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10958	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.61	± 9.6 %
10959	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	± 9.6 %
10960	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.32	± 9.6 %
10961	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.36	± 9.6 %
10962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.40	± 9.6 %
10963	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10964	AAB	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.29	± 9.6 %
10965	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.37	± 9.6 %
10966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.55	± 9.6 %
10967	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.42	± 9.6 %
10968	AAB	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	± 9.6 %
10972	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	11.59	± 9.6 %
10973	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	9.06	± 9.6 %
10974	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)	5G NR FR1 TDD	10.28	± 9.6 %
10978	AAA	ULLA BDR	ULLA	1.16	± 9.6 %
10979	AAA	ULLA HDR4	ULLA	8.58	± 9.6 %
10980	AAA	ULLA HDR8	ULLA	10.32	± 9.6 %
10981	AAA	ULLA HDRp4	ULLA	3.19	± 9.6 %
10982	AAA	ULLA HDRp8	ULLA	3.43	± 9.6 %
10983	AAC	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.31	± 9.6 %
10984	AAB	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.42	± 9.6 %
10985	AAC	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.54	± 9.6 %
10986	AAB	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.50	± 9.6 %
10987	AAC	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.53	± 9.6 %
10988	AAB	5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.38	± 9.6 %
10989	AAC	5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.33	± 9.6 %
10990	AAB	5G NR DL (CP-OFDM, TM 3.1, 90 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.52	± 9.6 %
11003	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	10.24	± 9.6 %
11004	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	10.73	± 9.6 %
11005	AAA	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.70	± 9.6 %
11006	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.55	± 9.6 %
11007	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.46	± 9.6 %
11008	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.51	± 9.6 %
11009	AAA	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.76	± 9.6 %
11010	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.95	± 9.6 %
11011	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.96	± 9.6 %
11012	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.68	± 9.6 %
11013	AAA	IEEE 802.11be (320MHz, MCS1, 99pc duty cycle)	WLAN	8.47	± 9.6 %
11014	AAA	IEEE 802.11be (320MHz, MCS2, 99pc duty cycle)	WLAN	8.45	± 9.6 %
11015	AAA	IEEE 802.11be (320MHz, MCS3, 99pc duty cycle)	WLAN	8.44	± 9.6 %
11016	AAA	IEEE 802.11be (320MHz, MCS4, 99pc duty cycle)	WLAN	8.44	± 9.6 %
11017	AAA	IEEE 802.11be (320MHz, MCS5, 99pc duty cycle)	WLAN	8.41	± 9.6 %
11018	AAA	IEEE 802.11be (320MHz, MCS6, 99pc duty cycle)	WLAN	8.40	± 9.6 %
11019	AAA	IEEE 802.11be (320MHz, MCS7, 99pc duty cycle)	WLAN	8.29	± 9.6 %
11020	AAA	IEEE 802.11be (320MHz, MCS8, 99pc duty cycle)	WLAN	8.27	± 9.6 %
11021	AAA	IEEE 802.11be (320MHz, MCS9, 99pc duty cycle)	WLAN	8.46	± 9.6 %
11022	AAA	IEEE 802.11be (320MHz, MCS10, 99pc duty cycle)	WLAN	8.36	± 9.6 %
11023	AAA	IEEE 802.11be (320MHz, MCS11, 99pc duty cycle)	WLAN	8.09	± 9.6 %
11024	AAA	IEEE 802.11be (320MHz, MCS12, 99pc duty cycle)	WLAN	8.42	± 9.6 %
11025	AAA	IEEE 802.11be (320MHz, MCS13, 99pc duty cycle)	WLAN	8.37	± 9.6 %
11026	AAA	IEEE 802.11be (320MHz, MCS0, 99pc duty cycle)	WLAN	8.39	± 9.6 %

<sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

## D750V3, Serial No. 1126 Extended Dipole Calibrations

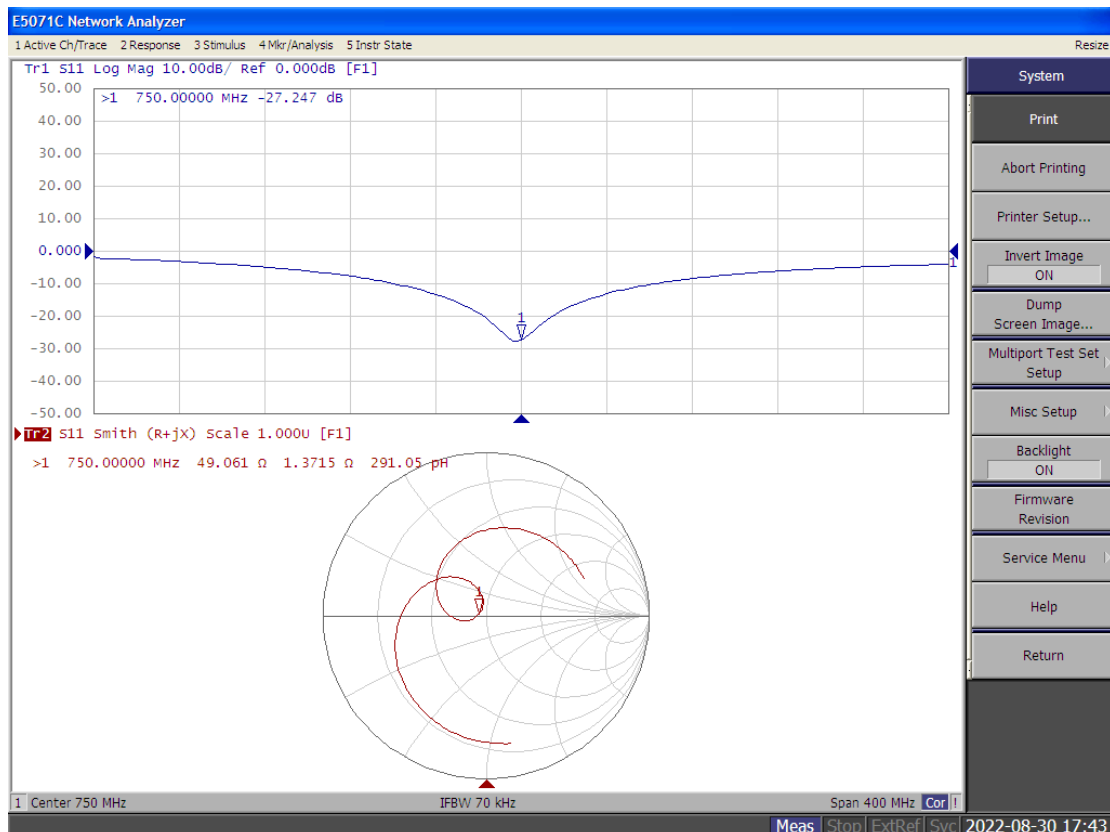
Referring to KDB 865664 D01, if dipoles are verified in return loss (<-20dB, within 20% of prior calibration), and in impedance (within 5  $\Omega$  of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

D750V3, Serial No. 1126				
750 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance ( $\Omega$ )	Delta ( $\Omega$ )
2021.8.31	-30.652		52.724	
2022.8.30	-27.247	11	49.061	-3.663
2023.8.30	-28.294	8	48.607	-4.117

### <Justification of the extended calibration>

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

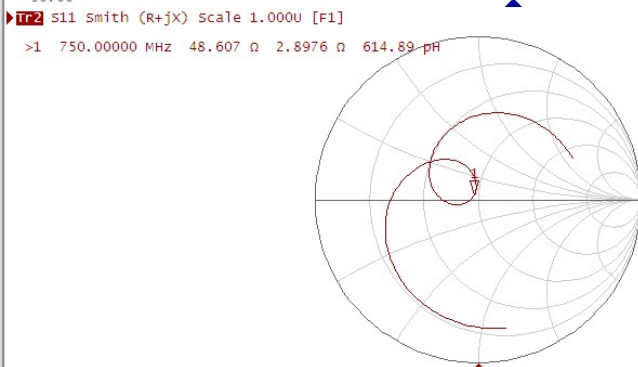
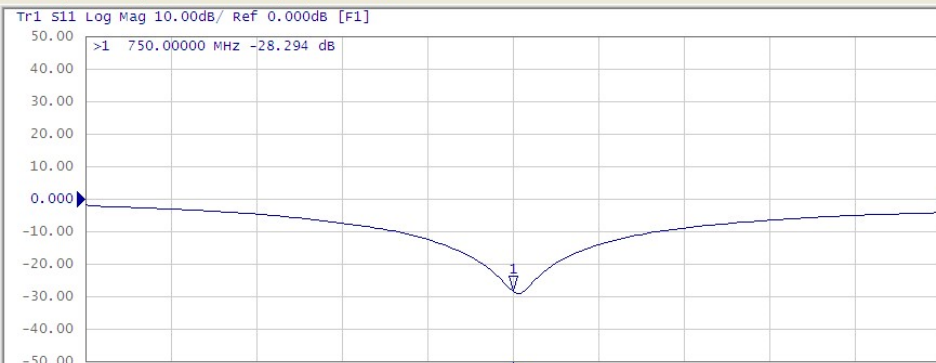
### Dipole Verification Data> D750V3, serial no. 1126



E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Resize



1 Start 550 MHz

IFBW 70 kHz

Stop 950 MHz Cor

Meas Stop ExtRef Svc 2023-08-30 09:48

- Misc Setup
- Beeper
- GPIB Setup
- Power Meter Setup
- Network Setup
- Clock Setup
- Key Lock
- Display Setup
- Channel/Trace Setup
- Preset Setup
- Control Panel
- Return

## D835V3, Serial No. 4d178 Extended Dipole Calibrations

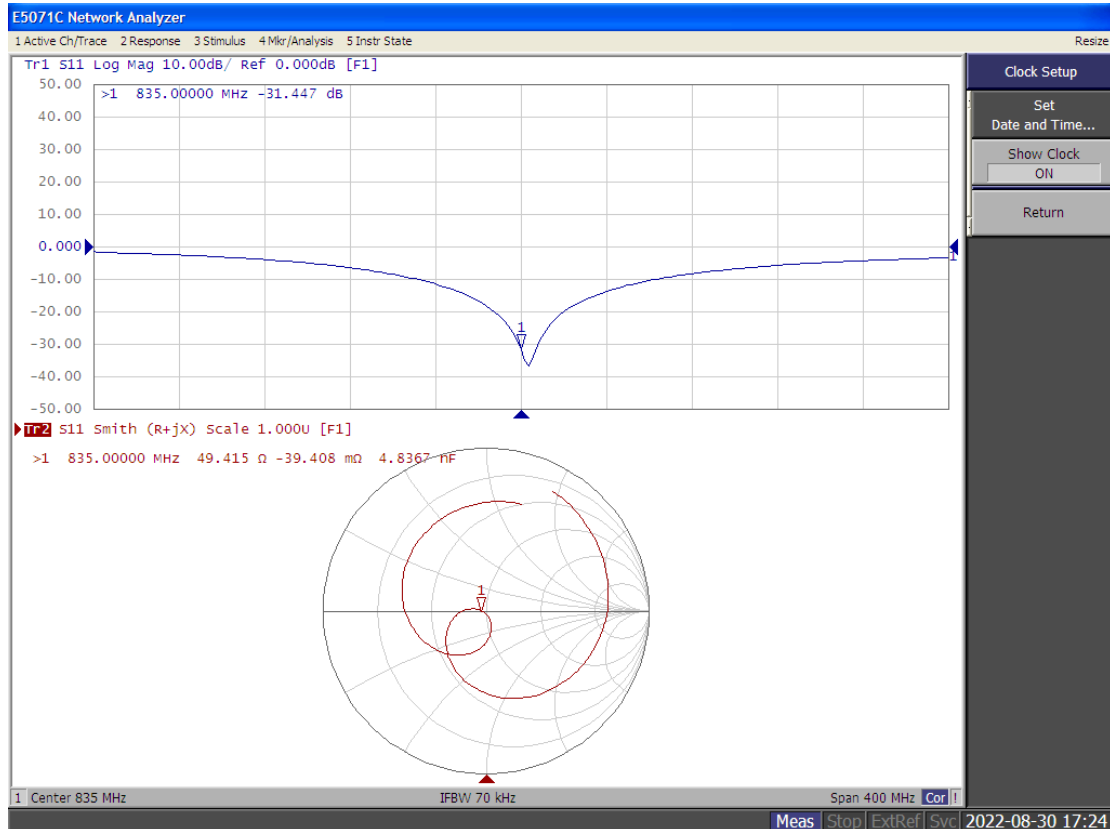
Referring to KDB 865664 D01, if dipoles are verified in return loss (<-20dB, within 20% of prior calibration), and in impedance (within 5  $\Omega$  of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

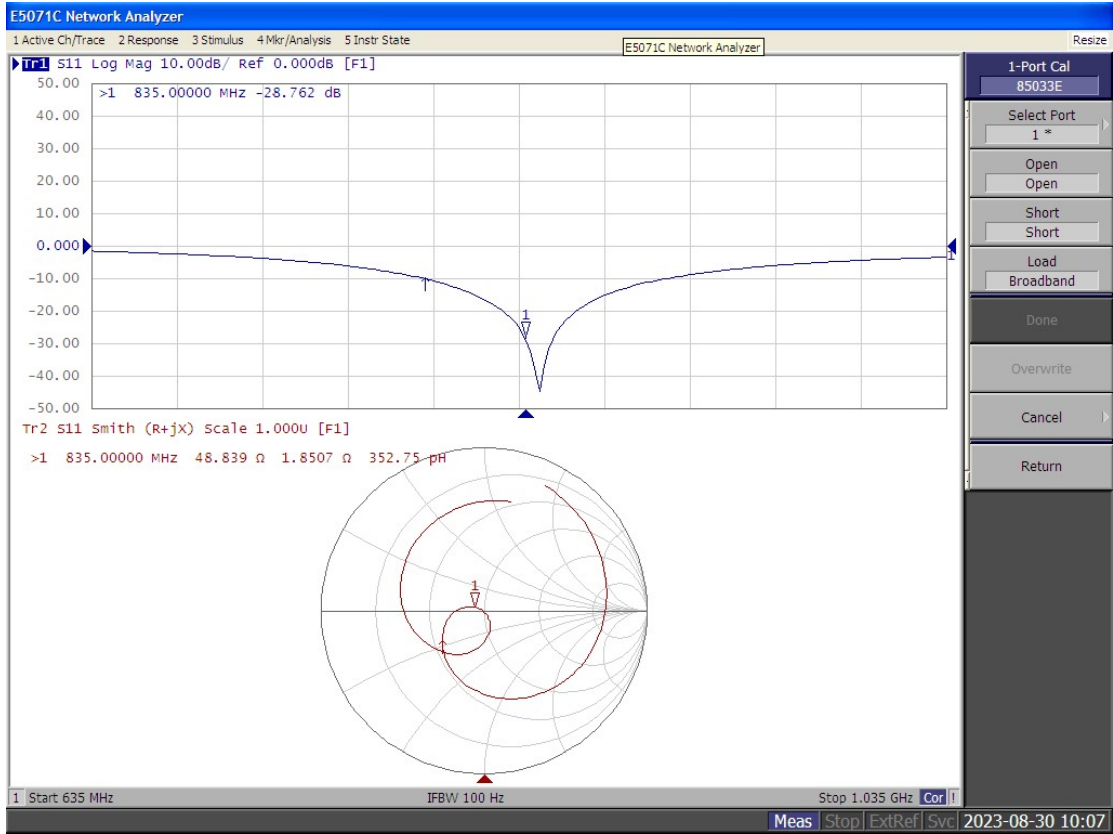
D835V3, Serial No. 4d178				
835 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance ( $\Omega$ )	Delta ( $\Omega$ )
2021.8.31	-30.270		52.511	
2022.8.30	-31.447	4	49.415	-3.096
2023.8.30	-28.762	5	48.839	-3.672

### <Justification of the extended calibration>

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

### Dipole Verification Data> D835V3, serial no. 4d178





## D1750V2, Serial No. 1128 Extended Dipole Calibrations

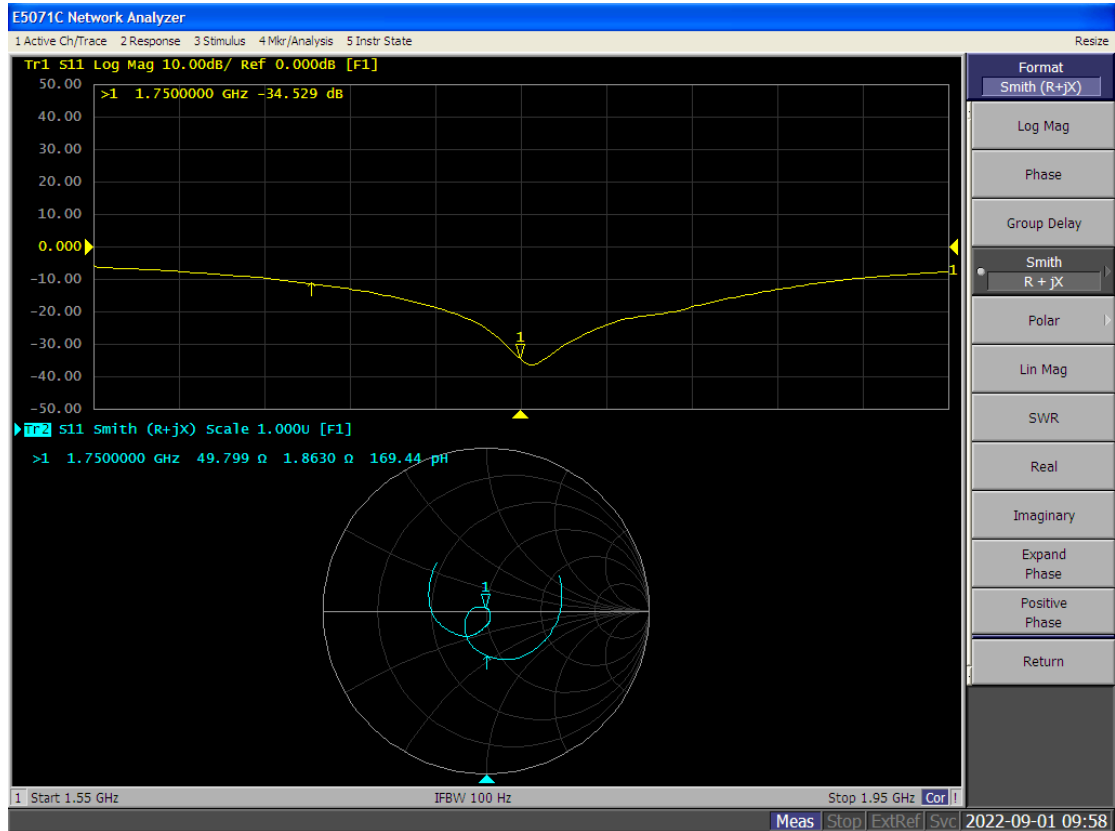
Referring to KDB 865664 D01, if dipoles are verified in return loss (<-20dB, within 20% of prior calibration), and in impedance (within 5  $\Omega$  of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

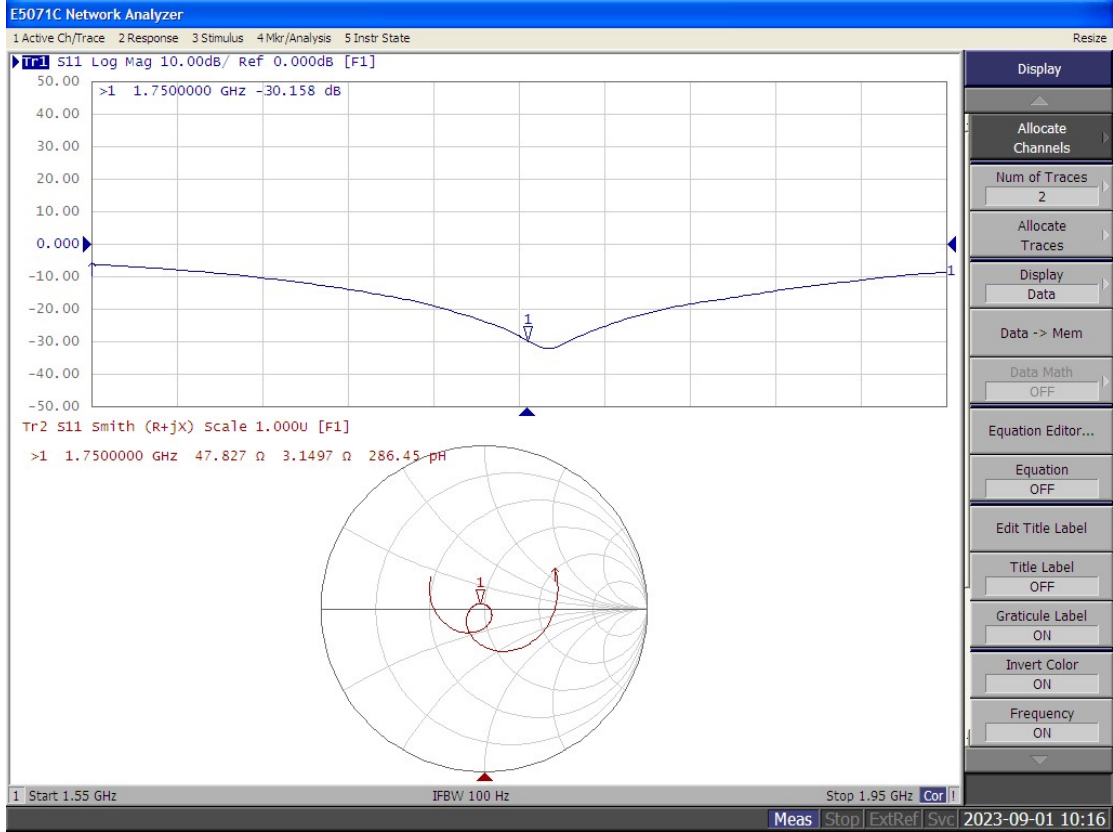
D1750V2, Serial No. 1128				
1750 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance ( $\Omega$ )	Delta ( $\Omega$ )
2021.9.2	-34.826		49.818	
2022.9.1	-34.529	1	49.799	0.019
2023.9.1	-30.158	13	47.827	-1.991

### <Justification of the extended calibration>

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

### Dipole Verification Data> D1750V2, serial no. 1128





## D1900V2, Serial No. 5d192 Extended Dipole Calibrations

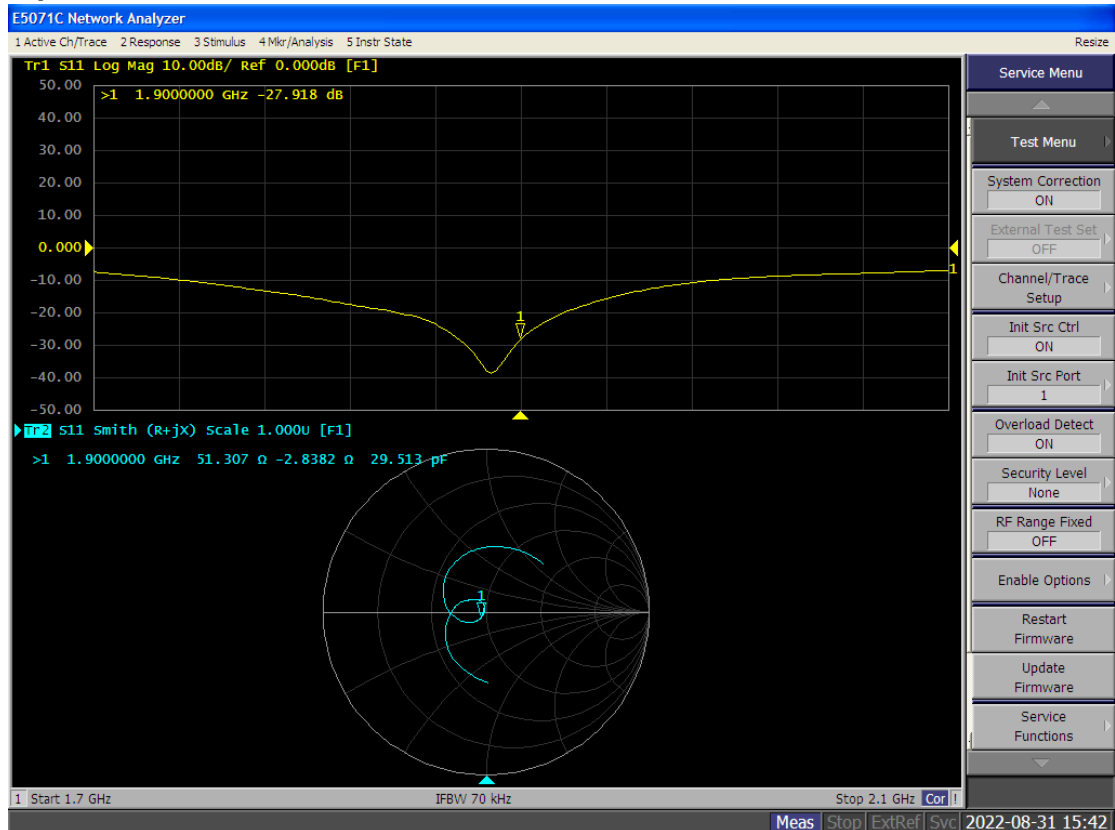
Referring to KDB 865664 D01, if dipoles are verified in return loss (<-20dB, within 20% of prior calibration), and in impedance (within 5  $\Omega$  of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

D1900V2, Serial No.5d192				
1900 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance ( $\Omega$ )	Delta ( $\Omega$ )
2021.9.1	-26.104		54.293	
2022.8.31	-27.918	7	51.307	-2.986
2023.8.31	-28.356	8	49.568	-4.725

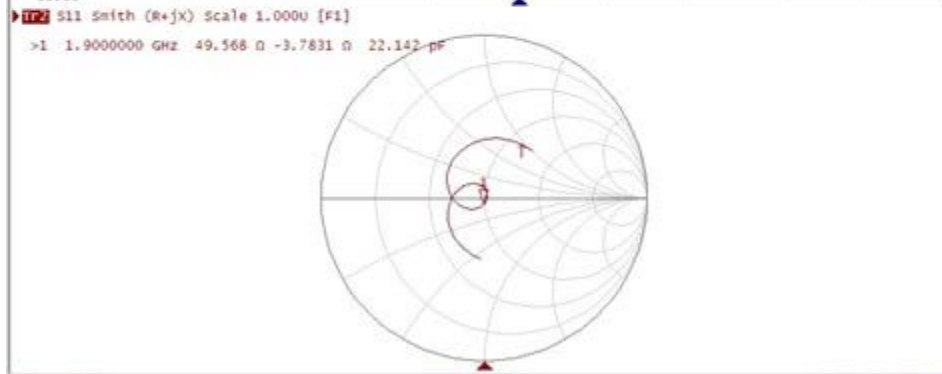
### <Justification of the extended calibration>

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

### Dipole Verification Data> D1900V2, serial no. 5d192







1 Start 1.7 GHz Stop 2.1 GHz Cor |

Program runtime error

Meas Stop ExtRef Svc 2023-08-31 14:41

Display

Allocate Channels

Num of Traces 2

Allocate Traces

Display Data

Data -> Mem

Data Math OFF

Equation Editor...

Equation OFF

Edit Title Label

Title Label OFF

Graticule Label ON

Invert Color ON

Frequency ON

## D2450V2, Serial No. 943 Extended Dipole Calibrations

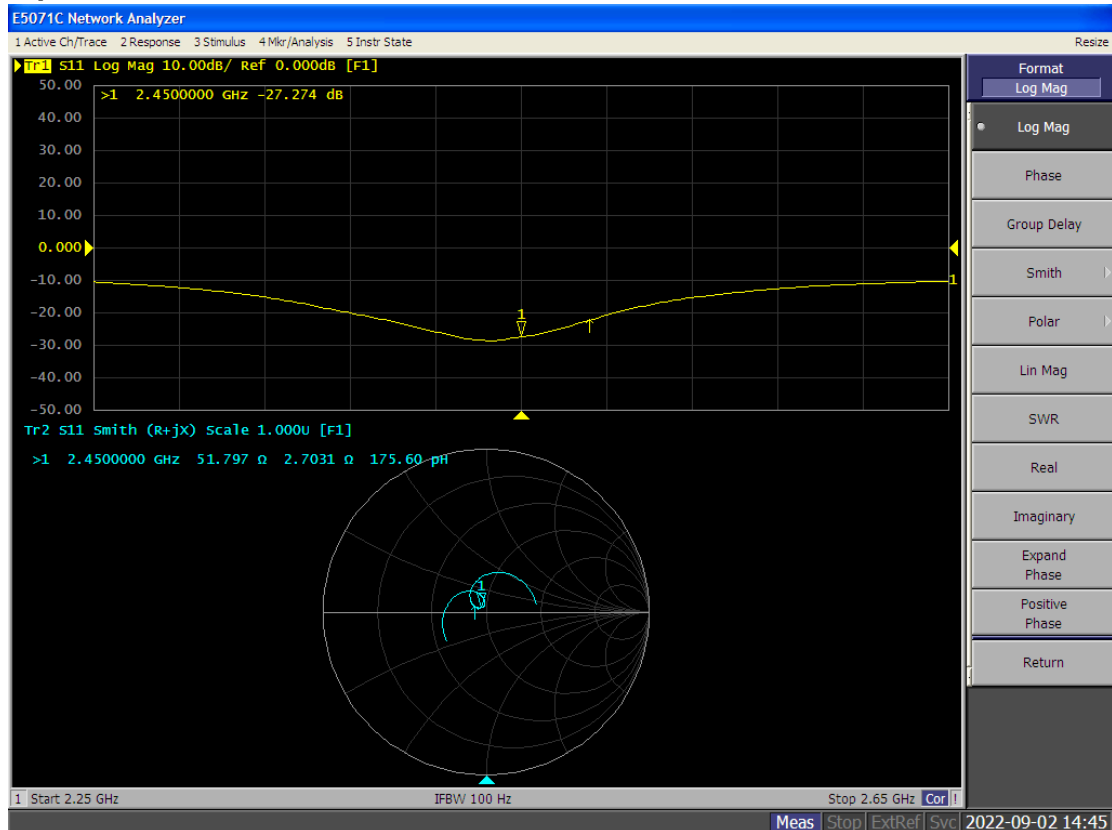
Referring to KDB 865664 D01, if dipoles are verified in return loss (<-20dB, within 20% of prior calibration), and in impedance (within 5 Ω of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

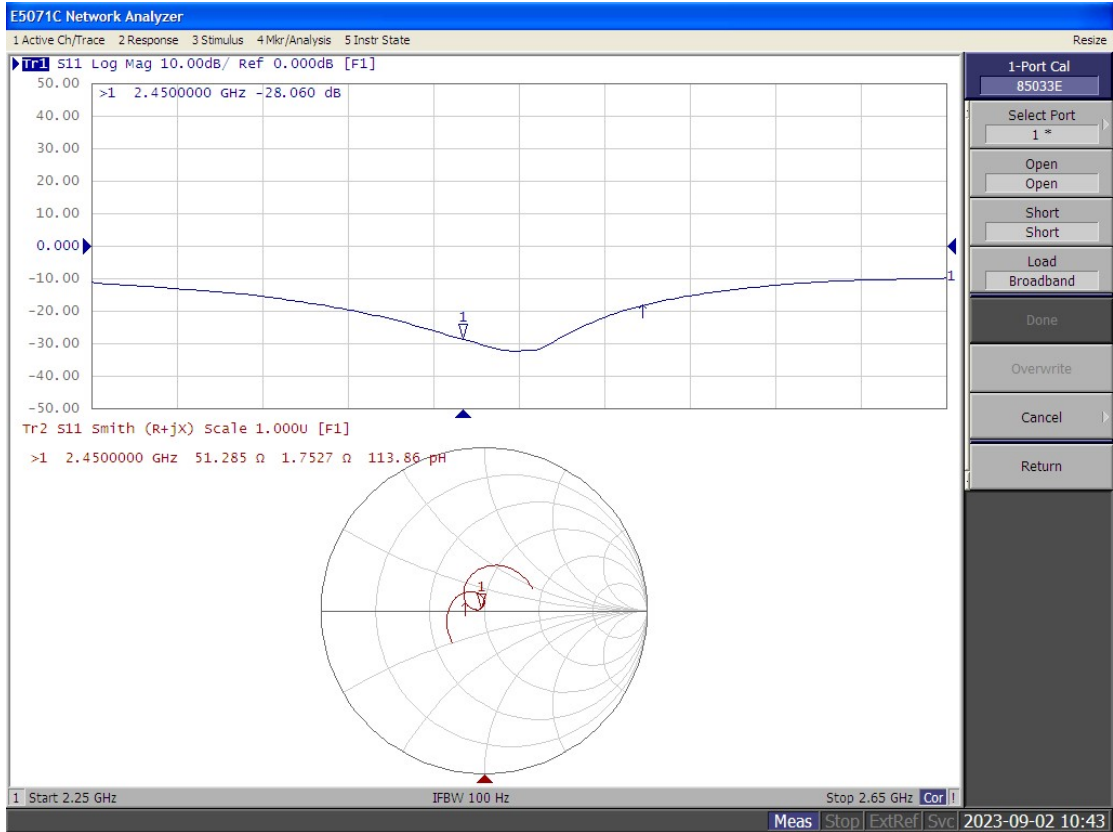
D2450V2, Serial No. 943				
2450 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance (Ω)	Delta (Ω)
2021.9.3	-24.010		55.883	
2022.9.2	-27.274	14	51.797	-4.086
2023.9.2	-28.060	16	51.285	-4.598

### <Justification of the extended calibration>

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

### Dipole Verification Data> D2450V2, serial no. 943





## D2600V2, Serial No. 1093 Extended Dipole Calibrations

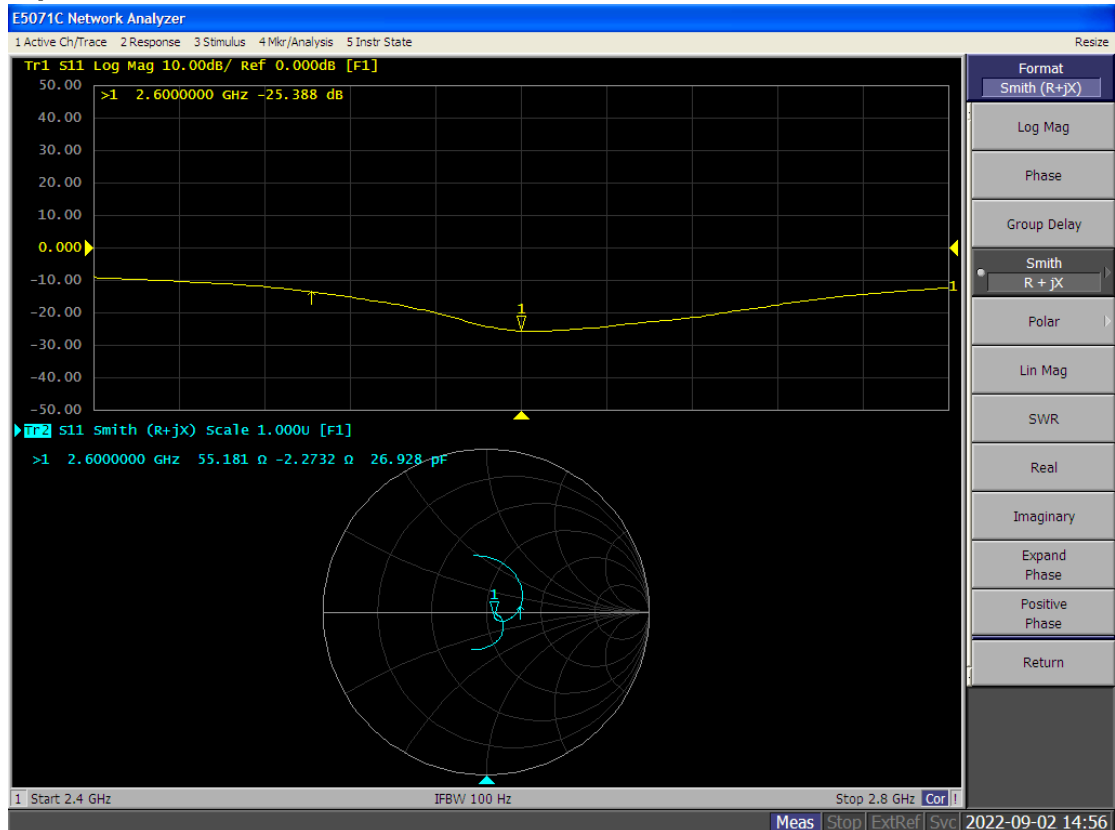
Referring to KDB 865664 D01, if dipoles are verified in return loss (<-20dB, within 20% of prior calibration), and in impedance (within 5  $\Omega$  of prior calibration), the annual calibration is not necessary and the calibration interval can be extended.

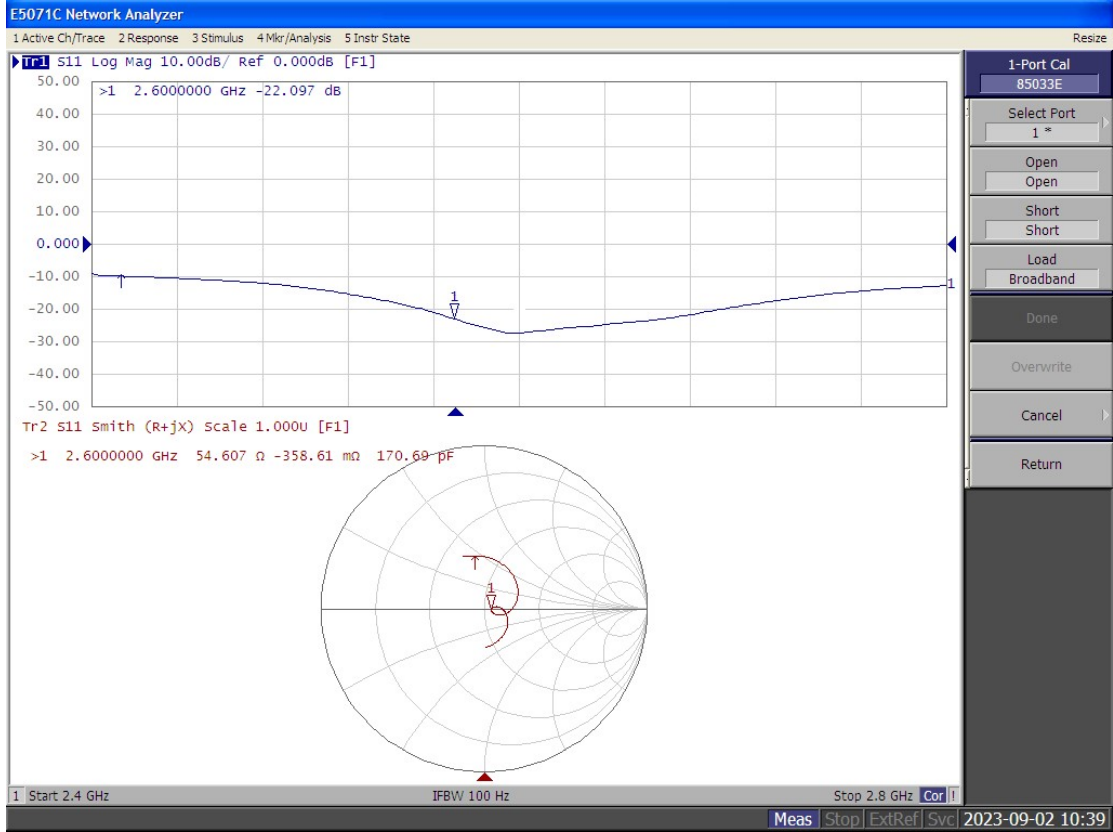
D2600V2, Serial No. 1093				
2600 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance ( $\Omega$ )	Delta ( $\Omega$ )
2021.9.3	-21.728		53.712	
2022.9.2	-25.388	17	55.181	1.469
2023.9.2	-22.097	2	54.607	0.895

### <Justification of the extended calibration>

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

### Dipole Verification Data> D2600V2, serial no. 1093





## D3500V2, Serial No. 1143 Extended Dipole Calibrations

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

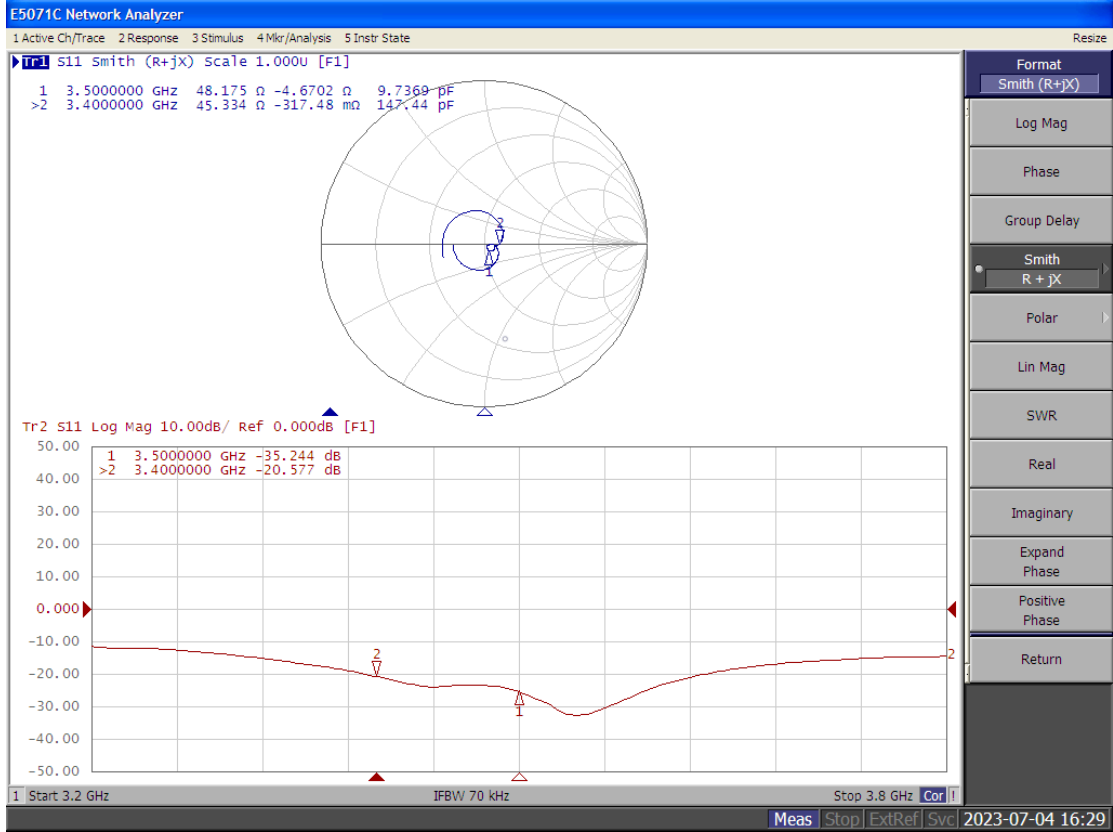
D3500V2, Serial No. 1143				
3400 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance ( $\Omega$ )	Delta ( $\Omega$ )
2022.7.5	-20.039		43.810	
2023.7.4	-20.577	2.7	45.334	1.524

D3500V2, Serial No. 1143				
3500 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance ( $\Omega$ )	Delta ( $\Omega$ )
2022.7.5	-33.061		51.547	
2023.7.4	-35.244	6.6	48.175	-3.372

### <Justification of the extended calibration>

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

### Dipole Verification Data> D3500V2, serial no. 1143



## D5GHzV2, Serial No. 1188 Extended Dipole Calibrations

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

D5GHzV2, Serial No. 1188				
5250 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance ( $\Omega$ )	Delta ( $\Omega$ )
2021.9.6	-25.314		48.767	
2022.9.5	-22.790	10	46.294	-2.473
2023.9.5	-23.921	6	46.960	-1.807

D5GHzV2, Serial No. 1188				
5600 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance ( $\Omega$ )	Delta ( $\Omega$ )
2021.9.6	-25.581		53.646	
2022.9.5	-24.486	4	49.838	-3.808
2023.9.5	-28.567	12	49.583	-4.063

D5GHzV2, Serial No. 1188				
5750 MHz				
Date of Measurement	Return Loss (dB)	Delta (%)	Impedance ( $\Omega$ )	Delta ( $\Omega$ )
2021.9.6	-25.180		55.545	
2022.9.5	-20.640	18	53.672	-1.873
2023.9.5	-21.043	16	52.505	-3.04

### <Justification of the extended calibration>

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

**Dipole Verification Data> D5GHzV2, serial no. 1188**



