FCC Part 15.247

TEST REPORT

For

MERCURY Corporation

90, Gajaeul-ro, Seo-Gu, Incheon, 22830, Republic of Korea

FCC ID: 2AVW5-MCR-AP8400

Report Type:	**Product Type:**
Original Report	Wireless Access Point

Report Producer : Jojo Lu

Report Number : RXZ241119045RF01

Report Date : 2025-01-24

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Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RXZ241119045	RXZ241119045RF01	2025-01-24	Original Report	Jojo Lu

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1 General Information

1.1 Product Description for Equipment under Test (EUT)

Applicant	MERCURY Corporation
	90, Gajaeul-ro, Seo-Gu, Incheon, 22830, Republic of Korea
Brand(Trade) Name	MERCURY
Product (Equipment)	Wireless Access Point
Main Model Name	MCR-AP8400
Series Model Name	N/A
Frequency Range	IEEE 802.11b/ g/ n HT20/ ax HE20 Mode: 2412 ~ 2462 MHz IEEE 802.11n HT40/ axHE40 Mode: 2422 ~ 2452 MHz BLE: 2402 ~ 2480 MHz
Maximum Conducted Peak Output Power	IEEE 802.11b Mode: 27.84 dBm IEEE 802.11g Mode: 29.42 dBm IEEE 802.11n HT20 Mode: 28.86 dBm IEEE 802.11n HT40 Mode: 28.31 dBm IEEE 802.11ax HE20 Mode: 29.13 dBm IEEE 802.11ax HE40 Mode: 29.19 dBm BLE(1M) Mode : 1.11 dBm BLE(2M) Mode : 1.09 dBm
Modulation Technique	IEEE 802.11b Mode: DSSS IEEE 802.11g Mode: OFDM IEEE 802.11n HT20 Mode: OFDM IEEE 802.11n HT40 Mode: OFDM IEEE 802.11ax HE20 Mode: OFDMA IEEE 802.11ax HE40 Mode: OFDMA BLE Mode : GFSK
Power Operation (Voltage Range)	12Vdc from Adapter
Received Date	2024/11/21

*All measurement and test data in this report was gathered from production sample serial number: RXZ241119045-1 (Assigned by BACL, New Taipei Laboratory).

1.2 Objective

This report is prepared on behalf of *MERCURY Corporation* in accordance with Part 2, Subpart J, Part 15, Subparts A and C of the Federal Communication Commission's rules.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.
KDB 558074 D01 15.247 Meas Guidance v05r02.

1.4 Statement

Decision Rule: No, (The test results do not include MU judgment)

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
The determination of the test results does not require consideration of the uncertainty of the measurement, unless the assessment is required by customer agreement, regulation or standard document specification.
Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) is not responsible for the authenticity of the information provided by the applicant that affects the test results.

1.5 Measurement Uncertainty

Parameter		Uncertainty
AC Mains		+/- 3.02 dB
RF output power, conducted		+/- 0.57 dB
Power Spectral Density, conducted		+/- 0.60 dB
Occupied Bandwidth		+/- 0.09 %
Unwanted Emissions, conducted		+/- 1.09 dB
Emissions, radiated	9 kHz~30 MHz	+/- 3.20 dB
	30 MHz~1 GHz	+/- 3.30 dB
	1 GHz~18 GHz	+/- 5.14 dB
	18 GHz~40 GHz	+/- 4.75 dB
Temperature		+/- 0.76 °C
Humidity		+/- 0.41 %

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

1.6 Environmental Conditions

Test Site	Test Date	Temperature (℃)	Relative Humidity (%)	ATM Pressure (hPa)	Test Engineer
AC Line Conducted Emissions	2024/12/23~2025/1/20	19~20.2	55~58	1020.9	Wayne Pan
Radiation Spurious Emissions	2024/12/12~2025/1/18	18.4~22.8	49~68	1019.4~1023.8	Aaron Pan
Duty Cycle	2024/12/11	24.8	59	1017	Wayne Pan
Conducted Spurious Emissions	2024/12/13~2025/1/17	22.7~24.6	45~58	1020.5~1023.6	Wayne Pan
Emission Bandwidth	2024/12/13~2025/1/17	22.7~24.6	45~58	1020.5~1023.6	Wayne Pan
Maximum Output Power	2024/12/11~2025/1/17	22.7~24.8	45~59	1020.5~1023.6	Wayne Pan
100 kHz Bandwidth of Frequency Band Edge	2024/12/13~2025/1/17	22.7~24.6	45~58	1020.5~1023.6	Wayne Pan
Power Spectral Density	2024/12/11~2025/1/17	22.7~24.6	45~58	1020.5~1023.6	Wayne Pan

1.7 Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) to collect test data is located on

☒70, Lane 169, Sec. 2, Datong Road, Xizhi Dist., New Taipei City 221, Taiwan, R.O.C.

Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3732) and the FCC designation No.TW3732 under the Mutual Recognition Agreement (MRA) in FCC Test.

2 System Test Configuration

2.1 Description of Test Configuration

For WIFI 2.4GHz mode, there are totally 11 channels.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437	/	/

For 802.11 b/g/n HT20/ax HE20 Modes were tested with channel 1, 6 and 11.

For 802.11n HT40/ax HE40 Mode were tested with channel 3, 6 and 9.

For BLE mode, there are totally 40 channels.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2442
1	2404	--	--
2	2406	--	--
3	2408	37	2476
--	--	38	2478
19	2440	39	2480

For BLE Modes were tested with channel 0, 19 and 39.

2.2 Support Equipment List and Details

Description	Manufacturer	Model Number	S/N
NB	DELL	E6410	1CKD0M1
NB	DELL	E6410	7ODSQM1
NB	DELL	E6410	8N7PXN1
NB	DELL	E6410	C88PXN1
Adapter	Shenzhen Keyu Power Supply Technology Co., Ltd	KA4801A-1204000US	N/A

2.3 External Cable List and Details

Description	Manufacturer	Model Number
RJ-45 Cable*4	BACL	8m

2.4 EUT Exercise Software

The test software was used "QATool v0.0.2.73"

The system was configured for testing in engineering mode, which was provided by Applicant.

WIFI

Mode MIMO(CDD)	Channel	Frequency (MHz)	Power Setting MIMO(CDD)			
			Chain 0	Chain 1	Chain 2	Chain 3
802.11b	Low	2412	10	10	10	10
	Middle	2437	10	10	10	10
	High	2462	10	10	10	10
802.11g	Low	2412	4	4	4	4
	Middle	2437	4	4	4	4
	High	2462	4	4	4	4
802.11n HT20	Low	2412	4	4	4	4
	Middle	2437	4	4	4	4
	High	2462	4	4	4	4
802.11n HT40	Low	2422	4	4	4	4
	Middle	2437	4	4	4	4
	High	2452	4	4	4	4
802.11ax HE20	Low	2412	4	4	4	4
	Middle	2437	4	4	4	4
	High	2462	4	4	4	4
802.11ax HE40	Low	2422	4.5	4.5	4.5	4.5
	Middle	2437	4.5	4.5	4.5	4.5
	High	2452	4.5	4.5	4.5	4.5

The device support SISO and MIMO(CDD).

SISO mode and MIMO mode have the same power level setting and base on output power testing, MIMO mode power large than SISO mode, MIMO mode was selected for full testing.

The worst case data rates are as follows:

802.11b: 1Mbps

802.11g: 6Mbps

802.11n HT20: MCS0

802.11n HT40: MCS0

802.11ax HE20: MCS0

802.11ax HE40: MCS0

BLE

Test Frequency		Low	Middle	High
Power Level Setting	BLE 1M	0	0	0
	BLE 2M	0	0	0

The worst case data rates are as follows:

BLE 1M: 1Mbps

BLE 2M: 2Mbps

2.5 Test Mode

Full System(model: MCR-AP8400) for all test item.

The 802.11ax mode is investigated among different tones, full resource units (RU), partial resource units.

The partial RU has no higher power than full RU, thus the full RU is chosen as main test configuration. partial RU test Output Power and Power Spectral Density.

2.6 Equipment Modifications

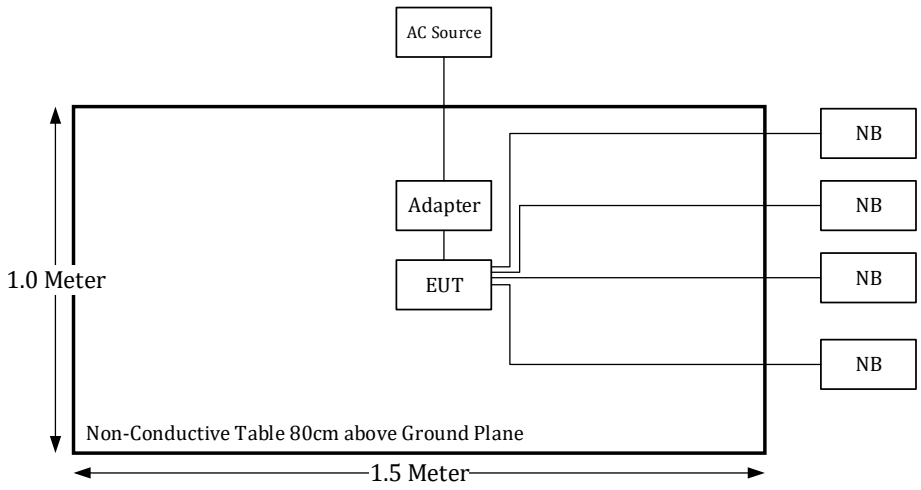
No modification was made to the EUT.

2.7 Block Diagram of Test Setup

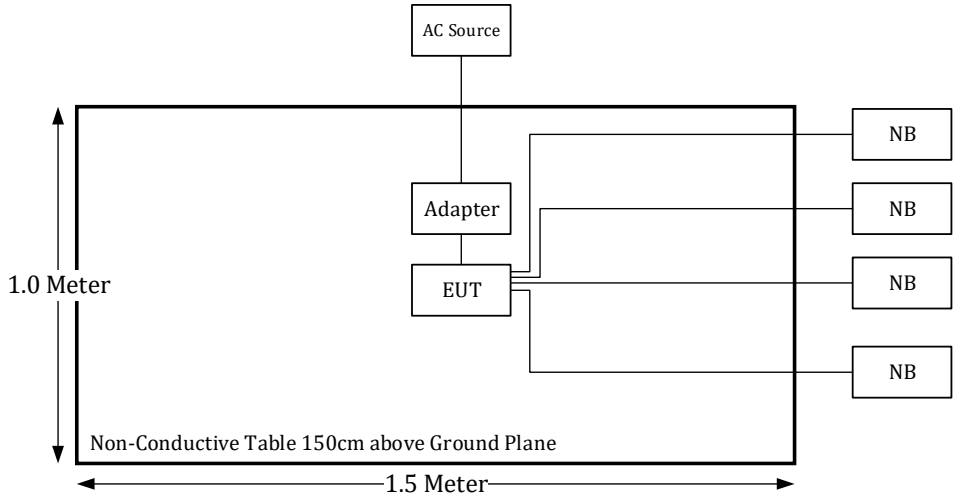
See test photographs attached in setup photos for the actual connections between EUT and support equipment.

Radiation:

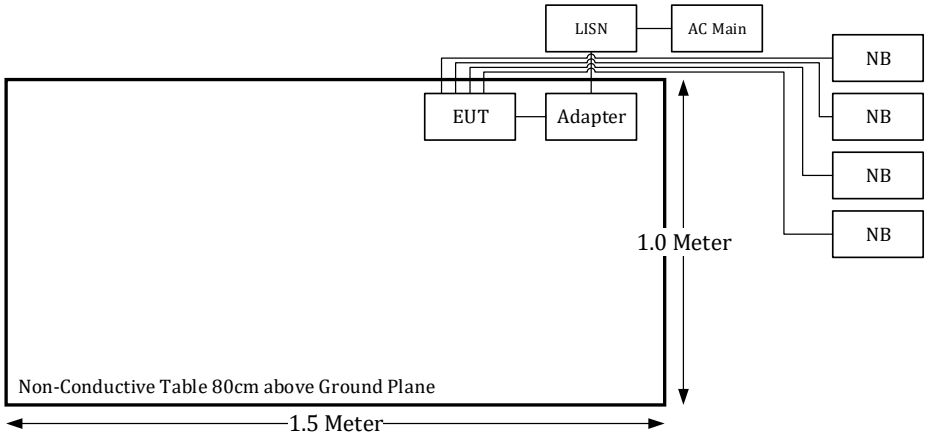
Below 1GHz



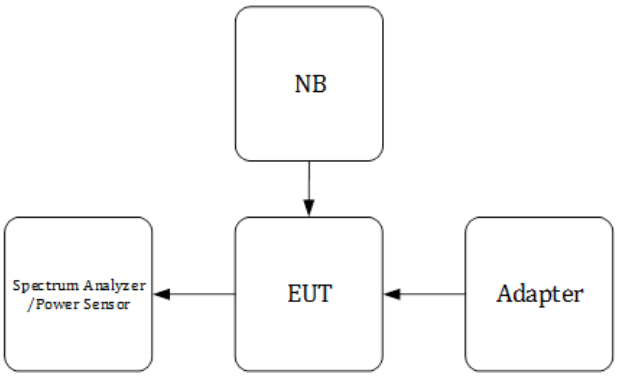
Above 1GHz:



Conduction:



Conducted:



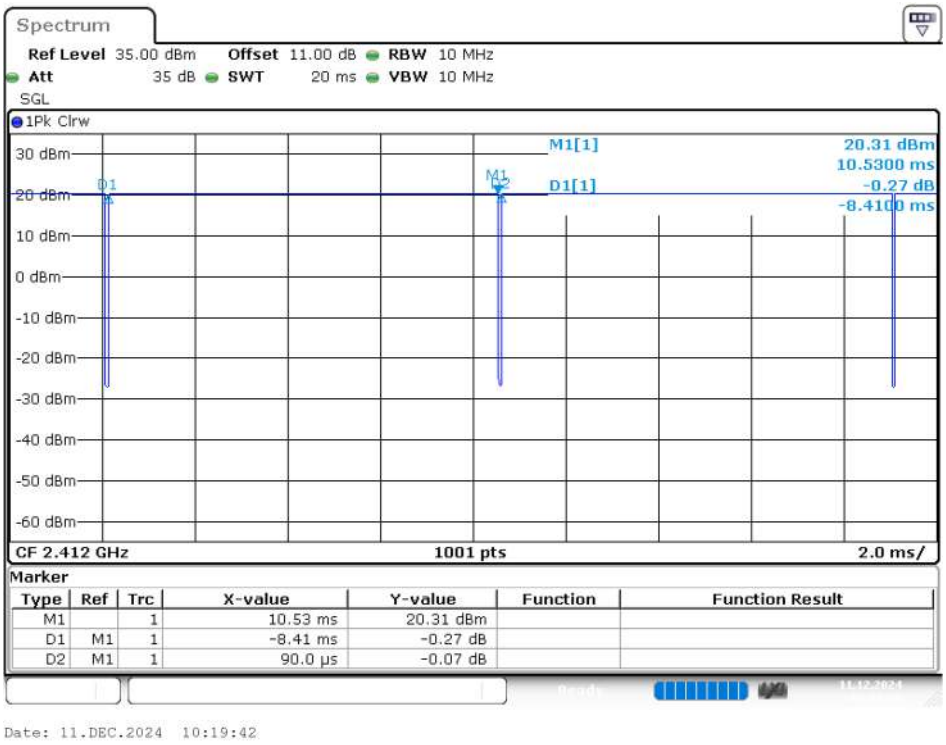
2.8 Duty Cycle

The duty cycle as below:

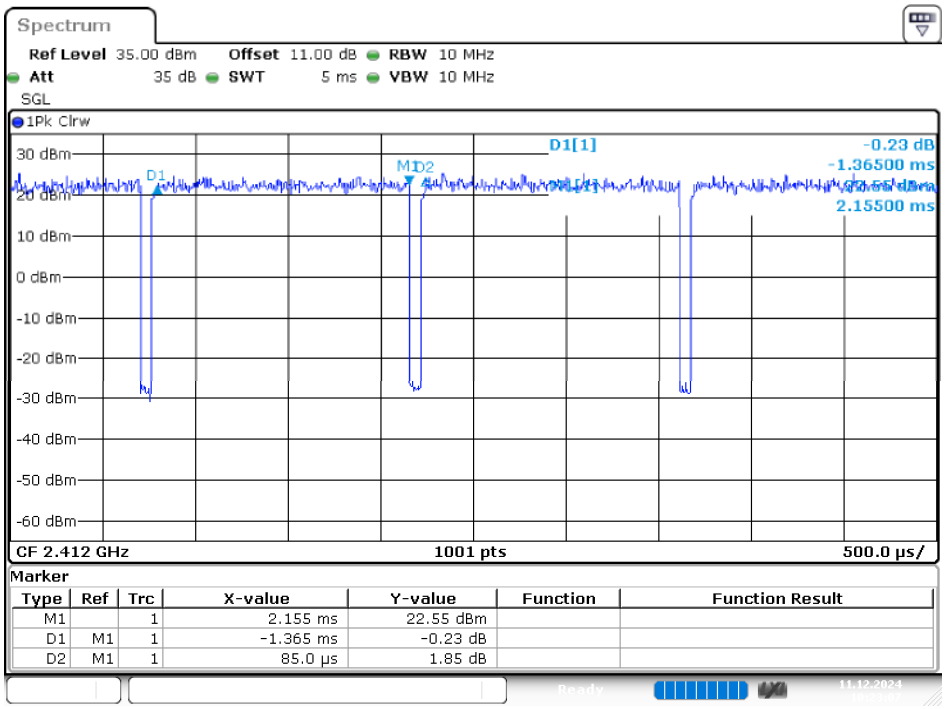
Radio Mode	On Time (ms)	Off Time (ms)	Duty Cycle (%)	1/T (kHz)	VBW Setting (kHz)
802.11b	8.41	0.09	99	/	0.01
802.11g	1.365	0.085	94	0.73	1
802.11n20	1.285	0.085	94	0.78	1
802.11n40	0.636	0.066	91	1.57	2
802.11ax20	1.00	0.09	92	1	1
802.11ax40	0.552	0.064	90	1.81	2
BLE 1M	0.394	0.232	63	2.54	3
BLE 2M	1.068	0.797	57	0.94	1

Please refer to the following plots.

B Mode



G Mode



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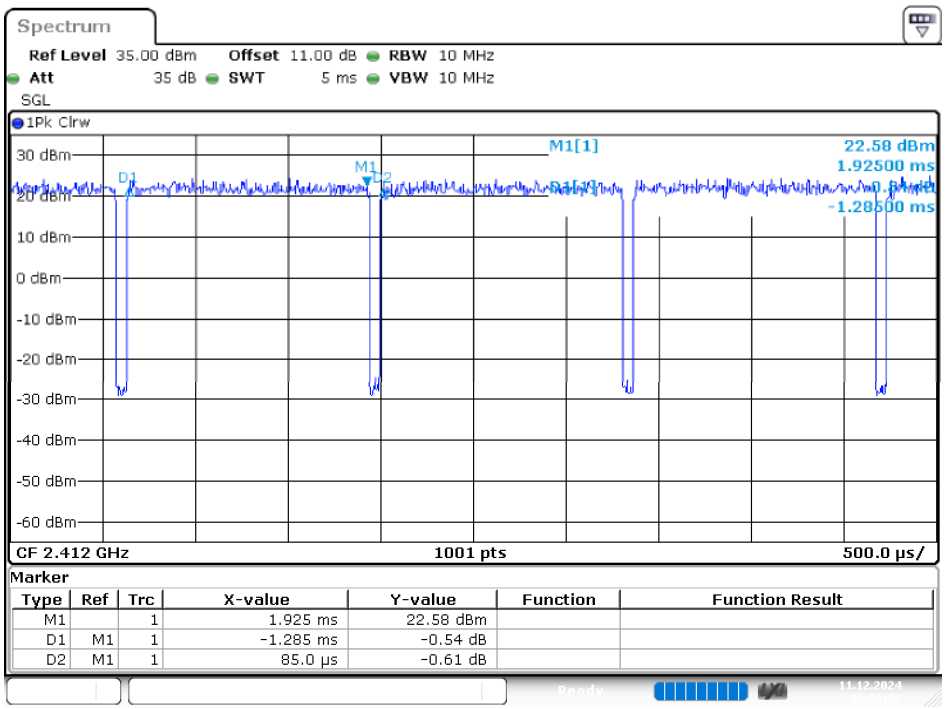
N20 Mode



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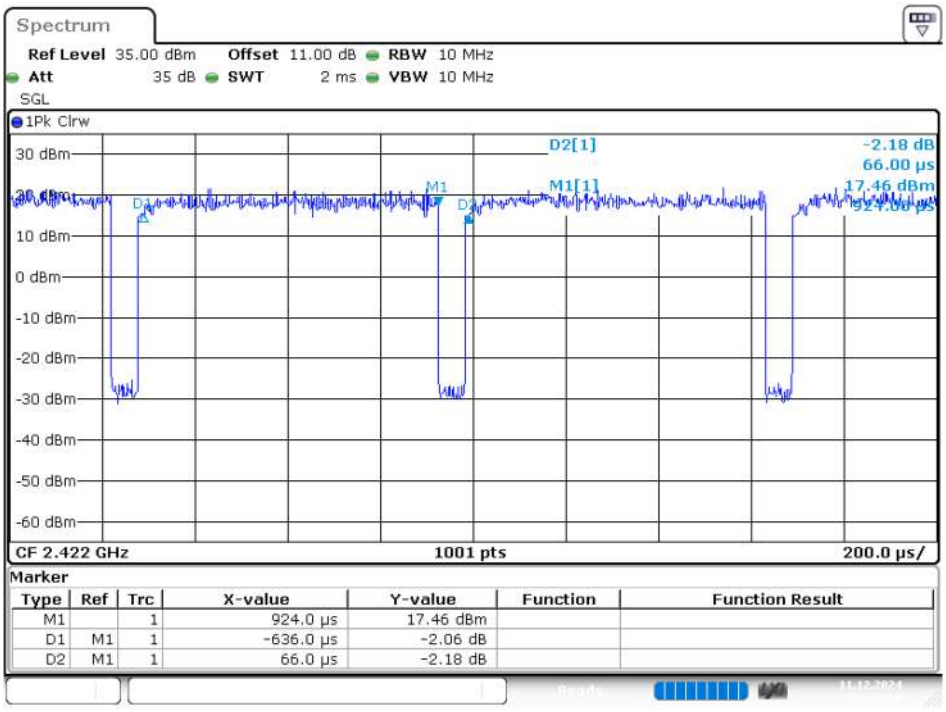
N40 Mode



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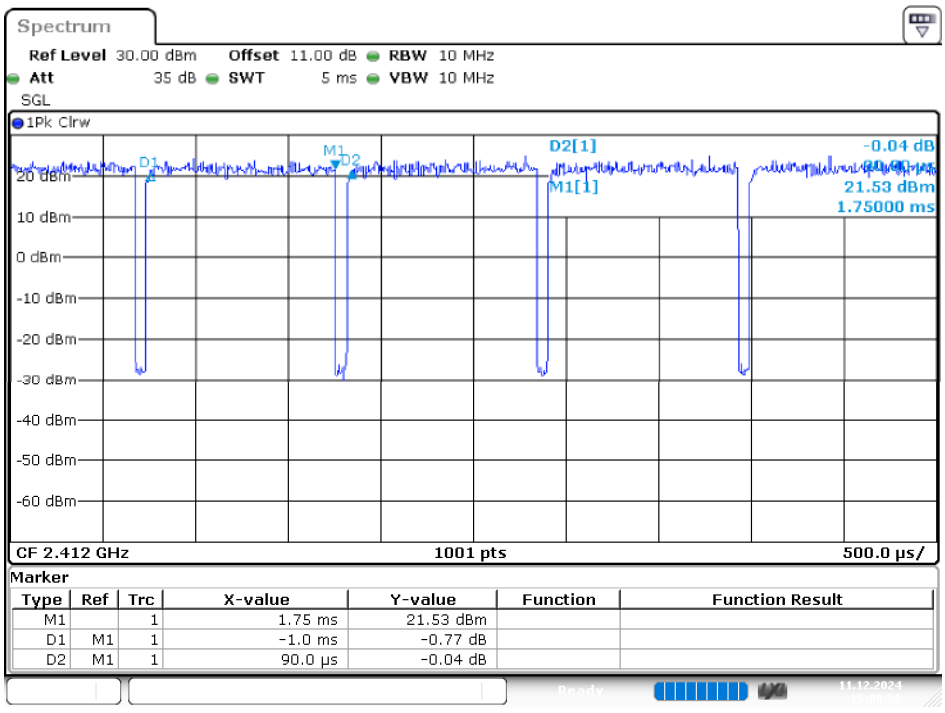
AX20 Mode



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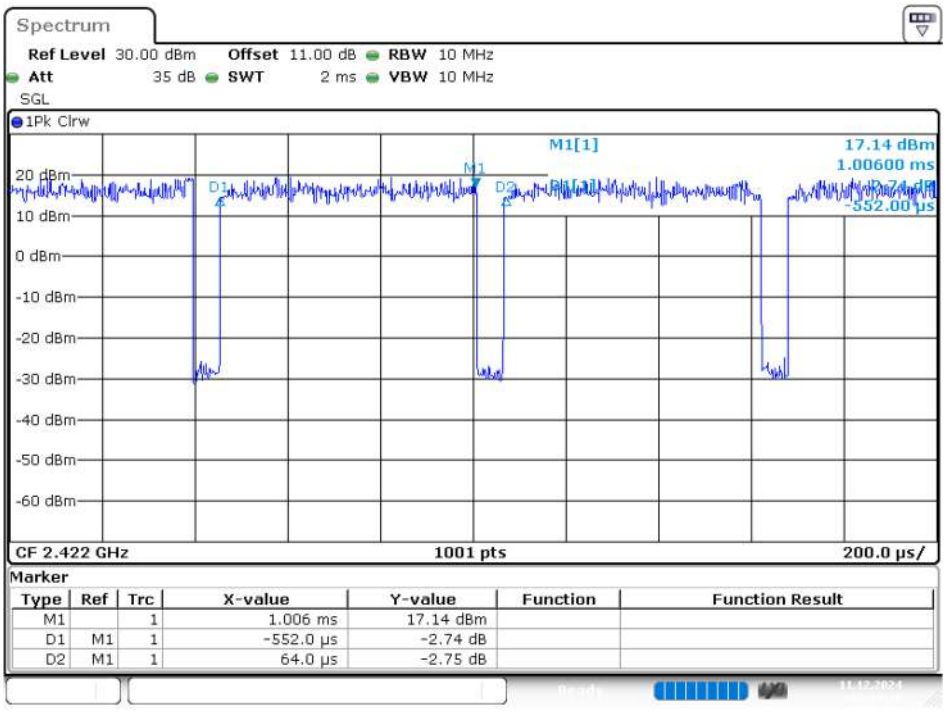
AX40 Mode



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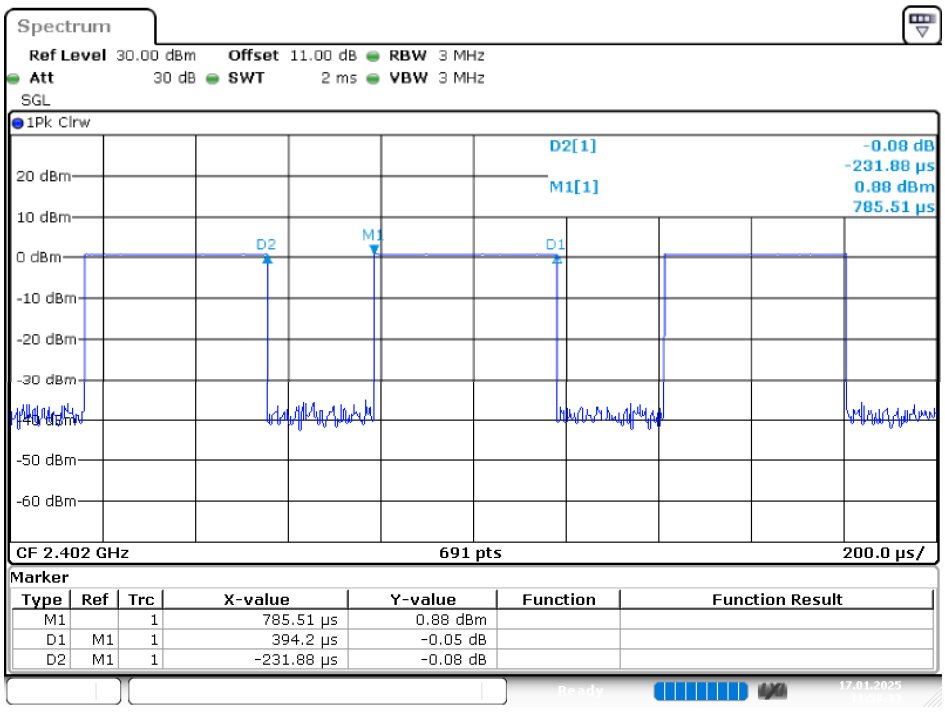
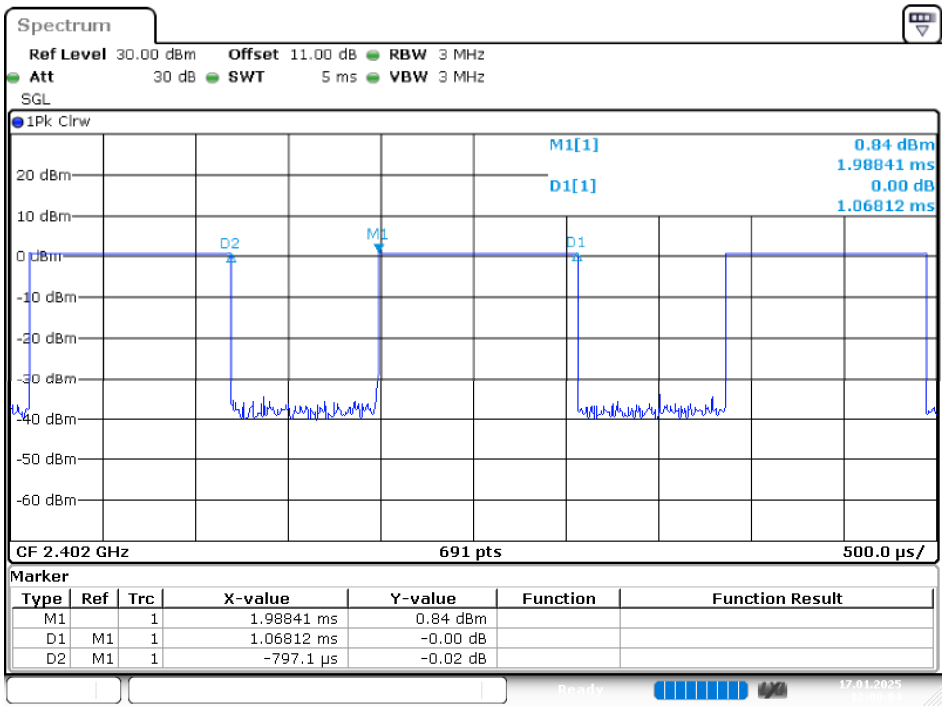
BLE 1M Mode



Date: 17.JAN.2025 11:58:34

BLE 2M Mode



Date: 17.JAN.2025 12:00:05

3 Summary of Test Results

Rules	Description of Test	Results
FCC §15.247(i), §2.1091	RF Exposure	Compliance
FCC §15.203	Antenna Requirement	Compliance
FCC §15.207(a)	AC Line Conducted Emissions	Compliance
FCC §15.205, §15.209, §15.247(d)	Spurious Emissions	Compliance
FCC §15.247(a)(2)	Emission Bandwidth	Compliance
FCC §15.247(b)(3)	Maximum Peak Output Power	Compliance
FCC §15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance
FCC §15.247(e)	Power Spectral Density	Compliance

4 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
AC Line Conduction Room (CON-A)					
LISN	Rohde & Schwarz	ENV216	101612	2024/2/16	2025/2/16
EMI Test Receiver	Rohde & Schwarz	ESW8	100947	2024/5/24	2025/5/24
RF Cable	EMEC	EM-CB5D	1	2024/6/5	2025/6/5
Software	AUDIX	E3	V9.150826k	N.C.R	N.C.R
Radiation 3M Room (966-A)					
Active Loop Antenna	ETS-Lindgren	6502	35796	2024/3/27	2025/3/27
Bilog Antenna with 6 dB Attenuator	SUNOL SCIENCES & MINI-CIRCUITS	JB6/UNAT-6+	A050115/15542_01	2024/1/19	2025/1/19
Double Ridged Guide Horn Antenna	A.H. system	SAS-571	1020	2024/5/21	2025/5/21
Horn Antenna	ETS-Lindgren	3116	62638	2024/8/30	2025/8/30
Preamplifier	Sonoma	310N	130601	2024/1/29	2025/1/29
Preamplifier	Channel	ERA-100M-18G-01D1748	EC2300051	2024/3/29	2025/3/29
Microware Preamplifier	EM Electronics Corporation	EM18G40G	60656	2024/1/8	2025/1/8
Preamplifier	BACL	BACL-1313-A1840	4011511	2024/2/1	2025/2/1
Spectrum Analyzer	Rohde & Schwarz	FSV40	101939	2024/3/27	2025/3/27
EMI Test Receiver	Rohde & Schwarz(R&S)	ESR3	102099	2024/6/24	2025/6/24
Microflex Cable	UTIFLEX	UFB197C-1-2362-70U-70U	225757-001	2024/1/23	2025/1/23
Coaxial Cable	UTIFLEX	UFB311A-Q-1440-300300	220490-006	2024/1/23	2025/1/23
Coaxial Cable	COMMATE	PEWC	8Dr	2023/12/23	2024/12/23
				2024/12/20	2025/12/20
Cable	EMC	EMC105-SM-SM-10000	201003	2024/1/23	2025/1/23
Coaxial Cable	JUNFLON	J12J102248-00-B-5	AUG-07-15-044	2023/12/23	2024/12/23
				2024/12/20	2025/12/20
Coaxial Cable	ROSNOL	K1K50-UP0264-K1K50-450CM	160309-1	2024/1/23	2025/1/23
Microflex Cable	ROSNOL	K1K50-UP0264-K1K50-80CM	160309-2	2024/1/23	2025/1/23
Band-stop filter	Woken	STI15-9831	STI15-9831-1	2024/10/19	2025/10/19
High-pass filter	XINGBOKEJI	XBLBQ-GTA54	200108-3-2	2024/10/19	2025/10/19
Software	AUDIX	E3	18621a	N.C.R	N.C.R
Conducted Room					
Spectrum Analyzer	Rohde & Schwarz(R&S)	FSV40	101204	2024/5/30	2025/5/30
Cable	UTIFLEX	UFA210A	9435	2024/10/1	2025/10/1
Power Sensor	Boonton	RTP5006	11037	2024/5/21	2025/5/21
Attenuator	MCL	BW-S10W5+	1419	2024/2/23	2025/2/23

***Statement of Traceability:** BACL Corp. attests that all of the calibrations on the equipment items listed above were traceable to the SI System of Units via the R.O.C. Center for Measurement Standards of the Electronics Testing Center, Taiwan (ETC) or to another internationally recognized National Metrology Institute (NMI), and were compliant with the current Taiwan Accreditation Foundation (TAF) requirements.

5 FCC §15.247(i), §1.1310, §2.1091 - Maximum Permissible Exposure (MPE)

5.1 Applicable Standard

According to subpart 15.247(i)and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (V/m)**	**Magnetic Field Strength (A/m)**	**Power Density (mW/cm^2)**	**Averaging Time (minutes)**
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f^2)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm2);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

5.2 RF Exposure Evaluation Result

MPE evaluation:

Mode	Frequency Range (MHz)	Antenna Gain		Tune-up Power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
		(dBi)	(numeric)	(dBm)	(mW)			
WIFI 5G Band 1	5150-5250	4.4	2.754	19.8	95.499	20	0.0523	1
WIFI 5G Band 2	5250-5350	4.4	2.754	20.0	100.000	20	0.0548	1
WIFI 5G Band 3	5470-5725	4.38	2.742	21.2	131.826	20	0.0719	1
WIFI 5G Band 4	5725-5850	4.92	3.105	21.4	138.038	20	0.0853	1
WIFI 2.4G	2412-2462	4.42	2.767	29.5	891.25	20	0.4906	1
BLE	2402-2480	6.08	4.055	1.5	1.413	20	0.0011	1

Mode	Frequency Range (MHz)	EIRP including Tune-up Tolerance		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
		(dBm)	(mW)			
WIFI 6E	5925-6425	18.5	70.79	20	0.014	1
WIFI 6E	6425-6525	18.5	70.79	20	0.014	1
WIFI 6E	6525-6875	19.0	79.43	20	0.016	1
WIFI 6E	6875-7125	18.5	70.79	20	0.014	1

Note: The Tune-up output power was declared by the Applicant.
Wi-Fi and BLE can't transmit simultaneously.

Result: The device compliant RF Exposure at 20cm distances.

6 FCC §15.203 – Antenna Requirements

6.1 Applicable Standard

According to § 15.203,

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited.

6.2 Antenna Information

WIFI

Manufacturer	Model	Type	Antenna Gain	
K-Maru	KI-DW2050DEC50180P2	PCB	Chain 0	4 dBi
K-Maru	KI-DW2050DEC18080P4	PCB	Chain 1	3.39 dBi
K-Maru	KI-DW5020DEC50180P5	PCB	Chain 2	2 dBi
K-Maru	KI-DW2050DEC80180P3	PCB	Chain 3	4.42 dBi

BLE

Manufacturer	Model	Type	Antenna Gain
Mercury Corporation	MCR-SBI	PCB	6.08 dBi

The antenna uses non-standard connectors and meets the requirements of this section. Please refer to EUT photos.

Result: Compliance

7 FCC §15.207(a) – AC Line Conducted Emissions

7.1 Applicable Standard

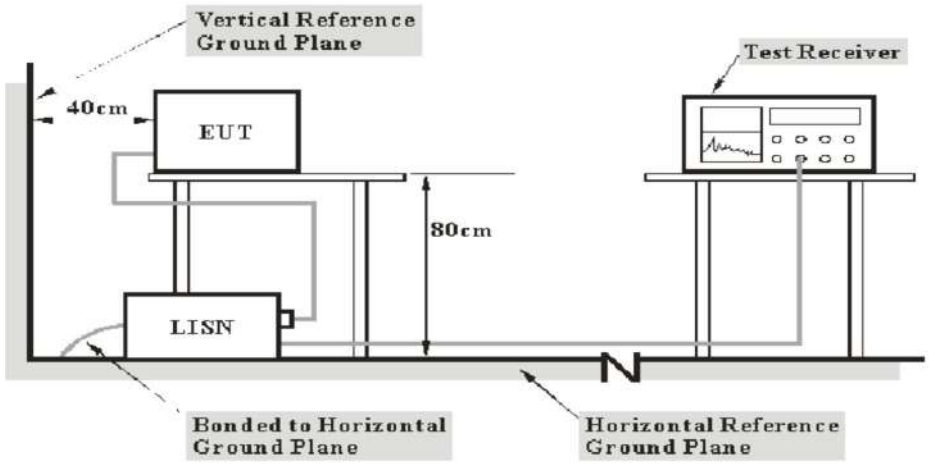
According to §15.207

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15-0.5	66 to 56 Note 1	56 to 46 Note 1
0.5-5	56	46
5-30	60	50

Note 1: Decreases with the logarithm of the frequency.

7.2 EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

7.3 EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150kHz to 30MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations

Frequency Range	IF B/W
150kHz – 30MHz	9kHz

7.4 Test Procedure

During the conducted emission test, the adapter was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

7.5 Corrected Factor & Over Limit Calculation

The factor is calculated by adding LISN/ISN VDF (Voltage Division Factor), Cable Loss and Transient Limiter Attenuation. The basic equation is as follows:

Factor = LISN VDF + Cable Loss + Transient Limiter Attenuation

The “Over Limit” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an over limit of -7 dB means the emission is 7 dB below the limit. The equation for Over Limit calculation is as follows:

Over Limit = Result – Limit Line

7.6 Test Results

Test Mode: Transmitting

Main: AC120 V, 60 Hz

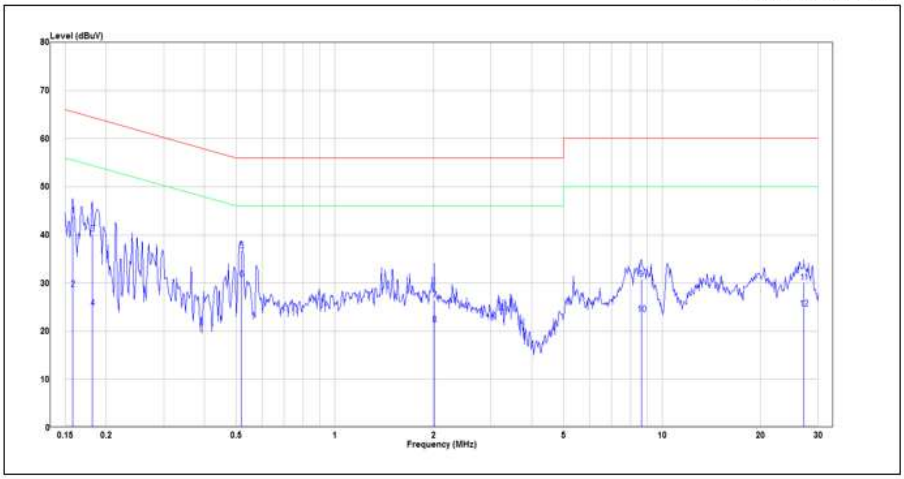
WIFI mode

(Worst case is 802.11g mode, low channel)

Line

Description: **WiFi 2.4G, RBW: 9kHz/VBW: 30kHz**

2024-12-23 19:24:19

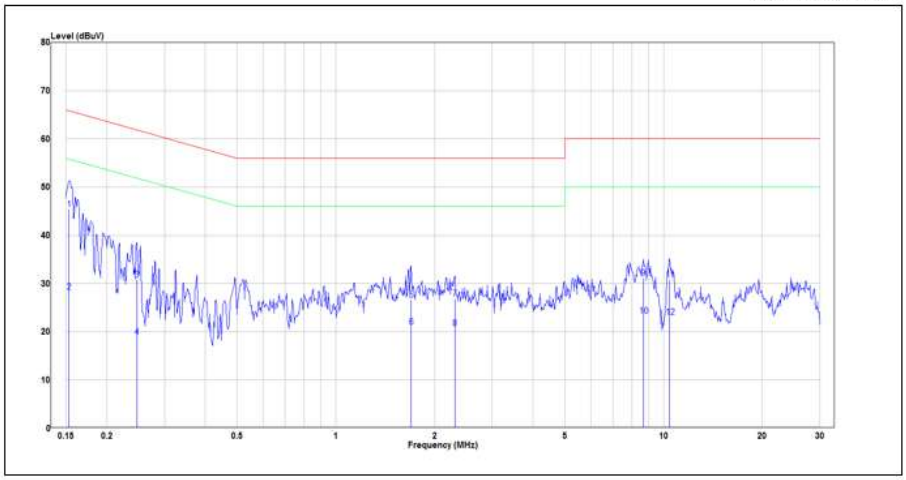


No.	Frequency	Reading	Correct	Result	Limit	Over limit	Remark	Phase
	(MHz)	dBuV	Factor(dB)	dBuV	dBuV	(dB)		
1	0.158	34.11	9.85	43.96	65.56	-21.60	QP	Line
2	0.158	18.85	9.85	28.70	55.56	-26.86	Average	Line
3	0.182	30.23	9.95	40.18	64.42	-24.23	QP	Line
4	0.182	14.89	9.95	24.85	54.42	-29.57	Average	Line
5	0.518	26.51	10.26	36.77	56.00	-19.23	QP	Line
6	0.518	20.46	10.26	30.73	46.00	-15.27	Average	Line
7	2.012	16.06	10.34	26.40	56.00	-29.60	QP	Line
8	2.012	11.00	10.34	21.34	46.00	-24.66	Average	Line
9	8.637	20.39	10.44	30.83	60.00	-29.17	QP	Line
10	8.637	13.10	10.44	23.54	50.00	-26.46	Average	Line
11	27.127	19.57	10.55	30.13	60.00	-29.87	QP	Line
12	27.127	14.07	10.55	24.63	50.00	-25.37	Average	Line

Neutral

Description:	WiFi 2.4G, RBW: 9kHz/VBW: 30kHz

2024-12-23 19:50:28



No.	Frequency (MHz)	Reading dBuV	Correct Factor(dB)	Result dBuV	Limit dBuV	Over limit (dB)	Remark	Phase
1	0.153	35.59	9.84	45.43	65.82	-20.39	QP	Neutral
2	0.153	18.34	9.84	28.18	55.82	-27.65	Average	Neutral
3	0.247	20.76	10.08	30.84	61.86	-31.03	QP	Neutral
4	0.247	8.88	10.08	18.96	51.86	-32.90	Average	Neutral
5	1.698	16.26	10.35	26.61	56.00	-29.39	QP	Neutral
6	1.698	10.69	10.35	21.04	46.00	-24.96	Average	Neutral
7	2.309	16.51	10.36	26.87	56.00	-29.13	QP	Neutral
8	2.309	10.43	10.36	20.78	46.00	-25.22	Average	Neutral
9	8.683	20.71	10.45	31.16	60.00	-28.84	QP	Neutral
10	8.683	12.81	10.45	23.27	50.00	-26.73	Average	Neutral
11	10.452	20.31	10.48	30.79	60.00	-29.21	QP	Neutral
12	10.452	12.53	10.48	23.01	50.00	-26.99	Average	Neutral

Note:

Result = Reading + Factor

Over Limit = Result – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

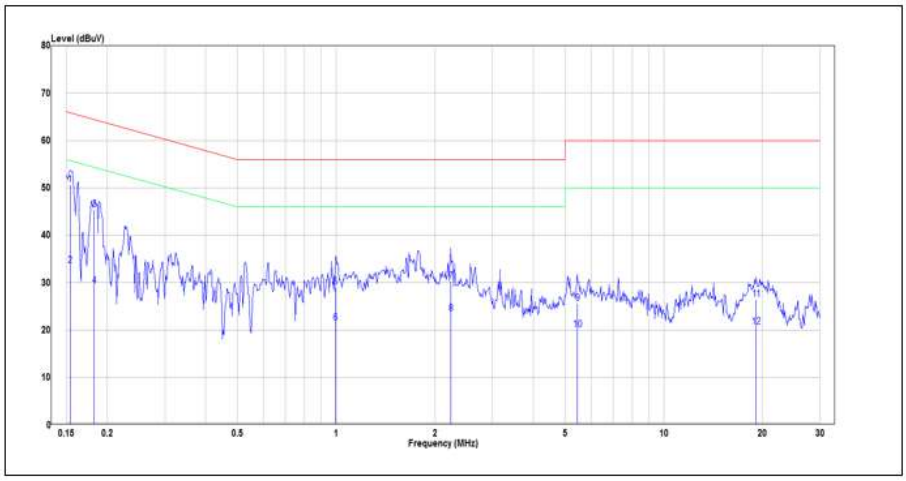
BLE mode

(Worst case is BLE 1M mode, low channel)

Line

Description: **BLE, RBW: 9kHz/VBW: 30kHz**

2025-01-20 09:57:21

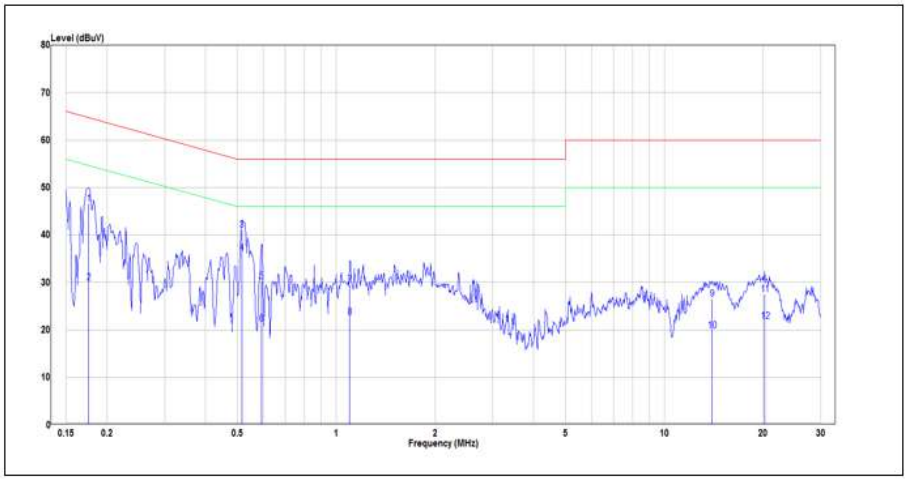


No.	Frequency	Reading	Correct	Result	Limit	Over limit	Remark	Phase
	(MHz)	dBuV	Factor(dB)	dBuV	dBuV	(dB)		
1	0.154	40.85	9.84	50.68	65.78	-15.10	QP	Line
2	0.154	23.81	9.84	33.65	55.78	-22.13	Average	Line
3	0.182	35.49	9.96	45.45	64.37	-18.92	QP	Line
4	0.182	19.32	9.96	29.28	54.37	-25.10	Average	Line
5	0.994	18.74	10.34	29.08	56.00	-26.92	QP	Line
6	0.994	11.12	10.34	21.45	46.00	-24.55	Average	Line
7	2.237	19.93	10.35	30.28	56.00	-25.72	QP	Line
8	2.237	13.10	10.35	23.45	46.00	-22.55	Average	Line
9	5.447	15.20	10.41	25.61	60.00	-34.39	QP	Line
10	5.447	9.61	10.41	20.02	50.00	-29.98	Average	Line
11	19.122	15.91	10.60	26.52	60.00	-33.48	QP	Line
12	19.122	10.02	10.60	20.63	50.00	-29.37	Average	Line

Neutral

Description:	BLE, RBW: 9kHz/VBW: 30kHz

2025-01-20 09:59:47



No.	Frequency (MHz)	Reading dBuV	Correct Factor(dB)	Result dBuV	Limit dBuV	Over limit (dB)	Remark	Phase
1	0.176	36.62	9.94	46.56	64.68	-18.12	QP	Neutral
2	0.176	19.91	9.94	29.85	54.68	-24.83	Average	Neutral
3	0.516	30.79	10.27	41.06	56.00	-14.94	QP	Neutral
4	0.516	25.85	10.27	36.12	46.00	-9.88	Average	Neutral
5	0.592	19.86	10.29	30.15	56.00	-25.85	QP	Neutral
6	0.592	10.94	10.29	21.23	46.00	-24.77	Average	Neutral
7	1.100	19.10	10.35	29.45	56.00	-26.55	QP	Neutral
8	1.100	12.25	10.35	22.60	46.00	-23.40	Average	Neutral
9	13.989	15.88	10.59	26.47	60.00	-33.53	QP	Neutral
10	13.989	9.25	10.59	19.83	50.00	-30.17	Average	Neutral
11	20.270	16.87	10.68	27.54	60.00	-32.46	QP	Neutral
12	20.270	11.04	10.68	21.72	50.00	-28.28	Average	Neutral

Note:

Result = Reading + Factor

Over Limit = Result – Limit Line

Factor = (LISN, ISN, PLC or current probe) Factor + Cable Loss + Attenuator

8 FCC §15.209, §15.205, §15.247(d) – Spurious Emissions

8.1 Applicable Standard

As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1MHz.

As Per FCC §15.205(a) except as show in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 – 0.110	16.42 – 16.423	608 – 614	4. 5 – 5. 15
0.495 – 0.505	16.69475 – 16.69525	960 – 1240	5. 35 – 5. 46
2.1735 – 2.1905	16.80425 – 16.80475	1300 – 1427	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1435 – 1626.5	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1645.5 – 1646.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1660 – 1710	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1718.8 – 1722.2	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	2200 – 2300	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2310 – 2390	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2483.5 – 2500	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2690 – 2900	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	3260 – 3267	22.01 – 23.12
8.41425 – 8.41475	162.0125 –167.17	3.332 – 3.339	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3 3458 – 3 358	31.2 – 31.8
12.51975 – 12.52025	240 – 285	3.600 – 4.400	36.43 – 36.5
12.57675 – 12.57725	322 – 335.4		Above 38.6
13.36 – 13.41	399.9 – 410		

As per FCC §15.209(a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (micro volts/meter)	Measurement Distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100**	3
88 - 216	150**	3
216 - 960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

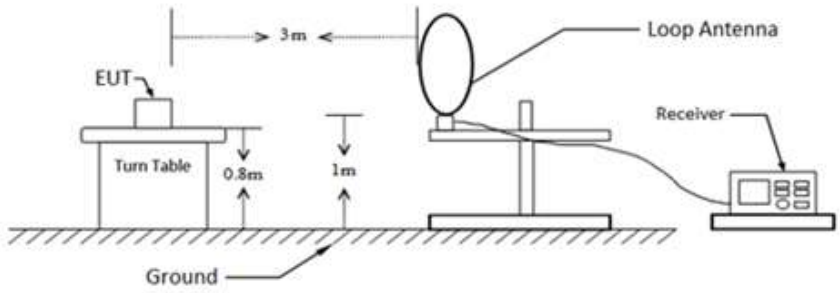
According to ANSI C63.10-2013, section 5.3.3

Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field, and the emissions to be measured can be detected by the measurement equipment (see 4.3.4). Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. Measurements from 18 GHz to 40 GHz are typically made at distances significantly less than 3 m from the EUT. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade of distance (inverse of linear distance for field-strength measurements or inverse of linear distance-squared for power-density measurements).

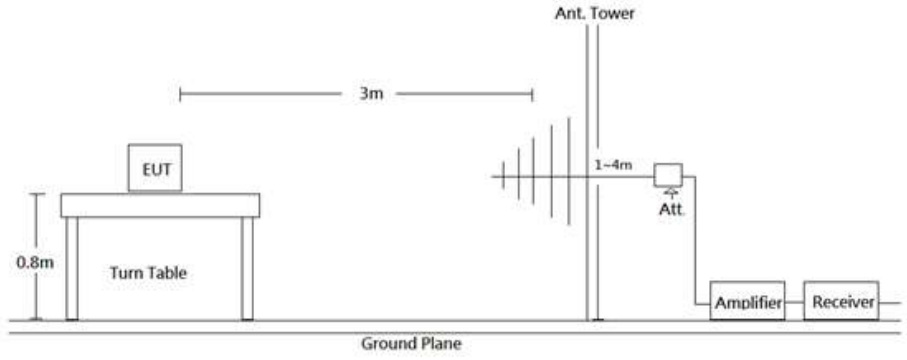
As per FCC §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c).

8.2 EUT Setup

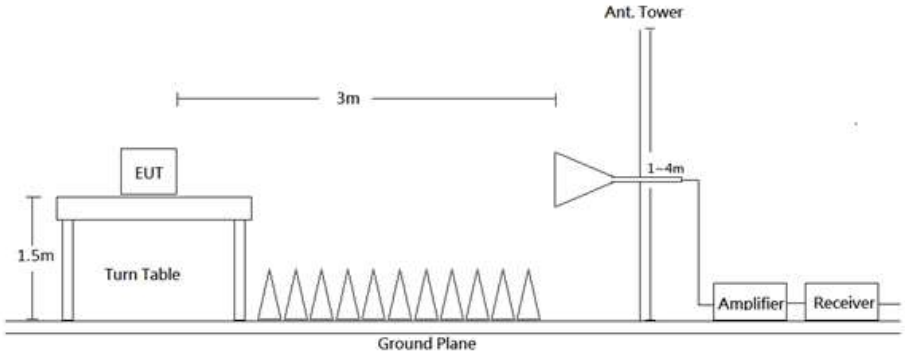
9kHz-30MHz:



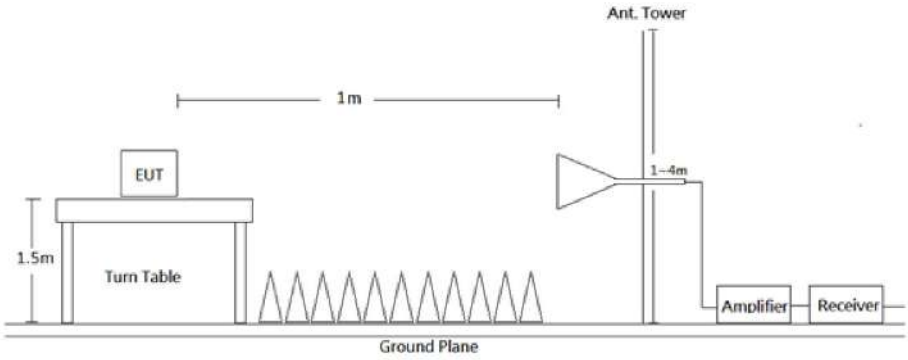
30MHz-1GHz:



1-18 GHz:



18-26.5 GHz:



Radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC Part 15.209, FCC 15.247 Limits.

8.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 26.5 GHz. During the radiated emission test, the EMI test receiver was set with the following configurations measurement method 6.3 in ANSI C63.10.

Frequency Range	RBW	VBW	Duty cycle	Measurement method	Detector
9 kHz - 150 kHz	300 Hz	1 kHz	/	QP/AV	QP/AV
150 kHz - 30 MHz	10 kHz	30 kHz	/	QP/AV	QP/AV
30-1000 MHz	120 kHz	300 kHz	/	QP	QP
Above 1 GHz	Pre-scan :				
	1 MHz	3 MHz	/	PK	PK
	1 MHz	1 kHz	>98%	Ave	PK
	1 MHz	≥ 1/Ton, not less than 1 kHz	<98%	Ave	PK
	Final measurement for emission identified during pre-scan :				
	1 MHz	3 MHz	/	PK	PK
	1 MHz	10 Hz	>98%	Ave	PK
	1 MHz	≥ 1/Ton	<98%	Ave	PK

Note: Ton is minimum transmission duration

If the maximized peak measured value complies with under the QP/Average limit more than 6dB, then it is unnecessary to perform an QP/Average measurement.

8.4 Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in Quasi-peak and average detector mode from 9 kHz to 30 MHz, Quasi-peak detector mode from 30 MHz to 1 GHz and PK and average detector modes for frequencies above 1 GHz.

8.5 Corrected Factor & Margin Calculation

The Correct Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

Margin = Level – Limit

8.6 Test Results

Test Mode: Transmitting (Test for Y axis.)

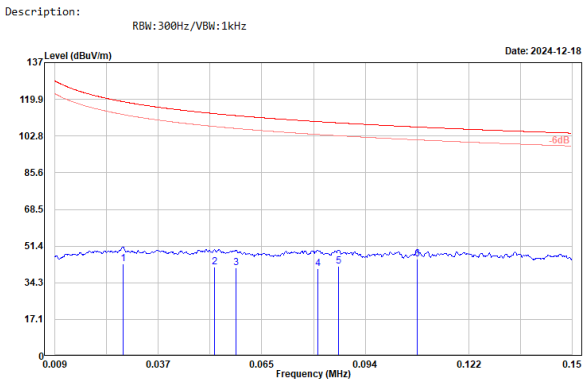
WIFI

9kHz-30MHz:

(Worst case is 802.11g mode, low channel)

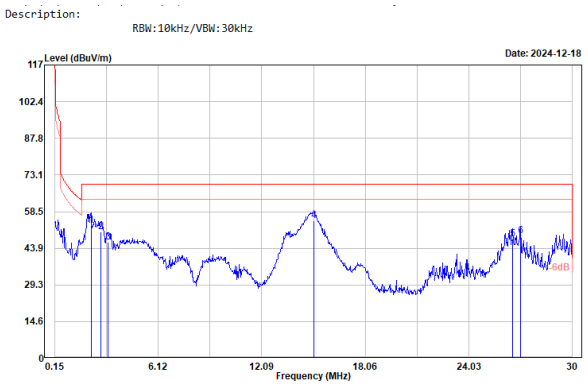
(Pre-scan using three directional polarities, worst case as parallel.)

9kHz-150kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
0.028	28.96	14.04	43.00	118.78	-75.78	100	206	Average
0.053	29.28	12.39	41.67	113.19	-71.52	100	110	Average
0.058	29.36	11.92	41.28	112.28	-71.00	100	308	Average
0.081	29.70	11.32	41.02	109.47	-68.45	100	226	Average
0.086	30.64	11.32	41.96	108.87	-66.91	100	10	Average
0.108	34.18	11.16	45.34	106.96	-61.62	100	96	QP

150kHz-30MHz



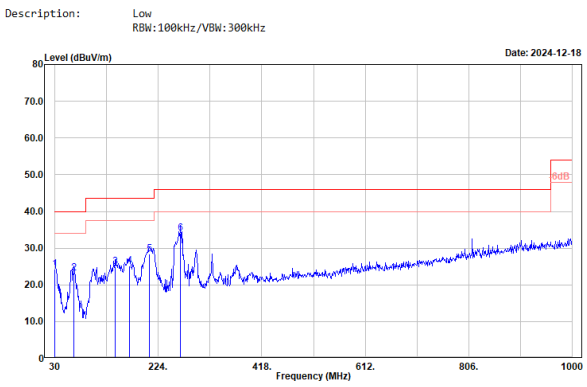
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2.240	42.26	10.67	52.93	69.54	-16.61	100	79	QP
2.807	39.90	10.52	50.42	69.54	-19.12	100	105	QP
3.225	35.73	10.48	46.21	69.54	-23.33	100	328	QP
15.105	43.23	11.59	54.82	69.54	-14.72	100	116	QP
26.567	35.87	11.74	47.61	69.54	-21.93	100	116	QP
27.015	37.15	11.75	48.90	69.54	-20.64	100	207	QP

30MHz-1GHz:

(Worst case is 802.11g mode)

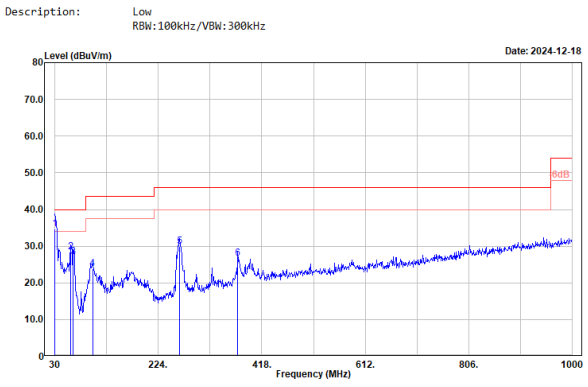
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	26.79	-2.53	24.26	40.00	-15.74	100	182	QP
65.890	38.72	-15.55	23.17	40.00	-16.83	100	197	QP
143.490	34.76	-9.79	24.97	43.50	-18.53	100	289	QP
169.680	36.37	-11.14	25.23	43.50	-18.27	100	308	QP
207.510	40.46	-12.01	28.45	43.50	-15.05	100	262	QP
265.710	43.78	-9.65	34.13	46.00	-11.87	100	247	QP

Vertical

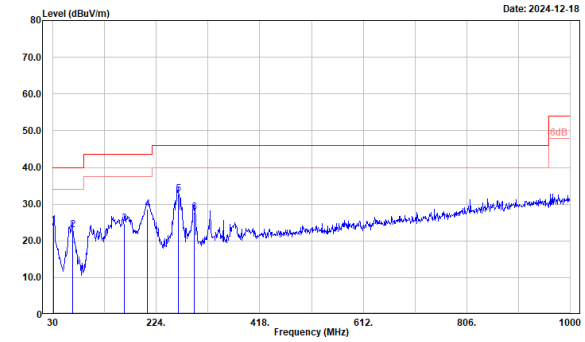


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	37.27	-2.53	34.74	40.00	-5.26	100	302	QP
60.070	44.18	-15.75	28.43	40.00	-11.57	100	249	QP
64.920	42.50	-15.48	27.02	40.00	-12.98	100	249	QP
100.810	36.61	-12.81	23.80	43.50	-19.70	100	87	QP
263.770	39.92	-9.90	30.02	46.00	-15.98	100	313	QP
373.380	34.10	-7.54	26.56	46.00	-19.44	100	196	QP

Middle channel

Horizontal

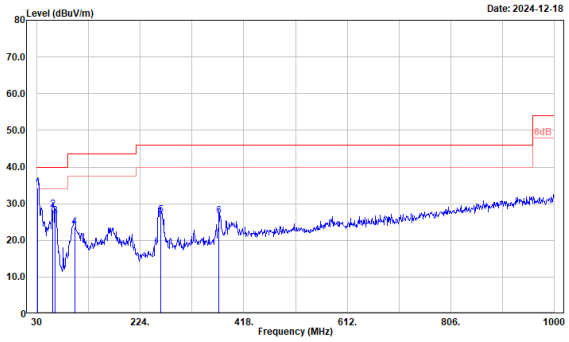
Description: Middle
RBW:100kHz/VBW:300kHz



Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
31.940	28.34	-3.95	24.39	40.00	-15.61	100	235	QP
66.860	38.36	-15.29	23.07	40.00	-16.93	100	186	QP
163.860	35.30	-10.49	24.81	43.50	-18.69	100	309	QP
207.510	40.69	-12.01	28.68	43.50	-14.82	100	259	QP
264.740	42.44	-9.73	32.71	46.00	-13.29	100	51	QP
295.780	36.64	-8.81	27.83	46.00	-18.17	100	189	QP

Vertical

Description: Middle
RBW:100kHz/VBW:300kHz

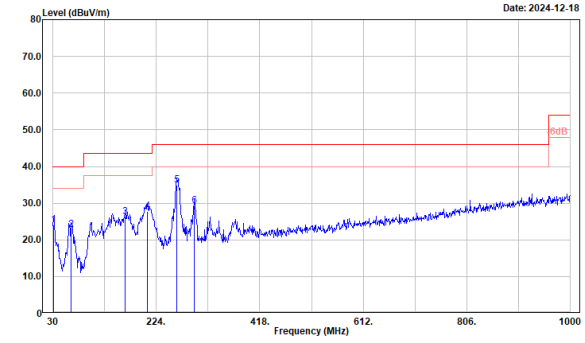


Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
31.940	38.31	-3.95	34.36	40.00	-5.64	100	273	QP
60.070	44.15	-15.75	28.40	40.00	-11.60	100	282	QP
64.920	42.08	-15.48	26.60	40.00	-13.40	100	250	QP
100.810	36.34	-12.81	23.53	43.50	-19.97	100	64	QP
261.830	37.18	-10.21	26.97	46.00	-19.03	100	360	QP
371.440	34.23	-7.63	26.60	46.00	-19.40	100	209	QP

High channel

Horizontal

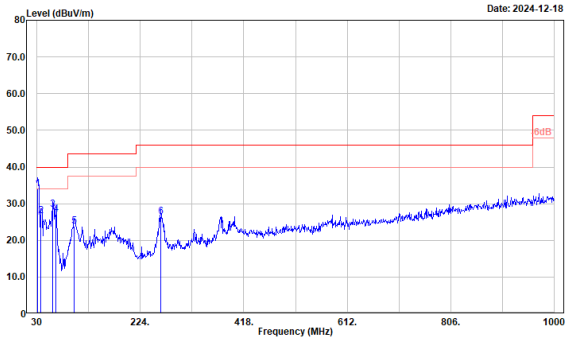
Description: High
RBW:100kHz/VBW:300kHz



Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
31.940	27.97	-3.95	24.02	40.00	-15.98	100	109	QP
64.920	38.25	-15.48	22.77	40.00	-17.23	100	185	QP
165.800	36.93	-10.70	26.23	43.50	-17.27	100	289	QP
207.510	39.71	-12.01	27.70	43.50	-15.80	100	188	QP
262.800	44.92	-10.05	34.87	46.00	-11.13	100	174	QP
295.780	38.10	-8.81	29.29	46.00	-16.71	100	163	QP

Vertical

Description: High
RBW:100kHz/VBW:300kHz



Freq. MHz	Reading dBuV	Factor dB/m	Level dBuV/m	Limit dBuV/m	Margin dB	Height (cm)	Degree (°)	Remark
31.940	38.08	-3.95	34.13	40.00	-5.87	100	283	QP
37.760	34.77	-8.18	26.59	40.00	-13.41	100	306	QP
60.070	44.21	-15.75	28.46	40.00	-11.54	100	264	QP
65.890	42.63	-15.55	27.08	40.00	-12.92	100	287	QP
99.840	37.10	-13.16	23.94	43.50	-19.56	100	67	QP
262.800	36.60	-10.05	26.55	46.00	-19.45	100	310	QP

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

Band-Edge:

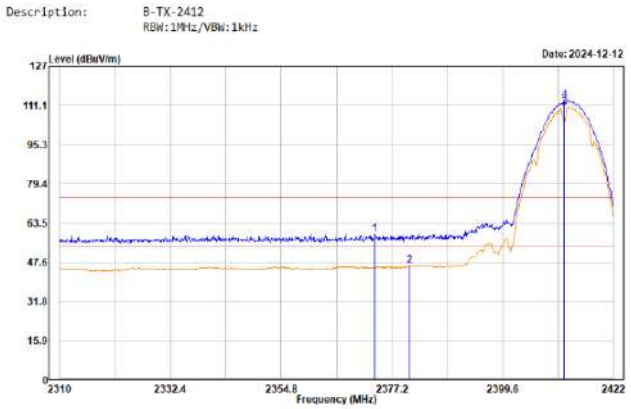
802.11b Mode

Low channel

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2387.280	60.06	-11.12	48.94	54.00	-5.06	215	357	Average
2387.280	72.13	-11.12	61.01	74.00	-12.99	215	357	Peak
2412.000	124.65	-11.02	113.63			215	357	Average
2412.000	126.97	-11.02	115.95			215	357	Peak

Vertical



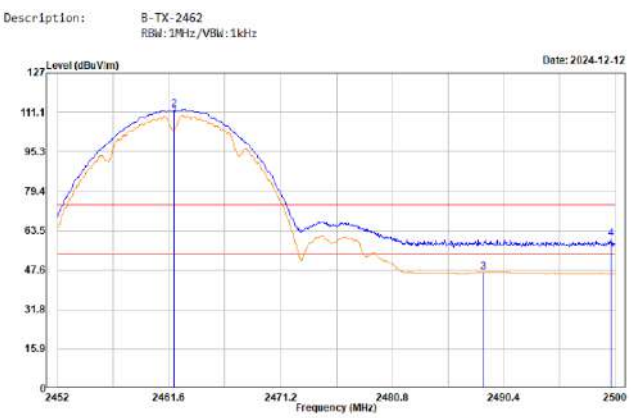
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2373.728	70.30	-11.22	59.08	74.00	-14.92	153	18	Peak
2380.672	57.51	-11.17	46.34	54.00	-7.66	153	18	Average
2412.000	121.61	-11.02	110.59			153	18	Average
2412.000	124.11	-11.02	113.09			153	18	Peak

High channel

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	124.17	-10.88	113.29			193	21	Average
2462.000	126.60	-10.88	115.72			193	21	Peak
2488.576	71.59	-10.56	61.03	74.00	-12.97	193	21	Peak
2488.864	59.17	-10.55	48.62	54.00	-5.38	193	21	Average

Vertical

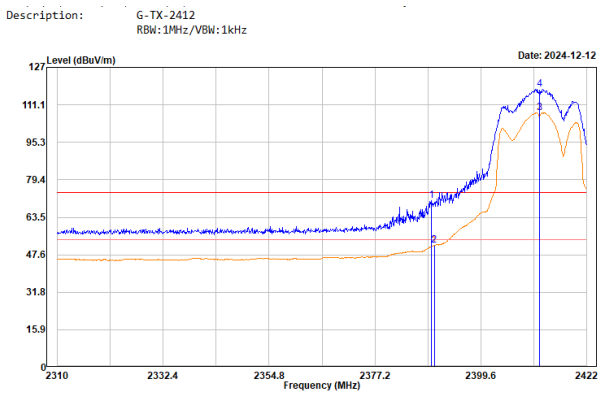


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	120.72	-10.88	109.84			164	299	Average
2462.000	123.19	-10.88	112.31			164	299	Peak
2488.672	57.52	-10.56	46.96	54.00	-7.04	164	299	Average
2499.664	70.80	-10.42	60.38	74.00	-13.62	164	299	Peak

802.11g Mode

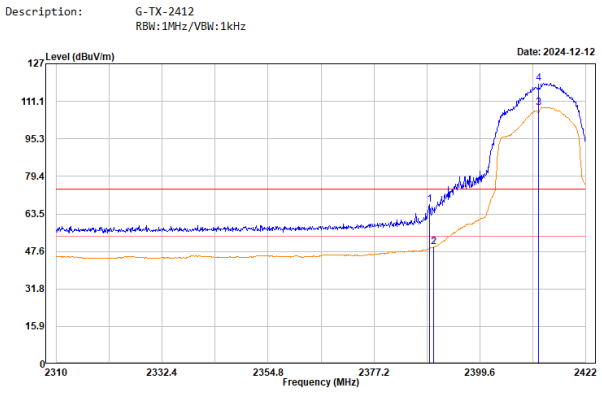
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.072	81.77	-11.10	70.67	74.00	-3.33	205	31	Peak
2389.744	62.79	-11.09	51.70	54.00	-2.30	205	31	Average
2412.000	118.83	-11.02	107.81			205	31	Average
2412.000	128.85	-11.02	117.83			205	31	Peak

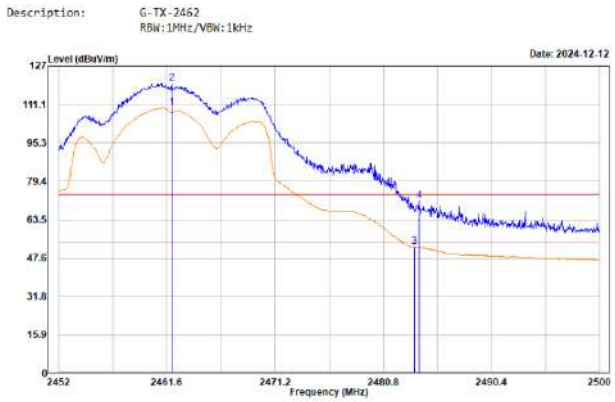
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2388.960	78.42	-11.10	67.32	74.00	-6.68	180	289	Peak
2389.856	60.58	-11.09	49.49	54.00	-4.51	180	289	Average
2412.000	119.57	-11.02	108.55			180	289	Average
2412.000	129.81	-11.02	118.79			180	289	Peak

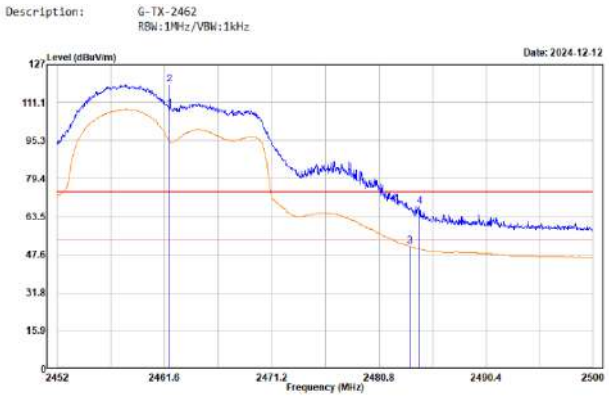
High channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	120.64	-10.88	109.76			191	18	Average
2462.000	130.52	-10.88	119.64			191	18	Peak
2483.550	62.81	-10.61	52.20	54.00	-1.80	191	18	Average
2483.968	81.77	-10.60	71.17	74.00	-2.83	191	18	Peak

Vertical

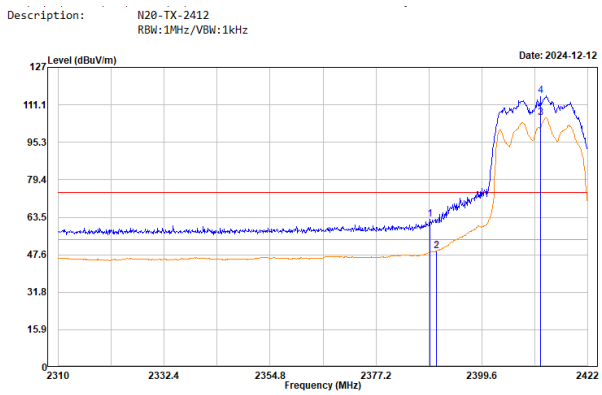


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	119.17	-10.88	108.29			168	1	Average
2462.000	129.45	-10.88	118.57			168	1	Peak
2483.550	61.98	-10.61	51.37	54.00	-2.63	168	1	Average
2484.448	78.36	-10.60	67.76	74.00	-6.24	168	1	Peak

802.11n HT20 Mode

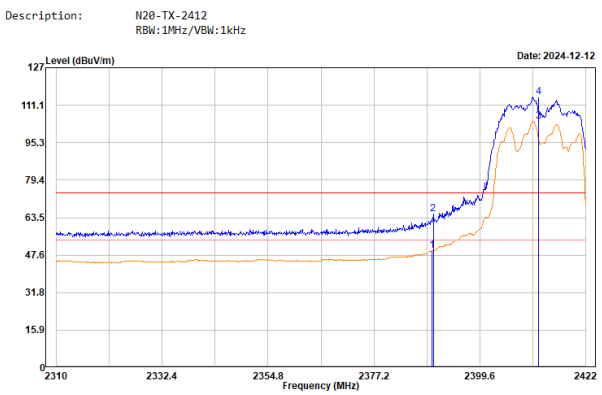
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2388.624	73.66	-11.10	62.56	74.00	-11.44	210	13	Peak
2389.968	60.24	-11.09	49.15	54.00	-4.85	210	13	Average
2412.000	116.56	-11.02	105.54			210	13	Average
2412.000	125.98	-11.02	114.96			210	13	Peak

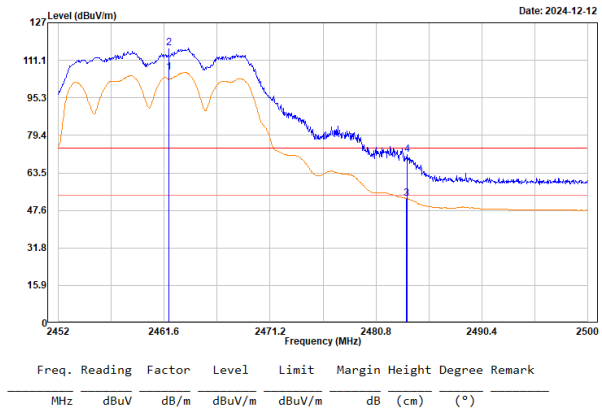
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.520	60.69	-11.09	49.60	54.00	-4.40	170	360	Average
2389.744	76.04	-11.09	64.95	74.00	-9.05	170	360	Peak
2412.000	115.26	-11.02	104.24			170	360	Average
2412.000	125.74	-11.02	114.72			170	360	Peak

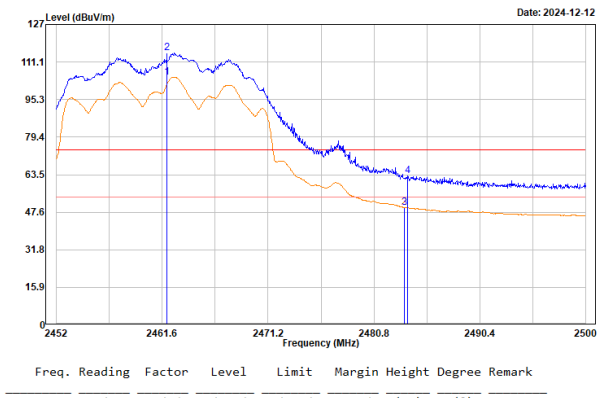
High channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	116.90	-10.88	106.02			224	6	Average
2462.000	127.10	-10.88	116.22			224	6	Peak
2483.536	63.33	-10.61	52.72	54.00	-1.28	224	6	Average
2483.632	81.70	-10.61	71.09	74.00	-2.91	224	6	Peak

Vertical

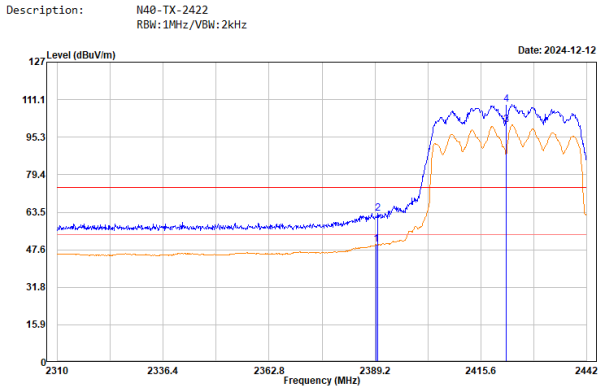


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	115.56	-10.88	104.68			224	3	Average
2462.000	125.98	-10.88	115.10			224	3	Peak
2483.584	60.26	-10.61	49.65	54.00	-4.35	224	3	Average
2483.824	73.71	-10.60	63.11	74.00	-10.89	224	3	Peak

802.11n HT40 Mode

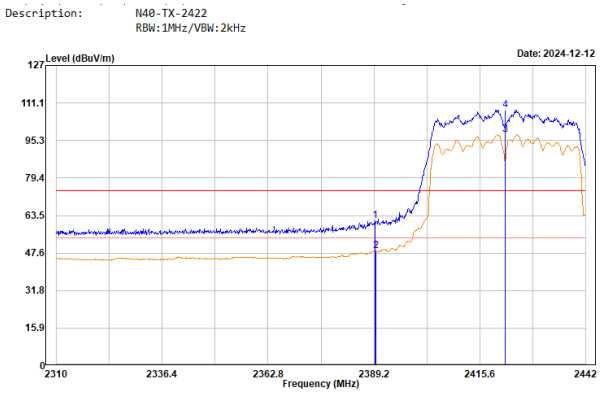
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.464	60.95	-11.09	49.86	54.00	-4.14	225	16	Average
2389.860	74.13	-11.09	63.04	74.00	-10.96	225	16	Peak
2422.000	111.57	-11.01	100.56			225	16	Average
2422.000	120.19	-11.01	109.18			225	16	Peak

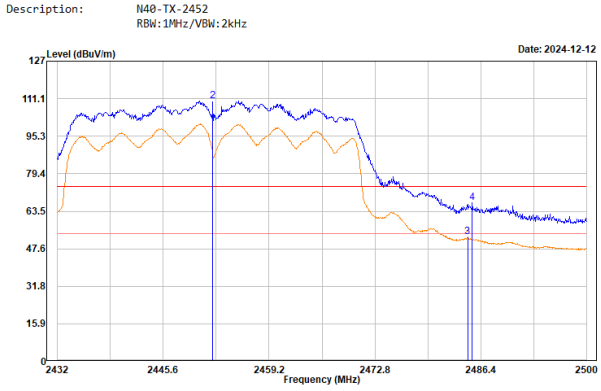
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.464	72.36	-11.09	61.27	74.00	-12.73	164	293	Peak
2389.728	59.57	-11.09	48.48	54.00	-5.52	164	293	Average
2422.000	108.77	-11.01	97.76			164	293	Average
2422.000	119.15	-11.01	108.14			164	293	Peak

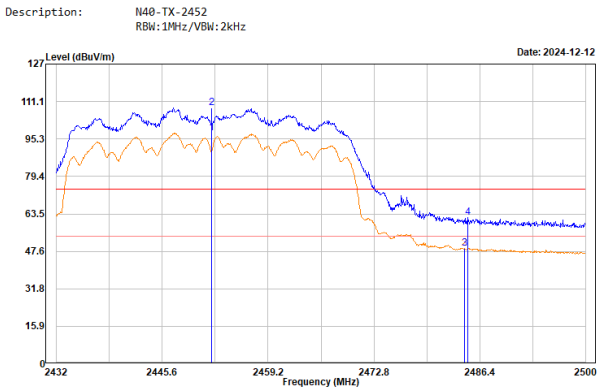
High channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2452.000	111.39	-10.99	100.40			217	0	Average
2452.000	121.27	-10.99	110.28			217	0	Peak
2484.700	63.08	-10.59	52.49	54.00	-1.51	217	0	Average
2485.312	77.84	-10.60	67.24	74.00	-6.76	217	0	Peak

Vertical

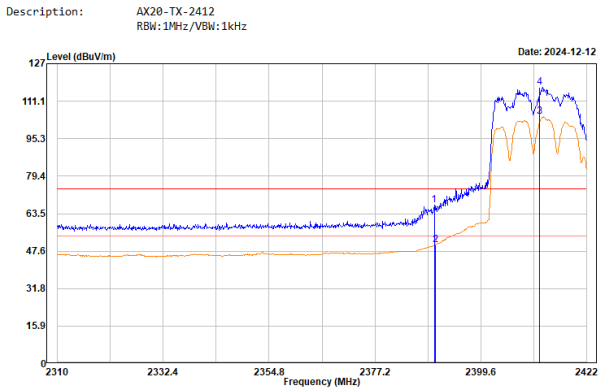


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2452.000	108.66	-10.99	97.67			122	1	Average
2452.000	119.25	-10.99	108.26			122	1	Peak
2484.428	59.60	-10.60	49.00	54.00	-5.00	122	1	Average
2484.836	72.50	-10.59	61.91	74.00	-12.09	122	1	Peak

802.11ax HE20 Mode

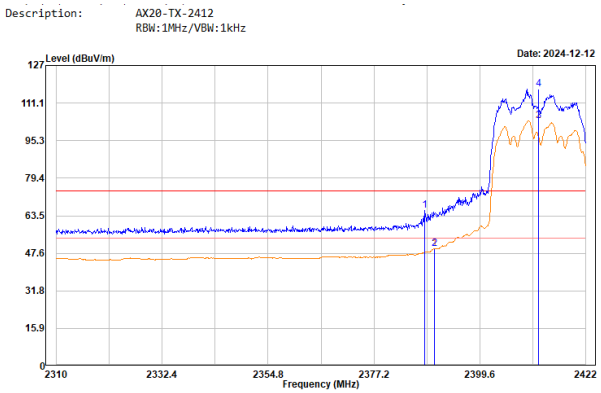
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.744	78.11	-11.09	67.02	74.00	-6.98	237	17	Peak
2389.968	61.34	-11.09	50.25	54.00	-3.75	237	17	Average
2412.000	115.51	-11.02	104.49			237	17	Average
2412.000	128.10	-11.02	117.08			237	17	Peak

Vertical



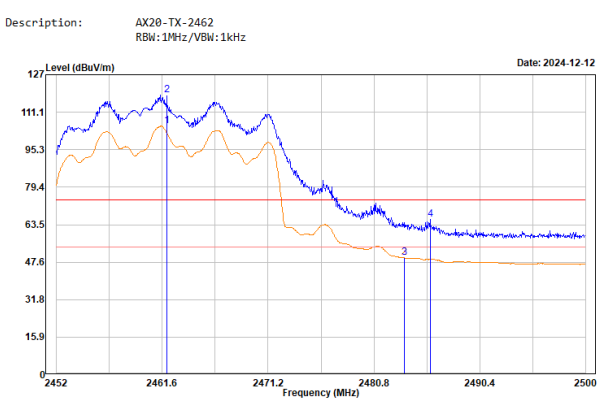
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2387.952	76.92	-11.10	65.82	74.00	-8.18	132	4	Peak
2389.968	60.66	-11.09	49.57	54.00	-4.43	132	4	Average
2412.000	114.52	-11.02	103.50			132	4	Average
2412.000	128.05	-11.02	117.03			132	4	Peak

High channel

Horizontal

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	117.51	-10.88	106.63			229	2	Average
2462.000	129.25	-10.88	118.37			229	2	Peak
2483.550	63.51	-10.61	52.90	54.00	-1.10	229	2	Average
2483.632	82.61	-10.61	72.00	74.00	-2.00	229	2	Peak

Vertical

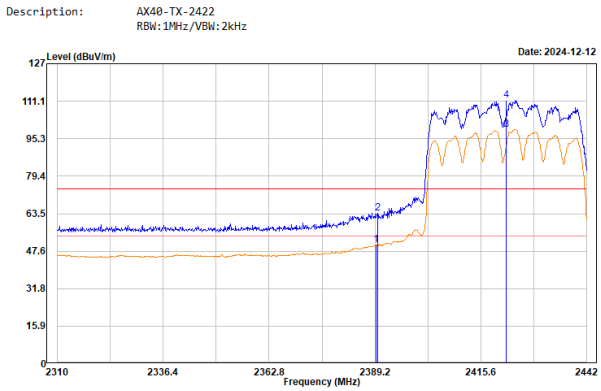


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	116.05	-10.88	105.17			102	6	Average
2462.000	129.22	-10.88	118.34			102	6	Peak
2483.536	60.09	-10.61	49.48	54.00	-4.52	102	6	Average
2485.888	76.24	-10.59	65.65	74.00	-8.35	102	6	Peak

802.11ax HE40 Mode

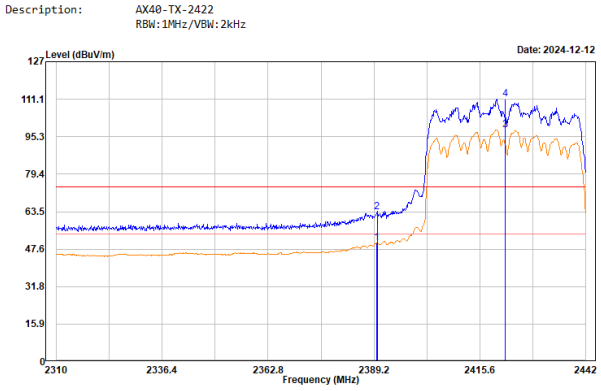
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.464	61.41	-11.09	50.32	54.00	-3.68	204	20	Average
2389.860	74.81	-11.09	63.72	74.00	-10.28	204	20	Peak
2422.000	110.28	-11.01	99.27			204	20	Average
2422.000	122.67	-11.01	111.66			204	20	Peak

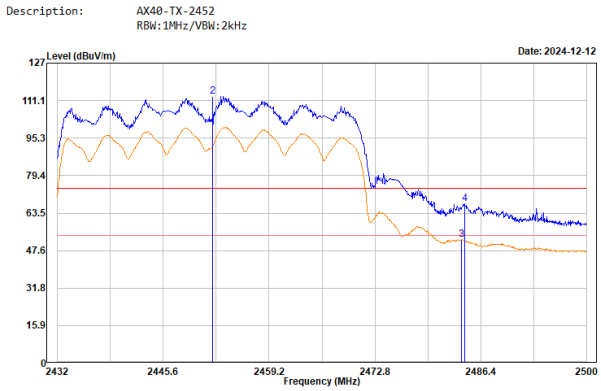
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.860	61.44	-11.09	50.35	54.00	-3.65	157	7	Average
2389.992	74.49	-11.09	63.40	74.00	-10.60	157	7	Peak
2422.000	109.20	-11.01	98.19			157	7	Average
2422.000	122.27	-11.01	111.26			157	7	Peak

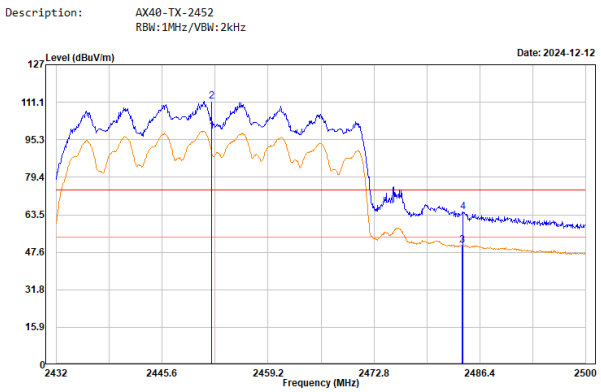
High channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2452.000	110.91	-10.99	99.92			217	17	Average
2452.000	123.96	-10.99	112.97			217	17	Peak
2483.884	62.78	-10.60	52.18	54.00	-1.82	217	17	Average
2484.292	78.20	-10.60	67.60	74.00	-6.40	217	17	Peak

Vertical



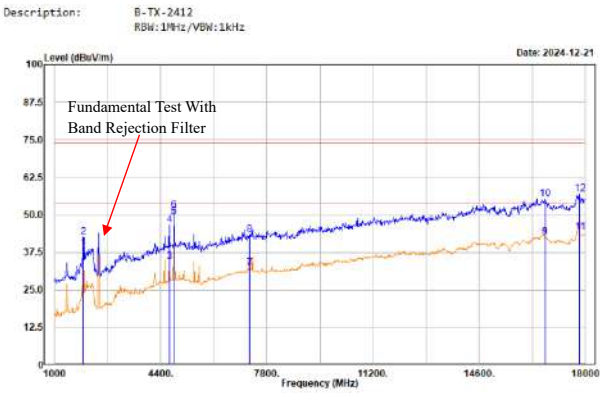
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2452.000	109.90	-10.99	98.91			167	359	Average
2452.000	122.40	-10.99	111.41			167	359	Peak
2484.156	61.23	-10.60	50.63	54.00	-3.37	167	359	Average
2484.224	75.36	-10.60	64.76	74.00	-9.24	167	359	Peak

1GHz-18GHz:

(802.11b mode)

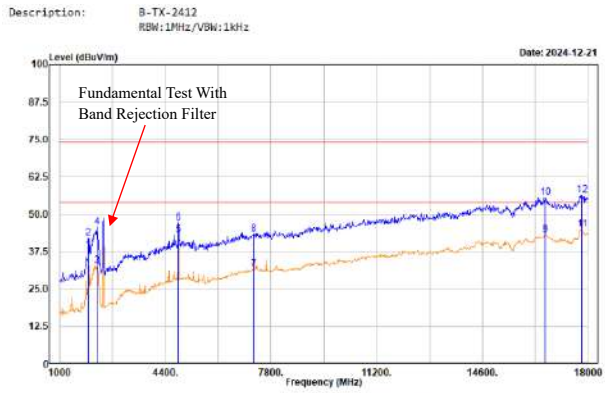
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
1918.000	51.75	-12.68	39.07	54.00	-14.93	150	275	Average
1918.000	55.28	-12.68	42.60	74.00	-31.40	150	275	Peak
4672.000	38.35	-3.92	34.43	54.00	-19.57	150	100	Average
4672.000	50.53	-3.92	46.61	74.00	-27.39	150	100	Peak
4824.000	53.40	-3.96	49.44	54.00	-4.56	152	105	Average
4824.000	55.35	-3.96	51.39	74.00	-22.61	152	105	Peak
7236.000	31.71	0.55	32.26	54.00	-21.74	152	105	Average
7236.000	42.93	0.55	43.48	74.00	-30.52	152	105	Peak
16708.000	30.60	11.85	42.45	54.00	-11.55	150	312	Average
16708.000	43.38	11.85	55.23	74.00	-18.77	150	312	Peak
17830.000	31.02	13.06	44.08	54.00	-9.92	150	288	Average
17830.000	43.72	13.06	56.78	74.00	-17.22	150	288	Peak

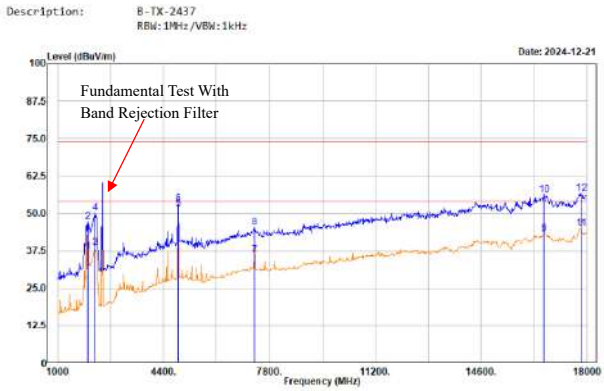
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
1918.000	50.55	-12.68	37.87	54.00	-16.13	150	316	Average
1918.000	54.60	-12.68	41.92	74.00	-32.08	150	316	Peak
2190.000	45.13	-12.45	32.68	54.00	-21.32	150	285	Average
2190.000	58.22	-12.45	45.77	74.00	-28.23	150	285	Peak
4824.000	47.17	-3.96	43.21	54.00	-10.79	204	135	Average
4824.000	51.16	-3.96	47.20	74.00	-26.80	204	135	Peak
7236.000	31.10	0.55	31.65	54.00	-22.35	156	204	Average
7236.000	42.69	0.55	43.24	74.00	-30.76	156	204	Peak
16623.000	31.09	12.07	43.16	54.00	-10.84	150	82	Average
16623.000	43.53	12.07	55.60	74.00	-18.40	150	82	Peak
17796.000	32.06	12.88	44.94	54.00	-9.06	150	163	Average
17796.000	43.41	12.88	56.29	74.00	-17.71	150	163	Peak

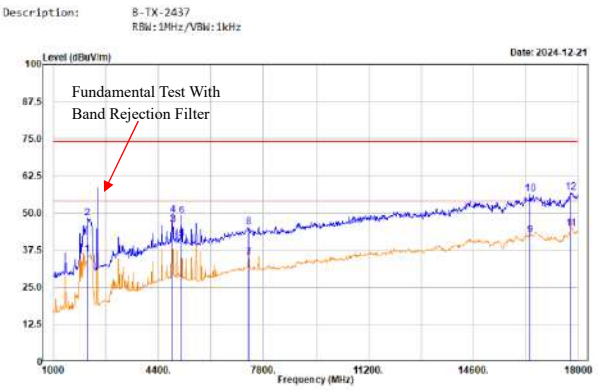
Middle channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
1969.000	49.21	-11.96	37.25	54.00	-16.75	150	139	Average
1969.000	59.13	-11.96	47.17	74.00	-26.83	150	139	Peak
2207.000	50.93	-12.36	38.57	54.00	-15.43	150	206	Average
2207.000	62.39	-12.36	50.03	74.00	-23.97	150	206	Peak
4874.000	55.05	-3.59	51.46	54.00	-2.54	162	13	Average
4874.000	56.72	-3.59	53.13	74.00	-20.87	162	13	Peak
7311.000	35.53	0.56	36.09	54.00	-17.91	154	258	Average
7311.000	44.71	0.56	45.27	74.00	-28.73	154	258	Peak
16606.000	30.86	12.12	42.98	54.00	-11.02	150	78	Average
16606.000	44.11	12.12	56.23	74.00	-17.77	150	78	Peak
17813.000	32.05	12.95	45.00	54.00	-9.00	150	258	Average
17813.000	43.62	12.95	56.57	74.00	-17.43	150	258	Peak

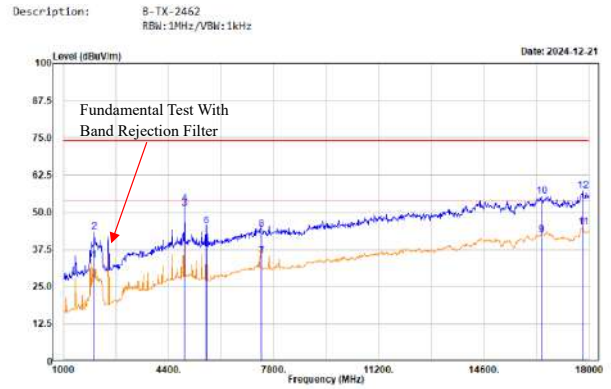
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2105.000	48.12	-12.13	35.99	54.00	-18.01	150	285	Average
2105.000	60.32	-12.13	48.19	74.00	-25.81	150	285	Peak
4874.000	49.78	-3.59	46.19	54.00	-7.81	173	360	Average
4874.000	52.89	-3.59	49.30	74.00	-24.70	173	360	Peak
5148.000	44.68	-3.62	41.06	54.00	-12.94	150	174	Average
5148.000	52.68	-3.62	49.06	74.00	-24.94	150	174	Peak
7311.000	34.38	0.56	34.94	54.00	-19.06	151	174	Average
7311.000	44.66	0.56	45.22	74.00	-28.78	151	174	Peak
16436.000	31.09	11.53	42.62	54.00	-11.38	150	103	Average
16436.000	44.97	11.53	56.50	74.00	-17.50	150	103	Peak
17745.000	31.86	12.78	44.64	54.00	-9.36	150	311	Average
17745.000	44.07	12.78	56.85	74.00	-17.15	150	311	Peak

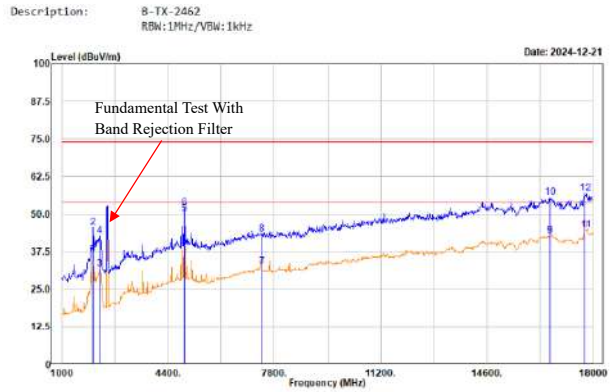
High channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2003.000	45.51	-11.73	33.78	54.00	-20.22	150	185	Average
2003.000	55.04	-11.73	43.31	74.00	-30.69	150	185	Peak
4924.000	54.68	-3.51	51.17	54.00	-2.83	147	77	Average
4924.000	56.29	-3.51	52.78	74.00	-21.22	147	77	Peak
5624.000	42.60	-4.66	37.94	54.00	-16.06	150	209	Average
5624.000	50.05	-4.66	45.39	74.00	-28.61	150	209	Peak
7386.000	35.03	0.22	35.25	54.00	-18.75	156	318	Average
7386.000	43.94	0.22	44.16	74.00	-29.84	156	318	Peak
16453.000	30.67	11.66	42.33	54.00	-11.67	150	117	Average
16453.000	43.74	11.66	55.40	74.00	-18.60	150	117	Peak
17796.000	32.00	12.88	44.88	54.00	-9.12	150	77	Average
17796.000	44.19	12.88	57.07	74.00	-16.93	150	77	Peak

Vertical

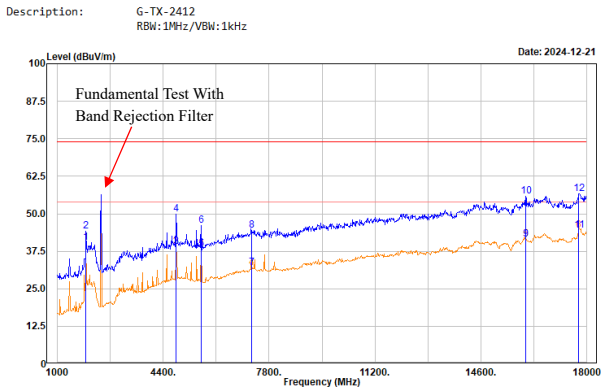


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2003.000	48.64	-11.73	36.91	54.00	-17.09	150	87	Average
2003.000	57.16	-11.73	45.43	74.00	-28.57	150	87	Peak
2190.000	44.19	-12.45	31.74	54.00	-22.26	150	119	Average
2190.000	55.28	-12.45	42.83	74.00	-31.17	150	119	Peak
4924.000	53.61	-3.51	50.10	54.00	-3.90	148	277	Average
4924.000	55.43	-3.51	51.92	74.00	-22.08	148	277	Peak
7386.000	32.35	0.22	32.57	54.00	-21.43	151	38	Average
7386.000	43.16	0.22	43.38	74.00	-30.62	151	38	Peak
16606.000	30.75	12.12	42.87	54.00	-11.13	150	277	Average
16606.000	43.35	12.12	55.47	74.00	-18.53	150	277	Peak
17745.000	31.81	12.78	44.59	54.00	-9.41	150	153	Average
17745.000	44.24	12.78	57.02	74.00	-16.98	150	153	Peak

(802.11g mode)

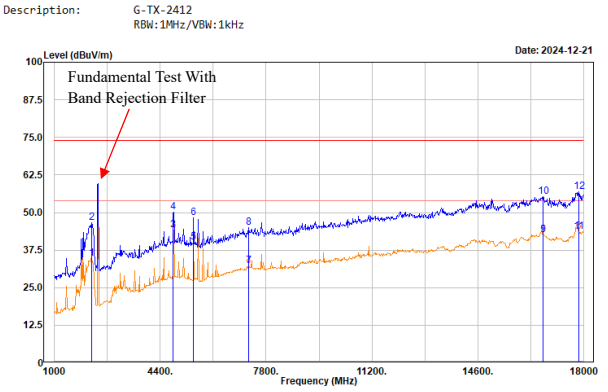
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
1918.000	53.03	-12.68	40.35	54.00	-13.65	150	81	Average
1918.000	56.74	-12.68	44.06	74.00	-29.94	150	81	Peak
4824.000	42.91	-3.96	38.95	54.00	-15.05	146	81	Average
4824.000	53.85	-3.96	49.89	74.00	-24.11	146	81	Peak
5624.000	42.83	-4.66	38.17	54.00	-15.83	150	352	Average
5624.000	50.65	-4.66	45.99	74.00	-28.01	150	352	Peak
7236.000	31.53	0.55	32.08	54.00	-21.92	158	144	Average
7236.000	43.82	0.55	44.37	74.00	-29.63	158	144	Peak
16045.000	30.90	10.44	41.34	54.00	-12.66	150	109	Average
16045.000	45.40	10.44	55.84	74.00	-18.16	150	109	Peak
17745.000	31.67	12.78	44.45	54.00	-9.55	150	228	Average
17745.000	43.86	12.78	56.64	74.00	-17.36	150	228	Peak

Vertical

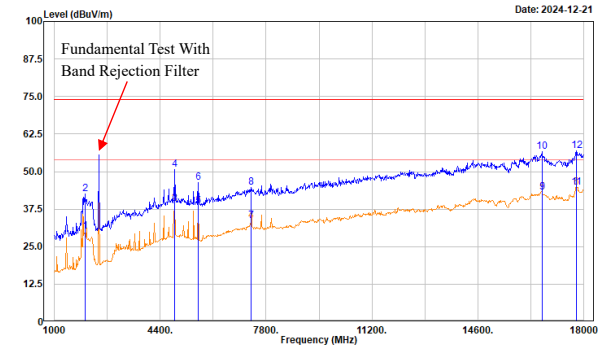


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2207.000	47.08	-12.36	34.72	54.00	-19.28	150	93	Average
2207.000	59.08	-12.36	46.72	74.00	-27.28	150	93	Peak
4824.000	48.02	-3.96	44.06	54.00	-9.94	120	7	Average
4824.000	54.00	-3.96	50.04	74.00	-23.96	120	7	Peak
5471.000	44.75	-4.57	40.18	54.00	-13.82	150	262	Average
5471.000	52.80	-4.57	48.23	74.00	-25.77	150	262	Peak
7236.000	31.57	0.55	32.12	54.00	-21.88	156	93	Average
7236.000	44.51	0.55	45.06	74.00	-28.94	156	93	Peak
16691.000	30.68	11.90	42.58	54.00	-11.42	150	315	Average
16691.000	43.27	11.90	55.17	74.00	-18.83	150	315	Peak
17847.000	30.56	13.16	43.72	54.00	-10.28	150	262	Average
17847.000	43.74	13.16	56.90	74.00	-17.10	150	262	Peak

Middle channel

Horizontal

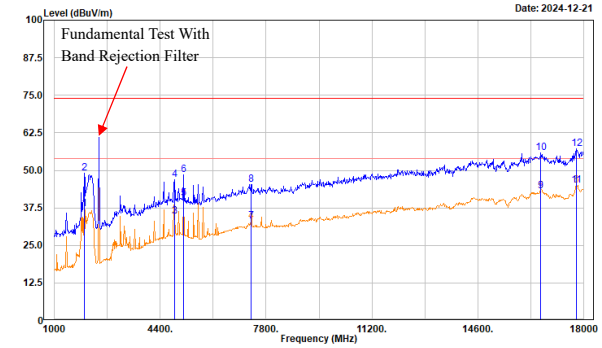
Description: G-TX-2437
RBW:1MHz/VBW:1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
1986.000	42.04	-11.84	30.20	54.00	-23.80	150	289	Average
1986.000	54.27	-11.84	42.43	74.00	-31.57	150	289	Peak
4874.000	42.96	-3.59	39.37	54.00	-14.63	151	75	Average
4874.000	54.40	-3.59	50.81	74.00	-23.19	151	75	Peak
5624.000	43.03	-4.66	38.37	54.00	-15.63	150	106	Average
5624.000	50.98	-4.66	46.32	74.00	-27.68	150	106	Peak
7311.000	32.92	0.56	33.48	54.00	-20.52	158	231	Average
7311.000	44.27	0.56	44.83	74.00	-29.17	158	231	Peak
16657.000	31.11	11.99	43.10	54.00	-10.90	150	38	Average
16657.000	44.78	11.99	56.77	74.00	-17.23	150	38	Peak
17762.000	31.78	12.83	44.61	54.00	-9.39	150	75	Average
17762.000	44.02	12.83	56.85	74.00	-17.15	150	75	Peak

Vertical

Description: G-TX-2437
RBW:1MHz/VBW:1kHz

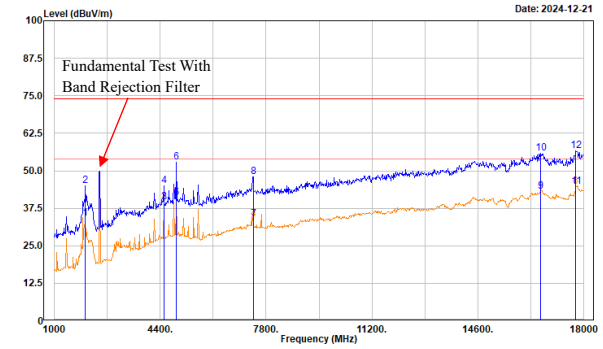


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
1969.000	49.11	-11.96	37.15	54.00	-16.85	150	221	Average
1969.000	60.92	-11.96	48.96	74.00	-25.04	150	221	Peak
4874.000	38.30	-3.59	34.71	54.00	-19.29	165	360	Average
4874.000	50.58	-3.59	46.99	74.00	-27.01	165	360	Peak
5148.000	44.28	-3.62	40.66	54.00	-13.34	150	163	Average
5148.000	52.14	-3.62	48.52	74.00	-25.48	150	163	Peak
7311.000	32.57	0.56	33.13	54.00	-20.87	159	142	Average
7311.000	44.70	0.56	45.26	74.00	-28.74	159	142	Peak
16623.000	31.02	12.07	43.09	54.00	-10.91	150	89	Average
16623.000	43.89	12.07	55.96	74.00	-18.04	150	89	Peak
17762.000	32.08	12.83	44.91	54.00	-9.09	150	110	Average
17762.000	44.41	12.83	57.24	74.00	-16.76	150	110	Peak

High channel

Horizontal

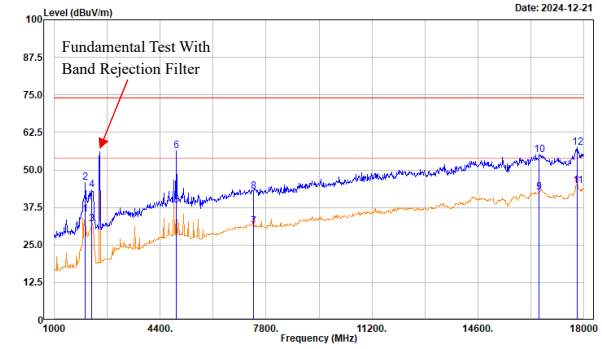
Description: G-TX-2462
RBW:1MHz/VBW:1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2003.000	45.88	-11.73	34.15	54.00	-19.85	150	189	Average
2003.000	56.67	-11.73	44.94	74.00	-29.06	150	189	Peak
4519.000	44.32	-4.69	39.63	54.00	-14.37	150	356	Average
4519.000	49.73	-4.69	45.04	74.00	-28.96	150	356	Peak
4924.000	44.44	-3.51	40.93	54.00	-13.07	192	76	Average
4924.000	56.23	-3.51	52.72	74.00	-21.28	192	76	Peak
7386.000	33.74	0.22	33.96	54.00	-20.04	157	209	Average
7386.000	47.62	0.22	47.84	74.00	-26.16	157	209	Peak
16606.000	31.03	12.12	43.15	54.00	-10.85	150	189	Average
16606.000	43.68	12.12	55.80	74.00	-18.20	150	189	Peak
17745.000	32.01	12.78	44.79	54.00	-9.21	150	26	Average
17745.000	43.91	12.78	56.69	74.00	-17.31	150	26	Peak

Vertical

Description: G-TX-2462
RBW:1MHz/VBW:1kHz

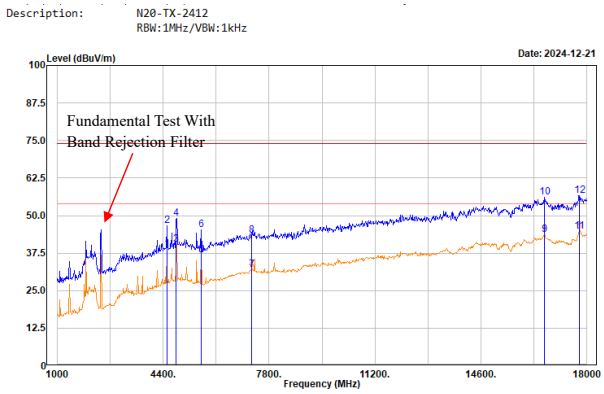


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2003.000	46.84	-11.73	35.11	54.00	-18.89	150	39	Average
2003.000	57.43	-11.73	45.70	74.00	-28.30	150	39	Peak
2207.000	44.33	-12.36	31.97	54.00	-22.03	150	106	Average
2207.000	55.61	-12.36	43.25	74.00	-30.75	150	106	Peak
4924.000	41.81	-3.51	38.30	54.00	-15.70	179	275	Average
4924.000	59.76	-3.51	56.25	74.00	-17.75	179	275	Peak
7386.000	31.03	0.22	31.25	54.00	-22.75	155	103	Average
7386.000	42.54	0.22	42.76	74.00	-31.24	155	103	Peak
16572.000	30.40	12.10	42.50	54.00	-11.50	150	275	Average
16572.000	42.96	12.10	55.06	74.00	-18.94	150	275	Peak
17796.000	31.79	12.88	44.67	54.00	-9.33	150	158	Average
17796.000	44.44	12.88	57.32	74.00	-16.68	150	158	Peak

(802.11n HT20 mode)

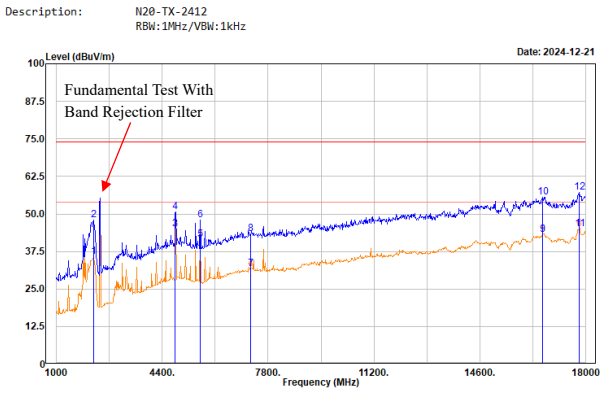
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4519.000	43.39	-4.69	38.70	54.00	-15.30	150	238	Average
4519.000	51.23	-4.69	46.54	74.00	-27.46	150	238	Peak
4824.000	44.30	-3.96	40.34	54.00	-13.66	117	91	Average
4824.000	53.10	-3.96	49.14	74.00	-24.86	117	91	Peak
5624.000	41.64	-4.66	36.98	54.00	-17.02	150	285	Average
5624.000	49.83	-4.66	45.17	74.00	-28.83	150	285	Peak
7236.000	31.32	0.55	31.87	54.00	-22.13	150	285	Average
7236.000	42.79	0.55	43.34	74.00	-30.66	150	285	Peak
16640.000	31.50	12.04	43.54	54.00	-10.46	150	101	Average
16640.000	43.99	12.04	56.03	74.00	-17.97	150	101	Peak
17762.000	32.00	12.83	44.83	54.00	-9.17	150	119	Average
17762.000	43.74	12.83	56.57	74.00	-17.43	150	119	Peak

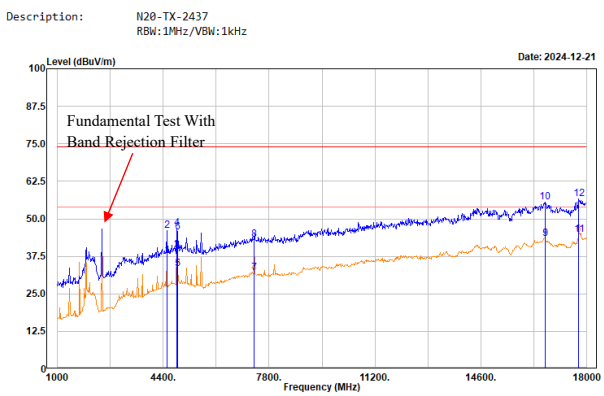
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2190.000	48.17	-12.45	35.72	54.00	-18.28	150	312	Average
2190.000	60.30	-12.45	47.85	74.00	-26.15	150	312	Peak
4824.000	48.95	-3.96	44.99	54.00	-9.01	158	9	Average
4824.000	54.69	-3.96	50.73	74.00	-23.27	158	9	Peak
5624.000	46.03	-4.66	41.37	54.00	-12.63	150	58	Average
5624.000	52.56	-4.66	47.90	74.00	-26.10	150	58	Peak
7236.000	31.21	0.55	31.76	54.00	-22.24	158	312	Average
7236.000	42.93	0.55	43.48	74.00	-30.52	158	312	Peak
16606.000	30.86	12.12	42.98	54.00	-11.02	150	136	Average
16606.000	43.46	12.12	55.58	74.00	-18.42	150	136	Peak
17796.000	32.00	12.88	44.88	54.00	-9.12	150	336	Average
17796.000	44.36	12.88	57.24	74.00	-16.76	150	336	Peak

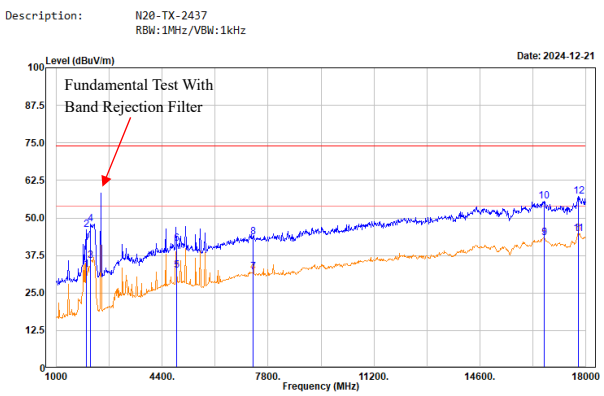
Middle channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4519.000	42.32	-4.69	37.63	54.00	-16.37	150	318	Average
4519.000	50.87	-4.69	46.18	74.00	-27.82	150	318	Peak
4842.000	43.54	-3.84	39.70	54.00	-14.30	150	87	Average
4842.000	50.66	-3.84	46.82	74.00	-27.18	150	87	Peak
4874.000	37.04	-3.59	33.45	54.00	-20.55	114	87	Average
4874.000	49.01	-3.59	45.42	74.00	-28.58	114	87	Peak
7311.000	31.47	0.56	32.03	54.00	-21.97	153	201	Average
7311.000	42.63	0.56	43.19	74.00	-30.81	153	201	Peak
16657.000	31.34	11.99	43.33	54.00	-10.67	150	163	Average
16657.000	43.61	11.99	55.60	74.00	-18.40	150	163	Peak
17745.000	31.87	12.78	44.65	54.00	-9.35	150	208	Average
17745.000	43.98	12.78	56.76	74.00	-17.24	150	208	Peak

Vertical

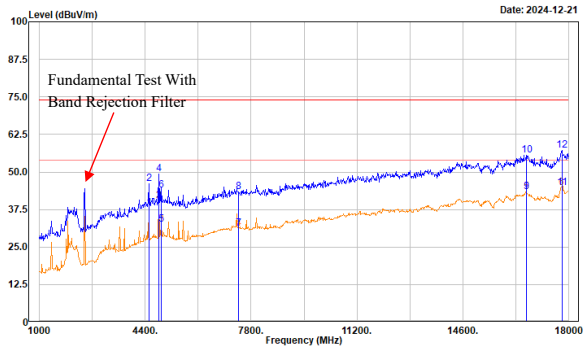


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
1969.000	44.82	-11.96	32.86	54.00	-21.14	150	286	Average
1969.000	57.95	-11.96	45.99	74.00	-28.01	150	286	Peak
2105.000	48.00	-12.13	35.87	54.00	-18.13	150	86	Average
2105.000	60.23	-12.13	48.10	74.00	-25.90	150	86	Peak
4874.000	36.07	-3.59	32.48	54.00	-21.52	153	360	Average
4874.000	44.97	-3.59	41.38	74.00	-32.62	153	360	Peak
7311.000	31.45	0.56	32.01	54.00	-21.99	159	208	Average
7311.000	43.02	0.56	43.58	74.00	-30.42	159	208	Peak
16657.000	31.29	11.99	43.28	54.00	-10.72	150	103	Average
16657.000	43.66	11.99	55.65	74.00	-18.35	150	103	Peak
17762.000	31.84	12.83	44.67	54.00	-9.33	150	5	Average
17762.000	44.34	12.83	57.17	74.00	-16.83	150	5	Peak

High channel

Horizontal

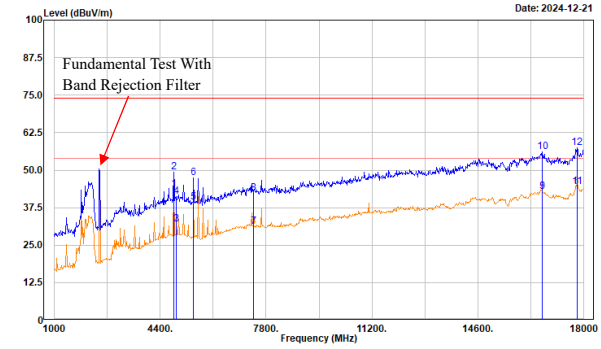
Description: N20-TX-2462
RBW:1MHz/VBW:1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4519.000	42.57	-4.69	37.88	54.00	-16.12	150	88	Average
4519.000	50.83	-4.69	46.14	74.00	-27.86	150	88	Peak
4842.000	44.13	-3.84	40.29	54.00	-13.71	150	162	Average
4842.000	53.22	-3.84	49.38	74.00	-24.62	150	162	Peak
4924.000	36.07	-3.51	32.56	54.00	-21.44	105	88	Average
4924.000	47.47	-3.51	43.96	74.00	-30.04	105	88	Peak
7386.000	31.02	0.22	31.24	54.00	-22.76	156	228	Average
7386.000	43.04	0.22	43.26	74.00	-30.74	156	228	Peak
16640.000	31.44	12.04	43.48	54.00	-10.52	150	315	Average
16640.000	43.63	12.04	55.67	74.00	-18.33	150	315	Peak
17779.000	31.91	12.85	44.76	54.00	-9.24	150	203	Average
17779.000	44.38	12.85	57.23	74.00	-16.77	150	203	Peak

Vertical

Description: N20-TX-2462
RBW:1MHz/VBW:1kHz



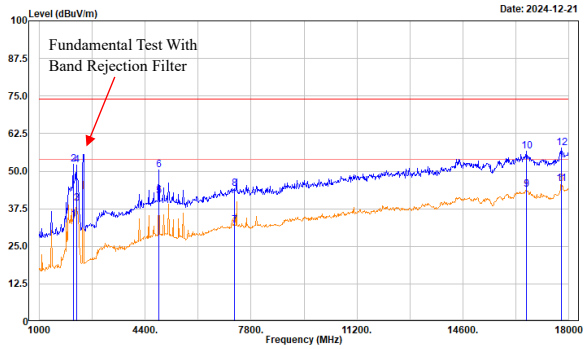
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4842.000	47.55	-3.84	43.71	54.00	-10.29	150	6	Average
4842.000	53.23	-3.84	49.39	74.00	-24.61	150	6	Peak
4924.000	35.62	-3.51	32.11	54.00	-21.89	133	6	Average
4924.000	44.73	-3.51	41.22	74.00	-32.78	133	6	Peak
5471.000	43.96	-4.57	39.39	54.00	-14.61	150	305	Average
5471.000	52.11	-4.57	47.54	74.00	-26.46	150	305	Peak
7386.000	30.99	0.22	31.21	54.00	-22.79	157	229	Average
7386.000	42.08	0.22	42.30	74.00	-31.70	157	229	Peak
16674.000	30.89	11.95	42.84	54.00	-11.16	150	108	Average
16674.000	44.11	11.95	56.06	74.00	-17.94	150	108	Peak
17779.000	31.71	12.85	44.56	54.00	-9.44	150	93	Average
17779.000	44.67	12.85	57.52	74.00	-16.48	150	93	Peak

(802.11n HT40 mode)

Low channel

Horizontal

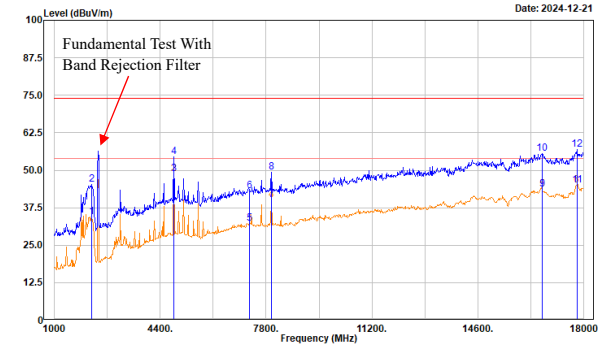
Description: N40-TX-2422
RBW:1MHz/VBW:2kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2088.000	45.75	-11.92	33.83	54.00	-20.17	150	283	Average
2088.000	64.30	-11.92	52.38	74.00	-21.62	150	283	Peak
2190.000	51.62	-12.45	39.17	54.00	-14.83	150	26	Average
2190.000	64.42	-12.45	51.97	74.00	-22.03	150	26	Peak
4844.000	45.67	-3.83	41.84	54.00	-12.16	169	341	Average
4844.000	54.29	-3.83	50.46	74.00	-23.54	169	341	Peak
7266.000	31.46	0.60	32.06	54.00	-21.94	152	103	Average
7266.000	43.63	0.60	44.23	74.00	-29.77	152	103	Peak
16640.000	31.82	12.04	43.86	54.00	-10.14	150	341	Average
16640.000	44.48	12.04	56.52	74.00	-17.48	150	341	Peak
17762.000	32.89	12.83	45.72	54.00	-8.28	150	159	Average
17762.000	44.88	12.83	57.71	74.00	-16.29	150	159	Peak

Vertical

Description: N40-TX-2422
RBW:1MHz/VBW:2kHz

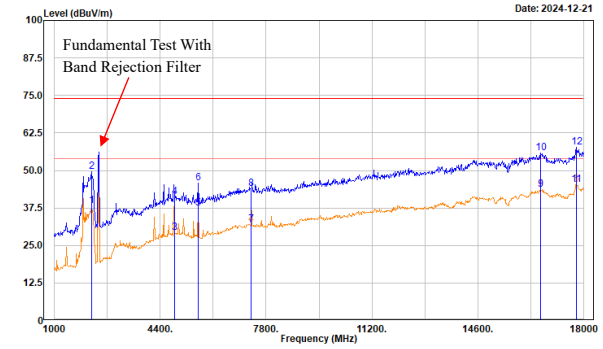


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2190.000	46.97	-12.45	34.52	54.00	-19.48	150	16	Average
2190.000	57.76	-12.45	45.31	74.00	-28.69	150	16	Peak
4844.000	52.53	-3.83	48.70	54.00	-5.30	173	16	Average
4844.000	58.28	-3.83	54.45	74.00	-19.55	173	16	Peak
7266.000	31.58	0.60	32.18	54.00	-21.82	150	238	Average
7266.000	42.41	0.60	43.01	74.00	-30.99	150	238	Peak
7970.000	39.44	0.76	40.20	54.00	-13.80	150	208	Average
7970.000	48.51	0.76	49.27	74.00	-24.73	150	208	Peak
16657.000	31.74	11.99	43.73	54.00	-10.27	150	316	Average
16657.000	43.44	11.99	55.43	74.00	-18.57	150	316	Peak
17779.000	32.24	12.85	45.09	54.00	-8.91	150	152	Average
17779.000	44.02	12.85	56.87	74.00	-17.13	150	152	Peak

Middle channel

Horizontal

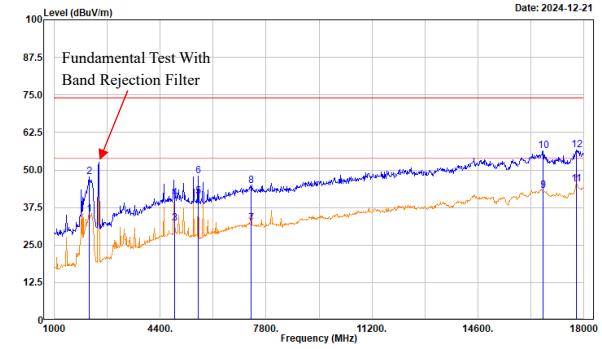
Description: N40-TX-2437
RBW:1MHz/VBW:2kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2190.000	50.72	-12.45	38.27	54.00	-15.73	150	185	Average
2190.000	61.91	-12.45	49.46	74.00	-24.54	150	185	Peak
4874.000	32.89	-3.59	29.30	54.00	-24.70	156	230	Average
4874.000	44.72	-3.59	41.13	74.00	-32.87	156	230	Peak
5624.000	42.05	-4.66	37.39	54.00	-16.61	150	63	Average
5624.000	50.44	-4.66	45.78	74.00	-28.22	150	63	Peak
7311.000	31.53	0.56	32.09	54.00	-21.91	152	208	Average
7311.000	43.39	0.56	43.95	74.00	-30.05	152	208	Peak
16606.000	31.53	12.12	43.65	54.00	-10.35	150	208	Average
16606.000	43.80	12.12	55.92	74.00	-18.08	150	208	Peak
17762.000	32.47	12.83	45.30	54.00	-8.70	150	16	Average
17762.000	44.77	12.83	57.60	74.00	-16.40	150	16	Peak

Vertical

Description: N40-TX-2437
RBW:1MHz/VBW:2kHz

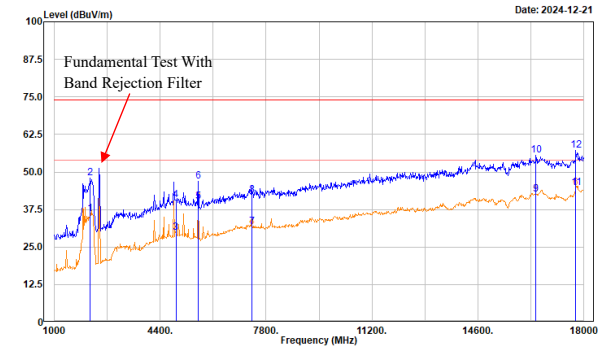


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2122.000	47.47	-12.36	35.11	54.00	-18.89	150	101	Average
2122.000	60.00	-12.36	47.64	74.00	-26.36	150	101	Peak
4874.000	35.80	-3.59	32.21	54.00	-21.79	133	355	Average
4874.000	44.30	-3.59	40.71	74.00	-33.29	133	355	Peak
5624.000	45.78	-4.66	41.12	54.00	-12.88	150	342	Average
5624.000	52.68	-4.66	48.02	74.00	-25.98	150	342	Peak
7311.000	31.75	0.56	32.31	54.00	-21.69	158	9	Average
7311.000	44.06	0.56	44.62	74.00	-29.38	158	9	Peak
16691.000	31.15	11.90	43.05	54.00	-10.95	150	85	Average
16691.000	44.46	11.90	56.36	74.00	-17.64	150	85	Peak
17762.000	32.42	12.83	45.25	54.00	-8.75	150	294	Average
17762.000	43.94	12.83	56.77	74.00	-17.23	150	294	Peak

High channel

Horizontal

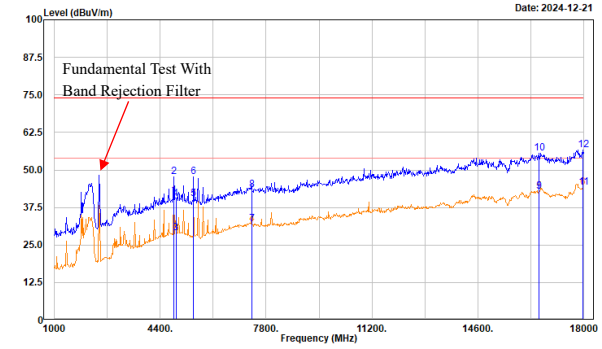
Description: N40-TX-2452
RBW:1MHz/VBW:2kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2156.000	48.79	-12.68	36.11	54.00	-17.89	150	92	Average
2156.000	60.60	-12.68	47.92	74.00	-26.08	150	92	Peak
4904.000	33.21	-3.40	29.81	54.00	-24.19	151	37	Average
4904.000	44.03	-3.40	40.63	74.00	-33.37	151	37	Peak
5624.000	44.87	-4.66	40.21	54.00	-13.79	150	186	Average
5624.000	51.52	-4.66	46.86	74.00	-27.14	150	186	Peak
7356.000	31.45	0.39	31.84	54.00	-22.16	155	106	Average
7356.000	41.97	0.39	42.36	74.00	-31.64	155	106	Peak
16470.000	30.63	11.79	42.42	54.00	-11.58	150	353	Average
16470.000	43.88	11.79	55.67	74.00	-18.33	150	353	Peak
17745.000	32.03	12.78	44.81	54.00	-9.19	150	209	Average
17745.000	44.43	12.78	57.21	74.00	-16.79	150	209	Peak

Vertical

Description: N40-TX-2452
RBW:1MHz/VBW:2kHz

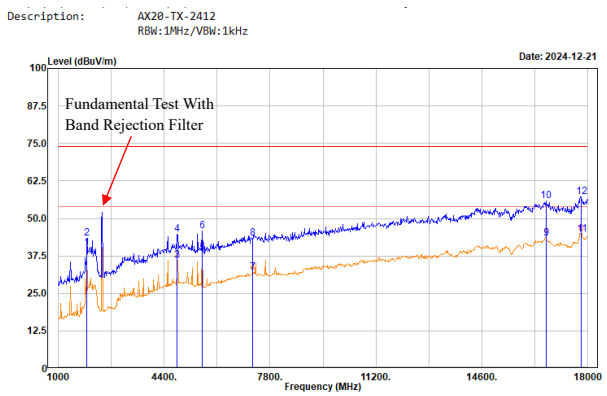


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4842.000	45.19	-3.84	41.35	54.00	-12.65	150	7	Average
4842.000	51.48	-3.84	47.64	74.00	-26.36	150	7	Peak
4904.000	32.30	-3.40	28.90	54.00	-25.10	132	7	Average
4904.000	43.82	-3.40	40.42	74.00	-33.58	132	7	Peak
5471.000	44.90	-4.57	40.33	54.00	-13.67	150	162	Average
5471.000	52.19	-4.57	47.62	74.00	-26.38	150	162	Peak
7356.000	31.63	0.39	32.02	54.00	-21.98	154	206	Average
7356.000	42.90	0.39	43.29	74.00	-30.71	154	206	Peak
16572.000	30.79	12.10	42.89	54.00	-11.11	150	118	Average
16572.000	43.52	12.10	55.62	74.00	-18.38	150	118	Peak
17983.000	30.00	14.19	44.19	54.00	-9.81	150	309	Average
17983.000	42.37	14.19	56.56	74.00	-17.44	150	309	Peak

(802.11ax HE20 mode)

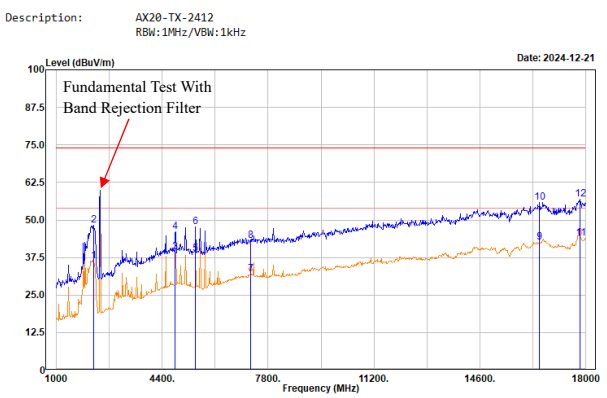
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
1918.000	52.82	-12.68	40.14	54.00	-13.86	150	28	Average
1918.000	56.13	-12.68	43.45	74.00	-30.55	150	28	Peak
4824.000	39.89	-3.96	35.93	54.00	-18.07	142	78	Average
4824.000	48.56	-3.96	44.60	74.00	-29.40	142	78	Peak
5624.000	43.20	-4.66	38.54	54.00	-15.46	150	174	Average
5624.000	50.53	-4.66	45.87	74.00	-28.13	150	174	Peak
7236.000	31.37	0.55	31.92	54.00	-22.08	153	5	Average
7236.000	42.68	0.55	43.23	74.00	-30.77	153	5	Peak
16657.000	31.33	11.99	43.32	54.00	-10.68	150	209	Average
16657.000	43.73	11.99	55.72	74.00	-18.28	150	209	Peak
17796.000	31.88	12.88	44.76	54.00	-9.24	150	256	Average
17796.000	44.32	12.88	57.20	74.00	-16.80	150	256	Peak

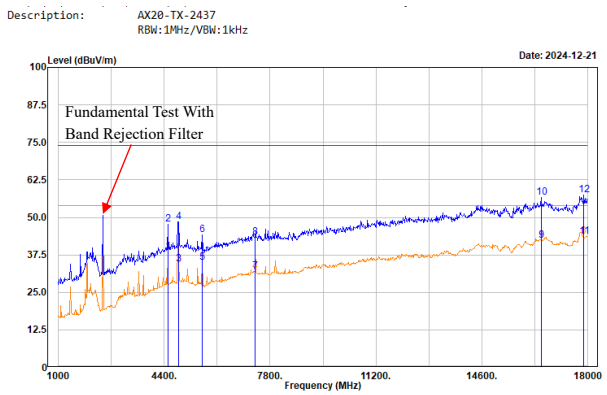
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2207.000	48.72	-12.36	36.36	54.00	-17.64	150	89	Average
2207.000	60.70	-12.36	48.34	74.00	-25.66	150	89	Peak
4824.000	43.12	-3.96	39.16	54.00	-14.84	140	360	Average
4824.000	49.94	-3.96	45.98	74.00	-28.02	140	360	Peak
5471.000	43.41	-4.57	38.84	54.00	-15.16	150	153	Average
5471.000	52.26	-4.57	47.69	74.00	-26.31	150	153	Peak
7236.000	31.39	0.55	31.94	54.00	-22.06	157	9	Average
7236.000	42.64	0.55	43.19	74.00	-30.81	157	9	Peak
16521.000	30.43	12.05	42.48	54.00	-11.52	150	153	Average
16521.000	43.83	12.05	55.88	74.00	-18.12	150	153	Peak
17830.000	30.82	13.06	43.88	54.00	-10.12	150	287	Average
17830.000	43.82	13.06	56.88	74.00	-17.12	150	287	Peak

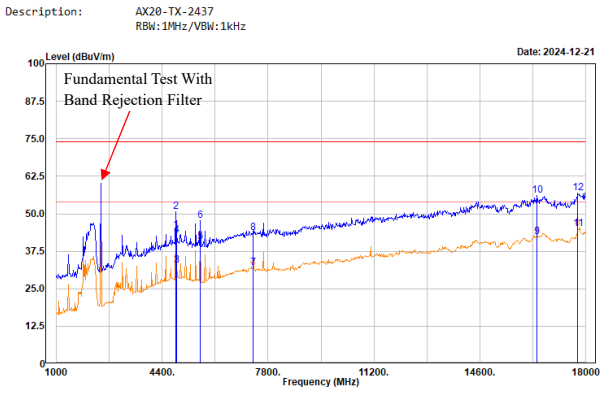
Middle channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4519.000	43.13	-4.69	38.44	54.00	-15.56	150	89	Average
4519.000	52.29	-4.69	47.60	74.00	-26.40	150	89	Peak
4874.000	38.09	-3.59	34.50	54.00	-19.50	102	89	Average
4874.000	52.16	-3.59	48.57	74.00	-25.43	102	89	Peak
5624.000	39.50	-4.66	34.84	54.00	-19.16	150	163	Average
5624.000	48.81	-4.66	44.15	74.00	-29.85	150	163	Peak
7311.000	31.48	0.56	32.04	54.00	-21.96	153	62	Average
7311.000	42.82	0.56	43.38	74.00	-30.62	153	62	Peak
16504.000	30.26	12.04	42.30	54.00	-11.70	150	308	Average
16504.000	44.49	12.04	56.53	74.00	-17.47	150	308	Peak
17881.000	30.21	13.36	43.57	54.00	-10.43	150	226	Average
17881.000	43.98	13.36	57.34	74.00	-16.66	150	226	Peak

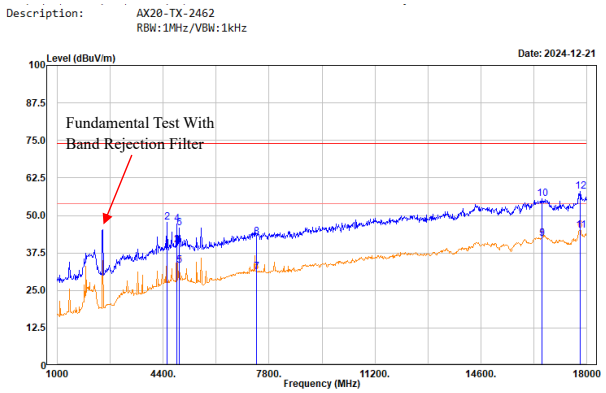
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4842.000	48.16	-3.84	44.32	54.00	-9.68	150	28	Average
4842.000	54.45	-3.84	50.61	74.00	-23.39	150	28	Peak
4874.000	36.50	-3.59	32.91	54.00	-21.09	154	7	Average
4874.000	46.37	-3.59	42.78	74.00	-31.22	154	7	Peak
5624.000	45.33	-4.66	40.67	54.00	-13.33	150	116	Average
5624.000	52.44	-4.66	47.78	74.00	-26.22	150	116	Peak
7311.000	31.51	0.56	32.07	54.00	-21.93	154	332	Average
7311.000	43.08	0.56	43.64	74.00	-30.36	154	332	Peak
16436.000	30.64	11.53	42.17	54.00	-11.83	150	309	Average
16436.000	44.50	11.53	56.03	74.00	-17.97	150	309	Peak
17745.000	32.28	12.78	45.06	54.00	-8.94	150	285	Average
17745.000	44.19	12.78	56.97	74.00	-17.03	150	285	Peak

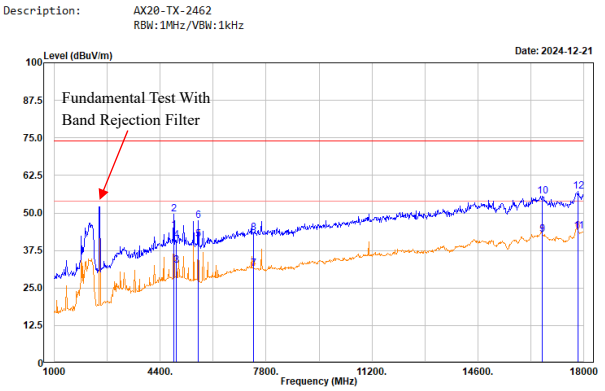
High channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4519.000	43.50	-4.69	38.81	54.00	-15.19	150	285	Average
4519.000	52.50	-4.69	47.81	74.00	-26.19	150	285	Peak
4842.000	44.07	-3.84	40.23	54.00	-13.77	150	42	Average
4842.000	50.97	-3.84	47.13	74.00	-26.87	150	42	Peak
4924.000	36.85	-3.51	33.34	54.00	-20.66	107	95	Average
4924.000	49.43	-3.51	45.92	74.00	-28.08	107	95	Peak
7386.000	31.08	0.22	31.30	54.00	-22.70	156	221	Average
7386.000	42.65	0.22	42.87	74.00	-31.13	156	221	Peak
16555.000	30.21	12.09	42.30	54.00	-11.70	150	309	Average
16555.000	43.57	12.09	55.66	74.00	-18.34	150	309	Peak
17796.000	32.08	12.88	44.96	54.00	-9.04	150	42	Average
17796.000	45.11	12.88	57.99	74.00	-16.01	150	42	Peak

Vertical

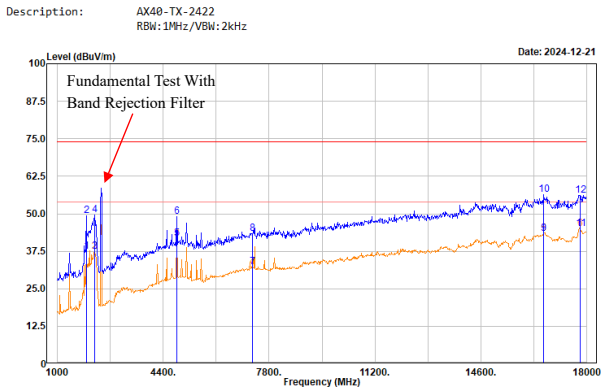


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4842.000	48.14	-3.84	44.30	54.00	-9.70	150	7	Average
4842.000	53.48	-3.84	49.64	74.00	-24.36	150	7	Peak
4924.000	36.13	-3.51	32.62	54.00	-21.38	133	7	Average
4924.000	44.33	-3.51	40.82	74.00	-33.18	133	7	Peak
5624.000	45.94	-4.66	41.28	54.00	-12.72	150	115	Average
5624.000	52.05	-4.66	47.39	74.00	-26.61	150	115	Peak
7386.000	31.23	0.22	31.45	54.00	-22.55	151	208	Average
7386.000	43.25	0.22	43.47	74.00	-30.53	151	208	Peak
16674.000	30.97	11.95	42.92	54.00	-11.08	150	82	Average
16674.000	43.72	11.95	55.67	74.00	-18.33	150	82	Peak
17830.000	30.97	13.06	44.03	54.00	-9.97	150	261	Average
17830.000	44.02	13.06	57.08	74.00	-16.92	150	261	Peak

(802.11ax HE40 mode)

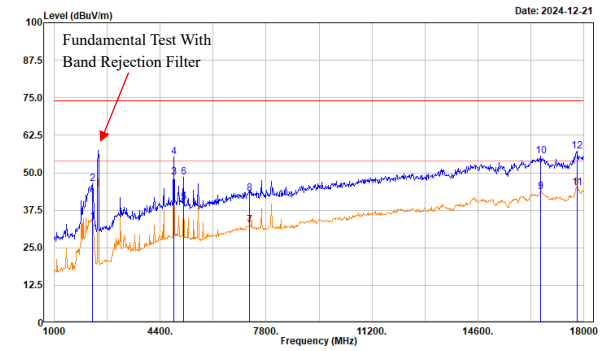
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
1935.000	49.88	-12.36	37.52	54.00	-16.48	150	96	Average
1935.000	61.73	-12.36	49.37	74.00	-24.63	150	96	Peak
2207.000	49.82	-12.36	37.46	54.00	-16.54	150	135	Average
2207.000	61.92	-12.36	49.56	74.00	-24.44	150	135	Peak
4844.000	45.43	-3.83	41.60	54.00	-12.40	169	338	Average
4844.000	52.82	-3.83	48.99	74.00	-25.01	169	338	Peak
7266.000	31.60	0.60	32.20	54.00	-21.80	143	285	Average
7266.000	42.71	0.60	43.31	74.00	-30.69	143	285	Peak
16623.000	31.32	12.07	43.39	54.00	-10.61	150	110	Average
16623.000	44.27	12.07	56.34	74.00	-17.66	150	110	Peak
17796.000	32.19	12.88	45.07	54.00	-8.93	150	286	Average
17796.000	43.34	12.88	56.22	74.00	-17.78	150	286	Peak

Vertical

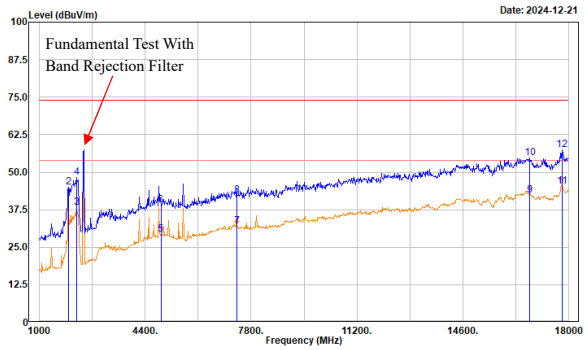


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2224.000	45.96	-12.29	33.67	54.00	-20.33	150	16	Average
2224.000	58.73	-12.29	46.44	74.00	-27.56	150	16	Peak
4844.000	52.46	-3.83	48.63	54.00	-5.37	173	16	Average
4844.000	59.09	-3.83	55.26	74.00	-18.74	173	16	Peak
5148.000	43.63	-3.62	40.01	54.00	-13.99	150	230	Average
5148.000	52.24	-3.62	48.62	74.00	-25.38	150	230	Peak
7266.000	31.80	0.60	32.40	54.00	-21.60	152	203	Average
7266.000	42.58	0.60	43.18	74.00	-30.82	152	203	Peak
16623.000	31.68	12.07	43.75	54.00	-10.25	150	158	Average
16623.000	43.46	12.07	55.53	74.00	-18.47	150	158	Peak
17779.000	32.20	12.85	45.05	54.00	-8.95	150	193	Average
17779.000	44.34	12.85	57.19	74.00	-16.81	150	193	Peak

Middle channel

Horizontal

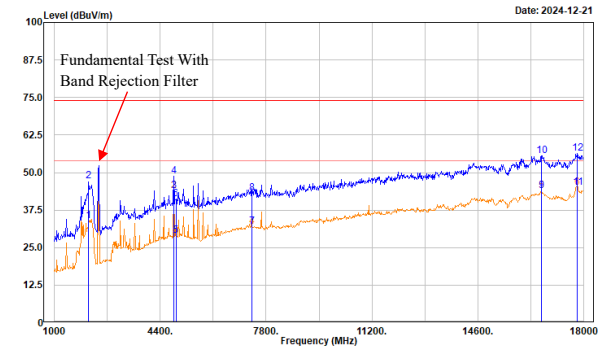
Description: AX40-TX-2437
RBW:1MHz/VBW:2kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
1935.000	53.54	-12.36	41.18	54.00	-12.82	150	289	Average
1935.000	57.47	-12.36	45.11	74.00	-28.89	150	289	Peak
2190.000	50.73	-12.45	38.28	54.00	-15.72	150	110	Average
2190.000	60.60	-12.45	48.15	74.00	-25.85	150	110	Peak
4904.000	32.59	-3.40	29.19	54.00	-24.81	156	306	Average
4904.000	42.44	-3.40	39.04	74.00	-34.96	156	306	Peak
7356.000	31.59	0.39	31.98	54.00	-22.02	159	306	Average
7356.000	41.81	0.39	42.20	74.00	-31.80	159	306	Peak
16742.000	30.63	11.76	42.39	54.00	-11.61	150	311	Average
16742.000	42.98	11.76	54.74	74.00	-19.26	150	311	Peak
17779.000	32.28	12.85	45.13	54.00	-8.87	150	19	Average
17779.000	44.48	12.85	57.33	74.00	-16.67	150	19	Peak

Vertical

Description: AX40-TX-2437
RBW:1MHz/VBW:2kHz

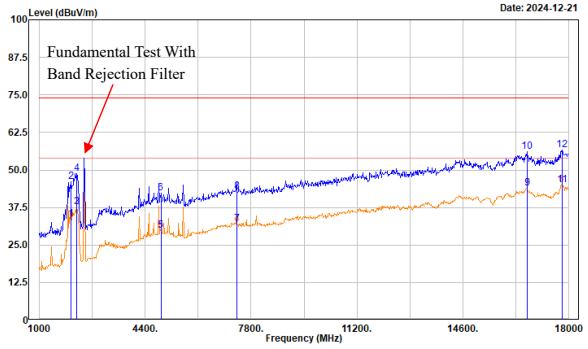


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2105.000	45.91	-12.13	33.78	54.00	-20.22	150	316	Average
2105.000	59.15	-12.13	47.02	74.00	-26.98	150	316	Peak
4842.000	47.64	-3.84	43.80	54.00	-10.20	150	82	Average
4842.000	52.75	-3.84	48.91	74.00	-25.09	150	82	Peak
4904.000	32.43	-3.40	29.03	54.00	-24.97	154	6	Average
4904.000	44.54	-3.40	41.14	74.00	-32.86	154	6	Peak
7356.000	31.67	0.39	32.06	54.00	-21.94	149	208	Average
7356.000	42.62	0.39	43.01	74.00	-30.99	149	208	Peak
16640.000	31.99	12.04	44.03	54.00	-9.97	150	316	Average
16640.000	43.53	12.04	55.57	74.00	-18.43	150	316	Peak
17796.000	32.10	12.88	44.98	54.00	-9.02	150	225	Average
17796.000	43.47	12.88	56.35	74.00	-17.65	150	225	Peak

High channel

Horizontal

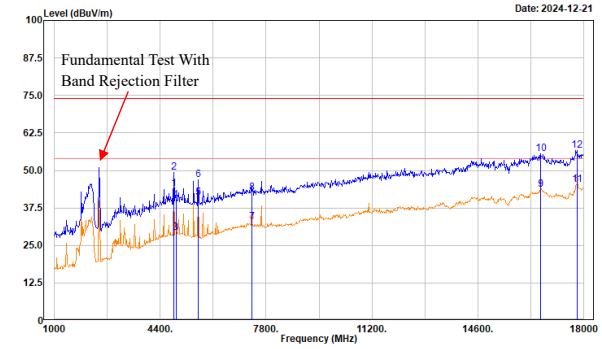
Description: AX40-TX-2452
RBW:1MHz/VBW:2kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2020.000	45.27	-11.64	33.63	54.00	-20.37	150	193	Average
2020.000	57.78	-11.64	46.14	74.00	-27.86	150	193	Peak
2207.000	50.15	-12.36	37.79	54.00	-16.21	150	266	Average
2207.000	61.06	-12.36	48.70	74.00	-25.30	150	266	Peak
4904.000	33.08	-3.40	29.68	54.00	-24.32	157	63	Average
4904.000	45.68	-3.40	42.28	74.00	-31.72	157	63	Peak
7356.000	31.64	0.39	32.03	54.00	-21.97	154	208	Average
7356.000	42.48	0.39	42.87	74.00	-31.13	154	208	Peak
16657.000	31.88	11.99	43.87	54.00	-10.13	150	317	Average
16657.000	44.03	11.99	56.02	74.00	-17.98	150	317	Peak
17779.000	32.25	12.85	45.10	54.00	-8.90	150	118	Average
17779.000	43.69	12.85	56.54	74.00	-17.46	150	118	Peak

Vertical

Description: AX40-TX-2452
RBW:1MHz/VBW:2kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4842.000	47.63	-3.84	43.79	54.00	-10.21	150	86	Average
4842.000	53.18	-3.84	49.34	74.00	-24.66	150	86	Peak
4904.000	32.59	-3.40	29.19	54.00	-24.81	151	7	Average
4904.000	43.52	-3.40	40.12	74.00	-33.88	151	7	Peak
5624.000	45.50	-4.66	40.84	54.00	-13.16	150	135	Average
5624.000	51.44	-4.66	46.78	74.00	-27.22	150	135	Peak
7356.000	32.32	0.39	32.71	54.00	-21.29	154	135	Average
7356.000	42.25	0.39	42.64	74.00	-31.36	154	135	Peak
16606.000	31.38	12.12	43.50	54.00	-10.50	150	291	Average
16606.000	43.51	12.12	55.63	74.00	-18.37	150	291	Peak
17779.000	32.34	12.85	45.19	54.00	-8.81	150	228	Average
17779.000	43.83	12.85	56.68	74.00	-17.32	150	228	Peak

Level = Reading + Factor.

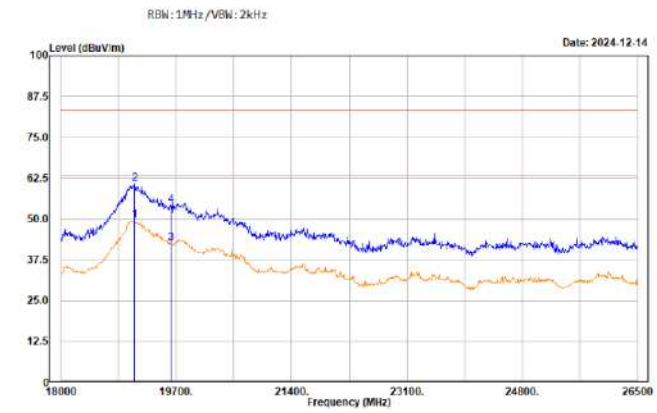
Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

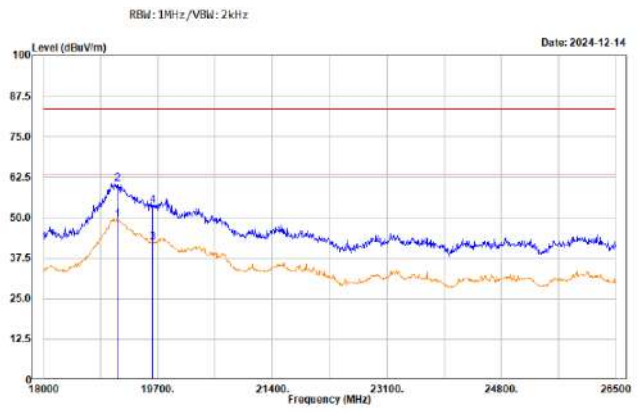
18GHz-26.5GHz:

(worst case is 802.11n HT40 Mode, High channel)

Horizontal	Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
19079.500	31.75	17.85	49.60	63.50	-13.90	143	88	Average
19079.500	42.84	17.85	60.69	83.50	-22.81	143	88	Peak
19616.000	29.95	12.55	42.50	63.50	-21.00	143	88	Average
19616.000	41.61	12.55	54.16	83.50	-29.34	143	88	Peak



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
19096.500	31.68	17.74	49.42	63.50	-14.08	156	227	Average
19096.500	42.71	17.74	60.45	83.50	-23.05	156	227	Peak
19616.000	29.73	12.55	42.28	63.50	-21.22	156	227	Average
19616.000	41.20	12.55	53.75	83.50	-29.75	156	227	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

For 18-26.5GHz Convert the test distance limit of 3 meters to a limit of 1 meter:

Conversion factor = 20 log (1m/3m) = 9.5 dB,

Average Limit = 54+9.5 = 63.50 dBuV/m@1m , Peak Limit = 63.50+20 = 83.50 dBuV/m@1m

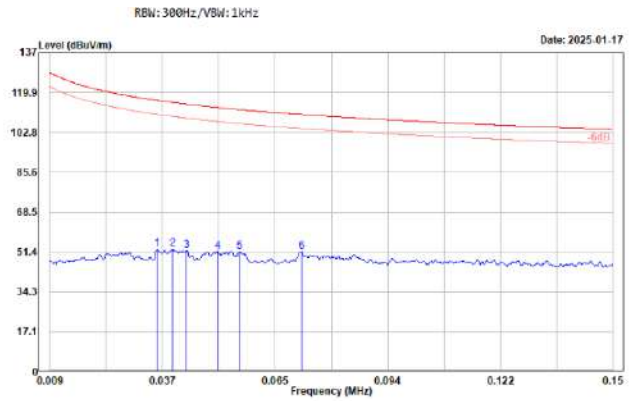
BLE

9kHz-30MHz:

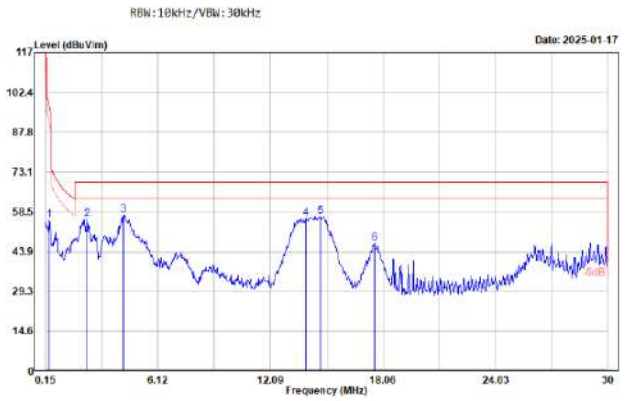
(Worst case is BLE 1M mode, low channel)

(Pre-scan using three directional polarities, worst case as parallel.)

9kHz-150kHz	150kHz-30MHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
0.036	39.36	13.25	52.61	116.50	-63.89	100	325	Average
0.040	39.94	12.94	52.88	115.62	-62.74	100	158	Average
0.043	39.24	12.82	52.06	114.88	-62.82	100	36	Average
0.051	39.00	12.53	51.53	113.45	-61.92	100	230	Average
0.057	39.43	12.08	51.51	112.56	-61.05	100	189	Average
0.072	40.01	11.48	51.49	110.45	-58.96	100	61	Average

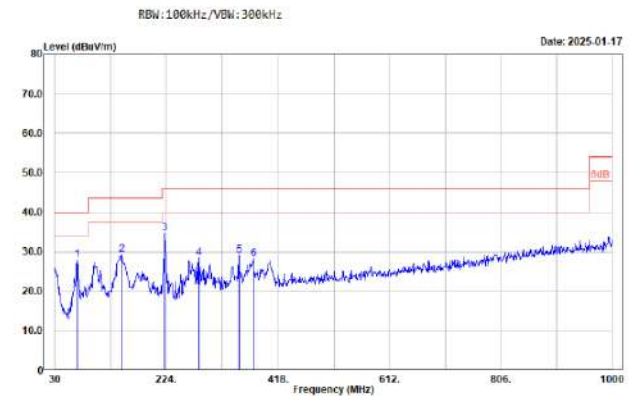


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
0.329	43.78	11.58	55.36	97.26	-41.90	100	143	Average
2.359	45.18	10.64	55.82	69.54	-13.72	100	234	QP
4.299	46.62	10.62	57.24	69.54	-12.30	100	72	QP
13.941	44.64	11.57	56.21	69.54	-13.33	100	358	QP
14.747	45.18	11.58	56.76	69.54	-12.78	100	186	QP
17.612	35.19	11.64	46.83	69.54	-22.71	100	245	QP

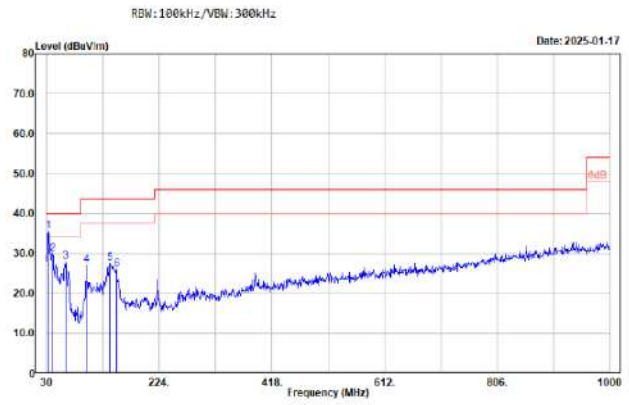
30MHz-1GHz:

(Worst case is BLE 1M mode)

Low channel	
Horizontal	**Vertical**



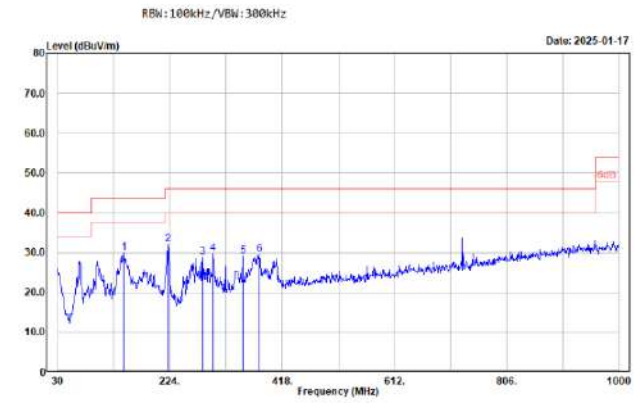
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
68.800	43.18	-15.27	27.91	40.00	-12.09	100	158	QP
146.400	39.19	-9.84	29.35	43.50	-14.15	100	274	QP
221.090	46.63	-11.84	34.79	46.00	-11.21	100	139	QP
280.260	37.64	-9.14	28.50	46.00	-17.50	100	348	QP
350.100	37.10	-8.09	29.01	46.00	-16.99	100	135	QP
375.320	35.70	-7.47	28.23	46.00	-17.77	100	317	QP



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
32.910	40.57	-4.91	35.66	40.00	-4.34	100	284	QP
40.670	40.23	-10.37	29.86	40.00	-10.14	100	238	QP
62.980	43.52	-15.60	27.92	40.00	-12.08	100	325	QP
97.900	40.66	-13.64	27.02	43.50	-16.48	100	223	QP
138.640	37.15	-9.61	27.54	43.50	-15.96	100	260	QP
150.280	35.84	-9.86	25.98	43.50	-17.52	100	280	QP

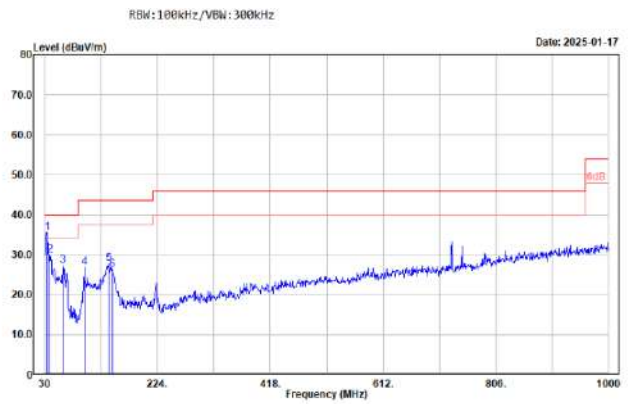
Middle channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
144.460	39.73	-9.84	29.89	43.50	-13.61	100	294	QP
220.120	44.05	-11.86	32.19	46.00	-13.81	100	137	QP
280.260	38.00	-9.14	28.86	46.00	-17.14	100	338	QP
298.690	38.53	-8.80	29.73	46.00	-16.27	100	163	QP
350.100	37.20	-8.09	29.11	46.00	-16.89	100	360	QP
379.200	36.70	-7.31	29.39	46.00	-16.61	100	133	QP

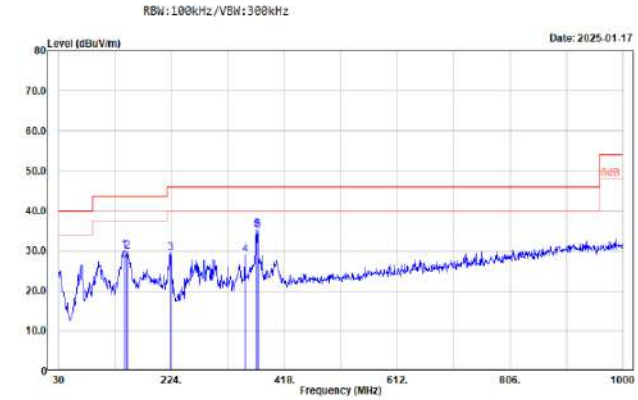
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
33.880	40.81	-5.34	35.47	40.00	-4.53	100	289	QP
38.730	38.80	-8.85	29.95	40.00	-10.05	100	178	QP
62.010	43.03	-15.81	27.22	40.00	-12.78	100	258	QP
97.900	40.44	-13.64	26.80	43.50	-16.70	100	255	QP
139.610	37.36	-9.67	27.69	43.50	-15.81	100	240	QP
146.400	36.18	-9.84	26.34	43.50	-17.16	100	262	QP

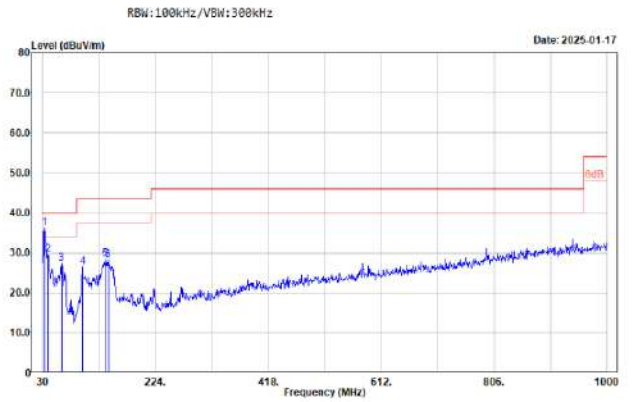
High channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
142.520	39.96	-9.75	30.21	43.50	-13.29	100	283	QP
148.340	39.92	-9.97	29.95	43.50	-13.55	100	276	QP
222.060	41.30	-11.83	29.47	46.00	-16.53	100	181	QP
350.100	37.21	-8.09	29.12	46.00	-16.88	100	356	QP
369.500	43.04	-7.69	35.35	46.00	-10.65	100	314	QP
372.410	42.76	-7.58	35.18	46.00	-10.82	100	314	QP

Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
32.910	41.06	-4.91	36.15	40.00	-3.85	100	230	QP
38.730	38.27	-8.85	29.42	40.00	-10.58	100	203	QP
62.010	43.17	-15.81	27.36	40.00	-12.64	100	238	QP
97.900	40.12	-13.64	26.48	43.50	-17.02	100	6	QP
136.700	37.90	-9.58	28.32	43.50	-15.18	100	268	QP
142.520	37.85	-9.75	28.10	43.50	-15.40	100	278	QP

Level = Reading + Factor.

Margin = Level – Limit.

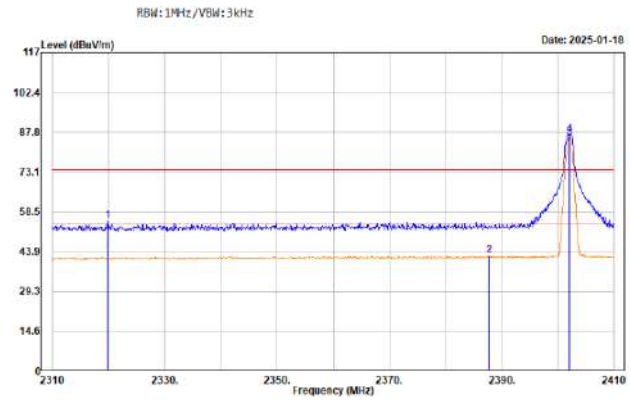
Factor = Antenna Factor + Cable Loss – Amplifier Gain.

Band-Edge:

BLE 1M Mode

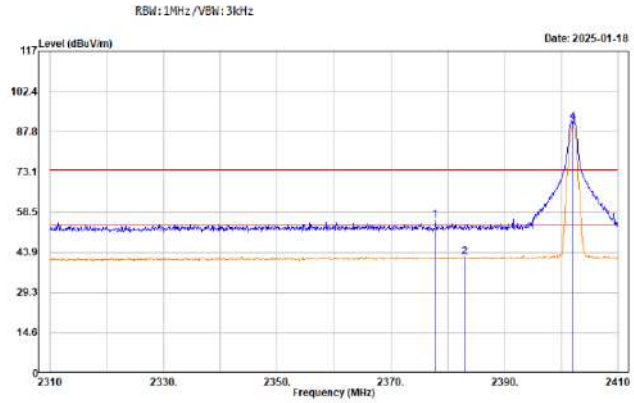
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2319.900	66.66	-11.63	55.03	74.00	-18.97	142	333	Peak
2387.800	53.51	-11.10	42.41	54.00	-11.59	142	333	Average
2402.000	96.82	-11.02	85.80			142	333	Average
2402.000	97.82	-11.02	86.80			142	333	Peak

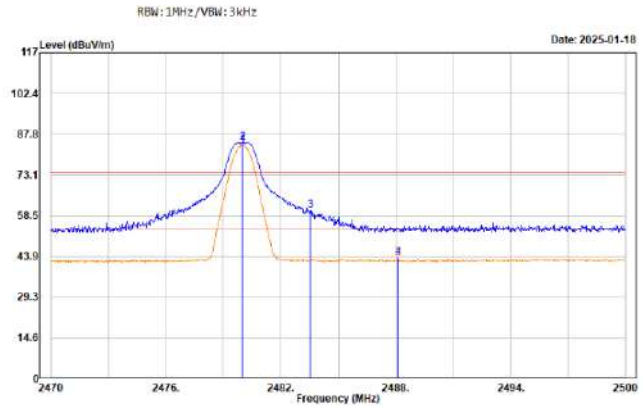
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2377.800	66.68	-11.18	55.50	74.00	-18.50	174	211	Peak
2382.900	53.29	-11.14	42.15	54.00	-11.85	174	211	Average
2402.000	101.02	-11.02	90.00			174	211	Average
2402.000	101.91	-11.02	90.89			174	211	Peak

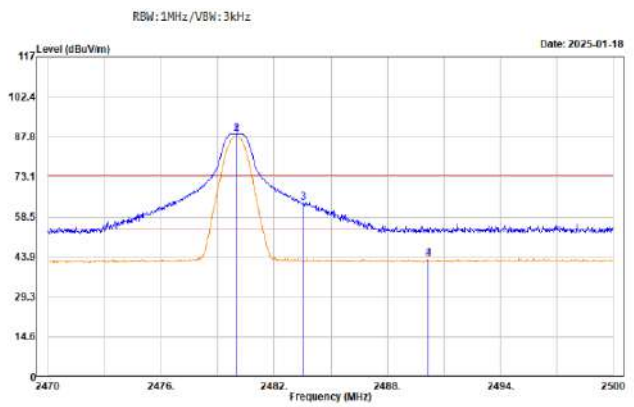
High channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2480.000	94.31	-10.66	83.65			180	286	Average
2480.000	95.25	-10.66	84.59			180	286	Peak
2483.560	70.77	-10.61	60.16	74.00	-13.84	180	286	Peak
2488.120	53.90	-10.56	43.34	54.00	-10.66	180	286	Average

Vertical

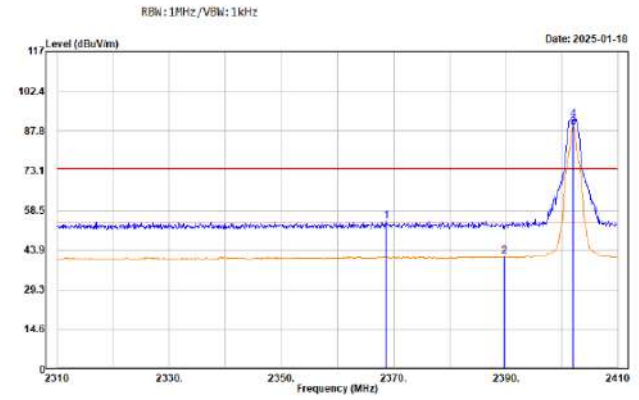


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2480.000	98.71	-10.66	88.05			183	199	Average
2480.000	99.59	-10.66	88.93			183	199	Peak
2483.530	74.36	-10.61	63.75	74.00	-10.25	183	199	Peak
2490.190	53.70	-10.54	43.16	54.00	-10.84	183	199	Average

BLE 2M Mode

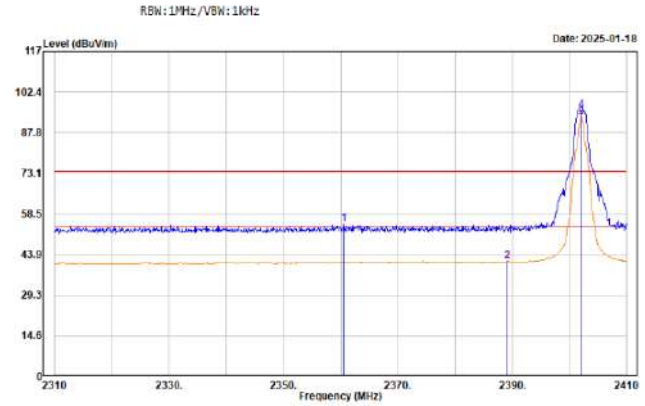
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2368.700	65.72	-11.26	54.46	74.00	-19.54	140	335	Peak
2389.800	52.47	-11.09	41.38	54.00	-12.62	140	335	Average
2402.000	100.05	-11.02	89.03			140	335	Average
2402.000	102.90	-11.02	91.88			140	335	Peak

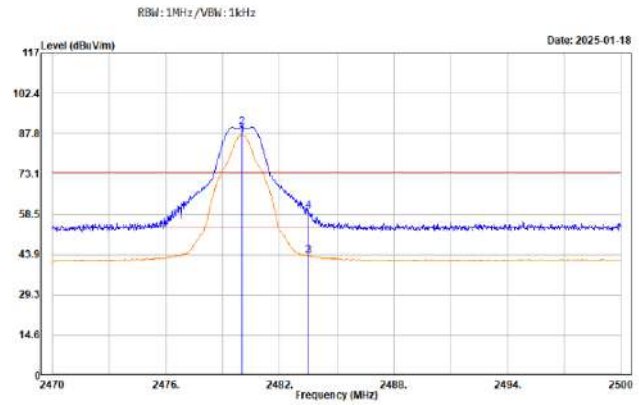
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2360.600	66.12	-11.32	54.80	74.00	-19.20	175	210	Peak
2389.100	52.73	-11.10	41.63	54.00	-12.37	175	210	Average
2402.000	104.09	-11.02	93.07			175	210	Average
2402.000	106.90	-11.02	95.88			175	210	Peak

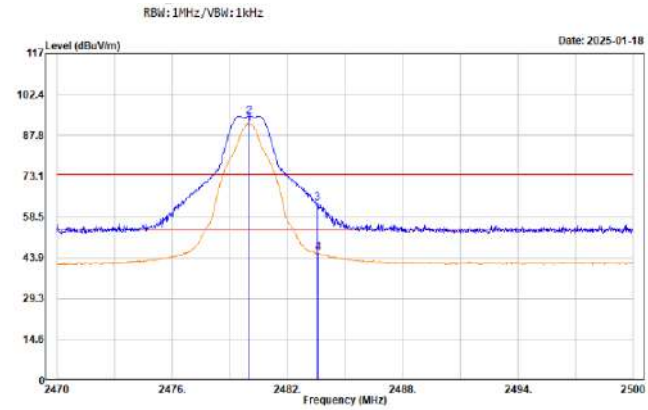
High channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2480.000	97.97	-10.66	87.31			183	285	Average
2480.000	100.69	-10.66	90.03			183	285	Peak
2483.500	54.00	-10.61	43.39	54.00	-10.61	183	285	Average
2483.500	70.11	-10.61	59.50	74.00	-14.50	183	285	Peak

Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2480.000	102.59	-10.66	91.93			145	199	Average
2480.000	105.29	-10.66	94.63			145	199	Peak
2483.560	74.17	-10.61	63.56	74.00	-10.44	145	199	Peak
2483.590	56.32	-10.61	45.71	54.00	-8.29	145	199	Average

Level = Reading + Factor.

Margin = Level – Limit.

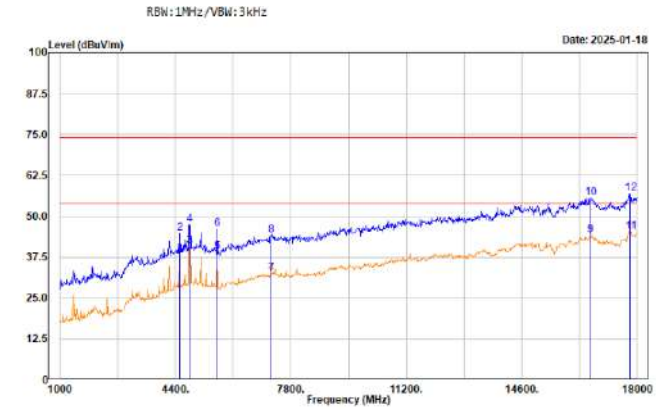
Factor = Antenna Factor + Cable Loss – Amplifier Gain.

1GHz-18GHz:

(BLE 1M mode)

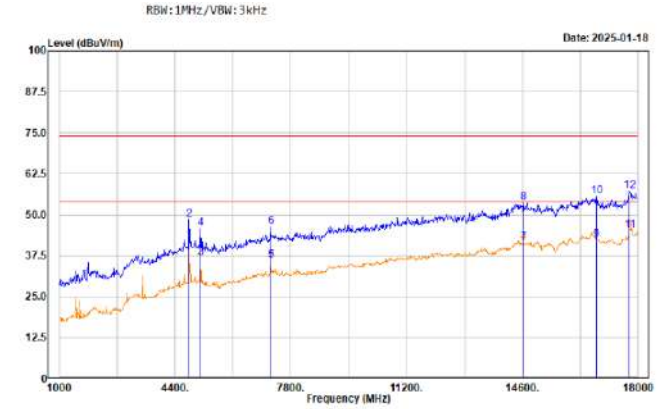
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4519.000	43.00	-4.69	38.31	54.00	-15.69	150	322	Average
4519.000	49.44	-4.69	44.75	74.00	-29.25	150	322	Peak
4804.000	44.99	-4.09	40.90	54.00	-13.10	176	31	Average
4804.000	51.54	-4.09	47.45	74.00	-26.55	176	31	Peak
5624.000	43.74	-4.66	39.08	54.00	-14.92	150	164	Average
5624.000	50.65	-4.66	45.99	74.00	-28.01	150	164	Peak
7206.000	32.15	0.43	32.58	54.00	-21.42	155	134	Average
7206.000	43.73	0.43	44.16	74.00	-29.84	155	134	Peak
16623.000	32.19	12.07	44.26	54.00	-9.74	150	83	Average
16623.000	43.43	12.07	55.50	74.00	-18.50	150	83	Peak
17796.000	32.51	12.88	45.39	54.00	-8.61	150	109	Average
17796.000	44.10	12.88	56.98	74.00	-17.02	150	109	Peak

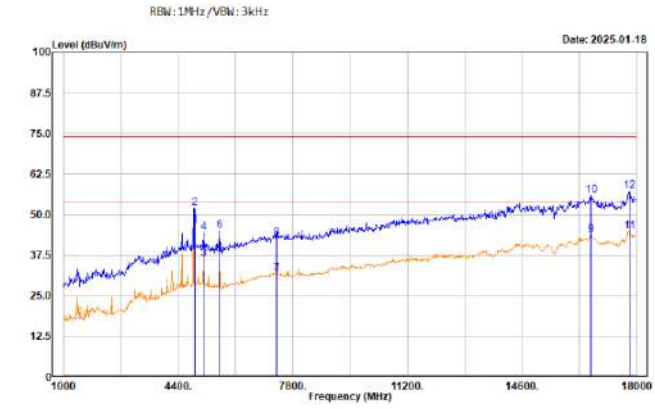
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4804.000	46.43	-4.09	42.34	54.00	-11.66	133	259	Average
4804.000	52.55	-4.09	48.46	74.00	-25.54	133	259	Peak
5148.000	40.55	-3.62	36.93	54.00	-17.07	150	209	Average
5148.000	49.38	-3.62	45.76	74.00	-28.24	150	209	Peak
7206.000	35.74	0.43	36.17	54.00	-17.83	158	106	Average
7206.000	45.85	0.43	46.28	74.00	-27.72	158	106	Peak
14634.000	30.00	11.43	41.43	54.00	-12.57	150	77	Average
14634.000	42.30	11.43	53.73	74.00	-20.27	150	77	Peak
16776.000	30.73	11.66	42.39	54.00	-11.61	150	335	Average
16776.000	43.98	11.66	55.64	74.00	-18.36	150	335	Peak
17745.000	32.42	12.78	45.20	54.00	-8.80	150	168	Average
17745.000	44.42	12.78	57.20	74.00	-16.80	150	168	Peak

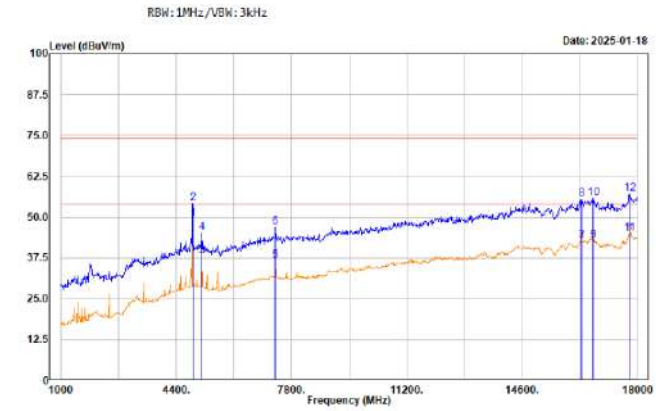
Middle channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4880.000	50.28	-3.54	46.74	54.00	-7.26	168	31	Average
4880.000	55.45	-3.54	51.91	74.00	-22.09	168	31	Peak
5148.000	39.96	-3.62	36.34	54.00	-17.66	150	285	Average
5148.000	48.11	-3.62	44.49	74.00	-29.51	150	285	Peak
5624.000	42.41	-4.66	37.75	54.00	-16.25	150	0	Average
5624.000	49.63	-4.66	44.97	74.00	-29.03	150	0	Peak
7320.000	31.11	0.53	31.64	54.00	-22.36	157	285	Average
7320.000	42.27	0.53	42.80	74.00	-31.20	157	285	Peak
16640.000	31.55	12.04	43.59	54.00	-10.41	150	109	Average
16640.000	43.81	12.04	55.85	74.00	-18.15	150	109	Peak
17779.000	31.87	12.85	44.72	54.00	-9.28	150	312	Average
17779.000	44.41	12.85	57.26	74.00	-16.74	150	312	Peak

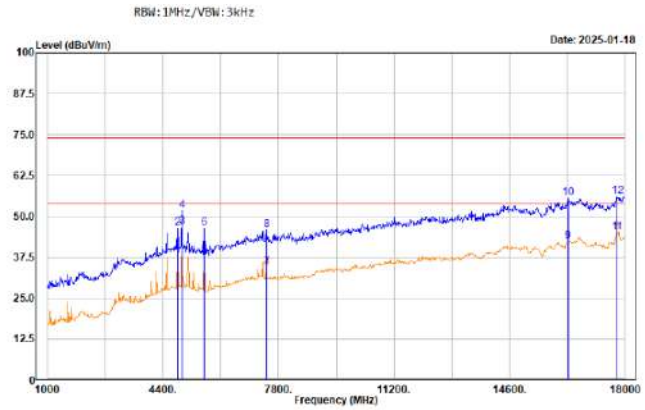
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4880.000	52.77	-3.54	49.23	54.00	-4.77	177	259	Average
4880.000	57.70	-3.54	54.16	74.00	-19.84	177	259	Peak
5148.000	41.47	-3.62	37.85	54.00	-16.15	150	318	Average
5148.000	48.92	-3.62	45.30	74.00	-28.70	150	318	Peak
7320.000	36.13	0.53	36.66	54.00	-17.34	143	143	Average
7320.000	46.40	0.53	46.93	74.00	-27.07	143	143	Peak
16351.000	31.33	11.10	42.43	54.00	-11.57	150	202	Average
16351.000	44.48	11.10	55.58	74.00	-18.42	150	202	Peak
16691.000	30.91	11.90	42.81	54.00	-11.19	150	49	Average
16691.000	44.03	11.90	55.93	74.00	-18.07	150	49	Peak
17762.000	32.24	12.83	45.07	54.00	-8.93	150	182	Average
17762.000	44.38	12.83	57.21	74.00	-16.79	150	182	Peak

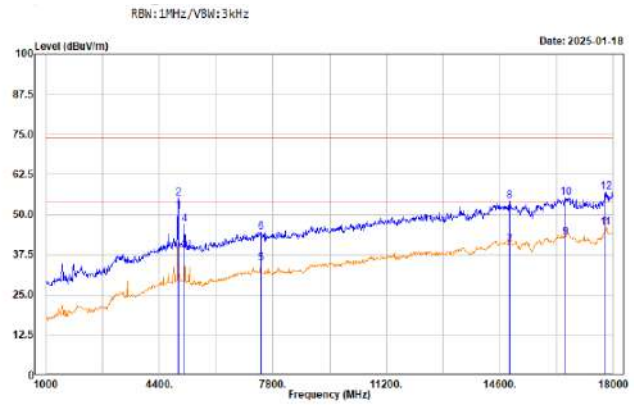
High channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4842.000	41.97	-3.84	38.13	54.00	-15.87	150	192	Average
4842.000	50.17	-3.84	46.33	74.00	-27.67	150	192	Peak
4960.000	50.52	-3.67	46.85	54.00	-7.15	163	4	Average
4960.000	55.45	-3.67	51.78	74.00	-22.22	163	4	Peak
5624.000	42.92	-4.66	38.26	54.00	-15.74	150	338	Average
5624.000	50.99	-4.66	46.33	74.00	-27.67	150	338	Peak
7440.000	34.15	0.28	34.43	54.00	-19.57	158	234	Average
7440.000	45.50	0.28	45.78	74.00	-28.22	158	234	Peak
16317.000	31.22	11.00	42.22	54.00	-11.78	150	143	Average
16317.000	44.46	11.00	55.46	74.00	-18.54	150	143	Peak
17762.000	32.10	12.83	44.93	54.00	-9.07	150	85	Average
17762.000	43.37	12.83	56.20	74.00	-17.80	150	85	Peak

Vertical

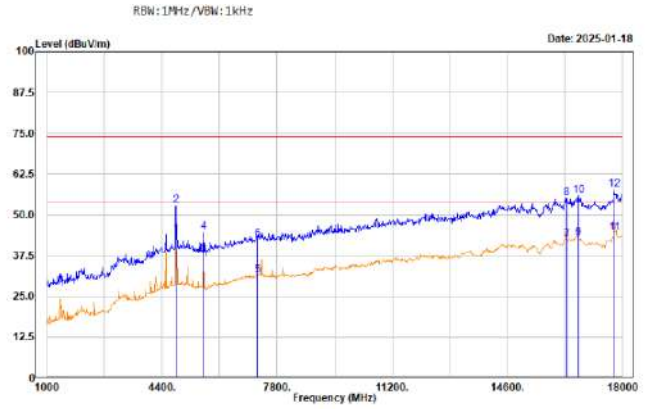


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4960.000	54.72	-3.67	51.05	54.00	-2.95	156	259	Average
4960.000	58.67	-3.67	55.00	74.00	-19.00	156	259	Peak
5148.000	42.49	-3.62	38.87	54.00	-15.13	150	316	Average
5148.000	50.38	-3.62	46.76	74.00	-27.24	150	316	Peak
7440.000	34.44	0.28	34.72	54.00	-19.28	151	205	Average
7440.000	44.28	0.28	44.56	74.00	-29.44	151	205	Peak
14889.000	29.62	10.73	40.35	54.00	-13.65	150	141	Average
14889.000	43.49	10.73	54.22	74.00	-19.78	150	141	Peak
16572.000	30.64	12.10	42.74	54.00	-11.26	150	88	Average
16572.000	43.09	12.10	55.19	74.00	-18.81	150	88	Peak
17762.000	32.85	12.83	45.68	54.00	-8.32	150	205	Average
17762.000	44.14	12.83	56.97	74.00	-17.03	150	205	Peak

(BLE 2M mode)

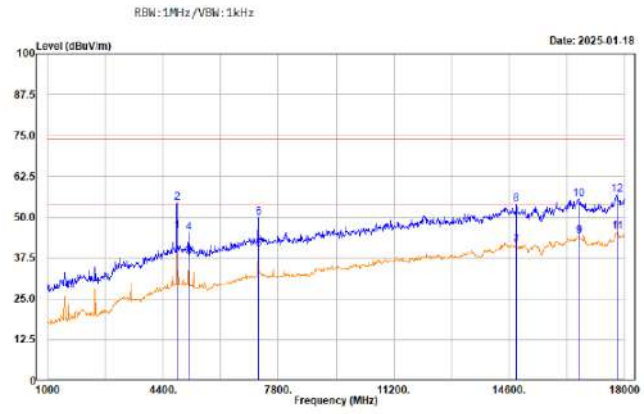
Low channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4804.000	47.89	-4.09	43.80	54.00	-10.20	159	24	Average
4804.000	56.88	-4.09	52.79	74.00	-21.21	159	24	Peak
5624.000	42.29	-4.66	37.63	54.00	-16.37	150	208	Average
5624.000	49.49	-4.66	44.83	74.00	-29.17	150	208	Peak
7206.000	31.14	0.43	31.57	54.00	-22.43	142	262	Average
7206.000	42.01	0.43	42.44	74.00	-31.56	142	262	Peak
16351.000	31.17	11.10	42.27	54.00	-11.73	150	326	Average
16351.000	44.00	11.10	55.10	74.00	-18.90	150	326	Peak
16691.000	31.02	11.90	42.92	54.00	-11.08	150	194	Average
16691.000	43.92	11.90	55.82	74.00	-18.18	150	194	Peak
17745.000	31.79	12.78	44.57	54.00	-9.43	150	86	Average
17745.000	44.91	12.78	57.69	74.00	-16.31	150	86	Peak

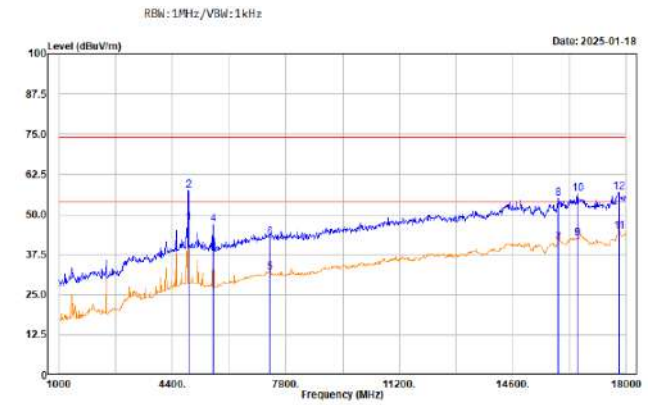
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4804.000	49.95	-4.09	45.86	54.00	-8.14	154	258	Average
4804.000	58.58	-4.09	54.49	74.00	-19.51	154	258	Peak
5148.000	41.59	-3.62	37.97	54.00	-16.03	150	163	Average
5148.000	49.00	-3.62	45.38	74.00	-28.62	150	163	Peak
7206.000	39.78	0.43	40.21	54.00	-13.79	151	152	Average
7206.000	49.44	0.43	49.87	74.00	-24.13	151	152	Peak
14821.000	30.19	11.15	41.34	54.00	-12.66	150	312	Average
14821.000	42.72	11.15	53.87	74.00	-20.13	150	312	Peak
16657.000	32.26	11.99	44.25	54.00	-9.75	150	205	Average
16657.000	43.64	11.99	55.63	74.00	-18.37	150	205	Peak
17779.000	32.62	12.85	45.47	54.00	-8.53	150	86	Average
17779.000	43.98	12.85	56.83	74.00	-17.17	150	86	Peak

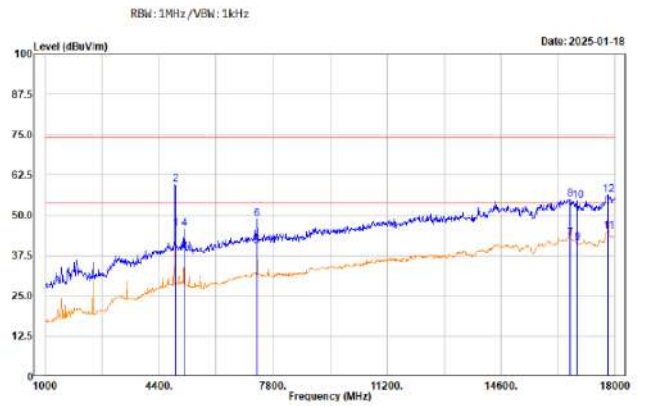
Middle channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4880.000	51.07	-3.54	47.53	54.00	-6.47	153	21	Average
4880.000	60.86	-3.54	57.32	74.00	-16.68	153	21	Peak
5624.000	42.86	-4.66	38.20	54.00	-15.80	150	128	Average
5624.000	51.43	-4.66	46.77	74.00	-27.23	150	128	Peak
7320.000	31.33	0.53	31.86	54.00	-22.14	159	325	Average
7320.000	42.20	0.53	42.73	74.00	-31.27	159	325	Peak
15960.000	31.22	10.04	41.26	54.00	-12.74	150	106	Average
15960.000	44.94	10.04	54.98	74.00	-19.02	150	106	Peak
16538.000	30.45	12.07	42.52	54.00	-11.48	150	228	Average
16538.000	44.31	12.07	56.38	74.00	-17.62	150	228	Peak
17779.000	31.94	12.85	44.79	54.00	-9.21	150	21	Average
17779.000	44.13	12.85	56.98	74.00	-17.02	150	21	Peak

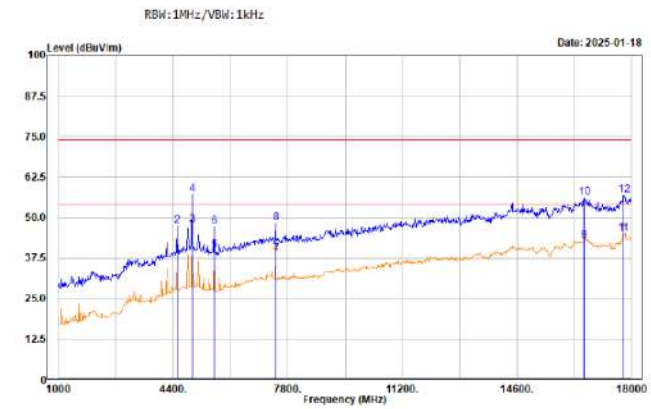
Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4880.000	49.37	-3.54	45.83	54.00	-8.17	163	261	Average
4880.000	63.17	-3.54	59.63	74.00	-14.37	163	261	Peak
5148.000	42.46	-3.62	38.84	54.00	-15.16	150	141	Average
5148.000	49.50	-3.62	45.88	74.00	-28.12	150	141	Peak
7320.000	39.80	0.53	40.33	54.00	-13.67	154	326	Average
7320.000	48.33	0.53	48.86	74.00	-25.14	154	326	Peak
16674.000	30.91	11.95	42.86	54.00	-11.14	150	228	Average
16674.000	42.99	11.95	54.94	74.00	-19.06	150	228	Peak
16878.000	29.82	11.53	41.35	54.00	-12.65	150	261	Average
16878.000	43.02	11.53	54.55	74.00	-19.45	150	261	Peak
17796.000	32.18	12.88	45.06	54.00	-8.94	150	152	Average
17796.000	43.43	12.88	56.31	74.00	-17.69	150	152	Peak

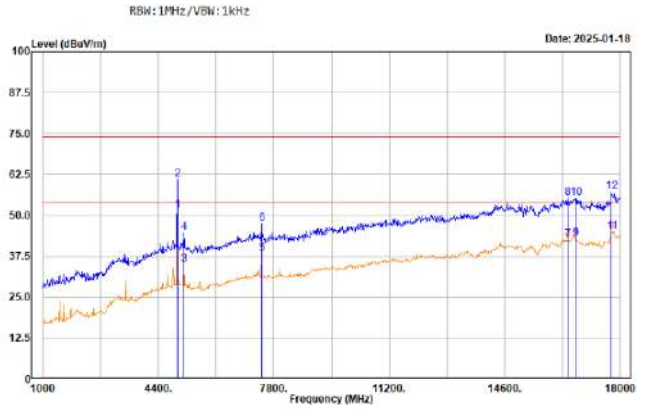
High channel

Horizontal



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4519.000	43.09	-4.69	38.40	54.00	-15.60	150	137	Average
4519.000	51.99	-4.69	47.30	74.00	-26.70	150	137	Peak
4960.000	51.35	-3.67	47.68	54.00	-6.32	159	5	Average
4960.000	60.81	-3.67	57.14	74.00	-16.86	159	5	Peak
5624.000	44.44	-4.66	39.78	54.00	-14.22	150	311	Average
5624.000	51.78	-4.66	47.12	74.00	-26.88	150	311	Peak
7440.000	38.44	0.28	38.72	54.00	-15.28	153	236	Average
7440.000	47.83	0.28	48.11	74.00	-25.89	153	236	Peak
16589.000	30.73	12.13	42.86	54.00	-11.14	150	137	Average
16589.000	43.97	12.13	56.10	74.00	-17.90	150	137	Peak
17762.000	32.03	12.83	44.86	54.00	-9.14	150	0	Average
17762.000	44.19	12.83	57.02	74.00	-16.98	150	0	Peak

Vertical



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
4960.000	55.14	-3.67	51.47	54.00	-2.53	133	258	Average
4960.000	64.60	-3.67	60.93	74.00	-13.07	133	258	Peak
5148.000	38.51	-3.62	34.89	54.00	-19.11	150	129	Average
5148.000	48.26	-3.62	44.64	74.00	-29.36	150	129	Peak
7440.000	38.02	0.28	38.30	54.00	-15.70	155	162	Average
7440.000	47.22	0.28	47.50	74.00	-26.50	155	162	Peak
16453.000	30.87	11.66	42.53	54.00	-11.47	150	328	Average
16453.000	43.52	11.66	55.18	74.00	-18.82	150	328	Peak
16691.000	30.87	11.90	42.77	54.00	-11.23	150	160	Average
16691.000	43.37	11.90	55.27	74.00	-18.73	150	160	Peak
17745.000	32.26	12.78	45.04	54.00	-8.96	150	189	Average
17745.000	44.34	12.78	57.12	74.00	-16.88	150	189	Peak

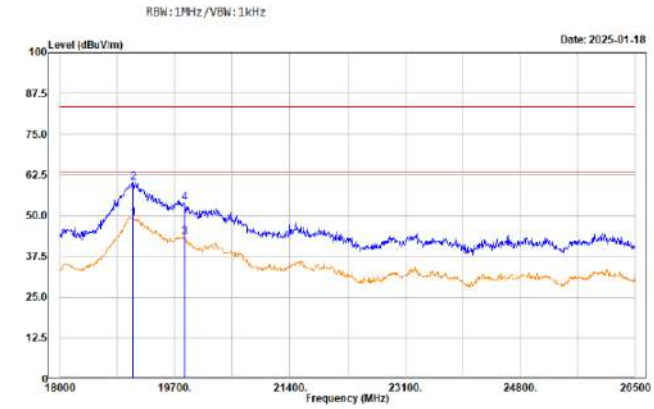
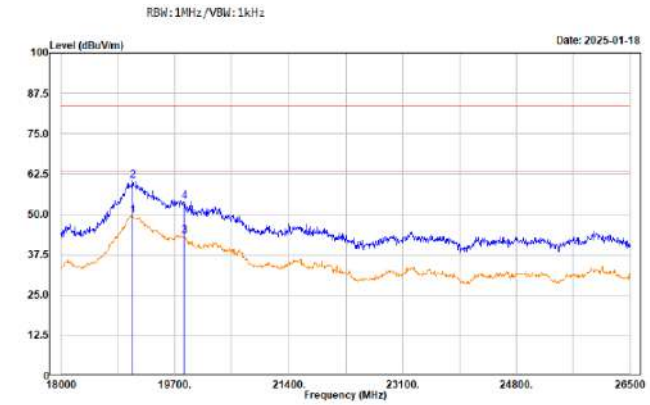
Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

18GHz-26.5GHz:

(worst case is BLE 2M Mode, High channel)

Horizontal	Vertical
	

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
19088.000	31.13	17.79	48.92	63.50	-14.58	150	1	Average
19088.000	42.47	17.79	60.26	83.50	-23.24	150	1	Peak
19840.000	31.93	11.37	43.30	63.50	-20.20	150	248	Average
19840.000	42.60	11.37	53.97	83.50	-29.53	150	248	Peak

Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
19071.000	31.80	17.92	49.72	63.50	-13.78	150	240	Average
19071.000	42.49	17.92	60.41	83.50	-23.09	150	240	Peak
19840.000	32.10	11.37	43.47	63.50	-20.03	150	151	Average
19840.000	42.58	11.37	53.95	83.50	-29.55	150	151	Peak

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

For 18-26.5GHz Convert the test distance limit of 3 meters to a limit of 1 meter:

Conversion factor = 20 log (1m/3m) = 9.5 dB,

Average Limit = 54+9.5 = 63.50 dBuV/m@1m , Peak Limit = 63.50+20 = 83.50 dBuV/m@1m

Conducted Spurious Emissions:

WIFI

Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)				Limit (dBc)	Result
		Chain 0	Chain 1	Chain 2	Chain 3		
B mode							
Low	2412	51.77	50.96	49.64	48.41	≥ 20	PASS
Mid	2437	50.32	52.52	50.76	50.74	≥ 20	PASS
High	2462	48.70	52.19	48.39	44.09	≥ 20	PASS
G mode							
Low	2412	41.62	42.83	39.74	40.28	≥ 20	PASS
Mid	2437	40.39	43.74	42.48	39.22	≥ 20	PASS
High	2462	42.46	43.47	41.80	40.67	≥ 20	PASS
N20 mode							
Low	2412	41.35	40.36	42.43	40.07	≥ 20	PASS
Mid	2437	41.23	41.78	41.04	33.00	≥ 20	PASS
High	2462	41.72	41.54	37.30	41.57	≥ 20	PASS
N40 mode							
Low	2422	37.64	39.12	39.39	37.60	≥ 20	PASS
Mid	2437	38.92	40.40	39.98	38.88	≥ 20	PASS
High	2452	36.99	39.16	39.55	37.02	≥ 20	PASS
AX20 mode							
Low	2412	41.84	44.40	40.63	41.06	≥ 20	PASS
Mid	2437	41.38	43.72	39.13	39.88	≥ 20	PASS
High	2462	40.43	45.36	41.89	43.77	≥ 20	PASS
AX40 mode							
Low	2422	40.78	41.86	39.09	40.47	≥ 20	PASS
Mid	2437	39.15	42.13	39.18	35.29	≥ 20	PASS
High	2452	37.95	40.58	39.78	41.09	≥ 20	PASS

BLE

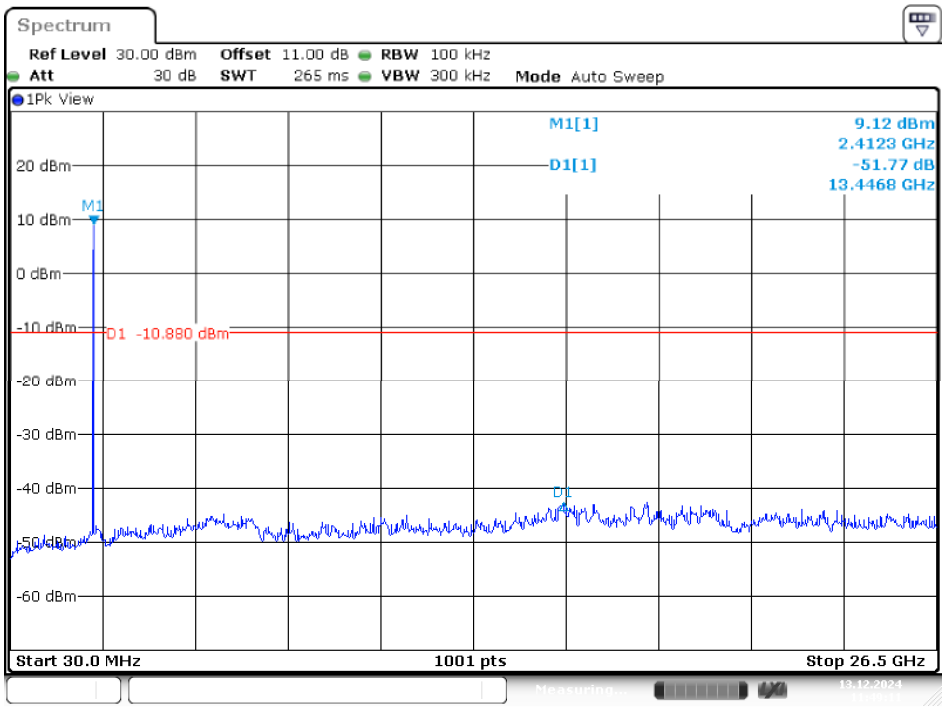
Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
BLE 1M Mode				
Low	2402	38.04	≥ 20	PASS
Mid	2440	41.16	≥ 20	PASS
High	2480	39.64	≥ 20	PASS
BLE 2M Mode				
Low	2402	40.80	≥ 20	PASS
Mid	2440	36.27	≥ 20	PASS
High	2480	40.09	≥ 20	PASS

WIFI

Chain 0

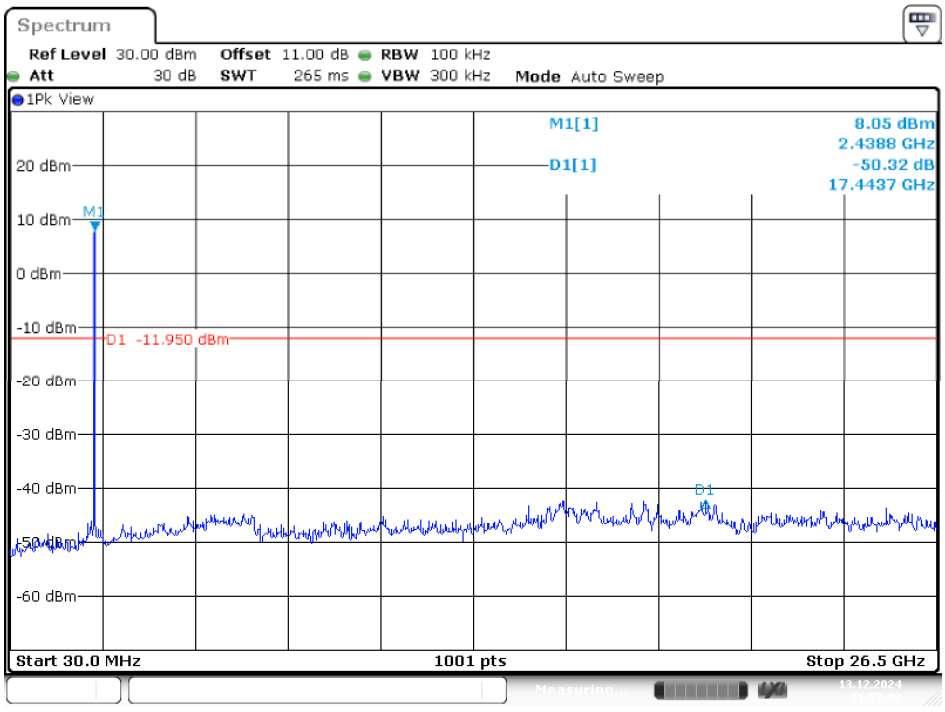
B Mode

Low Channel



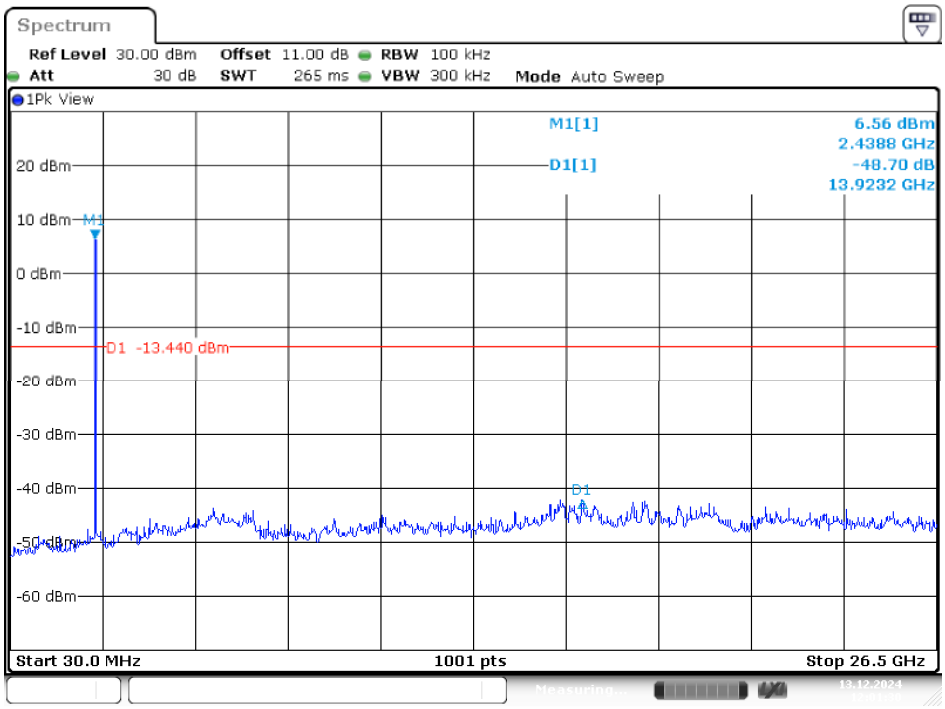
Date: 13.DEC.2024 11:49:11

Middle Channel



Date: 13.DEC.2024 11:57:02

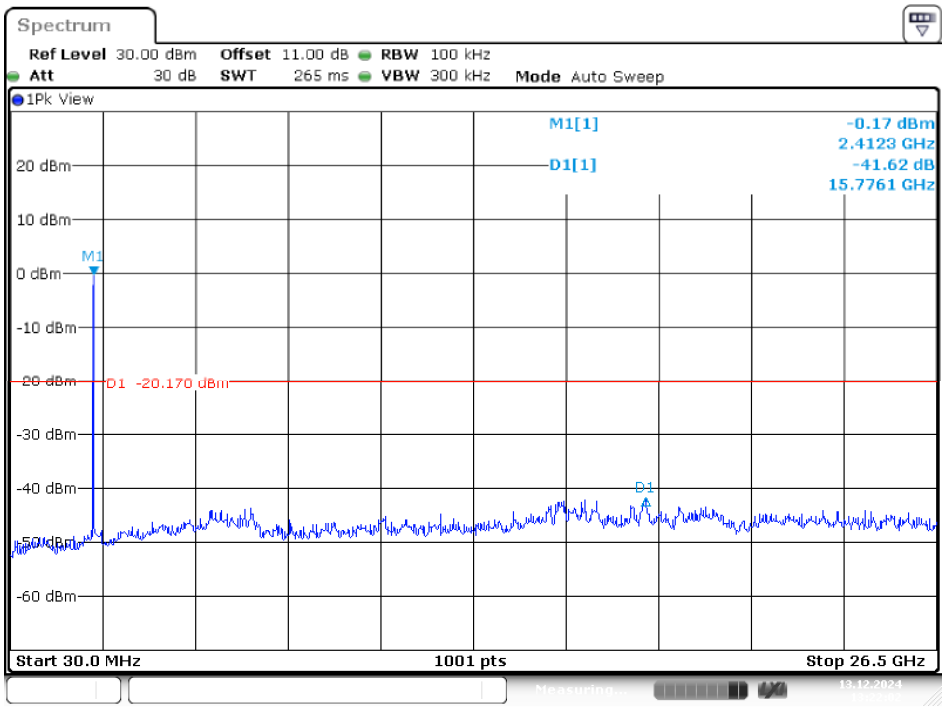
High Channel



Date: 13.DEC.2024 12:01:30

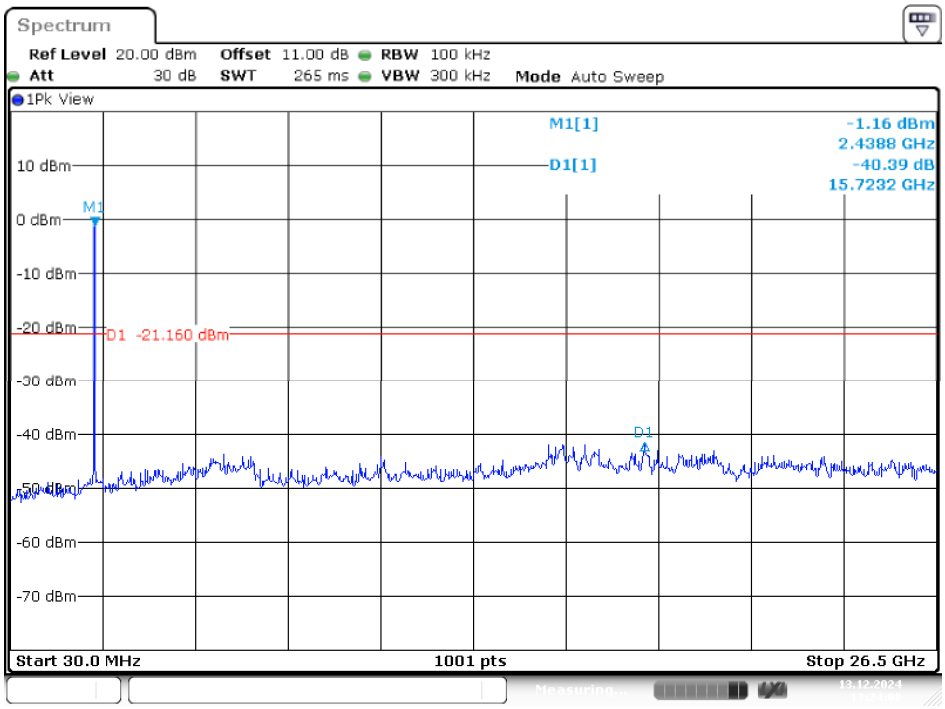
G Mode

Low Channel



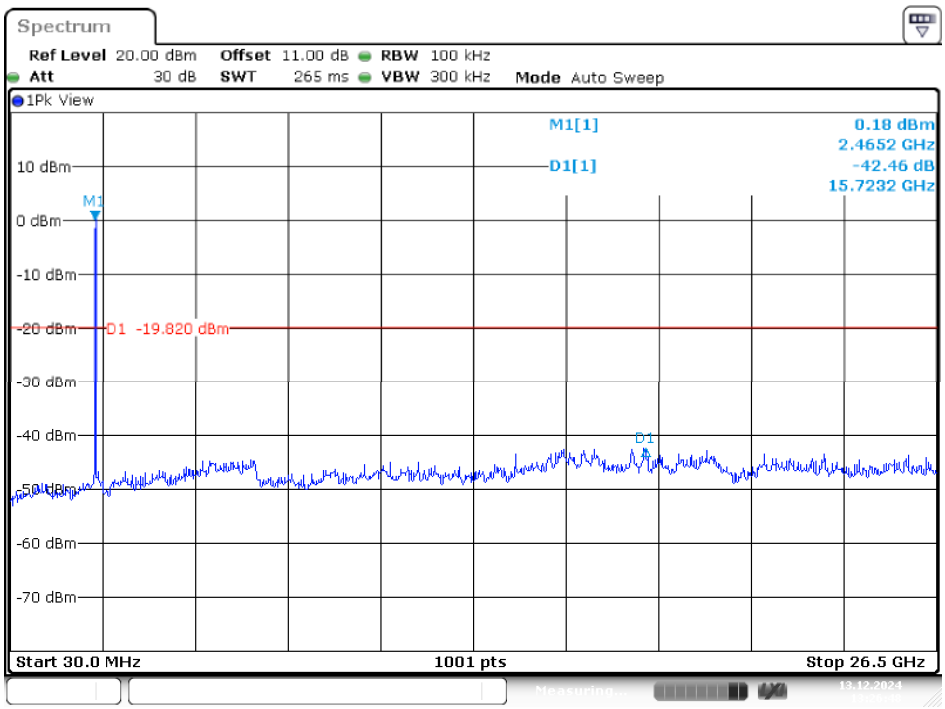
Date: 13.DEC.2024 13:22:02

Middle Channel



Date: 13.DEC.2024 13:24:08

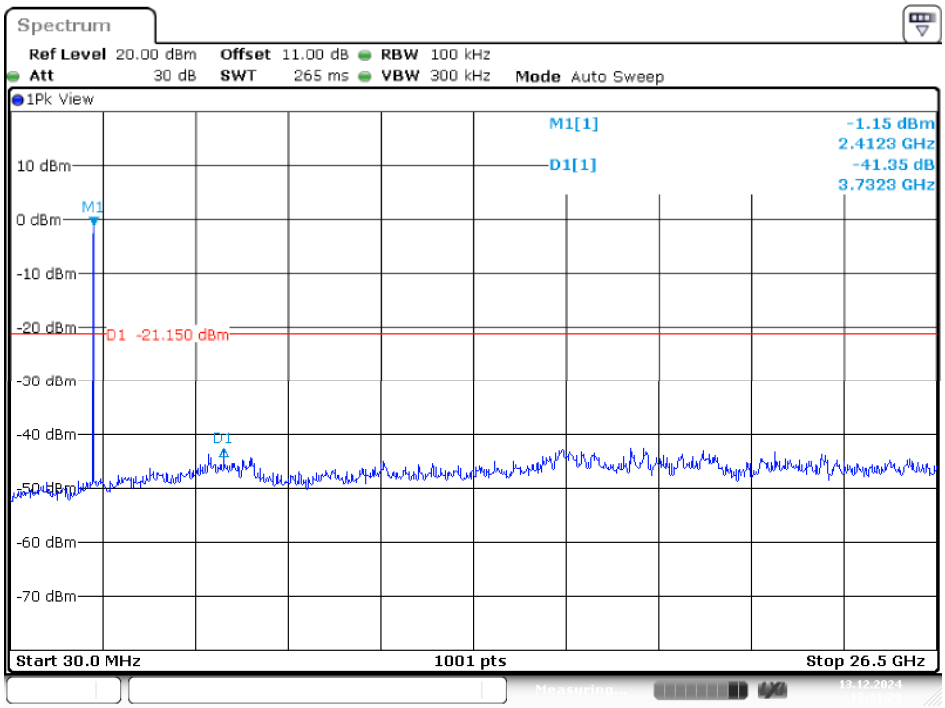
High Channel



Date: 13.DEC.2024 13:26:48

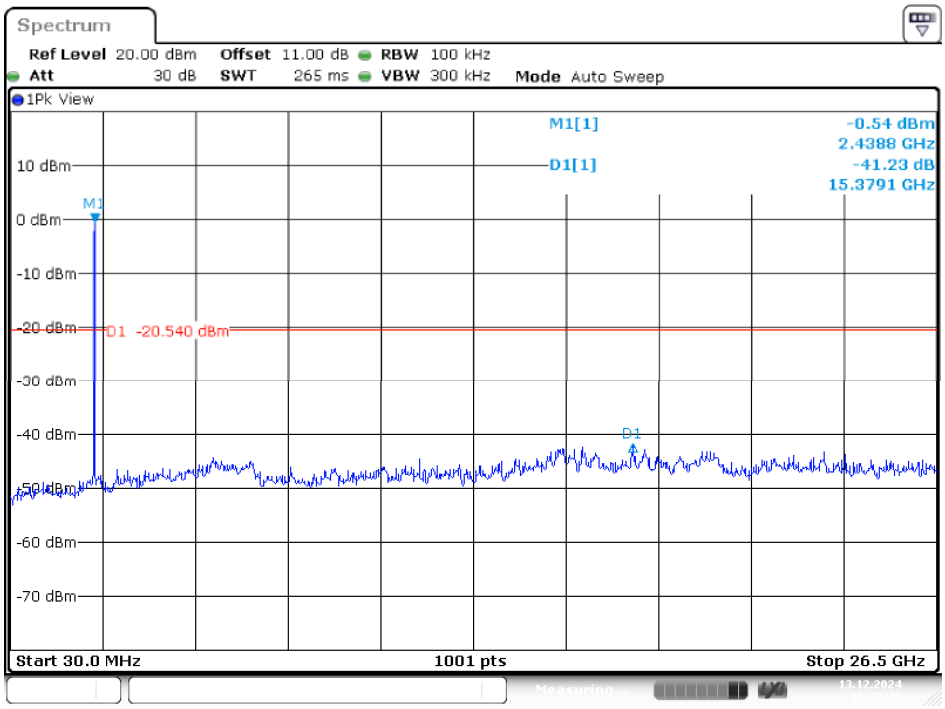
N20 Mode

Low Channel



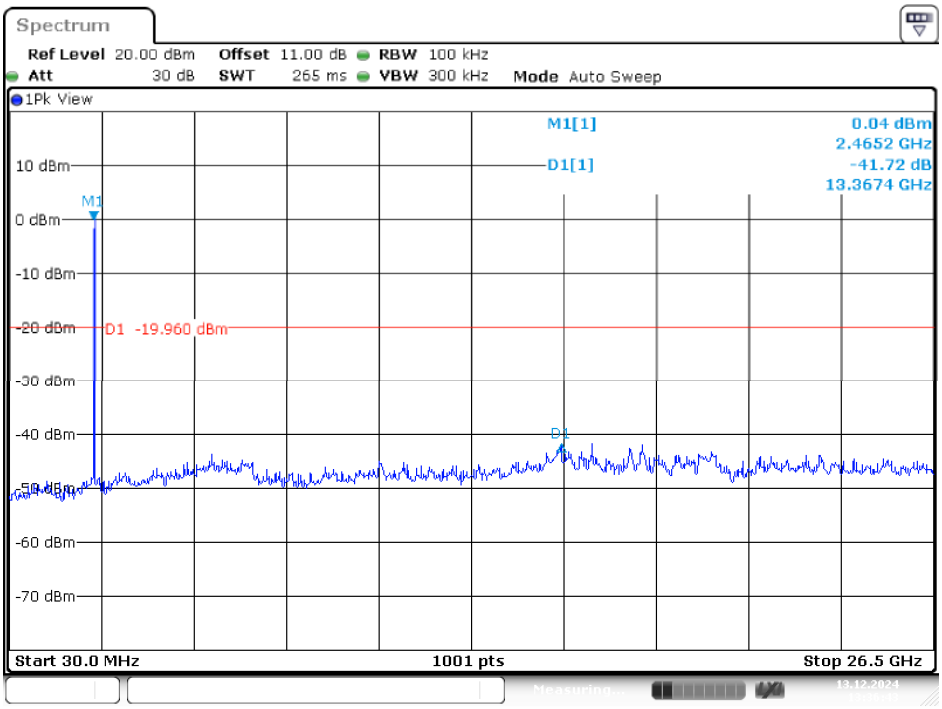
Date: 13.DEC.2024 13:31:23

Middle Channel



Date: 13.DEC.2024 13:33:49

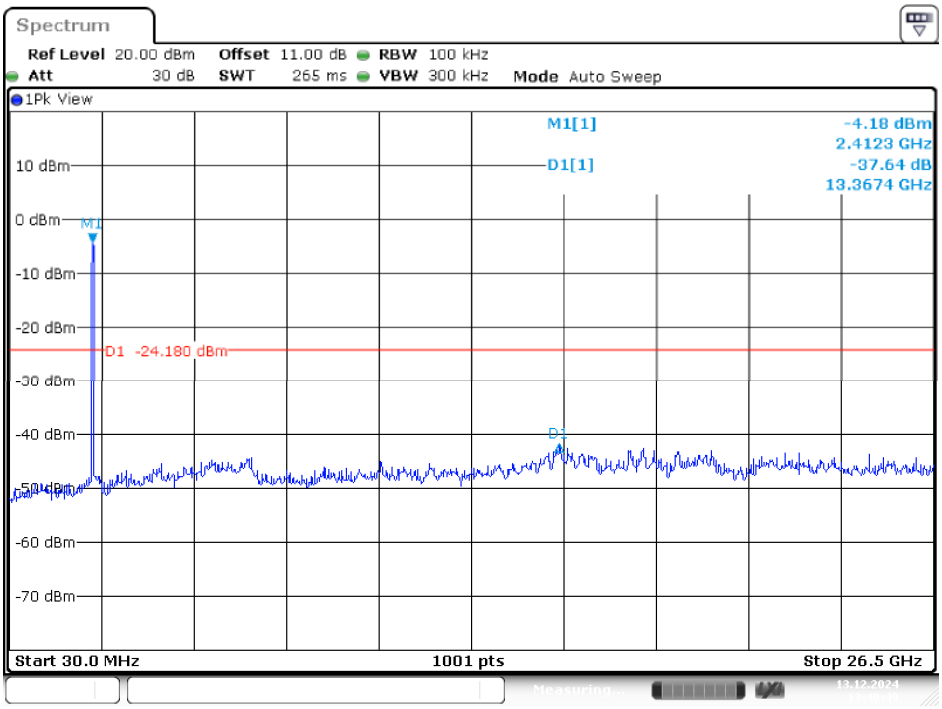
High Channel



Date: 13.DEC.2024 13:36:43

N40 Mode

Low Channel



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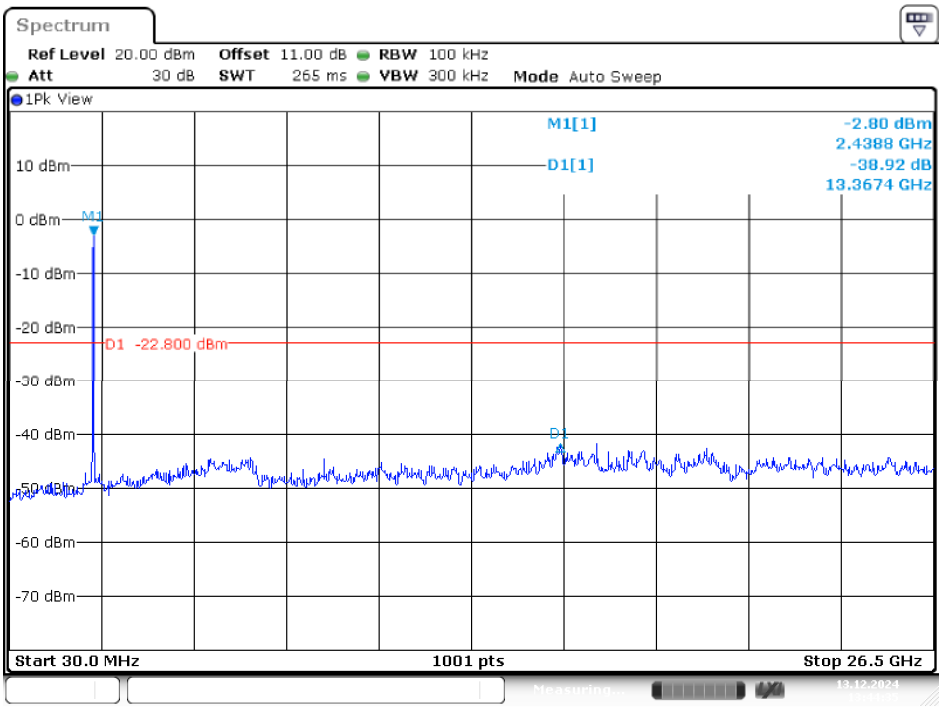
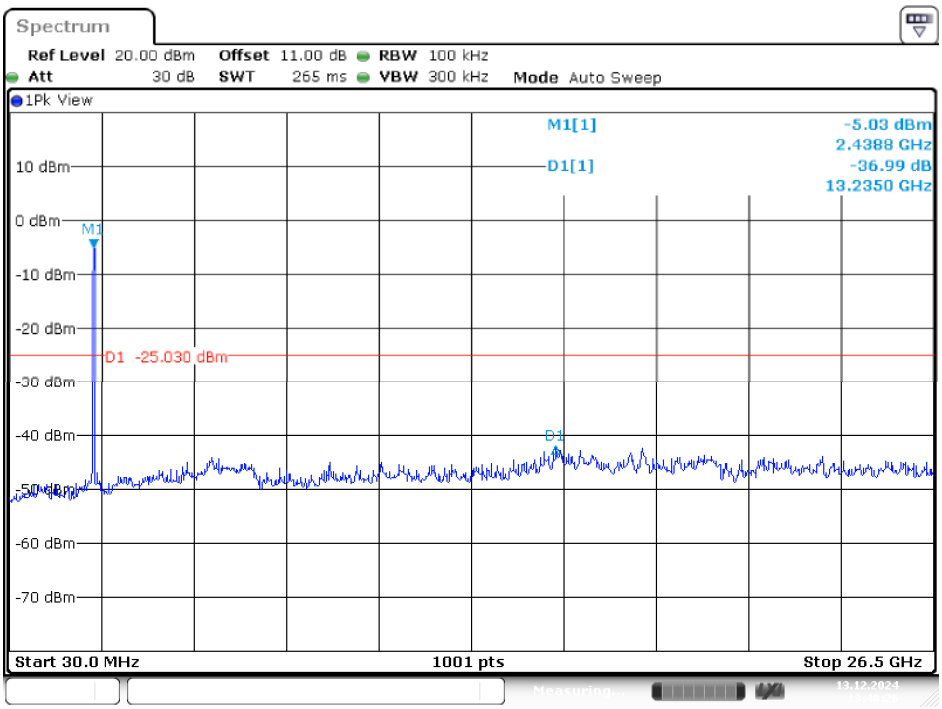
Middle Channel



Date: 13.DEC.2024 13:44:36

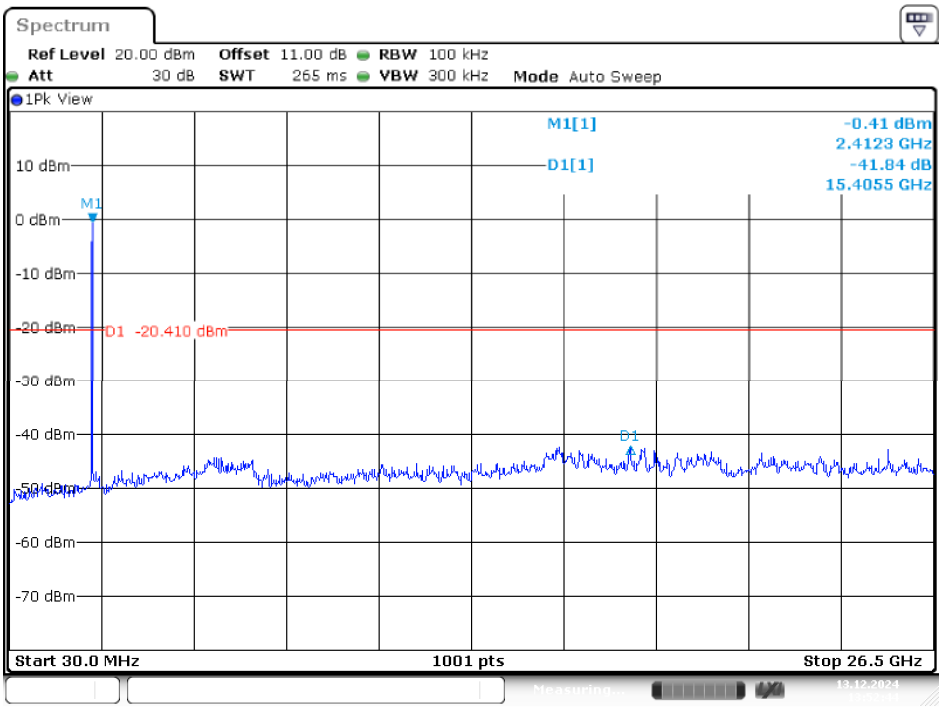
High Channel



Date: 13.DEC.2024 13:48:26

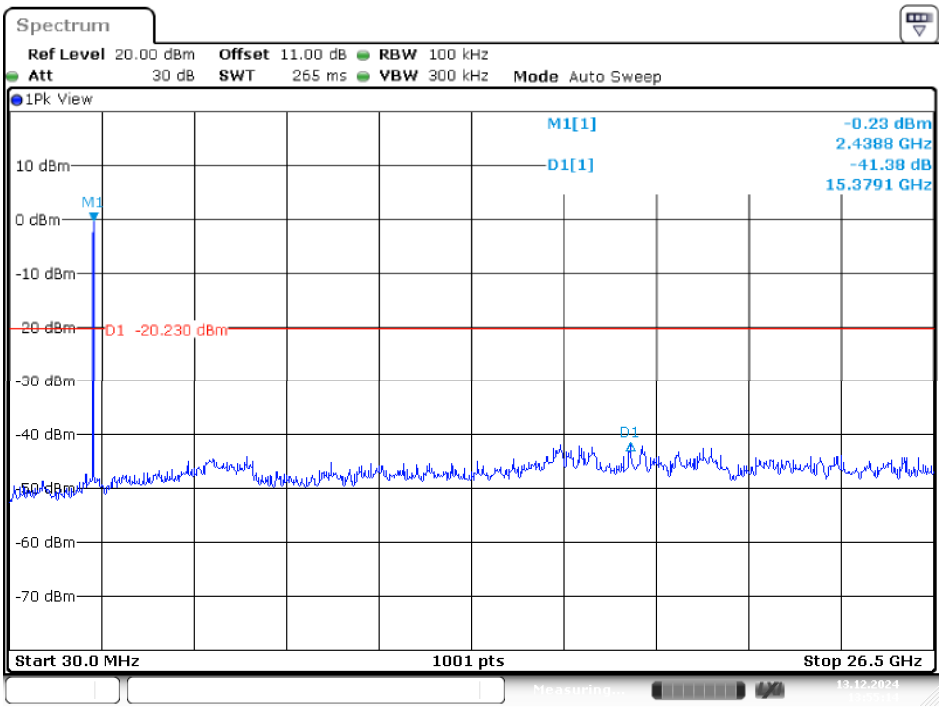
AX20 Mode

Low Channel



Date: 13.DEC.2024 13:52:44

Middle Channel



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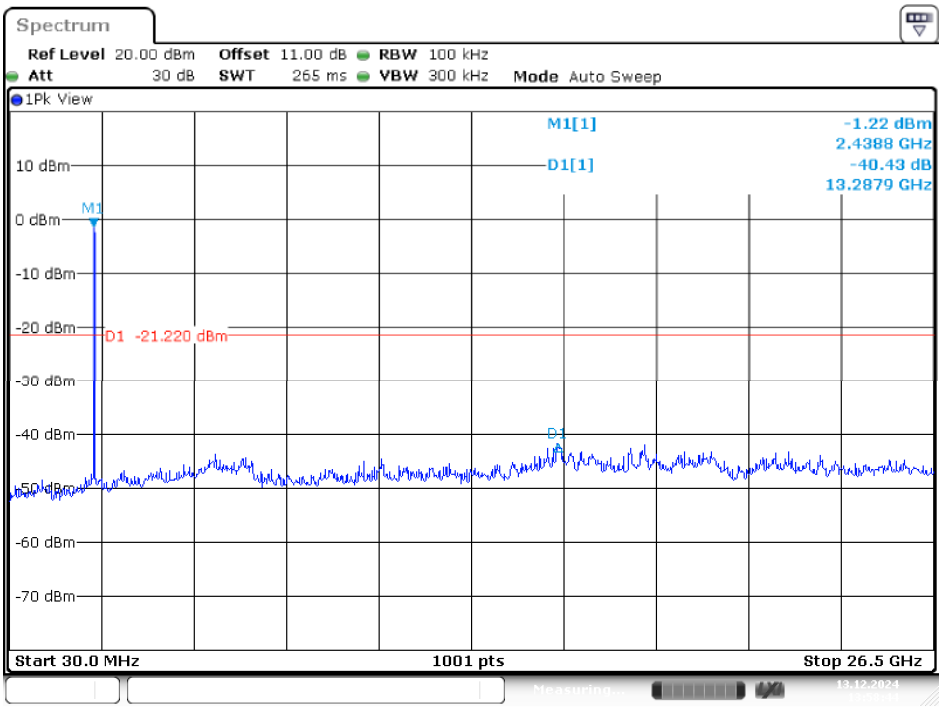
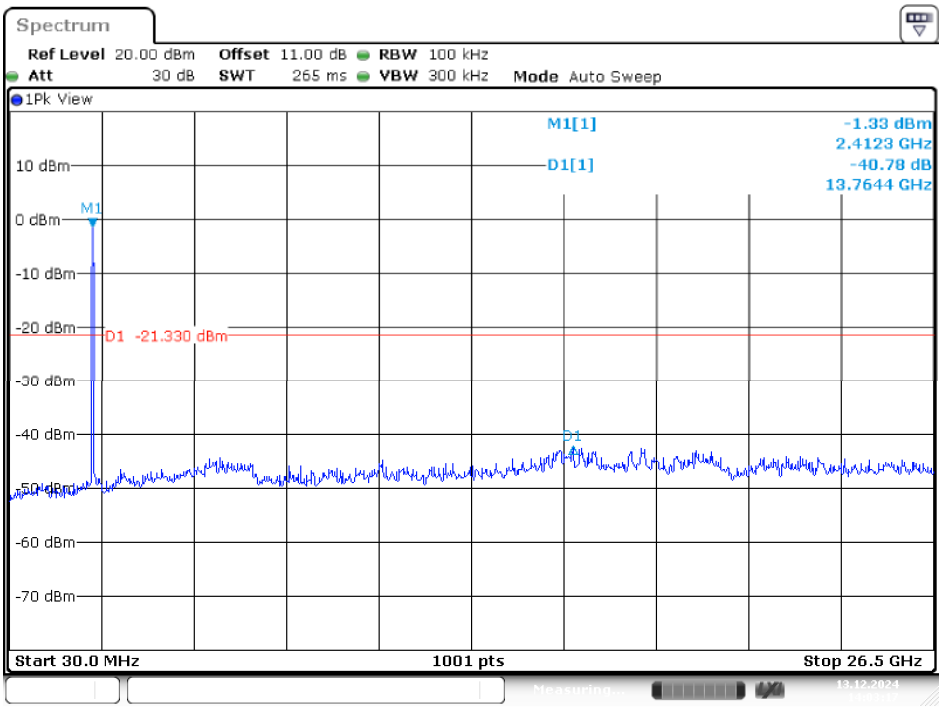
High Channel



Date: 13.DEC.2024 13:58:44

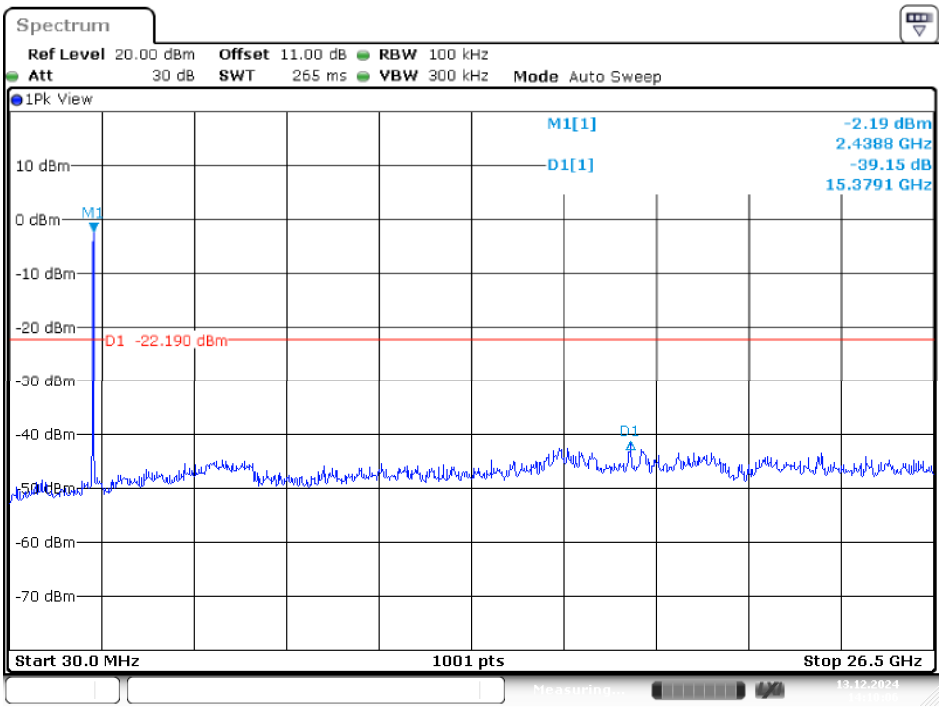
AX40 Mode

Low Channel



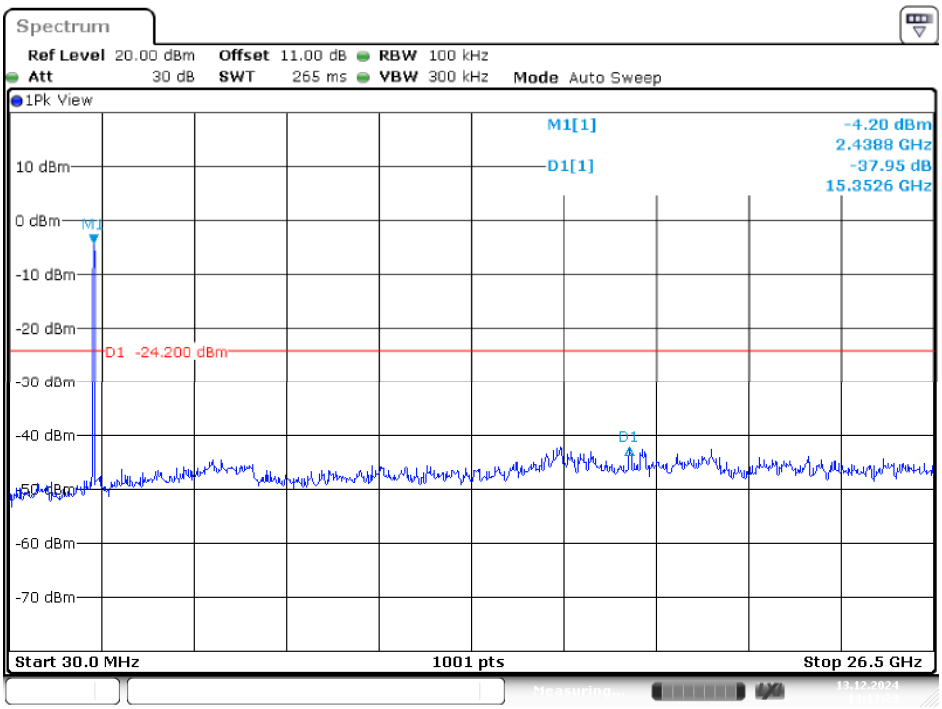
Date: 13.DEC.2024 14:03:17

Middle Channel



Date: 13.DEC.2024 14:10:06

High Channel

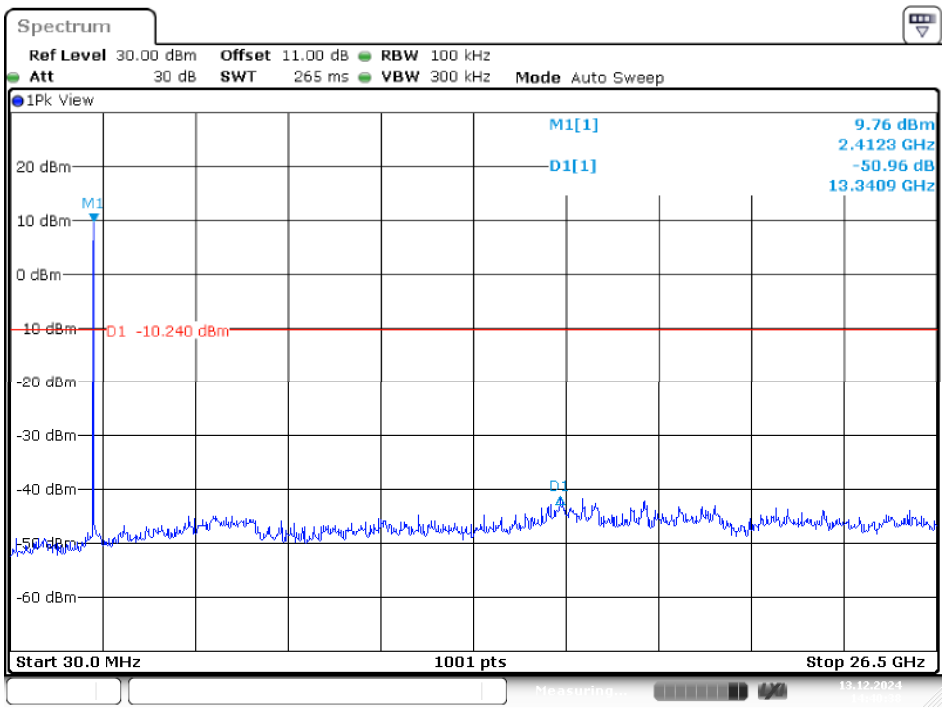


Date: 13.DEC.2024 14:13:23

Chain 1

B Mode

Low Channel



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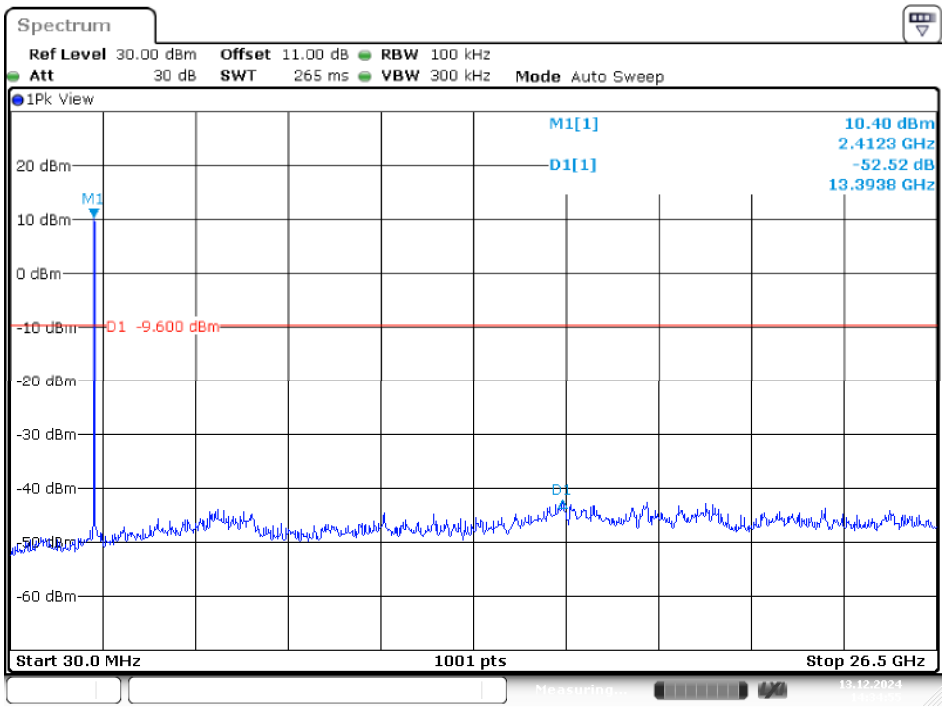
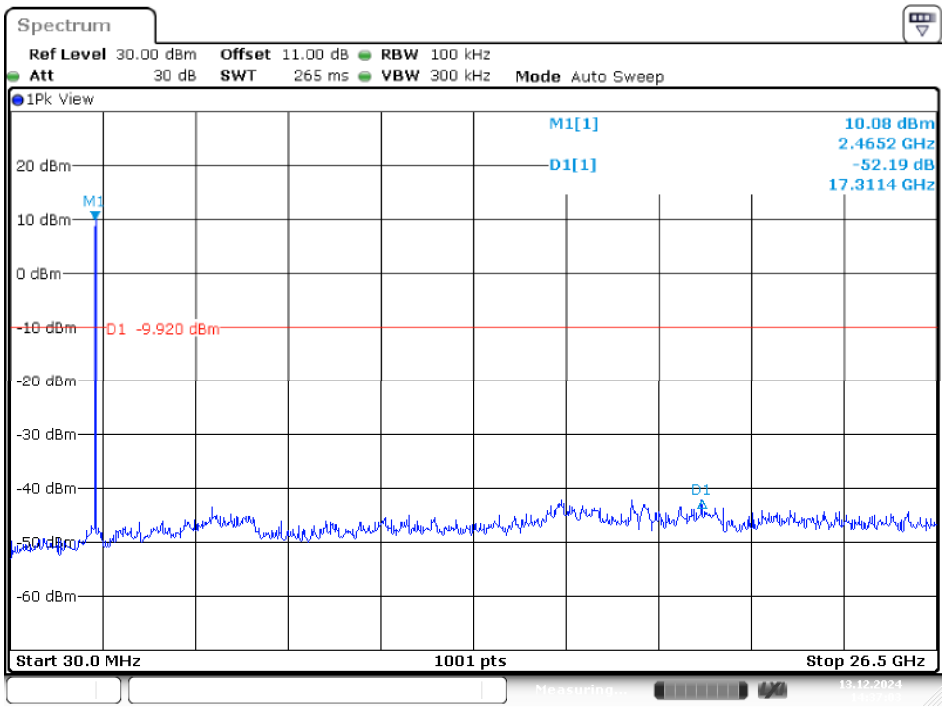
Middle Channel



Date: 13.DEC.2024 14:34:55

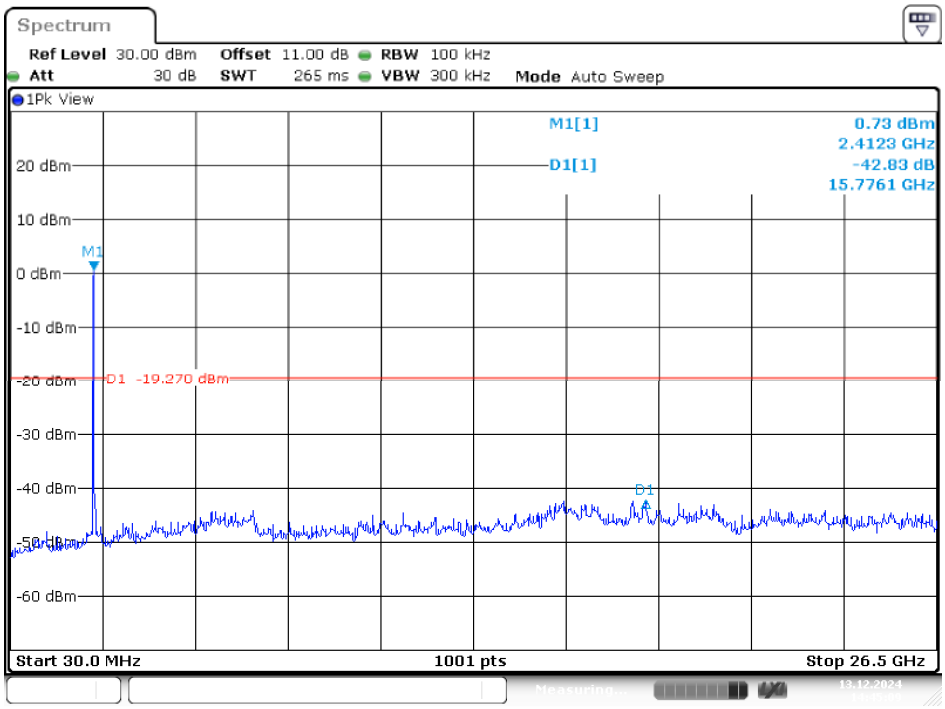
High Channel



Date: 13.DEC.2024 14:37:03

G Mode

Low Channel



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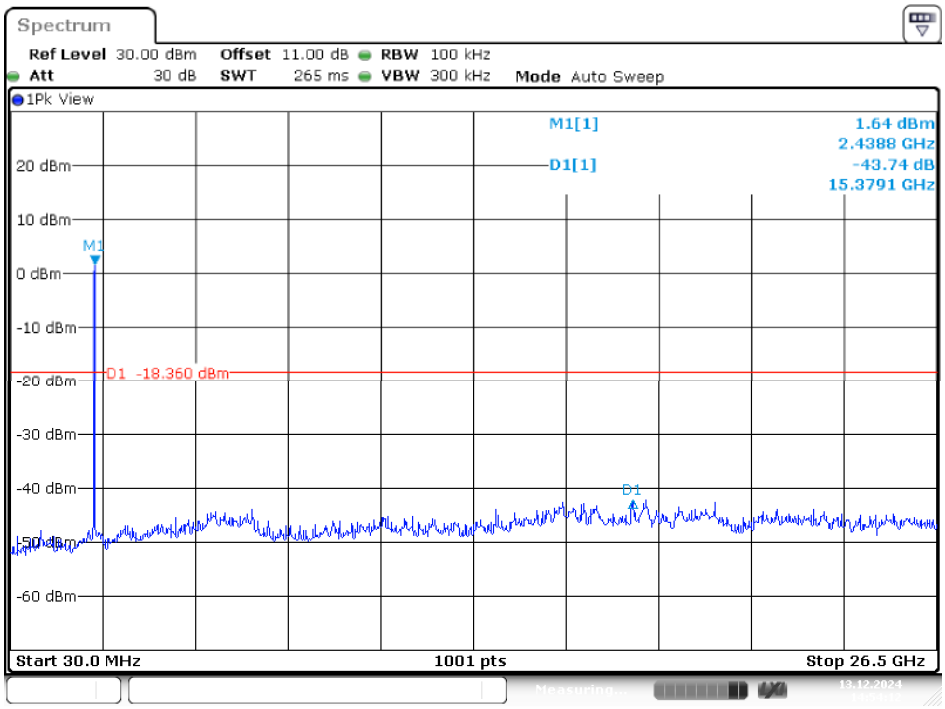
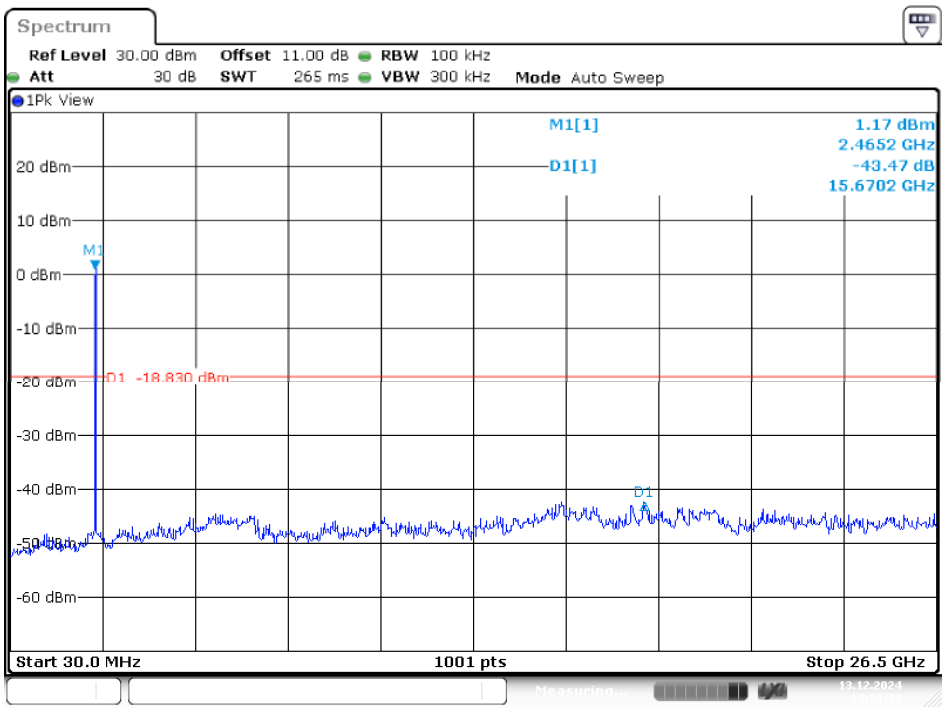
Middle Channel



Date: 13.DEC.2024 14:54:12

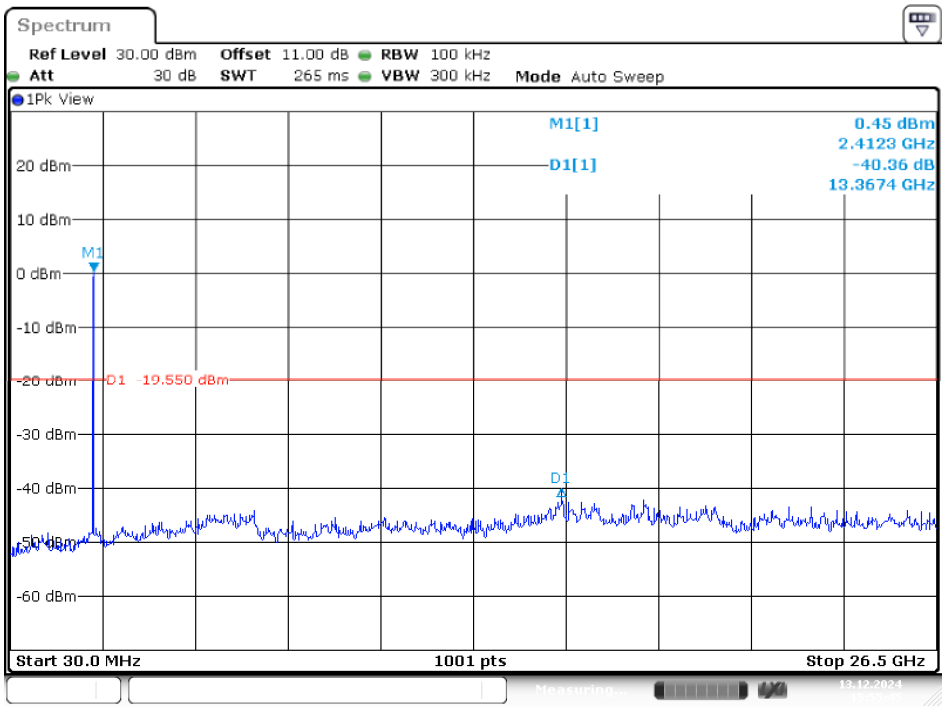
High Channel



Date: 13.DEC.2024 14:58:33

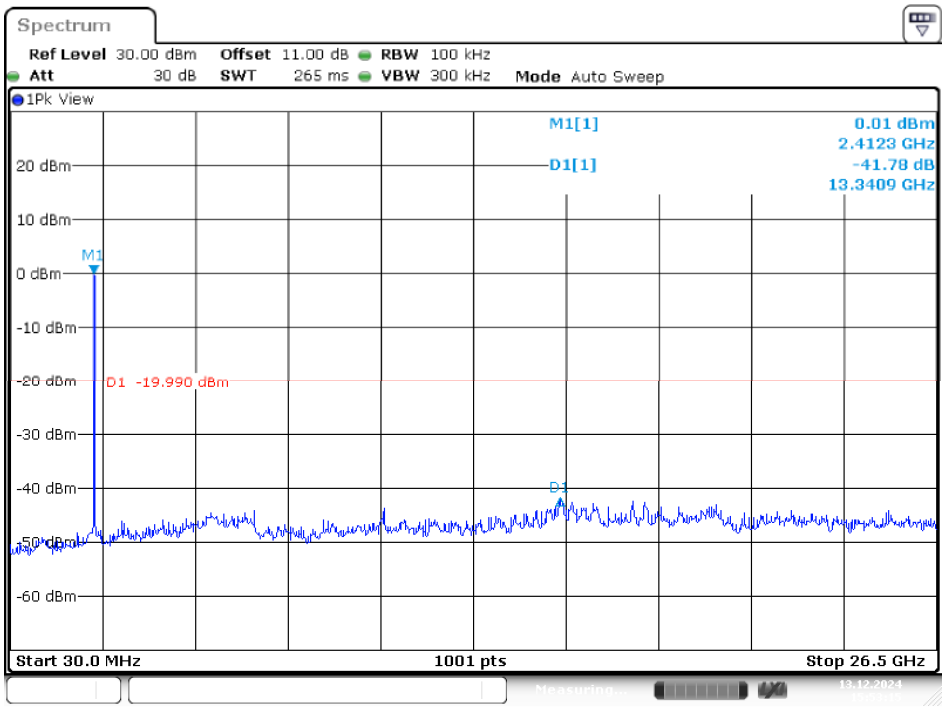
N20 Mode

Low Channel



Date: 13.DEC.2024 15:55:45

Middle Channel



Date: 13.DEC.2024 15:53:15

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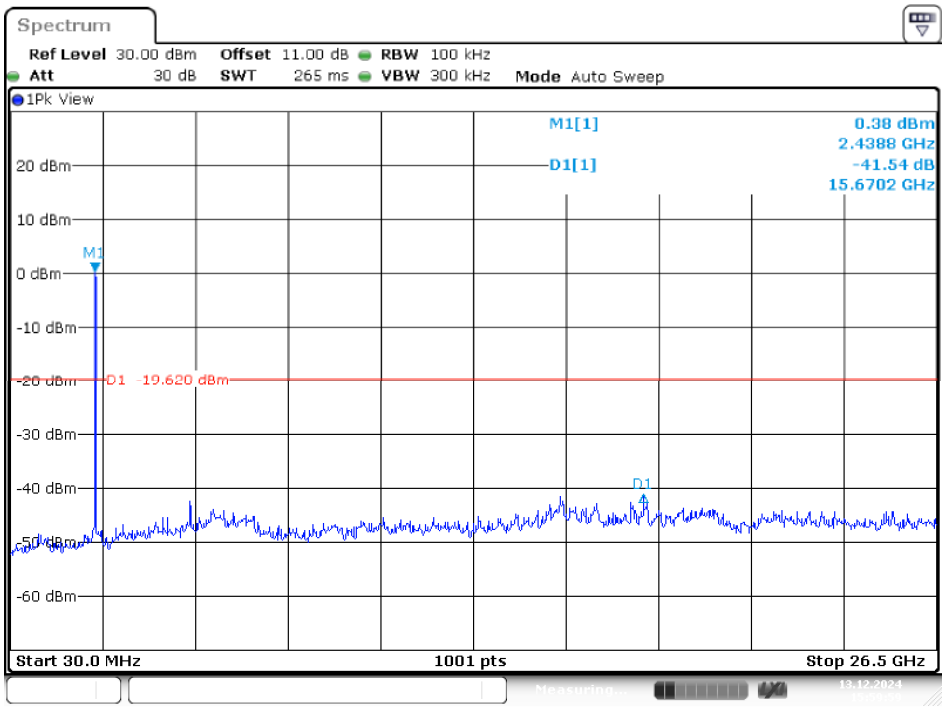
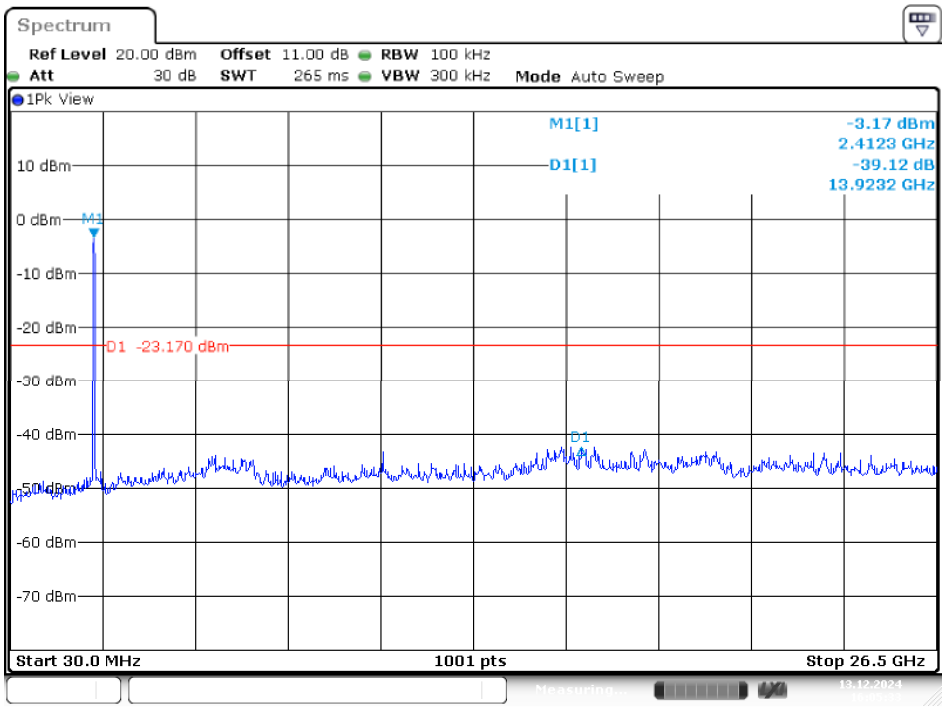


Date: 13.DEC.2024 15:59:59

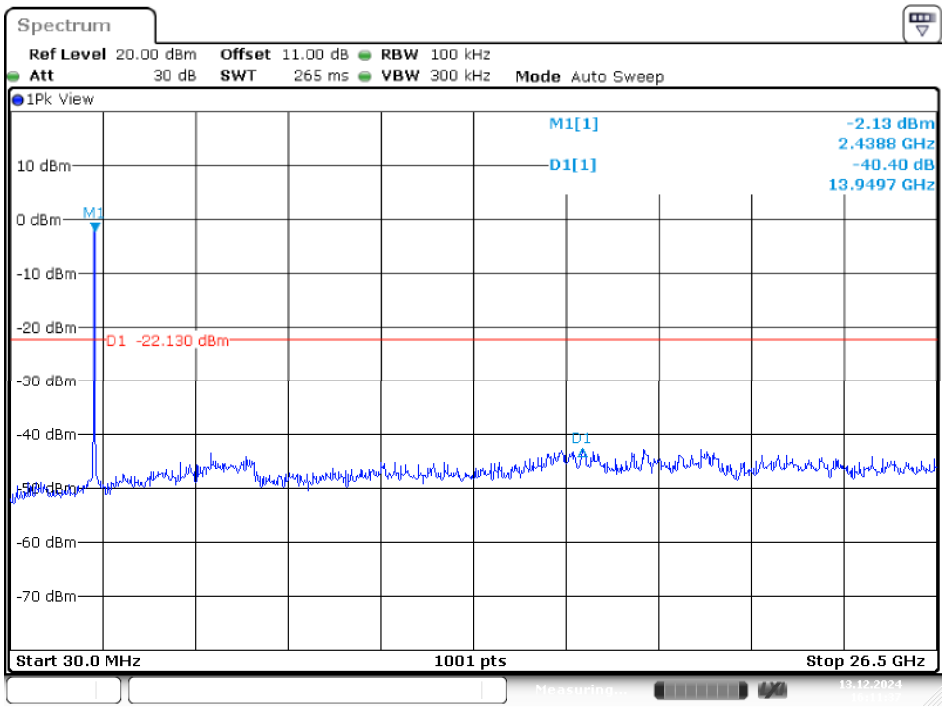
N40 Mode

Low Channel



Date: 13.DEC.2024 16:05:33

Middle Channel



Date: 13.DEC.2024 16:11:38

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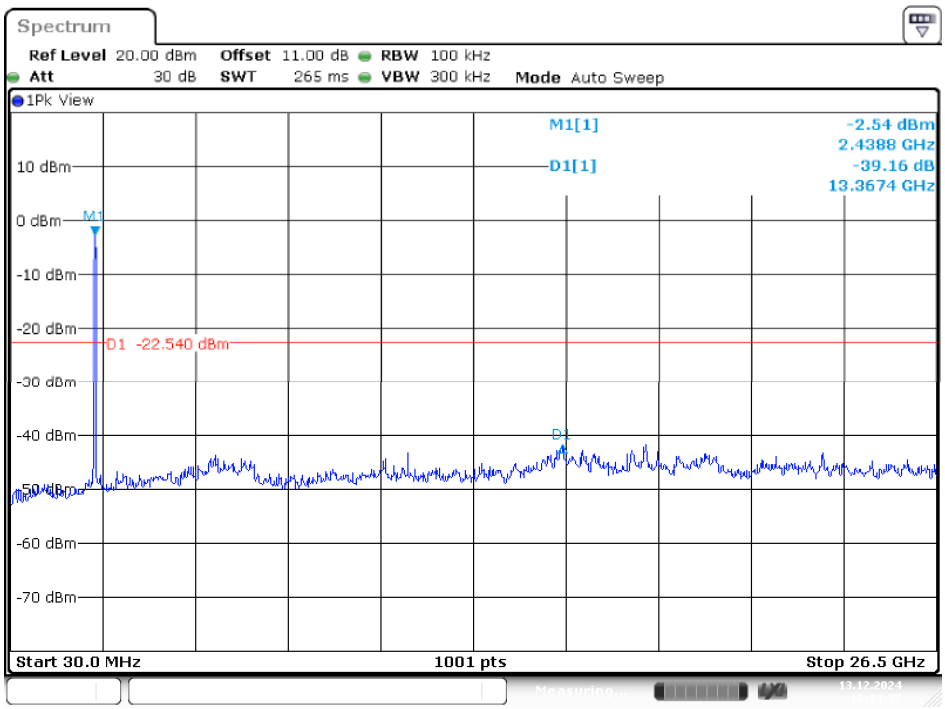
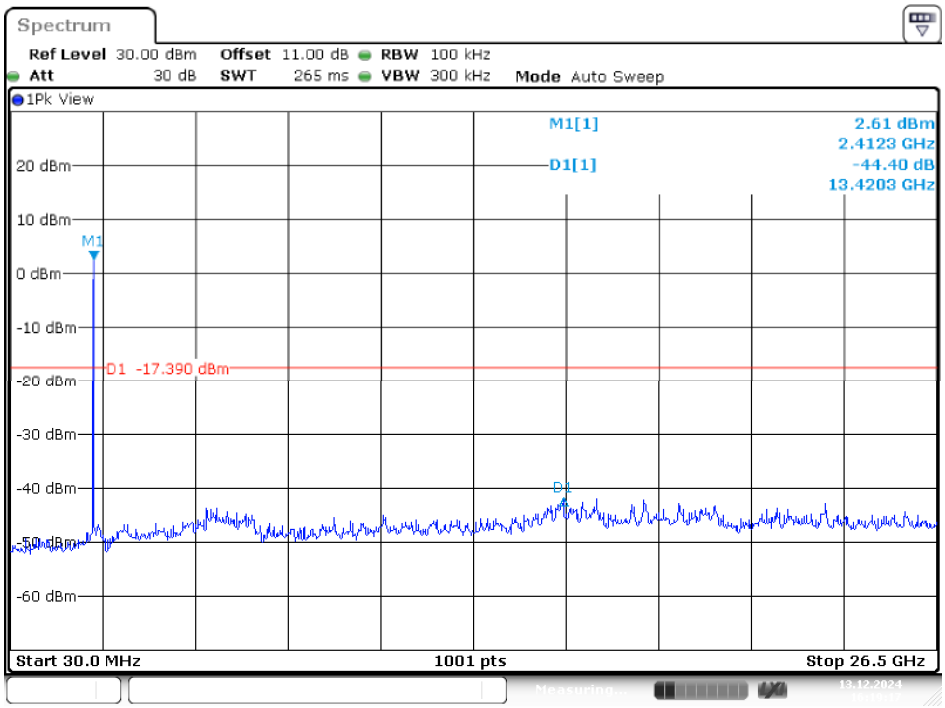


Date: 13.DEC.2024 16:14:57

AX20 Mode

Low Channel



Date: 13.DEC.2024 16:19:17

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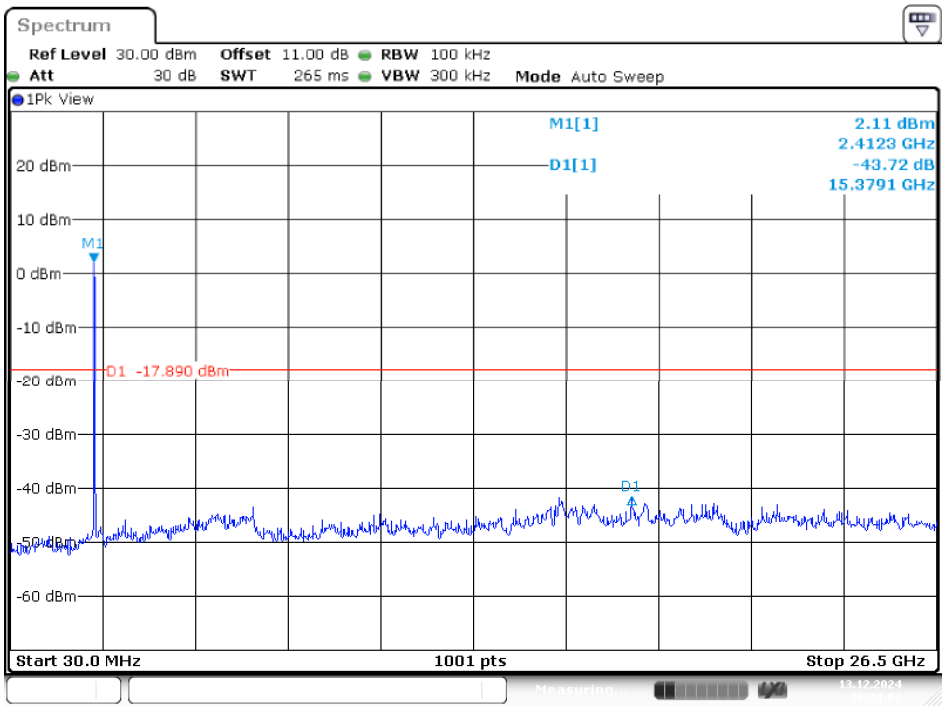

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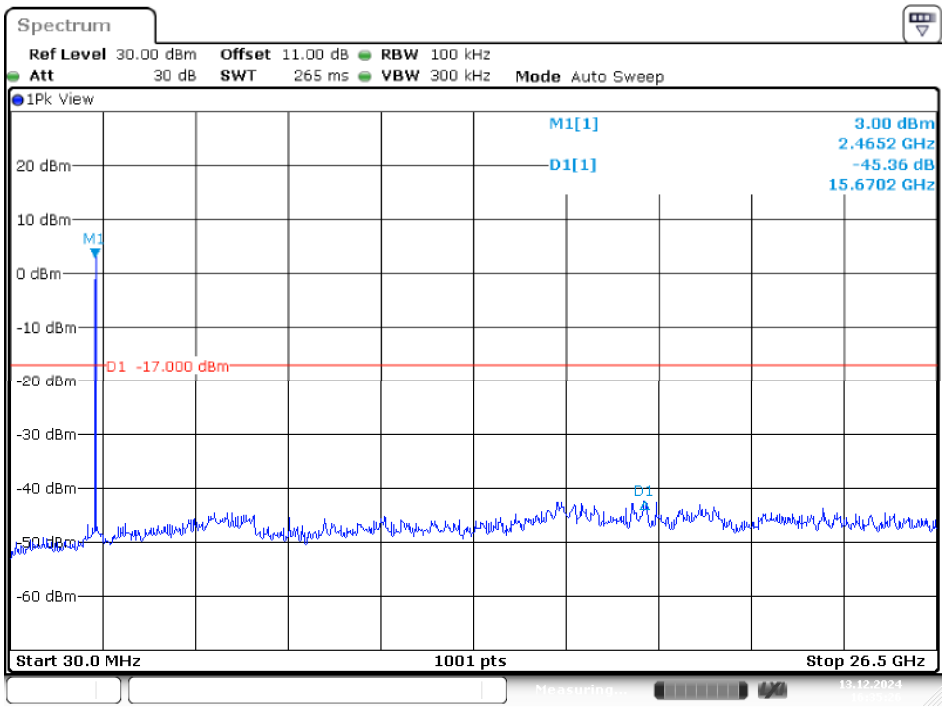

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AX40 Mode

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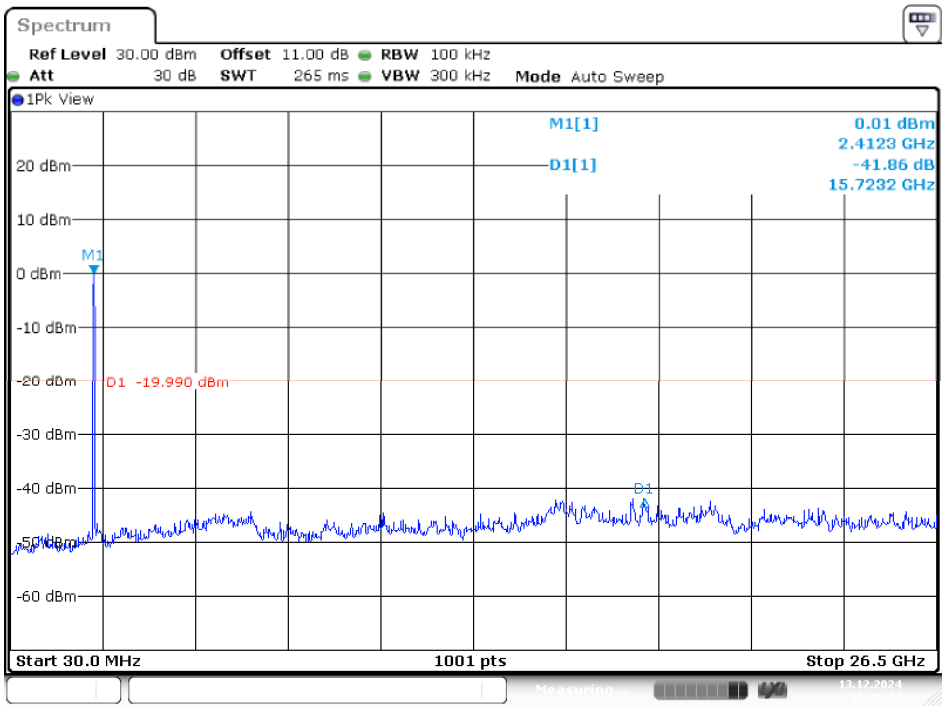

Date: 13.DEC.2024 16:46:33

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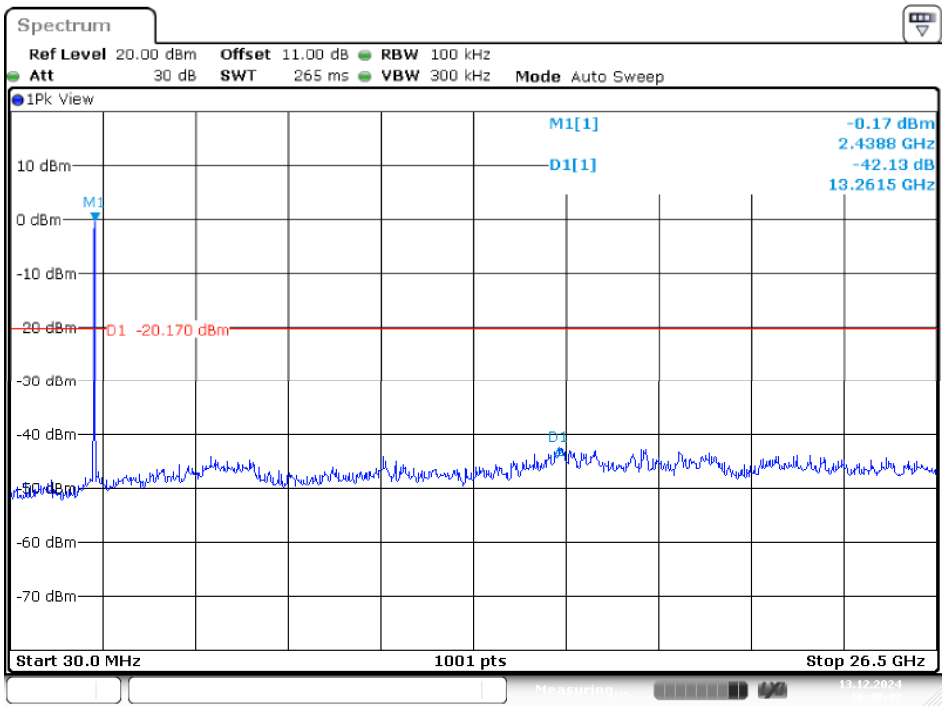

Date: 13.DEC.2024 16:49:42

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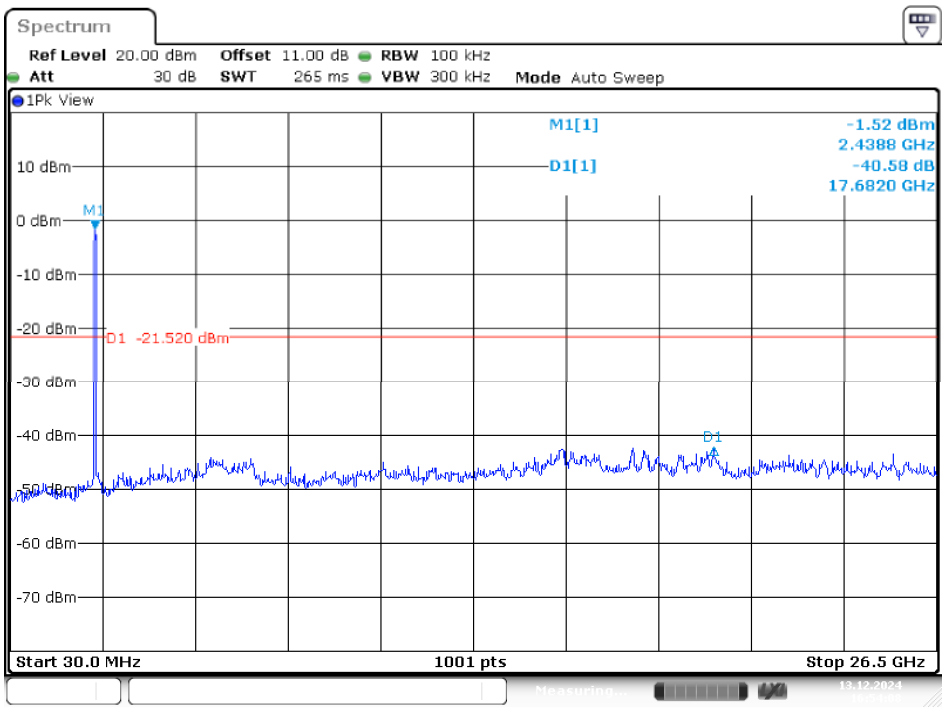
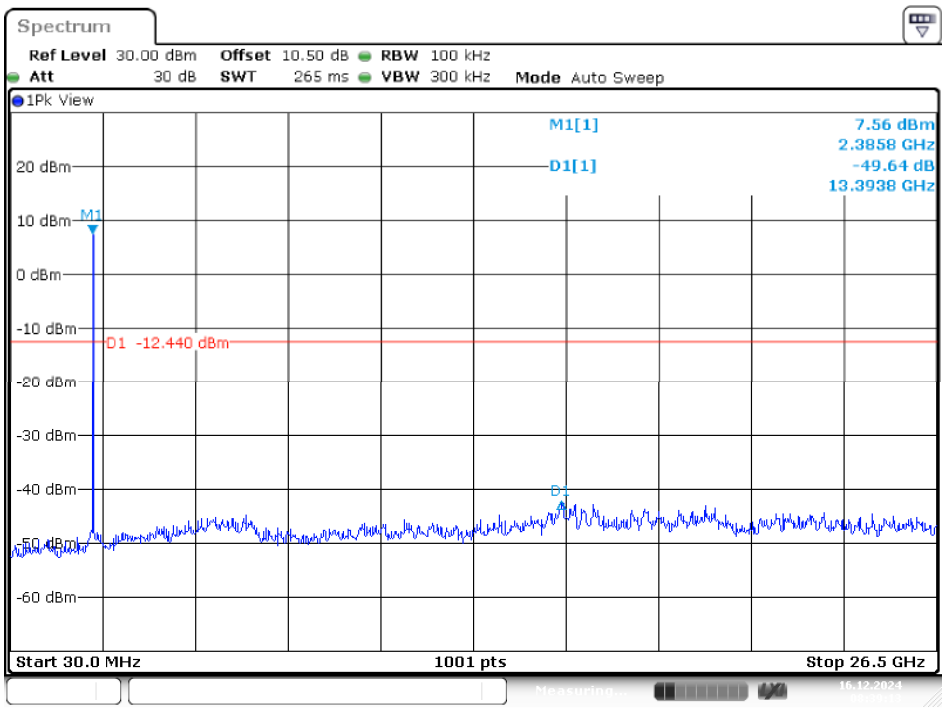


Date: 13.DEC.2024 16:54:08

Chain 2

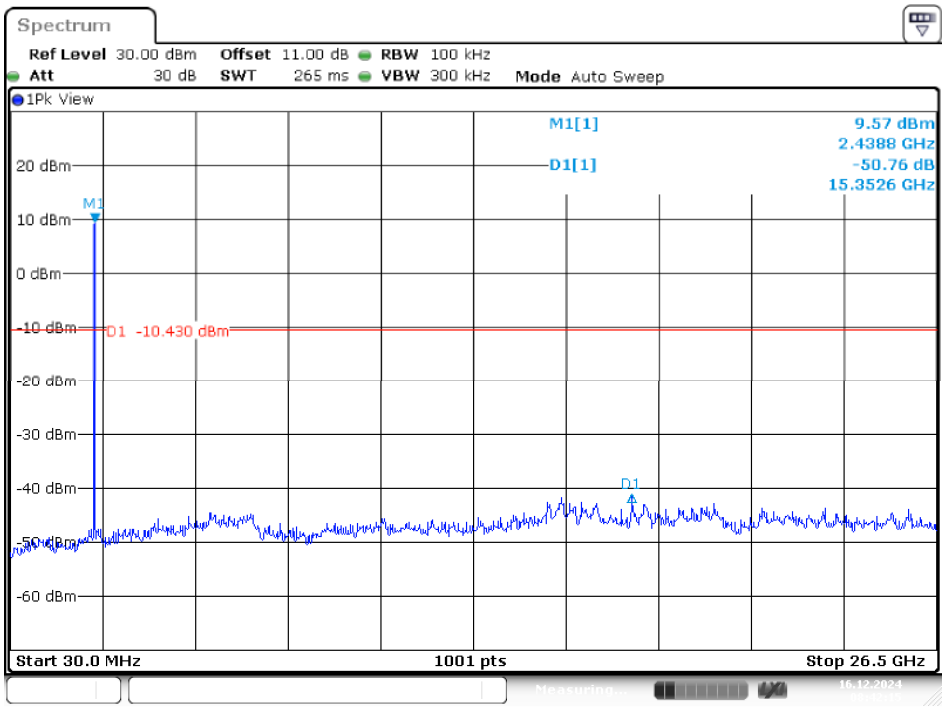
B Mode

Low Channel



Date: 16.DEC.2024 08:39:13

Middle Channel



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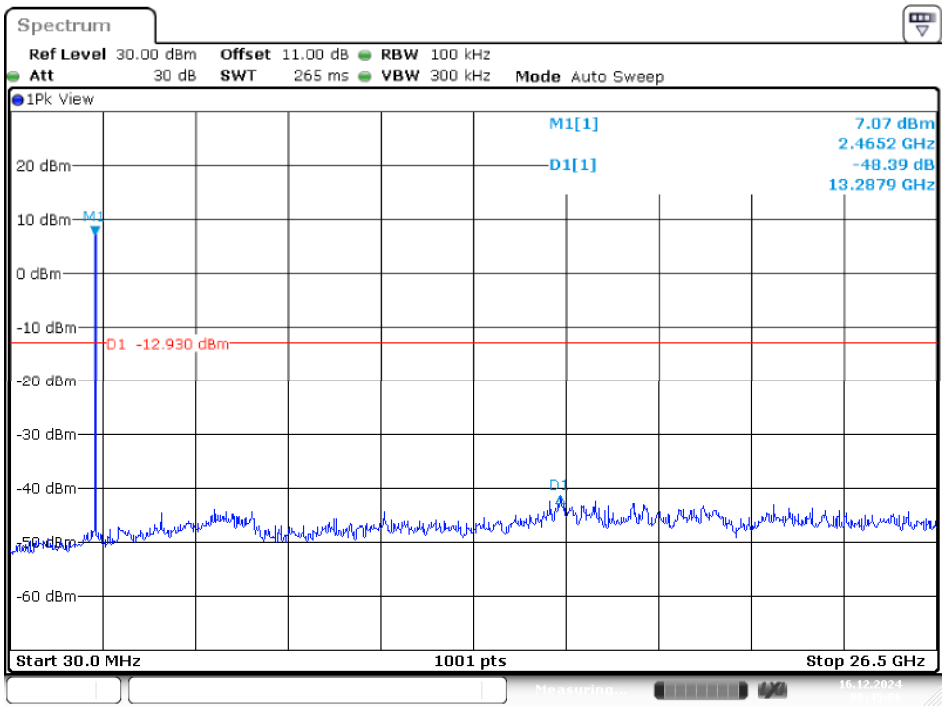
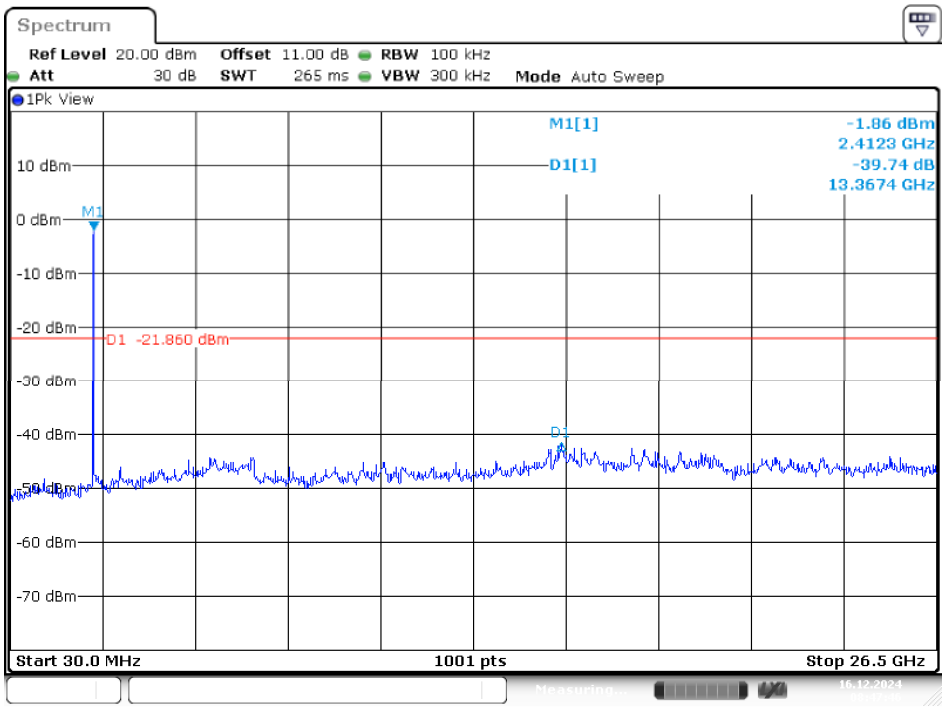


Date: 16.DEC.2024 08:45:06

G Mode

Low Channel



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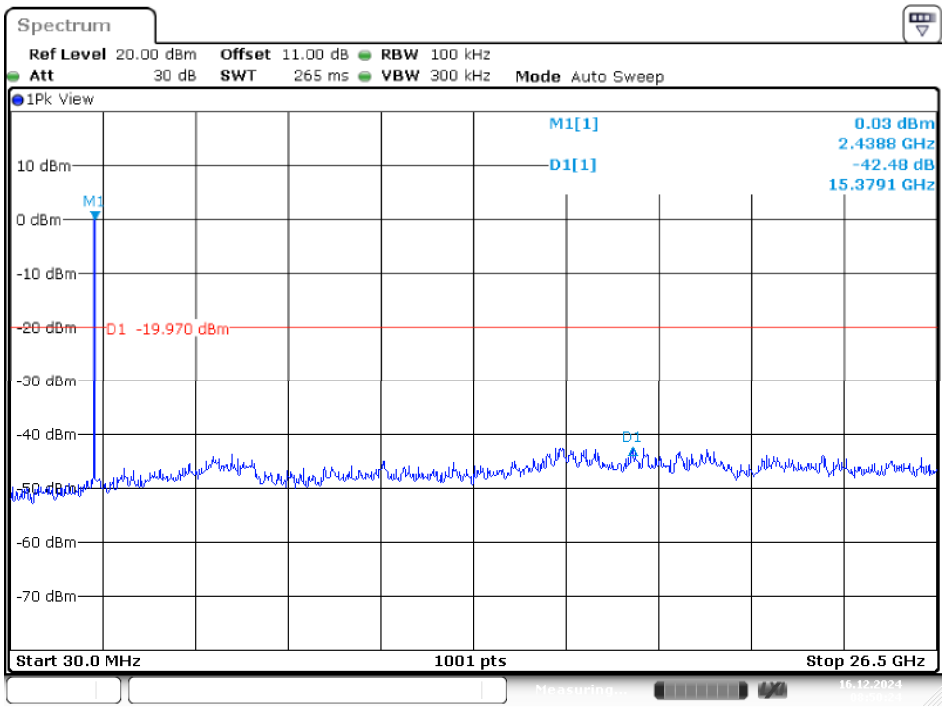

Date: 16.DEC.2024 08:50:24

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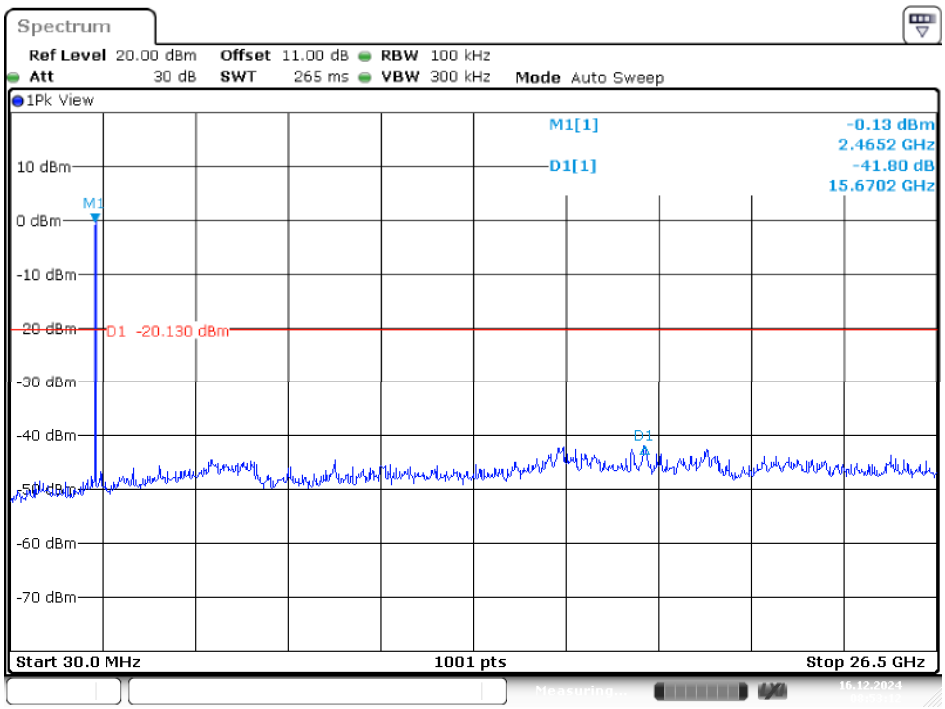
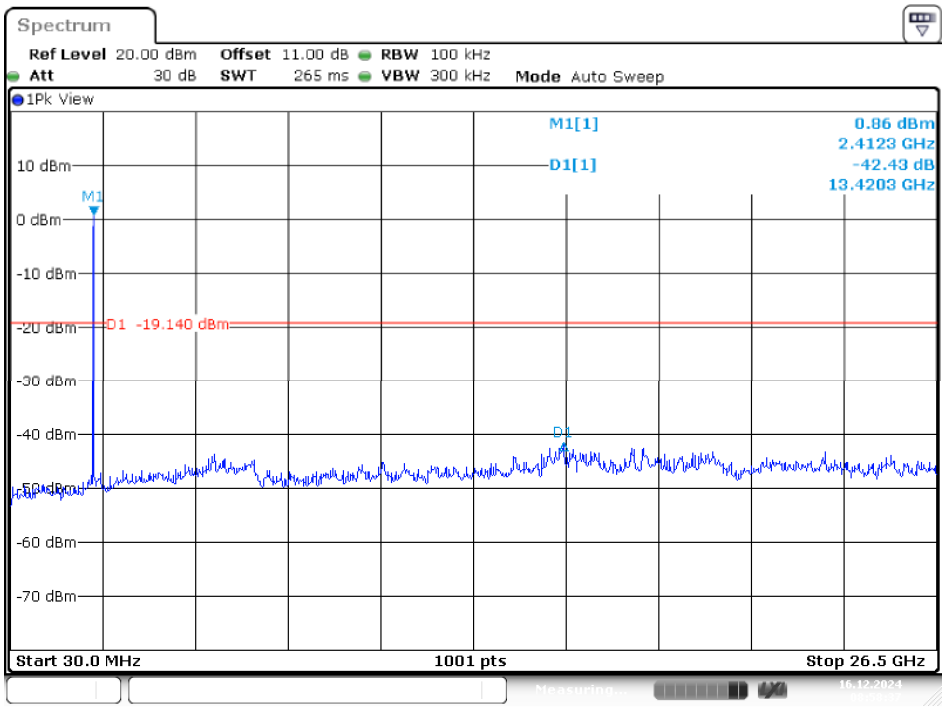


Date: 16.DEC.2024 08:53:12

N20 Mode

Low Channel



Date: 16.DEC.2024 08:58:38

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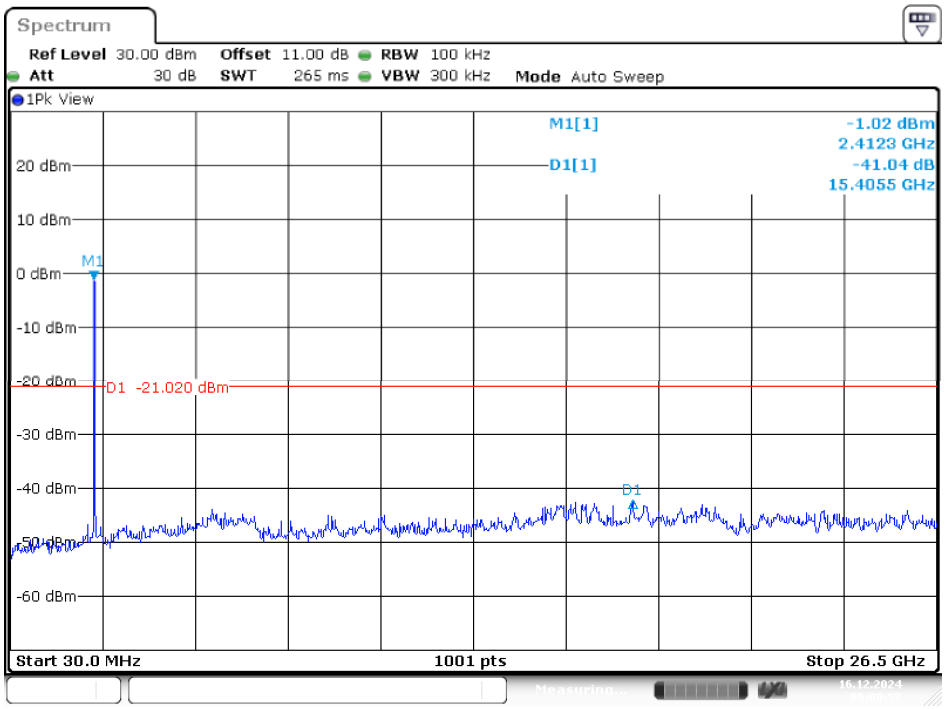

Date: 16.DEC.2024 09:00:57

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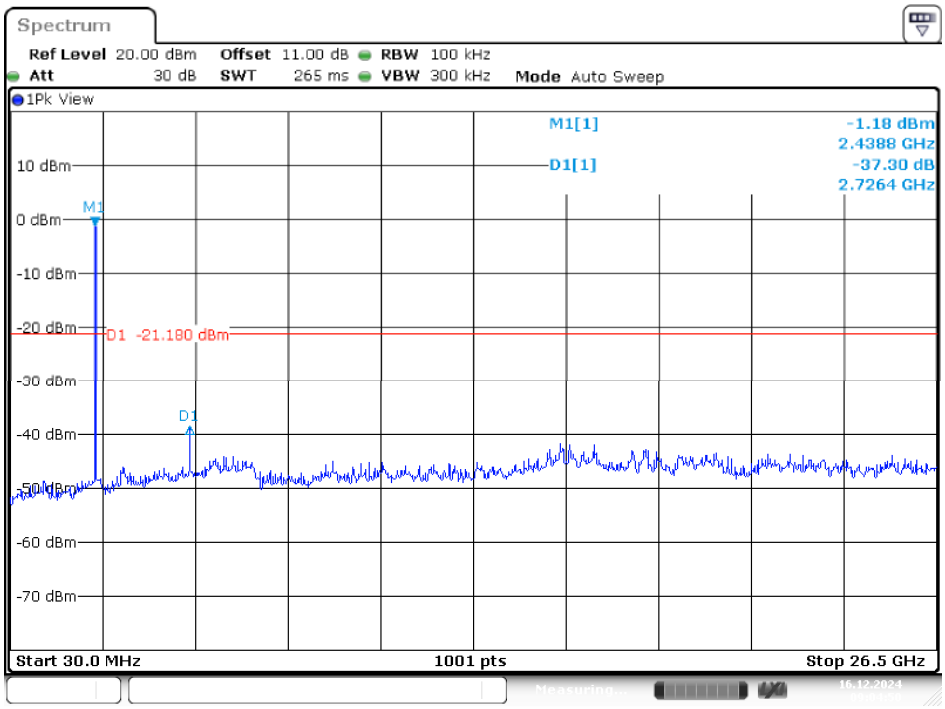
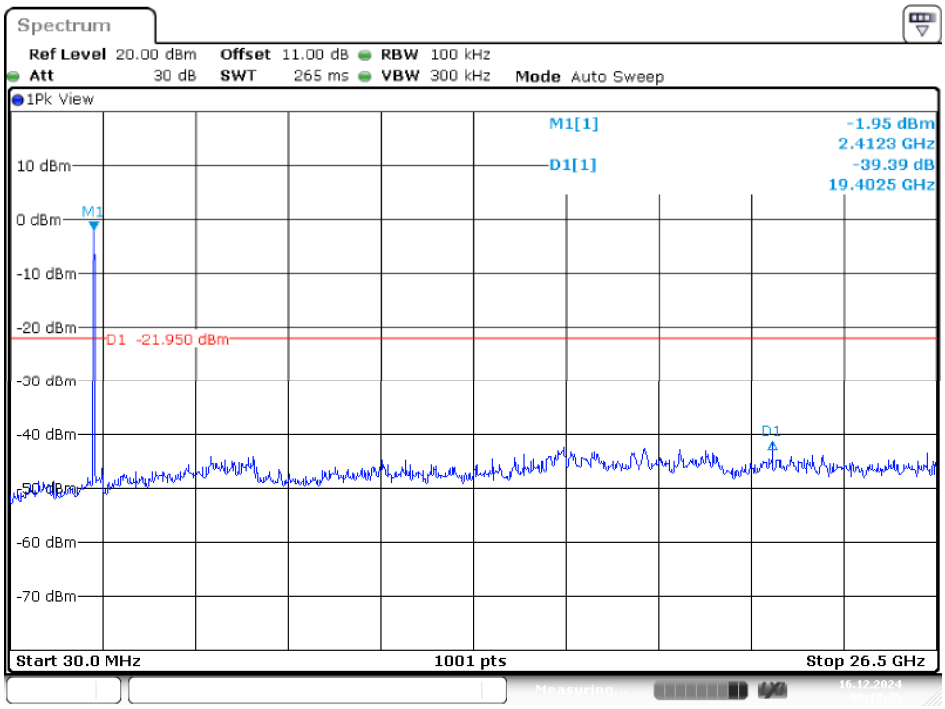


Date: 16.DEC.2024 09:04:51

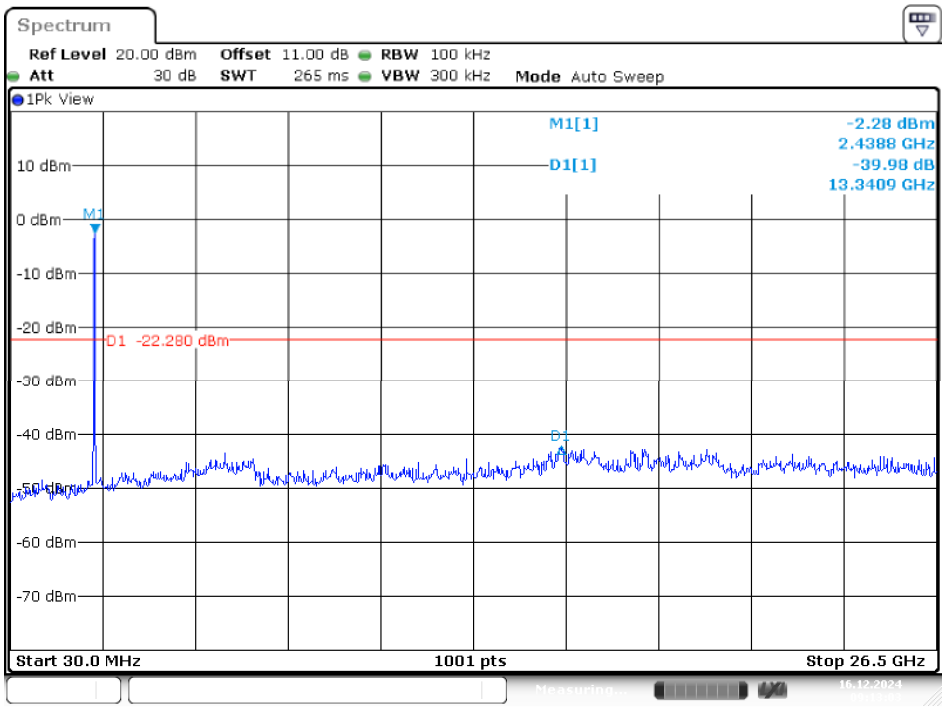
N40 Mode

Low Channel



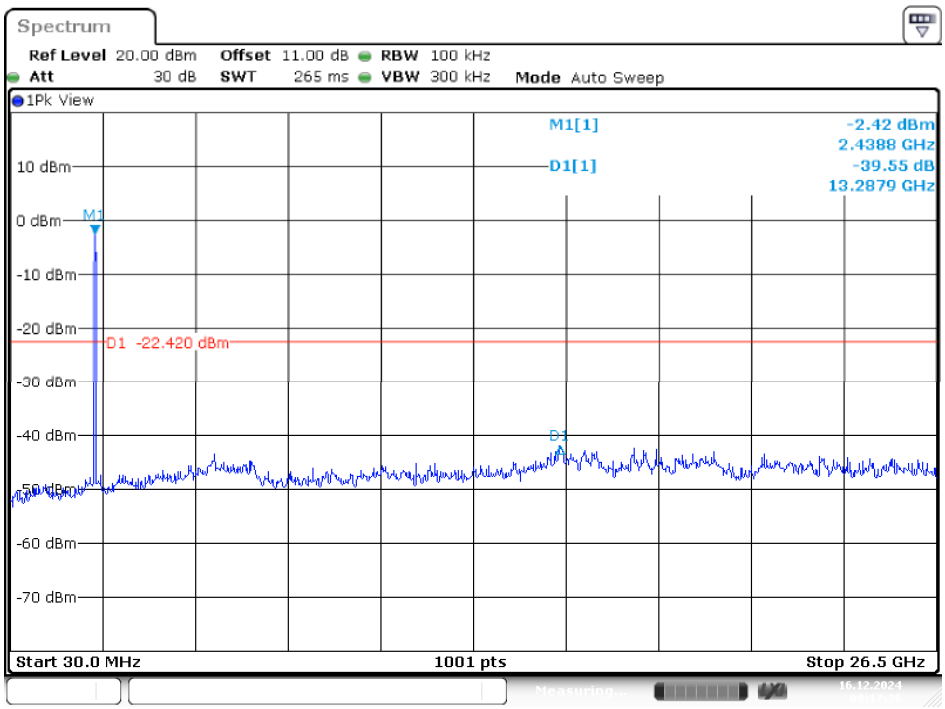
Date: 16.DEC.2024 09:10:25

Middle Channel



Date: 16.DEC.2024 09:13:03

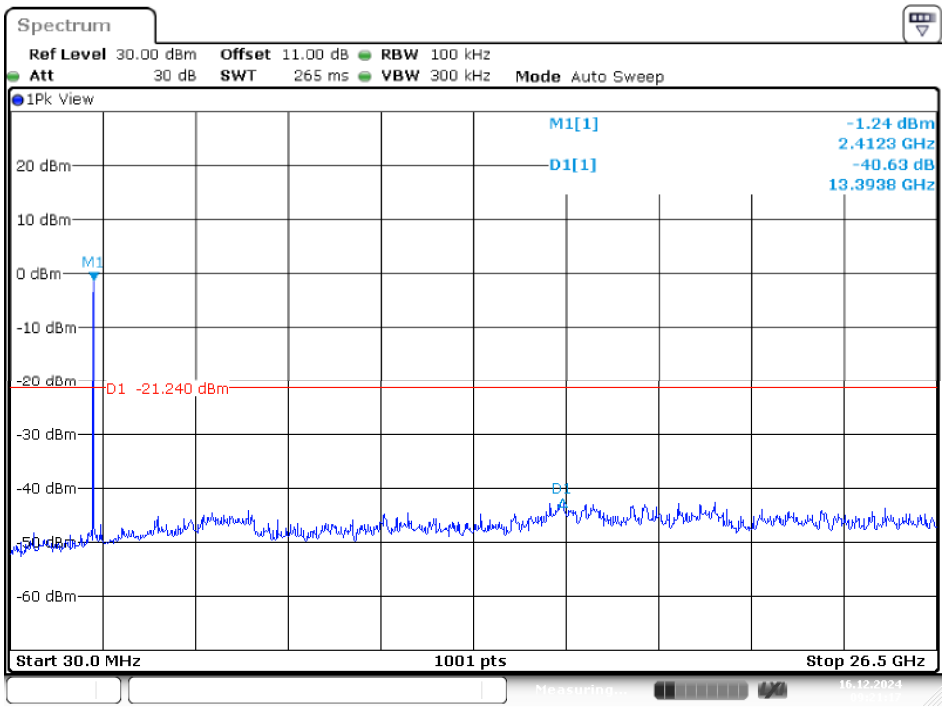
High Channel



Date: 16.DEC.2024 09:17:36

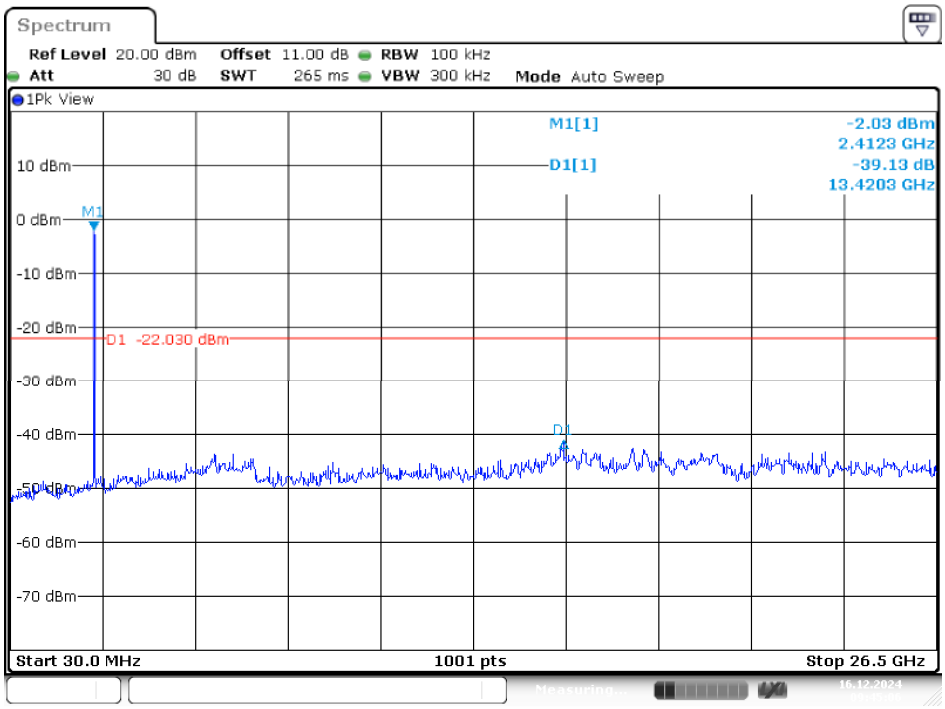
AX20 Mode

Low Channel



Date: 16.DEC.2024 09:21:18

Middle Channel



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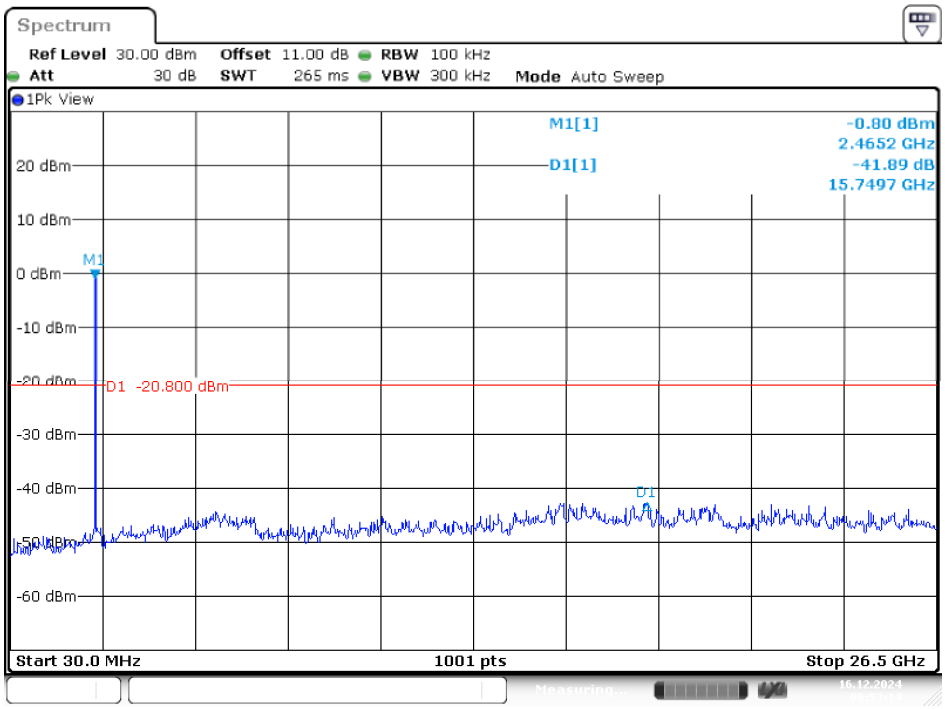
High Channel



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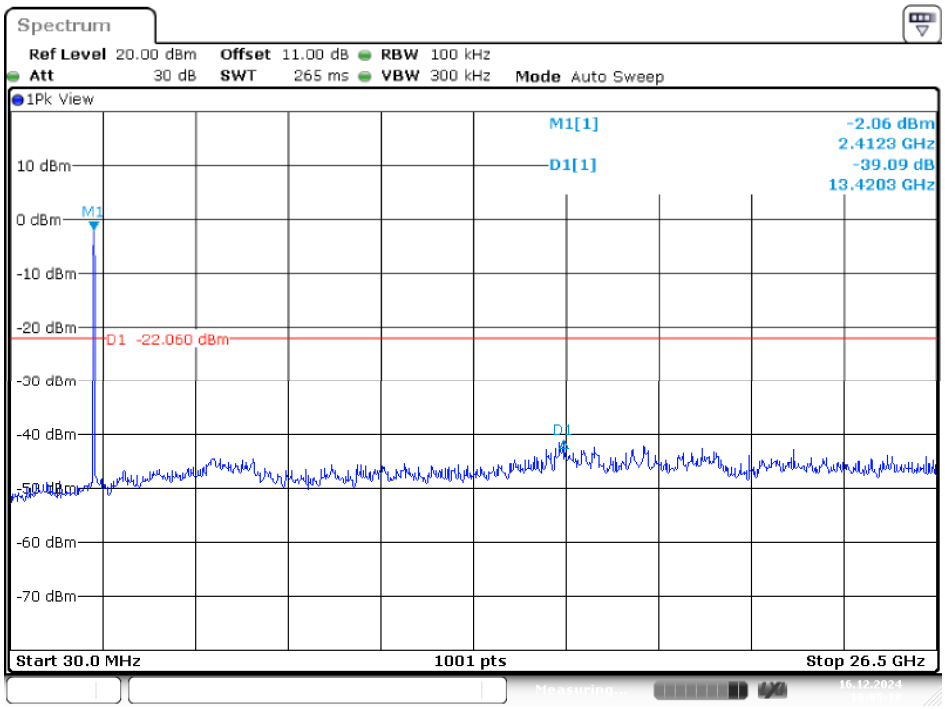
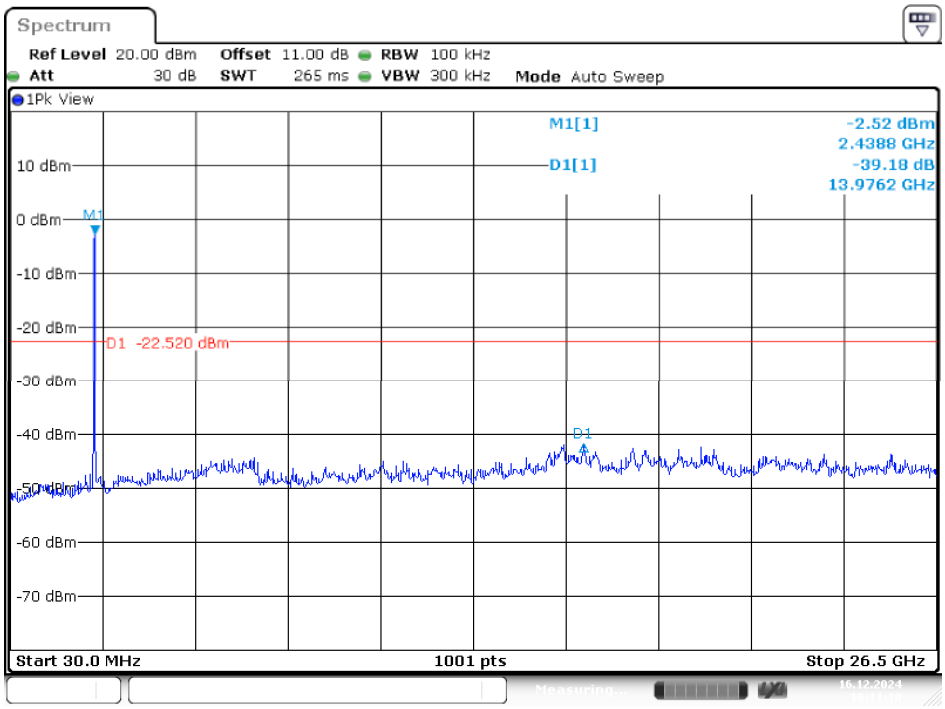
AX40 Mode

Low Channel



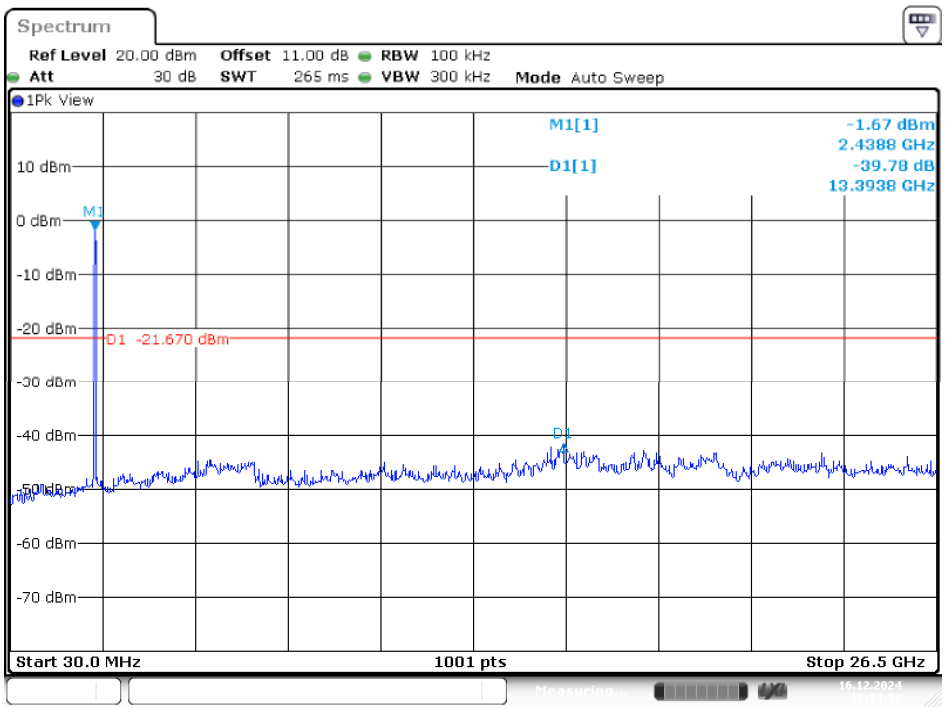
Date: 16.DEC.2024 10:05:18

Middle Channel



Date: 16.DEC.2024 10:11:10

High Channel

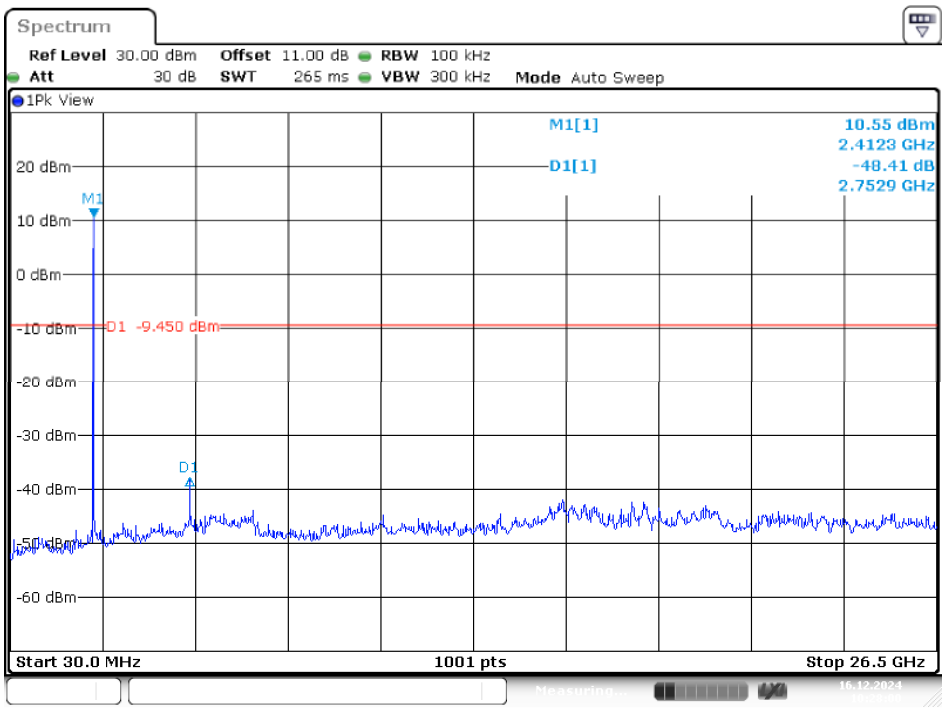


Date: 16.DEC.2024 10:14:52

Chain 3

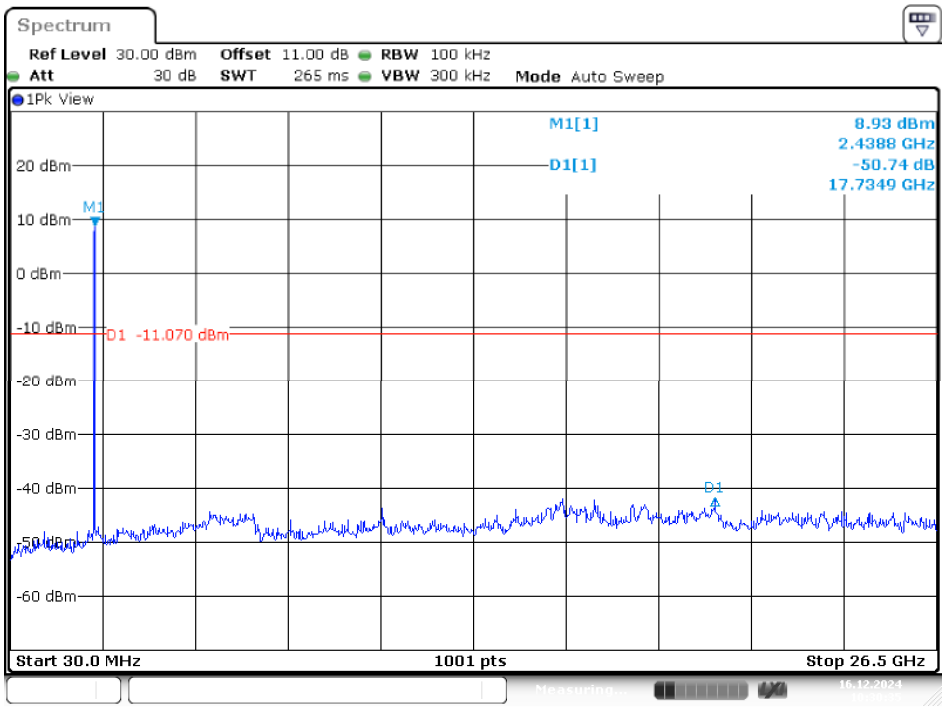
B Mode

Low Channel



Date: 16.DEC.2024 10:28:00

Middle Channel



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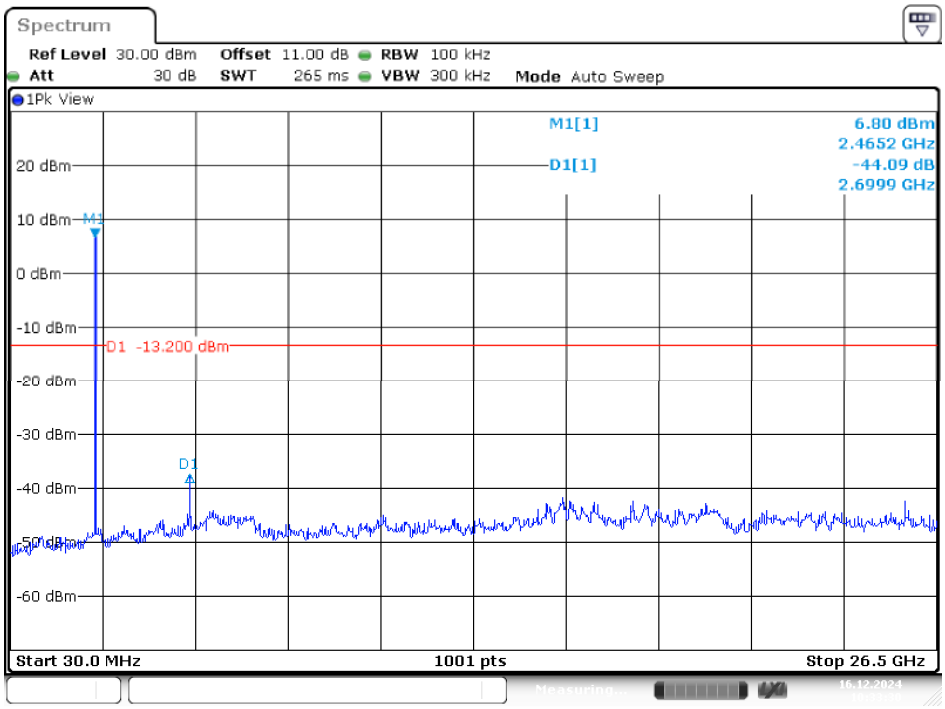
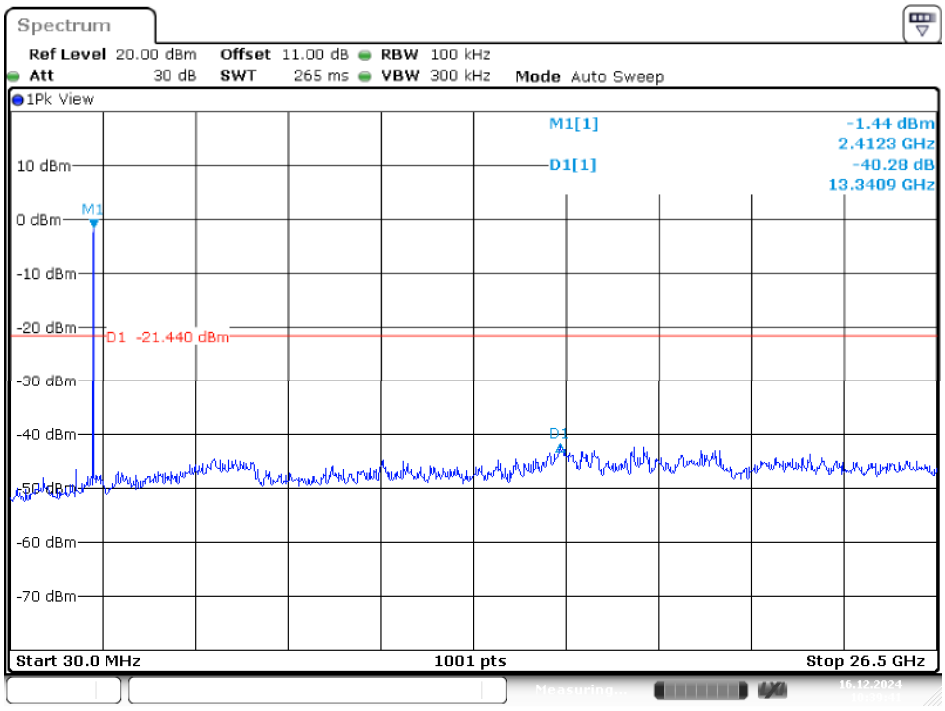
High Channel



Date: 16.DEC.2024 10:33:31

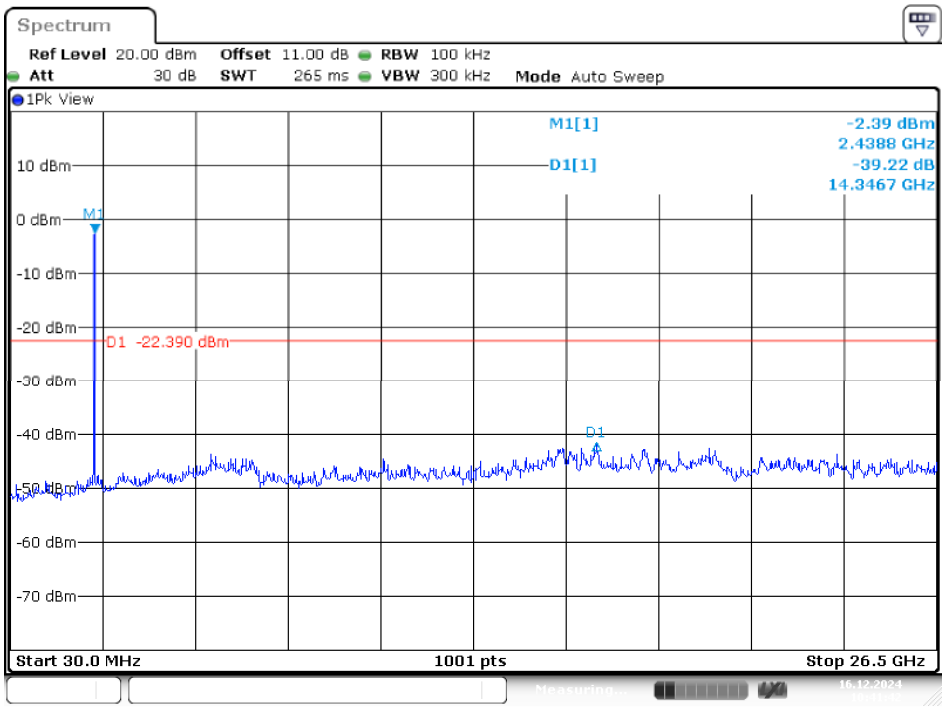
G Mode

Low Channel



Date: 16.DEC.2024 10:39:41

Middle Channel



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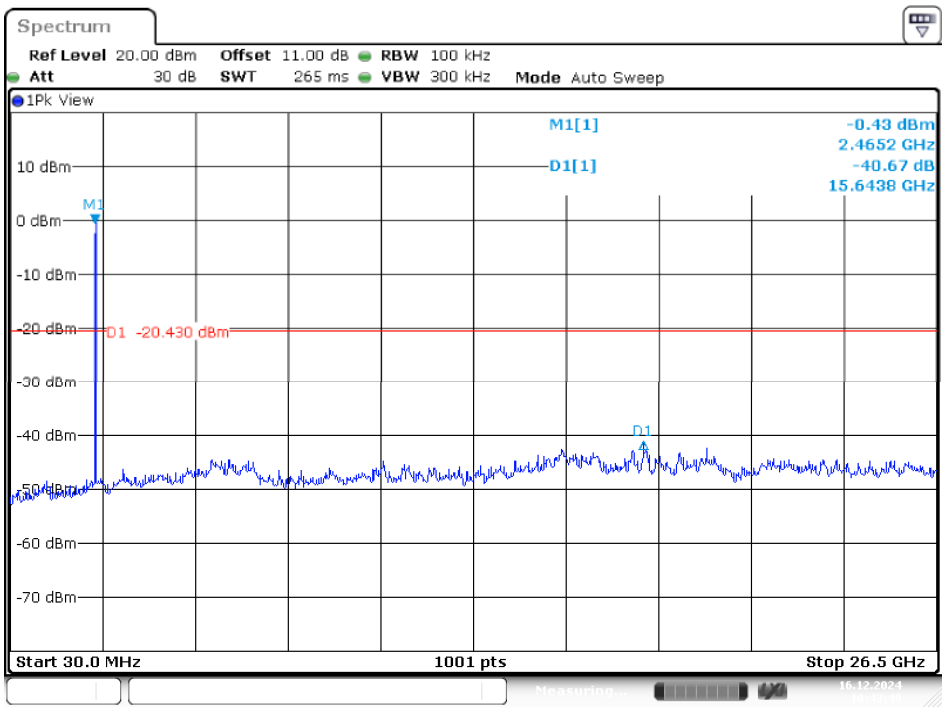
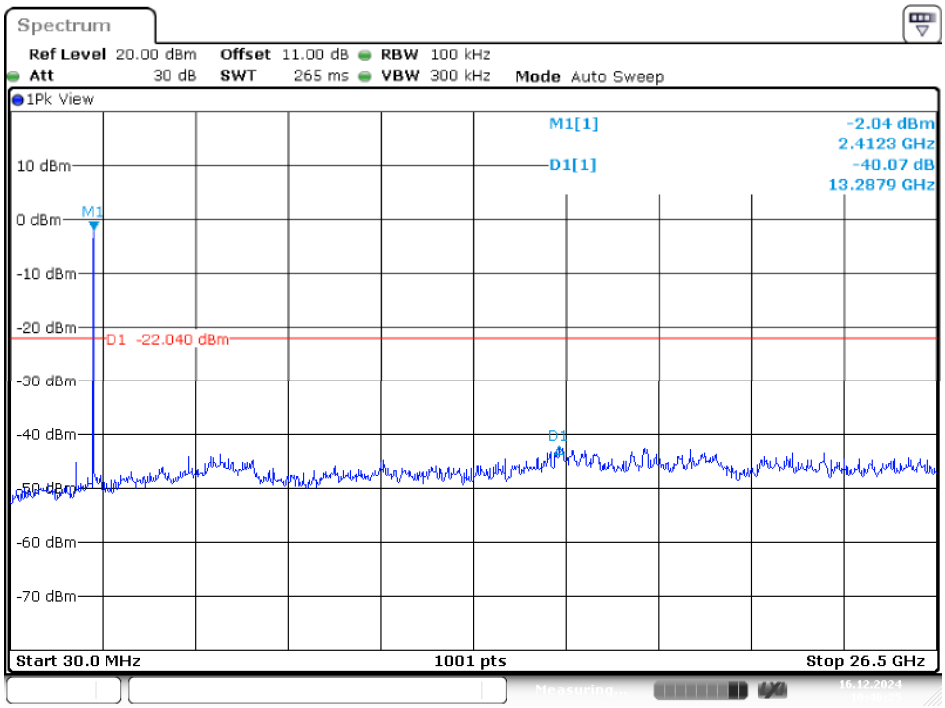
High Channel



Date: 16.DEC.2024 10:43:50

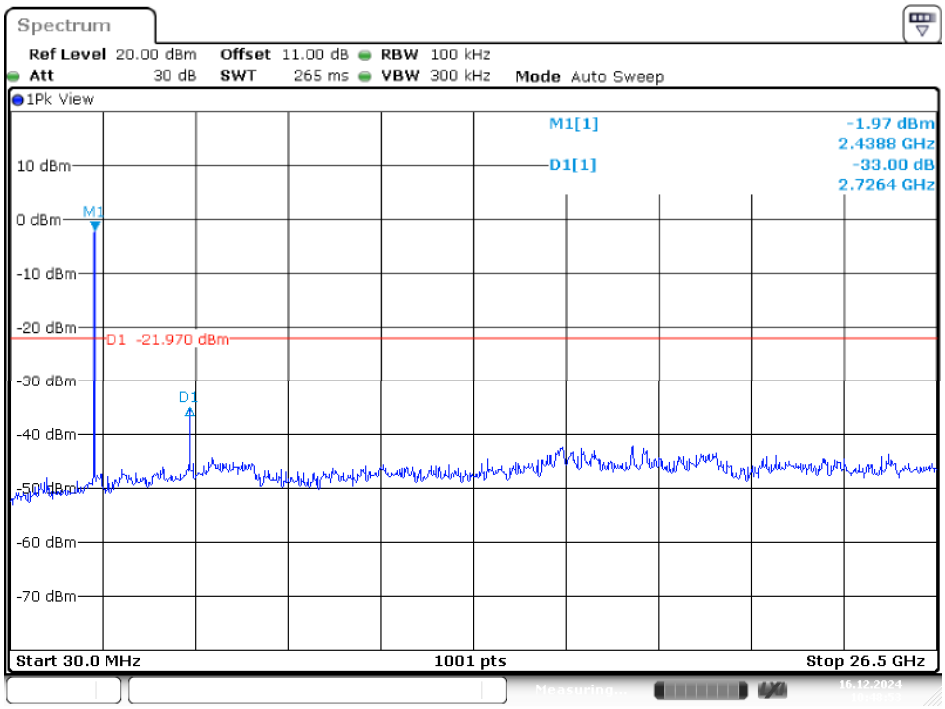
N20 Mode

Low Channel



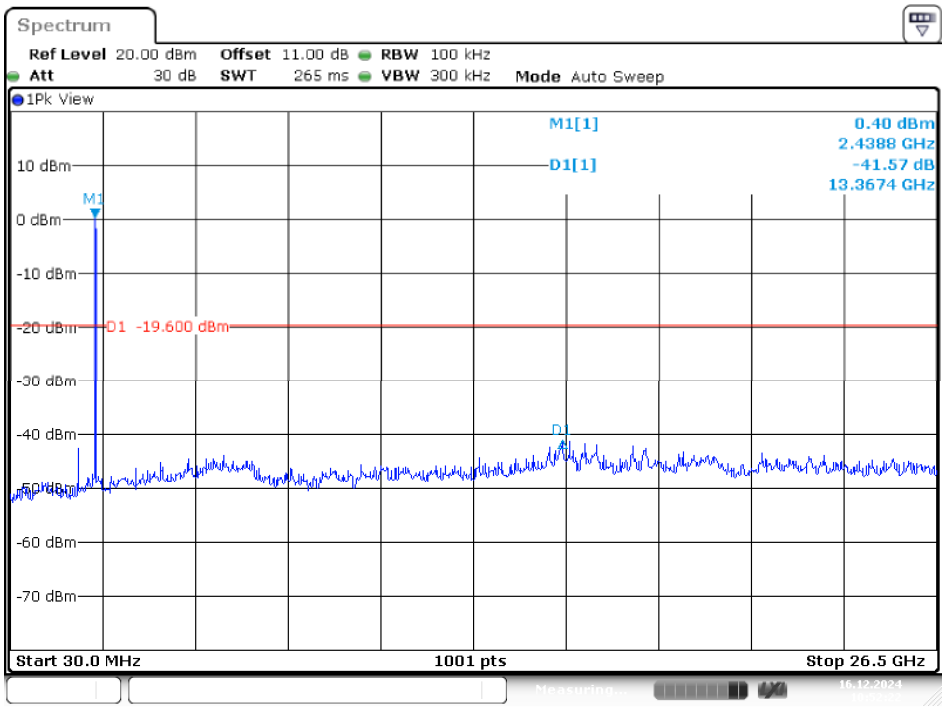
Date: 16.DEC.2024 10:46:25

Middle Channel



Date: 16.DEC.2024 10:48:53

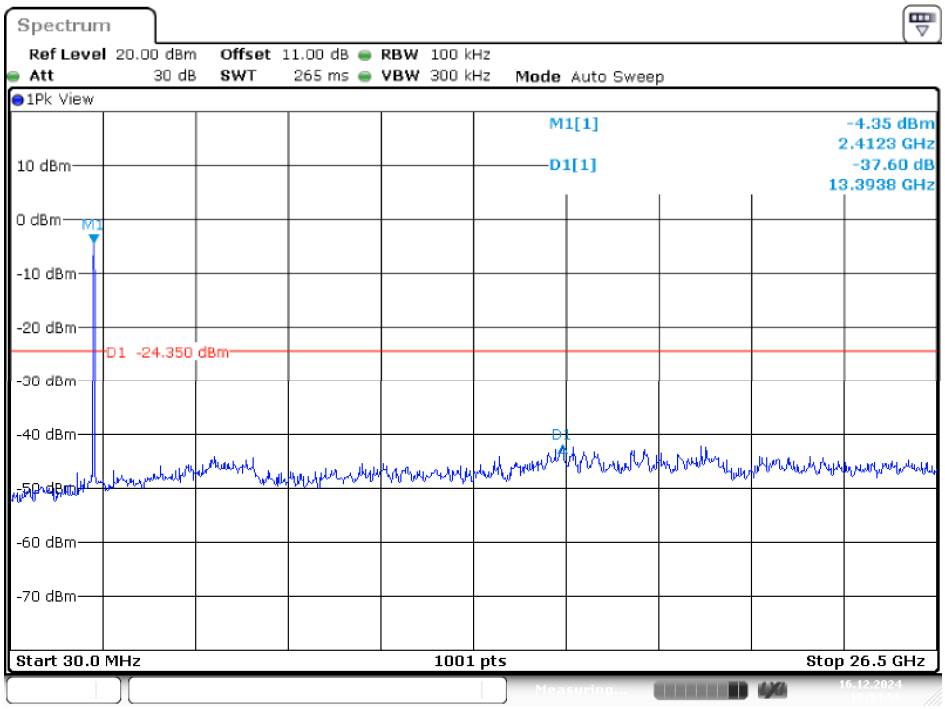
High Channel



Date: 16.DEC.2024 10:52:23

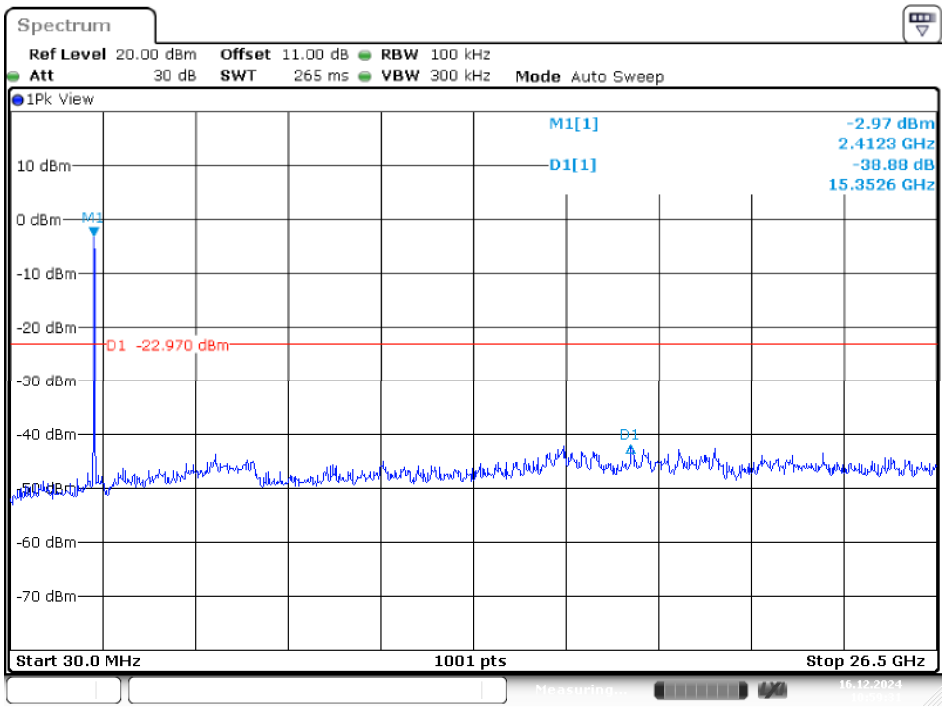
N40 Mode

Low Channel



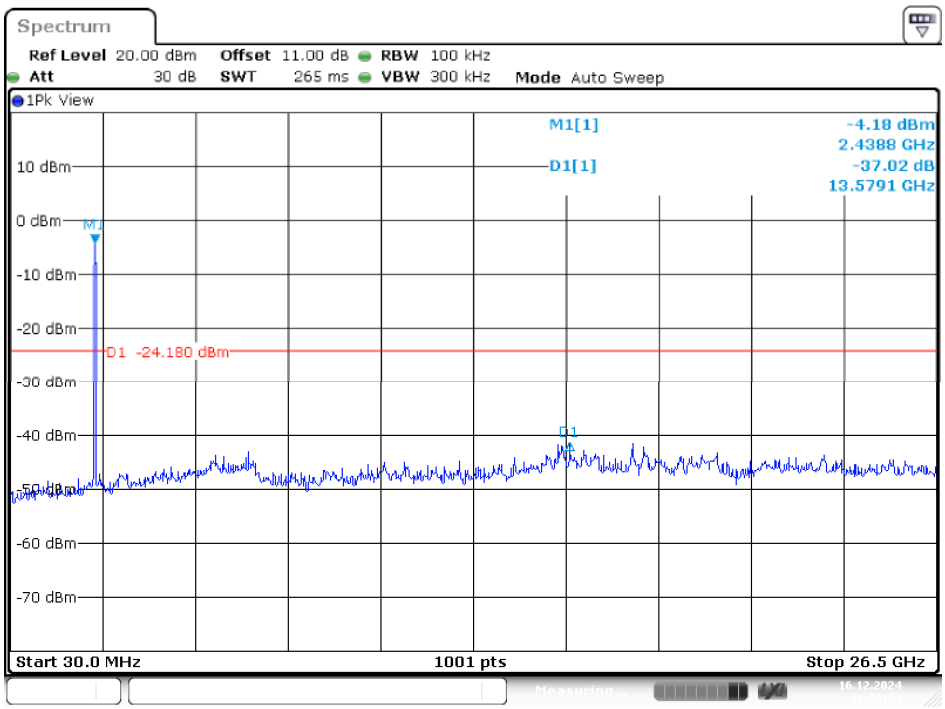
Date: 16.DEC.2024 10:54:56

Middle Channel



Date: 16.DEC.2024 10:59:31

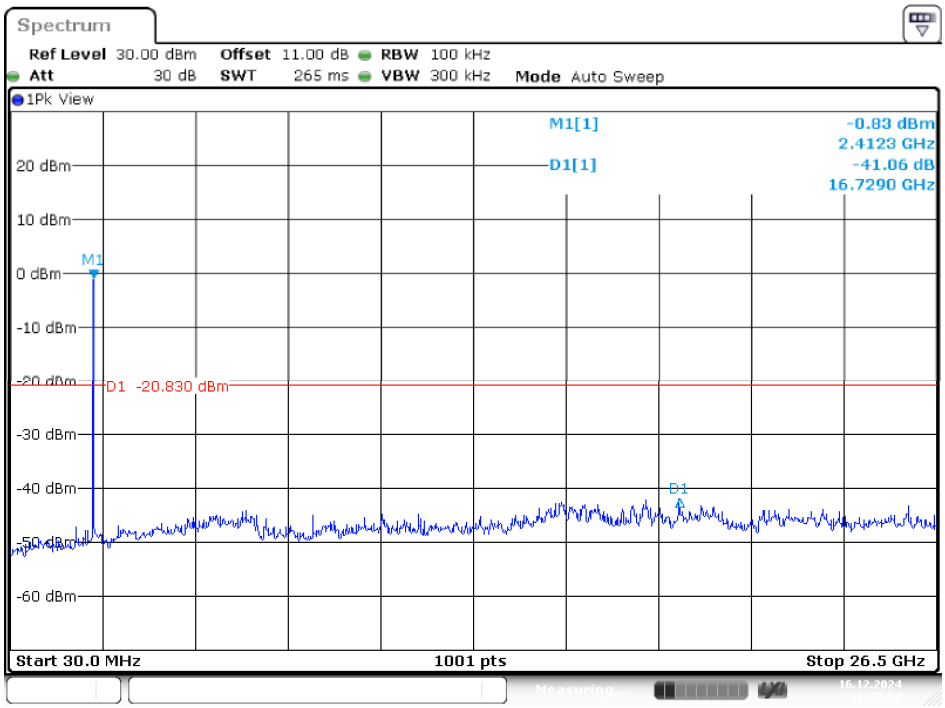
High Channel



Date: 16.DEC.2024 11:03:24

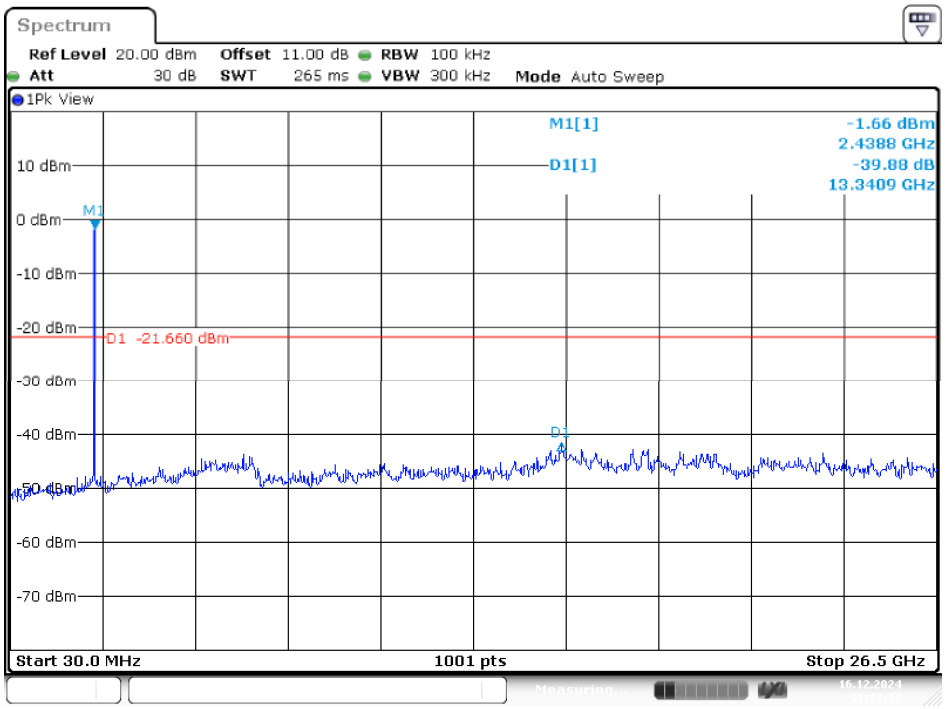
AX20 Mode

Low Channel



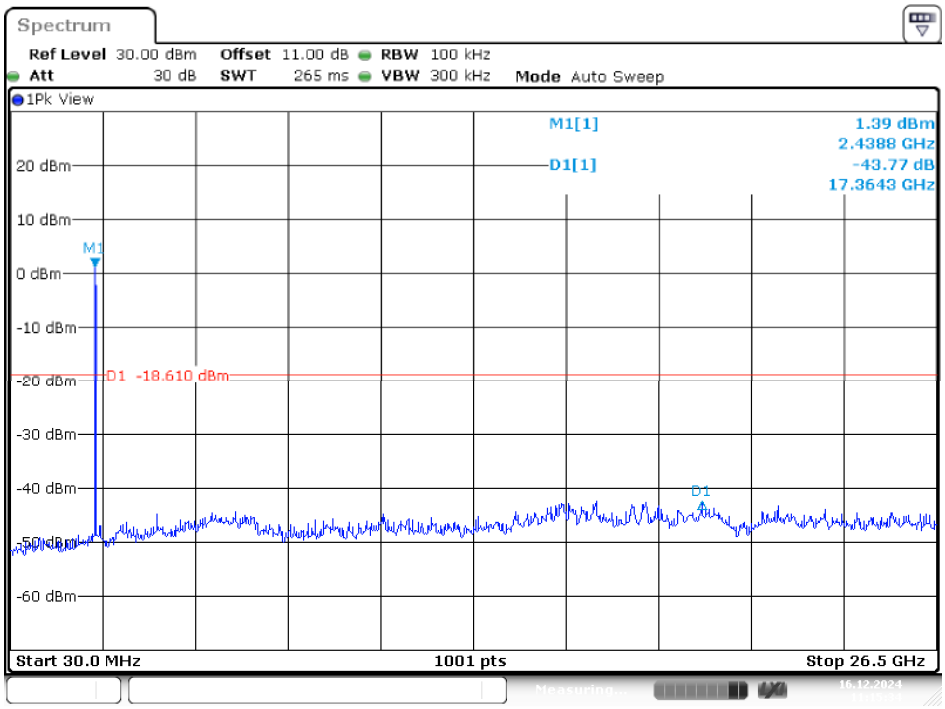
Date: 16.DEC.2024 11:07:53

Middle Channel



Date: 16.DEC.2024 11:13:17

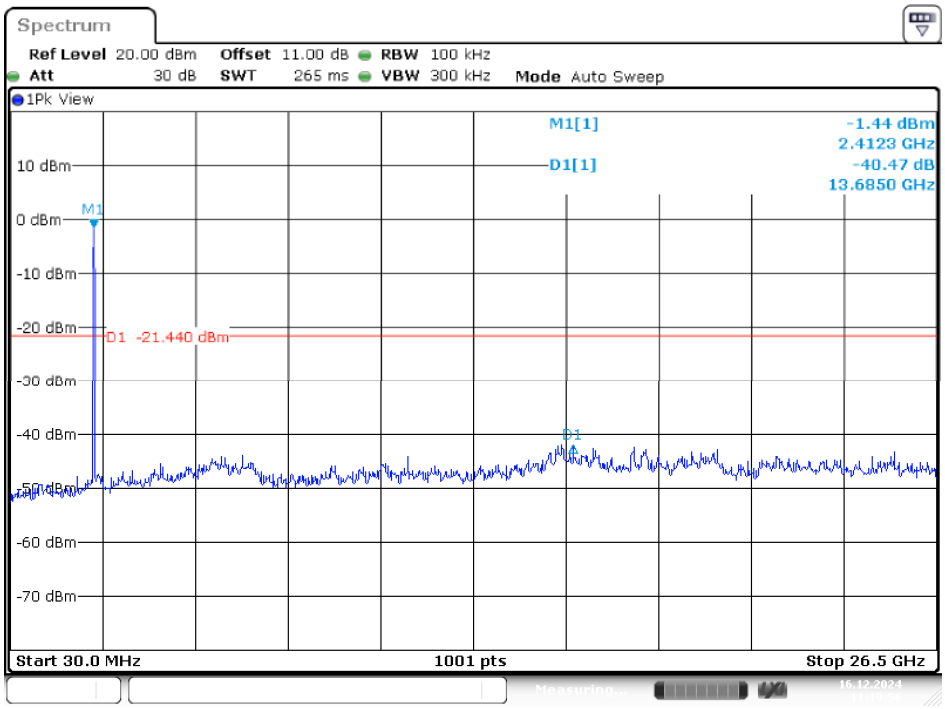
High Channel



Date: 16.DEC.2024 11:15:34

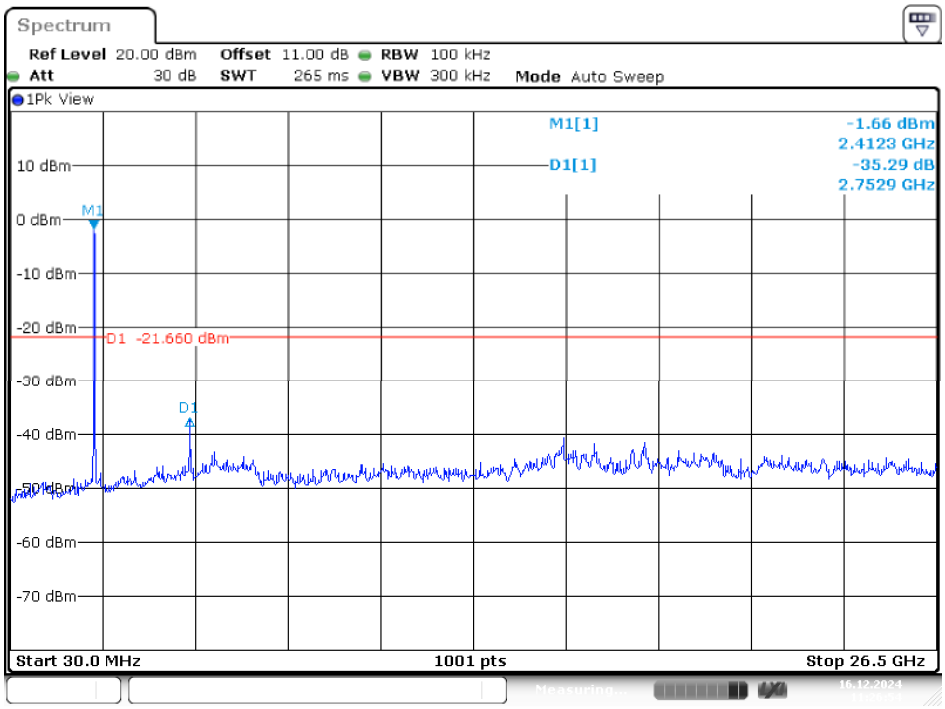
AX40 Mode

Low Channel



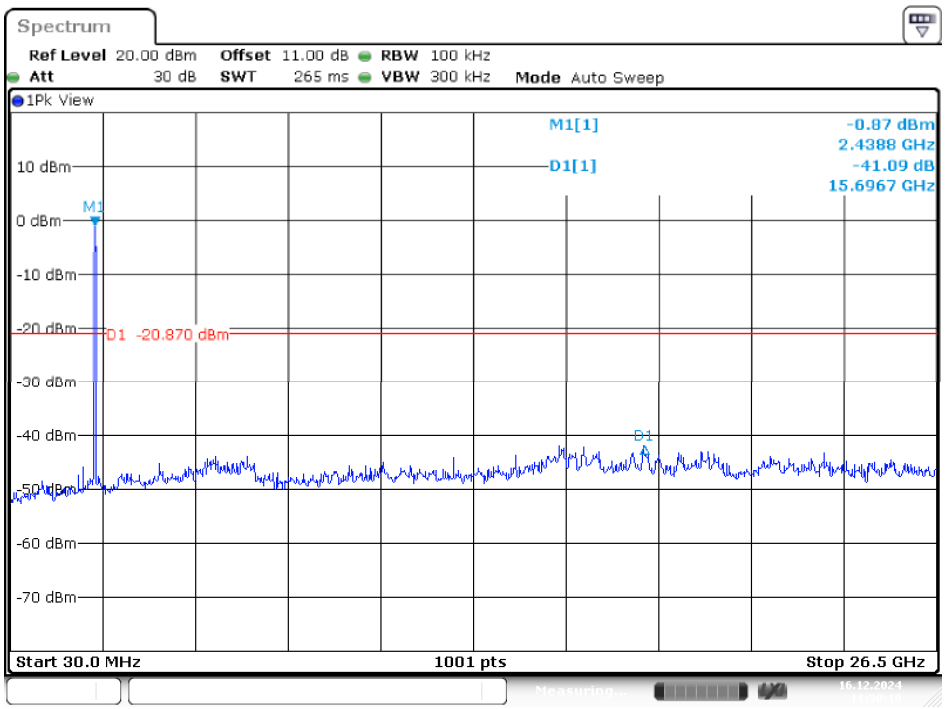
Date: 16.DEC.2024 11:19:56

Middle Channel



Date: 16.DEC.2024 11:26:55

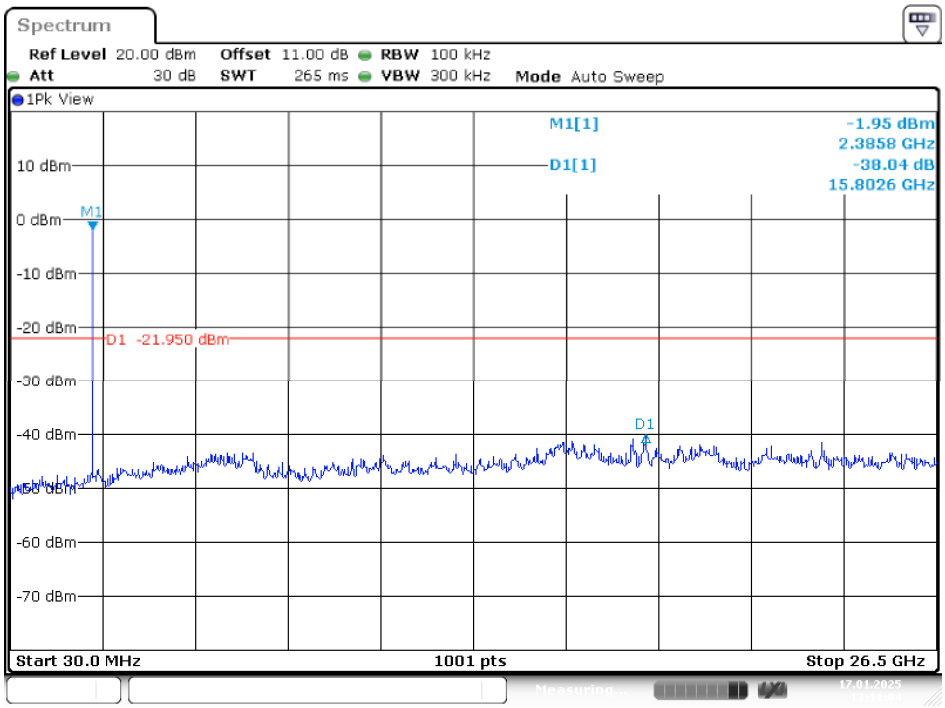
High Channel



Date: 16.DEC.2024 11:30:11

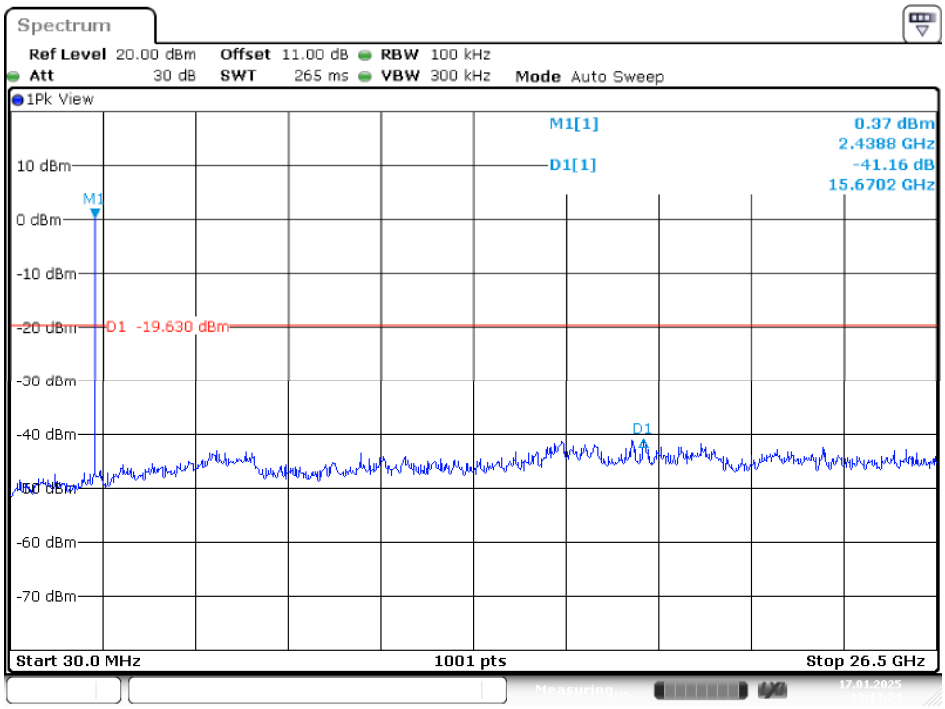
BLE 1M Mode

Low Channel



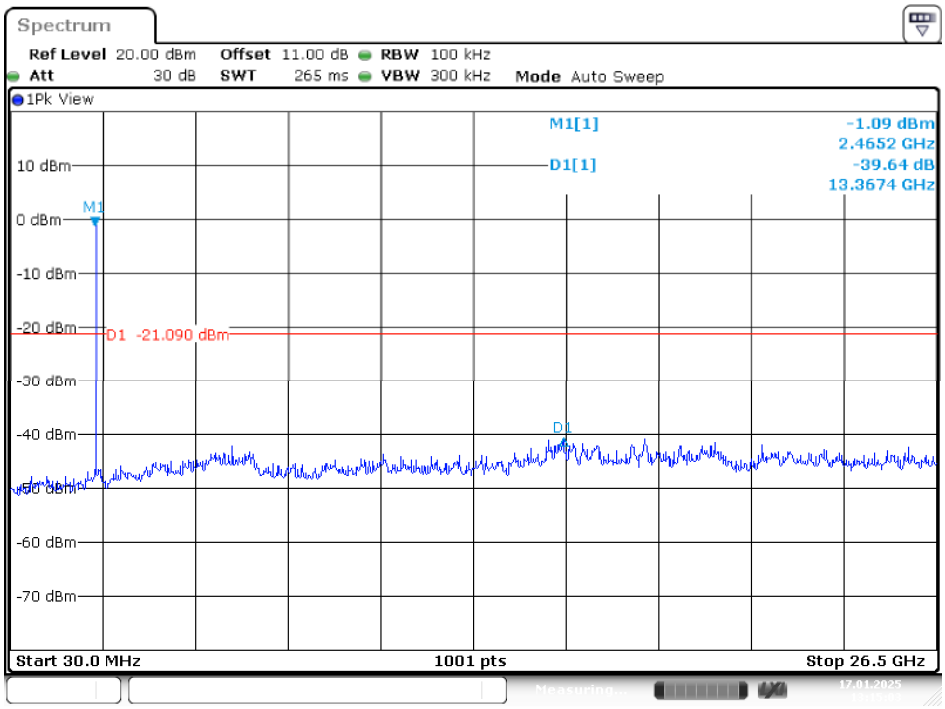
Date: 17.JAN.2025 13:11:04

Middle Channel



Date: 17.JAN.2025 13:13:24

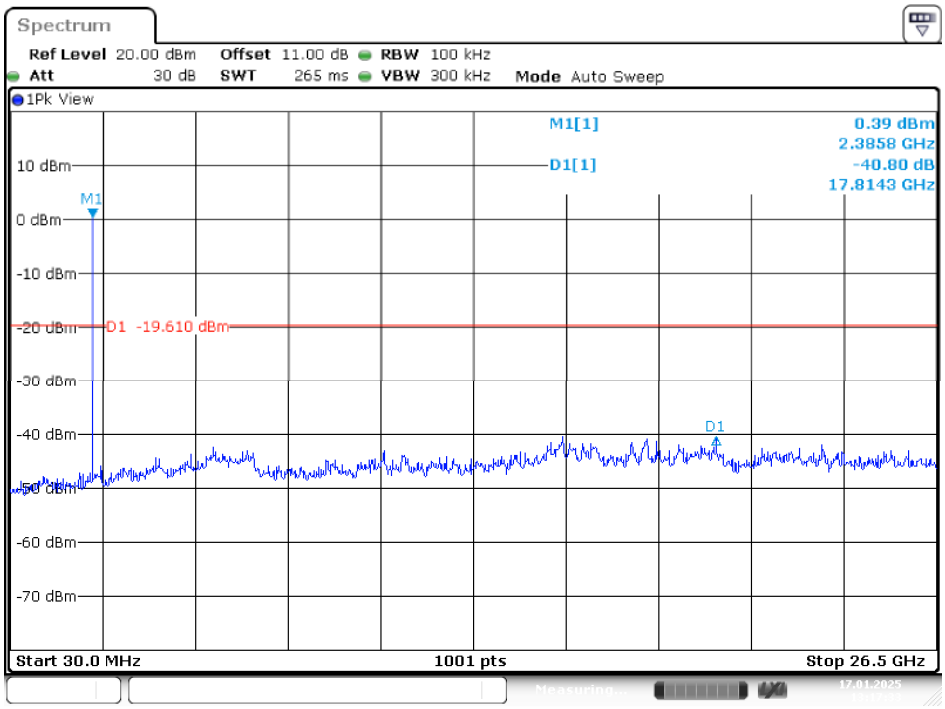
High Channel



Date: 17.JAN.2025 13:15:04

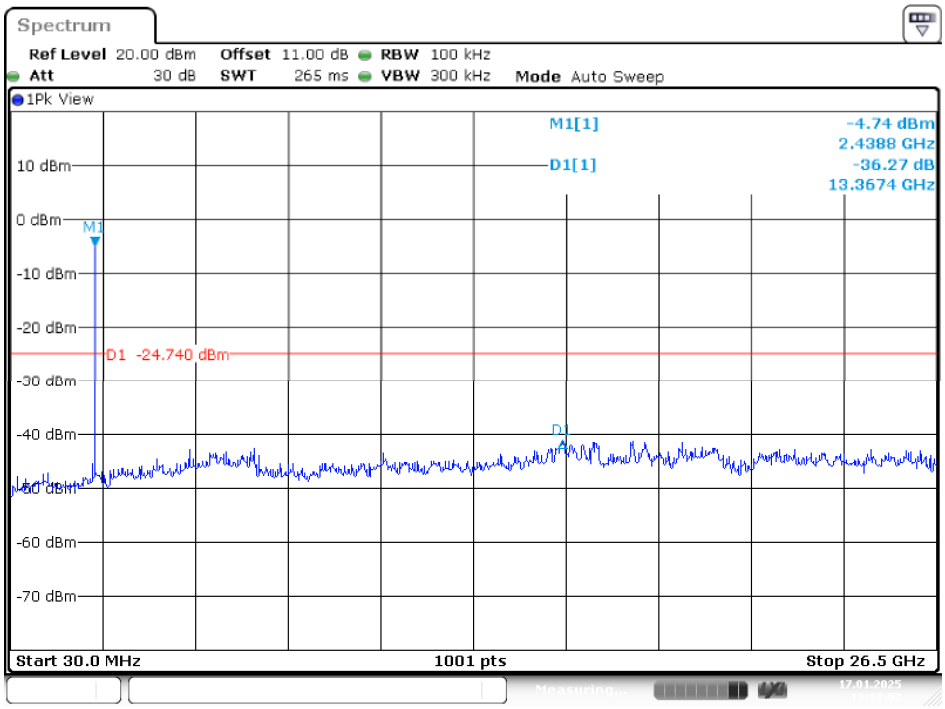
BLE 2M Mode

Low Channel



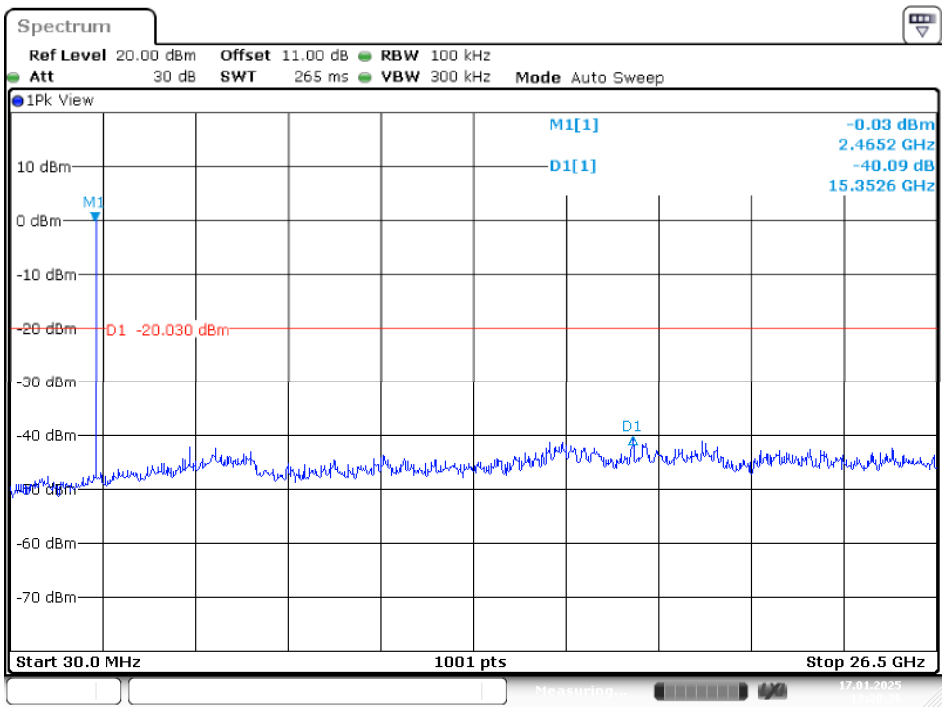
Date: 17.JAN.2025 13:17:34

Middle Channel



Date: 17.JAN.2025 13:18:52

High Channel



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9 FCC §15.247(a)(2) – 6 dB Emission Bandwidth

9.1 Applicable Standard

According to FCC §15.247(a)(2).

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

9.2 Test Procedure

According to ANSI C63.10-2013, section 11.8

The steps for the first option are as follows:

a) Set RBW = 100 kHz.

b) Set the VBW ≥ [3 × RBW].

c) Detector = peak.

d) Trace mode = max hold.

e) Sweep = auto couple.

f) Allow the trace to stabilize.

g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

9.3 Test Results

WIFI

Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)				Limit (kHz)	Result
		Chain 0	Chain 1	Chain 2	Chain 3		
B mode							
Low	2412	8.04	8.04	8.08	8.04	> 500	PASS
Mid	2437	8.04	8.04	8.04	8.04	> 500	PASS
High	2462	8.04	8.04	8.08	8.04	> 500	PASS
G mode							
Low	2412	16.32	16.04	15.44	15.12	> 500	PASS
Mid	2437	16.32	16.28	15.64	15.12	> 500	PASS
High	2462	15.68	16.28	15.32	15.32	> 500	PASS
N20 mode							
Low	2412	17.56	17.28	17.16	15.36	> 500	PASS
Mid	2437	16.68	16.56	16.32	15.72	> 500	PASS
High	2462	16.08	16.92	16.28	16.04	> 500	PASS
N40 mode							
Low	2422	35.12	35.12	35.12	35.12	> 500	PASS
Mid	2437	35.12	35.12	35.12	35.12	> 500	PASS
High	2452	35.12	35.12	35.12	35.12	> 500	PASS
AX20 mode							
Low	2412	18.00	18.28	18.04	18.44	> 500	PASS
Mid	2437	16.80	18.28	17.28	17.80	> 500	PASS
High	2462	17.56	18.04	17.08	17.76	> 500	PASS
AX40 mode							
Low	2422	35.12	33.36	36.88	36.72	> 500	PASS
Mid	2437	35.12	37.28	36.88	36.32	> 500	PASS
High	2452	35.04	37.04	37.36	36.40	> 500	PASS