

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

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Multilateral Agreement for the recognition of calibration certificates**Accreditation No.: **SCS 0108**

Client

Sporton
Taoyuan City

Certificate No.

D2450V2-806_Mar25**CALIBRATION CERTIFICATE**Object **D2450V2 - SN: 806**Calibration procedure(s) **QA CAL-05.v12**
Calibration Procedure for SAR Validation Sources between 0.7 - 3 GHzCalibration date **March 13, 2025**

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 Cal
Power Sensor R&S NRP-33T	SN: 100967	28-Mar-24 (No. 217-04038)	Mar-25
Power Sensor R&S NRP18A	SN: 101859	06-Feb-25 (No. 4030A315009541)	Feb-26
Spectrum Analyzer R&S FSV40	SN: 101832	29-Jan-25 (No. 4030A315009658)	Jan-26
Mismatch; Short [S4188] Attenuator [S4423]	SN: 1152	28-Mar-24 (No. 217-04050)	Mar-25
OCP DAK-12	SN: 1016	24-Sept-24 (No. OCP-DAK12-1016_Sep24)	Sep-25
OCP DAK-3.5	SN: 1249	23-Sept-24 (No. OCP-DAK3.5-1249_Sep24)	Sep-25
Reference Probe EX3DV4	SN: 7349	10-Jan-25 (No. EX3-7349_Jan25)	Jan-26
DAE4ip	SN: 1836	28-Oct-24 (No. DAE4ip-1836_Oct24)	Oct-25

Secondary Standards	ID	Check Date (in house)	Scheduled Check
ACAD Source Box	SN: 1000	28-May-24 (No. 675-ACAD_Source_Box-240528)	May-25
Signal Generator R&S SMB100A	SN: 182081	28-May-24 (No. 675-CAL16-S4588-240528)	May-25
Mismatch; SMA	SN: 1102	22-May-24 (No. 675-Mismatch_SMA-240522)	May-25

	Name	Function
Calibrated by	Krešimir Franjić	Laboratory Technician
Approved by	Sven Kühn	Technical Manager

Signature

Issued: March 14, 2025

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Calibration Laboratory of

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Accreditation No.: SCS 0108

Glossary

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

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"

Additional Documentation

- DASY System Handbook

Methods Applied and Interpretation of Parameters

- *Measurement Conditions*: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL*: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss*: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay*: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured*: SAR measured at the stated antenna input power.
- *SAR normalized*: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters*: The measured TSL parameters are used to calculate the nominal SAR result.

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%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY8 Module SAR	16.4.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with spacer
Zoom Scan Resolution	dx, dy = 5mm, dz = 1.5mm	Graded Ratio = 1.5 mm (Z direction)
Frequency	2450MHz $\pm$ 1MHz	

HSL parameters at 2450 MHz

The following parameters and calculations were applied:

	Temperature	Permittivity	Conductivity
Nominal HSL parameters	22.0 °C	39.2	1.80 mho/m
Measured HSL parameters	(22.0 $\pm$ 0.2) °C	37.9 $\pm$ 6%	1.86 mho/m $\pm$ 6%
HSL temperature change during test	< 0.5 °C		

SAR result with HSL at 2450 MHz

SAR averaged over 1 cm³ (1 g) of HSL	Condition	
SAR for nominal HSL parameters	24 dBm input power	13.3 W/kg
SAR for nominal HSL parameters	normalized to 1W	52.9 W/kg $\pm$ 17.0% (k = 2)

SAR averaged over 10 cm³ (10 g) of HSL	Condition	
SAR for nominal HSL parameters	24 dBm input power	6.21 W/kg
SAR for nominal HSL parameters	normalized to 1W	24.7 W/kg $\pm$ 16.5% (k = 2)

Appendix (Additional assessments outside the scope of SCS 0108)**Antenna Parameters with HSL at 2450 MHz**

Impedance	55.5 Ω + 3.3 j Ω
Return Loss	-24.4 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.162 ns
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After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured. The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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System Performance Check Report

Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
D2450V2 - SN806	2450	HSL	-24

Exposure Conditions

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	10		CW, 0---	2450, 0	7.06	1.86	37.9

Hardware Setup

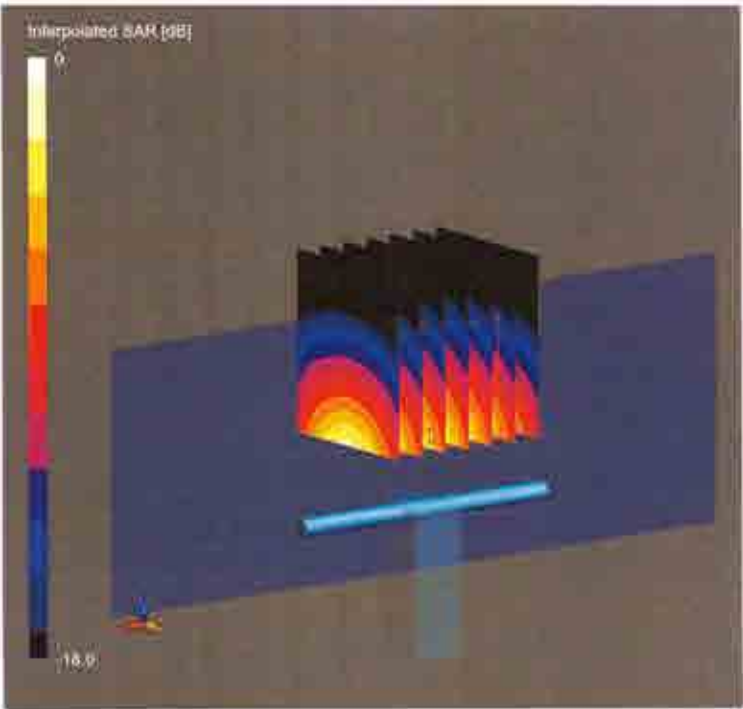
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
MFP V8.0 Center	HSL, 2025-03-13	EX3DV4 - SN7349, 2025-01-10	DAE4lp Sn1836, 2024-10-28

Scans Setup

	Zoom Scan
Grid Extents [mm]	30 x 30 x 30
Grid Steps [mm]	5.0 x 5.0 x 1.5
Sensor Surface [mm]	1.4
Graded Grid	Yes
Grading Ratio	1.5
MAIA	N/A
Surface Detection	VMS - 6p
Scan Method	Measured

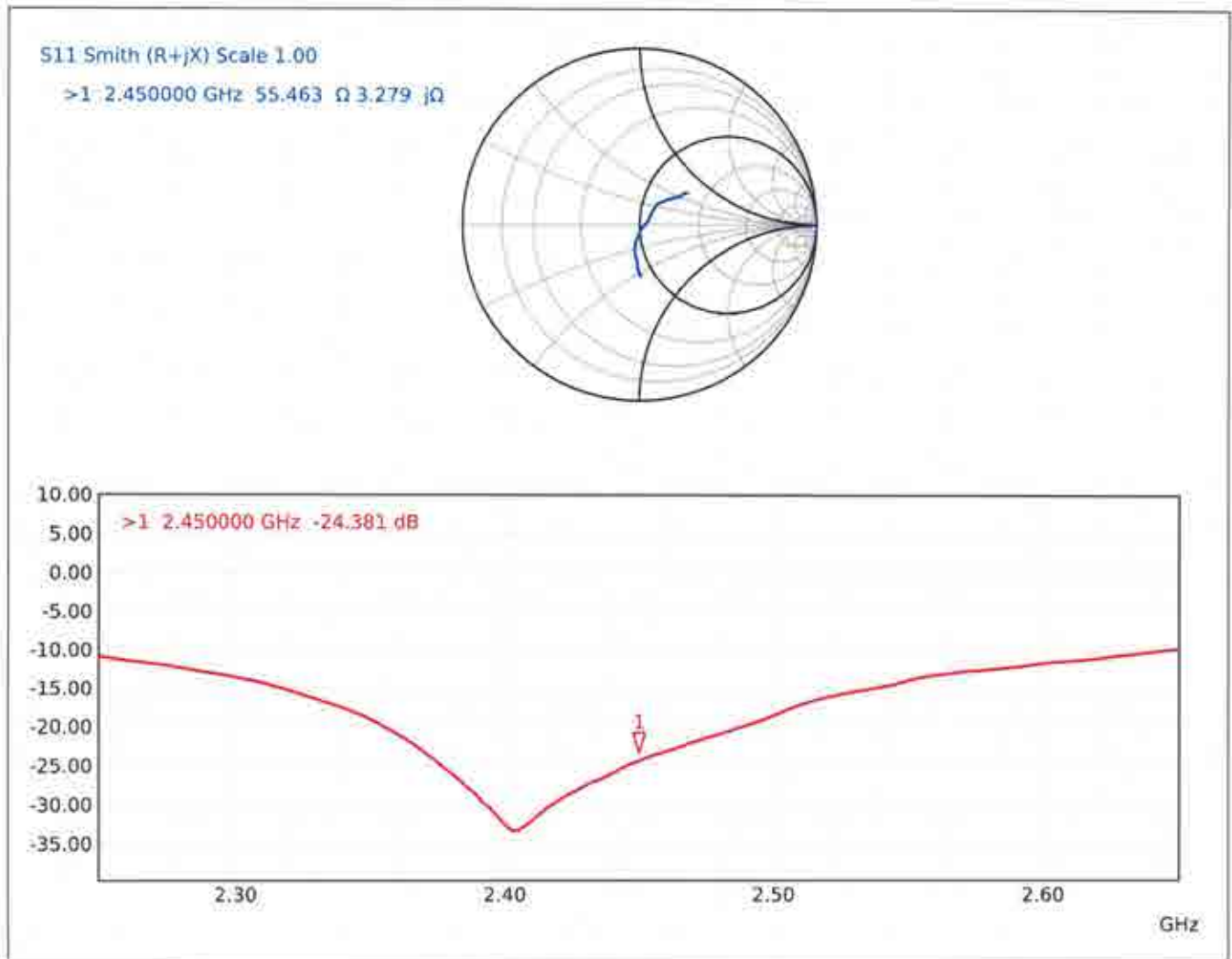
Measurement Results

	Zoom Scan
Date	2025-03-13
psSAR1g [W/Kg]	13.3
psSAR10g [W/Kg]	6.21
Power Drift [dB]	0.01
Power Scaling	Disabled
Scaling Factor [dB]	
TSL Correction	Positive / Negative



0 dB = 27.7 W/Kg

Impedance Measurement Plot for HSL



D2450V2, serial no. 806 Extended Dipole Calibrations

If dipoles are verified in return loss ($< -20\text{dB}$, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

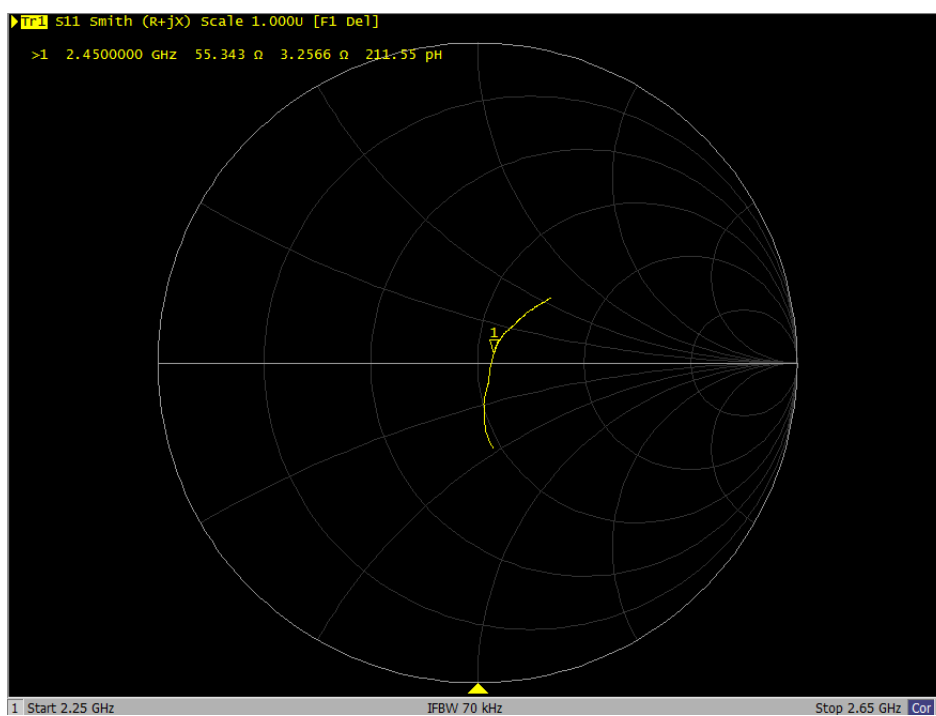
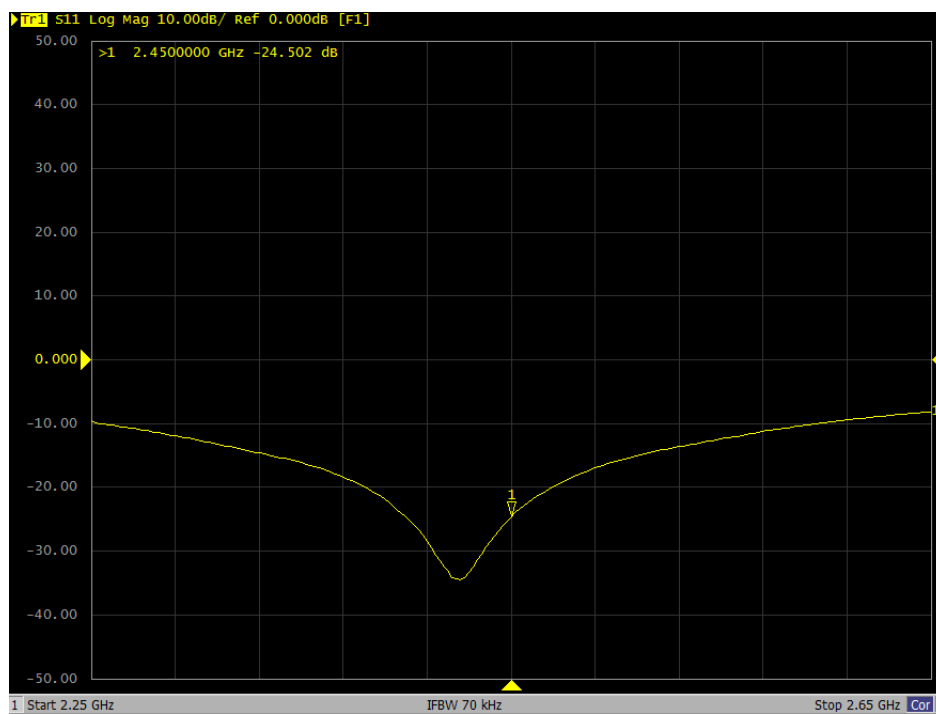
<Justification of the extended calibration>

D2450V2 – serial no. 806						
2450MHZ						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
03.13.2025 (Cal. Report)	-24.381		55.463		3.279	
03.12.2026 (extended)	-24.502	0.496	55.343	-0.12	3.2566	-0.0224

The return loss is $< -20\text{dB}$, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

<Dipole Verification Data> - D2450V2, serial no. 806 (Data of Measurement : 03.12.2026)

2450 MHz - Head





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Accreditation No.: **SCS 0108**

Client

Sporton
Taoyuan City

Certificate No.

D6.5GHzV2-1003_Mar26

CALIBRATION CERTIFICATE

Object

D6.5GHzV2 - SN: 1003

Calibration procedure(s)

QA CAL-22.v8

Calibration Procedure for SAR Validation Sources between 3 - 10 GHz

Calibration date

March 12, 2026

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 Cal
Power Sensor R&S NRP40T	SN: 101861	29-Apr-25 (No. 2025-001450)	Apr-26
Power Sensor R&S NRP18AN	SN: 100961	22-Aug-25 (No. 4030A315010971)	Aug-26
Spectrum Analyzer R&S FSV40	SN: 101832	23-Jan-26 (No. 4030A315011865)	Jan-27
3.5mm mismatch combination	SN: 1152	24-Mar-25 (No. 217-04293)	Mar-26
OCF DAK-12	SN: 1016	16-Sept-25 (No. OCF-DAK12-1016_Sep25)	Sep-26
OCF DAK-3.5	SN: 1249	16-Sept-25 (No. OCF-DAK3.5-1249_Sep25)	Sep-26
Reference Probe EX3DV4	SN: 7349	29-Jan-26 (No. EX3-7349_Jan26)	Jan-27
DAE4ip	SN: 1836	18-Feb-26 (No. DAE4ip-1836_Feb26)	Feb-27

Secondary Standards	ID	Check Date (in house)	Scheduled Check
ACAD Setup 1	SN: 1000	27-May-25 (No. 675-ACAD_Source_Box-250527)	May-26
Signal Generator R&S SMB100A	SN: 182081	27-May-25 (No. 675-CAL16-S4588-250527)	May-26
Mismatch; SMA	SN: 1102	24-Apr-25 (No. 675-Mismatch_SMA-250424)	Apr-26
OCF DAK-12	SN: 1029	24-Feb-26 (No. OCF-DAK12-1029_Feb26)	Feb-27
OCF DAK-3.5	SN: 1336	10-Dec-25 (No. OCF-DAK3.5-1336_Dec25)	Dec-26

Calibrated by

Name

Paulo Pina

Function

Laboratory Technician

Signature

Approved by

Sven Kühn

Technical Manager

Issued: March 12, 2026

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Glossary

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ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

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"

Additional Documentation

- DASY System Handbook

Methods Applied and Interpretation of Parameters

- *Measurement Conditions*: Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL*: The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss*: These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay*: One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured*: SAR measured at the stated antenna input power.
- *SAR normalized*: SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters*: The measured TSL parameters are used to calculate the nominal SAR result.

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%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY8 Module SAR	17.0.2
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	5 mm	with spacer
Frequency	6500MHz $\pm$ 1MHz	

HSL parameters at 6500 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal HSL parameters	22.0 °C	34.5	6.07 mho/m
Measured HSL parameters	(22.0 $\pm$ 0.2)°C	34.7 $\pm$ 6%	6.22 mho/m $\pm$ 6%
HSL temperature change during test	< 0.5 °C		

SAR result with HSL at 6500 MHz

SAR averaged over 1 cm³ (1 g) of HSL	Condition	
SAR for nominal HSL parameters	20 dBm input power	29.7 W/kg
SAR for nominal HSL parameters	normalized to 1W	297 W/kg $\pm$ 24.7% (k = 2)

SAR averaged over 8 cm³ (8 g) of HSL	Condition	
SAR for nominal HSL parameters	20 dBm input power	6.70 W/kg
SAR for nominal HSL parameters	normalized to 1W	67.0 W/kg $\pm$ 24.4% (k = 2)

SAR averaged over 10 cm³ (10 g) of HSL	Condition	
SAR for nominal HSL parameters	20 dBm input power	5.54 W/kg
SAR for nominal HSL parameters	normalized to 1W	55.4 W/kg $\pm$ 24.4% (k = 2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with HSL at 6500 MHz

Impedance	54.5 Ω – 2.6 j Ω
Return Loss	-26.0 dB

APD (Absorbed Power Density)

APD averaged over 1 cm ³	Condition	
APD measured	20 dBm input power	297 W/kg
APD measured	normalized to 1W	2970 W/kg $\pm$ 29.2% (k = 2)

APD averaged over 4 cm ³	Condition	
APD measured	20 dBm input power	134 W/kg
APD measured	normalized to 1W	1340 W/kg $\pm$ 28.9% (k = 2)

*The reported APD values have been derived using the psSAR1g and psSAR8g.

General Antenna Parameters and Design

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured. The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard. No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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System Performance Check Report

Summary

Dipole	Frequency [MHz]	TSL	Power [dBm]
D6.5GHzV2 - SN1003	6500	HSL	20

Exposure Conditions

Phantom Section, TSL	Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor	TSL Conductivity [S/m]	TSL Permittivity
Flat	5		CW, 0--	6500, 0	5.56	6.22	34.7

Hardware Setup

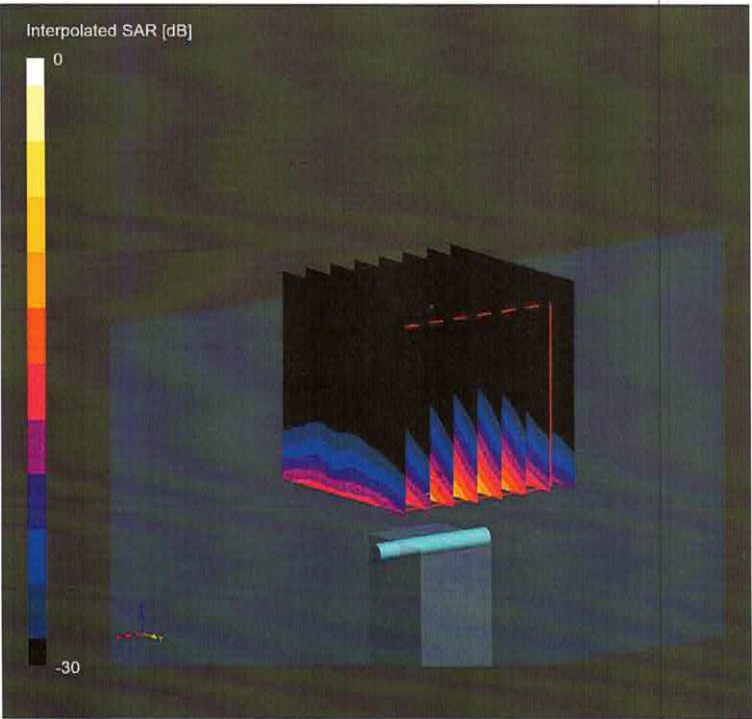
Phantom	TSL, Measured Date	Probe, Calibration Date	DAE, Calibration Date
MFP V8.0 Center	HSL, 2026-03-12	EX3DV4 - SN7349, 2026-01-29	DAE4ip Sn1836, 2026-02-18

Scans Setup

	Zoom Scan
Grid Extents [mm]	22 x 22 x 22
Grid Steps [mm]	3.4 x 3.4 x 1.4
Sensor Surface [mm]	1.4
Graded Grid	Yes
Grading Ratio	1.4
MAIA	N/A
Surface Detection	VMS + 6p
Scan Method	Measured

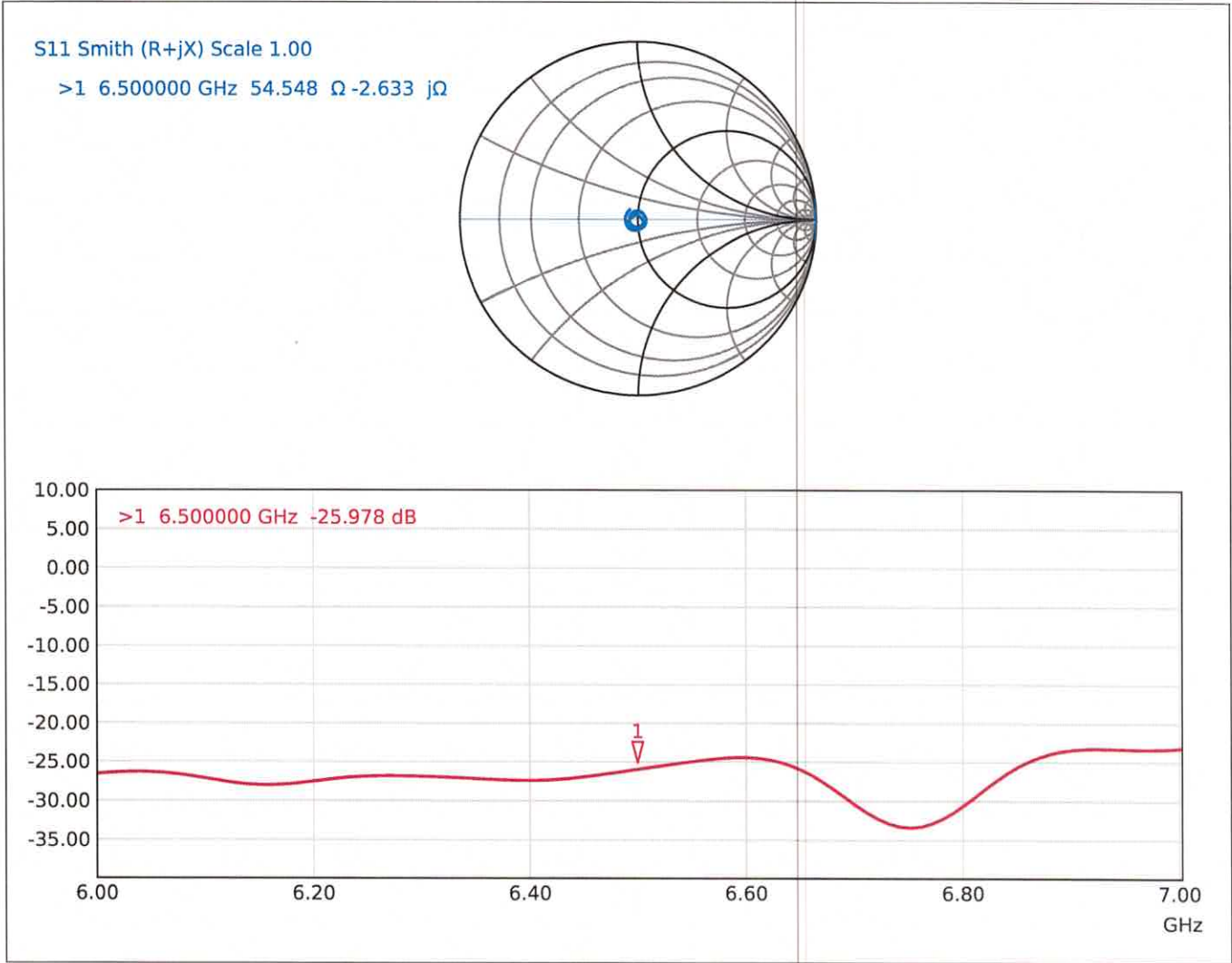
Measurement Results

	Zoom Scan
Date	2026-03-12
psSAR1g [W/Kg]	29.7
psSAR10g [W/Kg]	5.54
Power Drift [dB]	0.01
Power Scaling	Disabled
Scaling Factor [dB]	
TSL Correction	Positive / Negative



0 dB = 186 W/Kg

Impedance Measurement Plot for HSL





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Accreditation No.: SCS 0108

Client **Sporton**
Taoyuan City

Certificate No. **D5GHzV2-1171_Apr24**

CALIBRATION CERTIFICATE

Object **D5GHzV2 - SN:1171**

Calibration procedure(s) **QA CAL-22.v7**
Calibration Procedure for SAR Validation Sources between 3-10 GHz

Calibration date: **April 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 ± 3)°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
Power sensor NRP-Z91	SN: 103245	26-Mar-24 (No. 217-04037)	Mar-25
Reference 20 dB Attenuator	SN: BH9394 (20k)	26-Mar-24 (No. 217-04046)	Mar-25
Type-N mismatch combination	SN: 310982 / 06327	26-Mar-24 (No. 217-04047)	Mar-25
Reference Probe EX3DV4	SN: 3503	07-Mar-24 (No. EX3-3503_Mar24)	Mar-25
DAE4	SN: 601	30-Jan-24 (No. DAE4-601_Jan24)	Jan-25
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB39512475	30-Oct-14 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
Power sensor HP 8481A	SN: MY41093315	07-Oct-15 (in house check Oct-22)	In house check: Oct-24
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-22)	In house check: Oct-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

Calibrated by: **Paulo Pina** Function: **Laboratory Technician** Signature:

Approved by: **Sven Kühn** Technical Manager

Issued: April 23, 2024

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Accreditation No.: **SCS 0108**

Glossary:

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ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

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- KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

- DASY System Handbook

Methods Applied and Interpretation of Parameters:

- Measurement Conditions:** Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- Antenna Parameters with TSL:** The source is mounted in a touch configuration below the center marking of the flat phantom.
- Return Loss:** This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. No uncertainty required.
- SAR measured:** SAR measured at the stated antenna input power.
- SAR normalized:** SAR as measured, normalized to an input power of 1 W at the antenna connector.
- SAR for nominal TSL parameters:** The measured TSL parameters are used to calculate the nominal SAR result.

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%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY52	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	5250 MHz $\pm$ 1 MHz 5600 MHz $\pm$ 1 MHz 5800 MHz $\pm$ 1 MHz	

Head TSL parameters at 5250 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.9	4.71 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	37.1 $\pm$ 6 %	4.65 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5250 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.82 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	78.7 W/kg $\pm$ 19.9 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.25 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	22.7 W/kg $\pm$ 19.5 % (k=2)

Head TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.5	5.07 mho/m
Measured Head TSL parameters	(22.0 $\pm$ 0.2) °C	36.5 $\pm$ 6 %	5.05 mho/m $\pm$ 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm ³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.10 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	81.4 W/kg $\pm$ 19.9 % (k=2)

SAR averaged over 10 cm ³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.32 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	23.4 W/kg $\pm$ 19.5 % (k=2)

Head TSL parameters at 5800 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.3	5.27 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	36.2 ± 6 %	5.27 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL at 5800 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.85 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	78.9 W/kg ± 19.9 % (k=2)

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.23 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	22.4 W/kg ± 19.5 % (k=2)

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 5250 MHz

Impedance, transformed to feed point	47.4 Ω - 7.3 j Ω
Return Loss	- 22.0 dB

Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	53.9 Ω - 3.4 j Ω
Return Loss	- 26.0 dB

Antenna Parameters with Head TSL at 5800 MHz

Impedance, transformed to feed point	54.6 Ω - 5.6 j Ω
Return Loss	- 23.2 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1,206 ns
----------------------------------	----------

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.

No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
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Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1171

Communication System: UID 0 - CW; Frequency: 5250 MHz, Frequency: 5600 MHz

Frequency: 5800 MHz

Medium parameters used: $f = 5250$ MHz; $\sigma = 4.65$ S/m; $\epsilon_r = 37.1$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 5600$ MHz; $\sigma = 5.05$ S/m; $\epsilon_r = 36.5$; $\rho = 1000$ kg/m³

Medium parameters used: $f = 5800$ MHz; $\sigma = 5.27$ S/m; $\epsilon_r = 36.2$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.39, 5.39, 5.39) @ 5250 MHz, ConvF(5, 5, 5) @ 5600 MHz, ConvF(4.86, 4.86, 4.86) @ 5800 MHz; Calibrated: 07.03.2024
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 30.01.2024
- Phantom: Flat Phantom 5.0 (front); Type: QD000P50AA; Serial: 1001
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5250 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 73.37 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 26.3 W/kg

SAR(1 g) = 7.82 W/kg; SAR(10 g) = 2.25 W/kg

Smallest distance from peaks to all points 3 dB below = 7.4 mm

Ratio of SAR at M2 to SAR at M1 = 71.3%

Maximum value of SAR (measured) = 17.9 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 72.14 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 29.8 W/kg

SAR(1 g) = 8.10 W/kg; SAR(10 g) = 2.32 W/kg

Smallest distance from peaks to all points 3 dB below = 7.5 mm

Ratio of SAR at M2 to SAR at M1 = 68.4%

Maximum value of SAR (measured) = 19.3 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm

Reference Value = 70.59 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 30.6 W/kg

SAR(1 g) = 7.85 W/kg; SAR(10 g) = 2.23 W/kg

Smallest distance from peaks to all points 3 dB below = 7.5 mm

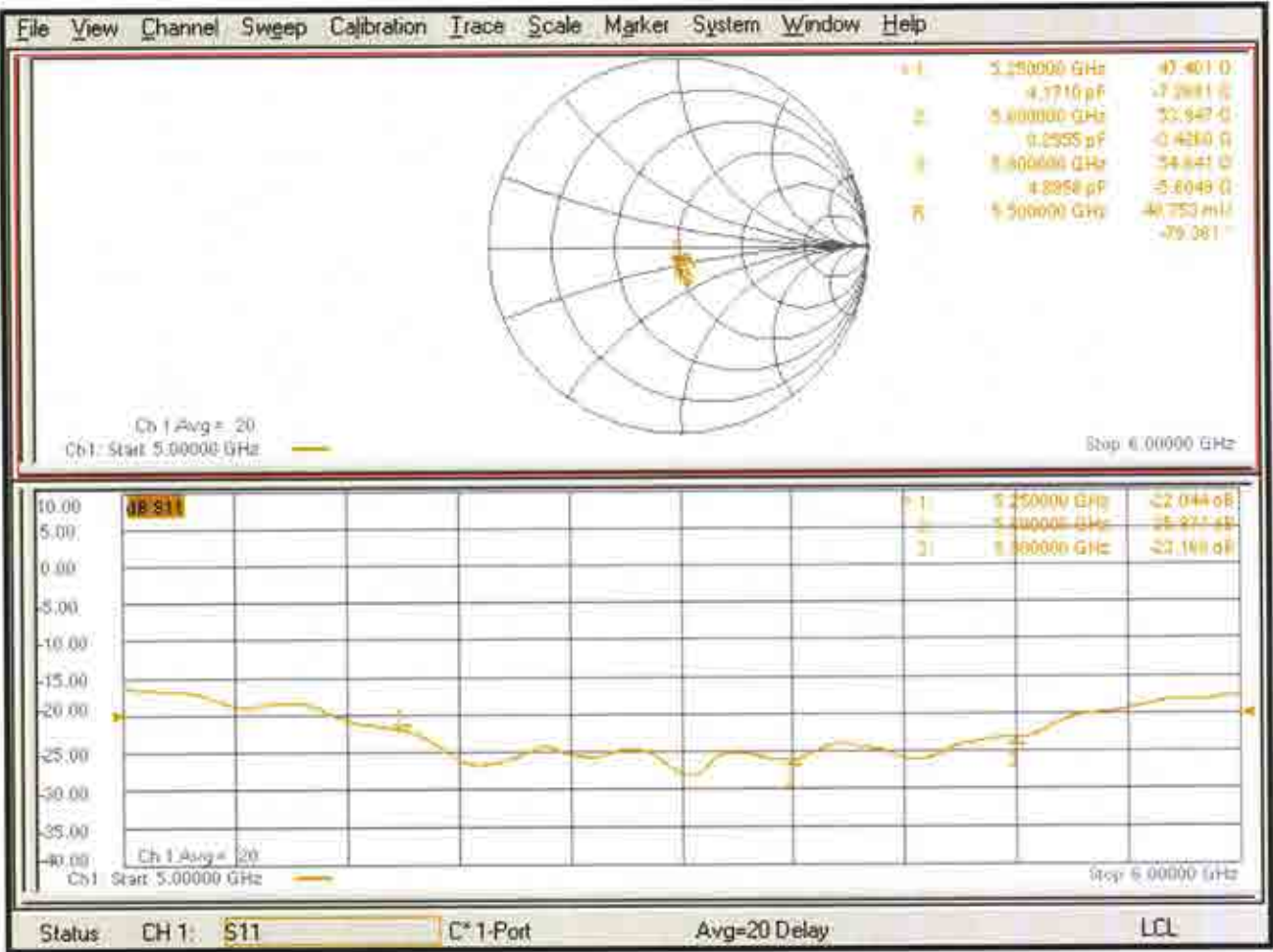
Ratio of SAR at M2 to SAR at M1 = 66.5%

Maximum value of SAR (measured) = 18.9 W/kg



0 dB = 19.3 W/kg = 12.85 dBW/kg

Impedance Measurement Plot for Head TSL



D5000HzV2, serial no. 1171 Extended Dipole Calibrations

If dipoles are verified in return loss ($< -20\text{dB}$, within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

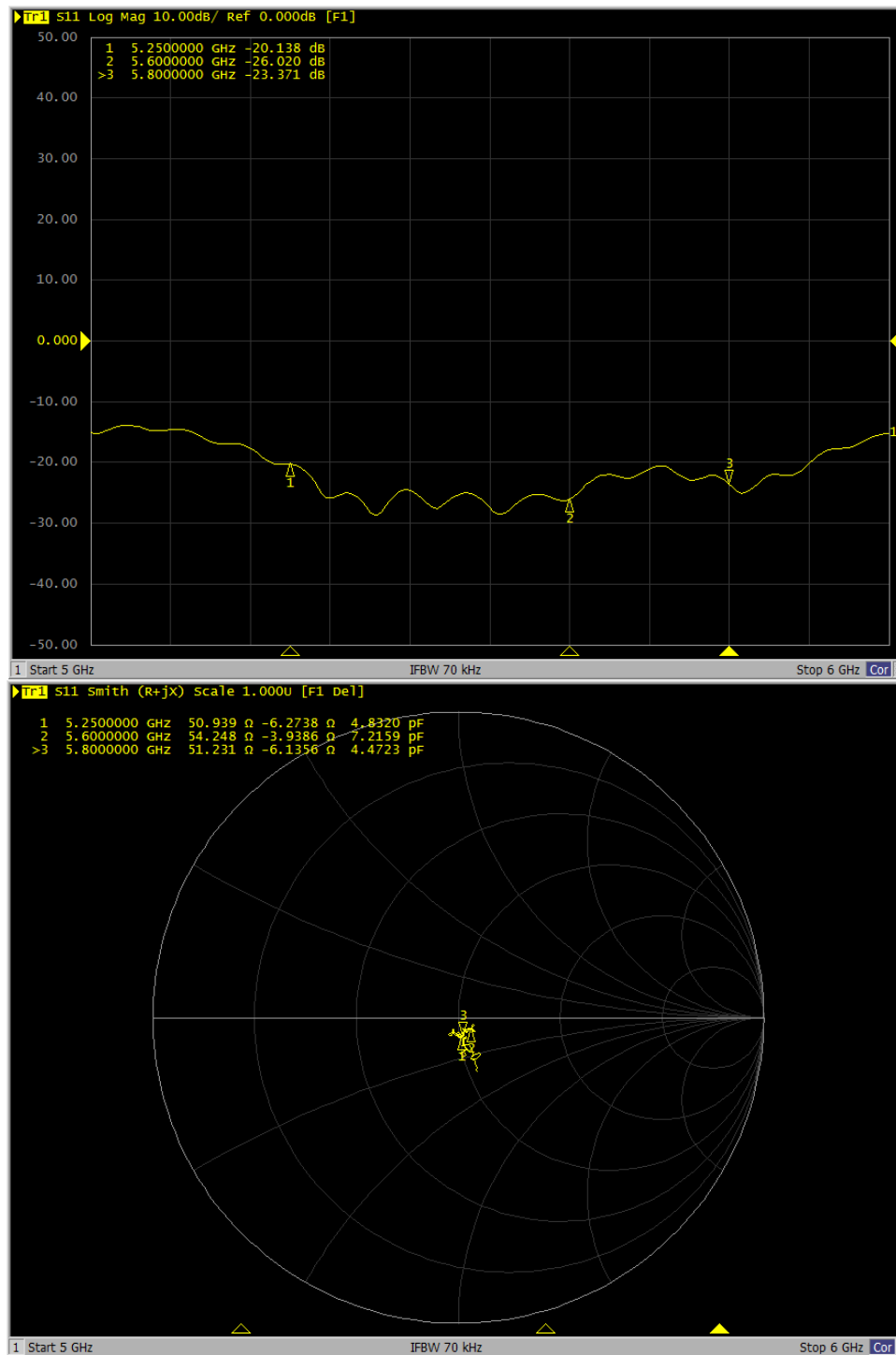
<Justification of the extended calibration>

D5000HzV2 – serial no. 1171						
5250MHZ						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
04.19.2024 (Cal. Report)	-22.044		47.401		-7.2681	
04.18.2025 (extended)	-20.138	8.646	50.939	3.538	-6.2738	0.9943
04.17.2026 (extended)	-19.602	11.078	47.593	0.192	-9.1251	-1.8570
5600MHZ						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
04.19.2024 (Cal. Report)	-25.977		53.947		-3.4260	
04.18.2025 (extended)	-26.020	0.166	54.248	0.301	-3.9386	-0.5126
04.17.2026 (extended)	-24.011	7.568	52.728	-1.219	-6.9900	-3.5640
5800MHZ						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
04.19.2024 (Cal. Report)	-23.168		54.641		-5.6049	
04.18.2025 (extended)	-23.371	0.876	51.231	-3.410	-6.1356	-0.5307
04.17.2026 (extended)	-23.459	1.256	56.126	1.485	-4.0473	1.5576

The return loss is $< -20\text{dB}$, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

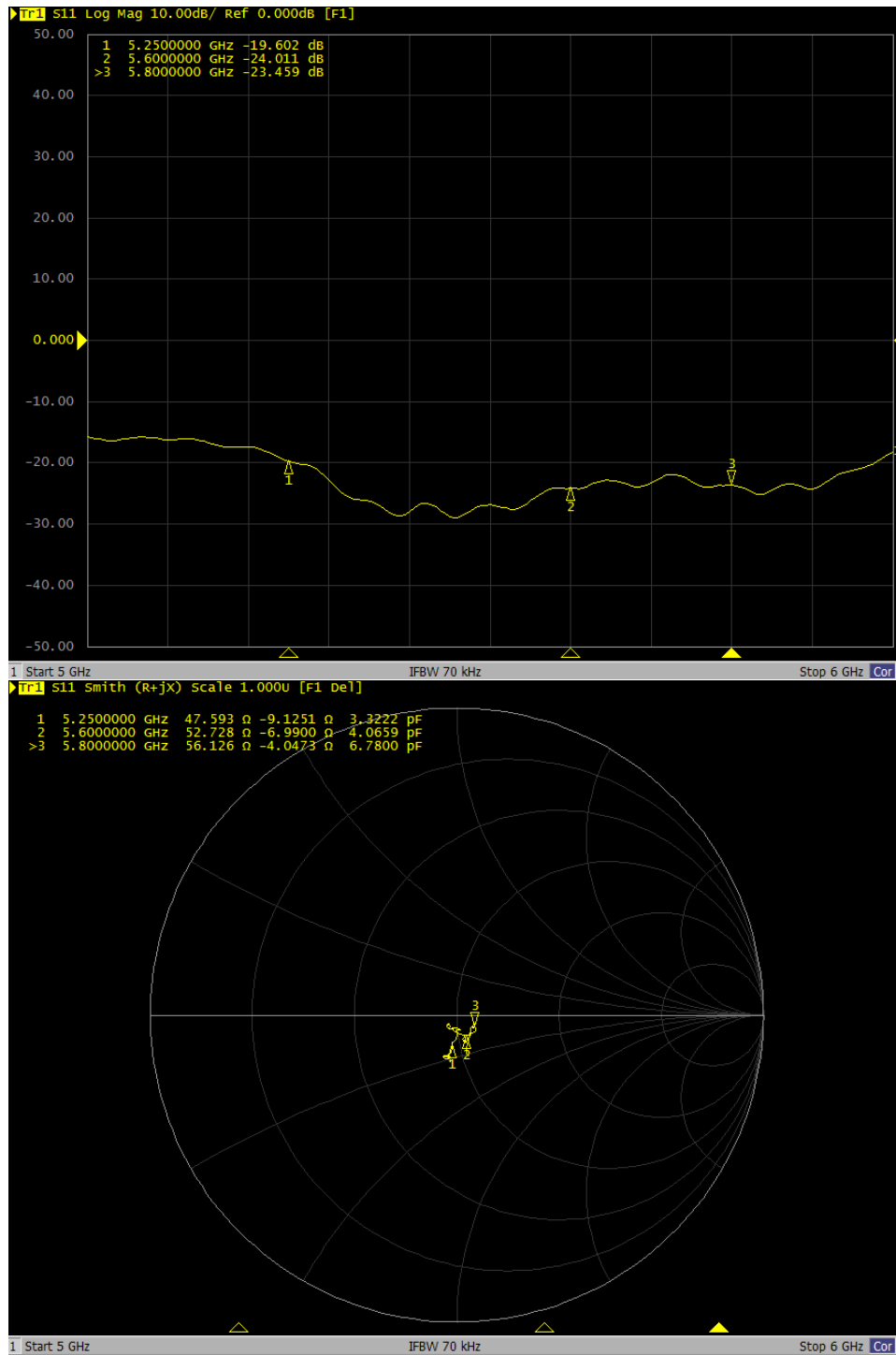
<Dipole Verification Data> - D5000 V2, serial no. 1171 (Data of Measurement : 04.18.2025)

5000 MHz - Head



<Dipole Verification Data> - D5000 V2, serial no. 1171 (Data of Measurement : 04.17.2026)

5000 MHz - Head





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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Sporton**
Taoyuan City

Certificate No. **5G-Veri10-1020_Jan26**

CALIBRATION CERTIFICATE

Object **5G Verification Source 10 GHz - SN: 1020**

Calibration procedure(s) **QA CAL-45.v6**
Calibration procedure for sources in air > 6 GHz

Calibration date **January 15, 2026**

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 Cal
Reference Probe EUMmWV3	SN: 9374	26-Aug-25 (No. Eumm_9374_Aug25)	Aug-26
DAE4ip	SN: 1602	30-Oct-25 (No. DAE4ip-1602_Oct25)	Oct-26

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Signal Generator R&S SMF100A	SN: 100184	25-Nov-25 (No. IHCK_5G_VS_Nov25)	Nov-26
Power Sensor R&S NRP18S-10	SN: 101258	25-Nov-25 (No. IHCK_5G_VS_Nov25)	Nov-26
Network Analyzer Keysight E5063A	SN: MY54504221	30-Sept-24 (No. 675-CAL18-S4489-Sep24)	Sep-26

	Name	Function	Signature
Calibrated by	Joanna Lleshaj	Laboratory Technician	
Approved by	Sven Kühn	Technical Manager	

Issued: January 15, 2026

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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

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Accreditation No.: SCS 0108

Glossary

CW Continuous wave

Calibration is Performed According to the Following Standards

- Internal procedure QA CAL-45, Calibration procedure for sources in air above 6 GHz.
- IEC/IEEE 63195-1, "Assessment of power density of human exposure to radio frequency fields from wireless devices in close proximity to the head and body (frequency range of 6 GHz to 300 GHz)", May 2022

Methods Applied and Interpretation of Parameters

- *Coordinate System:* z-axis in the waveguide horn boresight, x-axis is in the direction of the E-field, y-axis normal to the others in the field scanning plane parallel to the horn flare and horn flange.
- *Measurement Conditions:* (1) 10 GHz: The radiated power is the forward power to the horn antenna minus ohmic and mismatch loss. The forward power is measured prior and after the measurement with a power sensor. During the measurements, the horn is directly connected to the cable and the antenna ohmic and mismatch losses are determined by far-field measurements. (2) 30, 45, 60 and 90 GHz: The verification sources are switched on for at least 30 minutes. Absorbers are used around the probe cub and at the ceiling to minimize reflections.
- *Horn Positioning:* The waveguide horn is mounted vertically on the flange of the waveguide source to allow vertical positioning of the EUmmW probe during the scan. The plane is parallel to the phantom surface. Probe distance is verified using mechanical gauges positioned on the flare of the horn.
- *E-field distribution:* The E-field is measured in two x-y-planes (10mm, 10mm + $\lambda/4$) with a vectorial E-field probe. The E-field value stated as calibration value represents the E-field-maxima and the averaged (1cm² and 4cm²) power density values at 10mm in front of the horn.
- *Field polarization:* Above the open horn, linear polarization of the field is expected. This is verified graphically in the field representation.

Calibrated Quantity

- Local peak E-field (V/m) and average of peak spatial components of the poynting vector (W/m²) averaged over the surface area of 1 cm² and 4cm² at the nominal operational frequency of the verification source. Both square and circular averaging results are listed.

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%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY8 Module mmWave	V3.2
Phantom	5G Phantom	
Distance Horn Aperture - plane	10 mm	
Number of measured planes	2 (10mm, 10mm + $\lambda/4$)	
Frequency	10.0 GHz $\pm$ 10 MHz	

Calibration Parameters, 10 GHz

Circular Averaging

Distance Horn Aperture to Measurement Plane	Prad ¹ (mW)	Max E-field (V/m)	Uncertainty (k = 2)	Avg Power Density Avg (psPDn+, psPDtot+, psPDmod+) (W/m ²)		Uncertainty (k = 2)
				1cm ²	4cm ²	
10 mm	93.3	153	1.27 dB	58.0	54.5	1.28 dB

Distance Horn Aperture to Measurement Plane	Prad ¹ (mW)	Max E-field (V/m)	Uncertainty (k = 2)	Power Density psPDn+, psPDtot+, psPDmod+ (W/m ²)		Uncertainty (k = 2)
				1cm ²	4cm ²	
10 mm	93.3	153	1.27 dB	57.6, 58.1, 58.3	54.0, 54.6, 54.9	1.28 dB

Square Averaging

Distance Horn Aperture to Measurement Plane	Prad ¹ (mW)	Max E-field (V/m)	Uncertainty (k = 2)	Avg Power Density Avg (psPDn+, psPDtot+, psPDmod+) (W/m ²)		Uncertainty (k = 2)
				1cm ²	4cm ²	
10 mm	93.3	153	1.27 dB	58.0	54.4	1.28 dB

Distance Horn Aperture to Measurement Plane	Prad ¹ (mW)	Max E-field (V/m)	Uncertainty (k = 2)	Power Density psPDn+, psPDtot+, psPDmod+ (W/m ²)		Uncertainty (k = 2)
				1cm ²	4cm ²	
10 mm	93.3	153	1.27 dB	57.6, 58.1, 58.3	53.9, 54.6, 54.8	1.28 dB

Max Power Density

Distance Horn Aperture to Measurement Plane	Prad ¹ (mW)	Max E-field (V/m)	Uncertainty (k = 2)	Max Power Density Sn, Stot, Stot (W/m ²)	Uncertainty (k = 2)
10 mm	93.3	153	1.27 dB	58.9, 59.4, 59.5	1.28 dB

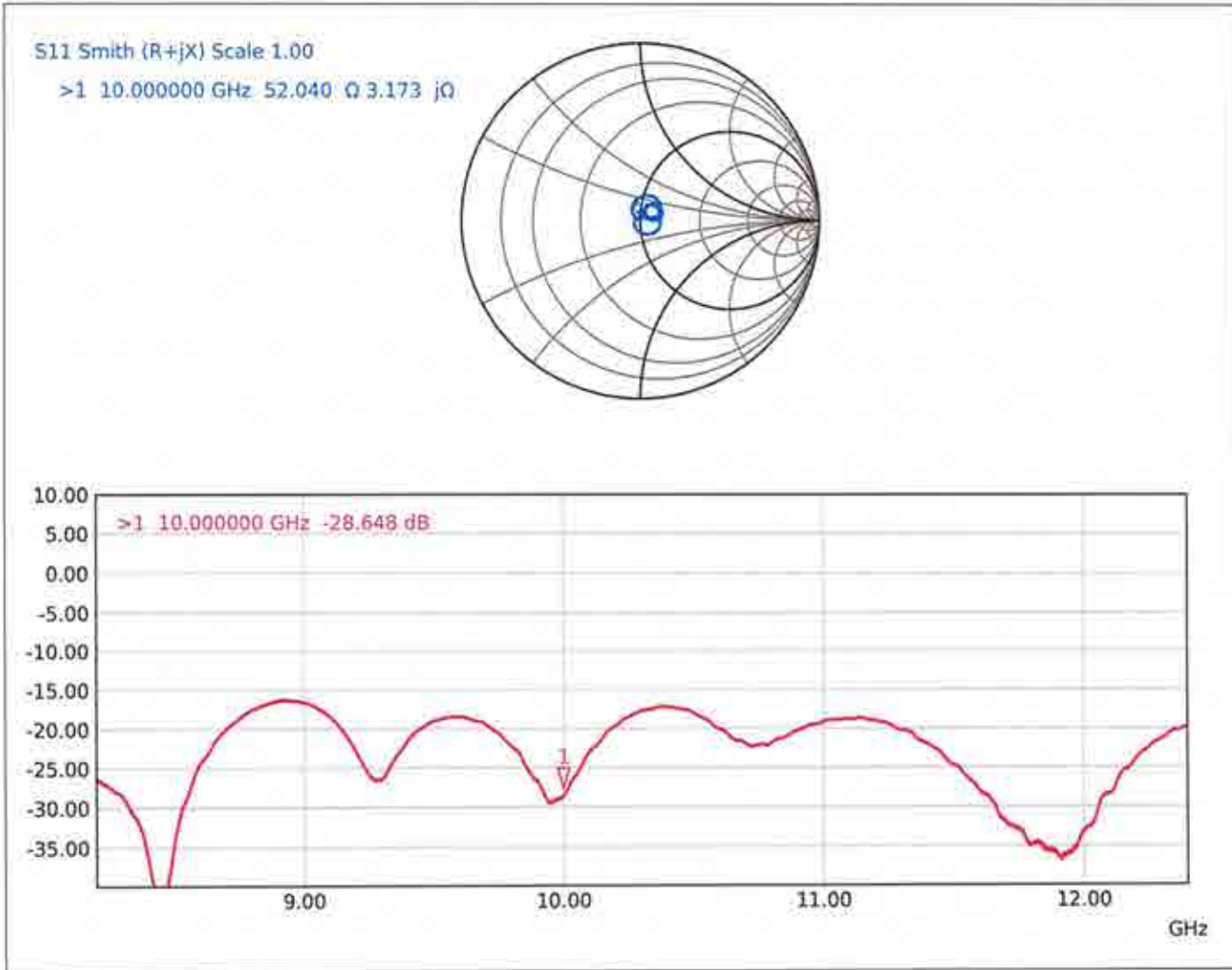
¹ Assessed ohmic and mismatch loss plus numerical offset: 0.30 dB

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters

Impedance, transformed to feed point	52.0 Ω + 3.2 j Ω
Return Loss	-28.6 dB

Impedance Measurement Plot



DASY Report

Measurement Report for 5G Verification Source 10 GHz, UID 0 --, Channel 10000.0 (10000.0 MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
5G Verification Source 10 GHz	100.0 x 100.0 x 172.0	SN: 1020	--

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
SC --	10.0 mm	Validation band	CW, 0--	10000.0, 10000	1.0

Hardware Setup

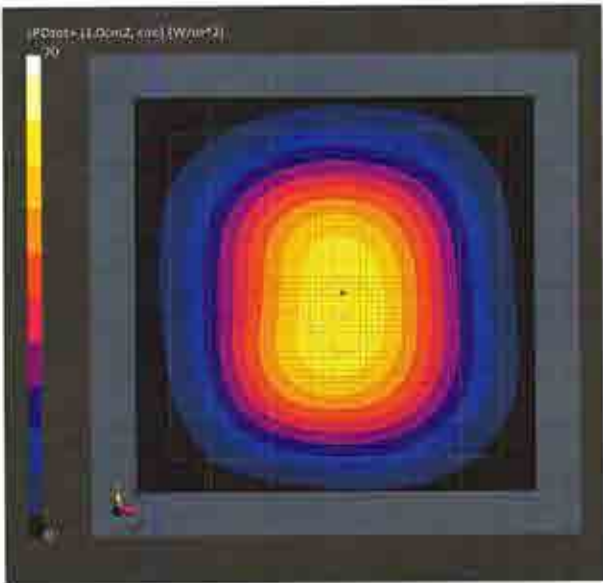
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave Phantom --	Air --	EUmmWV3 - SN9374_F1-55GHz, 2025-08-26	DAE4ip - SN1602, 2025-10-30

Scans Setup

Sensor Surface [mm]	10.0
MAIA	MAIA not used

Measurement Results

Scan Type	5G Scan
Date	2025-07-15
Avg. Area [cm ²]	1.00
Avg. Type	Circular Averaging
psPDn+ [W/m ²]	57.6
psPDtot+ [W/m ²]	58.1
psPDropd+ [W/m ²]	58.3
Max(Sn) [W/m ²]	58.9
Max(Stot) [W/m ²]	59.4
Max(Stot) [W/m ²]	59.5
E _{max} [V/m]	153
Power Drift [dB]	0.02



DASY Report

Measurement Report for 5G Verification Source 10 GHz, UID 0 --, Channel 10000.0 (10000.0 MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
5G-Verification Source 10 GHz	100.0 x 100.0 x 172.0	SN: 1020	--

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G --	10.0 mm	Validation band	CW, 0--	10000.0,10000	1.0

Hardware Setup

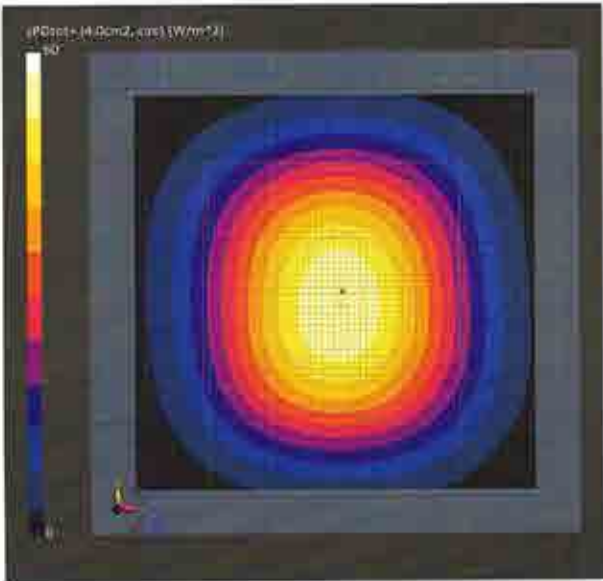
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave Phantom --	Air --	EUMmiWV3 - SN8374_F1 -55GHz, 2025-08-20	DAE4ip - SN1602, 2025-10-30

Scans Setup

Sensor Surface [mm]	10.0
MAIA	MAIA not used

Measurement Results

Scan Type	5G Scan
Date	2026-01-15
Avg. Area [cm ²]	4.00
Avg. Type	Circular Averaging
psPDn+ [W/m ²]	54.0
psPDtot+ [W/m ²]	54.6
psPDmod+ [W/m ²]	54.9
Max(Sn) [W/m ²]	58.9
Max(Stot) [W/m ²]	59.4
Max(Stot) [W/m ²]	59.5
E _{max} [V/m]	153
Power Drift [dB]	0.02



DASY Report

Measurement Report for 5G Verification Source 10 GHz, UID 0 --, Channel 10000.0 (10000.0 MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
5G Verification Source 10 GHz	100.0 x 100.0 x 172.0	SN: 1020	--

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G --	10.0 mm	Validation band	CW, 0--	10000.0,10000	1.0

Hardware Setup

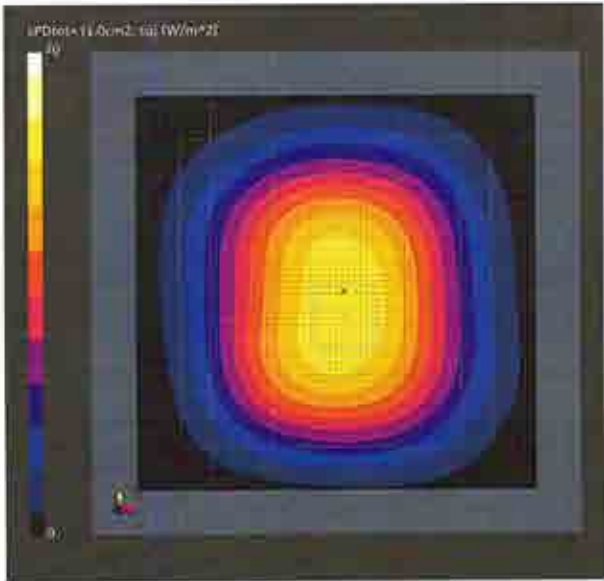
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave Phantom --	Air --	ElimmWV3 - SN9374_F1-55GHz, 2025-08-26	DAE4ip - SN1602, 2025-10-30

Scans Setup

Sensor Surface [mm]	10.0
MAIA	MAIA not used

Measurement Results

Scan Type	5G Scan
Date	2025-01-15
Avg. Area [cm ²]	1.00
Avg. Type	Square Averaging
psPDn+ [W/m ²]	57.6
psPDtot+ [W/m ²]	58.1
psPDmod+ [W/m ²]	58.3
Max(Sn) [W/m ²]	58.9
Max(Stot) [W/m ²]	59.4
Max(Stot) [W/m ²]	59.5
E _{max} [V/m]	153
Power Drift [dB]	0.02



DASY Report

Measurement Report for 5G Verification Source 10 GHz, UID 0 --, Channel 10000.0 (10000.0 MHz)

Device Under Test Properties

Model, Manufacturer	Dimensions [mm]	IMEI	DUT Type
5G Verification Source 10 GHz	100.0 x 100.0 x 172.0	SN: 1020	--

Exposure Conditions

Phantom Section	Position, Test Distance [mm]	Band	Group, UID	Frequency [MHz], Channel Number	Conversion Factor
5G --	10.0 mm	Validation band	CW, 0--	10000.0, 10000	1.0

Hardware Setup

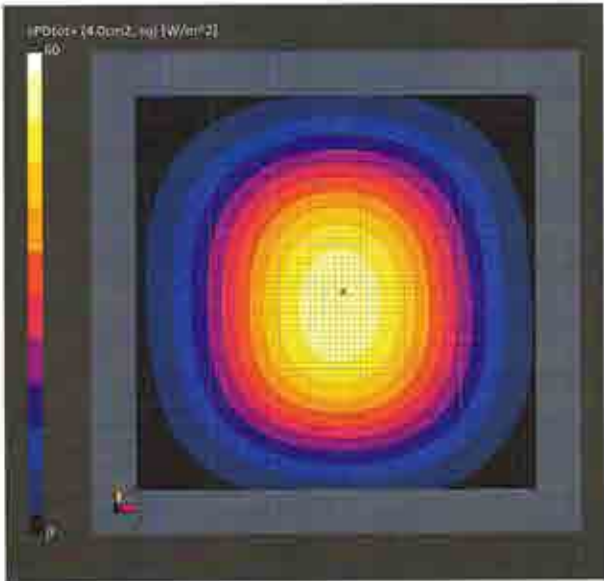
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave Phantom --	Air --	EJmmWV3 - SN9374_F1-55GHz, 2025-08-26	DAE4ip - SN1602, 2025-10-30

Scans Setup

Sensor Surface [mm]	10.0
MAIA	MAIA not used

Measurement Results

Scan Type	SC Scan
Date	2026-01-15
Avg. Area [cm ²]	4.00
Avg. Type	Square Averaging
psPDn+ [W/m ²]	53.9
psPDtot+ [W/m ²]	54.6
psPDmod+ [W/m ²]	54.8
Max(Sn) [W/m ²]	58.9
Max(Stot) [W/m ²]	59.4
Max(I)Stot(I) [W/m ²]	59.5
E _{max} [V/m]	153
Power Drift [dB]	0.02





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Accreditation No.: **SCS 0108**

Client **Sporton**
Taoyuan City

Certificate No: **DAE4-778_Jan26**

CALIBRATION CERTIFICATE

Object **DAE4 - SD 000 D04 BM - SN: 778**

Calibration procedure(s) **QA CAL-06.v30**
Calibration procedure for the data acquisition electronics (DAE)

Calibration date: **January 15, 2026**

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
Keithley Multimeter Type 2001	SN: 0810278	15-Aug-25 (No:43873)	Aug-26
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Auto DAE Calibration Unit	SE UWS 053 AA 1001	23-Jan-25 (in house check)	In house check: Jan-26
Calibrator Box V2.1	SE UMS 006 AA 1002	23-Jan-25 (in house check)	In house check: Jan-26

Calibrated by: **Name** **Adrian Gehring** **Function** **Laboratory Technician** **Signature**

Approved by: **Sven Kühn** **Technical Manager**

Issued: January 15, 2026

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Accreditation No.: SCS 0108

Glossary

DAE	data acquisition electronics
Connector angle	information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle:* The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
 - *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
 - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
 - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
 - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
 - *Input Offset Measurement:* Output voltage and statistical results over a large number of zero voltage measurements.
 - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
 - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
 - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
 - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 μ V, full range = -100...+300 mV

Low Range: 1LSB = 61nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	404.605 $\pm$ 0.02% (k=2)	403.404 $\pm$ 0.02% (k=2)	404.962 $\pm$ 0.02% (k=2)
Low Range	3.98336 $\pm$ 1.50% (k=2)	3.96160 $\pm$ 1.50% (k=2)	3.97735 $\pm$ 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	114.5 ° $\pm$ 1 °
---	-------------------

Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	200033.81	-4.57	-0.00
Channel X	+ Input	20007.49	0.97	0.00
Channel X	- Input	-20004.19	2.66	-0.01
Channel Y	+ Input	200032.74	-5.50	-0.00
Channel Y	+ Input	20006.10	-0.18	-0.00
Channel Y	- Input	-20006.22	0.89	-0.00
Channel Z	+ Input	200031.19	-6.85	-0.00
Channel Z	+ Input	20004.18	-2.03	-0.01
Channel Z	- Input	-20008.94	-1.87	0.01

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	2001.63	0.56	0.03
Channel X	+ Input	201.39	0.27	0.13
Channel X	- Input	-199.86	-1.05	0.53
Channel Y	+ Input	2001.14	0.25	0.01
Channel Y	+ Input	199.25	-1.70	-0.84
Channel Y	- Input	-200.72	-1.79	0.90
Channel Z	+ Input	2000.68	-0.25	-0.01
Channel Z	+ Input	199.98	-0.94	-0.47
Channel Z	- Input	-199.95	-0.89	0.45

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	-2.79	-5.07
	- 200	5.05	4.12
Channel Y	200	-1.74	-1.56
	- 200	-0.22	-0.77
Channel Z	200	-18.81	-18.95
	- 200	18.44	18.73

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	-1.76	-2.55
Channel Y	200	8.30	-	-0.11
Channel Z	200	3.02	6.71	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	16079	16291
Channel Y	16170	15985
Channel Z	16449	15091

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M Ω

	Average (μ V)	min. Offset (μ V)	max. Offset (μ V)	Std. Deviation (μ V)
Channel X	0.69	-0.21	1.29	0.30
Channel Y	-0.76	-1.92	0.35	0.52
Channel Z	-0.41	-1.56	0.96	0.50

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client **Sporton**
Taoyuan City

Certificate No: DAE4-1794_Feb26

CALIBRATION CERTIFICATE

Object: DAE4 - SD 000 D04 BP - SN: 1794

Calibration procedure(s): QA CAL-06.v30
Calibration procedure for the data acquisition electronics (DAE)

Calibration date: February 16, 2026

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
Keithley Multimeter Type 2001	SN: 0810278	15-Aug-25 (No.43873)	Aug-26
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Auto DAE Calibration Unit	SE UWS 053 AA 1001	23-Jan-26 (in house check)	In house check: Jan-27
Calibrator Box V2.1	SE UMS 006 AA 1002	23-Jan-26 (in house check)	In house check: Jan-27

Calibrated by: Name: Adrian Gehring Function: Laboratory Technician Signature:

Approved by: Sven Kühn Technical Manager

Issued: February 17, 2026

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



Glossary

DAE	data acquisition electronics
Connector angle	information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle:* The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
 - *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
 - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
 - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
 - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
 - *Input Offset Measurement:* Output voltage and statistical results over a large number of zero voltage measurements.
 - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
 - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
 - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
 - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 μ V, full range = -100...+300 mV

Low Range: 1LSB = 61 nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	404.469 $\pm$ 0.02% (k=2)	404.195 $\pm$ 0.02% (k=2)	404.672 $\pm$ 0.02% (k=2)
Low Range	3.99545 $\pm$ 1.50% (k=2)	3.99396 $\pm$ 1.50% (k=2)	3.99426 $\pm$ 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	215.5 $^{\circ}$ $\pm$ 1 $^{\circ}$
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Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	200040.94	4.70	0.00
Channel X	+ Input	20004.65	-0.47	-0.00
Channel X	- Input	-20008.06	0.03	-0.00
Channel Y	+ Input	200037.32	1.15	0.00
Channel Y	+ Input	20002.87	-2.13	-0.01
Channel Y	- Input	-20008.74	-0.52	0.00
Channel Z	+ Input	200038.33	1.95	0.00
Channel Z	+ Input	20003.32	-1.63	-0.01
Channel Z	- Input	-20009.70	-1.43	0.01

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	1999.82	-0.15	-0.01
Channel X	+ Input	199.40	-0.27	-0.13
Channel X	- Input	-200.84	-0.70	0.35
Channel Y	+ Input	1999.70	-0.14	-0.01
Channel Y	+ Input	198.66	-0.89	-0.45
Channel Y	- Input	-201.66	-1.47	0.74
Channel Z	+ Input	1999.65	-0.13	-0.01
Channel Z	+ Input	199.16	-0.37	-0.19
Channel Z	- Input	-201.39	-1.13	0.57

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	5.70	4.19
	- 200	-4.52	-6.22
Channel Y	200	-1.33	-1.71
	- 200	-0.35	-0.80
Channel Z	200	-24.83	-24.64
	- 200	23.65	23.93

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	0.22	-1.62
Channel Y	200	3.39	-	2.00
Channel Z	200	7.05	1.47	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	16048	14753
Channel Y	16037	14578
Channel Z	16195	15796

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M Ω

	Average (μ V)	min. Offset (μ V)	max. Offset (μ V)	Std. Deviation (μ V)
Channel X	0.03	-1.14	1.55	0.35
Channel Y	-0.70	-1.74	0.98	0.41
Channel Z	-0.26	-1.69	1.25	0.36

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9



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Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **Sporton**
Taoyuan City

Certificate No: **DAE4-1512_Mar26**

CALIBRATION CERTIFICATE

Object **DAE4 - SD 000 D04 BM - SN: 1512**

Calibration procedure(s) **QA CAL-06.v30**
Calibration procedure for the data acquisition electronics (DAE)

Calibration date: **March 11, 2026**

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 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Keithley Multimeter Type 2001	SN: 0810278	15-Aug-25 (No:43873)	Aug-26
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Auto DAE Calibration Unit	SE UWS 053 AA 1001	23-Jan-26 (in house check)	In house check: Jan-27
Calibrator Box V2.1	SE UMS 006 AA 1002	23-Jan-26 (in house check)	In house check: Jan-27

Calibrated by:

Name	Function	Signature
Dominique Steffen	Laboratory Technician	

Approved by:

Sven Kühn	Technical Manager
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Issued: March 11, 2026

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Accreditation No.: **SCS 0108**

Glossary

DAE data acquisition electronics
Connector angle information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle:* The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
 - *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
 - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
 - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
 - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
 - *Input Offset Measurement:* Output voltage and statistical results over a large number of zero voltage measurements.
 - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
 - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
 - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
 - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 μ V , full range = -100...+300 mV

Low Range: 1LSB = 61nV , full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	404.663 $\pm$ 0.02% (k=2)	405.055 $\pm$ 0.02% (k=2)	405.343 $\pm$ 0.02% (k=2)
Low Range	3.97566 $\pm$ 1.50% (k=2)	3.98764 $\pm$ 1.50% (k=2)	3.99101 $\pm$ 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	11.5 ° $\pm$ 1 °
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Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	200039.13	0.69	0.00
Channel X	+ Input	20004.51	-2.72	-0.01
Channel X	- Input	-20003.94	2.17	-0.01
Channel Y	+ Input	200039.05	1.11	0.00
Channel Y	+ Input	20002.55	-4.49	-0.02
Channel Y	- Input	-20006.53	-0.23	0.00
Channel Z	+ Input	200037.97	-1.36	-0.00
Channel Z	+ Input	20006.89	-0.13	-0.00
Channel Z	- Input	-20006.35	-0.09	0.00

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	2001.70	-0.19	-0.01
Channel X	+ Input	201.62	-0.03	-0.01
Channel X	- Input	-197.77	0.41	-0.21
Channel Y	+ Input	2001.74	0.16	0.01
Channel Y	+ Input	200.91	-0.57	-0.28
Channel Y	- Input	-199.42	-1.02	0.52
Channel Z	+ Input	2002.36	0.74	0.04
Channel Z	+ Input	200.83	-0.67	-0.33
Channel Z	- Input	-197.68	0.71	-0.36

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	-16.09	-17.53
	- 200	18.29	17.15
Channel Y	200	0.83	0.17
	- 200	-1.63	-2.30
Channel Z	200	-13.63	-14.00
	- 200	13.23	13.26

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	-1.35	0.51
Channel Y	200	3.70	-	1.18
Channel Z	200	10.26	1.33	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	16341	17505
Channel Y	16315	16353
Channel Z	16136	14845

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M Ω

	Average (μ V)	min. Offset (μ V)	max. Offset (μ V)	Std. Deviation (μ V)
Channel X	1.04	-0.05	2.56	0.37
Channel Y	-0.51	-1.94	0.89	0.43
Channel Z	0.25	-1.09	1.67	0.47

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9



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Accreditation No.: **SCS 0108**

Client **Sporton**
Taoyuan City

Certificate No: **DAE4-1311_Jun26**

CALIBRATION CERTIFICATE

Object **DAE4 - SD 000 D04 BM - SN: 1311**

Calibration procedure(s) **QA CAL-06.v30
Calibration procedure for the data acquisition electronics (DAE)**

Calibration date: **June 10, 2026**

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
Keithley Multimeter Type 2001	SN: 0810278	15-Aug-25 (No:43873)	Aug-26
Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Auto DAE Calibration Unit	SE UWS 053 AA 1001	23-Jan-26 (in house check)	In house check: Jan-27
Calibrator Box V2.1	SE UMS 006 AA 1002	23-Jan-26 (in house check)	In house check: Jan-27

	Name	Function	Signature
Calibrated by:	Dominique Steffen	Laboratory Technician	

Approved by:	Sven Kühn	Technical Manager
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Issued: June 10, 2026

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Glossary

DAE data acquisition electronics
Connector angle information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle:* The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
 - *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
 - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
 - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
 - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
 - *Input Offset Measurement:* Output voltage and statistical results over a large number of zero voltage measurements.
 - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
 - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
 - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
 - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range: 1LSB = 6.1 μ V, full range = -100...+300 mV

Low Range: 1LSB = 61 nV, full range = -1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	405.530 $\pm$ 0.02% (k=2)	405.088 $\pm$ 0.02% (k=2)	404.841 $\pm$ 0.02% (k=2)
Low Range	3.96144 $\pm$ 1.50% (k=2)	3.99305 $\pm$ 1.50% (k=2)	3.97430 $\pm$ 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	256.5 ° $\pm$ 1 °
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Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	199994.98	-2.08	-0.00
Channel X	+ Input	20004.44	1.28	0.01
Channel X	- Input	-19997.67	4.36	-0.02
Channel Y	+ Input	199995.81	-1.80	-0.00
Channel Y	+ Input	19999.55	-3.40	-0.02
Channel Y	- Input	-20001.29	0.97	-0.00
Channel Z	+ Input	199995.19	-2.14	-0.00
Channel Z	+ Input	20001.78	-1.34	-0.01
Channel Z	- Input	-20001.96	0.31	-0.00

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	2000.99	-0.39	-0.02
Channel X	+ Input	202.50	0.92	0.46
Channel X	- Input	-196.50	1.62	-0.82
Channel Y	+ Input	2001.22	-0.04	-0.00
Channel Y	+ Input	201.36	0.01	0.01
Channel Y	- Input	-198.70	-0.29	0.15
Channel Z	+ Input	2001.66	0.37	0.02
Channel Z	+ Input	200.61	-0.90	-0.45
Channel Z	- Input	-199.68	-1.45	0.73

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	13.80	12.64
	- 200	-11.81	-12.95
Channel Y	200	-12.96	-13.34
	- 200	12.83	12.70
Channel Z	200	-18.71	-18.18
	- 200	16.88	16.03

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	4.23	-3.33
Channel Y	200	9.13	-	5.44
Channel Z	200	10.29	6.80	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	15448	16992
Channel Y	16329	16760
Channel Z	16579	17743

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10M Ω

	Average (μ V)	min. Offset (μ V)	max. Offset (μ V)	Std. Deviation (μ V)
Channel X	0.99	-0.22	2.83	0.54
Channel Y	0.76	-0.22	1.86	0.42
Channel Z	-0.98	-2.43	0.85	0.57

6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

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 certificatesAccreditation No.: **SCS 0108**

Client

Sporton
Taoyuan City

Certificate No.

EX-7439_Jul26**CALIBRATION CERTIFICATE**

Object

EX3DV4 - SN:7439

Calibration procedure(s)

**QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6,
QA CAL-25.v8, QA CAL-48.v2
Calibration procedure for dosimetric E-field probes**

Calibration date

July 13, 2026This 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	Calibration Date (Certificate No.)	Sched. Cal.
Power Sensor R&S NRP40T	SN: 101861	22-Apr-26 (No. 2026-007003)	Apr-27
N-type mismatch combination	SN: L1119	26-Mar-26 (No. 2026-005592)	Mar-27
OCP DAK-12	SN: 1016	16-Sept-25 (No. OCP-DAK12-1016_Sep25)	Sep-26
OCP DAK-3.5	SN: 1249	16-Sept-25 (No. OCP-DAK3.5-1249_Sep25)	Sep-26
Reference Probe EX3DV4	SN: 7349	29-Jan-26 (No. EX3-7349_Jan26)	Jan-27
DAE4	SN: 1301	22-Jan-26 (No. DAE4-1301_Jan26)	Jan-27

Secondary Standards	ID	Check Date (in house)	Sched. Check
ACAP 2020 Setup 1	SN: L1404	01-Oct-25 (No. IHCK_ACAP2020-1_Oct25)	Oct-26
OCP DAK-12	SN: 1029	24-Feb-26 (No. OCP-DAK12-1029_Feb26)	Feb-27
OCP DAK-3.5	SN: 1336	10-Dec-25 (No. OCP-DAK3.5-1336_Dec25)	Dec-26
Network Analyzer Keysight E5063A	SN: MY54504221	30-Sept-24 (No. 675-CAL18-S4489-Sep24)	Sep-26

	Name	Function	Signature
Calibrated by	Henrique Almeida	Laboratory Technician	<i>Henrique Almeida</i>
Approved by	Sven Kühn	Technical Manager	<i>IA A. Kühn</i>

Issued: July 13, 2026

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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., $\theta = 0$ 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 $\theta = 0$ ($f \leq 900$ 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} do 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 is independent of frequency and medium.
- 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 sweeps for specific modulation signals. The parameters are independent of frequency and medium. 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).

Parameters of Probe: EX3DV4 - SN:7439

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.59	0.62	0.56	$\pm 10.1\%$
DCP (mV) ^B	104.0	105.3	103.9	$\pm 4.7\%$

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	Continuous Wave	X	0.00	0.00	1.00	0.00	127.1	$\pm 1.9\%$	$\pm 4.7\%$
		Y	0.00	0.00	1.00		126.7		
		Z	0.00	0.00	1.00		123.5		
10352	Pulse (D=10%, T=5 ms)	X	0.85	69.97	17.56	10.00	23.0	$\pm 1.9\%$	$\pm 9.6\%$
		Y	0.42	60.82	14.70		24.0		
		Z	0.33	61.42	15.62		24.0		
10353	Pulse (D=20%, T=5 ms)	X	0.80	72.99	17.60	6.99	46.0	$\pm 1.5\%$	$\pm 9.6\%$
		Y	0.39	63.83	14.76		47.0		
		Z	0.30	64.43	15.68		47.0		
10354	Pulse (D=40%, T=5 ms)	X	0.75	76.00	17.64	3.98	93.0	$\pm 1.4\%$	$\pm 9.6\%$
		Y	0.36	66.84	14.81		94.0		
		Z	0.28	67.44	15.74		95.0		
10355	Pulse (D=60%, T=5 ms)	X	0.72	77.76	17.67	2.22	139.0	$\pm 1.5\%$	$\pm 9.6\%$
		Y	0.35	68.60	14.85		141.0		
		Z	0.26	69.21	15.78		142.0		
10387	Random (BW=1 MHz, MOD=QPSK)	X	0.01	74.88	19.18	0.22	107.0	$\pm 1.6\%$	$\pm 9.6\%$
		Y	0.01	65.72	16.23		109.0		
		Z	0.00	66.33	17.32		109.0		
10388	Random (BW=10 MHz, MOD=QPSK)	X	1.64	74.76	17.21	0.00	113.0	$\pm 2.6\%$	$\pm 9.6\%$
		Y	0.71	65.61	14.21		115.0		
		Z	0.67	66.21	14.88		116.0		
10396	Random (BW=100 kHz, MOD=64QAM)	X	0.01	73.70	20.06	1.57	80.0	$\pm 3.4\%$	$\pm 9.6\%$
		Y	0.00	82.66	17.52		81.0		
		Z	0.00	65.15	18.71		82.0		
10399	Random (BW=40 MHz, MOD=64QAM)	X	3.92	73.70	17.11	0.00	105.0	$\pm 3.9\%$	$\pm 9.6\%$
		Y	1.85	64.55	13.42		107.0		
		Z	1.86	65.15	13.84		108.0		
10414	Random (BW=40 MHz, HIGH PAR)	X	4.66	71.44	17.11	0.00	76.0	$\pm 2.4\%$	$\pm 9.6\%$
		Y	2.14	62.29	13.38		78.0		
		Z	2.16	62.89	13.78		78.0		

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 E²-field uncertainty inside TSL (see Pages 5 and 6).

^B Linearization parameter uncertainty for maximum specified field strength.

^E Uncertainty is determined as the maximum deviation from linearity, assuming a rectangular distribution, and is expressed in terms of the squared field value.

Parameters of Probe: EX3DV4 - SN:7439

Sensor Model Parameters

	C1 fF	C2 fF	α V ⁻¹	T1 ms V ⁻²	T2 ms V ⁻¹	T3 ms	T4 V ⁻²	T5 V ⁻¹	T6
x	9.0	66.08	34.35	2.58	0.00	4.91	0.80	0.00	1.00
y	8.2	59.40	33.76	5.20	0.00	4.90	0.66	0.00	1.00
z	7.9	57.79	34.54	2.12	0.00	4.93	0.00	0.07	1.00

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	55.2°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	336 mm
Probe Body Diameter	12 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.

Parameters of Probe: EX3DV4 - SN:7439

Calibration Parameter Determined in HSL

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)
750	41.9	0.89	9.23	9.45	9.29	0.34	1.27	±11.0%
835	41.5	0.90	8.90	9.11	8.96	0.34	1.27	±11.0%
900	41.5	0.97	8.75	8.96	8.81	0.34	1.27	±11.0%
1750	40.1	1.37	7.61	7.79	7.66	0.35	1.27	±11.0%
1900	40.0	1.40	7.36	7.53	7.41	0.36	1.27	±11.0%
2000	40.0	1.40	7.22	7.39	7.26	0.36	1.27	±11.0%
2300	39.5	1.67	6.97	7.13	7.01	0.36	1.27	±11.0%
2450	39.2	1.80	6.86	7.02	6.91	0.36	1.27	±11.0%
2600	39.0	1.96	6.79	6.95	6.83	0.36	1.27	±11.0%
3300	38.2	2.71	6.49	6.64	6.53	0.37	1.27	±13.1%
3500	37.9	2.91	6.36	6.51	6.40	0.38	1.27	±13.1%
3700	37.7	3.12	6.23	6.38	6.27	0.38	1.27	±13.1%
3900	37.5	3.32	6.12	6.26	6.16	0.38	1.27	±13.1%
4100	37.2	3.53	6.01	6.15	6.05	0.38	1.27	±13.1%
5250	35.9	4.71	5.23	5.35	5.26	0.34	1.27	±13.1%
5600	35.5	5.07	4.73	4.84	4.76	0.30	1.27	±13.1%
5800	35.3	5.27	4.76	4.87	4.79	0.28	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 4–8 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.

Parameters of Probe: EX3DV4 - SN:7439**Calibration Parameter Determined in HSL**

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	5.04	5.16	5.08	0.20	1.27	±18.6%

^C Frequency validity is -600/+700 MHz at 6.5 GHz, ±700 MHz at or above 7 GHz, and ±150 MHz at 9.85 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

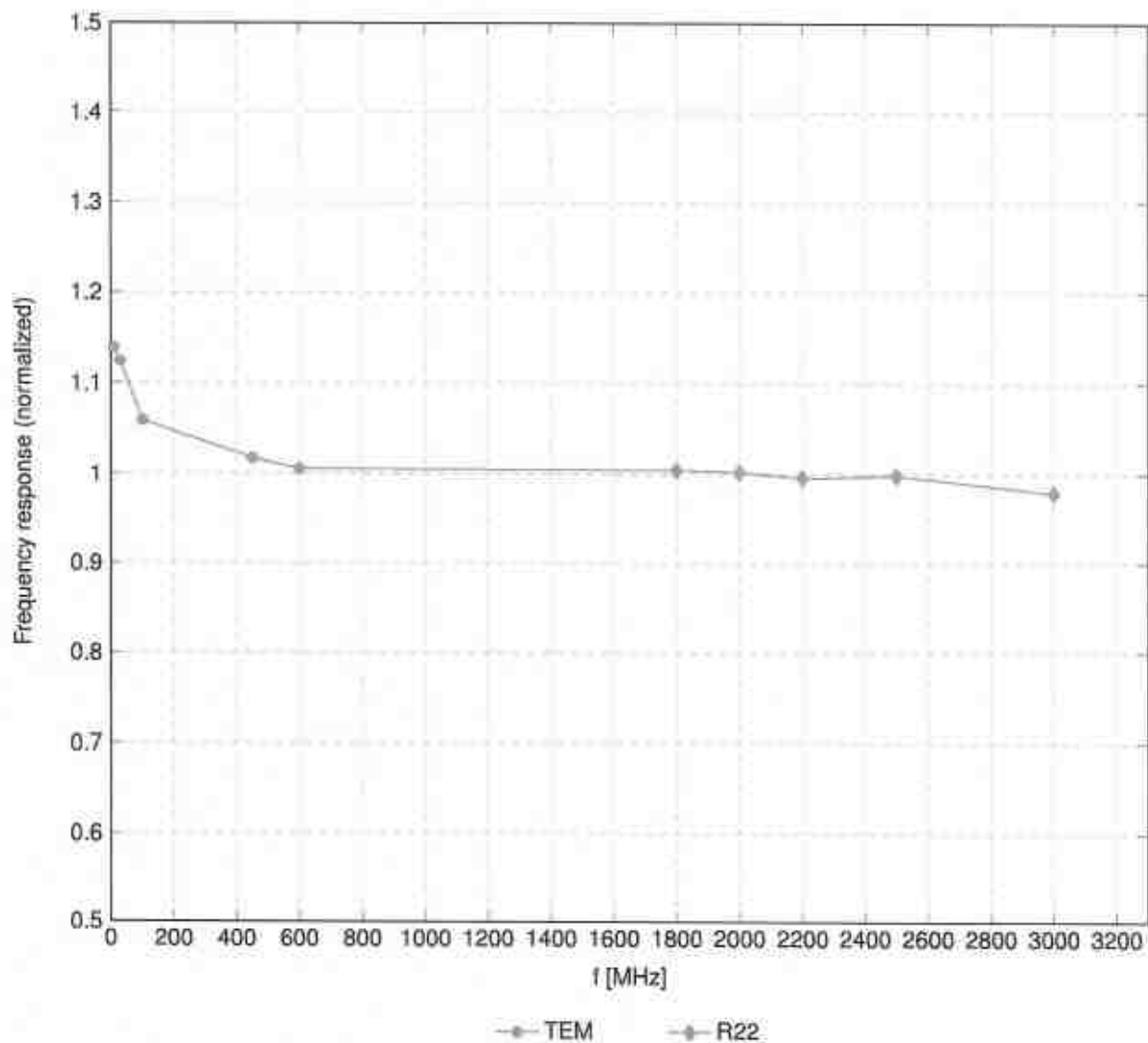
^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±10% from the target values (typically better than ±6%) and are valid for TSL with deviations of up to ±10%.

^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.

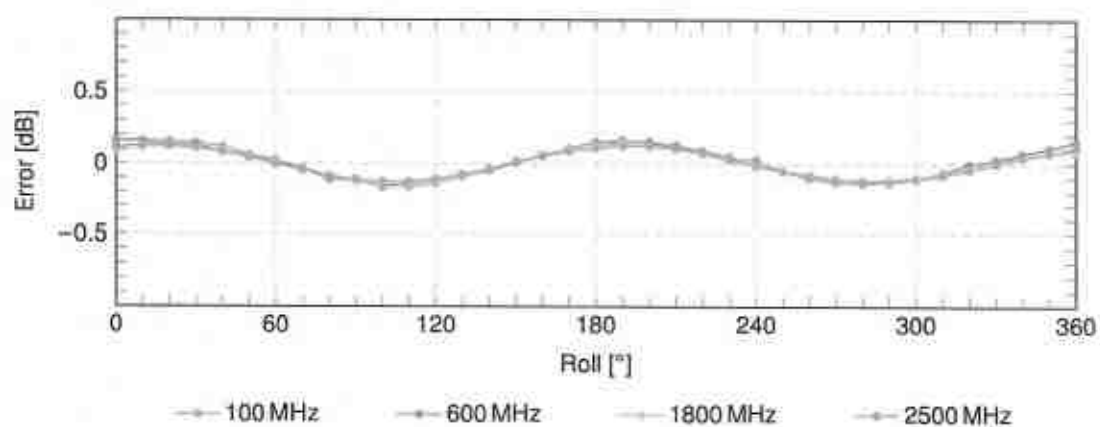
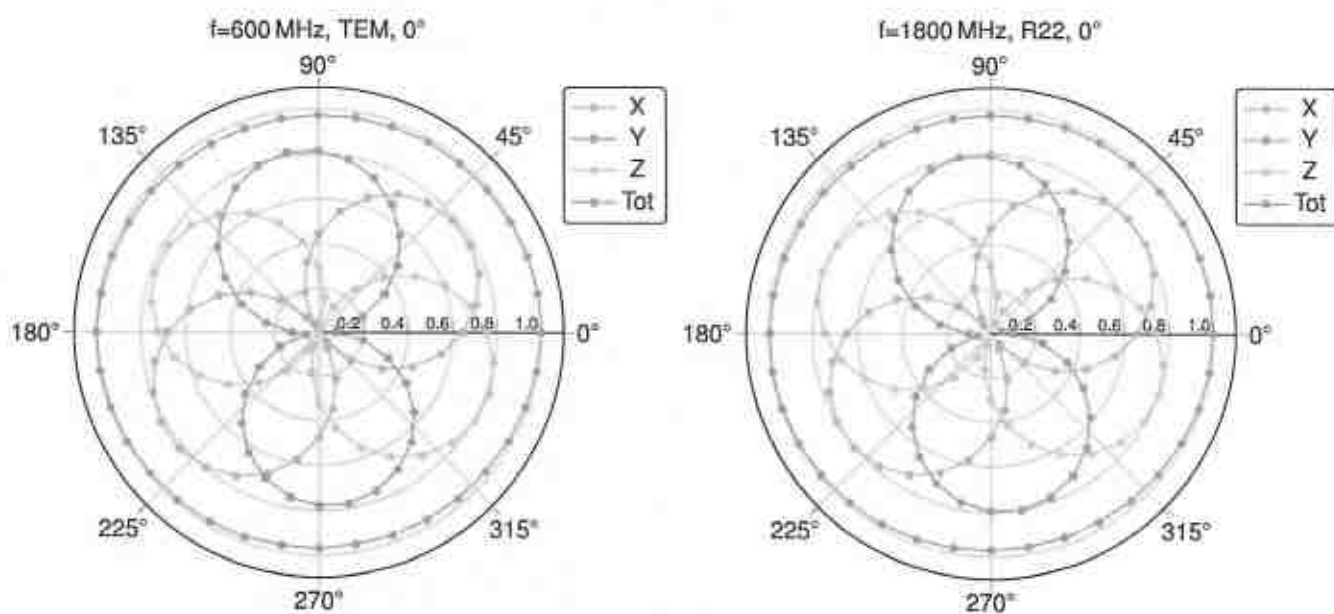
^H The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. This is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528:2020.

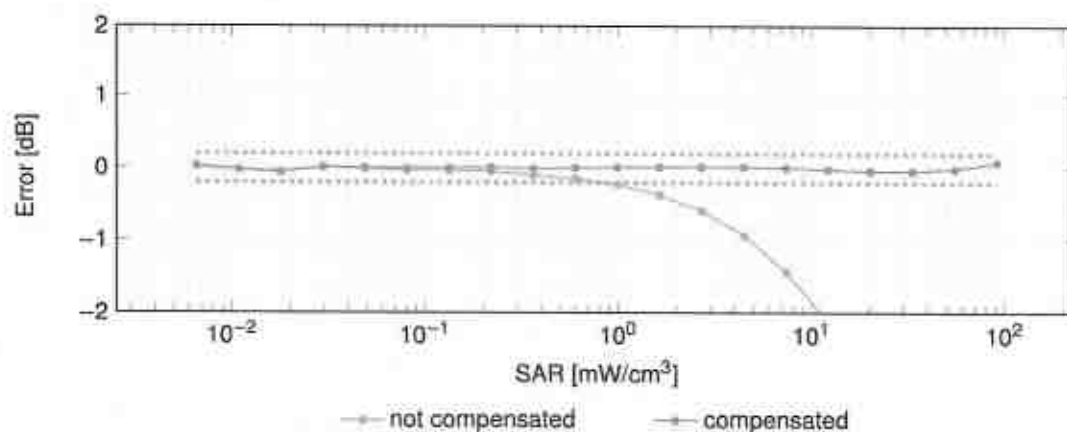
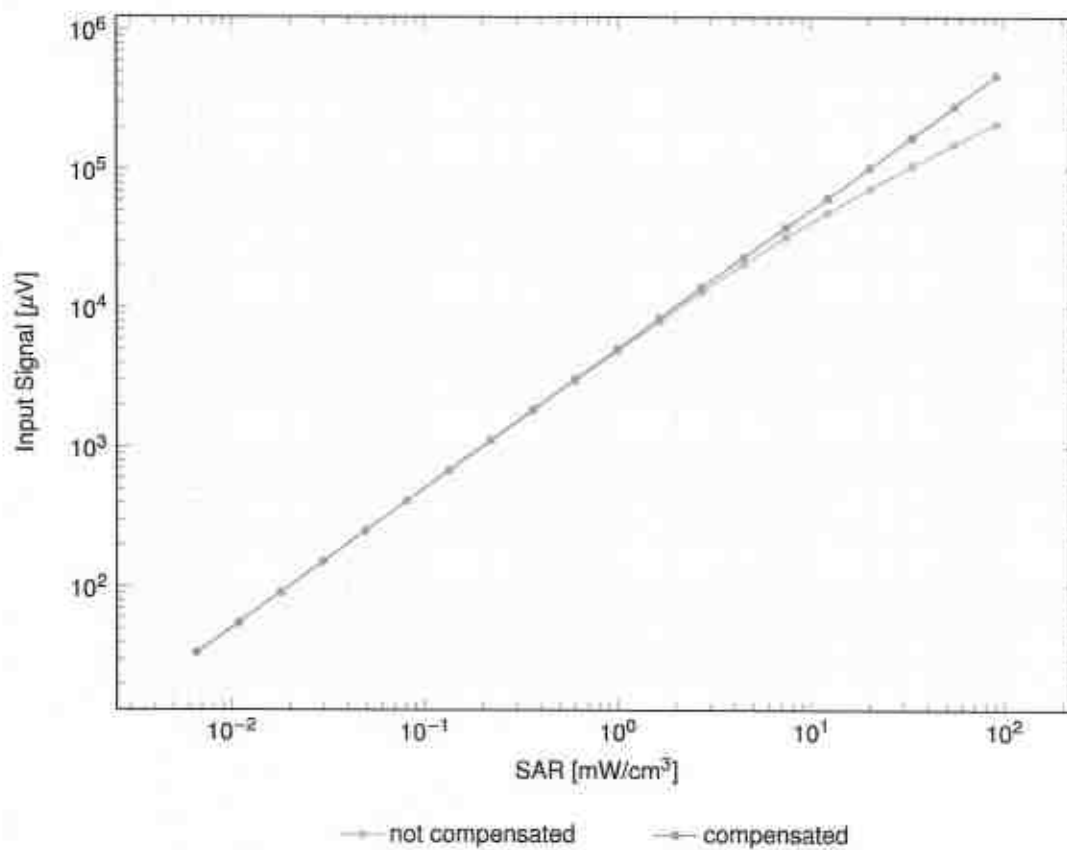
Frequency Response of E-Field

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

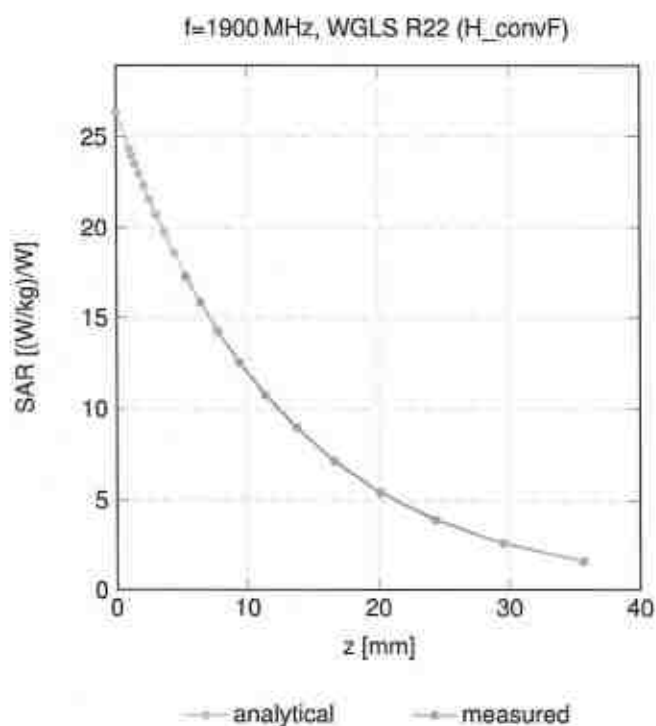


Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

Receiving Pattern (ϕ), $\theta = 0^\circ$ Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

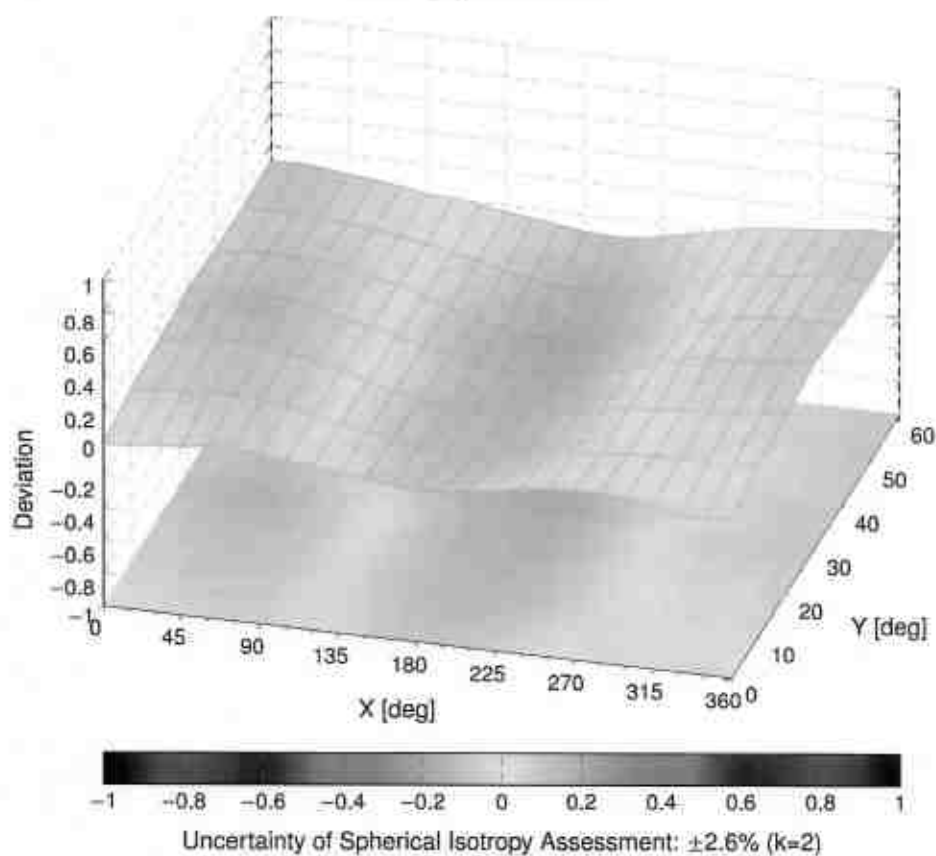
Dynamic Range f(SAR_{HSL})(TEM cell, $f_{\text{eval}} = 1900 \text{ MHz}$)Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ), $f = 900\text{ MHz}$



Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name ^D	Group	PAR (dB)	Unc ^E k = 2
0		Continuous Wave	CW	0.00	±4.7
10010	CAB	Pulse (D=10%, T=100 ms)	Test	10.00	±9.6
10011	CAC	Rel. 99, RMC, QPSK, 5.0 MHz	WCDMA	2.91	±9.6
10012	CAB	DSSS, DBPSK, 1.0 Mbps, 92.5% DC	WLAN	1.87	±9.6
10013	CAB	OFDM, BPSK, 6.0 Mbps, 72.1% DC	WLAN	9.46	±9.6
10021	DAC	Voice, GMSK, 1 slot(s)	GSM	9.39	±9.6
10023	DAC	Data, GMSK, 1 slot(s)	GSM	9.57	±9.6
10024	DAC	Data, GMSK, 2 slot(s)	GSM	6.56	±9.6
10025	DAC	Data, 8PSK, 1 slot(s)	GSM	12.62	±9.6
10026	DAC	Data, 8PSK, 2 slot(s)	GSM	9.55	±9.6
10027	DAC	Data, GMSK, 3 slot(s)	GSM	4.80	±9.6
10028	DAC	Data, GMSK, 4 slot(s)	GSM	3.55	±9.6
10029	DAC	Data, 8PSK, 3 slot(s)	GSM	7.78	±9.6
10030	CAA	BR, DH1, GFSK	Bluetooth	5.30	±9.6
10031	CAA	BR, DH3, GFSK	Bluetooth	1.87	±9.6
10032	CAA	BR, DH5, GFSK	Bluetooth	1.16	±9.6
10033	CAA	EDR, DH1, pi/4-DQPSK	Bluetooth	7.74	±9.6
10034	CAA	EDR, DH3, pi/4-DQPSK	Bluetooth	4.53	±9.6
10035	CAA	EDR, DH5, pi/4-DQPSK	Bluetooth	3.83	±9.6
10036	CAA	EDR, DH1, 8-DPSK	Bluetooth	8.01	±9.6
10037	CAA	EDR, DH3, 8-DPSK	Bluetooth	4.77	±9.6
10038	CAA	EDR, DH5, 8-DPSK	Bluetooth	4.10	±9.6
10039	CAB	RC1, 1xRTT	CDMA2000	4.57	±9.6
10048	CAA	Full Slot, GFSK, 1 slot(s)	DECT	13.80	±9.6
10049	CAA	Double Slot, GFSK, 2 slot(s)	DECT	10.79	±9.6
10056	CAA	TD-SCDMA, QPSK, 1.6 MHz	TD-SCDMA	11.01	±9.6
10058	DAC	Data, 8PSK, 4 slot(s)	GSM	6.52	±9.6
10059	CAB	DSSS, DQPSK, 2.0 Mbps, 87.4% DC	WLAN	2.12	±9.6
10060	CAB	HR-DSSS, DQPSK, 5.5 Mbps, 72.7% DC	WLAN	2.83	±9.6
10061	CAB	HR-DSSS, DQPSK, 11.0 Mbps, 57.5% DC	WLAN	3.60	±9.6
10062	CAE	OFDM, BPSK, 6.0 Mbps, 89.1% DC	WLAN	8.68	±9.6
10063	CAE	OFDM, BPSK, 9.0 Mbps, 85.3% DC	WLAN	8.63	±9.6
10064	CAE	OFDM, QPSK, 12.0 Mbps, 82.0% DC	WLAN	9.09	±9.6
10065	CAE	OFDM, QPSK, 18.0 Mbps, 76.0% DC	WLAN	9.00	±9.6
10066	CAE	OFDM, 16QAM, 24.0 Mbps, 70.6% DC	WLAN	9.38	±9.6
10067	CAE	OFDM, 16QAM, 36.0 Mbps, 62.9% DC	WLAN	10.12	±9.6
10068	CAE	OFDM, 64QAM, 48.0 Mbps, 56.6% DC	WLAN	10.24	±9.6
10069	CAE	OFDM, 64QAM, 54.0 Mbps, 54.4% DC	WLAN	10.56	±9.6
10071	CAB	OFDM, BPSK, 9.0 Mbps, 65.1% DC	WLAN	9.83	±9.6
10072	CAB	OFDM, QPSK, 12.0 Mbps, 60.1% DC	WLAN	9.62	±9.6
10073	CAB	OFDM, QPSK, 18.0 Mbps, 53.1% DC	WLAN	9.94	±9.6
10074	CAB	OFDM, 16QAM, 24.0 Mbps, 48.5% DC	WLAN	10.30	±9.6
10075	CAB	OFDM, 16QAM, 36.0 Mbps, 42.9% DC	WLAN	10.77	±9.6
10076	CAB	OFDM, 64QAM, 48.0 Mbps, 39.5% DC	WLAN	10.94	±9.6
10077	CAB	OFDM, 64QAM, 54.0 Mbps, 38.5% DC	WLAN	11.00	±9.6
10081	CAB	RC3, 1xRTT	CDMA2000	3.97	±9.6
10097	CAC	Rel. 5 HSDPA, QPSK, 5.0 MHz	WCDMA	3.98	±9.6
10098	CAC	Rel. 6 HSUPA, Subset 2, QPSK, 5.0 MHz	WCDMA	3.98	±9.6
10100	CAF	20.0 MHz, QPSK, 100% RB	LTE-FDD	5.67	±9.6
10101	CAF	20.0 MHz, 16QAM, 100% RB	LTE-FDD	6.42	±9.6
10102	CAF	20.0 MHz, 64QAM, 100% RB	LTE-FDD	6.60	±9.6
10103	CAH	20.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.29	±9.6
10104	CAH	20.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.97	±9.6
10105	CAH	20.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	10.01	±9.6
10108	CAH	10.0 MHz, QPSK, 100% RB	LTE-FDD	5.80	±9.6
10109	CAH	10.0 MHz, 16QAM, 100% RB	LTE-FDD	6.43	±9.6
10110	CAH	5.0 MHz, QPSK, 100% RB	LTE-FDD	5.75	±9.6
10111	CAH	5.0 MHz, 16QAM, 100% RB	LTE-FDD	6.44	±9.6
10112	CAH	10.0 MHz, 64QAM, 100% RB	LTE-FDD	6.59	±9.6
10113	CAH	5.0 MHz, 64QAM, 100% RB	LTE-FDD	6.62	±9.6
10114	CAE	HT40 Greenfield, MCS0 (13.5 Mbps), 99.7% DC	WLAN	8.10	±9.6
10115	CAE	HT40 Greenfield, MCS4 (81.0 Mbps), 99.7% DC	WLAN	8.46	±9.6
10116	CAE	HT40 Greenfield, MCS7 (135.0 Mbps), 99.7% DC	WLAN	8.15	±9.6

UID	Rev	Communication System Name ^D	Group	PAR (dB)	Unc ^E $k=2$
10117	CAE	HT40 Mixed, MCS0 (13.5 Mbps), 99.7% DC	WLAN	8.07	±9.6
10118	CAE	HT40 Mixed, MCS4 (81.0 Mbps), 99.7% DC	WLAN	8.59	±9.6
10119	CAE	HT40 Mixed, MCS7 (135.0 Mbps), 99.7% DC	WLAN	8.13	±9.6
10140	CAF	15.0 MHz, 16QAM, 100% RB	LTE-FDD	6.49	±9.6
10141	CAF	15.0 MHz, 64QAM, 100% RB	LTE-FDD	6.53	±9.6
10142	CAF	3.0 MHz, QPSK, 100% RB	LTE-FDD	5.73	±9.6
10143	CAF	3.0 MHz, 16QAM, 100% RB	LTE-FDD	6.35	±9.6
10144	CAF	3.0 MHz, 64QAM, 100% RB	LTE-FDD	6.65	±9.6
10145	CAG	1.4 MHz, QPSK, 100% RB	LTE-FDD	5.76	±9.6
10146	CAG	1.4 MHz, 16QAM, 100% RB	LTE-FDD	6.41	±9.6
10147	CAG	1.4 MHz, 64QAM, 100% RB	LTE-FDD	6.72	±9.6
10149	CAF	20.0 MHz, 16QAM, 50% RB	LTE-FDD	6.42	±9.6
10150	CAF	20.0 MHz, 64QAM, 50% RB	LTE-FDD	6.60	±9.6
10151	CAH	20.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.28	±9.6
10152	CAH	20.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.92	±9.6
10153	CAH	20.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	10.05	±9.6
10154	CAH	10.0 MHz, QPSK, 50% RB	LTE-FDD	5.75	±9.6
10155	CAH	10.0 MHz, 16QAM, 50% RB	LTE-FDD	6.43	±9.6
10156	CAH	5.0 MHz, QPSK, 50% RB	LTE-FDD	5.79	±9.6
10157	CAH	5.0 MHz, 16QAM, 50% RB	LTE-FDD	6.49	±9.6
10158	CAH	10.0 MHz, 64QAM, 50% RB	LTE-FDD	6.62	±9.6
10159	CAH	5.0 MHz, 64QAM, 50% RB	LTE-FDD	6.56	±9.6
10160	CAF	15.0 MHz, QPSK, 50% RB	LTE-FDD	5.82	±9.6
10161	CAF	15.0 MHz, 16QAM, 50% RB	LTE-FDD	6.43	±9.6
10162	CAF	15.0 MHz, 64QAM, 50% RB	LTE-FDD	6.58	±9.6
10166	CAG	1.4 MHz, QPSK, 50% RB	LTE-FDD	5.46	±9.6
10167	CAG	1.4 MHz, 16QAM, 50% RB	LTE-FDD	6.21	±9.6
10168	CAG	1.4 MHz, 64QAM, 50% RB	LTE-FDD	6.79	±9.6
10169	CAF	20.0 MHz, QPSK, 1 RB	LTE-FDD	5.73	±9.6
10170	CAF	20.0 MHz, 16QAM, 1 RB	LTE-FDD	6.52	±9.6
10171	AAF	20.0 MHz, 64QAM, 1 RB	LTE-FDD	6.49	±9.6
10172	CAH	20.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.21	±9.6
10173	CAH	20.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.48	±9.6
10174	CAH	20.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	10.25	±9.6
10175	CAH	10.0 MHz, QPSK, 1 RB	LTE-FDD	5.72	±9.6
10176	CAH	10.0 MHz, 16QAM, 1 RB	LTE-FDD	6.52	±9.6
10177	CAJ	5.0 MHz, QPSK, 1 RB	LTE-FDD	5.73	±9.6
10178	CAH	5.0 MHz, 16QAM, 1 RB	LTE-FDD	6.52	±9.6
10179	CAH	10.0 MHz, 64QAM, 1 RB	LTE-FDD	6.50	±9.6
10180	CAH	5.0 MHz, 64QAM, 1 RB	LTE-FDD	6.50	±9.6
10181	CAF	15.0 MHz, QPSK, 1 RB	LTE-FDD	5.72	±9.6
10182	CAF	15.0 MHz, 16QAM, 1 RB	LTE-FDD	6.52	±9.6
10183	AAE	15.0 MHz, 64QAM, 1 RB	LTE-FDD	6.50	±9.6
10184	CAF	3.0 MHz, QPSK, 1 RB	LTE-FDD	5.73	±9.6
10185	CAF	3.0 MHz, 16QAM, 1 RB	LTE-FDD	6.51	±9.6
10186	AAF	3.0 MHz, 64QAM, 1 RB	LTE-FDD	6.50	±9.6
10187	CAG	1.4 MHz, QPSK, 1 RB	LTE-FDD	5.73	±9.6
10188	CAG	1.4 MHz, 16QAM, 1 RB	LTE-FDD	6.52	±9.6
10189	AAG	1.4 MHz, 64QAM, 1 RB	LTE-FDD	6.50	±9.6
10193	CAE	HT20 Greenfield, MCS0 (6.5 Mbps), 99.4% DC	WLAN	8.09	±9.6
10194	CAE	HT20 Greenfield, MCS4 (39.0 Mbps), 99.5% DC	WLAN	8.12	±9.6
10195	CAE	HT20 Greenfield, MCS7 (65.0 Mbps), 99.5% DC	WLAN	8.21	±9.6
10196	CAE	HT20 Mixed, MCS0 (6.5 Mbps), 99.4% DC	WLAN	8.10	±9.6
10197	CAE	HT20 Mixed, MCS4 (39.0 Mbps), 99.5% DC	WLAN	8.13	±9.6
10198	CAE	HT20 Mixed, MCS7 (65.0 Mbps), 99.5% DC	WLAN	8.27	±9.6
10219	CAE	HT20 Mixed, MCS0 (7.2 Mbps), 99.3% DC	WLAN	8.03	±9.6
10220	CAE	HT20 Mixed, MCS4 (43.3 Mbps), 99.4% DC	WLAN	8.13	±9.6
10221	CAE	HT20 Mixed, MCS7 (72.2 Mbps), 99.4% DC	WLAN	8.27	±9.6
10222	CAE	HT40 Mixed, MCS0 (15.0 Mbps), 99.7% DC	WLAN	8.06	±9.6
10223	CAE	HT40 Mixed, MCS4 (90.0 Mbps), 99.7% DC	WLAN	8.48	±9.6
10224	CAE	HT40 Mixed, MCS7 (150.0 Mbps), 99.7% DC	WLAN	8.08	±9.6
10225	CAC	Ref. 7 HSPA+, 16QAM, 5.0 MHz	WCDMA	5.97	±9.6
10226	CAC	1.4 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.49	±9.6
10227	CAC	1.4 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	10.26	±9.6
10228	CAC	1.4 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.22	±9.6
10229	CAE	3.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.46	±9.6

UID	Rev	Communication System Name ^D	Group	PAR (dB)	Unc ^E k = 2
10230	CAE	3.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	10.25	±9.6
10231	CAE	3.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.19	±9.6
10232	CAH	5.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.48	±9.6
10233	CAH	5.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	10.25	±9.6
10234	CAH	5.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.21	±9.6
10235	CAH	10.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.48	±9.6
10236	CAH	10.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	10.25	±9.6
10237	CAH	10.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.21	±9.6
10238	CAG	15.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.48	±9.6
10239	CAG	15.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	10.25	±9.6
10240	CAG	15.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 1 RB	LTE-TDD	9.21	±9.6
10241	CAC	1.4 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.82	±9.6
10242	CAC	1.4 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.86	±9.6
10243	CAC	1.4 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.46	±9.6
10244	CAE	3.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	10.06	±9.6
10245	CAE	3.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	10.06	±9.6
10246	CAE	3.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.30	±9.6
10247	CAH	5.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.91	±9.6
10248	CAH	5.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	10.09	±9.6
10249	CAH	5.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.29	±9.6
10250	CAH	10.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.81	±9.6
10251	CAH	10.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	10.17	±9.6
10252	CAH	10.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.24	±9.6
10253	CAG	15.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.90	±9.6
10254	CAG	15.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	10.14	±9.6
10255	CAG	15.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 50% RB	LTE-TDD	9.20	±9.6
10256	CAC	1.4 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.96	±9.6
10257	CAC	1.4 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	10.06	±9.6
10258	CAC	1.4 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.34	±9.6
10259	CAE	3.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.98	±9.6
10260	CAE	3.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.97	±9.6
10261	CAE	3.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.24	±9.6
10262	CAH	5.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.83	±9.6
10263	CAH	5.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	10.16	±9.6
10264	CAH	5.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.23	±9.6
10265	CAH	10.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.92	±9.6
10266	CAH	10.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	10.07	±9.6
10267	CAH	10.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.30	±9.6
10268	CAG	15.0 MHz, 16QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	10.06	±9.6
10269	CAG	15.0 MHz, 64QAM, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	10.13	±9.6
10270	CAG	15.0 MHz, QPSK, UL/DL CFG: 1, SSC: 4, 100% RB	LTE-TDD	9.58	±9.6
10274	CAC	Rel. 6 HSUPA Subset 2, beta_d 0, QPSK, 5.0 MHz	WCDMA	4.87	±9.6
10275	CAC	Rel. 6 HSUPA Subset 2, beta_d 15, QPSK, 5.0 MHz	WCDMA	3.96	±9.6
10290	AAB	RC1, SO55, Full frame rate, 1xRTT	CDMA2000	3.91	±9.6
10291	AAB	RC3, SO55, Full frame rate, 1xRTT	CDMA2000	3.46	±9.6
10292	AAB	RC3, SO32, Full frame rate, SCH0 disabled, 1xRTT	CDMA2000	3.39	±9.6
10293	AAB	RC3, SO3, Full frame rate, 1xRTT	CDMA2000	3.50	±9.6
10295	AAB	RC3, SO3, 1/8 frame rate, 1xRTT	CDMA2000	12.49	±9.6
10297	AAE	20.0 MHz, QPSK, 50% RB	LTE-FDD	5.81	±9.6
10298	AAE	3.0 MHz, QPSK, 50% RB	LTE-FDD	5.72	±9.6
10299	AAE	3.0 MHz, 16QAM, 50% RB	LTE-FDD	6.39	±9.6
10300	AAE	3.0 MHz, 64QAM, 50% RB	LTE-FDD	6.60	±9.6
10301	AAA	PUSC, 29:18, QPSK, 5.0 ms, 18 TRAF SYM	WiMAX	12.03	±9.6
10302	AAA	PUSC, 29:18, QPSK, 5.0 ms, 15 TRAF SYM	WiMAX	12.57	±9.6
10303	AAA	PUSC, 31:15, 64QAM, 5.0 ms, 15 TRAF SYM	WiMAX	12.52	±9.6
10304	AAA	PUSC, 29:18, 64QAM, 5.0 ms, 18 TRAF SYM	WiMAX	11.86	±9.6
10305	AAA	PUSC, 31:15, 64QAM, 10.0 ms, 15 TRAF SYM	WiMAX	15.24	±9.6
10306	AAA	PUSC, 29:18, 64QAM, 10.0 ms, 18 TRAF SYM	WiMAX	14.67	±9.6
10307	AAA	PUSC, 29:18, QPSK, 10.0 ms, 18 TRAF SYM	WiMAX	14.49	±9.6
10308	AAA	PUSC, 29:18, 16QAM, 10.0 ms, 18 TRAF SYM	WiMAX	14.46	±9.6
10309	AAA	AMC 2x3, 29:18, 16QAM, 10.0 ms, 18 TRAF SYM	WiMAX	14.56	±9.6
10310	AAA	AMC 2x3, 29:18, QPSK, 10.0 ms, 18 TRAF SYM	WiMAX	14.57	±9.6
10311	AAE	15.0 MHz, QPSK, 100% RB	LTE-FDD	6.06	±9.6
10315	AAB	DSSS, DBPSK, 1.0 Mbps, 96.0% DC	WLAN	1.71	±9.6
10316	AAB	OFDM, BPSK, 6.0 Mbps, 95.9% DC	WLAN	8.36	±9.6
10317	AAE	OFDM, BPSK, 6.0 Mbps, 95.9% DC	WLAN	8.36	±9.6

UID	Rev	Communication System Name ^D	Group	PAR (dB)	Unc ^E $k = 2$
10352	AAA	Pulse (D=10%, T=5 ms)	Generic	10.00	±9.6
10353	AAA	Pulse (D=20%, T=5 ms)	Generic	6.99	±9.6
10354	AAA	Pulse (D=40%, T=5 ms)	Generic	3.98	±9.6
10355	AAA	Pulse (D=60%, T=5 ms)	Generic	2.22	±9.6
10356	AAA	Pulse (D=80%, T=5 ms)	Generic	0.97	±9.6
10387	AAA	Random (BW=1 MHz, MOD=QPSK)	Generic	5.10	±9.6
10388	AAA	Random (BW=10 MHz, MOD=QPSK)	Generic	5.22	±9.6
10396	AAA	Random (BW=100 kHz, MOD=64QAM)	Generic	6.27	±9.6
10399	AAA	Random (BW=40 MHz, MOD=64QAM)	Generic	6.27	±9.6
10400	AAF	VHT20, MCS5 (52.0 Mbps), 99.0% DC	WLAN	8.37	±9.6
10401	AAF	VHT40, MCS5 (108.0 Mbps), 96.7% DC	WLAN	8.60	±9.6
10402	AAF	VHT50, MCS5 (234.0 Mbps), 99.0% DC	WLAN	8.53	±9.6
10403	AAB	Rev. 0, 1xEV-DO	CDMA2000	3.76	±9.6
10404	AAB	Rev. A, 1xEV-DO	CDMA2000	3.77	±9.6
10406	AAB	RC3, SO32, Full frame rate, SCH0 enabled, 1xRTT	CDMA2000	5.22	±9.6
10410	AAH	10.0 MHz, QPSK, UL/DL CFG: 0, SSC: 4, 1 RB	LTE-TDD	7.82	±9.6
10414	AAA	Random (BW=40 MHz, HIGH PAR)	Generic	8.54	±9.6
10415	AAA	DSSS, DBPSK, 1.0 Mbps, 99.9% DC	WLAN	1.54	±9.6
10416	AAA	OFDM, BPSK, 6.0 Mbps, 99.9% DC	WLAN	8.23	±9.6
10417	AAD	OFDM, BPSK, 6.0 Mbps, 99.9% DC	WLAN	8.23	±9.6
10418	AAA	OFDM (LTF), BPSK, 6.0 Mbps, 99.8% DC	WLAN	8.14	±9.6
10419	AAA	OFDM (STF), BPSK, 6.0 Mbps, 99.8% DC	WLAN	8.18	±9.6
10422	AAD	HT20 Greenfield, MCS0 (7.2 Mbps), 99.3% DC	WLAN	8.32	±9.6
10423	AAD	HT20 Greenfield, MCS4 (43.3 Mbps), 99.3% DC	WLAN	8.47	±9.6
10424	AAD	HT20 Greenfield, MCS7 (72.2 Mbps), 99.3% DC	WLAN	8.40	±9.6
10425	AAD	HT40 Greenfield, MCS0 (15.0 Mbps), 99.2% DC	WLAN	8.41	±9.6
10426	AAD	HT40 Greenfield, MCS4 (90.0 Mbps), 99.2% DC	WLAN	8.45	±9.6
10427	AAD	HT40 Greenfield, MCS7 (150.0 Mbps), 99.2% DC	WLAN	8.41	±9.6
10430	AAE	5.0 MHz, 64-QAM, 100% RB	LTE-FDD	8.28	±9.6
10431	AAE	10.0 MHz, 64-QAM, 100% RB	LTE-FDD	8.38	±9.6
10432	AAD	15.0 MHz, 64-QAM, 100% RB	LTE-FDD	8.34	±9.6
10433	AAD	20.0 MHz, 64-QAM, 100% RB	LTE-FDD	8.34	±9.6
10434	AAB	BS Test Model 1, 64 DPCH, 64QAM, 5.0 MHz (DL)	WCDMA	8.60	±9.6
10435	AAG	20.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	7.82	±9.6
10447	AAE	5.0 MHz, 64-QAM, 100% RB	LTE-FDD	7.56	±9.6
10448	AAE	10.0 MHz, 64-QAM, 100% RB	LTE-FDD	7.53	±9.6
10449	AAD	15.0 MHz, 64-QAM, 100% RB	LTE-FDD	7.51	±9.6
10450	AAD	20.0 MHz, 64-QAM, 100% RB	LTE-FDD	7.48	±9.6
10451	AAB	BS Test Model 1, 64 DPCH, Clipping 44%, 64QAM, 5.0 MHz (DL)	WCDMA	7.59	±9.6
10456	AAD	VHT160, MCS5 (58.5 Mbps), 99.0% DC	WLAN	8.63	±9.6
10457	AAB	Rel. 5 DC-HSDPA, QPSK, 10.0 MHz	WCDMA	6.62	±9.6
10458	AAA	Rev. B, 2 carriers, 1xEV-DO	CDMA2000	6.55	±9.6
10459	AAA	Rev. B, 3 carriers, 1xEV-DO	CDMA2000	6.25	±9.6
10460	AAB	Rel. 99, AMR, QPSK, 5.0 MHz	WCDMA	2.39	±9.6
10461	AAC	1.4 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	7.82	±9.6
10462	AAC	1.4 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.30	±9.6
10463	AAC	1.4 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.56	±9.6
10464	AAD	3.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	7.82	±9.6
10465	AAD	3.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.32	±9.6
10466	AAD	3.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.57	±9.6
10467	AAG	5.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	7.82	±9.6
10468	AAG	5.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.32	±9.6
10469	AAG	5.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.56	±9.6
10470	AAG	10.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	7.82	±9.6
10471	AAG	10.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.32	±9.6
10472	AAG	10.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.57	±9.6
10473	AAF	15.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	7.82	±9.6
10474	AAF	15.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.32	±9.6
10475	AAF	15.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.57	±9.6
10477	AAG	20.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.32	±9.6
10478	AAG	20.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 1 RB	LTE-TDD	8.57	±9.6
10479	AAC	1.4 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	7.74	±9.6
10480	AAC	1.4 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	8.18	±9.6
10481	AAC	1.4 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	8.45	±9.6
10482	AAD	3.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	7.71	±9.6
10483	AAD	3.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	8.39	±9.6

UID	Rev	Communication System Name ^U	Group	PAR (dB)	Unc ^E k = 2
10484	AAD	3.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	8.47	±9.6
10485	AAG	5.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	7.59	±9.6
10486	AAG	5.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	8.38	±9.6
10487	AAG	5.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	8.60	±9.6
10488	AAG	10.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	7.70	±9.6
10489	AAG	10.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	8.31	±9.6
10490	AAG	10.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	8.54	±9.6
10491	AAF	15.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	7.74	±9.6
10492	AAF	15.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	8.41	±9.6
10493	AAF	15.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	8.55	±9.6
10494	AAG	20.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	7.74	±9.6
10495	AAG	20.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 50% RB	LTE-TDD	8.37	±9.6
10496	AAG	20.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.54	±9.6
10497	AAC	1.4 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	7.67	±9.6
10498	AAC	1.4 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.40	±9.6
10499	AAC	1.4 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.68	±9.6
10500	AAD	3.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	7.67	±9.6
10501	AAD	3.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.44	±9.6
10502	AAD	3.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.52	±9.6
10503	AAG	5.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	7.72	±9.6
10504	AAG	5.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.31	±9.6
10505	AAG	5.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.54	±9.6
10506	AAG	10.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	7.74	±9.6
10507	AAG	10.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.36	±9.6
10508	AAG	10.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.55	±9.6
10509	AAF	15.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	7.99	±9.6
10510	AAF	15.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.49	±9.6
10511	AAF	15.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.51	±9.6
10512	AAG	20.0 MHz, QPSK, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	7.74	±9.6
10513	AAG	20.0 MHz, 16QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.42	±9.6
10514	AAG	20.0 MHz, 64QAM, UL/DL CFG: 0, SSC: 7, 100% RB	LTE-TDD	8.45	±9.6
10515	AAA	DSSS, DQPSK, 2.0 Mbps, 99.0% DC	WLAN	1.58	±9.6
10516	AAA	HR-DSSS, DQPSK, 5.5 Mbps, 99.2% DC	WLAN	1.57	±9.6
10517	AAA	HR-DSSS, DQPSK, 11.0 Mbps, 99.0% DC	WLAN	1.58	±9.6
10518	AAD	OFDM, BPSK, 9.0 Mbps, 98.0% DC	WLAN	8.23	±9.6
10519	AAD	OFDM, QPSK, 12.0 Mbps, 99.0% DC	WLAN	8.39	±9.6
10520	AAD	OFDM, QPSK, 18.0 Mbps, 99.0% DC	WLAN	8.12	±9.6
10521	AAD	OFDM, 16QAM, 24.0 Mbps, 99.0% DC	WLAN	7.97	±9.6
10522	AAD	OFDM, 16QAM, 36.0 Mbps, 99.0% DC	WLAN	8.45	±9.6
10523	AAD	OFDM, 64QAM, 48.0 Mbps, 99.0% DC	WLAN	8.08	±9.6
10524	AAD	OFDM, 64QAM, 54.0 Mbps, 99.0% DC	WLAN	8.27	±9.6
10525	AAD	VHT20, MCS0 (6.5 Mbps), 98.0% DC	WLAN	8.36	±9.6
10526	AAD	VHT20, MCS1 (13.0 Mbps), 99.0% DC	WLAN	8.42	±9.6
10527	AAD	VHT20, MCS2 (19.5 Mbps), 99.0% DC	WLAN	8.21	±9.6
10528	AAD	VHT20, MCS3 (26.0 Mbps), 99.0% DC	WLAN	8.36	±9.6
10529	AAD	VHT20, MCS4 (38.0 Mbps), 99.0% DC	WLAN	8.36	±9.6
10531	AAD	VHT20, MCS6 (58.5 Mbps), 99.0% DC	WLAN	8.43	±9.6
10532	AAD	VHT20, MCS7 (65.0 Mbps), 99.0% DC	WLAN	8.29	±9.6
10533	AAD	VHT20, MCS8 (78.0 Mbps), 99.0% DC	WLAN	8.38	±9.6
10534	AAD	VHT40, MCS0 (13.5 Mbps), 98.8% DC	WLAN	8.45	±9.6
10535	AAD	VHT40, MCS1 (27.0 Mbps), 98.8% DC	WLAN	8.45	±9.6
10536	AAD	VHT40, MCS2 (40.5 Mbps), 98.8% DC	WLAN	8.32	±9.6
10537	AAD	VHT40, MCS3 (54.0 Mbps), 98.7% DC	WLAN	8.44	±9.6
10538	AAD	VHT40, MCS4 (81.0 Mbps), 98.5% DC	WLAN	8.54	±9.6
10540	AAD	VHT40, MCS6 (121.5 Mbps), 98.3% DC	WLAN	8.39	±9.6
10541	AAD	VHT40, MCS7 (135.0 Mbps), 98.3% DC	WLAN	8.46	±9.6
10542	AAD	VHT40, MCS8 (162.0 Mbps), 98.1% DC	WLAN	8.65	±9.6
10543	AAD	VHT40, MCS9 (180.0 Mbps), 98.0% DC	WLAN	8.65	±9.6
10544	AAD	VHT80, MCS0 (29.3 Mbps), 99.0% DC	WLAN	8.47	±9.6
10545	AAD	VHT80, MCS1 (58.5 Mbps), 99.0% DC	WLAN	8.55	±9.6
10546	AAD	VHT80, MCS2 (87.8 Mbps), 99.0% DC	WLAN	8.35	±9.6
10547	AAD	VHT80, MCS3 (117.0 Mbps), 99.0% DC	WLAN	8.49	±9.6
10548	AAD	VHT80, MCS4 (175.5 Mbps), 99.0% DC	WLAN	8.37	±9.6
10550	AAD	VHT80, MCS6 (263.3 Mbps), 99.0% DC	WLAN	8.38	±9.6
10551	AAD	VHT80, MCS7 (292.5 Mbps), 99.0% DC	WLAN	8.50	±9.6
10552	AAD	VHT80, MCS8 (351.0 Mbps), 99.0% DC	WLAN	8.42	±9.6

UID	Rev	Communication System Name ^D	Group	PAR (dB)	Unc ^E $k = 2$
10553	AAE	VHT80, MCS9 (390.0 Mbps), 99.0% DC	WLAN	8.45	±9.6
10554	AAE	VHT160, MCS0 (58.5 Mbps), 99.0% DC	WLAN	8.48	±9.6
10555	AAE	VHT160, MCS1 (117.0 Mbps), 99.0% DC	WLAN	8.47	±9.6
10556	AAE	VHT160, MCS2 (175.5 Mbps), 99.0% DC	WLAN	8.50	±9.6
10557	AAE	VHT160, MCS3 (234.0 Mbps), 99.0% DC	WLAN	8.52	±9.6
10558	AAE	VHT160, MCS4 (351.0 Mbps), 99.0% DC	WLAN	8.61	±9.6
10560	AAE	VHT160, MCS6 (526.5 Mbps), 99.0% DC	WLAN	8.73	±9.6
10561	AAE	VHT160, MCS7 (585.0 Mbps), 99.0% DC	WLAN	8.56	±9.6
10562	AAE	VHT160, MCS8 (702.0 Mbps), 99.0% DC	WLAN	8.69	±9.6
10563	AAE	VHT160, MCS9 (760.0 Mbps), 99.0% DC	WLAN	8.77	±9.6
10564	AAA	OFDM, BPSK, 9.0 Mbps, 99.9% DC	WLAN	8.25	±9.6
10565	AAA	OFDM, QPSK, 12.0 Mbps, 99.0% DC	WLAN	8.45	±9.6
10566	AAA	OFDM, QPSK, 18.0 Mbps, 99.0% DC	WLAN	8.13	±9.6
10567	AAA	OFDM, 16QAM, 24.0 Mbps, 99.0% DC	WLAN	8.00	±9.6
10568	AAA	OFDM, 16QAM, 36.0 Mbps, 99.0% DC	WLAN	8.37	±9.6
10569	AAA	OFDM, 64QAM, 48.0 Mbps, 99.0% DC	WLAN	8.10	±9.6
10570	AAA	OFDM, 64QAM, 54.0 Mbps, 99.0% DC	WLAN	8.30	±9.6
10571	AAA	DSSS, DQPSK, 1.0 Mbps, 90.0% DC	WLAN	1.99	±9.6
10572	AAA	DSSS, DQPSK, 2.0 Mbps, 90.0% DC	WLAN	1.99	±9.6
10573	AAA	HR-DSSS, DQPSK, 5.5 Mbps, 90.1% DC	WLAN	1.98	±9.6
10574	AAA	HR-DSSS, DQPSK, 11.0 Mbps, 90.3% DC	WLAN	1.98	±9.6
10575	AAA	OFDM, BPSK, 6.0 Mbps, 89.9% DC	WLAN	8.59	±9.6
10576	AAA	OFDM, BPSK, 9.0 Mbps, 89.9% DC	WLAN	8.60	±9.6
10577	AAA	OFDM, QPSK, 12.0 Mbps, 90.0% DC	WLAN	8.70	±9.6
10578	AAA	OFDM, QPSK, 18.0 Mbps, 90.0% DC	WLAN	8.49	±9.6
10579	AAA	OFDM, 16QAM, 24.0 Mbps, 90.0% DC	WLAN	8.36	±9.6
10580	AAA	OFDM, 16QAM, 36.0 Mbps, 90.0% DC	WLAN	8.76	±9.6
10581	AAA	OFDM, 64QAM, 48.0 Mbps, 90.0% DC	WLAN	8.35	±9.6
10582	AAA	OFDM, 64QAM, 54.0 Mbps, 90.0% DC	WLAN	8.67	±9.6
10583	AAD	OFDM, BPSK, 6.0 Mbps, 89.9% DC	WLAN	8.59	±9.6
10584	AAD	OFDM, BPSK, 9.0 Mbps, 89.9% DC	WLAN	8.60	±9.6
10585	AAD	OFDM, QPSK, 12.0 Mbps, 90.0% DC	WLAN	8.70	±9.6
10586	AAD	OFDM, QPSK, 18.0 Mbps, 90.0% DC	WLAN	8.49	±9.6
10587	AAD	OFDM, 16QAM, 24.0 Mbps, 90.0% DC	WLAN	8.36	±9.6
10588	AAD	OFDM, 16QAM, 36.0 Mbps, 90.0% DC	WLAN	8.76	±9.6
10589	AAD	OFDM, 64QAM, 48.0 Mbps, 90.0% DC	WLAN	8.35	±9.6
10590	AAD	OFDM, 64QAM, 54.0 Mbps, 90.0% DC	WLAN	8.67	±9.6
10591	AAD	HT20 Mixed, MCS0 (6.5 Mbps), 89.9% DC	WLAN	8.63	±9.6
10592	AAD	HT20 Mixed, MCS1 (13.0 Mbps), 90.0% DC	WLAN	8.79	±9.6
10593	AAD	HT20 Mixed, MCS2 (19.5 Mbps), 90.0% DC	WLAN	8.64	±9.6
10594	AAD	HT20 Mixed, MCS3 (26.0 Mbps), 90.0% DC	WLAN	8.74	±9.6
10595	AAD	HT20 Mixed, MCS4 (39.0 Mbps), 90.0% DC	WLAN	8.74	±9.6
10596	AAD	HT20 Mixed, MCS5 (52.0 Mbps), 90.0% DC	WLAN	8.71	±9.6
10597	AAD	HT20 Mixed, MCS6 (58.5 Mbps), 90.0% DC	WLAN	8.72	±9.6
10598	AAD	HT20 Mixed, MCS7 (65.0 Mbps), 90.0% DC	WLAN	8.50	±9.6
10599	AAD	HT40 Mixed, MCS0 (13.5 Mbps), 89.9% DC	WLAN	8.79	±9.6
10600	AAD	HT40 Mixed, MCS1 (27.0 Mbps), 89.7% DC	WLAN	8.88	±9.6
10601	AAD	HT40 Mixed, MCS2 (40.5 Mbps), 89.6% DC	WLAN	8.82	±9.6
10602	AAD	HT40 Mixed, MCS3 (54.0 Mbps), 89.4% DC	WLAN	8.94	±9.6
10603	AAD	HT40 Mixed, MCS4 (61.0 Mbps), 89.2% DC	WLAN	9.03	±9.6
10604	AAD	HT40 Mixed, MCS5 (108.0 Mbps), 89.9% DC	WLAN	8.76	±9.6
10605	AAD	HT40 Mixed, MCS6 (121.5 Mbps), 88.8% DC	WLAN	8.97	±9.6
10606	AAD	HT40 Mixed, MCS7 (135.0 Mbps), 88.7% DC	WLAN	8.82	±9.6
10607	AAD	VHT20, MCS0 (6.5 Mbps), 89.9% DC	WLAN	8.64	±9.6
10608	AAD	VHT20, MCS1 (13.0 Mbps), 90.0% DC	WLAN	8.77	±9.6
10609	AAD	VHT20, MCS2 (19.5 Mbps), 90.0% DC	WLAN	8.57	±9.6
10610	AAD	VHT20, MCS3 (26.0 Mbps), 90.0% DC	WLAN	8.76	±9.6
10611	AAD	VHT20, MCS4 (39.0 Mbps), 90.0% DC	WLAN	8.70	±9.6
10612	AAD	VHT20, MCS5 (52.0 Mbps), 90.0% DC	WLAN	8.77	±9.6
10613	AAD	VHT20, MCS6 (58.5 Mbps), 90.0% DC	WLAN	8.84	±9.6
10614	AAD	VHT20, MCS7 (65.0 Mbps), 90.0% DC	WLAN	8.59	±9.6
10615	AAD	VHT20, MCS8 (78.0 Mbps), 90.0% DC	WLAN	8.82	±9.6
10616	AAD	VHT40, MCS0 (13.5 Mbps), 89.9% DC	WLAN	8.82	±9.6
10617	AAD	VHT40, MCS1 (27.0 Mbps), 89.7% DC	WLAN	8.81	±9.6
10618	AAD	VHT40, MCS2 (40.5 Mbps), 89.6% DC	WLAN	8.58	±9.6
10619	AAD	VHT40, MCS3 (54.0 Mbps), 89.4% DC	WLAN	8.86	±9.6