

FCC SAR Test Report

Report No. : PSU-QBJ2507100110SA02

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Manufacturer : Xiaomi Communications Co., Ltd.

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Product : Tablet Computer

FCC ID : 2AFZZRP13G

Brand : Redmi

Model No. : 25099RP13G

Standards : FCC 47 CFR Part 2 (2.1093) / IEEE C95.1:1992 / IEEE 1528:2013
KDB 865664 D01 v01r04 / KDB 865664 D02 v01r02 / KDB 248227 D01 v02r02
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Issued By : Huarui 7layers High Technology (Suzhou) Co., Ltd.

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CERTIFICATION: The above equipment have been tested by Huarui 7layers High Technology (Suzhou) Co., Ltd., and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's SAR characteristics under the conditions specified in this report. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product certification, approval, or endorsement by A2LA or any government agencies.

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Release Control Record

Report No.	Reason for Change	Date Issued
PSU-QBJ2507100110SA02	Initial release	Jul. 31, 2025



1. Summary of Maximum SAR Value

Equipment Class	Mode	Highest Reported Body SAR _{1g} (W/kg)
DTS	2.4G WLAN	1.04
NII	5.2G WLAN	1.08
	5.3G WLAN	1.08
	5.6G WLAN	1.06
	5.8G WLAN	1.08
DSS	Bluetooth	1.08

Highest Simultaneous Transmission SAR _{1g}	DTS (W/kg)	NII (W/kg)	DSS (W/kg)
	1.16	1.47	1.47

Note:

- The SAR limit (**Body: SAR_{1g} 1.6 W/kg**) for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.

2. Description of Equipment Under Test

EUT Type	Tablet Computer
FCC ID	2AFZZRP13G
Brand Name	Redmi
Model Name	25099RP13G
Sample 1 SN Code	C6526Q000045
Sample 2 SN Code	C6526Q000675
Sample 3 SN Code	C6526Q000688
HW Version	135700P83
SW Version	Xiaomi HyperOS 2.0
Tx Frequency Bands (Unit: MHz)	WLAN : 2412 ~ 2462, 5180 ~ 5240, 5260 ~ 5320, 5500 ~ 5720, 5745 ~ 5825 Bluetooth : 2402 ~ 2480
Uplink Modulations	802.11b : DSSS 802.11a/g/n/ac : OFDM 802.11ax : OFDMA Bluetooth : GFSK, $\pi/4$ -DQPSK, 8-DPSK
Maximum Tune-up Conducted Power (Unit: dBm)	Please refer to section 4.5.1 of this report.
Antenna Type	WLAN/BT Antenna : PIFA Antenna
EUT Stage	Identical Prototype

Note:

1. The above EUT information is declared by manufacturer and for more detailed features description please refers to the manufacturer's specifications or User's Manual.
2. The difference between sample 1/2/3 is only the memory size and screen supplier, battery supplier, so sample 2/3 verifies the worst case of sample 1.
3. For WLAN, when the p-sensor is detected close to the body state, power reduction will be activated to limit the maximum power. Proximity sensor triggering distances please refer to section 4.1 in this report.

WLAN / BT scenarios:

Ant.	Power State	SAR Test Scenarios	SAR Sensor Status
WLAN Ant7	Default Power	N/A	N/A
WLAN Ant7	DSI 1	Body-Worn	Off
WLAN Ant7	DSI 2	Body-Worn	On
WLAN Ant10	Default Power	N/A	N/A
WLAN Ant10	DSI 1	Body-Worn	Off
WLAN Ant10	DSI 2	Body-Worn	Off
BT Ant7/10	Default Power	N/A	N/A
BT Ant7/10	DSI 1	Body-Worn	Off
BT Ant7/10	DSI 2	Body-Worn	Off

3. SAR Measurement System

3.1 Definition of Specific Absorption Rate (SAR)

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

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

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

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

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

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

3.2 SPEAG DASY System

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

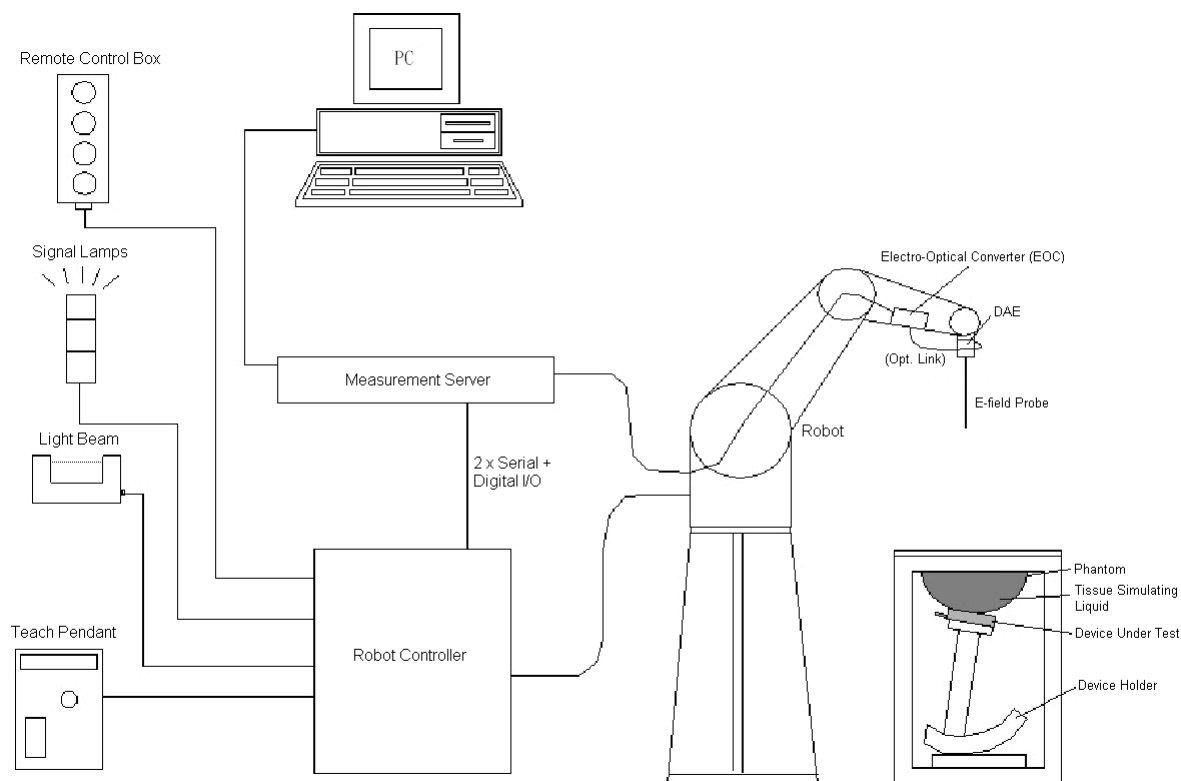


Fig-3.1 DASY System Setup

3.2.1 Robot

The DASY system uses the high precision robots from Stäubli SA (France). For the 6-axis controller system, the robot controller version (DASY8: CS8c) from Stäubli is used. The Stäubli robot series have many features that are important for our application:

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



Fig-3.2 DASY

3.2.2 Probes

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

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

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

3.2.3 Data Acquisition Electronics (DAE)

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

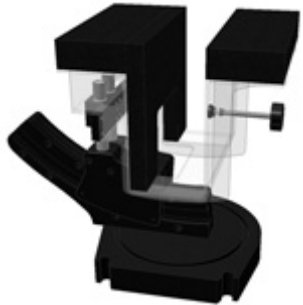
3.2.4 Phantoms

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

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

3.2.5 Device Holder

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

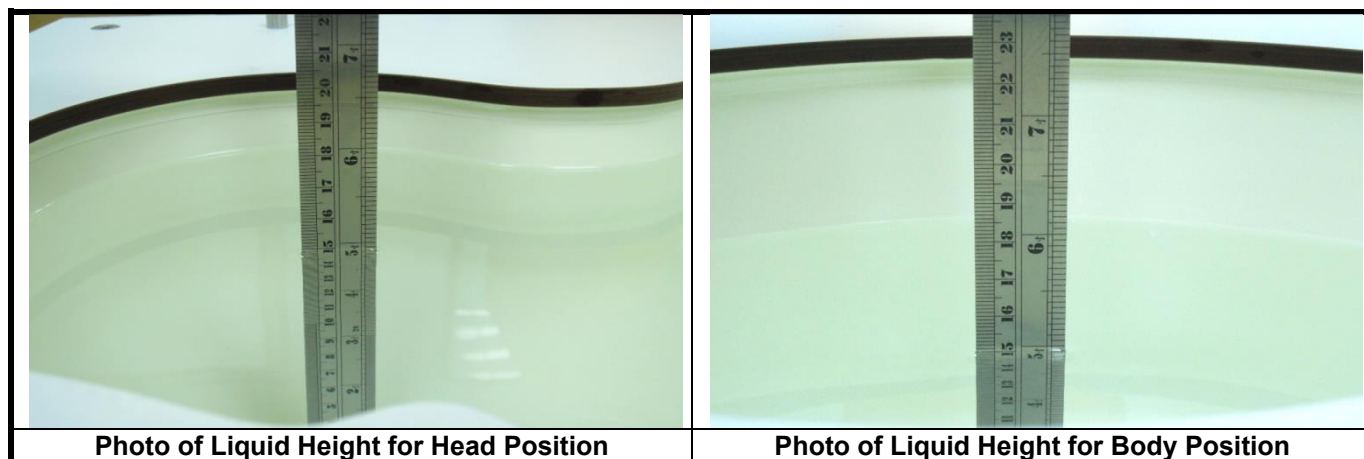
Model	Laptop Extensions Kit	
Construction	Simple but effective and easy-to-use extension for Mounting Device that facilitates the testing of larger devices according to IEC 62209-2 (e.g., laptops, cameras, etc.). It is lightweight and fits easily on the upper part of the Mounting Device in place of the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

3.2.6 System Validation Dipoles

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

3.2.7 Tissue Simulating Liquids

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



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

Table-3.1 Targets of Tissue Simulating Liquid

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

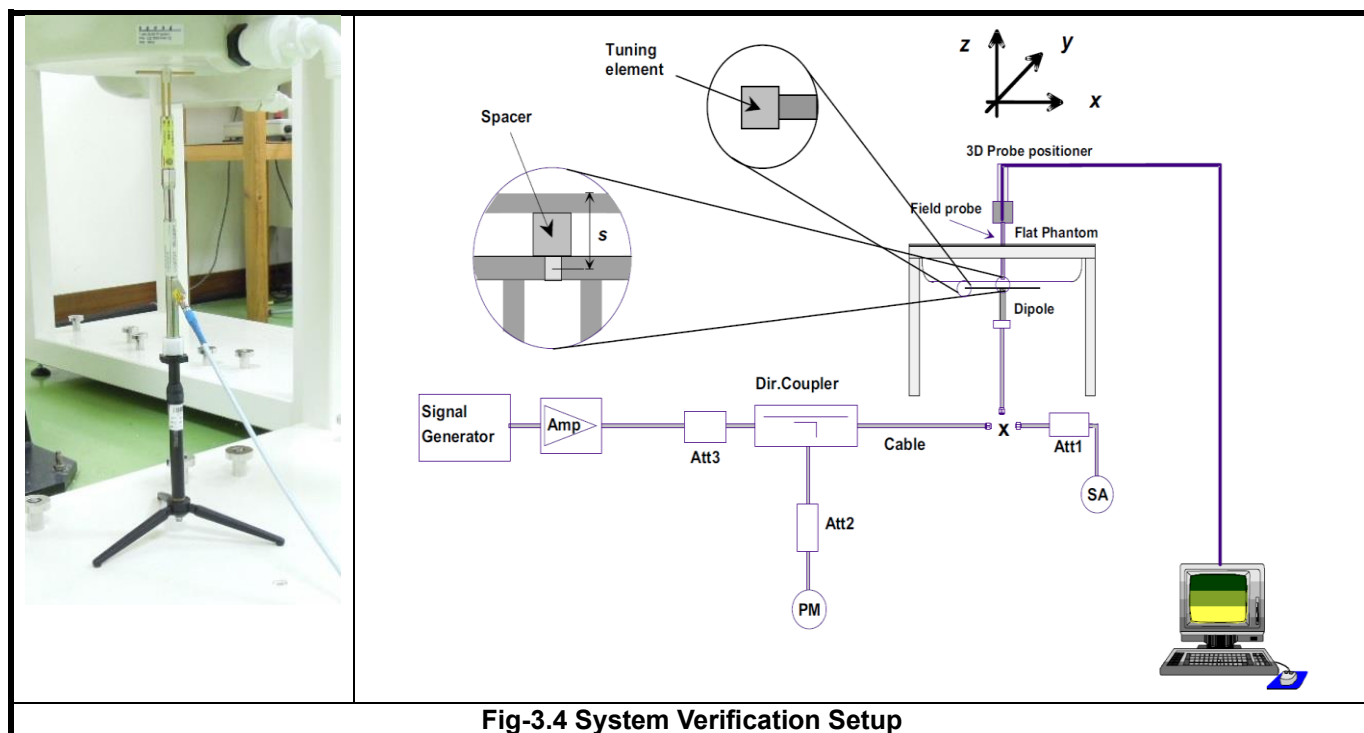
The following table gives the recipes for tissue simulating liquids.

Table-3.2 Recipes of Tissue Simulating Liquid

Tissue Type	Bactericide	DGBE	HEC	NaCl	Sucrose	Triton X-100	Water	Diethylene Glycol Mono-hexylether
H750	0.2	-	0.2	1.5	56.0	-	42.1	-
H835	0.2	-	0.2	1.5	57.0	-	41.1	-
H900	0.2	-	0.2	1.4	58.0	-	40.2	-
H1450	-	43.3	-	0.6	-	-	56.1	-
H1640	-	45.8	-	0.5	-	-	53.7	-
H1750	-	47.0	-	0.4	-	-	52.6	-
H1800	-	44.5	-	0.3	-	-	55.2	-
H1900	-	44.5	-	0.2	-	-	55.3	-
H2000	-	44.5	-	0.1	-	-	55.4	-
H2300	-	44.9	-	0.1	-	-	55.0	-
H2450	-	45.0	-	0.1	-	-	54.9	-
H2600	-	45.1	-	0.1	-	-	54.8	-
H3500	-	8.0	-	0.2	-	20.0	71.8	-
H5G	-	-	-	-	-	17.2	65.5	17.3

3.3 SAR System Verification

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



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

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

3.4 SAR Measurement Procedure

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

- Power reference measurement
- Area scan
- Zoom scan
- Power drift measurement

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

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

3.4.1 Area & Zoom Scan Procedure

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

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

Note:

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

3.4.2 Volume Scan Procedure

The volume scan is used for assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

3.4.3 Power Drift Monitoring

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

3.4.4 Spatial Peak SAR Evaluation

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

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

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

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

3.4.5 SAR Averaged Methods

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

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

4. SAR Measurement Evaluation

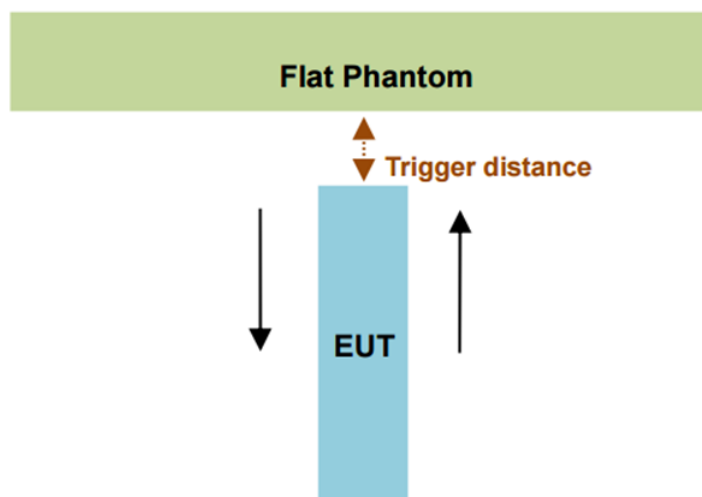
4.1 EUT Configuration and Setting

< Proximity Sensor Triggering Distances >

The proximity sensor triggering distance was determined per KDB 616217 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed.

In the preliminary triggering distance testing, the tissue-equivalent medium for different frequency bands were used for verification; no other frequency bands tissue-equivalent medium was found to result in shortest triggering than that for 5700MHz, and the tissue-equivalent medium for 5700MHz was used for formal proximity sensor triggering testing.

Summary for power verification per distance was tabulated in the below table.



Summary for trigger distance per position was tabulated in the below table.

Ant 7

Ant 7(moving toward / away phantom)											
Position / Distance (mm)	10	11	12	13	14	15	16	17	18	19	20~50
Rear Face	on	on	on	on	on	on	on	off	off	off	off

Summary for Proximity Sensor Triggering Distance

The detailed trigger distance is as follows:

Antenna / Test position	Front Face	Rear Face	Left Side	Right Side	Top Side	Bottom Side
Ant 7	-	16mm	-	-	-	-

Note: The power reduction is depends on the proximity sensor input. For a steady SAR test, the power reduction was enabled or disabled manually by engineering software during SAR testing.

<Considerations Related to WLAN for Setup and Testing>

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

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

Initial Test Configuration

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

Subsequent Test Configuration

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

SAR Test Configuration and Channel Selection

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

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

mid-band channels, the higher frequency (number) channel is selected for SAR measurement.

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

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

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

<Considerations Related to Bluetooth for Setup and Testing>

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

<BT Duty Cycle of Test Signal>

WLAN2.4G_802.11b: Duty cycle = $662 / 674 = 0.9822$



4.2 EUT Testing Position

4.2.1 Body Exposure Conditions

For full-size tablet, according to KDB 616217 D04, SAR evaluation is required for back surface and edges of the devices. The back surface and edges of the tablet are tested with the tablet touching the phantom. Exposures from antennas through the front surface of the display section of a tablet are generally limited to the user's hands. Exposures to hands for typical consumer transmitters used in tablets are not expected to exceed the extremity SAR limit; therefore, SAR evaluation for the front surface of tablet display screens are generally not necessary. When voice mode is supported on a tablet and it is limited to speaker mode or headset operations only, additional SAR testing for this type of voice use is not required.

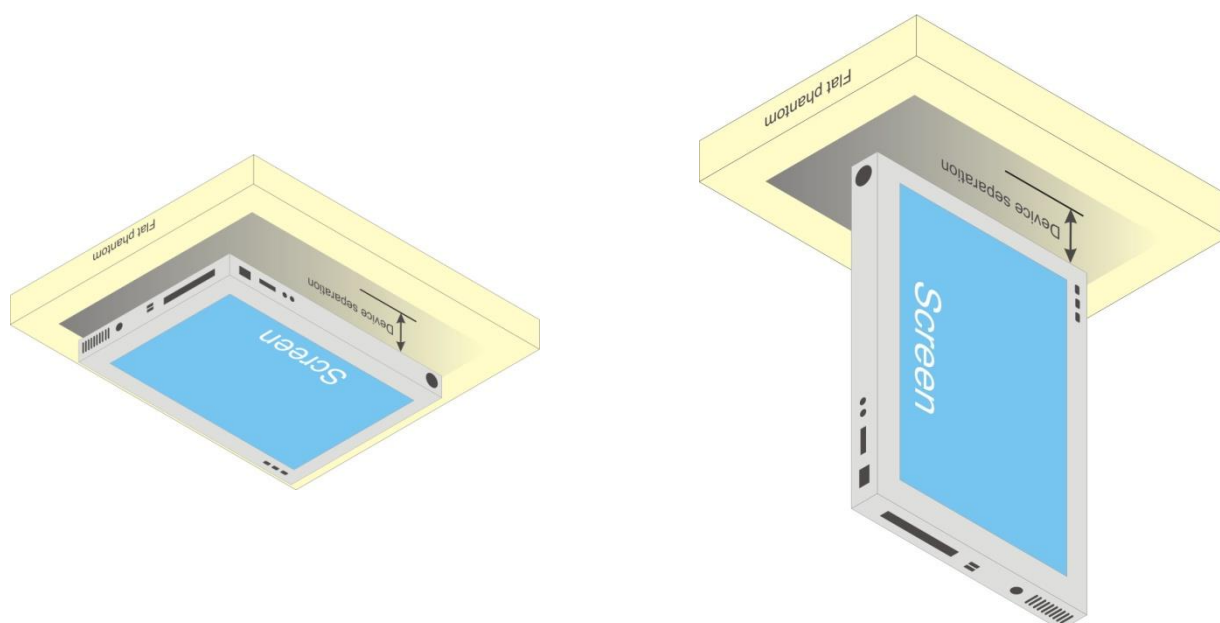


Fig-4.1 Illustration for Tablet Setup

4.2.2 SAR Test Exclusion Evaluations

According to KDB 447498 D01, the SAR test exclusion condition is based on source-based time-averaged maximum conducted output power, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The SAR exclusion threshold is determined by the following formula.

1. For the test separation distance ≤ 50 mm

$$\frac{\text{Max. Tune up Power}_{(mW)}}{\text{Min. Test Separation Distance}_{(mm)}} \times \sqrt{f_{(GHz)}} \leq 3.0 \text{ for SAR-1g, } \leq 7.5 \text{ for SAR-10g}$$

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

2. For the test separation distance > 50 mm, and the frequency at 100 MHz to 1500 MHz

$$\left[(\text{Threshold at 50 mm in Step 1}) + (\text{Test Separation Distance} - 50 \text{ mm}) \times \left(\frac{f_{(MHz)}}{150} \right) \right]_{(mW)}$$

3. For the test separation distance > 50 mm, and the frequency at > 1500 MHz to 6 GHz

$$[(\text{Threshold at 50 mm in Step 1}) + (\text{Test Separation Distance} - 50 \text{ mm}) \times 10]_{(mW)}$$

Exposure Position	Wireless Interface	2.4GHz WLAN ANT 7	2.4GHz WLAN ANT 10	5GHz WLAN ANT 7	5GHz WLAN ANT 10	BT ANT 7	BT ANT 10
	Calculated Frequency	2462MHz	2462MHz	5240MHz	5200MHz	2441MHz	2480MHz
	Maximum power (dBm)	20.50	20.5	18	18	10.5	10.5
	Maximum rated power(mW)	112.0	112.0	63.0	63.0	11.0	11.0
Rear Face	Separation distance(mm)	0.0	0.0	0.0	0.0	0.0	0.0
	exclusion threshold	20.6	30.9	11.6	11.6	3.5	3.6
	Testing required?	Yes	Yes	Yes	Yes	Yes	Yes
Top Side	Separation distance(mm)	30.6	226.6	30.6	226.6	30.6	226.6
	exclusion threshold	3.4	1875.0	1.9	1161.0	0.6	1859.0
	Testing required?	Yes	No	No	No	No	No
Right Side	Separation distance(mm)	12.3	0.0	12.3	0.0	12.3	0.0
	exclusion threshold	8.4	30.9	4.7	11.6	1.4	3.6
	Testing required?	Yes	Yes	Yes	Yes	No	Yes
Bottom Side	Separation distance(mm)	231.5	7.1	231.5	7.1	231.5	7.1
	exclusion threshold	1187.0	21.8	1189.0	8.2	1908.0	2.5
	Testing required?	No	Yes	No	Yes	No	No
Left Side	Separation distance(mm)	151.7	158.2	151.7	158.2	151.7	158.2
	exclusion threshold	737.0	1191.0	738.0	775.0	1111.0	1175.0
	Testing required?	No	No	No	No	No	No

Note:

- When separation distance ≤ 50 mm and the calculated result shown in above table is ≤ 3.0 for SAR-1g exposure condition, or ≤ 7.5 for SAR-10g exposure condition, the SAR testing exclusion is applied.
- When separation distance > 50 mm and the device output power is less than the calculated result (power threshold, mW) shown in above table, the SAR testing exclusion is applied.

4.2.3 Simultaneous Transmission Possibilities

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

Simultaneous TX Combination	Capable Transmit Configurations	Body Exposure Condition
1	WLAN2.4G An7 + WLAN2.4G An10	Yes
2	WLAN5G Ant7 + WLAN5G Ant10	Yes
3	WLAN5G Ant10 + BT Ant7	Yes

4.3 Tissue Verification

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

Tissue Type	Frequency (MHz)	Liquid Temp. (°C)	Measured Conductivity (σ)	Measured Permittivity (ϵ_r)	Target Conductivity (σ)	Target Permittivity (ϵ_r)	Conductivity Deviation (%)	Permittivity Deviation (%)	Test Date
Head	2450	22.5	1.780	39.00	1.80	39.20	-1.11	-0.51	Jul. 23, 2025
Head	2450	22.5	1.820	40.70	1.80	39.20	1.11	3.83	Jul. 28, 2025
Head	5250	22.7	4.490	34.90	4.71	35.90	-4.67	-2.79	Jul. 24, 2025
Head	5250	22.7	4.510	34.80	4.71	35.90	-4.25	-3.06	Jul. 25, 2025
Head	5600	22.5	4.890	34.50	5.07	35.50	-3.55	-2.82	Jul. 26, 2025
Head	5750	22.6	5.140	33.90	5.22	35.40	-1.53	-4.24	Jul. 27, 2025

Note:

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

4.4 System Verification

The measuring result for system verification is tabulated as below.

Test Date	Mode	Frequency (MHz)	Input Power (mW)	1W Target SAR-1g (W/kg)	Measured SAR-1g (W/kg)	Normalized to 1W SAR-1g (W/kg)	Deviation (%)	Dipole S/N	Probe S/N	DAE S/N
Jul. 23, 2025	Head	2450	100	53.30	5.14	51.40	-3.56	1048	7612	1633
Jul. 28, 2025	Head	2450	100	53.30	5.17	51.70	-3.00	1048	7612	1633
Jul. 24, 2025	Head	5250	100	77.30	7.76	77.60	0.39	1315	7612	1633
Jul. 25, 2025	Head	5250	100	77.30	7.72	77.20	-0.13	1315	7612	1633
Jul. 26, 2025	Head	5600	100	81.70	8.2	82.00	0.37	1315	7612	1633
Jul. 27, 2025	Head	5750	100	77.10	7.47	74.70	-3.11	1315	7612	1633

Note:

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

4.5 Maximum Output Power

4.5.1 Maximum Conducted Power

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

4.5.2 Measured Conducted Power Result

The measured conducted power result (Unit: dBm) please refer to Appendix D.

4.6 SAR Testing Results

4.6.1 SAR Test Reduction Considerations

<KDB 447498 D01, General RF Exposure Guidance>

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

- (1) ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
- (2) ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- (3) ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

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

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

4.6.2 SAR Results for Body Exposure Condition (Separation Distance is 0 cm Gap)

Plot No.	Band	Mode	Test Position	Separation Distance (cm)	Ch.	Ant.	Power State	Sample	Duty Cycle %	Max. Tune-up Power (dBm)	Measured Conducted Power (dBm)	Power Drift	Measured SAR-1g (W/kg)	Duty Cycle Scaling Factor	Tune-up Scaling Factor	Scaled SAR-1g (W/kg)
P01	WLAN2.4G	802.11b	Rear Face	0cm	11	Ant7	DSI 2	1	98.22	10.50	8.69	0.00	0.676	1.018	1.517	1.04
	WLAN2.4G	802.11b	Right Side	0cm	11	Ant7	DSI 1	1	98.22	20.50	18.63	-0.05	0.244	1.018	1.538	0.38
	WLAN2.4G	802.11b	Top Side	0cm	11	Ant7	DSI 1	1	98.22	20.50	18.63	0.11	0.118	1.018	1.538	0.19
	WLAN2.4G	802.11b	Rear Face	0cm	1	Ant7	DSI 2	1	98.22	10.50	8.61	0.00	0.616	1.018	1.545	0.97
	WLAN2.4G	802.11b	Rear Face	0cm	6	Ant7	DSI 2	1	98.22	10.50	8.65	-0.03	0.670	1.000	1.531	1.03
	WLAN2.4G	802.11b	Rear Face	1.5cm	11	Ant7	DSI 1	1	98.22	20.50	18.63	-0.06	0.374	1.018	1.538	0.59
	WLAN2.4G	802.11b	Rear Face	0cm	11	Ant10	DSI 1/2	1	98.22	20.50	18.69	0.06	0.076	1.018	1.517	0.12
	WLAN2.4G	802.11b	Right Side	0cm	11	Ant10	DSI 1/2	1	98.22	20.50	18.69	0.05	0.205	1.018	1.517	0.32
	WLAN2.4G	802.11b	Bottom Side	0cm	11	Ant10	DSI 1/2	1	98.22	20.50	18.69	0.09	0.192	1.018	1.517	0.30
	WLAN5.2G	802.11a	Rear Face	0cm	48	Ant7	DSI 2	1	99.05	10.50	8.83	0.02	0.666	1.010	1.469	0.99
P02	WLAN5.2G	802.11a	Right Side	0cm	48	Ant7	DSI 1	1	99.05	18.00	16.37	0.13	0.226	1.010	1.455	0.33
	WLAN5.2G	802.11a	Rear Face	0cm	40	Ant7	DSI 2	1	99.05	10.50	8.81	0.01	0.723	1.010	1.476	1.08
	WLAN5.2G	802.11a	Rear Face	1.5cm	48	Ant7	DSI 1	1	99.05	18.00	16.37	0.04	0.723	1.010	1.455	1.06
	WLAN5.2G	802.11a	Rear Face	1.5cm	40	Ant7	DSI 1	1	99.05	18.00	16.11	0.01	0.678	1.010	1.545	1.06
	WLAN5.2G	802.11a	Rear Face	0cm	40	Ant10	DSI 1/2	1	99.05	17.00	15.87	-0.04	0.134	1.010	1.297	0.18
	WLAN5.2G	802.11a	Right Side	0cm	40	Ant10	DSI 1/2	1	99.05	17.00	15.87	-0.01	0.665	1.010	1.297	0.87
	WLAN5.2G	802.11a	Bottom Side	0cm	40	Ant10	DSI 1/2	1	99.05	17.00	15.87	0.08	0.105	1.010	1.297	0.14
	WLAN5.2G	802.11a	Right Side	0cm	36	Ant10	DSI 1/2	1	99.05	17.00	15.85	-0.02	0.681	1.010	1.303	0.90
	WLAN5.3G	802.11a	Rear Face	0cm	60	Ant7	DSI 2	1	99.05	11.00	9.58	0.02	0.656	1.010	1.387	0.92
	WLAN5.3G	802.11a	Right Side	0cm	60	Ant7	DSI 1	1	99.05	18.00	16.32	0.06	0.254	1.010	1.472	0.38
P03	WLAN5.3G	802.11a	Rear Face	0cm	56	Ant7	DSI 2	1	99.05	11.00	9.54	-0.01	0.700	1.010	1.400	0.99
	WLAN5.3G	802.11a	Rear Face	1.5cm	60	Ant7	DSI 1	1	99.05	18.00	16.32	0.03	0.706	1.010	1.472	1.05
	WLAN5.3G	802.11a	Rear Face	1.5cm	56	Ant7	DSI 1	1	99.05	18.00	16.26	0.01	0.714	1.010	1.493	1.08
	WLAN5.3G	802.11a	Rear Face	0cm	64	Ant10	DSI 1/2	1	99.05	17.00	15.86	-0.11	0.145	1.010	1.300	0.19
	WLAN5.3G	802.11a	Right Side	0cm	64	Ant10	DSI 1/2	1	99.05	17.00	15.86	0.03	0.705	1.010	1.300	0.93
	WLAN5.3G	802.11a	Bottom Side	0cm	64	Ant10	DSI 1/2	1	99.05	17.00	15.86	0.05	0.141	1.010	1.300	0.19
	WLAN5.3G	802.11a	Right Side	0cm	56	Ant10	DSI 1/2	1	99.05	17.00	15.82	0.01	0.642	1.010	1.312	0.85
	WLAN5.5G	802.11a	Rear Face	0cm	140	Ant7	DSI 2	1	99.05	8.00	6.46	0.04	0.738	1.010	1.426	1.06
	WLAN5.5G	802.11a	Right Side	0cm	140	Ant7	DSI 1	1	99.05	17.00	15.42	0.07	0.185	1.010	1.439	0.27
	WLAN5.5G	802.11a	Rear Face	0cm	124	Ant7	DSI 2	1	99.05	8.00	6.38	-0.01	0.489	1.010	1.452	0.72
P04	WLAN5.5G	802.11a	Rear Face	1.5cm	140	Ant7	DSI 1	1	99.05	17.00	15.42	-0.01	0.642	1.010	1.439	0.93
	WLAN5.5G	802.11a	Rear Face	1.5cm	124	Ant7	DSI 1	1	99.05	17.00	15.39	-0.02	0.416	1.010	1.449	0.61
	WLAN5.5G	802.11a	Rear Face	0cm	116	Ant10	DSI 1/2	1	99.05	17.00	15.83	0.12	0.118	1.010	1.309	0.16
	WLAN5.5G	802.11a	Right Side	0cm	116	Ant10	DSI 1/2	1	99.05	17.00	15.83	0.00	0.778	1.010	1.309	1.03
	WLAN5.5G	802.11a	Bottom Side	0cm	116	Ant10	DSI 1/2	1	99.05	17.00	15.83	-0.05	0.152	1.010	1.309	0.20
	WLAN5.5G	802.11a	Right Side	0cm	100	Ant10	DSI 1/2	1	99.05	17.00	15.65	0.07	0.714	1.010	1.365	0.98
	WLAN5.8G	802.11a	Rear Face	0cm	165	Ant7	DSI 2	1	99.05	8.00	6.19	-0.04	0.556	1.010	1.517	0.85
	WLAN5.8G	802.11a	Right Side	0cm	165	Ant7	DSI 1	1	99.05	18.00	16.45	0.11	0.307	1.010	1.429	0.44
	WLAN5.8G	802.11a	Rear Face	0cm	157	Ant7	DSI 2	1	99.05	8.00	6.15	-0.03	0.632	1.010	1.531	0.98
	WLAN5.8G	802.11a	Rear Face	1.5cm	165	Ant7	DSI 1	1	99.05	18.00	16.45	0.00	0.747	1.010	1.429	1.08
P05	WLAN5.8G	802.11a	Rear Face	1.5cm	157	Ant7	DSI 1	1	99.05	18.00	16.42	0.17	0.745	1.010	1.439	1.08
	WLAN5.8G	802.11a	Rear Face	1.5cm	157	Ant7	DSI 1	2	99.05	18.00	16.42	-0.01	0.710	1.010	1.439	1.03
	WLAN5.8G	802.11a	Rear Face	1.5cm	157	Ant7	DSI 1	3	99.05	18.00	16.42	0.01	0.733	1.010	1.439	1.07
	WLAN5.8G	802.11a	Rear Face	0cm	165	Ant10	DSI 1/2	1	99.05	17.00	15.35	-0.01	0.086	1.010	1.462	0.13
	WLAN5.8G	802.11a	Right Side	0cm	165	Ant10	DSI 1/2	1	99.05	17.00	15.35	0.06	0.646	1.010	1.462	0.95
	WLAN5.8G	802.11a	Bottom Side	0cm	165	Ant10	DSI 1/2	1	99.05	17.00	15.35	0.02	0.144	1.010	1.462	0.21
	WLAN5.8G	802.11a	Right Side	0cm	157	Ant10	DSI 1/2	1	99.05	17.00	15.28	0.09	0.541	1.010	1.486	0.81
	BT	GFSK	Rear Face	0cm	39	Ant7	DSI 1/2	1	77.07	10.50	9.23	0.03	0.717	1.081	1.340	1.04
	BT	GFSK	Rear Face	0cm	0	Ant7	DSI 1/2	1	77.07	10.50	9.12	0.00	0.676	1.081	1.374	1.00
	BT	GFSK	Rear Face	0cm	78	Ant7	DSI 1/2	1	77.07	10.50	9.21	0.00	0.743	1.081	1.346	1.08
P06	BT	GFSK	Rear Face	0cm	78	Ant10	DSI 1/2	1	77.07	10.50	9.13	0.00	0.000	1.081	1.371	0.00
	BT	GFSK	Right Side	0cm	78	Ant10	DSI 1/2	1	77.07	10.50	9.13	0.02	0.040	1.081	1.371	0.06

4.6.3 SAR Measurement Variability

According to KDB 865664 D01, SAR measurement variability was assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. Alternatively, if the highest measured SAR for both head and body tissue-equivalent media are ≤ 1.45 W/kg and the ratio of these highest SAR values, i.e., largest divided by smallest value, is ≤ 1.10 , the highest SAR configuration for either head or body tissue-equivalent medium may be used to perform the repeated measurement. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR repeated measurement procedure:

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

Band	Test Position	Separation Distance (cm)	Ch.	Original Measured SAR-1g (W/kg)	1st Repeated SAR-1g (W/kg)	L/S Ratio	2nd Repeated SAR-1g (W/kg)	L/S Ratio	3rd Repeated SAR-1g (W/kg)	L/S Ratio
BT	Rear Face	0cm	78	0.743	0.728	1.021	N/A	N/A	N/A	N/A
WLAN5.2G	Rear Face	0cm	40	0.723	0.706	1.024	N/A	N/A	N/A	N/A
WLAN5.3G	Rear Face	1.5cm	56	0.714	0.703	1.016	N/A	N/A	N/A	N/A
WLAN5.5G	Rear Face	0cm	140	0.738	0.722	1.022	N/A	N/A	N/A	N/A
WLAN5.8G	Rear Face	1.5cm	157	0.745	0.734	1.015	N/A	N/A	N/A	N/A

4.6.4 Simultaneous Multi-band Transmission Evaluation

<SAR Summation Analysis>

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

Exposure Position	1	2	3	4	5	1+2 Summed 1g SAR (W/kg)	3+4 Summed 1g SAR (W/kg)	4+5 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant7 1g SAR (W/kg)	2.4GHz WLAN Ant10 1g SAR (W/kg)	5GHz WLAN Ant7 1g SAR (W/kg)	5GHz WLAN Ant10 1g SAR (W/kg)	Bluetooth Ant10 1g SAR (W/kg)			
Rear Face at 0cm	1.044	0.117	1.078	0.190		1.16	1.27	1.27
Left Side at 0cm						0.00	0.00	0.00
Right Side at 0cm	0.382	0.317	0.443	1.029	0.059	0.70	1.47	1.03
Top Side at 0cm	0.185					0.19	0.00	0.00
Bottom Side at 0cm		0.297		0.213		0.30	0.21	0.21

Note:

- The SAR summation of maximum SAR of BT and WLAN for each position is under the SAR limitation (**Body: SAR_{1g} 1.6 W/kg**). Therefore, the simultaneous transmission condition is compliance with the SAR criterion.

Test Engineer : Zhiwei Zhang, and Zilong Zhang



5. Calibration of Test Equipment

Equipment	Manufacturer	Model	SN	Cal. Date	Next Cal. Date
System Validation Dipole	SPEAG	D2450V2	1048	Nov. 06, 2024	Nov. 05, 2025
System Validation Dipole	SPEAG	D5GHzV2	1315	Nov. 05, 2024	Nov. 04, 2025
Data Acquisition Electronics	SPEAG	DAE4	1633	Apr. 24, 2025	Apr. 23, 2026
Dosimetric E-Field Probe	SPEAG	EX3DV4	7612	May. 07, 2025	May. 06, 2026
Magnetic Field Probe	SPEAG	DAK-3.5	1119	Feb. 24, 2025	Feb. 23, 2026
ENA Series Network Analyzer	SPEAG	DAKS_VNA R140	121219	Feb. 24, 2025	Feb. 23, 2026
ESG Analog Signal Generator	Rohde&Schwarz	SMB100B	102507	Mar. 28, 2024	Mar. 26, 2026
Power Meter	Rohde&Schwarz	NRX	1069082	Feb. 13, 2025	Feb. 12, 2026
Power Sensor	Rohde&Schwarz	NRP6A	101905	Feb. 13, 2025	Feb. 12, 2026
Power Sensor	Rohde&Schwarz	NRP6A	101904	Feb. 13, 2025	Feb. 12, 2026
Coupler	Woken	0110A056020-10	COM27RW1A3	May. 09, 2024	May. 07, 2026
Temp.Recorder	SPEAG	DTM3000	3798	Jul. 01, 2024	Jun. 30, 2026
Temp.&Humi.Recorder	Deli	/	SZ-RF-002	Apr. 02, 2024	Mar. 31, 2026

6. Measurement Uncertainty

DASY Uncertainty Budget (30 MHz - 6 GHz range)								
Error Description	Uncertainty Value (±%)	Probability	Divisor	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)	(Vi) Veff
Measurement System								
Probe Calibration	6.65	N	1	1	1	6.7	6.7	∞
Axial Isotropy	4.7	R	1.732	0.7	0.7	1.9	1.9	∞
Hemispherical Isotropy	9.6	R	1.732	0.7	0.7	3.9	3.9	∞
Boundary Effects	2.0	R	1.732	1	1	1.2	1.2	∞
Linearity	4.7	R	1.732	1	1	2.7	2.7	∞
System Detection Limits	1.0	R	1.732	1	1	0.6	0.6	∞
Modulation Response	3.2	R	1.732	1	1	1.8	1.8	∞
Readout Electronics	0.3	N	1	1	1	0.3	0.3	∞
Response Time	0.0	R	1.732	1	1	0.0	0.0	∞
Integration Time	2.6	R	1.732	1	1	1.5	1.5	∞
RF Ambient Noise	3.0	R	1.732	1	1	1.7	1.7	∞
RF Ambient Reflections	3.0	R	1.732	1	1	1.7	1.7	∞
Probe Positioner	0.4	R	1.732	1	1	0.2	0.2	∞
Probe Positioning	6.7	R	1.732	1	1	3.9	3.9	∞
Max. SAR Eval.	4.0	R	1.732	1	1	2.3	2.3	∞
Test Sample Related								
Device Positioning	4.3	N	1	1	1	4.3	4.3	35
Device Holder	4.9	N	1	1	1	4.9	4.9	12
Power Drift	5.0	R	1.732	1	1	2.9	2.9	∞
Power Scaling	0.0	R	1.732	1	1	0.0	0.0	∞
Phantom and Setup								
Phantom Uncertainty	6.6	R	1.732	1	1	3.8	3.8	∞
SAR correction	0.0	R	1.732	1	0.84	0.0	0.0	∞
Liquid Conductivity Repeatability	0.16	N	1	0.78	0.71	0.1	0.1	5
Liquid Conductivity (target)	10.0	R	1.732	0.78	0.71	4.5	4.1	∞
Liquid Conductivity (mea.)	2.5	R	1.732	0.78	0.71	1.1	1.0	∞
Temp. unc. - Conductivity	3.64	R	1.732	0.78	0.71	1.6	1.5	∞
Liquid Permittivity Repeatability	0.08	N	1	0.23	0.26	0.0	0.0	5
Liquid Permittivity (target)	10.0	R	1.732	0.23	0.26	1.3	1.5	∞
Liquid Permittivity (mea.)	2.5	R	1.732	0.23	0.26	0.3	0.4	∞
Temp. unc. - Permittivity	1.78	R	1.732	0.23	0.26	0.2	0.3	∞
Combined Std. Uncertainty						14.0%	13.9%	624
Coverage Factor for 95 %						K=2	K=2	
Expanded STD Uncertainty						28.0%	27.7%	

Uncertainty budget for frequency range 30 MHz to 6 GHz

7. Information on the Testing Laboratories

We, Huarui 7layers High Technology (Suzhou) Co., Ltd., were founded in 2020 to provide our best service in EMC, Radio, Telecom and Safety consultation.

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

Add: Tower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province

[Tel: +86 \(0557\) 368 1008](tel:+86(0557)3681008)

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

[Web: http://www.7Layers.com](http://www.7Layers.com)

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BUREAU
VERITAS

FCC SAR Test Report



Certificate #6613.01

Appendix A. SAR Plots of System Verification

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

System Check_HSL2450_0723

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Dipole 2450 MHz D2450V2,	10.0 x 10.0 x 290.0		Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	FRONT, 10.00	D2450	CW, -	2450.000, 50	8.1	1.78	39.0

Hardware Setup

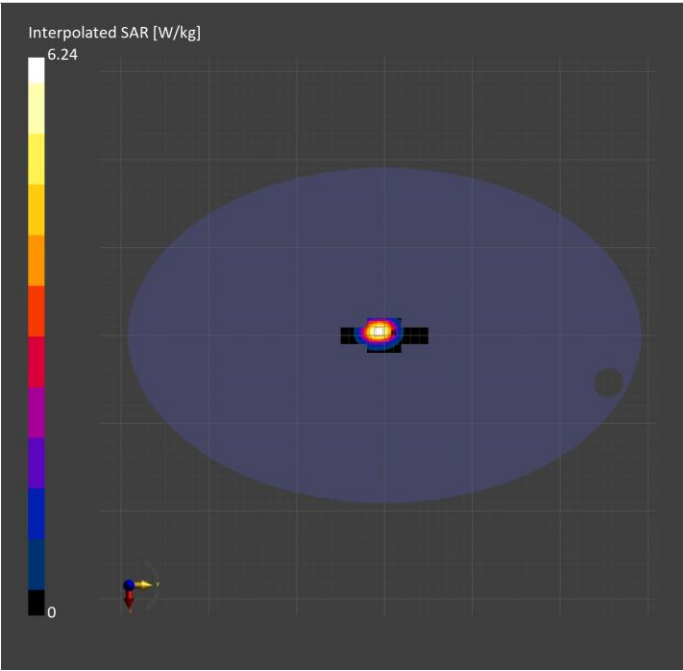
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2199	HSL2450-2025-07-23	EX3DV4 - SN7612, 2025-05-07	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 100.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-23	2025-07-23
psSAR1g [W/kg]	4.92	5.14
psSAR10g [W/kg]	2.41	2.38
Power Drift [dB]	-0.15	-0.10
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		76.2
Dist 3dB Peak [mm]		9.1



System Check_HSL2450_0728

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Dipole 2450 MHz D2450V2,	10.0 x 10.0 x 290.0		Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	FRONT, 10.00	D2450	CW, -	2450.000, 50	8.1	1.82	40.7

Hardware Setup

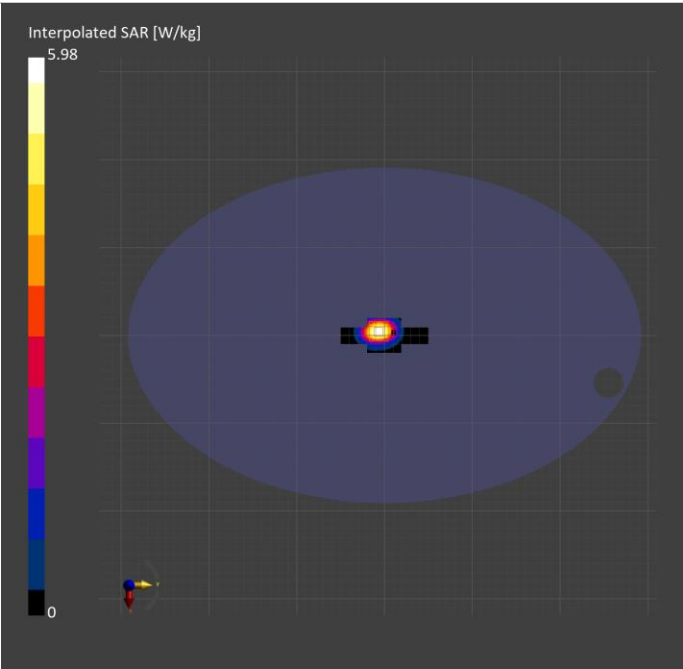
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2199	HSL2450-2025-07-28	EX3DV4 - SN7802, 2023-03-28	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 100.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-28	2025-07-28
psSAR1g [W/kg]	5.11	5.17
psSAR10g [W/kg]	2.39	2.42
Power Drift [dB]	-0.15	-0.09
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		79.7
Dist 3dB Peak [mm]		9.1



System Check_HSL5250_0724

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Dipole D5GHzV2,	10.0 x 10.0 x 300.0		Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	FRONT, 10.00	D5GHz	CW, -	5250.000, 25	5.71	4.49	34.9

Hardware Setup

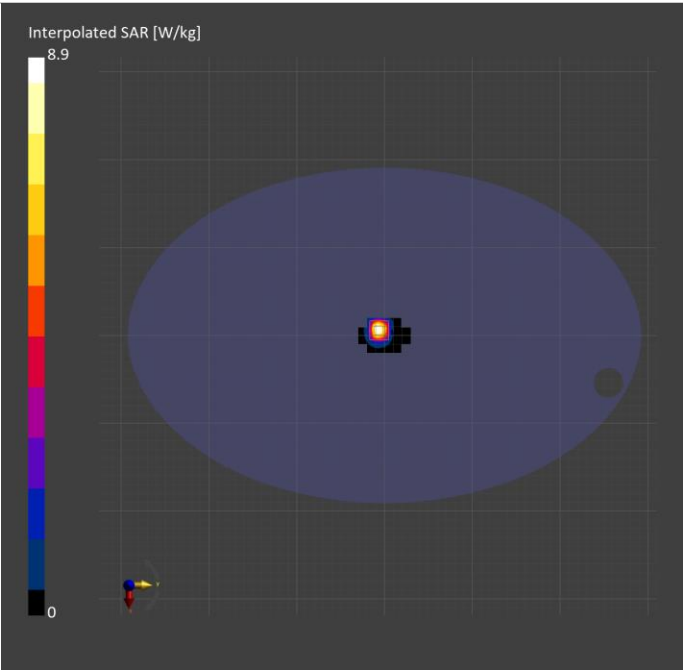
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2199	HSL5G-2025-07-24	EX3DV4 - SN7612, 2025-05-07	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 60.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-24	2025-07-24
psSAR1g [W/kg]	6.29	7.76
psSAR10g [W/kg]	2.08	2.24
Power Drift [dB]	-0.09	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		64.3
Dist 3dB Peak [mm]		7.4



System Check_HSL5250_0725

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Dipole D5GHzV2,	10.0 x 10.0 x 300.0		Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	FRONT, 10.00	D5GHz	CW, -	5250.000, 25	5.71	4.51	34.8

Hardware Setup

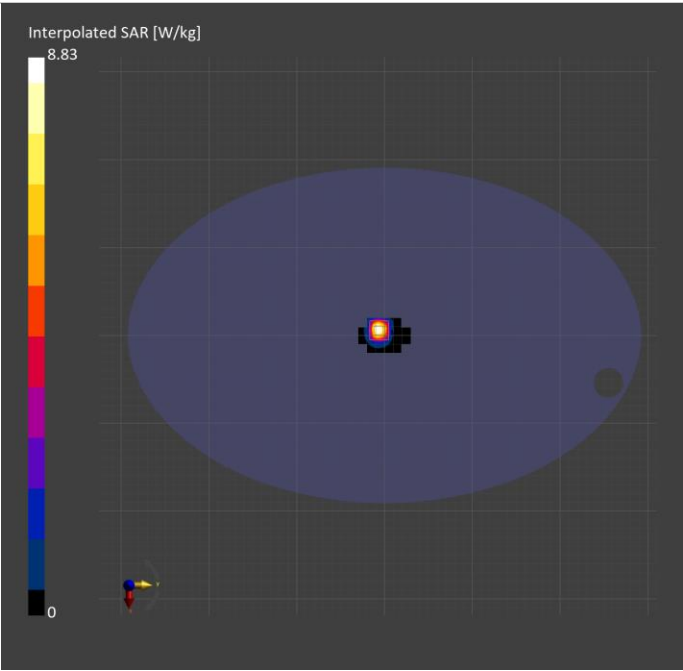
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2199	HSL5G-2025-07-25	EX3DV4 - SN7612, 2025-05-07	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 60.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-25	2025-07-25
psSAR1g [W/kg]	6.23	7.72
psSAR10g [W/kg]	2.06	2.23
Power Drift [dB]	-0.10	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		64.2
Dist 3dB Peak [mm]		7.4



System Check_HSL5600_0726

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Dipole D5GHzV2,	10.0 x 10.0 x 300.0		Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	FRONT, 10.00	D5GHz	CW, -	5600.000, 60	5.2	4.89	34.5

Hardware Setup

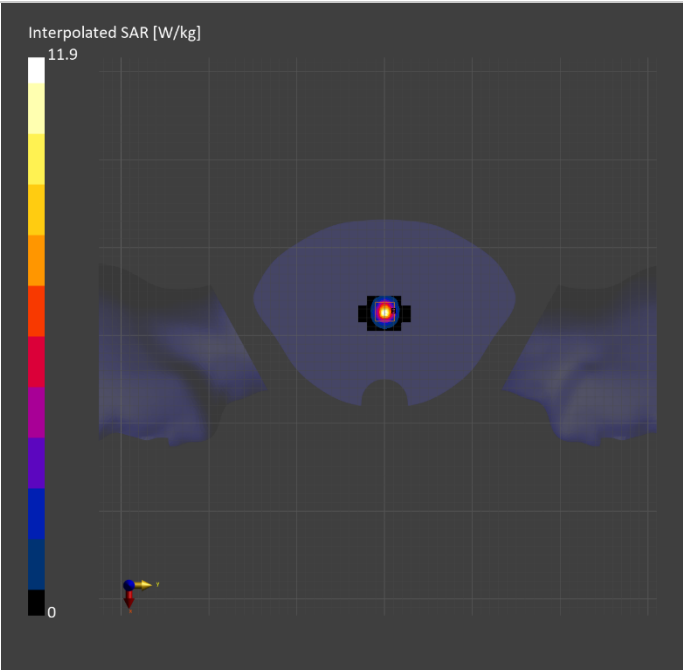
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2161	HSL5G-2025-07-26	EX3DV4 - SN7612, 2025-05-07	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 60.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-26	2025-07-26
psSAR1g [W/kg]	7.55	8.20
psSAR10g [W/kg]	2.20	2.33
Power Drift [dB]	-0.08	-0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		65.3
Dist 3dB Peak [mm]		7.6



System Check_HSL5750_0727

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Dipole D5GHzV2,	10.0 x 10.0 x 300.0		Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	FRONT, 10.00	D5GHz	CW, -	5750.000, 60	5.21	4.89	34.5

Hardware Setup

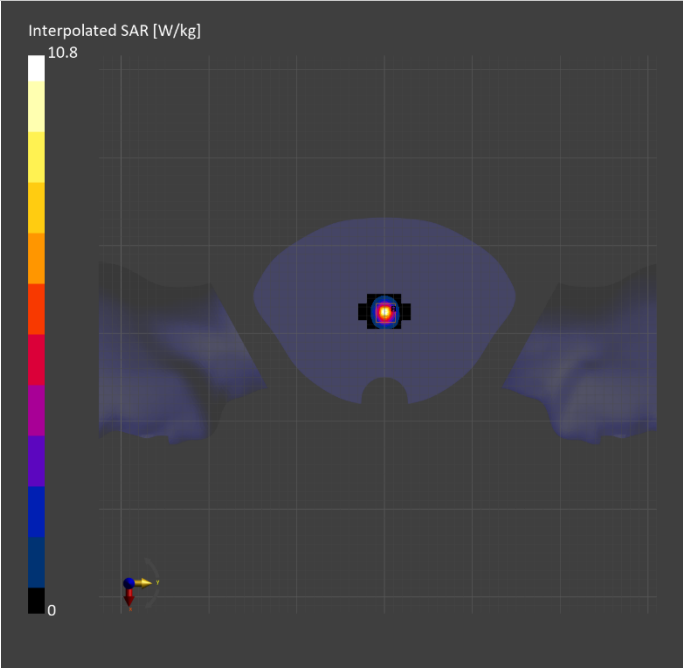
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
Twin-SAM V8.0 (30deg probe tilt) - 2161	HSL5G-2025-07-27	EX3DV4 - SN7612, 2025-05-07	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	40.0 x 60.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-27	2025-07-27
psSAR1g [W/kg]	6.82	7.47
psSAR10g [W/kg]	1.99	2.15
Power Drift [dB]	0.04	0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		60.5
Dist 3dB Peak [mm]		7.9



Appendix B. SAR Plots of SAR Measurement

The SAR plots for highest measured SAR in each exposure configuration, wireless mode and frequency band combination, and measured SAR > 1.5 W/kg are shown as follows.

P01 WLAN2.4G_802.11b_Rear Face_0cm_CH11

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	278.0 x 179.0 x 8.0		Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	BACK, 0.00	WLAN 2.4GHz	WLAN, -	2462.000, 11	8.1	1.79	39.0

Hardware Setup

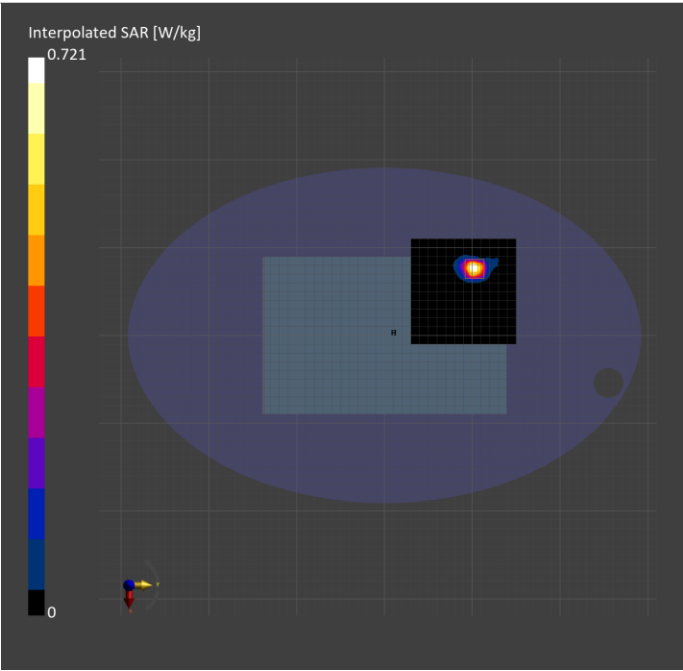
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2199	HSL2450-2025-07-23	EX3DV4 - SN7612, 2025-05-07	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-23	2025-07-23
psSAR1g [W/kg]	0.548	0.676
psSAR10g [W/kg]	0.222	0.215
Power Drift [dB]	0.03	-0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		73.1
Dist 3dB Peak [mm]		5.1



P02 WLAN5G_802.11a_Rear Face_0cm_CH40

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	278.0 x 179.0 x 8.0		Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	BACK, 0.00	WLAN 5GHz	WLAN, -	5200.000, 40	5.71	4.46	35.0

Hardware Setup

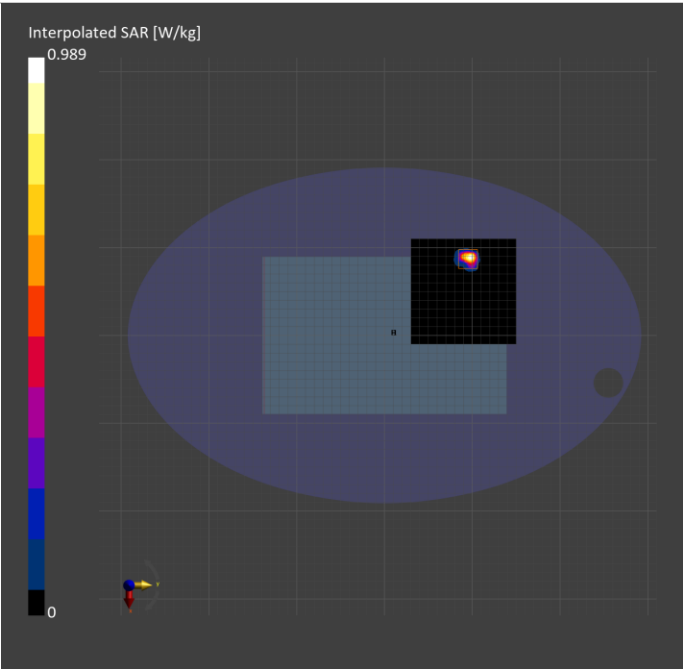
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2199	HSL5G-2025-07-24	EX3DV4 - SN7612, 2025-05-07	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-24	2025-07-24
psSAR1g [W/kg]	0.607	0.723
psSAR10g [W/kg]	0.157	0.164
Power Drift [dB]	-0.01	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		67.6
Dist 3dB Peak [mm]		5.6



P03 WLAN5G_802.11a_Rear Face_1.5cm_CH56

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	278.0 x 179.0 x 8.0		Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	BACK, 15.00	WLAN 5GHz	WLAN, -	5280.000, 56	5.71	4.55	34.8

Hardware Setup

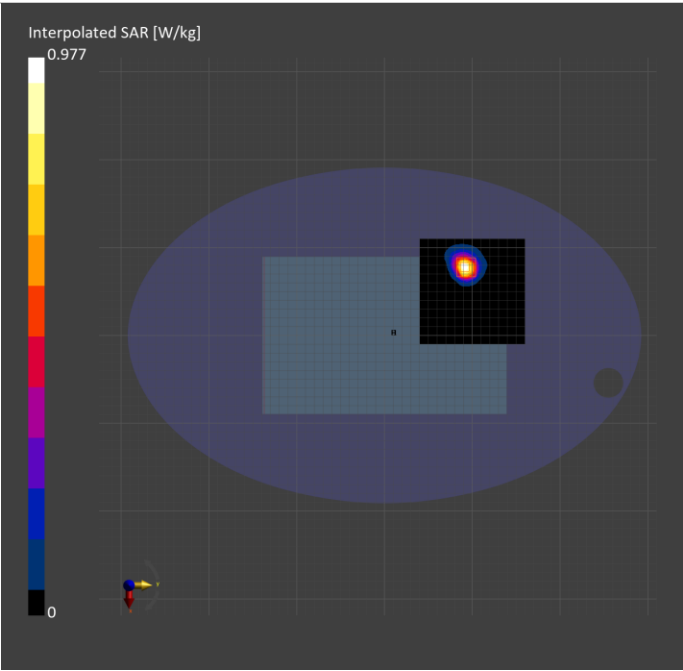
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2199	HSL5G-2025-07-25	EX3DV4 - SN7612, 2025-05-07	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-25	2025-07-25
psSAR1g [W/kg]	0.698	0.714
psSAR10g [W/kg]	0.248	0.250
Power Drift [dB]	-0.02	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		65.4
Dist 3dB Peak [mm]		9.7



P04 WLAN5G_802.11a_Rear Face_0cm_CH140

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	278.0 x 179.0 x 8.0		Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	BACK, 0.00	WLAN 5GHz	WLAN, -	5700.000, 140	5.1	5.07	34.0

Hardware Setup

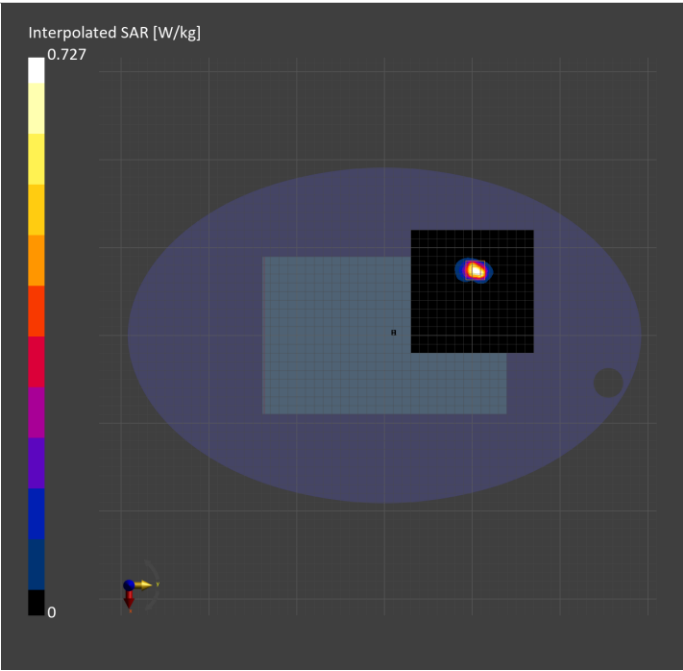
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2199	HSL5G-2025-07-26	EX3DV4 - SN7612, 2025-05-07	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	130.0 x 130.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-26	2025-07-26
psSAR1g [W/kg]	0.537	0.738
psSAR10g [W/kg]	0.165	0.163
Power Drift [dB]	0.06	0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		64.5
Dist 3dB Peak [mm]		5.4



P05 WLAN5G_802.11a_Rear Face_1.5cm_CH157

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	278.0 x 179.0 x 8.0		Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	BACK, 15.00	WLAN 5GHz	WLAN, -	5785.000, 157	5.21	5.18	33.8

Hardware Setup

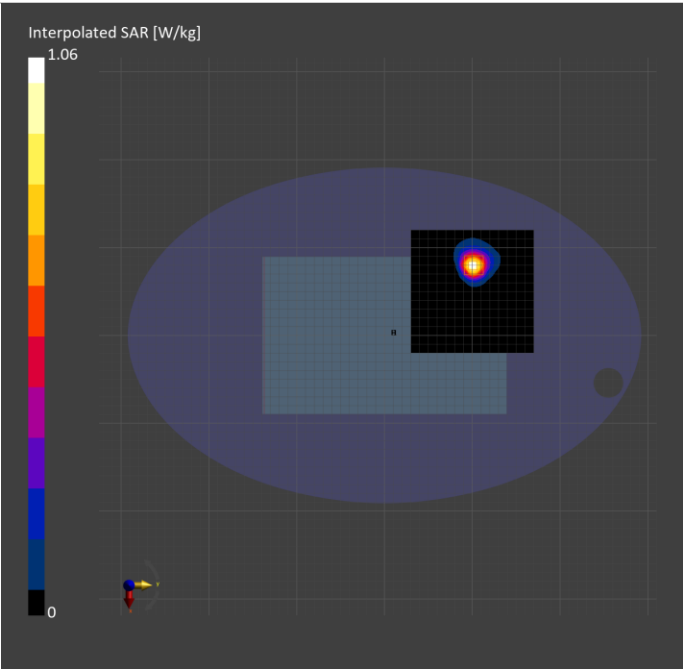
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2199	HSL5G-2025-07-27	EX3DV4 - SN7612, 2025-05-07	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	130.0 x 130.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-27	2025-07-27
psSAR1g [W/kg]	0.759	0.745
psSAR10g [W/kg]	0.273	0.271
Power Drift [dB]	0.09	0.17
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		63.8
Dist 3dB Peak [mm]		10.2



P06_BT_GFSK_Rear_Face_0cm_CH78

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
Device,	278.0 x 179.0 x 8.0		Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, -	BACK, 0.00	ISM 2.4 GHz Band	Bluetooth, -	2480.000, 78	8.1	1.80	38.9

Hardware Setup

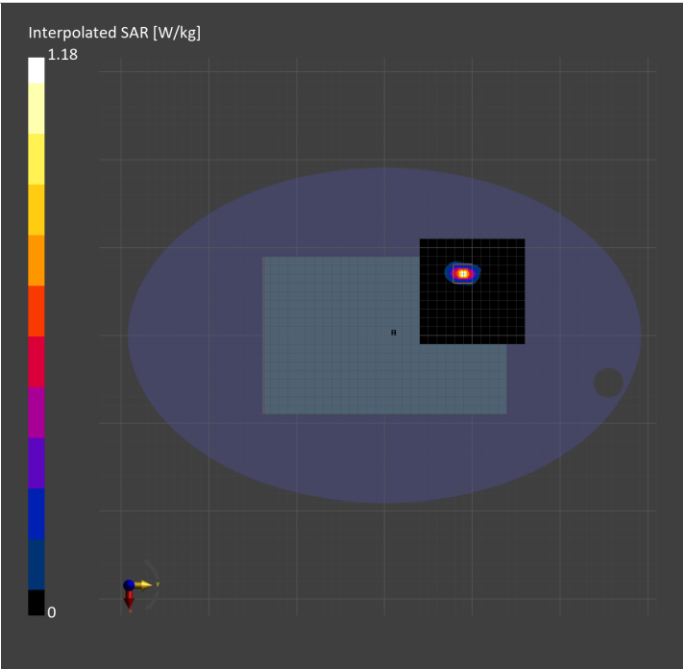
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2199	HSL2450-2025-07-23	EX3DV4 - SN7612, 2025-05-07	DAE4 Sn1633, 2025-04-24

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	10.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	N/A	Yes
Grading Ratio	N/A	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-07-23	2025-07-23
psSAR1g [W/kg]	0.720	0.743
psSAR10g [W/kg]	0.243	0.237
Power Drift [dB]	0.01	0.00
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		70.1
Dist 3dB Peak [mm]		5.2





BUREAU
VERITAS

FCC SAR Test Report



Certificate #6613.01

Appendix C. Calibration Certificate for Probe and Dipole

The SPEAG calibration certificates are shown as follows.