

Test Report

Test report no.: 26042671-50113-0

Date of issue: 2026-05-07

Test result: The test item - **passed** - and complies with the listed standards.

Applicant

PDi Digital GmbH

Manufacturer

PDi Digital GmbH

Test Item

ED03-0420-A

Radio Frequency Testing according to:

*Public notice of MIC No. 88 test method of specified radio equipment
Annex 43. Article 2 paragraph 1 item 19.*

Tested by
(name, function, signature)

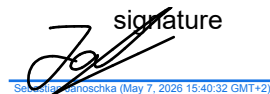
Piotr Sardyko
Lab Manager



signature

Approved by
(name, function, signature)

Janoschka Sebastian
Head of Department Radio


Sebastian Janoschka (May 7, 2026 15:40:32 GMT+2)

signature

Applicant and Test item details	
Applicant	PDi Digital GmbH 8072 Fernitz-Mellach, Kalsdorfer Straße 6 Austria
Manufacturer	PDi Digital GmbH 8072 Fernitz-Mellach, Kalsdorfer Straße 6 Austria
Test item description	2.4 GHz ISM ESL (proprietary protocol)
Model/Type reference	ED03-0420-A

Disclaimer and Notes

The content of this report relates to the mentioned test sample(s) only.
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Within this test report, a ☒ point / ☐ comma is used as a decimal separator.
If otherwise, a detailed note is added adjoined to its use.

Decision rule:

Decision rule based on simple acceptance without guard bands, binary statement, based on mutually agreed uncertainty tolerances with expansion factor $k=2$.

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2 GENERAL INFORMATION

2.1 Administrative details

Testing laboratory	IBL-Lab GmbH Heinrich-Hertz-Allee 7 66386 St. Ingbert / Germany Fon: +49 6894 38938-0 Fax: +49 6894 38938-99 URL: https://ib-lenhardt.com/ E-Mail: info@ib-lenhardt.com
Testing location	IBL-Lab GmbH Heinrich-Hertz-Allee 7 66386 St. Ingbert / Germany
Date of receipt of test samples	2026-04-30
Start – End of tests	2026-04-30 – 2026-05-01

2.2 Possible test case verdicts

Test sample meets the requirements	P (PASS) – the measured value is below the acceptance limit, AL = TL
Test sample does not meet the requirements	F (FAIL) – the measured value is above the acceptance limit, AL = TL
Test case does not apply to the test sample	N/A (Not applicable)
Test case not performed	N/P (Not performed)

2.3 Observations

No additional observations other than the reported observations within this test report have been made.

2.4 Opinions and Interpretations

No appropriate opinions or interpretations according ISO/IEC 17025:2017 clause 7.8.7 are within this test report.

2.5 Revision History

-0: Initial

2.6 Further documents

List of further applicable documents belonging to the present test report:
None

3 ENVIRONMENTAL & TEST CONDITIONS

3.1 Environmental conditions of lab	
Temperature	20°C
Relative humidity	25-75 % r.H.
Barometric Pressure	860-1060 mbar

4 TEST STANDARDS AND REFERENCES

Test standard
Public notice of MIC No. 88 test method of specified radio equipment Annex 43. Article 2 paragraph 1 item 19.

Reference	Description
none	---

5 EQUIPMENT UNDER TEST (EUT)

5.1 Product Description*

2.4 GHz ISM ESL (proprietary protocol)

*: declared by the applicant

5.2 Technical Data of Equipment*

TX Frequency band:	2404 MHz - 2480 MHz
Output Power conducted:	-0.3 dBm (0.93 mW)
Antenna Gain:	2.19 dBi
Number Channels:	11
Modulation:	MSK
Tested channels:	Ch 0: 2404055281 Hz, Ch 4: 2441843800 Hz, Ch 10: 2479282425 Hz

*: declared by the applicant

5.3 Test Item (Equipment Under Test) Description*

Short designation	EUT Model	EUT Description	Serial number	Hardware status	Software/Firmware status
EUT A	ED03-0420-A	Electronic shelf label (conducted sample, mod Tx)	02C42S03102-O160000096	N/A	N/A
EUT B	ED03-0420-A	Electronic shelf label (conducted sample, unmod Tx)	02C42S03102-O160002635	N/A	N/A
EUT C	ED03-0420-A	Electronic shelf label (radiated sample, Rx)	02C42S03102-O160000084	N/A	N/A

*: declared by the applicant

5.4 AE (Auxiliary equipment) Description*

Short designation	EUT Model	EUT Description	Serial number/ ID	Hardware status	Software/Firmware status
AE 1	-	-	-	-	-

*: declared by the applicant

5.5 Test Item Operating Modes Description*

EUT operating mode no.	Description of operating modes	Additional information*
op. 1	Modulated continuous mode	Tx mode. Ch 0, Ch 4, Ch 10. Modulated.
op. 2	Unmodulated continuous mode	Tx mode. Ch 0, Ch 4, Ch 10. CW.
op. 3	Rx mode	Rx mode. Ch 0, Ch 4, Ch 10.

*: declared by the applicant

5.6 Test Set-ups Description

set. 1	EUT A
set. 2	EUT B
set. 3	EUT C

5.7 Normal and extreme test conditions			
Temperatur, [°C]		Voltage, [V]	
Tnom	20	Vnom	3
		Vmax	3.3
		Vmin	2.7

5.8 Additional Information	
Test items differences	None
Additional application considerations to test a component or sub-assembly	3V battery was removed. And power cables were used instead of it to connect the EUT with external power supply.

6 SUMMARY OF TEST RESULTS

Test specification

*Public notice of MIC No. 88 test method of specified radio equipment
Annex 43. Article 2 paragraph 1 item 19.*

Requirement / Test Case	Voltage	Set-up	Operating mode	Result / Remark	Verdict
Transmitter requirement:					
Output power and Output power tolerance	Min, nom, max	1	1	None	Pass
Occupied Bandwidth	Min, nom, max	1	1	None	Pass
Frequency Tolerance	Min, nom, max	2	2	None	Pass
Transmitter Spurious Emissions	Min, nom, max	1	1	None	Pass
Receiver Spurious Emissions	Min, nom, max	3	3	None	Pass

Notes

None

Comments and observations

None

7 TEST RESULTS

7.1 Output power and Output power tolerance

Test equipment (Please see Chapter 8 for exact information of test equipment)

Please see Chapter 8.2.

Test Setup and Test Procedure

Please see photos in Annex C and Chapter 8.2. for Test Setup.

Output power was measured using the power meter.

Limits:

Output Power: 10 mW (10 dBm)

Output power tolerance: +20% and -80%

Results output power:

1	2	3	4	5	6	7	8	9
Op./ Set.	Conditions	Channel	Read Value, [dBm]	Limit, [dBm]	Declared max gain [dBi]	Real Value EIRP, [dBm]	Limit EIRP, [dBm]	Verdict
Set.1, Op. 1	Vmin	Ch 0	-0.16	10	2.19	2.03	12.14	Pass
Set.1, Op. 1	Vnom	Ch 0	-0.17	10	2.19	2.02	12.14	Pass
Set.1, Op. 1	Vmax	Ch 0	-0.16	10	2.19	2.03	12.14	Pass
Set.1, Op. 1	Vmin	Ch 4	-0.3	10	2.19	1.89	12.14	Pass
Set.1, Op. 1	Vnom	Ch 4	-0.31	10	2.19	1.88	12.14	Pass
Set.1, Op. 1	Vmax	Ch 4	-0.3	10	2.19	1.89	12.14	Pass
Set.1, Op. 1	Vmin	Ch 10	-0.4	10	2.19	1.79	12.14	Pass
Set.1, Op. 1	Vnom	Ch 10	-0.41	10	2.19	1.78	12.14	Pass
Set.1, Op. 1	Vmax	Ch 10	-0.4	10	2.19	1.79	12.14	Pass

Results output power tolerance:

Op./ Set.	Conditions	Channel	Read Value, [dBm]	Read Value, [mW]	Rated output power, [mW]	Tolerance [%]	Limit, [%]	Verdict
Set.1, Op. 1	Vmin	Ch 0	-0.16	0.96	0.93	3.6	-80 - 20	Pass
Set.1, Op. 1	Vnom	Ch 0	-0.17	0.96	0.93	3.4	-80 - 20	Pass
Set.1, Op. 1	Vmax	Ch 0	-0.16	0.96	0.93	3.6	-80 - 20	Pass
Set.1, Op. 1	Vmin	Ch 4	-0.3	0.93	0.93	0.3	-80 - 20	Pass
Set.1, Op. 1	Vnom	Ch 4	-0.31	0.93	0.93	0.1	-80 - 20	Pass
Set.1, Op. 1	Vmax	Ch 4	-0.3	0.93	0.93	0.3	-80 - 20	Pass
Set.1, Op. 1	Vmin	Ch 10	-0.4	0.91	0.93	-1.9	-80 - 20	Pass
Set.1, Op. 1	Vnom	Ch 10	-0.41	0.91	0.93	-2.2	-80 - 20	Pass
Set.1, Op. 1	Vmax	Ch 10	-0.4	0.91	0.93	-1.9	-80 - 20	Pass

7.2 Occupied Bandwidth

Test equipment (Please see Chapter 8 for exact information of test equipment)

Please see Chapter 8.2.

Test Setup and Test Procedure

Please see photos in Annex C and Chapter 8.2. for Test Setup.

Spectrum analyser is used to measure occupied bandwidth.

Detector- PosPeak

RBW = 300 kHz

VBW = RBW

Span = 1 MHz

Measurement point = 1001

Sweep Time- Auto

MaxHold function

99 % power bandwidth function is activated.

C/N > 40 dB

Limits:

≤ 26 MHz for DSSS&OFDM, ≤ 83.5 MHz for FHSS, ≤ 38 MHz for OFDM (Wide-Band)

Results*

Op./ Set.	Conditions	Channel	F _{low} 99 % OBW, [GHz]	F _{high} 99 % OBW, [GHz]	99 % OBW, [MHz]	Verdict
Set. 1, Op. 1	Vmin	Ch 0	2.4034304	2.404662	1.2312	Pass
Set. 1, Op. 1	Vnom	Ch 0	2.4034292	2.404662	1.23319	Pass
Set. 1, Op. 1	Vmax	Ch 0	2.4034293	2.404662	1.2325	Pass
Set. 1, Op. 1	Vmin	Ch 4	2.4412167	2.44245	1.2334	Pass
Set. 1, Op. 1	Vnom	Ch 4	2.441217	2.442449	1.2324	Pass
Set. 1, Op. 1	Vmax	Ch 4	2.4412164	2.44245	1.2331	Pass
Set. 1, Op. 1	Vmin	Ch 10	2.4786553	2.479888	1.2331	Pass
Set. 1, Op. 1	Vnom	Ch 10	2.4786558	2.479888	1.2322	Pass
Set. 1, Op. 1	Vmax	Ch 10	2.478655	2.479889	1.2336	Pass

* Please see measurement plots in Annex A, section 1.

7.3 Frequency Tolerance

Test equipment (Please see Chapter 8 for exact information of test equipment)

Please see Chapter 8.2.

Test Setup and Test Procedure

Please see photos in Annex C and Chapter 8.2. for Test Setup.

Spectrum analyser is used in this test.

Detector- PosPeak

RBW = 1 kHz

VBW = 30 kHz

Span = 300 kHz

Measurement point = 1001

Sweep Time= 500 ms

MaxHold function

Limits:

± 50 ppm

Results*

Op./ Set.	Conditions	Channel	Tolerance, [ppm]	Limit, [ppm]	Verdict
Set.2, Op. 2	Vmin	Ch 0	-4.19	± 50	Pass
Set.2, Op. 2	Vnom	Ch 0	-4.19	± 50	Pass
Set.2, Op. 2	Vmax	Ch 0	-4.19	± 50	Pass
Set.2, Op. 2	Vmin	Ch 4	-4.51	± 50	Pass
Set.2, Op. 2	Vnom	Ch 4	-4.51	± 50	Pass
Set.2, Op. 2	Vmax	Ch 4	-4.51	± 50	Pass
Set.2, Op. 2	Vmin	Ch 10	-4.65	± 50	Pass
Set.2, Op. 2	Vnom	Ch 10	-4.65	± 50	Pass
Set.2, Op. 2	Vmax	Ch 10	-4.65	± 50	Pass

* Please see measurement plots in Annex A, section 2.

7.4 Transmitter Spurious Emissions

Test equipment (Please see Chapter 8 for exact information of test equipment)

Please see Chapter 8.2.

Test Setup and Test Procedure

Please see photos in Annex C and Chapter 8.2. for Test Setup.

Spectrum analyser is used in this test.

Detector- PosPeak

RBW = 100 kHz @ 30 MHz - 1 GHz and 1 MHz @ 1 GHz - 12.5 GHz

VBW = RBW

Span = 30 MHz – 1 GHz, 1 GHz – 12.5 GHz

Measurement point = span(MHz) * pts

Sweep Time = Auto

MaxHold function

Limits:

≤ 2.5 µW for 30 MHz – 2387 MHz

≤ 25 µW for 2387 MHz – 2400 MHz

≤ 25 µW for 2483.5 MHz – 2496.5 MHz

≤ 2.5 µW for 2496.5 MHz – 12500 MHz

Results*

Op./ Set.	Conditions	Channel	Highest measured value, [dBm]	Frequency of highest measured value, [GHz]	Limit, [dBm/ µW]	Verdict
Set.1, Op. 1	Vmin	Ch 0	-47.75	4.8072	-16 / 25, -26 / 2.5	Pass
Set.1, Op. 1	Vnom	Ch 0	-47.63	7.212	-16 / 25, -26 / 2.5	Pass
Set.1, Op. 1	Vmax	Ch 0	-47.72	2.212	-16 / 25, -26 / 2.5	Pass
Set.1, Op. 1	Vmin	Ch 4	-47.31	4.8842	-16 / 25, -26 / 2.5	Pass
Set.1, Op. 1	Vnom	Ch 4	-47.2	4.8842	-16 / 25, -26 / 2.5	Pass
Set.1, Op. 1	Vmax	Ch 4	-46.74	4.8842	-16 / 25, -26 / 2.5	Pass
Set.1, Op. 1	Vmin	Ch 10	-46.88	4.9582	-16 / 25, -26 / 2.5	Pass
Set.1, Op. 1	Vnom	Ch 10	-47.18	4.9582	-16 / 25, -26 / 2.5	Pass
Set.1, Op. 1	Vmax	Ch 10	-47.09	4.9582	-16 / 25, -26 / 2.5	Pass

* Please see measurement plots in Annex A, section 3.

7.5 Receiver Spurious Emissions

Test equipment (Please see Chapter 8 for exact information to test equipment) and and Test Procedure

Please see Chapter 8.1.

Test Setup and Test Procedure

Please see Photographs for radiated measurements in Annex C for test Setup.

The EUT is placed on a turn table which is 1.5 m above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

Detector- PosPeak

RBW = 100 kHz @ 30 MHz -1 GHz and 1 MHz @ 1 GHz - 12.5 GHz

VBW = RBW

Span = 30 MHz -12.5 GHz

Measurement point = span(MHz) * pts

Sweep Time = Auto

Limits:

≤ 4 nW for 30 MHz – 1000 MHz

≤ 20 nW for 1000 MHz – 3000 MHz

≤ 20 nW for 3000 MHz – 12500 MHz

Results*

Op./ Set.	Conditions	Channel	Highest measured value, [dBm]	Frequency of highest measured value, [MHz]	Limit, [dBm/nW]	Verdict
Set. 3, Op. 3	Vmin/Vnom/Vmax	Ch 0	-60.07	12369.12	-54 / 4, -47 / 20	Pass
Set. 3, Op. 3	Vmin/Vnom/Vmax	Ch 4	-51.61	4886.4	-54 / 4, -47 / 20	Pass
Set. 3, Op. 3	Vmin/Vnom/Vmax	Ch 10	-59.61	12408.039	-54 / 4, -47 / 20	Pass

* Please see measurement plots in Annex A, section 4.

8 MEASUREMENT EQUIPMENT**

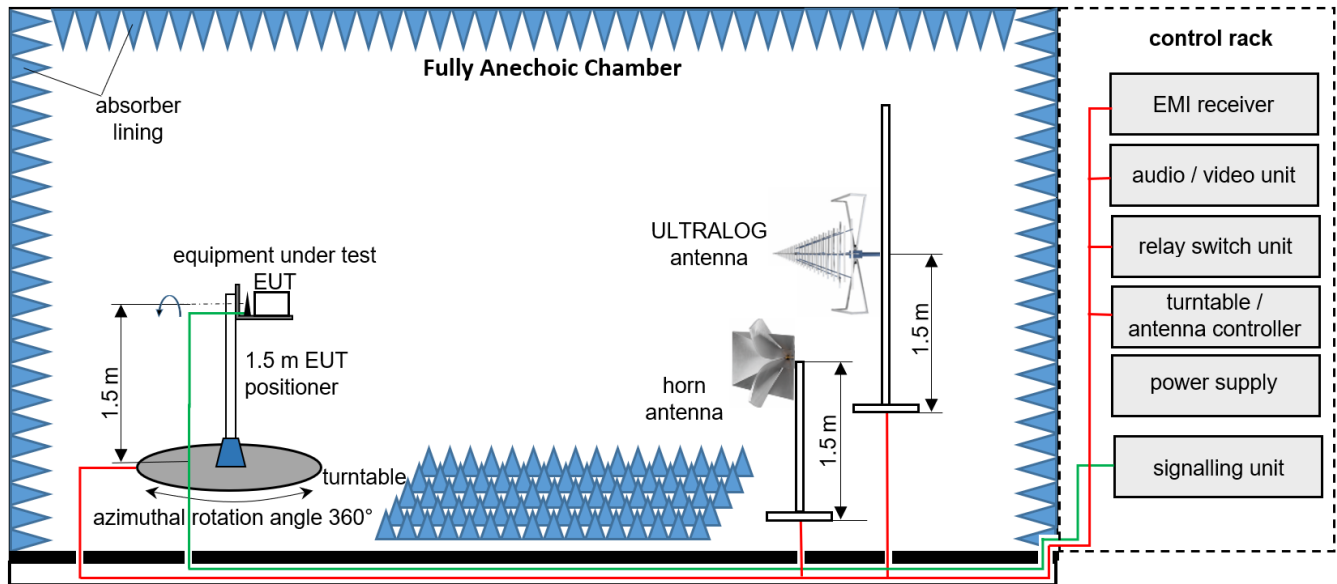
Typically, the calibrations of the test apparatus are commissioned to and performed by an accredited calibration laboratory. The calibration intervals are determined in accordance with the DIN EN ISO/IEC 17025. In addition to the external calibrations, the laboratory executes comparison measurements with other calibrated test systems or effective verifications. Cyclic chamber inspections and range calibrations are performed. Where possible, RF generating and signalling equipment as well as measuring receivers and analysers are connected to an external high-precision 10 MHz reference (GPS-based or rubidium frequency standard).

In order to simplify the identification of the equipment used at some special tests, some items of test equipment and ancillaries can be provided with an identifier or number in the equipment list below (Lab/Item).

Kind of calibration (abbreviations):

- C = calibrated
- CM = cyclic maintenance
- NR = not required
- L = locked

8.1 Fully Anechoic Chamber



Measurement distance: ULTRALOG antenna and horn antenna at 3 m; loop antenna at 3 m
EMC32 software version: 11.20.00 (if used)

Description:

$$\text{EIRP} = \text{AV} + \alpha_{\text{radiated loss}} + G_{\text{antenna}} + G_{\text{amplifier}} + \alpha_{\text{cable loss}}$$

$$P = 10^{\frac{\text{EIRP}_{\text{dBm}}}{10}}$$

- radiated output power → EIRP_{dBm}
- analyzer value → AV_{dB}
- free space loss → $\alpha_{\text{radiated loss}_{\text{dB}}}$
- antenna gain → $G_{\text{antenna}_{\text{dBi}}}$
- amplifier gain → $G_{\text{amplifier}_{\text{dB}}}$
- cable loss → $\alpha_{\text{cable loss}_{\text{dB}}}$

Example:

$$\text{EIRP} = -65.0 \text{ dBm} + 50 \text{ dB} - 20 \text{ dBi} + 5 \text{ dB} = -30 \text{ dBm}$$

List of test equipment used:

No.	Equipment	Manufacturer	Type	Serial No.	IBL No.	Kind of Calibration ¹⁾	Last / Next Calibration
1	Power Supply	Elektro-Automatik GmbH & Co. KG	EA-PSI 9080-40 T	2000230001	LAB000313	NR	–
2	Test table	innco systems GmbH	PT1208-080-RH	-	LAB000306	NR	–
3	Positioner	matur GmbH	TD 1.5-10KG		LAB000258	NR	–
4	Compressed Air	Implotex	1-850-30	-	LAB000256	NR	–
5	EMI Test Receiver	Rohde & Schwarz	ESW26	101481	LAB000236	C	2025-06-13 → 12M → 2026-06-13
6	Semi-Anechoic Chamber (SAC)	Albatross Projects GmbH	SAC 5 (Babylon 5)	20168.PR.B	LAB000235	CM	2025-03-18 → 36M → 2028-03-18
7	Measurement Software	Rohde & Schwarz	EMC32 V11.00.10		LAB000226	NR	–
8	Turntable	matur GmbH	TT2.0-2t	TT2.0-2t/921	LAB000225	NR	–
9	Antenna Mast	matur GmbH	CAM4.0-P	CAM4.0-P/316	LAB000224	NR	–
10	Antenna Mast	matur GmbH	BAM4.5-P	BAM4.5-P/272	LAB000223	NR	–
11	Controller	matur GmbH	FCU 3.0	10082	LAB000222	NR	–
12	Multimeter	Keysight	U1242B	MY59240021	LAB000187	C	2025-09-05 → 12M → 2026-09-05
13	Open Switch and Control Platform	Rohde & Schwarz	OSP200 Base Unit 2HU	101748	LAB000149	CM	–
14	Antenna	Rohde & Schwarz	HF907	102898	LAB000124	K	2023-06-13 → 36M → 2026-06-13
15	Antenna	Rohde & Schwarz	HL562E	102219	LAB000832	K	2023-09-12 → 36M → 2026-09-12
16	Antenna	Rohde & Schwarz	HFH2-Z2E - Active Loop Antenna	100954	LAB000108	K	2025-06-24 → 24M → 2027-06-24
17	Pre-Amplifier	Schwarzbeck Mess-Elektronik OHG	BBV 9718 C	84	LAB000169	NR	–
18	Low noise amplifier	B&Z Technologies	BZ-01000900-111550-202320	24336	LAB000296	NR	–
19	Low noise amplifier	B&Z Technologies	BZ-08001800-180855-202020	22105	LAB000297	NR	–
20	High-pass filter (7 GHz – 23 GHz)	AtlantRF	HPF 7-23	-	LAB000444	NR	–
21	High-pass filter (3.3 GHz – 12.75 GHz)	AtlantRF	HPF 3.3-11	-	LAB000382	NR	–
22	High-pass filter (1.3 GHz – 12.75 GHz)	Microwave Circuits Inc	H1G713G1	46291	LAB000443	NR	–

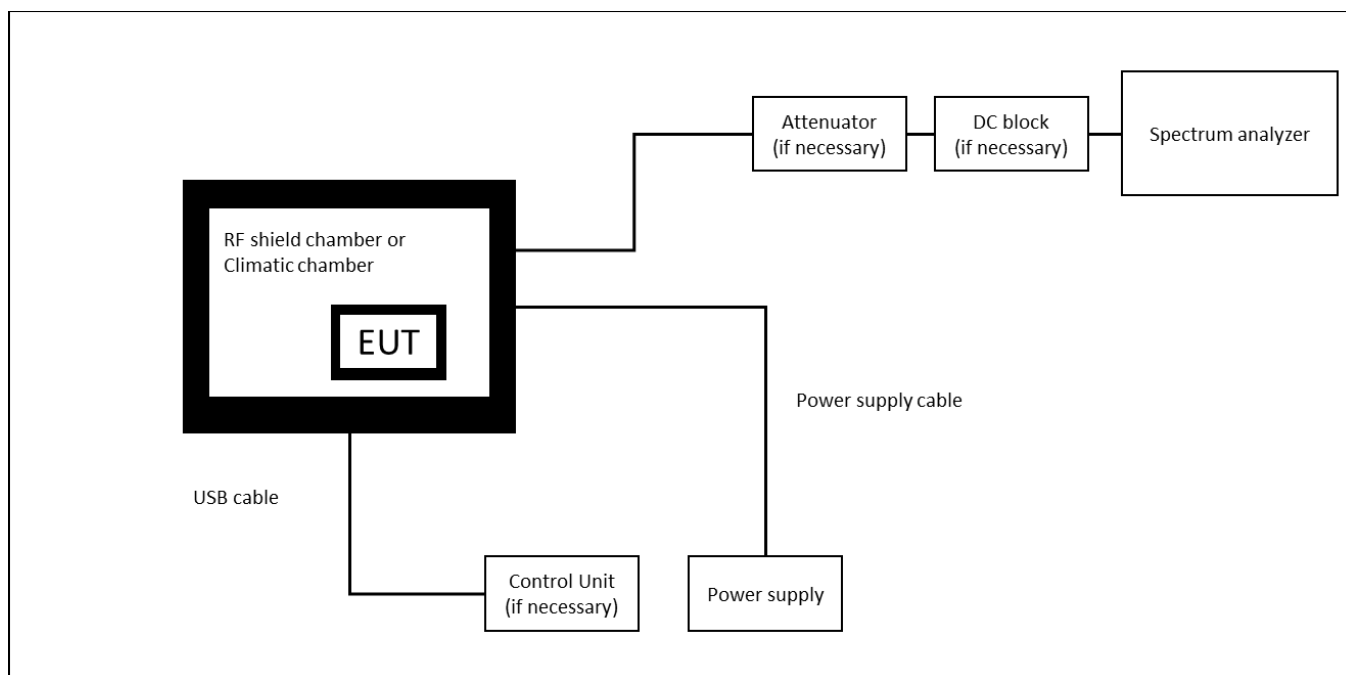
* The gain values of Amp and attenuation values of Cab and Att are remeasured annually internal.

** All the devices in the table above with “Next calibration” date are DAkkS calibrated (Germany), which is equivalent to calibration conducted by the NICT or a designated calibration agency under Article 102-18-1 of the Radio Act.

All the devices without “Next calibration” date were calibrated or/and checked on site by using measuring instruments, which have been calibrated as described above.

1) C- calibrated. CM- cyclic maintenance. NR- not relevant.

8.2 Measurements under normal and extreme climatic conditions



$$FS = UR + CL + AF$$

(FS-field strength; UR-voltage at the receiver; CL-loss of the cable; AF-antenna factor)

Example calculation:

$$FS [dB\mu V/m] = 12.35 [dB\mu V/m] + 1.90 [dB] + 16.80 [dB\mu V/m] = 31.05 [dB\mu V/m]$$

List of test equipment used:

No.	Equipment	Manufacturer	Type	Serial No.	IBL No.	Calibration
1	Power Supply	Elektro-Automatik GmbH & Co. KG	EA-PS 2042-10 B	2878350263	LAB000191	–
2	Multimeter	Keysight	U1242B	MY59240020	LAB000188	2025-09-05 → 12M → 2026-09-05
3	Spectrum Analyser	Rohde & Schwarz	FSW43	101391	LAB000289	2025-06-12 → 12M → 2026-06-12
4	RF shield box	Rohde & Schwarz	CMW-Z10	101612	LAB000693	-
5	RF cable	Huber & Suhner	ST18/48"	2276454-02	LAB000158	2026-04-08 → 12M → 2027-04-08
6	RF cable	Huber & Suhner	SUCOFLEX 101P	593/1P	LAB000627	2026-04-14 → 12M → 2027-04-14
7	Power meter	Rohde & Schwarz	NRP-Z51	100693	LAB000997	2025-06-11 → 12M → 2026-06-11

* The gain values of LNA amplifiers (if used) and attenuation values of cables and attenuators (if used) are remeasured annually internal.

** All the devices in the table above with "Next calibration" date are DAkkS calibrated (Germany), which is equivalent to calibration conducted by the NICT or a designated calibration agency under Article 102-18-1 of the Radio Act. All the devices without "Next calibration" date were calibrated or/and checked on site by using measuring instruments, which have been calibrated as described above.

9 MEASUREMENT UNCERTAINTIES

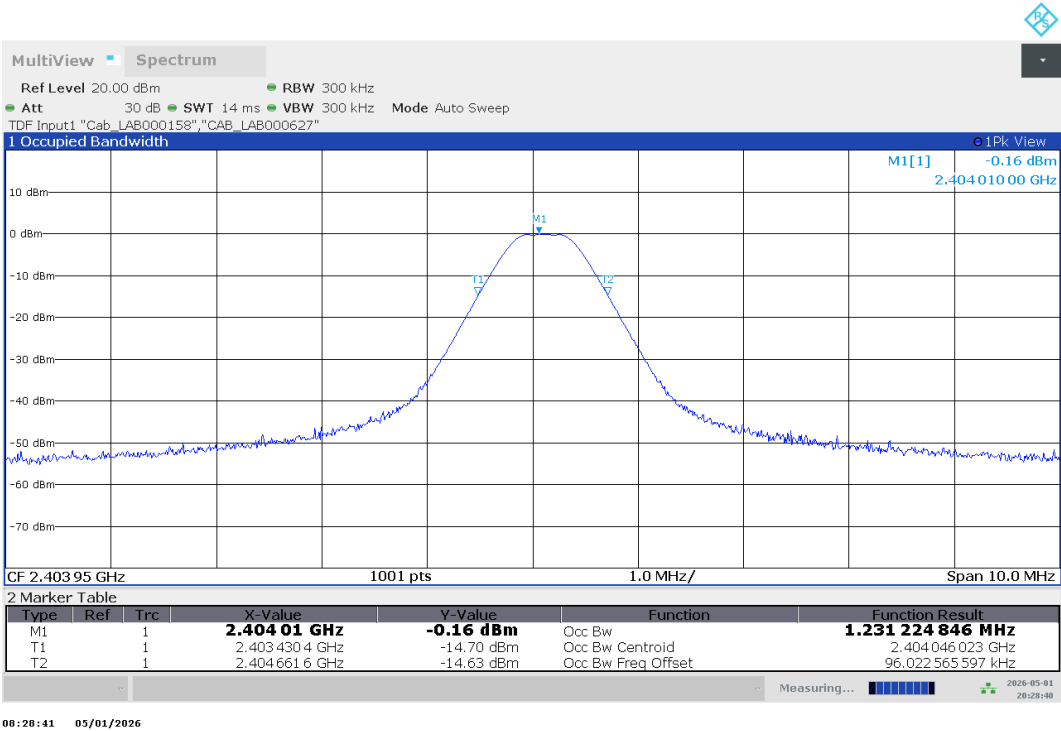
Test case	Measurement uncertainty*
Output power and Output power tolerance	$\leq \pm 6$ dB
Transmitter Spurious Emissions	$\leq \pm 6$ dB
Secondary radiated Emissions Strength	$\leq \pm 6$ dB
Occupied Bandwidth	± 2.7 %
Radio frequency	± 0.4 ppm
Time domain measurement	± 2.32 ms
DC and low frequency voltages	± 3 %
Temperature	± 1 °C
Humidity	± 3 %

*) The indicated expanded measurement uncertainty corresponds to the standard measurement uncertainty for the measurement results multiplied by the coverage factor $k = 2$. The true value is located in the corresponding interval with a probability of 95 %.

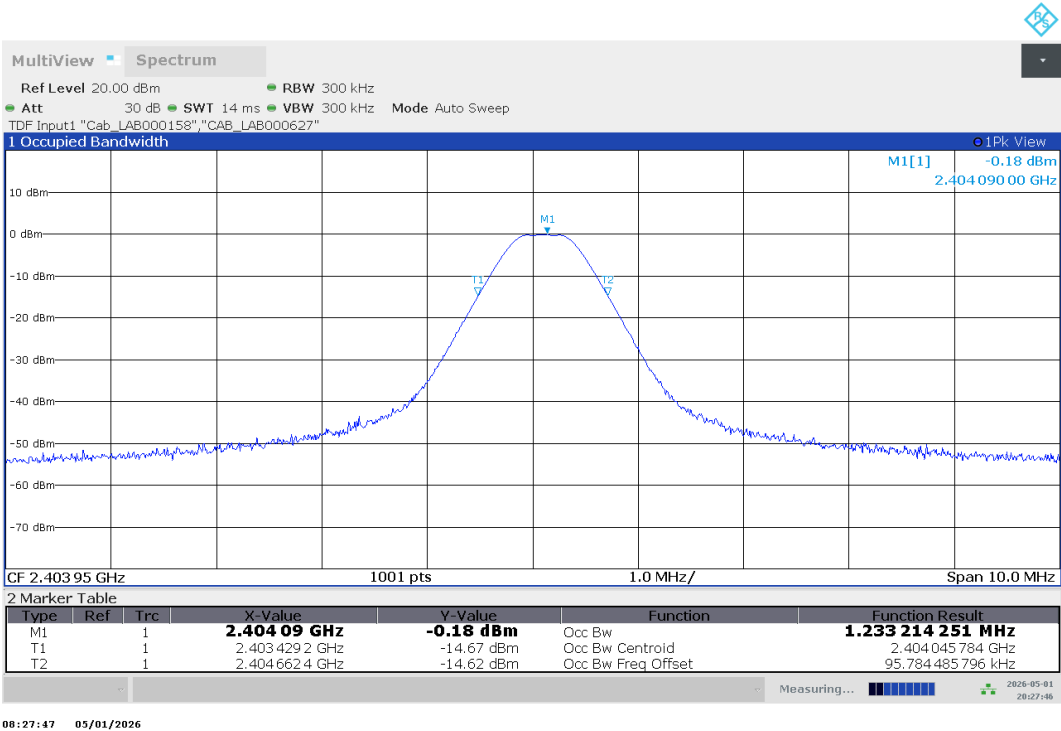
ANNEX A: MEASUREMENT PLOTS

1 Occupied bandwidth

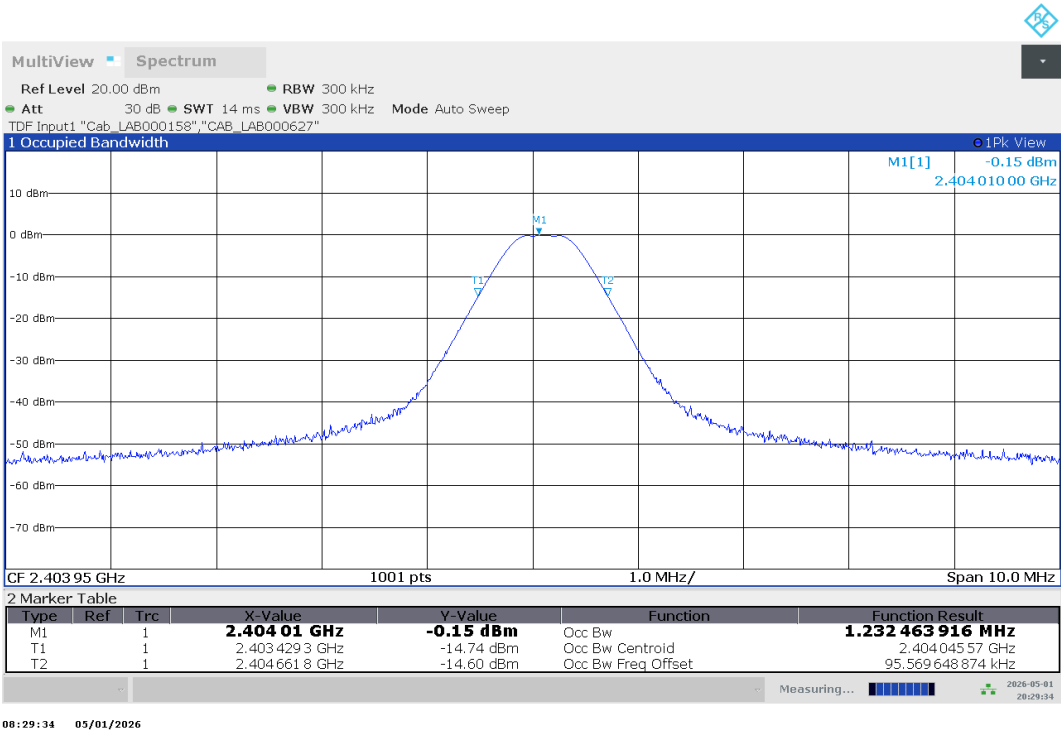
1.1 Ch 0, Vmin



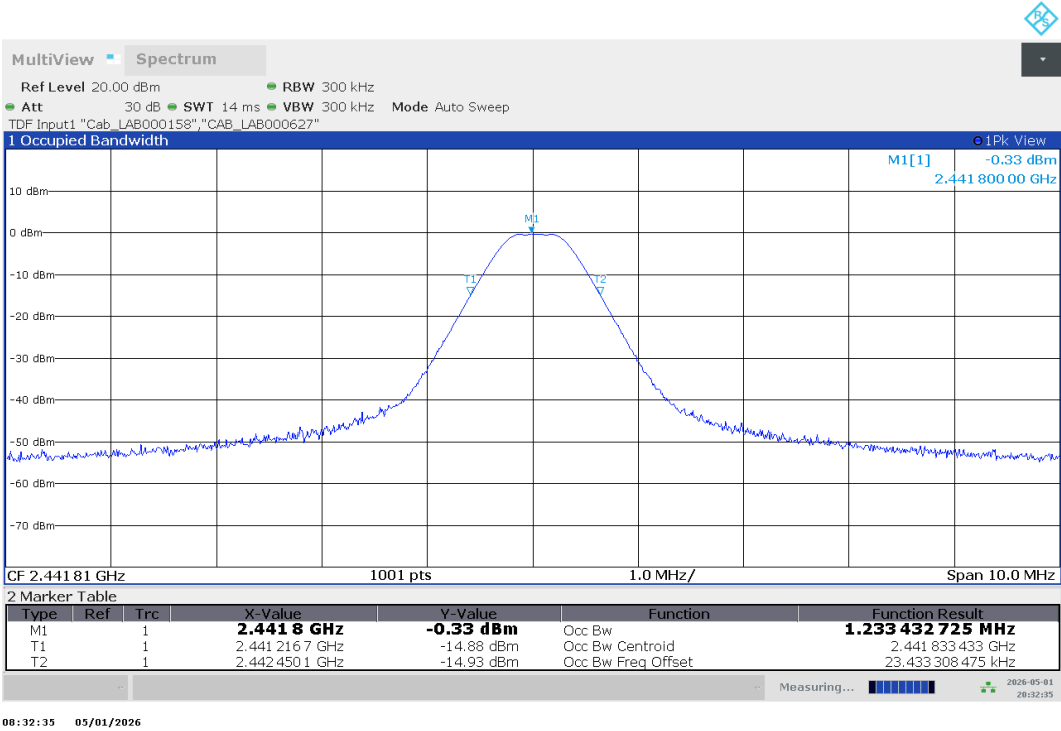
1.2 Ch 0, Vnom



1.3 Ch 0, Vmax



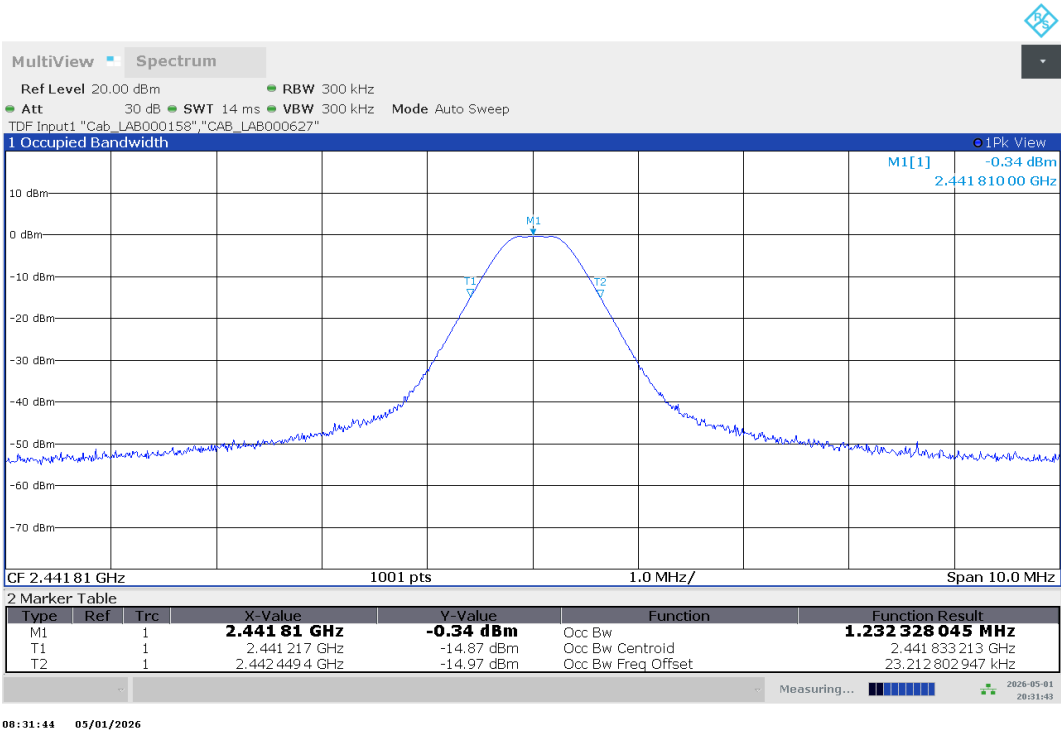
1.4 Ch 4, Vmin



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1.5 Ch 4, Vnom



1 Occupied Bandwidth

1Pk View

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

-70 dBm

CF 2.441 81 GHz

1001 pts

1.0 MHz/

Span 10.0 MHz

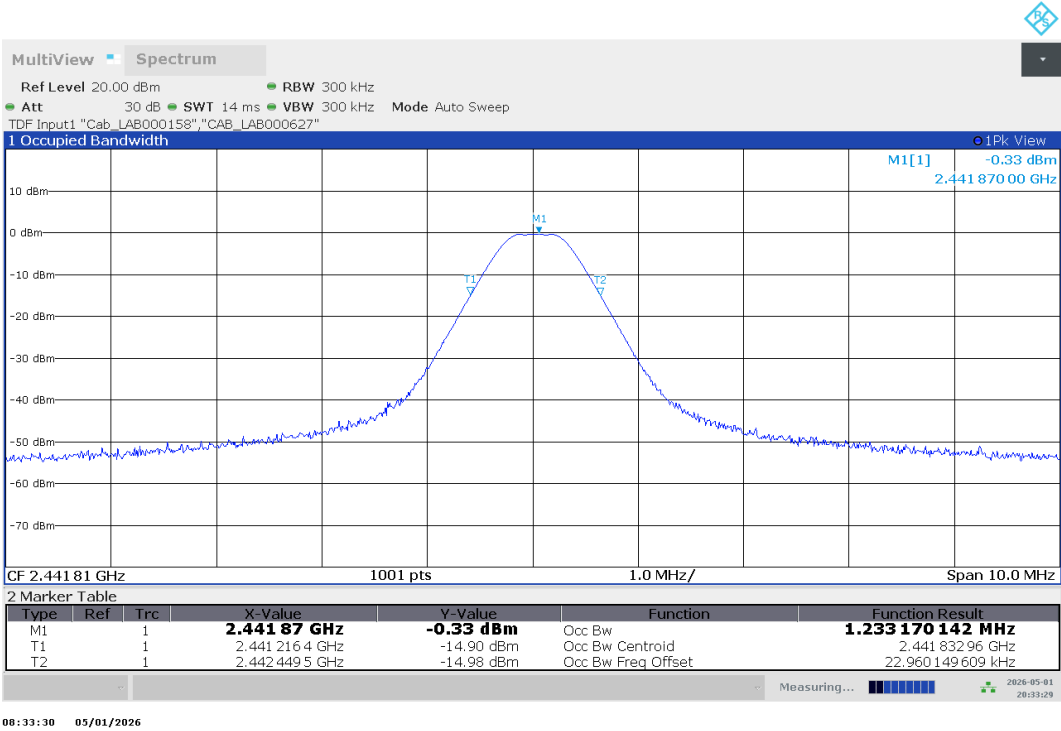
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		2.441 81 GHz	-0.34 dBm	Occ Bw	1.232 328 045 MHz
T1	1		2.441 217 GHz	-14.87 dBm	Occ Bw Centroid	2.441 833 213 GHz
T2	1		2.442 449 4 GHz	-14.97 dBm	Occ Bw Freq Offset	23.212 802 947 kHz

Measuring...

2026-05-01 20:31:43

00:31:44 05/01/2026

1.6 Ch 4, Vmax



1 Occupied Bandwidth

1Pk View

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

-70 dBm

CF 2.441 81 GHz

1001 pts

1.0 MHz/

Span 10.0 MHz

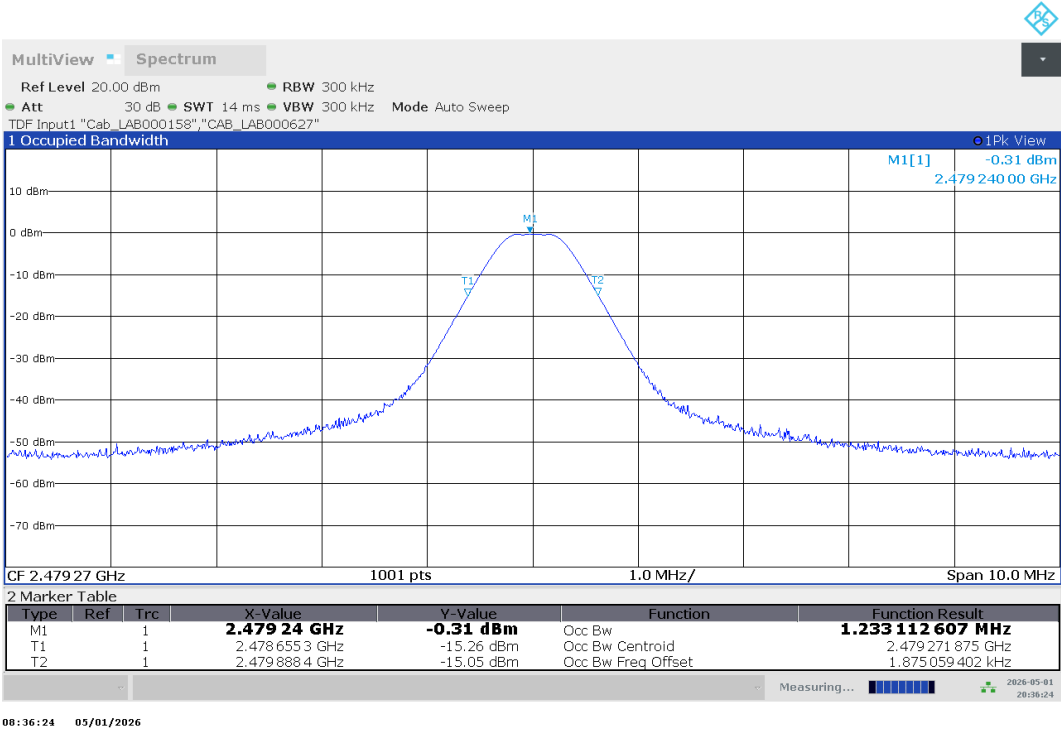
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		2.441 87 GHz	-0.33 dBm	Occ Bw	1.233 170 142 MHz
T1	1		2.441 216 4 GHz	-14.90 dBm	Occ Bw Centroid	2.441 832 96 GHz
T2	1		2.442 449 5 GHz	-14.98 dBm	Occ Bw Freq Offset	22.960 149 609 kHz

Measuring...

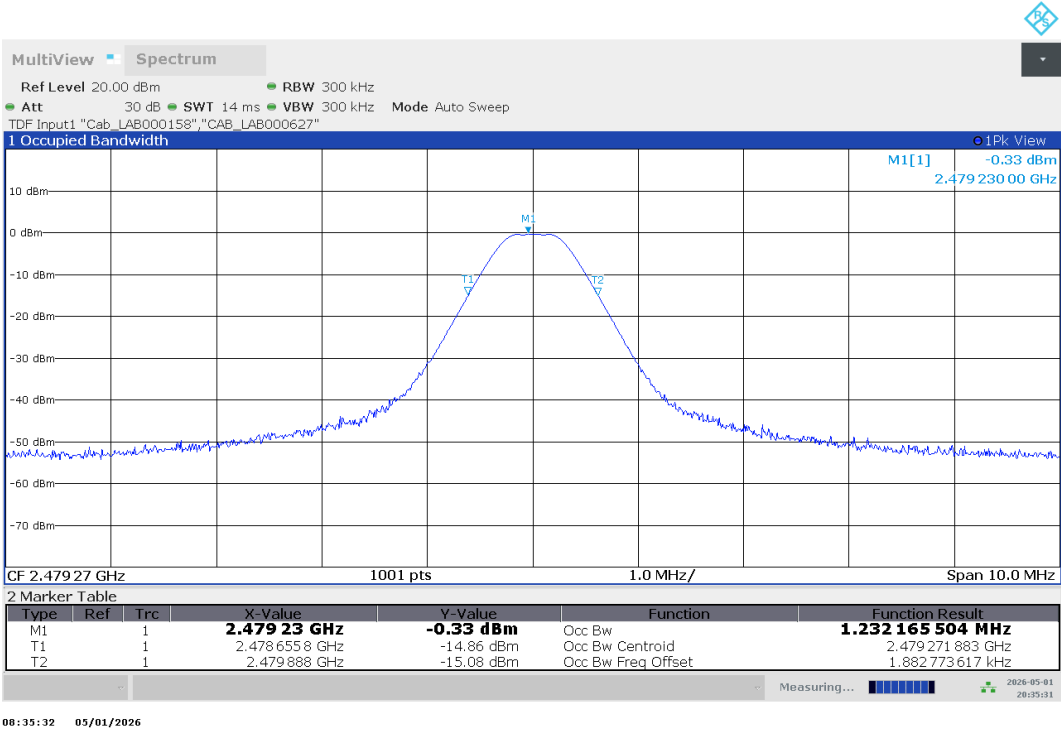
2026-05-01 20:33:29

00:33:30 05/01/2026

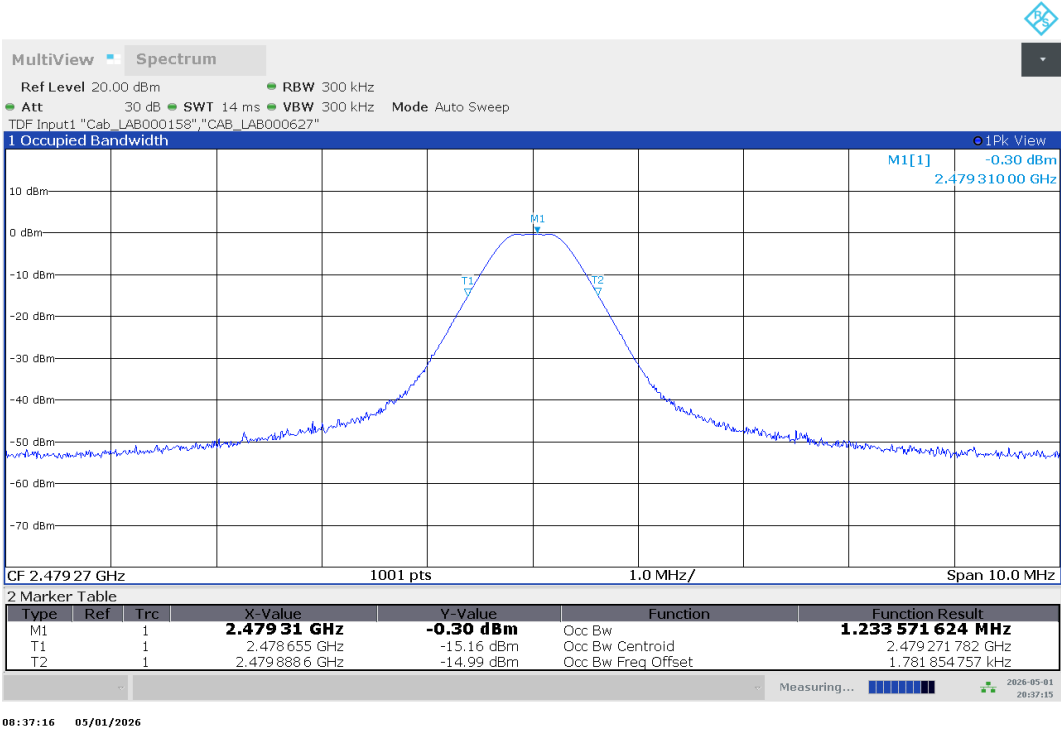
1.7 Ch 10, Vmin



1.8 Ch 10, Vnom



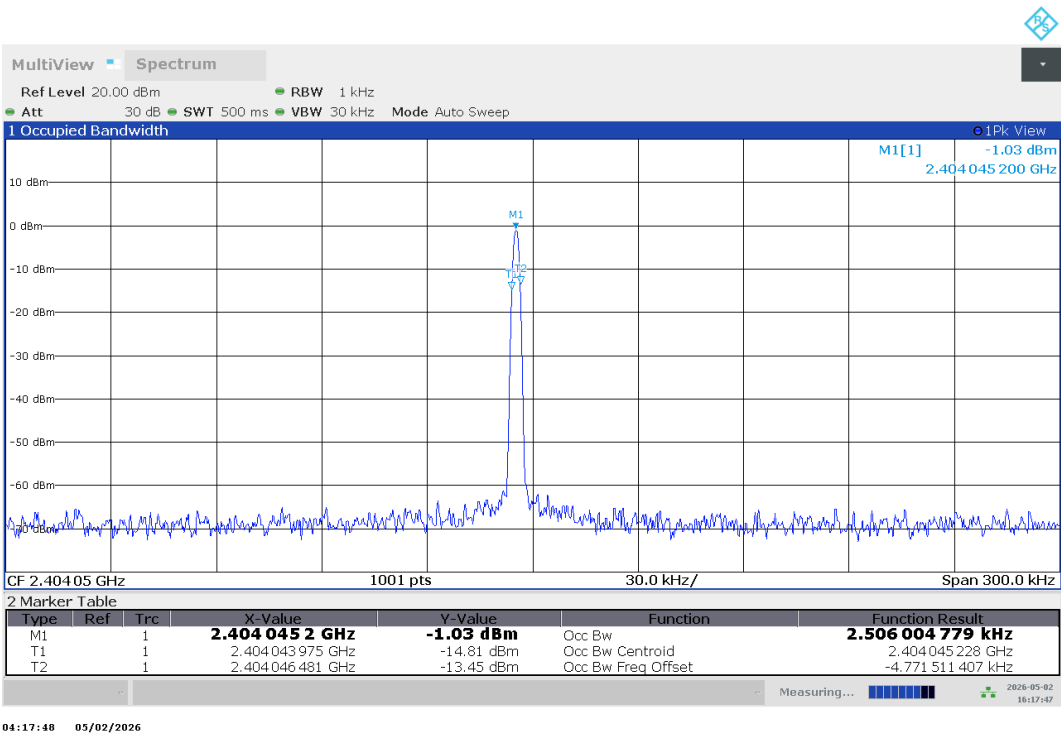
1.9 Ch 10, Vmax



00:37:16 05/01/2026

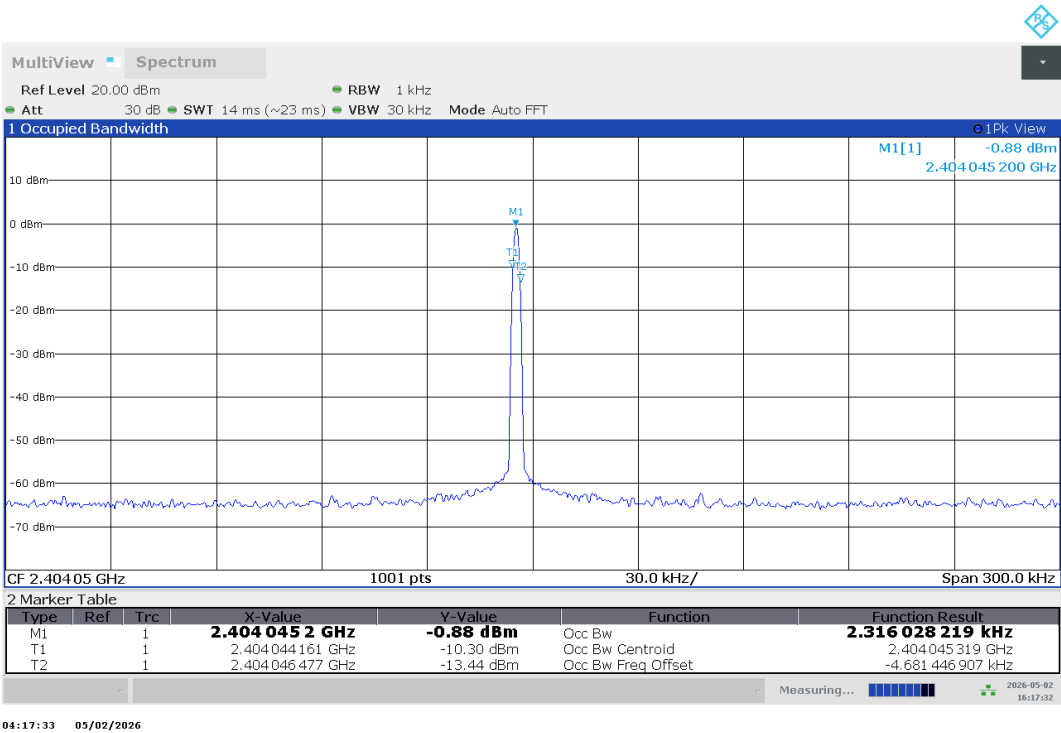
2 Frequency Tolerance

2.1 Ch 0, Vmin



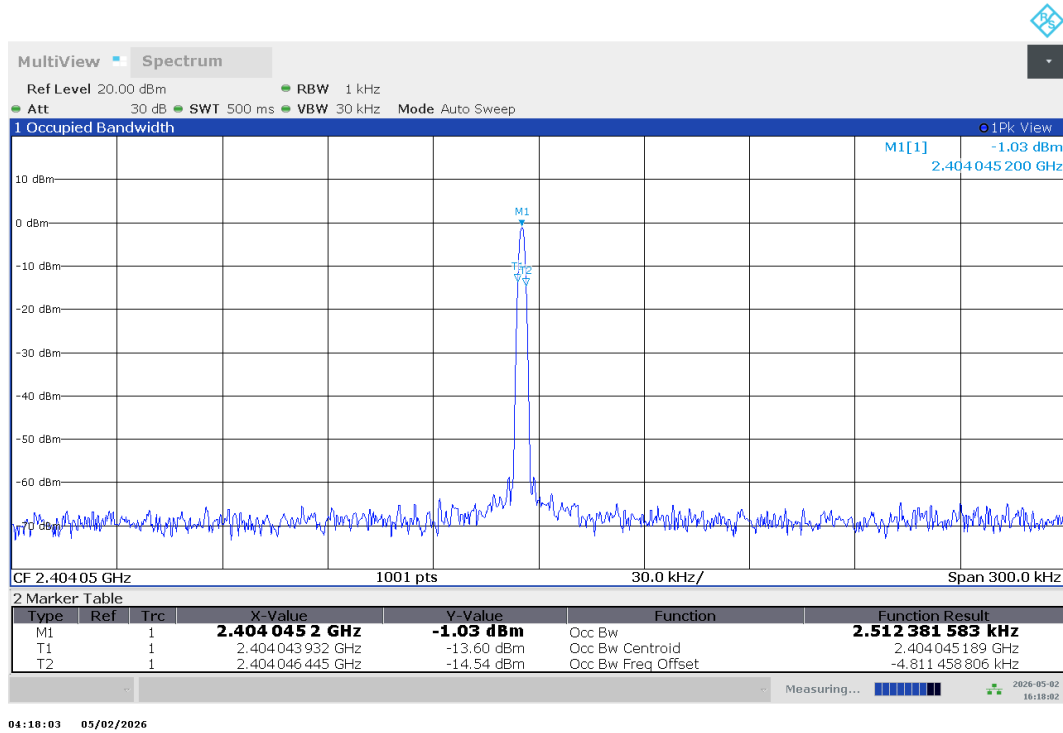
04:17:48 05/02/2026

2.2 Ch 0, Vnom

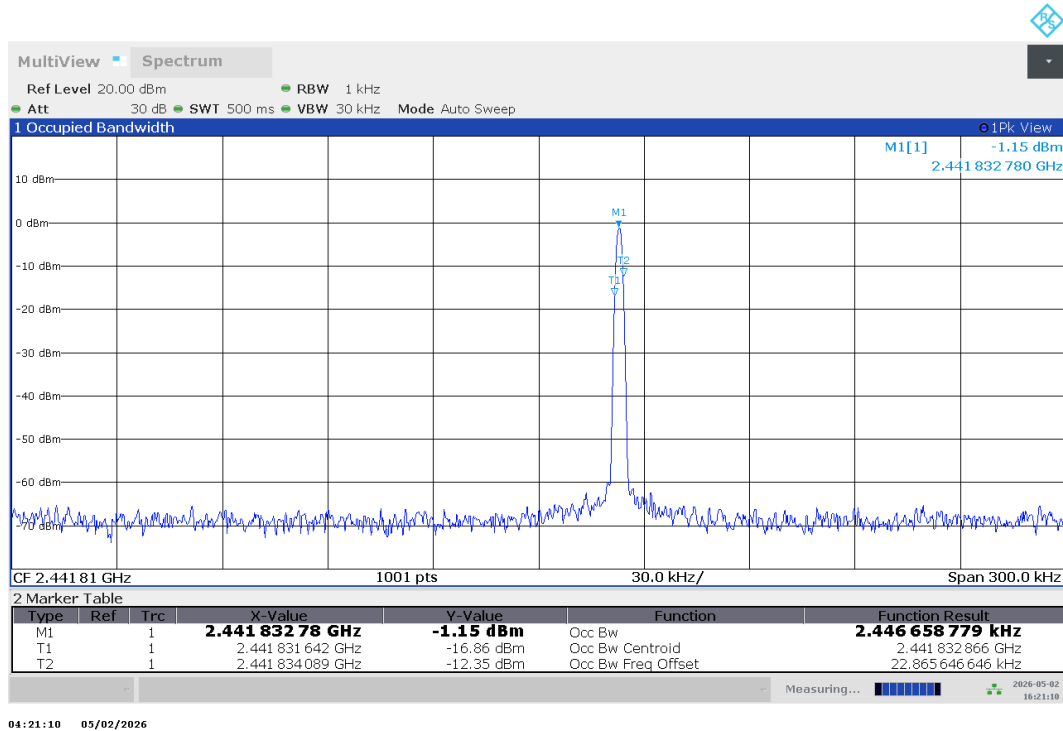


04:17:33 05/02/2026

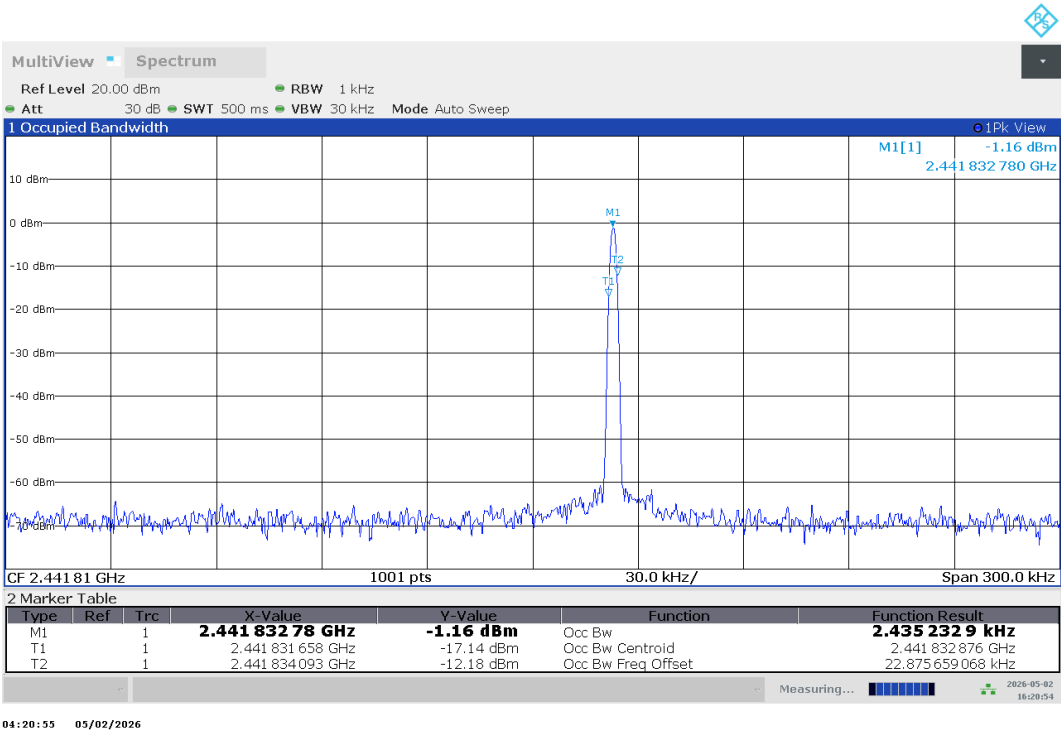
2.3 Ch 0, Vmax



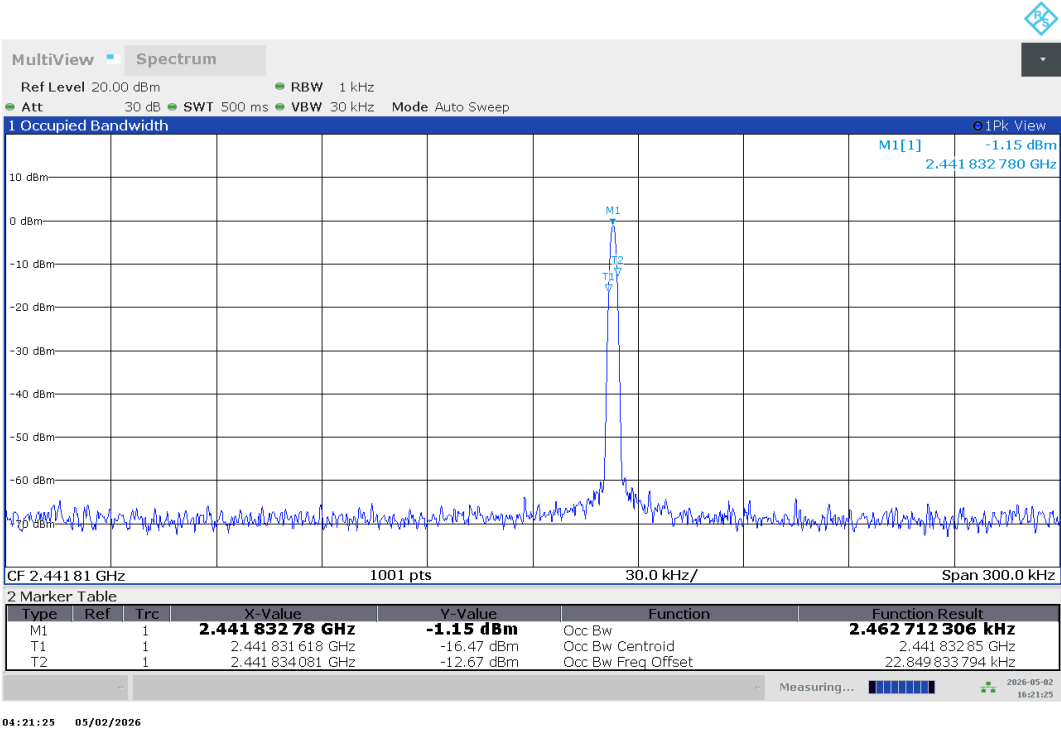
2.4 Ch 4, Vmin



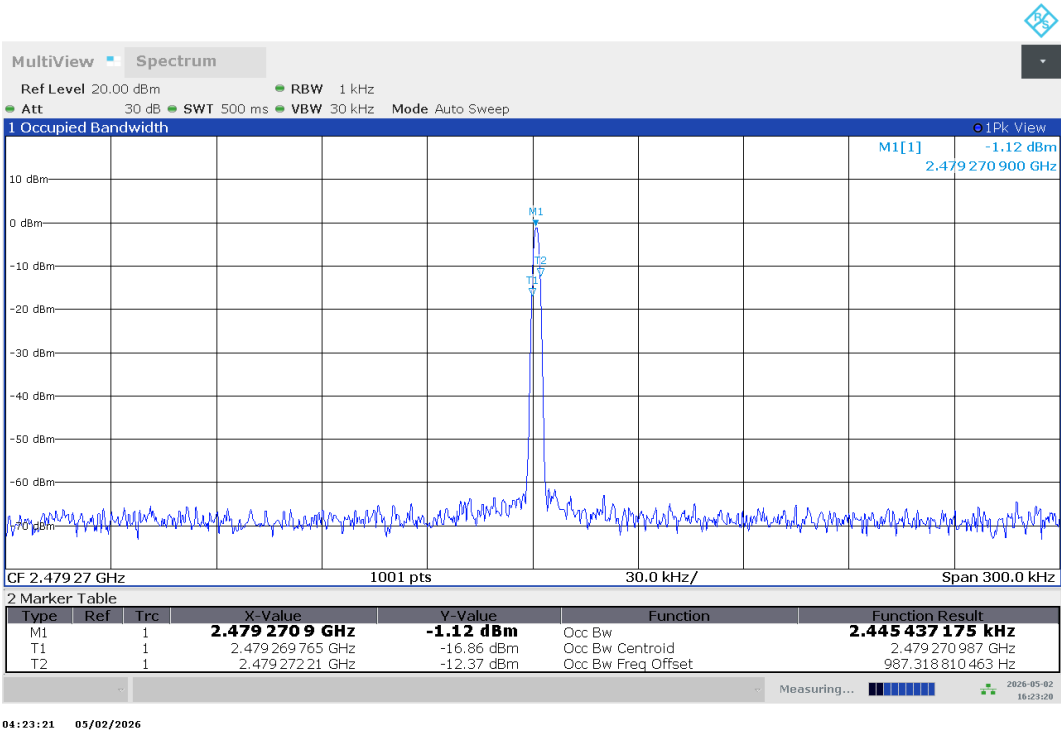
2.5 Ch 4, Vnom



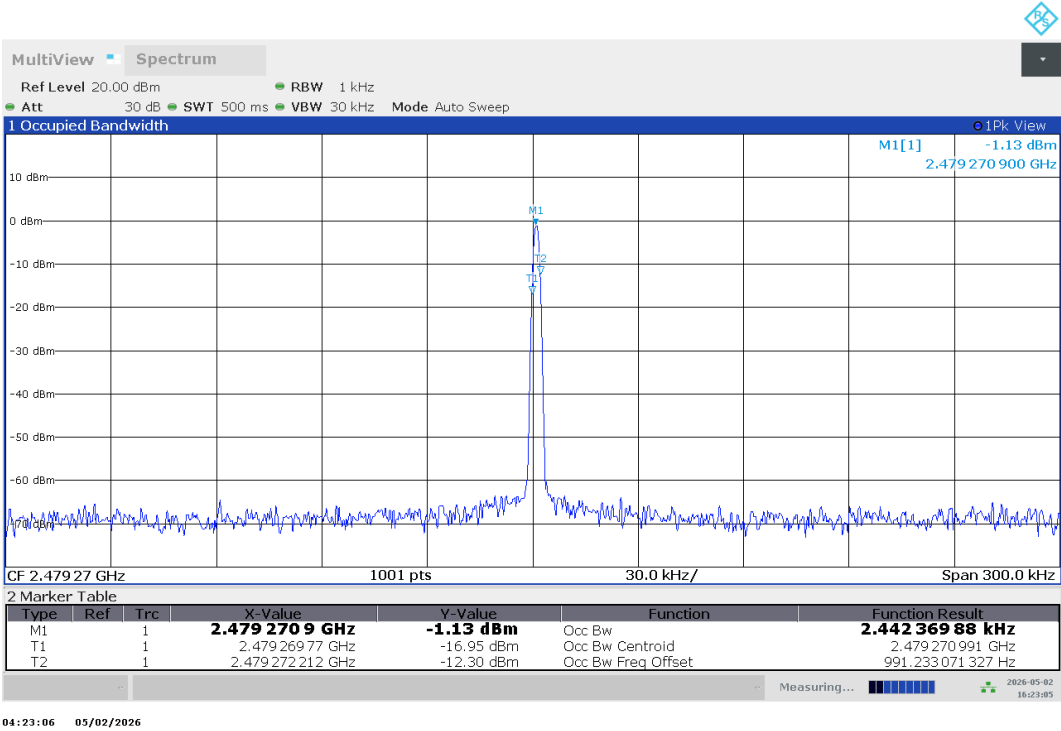
2.6 Ch 4, Vmax



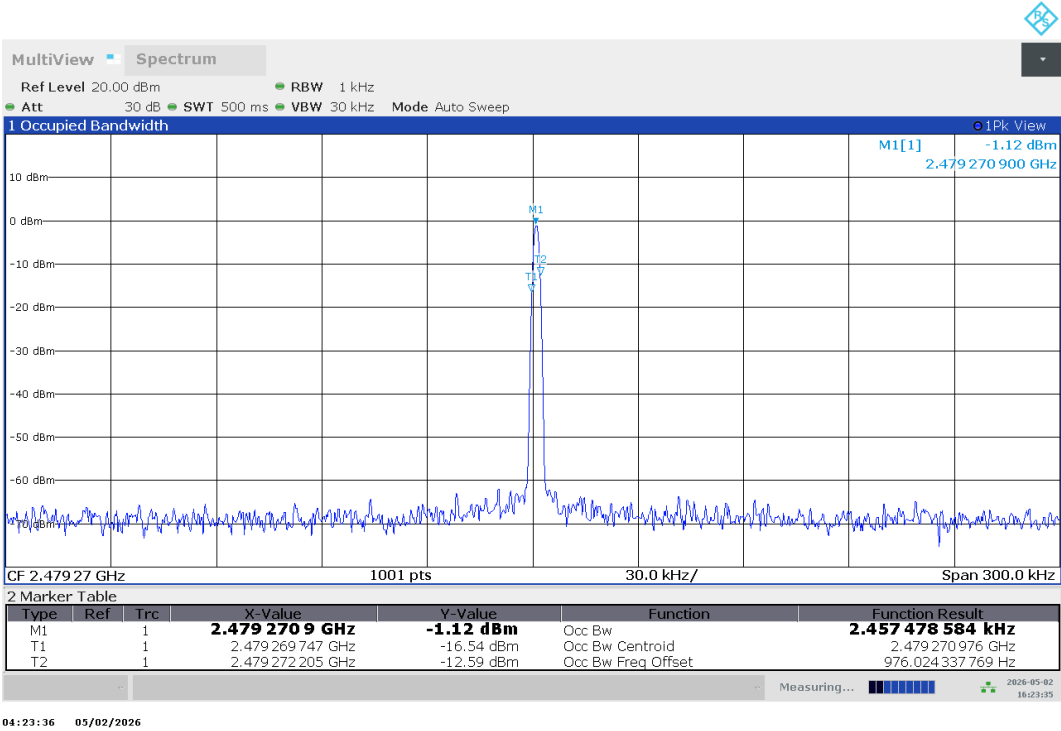
2.7 Ch 10, Vmin



2.8 Ch 10, Vnom

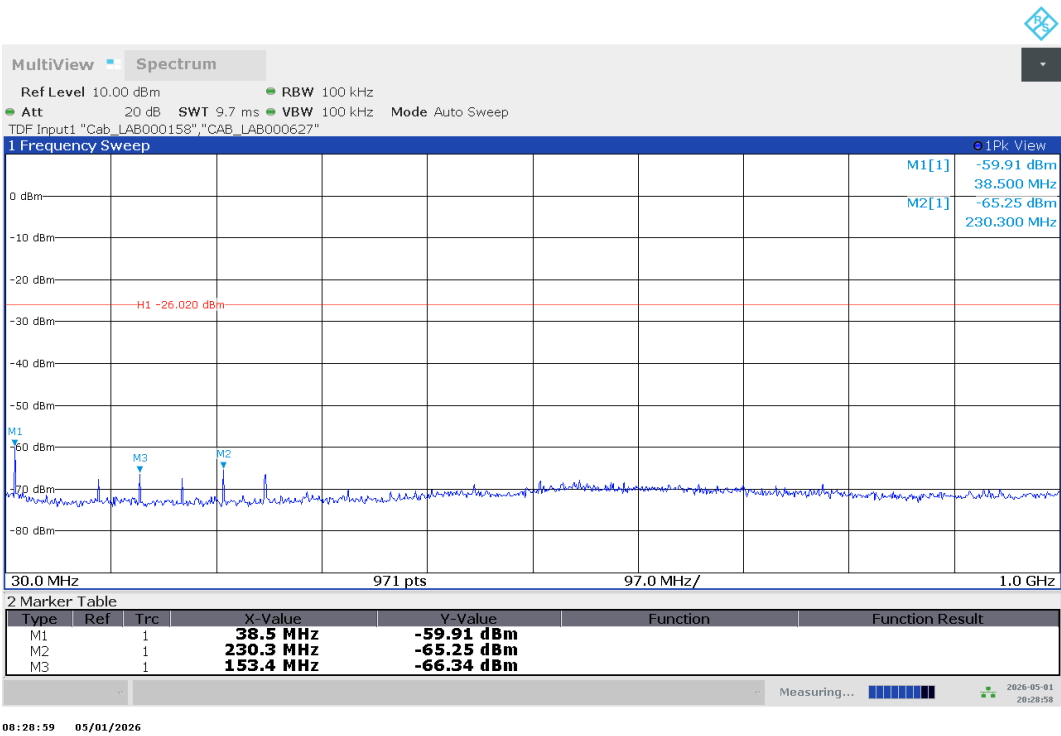


2.9 Ch 10, Vmax

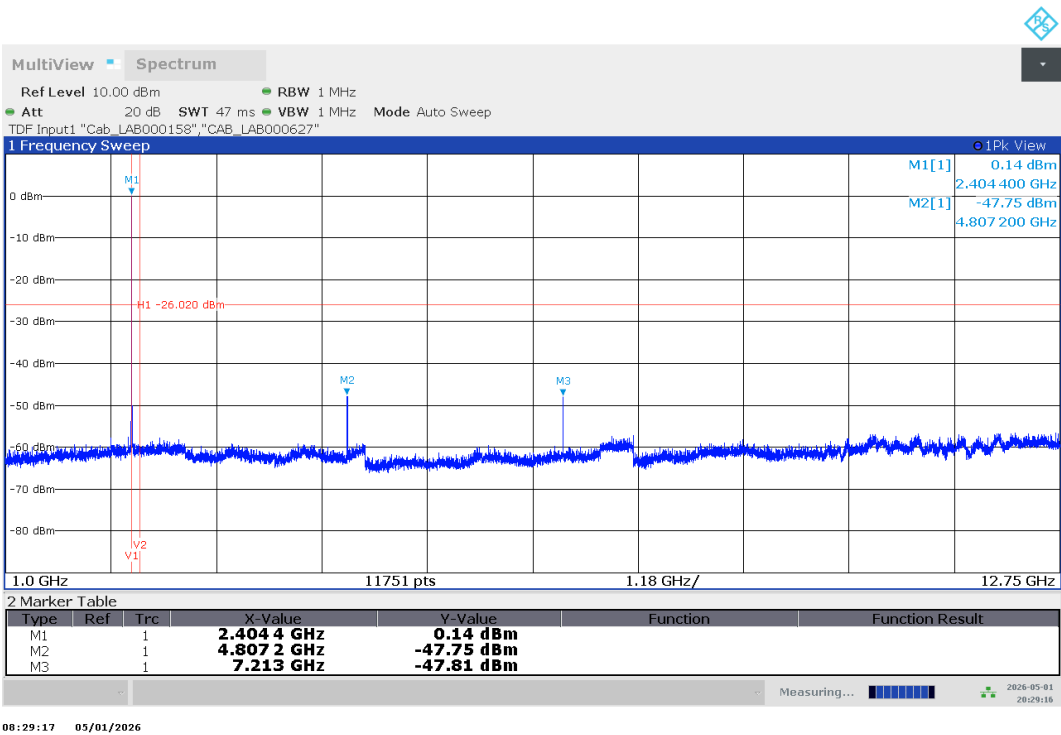


3 Transmitter spurious emissions

3.1 Ch 0, Vmin, 30 MHz – 1 GHz



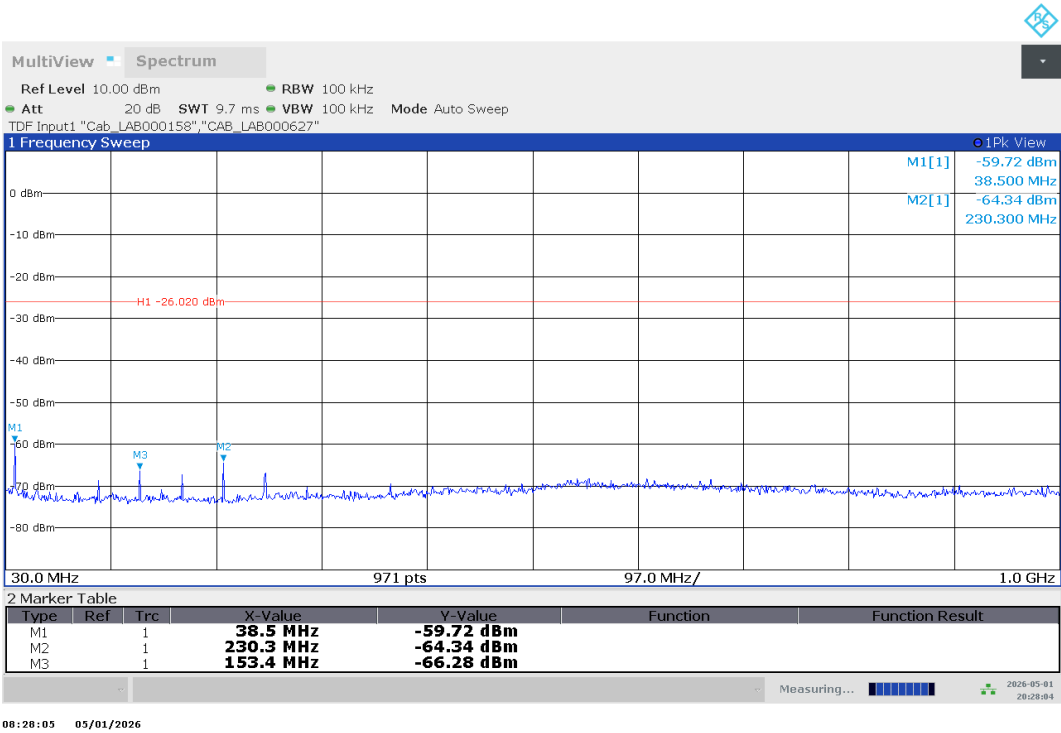
3.2 Ch 0, Vmin, 1 GHz – 12.75 GHz



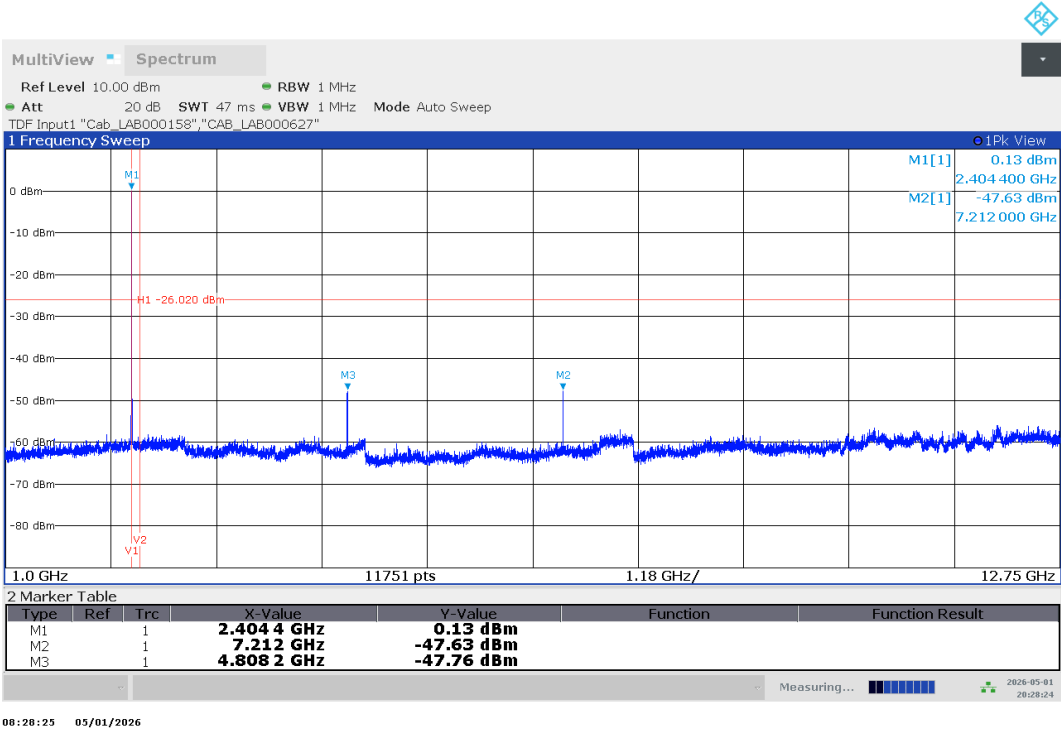
TR no.: 26042671-50113-0

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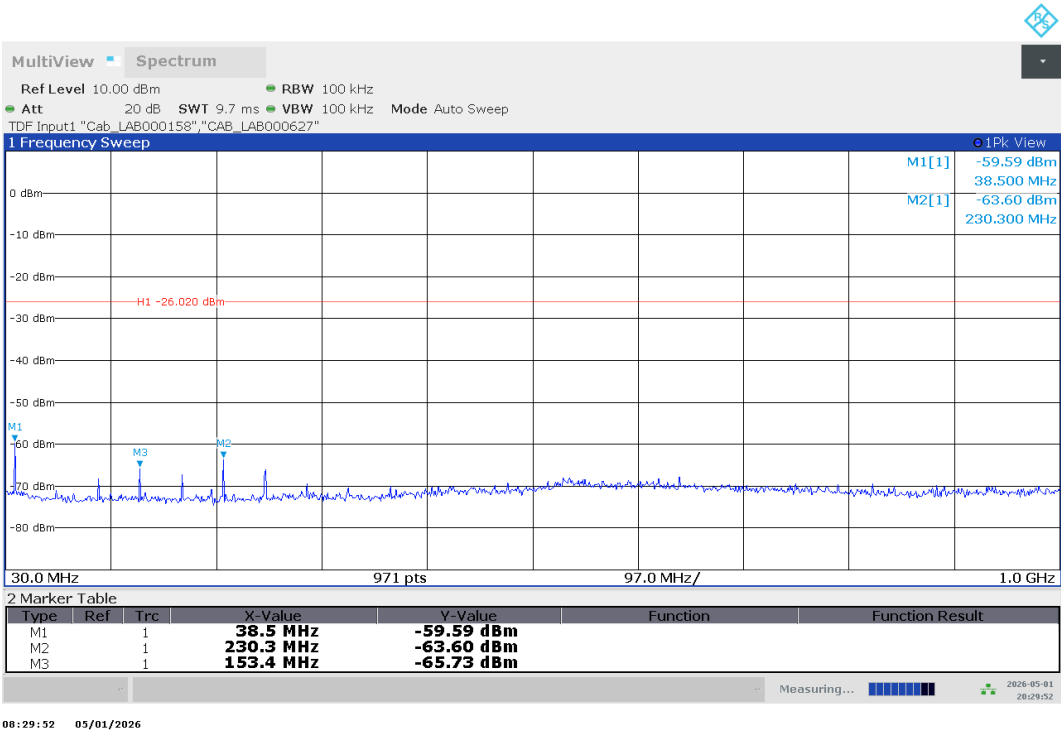
3.3 Ch 0, Vnom, 30 MHz – 1 GHz



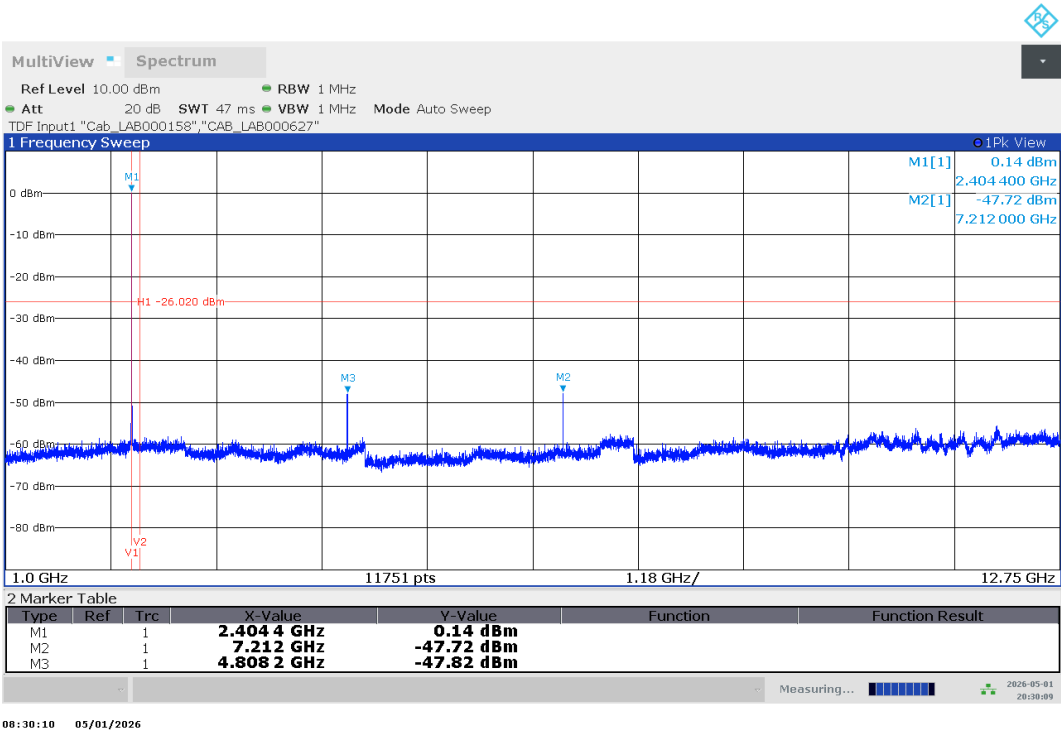
3.4 Ch 0, Vnom, 1 GHz – 12.75 GHz



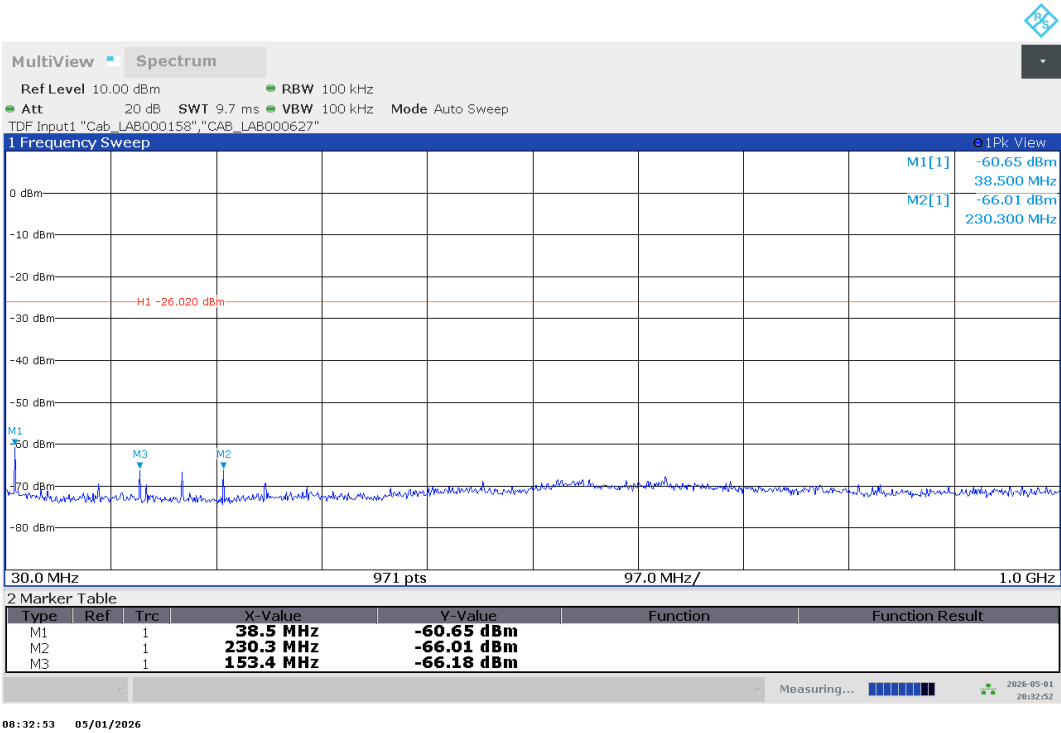
3.5 Ch 0, Vmax, 30 MHz – 1 GHz



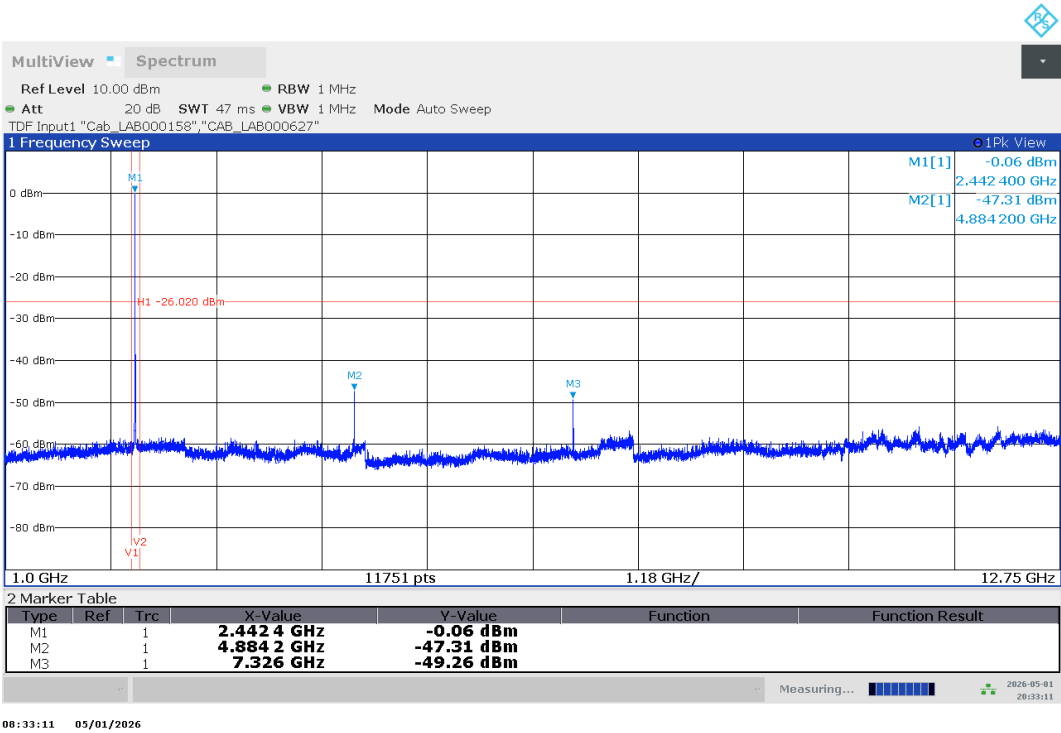
3.6 Ch 0, Vmax, 1 GHz – 12.75 GHz



3.7 Ch 4, Vmin, 30 MHz – 1 GHz



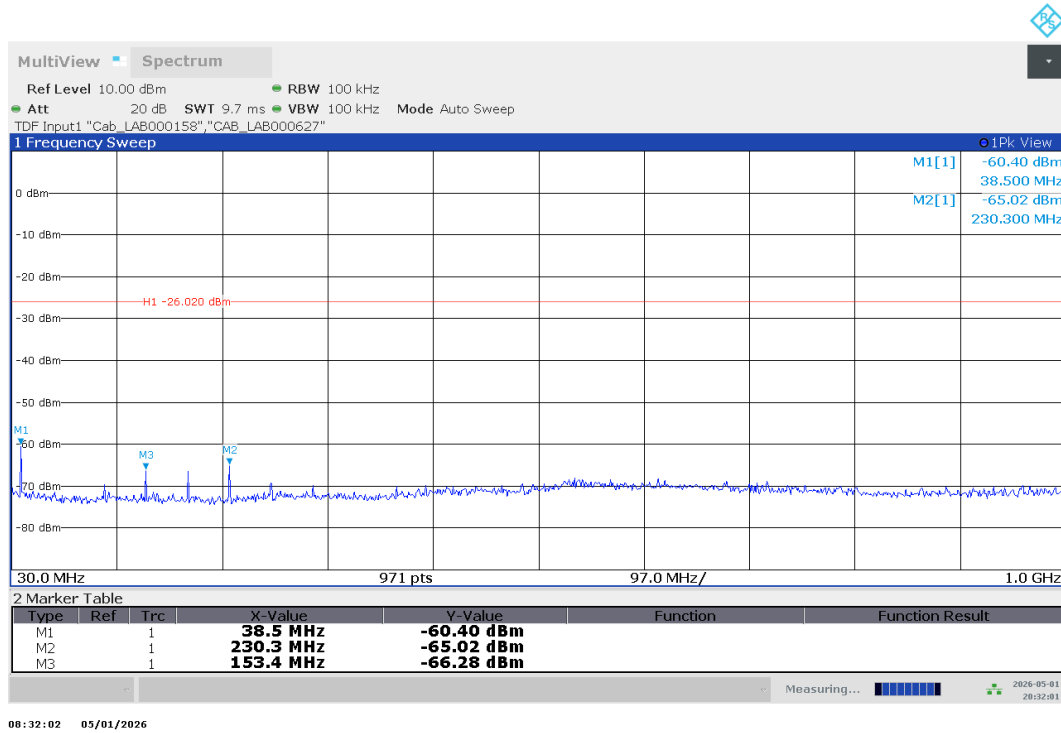
3.8 Ch 4, Vmin, 1 GHz – 12.75 GHz



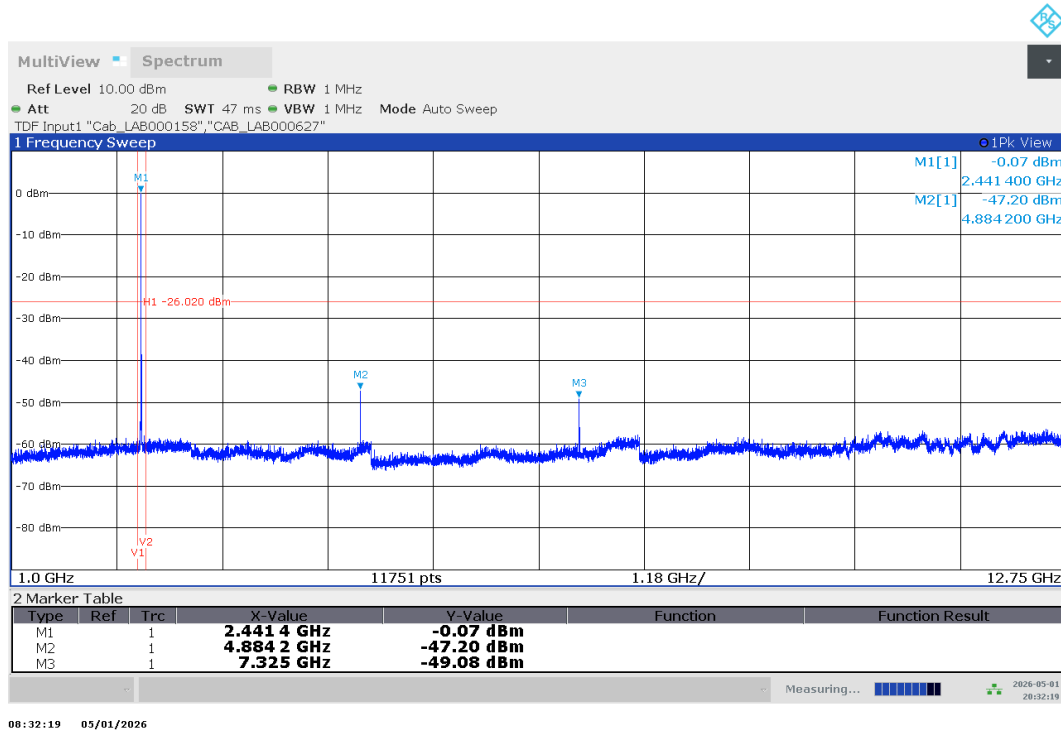
TR no.: 26042671-50113-0

2026-05-07

3.9 Ch 4, Vnom, 30 MHz – 1 GHz



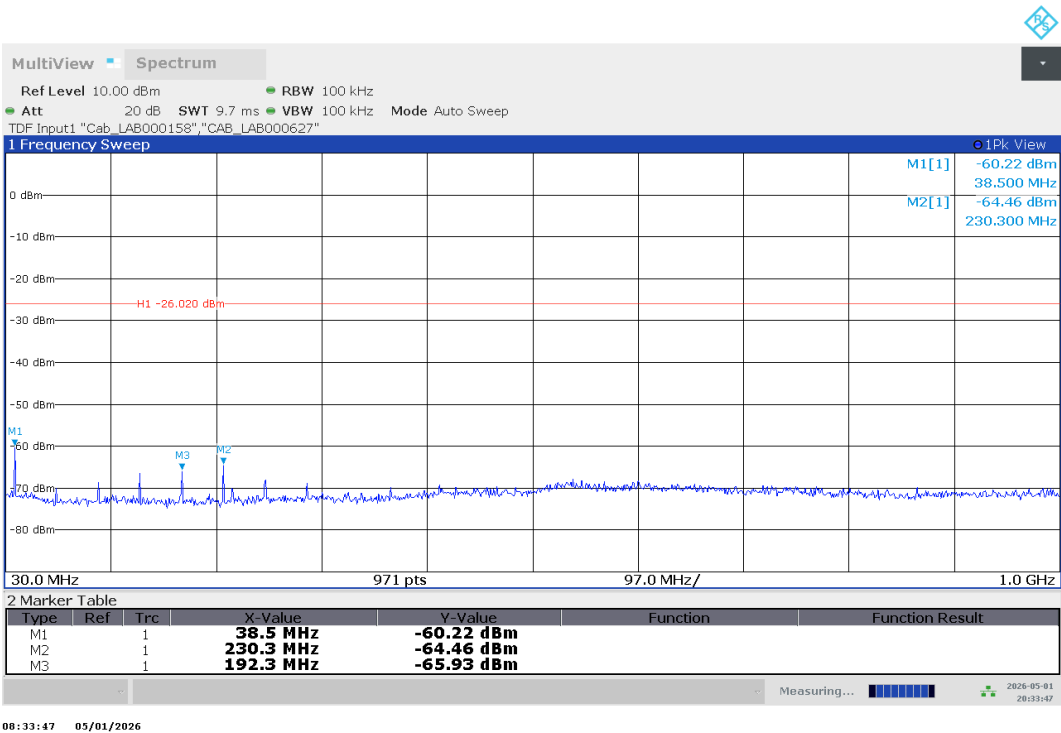
3.10 Ch 4, Vnom, 1 GHz – 12.75 GHz



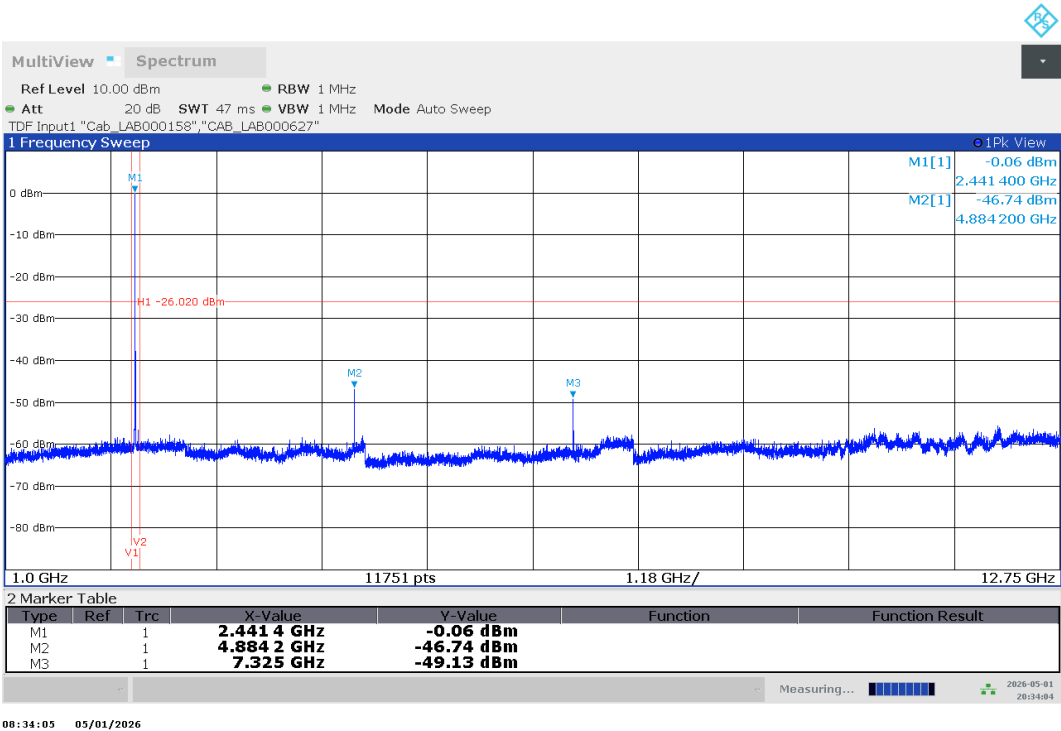
TR no.: 26042671-50113-0

2026-05-07

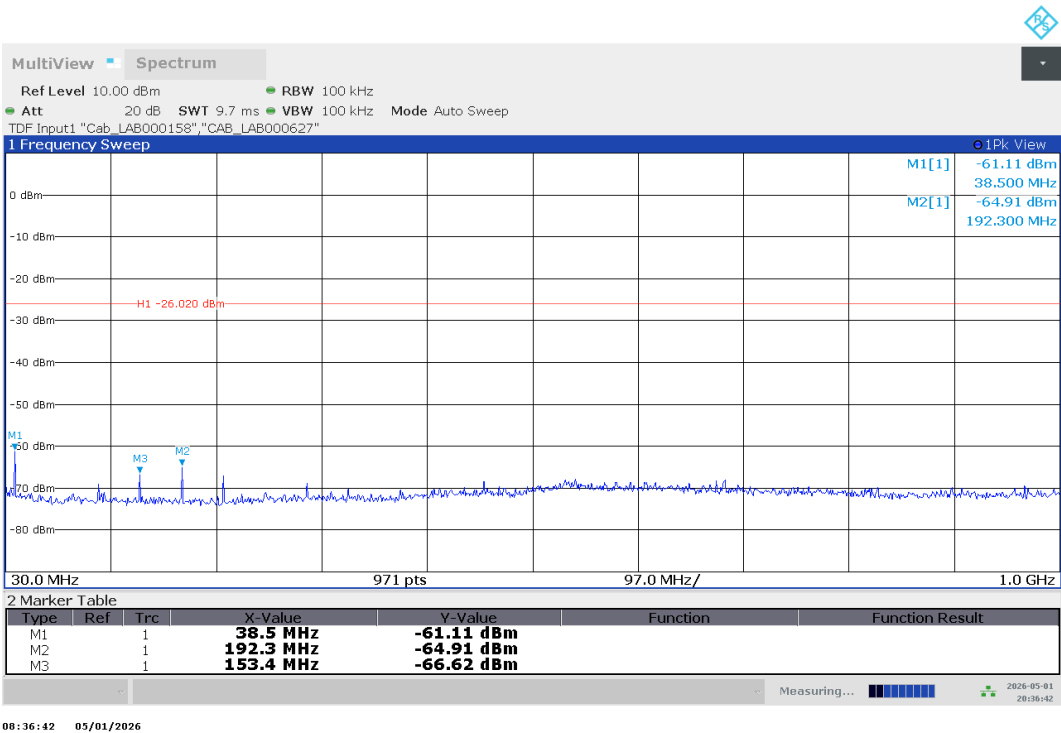
3.11 Ch 4, Vmax, 30 MHz – 1 GHz



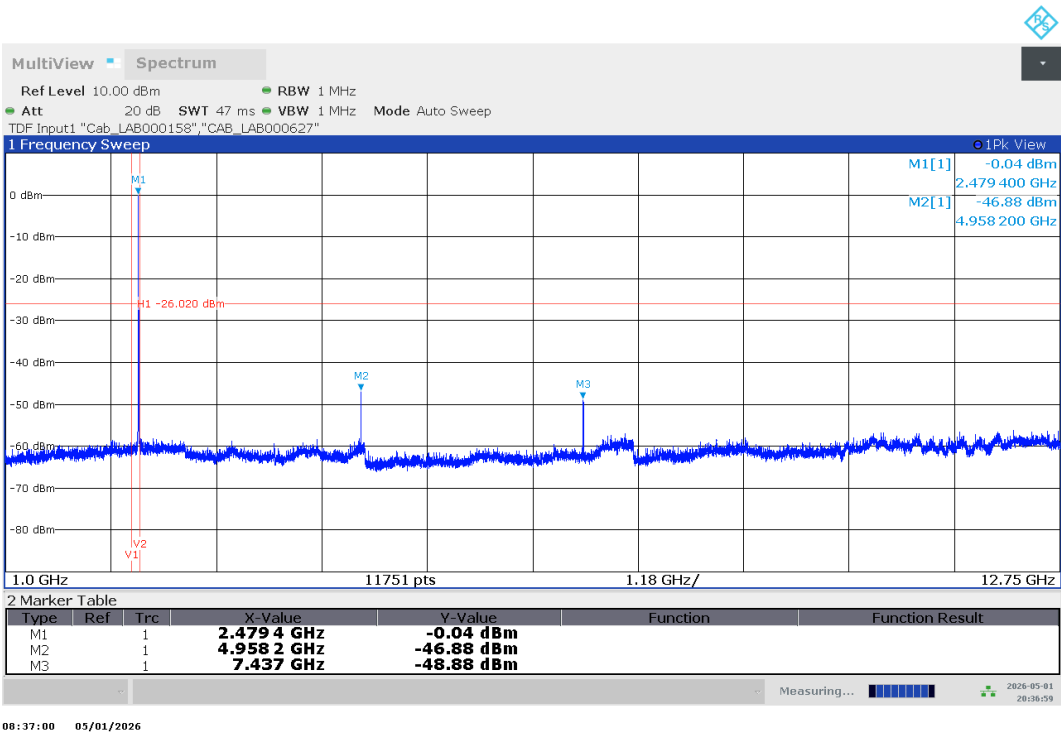
3.12 Ch 4, Vmax, 1 GHz – 12.75 GHz



3.13 Ch 10, Vmin, 30 MHz – 1 GHz



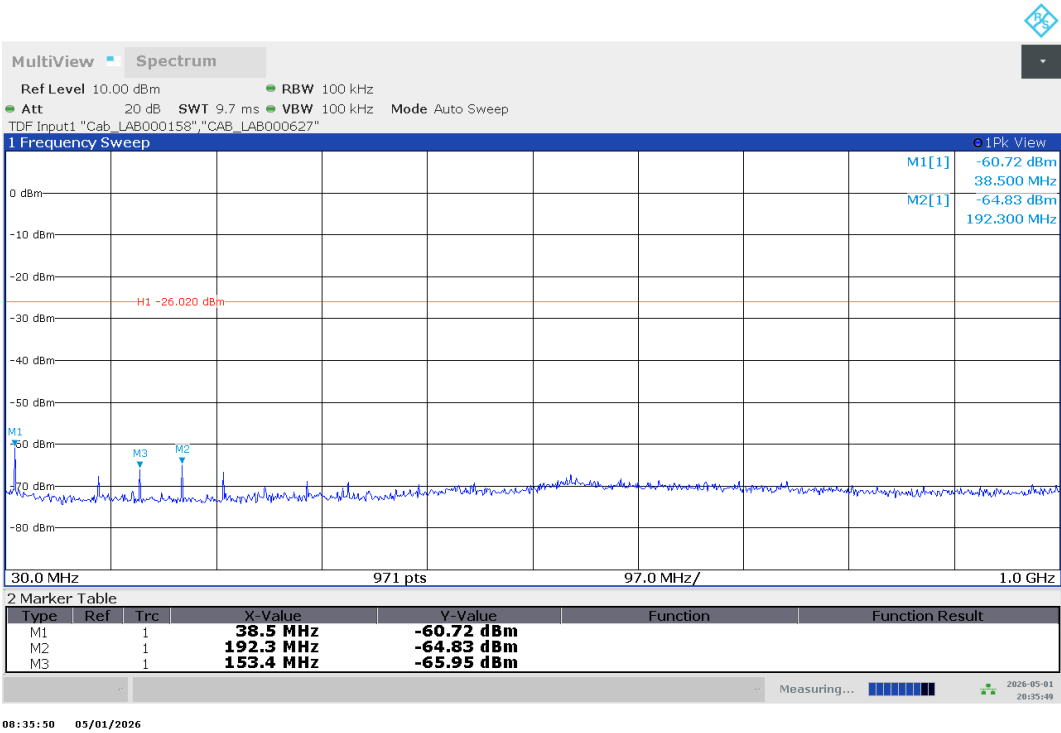
3.14 Ch 10, Vmin, 1 GHz – 12.75 GHz



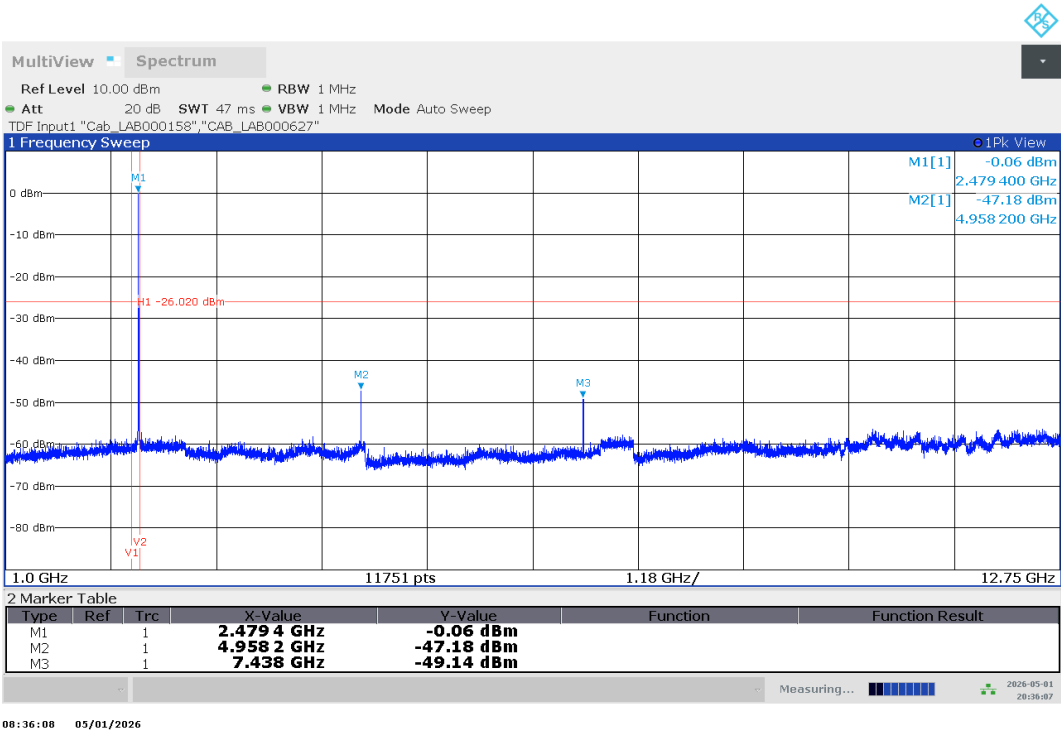
TR no.: 26042671-50113-0

2026-05-07

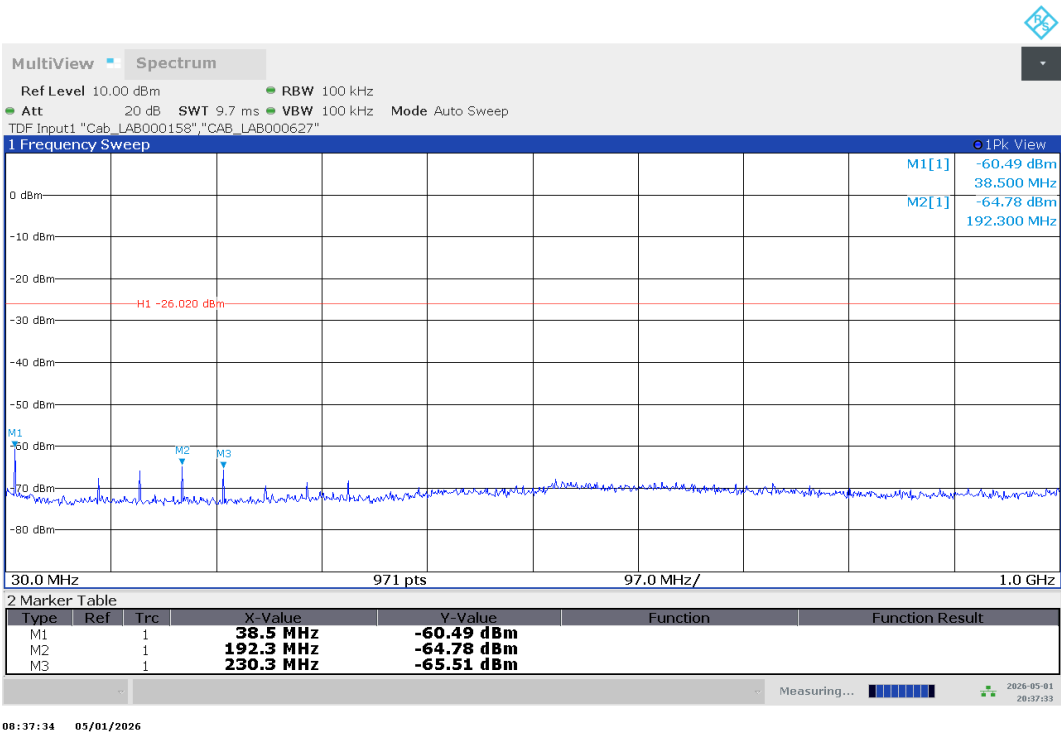
3.15 Ch 10, Vnom, 30 MHz – 1 GHz



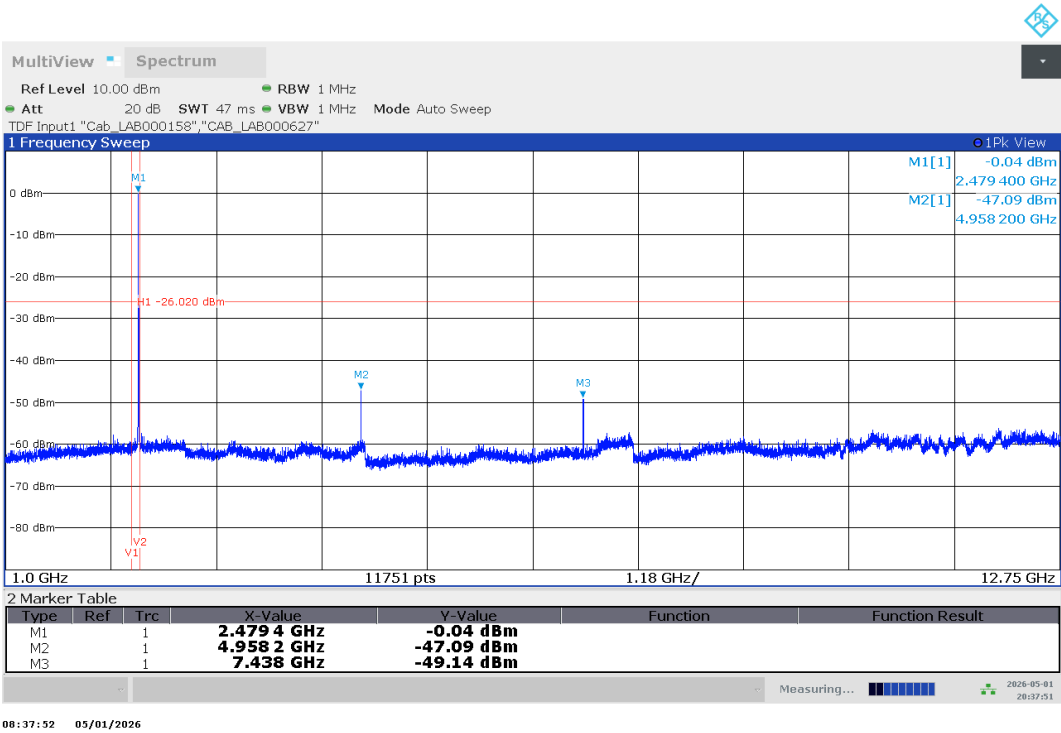
3.16 Ch 10, Vnom, 1 GHz – 12.75 GHz



3.17 Ch 10, Vmax, 30 MHz – 1 GHz

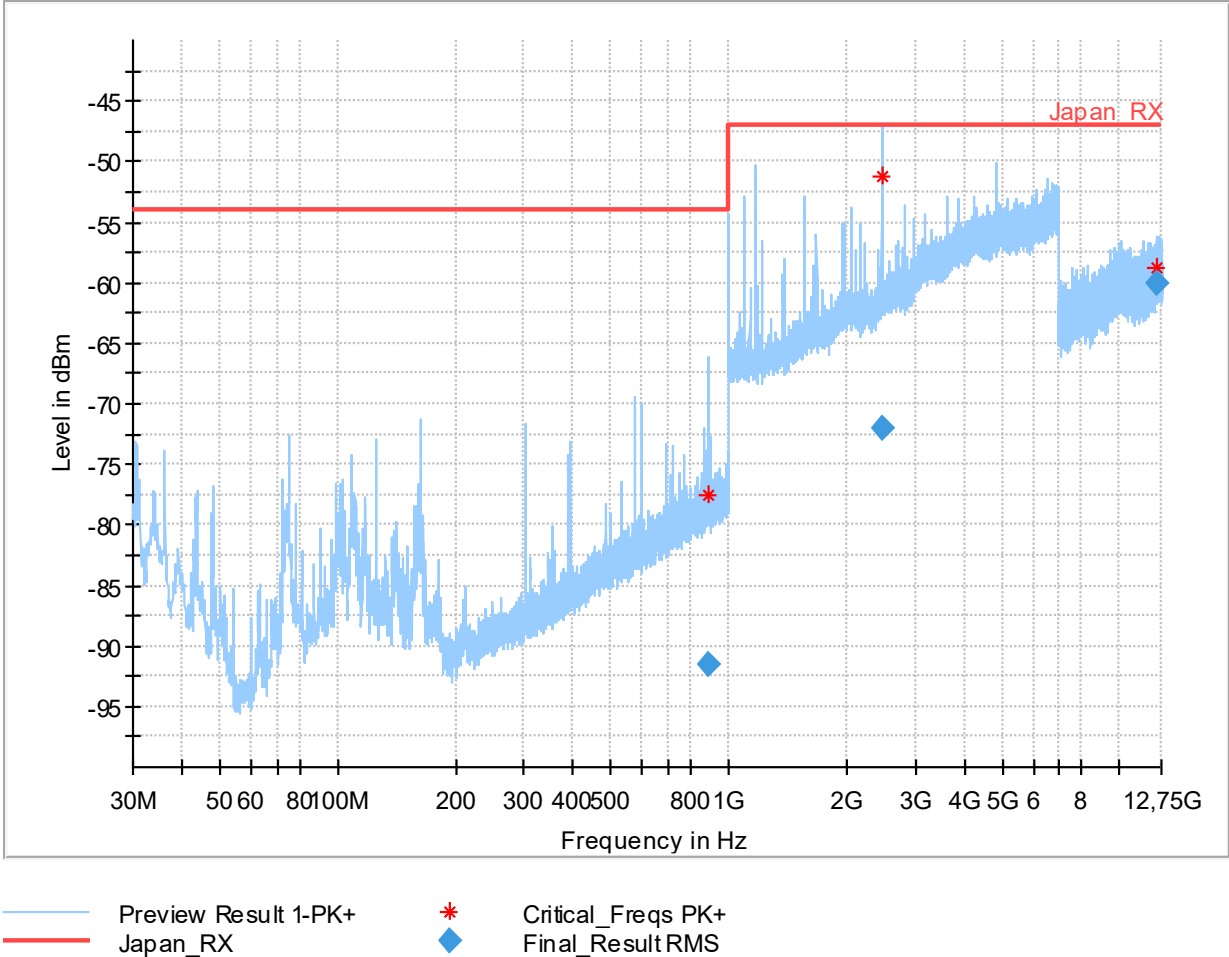


3.18 Ch 10, Vmax, 1 GHz – 12.75 GHz



4 Receiver Spurious Emissions

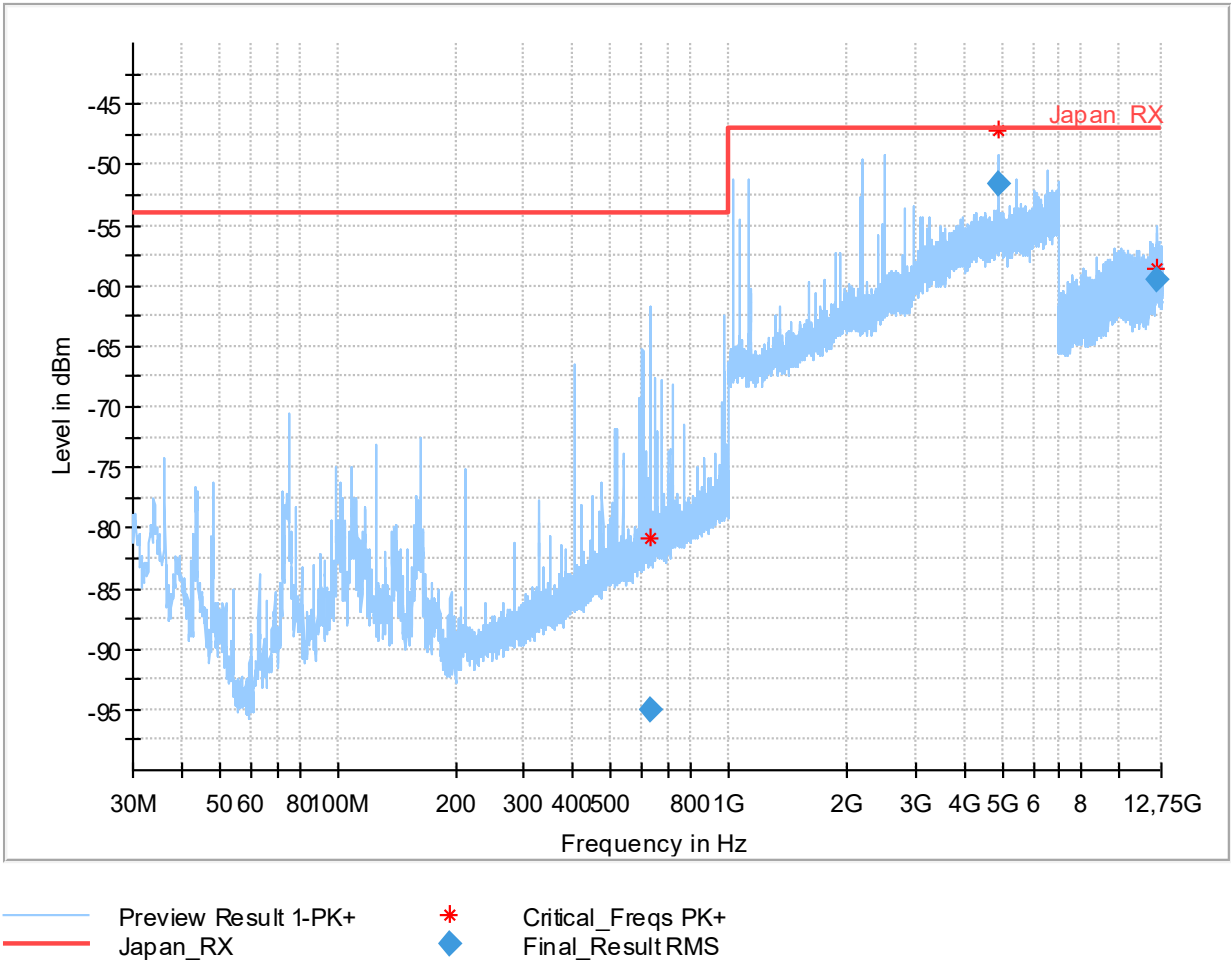
4.1 Ch 0, Vmin/Vnom/Vmax, 30 MHz – 12.75 GHz



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
883.294000	-91.45	-54.00	37.45	100.0	120.000	150.0	V	311.0
2484.300000	-72.07	-47.00	25.07	100.0	1000.000	150.0	V	82.0
12369.121667	-60.07	-47.00	13.07	100.0	1000.000	150.0	H	132.0

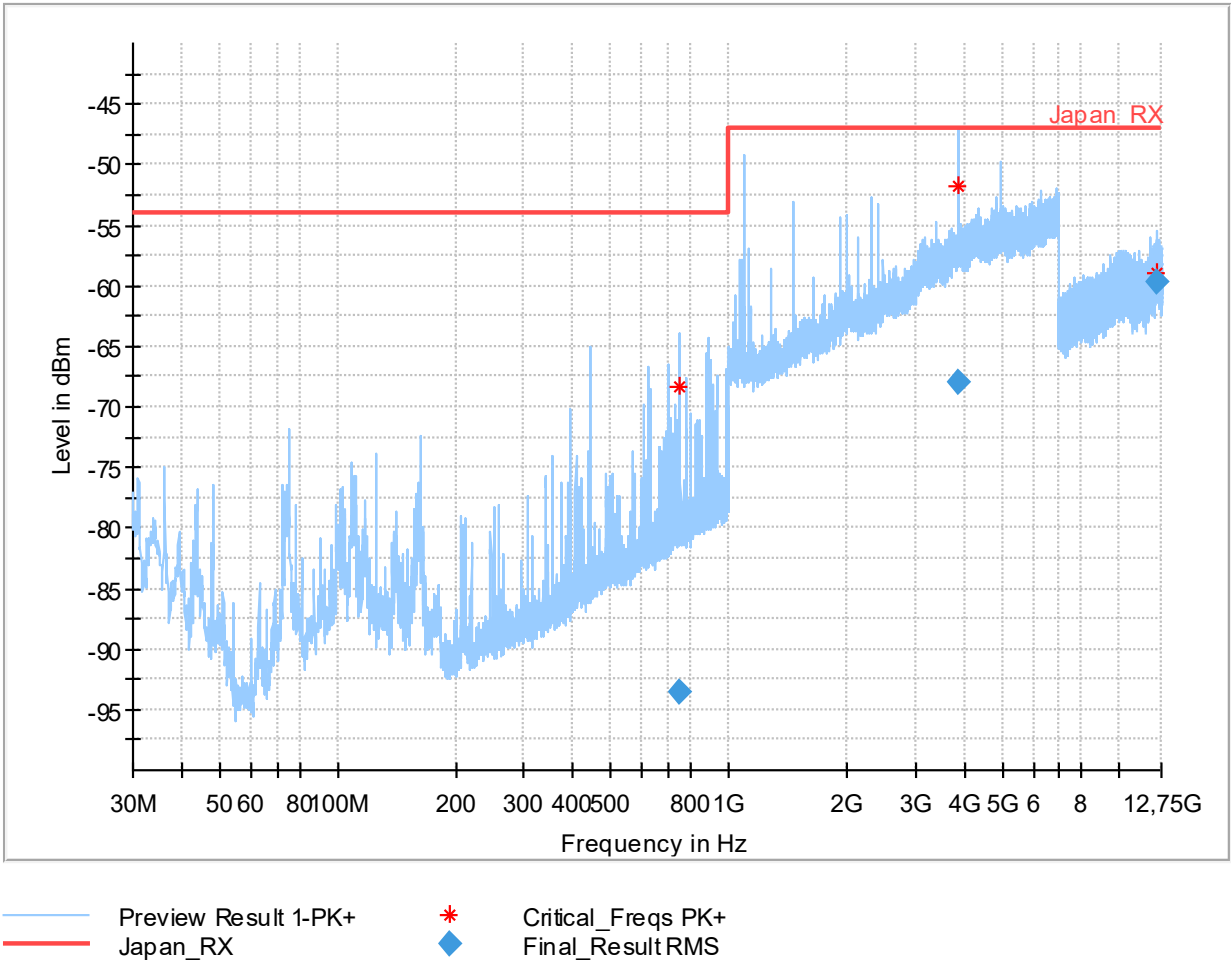
4.2 Ch 4, Vmin/Vnom/Vmax, 30 MHz – 12.75 GHz



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
633.269000	-95.01	-54.00	41.01	100.0	120.000	150.0	V	38.0
4886.400000	-51.61	-47.00	4.61	100.0	1000.000	150.0	H	322.0
12413.086667	-59.43	-47.00	12.43	100.0	1000.000	150.0	V	129.0

4.3 Ch 10, Vmin/Vnom/Vmax, 30 MHz – 12.75 GHz



Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
745.988000	-93.51	-54.00	39.51	100.0	120.000	150.0	H	35.0
3841.600000	-67.97	-47.00	20.97	100.0	1000.000	150.0	H	59.0
12408.039167	-59.61	-47.00	12.61	100.0	1000.000	150.0	H	95.0

ANNEX B: EXTERNAL PHOTOGRAPHS OF EUT

Photograph 1: EUT A, view 1



Photograph 2: EUT A, view 2



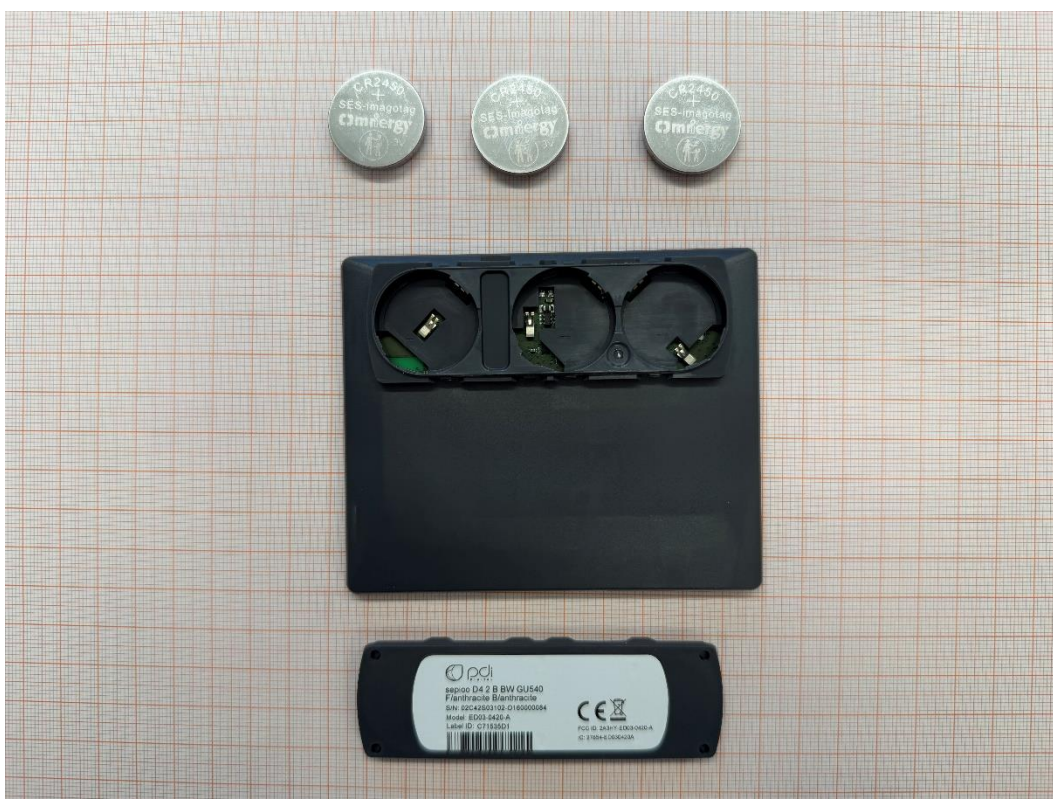
Photograph 3: EUT B, view 1



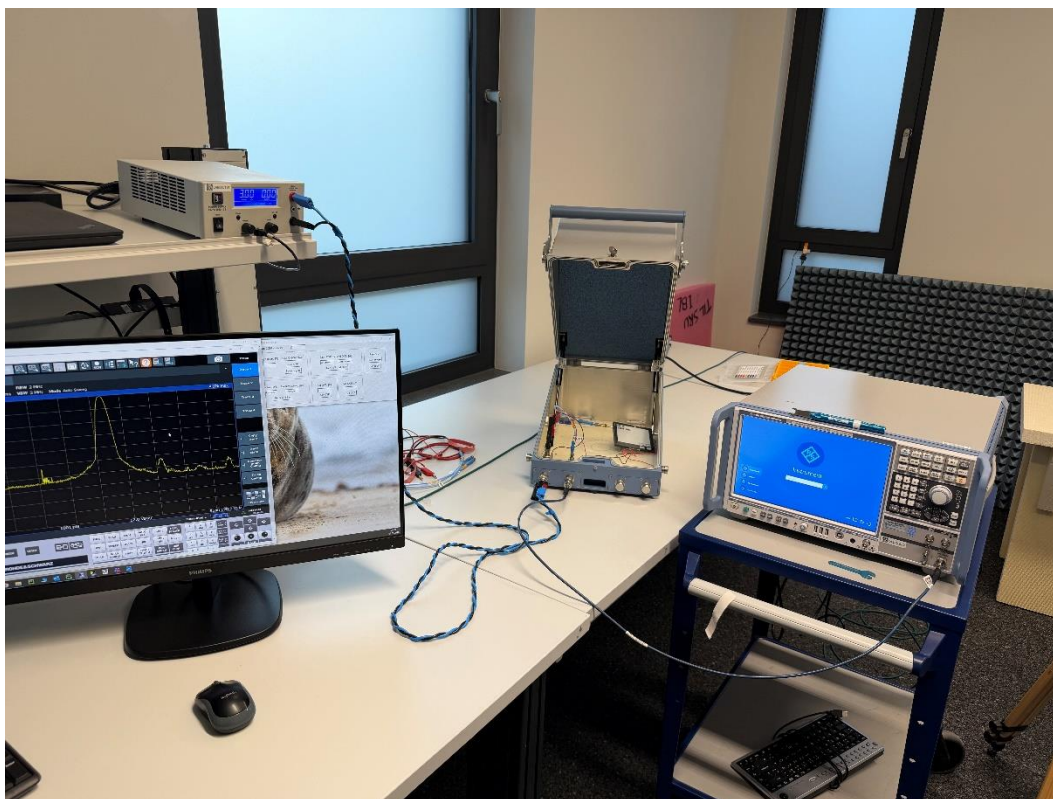
Photograph 4: EUT B, view 2



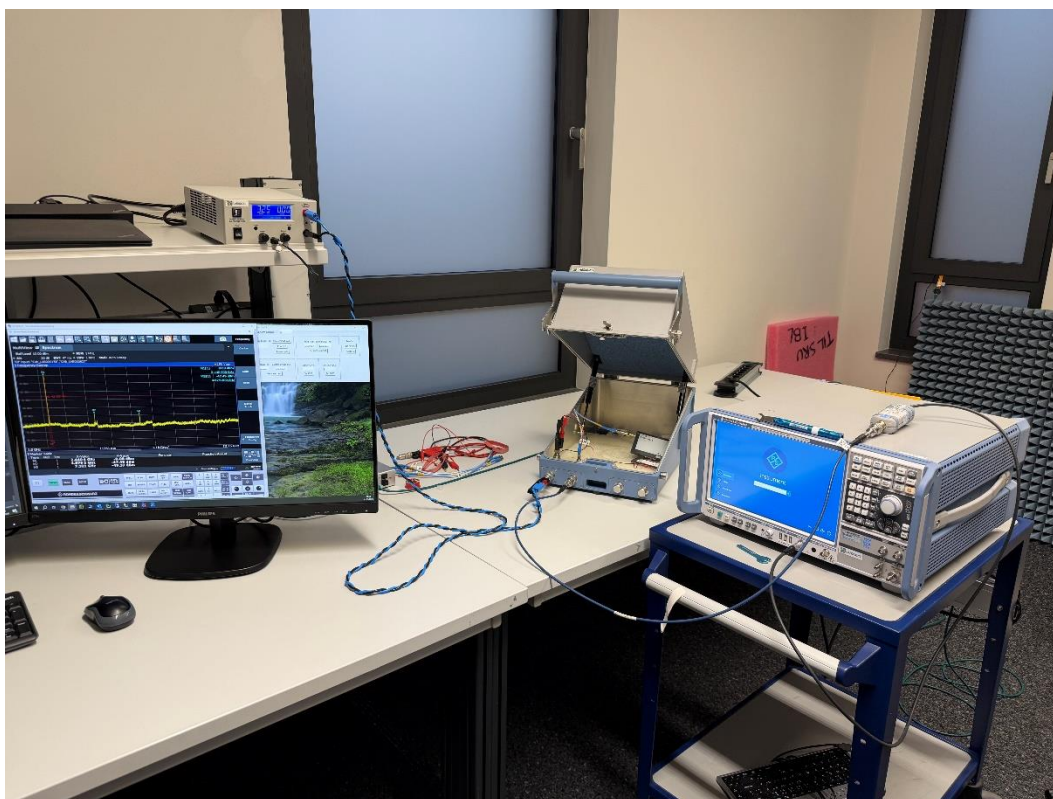
Photograph 5: EUT C, view 1



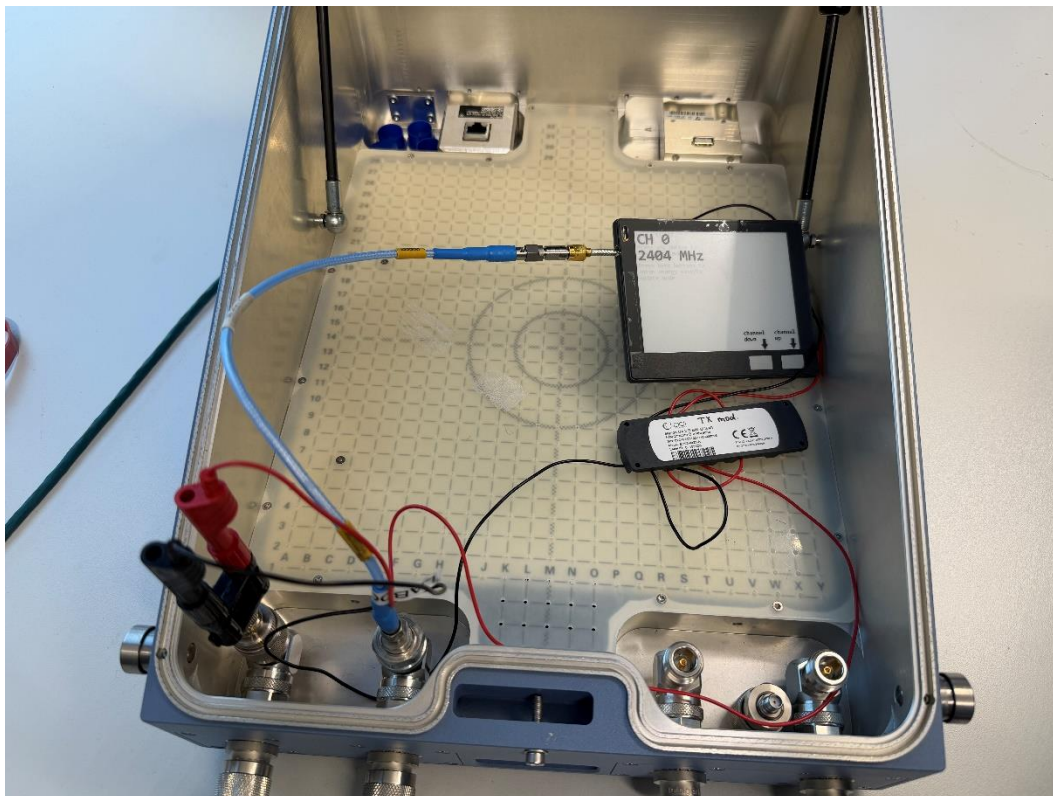
Photograph 6: EUT C, view 2

ANNEX C: TEST SETUP PHOTOGRAPHS

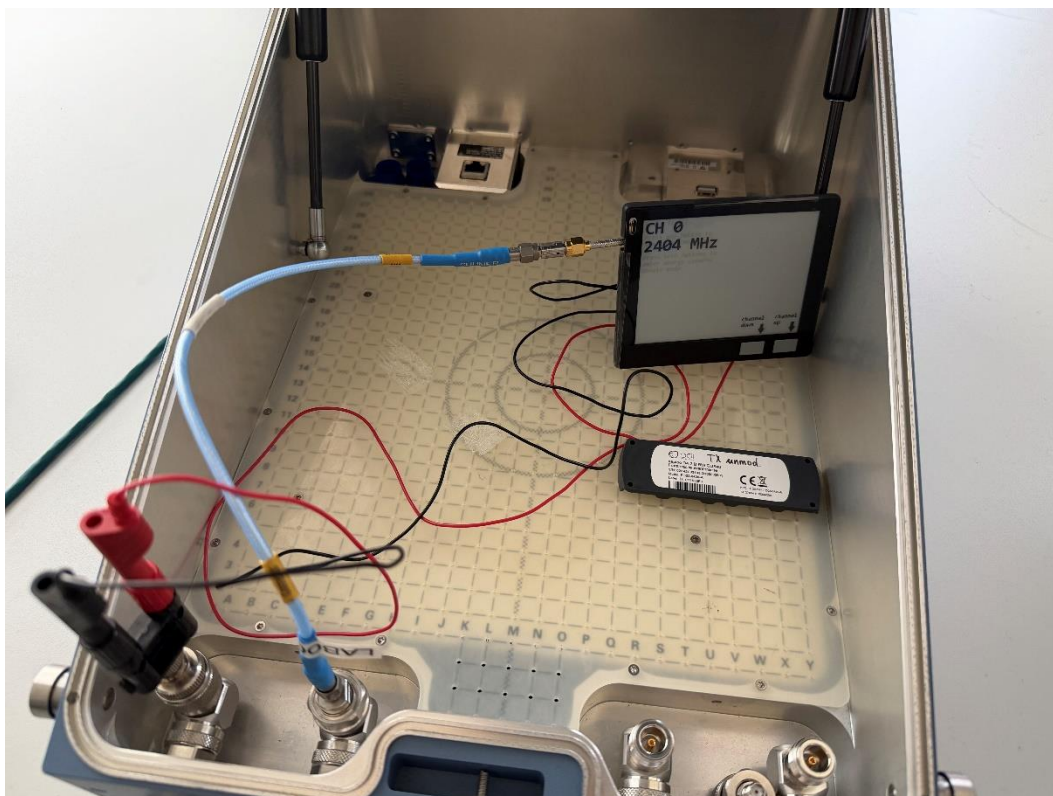
Photograph 7: Measurement set-up conducted, overall view 1.



Photograph 8: Measurement set-up conducted, overall view 2.



Photograph 9: Measurement set-up conducted, close view 1.



Photograph 10: Measurement set-up conducted, close view 2.



Photograph 11: Measurement set-up radiated, overall view.



Photograph 12: Measurement set-up radiated, close view.

END OF TEST REPORT
