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SAR Dipole Performance Measurement Report

EUT Type: SAR Validation Dipole and Waveguide
Model Name: DIP0G750, DIP0G835, DIP1G800, DIP1G900, DIP2G450, DIP2G600, WGA32
Brand Name: SATIMO
Test Conclusion: Pass
Test Date: 11 Dec. 2024 & 03 Jul. 2025
Date of Issue: 03 Jul. 2025

Testing Engineer :

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(Xin.Liu)

Technical Manager :

Shi fan-long

(Shifan. Long)

Authorized Signatory :

Bovey Yang

(Bovey Yang)



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Shenzhen STS Test Services Co., Ltd.

Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
PC	Acer	N/A	N/A	N/A	N/A
E-Field Probe	MVG	SSE2	SN 08/21 EPGO352	2024.09.18	2025.09.17
Dielectric Probe Kit	MVG	SCLMP	SN 32/14 OCPG67	2024.09.18	2025.09.17
Phantom1	MVG	SAM	SN 32/14 SAM115	N/A	N/A
Phantom2	MVG	SAM	SN 32/14 SAM116	N/A	N/A
Attenuator	Agilent	99899	DC-18GHz	N/A	N/A
Directional coupler	Narda	4226-20	3305	N/A	N/A
Network Analyzer	Agilent	E5071C	MY46520378	2024-09-25	2025-09-26
Multi Meter	Keithley	Multi Meter 2000	4050073	2024-09-25	2025-09-26
Signal Generator	Agilent	N5182A	MY50140530	2024-09-25	2025-09-26
Power Amplifier	DESAY	ZHL-42W	9638	2024-09-25	2025-09-26
Power Meter	R&S	NRP	100510	2024-09-25	2025-09-26
Power Sensor	R&S	NRP-Z11	101919	2024-09-25	2025-09-26
Power Sensor	Keysight	U2021XA	MY56280002	2024-09-25	2025-09-26
Temperature hygrometer	SuWei	SW-108	N/A	2024.10.15	2025.10.14
Thermograph	Elitech	RC-4	S/N EF7176501537	2024.10.15	2025.10.14



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Kind of Equipment	Manufacturer	Type No.	Serial No.	Last Calibration	Calibrated Until
SAR Test System	SATIMO	N/A	V5.3.15.11	N/A	N/A
Dielectric Probe Kit	MVG	SCLMP	SN 32/14 OCPG67	2025.09.15	2026.09.14
Antenna	MVG	ANTA3	SN 07/13 ZNTA52	N/A	N/A
Phantom1	MVG	SAM	SN 32/14 SAM115	N/A	N/A
Phantom3	MVG	SAM	SN 21/21 ELLI48	N/A	N/A
Phone holder	MVG	N/A	SN 32/14 MSH97	N/A	N/A
Laptop holder	MVG	N/A	SN 32/14 LSH29	N/A	N/A
Attenuator	Agilent	HXT-10-8-SMA	240327017	2025-02-22	2026-02-21
Directional coupler	Xi'an Xingbo	XBOH-OA08-20dB	211123-4-3	2025-02-22	2026-02-21
Network Analyzer	Agilent	E5071C	MY46520378	2025-09-26	2026-09-24
Multi Meter	Keithley	Multi Meter 2000	4050073	2025-09-22	2026-09-21
Signal Generator	Agilent	N5182A	MY50140530	2025-09-26	2026-09-25
Wireless Communication Test Set	Agilent	8960-E5515C	MY48360751	2025-02-22	2026-02-21
Wireless Communication Test Set	R&S	CMW500	156324	2025-09-25	2026-09-24
Power Amplifier	DESAY	WCS-DLNA50M8G50G1	CSKJLNA231227A	2025-09-29	2026-09-28
Power Meter	R&S	NRP	100510	2025-09-25	2026-09-24
Power Sensor	R&S	NRP-Z11	101919	2025-09-25	2026-09-24
Power Sensor	Keysight	U2021XA	MY56280002	2025-09-25	2026-09-24
Temperature hygrometer	TOPRIE	TP502V4-P	6700000124198	2025.10.09	2026.10.08
Thermograph	Elitech	RC-4	S/N EF7176501537	2025.10.17	2026.10.16



2. <Justification of the extended calibration>

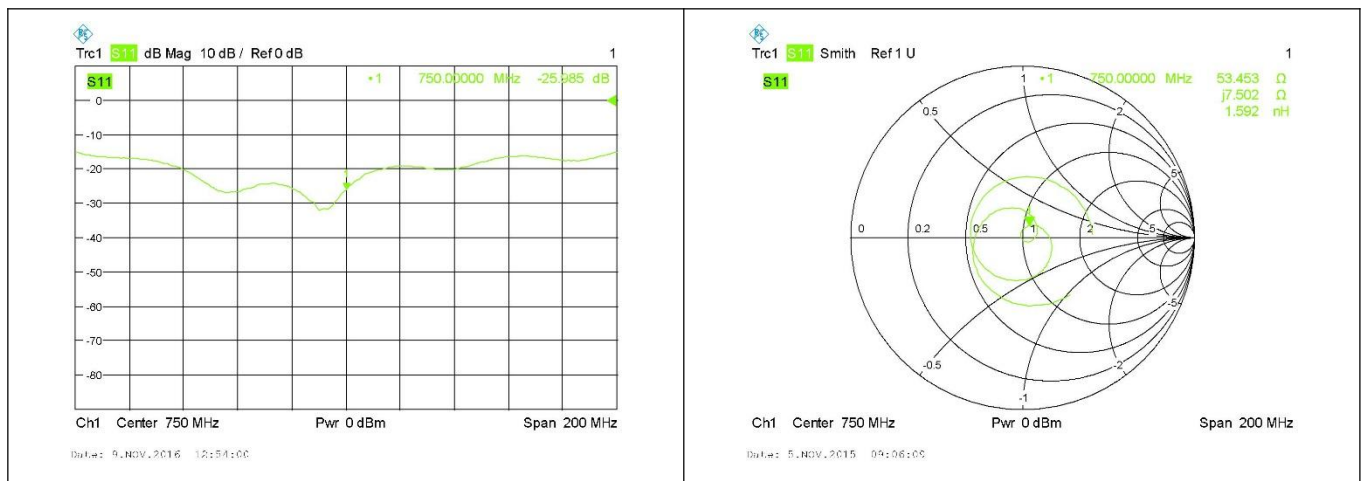
Referring to KDB 865664 D01, if dipoles are verified in return loss $< -20\text{dB}$, (within 20% of prior calibration), and in impedance (within 5 ohm of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

Head 750 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance	Delta(ohm)
2023.07.04	-25.47	-	55.2	-
2024.07.01	-25.98	2.00	54.86	-0.62
2025.07.03	-25.99	2.02	53.45	-3.16

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>

Head 750 MHz



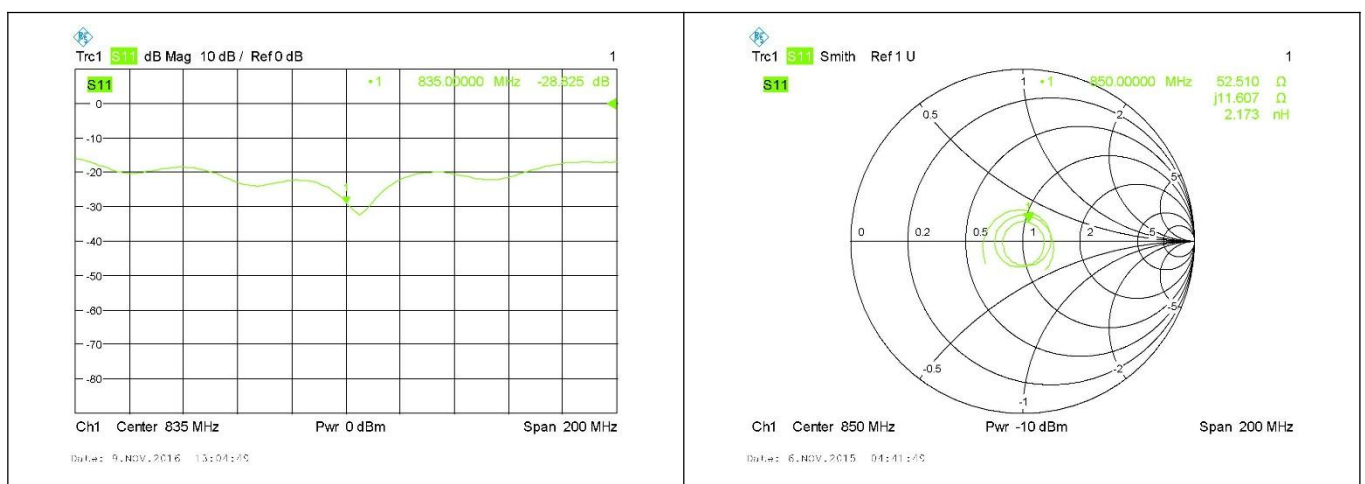


Head 835 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance	Delta(ohm)
2023.07.04	-28.13	-	51.4	-
2024.07.01	-28.43	1.07	52.62	2.37
2025.07.03	-28.83	2.47	52.51	2.16

The return loss is <-20dB, 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>

Head 835MHz



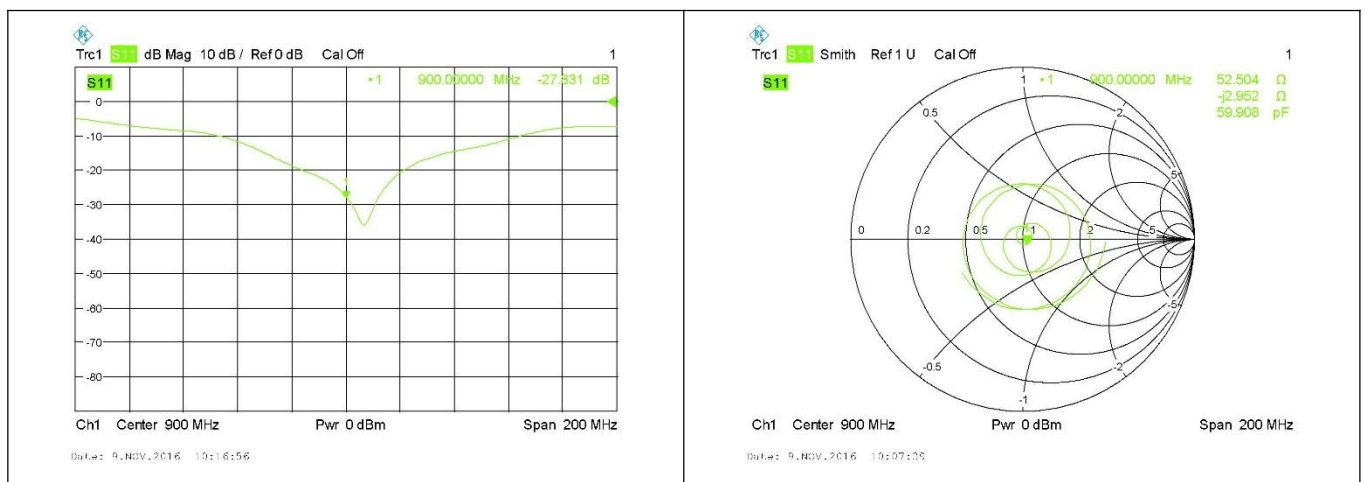


Head 900 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance	Delta(ohm)
2023.12.20	-27.67	-	50.1	/
2024.12.11	-27.75	0.29	51.09	1.98
2025-12-09	-27.83	0.58	51.09	1.98

The return loss is <-20dB, 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>

Head 900MHz



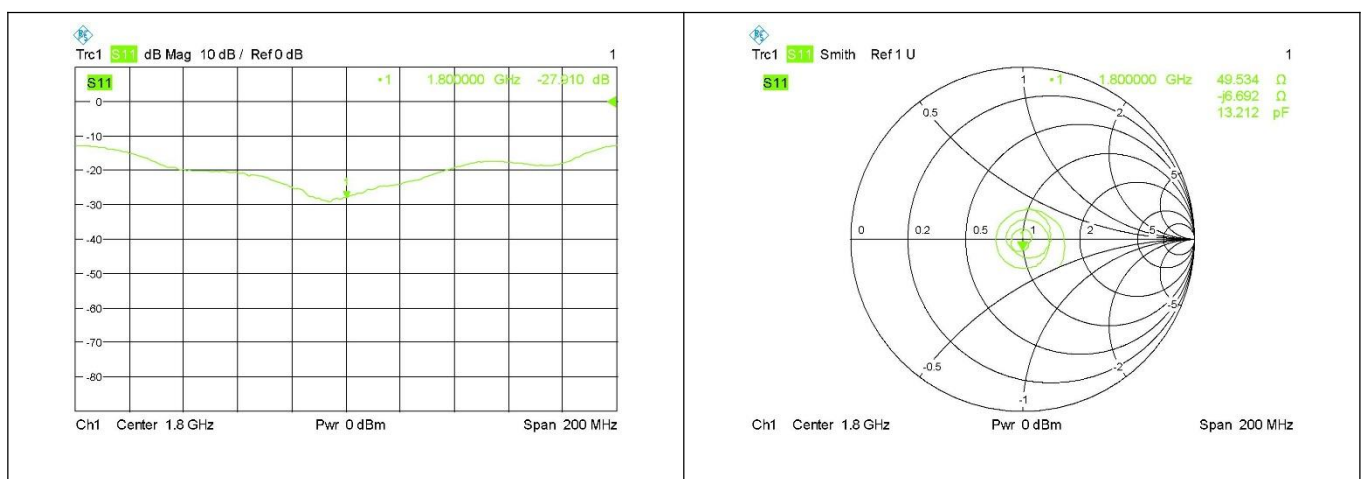


Head 1800 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance	Delta(ohm)
2023.12.20	-27.38	/	50.2	/
2024.12.11	-27.04	-1.23	48.48	-3.43
2025-12-09	-27.91	1.94	48.53	-3.32

The return loss is <-20dB, 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>

Head 1800 MHz



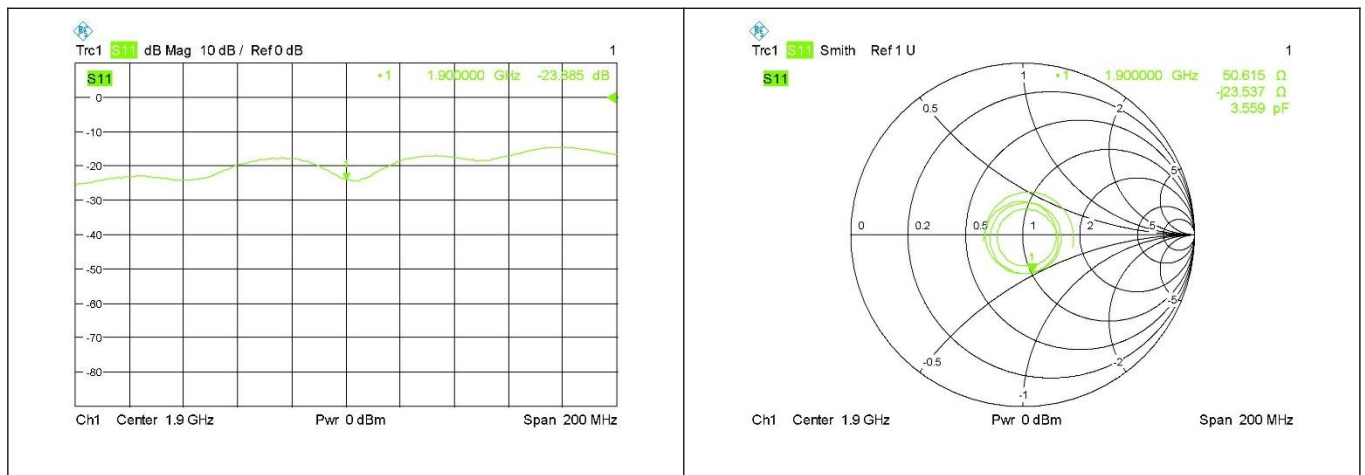


Head 1900 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance	Delta(ohm)
2023.09-14	-23.66	-	51.4	-
2024.07.01	-23.62	-0.17	50.73	-1.30
2025.07.03	-23.89	0.96	50.62	-1.52

The return loss is <-20dB, 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>

Head 1900 MHz



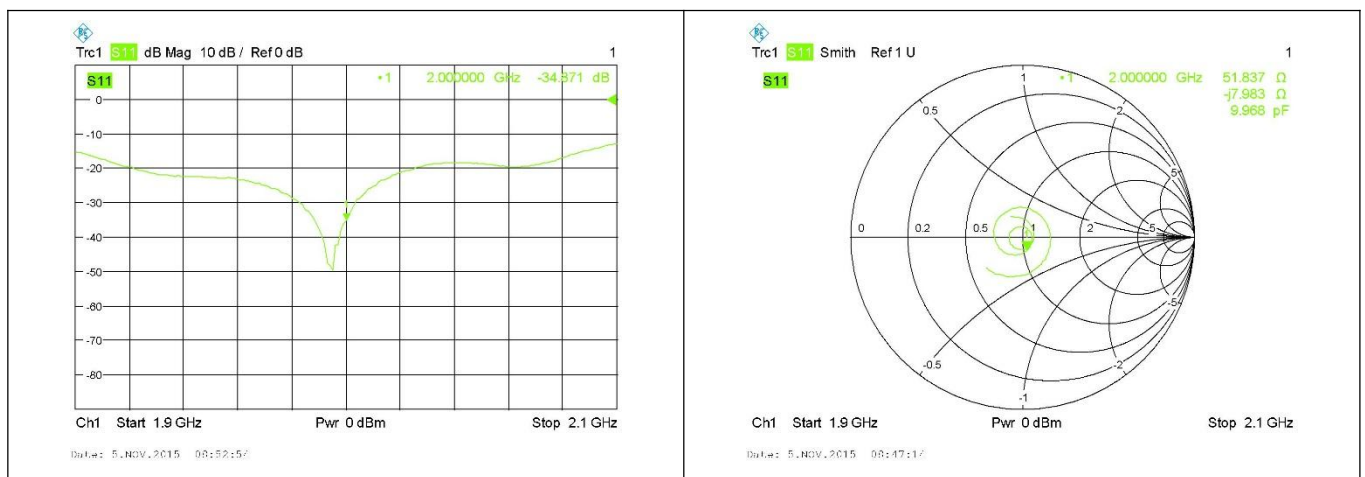


Head 2000 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance	Delta(ohm)
2023.07.04	-34.30	-	50.2	-
2024.07.01	-34.89	1.72	51.86	3.31
2025.07.03	-34.87	1.66	51.84	3.26

The return loss is <-20dB, 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>

Head 2000 MHz



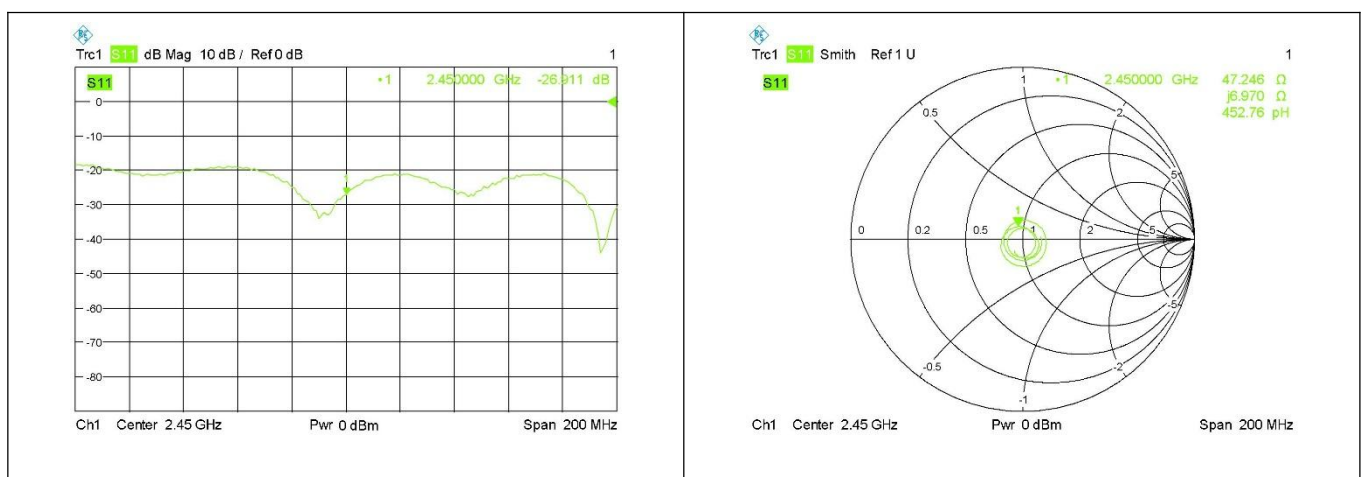


Head 2450 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance	Delta(ohm)
2023.07.04	-26.03	-	46.3	-
2024.07.01	-26.42	1.50	47.25	2.05
2025.07.03	-26.91	3.38	47.4	2.37

The return loss is <-20dB, 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>

Head 2450 MHz



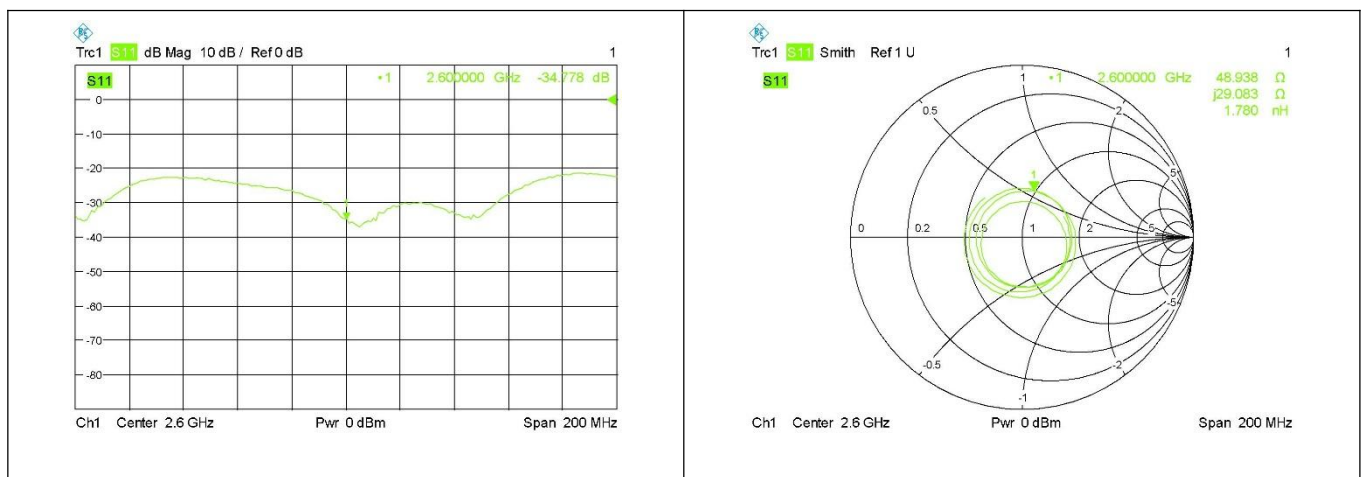


Head 2600 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance	Delta(ohm)
2023.07.04	-34.32	-	50.3	-
2024.07.01	-33.58	-2.16	49.61	-1.37
2025.07.03	-34.78	1.34	48.94	-2.71

The return loss is <-20dB, 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>

Head 2600 MHz





Head 5000 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance	Delta(ohm)
2023.07.04	< -8.23	-	-	-
2024.07.01	-9.10	10.57	-	-
2025.07.03	-9.70	17.86-	-	-

The return loss is <-8dB, within 20% of prior calibration; Therefore the verification result should support extended calibration.

<Dipole Verification Data>

Head 5000MHz

