

APPENDIX F - RETURN LOSS AND IMPEDANCE MEASUREMENT

D2450V2 - SN:971 Extended Dipole Calibrations

Referring to KDB865664 D01, if dipoles are verified in return loss(< -20dB, 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.

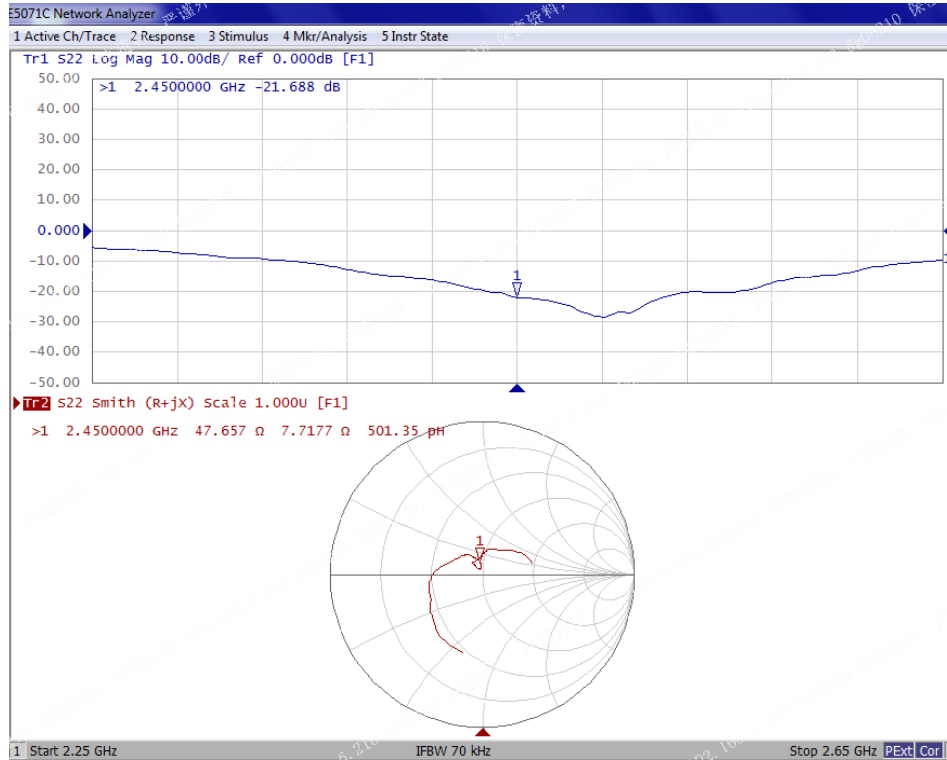
Test Equipment Information:

Equipment	Model	S/N	Calibration Date	Calibration Due Date
Simulated Tissue Liquid Head	HBBL600-10000V6	SL AAH U126 CA (Batch:250429-1)	N/A	N/A
Twin SAM	Twin SAM V5.0	1874	NCR	NCR
Network Analyzer	E5071C	MY46519680	2024/07/11	2025/07/10
Network Analyzer Calibration Kit	50 Ω	51026	NCR	NCR

Justification of the extended calibration

D2450V2 - SN:971						
2450MHz Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2024/6/15 (Cal. Report)	-23.0	/	52.3	/	6.84	/
2025/6/10 (Extended)	-21.69	5.7%	47.66	4.64	7.72	-0.88

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> D2450V2 - SN:971 (Date of Measurement: 2025/6/10)**2450MHz - Head**

	Name	Tilt	Signature
Calibrated By:	Mark Dong	SAR Engineer	<i>Mark Dong</i>
Approved By:	Brave Lu	SAR Supervisor	<i>Brave Lu</i>

D5GHzV2 - SN:1246 Extended Dipole Calibrations

Referring to KDB865664 D01, if dipoles are verified in return loss(< -20dB, 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.

Test Equipment Information:

Equipment	Model	S/N	Calibration Date	Calibration Due Date
Simulated Tissue Liquid Head	HBBL600-10000V6	SL AAH U16 BC (Batch:220809-1)	Each Time	/
Twin SAM	Twin SAM V5.0	1874	NCR	NCR
Network Analyzer	E5071C	MY46519680	2023/07/16	2024/07/15
Network Analyzer Calibration Kit	50 Ω	51026	NCR	NCR

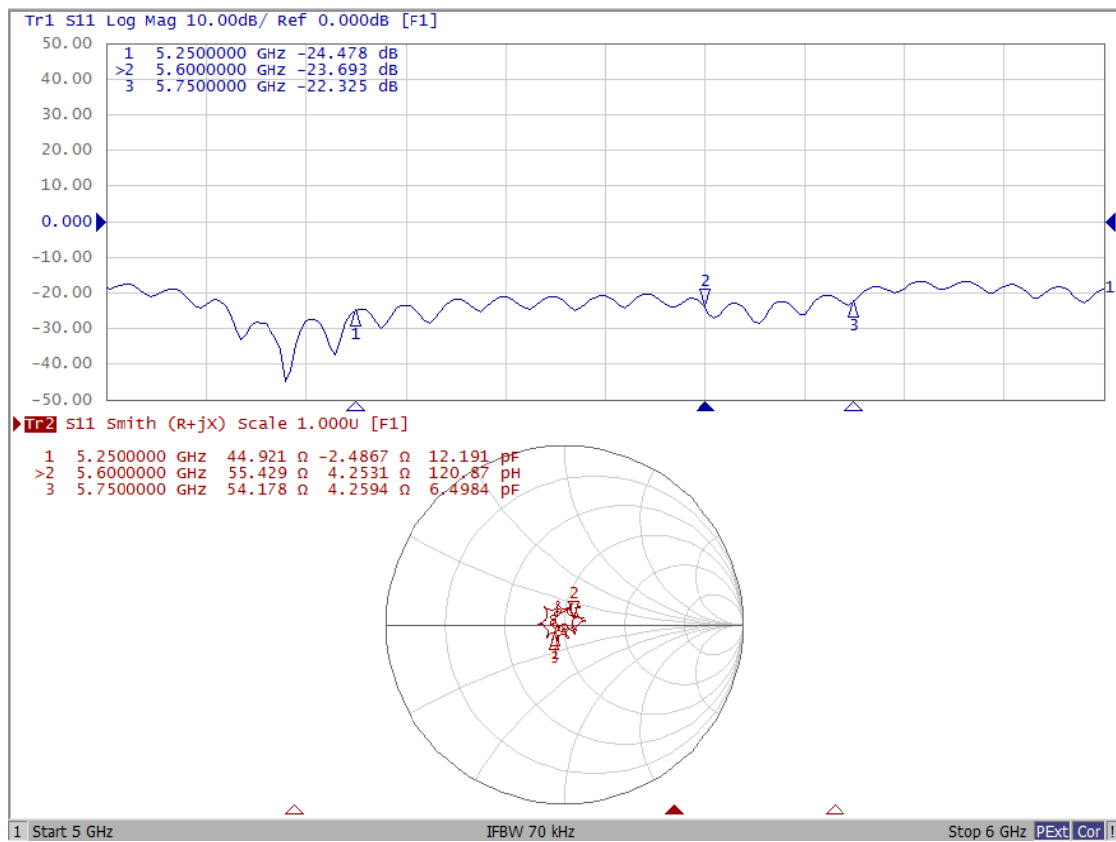
Justification of the extended calibration

D5GHzV2 - SN:1246						
5250MHz Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2022/11/1 (Cal. Report)	-29.797	/	49.124	/	-3.0884	/
2023/10/31 (Extended)	-24.478	-17.85	44.921	-4.203	-2.4867	0.6017
5600MHz Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance	Delta (ohm)
2022/11/1 (Cal. Report)	-26.903	/	51.979	/	4.1641	/
2023/10/31 (Extended)	-23.693	-11.93	55.429	3.45	4.2531	0.089
5750MHz Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance	Delta (ohm)
2022/11/1 (Cal. Report)	-27.590	/	53.547	/	2.4705	/
2023/10/31 (Extended)	-22.325	-19.08	54.178	0.631	4.2594	1.7889

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> D5GHzV2 - SN:1246 (Date of Measurement: 2023/10/31)

5250MHz/5600MHz/5750MHz - Head



	Name	Tilt	Signature
Calibrated By:	Mark Dong	SAR Engineer	<i>Mark Dong</i>
Approved By:	Brave Lu	SAR Supervisor	<i>Brave Lu</i>

D5GHzV2 - SN:1246 Extended Dipole Calibrations

Referring to KDB865664 D01, if dipoles are verified in return loss(< -20dB, 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.

Test Equipment Information:

Equipment	Model	S/N	Calibration Date	Calibration Due Date
Simulated Tissue Liquid Head	HBBL600-10000V6	SL AAH U16 BC (Batch:220809-1)	Each Time	/
Twin SAM	Twin SAM V5.0	1874	NCR	NCR
Network Analyzer	E5071C	MY46519680	2024/07/11	2025/07/10
Network Analyzer Calibration Kit	50 Ω	51026	NCR	NCR

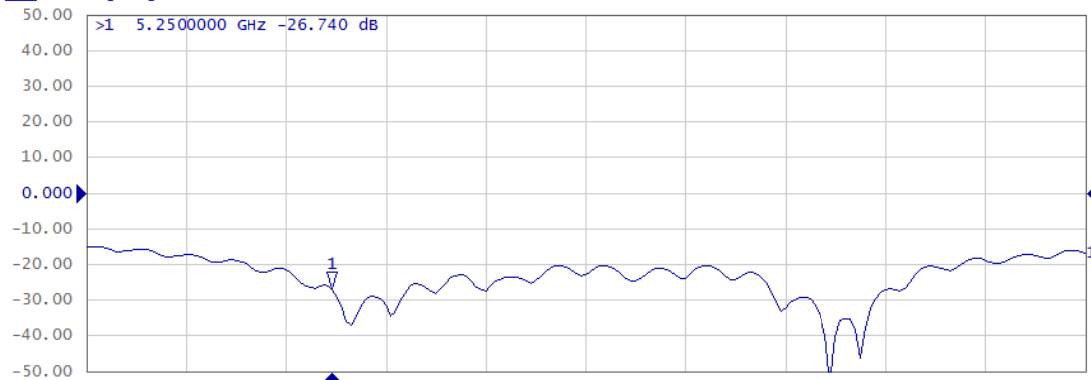
Justification of the extended calibration

D5GHzV2 - SN:1246						
5250MHz Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance (ohm)	Delta (ohm)
2022/11/1 (Cal. Report)	-29.797	/	49.124	/	-3.0884	/
2024/10/31 (Extended)	-26.740	-10.26	45.701	-3.423	0.97942	4.06782
5600MHz Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance	Delta (ohm)
2022/11/1 (Cal. Report)	-26.903	/	51.979	/	4.1641	/
2024/10/31 (Extended)	-23.451	-12.83	54.620	2.641	5.3537	1.1896
5750MHz Head						
Date of Measurement	Return-Loss (dB)	Delta (%)	Real Impedance (ohm)	Delta (ohm)	Imaginary Impedance	Delta (ohm)
2022/11/1 (Cal. Report)	-27.590	/	53.547	/	2.4705	/
2024/10/31 (Extended)	-26.795	-2.88	50.056	-3.491	4.5804	2.1099

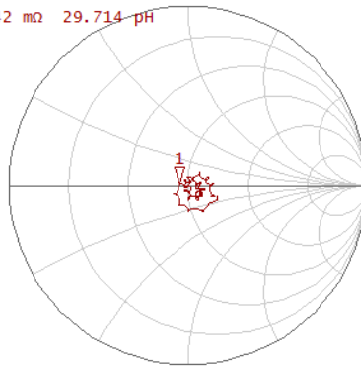
The return loss is <-20dB, within 20% of prior calibration; the impedance is within 5 ohm of prior calibration. Therefore the verification result should support extended calibration.

Dipole Verification Data> D5GHzV2 - SN:1246 (Date of Measurement: 2024/10/31)**5250MHz - Head**

▶ Tr1 S22 Log Mag 10.00dB/ Ref 0.000dB [F1]



Tr2 S22 Smith (R+jX) Scale 1.000U [F1]

>1 5.250000 GHz 45.701 Ω 979.42 m Ω 29.714 pF

1 Start 5 GHz

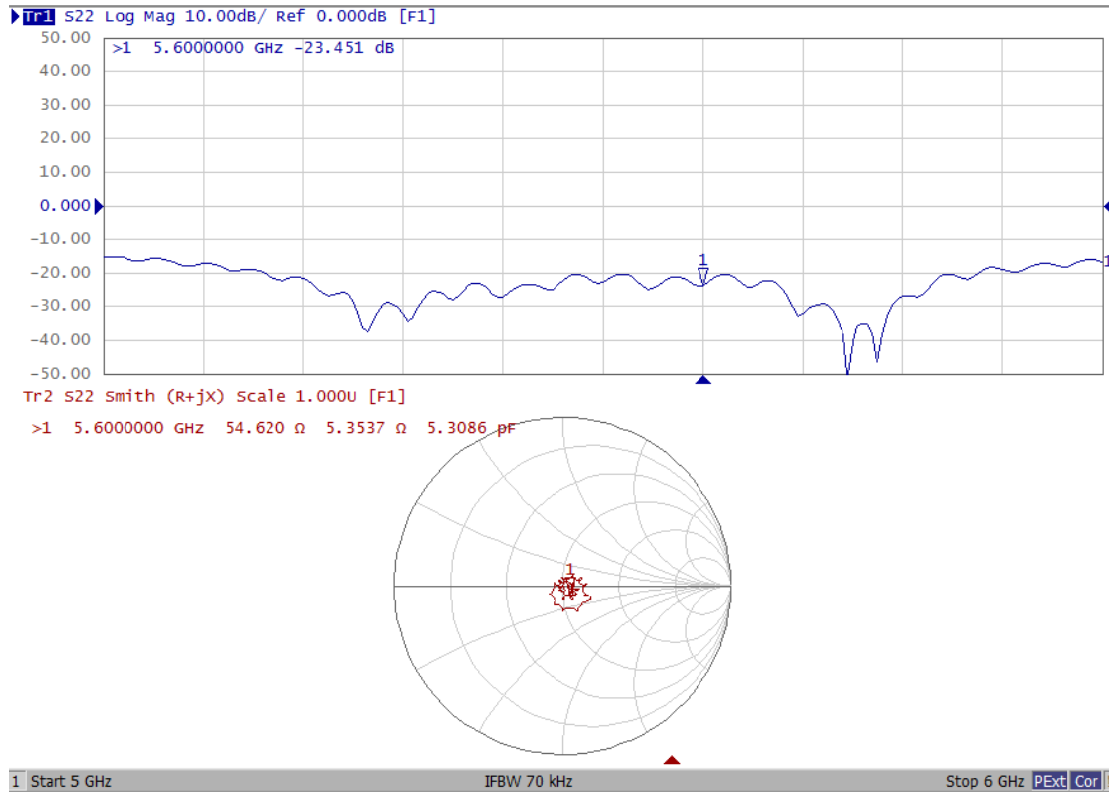
IFBW 70 kHz

Stop 6 GHz PExt Cor I

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Calibrated By:	Mark Dong	SAR Engineer	Mark Dong
Approved By:	Brave Lu	SAR Supervisor	Brave Lu

Dipole Verification Data> D5GHzV2 - SN:1246 (Date of Measurement: 2024/10/31)

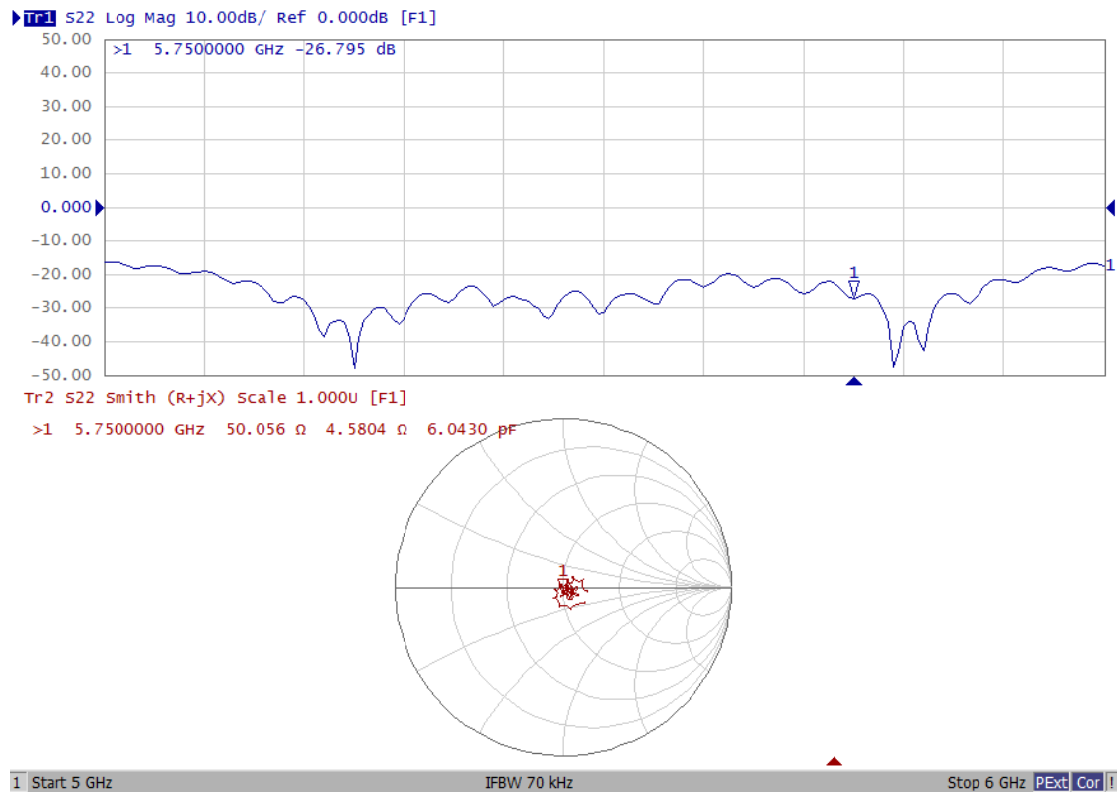
5600MHz - Head



	Name	Tilt	Signature
Calibrated By:	Mark Dong	SAR Engineer	<i>Mark Dong</i>
Approved By:	Brave Lu	SAR Supervisor	<i>Brave Lu</i>

Dipole Verification Data> D5GHzV2 - SN:1246 (Date of Measurement: 2024/10/31)

5750MHz - Head



	Name	Tilt	Signature
Calibrated By:	Mark Dong	SAR Engineer	<i>Mark Dong</i>
Approved By:	Brave Lu	SAR Supervisor	<i>Brave Lu</i>