

FCC SAR EVALUATION REPORT

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

Product Name : Smartphone

Brand Name : HOTWAV

Model Name : Hyper 7 Pro

Family Model : Hyper 7S, Hyper 7E, Hyper 7, Hyper 7 Plus,
Hyper 7 Pro+, Hyper 7 Ultra, Hyper 8S, Hyper
8E, Hyper 8, Hyper 8 Plus, Hyper 8 Pro+,
Hyper 8 Ultra

Report No. : S24042202605001

FCC ID : 2AOKUHYPER7PRO

Prepared for

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TEST RESULT CERTIFICATION

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Product description

Product name Smartphone
Brand Name HOTWAV
Model and/or type Hyper 7 Pro
reference
Family Model Hyper 7S, Hyper 7E, Hyper 7, Hyper 7 Plus, Hyper 7 Pro+, Hyper 7 Ultra,
Hyper 8S, Hyper 8E, Hyper 8, Hyper 8 Plus, Hyper 8 Pro+, Hyper 8 Ultra
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 S240422026005

Date of Test

Date (s) of performance of tests... Apr. 25, 2024 ~ Jun.17, 2024

Date of Issue Jun.18, 2024

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

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※ ※ **Revision History** ※ ※

REV.	DESCRIPTION	ISSUED DATE	REMARK
Rev.1.0	Initial Test Report Release	Jun.18, 2024	Jack Li

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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 Hyper 7 Pro are as follows.

RF Exposure Conditions		Max Reported SAR Value(W/kg)
1-g Head		0.670
1-g Body-Worn (Separation distance of 10mm)		1.029
1-g Hotspot (Separation distance of 10mm)		1.029
Max Simultaneous Tx	Head	1.251
	Body-Worn	1.361
	Hotspot	1.361

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	Smartphone
Brand Name	HOTWAV
Model Name	Hyper 7 Pro
Family Model	Hyper 7S, Hyper 7E, Hyper 7, Hyper 7 Plus, Hyper 7 Pro+, Hyper 7 Ultra, Hyper 8S, Hyper 8E, Hyper 8, Hyper 8 Plus, Hyper 8 Pro+, Hyper 8 Ultra
Model Difference	All the model are the same circuit and RF module, except the model names.
FCC ID	2AOKUHYPER7PRO
Device Phase	Identical Prototype
Exposure Category	General population / Uncontrolled environment
Antenna Type	LDS Antenna
Battery Information	DC 3.87V, 10800mAh, 41.796Wh
HW Version	N/A
SW Version	N/A
Device Operating Configurations	
Supporting Mode(s)	GSM850/1900,WCDMABand2/4/5,LTEBand2/4/5/7/66, NR SA n5/n7/n41/n78, NR NSA n78+LTE Band 5, WLAN 2.4G/5G, Bluetooth, NFC
Test Modulation	GSM(GMSK/8PSK), WCDMA(QPSK), LTE(QPSK/16QAM), NR(DFT-s-OFDM:PI/2 BPSK/QPSK/16-QAM/64QAM/256QAM CP-OFDM: QPSK/16-QAM/64QAM/256QAM),WLAN(DSSS/OFDM),

	Bluetooth(GFSK, $\pi/4$ -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 7	2500-2570	2620-2690
	LTE Band 66	1710-1780	2110-2200
	NR n5	824-849	869-894
	NR n7	2500-2570	2620-2690
	NR n41	2496-2690	
	NR n78	3450-3550	
	WLAN 2.4G	2412-2462	
	WLAN 5.2G	5180-5240	
	WLAN 5.8G	5745-5825	
	NFC	13.56	
	Bluetooth	2402-2480	
GPRS Multislot Class(12)	Max Number of Timeslots in Uplink		4
	Max Number of Timeslots in Downlink		4
	Max Total Timeslot		5
EGPRS Multislot Class(12)	Max Number of Timeslots in Uplink		4
	Max Number of Timeslots in Downlink		4
	Max Total Timeslot		5
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 7)		
	3, tested with power control all Max.(LTE Band 66)		
	3, tested with power control all Max.(NR n5)		
	3, tested with power control all Max.(NR n7)		

	3, tested with power control all Max.(NR n41)
	3, tested with power control all Max.(NR n78)

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

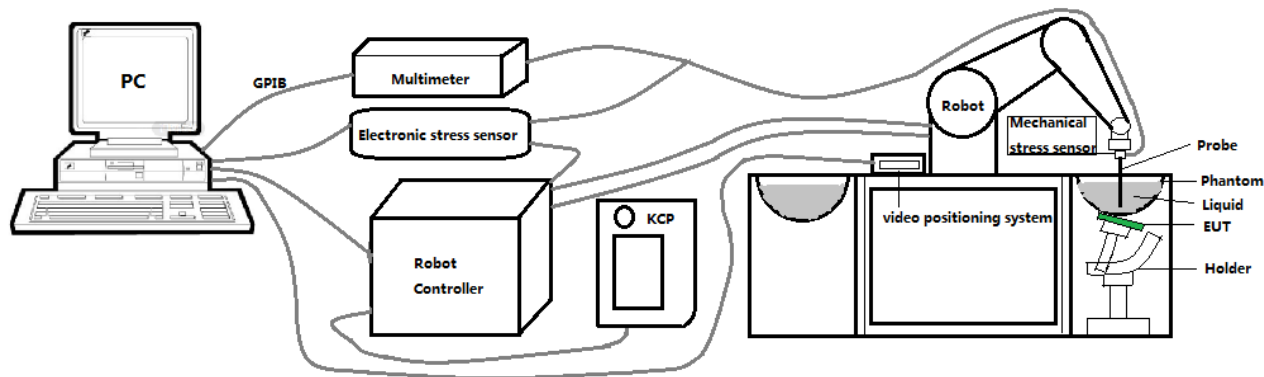
20°C – 24°C

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 3423-EPGO-426 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 $\pm 10\%$. The spherical isotropy shall be evaluated and within ± 0.25 dB. 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.

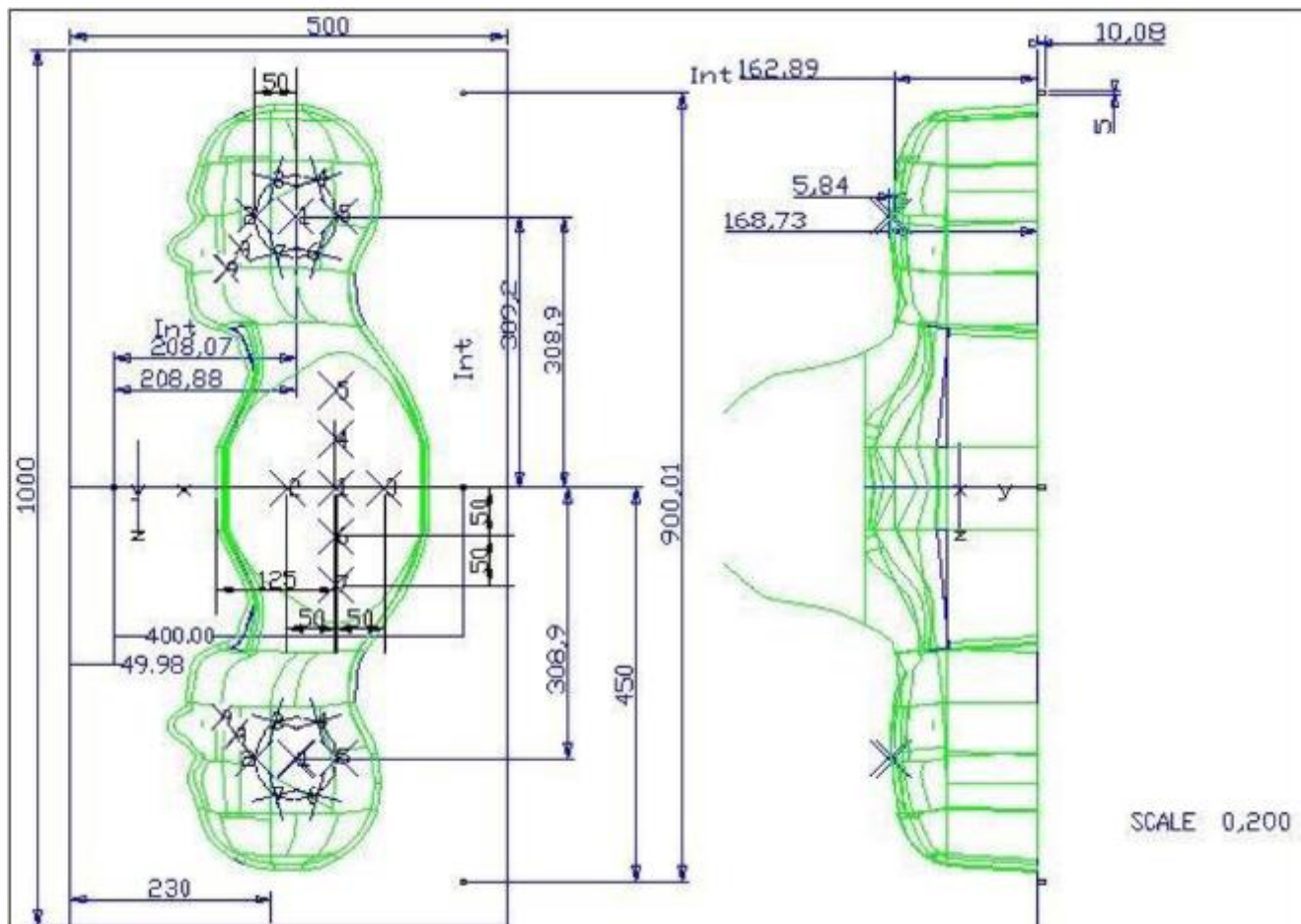
2.4. SAM phantoms

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 Smart Phones.

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

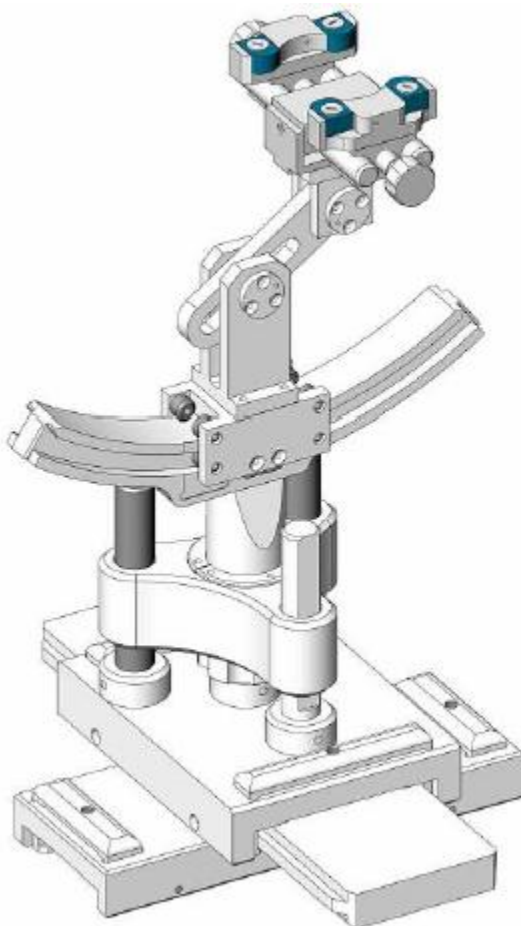


Serial Number	Left Head(mm)		Right Head(mm)		Flat Part(mm)	
SN 16/15 SAM119	2	2.02	2	2.08	1	2.09
	3	2.05	3	2.06	2	2.06
	4	2.07	4	2.07	3	2.08
	5	2.08	5	2.08	4	2.10
	6	2.05	6	2.07	5	2.10
	7	2.05	7	2.05	6	2.07
	8	2.07	8	2.06	7	2.07
	9	2.08	9	2.06	-	-

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	3423-EPGO-426	Sep. 18, 2023	Sep. 17, 2024
☐	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	2300 MHz Dipole	SID2300	SN 03/16 DIP 2G300-358	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	NCR	NCR
☒	R&S	Universal radio communication tester	CMU200	117858	Apr. 26, 2024	Apr. 25, 2025

☒	R&S	Wideband radio communication tester	CMW500	103917	Apr. 26, 2024	Apr. 25, 2025
☒	HP	Network Analyzer	8753D	3410J01136	Apr. 26, 2024	Apr. 25, 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	MY41495644	Apr. 25, 2024	Apr. 24, 2025
☒	Agilent	Power sensor	E9301A	US39212148	Apr. 25, 2024	Apr. 24, 2025
☒	MCLI/USA	Directional Coupler	CB11-20	0D2L51502	Jul. 04, 2023	Jul. 03, 2024
☒	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
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 835	Head 835	NCR	NCR
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 1800	Head 1800	NCR	NCR
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 1900	Head 1900	NCR	NCR
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 2450	Head 2450	NCR	NCR
☒	Shenzhen	Human	Head 2600	Head 2600	NCR	NCR

	Tianxu Communication Technology Co., Ltd.	Simulating Liquid				
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 3500	Head 3500	NCR	NCR
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 5200	Head 5200	NCR	NCR
☒	Shenzhen Tianxu Communication Technology Co., Ltd.	Human Simulating Liquid	Head 5800	Head 5800	NCR	NCR

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.

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5 \text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	≤ 1.5 · $\Delta z_{\text{Zoom}}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

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 $\pm 5\%$, 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 if the dielectric parameters are within the tolerances of the specified target values. The measured conductivity and relative permittivity should be within $\pm 5\%$ of the target values.

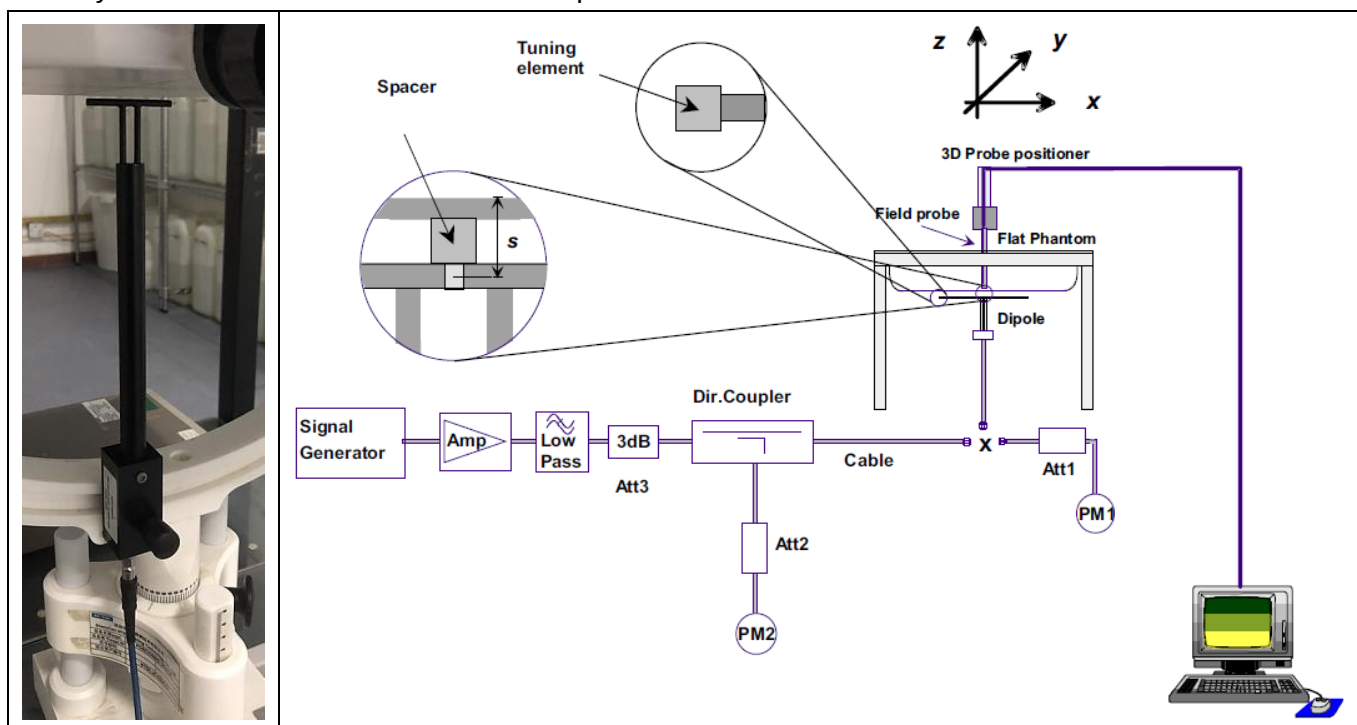
Tissue Type	Measured Frequency (MHz)	Target Tissue		Measured Tissue		Liquid Temp.	Test Date
		$\epsilon_r (\pm 5\%)$	σ (S/m) ($\pm 5\%$)	ϵ_r	σ (S/m)		
Head 850	835	41.50 (39.43~43.58)	0.90 (0.86~0.95)	41.40	0.90	21.5 °C	Apr. 25, 2024
Head 1800	1800	40.00 (38.00~42.00)	1.40 (1.33~1.47)	39.40	1.39	21.7 °C	May. 07, 2024
Head 1900	1900	40.00 (38.00~42.00)	1.40 (1.33~1.47)	38.93	1.45	21.5 °C	May. 15, 2024
Head 2450	2450	39.20 (37.24~41.16)	1.80 (1.71~1.89)	37.67	1.78	21.5 °C	May. 14, 2024
Head 2600	2600	39.01 (37.06~40.96)	1.96 (1.86~2.06)	39.02	2.00	21.4 °C	May. 10, 2024
Head 3500	3500	37.93 (36.04~39.82)	2.91 (2.77~3.05)	38.01	2.83	21.8 °C	Jun. 11, 2024
Head 5200	5200	36.00 (34.20~37.80)	4.66 (4.43~4.89)	34.68	4.56	21.5 °C	May. 11, 2024
Head 5800	5800	35.30 (33.54~37.07)	5.27 (5.01~5.53)	34.11	5.21	21.9 °C	May. 12, 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. It is fed with a power of 100mW (below 5GHz) or 100mW (above 5GHz). 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 $\pm 10\%$. 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)		Measured SAR		Liquid Temp.	Test Date
	(±10%)		(Normalized to 1W)			
	1-g (W/Kg)	10-g (W/Kg)	1-g (W/Kg)	10-g (W/Kg)		
835MHz	9.40 (8.46~10.34)	6.28 (5.65~6.91)	10.03	6.02	21.5 °C	Apr. 25, 2024
1800MHz	37.06 (33.35~40.77)	20.01 (18.01~22.01)	39.61	21.76	21.7 °C	May. 07, 2024
1900MHz	39.69 (35.72~43.66)	20.92 (18.83~23.01)	42.94	20.64	21.5 °C	May. 15, 2024
2450MHz	50.05 (45.05~55.06)	23.80 (21.42~26.18)	47.19	22.28	21.5 °C	May. 14, 2024
2600MHz	54.16 (48.74~59.58)	24.85 (22.37~27.34)	55.36	26.22	21.4 °C	May. 10, 2024
3500MHz	67.18 (60.47~73.89)	24.50 (22.05~26.95)	65.57	23.78	21.8 °C	Jun. 11, 2024
5200MHz	162.59 (146.33~178.85)	56.21 (50.59~61.83)	171.46	52.05	21.5 °C	May. 11, 2024
5800MHz	182.20 (163.98~200.42)	61.32 (55.19~67.45)	164.73	55.55	21.9 °C	May. 12, 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 ($\sim 10\%$ from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

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”.

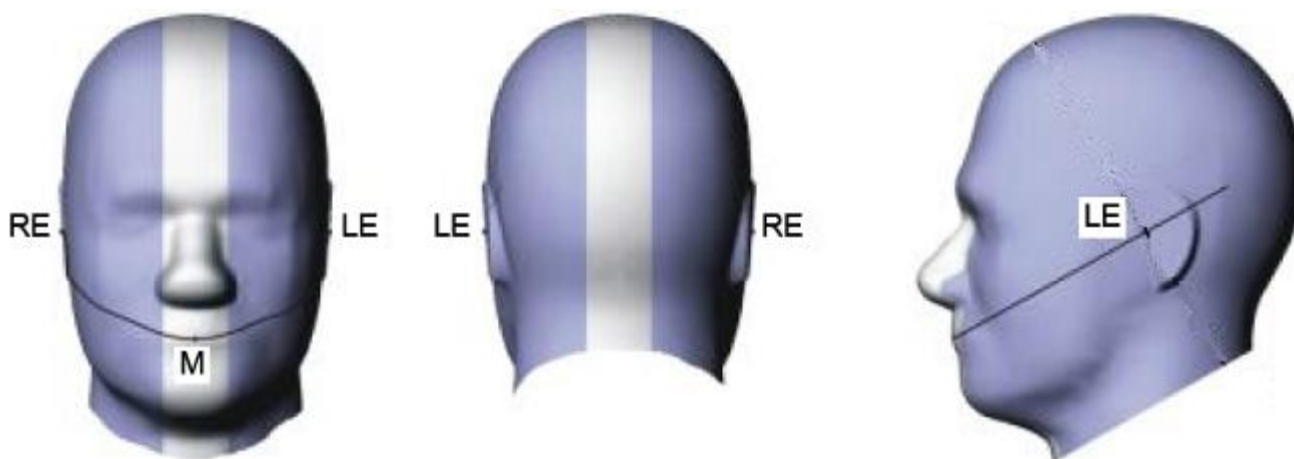


Fig 6.1.1 Front, back, and side views of SAM phantom

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.

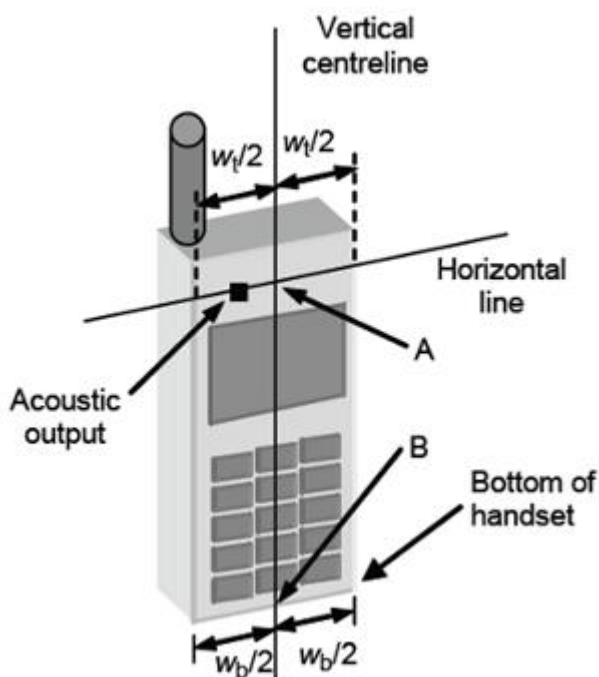


Fig 6.2.1 Handset vertical and horizontal reference lines—"fixed case"

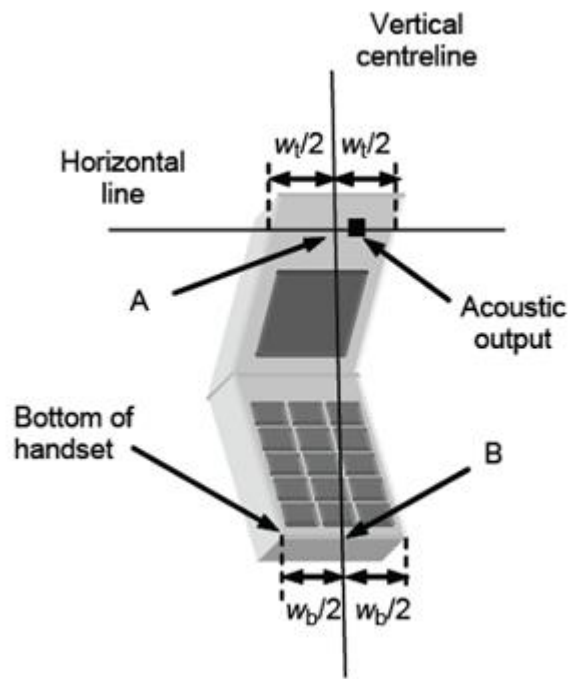


Fig 6.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

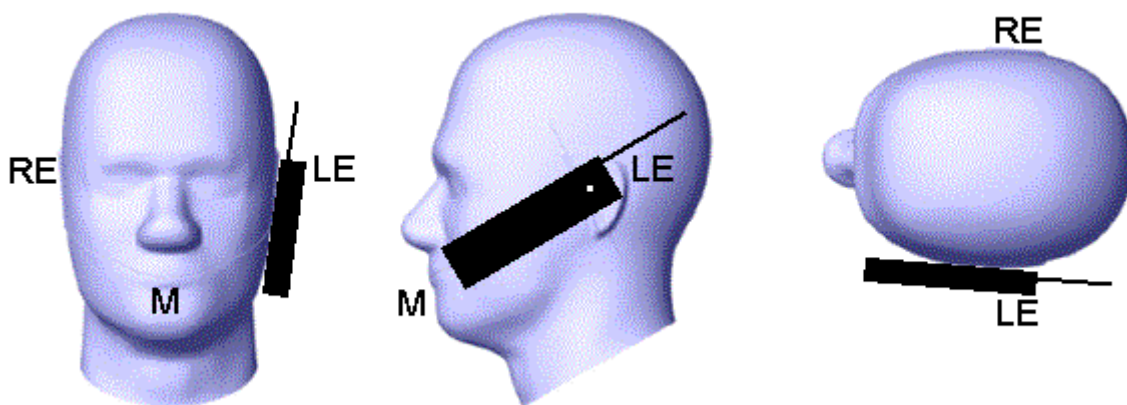


Fig 6.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

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.

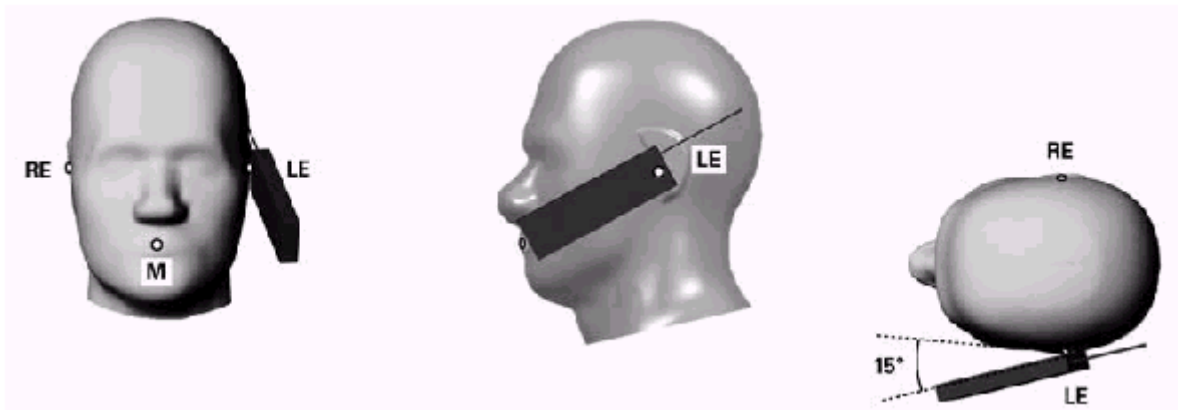


Figure 6.3.1 – Tilt position of the wireless device on the left side of SAM

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 $< 1.2 \text{ W/kg}$, 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 tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

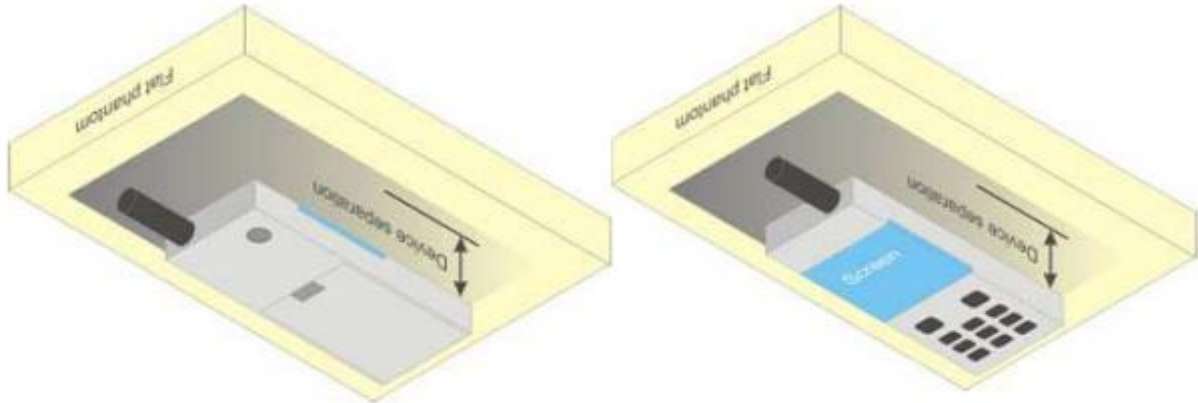


Figure 6.4.1 – Test positions for body-worn devices

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 ($L \times W \geq 9 \text{ cm} \times 5 \text{ cm}$) 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 from 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	(dBm)	824.2	836.4	848.8
GSM (GMSK)	33.00	32.53	32.49	32.45	23.97	23.50	23.46	23.42
GPRS(GMSK,1 Tx slot)	33.00	32.57	32.50	32.45	23.97	23.54	23.47	23.42
GPRS(GMSK,2 Tx slot)	32.50	32.03	31.98	31.94	26.48	26.01	25.96	25.92
GPRS(GMSK,3 Tx slot)	30.50	30.22	30.15	30.10	26.24	25.96	25.89	25.84
GPRS(GMSK,4 Tx slot)	29.50	29.14	29.10	29.05	26.49	26.13	26.09	26.04
EGPRS(8PSK,1 Tx slot)	27.50	27.09	26.57	27.21	18.47	18.06	17.54	18.18
EGPRS(8PSK,2 Tx slot)	26.50	25.92	26.09	26.14	20.48	19.90	20.07	20.12
EGPRS(8PSK,3 Tx slot)	23.50	23.47	23.37	23.46	19.24	19.21	19.11	19.20
EGPRS(8PSK,4 Tx slot)	22.50	22.15	22.34	22.25	19.49	19.14	19.33	19.24
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	(dBm)	1850.2	1880	1909.8
GSM (GMSK)	30.50	30.01	30.10	29.95	21.47	20.98	21.07	20.92
GPRS(GMSK,1 Tx slot)	30.50	30.01	30.11	29.95	21.47	20.98	21.08	20.92
GPRS(GMSK,2 Tx slot)	29.50	29.28	29.37	29.24	23.48	23.26	23.35	23.22
GPRS(GMSK,3 Tx slot)	28.00	27.47	27.62	27.51	23.74	23.21	23.36	23.25
GPRS(GMSK,4 Tx slot)	27.00	26.34	26.52	26.44	23.99	23.33	23.51	23.43
EGPRS(8PSK,1 Tx slot)	26.00	25.84	25.75	25.88	16.97	16.81	16.72	16.85
EGPRS(8PSK,2 Tx slot)	25.00	24.04	24.50	24.26	18.98	18.02	18.48	18.24
EGPRS(8PSK,3 Tx slot)	22.50	21.82	22.09	21.90	18.24	17.56	17.83	17.64
EGPRS(8PSK,4 Tx slot)	21.00	20.61	20.64	20.60	17.99	17.60	17.63	17.59

7.2. WCDMA Conducted Power

WCDMA Band 2	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up (dBm)	9262	9400	9538
Frequency (MHz)		1852.4	1880	1907.6
RMC12.2K	24.00	23.46	23.61	23.63
HSDPA Sub 1	23.00	22.48	22.61	22.67
HSDPA Sub 2	22.50	22.00	22.14	22.02

HSDPA Sub 3	21.50	20.81	21.20	21.26
HSDPA Sub 4	21.50	21.11	21.22	21.21
HSUPA Sub 1	22.50	21.42	22.35	22.45
HSUPA Sub 2	22.50	22.30	22.48	22.40
HSUPA Sub 3	21.50	20.42	21.31	21.19
HSUPA Sub 4	23.00	22.39	22.56	22.62
HSUPA Sub 5	22.00	21.20	21.90	21.97
WCDMA Band 4	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up (dBm)	1312	1413	1513
Frequency (MHz)		1712.4	1732.6	1752.6
RMC12.2K	24.00	23.91	23.93	23.80
HSDPA Sub 1	23.00	22.95	22.94	22.85
HSDPA Sub 2	23.00	22.52	22.51	22.40
HSDPA Sub 3	21.50	21.25	21.46	21.45
HSDPA Sub 4	22.00	21.11	21.52	20.99
HSUPA Sub 1	23.00	22.03	22.71	22.65
HSUPA Sub 2	23.00	22.79	22.74	22.64
HSUPA Sub 3	21.50	21.07	21.45	21.37
HSUPA Sub 4	23.00	22.93	22.95	22.80
HSUPA Sub 5	22.50	21.61	22.23	22.05
WCDMA Band 5	Burst-Averaged output Power (dBm)			
Tx Channel	Tune-up (dBm)	4132	4182	4233
Frequency (MHz)		826.4	836.4	846.6
RMC12.2K	23.50	23.37	23.20	23.15
HSDPA Sub 1	22.50	22.37	22.22	22.18
HSDPA Sub 2	22.00	21.92	21.79	21.78
HSDPA Sub 3	21.00	20.92	20.82	20.83
HSDPA Sub 4	21.50	21.04	20.84	20.72
HSUPA Sub 1	22.50	21.57	22.05	21.95
HSUPA Sub 2	22.50	22.28	22.17	22.10
HSUPA Sub 3	21.50	20.45	21.03	20.97
HSUPA Sub 4	22.50	22.38	22.21	22.18
HSUPA Sub 5	21.50	20.89	21.29	21.20

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	23.50	23.15	23.07	23.12
			1	2	23.50	23.18	23.08	23.16
			1	5	23.50	23.15	23.10	23.12
			3	0	23.50	23.16	23.10	23.16
			3	1	23.50	23.18	23.08	23.16
			3	2	23.50	23.18	23.08	23.14
			6	0	22.50	22.18	22.07	22.18
		16QAM	1	0	22.50	22.30	22.31	22.43
			1	2	22.50	22.37	22.32	22.39
			1	5	22.50	22.39	22.33	22.44
			3	0	22.50	22.20	22.10	22.18
			3	1	22.50	22.19	22.08	22.12
			3	2	22.50	22.11	22.06	22.14
			6	0	21.50	21.23	21.12	21.18
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	23.50	23.15	23.07	23.10
			1	7	23.50	23.10	23.08	23.11
			1	14	23.50	23.17	23.10	23.15
			8	0	22.50	22.18	22.09	22.11
			8	4	22.50	22.11	22.06	22.17
			8	7	22.50	22.12	22.05	22.12
			15	0	22.50	22.14	22.07	22.15
		16QAM	1	0	22.50	22.35	22.34	22.29
			1	7	22.50	22.37	22.38	22.35
			1	14	22.50	22.38	22.43	22.42
			8	0	21.50	21.19	21.12	21.18
			8	4	21.50	21.20	21.11	21.19
			8	7	21.50	21.20	21.15	21.22
			15	0	21.50	21.20	21.10	21.12
Band	Band	Modulation	RB		Tune-up	Channel/Frequency(MHz)		

	Width		Configuration		(dBm)			
			RB Size	RB Offset		18625/1852.5	18900/1880	19175/1907.5
LTE Band 2	5MHz	QPSK	1	0	23.50	23.16	23.14	23.13
			1	12	23.50	23.16	23.12	23.13
			1	24	23.50	23.13	23.16	23.16
			12	0	22.50	22.19	22.13	22.12
			12	6	22.50	22.17	22.13	22.14
			12	11	22.50	22.12	22.13	22.15
			25	0	22.50	22.19	22.17	22.12
		16QAM	1	0	22.50	22.46	22.31	22.32
			1	12	22.50	22.49	22.31	22.37
			1	24	22.50	22.31	22.46	22.44
			12	0	21.50	21.20	21.10	21.14
			12	6	21.50	21.10	21.09	21.13
			12	11	21.50	21.12	21.14	21.13
			25	0	21.50	21.21	21.14	21.14
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	23.50	23.15	23.04	22.61
			1	24	23.50	23.19	22.87	22.66
			1	49	23.50	23.11	22.69	22.68
			25	0	22.50	22.21	22.04	22.18
			25	12	22.50	22.20	22.17	22.09
			25	24	22.50	22.21	22.14	22.19
			50	0	22.50	22.25	22.11	22.23
		16QAM	1	0	23.00	22.42	22.00	21.90
			1	24	23.00	22.51	22.44	21.94
			1	49	23.00	22.28	21.90	21.93
			25	0	21.50	21.19	21.07	21.18
			25	12	21.50	21.18	21.18	21.12
			25	24	21.50	21.21	21.14	21.17
			50	0	21.50	21.22	21.10	21.20
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	15MHz	QPSK	1	0	23.00	22.59	22.47	22.60

Band 2			1	37	23.00	22.66	22.61	22.58
			1	74	23.00	22.49	22.61	22.61
			36	0	22.50	22.14	21.99	22.15
			36	18	22.50	22.14	22.13	22.07
			36	37	22.50	22.12	22.16	22.16
			75	0	22.50	22.21	22.10	22.12
		16QAM	1	0	22.00	21.88	21.67	21.84
			1	37	22.00	21.94	21.84	21.90
			1	74	22.00	21.83	21.95	21.92
			36	0	21.50	21.14	20.98	21.12
			36	18	21.50	21.13	21.07	21.10
			36	37	21.50	21.15	21.09	21.05
			75	0	21.50	21.17	21.05	21.10
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	23.00	22.59	22.38	22.61
			1	49	23.00	22.61	22.64	22.67
			1	99	23.00	22.37	22.52	22.58
			50	0	22.50	22.21	22.06	22.19
			50	24	22.50	22.18	22.16	22.20
			50	49	22.50	22.16	22.11	22.10
			100	0	22.50	22.19	22.12	22.10
		16QAM	1	0	22.00	21.75	21.70	21.83
			1	49	22.00	21.77	21.95	21.86
			1	99	22.00	21.70	21.72	21.76
			50	0	21.50	21.16	21.05	21.18
			50	24	21.50	21.13	21.14	21.14
			50	49	21.50	21.18	21.11	21.09
			100	0	21.50	21.11	21.03	21.12

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	23.50	23.01	22.98	22.67
			1	2	23.50	23.01	22.98	22.71
			1	5	23.50	23.01	22.98	22.69
			3	0	24.00	23.55	23.50	23.23

				3	1	24.00	23.53	23.45	23.25
				3	2	24.00	23.56	23.44	23.23
				6	0	23.00	22.52	22.52	22.23
			16QAM	1	0	22.50	22.30	22.25	21.91
				1	2	22.50	22.28	22.26	21.92
				1	5	22.50	22.28	22.25	21.91
				3	0	23.00	22.53	22.54	22.28
				3	1	23.00	22.56	22.47	22.25
				3	2	23.00	22.51	22.47	22.29
				6	0	22.00	21.58	21.56	21.29
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	23.50	22.93	22.96	22.69	
			1	7	23.50	23.02	22.93	22.66	
			1	14	23.50	23.03	22.94	22.69	
			8	0	23.00	22.47	22.46	22.20	
			8	4	23.00	22.50	22.46	22.23	
			8	7	23.00	22.52	22.43	22.22	
			15	0	23.00	22.53	22.46	22.22	
		16QAM	1	0	22.50	22.26	22.29	22.01	
			1	7	22.50	22.24	22.30	21.89	
			1	14	22.50	22.22	22.21	21.90	
			8	0	22.00	21.56	21.53	21.29	
			8	4	22.00	21.56	21.52	21.28	
			8	7	22.00	21.56	21.52	21.29	
			15	0	22.00	21.50	21.48	21.24	
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	23.50	23.06	23.03	22.79	
			1	12	23.50	23.07	22.98	22.72	
			1	24	23.50	23.15	23.03	22.76	
			12	0	23.00	22.59	22.51	22.33	
			12	6	23.00	22.60	22.48	22.27	
			12	11	23.00	22.60	22.49	22.25	
			25	0	23.00	22.57	22.56	22.27	
		16QAM	1	0	22.50	22.23	22.33	22.00	

			1	12	22.50	22.33	22.17	22.00
			1	24	22.50	22.33	22.20	21.91
			12	0	22.00	21.53	21.53	21.25
			12	6	22.00	21.57	21.47	21.26
			12	11	22.00	21.54	21.46	21.26
			25	0	22.00	21.58	21.55	21.31
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20000/1715	20175/1732.5	20350/1750
LTE Band 4	10MHz	QPSK	1	0	23.50	23.03	23.08	22.84
			1	24	23.50	23.19	23.05	22.79
			1	49	23.50	23.15	22.98	22.76
			25	0	23.00	22.56	22.55	22.27
			25	12	23.00	22.62	22.50	22.29
			25	24	23.00	22.65	22.50	22.29
			50	0	23.00	22.64	22.54	22.30
		16QAM	1	0	22.50	22.31	22.37	22.16
			1	24	22.50	22.48	22.20	22.15
			1	49	22.50	22.34	22.27	22.04
			25	0	22.00	21.60	21.54	21.32
			25	12	22.00	21.65	21.53	21.32
			25	24	22.00	21.66	21.50	21.29
			50	0	22.00	21.61	21.53	21.34
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	23.50	22.97	23.02	22.86
			1	37	23.50	23.10	22.97	22.83
			1	74	23.50	23.06	22.92	22.73
			36	0	23.00	22.58	22.51	22.34
			36	18	23.00	22.55	22.50	22.29
			36	37	23.00	22.62	22.45	22.32
			75	0	23.00	22.63	22.55	22.36
		16QAM	1	0	22.50	22.29	22.29	22.04
			1	37	22.50	22.37	22.29	22.01
			1	74	22.50	22.31	22.11	21.89
			36	0	22.00	21.54	21.52	21.40
			36	18	22.00	21.63	21.46	21.35

			36	37	22.00	21.57	21.47	21.33
			75	0	22.00	21.57	21.51	21.31
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	23.50	22.91	22.98	22.86
			1	49	23.50	23.12	23.00	22.86
			1	99	23.50	23.06	22.87	22.68
			50	0	23.00	22.66	22.55	22.36
			50	24	23.00	22.63	22.54	22.39
			50	49	23.00	22.61	22.53	22.39
			100	0	23.00	22.63	22.51	22.33
		16QAM	1	0	22.50	22.21	22.32	22.08
			1	49	22.50	22.39	22.31	22.11
			1	99	22.50	22.32	22.13	21.99
			50	0	22.00	21.61	21.51	21.37
			50	24	22.00	21.63	21.49	21.40
			50	49	22.00	21.57	21.49	21.36
			100	0	22.00	21.56	21.53	21.32

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	23.00	22.27	22.62	22.33
			1	2	23.00	22.32	22.64	22.33
			1	5	23.00	22.29	22.61	22.22
			3	0	23.50	22.80	23.16	22.84
			3	1	23.50	22.80	23.11	22.83
			3	2	23.50	22.81	23.12	22.81
			6	0	22.50	21.78	22.13	21.84
		16QAM	1	0	22.00	21.43	21.86	21.64
			1	2	22.00	21.53	21.98	21.60
			1	5	22.00	21.57	21.82	21.57
			3	0	22.50	21.76	22.12	21.87
			3	1	22.50	21.82	22.06	21.79
			3	2	22.50	21.84	22.13	21.82
			6	0	21.50	20.82	21.23	20.94
Band	Band	Modulation	RB		Tune-up	Channel/Frequency(MHz)		

	Width		Configuration		(dBm)			
			RB Size	RB Offset		20415/825.5	20525/836.5	20635/847.5
LTE Band 5	3MHz	QPSK	1	0	23.00	22.21	22.60	22.44
			1	7	23.00	22.26	22.59	22.34
			1	14	23.00	22.28	22.57	22.26
			8	0	22.50	21.82	22.09	21.88
			8	4	22.50	21.77	22.10	21.86
			8	7	22.50	21.76	22.07	21.84
			15	0	22.50	21.77	22.04	21.88
		16QAM	1	0	22.00	21.44	21.90	21.72
			1	7	22.00	21.53	21.88	21.50
			1	14	22.00	21.61	21.82	21.52
			8	0	21.50	20.84	21.14	20.94
			8	4	21.50	20.83	21.17	20.94
			8	7	21.50	20.82	21.12	20.93
			15	0	21.50	20.77	21.08	20.92
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	23.00	22.26	22.61	22.48
			1	12	23.00	22.33	22.65	22.41
			1	24	23.00	22.45	22.62	22.28
			12	0	22.50	21.94	22.12	22.04
			12	6	22.50	21.89	22.15	21.93
			12	11	22.50	21.83	22.16	22.04
			25	0	22.50	21.93	22.13	21.99
		16QAM	1	0	22.00	21.49	21.89	21.73
			1	12	22.00	21.61	21.84	21.61
			1	24	22.00	21.73	21.80	21.43
			12	0	21.50	20.92	21.06	20.98
			12	6	21.50	20.83	21.12	20.87
			12	11	21.50	20.79	21.11	21.03
			25	0	21.50	20.94	21.13	21.05
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20450/829	20525/836.5	20600/844
LTE	10MHz	QPSK	1	0	23.00	22.22	22.53	22.63

Band 5			1	24	23.00	22.46	22.67	22.51
			1	49	23.00	22.54	22.53	22.29
			25	0	22.50	22.05	21.99	22.27
			25	12	22.50	21.94	22.18	22.02
			25	24	22.50	22.03	22.16	22.05
			50	0	22.50	22.02	22.13	22.21
		16QAM	1	0	22.00	21.37	21.82	21.86
			1	24	22.00	21.70	21.95	21.78
			1	49	22.00	21.68	21.82	21.48
			25	0	21.50	21.04	21.01	21.29
			25	12	21.50	20.92	21.17	21.00
			25	24	21.50	20.99	21.19	21.07
			50	0	21.50	21.04	21.05	21.19

Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20775/2502.5	21100/2535	21425/2567.5
LTE Band 7	5MHz	QPSK	1	0	23.50	23.08	22.76	22.78
			1	12	23.50	23.04	22.77	22.83
			1	24	23.50	23.04	22.81	22.85
			12	0	23.00	22.53	22.34	22.35
			12	6	23.00	22.52	22.30	22.36
			12	11	23.00	22.52	22.31	22.39
			25	0	23.00	22.54	22.30	22.33
		16QAM	1	0	22.50	22.22	22.07	21.94
			1	12	22.50	22.25	22.02	22.09
			1	24	22.50	22.15	21.98	22.08
			12	0	22.00	21.57	21.28	21.29
			12	6	22.00	21.53	21.27	21.33
			12	11	22.00	21.49	21.28	21.38
			25	0	22.00	21.56	21.30	21.42
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20800/2505	21100/2535	21400/2565
LTE Band 7	10MHz	QPSK	1	0	23.50	23.01	22.77	22.60
			1	24	23.50	22.96	22.80	22.75
			1	49	23.50	22.99	22.82	22.81
			25	0	23.00	22.51	22.31	22.16

			25	12	23.00	22.46	22.31	22.26
			25	24	23.00	22.43	22.37	22.36
			50	0	23.00	22.55	22.38	22.31
		16QAM	1	0	22.50	22.32	22.07	21.90
			1	24	22.50	22.25	22.08	21.94
			1	49	22.50	22.19	21.98	22.04
			25	0	22.00	21.57	21.32	21.22
			25	12	22.00	21.50	21.32	21.30
			25	24	22.00	21.52	21.43	21.41
50	0	22.00	21.51	21.30	21.31			
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20825/2507.5	21100/2535	21375/2562.5
LTE Band 7	15MHz	QPSK	1	0	23.00	22.99	22.74	22.49
			1	37	23.00	22.95	22.76	22.65
			1	74	23.00	22.92	22.77	22.73
			36	0	22.50	22.47	22.24	22.06
			36	18	22.50	22.43	22.25	22.18
			36	37	22.50	22.41	22.29	22.30
			75	0	23.00	22.51	22.27	22.23
		16QAM	1	0	22.50	22.18	21.92	21.71
			1	37	22.50	22.15	22.07	21.94
			1	74	22.50	22.11	22.07	21.96
			36	0	22.00	21.50	21.32	21.06
			36	18	22.00	21.44	21.27	21.18
			36	37	22.00	21.51	21.31	21.35
			75	0	21.50	21.49	21.27	21.19
Band	Band Width	Modulation	RB Configuration		Tune-up (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		20850/2510	21100/2535	21350/2560
LTE Band 7	20MHz	QPSK	1	0	23.00	22.93	22.79	22.54
			1	49	23.00	22.94	22.79	22.58
			1	99	23.00	22.82	22.72	22.73
			50	0	23.00	22.52	22.28	22.14
			50	24	23.00	22.51	22.35	22.12
			50	49	23.00	22.41	22.33	22.29
			100	0	22.50	22.42	22.27	22.23
		16QAM	1	0	22.50	22.08	22.07	21.79

			1	49	22.50	22.17	22.01	21.83
			1	99	22.50	22.04	21.89	21.98
			50	0	22.00	21.50	21.31	21.15
			50	24	22.00	21.53	21.33	21.11
			50	49	22.00	21.41	21.36	21.26
			100	0	21.50	21.39	21.30	21.20

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	23.50	23.12	22.97	22.69
			1	2	23.50	23.16	22.95	22.71
			1	5	23.50	23.16	22.93	22.67
			3	0	24.00	23.66	23.48	23.23
			3	1	24.00	23.66	23.46	23.24
			3	2	24.00	23.68	23.42	23.23
			6	0	23.00	22.66	22.48	22.21
		16QAM	1	0	22.50	22.42	22.13	22.03
			1	2	22.50	22.28	22.17	21.99
			1	5	22.50	22.45	22.27	22.03
			3	0	23.00	22.61	22.47	22.20
			3	1	23.00	22.67	22.47	22.25
			3	2	23.00	22.58	22.46	22.17
			6	0	22.00	21.72	21.54	21.28
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	23.50	23.07	22.90	22.66
			1	7	23.50	23.12	22.90	22.65
			1	14	23.50	23.17	22.92	22.67
			8	0	23.00	22.60	22.45	22.19
			8	4	23.00	22.62	22.40	22.18
			8	7	23.00	22.65	22.41	22.19
			15	0	23.00	22.65	22.42	22.23
		16QAM	1	0	22.50	22.40	22.16	22.00
			1	7	22.50	22.39	22.18	22.00
			1	14	22.50	22.40	22.22	21.90
			8	0	22.00	21.68	21.51	21.27

			8	4	22.00	21.69	21.49	21.27
			8	7	22.00	21.73	21.45	21.24
			15	0	22.00	21.67	21.43	21.20
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	23.50	23.15	23.02	22.66
			1	12	23.50	23.19	22.95	22.70
			1	24	23.50	23.28	22.96	22.75
			12	0	23.00	22.68	22.49	22.23
			12	6	23.00	22.69	22.46	22.22
			12	11	23.00	22.69	22.43	22.16
			25	0	23.00	22.69	22.47	22.22
		16QAM	1	0	23.00	22.35	22.20	21.85
			1	12	23.00	22.43	22.24	22.02
			1	24	23.00	22.52	22.29	21.92
			12	0	22.00	21.68	21.51	21.21
			12	6	22.00	21.62	21.43	21.21
			12	11	22.00	21.66	21.44	21.13
			25	0	22.00	21.70	21.45	21.24
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	23.50	23.09	23.04	22.70
			1	24	23.50	23.22	22.99	22.71
			1	49	23.50	23.23	22.91	22.72
			25	0	23.00	22.70	22.48	22.25
			25	12	23.00	22.70	22.48	22.24
			25	24	23.00	22.73	22.48	22.20
			50	0	23.00	22.70	22.55	22.25
		16QAM	1	0	22.50	22.41	22.22	21.90
			1	24	22.50	22.44	22.14	21.96
			1	49	22.50	22.41	22.13	21.95
			25	0	22.00	21.71	21.48	21.27
			25	12	22.00	21.73	21.50	21.22
			25	24	22.00	21.72	21.51	21.21
			50	0	22.00	21.73	21.47	21.23
Band	Band	Modulation	RB		Tune-u	Channel/Frequency(MHz)		

	Width		Configuration		p (dBm)			
			RB Size	RB Offset		132047/1717.5	132322/1745	132597/177 2.5
LTE Band 66	15MHz	QPSK	1	0	23.50	23.07	22.97	22.55
			1	37	23.50	23.23	22.94	22.61
			1	74	23.50	23.13	22.84	22.56
			36	0	23.00	22.72	22.47	22.18
			36	18	23.00	22.71	22.43	22.11
			36	37	23.00	22.73	22.41	22.09
			75	0	23.00	22.68	22.48	22.08
		16QAM	1	0	22.50	22.27	22.29	21.84
			1	37	22.50	22.45	22.18	21.91
			1	74	22.50	22.37	22.02	21.89
			36	0	22.00	21.66	21.51	21.09
			36	18	22.00	21.71	21.47	21.09
			36	37	22.00	21.74	21.42	21.05
			75	0	22.00	21.66	21.43	21.12
Band	Band Width	Modulation	RB Configuration		Tune-u p (dBm)	Channel/Frequency(MHz)		
			RB Size	RB Offset		132072/1720	132322/1745	132572/177 0
LTE Band 66	20MHz	QPSK	1	0	23.50	23.07	23.00	22.64
			1	49	23.50	23.20	22.97	22.63
			1	99	23.50	23.14	22.79	22.57
			50	0	23.00	22.74	22.50	22.20
			50	24	23.00	22.77	22.50	22.17
			50	49	23.00	22.64	22.44	22.10
			100	0	23.00	22.69	22.45	22.15
		16QAM	1	0	22.50	22.23	22.15	21.81
			1	49	22.50	22.42	22.23	21.85
			1	99	22.50	22.34	22.00	21.82
			50	0	22.00	21.72	21.45	21.22
			50	24	22.00	21.74	21.51	21.18
			50	49	22.00	21.66	21.45	21.10
			100	0	22.00	21.68	21.41	21.13

7.4. NR Conducted Power

Band	SCS (kHz)	Bandwidth (MHz)	UL Channel	RB Allocation	Modulation	Tune-up	Power (dBm)
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n41	30	10	500202	1@1	DFT_BPSK	26.00	25.80
n41	30	10	500202	24@0	DFT_QPSK	25.00	24.98
n41	30	10	500202	12@6	DFT_QPSK	26.00	25.96
n41	30	10	500202	1@1	DFT_QPSK	26.00	25.98
n41	30	10	500202	1@22	DFT_QPSK	26.00	26.00
n41	30	10	500202	1@1	DFT_QAM16	25.00	24.86
n41	30	10	500202	1@1	DFT_QAM64	24.00	23.48
n41	30	10	500202	1@1	DFT_QAM256	22.00	21.70
n41	30	10	500202	1@1	CP_QPSK	25.00	24.35
n41	30	10	518598	1@1	DFT_BPSK	27.00	26.02
n41	30	10	518598	24@0	DFT_QPSK	26.00	25.21
n41	30	10	518598	12@6	DFT_QPSK	27.00	26.18
n41	30	10	518598	1@1	DFT_QPSK	27.00	26.16
n41	30	10	518598	1@22	DFT_QPSK	27.00	26.19
n41	30	10	518598	1@1	DFT_QAM16	26.00	25.11
n41	30	10	518598	1@1	DFT_QAM64	24.00	23.55
n41	30	10	518598	1@1	DFT_QAM256	22.00	21.93
n41	30	10	518598	1@1	CP_QPSK	25.00	24.60
n41	30	10	537000	1@1	DFT_BPSK	27.00	26.06
n41	30	10	537000	24@0	DFT_QPSK	26.00	25.22
n41	30	10	537000	12@6	DFT_QPSK	27.00	26.20
n41	30	10	537000	1@1	DFT_QPSK	27.00	26.24
n41	30	10	537000	1@22	DFT_QPSK	27.00	26.18
n41	30	10	537000	1@1	DFT_QAM16	26.00	25.14
n41	30	10	537000	1@1	DFT_QAM64	24.00	23.60
n41	30	10	537000	1@1	DFT_QAM256	22.00	21.95
n41	30	10	537000	1@1	CP_QPSK	25.00	24.62
n41	30	15	500700	1@1	DFT_BPSK	26.00	25.79
n41	30	15	500700	36@0	DFT_QPSK	26.00	25.01
n41	30	15	500700	18@9	DFT_QPSK	26.00	25.98
n41	30	15	500700	1@1	DFT_QPSK	26.00	25.91
n41	30	15	500700	1@36	DFT_QPSK	27.00	26.07
n41	30	15	500700	1@1	DFT_QAM16	25.00	24.89
n41	30	15	500700	1@1	DFT_QAM64	24.00	23.41
n41	30	15	500700	1@1	DFT_QAM256	22.00	21.69
n41	30	15	500700	1@1	CP_QPSK	25.00	24.31
n41	30	15	518598	1@1	DFT_BPSK	27.00	26.02
n41	30	15	518598	36@0	DFT_QPSK	26.00	25.20
n41	30	15	518598	18@9	DFT_QPSK	27.00	26.18

n41	30	15	518598	1@1	DFT_QPSK	26.00	25.90
n41	30	15	518598	1@36	DFT_QPSK	26.00	25.60
n41	30	15	518598	1@1	DFT_QAM16	25.00	24.68
n41	30	15	518598	1@1	DFT_QAM64	24.00	23.18
n41	30	15	518598	1@1	DFT_QAM256	22.00	21.30
n41	30	15	518598	1@1	CP_QPSK	25.00	24.10
n41	30	15	536496	1@1	DFT_BPSK	26.00	25.45
n41	30	15	536496	36@0	DFT_QPSK	26.00	25.20
n41	30	15	536496	18@9	DFT_QPSK	27.00	26.20
n41	30	15	536496	1@1	DFT_QPSK	26.00	25.51
n41	30	15	536496	1@36	DFT_QPSK	26.00	25.60
n41	30	15	536496	1@1	DFT_QAM16	25.00	24.59
n41	30	15	536496	1@1	DFT_QAM64	23.00	22.94
n41	30	15	536496	1@1	DFT_QAM256	22.00	21.16
n41	30	15	536496	1@1	CP_QPSK	24.00	23.94
n41	30	20	501204	1@1	DFT_BPSK	26.00	25.30
n41	30	20	501204	50@0	DFT_QPSK	25.00	25.00
n41	30	20	501204	25@12	DFT_QPSK	27.00	26.06
n41	30	20	501204	1@1	DFT_QPSK	26.00	25.25
n41	30	20	501204	1@49	DFT_QPSK	26.00	25.40
n41	30	20	501204	1@1	DFT_QAM16	25.00	24.28
n41	30	20	501204	1@1	DFT_QAM64	23.00	22.84
n41	30	20	501204	1@1	DFT_QAM256	22.00	21.17
n41	30	20	501204	1@1	CP_QPSK	24.00	23.83
n41	30	20	518598	1@1	DFT_BPSK	26.00	25.47
n41	30	20	518598	50@0	DFT_QPSK	26.00	25.19
n41	30	20	518598	25@12	DFT_QPSK	27.00	26.24
n41	30	20	518598	1@1	DFT_QPSK	26.00	25.65
n41	30	20	518598	1@49	DFT_QPSK	26.00	25.69
n41	30	20	518598	1@1	DFT_QAM16	25.00	24.54
n41	30	20	518598	1@1	DFT_QAM64	24.00	23.09
n41	30	20	518598	1@1	DFT_QAM256	22.00	21.34
n41	30	20	518598	1@1	CP_QPSK	25.00	24.05
n41	30	20	535998	1@1	DFT_BPSK	26.00	25.34
n41	30	20	535998	50@0	DFT_QPSK	26.00	25.19
n41	30	20	535998	25@12	DFT_QPSK	27.00	26.21
n41	30	20	535998	1@1	DFT_QPSK	26.00	25.48
n41	30	20	535998	1@49	DFT_QPSK	26.00	25.63
n41	30	20	535998	1@1	DFT_QAM16	25.00	24.40

n41	30	20	535998	1@1	DFT_QAM64	23.00	22.82
n41	30	20	535998	1@1	DFT_QAM256	22.00	21.21
n41	30	20	535998	1@1	CP_QPSK	24.00	23.85
n41	30	30	502200	1@1	DFT_BPSK	26.00	25.14
n41	30	30	502200	75@0	DFT_QPSK	25.00	24.97
n41	30	30	502200	36@18	DFT_QPSK	27.00	26.02
n41	30	30	502200	1@1	DFT_QPSK	26.00	25.27
n41	30	30	502200	1@76	DFT_QPSK	26.00	25.32
n41	30	30	502200	1@1	DFT_QAM16	25.00	24.19
n41	30	30	502200	1@1	DFT_QAM64	23.00	22.77
n41	30	30	502200	1@1	DFT_QAM256	22.00	21.07
n41	30	30	502200	1@1	CP_QPSK	24.00	23.75
n41	30	30	518598	1@1	DFT_BPSK	26.00	25.26
n41	30	30	518598	75@0	DFT_QPSK	26.00	25.10
n41	30	30	518598	36@18	DFT_QPSK	27.00	26.16
n41	30	30	518598	1@1	DFT_QPSK	26.00	25.32
n41	30	30	518598	1@76	DFT_QPSK	26.00	25.47
n41	30	30	518598	1@1	DFT_QAM16	25.00	24.29
n41	30	30	518598	1@1	DFT_QAM64	23.00	22.81
n41	30	30	518598	1@1	DFT_QAM256	22.00	21.16
n41	30	30	518598	1@1	CP_QPSK	24.00	23.81
n41	30	30	534996	1@1	DFT_BPSK	26.00	25.12
n41	30	30	534996	75@0	DFT_QPSK	26.00	25.07
n41	30	30	534996	36@18	DFT_QPSK	27.00	26.16
n41	30	30	534996	1@1	DFT_QPSK	26.00	25.17
n41	30	30	534996	1@76	DFT_QPSK	26.00	25.44
n41	30	30	534996	1@1	DFT_QAM16	25.00	24.15
n41	30	30	534996	1@1	DFT_QAM64	23.00	22.69
n41	30	30	534996	1@1	DFT_QAM256	21.00	20.98
n41	30	30	534996	1@1	CP_QPSK	24.00	23.62
n41	30	40	503202	1@1	DFT_BPSK	25.00	24.97
n41	30	40	503202	100@0	DFT_QPSK	25.00	24.93
n41	30	40	503202	50@25	DFT_QPSK	27.00	26.03
n41	30	40	503202	1@1	DFT_QPSK	25.00	24.95
n41	30	40	503202	1@104	DFT_QPSK	26.00	25.02
n41	30	40	503202	1@1	DFT_QAM16	24.00	23.96
n41	30	40	503202	1@1	DFT_QAM64	23.00	22.53
n41	30	40	503202	1@1	DFT_QAM256	21.00	20.82
n41	30	40	503202	1@1	CP_QPSK	24.00	23.51

n41	30	40	518598	1@1	DFT_BPSK	26.00	25.01
n41	30	40	518598	100@0	DFT_QPSK	26.00	25.07
n41	30	40	518598	50@25	DFT_QPSK	27.00	26.14
n41	30	40	518598	1@1	DFT_QPSK	26.00	25.06
n41	30	40	518598	1@104	DFT_QPSK	26.00	25.35
n41	30	40	518598	1@1	DFT_QAM16	25.00	24.07
n41	30	40	518598	1@1	DFT_QAM64	23.00	22.61
n41	30	40	518598	1@1	DFT_QAM256	21.00	20.87
n41	30	40	518598	1@1	CP_QPSK	24.00	23.60
n41	30	40	534000	1@1	DFT_BPSK	26.00	25.03
n41	30	40	534000	100@0	DFT_QPSK	26.00	25.07
n41	30	40	534000	50@25	DFT_QPSK	27.00	26.14
n41	30	40	534000	1@1	DFT_QPSK	26.00	25.07
n41	30	40	534000	1@104	DFT_QPSK	26.00	25.34
n41	30	40	534000	1@1	DFT_QAM16	25.00	24.03
n41	30	40	534000	1@1	DFT_QAM64	23.00	22.60
n41	30	40	534000	1@1	DFT_QAM256	21.00	20.81
n41	30	40	534000	1@1	CP_QPSK	24.00	23.56
n41	30	50	504204	1@1	DFT_BPSK	26.00	25.19
n41	30	50	504204	128@0	DFT_QPSK	25.00	24.98
n41	30	50	504204	64@32	DFT_QPSK	27.00	26.04
n41	30	50	504204	1@1	DFT_QPSK	26.00	25.14
n41	30	50	504204	1@131	DFT_QPSK	26.00	25.25
n41	30	50	504204	1@1	DFT_QAM16	25.00	24.23
n41	30	50	504204	1@1	DFT_QAM64	23.00	22.87
n41	30	50	504204	1@1	DFT_QAM256	21.00	20.95
n41	30	50	504204	1@1	CP_QPSK	24.00	23.77
n41	30	50	518598	1@1	DFT_BPSK	26.00	25.18
n41	30	50	518598	128@0	DFT_QPSK	26.00	25.17
n41	30	50	518598	64@32	DFT_QPSK	27.00	26.14
n41	30	50	518598	1@1	DFT_QPSK	26.00	25.25
n41	30	50	518598	1@131	DFT_QPSK	26.00	25.65
n41	30	50	518598	1@1	DFT_QAM16	25.00	24.27
n41	30	50	518598	1@1	DFT_QAM64	23.00	22.89
n41	30	50	518598	1@1	DFT_QAM256	21.00	20.99
n41	30	50	518598	1@1	CP_QPSK	24.00	23.75
n41	30	50	532998	1@1	DFT_BPSK	26.00	25.19
n41	30	50	532998	128@0	DFT_QPSK	26.00	25.09
n41	30	50	532998	64@32	DFT_QPSK	27.00	26.17

n41	30	50	532998	1@1	DFT_QPSK	26.00	25.30
n41	30	50	532998	1@131	DFT_QPSK	26.00	25.37
n41	30	50	532998	1@1	DFT_QAM16	25.00	24.20
n41	30	50	532998	1@1	DFT_QAM64	23.00	22.82
n41	30	50	532998	1@1	DFT_QAM256	22.00	21.05
n41	30	50	532998	1@1	CP_QPSK	24.00	23.66
n41	30	60	505200	1@1	DFT_BPSK	26.00	25.08
n41	30	60	505200	162@0	DFT_QPSK	25.00	25.00
n41	30	60	505200	81@40	DFT_QPSK	27.00	26.04
n41	30	60	505200	1@1	DFT_QPSK	26.00	25.20
n41	30	60	505200	1@160	DFT_QPSK	26.00	25.41
n41	30	60	505200	1@1	DFT_QAM16	25.00	24.11
n41	30	60	505200	1@1	DFT_QAM64	23.00	22.78
n41	30	60	505200	1@1	DFT_QAM256	22.00	21.02
n41	30	60	505200	1@1	CP_QPSK	24.00	23.57
n41	30	60	518598	1@1	DFT_BPSK	26.00	25.11
n41	30	60	518598	162@0	DFT_QPSK	26.00	25.10
n41	30	60	518598	81@40	DFT_QPSK	27.00	26.08
n41	30	60	518598	1@1	DFT_QPSK	26.00	25.14
n41	30	60	518598	1@160	DFT_QPSK	26.00	25.58
n41	30	60	518598	1@1	DFT_QAM16	25.00	24.17
n41	30	60	518598	1@1	DFT_QAM64	23.00	22.70
n41	30	60	518598	1@1	DFT_QAM256	22.00	21.04
n41	30	60	518598	1@1	CP_QPSK	24.00	23.62
n41	30	60	531996	1@1	DFT_BPSK	25.00	24.93
n41	30	60	531996	162@0	DFT_QPSK	26.00	25.04
n41	30	60	531996	81@40	DFT_QPSK	27.00	26.18
n41	30	60	531996	1@1	DFT_QPSK	26.00	25.08
n41	30	60	531996	1@160	DFT_QPSK	26.00	25.27
n41	30	60	531996	1@1	DFT_QAM16	24.00	24.00
n41	30	60	531996	1@1	DFT_QAM64	23.00	22.57
n41	30	60	531996	1@1	DFT_QAM256	21.00	20.91
n41	30	60	531996	1@1	CP_QPSK	24.00	23.47
n41	30	80	507204	1@1	DFT_BPSK	25.00	24.89
n41	30	80	507204	216@0	DFT_QPSK	25.00	24.97
n41	30	80	507204	108@54	DFT_QPSK	27.00	26.08
n41	30	80	507204	1@1	DFT_QPSK	25.00	24.89
n41	30	80	507204	1@215	DFT_QPSK	26.00	25.16
n41	30	80	507204	1@1	DFT_QAM16	24.00	23.90

n41	30	80	507204	1@1	DFT_QAM64	23.00	22.70
n41	30	80	507204	1@1	DFT_QAM256	21.00	21.00
n41	30	80	507204	1@1	CP_QPSK	24.00	23.41
n41	30	80	518598	1@1	DFT_BPSK	25.00	24.93
n41	30	80	518598	216@0	DFT_QPSK	26.00	25.08
n41	30	80	518598	108@54	DFT_QPSK	26.00	25.98
n41	30	80	518598	1@1	DFT_QPSK	25.00	24.97
n41	30	80	518598	1@215	DFT_QPSK	26.00	25.32
n41	30	80	518598	1@1	DFT_QAM16	24.00	23.96
n41	30	80	518598	1@1	DFT_QAM64	23.00	22.70
n41	30	80	518598	1@1	DFT_QAM256	21.00	20.96
n41	30	80	518598	1@1	CP_QPSK	24.00	23.51
n41	30	80	529998	1@1	DFT_BPSK	25.00	24.87
n41	30	80	529998	216@0	DFT_QPSK	26.00	25.07
n41	30	80	529998	108@54	DFT_QPSK	27.00	26.20
n41	30	80	529998	1@1	DFT_QPSK	26.00	25.09
n41	30	80	529998	1@215	DFT_QPSK	26.00	25.59
n41	30	80	529998	1@1	DFT_QAM16	24.00	23.82
n41	30	80	529998	1@1	DFT_QAM64	23.00	22.61
n41	30	80	529998	1@1	DFT_QAM256	21.00	20.85
n41	30	80	529998	1@1	CP_QPSK	24.00	23.34
n41	30	90	508200	1@1	DFT_BPSK	25.00	24.75
n41	30	90	508200	240@0	DFT_QPSK	25.00	24.97
n41	30	90	508200	120@60	DFT_QPSK	26.00	25.78
n41	30	90	508200	1@1	DFT_QPSK	25.00	24.83
n41	30	90	508200	1@243	DFT_QPSK	26.00	25.30
n41	30	90	508200	1@1	DFT_QAM16	24.00	23.74
n41	30	90	508200	1@1	DFT_QAM64	23.00	22.47
n41	30	90	508200	1@1	DFT_QAM256	21.00	20.83
n41	30	90	508200	1@1	CP_QPSK	24.00	23.35
n41	30	90	518598	1@1	DFT_BPSK	25.00	24.80
n41	30	90	518598	240@0	DFT_QPSK	26.00	25.12
n41	30	90	518598	120@60	DFT_QPSK	26.00	25.74
n41	30	90	518598	1@1	DFT_QPSK	25.00	24.90
n41	30	90	518598	1@243	DFT_QPSK	26.00	25.31
n41	30	90	518598	1@1	DFT_QAM16	24.00	23.79
n41	30	90	518598	1@1	DFT_QAM64	23.00	22.53
n41	30	90	518598	1@1	DFT_QAM256	21.00	20.87
n41	30	90	518598	1@1	CP_QPSK	24.00	23.40

n41	30	90	528996	1@1	DFT_BPSK	26.00	25.14
n41	30	90	528996	240@0	DFT_QPSK	26.00	25.01
n41	30	90	528996	120@60	DFT_QPSK	27.00	26.10
n41	30	90	528996	1@1	DFT_QPSK	26.00	25.15
n41	30	90	528996	1@243	DFT_QPSK	26.00	25.80
n41	30	90	528996	1@1	DFT_QAM16	25.00	24.03
n41	30	90	528996	1@1	DFT_QAM64	23.00	22.61
n41	30	90	528996	1@1	DFT_QAM256	22.00	21.10
n41	30	90	528996	1@1	CP_QPSK	24.00	23.37
n41	30	100	509202	1@1	DFT_BPSK	25.00	24.85
n41	30	100	509202	270@0	DFT_QPSK	25.00	24.93
n41	30	100	509202	135@67	DFT_QPSK	27.00	26.03
n41	30	100	509202	1@1	DFT_QPSK	25.00	24.59
n41	30	100	509202	1@271	DFT_QPSK	26.00	25.13
n41	30	100	509202	1@1	DFT_QAM16	24.00	23.53
n41	30	100	509202	1@1	DFT_QAM64	23.00	22.29
n41	30	100	509202	1@1	DFT_QAM256	21.00	20.64
n41	30	100	509202	1@1	CP_QPSK	24.00	23.15
n41	30	100	518598	1@1	DFT_BPSK	25.00	24.57
n41	30	100	518598	270@0	DFT_QPSK	26.00	25.01
n41	30	100	518598	135@67	DFT_QPSK	27.00	26.13
n41	30	100	518598	1@1	DFT_QPSK	25.00	24.62
n41	30	100	518598	1@271	DFT_QPSK	26.00	25.20
n41	30	100	518598	1@1	DFT_QAM16	24.00	23.61
n41	30	100	518598	1@1	DFT_QAM64	23.00	22.33
n41	30	100	518598	1@1	DFT_QAM256	21.00	20.64
n41	30	100	518598	1@1	CP_QPSK	24.00	23.13
n41	30	100	528000	1@1	DFT_BPSK	25.00	24.58
n41	30	100	528000	270@0	DFT_QPSK	25.00	24.94
n41	30	100	528000	135@67	DFT_QPSK	27.00	26.08
n41	30	100	528000	1@1	DFT_QPSK	25.00	24.67
n41	30	100	528000	1@271	DFT_QPSK	26.00	25.31
n41	30	100	528000	1@1	DFT_QAM16	24.00	23.61
n41	30	100	528000	1@1	DFT_QAM64	23.00	22.34
n41	30	100	528000	1@1	DFT_QAM256	21.00	20.68
n41	30	100	528000	1@1	CP_QPSK	24.00	23.10
n5	30	10	165800	1@1	DFT_BPSK	23.00	22.66
n5	30	10	165800	24@0	DFT_QPSK	22.00	21.77
n5	30	10	165800	12@6	DFT_QPSK	23.00	22.73

n5	30	10	165800	1@1	DFT_QPSK	23.00	22.54
n5	30	10	165800	1@22	DFT_QPSK	23.00	22.73
n5	30	10	165800	1@1	DFT_QAM16	22.00	21.45
n5	30	10	165800	1@1	DFT_QAM64	21.00	20.09
n5	30	10	165800	1@1	DFT_QAM256	19.00	18.05
n5	30	10	165800	1@1	CP_QPSK	22.00	21.13
n5	30	10	167300	1@1	DFT_BPSK	23.00	22.70
n5	30	10	167300	24@0	DFT_QPSK	22.00	21.83
n5	30	10	167300	12@6	DFT_QPSK	23.00	22.88
n5	30	10	167300	1@1	DFT_QPSK	23.00	22.75
n5	30	10	167300	1@22	DFT_QPSK	23.00	22.86
n5	30	10	167300	1@1	DFT_QAM16	22.00	21.54
n5	30	10	167300	1@1	DFT_QAM64	21.00	20.13
n5	30	10	167300	1@1	DFT_QAM256	19.00	18.14
n5	30	10	167300	1@1	CP_QPSK	22.00	21.20
n5	30	10	168800	1@1	DFT_BPSK	23.00	22.81
n5	30	10	168800	24@0	DFT_QPSK	23.00	22.31
n5	30	10	168800	12@6	DFT_QPSK	24.00	23.21
n5	30	10	168800	1@1	DFT_QPSK	23.00	22.90
n5	30	10	168800	1@22	DFT_QPSK	24.00	23.29
n5	30	10	168800	1@1	DFT_QAM16	22.00	21.69
n5	30	10	168800	1@1	DFT_QAM64	21.00	20.29
n5	30	10	168800	1@1	DFT_QAM256	19.00	18.29
n5	30	10	168800	1@1	CP_QPSK	22.00	21.32
n5	30	15	166300	1@1	DFT_BPSK	23.00	22.85
n5	30	15	166300	36@0	DFT_QPSK	22.00	21.91
n5	30	15	166300	18@9	DFT_QPSK	23.00	22.73
n5	30	15	166300	1@1	DFT_QPSK	23.00	22.99
n5	30	15	166300	1@36	DFT_QPSK	23.00	22.66
n5	30	15	166300	1@1	DFT_QAM16	22.00	21.78
n5	30	15	166300	1@1	DFT_QAM64	21.00	20.34
n5	30	15	166300	1@1	DFT_QAM256	19.00	18.36
n5	30	15	166300	1@1	CP_QPSK	22.00	21.41
n5	30	15	167300	1@1	DFT_BPSK	23.00	22.72
n5	30	15	167300	36@0	DFT_QPSK	22.00	21.82
n5	30	15	167300	18@9	DFT_QPSK	23.00	22.80
n5	30	15	167300	1@1	DFT_QPSK	23.00	22.63
n5	30	15	167300	1@36	DFT_QPSK	24.00	23.03
n5	30	15	167300	1@1	DFT_QAM16	22.00	21.59

n5	30	15	167300	1@1	DFT_QAM64	21.00	20.38
n5	30	15	167300	1@1	DFT_QAM256	19.00	18.19
n5	30	15	167300	1@1	CP_QPSK	22.00	21.22
n5	30	15	168300	1@1	DFT_BPSK	22.00	21.90
n5	30	15	168300	36@0	DFT_QPSK	22.00	21.92
n5	30	15	168300	18@9	DFT_QPSK	23.00	22.96
n5	30	15	168300	1@1	DFT_QPSK	23.00	22.55
n5	30	15	168300	1@36	DFT_QPSK	24.00	23.18
n5	30	15	168300	1@1	DFT_QAM16	22.00	21.45
n5	30	15	168300	1@1	DFT_QAM64	21.00	20.30
n5	30	15	168300	1@1	DFT_QAM256	19.00	18.12
n5	30	15	168300	1@1	CP_QPSK	22.00	21.16
n5	30	20	166800	1@1	DFT_BPSK	23.00	22.81
n5	30	20	166800	50@0	DFT_QPSK	22.00	21.75
n5	30	20	166800	25@12	DFT_QPSK	23.00	22.81
n5	30	20	166800	1@1	DFT_QPSK	24.00	23.12
n5	30	20	166800	1@49	DFT_QPSK	24.00	23.09
n5	30	20	166800	1@1	DFT_QAM16	22.00	21.75
n5	30	20	166800	1@1	DFT_QAM64	21.00	20.38
n5	30	20	166800	1@1	DFT_QAM256	19.00	18.26
n5	30	20	166800	1@1	CP_QPSK	22.00	21.35
n5	30	20	167300	1@1	DFT_BPSK	23.00	22.79
n5	30	20	167300	50@0	DFT_QPSK	22.00	21.71
n5	30	20	167300	25@12	DFT_QPSK	23.00	22.92
n5	30	20	167300	1@1	DFT_QPSK	24.00	23.04
n5	30	20	167300	1@49	DFT_QPSK	24.00	23.33
n5	30	20	167300	1@1	DFT_QAM16	22.00	21.70
n5	30	20	167300	1@1	DFT_QAM64	21.00	20.32
n5	30	20	167300	1@1	DFT_QAM256	19.00	18.26
n5	30	20	167300	1@1	CP_QPSK	22.00	21.28
n5	30	20	167800	1@1	DFT_BPSK	23.00	22.66
n5	30	20	167800	50@0	DFT_QPSK	22.00	21.78
n5	30	20	167800	25@12	DFT_QPSK	23.00	22.88
n5	30	20	167800	1@1	DFT_QPSK	23.00	22.84
n5	30	20	167800	1@49	DFT_QPSK	24.00	23.36
n5	30	20	167800	1@1	DFT_QAM16	22.00	21.52
n5	30	20	167800	1@1	DFT_QAM64	21.00	20.12
n5	30	20	167800	1@1	DFT_QAM256	19.00	18.09
n5	30	20	167800	1@1	CP_QPSK	22.00	21.13

n7	30	10	501000	1@1	DFT_BPSK	24.00	23.38
n7	30	10	501000	24@0	DFT_QPSK	23.00	22.96
n7	30	10	501000	12@6	DFT_QPSK	25.00	24.06
n7	30	10	501000	1@1	DFT_QPSK	24.00	23.87
n7	30	10	501000	1@22	DFT_QPSK	24.00	23.88
n7	30	10	501000	1@1	DFT_QAM16	23.00	22.26
n7	30	10	501000	1@1	DFT_QAM64	21.00	20.99
n7	30	10	501000	1@1	DFT_QAM256	20.00	19.34
n7	30	10	501000	1@1	CP_QPSK	22.00	21.91
n7	30	10	507000	1@1	DFT_BPSK	24.00	23.30
n7	30	10	507000	24@0	DFT_QPSK	23.00	22.99
n7	30	10	507000	12@6	DFT_QPSK	25.00	24.01
n7	30	10	507000	1@1	DFT_QPSK	24.00	23.78
n7	30	10	507000	1@22	DFT_QPSK	24.00	23.76
n7	30	10	507000	1@1	DFT_QAM16	23.00	22.28
n7	30	10	507000	1@1	DFT_QAM64	21.00	20.96
n7	30	10	507000	1@1	DFT_QAM256	20.00	19.36
n7	30	10	507000	1@1	CP_QPSK	22.00	21.84
n7	30	10	513000	1@1	DFT_BPSK	24.00	23.30
n7	30	10	513000	24@0	DFT_QPSK	24.00	23.03
n7	30	10	513000	12@6	DFT_QPSK	25.00	24.05
n7	30	10	513000	1@1	DFT_QPSK	24.00	23.82
n7	30	10	513000	1@22	DFT_QPSK	24.00	23.84
n7	30	10	513000	1@1	DFT_QAM16	23.00	22.20
n7	30	10	513000	1@1	DFT_QAM64	21.00	20.89
n7	30	10	513000	1@1	DFT_QAM256	20.00	19.28
n7	30	10	513000	1@1	CP_QPSK	22.00	21.78
n7	30	15	501500	1@1	DFT_BPSK	24.00	23.33
n7	30	15	501500	36@0	DFT_QPSK	24.00	23.04
n7	30	15	501500	18@9	DFT_QPSK	24.00	23.98
n7	30	15	501500	1@1	DFT_QPSK	24.00	23.86
n7	30	15	501500	1@36	DFT_QPSK	24.00	23.84
n7	30	15	501500	1@1	DFT_QAM16	23.00	22.33
n7	30	15	501500	1@1	DFT_QAM64	21.00	21.00
n7	30	15	501500	1@1	DFT_QAM256	20.00	19.39
n7	30	15	501500	1@1	CP_QPSK	22.00	21.92
n7	30	15	507000	1@1	DFT_BPSK	24.00	23.30
n7	30	15	507000	36@0	DFT_QPSK	24.00	23.04
n7	30	15	507000	18@9	DFT_QPSK	24.00	23.93

n7	30	15	507000	1@1	DFT_QPSK	24.00	23.85
n7	30	15	507000	1@36	DFT_QPSK	24.00	23.67
n7	30	15	507000	1@1	DFT_QAM16	23.00	22.26
n7	30	15	507000	1@1	DFT_QAM64	21.00	20.99
n7	30	15	507000	1@1	DFT_QAM256	20.00	19.34
n7	30	15	507000	1@1	CP_QPSK	22.00	21.89
n7	30	15	512500	1@1	DFT_BPSK	24.00	23.18
n7	30	15	512500	36@0	DFT_QPSK	24.00	23.06
n7	30	15	512500	18@9	DFT_QPSK	25.00	24.01
n7	30	15	512500	1@1	DFT_QPSK	24.00	23.16
n7	30	15	512500	1@36	DFT_QPSK	24.00	23.28
n7	30	15	512500	1@1	DFT_QAM16	23.00	22.02
n7	30	15	512500	1@1	DFT_QAM64	21.00	20.71
n7	30	15	512500	1@1	DFT_QAM256	20.00	19.16
n7	30	15	512500	1@1	CP_QPSK	22.00	21.64
n7	30	20	502000	1@1	DFT_BPSK	24.00	23.27
n7	30	20	502000	50@0	DFT_QPSK	23.00	22.96
n7	30	20	502000	25@12	DFT_QPSK	24.00	23.98
n7	30	20	502000	1@1	DFT_QPSK	24.00	23.47
n7	30	20	502000	1@49	DFT_QPSK	24.00	23.37
n7	30	20	502000	1@1	DFT_QAM16	23.00	22.15
n7	30	20	502000	1@1	DFT_QAM64	21.00	20.84
n7	30	20	502000	1@1	DFT_QAM256	20.00	19.29
n7	30	20	502000	1@1	CP_QPSK	22.00	21.89
n7	30	20	507000	1@1	DFT_BPSK	24.00	23.24
n7	30	20	507000	50@0	DFT_QPSK	23.00	22.98
n7	30	20	507000	25@12	DFT_QPSK	24.00	24.00
n7	30	20	507000	1@1	DFT_QPSK	24.00	23.44
n7	30	20	507000	1@49	DFT_QPSK	24.00	23.27
n7	30	20	507000	1@1	DFT_QAM16	23.00	22.12
n7	30	20	507000	1@1	DFT_QAM64	21.00	20.76
n7	30	20	507000	1@1	DFT_QAM256	20.00	19.29
n7	30	20	507000	1@1	CP_QPSK	22.00	21.79
n7	30	20	512000	1@1	DFT_BPSK	24.00	23.08
n7	30	20	512000	50@0	DFT_QPSK	24.00	23.04
n7	30	20	512000	25@12	DFT_QPSK	24.00	23.95
n7	30	20	512000	1@1	DFT_QPSK	24.00	23.21
n7	30	20	512000	1@49	DFT_QPSK	24.00	23.37
n7	30	20	512000	1@1	DFT_QAM16	22.00	21.94

n7	30	20	512000	1@1	DFT_QAM64	21.00	20.57
n7	30	20	512000	1@1	DFT_QAM256	20.00	19.10
n7	30	20	512000	1@1	CP_QPSK	22.00	21.59
n78(3450-3550)	30	10	630334	1@1	DFT_BPSK	27.00	26.17
n78(3450-3550)	30	10	630334	24@0	DFT_QPSK	26.00	25.39
n78(3450-3550)	30	10	630334	12@6	DFT_QPSK	27.00	26.37
n78(3450-3550)	30	10	630334	1@1	DFT_QPSK	27.00	26.27
n78(3450-3550)	30	10	630334	1@22	DFT_QPSK	27.00	26.30
n78(3450-3550)	30	10	630334	1@1	DFT_QAM16	26.00	25.19
n78(3450-3550)	30	10	630334	1@1	DFT_QAM64	24.00	23.52
n78(3450-3550)	30	10	630334	1@1	DFT_QAM256	22.00	21.75
n78(3450-3550)	30	10	630334	1@1	CP_QPSK	25.00	24.78
n78(3450-3550)	30	10	633334	1@1	DFT_BPSK	27.00	26.36
n78(3450-3550)	30	10	633334	24@0	DFT_QPSK	26.00	25.49
n78(3450-3550)	30	10	633334	12@6	DFT_QPSK	27.00	26.43
n78(3450-3550)	30	10	633334	1@1	DFT_QPSK	27.00	26.40
n78(3450-3550)	30	10	633334	1@22	DFT_QPSK	27.00	26.26
n78(3450-3550)	30	10	633334	1@1	DFT_QAM16	26.00	25.43
n78(3450-3550)	30	10	633334	1@1	DFT_QAM64	24.00	23.77
n78(3450-3550)	30	10	633334	1@1	DFT_QAM256	22.00	21.95
n78(3450-3550)	30	10	633334	1@1	CP_QPSK	26.00	25.06
n78(3450-3550)	30	10	636332	1@1	DFT_BPSK	27.00	26.52
n78(3450-3550)	30	10	636332	24@0	DFT_QPSK	26.00	25.73
n78(3450-3550)	30	10	636332	12@6	DFT_QPSK	27.00	26.65
n78(3450-3550)	30	10	636332	1@1	DFT_QPSK	27.00	26.53
n78(3450-3550)	30	10	636332	1@22	DFT_QPSK	27.00	26.68
n78(3450-3550)	30	10	636332	1@1	DFT_QAM16	26.00	25.54
n78(3450-3550)	30	10	636332	1@1	DFT_QAM64	24.00	23.87
n78(3450-3550)	30	10	636332	1@1	DFT_QAM256	23.00	22.11
n78(3450-3550)	30	10	636332	1@1	CP_QPSK	26.00	25.21
n78(3450-3550)	30	15	630500	1@1	DFT_BPSK	27.00	26.18

n78(3450-3550)	30	15	630500	36@0	DFT_QPSK	26.00	25.39
n78(3450-3550)	30	15	630500	18@9	DFT_QPSK	27.00	26.39
n78(3450-3550)	30	15	630500	1@1	DFT_QPSK	27.00	26.21
n78(3450-3550)	30	15	630500	1@36	DFT_QPSK	27.00	26.18
n78(3450-3550)	30	15	630500	1@1	DFT_QAM16	26.00	25.21
n78(3450-3550)	30	15	630500	1@1	DFT_QAM64	24.00	23.61
n78(3450-3550)	30	15	630500	1@1	DFT_QAM256	22.00	21.82
n78(3450-3550)	30	15	630500	1@1	CP_QPSK	25.00	24.76
n78(3450-3550)	30	15	633334	1@1	DFT_BPSK	27.00	26.42
n78(3450-3550)	30	15	633334	36@0	DFT_QPSK	26.00	25.51
n78(3450-3550)	30	15	633334	18@9	DFT_QPSK	27.00	26.46
n78(3450-3550)	30	15	633334	1@1	DFT_QPSK	27.00	26.47
n78(3450-3550)	30	15	633334	1@36	DFT_QPSK	27.00	26.34
n78(3450-3550)	30	15	633334	1@1	DFT_QAM16	26.00	25.49
n78(3450-3550)	30	15	633334	1@1	DFT_QAM64	24.00	23.84
n78(3450-3550)	30	15	633334	1@1	DFT_QAM256	23.00	22.05
n78(3450-3550)	30	15	633334	1@1	CP_QPSK	26.00	25.03
n78(3450-3550)	30	15	636166	1@1	DFT_BPSK	27.00	26.47
n78(3450-3550)	30	15	636166	36@0	DFT_QPSK	26.00	25.72
n78(3450-3550)	30	15	636166	18@9	DFT_QPSK	27.00	26.65
n78(3450-3550)	30	15	636166	1@1	DFT_QPSK	27.00	26.48
n78(3450-3550)	30	15	636166	1@36	DFT_QPSK	27.00	26.66
n78(3450-3550)	30	15	636166	1@1	DFT_QAM16	26.00	25.47
n78(3450-3550)	30	15	636166	1@1	DFT_QAM64	24.00	23.88
n78(3450-3550)	30	15	636166	1@1	DFT_QAM256	23.00	22.10
n78(3450-3550)	30	15	636166	1@1	CP_QPSK	26.00	25.04
n78(3450-3550)	30	20	630668	1@1	DFT_BPSK	27.00	26.12
n78(3450-3550)	30	20	630668	50@0	DFT_QPSK	26.00	25.40
n78(3450-3550)	30	20	630668	25@12	DFT_QPSK	27.00	26.44
n78(3450-3550)	30	20	630668	1@1	DFT_QPSK	27.00	26.20

n78(3450-3550)	30	20	630668	1@49	DFT_QPSK	27.00	26.15
n78(3450-3550)	30	20	630668	1@1	DFT_QAM16	26.00	25.13
n78(3450-3550)	30	20	630668	1@1	DFT_QAM64	24.00	23.48
n78(3450-3550)	30	20	630668	1@1	DFT_QAM256	22.00	21.75
n78(3450-3550)	30	20	630668	1@1	CP_QPSK	25.00	24.72
n78(3450-3550)	30	20	633334	1@1	DFT_BPSK	27.00	26.39
n78(3450-3550)	30	20	633334	50@0	DFT_QPSK	26.00	25.52
n78(3450-3550)	30	20	633334	25@12	DFT_QPSK	27.00	26.47
n78(3450-3550)	30	20	633334	1@1	DFT_QPSK	27.00	26.45
n78(3450-3550)	30	20	633334	1@49	DFT_QPSK	27.00	26.31
n78(3450-3550)	30	20	633334	1@1	DFT_QAM16	26.00	25.35
n78(3450-3550)	30	20	633334	1@1	DFT_QAM64	24.00	23.80
n78(3450-3550)	30	20	633334	1@1	DFT_QAM256	22.00	21.86
n78(3450-3550)	30	20	633334	1@1	CP_QPSK	25.00	24.70
n78(3450-3550)	30	20	636000	1@1	DFT_BPSK	27.00	26.21
n78(3450-3550)	30	20	636000	50@0	DFT_QPSK	26.00	25.68
n78(3450-3550)	30	20	636000	25@12	DFT_QPSK	27.00	26.60
n78(3450-3550)	30	20	636000	1@1	DFT_QPSK	27.00	26.36
n78(3450-3550)	30	20	636000	1@49	DFT_QPSK	27.00	26.39
n78(3450-3550)	30	20	636000	1@1	DFT_QAM16	25.00	24.90
n78(3450-3550)	30	20	636000	1@1	DFT_QAM64	24.00	23.48
n78(3450-3550)	30	20	636000	1@1	DFT_QAM256	22.00	21.52
n78(3450-3550)	30	20	636000	1@1	CP_QPSK	25.00	24.65
n78(3450-3550)	30	40	631334	1@1	DFT_BPSK	26.00	25.29
n78(3450-3550)	30	40	631334	100@0	DFT_QPSK	26.00	25.23
n78(3450-3550)	30	40	631334	50@25	DFT_QPSK	27.00	26.24
n78(3450-3550)	30	40	631334	1@1	DFT_QPSK	26.00	25.25
n78(3450-3550)	30	40	631334	1@104	DFT_QPSK	26.00	25.38
n78(3450-3550)	30	40	631334	1@1	DFT_QAM16	25.00	24.22
n78(3450-3550)	30	40	631334	1@1	DFT_QAM64	23.00	22.66

n78(3450-3550)	30	40	631334	1@1	DFT_QAM256	21.00	20.84
n78(3450-3550)	30	40	631334	1@1	CP_QPSK	24.00	23.86
n78(3450-3550)	30	40	633334	1@1	DFT_BPSK	26.00	25.32
n78(3450-3550)	30	40	633334	100@0	DFT_QPSK	26.00	25.37
n78(3450-3550)	30	40	633334	50@25	DFT_QPSK	27.00	26.43
n78(3450-3550)	30	40	633334	1@1	DFT_QPSK	26.00	25.35
n78(3450-3550)	30	40	633334	1@104	DFT_QPSK	26.00	25.50
n78(3450-3550)	30	40	633334	1@1	DFT_QAM16	25.00	24.42
n78(3450-3550)	30	40	633334	1@1	DFT_QAM64	23.00	22.73
n78(3450-3550)	30	40	633334	1@1	DFT_QAM256	21.00	20.92
n78(3450-3550)	30	40	633334	1@1	CP_QPSK	24.00	23.91
n78(3450-3550)	30	40	635332	1@1	DFT_BPSK	26.00	25.46
n78(3450-3550)	30	40	635332	100@0	DFT_QPSK	26.00	25.50
n78(3450-3550)	30	40	635332	50@25	DFT_QPSK	27.00	26.61
n78(3450-3550)	30	40	635332	1@1	DFT_QPSK	26.00	25.45
n78(3450-3550)	30	40	635332	1@104	DFT_QPSK	26.00	25.69
n78(3450-3550)	30	40	635332	1@1	DFT_QAM16	25.00	24.48
n78(3450-3550)	30	40	635332	1@1	DFT_QAM64	23.00	22.83
n78(3450-3550)	30	40	635332	1@1	DFT_QAM256	22.00	21.07
n78(3450-3550)	30	40	635332	1@1	CP_QPSK	25.00	24.05
n78(3450-3550)	30	50	631668	1@1	DFT_BPSK	26.00	25.57
n78(3450-3550)	30	50	631668	128@0	DFT_QPSK	26.00	25.32
n78(3450-3550)	30	50	631668	64@32	DFT_QPSK	27.00	26.34
n78(3450-3550)	30	50	631668	1@1	DFT_QPSK	26.00	25.57
n78(3450-3550)	30	50	631668	1@131	DFT_QPSK	26.00	25.63
n78(3450-3550)	30	50	631668	1@1	DFT_QAM16	25.00	24.52
n78(3450-3550)	30	50	631668	1@1	DFT_QAM64	23.00	22.91
n78(3450-3550)	30	50	631668	1@1	DFT_QAM256	22.00	21.13
n78(3450-3550)	30	50	631668	1@1	CP_QPSK	25.00	24.14
n78(3450-3550)	30	50	633334	1@1	DFT_BPSK	26.00	25.49

n78(3450-3550)	30	50	633334	128@0	DFT_QPSK	26.00	25.40
n78(3450-3550)	30	50	633334	64@32	DFT_QPSK	27.00	26.54
n78(3450-3550)	30	50	633334	1@1	DFT_QPSK	26.00	25.46
n78(3450-3550)	30	50	633334	1@131	DFT_QPSK	26.00	25.72
n78(3450-3550)	30	50	633334	1@1	DFT_QAM16	25.00	24.49
n78(3450-3550)	30	50	633334	1@1	DFT_QAM64	23.00	22.91
n78(3450-3550)	30	50	633334	1@1	DFT_QAM256	22.00	21.10
n78(3450-3550)	30	50	633334	1@1	CP_QPSK	25.00	24.12
n78(3450-3550)	30	50	635000	1@1	DFT_BPSK	26.00	25.70
n78(3450-3550)	30	50	635000	128@0	DFT_QPSK	26.00	25.49
n78(3450-3550)	30	50	635000	64@32	DFT_QPSK	27.00	26.64
n78(3450-3550)	30	50	635000	1@1	DFT_QPSK	26.00	25.74
n78(3450-3550)	30	50	635000	1@131	DFT_QPSK	26.00	25.93
n78(3450-3550)	30	50	635000	1@1	DFT_QAM16	25.00	24.72
n78(3450-3550)	30	50	635000	1@1	DFT_QAM64	24.00	23.17
n78(3450-3550)	30	50	635000	1@1	DFT_QAM256	22.00	21.18
n78(3450-3550)	30	50	635000	1@1	CP_QPSK	25.00	24.21
n78(3450-3550)	30	60	632000	1@1	DFT_BPSK	26.00	25.50
n78(3450-3550)	30	60	632000	162@0	DFT_QPSK	26.00	25.34
n78(3450-3550)	30	60	632000	81@40	DFT_QPSK	27.00	26.36
n78(3450-3550)	30	60	632000	1@1	DFT_QPSK	26.00	25.57
n78(3450-3550)	30	60	632000	1@160	DFT_QPSK	26.00	25.54
n78(3450-3550)	30	60	632000	1@1	DFT_QAM16	25.00	24.50
n78(3450-3550)	30	60	632000	1@1	DFT_QAM64	23.00	22.91
n78(3450-3550)	30	60	632000	1@1	DFT_QAM256	22.00	21.02
n78(3450-3550)	30	60	632000	1@1	CP_QPSK	25.00	24.01
n78(3450-3550)	30	60	633334	1@1	DFT_BPSK	26.00	25.35
n78(3450-3550)	30	60	633334	162@0	DFT_QPSK	26.00	25.42
n78(3450-3550)	30	60	633334	81@40	DFT_QPSK	27.00	26.50
n78(3450-3550)	30	60	633334	1@1	DFT_QPSK	26.00	25.46

n78(3450-3550)	30	60	633334	1@160	DFT_QPSK	26.00	25.70
n78(3450-3550)	30	60	633334	1@1	DFT_QAM16	25.00	24.47
n78(3450-3550)	30	60	633334	1@1	DFT_QAM64	23.00	22.70
n78(3450-3550)	30	60	633334	1@1	DFT_QAM256	21.00	20.97
n78(3450-3550)	30	60	633334	1@1	CP_QPSK	24.00	23.94
n78(3450-3550)	30	60	634666	1@1	DFT_BPSK	26.00	25.73
n78(3450-3550)	30	60	634666	162@0	DFT_QPSK	26.00	25.52
n78(3450-3550)	30	60	634666	81@40	DFT_QPSK	27.00	26.59
n78(3450-3550)	30	60	634666	1@1	DFT_QPSK	26.00	25.72
n78(3450-3550)	30	60	634666	1@160	DFT_QPSK	26.00	25.84
n78(3450-3550)	30	60	634666	1@1	DFT_QAM16	25.00	24.79
n78(3450-3550)	30	60	634666	1@1	DFT_QAM64	24.00	23.08
n78(3450-3550)	30	60	634666	1@1	DFT_QAM256	22.00	21.32
n78(3450-3550)	30	60	634666	1@1	CP_QPSK	25.00	24.29
n78(3450-3550)	30	80	632668	1@1	DFT_BPSK	26.00	25.26
n78(3450-3550)	30	80	632668	216@0	DFT_QPSK	26.00	25.29
n78(3450-3550)	30	80	632668	108@54	DFT_QPSK	27.00	26.43
n78(3450-3550)	30	80	632668	1@1	DFT_QPSK	26.00	25.22
n78(3450-3550)	30	80	632668	1@215	DFT_QPSK	26.00	25.37
n78(3450-3550)	30	80	632668	1@1	DFT_QAM16	25.00	24.18
n78(3450-3550)	30	80	632668	1@1	DFT_QAM64	23.00	22.79
n78(3450-3550)	30	80	632668	1@1	DFT_QAM256	21.00	20.76
n78(3450-3550)	30	80	632668	1@1	CP_QPSK	24.00	23.91
n78(3450-3550)	30	80	633334	1@1	DFT_BPSK	26.00	25.38
n78(3450-3550)	30	80	633334	216@0	DFT_QPSK	26.00	25.32
n78(3450-3550)	30	80	633334	108@54	DFT_QPSK	27.00	26.48
n78(3450-3550)	30	80	633334	1@1	DFT_QPSK	26.00	25.43
n78(3450-3550)	30	80	633334	1@215	DFT_QPSK	26.00	25.46
n78(3450-3550)	30	80	633334	1@1	DFT_QAM16	25.00	24.44
n78(3450-3550)	30	80	633334	1@1	DFT_QAM64	23.00	22.82

n78(3450-3550)	30	80	633334	1@1	DFT_QAM256	21.00	20.91
n78(3450-3550)	30	80	633334	1@1	CP_QPSK	25.00	24.04
n78(3450-3550)	30	80	634000	1@1	DFT_BPSK	26.00	25.17
n78(3450-3550)	30	80	634000	216@0	DFT_QPSK	26.00	25.37
n78(3450-3550)	30	80	634000	108@54	DFT_QPSK	27.00	26.57
n78(3450-3550)	30	80	634000	1@1	DFT_QPSK	26.00	25.25
n78(3450-3550)	30	80	634000	1@215	DFT_QPSK	26.00	25.68
n78(3450-3550)	30	80	634000	1@1	DFT_QAM16	25.00	24.12
n78(3450-3550)	30	80	634000	1@1	DFT_QAM64	23.00	22.49
n78(3450-3550)	30	80	634000	1@1	DFT_QAM256	21.00	20.71
n78(3450-3550)	30	80	634000	1@1	CP_QPSK	24.00	23.82
n78(3450-3550)	30	90	633000	1@1	DFT_BPSK	26.00	25.12
n78(3450-3550)	30	90	633000	240@0	DFT_QPSK	26.00	25.31
n78(3450-3550)	30	90	633000	120@60	DFT_QPSK	27.00	26.40
n78(3450-3550)	30	90	633000	1@1	DFT_QPSK	26.00	25.14
n78(3450-3550)	30	90	633000	1@243	DFT_QPSK	26.00	25.23
n78(3450-3550)	30	90	633000	1@1	DFT_QAM16	24.00	23.97
n78(3450-3550)	30	90	633000	1@1	DFT_QAM64	23.00	22.56
n78(3450-3550)	30	90	633000	1@1	DFT_QAM256	21.00	20.61
n78(3450-3550)	30	90	633000	1@1	CP_QPSK	24.00	23.64
n78(3450-3550)	30	90	633334	1@1	DFT_BPSK	26.00	25.24
n78(3450-3550)	30	90	633334	240@0	DFT_QPSK	26.00	25.35
n78(3450-3550)	30	90	633334	120@60	DFT_QPSK	27.00	26.43
n78(3450-3550)	30	90	633334	1@1	DFT_QPSK	26.00	25.22
n78(3450-3550)	30	90	633334	1@243	DFT_QPSK	26.00	25.32
n78(3450-3550)	30	90	633334	1@1	DFT_QAM16	25.00	24.12
n78(3450-3550)	30	90	633334	1@1	DFT_QAM64	23.00	22.53
n78(3450-3550)	30	90	633334	1@1	DFT_QAM256	21.00	20.77
n78(3450-3550)	30	90	633334	1@1	CP_QPSK	24.00	23.78
n78(3450-3550)	30	90	633666	1@1	DFT_BPSK	26.00	25.26

n78(3450-3550)	30	90	633666	240@0	DFT_QPSK	26.00	25.36
n78(3450-3550)	30	90	633666	120@60	DFT_QPSK	27.00	26.50
n78(3450-3550)	30	90	633666	1@1	DFT_QPSK	26.00	25.20
n78(3450-3550)	30	90	633666	1@243	DFT_QPSK	26.00	25.42
n78(3450-3550)	30	90	633666	1@1	DFT_QAM16	25.00	24.28
n78(3450-3550)	30	90	633666	1@1	DFT_QAM64	23.00	22.61
n78(3450-3550)	30	90	633666	1@1	DFT_QAM256	21.00	20.89
n78(3450-3550)	30	90	633666	1@1	CP_QPSK	24.00	23.83
n78(3450-3550)	30	100	633334	1@1	DFT_BPSK	26.00	25.02
n78(3450-3550)	30	100	633334	270@0	DFT_QPSK	26.00	25.26
n78(3450-3550)	30	100	633334	135@67	DFT_QPSK	27.00	26.39
n78(3450-3550)	30	100	633334	1@1	DFT_QPSK	25.00	24.96
n78(3450-3550)	30	100	633334	1@271	DFT_QPSK	26.00	25.26
n78(3450-3550)	30	100	633334	1@1	DFT_QAM16	25.00	24.03
n78(3450-3550)	30	100	633334	1@1	DFT_QAM64	23.00	22.47
n78(3450-3550)	30	100	633334	1@1	DFT_QAM256	21.00	20.60
n78(3450-3550)	30	100	633334	1@1	CP_QPSK	24.00	23.54

7.5. WLAN & Bluetooth Output Power

Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)
802.11b	1	2412	16.50	16.35
	6	2437	16.50	15.41
	11	2462	16.50	16.41
802.11g	1	2412	14.50	14.49
	6	2437	14.50	13.75
	11	2462	14.50	14.48
802.11n HT20	1	2412	13.00	12.54
	6	2437	13.00	11.95
	11	2462	13.00	12.60
802.11n HT40	3	2422	13.00	12.36
	6	2437	13.00	12.24
	9	2452	13.00	12.50
ax20	1	2412	14.00	12.68
	6	2437	13.00	12.22
	11	2462	13.00	12.83
ax40	3	2422	13.00	12.47
	6	2437	14.00	12.28
	9	2452	14.00	12.62

NOTE: Power measurement results of WLAN 2.4G.

Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)
802.11a	36	5180	13.00	11.78
	40	5200	13.00	12.70
	48	5240	13.00	11.86
802.11n HT20	36	5180	12.00	10.67
	40	5200	12.00	11.61
	48	5240	12.00	11.82
802.11n HT40	38	5190	12.00	10.42
	46	5230	12.00	11.63
802.11ac VHT20	36	5180	12.00	10.68
	40	5200	12.00	11.66
	48	5240	12.00	11.72
802.11ac VHT40	38	5190	12.00	10.38

	46	5230	12.00	11.62
802.11ac VHT80	42	5210	11.00	10.64
ax20	36	5180	11.50	11.09
	40	5200	12.00	11.85
	48	5240	12.50	11.91
ax40	38	5190	11.00	10.67
	46	5230	13.00	11.95
ax80	42	5210	13.00	11.23

NOTE: Power measurement results of WLAN 5.2G.

Mode	Channel	Frequency (MHz)	Tune-up (dBm)	Output Power (dBm)
802.11a	149	5745	11.00	9.72
	157	5785	11.00	10.04
	165	5825	11.00	10.65
802.11n HT20	149	5745	10.50	9.95
	157	5785	10.50	10.19
	165	5825	10.50	9.86
802.11n HT40	151	5755	10.00	9.30
	159	5795	10.00	9.77
802.11ac VHT20	149	5745	10.50	9.99
	157	5785	10.50	10.16
	165	5825	10.50	9.88
802.11ac VHT40	151	5755	10.00	9.32
	159	5795	10.00	9.74
802.11ac VHT80	155	5775	9.00	8.95
ax20	149	5745	10.00	9.56
	157	5785	10.50	10.21
	165	5825	10.00	9.84
ax40	151	5755	10.00	9.50
	159	5795	10.00	9.94
ax80	155	5775	10.50	10.17

NOTE: Power measurement results of WLAN 5.8G.

BR+EDR	Output Power (dBm)				
	Channel	Tune-up (dBm)	Data Rates		
			1M	2M	3M
	0CH	6.50	6.20	5.40	6.24
	39CH	6.00	5.30	4.81	5.09
	78CH	5.00	4.43	3.95	4.35

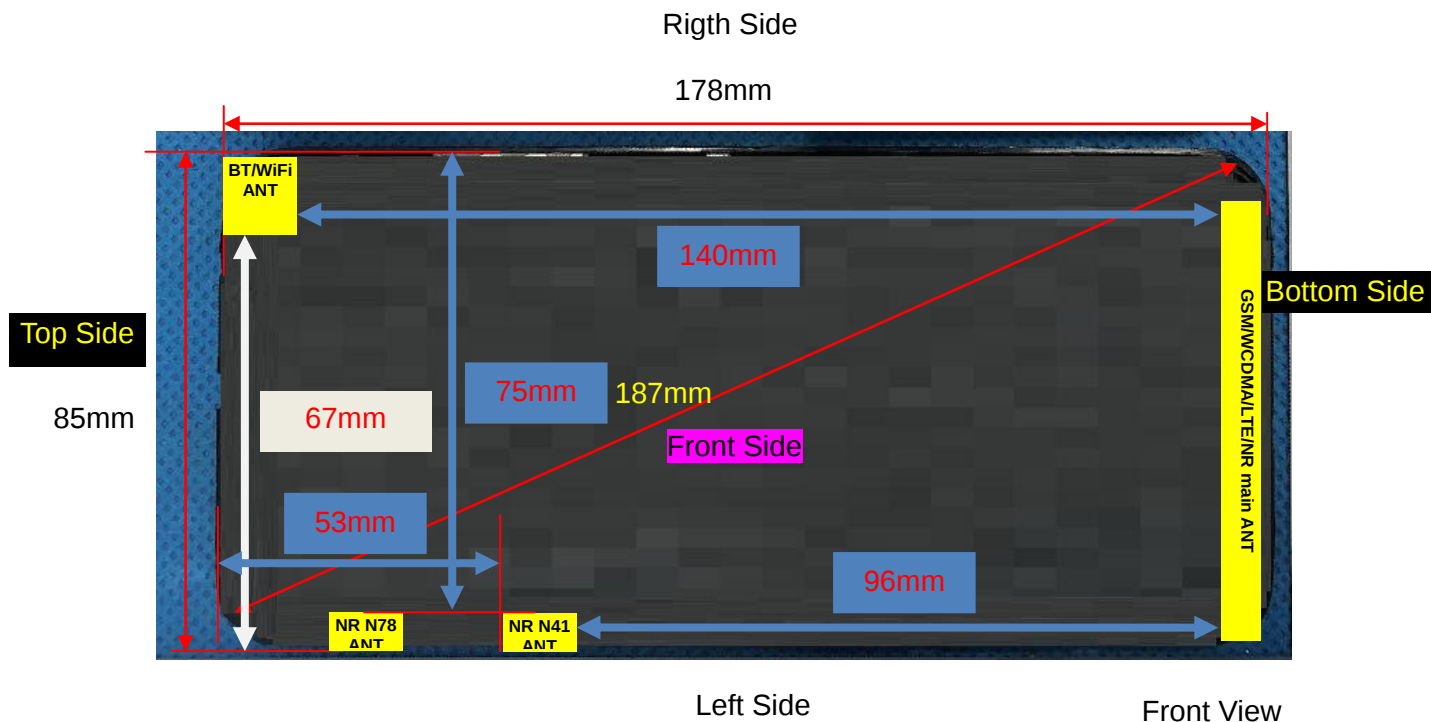
BLE	Channel	Tune-up (dBm)	Output Power (dBm)	
			1M	2M
	0CH	1.00	-0.93	0.83
	19CH	0.50	0.22	-0.62
	39CH	0.00	-0.75	-0.97

NOTE: Power measurement results of Bluetooth.

7.6. NFC

The power is too low, so SAR testing is not necessary.

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/NR n5/7 Main ANT	≤ 25mm	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm
WLAN & Bluetooth	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	>25mm
NR n41	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	> 25mm	> 25mm
NR n78	≤ 25mm	≤ 25mm	≤ 25mm	> 25mm	≤ 25mm	> 25mm
Positions for SAR tests						
Antennas	Front Side	Back Side	Left Side	Right Side	Top Side	Bottom Side
WWAN/NR n5/7 Main ANT	Yes	Yes	Yes	Yes	NO	Yes
WLAN & Bluetooth	Yes	Yes	NO	Yes	Yes	NO
NR n41	Yes	Yes	Yes	NO	NO	NO
NR n78	Yes	Yes	Yes	NO	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:

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

- $f_{(\text{GHz})}$ 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	6.50	4.47	5	2.480	1.4	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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] * [\sqrt{f_{(\text{GHz})}}/x] \text{ W/kg}$ for test separation distances $\leq 50\text{mm}$, 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	6.50	4.47	5	2.48	7.5	0.187
Bluetooth	Body	6.50	4.47	10	2.48	7.5	0.094
Bluetooth	Hotspot	6.50	4.47	10	2.48	7.5	0.094

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(%)	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)	0.527	0.348	-0.39	29.10	29.50	0.578	2024/4/25	1#
Left Tilt 15 Degree	189/836.4	GPRS(GMSK 4TS)	0.266	0.172	-2.69	29.10	29.50	0.292	2024/4/25	
Right	189/836.4	GPRS(GMSK 4TS)	0.484	0.313	-2.82	29.10	29.50	0.531	2024/4/25	

Cheek										
Right Tilt 15 Degree	189/836.4	GPRS(GMSK 4TS)	0.235	0.154	-0.90	29.10	29.50	0.258	2024/4/25	

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)	0.348	0.231	-2.68	29.10	29.50	0.382	2024/4/25	
Back Side	189/836.4	GPRS(GMSK 4TS)	0.549	0.372	1.68	29.10	29.50	0.602	2024/4/25	2#

NOTE: Body-Worn SAR test results of GSM850

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						
Front Side	189/836.4	GPRS(GMSK 4TS)	0.348	0.231	-2.68	29.10	29.50	0.382	2024/4/25	
Back Side	189/836.4	GPRS(GMSK 4TS)	0.549	0.372	1.68	29.10	29.50	0.602	2024/4/25	2#
Left Side	189/836.4	GPRS(GMSK 4TS)	0.178	0.118	1.21	29.10	29.50	0.195	2024/4/25	
Right Side	189/836.4	GPRS(GMSK 4TS)	0.174	0.116	1.84	29.10	29.50	0.191	2024/4/25	
Bottom Side	189/836.4	GPRS(GMSK 4TS)	0.280	0.190	-1.76	29.10	29.50	0.307	2024/4/25	

NOTE: Hotspot SAR test results of GSM850

10.1.2. SAR measurement Result of GSM1900

Test Position of Head	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						
Left Cheek	661/1880	GPRS(GMSK 4TS)	0.203	0.130	-4.11	26.52	27.00	0.227	2024/5/15	3#
Left Tilt 15	661/1880	GPRS(GMSK 4TS)	0.108	0.069	-2.58	26.52	27.00	0.121	2024/5/15	

Degree										
Right Cheek	661/1880	GPRS(GMSK 4TS)	0.188	0.117	-3.87	26.52	27.00	0.210	2024/5/15	
Right Tilt 15 Degree	661/1880	GPRS(GMSK 4TS)	0.097	0.060	1.79	26.52	27.00	0.108	2024/5/15	

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)	0.318	0.176	-3.46	26.52	27.00	0.355	2024/5/15	
Back Side	661/1880	GPRS(GMSK 4TS)	0.488	0.278	0.50	26.52	27.00	0.545	2024/5/15	4#

NOTE: Body-Worn SAR test results of GSM1900

Test Position of Hotspot with 10mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducte d Power (dBm)	Tune-up Power (dBm)	Scale d SAR 1-g (W/K g)	Date	Plot
			1-g	10-g						
Front Side	661/1880	GPRS(GMSK 4TS)	0.318	0.176	-3.46	26.52	27.00	0.355	2024/5/15	
Back Side	661/1880	GPRS(GMSK 4TS)	0.488	0.278	0.50	26.52	27.00	0.545	2024/5/15	4#
Left Side	661/1880	GPRS(GMSK 4TS)	0.160	0.087	3.37	26.52	27.00	0.179	2024/5/15	
Right Side	661/1880	GPRS(GMSK 4TS)	0.156	0.084	-0.14	26.52	27.00	0.174	2024/5/15	
Bottom Side	661/1880	GPRS(GMSK 4TS)	0.245	0.140	-0.68	26.52	27.00	0.274	2024/5/15	

NOTE: Hotspot SAR test results of GSM1900

10.1.3. SAR measurement Result of WCDMA Band 2

Test Position of Head	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						

Left Cheek	9400/1880	RMC12.2K	0.612	0.394	0.40	23.61	24.00	0.670	2024/5/15	5#
Left Tilt 15 Degree	9400/1880	RMC12.2K	0.306	0.189	3.04	23.61	24.00	0.335	2024/5/15	
Right Cheek	9400/1880	RMC12.2K	0.560	0.361	-1.25	23.61	24.00	0.613	2024/5/15	
Right Tilt 15 Degree	9400/1880	RMC12.2K	0.303	0.185	-1.81	23.61	24.00	0.331	2024/5/15	

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	0.450	0.256	0.26	23.61	24.00	0.492	2024/5/15	
Back Side	9400/1880	RMC12.2K	0.744	0.423	-0.47	23.61	24.00	0.814	2024/5/15	6#
Back Side	9400/1880	RMC12.2K	0.621	0.385	0.14	23.46	24.00	0.703	2024/5/15	
Back Side	9400/1880	RMC12.2K	0.609	0.362	1.02	23.63	24.00	0.663	2024/5/15	
BackSide Repeated	9400/1880	RMC12.2K	0.741	0.420	2.03	23.61	24.00	0.811	2024/5/15	

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

Test Position of Hotspot with 10mm	Test channel /Freq.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducte d Power (dBm)	Tune-u p Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			1-g	10-g						
Front Side	9400/1880	RMC12.2K	0.450	0.256	0.26	23.61	24.00	0.492	2024/5/15	
Back Side	9400/1880	RMC12.2K	0.744	0.423	-0.47	23.61	24.00	0.814	2024/5/15	6#
Left Side	9400/1880	RMC12.2K	0.230	0.128	1.19	23.61	24.00	0.252	2024/5/15	
Right Side	9400/1880	RMC12.2K	0.228	0.123	0.91	23.61	24.00	0.249	2024/5/15	
Bottom Side	9400/1880	RMC12.2K	0.380	0.212	2.51	23.61	24.00	0.416	2024/5/15	
Back Side	9400/1880	RMC12.2K	0.621	0.385	0.14	23.46	24.00	0.703	2024/5/15	
Back Side	9400/1880	RMC12.2K	0.609	0.362	1.02	23.63	24.00	0.663	2024/5/15	

BackSide e Repeate d	9400/1880	RMC12.2K	0.741	0.420	2.03	23.61	24.00	0.811	2024/5/15	
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NOTE: Hotspot SAR test results of WCDMA Band 2

10.1.4. SAR measurement Result of WCDMA Band 4

Test Position of Head	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						
Left Cheek	1413/1732.6	RMC12.2K	0.634	0.395	3.48	23.93	24.00	0.644	2024/5/07	7#
Left Tilt 15 Degree	1413/1732.6	RMC12.2K	0.358	0.221	1.15	23.93	24.00	0.364	2024/5/07	
Right Cheek	1413/1732.6	RMC12.2K	0.602	0.364	3.70	23.93	24.00	0.612	2024/5/07	
Right Tilt 15 Degree	1413/1732.6	RMC12.2K	0.277	0.166	2.67	23.93	24.00	0.282	2024/5/07	

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	0.414	0.268	-0.48	23.93	24.00	0.421	2024/5/07	
Back Side	1413/1732.6	RMC12.2K	0.656	0.434	3.77	23.93	24.00	0.667	2024/5/07	8#

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

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						
Front Side	1413/1732.6	RMC12.2K	0.414	0.268	-0.48	23.93	24.00	0.421	2024/5/07	

Back Side	1413/1732.6	RMC12.2K	0.656	0.434	3.77	23.93	24.00	0.667	2024/5/07	8#
Left Side	1413/1732.6	RMC12.2K	0.212	0.140	0.11	23.93	24.00	0.215	2024/5/07	
Right Side	1413/1732.6	RMC12.2K	0.207	0.136	1.36	23.93	24.00	0.210	2024/5/07	
Bottom Side	1413/1732.6	RMC12.2K	0.330	0.214	0.82	23.93	24.00	0.335	2024/5/07	

NOTE: Hotspot SAR test results of WCDMA Band 4

10.1.5. SAR measurement Result of WCDMA Band 5

Test Position of Head	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						
Left Cheek	4182/836.4	RMC12.2K	0.324	0.149	-4.55	23.20	23.50	0.347	2024/4/25	9#
Left Tilt 15 Degree	4182/836.4	RMC12.2K	0.181	0.082	3.63	23.20	23.50	0.194	2024/4/25	
Right Cheek	4182/836.4	RMC12.2K	0.280	0.125	0.41	23.20	23.50	0.300	2024/4/25	
Right Tilt 15 Degree	4182/836.4	RMC12.2K	0.145	0.065	-2.89	23.20	23.50	0.155	2024/4/25	

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	0.288	0.226	1.56	23.20	23.50	0.309	2024/4/25	
Back Side	4182/836.4	RMC12.2K	0.437	0.350	0.24	23.20	23.50	0.468	2024/4/25	10#

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

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						
Front Side	4182/836.4	RMC12.2K	0.288	0.226	1.56	23.20	23.50	0.309	2024/4/25	

Back Side	4182/836.4	RMC12.2K	0.437	0.350	0.24	23.20	23.50	0.468	2024/4/25	10#
Left Side	4182/836.4	RMC12.2K	0.138	0.108	-3.65	23.20	23.50	0.148	2024/4/25	
Right Side	4182/836.4	RMC12.2K	0.135	0.104	1.19	23.20	23.50	0.145	2024/4/25	
Bottom Side	4182/836.4	RMC12.2K	0.230	0.182	-2.75	23.20	23.50	0.246	2024/4/25	

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.	Mode	SAR Value (W/kg)		Power Drift(%)	Conducte d Power (dBm)	Tune-up Power (dBm)	Scaled SAR 1-g (W/Kg)	Date	Plot
			1-g	10-g						
1RB										
Left Cheek	18900/1880	20M QPSK(1,49)	0.156	0.099	-3.70	22.64	23.00	0.169	2024/5/15	17#
Left Tilt 15 Degree	18900/1880	20M QPSK(1,49)	0.084	0.051	1.98	22.64	23.00	0.091	2024/5/15	
Right Cheek	18900/1880	20M QPSK(1,49)	0.137	0.084	-2.35	22.64	23.00	0.149	2024/5/15	
Right Tilt 15 Degree	18900/1880	20M QPSK(1,49)	0.067	0.041	2.83	22.64	23.00	0.073	2024/5/15	
50%RB										
Left Cheek	18900/1880	20M QPSK(50,0)	0.080	0.053	1.55	22.06	22.50	0.089	2024/5/15	
Left Tilt 15 Degree	18900/1880	20M QPSK(50,0)	0.046	0.026	-4.20	22.06	22.50	0.051	2024/5/15	
Right Cheek	18900/1880	20M QPSK(50,0)	0.079	0.043	2.85	22.06	22.50	0.087	2024/5/15	
Right Tilt 15 Degree	18900/1880	20M QPSK(50,0)	0.034	0.022	-2.91	22.06	22.50	0.038	2024/5/15	

NOTE: Head SAR test results of LTE Band 2

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

NOTE: Hotspot SAR test results of LTE Band 2

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

								(W/Kg)		
1RB										
Left Cheek	20175/1732.5	20M QPSK(1,49)	0.170	0.113	-0.42	23.00	23.50	0.191	2024/5/07	19#
Left Tilt 15 Degree	20175/1732.5	20M QPSK(1,49)	0.094	0.059	-2.86	23.00	23.50	0.105	2024/5/07	
Right Cheek	20175/1732.5	20M QPSK(1,49)	0.157	0.101	-1.58	23.00	23.50	0.176	2024/5/07	
Right Tilt 15 Degree	20175/1732.5	20M QPSK(1,49)	0.080	0.051	3.71	23.00	23.50	0.090	2024/5/07	
50%RB										
Left Cheek	20175/1732.5	20M QPSK(50,0)	0.099	0.068	3.79	22.55	23.00	0.110	2024/5/07	
Left Tilt 15 Degree	20175/1732.5	20M QPSK(50,0)	0.054	0.032	1.59	22.55	23.00	0.060	2024/5/07	
Right Cheek	20175/1732.5	20M QPSK(50,0)	0.082	0.055	1.64	22.55	23.00	0.091	2024/5/07	
Right Tilt 15 Degree	20175/1732.5	20M QPSK(50,0)	0.047	0.029	1.09	22.55	23.00	0.052	2024/5/07	

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(1,49)	0.222	0.134	2.31	23.00	23.50	0.249	2024/5/07	
Back Side	20175/1732.5	20M QPSK(1,49)	0.361	0.230	0.03	23.00	23.50	0.405	2024/5/07	20#
50%RB										
Front Side	20175/1732.5	20M QPSK(50,0)	0.117	0.076	-3.16	22.55	23.00	0.130	2024/5/07	

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

NOTE: Hotspot SAR test results of LTE Band 4

Test Position of Head	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										
Left Cheek	20525/836.5	10M QPSK(1,24)	0.126	0.097	-3.66	22.67	23.00	0.136	2024/4/25	29#
Left Tilt 15 Degree	20525/836.5	10M QPSK(1,24)	0.069	0.050	2.76	22.67	23.00	0.074	2024/4/25	
Right Cheek	20525/836.5	10M QPSK(1,24)	0.118	0.086	-2.13	22.67	23.00	0.127	2024/4/25	
Right Tilt 15 Degree	20525/836.5	10M QPSK(1,24)	0.058	0.042	1.07	22.67	23.00	0.063	2024/4/25	
50%RB										
Left Cheek	20525/836.5	10M QPSK(25,0)	0.066	0.050	-3.36	21.99	22.50	0.074	2024/4/25	
Left Tilt 15 Degree	20525/836.5	10M QPSK(25,0)	0.036	0.027	3.40	21.99	22.50	0.040	2024/4/25	
Right Cheek	20525/836.5	10M QPSK(25,0)	0.064	0.044	-2.32	21.99	22.50	0.072	2024/4/25	
Right Tilt 15 Degree	20525/836.5	10M QPSK(25,0)	0.031	0.025	0.77	21.99	22.50	0.035	2024/4/25	

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 Side	20525/836.5	10M QPSK(1,24)	0.066	0.047	-3.98	22.67	23.00	0.071	2024/4/25	
Back Side	20525/836.5	10M QPSK(1,24)	0.094	0.071	-0.75	22.67	23.00	0.101	2024/4/25	30#
50%RB										
Front Side	20525/836.5	10M QPSK(25,0)	0.039	0.025	0.54	21.99	22.50	0.044	2024/4/25	
Back	20525/836.5	10M QPSK(25,0)	0.049	0.037	3.75	21.99	22.50	0.055	2024/4/25	

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

NOTE: Hotspot SAR test results of LTE Band 5

Test Position of Head	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										

Left Cheek	21100/2535	20M QPSK(1,49)	0.123	0.062	3.54	22.79	23.00	0.129	2024/5/10	21#
Left Tilt 15 Degree	21100/2535	20M QPSK(1,49)	0.068	0.034	0.97	22.79	23.00	0.071	2024/5/10	
Right Cheek	21100/2535	20M QPSK(1,49)	0.116	0.057	3.50	22.79	23.00	0.122	2024/5/10	
Right Tilt 15 Degree	21100/2535	20M QPSK(1,49)	0.056	0.028	-3.11	22.79	23.00	0.059	2024/5/10	
50%RB										
Left Cheek	21100/2535	20M QPSK(50,0)	0.068	0.036	-1.22	22.28	23.00	0.080	2024/5/10	
Left Tilt 15 Degree	21100/2535	20M QPSK(50,0)	0.034	0.019	-0.48	22.28	23.00	0.040	2024/5/10	
Right Cheek	21100/2535	20M QPSK(50,0)	0.065	0.031	-2.47	22.28	23.00	0.077	2024/5/10	
Right Tilt 15 Degree	21100/2535	20M QPSK(50,0)	0.032	0.016	0.08	22.28	23.00	0.038	2024/5/10	

NOTE: Head SAR test results of LTE Band 7

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	21100/2535	20M QPSK(1,49)	0.588	0.287	0.91	22.79	23.00	0.617	2024/5/10	
Back Side	21100/2535	20M QPSK(1,49)	0.978	0.483	-2.59	22.79	23.00	1.026	2024/5/10	
Back Side	20850/2510	20M QPSK(1,49)	1.015	0.477	1.04	22.94	23.00	1.029	2024/5/10	22#
Back Side	21350/2560	20M QPSK(1,49)	0.910	0.446	1.86	22.58	23.00	1.002	2024/5/10	
BackSide Repeated	20850/2510	20M QPSK(1,49)	1.010	0.475	1.20	22.94	23.00	1.024	2024/5/10	
50%RB										
Front Side	21100/2535	20M QPSK(50,0)	0.316	0.170	-4.13	22.28	23.00	0.373	2024/5/10	
Back Side	21100/2535	20M QPSK(50,0)	0.539	0.250	-1.87	22.28	23.00	0.636	2024/5/10	

NOTE: Body-Worn SAR test results of LTE Band 7

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	21100/2535	20M QPSK(1,49)	0.588	0.287	0.91	22.79	23.00	0.617	2024/5/10	
Back Side	21100/2535	20M QPSK(1,49)	0.978	0.483	-2.59	22.79	23.00	1.026	2024/5/10	
Left Side	21100/2535	20M QPSK(1,49)	0.312	0.155	0.20	22.79	23.00	0.327	2024/5/10	
Right Side	21100/2535	20M QPSK(1,49)	0.306	0.151	3.63	22.79	23.00	0.321	2024/5/10	
Bottom Side	21100/2535	20M QPSK(1,49)	0.505	0.247	-3.98	22.79	23.00	0.530	2024/5/10	
Back Side	20850/2510	20M QPSK(1,49)	1.015	0.477	1.04	22.94	23.00	1.029	2024/5/10	22#
Back Side	21350/2560	20M QPSK(1,49)	0.910	0.446	1.86	22.58	23.00	1.002	2024/5/10	
BackSide Repeated	20850/2510	20M QPSK(1,49)	1.010	0.475	1.20	22.94	23.00	1.024	2024/5/10	
50%RB										
Front Side	21100/2535	20M QPSK(50,0)	0.316	0.170	-4.13	22.28	23.00	0.373	2024/5/10	
Back Side	21100/2535	20M QPSK(50,0)	0.539	0.250	-1.87	22.28	23.00	0.636	2024/5/10	
Left Side	21100/2535	20M QPSK(50,0)	0.163	0.089	4.20	22.28	23.00	0.192	2024/5/10	
Right Side	21100/2535	20M QPSK(50,0)	0.158	0.086	-4.14	22.28	23.00	0.186	2024/5/10	
Bottom Side	21100/2535	20M QPSK(50,0)	0.258	0.145	-2.58	22.28	23.00	0.305	2024/5/10	
100%RB										
Back Side	21100/2535	20M QPSK(100,0)	0.412	0.187	1.20	22.27	22.50	0.434	2024/5/10	

NOTE: Hotspot SAR test results of LTE Band 7

10.1.10. SAR measurement Result of LTE Band 66

Test Position of Head	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										
Left Cheek	132322/1745	20M QPSK(1,49)	0.154	0.102	-3.28	22.97	23.50	0.174	2024/5/07	25#
Left Tilt 15 Degree	132322/1745	20M QPSK(1,49)	0.089	0.059	-2.13	22.97	23.50	0.101	2024/5/07	
Right Cheek	132322/1745	20M QPSK(1,49)	0.138	0.090	2.50	22.97	23.50	0.156	2024/5/07	
Right Tilt 15 Degree	132322/1745	20M QPSK(1,49)	0.074	0.048	-2.78	22.97	23.50	0.084	2024/5/07	
50%RB										
Left Cheek	132322/1745	20M QPSK(50,24)	0.084	0.056	-4.96	22.50	23.00	0.094	2024/5/07	
Left Tilt 15 Degree	132322/1745	20M QPSK(50,24)	0.049	0.031	2.63	22.50	23.00	0.055	2024/5/07	
Right Cheek	132322/1745	20M QPSK(50,24)	0.082	0.051	-4.32	22.50	23.00	0.092	2024/5/07	
Right Tilt 15 Degree	132322/1745	20M QPSK(50,24)	0.044	0.025	-4.13	22.50	23.00	0.049	2024/5/07	

NOTE: Head SAR test results of LTE Band 66

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	132322/1745	20M QPSK(1,49)	0.234	0.141	2.97	22.97	23.50	0.264	2024/5/07	
Back Side	132322/1745	20M QPSK(1,49)	0.385	0.244	-0.58	22.97	23.50	0.435	2024/5/07	26#
50%RB										
Front Side	132322/1745	20M QPSK(50,24)	0.118	0.084	-2.63	22.50	23.00	0.132	2024/5/07	
Back Side	132322/1745	20M QPSK(50,24)	0.208	0.143	-4.30	22.50	23.00	0.233	2024/5/07	

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

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	132322/1745	20M QPSK(1,49)	0.234	0.141	2.97	22.97	23.50	0.264	2024/5/07	
Back Side	132322/1745	20M QPSK(1,49)	0.385	0.244	-0.58	22.97	23.50	0.435	2024/5/07	26#
Left Side	132322/1745	20M QPSK(1,49)	0.125	0.080	-1.46	22.97	23.50	0.141	2024/5/07	
Right Side	132322/1745	20M QPSK(1,49)	0.123	0.076	0.26	22.97	23.50	0.139	2024/5/07	
Bottom Side	132322/1745	20M QPSK(1,49)	0.205	0.125	1.27	22.97	23.50	0.232	2024/5/07	
50%RB										
Front Side	132322/1745	20M QPSK(50,24)	0.118	0.084	-2.63	22.50	23.00	0.132	2024/5/07	
Back Side	132322/1745	20M QPSK(50,24)	0.208	0.143	-4.30	22.50	23.00	0.233	2024/5/07	
Left Side	132322/1745	20M QPSK(50,24)	0.075	0.045	1.17	22.50	23.00	0.084	2024/5/07	
Right Side	132322/1745	20M QPSK(50,24)	0.070	0.042	-1.75	22.50	23.00	0.079	2024/5/07	
Bottom Side	132322/1745	20M QPSK(50,24)	0.117	0.074	3.93	22.50	23.00	0.131	2024/5/07	

NOTE: Hotspot SAR test results of LTE Band 66

10.1.11. SAR measurement Result of NR SA 5

Test Position of Head	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										

NOTE: Head SAR test results of NR SA 5

NOTE: Body-Worn SAR test results of NR SA 5

Test Position of Hotspot with	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						

10mm										
1RB										
Front Side	167300/836.5	20M QPSK(1,49)	0.042	0.032	0.36	23.33	24.00	0.049	2024/4/25	
Back Side	167300/836.5	20M QPSK(1,49)	0.045	0.034	-3.36	23.33	24.00	0.053	2024/4/25	34#
Left Side	167300/836.5	20M QPSK(1,49)	0.021	0.017	0.30	23.33	24.00	0.025	2024/4/25	
Right Side	167300/836.5	20M QPSK(1,49)	0.018	0.016	-1.11	23.33	24.00	0.021	2024/4/25	
Bottom Side	167300/836.5	20M QPSK(1,49)	0.035	0.026	2.81	23.33	24.00	0.041	2024/4/25	
50%RB										
Front Side	167300/836.5	20M QPSK(25,12)	0.024	0.017	-1.91	22.92	23.00	0.024	2024/4/25	
Back Side	167300/836.5	20M QPSK(25,12)	0.025	0.019	0.23	22.92	23.00	0.025	2024/4/25	
Left Side	167300/836.5	20M QPSK(25,12)	0.011	0.010	-3.89	22.92	23.00	0.011	2024/4/25	
Right Side	167300/836.5	20M QPSK(25,12)	0.010	0.009	-4.24	22.92	23.00	0.010	2024/4/25	
Bottom Side	167300/836.5	20M QPSK(25,12)	0.018	0.014	-2.03	22.92	23.00	0.018	2024/4/25	

NOTE: Hotspot SAR test results of NR SA 5

10.1.12. SAR measurement Result of NR SA 7

Test Position of Head	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										
Left Cheek	507000/2535	20M QPSK(1,1)	0.160	0.110	-2.25	23.44	24.00	0.182	2024/5/10	27#
Left Tilt 15 Degree	507000/2535	20M QPSK(1,1)	0.085	0.056	-0.80	23.44	24.00	0.097	2024/5/10	
Right Cheek	507000/2535	20M QPSK(1,1)	0.141	0.094	-3.84	23.44	24.00	0.160	2024/5/10	

Right Tilt 15 Degree	507000/2535	20M QPSK(1,1)	0.077	0.052	-2.98	23.44	24.00	0.088	2024/5/10	
50%RB										
Left Cheek	507000/2535	20M QPSK(25,12)	0.088	0.057	0.09	24.00	24.00	0.088	2024/5/10	
Left Tilt 15 Degree	507000/2535	20M QPSK(25,12)	0.050	0.034	0.21	24.00	24.00	0.050	2024/5/10	
Right Cheek	507000/2535	20M QPSK(25,12)	0.071	0.055	3.33	24.00	24.00	0.071	2024/5/10	
Right Tilt 15 Degree	507000/2535	20M QPSK(25,12)	0.045	0.029	-2.86	24.00	24.00	0.045	2024/5/10	

NOTE: Head SAR test results of NR SA 7

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	507000/2535	20M QPSK(1,1)	0.564	0.285	1.41	23.44	24.00	0.642	2024/5/10	
Back Side	507000/2535	20M QPSK(1,1)	0.929	0.470	-3.09	23.44	24.00	1.057	2024/5/10	28#
Back Side	502000/2510	20M QPSK(1,1)	0.719	0.363	0.78	23.47	24.00	0.812	2024/5/10	
Back Side	512000/2560	20M QPSK(1,1)	0.650	0.337	2.51	23.21	24.00	0.780	2024/5/10	
BackSide Repeated	507000/2535	20M QPSK(1,1)	0.925	0.466	0.12	23.44	24.00	1.052	2024/5/10	
50%RB										
Front Side	507000/2535	20M QPSK(25,12)	0.303	0.165	2.15	24.00	24.00	0.303	2024/5/10	
Back Side	507000/2535	20M QPSK(25,12)	0.538	0.251	-0.82	24.00	24.00	0.538	2024/5/10	

NOTE: Body-Worn SAR test results of NR SA 7

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						

NOTE: Hotspot SAR test results of NR SA 7

Test Position of Head	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										
Left Cheek	518598/2592.99	100M QPSK(1,271)	0.340	0.160	1.05	25.20	26.00	0.409	2024/5/10	23#
Left Tilt 15 Degree	518598/2592.99	100M QPSK(1,271)	0.181	0.083	-0.67	25.20	26.00	0.218	2024/5/10	
Right Cheek	518598/2592.99	100M QPSK(1,271)	0.313	0.143	3.74	25.20	26.00	0.376	2024/5/10	
Right Tilt 15 Degree	518598/2592.99	100M QPSK(1,271)	0.165	0.075	-0.65	25.20	26.00	0.198	2024/5/10	
50%RB										
Left Cheek	518598/2592.99	100M QPSK(135,67)	0.175	0.090	1.74	26.13	27.00	0.214	2024/5/10	
Left Tilt 15 Degree	518598/2592.99	100M QPSK(135,67)	0.106	0.044	0.09	26.13	27.00	0.130	2024/5/10	
Right Cheek	518598/2592.99	100M QPSK(135,67)	0.172	0.072	-0.65	26.13	27.00	0.210	2024/5/10	
Right Tilt 15 Degree	518598/2592.99	100M QPSK(135,67)	0.091	0.039	-2.66	26.13	27.00	0.111	2024/5/10	

NOTE: Head SAR test results of NR SA 41

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	518598/2592.99	100M QPSK(1,271)	0.096	0.044	3.11	25.20	26.00	0.115	2024/5/10	
Back Side	518598/2592.99	100M QPSK(1,271)	0.224	0.138	0.09	25.20	26.00	0.269	2024/5/10	24#
50%RB										
Front Side	518598/2592.99	100M QPSK(135,67)	0.052	0.026	-1.72	26.13	27.00	0.064	2024/5/10	
Back Side	518598/2592.99	100M QPSK(135,67)	0.084	0.044	2.01	26.13	27.00	0.103	2024/5/10	

NOTE: Body-Worn SAR test results of NR SA 41

Test Position of Hotspot	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						

with 10mm										
1RB										
Front Side	518598/2592.99	100M QPSK(1,271)	0.096	0.044	3.11	25.20	26.00	0.115	2024/5/10	
Back Side	518598/2592.99	100M QPSK(1,271)	0.224	0.138	0.09	25.20	26.00	0.269	2024/5/10	24#
Left Side	518598/2592.99	100M QPSK(1,271)	0.051	0.024	3.54	25.20	26.00	0.061	2024/5/10	
50%RB										
Front Side	518598/2592.99	100M QPSK(135,67)	0.052	0.026	-1.72	26.13	27.00	0.064	2024/5/10	
Back Side	518598/2592.99	100M QPSK(135,67)	0.084	0.044	2.01	26.13	27.00	0.103	2024/5/10	
Left Side	518598/2592.99	100M QPSK(135,67)	0.029	0.013	2.60	26.13	27.00	0.035	2024/5/10	

NOTE: Hotspot SAR test results of NR SA 41

10.1.14. SAR measurement Result of NR SA 78

Test Position of Head	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										
Left Cheek	633334/3500.01	100M QPSK(1,271)	0.339	0.163	-4.99	25.26	26.00	0.402	2024/6/11	31#
Left Tilt 15 Degree	633334/3500.01	100M QPSK(1,271)	0.195	0.089	-2.92	25.26	26.00	0.231	2024/6/11	
Right Cheek	633334/3500.01	100M QPSK(1,271)	0.317	0.146	-3.45	25.26	26.00	0.376	2024/6/11	
Right Tilt 15 Degree	633334/3500.01	100M QPSK(1,271)	0.156	0.072	-3.21	25.26	26.00	0.185	2024/6/11	
50%RB										
Left Cheek	633334/3500.01	100M QPSK(135,67)	0.172	0.097	0.68	26.39	27.00	0.198	2024/6/11	
Left Tilt	633334/3500.01	100M QPSK(135,67)	0.117	0.046	4.18	26.39	27.00	0.135	2024/6/11	

15 Degree										
Right Cheek	633334/3500.01	100M QPSK(135,67)	0.190	0.075	-1.60	26.39	27.00	0.219	2024/6/11	
Right Tilt 15 Degree	633334/3500.01	100M QPSK(135,67)	0.079	0.038	0.73	26.39	27.00	0.091	2024/6/11	

NOTE: Head SAR test results of NR SA 78

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	633334/3500.01	100M QPSK(1,271)	0.210	0.082	0.07	25.26	26.00	0.249	2024/6/11	
Back Side	633334/3500.01	100M QPSK(1,271)	0.315	0.129	-2.60	25.26	26.00	0.374	2024/6/11	32#
50%RB										
Front Side	633334/3500.01	100M QPSK(135,67)	0.119	0.045	2.61	26.39	27.00	0.137	2024/6/11	
Back Side	633334/3500.01	100M QPSK(135,67)	0.183	0.066	-3.75	26.39	27.00	0.211	2024/6/11	

NOTE: Body-Worn SAR test results of NR SA 78

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	633334/3500.01	100M QPSK(1,271)	0.210	0.082	0.07	25.26	26.00	0.249	2024/6/11	
Back Side	633334/3500.01	100M QPSK(1,271)	0.315	0.129	-2.60	25.26	26.00	0.374	2024/6/11	32#
Left Side	633334/3500.01	100M QPSK(1,271)	0.105	0.041	-1.57	25.26	26.00	0.125	2024/6/11	
Top Side	633334/3500.01	100M QPSK(1,271)	0.096	0.037	-3.38	25.26	26.00	0.114	2024/6/11	
50%RB										
Front Side	633334/3500.01	100M QPSK(135,67)	0.119	0.045	2.61	26.39	27.00	0.137	2024/6/11	
Back	633334/3500.01	100M	0.183	0.066	-3.75	26.39	27.00	0.211	2024/6/11	

Side		QPSK(135,67)								
Left Side	633334/3500.01	100M QPSK(135,67)	0.060	0.024	-2.76	26.39	27.00	0.069	2024/6/11	
Top Side	633334/3500.01	100M QPSK(135,67)	0.053	0.021	-3.06	26.39	27.00	0.061	2024/6/11	

NOTE: Hotspot SAR test results of NR SA 78

10.1.15. SAR measurement Result of WLAN2.4G

Test Position of Head	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						
Left Cheek	11/2462	802.11b	0.247	0.144	-4.47	16.41	16.50	0.252	2024/5/14	15#
Left Tilt 15 Degree	11/2462	802.11b	0.141	0.082	3.26	16.41	16.50	0.144	2024/5/14	
Right Cheek	11/2462	802.11b	0.213	0.119	1.64	16.41	16.50	0.217	2024/5/14	
Right Tilt 15 Degree	11/2462	802.11b	0.098	0.055	-3.03	16.41	16.50	0.100	2024/5/14	

NOTE: Head SAR test results of WLAN2.4G

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						
Front Side	11/2462	802.11b	0.090	0.052	-3.09	16.41	16.50	0.092	2024/5/14	
Back Side	11/2462	802.11b	0.126	0.076	0.15	16.41	16.50	0.129	2024/5/14	16#

NOTE: Body-worn SAR test results of WLAN2.4G

[illegible]

Front Side	11/2462	802.11b	0.090	0.052	-3.09	16.41	16.50	0.092	2024/5/14	
Back Side	11/2462	802.11b	0.126	0.076	0.15	16.41	16.50	0.129	2024/5/14	16#
Right Side	11/2462	802.11b	0.045	0.027	-2.94	16.41	16.50	0.046	2024/5/14	
Top Side	11/2462	802.11b	0.039	0.023	2.42	16.41	16.50	0.040	2024/5/14	

NOTE: Hotspot SAR test results of WLAN2.4G

10.1.16. SAR measurement Result of WLAN5.2G

Test Position of Head	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						
Left Cheek	40/5200	802.11a	0.426	0.247	-1.28	12.70	13.00	0.456	2024/5/11	11#
Left Tilt 15 Degree	40/5200	802.11a	0.239	0.136	0.95	12.70	13.00	0.256	2024/5/11	
Right Cheek	40/5200	802.11a	0.370	0.208	-0.22	12.70	13.00	0.396	2024/5/11	
Right Tilt 15 Degree	40/5200	802.11a	0.199	0.112	1.89	12.70	13.00	0.213	2024/5/11	

NOTE: Head SAR test results of WLAN5.2G

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						
Front Side	40/5200	802.11a	0.186	0.132	-3.04	12.70	13.00	0.199	2024/5/11	
Back Side	40/5200	802.11a	0.310	0.222	3.21	12.70	13.00	0.332	2024/5/11	13#

NOTE: Body-worn SAR test results of WLAN5.2G

Test Position of Hotspot	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						

with 10mm										
Front Side	40/5200	802.11a	0.186	0.132	-3.04	12.70	13.00	0.199	2024/5/11	
Back Side	40/5200	802.11a	0.310	0.222	3.21	12.70	13.00	0.332	2024/5/11	13#
Right Side	40/5200	802.11a	0.104	0.073	2.46	12.70	13.00	0.111	2024/5/11	
Top Side	40/5200	802.11a	0.099	0.069	2.12	12.70	13.00	0.106	2024/5/11	

NOTE: Hotspot SAR test results of WLAN5.2G

10.1.17. SAR measurement Result of WLAN5.8G

Test Position of Head	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						
Left Cheek	165/5825	802.11a	0.536	0.331	-3.68	10.65	11.00	0.581	2024/5/12	12#
Left Tilt 15 Degree	165/5825	802.11a	0.314	0.186	2.42	10.65	11.00	0.340	2024/5/12	
Right Cheek	165/5825	802.11a	0.480	0.285	-1.99	10.65	11.00	0.520	2024/5/12	
Right Tilt 15 Degree	165/5825	802.11a	0.244	0.143	1.76	10.65	11.00	0.264	2024/5/12	

NOTE: Head SAR test results of WLAN5.8G

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						
Front Side	165/5825	802.11a	0.120	0.094	0.97	10.65	11.00	0.130	2024/5/12	
Back Side	165/5825	802.11a	0.176	0.145	4.71	10.65	11.00	0.191	2024/5/12	14#

NOTE: Body-worn SAR test results of WLAN5.8G

Test	Test	Mode	SAR Value	Power	Conducted	Tune-up	Scaled	Date	Plot
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Position of Hotspot with 10mm	channel /Freq.		(W/kg)		Drift(%)	Power (dBm)	Power (dBm)	SAR 1-g (W/Kg)		
			1-g	10-g						
Front Side	165/5825	802.11a	0.120	0.094	0.97	10.65	11.00	0.130	2024/5/12	
Back Side	165/5825	802.11a	0.176	0.145	4.71	10.65	11.00	0.191	2024/5/12	14#
Right Side	165/5825	802.11a	0.064	0.053	2.50	10.65	11.00	0.069	2024/5/12	
Top Side	165/5825	802.11a	0.060	0.049	2.20	10.65	11.00	0.065	2024/5/12	

NOTE: Hotspot SAR test results of WLAN5.8G

10.2. Simultaneous Transmission Analysis

Per KDB 447498 D01, simultaneous transmission SAR is compliant if,

- 1) Scalar SAR summation $< 1.6\text{W/kg}$.
- 2) $\text{SPLSR} = (\text{SAR}_1 + \text{SAR}_2)^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x_1 - x_2)^2 + (y_1 - y_2)^2 + (z_1 - z_2)^2]$, where (x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates of the extrapolated peak SAR locations in the zoom scan. If $\text{SPLSR} \leq 0.04$, simultaneously transmission SAR measurement is not necessary.

Test Position		Scaled SAR _{MAX}		Σ 1-g SAR (W/Kg)	SPLSR	Remark
		WWAN	DTS			
Head	Left Cheek	0.670	0.252	0.922	N/A	N/A
	Left Tilt 15 Degree	0.335	0.144	0.479	N/A	N/A
	Right Cheek	0.613	0.217	0.830	N/A	N/A
	Right Tilt 15 Degree	0.331	0.100	0.431	N/A	N/A
Body-Worn	Front Side	0.617	0.092	0.709	N/A	N/A
	Back Side	1.029	0.129	1.158	N/A	N/A
Hotspot	Front Side	0.617	0.092	0.709	N/A	N/A
	Back Side	1.029	0.129	1.158	N/A	N/A
	Left Side	0.327	N/A	0.327	N/A	N/A
	Right Side	0.321	0.046	0.367	N/A	N/A

	Top Side	N/A	0.040	0.040	N/A	N/A
	Bottom Side	0.530	N/A	0.530	N/A	N/A

Test Position		Scaled SAR _{MAX}		Σ 1-g SAR (W/Kg)	SPLSR	Remark
		WWAN	NII			
Head	Left Cheek	0.670	0.581	1.251	N/A	N/A
	Left Tilt 15 Degree	0.335	0.340	0.675	N/A	N/A
	Right Cheek	0.613	0.520	1.133	N/A	N/A
	Right Tilt 15 Degree	0.331	0.264	0.595	N/A	N/A
Body-Worn	Front Side	0.617	0.199	0.816	N/A	N/A
	Back Side	1.029	0.332	1.361	N/A	N/A
Hotspot	Front Side	0.617	0.199	0.816	N/A	N/A
	Back Side	1.029	0.332	1.361	N/A	N/A
	Left Side	0.327	N/A	0.327	N/A	N/A
	Right Side	0.321	0.111	0.432	N/A	N/A
	Top Side	N/A	0.106	0.106	N/A	N/A
	Bottom Side	0.530	N/A	0.530	N/A	N/A

Test Position		Scaled SAR _{MAX}		Σ 1-g SAR (W/Kg)	SPLSR	Remark
		WWAN	DSS			
Head	Left Cheek	0.670	0.187	0.857	N/A	N/A
	Left Tilt 15 Degree	0.335	0.187	0.522	N/A	N/A
	Right Cheek	0.613	0.187	0.800	N/A	N/A
	Right Tilt 15 Degree	0.331	0.187	0.518	N/A	N/A
Body-Worn	Front Side	0.617	0.094	0.711	N/A	N/A
	Back Side	1.029	0.094	1.123	N/A	N/A
Hotspot	Front Side	0.617	0.094	0.711	N/A	N/A
	Back Side	1.029	0.094	1.123	N/A	N/A
	Left Side	0.327	N/A	0.327	N/A	N/A
	Right Side	0.321	0.094	0.415	N/A	N/A
	Top Side	N/A	0.094	0.094	N/A	N/A

	Bottom Side	0.530	N/A	0.530	N/A	N/A
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Test Position		Scaled SAR _{MAX}			Σ 1-g SAR (W/Kg)	SPLSR	Remark
		LTE Band 5	NR n78	WIFI/Bluetooth			
Head	Left Cheek	0.136	0.402	0.581	1.119	N/A	N/A
	Left Tilt 15 Degree	0.074	0.231	0.340	0.645	N/A	N/A
	Right Cheek	0.127	0.376	0.520	1.023	N/A	N/A
	Right Tilt 15 Degree	0.063	0.185	0.264	0.512	N/A	N/A
Body-Worn	Front Side	0.071	0.249	0.199	0.519	N/A	N/A
	Back Side	0.101	0.374	0.332	0.807	N/A	N/A
Hotspot	Front Side	0.071	0.249	0.199	0.519	N/A	N/A
	Back Side	0.101	0.374	0.332	0.807	N/A	N/A
	Left Side	0.039	0.125	N/A	0.164	N/A	N/A
	Right Side	0.032	N/A	0.111	0.143	N/A	N/A
	Top Side	N/A	0.114	0.106	0.220	N/A	N/A
	Bottom Side	0.065	N/A	N/A	0.065	N/A	N/A

11. Appendix A. Photo documentation

Refer to appendix Test Setup photo---SAR

12. Appendix B. System Check Plots

Table of contents
MEASUREMENT 1 System Performance Check - 835MHz
MEASUREMENT 2 System Performance Check - 1800MHz
MEASUREMENT 3 System Performance Check - 1900MHz
MEASUREMENT 4 System Performance Check - 2450MHz
MEASUREMENT 5 System Performance Check - 2600MHz
MEASUREMENT 6 System Performance Check - 3500MHz
MEASUREMENT 7 System Performance Check - 5200MHz
MEASUREMENT 8 System Performance Check - 5800MHz

MEASUREMENT 1

Date of measurement: 25/4/2024

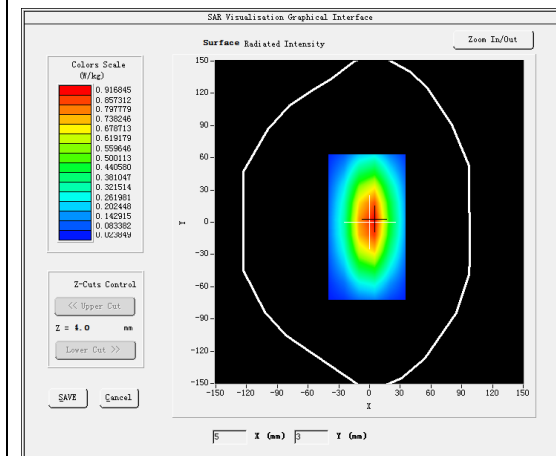
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW835</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.32</u>

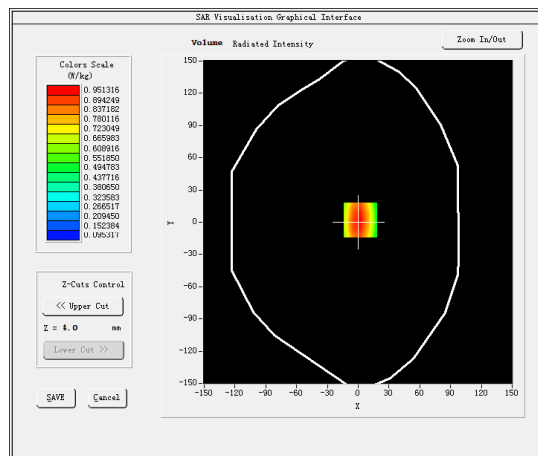
B. SAR Measurement Results

Frequency (MHz)	835.000000
Relative permittivity (real part)	41.395281
Relative permittivity (imaginary part)	19.400454
Conductivity (S/m)	0.899966
Variation (%)	-0.930000

SURFACE SAR



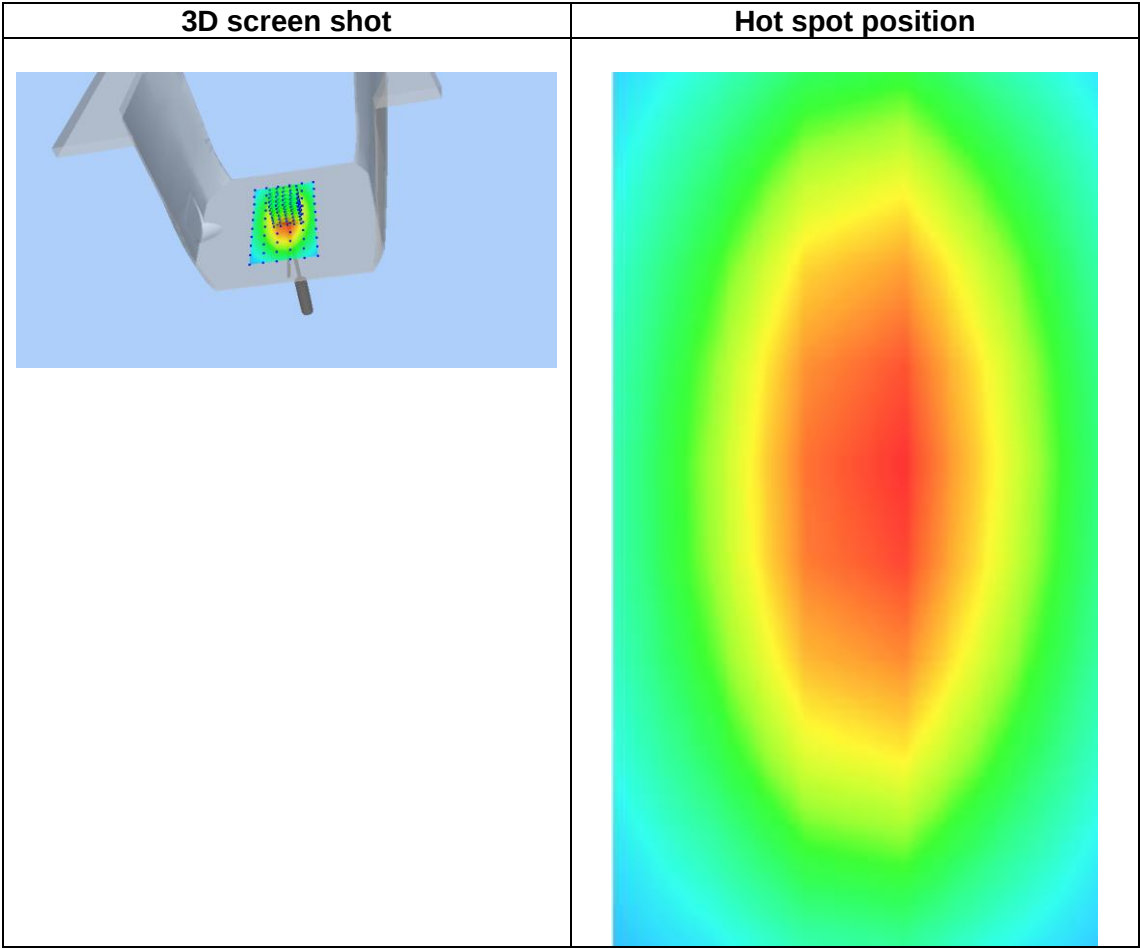
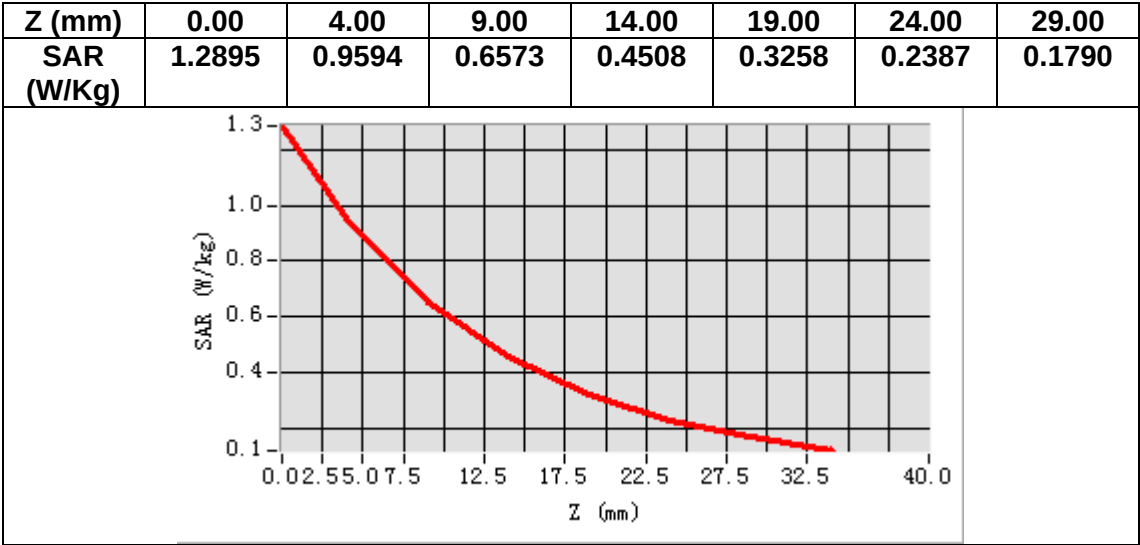
VOLUME SAR



Maximum location: X=2.00, Y=2.00

SAR Peak: 1.29 W/kg

SAR 10g (W/Kg)	0.602322
SAR 1g (W/Kg)	1.003099



MEASUREMENT 2

Date of measurement: 7/5/2024

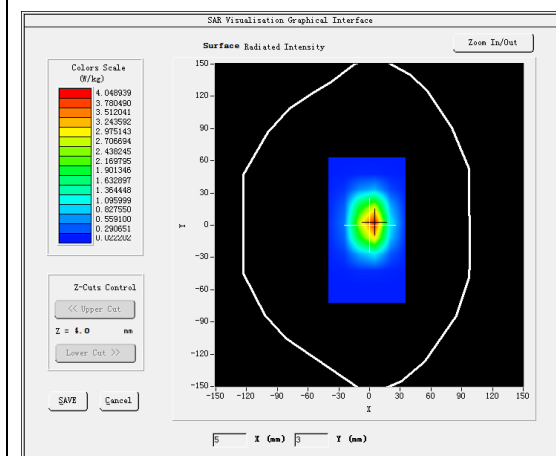
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW1800</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.45</u>

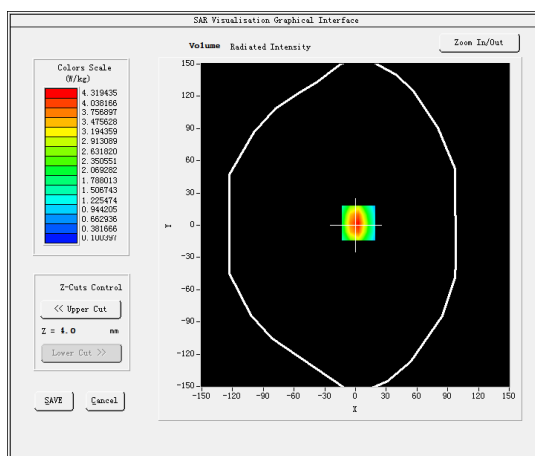
B. SAR Measurement Results

Frequency (MHz)	1800.000000
Relative permittivity (real part)	39.398925
Relative permittivity (imaginary part)	13.949963
Conductivity (S/m)	1.394996
Variation (%)	-1.900000

SURFACE SAR



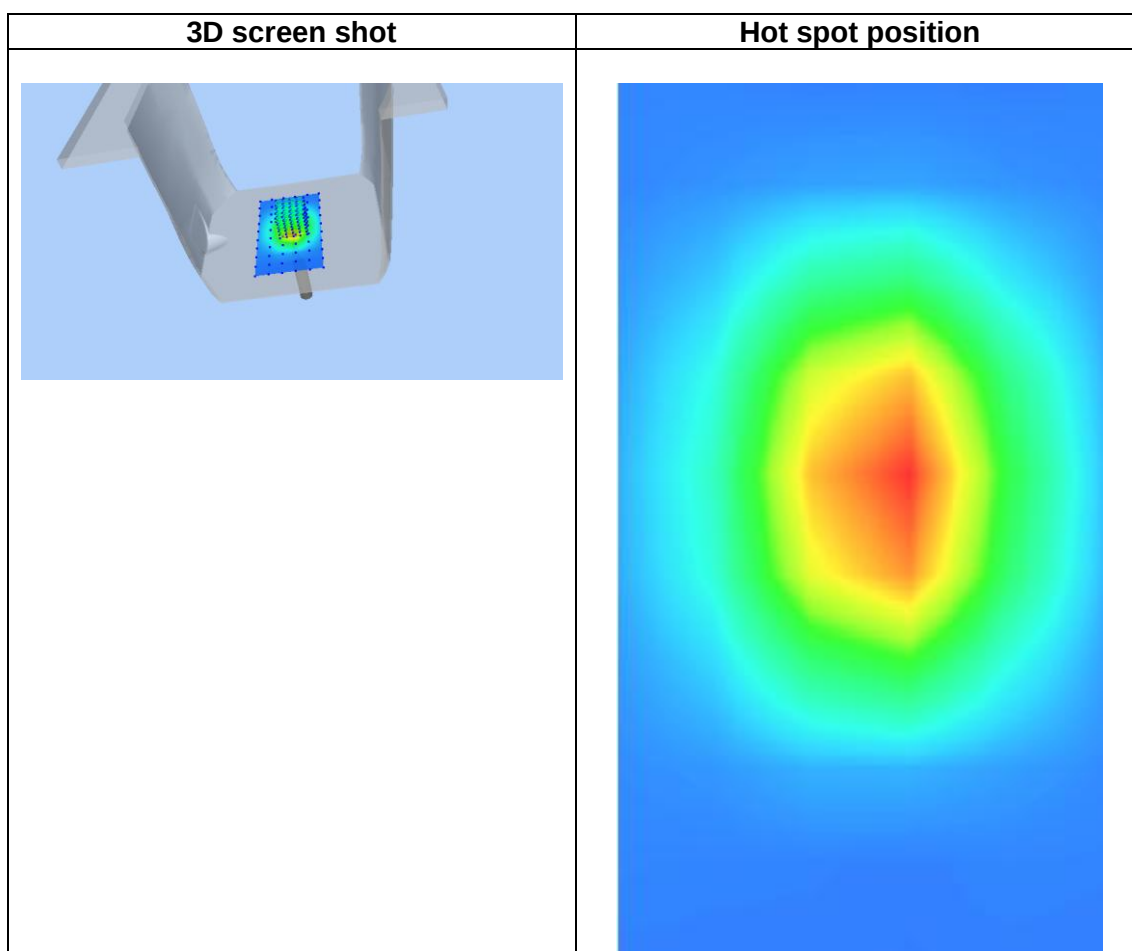
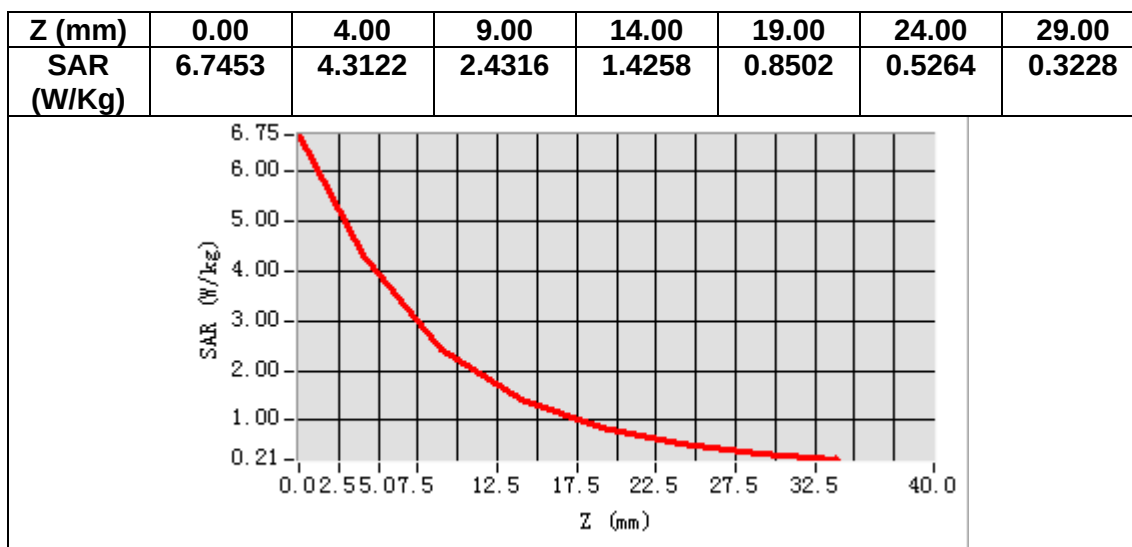
VOLUME SAR



Maximum location: X=3.00, Y=2.00

SAR Peak: 6.82 W/kg

SAR 10g (W/Kg)	2.176193
SAR 1g (W/Kg)	3.961386



MEASUREMENT 3

Date of measurement: 15/5/2024

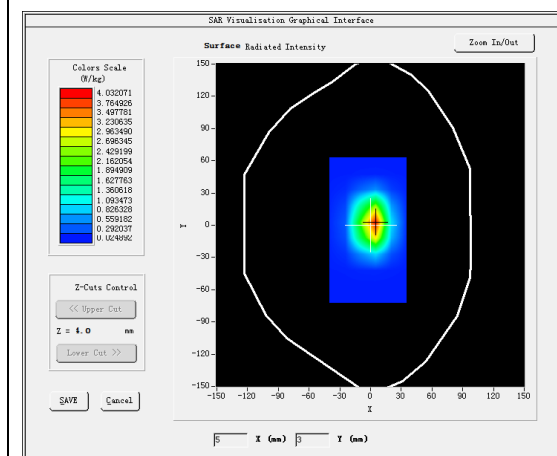
A. Experimental conditions.

<u>Area Scan</u>	<u>dx=15mm dy=15mm, h= 5.00 mm</u>
<u>ZoomScan</u>	<u>5x5x7,dx=8mm dy=8mm dz=5mm</u>
<u>Phantom</u>	<u>Validation plane</u>
<u>Device Position</u>	<u>Dipole</u>
<u>Band</u>	<u>CW1900</u>
<u>Channels</u>	<u>Middle</u>
<u>Signal</u>	<u>CW (Crest factor: 1.0)</u>
<u>ConvF</u>	<u>2.63</u>

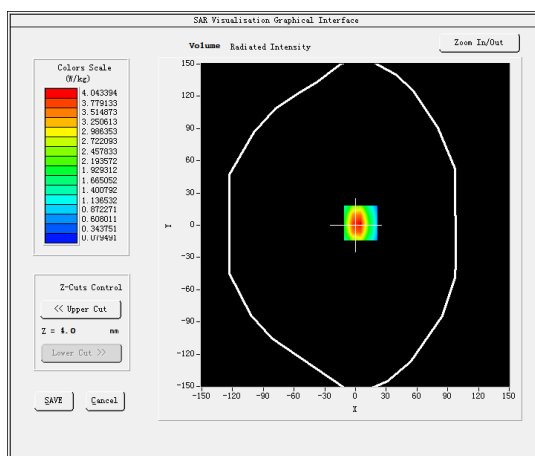
B. SAR Measurement Results

Frequency (MHz)	1900.000000
Relative permittivity (real part)	38.930002
Relative permittivity (imaginary part)	13.743476
Conductivity (S/m)	1.450700
Variation (%)	-1.150000

SURFACE SAR



VOLUME SAR



Maximum location: X=5.00, Y=2.00

SAR Peak: 6.70 W/kg

SAR 10g (W/Kg)	2.064070
SAR 1g (W/Kg)	4.294062

