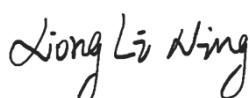


TEST REPORT

Applicant: Realtek Semiconductor Corp.
Address: No. 2, Innovation Road II, Hsinchu Science Park,
Hsinchu 300, Taiwan
Equipment Type: 11ax RTL8852CE Combo module
Model Name: RTL8852CE
Brand Name: N/A
FCC ID: TX2-RTL8852CE
Test Standard: FCC 47 CFR Part 2.1093
(refer to section 3.1)
Maximum SAR: Body 2.4GHz(1 g): 0.99 W/kg
Body 5GHz(1 g): 1.15 W/kg
Body 6GHz(1 g): 1.06 W/kg
Limbs 2.4GHz(10 g): 0.68 W/kg
Limbs 5GHz(10 g): 0.96 W/kg
Limbs 6GHz(10 g): 0.43 W/kg
Sample Arrival Date: Nov. 06, 2023
Test Date: Nov. 20, 2023 - Nov. 24, 2023
Date of Issue: Dec. 27, 2023

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Xiong Lining**Checked by:** Xu Rui**Approved by:** Tolan Tu

(Testing Director)



Revision History

Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>Dec. 20, 2023</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Dec. 27, 2023</u>	<u>1. Corrected the ANNEX B SYSTEM CHECK RESULT.</u> <u>2. Updated section F.5 in ANNEX F CALIBRATION REPORT.</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☒ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

1.3 Test Environment Condition

Ambient Temperature	18°C to 25°C
Ambient Relative Humidity	30% to 70%

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Realtek Semiconductor Corp.
Address	No. 2, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan

2.2 Manufacturer Information

Manufacturer	Realtek Semiconductor Corp.
Address	No. 2, Innovation Road II, Hsinchu Science Park, Hsinchu 300, Taiwan

2.3 General Description for Equipment under Test (EUT)

EUT Name	11ax RTL8852CE Combo module
Model Name Under Test	RTL8852CE
Series Model Name	N/A
Description of Model Name Differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.3.1 Host Information:

Product Description	Notebook Computer
Model Name	IdeaPad 5 2-in-1 14IRU9
Brand Name	Lenovo

2.3.2 Antenna Information:

Antenna Port	Model Name	Antenna Manufacturer	Antenna Type	Antenna Gain (dBi)								
				2.4 GHz	5.15 - 5.25 GHz	5.25 - 5.35 GHz	5.47 - 5.725 GHz	5.725 - 5.895 GHz	5.925 - 6.425 GHz	6.425 - 6.525 GHz	6.525 - 6.875 GHz	6.875 - 7.125 GHz
Main Antenna	AYP6Y-100467	AWAN	PIFA	1.69	3.15	2.42	2.38	3.04	2.76	3.88	3.16	3.27
Auxiliary Antenna	AYP6Y-100468		PIFA	2.22	2.68	2.16	3.21	3.66	3.95	3.46	3.25	3.45
Main Antenna	3.N201.0261	South Star	PIFA	1.89	2.42	2.48	2.96	3.17	2.88	3.17	2.79	2.28
Auxiliary Antenna	3.N201.0262		PIFA	2.29	2.37	2.61	2.22	3.08	3.18	2.62	2.89	2.18

2.4 Ancillary Equipment

Note: Not applicable.

2.5 Technical Information

Network and Wireless connectivity	Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40), VHT20/40 and 802.11ax(HE20/40) 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80/160) and 802.11ax(HE20/40/80/160), U-NII-1/2A/2C/3/4 6G WIFI 802.11ax(HE20/40/80/160), U-NII-5/6/7/8
-----------------------------------	---

The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	2.4G WLAN, 5G WLAN, 6G WLAN, Bluetooth	
Frequency Range	802.11b/g	2412 MHz ~ 2472 MHz
	VHT20/VHT40	2412 MHz ~ 2472 MHz
	802.11ax(HE20/HE40)	2412 MHz ~ 2472 MHz
	802.11a	5150 MHz ~ 5250 MHz
		5250 MHz ~ 5350 MHz
		5470 MHz ~ 5725 MHz
		5725 MHz ~ 5850 MHz
		5850 MHz ~ 5895 MHz
	802.11n(HT20/HT40)	5150 MHz ~ 5250 MHz
		5250 MHz ~ 5350 MHz
		5470 MHz ~ 5725 MHz
		5725 MHz ~ 5850 MHz
		5850 MHz ~ 5895 MHz
	802.11ac(VHT20/VHT40/VHT80)	5150 MHz ~ 5250 MHz
		5250 MHz ~ 5350 MHz
		5470 MHz ~ 5725 MHz
		5725 MHz ~ 5850 MHz
		5850 MHz ~ 5895 MHz
	802.11ax(HE20/HE40/HE80)	5150 MHz ~ 5250 MHz
		5250 MHz ~ 5350 MHz
		5470 MHz ~ 5725 MHz
		5725 MHz ~ 5850 MHz
		5850 MHz ~ 5895 MHz
	802.11ac(VHT160)/ax(HE160)	5150 MHz ~ 5250 MHz
		5470 MHz ~ 5725 MHz
		5850 MHz ~ 5895 MHz
	802.11ax(HE20/HE40/HE80/HE160)	5925 MHz ~ 6425 MHz
		6425 MHz ~ 6525 MHz
		6525 MHz ~ 6875 MHz
		6875 MHz ~ 7125 MHz
	Bluetooth	2402 MHz ~ 2480 MHz
Antenna Type	WLAN: PIFA Antenna Bluetooth: PIFA Antenna	
Hotspot Function	N/A	

Exposure Category	General Population/Uncontrolled exposure	
Product Type	Portable Device	
EUT Type	☒ Production unit	☐ Identical prototype

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 2.1093	Radiofrequency radiation exposure evaluation: portable devices
2	ANSI C95.1-1992	IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz
3	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01
4	KDB 865664 D01 v01r04	SAR Measurement 100 MHz to 6 GHz
5	KDB 865664 D02 v01r02	RF Exposure Reporting
6	KDB 248227 D01 v02r02	SAR Guidance for IEEE 802.11 (Wi-Fi) Transmitters
7	KDB 616217 D04v01r02	SAR for laptop and tablets
8	IEC/IEEE 62209-1528:2020	Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)

3.2 Device Category and SAR Limit

This device belongs to portable device category because its radiating structure is allowed to be used within 20 centimeters of the body of the user.

Limit for General Population/Uncontrolled exposure should be applied for this device, it is 1.6 W/kg as averaged over any 1 gram of tissue.

Table of Exposure Limits:

Body Position	SAR Value (W/Kg)	
	General Population/ Uncontrolled Exposure	Occupational/ Controlled Exposure
Whole-Body SAR (averaged over the entire body)	0.08	0.4
Partial-Body SAR (averaged over any 1 gram of tissue)	1.60	8.0
SAR for hands, wrists, feet and ankles (averaged over any 10 grams of tissue)	4.0	20.0

NOTE:

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

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

3.3 Test Result Summary

3.3.1 Highest SAR (1 g Value)

Equipment Class	Band	Antenna	Maximum Scaled SAR (W/kg)	Maximum Report SAR (W/kg)	
			Body (0mm)	Body (0mm)	
DTS	2.4G WLAN	SISO-Aux.	0.99	1.15	
	2.4G WLAN	SISO-Main	0.75		
U-NII-2A	5.3G WLAN	SISO-Aux.	1.04		
	5.3G WLAN	SISO-Main	0.74		
U-NII-2C	5.6G WLAN	SISO-Aux.	0.50		
	5.6G WLAN	SISO-Main	0.59		
U-NII-3	5.8G WLAN	SISO-Aux.	0.97		
	5.8G WLAN	SISO-Main	1.15		
U-NII-4	5.9G WLAN	SISO-Aux.	0.72		
	5.9G WLAN	SISO-Main	0.71		
U-NII-5/6/7/8	6G WLAN	SISO-Aux.	1.06		
	6G WLAN	SISO-Main	0.69		
DSSS	Bluetooth	Aux.	0.28		
Limit (W/kg)			1.60		
Verdict			Pass		

3.3.2 Highest SAR (10 g Value)

Equipment Class	Band	Antenna	Maximum Scaled SAR (W/kg)	Maximum Report SAR (W/kg)	
			Limbs (0mm)	Limbs (0mm)	
DTS	2.4G WLAN	SISO-Aux.	0.60	0.96	
	2.4G WLAN	SISO-Main	0.68		
U-NII-2A	5.3G WLAN	SISO-Aux.	0.51		
	5.3G WLAN	SISO-Main	0.43		
U-NII-2C	5.6G WLAN	SISO-Aux.	0.79		
	5.6G WLAN	SISO-Main	0.96		
U-NII-3	5.8G WLAN	SISO-Aux.	0.54		
	5.8G WLAN	SISO-Main	0.55		
U-NII-4	5.9G WLAN	SISO-Aux.	0.48		
	5.9G WLAN	SISO-Main	0.40		
U-NII-5/6/7/8	6G WLAN	SISO-Aux.	0.43		
	6G WLAN	SISO-Main	0.43		
DSSS	Bluetooth	Aux.	0.11		
Limit (W/kg)			4.00		
Verdict			Pass		

3.3.3 Highest Simultaneous Transmission SAR Values (1 g Value)

Equipment Class	Maximum Report SAR (W/kg)	SPLSR
	Body(0mm)	
	1g SAR	
DTS	2.14	0.02
NII	2.19	0.02
DSSS	1.43	/
Limit (W/Kg)	1.6	0.04
Verdict	Pass	Pass

Note: The simultaneous transmission SAR detail please refer to section 12.

3.3.4 Highest Simultaneous Transmission SAR Values (10 g Value)

Equipment Class	Maximum Report SAR (W/kg)	SPLSR
	Limbs (0mm)	
	1g SAR	
DTS	1.55	/
NII	1.75	/
DSSS	1.07	/
Limit (W/Kg)	4.00	/
Verdict	Pass	Pass

Note: The simultaneous transmission SAR detail please refer to section 12.

3.4 Test Uncertainty

According to KDB 865664 D01, when the highest measured 1 g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis is not required in SAR reports submitted for equipment approval.

The maximum 1 g SAR for the EUT in this report is 1.15 W/kg, which is lower than 1.5 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

The maximum 10 g SAR for the EUT in this report is 0.96 W/kg, which is lower than 3.75 W/kg, so the extensive SAR measurement uncertainty analysis is not required in this report.

4 MEASUREMENT SYSTEM

4.1 Specific Absorption Rate (SAR) Definition

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

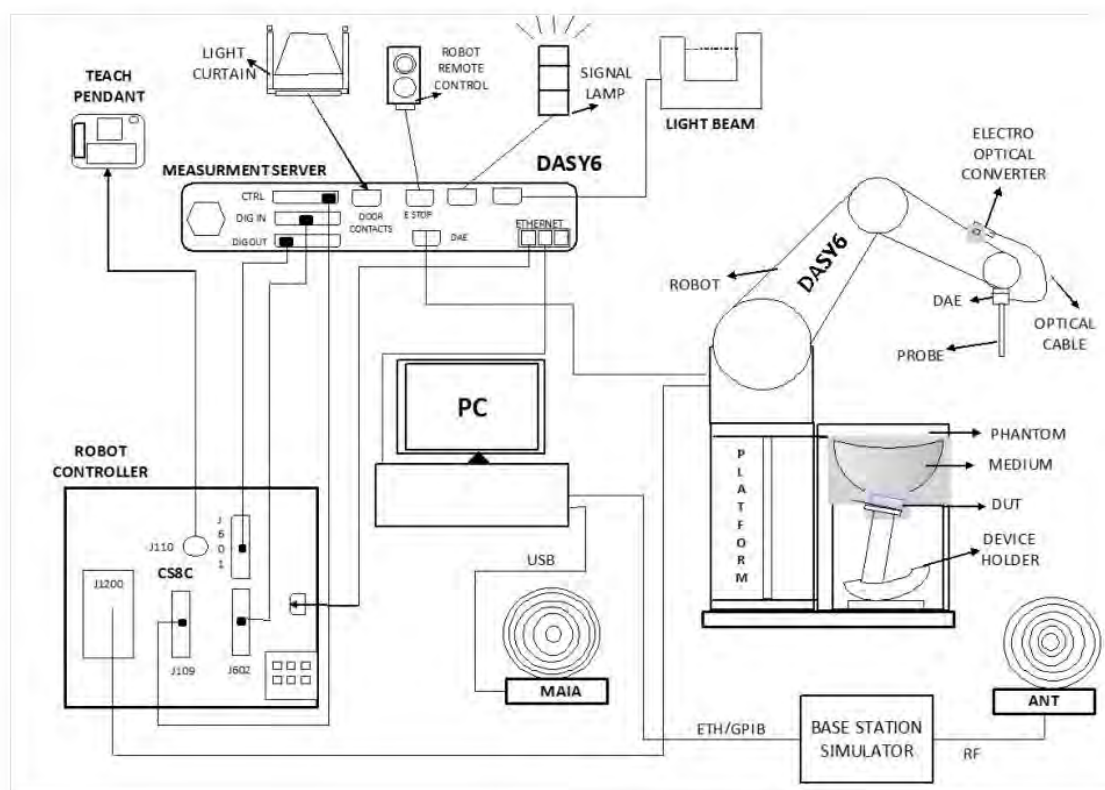
$$SAR = \frac{\sigma E^2}{\rho}$$

Where: σ is the conductivity of the tissue,

ρ is the mass density of the tissue and E is the RMS electrical field strength.

4.2 DASY SAR System

4.2.1 DASY SAR System Diagram



The DASY system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Stäubli RX family) with controller and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e. an isotropic E-field probe optimized and calibrated for usage in tissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronic (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
4. A unit to operate the optical surface detector which is connected to the EOC.
5. The Electro-Optical Coupler (EOC) performs the conversion from the optical into a digital electric signal of the DAE. The EOC is connected to the DASY measurement server.
6. The DASY measurement server, which performs all real-time data evaluation for field measurements and surface detection, controls robot movements and handles safety operation.
7. DASY software and SEMCAD data evaluation software.
8. Remote control with teach panel and additional circuitry for robot safety such as warning lamps, etc.
9. The generic twin phantom enabling the testing of left-hand and right-hand usage.
10. The device holder for handheld mobile phones.
11. Tissue simulating liquid mixed according to the given recipes.
12. System validation dipoles allowing to validate the proper functioning of the system.

4.2.2 Robot

The Dasy SAR system uses the high precision robots. Symmetrical design with triangular core Built-in optical fiber for surface detection system For the 6-axis controller system, Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents). The robot series have many features that are important for our application:



- High precision
(repeatability ± 0.02 mm)
- High reliability
(industrial design)
- Low maintenance costs
(virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements
(brush less synchron motors; no stepper motors)
- Low ELF interference
(motor control _elds shielded via the closed metallic construction shields)

4.2.3 E-Field Probe

The probe is specially designed and calibrated for use in liquids with high permittivities for the measurements the Specific Dosimetric E-Field Probe EX3DV4- SN: 7607 with following specifications is used.

Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	4 MHz to 10 GHz; Linearity: ± 0.2 dB
Directivity	± 0.2 dB in HSL (rotation around probe axis) ; ± 0.4 dB in HSL (rotation normal to probe axis)
Dynamic range	5 μ W/g to > 100 mW/g; Linearity: ± 0.2 dB
Dimensions	Overall length: 337 mm (Tip: 9 mm) Tip diameter: 2.5 mm (Body: 10 mm) Distance from probe tip to dipole centers: 1.0 mm
Application	General dosimetry up to 3 GHz Compliance tests of mobile phones Fast automatic scanning in arbitrary phantoms (EX3DV4)



E-Field Probe Calibration Process

Probe calibration is realized, in compliance with IEC/IEEE 62209-1528 and IEEE 1528 std, with CALISAR, Antennessa proprietary calibration system. The calibration is performed with the IEC/IEEE 62209-1528 annexe technique using reference guide at the five frequencies.

4.2.4 Data Acquisition Electronics

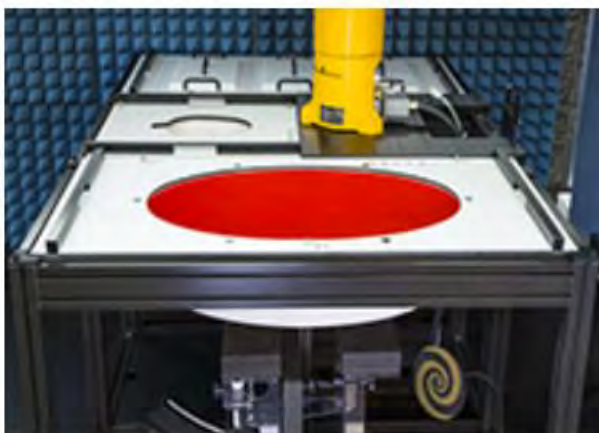
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.



- Input Impedance: 200M Ω
- The Inputs: Symmetrical and Floating
- Commom Mode Rejection: Above 80dB

4.2.5 Phantoms

Phantom for compliance testing of handheld and body-mounted wireless devices in the frequency range of below 10 GHz. ELI V8.0 is fully compatible with the latest draft of the standard IEC 62209 Part II and all known tissue simulating liquids. ELI V8.0 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.



· Flat phantom

Photo of Phantom SN2159



Serial Number	Shell Thickness (mm)	Major ellipse axis (mm)	Minor axis(mm)
SN 2159 ELI V8.0	2.0 ± 0.2	600	400

4.2.6 Device Holder

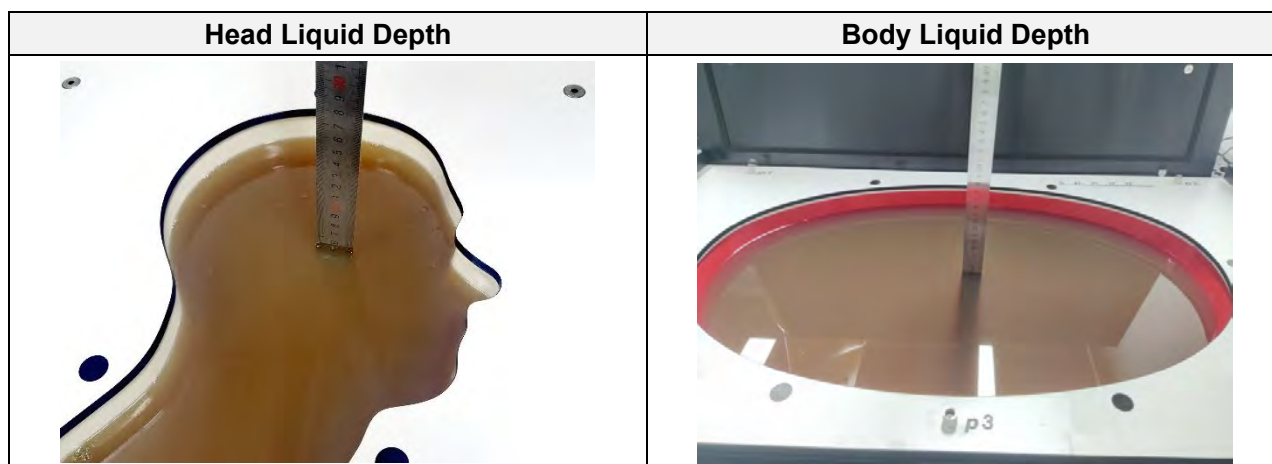
The DASY device holder has two scales for device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear openings). The plane between the ear openings and the mouth tip has a rotation angle of 65° . The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. This device holder is used for standard mobile phones or PDA's only. If necessary an additional support of polystyrene material is used. Larger DUT's (e.g. notebooks) cannot be tested using this device holder. Instead a support of bigger polystyrene cubes and thin polystyrene plates is used to position the DUT in all relevant positions to find and measure spots with maximum SAR values. Therefore those devices are normally only tested at the flat part of the SAM.



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

4.2.7 Simulating Liquid

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%.



The following table gives the recipes for tissue simulating liquid and the theoretical Conductivity/Permittivity.

The following table gives the recipes for tissue simulating liquid.

TSL	Manufacturer / Model	Freq Range (MHz)	Main Ingredients
Head WideBand	SPEAG HBBL600-10000V6	600-10000	Ethanediol, Sodium petroleum sulfonate, Hexylene Glycol / 2-Methyl-pentane-2.4-diol, Alkoxylated alcohol

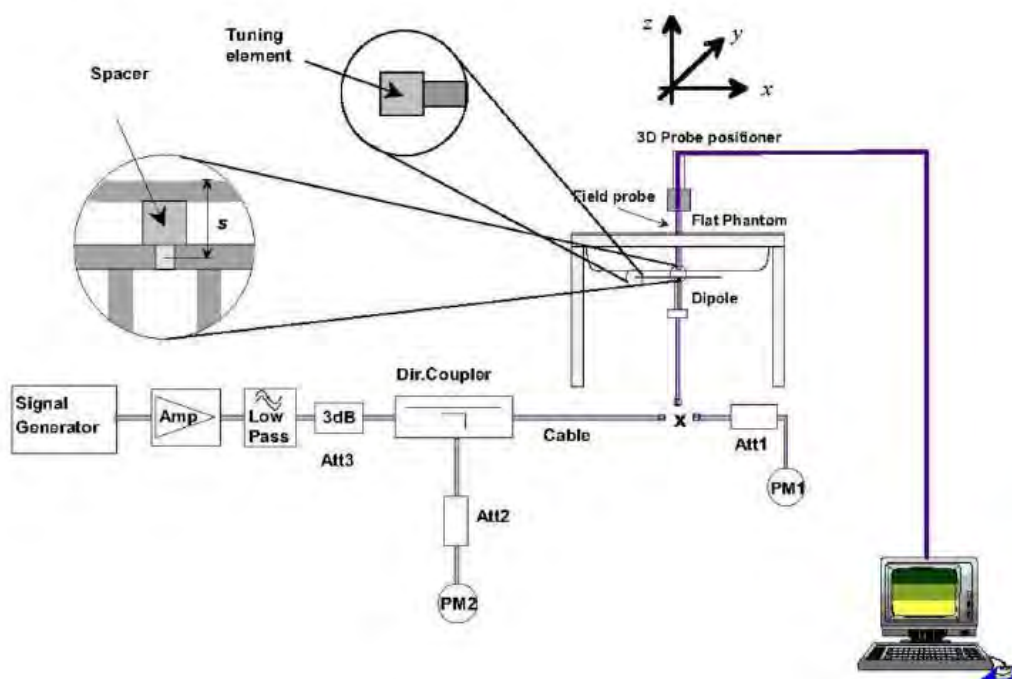
5 SYSTEM VERIFICATION

5.1 Purpose of System Check

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

5.2 System Check Setup

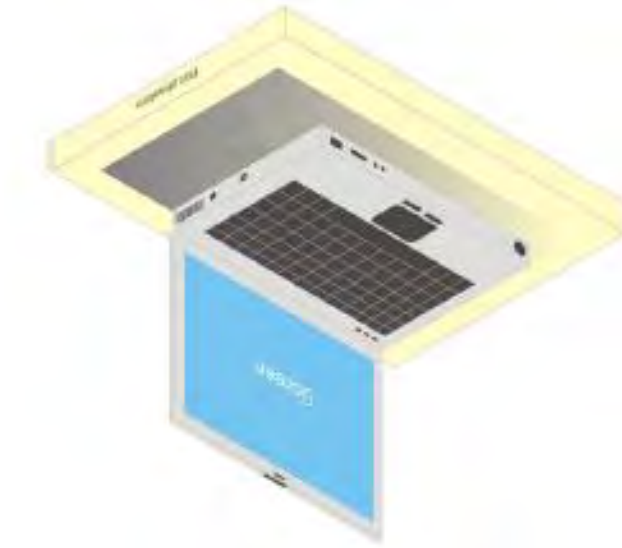
In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. The distance holder should touch the phantom surface with a light pressure at the reference marking and be oriented parallel to the long side of the phantom. The equipment setup is shown below:



6 TEST POSITION CONFIGURATIONS

6.1 Laptop Exposure Condition

This DUT should consider one position which is bottom of laptop touching with phantom 0 mm air gap and the screen portion of the device shall be an open position at a 90° angle.



6.2 Tablet Exposure Condition

This DUT was tested in two different positions. They are back side and bottom edge in these positions, the surface of DUT is touching with phantom 0mm.

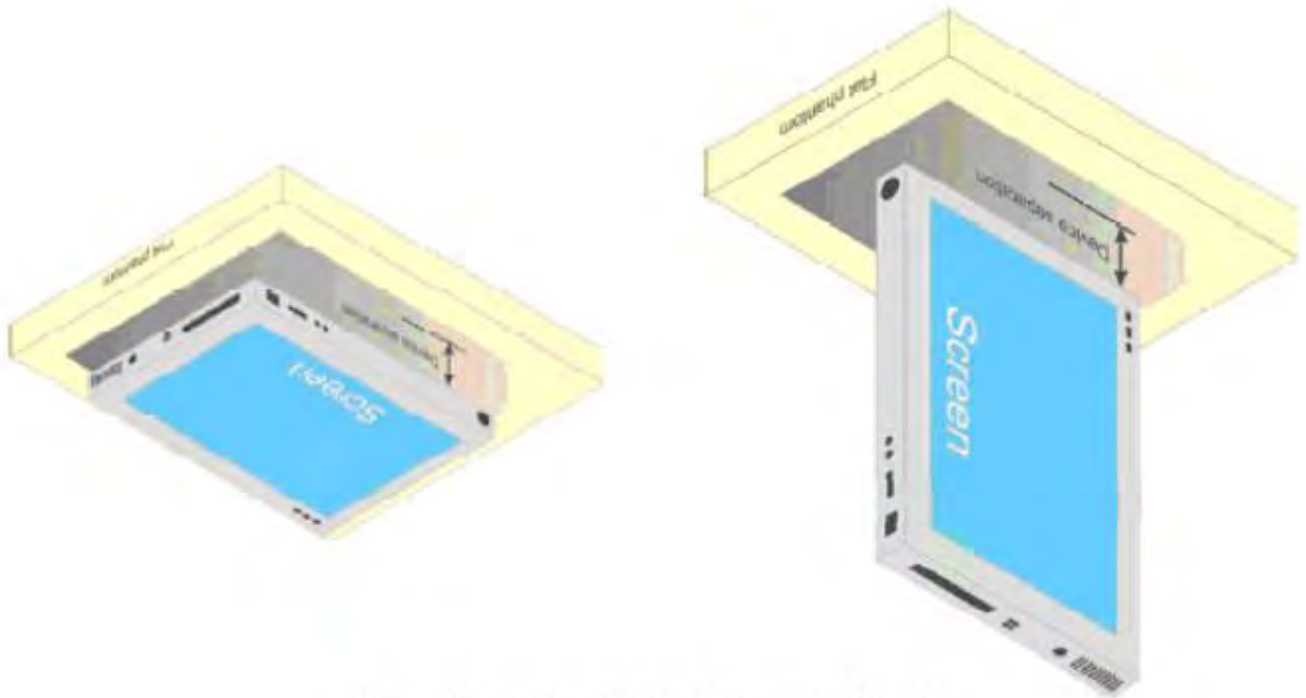
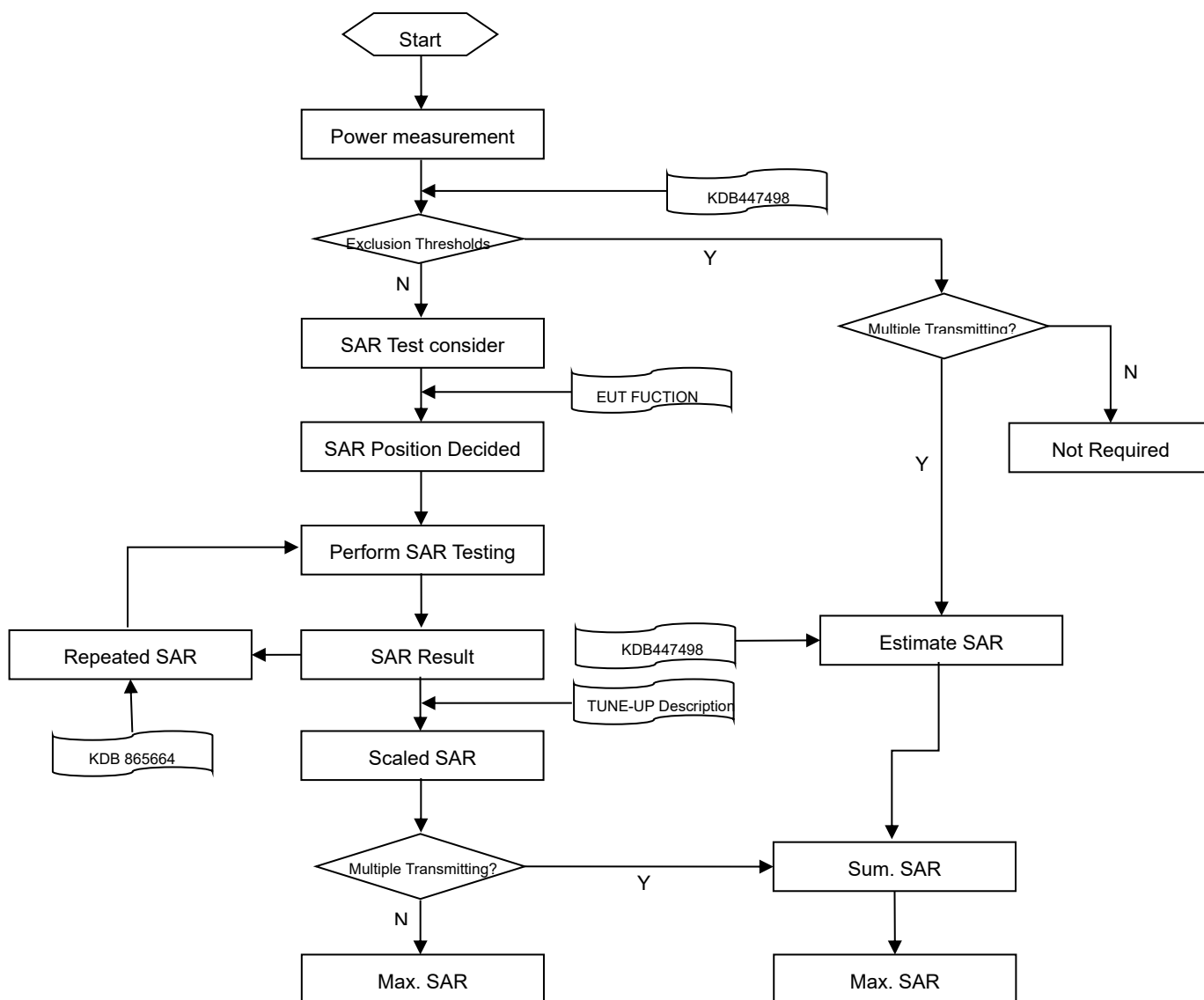


Fig Illustration for Lap-touching Position

7 MEASUREMENT PROCEDURE

7.1 Measurement Process Diagram



7.2 SAR Scan General Requirement

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

			≤3GHz	>3GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5±1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30°±1°	20°±1°
Maximum area scan spatial resolution: Δx Area , Δy 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: Δx Zoom , Δy 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: Δz Zoom (n)		≤ 5 mm	3–4 GHz: ≤ 4 mm
				4–5 GHz: ≤ 3 mm
				5–6 GHz: ≤ 2 mm
	graded grid	Δz Zoom (1): between 1st two points closest to phantom surface	≤ 4 mm	3–4 GHz: ≤ 3 mm
				4–5 GHz: ≤ 2.5 mm
		Δz Zoom (n>1): between subsequent points	≤ 1.5·Δz 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:

1. δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.
2. * 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 3GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

7.3 Measurement Procedure

The following steps are used for each test position

- a. Establish a call with the maximum output power with a base station simulator. The connection between the mobile and the base station simulator is established via air interface
- b. Measurement of the local E-field value at a fixed location. This value serves as a reference value for calculating a possible power drift.
- c. Measurement of the SAR distribution with a grid of 8 to 16mm * 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.
- d. 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.

7.4 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. Area scan and zoom scan resolution setting follows KDB 865664 D01v01r04 quoted below.

When the 1 g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

7.5 Interim Procedures for WLAN 6E

Interim procedures for FCC radio frequency (RF) exposure evaluations of U-NII 6-7 GHz band portable devices have been made available during the TCB workshop in April 2021. The procedure is summarized below:

- a. Evaluate SAR / APD with DASY6 Module SAR V16.0 or higher. The configurations to be tested are defined in the relevant Knowledge Database (KDB). The psSAR and absorbed psPD are reported.
- b. For the configuration with the highest SAR, evaluate the incident power density with DASY6 Module mmWave V2.4.2 or higher. The incident psPD must be adjusted per amount that the measurement uncertainty exceeds 30% before it is included in the test report.

8 CONDUCTED RF OUTPUT POWER

8.1 WIFI

8.1.1 2.4G WIFI (SISO-Main Antenna) (Laptop)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	15.06	15.50	Yes
		6	2437	15.11	15.50	Yes
		10	2457	15.09	15.50	No
		11	2462	15.17	15.50	Yes
		12	2467	15.03	15.50	No
		13	2472	12.09	13.00	No
	802.11g	1	2412	15.27	15.50	No
		2	2417	14.89	15.50	No
		6	2437	14.82	15.50	No
		10	2457	14.87	15.50	No
		11	2462	14.99	15.50	No
		12	2467	15.17	15.50	No
		13	2472	15.23	15.50	No
	VHT20	1	2412	14.92	15.50	No
		2	2417	15.32	15.50	No
		6	2437	15.13	15.50	No
		10	2457	15.04	15.50	No
		11	2462	14.89	15.50	No
		12	2467	15.26	15.50	No
		13	2472	10.43	11.00	No
	VHT40	3	2422	14.89	15.50	No
		6	2437	14.88	15.50	No
		9	2452	15.33	15.50	No
		10	2457	15.12	15.50	No
		11	2462	14.90	15.50	No
	802.11ax(HE20) (SU)	1	2412	15.10	15.50	No
		2	2417	14.84	15.50	No
		6	2437	14.97	15.50	No
		10	2457	15.10	15.50	No
		11	2462	14.93	15.50	No
		12	2467	15.28	15.50	No
		13	2472	10.73	11.00	No
	802.11ax(HE40)	3	2422	14.83	15.50	No

	(SU)	6	2437	14.84	15.50	No
		9	2452	15.22	15.50	No
		10	2457	15.06	15.50	No
		11	2462	15.01	15.50	No
	802.11ax(HE20) (RU26)	1	2412	15.14	15.50	No
		6	2437	15.11	15.50	No
		11	2462	12.64	13.00	No
		12	2467	8.22	9.00	No
		13	2472	-3.60	-3.00	No
	802.11ax(HE20) (RU52)	1	2412	15.35	15.50	No
		6	2437	15.08	15.50	No
		11	2462	14.75	15.50	No
		12	2467	10.45	11.00	No
		13	2472	2.53	3.00	No
	802.11ax(HE20) (RU106)	1	2412	14.94	15.50	No
		6	2437	15.15	15.50	No
		11	2462	15.18	15.50	No
		12	2467	15.11	15.50	No
		13	2472	5.52	6.00	No

Note: According KDB 248227 D01 SAR is not required for the following 2.4 GHz OFDM conditions. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Adjusted SAR = Report SAR * (max power (OFDM)/ max power (DSSS)) = $0.478 * (35.48\text{mW}/35.48\text{mW}) = 0.478$ W/Kg, so the 2.4G OFDM SAR test is not required.

8.1.2 2.4G WIFI (SISO-Aux. Antenna) (Laptop)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	15.32	16.00	Yes
		6	2437	15.61	16.00	Yes
		10	2457	15.87	16.00	No
		11	2462	15.87	16.00	Yes
		12	2467	15.66	16.00	No
		13	2472	12.56	13.00	No
	802.11g	1	2412	15.48	16.00	No
		2	2417	15.69	16.00	No
		6	2437	15.49	16.00	No
		10	2457	15.61	16.00	No
		11	2462	15.66	16.00	No
		12	2467	15.99	16.00	No
		13	2472	15.56	16.00	No
	VHT20	1	2412	15.60	16.00	No
		2	2417	15.78	16.00	No
		6	2437	15.47	16.00	No
		10	2457	15.53	16.00	No
		11	2462	15.45	16.00	No
		12	2467	15.79	16.00	No
		13	2472	10.11	11.00	No
	VHT40	3	2422	15.64	16.00	No
		6	2437	15.55	16.00	No
		9	2452	15.52	16.00	No
		10	2457	15.24	16.00	No
		11	2462	14.97	16.00	No
	802.11ax(HE20) (SU)	1	2412	15.68	16.00	No
		2	2417	15.54	16.00	No
		6	2437	15.59	16.00	No
		10	2457	15.41	16.00	No
		11	2462	15.40	16.00	No
		12	2467	15.31	16.00	No
		13	2472	10.23	11.00	No
	802.11ax(HE40) (SU)	3	2422	15.31	16.00	No
		6	2437	15.53	16.00	No
		9	2452	15.78	16.00	No
		10	2457	15.83	16.00	No

	802.11ax(HE20) (RU26)	11	2462	15.22	16.00	No
		1	2412	15.55	16.00	No
		6	2437	15.79	16.00	No
		11	2462	12.79	13.00	No
		12	2467	8.22	9.00	No
		13	2472	-3.19	-3.00	No
	802.11ax(HE20) (RU52)	1	2412	15.45	16.00	No
		6	2437	15.65	16.00	No
		11	2462	15.06	15.50	No
		12	2467	10.64	11.00	No
		13	2472	2.32	3.00	No
	802.11ax(HE20) (RU106)	1	2412	15.91	16.00	No
		6	2437	15.44	16.00	No
		11	2462	15.94	16.00	No
		12	2467	13.49	16.00	No
		13	2472	5.50	6.00	No

Note: According KDB 248227 D01 SAR is not required for the following 2.4 GHz OFDM conditions. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Adjusted SAR = Report SAR * (max power (OFDM)/ max power (DSSS)) = 0.549 * (39.81mW/39.81mW) = 0.549 W/Kg, so the 2.4G OFDM SAR test is not required.

8.1.3 2.4G WIFI (MIMO) (Laptop)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	18.46	18.50	No
		6	2437	18.48	18.50	No
		10	2457	18.39	18.50	No
		11	2462	18.47	18.50	No
		12	2467	15.04	16.00	No
		13	2472	8.34	9.00	No
	802.11g	1	2412	18.34	18.50	No
		2	2417	18.31	18.50	No
		6	2437	18.36	18.50	No
		10	2457	18.34	18.50	No
		11	2462	18.14	18.50	No
		12	2467	18.47	18.50	No
		13	2472	16.55	17.00	No
	VHT20	1	2412	18.43	18.50	No
		2	2417	18.44	18.50	No
		6	2437	18.24	18.50	No
		10	2457	18.48	18.50	No
		11	2462	18.34	18.50	No
		12	2467	18.38	18.50	No
		13	2472	8.45	9.00	No
	VHT40	3	2422	18.33	18.50	No
		6	2437	18.06	18.50	No
		9	2452	17.59	18.50	No
		10	2457	17.51	18.50	No
		11	2462	15.34	16.00	No
	802.11ax(HE20) (SU)	1	2412	18.48	18.50	No
		2	2417	18.11	18.50	No
		6	2437	18.29	18.50	No
		10	2457	18.36	18.50	No
		11	2462	18.30	18.50	No
		12	2467	18.37	18.50	No
		13	2472	8.14	9.00	No
	802.11ax(HE40) (SU)	3	2422	18.21	18.50	No
		6	2437	18.14	18.50	No
		9	2452	17.54	18.50	No
		10	2457	17.35	18.50	No

	802.11ax(HE20) (RU26)	11	2462	15.33	16.00	No
		1	2412	18.45	18.50	No
		6	2437	18.26	18.50	No
		11	2462	14.85	15.00	No
		12	2467	10.17	11.00	No
		13	2472	-3.18	-3.00	No
	802.11ax(HE20) (RU52)	1	2412	18.46	18.50	No
		6	2437	18.44	18.50	No
		11	2462	16.60	17.00	No
		12	2467	11.49	12.00	No
		13	2472	2.92	3.00	No
	802.11ax(HE20) (RU106)	1	2412	18.39	18.50	No
		6	2437	18.28	18.50	No
		11	2462	18.45	18.50	No
		12	2467	15.64	16.00	No
		13	2472	5.78	6.00	No

Note: For WiFi SAR testing was performed on single antenna RF power in SISO mode that is larger to the single antenna RF power in MIMO mode, and for RF exposure assessment of MIMO mode simultaneous transmission used more conservative "Max. (main ant) + Max. (aux. ant) " method to determine SAR compliance. When the sum of 1-g SISO transmission SAR measurement is <1.6 W/kg, MIMO SAR test is not required.

8.1.4 5G WIFI (SISO-Main Antenna) (Laptop)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	14.81	15.00	No
		40	5200	14.57	15.00	No
		48	5240	14.52	15.00	No
	802.11n(HT20)	36	5180	14.70	15.00	No
		40	5200	14.81	15.00	No
		48	5240	14.66	15.00	No
	802.11n(HT40)	38	5190	14.80	15.00	No
		46	5230	14.39	15.00	No
	802.11ac(VHT20)	36	5180	14.47	15.00	No
		40	5200	14.56	15.00	No
		48	5240	14.67	15.00	No
	802.11ac(VHT40)	38	5190	14.34	15.00	No
		46	5230	14.36	15.00	No
	802.11ac(VHT80)	42	5210	14.34	15.00	No
	802.11ac(VHT160)	50	5250	10.89	11.00	No
	802.11ax(HE20) (SU)	36	5180	14.86	15.00	No
		40	5200	14.78	15.00	No
		48	5240	14.77	15.00	No
	802.11ax(HE40) (SU)	38	5190	14.78	15.00	No
		46	5230	14.35	15.00	No
	802.11ax(HE80) (SU)	42	5210	14.63	15.00	No
	802.11ax(HE160) (SU)	50	5250	10.59	11.00	No
	802.11ax(HE20) (RU26)	36	5180	13.76	15.00	No
		40	5200	13.85	15.00	No
		48	5240	13.96	15.00	No
	802.11ax(HE20) (RU52)	36	5180	14.66	15.00	No
		40	5200	14.41	15.00	No
		48	5240	14.44	15.00	No
	802.11ax(HE20) (RU106)	36	5180	14.40	15.00	No
		40	5200	14.46	15.00	No
		48	5240	14.61	15.00	No
5.3 (5.25~5.35)	802.11a	52	5260	14.70	15.00	No
		60	5300	14.40	15.00	No
		64	5320	14.51	15.00	No
	802.11n(HT20)	52	5260	14.52	15.00	No
		60	5300	14.64	15.00	No
		64	5320	14.72	15.00	No
	802.11n(HT40)	54	5270	14.58	15.00	No

		62	5310	14.33	15.00	No
	802.11ac(VHT20)	52	5260	14.66	15.00	No
		60	5300	14.51	15.00	No
		64	5320	14.50	15.00	No
	802.11ac(VHT40)	54	5270	14.38	15.00	No
		62	5310	14.32	15.00	No
	802.11ac(VHT80)	58	5290	13.63	15.00	Yes
	802.11ax(HE20) (SU)	52	5260	14.62	15.00	No
		60	5300	14.56	15.00	No
		64	5320	14.63	15.00	No
	802.11ax(HE40) (SU)	54	5270	14.47	15.00	No
		62	5310	14.34	15.00	No
	802.11ax(HE80) (SU)	58	5290	14.10	15.00	No
	802.11ax(HE20) (RU26)	52	5260	13.51	15.00	No
		60	5300	14.42	15.00	No
		64	5320	14.49	15.00	No
	802.11ax(HE20) (RU52)	52	5260	14.48	15.00	No
		60	5300	14.50	15.00	No
		64	5320	14.51	15.00	No
	802.11ax(HE20) (RU106)	52	5260	14.33	15.00	No
		60	5300	14.67	15.00	No
		64	5320	14.72	15.00	No
5.6 (5.47~5.725)	802.11a	100	5500	15.51	16.00	No
		116	5580	15.55	16.00	No
		140	5700	15.66	16.00	No
		144	5720	15.37	16.00	No
	802.11n(HT20)	100	5500	15.42	16.00	No
		116	5580	15.87	16.00	No
		140	5700	15.05	16.00	No
		144	5720	15.61	16.00	No
	802.11n(HT40)	102	5510	15.45	16.00	No
		110	5550	15.23	16.00	No
		134	5670	15.25	16.00	No
		142	5710	15.81	16.00	No
	802.11ac(VHT20)	100	5500	15.73	16.00	No
		116	5580	15.60	16.00	No
		140	5700	15.15	16.00	No
		144	5720	15.14	16.00	No
	802.11ac(VHT40)	102	5510	15.62	16.00	No
		110	5550	15.46	16.00	No
		134	5670	15.59	16.00	No
		142	5710	15.26	16.00	No

	802.11ac(VHT80)	106	5530	15.76	16.00	Yes
		122	5610	15.75	16.00	Yes
		138	5690	15.31	16.00	Yes
	802.11ac(VHT160)	114	5570	11.81	12.00	No
	802.11ax(HE20) (SU)	100	5500	15.30	16.00	No
		116	5580	15.70	16.00	No
		140	5700	15.58	16.00	No
		144	5720	15.54	16.00	No
	802.11ax(HE40) (SU)	102	5510	15.69	16.00	No
		110	5550	15.47	16.00	No
		134	5670	15.38	16.00	No
		142	5710	14.90	16.00	No
	802.11ax(HE80) (SU)	106	5530	15.98	16.00	No
		122	5610	15.50	16.00	No
		138	5690	14.99	16.00	No
	802.11ax(HE160) (SU)	114	5570	11.89	12.00	No
	802.11ax(HE20) (RU26)	100	5500	14.48	15.00	No
		116	5580	13.98	15.00	No
		140	5700	12.04	13.00	No
		144	5720	14.49	15.00	No
	802.11ax(HE20) (RU52)	100	5500	15.52	16.00	No
		116	5580	15.81	16.00	No
		140	5700	15.25	16.00	No
		144	5720	15.43	16.00	No
	802.11ax(HE20) (RU106)	100	5500	15.47	16.00	No
		116	5580	15.96	16.00	No
		140	5700	15.40	16.00	No
		144	5720	15.13	16.00	No
5.8 (5.725~5.85)	802.11a	149	5745	15.24	16.00	No
		157	5785	15.54	16.00	No
		165	5825	15.50	16.00	No
	802.11n(HT20)	149	5745	15.14	16.00	No
		157	5785	15.60	16.00	No
		165	5825	15.46	16.00	No
	802.11n(HT40)	151	5755	15.57	16.00	No
		159	5795	15.85	16.00	No
	802.11ac(VHT20)	149	5745	15.51	16.00	No
		157	5785	15.54	16.00	No
		165	5825	15.27	16.00	No
	802.11ac(VHT40)	151	5755	15.42	16.00	No
		159	5795	15.90	16.00	No
	802.11ac(VHT80)	155	5775	15.42	16.00	Yes

	802.11ax(HE20) (SU)	149	5745	14.89	16.00	No
		157	5785	15.37	16.00	No
		165	5825	15.90	16.00	No
	802.11ax(HE40) (SU)	151	5755	15.49	16.00	No
		159	5795	15.61	16.00	No
	802.11ax(HE80) (SU)	155	5775	15.34	16.00	No
	802.11ax(HE20) (RU26)	149	5745	15.58	16.00	No
		157	5785	15.59	16.00	No
		165	5825	15.49	16.00	No
	802.11ax(HE20) (RU52)	149	5745	15.50	16.00	No
		157	5785	15.30	16.00	No
		165	5825	15.70	16.00	No
5.9 (5.805~5.89 5)	802.11a	149	5745	15.81	16.00	No
		157	5785	15.35	16.00	No
		165	5825	15.89	16.00	No
	802.11n(HT20)	169	5845	15.90	16.00	No
		173	5865	15.96	16.00	No
		177	5885	15.93	16.00	No
	802.11n(HT40)	169	5845	15.62	16.00	No
		173	5865	15.38	16.00	No
		177	5885	15.65	16.00	No
	802.11ac(VHT20)	167	5835	15.51	16.00	No
		175	5875	15.67	16.00	No
		177	5885	15.52	16.00	No
	802.11ac(VHT40)	169	5845	15.98	16.00	No
		173	5865	15.32	16.00	No
		177	5885	15.52	16.00	No
	802.11ac(VHT80)	167	5835	15.33	16.00	No
		175	5875	15.72	16.00	No
	802.11ac(VHT160)	171	5855	15.73	16.00	No
	802.11ac(VHT160)	163	5815	15.81	16.00	Yes
	802.11ax(HE20) (SU)	169	5845	15.86	16.00	No
		173	5865	15.51	16.00	No
		177	5885	15.47	16.00	No
	802.11ax(HE40) (SU)	167	5835	15.29	16.00	No
		175	5875	15.51	16.00	No
	802.11ax(HE80) (SU)	171	5855	16.00	16.00	No
	802.11ax(HE160) (SU)	163	5815	15.76	16.00	No
	802.11ax(HE20) (RU26)	169	5845	12.81	14.00	No
		173	5865	12.59	13.00	No
		177	5885	9.86	10.00	No

	802.11ax(HE20) (RU52)	169	5845	15.46	16.00	No
		173	5865	15.38	16.00	No
		177	5885	15.70	16.00	No
	802.11ax(HE20) (RU106)	169	5845	15.90	16.00	No
		173	5865	15.74	16.00	No
		177	5885	15.70	16.00	No
Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.						

8.1.5 5G WIFI (SISO-Aux. Antenna) (Laptop)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	14.55	15.00	No
		40	5200	14.63	15.00	No
		48	5240	14.62	15.00	No
	802.11n(HT20)	36	5180	14.69	15.00	No
		40	5200	14.49	15.00	No
		48	5240	14.35	15.00	No
	802.11n(HT40)	38	5190	14.85	15.00	No
		46	5230	14.63	15.00	No
	802.11ac(VHT20)	36	5180	14.68	15.00	No
		40	5200	14.34	15.00	No
		48	5240	14.87	15.00	No
	802.11ac(VHT40)	38	5190	14.83	15.00	No
		46	5230	14.36	15.00	No
	802.11ac(VHT80)	42	5210	14.42	15.00	No
	802.11ac(VHT160)	50	5250	10.76	11.00	No
	802.11ax(HE20) (SU)	36	5180	14.60	15.00	No
		40	5200	14.35	15.00	No
		48	5240	14.81	15.00	No
	802.11ax(HE40) (SU)	38	5190	14.33	15.00	No
		46	5230	14.32	15.00	No
	802.11ax(HE80) (SU)	42	5210	14.72	15.00	No
	802.11ax(HE160) (SU)	50	5250	11.04	12.00	No
	802.11ax(HE20) (RU26)	36	5180	13.72	15.00	No
		40	5200	13.75	15.00	No
		48	5240	13.73	15.00	No
	802.11ax(HE20) (RU52)	36	5180	14.81	15.00	No
		40	5200	14.39	15.00	No
		48	5240	14.61	15.00	No
	802.11ax(HE20) (RU106)	36	5180	14.81	15.00	No
		40	5200	14.69	15.00	No
		48	5240	14.35	15.00	No
5.3 (5.25~5.35)	802.11a	52	5260	14.50	15.00	No
		60	5300	14.56	15.00	No
		64	5320	14.39	15.00	No
	802.11n(HT20)	52	5260	14.73	15.00	No
		60	5300	14.65	15.00	No
		64	5320	14.42	15.00	No
	802.11n(HT40)	54	5270	14.53	15.00	No

		62	5310	14.36	15.00	No
	802.11ac(VHT20)	52	5260	14.64	15.00	No
		60	5300	14.38	15.00	No
		64	5320	14.68	15.00	No
	802.11ac(VHT40)	54	5270	14.50	15.00	No
		62	5310	14.71	15.00	No
	802.11ac(VHT80)	58	5290	13.85	15.00	Yes
	802.11ax(HE20) (SU)	52	5260	14.72	15.00	No
		60	5300	14.71	15.00	No
		64	5320	14.54	15.00	No
	802.11ax(HE40) (SU)	54	5270	14.51	15.00	No
		62	5310	14.57	15.00	No
	802.11ax(HE80) (SU)	58	5290	13.80	15.00	No
	802.11ax(HE20) (RU26)	52	5260	14.08	15.00	No
		60	5300	14.45	15.00	No
		64	5320	14.35	15.00	No
	802.11ax(HE20) (RU52)	52	5260	14.66	15.00	No
		60	5300	14.34	15.00	No
		64	5320	14.88	15.00	No
	802.11ax(HE20) (RU106)	52	5260	14.90	15.00	No
		60	5300	14.61	15.00	No
		64	5320	14.66	15.00	No
5.6 (5.47~5.725)	802.11a	100	5500	15.66	16.00	No
		116	5580	15.16	16.00	No
		140	5700	15.85	16.00	No
		144	5720	15.41	16.00	No
	802.11n(HT20)	100	5500	15.58	16.00	No
		116	5580	15.78	16.00	No
		140	5700	15.56	16.00	No
		144	5720	15.80	16.00	No
	802.11n(HT40)	102	5510	15.75	16.00	No
		110	5550	15.76	16.00	No
		134	5670	15.76	16.00	No
		142	5710	15.86	16.00	No
	802.11ac(VHT20)	100	5500	15.33	16.00	No
		116	5580	15.80	16.00	No
		140	5700	15.55	16.00	No
		144	5720	15.85	16.00	No
	802.11ac(VHT40)	102	5510	15.92	16.00	No
		110	5550	15.87	16.00	No
		134	5670	15.89	16.00	No
		142	5710	15.61	16.00	No

	802.11ac(VHT80)	106	5530	15.52	16.00	Yes
		122	5610	15.62	16.00	Yes
		138	5690	15.67	16.00	Yes
	802.11ac(VHT160)	114	5570	11.61	12.00	No
	802.11ax(HE20) (SU)	100	5500	15.70	16.00	No
		116	5580	15.40	16.00	No
		140	5700	15.10	16.00	No
		144	5720	15.40	16.00	No
	802.11ax(HE40) (SU)	102	5510	15.99	16.00	No
		110	5550	15.85	16.00	No
		134	5670	15.64	16.00	No
		142	5710	15.87	16.00	No
	802.11ax(HE80) (SU)	106	5530	15.48	16.00	No
		122	5610	15.64	16.00	No
		138	5690	15.59	16.00	No
	802.11ax(HE160) (SU)	114	5570	11.84	12.00	No
	802.11ax(HE20) (RU26)	100	5500	14.19	15.00	No
		116	5580	14.68	15.00	No
		140	5700	12.08	13.00	No
		144	5720	14.49	15.00	No
	802.11ax(HE20) (RU52)	100	5500	15.60	16.00	No
		116	5580	15.60	16.00	No
		140	5700	15.47	16.00	No
		144	5720	15.34	16.00	No
	802.11ax(HE20) (RU106)	100	5500	15.35	16.00	No
		116	5580	15.39	16.00	No
		140	5700	15.82	16.00	No
		144	5720	15.85	16.00	No
5.8 (5.725~5.85)	802.11a	149	5745	15.41	16.00	No
		157	5785	15.54	16.00	No
		165	5825	15.66	16.00	No
	802.11n(HT20)	149	5745	15.66	16.00	No
		157	5785	15.62	16.00	No
		165	5825	15.78	16.00	No
	802.11n(HT40)	151	5755	15.57	16.00	No
		159	5795	15.82	16.00	No
	802.11ac(VHT20)	149	5745	15.71	16.00	No
		157	5785	15.77	16.00	No
		165	5825	15.84	16.00	No
	802.11ac(VHT40)	151	5755	15.48	16.00	No
		159	5795	15.64	16.00	No
	802.11ac(VHT80)	155	5775	15.68	16.00	Yes

	802.11ax(HE20) (SU)	149	5745	15.42	16.00	No
		157	5785	15.32	16.00	No
		165	5825	15.47	16.00	No
	802.11ax(HE40) (SU)	151	5755	15.27	16.00	No
		159	5795	15.61	16.00	No
	802.11ax(HE80) (SU)	155	5775	15.43	16.00	No
	802.11ax(HE20) (RU26)	149	5745	15.85	16.00	No
		157	5785	15.78	16.00	No
		165	5825	15.87	16.00	No
	802.11ax(HE20) (RU52)	149	5745	15.63	16.00	No
		157	5785	15.46	16.00	No
		165	5825	15.48	16.00	No
5.9 (5.805~5.89 5)	802.11a	149	5745	15.72	16.00	No
		157	5785	15.35	16.00	No
		165	5825	15.86	16.00	No
	802.11n(HT20)	169	5845	15.72	16.00	No
		173	5865	15.65	16.00	No
		177	5885	15.63	16.00	No
	802.11n(HT40)	169	5845	15.98	16.00	No
		173	5865	15.51	16.00	No
		177	5885	15.57	16.00	No
	802.11ac(VHT20)	167	5835	15.50	16.00	No
		175	5875	15.55	16.00	No
		177	5885	15.70	16.00	No
	802.11ac(VHT40)	169	5845	15.43	16.00	No
		173	5865	15.60	16.00	No
		177	5885	15.70	16.00	No
	802.11ac(VHT80)	167	5835	15.40	16.00	No
		175	5875	15.70	16.00	No
	802.11ac(VHT160)	171	5855	15.57	16.00	No
	802.11ac(VHT160)	163	5815	15.78	16.00	Yes
	802.11ax(HE20) (SU)	169	5845	15.65	16.00	No
		173	5865	15.67	16.00	No
		177	5885	15.37	16.00	No
	802.11ax(HE40) (SU)	167	5835	15.50	16.00	No
		175	5875	15.69	16.00	No
	802.11ax(HE80) (SU)	171	5855	15.71	16.00	No
	802.11ax(HE160) (SU)	163	5815	15.78	16.00	No
	802.11ax(HE20) (RU26)	169	5845	13.10	14.00	No
		173	5865	12.18	13.00	No
		177	5885	9.97	10.00	No

	802.11ax(HE20) (RU52)	169	5845	14.95	16.00	No
		173	5865	15.67	16.00	No
		177	5885	15.52	16.00	No
	802.11ax(HE20) (RU106)	169	5845	15.61	16.00	No
		173	5865	15.64	16.00	No
		177	5885	15.57	16.00	No
Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.						

8.1.6 5G WIFI (MIMO) (Laptop)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	17.69	18.00	No
		40	5200	17.61	18.00	No
		48	5240	17.58	18.00	No
	802.11n(HT20)	36	5180	17.71	18.00	No
		40	5200	17.66	18.00	No
		48	5240	17.52	18.00	No
	802.11n(HT40)	38	5190	17.71	18.00	No
		46	5230	17.52	18.00	No
	802.11ac(VHT20)	36	5180	17.59	18.00	No
		40	5200	17.46	18.00	No
		48	5240	17.78	18.00	No
	802.11ac(VHT40)	38	5190	17.44	18.00	No
		46	5230	17.37	18.00	No
	802.11ac(VHT80)	42	5210	15.76	16.00	No
	802.11ac(VHT160)	50	5250	12.02	13.00	No
	802.11ax(HE20) (SU)	36	5180	17.74	18.00	No
		40	5200	17.58	18.00	No
		48	5240	17.80	18.00	No
	802.11ax(HE40) (SU)	38	5190	17.46	18.00	No
		46	5230	17.35	18.00	No
	802.11ax(HE80) (SU)	42	5210	15.81	16.00	No
	802.11ax(HE160) (SU)	50	5250	12.36	13.00	No
	802.11ax(HE20) (RU26)	36	5180	11.79	12.00	No
		40	5200	12.11	13.00	No
		48	5240	11.96	12.00	No
	802.11ax(HE20) (RU52)	36	5180	15.48	16.00	No
		40	5200	15.36	16.00	No
		48	5240	15.55	16.00	No
	802.11ax(HE20) (RU106)	36	5180	16.79	17.00	No
		40	5200	16.99	17.00	No
		48	5240	16.79	17.00	No
5.3 (5.25~5.35)	802.11a	52	5260	17.61	18.00	No
		60	5300	17.49	18.00	No
		64	5320	17.46	18.00	No
	802.11n(HT20)	52	5260	17.64	18.00	No
		60	5300	17.66	18.00	No
		64	5320	17.58	18.00	No
	802.11n(HT40)	54	5270	17.57	18.00	No

		62	5310	17.57	18.00	No
	802.11ac(VHT20)	52	5260	17.66	18.00	No
		60	5300	17.46	18.00	No
		64	5320	17.60	18.00	No
	802.11ac(VHT40)	54	5270	17.45	18.00	No
		62	5310	17.75	18.00	No
	802.11ac(VHT80)	58	5290	13.71	14.00	No
	802.11ax(HE20) (SU)	52	5260	17.68	18.00	No
		60	5300	17.65	18.00	No
		64	5320	17.60	18.00	No
	802.11ax(HE40) (SU)	54	5270	17.50	18.00	No
		62	5310	17.62	18.00	No
	802.11ax(HE80) (SU)	58	5290	13.83	14.00	No
	802.11ax(HE20) (RU26)	52	5260	11.97	12.00	No
		60	5300	11.46	12.00	No
		64	5320	11.74	12.00	No
	802.11ax(HE20) (RU52)	52	5260	15.15	16.00	No
		60	5300	15.22	16.00	No
		64	5320	15.17	16.00	No
	802.11ax(HE20) (RU106)	52	5260	16.80	17.00	No
		60	5300	16.43	17.00	No
		64	5320	16.39	17.00	No
5.6 (5.47~5.725)	802.11a	100	5500	18.61	19.00	No
		116	5580	18.54	19.00	No
		140	5700	17.86	19.00	No
		144	5720	18.55	19.00	No
	802.11n(HT20)	100	5500	18.52	19.00	No
		116	5580	18.63	19.00	No
		140	5700	16.01	17.00	No
		144	5720	18.47	19.00	No
	802.11n(HT40)	102	5510	17.83	19.00	No
		110	5550	18.58	19.00	No
		134	5670	17.94	19.00	No
		142	5710	18.62	19.00	No
	802.11ac(VHT20)	100	5500	18.63	19.00	No
		116	5580	18.59	19.00	No
		140	5700	15.77	16.00	No
		144	5720	18.75	19.00	No
	802.11ac(VHT40)	102	5510	17.97	19.00	No
		110	5550	18.55	19.00	No
		134	5670	17.96	19.00	No
		142	5710	18.70	19.00	No

	802.11ac(VHT80)	106	5530	16.78	17.00	No
		122	5610	17.29	18.00	No
		138	5690	18.71	19.00	No
	802.11ac(VHT160)	114	5570	12.69	13.00	No
	802.11ax(HE20) (SU)	100	5500	18.70	19.00	No
		116	5580	18.70	19.00	No
		140	5700	16.15	17.00	No
		144	5720	18.49	19.00	No
	802.11ax(HE40) (SU)	102	5510	17.92	19.00	No
		110	5550	18.65	19.00	No
		134	5670	18.05	19.00	No
		142	5710	18.49	19.00	No
	802.11ax(HE80) (SU)	106	5530	16.96	17.00	No
		122	5610	17.19	18.00	No
		138	5690	18.66	19.00	No
	802.11ax(HE160) (SU)	114	5570	13.02	14.00	No
	802.11ax(HE20) (RU26)	100	5500	12.20	13.00	No
		116	5580	12.17	13.00	No
		140	5700	11.96	13.00	No
		144	5720	12.88	14.00	No
	802.11ax(HE20) (RU52)	100	5500	15.43	16.00	No
		116	5580	15.43	16.00	No
		140	5700	13.99	15.00	No
		144	5720	15.73	16.00	No
	802.11ax(HE20) (RU106)	100	5500	17.07	18.00	No
		116	5580	16.93	18.00	No
		140	5700	16.58	18.00	No
		144	5720	17.17	18.00	No
5.8 (5.725~5.85)	802.11a	149	5745	18.47	19.00	No
		157	5785	18.37	19.00	No
		165	5825	18.57	19.00	No
	802.11n(HT20)	149	5745	18.47	19.00	No
		157	5785	18.19	19.00	No
		165	5825	18.61	19.00	No
	802.11n(HT40)	151	5755	18.51	19.00	No
		159	5795	18.44	19.00	No
	802.11ac(VHT20)	149	5745	18.57	19.00	No
		157	5785	18.43	19.00	No
		165	5825	18.56	19.00	No
	802.11ac(VHT40)	151	5755	18.55	19.00	No
		159	5795	18.41	19.00	No
	802.11ac(VHT80)	155	5775	18.67	19.00	No

	802.11ax(HE20) (SU)	149	5745	18.10	19.00	No
		157	5785	18.38	19.00	No
		165	5825	18.35	19.00	No
	802.11ax(HE40) (SU)	151	5755	18.60	19.00	No
		159	5795	18.39	19.00	No
	802.11ax(HE80) (SU)	155	5775	18.64	19.00	No
	802.11ax(HE20) (RU26)	149	5745	18.86	19.00	No
		157	5785	18.52	19.00	No
		165	5825	18.28	19.00	No
	802.11ax(HE20) (RU52)	149	5745	18.52	19.00	No
		157	5785	18.71	19.00	No
		165	5825	18.64	19.00	No
5.9 (5.805~5.89 5)	802.11a	149	5745	18.50	19.00	No
		157	5785	18.96	19.00	No
		165	5825	18.67	19.00	No
	802.11n(HT20)	169	5845	16.49	17.00	No
		173	5865	16.44	17.00	No
		177	5885	16.33	17.00	No
	802.11n(HT40)	169	5845	16.51	17.00	No
		173	5865	16.72	17.00	No
		177	5885	16.35	17.00	No
	802.11ac(VHT20)	167	5835	18.40	19.00	No
		175	5875	18.52	19.00	No
		177	5885	16.49	17.00	No
	802.11ac(VHT40)	169	5845	16.30	17.00	No
		173	5865	16.65	17.00	No
		177	5885	16.49	17.00	No
	802.11ac(VHT80)	167	5835	18.65	19.00	No
		175	5875	18.72	19.00	No
	802.11ac(VHT160)	171	5855	18.65	19.00	No
	802.11ax(HE20) (SU)	163	5815	15.33	16.00	No
		169	5845	16.43	17.00	No
		173	5865	16.70	17.00	No
	802.11ax(HE40) (SU)	177	5885	16.67	17.00	No
		167	5835	18.42	19.00	No
	802.11ax(HE80) (SU)	175	5875	18.86	19.00	No
		171	5855	18.64	19.00	No
	802.11ax(HE160) (SU)	163	5815	15.32	19.00	No
	802.11ax(HE20) (RU26)	169	5845	9.19	10.00	No
		173	5865	9.48	10.00	No
		177	5885	6.38	7.00	No

	802.11ax(HE20) (RU52)	169	5845	13.01	14.00	No
		173	5865	12.97	14.00	No
		177	5885	11.85	13.00	No
	802.11ax(HE20) (RU106)	169	5845	14.40	15.00	No
		173	5865	14.31	15.00	No
		177	5885	14.04	14.00	No

Note: For WiFi SAR testing was performed on single antenna RF power in SISO mode that is larger to the single antenna RF power in MIMO mode, and for RF exposure assessment of MIMO mode simultaneous transmission used more conservative "Max. (main ant) + Max. (aux. ant) " method to determine SAR compliance. When the sum of 1-g SISO transmission SAR measurement is <1.6 W/kg, MIMO SAR test is not required.

8.1.7 6G WIFI (SISO-Main Antenna) (Laptop)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Power Limit (dBm)	SAR Test Require.
6 (5.925~7.125)	802.11ax(HE20) (SU)	1	5955	6.81	8.00	No
		49	6195	6.94	8.00	No
		93	6415	6.62	8.00	No
		97	6435	6.65	8.00	No
		105	6475	6.86	8.00	No
		113	6515	6.53	8.00	No
		117	6535	6.76	8.00	No
		149	6695	6.92	8.00	No
		181	6855	7.21	8.00	No
		185	6875	6.73	8.00	No
		189	6895	6.98	8.00	No
		209	6995	6.37	8.00	No
		229	7095	6.90	8.00	No
		233	7115	7.05	8.00	No
	802.11ax(HE40) (SU)	3	5965	9.91	11.00	No
		51	6205	9.89	11.00	No
		91	6405	10.05	11.00	No
		99	6445	9.94	11.00	No
		107	6485	9.79	11.00	No
		115	6525	10.01	11.00	No
		123	6565	9.71	11.00	No
		147	6685	9.79	11.00	No
		179	6845	9.25	11.00	No
		187	6885	9.66	11.00	No
		195	6925	10.33	11.00	No
		211	7005	9.40	11.00	No
		227	7085	10.04	11.00	No
	802.11ax(HE80) (SU)	7	5985	12.02	13.00	No
		55	6225	12.60	13.00	No
		87	6385	12.56	13.00	No
		103	6465	12.53	13.00	No
		119	6545	12.78	13.00	No
		135	6625	12.57	13.00	No
		151	6705	12.55	13.00	No
		167	6785	12.64	13.00	No
		183	6865	12.66	13.00	No
		199	6945	12.65	13.00	No
		215	7025	12.21	13.00	No
	802.11ax(HE160)	15	6025	12.54	13.00	Yes

	(SU)	47	6185	12.88	13.00	Yes
		79	6345	12.73	13.00	Yes
		111	6505	12.81	13.00	Yes
		143	6665	12.53	13.00	Yes
		175	6825	12.53	13.00	Yes
		207	6985	12.49	13.00	Yes
	802.11ax(HE20) (RU26)	1	5955	-2.85	-2.00	No
		49	6195	-2.96	-2.00	No
		93	6415	-2.84	-2.00	No
		97	6435	-2.78	-2.00	No
		105	6475	-3.32	-2.00	No
		113	6515	-2.51	-2.00	No
		117	6535	-3.07	-2.00	No
		149	6695	-2.81	-2.00	No
		181	6855	-2.91	-2.00	No
		185	6875	-2.69	-2.00	No
		189	6895	-2.49	-2.00	No
		209	6995	-2.58	-2.00	No
		229	7095	-1.47	-1.00	No
		233	7115	-1.48	-1.00	No
	802.11ax(HE20) (RU52)	1	5955	0.64	2.00	No
		49	6195	0.44	2.00	No
		93	6415	0.43	2.00	No
		97	6435	0.57	2.00	No
		105	6475	0.61	2.00	No
		113	6515	0.20	2.00	No
		117	6535	0.64	2.00	No
		149	6695	0.31	2.00	No
		181	6855	0.47	2.00	No
		185	6875	0.48	2.00	No
		189	6895	0.84	2.00	No
		209	6995	0.80	2.00	No
		229	7095	1.23	2.00	No
		233	7115	1.94	2.00	No
	802.11ax(HE20) (RU106)	1	5955	3.37	4.00	No
		49	6195	3.30	4.00	No
		93	6415	3.23	4.00	No
		97	6435	3.02	4.00	No
		105	6475	3.37	4.00	No
		113	6515	3.26	4.00	No
		117	6535	3.39	4.00	No
		149	6695	3.24	4.00	No
		181	6855	3.41	4.00	No

		185	6875	3.22	4.00	No
		189	6895	3.28	4.00	No
		209	6995	3.40	4.00	No
		229	7095	4.18	5.00	No
		233	7115	4.24	5.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

8.1.8 6G WIFI (SISO-Aux. Antenna) (Laptop)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Power Limit (dBm)	SAR Test Require.
6 (5.925~7.125)	802.11ax(HE20) (SU)	1	5955	6.78	8.00	No
		49	6195	6.69	8.00	No
		93	6415	6.67	8.00	No
		97	6435	6.77	8.00	No
		105	6475	7.03	8.00	No
		113	6515	6.65	8.00	No
		117	6535	6.56	8.00	No
		149	6695	6.86	8.00	No
		181	6855	6.74	8.00	No
		185	6875	6.86	8.00	No
		189	6895	6.65	8.00	No
		209	6995	6.03	8.00	No
		229	7095	7.11	8.00	No
		233	7115	7.20	8.00	No
	802.11ax(HE40) (SU)	3	5965	9.81	11.00	No
		51	6205	10.01	11.00	No
		91	6405	10.02	11.00	No
		99	6445	9.92	11.00	No
		107	6485	9.96	11.00	No
		115	6525	10.24	11.00	No
		123	6565	9.86	11.00	No
		147	6685	9.70	11.00	No
		179	6845	9.55	11.00	No
		187	6885	9.74	11.00	No
		195	6925	10.24	11.00	No
		211	7005	9.30	11.00	No
		227	7085	10.23	11.00	No
	802.11ax(HE80) (SU)	7	5985	12.36	13.00	No
		55	6225	12.40	13.00	No
		87	6385	12.32	13.00	No
		103	6465	12.67	13.00	No
		119	6545	12.45	13.00	No
		135	6625	12.76	13.00	No
		151	6705	12.75	13.00	No
		167	6785	12.87	13.00	No
		183	6865	12.71	13.00	No
		199	6945	12.99	13.00	No
		215	7025	12.33	13.00	No
	802.11ax(HE160)	15	6025	12.43	13.00	Yes

	(SU)	47	6185	12.67	13.00	Yes
		79	6345	12.47	13.00	Yes
		111	6505	12.50	13.00	Yes
		143	6665	12.46	13.00	Yes
		175	6825	12.35	13.00	Yes
		207	6985	12.53	13.00	Yes
	802.11ax(HE20) (RU26)	1	5955	-2.36	-2.00	No
		49	6195	-3.11	-2.00	No
		93	6415	-2.88	-2.00	No
		97	6435	-2.87	-2.00	No
		105	6475	-3.22	-2.00	No
		113	6515	-2.66	-2.00	No
		117	6535	-3.31	-2.00	No
		149	6695	-2.74	-2.00	No
		181	6855	-3.02	-2.00	No
		185	6875	-2.44	-2.00	No
		189	6895	-2.34	-2.00	No
		209	6995	-3.02	-2.00	No
		229	7095	-1.81	-1.00	No
		233	7115	-1.67	-1.00	No
	802.11ax(HE20) (RU52)	1	5955	0.47	2.00	No
		49	6195	0.51	2.00	No
		93	6415	0.60	2.00	No
		97	6435	0.21	2.00	No
		105	6475	0.35	2.00	No
		113	6515	0.53	2.00	No
		117	6535	0.60	2.00	No
		149	6695	0.12	2.00	No
		181	6855	0.64	2.00	No
		185	6875	0.33	2.00	No
		189	6895	0.55	2.00	No
		209	6995	0.39	2.00	No
		229	7095	1.28	2.00	No
		233	7115	1.82	2.00	No
	802.11ax(HE20) (RU106)	1	5955	3.24	4.00	No
		49	6195	3.01	4.00	No
		93	6415	2.72	4.00	No
		97	6435	3.07	4.00	No
		105	6475	3.12	4.00	No
		113	6515	3.55	4.00	No
		117	6535	3.20	4.00	No
		149	6695	3.43	4.00	No
		181	6855	3.30	4.00	No

		185	6875	3.06	4.00	No
		189	6895	2.92	4.00	No
		209	6995	3.00	4.00	No
		229	7095	3.83	5.00	No
		233	7115	4.62	5.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

8.1.9 6G WIFI (MIMO) (Laptop)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Power Limit (dBm)	SAR Test Require.
6 (5.925~7.125)	802.11ax(HE20) (SU)	1	5955	3.42	4.00	No
		49	6195	3.36	4.00	No
		93	6415	3.63	4.00	No
		97	6435	3.48	4.00	No
		105	6475	3.54	4.00	No
		113	6515	3.71	4.00	No
		117	6535	3.79	4.00	No
		149	6695	3.54	4.00	No
		181	6855	3.46	4.00	No
		185	6875	3.78	4.00	No
		189	6895	3.67	4.00	No
		209	6995	3.61	4.00	No
		229	7095	4.05	5.00	No
		233	7115	4.28	5.00	No
	802.11ax(HE40) (SU)	3	5965	6.70	7.00	No
		51	6205	6.86	7.00	No
		91	6405	6.92	7.00	No
		99	6445	6.99	7.00	No
		107	6485	6.84	7.00	No
		115	6525	6.89	7.00	No
		123	6565	6.92	7.00	No
		147	6685	6.56	7.00	No
		179	6845	6.72	7.00	No
		187	6885	6.29	7.00	No
		195	6925	7.04	8.00	No
		211	7005	6.81	7.00	No
		227	7085	7.06	8.00	No
	802.11ax(HE80) (SU)	7	5985	9.79	10.00	No
		55	6225	9.29	10.00	No
		87	6385	9.52	10.00	No
		103	6465	9.70	10.00	No
		119	6545	9.39	10.00	No
		135	6625	9.35	10.00	No
		151	6705	9.12	10.00	No
		167	6785	9.33	10.00	No
		183	6865	9.25	10.00	No
		199	6945	9.47	10.00	No
	802.11ax(HE160)	215	7025	9.74	10.00	No
		15	6025	11.90	12.00	No

	(SU)	47	6185	11.29	12.00	No
		79	6345	11.92	12.00	No
		111	6505	12.09	13.00	No
		143	6665	11.65	12.00	No
		175	6825	11.88	12.00	No
		207	6985	7.59	8.00	No
	802.11ax(HE20) (RU26)	1	5955	-5.79	-5.00	No
		49	6195	-5.92	-5.00	No
		93	6415	-5.54	-5.00	No
		97	6435	-5.70	-5.00	No
		105	6475	-5.88	-5.00	No
		113	6515	-6.04	-5.00	No
		117	6535	-5.65	-5.00	No
		149	6695	-5.09	-5.00	No
		181	6855	-5.45	-5.00	No
		185	6875	-5.58	-5.00	No
		189	6895	-5.12	-5.00	No
		209	6995	-5.32	-5.00	No
		229	7095	-4.17	-4.00	No
		233	7115	-4.22	-4.00	No
	802.11ax(HE20) (RU52)	1	5955	-2.34	-2.00	No
		49	6195	-2.71	-2.00	No
		93	6415	-2.86	-2.00	No
		97	6435	-2.38	-2.00	No
		105	6475	-2.40	-2.00	No
		113	6515	-2.35	-2.00	No
		117	6535	-2.77	-2.00	No
		149	6695	-2.32	-2.00	No
		181	6855	-2.25	-2.00	No
		185	6875	-2.35	-2.00	No
		189	6895	-2.40	-2.00	No
		209	6995	-2.06	-2.00	No
		229	7095	-0.73	0.00	No
		233	7115	-1.16	-1.00	No
	802.11ax(HE20) (RU106)	1	5955	0.28	1.00	No
		49	6195	0.35	1.00	No
		93	6415	0.43	1.00	No
		97	6435	0.43	1.00	No
		105	6475	0.12	1.00	No
		113	6515	0.39	1.00	No
		117	6535	0.17	1.00	No
		149	6695	0.30	1.00	No
		181	6855	-0.05	0.00	No

		185	6875	0.35	1.00	No
		189	6895	0.58	1.00	No
		209	6995	0.60	1.00	No
		229	7095	1.43	2.00	No
		233	7115	1.80	2.00	No

Note: For WiFi SAR testing was performed on single antenna RF power in SISO mode that is larger to the single antenna RF power in MIMO mode, and for RF exposure assessment of MIMO mode simultaneous transmission used more conservative "Max. (main ant) + Max. (aux. ant) " method to determine SAR compliance. When the sum of 1-g SISO transmission SAR measurement is <1.6 W/kg, MIMO SAR test is not required.

8.1.10 2.4G WIFI (SISO-Main Antenna) (Tablet)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	11.74	12.00	Yes
		6	2437	11.37	12.00	Yes
		10	2457	11.67	12.00	No
		11	2462	11.75	12.00	Yes
		12	2467	11.58	12.00	No
		13	2472	11.32	12.00	No
	802.11g	1	2412	11.83	12.00	No
		2	2417	11.85	12.00	No
		6	2437	11.37	12.00	No
		10	2457	11.52	12.00	No
		11	2462	11.39	12.00	No
		12	2467	11.76	12.00	No
		13	2472	11.80	12.00	No
	VHT20	1	2412	11.72	12.00	No
		2	2417	11.83	12.00	No
		6	2437	11.55	12.00	No
		10	2457	11.77	12.00	No
		11	2462	11.46	12.00	No
		12	2467	11.36	12.00	No
		13	2472	10.43	11.00	No
	VHT40	3	2422	11.47	12.00	No
		6	2437	11.46	12.00	No
		9	2452	11.42	12.00	No
		10	2457	11.61	12.00	No
		11	2462	11.61	12.00	No
	802.11ax(HE20) (SU)	1	2412	11.30	12.00	No
		2	2417	11.78	12.00	No
		6	2437	11.39	12.00	No
		10	2457	11.42	12.00	No
		11	2462	11.45	12.00	No
		12	2467	11.82	12.00	No
		13	2472	10.73	11.00	No
	802.11ax(HE40) (SU)	3	2422	11.65	12.00	No
		6	2437	11.55	12.00	No
		9	2452	11.82	12.00	No
		10	2457	11.55	12.00	No

	802.11ax(HE20) (RU26)	11	2462	11.55	12.00	No
		1	2412	11.55	12.00	No
		6	2437	11.55	12.00	No
		11	2462	11.55	12.00	No
		12	2467	8.22	9.00	No
		13	2472	-3.60	-3.00	No
	802.11ax(HE20) (RU52)	1	2412	11.86	12.00	No
		6	2437	11.59	12.00	No
		11	2462	11.73	12.00	No
		12	2467	10.45	11.00	No
		13	2472	2.53	3.00	No
	802.11ax(HE20) (RU106)	1	2412	11.56	12.00	No
		6	2437	11.56	12.00	No
		11	2462	11.56	12.00	No
		12	2467	11.56	12.00	No
		13	2472	5.52	6.00	No

Note: According KDB 248227 D01 SAR is not required for the following 2.4 GHz OFDM conditions. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Adjusted SAR = Report SAR * (max power (OFDM)/ max power (DSSS)) = $0.754 * (15.85\text{mW}/15.85\text{mW}) = 0.754$ W/Kg, so the 2.4G OFDM SAR test is not required.

8.1.11 2.4G WIFI (SISO-Aux. Antenna) (Tablet)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	11.52	12.00	Yes
		6	2437	11.34	12.00	Yes
		10	2457	11.50	12.00	No
		11	2462	11.64	12.00	Yes
		12	2467	11.55	12.00	No
		13	2472	11.52	12.00	No
	802.11g	1	2412	11.86	12.00	No
		2	2417	11.68	12.00	No
		6	2437	11.70	12.00	No
		10	2457	11.57	12.00	No
		11	2462	11.54	12.00	No
		12	2467	11.47	12.00	No
		13	2472	11.84	12.00	No
	VHT20	1	2412	11.86	12.00	No
		2	2417	11.64	12.00	No
		6	2437	11.31	12.00	No
		10	2457	11.58	12.00	No
		11	2462	11.34	12.00	No
		12	2467	11.43	12.00	No
		13	2472	10.11	11.00	No
	VHT40	3	2422	11.74	12.00	No
		6	2437	11.56	12.00	No
		9	2452	11.82	12.00	No
		10	2457	11.60	12.00	No
		11	2462	11.30	12.00	No
	802.11ax(HE20) (SU)	1	2412	11.75	12.00	No
		2	2417	11.44	12.00	No
		6	2437	11.64	12.00	No
		10	2457	11.72	12.00	No
		11	2462	11.33	12.00	No
		12	2467	11.53	12.00	No
		13	2472	10.23	11.00	No
	802.11ax(HE40) (SU)	3	2422	11.65	12.00	No
		6	2437	11.55	12.00	No
		9	2452	11.82	12.00	No
		10	2457	11.55	12.00	No

	802.11ax(HE20) (RU26)	11	2462	11.55	12.00	No
		1	2412	11.55	12.00	No
		6	2437	11.55	12.00	No
		11	2462	11.55	12.00	No
		12	2467	8.22	9.00	No
		13	2472	-3.19	-3.00	No
	802.11ax(HE20) (RU52)	1	2412	11.57	12.00	No
		6	2437	11.76	12.00	No
		11	2462	11.62	12.00	No
		12	2467	10.64	11.00	No
		13	2472	2.32	3.00	No
	802.11ax(HE20) (RU106)	1	2412	11.53	12.00	No
		6	2437	11.67	12.00	No
		11	2462	11.37	12.00	No
		12	2467	11.53	12.00	No
		13	2472	5.50	6.00	No

Note: According KDB 248227 D01 SAR is not required for the following 2.4 GHz OFDM conditions. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Adjusted SAR = Report SAR * (max power (OFDM)/ max power (DSSS)) = 0.898 * (15.85mW/15.85mW) = 0.898 W/Kg, so the 2.4G OFDM SAR test is not required.

8.1.12 2.4G WIFI (MIMO) (Tablet)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
2.4 (2.4~2.4835)	802.11b	1	2412	14.64	15.00	No
		6	2437	14.37	15.00	No
		10	2457	14.64	15.00	No
		11	2462	14.67	15.00	No
		12	2467	14.58	15.00	No
		13	2472	8.34	9.00	No
	802.11g	1	2412	14.86	15.00	No
		2	2417	14.78	15.00	No
		6	2437	14.55	15.00	No
		10	2457	14.56	15.00	No
		11	2462	14.48	15.00	No
		12	2467	14.63	15.00	No
		13	2472	13.60	14.00	No
	VHT20	1	2412	14.80	15.00	No
		2	2417	14.75	15.00	No
		6	2437	14.44	15.00	No
		10	2457	14.69	15.00	No
		11	2462	14.41	15.00	No
		12	2467	14.41	15.00	No
		13	2472	8.45	9.00	No
	VHT40	3	2422	14.62	15.00	No
		6	2437	14.52	15.00	No
		9	2452	14.63	15.00	No
		10	2457	14.62	15.00	No
		11	2462	14.47	15.00	No
	802.11ax(HE20) (SU)	1	2412	14.54	15.00	No
		2	2417	14.62	15.00	No
		6	2437	14.53	15.00	No
		10	2457	14.58	15.00	No
		11	2462	14.40	15.00	No
		12	2467	14.69	15.00	No
		13	2472	8.14	9.00	No
	802.11ax(HE40) (SU)	3	2422	14.66	15.00	No
		6	2437	14.56	15.00	No
		9	2452	14.83	15.00	No
		10	2457	14.56	15.00	No

	802.11ax(HE20) (RU26)	11	2462	14.56	15.00	No
		1	2412	14.56	15.00	No
		6	2437	14.56	15.00	No
		11	2462	14.56	15.00	No
		12	2467	10.17	11.00	No
		13	2472	-3.18	-2.00	No
	802.11ax(HE20) (RU52)	1	2412	14.73	15.00	No
		6	2437	14.69	15.00	No
		11	2462	14.69	15.00	No
		12	2467	11.49	12.00	No
		13	2472	2.92	4.00	No
	802.11ax(HE20) (RU106)	1	2412	14.56	15.00	No
		6	2437	14.63	15.00	No
		11	2462	14.48	15.00	No
		12	2467	14.56	15.00	No
		13	2472	5.78	6.00	No

Note: For WiFi SAR testing was performed on single antenna RF power in SISO mode that is larger to the single antenna RF power in MIMO mode, and for RF exposure assessment of MIMO mode simultaneous transmission used more conservative "Max. (main ant) + Max. (aux. ant) " method to determine SAR compliance. When the sum of 1-g SISO transmission SAR measurement is <1.6 W/kg, MIMO SAR test is not required.

8.1.13 5G WIFI (SISO-Main Antenna) (Tablet)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	10.72	11.00	No
		40	5200	10.44	11.00	No
		48	5240	10.80	11.00	No
	802.11n(HT20)	36	5180	10.36	11.00	No
		40	5200	10.62	11.00	No
		48	5240	10.73	11.00	No
	802.11n(HT40)	38	5190	10.71	11.00	No
		46	5230	10.61	11.00	No
	802.11ac(VHT20)	36	5180	10.30	11.00	No
		40	5200	10.34	11.00	No
		48	5240	10.37	11.00	No
	802.11ac(VHT40)	38	5190	10.43	11.00	No
		46	5230	10.53	11.00	No
	802.11ac(VHT80)	42	5210	10.81	11.00	No
	802.11ac(VHT160)	50	5250	10.89	11.00	No
	802.11ax(HE20) (SU)	36	5180	10.90	11.00	No
		40	5200	10.39	11.00	No
		48	5240	10.35	11.00	No
	802.11ax(HE40) (SU)	38	5190	10.82	11.00	No
		46	5230	10.30	11.00	No
	802.11ax(HE80) (SU)	42	5210	10.82	11.00	No
	802.11ax(HE160) (SU)	50	5250	10.59	11.00	No
	802.11ax(HE20) (RU26)	36	5180	10.43	11.00	No
		40	5200	10.70	11.00	No
		48	5240	10.59	11.00	No
	802.11ax(HE20) (RU52)	36	5180	10.65	11.00	No
		40	5200	10.60	11.00	No
		48	5240	10.90	11.00	No
	802.11ax(HE20) (RU106)	36	5180	10.51	11.00	No
		40	5200	10.79	11.00	No
		48	5240	10.48	11.00	No
5.3 (5.25~5.35)	802.11a	52	5260	10.78	11.00	No
		60	5300	10.56	11.00	No
		64	5320	10.67	11.00	No
	802.11n(HT20)	52	5260	10.31	11.00	No
		60	5300	10.49	11.00	No
		64	5320	10.77	11.00	No
	802.11n(HT40)	54	5270	10.64	11.00	No

		62	5310	10.86	11.00	No
	802.11ac(VHT20)	52	5260	10.50	11.00	No
		60	5300	10.76	11.00	No
		64	5320	10.64	11.00	No
	802.11ac(VHT40)	54	5270	10.62	11.00	No
		62	5310	10.70	11.00	No
	802.11ac(VHT80)	58	5290	10.88	11.00	Yes
	802.11ax(HE20) (SU)	52	5260	10.50	11.00	No
		60	5300	10.33	11.00	No
		64	5320	10.41	11.00	No
	802.11ax(HE40) (SU)	54	5270	10.37	11.00	No
		62	5310	10.57	11.00	No
	802.11ax(HE80) (SU)	58	5290	10.85	11.00	No
	802.11ax(HE20) (RU26)	52	5260	10.69	11.00	No
		60	5300	10.34	11.00	No
		64	5320	10.29	11.00	No
	802.11ax(HE20) (RU52)	52	5260	10.78	11.00	No
		60	5300	10.55	11.00	No
		64	5320	10.35	11.00	No
	802.11ax(HE20) (RU106)	52	5260	10.59	11.00	No
		60	5300	10.87	11.00	No
		64	5320	10.50	11.00	No
5.6 (5.47~5.725)	802.11a	100	5500	10.59	11.00	No
		116	5580	10.46	11.00	No
		140	5700	10.57	11.00	No
		144	5720	10.65	11.00	No
	802.11n(HT20)	100	5500	10.33	11.00	No
		116	5580	10.41	11.00	No
		140	5700	10.69	11.00	No
		144	5720	10.35	11.00	No
	802.11n(HT40)	102	5510	10.47	11.00	No
		110	5550	10.88	11.00	No
		134	5670	10.72	11.00	No
		142	5710	10.55	11.00	No
	802.11ac(VHT20)	100	5500	10.87	11.00	No
		116	5580	10.76	11.00	No
		140	5700	10.97	11.00	No
		144	5720	10.77	11.00	No
	802.11ac(VHT40)	102	5510	10.62	11.00	No
		110	5550	10.87	11.00	No
		134	5670	10.33	11.00	No
		142	5710	10.73	11.00	No

	802.11ac(VHT80)	106	5530	10.61	11.00	Yes
		122	5610	10.56	11.00	Yes
		138	5690	10.59	11.00	Yes
	802.11ac(VHT160)	114	5570	9.76	10.00	No
	802.11ax(HE20) (SU)	100	5500	10.83	11.00	No
		116	5580	10.62	11.00	No
		140	5700	10.74	11.00	No
		144	5720	10.63	11.00	No
	802.11ax(HE40) (SU)	102	5510	10.39	11.00	No
		110	5550	10.86	11.00	No
		134	5670	10.54	11.00	No
		142	5710	10.74	11.00	No
	802.11ax(HE80) (SU)	106	5530	10.38	11.00	No
		122	5610	10.64	11.00	No
		138	5690	10.30	11.00	No
	802.11ax(HE160) (SU)	114	5570	9.68	10.00	No
	802.11ax(HE20) (RU26)	100	5500	10.50	11.00	No
		116	5580	10.70	11.00	No
		140	5700	10.84	11.00	No
		144	5720	10.75	11.00	No
	802.11ax(HE20) (RU52)	100	5500	10.46	11.00	No
		116	5580	10.42	11.00	No
		140	5700	10.73	11.00	No
		144	5720	10.60	11.00	No
	802.11ax(HE20) (RU106)	100	5500	10.54	11.00	No
		116	5580	10.44	11.00	No
		140	5700	10.48	11.00	No
		144	5720	10.66	11.00	No
5.8 (5.725~5.85)	802.11a	149	5745	10.44	11.00	No
		157	5785	10.78	11.00	No
		165	5825	10.82	11.00	No
	802.11n(HT20)	149	5745	10.41	11.00	No
		157	5785	10.87	11.00	No
		165	5825	10.50	11.00	No
	802.11n(HT40)	151	5755	10.49	11.00	No
		159	5795	10.57	11.00	No
	802.11ac(VHT20)	149	5745	10.62	11.00	No
		157	5785	10.47	11.00	No
		165	5825	10.35	11.00	No
	802.11ac(VHT40)	151	5755	10.73	11.00	No
		159	5795	10.59	11.00	No
	802.11ac(VHT80)	155	5775	10.70	11.00	Yes

	802.11ax(HE20) (SU)	149	5745	10.46	11.00	No
		157	5785	10.37	11.00	No
		165	5825	10.48	11.00	No
	802.11ax(HE40) (SU)	151	5755	10.32	11.00	No
		159	5795	10.79	11.00	No
	802.11ax(HE80) (SU)	155	5775	10.61	11.00	No
	802.11ax(HE20) (RU26)	149	5745	10.66	11.00	No
		157	5785	10.31	11.00	No
		165	5825	10.68	11.00	No
	802.11ax(HE20) (RU52)	149	5745	10.49	11.00	No
		157	5785	10.42	11.00	No
		165	5825	10.66	11.00	No
5.9 (5.805~5.89 5)	802.11a	149	5745	10.69	11.00	No
		157	5785	10.40	11.00	No
		165	5825	10.54	11.00	No
	802.11n(HT20)	169	5845	10.62	11.00	No
		173	5865	10.49	11.00	No
		177	5885	10.88	11.00	No
	802.11n(HT40)	169	5845	10.47	11.00	No
		173	5865	10.36	11.00	No
		177	5885	10.80	11.00	No
	802.11ac(VHT20)	167	5835	10.35	11.00	No
		175	5875	10.76	11.00	No
		177	5885	10.48	11.00	No
	802.11ac(VHT40)	169	5845	10.59	11.00	No
		173	5865	10.64	11.00	No
		177	5885	10.48	11.00	No
	802.11ac(VHT80)	167	5835	10.46	11.00	No
		175	5875	10.68	11.00	No
	802.11ac(VHT160)	171	5855	10.84	11.00	No
	802.11ax(HE20) (SU)	163	5815	10.88	11.00	Yes
		169	5845	10.55	11.00	No
		173	5865	10.51	11.00	No
	802.11ax(HE40) (SU)	177	5885	10.55	11.00	No
		167	5835	10.70	11.00	No
	802.11ax(HE80) (SU)	175	5875	10.65	11.00	No
		171	5855	10.72	11.00	No
	802.11ax(HE160) (SU)	171	5855	10.72	11.00	No
	802.11ax(HE20) (RU26)	163	5815	10.76	11.00	No
		169	5845	10.36	11.00	No
		173	5865	10.37	11.00	No
		177	5885	10.62	11.00	No

	802.11ax(HE20) (RU52)	169	5845	10.31	11.00	No
		173	5865	10.31	11.00	No
		177	5885	10.78	11.00	No
	802.11ax(HE20) (RU106)	169	5845	10.61	11.00	No
		173	5865	10.61	11.00	No
		177	5885	10.34	11.00	No

Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

8.1.14 5G WIFI (SISO-Aux. Antenna) (Tablet)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	9.62	10.00	No
		40	5200	9.80	10.00	No
		48	5240	9.34	10.00	No
	802.11n(HT20)	36	5180	9.74	10.00	No
		40	5200	9.87	10.00	No
		48	5240	9.84	10.00	No
	802.11n(HT40)	38	5190	9.30	10.00	No
		46	5230	9.75	10.00	No
	802.11ac(VHT20)	36	5180	9.69	10.00	No
		40	5200	9.84	10.00	No
		48	5240	9.88	10.00	No
	802.11ac(VHT40)	38	5190	9.72	10.00	No
		46	5230	9.76	10.00	No
	802.11ac(VHT80)	42	5210	9.85	10.00	No
	802.11ac(VHT160)	50	5250	9.45	10.00	No
	802.11ax(HE20) (SU)	36	5180	9.65	10.00	No
		40	5200	9.37	10.00	No
		48	5240	9.87	10.00	No
	802.11ax(HE40) (SU)	38	5190	9.86	10.00	No
		46	5230	9.51	10.00	No
	802.11ax(HE80) (SU)	42	5210	9.60	10.00	No
	802.11ax(HE160) (SU)	50	5250	9.56	10.00	No
	802.11ax(HE20) (RU26)	36	5180	9.85	10.00	No
		40	5200	9.72	10.00	No
		48	5240	9.88	10.00	No
	802.11ax(HE20) (RU52)	36	5180	9.55	10.00	No
		40	5200	9.36	10.00	No
		48	5240	9.89	10.00	No
	802.11ax(HE20) (RU106)	36	5180	9.35	10.00	No
		40	5200	9.86	10.00	No
		48	5240	9.49	10.00	No
5.3 (5.25~5.35)	802.11a	52	5260	9.56	10.00	No
		60	5300	9.68	10.00	No
		64	5320	9.59	10.00	No
	802.11n(HT20)	52	5260	9.60	10.00	No
		60	5300	9.42	10.00	No
		64	5320	9.65	10.00	No
	802.11n(HT40)	54	5270	9.47	10.00	No

		62	5310	9.78	10.00	No
	802.11ac(VHT20)	52	5260	9.82	10.00	No
		60	5300	9.77	10.00	No
		64	5320	9.50	10.00	No
	802.11ac(VHT40)	54	5270	9.66	10.00	No
		62	5310	9.60	10.00	No
	802.11ac(VHT80)	58	5290	9.63	10.00	Yes
	802.11ax(HE20) (SU)	52	5260	9.59	10.00	No
		60	5300	9.75	10.00	No
		64	5320	9.42	10.00	No
	802.11ax(HE40) (SU)	54	5270	9.57	10.00	No
		62	5310	9.70	10.00	No
	802.11ax(HE80) (SU)	58	5290	9.90	10.00	No
	802.11ax(HE20) (RU26)	52	5260	9.55	10.00	No
		60	5300	9.36	10.00	No
		64	5320	9.66	10.00	No
	802.11ax(HE20) (RU52)	52	5260	9.60	10.00	No
		60	5300	9.59	10.00	No
		64	5320	9.66	10.00	No
	802.11ax(HE20) (RU106)	52	5260	9.50	10.00	No
		60	5300	9.36	10.00	No
		64	5320	9.55	10.00	No
5.6 (5.47~5.725)	802.11a	100	5500	9.88	10.00	No
		116	5580	9.39	10.00	No
		140	5700	9.85	10.00	No
		144	5720	9.61	10.00	No
	802.11n(HT20)	100	5500	9.72	10.00	No
		116	5580	9.79	10.00	No
		140	5700	9.83	10.00	No
		144	5720	9.72	10.00	No
	802.11n(HT40)	102	5510	9.79	10.00	No
		110	5550	9.58	10.00	No
		134	5670	9.60	10.00	No
		142	5710	9.81	10.00	No
	802.11ac(VHT20)	100	5500	9.78	10.00	No
		116	5580	9.43	10.00	No
		140	5700	9.39	10.00	No
		144	5720	9.68	10.00	No
	802.11ac(VHT40)	102	5510	9.63	10.00	No
		110	5550	9.79	10.00	No
		134	5670	9.73	10.00	No
		142	5710	9.77	10.00	No

	802.11ac(VHT80)	106	5530	9.90	10.00	Yes
		122	5610	9.53	10.00	Yes
		138	5690	9.51	10.00	Yes
	802.11ac(VHT160)	114	5570	9.44	9.50	No
	802.11ax(HE20) (SU)	100	5500	9.56	10.00	No
		116	5580	9.74	10.00	No
		140	5700	9.80	10.00	No
		144	5720	9.74	10.00	No
	802.11ax(HE40) (SU)	102	5510	9.90	10.00	No
		110	5550	9.75	10.00	No
		134	5670	9.53	10.00	No
		142	5710	9.73	10.00	No
	802.11ax(HE80) (SU)	106	5530	9.70	10.00	No
		122	5610	9.44	10.00	No
		138	5690	9.35	10.00	No
	802.11ax(HE160) (SU)	114	5570	9.23	9.50	No
	802.11ax(HE20) (RU26)	100	5500	9.83	10.00	No
		116	5580	9.86	10.00	No
		140	5700	9.38	10.00	No
		144	5720	9.52	10.00	No
	802.11ax(HE20) (RU52)	100	5500	9.69	10.00	No
		116	5580	9.55	10.00	No
		140	5700	9.49	10.00	No
		144	5720	9.64	10.00	No
	802.11ax(HE20) (RU106)	100	5500	9.72	10.00	No
		116	5580	9.52	10.00	No
		140	5700	9.75	10.00	No
		144	5720	9.85	10.00	No
5.8 (5.725~5.85)	802.11a	149	5745	9.40	10.00	No
		157	5785	9.50	10.00	No
		165	5825	9.31	10.00	No
	802.11n(HT20)	149	5745	9.62	10.00	No
		157	5785	9.44	10.00	No
		165	5825	9.60	10.00	No
	802.11n(HT40)	151	5755	9.60	10.00	No
		159	5795	9.68	10.00	No
	802.11ac(VHT20)	149	5745	9.57	10.00	No
		157	5785	9.82	10.00	No
		165	5825	9.37	10.00	No
	802.11ac(VHT40)	151	5755	9.51	10.00	No
		159	5795	9.89	10.00	No
	802.11ac(VHT80)	155	5775	9.51	10.00	Yes

	802.11ax(HE20) (SU)	149	5745	9.40	10.00	No
		157	5785	9.52	10.00	No
		165	5825	9.54	10.00	No
	802.11ax(HE40) (SU)	151	5755	9.52	10.00	No
		159	5795	9.44	10.00	No
	802.11ax(HE80) (SU)	155	5775	9.71	10.00	No
	802.11ax(HE20) (RU26)	149	5745	9.33	10.00	No
		157	5785	9.47	10.00	No
		165	5825	9.81	10.00	No
	802.11ax(HE20) (RU52)	149	5745	9.69	10.00	No
		157	5785	9.68	10.00	No
		165	5825	9.75	10.00	No
5.9 (5.805~5.89 5)	802.11a	149	5745	9.43	10.00	No
		157	5785	9.45	10.00	No
		165	5825	9.45	10.00	No
	802.11n(HT20)	169	5845	9.45	10.00	No
		173	5865	9.33	10.00	No
		177	5885	9.64	10.00	No
	802.11n(HT40)	169	5845	9.48	10.00	No
		173	5865	9.33	10.00	No
		177	5885	9.66	10.00	No
	802.11ac(VHT20)	167	5835	9.90	10.00	No
		175	5875	9.57	10.00	No
		177	5885	9.74	10.00	No
	802.11ac(VHT40)	169	5845	9.82	10.00	No
		173	5865	9.66	10.00	No
		177	5885	9.74	10.00	No
	802.11ac(VHT80)	167	5835	9.48	10.00	No
		175	5875	9.75	10.00	No
	802.11ac(VHT160)	171	5855	9.34	10.00	No
	802.11ax(HE20) (SU)	163	5815	9.51	10.00	Yes
		169	5845	9.67	10.00	No
		173	5865	9.44	10.00	No
	802.11ax(HE40) (SU)	177	5885	9.84	10.00	No
		167	5835	9.54	10.00	No
		175	5875	9.55	10.00	No
	802.11ax(HE80) (SU)	171	5855	9.55	10.00	No
	802.11ax(HE160) (SU)	163	5815	9.65	10.00	No
		169	5845	9.37	10.00	No
		173	5865	9.83	10.00	No
	802.11ax(HE20) (RU26)	177	5885	9.64	10.00	No

	802.11ax(HE20) (RU52)	169	5845	9.59	10.00	No
		173	5865	9.46	10.00	No
		177	5885	9.68	10.00	No
	802.11ax(HE20) (RU106)	169	5845	9.71	10.00	No
		173	5865	9.64	10.00	No
		177	5885	9.71	10.00	No

Note: When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.

8.1.15 5G WIFI (MIMO) (Tablet)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
5.2 (5.15~5.25)	802.11a	36	5180	13.22	13.50	No
		40	5200	13.14	13.50	No
		48	5240	13.14	13.50	No
	802.11n(HT20)	36	5180	13.07	13.50	No
		40	5200	13.27	13.50	No
		48	5240	13.32	13.50	No
	802.11n(HT40)	38	5190	13.07	13.50	No
		46	5230	13.21	13.50	No
	802.11ac(VHT20)	36	5180	13.02	13.50	No
		40	5200	13.11	13.50	No
		48	5240	13.14	13.50	No
	802.11ac(VHT40)	38	5190	13.10	13.50	No
		46	5230	13.17	13.50	No
	802.11ac(VHT80)	42	5210	13.37	13.50	No
	802.11ac(VHT160)	50	5250	13.24	13.50	No
	802.11ax(HE20) (SU)	36	5180	13.33	13.50	No
		40	5200	12.92	13.50	No
		48	5240	13.13	13.50	No
	802.11ax(HE40) (SU)	38	5190	13.38	13.50	No
		46	5230	12.93	13.50	No
	802.11ax(HE80) (SU)	42	5210	13.26	13.50	No
	802.11ax(HE160) (SU)	50	5250	13.12	13.50	No
	802.11ax(HE20) (RU26)	36	5180	13.16	13.50	No
		40	5200	13.25	13.50	No
		48	5240	13.26	13.50	No
	802.11ax(HE20) (RU52)	36	5180	13.15	13.50	No
		40	5200	13.03	13.50	No
		48	5240	13.43	13.50	No
	802.11ax(HE20) (RU106)	36	5180	12.98	13.50	No
		40	5200	13.36	13.50	No
		48	5240	13.02	13.50	No
5.3 (5.25~5.35)	802.11a	52	5260	13.22	13.50	No
		60	5300	13.15	13.50	No
		64	5320	13.17	13.50	No
	802.11n(HT20)	52	5260	12.98	13.50	No
		60	5300	13.00	13.50	No
		64	5320	13.26	13.50	No
	802.11n(HT40)	54	5270	13.10	13.50	No

		62	5310	13.36	13.50	No
	802.11ac(VHT20)	52	5260	13.18	13.50	No
		60	5300	13.30	13.50	No
		64	5320	13.12	13.50	No
	802.11ac(VHT40)	54	5270	13.18	13.50	No
		62	5310	13.20	13.50	No
	802.11ac(VHT80)	58	5290	13.31	13.50	No
	802.11ax(HE20) (SU)	52	5260	13.08	13.50	No
		60	5300	13.06	13.50	No
		64	5320	12.95	13.50	No
	802.11ax(HE40) (SU)	54	5270	13.00	13.50	No
		62	5310	13.17	13.50	No
	802.11ax(HE80) (SU)	58	5290	13.41	13.50	No
	802.11ax(HE20) (RU26)	52	5260	11.97	13.50	No
		60	5300	11.46	12.00	No
		64	5320	11.74	12.00	No
	802.11ax(HE20) (RU52)	52	5260	13.24	13.50	No
		60	5300	13.11	13.50	No
		64	5320	13.03	13.50	No
	802.11ax(HE20) (RU106)	52	5260	13.09	13.50	No
		60	5300	13.19	13.50	No
		64	5320	13.06	13.50	No
5.6 (5.47~5.725)	802.11a	100	5500	13.26	13.50	No
		116	5580	12.97	13.50	No
		140	5700	13.24	13.50	No
		144	5720	13.17	13.50	No
	802.11n(HT20)	100	5500	13.05	13.50	No
		116	5580	13.12	13.50	No
		140	5700	13.29	13.50	No
		144	5720	13.06	13.50	No
	802.11n(HT40)	102	5510	13.15	13.50	No
		110	5550	13.29	13.50	No
		134	5670	13.21	13.50	No
		142	5710	13.21	13.50	No
	802.11ac(VHT20)	100	5500	13.37	13.50	No
		116	5580	13.16	13.50	No
		140	5700	13.26	13.50	No
		144	5720	13.27	13.50	No
	802.11ac(VHT40)	102	5510	13.16	13.50	No
		110	5550	13.37	13.50	No
		134	5670	13.05	13.50	No
		142	5710	13.29	13.50	No

	802.11ac(VHT80)	106	5530	13.27	13.50	No
		122	5610	13.09	13.50	No
		138	5690	13.11	13.50	No
	802.11ac(VHT160)	114	5570	12.69	13.00	No
	802.11ax(HE20) (SU)	100	5500	13.25	13.50	No
		116	5580	13.21	13.50	No
		140	5700	13.31	13.50	No
		144	5720	13.22	13.50	No
	802.11ax(HE40) (SU)	102	5510	13.16	13.50	No
		110	5550	13.35	13.50	No
		134	5670	13.07	13.50	No
		142	5710	13.27	13.50	No
	802.11ax(HE80) (SU)	106	5530	13.06	13.50	No
		122	5610	13.09	13.50	No
		138	5690	12.86	13.50	No
	802.11ax(HE160) (SU)	114	5570	12.57	13.00	No
	802.11ax(HE20) (RU26)	100	5500	12.45	13.50	No
		116	5580	12.52	13.50	No
		140	5700	12.26	13.50	No
		144	5720	12.53	13.50	No
	802.11ax(HE20) (RU52)	100	5500	13.10	13.50	No
		116	5580	13.02	13.50	No
		140	5700	13.16	13.50	No
		144	5720	13.16	13.50	No
	802.11ax(HE20) (RU106)	100	5500	13.16	13.50	No
		116	5580	13.01	13.50	No
		140	5700	13.14	13.50	No
		144	5720	13.28	13.50	No
5.8 (5.725~5.85)	802.11a	149	5745	12.96	13.50	No
		157	5785	13.20	13.50	No
		165	5825	13.14	13.50	No
	802.11n(HT20)	149	5745	13.04	13.50	No
		157	5785	13.22	13.50	No
		165	5825	13.08	13.50	No
	802.11n(HT40)	151	5755	13.08	13.50	No
		159	5795	13.16	13.50	No
	802.11ac(VHT20)	149	5745	13.14	13.50	No
		157	5785	13.17	13.50	No
		165	5825	12.90	13.50	No
	802.11ac(VHT40)	151	5755	13.17	13.50	No
		159	5795	13.26	13.50	No
	802.11ac(VHT80)	155	5775	13.16	13.50	No

	802.11ax(HE20) (SU)	149	5745	12.97	13.50	No
		157	5785	12.98	13.50	No
		165	5825	13.05	13.50	No
	802.11ax(HE40) (SU)	151	5755	12.95	13.50	No
		159	5795	13.18	13.50	No
	802.11ax(HE80) (SU)	155	5775	13.19	13.50	No
	802.11ax(HE20) (RU26)	149	5745	13.06	13.50	No
		157	5785	12.92	13.50	No
		165	5825	13.28	13.50	No
	802.11ax(HE20) (RU52)	149	5745	13.12	13.50	No
		157	5785	13.08	13.50	No
		165	5825	13.24	13.50	No
5.9 (5.805~5.89 5)	802.11a	149	5745	13.12	13.50	No
		157	5785	12.96	13.50	No
		165	5825	13.04	13.50	No
	802.11n(HT20)	169	5845	13.08	13.50	No
		173	5865	12.96	13.50	No
		177	5885	13.31	13.50	No
	802.11n(HT40)	169	5845	13.01	13.50	No
		173	5865	12.89	13.50	No
		177	5885	13.28	13.50	No
	802.11ac(VHT20)	167	5835	13.14	13.50	No
		175	5875	13.22	13.50	No
		177	5885	13.14	13.50	No
	802.11ac(VHT40)	169	5845	13.23	13.50	No
		173	5865	13.19	13.50	No
		177	5885	13.14	13.50	No
	802.11ac(VHT80)	167	5835	13.01	13.50	No
		175	5875	13.25	13.50	No
	802.11ac(VHT160)	171	5855	13.16	13.50	No
	802.11ax(HE20) (SU)	163	5815	13.26	13.50	No
		169	5845	13.14	13.50	No
		173	5865	13.02	13.50	No
	802.11ax(HE40) (SU)	177	5885	13.22	13.50	No
		167	5835	13.17	13.50	No
	802.11ax(HE80) (SU)	175	5875	13.15	13.50	No
		171	5855	13.18	13.50	No
	802.11ax(HE160) (SU)	171	5855	13.18	13.50	No
	802.11ax(HE20) (RU26)	163	5815	13.25	13.50	No
		169	5845	11.08	13.50	No
		173	5865	11.51	13.50	No
		177	5885	10.55	13.50	No

	802.11ax(HE20) (RU52)	169	5845	12.71	13.50	No
		173	5865	12.67	13.50	No
		177	5885	12.18	13.50	No
	802.11ax(HE20) (RU106)	169	5845	13.19	13.50	No
		173	5865	13.16	13.50	No
		177	5885	13.05	13.50	No

Note: For WiFi SAR testing was performed on single antenna RF power in SISO mode that is larger to the single antenna RF power in MIMO mode, and for RF exposure assessment of MIMO mode simultaneous transmission used more conservative "Max. (main ant) + Max. (aux. ant) " method to determine SAR compliance. When the sum of 1-g SISO transmission SAR measurement is <1.6 W/kg, MIMO SAR test is not required.

8.1.16 6G WIFI (SISO-Main Antenna) (Tablet)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Power Limit (dBm)	SAR Test Require.
6 (5.925~7.125)	802.11ax(HE20) (SU)	1	5955	6.81	8.00	No
		49	6195	6.94	8.00	No
		93	6415	6.62	8.00	No
		97	6435	6.65	8.00	No
		105	6475	6.86	8.00	No
		113	6515	6.53	8.00	No
		117	6535	6.76	8.00	No
		149	6695	6.92	8.00	No
		181	6855	7.21	8.00	No
		185	6875	6.73	8.00	No
		189	6895	6.98	8.00	No
		209	6995	6.37	8.00	No
		229	7095	6.90	8.00	No
		233	7115	7.05	8.00	No
	802.11ax(HE40) (SU)	3	5965	9.91	10.50	No
		51	6205	9.89	10.50	No
		91	6405	10.05	10.50	No
		99	6445	9.94	10.50	No
		107	6485	9.79	10.50	No
		115	6525	10.01	10.50	No
		123	6565	9.71	10.50	No
		147	6685	9.79	10.50	No
		179	6845	9.25	10.50	No
		187	6885	9.66	10.50	No
		195	6925	10.33	10.50	No
		211	7005	9.40	10.50	No
		227	7085	10.04	10.50	No
	802.11ax(HE80) (SU)	7	5985	10.10	10.50	No
		55	6225	10.26	10.50	No
		87	6385	10.14	10.50	No
		103	6465	10.03	10.50	No
		119	6545	10.28	10.50	No
		135	6625	10.19	10.50	No
		151	6705	10.13	10.50	No
		167	6785	10.12	10.50	No
		183	6865	10.30	10.50	No
		199	6945	10.14	10.50	No
		215	7025	10.09	10.50	No
	802.11ax(HE160)	15	6025	10.17	10.50	Yes

	(SU)	47	6185	10.06	10.50	Yes
		79	6345	9.82	10.50	Yes
		111	6505	9.94	10.50	Yes
		143	6665	10.01	10.50	Yes
		175	6825	9.90	10.50	Yes
		207	6985	10.07	10.50	Yes
	802.11ax(HE20) (RU26)	1	5955	-2.85	-2.00	No
		49	6195	-2.96	-2.00	No
		93	6415	-2.84	-2.00	No
		97	6435	-2.78	-2.00	No
		105	6475	-3.32	-2.00	No
		113	6515	-2.51	-2.00	No
		117	6535	-3.07	-2.00	No
		149	6695	-2.81	-2.00	No
		181	6855	-2.91	-2.00	No
		185	6875	-2.69	-2.00	No
		189	6895	-2.49	-2.00	No
		209	6995	-2.58	-2.00	No
		229	7095	-1.47	-1.00	No
		233	7115	-1.48	-1.00	No
	802.11ax(HE20) (RU52)	1	5955	0.64	1.00	No
		49	6195	0.44	1.00	No
		93	6415	0.43	1.00	No
		97	6435	0.57	1.00	No
		105	6475	0.61	1.00	No
		113	6515	0.20	1.00	No
		117	6535	0.64	1.00	No
		149	6695	0.31	1.00	No
		181	6855	0.47	1.00	No
		185	6875	0.48	1.00	No
		189	6895	0.84	1.00	No
		209	6995	0.80	1.00	No
		229	7095	1.23	2.00	No
		233	7115	1.94	2.00	No
	802.11ax(HE20) (RU106)	1	5955	3.37	4.00	No
		49	6195	3.30	4.00	No
		93	6415	3.23	4.00	No
		97	6435	3.02	4.00	No
		105	6475	3.37	4.00	No
		113	6515	3.26	4.00	No
		117	6535	3.39	4.00	No
		149	6695	3.24	4.00	No
		181	6855	3.41	4.00	No

		185	6875	3.22	4.00	No
		189	6895	3.28	4.00	No
		209	6995	3.40	4.00	No
		229	7095	4.18	5.00	No
		233	7115	4.24	5.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

8.1.17 6G WIFI (SISO-Aux. Antenna) (Tablet)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Power Limit (dBm)	SAR Test Require.
6 (5.925~7.125)	802.11ax(HE20) (SU)	1	5955	6.78	8.00	No
		49	6195	6.69	8.00	No
		93	6415	6.67	8.00	No
		97	6435	6.77	8.00	No
		105	6475	7.03	8.00	No
		113	6515	6.65	8.00	No
		117	6535	6.56	8.00	No
		149	6695	6.86	8.00	No
		181	6855	6.74	8.00	No
		185	6875	6.86	8.00	No
		189	6895	6.65	8.00	No
		209	6995	6.03	8.00	No
		229	7095	7.11	8.00	No
		233	7115	7.20	8.00	No
	802.11ax(HE40) (SU)	3	5965	9.81	10.50	No
		51	6205	10.01	10.50	No
		91	6405	10.02	10.50	No
		99	6445	9.92	10.50	No
		107	6485	9.96	10.50	No
		115	6525	10.24	10.50	No
		123	6565	9.86	10.50	No
		147	6685	9.70	10.50	No
		179	6845	9.55	10.50	No
		187	6885	9.74	10.50	No
		195	6925	10.24	10.50	No
		211	7005	9.30	10.50	No
		227	7085	10.23	10.50	No
	802.11ax(HE80) (SU)	7	5985	10.30	10.50	No
		55	6225	10.48	10.50	No
		87	6385	10.36	10.50	No
		103	6465	10.13	10.50	No
		119	6545	10.11	10.50	No
		135	6625	10.08	10.50	No
		151	6705	10.21	10.50	No
		167	6785	10.17	10.50	No
		183	6865	10.15	10.50	No
		199	6945	10.29	10.50	No
		215	7025	10.21	10.50	No
	802.11ax(HE160)	15	6025	10.10	10.50	Yes

	(SU)	47	6185	9.91	10.50	Yes
		79	6345	9.94	10.50	Yes
		111	6505	9.80	10.50	Yes
		143	6665	9.99	10.50	Yes
		175	6825	9.96	10.50	Yes
		207	6985	9.91	10.50	Yes
	802.11ax(HE20) (RU26)	1	5955	-2.36	-2.00	No
		49	6195	-3.11	-2.00	No
		93	6415	-2.88	-2.00	No
		97	6435	-2.87	-2.00	No
		105	6475	-3.22	-2.00	No
		113	6515	-2.66	-2.00	No
		117	6535	-3.31	-2.00	No
		149	6695	-2.74	-2.00	No
		181	6855	-3.02	-2.00	No
		185	6875	-2.44	-2.00	No
		189	6895	-2.34	-2.00	No
		209	6995	-3.02	-2.00	No
		229	7095	-1.81	-1.00	No
		233	7115	-1.67	-1.00	No
	802.11ax(HE20) (RU52)	1	5955	0.47	1.00	No
		49	6195	0.51	1.00	No
		93	6415	0.60	1.00	No
		97	6435	0.21	1.00	No
		105	6475	0.35	1.00	No
		113	6515	0.53	1.00	No
		117	6535	0.60	1.00	No
		149	6695	0.12	1.00	No
		181	6855	0.64	1.00	No
		185	6875	0.33	1.00	No
		189	6895	0.55	1.00	No
		209	6995	0.39	1.00	No
		229	7095	1.28	2.00	No
		233	7115	1.82	2.00	No
	802.11ax(HE20) (RU106)	1	5955	3.24	4.00	No
		49	6195	3.01	4.00	No
		93	6415	2.72	4.00	No
		97	6435	3.07	4.00	No
		105	6475	3.12	4.00	No
		113	6515	3.55	4.00	No
		117	6535	3.20	4.00	No
		149	6695	3.43	4.00	No
		181	6855	3.30	4.00	No

		185	6875	3.06	4.00	No
		189	6895	2.92	4.00	No
		209	6995	3.00	4.00	No
		229	7095	3.83	5.00	No
		233	7115	4.62	5.00	No

Note: When multiple channel bandwidth configurations in a frequency band have the same maximum tune-up output power, the test configuration is determined by applying the following steps sequentially.

1) The largest channel bandwidth configuration is selected between the multiple configurations in a frequency band with the same maximum tune-up output power.

8.1.18 6G WIFI (MIMO) (Tablet)

Band (GHz)	Mode	Channel	Freq. (MHz)	Average Power (dBm)	Tune-up Power Limit (dBm)	SAR Test Require.
6 (5.925~7.125)	802.11ax(HE20) (SU)	1	5955	3.42	4.00	No
		49	6195	3.36	4.00	No
		93	6415	3.63	4.00	No
		97	6435	3.48	4.00	No
		105	6475	3.54	4.00	No
		113	6515	3.71	4.00	No
		117	6535	3.79	4.00	No
		149	6695	3.54	4.00	No
		181	6855	3.46	4.00	No
		185	6875	3.78	4.00	No
		189	6895	3.67	4.00	No
		209	6995	3.61	4.00	No
		229	7095	4.05	5.00	No
		233	7115	4.28	5.00	No
	802.11ax(HE40) (SU)	3	5965	6.70	7.00	No
		51	6205	6.86	7.00	No
		91	6405	6.92	7.00	No
		99	6445	6.99	7.00	No
		107	6485	6.84	7.00	No
		115	6525	6.89	7.00	No
		123	6565	6.92	7.00	No
		147	6685	6.56	7.00	No
		179	6845	6.72	7.00	No
		187	6885	6.29	7.00	No
		195	6925	7.04	8.00	No
		211	7005	6.81	7.00	No
		227	7085	7.06	8.00	No
	802.11ax(HE80) (SU)	7	5985	9.79	10.00	No
		55	6225	9.29	10.00	No
		87	6385	9.52	10.00	No
		103	6465	9.70	10.00	No
		119	6545	9.39	10.00	No
		135	6625	9.35	10.00	No
		151	6705	9.12	10.00	No
		167	6785	9.33	10.00	No
		183	6865	9.25	10.00	No
		199	6945	9.47	10.00	No
		215	7025	9.74	10.00	No
	802.11ax(HE160)	15	6025	11.90	12.00	No

	(SU)	47	6185	11.29	12.00	No
		79	6345	11.92	12.00	No
		111	6505	12.09	13.00	No
		143	6665	11.65	12.00	No
		175	6825	11.88	12.00	No
		207	6985	7.59	8.00	No
	802.11ax(HE20) (RU26)	1	5955	-5.79	-5.00	No
		49	6195	-5.92	-5.00	No
		93	6415	-5.54	-5.00	No
		97	6435	-5.70	-5.00	No
		105	6475	-5.88	-5.00	No
		113	6515	-6.04	-5.00	No
		117	6535	-5.65	-5.00	No
		149	6695	-5.09	-5.00	No
		181	6855	-5.45	-5.00	No
		185	6875	-5.58	-5.00	No
		189	6895	-5.12	-5.00	No
		209	6995	-5.32	-5.00	No
		229	7095	-4.17	-4.00	No
		233	7115	-4.22	-4.00	No
	802.11ax(HE20) (RU52)	1	5955	-2.34	-2.00	No
		49	6195	-2.71	-2.00	No
		93	6415	-2.86	-2.00	No
		97	6435	-2.38	-2.00	No
		105	6475	-2.40	-2.00	No
		113	6515	-2.35	-2.00	No
		117	6535	-2.77	-2.00	No
		149	6695	-2.32	-2.00	No
		181	6855	-2.25	-2.00	No
		185	6875	-2.35	-2.00	No
		189	6895	-2.40	-2.00	No
		209	6995	-2.06	-2.00	No
		229	7095	-0.73	0.00	No
		233	7115	-1.16	-1.00	No
	802.11ax(HE20) (RU106)	1	5955	0.28	1.00	No
		49	6195	0.35	1.00	No
		93	6415	0.43	1.00	No
		97	6435	0.43	1.00	No
		105	6475	0.12	1.00	No
		113	6515	0.39	1.00	No
		117	6535	0.17	1.00	No
		149	6695	0.30	1.00	No
		181	6855	-0.05	0.00	No

		185	6875	0.35	1.00	No
		189	6895	0.58	1.00	No
		209	6995	0.60	1.00	No
		229	7095	1.43	2.00	No
		233	7115	1.80	2.00	No

Note: For WiFi SAR testing was performed on single antenna RF power in SISO mode that is larger to the single antenna RF power in MIMO mode, and for RF exposure assessment of MIMO mode simultaneous transmission used more conservative "Max. (main ant) + Max. (aux. ant) " method to determine SAR compliance. When the sum of 1-g SISO transmission SAR measurement is <1.6 W/kg, MIMO SAR test is not required.

8.2 Bluetooth

8.2.1 Bluetooth (Aux. Antenna)

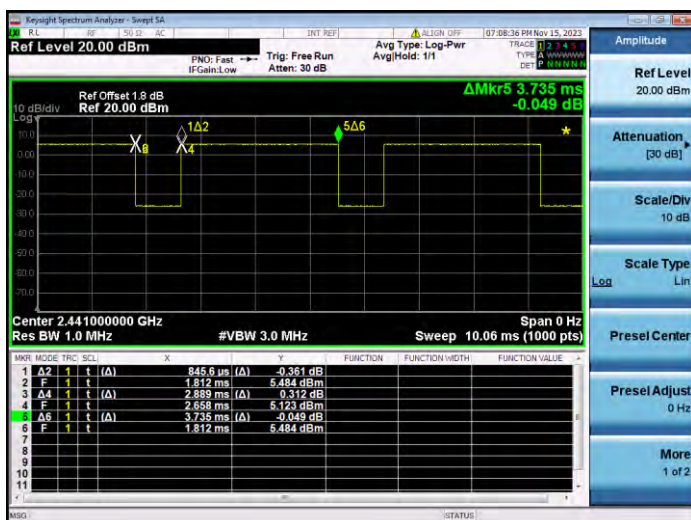
Mode	GFSK			$\pi/4$ -DQPSK		
Channel	0	39	78	0	39	78
Frequency (MHz)	2402	2441	2480	2402	2441	2480
Average Power (dBm)	7.31	7.57	7.62	7.25	7.15	7.33
Tune-Up Limit (dBm)	8.00	8.00	8.00	8.00	8.00	8.00
SAR Test Require	Yes	Yes	Yes	No	No	No
Mode	8-DPSK			/		
Channel	0	39	78	/	/	/
Frequency (MHz)	2402	2441	2480	/	/	/
Average Power (dBm)	7.15	7.18	7.00	/	/	/
Tune-Up Limit (dBm)	8.00	8.00	8.00	/	/	/
SAR Test Require	No	No	No	/	/	/
Mode	BLE-1Mbps			BLE-2Mbps		
Channel	0	19	39	1	19	38
Frequency (MHz)	2402	2440	2480	2404	2440	2478
Average Power (dBm)	7.25	7.21	7.26	7.14	7.18	7.11
Tune-Up Limit (dBm)	8.00	8.00	8.00	8.00	8.00	8.00
SAR Test Require	No	No	No	No	No	No

Note: Since Bluetooth BR mode is the maximum output power mode, SAR measurements were performed with test software using DH5 modulation, and SAR measurement is not required for the EDR and LE. When the secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode.

Note: The Bluetooth duty cycle is 77.36% as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.

Duty Cycle

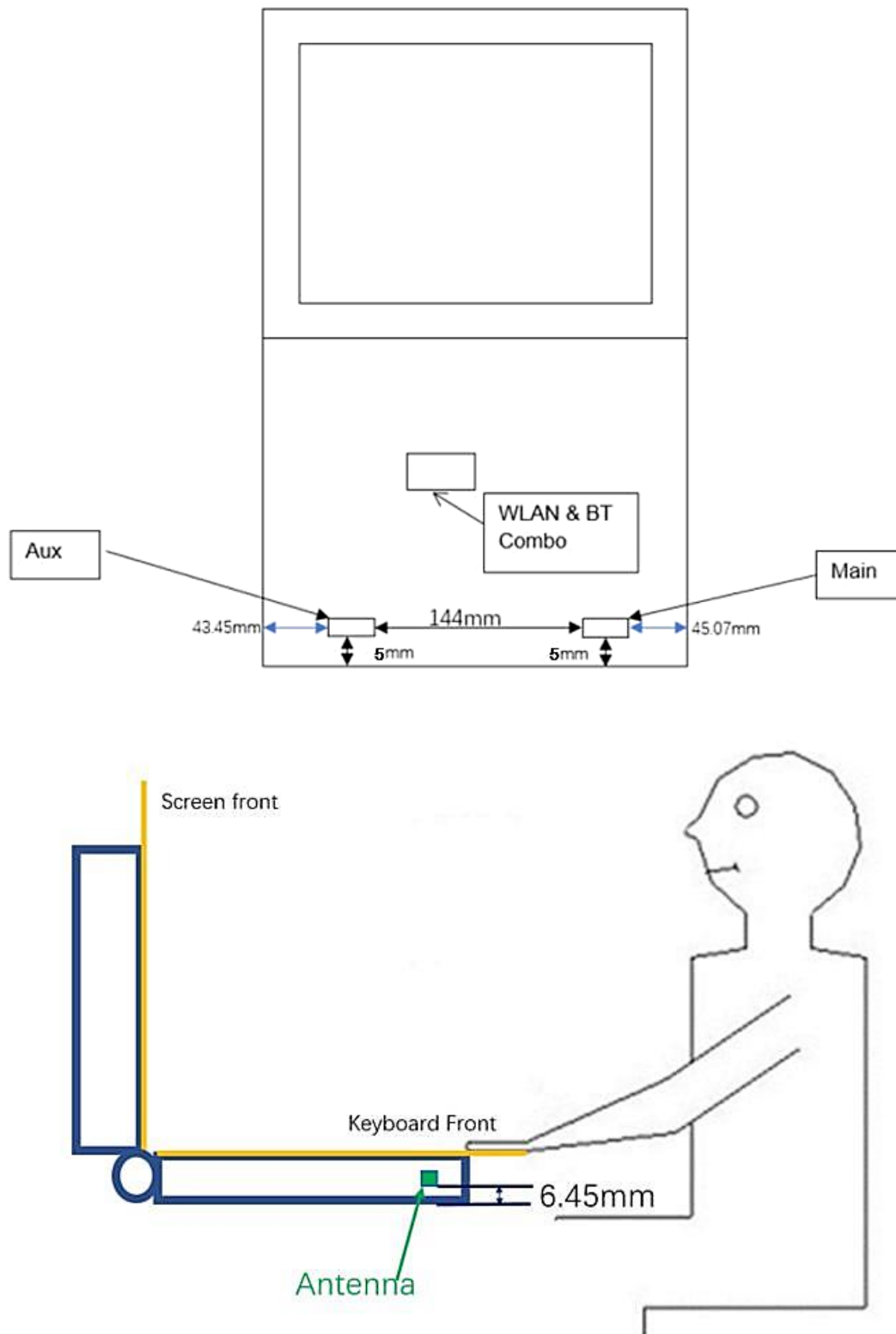
Bluetooth-GFSK



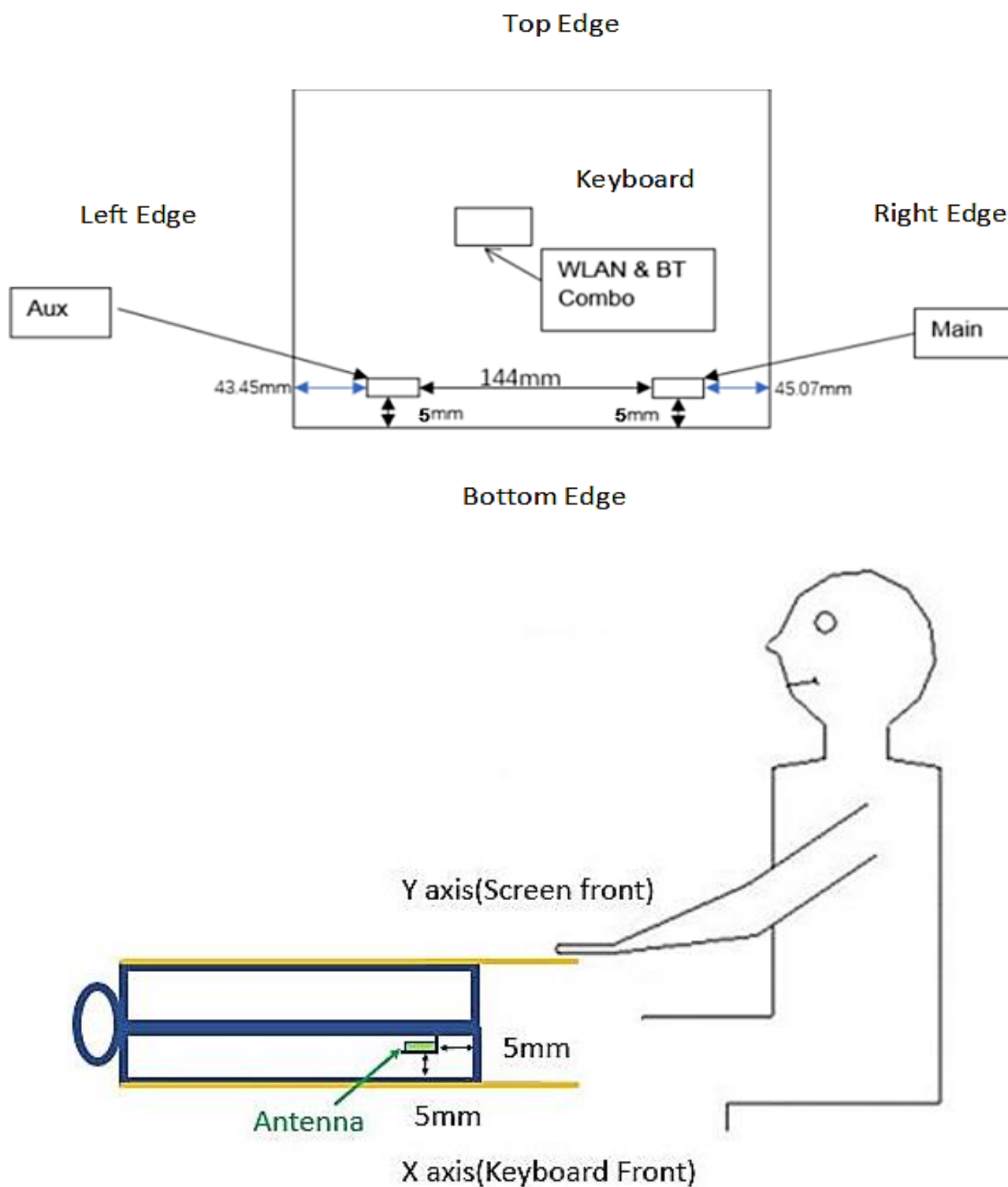
9 TEST EXCLUSION CONSIDERATION

9.1 EUT Antenna Location Sketch

9.1.1 NB Mode SAR dimensioned photo:



9.1.2 Tablet Mode SAR dimensioned photo:



Antenna	Support Bands
Antenna Aux.	BT、WLAN 2.4G/5G/6G
Antenna Main	WLAN 2.4G/5G/6G

9.2 SAR Test Consideration Table

According with FCC KDB 447498 D04, Appendix B, The SAR-based exemption formula applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold Pth (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). The following table shows the power threshold from 5mm to 50mm.

Power Thresholds (mW)					
Frequency (MHz)	At separation distance of ≤ 5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
300	39 mW	65 mW	88 mW	110 mW	129 mW
450	22 mW	44 mW	67 mW	89 mW	112 mW
835	9 mW	25 mW	44 mW	66 mW	90 mW
1900	3 mW	12 mW	26 mW	44 mW	66 mW
2450	3 mW	10 mW	22 mW	38 mW	59 mW
3600	2 mW	8 mW	18 mW	32 mW	49 mW
5800	1 mW	6 mW	14 mW	25 mW	40 mW
Frequency (MHz)	At separation distance of 30 mm	At separation distance of 35 mm	At separation distance of 40 mm	At separation distance of 45 mm	At separation distance of 50 mm
300	148 mW	166 mW	184 mW	201 mW	217 mW
450	135 mW	158 mW	180 mW	203 mW	226 mW
835	116 mW	145 mW	175 mW	207 mW	240 mW
1900	92 mW	122 mW	157 mW	195 mW	236 mW
2450	83 mW	111 mW	143 mW	179 mW	219 mW
3600	71 mW	96 mW	125 mW	158 mW	195 mW
5800	58 mW	80 mW	106 mW	136 mW	169 mW

9.2.1 SAR Test Consideration

This host is a notebook computer, under normal use the RF exposure scenarios are shown in the table below:

RF exposure Position	RF exposure scenarios
Bottom Side	Body
Back Side	Body
Left Edge	Body
Right Edge	Body
Top Edge	Body
Bottom Edge	Body

SISO-Main Antenna Body RF exposure scenarios

Test Position Configurations	Mode	WLAN 2.4GHz	U-NII-2A	U-NII-2C	U-NII-3	U-NII-4
Calculated Frequency(MHz)		2462	5320	5710	5825	5885
Bottom Side	Distance to User (mm)	6.45				
	Max. Peak Power (dBm)	15.50	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	35.48	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	4.44	2.50	2.37	2.33	2.31
	SAR Test Required	Yes	Yes	Yes	Yes	Yes
Back Side	Distance to User (mm)	5.00				
	Max. Peak Power (dBm)	12.00	11.00	11.00	11.00	11.00
	Max. Peak Power (mW)	15.85	12.59	12.59	12.59	12.59
	Exclusion Threshold (mW)	2.73	1.47	1.39	1.37	1.35
	SAR Test Required	Yes	Yes	Yes	Yes	Yes
Left Edge	Distance to User (mm)	187.45				
	Max. Peak Power (dBm)	12.00	11.00	11.00	11.00	11.00
	Max. Peak Power (mW)	15.85	12.59	12.59	12.59	12.59
	Exclusion Threshold (mW)	2704.93	2675.76	2673.10	2672.35	2671.71
	SAR Test Required	No	No	No	No	No
Right Edge	Distance to User (mm)	45.07				
	Max. Peak Power (dBm)	12.00	11.00	11.00	11.00	11.00
	Max. Peak Power (mW)	15.85	12.59	12.59	12.59	12.59
	Exclusion Threshold (mW)	179.50	139.89	136.73	135.85	135.10
	SAR Test Required	No	No	No	No	No
Top Edge	Distance to User (mm)	214.00				
	Max. Peak Power (dBm)	12.00	11.00	11.00	11.00	11.00
	Max. Peak Power (mW)	15.85	12.59	12.59	12.59	12.59
	Exclusion Threshold (mW)	3480.53	3520.15	3523.81	3524.84	3525.73
	SAR Test Required	No	No	No	No	No
Bottom Edge	Distance to User (mm)	5.00				
	Max. Peak Power (dBm)	12.00	11.00	11.00	11.00	11.00
	Max. Peak Power (mW)	15.85	12.59	12.59	12.59	12.59
	Exclusion Threshold (mW)	2.73	1.47	1.39	1.37	1.35
	SAR Test Required	Yes	Yes	Yes	Yes	Yes

SISO-Aux. Antenna Body RF exposure scenarios

Test Position Configurations	Mode	Bluetooth	WLAN 2.4GHz	U-NII-2A	U-NII-2C	U-NII-3	U-NII-4
Calculated Frequency(MHz)		2480	2462	5320	5710	5825	5885
Bottom Side	Distance to User (mm)	6.45					
	Max. Peak Power (dBm)	8.00	16.00	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	6.31	39.81	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	4.41	4.44	2.50	2.37	2.33	2.31
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes
Back Side	Distance to User (mm)	5.00					
	Max. Peak Power (dBm)	8.00	12.00	10.00	10.00	10.00	10.00
	Max. Peak Power (mW)	6.31	15.85	10.00	10.00	10.00	10.00
	Exclusion Threshold (mW)	2.72	2.73	1.47	1.39	1.37	1.35
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes
Left Edge	Distance to User (mm)	43.45					
	Max. Peak Power (dBm)	8.00	12.00	10.00	10.00	10.00	10.00
	Max. Peak Power (mW)	6.31	15.85	10.00	10.00	10.00	10.00
	Exclusion Threshold (mW)	167.02	167.42	129.68	126.68	125.84	125.13
	SAR Test Required	No	No	No	No	No	No
Right Edge	Distance to User (mm)	189.07					
	Max. Peak Power (dBm)	8.00	12.00	10.00	10.00	10.00	10.00
	Max. Peak Power (mW)	6.31	15.85	10.00	10.00	10.00	10.00
	Exclusion Threshold (mW)	2749.35	2749.60	2723.86	2721.51	2720.85	2720.29
	SAR Test Required	No	No	No	No	No	No
Top Edge	Distance to User (mm)	214.00					
	Max. Peak Power (dBm)	8.00	12.00	10.00	10.00	10.00	10.00
	Max. Peak Power (mW)	6.31	15.85	10.00	10.00	10.00	10.00
	Exclusion Threshold (mW)	3480.90	3480.53	3520.15	3523.81	3524.84	3525.73
	SAR Test Required	No	No	No	No	No	No
Bottom Edge	Distance to User (mm)	5.00					
	Max. Peak Power (dBm)	8.00	12.00	10.00	10.00	10.00	10.00
	Max. Peak Power (mW)	6.31	15.85	10.00	10.00	10.00	10.00
	Exclusion Threshold (mW)	2.72	2.73	1.47	1.39	1.37	1.35
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes

RF exposure Position	RF exposure scenarios
Front Edge of Keyboard	Limbs
Back Edge of Keyboard	Limbs
Left Edge of Keyboard	Limbs
Right Edge of Keyboard	Limbs
Palm rest Side of Keyboard	Limbs

SISO-Main Antenna Limbs RF exposure scenarios

Test Position Configurations	Mode	WLAN 2.4GHz	U-NII-2A	U-NII-2C	U-NII-3	U-NII-4
Calculated Frequency(MHz)		2462	5320	5710	5825	5885
Front Edge of Keyboard	Distance to User (mm)	5.00				
	Max. Peak Power (dBm)	15.50	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	35.48	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	2.73	1.47	1.39	1.37	1.35
	SAR Test Required	Yes	Yes	Yes	Yes	Yes
Back Edge of Keyboard	Distance to User (mm)	214.00				
	Max. Peak Power (dBm)	15.50	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	35.48	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	3480.53	3520.15	3523.81	3524.84	3525.73
	SAR Test Required	No	No	No	No	No
Left Edge of Keyboard	Distance to User (mm)	43.45				
	Max. Peak Power (dBm)	15.50	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	35.48	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	2704.93	2675.76	2673.10	2672.35	2671.71
	SAR Test Required	No	No	No	No	No
Right Edge of Keyboard	Distance to User (mm)	189.07				
	Max. Peak Power (dBm)	15.50	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	35.48	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	179.50	139.89	136.73	135.85	135.10
	SAR Test Required	No	No	No	No	No
Palm rest Side of Keyboard	Distance to User (mm)	5.00				
	Max. Peak Power (dBm)	15.50	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	35.48	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	2.73	1.47	1.39	1.37	1.35
	SAR Test Required	Yes	Yes	Yes	Yes	Yes

SISO-Aux. Antenna Limbs RF exposure scenarios

Test Position Configurations	Mode	Bluetooth	WLAN 2.4GHz	U-NII-2A	U-NII-2C	U-NII-3	U-NII-4
Calculated Frequency(MHz)		2480	2462	5320	5710	5825	5885
Front Edge of Keyboard	Distance to User (mm)	5.00					
	Max. Peak Power (dBm)	8.00	16.00	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	6.31	39.81	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	2.72	2.73	1.47	1.39	1.37	1.35
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes
Back Edge of Keyboard	Distance to User (mm)	214.00					
	Max. Peak Power (dBm)	8.00	16.00	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	6.31	39.81	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	3480.90	3480.53	3520.15	3523.81	3524.84	3525.73
	SAR Test Required	No	No	No	No	No	No
Left Edge of Keyboard	Distance to User (mm)	43.45					
	Max. Peak Power (dBm)	8.00	16.00	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	6.31	39.81	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	167.02	167.42	129.68	126.68	125.84	125.13
	SAR Test Required	No	No	No	No	No	No
Right Edge of Keyboard	Distance to User (mm)	189.07					
	Max. Peak Power (dBm)	8.00	16.00	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	6.31	39.81	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	2749.35	2749.60	2723.86	2721.51	2720.85	2720.29
	SAR Test Required	No	No	No	No	No	No
Palm rest Side of Keyboard	Distance to User (mm)	5.00					
	Max. Peak Power (dBm)	8.00	16.00	15.00	16.00	16.00	16.00
	Max. Peak Power (mW)	6.31	39.81	31.62	39.81	39.81	39.81
	Exclusion Threshold (mW)	2.72	2.73	1.47	1.39	1.37	1.35
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes

Note:

1. Maximum power is the source-based time-average power and represents the maximum RF output power including tune-up tolerance among production units
2. Per KDB 447498 D04, for larger devices, the test separation distance of adjacent edge configuration is determined by the closest separation between the antenna and the user.
3. Per KDB 447498 D04, standalone SAR test exclusion threshold is applied; If the distance of the antenna to the user is < 5mm, 5mm is used to determine SAR exclusion threshold
4. Per KDB 447498 D04, for separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive), the threshold P_{th} (mW) is given by Following:

$$P_{th}(mW) = \begin{cases} ERP_{20cm}(d/20cm)^x & d \leq 20cm \\ ERP_{20cm} & 20cm < d \leq 40cm \end{cases}$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20cm}\sqrt{f}} \right)$$

- a. f (GHz) is the RF channel transmit frequency in GHz
- b. d is the separation distance (cm), The result is rounded to one decimal place for comparison
- c. ERP_{20cm} are determined by:

$$ERP_{20cm}(mW) = f(x) = \begin{cases} 2040f & 0.3GHz \leq f < 1.5GHz \\ 3060 & 1.5GHz \leq f \leq 6GHz \end{cases}$$

5. Per KDB 248227 D01, choose the highest output power channel to test SAR and determine further SAR exclusion.8. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is less than 1/4dB higher than those measured at the lowest data rate
6. Per KDB 248227 D01 SAR is not required for the following 2.4 GHz OFDM conditions.
 - a. When KDB Publication 447498 D04 SAR test exclusion applies to the OFDM configuration.
 - b. When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
7. Per KDB 248227 D01 SAR is not required for the following U-NII-1 and U-NII-2A bands conditions.
 - a. When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.
 - b. When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, each band is tested independently for SAR.
8. For Limbs SAR, SAR test exemption considered by applying a factor of 2.5 to the applicable power level thresholds.

10 TEST RESULT

1. The reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)".
 - c. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
2. Absorbed power density (APD) using a 4cm² averaging area is reported based on SAR measurements.
3. Per KDB 447498 D04, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
4. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg

10.1 Bluetooth (Aux. Antenna)

10.1.1 Bluetooth Body SAR

Mode	Screen housing material	Antenna Manufacturer	Test State	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Body																	
DH5	metal	AWAN	Laptop	Aux.	Bottom Side	0	78	2480	-0.16	0.052	7.62	8.00	1.091	77.36	1.293	0.073	/
			Tablet	Aux.	Back Side	0	78	2480	-0.01	0.196	7.62	8.00	1.091	77.36	1.293	0.276	1#
					Bottom Edge	0	78	2480	0.04	0.018	7.62	8.00	1.091	77.36	1.293	0.025	/
					Back Side	0	0	2402	-0.05	0.166	7.31	8.00	1.172	77.36	1.293	0.252	/
					Back Side	0	39	2441	0.03	0.124	7.57	8.00	1.104	77.36	1.293	0.177	/
		South Star	Laptop	Aux.	Bottom Side	0	78	2480	0.15	0.071	7.62	8.00	1.091	77.36	1.293	0.100	/
			Tablet	Aux.	Back Side	0	78	2480	0.10	0.174	7.62	8.00	1.091	77.36	1.293	0.245	/
					Bottom Edge	0	78	2480	0.10	0.032	7.62	8.00	1.091	77.36	1.293	0.045	/
	plastic	AWAN	Tablet	Aux.	Back Side	0	78	2480	0.01	0.155	7.62	8.00	1.091	77.36	1.293	0.219	/
		South Star	Tablet	Aux.	Back Side	0	78	2480	0.03	0.161	7.62	8.00	1.091	77.36	1.293	0.227	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																	

10.1.2 Bluetooth Limbs SAR

Mode	Screen housing material	Antenna Manufac turer	Test State	Anten na	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	10g Scaled SAR (W/kg)	Meas. No.
Limbs																	
DH5	metal	AWAN	Laptop	Aux.	Front Edge of Keyboard	0	78	2480	-0.01	0.011	7.62	8.00	1.091	77.36	1.293	0.016	/
					Palm rest Side of Keyboard	0	78	2480	-0.01	0.081	7.62	8.00	1.091	77.36	1.293	0.114	2#
						0	0	2402	0.04	0.066	7.31	8.00	1.172	77.36	1.293	0.100	/
						0	39	2441	-0.01	0.070	7.57	8.00	1.104	77.36	1.293	0.100	/
		South Star	Laptop	Aux.	Front Edge of Keyboard	0	78	2480	0.02	0.009	7.62	8.00	1.091	77.36	1.293	0.013	/
					Palm rest Side of Keyboard	0	78	2480	0.10	0.075	7.62	8.00	1.091	77.36	1.293	0.106	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																	

10.2WIFI 2.4GHz

10.2.1 WIFI 2.4GHz Body SAR

Mode	Screen housing material	Antenna Manufacturer	Test State	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Body																	
802.11b	metal	AWAN	Laptop	Aux.	Bottom Side	0	11	2462	-0.14	0.398	15.87	16.00	1.030	99.70	1.003	0.411	/
			Tablet		Back Side	0	11	2462	-0.02	0.594	11.64	12.00	1.086	99.70	1.003	0.647	/
					Bottom Edge	0	11	2462	0.05	0.052	11.64	12.00	1.086	99.70	1.003	0.057	/
		South Star	Laptop	Aux.	Bottom Side	0	11	2462	0.16	0.531	15.87	16.00	1.030	99.70	1.003	0.549	/
					Back Side	0	11	2462	0.14	0.756	11.64	12.00	1.086	99.70	1.003	0.823	/
			Tablet		Bottom Edge	0	11	2462	0.05	0.209	11.64	12.00	1.086	99.70	1.003	0.228	/
					Back Side	0	1	2412	-0.01	0.883	11.52	12.00	1.117	99.70	1.003	0.989	3#
					Back Side	0	6	2437	0.16	0.806	11.34	12.00	1.164	99.70	1.003	0.941	/
	plastic	AWAN	Laptop	Main	Bottom Side	0	11	2462	-0.16	0.442	15.17	15.50	1.079	99.70	1.003	0.478	/
					Back Side	0	11	2462	-0.18	0.710	11.75	12.00	1.059	99.70	1.003	0.754	4#
			Tablet		Bottom Edge	0	11	2462	-0.13	0.152	11.75	12.00	1.059	99.70	1.003	0.161	/
					Back Side	0	1	2412	0.01	0.511	11.74	12.00	1.062	99.70	1.003	0.544	/
					Back Side	0	6	2437	0.12	0.588	11.37	12.00	1.156	99.70	1.003	0.682	/
		South Star	Laptop	Main	Bottom Side	0	11	2462	0.06	0.422	15.17	15.50	1.079	99.70	1.003	0.457	/
					Back Side	0	11	2462	0.05	0.522	11.75	12.00	1.059	99.70	1.003	0.554	/
			Tablet		Bottom Edge	0	11	2462	0.11	0.223	11.75	12.00	1.059	99.70	1.003	0.237	/
	plastic	AWAN	Tablet	Aux.	Back Side	0	11	2462	-0.07	0.223	11.64	12.00	1.086	99.70	1.003	0.243	/
		South Star	Tablet		Back Side	0	11	2462	0.04	0.499	11.64	12.00	1.086	99.70	1.003	0.544	/
	metal	AWAN	Tablet	Main	Back Side	0	11	2462	0.03	0.602	11.75	12.00	1.059	99.70	1.003	0.639	/
		South Star	Tablet		Back Side	0	11	2462	0.14	0.587	11.75	12.00	1.059	99.70	1.003	0.623	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																	

10.2.2 WIFI 2.4GHz Limbs SAR

Mode	Screen housing material	Antenna Manufacturer	Test State	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	10g Scaled SAR (W/kg)	Meas. No.
Limbs																	
802.11b	metal	AWAN	Laptop	Aux.	Front Edge of Keyboard	0	11	2462	-0.15	0.092	15.87	16.00	1.030	99.70	1.003	0.095	/
					Palm rest Side of Keyboard	0	11	2462	-0.08	0.579	15.87	16.00	1.030	99.70	1.003	0.598	5#
						0	1	2412	0.02	0.483	15.32	16.00	1.169	99.70	1.003	0.566	/
						0	6	2437	0.04	0.466	15.61	16.00	1.094	99.70	1.003	0.511	/
		South Star	Laptop	Aux.	Front Edge of Keyboard	0	11	2462	-0.19	0.112	15.87	16.00	1.030	99.70	1.003	0.116	/
					Palm rest Side of Keyboard	0	11	2462	0.07	0.557	15.87	16.00	1.030	99.70	1.003	0.575	/
	plastic	AWAN	Laptop	Main	Front Edge of Keyboard	0	11	2462	0.19	0.412	15.17	15.50	1.079	99.70	1.003	0.446	/
					Palm rest Side of Keyboard	0	11	2462	-0.06	0.631	15.17	15.50	1.079	99.70	1.003	0.683	6#
						0	1	2412	0.01	0.576	15.06	15.50	1.107	99.70	1.003	0.640	/
						0	6	2437	0.05	0.588	15.11	15.50	1.094	99.70	1.003	0.645	/
		South Star	Laptop	Main	Front Edge of Keyboard	0	11	2462	-0.18	0.312	15.17	15.50	1.079	99.70	1.003	0.338	/
					Palm rest Side of Keyboard	0	11	2462	-0.19	0.474	15.17	15.50	1.079	99.70	1.003	0.513	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																	

10.3 WIFI 5GHz

10.3.1 WIFI 5GHz Body SAR

Mode	Screen housing material	Antenna Manufacturer	Test State	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Meas. No.
Body-U-NII-2A																	
802.11 ac80	metal	AWAN	Laptop	Aux.	Bottom Side	0	58	5290	0.06	0.466	13.57	15.00	1.390	97.30	1.028	0.666	/
			Tablet		Back Side	0	58	5290	0.17	0.644	10.08	10.50	1.102	94.80	1.055	0.749	/
			Tablet		Bottom Edge	0	58	5290	0.16	0.201	10.08	10.50	1.102	94.80	1.055	0.234	/
		South Star	Laptop	Aux.	Bottom Side	0	58	5290	0.03	0.614	13.57	15.00	1.390	97.30	1.028	0.877	/
			Tablet		Back Side	0	58	5290	-0.04	0.895	10.08	10.50	1.102	94.80	1.055	1.041	7#
			Tablet		Bottom Edge	0	58	5290	-0.13	0.466	10.08	10.50	1.102	94.80	1.055	0.542	/
		AWAN	Laptop	Main	Bottom Side	0	58	5290	-0.02	0.434	13.63	15.00	1.371	97.30	1.028	0.612	/
			Tablet		Back Side	0	58	5290	-0.04	0.612	10.88	11.00	1.028	94.80	1.055	0.664	/
			Tablet		Bottom Edge	0	58	5290	-0.05	0.402	10.88	11.00	1.028	94.80	1.055	0.436	/
		South Star	Laptop	Main	Bottom Side	0	58	5290	0.04	0.502	13.63	15.00	1.371	97.30	1.028	0.708	/
			Tablet		Back Side	0	58	5290	-0.07	0.679	10.88	11.00	1.028	94.80	1.055	0.736	8#
			Tablet		Bottom Edge	0	58	5290	-0.19	0.521	10.88	11.00	1.028	94.80	1.055	0.565	/
	plastic	AWAN	Tablet	Aux.	Back Side	0	58	5290	0.19	0.623	10.08	10.50	1.102	94.80	1.055	0.724	/
		South Star	Tablet		Back Side	0	58	5290	-0.09	0.447	10.08	10.50	1.102	94.80	1.055	0.520	/
		AWAN	Tablet	Main	Back Side	0	58	5290	-0.19	0.615	10.88	11.00	1.028	94.80	1.055	0.667	/
		South Star	Tablet		Back Side	0	58	5290	0.05	0.565	10.88	11.00	1.028	94.80	1.055	0.613	/
Body-U-NII-2C																	
802.11 ac80	metal	AWAN	Laptop	Aux.	Bottom Side	0	138	5690	-0.09	0.188	15.67	16.00	1.079	94.80	1.055	0.214	/
			Tablet		Back Side	0	106	5530	0.06	0.286	9.90	10.00	1.023	94.80	1.055	0.309	/
			Tablet		Bottom Edge	0	106	5530	-0.11	0.063	9.90	10.00	1.023	94.80	1.055	0.068	/
		South Star	Laptop	Aux.	Bottom Side	0	138	5690	-0.16	0.256	15.67	16.00	1.079	94.80	1.055	0.291	/
			Tablet		Back Side	0	106	5530	-0.06	0.464	9.90	10.00	1.023	94.80	1.055	0.501	11#
			Tablet		Bottom Edge	0	106	5530	-0.11	0.158	9.90	10.00	1.023	94.80	1.055	0.171	/
		AWAN	Laptop	Main	Bottom Side	0	106	5530	-0.03	0.255	15.76	16.00	1.057	94.80	1.055	0.284	/
			Tablet		Back Side	0	106	5530	-0.16	0.512	10.61	11.00	1.094	94.80	1.055	0.591	12#
			Tablet		Bottom Edge	0	106	5530	-0.05	0.155	10.61	11.00	1.094	94.80	1.055	0.179	/
		South Star	Laptop	Main	Bottom Side	0	106	5530	-0.05	0.355	15.76	16.00	1.057	94.80	1.055	0.396	/
			Tablet		Back Side	0	106	5530	-0.10	0.374	10.61	11.00	1.094	94.80	1.055	0.432	/
			Tablet		Bottom Edge	0	106	5530	0.01	0.147	10.61	11.00	1.094	94.80	1.055	0.170	/
	plastic	AWAN	Tablet	Aux.	Back Side	0	138	5690	-0.11	0.347	9.90	10.00	1.023	94.80	1.055	0.375	/
		South Star	Tablet		Back Side	0	138	5690	0.02	0.265	9.90	10.00	1.023	94.80	1.055	0.286	/
		AWAN	Tablet	Main	Back Side	0	106	5530	0.10	0.321	10.61	11.00	1.094	94.80	1.055	0.370	/

		South Star	Tablet		Back Side	0	106	5530	0.08	0.356	10.61	11.00	1.094	94.80	1.055	0.411	/
Body-U-NII-3																	
802.11 ac80	metal	AWAN	Laptop	Aux.	Bottom Side	0	155	5775	-0.15	0.223	15.68	16.00	1.076	94.80	1.055	0.253	/
			Tablet		Back Side	0	155	5775	0.05	0.819	9.51	10.00	1.119	94.80	1.055	0.967	15#
					Bottom Edge	0	155	5775	0.12	0.214	9.51	10.00	1.119	94.80	1.055	0.253	/
		South Star	Laptop	Aux.	Bottom Side	0	155	5775	-0.13	0.388	15.68	16.00	1.076	94.80	1.055	0.440	/
			Tablet		Back Side	0	155	5775	0.15	0.722	9.51	10.00	1.119	94.80	1.055	0.852	/
					Bottom Edge	0	155	5775	-0.01	0.611	9.51	10.00	1.119	94.80	1.055	0.721	/
		AWAN	Laptop	Main	Bottom Side	0	155	5775	0.15	0.332	15.81	16.00	1.045	94.80	1.055	0.366	/
			Tablet		Back Side	0	155	5775	0.09	1.020	10.70	11.00	1.072	94.80	1.055	1.154	16#
					Bottom Edge	0	155	5775	0.07	0.336	10.70	11.00	1.072	94.80	1.055	0.380	/
		South Star	Laptop	Main	Bottom Side	0	155	5775	-0.08	0.421	15.81	16.00	1.045	94.80	1.055	0.464	/
			Tablet		Back Side	0	155	5775	0.14	0.833	10.70	11.00	1.072	94.80	1.055	0.942	/
					Bottom Edge	0	155	5775	0.01	0.332	10.70	11.00	1.072	94.80	1.055	0.375	/
	plastic	AWAN	Tablet	Aux.	Back Side	0	155	5775	0.04	0.711	9.51	10.00	1.119	94.80	1.055	0.839	/
		South Star	Tablet		Back Side	0	155	5775	0.03	0.623	9.51	10.00	1.119	94.80	1.055	0.735	/
		AWAN	Tablet	Main	Back Side	0	155	5775	-0.18	0.734	10.70	11.00	1.072	94.80	1.055	0.830	/
		South Star	Tablet		Back Side	0	155	5775	0.07	0.663	10.70	11.00	1.072	94.80	1.055	0.750	/
Body-U-NII-4																	
802.11 ac160	metal	AWAN	Laptop	Aux.	Bottom Side	0	163	5815	-0.13	0.202	15.78	16.00	1.052	91.50	1.093	0.232	/
			Tablet		Back Side	0	163	5815	-0.03	0.585	9.51	10.00	1.119	91.50	1.093	0.715	19#
					Bottom Edge	0	163	5815	-0.02	0.163	9.51	10.00	1.119	91.50	1.093	0.199	/
		South Star	Laptop	Aux.	Bottom Side	0	163	5815	-0.15	0.423	15.78	16.00	1.052	91.50	1.093	0.486	/
			Tablet		Back Side	0	163	5815	0.14	0.488	9.51	10.00	1.119	91.50	1.093	0.597	/
					Bottom Edge	0	163	5815	-0.13	0.365	9.51	10.00	1.119	91.50	1.093	0.446	/
		AWAN	Laptop	Main	Bottom Side	0	163	5815	-0.10	0.233	15.81	16.00	1.045	91.50	1.093	0.266	/
			Tablet		Back Side	0	163	5815	0.03	0.630	10.88	11.00	1.028	91.50	1.093	0.708	20#
					Bottom Edge	0	163	5815	-0.13	0.223	10.88	11.00	1.028	91.50	1.093	0.251	/
		South Star	Laptop	Main	Bottom Side	0	163	5815	-0.18	0.522	15.81	16.00	1.045	91.50	1.093	0.596	/
			Tablet		Back Side	0	163	5815	-0.02	0.506	10.88	11.00	1.028	91.50	1.093	0.569	/
					Bottom Edge	0	163	5815	-0.17	0.388	10.88	11.00	1.028	91.50	1.093	0.436	/
	plastic	AWAN	Tablet	Aux.	Back Side	0	163	5815	-0.02	0.554	9.51	10.00	1.119	91.50	1.093	0.678	/
		South Star	Tablet		Back Side	0	163	5815	-0.16	0.485	9.51	10.00	1.119	91.50	1.093	0.593	/
		AWAN	Tablet	Main	Back Side	0	163	5815	-0.15	0.545	10.88	11.00	1.028	91.50	1.093	0.612	/
		South Star	Tablet		Back Side	0	163	5815	-0.04	0.432	10.88	11.00	1.028	91.50	1.093	0.485	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																	

10.3.2 WIFI 5GHz Limbs SAR

Mode	Screen housing material	Antenna Manufacturer	Test State	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	10g Scaled SAR (W/kg)	Meas. No.
Limbs-U-NII-2A																	
802.11 ac80	metal	AWAN	Laptop	Aux.	Front Edge of Keyboard	0	58	5290	0.03	0.116	13.57	15.00	1.390	97.30	1.028	0.166	/
					Palm rest Side of Keyboard	0	58	5290	-0.14	0.309	13.57	15.00	1.390	97.30	1.028	0.442	/
		South Star	Laptop	Aux.	Front Edge of Keyboard	0	58	5290	0.06	0.202	13.57	15.00	1.390	97.30	1.028	0.289	/
					Palm rest Side of Keyboard	0	58	5290	0.02	0.356	13.57	15.00	1.390	97.30	1.028	0.509	9#
		AWAN	Laptop	Main	Front Edge of Keyboard	0	58	5290	0.16	0.212	13.63	15.00	1.371	97.30	1.028	0.299	/
					Palm rest Side of Keyboard	0	58	5290	-0.03	0.303	13.63	15.00	1.371	97.30	1.028	0.427	10#
		South Star	Laptop	Main	Front Edge of Keyboard	0	58	5290	0.08	0.223	13.63	15.00	1.371	97.30	1.028	0.314	/
					Palm rest Side of Keyboard	0	58	5290	0.03	0.279	13.63	15.00	1.371	97.30	1.028	0.393	/
Limbs-U-NII-2C																	
802.11 ac80	metal	AWAN	Laptop	Aux.	Front Edge of Keyboard	0	138	5690	0.14	0.166	15.67	16.00	1.079	94.80	1.055	0.189	/
					Palm rest Side of Keyboard	0	138	5690	-0.10	0.526	15.67	16.00	1.079	94.80	1.055	0.599	/
		South Star	Laptop	Aux.	Front Edge of Keyboard	0	138	5690	0.13	0.411	15.67	16.00	1.079	94.80	1.055	0.468	/
					Palm rest Side of Keyboard	0	138	5690	-0.01	0.694	15.67	16.00	1.079	94.80	1.055	0.790	13#
						0	106	5530	0.02	0.602	15.52	16.00	1.117	94.80	1.055	0.709	/
						0	122	5610	0.04	0.633	15.62	16.00	1.091	94.80	1.055	0.729	/
		AWAN	Laptop	Main	Front Edge of Keyboard	0	106	5530	0.17	0.388	15.76	16.00	1.057	94.80	1.055	0.433	/
					Palm rest Side of Keyboard	0	106	5530	-0.19	0.525	15.76	16.00	1.057	94.80	1.055	0.585	/
		South Star	Laptop	Main	Front Edge of Keyboard	0	106	5530	0.11	0.432	15.76	16.00	1.057	94.80	1.055	0.482	/
					Palm rest Side of Keyboard	0	106	5530	0.03	0.858	15.76	16.00	1.057	94.80	1.055	0.957	14#
						0	122	5610	0.04	0.758	15.75	16.00	1.059	94.80	1.055	0.847	/
						0	138	5690	0.02	0.722	15.31	16.00	1.172	94.80	1.055	0.893	/
Limbs-U-NII-3																	

802.11 ac80	metal	AWAN	Laptop	Aux.	Front Edge of Keyboard	0	155	5775	0.06	0.095	15.68	16.00	1.076	94.80	1.055	0.108	/
					Palm rest Side of Keyboard	0	155	5775	0.01	0.478	15.68	16.00	1.076	94.80	1.055	0.543	17#
		South Star	Laptop	Aux.	Front Edge of Keyboard	0	155	5775	0.05	0.354	15.68	16.00	1.076	94.80	1.055	0.402	/
					Palm rest Side of Keyboard	0	155	5775	0.19	0.454	15.68	16.00	1.076	94.80	1.055	0.515	/
		AWAN	Laptop	Main	Front Edge of Keyboard	0	155	5775	0.12	0.403	15.81	16.00	1.045	94.80	1.055	0.444	/
					Palm rest Side of Keyboard	0	155	5775	-0.01	0.503	15.81	16.00	1.045	94.80	1.055	0.555	18#
		South Star	Laptop	Main	Front Edge of Keyboard	0	155	5775	0.16	0.422	15.81	16.00	1.045	94.80	1.055	0.465	/
					Palm rest Side of Keyboard	0	155	5775	-0.03	0.488	15.81	16.00	1.045	94.80	1.055	0.538	/
Limbs-U-NII-4																	
802.11 ac160	metal	AWAN	Laptop	Aux.	Front Edge of Keyboard	0	163	5815	0.04	0.065	15.78	16.00	1.052	91.50	1.093	0.075	/
					Palm rest Side of Keyboard	0	163	5815	-0.09	0.419	15.78	16.00	1.052	91.50	1.093	0.482	21#
		South Star	Laptop	Aux.	Front Edge of Keyboard	0	163	5815	0.12	0.306	15.78	16.00	1.052	91.50	1.093	0.352	/
					Palm rest Side of Keyboard	0	163	5815	0.14	0.388	15.78	16.00	1.052	91.50	1.093	0.446	/
		AWAN	Laptop	Main	Front Edge of Keyboard	0	163	5815	-0.13	0.321	15.81	16.00	1.045	91.50	1.093	0.367	/
					Palm rest Side of Keyboard	0	163	5815	0.05	0.352	15.81	16.00	1.045	91.50	1.093	0.402	22#
		South Star	Laptop	Main	Front Edge of Keyboard	0	163	5815	-0.01	0.301	15.81	16.00	1.045	91.50	1.093	0.344	/
					Palm rest Side of Keyboard	0	163	5815	0.03	0.323	15.81	16.00	1.045	91.50	1.093	0.369	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																	

10.4 WIFI 6GHz

10.4.1 WIFI 6GHz Body SAR

Mode	Screen housing material	Antenna Manufacturer	Test State	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	1g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	1g Scaled SAR (W/kg)	Measured APD (W/m²)	Scaled APD (W/m²)	Meas. No.
Body																			
802.11 ax160	metal	AWAN	Laptop	Aux.	Bottom Side	0	47	6185	-0.19	0.272	12.67	13.00	1.079	90.90	1.100	0.323	1.306	1.550	/
			Tablet		Back Side	0	15	6025	0.00	0.708	10.10	10.50	1.096	90.90	1.100	0.854	3.520	4.244	/
					Bottom Edge	0	15	6025	-0.09	0.163	10.10	10.50	1.096	90.90	1.100	0.197	0.833	1.004	/
					Back Side	0	47	6185	-0.01	0.403	9.91	10.50	1.146	90.90	1.100	0.508	2.090	2.635	/
					Back Side	0	79	6345	-0.19	0.514	9.94	10.50	1.138	90.90	1.100	0.643	2.610	3.267	/
					Back Side	0	111	6505	-0.14	0.458	9.80	10.50	1.175	90.90	1.100	0.592	2.470	3.192	/
					Back Side	0	143	6665	-0.10	0.436	9.99	10.50	1.125	90.90	1.100	0.540	2.230	2.760	/
					Back Side	0	175	6825	0.09	0.537	9.96	10.50	1.132	90.90	1.100	0.669	2.710	3.374	/
					Back Side	0	207	6985	-0.10	0.635	9.91	10.50	1.146	90.90	1.100	0.800	3.110	3.920	/
		South Star	Laptop	Aux.	Bottom Side	0	47	6185	-0.03	0.287	12.67	13.00	1.079	90.90	1.100	0.341	1.450	1.721	/
			Tablet		Back Side	0	15	6025	-0.07	0.548	10.10	10.50	1.096	90.90	1.100	0.661	2.660	3.207	/
					Bottom Edge	0	15	6025	-0.18	0.303	10.10	10.50	1.096	90.90	1.100	0.365	1.450	1.748	/
					Back Side	0	47	6185	-0.07	0.388	9.91	10.50	1.146	90.90	1.100	0.489	2.030	2.559	/
					Back Side	0	79	6345	0.17	0.456	9.94	10.50	1.138	90.90	1.100	0.571	2.360	2.954	/
					Back Side	0	111	6505	0.07	0.519	9.80	10.50	1.175	90.90	1.100	0.671	2.710	3.503	/
					Back Side	0	143	6665	-0.18	0.402	9.99	10.50	1.125	90.90	1.100	0.497	2.010	2.487	/
					Back Side	0	175	6825	0.13	0.563	9.96	10.50	1.132	90.90	1.100	0.701	2.920	3.636	/
					Back Side	0	207	6985	0.03	0.837	9.91	10.50	1.146	90.90	1.100	1.055	4.360	5.496	23#
		AWAN	Laptop	Main	Bottom Side	0	47	6185	0.04	0.232	12.88	13.00	1.028	90.90	1.100	0.262	1.330	1.504	/
			Tablet		Back Side	0	15	6025	0.19	0.306	10.17	10.50	1.079	90.90	1.100	0.363	1.850	2.196	/
					Bottom Edge	0	15	6025	0.12	0.211	10.17	10.50	1.079	90.90	1.100	0.250	1.250	1.484	/
					Back Side	0	47	6185	0.05	0.506	10.06	10.50	1.107	90.90	1.100	0.616	3.170	3.860	/
					Back Side	0	79	6345	-0.11	0.323	9.82	10.50	1.169	90.90	1.100	0.415	2.220	2.855	/
					Back Side	0	111	6505	-0.19	0.511	9.94	10.50	1.138	90.90	1.100	0.640	3.410	4.269	/
					Back Side	0	143	6665	-0.08	0.345	10.01	10.50	1.119	90.90	1.100	0.425	2.260	2.782	/
					Back Side	0	175	6825	-0.02	0.542	9.90	10.50	1.148	90.90	1.100	0.684	3.610	4.559	24#
					Back Side	0	207	6985	-0.10	0.471	10.07	10.50	1.104	90.90	1.100	0.572	2.850	3.461	/
		South Star	Laptop	Main	Bottom Side	0	47	6185	0.05	0.311	12.88	13.00	1.028	90.90	1.100	0.352	1.830	2.069	/

			Tablet		Back Side	0	15	6025	-0.05	0.341	10.17	10.50	1.079	90.90	1.100	0.405	2.160	2.564	/
					Bottom Edge	0	15	6025	0.04	0.233	10.17	10.50	1.079	90.90	1.100	0.277	1.410	1.674	/
					Back Side	0	47	6185	-0.03	0.466	10.06	10.50	1.107	90.90	1.100	0.567	2.930	3.568	/
					Back Side	0	79	6345	0.11	0.453	9.82	10.50	1.169	90.90	1.100	0.583	3.060	3.935	/
					Back Side	0	111	6505	0.01	0.501	9.94	10.50	1.138	90.90	1.100	0.627	3.210	4.018	/
					Back Side	0	143	6665	0.10	0.411	10.01	10.50	1.119	90.90	1.100	0.506	2.610	3.213	/
					Back Side	0	175	6825	-0.09	0.505	9.90	10.50	1.148	90.90	1.100	0.638	3.350	4.230	/
					Back Side	0	207	6985	0.10	0.521	10.07	10.50	1.104	90.90	1.100	0.633	3.250	3.947	/
	plastic	AWAN	Tablet	Aux.	Back Side	0	15	6025	0.01	0.311	10.26	10.50	1.057	90.90	1.100	0.362	1.850	2.151	/
		South Star	Tablet		Back Side	0	15	6025	-0.06	0.406	10.26	10.50	1.057	90.90	1.100	0.472	2.410	2.802	/
		AWAN	Tablet	Main	Back Side	0	15	6025	-0.10	0.366	10.26	10.50	1.057	90.90	1.100	0.426	2.230	2.593	/
		South Star	Tablet		Back Side	0	15	6025	-0.18	0.245	10.26	10.50	1.057	90.90	1.100	0.285	1.450	1.686	/

Note: Refer to ANNEX C for the detailed test data for each test configuration.

10.4.2 WIFI 6GHz Limbs SAR

Mode	Screen housing material	Antenna Manufacturer	Test State	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	10g Meas SAR (W/kg)	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	10g Scaled SAR (W/kg)	Measured APD (W/m²)	Scaled APD (W/m²)	Meas. No.
Limbs																			
802.11 ax160	metal	AWAN	Laptop	Aux.	Front Edge of Keyboard	0	47	6185	0.03	0.144	12.67	13.00	1.079	90.90	1.100	0.171	3.220	3.822	/
					Palm rest Side of Keyboard	0	47	6185	0.05	0.360	12.67	13.00	1.079	90.90	1.100	0.427	8.040	9.543	25#
						0	15	6025	0.07	0.332	12.43	13.00	1.140	90.90	1.100	0.416	7.404	9.285	/
						0	79	6345	-0.08	0.324	12.47	13.00	1.130	90.90	1.100	0.403	7.225	8.981	/
						0	111	6505	-0.13	0.321	12.50	13.00	1.122	90.90	1.100	0.396	7.158	8.834	/
						0	143	6665	0.19	0.333	12.46	13.00	1.132	90.90	1.100	0.415	7.426	9.247	/
						0	175	6825	0.01	0.318	12.35	13.00	1.161	90.90	1.100	0.406	7.091	9.056	/
						0	207	6985	0.08	0.347	12.53	13.00	1.114	90.90	1.100	0.425	7.738	9.482	/
		South Star	Laptop	Aux.	Front Edge of Keyboard	0	47	6185	0.06	0.161	12.67	13.00	1.079	90.90	1.100	0.191	3.630	4.308	/
					Palm rest Side of Keyboard	0	47	6185	-0.08	0.266	12.67	13.00	1.079	90.90	1.100	0.316	5.650	6.706	/
		AWAN	Laptop	Main	Front Edge of Keyboard	0	47	6185	0.05	0.301	12.88	13.00	1.028	90.90	1.100	0.340	6.750	7.633	/
					Palm rest Side of Keyboard	0	47	6185	0.10	0.379	12.88	13.00	1.028	90.90	1.100	0.429	8.630	9.759	26#
						0	15	6025	0.17	0.325	12.54	13.00	1.112	90.90	1.100	0.398	7.378	9.025	/
						0	79	6345	0.15	0.355	12.73	13.00	1.064	90.90	1.100	0.415	8.059	9.432	/
						0	111	6505	-0.03	0.362	12.81	13.00	1.045	90.90	1.100	0.416	8.217	9.445	/
						0	143	6665	-0.08	0.333	12.53	13.00	1.114	90.90	1.100	0.408	7.559	9.263	/
						0	175	6825	0.09	0.341	12.53	13.00	1.114	90.90	1.100	0.418	7.741	9.486	/
						0	207	6985	0.00	0.335	12.49	13.00	1.125	90.90	1.100	0.415	7.605	9.411	/
		South Star	Laptop	Main	Front Edge of Keyboard	0	47	6185	0.18	0.221	12.88	13.00	1.028	90.90	1.100	0.250	4.940	5.586	/
					Palm rest Side of Keyboard	0	47	6185	-0.14	0.352	12.88	13.00	1.028	90.90	1.100	0.398	8.020	9.069	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																			

11 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.

Frequency Band (MHz)	Wireless Band	Screen housing material	Antenna manufacturer	Test State	Antenna	RF Exposure Conditions	Test Position	Highest Measured SAR (W/kg)	Repeated SAR (Yes/No)	Highest Measured SAR (W/kg)	Largest to Smallest SAR Radio
2412	802.11b	metal	South Star	Tablet	Aux.	Body	Back Side	0.883	Yes	0.854	1.03
2437	802.11b	metal	South Star	Tablet	Aux.	Body	Back Side	0.806	Yes	0.776	1.04
5290	802.11ac 80	metal	South Star	Tablet	Aux.	Body	Back Side	0.895	Yes	0.859	1.04
5775	802.11ac 80	metal	AWAN	Tablet	Aux.	Body	Back Side	0.819	Yes	0.801	1.02
5775	802.11ac 80	metal	AWAN	Tablet	Main	Body	Back Side	1.020	Yes	1.000	1.02
5775	802.11ac 80	metal	South Star	Tablet	Main	Body	Back Side	0.833	Yes	0.809	1.03
6985	802.11ax160	metal	South Star	Tablet	Aux.	Body	Back Side	0.837	Yes	0.822	1.02

Note 1: The ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20 , the second repeated measurement is not required.

Note 2: For product specific 10g SAR, the highest measured 10g SAR is $0.86 < 2.00$ W/kg, repeated measurement is not required.

12 SIMULTANEOUS TRANSMISSION

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 SAR to Peak Location Ratio (SPLSR).

According to KDB 447498 D04, simultaneous transmission:

- a) $SPLSR = (SAR1 + SAR2)^{1.5} / R_i$ (min. separation distance, mm), and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
SAR1 is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition.
SAR2 is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition as the first.
- b) If $SPLSR \leq 0.04$, simultaneously transmission SAR measurement is not necessary.
- c) Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.

12.1 Simultaneous Transmission Mode Considerations

No.	Simultaneous Tx Combination	Body&Limbs
1	Bluetooth + WLAN 2.4GHz (Antenna Main)	Yes
2	Bluetooth + WLAN 5GHz (Antenna Auxiliary)	Yes
3	Bluetooth + WLAN 6GHz (Antenna Auxiliary)	Yes
4	Bluetooth + WLAN 5GHz (Antenna Main)	Yes
5	Bluetooth + + WLAN 6GHz (Antenna Main)	Yes
6	WLAN 2.4GHz (Antenna Main) + WLAN 2.4GHz (Antenna Auxiliary)	Yes
7	WLAN 2.4GHz (Antenna Main) + WLAN 5GHz (Antenna Auxiliary)	Yes
8	WLAN 2.4GHz (Antenna Auxiliary) + WLAN 5GHz (Antenna Main)	Yes
9	WLAN 2.4GHz (Antenna Main) + WLAN 6GHz (Antenna Auxiliary)	Yes
10	WLAN 2.4GHz (Antenna Auxiliary) + WLAN 6GHz (Antenna Main)	Yes
11	WLAN 5GHz (Antenna Auxiliary) + WLAN 5GHz (Antenna Main)	Yes
12	WLAN 6GHz (Antenna Auxiliary) + WLAN 6GHz (Antenna Main)	Yes

Note:

1. The EUT supports the Antenna Auxiliary with TX/RX diversity function for WLAN and Bluetooth, the Antenna Main with TX/RX diversity function for WLAN.
2. WLAN 2.4GHz and Bluetooth will not be transmitting from the Antenna Auxiliary at same time.

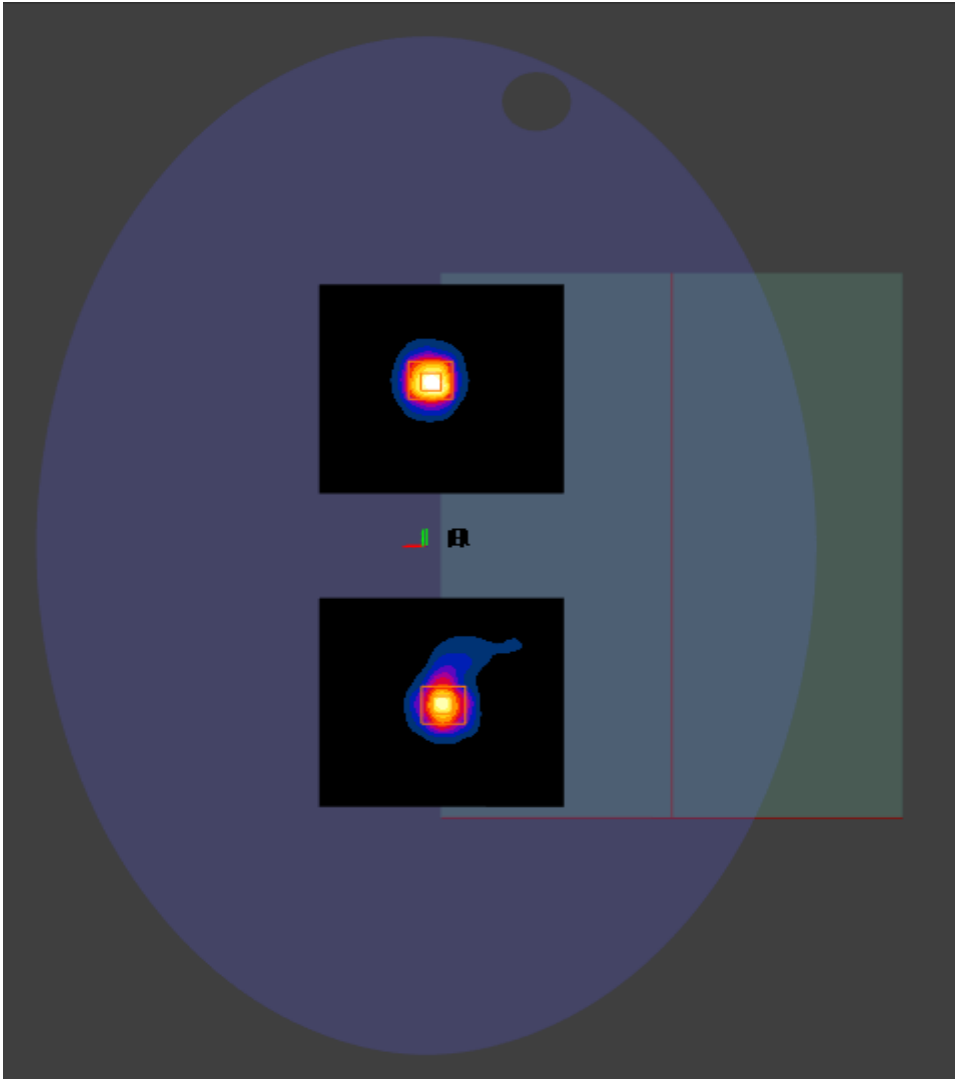
12.2 Sum SAR of Simultaneous Transmission

12.2.1 Body Simultaneous Transmission SAR Evaluation for WLAN Antenna with Bluetooth

State	Position		Stand alone SAR								
			1	2	3	4	5	6	7		
			Bluetooth	WLAN 2.4GHz (Antenna Auxiliary)	WLAN 2.4GHz (Antenna Main)	MAX. WLAN 5GHz (Antenna Auxiliary)	MAX. WLAN 5GHz (Antenna Main)	WLAN 6GHz (Antenna Auxiliary)	WLAN 6GHz (Antenna Main)		
Body	Laptop	Bottom Side	0.100	0.549	0.478	0.877	0.708	0.341	0.352		
	Tablet	Back Side	0.277	0.989	0.754	1.040	1.153	1.055	0.685		
	Tablet	Bottom Edge	0.025	0.228	0.161	0.253	0.380	0.019	0.017		
SUM SAR											
Sum SAR (1+3)	Sum SAR (1+4)	Sum SAR (1+6)	Sum SAR (1+5)	Sum SAR (1+7)	Sum SAR (2+3)	Sum SAR (3+4)	Sum SAR (2+5)	Sum SAR (3+6)	Sum SAR (2+7)	Sum SAR (4+5)	Sum SAR (6+7)
0.578	0.977	0.441	0.808	0.452	1.027	1.355	1.257	0.819	0.901	1.585	0.693
1.031	1.317	1.332	1.430	0.962	1.743	1.794	2.142	1.809	1.674	2.193	1.740
0.186	0.278	0.044	0.405	0.042	0.389	0.414	0.608	0.180	0.245	0.633	0.036
SPLSR											
Sum SAR (2+3)	Sum SAR (3+4)	Sum SAR (2+5)	Sum SAR (3+6)	Sum SAR (2+7)	Sum SAR (4+5)	Sum SAR (6+7)					
/	/	/	/	/	/	/					
0.01 ^{1#}	0.01 ^{2#}	0.02^{3#}	0.01 ^{4#}	0.01 ^{5#}	0.02^{6#}	0.01 ^{7#}					
/	/	/	/	/	/	/					
Note: 1: The highest Summed 1g SAR is 2.193 W/Kg > 1.6 W/kg, so Simultaneous Transmission SAR test exclusion is determined by the SAR to peak location separation ratio. 2: The SPLSR is 0.02 < 0.04, so Simultaneous Transmission SAR test is required.											

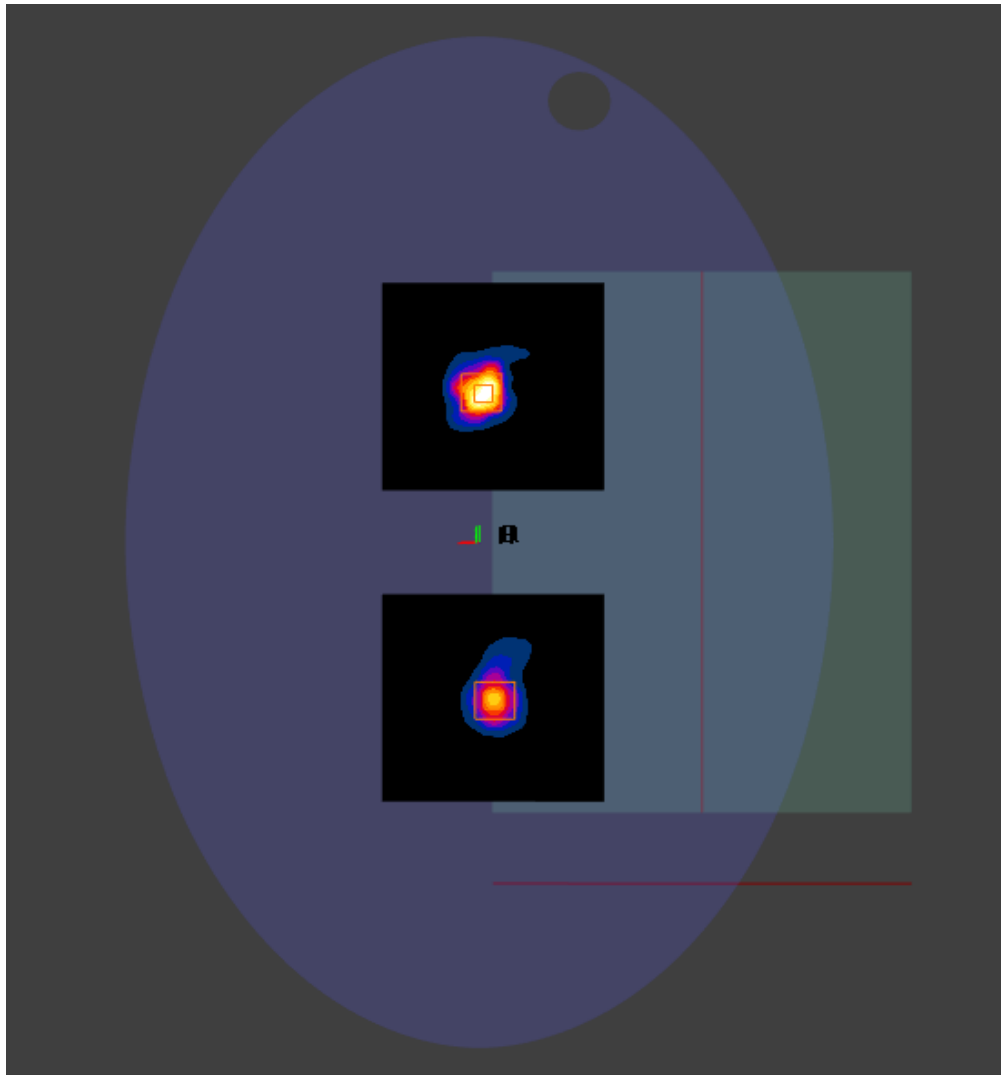
SPLSR Analysis 1#

Test Mode	Position	Antenna	Reported 1g Max. SAR (W/kg)	Coordinates (m)			3D Distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR Test (Yes/No)
				X	Y	Z				
Tablet	Back Side	WLAN2.4G Ant. Aux	0.989	0.0075	0.09	-0.174044	180.00	1.74	0.01	No
		WLAN2.4G Ant. Main	0.754	0.0075	-0.09	-0.174023				



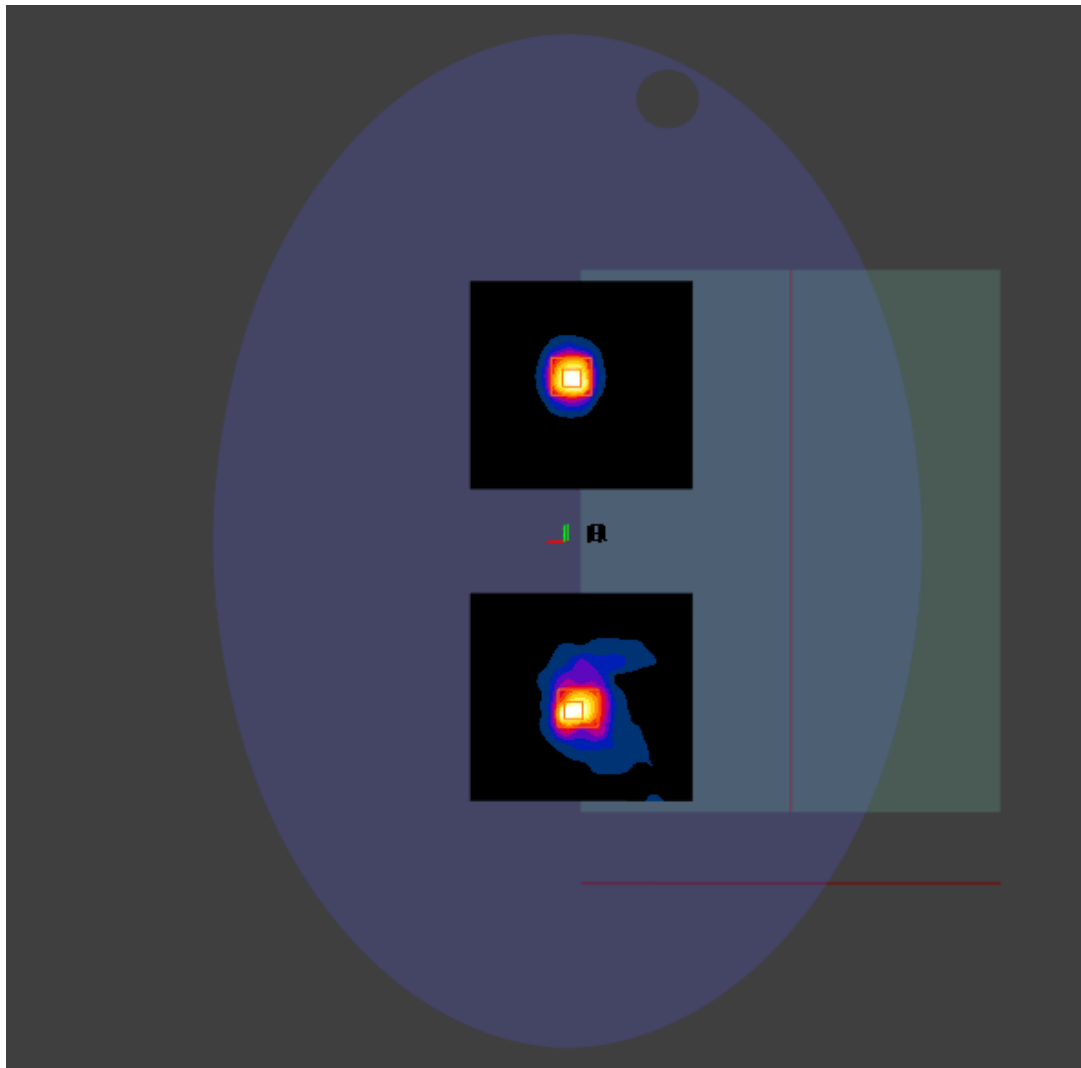
SPLSR Analysis 2#

Test Mode	Position	Antenna	Reported 1g Max. SAR (W/kg)	Coordinates (m)			3D Distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR Test (Yes/No)
				X	Y	Z				
Tablet	Back Side	WLAN5G Ant. Aux	1.041	0.0075	0.09	-0.174021	180.00	1.80	0.01	No
		WLAN2.4G Ant. Main	0.754	0.0075	-0.09	-0.174023				



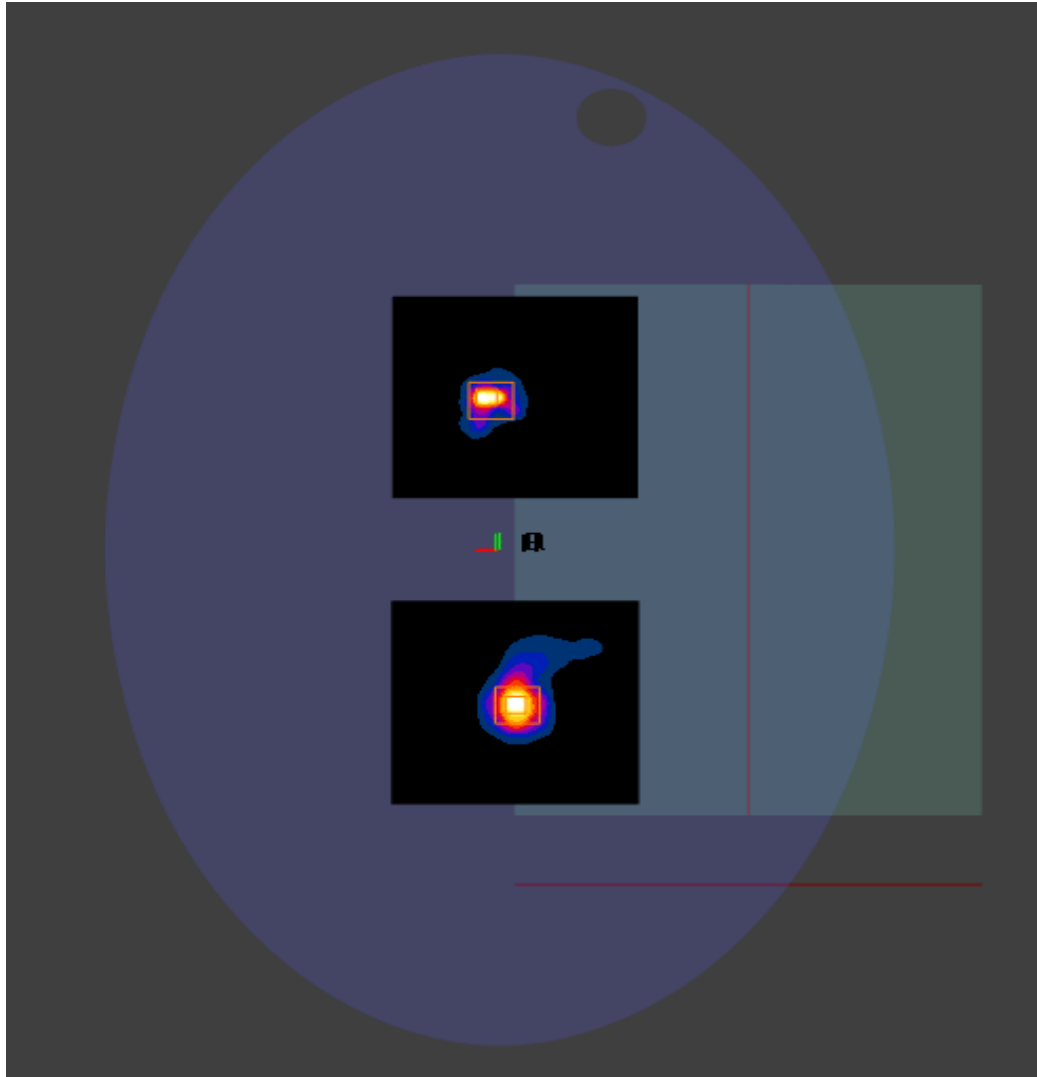
SPLSR Analysis 3#

Test Mode	Position	Antenna	Reported 1g Max. SAR (W/kg)	Coordinates (m)			3D Distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR Test (Yes/No)
				X	Y	Z				
Tablet	Back Side	WLAN2.4G Ant. Aux	0.989	0.0075	0.09	-0.174044	190.30	2.14	0.02	No
		WLAN5G Ant. Main	1.154	-0.0025	-0.10	-0.17402				



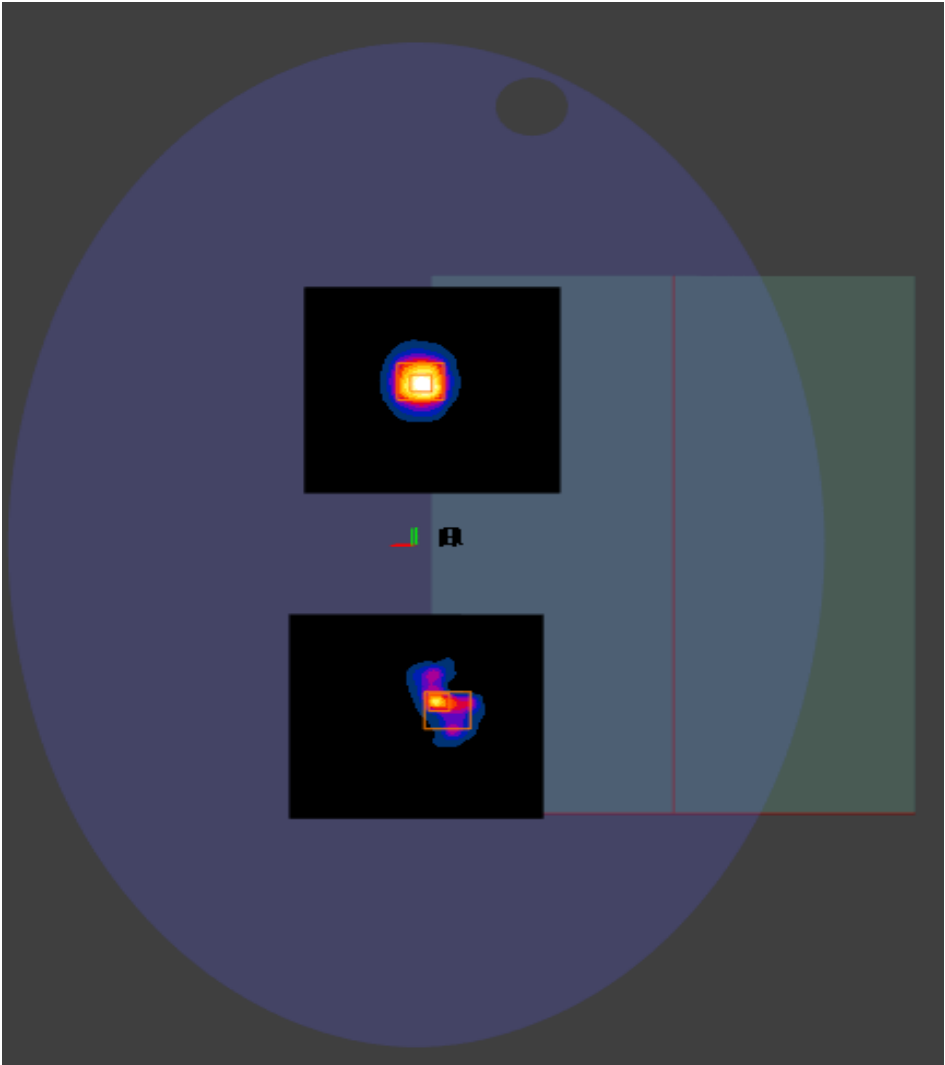
SPLSR Analysis 4#

Test Mode	Position	Antenna	Reported 1g Max. SAR (W/kg)	Coordinates (m)			3D Distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR Test (Yes/No)
				X	Y	Z				
Tablet	Back Side	WLAN6G Ant. Aux	1.055	-0.0095	0.09	-0.174042	180.80	1.81	0.01	No
		WLAN2.4G Ant. Main	0.754	0.0075	-0.09	-0.174023				



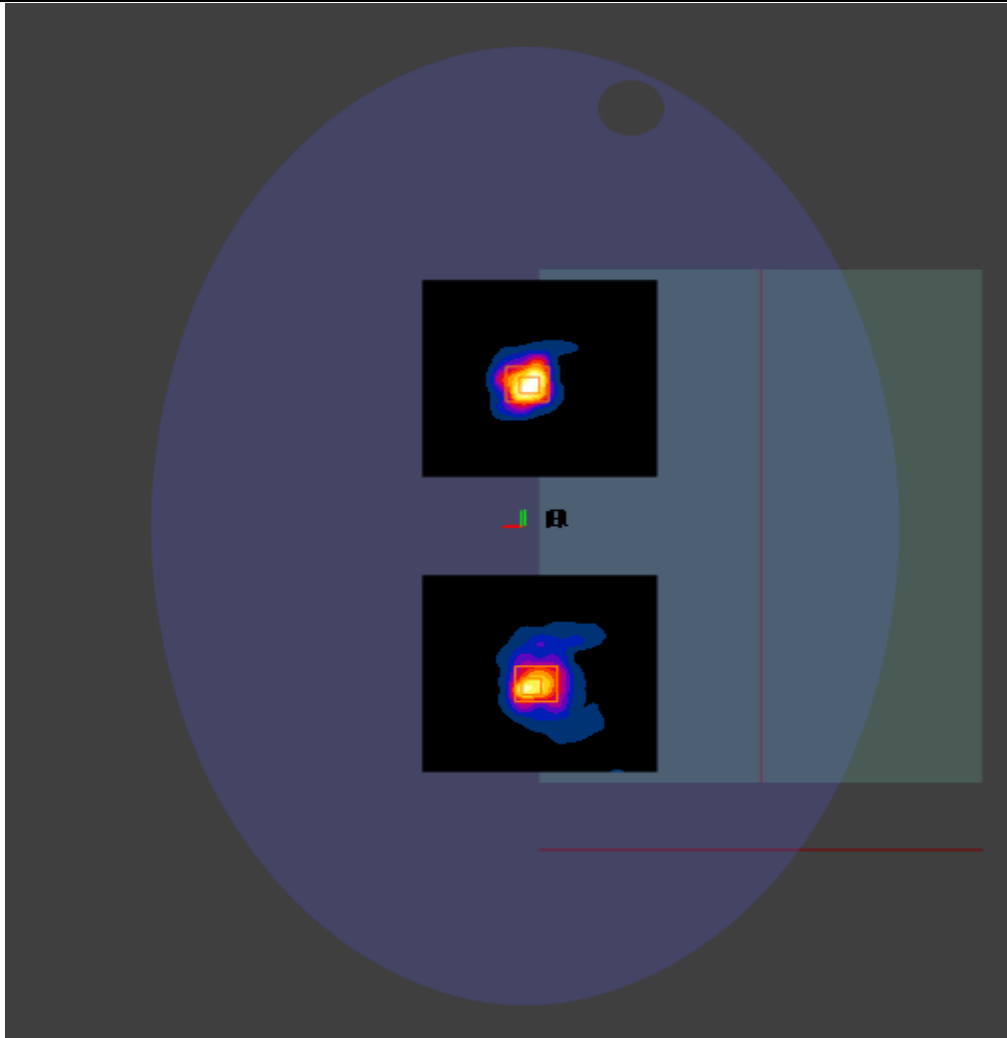
SPLSR Analysis 5#

Test Mode	Position	Antenna	Reported 1g Max. SAR (W/kg)	Coordinates (m)			3D Distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR Test (Yes/No)
				X	Y	Z				
Tablet	Back Side	WLAN2.4G Ant. Aux	0.989	0.0075	0.0900	-0.174044	181.50	1.67	0.01	No
		WLAN6G Ant. Main	0.684	0.0085	-0.0915	-0.174020				



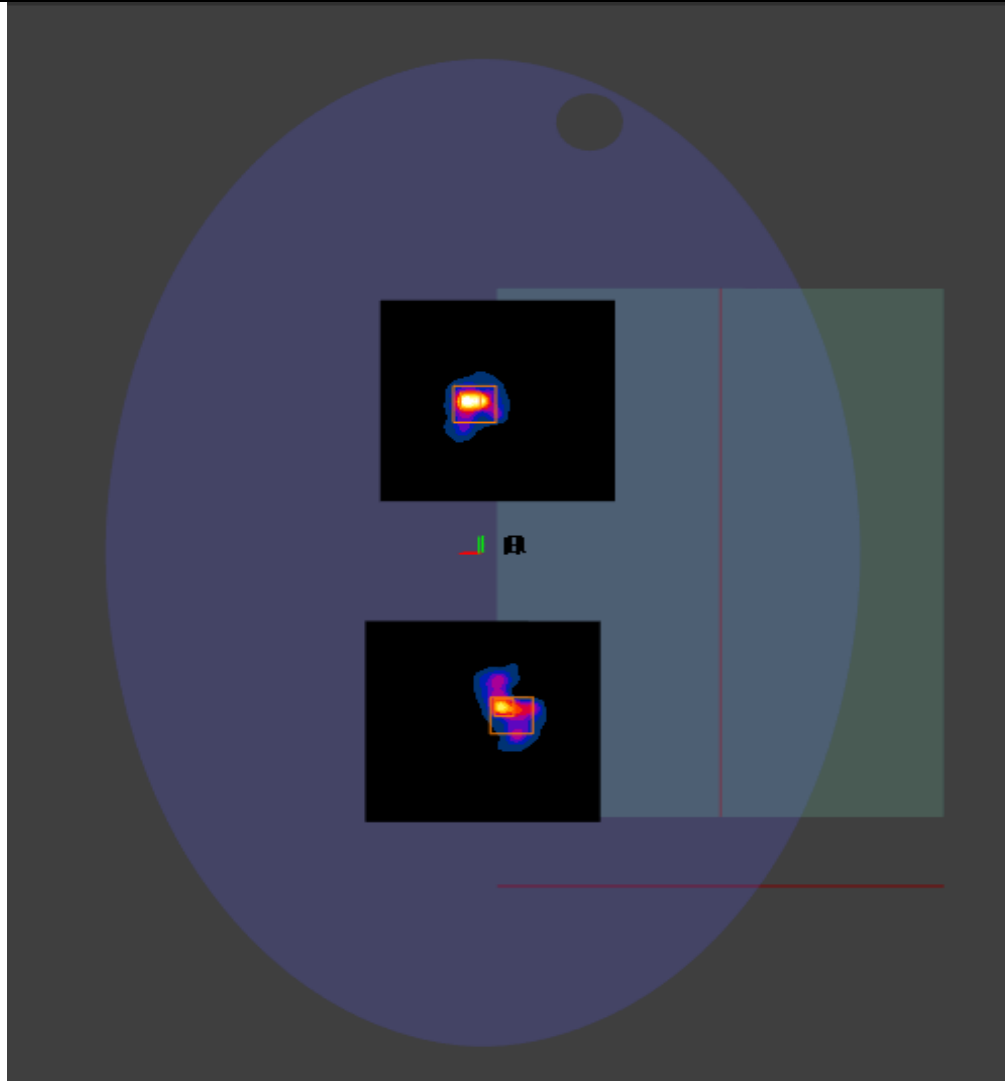
SPLSR Analysis 6#

Test Mode	Position	Antenna	Reported 1g Max. SAR (W/kg)	Coordinates (m)			3D Distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR Test (Yes/No)
				X	Y	Z				
Tablet	Back Side	WLAN5G Ant. Aux	1.041	0.0075	0.09	-0.174021	190.30	2.20	0.02	No
		WLAN5G Ant. Main	1.154	-0.0025	-0.10	-0.174020				



SPLSR Analysis 7#

Test Mode	Position	Antenna	Reported 1g Max. SAR (W/kg)	Coordinates (m)			3D Distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR Test (Yes/No)
				X	Y	Z				
Tablet	Back Side	WLAN6G Ant. Aux	1.055	-0.0095	0.0900	-0.174042	182.4	1.74	0.01	No
		WLAN6G Ant. Main	0.684	0.0085	-0.0915	-0.17402				



12.2.2 Limbs Simultaneous Transmission SAR Evaluation for WLAN Antenna with Bluetooth

State	Position			Stand alone SAR							
				1	2	3	4	5	6	7	
				Bluetooth	WLAN 2.4GHz (Antenna Auxiliary)	WLAN 2.4GHz (Antenna Main)	MAX. WLAN 5GHz (Antenna Auxiliary)	MAX. WLAN 5GHz (Antenna Main)	WLAN 6GHz (Antenna Auxiliary)	WLAN 6GHz (Antenna Main)	
Limbs	Laptop	Front Edge of Keyboard	0.016	0.095	0.446	0.468	0.482	0.171	0.340		
		Palm rest Side of Keyboard	0.114	0.598	0.683	0.790	0.957	0.427	0.429		
SUM SAR											
Sum SAR (1+3)	Sum SAR (1+4)	Sum SAR (1+6)	Sum SAR (1+5)	Sum SAR (1+7)	Sum SAR (2+3)	Sum SAR (3+4)	Sum SAR (2+5)	Sum SAR (3+6)	Sum SAR (2+7)	Sum SAR (4+5)	Sum SAR (6+7)
0.462	0.484	0.187	0.498	0.356	0.541	0.914	0.577	0.617	0.435	0.950	0.511
0.797	0.904	0.541	1.071	0.543	1.281	1.473	1.555	1.110	1.027	1.747	0.856
Note:											
1: The highest Summed 10g SAR is 1.747 W/Kg < 4.0 W/kg, so Simultaneous Transmission SAR test is required.											

13 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
Test Software	Speag	DASY6	16.0.0.116	N/A	N/A
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2021/05/19	2024/05/18
5GHz Validation Dipole	Speag	D5GHzV2	SN: 1200	2021/05/18	2024/05/17
6.5GHz Validation Dipole	Speag	D6.5GHzV2	SN: 1037	2021/07/01	2024/06/30
E-Field Probe	Speag	EX3DV4	SN: 7607	2023/07/04	2024/07/03
Data Acquisition Electronicsr	Speag	DAE4	SN: 878	2023/03/23	2024/03/22
Signal Generator	R&S	SMB100A	177746	2023/05/10	2024/05/09
Power Meter	R&S	NRVD-B2	835843/014	2023/09/05	2024/09/04
Power Sensor	R&S	NRV-Z4	100381	2023/09/05	2024/09/04
Power Sensor	R&S	NRV-Z2	100211	2023/09/05	2024/09/04
Network Analyzer	Agilent	E5071C	MY46103472	2023/11/14	2024/11/13
Thermometer	Elitech	RC-4	EF5238001628	2023/10/09	2024/10/08
Thermometer	Elitech	RC-4HC	EF7239002652	2023/11/17	2024/11/16
Power Amplifier	SATIMO	6552B	22374	N/A	N/A
Dielectric Probe Kit	Speag	DAK3.5	SN: 1312	N/A	N/A
Phantom	Speag	ELI V8.0	SN: 2159	N/A	N/A
Attenuator	COM-MW	ZA-S1-31	1305003187	N/A	N/A
Directional coupler	AA-MCS	AAMCS-UDC	000272	N/A	N/A

Note: For dipole antennas, BALUN has adopted 3 years as calibration intervals, and on annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss in within 20% of calibrated measurement.
4. Impedance (real or imaginary parts) in within 5 Ohms of calibrated measurement.

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The dielectric parameters of the liquids were verified prior to the SAR evaluation using a DAK3.5 Dielectric Probe Kit.

Date	Liquid Type	Fre. (MHz)	Temp. (°C)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ϵ)	Target Conductivity (σ) (S/m)	Target Permittivity (ϵ)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2023.11.20	Head	2450	21.5	1.78	38.80	1.80	39.20	-1.11	-1.02
2023.11.21	Head	5250	21.4	4.64	36.67	4.71	35.93	-1.49	2.06
2023.11.22	Head	5600	21.2	5.07	36.00	5.07	35.53	0.00	1.32
2023.11.23	Head	5750	21.6	5.04	36.26	5.22	35.36	-3.45	2.55
2023.11.24	Head	6500	21.3	6.01	34.18	6.07	34.46	-0.99	-0.81
Note: The tolerance limit of Conductivity and Permittivity is $\pm 5\%$.									

ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by SPEAG, the validation data should be within its specification of 10 % (for 1 g).

Head liquid 1g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2023.11.20	Head	2450	100	5.28	52.80	53.00	-0.38
2023.11.21	Head	5250	100	7.65	76.50	77.80	-1.67
2023.11.22	Head	5600	100	8.32	83.20	81.20	2.46
2023.11.23	Head	5750	100	7.77	77.70	77.20	0.65
2023.11.24	Head	6500	100	27.10	271.00	286.00	-5.24

Note: The tolerance limit of System validation $\pm 10\%$.

Head liquid 10g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2023.11.20	Head	2450	100	2.34	23.40	24.10	-2.90
2023.11.21	Head	5250	100	2.12	21.20	22.10	-4.07
2023.11.22	Head	5600	100	2.37	23.70	23.10	2.60
2023.11.23	Head	5750	100	2.18	21.80	21.70	0.46
2023.11.24	Head	6500	100	5.10	51.00	52.60	-3.04

Note: The tolerance limit of System validation $\pm 10\%$.

System Performance Check Data (2450MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D2450V2, SPEAG	40.0 x 8.0 x 8.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D2450	CW, 0--	2450.0, 2450	7.47	1.78	38.8	22.3	21.5

Hardware Setup

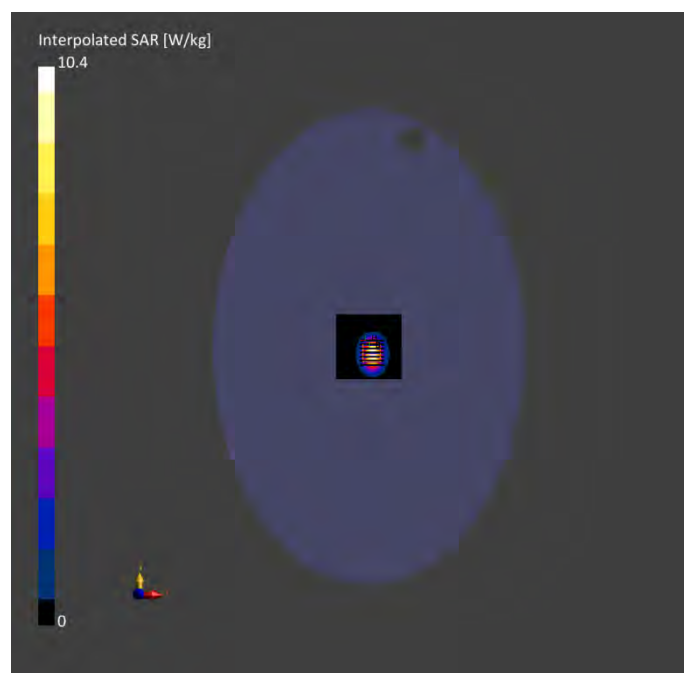
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-20	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	30.0 x 30.0 x 30.0
Grid Steps [mm]	8.0 x 10.0	5.0 x 5.0 x 1.5
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	All points	All points
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-20	2023-11-20
psSAR1g [W/kg]	5.12	5.28
psSAR10g [W/kg]	2.28	2.34
Power Drift [dB]	0.02	0.05
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		79.1
Dist 3dB Peak [mm]		9.3



System Performance Check Data (5250MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D5GHZV2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D5GH z	CW, 0--	5250.0, 5250	5.41	4.77	35.5	22.5	21.4

Hardware Setup

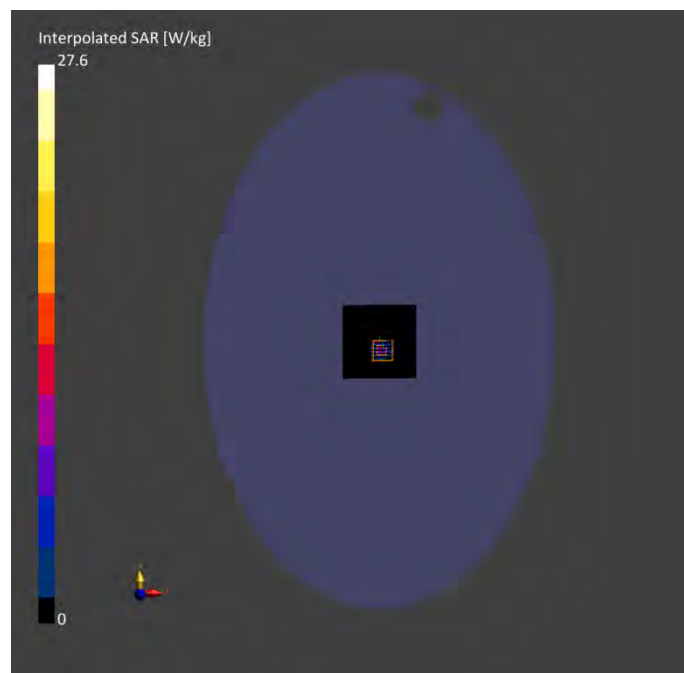
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-21	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	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	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface	All points	All points
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-21	2023-11-21
psSAR1g [W/kg]	6.78	7.65
psSAR10g [W/kg]	1.99	2.12
Power Drift [dB]	-0.04	0.07
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		63.5
Dist 3dB Peak [mm]		7.1



System Performance Check Data (5600MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D5GHzV2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D5GHZ	CW, 0--	5600.0, 5600	4.58	5.07	36.0	22.3	21.2

Hardware Setup

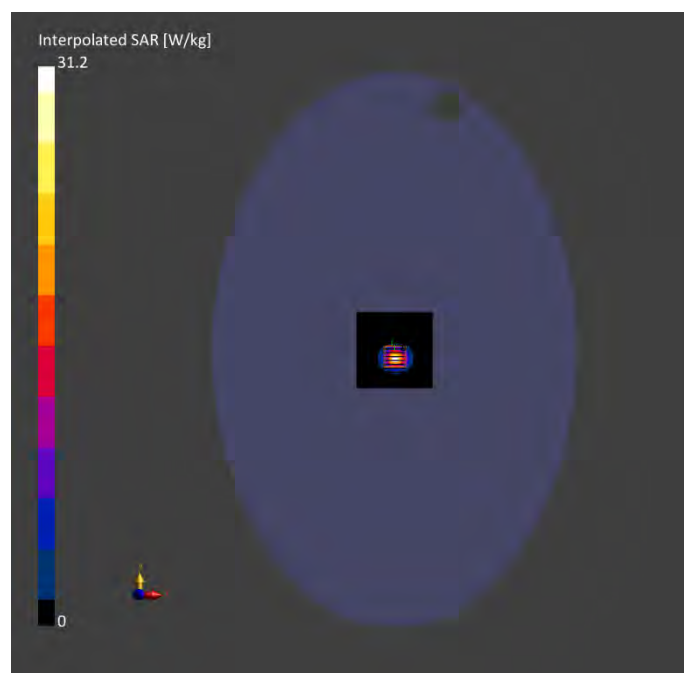
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-22	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	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	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface	All points	All points
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-22	2023-11-22
psSAR1g [W/kg]	7.58	8.32
psSAR10g [W/kg]	2.15	2.37
Power Drift [dB]	-0.13	0.02
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		61.8
Dist 3dB Peak [mm]		7.1



System Performance Check Data (5750MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D5GHzV2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, TSL	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		D5GH z	CW, 0--	5750.0, 5750	4.78	5.04	36.3	22.1	21.6

Hardware Setup

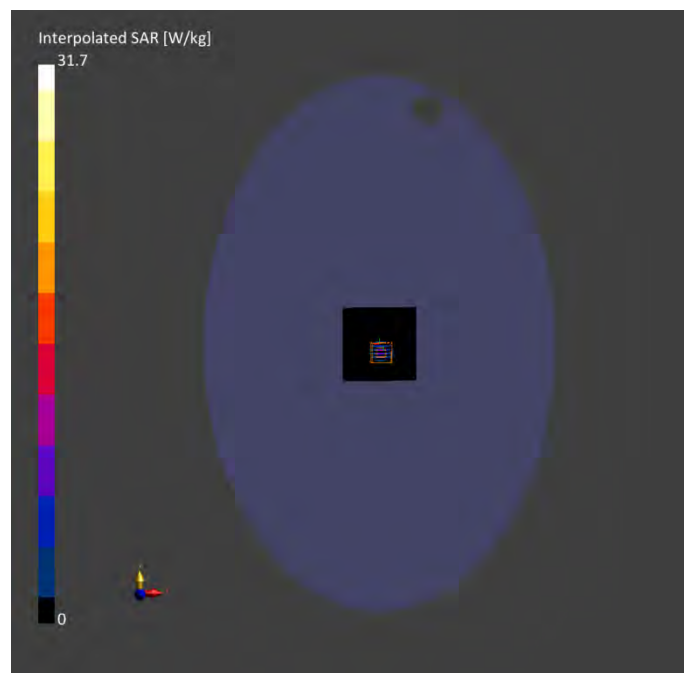
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-23	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	80.0 x 80.0	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	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface	All points	All points
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-23	2023-11-23
psSAR1g [W/kg]	6.83	7.77
psSAR10g [W/kg]	1.95	2.18
Power Drift [dB]	-0.07	0.06
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		62.1
Dist 3dB Peak [mm]		7.4



System Performance Check Data (6500MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
D6.5GHzV2, SPEAG	10.0 x 10.0 x 3.0	Dipole

Exposure Conditions

Phantom	Position, Test Section, Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL		Validation band	CW, 0--	6500.0, 6500	5.38	6.01	34.2	22.2	21.3

Hardware Setup

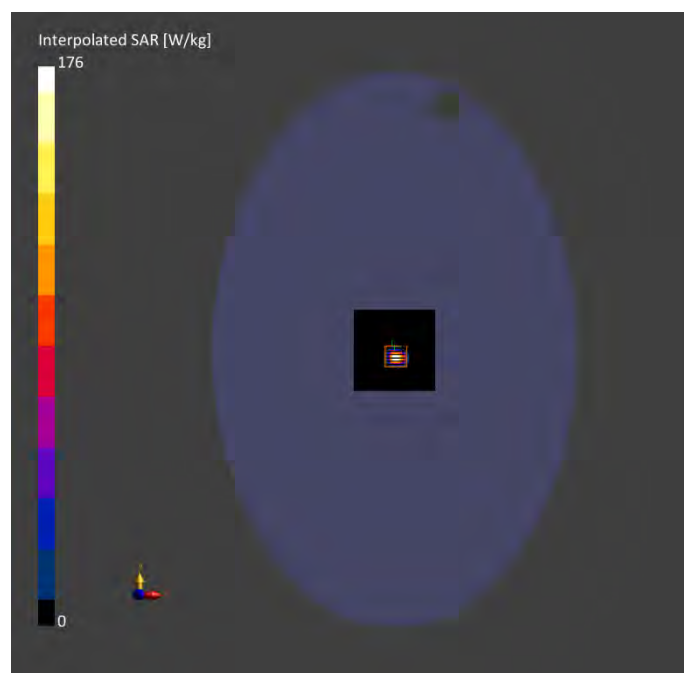
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-24	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface Detection	All points	All points
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-24	2023-11-24
psSAR1g [W/kg]	23.8	27.1
psSAR10g [W/kg]	4.78	5.10
APD 4cm ² [W/m ²]		131
Power Drift [dB]	-0.05	0.04
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.3
Dist 3dB Peak [mm]		4.6



ANNEX C TEST DATA

Meas.1 Body Plane with Back Side 0mm on 78 Channel in Bluetooth mode with Antenna Auxiliary

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	ISM 2.4 GHz	Bluetooth, 10032-CAA	2480.0, 78	7.47	1.88	38.2	22.3	21.5
		Band							

Hardware Setup

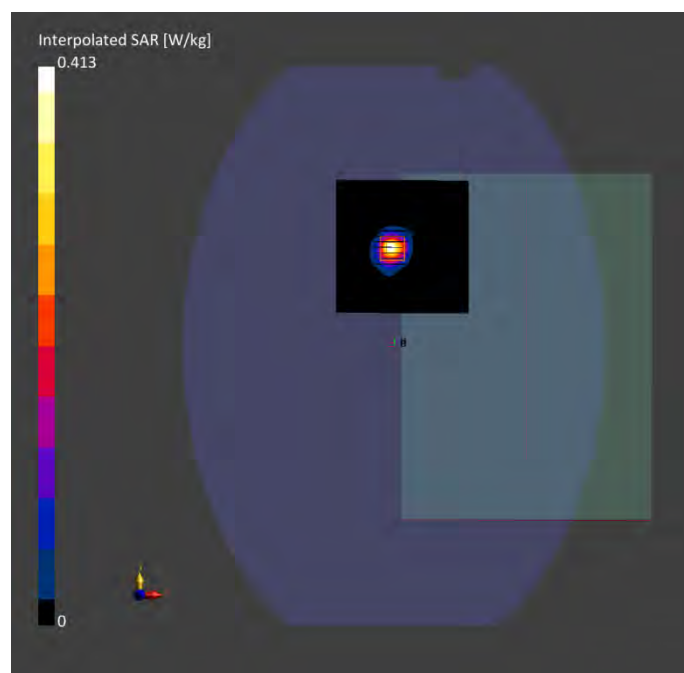
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2162	HBBL-600-10000 2023-11-20	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

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]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-20	2023-11-20
psSAR1g [W/kg]	0.190	0.196
psSAR10g [W/kg]	0.080	0.081
Power Drift [dB]	-0.06	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		47.4
Dist 3dB Peak [mm]		8.5



Meas.2 Limbs Plane with Palm rest Side 0mm on 78 Channel in Bluetooth mode with Antenna Auxiliary Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	ISM 2.4 GHz Band	Bluetooth, 10032-CAA	2480.0, 78	7.47	1.88	38.2	22.3	21.5

Hardware Setup

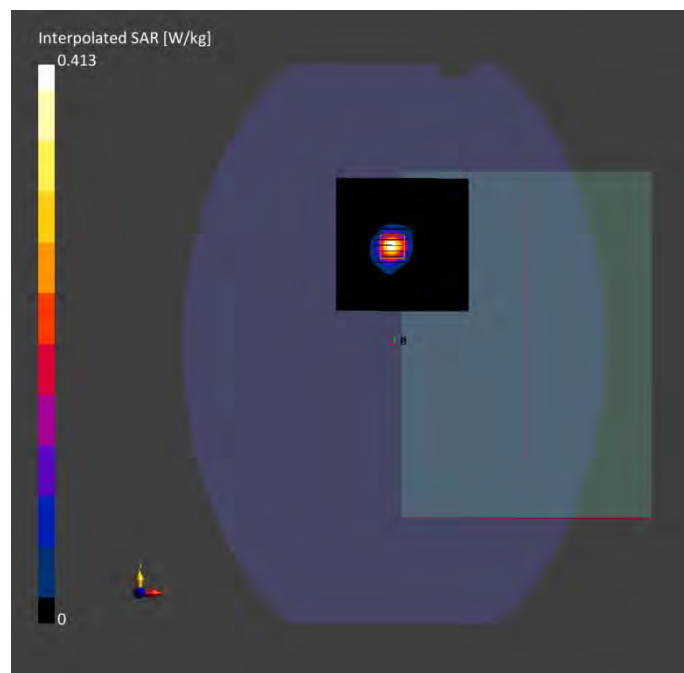
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2162	HBBL-600-10000 2023-11-20	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

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]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-20	2023-11-20
psSAR1g [W/kg]	0.190	0.196
psSAR10g [W/kg]	0.080	0.081
Power Drift [dB]	-0.06	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		47.4
Dist 3dB Peak [mm]		8.5



Meas.3 Body Plane with Back Side 0mm on 1 Channel in IEEE802.11b mode with Antenna Auxiliary Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 0.00	WLAN 2.4GHz	WLAN, 10012-CAB	2412.0, 1	7.47	1.72	39.6	22.3	21.5

Hardware Setup

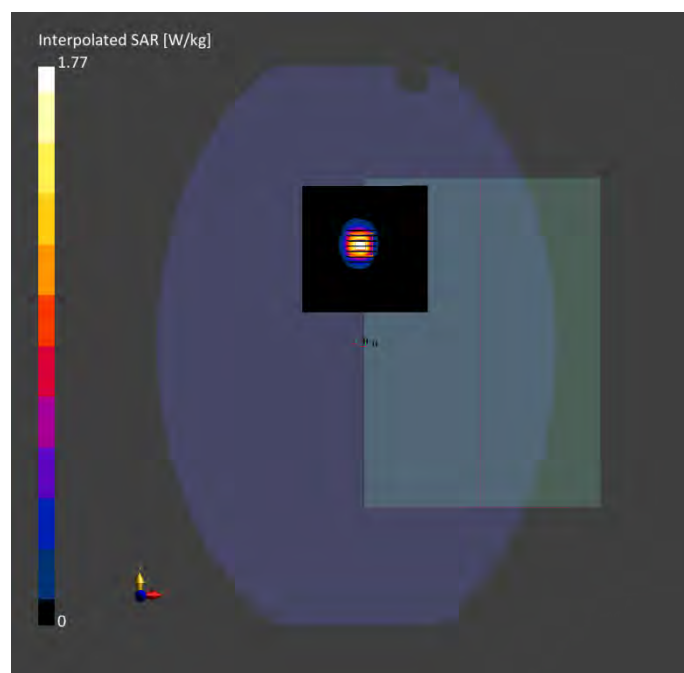
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2162	HBBL-600-10000 2023-11-20	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

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]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-20	2023-11-20
psSAR1g [W/kg]	0.833	0.883
psSAR10g [W/kg]	0.386	0.424
Power Drift [dB]	0.10	0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		51.3
Dist 3dB Peak [mm]		9.5



Meas.4 Body Plane with Back Side 0mm on 11 Channel in IEEE802.11b mode with Antenna Main

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 2.4GHz	WLAN, 10012-CAB	2462.0, 11	7.47	1.84	38.3	22.3	21.5

Hardware Setup

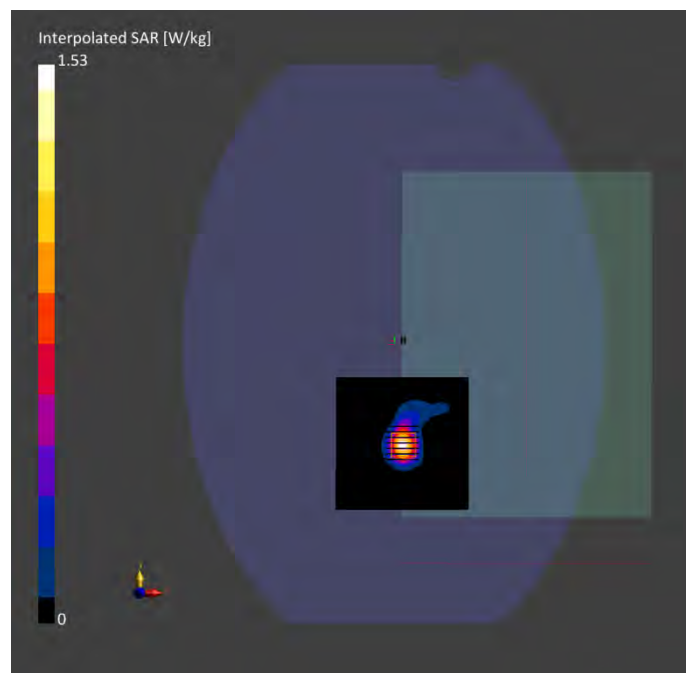
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-20	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

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]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-20	2023-11-20
psSAR1g [W/kg]	0.701	0.710
psSAR10g [W/kg]	0.310	0.308
Power Drift [dB]	-0.00	-0.18
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		43.7
Dist 3dB Peak [mm]		8.0



Meas.5 Limbs Plane with Palm rest Side 0mm on 11 Channel in IEEE802.11b mode with Antenna Auxiliary

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 2.4GHz	WLAN, 10012-CAB	2462.0, 11	7.47	1.84	38.3	22.3	21.5

Hardware Setup

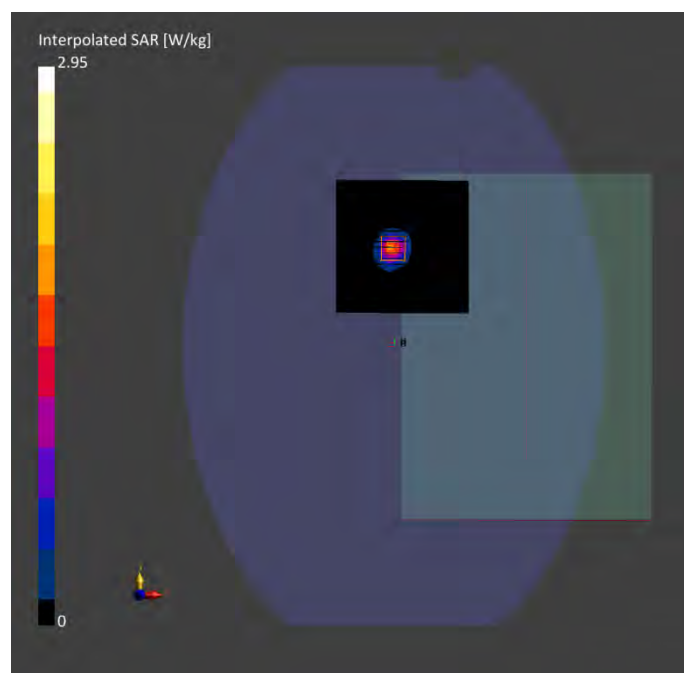
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-20	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

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]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-20	2023-11-20
psSAR1g [W/kg]	1.36	1.39
psSAR10g [W/kg]	0.575	0.579
Power Drift [dB]	-0.08	-0.08
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		46.9
Dist 3dB Peak [mm]		8.2



Meas.6 Limbs Plane with Palm rest Side 0mm on 11 Channel in IEEE802.11b mode with Antenna Main Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN, 2.4GH	WLAN, 10012-CAB	2462.0, 11	7.47	1.84	38.3	22.3	21.5
Z									

Hardware Setup

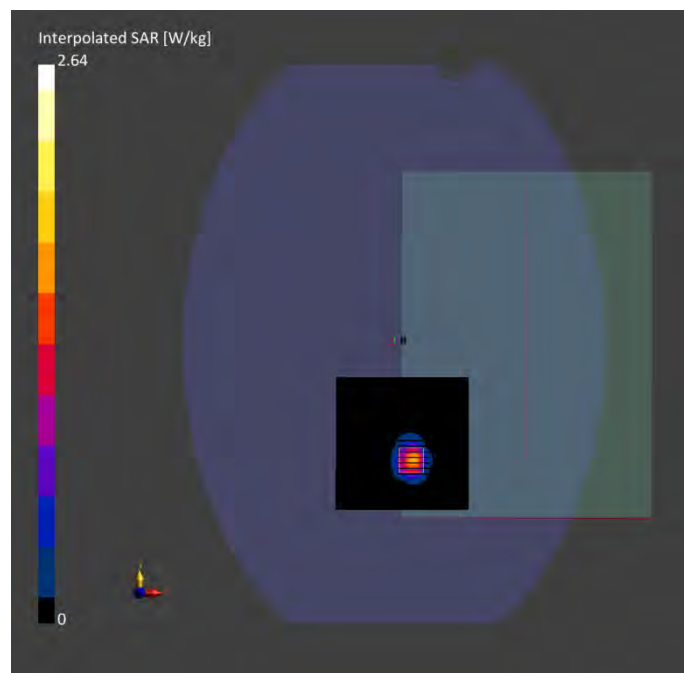
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-20	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

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]	12.0 x 12.0	5.0 x 5.0 x 5.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.5
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-20	2023-11-20
psSAR1g [W/kg]	1.37	1.39
psSAR10g [W/kg]	0.626	0.631
Power Drift [dB]	-0.01	-0.06
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		53.3
Dist 3dB Peak [mm]		10.3



Meas.7 Body Plane with Back Side 0mm on 58 Channel in IEEE802.11ac80 mode with Antenna
Auxiliary
Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAC	5290.0, 58	5.41	4.86	35.4	22.5	21.4

Hardware Setup

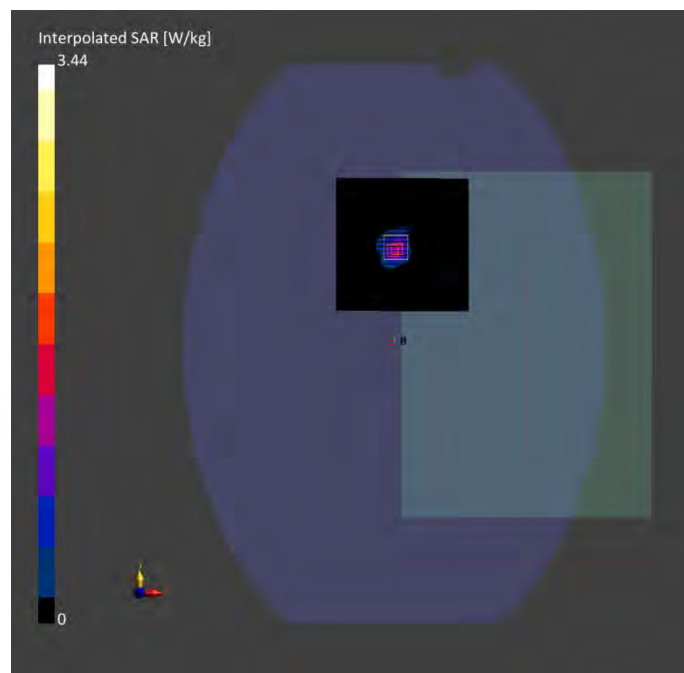
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-21	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-21	2023-11-21
psSAR1g [W/kg]	0.943	0.895
psSAR10g [W/kg]	0.350	0.367
Power Drift [dB]	0.08	-0.04
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		51.2
Dist 3dB Peak [mm]		6.8



Meas.8 Body Plane with Back Side 0mm on 58 Channel in IEEE802.11ac80 mode with Antenna Main Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAC	5290.0, 58	5.41	4.86	35.4	22.5	21.4

Hardware Setup

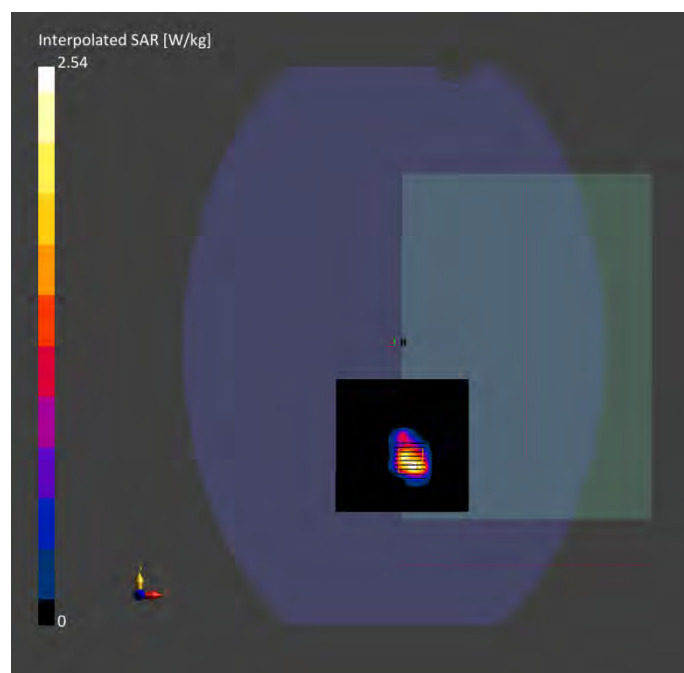
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-21	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-21	2023-11-21
psSAR1g [W/kg]	0.662	0.679
psSAR10g [W/kg]	0.253	0.255
Power Drift [dB]	-0.05	-0.07
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		54.4
Dist 3dB Peak [mm]		6.4



Meas.9 Limbs Plane with Palm rest Side 0mm on 58 Channel in IEEE802.11ac80 mode with Antenna Auxiliary

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAC	5290.0, 58	5.41	4.86	35.4	22.5	21.4

Hardware Setup

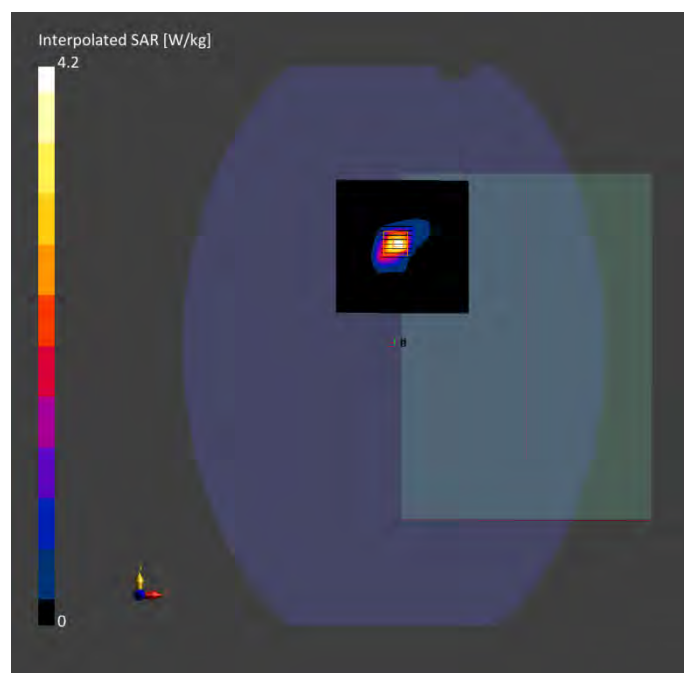
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-21	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-21	2023-11-21
psSAR1g [W/kg]	1.02	1.12
psSAR10g [W/kg]	0.356	0.356
Power Drift [dB]	-0.05	0.02
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		55.5
Dist 3dB Peak [mm]		6.1



Meas.10 Limbs Plane with Palm rest Side 0mm on 58 Channel in IEEE802.11ac80 mode with Antenna Main

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAC	5290.0, 58	5.41	4.86	35.4	22.5	21.4

Hardware Setup

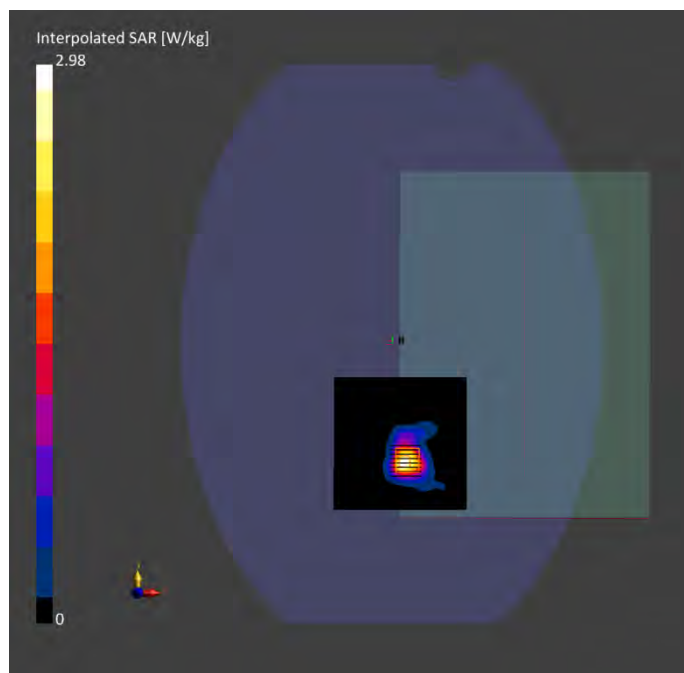
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-21	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-21	2023-11-21
psSAR1g [W/kg]	0.790	0.819
psSAR10g [W/kg]	0.298	0.303
Power Drift [dB]	-0.10	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		53.2
Dist 3dB Peak [mm]		8.2



Meas.11 Body Plane with Back Side 0mm on 106 Channel in IEEE802.11ac80 mode with Antenna Auxiliary

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10402-AAE	5530.0, 106	4.58	4.96	36.6	22.3	21.2

Hardware Setup

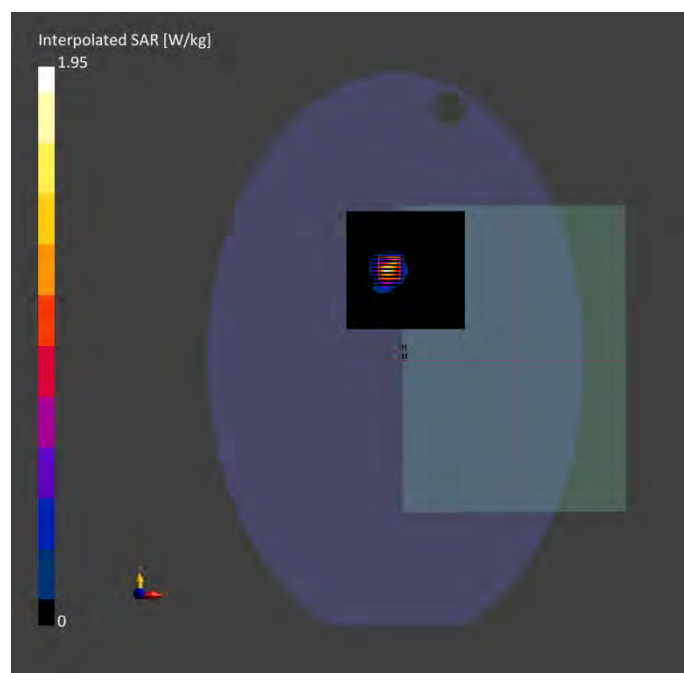
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-22	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-22	2023-11-22
psSAR1g [W/kg]	0.468	0.464
psSAR10g [W/kg]	0.159	0.153
Power Drift [dB]	0.00	-0.06
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.0
Dist 3dB Peak [mm]		7.4



Meas.12 Body Plane with Back Side 0mm on 106 Channel in IEEE802.11ac80 mode with Antenna Main Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10402-AAE	5530.0, 106	4.58	4.96	36.6	22.3	21.2

Hardware Setup

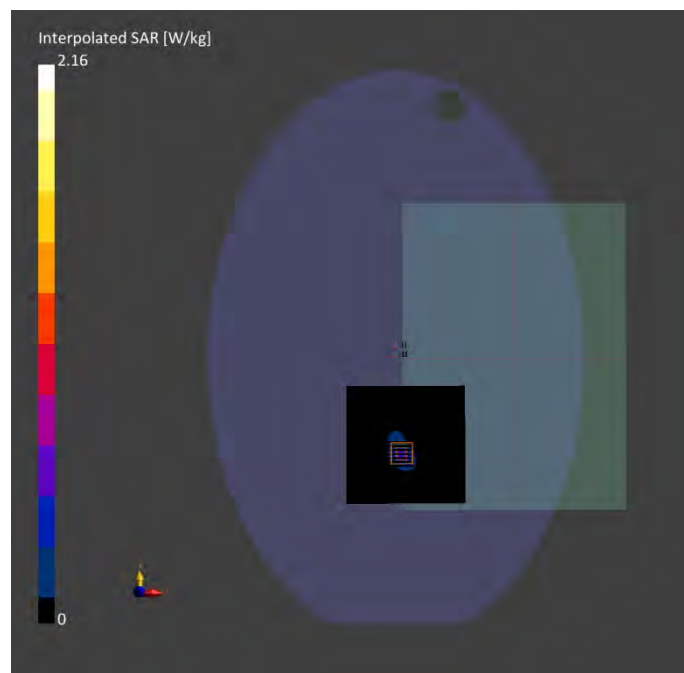
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-22	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-22	2023-11-22
psSAR1g [W/kg]	0.474	0.512
psSAR10g [W/kg]	0.164	0.159
Power Drift [dB]	-0.02	-0.16
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		50.1
Dist 3dB Peak [mm]		5.6



Meas.13 Limbs Plane with Palm rest Side 0mm on 138 Channel in IEEE802.11ac80 mode with Antenna Auxiliary

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10402-AAE	5690.0, 138	4.78	5.24	35.4	22.3	21.2

Hardware Setup

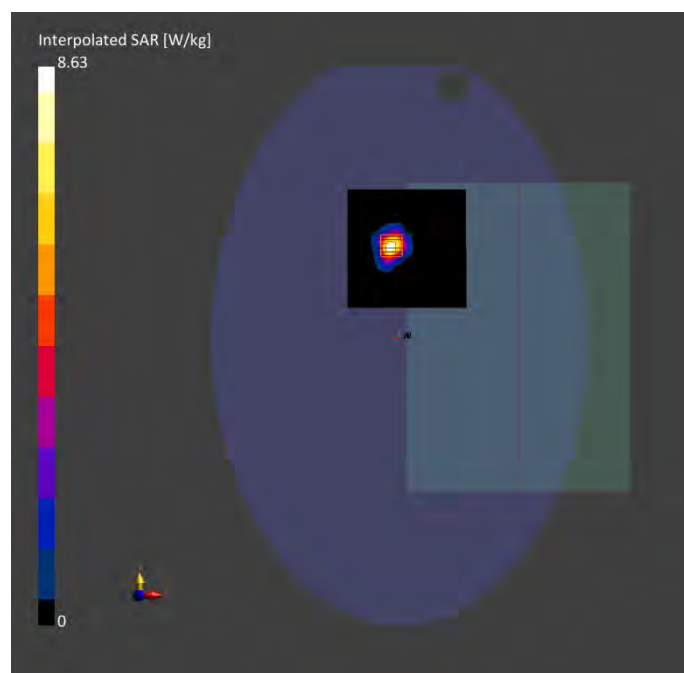
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-22	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-22	2023-11-22
psSAR1g [W/kg]	1.92	2.03
psSAR10g [W/kg]	0.683	0.694
Power Drift [dB]	-0.06	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		48.7
Dist 3dB Peak [mm]		7.2



Meas.14 Limbs Plane with Palm rest Side 0mm on 106 Channel in IEEE802.11ac80 mode with Antenna Main

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10402-AAE	5530.0, 106	4.58	4.96	36.6	22.3	21.2

Hardware Setup

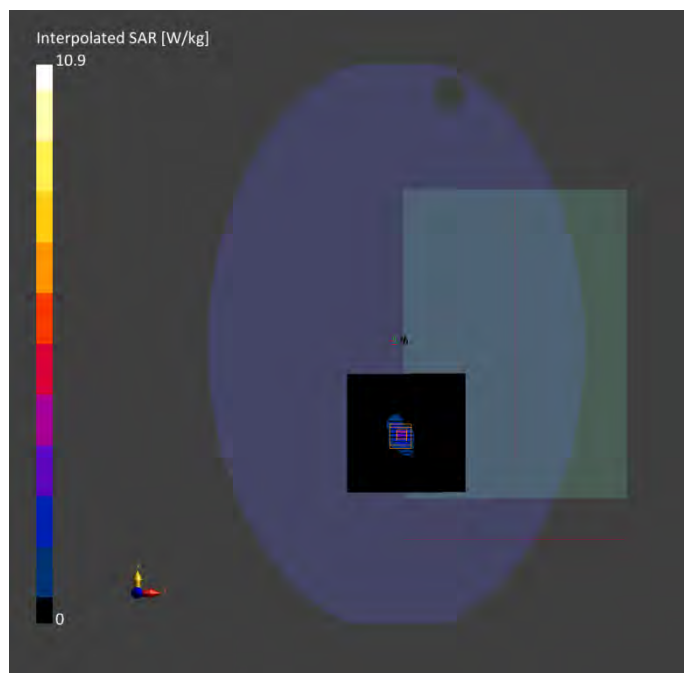
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-22	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-22	2023-11-22
psSAR1g [W/kg]	2.40	2.65
psSAR10g [W/kg]	0.835	0.858
Power Drift [dB]	0.00	0.03
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		51.8
Dist 3dB Peak [mm]		6.4



Meas.15 Body Plane with Back Side 0mm on 155 Channel in IEEE802.11ac80 mode with Antenna Auxiliary

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAC	5775.0, 155	4.78	5.10	35.6	22.1	21.6

Hardware Setup

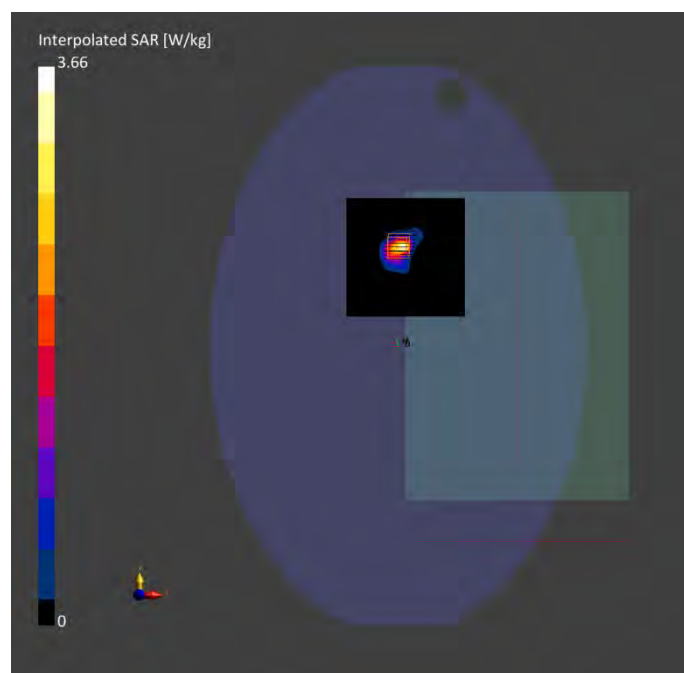
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-23	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-23	2023-11-23
psSAR1g [W/kg]	0.634	0.819
psSAR10g [W/kg]	0.204	0.218
Power Drift [dB]	-0.04	0.05
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		52.1
Dist 3dB Peak [mm]		5.4



Meas.16 Body Plane with Back Side 0mm on 155 Channel in IEEE802.11ac80 mode with Antenna Main Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAC	5775.0, 155	4.78	5.10	35.6	22.1	21.6

Hardware Setup

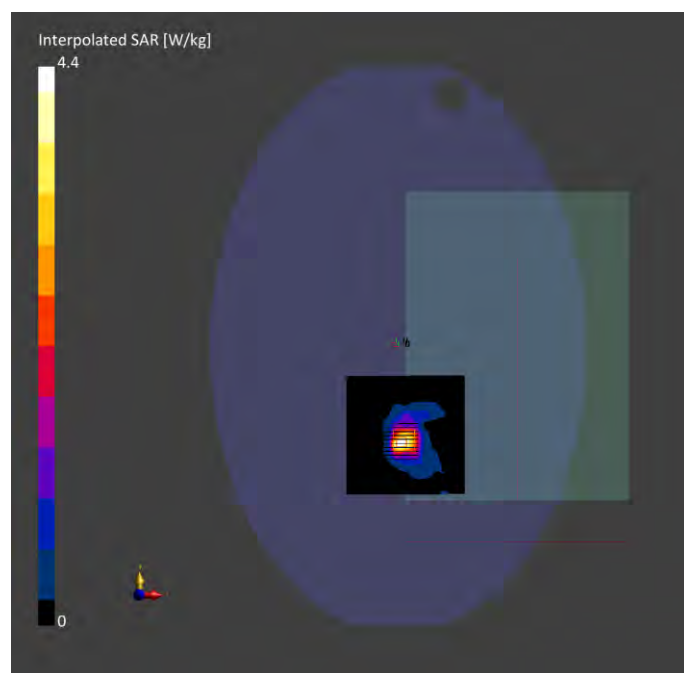
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-23	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-23	2023-11-23
psSAR1g [W/kg]	0.815	1.02
psSAR10g [W/kg]	0.303	0.319
Power Drift [dB]	-0.09	0.09
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		48.6
Dist 3dB Peak [mm]		6.1



Meas.17 Limbs Plane with Palm rest Side 0mm on 155 Channel in IEEE802.11ac80 mode with Antenna Auxiliary

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAC	5775.0, 155	4.78	5.10	35.6	22.1	21.6

Hardware Setup

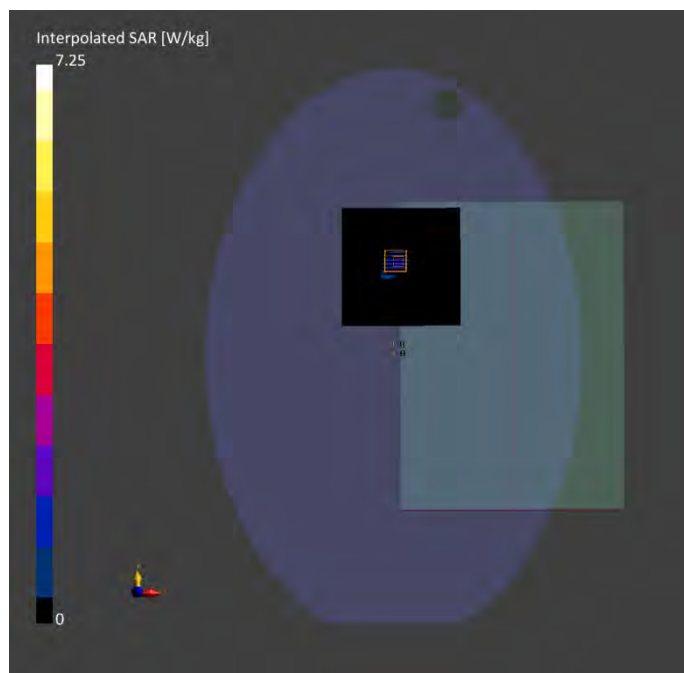
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-23	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-23	2023-11-23
psSAR1g [W/kg]	1.41	1.66
psSAR10g [W/kg]	0.472	0.478
Power Drift [dB]	0.04	0.01
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.9
Dist 3dB Peak [mm]		5.1



Meas.18 Limbs Plane with Palm rest Side 0mm on 155 Channel in IEEE802.11ac80 mode with Antenna Main

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 0.00	WLAN 5GHz	WLAN, 10544-AAC	5775.0, 155	4.78	5.10	35.6	22.1	21.6

Hardware Setup

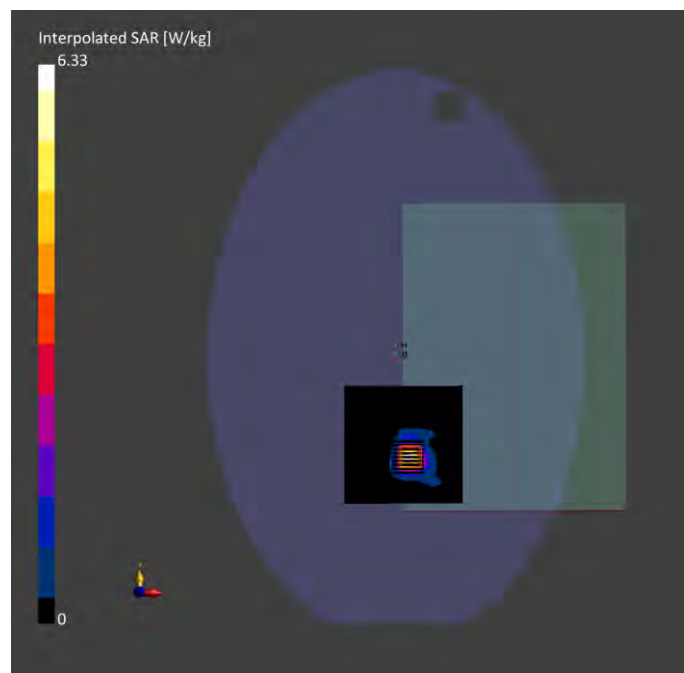
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-23	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface	VMS + 6p	VMS + 6p
Detection		
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-23	2023-11-23
psSAR1g [W/kg]	1.37	1.53
psSAR10g [W/kg]	0.491	0.503
Power Drift [dB]	0.03	-0.01
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		48.7
Dist 3dB Peak [mm]		7.9



Meas.19 Body Plane with Back Side 0mm on 163 Channel in IEEE802.11ac160 mode with Antenna Auxiliary

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	Custom Band	CW, 10456-AAC	5815.0, 163	4.78	5.22	35.3	22.1	21.6

Hardware Setup

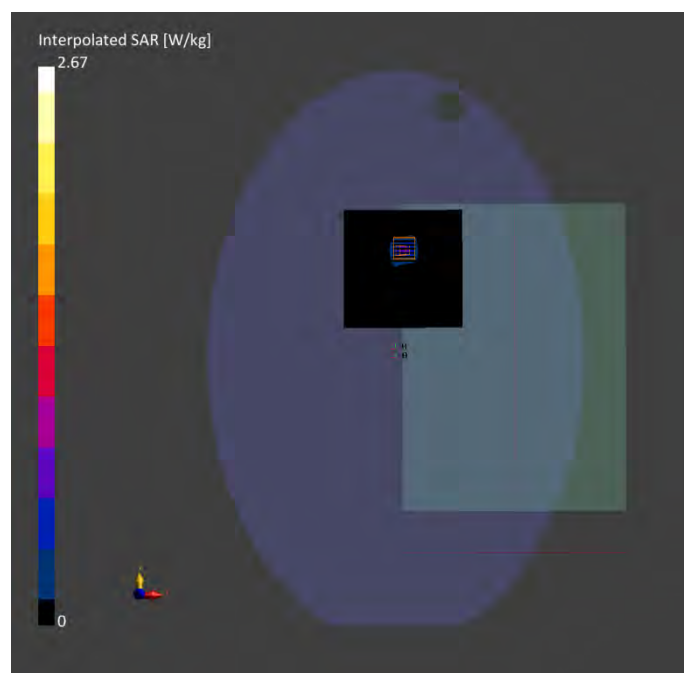
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-23	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-23	2023-11-23
psSAR1g [W/kg]	0.553	0.585
psSAR10g [W/kg]	0.192	0.194
Power Drift [dB]	0.12	-0.03
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		47.5
Dist 3dB Peak [mm]		6.1



Meas.20 Body Plane with Back Side 0mm on 163 Channel in IEEE802.11ac160 mode with Antenna Main Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	Custo m Band	CW, 10456-AAC	5815.0, 163	4.78	5.22	35.3	22.1	21.6

Hardware Setup

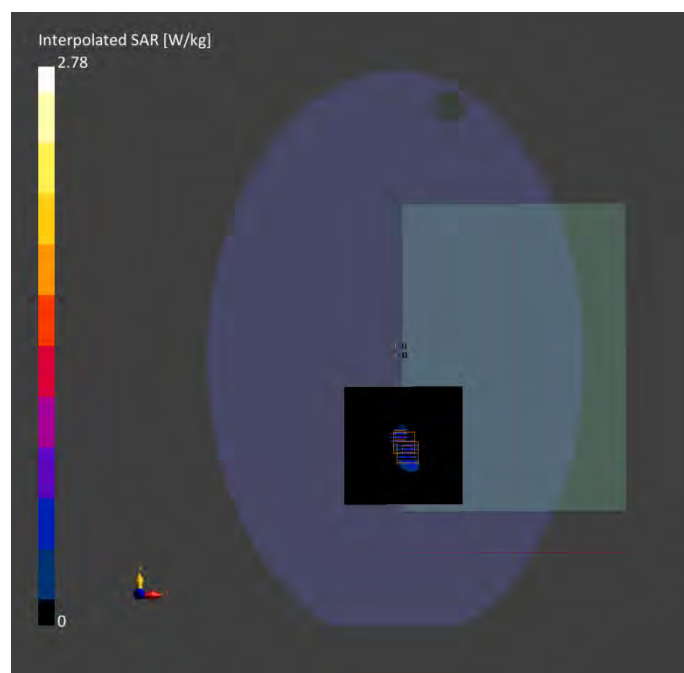
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-23	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-23	2023-11-23
psSAR1g [W/kg]	0.497	0.630
psSAR10g [W/kg]	0.173	0.209
Power Drift [dB]	-0.03	0.03
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		49.2
Dist 3dB Peak [mm]		5.1



Meas.21 Limbs Plane with Palm rest Side 0mm on 163 Channel in IEEE802.11ac160 mode with Antenna Auxiliary

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	Custo m Band	CW, 10456-AAC	5815.0, 163	4.78	5.22	35.3	22.1	21.6

Hardware Setup

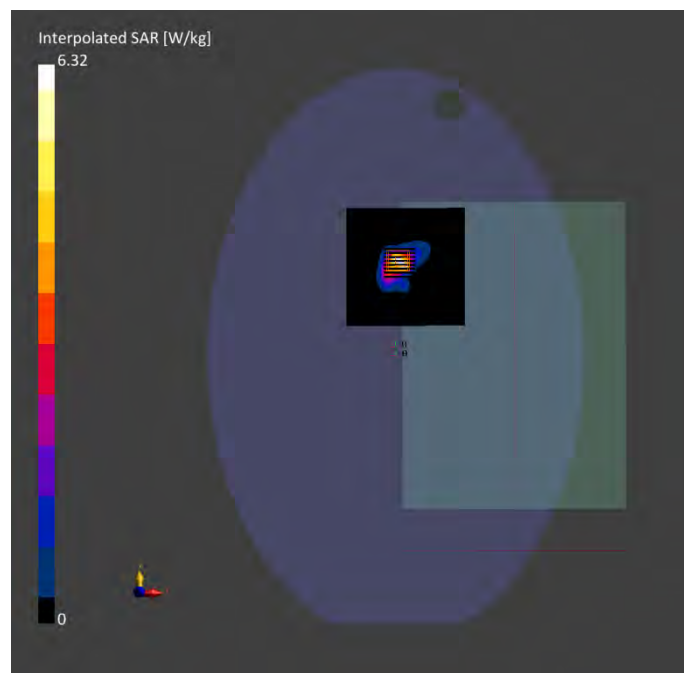
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-23	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-23	2023-11-23
psSAR1g [W/kg]	1.11	1.44
psSAR10g [W/kg]	0.396	0.419
Power Drift [dB]	0.00	-0.09
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		50.1
Dist 3dB Peak [mm]		4.7



Meas.22 Limbs Plane with Palm rest Side 0mm on 163 Channel in IEEE802.11ac160 mode with Antenna Main

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature
Flat, HSL	BACK, 0.00	Custo m Band	CW, 10456-AAC	5815.0, 163	4.78	5.22	35.3	22.1	21.6

Hardware Setup

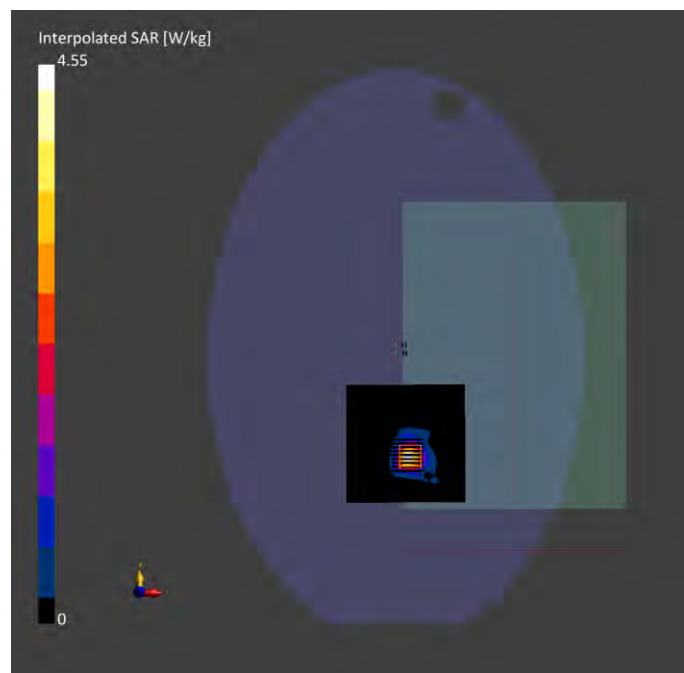
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-23	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	120.0 x 120.0	24.0 x 24.0 x 22.0
Grid Steps [mm]	10.0 x 10.0	4.0 x 4.0 x 2.0
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-23	2023-11-23
psSAR1g [W/kg]	0.968	1.07
psSAR10g [W/kg]	0.339	0.352
Power Drift [dB]	0.03	0.05
Power Scaling	Disabled	Disabled
Scaling Factor		
[dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		48.0
Dist 3dB Peak [mm]		7.9



Meas.23 Body Plane with Back Side 0mm on 207 Channel in IEEE802.11ax160 mode with Antenna Auxiliary

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	U-NII-8	WLAN, 10743-AAC	6985.0, 207	5.38	6.77	33.4	22.2	21.3

Hardware Setup

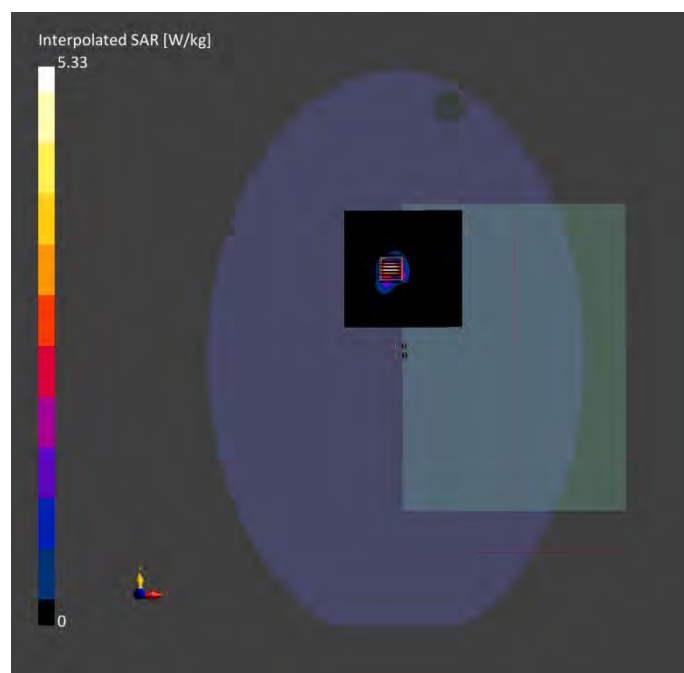
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-24	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	119.0 x 119.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-24	2023-11-24
psSAR1g [W/kg]	0.713	0.837
psSAR10g [W/kg]	0.186	0.184
APD 4cm ² [W/m ²]		4.36
Power Drift [dB]	-0.03	0.03
Power Scaling	Disabled	Disabled
Scaling Factor [dB]		
TSL Correction	No correction	No correction
M2/M1 [%]		47.8
Dist 3dB Peak [mm]		4.8



Meas.24 Body Plane with Back Side 0mm on 175 Channel in IEEE802.11ax160 mode with Antenna Main Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	U-NII-7	WLAN, 10743-AAC	6825.0, 175	5.38	6.58	33.7	22.2	21.3

Hardware Setup

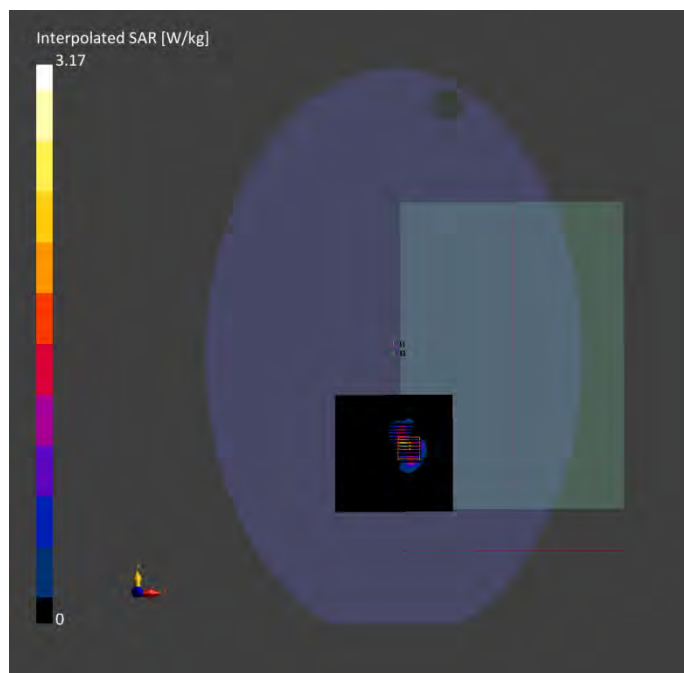
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-24	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	119.0 x 119.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-24	2023-11-24
psSAR1g [W/kg]	0.515	0.542
psSAR10g [W/kg]	0.148	0.159
APD 4cm ² [W/m ²]		3.61
Power Drift [dB]	-0.03	-0.02
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	No correction	No correction
M2/M1 [%]		48.9
Dist 3dB Peak [mm]		4.4



Meas.25 Limbs Plane with Back Side 0mm on 47 Channel in IEEE802.11ax160 mode with Antenna Auxiliary

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	U-NII-5	WLAN, 10743-AAC	6185.0, 47	5.38	5.51	35.3	22.2	21.3

Hardware Setup

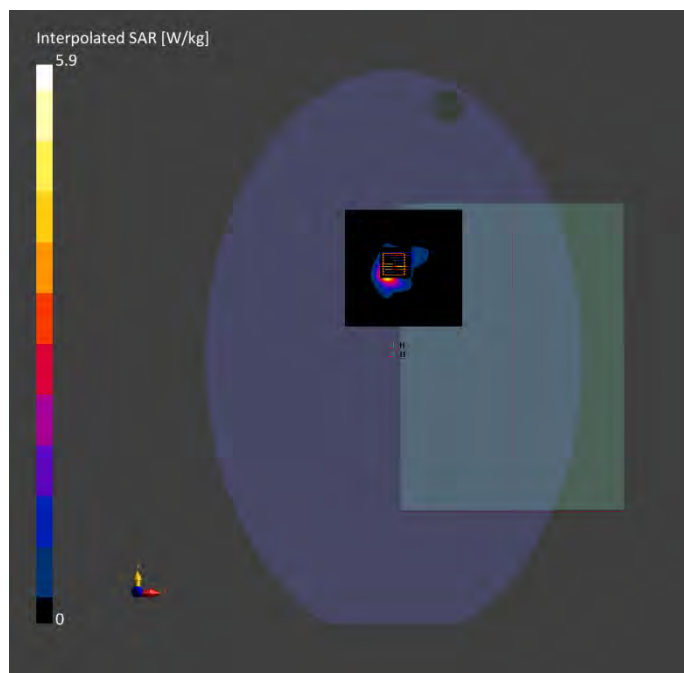
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-24	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	119.0 x 119.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	Y	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-24	2023-11-24
psSAR1g [W/kg]	0.910	1.09
psSAR10g [W/kg]	0.327	0.360
APD 4cm ² [W/m ²]		8.04
Power Drift [dB]	-0.04	0.05
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	No correction	No correction
M2/M1 [%]		56.1
Dist 3dB Peak [mm]		4.4



Meas.26 Limbs Plane with Back Side 0mm on 47 Channel in IEEE802.11ax160 mode with Antenna Main Device under Test Properties

Model, Manufacturer	Dimensions [mm]	DUT Type
Device,	313.0 x 226.0 x 12.0	Laptop

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity	Ambient Temperature [°C]	Liquid Temperature [°C]
Flat, HSL	BACK, 0.00	U-NII-5	WLAN, 10743-AAC	6185.0, 47	5.38	5.51	35.3	22.2	21.3

Hardware Setup

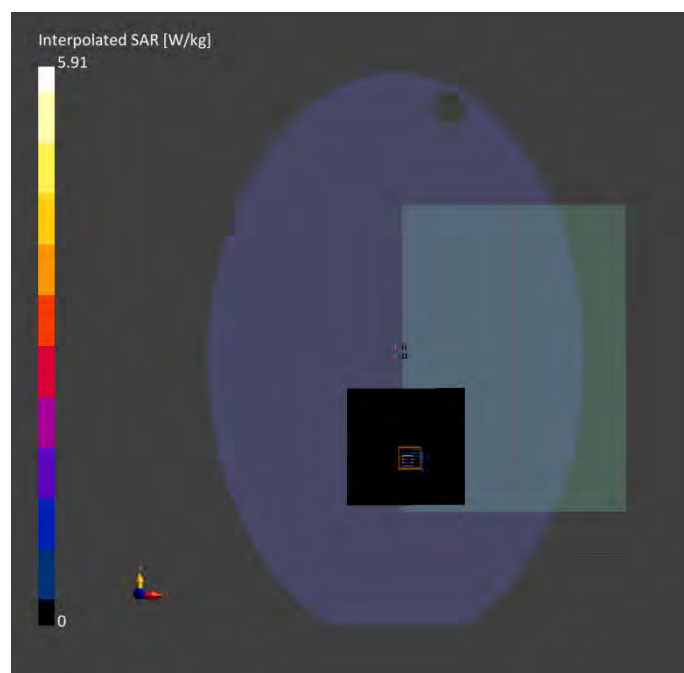
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0 (20deg probe tilt) - 2159	HBBL-600-10000 2023-11-24	EX3DV4 - SN7607, 2023-07-04	DAE4 Sn878, 2023-03-23

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	119.0 x 119.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	Yes	Yes
Grading Ratio	1.5	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2023-11-24	2023-11-24
psSAR1g [W/kg]	1.12	1.24
psSAR10g [W/kg]	0.359	0.379
APD 4cm ² [W/m ²]		8.63
Power Drift [dB]	-0.01	0.10
Power Scaling	Disabled	Disabled
Scaling Factor		
TSL Correction	No correction	No correction
M2/M1 [%]		53.3
Dist 3dB Peak [mm]		6.8



ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ23B0210-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SZ23B0210-AS-1.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SZ23B0210-AC-2.pdf”.

ANNEX G TUNE-UP PROCEDURE

Please refer the document “BL-SZ23B0210-AT-3.pdf”.

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