TEST REPORT

Applicant:	Qualcomm Technologies, Inc.
Address:	5775 Morehouse Drive, San Diego, CA 92121-1714
Equipment Type:	Qualcomm WiFi 7/BT Combo module
Model Name:	QCNCM865
Brand Name:	N/A
FCC ID:	J9C-QCNCM865
Test Standard:	FCC 47 CFR Part 2.1093 (refer to section 3.1)
Maximum PD:	8.22 W/m^2
Sample Arrival Date:	Dec. 12, 2024
Test Date:	Jan. 03, 2025 - Jan. 09, 2025
Date of Issue:	Feb. 05, 2025

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
Rev. 01	Feb. 05, 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	Qualcomm Technologies, Inc.
Address	5775 Morehouse Drive, San Diego, CA 92121-1714

2.2 Manufacturer Information

Manufacturer	Qualcomm Technologies, Inc.
Address	5775 Morehouse Drive, San Diego, CA 92121-1714

2.3 General Description for Equipment under Test (EUT)

EUT Name	Qualcomm WiFi 7/BT Combo module
Model Name Under Test	QCNCM865
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	IdeaPad Slim 3 15Q8X10
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	DC330028N00	Luxshare-ict	PIFA	1.29	2.43	2.43	2.74	2.87	3.87	3.75	3.75	3.71
Auxiliary Antenna	DC330028N10		PIFA	2.33	2.91	2.93	2.80	2.28	3.71	4.16	4.17	3.44
Main Antenna	DC330028P00	ZTX	PIFA	1.91	2.82	3.02	3.52	3.41	3.22	3.12	3.47	3.03
Auxiliary Antenna	DC330028P10		PIFA	2.31	3.01	3.01	3.18	3.28	3.59	3.59	3.30	2.87

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, 802.11ax and 802.11be

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

Operating Mode	6G WLAN	
Frequency Range	802.11a/ 802.11ax(HE20/HE40/HE80/ HE160) 802.11be(EHT20/EHT40/EHT80/ EHT160/EHT320)	5925 ~ 6425 MHz
		6425 ~ 6525 MHz
		6525 ~ 6875 MHz
		6875 ~ 7125 MHz
Antenna Type	WLAN	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	Radio frequency 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	47 CFR Part 1.1310	Radiofrequency radiation exposure limits
4	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01
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
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)
9	IEC/IEEE 63195-1:2022	Assessment of power density of human exposure to radio frequency fields from wireless devices in close proximity to the head and body (frequency range of 6 GHz to 300 GHz)-Part 1: Measurement procedure
10	IEC TR 63170:2018	Measurement procedure for the evaluation of power density related to human exposure to radio frequency fields from wireless communication devices operating between 6 GHz and 100 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 power density for frequencies between 1.5GHz and 100 GHz is 1.0 mW/cm^2= 10 W/m^2

Table of Exposure Limits:

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW / cm ^{2})	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f^2	6
30-300	61.4	0.163	1.0	6
300-1,500	/	/	f/300	6
1,500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f^2	30
30-300	27.5	0.073	0.2	30
300-1,500	/	/	f/1500	30
1,500-100,000	/	/	1.0	30
*f = frequency in MHz * = Plane-wave equivalent power density*				

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 Power Density

Equipment Class	Band	Antenna	Maximum Scaled PD (W/m^2)	Maximum Report PD (W/m^2)
			Body	Body
U-NII-5/6/7/8	6G WIFI	Aux.	**8.22**	**8.22**
		Main	3.48	
Limit (W/m^2)			10.00	
Verdict			Pass	

3.4 Test Uncertainty

For PTP measurement method: DASY8 uncertainty budget in compliance with IEC/IEEE 63195-1 for the cases indicated in the refrence table.

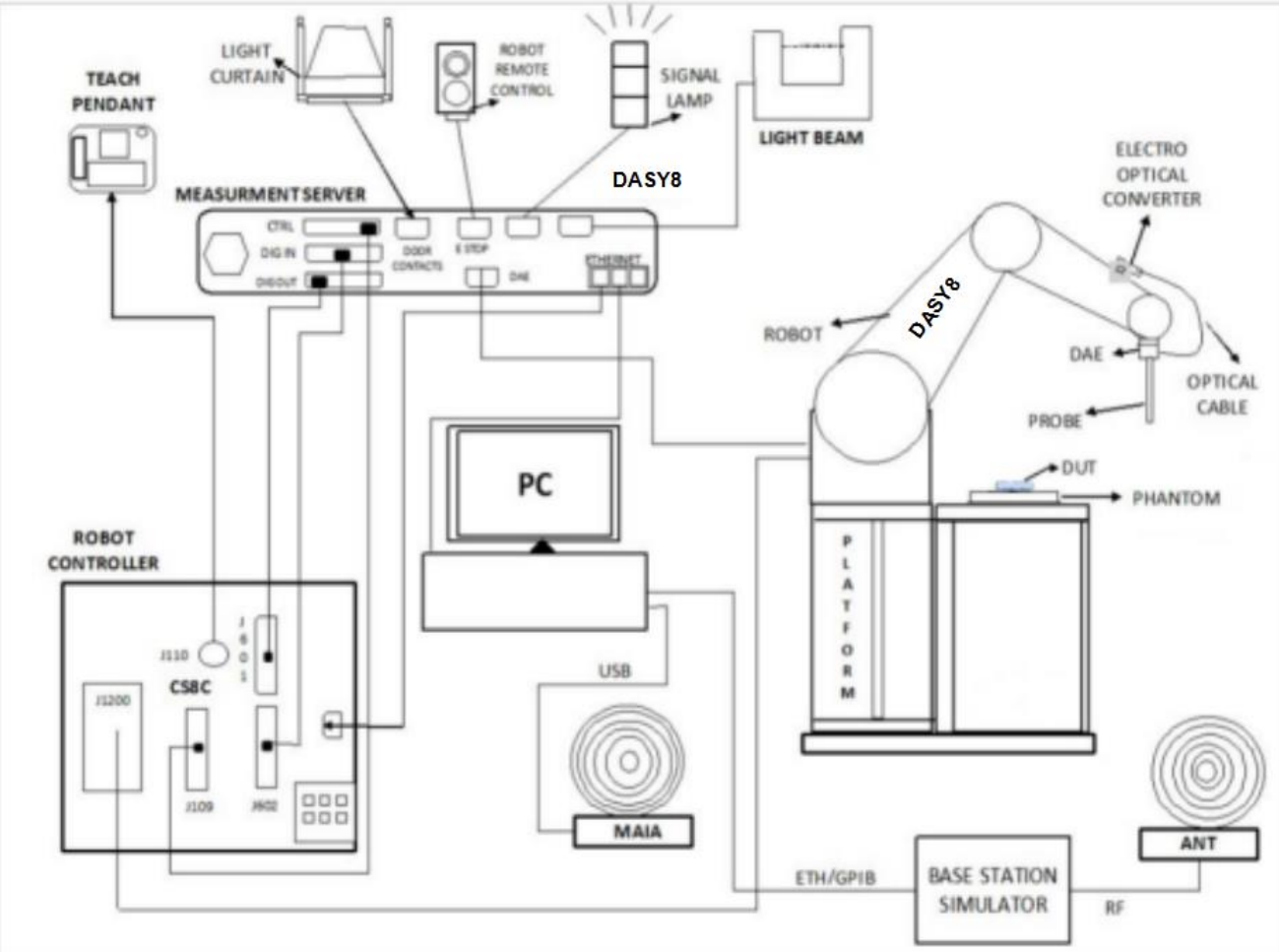
DASY8 Uncertainty Budget for PD (avg ≥1 cm2) Evaluation Distances to the Antennas ≥ λ/5 in Compliance with IEC/IEEE 63195							
Error Description		Unc. Value (±dB)	Probab. Distri.	Div.	(*ci*)	Std. Unc. (±dB)	(vi) veff
Uncertainty terms dependent on the measurement system							
CAL	Calibration	0.49	N	1	1	0.49	∞
COR	Probe correction	0	R	1.732	1	0	∞
FRS	Frequency response (BW ≤ 1 GHz)	0.2	R	1.732	1	0.12	∞
SCC	Sensor cross coupling	0	R	1.732	1	0	∞
ISO	Isotropy	0.5	R	1.732	1	0.29	∞
LIN	Linearity	0.2	R	1.732	1	0.12	∞
PSC	Probe scattering	0	R	1.732	1	0	∞
PPO	Probe positioning offset	0.3	R	1.732	1	0.17	∞
PPR	Probe positioning repeatability	0.04	R	1.732	1	0.02	∞
SMO	Sensor mechanical offset	0	R	1.732	1	0	∞
PSR	Probe spatial resolution	0	R	1.732	1	0	∞
FLD	Field impedance dependence	0	R	1.732	1	0	∞
APD	Amplitude and phase drift	0	R	1.732	1	0	∞
APN	Amplitude and phase noise	0.04	R	1.732	1	0.02	∞
TR	Measurement area truncation	0	R	1.732	1	0	∞
DAQ	Data acquisition	0.03	N	1	1	0.03	∞
SMP	Sampling	0	R	1.732	1	0	∞
REC	Field reconstruction	0.6	R	1.732	1	0.35	∞
TRA	FTE/MEO	0 (0.7)	R	1.732	1	0 (0.4)	∞
SCA	Power density scaling	–	R	1.732	1	–	∞
SAV	Spatial averaging	0.1	R	1.732	1	0.06	∞
SDL	System detection limit	0.04	R	1.732	1	0.02	∞
Uncertainty terms dependent on the DUT and environmental factors							
PC	Probe coupling with DUT	0	R	1.732	1	0	∞
MOD	Modulation response	0.4	R	1.732	1	0.23	∞
IT	Integration time	0	R	1.732	1	0	∞
RT	Response time	0	R	1.732	1	0	∞
DH	Device holder influence	0.14	R	1.732	1	0.08	∞
DA	DUT alignment	0	R	1.732	1	0	∞
AC	RF ambient conditions	0.04	R	1.732	1	0.02	∞
AR	Ambient reflections	0.04	R	1.732	1	0.02	∞
MSI	Immunity / secondary reception	0	R	1.732	1	0	∞
DRI	Drift of the DUT	–	R	1.732	1	–	∞

Combined Std Uncertainty (w/ FTE/MEO)	–	–	–	0.75	∞
Expanded Std Uncertainty (w/ FTE/MEO)	–	–	–	**1.50 (1.71)**	–

4 MEASUREMENT SYSTEM

4.1 DASY Power Density System

4.1.1 DASY PD System Diagram



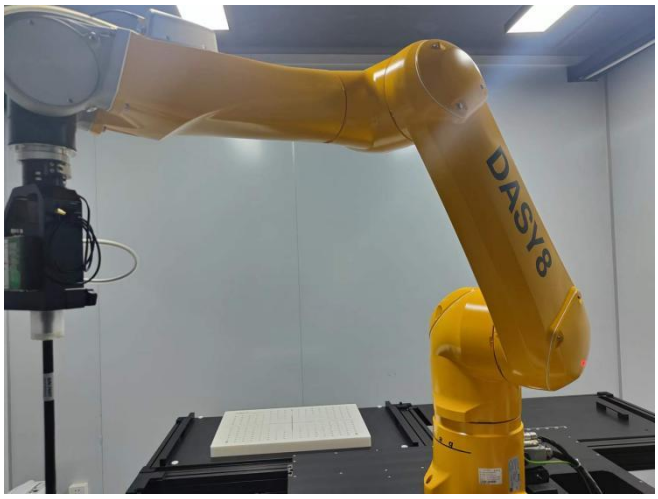
The DASY system for performing compliance tests consists of the following items:

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.

4.1.2 Robot

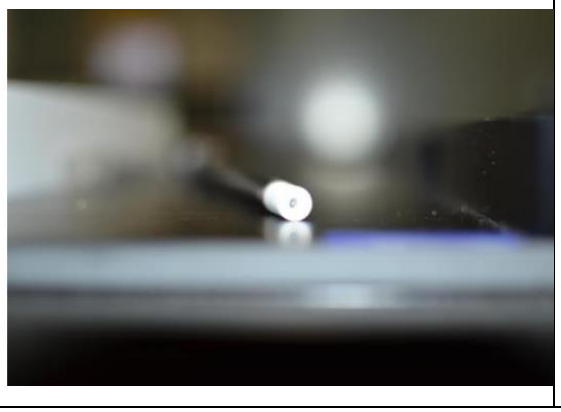
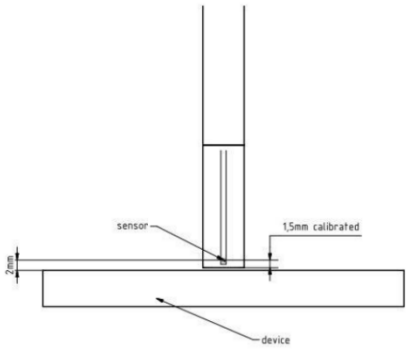
The Dasy SAR system uses the high precision robots. Symmetrical design with triangular core Built-in optical fiber for surface detection system For the 6-axis controller system, Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents). The robot series have many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

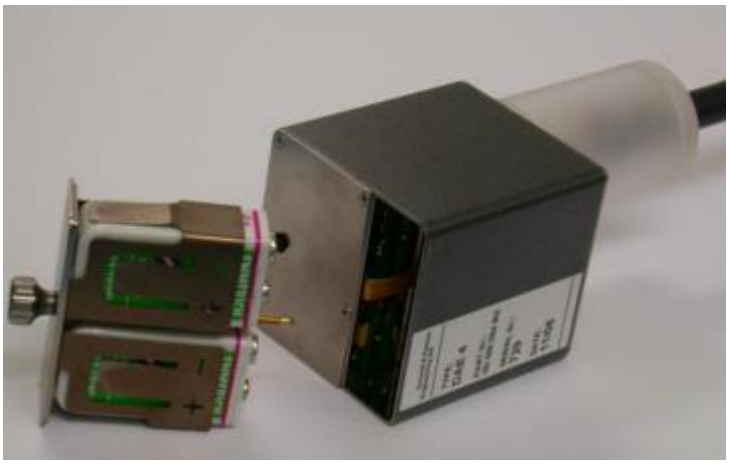
4.1.3 EUmmWave Probe / E-Field 5G Probe

The EUmmWave3 probe design allows measurements at distances as small as 2mm

Frequency	750 MHz – 110 GHz
Probe Overall Length	320 mm
Probe Body Diameter	8.0 mm
Tip Length	23.0 mm
Tip Diameter	8.0 mm
Probe's two dipoles length	0.9 mm – Diode loaded
Dynamic Range	< 20 V/m – 10000 V/m with PRE-10 (min < 50 V/m – 3000 V/m)
Position Precision	< 0.2 mm
Distance between diode sensors and probe's tip	1.5 mm
Minimum Mechanical separation between probe tip and a Surface	0.5 mm
Applications	E-field measurements of 5G devices and other mm-wave transmitters operating above 10GHz in < 2 mm distance from device (free-space) Power density, H-field and far-field analysis using total field reconstruction.
Compatibility	cDASY6 + 5G-Module SW1.0 and higher
	

4.1.4 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

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 Power Density 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

The system was verified to be within ±0.66 dB of the power density targets on the calibration certificate according to the test system specification in the user’s manual and calibration facility recommendation. The 0.66 dB deviation threshold represents the expanded uncertainty for system performance checks using SPEAG’s mmWave verification sources. The same spatial resolution and measurement region used in the source calibration was applied during the system check.
The measured power density distribution of verification source was also confirmed through visual inspection to have no noticeable differences, both spatially (shape) and numerically (level) from the distribution provided by the manufacturer, per November 2017 TCBC Workshop Notes.

6 POWER DENSITY MEASUREMENT PROCEDURE

6.1 Computation of the Electric Field Polarization Ellipse

For the numerical description of an arbitrarily oriented ellipse in three-dimensional space, five parameters are needed: the semi-major axis (a), the semi-minor axis (b), two angles describing the orientation of the normal vector of the ellipse (ϕ , θ), and one angle describing the tilt of the semi-major axis (Ψ). For the two
extreme cases, i.e. circular and linear polarizations, three parameters only (a, ϕ and θ) are sufficient for
the description of the incident field.

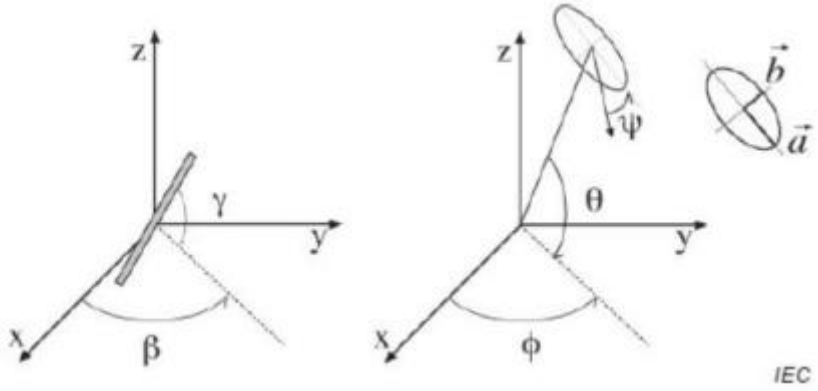


Illustration of the angles used for the numerical description of the sensor and the orientation of an ellipse in 3-D space

For the construction of the ellipse parameters from measured data, the problem can be reformulated as a nonlinear search problem. The semi-major and semi-minor axes of an elliptical field can be express as functions of the three angles (ϕ , θ and Ψ). The parameters can be uniquely determined towards minimizing the error based on least-squares for the given set of angles and the measured data. In this way, the numbers of three parameters is reduced from five to three, which means that least three sensors readings are necessary to gain sufficient information for the reconstruction of ellipse parameters.
However, to suppress the noise and increase the reconstruction accuracy, it is desirable to have an over determined system of equations. The solution to use a probe consisting of two sensors angled by γ 1 and γ 2 toward the probe axis and to perform measurements at three angular positions of the probe, i.e. at β 1, β 2 and β 3, results in over determination of two. If there is a need for more information or increased accuracy, more rotation angles can be added.
The reconstruction of ellipse parameters can be separated into linear and non-linear parts that are best solved by the givens algorithm combined with a downhill simplex algorithm. To minimize the mutual coupling, sensor angles are set with a 90° shift (γ 1= γ 2+90°), and, to simplify, the first rotation angle of the probe (β 1) can be set to 0° .

6.2 Total Field and Power Flux Density Reconstruction

Computation of the power density in general requires knowledge of the electric and magnetic field amplitudes and phases in the plane of incidence. Reconstruction of these quantities from pseudo-vector E-field measurements is feasible, as they are constrained by Maxiwell,s equations. The SPEAG have developed a reconstruction approach based on the Gerchberg-Saxton algorithm, which benefits from the availability of the E-Field polarization ellipse information obtained with the EUmmWV2 probe. This reconstruction algorithm, together with the ability of the probe to measure extremely close to the source without perturbing the field, permits reconstruction of the E-field and H-field, as well as of the power density, on measurement planes located as near as λ /5 away.

6.3 Power Flux Density Averaging

The average of the reconstructed power density is evaluated over a circular area in each measurement plane. The area of the circle is defined by the user; the default is 1cm2. The computed peak average value
is displayed in the box at the top right. Note that the average is evaluated only for grid points where the averaging circle is completely filed with values; for points at the edge where the averaging circle is only partly filled with values, the average power density is set to zero. Two average power density values are computed.

6.4 Measurement Workflow

The incident power density must be measured for the test configuration producing the highest SAR value. The
measurement procedure is summarized below:

1. Perform a system performance check at 10 GHz.
2. Determine the optimal grid resolution to be used for subsequent measurements.
3. Assess the incident power for the configuration to be tested.
4. Calculate the additional reconstruction uncertainty at 2mm and compute the total measurement uncertainty.
5. Adjust the incident psPD results by the amount that the measurement uncertainty exceeds 30%

7 CONDUCTED RF OUPUT POWER

7.1 WIFI

7.1.1 6G WIFI (Aux. Antenna) (Laptop Mode)

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
6	802.11a	2	5935	-4.78	-3.50	No
		1	5955	10.30	12.00	No
		45	6175	10.47	12.00	No
		93	6415	10.21	12.00	No
		97	6435	10.61	12.00	No
		105	6475	10.58	12.00	No
		113	6515	10.52	12.00	No
		117	6535	10.43	12.00	No
		149	6695	10.18	12.00	No
		181	6855	10.46	12.00	No
		185	6875	10.66	12.00	No
		209	6995	10.15	12.00	No
		233	7115	10.74	12.00	No
	802.11ax(HE20) (SU)	2	5935	-13.18	-12.00	No
		1	5955	10.05	12.00	No
		45	6175	10.52	12.00	No
		93	6415	10.13	12.00	No
		97	6435	10.72	12.00	No
		105	6475	10.34	12.00	No
		113	6515	10.28	12.00	No
		117	6535	10.47	12.00	No
		149	6695	10.46	12.00	No
		181	6855	10.10	12.00	No
		185	6875	10.47	12.00	No
		209	6995	10.32	12.00	No
		233	7115	10.44	12.00	No
	802.11ax(HE40) (SU)	3	5965	10.34	12.00	No
		43	6165	10.51	12.00	No
		91	6405	10.32	12.00	No
		99	6445	10.76	12.00	No
		107	6485	10.56	12.00	No
		115	6525	10.75	12.00	No
		123	6565	10.48	12.00	No
		155	6725	10.51	12.00	No
		179	6845	10.42	12.00	No

		187	6885	10.76	12.00	No
		211	7005	10.52	12.00	No
		227	7085	10.09	12.00	No
	802.11ax(HE80) (SU)	7	5985	10.19	12.00	No
		39	6145	10.37	12.00	No
		87	6385	10.06	12.00	No
		103	6465	10.64	12.00	No
		119	6545	10.43	12.00	No
		151	6705	10.05	12.00	No
		183	6865	10.40	12.00	No
		199	6945	10.06	12.00	No
		215	7025	10.36	12.00	No
	802.11ax(HE160) (SU)	15	6025	10.06	12.00	No
		47	6185	10.37	12.00	No
		79	6345	10.72	12.00	No
		111	6505	10.22	12.00	No
		143	6665	10.47	12.00	No
		175	6825	10.77	12.00	No
		207	6985	10.79	12.00	No
	802.11be(EHT20) (SU)	2	5935	-13.78	-12.00	No
		1	5955	10.56	12.00	No
		45	6175	10.20	12.00	No
		93	6415	10.77	12.00	No
		97	6435	10.13	12.00	No
		105	6475	10.55	12.00	No
		113	6515	10.47	12.00	No
		117	6535	10.19	12.00	No
		149	6695	10.54	12.00	No
		181	6855	10.50	12.00	No
		185	6875	10.57	12.00	No
		209	6995	10.12	12.00	No
		233	7115	10.73	12.00	No
	802.11be(EHT40) (SU)	3	5965	10.10	12.00	No
		43	6165	10.31	12.00	No
		91	6405	10.38	12.00	No
		99	6445	10.57	12.00	No
		107	6485	10.83	12.00	No
		115	6525	10.58	12.00	No
		123	6565	10.64	12.00	No
		155	6725	10.58	12.00	No
		179	6845	10.15	12.00	No
		187	6885	10.60	12.00	No
		211	7005	10.16	12.00	No

		227	7085	10.19	12.00	No
	802.11be(EHT80) (SU)	7	5985	10.60	12.00	No
		39	6145	10.83	12.00	No
		87	6385	10.05	12.00	No
		103	6465	10.21	12.00	No
		119	6545	10.80	12.00	No
		151	6705	10.44	12.00	No
		183	6865	10.62	12.00	No
		199	6945	10.23	12.00	No
		215	7025	10.52	12.00	No
	802.11be(EHT160) (SU)	15	6025	10.72	12.00	No
		47	6185	10.14	12.00	No
		79	6345	10.19	12.00	No
		111	6505	10.47	12.00	No
		143	6665	10.19	12.00	No
		175	6825	10.59	12.00	No
		207	6985	10.81	12.00	No
	802.11be(EHT320) (SU)	31	6105	**11.58**	12.00	Yes
		63	6265	11.49	12.00	Yes
		95	6425	11.41	12.00	Yes
		127	6585	11.33	11.50	Yes
		159	6745	11.16	11.50	Yes
		191	6905	11.48	11.50	Yes
	802.11be(EHT20) (RU26)	2	5935	-20.10	-18.25	No
		1	5955	8.55	10.50	No
		45	6175	8.57	10.50	No
		93	6415	8.72	10.50	No
		97	6435	8.85	10.50	No
		105	6475	9.02	10.50	No
		113	6515	8.72	10.50	No
		117	6535	8.76	10.50	No
		149	6695	9.05	10.50	No
		181	6855	9.26	10.50	No
		185	6875	8.82	10.50	No
		209	6995	8.76	10.50	No
		233	7115	8.75	10.50	No
	802.11be(EHT20) (RU52)	2	5935	-19.81	-18.25	No
		1	5955	8.71	10.50	No
		45	6175	9.00	10.50	No
		93	6415	9.05	10.50	No
		97	6435	8.82	10.50	No
		105	6475	8.76	10.50	No
		113	6515	9.14	10.50	No

		117	6535	9.01	10.50	No
		149	6695	8.71	10.50	No
		181	6855	8.75	10.50	No
		185	6875	8.58	10.50	No
		209	6995	8.61	10.50	No
		233	7115	8.91	10.50	No
	802.11be(EHT20) (RU106)	2	5935	-19.57	-18.25	No
		1	5955	8.98	10.50	No
		45	6175	9.16	10.50	No
		93	6415	9.18	10.50	No
		97	6435	8.87	10.50	No
		105	6475	8.80	10.50	No
		113	6515	8.58	10.50	No
		117	6535	9.27	10.50	No
		149	6695	8.71	10.50	No
		181	6855	8.70	10.50	No
		185	6875	8.63	10.50	No
		209	6995	8.93	10.50	No
		233	7115	9.00	10.50	No
	802.11be(EHT20) (RU242)	2	5935	-12.35	-10.75	No
		1	5955	10.70	12.00	No
		45	6175	10.51	12.00	No
		93	6415	10.11	12.00	No
		97	6435	10.77	12.00	No
		105	6475	10.70	12.00	No
		113	6515	10.66	12.00	No
		117	6535	10.38	12.00	No
		149	6695	10.32	12.00	No
		181	6855	10.35	12.00	No
		185	6875	10.81	12.00	No
		209	6995	10.77	12.00	No
		233	7115	10.36	12.00	No
	802.11be(EHT40) (RU484)	3	5965	10.70	12.00	No
		43	6165	10.12	12.00	No
		91	6405	10.38	12.00	No
		99	6445	10.81	12.00	No
		107	6485	10.51	12.00	No
		115	6525	10.36	12.00	No
		123	6565	10.23	12.00	No
		155	6725	10.64	12.00	No
		179	6845	10.66	12.00	No
		187	6885	10.58	12.00	No
		211	7005	10.33	12.00	No

		227	7085	10.18	12.00	No
	802.11be(EHT80) (RU996)	7	5985	10.64	12.00	No
		39	6145	10.25	12.00	No
		87	6385	10.43	12.00	No
		103	6465	10.08	12.00	No
		119	6545	10.74	12.00	No
		151	6705	10.35	12.00	No
		183	6865	10.32	12.00	No
		199	6945	10.47	12.00	No
		215	7025	10.46	12.00	No
	802.11be(EHT160) (RU1992)	15	6025	10.17	12.00	No
		47	6185	10.26	12.00	No
		79	6345	10.68	12.00	No
		111	6505	10.09	12.00	No
		143	6665	10.57	12.00	No
		175	6825	10.08	12.00	No
		207	6985	10.05	12.00	No
	802.11be(EHT320) (RU3984)	31	6105	10.83	12.00	No
		63	6265	10.41	12.00	No
		95	6425	10.18	12.00	No
		127	6585	10.06	12.00	No
		159	6745	10.47	12.00	No
		191	6905	10.25	12.00	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.						

7.1.2 6G WIFI (Main Antenna) (Laptop Mode)

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
6	802.11a	2	5935	-4.84	-3.50	No
		1	5955	10.55	12.00	No
		45	6175	10.84	12.00	No
		93	6415	10.65	12.00	No
		97	6435	10.21	12.00	No
		105	6475	10.85	12.00	No
		113	6515	10.37	12.00	No
		117	6535	10.78	12.00	No
		149	6695	10.77	12.00	No
		181	6855	10.58	12.00	No
		185	6875	10.58	12.00	No
		209	6995	10.54	12.00	No
		233	7115	10.18	12.00	No
	802.11ax(HE20) (SU)	2	5935	-13.82	-12.00	No
		1	5955	10.61	12.00	No
		45	6175	10.69	12.00	No
		93	6415	10.65	12.00	No
		97	6435	10.47	12.00	No
		105	6475	10.81	12.00	No
		113	6515	10.57	12.00	No
		117	6535	10.21	12.00	No
		149	6695	10.51	12.00	No
		181	6855	10.32	12.00	No
		185	6875	10.18	12.00	No
		209	6995	10.74	12.00	No
		233	7115	10.07	12.00	No
	802.11ax(HE40) (SU)	3	5965	10.39	12.00	No
		43	6165	10.52	12.00	No
		91	6405	10.33	12.00	No
		99	6445	10.25	12.00	No
		107	6485	10.15	12.00	No
		115	6525	10.30	12.00	No
		123	6565	10.60	12.00	No
		155	6725	10.43	12.00	No
		179	6845	10.25	12.00	No
		187	6885	10.55	12.00	No
		211	7005	10.24	12.00	No
		227	7085	10.70	12.00	No
	802.11ax(HE80)	7	5985	10.33	12.00	No

	(SU)	39	6145	10.07	12.00	No
		87	6385	10.35	12.00	No
		103	6465	10.82	12.00	No
		119	6545	10.13	12.00	No
		151	6705	10.36	12.00	No
		183	6865	10.12	12.00	No
		199	6945	10.41	12.00	No
		215	7025	10.20	12.00	No
	802.11ax(HE160) (SU)	15	6025	10.09	12.00	No
		47	6185	10.10	12.00	No
		79	6345	10.09	12.00	No
		111	6505	10.83	12.00	No
		143	6665	10.71	12.00	No
		175	6825	10.53	12.00	No
		207	6985	10.80	12.00	No
	802.11be(EHT20) (SU)	2	5935	-13.86	-12.00	No
		1	5955	10.36	12.00	No
		45	6175	10.07	12.00	No
		93	6415	10.52	12.00	No
		97	6435	10.19	12.00	No
		105	6475	10.74	12.00	No
		113	6515	10.65	12.00	No
		117	6535	10.49	12.00	No
		149	6695	10.84	12.00	No
		181	6855	10.39	12.00	No
		185	6875	10.13	12.00	No
		209	6995	10.55	12.00	No
		233	7115	10.47	12.00	No
	802.11be(EHT40) (SU)	3	5965	10.09	12.00	No
		43	6165	10.63	12.00	No
		91	6405	10.73	12.00	No
		99	6445	10.63	12.00	No
		107	6485	10.26	12.00	No
		115	6525	10.38	12.00	No
		123	6565	10.84	12.00	No
		155	6725	10.14	12.00	No
		179	6845	10.49	12.00	No
		187	6885	10.08	12.00	No
		211	7005	10.31	12.00	No
		227	7085	10.16	12.00	No
	802.11be(EHT80) (SU)	7	5985	10.15	12.00	No
		39	6145	10.31	12.00	No
		87	6385	10.81	12.00	No

		103	6465	10.72	12.00	No
		119	6545	10.60	12.00	No
		151	6705	10.77	12.00	No
		183	6865	10.19	12.00	No
		199	6945	10.53	12.00	No
		215	7025	10.15	12.00	No
	802.11be(EHT160) (SU)	15	6025	10.60	12.00	No
		47	6185	10.63	12.00	No
		79	6345	10.27	12.00	No
		111	6505	10.29	12.00	No
		143	6665	10.65	12.00	No
		175	6825	10.32	12.00	No
		207	6985	10.35	12.00	No
	802.11be(EHT320) (SU)	31	6105	**11.67**	12.00	Yes
		63	6265	11.54	12.00	Yes
		95	6425	11.42	12.00	Yes
		127	6585	10.76	11.50	Yes
		159	6745	10.70	11.50	Yes
		191	6905	10.71	11.50	Yes
	802.11be(EHT20) (RU26)	2	5935	-19.49	-18.25	No
		1	5955	8.88	10.50	No
		45	6175	8.85	10.50	No
		93	6415	8.63	10.50	No
		97	6435	9.27	10.50	No
		105	6475	9.06	10.50	No
		113	6515	8.82	10.50	No
		117	6535	9.29	10.50	No
		149	6695	8.77	10.50	No
		181	6855	8.68	10.50	No
		185	6875	8.98	10.50	No
		209	6995	8.81	10.50	No
		233	7115	8.64	10.50	No
	802.11be(EHT20) (RU52)	2	5935	-20.20	-18.25	No
		1	5955	8.77	10.50	No
		45	6175	8.71	10.50	No
		93	6415	8.69	10.50	No
		97	6435	8.70	10.50	No
		105	6475	8.81	10.50	No
		113	6515	9.28	10.50	No
		117	6535	8.97	10.50	No
		149	6695	8.96	10.50	No
		181	6855	9.13	10.50	No
		185	6875	9.35	10.50	No

		209	6995	9.14	10.50	No
		233	7115	9.04	10.50	No
	802.11be(EHT20) (RU106)	2	5935	-19.99	-18.25	No
		1	5955	8.90	10.50	No
		45	6175	9.34	10.50	No
		93	6415	8.93	10.50	No
		97	6435	8.90	10.50	No
		105	6475	8.88	10.50	No
		113	6515	9.07	10.50	No
		117	6535	9.00	10.50	No
		149	6695	9.14	10.50	No
		181	6855	8.92	10.50	No
		185	6875	8.57	10.50	No
		209	6995	9.05	10.50	No
		233	7115	9.33	10.50	No
	802.11be(EHT20) (RU242)	2	5935	-11.90	-10.75	No
		1	5955	10.07	12.00	No
		45	6175	10.74	12.00	No
		93	6415	10.12	12.00	No
		97	6435	10.78	12.00	No
		105	6475	10.31	12.00	No
		113	6515	10.52	12.00	No
		117	6535	10.51	12.00	No
		149	6695	10.20	12.00	No
		181	6855	10.84	12.00	No
		185	6875	10.72	12.00	No
		209	6995	10.51	12.00	No
		233	7115	10.73	12.00	No
	802.11be(EHT40) (RU484)	3	5965	10.70	12.00	No
		43	6165	10.30	12.00	No
		91	6405	10.06	12.00	No
		99	6445	10.09	12.00	No
		107	6485	10.54	12.00	No
		115	6525	10.51	12.00	No
		123	6565	10.66	12.00	No
		155	6725	10.79	12.00	No
		179	6845	10.58	12.00	No
		187	6885	10.77	12.00	No
		211	7005	10.66	12.00	No
		227	7085	10.44	12.00	No
	802.11be(EHT80) (RU996)	7	5985	10.32	12.00	No
		39	6145	10.30	12.00	No
		87	6385	10.61	12.00	No

		103	6465	10.48	12.00	No
		119	6545	10.30	12.00	No
		151	6705	10.31	12.00	No
		183	6865	10.72	12.00	No
		199	6945	10.79	12.00	No
		215	7025	10.61	12.00	No
	802.11be(EHT160) (RU1992)	15	6025	10.37	12.00	No
		47	6185	10.55	12.00	No
		79	6345	10.79	12.00	No
		111	6505	10.85	12.00	No
		143	6665	10.07	12.00	No
		175	6825	10.49	12.00	No
		207	6985	10.32	12.00	No
	802.11be(EHT320) (RU3984)	31	6105	10.67	12.00	No
		63	6265	10.28	12.00	No
		95	6425	10.85	12.00	No
		127	6585	10.16	12.00	No
		159	6745	10.23	12.00	No
		191	6905	10.10	12.00	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.

7.1.3 6G WIFI (MIMO) (Laptop Mode)

Band (GHz)	Mode	Channel	Freq. (MHz)	Conducted Power (dBm)	Tune-up Limit (dBm)	SAR Test Require.
6	802.11a	2	5935	-5.00	-3.50	No
		1	5955	10.19	12.00	No
		45	6175	10.59	12.00	No
		93	6415	10.59	12.00	No
		97	6435	10.67	12.00	No
		105	6475	10.45	12.00	No
		113	6515	10.31	12.00	No
		117	6535	10.63	12.00	No
		149	6695	10.71	12.00	No
		181	6855	10.66	12.00	No
		185	6875	10.68	12.00	No
		209	6995	10.45	12.00	No
		233	7115	10.70	12.00	No
	802.11ax(HE20) (SU)	2	5935	-13.57	-12.00	No
		1	5955	10.07	12.00	No
		45	6175	10.31	12.00	No
		93	6415	10.09	12.00	No
		97	6435	10.78	12.00	No
		105	6475	10.08	12.00	No
		113	6515	10.71	12.00	No
		117	6535	10.66	12.00	No
		149	6695	10.22	12.00	No
		181	6855	10.38	12.00	No
		185	6875	10.40	12.00	No
		209	6995	10.17	12.00	No
		233	7115	10.33	12.00	No
	802.11ax(HE40) (SU)	3	5965	10.59	12.00	No
		43	6165	10.06	12.00	No
		91	6405	10.12	12.00	No
		99	6445	10.42	12.00	No
		107	6485	10.42	12.00	No
		115	6525	10.36	12.00	No
		123	6565	10.53	12.00	No
		155	6725	10.41	12.00	No
		179	6845	10.19	12.00	No
		187	6885	10.62	12.00	No
		211	7005	10.31	12.00	No
		227	7085	10.71	12.00	No
	802.11ax(HE80)	7	5985	10.19	12.00	No

	(SU)	39	6145	10.65	12.00	No
		87	6385	10.65	12.00	No
		103	6465	10.16	12.00	No
		119	6545	10.23	12.00	No
		151	6705	10.08	12.00	No
		183	6865	10.68	12.00	No
		199	6945	10.80	12.00	No
		215	7025	10.78	12.00	No
	802.11ax(HE160) (SU)	15	6025	10.27	12.00	No
		47	6185	10.20	12.00	No
		79	6345	10.77	12.00	No
		111	6505	10.84	12.00	No
		143	6665	10.66	12.00	No
		175	6825	10.13	12.00	No
		207	6985	10.58	12.00	No
	802.11be(EHT20) (SU)	2	5935	-13.67	-12.00	No
		1	5955	10.55	12.00	No
		45	6175	10.78	12.00	No
		93	6415	10.24	12.00	No
		97	6435	10.57	12.00	No
		105	6475	10.51	12.00	No
		113	6515	10.50	12.00	No
		117	6535	10.34	12.00	No
		149	6695	10.44	12.00	No
		181	6855	10.62	12.00	No
		185	6875	10.05	12.00	No
		209	6995	10.17	12.00	No
		233	7115	10.14	12.00	No
	802.11be(EHT40) (SU)	3	5965	10.05	12.00	No
		43	6165	10.71	12.00	No
		91	6405	10.34	12.00	No
		99	6445	10.47	12.00	No
		107	6485	10.08	12.00	No
		115	6525	10.59	12.00	No
		123	6565	10.55	12.00	No
		155	6725	10.16	12.00	No
		179	6845	10.59	12.00	No
		187	6885	10.46	12.00	No
		211	7005	10.20	12.00	No
		227	7085	10.66	12.00	No
	802.11be(EHT80) (SU)	7	5985	10.45	12.00	No
		39	6145	10.58	12.00	No
		87	6385	10.18	12.00	No

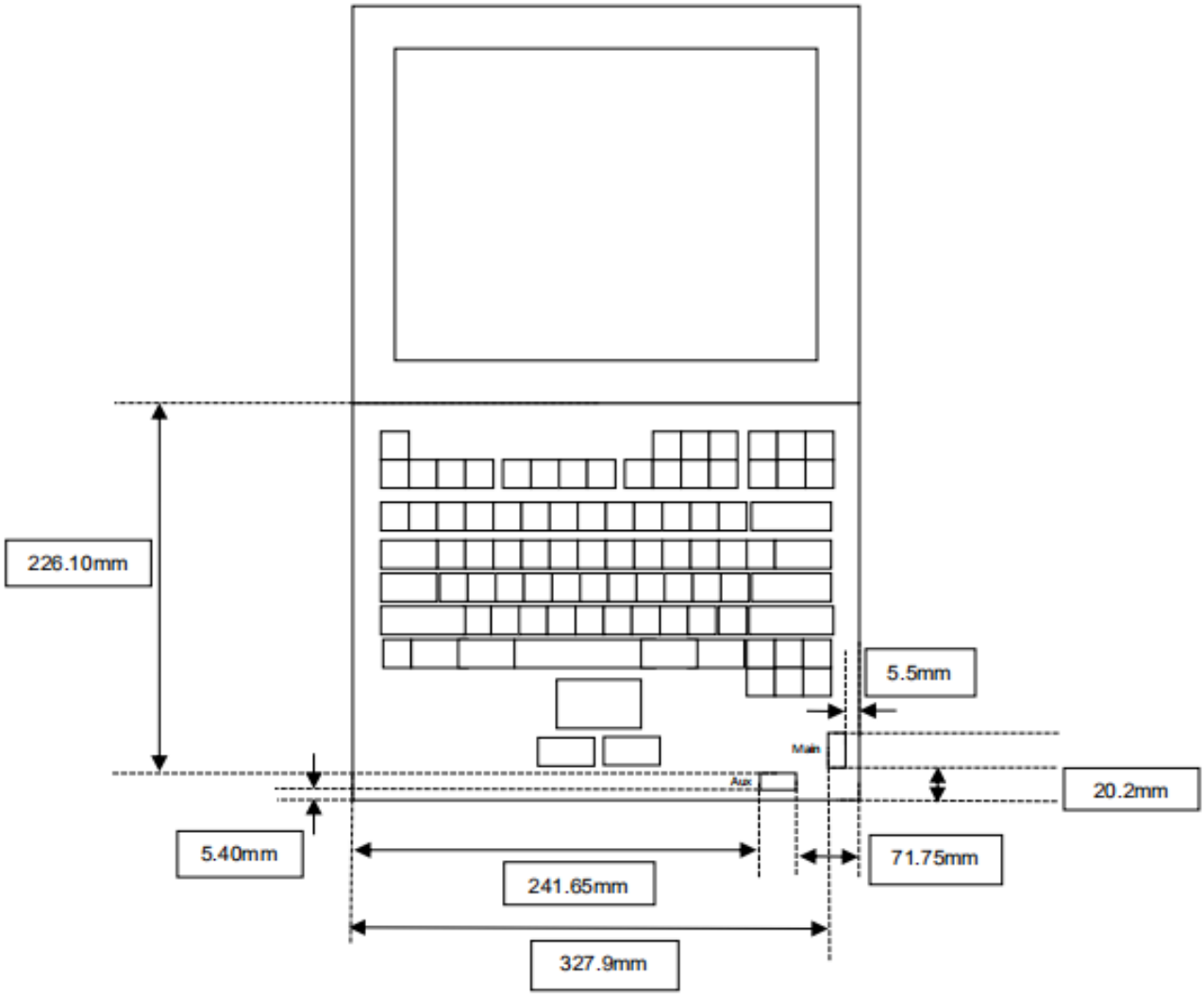
		103	6465	10.72	12.00	No
		119	6545	10.21	12.00	No
		151	6705	10.51	12.00	No
		183	6865	10.59	12.00	No
		199	6945	10.14	12.00	No
		215	7025	10.26	12.00	No
	802.11be(EHT160) (SU)	15	6025	10.09	12.00	No
		47	6185	10.69	12.00	No
		79	6345	10.52	12.00	No
		111	6505	10.66	12.00	No
		143	6665	10.05	12.00	No
		175	6825	10.27	12.00	No
		207	6985	10.76	12.00	No
	802.11be(EHT320) (SU)	31	6105	10.54	12.00	No
		63	6265	10.33	12.00	No
		95	6425	10.27	12.00	No
		127	6585	10.41	11.50	No
		159	6745	10.14	11.50	No
		191	6905	10.64	11.50	No
	802.11be(EHT20) (RU26)	2	5935	-19.59	-18.25	No
		1	5955	8.88	10.50	No
		45	6175	8.74	10.50	No
		93	6415	8.56	10.50	No
		97	6435	8.59	10.50	No
		105	6475	9.26	10.50	No
		113	6515	8.74	10.50	No
		117	6535	8.93	10.50	No
		149	6695	8.91	10.50	No
		181	6855	9.18	10.50	No
		185	6875	8.84	10.50	No
		209	6995	9.27	10.50	No
		233	7115	9.28	10.50	No
	802.11be(EHT20) (RU52)	2	5935	-20.05	-18.25	No
		1	5955	9.15	10.50	No
		45	6175	8.55	10.50	No
		93	6415	8.98	10.50	No
		97	6435	8.61	10.50	No
		105	6475	9.34	10.50	No
		113	6515	8.56	10.50	No
		117	6535	8.95	10.50	No
		149	6695	8.63	10.50	No
		181	6855	8.93	10.50	No
		185	6875	8.86	10.50	No

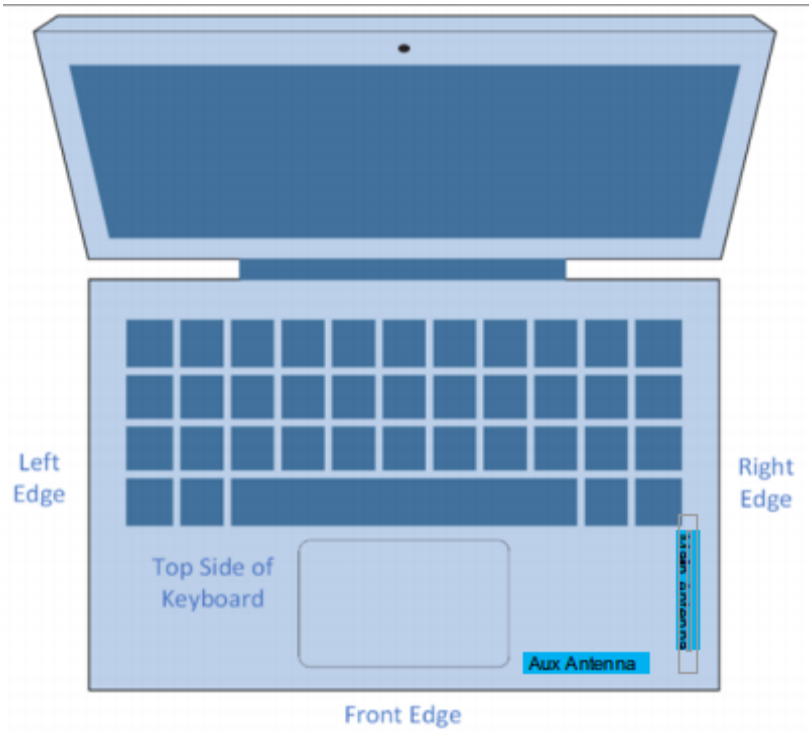
		209	6995	8.98	10.50	No
		233	7115	8.68	10.50	No
	802.11be(EHT20) (RU106)	2	5935	-19.52	-18.25	No
		1	5955	8.90	10.50	No
		45	6175	9.13	10.50	No
		93	6415	9.32	10.50	No
		97	6435	9.25	10.50	No
		105	6475	8.81	10.50	No
		113	6515	8.71	10.50	No
		117	6535	8.64	10.50	No
		149	6695	9.07	10.50	No
		181	6855	8.78	10.50	No
		185	6875	9.34	10.50	No
		209	6995	8.82	10.50	No
		233	7115	8.63	10.50	No
	802.11be(EHT20) (RU242)	2	5935	-12.13	-10.75	No
		1	5955	10.51	12.00	No
		45	6175	10.58	12.00	No
		93	6415	10.60	12.00	No
		97	6435	10.57	12.00	No
		105	6475	10.28	12.00	No
		113	6515	10.83	12.00	No
		117	6535	10.61	12.00	No
		149	6695	10.34	12.00	No
		181	6855	10.70	12.00	No
		185	6875	10.33	12.00	No
		209	6995	10.34	12.00	No
		233	7115	10.65	12.00	No
	802.11be(EHT40) (RU484)	3	5965	10.19	12.00	No
		43	6165	10.66	12.00	No
		91	6405	10.48	12.00	No
		99	6445	10.18	12.00	No
		107	6485	10.75	12.00	No
		115	6525	10.22	12.00	No
		123	6565	10.71	12.00	No
		155	6725	10.18	12.00	No
		179	6845	10.32	12.00	No
		187	6885	10.75	12.00	No
		211	7005	10.72	12.00	No
		227	7085	10.80	12.00	No
	802.11be(EHT80) (RU996)	7	5985	10.05	12.00	No
		39	6145	10.46	12.00	No
		87	6385	10.49	12.00	No

		103	6465	10.30	12.00	No
		119	6545	10.09	12.00	No
		151	6705	10.60	12.00	No
		183	6865	10.39	12.00	No
		199	6945	10.49	12.00	No
		215	7025	10.11	12.00	No
	802.11be(EHT160) (RU1992)	15	6025	10.74	12.00	No
		47	6185	10.34	12.00	No
		79	6345	10.32	12.00	No
		111	6505	10.69	12.00	No
		143	6665	10.17	12.00	No
		175	6825	10.82	12.00	No
		207	6985	10.30	12.00	No
	802.11be(EHT320) (RU3984)	31	6105	10.29	12.00	No
		63	6265	10.28	12.00	No
		95	6425	10.07	12.00	No
		127	6585	10.50	12.00	No
		159	6745	10.77	12.00	No
		191	6905	10.61	12.00	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, or the SPLSR value ≤0.04 the MIMO SAR test is not required.						

8 ANTENNA LOCATION

8.1 Antenna Location Sketch





Antenna	Support Bands
Aux.	WLAN 6G
Main	WLAN 6G

9 TEST RESULT OF POWER DENSITY

General Note:

1. The reported PD is the measured Total PD value adjusted for maximum tune-up tolerance and duty cycle factor.
   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 PD testing of WIFI signal with non-100% duty cycle, the measured PD is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)".
2. The most conservative test distance of 2mm was applied to PD measurement.
3. Power density was calculated by repeated E-field measurements on two measurement planes separated by $\lambda/4$.
4. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools.
5. Per FCC guidance and equipment manufacturer guidance, power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 2.66 dB (84.5%) was used to determine the psPD measurement scaling factor.
6. According to TCBC workshop in October 2018 that 4cm^2 averaging area may now be considered.

9.1 WIFI 6GHz SAR

Mode	Antenna Manufacturer	Antenna	Test Position	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 Factor	1g Scaled SAR (W/kg)	Measured APD 4cm^2 [W/m^2]	Scaled APD [W/m^2]
Body																	
802.11 be320	ZTX	Aux.	Laptop	Bottom Side	0	31	6105	0.02	0.441	11.58	12.00	1.102	98.70	1.013	0.492	2.780	3.103
	ICT	Aux.	Laptop	Bottom Side	0	31	6105	-0.05	0.412	11.58	12.00	1.102	98.70	1.013	0.460	2.600	2.902
	ZTX	Aux.	Laptop	Front Edge	0	31	6105	0.12	0.482	11.58	12.00	1.102	98.70	1.013	0.538	3.040	3.394
	ZTX	Aux.	Laptop	Front Edge	0	63	6265	-0.02	0.572	11.49	12.00	1.125	98.70	1.013	0.652	3.610	4.114
	ZTX	Aux.	Laptop	Front Edge	0	95	6425	-0.07	0.403	11.41	12.00	1.146	98.70	1.013	0.468	2.540	2.949
	ZTX	Aux.	Laptop	Front Edge	0	127	6585	0.15	0.389	11.33	11.50	1.040	98.70	1.013	0.410	2.460	2.592
	ZTX	Aux.	Laptop	Front Edge	0	159	6745	-0.01	0.346	11.16	11.50	1.081	98.70	1.013	0.379	2.180	2.387
	ZTX	Aux.	Laptop	Front Edge	0	191	6905	-0.05	0.441	11.48	11.50	1.005	98.70	1.013	0.449	2.780	2.830
	ICT	Aux.	Laptop	Front Edge	0	31	6105	0.11	0.501	11.58	12.00	1.102	98.70	1.013	0.559	3.160	3.528
	ZTX	Main	Laptop	Bottom Side	0	31	6105	0.18	0.290	11.67	12.00	1.079	98.70	1.013	0.317	1.910	2.088
	ZTX	Main	Laptop	Bottom Side	0	63	6265	-0.06	0.241	11.54	12.00	1.112	98.70	1.013	0.271	1.590	1.791
	ZTX	Main	Laptop	Bottom Side	0	95	6425	0.13	0.238	11.42	12.00	1.143	98.70	1.013	0.276	1.570	1.818
	ZTX	Main	Laptop	Bottom Side	0	127	6585	-0.01	0.201	10.76	11.50	1.186	98.70	1.013	0.241	1.320	1.586
	ZTX	Main	Laptop	Bottom Side	0	159	6745	-0.04	0.223	10.70	11.50	1.202	98.70	1.013	0.272	1.470	1.790
	ZTX	Main	Laptop	Bottom Side	0	191	6905	-0.08	0.245	10.71	11.50	1.199	98.70	1.013	0.298	1.610	1.955
	ICT	Main	Laptop	Bottom Side	0	31	6105	0.11	0.271	11.67	12.00	1.079	98.70	1.013	0.296	1.790	1.957
	ZTX	Main	Laptop	Front Edge	0	31	6105	0.08	0.012	11.67	12.00	1.079	98.70	1.013	0.013	0.080	0.087
	ICT	Main	Laptop	Front Edge	0	31	6105	0.07	0.018	11.67	12.00	1.079	98.70	1.013	0.020	0.120	0.131

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

Mode	Antenna Manufacturer	Antenna	Test Position	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 Factor	10g Scaled SAR (W/kg)	Measured APD 4cm^2 [W/m^2]	Scaled APD [W/m^2]
Limbs																	
802.11 be320	ZTX	Aux.	Laptop	Keyboard Side	0	31	6105	0.08	0.226	11.58	12.00	1.102	98.70	1.013	0.252	5.150	5.749
	ZTX	Aux.	Laptop	Keyboard Side	0	63	6265	-0.02	0.212	11.49	12.00	1.125	98.70	1.013	0.242	4.830	5.504
	ZTX	Aux.	Laptop	Keyboard Side	0	95	6425	0.00	0.177	11.41	12.00	1.146	98.70	1.013	0.205	4.030	4.678
	ZTX	Aux.	Laptop	Keyboard Side	0	127	6585	-0.02	0.176	11.33	11.50	1.040	98.70	1.013	0.185	4.010	4.225
	ZTX	Aux.	Laptop	Keyboard Side	0	159	6745	-0.04	0.143	11.16	11.50	1.081	98.70	1.013	0.157	3.260	3.570
	ZTX	Aux.	Laptop	Keyboard Side	0	191	6905	0.18	0.174	11.48	11.50	1.005	98.70	1.013	0.177	3.970	4.042
	ICT	Aux.	Laptop	Keyboard Side	0	31	6105	-0.04	0.200	11.58	12.00	1.102	98.70	1.013	0.223	4.560	5.090
	ZTX	Main	Laptop	Keyboard Side	0	31	6105	-0.05	0.282	11.67	12.00	1.079	98.70	1.013	0.308	6.510	7.116
	ZTX	Main	Laptop	Keyboard Side	0	63	6265	-0.01	0.266	11.54	12.00	1.112	98.70	1.013	0.300	6.140	6.916
	ZTX	Main	Laptop	Keyboard Side	0	95	6425	0.06	0.255	11.42	12.00	1.143	98.70	1.013	0.295	5.890	6.820
	ZTX	Main	Laptop	Keyboard Side	0	127	6585	-0.09	0.214	10.76	11.50	1.186	98.70	1.013	0.257	4.940	5.935
	ZTX	Main	Laptop	Keyboard Side	0	159	6745	0.11	0.183	10.70	11.50	1.202	98.70	1.013	0.223	4.230	5.151
	ZTX	Main	Laptop	Keyboard Side	0	191	6905	-0.06	0.234	10.71	11.50	1.199	98.70	1.013	0.284	5.400	6.559
	ICT	Main	Laptop	Keyboard Side	0	31	6105	0.13	0.260	11.67	12.00	1.079	98.70	1.013	0.284	6.000	6.558
	ZTX	Main	Laptop	Right Edge	0	31	6105	-0.09	0.156	11.67	12.00	1.079	98.70	1.013	0.171	3.600	3.935
	ICT	Main	Laptop	Right Edge	0	31	6105	0.03	0.153	11.67	12.00	1.079	98.70	1.013	0.167	3.530	3.858

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

9.2 WIFI 6GHz PD

Mode	Antenna Manufacturer	Test State	Antenna	Position	Dist. (mm)	Ch.	Freq. (MHz)	Power Drift (dB)	Meas Total psPD [W/m²]	Meas. uncertainty Scaling Factor	Meas. Power (dBm)	Max. tune-up power (dBm)	Scaling Factor	Duty cycle (%)	Duty cycle Factor	Scaled Totalps PD [W/m2]	Meas. No.
Body																	
802.11 be320	ICT	Laptop	Aux.	Bottom Side	2	31	6105	0.11	3.010	1.545	11.58	12.00	1.102	98.70	1.013	5.191	/
	ICT	Laptop	Aux.	Front Edge	2	31	6105	-0.08	3.150	1.545	11.58	12.00	1.102	98.70	1.013	5.433	/
	ICT	Laptop	Aux.	Front edge	2	63	6265	0.07	4.670	1.545	11.49	12.00	1.125	98.70	1.013	**8.223**	1#
	ICT	Laptop	Aux.	Front edge	2	95	6425	-0.09	2.850	1.545	11.41	12.00	1.146	98.70	1.013	5.112	/
	ICT	Laptop	Aux.	Front edge	2	159	6745	0.05	2.470	1.545	11.16	11.50	1.081	98.70	1.013	4.179	/
	ICT	Laptop	Aux.	Front edge	2	191	6905	0.15	3.100	1.545	11.48	11.50	1.005	98.70	1.013	4.876	/
	ICT	Laptop	Main	Bottom Side	2	31	6105	-0.12	2.060	1.545	11.67	12.00	1.079	98.70	1.013	3.479	/

Note: According to FCC test guidance and equipment manufacturer guidance, power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 2.66 dB (84.5%) was used to determine the psPD measurement scaling factor.

Mode	Antenna Manufacturer	Test State	Antenna	Position	Dist. (mm)	Grid Step (λ)	Ch.	Freq. (MHz)	IPDn	IPD ratio (≥-1)
802.11be320	ICT	Laptop	Aux.	Front Edge	2	0.0625	31	6105	5.33	2.14
	ICT	Laptop	Aux.	Front Edge	9.7	0.0625	31	6105	3.26	

10 TEST EQUIPMENTS LIST

Description	Manufacturer	Model	Serial No./Version	Cal. Date	Cal. Due
PC	Dell	N/A	N/A	N/A	N/A
Test System	Speag	DASY8 mmWave	V3.2.2.2358	N/A	N/A
Verification Source	Speag	10GHz	SN: 2010	2024/06/19	2025/06/18
EUmmW Probe	Speag	EUmmWV4	SN: 9607	2024/02/12	2025/02/11
Data Acquisition Electronicsr	Speag	DAE4	SN: 1711	2024/03/18	2025/03/17
E-Field Probe	Speag	EX3DV4	SN: 7893	2024/09/05	2025/09/04
Signal Generator	R&S	SMB100A	177746	2024/04/24	2025/04/23
Power Meter	R&S	NRVD-B2	835843/014	2024/08/08	2025/08/07
Power Sensor	R&S	NRV-Z4	100381	2024/08/08	2025/08/07
Power Sensor	R&S	NRV-Z2	100211	2024/08/08	2025/08/07
Thermometer	Elitech	RC-4HC	EF7216002974	2024/10/31	2025/10/30
Power Amplifier	SATIMO	6552B	22374	N/A	N/A

ANNEX A SIMULATING LIQUID VERIFICATION RESULT

The system was verified to be within ±0.66 dB of the power density targets on the calibration certificate according to the test system specification in the users manual and calibration facility recommendation.

Date	Freq. (GHz)	Meas. Forward Power (dBm)	Measured PD (W/m^2)	Normalized PD 4 cm^2 (W/m^2)	Target Forward PD 4 cm^2 (W/m^2)	Deviation (dB)
2025.01.03	10	21.5	155	173.9	183.00	-0.22
2025.01.09	10	21.5	165	185.1	183.00	0.05
Note1: The tolerance limit of System validation ±0.66dB.						
Note2: According the verification source 10GHz calibration report the target forward power is 22.00dBm.						
Note3: Normalized PD 4 cm^2= Measured PD 4 cm^2 *10^(0.1*(Target Forward power- Meas. Forward Power))						

System Performance Check Data (10GHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	EDGE TOP, 10.00	Validation band	CW, 0--	10000.0, 10000	1.0

Hardware Setup

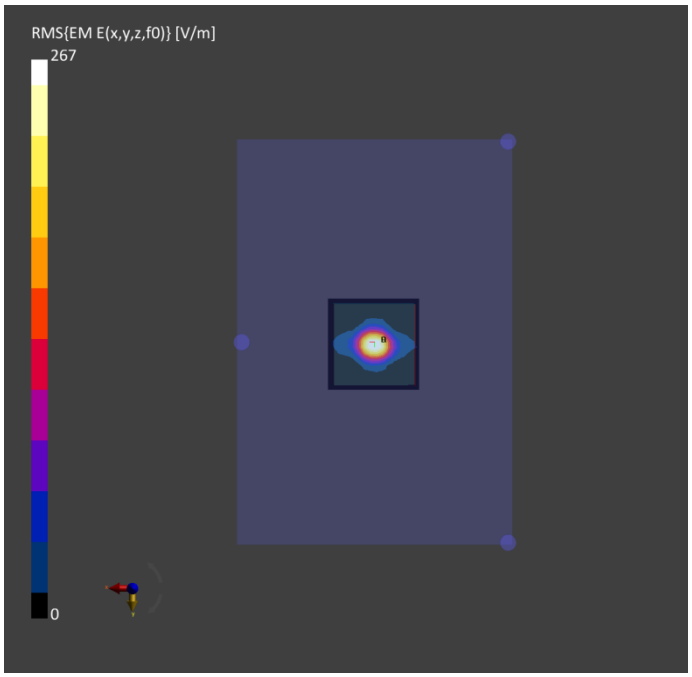
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 1083	Air---	EUmmWV4 - SN9607_F1-55GHz, 2024-02-12	DAE4 Sn1711, 2024-03-18

Scan Setup

	5G Scan
Grid Extents [mm]	25.0 x 25.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2025-01-03
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	153
psPDtot+ [W/m^2]	155
psPDmod+ [W/m^2]	149
E_{max} [V/m]	267
Power Drift [dB]	-0.06



System Performance Check Data (10GHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	EDGE TOP, 10.00	Validation band	CW, 0--	10000.0, 10000	1.0

Hardware Setup

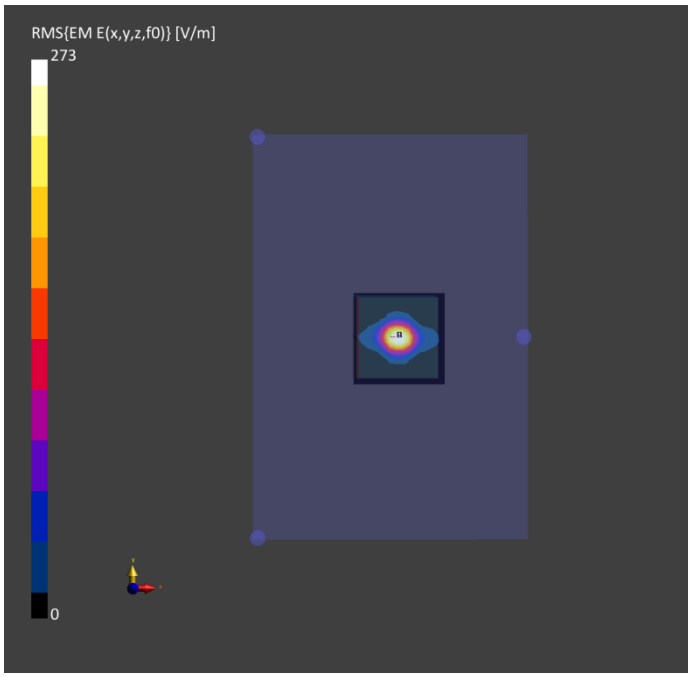
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- 1083	Air---	EUmmWV4 - SN9607_F1-55GHz, 2024-02-12	DAE4 Sn1711, 2024-03-18

Scan Setup

	5G Scan
Grid Extents [mm]	25.0 x 25.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.0
MAIA	N/A

Measurement Results

	5G Scan
Date	2025-01-09
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	157
psPDtot+ [W/m^2]	165
psPDmod+ [W/m^2]	161
E_{max} [V/m]	273
Power Drift [dB]	0.11



ANNEX B POWER DENDITY TEST DATA

Meas.1 Body Plane with Front Edge 2mm on 63 Channel in IEEE 802.11be320 mode with Antenna Auxiliary

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G Air	EDGE TOP, 2.00	U-NII-5	WLAN, 11026-AAA	6265.0, 63	1.0

Hardware Setup

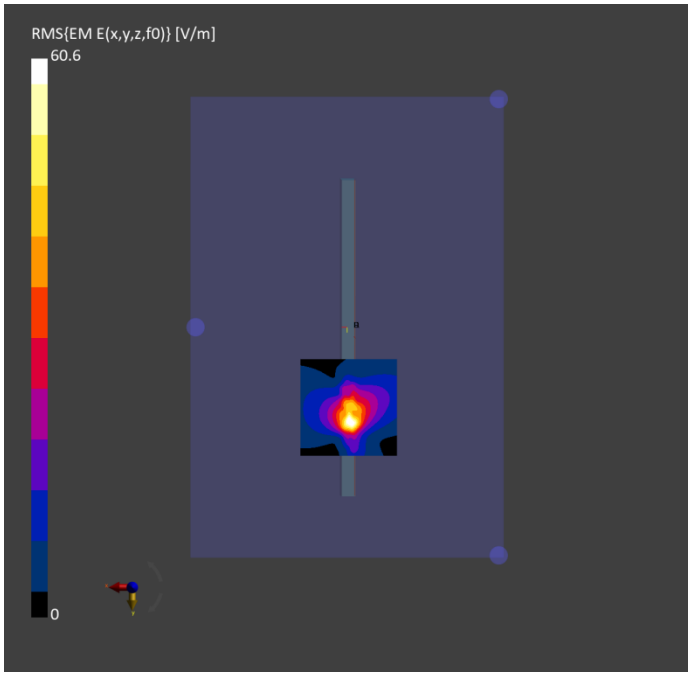
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave- xxxx	Air---	EUmmWV4 - SN9607_F1-55GHz, 2024-02-12	DAE4 Sn1711, 2024-03-18

Scan Setup

	5G Scan
Grid Extents [mm]	100.0 x 100.0
Grid Steps [lambda]	0.0625 x 0.0625
Sensor Surface [mm]	2.0
MAIA	Y

Measurement Results

	5G Scan
Date	2025-01-03
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	3.35
psPDtot+ [W/m^2]	4.67
psPDmod+ [W/m^2]	5.59
E_{max} [V/m]	60.6
Power Drift [dB]	0.07



ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ24C0741-AW.pdf”.

ANNEX D POWER DENSITY TEST SETUP PHOTOS

Please refer the document “BL-SZ24C0741-AS-2.pdf”.

ANNEX E POWER DENSITY CALIBRATION REPORT

Please refer the document “BL-SZ24C0741-AC-2.pdf”.

Statement

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--END OF REPORT--