

FCC SAR Test Report

Applicant: Aava Mobile Oy
EUT Description: 10" Tablet Computer
Model: INARI-E-10-T5G-1
Brand: AAVA
FCC ID: 2ABVH-INARI10E2
Standards: FCC 47CFR §2.1093
Date of Receipt: 2025/09/04
Date of Test: 2025/09/27 to 2025/10/17
Date of Issue: 2025/10/21

TOWE. tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

the results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of the model are manufactured with identical electrical and mechanical components. All sample tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. without written approval of TOWE, the test report shall not be reproduced except in full.



Jim Huang
Approved By:



Jack Li
Reviewed By:

Revision History

Rev.	Issue Date	Description	Revised by
01	2025/10/21	Original	Jack Li

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1 Summary of Test Results

Band	Highest SAR(W/kg)
	Body 1g
WIFI 6G	0.91
SAR Limited	1.6

Band	Highest PD (W/m ²)
WIFI 6G	9.76
Limit	10.0

2 Guidance Applied

FCC 47CFR §2.1093
ANSI/IEEE C95.1-1992
IEEE 1528-2013
IEC/IEEE 62209-1528:2020
IEC/IEEE 63195-1:2022
IEC 62479:2010
FCC KDB 248227 D01 SAR Guidance for IEEE 802.11 Wi-Fi SAR v02r02
FCC KDB 648474 D04 Handset SAR v01r03
FCC KDB 447498 D01 General RF Exposure Guidance v06
FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
FCC KDB 865664 D02 RF Exposure Reporting v01r02
FCC KDB 616217 D04 SAR for laptop and tablets v01r02

3 Lab Information

3.1 Testing Location

These measurements tests were conducted at the Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. facility located at F401 and F101, Building E, Hongwei Industrial Zone, Liuxian 3rd Road, Bao'an District, Shenzhen, China. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014
Tel.: +86-755-27212361

Contact Email: info@towewireless.com

3.2 Test Facility / Accreditations

A2LA (Certificate Number: 7088.01)

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

FCC Designation No.: CN1353

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized as an accredited testing laboratory.
Designation Number: CN1353.

ISED CAB identifier: CN0152

Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0152

Company Number: 31000

3.3 Ambient Condition

Temperature: 18°C~25°C

Relative Humidity: 30%~75%

4 Client Information

4.1 Applicant

Applicant:	Aava Mobile Oy
Address:	Nahkatehtaankatu 2, FI-90130 Oulu, Finland

4.2 Manufacturer

Manufacturer:	Aava Mobile Oy
Address:	Nahkatehtaankatu 2, FI-90130 Oulu, Finland

4.3 Factory

Factory:	Ennoconn (Suzhou) Technology Co.,Ltd
Address:	"BUILDING 1, 299 NANSONG RD, YU SHAN TOWN KUNSHAN 215300 JIANGSU CHINA"

5 Product Information

EUT Description:	10" Tablet Computer	
Model:	INARI-E-10-T5G-1	
Hardware Version:	DV2	
Software Version:	007	
SN.	XBBB2FC5100021	
Device Capabilities:		
Band	Frequency Range (MHz)	Modulation Type
Wi-Fi 6G	5925 ~ 6425 6425 ~ 6525 6525 ~ 6875 6875 ~ 7125	802.11ax
Antenna Type	☐ External, ☒ Integrated	
Battery Information	Model:	AMME5260
	Normal Voltage:	+3.85V
	Rated capacity:	9660 mAh
	Manufacturer:	SHENZHEN GUANGWEI ELECTRONIC TECHNOLOGY CO.,LTD.
Remark: The above EUT's information was declared by applicant, please refer to the specifications or user's manual for more detailed description.		

5.2 EUT side for SAR Testing

Stand-alone SAR test evaluation

1) Per FCC KDB 447498D01, the 1g and 10g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

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

2) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:

a) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm) · ($f(\text{MHz})/150$)] mW, at 100 MHz to 1500 MHz

b) [Power allowed at numeric threshold for 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW at > 1500 MHz and ≤ 6 GHz

According to KDB 447498D01, the standalone test configurations required for this device are as below:

Test Configurations	Front side	Back side	Right side	Left side	Top side	Bottom side
WIFI 6G Ant 1	No	Yes	Yes	No	Yes	No
WIFI 6G Ant 2	No	Yes	Yes	No	No	No
WIFI 6G MIMO	No	Yes	Yes	No	Yes	No

When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

1) $(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm}) \cdot [\sqrt{f(\text{GHz})}/x]$ W/kg for test separation distances ≤ 50 mm, where $x = 7.5$ for 1-g SAR and $x = 18.75$ for 10-g SAR.

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

2) 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distance is > 50 mm.

Test Configurations	Estimated SAR(W/Kg)				
	Back side	Right side	Left side	Top side	Bottom side
WIFI 6G Ant 1	measure	measure	0.400	measure	0.400
WIFI 6G Ant 2	measure	measure	0.400	0.400	0.400
WIFI 6G MIMO	measure	measure	0.400	measure	0.400

Table 1: Estimated SAR calculation for the device.

Note:

1) * - maximum possible output power declared by manufacturer

5.3 Power reduction specification

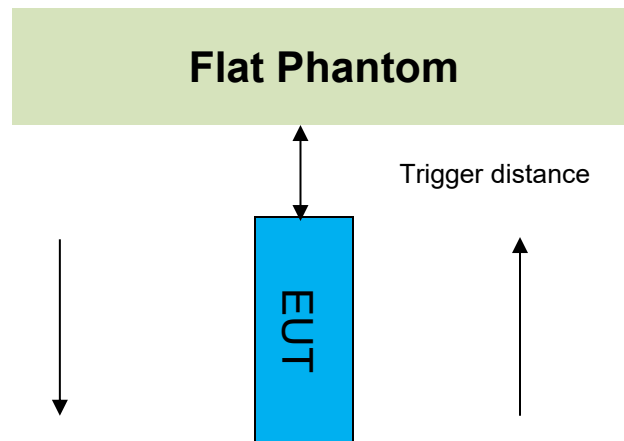
This device uses a single fixed level of power reduction through static table look-up for SAR compliance and it is triggered by a single event or operation:

- 1) The proximity sensor is used to indicate when the device is held close to a user's body exposure condition. It utilizes the proximity sensor to reduce the output power in specific wireless and operating modes WIFI 6G to ensure SAR compliance.

5.3.1 Proximity Sensor Triggering Test

1) Proximity sensor triggering distances

Proximity sensor triggering was applied to WIFI 6G. Proximity sensor triggering distance testing was performed in which the EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed.

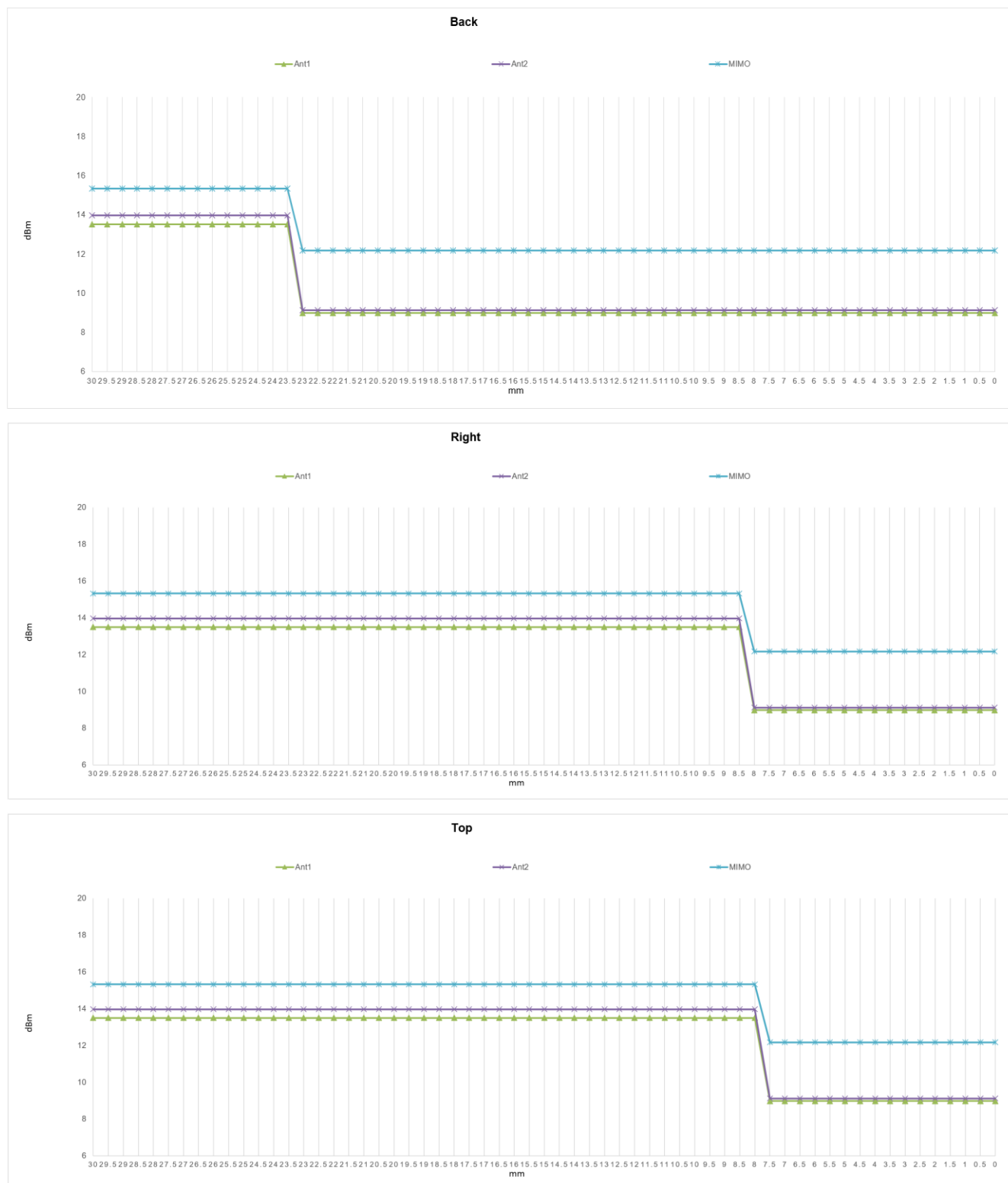


Proximity Sensor Triggering Distance(mm)					
Position	Back side	Top side	Bottom side	Left side	Right side
Minimum	23	7.5	-	-	8

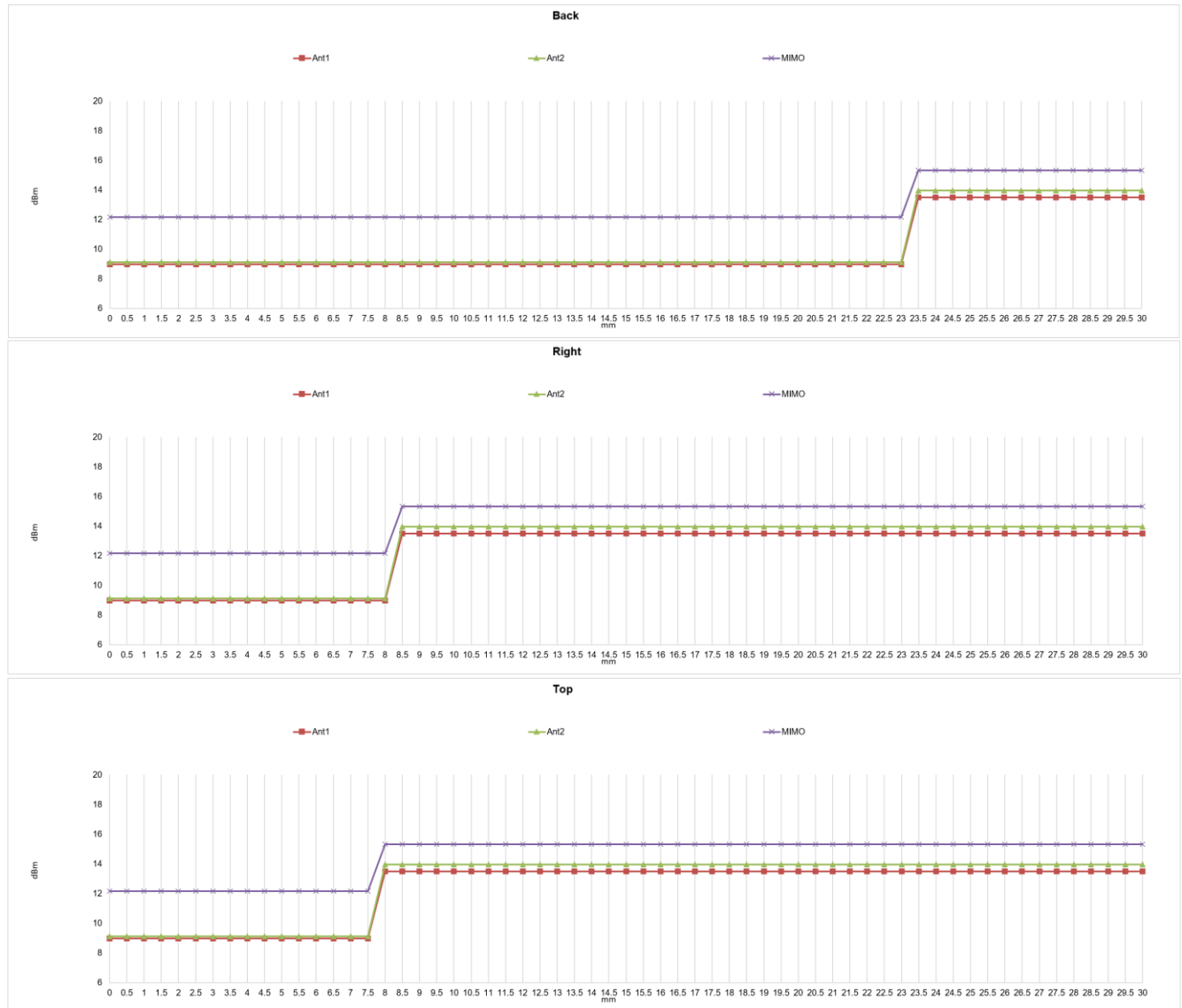
Note:

SAR tests with proximity sensor power reduction are only required for the sides of frequency bands in the table above. For the other sides or other frequency bands of the device, SAR is still tested at the maximum power level with sensor off.

● DUT Moving Toward (Trigger) the Phantom:



● DUT Moving Away (Release) from the Phantom:



2) Proximity sensor coverage

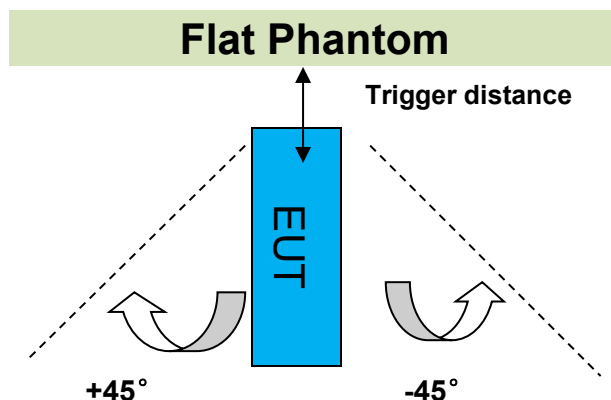
If a sensor is spatially offset from the antenna(s), it is necessary to verify sensor triggering for conditions where the antenna is next to the user but the sensor is laterally further away to ensure sensor coverage is sufficient for reducing the power to maintain compliance. For p-sensor coverage testing, the device is moved and “along the direction of maximum antenna and sensor offset”.

The proximity sensor and main antenna use same metallic electrode, so there is no spatial offset.

3) Device tilt angle influences to proximity sensor triggering

The influence of device tilt angles to proximity sensor triggering was determined by positioning each tablet edge that contains a transmitting antenna, perpendicular to the flat phantom.

Rotating the tablet around the edge next to the phantom in $\leq 10^\circ$ increments until the tablet is $\pm 45^\circ$ from the vertical position at 0° , and the maximum output power remains in the reduced mode.



The Sensor Triggering Distance(mm)		
Position	Right Edge	Top Edge
Minimum	8	7.5

Summary of Tablet Tilt Angle Influence to Proximity Sensor Triggering for Bottom Side												
Position	Minimum trigger distance at which power reduction was maintained over $\pm 45^\circ$	Power Reduction Status										
		-45°	-35°	-25°	-15°	-5°	0°	5°	15°	25°	35°	45°
Right Edge	8mm	on	on	on	on	on	on	on	on	on	on	on
Top Edge	7.5mm	on	on	on	on	on	on	on	on	on	on	on

6 RF Exposure Limits

Human Exposure	Uncontrolled Environment General Population (W/kg) or (mW/g)	Controlled Environment Occupational (W/kg) or (mW/g)
Spatial Peak SAR¹ (Brain/Trunk)	1.6	8.0
Spatial Average SAR² (Whole Body)	0.08	0.4
Spatial Peak SAR³ (Hands/Feet/Ankle/Wrist)	4.0	20.0

Note:

1, The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

2, The Spatial Average value of the SAR averaged over the whole body.

3, The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The 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.

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). 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. The 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.

RF Exposure Limit for above 6GHz

Per §1.1310 (d)(3), the MPE limits are applied for frequencies above 6 GHz. Power Density is expressed in units of W/m² or mW/cm².

Peak Spatially Averaged Power Density was evaluated over a circular area of 4cm² per interim FCC Guidance for near-field power density evaluations per October 2018 TCB Workshop notes.

Human Exposure to Radiofrequency (RF) Radiation Limits		
Frequency Range (MHz)	Power Density (mW/cm ²)	Average Time (Minutes)
(A)Limits for Occupational/Controlled Environments		
1,500-100,000	5.0	6
(B)Limits for General Population/Uncontrolled Environments		
1,500-100,000	1.0	30

Note: 1.0 mW/cm² is 10.0 W/m².

7 Introduction

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.

7.1 SAR Definition

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

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

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

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

Where:

σ is the conductivity of the tissue material (S/m)

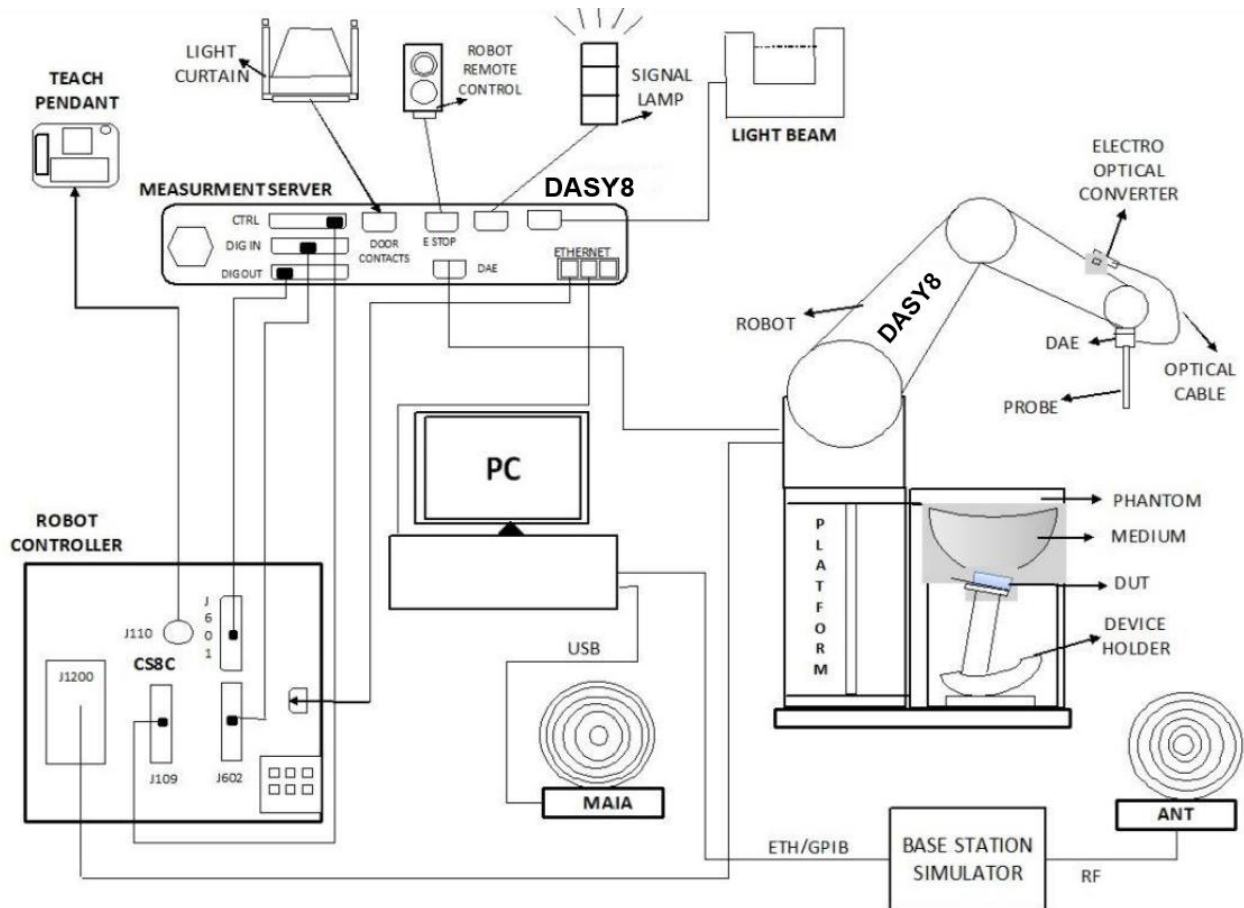
ρ is the mass density of the tissue material (kg/m³)

E is the RMS electrical field strength (V/m)

8 SAR Measurements System

8.1 The SAR Measurement Set-up

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (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.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Windows 11 and the DASY8 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

8.2 E-Field Probe

	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)
Calibration	ISO/IEC 17025 calibration service available.
Frequency	10 MHz to > 6 GHz Linearity: ± 0.2 dB (30 MHz to 6 GHz)
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)
Dynamic Range	10 μ W/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm

8.3 Data Acquisition Electronics (DAE)

	The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain switching multiplexer, a fast 16 bit AD-converter and a command decoder and 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. The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.
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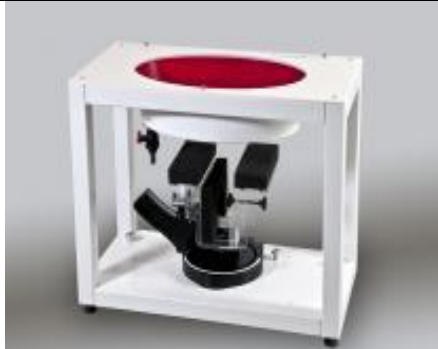
8.4 Phantom

SAM Twin Phantom:

Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2 ± 0.2 mm (6 ± 0.2 mm at ear point)	
Dimensions (incl. Wooden Support)	Length: 1000 mm Width: 500 mm Height: adjustable feet	
Filling Volume	Approx. 25 liters	
Wooden Support	SPEAG standard phantom table	

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. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

ELI Phantom:

Material	Vinylester, glass fiber reinforced (VE-GF)	
Shell Thickness	2.0 ± 0.2 mm (bottom plate)	
Dimensions	Major axis: 600 mm Minor axis: 400 mm	
Filling Volume	approx. 30 liters	
Wooden Support	SPEAG standard phantom table	
The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.		

8.5 Device Holder

The SAR measured in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5mm distance, a positioning uncertainty of $\pm 0.5\text{mm}$ would produce uncertainty in the SAR of $\pm 20\%$. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions at which the devices must be measured are defined by the standards. The DASY8 device holder along with the associated adaptors / options is designed to accommodate different types & sizes (laptops, tablets, phones) of test devices and yet provide accurate and repeatable positioning as described in the test standards.

The device holder is available in two configurations (see Figure 3.13.1): for hand held transmitters (mobile phones) – MD4HHTV5 – Mounting Device for Hand-Held Transmitters and for Body-Worn transmitters – MD4LAP5 – Mounting Device for laptops and other body worn transmitters.



(a) MD4HHTV5



(b) MD4LAPV5

Figure 3.13.1: Mounting Device for Hand-Held Devices and Laptop / Body-Worn Devices

8.6 Measurement procedure

8.6.1 Power reference measurement

The Power Reference Measurement and Power Drift Measurement jobs are useful jobs for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

8.6.2 Area scan

Measurement procedures for evaluating SAR from wireless handsets typically start with a coarse measurement grid to determine the approximate location of the local peak SAR values. This is known as the area-scan procedure. In addition, identify the positions of any local maxima with SAR values within 2 dB of the maximum value, and that will not be within the zoom scan of other peaks. Additional zoom scans shall be measured for such peaks only when the primary peak is within 2 dB of the SAR compliance limit.

Area scan parameters SAR measurement as below:

Parameter	DUT transmit frequency being tested	
	$f \leq 3 \text{ GHz}$	$3 \text{ GHz} < f \leq 10 \text{ GHz}$
Maximum distance between the measured points (geometric centre of the sensors) and the inner phantom surface (z_{M1} in Figure 20 in mm)	5 ± 1	$\delta \ln(2)/2 \pm 0,5^a$
Maximum spacing between adjacent measured points in mm (see O.8.3.1) ^b	20, or half of the corresponding zoom scan length, whichever is smaller	$60/f$, or half of the corresponding zoom scan length, whichever is smaller
Maximum angle between the probe axis and the phantom surface normal (α in Figure 20) ^c	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Tolerance in the probe angle	1°	1°
^a δ is the penetration depth for a plane-wave incident normally on a planar half-space. ^b See Clause O.8 on how Δx and Δy may be selected for individual area scan requirements. ^c The probe angle relative to the phantom surface normal is restricted due to the degradation in the measurement accuracy in fields with steep spatial gradients. The measurement accuracy decreases with increasing probe angle and increasing frequency. This is the reason for the tighter probe angle restriction at frequencies above 3 GHz.		

8.6.3 Zoom Scan

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1 g and 10 g and displays these values next to the job's label.

Zoom Scan parameters SAR measurement as below:

Parameter	DUT transmit frequency being tested	
	$f \leq 3 \text{ GHz}$	$3 \text{ GHz} < f \leq 10 \text{ GHz}$
Maximum distance between the closest measured points and the phantom surface (z_{M1} in Figure 20 and Table 3, in mm)	5	$\delta \ln(2)/2^a$
Maximum angle between the probe axis and the phantom surface normal (α in Figure 20)	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Maximum spacing between measured points in the x - and y -directions (Δx and Δy , in mm)	8	$24/f^b$
For uniform grids: Maximum spacing between measured points in the direction normal to the phantom shell (Δz_1 in Figure 20, in mm)	5	$10/(f - 1)$
For graded grids: Maximum spacing between the two closest measured points in the direction normal to the phantom shell (Δz_1 in Figure 20, in mm)	4	$12/f$
For graded grids: Maximum incremental increase in the spacing between measured points in the direction normal to the phantom shell ($R_z = \Delta z_2/\Delta z_1$ in Figure 20)	1,5	1,5
Minimum edge length of the zoom scan volume in the x - and y -directions (L_z in O.8.3.2, in mm)	30	22
Minimum edge length of the zoom scan volume in the direction normal to the phantom shell (L_h in O.8.3.2 in mm)	30	22
Tolerance in the probe angle	1°	1°
^a δ is the penetration depth for a plane-wave incident normally on a planar half-space.		
^b This is the maximum spacing allowed, which might not work for all circumstances.		

8.6.4 Power Drift Measurement

The Power Drift Measurement job measures the field at the same location as the most recent power reference measurement job within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. Several drift measurements are possible for one reference measurement. This allows a user to monitor the power drift of the device under test that must remain within a maximum variation of $\pm 5\%$. Detail power drift measurement refer to appendix B.

9 Test Equipment list

Manufacturer	Equipment Name	Model	Serial Number	Calibration Date	Due Date of calibration
SPEAG	ELI	ELI V8.0	2227	NCR	NCR
SPEAG	mmWave Phantom	mmWave	1121	NCR	NCR
SPEAG	EUmmWV Probe Tip Protection	EUmmWV4	9499	2024/12/06	2025/12/05
SPEAG	E-Field Probe	EX3DV4	7858	2025/02/20	2026/02/19
SPEAG	Data Acquisition Electronics	DAE4	1847	2024/12/31	2025/12/30
SPEAG	System Validation Kits	D6.5GHzV2	1096	2023/05/11	2026/05/10
SPEAG	5G Verification Source	10GHz	1075	2024/12/03	2025/12/02
SPEAG	Dielectric parameter probes	DAK3.5	1341	2025/07/14	2026/07/13
Agilent	Network Analyzer	E5071B	MY42302220	2025/03/11	2026/03/10
Talent Microwave	Directional Coupler	TC-05180-10S	220420003	NCR	NCR
R&S	Signal Generator	SMR20	100648	2025/03/11	2026/03/10
Qiji	Preamplifier	YX28982301	TOWE-EQ-SR-021	NCR	NCR
R&S	Power Sensor	NRP-Z21	101651	2025/03/11	2026/03/10
R&S	Power Sensor	NRP-Z21	104189	2025/03/11	2026/03/10
HiSiDiKe	Thermometer	TP300	TOWE-EQ-SR-023	2025/03/12	2026/03/11
BingYu	Temperature and Humidity Indicator	HTC-1	TOWE-EQ-SR-025	2025/06/04	2026/06/03

Note:

1. Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged or repaired during the interval.
2. The justification data of dipole can be found in Appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

10 SAR measurement variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. 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.

The following procedures are applied to determine if repeated measurements are required.

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 or 2 W/kg (1-g or 10-g respectively); steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is ≥ 0.80 or 2 W/kg (1-g or 10-g respectively), repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 or 3.6 W/kg ($\sim 10\%$ from the 1-g or 10-g respective SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 or 3.75 W/kg (1-g or 10-g respectively) and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20

11 Description of Test Position

11.1 Body exposure conditions

The overall diagonal dimension of the display section of a tablet is > 20 cm, Per FCC KDB 616217, the back surface and edges of the tablet should be tested for SAR compliance with the tablet touching the phantom. SAR evaluation for the front surface of tablet display screens is generally not necessary. The SAR Exclusion Threshold in KDB 447498 D04 can be applied to determine SAR test exclusion for adjacent edge configurations. The closest distance from the antenna to an adjacent tablet edge is used to determine if SAR testing is required for the adjacent edges, with the adjacent edge positioned against the phantom and the edge containing the antenna positioned perpendicular to the phantom.

12 System Verification

12.1 Tissue Verification

The Conductivity (σ) and Permittivity (ρ) are listed in bellow table. The temperature variation of the Tissue Simulate Liquids was $22\pm 2^{\circ}\text{C}$, the liquid depth of the ear reference point or the flat phantom was at least 15 cm (which is shown in Figure 12-1).

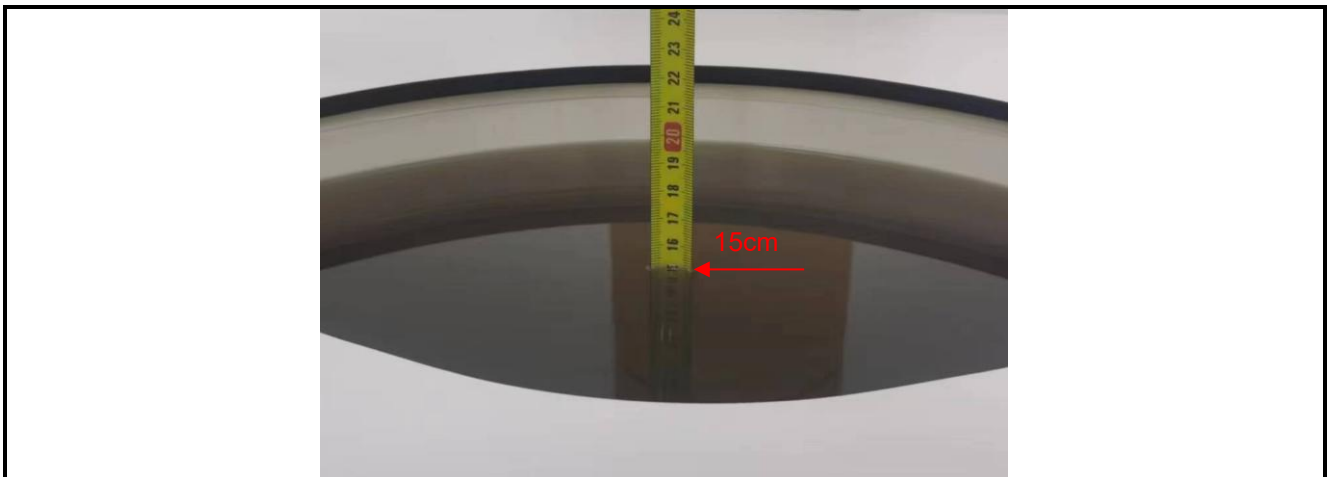


Figure 12-1 Liquid depth in the Flat Phantom

Frequency (MHz)	Tissue Type	Liquid Temp. ($^{\circ}\text{C}$)	Target Tissue		Measured Tissue		Deviation (Limit $\pm 5\%$)		Date
			Permittivity ϵ_r	Conductivity $\sigma(\text{S/m})$	Permittivity ϵ_r	Conductivity $\sigma(\text{S/m})$	$\Delta\epsilon_r$	$\Delta\sigma$	
6500	Head	21.8	34.50	6.07	34.500	6.110	0.00%	0.66%	2025/09/27

Table 2: Measurement Tissue Parameters

12.2 SAR System Check

Prior to SAR assessment, a SAR system Check measurement was performed to see if the measured SAR was within $\pm 10\%$ from the target SAR values. The System Performance Check Setup in Figure 12-3.

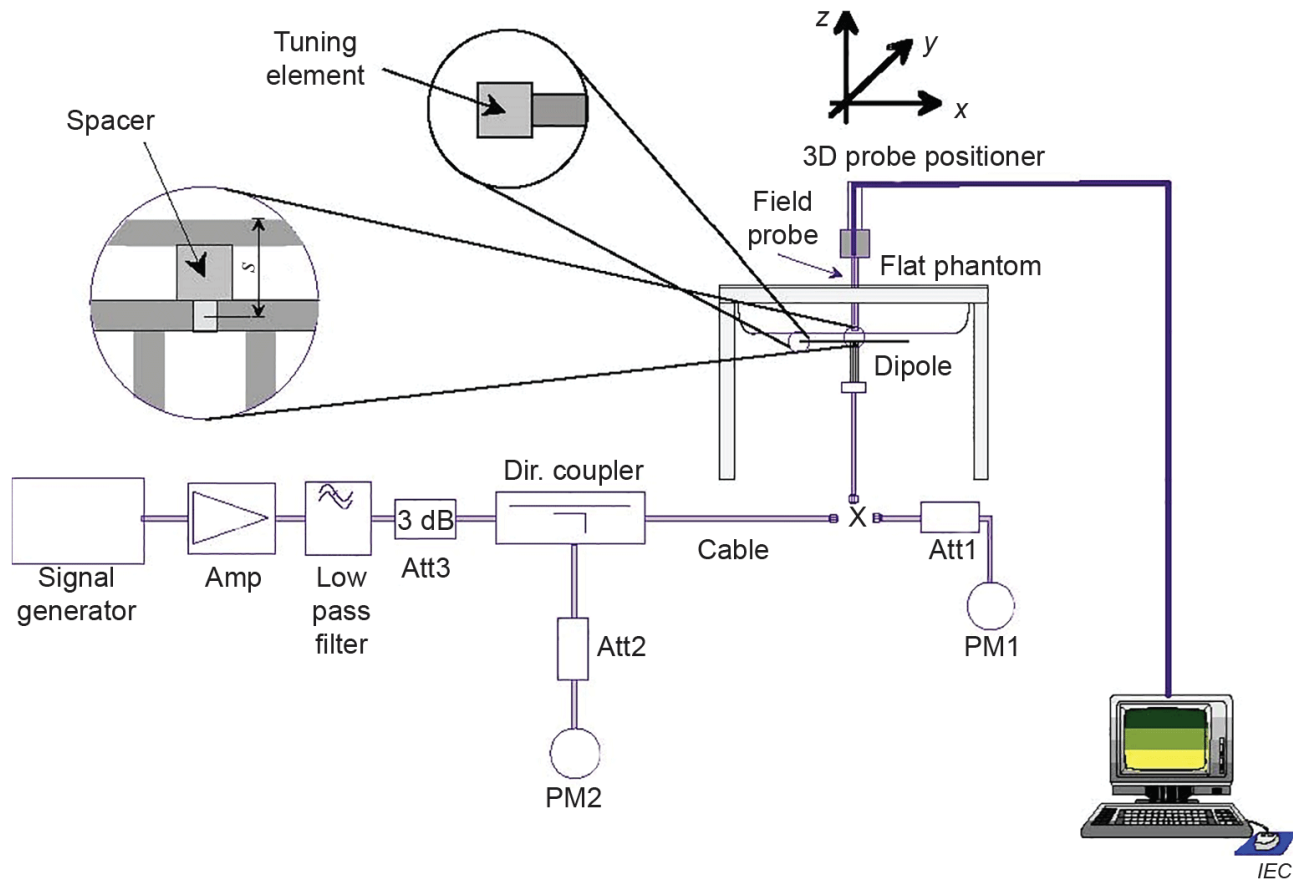


Figure 12-3 System Performance Check Setup

12.2.1 System Check Result

Frequency (MHz)	Tissue Type	Dipole	S/N	Target SAR (1W)		Measured SAR (100mW)		Measured SAR (normalized to 1W)		Deviation (Limit $\pm 10\%$)		Date
				1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	1g (W/kg)	10g (W/kg)	$\Delta 1g$	$\Delta 10g$	
6500	Head	D6.5GHzV2	1096	289.00	53.40	29.20	5.44	292.00	54.40	1.04%	1.87%	2025/09/27

Table 3: SAR System Check Result

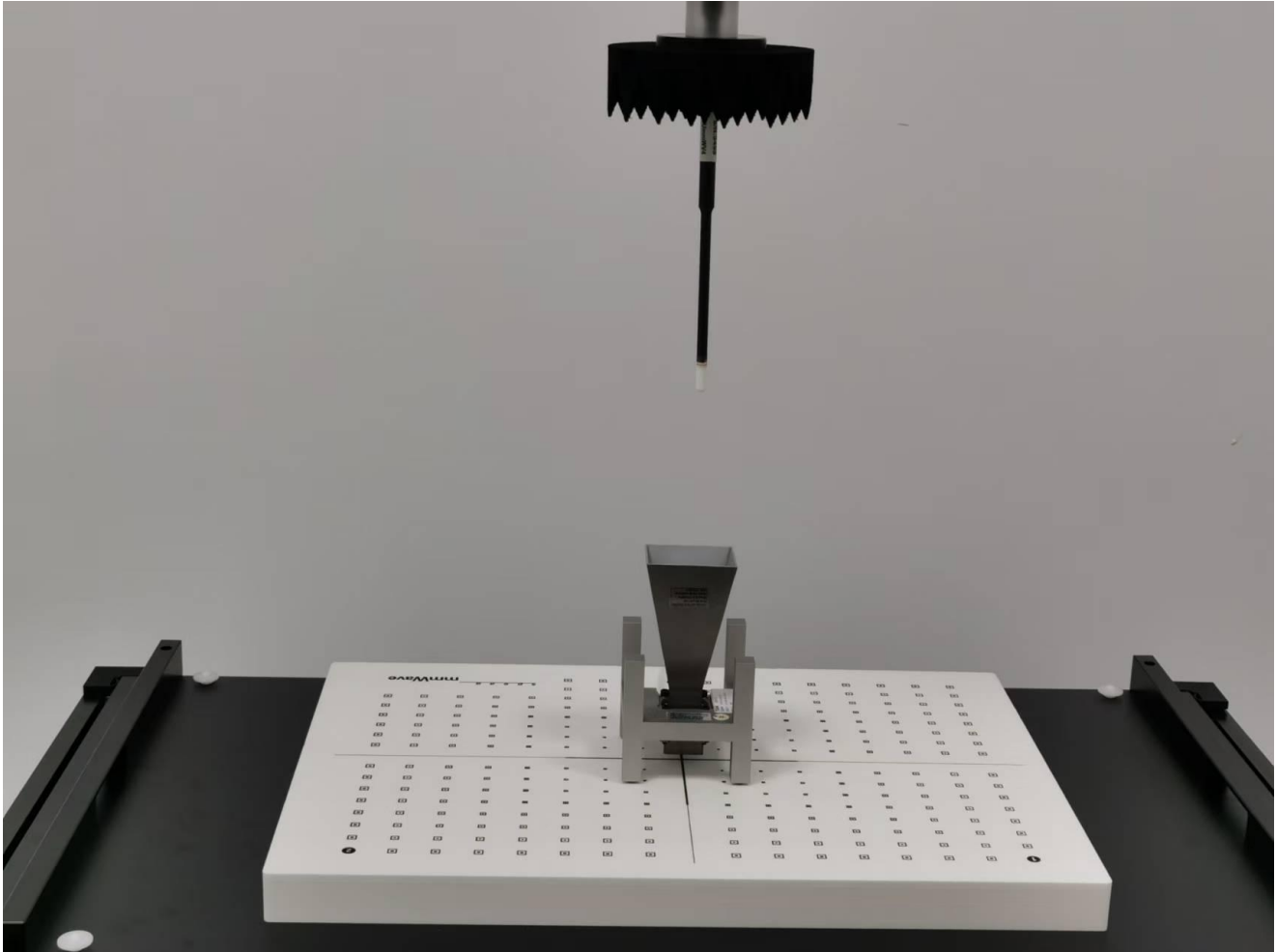
12.2.2 Detailed System Check Result

Please see Appendix A

12.3 PD System Verification

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 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.



System Verification Setup Photo

Frequency (GHz)	PD Verification Source	Distance (mm)	Measured 4cm ² (W/m ²)	Target 4cm ² (W/m ²)	Deviation (dB)	Measured Date
10G	10GHz_1075	10	56.50	56.70	-0.02	2025/10/15
10G	10GHz_1075	10	55.30	56.70	-0.11	2025/10/16

Detailed System Check Results Please see Appendix A.

13 Conducted Power

Note:

1. When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11ax/be mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
2. In applying the test guidance, the IEEE 802.11 mode with the maximum output power (out of all modes) should be considered for testing.
3. For modes with the same maximum output power, the guidance from section 5.3.2 a) of KDB 248227 D01 should be applied, with 802.11ax being considered as the highest 802.11 mode for the appropriate frequency bands.

WIFI 6E Sensor on				Ant1			Ant2			MIMO		
Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Average Power (dBm)	Tune up (dBm)	SAR Test	Average Power (dBm)	Tune up (dBm)	SAR Test	Average Power (dBm)	Tune up (dBm)	SAR Test
802.11ax 20	1	5955	MCS0	No Required	9.0	No	No Required	10.0	No	No Required	8.5	No
	93	6415			9.0	No		10.0	No		8.5	No
	113	6515			9.5	No		9.5	No		9.0	No
	149	6695			9.5	No		9.0	No		9.0	No
	229	7095			8.0	No		8.0	No		7.0	No
802.11ax 40	3	5965	MCS0	No Required	9.0	No	No Required	10.0	No	No Required	11.5	No
	43	6165			9.0	No		10.0	No		11.5	No
	99	6445			9.5	No		9.5	No		12.0	No
	179	6845			9.5	No		10.5	No		12.5	No
	227	7085			9.5	No		9.5	No		10.0	No
802.11ax 80	7	5985	MCS0	No Required	9.0	No	No Required	10.0	No	No Required	13.0	No
	87	6385			9.0	No		10.0	No		13.0	No
	103	6465			9.5	No		9.5	No		13.0	No
	167	6785			9.5	No		11.0	No		13.0	No
	215	7025			9.5	No		9.5	No		13.0	No
802.11ax 160	47	6185	MCS0	8.45	9.5	Yes	9.28	10.0	Yes	11.17	13.0	Yes
	79	6345		8.41	9.5	Yes	9.24	10.0	Yes	11.52	13.0	Yes
	111	6505		8.63	9.5	Yes	9.60	10.0	Yes	12.06	13.0	Yes
	143	6665		9.06	9.5	Yes	10.49	11.0	Yes	12.14	13.0	Yes
	207	6985		8.98	9.5	Yes	9.12	9.5	Yes	12.17	13.0	Yes

WIFI 6E Sensor off				Ant1			Ant2			MIMO		
Mode	Channel	Frequency (MHz)	Data Rate (Mbps)	Average Power (dBm)	Tune up (dBm)	SAR Test	Average Power (dBm)	Tune up (dBm)	SAR Test	Average Power (dBm)	Tune up (dBm)	SAR Test
802.11ax 20	1	5955	MCS0	No Required	9.00	No	No Required	10.00	No	No Required	8.50	No
	93	6415			9.00	No		10.00	No		8.50	No
	113	6515			10.00	No		9.50	No		9.00	No
	149	6695			10.00	No		9.00	No		9.00	No
	229	7095			8.00	No		8.00	No		7.00	No
802.11ax 40	3	5965	MCS0	No Required	11.50	No	No Required	11.50	No	No Required	11.50	No
	43	6165			11.50	No		11.50	No		11.50	No
	99	6445			10.50	No		9.50	No		12.00	No
	179	6845			13.00	No		12.50	No		12.50	No
	227	7085			10.00	No		10.00	No		10.00	No
802.11ax 80	7	5985	MCS0	No Required	12.50	No	No Required	12.50	No	No Required	14.50	No
	87	6385			12.50	No		12.50	No		14.50	No
	103	6465			12.50	No		13.00	No		15.00	No
	167	6785			13.00	No		13.50	No		15.00	No
	215	7025			13.50	No		13.50	No		13.00	No
802.11ax 160	47	6185	MCS0	10.88	12.50	No	11.00	12.50	No	13.95	15.50	No
	79	6345		11.68	12.50	No	10.58	12.50	No	14.77	15.50	No
	111	6505		11.35	13.00	No	11.31	13.00	No	14.34	16.00	No
	143	6665		12.31	13.00	No	13.06	13.50	No	15.71	16.00	Yes
	207	6985		13.50	14.00	Yes	13.97	14.50	Yes	15.32	16.00	No

14 SAR Data Summary

General Notes:

- 1) The Highest Reported SAR Plot refer to Appendix B.
- 2) Per KDB 447498 D01, testing of other required channels within the operating mode of a frequency band is not required when the reported 1g or 10g SAR for the mid-band or highest output power channel is:
 - $\leq 0.8\text{W/kg}$ for 1g or 2.0W/kg for 10g respectively, when the transmission band is $\leq 100\text{MHz}$.
 - $\leq 0.6\text{ W/kg}$ or 1.5 W/kg , for 1g or 10g respectively, when the transmission band is between 100 MHz and 200MHz.
 - $\leq 0.4\text{ W/kg}$ or 1.0 W/kg , for 1g or 10g respectively, when the transmission band is $\geq 200\text{MHz}$.

For WIFI 6G:

- 1) Absorbed power density (APD) using a 4cm^2 averaging area is reported based on SAR measurements.
- 2) Per FCC guidance and equipment manufacturer guidance, the power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty $> 30\%$. Total expanded uncertainty of 2.67 dB (84.93%) was used to determine the psPD measurement scaling factor.
- 3) Per April 2021 TCB Workshop, For the highest SAR test configurations also measure incident PD (total) using power-density reconstruction method in 2 mm closest measurement plane.
- 4) IPD is measured for all edges and surfaces of the device with a transmitting antenna located within 25 mm from that surface or edge.
- 5) The measurement procedure consists of measuring the PDinc at two different distances: 2 mm (compliance distance) and $\lambda/5$. The grid extents should be large enough to fully capture the transmitted energy. The grid step should be fine enough to demonstrate that the integrated Power Density iPDn fulfil the criterion described below. Since iPD ratio between the two distances is $\geq -1\text{dB}$, the grid step (0.0625) was sufficient for determining compliance at $d=2\text{mm}$.

$$10 \cdot \log_{10} \frac{iPD_n(2\text{mm})}{iPD_n(\lambda/5)} \geq -1$$

14.1 SAR Measurement Result of WIFI 6G

Ant1 Test Results											
Test position	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)	Measured APD (W/m ²)	Reported APD (W/m ²)
Body 0mm (sensor on)											
Back side	802.11ax160	143/6665	0.334	100.00%	1.000	9.06	9.5	1.107	0.370	1.670	1.848
Right side	802.11ax160	143/6665	0.544	100.00%	1.000	9.06	9.5	1.107	0.602	3.640	4.028
Top side	802.11ax160	143/6665	0.036	100.00%	1.000	9.06	9.5	1.107	0.040	0.271	0.300
Right side	802.11ax160	47/6185	0.456	100.00%	1.000	8.45	9.5	1.274	0.581	2.750	3.502
Right side	802.11ax160	79/6345	0.548	100.00%	1.000	8.41	9.5	1.285	0.704	3.350	4.306
Right side	802.11ax160	111/6505	0.545	100.00%	1.000	8.63	9.5	1.222	0.666	3.280	4.008
Right side	802.11ax160	207/6985	0.542	100.00%	1.000	8.98	9.5	1.127	0.611	3.980	4.486
Body (sensor off)											
Back side 7mm	802.11ax160	207/6985	0.330	100.00%	1.000	13.50	14.0	1.122	0.370	2.340	2.626
Right side 6.5mm	802.11ax160	207/6985	0.541	100.00%	1.000	13.50	14.0	1.122	0.607	3.920	4.398
Top side 22mm	802.11ax160	207/6985	0.035	100.00%	1.000	13.50	14.0	1.122	0.039	0.017	0.019
Ant2 Test Results											
Test position	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)	Measured APD (W/m ²)	Reported APD (W/m ²)
Body 0mm (sensor on)											
Back side	802.11ax160	143/6665	0.489	100.00%	1.000	10.49	11.0	1.125	0.550	2.500	2.812
Right side	802.11ax160	143/6665	0.659	100.00%	1.000	10.49	11.0	1.125	0.741	3.980	4.476
Right side	802.11ax160	47/6185	0.400	100.00%	1.000	9.28	10.0	1.180	0.472	2.460	2.904
Right side	802.11ax160	79/6345	0.340	100.00%	1.000	9.24	10.0	1.191	0.405	2.110	2.514
Right side	802.11ax160	111/6505	0.819	100.00%	1.000	9.60	10.0	1.096	0.898	4.930	5.406
Right side Repeated	802.11ax160	111/6505	0.812	100.00%	1.000	9.60	10.0	1.096	0.890	4.930	5.406
Right side	802.11ax160	207/6985	0.649	100.00%	1.000	9.12	9.5	1.091	0.708	3.880	4.235
Body (sensor off)											
Back side 7mm	802.11ax160	207/6985	0.256	100.00%	1.000	13.97	14.5	1.130	0.289	1.630	1.842
Right side 6.5mm	802.11ax160	207/6985	0.498	100.00%	1.000	13.97	14.5	1.130	0.563	3.630	4.101
MIMO Test Results											
Test position	Mode	Ch./Freq. (MHz)	SAR (W/kg) 1g	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Reported 1g SAR (W/kg)	Measured APD (W/m ²)	Reported APD (W/m ²)
Body 0mm (sensor on)											
Back side	802.11ax160	207/6985	0.413	100.00%	1.000	12.17	13.0	1.211	0.500	2.050	2.482
Right side	802.11ax160	207/6985	0.596	100.00%	1.000	12.17	13.0	1.211	0.722	4.110	4.976
Top side	802.11ax160	207/6985	0.055	100.00%	1.000	12.17	13.0	1.211	0.067	0.440	0.533
Right side	802.11ax160	47/6185	0.600	100.00%	1.000	11.17	13.0	1.524	0.914	3.650	5.563
Right side	802.11ax160	79/6345	0.574	100.00%	1.000	11.52	13.0	1.406	0.807	3.430	4.823
Right side	802.11ax160	111/6505	0.581	100.00%	1.000	12.06	13.0	1.242	0.721	3.450	4.284
Right side	802.11ax160	143/6665	0.647	100.00%	1.000	12.14	13.0	1.219	0.789	3.830	4.669
Body (sensor off)											
Back side 7mm	802.11ax160	143/6665	0.217	100.00%	1.000	15.71	16.0	1.069	0.232	1.490	1.593
Right side 6.5mm	802.11ax160	143/6665	0.532	100.00%	1.000	15.71	16.0	1.069	0.569	4.000	4.276
Top side 22mm	802.11ax160	143/6665	0.035	100.00%	1.000	15.71	16.0	1.069	0.037	0.009	0.010

Table 4: SAR of WIFI 6G.

Test Position	Channel/ Frequency	Measured SAR (1g)	1 st Repeated	Ratio	2 nd Repeated	3 rd Repeated
	(MHz)		SAR (1g)		SAR (1g)	SAR (1g)
Right side (Ant2)	111/6505	0.819	0.812	1.009	N/A	N/A

Note: 1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.

2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).

3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg

14.2 PD Measurement Result of WIFI 6G

Test position	Mode	Ch./Freq. (MHz)	Gap (mm)	Grid Step (λ)	Conducted Power(dBm)	Tune up Limit(dBm)	iPDn	iPD ratio (≥ -1)	Normal psPD (W/m ²)	Total psPD (W/m ²)
Back side	802.11ax160	143/6665	2.00	0.0625	9.06	9.50	36.8	-0.625	3.400	4.760
Back side	802.11ax160	143/6665	9.00	0.125	9.06	9.50	42.5		3.010	3.170

Ant1 Test Results														
Test position	Mode	Ch./Freq. (MHz)	Gap (mm)	Grid Step (λ)	Normal psPD (W/m^2)	Total psPD (W/m^2)	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Scaling Factor for Measurement Uncertainty	Reported Normal psPD (W/m^2)	Reported Total psPD (W/m^2)
Back side	802.11ax160	143/6665	2.00	0.0625	3.400	4.760	100.00%	1.000	9.06	9.50	1.107	1.5493	5.829	8.161
Left side	802.11ax160	143/6665	2.00	0.0625	0.080	0.140	100.00%	1.000	9.06	9.50	1.107	1.5493	0.137	0.240
Right side	802.11ax160	143/6665	2.00	0.0625	2.520	4.380	100.00%	1.000	9.06	9.50	1.107	1.5493	4.321	7.509
Top side	802.11ax160	143/6665	2.00	0.0625	2.330	2.960	100.00%	1.000	9.06	9.50	1.107	1.5493	3.995	5.075
Bottom side	802.11ax160	143/6665	2.00	0.0625	1.510	2.190	100.00%	1.000	9.06	9.50	1.107	1.5493	2.589	3.755
Right side	802.11ax160	47/6185	2.00	0.0625	2.400	4.450	100.00%	1.000	8.45	9.50	1.274	1.5493	4.735	8.780
Right side	802.11ax160	79/6345	2.00	0.0625	2.500	4.520	100.00%	1.000	8.41	9.50	1.285	1.5493	4.978	9.001
Right side	802.11ax160	111/6505	2.00	0.0625	2.030	3.520	100.00%	1.000	8.63	9.50	1.222	1.5493	3.843	6.663
Right side	802.11ax160	207/6985	2.00	0.0625	2.960	4.820	100.00%	1.000	8.98	9.50	1.127	1.5493	5.169	8.417
Ant2 Test Results														
Test position	Mode	Ch./Freq. (MHz)	Gap (mm)	Grid Step (λ)	Normal psPD (W/m^2)	Total psPD (W/m^2)	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Scaling Factor for Measurement Uncertainty	Reported Normal psPD (W/m^2)	Reported Total psPD (W/m^2)
Back side	802.11ax160	143/6665	2.00	0.0625	3.750	4.500	100.00%	1.000	10.49	11.0	1.125	1.5493	6.534	7.841
Left side	802.11ax160	143/6665	2.00	0.0625	0.070	0.130	100.00%	1.000	10.49	11.0	1.125	1.5493	0.122	0.227
Right side	802.11ax160	143/6665	2.00	0.0625	2.520	4.020	100.00%	1.000	10.49	11.0	1.125	1.5493	4.391	7.004
Top side	802.11ax160	143/6665	2.00	0.0625	1.680	1.910	100.00%	1.000	10.49	11.0	1.125	1.5493	2.927	3.328
Bottom side	802.11ax160	143/6665	2.00	0.0625	1.520	1.980	100.00%	1.000	10.49	11.0	1.125	1.5493	2.648	3.450
Right side	802.11ax160	47/6185	2.00	0.0625	3.350	3.810	100.00%	1.000	9.28	10.0	1.180	1.5493	6.126	6.967
Right side	802.11ax160	79/6345	2.00	0.0625	3.360	3.920	100.00%	1.000	9.24	10.0	1.191	1.5493	6.201	7.235
Right side	802.11ax160	111/6505	2.00	0.0625	4.450	5.670	100.00%	1.000	9.60	10.0	1.096	1.5493	7.560	9.632
Right side	802.11ax160	207/6985	2.00	0.0625	2.560	4.050	100.00%	1.000	9.12	9.5	1.091	1.5493	4.329	6.848
MIMO Test Results														
Test position	Mode	Ch./Freq. (MHz)	Gap (mm)	Grid Step (λ)	Normal psPD (W/m^2)	Total psPD (W/m^2)	Duty Cycle	Duty Cycle Scaling Factor	Conducted Power (dBm)	Tune up Limit (dBm)	Scaling Factor	Scaling Factor for Measurement Uncertainty	Reported Normal psPD (W/m^2)	Reported Total psPD (W/m^2)
Back side	802.11ax160	207/6985	2.00	0.0625	4.170	5.160	100.00%	1.000	12.17	13.0	1.211	1.5493	7.821	9.678
Left side	802.11ax160	207/6985	2.00	0.0625	0.060	0.011	100.00%	1.000	12.17	13.0	1.211	1.5493	0.113	0.021
Right side	802.11ax160	207/6985	2.00	0.0625	2.695	4.640	100.00%	1.000	12.17	13.0	1.211	1.5493	5.055	8.703
Top side	802.11ax160	207/6985	2.00	0.0625	1.970	2.730	100.00%	1.000	12.17	13.0	1.211	1.5493	3.695	5.120
Bottom side	802.11ax160	207/6985	2.00	0.0625	1.640	1.890	100.00%	1.000	12.17	13.0	1.211	1.5493	3.076	3.545
Right side	802.11ax160	47/6185	2.00	0.0625	2.390	4.110	100.00%	1.000	11.17	13.0	1.524	1.5493	5.643	9.705
Right side	802.11ax160	79/6345	2.00	0.0625	2.530	4.480	100.00%	1.000	11.52	13.0	1.406	1.5493	5.511	9.759
Right side	802.11ax160	111/6505	2.00	0.0625	3.530	4.960	100.00%	1.000	12.06	13.0	1.242	1.5493	6.791	9.542
Right side	802.11ax160	143/6665	2.00	0.0625	2.490	4.270	100.00%	1.000	12.14	13.0	1.219	1.5493	4.703	8.064

Table 5: PD of WIFI 6G.

15 Measurement Uncertainty

The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$.

Input quantity X_i (source of uncertainty)	Unc. ($\pm$)	Prob. Dist. PDF _i	Unc. $a(x_i)$	C_i (1g)	C_i (10g)	U_i (1g) (%)	U_i (10g) (%)
Measurement system errors							
Probe calibration	18.6	N ($k = 2$)	2	1	1	9.3	9.3
Probe calibration drift	1.7	R	$\sqrt{3}$	1	1	1.0	1.0
Probe linearity and detection limit	0.9	R	$\sqrt{3}$	1	1	0.5	0.5
Broadband signal	0.5	R	$\sqrt{3}$	1	1	0.3	0.3
Probe isotropy	3.2	R	$\sqrt{3}$	1	1	1.8	1.8
Other probe and data acquisition errors	0.6	N	1	1	1	0.6	0.6
RF ambient and noise	3.0	R	$\sqrt{3}$	1	1	1.7	1.7
Probe positioning errors	0.5	N	1	0.33	0.33	0.2	0.2
Data processing errors	4.0	R	$\sqrt{3}$	1	1	2.3	2.3
Phantom and device (DUT or validation antenna) errors							
Measurement of phantom conductivity(σ)	2.5	N	1	0.78	0.71	2.0	1.8
Temperature effects (medium)	2.7	R	$\sqrt{3}$	0.78	0.71	1.2	1.1
Shell permittivity	14.0	R	$\sqrt{3}$	0.5	0.5	4.0	4.0
Distance between the radiating element of the DUT and the phantom medium	2.0	N	1	2	2	4.0	4.0
Repeatability of positioning the DUT or source against the phantom	2.9	N	1	1	1	2.9	2.9
Device holder effects	3.6	N	1	1	1	3.6	3.6
Effect of operating mode on probe sensitivity	2.4	R	$\sqrt{3}$	1	1	1.4	1.4
Time-average SAR	0.0	R	$\sqrt{3}$	1	1	0.0	0.0
Variation in SAR due to drift in output of DUT	2.5	N	1	1	1	2.5	2.5
Validation antenna uncertainty (validation measurement only)	0.0	N	1	1	1	0.0	0.0
Uncertainty in accepted power (validation measurement only)	0.0	N	1	1	1	0.0	0.0
Corrections to the SAR result (if applied)							
Phantom deviation from target (ϵ', σ)	1.9	N	1	1	0.84	1.9	1.6
SAR scaling	0.0	R	$\sqrt{3}$	1	1	0.0	0.0
Combined uncertainty	\					14.30	14.20
Expanded uncertainty and effective degrees of freedom ($k = 2$)	\					28.59	28.39

Applicable for Power Density Measurements						
a	b	c	d	e	f=b*e/d	g
Error Description	Uncertainty Value (±dB)	Probability	Div.	Ci	Standard Uncertainty (±dB)	Vi (Veff)
Uncertainty terms dependent on the measurement system						
Probe Calibration	0.49	N	1	1	0.49	∞
Probe correction	0.00	R	1.732	1	0.00	∞
Frequency response (BW ≤1 GHz)	0.20	R	1.732	1	0.12	∞
Sensor cross coupling	0.00	R	1.732	1	0.00	∞
Isotropy	0.50	R	1.732	1	0.29	∞
Linearity	0.20	R	1.732	1	0.12	∞
Probe scattering	0.00	R	1.732	1	0.00	∞
Probe positioning offset	0.30	R	1.732	1	0.17	∞
Probe positioning repeatability	0.04	R	1.732	1	0.02	∞
Sensor mechanical offset	0.00	R	1.732	1	0.00	∞
Probe spatial resolution	0.00	R	1.732	1	0.00	∞
Field impedance dependance	0.00	R	1.732	1	0.00	∞
Amplitude and phase drift	0.00	R	1.732	1	0.00	∞
Amplitude and phase noise	0.04	R	1.732	1	0.02	∞
Measurement area truncation	0.00	R	1.732	1	0.00	∞
Data acquisition	0.03	N	1	1	0.03	∞
Sampling	0.00	R	1.732	1	0.00	∞
Field reconstruction	2.00	R	1.732	1	1.15	∞
Forward transformation	0.00	R	1.732	1	0.00	∞
Power density scaling	0.00	R	1.732	1	0.00	∞
Spatial averaging	0.10	R	1.732	1	0.06	∞
System detection limit	0.04	R	1.732	1	0.02	∞
Uncertainty terms dependent on the DUT and environmental factors						
Probe coupling with DUT	0.00	R	1.732	1	0.00	∞
Modulation response	0.40	R	1.732	1	0.23	∞
Integration time	0.00	R	1.732	1	0.00	∞
Response time	0.00	R	1.732	1	0.00	∞
Device holder influence	0.10	R	1.732	1	0.06	∞
DUT alignment	0.00	R	1.732	1	0.00	∞
RF ambient conditions	0.04	R	1.732	1	0.02	∞
Ambient reflections	0.04	R	1.732	1	0.02	∞
Immunity / secondary reception	0.00	R	1.732	1	0.00	∞
Drift of the DUT		R	1.732	1	0.00	∞
Combined Std. Uncertainty					1.33	
Expanded STD Uncertainty (95%), K=2					2.67	

16 Calibration Certificate

Please see the Appendix C

17 Test Setup Photos

Please see the Appendix D

Appendix A: System Check Plots

Appendix B: SAR Test Plots

Appendix C: Calibration certificate

Appendix D: Test Setup Photos

--- The End ---
