



Test report No.: 2630679R-SAUSV01S-A

SAR Test Report

Product Name	Pathfinder Edge (Handheld Barcode Printer)
Trademark	
Model and /or type reference	Pathfinder Edge, Pathfinder Edge RFID, PFE
Applicant's name / address	TSC Auto ID Technology Co., Ltd. No.35, Sec.2, Ligong 1st Rd., Wujie Town, I Lan Hsien 268, Taiwan
Manufacturer's name	TSC Auto ID Technology Co., Ltd.
FCC ID	VTV-T097
Applicable Standard	IEEE 1528-2013 KDB 447498 D01 v06 KDB 865664 D01 v01r04
Test Result	Refer to Section 1.1
Verdict Summary	IN COMPLIANCE
Documented By (Senior Project Specialist / Genie Chang)	Genie Chang
Tested By (Senior Engineer / Luke Cheng)	Luke Cheng
Approved By (Assistant Manager / San Lin)	San Lin
Date of Receipt	2026/03/24
Date of Issue	2026/06/24
Report Version	V1.0

INDEX

	Page
1. General Information	5
1.1 EUT Description	5
1.2 Antenna List	6
1.3 SAR Test Exclusion Calculation	7
1.4 Test Environment.....	9
1.5 Measurement procedures.....	10
2. SAR Measurement System	11
2.1 DASY System Description	11
2.2 Area Scans.....	13
2.3 DASY E-Field Probe.....	14
2.4 DATA Acquisition Electronics (DAE) and Measurement Server	15
2.5 Robot.....	16
2.6 Device Holder	16
2.7 Phantom	17
3. Tissue Simulating Liquid	18
3.1 The composition of the tissue simulating liquid	18
3.2 Tissue Calibration Result.....	18
3.3 Tissue Dielectric Parameters for Phantoms	20
4. Measurement Procedure.....	21
4.1 SAR System Check.....	21
4.2 SAR Measurement Procedure.....	24
4.3 Power Density Measurement Procedure	25
5. RF Exposure Limits.....	26
6. Test Equipment List	27
7. Measurement Uncertainty.....	30
8. Conducted Power Measurement (Including tolerance allowed for production unit)	35
.....	
9. Test Results	42
9.1 Test Results Summary	42
9.2 Simultaneous Transmission.....	52
10. SAR measurement variability	54
Appendix A. System Check Data	
Appendix B. Highest measurement Data	
Appendix C. Test Setup Photographs	
Appendix D. Probe Calibration Data	
Appendix E. Dipole & Source Calibration	
Appendix F. Product Photos-Please refer to the file: 2630679R-Product Photos	

Competences and Guarantees

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

General conditions

1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

Report No.	Version	Description	Issued Date
2630679R-SAUSV01S-A	V1.0	Initial issue of report.	2026/06/24

1. General Information

1.1 EUT Description

Product Name	Pathfinder Edge (Handheld Barcode Printer)
Trademark	
Model and /or type reference	Pathfinder Edge, Pathfinder Edge RFID, PFE
Test Sample	Pathfinder Edge RFID
FCC ID	VTV-T097
Frequency Range	RFID: 902.75-927.25MHz WLAN 2.4GHz: 2412-2472MHz WLAN 5GHz: 5180-5240MHz, 5260-5320MHz, 5500-5720MHz, 5745-5825MHz WLAN 6GHz: 5955-7115MHz BT: 2402-2480MHz
Type of Modulation	802.11b: DSSS 802.11a/g/n/ac/ax: OFDM, OFDMA GFSK(1Mbps) / π / 4DQPSK(2Mbps) / 8DPSK(3Mbps)
Device Category	Portable
RF Exposure Environment	Uncontrolled

Summary of test result – Reported 1g Body SAR (W/kg)				
Test configuration	UHF RFID	DTS	NII	6XD
Standalone	N/A ¹	1.140	1.108	0.571
Simultaneous	N/A ¹	1.187	1.187	1.187
Summary of test result – Reported 10g Extremity SAR (W/kg)				
Test configuration	UHF RFID	DTS	NII	6XD
Standalone	0.003	0.589	0.904	0.452
Simultaneous	N/A ²	0.951	0.951	0.636
Summary of test result – Power Density				
Test configuration	6XD			
APD (W/m ²)	9.180			
Reported PD (W/m ²)	6.280			

Note:

1. According to 202010 TCBC workshop guidance for Handheld RFID device, 10g extremity SAR measurement is required for RFID.
2. The product supports an optional holster accessory, model 135843 Pathfinder Edge Holster. According to the customer declaration, the holster does not contain any metallic components.
3. The NFC transmitters qualify for the 1 mW exemption, and estimated SAR cannot be used for simultaneous transmission analysis.

1.2 Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	WHA YU (WIFI)	98-0970095-00LF (ANT1)	PCB	4.4 dBi for 2400~2500 MHz 4.5 dBi for 5150~5250 MHz 4.0 dBi for 5250~5350 MHz 4.6 dBi for 5470~5725 MHz 4.4 dBi for 5725~5850 MHz 4.5 dBi for 5925~6425 MHz 4.3 dBi for 6525~6875MHz 4.4 dBi for 6875~7125MHz
		98-0970096-00LF (ANT2)		4.1 dBi for 2400~2500MHz 4.0 dBi for 5150~5250MHz 3.8 dBi for 5250~5350MHz 3.9 dBi for 5470~5725MHz 4.5 dBi for 5725~5850MHz 4.4 dBi for 5925~6425MHz 3.5 dBi for 6425~6525MHz 3.9 dBi for 6525~6875MHz 4.2 dBi for 6875~7125MHz
2	FEASYCOM (BT)	BT836B	Integral Antenna	2.0 dBi for 2400~2500MHz
3	TSC (RFID)	F-F0010013-5	PCB	0.2 dBi for 865~930MHz

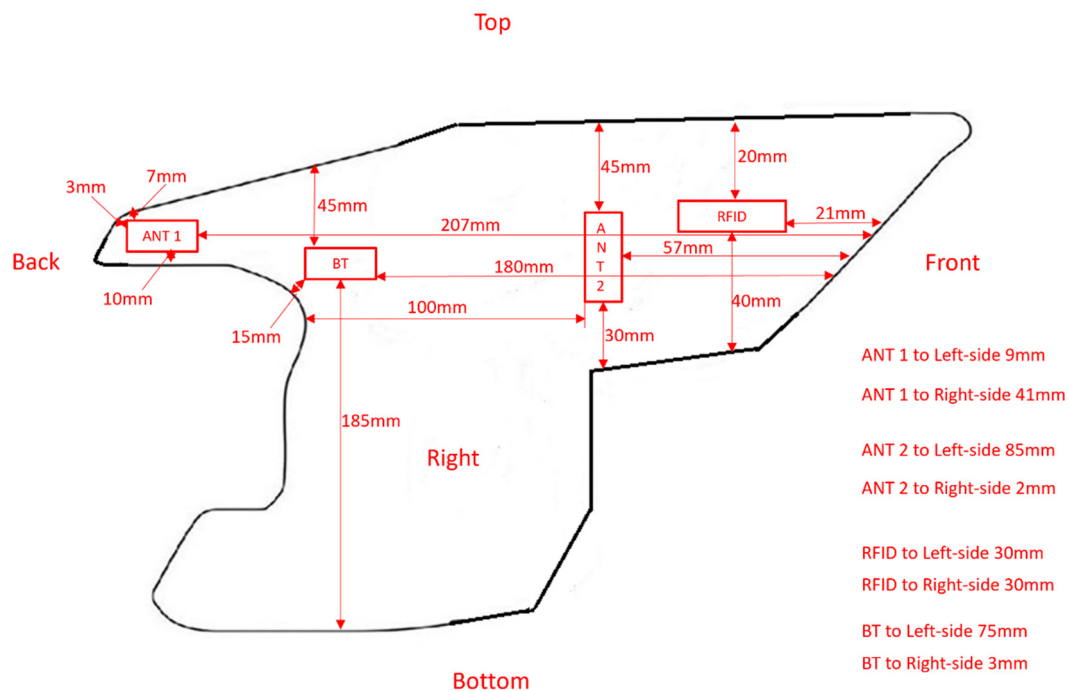
Note: The above EUT information is provided by the host manufacturer.

1.3 SAR Test Exclusion Calculation

According to KDB Publication 447498 D01, section 4.3.1, per the calculations of item 1 (Power(mW)/separation (mm)*sqrt(f(GHz)≤3.0), SAR is required as shown in the table below where calculated values are greater than 3.0:

SAR exclusion calculations for antenna distance < 50mm from the user																
Antenna	Tx	Frequency (MHz)	Output Power		Separation distances (mm)						Calculated Threshold Value (≤3.0 SAR is not required)					
			dBm	mW	Back	Right	Left	Top	Bottom	Front	Back	Right	Left	Top	Bottom	Front
RFID	RFID	927.25	27.0	501	180	30	30	20	40	21	>50mm	16.1	16.1	24.1	12.1	23.0
ANT 1	WiFi	2472	13.0	20	3	41	9	7	10	207	6.3	0.8	3.5	4.5	3.1	>50mm
ANT 1	WiFi	5240	12.0	16	3	41	9	7	10	207	7.3	0.9	4.0	5.2	3.6	>50mm
ANT 1	WiFi	5320	12.0	16	3	41	9	7	10	207	7.3	0.9	4.1	5.2	3.7	>50mm
ANT 1	WiFi	5700	12.0	16	3	41	9	7	10	207	7.6	0.9	4.2	5.4	3.8	>50mm
ANT 1	WiFi	5825	12.0	16	3	41	9	7	10	207	7.7	0.9	4.3	5.5	3.8	>50mm
BT	BT	2480	0.5	1	15	3	75	45	185	180	0.1	0.4	>50mm	0.0	>50mm	>50mm
SAR exclusion calculations for antenna distance > 50mm from the user																
Antenna	Tx	Frequency (MHz)	Output Power		Separation distances (mm)						Calculated Threshold Value (SAR test exclusion power, mW)					
			dBm	mW	Back	Right	Left	Top	Bottom	Front	Back	Right	Left	Top	Bottom	Front
RFID	RFID	927.25	27	501	180	30	30	20	40	21	959.4	<50mm	<50mm	<50mm	<50mm	<50mm
ANT 1	WiFi	2472	13	20	3	41	9	7	10	207	<50mm	<50mm	<50mm	<50mm	<50mm	1665.4
ANT 1	WiFi	5240	12	16	3	41	9	7	10	207	<50mm	<50mm	<50mm	<50mm	<50mm	1635.5
ANT 1	WiFi	5320	12	16	3	41	9	7	10	207	<50mm	<50mm	<50mm	<50mm	<50mm	1635.0
ANT 1	WiFi	5700	12	16	3	41	9	7	10	207	<50mm	<50mm	<50mm	<50mm	<50mm	1632.8
ANT 1	WiFi	5825	12	16	3	41	9	7	10	207	<50mm	<50mm	<50mm	<50mm	<50mm	1632.2
BT	BT	2480	0.5	1	15	3	75	45	185	180	<50mm	<50mm	345.3	<50mm	1445.3	1395.3

SAR exclusion calculations for antenna distance < 50mm from the user																
Antenna	Tx	Frequency (MHz)	Output Power		Separation distances (mm)						Calculated Threshold Value (≤ 3.0 SAR is not required)					
			dBm	mW	Back	Right	Left	Top	Bottom	Front	Back	Right	Left	Top	Bottom	Front
ANT 2	WiFi	2472	13.0	20	135	2	85	45	30	57	>50mm	6.3	>50mm	0.7	1.0	>50mm
ANT 2	WiFi	5240	12.0	16	135	2	85	45	30	57	>50mm	7.3	>50mm	0.8	1.2	>50mm
ANT 2	WiFi	5320	12.0	16	135	2	85	45	30	57	>50mm	7.3	>50mm	0.8	1.2	>50mm
ANT 2	WiFi	5700	12.0	16	135	2	85	45	30	57	>50mm	7.6	>50mm	0.8	1.3	>50mm
ANT 2	WiFi	5825	12.0	16	135	2	85	45	30	57	>50mm	7.7	>50mm	0.9	1.3	>50mm
SAR exclusion calculations for antenna distance > 50mm from the user																
Antenna	Tx	Frequency (MHz)	Output Power		Separation distances (mm)						Calculated Threshold Value (SAR test exclusion power, mW)					
			dBm	mW	Back	Right	Left	Top	Bottom	Front	Back	Right	Left	Top	Bottom	Front
ANT 2	WiFi	2472	13	20	135	2	85	45	30	57	945.4	<50mm	445.4	<50mm	<50mm	165.4
ANT 2	WiFi	5240	12	16	135	2	85	45	30	57	915.5	<50mm	415.5	<50mm	<50mm	135.5
ANT 2	WiFi	5320	12	16	135	2	85	45	30	57	915.0	<50mm	415.0	<50mm	<50mm	135.0
ANT 2	WiFi	5700	12	16	135	2	85	45	30	57	912.8	<50mm	412.8	<50mm	<50mm	132.8
ANT 2	WiFi	5825	12	16	135	2	85	45	30	57	912.2	<50mm	412.2	<50mm	<50mm	132.2



1.4 Test Environment

Ambient conditions in the laboratory:

Test Date: 2026/5/28 - 2026/6/4

Items	Required	Actual
Temperature (°C)	18-25	23 ± 2
Humidity (%RH)	30-70	50 ± 20

USA	FCC Designation Number: TW0033 / FCC Registration Number: 647365
Canada	CAB Identifier Number: TW3023 / Company Number: 26930

Site Description	Accredited by TAF
	Accredited Number: 3023

Test Laboratory	DEKRA Testing and Certification Co., Ltd.
	Linkou Laboratory
Address	No. 85, Wenlin St., Linkou Dist., New Taipei City 244017, Taiwan, R.O.C.
Performed Location	No. 26, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan, R.O.C.
Phone Number	+886-3-275-7255
Fax Number	+886-3-327-8031

1.5 Measurement procedures

IEEE 1528-2013

47CFR § 2.1093

KDB 248227 D01 v02r02

KDB 447498 D01 v06

KDB 865664 D01 v01r04

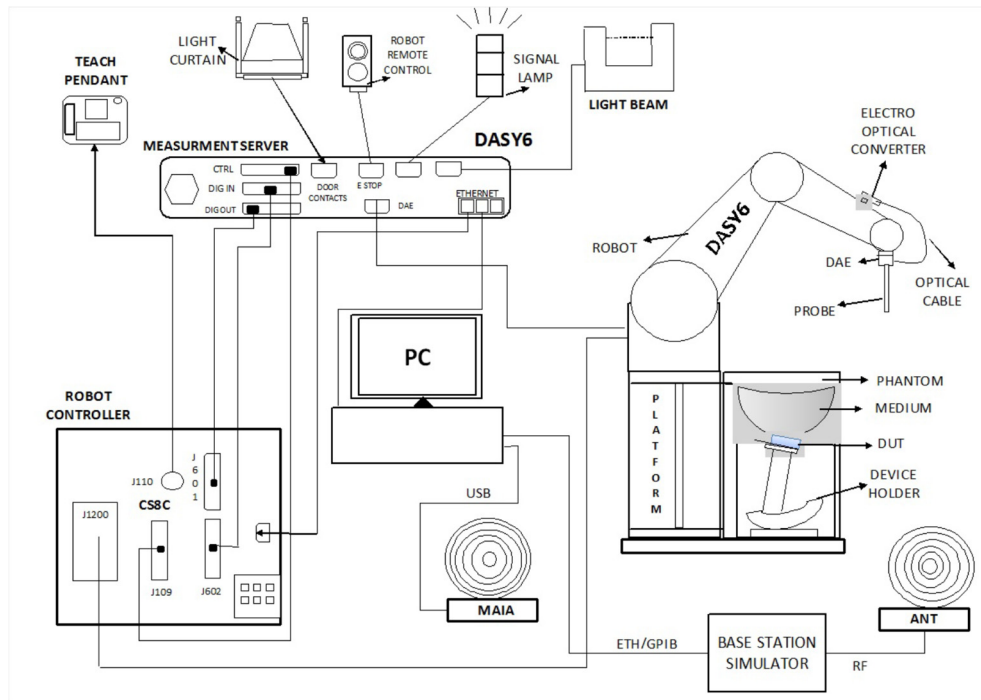
IEC TR 63170:2018

IEC/IEEE 62209-1528:2020

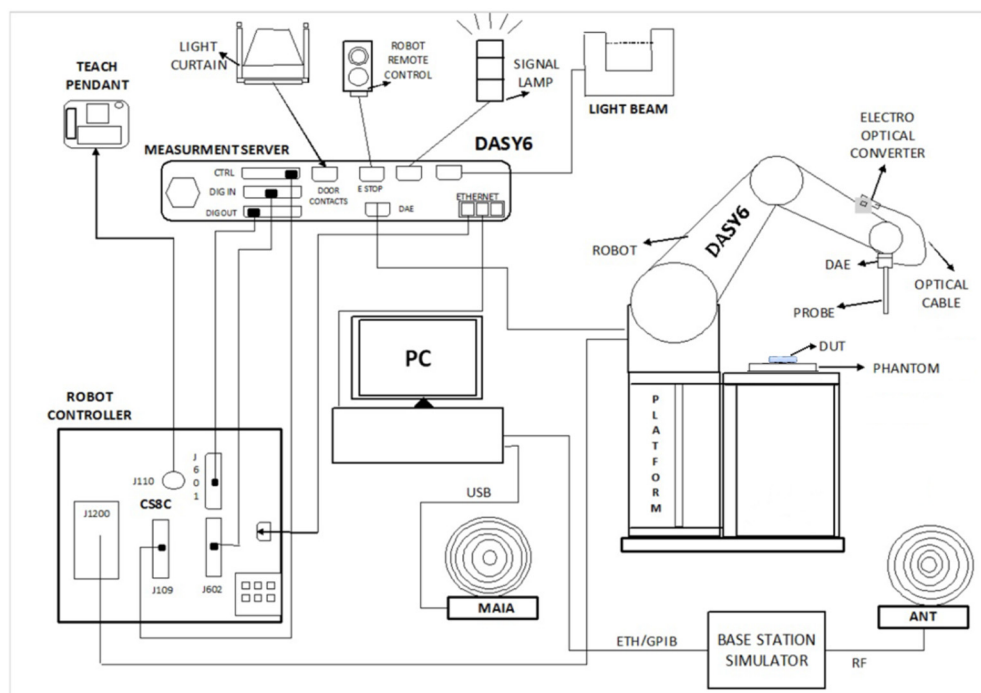
2. SAR Measurement System

2.1 DASY System Description

SAR Configurations is shown below:



Power Density Configurations is shown below:



The DASY system 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).
- 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 Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7/8/10 and the DASY 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.

2.2 Area Scans

Area scans are defined prior to the measurement process being executed with a user defined variable spacing between each measurement point (integral) allowing low uncertainty measurements to be conducted. Scans defined for utilize a 10mm² step integral, with 1mm interpolation used to locate the peak SAR area used for zoom scan assessments.

When an Area Scan has measured all reachable points, it computes the field maxima found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing.

2.2.1 Zoom Scan (Cube Scan Averaging)

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. A density of 1000 kg/m³ is used to represent the head and body tissue density and not the phantom liquid density, in order to be consistent with the definition of the liquid dielectric properties, i.e. the side length of the 1 g cube is 10mm, with the side length of the 10 g cube 21,5mm.

The zoom scan integer steps can be user defined so as to reduce uncertainty, but normal practice for typical test applications utilize a physical step of 5x5x7 (8mmx8mmx5mm) providing a volume of 32mm in the X & Y axis, and 30mm in the Z axis.

2.2.2 SAR measurement drifts

Before an area scan and after the zoom scan, single point SAR measurements are performed at defined locations to estimate the SAR measurement drift due to device output power variations. If a device is known to drift randomly, additional single point drift reference measurements should be performed at regular intervals throughout the area and zoom scan test durations. The SAR drift shall be kept within $\pm 5\%$, whether there are substantial drifts or not. The field difference will be calculated in dB units in the DASY software.

2.2.3 Uncertainty of Inter-/Extrapolation and Averaging

In order to evaluate the uncertainty of the interpolation, extrapolation and averaged SAR calculation algorithms of the Postprocessor, DASY allows the generation of measurement grids which are artificially predefined by analytically based test functions. Therefore, the grids of area scans and zoom scans can be filled with uncertainty test data, according to the SAR benchmark functions.

2.3 DASY E-Field Probe

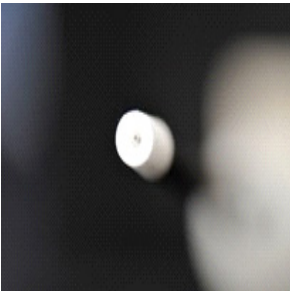
The SAR measurement is conducted with the dosimetric probe manufactured by SPEAG. The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency.

SPEAG conducts the probe calibration in compliance with international and national standards under ISO 17025. The calibration data are in Appendix D.

Isotropic E-Field Probe Specification

Model	Ex3DV4	
Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	4 MHz – 10 GHz Linearity: ± 0.2 dB (30 MHz to 10 GHz)	
Directivity	± 0.1 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 µW/g to 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)	
Dimensions	Overall length: 337 mm (Tip: 20 mm) Tip diameter: 2.5 mm (Body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.	

E-Field mm-Wave Probe Specification

Model	EUmmWVx	
Construction	Two dipoles optimally arranged to obtain pseudo-vector information Minimum three measurements/point, 120° rotated around probe axis Sensors (0.8 mm length) printed on glass substrate protected by high density foam	
Frequency	750 MHz to 110 GHz	
Dynamic Range	< 20 V/m to 10000 V/m with PRE-10 (min < 20 V/m to 2000 V/m)	
Position Precision	< 0.2 mm	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: encapsulation 8 mm (internal sensor < 1mm) Distance from probe tip to dipole centers: < 2 mm Sensor displacement to probe's calibration point: < 0.3 mm	
Application	E-field measurements of 5G devices and other mm-wave transmitters operating above 10GHz in < 2 mm distance from device (free-space) Power density, H-field, and far-field analysis using total field reconstruction	

2.4 DATA Acquisition Electronics (DAE) and Measurement Server

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16-bit AD-converter and a command decoder and control logic unit.

Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

The input impedance of the DAE4 is 200M Ohm; the inputs are symmetrical and floating. Common mode rejection is above 80dB.



2.5 Robot

The DASY system uses the high precision robots TX90 XL type out of the newer series from Stäubli SA (France). For the 6-axis controller DASY system, the CS8C robot controller version from Stäubli is used.

The XL robot series have many features that are important for our application:

- High precision (repeatability 0.02 mm)
- High reliability (industrial design)
- Jerk-free straight movements
- Low ELF interference (the closed metallic construction shields against motor control fields)
- 6-axis controller

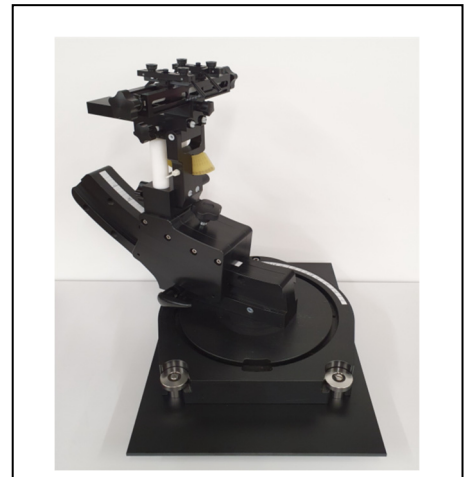


2.6 Device Holder

The DASY device holder is designed to cope with different positions given in the standard. It has two scales for the device rotation (with respect to the body axis) and the device inclination (with respect to the line between the ear reference points). The rotation center for both scales is the ear reference point (EPR).

Thus the device needs no repositioning when changing the angles.

The DASY device holder has been made out of low-loss POM material having the following dielectric parameters: relative permittivity $\epsilon_r = 3$ and loss tangent $\delta = 0.02$. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

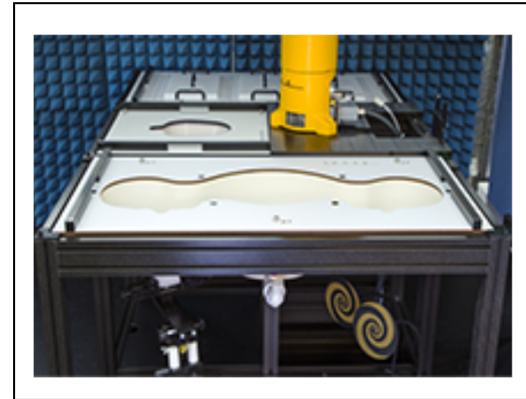


2.7 Phantom

2.7.1 SAM Twin Phantom

The SAM twin phantom is a fiberglass shell phantom with 2mm shell thickness (except the ear region where shell thickness increases to 6mm). It has three measurement areas:

- Left head
- Right head
- Flat phantom



The device holder positions are adjusted to the standard measurement positions in the three sections. A cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

2.7.2 mmWave Phantom

The mmWave Phantom approximates free-space conditions, allowing to evaluate not only the antenna side of the device but also the front (screen) side or any opposite-radiating side of wireless devices operating above 10 GHz without distorting the RF field. It consists of a 40 mm thick Rohacell plate used as a test bed, which has a loss tangent ($\tan \delta$) ≤ 0.05 and a relative permittivity (ϵ_r) ≤ 1.2 . High-performance RF absorbers are placed below the foam.



3. Tissue Simulating Liquid

3.1 The composition of the tissue simulating liquid

Description: Aqueous solution with surfactants and inhibitors

Declarable, or hazardous components:

CAS: 107-21-1 EINECS: 203-473-3 Reg.nr.: 01-2119456816-28-0000	Ethenediol STOT RE 2, H373; Acute Tox. 4, H302	< 5.2%
CAS: 68608-26-4 EINECS: 271-781-5 Reg.nr.: 01-2119527859-22-0000	Sodium petroleum sulfonate Eye Irrit. 2, H319	< 2.9%
CAS: 107-41-5 EINECS: 203-489-0 Reg.nr.: 01-2119539582-35-0000	Hexylene Glycol / 2-Methyl-pentane-2,4-diol Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 2.9%
CAS: 68920-66-1 NLP: 500-236-9 Reg.nr.: 01-2119489407-26-0000	Alkoxylated alcohol, > C₁₆ Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319	< 2.0%

3.2 Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using Dielectric Probe Kit and Vector Network Analyzer.

Date	Tissue Type	Frequency (MHz)	Relative Permittivity (er)			Conductivity (σ)			Tissue Temp. (°C)
			Measured	Target	Delta (%)	Measured	Target	Delta (%)	
2026/6/3	Head	900	42.09	41.50	1.42	0.97	0.97	0.00	22.1
		902.75	41.22	41.50	-0.67	0.99	0.97	2.06	
		915.25	40.88	41.47	-1.42	0.99	0.98	1.02	
		927.25	40.55	41.45	-2.17	1.01	0.98	3.06	
2026/5/28	Head	2450	40.20	39.20	2.55	1.83	1.80	1.67	22.2
		2412	40.50	39.28	3.11	1.78	1.77	0.56	
		2437	40.40	39.23	2.98	1.81	1.79	1.12	
		2462	40.10	39.18	2.35	1.84	1.81	1.66	
		2480	39.80	39.16	1.63	1.87	1.83	2.19	

Date	Tissue Type	Frequency (MHz)	Relative Permittivity (ϵ_r)			Conductivity (σ)			Tissue Temp. (°C)
			Measured	Target	Delta (%)	Measured	Target	Delta (%)	
2026/6/1	Head	5250	36.80	35.95	2.36	4.69	4.71	-0.42	22.1
		5290	36.70	35.91	2.20	4.74	4.75	-0.21	
		5600	35.80	35.50	0.85	5.16	5.07	1.78	
		5530	36.00	35.61	1.10	5.07	5.00	1.40	
		5610	35.80	35.49	0.87	5.17	5.08	1.77	
		5690	35.60	35.41	0.54	5.28	5.16	2.33	
		5800	35.30	35.30	0.00	5.42	5.27	2.85	
		5775	35.30	35.33	-0.08	5.39	5.25	2.67	
2026/6/2	Head	6500	34.80	34.50	0.87	5.93	6.07	-2.31	22.3
		6025	36.30	35.07	3.51	5.36	5.51	-2.72	
		6185	35.80	34.88	2.64	5.56	5.70	-2.46	
		6345	35.30	34.69	1.77	5.75	5.89	-2.38	
		6505	34.70	34.49	0.60	5.94	6.08	-2.30	
		6665	34.20	34.30	-0.30	6.13	6.26	-2.08	
		6825	33.70	34.11	-1.20	6.32	6.45	-2.02	
		6985	33.20	33.92	-2.12	6.51	6.63	-1.81	

3.3 Tissue Dielectric Parameters for Phantoms

The head tissue dielectric parameters recommended by the IEC/IEEE 62209-1528 have been incorporated in the following table. These head parameters are derived from planar layer models simulating the highest expected SAR for the dielectric properties and tissue thickness variations in a human head. Other head tissue parameters that have not been specified are interpolated according to the head parameters specified in IEC/IEEE 62209-1528.

Target Frequency (MHz)	Head	
	ϵ_r	σ (S/m)
450	43.5	0.87
750	41.9	0.89
835	41.5	0.90
900	41.5	0.97
1450	40.5	1.20
1640	40.2	1.31
1750	40.1	1.37
1800 – 2000	40.0	1.40
2450	39.2	1.80
3000	38.5	2.40
5000	36.2	4.45
5200	36.0	4.66
5400	35.8	4.86
5600	35.5	5.07
5800	35.3	5.27
6000	35.1	5.48
6500	34.5	6.07
7000	33.9	6.65
7500	33.3	7.24

4. Measurement Procedure

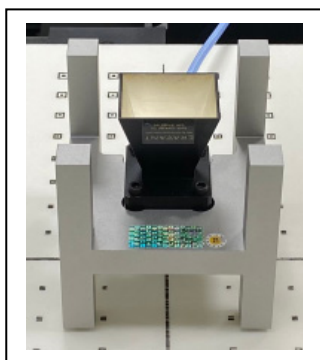
4.1 SAR System Check

4.1.1 Dipoles



The SAR dipoles are optimized symmetrical dipole with $\lambda/4$ balun matched to a Flat phantom section filled with tissue simulating liquids. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC signals. They are available for the variety of frequencies between 300MHz and 10 GHz. The provided tripod is used to hold the dipole below the phantom. As the distance between the dipole center and the TSL is critical, a spacer is placed between the dipole and the phantom. The spacing distance is frequency dependent.

4.1.2 Verification Source



The verification sources apply to system check or verification at specific mmWave frequencies. The sources comprise horn-antennas and very stable signal generators.

4.1.3 SAR System Check Result

1. Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %.
2. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix A of this report.

Date	Frequency (MHz)	Input Power (mW)	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Delta 1g (%)	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Delta 10g (%)	Tissue Temp. (°C)
2026/6/3	900	250	2.46	10.70	9.84	-8.04	1.64	6.77	6.56	-3.10	22.1
2026/5/28	2450	250	12.50	51.80	50	-3.47	6.21	24.20	24.84	2.64	22.2
2026/6/1	5250	100	7.60	77.00	76	-1.30	2.23	22.10	22.3	0.90	22.1
	5600	100	8.38	81.60	83.8	2.70	2.37	23.60	23.7	0.42	
	5800	100	8.14	77.50	81.4	5.03	2.38	22.30	23.8	6.73	
2026/6/2	6500	100	29.20	294.00	292	-0.68	5.51	53.90	55.1	2.23	22.3

4.1.4 Power Density System Check Result

The system performance check verifies that the system operates within its specifications.

The system check is successful if the difference between the normalized measured local power density and the numerically validated target value is within the reported expanded uncertainty of the measurement system.

The recommended settings for measurement of verification sources are listed in the following:

Frequency (GHz)	Grid step	Grid extent X/Y (mm)	Measurement points
10	0.125 ($\lambda/8$)	60 / 60	18 x 18

According to the DASY specification in the user's manual and SPEAG's recommendation, the deviation threshold of ± 0.66 dB represents the expanded standard uncertainty for system performance check. The system check is successful if the measured results are within ± 0.66 dB tolerances to the target value shown in the calibration certificate of the verification source.

Date	Frequency (GHz)	Distance (mm)	Input Power (mW)	Measured Avg PD 4 cm ² (W/m ²)	Targeted Avg PD 4 cm ² (W/m ²)	Deviation (dB)
2026/6/4	10	10	138	169.7	177.00	-0.18

Note: The Measured Avg PD was the average of psPDn+, psPDtot+ and psPDmod+, which refers to the demonstration from calibration certificate.

4.2 SAR Measurement Procedure

The Dasy calculates SAR using the following equation,

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

Where :

σ : represents the simulated tissue conductivity

ρ : represents the tissue density

E :RMS electric field strength (V/m)

The SAR / APD measurements for the EUT should be performed on the channel that produces the highest rated output power of each transmitting antenna.

Pre-scans are made on the device to establish the location for the transmitting antenna, using a large area scan in either air or tissue simulation fluid.

The EUT is placed against the Universal Phantom where the maximum area scan dimensions are larger than the physical size of the resonating antenna. When the scan size is not large enough to cover the peak SAR / APD distribution, it is modified by either extending the area scan size in both the X and Y directions, or the device is shifted within the predefined area.

The area scan is then run to establish the peak SAR / APD location (interpolated resolution set at 1mm²) which is then used to orient the center of the zoom scan. The zoom scan is then executed and the 1g and 10g averages are derived from the zoom scan volume (interpolated resolution set at 1mm³).

4.3 Power Density Measurement Procedure

The power density for an electromagnetic field represents the rate of energy transfer per unit area. The local power density (i.e. Poynting vector) at a given spatial point is deduced from electromagnetic fields by the following formula:

$$S = \frac{1}{2} \operatorname{Re}[E \times H^*] \cdot \vec{n}$$

Where: E is the complex electric field peak phasor and H is the complex conjugate magnetic field peak phasor.

The spatial-average power density distribution on the evaluation surface is determined per the IEC TR 63170. The spatial area, A is specified by the applicable exposure limit or regulatory requirements. The circular shape was used.

$$S_{av} = \frac{1}{2A} \Re(\int E \times H \cdot \hat{n} dA)$$

5. RF Exposure Limits

SAR assessments have been made in line with the requirements of IEEE-1528, RSS-102 Issue 6, and comply with ANSI/IEEE C95.1-1992 “Uncontrolled Environments” limits. These limits apply to a location which is deemed as “Uncontrolled Environment” which can be described as a situation where the general public may be exposed to an RF source with no prior knowledge or control over their exposure.

Limits for General Population/Uncontrolled Exposure (W/kg)

Type Exposure	Uncontrolled Environment Limit
Spatial Peak SAR (1g cube tissue for brain or body)	1.60 W/kg
Spatial Average SAR (whole body)	0.08 W/kg
Spatial Peak SAR (10g for hands, feet, ankles and wrist)	4.00 W/kg
Power density ¹	1 mW/cm²

Note: 1 mW/cm² = 10 W/m²

6. Test Equipment List

Instrument	Manufacturer	Model No.	Serial No.	Last Calibration	Next Calibration
Reference Dipole 900MHz	Speag	D900V2	1d176	2025/11/14	2028/11/13
Reference Dipole 2450MHz	Speag	D2450V2	1054	2024/11/18	2027/11/17
Reference Dipole 5GHz	Speag	D5GHzV2	1322	2024/11/21	2027/11/20
Reference Dipole 6.5GHz	Speag	D6.5GHzV2	1021	2024/02/12	2027/02/11
Verification Source Antenna 10GHz	Speag	5G Verification Source 10GHz	2006	2026/04/21	2027/04/20
Device Holder	Speag	N/A	N/A	N/A	N/A
Data Acquisition Electronic	Speag	DAE4	1651	2026/02/16	2027/02/15
Data Acquisition Electronic	Speag	DAE4	1791	2026/04/22	2027/04/21
E-Field Probe	Speag	EX3DV4	7631	2026/02/20	2027/02/19
E-Field Probe	Speag	EX3DV4	7784	2026/04/21	2027/04/20
mmWave E-field Probe	Speag	EUmmWV4	9546	2026/04/23	2027/04/22
SAR Software	Speag	DASY8	V16.4.0.5005	N/A	N/A
Power Amplifier	Mini-Circuit	ZHL-42	D051404-20	N/A	N/A
Power Amplifier	Mini-Circuit	ZVE-8G+	447202211	N/A	N/A
Directional Coupler	Agilent	87300C	MY44300353	N/A	N/A ¹
Attenuator	Woken	WATT-218FS-10	N/A	N/A	N/A ¹
Attenuator	Mini-Circuit	BW-S20W2+	N/A	N/A	N/A ¹
Vector Network Analyzer	Keysight	E5071C	MY46106342	2025/12/29	2026/12/28
Signal Generator	Anritsu	MG3694A	041902	2025/08/16	2026/08/15
Power Meter	Anritsu	ML2487A	6K00001447	2025/10/16	2026/10/15
Power Sensor	Anritsu	MA2411B	1339194	2025/10/17	2026/10/16

Note: 1. System Check, the path loss measured by the network analyzer, includes the signal generator, amplifier, cable, attenuator and directional coupler.

Note:

Per requirements for dipole calibration, the following are recommended procedures for SAR dipole calibration.

1. After a dipole is damaged and properly repaired to meet required specifications.
2. When the measured SAR deviates from the calibrated SAR value by more than 10% due to changes in physical, mechanical, electrical or other relevant dipole conditions.
3. When the most recent return-loss, measured at least annually, deviates by more than 20% from the previous measurement (i.e. 0.2 of the dB value) or not meeting the required -20 dB return-loss specification.

D2450V2-1054

	Frequency	Tissue	Return loss	Limit	Date
Calibration	2450 MHz	Head	-27.6	Within 20%	2024/11/18
Measurement	2450 MHz	Head	-27.39		2025/11/17

D5GHzV2-1322

	Frequency	Tissue	Return loss	Limit	Date
Calibration	5250 MHz	Head	-33.3	Within 20%	2024/11/21
Measurement	5250 MHz	Head	-33.13		2025/11/20

D6.5GHzV2-1021

	Frequency	Tissue	Return loss	Limit	Date
Calibration	6500 MHz	Head	-27.6	Within 20%	2024/2/12
Measurement	6500 MHz	Head	-27.70		2025/2/10
Measurement	6500 MHz	Head	-27.68		2026/2/9

4. When the most recent measurement of the real or imaginary parts of the impedance, measured at least annually, deviates by more than 5 Ω from the previous measurement.

D2450V2-1054

	Frequency	Tissue	Impedance	Limit	Date
Calibration	2450 MHz	Head	52.1	Within 5 Ω	2024/11/18
Measurement	2450 MHz	Head	52.30		2025/11/17

D5GHzV2-1322

	Frequency	Tissue	Impedance	Limit	Date
Calibration	5250 MHz	Head	48.0	Within 5 Ω	2024/11/21
Measurement	5250 MHz	Head	48.62		2025/11/20

D6.5GHzV2-1021

	Frequency	Tissue	Impedance	Limit	Date
Calibration	6500 MHz	Head	53.5	Within 5 Ω	2024/2/12
Measurement	6500 MHz	Head	53.26		2025/2/10
Measurement	6500 MHz	Head	53.31		2026/2/9

7. Measurement Uncertainty

Measurement uncertainty for 300 MHz to 3 GHz							
Error Description	Uncert. value	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors							
Probe Calibration	±13.3%	N	2	1	1	±6.7%	±6.7%
Probe Calibration Drift	±1.7%	R	1.732	1	1	±1.0%	±1.0%
Probe Linearity	±4.7%	R	1.732	1	1	±2.7%	±2.7%
Broadband Signal	±2.8%	R	1.732	1	1	±1.6%	±1.6%
Probe Isotropy	±7.6%	R	1.732	1	1	±4.4%	±4.4%
Other Probe+Electronic	±0.8%	N	1	1	1	±0.8%	±0.8%
RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Probe Positioning	±0.006 mm	N	1	0.14	0.14	±0.1%	±0.1%
Data Processing	±1.2%	N	1	1	1	±1.2%	±1.2%
Phantom and Device Errors							
Conductivity (meas.)	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
Conductivity (temp.)	±3.3%	R	1.732	0.78	0.71	±1.5%	±1.4%
Phantom Permittivity	±14.0%	R	1.732	0	0	±0.0%	±0.0%
Distance DUT - TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%
DUT Modulation	±2.4%	R	1.732	1	1	±1.4%	±1.4%
Time-average SAR	±1.7%	R	1.732	1	1	±1.0%	±1.0%
DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
Val Antenna Unc.	±0.0%	N	1	1	1	±0.0%	±0.0%
Unc. Input Power	±0.0%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results							
Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
SAR scaling	±0.0%	R	1.732	1	1	±0.0%	±0.0%
Combined Uncertainty						±11.3%	±11.2%
Expanded Uncertainty						±22.7%	±22.5%

Measurement uncertainty for 3 GHz to 6 GHz

Error Description	Uncert. value	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors							
Probe Calibration	±13.1%	N	2	1	1	±6.6%	±6.6%
Probe Calibration Drift	±1.7%	R	1.732	1	1	±1.0%	±1.0%
Probe Linearity	±4.7%	R	1.732	1	1	±2.7%	±2.7%
Broadband Signal	±2.6%	R	1.732	1	1	±1.5%	±1.5%
Probe Isotropy	±7.6%	R	1.732	1	1	±4.4%	±4.4%
Other Probe+Electronic	±1.2%	N	1	1	1	±1.2%	±1.2%
RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Probe Positioning	±0.005 mm	N	1	0.29	0.29	±0.2%	±0.2%
Data Processing	±2.3%	N	1	1	1	±2.3%	±2.3%
Phantom and Device Errors							
Conductivity (meas.)	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
Conductivity (temp.)	±3.4%	R	1.732	0.78	0.71	±1.5%	±1.4%
Phantom Permittivity	±14.0%	R	1.732	0.25	0.25	±2.0%	±2.0%
Distance DUT - TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%
DUT Modulation	±2.4%	R	1.732	1	1	±1.4%	±1.4%
Time-average SAR	±1.7%	R	1.732	1	1	±1.0%	±1.0%
DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
Val Antenna Unc.	±0.0%	N	1	1	1	±0.0%	±0.0%
Unc. Input Power	±0.0%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results							
Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
SAR scaling	±0.0%	R	1.732	1	1	±0.0%	±0.0%
Combined Uncertainty						±11.7%	±11.6%
Expanded Uncertainty						±23.3%	±23.1%

Measurement uncertainty for 6 GHz to 10 GHz

Error Description	Uncert. value	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)
Measurement System Errors							
Probe Calibration	±18.6%	N	2	1	1	±9.3%	±9.3%
Probe Calibration Drift	±1.7%	R	1.732	1	1	±1.0%	±1.0%
Probe Linearity	±4.7%	R	1.732	1	1	±2.7%	±2.7%
Broadband Signal	±2.6%	R	1.732	1	1	±1.5%	±1.5%
Probe Isotropy	±7.6%	R	1.732	1	1	±4.4%	±4.4%
Other Probe+Electronic	±2.4%	N	1	1	1	±2.4%	±2.4%
RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Probe Positioning	±0.005 mm	N	1	0.5	0.5	±0.3%	±0.3%
Data Processing	±3.5%	N	1	1	1	±3.5%	±3.5%
Phantom and Device Errors							
Conductivity (meas.)	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
Conductivity (temp.)	±2.4%	R	1.732	0.78	0.71	±1.1%	±1.0%
Phantom Permittivity	±14.0%	R	1.732	0.5	0.5	±4.0%	±4.0%
Distance DUT - TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%
DUT Modulation	±2.4%	R	1.732	1	1	±1.4%	±1.4%
Time-average SAR	±1.7%	R	1.732	1	1	±1.0%	±1.0%
DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
Val Antenna Unc.	±0.0%	N	1	1	1	±0.0%	±0.0%
Unc. Input Power	±0.0%	N	1	1	1	±0.0%	±0.0%
Correction to the SAR results							
Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
SAR scaling	±0.0%	R	1.732	1	1	±0.0%	±0.0%
Combined Uncertainty						±14.2%	±14.1%
Expanded Uncertainty						±28.4%	±28.3%

APD Measurement uncertainty for 6 GHz to 10 GHz

Error Description	Uncert. value	Prob. Dist.	Div.	(Ci) 1 cm ²	(Ci) 4 cm ²	Std. Unc. (1 cm ²)	Std. Unc. (4 cm ²)
SAR MU	±14.2/13.9%	N	1	1	1	±14.2%	±14.1%
Power Density Conversion	±13.5%	R	$\sqrt{3}$	1	1	±7.8%	±7.8%

Combined Uncertainty						±16.2%	±16.1%
Expanded Uncertainty in dB						±32.4% ±1.2 dB	±32.3% ±1.2 dB

Measurement uncertainty for Power Density						
Error Description	Uncert. Value ($\pm$ dB)	Prob. Dist.	Div.	(ci)	Std. Unc. ($\pm$ dB)	(vi) veff
Uncertainty terms dependent on the measurement system						
Calibration	0.49	N	1	1	0.49	∞
Probe correction	0	R	1.732	1	0	∞
Frequency response (BW $\leq$ 1 GHz)	0.2	R	1.732	1	0.12	∞
Sensor cross coupling	0	R	1.732	1	0	∞
Isotropy	0.5	R	1.732	1	0.29	∞
Linearity	0.2	R	1.732	1	0.12	∞
Probe scattering	0	R	1.732	1	0	∞
Probe positioning offset	0.3	R	1.732	1	0.17	∞
Probe positioning repeatability	0.04	R	1.732	1	0.02	∞
Sensor mechanical offset	0	R	1.732	1	0	∞
Probe spatial resolution	0	R	1.732	1	0	∞
Field impedance dependance	0	R	1.732	1	0	∞
Amplitude and phase drift	0	R	1.732	1	0	∞
Amplitude and phase noise	0.04	R	1.732	1	0.02	∞
Measurement area truncation	0	R	1.732	1	0	∞
Data acquisition	0.03	N	1	1	0.03	∞
Sampling	0	R	1.732	1	0	∞
Field reconstruction	2	R	1.732	1	1.15	∞
FTE/MEO	0	R	1.732	1	0	∞
Power density scaling	0	R	1.732	1	0	∞
Spatial averaging	0.1	R	1.732	1	0.06	∞
System detection limit	0.04	R	1.732	1	0.02	∞
Uncertainty terms dependent on the DUT and environmental factors						
Probe coupling with DUT	0	R	1.732	1	0	∞
Modulation response	0.4	R	1.732	1	0.23	∞
Integration time	0	R	1.732	1	0	∞
Response time	0	R	1.732	1	0	∞
Device holder influence	0.1	R	1.732	1	0.06	∞
DUT alignment	0	R	1.732	1	0	∞
RF ambient conditions	0.04	R	1.732	1	0.02	∞
Ambient reflections	0.04	R	1.732	1	0.02	∞
Immunity / secondary reception	0	R	1.732	1	0	∞
Drift of the DUT	0.21	R	1.732	1	0.12	∞
Combined Standard Uncertainty					1.33	∞
Expanded Standard Uncertainty (95%)					2.67	

8. Conducted Power Measurement (Including tolerance allowed for production unit)

WLAN 2.4G 2TX								
	Frequency	Mode	BW	CH	SISO-ANT 1		SISO-ANT 2	
					Avg. Power	Tune-Up Power	Avg. Power	Tune-Up Power
	WLAN 2.4GHz	b	20	1	12.84	13	12.85	13
				6	12.88	13	12.89	13
				11	12.87	13	12.75	13
				12	12.79	13	12.69	13
				13	12.77	13	12.71	13
		g	20	1	12.38	13	12.16	13
				6	12.36	13	12.18	13
				11	12.34	13	12.21	13
				12	12.31	13	12.42	13
				13	12.29	13	12.15	13
		n (HT)	20	1	12.3	13	12.22	13
				6	12.32	13	12.2	13
				11	12.25	13	12.36	13
				12	12.33	13	12.32	13
				13	12.01	13	12.17	13
			40	3	12.34	13	12.3	13
				6	12.3	13	12.28	13
				9	12.26	13	12.32	13
				10	12.37	13	12.34	13
				11	12.02	13	12.29	13
		ax (HE)	20	1	12.21	13	12.23	13
				6	12.36	13	12.2	13
				11	12.03	13	12.33	13
				12	12.34	13	12.46	13
				13	12.03	13	12.18	13
			40	3	12.31	13	12.21	13
				6	12.28	13	12.16	13
				9	12.23	13	12.33	13
				10	12.42	13	12.31	13
				11	12.13	13	12.37	13

WLAN 5G 2TX								
	Frequency	Mode	BW	CH	SISO-ANT 1		SISO-ANT 2	
					Avg. Power	Tune-Up Power	Avg. Power	Tune-Up Power
	U-NII-1 (5150~5250MHz)	a	20	36	11.27	12	11.27	12
				40	11.25	12	11.38	12
				44	11.43	12	11.25	12
				48	11.41	12	11.42	12
		n (HT)	20	36	11.16	12	11.12	12
				40	11.23	12	11.31	12
				44	11.37	12	11.17	12
				48	11.32	12	11.3	12
			40	38	11.36	12	11.39	12
				46	11.02	12	11.45	12
		ac(VHT)	80	42	11.74	12	11.69	12
		ax (HE)	20	36	11.26	12	11.14	12
				40	11.22	12	11.38	12
				44	11.35	12	11.24	12
				48	11.31	12	11.47	12
			40	38	11.22	12	11.26	12
				46	11.41	12	11.34	12
			80	42	11.22	12	11.23	12
	U-NII-2A (5250~5350MHz)	a	20	52	11.42	12	11.16	12
				56	11.36	12	11.28	12
				60	11.33	12	11.15	12
				64	11.04	12	11.26	12
		n (HT)	20	52	11.29	12	11.43	12
				56	11.28	12	11.22	12
				60	11.25	12	11.35	12
				64	11.39	12	11.18	12
			40	54	11.01	12	11.26	12
				62	11.21	12	11.25	12
		ac (VHT)	80	58	11.86	12	11.85	12
			160	50	11.33	12	11.3	12
		ax (HE)	20	52	11.43	12	11.49	12
				56	11.32	12	11.27	12
				60	11.26	12	11.43	12
				64	11.34	12	11.35	12
			40	54	11.39	12	11.15	12
				62	11.08	12	11.09	12
			80	58	11.46	12	11.41	12
			160	50	11.25	12	11.34	12

	Frequency	Mode	BW	CH	SISO-ANT 1		SISO-ANT 2	
					Avg. Power	Tune-Up Power	Avg. Power	Tune-Up Power
OFDM mode specified maximum output power at an antenna port	U-NII-2C (5470~5725MHz)	a	20	100	11.31	12	11.14	12
				116	11.24	12	11.25	12
				124	11.42	12	11.34	12
				132	11.03	12	11.18	12
				140	11.26	12	11.38	12
				144	11.27	12	11.26	12
		n (HT)	20	100	11.26	12	11.12	12
				116	11.09	12	11.16	12
				124	11.35	12	11.25	12
				132	11.48	12	11.09	12
				140	11.15	12	11.21	12
				144	11.17	12	11.26	12
			40	102	11.45	12	11.3	12
				110	11.15	12	11.28	12
				126	11.4	12	11.29	12
				134	11.18	12	11.16	12
				142	11.28	12	11.38	12
		ac (VHT)	80	106	11.84	12	11.84	12
				122	11.83	12	11.81	12
				138	11.8	12	11.72	12
			160	114	11.31	12	11.37	12
		ax (HE)	20	100	11.19	12	11.18	12
				116	11.08	12	11.16	12
				124	11.34	12	11.23	12
				132	11.36	12	11.18	12
				140	11.18	12	11.34	12
				144	11.29	12	11.35	12
			40	102	11.27	12	11.21	12
				110	11.03	12	11.43	12
				126	11.37	12	11.17	12
				134	11.02	12	11.11	12
				142	11.18	12	11.23	12
			80	106	11.24	12	11.39	12
				122	11.37	12	11.33	12
				138	11.28	12	11.35	12
			160	114	11.32	12	11.39	12

	Frequency	Mode	BW	CH	SISO-ANT 1		SISO-ANT 2	
					Avg. Power	Tune-Up Power	Avg. Power	Tune-Up Power
OFDM mode specified maximum output power at an antenna port	U-NII-3 (5725~5850MHz)	a	20	149	11.4	12	11.39	12
				157	11.45	12	11.34	12
				165	11.06	12	11.32	12
		n (HT)	20	149	11.23	12	11.34	12
				157	11.38	12	11.3	12
				165	11.02	12	11.27	12
			40	142	11.28	12	11.38	12
				151	11.41	12	11.31	12
				159	11.04	12	11.33	12
		ac(VHT)	80	155	11.79	12	11.73	12
		ax (HE)	20	149	11.38	12	11.31	12
				157	11.37	12	11.39	12
				165	11.03	12	11.32	12
			40	142	11.18	12	11.23	12
				151	11.26	12	11.25	12
				159	11.45	12	11.33	12
			80	155	11.49	12	11.43	12

WLAN 6G 2TX

OFDM mode specified maximum output power at an antenna port	Frequency	Mode	BW	CH	SISO-ANT 1		SISO-ANT 2	
					Avg. Power	Tune-Up Power	Avg. Power	Tune-Up Power
	U-NII-5 (5925~6425MHz)	a	20	1	-1.15	-1	-1.04	-1
				45	-0.08	0	-0.07	0
				93	0.41	0.5	0.48	0.5
		ax (HE)	20	1	0.41	0.5	0.33	0.5
				45	0.95	1	0.99	1
				93	0.94	1	0.68	1
			40	3	2.96	3.5	2.98	3.5
				43	2.09	2.5	2.18	2.5
				91	3.99	4	3.97	4
			80	7	6.89	7	6.96	7
				23	6.92	7	6.83	7
				39	6.53	7	6.75	7
				55	6.07	6.5	5.03	6.5
				71	6.23	6.5	6.49	6.5
				87	4.19	4.5	4.35	4.5
			160	15	9.95	10.5	7.2	8.5
				47	9.91	10.5	7.63	8.5
				79	9.55	10.5	7.15	8.5
	U-NII-6 (6425~6525MHz)	a	20	97	-0.01	0	-0.02	0
				105	0.43	0.5	0.25	0.5
				113	-1.08	-1	-1.03	-1
		ax (HE)	20	97	0.39	0.5	0.39	0.5
				105	0.73	1	0.98	1
				113	1.17	1.5	1.39	1.5
			40	99	3.44	3.5	3.32	3.5
				107	3.58	4	3.73	4
			80	103	4.01	4.5	4.44	4.5
			160	111	9.97	10.5	5.22	6

	Frequency	Mode	BW	CH	SISO-ANT 1		SISO-ANT 2	
					Avg. Power	Tune-Up Power	Avg. Power	Tune-Up Power
OFDM mode specified maximum output power at an antenna port	U-NII-7 (6525~6875MHz)	a	20	117	-0.03	0	-0.07	0
				149	0.49	0.5	0.44	0.5
				181	-0.02	0	-0.01	0
		ax (HE)	20	117	0.39	0.5	0.48	0.5
				149	0.96	1	0.746	1
				181	0.49	0.5	0.36	0.5
			40	115	3.31	3.5	3.02	3.5
				147	3.38	4	3.42	4
				179	3.3	4	3.39	4
			80	119	3.99	4.5	4.42	4.5
				135	4.28	5.5	5.41	5.5
				151	4.77	5	4.76	5
				167	4.48	5	4.3	5
				183	4.21	4.5	4.09	4.5
			160	143	7.29	8	4.6	6
				175	7.32	8	4.63	6
	U-NII-8 (6875~7125MHz)	a	20	185	-0.05	0	-0.04	0
				209	-0.06	0	-0.08	0
				233	0.35	0.5	0.47	0.5
		ax (HE)	20	185	0.48	0.5	0.42	0.5
				209	-0.01	0	-0.03	0
				233	-9.69	-9.5	-9.71	-9.5
			40	187	4.42	4.5	4.19	4.5
				227	2.74	3	2.49	3
			80	199	3.42	4.5	4.28	4.5
				215	3.15	3.5	3.18	3.5
			160	207	5.1	5.5	5.01	5.5

BT						
Bluetooth mode maximum output power	Frequency	Mode	Modulation	SISO-Main		
				CH	Avg. Power	Tune-Up Power
	BT 2.4GHz	BR	GFSK	0	-1.21	0.5
				39	-0.28	0.5
				78	-0.34	0.5
		EDR	8DPSK	0	-0.05	0.5
				39	0.01	0.5
				78	0.29	0.5
		BLE	GFSK	0	-0.82	0.5
				19	-0.62	0.5
				39	-0.33	0.5

RFID					
Bluetooth mode maximum output power	Frequency	Mode	SISO-Main		
			CH	Avg. Power	Tune-Up Power
	UHF RFID	RFID	902750	26.78	27
			915250	26.87	27
			927250	26.73	27

9. Test Results

9.1 Test Results Summary

1g Body SAR

SAR MEASUREMENT									
Ambient Temperature (°C): 23.3±2					Relative Humidity (%): 53%				
Liquid Temperature (°C): 22.2±2					Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		Duty Cycle %	SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit		Meas-1g	Scaled-1g	
Test Mode: WLAN2.4GHz_802.11b-1M_Ant 1									
Back	5	1	2412	12.84	13	99	0.508	0.532	
Back	5	6	2437	12.88	13	99	0.514	0.534	
Back	5	11	2462	12.87	13	99	0.469	0.488	
Left-side	5	6	2437	12.88	13	99	0.038	0.039	
Top	5	6	2437	12.88	13	99	0.210	0.218	
Bottom	5	6	2437	12.88	13	99	0.177	0.184	
Test Mode: WLAN2.4GHz_802.11b-1M_Ant 2									
Right-side	5	1	2412	12.85	13	99	1.090	1.140	8
Right-side	5	6	2437	12.89	13	99	0.879	0.911	
Right-side	5	11	2462	12.75	13	99	0.842	0.901	

Note:

- When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required.
- When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.

SAR MEASUREMENT									
Ambient Temperature (°C): 23.1 ±2					Relative Humidity (%): 52%				
Liquid Temperature (°C): 22.1±2					Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		Duty Cycle %	SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit		Meas-1g	Scaled-1g	
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 1									
Back	5	58	5290	11.86	12	99	0.812	0.847	
Left-side	5	58	5290	11.86	12	99	0.062	0.065	
Top	5	58	5290	11.86	12	99	0.449	0.468	
Bottom	5	58	5290	11.86	12	99	0.237	0.247	
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 2									
Right-side	5	58	5290	11.85	12	99	1.060	1.108	6
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 1									
Back	5	106	5530	11.84	12	99	0.880	0.922	
Back	5	122	5610	11.83	12	99	0.801	0.841	
Back	5	138	5690	11.80	12	99	0.790	0.836	
Left-side	5	106	5530	11.84	12	99	0.065	0.068	
Top	5	106	5530	11.84	12	99	0.466	0.488	
Bottom	5	106	5530	11.84	12	99	0.494	0.518	
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 2									
Right-side	5	106	5530	11.84	12	99	0.954	1.000	11
Right-side	5	122	5610	11.81	12	99	0.907	0.957	
Right-side	5	138	5690	11.72	12	99	0.851	0.917	

Note:

- When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.
- When multiple transmission modes have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected.
- When the reported SAR of the highest measured maximum U-NII-2A for the exposure configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.

SAR MEASUREMENT									
Ambient Temperature (°C): 23.1 ±2					Relative Humidity (%): 52%				
Liquid Temperature (°C): 22.1±2					Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		Duty Cycle %	SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit		Meas-1g	Scaled-1g	
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 1									
Back	5	155	5775	11.79	12	99	0.785	0.832	
Left-side	5	155	5775	11.79	12	99	0.075	0.080	
Top	5	155	5775	11.79	12	99	0.434	0.460	
Bottom	5	155	5775	11.79	12	99	0.515	0.546	
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 2									
Right-side	5	155	5775	11.73	12	99	0.919	0.988	14

Note:

- When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.
- When multiple transmission modes have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected.

SAR MEASUREMENT										
Ambient Temperature (°C): 23.1±2						Relative Humidity (%): 50%				
Liquid Temperature (°C): 22.3 ±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		Duty Cycle %	SAR (W/kg)		APD (W/m²)	Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit		Meas-1g	Scaled-1g	Meas-4cm²	
Test Mode: WLAN6GHz_802.11ax160-HE0_Ant 1										
Back	5	15	6025	9.95	10.5	99	0.353	0.405	2.680	
Back	5	47	6185	9.91	10.5	99	0.344	0.398	2.580	
Back	5	111	6505	9.97	10.5	99	0.239	0.273	1.810	
Back	5	175	6825	7.32	8	99	0.181	0.214	1.300	
Back	5	207	6985	5.10	5.5	99	0.117	0.130	0.770	
Left-side	5	111	6505	9.97	10.5	99	0.017	0.019	0.123	
Top	5	111	6505	9.97	10.5	99	0.118	0.135	0.869	
Bottom	5	111	6505	9.97	10.5	99	0.177	0.202	1.490	
Test Mode: WLAN6GHz_802.11ax160-HE0_Ant 2										
Right-side	5	15	6025	7.20	8.5	99	0.412	0.561	2.840	
Right-side	5	47	6185	7.63	8.5	99	0.463	0.571	3.240	9
Right-side	5	111	6505	5.22	6	99	0.124	0.150	0.791	
Right-side	5	175	6825	4.63	6	99	0.071	0.098	0.400	
Right-side	5	207	6985	5.01	5.5	99	0.071	0.080	0.381	

Note:

- When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.
- When multiple transmission modes have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected.

10g Extremity SAR

SAR MEASUREMENT									
Ambient Temperature (°C): 23.2±2					Relative Humidity (%): 51%				
Liquid Temperature (°C): 22.1±2					Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		Duty Cycle %	SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit		Meas-10g	Scaled-10g	
Test Mode: RFID									
Front	0	915250	915.25	26.87	27	99	<0.001	<0.001	
Left-side	0	915250	915.25	26.87	27	99	<0.001	<0.001	
Right-side	0	915250	915.25	26.87	27	99	<0.001	<0.001	
Top	0	902750	902.75	26.78	27	99	0.003	0.003	2
Top	0	915250	915.25	26.87	27	99	0.002	0.002	
Top	0	927250	927.25	26.73	27	99	0.001	0.001	
Bottom	0	915250	915.25	26.87	27	99	0.000	0.000	

SAR MEASUREMENT									
Ambient Temperature (°C): 23.3±2					Relative Humidity (%): 53%				
Liquid Temperature (°C): 22.2±2					Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		Duty Cycle %	SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit		Meas-10g	Scaled-10g	
Test Mode: WLAN2.4GHz_802.11b-1M_Ant 1									
Back	0	1	2412	12.84	13	99	0.424	0.444	
Back	0	6	2437	12.88	13	99	0.432	0.449	
Back	0	11	2462	12.87	13	99	0.377	0.392	
Left-side	0	6	2437	12.88	13	99	0.038	0.039	
Top	0	6	2437	12.88	13	99	0.211	0.219	
Bottom	0	6	2437	12.88	13	99	0.174	0.181	
Test Mode: WLAN2.4GHz_802.11b-1M_Ant 2									
Right-side	0	1	2412	12.85	13	99	0.529	0.553	
Right-side	0	6	2437	12.89	13	99	0.569	0.589	37
Right-side	0	11	2462	12.75	13	99	0.369	0.395	

Note:

- When the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required.
- When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.

SAR MEASUREMENT									
Ambient Temperature (°C): 23.1±2					Relative Humidity (%):52 %				
Liquid Temperature (°C): 22.1 ±2					Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		Duty Cycle %	SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit		Meas-10g	Scaled-10g	
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 1									
Back	0	58	5290	11.86	12	99	0.762	0.795	46
Left-side	0	58	5290	11.86	12	99	0.046	0.048	
Top	0	58	5290	11.86	12	99	0.431	0.450	
Bottom	0	58	5290	11.86	12	99	0.118	0.123	
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 2									
Right-side	0	58	5290	11.85	12	99	0.683	0.714	
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 1									
Back	0	106	5530	11.84	12	99	0.776	0.813	
Back	0	122	5610	11.83	12	99	0.694	0.729	
Back	0	138	5690	11.80	12	99	0.725	0.767	
Left-side	0	106	5530	11.84	12	99	0.058	0.061	
Top	0	106	5530	11.84	12	99	0.398	0.417	
Bottom	0	106	5530	11.84	12	99	0.211	0.221	
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 2									
Right-side	0	106	5530	11.84	12	99	0.863	0.904	40
Right-side	0	122	5610	11.81	12	99	0.833	0.879	
Right-side	0	138	5690	11.72	12	99	0.795	0.856	

Note:

- When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.
- When multiple transmission modes have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected.
- When the reported SAR of the highest measured maximum U-NII-2A for the exposure configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.

SAR MEASUREMENT									
Ambient Temperature (°C): 23.1±2					Relative Humidity (%):52 %				
Liquid Temperature (°C): 22.1 ±2					Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		Duty Cycle %	SAR (W/kg)		Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit		Meas-10g	Scaled-10g	
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 1									
Back	0	155	5775	11.79	12	99	0.786	0.833	
Left-side	0	155	5775	11.79	12	99	0.056	0.059	
Top	0	155	5775	11.79	12	99	0.377	0.400	
Bottom	0	155	5775	11.79	12	99	0.264	0.280	
Test Mode: WLAN5GHz_802.11ac80-VHT0_Ant 2									
Right-side	0	155	5775	11.73	12	99	0.804	0.864	43

Note:

1. When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.
2. When multiple transmission modes have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected.

SAR MEASUREMENT										
Ambient Temperature (°C): 23.1±2						Relative Humidity (%): 50%				
Liquid Temperature (°C): 22.3 ±2						Depth of Liquid (cm): >15				
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		Duty Cycle %	SAR (W/kg)		APD (W/m²)	Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit		Meas-10g	Scaled-10g	Meas-4cm²	
Test Mode: WLAN6GHz_802.11ax160-HE0_Ant 1										
Back	0	15	6025	9.95	10.5	99	0.388	0.445	9.180	
Back	0	47	6185	9.91	10.5	99	0.378	0.437	8.890	
Back	0	111	6505	9.97	10.5	99	0.231	0.264	5.500	
Back	0	175	6825	7.32	8	99	0.152	0.180	3.620	
Back	0	207	6985	5.10	5.5	99	0.110	0.122	2.560	
Left-side	0	111	6505	9.97	10.5	99	0.016	0.018	0.357	
Top	0	111	6505	9.97	10.5	99	0.085	0.097	1.970	
Bottom	0	111	6505	9.97	10.5	99	0.084	0.096	1.900	
Test Mode: WLAN6GHz_802.11ax160-HE0_Ant 2										
Right-side	0	15	6025	7.20	8.5	99	0.332	0.452	7.840	55
Right-side	0	47	6185	7.63	8.5	99	0.358	0.442	8.510	
Right-side	0	111	6505	5.22	6	99	0.112	0.135	2.620	
Right-side	0	175	6825	4.63	6	99	0.084	0.116	2.030	
Right-side	0	207	6985	5.01	5.5	99	0.107	0.121	2.480	

Note:

- When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required in that exposure configuration.
- When multiple transmission modes have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected.

PD MEASUREMENT												
Ambient Temperature (°C): 23.2 ±2						Relative Humidity (%): 54%						
Test Position	Dist. (mm)	Frequency		Conducted Power (dBm)		Duty Cycle %	psPDn+ (W/m²)		psPDtot+ (W/m²)		Uncertainty	Plot No.
		Ch.	MHz	Meas.	Tune-Up Limit		Meas- 4cm²	Scaled- 4cm²	Meas- 4cm²	Scaled- 4cm²	Uncertainty Scaling Factor	
Test Mode: WLAN6GHz_802.11ax160-HE0_Ant 2												
Right-side	2	15	6025	7.20	8.5	99	1.530	3.231	1.990	4.202	1.550	
Right-side	2	47	6185	7.63	8.5	99	2.990	5.719	3.220	6.159	1.550	
Test Mode: WLAN6GHz_802.11ax160-HE0_Ant 1												
Back	2	111	6505	9.97	10.5	99	2.830	5.005	3.260	5.766	1.550	
Back	2	175	6825	7.32	8	99	3.090	5.657	3.430	6.280	1.550	7
Back	2	207	6985	5.10	5.5	99	1.970	3.382	2.140	3.673	1.550	

Note:

- Per WLAN 6 GHz interim test procedure in Oct. 2020 TCBs Workshop notes. At least 5 channels for BW 160MHz should be tested.

9.2 Simultaneous Transmission

Simultaneous Transmission Configurations	
1	RFID + WLAN 2.4 GHz ANT 1 + WLAN 2.4 GHz ANT 2 + Bluetooth
2	RFID + WLAN 2.4 GHz ANT 1 + WLAN 5 GHz ANT 2 + Bluetooth
3	RFID + WLAN 2.4 GHz ANT 1 + WLAN 6 GHz ANT 2 + Bluetooth
4	RFID + WLAN 2.4 GHz ANT 2 + WLAN 5 GHz ANT 1 + Bluetooth
5	RFID + WLAN 2.4 GHz ANT 2 + WLAN 6 GHz ANT 1 + Bluetooth
6	RFID + WLAN 5 GHz ANT 1 + WLAN 5 GHz ANT 2 + Bluetooth
7	RFID + WLAN 6 GHz ANT 1 + WLAN 6 GHz ANT 2 + Bluetooth

9.2.1 Simultaneous transmission test exclusion considerations

1g Body SAR

Test Position	1	2	3	4	5	6	7	1+2 +7	1+4 +7	1+6 +7	2+3 +7	2+5 +7	3+4 +7	5+6 +7
	WLAN2.4GHz	WLAN2.4GHz	WLAN5GHz	WLAN5GHz	WLAN6GHz	WLAN6GHz	Bluetooth	Σ 1-g	Σ 1-g	Σ 1-g	Σ 1-g	Σ 1-g	Σ 1-g	Σ 1-g
	ANT 1 (W/kg)	ANT 2 (W/kg)	ANT 1 (W/kg)	ANT 2 (W/kg)	ANT 1 (W/kg)	ANT 2 (W/kg)	Estimated (W/kg)	SAR	SAR	SAR	SAR	SAR	SAR	SAR
Back at 5 mm	0.534	-	0.922	-	0.405	-	0.047	0.581	0.581	0.581	0.969	0.452	0.969	0.452
Left-side at 5 mm	0.039	-	0.080	-	0.019	-	0.047	0.086	0.086	0.086	0.127	0.066	0.127	0.066
Right-side at 5 mm	-	1.140	-	1.108	-	0.571	0.047	1.187	1.155	0.618	1.187	1.187	1.155	0.618
Top at 5 mm	0.218	-	0.488	-	0.135	-	0.047	0.265	0.265	0.265	0.535	0.182	0.535	0.182
Bottom at 5 mm	0.184	-	0.546	-	0.202	-	0.047	0.231	0.231	0.231	0.593	0.249	0.593	0.249

10g Extremity SAR

Test Position	1	2	3	4	5	6	7	8	1 + 2 + 3 + 8	1 + 2 + 5 + 8	1 + 2 + 7 + 8	1 + 3 + 4 + 8	1 + 3 + 6 + 8	1 + 4 + 5 + 8	1 + 6 + 7 + 8
	RFID	WLAN2.4GHz	WLAN2.4GHz	WLAN5GHz	WLAN5GHz	WLAN6GHz	WLAN6GHz	Bluetooth	Σ 10-g	Σ 10-g	Σ 10-g	Σ 10-g	Σ 10-g	Σ 10-g	Σ 10-g
	(W/kg)	ANT 1 (W/kg)	ANT 2 (W/kg)	ANT 1 (W/kg)	ANT 2 (W/kg)	ANT 1 (W/kg)	ANT 2 (W/kg)	Estimated (W/kg)	SAR	SAR	SAR	SAR	SAR	SAR	SAR
Back at 0 mm	-	0.449	-	0.833	-	0.445	-	0.047	0.496	0.496	0.496	0.880	0.492	0.880	0.492
Left-side at 0 mm	-	0.039	-	0.061	-	0.018	-	0.047	0.086	0.086	0.086	0.108	0.065	0.108	0.065
Right-side at 0 mm	-	-	0.589	-	0.904	-	0.452	0.047	0.636	0.951	0.499	0.636	0.636	0.951	0.499
Top at 0 mm	0.003	0.219	-	0.450	-	0.097	-	0.047	0.269	0.269	0.269	0.500	0.147	0.500	0.147
Bottom at 0 mm	-	0.181	-	0.280	-	0.096	-	0.047	0.228	0.228	0.228	0.327	0.143	0.327	0.143

When the sum of SAR is larger than the limit, The ratio is determined by $(SAR1 + SAR2)^{1.5/R_i}$, rounded to two decimal digits, and must be ≤ 0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion.

10. SAR measurement variability

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

Frequency		SAR 1g (W/kg)		
Channel	MHz	Original	First Repeated	
			Value	Ratio
1	2412	1.090	1.030	1.058
58	5290	1.060	1.010	1.050

Appendix

Appendix A. System Check Data

Appendix B. Highest measurement Data

Appendix C. Test Setup Photographs

Appendix D. Probe Calibration Data

Appendix E. Dipole Calibration Data

Appendix F. Product Photos-Please refer to the file: 2630679R-Product Photos