

Test report No:
2530168R.701A

SAR TEST REPORT

Product Name	Tablet
Trademark	MSI
Model and /or type reference	MS-NB41
FCC ID	I4L-NB41
IC	3715A-NB41
Applicant's name / address	Micro-Star Int'l Co.,Ltd. No.69, Lide St., Zhonghe Dist., New Taipei City 235, Taiwan
Test method requested, standard	FCC 47CFR §2.1093 IEEE Std 1528-2013 IEC TR 63170:2018 ANSI C95.1:2019 RSS-102.SAR.MEAS Issue 3 EN IEC/IEEE 62209-1528:2021
Maximum SAR&Power Density	1g SAR: 0.09 W/kg 4cm ² Power Density: 1.40 W/m ²
Verdict Summary	IN COMPLIANCE
Tested by (name / position & signature)	Tim Cao / Project Manager 
Approved by (name / position & signature)	Frank He / Technical Manager 
Date of issue	2025-09-08
Report Version	V1.0
Report template No.	Template_FCC SAR-RF-V1.0

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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

Test Location	No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
Date(receive sample)	Mar. 06, 2025
Date (start test)	Mar. 06, 2025
Date (finish test)	Mar. 25, 2025

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
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4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA.

ENVIRONMENTAL CONDITIONS

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:

Ambient temperature	18 °C – 25 °C
Relative Humidity air	30% - 60%

If explicitly required in the basic standard or applied product / product family standard the climatic values are recorded and documented separately in this test report.

POSSIBLE TEST CASE VERDICTS

Test case does not apply to test object	N/A
Test object does meet requirement	P (Pass) / PASS
Test object does not meet requirement	F (Fail) / FAIL
Not measured	N/M

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
2530168R.701A	V1.0	Initial issue of report.	2025-09-08

REMARKS AND COMMENTS

1. The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with FCC 47 CFR§2.1093, IEEE Std 1528-2013, IEC TR 63170:2018, ANSI C95.1:2019, RSS-102.SAR.MEAS Issue 3, EN IEC/IEEE 62209-1528:2021.
3. The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to account the uncertainty associated with the measurement result.
4. The test results presented in this report relate only to the object tested.
5. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.
6. This report will not be used for social proof function in China market.
7. DEKRA declines any responsibility with the following test data provided by customer that may affect the validity of result:
 - Chapter 1.1 General Description of the Item(s);
 - Chapter 1.2 Antenna Information.
 - Chapter 1.3 Antenna location diagram.
 - Chapter 1.4 Date Rate
 - Chapter 1.3 Channel List.

1 General Information

1.1 General Description of the Item(s)

Product Name	Tablet
Model No.	MS-NB41
Trademark	MSI
FCC ID.....	I4L-NB41
IC ID	3715A-NB41
SoftwareVersion	0B
HardwareVersion.....	0C
Manufacturer	Micro-Star International Co., Ltd.
Manufacturer address	No.88 East Qianjin Road, Kunshan city, Jiangsu province, China
Factory.....	Micro-Star International Co., Ltd.
Factory address.....	No.88 East Qianjin Road, Kunshan city, Jiangsu province, China

Wireless specification	WIFI 6E
Type of Modulation	OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM,4096QAM
Frequency Range	U-NII 5: 5945 MHz~ 6425 MHz
	U-NII 6: 6425 MHz~ 6525 MHz
	U-NII 7: 6525 MHz~ 6875 MHz
	U-NII 8: 6875 MHz~ 7125 MHz
Number of Channels	802.11ax 20MHz: 59
	802.11ax 40MHz:29
	802.11ax 80MHz: 14
	802.11ax 160MHz: 7
Date Rate	802.11ax: up to 4804 Mbps

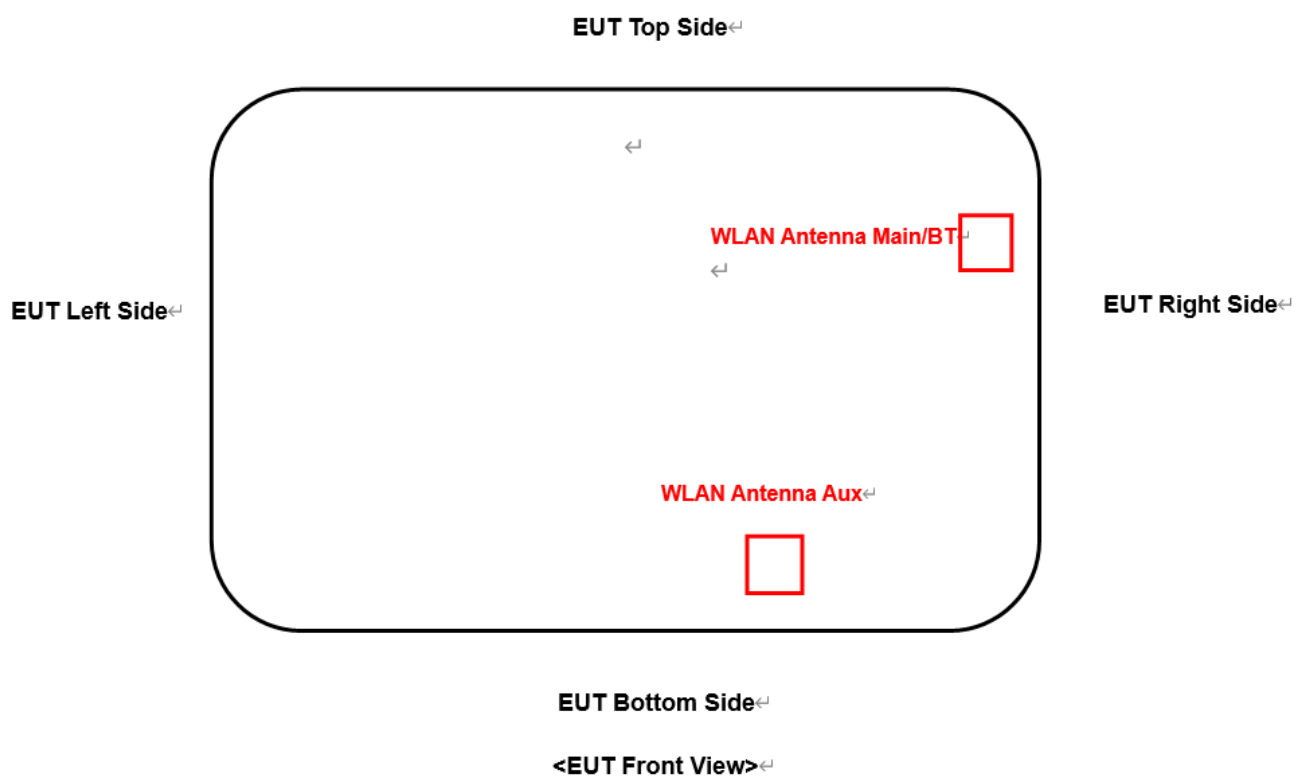
Rated power supply..... :	Voltage and Frequency	
	☐	AC: 220 - 240 V, 50/60 Hz
	☒	AC: 100 - 240 V, 50/60 Hz
	☒	Battery 7.68V, 8600mAh, 66Wh
	☐	Poe:
	☐	Adapter:

Mounting position :	☒	Tabletop equipment
	☐	Wall/Ceiling mounted equipment
	☐	Floor standing equipment
	☒	Hand-held/Portable equipment
	☐	Other:

1.2 Antenna Information

Antenna Delivery	☒	1TX + 1RX	
	☒	2TX + 2RX	
	☐	Others:	
Antenna technology.....	☒	SISO	
	☒	MIMO	☒ CDD ☐ Beam-forming
Antenna Type	☐	External	☐ Dipole ☐ Sectorized
	☒	Internal	☐ Ceramic Chip ☒ PIFA ☐ PCB ☐ Others.....

1.3 Antenna location diagram



1.4 Channel List

U-NII 5:

802.11ax(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	5955 MHz	5	5975 MHz	9	5995 MHz	13	6015 MHz
17	6035 MHz	21	6055 MHz	25	6075 MHz	29	6095 MHz
33	6115 MHz	37	6135 MHz	41	6155 MHz	45	6175 MHz
49	6195 MHz	53	6215 MHz	57	6235 MHz	61	6255 MHz
65	6275 MHz	69	6295 MHz	73	6315 MHz	77	6335 MHz
81	6355 MHz	85	6375 MHz	89	6395 MHz	93	6415 MHz
802.11ax(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
3	5965 MHz	11	6005 MHz	19	6045 MHz	27	6085 MHz
35	6125 MHz	43	6165 MHz	51	6205 MHz	59	6245 MHz
67	6285 MHz	75	6325 MHz	83	6365 MHz	81	6405 MHz
802.11ax(80MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
7	5985 MHz	23	6065 MHz	39	6145 MHz	55	6225 MHz
71	6305 MHz	87	6385 MHz	N/A	N/A	N/A	N/A
802.11ax(160MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
15	6025 MHz	47	6185 MHz	79	6345 MHz	N/A	N/A

U-NII 6:

802.11ax(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
97	6435 MHz	101	6455 MHz	105	6475 MHz	109	6495 MHz
113	6515 MHz	N/A	N/A	N/A	N/A	N/A	N/A
802.11ax(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
99	6465 MHz	107	6485 MHz	115	6525 MHz	N/A	N/A
802.11ax(80MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
109	6465 MHz	119	6545 MHz	N/A	N/A	N/A	N/A
802.11ax(160MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
111	6505 MHz	N/A	N/A	N/A	N/A	N/A	N/A

Note: The blue form are channels crossing U-NII 6 and U-NII 7.

U-NII 7:**802.11ax(20MHz) Working Frequency of Each Channel:**

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
117	6535 MHz	121	6555 MHz	125	6575 MHz	129	6595 MHz
133	6615 MHz	137	6635 MHz	141	6655 MHz	145	6675 MHz
149	6695 MHz	153	6715 MHz	157	6735 MHz	161	6755 MHz
165	6775 MHz	169	6795 MHz	173	6815 MHz	177	6835 MHz
181	6855 MHz	185	6875 MHz	N/A	N/A	N/A	N/A

802.11ax(40MHz) Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
115	6525 MHz	123	6565 MHz	131	6605 MHz	139	6645 MHz
147	6685 MHz	155	6725 MHz	163	6765 MHz	171	6805 MHz
179	6845 MHz	187	6885 MHz	N/A	N/A	N/A	N/A

802.11ax(80MHz) Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
119	6545 MHz	135	6625 MHz	151	6705 MHz	167	6785 MHz
183	6865 MHz	N/A	N/A	N/A	N/A	N/A	N/A

802.11ax(160MHz) Working Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
111	6505 MHz	143	6665 MHz	175	6825 MHz	N/A	N/A

Note: The blue form are channels crossing U-NII 6 and U-NII 7; The orange form are channels crossing U-NII 7 and U-NII 8.

U-NII 8:

802.11ax(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
185	6875 MHz	189	6895 MHz	193	6915 MHz	197	6935 MHz
201	6955 MHz	205	6975 MHz	209	6995 MHz	213	7015 MHz
217	7035 MHz	221	7055 MHz	225	7075 MHz	229	7095 MHz
233	7115 MHz	N/A	N/A	N/A	N/A	N/A	N/A
802.11ax(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
187	6885 MHz	195	6925 MHz	203	6965 MHz	211	7005 MHz
219	7045 MHz	227	7085 MHz	N/A	N/A	N/A	N/A
802.11ax(80MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
183	6865 MHz	199	6945 MHz	215	7025 MHz	N/A	N/A
802.11ax(160MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
175	6825 MHz	207	6985 MHz	N/A	N/A	N/A	N/A

Note: The orange form are channels crossing U-NII 7 and U-NII 8.

Note: The general description of the Item(s), antenna information, data rate and channel list in clause 1 are provided and confirmed by the client.

2 INTRODUCTION

2.1 SAR Definition

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

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

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

SAR measurement can be related to the electrical field in the tissue by

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

Where:

σ = conductivity of the tissue (S/m)

ρ = mass density of the tissue (kg/m³)

E = RMS electric field strength (V/m)

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

2.2 Power Density Definition

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:

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

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.

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

2.3 RF Exposure Limits

Table 1 Safety Limits for Controlled / Uncontrolled Environment Exposure

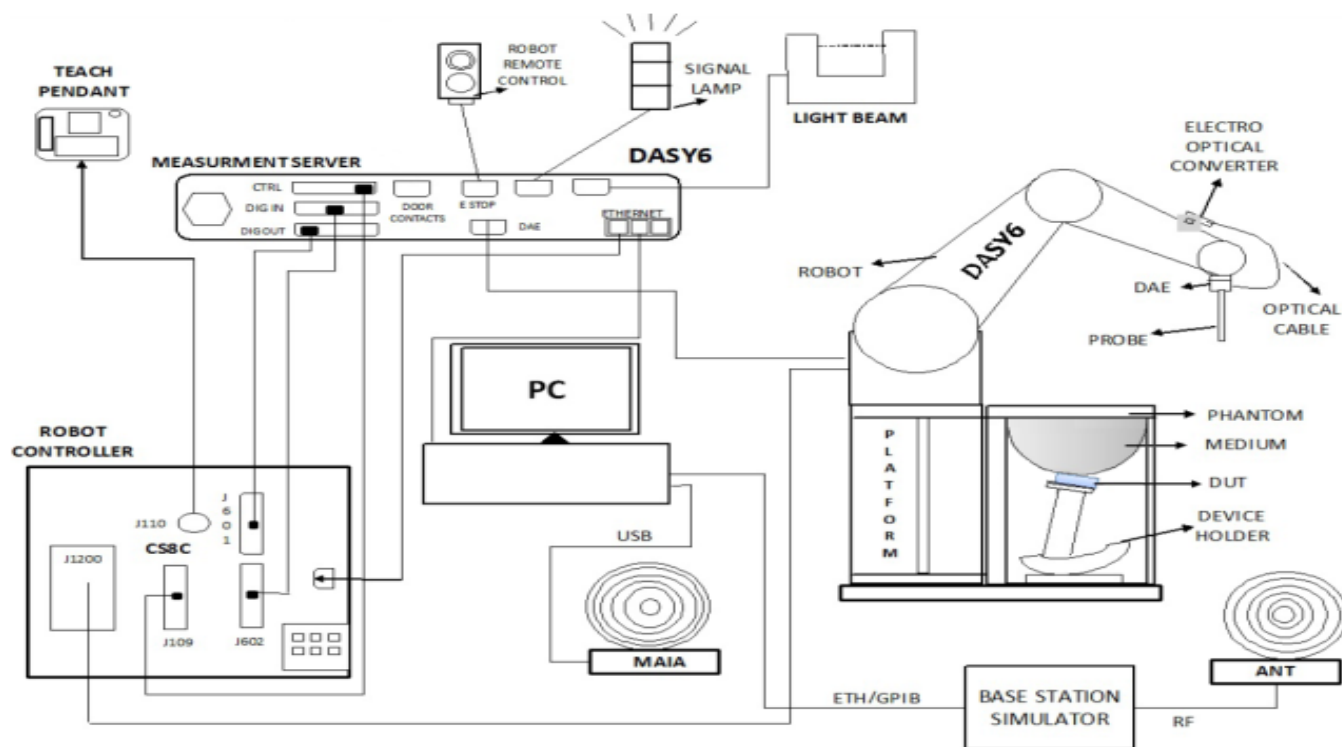
SAR Exposure Limit		
	General Population / Uncontrolled Exposure ¹ (W/kg)	Occupational / Controlled Exposure ² (W/kg)
Spatial Peak SAR ³ (head or Body)	1.60	8.00
Spatial Peak SAR ⁴ (Whole Body)	0.08	0.40
Spatial Peak SAR ⁵ (Hands / Feet / Ankle / Wrist)	4.00	20.00
Power Density Exposure Limit (1,500 - 100,000 MHz)		
	General Population / Uncontrolled Exposure (mW/cm²) ⁶	Occupational / Controlled Exposure (mW/cm²)
Power Density (S)	1.0	5.0

Notes:

1. **General Population / Uncontrolled Environments** are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.
2. **Occupational / Controlled Environments** are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation).
3. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
4. The Spatial Average value of the SAR averaged over the whole body.
5. The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
6. $1 \text{ mW/cm}^2 = 10 \text{ W/m}^2$,

3 SAR MEASUREMENT SYSTEM

3.1 DASY6 SAR System Description



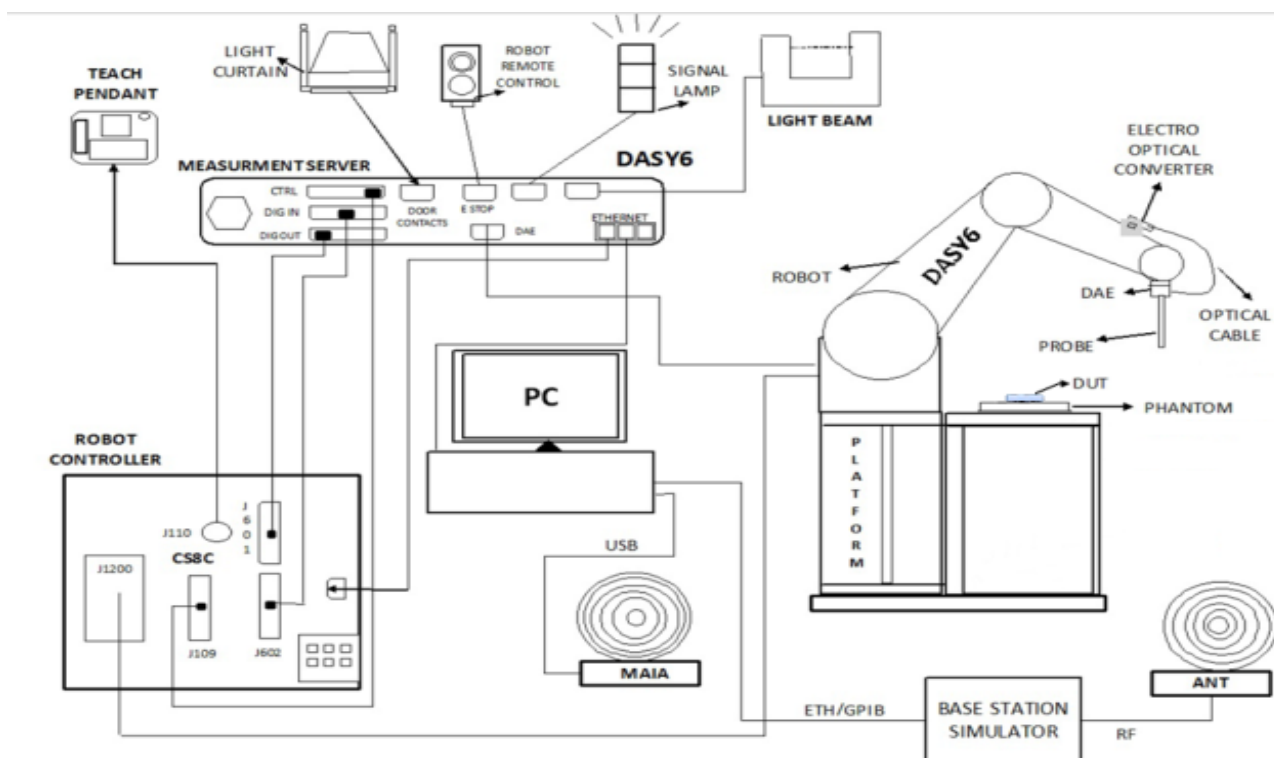
The DASY6 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
2. 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.
3. 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.
4. The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
5. A computer running Windows 11 and the DASY6 software.
6. Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
7. The phantom, the device holder and other accessories according to the targeted measurement.

3.2 DASY6 Power Density System Description

DASY6 system

Power density measurements for mmWave frequencies were performed using SPEAG DASY6 with cDASY6 5G module. The DASY6 included a high precision robotics system (Staubli), robot controller, desktop computer, near-field probe, probe alignment sensor, and the 5G phantom cover.



EUmmWVx probe:

The EUmmWVx probe is based on the pseudo-vector probe design, which not only measures the field magnitude but also derives its polarization ellipse. The design entails two small 0.8mm dipole sensors mechanically protected by high-density foam, printed on both sides of a 0.9mm wide and 0.12mm thick glass substrate. The body of the probe is specifically constructed to minimize distortion by the scattered fields. The probe consists of two sensors with different angles (1 and 2) arranged in the same plane in the probe axis. Three or more measurements of the two sensors are taken for different probe rotational angles to derive the amplitude and polarization information. The probe design allows measurements at distances as small as 2mm from the sensors to the surface of the device under test (DuT). The typical sensor to probe tip distance is 1.5 mm. The exact distance is calibrated. 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.

2.1.1. Applications

Predefined procedures and evaluations for automated compliance testing with all worldwide standards, e.g., IEC/IEEE 62209-1528, EN 50360, EN 50383, EN62311 and others.

2.1.2. Area & Zoom Scan Procedures

First Area Scan is used to locate the approximate location(s) of the local peak SAR value(s). The measurement grid within an Area Scan is defined by the grid extent, grid step size and grid offset. Next, in order to determine the EM field distribution in a three-dimensional spatial extension, Zoom Scan is required. The Zoom Scan measures points and step size follow as below. The Zoom Scan is performed around the highest E-field value to determine the averaged SAR-distribution. The measure settings are referred to KDB 865664 D01v01r04:

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 mm ± 1 mm	$\frac{1}{5} \cdot \delta \cdot \ln(2)$ mm ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}			≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
			When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx_{Area} , Δy_{Area}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	Graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5 · $\Delta z_{Zoom}(n-1)$ mm	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see IEEE Std 1528-2013 for details.				
* When zoom scan is required and the reported SAR from the area scan based 1-g SAR estimation procedures of KDB Publication 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

2.1.4. Uncertainty of Inter-/Extrapolation and Averaging

In order to evaluate the uncertainty of the interpolation, extrapolation and averaged SAR calculation algorithms of the Postprocessor, DASY6 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 of IEC/IEEE 62209-1528. The three analytical functions shown in equations as below are used to describe the possible range of the expected SAR distributions for the tested handsets. The field gradients are covered by the spatially flat distribution f1, the spatially steep distribution f3 and f2 accounts for H-field cancellation on the phantom/tissue surface.

$$f_1(x, y, z) = Ae^{-\frac{z}{2a}} \cos^2 \left(\frac{\pi}{2} \frac{\sqrt{x'^2 + y'^2}}{5a} \right)$$

$$f_2(x, y, z) = Ae^{-\frac{z}{a}} \frac{a^2}{a^2 + x'^2} \left(3 - e^{-\frac{2z}{a}} \right) \cos^2 \left(\frac{\pi}{2} \frac{y'}{3a} \right)$$

$$f_3(x, y, z) = A \frac{a^2}{\frac{a^2}{4} + x'^2 + y'^2} \left(e^{-\frac{2z}{a}} + \frac{a^2}{2(a + 2z)^2} \right)$$

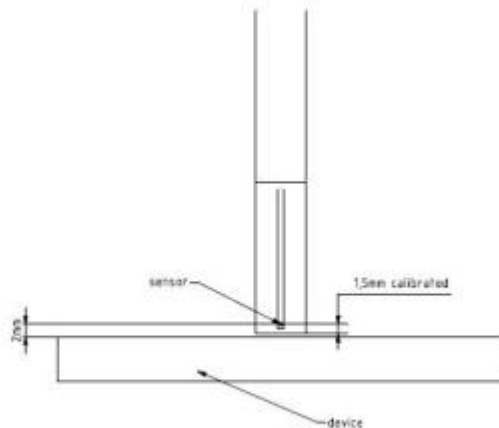
3.3 DASY6 E-Field Probe

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 (e.g. IEC/IEEE 62209-1528, etc.) under ISO 17025. The calibration data are in Appendix D.

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 to 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)
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
Calibration	ISO/IEC 17025 calibration service available
	
	
EX3DV4 E-Field Probe	
Probe setup on robot	

The EUmWV3 probe is based on the pseudo-vector probe design, which not only measures the field magnitude but also derives its polarization ellipse. This probe concept also has the advantage that the sensor angle errors or distortions of the field by the substrate can be largely nullified by calibration. This is particularly important as, at these very high frequencies, field distortions by the substrate are dependent on the wavelength. It has two dipoles optimally arranged to obtain pseudo-vector information. It has minimum 3 measurements/point, 120° rotated around probe axis. Sensors (0.8 mm length) printed on glass substrate protected by high density foam. Low perturbation of the measured field. Requires positioner which can do accurate probe rotation.

Frequency Range	750 MHz - 110 GHz
Dynamic Range	< 20 V/m - 10'000 V/m with PRE-10 (min < 50 V/m - 3000 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
Applications	Electric field measurements of 5G devices and other mm-wave transmitters operating above 10 GHz in <2 mm distance from device (free-space) Power density, magnetic field, and far-field analysis using total field reconstruction (cDASY6 5G or ICEy-mmW module required)
compatibility	cDASY6 + 5G-Module SW1.0 and higher
	
E-Field mm-Wave Probe	Sensor to DUT Surface

3.4 Boundary Detection Unit and Probe Mounting Device

The DASY probes use a precise connector and an additional holder for the probe, consisting of a plastic tube and a flexible silicon ring to center the probe. The connector at the DAE is flexibly mounted and held in the default position with magnets and springs. Two switching systems in the connector mount detect frontal and lateral probe collisions and trigger the necessary software response.

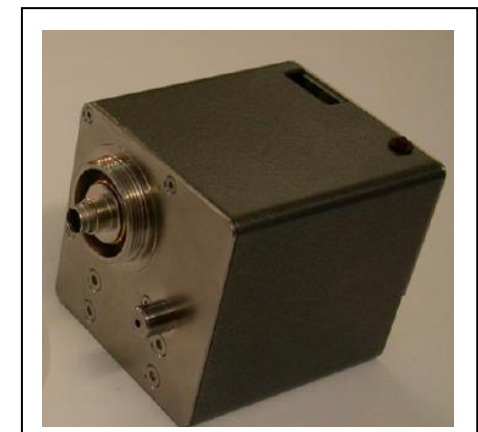


3.5 DATA Acquisition Electronics (DAE) and Measurement Server

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.



The DASY6 measurement server is based on a PC/104 CPU board with a 400MHz intel ULV Celeron, 128MB chipdisk and 128MB RAM. The necessary circuits for communication with the DAE electronics box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY6 I/O board, which is directly connected to the PC/104 bus of the CPU board.



3.6 Robot

The DASY6 system uses the high precision robots TX60 XL type out of the newer series from Stäubli SA (France). For the 6-axis controller DASY6 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



3.7 Light Beam Unit

The light beam switch allows automatic "tooling" of the probe. During the process, the actual position of the probe tip with respect to the robot arm is measured, as well as the probe length and the horizontal probe offset. The software then corrects all movements, such that the robot coordinates are valid for the probe tip.

The repeatability of this process is better than 0.1 mm. If a position has been taught with an aligned probe, the same position will be reached with another aligned probe within 0.1 mm, even if the other probe has different dimensions. During probe rotations, the probe tip will keep its actual position.



3.8 Device Holder

The DASY6 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 DASY6 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.



The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.

The DASY6 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.



3.9 SAM Twin Phantom

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



ELI Phantom

The SAM phantom is a fiberglass shell phantom with 2mm shell thickness. It has one measurement areas:

- ELI phantom

The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.



4 TISSUE SIMULATING LIQUID

4.1 The composition of the tissue simulating liquid

Simulate 600MHz~10000MHz liquid, manufactured by SPEAG

Table F.1 – Suggested recipes for achieving target dielectric properties, 30 MHz to 900 MHz

Frequency (MHz)	30	50		144		450		835	900	
Recipe source number	3	3	2	2	3	2	4	2	2	4
Ingredients (% by weight)										
De-ionized water	48,30	48,30	53,53	55,12	48,30	48,53	56	50,36	50,31	56
Tween 20			44,70	43,31		49,51		48,39	48,34	
Oxidized mineral oil							44			44
Diethyleneglycol monohexylether										
Triton X-100										
Diacetin	50,00	50,00			50,00					
DGBE										
NaCl	1,60	1,60	1,77	1,57	1,60	1,96		1,25	1,35	
Additives and salt	0,10	0,10			0,10					
Measured temperature dependence										
Temp. (°C)			21	21		21	20	21	21	20
$\epsilon_{\text{liquid temp. unc.}}$ (%)	0,8	0,1			0,1	0,1		0,04	0,04	
$\sigma_{\text{liquid temp. unc.}}$ (%)	2,8	2,8			2,6	4,2		1,6	1,6	

Table F.2 – Suggested recipes for achieving target dielectric properties, 1 800 MHz to 10 000 MHz

Frequency (MHz)	1 800		2 450	4 000	5 000	5 200	5 800	6 000	8 000	10 000
Recipe source number	2	4	4	4	4	1	1	4	5	5
Ingredients (% by weight)										
De-ionized water	54,23	56	56	56	56	65,53	65,53	56	67,8	66,0
Tween	45,27								31,1	33,0
Oxidized mineral oil		44	44	44	44			44		
Diethyleneglycol monohexylether						17,24	17,24			
Triton X-100						17,24	17,24			
Diacetin										
DGBE										
NaCl	0,50									
Additives and salt										
Measured temperature dependence										
Temp. (°C)	21	20	20	20	20	22	22	20	20	20
$\epsilon_{\text{liquid temp. unc.}}$ (%)	0,4					1,7	1,8			
$\sigma_{\text{liquid temp. unc.}}$ (%)	2,3					2,7	2,6			

NOTE 1 Multiple columns under a single frequency indicate optional recipes.

NOTE 2 Recipe source numbers: 1 verified by different labs, 2 Reference [59], 3 developed by IT'IS Foundation, 4 developed by IT'IS Foundation, 5 Reference [60].

NOTE 3 The values of $\epsilon_{\text{liquid temp. unc.}}$ and $\sigma_{\text{liquid temp. unc.}}$ are liquid temperature uncertainties described in O.9.6, based on measurements of the applicable liquid recipes given above. These are not part of the original publications but have been subsequently developed by the project team.

NOTE 4 The recipes at 8 000 MHz and 10 000 MHz are sufficiently broadband that they cover the frequency range of 6 000 MHz to 10 000 MHz within a tolerance of ± 10 % for permittivity and conductivity.

4.2 Tissue Calibration Result

The dielectric parameters of the liquids were verified prior to the SAR evaluation using DASY6 Dielectric Probe Kit and Agilent Vector Network Analyzer E5071C

Head Tissue Simulant Measurement				
Frequency [MHz]	Description	Dielectric Parameters		Tissue Temp. [°C]
		ϵ_r	σ [s/m]	
6500 MHz	Reference result $\pm 5\%$ window	34.5 32.78 to 36.23	6.07 5.77 to 6.37	N/A
	19-03-2025	34.0	6.08	22.0

4.3 Tissue Dielectric Parameters for Head 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 and body tissue parameters that have not been specified in IEC/IEEE 62209-1528 are derived from the tissue dielectric parameters computed from the 4-Cole-Cole equations described in Reference [12] and extrapolated according to the head parameters specified in IEC/IEEE 62209-1528.

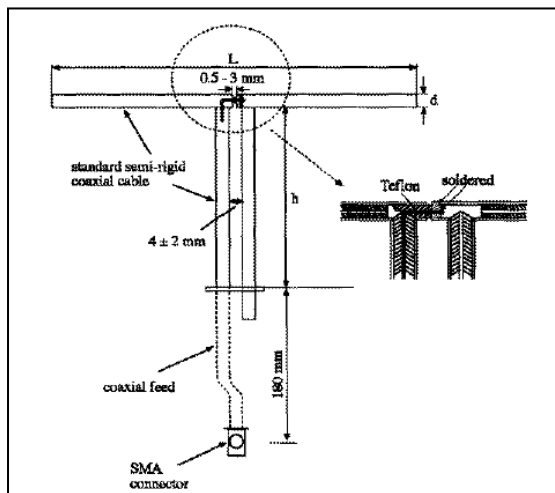
Target Frequency (MHz)	Head	
	Relative Permittivity (ϵ_r)	Conductivity (σ)
150	52.30	0.76
300	45.30	0.87
450	43.50	0.87
750	41.90	0.89
835	41.50	0.90
900	41.50	0.97
915	41.50	0.98
1450	40.50	1.20
1610	40.30	1.29
1800 – 2000	40.00	1.40
2450	39.20	1.80
2600	39.00	1.96
3000	38.50	2.40
5800	35.30	5.07
6000	35.01	5.48
6500	34.50	6.07
7000	33.90	6.65

(ϵ_r = relative permittivity, σ = conductivity and $\rho = 1000 \text{ kg/m}^3$)

5 SAR MEASUREMENT PROCEDURE

5.1 SAR System Validation

4.1.1. Validation Dipoles



The dipoles used is based on the IEC/IEEE 62209-1528 standard, and is complied with mechanical and electrical specifications in line with the requirements of both IEEE and FCC Supplement C. the table below provides details for the mechanical and electrical specifications for the dipoles.

Frequency	L (mm)	h (mm)	d (mm)
2450MHz	51.5	30.4	3.6
5000-6000MHz	20.6	40.3	3.6
6000-8000MHz	14.5	35.1	2.2

Note: The L, h, and d, dimensions shall be within +2 % tolerance.

4.1.2. Validation Result

System Performance Check at 6500MHz				
Frequency [MHz]	Description	SAR [w/kg] 1g	SAR [w/kg] 10g	Tissue Temp. [°C]
6500 MHz	Reference result ± 10% window	29.3 26.37 to 32.23	5.41 4.87 to 5.95	N/A
	19-03-2025	29.3	5.24	22.0

Note: All SAR values are normalized to 1W forward power.

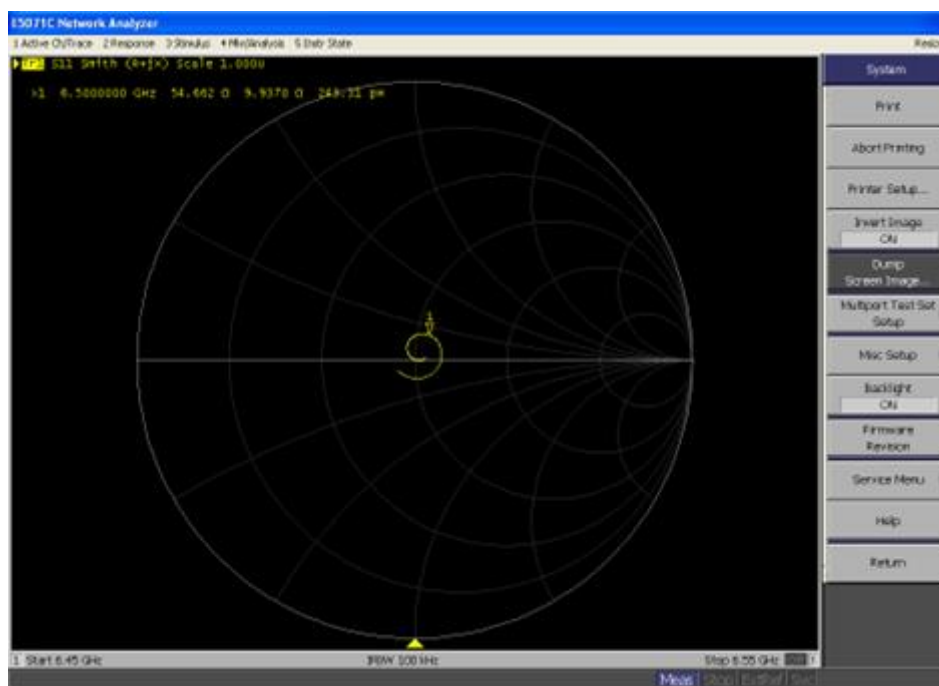
System Performance Check at 10 GHz					
Frequency [MHz]	Description	Prad (mW)	Max E-field (V/m)	Avg Power Density 1cm ² Total PD (W/m ²)	Avg Power Density 4cm ² Total PD (W/m ²)
10 GHz	Reference result ± 10% window	86.1 77.5 to 94.7	147 132 to 162	54.6 49.1 to 60.1	50.1 45.1 to 55.1
	21-03-2025	86.3	141	57.3	54.2

4.1.3. Dipole Calibration Data

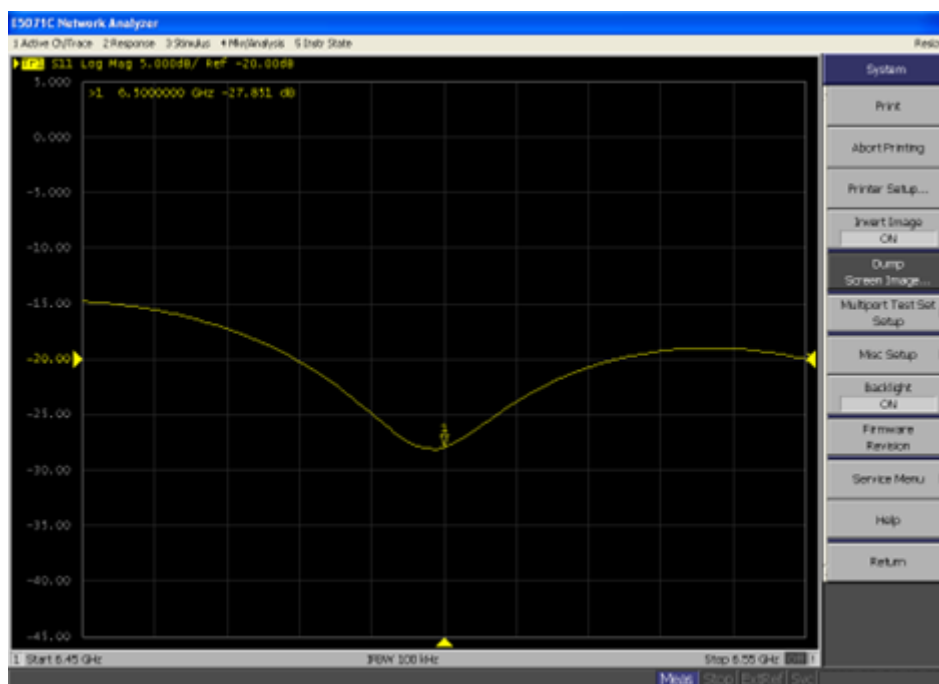
Impedance Plot for D6.5GHzV2

6.5GHz Head

Calibrated impedance: 52.497 Ω ; Measured impedance: 54.662 Ω (within 5 Ω)



Calibrated return loss: -27.076 dB; Measured impedance: -27.851 dB (within 20%)



Note: Per KDB 450824 D02 requirements for dipole calibration, DEKRA Lab has adopted three years calibration interval. On annual basis, every measurement dipole has been evaluated and is in compliance with the following criteria:

1. There is no physical damage on the dipole;
2. System validation with specific dipole is within 10% of calibrated value;
3. Return-loss is within 20% of calibrated measurement (Show above);
4. Impedance is within 5Ω of calibrated measurement (Show above).

6 TEST EQUIPMENT LIST

Instrument	Manufacturer	Model No.	Serial No.	Cal.Date	Next Cal. Date	Firmware Version	Software Version
Stäubli Robot TX60L	Stäubli	TX60L	F10/5C90A1/A/01	N/A	N/A	N/A	N/A
Controller	Stäubli	SP1	S-0034	N/A	N/A	N/A	N/A
Dipole Validation Kits	Speag	D6.5GHzV2	1084	2024.09.12	2025.09.11	N/A	N/A
Dipole Validation Kits		5G Verification Source 10 GHz	1055	2024.09.16	2025.09.15	N/A	N/A
ELI Phantom	Speag	ELI V8.0	2106	N/A	N/A	N/A	N/A
mmWave Phantom	Speag	mmWave	1108	N/A	N/A	N/A	N/A
Device Holder	Speag	SD 000 H01 HA	N/A	N/A	N/A	N/A	N/A
Data Acquisition Electronic	Speag	DAE4	679	2024.08.08	2025.08.07	N/A	N/A
E-Field Probe	Speag	EX3DV4	7761	2024.09.19	2025.09.18	N/A	N/A
E-Field Probe	Speag	EUmmWV4	9455	2024.06.21	2025.06.20	N/A	N/A
SAR Software	Speag	DASY6	V5.2 Build 162	N/A	N/A	N/A	V16.2.4.2448
Power Amplifier	MVE	MPC1018.50	C30002D	2024.07.04	2025.07.03	N/A	N/A
Dual Directional Coupler	woken	0110A05A82Z-20	CMLC66W1A1	2024.06.30	2025.06.29	N/A	N/A
Tissue fluid test probe	SPEAG	DAK 3.5	1308	N/A	N/A	N/A	N/A
Vector Network	Agilent	E5071C	MY46103316	2024.08.15	2025.08.14	A.11.31	N/A
Signal Generator	R&S	SMBV100A	263697	2024/6/14	2025.06.13	V4.15.125.49	N/A
Power Meter	Keysight	N1912A	MY60300004	2024.06.30	2025.06.29	A2.06.01	N/A
Temperature/Humidity Meter	Rites	RTS-8S	RF06	2024.07.04	2025.07.03	N/A	N/A
Temperaturer	LKM	DTM3000	3777	2024.07.25	2025.07.24	N/A	N/A

7 MEASUREMENT UNCERTAINTY

DASY6 SAR Uncertainty								
Measurement uncertainty for 300 MHz to 3 GHz averaged over 1 gram / 10 gram.								
Error Description	Uncert. value	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	(vi) veff
Measurement System								
Probe Calibration	±5.5%	N	1	1	1	±5.5%	±5.5%	∞
Axial Isotropy	±4.7%	R	$\sqrt{3}$	0.7	0.7	±1.9%	±1.9%	∞
Hemispherical Isotropy	±9.6%	R	$\sqrt{3}$	0.7	0.7	±3.9%	±3.9%	∞
Boundary Effects	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%	∞
System Detection Limits	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Readout Electronics	±0.3%	N	1	1	1	±0.3%	±0.3%	∞
Response Time	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5%	∞
Integration Time	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	±1.5%	∞
RF Ambient Noise	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
RF Ambient Reflections	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Probe Positioner	±0.4%	R	$\sqrt{3}$	1	1	±0.2%	±0.2%	∞
Probe Positioning	±2.9%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Max. SAR Eval.	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Test Sample Related								
Device Positioning	±2.9%	N	1	1	1	±2.9%	±2.9%	145
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%	5
Power Drift	±5.0%	R	$\sqrt{3}$	1	1	±2.9%	±2.9%	∞
Phantom and Setup								
Phantom Uncertainty	±4.0%	R	$\sqrt{3}$	1	1	±2.3%	±2.3%	∞
Liquid Conductivity (meas.)	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%	∞
Liquid Permittivity (meas.)	±2.5%	N	1	0.26	0.26	±0.6%	±0.7%	∞
Combined Std. Uncertainty						±10.6%	±10.5%	361
Expanded STD Uncertainty						±21.2%	±21.1%	

DASY6 SAR Uncertainty								
Measurement uncertainty for 3 GHz to 6 GHz averaged over 1 gram / 10 gram.								
Error Description	Uncert. value	Prob. Dist.	Div.	(ci) 1g	(ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	(vi) V _{eff}
Measurement System								
Probe Calibration	±6.65%	N	1	1	1	±6.65%	±6.65%	∞
Axial Isotropy	±4.7%	R	$\sqrt{3}$	0.7	0.7	±1.9%	±1.9%	∞
Hemispherical Isotropy	±9.6%	R	$\sqrt{3}$	0.7	0.7	±3.9%	±3.9%	∞
Boundary Effects	±2.0%	R	$\sqrt{3}$	1	1	±1.2%	±1.2%	∞
Linearity	±4.7%	R	$\sqrt{3}$	1	1	±2.7%	±2.7%	∞
System Detection Limits	±1.0%	R	$\sqrt{3}$	1	1	±0.6%	±0.6%	∞
Readout Electronics	±0.3%	N	1	1	1	±0.3%	±0.3%	∞
Response Time	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5%	∞
Integration Time	±2.6%	R	$\sqrt{3}$	1	1	±1.5%	±1.5%	∞
RF Ambient Noise	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
RF Ambient Reflections	±3.0%	R	$\sqrt{3}$	1	1	±1.7%	±1.7%	∞
Probe Positioner	±0.8%	R	$\sqrt{3}$	1	1	±0.5%	±0.5%	∞
Probe Positioning	±6.7%	R	$\sqrt{3}$	1	1	±3.9%	±3.9%	∞
Max. SAR Eval.	±4.0%	R	$\sqrt{3}$	1	1	±2.3%	±2.3%	∞
Test Sample Related								
Device Positioning	±2.9%	N	1	1	1	±2.9%	±2.9%	145
Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%	5
Power Drift	±5.0%	R	$\sqrt{3}$	1	1	±2.9%	±2.9%	∞
Phantom and Setup								
Phantom Uncertainty	±4.0%	R	$\sqrt{3}$	1	1	±2.3%	±2.3%	∞
Liquid Conductivity (meas.)	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%	∞
Liquid Permittivity (meas.)	±2.5%	N	1	0.26	0.26	±0.6%	±0.7%	∞
Combined Std. Uncertainty						±12.0%	±12.0%	784
Expanded STD Uncertainty						±24.0%	±23.9%	

DASY6 SAR Uncertainty (Frequency band: 6 GHz–10 GHz range)								
Symbol	Error Description	Uncert. value	Prob. Dist.	Div.	(ci) (1 g)	(ci) (10 g)	Std. Unc. (1 g)	Std. Unc. (10 g)
Measurement System Errors								
CF	Probe Calibration	±18.6%	N	2	1	1	±9.3%	±9.3%
CF _{drift}	Probe Calibration Drift	±1.7%	R	√3	1	1	±1.0%	±1.0%
LIN	Probe Linearity	±4.7%	R	√3	1	1	±2.7%	±2.7%
BBS	Broadband Signal	±2.8%	R	√3	1	1	±1.6%	±1.6%
ISO	Probe Isotropy	±7.6%	R	√3	1	1	±4.4%	±4.4%
DAE	Other Probe+Electronic	±2.4%	N	1	1	1	±2.4%	±2.4%
AMB	RF Ambient	±1.8%	N	1	1	1	±1.8%	±1.8%
Δ _{sys}	Probe Positioning	±0.005 mm	N	1	0.5	0.5	±0.25%	±0.25%
DAT	Data Processing	±3.5%	N	1	1	1	±3.5%	±3.5%
Phantom and Device Errors								
LIQ(σ)	Conductivity (meas.) <i>DAK</i>	±2.5%	N	1	0.78	0.71	±2.0%	±1.8%
LIQ(Tσ)	Conductivity (temp.) <i>BB</i>	±2.4%	R	√3	0.78	0.71	±1.1%	±1.0%
EPS	Phantom Permittivity	±14.0%	R	√3	0.5	0.5	±4.0%	±4.0%
DIS	Distance DUT – TSL	±2.0%	N	1	2	2	±4.0%	±4.0%
D _{xyz}	Device Positioning	±1.0%	N	1	1	1	±1.0%	±1.0%
H	Device Holder	±3.6%	N	1	1	1	±3.6%	±3.6%
MOD	DUT Modulation <i>m</i>	±2.4%	R	√3	1	1	±1.4%	±1.4%
TAS	Time-average SAR	±1.7%	R	√3	1	1	±1.0%	±1.0%
RF _{drift}	DUT drift	±2.5%	N	1	1	1	±2.5%	±2.5%
VAL	Val Antenna Unc. <i>val</i>	±0.0%	N	1	1	1	±0%	±0%
RF _{in}	Unc. Input Power <i>val</i>	±0.0%	N	1	1	1	±0%	±0%
Correction to the SAR results								
C(ε, σ)	Deviation to Target	±1.9%	N	1	1	0.84	±1.9%	±1.6%
C(R)	SAR scaling <i>p</i>	±0%	R	√3	1	1	±0%	±0%



u	Random uncertainty	$\pm 0.6\%$ for 1g and $\pm 0.5\%$ for 10g	N	1	1	1	$\pm 0.6\%$	$\pm 0.5\%$
u(Δ SAR)	Combined Uncertainty						$\pm 14.2\%$	$\pm 13.9\%$
U	Expanded Uncertainty						$\pm 28.4\%$	$\pm 28.3\%$

cDASY6 Module mmWave Uncertainty Budget**Evaluation Distances to the Antennas $> \lambda/2\pi$** **In Compliance with IEC/IEEE 63195**

Symbol	Error Description	Uncertainty Value ($\pm$ dB)	Probability	Divisor	(Ci)	Standard Uncertainty ($\pm$ dB)
Uncertainty terms dependent on the measurement system						
CAL	Probe Calibration	0.49	N	1	1	0.49
COR	Probe correction	0.00	R	1.732	1	0.00
FRS	Frequency response	0.20	R	1.732	1	0.12
SCC	Sensor cross coupling	0.00	R	1.732	1	0.00
ISO	Isotropy	0.50	R	1.732	1	0.29
LIN	Linearity	0.20	R	1.732	1	0.12
PSC	Probe scattering	0.00	R	1.732	1	0.00
PPO	Probe positioning offset	0.30	R	1.732	1	0.17
PPR	Probe positioning repeatability	0.04	R	1.732	1	0.02
SMO	Sensor mechanical offset	0.00	R	1.732	1	0.00
PSR	Probe spatial resolution	0.00	R	1.732	1	0.00
FLD	Field impedance dependence	0.00	R	1.732	1	0.00
APD	Amplitude and phase drift	0.00	R	1.732	1	0.00
APN	Amplitude and phase noise	0.04	R	1.732	1	0.02
TR	Measurement area truncation	0.00	R	1.732	1	0.00
DAQ	Data acquisition	0.03	N	1	1	0.03
SMP	Sampling	0.00	R	1.732	1	0.00
REC	Field reconstruction	2.00	R	1.732	1	1.15
TRA	Forward transformation	0.00	R	1.732	1	0.00
SCA	Power density scaling	0.00	R	1.732	1	0.00
SAV	Spatial averaging	0.10	R	1.732	1	0.06
SDL	System detection limit	0.04	R	1.732	1	0.02
Uncertainty terms dependent on the DUT and environmental factors						
PC	Probe coupling with DUT	0.00	R	1.732	1	0.00
MOD	Modulation response	0.40	R	1.732	1	0.23
IT	Integration time	0.00	R	1.732	1	0.00
RT	Response time	0.00	R	1.732	1	0.00
DH	Device holder influence	0.10	R	1.732	1	0.06
DA	DUT alignment	0.00	R	1.732	1	0.00

AC	RF ambient conditions	0.04	R	1.732	1	0.02
AR	Ambient reflections	0.04	R	1.732	1	0.02
MSI	Immunity / secondary reception	0.00	R	1.732	1	0.00
DRI	Drift of the DUT	0.00	R	1.732	1	0.00
u	Random uncertainty	0.00	N	1	1	0.00
u(P D)	Combined Std. Uncertainty					1.34
U	Expanded STD Uncertainty (95%)					2.68

8 POWER TEST RESULTS

Test Mode	Antenna	Frequency [MHz]	Channel Power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]
11AX20MIMO	Ant1	5955	-0.74	99.24	0.03	-0.71
11AX20MIMO	Ant2	5955	-2.00	99.24	0.03	-1.97
11AX20MIMO	total	5955	---	---	---	1.72
11AX20MIMO	Ant1	6175	-1.77	99.49	0.02	-1.75
11AX20MIMO	Ant2	6175	-1.43	99.49	0.02	-1.41
11AX20MIMO	total	6175	---	---	---	1.43
11AX20MIMO	Ant1	6415	-2.31	99.24	0.03	-2.28
11AX20MIMO	Ant2	6415	-2.70	99.49	0.02	-2.68
11AX20MIMO	total	6415	---	---	---	0.53
11AX20MIMO	Ant1	6435	-2.67	99.24	0.03	-2.64
11AX20MIMO	Ant2	6435	-2.96	99.24	0.03	-2.93
11AX20MIMO	total	6435	---	---	---	0.23
11AX20MIMO	Ant1	6475	-3.32	99.24	0.03	-3.29
11AX20MIMO	Ant2	6475	-3.73	99.24	0.03	-3.70
11AX20MIMO	total	6475	---	---	---	-0.48
11AX20MIMO	Ant1	6515	-3.85	99.24	0.03	-3.82
11AX20MIMO	Ant2	6515	-4.09	99.24	0.03	-4.06
11AX20MIMO	total	6515	---	---	---	-0.93
11AX20MIMO	Ant1	6535	-4.20	99.24	0.03	-4.17
11AX20MIMO	Ant2	6535	-4.43	99.24	0.03	-4.40
11AX20MIMO	total	6535	---	---	---	-1.27
11AX20MIMO	Ant1	6695	-4.80	99.24	0.03	-4.77
11AX20MIMO	Ant2	6695	-3.93	99.24	0.03	-3.90
11AX20MIMO	total	6695	---	---	---	-1.30
11AX20MIMO	Ant1	6855	-2.60	99.49	0.02	-2.58
11AX20MIMO	Ant2	6855	-1.63	99.24	0.03	-1.60
11AX20MIMO	total	6855	---	---	---	0.95
11AX20MIMO	Ant1	6875	-2.23	99.49	0.02	-2.21
11AX20MIMO	Ant2	6875	-1.42	99.24	0.03	-1.39
11AX20MIMO	total	6875	---	---	---	1.23
11AX20MIMO	Ant1	6895	-1.84	98.47	0.07	-1.77
11AX20MIMO	Ant2	6895	-0.95	97.73	0.10	-0.85

11AX20MIMO	total	6895	---	---	---	1.72
11AX20MIMO	Ant1	6995	-0.21	97.73	0.10	-0.11
11AX20MIMO	Ant2	6995	-0.64	97.73	0.10	-0.54
11AX20MIMO	total	6995	---	---	---	2.69
11AX20MIMO	Ant1	7115	-0.19	98.47	0.07	-0.12
11AX20MIMO	Ant2	7115	-1.55	98.47	0.07	-1.48
11AX20MIMO	total	7115	---	---	---	2.26
11AX40MIMO	Ant1	5965	0.92	98.47	0.07	0.99
11AX40MIMO	Ant2	5965	-1.69	98.47	0.07	-1.62
11AX40MIMO	total	5965	---	---	---	2.89
11AX40MIMO	Ant1	6165	1.68	98.47	0.07	1.75
11AX40MIMO	Ant2	6165	0.04	97.73	0.10	0.14
11AX40MIMO	total	6165	---	---	---	4.03
11AX40MIMO	Ant1	6405	1.44	98.09	0.08	1.52
11AX40MIMO	Ant2	6405	-0.27	97.73	0.10	-0.17
11AX40MIMO	total	6405	---	---	---	3.77
11AX40MIMO	Ant1	6445	1.65	98.47	0.07	1.72
11AX40MIMO	Ant2	6445	-0.29	98.47	0.07	-0.22
11AX40MIMO	total	6445	---	---	---	3.87
11AX40MIMO	Ant1	6485	1.63	98.47	0.07	1.70
11AX40MIMO	Ant2	6485	0.05	97.73	0.10	0.15
11AX40MIMO	total	6485	---	---	---	4.00
11AX40MIMO	Ant1	6525	1.48	97.73	0.10	1.58
11AX40MIMO	Ant2	6525	0.15	97.73	0.10	0.25
11AX40MIMO	total	6525	---	---	---	3.98
11AX40MIMO	Ant1	6565	1.61	97.73	0.10	1.71
11AX40MIMO	Ant2	6565	0.13	97.73	0.10	0.23
11AX40MIMO	total	6565	---	---	---	4.04
11AX40MIMO	Ant1	6685	1.69	97.73	0.10	1.79
11AX40MIMO	Ant2	6685	-0.01	97.73	0.10	0.09
11AX40MIMO	total	6685	---	---	---	4.03
11AX40MIMO	Ant1	6845	1.96	97.73	0.10	2.06
11AX40MIMO	Ant2	6845	0.03	97.73	0.10	0.13
11AX40MIMO	total	6845	---	---	---	4.21
11AX40MIMO	Ant1	6885	2.00	97.73	0.10	2.10
11AX40MIMO	Ant2	6885	0.53	97.73	0.10	0.63

11AX40MIMO	total	6885	---	---	---	4.44
11AX40MIMO	Ant1	6925	2.44	97.73	0.10	2.54
11AX40MIMO	Ant2	6925	0.95	97.73	0.10	1.05
11AX40MIMO	total	6925	---	---	---	4.87
11AX40MIMO	Ant1	6965	2.22	97.73	0.10	2.32
11AX40MIMO	Ant2	6965	0.30	97.73	0.10	0.40
11AX40MIMO	total	6965	---	---	---	4.48
11AX40MIMO	Ant1	7085	2.13	97.73	0.10	2.23
11AX40MIMO	Ant2	7085	0.35	98.47	0.07	0.42
11AX40MIMO	total	7085	---	---	---	4.43
11AX80MIMO	Ant1	5985	3.46	98.48	0.07	3.53
11AX80MIMO	Ant2	5985	1.99	97.73	0.10	2.09
11AX80MIMO	total	5985	---	---	---	5.88
11AX80MIMO	Ant1	6145	3.48	98.48	0.07	3.55
11AX80MIMO	Ant2	6145	2.34	98.48	0.07	2.41
11AX80MIMO	total	6145	---	---	---	6.03
11AX80MIMO	Ant1	6385	3.64	98.48	0.07	3.71
11AX80MIMO	Ant2	6385	2.41	98.48	0.07	2.48
11AX80MIMO	total	6385	---	---	---	6.15
11AX80MIMO	Ant1	6465	3.46	98.48	0.07	3.53
11AX80MIMO	Ant2	6465	2.15	98.48	0.07	2.22
11AX80MIMO	total	6465	---	---	---	5.93
11AX80MIMO	Ant1	6545	3.65	98.48	0.07	3.72
11AX80MIMO	Ant2	6545	2.58	98.48	0.07	2.65
11AX80MIMO	total	6545	---	---	---	6.23
11AX80MIMO	Ant1	6625	3.67	98.48	0.07	3.74
11AX80MIMO	Ant2	6625	2.53	98.48	0.07	2.60
11AX80MIMO	total	6625	---	---	---	6.22
11AX80MIMO	Ant1	6705	3.68	98.48	0.07	3.75
11AX80MIMO	Ant2	6705	2.33	98.48	0.07	2.40
11AX80MIMO	total	6705	---	---	---	6.14
11AX80MIMO	Ant1	6785	3.94	98.48	0.07	4.01
11AX80MIMO	Ant2	6785	2.46	98.48	0.07	2.53
11AX80MIMO	total	6785	---	---	---	6.34
11AX80MIMO	Ant1	6865	4.34	98.84	0.05	4.39
11AX80MIMO	Ant2	6865	3.68	98.84	0.05	3.73

11AX80MIMO	total	6865	---	---	---	7.08
11AX80MIMO	Ant1	6945	4.83	98.84	0.05	4.88
11AX80MIMO	Ant2	6945	4.08	98.84	0.05	4.13
11AX80MIMO	total	6945	---	---	---	7.53
11AX80MIMO	Ant1	7025	4.83	99.22	0.03	4.86
11AX80MIMO	Ant2	7025	4.05	98.84	0.05	4.10
11AX80MIMO	total	7025	---	---	---	7.51
11AX160MIMO	Ant1	6025	4.63	99.12	0.04	4.67
11AX160MIMO	Ant2	6025	3.73	98.68	0.06	3.79
11AX160MIMO	total	6025	---	---	---	7.26
11AX160MIMO	Ant1	6185	4.86	98.68	0.06	4.92
11AX160MIMO	Ant2	6185	4.14	98.68	0.06	4.20
11AX160MIMO	total	6185	---	---	---	7.59
11AX160MIMO	Ant1	6345	4.65	98.68	0.06	4.71
11AX160MIMO	Ant2	6345	3.98	98.68	0.06	4.04
11AX160MIMO	total	6345	---	---	---	7.40
11AX160MIMO	Ant1	6505	4.43	98.68	0.06	4.49
11AX160MIMO	Ant2	6505	3.83	99.12	0.04	3.87
11AX160MIMO	total	6505	---	---	---	7.20
11AX160MIMO	Ant1	6665	4.50	98.68	0.06	4.56
11AX160MIMO	Ant2	6665	4.11	98.68	0.06	4.17
11AX160MIMO	total	6665	---	---	---	7.38
11AX160MIMO	Ant1	6825	5.01	98.68	0.06	5.07
11AX160MIMO	Ant2	6825	4.28	98.68	0.06	4.34
11AX160MIMO	total	6825	---	---	---	7.73
11AX160MIMO	Ant1	6985	5.10	98.68	0.06	5.16
11AX160MIMO	Ant2	6985	4.28	98.68	0.06	4.34
11AX160MIMO	total	6985	---	---	---	7.78

Test Mode	Antenna	Frequency[MHz]	Ru Size	Ru Index	Channel Power [dBm]	Duty Cycle [%]	DC Factor [dBm]	Result [dBm]
11AX20MIMO	Ant1	5955	26Tone	RU0	-8.69	92.86	0.32	-8.37
11AX20MIMO	Ant2	5955	26Tone	RU0	-10.27	92.86	0.32	-9.95
11AX20MIMO	total	5955	26Tone	RU0	---	---	---	-6.08
11AX20MIMO	Ant1	5955	52Tone	RU37	-8.58	96.00	0.18	-8.40

11AX20MIMO	Ant2	5955	52Tone	RU37	-10.14	96.00	0.18	-9.96
11AX20MIMO	total	5955	52Tone	RU37	---	---	---	-6.10
11AX20MIMO	Ant1	5955	106Tone	RU53	-8.54	98.06	0.09	-8.45
11AX20MIMO	Ant2	5955	106Tone	RU53	-10.09	98.06	0.09	-10.00
11AX20MIMO	total	5955	106Tone	RU53	---	---	---	-6.15
11AX20MIMO	Ant1	6175	26Tone	RU0	-9.82	92.86	0.32	-9.50
11AX20MIMO	Ant2	6175	26Tone	RU0	-9.69	92.86	0.32	-9.37
11AX20MIMO	total	6175	26Tone	RU0	---	---	---	-6.42
11AX20MIMO	Ant1	6175	52Tone	RU37	-9.64	96.00	0.18	-9.46
11AX20MIMO	Ant2	6175	52Tone	RU37	-9.53	96.00	0.18	-9.35
11AX20MIMO	total	6175	52Tone	RU37	---	---	---	-6.39
11AX20MIMO	Ant1	6175	106Tone	RU53	-9.53	98.06	0.09	-9.44
11AX20MIMO	Ant2	6175	106Tone	RU53	-9.42	98.06	0.09	-9.33
11AX20MIMO	total	6175	106Tone	RU53	---	---	---	-6.37
11AX20MIMO	Ant1	6415	26Tone	RU0	-10.29	92.86	0.32	-9.97
11AX20MIMO	Ant2	6415	26Tone	RU0	-10.69	92.86	0.32	-10.37
11AX20MIMO	total	6415	26Tone	RU0	---	---	---	-7.16
11AX20MIMO	Ant1	6415	52Tone	RU37	-10.68	96.00	0.18	-10.50
11AX20MIMO	Ant2	6415	52Tone	RU37	-11.13	96.00	0.18	-10.95
11AX20MIMO	total	6415	52Tone	RU37	---	---	---	-7.71
11AX20MIMO	Ant1	6415	106Tone	RU53	-10.57	98.06	0.09	-10.48
11AX20MIMO	Ant2	6415	106Tone	RU53	-11.03	98.06	0.09	-10.94
11AX20MIMO	total	6415	106Tone	RU53	---	---	---	-7.69
11AX20MIMO	Ant1	6435	26Tone	RU0	-11.17	92.86	0.32	-10.85
11AX20MIMO	Ant2	6435	26Tone	RU0	-11.44	92.86	0.32	-11.12
11AX20MIMO	total	6435	26Tone	RU0	---	---	---	-7.97
11AX20MIMO	Ant1	6435	52Tone	RU37	-11.01	96.00	0.18	-10.83
11AX20MIMO	Ant2	6435	52Tone	RU37	-11.25	96.00	0.18	-11.07
11AX20MIMO	total	6435	52Tone	RU37	---	---	---	-7.94
11AX20MIMO	Ant1	6435	106Tone	RU53	-10.92	98.06	0.09	-10.83
11AX20MIMO	Ant2	6435	106Tone	RU53	-11.16	98.06	0.09	-11.07
11AX20MIMO	total	6435	106Tone	RU53	---	---	---	-7.94
11AX20MIMO	Ant1	6475	26Tone	RU0	-11.85	92.86	0.32	-11.53
11AX20MIMO	Ant2	6475	26Tone	RU0	-12.22	92.86	0.32	-11.90
11AX20MIMO	total	6475	26Tone	RU0	---	---	---	-8.70
11AX20MIMO	Ant1	6475	52Tone	RU37	-11.68	96.00	0.18	-11.50

11AX20MIMO	Ant2	6475	52Tone	RU37	-12.08	96.00	0.18	-11.90
11AX20MIMO	total	6475	52Tone	RU37	---	---	---	-8.69
11AX20MIMO	Ant1	6475	106Tone	RU53	-11.60	98.06	0.09	-11.51
11AX20MIMO	Ant2	6475	106Tone	RU53	-11.97	98.06	0.09	-11.88
11AX20MIMO	total	6475	106Tone	RU53	---	---	---	-8.68
11AX20MIMO	Ant1	6515	26Tone	RU0	-12.34	92.86	0.32	-12.02
11AX20MIMO	Ant2	6515	26Tone	RU0	-12.52	92.86	0.32	-12.20
11AX20MIMO	total	6515	26Tone	RU0	---	---	---	-9.10
11AX20MIMO	Ant1	6515	52Tone	RU37	-12.16	96.00	0.18	-11.98
11AX20MIMO	Ant2	6515	52Tone	RU37	-12.38	96.00	0.18	-12.20
11AX20MIMO	total	6515	52Tone	RU37	---	---	---	-9.08
11AX20MIMO	Ant1	6515	106Tone	RU53	-12.08	98.06	0.09	-11.99
11AX20MIMO	Ant2	6515	106Tone	RU53	-12.31	98.06	0.09	-12.22
11AX20MIMO	total	6515	106Tone	RU53	---	---	---	-9.09
11AX20MIMO	Ant1	6535	26Tone	RU0	-12.36	92.86	0.32	-12.04
11AX20MIMO	Ant2	6535	26Tone	RU0	-12.60	92.86	0.32	-12.28
11AX20MIMO	total	6535	26Tone	RU0	---	---	---	-9.15
11AX20MIMO	Ant1	6535	52Tone	RU37	-12.25	96.00	0.18	-12.07
11AX20MIMO	Ant2	6535	52Tone	RU37	-12.47	96.00	0.18	-12.29
11AX20MIMO	total	6535	52Tone	RU37	---	---	---	-9.17
11AX20MIMO	Ant1	6535	106Tone	RU53	-12.23	98.06	0.09	-12.14
11AX20MIMO	Ant2	6535	106Tone	RU53	-12.44	98.06	0.09	-12.35
11AX20MIMO	total	6535	106Tone	RU53	---	---	---	-9.23
11AX20MIMO	Ant1	6695	26Tone	RU0	-13.10	92.86	0.32	-12.78
11AX20MIMO	Ant2	6695	26Tone	RU0	-12.51	92.86	0.32	-12.19
11AX20MIMO	total	6695	26Tone	RU0	---	---	---	-9.46
11AX20MIMO	Ant1	6695	52Tone	RU37	-12.94	96.00	0.18	-12.76
11AX20MIMO	Ant2	6695	52Tone	RU37	-12.32	96.00	0.18	-12.14
11AX20MIMO	total	6695	52Tone	RU37	---	---	---	-9.43
11AX20MIMO	Ant1	6695	106Tone	RU53	-12.81	98.06	0.09	-12.72
11AX20MIMO	Ant2	6695	106Tone	RU53	-12.20	98.06	0.09	-12.11
11AX20MIMO	total	6695	106Tone	RU53	---	---	---	-9.39
11AX20MIMO	Ant1	6855	26Tone	RU0	-10.71	92.86	0.32	-10.39
11AX20MIMO	Ant2	6855	26Tone	RU0	-10.25	92.86	0.32	-9.93
11AX20MIMO	total	6855	26Tone	RU0	---	---	---	-7.14
11AX20MIMO	Ant1	6855	52Tone	RU37	-10.46	96.00	0.18	-10.28

11AX20MIMO	Ant2	6855	52Tone	RU37	-10.04	96.00	0.18	-9.86
11AX20MIMO	total	6855	52Tone	RU37	---	---	---	-7.05
11AX20MIMO	Ant1	6855	106Tone	RU53	-10.34	98.06	0.09	-10.25
11AX20MIMO	Ant2	6855	106Tone	RU53	-9.93	98.06	0.09	-9.84
11AX20MIMO	total	6855	106Tone	RU53	---	---	---	-7.03
11AX20MIMO	Ant1	6875	26Tone	RU0	-9.65	92.86	0.32	-9.33
11AX20MIMO	Ant2	6875	26Tone	RU0	-9.47	92.86	0.32	-9.15
11AX20MIMO	total	6875	26Tone	RU0	---	---	---	-6.23
11AX20MIMO	Ant1	6875	52Tone	RU37	-9.62	96.00	0.18	-9.44
11AX20MIMO	Ant2	6875	52Tone	RU37	-9.38	96.00	0.18	-9.20
11AX20MIMO	total	6875	52Tone	RU37	---	---	---	-6.31
11AX20MIMO	Ant1	6875	106Tone	RU53	-9.59	98.06	0.09	-9.50
11AX20MIMO	Ant2	6875	106Tone	RU53	-9.35	98.06	0.09	-9.26
11AX20MIMO	total	6875	106Tone	RU53	---	---	---	-6.37
11AX20MIMO	Ant1	6895	26Tone	RU0	-9.84	92.86	0.32	-9.52
11AX20MIMO	Ant2	6895	26Tone	RU0	-9.72	92.86	0.32	-9.40
11AX20MIMO	total	6895	26Tone	RU0	---	---	---	-6.45
11AX20MIMO	Ant1	6895	52Tone	RU37	-9.73	96.00	0.18	-9.55
11AX20MIMO	Ant2	6895	52Tone	RU37	-9.55	96.00	0.18	-9.37
11AX20MIMO	total	6895	52Tone	RU37	---	---	---	-6.45
11AX20MIMO	Ant1	6895	106Tone	RU53	-9.67	98.06	0.09	-9.58
11AX20MIMO	Ant2	6895	106Tone	RU53	-9.50	98.06	0.09	-9.41
11AX20MIMO	total	6895	106Tone	RU53	---	---	---	-6.48
11AX20MIMO	Ant1	6995	26Tone	RU0	-8.82	92.86	0.32	-8.50
11AX20MIMO	Ant2	6995	26Tone	RU0	-9.79	92.86	0.32	-9.47
11AX20MIMO	total	6995	26Tone	RU0	---	---	---	-5.95
11AX20MIMO	Ant1	6995	52Tone	RU37	-8.64	96.00	0.18	-8.46
11AX20MIMO	Ant2	6995	52Tone	RU37	-9.61	96.00	0.18	-9.43
11AX20MIMO	total	6995	52Tone	RU37	---	---	---	-5.91
11AX20MIMO	Ant1	6995	106Tone	RU53	-8.56	98.06	0.09	-8.47
11AX20MIMO	Ant2	6995	106Tone	RU53	-9.54	98.06	0.09	-9.45
11AX20MIMO	total	6995	106Tone	RU53	---	---	---	-5.92
11AX20MIMO	Ant1	7115	26Tone	RU0	-8.95	92.86	0.32	-8.63
11AX20MIMO	Ant2	7115	26Tone	RU0	-10.64	92.86	0.32	-10.32
11AX20MIMO	total	7115	26Tone	RU0	---	---	---	-6.38
11AX20MIMO	Ant1	7115	52Tone	RU37	-8.79	96.00	0.18	-8.61

11AX20MIMO	Ant2	7115	52Tone	RU37	-10.45	96.00	0.18	-10.27
11AX20MIMO	total	7115	52Tone	RU37	---	---	---	-6.35
11AX20MIMO	Ant1	7115	106Tone	RU53	-8.68	98.06	0.09	-8.59
11AX20MIMO	Ant2	7115	106Tone	RU53	-10.34	98.06	0.09	-10.25
11AX20MIMO	total	7115	106Tone	RU53	---	---	---	-6.33
11AX40MIMO	Ant1	5965	26Tone	RU0	-8.76	92.86	0.32	-8.44
11AX40MIMO	Ant2	5965	26Tone	RU0	-10.17	92.86	0.32	-9.85
11AX40MIMO	total	5965	26Tone	RU0	---	---	---	-6.08
11AX40MIMO	Ant1	5965	52Tone	RU37	-8.79	96.00	0.18	-8.61
11AX40MIMO	Ant2	5965	52Tone	RU37	-10.14	96.00	0.18	-9.96
11AX40MIMO	total	5965	52Tone	RU37	---	---	---	-6.22
11AX40MIMO	Ant1	5965	106Tone	RU53	-8.80	98.70	0.06	-8.74
11AX40MIMO	Ant2	5965	106Tone	RU53	-10.12	98.06	0.09	-10.03
11AX40MIMO	total	5965	106Tone	RU53	---	---	---	-6.33
11AX40MIMO	Ant1	5965	242Tone	RU61	-6.27	99.28	0.03	-6.24
11AX40MIMO	Ant2	5965	242Tone	RU61	-7.67	99.28	0.03	-7.64
11AX40MIMO	total	5965	242Tone	RU61	---	---	---	-3.87
11AX40MIMO	Ant1	6165	26Tone	RU0	-10.34	92.86	0.32	-10.02
11AX40MIMO	Ant2	6165	26Tone	RU0	-10.54	92.86	0.32	-10.22
11AX40MIMO	total	6165	26Tone	RU0	---	---	---	-7.11
11AX40MIMO	Ant1	6165	52Tone	RU37	-10.28	96.00	0.18	-10.10
11AX40MIMO	Ant2	6165	52Tone	RU37	-10.46	96.00	0.18	-10.28
11AX40MIMO	total	6165	52Tone	RU37	---	---	---	-7.18
11AX40MIMO	Ant1	6165	106Tone	RU53	-10.15	98.06	0.09	-10.06
11AX40MIMO	Ant2	6165	106Tone	RU53	-10.38	98.06	0.09	-10.29
11AX40MIMO	total	6165	106Tone	RU53	---	---	---	-7.16
11AX40MIMO	Ant1	6165	242Tone	RU61	-7.79	99.28	0.03	-7.76
11AX40MIMO	Ant2	6165	242Tone	RU61	-7.83	99.28	0.03	-7.80
11AX40MIMO	total	6165	242Tone	RU61	---	---	---	-4.77
11AX40MIMO	Ant1	6405	26Tone	RU0	-10.48	92.86	0.32	-10.16
11AX40MIMO	Ant2	6405	26Tone	RU0	-11.15	92.86	0.32	-10.83
11AX40MIMO	total	6405	26Tone	RU0	---	---	---	-7.47
11AX40MIMO	Ant1	6405	52Tone	RU37	-10.37	96.00	0.18	-10.19
11AX40MIMO	Ant2	6405	52Tone	RU37	-11.01	96.00	0.18	-10.83
11AX40MIMO	total	6405	52Tone	RU37	---	---	---	-7.49
11AX40MIMO	Ant1	6405	106Tone	RU53	-10.33	98.06	0.09	-10.24

11AX40MIMO	Ant2	6405	106Tone	RU53	-10.99	98.06	0.09	-10.90
11AX40MIMO	total	6405	106Tone	RU53	---	---	---	-7.55
11AX40MIMO	Ant1	6405	242Tone	RU61	-7.49	98.91	0.05	-7.44
11AX40MIMO	Ant2	6405	242Tone	RU61	-8.31	98.91	0.05	-8.26
11AX40MIMO	total	6405	242Tone	RU61	---	---	---	-4.82
11AX40MIMO	Ant1	6445	26Tone	RU0	-11.35	92.86	0.32	-11.03
11AX40MIMO	Ant2	6445	26Tone	RU0	-11.64	92.86	0.32	-11.32
11AX40MIMO	total	6445	26Tone	RU0	---	---	---	-8.16
11AX40MIMO	Ant1	6445	52Tone	RU37	-11.22	96.00	0.18	-11.04
11AX40MIMO	Ant2	6445	52Tone	RU37	-11.49	96.00	0.18	-11.31
11AX40MIMO	total	6445	52Tone	RU37	---	---	---	-8.16
11AX40MIMO	Ant1	6445	106Tone	RU53	-11.13	98.06	0.09	-11.04
11AX40MIMO	Ant2	6445	106Tone	RU53	-11.44	98.06	0.09	-11.35
11AX40MIMO	total	6445	106Tone	RU53	---	---	---	-8.18
11AX40MIMO	Ant1	6445	242Tone	RU61	-8.43	98.91	0.05	-8.38
11AX40MIMO	Ant2	6445	242Tone	RU61	-8.79	99.28	0.03	-8.76
11AX40MIMO	total	6445	242Tone	RU61	---	---	---	-5.56
11AX40MIMO	Ant1	6485	26Tone	RU0	-11.78	92.86	0.32	-11.46
11AX40MIMO	Ant2	6485	26Tone	RU0	-12.37	92.86	0.32	-12.05
11AX40MIMO	total	6485	26Tone	RU0	---	---	---	-8.73
11AX40MIMO	Ant1	6485	52Tone	RU37	-11.72	96.00	0.18	-11.54
11AX40MIMO	Ant2	6485	52Tone	RU37	-12.21	96.00	0.18	-12.03
11AX40MIMO	total	6485	52Tone	RU37	---	---	---	-8.77
11AX40MIMO	Ant1	6485	106Tone	RU53	-11.63	98.06	0.09	-11.54
11AX40MIMO	Ant2	6485	106Tone	RU53	-12.15	98.06	0.09	-12.06
11AX40MIMO	total	6485	106Tone	RU53	---	---	---	-8.78
11AX40MIMO	Ant1	6485	242Tone	RU61	-7.21	99.28	0.03	-7.18
11AX40MIMO	Ant2	6485	242Tone	RU61	-7.57	99.28	0.03	-7.54
11AX40MIMO	total	6485	242Tone	RU61	---	---	---	-4.35
11AX40MIMO	Ant1	6525	26Tone	RU0	-11.78	92.86	0.32	-11.46
11AX40MIMO	Ant2	6525	26Tone	RU0	-12.30	92.86	0.32	-11.98
11AX40MIMO	total	6525	26Tone	RU0	---	---	---	-8.70
11AX40MIMO	Ant1	6525	52Tone	RU37	-11.71	96.00	0.18	-11.53
11AX40MIMO	Ant2	6525	52Tone	RU37	-12.21	96.00	0.18	-12.03
11AX40MIMO	total	6525	52Tone	RU37	---	---	---	-8.76
11AX40MIMO	Ant1	6525	106Tone	RU53	-11.68	98.06	0.09	-11.59

11AX40MIMO	Ant2	6525	106Tone	RU53	-12.21	98.06	0.09	-12.12
11AX40MIMO	total	6525	106Tone	RU53	---	---	---	-8.84
11AX40MIMO	Ant1	6525	242Tone	RU61	-7.27	99.28	0.03	-7.24
11AX40MIMO	Ant2	6525	242Tone	RU61	-7.65	98.91	0.05	-7.60
11AX40MIMO	total	6525	242Tone	RU61	---	---	---	-4.41
11AX40MIMO	Ant1	6565	26Tone	RU0	-12.58	92.86	0.32	-12.26
11AX40MIMO	Ant2	6565	26Tone	RU0	-12.98	92.86	0.32	-12.66
11AX40MIMO	total	6565	26Tone	RU0	---	---	---	-9.45
11AX40MIMO	Ant1	6565	52Tone	RU37	-11.08	96.00	0.18	-10.90
11AX40MIMO	Ant2	6565	52Tone	RU37	-11.53	96.00	0.18	-11.35
11AX40MIMO	total	6565	52Tone	RU37	---	---	---	-8.11
11AX40MIMO	Ant1	6565	106Tone	RU53	-10.99	98.06	0.09	-10.90
11AX40MIMO	Ant2	6565	106Tone	RU53	-11.47	98.06	0.09	-11.38
11AX40MIMO	total	6565	106Tone	RU53	---	---	---	-8.12
11AX40MIMO	Ant1	6565	242Tone	RU61	-7.94	99.28	0.03	-7.91
11AX40MIMO	Ant2	6565	242Tone	RU61	-8.34	99.28	0.03	-8.31
11AX40MIMO	total	6565	242Tone	RU61	---	---	---	-5.10
11AX40MIMO	Ant1	6685	26Tone	RU0	-12.79	92.86	0.32	-12.47
11AX40MIMO	Ant2	6685	26Tone	RU0	-12.09	92.86	0.32	-11.77
11AX40MIMO	total	6685	26Tone	RU0	---	---	---	-9.10
11AX40MIMO	Ant1	6685	52Tone	RU37	-11.51	96.00	0.18	-11.33
11AX40MIMO	Ant2	6685	52Tone	RU37	-10.48	96.00	0.18	-10.30
11AX40MIMO	total	6685	52Tone	RU37	---	---	---	-7.77
11AX40MIMO	Ant1	6685	106Tone	RU53	-11.47	98.06	0.09	-11.38
11AX40MIMO	Ant2	6685	106Tone	RU53	-10.41	98.06	0.09	-10.32
11AX40MIMO	total	6685	106Tone	RU53	---	---	---	-7.81
11AX40MIMO	Ant1	6685	242Tone	RU61	-8.47	99.28	0.03	-8.44
11AX40MIMO	Ant2	6685	242Tone	RU61	-7.40	99.28	0.03	-7.37
11AX40MIMO	total	6685	242Tone	RU61	---	---	---	-4.86
11AX40MIMO	Ant1	6845	26Tone	RU0	-10.77	92.86	0.32	-10.45
11AX40MIMO	Ant2	6845	26Tone	RU0	-10.05	92.86	0.32	-9.73
11AX40MIMO	total	6845	26Tone	RU0	---	---	---	-7.06
11AX40MIMO	Ant1	6845	52Tone	RU37	-9.49	96.00	0.18	-9.31
11AX40MIMO	Ant2	6845	52Tone	RU37	-8.53	96.00	0.18	-8.35
11AX40MIMO	total	6845	52Tone	RU37	---	---	---	-5.79
11AX40MIMO	Ant1	6845	106Tone	RU53	-9.36	98.06	0.09	-9.27

11AX40MIMO	Ant2	6845	106Tone	RU53	-8.40	98.06	0.09	-8.31
11AX40MIMO	total	6845	106Tone	RU53	---	---	---	-5.75
11AX40MIMO	Ant1	6845	242Tone	RU61	-6.26	99.28	0.03	-6.23
11AX40MIMO	Ant2	6845	242Tone	RU61	-5.32	99.28	0.03	-5.29
11AX40MIMO	total	6845	242Tone	RU61	---	---	---	-2.72
11AX40MIMO	Ant1	6885	26Tone	RU0	-10.08	92.86	0.32	-9.76
11AX40MIMO	Ant2	6885	26Tone	RU0	-9.55	92.86	0.32	-9.23
11AX40MIMO	total	6885	26Tone	RU0	---	---	---	-6.48
11AX40MIMO	Ant1	6885	52Tone	RU37	-8.88	96.00	0.18	-8.70
11AX40MIMO	Ant2	6885	52Tone	RU37	-8.13	96.00	0.18	-7.95
11AX40MIMO	total	6885	52Tone	RU37	---	---	---	-5.30
11AX40MIMO	Ant1	6885	106Tone	RU53	-8.81	98.06	0.09	-8.72
11AX40MIMO	Ant2	6885	106Tone	RU53	-8.06	98.06	0.09	-7.97
11AX40MIMO	total	6885	106Tone	RU53	---	---	---	-5.32
11AX40MIMO	Ant1	6885	242Tone	RU61	-5.76	99.28	0.03	-5.73
11AX40MIMO	Ant2	6885	242Tone	RU61	-5.08	98.91	0.05	-5.03
11AX40MIMO	total	6885	242Tone	RU61	---	---	---	-2.36
11AX40MIMO	Ant1	6925	26Tone	RU0	-8.94	92.86	0.32	-8.62
11AX40MIMO	Ant2	6925	26Tone	RU0	-9.00	92.86	0.32	-8.68
11AX40MIMO	total	6925	26Tone	RU0	---	---	---	-5.64
11AX40MIMO	Ant1	6925	52Tone	RU37	-6.97	96.00	0.18	-6.79
11AX40MIMO	Ant2	6925	52Tone	RU37	-6.72	96.00	0.18	-6.54
11AX40MIMO	total	6925	52Tone	RU37	---	---	---	-3.65
11AX40MIMO	Ant1	6925	106Tone	RU53	-6.90	98.06	0.09	-6.81
11AX40MIMO	Ant2	6925	106Tone	RU53	-6.69	98.06	0.09	-6.60
11AX40MIMO	total	6925	106Tone	RU53	---	---	---	-3.69
11AX40MIMO	Ant1	6925	242Tone	RU61	-3.88	98.91	0.05	-3.83
11AX40MIMO	Ant2	6925	242Tone	RU61	-3.74	99.28	0.03	-3.71
11AX40MIMO	total	6925	242Tone	RU61	---	---	---	-0.76
11AX40MIMO	Ant1	6965	26Tone	RU0	-8.99	92.86	0.32	-8.67
11AX40MIMO	Ant2	6965	26Tone	RU0	-9.70	92.86	0.32	-9.38
11AX40MIMO	total	6965	26Tone	RU0	---	---	---	-6.00
11AX40MIMO	Ant1	6965	52Tone	RU37	-7.10	96.00	0.18	-6.92
11AX40MIMO	Ant2	6965	52Tone	RU37	-7.54	96.00	0.18	-7.36
11AX40MIMO	total	6965	52Tone	RU37	---	---	---	-4.12
11AX40MIMO	Ant1	6965	106Tone	RU53	-7.10	98.06	0.09	-7.01

11AX40MIMO	Ant2	6965	106Tone	RU53	-7.51	98.06	0.09	-7.42
11AX40MIMO	total	6965	106Tone	RU53	---	---	---	-4.20
11AX40MIMO	Ant1	6965	242Tone	RU61	-4.11	99.28	0.03	-4.08
11AX40MIMO	Ant2	6965	242Tone	RU61	-4.54	99.28	0.03	-4.51
11AX40MIMO	total	6965	242Tone	RU61	---	---	---	-1.28
11AX40MIMO	Ant1	7085	26Tone	RU0	-8.41	92.86	0.32	-8.09
11AX40MIMO	Ant2	7085	26Tone	RU0	-10.23	92.86	0.32	-9.91
11AX40MIMO	total	7085	26Tone	RU0	---	---	---	-5.90
11AX40MIMO	Ant1	7085	52Tone	RU37	-6.51	96.00	0.18	-6.33
11AX40MIMO	Ant2	7085	52Tone	RU37	-8.12	96.00	0.18	-7.94
11AX40MIMO	total	7085	52Tone	RU37	---	---	---	-4.05
11AX40MIMO	Ant1	7085	106Tone	RU53	-6.49	98.06	0.09	-6.40
11AX40MIMO	Ant2	7085	106Tone	RU53	-8.08	98.06	0.09	-7.99
11AX40MIMO	total	7085	106Tone	RU53	---	---	---	-4.11
11AX40MIMO	Ant1	7085	242Tone	RU61	-3.56	98.91	0.05	-3.51
11AX40MIMO	Ant2	7085	242Tone	RU61	-5.18	99.28	0.03	-5.15
11AX40MIMO	total	7085	242Tone	RU61	---	---	---	-1.24
11AX80MIMO	Ant1	5985	26Tone	RU0	-9.07	92.86	0.32	-8.75
11AX80MIMO	Ant2	5985	26Tone	RU0	-10.70	92.86	0.32	-10.38
11AX80MIMO	total	5985	26Tone	RU0	---	---	---	-6.48
11AX80MIMO	Ant1	5985	52Tone	RU37	-7.30	96.00	0.18	-7.12
11AX80MIMO	Ant2	5985	52Tone	RU37	-8.65	96.00	0.18	-8.47
11AX80MIMO	total	5985	52Tone	RU37	---	---	---	-4.73
11AX80MIMO	Ant1	5985	106Tone	RU53	-7.28	98.06	0.09	-7.19
11AX80MIMO	Ant2	5985	106Tone	RU53	-8.58	98.06	0.09	-8.49
11AX80MIMO	total	5985	106Tone	RU53	---	---	---	-4.78
11AX80MIMO	Ant1	5985	242Tone	RU61	-4.34	98.91	0.05	-4.29
11AX80MIMO	Ant2	5985	242Tone	RU61	-5.61	99.28	0.03	-5.58
11AX80MIMO	total	5985	242Tone	RU61	---	---	---	-1.88
11AX80MIMO	Ant1	5985	484Tone	RU65	-4.21	98.92	0.05	-4.16
11AX80MIMO	Ant2	5985	484Tone	RU65	-5.48	99.28	0.03	-5.45
11AX80MIMO	total	5985	484Tone	RU65	---	---	---	-1.75
11AX80MIMO	Ant1	6145	26Tone	RU0	-10.96	92.86	0.32	-10.64
11AX80MIMO	Ant2	6145	26Tone	RU0	-11.56	92.86	0.32	-11.24
11AX80MIMO	total	6145	26Tone	RU0	---	---	---	-7.92
11AX80MIMO	Ant1	6145	52Tone	RU37	-9.33	96.00	0.18	-9.15

11AX80MIMO	Ant2	6145	52Tone	RU37	-9.81	96.00	0.18	-9.63
11AX80MIMO	total	6145	52Tone	RU37	---	---	---	-6.37
11AX80MIMO	Ant1	6145	106Tone	RU53	-9.25	98.06	0.09	-9.16
11AX80MIMO	Ant2	6145	106Tone	RU53	-9.71	98.06	0.09	-9.62
11AX80MIMO	total	6145	106Tone	RU53	---	---	---	-6.37
11AX80MIMO	Ant1	6145	242Tone	RU61	-4.05	99.28	0.03	-4.02
11AX80MIMO	Ant2	6145	242Tone	RU61	-4.78	99.28	0.03	-4.75
11AX80MIMO	total	6145	242Tone	RU61	---	---	---	-1.36
11AX80MIMO	Ant1	6145	484Tone	RU65	-3.74	99.28	0.03	-3.71
11AX80MIMO	Ant2	6145	484Tone	RU65	-4.37	98.91	0.05	-4.32
11AX80MIMO	total	6145	484Tone	RU65	---	---	---	-0.99
11AX80MIMO	Ant1	6385	26Tone	RU0	-9.48	92.86	0.32	-9.16
11AX80MIMO	Ant2	6385	26Tone	RU0	-9.91	92.86	0.32	-9.59
11AX80MIMO	total	6385	26Tone	RU0	---	---	---	-6.36
11AX80MIMO	Ant1	6385	52Tone	RU37	-7.80	96.00	0.18	-7.62
11AX80MIMO	Ant2	6385	52Tone	RU37	-8.21	96.00	0.18	-8.03
11AX80MIMO	total	6385	52Tone	RU37	---	---	---	-4.81
11AX80MIMO	Ant1	6385	106Tone	RU53	-7.79	98.06	0.09	-7.70
11AX80MIMO	Ant2	6385	106Tone	RU53	-8.19	98.06	0.09	-8.10
11AX80MIMO	total	6385	106Tone	RU53	---	---	---	-4.89
11AX80MIMO	Ant1	6385	242Tone	RU61	-2.70	99.28	0.03	-2.67
11AX80MIMO	Ant2	6385	242Tone	RU61	-3.48	99.28	0.03	-3.45
11AX80MIMO	total	6385	242Tone	RU61	---	---	---	-0.03
11AX80MIMO	Ant1	6385	484Tone	RU65	-2.69	99.28	0.03	-2.66
11AX80MIMO	Ant2	6385	484Tone	RU65	-3.46	98.91	0.05	-3.41
11AX80MIMO	total	6385	484Tone	RU65	---	---	---	-0.01
11AX80MIMO	Ant1	6465	26Tone	RU0	-11.90	92.86	0.32	-11.58
11AX80MIMO	Ant2	6465	26Tone	RU0	-12.02	92.86	0.32	-11.70
11AX80MIMO	total	6465	26Tone	RU0	---	---	---	-8.63
11AX80MIMO	Ant1	6465	52Tone	RU37	-10.07	96.00	0.18	-9.89
11AX80MIMO	Ant2	6465	52Tone	RU37	-10.30	96.00	0.18	-10.12
11AX80MIMO	total	6465	52Tone	RU37	---	---	---	-6.99
11AX80MIMO	Ant1	6465	106Tone	RU53	-9.95	98.06	0.09	-9.86
11AX80MIMO	Ant2	6465	106Tone	RU53	-10.23	98.06	0.09	-10.14
11AX80MIMO	total	6465	106Tone	RU53	---	---	---	-6.99
11AX80MIMO	Ant1	6465	242Tone	RU61	-4.86	99.28	0.03	-4.83

11AX80MIMO	Ant2	6465	242Tone	RU61	-5.43	98.91	0.05	-5.38
11AX80MIMO	total	6465	242Tone	RU61	---	---	---	-2.09
11AX80MIMO	Ant1	6465	484Tone	RU65	-4.74	99.28	0.03	-4.71
11AX80MIMO	Ant2	6465	484Tone	RU65	-5.33	99.28	0.03	-5.30
11AX80MIMO	total	6465	484Tone	RU65	---	---	---	-1.98
11AX80MIMO	Ant1	6545	26Tone	RU0	-12.37	92.86	0.32	-12.05
11AX80MIMO	Ant2	6545	26Tone	RU0	-12.71	92.86	0.32	-12.39
11AX80MIMO	total	6545	26Tone	RU0	---	---	---	-9.21
11AX80MIMO	Ant1	6545	52Tone	RU37	-5.71	96.00	0.18	-5.53
11AX80MIMO	Ant2	6545	52Tone	RU37	-6.28	96.00	0.18	-6.10
11AX80MIMO	total	6545	52Tone	RU37	---	---	---	-2.80
11AX80MIMO	Ant1	6545	106Tone	RU53	-5.65	98.06	0.09	-5.56
11AX80MIMO	Ant2	6545	106Tone	RU53	-6.20	98.06	0.09	-6.11
11AX80MIMO	total	6545	106Tone	RU53	---	---	---	-2.82
11AX80MIMO	Ant1	6545	242Tone	RU61	-5.54	98.91	0.05	-5.49
11AX80MIMO	Ant2	6545	242Tone	RU61	-6.12	99.28	0.03	-6.09
11AX80MIMO	total	6545	242Tone	RU61	---	---	---	-2.77
11AX80MIMO	Ant1	6545	484Tone	RU65	1.86	98.91	0.05	1.91
11AX80MIMO	Ant2	6545	484Tone	RU65	0.93	99.28	0.03	0.96
11AX80MIMO	total	6545	484Tone	RU65	---	---	---	4.47
11AX80MIMO	Ant1	6625	26Tone	RU0	-13.94	92.86	0.32	-13.62
11AX80MIMO	Ant2	6625	26Tone	RU0	-13.71	92.86	0.32	-13.39
11AX80MIMO	total	6625	26Tone	RU0	---	---	---	-10.49
11AX80MIMO	Ant1	6625	52Tone	RU37	-6.95	96.00	0.18	-6.77
11AX80MIMO	Ant2	6625	52Tone	RU37	-7.00	96.00	0.18	-6.82
11AX80MIMO	total	6625	52Tone	RU37	---	---	---	-3.78
11AX80MIMO	Ant1	6625	106Tone	RU53	-6.89	98.06	0.09	-6.80
11AX80MIMO	Ant2	6625	106Tone	RU53	-6.91	98.06	0.09	-6.82
11AX80MIMO	total	6625	106Tone	RU53	---	---	---	-3.80
11AX80MIMO	Ant1	6625	242Tone	RU61	-6.83	98.91	0.05	-6.78
11AX80MIMO	Ant2	6625	242Tone	RU61	-6.81	99.28	0.03	-6.78
11AX80MIMO	total	6625	242Tone	RU61	---	---	---	-3.77
11AX80MIMO	Ant1	6625	484Tone	RU65	1.91	98.91	0.05	1.96
11AX80MIMO	Ant2	6625	484Tone	RU65	0.76	98.91	0.05	0.81
11AX80MIMO	total	6625	484Tone	RU65	---	---	---	4.43
11AX80MIMO	Ant1	6705	26Tone	RU0	-12.80	92.86	0.32	-12.48

11AX80MIMO	Ant2	6705	26Tone	RU0	-12.29	92.86	0.32	-11.97
11AX80MIMO	total	6705	26Tone	RU0	---	---	---	-9.21
11AX80MIMO	Ant1	6705	52Tone	RU37	-6.79	96.00	0.18	-6.61
11AX80MIMO	Ant2	6705	52Tone	RU37	-6.48	96.00	0.18	-6.30
11AX80MIMO	total	6705	52Tone	RU37	---	---	---	-3.44
11AX80MIMO	Ant1	6705	106Tone	RU53	-6.71	98.06	0.09	-6.62
11AX80MIMO	Ant2	6705	106Tone	RU53	-6.37	98.06	0.09	-6.28
11AX80MIMO	total	6705	106Tone	RU53	---	---	---	-3.44
11AX80MIMO	Ant1	6705	242Tone	RU61	-6.64	99.28	0.03	-6.61
11AX80MIMO	Ant2	6705	242Tone	RU61	-6.30	98.91	0.05	-6.25
11AX80MIMO	total	6705	242Tone	RU61	---	---	---	-3.42
11AX80MIMO	Ant1	6705	484Tone	RU65	2.05	98.91	0.05	2.10
11AX80MIMO	Ant2	6705	484Tone	RU65	0.59	99.28	0.03	0.62
11AX80MIMO	total	6705	484Tone	RU65	---	---	---	4.43
11AX80MIMO	Ant1	6785	26Tone	RU0	-11.45	92.86	0.32	-11.13
11AX80MIMO	Ant2	6785	26Tone	RU0	-10.96	92.86	0.32	-10.64
11AX80MIMO	total	6785	26Tone	RU0	---	---	---	-7.87
11AX80MIMO	Ant1	6785	52Tone	RU37	-7.96	96.00	0.18	-7.78
11AX80MIMO	Ant2	6785	52Tone	RU37	-7.14	96.00	0.18	-6.96
11AX80MIMO	total	6785	52Tone	RU37	---	---	---	-4.34
11AX80MIMO	Ant1	6785	106Tone	RU53	-7.97	98.06	0.09	-7.88
11AX80MIMO	Ant2	6785	106Tone	RU53	-7.10	98.06	0.09	-7.01
11AX80MIMO	total	6785	106Tone	RU53	---	---	---	-4.41
11AX80MIMO	Ant1	6785	242Tone	RU61	-5.19	99.28	0.03	-5.16
11AX80MIMO	Ant2	6785	242Tone	RU61	-4.45	99.28	0.03	-4.42
11AX80MIMO	total	6785	242Tone	RU61	---	---	---	-1.76
11AX80MIMO	Ant1	6785	484Tone	RU65	2.68	98.92	0.05	2.73
11AX80MIMO	Ant2	6785	484Tone	RU65	0.62	99.28	0.03	0.65
11AX80MIMO	total	6785	484Tone	RU65	---	---	---	4.82
11AX80MIMO	Ant1	6865	26Tone	RU0	-11.28	92.86	0.32	-10.96
11AX80MIMO	Ant2	6865	26Tone	RU0	-10.71	92.86	0.32	-10.39
11AX80MIMO	total	6865	26Tone	RU0	---	---	---	-7.66
11AX80MIMO	Ant1	6865	52Tone	RU37	-7.84	96.00	0.18	-7.66
11AX80MIMO	Ant2	6865	52Tone	RU37	-6.99	96.00	0.18	-6.81
11AX80MIMO	total	6865	52Tone	RU37	---	---	---	-4.20
11AX80MIMO	Ant1	6865	106Tone	RU53	-7.66	98.06	0.09	-7.57

11AX80MIMO	Ant2	6865	106Tone	RU53	-6.80	98.06	0.09	-6.71
11AX80MIMO	total	6865	106Tone	RU53	---	---	---	-4.11
11AX80MIMO	Ant1	6865	242Tone	RU61	-4.54	99.28	0.03	-4.51
11AX80MIMO	Ant2	6865	242Tone	RU61	-4.06	99.28	0.03	-4.03
11AX80MIMO	total	6865	242Tone	RU61	---	---	---	-1.25
11AX80MIMO	Ant1	6865	484Tone	RU65	2.67	99.28	0.03	2.70
11AX80MIMO	Ant2	6865	484Tone	RU65	0.40	99.28	0.03	0.43
11AX80MIMO	total	6865	484Tone	RU65	---	---	---	4.72
11AX80MIMO	Ant1	6945	26Tone	RU0	-9.18	92.86	0.32	-8.86
11AX80MIMO	Ant2	6945	26Tone	RU0	-9.02	92.86	0.32	-8.70
11AX80MIMO	total	6945	26Tone	RU0	---	---	---	-5.77
11AX80MIMO	Ant1	6945	52Tone	RU37	-7.10	96.00	0.18	-6.92
11AX80MIMO	Ant2	6945	52Tone	RU37	-6.94	96.00	0.18	-6.76
11AX80MIMO	total	6945	52Tone	RU37	---	---	---	-3.83
11AX80MIMO	Ant1	6945	106Tone	RU53	-7.14	98.06	0.09	-7.05
11AX80MIMO	Ant2	6945	106Tone	RU53	-6.97	98.06	0.09	-6.88
11AX80MIMO	total	6945	106Tone	RU53	---	---	---	-3.95
11AX80MIMO	Ant1	6945	242Tone	RU61	-2.00	99.28	0.03	-1.97
11AX80MIMO	Ant2	6945	242Tone	RU61	-2.26	99.28	0.03	-2.23
11AX80MIMO	total	6945	242Tone	RU61	---	---	---	0.91
11AX80MIMO	Ant1	6945	484Tone	RU65	3.13	98.91	0.05	3.18
11AX80MIMO	Ant2	6945	484Tone	RU65	1.27	98.91	0.05	1.32
11AX80MIMO	total	6945	484Tone	RU65	---	---	---	5.36
11AX80MIMO	Ant1	7025	26Tone	RU0	-9.27	92.86	0.32	-8.95
11AX80MIMO	Ant2	7025	26Tone	RU0	-10.22	92.86	0.32	-9.90
11AX80MIMO	total	7025	26Tone	RU0	---	---	---	-6.39
11AX80MIMO	Ant1	7025	52Tone	RU37	-7.51	96.00	0.18	-7.33
11AX80MIMO	Ant2	7025	52Tone	RU37	-8.27	96.00	0.18	-8.09
11AX80MIMO	total	7025	52Tone	RU37	---	---	---	-4.68
11AX80MIMO	Ant1	7025	106Tone	RU53	-7.43	98.06	0.09	-7.34
11AX80MIMO	Ant2	7025	106Tone	RU53	-8.25	98.06	0.09	-8.16
11AX80MIMO	total	7025	106Tone	RU53	---	---	---	-4.72
11AX80MIMO	Ant1	7025	242Tone	RU61	-2.38	99.28	0.03	-2.35
11AX80MIMO	Ant2	7025	242Tone	RU61	-3.60	99.28	0.03	-3.57
11AX80MIMO	total	7025	242Tone	RU61	---	---	---	0.09
11AX80MIMO	Ant1	7025	484Tone	RU65	2.84	98.91	0.05	2.89

11AX80MIMO	Ant2	7025	484Tone	RU65	0.87	98.92	0.05	0.92
11AX80MIMO	total	7025	484Tone	RU65	---	---	---	5.03
11AX160MIMO	Ant1	6025	996Tone	RU67	4.47	99.28	0.03	4.50
11AX160MIMO	Ant2	6025	996Tone	RU67	2.62	98.91	0.05	2.67
11AX160MIMO	total	6025	996Tone	RU67	---	---	---	6.69
11AX160MIMO	Ant1	6185	996Tone	RU67	4.59	98.92	0.05	4.64
11AX160MIMO	Ant2	6185	996Tone	RU67	3.13	98.91	0.05	3.18
11AX160MIMO	total	6185	996Tone	RU67	---	---	---	6.98
11AX160MIMO	Ant1	6345	996Tone	RU67	4.65	98.92	0.05	4.70
11AX160MIMO	Ant2	6345	996Tone	RU67	3.25	99.28	0.03	3.28
11AX160MIMO	total	6345	996Tone	RU67	---	---	---	7.06
11AX160MIMO	Ant1	6505	996Tone	RU67	4.32	99.28	0.03	4.35
11AX160MIMO	Ant2	6505	996Tone	RU67	2.68	98.92	0.05	2.73
11AX160MIMO	total	6505	996Tone	RU67	---	---	---	6.63
11AX160MIMO	Ant1	6665	996Tone	RU67	4.23	98.91	0.05	4.28
11AX160MIMO	Ant2	6665	996Tone	RU67	3.06	98.92	0.05	3.11
11AX160MIMO	total	6665	996Tone	RU67	---	---	---	6.74
11AX160MIMO	Ant1	6825	996Tone	RU67	4.51	99.28	0.03	4.54
11AX160MIMO	Ant2	6825	996Tone	RU67	2.65	98.91	0.05	2.70
11AX160MIMO	total	6825	996Tone	RU67	---	---	---	6.73
11AX160MIMO	Ant1	6985	996Tone	RU67	4.92	98.91	0.05	4.97
11AX160MIMO	Ant2	6985	996Tone	RU67	3.23	99.28	0.03	3.26
11AX160MIMO	total	6985	996Tone	RU67	---	---	---	7.21

9 SAR TEST RESULTS

9.1 SAR and Power Density Measurements

SAR TEST												
WLAN 6.5G_802.11ax (160M)_Antenna MIMO_Power Setting 4												
Test Position	Gap (mm)	Ch.	Frequency	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	APD 4cm ² (W/m ²)
Front	0	15	6025	7.26	8.50	1.330	98.68	1.013	0.03	0.035	0.047	0.123
Back	0	15	6025	7.26	8.50	1.330	98.68	1.013	0.01	0.043	0.058	0.142
Right Side	0	15	6025	7.26	8.50	1.330	98.68	1.013	0.04	0.051	0.069	0.232
Left Side	0	15	6025	7.26	8.50	1.330	98.68	1.013	0.02	0.000	0.000	0.000
Top Side	0	15	6025	7.26	8.50	1.330	98.68	1.013	-0.01	0.008	0.011	0.091
Bottom Side	0	15	6025	7.26	8.50	1.330	98.68	1.013	0.06	0.048	0.065	0.251
Right Side	0	47	6185	7.59	8.50	1.233	98.68	1.013	0.12	0.073	0.091	0.492
Right Side	0	79	6345	7.40	8.50	1.288	98.68	1.013	0.04	0.059	0.077	0.341
Right Side	0	111	6505	7.20	8.50	1.349	98.68	1.013	-0.03	0.060	0.082	0.352
Right Side	0	143	6665	7.38	8.50	1.294	98.68	1.013	0.08	0.043	0.056	0.122
Right Side	0	175	6825	7.73	8.50	1.194	98.68	1.013	0.04	0.040	0.048	0.141
Right Side	0	207	6985	7.78	8.50	1.180	98.68	1.013	-0.08	0.041	0.049	0.139

Power Density TEST													
WLAN 6.5G_802.11ax (160M)_Antenna MIMO_Power Setting 4													
Test Position	Gap (mm)	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Grip Step (λ)	Scaling Factor for measurement uncertainty	Power Drift (dB)	Total psPD(W/m ²)	Scaled Total psPD(W/m ²)
Right Side	2mm	15	6025	7.26	8.50	1.330	98.68	1.013	0.0625	1.55	0.03	0.523	1.095
Right Side	2mm	47	6185	7.59	8.50	1.233	98.68	1.013	0.0625	1.55	0.05	0.515	0.999
Right Side	2mm	79	6345	7.40	8.50	1.288	98.68	1.013	0.0625	1.55	0.19	0.585	1.186
Right Side	2mm	111	6505	7.20	8.50	1.349	98.68	1.013	0.0625	1.55	0.01	0.592	1.257
Right Side	2mm	143	6665	7.38	8.50	1.294	98.68	1.013	0.0625	1.55	-0.03	0.645	1.314
Right Side	2mm	175	6825	7.73	8.50	1.194	98.68	1.013	0.0625	1.55	0.04	0.684	1.285
Right Side	2mm	207	6985	7.78	8.50	1.180	98.68	1.013	0.0625	1.55	-0.02	0.753	1.399

Note 1: The test spacing is the distance between probe sensor and DUT surface.

Note 2: $1.0 \text{ W/m}^2 = 0.1 \text{ mW/cm}^2$.

Note 3: Liquid tissue depth was at least 15.0 cm for all frequencies.

Note 4: The multiple test positions require SAR measurements in head, hotspot mode or UMPC mini-tablet configurations may be reduced according to the highest reported SAR determined using the initial test position(s) by applying the DSSS or OFDISAR measurement procedures in the required wireless mode test configuration(s). The initial test position(s) is measured using the highest measured maximum output power channel in the required wireless mode test configuration(s). When the reported SAR for the initial test position is:

- $\leq 0.4 \text{ W/kg}$, further SAR measurement is not required for the other test positions in that exposure configuration and wireless mode combination within the frequency band or aggregated band. DSSS and OFDM configurations are considered separately according to the required SAR procedures.
- 0.4 W/kg . SAR is repeated using the same wireless mode test configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position, on the highest maximum output power channel, until the reported SAR is $\leq 0.8 \text{ W/kg}$ or all required test positions are tested. For subsequent test position with equivalent test separation distance or when exposure is dominated by coupling conditions, the position for maximum coupling condition should be tested. When it is unclear, all equivalent conditions must be tested.
- For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is $> 0.8 \text{ W/kg}$, measure the SAR for positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is $\leq 1.2 \text{ W/kg}$ or all required test channels are considered.
- When the specified maximum output power is the same for both UNII 1 and UNII 2A, begin SAR measurements in UNII 2A with the channel with the highest measured output power. If the reported SAR for UNII 2A is ≤ 1.2

W/kg, SARI is not required for UNII 1; otherwise treat the remaining bands separately and test them independently for SAR.

- When the specified maximum output power is different between UNII 1 and UNII 2A, begin SAR with the band that has the higher specified maximum output. If the highest reported SAR for the band with the highest specified power is ≤ 1.2 W/kg, testing for the band with the lower specified output power is not required; otherwise test the remaining bands independently for SAR.

Note 5: To determine the initial test position, Area Scans were performed to determine the position with the Maximum Value of SARI (measured). The position that produced the highest Maximum Value of SAR is considered as the worst case position; thus used as the initial test position.

- After an initial test configuration is determined, if multiple test channels have the same measured maximum output power, the channel chosen for SAR measurement is determined according to the following:
 - (1) The channel closest to mid-band frequency is selected for SAR measurement.
 - (2) For channels with equal separation from mid-band frequency; for example, high and low channels or two mid-band channels, the higher frequency (number) channel is selected for SAR measurement.These channel selection procedures apply to both the initial test configuration and subsequent test configuration(s) selection.

Note 6: WIFI6E SAR and Power Density measurements were implemented according to the U-NII 6-7 GHz Interim Procedures described in Oct. 2020 TCB workshop.

- The SAR evaluations using 6-7 GHz parameters were performed per IEC/IEEE 62209-1528, and the Absorbed Power Density (APD) were reported based on SAR measurements.
According to DASY Application Note, the APD is evaluated numerically using the FDTD method of Sim4Life V5.2. For comparison with the basic restrictions, the APD is averaged over square surface areas of 1 cm^2 and 4 cm^2 in the lowermost voxel layer of a flat phantom at a frequency of 6.5 GHz. The phantom consists of a dielectric shell of 2 mm thickness and a relative permittivity $\epsilon_r=3.7$. It is filled with a tissue-simulating liquid with $\epsilon_r=34.5$ and $\sigma=6.07 \text{ S/m}$.

9.2 SAR Measurement Variability

Band	Mode	Test Position	Ch.	Freq. (MHz)	Original 1g SAR (W/kg)	First 1g SAR (W/kg)	First Ratio SAR 1g
WLAN 6G	802.11ax (160M)	Right Side	N/A	N/A	N/A	N/A	N/A

Note:

According to KDB 865664 D01v01r04, SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.

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

1. The original highest measured Reported SAR 1-g ≥ 0.80 W/kg repeated that measurement once.
2. Perform a second repeated measurement the ratio of the largest to the smallest SAR for the original and first repeated measurements is <1.2 W/kg, or when the original or repeated measurement ≥ 1.45 W/kg (~10% from the 1-g SAR limit).

Appendix A. SAR And Power Density Validation Data

Measurement Report for Device, D6.5GHz, CW, Channel 6500MHz

Exposure Conditions

Phantom Section, TSL	Frequency [MHz]	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	6500	6.08	34.0

Hardware Setup

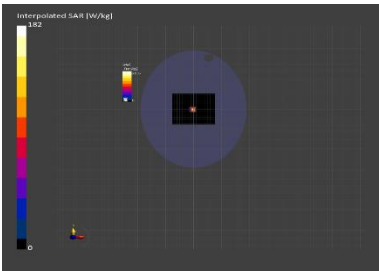
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0	HBBL-600-10000	EX3DV4 - SN7761, 2024-09-19	DAE4 Sn679, 2024-08-08

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	51.0 x 51.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2025-03-19, 18:54	2025-03-19, 19:18
psSAR1g [W/Kg]	27.9	29.3
psSAR10g [W/Kg]	5.52	5.24
Power Drift [dB]	0.01	0.01



Measurement Report for Device, Validation band, Channel 10000MHz

Exposure Conditions

Phantom Section	Test Distance [mm]	Frequency [MHz]	Conversion Factor
5G	2.00	10000	1.0

Hardware Setup

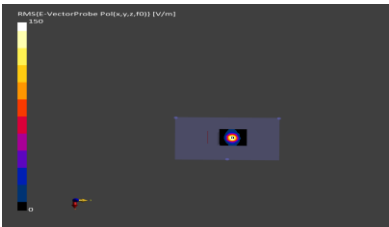
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air	EUmmWV4 - SN9455_F1-55GHz, 2024-06-21	DAE4 Sn679, 2024-08-08

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	25.0 x 25.0
Grid Steps [lambda]	0.0625 x 0.0625
Sensor Surface [mm]	2.0

Measurement Results

Scan Type	5G Scan
Date	2025-03-21, 11:45
Avg. Area [cm2]	4.00
psPDn+ [W/m2]	54.1
psPDtot+ [W/m2]	54.2
psPDmod+ [W/m2]	54.3
E _{max} [V/m]	141
Power Drift [dB]	-0.01



Appendix B. SAR And Power Density Test Data

Measurement Report for Device, EDGE RIGHT, U-NII-5, IEEE 802.11ax (160MHz), Channel 15 (6025MHz)
Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE RIGHT, 0.00	6025, 15	5.46	34.9

Hardware Setup

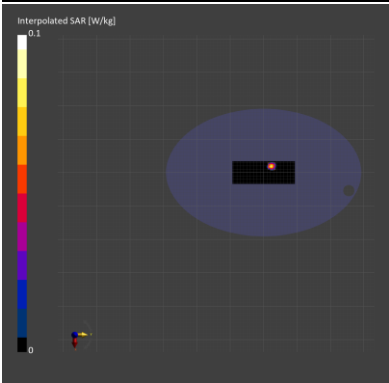
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0	HBBL-600-10000	EX3DV4 - SN7761, 2024-09-19	DAE4 Sn679, 2024-08-08

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	68.0 x 187.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2025-03-19, 15:24	2025-03-19, 15:35
psSAR1g [W/Kg]	0.058	0.051
psSAR10g [W/Kg]	0.017	0.014
Power Drift [dB]	-0.08	0.04



Measurement Report for Device, EDGE RIGHT, U-NII-5, IEEE 802.11ax (160MHz), Channel 47 (6185MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE RIGHT, 0.00	6185, 47	5.77	34.5

Hardware Setup

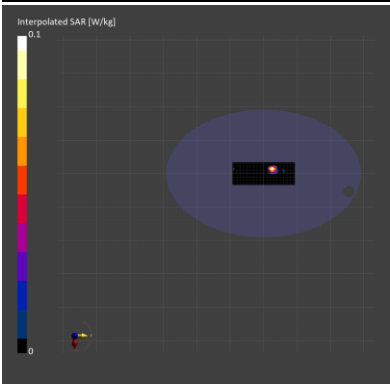
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0	HBBL-600-10000	EX3DV4 - SN7761, 2024-09-19	DAE4 Sn679, 2024-08-08

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	68.0 x 187.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2025-03-19, 09:22	2025-03-19, 09:36
psSAR1g [W/Kg]	0.068	0.073
psSAR10g [W/Kg]	0.020	0.020
Power Drift [dB]	0.17	0.12



Measurement Report for Device, EDGE RIGHT, U-NII-5, IEEE 802.11ax (160MHz), Channel 79 (6345MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE RIGHT, 0.00	6345, 79	5.77	34.5

Hardware Setup

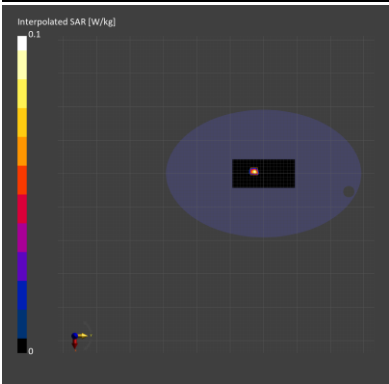
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0	HBBL-600-10000	EX3DV4 - SN7761, 2024-09-19	DAE4 Sn679, 2024-08-08

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	85.0 x 187.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2025-03-19, 10:31	2025-03-19, 10:46
psSAR1g [W/Kg]	0.067	0.059
psSAR10g [W/Kg]	0.018	0.016
Power Drift [dB]	0.10	0.04



Measurement Report for Device, EDGE RIGHT, U-NII-6, IEEE 802.11ax (160MHz, Channel 111 (6505MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE RIGHT, 0.00	6505, 111	6.08	34.0

Hardware Setup

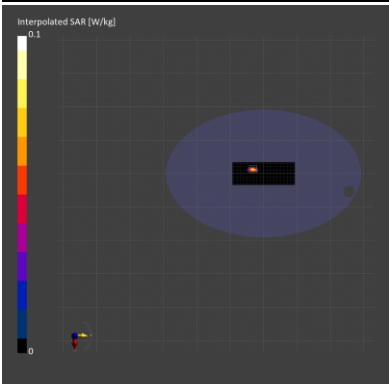
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0	HBBL-600-10000	EX3DV4 - SN7761, 2024-09-19	DAE4 Sn679, 2024-08-08

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	68.0 x 187.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2025-03-19, 11:02	2025-03-19, 11:13
psSAR1g [W/Kg]	0.058	0.060
psSAR10g [W/Kg]	0.014	0.018
Power Drift [dB]	0.19	-0.03



Measurement Report for Device, EDGE RIGHT, U-NII-7, IEEE 802.11ax (160MHz), Channel 143 (6665MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE RIGHT, 0.00	6665, 143	6.39	33.6

Hardware Setup

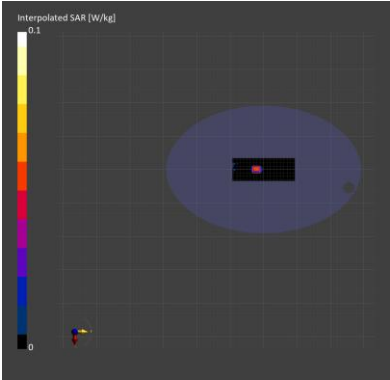
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0	HBBL-600-10000	EX3DV4 - SN7761, 2024-09-19	DAE4 Sn679, 2024-08-08

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	68.0 x 187.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2025-03-19, 11:24	2025-03-19, 11:36
psSAR1g [W/Kg]	0.046	0.043
psSAR10g [W/Kg]	0.016	0.013
Power Drift [dB]	0.01	0.08



Measurement Report for Device, EDGE RIGHT, U-NII-7, IEEE 802.11ax (160MHz), Channel 175 (6825MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE RIGHT, 0.00	6825, 175	6.39	33.6

Hardware Setup

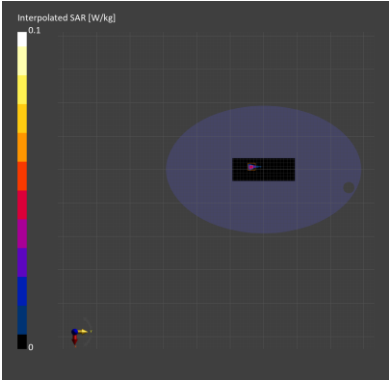
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0	HBBL-600-10000	EX3DV4 - SN7761, 2024-09-19	DAE4 Sn679, 2024-08-08

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	68.0 x 187.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2025-03-19, 11:50	2025-03-19, 12:01
psSAR1g [W/Kg]	0.033	0.040
psSAR10g [W/Kg]	0.007	0.01
Power Drift [dB]	0.11	0.04



Measurement Report for Device, EDGE RIGHT, U-NII-8, IEEE 802.11ax (160MHz), Channel 207 (6985MHz)

Exposure Conditions

Phantom Section, TSL	Position, Test Distance [mm]	Frequency [MHz], Channel Number	TSL Conductivity [S/m]	TSL Permittivity
Flat, HSL	EDGE RIGHT, 0.00	6985, 207	6.69	33.2

Hardware Setup

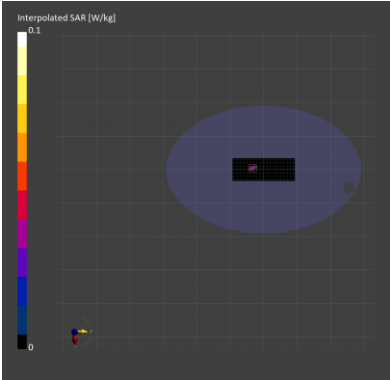
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
ELI V8.0	HBBL-600-10000	EX3DV4 - SN7761, 2024-09-19	DAE4 Sn679, 2024-08-08

Scans Setup

	Area Scan	Zoom Scan
Grid Extents [mm]	68.0 x 187.0	22.0 x 22.0 x 22.0
Grid Steps [mm]	8.5 x 8.5	3.4 x 3.4 x 1.4
Sensor Surface [mm]	3.0	1.4

Measurement Results

	Area Scan	Zoom Scan
Date	2025-03-19, 13:21	2025-03-19, 13:48
psSAR1g [W/Kg]	0.031	0.041
psSAR10g [W/Kg]	0.006	0.01
Power Drift [dB]	0.12	-0.08



Measurement Report for Device, EDGE RIGHT, U-NII-5, IEEE 802.11ax (160MHz), Channel 79 (6345MHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor
5G	EDGE RIGHT, 2.00	6345, 79	1.0

Hardware Setup

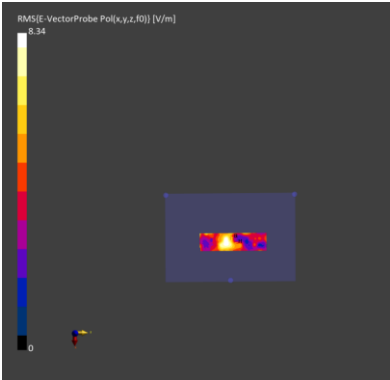
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air -	EUmmWV4 - SN9455_F1-55GHz, 2024-06-21	DAE4 Sn679, 2024-08-08

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	25.0 x 25.0
Grid Steps [lambda]	0.0625 x 0.0625
Sensor Surface [mm]	2.0

Measurement Results

Scan Type	5G Scan
Date	2025-03-21, 17:38
Avg. Area [cm2]	4.00
psPDn+ [W/m2]	0.559
psPDtot+ [W/m2]	0.585
psPDmod+ [W/m2]	0.598
E _{max} [V/m]	18.7
Power Drift [dB]	0.19



Measurement Report for Device, EDGE RIGTH, U-NII-6, IEEE 802.11ax (160MHz), Channel 111 (6505MHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor
5G	EDGE RIGHT,2.00	6505, 111	1.0

Hardware Setup

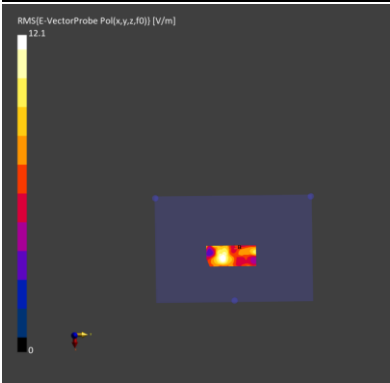
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air -	EUmmWV4 - SN9455_F1-55GHz, 2024-06-21	DAE4 Sn679, 2024-08-08

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	60.0 x 100.0
Grid Steps [lambda]	0.0625 x 0.0625
Sensor Surface [mm]	2.0

Measurement Results

Scan Type	5G Scan
Date	2025-03-21, 10:17
Avg. Area [cm2]	4.00
psPDn+ [W/m2]	0.561
psPDtot+ [W/m2]	0.592
psPDmod+ [W/m2]	0.601
E _{max} [V/m]	19.3
Power Drift [dB]	0.01



Measurement Report for Device, EDGE RIGHT, U-NII-7, IEEE 802.11ax (160MHz), Channel 143 (6665MHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor
5G	EDGE RIGHT, 2.00	6665, 143	1.0

Hardware Setup

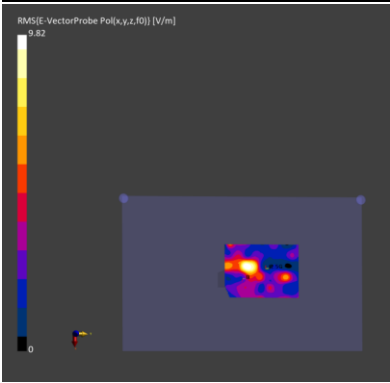
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air -	EUmmWV4 - SN9455_F1-55GHz, 2024-06-21	DAE4 Sn679, 2024-08-08

Scans Setup

Scan Type	5G Scan
Grid Extents [mm]	80.0 x 100.0
Grid Steps [lambda]	0.0625 x 0.0625
Sensor Surface [mm]	2.0

Measurement Results

Scan Type	5G Scan
Date	2025-03-21, 11:25
Avg. Area [cm2]	4.00
psPDn+ [W/m2]	0.602
psPDtot+ [W/m2]	0.645
psPDmod+ [W/m2]	0.672
E _{max} [V/m]	20.3
Power Drift [dB]	-0.03



Measurement Report for Device, EDGE RIGHT, U-NII-7, IEEE 802.11ax (160MHz), Channel 175 (6825MHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor
5G	EDGE RIGHT, 2.00	6825.0, 175	1.0

Hardware Setup

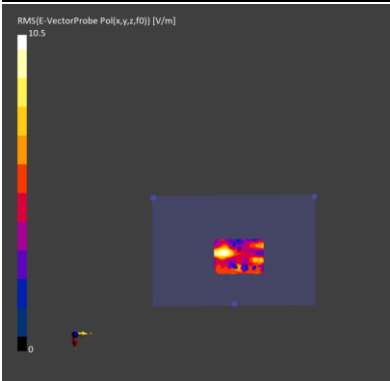
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air -	EUmmWV4 - SN9455_F1-55GHz, 2024-06-21	DAE4 Sn679, 2024-08-08

Scans Setup

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

Measurement Results

Scan Type	5G Scan
Date	2025-03-21, 12:00
Avg. Area [cm2]	4.00
psPDn+ [W/m2]	0.631
psPDtot+ [W/m2]	0.684
psPDmod+ [W/m2]	0.733
E _{max} [V/m]	21.5
Power Drift [dB]	0.04



Measurement Report for Device, EDGE RIGHT, U-NII-8, IEEE 802.11ax (160MHz), Channel 207 (6985MHz)

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Frequency [MHz], Channel Number	Conversion Factor
5G	EDGE RIGHT, 2.00	6985, 207	1.0

Hardware Setup

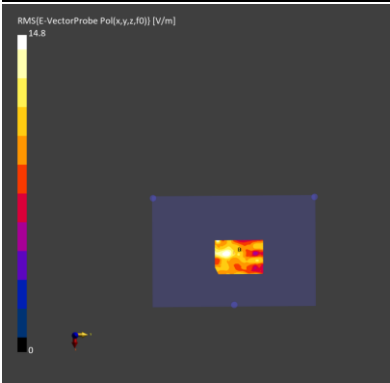
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave	Air -	EUmmWV4 - SN9455_F1-55GHz, 2024-06-21	DAE4 Sn679, 2024-08-08

Scans Setup

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

Measurement Results

Scan Type	5G Scan
Date	2025-03-21, 13:19
Avg. Area [cm2]	4.00
psPDn+ [W/m2]	0.714
psPDtot+ [W/m2]	0.753
psPDmod+ [W/m2]	0.773
E _{max} [V/m]	31.4
Power Drift [dB]	-0.02



Appendix C. Probe Calibration Data

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client

DEKRA
Suzhou

Certificate No.

EX-7761_Sep24

CALIBRATION CERTIFICATE

Object

EX3DV4 - SN:7761

Calibration procedure(s)

QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6,
QA CAL-25.v8
Calibration procedure for dosimetric E-field probes

Calibration date

September 19, 2024

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^\circ\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP2	SN: 104778	26-Mar-24 (No. 217-04036/04037)	Mar-25
Power sensor NRP-Z91	SN: 103244	26-Mar-24 (No. 217-04036)	Mar-25
OCP DAK-3.5 (weighted)	SN: 1249	05-Oct-23 (OCP-DAK3.5-1249_Oct23)	Oct-24
OCP DAK-12	SN: 1016	05-Oct-23 (OCP-DAK12-1016_Oct23)	Oct-24
Reference 20 dB Attenuator	SN: CC2552 (20x)	26-Mar-24 (No. 217-04046)	Mar-25
DAE4	SN: 660	23-Feb-24 (No. DAE4-660_Feb24)	Feb-25
Reference Probe EX3DV4	SN: 7349	03-Jun-24 (No. EX3-7349_Jun24)	Jun-25

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-24)	In house check: Jun-26
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-24)	In house check: Jun-26
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-24)	In house check: Jun-26
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-24)	In house check: Jun-26
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

Calibrated by

Name
Joanna Lleshaj

Function
Laboratory Technician

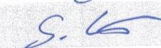
Signature



Approved by

Sven Kühn

Technical Manager



Issued: September 19, 2024

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

**Calibration Laboratory of
Schmid & Partner
Engineering AG**

Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accreditation No.: **SCS 0108**

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA
Multilateral Agreement for the recognition of calibration certificates

Glossary

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z} = NORM_{x,y,z} * frequency_response** (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCP_{x,y,z}**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,y,z}**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM_x (no uncertainty required).

EX3DV4 - SN:7761

September 19, 2024

Parameters of Probe: EX3DV4 - SN:7761**Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc ($k = 2$)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.61	0.68	0.68	$\pm 10.1\%$
DCP (mV) ^B	107.6	104.0	107.1	$\pm 4.7\%$

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc ^E $k = 2$
0	CW	X	0.00	0.00	1.00	0.00	132.6	$\pm 3.0\%$	$\pm 4.7\%$
		Y	0.00	0.00	1.00		121.3		
		Z	0.00	0.00	1.00		144.9		
10352	Pulse Waveform (200Hz, 10%)	X	2.00	62.00	7.00	10.00	60.0	$\pm 3.3\%$	$\pm 9.6\%$
		Y	1.52	60.64	6.39		60.0		
		Z	1.66	61.30	6.81		60.0		
10353	Pulse Waveform (200Hz, 20%)	X	0.83	60.00	5.12	6.99	80.0	$\pm 2.7\%$	$\pm 9.6\%$
		Y	0.83	60.00	5.01		80.0		
		Z	0.84	60.00	5.11		80.0		
10354	Pulse Waveform (200Hz, 40%)	X	0.47	152.59	4.00	3.98	95.0	$\pm 2.8\%$	$\pm 9.6\%$
		Y	2.00	64.00	5.00		95.0		
		Z	0.46	60.00	4.03		95.0		
10355	Pulse Waveform (200Hz, 60%)	X	12.42	151.62	9.30	2.22	120.0	$\pm 1.9\%$	$\pm 9.6\%$
		Y	13.07	145.57	10.03		120.0		
		Z	13.45	148.96	5.34		120.0		
10387	QPSK Waveform, 1 MHz	X	0.57	62.02	11.22	1.00	150.0	$\pm 4.2\%$	$\pm 9.6\%$
		Y	0.65	61.93	10.74		150.0		
		Z	0.67	62.91	11.48		150.0		
10388	QPSK Waveform, 10 MHz	X	1.30	64.24	13.12	0.00	150.0	$\pm 1.6\%$	$\pm 9.6\%$
		Y	1.32	63.53	12.65		150.0		
		Z	1.39	64.52	13.25		150.0		
10396	64-QAM Waveform, 100 kHz	X	1.65	63.77	15.58	3.01	150.0	$\pm 0.9\%$	$\pm 9.6\%$
		Y	1.70	63.95	15.45		150.0		
		Z	1.75	64.49	15.75		150.0		
10399	64-QAM Waveform, 40 MHz	X	2.78	65.47	14.57	0.00	150.0	$\pm 2.1\%$	$\pm 9.6\%$
		Y	2.81	65.16	14.31		150.0		
		Z	2.88	65.70	14.65		150.0		
10414	WLAN CCDF, 64-QAM, 40 MHz	X	4.00	66.04	15.24	0.00	150.0	$\pm 3.9\%$	$\pm 9.6\%$
		Y	3.91	65.03	14.71		150.0		
		Z	3.95	65.44	14.95		150.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E^2 -field uncertainty inside TSL (see Pages 5 and 6).^B Linearization parameter uncertainty for maximum specified field strength.^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

EX3DV4 - SN:7761

September 19, 2024

Parameters of Probe: EX3DV4 - SN:7761**Sensor Model Parameters**

	C1 fF	C2 fF	α V^{-1}	T1 msV^{-2}	T2 msV^{-1}	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
x	11.5	81.99	32.62	4.27	0.00	4.90	0.34	0.00	1.00
y	13.4	96.56	33.03	4.15	0.00	4.90	0.50	0.00	1.01
z	12.7	90.65	32.66	4.18	0.00	4.90	0.52	0.00	1.00

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	-50.5°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3–4 mm for an Area Scan job.

EX3DV4 - SN:7761

September 19, 2024

Parameters of Probe: EX3DV4 - SN:7761**Calibration Parameter Determined in Head Tissue Simulating Media**

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc ^H (k = 2)
13	55.0	0.75	14.53	14.51	15.55	0.00	1.25	±13.3%
450	43.5	0.87	10.35	10.35	10.35	0.16	1.30	±13.3%
750	41.9	0.89	9.18	8.93	9.03	0.34	1.27	±11.0%
835	41.5	0.90	9.11	8.85	8.95	0.34	1.27	±11.0%
900	41.5	0.97	8.58	8.34	8.44	0.34	1.27	±11.0%
1750	40.1	1.37	7.72	7.50	7.59	0.34	1.27	±11.0%
1900	40.0	1.40	7.45	7.25	7.33	0.34	1.27	±11.0%
2100	39.8	1.49	7.53	7.32	7.40	0.35	1.27	±11.0%
2300	39.5	1.67	7.29	7.09	7.17	0.35	1.27	±11.0%
2450	39.2	1.80	7.03	6.83	6.91	0.35	1.27	±11.0%
2600	39.0	1.96	7.10	6.90	6.98	0.35	1.27	±11.0%
3300	38.2	2.71	6.30	6.13	6.20	0.35	1.27	±13.1%
3500	37.9	2.91	6.39	6.21	6.28	0.35	1.27	±13.1%
3700	37.7	3.12	6.03	5.86	5.93	0.36	1.27	±13.1%
3900	37.5	3.32	6.29	6.11	6.18	0.36	1.27	±13.1%
4100	37.2	3.53	6.00	5.83	5.90	0.36	1.27	±13.1%
4200	37.1	3.63	6.02	5.85	5.92	0.36	1.27	±13.1%
4400	36.9	3.84	5.93	5.76	5.83	0.36	1.27	±13.1%
4600	36.7	4.04	5.79	5.63	5.70	0.36	1.27	±13.1%
4800	36.4	4.25	5.94	5.77	5.84	0.36	1.27	±13.1%
4950	36.3	4.40	5.85	5.68	5.75	0.35	1.27	±13.1%
5250	35.9	4.71	5.42	5.27	5.33	0.32	1.27	±13.1%
5600	35.5	5.07	4.64	4.51	4.56	0.29	1.27	±13.1%
5750	35.4	5.22	5.05	4.91	4.97	0.27	1.27	±13.1%

^C Frequency validity above 300 MHz of ±100 MHz only applies for DASy v4.4 and higher (see Page 2), else it is restricted to ±50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4–9 MHz, and ConvF assessed at 13 MHz is 9–19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±10% if SAR correction is applied.

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz and below ±2% for frequencies between 3–6 GHz at any distance larger than half the probe tip diameter from the boundary.

^H The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. This is equivalent to the uncertainty component with the symbol CF in

Table 9 of IEC/IEEE 62209-1528:2020.



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Parameters of Probe: EX3DV4 - SN:7761

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc ^H (k = 2)
6500	34.5	6.07	5.22	5.08	5.13	0.20	1.27	±18.6%

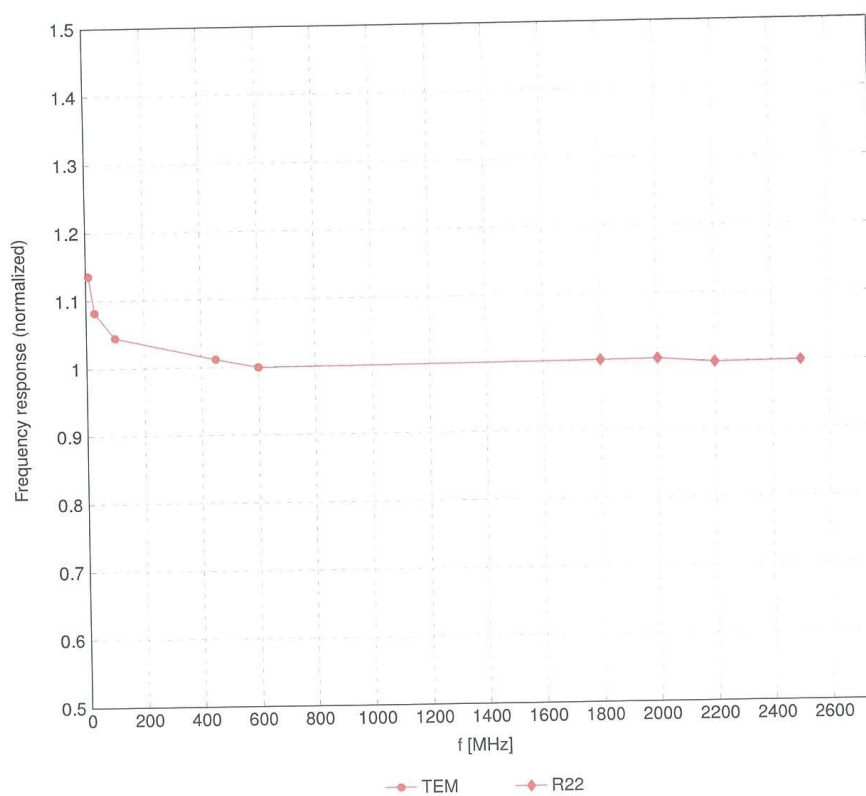
^C Frequency validity at 6.5 GHz is -600/+700 MHz, and ±700 MHz at or above 7 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±10% from the target values (typically better than ±6%) and are valid for TSL with deviations of up to ±10%.
^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz; below ±2% for frequencies between 3–6 GHz; and below ±4% for frequencies between 6–10 GHz at any distance larger than half the probe tip diameter from the boundary.
^H The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. This is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528:2020.

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Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide:R22)

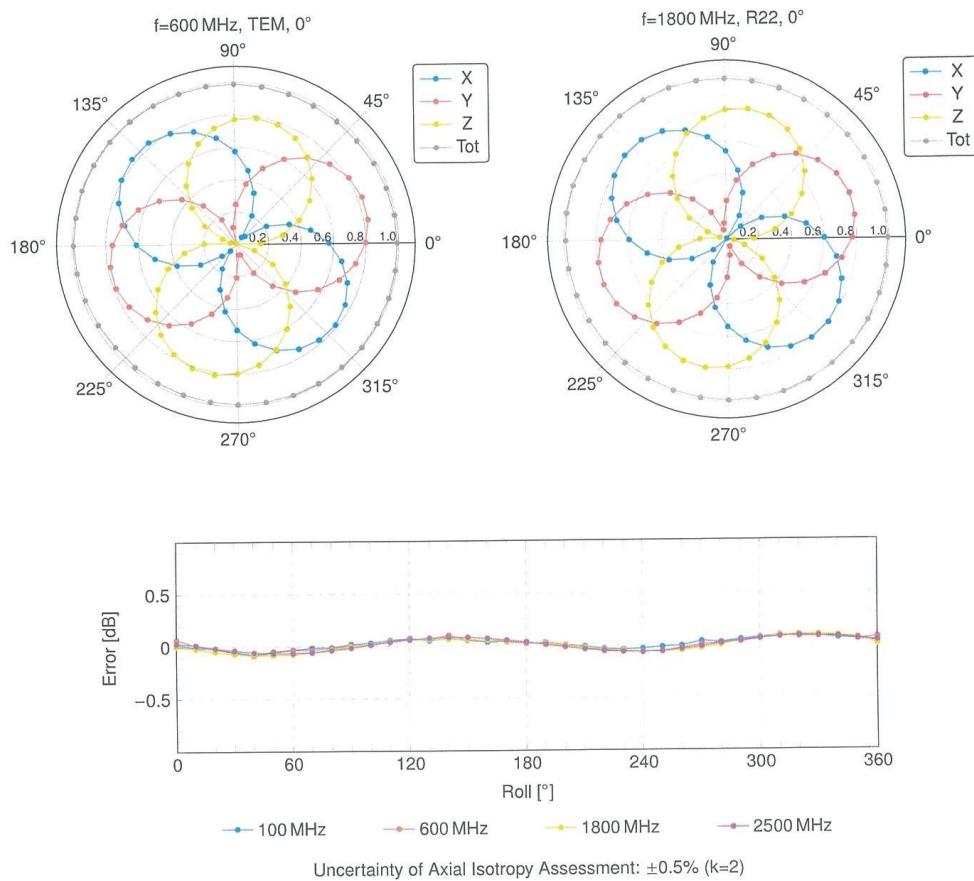


Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

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Receiving Pattern (ϕ), $\vartheta = 0^\circ$

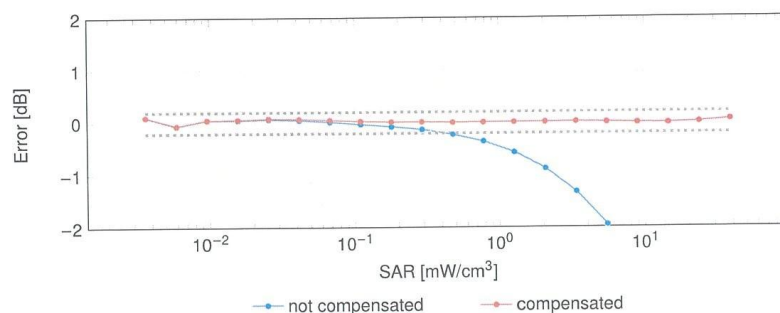
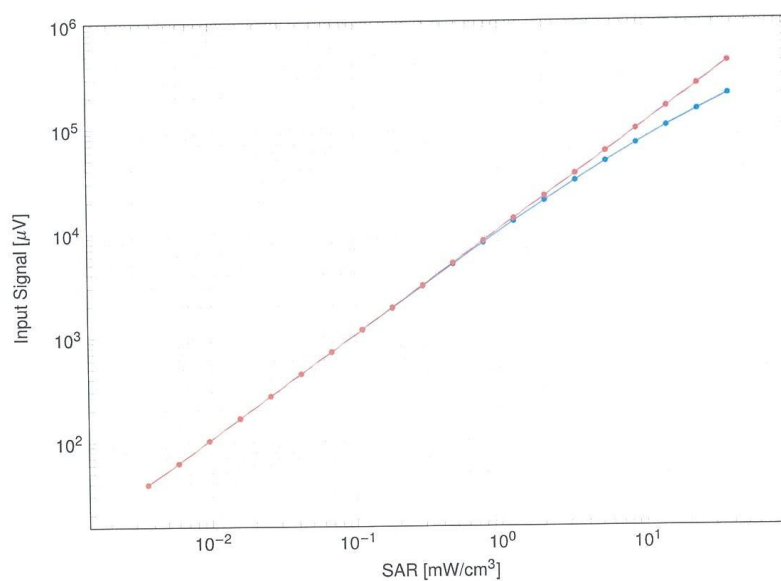


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Dynamic Range $f(\text{SAR}_{\text{head}})$

(TEM cell, $f_{\text{eval}} = 1900 \text{ MHz}$)

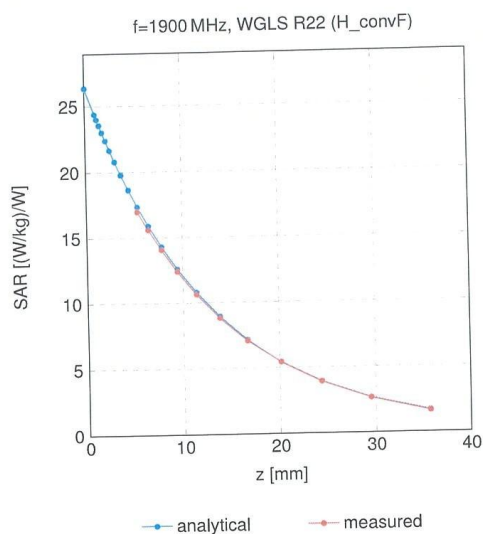


Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

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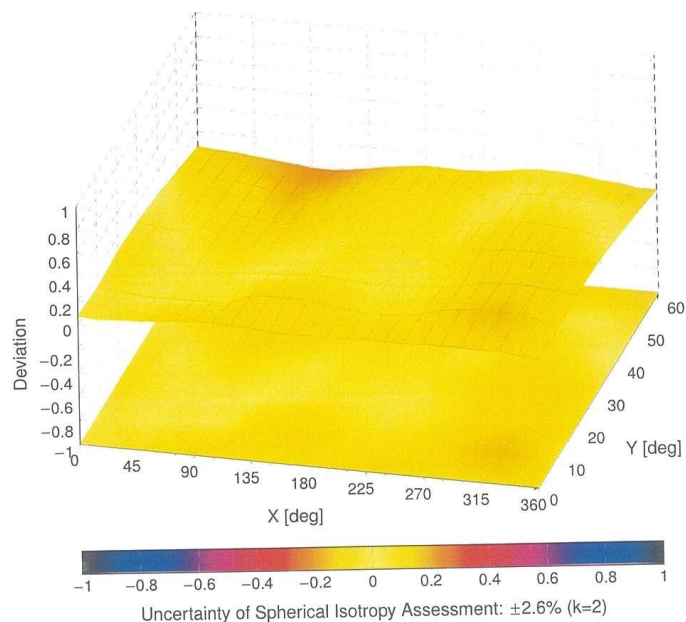
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Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ), f = 900 MHz



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Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E k = 2
0		CW	CW	0.00	±4.7
10010	CAB	SAR Validation (Square, 100 ms, 10 ms)	Test	10.00	±9.6
10011	CAC	UMTS-FDD (WCDMA)	WCDMA	2.91	±9.6
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	±9.6
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	±9.6
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	±9.6
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	±9.6
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	±9.6
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	±9.6
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	±9.6
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	±9.6
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	±9.6
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	±9.6
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	±9.6
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	±9.6
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	±9.6
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	±9.6
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	±9.6
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	±9.6
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	±9.6
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	±9.6
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	±9.6
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	±9.6
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	±9.6
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	±9.6
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	±9.6
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	±9.6
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	±9.6
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	±9.6
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	±9.6
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	±9.6
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	±9.6
10062	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	±9.6
10063	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	±9.6
10064	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	±9.6
10065	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	±9.6
10066	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	±9.6
10067	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	±9.6
10068	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	±9.6
10069	CAE	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	±9.6
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	±9.6
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	±9.6
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	±9.6
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	±9.6
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	±9.6
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	±9.6
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	±9.6
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	±9.6
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	±9.6
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	±9.6
10097	CAC	UMTS-FDD (HSDPA)	WCDMA	3.98	±9.6
10098	CAC	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	±9.6
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	±9.6
10100	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	±9.6
10101	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6
10102	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10103	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	±9.6
10104	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	±9.6
10105	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	±9.6
10108	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	±9.6
10109	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10110	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	±9.6
10111	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	±9.6

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UID	Rev	Communication System Name	Group	PAR (dB)	Unc ^E $k = 2$
10112	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	±9.6
10113	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	±9.6
10114	CAE	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±9.6
10115	CAE	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	±9.6
10116	CAE	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	±9.6
10117	CAE	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	±9.6
10118	CAE	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	±9.6
10119	CAE	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	±9.6
10140	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±9.6
10141	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	±9.6
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6
10143	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	±9.6
10144	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±9.6
10145	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	±9.6
10146	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±9.6
10147	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	±9.6
10149	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6
10150	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10151	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	±9.6
10152	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	±9.6
10153	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	±9.6
10154	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	±9.6
10155	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10156	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	±9.6
10157	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	±9.6
10158	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	±9.6
10159	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	±9.6
10160	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	±9.6
10161	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10162	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	±9.6
10166	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	±9.6
10167	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±9.6
10168	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	±9.6
10169	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	±9.6
10170	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10171	AAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	±9.6
10172	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	±9.6
10173	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10174	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10175	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	±9.6
10176	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10177	CAJ	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	±9.6
10178	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10179	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10180	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10181	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	±9.6
10182	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10183	AAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10184	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6
10185	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±9.6
10186	AAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	±9.6
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10189	AAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10193	CAE	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	±9.6
10194	CAE	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	±9.6
10195	CAE	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	±9.6
10196	CAE	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	±9.6
10197	CAE	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	±9.6
10198	CAE	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	±9.6
10219	CAE	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	±9.6
10220	CAE	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	±9.6
10221	CAE	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	±9.6
10222	CAE	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	±9.6
10223	CAE	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	±9.6
10224	CAE	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	±9.6