TEST REPORT

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1. Client

- Name : Samsung Electronics Co., Ltd.
- Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
- Date of Receipt : 2024-12-10

2. Use of Report : Certification

3. Name of Product and Model : Tablet PC

- Model Name : SM-X358U
- Manufacturer and Country of Origin : Samsung Electronics Co., Ltd. / Vietnam

4. FCC ID : A3LSMX358U

5. Date of Test : 2025-02-28 ~ 2025-03-27

6. Location of Test : ■ Permanent Testing Lab ☐ On Site Testing
(Address: 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea)

7. Test Standards : IEEE 1528-2013, ANSI/IEEE C95.1, KDB Publication

8. Test Results : Refer to the test result in the test report

Affirmation	Tested by	Technical Manager
	Name : Mungi Jeong (Signature)	Name : Hosik Sim (Signature)

2025-04-04

Eurofins KCTL Co.,Ltd.

REPORT REVISION HISTORY

Date	Revision	Page No
2025-03-25	Originally issued	-
2025-03-31	Retested U-NII-7 Max -Date of Test -Conducted Power table -System Verification -SAR and Power Density Test Results -Test Equipment Information -SAR and Power Density System Plot -EX3DV4_7770 Probe Calibration certificate	- 1 16 17~20 21~22 26 28, 32 37~58
2025-04-04	Updated Maximum exemption output Power	10

Note: The Report No. KR25-SPF0016-A is superseded by the report No. KR25-SPF0016-B

General remarks for test reports

Statement concerning the uncertainty of the measurement systems used for the tests

(may be required by the product standard or client)

☐ **Internal procedure used for type testing through which traceability of the measuring uncertainty has been established:**

Procedure number, issue date and title:
Calculations leading to the reported values are on file with the testing laboratory that conducted the testing.

☒ **Statement not required by the standard or client used for type testing**

1. Identification when information is provided by the customer: Information marked " # " is provided by the customer. - Disclaimer: This information is provided by the customer and can affect the validity of results.

CONTENTS

1. General information

Client	:	Samsung Electronics Co., Ltd.
Address	:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Manufacturer	:	Samsung Electronics Co., Ltd.
Address	:	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Rep. of Korea
Laboratory	:	Eurofins KCTL Co.,Ltd.
Address	:	65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea
Accreditations	:	FCC Site Designation No: KR0040, FCC Site Registration No: 687132 VCCI Registration No. : R-3327, G-198, C-3706, T-1849 CAB Identifier: KR0040, ISED Number: 8035A KOLAS No.: KT231

1.1 Report Overview

This report details the results of testing carried out on the samples listed in section 2, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this test report is used in any configuration other than that detailed in the test report, the manufacturer must ensure the new configuration complies with all relevant standards and certification requirements. Any mention of Eurofins KCTL Co.,Ltd. Wireless lab or testing done by Eurofins KCTL Co.,Ltd. Wireless lab made in connection with the distribution or use of the tested product must be approved in writing by Eurofins KCTL Co.,Ltd. Wireless lab.

2. Device information

2.1 Basic description

Product	Name	Tablet PC		
	Model Number	SM-X358U		
	Manufacturer	Samsung Electronics Co., Ltd.		
Host Product Serial Number	Radiation	R32Y100268R, R32Y100297N		
	Conduction	R32Y10023WK		
Mode of Operation		WLAN 802.11a,ax		
Device Overview		Band & Mode	Operating Modes	Tx Frequency (㎒)
		U-NII-5	Data	5 935.0 ~ 6 415.0
		U-NII-6	Data	6 435.0 ~ 6 515.0
		U-NII-7	Data	6 535.0 ~ 6 875.0
		U-NII-8	Data	6 895.0 ~ 7 115.0

2.2 Summary of SAR Test Results

Band	Equipment Class	Highest Reported (Body)		
		SAR		PD
		SAR	APD	
		1g (W/kg)	4cm^2 (W/m^2)	4cm^2 (W/m^2)
WLAN 6 ㎓	6CD/6VL	0.41	1.58	1.13

2.3 #Antenna information

Antenna Type		LDS Antenna			
Band		UNII-5	UNII-6	UNII-7	UNII-8
Peak gain (dBi)	Ant.1	-4.40	-4.20	-4.20	-4.50
	Ant.2	-4.30	-4.60	-4.70	-4.70

2.4 Power Reduction for SAR

This device utilizes a power reduction mechanism for wireless modes and bands for SAR compliance under some conditions when the device is being used in close proximity to the user's hand. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device when being used in Tablet use conditions. Detailed descriptions of the power reduction mechanism are included in the operational description.

2.5 #Maximum Tune-up power

This device operates using the following maximum output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 447498 D04v01.

2.5.1 #Maximum WLAN Output Power

The WLAN 6 GHz band is supports only MIMO antenna.

2.5.1.1 #Maximum WLAN Output Power (Max)

Mode	Band	SISO (Not supported)						MIMO (Ant.1+Ant.2)					
		a	b	g	n	ac	ax	a	b	g	n	ac	ax
6 GHz (20 MHz)_SP	U-NII-5							14					14
	U-NII-7							14					14
6 GHz (40 MHz)_SP	U-NII-5												14
	U-NII-7												14
6 GHz (80 MHz)_SP	U-NII-5												14
	U-NII-7												14
6 GHz (160 MHz)_SP	U-NII-5												14
	U-NII-7												14
6 GHz (20 MHz)_LPI	U-NII-5							9					9
	U-NII-6							9					9
	U-NII-7							9					9
	U-NII-8							9					9
6 GHz (40 MHz)_LPI	U-NII-5												9
	U-NII-6												9
	U-NII-7												9
	U-NII-8												9
6 GHz (80 MHz)_LPI	U-NII-5												12
	U-NII-6												12
	U-NII-7												12
	U-NII-8												12
6 GHz (160 MHz)_LPI	U-NII-5												12
	U-NII-6												12
	U-NII-7												12
	U-NII-8												12
6 GHz (20 MHz)_VLP	U-NII-5							4					5
	U-NII-7							4					5
6 GHz (40 MHz)_VLP	U-NII-5												8
	U-NII-7												8
6 GHz (80 MHz)_VLP	U-NII-5												10
	U-NII-7												10
6 GHz (160 MHz)_VLP	U-NII-5												10
	U-NII-7												10

2.5.1.2 #Maximum WLAN Output Power (Back off-Grip Sensor)

Mode	Band	SISO (Not supported)						MIMO (Ant.1+Ant.2)					
		a	b	g	n	ac	ax	a	b	g	n	ac	ax
6 GHz (20 MHz)_SP	U-NII-5							10					10
	U-NII-7							10					10
6 GHz (40 MHz)_SP	U-NII-5												10
	U-NII-7												10
6 GHz (80 MHz)_SP	U-NII-5												10
	U-NII-7												10
6 GHz (160 MHz)_SP	U-NII-5												10
	U-NII-7												10
6 GHz (20 MHz)_LPI	U-NII-5							9					9
	U-NII-6							9					9
	U-NII-7							9					9
	U-NII-8							9					9
6 GHz (40 MHz)_LPI	U-NII-5												9
	U-NII-6												9
	U-NII-7												9
	U-NII-8												9
6 GHz (80 MHz)_LPI	U-NII-5												10
	U-NII-6												10
	U-NII-7												10
	U-NII-8												10
6 GHz (160 MHz)_LPI	U-NII-5												10
	U-NII-6												10
	U-NII-7												10
	U-NII-8												10
6 GHz (20 MHz)_VLP	U-NII-5							4					5
	U-NII-7							4					5
6 GHz (40 MHz)_VLP	U-NII-5												8
	U-NII-7												8
6 GHz (80 MHz)_VLP	U-NII-5												10
	U-NII-7												10
6 GHz (160 MHz)_VLP	U-NII-5												10
	U-NII-7												10

2.6 SAR Test Configurations

2.6.1 #DUT Antenna Locations

A diagram showing the location of the device antennas can be found in Appendix C.

2.6.2 SAR Test Exclusion Considerations

Device's each edge positions consider SAR test exclusion according to Appendix B.3 of KDB 447498 D04 Interim General RF exposure guide.
Above 6GHz, Threshold ERP was calculated and exempted.

RF Source Frequency			Minimum Distance			Threshold ERP
f_L MHz		f_H MHz	$\lambda_L / 2\pi$		$\lambda_H / 2\pi$	W
0.3	–	1.34	159 m	–	35.6 m	1,920 R^2
1.34	–	30	35.6 m	–	1.6 m	3,450 R^2/f^2
30	–	300	1.6 m	–	159 mm	3.83 R^2
300	–	1,500	159 mm	–	31.8 mm	0.0128 R^2f
1,500	–	100,000	31.8 mm	–	0.5 mm	19.2R^2
Subscripts L and H are low and high; λ is wavelength. From § 1.1307(b)(3)(i)(C), modified by adding Minimum Distance columns.						

2.6.2.1 Maximum Tune-up Power

Ant.	Band	Freq. [㎒]	Output Power			Separation distances [mm]					SAR Exemption				
			dBm	mW	ERP [mW]	Rear	Left	Right	Top	Bot.	Rear	Left	Right	Top	Bottom
MIMO (Ant.1)	WLAN 6 ㎓	7 115.0	15.00	32	7	5	23	204	5	158	Measure	Measure	799 EXEMPT	Measure	479 EXEMPT
MIMO (Ant.2)						5	12	199	157	5	Measure	Measure	760 EXEMPT	473 EXEMPT	Measure

SAR Test (Maximum Output Power)

Ant.	Band	SAR Test				
		Rear	Left Edge	Right Edge	Top	Bottom
MIMO(Ant.1)	WLAN 6 ㎓	Yes	Yes	No	Yes	No
MIMO(Ant.2)		Yes	Yes	No	No	Yes

2.6.2.2 Reduced Tune-up Power

Ant.	Band	Freq. [㎒]	Output Power			Separation distances [mm]					SAR Exemption				
			dBm	mW	ERP [mW]	Rear	Left	Right	Top	Bot.	Rear	Left	Right	Top	Bottom
MIMO (Ant.1)	WLAN 6 ㎓	7 115.0	8.00	6	1	5	23	204	5	158	Measure	Non Power Back-off	Non Power Back-off	Measure	Non Power Back-off
MIMO (Ant.2)						5	12	199	157	5	Measure	Non Power Back-off	Non Power Back-off	Non Power Back-off	Measure

SAR Test (Reduced Output Power)

Ant.	Band	SAR Test				
		Rear	Left Edge	Right Edge	Top	Bottom
MIMO(Ant.1)	WLAN 6 ㎓	Yes	No	No	Yes	No
MIMO(Ant.2)		Yes	No	No	No	Yes

Note in 2.6.2.1 & 2.6.2.2

Note 1: For distances < 5mm, a distance of 5mm is used to determine SAR exclusion and estimated SAR value.

Note 2: ERP values are applied with conservative antenna gain for the 6 GHz band.

Note 3: The SAR exemption formula is based on the output power (the worst value between Maximum tune-up and ERP).

Note 4: Formulas round separation distance to nearest mm and power to nearest ㎽ before calculating thresholds or exemption values.

Note 5: Non-power back-off means Grip Sensor is not applied.

2.7 SAR Test Methods and Procedures

The tests documented in this report were performed in accordance with IEEE 1528-2013 and the following published KDB procedures:

- IEEE 1528-2013
- IEC/IEEE 62209-1528:2020
- IEC/IEEE 63195-1:2022
- IEC 62479:2010
- IEC TR 63170:2018
- 248227 D01 802.11 Wi-Fi SAR v02r02
- 447498 D04 General RF Exposure Guidance v01
- 865664 D01 SAR measurement 100 ㎒ to 6 ㎓ v01r04
- 865664 D02 RF Exposure Reporting v01r02
- 616217 D04 SAR for laptop and tablets v01r02
- April 2019 TCB Workshop Notes (Tissue Simulating Liquids)
- SPEAG DASY6 System Handbook (June 2020)
- SPEAG DASY6 Application Note (Interim Procedures for Devices Operating at 6-10 GHz)
- April, 2021 TCB Workshop Notes(U-NII 6-7 GHz Interim Procedures)
- Oct 2022 TCB Workshop Notes(IPD and SAR evaluation of f-above-6 GHz portable devices)

2.7.1 6-7 GHz Tested Conditions

The Device was operated utilizing proprietary software and each channel was measured using a broadband power meter to determine the maximum average power.

As per the Interim Procedures for 6-7GHz RF Exposure, explained in RF Exposure Policies and Procedures: TCB Workshop – October 2020, the testing has been performed on SAR following IEC/IEEE 62209-1528:2020 and then on Power Density for the highest SAR test configurations.

The testing has been in both chains and 6 GHz considered band (U-NII-5 ~ U-NII-8) in SAR mode.

3. Specific Absorption Rate

3.1 Introduction

The 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.

3.2 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 measurement can be either related to the temperature elevation in tissue by

$$SAR = C\left(\frac{\delta T}{\delta t}\right)$$

Where: C is the specific head capacity, δT is the temperature rise and δt is the exposure duration, or related to the electrical field in the tissue by

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength. However for evaluating SAR of low power transmitter, electrical field measurement is typically applied.

3.3 Peak Spatially Averaged Power Density Assessment Based on E-field Measurements

Within a short distance from the transmitting source, power density was determined based on both electric and magnetic fields. Generally, the magnitude and phase of two components of either the E-field or H-field were needed on a sufficiently large surface to fully characterize the total E-field and H-field distributions. Nevertheless, solutions based on direct measurement of E-field and H-field can be used to compute power density. The general measurement approach used for this device was:

a) The local E field on the measurement surface was measured at a reference location where the field is well above the noise level. This reference level was used at the end of this procedure to assess output power drift of the DUT during the measurement.

b) The electric field on the measurement surface was scanned. Measurements are conducted according to the instructions provided by the measurement system manufacturer. Measurement spatial resolution can depend on the measured field characteristic and measurement methodology used by the system. The planar scan step size was configured at λ/4.

c) For cDASY6, H-field was calculated from the measured E-field using a reconstruction algorithm. As the power density calculation requires knowledge of both amplitude and phase, reconstruction algorithms can also be used to obtain field information from the measured E-field data (e.g. the phase from the amplitude if only the amplitude is measured). H-field and phase data was reconstructed from repeated measurements (three per measurement point) on two measurement planes separated by λ/4.

d) The total Peak spatially averaged power density (psPD) distribution on the evaluation surface is determined per the below equation. The spatial averaging area, A, is specified by the applicable exposure limits or regulatory requirements.

$$psPD = \frac{1}{2A_{av}} \iint_{A_{av}} || Re\{E \times H^*\} || dA$$

e) The maximum spatial-average on the evaluation surface is the final quantity to determine compliance against applicable limits.

f) The local E field reference value, at the same location as step 2, was re-measured after the scan was complete to calculate the power drift. If the drift deviated by more than 5%, the power density test and drift measurements were repeated.

4. SAR Measurement Configurations

4.1 Body-supported device

A typical example of a body supported device is a wireless enabled laptop device that among other orientations may be supported on the thighs of a sitting user. To represent this orientation, the device shall be positioned with its base against the flat phantom. Other orientations may be specified by the manufacturer in the user instructions. If the intended use is not specified, the device shall be tested directly against the flat phantom in all usable orientations.

The example in Figure 1) shows a tablet form factor portable computer for which SAR should be separately assessed with
d) each surface and
e) the separation distances
positional against the flat phantom that correspond to the intended use as specified by the manufacturer. If the intended use is not specified in the user instructions, the device shall be tested directly the flat phantom in all usable orientations.

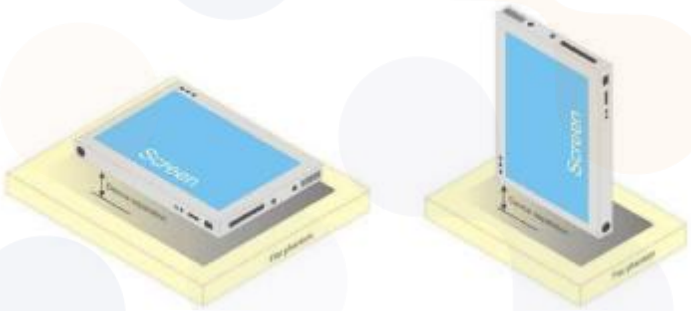


Figure 1. Tablet form factor portable computer

5. RF Exposure Limits

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. 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.

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Partial Peak SAR [1)] (Partial)	1.60 mW/g	8.00 mW/g
Partial Average SAR [2)] (Whole Body)	0.08 mW/g	0.40 mW/g
Partial Peak SAR [3)] (Hands/Feet/Ankle/Wrist)	4.00 mW/g	20.00 mW/g

1) The spatial Peak value of the SAR averaged over any 1g 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.

5.1 RF Exposure Limits for Frequencies Above 6 GHz

Per §1.1310 (d)(3), the MPE limits are applied for frequencies above 6 GHz. Power Density is expressed in units of mW/cm^2.

Peak Spatially Averaged Power Density was evaluated over a circular area of 4 cm^2 per interim FCC Guidance for near-field power density evaluations per October 2018 TCB Workshop notes.

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Power Density	1.0 mW/cm^2	5.0 mW/cm^2

6. RF Average Conducted Output Power

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission modes with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported.

Power Measurement Setup

6.1 WLAN Average Conducted Output Power

Band		Mode	Device Class	Freq. [MHz]	Channel	Conducted Powers (dBm)	
						Max	
						MIMO	
						Ant.1	Ant.2
WLAN 6 GHz	U-NII-5	802.11ax SU(160 MHz)	SP	6 025.0	15	10.41	10.55
				6 185.0	47	10.65	10.50
				6 345.0	79	10.36	10.28
	U-NII-6		LPI	6 505.0	111	9.74	8.73
	U-NII-7		SP	6 665.0	143	10.64	10.31
	U-NII-8		LPI	6 985.0	207	8.01	8.26

Band		Mode	Device Class	Freq. [MHz]	Channel	Conducted Powers (dBm)	
						Back off-Grip Sensor	
						MIMO	
						Ant.1	Ant.2
WLAN 6 GHz	U-NII-5	802.11ax SU(160 MHz)	LPI	6 025.0	15	7.46	7.30
				6 185.0	47	7.52	7.43
				6 345.0	79	7.41	7.33
	U-NII-6		LPI	6 505.0	111	7.56	7.03
	U-NII-7		LPI	6 665.0	143	7.24	6.89
				6 825.0	175	7.26	7.27
	U-NII-8		LPI	6 985.0	207	7.40	7.51

Note: For validation of the grip sensor, please refer to Appendix B.

6.2 Wireless Bands Duty Factor

Wireless Bands	Ant.	Mode	Duty Cycle (%)
WLAN 6 GHz	MIMO	802.11ax SU(160 MHz)	96.04

7. System Verification

7.1 Measurement date and environment

Shield room	Date	Environment	
		Temperature (℃)	Humidity (%)
8F - 7	2025-02-28	21.8 ~ 22.4	55.5 ~ 56.7
	2025-03-27	21.9 ~ 22.2	57.8 ~ 58.1
8F - 4	2025-03-08	22.0 ~ 22.3	56.1 ~ 56.9
	2025-03-10	21.8 ~ 22.1	55.2 ~ 56.4
	2025-03-12	22.2 ~ 22.6	56.3 ~ 57.2
	2025-03-27	22.0 ~ 22.4	55.9 ~ 57.1

7.2 Tissue Verification

The dielectric properties for this Tissue Simulant Liquids were measured by using the SPEAG Model DAK3.5 Dielectric Probe in conjunction with Agilent E5071B Network Analyzer (300 kHz – 8 500 ㎒). The Conductivity (σ) and Permittivity (ε_r) are listed in Table 1.For the SAR measurement given in this report. The temperature variation of the Tissue Simulant Liquids was (22 ± 2) ℃.

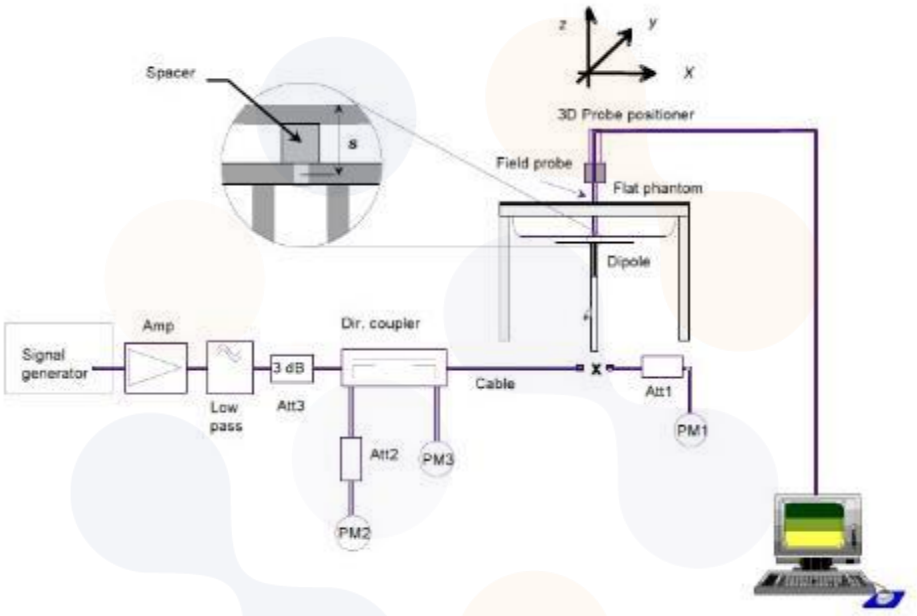
Freq. (㎒)	Limit/Measured	Permittivity (ε_r)	Conductivity (σ)	Temp. (℃)
				22 ± 2
6 500.0	2025-02-28	34.50 ± 5 % (32.78 ~ 36.23)	6.07 ± 5 % (5.77 ~ 6.37)	21.53
		34.10	6.17	
6 025.0		35.07 ± 5 % (33.32 ~ 36.82)	5.51 ± 5 % (5.23 ~ 5.79)	
		35.20	5.56	
6 185.0		34.88 ± 5 % (33.14 ~ 36.62)	5.70 ± 5 % (5.42 ~ 5.99)	
		34.90	5.76	
6 345.0		34.69 ± 5 % (32.96 ~ 36.42)	5.89 ± 5 % (5.60 ~ 6.18)	
		34.47	5.95	
6 505.0		34.49 ± 5 % (32.77 ~ 36.21)	6.08 ± 5 % (5.78 ~ 6.38)	
		34.10	6.18	
6 665.0		34.30 ± 5 % (32.59 ~ 36.02)	6.26 ± 5 % (5.95 ~ 6.57)	
		33.78	6.43	
6 825.0		34.11 ± 5 % (32.40 ~ 35.82)	6.45 ± 5 % (6.13 ~ 6.77)	
		33.46	6.64	
6 985.0		33.92 ± 5 % (32.22 ~ 35.62)	6.63 ± 5 % (6.30 ~ 6.96)	
		33.20	6.85	

Freq. (㎒)	Limit/Measured	Permittivity (ε_r)	Conductivity (σ)	Temp. (°C)
				22 ± 2
6 500.0	2025-03-27	34.50 ± 5 % (32.78 ~ 36.23)	6.07 ± 5 % (5.77 ~ 6.37)	21.58
		34.20	6.13	
6 025.0		35.07 ± 5 % (33.32 ~ 36.82)	5.51 ± 5 % (5.23 ~ 5.79)	
		35.28	5.55	
6 185.0		34.88 ± 5 % (33.14 ~ 36.62)	5.70 ± 5 % (5.42 ~ 5.99)	
		34.89	5.75	
6 345.0		34.69 ± 5 % (32.96 ~ 36.42)	5.89 ± 5 % (5.60 ~ 6.18)	
		34.49	5.95	
6 505.0		34.49 ± 5 % (32.77 ~ 36.21)	6.08 ± 5 % (5.78 ~ 6.38)	
		34.20	6.13	
6 665.0		34.30 ± 5 % (32.59 ~ 36.02)	6.26 ± 5 % (5.95 ~ 6.57)	
		33.89	6.31	
6 825.0		34.11 ± 5 % (32.40 ~ 35.82)	6.45 ± 5 % (6.13 ~ 6.77)	
		33.51	6.48	
6 985.0		33.92 ± 5 % (32.22 ~ 35.62)	6.63 ± 5 % (6.30 ~ 6.96)	
		33.06	6.69	

<Table 1. Measurement result of Tissue electric parameters>

7.3 Test System Verification

The microwave circuit arrangement for system verification is sketched below picture.
The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within ± 10% from the t arget SAR values. The tests were conducted on the same days as the measurement of the EUT. The obtained results from the system accuracy verification are displayed in the Table 2. During the tests, the ambient temperature of the laboratory was in the range (22 ± 2) ℃, th e relative humidity was in the range(50 ± 20)% and the liquid depth Above the ear/grid refer ence points was above 15 cm in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.

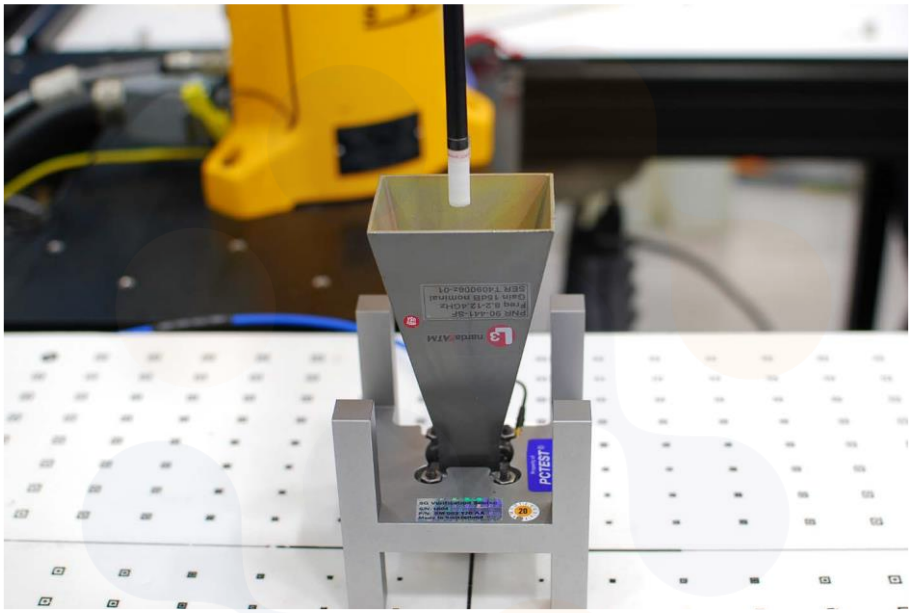


Frequency (㎒)	Date	Tissue Type	Verification Kit	Probe S/N	Input Power (㎽)	Limit/Measured (Normalized to 1 W) Recommended Limit 1g (Normalized)
6 500.0	2025-02-28	HSL	D6.5GHzV2 SN: 1089	EX3DV4 SN: 7772	100	294.00 ± 10 % (264.60~323.40) 290.00
	2025-03-27	HSL		EX3DV4 SN: 7770	100	283.00

<Table 2. System Verification Result>

7.4 Power Density Test 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'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.



[Figure 3. System Verification Setup Photo]

Source (S/N)	Probe (S/N)	Frequency (GHz)	Date	Prad (mW)	Total 4 cm² psPD (W/m²)		Deviation (dB)	Limit (dB)
					Target	Measured		
1023	9489	10	2025-03-08	93.3	55.1	57.5	0.19	± 0.66
			2025-03-10	93.3	55.1	54.5	-0.05	
			2025-03-12	93.3	55.1	57.6	0.19	
			2025-03-27	93.3	55.1	52.5	-0.21	

Notes
1) 10 ㎜ distance spacing was used from the reference horn antenna aperture to the probe element.
2) According to IEC TR 63170, the power density measurement results should be normalized to the delivered input power to an input power level of 0 dBm and compared to the appropriate target values of the calibrated reference sources.

8. SAR Test Results

8.1 Standalone Body SAR and Absorbed Power Density Test Results

WLAN 6 GHz												
Mode	Ant.	EUT Position	Distance (mm)	Frequency (MHz)	Measured Conducted Power (dBm)	Max. Tune-up Power (dBm)	Power Scaling Factor	Duty Cycle Compensate Factor	Measured 1g SAR (W/kg)	Scaled 1g SAR (W/kg)	Estimated APD (W/m²) 4cm²	Plot No.
[SP] 802.11ax SU (160 MHz)	MIMO	Grip Sensor Off										
		Rear	15	6 185.0	10.50	12.00	1.413	1.041	0.097	0.143	0.82	
		Left	0	6 185.0	10.50	12.00	1.413	1.041	0.068	0.100	0.57	
		Top	15	6 185.0	10.50	12.00	1.413	1.041	0.080	0.118	0.70	
		Bottom	14	6 185.0	10.50	12.00	1.413	1.041	0.043	0.063	0.40	
[LPI] 802.11ax SU (160 MHz)	MIMO	Grip Sensor On										
		Rear	0	6 185.0	7.43	8.00	1.140	1.041	0.304	0.361	**1.58**	2
			0	6 025.0	7.30	8.00	1.175	1.041	0.291	0.356	1.43	
			0	6 505.0	7.03	8.00	1.250	1.041	0.295	0.384	1.49	
			0	6 825.0	7.26	8.00	1.186	1.041	0.284	0.351	1.37	
			0	6 985.0	7.40	8.00	1.148	1.041	0.344	**0.411**	1.55	1
		Top	0	6 185.0	7.43	8.00	1.140	1.041	0.184	0.218	1.02	
		Bottom	0	6 185.0	7.43	8.00	1.140	1.041	0.059	0.070	0.26	

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, and FCC KDB Publication 447498 D04v01.
2. Batteries are fully charged at the beginning of the SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D04v01.
5. Per FCC guidance, SAR was performed using 6.5 GHz SAR probe calibration factors. Per October 2020 TCB Workshop notes, 5 channels were tested. Absorbed power density (APD) using a 4㎠ averaging area is reported based on SAR measurements.
6. All modes of operation were investigated, and worst-case results are reported.
7. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
8. Max Tune-up in Section 8.1 Test results was applied to -3dB of MIMO Target, and conservative Scaled Factor was applied to each antenna.

WLAN Notes:

1. When the maximum reported 1g averaged SAR is ≤0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg for 1g evaluations or all test channels were measured.
2. 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. The reported SAR was scaled to the 100% transmission duty factor to determine compliance.
3. 6-7GHz transmission was verified using a spectrum analyzer.

9. Power Density Test Results

9.1 Standalone Body Power Density Test Results

WLAN 6 GHz											
Mode	Ant.	EUT Position	Distance (mm)	Frequency (MHz)	Max. Tune-up Power (dBm)	iPD	Grid Step (λ)	Measurement Uncertainty	Measured Total psPD (W/m²) 4cm²	Scaled Total psPD (W/m²) 4cm²	Plot No.
[SP] 802.11ax SU (160 MHz)	MIMO	Grip Sensor Off									
		Left	2	6 185.0	12.00	-	0.0625	1.462	0.63	0.92	
[LPI] 802.11ax SU (160 MHz)		Grip Sensor On									
		Rear	2	6 185.0	8.00	1.61	0.0625	1.462	0.77	**1.13**	3
			9.7	6 185.0	8.00	1.97	0.0625	1.462	0.42	0.61	
			2	6 025.0	8.00	-	0.0625	1.462	0.60	0.87	
			2	6 505.0	8.00	-	0.0625	1.462	0.72	1.06	
			2	6 825.0	8.00	-	0.0625	1.462	0.65	0.94	
			2	6 985.0	8.00	-	0.0625	1.462	0.57	0.84	
		Top	2	6 185.0	8.00	-	0.0625	1.462	0.60	0.88	
		Bottom	2	6 185.0	8.00	-	0.0625	1.462	0.36	0.53	

Power Density General Notes:

1. Batteries are fully charged at the beginning of the measurements.
2. Power density was calculated by repeated E-field measurements on two measurement planes separated by λ/4.
3. 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.
4. 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 2.46 dB (76.198%) was used to determine the psPD measurement scaling factor.
5. Per equipment manufacturer guidance, power density was measured at d=2mm and d=λ/5mm using the same grid size and grid step size for some frequencies and surfaces. The integrated Power Density (iPD) was calculated based on these measurements. Since iPD ratio between the two distances is < 1dB, the grid step was sufficient for determining compliance at d=2mm.

10. Simultaneous Transmission

Refer to the Simultaneous Transmission of SAR Report_Part1 for the value.

11. Measurement Uncertainty

11.1 SAR Measurement Uncertainty

Per KDB 865664 D01 SAR measurement 100㎒ to 6㎓, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be ≤ 30%, for a confidence interval of *k* = 2. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Standard 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

11.2 Power Density Measurement Uncertainty

Source f uncertainty	Uncertainty Value (± dB)	Probability distribution	Div.	c_i	Standard Uncertainty (± dB)	v_i
Measurement system						
Calibration	0.49	N	1.00	1.00	0.49	∞
Probe correction	0.00	R	1.73	1.00	0.00	∞
Frequency response (BW ≤ 1 GHz)	0.20	R	1.73	1.00	0.12	∞
Sensor cross coupling	0.00	R	1.73	1.00	0.00	∞
Isotropy	0.50	R	1.73	1.00	0.29	∞
Linearity	0.20	R	1.73	1.00	0.12	∞
Probe scattering	0.00	R	1.73	1.00	0.00	∞
Probe positioning offset	0.30	R	1.73	1.00	0.17	∞
Probe positioning repeatability	0.04	R	1.73	1.00	0.02	∞
Sensor mechanical offset	0.00	R	1.73	1.00	0.00	∞
Probe spatial resolution	0.00	R	1.73	1.00	0.00	∞
Field impedance dependance dependence	0.00	R	1.73	1.00	0.00	∞
Amplitude and phase drift	0.00	R	1.73	1.00	0.00	∞
Amplitude and phase noise	0.04	R	1.73	1.00	0.02	∞
Measurement area truncation	0.00	R	1.73	1.00	0.00	∞
Data acquisition	0.03	N	1.00	1.00	0.03	∞
Sampling	0.00	R	1.73	1.00	0.00	∞
Field reconstruction	1.77	R	1.73	1.00	1.02	∞
Forward transformation	0.00	R	1.73	1.00	0.00	∞
Power density scaling	-	R	1.73	1.00	-	∞
Spatial averaging	0.10	R	1.73	1.00	0.06	∞
System detection limit	0.04	R	1.73	1.00	0.02	∞
DUT and environmental factors						
Probe coupling with DUT	0.00	R	1.73	1.00	0.00	∞
Modulation response	0.40	R	1.73	1.00	0.23	∞
Integration time	0.00	R	1.73	1.00	0.00	∞
Response time	0.00	R	1.73	1.00	0.00	∞
Device holder influence	0.10	R	1.73	1.00	0.06	∞
DUT alignment	0.00	R	1.73	1.00	0.00	∞
RF ambient conditions	0.04	R	1.73	1.00	0.02	∞
Ambient reflections	0.04	R	1.73	1.00	0.02	∞
Immunity / secondary reception	0.00	R	1.73	1.00	0.00	∞
Drift of the DUT	0.22	R	1.73	1.00	0.13	∞
Combined standard uncertainty	RSS				1.23	
Expanded uncertainty (95 % confidence interval)	*k* = 2				2.46	

12. Test Equipment Information

Test Platform	SPEAG DASY8 System			
Version	DASY8: 16.4.0.5005			
Location	Eurofins KCTL Co.,Ltd. 65, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Korea			
Manufacture	SPEAG			
Hardware Reference				
Equipment	Model	Serial Number	Date of Calibration	Due date of next Calibration
Shield Room	-	8F - 4	-	-
Shield Room	-	8F - 7	-	-
DASY6 Robot	TX60 Lspeag	F/19/0007289/A/001	-	-
DASY8 Robot	TX2-60L	F/22/0040787/A/001	-	-
Phantom	mmWave Phantom	1062	-	-
	2mm Oval Phantom ELI5	1173	-	-
mmWave Device Holder	mmWave Device Holder	1116	-	-
Mounting Device	Laptop Holder	-	-	-
DAE	DAE4	666	2025-01-21	2026-01-21
	DAE4	1758	2024-08-15	2025-08-15
Probe	EX3DV4	7770	2024-11-22	2025-11-22
	EX3DV4	7772	2024-09-23	2025-09-23
Isotropic E-Field Probe	EUmmWV4	9489	2024-05-15	2025-05-15
MICROWAVE GENERATOR	SMP02	100295	2024-12-12	2025-12-12
Dual Power Meter	E4419B	GB43312301	2025-02-10	2026-02-10
Power Sensor	8481H	3318A19379	2025-02-10	2026-02-10
	8481H	3318A19377	2025-02-10	2026-02-10
Attenuator	PE7005-10	2228-4	2025-01-17	2026-01-17
	PE7005-10	2228-5	2024-12-11	2025-12-11
	PE7005-10	2228-6	2024-12-11	2025-12-11
	PE7005-10	2228-7	2024-12-11	2025-12-11
	PE7005-10	2228-8	2024-12-11	2025-12-11
	PE7005-10	2228-9	2024-12-11	2025-12-11
Directional Coupler	772D	MY46151145	2024-11-04	2025-11-04
Dual Directional Coupler	772D	2839A160504	2024-04-26	2025-04-26
Dual Power Meter	E4419B	GB43312301	2025-02-10	2026-02-10
MICROWAVE GENERATOR	SMP02	100295	2024-12-12	2025-12-12
Power Amplifier	AMP2027ADB	10005	2024-04-26	2025-04-26
Low Pass Filter	PE87FL1016	2213	2024-12-11	2025-12-11
	PE87FL1017	2134	2025-01-13	2026-01-13
System Verification Device	5G Verification Source 10 GHz	1023	2025-01-14	2026-01-14
Dipole Validation Kits	D6.5GHzV2	1089	2024-09-17	2026-09-17
ENA Series Network Analyzer	E5071B	MY42403524	2025-02-10	2026-02-10
Dielectric Assessment Kit	DAK-3.5	1078	2024-06-10	2025-06-10
Humidity/Temp	PC-5400TRH	PC-5400TRH-3	2024-11-06	2025-11-06
	MHB-382SD	46301	2025-02-14	2026-02-14
Spectrum Analyzer	FSG13	100051	2024-07-02	2025-07-02

13. Test System Verification Results

13.1 SAR Test System Verification Results

Eurofins KCTL Co.,Ltd.

Measurement Report for D6.5GHzV2 - SN1089, FRONT, D6.5GHz, UID 0 -, (6500.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D6.5GHzV2 - SN1089, Speag	10.0 x 10.0 x 296.0	1089	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 5.00	D6.5GHz	CW, 0--	6500.000	4.78	6.17	34.1

Hardware Setup

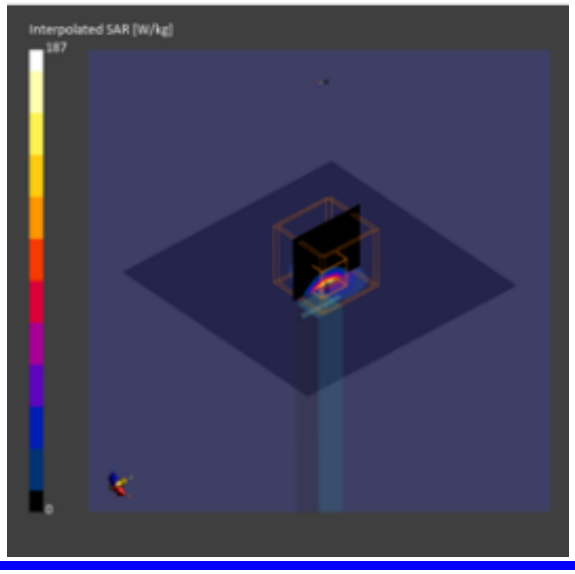
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-02-28	EX3DV4 - SN7772, 2024-09-23	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-28	2025-02-28
psSAR1g [W/kg]	25.0	29.0
psSAR8g [W/kg]	6.19	6.68
psSAR10g [W/kg]	5.14	5.54
psAPD (1.0cm2, sq) [W/m2]		290
psAPD (4.0cm2, sq) [W/m2]		134
Power Drift [dB]		-0.03
Peak SAR [W/kg]		187



Eurofins KCTL Co.,Ltd.

Measurement Report for D6.5GHzV2 - SN1089, FRONT, D6.5GHz, UID 0 -, (6500.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
D6.5GHzV2 - SN1089, Speag	10.0 x 10.0 x 296.0	1089	Validation Dipole

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz]	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	FRONT, 5.00	D6.5GHz	CW, 0--	6500.000	4.96	6.13	34.2

Hardware Setup

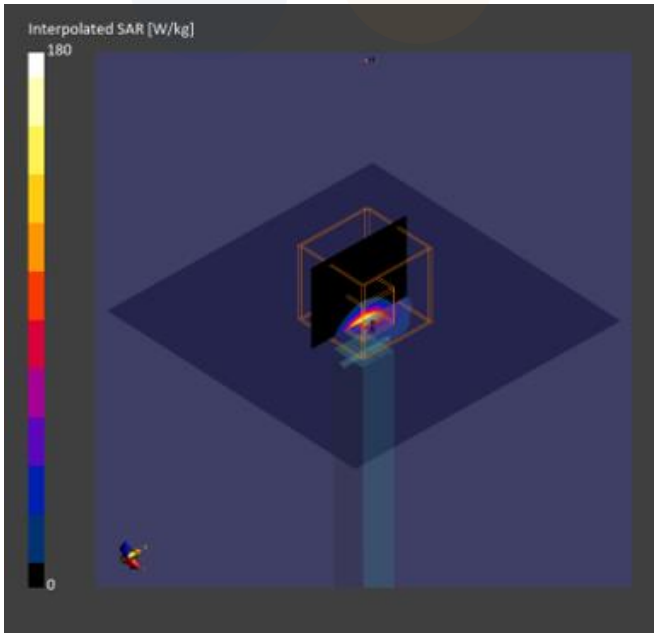
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-03-27	EX3DV4 - SN7770, 2024-11-22	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 85.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-03-27	2025-03-27
psSAR1g [W/kg]	24.4	28.3
psSAR8g [W/kg]	5.90	6.50
psSAR10g [W/kg]	4.90	5.38
psAPD (1.0cm2, sq) [W/m2]		283
psAPD (4.0cm2, sq) [W/m2]		130
Power Drift [dB]		0.17
Peak SAR [W/kg]		180



13.2 PD Test System Verification

Eurofins KCTL Co.,Ltd.

Measurement Report for 10 GHz Verification Source, FRONT, Validation band, UID 0 -, Channel 10000 (10000.0MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
10 GHz Verification Source, Speag	100.0 x 172.0 x 100.0	1023	Validation Dipole

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor
5G	FRONT, 10.00	10000.0, 10000	1.0

Hardware Setup

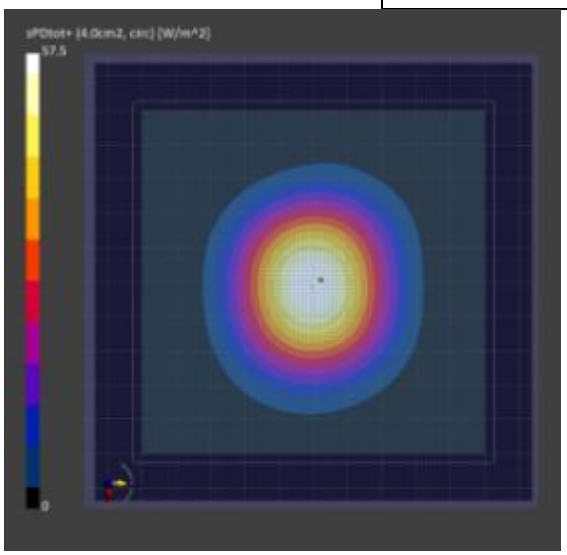
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air	EUmmWV4 - SN9489_F1-55GHz, 2024-05-15	DAE4 Sn666, 2025-01-21

Scans Setup

Measurement Results

Scan Type	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.0
MAIA	N/A

Scan Type	5G Scan
Date	2025-03-08
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	57.4
psPDtot+ [W/m^2]	57.5
E_{max} [V/m]	157
Power Drift [dB]	0.05



Eurofins KCTL Co.,Ltd.

Measurement Report for 10 GHz Verification Source, FRONT, Validation band, UID 0 -, Channel 10000 (10000.0MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
10 GHz Verification Source, Speag	100.0 x 172.0 x 100.0	1023	Validation Dipole

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor
5G	FRONT, 10.00	10000.0, 10000	1.0

Hardware Setup

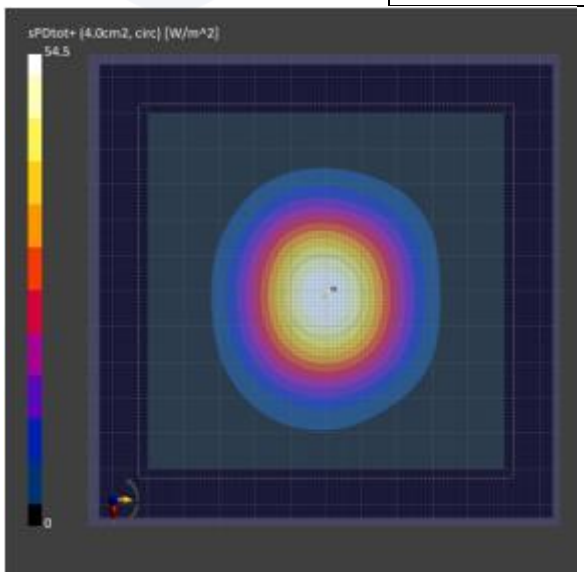
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air	EUmmWV4 - SN9489_F1-55GHz, 2024-05-15	DAE4 Sn666, 2025-01-21

Scans Setup

Measurement Results

Scan Type	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.0
MAIA	N/A

Scan Type	5G Scan
Date	2025-03-10
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	54.4
psPDtot+ [W/m^2]	54.5
E_{max} [V/m]	153
Power Drift [dB]	0.10



Eurofins KCTL Co.,Ltd.

Measurement Report for 10 GHz Verification Source, FRONT, Validation band, UID 0 -, Channel 10000 (10000.0MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
10 GHz Verification Source, Speag	100.0 x 172.0 x 100.0	1023	Validation Dipole

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor
5G	FRONT, 10.00	10000.0, 10000	1.0

Hardware Setup

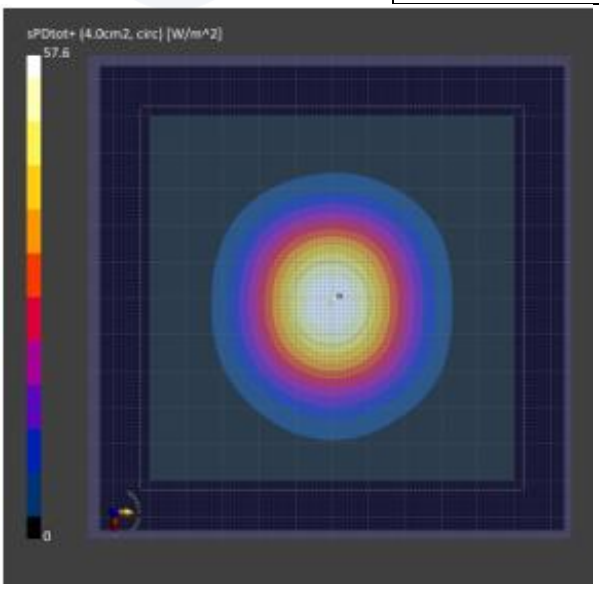
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air	EUmmWV4 - SN9489_F1-55GHz, 2024-05-15	DAE4 Sn666, 2025-01-21

Scans Setup

Measurement Results

Scan Type	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.0
MAIA	N/A

Scan Type	5G Scan
Date	2025-03-12
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	57.5
psPDtot+ [W/m^2]	57.6
E_{max} [V/m]	157
Power Drift [dB]	0.09



Eurofins KCTL Co.,Ltd.

Measurement Report for 10 GHz Verification Source, FRONT, Validation band, UID 0 -, Channel 10000 (10000.0MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
10 GHz Verification Source, Speag	100.0 x 172.0 x 100.0	1023	Validation Dipole

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor
5G	FRONT, 10.00	10000.0, 10000	1.0

Hardware Setup

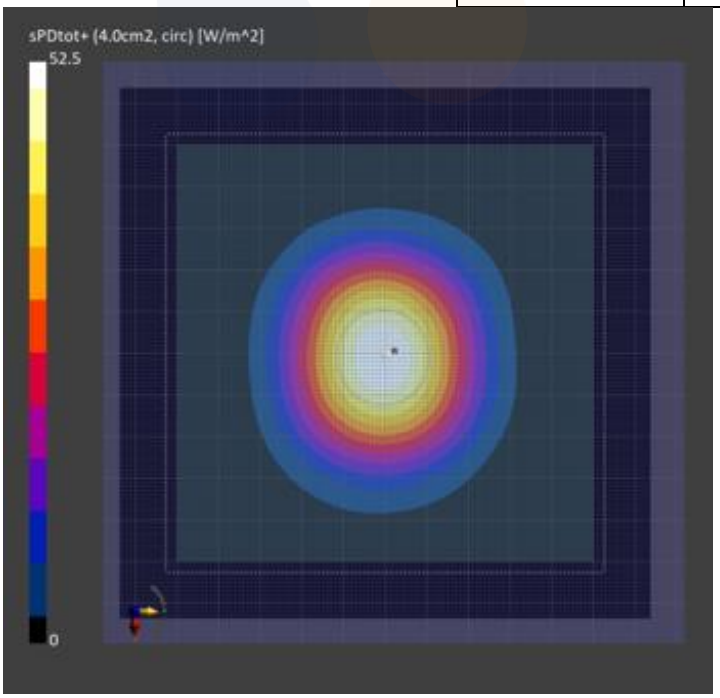
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air	EUmmWV4 - SN9489_F1-55GHz, 2024-05-15	DAE4 Sn666, 2025-01-21

Scans Setup

Measurement Results

Scan Type	5G Scan
Grid Extents [mm]	120.0 x 120.0
Grid Steps [lambda]	0.25 x 0.25
Sensor Surface [mm]	10.0
MAIA	N/A

Scan Type	5G Scan
Date	2025-03-27
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	52.3
psPDtot+ [W/m^2]	52.5
E_{max} [V/m]	150
Power Drift [dB]	0.03



14. Test Results

14.1 SAR Test Results

1)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X358U, BACK, Custom Band, UID 0 -, Channel 207 (6985.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X358U, SAMSUNG	243.0 x 171.0 x 12.0	R32Y100268R	Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	6985.000, 207	4.78	6.85	33.2

Hardware Setup

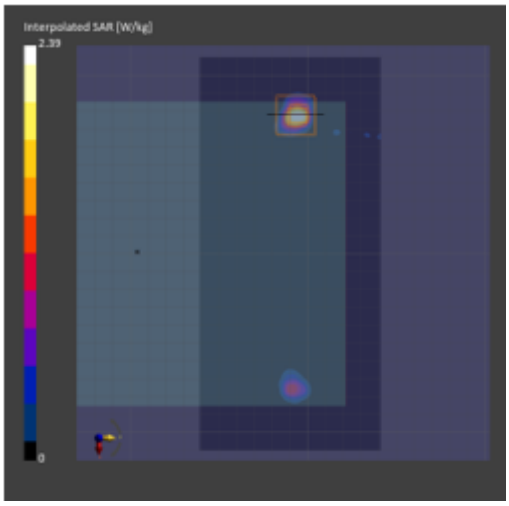
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-02-28	EX3DV4 - SN7772, 2024-09-23	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	221.0 x 102.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	2.9 x 2.9 x 1.2
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.2
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-28	2025-02-28
psSAR1g [W/kg]	0.284	0.344
psSAR8g [W/kg]	0.073	0.077
psSAR10g [W/kg]	0.060	0.064
psAPD (1.0cm2, sq) [W/m2]		3.44
psAPD (4.0cm2, sq) [W/m2]		1.55
Power Drift [dB]		-0.02
Peak SAR [W/kg]		2.39



2)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X358U, BACK, Custom Band, UID 0 -, Channel 47 (6185.000MHz)

Device under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X358U, SAMSUNG	243.0 x 171.0 x 12.0	R32Y100268R	Tablet

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat, Head Simulating Liquid	BACK, 0.00	Custom Band	CW, 0--	6185.000, 47	4.78	5.76	34.9

Hardware Setup

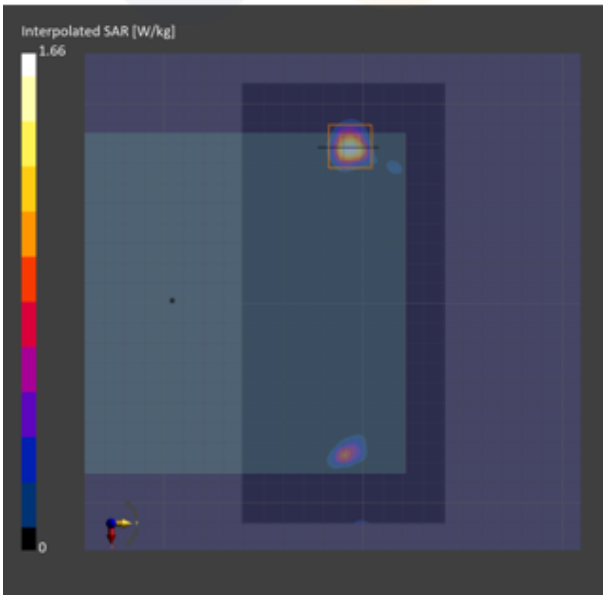
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V5.0 - 1173	HBBL-600-10000 , 2025-02-28	EX3DV4 - SN7772, 2024-09-23	DAE4 Sn1758, 2024-08-15

Scan Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	221.0 x 102.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4
Graded Grid	No	Yes
Grading Ratio	N/A	1.4
MAIA	N/A	N/A
Surface Detection	VMS + 6p	VMS + 6p
Scan Method	Measured	Measured

Measurement Results

	Area Scan	Zoom Scan
Date	2025-02-28	2025-02-28
psSAR1g [W/kg]	0.258	0.304
psSAR8g [W/kg]	0.073	0.079
psSAR10g [W/kg]	0.061	0.066
psAPD (1.0cm2, sq) [W/m2]		3.04
psAPD (4.0cm2, sq) [W/m2]		1.58
Power Drift [dB]		0.04
Peak SAR [W/kg]		1.66



14.2 PD Test Results

3)

Eurofins KCTL Co.,Ltd.

Measurement Report for SM-X358U, BACK, Custom Band, UID 0 -, Channel 47 (6185.0MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	Serial Number	DUT Type
SM-X358U, SAMSUNG	171.0 x 12.0 x 243.0	R32Y100297N	Tablet

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor
5G	BACK, 2.00	6185.0, 47	1.0

Hardware Setup

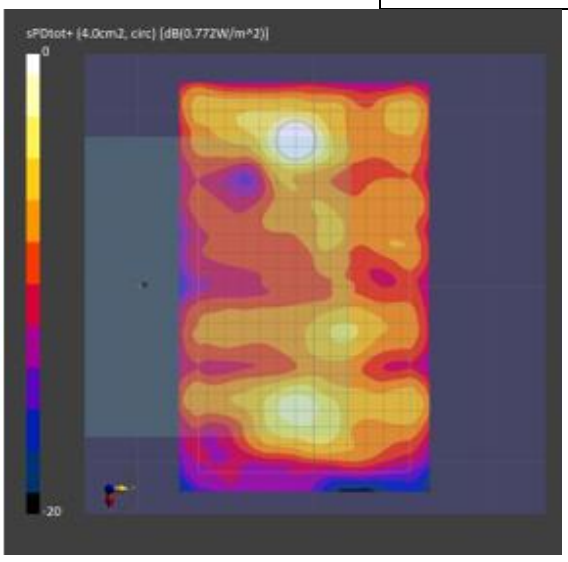
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air	EUmmWV4 - SN9489_F1-55GHz, 2024-05-15	DAE4 Sn666, 2025-01-21

Scans Setup

Measurement Results

Scan Type	5G Scan
Grid Extents [mm]	230.0 x 140.0
Grid Steps [lambda]	0.0625 x 0.0625
Sensor Surface [mm]	2.0
MAIA	N/A

Scan Type	5G Scan
Date	2025-03-10
Avg. Area [cm^2]	4.00
psPDn+ [W/m^2]	0.648
psPDtot+ [W/m^2]	0.772
E_{max} [V/m]	28.9
Power Drift [dB]	-0.08



Appendixes List

Appendix A	A.1 Probe Calibration certificate (EX3DV4_7770) A.2 Probe Calibration certificate (EX3DV4_7772) A.3 Probe Calibration certificate (EUmmWV4_9489) A.4 System Calibration certificate (5G Verification Source 10 GHz_1023) A.5 Dipole Calibration certificate (D6.5GHzV2_1089)
Appendix B	Power Reduction Verification
Appendix C	#Antenna Location & Distance
Appendix D	EUT Photo
Appendix E	Test Setup Photo