

Add: No.52 HuaYuanBei Road, Haidian District, Beijing, 100191, China
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DASY5 Validation Report for Head TSL

Date: 2025-06-17

Test Laboratory: CTTL, Beijing, China

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN: 1125

Communication System: UID 0, CW; Frequency: 2600 MHz

Medium parameters used: $f = 2600$ MHz; $\sigma = 1.997$ S/m; $\epsilon_r = 39.68$; $\rho = 1000$ kg/m³

Phantom section: Right Section

Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY5 Configuration:

- Probe: EX3DV4 - SN3846; ConvF(7.27, 7.27, 7.27) @ 2600 MHz; Calibrated: 2025-05-28
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1588; Calibrated: 2024-09-13
- Phantom: MFP_V5.1C (20deg probe tilt); Type: QD 000 P51 Cx; Serial: 1062
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

Dipole Calibration/Zoom Scan (7x7x7) (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 100.1 V/m; Power Drift = 0.02 dB

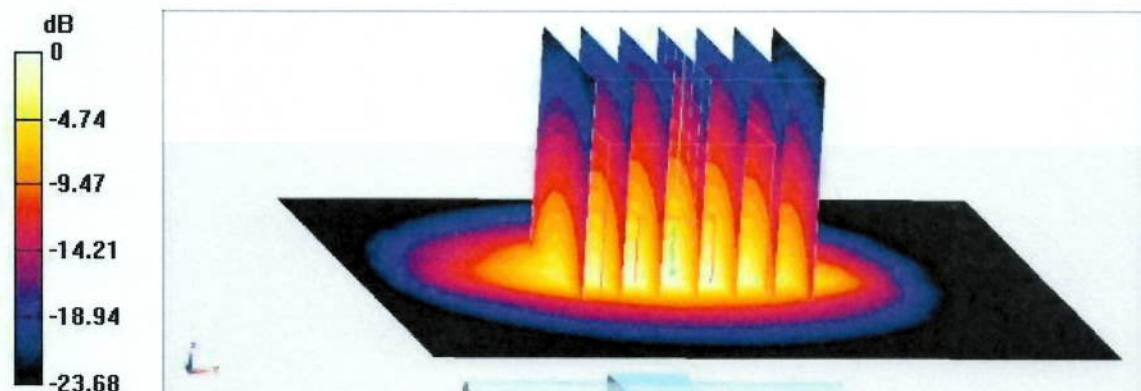
Peak SAR (extrapolated) = 30.1 W/kg

SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.19 W/kg

Smallest distance from peaks to all points 3 dB below = 8.2 mm

Ratio of SAR at M2 to SAR at M1 = 47%

Maximum value of SAR (measured) = 24.1 W/kg



0 dB = 24.1 W/kg = 13.82 dBW/kg



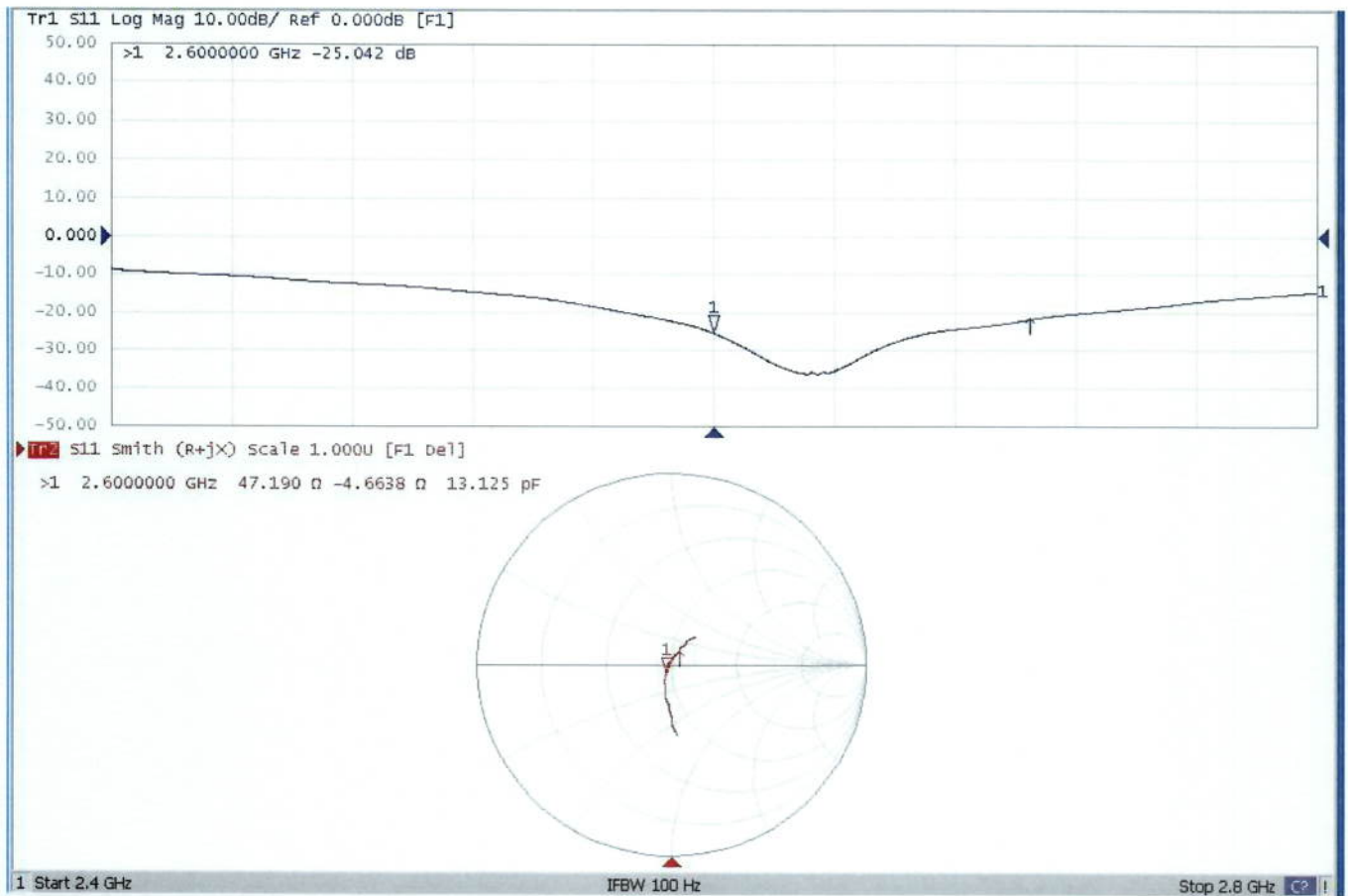
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Impedance Measurement Plot for Head TSL



Client: **SGS**
Shenzhen

Certificate No: 26J02Z000132

CALIBRATION CERTIFICATE

Object DAE4 - SN: 1267

Calibration Procedure(s) FF-Z11-002-01
Calibration Procedure for the Data Acquisition Electronics (DAEx)

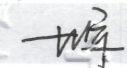
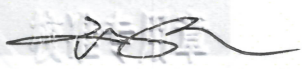
Calibration date: March 02, 2026

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) $^{\circ}\text{C}$ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Process Calibrator 753	1971018	11-Jun-25 (CTTL, No.25J02X004977)	Jun-26

	Name	Function	Signature
Calibrated by:	Yu Zongying	SAR Test Engineer	
Reviewed by:	Lin Jun	SAR Test Engineer	
Approved by:	Qi Dianyuan	SAR Project Leader	

Issued: March 05, 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 report provide only calibration results for DAE, it does not contain other performance test results.



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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	403.913 $\pm$ 0.15% (k=2)	404.014 $\pm$ 0.15% (k=2)	403.667 $\pm$ 0.15% (k=2)
Low Range	3.99884 $\pm$ 0.7% (k=2)	3.97509 $\pm$ 0.7% (k=2)	3.99642 $\pm$ 0.7% (k=2)

Connector Angle

Connector Angle to be used in DASY system	166° $\pm$ 1 °
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Client: **SGS**
Shenzhen

Certificate No: 26J02Z000225

CALIBRATION CERTIFICATE

Object DAE4 - SN: 896

Calibration Procedure(s) FF-Z11-002-01
Calibration Procedure for the Data Acquisition Electronics (DAEx)

Calibration date: March 23, 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.

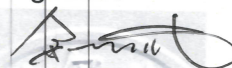
All calibrations have been conducted in the closed laboratory facility: environment temperature(22±3)℃ and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Process Calibrator 753	1971018	11-Jun-25 (CTTL, No.25J02X004977)	Jun-26

	Name	Function
Calibrated by:	Yu Zongying	SAR Test Engineer
Reviewed by:	Lin Jun	SAR Test Engineer
Approved by:	Qi Dianyuan	SAR Project Leader

Signature





Issued: March 24, 2026

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In Collaboration with

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CALIBRATION LABORATORY



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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 report provide only calibration results for DAE, it does not contain other performance test results.



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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	404.052 $\pm$ 0.15% (k=2)	404.304 $\pm$ 0.15% (k=2)	404.220 $\pm$ 0.15% (k=2)
Low Range	3.98079 $\pm$ 0.7% (k=2)	4.00194 $\pm$ 0.7% (k=2)	3.97137 $\pm$ 0.7% (k=2)

Connector Angle

Connector Angle to be used in DASY system	267.5° $\pm$ 1 °
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Client

SGS

Shenzhen

Certificate No: 25J02Z000664

CALIBRATION CERTIFICATE

Object **EX3DV4 - SN : 7821**

Calibration Procedure(s) **FF-Z11-0004-03**
Calibration Procedures for Dosimetric E-field Probes

Calibration date: **October 14, 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±3)°C and humidity<70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
Power Meter NRP2	106277	18-Oct-24(CTTL, No.24J02X101459)	Oct-25
Power sensor NRP8S	104291	18-Oct-24(CTTL, No.24J02X101459)	Oct-25
Power sensor NRP8S	104292	18-Oct-24(CTTL, No.24J02X101459)	Oct-25
Reference 10dBAttenuator	18N50W-10dB	22-Jan-25(CTTL, No.25J02X000465)	Jan-27
Reference 20dBAttenuator	18N50W-20dB	22-Jan-25(CTTL, No.25J02X000466)	Jan-27
Reference Probe EX3DV4	SN 7307	27-May-25(SPEAG, No.EX-7307_May25)	May-26
DAE4	SN 771	22-Jan-25(SPEAG, No.DAE4-771_Jan25)	Jan-26
Secondary Standards	ID #	Cal Date(Calibrated by, Certificate No.)	Scheduled Calibration
SignalGenerator MG3700A	6201052605	10-Jun-25(CTTL, No.25J02X004975)	Jun-26
SignalGenerator APSIN26G	181-33A6D0700-1959	27-Mar-25(CTTL, No.25J02X001962)	Mar-26
Network Analyzer E5071C	MY46110673	18-Dec-24(CTTL, No.24J02X103932)	Dec-25
Reference 10dBAttenuator	BT0520	15-May-25(CTTL, No.25J02X003069)	May-27
Reference 20dBAttenuator	BT0267	15-May-25(CTTL, No. 25J02X003070)	May-27
OCP DAK-3.5	SN 1040	20-Jan-25(SPEAG, No. OCP-DAK3.5-1040_Jan25)	Jan-26

	Name	Function
Calibrated by:	Yu Zongying	SAR Test Engineer
Reviewed by:	Lin Jun	SAR Test Engineer
Approved by:	Qi Dianyuan	SAR Project Leader

Signature

(Signatures)

Issued: October 17, 2025

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