



FCC 47 CFR § 2.1093  
IEC/IEEE Std 62209-1528 : 2020  
IEC/IEEE Std 63195-1: 2022

**RF EVALUATION REPORT (Above 6GHz)  
(Part 1 : Test in Static Transmission Condition)**

**FOR**

**GSM/WCDMA/LTE/5G NR Phone + BT/BLE, DTS/UNII a/b/g/n/ac/ax, NFC, WPT and UWB**

**MODEL NUMBER: SM-F956B/DS, SM-F956B**

**FCC ID: A3LSMF956B**

**REPORT NUMBER: 4791196626-S2V2**

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*Prepared for*  
**SAMSUNG ELECTRONICS CO., LTD.  
129 SAMSUNG-RO, YEONGTONG-GU, SUWON-SI,  
GYEONGGI-DO, 16677, KOREA**

*Prepared by*  
**UL Korea, Ltd.**  
26th floor, 152, Teheran-ro, Gangnam-gu Seoul, 06236, Korea

**Suwon Test Site: UL Korea, Ltd. Suwon Laboratory  
218 Maeyeong-ro, Yeongtong-gu,  
Suwon-si, Gyeonggi-do, 16675, Korea  
TEL: (031) 337-9902  
FAX: (031) 213-5433**



**Testing Laboratory**

**TL-637**

**Revision History**

Rev.	Date	Revisions	Revised By
V1	5/3/2024	Initial Issue	--
V2	5/14/2024	Revised test channel information in sec 10. Revised report number of Appendix list.	Hakchul Lee

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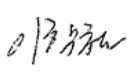
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### 1. Attestation of Test Results

Applicant Name		SAMSUNG ELECTRONICS CO.,LTD.					
FCC ID		A3LSMF956B					
Model Number		SM-F956B/DS, SM-F956B					
Applicable Standards		FCC 47 CFR § 2.1093 IEC/IEEE Std 62209-1528 : 2020 IEC/IEEE Std 63195-1: 2022					
Exposure Category		SAR Limits (W/Kg)		Power Density Limits (mW/cm <sup>2</sup> )			
		1g SAR	10g SAR	APD		IPD	
General population / Uncontrolled exposure		1.6	4.0	N/A		1.0	
RF Exposure Conditions		Equipment Class – 6CD (The Highest Reported SAR/APD/IPD)					
		SAR (W/kg)		APD (mW/cm <sup>2</sup> )		IPD (mW/cm <sup>2</sup> )	
		6CD	UWB	6CD	UWB	6CD	UWB
Phablet	Head	0.24	N/A	0.14	N/A	0.77	0.02
	Body-worn	0.29	N/A	0.22	N/A		
	Product Specific 10g	0.46	0.01	0.97	<0.01		
UMPC-mini tablet	Body	0.26	N/A	0.17	N/A	0.86	0.02
	Extremity 10g	0.56	<0.01	1.10	<0.01		
Simultaneous TX of Phablet	Head	1.59	1.59				
	Body-worn	1.33	1.33				
	Product Specific 10g	3.10	3.10				
Simultaneous TX of UMPC-mini tablet	Body	1.58	1.58				
	Extremity 10g	3.98	3.98				
Date Tested		3/26/2024 to 5/3/2024					
Test Results		Pass					
<p>UL Korea, Ltd. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Korea, Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.</p> <p><b>Note:</b> The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Korea, Ltd. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Korea, Ltd. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by IAS, any agency of the Federal Government, or any agency of any government.</p>							
Approved & Released By:				Prepared By:			
							
Justin Park Operations Leader UL Korea, Ltd. Suwon Laboratory				Hakchul Lee Laboratory Engineer UL Korea, Ltd. Suwon Laboratory			

## 2. Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE Std 1528-2013, IEC 62479:2010, IEC/IEEE 63195-1:2022 the following FCC Published RF exposure [KDB](#) procedures:

- 248227 D01 802.11 Wi-Fi SAR v02r02
- 447498 D04 Interim General RF Exposure Guidance v01
- 648474 D04 Handset SAR v01r03
- 865664 D01 SAR measurement 100 MHz to 6 GHz v01r04
- 941225 D07 UMPC Mini Tablet v01r02

In addition to the above, the following information was used:

- [TCB workshop](#) April, 2021; RF Exposure Policies (U-NII 6-7 GHz Interim Procedures)
- [TCB workshop](#) Oct, 2022; Mobile and Portable Device RF Exposure Policies and Procedures(IPD and SAR evaluation of f-above-6 GHz portable devices)
- SPEAG, DASY8 Module mmWave Manual, April 2023
- SPEAG DASY6 Application Note : Interim Procedures (Version 9.0) for Devices Operating at 6 – 10 GHz

## 3. Facilities and Accreditation

The test sites and measurement facilities used to collect data are located at

Suwon
SAR 7 Room
SAR 8 Room
SAR 9 Room

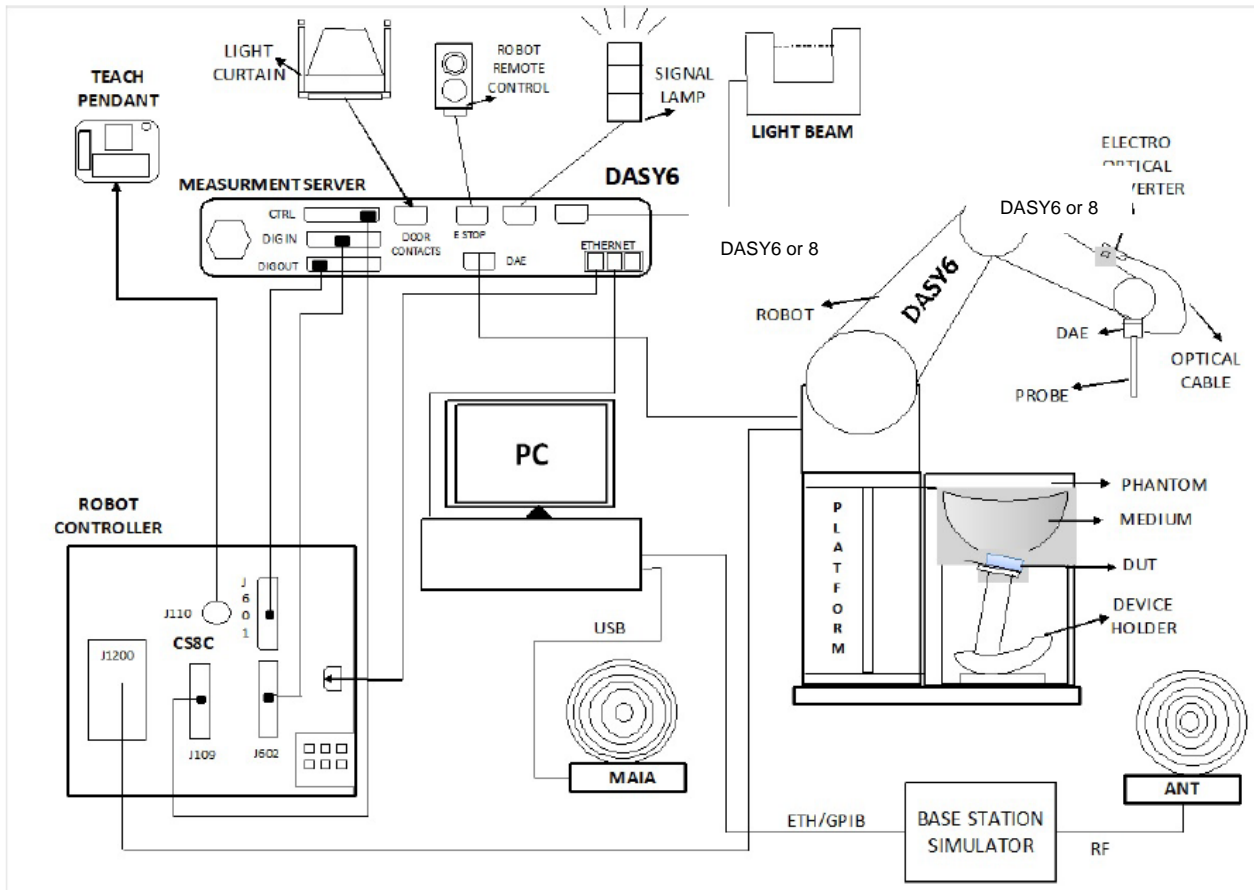
UL Korea, Ltd. is accredited by IAS, Laboratory Code TL-637.

The full scope of accreditation can be viewed at <https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf>.

## 4. SAR and Power Density Measurement System & Test Equipment

### 4.1. SAR Measurement System

The DASY6 & 8 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 Win10 and the DASY6 or 8 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.

### 4.1.1. SAR Scan Procedures

#### Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are 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. The minimum distance of probe sensors to surface is 2.1 mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

#### Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEC/IEEE Standard 62209-1528, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

Area Scan Parameters extracted from IEC/IEEE Standard 62209-1528.

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)	$5 \pm 1$	$\delta \ln(2)/2 \pm 0,5^a$
Maximum spacing between adjacent measured points in mm (see O.8.3.1) <sup>b</sup>	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 ( $\alpha$ in Figure 20) <sup>c</sup>	5° (flat phantom only) 30° (other phantoms)	5° (flat phantom only) 20° (other phantoms)
Tolerance in the probe angle	1°	1°
<p><sup>a</sup> <math>\delta</math> is the penetration depth for a plane-wave incident normally on a planar half-space.</p> <p><sup>b</sup> See Clause O.8 on how <math>\Delta x</math> and <math>\Delta y</math> may be selected for individual area scan requirements.</p> <p><sup>c</sup> 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.</p>		



**Step 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 extracted from IEC/IEEE Standard 62209-1528.

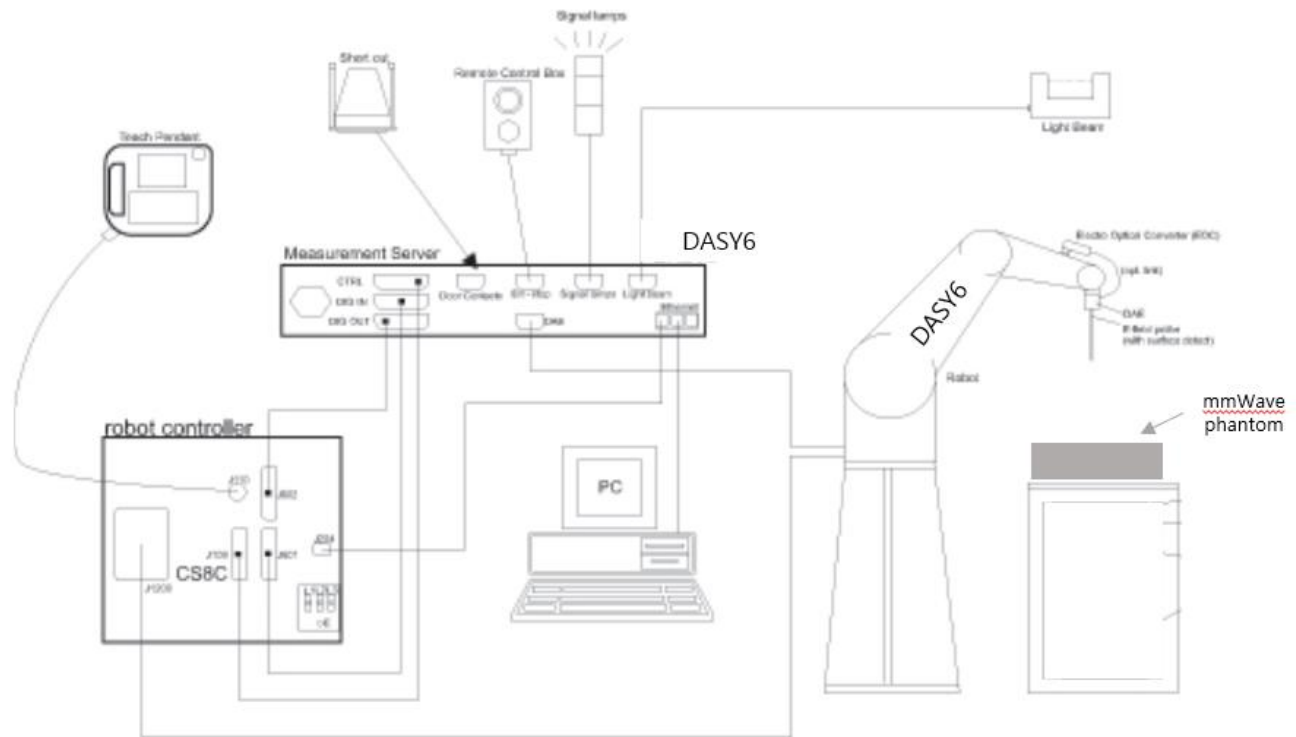
Parameter	DUT transmit frequency being tested	
	$f \leq 3$ GHz	$3$ GHz $< f \leq 10$ GHz
Maximum distance between the closest measured points and the phantom surface ( $z_{M1}$ in Figure 20 and Table 3, in mm)	5	$\delta \ln(2)/2^a$
Maximum angle between the probe axis and the phantom surface normal ( $\alpha$ 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 ( $\Delta x$ and $\Delta y$ , in mm)	8	$24/f^b$
For uniform grids: Maximum spacing between measured points in the direction normal to the phantom shell ( $\Delta z_1$ 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 ( $\Delta z_1$ 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°
<sup>a</sup> $\delta$ is the penetration depth for a plane-wave incident normally on a planar half-space.		
<sup>b</sup> This is the maximum spacing allowed, which might not work for all circumstances.		

**Step 4: Power drift measurement**

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement 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. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

## 4.2. Incident Power Density(IPD) Measurement System

The DASY6 & 8 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).
- The EUmWVx probe is based on the pseudo-vector probe design, which not only measures the field magnitude but also derives its polarization ellipse.
- 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 Win10 and the DASY6 or 8 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom which is specialized for 5G other accessories according to the targeted measurement.

### 4.2.1. Power Density Scan Procedures

#### Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are 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 device under test.

#### Step 2: 5G Scan

The steps in the X, Y, and Z directions are specified in terms of fractions of the signal wavelength,  $\lambda$ . Area Scan Parameters extracted from DASY6/8 Module mmWave Manual.

#### Recommended settings for measurement of verification sources

Frequency [GHz]	Grid step	Grid extent X/Y [mm]	Measurement points
10	0.125 ( $\frac{\lambda}{8}$ )	60/60	18 × 18
30	0.25 ( $\frac{\lambda}{4}$ )	60/60	26 × 26
45	0.25 ( $\frac{\lambda}{4}$ )	42/42	28 × 28
60	0.25 ( $\frac{\lambda}{4}$ )	32.5/32.5	28 × 28
90	0.25 ( $\frac{\lambda}{4}$ )	30/30	38 × 38

The minimum distance of probe sensors to verification source surface, horn antenna, is 10 mm.

Per equipment manufacturer guidance for 6 – 10GHz, DUT's Power density was measured at d=2mm.

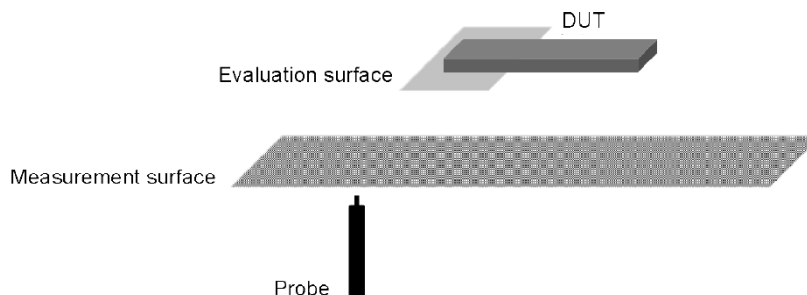
#### Step 3: Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement 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. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1. When the drift is larger than  $\pm 5\%$ , test is repeated from step1.

### 4.2.2. Total Field and Power Flux Density Reconstruction (measurement distance)

Reconstruction algorithms are used to project or transform the measured fields from the measurement surface to the evaluation surface (below fig) in order to determine power density or to compute spatial-average and/or local power density with known uncertainty.

Manufacture has developed a reconstruction approach based on the Gerchberg-Saxton algorithm, which benefits from the availability of the E-field polarization ellipse information obtained with the EUmWVx probe. This reconstruction algorithm, together with the ability of the probe to measure extremely close to the source without perturbing the field, permits reconstruction of the E- and H-fields, as well as of the power density, on measurement planes.



### 4.3. Test Equipment

The measuring equipment used to perform the tests documented in this report has been calibrated in accordance with the manufacturers' recommendations, and is traceable to recognized national standards.

#### 4.3.1. SAR Test Equipment

##### Dielectric Property Measurements

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Network Analyzer	ROHDE & SCHWARZ	ZNB 20	102256	7-24-2024
Dielectric Assessment Kit	SPEAG	DAK-3.5	1133	3-12-2025
Dielectric Assessment Kit	SPEAG	DAK-3.5	1134	<b>4-24-2024</b>
Dielectric Assessment Kit	SPEAG	DAK-3.5	1196	7-17-2024
Vector Network Analyzer	SPEAG	DAKS_VNA R140	SN0050221	<b>4-26-2024</b>
Vector Network Analyzer	SPEAG	DAKS_VNA R140	SN0060221	3-21-2025
Shorting block	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	LKM	DTM3000	3851	7-25-2024
Thermometer	LKM	DTM3000	3862	7-25-2024

##### System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
MXG Analog Signal Generator	Keysight	N5173B	MY59101083	7-27-2024
Power Sensor	KEYSIGHT	U2000A	MY60180020	7-26-2024
Power Sensor	KEYSIGHT	U2000A	MY61010010	7-25-2024
Power Amplifier	EXODUS	AMP2027ADB	10002	1-5-2025
Directional Coupler	KRYTAR	100318010	215541	1-4-2025
Low Pass Filter	KRYTAR	VLKX10-11000-13640-21000-60TS	1	7-25-2024
Attenuator	KEYSIGHT	BW-S3W10+	N/A	1-4-2025
Attenuator	KEYSIGHT	8491B/010	MY39272011	7-25-2024
Attenuator	KEYSIGHT	8491B/020	MY39271973	7-25-2024
E-Field Probe	SPEAG	EX3DV4	7376	7-25-2024
E-Field Probe	SPEAG	EX3DV4	7646	3-15-2025
E-Field Probe	SPEAG	EX3DV4	7645	9-20-2024
E-Field Probe	SPEAG	EX3DV4	7545	8-25-2024
Data Acquisition Electronics	SPEAG	DAE4	912	11-17-2024
Data Acquisition Electronics	SPEAG	DAE4	1670	5-23-2024
System Validation Dipole	SPEAG	D6.5GHz	1010	5-27-2024
System Validation Dipole	SPEAG	D8GHzV2	1012	11-1-2024
Thermometer	Lutron	MHB-382SD	AK.18789	7-27-2024

##### Note(s):

1. For System Validation Dipole, Calibration interval applied every 2 years according to referencing KDB 865664 guidance.
2. Refer to Appendix F that mentioned about justification for Extended SAR Dipole Calibrations (for blue box item).
3. All equipments were used until Cal.Due date.

### 4.3.2 Incident Power Density Test Equipment

#### PD System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
MXG Analog Signal Generator	Keysight	N5173B	MY59101083	7-27-2024
Power Sensor	KEYSIGHT	U2000A	MY60180020	7-26-2024
Power Sensor	KEYSIGHT	U2000A	MY61010010	7-25-2024
Power Amplifier	EXODUS	AMP2027ADB	10002	1-5-2025
Directional Coupler	KRYTAR	100318010	215541	1-4-2025
Low Pass Filter	KRYTAR	VLKX10-11000-13640-21000-60TS	1	4-25-2024
Attenuator	KEYSIGHT	BW-S3W10+	N/A	1-4-2025
Attenuator	KEYSIGHT	8491B/010	MY39272011	7-25-2024
Attenuator	KEYSIGHT	8491B/020	MY39271973	7-25-2024
5G probe	SPEAG	EummWV4	9536	2-15-2025
Data Acquisition Electronics	SPEAG	DAE4	474	11-10-2024
Verification kit	SPEAG	5G verification source_10GHz	1022	2-19-2025
Thermometer	Lutron	MHB-382SD	AK.12102	7-31-2024

## 5. Measurement Uncertainty

### 5.1. SAR Measurement Uncertainty

Measurement uncertainty for 6 GHz to 10 GHz  
(According to IEEE 62209-1528)

a	b	c		d	e f(d,k)	f	g	h =	l =	k	
		Tol. 1 g (±%)	Tol. 10 g (±%)					1 g ui (± %)	10 g ui (± %)		
Uncertainty component	Reference			Prob. Dist.	Div.	ci (1 g)	ci (10 g)			vi	
<b>Measurement System Errors</b>											
Probe Calibration	8.4.1.1	18.6		Normal	2	1	1	9.3	9.3	∞	
Probe Calibration Drift	8.4.1.2	1.7		Rectangular	1.732	1	1	1.0	1.0	∞	
Probe Linearity	8.4.1.3	4.7		Rectangular	1.732	1	1	2.7	2.7	∞	
Broadband Signal	8.4.1.4	2.8		Rectangular	1.732	1	1	1.6	1.6	∞	
Probe Isotropy	8.4.1.5	7.6		Rectangular	1.732	1	1	4.4	4.4	∞	
Data Acquisition	8.4.1.6	0.3		Normal	1	1	1	0.3	0.3	∞	
RF Ambient	8.4.1.7	1.8		Normal	1	1	1	1.8	1.8	∞	
Probe Positioning	8.4.1.8	0.005		Normal	1	0.50	0.50	0.25	0.25	∞	
Data Processing	8.4.1.9	3.5		Normal	1	1	1	3.5	3.5	∞	
<b>Phantom and Device Errors</b>											
Conductivity (meas.)DAK	8.4.2.1	2.5		Normal	1	0.78	0.71	2.0	1.8	∞	
Conductivity (temp.)BB	8.4.2.2	2.4		Rectangular	1.732	0.78	0.71	1.1	1.0	∞	
Phantom Permittivity	8.4.2.3	14.0		Rectangular	1.732	0	0	0.0	0.0	∞	
Distance DUT - TSL	8.4.2.4	2.0		Normal	1	2	2	4.0	4.0	∞	
Device Positioning	8.4.2.5	3.4	2.8	Normal	1	1	1	3.4	2.8	50	
Device Holder	8.4.2.6	3.6		Normal	1	1	1	3.6	3.6	∞	
DUT Modulation	8.4.2.7	2.4		Rectangular	1.732	1	1	1.4	1.4	∞	
Time-average SAR	8.4.2.8	1.7		Rectangular	1.732	1	1	1.0	1.0	∞	
DUT drift	8.4.2.9	5.0		Normal	1	1	1	5.0	5.0	∞	
<b>Correction to the SAR results</b>											
Deviation to Target	8.4.3.1	1.9		Normal	1	1	0.84	1.9	1.6	∞	
Combined Standard Uncertainty Uc(y) =								RSS	14.47	14.26	
Expanded Uncertainty U, Coverage Factor = 2, > 95 % Confidence =									<b>28.94</b>	<b>28.53</b>	

## 5.2. APD Measurement Uncertainty

<b>Uncertainty Budget for psSAR / psAPD Assessments</b> (Frequency band : 6 - 10GHz range)								
Symbol	Error Description	Uncert.	Prob. Dist	Div.	ci (1g) / (1 cm <sup>2</sup> )	ci (8g/10g) / (4 cm <sup>2</sup> )	Std. Unc. (1 g) / (1 cm <sup>2</sup> )	Std. Unc. (8g/10g) / (4 cm <sup>2</sup> )
psSAR	Module SAR V16.2 (Table 6.3.3)	±14.2/14.1%	N	1	1	1	±14.2%	±14.1%
PDC	Power Density Conversion	±13.5%	R	1.732	1	1	±7.8%	±7.8%
u(ΔSAR)	Combined Uncertainty						±16.2%	±16.9%
U	<b>Expanded Uncertainty</b> in dB						±32.4%	±32.2%
							±1.2dB	±1.2dB

### 5.3. IPD Measurement Uncertainty

Measurement Uncertainty for cDASY6 Module mmWave						
Error Description	Uncertainty value ( $\pm$ dB)	Probe Dist.	Divisor	(Ci)	Std. Unc. ( $\pm$ dB)	(Vi)
<b>Uncertainty terms dependent on the measurement system</b>						
Calibration	0.49	Normal	1	1	0.49	Infinity
Probe correction	0.00	Rectangular	1.73	1	0.00	Infinity
Frequency response (BW = < 1 GHz)	0.20	Rectangular	1.73	1	0.12	Infinity
Sensor cross coupling	0.00	Rectangular	1.73	1	0.00	Infinity
Isotropy	0.50	Rectangular	1.73	1	0.29	Infinity
Linearity	0.20	Rectangular	1.73	1	0.12	Infinity
Probe scattering	0.00	Rectangular	1.73	1	0.00	Infinity
Probe positioning offset	0.30	Rectangular	1.73	1	0.17	Infinity
Probe positioning repeatability	0.04	Rectangular	1.73	1	0.02	Infinity
Sensor mechanical offset	0.00	Rectangular	1.73	1	0.00	Infinity
Probe spatial resolution	0.00	Rectangular	1.73	1	0.00	Infinity
Field impedance dependance	0.00	Rectangular	1.73	1	0.00	Infinity
Measurement drift	0.05	Rectangular	1.73	1	0.03	Infinity
Amplitude and phase noise	0.04	Rectangular	1.73	1	0.02	Infinity
Measurement area truncation	0.10	Rectangular	1.73	1	0.06	Infinity
Data acquisition	0.03	Normal	1.00	1	0.03	Infinity
Sampling	0.00	Rectangular	1.73	1	0.00	Infinity
Field reconstruction	0.60	Rectangular	1.73	1	0.35	Infinity
Signal-to-Noise Ratio	0.00	Rectangular	1.73	1	0.00	Infinity
FTE/MEO	0.00	Rectangular	1.73	1	0.00	Infinity
Power density scaling	0.00	Rectangular	1.73	1	0.00	Infinity
Spatial averaging	0.10	Rectangular	1.73	1	0.06	Infinity
<b>Uncertainty terms dependent on the DUT and environmental factors</b>						
Probe coupling with DUT	0.00	Rectangular	1.73	1	0.00	Infinity
Modulation response	0.40	Rectangular	1.73	1	0.23	Infinity
Integration time	0.00	Rectangular	1.73	1	0.00	Infinity
Response time	0.00	Rectangular	1.73	1	0.00	Infinity
Device holder influence	0.10	Rectangular	1.73	1	0.06	Infinity
DUT alignment	0.00	Rectangular	1.73	1	0.00	Infinity
RF ambient conditions	0.04	Rectangular	1.73	1	0.02	Infinity
Laboratory Temperature	0.05	Rectangular	1.73	1	0.03	Infinity
Laboratory Reflections	0.04	Rectangular	1.73	1	0.02	Infinity
Immunity / secondary reception	0.00	Rectangular	1.73	1	0.00	Infinity
Drift of the DUT	0.20	Rectangular	1.73	1	0.12	Infinity
Combined Std. Uncertainty					0.76	
<b>Expanded Standard Uncertainty (95%)</b>					<b>1.53</b>	

### 5.4. Decision rule

Measurement Uncertainty is not applied when providing statements of conformity in accordance with IEC Guide 115:2023, 4.3.3.

## 6. Device Under Test (DUT) Information

### 6.1. DUT Description

Device Dimension	Refer to Appendix A.		
Back Cover	<input checked="" type="checkbox"/> The Back Cover is not removable.		
Battery Options	<input checked="" type="checkbox"/> The rechargeable battery is not user accessible		
Test Sample Information	<b>No.</b>	<b>S/N</b>	<b>Notes</b>
	1	7b456db543507ece	Conducted
	2	R3CX403N5SR	Radiated
	3	R3CX403NBJM	Radiated
	4	R3CX403N7BK	Radiated
	5	R3CX403NB0B	Radiated

### 6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode	Duty Cycle used for SAR & PD testing
Wi-Fi_UNII 6e (Above 6GHz)	UNII Band 5 (5925-6425 MHz) UNII Band 6 (6425-6525 MHz) UNII Band 7 (6525-6885 MHz) UNII Band 8 (6885-7125 MHz)	802.11a 802.11ax (HE20) 802.11ax (HE40) 802.11ax (HE80) 802.11ax (HE160)	99.63% (802.11ax (HE160))
UWB	Ch.5 (6489.6MHz) Ch.9 (7987.2MHz)	Signal Configurations (0/1/3), PRF modes (BPRF/HPRF)	100%

**Notes:**

Duty cycle for Wi-Fi is referenced in Section 9.



### 6.3. Maximum Allowed Output power

Maximum allowed output power means that Pmax or PLimit + 1dB device uncertainty for each DSI.

RF Air interface	Mode	Indoor AP								
		Pmax			Plimit (DSI=0)			Plimit (DSI=1, 2, 3)		
		WLAN Ant.1	WLAN Ant.2	MIMO (Ant.1 + Ant.2)	WLAN Ant.1	WLAN Ant.2	MIMO (Ant.1 + Ant.2)	WLAN Ant.1	WLAN Ant.2	MIMO (Ant.1 + Ant.2)
WiFi 6 GHz (UNII - 5)	802.11a	10.0	10.0	13.0	10.0	10.0	13.0	10.0	10.0	13.0
	802.11ax HE20	10.0	10.0	13.0	10.0	10.0	13.0	10.0	10.0	13.0
	802.11ax HE40	12.0	12.0	15.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE80	15.0	15.0	18.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE160	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
WiFi 6 GHz (UNII - 6)	802.11a	10.0	10.0	13.0	10.0	10.0	13.0	10.0	10.0	13.0
	802.11ax HE20	10.0	10.0	13.0	10.0	10.0	13.0	10.0	10.0	13.0
	802.11ax HE40	12.0	12.0	15.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE80	15.0	15.0	18.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE160	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
WiFi 6 GHz (UNII - 7)	802.11a	10.0	10.0	13.0	10.0	10.0	13.0	10.0	10.0	13.0
	802.11ax HE20	10.0	10.0	13.0	10.0	10.0	13.0	10.0	10.0	13.0
	802.11ax HE40	12.0	12.0	15.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE80	15.0	15.0	18.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE160	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
WiFi 6 GHz (UNII - 8)	802.11a	10.0	10.0	13.0	10.0	10.0	13.0	10.0	10.0	13.0
	802.11ax HE20	10.0	10.0	13.0	10.0	10.0	13.0	10.0	10.0	13.0
	802.11ax HE40	12.0	12.0	15.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE80	15.0	15.0	18.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE160	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0

RF Air interface	Mode	Standard AP								
		Pmax			Plimit (DSI=0)			Plimit (DSI=1,2,3)		
		WLAN Ant.1	WLAN Ant.2	MIMO (Ant.1 + Ant.2)	WLAN Ant.1	WLAN Ant.2	MIMO (Ant.1 + Ant.2)	WLAN Ant.1	WLAN Ant.2	MIMO (Ant.1 + Ant.2)
WiFi 6 GHz (UNII - 5)	802.11a	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE20	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE40	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE80	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE160	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
WiFi 6 GHz (UNII - 7)	802.11a	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE20	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE40	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE80	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0
	802.11ax HE160	16.0	16.0	19.0	10.0	10.0	13.0	12.0	12.0	15.0

**Notes:**

1. This device has support Dual Client (6CD) in UNII 6-7GHz. So Indoor AP support to UNII 5-8, and Standard AP supports to UNII 5, 7.

## 7. RF Exposure Conditions (Test Configurations)

Refer to Appendix A for the specific details of the antenna-to-antenna and antenna-to-edge(s) distances.

### Folder Closed (Phablet)

Wireless technologies	RF Exposure Conditions	Antenaa	DUT-to-User Separation	Test Positions			
				Right Touch	Right Tilt	Left Touch	Left Tilt
WLAN(UNII 6e)	Head	WLAN(UNII 6e) Antennas (Ant.G/D)	0 mm	Yes	Yes	Yes	Yes

Wireless technologies	RF Exposure Conditions	Antenaa	DUT-to-User Separation	Test Positions					
				Rear	Front	Top	Left	Bottom	Right
WLAN (UNII 6e)	Body-worn & Hotspot	Ant.D	10 mm	Yes	Yes	Yes	No	No	Yes
		Ant.G	10 mm	Yes	Yes	No	No	No	Yes
	Product Specific 10-g	All WLAN/BT Antennas (Ant.D/G)	0 mm	Refer to note 2 and 4.					
UWB	Product Specific 10-g	UWB Ant.(Ant.F)	0 mm	Yes	Yes	Yes	Yes	No	Yes

**Notes:**

- For Hotspot exposure condition, SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hot Spot SAR.
- For Phablet devices: When hotspot mode applies, Product specific 10-g SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.
- For Phablet devices: When hotspot mode applies and power reduction applies to hotspot mode, Product specific 10-g SAR is required for each test position that has and adjusted SAR to maximum power that is > 1.2 W/kg.
- For Phablet devices: When hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions.
- Per manufacturer guide, UWB SAR was considered about only hand held condition (Product Specific 10-g).
- For Body-worn exposure condition, SAR test is considered for Rear and Front test positions.
- UWB was evaluated for only hand held condition because UWB mainly used in the hand to interact with other device.

### Forder Opened (UMPC mini tablet)

Wireless technologies	RF Exposure Conditions	Antenaa	DUT-to-User Separation	Test Positions					
				Rear	Front	Top	Left	Bottom	Right
WLAN (UNII 6e)	1g Body/ 10g Extremity	Ant.D	10 mm / 0mm	Yes	Yes	Yes	No	No	Yes
		Ant.G	10 mm / 0mm	Yes	Yes	No	No	No	Yes
UWB	10g Extremity	UWB Ant.(Ant.F)	0 mm	Yes	Yes	Yes	No	No	Yes

**Notes:**

- SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D07 UMPC mini-tablet SAR.
- Per FCC guide, UMPC mini-tablet SAR evaluated at 1-g body at 10mm and 10-g extremity at 0mm.
- UWB was evaluated for only hand held condition because UWB mainly used in the hand to interact with other device.

## 8. System Check with Dielectric Property Measurements

### 8.1. SAR system

#### 8.1.1. Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.

The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after 1 days of use; for example, when the parameters are marginal at the beginning of the measurement series. Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.

#### Tissue Dielectric Parameters

Refer to Table 2 within the IEC/IEEE Std 62209-1528 : 2020

Target Frequency (MHz)	Tissue parameters	
	$\epsilon_r$	$\sigma$ (S/m)
5800	35.3	5.27
6000	35.1	5.48
6500	34.5	6.07
7000	33.9	6.65

#### Dielectric Property Measurements Results:

##### SAR 7 Room

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
03-19-2024	Head 6000	e'	35.1600	Relative Permittivity ( $\epsilon_r$ ):	35.16	35.10	0.17	5
		e''	16.0800	Conductivity ( $\sigma$ ):	5.36	5.48	-2.11	5
	Head 6200	e'	35.0800	Relative Permittivity ( $\epsilon_r$ ):	35.08	34.86	0.63	5
		e''	16.2500	Conductivity ( $\sigma$ ):	5.60	5.72	-1.99	5
	Head 6500	e'	34.5900	Relative Permittivity ( $\epsilon_r$ ):	34.59	34.50	0.26	5
		e''	16.6500	Conductivity ( $\sigma$ ):	6.02	6.07	-0.86	5
	Head 6600	e'	34.2400	Relative Permittivity ( $\epsilon_r$ ):	34.24	34.38	-0.41	5
		e''	16.6700	Conductivity ( $\sigma$ ):	6.12	6.19	-1.11	5
	Head 6800	e'	34.0400	Relative Permittivity ( $\epsilon_r$ ):	34.04	34.14	-0.29	5
		e''	16.9800	Conductivity ( $\sigma$ ):	6.42	6.42	0.03	5
	Head 7000	e'	33.8000	Relative Permittivity ( $\epsilon_r$ ):	33.80	33.90	-0.29	5
		e''	16.7600	Conductivity ( $\sigma$ ):	6.52	6.65	-1.90	5
03-20-2024	Head 6000	e'	35.4600	Relative Permittivity ( $\epsilon_r$ ):	35.46	35.10	1.03	5
		e''	15.9200	Conductivity ( $\sigma$ ):	5.31	5.48	-3.08	5
	Head 6200	e'	35.5000	Relative Permittivity ( $\epsilon_r$ ):	35.50	34.86	1.84	5
		e''	16.0200	Conductivity ( $\sigma$ ):	5.52	5.72	-3.38	5
	Head 6500	e'	35.0000	Relative Permittivity ( $\epsilon_r$ ):	35.00	34.50	1.45	5
		e''	16.6200	Conductivity ( $\sigma$ ):	6.01	6.07	-1.04	5
	Head 6600	e'	34.6400	Relative Permittivity ( $\epsilon_r$ ):	34.64	34.38	0.76	5
		e''	16.5500	Conductivity ( $\sigma$ ):	6.07	6.19	-1.82	5
	Head 6800	e'	34.2400	Relative Permittivity ( $\epsilon_r$ ):	34.24	34.14	0.29	5
		e''	16.7300	Conductivity ( $\sigma$ ):	6.33	6.42	-1.44	5
	Head 7000	e'	33.8600	Relative Permittivity ( $\epsilon_r$ ):	33.86	33.90	-0.12	5
		e''	16.8100	Conductivity ( $\sigma$ ):	6.54	6.65	-1.61	5
03-21-2024	Head 6000	e'	34.1400	Relative Permittivity ( $\epsilon_r$ ):	34.14	35.10	-2.74	5
		e''	16.0900	Conductivity ( $\sigma$ ):	5.37	5.48	-2.05	5
	Head 6200	e'	34.1600	Relative Permittivity ( $\epsilon_r$ ):	34.16	34.86	-2.01	5
		e''	16.5000	Conductivity ( $\sigma$ ):	5.69	5.72	-0.49	5
	Head 6500	e'	33.3500	Relative Permittivity ( $\epsilon_r$ ):	33.35	34.50	-3.33	5
		e''	16.7300	Conductivity ( $\sigma$ ):	6.05	6.07	-0.39	5
	Head 6600	e'	33.3100	Relative Permittivity ( $\epsilon_r$ ):	33.31	34.38	-3.11	5
		e''	16.5100	Conductivity ( $\sigma$ ):	6.06	6.19	-2.06	5
	Head 6800	e'	32.8800	Relative Permittivity ( $\epsilon_r$ ):	32.88	34.14	-3.69	5
		e''	16.8000	Conductivity ( $\sigma$ ):	6.35	6.42	-1.03	5
	Head 7000	e'	33.1100	Relative Permittivity ( $\epsilon_r$ ):	33.11	33.90	-2.33	5
		e''	16.8700	Conductivity ( $\sigma$ ):	6.57	6.65	-1.26	5

**SAR 7 Room (Continued)**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
03-22-2024	Head 6000	e'	35.7000	Relative Permittivity ( $\epsilon_r$ ):	35.70	35.10	1.71	5
		e"	16.7200	Conductivity ( $\sigma$ ):	5.58	5.48	1.79	5
	Head 6200	e'	35.6500	Relative Permittivity ( $\epsilon_r$ ):	35.65	34.86	2.27	5
		e"	16.9300	Conductivity ( $\sigma$ ):	5.84	5.72	2.11	5
	Head 6500	e'	35.1200	Relative Permittivity ( $\epsilon_r$ ):	35.12	34.50	1.80	5
		e"	17.4700	Conductivity ( $\sigma$ ):	6.31	6.07	4.02	5
	Head 6600	e'	34.7600	Relative Permittivity ( $\epsilon_r$ ):	34.76	34.38	1.11	5
		e"	17.3100	Conductivity ( $\sigma$ ):	6.35	6.19	2.69	5
	Head 6800	e'	34.2900	Relative Permittivity ( $\epsilon_r$ ):	34.29	34.14	0.44	5
		e"	17.6700	Conductivity ( $\sigma$ ):	6.68	6.42	4.10	5
	Head 7000	e'	33.9300	Relative Permittivity ( $\epsilon_r$ ):	33.93	33.90	0.09	5
		e"	17.8900	Conductivity ( $\sigma$ ):	6.96	6.65	4.71	5
03-26-2024	Head 6000	e'	34.6800	Relative Permittivity ( $\epsilon_r$ ):	34.68	35.10	-1.20	5
		e"	15.9300	Conductivity ( $\sigma$ ):	5.31	5.48	-3.02	5
	Head 6200	e'	34.5400	Relative Permittivity ( $\epsilon_r$ ):	34.54	34.86	-0.92	5
		e"	16.0900	Conductivity ( $\sigma$ ):	5.55	5.72	-2.96	5
	Head 6500	e'	34.1000	Relative Permittivity ( $\epsilon_r$ ):	34.10	34.50	-1.16	5
		e"	16.6400	Conductivity ( $\sigma$ ):	6.01	6.07	-0.92	5
	Head 6600	e'	33.7100	Relative Permittivity ( $\epsilon_r$ ):	33.71	34.38	-1.95	5
		e"	16.5900	Conductivity ( $\sigma$ ):	6.09	6.19	-1.58	5
	Head 6800	e'	33.3100	Relative Permittivity ( $\epsilon_r$ ):	33.31	34.14	-2.43	5
		e"	16.8300	Conductivity ( $\sigma$ ):	6.36	6.42	-0.85	5
	Head 7000	e'	33.0700	Relative Permittivity ( $\epsilon_r$ ):	33.07	33.90	-2.45	5
		e"	16.7200	Conductivity ( $\sigma$ ):	6.51	6.65	-2.14	5
04-02-2024	Head 6000	e'	35.6100	Relative Permittivity ( $\epsilon_r$ ):	35.61	35.10	1.45	5
		e"	16.5000	Conductivity ( $\sigma$ ):	5.50	5.48	0.45	5
	Head 6200	e'	35.6800	Relative Permittivity ( $\epsilon_r$ ):	35.68	34.86	2.35	5
		e"	16.9200	Conductivity ( $\sigma$ ):	5.83	5.72	2.05	5
	Head 6500	e'	34.8800	Relative Permittivity ( $\epsilon_r$ ):	34.88	34.50	1.10	5
		e"	17.3100	Conductivity ( $\sigma$ ):	6.26	6.07	3.07	5
	Head 6600	e'	34.5600	Relative Permittivity ( $\epsilon_r$ ):	34.56	34.38	0.52	5
		e"	17.2200	Conductivity ( $\sigma$ ):	6.32	6.19	2.16	5
	Head 6800	e'	34.0300	Relative Permittivity ( $\epsilon_r$ ):	34.03	34.14	-0.32	5
		e"	17.6600	Conductivity ( $\sigma$ ):	6.68	6.42	4.04	5
	Head 7000	e'	33.7400	Relative Permittivity ( $\epsilon_r$ ):	33.74	33.90	-0.47	5
		e"	17.4600	Conductivity ( $\sigma$ ):	6.80	6.65	2.19	5
04-23-2024	Head 7000	e'	33.8700	Relative Permittivity ( $\epsilon_r$ ):	33.87	33.90	-0.09	5
		e"	17.0200	Conductivity ( $\sigma$ ):	6.62	6.65	-0.38	5
	Head 7250	e'	33.7300	Relative Permittivity ( $\epsilon_r$ ):	33.73	33.60	0.39	5
		e"	17.2900	Conductivity ( $\sigma$ ):	6.97	6.95	0.36	5
	Head 7500	e'	33.3900	Relative Permittivity ( $\epsilon_r$ ):	33.39	33.30	0.27	5
		e"	17.4700	Conductivity ( $\sigma$ ):	7.29	7.24	0.63	5
	Head 7800	e'	32.7600	Relative Permittivity ( $\epsilon_r$ ):	32.76	32.94	-0.55	5
		e"	17.7700	Conductivity ( $\sigma$ ):	7.71	7.60	1.41	5
	Head 8000	e'	32.4700	Relative Permittivity ( $\epsilon_r$ ):	32.47	32.70	-0.70	5
		e"	17.6100	Conductivity ( $\sigma$ ):	7.83	7.84	-0.08	5
	Head 8100	e'	32.3600	Relative Permittivity ( $\epsilon_r$ ):	32.36	32.58	-0.68	5
		e"	17.8000	Conductivity ( $\sigma$ ):	8.02	7.96	0.66	5

**SAR 7 Room (Continued)**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)		
04-30-2024	Head 6000	e'	35.5100	Relative Permittivity ( $\epsilon_r$ ):	35.51	35.10	1.17	5	
		e"	16.0800	Conductivity ( $\sigma$ ):	5.36	5.48	-2.11	5	
	Head 6200	e'	35.4800	Relative Permittivity ( $\epsilon_r$ ):	35.48	34.86	1.78	5	
		e"	16.6100	Conductivity ( $\sigma$ ):	5.73	5.72	0.18	5	
	Head 6500	e'	34.9400	Relative Permittivity ( $\epsilon_r$ ):	34.94	34.50	1.28	5	
		e"	17.2300	Conductivity ( $\sigma$ ):	6.23	6.07	2.59	5	
	Head 6600	e'	34.6900	Relative Permittivity ( $\epsilon_r$ ):	34.69	34.38	0.90	5	
		e"	16.9100	Conductivity ( $\sigma$ ):	6.21	6.19	0.32	5	
	Head 6800	e'	34.2400	Relative Permittivity ( $\epsilon_r$ ):	34.24	34.14	0.29	5	
		e"	17.4200	Conductivity ( $\sigma$ ):	6.59	6.42	2.63	5	
	Head 7000	e'	33.7800	Relative Permittivity ( $\epsilon_r$ ):	33.78	33.90	-0.35	5	
		e"	17.7800	Conductivity ( $\sigma$ ):	6.92	6.65	4.07	5	
	05-01-2024	Head 6000	e'	35.1200	Relative Permittivity ( $\epsilon_r$ ):	35.12	35.10	0.06	5
			e"	16.1200	Conductivity ( $\sigma$ ):	5.38	5.48	-1.86	5
Head 6200		e'	34.9700	Relative Permittivity ( $\epsilon_r$ ):	34.97	34.86	0.32	5	
		e"	16.4000	Conductivity ( $\sigma$ ):	5.65	5.72	-1.09	5	
Head 6500		e'	34.5000	Relative Permittivity ( $\epsilon_r$ ):	34.50	34.50	0.00	5	
		e"	17.0000	Conductivity ( $\sigma$ ):	6.14	6.07	1.22	5	
Head 6600		e'	33.9200	Relative Permittivity ( $\epsilon_r$ ):	33.92	34.38	-1.34	5	
		e"	16.8400	Conductivity ( $\sigma$ ):	6.18	6.19	-0.10	5	
Head 6800		e'	33.6900	Relative Permittivity ( $\epsilon_r$ ):	33.69	34.14	-1.32	5	
		e"	17.1600	Conductivity ( $\sigma$ ):	6.49	6.42	1.09	5	
Head 7000		e'	33.5000	Relative Permittivity ( $\epsilon_r$ ):	33.50	33.90	-1.18	5	
		e"	17.2700	Conductivity ( $\sigma$ ):	6.72	6.65	1.08	5	

**SAR 8 Room**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
03-22-2024	Head 6000	e'	34.3100	Relative Permittivity ( $\epsilon_r$ ):	34.31	35.10	-2.25	5
		e"	16.0400	Conductivity ( $\sigma$ ):	5.35	5.48	-2.35	5
	Head 6200	e'	34.2700	Relative Permittivity ( $\epsilon_r$ ):	34.27	34.86	-1.69	5
		e"	16.2200	Conductivity ( $\sigma$ ):	5.59	5.72	-2.18	5
	Head 6500	e'	33.7700	Relative Permittivity ( $\epsilon_r$ ):	33.77	34.50	-2.12	5
		e"	16.8100	Conductivity ( $\sigma$ ):	6.08	6.07	0.09	5
	Head 6600	e'	33.3700	Relative Permittivity ( $\epsilon_r$ ):	33.37	34.38	-2.94	5
		e"	16.7500	Conductivity ( $\sigma$ ):	6.15	6.19	-0.63	5
	Head 6800	e'	33.0100	Relative Permittivity ( $\epsilon_r$ ):	33.01	34.14	-3.31	5
		e"	17.0000	Conductivity ( $\sigma$ ):	6.43	6.42	0.15	5
	Head 7000	e'	32.5500	Relative Permittivity ( $\epsilon_r$ ):	32.55	33.90	-3.98	5
		e"	16.6100	Conductivity ( $\sigma$ ):	6.46	6.65	-2.78	5
03-25-2024	Head 6000	e'	34.1600	Relative Permittivity ( $\epsilon_r$ ):	34.16	35.10	-2.68	5
		e"	15.9800	Conductivity ( $\sigma$ ):	5.33	5.48	-2.71	5
	Head 6200	e'	34.1200	Relative Permittivity ( $\epsilon_r$ ):	34.12	34.86	-2.12	5
		e"	16.1800	Conductivity ( $\sigma$ ):	5.58	5.72	-2.42	5
	Head 6500	e'	33.5700	Relative Permittivity ( $\epsilon_r$ ):	33.57	34.50	-2.70	5
		e"	16.7400	Conductivity ( $\sigma$ ):	6.05	6.07	-0.33	5
	Head 6600	e'	33.2100	Relative Permittivity ( $\epsilon_r$ ):	33.21	34.38	-3.40	5
		e"	16.6700	Conductivity ( $\sigma$ ):	6.12	6.19	-1.11	5
	Head 6800	e'	32.8400	Relative Permittivity ( $\epsilon_r$ ):	32.84	34.14	-3.81	5
		e"	16.8600	Conductivity ( $\sigma$ ):	6.37	6.42	-0.67	5
	Head 7000	e'	32.8800	Relative Permittivity ( $\epsilon_r$ ):	32.88	33.90	-3.01	5
		e"	16.9000	Conductivity ( $\sigma$ ):	6.58	6.65	-1.08	5
03-26-2024	Head 6000	e'	34.6600	Relative Permittivity ( $\epsilon_r$ ):	34.66	35.10	-1.25	5
		e"	15.7500	Conductivity ( $\sigma$ ):	5.25	5.48	-4.12	5
	Head 6200	e'	34.6300	Relative Permittivity ( $\epsilon_r$ ):	34.63	34.86	-0.66	5
		e"	15.9500	Conductivity ( $\sigma$ ):	5.50	5.72	-3.80	5
	Head 6500	e'	34.1100	Relative Permittivity ( $\epsilon_r$ ):	34.11	34.50	-1.13	5
		e"	16.5200	Conductivity ( $\sigma$ ):	5.97	6.07	-1.64	5
	Head 6600	e'	33.7700	Relative Permittivity ( $\epsilon_r$ ):	33.77	34.38	-1.77	5
		e"	16.4800	Conductivity ( $\sigma$ ):	6.05	6.19	-2.23	5
	Head 6800	e'	33.4700	Relative Permittivity ( $\epsilon_r$ ):	33.47	34.14	-1.96	5
		e"	16.6600	Conductivity ( $\sigma$ ):	6.30	6.42	-1.85	5
	Head 7000	e'	33.0700	Relative Permittivity ( $\epsilon_r$ ):	33.07	33.90	-2.45	5
		e"	16.6400	Conductivity ( $\sigma$ ):	6.48	6.65	-2.61	5
03-27-2024	Head 6000	e'	35.2500	Relative Permittivity ( $\epsilon_r$ ):	35.25	35.10	0.43	5
		e"	16.3200	Conductivity ( $\sigma$ ):	5.44	5.48	-0.64	5
	Head 6200	e'	35.2500	Relative Permittivity ( $\epsilon_r$ ):	35.25	34.86	1.12	5
		e"	16.4500	Conductivity ( $\sigma$ ):	5.67	5.72	-0.79	5
	Head 6500	e'	34.6500	Relative Permittivity ( $\epsilon_r$ ):	34.65	34.50	0.43	5
		e"	17.1300	Conductivity ( $\sigma$ ):	6.19	6.07	2.00	5
	Head 6600	e'	34.3400	Relative Permittivity ( $\epsilon_r$ ):	34.34	34.38	-0.12	5
		e"	17.0200	Conductivity ( $\sigma$ ):	6.25	6.19	0.97	5
	Head 6800	e'	33.9500	Relative Permittivity ( $\epsilon_r$ ):	33.95	34.14	-0.56	5
		e"	17.2400	Conductivity ( $\sigma$ ):	6.52	6.42	1.57	5
	Head 7000	e'	33.2900	Relative Permittivity ( $\epsilon_r$ ):	33.29	33.90	-1.80	5
		e"	17.4100	Conductivity ( $\sigma$ ):	6.78	6.65	1.90	5

**SAR 8 Room (Continued)**

Date	Freq. (MHz)	Liquid Parameters		Measured	Target	Delta (%)	Limit ±(%)	
03-28-2024	Head 6000	e'	35.1300	Relative Permittivity ( $\epsilon_r$ ):	35.13	35.10	0.09	5
		e"	15.7800	Conductivity ( $\sigma$ ):	5.26	5.48	-3.93	5
	Head 6200	e'	35.1400	Relative Permittivity ( $\epsilon_r$ ):	35.14	34.86	0.80	5
		e"	16.0400	Conductivity ( $\sigma$ ):	5.53	5.72	-3.26	5
	Head 6500	e'	34.6000	Relative Permittivity ( $\epsilon_r$ ):	34.60	34.50	0.29	5
		e"	16.6600	Conductivity ( $\sigma$ ):	6.02	6.07	-0.80	5
	Head 6600	e'	34.2900	Relative Permittivity ( $\epsilon_r$ ):	34.29	34.38	-0.26	5
		e"	16.5700	Conductivity ( $\sigma$ ):	6.08	6.19	-1.70	5
	Head 6800	e'	33.8300	Relative Permittivity ( $\epsilon_r$ ):	33.83	34.14	-0.91	5
		e"	16.8600	Conductivity ( $\sigma$ ):	6.37	6.42	-0.67	5
	Head 7000	e'	33.7500	Relative Permittivity ( $\epsilon_r$ ):	33.75	33.90	-0.44	5
		e"	16.9300	Conductivity ( $\sigma$ ):	6.59	6.65	-0.91	5
04-17-2024	Head 6000	e'	35.4300	Relative Permittivity ( $\epsilon_r$ ):	35.43	35.10	0.94	5
		e"	16.1900	Conductivity ( $\sigma$ ):	5.40	5.48	-1.44	5
	Head 6200	e'	35.3200	Relative Permittivity ( $\epsilon_r$ ):	35.32	34.86	1.32	5
		e"	16.3800	Conductivity ( $\sigma$ ):	5.65	5.72	-1.21	5
	Head 6500	e'	34.8500	Relative Permittivity ( $\epsilon_r$ ):	34.85	34.50	1.01	5
		e"	16.9500	Conductivity ( $\sigma$ ):	6.13	6.07	0.92	5
	Head 6600	e'	34.3900	Relative Permittivity ( $\epsilon_r$ ):	34.39	34.38	0.03	5
		e"	16.8900	Conductivity ( $\sigma$ ):	6.20	6.19	0.20	5
	Head 6800	e'	34.0800	Relative Permittivity ( $\epsilon_r$ ):	34.08	34.14	-0.18	5
		e"	17.2300	Conductivity ( $\sigma$ ):	6.51	6.42	1.51	5
	Head 7000	e'	33.6900	Relative Permittivity ( $\epsilon_r$ ):	33.69	33.90	-0.62	5
		e"	17.0300	Conductivity ( $\sigma$ ):	6.63	6.65	-0.32	5
04-17-2024	Head 7000	e'	33.6500	Relative Permittivity ( $\epsilon_r$ ):	33.65	33.90	-0.74	5
		e"	17.4400	Conductivity ( $\sigma$ ):	6.79	6.65	2.08	5
	Head 7250	e'	33.2900	Relative Permittivity ( $\epsilon_r$ ):	33.29	33.60	-0.92	5
		e"	17.6300	Conductivity ( $\sigma$ ):	7.11	6.95	2.33	5
	Head 7500	e'	32.8300	Relative Permittivity ( $\epsilon_r$ ):	32.83	33.30	-1.41	5
		e"	17.9200	Conductivity ( $\sigma$ ):	7.47	7.24	3.22	5
	Head 7800	e'	32.2100	Relative Permittivity ( $\epsilon_r$ ):	32.21	32.94	-2.22	5
		e"	18.1700	Conductivity ( $\sigma$ ):	7.88	7.60	3.69	5
	Head 8000	e'	31.8600	Relative Permittivity ( $\epsilon_r$ ):	31.86	32.70	-2.57	5
		e"	18.0100	Conductivity ( $\sigma$ ):	8.01	7.84	2.18	5
	Head 8100	e'	31.5200	Relative Permittivity ( $\epsilon_r$ ):	31.52	32.58	-3.25	5
		e"	18.3500	Conductivity ( $\sigma$ ):	8.26	7.96	3.77	5

### 8.1.2. SAR System Check

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every days.

#### System Performance Check Measurement Conditions:

- The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0 ±0.2 mm (bottom plate) filled with Simulating liquid of the following parameters.
- The depth of tissue-equivalent liquid in a phantom must be ≥ 10.0 cm for measurements > 6 GHz.
- The DASY system with an E-Field Probe was used for the measurements.
- The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 5 mm (above 6GHz) from dipole center to the simulating liquid surface.
- The dipole input power (forward power) was 100 mW.
- The results are normalized to 1 W input power.

#### Reference Target SAR Values

The reference SAR values can be obtained from the calibration certificate of system validation dipoles.

System Dipole	Serial No.	Cal. Date	Freq. (MHz)	Target SAR Values (W/kg)	
				1g/10g	Head
D6.5GHzV2	1010	2022-05-27	6500	1g	285.00
				10g	52.90
				APD(4cm <sup>2</sup> )	1300.00
D8GHzV2	1012	2022-11-01	8000	1g	267.00
				10g	44.80
				APD(4cm <sup>2</sup> )	1100.00

#### System Check Results

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within 10% of the manufacturer calibrated dipole SAR target.



**SAR 7 Room**

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.	
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W				
03-19-2024	D6.5GHzV2	1010	Head	1g	28.60	286.0	285.00	0.35	
				10g	5.42	54.2	52.90	2.46	
				APD(4cm <sup>2</sup> )	132.00	1320.0	1300.00	1.54	
03-20-2024	D6.5GHzV2	1010	Head	1g	28.60	286.0	285.00	0.35	
				10g	5.34	53.4	52.90	0.95	
				APD(4cm <sup>2</sup> )	130.00	1300.0	1300.00	0.00	
03-21-2024	D6.5GHzV2	1010	Head	1g	29.80	298.0	285.00	4.56	0
				10g	5.67	56.7	52.90	7.18	
				APD(4cm <sup>2</sup> )	138.00	1380.0	1300.00	6.15	
03-22-2024	D6.5GHzV2	1010	Head	1g	29.70	297.0	285.00	4.21	
				10g	5.53	55.3	52.90	4.54	
				APD(4cm <sup>2</sup> )	134.00	1340.0	1300.00	3.08	
03-26-2024	D6.5GHzV2	1010	Head	1g	29.60	296.0	285.00	3.86	
				10g	5.48	54.8	52.90	3.59	
				APD(4cm <sup>2</sup> )	134.00	1340.0	1300.00	3.08	
04-02-2024	D6.5GHzV2	1010	Head	1g	29.10	291.0	285.00	2.11	
				10g	5.36	53.6	52.90	1.32	
				APD(4cm <sup>2</sup> )	131.00	1310.0	1300.00	0.77	
04-23-2024	D8GHzV2	1012	Head	1g	25.40	254.0	267.00	-4.87	0
				10g	4.37	43.7	44.80	-2.46	
				APD(4cm <sup>2</sup> )	107.00	1070.0	1100.00	-2.73	
04-30-2024	D6.5GHzV2	1010	Head	1g	27.70	277.0	285.00	-2.81	
				10g	5.50	55.0	52.90	3.97	
				APD(4cm <sup>2</sup> )	134.00	1340.0	1300.00	3.08	
05-01-2024	D6.5GHzV2	1010	Head	1g	29.30	293.0	285.00	2.81	
				10g	5.71	57.1	52.90	7.94	
				APD(4cm <sup>2</sup> )	139.00	1390.0	1300.00	6.92	

**SAR 8 Room**

Date Tested	System Dipole		T.S. Liquid	Measured Results		Target (Ref. Value)	Delta ±10 %	Plot No.	
	Type	Serial #		Zoom Scan to 100 mW	Normalize to 1 W				
03-22-2024	D6.5GHzV2	1010	Head	1g	26.50	265.0	285.00	-7.02	3
				8g	6.14	61.4	64.60	-4.95	
				10g	5.05	50.5	52.90	-4.54	
				APD(4cm^2)	123.00	1230.0	1300.00	-5.38	
03-25-2024	D6.5GHzV2	1010	Head	1g	29.40	294.0	285.00	3.16	
				8g	6.94	69.4	64.60	7.43	
				10g	5.71	57.1	52.90	7.94	
				APD(4cm^2)	139.00	1390.0	1300.00	6.92	
03-26-2024	D6.5GHzV2	1010	Head	1g	28.60	286.0	285.00	0.35	
				8g	6.76	67.6	64.60	4.64	
				10g	5.56	55.6	52.90	5.10	
				APD(4cm^2)	135.00	1350.0	1300.00	3.85	
03-27-2024	D6.5GHzV2	1010	Head	1g	29.60	296.0	285.00	3.86	
				8g	6.99	69.9	64.60	8.20	
				10g	5.75	57.5	52.90	8.70	
				APD(4cm^2)	140.00	1400.0	1300.00	7.69	
03-28-2024	D6.5GHzV2	1010	Head	1g	28.30	283.0	285.00	-0.70	
				8g	6.80	68.0	64.60	5.26	
				10g	5.61	56.1	52.90	6.05	
				APD(4cm^2)	136.00	1360.0	1300.00	4.62	
04-17-2024	D6.5GHzV2	1010	Head	1g	28.70	287.0	285.00	0.70	
				8g	6.84	68.4	64.60	5.88	
				10g	5.64	56.4	52.90	6.62	
				APD(4cm^2)	137.00	1370.0	1300.00	5.38	
04-17-2024	D8GHzV2	1012	Head	1g	24.50	245.0	267.00	-8.24	4
				8g	5.35	53.5	54.90	-2.55	
				10g	4.40	44.0	44.80	-1.79	
				APD(4cm^2)	107.00	1070.0	1100.00	-2.73	

## 8.2. IPD(Incident Power Density) System

### 8.2.1. Dielectric Property

Media is air so Relative Permittivity ( $\epsilon_r$ ) and Conductivity ( $\sigma$ ) is 1

### 8.2.2. IPD System Check

Per Nov 2017,TCB Workshop

System validation is required before a system is deployed for measurement

System check is also required before each series of continuous measurement and, as applicable, repeated at least weekly

Peak and spatially averaged power density at the peak location(s) must be compared to calibrated results according to the defined test conditions

- the same spatial resolution and measurement region used in the waveguide calibration should be applied to system validation and system check
- 4 cm<sup>2</sup> spatial averaging have been used according to FCC requirement.
- power density distribution should also be verified, both spatially (shape) and numerically (level) through visual inspection for noticeable differences
- The Horn antenna input power (forward power) was 100mW.
- The measured psPD<sub>n+</sub>, psPD<sub>tot+</sub>, and psPD<sub>mod+</sub> values over 1 cm<sup>2</sup> or 4 cm<sup>2</sup> for the desired averaging geometry are compared to the calibrated value and expected to be within  $\pm 10\%$ .

#### Reference Target PD Values

Per the manufacturer's guide, the target value of the calibration report was converted to a value of 100mW input power.

5G verification Source	Serial No.	Cal. Date	Freq. (MHz)	Averaging area	Prad (mW)	Input power (mW)	Target PD Values (W/m <sup>2</sup> )		Note
							1 cm <sup>2</sup>	4 cm <sup>2</sup>	
10GHz	1022	2/19/2024	10000	Circular	93.3		62.40	58.40	Cal.report target
10GHz	1022	2/19/2024	10000	Circular		100	66.88	62.59	Convert target from Cal.report

#### SAR 9 Room

Date	Sorce SN	Sorce Cal. Due Data	Input Power (mW)	Measured Results for 1cm <sup>2</sup> (W/m <sup>2</sup> )	Target (Ref. Value) (W/m <sup>2</sup> )	Delta $\pm 10\%$	Measured Total psPD for 4cm <sup>2</sup> (W/m <sup>2</sup> )	Target (Ref. Value) (W/m <sup>2</sup> )	Delta $\pm 10\%$	visual inspection	Plot No.
3/21/2024	1022	2/24/2024	100.0	64.7	66.88	-3.26	59.1	62.59	-5.58	confirmed	
3/27/2024	1022	2/24/2024	100.0	66.6	66.88	-0.42	61.0	62.59	-2.54	confirmed	
3/28/2024	1022	2/24/2024	100.0	64.7	66.88	-3.26	59.2	62.59	-5.42	confirmed	
3/29/2024	1022	2/24/2024	100.0	62.7	66.88	-6.25	58.0	62.59	-7.33	confirmed	
4/1/2024	1022	2/24/2024	100.0	62.0	66.88	-7.30	57.7	62.59	-7.81	confirmed	
4/2/2024	1022	2/24/2024	100.0	62.6	66.88	-6.40	57.9	62.59	-7.49	confirmed	
4/3/2024	1022	2/24/2024	100.0	64.5	66.88	-3.56	58.7	62.59	-6.22	confirmed	
4/19/2024	1022	2/24/2024	100.0	63.6	66.88	-4.90	57.6	62.59	-7.97	confirmed	
4/30/2024	1022	2/24/2024	100.0	72.6	66.88	8.55	65.6	62.59	4.81	confirmed	5
5/1/2024	1022	2/24/2024	100.0	63.5	66.88	-5.05	57.6	62.59	-7.97	confirmed	
5/2/2024	1022	2/24/2024	100.0	66.7	66.88	-0.27	60.4	62.59	-3.50	confirmed	

#### Note(s):

psPD value used the ps<sub>tot</sub> avg value of test result plot.

## 9. Conducted Output Power Measurements

### WLAN SISO Ant 1, 2

#### SP / LPI

Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Plimit (DSI=0) Average Power				SAR Test (Yes/No)	Plimit (DSI=1,2,3) Average Power				SAR Test (Yes/No)
					WLAN SISO Ant.1		WLAN SISO Ant.2			WLAN SISO Ant.1		WLAN SISO Ant.2		
					Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	Avg Pwr (dBm)	Max. Tune-up Limit (dBm)		Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	
UNII 5 (5.925 - 6.425 GHz)	802.11a	6 Mbps	1	5955	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			45	6175										
			93	6415										
	802.11ax (HE20)	7.3 Mbps	1	5935	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			45	6175										
			93	6415										
	802.11ax (HE40)	14.6 Mbps	3	5965	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			43	6165										
			91	6405										
	802.11ax (HE80)	36.0 Mbps	7	5985	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			39	6145										
			87	6385										
	802.11ax (HE160)	72.0 Mbps	15	6025	10.72	11.00	10.99	11.00	Yes	12.82	13.00	12.94	13.00	Yes
			47	6185	10.73		10.98			12.80		12.95		
			79	6345	10.55		10.89			12.90		12.81		
UNII 6 (6.525 - 6.525 GHz)	802.11a	6 Mbps	97	6435	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			105	6475										
			113	6515										
	802.11ax (HE20)	7.3 Mbps	97	6435	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			105	6475										
			113	6515										
	802.11ax (HE40)	14.6 Mbps	99	6445	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			115	6525										
	802.11ax (HE80)	36.0 Mbps	103	6465	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			111	6505										
802.11ax (HE160)	72.0 Mbps	111	6505	10.54	11.00	10.99	11.00	Yes	12.64	13.00	12.98	13.00	Yes	
UNII 7 (6.525 - 6.885 GHz)	802.11a	6 Mbps	117	6535	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			149	6695										
			185	6875										
	802.11ax (HE20)	7.3 Mbps	117	6535	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			149	6695										
			185	6875										
	802.11ax (HE40)	14.6 Mbps	123	6565	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			147	6685										
			179	6845										
	802.11ax (HE80)	36.0 Mbps	119	6545	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			151	6705										
			183	6865										
	802.11ax (HE160)	72.0 Mbps	143	6665	10.20	11.00	10.93	11.00	Yes	12.31	13.00	12.84	13.00	Yes
			175	6825	9.99		10.51			12.09		12.50		
			UNII 8 (6.885 - 7.125 GHz)	802.11a	6 Mbps		189			5955		Not Required		
209	6175													
233	6415													
802.11ax (HE20)	7.3 Mbps	189		5955	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
		209		6175										
		233		6415										
802.11ax (HE40)	14.6 Mbps	187		6885	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
		203		6965										
		227		7085										
802.11ax (HE80)	36.0 Mbps	199		6945	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
		215		7025										
802.11ax (HE160)	72.0 Mbps	207		6985	10.02	11.00	10.81	11.00	Yes	12.05	13.00	12.67	13.00	Yes

**Note(s):**

- Indoor AP for Plimit(DSI=0,1,2,3) target power is equal to Standard AP related all RF exposure conditions.
- Per TCB workshop April.2021's guide, Channel power verification was performed for UNII 6e (5925MHz-7125MHz). So, 5 test channels of 802.11ax (HE160) were determined for SAR test. Refer to blue box in table.

**WLAN MIMO Ant**

**SP / LPI**

Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Plimit (DSI=0) Average Power				SAR Test (Yes/No)	Plimit (DSI=1,2,3) Average Power				SAR Test (Yes/No)
					WLAN MIMO Ant.1		WLAN MIMO Ant.2			WLAN MIMO Ant.1		WLAN MIMO Ant.2		
					Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	Avg Pwr (dBm)	Max. Tune-up Limit (dBm)		Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	Avg Pwr (dBm)	Max. Tune-up Limit (dBm)	
UNII 5 (5.925 - 6.425 GHz)	802.11a	6 Mbps	1	5955	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			45	6175										
			93	6415										
	802.11ax (HE20)	7.3 Mbps	1	5935	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			45	6175										
			93	6415										
	802.11ax (HE40)	14.6 Mbps	3	5965	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			43	6165										
			91	6405										
	802.11ax (HE80)	36.0 Mbps	7	5985	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			39	6145										
			87	6385										
	802.11ax (HE160)	72.0 Mbps	15	6025	10.67	11.00	10.99	11.00	Yes	12.76	13.00	12.95	13.00	Yes
			47	6185	10.78		10.98			12.77		12.95		
			79	6345	10.56		10.88			12.88		12.83		
UNII 6 (6.425 - 6.525 GHz)	802.11a	6 Mbps	97	6435	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			105	6475										
			113	6515										
	802.11ax (HE20)	7.3 Mbps	97	6435	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			105	6475										
			113	6515										
	802.11ax (HE40)	14.6 Mbps	99	6445	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			115	6525										
	802.11ax (HE80)	36.0 Mbps	103	6465	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
	802.11ax (HE160)	72.0 Mbps	111	6505	10.52	11.00	10.98	11.00	Yes	12.65	13.00	12.97	13.00	Yes
UNII 7 (6.525 - 6.885 GHz)	802.11a	6 Mbps	117	6535	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			149	6695										
			185	6875										
	802.11ax (HE20)	7.3 Mbps	117	6535	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			149	6695										
			185	6875										
	802.11ax (HE40)	14.6 Mbps	123	6565	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			147	6685										
			179	6845										
	802.11ax (HE80)	36.0 Mbps	119	6545	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			151	6705										
			183	6865										
	802.11ax (HE160)	72.0 Mbps	143	6665	10.23	11.00	10.98	11.00	Yes	12.38	13.00	12.86	13.00	Yes
175			6825	10.02	10.52		12.02			12.53				
UNII 8 (6.885 - 7.125 GHz)	802.11a	6 Mbps	189	5955	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			209	6175										
			233	6415										
	802.11ax (HE20)	7.3 Mbps	189	5955	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			209	6175										
			233	6415										
	802.11ax (HE40)	14.6 Mbps	187	6885	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			203	6965										
			227	7085										
	802.11ax (HE80)	36.0 Mbps	199	6945	Not Required	11.00	Not Required	11.00	No	Not Required	13.00	Not Required	13.00	No
			215	7025										
	802.11ax (HE160)	72.0 Mbps	207	6985	10.02	11.00	10.90	11.00	Yes	12.05	13.00	12.72	13.00	Yes

**Note(s):**

- Indoor AP for Plimit(DSI=0,1,2,3) target power is equal to Standard AP related all RF exposure conditions.
- Per TCB workshop April.2021's guide, Channel power verification was performed for UNII 6e (5925MHz-7125MHz). So, 5 test channels of 802.11ax (HE160) were determined for SAR test. Refer to blue box in table.

**Duty Factor Measured Results (MIMO mode)**

Mode	Data Rate	T on (ms)	Period (ms)	Duty Cycle	Crest Factor (1/duty cycle)
802.11ax (HE 160)	29.3 Mbps	5.451	5.471	99.63%	1.00

**802.11ax (HE160)**

51078 Swept SA
Spectrum Analyzer 2 Swept SA
+

**KEYSIGHT**  
 RL   
 LNI

Input: RF  
 Coupling: DC  
 Align: Auto

Input Z: 50 Ω  
 Freq Ref: Int (S)  
 NFE: Adaptive

Atten: 30 dB  
 Preamp: Off  
 μW Path: Standard

PNO: Fast  
 Gate: Off  
 IF Gain: Low  
 Sig Track: Off

Avg Type: Power (RMS)  
 Trig: RF Burst

1 2 3 4 5 6  
 W W W W W W  
 A N N N N N

1 Spectrum
ΔMkr3 5.471 ms  
0.86 dB

Scale/Div 10 dB
Ref Level 20.00 dBm

Center 6.66500000 GHz
Video BW 50 MHz\*
Span 0 Hz

Res BW 8 MHz
Sweep 20.0 ms (20001 pts)

5 Marker Table

	Mode	Trace	Scale	X	Y	Function	Function Width	Function Value
1	N	1	t	5.467 ms	-11.82 dBm			
2	Δ1	1	t	(Δ) 5.451 ms (Δ)	2.358 dB			
3	Δ1	1	t	(Δ) 5.471 ms (Δ)	0.8620 dB			
4								
5								
6								

Feb 20, 2024  
1:59:02 PM

## 10. SAR and APD(Absorbed Power Density) Results

### SAR Test Reduction criteria are as follows:

- Reported SAR(W/kg) for Wi-Fi = Measured SAR \* Tune-up scaling factor \* Duty Cycle scaling factor
- Duty Cycle scaling factor = 1 / Duty cycle (%)

### KDB 447498 D04 Interim General RF Exposure Guidance:

Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

- $\leq 0.8$  W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\leq 100$  MHz
- $\leq 0.6$  W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- $\leq 0.4$  W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\geq 200$  MHz

### KDB 648474 D04 Handset SAR:

With headset attached, when the reported SAR for body-worn accessory, measured without a headset connected to the handset, is  $> 1.2$  W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

### KDB 648474 D04 Handset SAR (Phablet Only):

For smart phones, with a display diagonal dimension  $> 15.0$  cm or an overall diagonal dimension  $> 16.0$  cm.

When hotspot mode does not apply, 10-g extremity SAR is required for all surfaces and edges with an antenna located at  $\leq 25$ mm From that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR  $> 1.2$  W/kg; However, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.

### 10.1. WiFi (UNII Bands-Above 6GHz)

**Forder Closed configuration**

**SISO Ant SAR test results**

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
									Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled		
WLAN SISO Ant.1	Head	802.11ax HE160 72.0 Mbps	N/A	0	Left Touch	15	6025.0	99.6%	13.00	12.82	0.112	0.117			1	
						79	6345.0	99.6%	13.00	12.90	0.070	0.072				
						111	6505.0	99.6%	13.00	12.64	0.066	0.072				
						143	6665.0	99.6%	13.00	12.31	0.073	0.086				
					207	6985.0	99.6%	13.00	12.05	0.017	0.021					
					Left Tilt	79	6345.0	99.6%	13.00	12.90	0.000	0.000				
					Right touch	79	6345.0	99.6%	13.00	12.90	0.058	0.060				
	Right Tilt		79	6345.0	99.6%	13.00	12.90	0.007	0.007							
	Body-worn		N/A	10	Rear	15	6025.0	99.6%	13.00	12.82	0.056	0.059				
						79	6345.0	99.6%	13.00	12.90	0.079	0.081				
						111	6505.0	99.6%	13.00	12.64	0.089	0.097				
						143	6665.0	99.6%	13.00	12.31	0.090	0.106			2	
					207	6985.0	99.6%	13.00	12.05	0.070	0.087					
	Front		79	6345.0	99.6%	13.00	12.90	0.003	0.003							
	Product Specific 10-g	N/A	0	Rear	79	6345.0	99.6%	13.00	12.82			0.099	0.104			
				Front	79	6345.0	99.6%	13.00	12.82			0.043	0.045			
				Right	15	6025.0	99.6%	13.00	12.82			0.272	0.285			
					79	6345.0	99.6%	13.00	12.90			0.246	0.253			
					111	6505.0	99.6%	13.00	12.64			0.212	0.231			
					143	6665.0	99.6%	13.00	12.31			0.224	0.264			
				207	6985.0	99.6%	13.00	12.05			0.231	0.289		3		
WLAN SISO Ant.2	Head	802.11ax HE160 72.0 Mbps	N/A	0	Left Touch	111	6505.0	99.6%	13.00	12.98	0.100	0.101				
					Left Tilt	15	6025.0	99.6%	13.00	12.94	0.114	0.116				
						79	6345.0	99.6%	13.00	12.81	0.083	0.087				
						111	6505.0	99.6%	13.00	12.98	0.133	0.134			4	
						143	6665.0	99.6%	13.00	12.84	0.106	0.110				
					207	6985.0	99.6%	13.00	12.67	0.113	0.122					
					Right touch	111	6505.0	99.6%	13.00	12.98	0.064	0.065				
	Right tilt		111	6505.0	99.6%	13.00	12.98	0.071	0.072							
	Body-worn		N/A	10	Rear	15	6025.0	99.6%	13.00	12.94	0.150	0.153				
						79	6345.0	99.6%	13.00	12.81	0.165	0.173				
						111	6505.0	99.6%	13.00	12.98	0.185	0.187				
						143	6665.0	99.6%	13.00	12.84	0.194	0.202				
					207	6985.0	99.6%	13.00	12.67	0.188	0.204			5		
	Front		111	6505.0	99.6%	13.00	12.98	0.017	0.017							
	Product Specific 10-g	N/A	0	Rear	15	6025.0	99.6%	13.00	12.98			0.210	0.212			
					79	6345.0	99.6%	13.00	12.98			0.041	0.041			
					111	6505.0	99.6%	13.00	12.94			0.309	0.314			
					143	6665.0	99.6%	13.00	12.81			0.341	0.358			
				207	6985.0	99.6%	13.00	12.98			0.246	0.248				
				Front	111	6505.0	99.6%	13.00	12.84			0.391	0.407			
				Top	111	6505.0	99.6%	13.00	12.67			0.420	0.455		6	
Right	111	6505.0	99.6%	13.00	12.98			0.048	0.048							



**Forder Closed configuration**

**MIMO Ant SAR test results**

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
									Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled		
WLAN MIMO Ant.1	Head	802.11ax HE160 72.0 Mbps	N/A	0	Left Touch	79	6345.0	99.6%	13.00	12.88						
					Left Tilt	15	6025.0	99.6%	13.00	12.76						
						79	6345.0	99.6%	13.00	12.88						
						111	6505.0	99.6%	13.00	12.65						
						143	6665.0	99.6%	13.00	12.38						
						207	6985.0	99.6%	13.00	12.05						
					Right touch	79	6345.0	99.6%	13.00	12.88						
	Right Tilt			79	6345.0	99.6%	13.00	12.88								
	Body-worn			Rear	15	6025.0	99.6%	13.00	12.76							
					79	6345.0	99.6%	13.00	12.88							
					111	6505.0	99.6%	13.00	12.65							
					143	6665.0	99.6%	13.00	12.38							
					207	6985.0	99.6%	13.00	12.05							
	Front			79	6345.0	99.6%	13.00	12.88								
	Product Specific 10-g	Rear	79	6345.0	99.6%	13.00	12.88									
			79	6345.0	99.6%	13.00	12.88									
		Top	79	6345.0	99.6%	13.00	12.88									
			15	6025.0	99.6%	13.00	12.76			0.343	0.364					
		Right	79	6345.0	99.6%	13.00	12.88			0.371	0.383					
			111	6505.0	99.6%	13.00	12.65			0.354	0.385	7				
			143	6665.0	99.6%	13.00	12.38			0.277	0.321					
207			6985.0	99.6%	13.00	12.05			0.282	0.352						
WLAN MIMO Ant.2	Head	802.11ax HE160 72.0 Mbps	N/A	0	Left Touch	79	6345.0	99.6%	13.00	12.83	0.184	0.192				
					Left Tilt	15	6025.0	99.6%	13.00	12.95	0.121	0.123				
						79	6345.0	99.6%	13.00	12.83	0.233	0.243			8	
						111	6505.0	99.6%	13.00	12.97	0.221	0.223				
						143	6665.0	99.6%	13.00	12.86	0.182	0.189				
						207	6985.0	99.6%	13.00	12.72	0.186	0.199				
					Right touch	79	6345.0	99.6%	13.00	12.83	0.137	0.143				
	Right Tilt			79	6345.0	99.6%	13.00	12.83	0.166	0.173						
	Body-worn			Rear	15	6025.0	99.6%	13.00	12.95	0.138	0.140					
					79	6345.0	99.6%	13.00	12.83	0.164	0.171					
					111	6505.0	99.6%	13.00	12.97	0.289	0.292			9		
					143	6665.0	99.6%	13.00	12.86	0.246	0.255					
					207	6985.0	99.6%	13.00	12.72	0.125	0.134					
	Front			79	6345.0	99.6%	13.00	12.83	0.036	0.038						
	Product Specific 10-g	Rear	79	6345.0	99.6%	13.00	12.83					0.182	0.190			
			79	6345.0	99.6%	13.00	12.83					0.072	0.075			
		Top	79	6345.0	99.6%	13.00	12.83					0.295	0.308			
			15	6025.0	99.6%	13.00	12.95									
		Right	79	6345.0	99.6%	13.00	12.83									
			111	6505.0	99.6%	13.00	12.97									
			143	6665.0	99.6%	13.00	12.86									
207			6985.0	99.6%	13.00	12.72										

**Note(s):**

1. APD (Absorbed Power Density) over 4cm<sup>2</sup> averaging area is reported based on SAR measurements.

**Forder Opened configuration**

**SISO Ant SAR test results**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled		
WLAN SISO Ant.1	Body 1-g	802.11ax HE160 72.0 Mbps	10	Rear	15	6025.0	99.6%	11.00	10.72	0.033	0.035				
					15	6025.0	99.6%	11.00	10.72	0.065	0.070				
					79	6345.0	99.6%	11.00	10.55	0.056	0.062				
					111	6505.0	99.6%	11.00	10.54	0.060	0.067				
					143	6665.0	99.6%	11.00	10.20	0.076	0.092				
					207	6985.0	99.6%	11.00	10.02	0.083	0.104			10	
	Extremity 10-g		0	Right	15	6025.0	99.6%	11.00	10.72	0.044	0.047				
					15	6025.0	99.6%	11.00	10.72			0.085	0.091		
					15	6025.0	99.6%	11.00	10.72			0.389	0.416		
					79	6345.0	99.6%	11.00	10.55			0.354	0.394		
					111	6505.0	99.6%	11.00	10.54			0.402	0.449		
					143	6665.0	99.6%	11.00	10.20			0.400	0.483		
					207	6985.0	99.6%	11.00	10.02			0.444	0.558		11
					15	6025.0	99.6%	11.00	10.55			0.162	0.180		
WLAN SISO Ant.2	Body 1-g	802.11ax HE160 72.0 Mbps	10	Rear	15	6025.0	99.6%	11.00	10.99	0.130	0.131				
					15	6025.0	99.6%	11.00	10.99	0.106	0.107				
					15	6025.0	99.6%	11.00	10.99	0.114	0.115				
					79	6345.0	99.6%	11.00	10.89	0.162	0.167			12	
					111	6505.0	99.6%	11.00	10.99	0.163	0.164				
					143	6665.0	99.6%	11.00	10.93	0.083	0.085				
	Extremity 10-g		0	Right	15	6025.0	99.6%	11.00	10.99	0.022	0.022				
					15	6025.0	99.6%	11.00	10.99			0.160	0.161		
					15	6025.0	99.6%	11.00	10.99			0.315	0.317		
					79	6345.0	99.6%	11.00	10.89			0.344	0.354	13	
					111	6505.0	99.6%	11.00	10.99			0.312	0.314		
					143	6665.0	99.6%	11.00	10.93			0.249	0.254		
	Extremity 10-g		0	Top	15	6025.0	99.6%	11.00	10.99			0.252	0.264		
					15	6025.0	99.6%	11.00	10.99			0.219	0.220		
					15	6025.0	99.6%	11.00	10.99			0.044	0.044		
					15	6025.0	99.6%	11.00	10.99						
					15	6025.0	99.6%	11.00	10.99						
					15	6025.0	99.6%	11.00	10.99						

**MIMO Ant SAR test results**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.	
								Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled		
WLAN MIMO Ant.1	Body 1-g	802.11ax HE160 72.0 Mbps	10	Rear	15	6025.0	99.6%	11.00	10.67						
					79	6345.0	99.6%	11.00	10.56						
					111	6505.0	99.6%	11.00	10.52						
					143	6665.0	99.6%	11.00	10.23						
					207	6985.0	99.6%	11.00	10.02						
					15	6025.0	99.6%	11.00	10.67						
	Extremity 10-g		0	Top	15	6025.0	99.6%	11.00	10.67						
					15	6025.0	99.6%	11.00	10.67						
					15	6025.0	99.6%	11.00	10.67	0.085	0.092				
					15	6025.0	99.6%	11.00	10.67						
					79	6345.0	99.6%	11.00	10.56						
					111	6505.0	99.6%	11.00	10.52						
					143	6665.0	99.6%	11.00	10.23						
					207	6985.0	99.6%	11.00	10.02						
Extremity 10-g	0	Right	15	6025.0	99.6%	11.00	10.67								
			15	6025.0	99.6%	11.00	10.67			0.198	0.214				
			15	6025.0	99.6%	11.00	10.99	0.144	0.145						
			79	6345.0	99.6%	11.00	10.88	0.195	0.201						
			111	6505.0	99.6%	11.00	10.98	0.253	0.255			14			
			143	6665.0	99.6%	11.00	10.98	0.221	0.223						
WLAN MIMO Ant.2	Body 1-g	802.11ax HE160 72.0 Mbps	10	Front	15	6025.0	99.6%	11.00	10.99	0.132	0.133				
					15	6025.0	99.6%	11.00	10.99	0.116	0.117				
					15	6025.0	99.6%	11.00	10.99						
					79	6345.0	99.6%	11.00	10.88						
					111	6505.0	99.6%	11.00	10.98						
					143	6665.0	99.6%	11.00	10.98						
	Extremity 10-g		0	Right	15	6025.0	99.6%	11.00	10.99			0.147	0.148		
					15	6025.0	99.6%	11.00	10.99			0.319	0.321		
					79	6345.0	99.6%	11.00	10.88			0.449	0.463		
					111	6505.0	99.6%	11.00	10.98			0.466	0.470	15	
					143	6665.0	99.6%	11.00	10.98			0.415	0.418		
					207	6985.0	99.6%	11.00	10.90			0.405	0.416		
Extremity 10-g	0	Top	15	6025.0	99.6%	11.00	10.99			0.241	0.242				
			15	6025.0	99.6%	11.00	10.99								
			15	6025.0	99.6%	11.00	10.99								
			15	6025.0	99.6%	11.00	10.99								
			15	6025.0	99.6%	11.00	10.99								
			15	6025.0	99.6%	11.00	10.99								

**Forder Closed configuration**

**SISO Ant APD (Absorbed Power Density) test results**

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		Measured APD (mW/cm <sup>2</sup> over 4cm <sup>2</sup> )	Plot No.
									Tune-up limit	Meas.		
WLAN SISO Ant.1	Head	802.11ax HE160 72.0 Mbps	N/A	0	Left Touch	15	6025.0	99.6%	13.00	12.82	0.0647	16
						79	6345.0	99.6%	13.00	12.90	0.0361	
						111	6505.0	99.6%	13.00	12.64	0.0372	
						143	6665.0	99.6%	13.00	12.31	0.0401	
						207	6985.0	99.6%	13.00	12.05	0.0020	
					Left Tilt	79	6345.0	99.6%	13.00	12.90	0.0003	
	Right touch		79	6345.0	99.6%	13.00	12.90	0.0259				
	Right Tilt		79	6345.0	99.6%	13.00	12.90	0.0013				
	Body-w orn		Rear	15	6025.0	99.6%	13.00	12.82	0.0374			
				79	6345.0	99.6%	13.00	12.90	0.0506			
				111	6505.0	99.6%	13.00	12.64	0.0569	17		
				143	6665.0	99.6%	13.00	12.31	0.0562			
				207	6985.0	99.6%	13.00	12.05	0.0483			
	Front		79	6345.0	99.6%	13.00	12.90	0.0018				
	Product Specific 10-g		Rear	79	6345.0	99.6%	13.00	12.90	0.2290			
				Front	79	6345.0	99.6%	13.00	12.90	0.1030		
			Right	15	6025.0	99.6%	13.00	12.82	0.6350	18		
				79	6345.0	99.6%	13.00	12.90	0.5700			
111		6505.0		99.6%	13.00	12.64	0.4990					
143		6665.0		99.6%	13.00	12.31	0.5300					
207	6985.0	99.6%	13.00	12.05	0.5440							
WLAN SISO Ant.2	Head	802.11ax HE160 72.0 Mbps	N/A	0	Left Touch	111	6505.0	99.6%	13.00	12.98	0.0624	
					Left Tilt	15	6025.0	99.6%	13.00	12.94	0.0655	
						79	6345.0	99.6%	13.00	12.81	0.0508	
						111	6505.0	99.6%	13.00	12.98	0.0837	19
						143	6665.0	99.6%	13.00	12.84	0.0696	
					207	6985.0	99.6%	13.00	12.67	0.0687		
	Right touch		111	6505.0	99.6%	13.00	12.98	0.0496				
	Right tilt		111	6505.0	99.6%	13.00	12.98	0.0490				
	Body-w orn & Hotspot		Rear	15	6025.0	99.6%	13.00	12.94	0.1130			
				79	6345.0	99.6%	13.00	12.81	0.1250			
				111	6505.0	99.6%	13.00	12.98	0.1380			
				143	6665.0	99.6%	13.00	12.84	0.1450	20		
				207	6985.0	99.6%	13.00	12.67	0.1450			
	Front		111	6505.0	99.6%	13.00	12.98	0.0124				
	Product Specific 10-g		Rear	15	6025.0	99.6%	13.00	12.98	0.5000			
				79	6345.0	99.6%	13.00	12.98	0.0980			
				111	6505.0	99.6%	13.00	12.94	0.7170			
				143	6665.0	99.6%	13.00	12.81	0.7910			
207		6985.0	99.6%	13.00	12.98	0.5660						
Front		111	6505.0	99.6%	13.00	12.84	0.9090					
Top		111	6505.0	99.6%	13.00	12.67	0.9740	21				
Right	111	6505.0	99.6%	13.00	12.98	0.1140						

**Note(s):**

1. APD (Absorbed Power Density) over 4cm<sup>2</sup> averaging area is reported based on SAR measurements.
2. 10 W/m<sup>2</sup> = 1.0 mW/cm<sup>2</sup>

**Forder Closed configuration**

**MIMO Ant APD (Absorbed Power Density) SAR test results**

Antenna	RF Exposure Conditions	Mode	PWR Back-off	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		Measured APD (mW/cm <sup>2</sup> over 4cm <sup>2</sup> )	Plot No.
									Tune-up limit	Meas.		
WLAN MIMO Ant.1	Head	802.11ax HE160 72.0 Mbps	N/A	0	Left Touch	79	6345.0	99.6%	13.00			
						79	6345.0	99.6%	13.00			
					Left Tilt	111	6505.0	99.6%	13.00			
						143	6665.0	99.6%	13.00			
						207	6985.0	99.6%	13.00			
						207	6985.0	99.6%	13.00			
					Right touch	79	6345.0	99.6%	13.00			
	Right Tilt			79	6345.0	99.6%	13.00					
	Body-w orn			10	Rear	15	6025.0	99.6%	13.00			
						79	6345.0	99.6%	13.00			
						111	6505.0	99.6%	13.00			
						143	6665.0	99.6%	13.00			
						207	6985.0	99.6%	13.00			
	Front			79	6345.0	99.6%	13.00					
	Product Specific 10-g			0	Rear	79	6345.0	99.6%	13.00			
					Front	79	6345.0	99.6%	13.00			
					Top	79	6345.0	99.6%	13.00			
					Right	15	6025.0	99.6%	13.00	12.76	0.8020	
						79	6345.0	99.6%	13.00	12.88	0.8850	22
						111	6505.0	99.6%	13.00	12.65	0.8120	
						143	6665.0	99.6%	13.00	12.38	0.6530	
207		6985.0	99.6%		13.00	12.05	0.6650					
WLAN MIMO Ant.2	Head	802.11ax HE160 72.0 Mbps	N/A	0	Left Touch	79	6345.0	99.6%	13.00	12.83	0.1100	
						79	6345.0	99.6%	13.00	12.95	0.0633	
					Left Tilt	111	6505.0	99.6%	13.00	12.83	0.1380	23
						143	6665.0	99.6%	13.00	12.97	0.1270	
						207	6985.0	99.6%	13.00	12.86	0.1020	
						207	6985.0	99.6%	13.00	12.72	0.1030	
					Right touch	79	6345.0	99.6%	13.00	12.83	0.0983	
	Right Tilt			79	6345.0	99.6%	13.00	12.83	0.1110			
	Body-w orn			10	Rear	15	6025.0	99.6%	13.00	12.95	0.1050	
						79	6345.0	99.6%	13.00	12.83	0.1220	
						111	6505.0	99.6%	13.00	12.97	0.2230	24
						143	6665.0	99.6%	13.00	12.86	0.1910	
						207	6985.0	99.6%	13.00	12.72	0.0947	
	Front			79	6345.0	99.6%	13.00	12.83	0.0252			
	Product Specific 10-g			0	Rear	79	6345.0	99.6%	13.00	12.83	0.4250	
					Front	79	6345.0	99.6%	13.00	12.83	0.1720	
					Top	79	6345.0	99.6%	13.00	12.83	0.6790	
					Right	15	6025.0	99.6%	13.00			
						79	6345.0	99.6%	13.00			
						111	6505.0	99.6%	13.00			
						143	6665.0	99.6%	13.00			
207		6985.0	99.6%		13.00							

**Note(s):**

1. APD (Absorbed Power Density) over 4cm<sup>2</sup> averaging area is reported based on SAR measurements.
2. 10 W/m<sup>2</sup> = 1.0 mW/cm<sup>2</sup>

**Forder Opened configuration**

**SISO Ant APD (Absorbed Power Density) test results**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		Measured APD (mW/cm <sup>2</sup> over 4cm <sup>2</sup> )	Plot No.
								Tune-up limit	Meas.		
WLAN SISO Ant.1	Body 1-g	802.11ax HE160 72.0 Mbps	10	Rear	15	6025.0	99.6%	11.00	10.72	0.0146	
				Front	15	6025.0	99.6%	11.00	10.72	0.0400	
					79	6345.0	99.6%	11.00	10.55	0.0367	
					111	6505.0	99.6%	11.00	10.54	0.0374	
					143	6665.0	99.6%	11.00	10.20	0.0509	
					207	6985.0	99.6%	11.00	10.02	0.0522	25
	Right		15	6025.0	99.6%	11.00	10.72	0.0248			
	Extremity 10-g		0	Rear	79	6345.0	99.6%	11.00	10.72	0.1950	
				Front	15	6025.0	99.6%	11.00	10.72	0.9130	
					79	6345.0	99.6%	11.00	10.55	0.8400	
					111	6505.0	99.6%	11.00	10.54	0.9560	
					143	6665.0	99.6%	11.00	10.20	0.9500	
		207			6985.0	99.6%	11.00	10.02	1.0700	26	
		Top		79	6345.0	99.6%	11.00	10.72	0.0486		
Right		79		6345.0	99.6%	11.00	10.72	0.3760			
WLAN SISO Ant.2	Body 1-g	802.11ax HE160 72.0 Mbps	10	Rear	15	6025.0	99.6%	11.00	10.99	0.0954	
				Front	15	6025.0	99.6%	11.00	10.99	0.0756	
				Top	15	6505.0	99.6%	11.00	10.99	0.0874	
					79	6665.0	99.6%	11.00	10.89	0.1290	
					111	6985.0	99.6%	11.00	10.99	0.1330	27
					143	6985.0	99.6%	11.00	10.93	0.0695	
	207		6985.0		99.6%	11.00	10.81	0.0293			
	Right		15	6025.0	99.6%	11.00	10.99	0.0217			
	Extremity 10-g		0	Rear	15	6025.0	99.6%	11.00	10.99	0.3820	
				Front	15	6505.0	99.6%	11.00	10.99	0.7410	
					79	6665.0	99.6%	11.00	10.89	0.8070	28
					111	6985.0	99.6%	11.00	10.99	0.7450	
		143			6985.0	99.6%	11.00	10.93	0.5910		
		207			6985.0	99.6%	11.00	10.81	0.5980		
Top		15		6025.0	99.6%	11.00	10.99	0.5290			
Right		15		6025.0	99.6%	11.00	10.99	0.1000			

**MIMO Ant APD (Absorbed Power Density) test results**

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Duty Cycle (%)	Power (dBm)		Measured APD (mW/cm <sup>2</sup> over 4cm <sup>2</sup> )	Plot No.
								Tune-up limit	Meas.		
WLAN MIMO Ant.1	Body 1-g	802.11ax HE160 72.0 Mbps	10	Rear	15	6025.0	99.6%	11.00			
					79	6345.0	99.6%	11.00			
					111	6505.0	99.6%	11.00			
					143	6665.0	99.6%	11.00			
					207	6985.0	99.6%	11.00			
				Front	15	6025.0	99.6%	11.00			
	Extremity 10-g		0	Top	15	6025.0	99.6%	11.00			
				Right	15	6025.0	99.6%	11.00	10.67	0.0576	
				Front	15	6025.0	99.6%	11.00			
					79	6345.0	99.6%	11.00			
					111	6505.0	99.6%	11.00			
					143	6665.0	99.6%	11.00			
		207			6985.0	99.6%	11.00				
		Top		15	6025.0	99.6%	11.00				
Right	15	6025.0	99.6%	11.00	10.67	0.4650					
WLAN MIMO Ant.2	Body 1-g	802.11ax HE160 72.0 Mbps	10	Rear	15	6025.0	99.6%	11.00	10.99	0.1070	
					79	6345.0	99.6%	11.00	10.88	0.1340	
					111	6505.0	99.6%	11.00	10.98	0.1740	29
					143	6665.0	99.6%	11.00	10.98	0.1540	
					207	6985.0	99.6%	11.00	10.90	0.0914	
				Front	15	6025.0	99.6%	11.00	10.99	0.0911	
	Extremity 10-g		0	Top	15	6025.0	99.6%	11.00	10.99	0.0860	
				Right	15	6025.0	99.6%	11.00	10.99	0.0576	
				Front	15	6025.0	99.6%	11.00	10.99	0.3440	
					79	6345.0	99.6%	11.00	10.99	0.6010	
					111	6505.0	99.6%	11.00	10.88	1.0600	30
					143	6665.0	99.6%	11.00	10.98	1.1000	
		207			6985.0	99.6%	11.00	10.90	0.9610		
		Top		15	6025.0	99.6%	11.00	10.99	0.5710		
Right	15	6025.0	99.6%	11.00							

## 10.2. UWB (Ultra Wide Band)

### SAR test results

#### Forder Closed configuration

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	10-g SAR (W/kg)	Plot No.
							Meas.	
UWB Ant	Product Specific 10-g	CW	0	Rear	5	6489.6	0.002	31
					9	7987.2	0.000	
				Front	5	6489.6	0.003	
					9	7987.2	0.000	
				Top	5	6489.6	0.000	
					9	7987.2	0.000	
				Left	5	6489.6	0.002	
					9	7987.2	0.000	
				Right	5	6489.6	0.000	
					9	7987.2	0.000	

#### Forder Opened configuration

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	10-g SAR (W/kg)	Plot No.
							Meas.	
UWB Ant	UMPC Extremity 10-g	CW	0	Rear	5	6489.6	0.000	32
					9	7987.2	0.000	
				Front	5	6489.6	0.000	
					9	7987.2	0.000	
				Top	5	6489.6	0.000	
					9	7987.2	0.000	
				Right	5	6489.6	0.000	
					9	7987.2	0.000	

### APD (Absorbed Power Density) test results

#### Forder Closed configuration

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Measured APD (mW/cm <sup>2</sup> over 4cm <sup>2</sup> )	Plot No.
UWB Ant	Product Specific 10-g	CW	0	Rear	5	6489.6	0.0500	31
					9	7987.2	0.0030	
				Front	5	6489.6	0.0640	
					9	7987.2	0.0000	
				Top	5	6489.6	0.0140	
					9	7987.2	0.0210	
				Left	5	6489.6	0.0350	
					9	7987.2	0.0100	
				Right	5	6489.6	0.0220	
					9	7987.2	0.0040	

#### Forder Opened configuration

Antenna	RF Exposure Conditions	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Measured APD (mW/cm <sup>2</sup> over 4cm <sup>2</sup> )	Plot No.
UWB Ant	Product Specific 10-g	CW	0	Rear	5	6489.6	0.0090	32
					9	7987.2	0.0130	
				Front	5	6489.6	0.0080	
					9	7987.2	0.0000	
				Top	5	6489.6	0.0200	
					9	7987.2	0.0000	
				Right	5	6489.6	0.0040	
					9	7987.2	0.0000	

# 11. IPD(Incident Power density) Results

## 11.1. WiFi (UNII Bands-Above 6GHz)

### Forder Closed configuration

### SISO Ant IPD(Incident Power density) test results

Antenna	Mode	Test Position	Dist. (mm)	Ch.	Freq. (MHz)	Duty Cycle	Grid Step (Lamda)	Power (dBm)		Measured. Normal psPD	Measured. Total psPD	Reported. Normal psPD <i>Note.1</i>	Reported. Total psPD <i>Note.1</i>	Scaling factor for Measurement Uncertainty per IEC 62479 <i>Note.2</i>	Scaled Normal psPD	Scaled Total psPD	Plot No.
								Tune-up limit	Meas.								
WLAN SISO Ant.1	802.11ax HE 160	Right	2.00	207	6985.0	99.6%	0.050	13.00	12.05	0.0882	0.2790	0.1100	0.3470	1.123	0.1235	0.3897	33
WLAN SISO Ant.2	802.11ax HE 160	Top	2.00	207	6985.0	99.6%	0.050	13.00	12.67	0.1310	0.3480	0.1420	0.3750	1.123	0.1595	0.4211	34

### MIMO Ant IPD(Incident Power density) test results

Antenna	Mode	Test Position	Dist. (mm)	Ch.	Freq. (MHz)	Duty Cycle	Grid Step (Lamda)	Power (dBm)		Measured. Normal psPD	Measured. Total psPD	Reported. Normal psPD <i>Note.1</i>	Reported. Total psPD <i>Note.1</i>	Scaling factor for Measurement Uncertainty per IEC 62479 <i>Note.2</i>	Scaled Normal psPD	Scaled Total psPD	Plot No.
								Tune-up limit	Meas.								
WLAN MIMO Ant.1	802.11ax HE 160	Rear	2.00	111	6505.0	99.6%	0.050	13.00	12.65					1.123			
		Front		111	6505.0	99.6%	0.050	13.00	12.65					1.123			
		Top		111	6505.0	99.6%	0.050	13.00	12.65					1.123			
		Right		15	6025.0	99.6%	0.050	13.00	12.76	0.3010	0.5800	0.3180	0.6130	1.123	0.3571	0.6884	
				79	6345.0	99.6%	0.050	13.00	12.88					1.123			
				111	6505.0	99.6%	0.050	13.00	12.65					1.123			
				143	6665.0	99.6%	0.050	13.00	12.38					1.123			
		207		6985.0	99.6%	0.050	13.00	12.05					1.123				
WLAN MIMO Ant.2	802.11ax HE 160	Rear	2.00	111	6505.0	99.6%	0.050	13.00	12.65	0.2580	0.5940	0.2590	0.5980	1.123	0.2909	0.6716	
		Front		111	6505.0	99.6%	0.050	13.00	12.65	0.0941	0.1990	0.0948	0.2010	1.123	0.1065	0.2257	
		Top		111	6505.0	99.6%	0.050	13.00	12.65	0.2160	0.4700	0.2170	0.4730	1.123	0.2437	0.5312	
		Right		15	6025.0	99.6%	0.050	13.00	12.76					1.123			
				79	6345.0	99.6%	0.050	13.00	12.88	0.2910	0.6560	0.3020	0.6820	1.123	0.3391	0.7659	35
				111	6505.0	99.6%	0.050	13.00	12.65	0.2910	0.6560	0.2930	0.6600	1.123	0.3290	0.7412	
				143	6665.0	99.6%	0.050	13.00	12.38	0.2040	0.4370	0.2110	0.4510	1.123	0.2370	0.5065	
		207		6985.0	99.6%	0.050	13.00	12.05	0.2120	0.5710	0.2260	0.6090	1.123	0.2538	0.6839		

### Note(s):

1.  $10 \text{ W/m}^2 = 1.0 \text{ mW/cm}^2$
2. Per TCBC workshop guide, Incident power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 1.53 dB (42.3%) was used to determine the psPD measurement scaling factor.
3. Power density test data were scaled to tune-up limit using measurement system tool.
4. Per manufacturer guide, Grid Step setting were using the automatic grid step function of measurement system tool.
5. Per manufacturer guide, Incident power density was measured at d=2mm.
6. ESR Algorithm was used during psPD measurement and calculations.
7. SISO Ant mode was evaluated in the worst case configuration of SAR test results.
8. MIMO Ant mode was evaluated for the entire measurement positions in the worst case configuration of SAR test results. And All test channels were evaluated at worst test position.

**Forder Opened configuration**

**SISO Ant IPD(Incident Power density) test results**

Antenna	Mode	Test Position	Dist. (mm)	Ch.	Freq. (MHz)	Duty Cycle	Grid Step (Lamda)	Power (dBm)		Measured. Normal psPD	Measured. Total psPD	Reported. Normal psPD <i>Note.3</i>	Reported. Total psPD <i>Note.3</i>	Scaling factor for Measurement Uncertainty per IEC 62479 <i>Note.2</i>	Scaled Normal psPD	Scaled Total psPD	Plot No.
								Tune-up limit	Meas.								
WLAN SISO Ant.1	802.11ax HE 160	Front	2.00	207	6985.0	99.6%	0.050	11.00	10.02	0.0775	0.1750	0.0971	0.2190	1.123	0.1090	0.2459	36
WLAN SISO Ant.2	802.11ax HE 160	Top	2.00	79	6345.0	99.6%	0.050	11.00	10.89	0.2320	0.4150	0.2380	0.4260	1.123	0.2673	0.4784	37

**MIMO Ant IPD(Incident Power density) test results**

Antenna	Mode	Test Position	Dist. (mm)	Ch.	Freq. (MHz)	Duty Cycle	Grid Step (Lamda)	Power (dBm)		Measured. Normal psPD	Measured. Total psPD	Reported. Normal psPD <i>Note.3</i>	Reported. Total psPD <i>Note.3</i>	Scaling factor for Measurement Uncertainty per IEC 62479 <i>Note.2</i>	Scaled Normal psPD	Scaled Total psPD	Plot No.		
								Tune-up limit	Meas.										
WLAN MIMO Ant.1	802.11ax HE 160	Rear	2.00	111	6505.0	99.6%	0.050	11.00	10.52	0.1440	0.2040	0.1610	0.2280	1.123	0.1808	0.2560			
		Front		15	6025.0	99.6%	0.050	11.00	10.67						1.123				
				79	6345.0	99.6%	0.050	11.00	10.56						1.123				
				111	6505.0	99.6%	0.050	11.00	10.52						1.123				
				143	6665.0	99.6%	0.050	11.00	10.23						1.123				
				207	6985.0	99.6%	0.050	11.00	10.02						1.123				
				111	6505.0	99.6%	0.050	11.00	10.52						1.123				
		Top		111	6505.0	99.6%	0.050	11.00	10.52						1.123				
Right	111	6505.0	99.6%	0.050	11.00	10.52	0.1870	0.3100	0.2090	0.3460			1.123	0.2347	0.3886				
WLAN MIMO Ant.2	802.11ax HE 160	Rear	2.00	111	6505.0	99.6%	0.050	11.00	10.98					1.123					
		Front		15	6025.0	99.6%	0.050	11.00	10.99	0.1820	0.3300	0.1830	0.3310			1.123	0.2055	0.3717	
				79	6345.0	99.6%	0.050	11.00	10.88	0.3050	0.6250	0.3370	0.6920			1.123	0.3785	0.7771	
				111	6505.0	99.6%	0.050	11.00	10.98	0.3340	0.6840	0.3360	0.6870			1.123	0.3773	0.7715	
				143	6665.0	99.6%	0.050	11.00	10.98	0.3720	0.7630	0.3740	0.7670			1.123	0.4200	0.8613	38
				207	6985.0	99.6%	0.050	11.00	10.82	0.2240	0.5040	0.2340	0.5250			1.123	0.2628	0.5896	
				111	6505.0	99.6%	0.050	11.00	10.98	0.3050	0.5590	0.3060	0.5610			1.123	0.3436	0.6300	
		Top		111	6505.0	99.6%	0.050	11.00	10.98						1.123				
Right	111	6505.0	99.6%	0.050	11.00	10.98						1.123							

**Note(s):**

1.  $10 \text{ W/m}^2 = 1.0 \text{ mW/cm}^2$
2. Per TCBC workshop guide, Incident power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 1.53 dB (42.3%) was used to determine the psPD measurement scaling factor.
3. Power density test data were scaled to tune-up limit using measurement system tool.
4. Per manufacturer guide, Grid Step setting were using the automatic grid step function of measurement system tool.
5. Per manufacturer guide, Incident power density was measured at d=2mm.
6. ESR Algorithm was used during psPD measurement and calculations.
7. SISO Ant mode was evaluated in the worst case configuration of SAR test results.
8. MIMO Ant mode was evaluated for the entire measurement positions in the worst case configuration of SAR test results. And All test channels were evaluated at worst test position.



## 11.2. UWB (Ultra Wide Band)

### Forder Closed configuration

#### IPD(Incident Power density) test results

Antenna	Mode	Test Position	Dist. (mm)	Ch.	Freq. (MHz)	Grid Step (Lamda)	Meas. Normal psPD	Meas. Total psPD	Scaling factor for Measurement Uncertainty per IEC 62479 <i>Note.2</i>	Scaled Normal psPD	Scaled Total psPD	Note.	Plot No.
							mW/cm <sup>2</sup>	mW/cm <sup>2</sup>		mW/cm <sup>2</sup>	mW/cm <sup>2</sup>		
UWB Ant	CW	Rear	2.00	9	7987.20	0.05	0.0063	0.0112	1.123	0.0071	0.0126		39
UWB Ant	CW	Front	2.00	5	6489.60	0.05	0.0094	0.0185	1.123	0.0106	0.0208		40

### Forder Opened configuration

#### IPD(Incident Power density) test results

Antenna	Mode	Test Position	Dist. (mm)	Ch.	Freq. (MHz)	Grid Step (Lamda)	Meas. Normal psPD	Meas. Total psPD	Scaling factor for Measurement Uncertainty per IEC 62479 <i>Note.2</i>	Scaled Normal psPD	Scaled Total psPD	Note.	Plot No.
							mW/cm <sup>2</sup>	mW/cm <sup>2</sup>		mW/cm <sup>2</sup>	mW/cm <sup>2</sup>		
UWB Ant	CW	Rear	2.00	9	7987.20	0.05	0.0063	0.0161	1.123	0.0071	0.0181		41
UWB Ant	CW	Top	2.00	5	6489.60	0.05	0.0119	0.0205	1.123	0.0134	0.0230		42

#### **Note(s):**

1.  $10 \text{ W/m}^2 = 1.0 \text{ mW/cm}^2$
2. Per TCBC workshop guide, Incident power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 1.53 dB (42.3%) was used to determine the psPD measurement scaling factor.
3. Per manufacturer guide, Grid Step setting were using the automatic grid step function of measurement system tool.
4. Per manufacturer guide, Incident power density was measured at d=2mm.
5. ESR Algorithm was used during psPD measurement and calculations.
6. UWB IPD is performed at worst positions of SAR RF exposure results.

## 12. Simultaneous Transmission Analysis

Please refer to section.12 in FCC SAR report S1.

## **Appendixes**

**Refer to separated files for the following appendixes.**

**4791196626-S2 FCC Report Above 6GHz\_App A\_PD Photos & Ant. Locations**

**4791196626-S2 FCC Report Above 6GHz \_App B\_Highest SAR and PD Test Plots**

**4791196626-S2 FCC Report Above 6GHz \_App C\_System Check Plots**

**4791196626-S2 FCC Report Above 6GHz \_App D\_SAR Tissue Ingredients**

**4791196626-S2 FCC Report Above 6GHz \_App E\_Probe Cal. Certificates**

**4791196626-S2 FCC Report Above 6GHz \_App F\_Dipole and Horn antenna Cal. Certificates**

**END OF REPORT**