TEST REPORT

Applicant:	MediaTek Inc.
Address:	No. 1, Dusing 1st Rd., Hsinchu Science Park Hsinchu City 30078 Taiwan
Equipment Type:	2TX 11ax (WiFi6) BW80+ BT/BLE Combo Card
Model Name:	MT7920
Brand Name:	N/A
FCC ID:	RAS-MT7920
Test Standard:	FCC 47 CFR Part 2.1093 (refer to section 3.1)
Maximum SAR:	Body 2.4GHz(1 g): 1.04 W/kg Body 5GHz(1 g): 1.19 W/kg Limbs 2.4GHz(10 g): 2.86 W/kg Limbs 5GHz(10 g): 1.27 W/kg
Sample Arrival Date:	Aug. 04, 2025
Test Date:	Aug. 05, 2025 - Aug. 11, 2025
Date of Issue:	Sep. 02, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Xu Rui

Checked by: Zong Liyao

Approved by: Tolan Tu

(Testing Director)

Revision History

Version	Issue Date	Revisions Content
Rev. 01	Sep. 02, 2025	Initial Issue

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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℃ to 25℃
Ambient Relative Humidity	30% to 70%

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	MediaTek Inc.
Address	No. 1, Dusing 1st Rd., Hsinchu Science Park Hsinchu City 30078 Taiwan

2.2 Manufacturer Information

Manufacturer	MediaTek Inc.
Address	No. 1, Dusing 1st Rd., Hsinchu Science Park Hsinchu City 30078 Taiwan

2.3 General Description for Equipment under Test (EUT)

EUT Name	2TX 11ax (WiFi6) BW80+ BT/BLE Combo Card
Model Name Under Test	MT7920
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 Name	Notebook Computer
Model Name	LOQ 15ARP10E
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
Main Antenna	DC330025K00	Amphenol	PIFA	2.16	3.12	3.28	3.48	3.99
Auxiliary Antenna	DC330025L10		PIFA	1.82	3.16	3.36	3.80	3.36
Main Antenna	DC330025J00	Luxshare-ict	PIFA	2.51	3.56	3.17	4.52	4.53
Auxiliary Antenna	DC330025J10		PIFA	2.61	2.57	3.43	2.82	3.19

2.4 Ancillary Equipment

Note: Not applicable.

2.5 Technical Information

Network and Wireless connectivity	Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n, VHT, 802.11ac and 802.11ax

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

Operating Mode	2.4G WLAN; 5G WLAN; Bluetooth	
Frequency Range	802.11b/g	2412 ~ 2472 MHz
	VHT20/VHT40	2412 ~ 2472 MHz
	802.11ax(HE20/HE40)	2412 ~ 2472 MHz
	802.11a	5150 ~ 5250 MHz
		5250 ~ 5350 MHz
		5470 ~ 5725 MHz
		5725 ~ 5850 MHz
		5815 ~ 5885 MHz
	802.11n(HT20/HT40)	5150 ~ 5250 MHz
		5250 ~ 5350 MHz
		5470 ~ 5725 MHz
		5725 ~ 5850 MHz
		5815 ~ 5885 MHz
	802.11ac(VHT20/VHT40/VHT80)	5150 ~ 5250 MHz
		5250 ~ 5350 MHz
		5470 ~ 5725 MHz
		5725 ~ 5850 MHz
		5815 ~ 5885 MHz
	802.11ax(HE20/HE40/HE80)	5150 ~ 5250 MHz
		5250 ~ 5350 MHz
		5470 ~ 5725 MHz
		5725 ~ 5850 MHz
		5815 ~ 5885 MHz
	Bluetooth	2402 ~ 2480 MHz
Antenna Type	WLAN	PIFA
	Bluetooth	PIFA
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/IEEE 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	RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices
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 D04 v01r02	SAR for laptop and tablets

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/ ControlledExposure
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 WIFI	Aux.	0.98	**1.19**
	2.4G WIFI	Main	1.04	
U-NII-2A	5.3G WIFI	Aux.	0.86	
	5.3G WIFI	Main	0.78	
U-NII-2C	5.6G WIFI	Aux.	1.05	
	5.6G WIFI	Main	1.08	
U-NII-3	5.8G WIFI	Aux.	1.03	
	5.8G WIFI	Main	**1.19**	
U-NII-4	5.9G WIFI	Aux.	1.13	
	5.9G WIFI	Main	1.09	
DSS	Bluetooth	Aux.	0.16	
Limit (W/kg)			1.60	
Verdict			Pass	

3.3.2 Highest Simultaneous Transmission SAR Values (1 g Value)

Equipment Class	Maximum Report SAR (W/kg)	SPLSR
	Body (0mm)	
DTS	1.20	**0.01**
NII	**1.35**	**0.01**
DSS	**1.35**	**0.01**
Limit (W/kg)	1.60	0.04
Verdict	Pass	Pass

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

3.3.3 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 WIFI	Aux.	**2.86**	**2.86**
	2.4G WIFI	Main	1.50	
U-NII-2A	5.3G WIFI	Aux.	0.67	
	5.3G WIFI	Main	0.57	
U-NII-2C	5.6G WIFI	Aux.	0.86	
	5.6G WIFI	Main	0.98	
U-NII-3	5.8G WIFI	Aux.	0.85	
	5.8G WIFI	Main	1.11	
U-NII-4	5.9G WIFI	Aux.	1.03	
	5.9G WIFI	Main	1.27	
DSS	Bluetooth	Aux.	0.62	
Limit (W/kg)			4.00	
Verdict			Pass	

3.3.4 Highest Simultaneous Transmission SAR Values (10 g Value)

Equipment Class	Maximum Report SAR (W/kg)	SPLSR
	Limbs (0mm)	
DTS	2.12	**0.04**
NII	**2.92**	/
DSS	**2.92**	/
Limit (W/kg)	4.00	0.10
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 1.19 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 2.86 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:

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

SAR is expressed in units of Watts per kilogram (W/kg) SAR measurement can be related to the electrical field in the tissue by

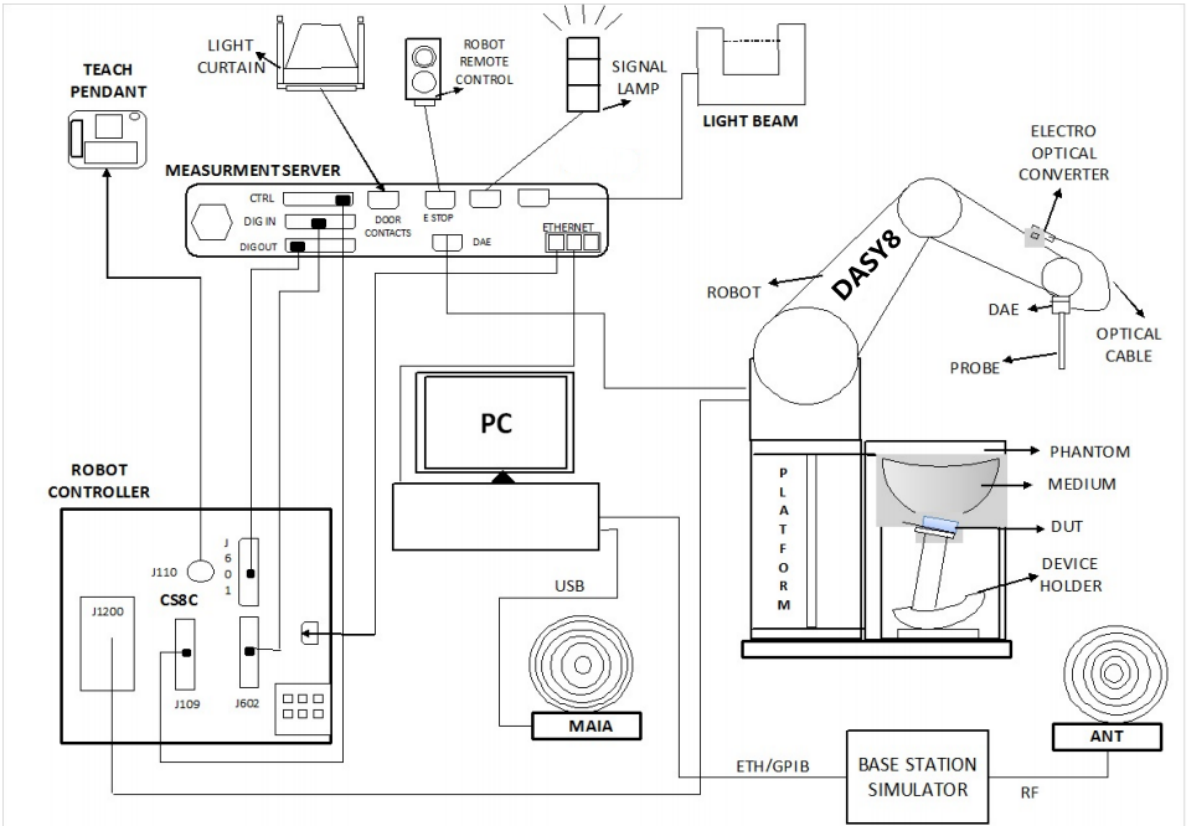
$$\mathbf{SAR} = \frac{\boldsymbol{\sigma}\mathbf{E}^{\mathbf{2}}}{\boldsymbol{\rho}}$$

Where: σ is the conductivity of the tissue,

ρis 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

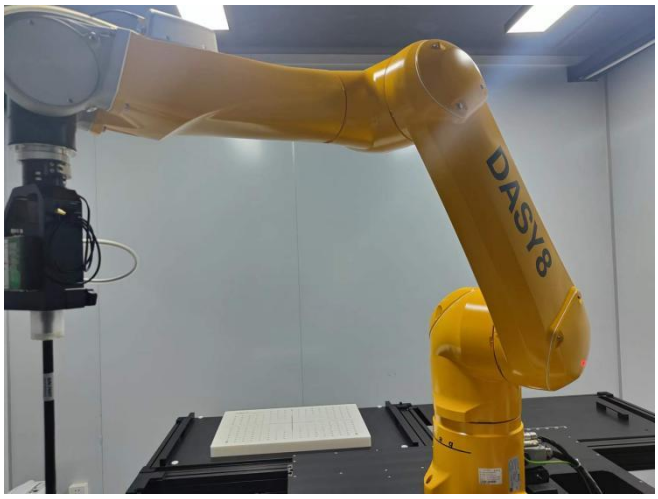


The DASY system for performing compliance tests consists of the following items:

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 with following specifications is used.

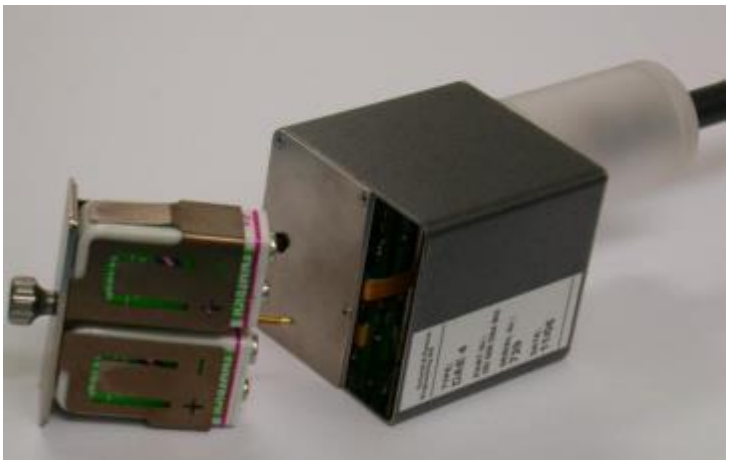
Construction	Symmetrical design with triangular core Built-in optical fiber for surface detection system Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., glycolether)
Calibration	ISO/IEC 17025 calibration service available
Frequency	4 MHz to 10 GHz; 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 µW/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

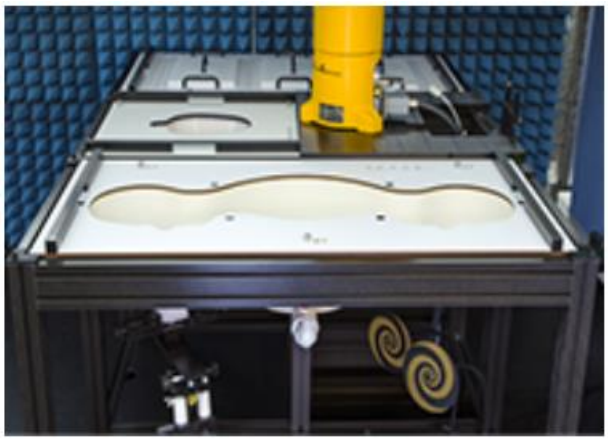
The data acquisition electronics (DAE) consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converte and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an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



- Input Impedance: 200MOhm
- 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

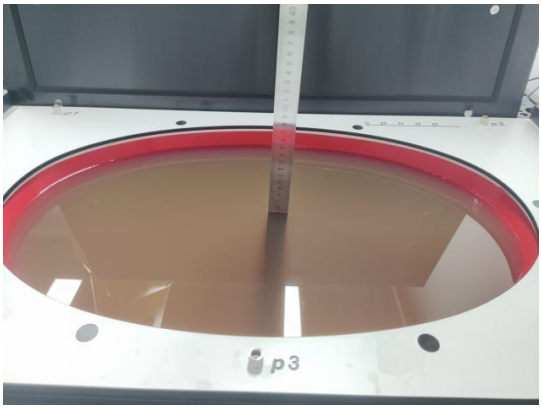
4.2.6 Device Holder

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%.

Head Liquid Depth	Body Liquid Depth
	

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

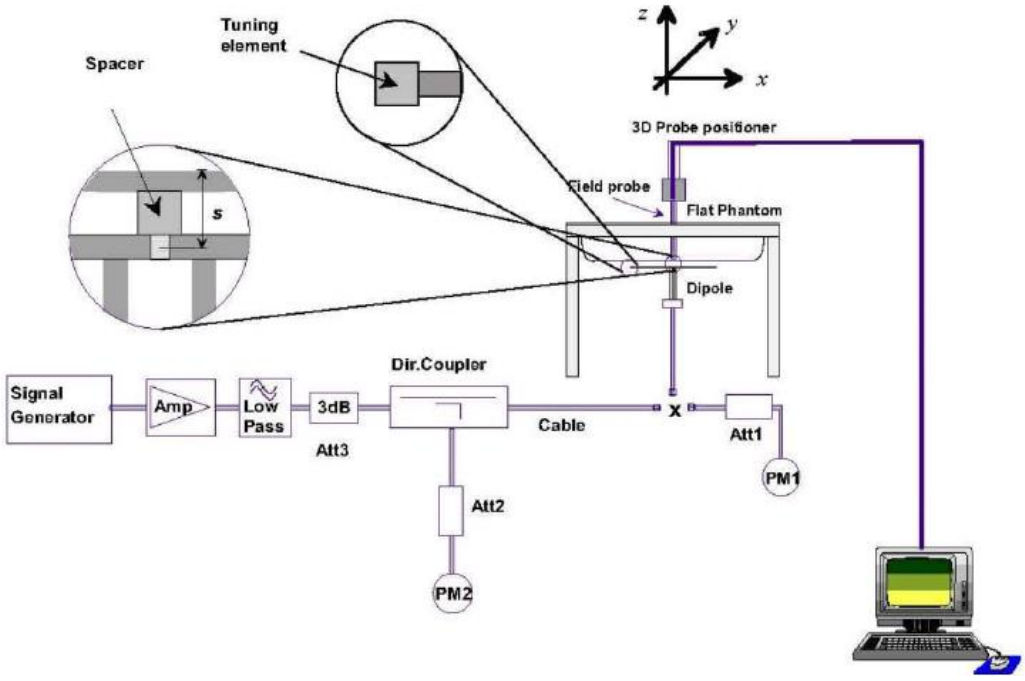
5 SYSTEM VERIFICATION

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

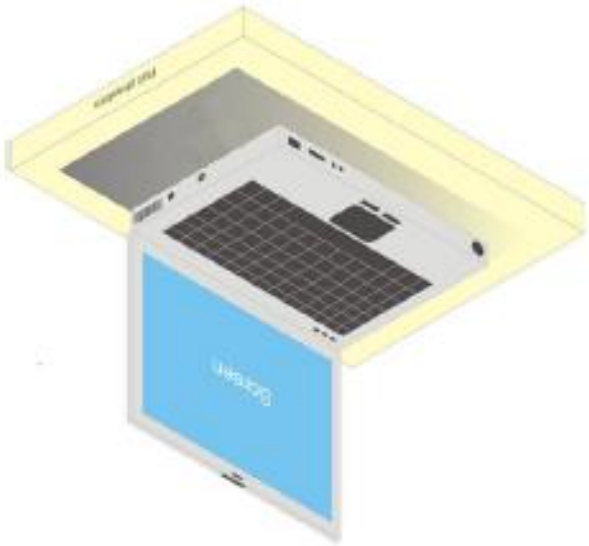
In the simplified setup for system evaluation, the EUT is replaced by a calibrated dipole and the power source is replaced by a continuous wave that comes from a signal generator. The calibrated dipole must be placed beneath the flat phantom section of the SAM twin phantom with the correct distance holder. 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.



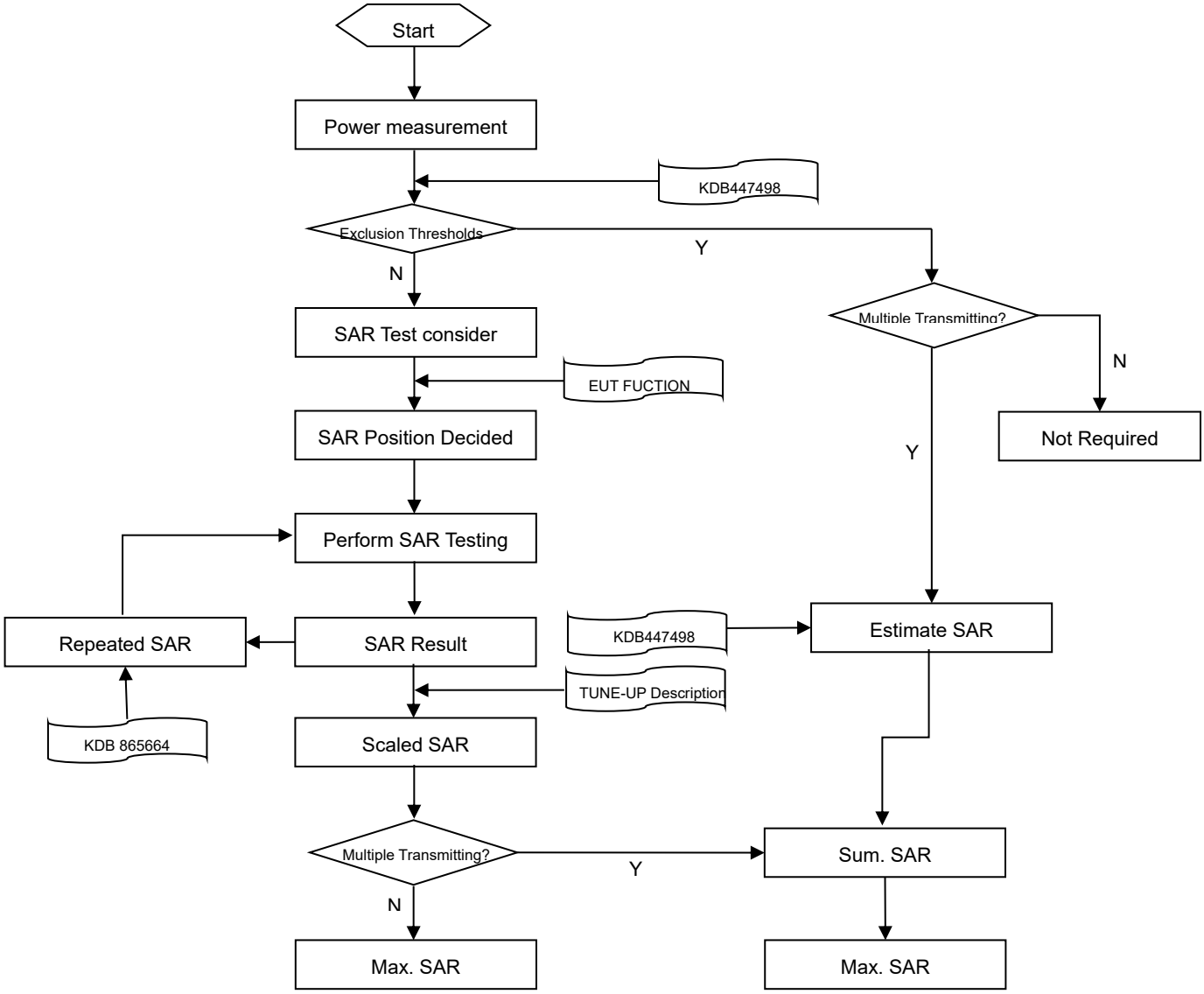
6.2 Product Specific 10g Exposure Consideration

According with FCC KDB 648474 D04, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, unless it is confirmed otherwise through KDB inquiries, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance;

The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at $\leqslant$ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions. The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

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

<table>
<tr><th colspan="3"></th><th>≤3GHz</th><th>>3GHz</th></tr>
<tr><td colspan="3">Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface</td><td>5±1 mm</td><td>½·δ·ln(2)±0.5 mm</td></tr>
<tr><td colspan="3">Maximum probe angle from probe axis to phantom surface normal at the measurement location</td><td>30°±1°</td><td>20°±1°</td></tr>
<tr><td colspan="3" rowspan="2">Maximum area scan spatial resolution: Δx Area , Δy Area</td><td>≤ 2 GHz: ≤ 15 mm
2 – 3 GHz: ≤ 12 mm</td><td>3–4 GHz: ≤ 12 mm
4 – 6 GHz: ≤ 10 mm</td></tr>
<tr><td colspan="2">When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.</td></tr>
<tr><td colspan="3">Maximum zoom scan spatial resolution: Δx Zoom , Δy Zoom</td><td>≤ 2 GHz: ≤ 8 mm
2 –3 GHz: ≤ 5 mm*</td><td>3–4 GHz: ≤ 5 mm*
4 – 6 GHz: ≤ 4 mm*</td></tr>
<tr><td rowspan="6">Maximum zoom scan spatial resolution, normal to phantom surface</td><td colspan="2" rowspan="2">uniform grid: Δz Zoom (n)</td><td rowspan="2">≤ 5 mm</td><td>3–4 GHz: ≤ 4 mm</td></tr>
<tr><td>4–5 GHz: ≤ 3 mm</td></tr>
<tr><td rowspan="4">graded grid</td><td rowspan="3">Δz Zoom (1): between 1st two points closest to phantom surface</td><td rowspan="3">≤ 4 mm</td><td>5–6 GHz: ≤ 2 mm</td></tr>
<tr><td>3–4 GHz: ≤ 3 mm</td></tr>
<tr><td>4–5 GHz: ≤ 2.5 mm</td></tr>
<tr><td>5–6 GHz: ≤ 2 mm</td></tr>
<tr><td>Δz Zoom (n>1): between subsequent points</td><td colspan="2">≤ 1.5·Δz Zoom (n-1)</td></tr>
<tr><td rowspan="3">Minimum zoom scan volume</td><td colspan="2" rowspan="3">x, y, z</td><td rowspan="3">≥30 mm</td><td>3–4 GHz: ≥ 28 mm</td></tr>
<tr><td>4–5 GHz: ≥ 25 mm</td></tr>
<tr><td>5–6 GHz: ≥ 22 mm</td></tr>
<tr><td colspan="5">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.</td></tr>
</table>

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 to16 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.

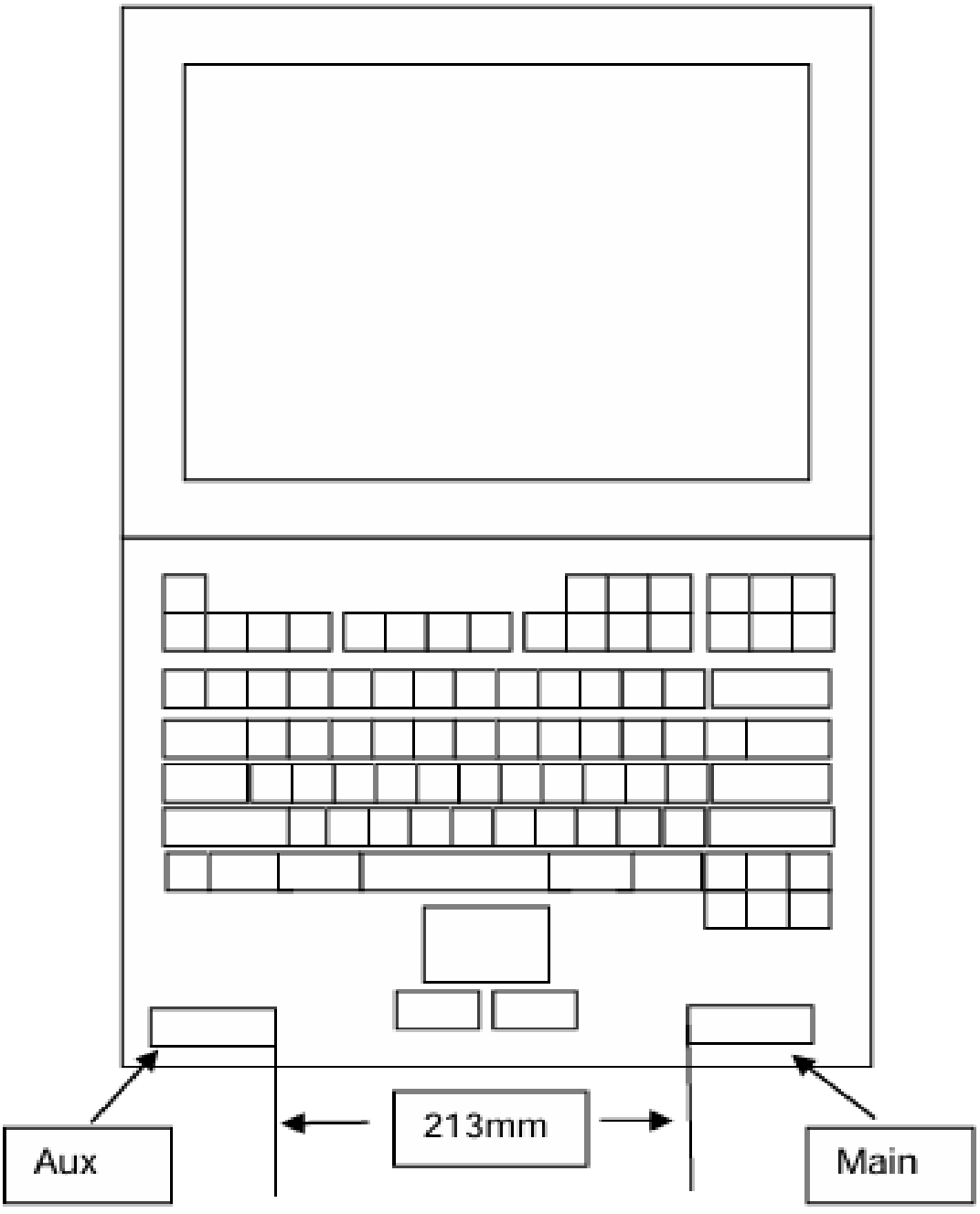
When the 1 g SAR of the highest peak is within 2 dB of the SAR limit, additional zoom scans are required for other peaks within 2 dB of the highest peak that have not been included in any zoom scan to ensure there is no increase in SAR.

8 CONDUCTED RF OUTPUT POWER

Please refer the document “BL-SZ2580065-AP-1.pdf”.

9 TEST EXCLUSION CONSIDERATION

9.1 Antenna location sketch



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

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 Laptop mode 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
Front Edge	Body
Left Edge	Limbs
Right Edge	Limbs
Keyboard Side	Limbs

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	5925
Bottom Side	Distance to User (mm)	13.8					
	Max. Peak Power (dBm)	13.00	20.50	13.50	13.00	14.50	14.50
	Max. Peak Power (mW)	19.95	112.20	22.39	19.95	28.18	28.18
	Exclusion Threshold (mW)	18.79	18.87	12.07	11.58	11.45	11.33
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes
Front Edge	Distance to User (mm)	5.48					
	Max. Peak Power (dBm)	13.00	20.50	13.50	13.00	14.50	14.50
	Max. Peak Power (mW)	19.95	112.20	22.39	19.95	28.18	28.18
	Exclusion Threshold (mW)	3.24	3.25	1.78	1.69	1.66	1.64
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes

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	5925
Bottom Side	Distance to User (mm)	13.8				
	Max. Peak Power (dBm)	20.50	11.00	13.00	14.50	14.50
	Max. Peak Power (mW)	112.20	12.59	19.95	28.18	28.18
	Exclusion Threshold (mW)	18.87	12.07	11.58	11.45	11.33
	SAR Test Required	Yes	Yes	Yes	Yes	Yes
Front Edge	Distance to User (mm)	5.48				
	Max. Peak Power (dBm)	20.50	11.00	13.00	14.50	14.50
	Max. Peak Power (mW)	112.20	12.59	19.95	28.18	28.18
	Exclusion Threshold (mW)	3.25	1.78	1.69	1.66	1.64
	SAR Test Required	Yes	Yes	Yes	Yes	Yes

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	5925
Left Edge	Distance to User (mm)	24.4					
	Max. Peak Power (dBm)	13.00	20.50	13.50	13.00	14.50	14.50
	Max. Peak Power (mW)	19.95	112.20	22.39	19.95	28.18	28.18
	Exclusion Threshold (mW)	139.11	139.58	98.16	95.04	94.18	93.45
	SAR Test Required	No	No	No	No	No	No
Right Edge	Distance to User (mm)	304.8					
	Max. Peak Power (dBm)	13.00	20.50	13.50	13.00	14.50	14.50
	Max. Peak Power (mW)	19.95	112.20	22.39	19.95	28.18	28.18
	Exclusion Threshold (mW)	17069.09	17057.72	18303.6	18422.46	18456.10	18484.87
	SAR Test Required	No	No	No	No	No	No
Keyboard Side	Distance to User (mm)	1.8					
	Max. Peak Power (dBm)	13.00	20.50	13.50	13.00	14.50	14.50
	Max. Peak Power (mW)	19.95	112.20	22.39	19.95	28.18	28.18
	Exclusion Threshold (mW)	0.97	0.98	0.44	0.41	0.41	0.40
	SAR Test Required	Yes	Yes	Yes	Yes	Yes	Yes

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	5925
Left Edge	Distance to User (mm)	267.4				
	Max. Peak Power (dBm)	20.50	11.00	13.00	14.50	14.50
	Max. Peak Power (mW)	112.20	12.59	19.95	28.18	28.18
	Exclusion Threshold (mW)	13295.86	13957.89	14020.30	14037.95	14053.02
	SAR Test Required	No	No	No	No	No
Right Edge	Distance to User (mm)	61.8				
	Max. Peak Power (dBm)	20.50	11.00	13.00	14.50	14.50
	Max. Peak Power (mW)	112.20	12.59	19.95	28.18	28.18
	Exclusion Threshold (mW)	818.36	672.37	660.35	657.00	654.15
	SAR Test Required	No	No	No	No	No
Keyboard Side	Distance to User (mm)	1.8				
	Max. Peak Power (dBm)	20.50	11.00	13.00	14.50	14.50
	Max. Peak Power (mW)	112.20	12.59	19.95	28.18	28.18
	Exclusion Threshold (mW)	0.98	0.44	0.41	0.41	0.40
	SAR Test Required	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 Pth (mW) is given by Following:

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

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:

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

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 Limb 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 WIFI 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 WIFI/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
2. 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

3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/kg

10.1 Bluetooth

Mode	Antenna Manufacturer	Antenna	Test State	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	Amphenol	Aux.	Laptop	Bottom Side	0	39	2441	0.09	0.045	12.82	13.00	1.042	77.42	1.292	0.061	/
	Luxshare-ict			Bottom Side	0	39	2441	0.03	0.041	12.82	13.00	1.042	77.42	1.292	0.055	/
	Amphenol			Front Edge	0	78	2480	-0.1	0.117	12.69	13.00	1.074	77.42	1.292	**0.162**	1#
				Front Edge	0	0	2402	0.07	0.092	12.79	13.00	1.050	77.42	1.292	0.125	/
				Front Edge	0	39	2441	-0.13	0.101	12.82	13.00	1.042	77.42	1.292	0.136	/
	Luxshare-ict			Front Edge	0	39	2441	0.12	0.075	12.82	13.00	1.042	77.42	1.292	0.101	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																

Mode	Antenna Manufacturer	Antenna	Test State	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	Amphenol	Aux.	Laptop	Keyboard Side	0	78	2480	0.12	0.336	12.69	13.00	1.074	77.42	1.292	0.466	/
				Keyboard Side	0	0	2402	0.01	0.453	12.79	13.00	1.050	77.42	1.292	**0.615**	12#
				Keyboard Side	0	39	2441	0.14	0.418	12.82	13.00	1.042	77.42	1.292	0.563	/
	Luxshare-ict			Keyboard Side	0	39	2441	0.1	0.321	12.82	13.00	1.042	77.42	1.292	0.432	/
Note: Refer to ANNEX C for the detailed test data for each test configuration.																

10.2 WIFI 2.4GHz

Mode	Antenna Manufacturer	Antenna	Test State	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	Amphenol	Aux.	Laptop	Bottom Side	0	1	2412	-0.06	0.277	20.28	20.50	1.052	98.84	1.012	0.295	/
		Main	Laptop	Bottom Side	0	11	2462	0.15	0.387	20.44	20.50	1.014	98.84	1.012	0.397	/
	Luxshare-ict	Aux.	Laptop	Bottom Side	0	1	2412	0.17	0.336	20.28	20.50	1.052	98.84	1.012	0.358	/
		Main	Laptop	Bottom Side	0	11	2462	-0.14	0.319	20.44	20.50	1.014	98.84	1.012	0.327	/
	Amphenol	Aux.	Laptop	Front Edge	0	6	2437	0.01	0.752	20.14	20.50	1.086	98.84	1.012	0.826	/
				Front Edge	0	1	2412	-0.1	0.766	20.28	20.50	1.052	98.84	1.012	0.816	/
				Front Edge	0	11	2462	-0.06	0.790	20.07	20.50	1.104	98.84	1.012	0.883	/
		Main	Laptop	Front Edge	0	6	2437	-0.19	0.672	20.43	20.50	1.016	98.84	1.012	0.691	/
				Front Edge	0	1	2412	0.05	0.626	19.79	20.50	1.178	98.84	1.012	0.746	/
				Front Edge	0	11	2462	-0.01	0.648	20.44	20.50	1.014	98.84	1.012	0.665	/
	Luxshare-ict	Aux.	Laptop	Front Edge	0	6	2437	-0.13	0.861	20.14	20.50	1.086	98.84	1.012	0.946	/
				Front Edge	0	1	2412	-0.05	0.813	20.28	20.50	1.052	98.84	1.012	0.866	/
				Front Edge	0	11	2462	0.04	0.874	20.07	20.50	1.104	98.84	1.012	**0.976**	2#
		Main	Laptop	Front Edge	0	6	2437	-0.17	0.918	20.43	20.50	1.016	98.84	1.012	0.944	/
				Front Edge	0	1	2412	-0.13	0.863	19.79	20.50	1.178	98.84	1.012	1.029	/
				Front Edge	0	11	2462	-0.1	1.010	20.44	20.50	1.014	98.84	1.012	**1.036**	3#

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

Mode	Antenna Manufacturer	Antenna	Test State	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	Amphenol	Aux.	Laptop	Keyboard Side	0	6	2437	0.06	2.070	20.14	20.50	1.086	98.84	1.012	2.275	/
				Keyboard Side	0	1	2412	0.04	2.100	20.28	20.50	1.052	98.84	1.012	2.236	/
				Keyboard Side	0	11	2462	0.17	2.260	20.07	20.50	1.104	98.84	1.012	2.525	/
		Main	Laptop	Keyboard Side	0	6	2437	-0.06	1.120	20.43	20.50	1.016	98.84	1.012	1.152	/
				Keyboard Side	0	1	2412	-0.08	1.080	19.79	20.50	1.178	98.84	1.012	1.288	/
				Keyboard Side	0	11	2462	0.14	1.190	20.44	20.50	1.014	98.84	1.012	1.221	/
	Luxshare-ict	Aux.	Laptop	Keyboard Side	0	6	2437	0.02	2.600	20.14	20.50	1.086	98.84	1.012	**2.857**	13#
				Keyboard Side	0	1	2412	0.11	2.340	20.28	20.50	1.052	98.84	1.012	2.491	/
				Keyboard Side	0	11	2462	-0.17	2.320	20.07	20.50	1.104	98.84	1.012	2.592	/
		Main	Laptop	Keyboard Side	0	6	2437	0.1	1.350	20.43	20.50	1.016	98.84	1.012	1.388	/
				Keyboard Side	0	1	2412	0.14	1.230	19.79	20.50	1.178	98.84	1.012	1.466	/
				Keyboard Side	0	11	2462	0.04	1.460	20.44	20.50	1.014	98.84	1.012	**1.498**	14#
Note: Refer to ANNEX C for the detailed test data for each test configuration.																

10.3WIFI 5GHz

Fre. Band	Mode	Antenna Manufacturer	Antenna	Test State	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																	
5.3G	802.11 ac80	Amphenol	Aux.	Laptop	Bottom Side	0	58	5290	-0.01	0.182	13.45	13.50	1.012	91.25	1.096	0.202	/
			Main	Laptop	Bottom Side	0	58	5290	0.19	0.174	10.94	11.00	1.014	91.25	1.096	0.193	/
		Luxshare-ict	Aux.	Laptop	Bottom Side	0	58	5290	0.00	0.194	13.45	13.50	1.012	91.25	1.096	0.215	/
			Main	Laptop	Bottom Side	0	58	5290	-0.19	0.114	10.94	11.00	1.014	91.25	1.096	0.127	/
		Amphenol	Aux.	Laptop	Front Edge	0	58	5290	-0.05	0.773	13.45	13.50	1.012	91.25	1.096	**0.857**	4#
			Main	Laptop	Front Edge	0	58	5290	-0.17	0.671	10.94	11.00	1.014	91.25	1.096	0.746	/
		Luxshare-ict	Aux.	Laptop	Front Edge	0	58	5290	0.03	0.641	13.45	13.50	1.012	91.25	1.096	0.711	/
			Main	Laptop	Front Edge	0	58	5290	0.07	0.699	10.94	11.00	1.014	91.25	1.096	**0.777**	5#
5.6G	802.11 ac80	Amphenol	Aux.	Laptop	Bottom Side	0	138	5690	-0.18	0.262	12.96	13.00	1.009	91.25	1.096	0.290	/
			Main	Laptop	Bottom Side	0	138	5690	-0.19	0.181	12.92	13.00	1.019	91.25	1.096	0.202	/
		Luxshare-ict	Aux.	Laptop	Bottom Side	0	138	5690	0.19	0.282	12.96	13.00	1.009	91.25	1.096	0.312	/
			Main	Laptop	Bottom Side	0	138	5690	-0.14	0.190	12.92	13.00	1.019	91.25	1.096	0.212	/
		Amphenol	Aux.	Laptop	Front Edge	0	138	5690	0.14	0.844	12.96	13.00	1.009	91.25	1.096	0.933	/
					Front Edge	0	122	5610	-0.11	0.650	12.67	13.00	1.079	91.25	1.096	0.769	/
					Front Edge	0	106	5530	-0.02	0.766	12.91	13.00	1.021	91.25	1.096	0.857	/
			Main	Laptop	Front Edge	0	138	5690	0.08	0.825	12.92	13.00	1.019	91.25	1.096	0.921	/
					Front Edge	0	122	5610	-0.02	0.679	12.56	13.00	1.107	91.25	1.096	0.824	/
					Front Edge	0	106	5530	-0.14	0.712	12.72	13.00	1.067	91.25	1.096	0.833	/
		Luxshare-ict	Aux.	Laptop	Front Edge	0	138	5690	-0.03	0.949	12.96	13.00	1.009	91.25	1.096	**1.049**	6#
					Front Edge	0	122	5610	0.09	0.759	12.67	13.00	1.079	91.25	1.096	0.898	/
					Front Edge	0	106	5530	0.18	0.824	12.91	13.00	1.021	91.25	1.096	0.922	/
			Main	Laptop	Front Edge	0	138	5690	-0.04	0.969	12.92	13.00	1.019	91.25	1.096	**1.082**	7#
					Front Edge	0	122	5610	-0.10	0.862	12.56	13.00	1.107	91.25	1.096	1.046	/
					Front Edge	0	106	5530	0.17	0.836	12.72	13.00	1.067	91.25	1.096	0.978	/
5.8G	802.11 ac80	Amphenol	Aux.	Laptop	Bottom Side	0	155	5775	0.09	0.352	14.33	14.50	1.040	91.25	1.096	0.401	/
			Main	Laptop	Bottom Side	0	155	5775	-0.13	0.291	14.48	14.50	1.005	91.25	1.096	0.321	/
		Luxshare-ict	Aux.	Laptop	Bottom Side	0	155	5775	-0.12	0.364	14.33	14.50	1.040	91.25	1.096	0.415	/
			Main	Laptop	Bottom Side	0	155	5775	-0.08	0.298	14.48	14.50	1.005	91.25	1.096	0.328	/
		Amphenol	Aux.	Laptop	Front Edge	0	155	5775	-0.10	0.812	14.33	14.50	1.040	91.25	1.096	0.926	/
			Main	Laptop	Front Edge	0	155	5775	0.03	0.923	14.48	14.50	1.005	91.25	1.096	1.017	/
		Luxshare-ict	Aux.	Laptop	Front Edge	0	155	5775	0.06	0.905	14.33	14.50	1.040	91.25	1.096	**1.032**	8#
			Main	Laptop	Front Edge	0	155	5775	0.15	1.080	14.48	14.50	1.005	91.25	1.096	**1.190**	9#
5.9G	802.11	Amphenol	Aux.	Laptop	Bottom Side	0	171	5855	-0.16	0.312	14.22	14.50	1.067	91.25	1.096	0.365	/

	ac80		Main	Laptop	Bottom Side	0	171	5855	0.12	0.211	14.07	14.50	1.104	91.25	1.096	0.255	/
		Luxshare-ict	Aux.	Laptop	Bottom Side	0	171	5855	-0.10	0.360	14.22	14.50	1.067	91.25	1.096	0.421	/
			Main	Laptop	Bottom Side	0	171	5855	-0.04	0.242	14.07	14.50	1.104	91.25	1.096	0.293	/
		Amphenol	Aux.	Laptop	Front Edge	0	171	5855	-0.16	0.923	14.22	14.50	1.067	91.25	1.096	1.079	/
			Main	Laptop	Front Edge	0	171	5855	0.17	0.813	14.07	14.50	1.104	91.25	1.096	0.984	/
		Luxshare-ict	Aux.	Laptop	Front Edge	0	171	5855	-0.04	0.964	14.22	14.50	1.067	91.25	1.096	**1.127**	10#
			Main	Laptop	Front Edge	0	171	5855	0.02	0.897	14.07	14.50	1.104	91.25	1.096	**1.085**	11#
Note: Refer to ANNEX C for the detailed test data for each test configuration.																	

Fre. Band	Mode	Antenna Manufacturer	Antenna	Test State	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																	
5.3G	802.11 ac80	Amphenol	Aux.	Laptop	Keyboard Side	0	58	5290	-0.12	0.512	13.45	13.50	1.012	91.25	1.096	0.568	/
			Main	Laptop	Keyboard Side	0	58	5290	-0.11	0.486	10.94	11.00	1.014	91.25	1.096	0.540	/
		Luxshare-ict	Aux.	Laptop	Keyboard Side	0	58	5290	0.06	0.605	13.45	13.50	1.012	91.25	1.096	**0.671**	15#
			Main	Laptop	Keyboard Side	0	58	5290	0.05	0.509	10.94	11.00	1.014	91.25	1.096	**0.566**	16#
5.6G	802.11 ac80	Amphenol	Aux.	Laptop	Keyboard Side	0	138	5690	-0.17	0.671	12.96	13.00	1.009	91.25	1.096	0.742	/
					Keyboard Side	0	122	5610	0.09	0.712	12.67	13.00	1.079	91.25	1.096	0.842	/
					Keyboard Side	0	106	5530	0.19	0.723	12.91	13.00	1.021	91.25	1.096	0.809	/
			Main	Laptop	Keyboard Side	0	138	5690	0.05	0.802	12.92	13.00	1.019	91.25	1.096	0.896	/
					Keyboard Side	0	122	5610	0.12	0.801	12.56	13.00	1.107	91.25	1.096	0.972	/
					Keyboard Side	0	106	5530	0.10	0.783	12.72	13.00	1.067	91.25	1.096	0.916	/
		Luxshare-ict	Aux.	Laptop	Keyboard Side	0	138	5690	0.03	0.779	12.96	13.00	1.009	91.25	1.096	**0.861**	17#
					Keyboard Side	0	122	5610	-0.09	0.712	12.67	13.00	1.079	91.25	1.096	0.842	/
					Keyboard Side	0	106	5530	-0.02	0.683	12.91	13.00	1.021	91.25	1.096	0.764	/
			Main	Laptop	Keyboard Side	0	138	5690	0.07	0.876	12.92	13.00	1.019	91.25	1.096	**0.978**	18#
					Keyboard Side	0	122	5610	-0.17	0.802	12.56	13.00	1.107	91.25	1.096	0.973	/
					Keyboard Side	0	106	5530	-0.13	0.832	12.72	13.00	1.067	91.25	1.096	0.973	/
5.8G	802.11 ac80	Amphenol	Aux.	Laptop	Keyboard Side	0	155	5775	-0.01	0.702	14.33	14.50	1.040	91.25	1.096	0.800	/
			Main	Laptop	Keyboard Side	0	155	5775	0.19	0.963	14.48	14.50	1.005	91.25	1.096	1.061	/
		Luxshare-ict	Aux.	Laptop	Keyboard Side	0	155	5775	0.01	0.742	14.33	14.50	1.040	91.25	1.096	**0.846**	19#
			Main	Laptop	Keyboard Side	0	155	5775	0.01	1.010	14.48	14.50	1.005	91.25	1.096	**1.112**	20#
5.9G	802.11 ac80	Amphenol	Aux.	Laptop	Keyboard Side	0	171	5855	-0.07	0.832	14.22	14.50	1.067	91.25	1.096	0.973	/
			Main	Laptop	Keyboard Side	0	171	5855	-0.16	0.944	14.07	14.50	1.104	91.25	1.096	1.142	/
		Luxshare-ict	Aux.	Laptop	Keyboard Side	0	171	5855	0.09	0.878	14.22	14.50	1.067	91.25	1.096	**1.027**	21#
			Main	Laptop	Keyboard Side	0	171	5855	0.08	1.050	14.07	14.50	1.104	91.25	1.096	**1.270**	22#
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	Antenna manufacturer	Test Mode	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
2437	802.11b	Luxshare-ict	Laptop	Aux.	Body	Front Edge	0.861	Yes	0.840	1.03
2412	802.11b	Luxshare-ict	Laptop	Aux.	Body	Front Edge	0.813	Yes	0.794	1.02
2462	802.11b	Luxshare-ict	Laptop	Aux.	Body	Front Edge	0.874	Yes	0.837	1.04
2437	802.11b	Luxshare-ict	Laptop	Main	Body	Front Edge	0.918	Yes	0.885	1.04
2412	802.11b	Luxshare-ict	Laptop	Main	Body	Front Edge	0.863	Yes	0.831	1.04
2462	802.11b	Luxshare-ict	Laptop	Main	Body	Front Edge	1.010	Yes	0.984	1.03
5690	802.11ac80	Amphenol	Laptop	Aux.	Body	Front Edge	0.844	Yes	0.804	1.05
5690	802.11ac80	Amphenol	Laptop	Main	Body	Front Edge	0.825	Yes	0.806	1.02
5690	802.11ac80	Luxshare-ict	Laptop	Aux.	Body	Front Edge	0.949	Yes	0.927	1.02
5530	802.11ac80	Luxshare-ict	Laptop	Aux.	Body	Front Edge	0.824	Yes	0.801	1.03
5690	802.11ac80	Luxshare-ict	Laptop	Main	Body	Front Edge	0.969	Yes	0.936	1.04
5610	802.11ac80	Luxshare-ict	Laptop	Main	Body	Front Edge	0.862	Yes	0.845	1.02
5530	802.11ac80	Luxshare-ict	Laptop	Main	Body	Front Edge	0.836	Yes	0.812	1.03
5775	802.11ac80	Amphenol	Laptop	Aux.	Body	Front Edge	0.812	Yes	0.785	1.03
5775	802.11ac80	Amphenol	Laptop	Main	Body	Front Edge	0.923	Yes	0.896	1.03
5775	802.11ac80	Luxshare-ict	Laptop	Aux.	Body	Front Edge	0.905	Yes	0.875	1.03
5775	802.11ac80	Luxshare-ict	Laptop	Main	Body	Front Edge	1.080	Yes	1.030	1.05
5855	802.11ac80	Amphenol	Laptop	Aux.	Body	Front Edge	0.923	Yes	0.897	1.03
5855	802.11ac80	Amphenol	Laptop	Main	Body	Front Edge	0.813	Yes	0.784	1.04
5855	802.11ac80	Luxshare-ict	Laptop	Aux.	Body	Front Edge	0.964	Yes	0.932	1.03
5855	802.11ac80	Luxshare-ict	Laptop	Main	Body	Front Edge	0.897	Yes	0.868	1.03
Note: The ratio of largest to smallest SAR for the original and first repeated measurements is < 1.20, the second 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 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 ≤ 0.04 for 1g, simultaneously transmission SAR measurement is not necessary.

c) When 10-g SAR applies, the corresponding test exemption condition is SPLSR ≤ 0.10.

d) 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	WLAN 2.4GHz (Antenna Auxiliary) + WLAN 2.4GHz (Antenna Main)	Yes
3	Bluetooth + WLAN 5GHz (Antenna Auxiliary)	Yes
4	Bluetooth + WLAN 5GHz (Antenna Main)	Yes
5	WLAN 5GHz (Antenna Auxiliary) + WLAN 5GHz (Antenna Main)	Yes
6	Bluetooth + WLAN 5GHz (Antenna Auxiliary) + WLAN 5GHz (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 Body Simultaneous Transmission SAR Evaluation

Position	Stand alone SAR					SUM SAR						SPLSR SAR		
	1	2	3	4	5									
	Bluetooth	WLAN 2.4GHz (Antenna Auxiliary)	WLAN 2.4GHz (Antenna Main)	MAX. WLAN 5GHz (Antenna Auxiliary)	MAX. WLAN 5GHz (Antenna Main)	Sum SAR (1+3)	Sum SAR (1+4)	Sum SAR (1+5)	Sum SAR (2+3)	Sum SAR (4+5)	Sum SAR (1+4+5)	Sum SAR (2+3)	Sum SAR (4+5)	Sum SAR (1+4+5)
Bottom Side	0.061	0.358	0.397	0.421	0.328	0.458	0.482	0.389	0.755	0.749	0.810	/	/	/
Front Edge	0.164	0.976	1.036	1.127	1.190	1.200	1.291	1.354	2.012	2.317	**2.481**	0.01[1#]	0.01[2#]	0.01[3#]

Note:

1: The highest Summed 1g SAR is 2.481 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 ＜0.04, so Simultaneous Transmission SAR test is not required.

12.3 Limbs Simultaneous Transmission SAR Evaluation

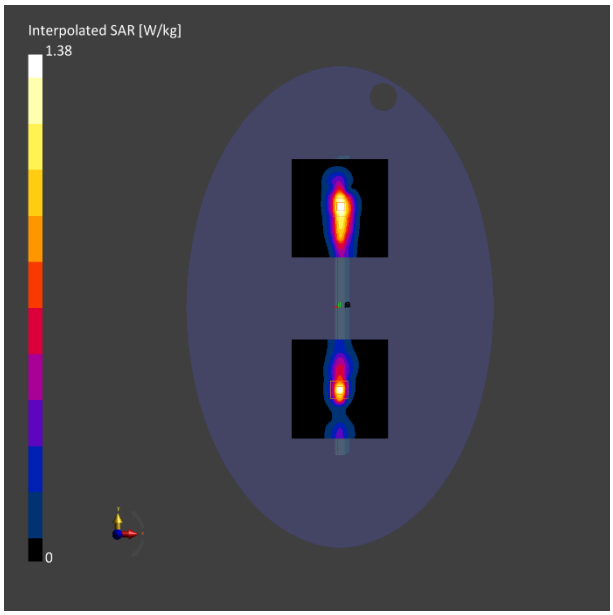
Position	Stand alone SAR					SUM SAR						SPLSR SAR
	1	2	3	4	5							
	Bluetooth	WLAN 2.4GHz (Antenna Auxiliary)	WLAN 2.4GHz (Antenna Main)	MAX. WLAN 5GHz (Antenna Auxiliary)	MAX. WLAN 5GHz (Antenna Main)	Sum SAR (1+3)	Sum SAR (1+4)	Sum SAR (1+5)	Sum SAR (2+3)	Sum SAR (4+5)	Sum SAR (1+4+5)	Sum SAR (2+3)
Keyboard Side	0.620	2.857	1.498	1.027	1.270	2.118	1.647	1.890	**4.355**	2.297	2.917	0.04[4#]

Note:

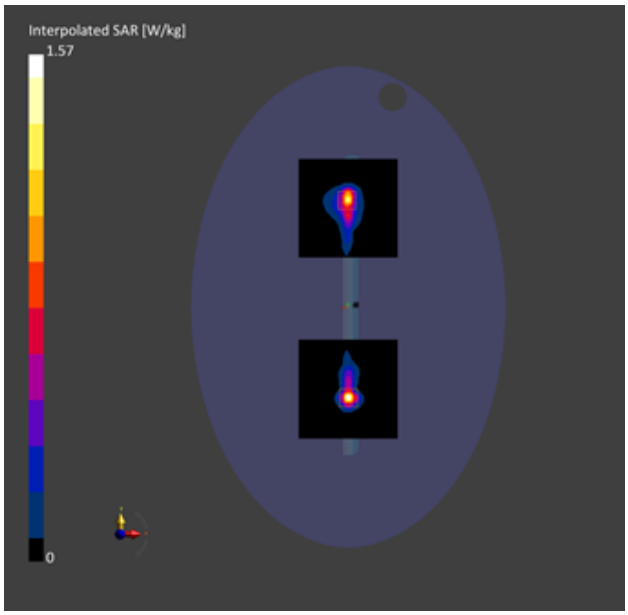
1: The highest Summed 10g SAR is 4.355 W/Kg > 4.0 W/kg, so Simultaneous Transmission SAR test exclusion is determined by the SAR to peak location separation ratio.

2: The SPLSR is ＜0.10, so Simultaneous Transmission SAR test is not required.

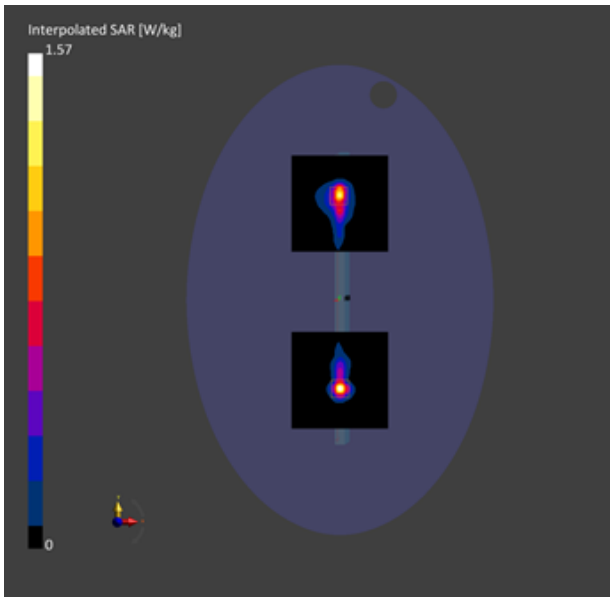
Case 1#	Band	Position	SAR (W/kg)	SAR peak location (m)			3D distance	Summed	SPLSR	Simultaneous
Plot No				X	Y	Z	(mm)	SAR (W/kg)	Results	SAR
1	WIFI2.4G Aux.Ant	Front Edge	0.976	0.001195	0.124596	-0.175605	229.6	2.01	0.01	Not required
2	WIFI2.4G Main.Ant		1.036	-2.00E-06	-0.104995	-0.175591				



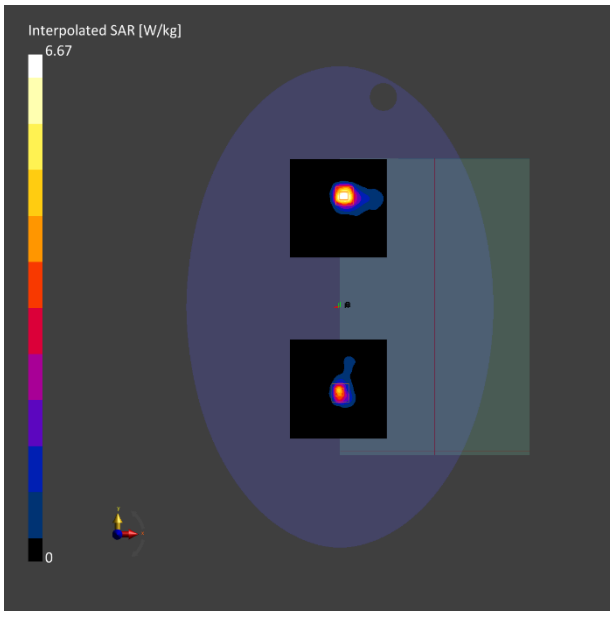
Case 2#	Band	Position	SAR (W/kg)	SAR peak location (m)			3D distance	Summed	SPLSR	Simultaneous
Plot No				X	Y	Z	(mm)	SAR (W/kg)	Results	SAR
1	WIFI5G Aux.Ant	Front Edge	1.127	-2.00E-06	0.133995	-0.175579	244.0	2.32	0.01	Not required
2	WIFI5G Main.Ant		1.190	-2.00E-06	-0.109994	-0.175578				



Case 3#	Band	Position	SAR (W/kg)	SAR peak location (m)			3D distance	Summed	SPLSR	Simultaneous
Plot No				X	Y	Z	(mm)	SAR (W/kg)	Results	SAR
1	BT+WIFI5G Aux.Ant	Front Edge	1.291	-2.00E-06	0.133995	-0.175579	244.0	2.18	0.01	Not required
2	WIFI5G Main.Ant		0.887	-2.00E-06	-0.109994	-0.175578				



Case 4#	Band	Position	SAR (W/kg)	SAR peak location (m)			3D distance	Summed	SPLSR	Simultaneous
Plot No				X	Y	Z	(mm)	SAR (W/kg)	Results	SAR
1	WIFI2.4G Aux.Ant	Keyboard Side	2.857	-1.00E-03	0.134395	-0.175579	240.6	4.36	0.04	Not required
2	WIFI2.4G Main.Ant		1.498	-8.02E-04	-0.106195	-0.175593				



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	DASY8	16.2.2.1588	N/A	N/A
2450MHz Validation Dipole	Speag	D2450V2	SN: 952	2024/05/07	2027/05/06
5GHz Validation Dipole	Speag	D5GHzV2	SN: 1200	2024/05/09	2027/05/08
Data Acquisition Electronics	Speag	DAE4	SN: 1710	2025/01/20	2026/01/19
E-Field Probe	Speag	EX3DV4	SN: 7893	2024/09/05	2025/09/04
Signal Generator	Keysight	N5173B	MY62150163	2025/07/15	2026/07/14
Power Meter	R&S	NRVD-B2	835843/014	2025/07/15	2026/07/14
Power Sensor	R&S	NRV-Z4	100381	2025/07/15	2026/07/14
Power Sensor	R&S	NRV-Z2	100211	2025/07/15	2026/07/14
Network Analyzer	Agilent	E5071C	MY46103472	2024/09/11	2025/09/10
Thermometer	Elitech	RC-4HC	EF7239002655	2024/10/31	2025/10/30
Thermometer	Elitech	RC-4HC	EF7216002974	2024/10/31	2025/10/30
Power Amplifier	Mini-Circuits	ZVA-183W-S+	932502132	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. (℃)	Meas. Conductivity (σ) (S/m)	Meas. Permittivity (ε)	Target Conductivity (σ) (S/m)	Target Permittivity (ε)	Conductivity Tolerance (%)	Permittivity Tolerance (%)
2025.08.05	Head	2450	21.9	1.80	39.64	1.80	39.20	0.00	1.12
2025.08.06	Head	2450	21.5	1.84	39.40	1.80	39.20	2.22	0.51
2025.08.07	Head	5250	21.4	4.70	35.74	4.71	35.93	-0.21	-0.53
2025.08.08	Head	5600	21.6	5.06	35.39	5.07	35.53	-0.20	-0.39
2025.08.09	Head	5600	21.9	5.03	35.63	5.07	35.53	-0.79	0.28
2025.08.10	Head	5750	21.1	5.18	35.59	5.22	35.36	-0.77	0.65
2025.08.11	Head	5750	21.7	5.22	35.44	5.22	35.36	0.00	0.23
Note: The tolerance limit of Conductivity and Permittivity is± 5%.									

ANNEX B SYSTEM CHECK RESULT

Comparing to the original SAR value provided by SPEAG, the validation data should be within itsspecification of 10 %.

Head liquid 1g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.08.05	Head	2450	100	5.450	54.50	52.60	3.61
2025.08.06	Head	2450	100	5.160	51.60	52.60	-1.90
2025.08.07	Head	5250	100	7.710	77.10	77.70	-0.77
2025.08.08	Head	5600	100	7.880	78.80	81.30	-3.08
2025.08.09	Head	5600	100	7.710	77.10	81.30	-5.17
2025.08.10	Head	5750	100	7.960	79.60	77.60	2.58
2025.08.11	Head	5750	100	7.420	74.20	77.60	-4.38
Note: The tolerance limit of System validation ±10%.							

Head liquid 10g

Date	Liquid Type	Freq. (MHz)	Power (mW)	Measured SAR (W/kg)	Normalized SAR (W/kg)	Dipole SAR (W/kg)	Tolerance (%)
2025.08.05	Head	2450	100	2.530	25.30	24.70	2.43
2025.08.06	Head	2450	100	2.490	24.90	24.70	0.81
2025.08.07	Head	5250	100	2.200	22.00	22.00	0.00
2025.08.08	Head	5600	100	2.360	23.60	23.10	2.16
2025.08.09	Head	5600	100	2.280	22.80	23.10	-1.30
2025.08.10	Head	5750	100	2.290	22.90	21.90	4.57
2025.08.11	Head	5750	100	2.170	21.70	21.90	-0.91
Note: The tolerance limit of System validation ±10%.							

Please refer the document “BL-SZ2580065-ASC.pdf”.

ANNEX C TEST DATA

Please refer the document “BL-SZ2580065-ATD-1.pdf”.

ANNEX D EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2580065-AW.pdf”.

ANNEX E SAR TEST SETUP PHOTOS

Please refer the document “BL-SZ2580065-AS.pdf”.

ANNEX F CALIBRATION REPORT

Please refer the document “BL-SZ2580065-AC.pdf”.

ANNEX G TUNE-UP PROCEDURE

Please refer the document “BL-SZ2580065-AT-1.pdf”.

Statement

1. The laboratory guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
2. The report without China inspection body and laboratory Mandatory Approval (CMA) mark has no effect of proving to the society.
3. For the report with CNAS mark or A2LA mark, the items marked with "☆" are not within the accredited scope.
4. This report is invalid if it is altered, without the signature of the testing and approval personnel, or without the “inspection and testing dedicated stamp” or test report stamp.
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--END OF REPORT--