22.00	21.32	21.47	21.55
			50	0	20.50	20.13	19.89	20.20
			50	24	20.50	20.12	20.05	20.06
			50	49	20.50	20.22	20.16	20.02
			100	0	20.50	20.17	19.95	20.03

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20407/824.7	20525/836.5	20643/848.3
LTE Band 5	1.4MHz	QPSK	1	0	23.50	22.86	23.04	23.05
			1	2	23.50	22.92	23.04	23.09
			1	5	23.50	23.01	23.06	23.03
			3	0	23.50	22.88	22.97	23.07
			3	1	23.50	22.92	23.03	23.07
			3	2	23.50	22.92	23.01	23.07
			6	0	22.50	21.91	22.00	22.03
		16QAM	1	0	22.50	22.15	22.26	22.25
			1	2	22.50	22.15	22.36	22.43
			1	5	22.50	22.09	22.24	22.32
			3	0	22.50	21.84	22.04	22.06
			3	1	22.50	21.91	21.93	22.02
			3	2	22.50	21.81	21.90	21.98
			6	0	21.50	20.96	21.07	21.12
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20415/825.5	20525/836.5	20635/847.5
LTE Band 5	3MHz	QPSK	1	0	23.50	22.87	23.02	23.06
			1	7	23.50	22.96	23.13	23.04
			1	14	23.50	22.96	23.00	23.06
			8	0	22.50	21.90	22.04	22.12
			8	4	22.50	21.92	22.06	22.07
			8	7	22.50	21.91	22.03	22.04
			15	0	22.50	21.90	22.05	22.10
		16QAM	1	0	22.50	22.01	22.28	22.39

			1	7	22.50	22.19	22.24	22.39
			1	14	22.50	22.19	22.33	22.27
			8	0	21.50	20.96	21.08	21.12
			8	4	21.50	21.00	21.06	21.04
			8	7	21.50	21.05	21.09	21.07
			15	0	21.50	20.95	21.05	21.02
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20425/826.5	20525/836.5	20625/846.5
LTE Band 5	5MHz	QPSK	1	0	23.50	22.90	23.05	23.11
			1	12	23.50	22.95	23.02	23.09
			1	24	23.50	22.95	23.13	23.14
			12	0	22.50	21.90	22.08	22.09
			12	6	22.50	21.98	21.97	22.03
			12	11	22.50	21.90	21.96	21.93
			25	0	22.50	21.99	22.05	22.10
		16QAM	1	0	22.50	22.04	22.30	22.39
			1	12	22.50	22.16	22.29	22.28
			1	24	22.50	22.19	22.38	22.45
			12	0	21.50	20.95	20.99	21.07
			12	6	21.50	20.94	21.10	21.10
			12	11	21.50	20.95	20.97	20.92
			25	0	21.50	20.92	21.03	21.06
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20450/829	20525/836.5	20600/844
LTE Band 5	10MHz	QPSK	1	0	23.50	22.95	23.06	23.17
			1	24	23.50	22.91	23.04	23.02
			1	49	23.50	23.05	23.12	23.12
			25	0	22.50	21.81	22.03	22.05
			25	12	22.50	21.94	22.04	22.03
			25	24	22.50	21.94	22.02	21.88
			50	0	22.50	21.93	22.09	21.98
		16QAM	1	0	22.50	22.19	22.25	22.36
			1	24	22.50	22.10	22.39	22.25
			1	49	22.50	22.21	22.33	22.33
			25	0	21.50	20.88	21.04	20.97
			25	12	21.50	20.92	21.06	21.08
			25	24	21.50	20.89	21.02	20.84

			50	0	21.50	20.92	21.02	20.92

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23017/699.7	23095/707.5	23173/715.3
LTE Band 12	1.4MHz	QPSK	1	0	23.50	23.28	23.22	23.16
			1	2	23.50	23.30	23.16	23.15
			1	5	23.50	23.19	23.19	23.17
			3	0	23.50	23.27	23.21	23.15
			3	1	23.50	23.27	23.12	23.17
			3	2	23.50	23.18	23.17	23.21
			6	0	22.50	22.23	22.21	22.19
		16QAM	1	0	22.50	22.47	22.44	22.29
			1	2	22.50	22.36	22.41	22.35
			1	5	22.50	22.38	22.40	22.37
			3	0	22.50	22.21	22.27	22.20
			3	1	22.50	22.23	22.12	22.15
			3	2	22.50	22.16	22.14	22.20
			6	0	21.50	21.23	21.27	21.27
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23025/700.5	23095/707.5	23165/714.5
LTE Band 12	3MHz	QPSK	1	0	23.50	23.19	23.21	23.16
			1	7	23.50	23.20	23.19	23.19
			1	14	23.50	23.20	23.14	23.18
			8	0	22.50	22.21	22.19	22.16
			8	4	22.50	22.19	22.22	22.08
			8	7	22.50	22.11	22.14	22.14
			15	0	22.50	22.19	22.15	22.16
		16QAM	1	0	22.50	22.35	22.46	22.28
			1	7	22.50	22.32	22.44	22.42
			1	14	22.50	22.38	22.40	22.29
			8	0	21.50	21.27	21.28	21.23
			8	4	21.50	21.22	21.23	21.21
			8	7	21.50	21.28	21.24	21.30
			15	0	21.50	21.18	21.16	21.12
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23035/701.5	23095/707.5	23155/713.5
LTE	5MHz	QPSK	1	0	23.50	23.16	23.20	23.21

Band 12			1	12	23.50	23.14	23.17	23.10
			1	24	23.50	23.14	23.27	23.24
			12	0	22.50	22.21	22.15	22.10
			12	6	22.50	22.12	22.14	22.12
			12	11	22.50	22.12	22.12	22.07
			25	0	22.50	22.17	22.20	22.17
		16QAM	1	0	22.50	22.33	22.38	22.42
			1	12	22.50	22.43	22.38	22.27
			1	24	22.50	22.45	22.42	22.42
			12	0	21.50	21.20	21.19	21.15
			12	6	21.50	21.26	21.20	21.17
			12	11	21.50	21.15	21.17	21.06
			25	0	21.50	21.17	21.22	21.14
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23060/704	23095/707.5	23130/711
LTE Band 12	10MHz	QPSK	1	0	23.50	23.27	23.21	23.26
			1	24	23.50	23.25	23.16	23.14
			1	49	23.50	23.19	23.21	23.17
			25	0	22.50	22.16	22.15	22.15
			25	12	22.50	22.22	22.25	22.18
			25	24	22.50	22.24	22.13	22.09
			50	0	22.50	22.15	22.19	22.15
		16QAM	1	0	22.50	22.49	22.32	22.38
			1	24	22.50	22.33	22.44	22.37
			1	49	22.50	22.38	22.38	22.41
			25	0	21.50	21.14	21.11	21.16
			25	12	21.50	21.21	21.17	21.16
			25	24	21.50	21.19	21.14	21.14
			50	0	21.50	21.23	21.14	21.13

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23755/706.5	23790/710	23825/713.5
LTE Band 17	5MHz	QPSK	1	0	23.00	22.68	22.64	22.54
			1	12	23.00	22.66	22.63	22.51
			1	24	23.00	22.61	22.67	22.54
			12	0	22.00	21.51	21.51	21.52
			12	6	22.00	21.55	21.57	21.47

			12	11	22.00	21.45	21.54	21.08
			25	0	21.50	21.41	21.43	21.30
		16QAM	1	0	22.00	21.69	21.88	21.80
			1	12	22.00	21.80	21.89	21.81
			1	24	22.00	21.74	21.75	21.73
			12	0	21.00	20.51	20.44	20.56
			12	6	21.00	20.56	19.99	20.54
			12	11	21.00	20.51	20.31	20.41
			25	0	21.00	20.50	20.54	20.53
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		23780/709	23790/710	23800/711
LTE Band 17	10MHz	QPSK	1	0	23.00	22.55	22.62	22.65
			1	24	23.00	22.40	22.70	22.64
			1	49	23.00	22.54	22.71	22.50
			25	0	22.00	21.56	21.58	21.45
			25	12	22.00	21.56	21.69	21.36
			25	24	22.00	21.49	21.51	21.39
			50	0	22.00	21.56	21.63	21.38
		16QAM	1	0	22.00	21.85	21.90	21.84
			1	24	22.00	21.82	21.87	21.91
			1	49	22.00	21.84	21.85	21.81
			25	0	21.00	20.47	20.51	20.64
			25	12	21.00	20.54	20.65	20.56
			25	24	21.00	20.47	20.54	20.48
			50	0	21.00	20.51	20.58	20.55

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)				
			RB Size	RB Offset		39675/ 2498.5	40148/ 2546	40620/ 2593	41093/ 2640	41565/ 2687.5
LTE Band 41	5MHz	QPSK	1	0	24.00	23.82	23.73	23.75	23.68	23.69
			1	12	24.00	23.78	23.67	23.59	23.76	23.65
			1	24	24.00	23.77	23.61	23.62	23.61	23.63
			12	0	23.00	22.76	22.54	22.58	22.54	22.6
			12	6	23.00	22.79	22.71	22.55	22.54	22.61
			12	11	23.00	22.76	22.51	22.51	22.70	22.62
			25	0	23.00	22.77	22.57	22.57	22.72	22.68
		16QAM	1	0	23.00	22.99	22.94	22.86	22.99	22.85
			1	12	23.00	22.95	22.82	22.76	22.84	22.87

			1	24	23.00	22.95	22.86	22.79	22.87	22.82
			12	0	22.00	21.77	21.69	21.61	21.68	21.67
			12	6	22.00	21.77	21.65	21.59	21.68	21.68
			12	11	22.00	21.76	21.71	21.58	21.65	21.58
			25	0	22.00	21.78	21.76	21.60	21.77	21.65
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)				
			RB Size	RB Offset		39700/ 2501	40160/ 2547	40620/ 2593	41080/ 2639	41540/ 2685
LTE Band 41	10MHz	QPSK	1	0	24.00	23.82	23.71	23.84	23.64	23.56
			1	24	24.00	23.77	23.70	23.68	23.66	23.67
			1	49	24.00	23.66	23.79	23.57	23.75	23.6
			25	0	23.00	22.8	22.69	22.7	22.60	22.62
			25	12	23.00	22.74	22.75	22.62	22.58	22.68
			25	24	23.00	22.7	22.55	22.53	22.73	22.68
			50	0	23.00	22.73	22.64	22.62	22.66	22.63
		16QAM	1	0	23.00	23	22.88	22.99	22.80	22.73
			1	24	23.00	22.93	22.87	22.85	22.81	22.84
			1	49	23.00	22.91	22.78	22.75	22.83	22.83
			25	0	22.00	21.81	21.78	21.7	21.60	21.61
			25	12	22.00	21.75	21.71	21.66	21.80	21.66
			25	24	22.00	21.66	21.69	21.56	21.80	21.7
			50	0	22.00	21.81	21.71	21.72	21.71	21.64
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)				
			RB Size	RB Offset		39725/ 2503.5	40173/ 2548	40620/ 2593	41068/ 2638	41515/ 2682.5
LTE Band 41	15MHz	QPSK	1	0	24.00	23.81	23.46	23.92	23.56	23.3
			1	37	24.00	23.72	23.87	23.64	23.48	23.53
			1	74	24.00	23.68	23.82	23.56	23.39	23.56
			36	0	23.00	22.74	22.67	22.7	22.34	22.32
			36	18	23.00	22.67	22.53	22.54	22.49	22.48
			36	37	23.00	22.62	22.60	22.51	22.71	22.51
			75	0	23.00	22.67	22.61	22.68	22.54	22.44
		16QAM	1	0	23.50	22.99	22.51	23.14	22.63	22.5
			1	37	23.50	22.94	22.56	22.83	22.94	22.65
			1	74	23.50	22.87	22.93	22.76	22.75	22.71
			36	0	22.00	21.68	21.42	21.71	21.68	21.35
			36	18	22.00	21.71	21.65	21.56	21.63	21.44

			36	37	22.00	21.68	21.49	21.54	21.35	21.55
			75	0	22.00	21.68	21.65	21.7	21.51	21.45
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)				
			RB Size	RB Offset		39750/ 2506	40185/ 2549.5	40620/ 2593	39650/ 2636.5	41490/ 2680
LTE Band 41	20MHz	QPSK	1	0	24.50	23.82	23.96	24.04	23.99	23.33
			1	49	24.50	23.75	23.34	23.70	23.83	23.43
			1	99	24.50	23.74	23.79	23.58	23.82	23.57
			50	0	23.00	22.75	22.30	22.85	22.85	22.29
			50	24	23.00	22.72	22.35	22.75	22.43	22.47
			50	49	23.00	22.70	22.72	22.61	22.68	22.57
			100	0	23.00	22.73	22.69	22.68	22.73	22.50
		16QAM	1	0	23.50	23.03	22.82	23.20	22.66	22.51
			1	49	23.50	22.93	23.02	22.92	22.80	22.62
			1	99	23.50	22.97	22.94	22.76	23.10	22.76
			50	0	22.00	21.82	21.65	21.88	21.38	21.30
			50	24	22.00	21.82	21.59	21.69	21.86	21.44
			50	49	22.00	21.78	21.71	21.66	21.39	21.66
			100	0	22.00	21.81	21.73	21.68	21.59	21.49

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		131979/1710.7	132322/1745	132665/1779.3
LTE Band 66	1.4MHz	QPSK	1	0	22.00	21.73	21.58	21.95
			1	2	22.00	21.84	21.66	21.95
			1	5	22.00	21.75	21.57	21.92
			3	0	22.00	21.77	21.61	21.95
			3	1	22.00	21.79	21.58	21.99
			3	2	22.00	21.77	21.59	21.97
			6	0	21.00	20.76	20.66	20.95
		16QAM	1	0	21.50	21.00	20.88	21.14
			1	2	21.50	21.12	20.84	21.26
			1	5	21.50	21.01	20.94	21.15
			3	0	21.00	20.74	20.59	20.85
			3	1	21.00	20.77	20.56	20.95
			3	2	21.00	20.67	20.64	20.85
			6	0	20.00	19.81	19.64	20.00

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		131987/1711.5	132322/1745	132657/1778.5
LTE Band 66	3MHz	QPSK	1	0	22.00	21.70	21.63	21.98
			1	7	22.00	21.64	21.67	21.97
			1	14	22.00	21.70	21.53	21.90
			8	0	21.50	20.77	20.69	21.07
			8	4	21.50	20.70	20.59	20.98
			8	7	21.50	20.67	20.58	20.95
			15	0	21.00	20.70	20.60	21.00
		16QAM	1	0	21.50	21.12	20.98	21.19
			1	7	21.50	20.89	20.88	21.24
			1	14	21.50	20.89	20.76	21.25
			8	0	20.50	19.79	19.70	20.06
			8	4	20.50	19.78	19.65	20.01
			8	7	20.50	19.77	19.66	19.99
			15	0	20.00	19.70	19.68	19.98
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		131997/1712.5	132322/1745	132647/1777.5
LTE Band 66	5MHz	QPSK	1	0	22.50	21.86	21.77	22.06
			1	12	22.50	21.74	21.66	22.00
			1	24	22.50	21.68	21.56	21.99
			12	0	21.50	20.65	20.77	21.06
			12	6	21.50	20.67	20.61	21.04
			12	11	21.50	20.56	20.51	20.96
			25	0	21.50	20.67	20.60	21.07
		16QAM	1	0	21.50	21.10	21.02	21.38
			1	12	21.50	20.97	20.85	21.26
			1	24	21.50	20.93	20.88	21.32
			12	0	20.50	19.73	19.72	20.08
			12	6	20.50	19.68	19.59	20.06
			12	11	20.50	19.65	19.52	19.98
			25	0	20.00	19.69	19.57	19.97
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		

			RB Size	RB Offset		132022/1715	132322/1745	132622/1775
LTE Band 66	10MHz	QPSK	1	0	22.50	21.78	21.77	22.07
			1	24	22.50	21.61	21.65	22.05
			1	49	22.50	21.67	21.50	22.02
			25	0	21.50	20.61	20.77	21.15
			25	12	21.50	20.65	20.60	21.07
			25	24	21.50	20.56	20.52	21.02
			50	0	21.50	20.60	20.66	21.11
		16QAM	1	0	21.50	21.11	21.10	21.26
			1	24	21.50	20.92	20.89	21.23
			1	49	21.50	20.87	20.80	21.32
			25	0	20.50	19.62	19.78	20.11
			25	12	20.50	19.65	19.61	20.08
			25	24	20.50	19.57	19.48	19.95
			50	0	20.00	19.63	19.66	20.00
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		132047/1717.5	132322/1745	132597/1772.5
LTE Band 66	15MHz	QPSK	1	0	22.00	21.75	21.88	21.67
			1	37	22.00	21.64	21.61	21.91
			1	74	22.00	21.72	21.47	21.91
			36	0	21.00	20.58	20.76	20.89
			36	18	21.00	20.56	20.56	20.90
			36	37	21.00	20.63	20.37	20.79
			75	0	21.00	20.63	20.58	20.91
		16QAM	1	0	21.50	21.02	21.16	20.94
			1	37	21.50	20.90	20.87	21.28
			1	74	21.50	20.92	20.73	21.16
			36	0	20.00	19.67	19.68	19.86
			36	18	20.00	19.60	19.63	19.92
			36	37	20.00	19.64	19.39	19.86
			75	0	20.00	19.65	19.60	19.86
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		132072/1720	132322/1745	132572/1770
LTE	20MHz	QPSK	1	0	22.00	21.70	21.93	21.50

Band 66			1	49	22.00	21.59	21.67	21.81
			1	99	22.00	21.88	21.48	21.98
			50	0	21.00	20.72	20.89	20.75
			50	24	21.00	20.71	20.68	20.95
			50	49	21.00	20.90	20.36	20.73
			100	0	21.00	20.79	20.67	20.78
		16QAM	1	0	21.50	20.98	21.12	20.85
			1	49	21.50	20.66	20.87	21.06
			1	99	21.50	21.10	20.80	21.26
			50	0	20.00	19.75	19.89	19.68
			50	24	20.00	19.68	19.66	19.88
			50	49	20.00	19.84	19.40	19.73
			100	0	20.00	19.82	19.62	19.73

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		133147/665.5	133297/680.5	133447/695.5
LTE Band 71	5MHz	QPSK	1	0	23.50	23.12	22.94	22.93
			1	12	23.50	23.05	22.81	22.95
			1	24	23.50	23.07	22.96	22.98
			12	0	22.50	21.88	21.93	21.93
			12	6	22.50	22.06	21.88	21.93
			12	11	22.50	21.99	21.79	21.92
			25	0	22.00	21.87	21.91	21.99
		16QAM	1	0	22.50	22.15	22.23	22.18
			1	12	22.50	22.27	22.11	22.16
			1	24	22.50	22.27	22.01	22.28
			12	0	21.50	20.88	20.96	20.94
			12	6	21.50	21.08	20.86	21.00
			12	11	21.50	20.99	20.78	20.96
			25	0	21.00	20.97	20.94	20.87

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		133172/668	133297/680.5	133422/693
LTE Band 71	10MHz	QPSK	1	0	23.50	23.06	22.92	22.93
			1	24	23.50	23.01	22.90	22.96
			1	49	23.50	22.94	22.90	22.94
			25	0	22.50	21.95	21.96	21.93

			25	12	22.50	22.05	21.87	21.99
			25	24	22.50	21.95	21.91	21.94
			50	0	22.00	21.99	21.92	21.93
		16QAM	1	0	22.50	22.24	22.13	22.24
			1	24	22.50	22.33	22.17	22.16
			1	49	22.50	22.20	22.18	22.17
			25	0	21.50	20.94	20.92	20.97
			25	12	21.50	21.01	20.93	21.02
			25	24	21.50	20.88	20.88	20.89
			50	0	21.00	20.95	20.88	20.88
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		133197/670.5	133297/680.5	133397/690.5
LTE Band 71	15MHz	QPSK	1	0	23.50	22.96	23.02	22.92
			1	37	23.50	23.04	22.81	23.00
			1	74	23.50	22.76	22.84	22.89
			36	0	22.00	21.99	21.80	21.88
			36	18	22.00	21.93	21.89	21.84
			36	37	22.00	21.87	21.86	21.84
			75	0	22.00	21.92	21.86	22.00
		16QAM	1	0	22.50	22.19	22.31	22.25
			1	37	22.50	22.08	22.08	22.15
			1	74	22.50	22.02	22.19	22.13
			36	0	21.00	20.94	20.84	20.97
			36	18	21.00	20.98	20.86	20.88
			36	37	21.00	20.85	20.89	20.90
			75	0	21.00	20.92	20.86	20.88
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		133222/673	133322/683	133372/688
LTE Band 71	20MHz	QPSK	1	0	23.00	22.95	23.00	22.95
			1	49	23.00	22.95	22.81	22.82
			1	99	23.00	22.86	22.92	22.88
			50	0	22.50	22.03	21.91	21.93
			50	24	22.50	21.97	21.89	21.96
			50	49	22.50	21.87	21.88	21.91
			100	0	22.00	21.90	21.95	21.90

			1	0	22.50	22.39	22.28	22.15
			1	49	22.50	22.12	22.07	22.24
			1	99	22.50	22.05	22.13	22.16
		16QAM	50	0	21.50	21.05	20.82	21.03
			50	24	21.50	20.98	20.93	20.91
			50	49	21.50	20.82	20.84	20.91
			100	0	21.00	20.98	20.89	20.83

7.4. NR SA Power

Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Tune-up (dBm)	Power (dBm)
n66	15	5	342500	1@1	DFT_BPSK	22.5	22.17
n66	15	5	342500	25@0	DFT_QPSK	21.5	21.1
n66	15	5	342500	12@6	DFT_QPSK	22.5	22.11
n66	15	5	342500	1@1	DFT_QPSK	22.5	22.09
n66	15	5	342500	1@23	DFT_QPSK	22	22
n66	15	5	342500	1@1	DFT_QAM16	21.5	21.36
n66	15	5	342500	1@1	DFT_QAM64	20	19.76
n66	15	5	342500	1@1	DFT_QAM256	17.5	17.47
n66	15	5	342500	1@1	CP_QPSK	21	20.66
n66	15	5	349000	1@1	DFT_BPSK	21	20.8
n66	15	5	349000	25@0	DFT_QPSK	20	19.77
n66	15	5	349000	12@6	DFT_QPSK	21	20.78
n66	15	5	349000	1@1	DFT_QPSK	21	20.82
n66	15	5	349000	1@23	DFT_QPSK	21	20.71
n66	15	5	349000	1@1	DFT_QAM16	20.5	20.07
n66	15	5	349000	1@1	DFT_QAM64	18.5	18.2
n66	15	5	349000	1@1	DFT_QAM256	16.5	16.17
n66	15	5	349000	1@1	CP_QPSK	19.5	19.34
n66	15	5	355500	1@1	DFT_BPSK	19.5	19.02
n66	15	5	355500	25@0	DFT_QPSK	18.5	18.07
n66	15	5	355500	12@6	DFT_QPSK	19.5	19.09
n66	15	5	355500	1@1	DFT_QPSK	19.5	19.05
n66	15	5	355500	1@23	DFT_QPSK	19	18.94
n66	15	5	355500	1@1	DFT_QAM16	18.5	18.35
n66	15	5	355500	1@1	DFT_QAM64	16.5	16.43
n66	15	5	355500	1@1	DFT_QAM256	14.5	14.38
n66	15	5	355500	1@1	CP_QPSK	18	17.64
n66	15	20	344000	1@1	DFT_BPSK	22.5	22.2

n66	15	20	344000	100@0	DFT_QPSK	21	20.89
n66	15	20	344000	50@25	DFT_QPSK	22	21.99
n66	15	20	344000	1@1	DFT_QPSK	22.5	22.1
n66	15	20	344000	1@104	DFT_QPSK	21.5	21.43
n66	15	20	344000	1@1	DFT_QAM16	21.5	21.38
n66	15	20	344000	1@1	DFT_QAM64	20	19.51
n66	15	20	344000	1@1	DFT_QAM256	18	17.52
n66	15	20	344000	1@1	CP_QPSK	21	20.7
n66	15	20	349000	1@1	DFT_BPSK	21.5	21.08
n66	15	20	349000	100@0	DFT_QPSK	20	19.89
n66	15	20	349000	50@25	DFT_QPSK	21	20.85
n66	15	20	349000	1@1	DFT_QPSK	21.5	21.09
n66	15	20	349000	1@104	DFT_QPSK	20.5	20.42
n66	15	20	349000	1@1	DFT_QAM16	20.5	20.32
n66	15	20	349000	1@1	DFT_QAM64	19	18.55
n66	15	20	349000	1@1	DFT_QAM256	17	16.51
n66	15	20	349000	1@1	CP_QPSK	20	19.75
n66	15	20	354000	1@1	DFT_BPSK	20	19.95
n66	15	20	354000	100@0	DFT_QPSK	19	18.52
n66	15	20	354000	50@25	DFT_QPSK	20	19.52
n66	15	20	354000	1@1	DFT_QPSK	20	19.92
n66	15	20	354000	1@104	DFT_QPSK	19.5	19.02
n66	15	20	354000	1@1	DFT_QAM16	19.5	19.22
n66	15	20	354000	1@1	DFT_QAM64	17.5	17.39
n66	15	20	354000	1@1	DFT_QAM256	15.5	15.39
n66	15	20	354000	1@1	CP_QPSK	19	18.55
n66	15	40	346000	1@1	DFT_BPSK	22.5	22.04
n66	15	40	346000	216@0	DFT_QPSK	20.5	20.25
n66	15	40	346000	108@54	DFT_QPSK	21.5	21.37
n66	15	40	346000	1@1	DFT_QPSK	22	21.93
n66	15	40	346000	1@214	DFT_QPSK	21	20.61
n66	15	40	346000	1@1	DFT_QAM16	21.5	21.31
n66	15	40	346000	1@1	DFT_QAM64	19.5	19.44
n66	15	40	346000	1@1	DFT_QAM256	17.5	17.42
n66	15	40	346000	1@1	CP_QPSK	21	20.53
n66	15	40	349000	1@1	DFT_BPSK	22	21.65
n66	15	40	349000	216@0	DFT_QPSK	20	19.92
n66	15	40	349000	108@54	DFT_QPSK	21	20.83
n66	15	40	349000	1@1	DFT_QPSK	22	21.61

n66	15	40	349000	1@214	DFT_QPSK	20	19.7
n66	15	40	349000	1@1	DFT_QAM16	21	20.93
n66	15	40	349000	1@1	DFT_QAM64	19.5	19.28
n66	15	40	349000	1@1	DFT_QAM256	17.5	17.1
n66	15	40	349000	1@1	CP_QPSK	20.5	20.18
n66	15	40	352000	1@1	DFT_BPSK	21	21
n66	15	40	352000	216@0	DFT_QPSK	19	18.91
n66	15	40	352000	108@54	DFT_QPSK	20.5	20.1
n66	15	40	352000	1@1	DFT_QPSK	21	20.93
n66	15	40	352000	1@214	DFT_QPSK	19	18.97
n66	15	40	352000	1@1	DFT_QAM16	20.5	20.27
n66	15	40	352000	1@1	DFT_QAM64	18.5	18.41
n66	15	40	352000	1@1	DFT_QAM256	16.5	16.38
n66	15	40	352000	1@1	CP_QPSK	19.5	19.47

n71	30	10	133600	1@1	DFT_BPSK	Tune-up (dBm)	23.36
n71	30	10	133600	24@0	DFT_QPSK	22.2	22.3
n71	30	10	133600	12@6	DFT_QPSK	23.5	23.35
n71	30	10	133600	1@1	DFT_QPSK	23.5	23.3
n71	30	10	133600	1@22	DFT_QPSK	23.5	23.25
n71	30	10	133600	1@1	DFT_QAM16	22.5	22.34
n71	30	10	133600	1@1	DFT_QAM64	21	20.8
n71	30	10	133600	1@1	DFT_QAM256	19	18.84
n71	30	10	133600	1@1	CP_QPSK	22	21.67
n71	30	10	136100	1@1	DFT_BPSK	23.5	23.37
n71	30	10	136100	24@0	DFT_QPSK	23	22.53
n71	30	10	136100	12@6	DFT_QPSK	24	23.51
n71	30	10	136100	1@1	DFT_QPSK	23.5	23.36
n71	30	10	136100	1@22	DFT_QPSK	23.5	23.5
n71	30	10	136100	1@1	DFT_QAM16	23	22.52
n71	30	10	136100	1@1	DFT_QAM64	21	20.96
n71	30	10	136100	1@1	DFT_QAM256	19	18.96
n71	30	10	136100	1@1	CP_QPSK	22	21.76
n71	30	10	138600	1@1	DFT_BPSK	24	23.55
n71	30	10	138600	24@0	DFT_QPSK	23	22.51
n71	30	10	138600	12@6	DFT_QPSK	23.5	23.5
n71	30	10	138600	1@1	DFT_QPSK	24	23.54
n71	30	10	138600	1@22	DFT_QPSK	23.5	23.45

n71	30	10	138600	1@1	DFT_QAM16	23	22.72
n71	30	10	138600	1@1	DFT_QAM64	21.5	21.14
n71	30	10	138600	1@1	DFT_QAM256	19.5	19.14
n71	30	10	138600	1@1	CP_QPSK	22	21.95
n71	30	15	134100	1@1	DFT_BPSK	23.5	23.37
n71	30	15	134100	36@0	DFT_QPSK	22.5	22.39
n71	30	15	134100	18@9	DFT_QPSK	23.5	23.39
n71	30	15	134100	1@1	DFT_QPSK	23.5	23.31
n71	30	15	134100	1@36	DFT_QPSK	23.5	23.36
n71	30	15	134100	1@1	DFT_QAM16	22.5	22.32
n71	30	15	134100	1@1	DFT_QAM64	21	20.81
n71	30	15	134100	1@1	DFT_QAM256	19	18.82
n71	30	15	134100	1@1	CP_QPSK	22	21.7
n71	30	15	136100	1@1	DFT_BPSK	23.5	23.25
n71	30	15	136100	36@0	DFT_QPSK	23	22.53
n71	30	15	136100	18@9	DFT_QPSK	24	23.55
n71	30	15	136100	1@1	DFT_QPSK	23.5	23.29
n71	30	15	136100	1@36	DFT_QPSK	24	23.54
n71	30	15	136100	1@1	DFT_QAM16	23.5	22.42
n71	30	15	136100	1@1	DFT_QAM64	21	20.94
n71	30	15	136100	1@1	DFT_QAM256	19	18.85
n71	30	15	136100	1@1	CP_QPSK	22	21.74
n71	30	15	138100	1@1	DFT_BPSK	23.5	23.49
n71	30	15	138100	36@0	DFT_QPSK	23	22.6
n71	30	15	138100	18@9	DFT_QPSK	24	23.61
n71	30	15	138100	1@1	DFT_QPSK	24	23.55
n71	30	15	138100	1@36	DFT_QPSK	23.5	23.45
n71	30	15	138100	1@1	DFT_QAM16	23	22.67
n71	30	15	138100	1@1	DFT_QAM64	21.5	21.19
n71	30	15	138100	1@1	DFT_QAM256	19.5	19.14
n71	30	15	138100	1@1	CP_QPSK	22	21.92
n71	30	20	134600	1@1	DFT_BPSK	23.5	23.38
n71	30	20	134600	50@0	DFT_QPSK	22.5	22.44
n71	30	20	134600	25@12	DFT_QPSK	23.5	23.4
n71	30	20	134600	1@1	DFT_QPSK	23.5	23.34
n71	30	20	134600	1@49	DFT_QPSK	23.5	23.49
n71	30	20	134600	1@1	DFT_QAM16	22.5	22.36
n71	30	20	134600	1@1	DFT_QAM64	21	20.82
n71	30	20	134600	1@1	DFT_QAM256	19	18.87

n71	30	20	134600	1@1	CP_QPSK	22	21.69
n71	30	20	136100	1@1	DFT_BPSK	23.5	23.29
n71	30	20	136100	50@0	DFT_QPSK	23	22.51
n71	30	20	136100	25@12	DFT_QPSK	24	23.59
n71	30	20	136100	1@1	DFT_QPSK	23.5	23.3
n71	30	20	136100	1@49	DFT_QPSK	24	23.55
n71	30	20	136100	1@1	DFT_QAM16	22.5	22.44
n71	30	20	136100	1@1	DFT_QAM64	21	20.91
n71	30	20	136100	1@1	DFT_QAM256	19	18.88
n71	30	20	136100	1@1	CP_QPSK	22	21.7
n71	30	20	137600	1@1	DFT_BPSK	24	23.53
n71	30	20	137600	50@0	DFT_QPSK	23	22.68
n71	30	20	137600	25@12	DFT_QPSK	24	23.73
n71	30	20	137600	1@1	DFT_QPSK	23.5	23.49
n71	30	20	137600	1@49	DFT_QPSK	24	23.53
n71	30	20	137600	1@1	DFT_QAM16	23	22.67
n71	30	20	137600	1@1	DFT_QAM64	21.5	21.16
n71	30	20	137600	1@1	DFT_QAM256	19.5	19.1
n71	30	20	137600	1@1	CP_QPSK	22	21.97

7.5. WLAN & Bluetooth Output Power

Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)	Tune-up (dBm)	Output Power (dBm)	Tune-up (dBm)	Output Power (dBm)
			Ant1		Ant2		MIMO	
802.11b	1	2412	14.00	13.45	13.50	13.18	0.00	/
	6	2437	14.00	13.89	13.50	12.96	0.00	/
	11	2462	14.00	12.38	13.50	12.90	0.00	/
802.11g	1	2412	14.00	13.13	13.50	13.05	0.00	/
	6	2437	14.00	13.71	13.50	13.25	0.00	/
	11	2462	14.00	12.44	13.50	12.86	0.00	/
802.11n HT20	1	2412	14.00	13.11	13.00	12.84	17.00	15.85
	6	2437	14.00	13.74	13.00	12.30	17.00	16.59
	11	2462	14.00	12.44	13.00	12.32	17.00	16.39
802.11n HT40	3	2422	14.00	13.04	13.00	12.28	17.50	15.97
	6	2437	14.00	13.22	13.00	12.93	17.50	16.63
	9	2452	14.00	13.70	13.00	12.96	17.50	17.07
802.11ax HT20	1	2412	14.00	13.47	13.00	12.60	17.00	16.09
	6	2437	14.00	13.82	13.00	12.77	17.00	16.97
	11	2462	14.00	12.71	13.00	12.90	17.00	16.57

802.11ax HT40	3	2422	14.00	13.49	13.50	13.07	17.50	16.21
	6	2437	14.00	13.46	13.50	13.08	17.50	16.6
	9	2452	14.00	13.83	13.50	13.12	17.50	17.08

NOTE: Power measurement results of WLAN 2.4G.

Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)	Tune-up (dBm)	Output Power (dBm)	Tune-up (dBm)	Output Power (dBm)
			Ant1		Ant2		MIMO	
802.11a	36	5180	13.00	12.56	13.50	13.16	N/A	N/A
	40	5200	13.00	12.49	13.50	13.19	N/A	N/A
	48	5240	13.00	11.56	13.50	13.24	N/A	N/A
802.11n HT20	36	5180	13.00	12.51	13.00	12.87	17.00	16.53
	40	5200	13.00	12.12	13.00	12.92	17.00	16.05
	48	5240	13.00	11.37	13.00	12.82	17.00	15.87
802.11n HT40	38	5190	13.00	12.62	13.00	12.62	17.00	16.67
	46	5230	13.00	11.73	13.00	11.73	17.00	16.22
802.11ac VHT20	36	5180	13.00	12.77	13.00	12.96	17.00	16.79
	40	5200	13.00	12.16	13.00	13.00	17.00	16.20
	48	5240	13.00	11.86	13.00	12.89	17.00	15.83
802.11ac VHT40	38	5190	13.50	13.02	13.50	13.24	17.00	16.78
	46	5230	13.50	12.92	13.50	13.18	17.00	16.18
802.11ac VHT80	42	5210	13.00	12.90	13.50	13.38	17.00	16.53
802.11ax HE 20	36	5180	15.50	15.01	13.00	12.94	17.00	16.94
	40	5200	15.50	14.78	13.00	12.95	17.00	16.41
	48	5240	15.50	13.90	13.00	12.85	17.00	16.09
802.11ax HE 40	38	5190	15.00	14.85	14.00	13.93	17.50	17.12
	46	5230	15.00	12.30	14.00	13.21	17.50	16.33
802.11ax HE 80	42	5210	13.00	12.63	12.50	12.47	16.50	16.42

NOTE: Power measurement results of WLAN 5.2G.

Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)	Tune-up (dBm)	Output Power (dBm)	Tune-up (dBm)	Output Power (dBm)
			Ant1		Ant2		MIMO	
802.11a	149	5745	13.50	11.8	13.50	12.3	N/A	N/A
	157	5785	13.50	13.42	13.50	12.06	N/A	N/A
	165	5825	13.50	12.86	13.50	13.14	N/A	N/A
802.11n	149	5745	14.00	12.99	13.50	12.71	15.00	14.62

HT20	157	5785	14.00	13.39	13.50	12.19	15.00	14.4
	165	5825	14.00	13.53	13.50	13.09	15.00	5.21
802.11n HT40	151	5755	13.50	12.55	12.50	12.4	15.00	14.58
	159	5795	13.50	13.1	12.50	12.37	15.00	14.54
802.11ac VHT20	149	5745	13.50	12.84	13.50	12.66	15.50	14.65
	157	5785	13.50	13.14	13.50	12.21	15.50	14.44
	165	5825	13.50	13.03	13.50	13.12	15.50	15.28
802.11ac VHT40	151	5755	14.50	14.01	12.50	11.55	15.00	14.75
	159	5795	14.50	14.06	12.50	12.15	15.00	14.7
802.11ac VHT80	155	5775	14.00	13.98	12.50	12.09	15.00	14.54
802.11ax HE 20	149	5745	14.50	13.34	13.50	12.79	16.00	14.98
	157	5785	14.50	13.91	13.50	12.19	16.00	14.74
	165	5825	14.50	14.46	13.50	13.2	16.00	15.59
802.11ax HE 40	151	5755	14.50	13.69	13.00	12.6	15.00	14.74
	159	5795	14.50	14.33	13.00	12.56	15.00	14.87
802.11ax HE 80	155	5775	15.00	14.55	13.00	12.58	15.00	14.54

NOTE: Power measurement results of WLAN 5.8G.

BR+EDR	Output Power (dBm)				
	Data Rates	Tune-up (dBm)	Channel		
			0CH	39CH	78CH
	1M	6	4.60	5.66	2.17
	2M	9	7.23	8.16	4.90
	3M	9	7.15	8.20	5.67

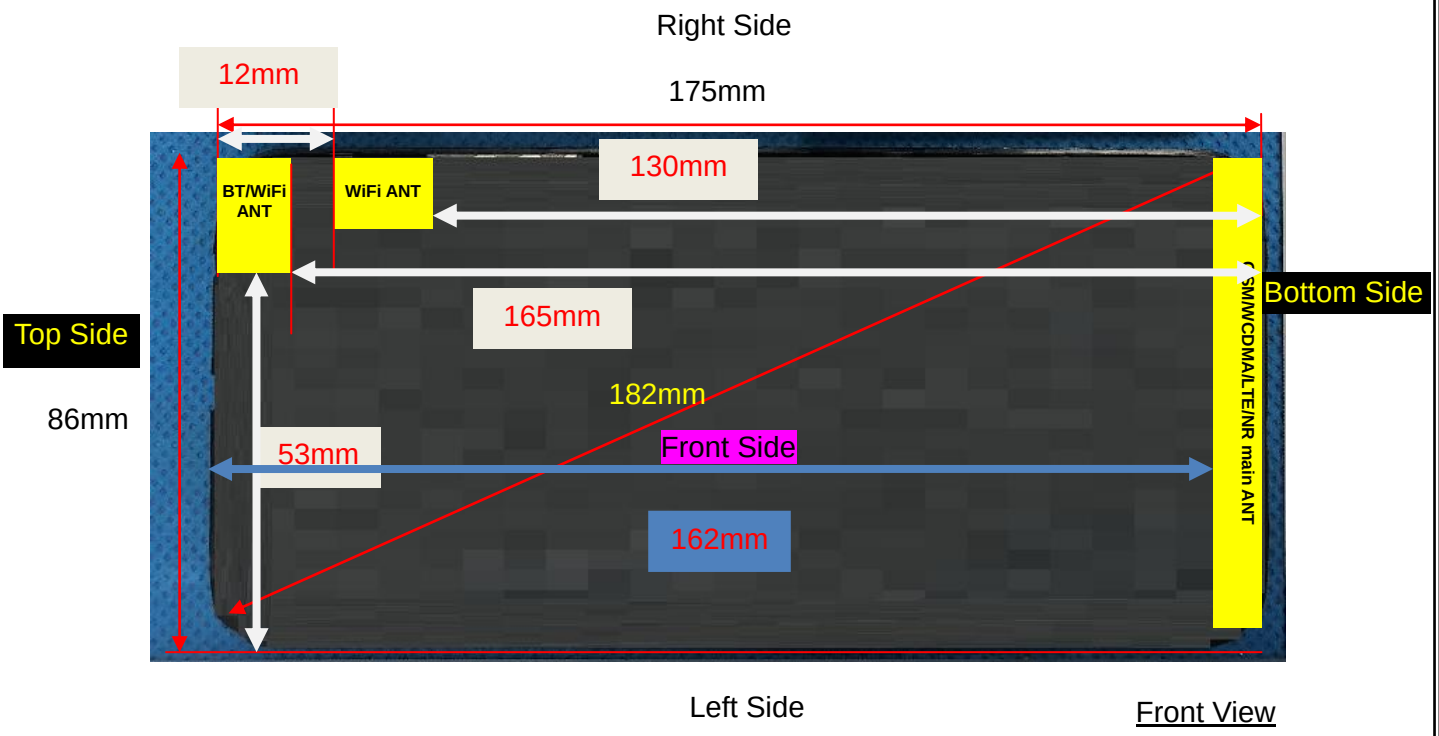
BLE	Output Power (dBm)				
	Data Rates	Tune-up (dBm)	Channe		
			0CH	19CH	39CH
	1M	7.00	6.37	6.98	4.02
	2M	7.50	7.09	7.19	4.86

NOTE: Power measurement results of Bluetooth.

7.6. NFC

Channel Freq（MHz）	Min Distance (mm)	Max power (dBm)	tune-up power (dBm)	Max power（mW）	Limits（mW）	SAR Test Exclusion
13.56	10	-33.13	-33.13±1	0.00061	443	Yes

8. Antenna Location



Note: Since the confidentiality request of EUT，the antenna location example diagram see as above.

Distance of the Antenna to the EUT surface/edge						
Antennas	Front Side	Back Side	Left Side	Right Side	Top Side	Bottom Side
WWAN Main ANT	≤ 25mm	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm
WLAN & Bluetooth ANT 1	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	>25mm
WLAN ANT 2	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	>25mm
Positions for SAR tests						
Antennas	Front Side	Back Side	Left Side	Right Side	Top Side	Bottom Side
WWAN Main ANT	Yes	Yes	Yes	Yes	NO	Yes
WLAN & Bluetooth	Yes	Yes	NO	Yes	Yes	NO
WLAN ANT 2	Yes	Yes	NO	Yes	Yes	NO

9. Stand-alone SAR test exclusion

Refer to FCC KDB 447498D01, the 1-g SAR and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

- $f_{(GHZ)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine

SAR test exclusion.

Mode	P_{max} (dBm)	P_{max} (mW)	Distance (mm)	f (GHz)	Calculation Result	SAR Exclusion threshold	SAR test exclusion
Bluetooth	8.50	7.080	5	2.480	2.23	3	Yes

NOTE: Standalone SAR test exclusion for Bluetooth.

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] * [$\sqrt{f_{(GHZ)}}$/x] W/kg for test separation distances ≤ 50mm, where x = 7.5 for 1-g SAR and x = 18.75 for 10-g SAR.

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Mode	Position	P_{max} (dBm)	P_{max} (mW)	Distance (mm)	f (GHz)	x	Estimated SAR (W/Kg)
Bluetooth	Head	8.50	7.08	5	2.48	7.5	0.297
Bluetooth	Body	8.50	7.08	10	2.48	7.5	0.149
Bluetooth	Hotspot	8.50	7.08	10	2.48	7.5	0.149

NOTE: Estimated SAR calculation for Bluetooth

10. SAR Results

10.1. SAR measurement Result

10.1.1. SAR measurement Result of GSM850

Test Position of Head	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(±5%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			1-g	10-g						
Left Cheek	189/836.4	GPRS(GMSK 4TS)	0.186	0.148	-1.51	28.03	28.50	0.207	2024/12/11	1#
Left Tilt 15 Degree	189/836.4	GPRS(GMSK 4TS)	0.094	0.074	-0.69	28.03	28.50	0.105	2024/12/11	
Right Cheek	189/836.4	GPRS(GMSK 4TS)	0.168	0.134	-3.83	28.03	28.50	0.187	2024/12/11	
Right Tilt 15 Degree	189/836.4	GPRS(GMSK 4TS)	0.080	0.060	-3.58	28.03	28.50	0.089	2024/12/11	

NOTE: Head SAR test results of GSM850.

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Front Side	189/836.4	GPRS(GMSK 4TS)	0.248	0.181	3.15	28.03	28.50	0.276	2024/12/11	
Back Side	189/836.4	GPRS(GMSK 4TS)	0.411	0.242	-2.69	28.03	28.50	0.458	2024/12/11	2#

NOTE: Body-Worn SAR test results of GSM850

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Front Side	189/836.4	GPRS(GMSK 4TS)	0.248	0.181	3.15	28.03	28.50	0.276	2024/12/11	
Back Side	189/836.4	GPRS(GMSK 4TS)	0.411	0.242	-2.69	28.03	28.50	0.458	2024/12/11	2#
Left Side	189/836.4	GPRS(GMSK 4TS)	0.084	0.062	0.47	28.03	28.50	0.094	2024/12/11	
Right Side	189/836.4	GPRS(GMSK 4TS)	0.286	0.209	-2.37	28.03	28.50	0.319	2024/12/11	
Bottom Side	189/836.4	GPRS(GMSK 4TS)	0.196	0.142	3.29	28.03	28.50	0.218	2024/12/11	

NOTE: Hotspot SAR test results of GSM850

10.1.2. SAR measurement Result of GSM1900

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Left Cheek	661/1880	GPRS(GMSK 4TS)	0.162	0.098	4.21	24.93	25.00	0.165	2024/12/26	3#
Left Tilt 15 Degree	661/1880	GPRS(GMSK 4TS)	0.089	0.053	0.63	24.93	25.00	0.090	2024/12/26	

Right Cheek	661/1880	GPRS(GMSK 4TS)	0.139	0.081	-2.78	24.93	25.00	0.141	2024/12/26	
Right Tilt 15 Degree	661/1880	GPRS(GMSK 4TS)	0.075	0.044	0.57	24.93	25.00	0.076	2024/12/26	

NOTE: Head SAR test results of GSM1900

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Front Side	661/1880	GPRS(GMSK 4TS)	0.266	0.142	-1.84	24.93	25.00	0.270	2024/12/26	
Back Side	661/1880	GPRS(GMSK 4TS)	0.758	0.418	-0.78	24.93	25.00	0.770	2024/12/26	4#

NOTE: Body-Worn SAR test results of GSM1900

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Front Side	661/1880	GPRS(GMSK 4TS)	0.266	0.142	-1.84	24.93	25.00	0.270	2024/12/26	
Back Side	661/1880	GPRS(GMSK 4TS)	0.758	0.418	-0.78	24.93	25.00	0.770	2024/12/26	4#
Left Side	661/1880	GPRS(GMSK 4TS)	0.395	0.211	2.64	24.93	25.00	0.401	2024/12/26	
Right Side	661/1880	GPRS(GMSK 4TS)	0.079	0.044	3.42	24.93	25.00	0.080	2024/12/26	
Bottom Side	661/1880	GPRS(GMSK 4TS)	0.418	0.224	0.98	24.93	25.00	0.425	2024/12/26	

NOTE: Hotspot SAR test results of GSM1900

10.1.3. SAR measurement Result of WCDMA Band 2

Test Position of Head	Test channel /Freq	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Left Cheek	9400/1880	RMC12.2K	0.226	0.130	2.70	21.62	22.00	0.247	2024/12/26	5#

Left Tilt 15 Degree	9400/1880	RMC12.2K	0.125	0.068	0.83	21.62	22.00	0.136	2024/12/26	
Right Cheek	9400/1880	RMC12.2K	0.210	0.120	-2.37	21.62	22.00	0.229	2024/12/26	
Right Tilt 15 Degree	9400/1880	RMC12.2K	0.103	0.056	3.45	21.62	22.00	0.112	2024/12/26	

NOTE: Head SAR test results of WCDMA Band 2

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Front Side	9400/1880	RMC12.2K	0.333	0.183	-3.95	21.62	22.00	0.363	2024/12/26	
Back Side	9400/1880	RMC12.2K	0.907	0.498	-0.26	21.62	22.00	0.990	2024/12/26	6#

NOTE: Body-Worn SAR test results of WCDMA Band 2

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Front Side	9400/1880	RMC12.2K	0.333	0.183	-3.95	21.62	22.00	0.363	2024/12/26	
Back Side	9400/1880	RMC12.2K	0.907	0.498	-0.26	21.62	22.00	0.990	2024/12/26	6#
Left Side	9400/1880	RMC12.2K	0.460	0.253	1.42	21.62	22.00	0.502	2024/12/26	
Right Side	9400/1880	RMC12.2K	0.091	0.048	0.86	21.62	22.00	0.099	2024/12/26	
Bottom Side	9400/1880	RMC12.2K	0.512	0.281	1.88	21.62	22.00	0.559	2024/12/26	
Back Side	9262/1852.4	RMC12.2K	0.819	0.450	-1.86	21.60	22.00	0.898	2024/12/26	
Back Side	9538/1907.6	RMC12.2K	0.874	0.480	-1.64	21.69	22.00	0.939	2024/12/26	
BackSide Repeated	9400/1880	RMC12.2K	0.904	0.495	2.36	21.62	22.00	0.987	2024/12/26	

NOTE: Hotspot SAR test results of WCDMA Band 2

Test Position of Hotspot with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 10-g (W/Kg)	Date	Plot
			1-g	10-g						
Back Side	9400/1880	RMC12.2K	1.684	0.812	-1.48	21.62	22.00	0.886	2024/12/26	49#

NOTE: Extremity SAR test results of WCDMA Band 2

10.1.4. SAR measurement Result of WCDMA Band 4

Test Position of Head	Test channel /Freq	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Left Cheek	1413/1732.6	RMC12.2K	0.141	0.090	2.82	21.75	22.00	0.149	2024/12/25	7#
Left Tilt 15 Degree	1413/1732.6	RMC12.2K	0.084	0.054	-3.63	21.75	22.00	0.089	2024/12/25	
Right Cheek	1413/1732.6	RMC12.2K	0.127	0.079	-0.84	21.75	22.00	0.135	2024/12/25	
Right Tilt 15 Degree	1413/1732.6	RMC12.2K	0.058	0.036	2.34	21.75	22.00	0.061	2024/12/25	

NOTE: Head SAR test results of WCDMA Band 4

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Front Side	1413/1732.6	RMC12.2K	0.354	0.194	-2.13	21.75	22.00	0.375	2024/12/25	
Back Side	1413/1732.6	RMC12.2K	1.010	0.564	-0.63	21.75	22.00	1.070	2024/12/25	

NOTE: Body-Worn SAR test results of WCDMA Band 4

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Front Side	1413/1732.6	RMC12.2K	0.354	0.194	-2.13	21.75	22.00	0.375	2024/12/25	
Back Side	1413/1732.6	RMC12.2K	1.010	0.564	-0.63	21.75	22.00	1.070	2024/12/25	
Left Side	1413/1732.6	RMC12.2K	0.525	0.279	3.74	21.75	22.00	0.556	2024/12/25	
Right Side	1413/1732.6	RMC12.2K	0.936	0.497	-1.39	21.75	22.00	0.991	2024/12/25	
Bottom Side	1413/1732.6	RMC12.2K	0.988	0.546	1.77	21.75	22.00	1.047	2024/12/25	
Back Side	1312/1712.4	RMC12.2K	0.945	0.522	-3.18	22.00	22.00	0.945	2024/12/25	
Back Side	1513/1752.6	RMC12.2K	1.091	0.610	-0.54	21.84	22.00	1.132	2024/12/25	8#
BackSide Repeated	1312/1712.4	RMC12.2K	1.090	0.605	-4.52	0.00	0.00	1.090	2024/12/25	

NOTE: Hotspot SAR test results of WCDMA Band 4

Test	Test	Mode	SAR Value	Power	Conducted	Tune-up	Scaled	Date	Plot

Position of Hotspot with 0mm	channel /Freq.		(W/kg)		Drift(%)	Power (dBm)	Power (dBm)	SAR 10-g (W/Kg)		
			1-g	10-g						
Back Side	1413/1732.6	RMC12.2K	1.726	0.858	1.63	21.75	22.00	0.909	2024/12/25	50#

NOTE: Extremity SAR test results of WCDMA Band 4

10.1.5. SAR measurement Result of WCDMA Band 5

Test Position of Head	Test channel /Freq	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Left Cheek	4182/836.4	RMC12.2K	0.146	0.118	4.22	22.85	23.00	0.151	2024/12/11	9#
Left Tilt 15 Degree	4182/836.4	RMC12.2K	0.082	0.064	-3.37	22.85	23.00	0.085	2024/12/11	
Right Cheek	4182/836.4	RMC12.2K	0.132	0.102	1.55	22.85	23.00	0.137	2024/12/11	
Right Tilt 15 Degree	4182/836.4	RMC12.2K	0.060	0.047	0.69	22.85	23.00	0.062	2024/12/11	

NOTE: Head SAR test results of WCDMA Band 5

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
Front Side	4182/836.4	RMC12.2K	0.162	0.097	1.97	22.85	23.00	0.168	2024/12/11	
Back Side	4182/836.4	RMC12.2K	0.229	0.142	-1.04	22.85	23.00	0.237	2024/12/11	10#

NOTE: Body-Worn SAR test results of WCDMA Band 5

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
Front Side	4182/836.4	RMC12.2K	0.162	0.097	1.97	22.85	23.00	0.168	2024/12/11	
Back Side	4182/836.4	RMC12.2K	0.229	0.142	-1.04	22.85	23.00	0.237	2024/12/11	10#
Left	4182/836.4	RMC12.2K	0.046	0.028	-1.06	22.85	23.00	0.048	2024/12/11	

Side										
Right Side	4182/836.4	RMC12.2K	0.150	0.093	3.60	22.85	23.00	0.155	2024/12/11	
Bottom Side	4182/836.4	RMC12.2K	0.122	0.075	-1.74	22.85	23.00	0.126	2024/12/11	

NOTE: Hotspot SAR test results of WCDMA Band 5

10.1.6. SAR measurement Result of LTE Band 2

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	18900/1880	20M QPSK(1,49)	0.220	0.125	-2.35	21.79	22.50	0.259	2024/12/09	29#
Left Tilt 15 Degree	18900/1880	20M QPSK(1,49)	0.122	0.067	-0.90	21.79	22.50	0.144	2024/12/09	
Right Cheek	18900/1880	20M QPSK(1,49)	0.195	0.109	3.88	21.79	22.50	0.230	2024/12/09	
Right Tilt 15 Degree	18900/1880	20M QPSK(1,49)	0.090	0.049	-3.89	21.79	22.50	0.106	2024/12/09	
50%RB										
Left Cheek	18900/1880	20M QPSK(50,49)	0.120	0.072	4.78	20.94	21.50	0.137	2024/12/09	
Left Tilt 15 Degree	18900/1880	20M QPSK(50,49)	0.073	0.035	4.39	20.94	21.50	0.083	2024/12/09	
Right Cheek	18900/1880	20M QPSK(50,49)	0.099	0.058	-2.18	20.94	21.50	0.113	2024/12/09	
Right Tilt 15 Degree	18900/1880	20M QPSK(50,49)	0.053	0.029	1.44	20.94	21.50	0.060	2024/12/09	

NOTE: Head SAR test results of LTE Band 2

Test Position of Body-	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						

Worn with 10mm										
1RB										
Front Side	18900/1880	20M QPSK(1,49)	0.333	0.181	3.63	21.79	22.50	0.392	2024/12/09	
Back Side	18900/1880	20M QPSK(1,49)	0.944	0.534	-0.33	21.79	22.50	1.112	2024/12/09	30#
50%RB										
Front Side	18900/1880	20M QPSK(50,49)	0.186	0.101	4.10	20.94	21.50	0.212	2024/12/09	
Back Side	18900/1880	20M QPSK(50,49)	0.481	0.291	2.46	20.94	21.50	0.547	2024/12/09	
100%RB										
Back Side	18900/1880	20M QPSK(100,0)	0.437	0.250	0.13	20.94	21.50	0.437	2024/12/09	

NOTE: Body-Worn SAR test results of LTE Band 2

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	18900/1880	20M QPSK(1,49)	0.333	0.181	3.63	21.79	22.50	0.392	2024/12/09	
Back Side	18900/1880	20M QPSK(1,49)	0.944	0.534	-0.33	21.79	22.50	1.112	2024/12/09	30#
Left Side	18900/1880	20M QPSK(1,49)	0.485	0.269	1.94	21.79	22.50	0.571	2024/12/09	
Right Side	18900/1880	20M QPSK(1,49)	0.096	0.053	-3.64	21.79	22.50	0.113	2024/12/09	
Bottom Side	18900/1880	20M QPSK(1,49)	0.545	0.308	2.60	21.79	22.50	0.642	2024/12/09	
Back Side	18700/1860	20M QPSK(1,49)	0.882	0.479	3.48	21.60	22.50	1.085	2024/12/09	
Back Side	19100/1900	20M QPSK(1,49)	0.893	0.495	0.64	21.96	22.50	1.011	2024/12/09	
BackSide	18900/1880	20M	0.940	0.530	3.85	21.79	22.50	1.107	2024/12/09	

Repeated		QPSK(1,49)								
50%RB										
Front Side	18900/1880	20M QPSK(50,49)	0.186	0.101	4.10	20.94	21.50	0.212	2024/12/09	
Back Side	18900/1880	20M QPSK(50,49)	0.481	0.291	2.46	20.94	21.50	0.547	2024/12/09	
Left Side	18900/1880	20M QPSK(50,49)	0.286	0.144	3.65	20.94	21.50	0.325	2024/12/09	
Right Side	18900/1880	20M QPSK(50,49)	0.054	0.027	-1.74	20.94	21.50	0.061	2024/12/09	
Bottom Side	18900/1880	20M QPSK(50,49)	0.282	0.158	-1.22	20.94	21.50	0.321	2024/12/09	
100%RB										
Back Side	18900/1880	20M QPSK(100,0)	0.437	0.250	0.13	20.84	21.50	0.509	2024/12/09	

NOTE: Hotspot SAR test results of LTE Band 2

Test Position of Hotspot with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 10-g (W/Kg)	Date	Plot
			1-g	10-g						
Back Side	18900/1880	20M QPSK(1,49)	1.595	0.714	-2.54	20.94	21.50	0.812	2024/12/09	51#

NOTE: Extremity SAR test results of LTE Band 2

10.1.7. SAR measurement Result of LTE Band 4

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	20175/1732.5	20M QPSK(1,99)	0.153	0.096	-2.21	22.16	22.50	0.165	2024/12/06	31#
Left Tilt 15 Degree	20175/1732.5	20M QPSK(1,99)	0.077	0.048	-1.35	22.16	22.50	0.083	2024/12/06	
Right Cheek	20175/1732.5	20M QPSK(1,99)	0.135	0.084	-1.07	22.16	22.50	0.146	2024/12/06	
Right Tilt	20175/1732.5	20M	0.063	0.038	-1.77	22.16	22.50	0.068	2024/12/06	

15 Degree		QPSK(1,99)								
50%RB										
Left Cheek	20175/1732.5	20M QPSK(50,0)	0.084	0.048	-1.15	21.10	21.50	0.092	2024/12/06	
Left Tilt 15 Degree	20175/1732.5	20M QPSK(50,0)	0.040	0.028	1.58	21.10	21.50	0.044	2024/12/06	
Right Cheek	20175/1732.5	20M QPSK(50,0)	0.080	0.043	2.99	21.10	21.50	0.088	2024/12/06	
Right Tilt 15 Degree	20175/1732.5	20M QPSK(50,0)	0.035	0.021	-3.94	21.10	21.50	0.038	2024/12/06	

NOTE: Head SAR test results of LTE Band 4

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
1RB										
Front Side	20175/1732.5	20M QPSK(1,99)	0.389	0.220	3.14	22.16	22.50	0.421	2024/12/06	
Back Side	20175/1732.5	20M QPSK(1,99)	1.105	0.630	-0.44	22.16	22.50	1.195	2024/12/06	32#
50%RB										
Front Side	20175/1732.5	20M QPSK(50,0)	0.229	0.125	-4.20	21.10	21.50	0.251	2024/12/06	
Back Side	20175/1732.5	20M QPSK(50,0)	0.587	0.327	-3.92	21.10	21.50	0.644	2024/12/06	

NOTE: Body-Worn SAR test results of LTE Band 4

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	20175/1732.5	20M	0.389	0.220	3.14	22.16	22.50	0.421	2024/12/06	

		QPSK(1,99)								
Back Side	20175/1732.5	20M QPSK(1,99)	1.105	0.630	-0.44	22.16	22.50	1.195	2024/12/06	32#
Left Side	20175/1732.5	20M QPSK(1,99)	0.575	0.318	-1.85	22.16	22.50	0.622	2024/12/06	
Right Side	20175/1732.5	20M QPSK(1,99)	0.114	0.062	0.50	22.16	22.50	0.123	2024/12/06	
Bottom Side	20175/1732.5	20M QPSK(1,99)	0.616	0.348	-1.50	22.16	22.50	0.666	2024/12/06	
Back Side	20050/1720	20M QPSK(1,99)	1.026	0.567	-3.58	22.08	22.50	1.130	2024/12/06	
Back Side	20300/1745	20M QPSK(1,99)	1.052	0.623	-3.21	22.10	22.50	1.153	2024/12/06	
BackSide Repeated	20175/1732.5	20M QPSK(1,99)	1.103	0.625	2.65	22.16	22.50	1.193	2024/12/06	
50%RB										
Front Side	20175/1732.5	20M QPSK(50,0)	0.229	0.125	-4.20	21.10	21.50	0.251	2024/12/06	
Back Side	20175/1732.5	20M QPSK(50,0)	0.587	0.327	-3.92	21.10	21.50	0.644	2024/12/06	
Left Side	20175/1732.5	20M QPSK(50,0)	0.331	0.186	-0.90	21.10	21.50	0.363	2024/12/06	
Right Side	20175/1732.5	20M QPSK(50,0)	0.058	0.032	-0.56	21.10	21.50	0.064	2024/12/06	
Bottom Side	20175/1732.5	20M QPSK(50,0)	0.360	0.189	0.93	21.10	21.50	0.395	2024/12/06	
100%RB										
Back Side	20175/1732.5	20M QPSK(100,0)	0.557	0.361	-2.34	20.98	21.50	0.628	2024/12/06	

NOTE: Hotspot SAR test results of LTE Band 4

Test Position of Hotspot with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 10-g (W/Kg)	Date	Plot
			1-g	10-g						
Back Side	20175/1732.5	20M QPSK(1,99)	1.981	0.994	-1.74	22.16	22.50	1.075	2024/12/06	52#

NOTE: Extremity SAR test results of LTE Band 4

10.1.8. SAR measurement Result of LTE Band 5

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	20525/836.5	10M QPSK(1,49)	0.142	0.116	3.02	23.12	23.50	0.155	2024/12/11	33#
Left Tilt 15 Degree	20525/836.5	10M QPSK(1,49)	0.080	0.063	-2.59	23.12	23.50	0.087	2024/12/11	
Right Cheek	20525/836.5	10M QPSK(1,49)	0.127	0.100	-0.53	23.12	23.50	0.139	2024/12/11	
Right Tilt 15 Degree	20525/836.5	10M QPSK(1,49)	0.066	0.053	1.93	23.12	23.50	0.072	2024/12/11	
50%RB										
Left Cheek	20525/836.5	10M QPSK(25,0)	0.081	0.061	0.13	22.04	22.50	0.090	2024/12/11	
Left Tilt 15 Degree	20525/836.5	10M QPSK(25,0)	0.048	0.036	-2.68	22.04	22.50	0.053	2024/12/11	
Right Cheek	20525/836.5	10M QPSK(25,0)	0.073	0.052	-1.67	22.04	22.50	0.081	2024/12/11	
Right Tilt 15 Degree	20525/836.5	10M QPSK(25,0)	0.038	0.027	0.82	22.04	22.50	0.042	2024/12/11	

NOTE: Head SAR test results of LTE Band 5

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1g	10g						
1RB										
Front	20525/836.5	10M	0.138	0.083	-0.83	23.12	23.50	0.151	2024/12/11	

Side		QPSK(1,49)								
Back Side	20525/836.5	10M QPSK(1,49)	0.223	0.137	-0.77	23.12	23.50	0.243	2024/12/11	34#
50%RB										
Front Side	20525/836.5	10M QPSK(25,0)	0.081	0.043	1.44	22.04	22.50	0.090	2024/12/11	
Back Side	20525/836.5	10M QPSK(25,0)	0.129	0.079	2.03	22.04	22.50	0.143	2024/12/11	

NOTE: Body-Worn SAR test results of LTE Band 5

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	20525/836.5	10M QPSK(1,49)	0.138	0.083	-0.83	23.12	23.50	0.151	2024/12/11	
Back Side	20525/836.5	10M QPSK(1,49)	0.223	0.137	-0.77	23.12	23.50	0.243	2024/12/11	34#
Left Side	20525/836.5	10M QPSK(1,49)	0.054	0.032	0.25	23.12	23.50	0.059	2024/12/11	
Right Side	20525/836.5	10M QPSK(1,49)	0.156	0.092	1.87	23.12	23.50	0.170	2024/12/11	
Bottom Side	20525/836.5	10M QPSK(1,49)	0.117	0.068	1.74	23.12	23.50	0.128	2024/12/11	
50%RB										
Front Side	20525/836.5	10M QPSK(25,0)	0.081	0.043	1.44	22.04	22.50	0.090	2024/12/11	
Back Side	20525/836.5	10M QPSK(25,0)	0.129	0.079	2.03	22.04	22.50	0.143	2024/12/11	
Left Side	20525/836.5	10M QPSK(25,0)	0.030	0.017	1.09	22.04	22.50	0.033	2024/12/11	
Right Side	20525/836.5	10M QPSK(25,0)	0.078	0.054	2.89	22.04	22.50	0.087	2024/12/11	
Bottom Side	20525/836.5	10M QPSK(25,0)	0.066	0.036	1.30	22.04	22.50	0.073	2024/12/11	

NOTE: Hotspot SAR test results of LTE Band 5

10.1.9. SAR measurement Result of LTE Band 12

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	23095/707.5	10M QPSK(1,0)	0.104	0.090	-1.60	23.21	23.50	0.111	2024/12/13	35#
Left Tilt 15 Degree	23095/707.5	10M QPSK(1,0)	0.059	0.049	-2.72	23.21	23.50	0.063	2024/12/13	
Right Cheek	23095/707.5	10M QPSK(1,0)	0.090	0.074	0.40	23.21	23.50	0.096	2024/12/13	
Right Tilt 15 Degree	23095/707.5	10M QPSK(1,0)	0.041	0.034	-2.19	23.21	23.50	0.044	2024/12/13	
50%RB										
Left Cheek	23095/707.5	10M QPSK(25,12)	0.061	0.046	-4.19	22.25	22.50	0.065	2024/12/13	
Left Tilt 15 Degree	23095/707.5	10M QPSK(25,12)	0.035	0.028	1.45	22.25	22.50	0.037	2024/12/13	
Right Cheek	23095/707.5	10M QPSK(25,12)	0.052	0.044	-2.28	22.25	22.50	0.055	2024/12/13	
Right Tilt 15 Degree	23095/707.5	10M QPSK(25,12)	0.023	0.020	-0.73	22.25	22.50	0.024	2024/12/13	

NOTE: Head SAR test results of LTE Band 12

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	23095/707.5	10M QPSK(1,0)	0.126	0.102	1.89	23.21	23.50	0.135	2024/12/13	
Back Side	23095/707.5	10M QPSK(1,0)	0.186	0.150	0.01	23.21	23.50	0.199	2024/12/13	36#
50%RB										
Front Side	23095/707.5	10M	0.071	0.060	3.81	22.25	22.50	0.075	2024/12/13	

		QPSK(25,12)								
Back Side	23095/707.5	10M QPSK(25,12)	0.107	0.082	-0.23	22.25	22.50	0.113	2024/12/13	

NOTE: Body-Worn SAR test results of LTE Band 12

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	23095/707.5	10M QPSK(1,0)	0.126	0.102	1.89	23.21	23.50	0.135	2024/12/13	
Back Side	23095/707.5	10M QPSK(1,0)	0.186	0.150	0.01	23.21	23.50	0.199	2024/12/13	36#
Left Side	23095/707.5	10M QPSK(1,0)	0.044	0.035	-2.02	23.21	23.50	0.047	2024/12/13	
Right Side	23095/707.5	10M QPSK(1,0)	0.150	0.116	1.94	23.21	23.50	0.160	2024/12/13	
Bottom Side	23095/707.5	10M QPSK(1,0)	0.099	0.076	-1.64	23.21	23.50	0.106	2024/12/13	
50%RB										
Front Side	23095/707.5	10M QPSK(25,12)	0.071	0.060	3.81	22.25	22.50	0.075	2024/12/13	
Back Side	23095/707.5	10M QPSK(25,12)	0.107	0.082	-0.23	22.25	22.50	0.113	2024/12/13	
Left Side	23095/707.5	10M QPSK(25,12)	0.024	0.020	-0.45	22.25	22.50	0.025	2024/12/13	
Right Side	23095/707.5	10M QPSK(25,12)	0.077	0.068	1.33	22.25	22.50	0.082	2024/12/13	
Bottom Side	23095/707.5	10M QPSK(25,12)	0.056	0.044	3.88	22.25	22.50	0.059	2024/12/13	

NOTE: Hotspot SAR test results of LTE Band 12

10.1.10. SAR measurement Result of LTE Band 17

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						

1RB										
Left Cheek	23790/710	10M QPSK(1,49)	0.145	0.122	-1.54	22.71	23.00	0.155	2024/12/13	37#
Left Tilt 15 Degree	23790/710	10M QPSK(1,49)	0.076	0.061	3.53	22.71	23.00	0.081	2024/12/13	
Right Cheek	23790/710	10M QPSK(1,49)	0.123	0.103	-0.53	22.71	23.00	0.131	2024/12/13	
Right Tilt 15 Degree	23790/710	10M QPSK(1,49)	0.067	0.054	-3.61	22.71	23.00	0.072	2024/12/13	
50%RB										
Left Cheek	23790/710	10M QPSK(25,0)	0.074	0.066	-0.71	21.69	22.00	0.079	2024/12/13	
Left Tilt 15 Degree	23790/710	10M QPSK(25,0)	0.044	0.034	2.07	21.69	22.00	0.047	2024/12/13	
Right Cheek	23790/710	10M QPSK(25,0)	0.065	0.060	-0.28	21.69	22.00	0.070	2024/12/13	
Right Tilt 15 Degree	23790/710	10M QPSK(25,0)	0.035	0.027	1.08	21.69	22.00	0.038	2024/12/13	

NOTE: Head SAR test results of LTE Band 17

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	23790/710	10M QPSK(1,49)	0.138	0.111	-3.46	22.71	23.00	0.148	2024/12/13	
Back Side	23790/710	10M QPSK(1,49)	0.195	0.157	-0.22	22.71	23.00	0.208	2024/12/13	38#
50%RB										
Front Side	23790/710	10M QPSK(25,0)	0.079	0.060	0.18	21.69	22.00	0.085	2024/12/13	
Back Side	23790/710	10M QPSK(25,0)	0.100	0.085	1.86	21.69	22.00	0.107	2024/12/13	

NOTE: Body-Worn SAR test results of LTE Band 17

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	23790/710	10M QPSK(1,49)	0.138	0.111	-3.46	22.71	23.00	0.148	2024/12/13	
Back Side	23790/710	10M QPSK(1,49)	0.195	0.157	-0.22	22.71	23.00	0.208	2024/12/13	38#
Left Side	23790/710	10M QPSK(1,49)	0.042	0.033	0.37	22.71	23.00	0.045	2024/12/13	
Right Side	23790/710	10M QPSK(1,49)	0.143	0.112	2.43	22.71	23.00	0.153	2024/12/13	
Bottom Side	23790/710	10M QPSK(1,49)	0.104	0.080	1.62	22.71	23.00	0.111	2024/12/13	
50%RB										
Front Side	23790/710	10M QPSK(25,0)	0.079	0.060	0.18	21.69	22.00	0.085	2024/12/13	
Back Side	23790/710	10M QPSK(25,0)	0.100	0.085	1.86	21.69	22.00	0.107	2024/12/13	
Left Side	23790/710	10M QPSK(25,0)	0.022	0.017	-2.49	21.69	22.00	0.024	2024/12/13	
Right Side	23790/710	10M QPSK(25,0)	0.075	0.063	-1.65	21.69	22.00	0.081	2024/12/13	
Bottom Side	23790/710	10M QPSK(25,0)	0.059	0.045	-4.69	21.69	22.00	0.063	2024/12/13	

NOTE: Hotspot SAR test results of LTE Band 17

10.1.11. SAR measurement Result of LTE Band 41

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	40620/2593	20M QPSK(1,0)	0.036	0.024	1.81	24.04	24.50	0.040	2024/12/16	39#

Left Tilt 15 Degree	40620/2593	20M QPSK(1,0)	0.020	0.018	-1.33	24.04	24.50	0.022	2024/12/16	
Right Cheek	40620/2593	20M QPSK(1,0)	0.034	0.022	-1.49	24.04	24.50	0.038	2024/12/16	
Right Tilt 15 Degree	40620/2593	20M QPSK(1,0)	0.017	0.015	-1.81	24.04	24.50	0.019	2024/12/16	
50%RB										
Left Cheek	40620/2593	20M QPSK(50,0)	0.021	0.012	0.31	22.85	23.00	0.022	2024/12/16	
Left Tilt 15 Degree	40620/2593	20M QPSK(50,0)	0.011	0.011	-1.35	22.85	23.00	0.011	2024/12/16	
Right Cheek	40620/2593	20M QPSK(50,0)	0.020	0.011	1.72	22.85	23.00	0.021	2024/12/16	
Right Tilt 15 Degree	40620/2593	20M QPSK(50,0)	0.010	0.008	2.37	22.85	23.00	0.010	2024/12/16	

NOTE: Head SAR test results of LTE Band 41

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	40620/2593	20M QPSK(1,0)	0.228	0.108	2.30	24.04	24.50	0.253	2024/12/16	
Back Side	40620/2593	20M QPSK(1,0)	0.345	0.165	0.30	24.04	24.50	0.384	2024/12/16	40#
50%RB										
Front Side	40620/2593	20M QPSK(50,0)	0.130	0.056	-1.26	22.85	23.00	0.135	2024/12/16	
Back Side	40620/2593	20M QPSK(50,0)	0.185	0.083	-1.95	22.85	23.00	0.192	2024/12/16	

NOTE: Body-Worn SAR test results of LTE Band 41

Test Position of	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g	Date	Plot
			1-g	10-g						

Hotspot with 10mm								(W/Kg)		
1RB										
Front Side	40620/2593	20M QPSK(1,0)	0.228	0.108	2.30	24.04	24.50	0.253	2024/12/16	
Back Side	40620/2593	20M QPSK(1,0)	0.345	0.165	0.30	24.04	24.50	0.384	2024/12/16	40#
Left Side	40620/2593	20M QPSK(1,0)	0.072	0.033	2.13	24.04	24.50	0.080	2024/12/16	
Right Side	40620/2593	20M QPSK(1,0)	0.105	0.048	-0.17	24.04	24.50	0.117	2024/12/16	
Bottom Side	40620/2593	20M QPSK(1,0)	0.296	0.137	3.20	24.04	24.50	0.329	2024/12/16	
50%RB										
Front Side	40620/2593	20M QPSK(50,0)	0.130	0.056	-1.26	22.85	23.00	0.135	2024/12/16	
Back Side	40620/2593	20M QPSK(50,0)	0.185	0.083	-1.95	22.85	23.00	0.192	2024/12/16	
Left Side	40620/2593	20M QPSK(50,0)	0.038	0.019	-4.74	22.85	23.00	0.039	2024/12/16	
Right Side	40620/2593	20M QPSK(50,0)	0.060	0.028	-0.24	22.85	23.00	0.062	2024/12/16	
Bottom Side	40620/2593	20M QPSK(50,0)	0.177	0.079	0.47	22.85	23.00	0.183	2024/12/16	

NOTE: Hotspot SAR test results of LTE Band 41

10.1.12. SAR measurement Result of LTE Band 66

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	132322/1745	20M QPSK(1,0)	0.189	0.117	3.24	21.93	22.00	0.192	2024/12/06	41#
Left Tilt 15 Degree	132322/1745	20M QPSK(1,0)	0.099	0.058	-0.94	21.93	22.00	0.101	2024/12/06	
Right	132322/1745	20M	0.168	0.102	-1.20	21.93	22.00	0.171	2024/12/06	

Cheek		QPSK(1,0)								
Right Tilt 15 Degree	132322/1745	20M QPSK(1,0)	0.079	0.047	-0.57	21.93	22.00	0.080	2024/12/06	
50%RB										
Left Cheek	132322/1745	20M QPSK(50,0)	0.107	0.066	0.77	20.89	21.00	0.110	2024/12/06	
Left Tilt 15 Degree	132322/1745	20M QPSK(50,0)	0.050	0.030	-0.34	20.89	21.00	0.051	2024/12/06	
Right Cheek	132322/1745	20M QPSK(50,0)	0.094	0.052	-2.50	20.89	21.00	0.096	2024/12/06	
Right Tilt 15 Degree	132322/1745	20M QPSK(50,0)	0.047	0.024	4.14	20.89	21.00	0.048	2024/12/06	

NOTE: Head SAR test results of LTE Band 66

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	132322/1745	20M QPSK(1,0)	0.349	0.259	-0.72	21.93	22.00	0.355	2024/12/06	
Back Side	132322/1745	20M QPSK(1,0)	0.979	0.549	-1.45	21.93	22.00	0.995	2024/12/06	
50%RB										
Front Side	132322/1745	20M QPSK(50,0)	0.198	0.142	1.51	20.89	21.00	0.203	2024/12/06	
Back Side	132322/1745	20M QPSK(50,0)	0.549	0.319	0.04	20.89	21.00	0.563	2024/12/06	

NOTE: Body-Worn SAR test results of LTE Band 66

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										

Front Side	132322/1745	20M QPSK(1,0)	0.349	0.259	-0.72	21.93	22.00	0.355	2024/12/06	
Back Side	132322/1745	20M QPSK(1,0)	0.979	0.549	-1.45	21.93	22.00	0.995	2024/12/06	
Left Side	132322/1745	20M QPSK(1,0)	0.489	0.364	-3.92	21.93	22.00	0.497	2024/12/06	
Right Side	132322/1745	20M QPSK(1,0)	0.103	0.079	0.41	21.93	22.00	0.105	2024/12/06	
Bottom Side	132322/1745	20M QPSK(1,0)	0.505	0.385	3.08	21.93	22.00	0.513	2024/12/06	
Back Side	132072/1720	20M QPSK(1,0)	0.911	0.501	3.65	21.70	22.00	0.976	2024/12/06	
Back Side	132572/1770	20M QPSK(1,0)	1.023	0.573	-0.39	21.50	22.00	1.148	2024/12/06	42#
BackSide Repeated	132322/1745	20M QPSK(1,0)	1.020	0.570	2.85	21.50	22.00	1.144	2024/12/06	
50%RB										
Front Side	132322/1745	20M QPSK(50,0)	0.198	0.142	1.51	20.89	21.00	0.203	2024/12/06	
Back Side	132322/1745	20M QPSK(50,0)	0.549	0.319	0.04	20.89	21.00	0.563	2024/12/06	
Left Side	132322/1745	20M QPSK(50,0)	0.287	0.211	3.01	20.89	21.00	0.294	2024/12/06	
Right Side	132322/1745	20M QPSK(50,0)	0.055	0.041	-3.58	20.89	21.00	0.056	2024/12/06	
Bottom Side	132322/1745	20M QPSK(50,0)	0.279	0.212	0.36	20.89	21.00	0.286	2024/12/06	
100%RB										
Back Side	132322/1745	20M QPSK(100,0)	0.534	0.318	-3.70	20.67	21.00	0.576	2024/12/06	

NOTE: Hotspot SAR test results of LTE Band 66

Test Position of Hotspot with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 10-g (W/Kg)	Date	Plot
			1-g	10-g						
Back Side	132322/1745	20M QPSK(1,0)	1.582	0.742	-1.95	20.89	21.00	0.761	2024/12/06	53#

NOTE: Extremity SAR test results of LTE Band 66

10.1.13. SAR measurement Result of LTE Band 71

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	133322/683	20M QPSK(1,0)	0.118	0.102	0.91	23.00	23.00	0.118	2024/12/13	43#
Left Tilt 15 Degree	133322/683	20M QPSK(1,0)	0.070	0.059	0.43	23.00	23.00	0.070	2024/12/13	
Right Cheek	133322/683	20M QPSK(1,0)	0.110	0.091	-3.37	23.00	23.00	0.110	2024/12/13	
Right Tilt 15 Degree	133322/683	20M QPSK(1,0)	0.059	0.050	-0.39	23.00	23.00	0.059	2024/12/13	
50%RB										
Left Cheek	133322/683	20M QPSK(50,0)	0.060	0.059	4.70	21.91	22.50	0.069	2024/12/13	
Left Tilt 15 Degree	133322/683	20M QPSK(50,0)	0.040	0.034	3.94	21.91	22.50	0.046	2024/12/13	
Right Cheek	133322/683	20M QPSK(50,0)	0.065	0.049	-1.54	21.91	22.50	0.074	2024/12/13	
Right Tilt 15 Degree	133322/683	20M QPSK(50,0)	0.035	0.025	-3.67	21.91	22.50	0.040	2024/12/13	

NOTE: Head SAR test results of LTE Band 71

Test Position of Body-Worn with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	133322/683	20M QPSK(1,0)	0.150	0.119	-3.16	23.00	23.00	0.150	2024/12/13	
Back Side	133322/683	20M	0.229	0.189	-0.54	23.00	23.00	0.229	2024/12/13	44#

		QPSK(1,0)								
50%RB										
Front Side	133322/683	20M QPSK(50,0)	0.086	0.062	3.94	21.91	22.50	0.099	2024/12/13	
Back Side	133322/683	20M QPSK(50,0)	0.123	0.098	4.59	21.91	22.50	0.141	2024/12/13	

NOTE: Body-Worn SAR test results of LTE Band 71

Test Position of Hotspot with 10mm	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	133322/683	20M QPSK(1,0)	0.150	0.119	-3.16	23.00	23.00	0.150	2024/12/13	
Back Side	133322/683	20M QPSK(1,0)	0.229	0.189	-0.54	23.00	23.00	0.229	2024/12/13	44#
Left Side	133322/683	20M QPSK(1,0)	0.052	0.042	-1.89	23.00	23.00	0.052	2024/12/13	
Right Side	133322/683	20M QPSK(1,0)	0.169	0.138	-1.24	23.00	23.00	0.169	2024/12/13	
Bottom Side	133322/683	20M QPSK(1,0)	0.122	0.098	1.79	23.00	23.00	0.122	2024/12/13	
50%RB										
Front Side	133322/683	20M QPSK(50,0)	0.086	0.062	3.94	21.91	22.50	0.099	2024/12/13	
Back Side	133322/683	20M QPSK(50,0)	0.123	0.098	4.59	21.91	22.50	0.141	2024/12/13	
Left Side	133322/683	20M QPSK(50,0)	0.026	0.023	-2.14	21.91	22.50	0.030	2024/12/13	
Right Side	133322/683	20M QPSK(50,0)	0.092	0.081	2.30	21.91	22.50	0.105	2024/12/13	
Bottom Side	133322/683	20M QPSK(50,0)	0.067	0.053	-0.94	21.91	22.50	0.077	2024/12/13	

NOTE: Hotspot SAR test results of LTE Band 71

10.1.14. SAR measurement Result of NR 66

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	349000/1745	15kHz 40M QPSK(1,1)	0.137	0.085	-0.58	21.61	22.00	0.150	2024/12/06	45#
Left Tilt 15 Degree	349000/1745	15kHz 40M QPSK(1,1)	0.078	0.048	-0.01	21.61	22.00	0.085	2024/12/06	
Right Cheek	349000/1745	15kHz 40M QPSK(1,1)	0.128	0.077	3.19	21.61	22.00	0.140	2024/12/06	
Right Tilt 15 Degree	349000/1745	15kHz 40M QPSK(1,1)	0.067	0.039	1.77	21.61	22.00	0.073	2024/12/06	
50%RB										
Left Cheek	132322/1745	15kHz 40M QPSK(1,1)	0.082	0.045	2.75	20.83	21.00	0.085	2024/12/06	
Left Tilt 15 Degree	132322/1745	15kHz 40M QPSK(1,1)	0.040	0.025	2.01	20.83	21.00	0.042	2024/12/06	
Right Cheek	132322/1745	15kHz 40M QPSK(1,1)	0.075	0.046	-3.41	20.83	21.00	0.078	2024/12/06	
Right Tilt 15 Degree	132322/1745	15kHz 40M QPSK(1,1)	0.036	0.023	2.57	20.83	21.00	0.037	2024/12/06	

NOTE: Head SAR test results of NR n66

Test Position of Body-Worn with 10mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	349000/1745	15kHz 40M QPSK(1,1)	0.322	0.172	3.00	21.61	22.00	0.352	2024/12/06	
Back Side	349000/1745	15kHz 40M QPSK(1,1)	0.883	0.491	-0.83	21.61	22.00	0.966	2024/12/06	46#
50%RB										
Front Side	349000/1745	15kHz 40M QPSK(1,1)	0.176	0.090	-1.67	20.83	21.00	0.183	2024/12/06	

Back Side	349000/1745	15kHz 40M QPSK(1,1)	0.518	0.292	-3.11	20.83	21.00	0.539	2024/12/06	

NOTE: Body-Worn SAR test results of NR n66

Test Position of Hotspot with 10mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	349000/1745	15kHz 40M QPSK(1,1)	0.322	0.172	3.00	21.61	22.00	0.352	2024/12/06	
Back Side	349000/1745	15kHz 40M QPSK(1,1)	0.883	0.491	-0.83	21.61	22.00	0.966	2024/12/06	46#
Left Side	349000/1745	15kHz 40M QPSK(1,1)	0.460	0.246	2.98	21.61	22.00	0.503	2024/12/06	
Right Side	349000/1745	15kHz 40M QPSK(1,1)	0.092	0.051	-1.58	21.61	22.00	0.101	2024/12/06	
Bottom Side	349000/1745	15kHz 40M QPSK(1,1)	0.495	0.270	2.62	21.61	22.00	0.542	2024/12/06	
Back Side	346000/1730	15kHz 40M QPSK(1,1)	0.837	0.451	0.73	21.93	22.00	0.851	2024/12/06	
Back Side	352000/1760	15kHz 40M QPSK(1,1)	0.874	0.476	-0.90	20.93	21.00	0.888	2024/12/06	
BackSide Repeated	349000/1745	15kHz 40M QPSK(1,1)	0.880	0.489	-3.65	21.61	22.00	0.963	2024/12/06	
50%RB										
Front Side	349000/1745	15kHz 40M QPSK(1,1)	0.176	0.090	-1.67	20.83	21.00	0.183	2024/12/06	
Back Side	349000/1745	15kHz 40M QPSK(1,1)	0.518	0.292	-3.11	20.83	21.00	0.539	2024/12/06	
Left Side	349000/1745	15kHz 40M QPSK(1,1)	0.252	0.130	-0.88	20.83	21.00	0.262	2024/12/06	
Right Side	349000/1745	15kHz 40M QPSK(1,1)	0.049	0.026	1.39	20.83	21.00	0.051	2024/12/06	
Bottom Side	349000/1745	15kHz 40M QPSK(1,1)	0.254	0.151	-0.68	20.83	21.00	0.264	2024/12/06	

NOTE: Hotspot SAR test results of NR n66

Test Position of Hotspot with 0mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 10-g (W/Kg)	Date	Plot
			1-g	10-g						
Back Side	349000/1745	15kHz 40M QPSK(1,1)	1.581	0.724	-2.58	20.83	21.00	0.753	2024/12/06	54#

NOTE: Extremity SAR test results of NR 66

10.1.15. SAR measurement Result of NR 71

Test Position of Head	Test channel /Freq.	Test Mode	SAR Value (W/kg)		Power Drift (±5%)	Conducted power (dBm)	Tune-up power (dBm)	Scaled SAR 1g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	136100/680.5	30kHz 20M QPSK(1,1)	0.082	0.071	-0.66	23.30	23.50	0.086	2024/12/13	47#
Left Tilt 15 Degree	136100/680.5	30kHz 20M QPSK(1,1)	0.047	0.040	2.01	23.30	23.50	0.049	2024/12/13	
Right Cheek	136100/680.5	30kHz 20M QPSK(1,1)	0.074	0.063	-1.08	23.30	23.50	0.077	2024/12/13	
Right Tilt 15 Degree	136100/680.5	30kHz 20M QPSK(1,1)	0.039	0.033	2.14	23.30	23.50	0.041	2024/12/13	
50%RB										
Left Cheek	136100/680.5	30kHz 20M QPSK(1,1)	0.046	0.036	-4.22	23.59	24.00	0.051	2024/12/13	
Left Tilt 15 Degree	136100/680.5	30kHz 20M QPSK(1,1)	0.026	0.024	0.39	23.59	24.00	0.029	2024/12/13	
Right Cheek	136100/680.5	30kHz 20M QPSK(1,1)	0.043	0.036	3.55	23.59	24.00	0.047	2024/12/13	
Right Tilt 15 Degree	136100/680.5	30kHz 20M QPSK(1,1)	0.023	0.017	-3.13	23.59	24.00	0.025	2024/12/13	

NOTE: Head SAR test results of LTE Band 71

Test Position of Body-Worn with 10mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	136100/680.5	30kHz 20M QPSK(1,1)	0.126	0.071	-0.60	23.30	23.50	0.132	2024/12/13	
Back Side	136100/680.5	30kHz 20M QPSK(1,1)	0.168	0.098	-2.46	23.30	23.50	0.176	2024/12/13	48#
50%RB										
Front Side	136100/680.5	30kHz 20M QPSK(1,1)	0.066	0.042	2.66	23.59	24.00	0.073	2024/12/13	
Back Side	136100/680.5	30kHz 20M QPSK(1,1)	0.086	0.053	-3.31	23.59	24.00	0.095	2024/12/13	

NOTE: Body-Worn SAR test results of NR n71

Test Position of Hotspot with 10mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducted Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Front Side	136100/680.5	30kHz 20M QPSK(1,1)	0.126	0.071	-0.60	23.30	23.50	0.132	2024/12/13	
Back Side	136100/680.5	30kHz 20M QPSK(1,1)	0.168	0.098	-2.46	23.30	23.50	0.176	2024/12/13	48#
Left Side	136100/680.5	30kHz 20M QPSK(1,1)	0.042	0.024	3.01	23.30	23.50	0.044	2024/12/13	
Right Side	136100/680.5	30kHz 20M QPSK(1,1)	0.124	0.071	-0.18	23.30	23.50	0.130	2024/12/13	
Bottom Side	136100/680.5	30kHz 20M QPSK(1,1)	0.077	0.043	-2.38	23.30	23.50	0.081	2024/12/13	
50%RB										
Front Side	136100/680.5	30kHz 20M QPSK(1,1)	0.066	0.042	2.66	23.59	24.00	0.073	2024/12/13	
Back Side	136100/680.5	30kHz 20M QPSK(1,1)	0.086	0.053	-3.31	23.59	24.00	0.095	2024/12/13	
Left Side	136100/680.5	30kHz 20M QPSK(1,1)	0.024	0.013	-4.31	23.59	24.00	0.026	2024/12/13	

Right Side	136100/680.5	30kHz 20M QPSK(1,1)	0.065	0.042	1.22	23.59	24.00	0.071	2024/12/13	
Bottom Side	136100/680.5	30kHz 20M QPSK(1,1)	0.040	0.025	-2.90	23.59	24.00	0.044	2024/12/13	

NOTE: Hotspot SAR test results of NR n71