FCC Part 15.247

TEST REPORT

For

Renesas Design Korea Inc.

7th SiliconPark, 35 Pangyo-ro 255 beon-gil Bundang-gu, Seongnam-si, Gyeonggi-do, 13486

FCC ID: 2AU49-RRQ61051008

Report Type:	**Product Type:**
Original Report	RRQ61051 Module

Report Producer : Charlie Li

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Report Date : 2025-12-31

Reviewed By: Rory Cheng

Prepared By:

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Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RLK250801004	RLK250801004RF04	2025-12-31	Original Report	Charlie Li

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1 General Information

1.1 Product Description for Equipment under Test (EUT)

Applicant	Renesas Design Korea Inc. 7th SiliconPark, 35 Pangyo-ro 255 beon-gil Bundang-gu, Seongnam-si, Gyeonggi-do, 13486
Manufacturer	Renesas Design Korea Inc. 7th SiliconPark, 35 Pangyo-ro 255 beon-gil Bundang-gu, Seongnam-si, Gyeonggi-do, 13486
Brand(Trade) Name	Renesas
Product (Equipment)	RRQ61051 Module
Main Model Name	RRQ61051-008
Series Model Name	N/A
Model Discrepancy	N/A
Frequency Range	IEEE 802.11b/g/n HT20/ax HE20 Mode: 2412 ~ 2462 MHz BLE(1M): 2402 ~ 2480 MHz
Maximum Conducted Peak Output Power	IEEE 802.11b Mode: 19.97 dBm (0.099W) IEEE 802.11g Mode: 19.80 dBm (0.095W) IEEE 802.11n HT20 Mode: 19.96 dBm (0.099W) IEEE 802.11ax HE20 Mode: 19.81 dBm (0.096W) BLE(1M) Mode : 1.63 dBm (0.0015W)
Modulation Technique	IEEE 802.11b Mode: DSSS IEEE 802.11g Mode: OFDM IEEE 802.11n HT20 Mode: OFDM IEEE 802.11ax HE20 Mode: OFDMA BLE(1M) Mode: GFSK
Power Operation (Voltage Range)	☐ AC 120V/60Hz ☐ Adapter ☐ By AC Power Cord ☐ PoE
	☐ DC Type ☐ Battery ☐ DC Power Supply ☐ External from USB Cable ☐ External DC Adapter
	☒ 3.3Vdc
Received Date	Aug 01, 2025
Date of Test	Sep 25, 2025 ~ Nov 01, 2025

*All measurement and test data in this report was gathered from production sample serial number: RLK250801004-01 (Assigned by BACL, Linkou Laboratory).

**This device cannot run both WIFI 2.4G and WIFI 5G simultaneously.

***802.11ax mode only support full RU

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1.2 Objective

This report is prepared on behalf of Renesas Design Korea Inc. 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 C63.10-2020+Cor.1-2023, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices and KDB 558074 D01 15.247 Meas Guidance v05r02.

1.4 Statement of Compliance

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

1. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory).
2. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.
3. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
4. 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.
5. Bay Area Compliance Laboratories Corp. (Linkou 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		±2.98 (dB)
RF output power, conducted		±3.73 (dB)
Power Spectral Density, conducted		±0.65 (dBm)
Occupied Bandwidth		±0.09 (%)
Unwanted Emissions, conducted		±1.03 (dB)
Emissions, radiated	9kHz~30MHz	+/- 3.13 dB
	30 MHz~1GHz	+/- 3.09 dB
	1 GHz~18 GHz	+/- 5.22 dB
	18 GHz~40 GHz	+/- 4.72 dB
Temperature		±0.04 (%)
Humidity		±0.78 (°C)

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 Data	Temperature (℃)	Relative Humidity (%)	Test Engineer
AC Line Conducted Emissions	2025/10/21	25.5	53	Cedric Xu
Radiation Spurious Emissions	2025/10/22~2025/11/01	20~24.5	45~51	Yue Zheng
Conducted Spurious Emissions	2025/09/25	24.1	46	Alan Huang
6 dB Emission Bandwidth	2025/09/25	24.1	46	Alan Huang
Maximum Output Power	2025/09/25	24.1	46	Alan Huang
100 kHz Bandwidth of Frequency Band Edge	2025/09/25	24.1	46	Alan Huang
Power Spectral Density	2025/09/25	24.1	46	Alan Huang
Duty Cycle	2025/09/25	24.1	46	Alan Huang

1.7 Test Facility

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

☒ No.6, Wende 2Rd., Guishan Dist., Taoyuan City 33382, Taiwan (R.O.C.).

Bay Area Compliance Laboratories Corp. (Linkou Laboratory) is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3546) and the FCC designation No.TW3546 under the Mutual Recognition Agreement (MRA) in FCC Test.

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2 System Test Configuration

2.1 Description of Test Configuration

For WIFI 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/n20/ax20 Modes were tested with channel 1, 6 and 11.

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.

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

2.2 EUT Exercise Software

WIFI 2.4G Used “TeraTerm5” software.

BLE Used “TeraTerm5” software. & SmartSnippets_Toolbox.exe

Test Frequency		Low	Mid	High
Power Level Setting	b Mode	12	13	11
	g Mode	11	12	11
	n20 Mode	9	12	9
	ax20 Mode	10	13	10
	BLE 1M	Default	Default	Default

The worst case data rates are as follows:

802.11b: 1Mbps

802.11g: 6Mbps

802.11n HT20: MCS0

802.11ax HE20: MCS0

BLE 1M : 1 Mbps

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2.3 Test Mode

Mode 1: Full System (model: RRQ61051-008) for all test item.

2.4 Support Equipment List and Details

No.	Description	Manufacturer	Model Number
1	Notebook (Lab provided)	DELL	E6410
2	Notebook (Lab provided)	Acer	N16Q1
3	Test Development Board (Customer provided)	RENESAS	EK-RQ61 565-11-C-0001 Ver 3.1
4	DaughterBoard (Customer provided)	RENESAS	RRQ610x1 565-16-B

2.5 External Cable List and Details

No.	Description	Manufacturer	Model Number
1	USB-A to Type-C cable (Customer provided)	VENTION	COZ

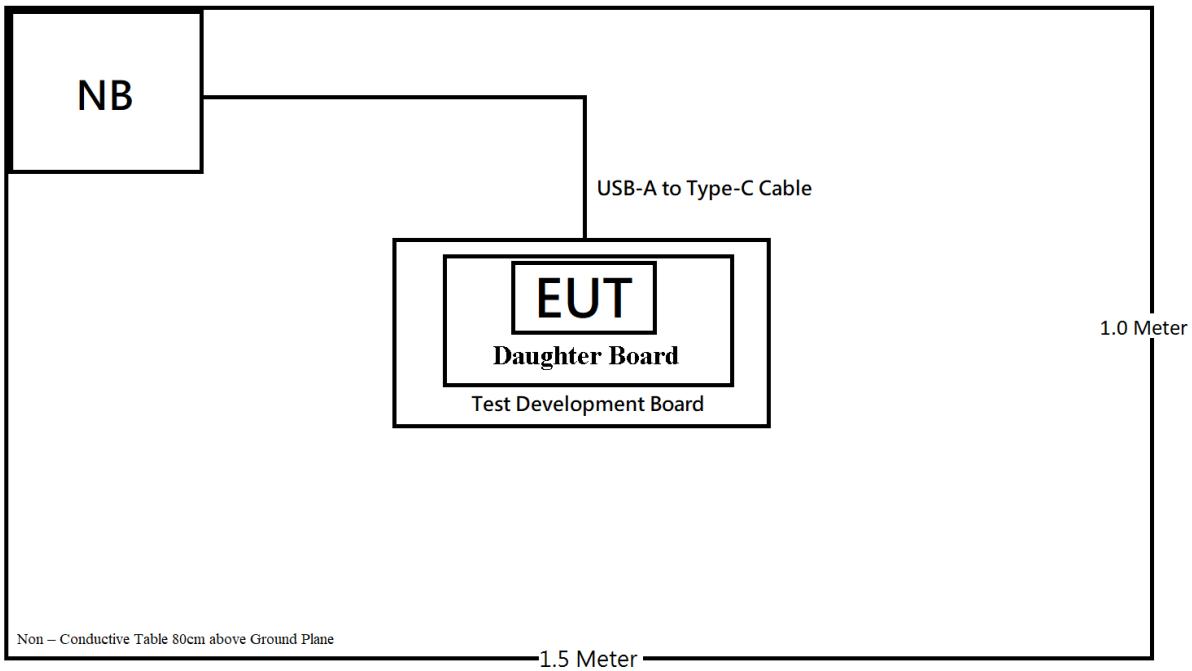
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2.6 Block Diagram of Test Setup

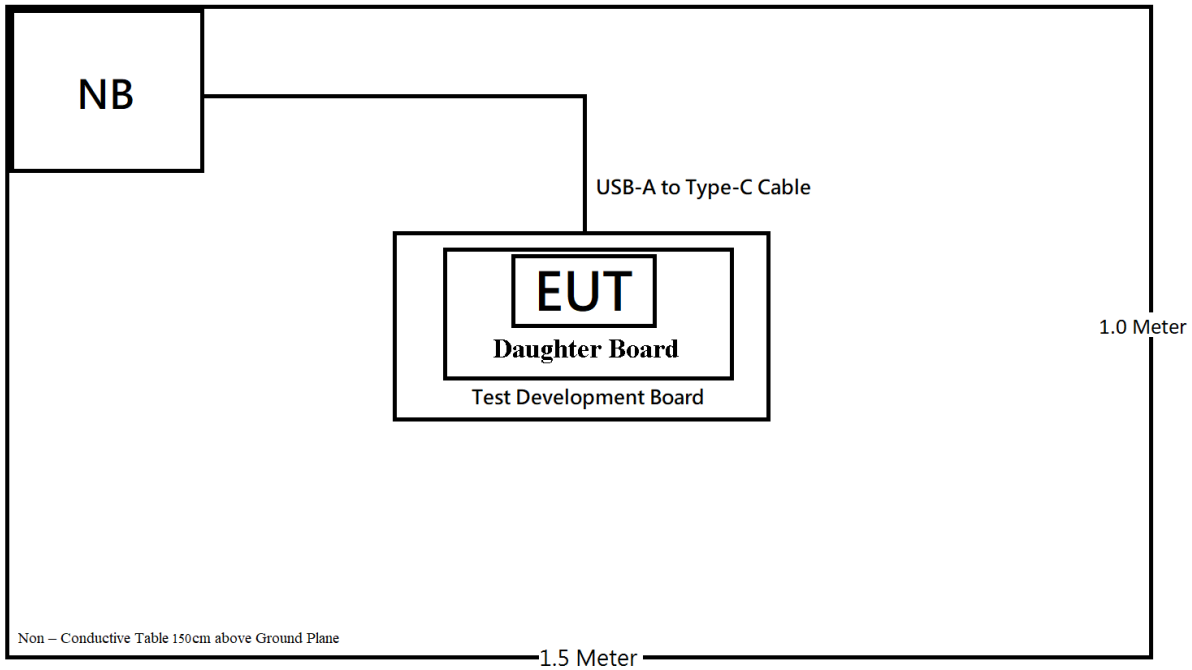
See test photographs attached in setup photos for the actual connections between EUT and support equipment.

Radiation:

Below 1GHz:

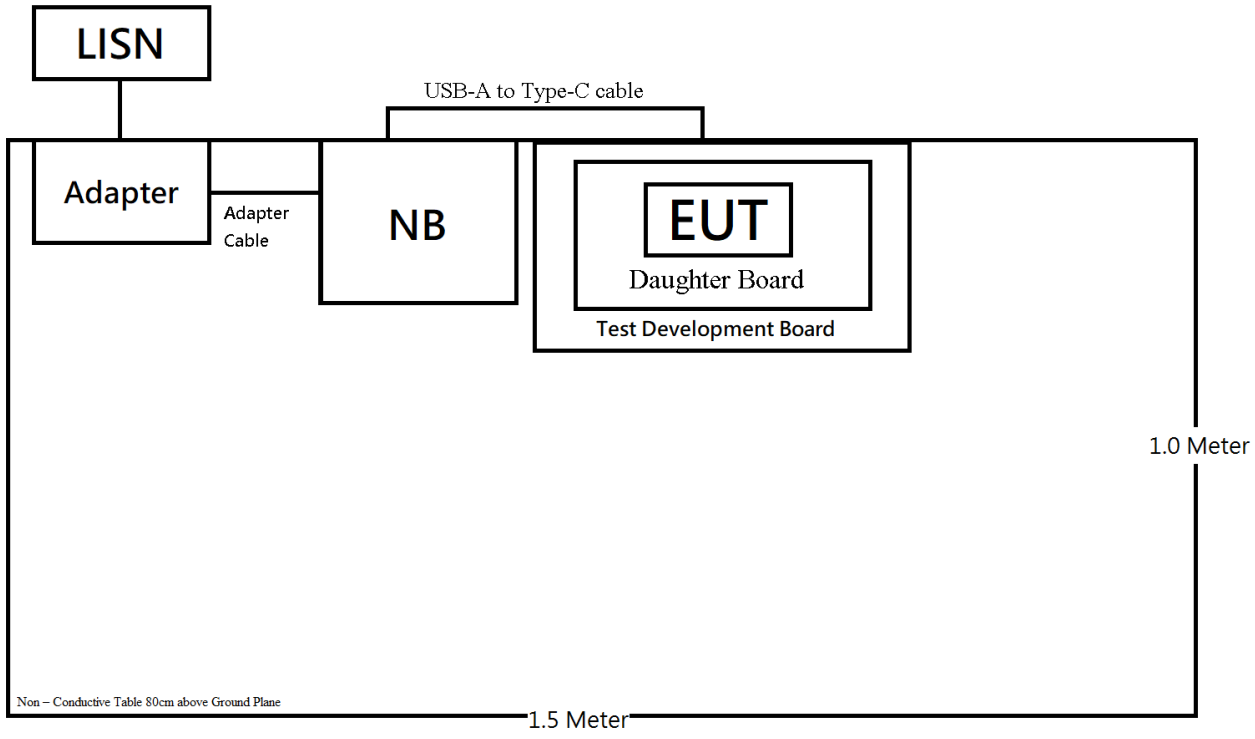


Above 1GHz:

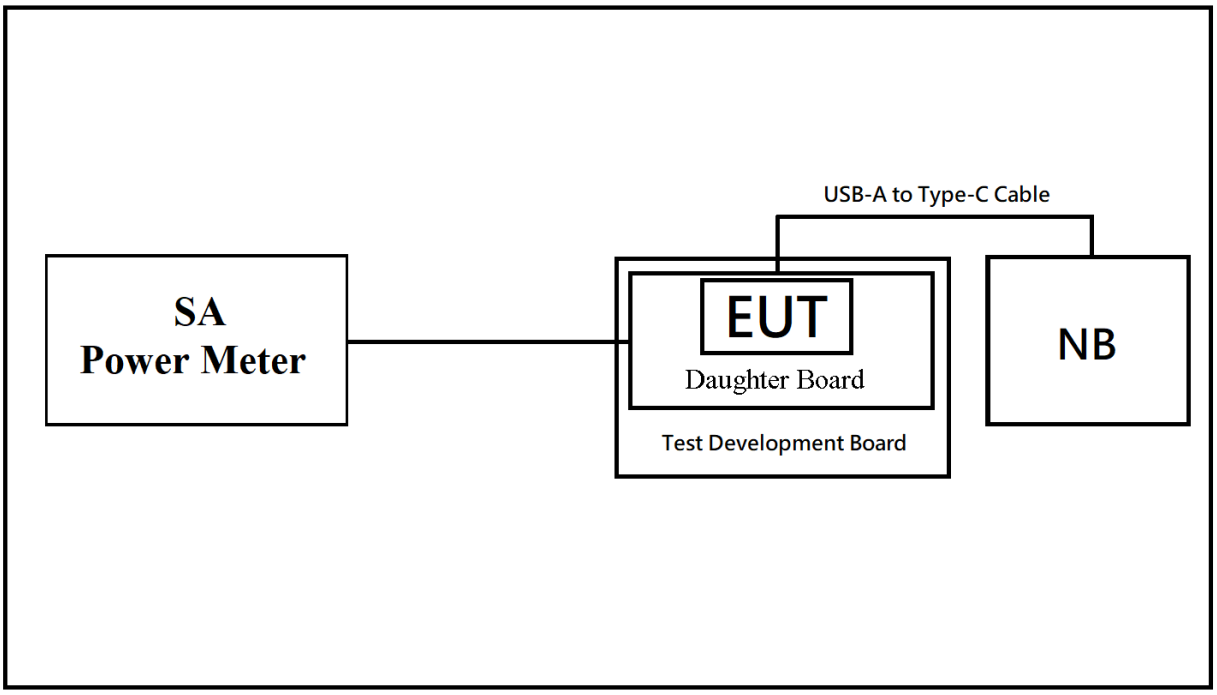


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Conduction:



Conducted:



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2.7 Duty Cycle

According to KDB 558074 D01 15.247 Meas Guidance v05r02 section 6.0:

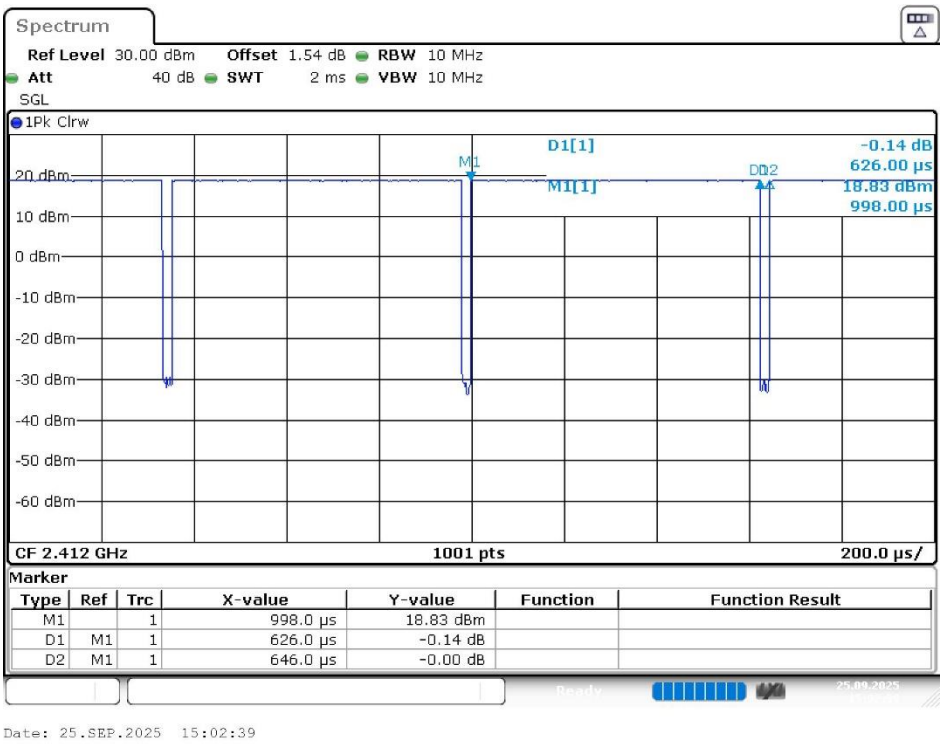
All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximumpower transmission duration, T, are required for each tested mode of operation.

Radio Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T VBW Seting (kHz)	1/T (kHz)
802.11b	0.626	0.646	97	0.13	3	1.6
802.11g	0.696	0.722	96	0.18	3	1.44
802.11 n20	0.292	0.32	91	0.41	5	3.42
802.11 ax20	2.846	2.878	99	0	/	0.01
BLE(1M)	9.93	10.035	99	0	/	0.01

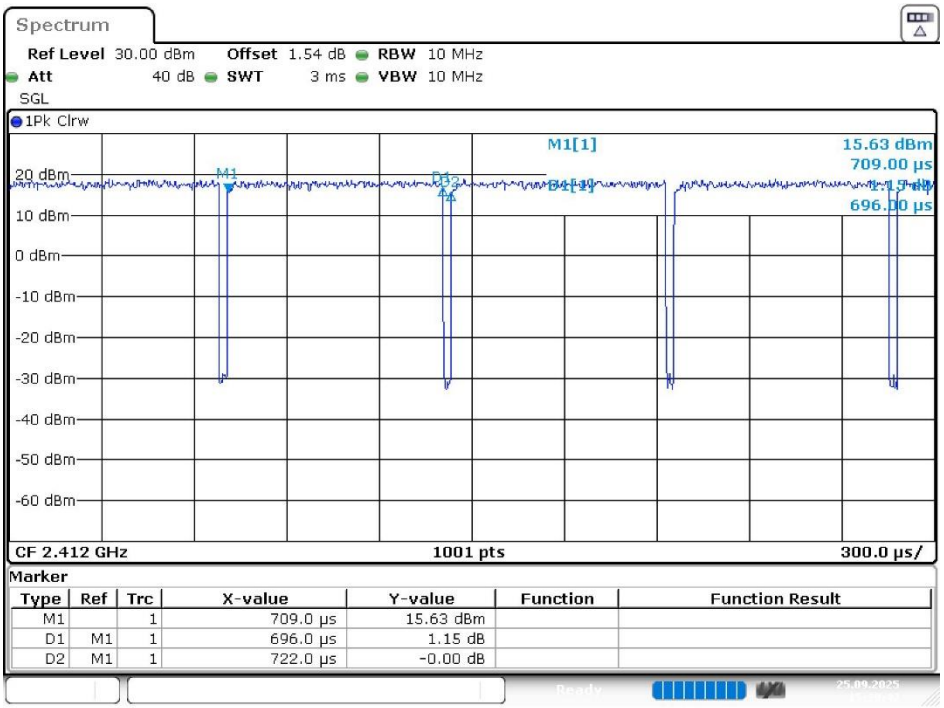
Note: Duty Cycle Correction Factor = 10*log(1/duty cycle)

Please refer to the following plots.

b Mode

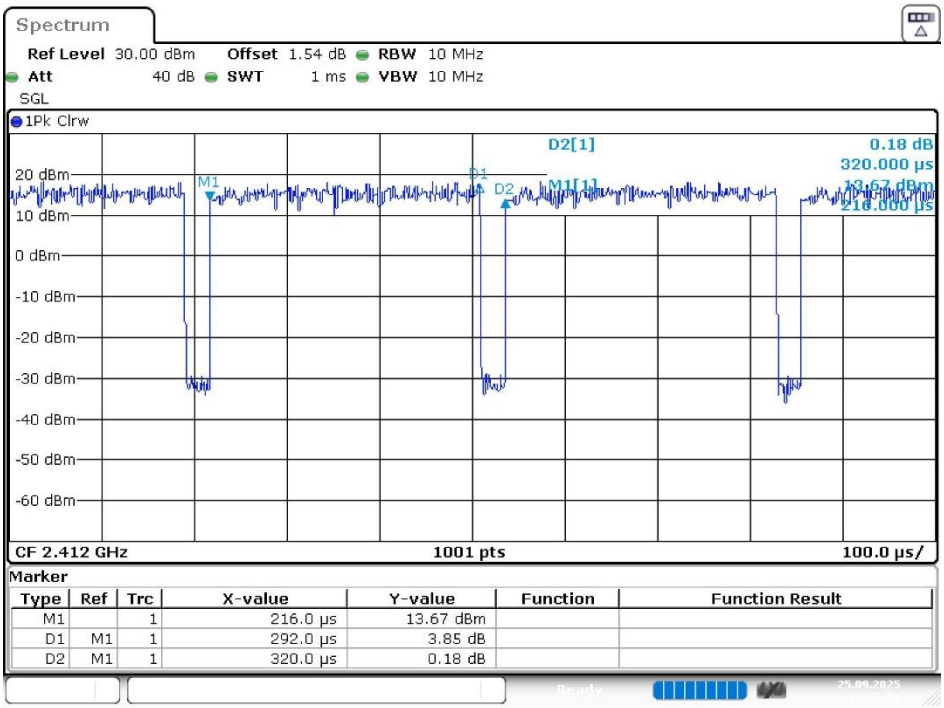


g Mode



Date: 25.SEP.2025 15:29:42

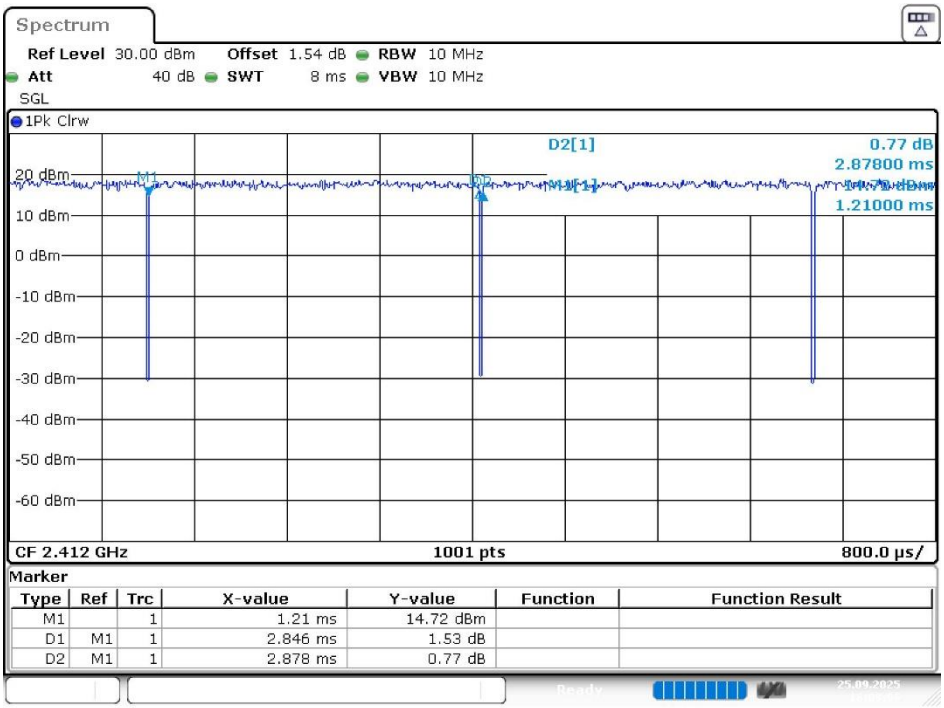
n20 Mode



Date: 25.SEP.2025 15:36:04

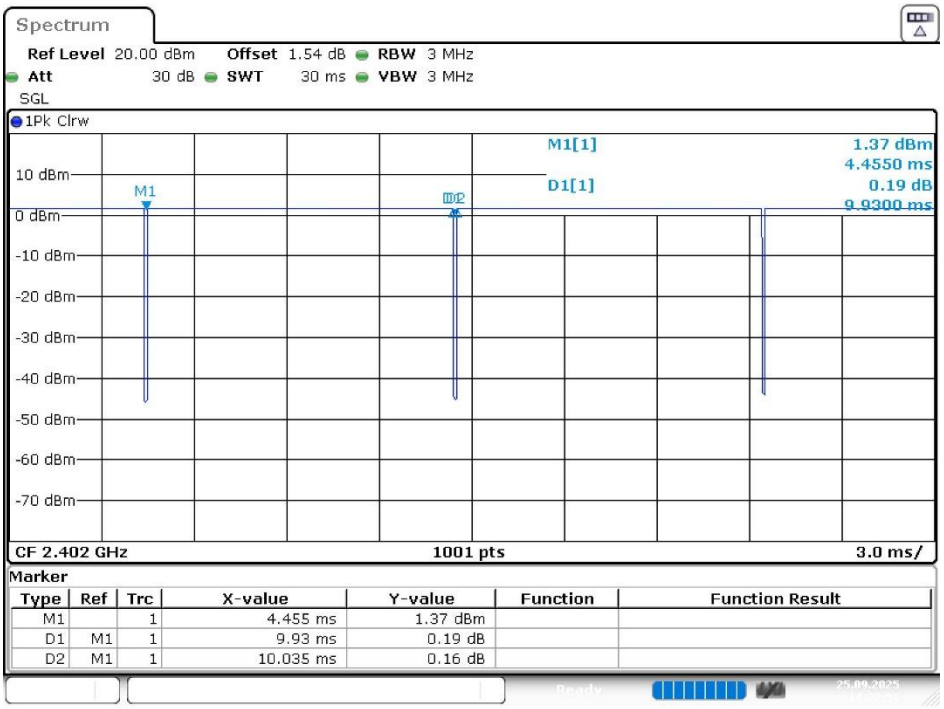
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ax20 Mode



Date: 25.SEP.2025 16:08:06

BLE (1M) Mode



Date: 25.SEP.2025 14:22:58

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3 Summary of Test Results

FCC Rules	Description of Test	Results
§15.203	Antenna Requirement	Compliance
§15.207(a)	AC Line Conducted Emissions	Compliance
§15.205, §15.209, §15.247(d)	Spurious Emissions	Compliance
§15.247(a)(2)	6 dB Emission Bandwidth	Compliance
§15.247(b)(3)	Maximum Peak Output Power	Compliance
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliance
§15.247(e)	Power Spectral Density	Compliance

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4 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
AC Line Conduction Room (CON-A)					
Pulse Limiter	SCHWARZBECK	VTSD 9561-F	00432	2025/08/14	2026/08/14
ESR EMI Test Receiver	Rohde & Schwarz	ESCI7	100769	2025/04/02	2026/04/02
RF Cable	EMCI	EMCCFD300-BM-BM-3000	221013	2025/10/16	2026/10/16
Two-Line V-Network	Rohde & Schwarz	ENV216	100037	2025/09/15	2026/09/15
Software	Audix	e3 v9	E3LK-03	N.C.R	N.C.R
Radiation 3M Room (966-A)					
Bilog Antenna & 6 dB Attenuator	SUNOL SCIENCES & EMCI	JB3 & N-6-06	A111513 & AT-N0668	2025/04/11	2026/04/11
Active Loop Antenna	ETS-Lindgren	6502	0001-3322	2025/03/27	2026/03/27
Horn Antenna	ETS-Lindgren	3115	109141	2025/08/22	2026/08/22
Horn Antenna	ETS-Lindgren	3160-09	123852	2025/07/18	2026/07/18
Horn Antenna	ETS-Lindgren	3160-10	123855	2025/07/18	2026/07/18
18-40GHz Preamplifier	GLOBAL	1313-A1840	5031382	2025/04/28	2026/04/28
30M-18GHz Preamplifier	A.H. Systems	PAM-0118P	470	2025/03/25	2026/03/25
ESR EMI Test Receiver	Rohde & Schwarz	ESR3	102448	2025/10/02	2026/10/02
Spectrum Analyzer	Rohde & Schwarz	FSV40	101456	2025/06/05	2026/06/05
Microflex Cable (1m)	UTiFLEX	UFB205A-0-0360-000000	W6103	2025/08/01	2026/08/01
Microflex Cable (2m)	EMCI	EMCI06-SM-SM-2000	180515	2025/08/01	2026/08/01
Microflex Cable (8m)	UTIFLEX	UFA210A-1-3149-300300	MFR 64639 232490-001	2025/08/01	2026/08/01
Software	AUDIX	E3 V9	E3LK-01	N.C.R	N.C.R
Conducted Room					
Cable	MTJ	MT40S	620620-MT40S-100	2024/12/26	2026/01/05

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Signal and Spectrum Analyzer	Rohde & Schwarz	FSV40	101457	2024/12/04	2025/12/04
USB Wideband Power Sensor	AGILENT	U2021XA	MY54080011	2025/08/26	2026/08/26
10dB Attenuator	MCL	BW-S10W5+	605	2025/04/14	2026/04/14

***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

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5 FCC §15.203 – Antenna Requirements

5.1 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.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna does not exceed 6dBi.

5.2 Antenna List and Details

Manufacturer	Model	Antenna Type	Antenna Gain
Renesas	RRQ610x1-008	PCB	-0.2 dBi

Unit use of a permanently attached antenna

Result: Compliance

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

6.1 Applicable Standard

According to §15.207

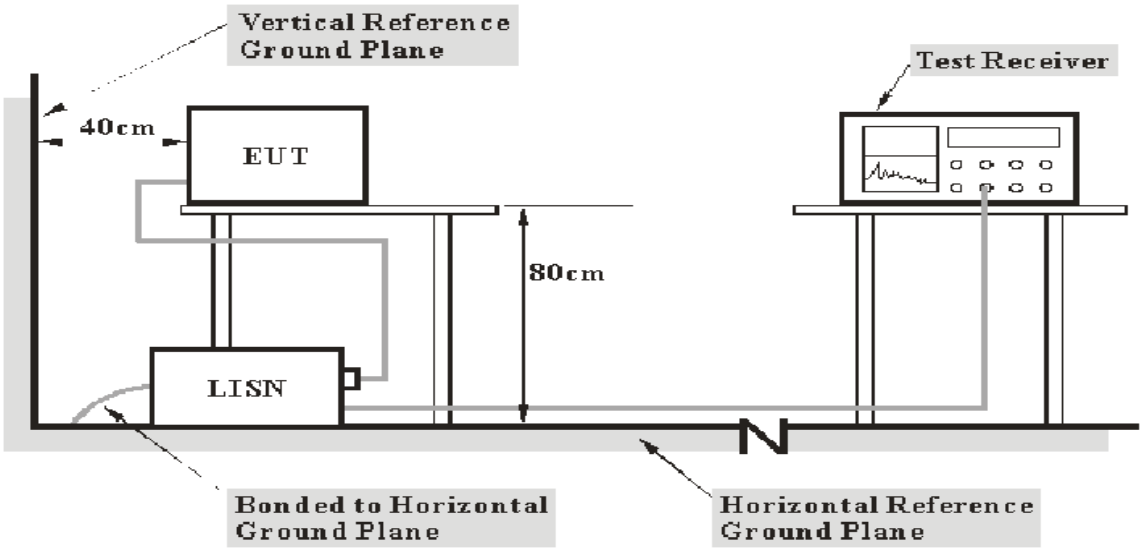
For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured 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 2
0.5-5	56	46
5-30	60	50

Note 1: Decreases with the logarithm of the frequency.

Note 2: A linear average detector is required

6.2 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 C63.10-2020+Cor.1-2023 measurement procedure. The specification used was with the FCC Part 15.207 limits.

6.3 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

6.4 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.

6.5 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:

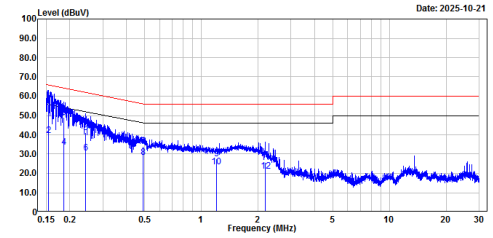
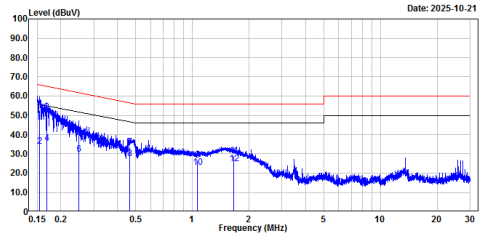
Over Limit = Level – Limit Line

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6.6 Test Results

Test Mode: Transmitting

(Worst case is 802.11b, Middle Channel)

Line	Neutral
	

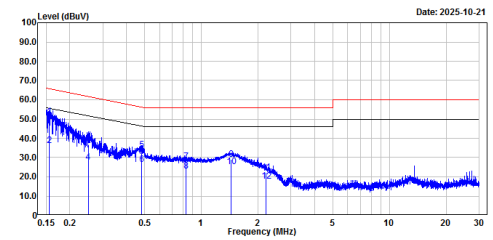
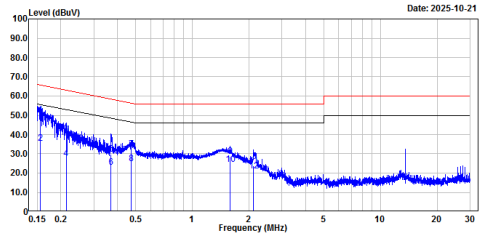
Site : Conduction
Condition: Line
Job No : RLK250801004
Test By : Cedric Xu
Power : AC 120V/60Hz
Temp.(℃)/Hum.(%RH): 23.5℃/53%
Mode : WiFi 2.4G-B-2437

	Freq	Read Level	Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	
1	0.1544	35.75	55.73	19.98	65.76	-10.03	QP
2	0.1544	19.60	39.58	19.98	55.76	-16.18	Average
3	0.1860	28.96	48.94	19.98	64.22	-15.28	QP
4	0.1860	13.61	33.59	19.98	54.22	-20.63	Average
5	0.2424	21.05	41.05	20.00	62.02	-20.97	QP
6	0.2424	10.67	30.67	20.00	52.02	-21.35	Average
7	0.4913	13.95	33.98	20.03	56.15	-22.17	QP
8	0.4913	8.22	28.25	20.03	46.15	-17.90	Average
9	1.2006	7.51	27.55	20.04	56.00	-28.45	QP
10	1.2006	3.47	23.51	20.04	46.00	-22.49	Average
11	2.1826	5.47	25.53	20.06	56.00	-30.47	QP
12	2.1826	1.17	21.23	20.06	46.00	-24.77	Average

Site : Conduction
Condition: Neutral
Job No : RLK250801004
Test By : Cedric Xu
Power : AC 120V/60Hz
Temp.(℃)/Hum.(%RH): 23.5℃/53%
Mode : WiFi 2.4G-B-2437

	Freq	Read Level	Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	
1	0.1538	32.28	52.29	20.01	65.79	-13.50	QP
2	0.1538	13.85	33.86	20.01	55.79	-21.93	Average
3	0.1684	31.52	51.52	20.00	65.04	-13.52	QP
4	0.1684	15.40	35.40	20.00	55.04	-19.64	Average
5	0.2492	19.39	39.37	19.98	61.78	-22.41	QP
6	0.2492	9.84	29.82	19.98	51.78	-21.96	Average
7	0.4664	13.62	33.61	19.99	56.58	-22.97	QP
8	0.4664	7.61	27.60	19.99	46.58	-18.98	Average
9	1.0660	6.86	26.87	20.01	56.00	-29.13	QP
10	1.0660	2.92	22.93	20.01	46.00	-23.07	Average
11	1.6564	9.05	29.09	20.04	56.00	-26.91	QP
12	1.6564	4.81	24.85	20.04	46.00	-21.15	Average

(Worst case is BLE 1M, Low Channel)

Line	Neutral
	

Site : Conduction
Condition: Line
Job No : RLK250801004
Test By : Cedric Xu
Power : AC 120V/60Hz
Temp.(℃)/Hum.(%RH): 23.5℃/53%
Mode : BLE 1M-2402

	Freq	Read Level	Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	
1	0.1552	31.38	51.36	19.98	65.72	-14.36	QP
2	0.1552	16.16	36.14	19.98	55.72	-19.58	Average
3	0.2505	16.73	36.73	20.00	61.74	-25.01	QP
4	0.2505	7.70	27.70	20.00	51.74	-24.04	Average
5	0.4840	13.90	33.93	20.03	56.27	-22.34	QP
6	0.4840	6.25	26.28	20.03	46.27	-19.99	Average
7	0.8286	7.73	27.77	20.04	56.00	-28.23	QP
8	0.8286	3.12	23.16	20.04	46.00	-22.84	Average
9	1.4401	9.15	29.21	20.06	56.00	-26.79	QP
10	1.4401	5.11	25.17	20.06	46.00	-20.83	Average
11	2.2045	2.24	22.30	20.06	56.00	-33.70	QP
12	2.2045	-2.37	17.69	20.06	46.00	-28.31	Average

Site : Conduction
Condition: Neutral
Job No : RLK250801004
Test By : Cedric Xu
Power : AC 120V/60Hz
Temp.(℃)/Hum.(%RH): 23.5℃/53%
Mode : BLE 1M-2402

	Freq	Read Level	Level	Factor	Limit Line	Over Limit	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	
1	0.1555	30.24	50.24	20.00	65.70	-15.46	QP
2	0.1555	15.31	35.31	20.00	55.70	-20.39	Average
3	0.2135	20.33	40.31	19.98	63.07	-22.76	QP
4	0.2135	7.66	27.64	19.98	53.07	-25.43	Average
5	0.3699	9.66	29.64	19.98	58.50	-28.86	QP
6	0.3699	2.92	22.90	19.98	48.50	-25.60	Average
7	0.4725	12.40	32.39	19.99	56.47	-24.08	QP
8	0.4725	4.90	24.89	19.99	46.47	-21.58	Average
9	1.5947	8.62	28.66	20.04	56.00	-27.34	QP
10	1.5947	4.66	24.70	20.04	46.00	-21.30	Average
11	2.1118	3.69	23.74	20.05	56.00	-32.26	QP
12	2.1118	0.99	21.04	20.05	46.00	-24.96	Average

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

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

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

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

7.1 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.

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

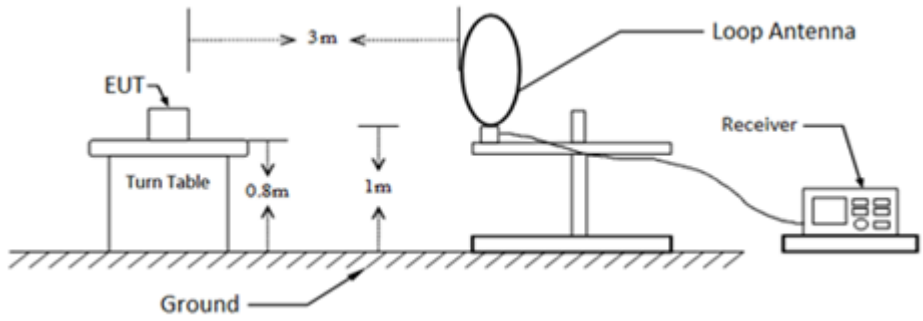
According to ANSI C63.10-2020+Cor.1-2023, section 5.3.3

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).

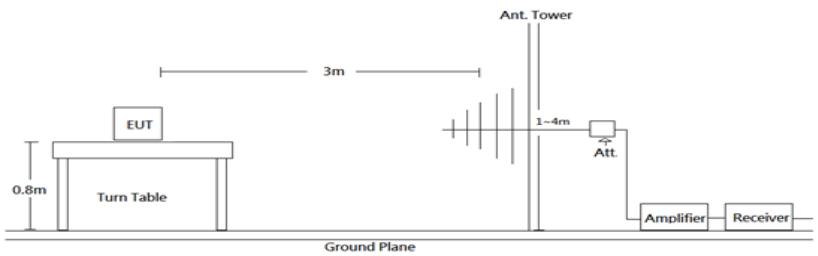
As per FCC §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the 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).

7.2 EUT Setup

9kHz-30MHz:

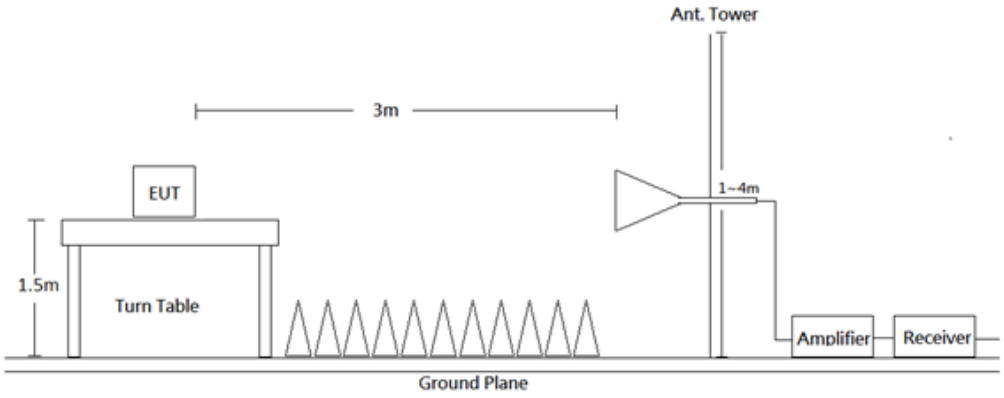


30MHz-1GHz:

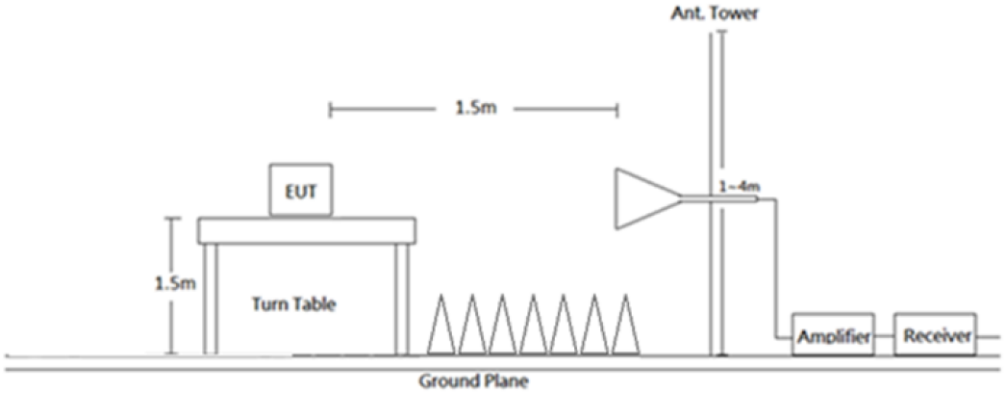


Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

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 C63.10-2020+Cor.1-2023. The specification used was the FCC Part 15.209 and FCC 15.247 Limits.

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

7.3 EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz 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 C63.10-2020+Cor.1-2023.

Frequency Range	RBW	VBW	Duty cycle	Measurement method	Detector
9 kHz - 150 kHz	200 Hz/300 Hz	1 kHz	/	QP/AV	QP/AV
150 kHz - 30 MHz	9 kHz/10 kHz	30 kHz	/	QP/AV	QP/AV
30-1000 MHz	120 kHz	500 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 Hz	<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: T 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.

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

7.4 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.

7.5 Factor & Over Limit Calculation

The 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:

Factor = Antenna Factor + Cable Loss – Amplifier Gain

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

Over Limit = Level – Limit Line

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

7.6 Test Results

Test Mode: Transmitting

(Pre-scan with three orthogonal axis, and worse case as Y axis.)

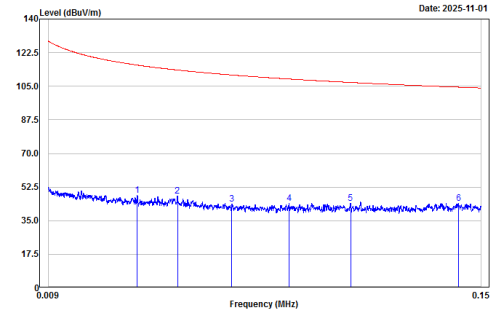
9kHz-30MHz:

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

(Worst case is 802.11b mode)

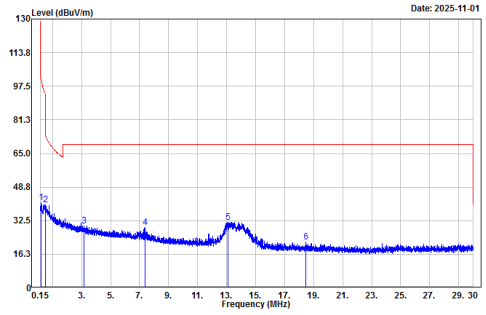
Middle channel

9kHz-150kHz	150kHz-30MHz



Site : LK-966A
Condition: 3m
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 20℃/ 45%
Memo : 11B-TX-2437
RBW/VBW : QP: 300Hz/1K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.038	35.78	12.48	48.26	116.02	-67.76	QP
2	0.051	34.65	13.14	47.79	113.44	-65.65	QP
3	0.069	31.85	11.71	43.56	110.85	-67.29	QP
4	0.087	32.22	11.62	43.84	108.77	-64.93	QP
5	0.107	32.22	11.64	43.86	106.98	-63.12	QP
6	0.143	32.37	11.81	44.18	104.52	-60.34	QP



Site : LK-966A
Condition: 3m
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 20℃/ 45%
Memo : 11B-TX-2437
RBW/VBW : QP: 10K/30K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.201	29.01	12.10	41.11	101.55	-60.44	QP
2	0.499	28.44	11.70	40.14	73.64	-33.50	QP
3	3.165	19.05	10.84	29.89	69.54	-39.65	QP
4	7.368	17.45	11.89	29.34	69.54	-40.20	QP
5	13.111	20.02	11.72	31.74	69.54	-37.80	QP
6	18.481	10.25	12.00	22.25	69.54	-47.29	QP

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

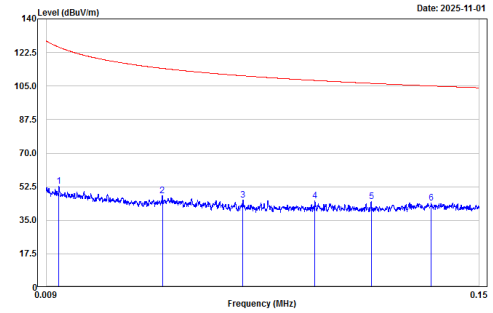
Factor = Antenna Factor + Cable Loss – Amplifier Gain

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

(Worst case is BLE(1M) mode)

Low channel

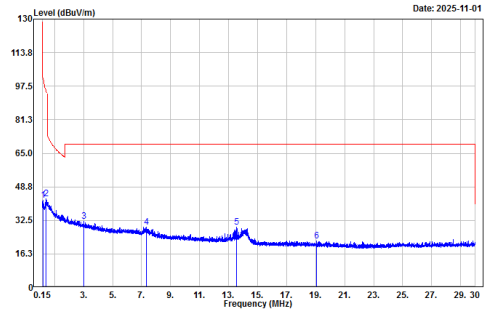
9kHz-150kHz



Site : LK-966A
Condition: 3m
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 20℃/ 45%
Memo : BLE-1M-TX-2402
RBW/VBW : QP: 300Hz/1K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.013	39.19	13.49	52.68	125.25	-72.57	QP
2	0.047	34.73	13.01	47.74	114.20	-66.46	QP
3	0.073	34.08	11.52	45.60	110.33	-64.73	QP
4	0.096	33.54	11.67	45.21	107.92	-62.71	QP
5	0.115	32.92	11.67	44.59	106.40	-61.81	QP
6	0.134	32.38	11.77	44.15	105.04	-60.89	QP

150kHz-30MHz



Site : LK-966A
Condition: 3m
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 20℃/ 45%
Memo : BLE-1M-TX-2402
RBW/VBW : QP: 10K/30K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	0.210	30.09	12.07	42.16	101.17	-59.01	QP
2	0.404	31.25	11.80	43.05	95.48	-52.43	QP
3	3.004	21.36	10.82	32.18	69.54	-37.36	QP
4	7.344	17.42	11.89	29.31	69.54	-40.23	QP
5	13.544	17.60	11.64	29.24	69.54	-40.30	QP
6	19.069	10.60	12.00	22.60	69.54	-46.94	QP

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

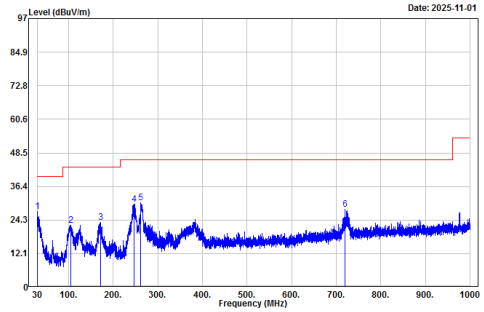
Factor = Antenna Factor + Cable Loss – Amplifier Gain

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

30MHz-1GHz:

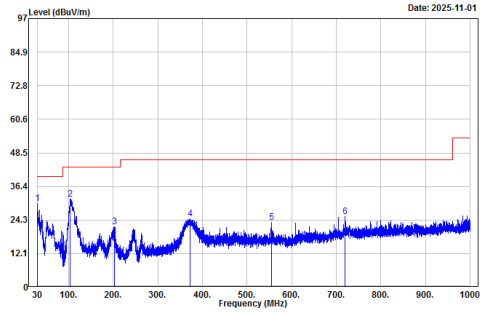
(worst case is 802.11b mode)

Middle channel	
Horizontal	**Vertical**




```
Site     : LK-966A
Condition: 3m horizontal
Job No   : RLK250801004
Model    : RRQ61051-008
Power    : From Test Development Board.
Tester   : Yue
Temp./ Hum.: 20℃/ 45%
Memo     : 11B-TX-2437
RBW/VBW  : QP: 120K/500K
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	30.291	36.02	-8.67	27.35	40.00	-12.65	QP
2	104.981	42.61	-20.21	22.40	43.50	-21.10	QP
3	172.105	44.14	-20.74	23.40	43.50	-20.10	QP
4	247.571	51.45	-21.37	30.08	46.00	-15.92	QP
5	262.121	51.08	-20.64	30.44	46.00	-15.56	QP
6	720.058	39.59	-11.36	28.23	46.00	-17.77	QP




```
Site     : LK-966A
Condition: 3m vertical
Job No   : RLK250801004
Model    : RRQ61051-008
Power    : From Test Development Board.
Tester   : Yue
Temp./ Hum.: 20℃/ 45%
Memo     : 11B-TX-2437
RBW/VBW  : QP: 120K/500K
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	30.679	38.97	-8.77	30.20	40.00	-9.80	QP
2	104.205	52.32	-20.43	31.89	43.50	-11.61	QP
3	202.951	42.94	-21.01	21.93	43.50	-21.57	QP
4	373.089	43.15	-18.35	24.80	46.00	-21.20	QP
5	554.964	37.67	-14.30	23.37	46.00	-22.63	QP
6	720.058	36.73	-11.36	25.37	46.00	-20.63	QP

Note:

Level = Read Level + Factor

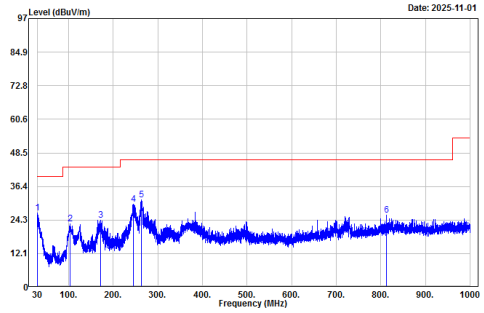
Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

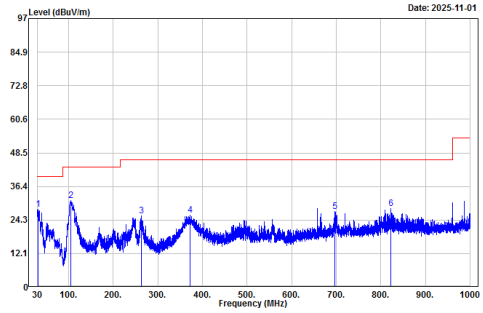
(Worst case is BLE(1M) mode)

Low channel	
Horizontal	**Vertical**



Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 20℃/ 45%
Memo : BLE-1M-TX-2402
RBW/VBW : QP: 120K/500K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	30.679	35.65	-8.77	26.88	40.00	-13.12	QP
2	102.847	43.70	-20.92	22.78	43.50	-20.72	QP
3	171.620	44.85	-20.69	24.16	43.50	-19.34	QP
4	246.019	51.28	-21.33	29.95	46.00	-16.05	QP
5	263.479	51.92	-20.43	31.49	46.00	-14.51	QP
6	812.208	36.08	-10.19	25.89	46.00	-20.11	QP



Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 20℃/ 45%
Memo : BLE-1M-TX-2402
RBW/VBW : QP: 120K/500K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	31.358	37.42	-9.23	28.19	40.00	-11.81	QP
2	105.369	51.42	-20.15	31.27	43.50	-12.23	QP
3	263.867	46.23	-20.37	25.86	46.00	-20.14	QP
4	371.731	44.45	-18.38	26.07	46.00	-19.93	QP
5	697.069	39.24	-12.01	27.23	46.00	-18.77	QP
6	822.199	38.54	-10.08	28.46	46.00	-17.54	QP

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

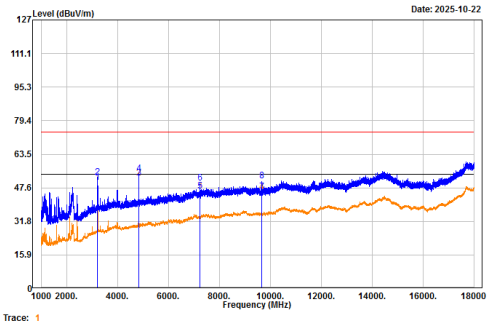
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

802.11b Mode:

1GHz-18GHz:

Low channel

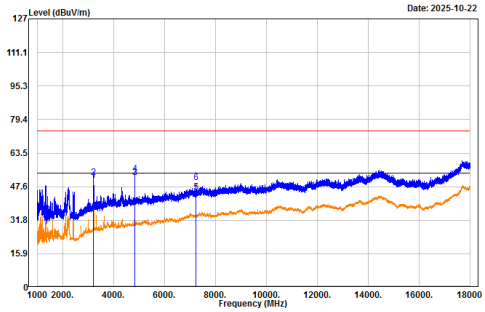
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11B-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	54.72	-4.36	50.36	54.00	-3.64	Average
2	3215.667	57.06	-4.36	52.70	74.00	-21.30	Peak
3	4824.000	52.87	-0.56	52.31	54.00	-1.69	Average
4	4824.000	55.00	-0.56	54.44	74.00	-19.56	Peak
5	7236.000	40.07	6.03	46.10	54.00	-7.90	Average
6	7236.000	44.04	6.03	50.07	74.00	-23.93	Peak
7	9648.000	37.35	8.36	45.71	54.00	-8.29	Average
8	9648.000	42.53	8.36	50.89	74.00	-23.11	Peak

Vertical

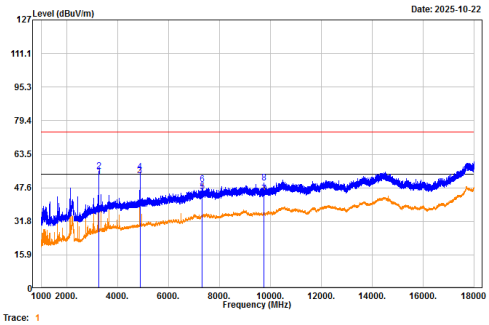


Trace: 1
Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11B-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	54.96	-4.36	50.60	54.00	-3.40	Average
2	3215.667	56.21	-4.36	51.85	74.00	-22.15	Peak
3	4824.000	52.67	-0.56	52.11	54.00	-1.89	Average
4	4824.000	54.39	-0.56	53.83	74.00	-20.17	Peak
5	7236.000	39.06	6.03	45.09	54.00	-8.91	Average
6	7236.000	43.43	6.03	49.46	74.00	-24.54	Peak

Middle channel

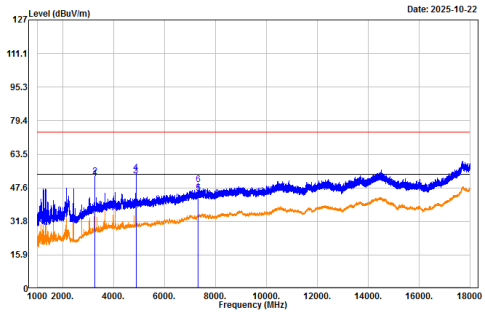
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11B-TX-2437
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3249.100	57.18	-4.15	53.03	54.00	-0.97	Average
2	3249.100	59.39	-4.15	55.24	74.00	-18.76	Peak
3	4874.000	53.61	-0.27	53.34	54.00	-0.66	Average
4	4874.000	55.27	-0.27	55.00	74.00	-19.00	Peak
5	7311.000	39.60	6.27	45.87	54.00	-8.13	Average
6	7311.000	42.88	6.27	49.15	74.00	-24.85	Peak
7	9748.000	35.75	8.82	44.57	54.00	-9.43	Average
8	9748.000	41.10	8.82	49.92	74.00	-24.08	Peak

Vertical

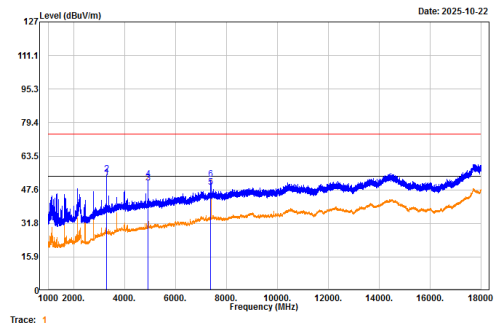


Trace: 1
Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11B-TX-2437
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3249.198	56.06	-4.14	51.92	54.00	-2.08	Average
2	3249.198	57.24	-4.14	53.10	74.00	-20.90	Peak
3	4874.000	53.54	-0.27	53.27	54.00	-0.73	Average
4	4874.000	55.10	-0.27	54.83	74.00	-19.17	Peak
5	7311.000	38.77	6.27	45.04	54.00	-8.96	Average
6	7311.000	42.78	6.27	49.05	74.00	-24.95	Peak

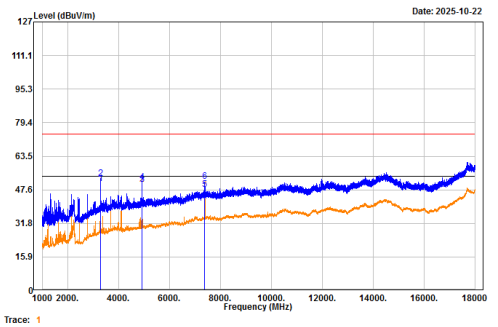
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High channel	
Horizontal	**Vertical**



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11B-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3282.533	57.49	-4.04	53.45	54.00	-0.55	Average
2	3282.533	59.24	-4.04	55.20	74.00	-18.80	Peak
3	4924.000	51.06	-0.08	50.98	54.00	-3.02	Average
4	4924.000	52.70	-0.08	52.62	74.00	-21.38	Peak
5	7386.000	42.41	6.39	48.80	54.00	-5.20	Average
6	7386.000	46.43	6.39	52.82	74.00	-21.18	Peak



Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11B-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3282.533	54.78	-4.04	50.74	54.00	-3.26	Average
2	3282.533	56.96	-4.04	52.92	74.00	-21.08	Peak
3	4924.000	50.42	-0.08	50.34	54.00	-3.66	Average
4	4924.000	51.51	-0.08	51.43	74.00	-22.57	Peak
5	7386.000	41.44	6.39	47.83	54.00	-6.17	Average
6	7386.000	45.28	6.39	51.67	74.00	-22.33	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

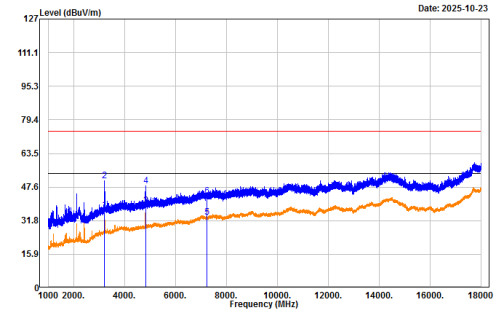
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802.11g Mode:

1GHz-18GHz:

Low channel

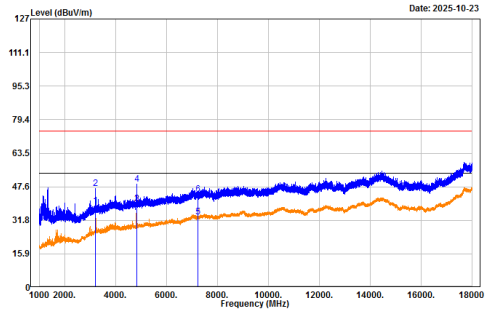
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : 11G-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	41.04	-4.36	36.68	54.00	-17.32	Average
2	3215.667	55.08	-4.36	50.72	74.00	-23.28	Peak
3	4824.000	39.32	-0.56	38.76	54.00	-15.24	Average
4	4824.000	48.61	-0.56	48.05	74.00	-25.95	Peak
5	7236.000	27.31	6.03	33.34	54.00	-20.66	Average
6	7236.000	37.27	6.03	43.30	74.00	-30.70	Peak

Vertical

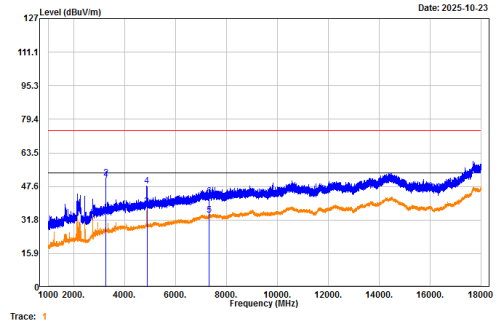


Trace: 1
Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : 11G-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3216.233	43.06	-4.35	38.71	54.00	-15.29	Average
2	3216.233	51.10	-4.35	46.75	74.00	-27.25	Peak
3	4824.000	40.12	-0.56	39.56	54.00	-14.44	Average
4	4824.000	49.54	-0.56	48.98	74.00	-25.02	Peak
5	7236.000	27.22	6.03	33.25	54.00	-20.75	Average
6	7236.000	38.00	6.03	44.03	74.00	-29.97	Peak

Middle channel

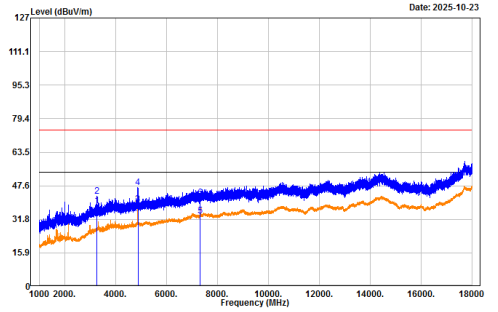
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : 11G-TX-2437
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3249.100	54.78	-4.15	50.63	54.00	-3.37	Average
2	3249.100	55.95	-4.15	51.80	74.00	-22.20	Peak
3	4874.000	38.49	-0.27	38.22	54.00	-15.78	Average
4	4874.000	47.95	-0.27	47.68	74.00	-26.32	Peak
5	7311.000	27.65	6.27	33.92	54.00	-20.08	Average
6	7311.000	36.92	6.27	43.19	74.00	-30.81	Peak

Vertical

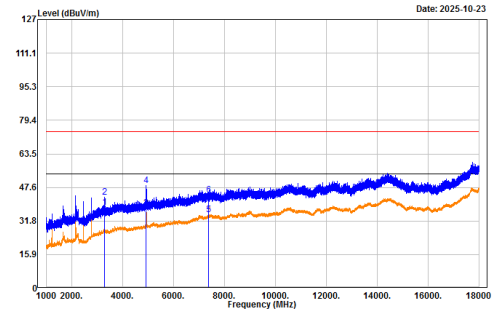


Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : 11G-TX-2437
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3249.100	42.28	-4.15	38.13	54.00	-15.87	Average
2	3249.100	46.82	-4.15	42.67	74.00	-31.33	Peak
3	4874.000	39.00	-0.27	38.73	54.00	-15.27	Average
4	4874.000	46.91	-0.27	46.64	74.00	-27.36	Peak
5	7311.000	27.16	6.27	33.43	54.00	-20.57	Average
6	7311.000	35.86	6.27	42.13	74.00	-31.87	Peak

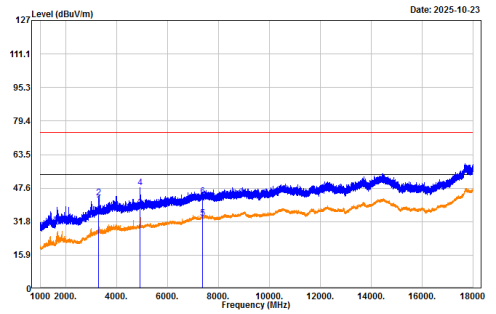
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High channel	
Horizontal	**Vertical**



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : 11G-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3282.533	42.13	-4.04	38.09	54.00	-15.91	Average
2	3282.533	47.06	-4.04	43.02	74.00	-30.98	Peak
3	4924.000	37.96	-0.08	37.88	54.00	-16.12	Average
4	4924.000	48.51	-0.08	48.43	74.00	-25.57	Peak
5	7386.000	28.40	6.39	34.79	54.00	-19.21	Average
6	7386.000	37.71	6.39	44.10	74.00	-29.90	Peak



Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : 11G-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3282.533	44.03	-4.04	39.99	54.00	-14.01	Average
2	3282.533	47.18	-4.04	43.14	74.00	-30.86	Peak
3	4924.000	38.31	-0.08	38.23	54.00	-15.77	Average
4	4924.000	47.92	-0.08	47.84	74.00	-26.16	Peak
5	7386.000	27.02	6.39	33.41	54.00	-20.59	Average
6	7386.000	37.35	6.39	43.74	74.00	-30.26	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

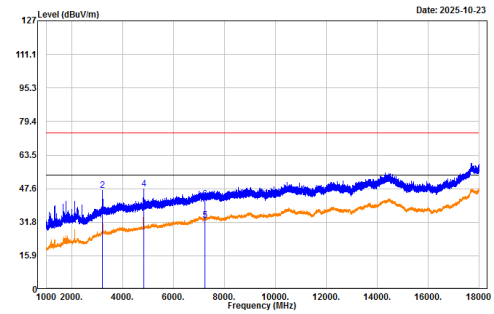
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802.11n HT20 Mode:

1GHz-18GHz:

Low channel

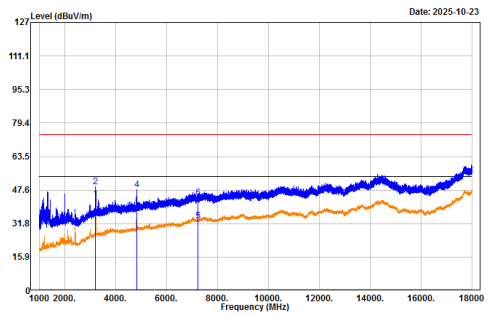
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : N20-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/5K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	39.72	-4.36	35.36	54.00	-18.64	Average
2	3215.667	51.08	-4.36	46.72	74.00	-27.28	Peak
3	4824.000	37.15	-0.56	36.59	54.00	-17.41	Average
4	4824.000	48.13	-0.56	47.57	74.00	-26.43	Peak
5	7236.000	26.77	6.03	32.80	54.00	-21.20	Average
6	7236.000	36.54	6.03	42.57	74.00	-31.43	Peak

Vertical

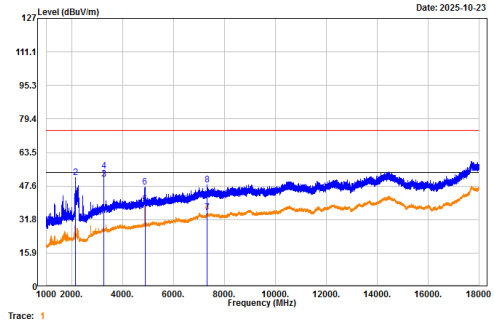


Trace: 1
Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : N20-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/5K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	47.62	-4.36	43.26	54.00	-10.74	Average
2	3215.667	53.60	-4.36	49.24	74.00	-24.76	Peak
3	4824.000	37.02	-0.56	36.46	54.00	-17.54	Average
4	4824.000	48.26	-0.56	47.70	74.00	-26.30	Peak
5	7236.000	26.93	6.03	32.96	54.00	-21.04	Average
6	7236.000	38.09	6.03	44.12	74.00	-29.88	Peak

Middle channel

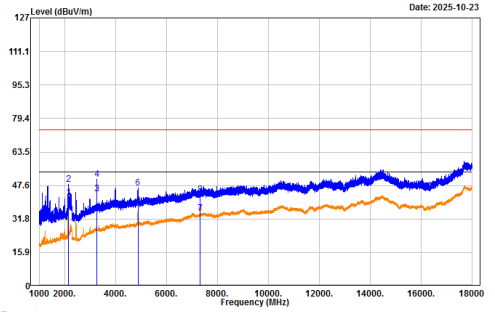
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : N20-TX-2437
RBW/VBW : PK: 1M/3M; AV: 1M/5K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2132.200	47.36	-8.99	38.37	54.00	-15.63	Average
2	2132.200	60.47	-8.99	51.48	74.00	-22.52	Peak
3	3249.100	55.15	-4.15	51.00	54.00	-3.00	Average
4	3249.100	58.73	-4.15	54.58	74.00	-19.42	Peak
5	4874.000	39.31	-0.27	39.04	54.00	-14.96	Average
6	4874.000	47.45	-0.27	47.18	74.00	-26.82	Peak
7	7311.000	28.97	6.27	35.24	54.00	-18.76	Average
8	7311.000	41.76	6.27	48.03	74.00	-25.97	Peak

Vertical

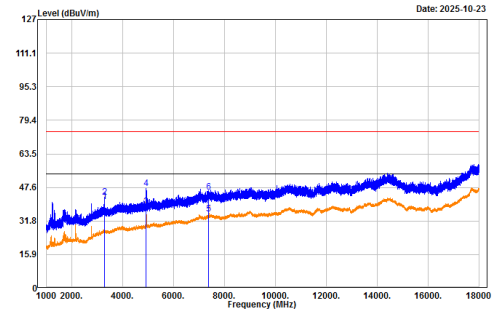


Trace: 1
Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : N20-TX-2437
RBW/VBW : PK: 1M/3M; AV: 1M/5K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2132.200	51.13	-8.99	42.14	54.00	-11.86	Average
2	2132.200	57.16	-8.99	48.17	74.00	-25.83	Peak
3	3249.100	48.02	-4.15	43.87	54.00	-10.13	Average
4	3249.100	54.70	-4.15	50.55	74.00	-23.45	Peak
5	4874.000	37.15	-0.27	36.88	54.00	-17.12	Average
6	4874.000	46.84	-0.27	46.57	74.00	-27.43	Peak
7	7311.000	28.06	6.27	34.33	54.00	-19.67	Average
8	7311.000	37.02	6.27	43.29	74.00	-30.71	Peak

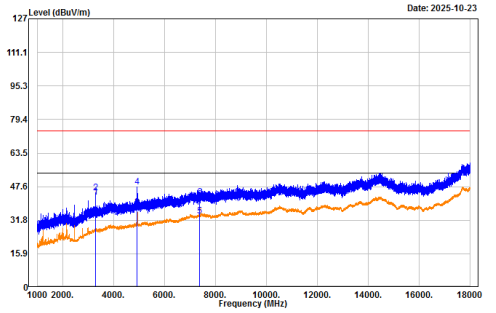
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

High channel	
Horizontal	**Vertical**



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : N20-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/5K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3282.533	44.91	-4.04	40.87	54.00	-13.13	Average
2	3282.533	46.93	-4.04	42.89	74.00	-31.11	Peak
3	4924.000	38.48	-0.08	38.40	54.00	-15.60	Average
4	4924.000	47.07	-0.08	46.99	74.00	-27.01	Peak
5	7386.000	28.75	6.39	35.14	54.00	-18.86	Average
6	7386.000	38.89	6.39	45.28	74.00	-28.72	Peak



Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : N20-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/5K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3282.533	46.80	-4.04	42.76	54.00	-11.24	Average
2	3282.533	48.71	-4.04	44.67	74.00	-29.33	Peak
3	4924.000	37.86	-0.08	37.78	54.00	-16.22	Average
4	4924.000	47.68	-0.08	47.60	74.00	-26.40	Peak
5	7386.000	27.46	6.39	33.85	54.00	-20.15	Average
6	7386.000	36.44	6.39	42.83	74.00	-31.17	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

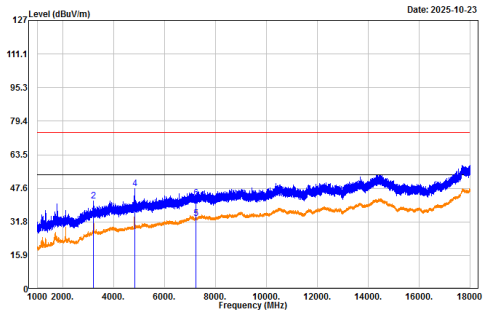
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

802.11ax HE20 Mode:

1GHz-18GHz:

Low channel

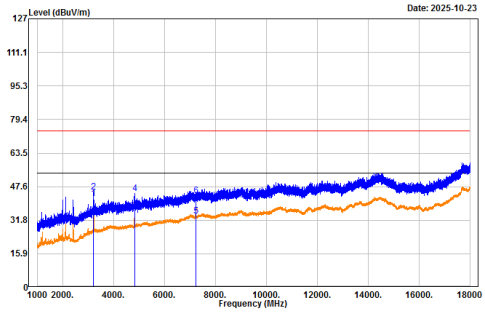
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : AX20-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	39.01	-4.36	34.65	54.00	-19.35	Average
2	3215.667	45.88	-4.36	41.52	74.00	-32.48	Peak
3	4824.000	37.67	-0.56	37.11	54.00	-16.89	Average
4	4824.000	47.99	-0.56	47.43	74.00	-26.57	Peak
5	7236.000	27.21	6.03	33.24	54.00	-20.76	Average
6	7236.000	36.93	6.03	42.96	74.00	-31.04	Peak

Vertical

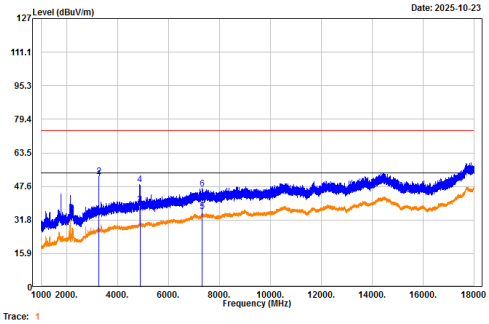


Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : AX20-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	46.39	-4.36	42.03	54.00	-11.97	Average
2	3215.667	49.60	-4.36	45.24	74.00	-28.76	Peak
3	4824.000	36.67	-0.56	36.11	54.00	-17.89	Average
4	4824.000	45.12	-0.56	44.56	74.00	-29.44	Peak
5	7236.000	27.82	6.03	33.85	54.00	-20.15	Average
6	7236.000	37.47	6.03	43.50	74.00	-30.50	Peak

Middle channel

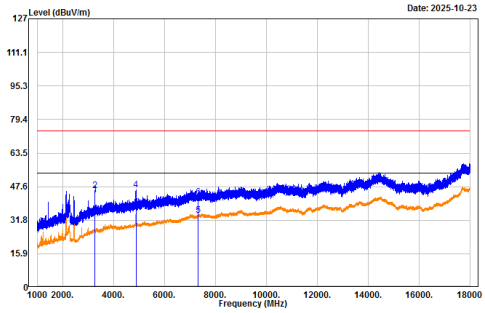
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : AX20-TX-2437
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3249.100	55.45	-4.15	51.30	54.00	-2.70	Average
2	3249.100	56.56	-4.15	52.41	74.00	-21.59	Peak
3	4874.000	39.32	-0.27	39.05	54.00	-14.95	Average
4	4874.000	48.92	-0.27	48.65	74.00	-25.35	Peak
5	7311.000	29.48	6.27	35.75	54.00	-18.25	Average
6	7311.000	40.04	6.27	46.31	74.00	-27.69	Peak

Vertical

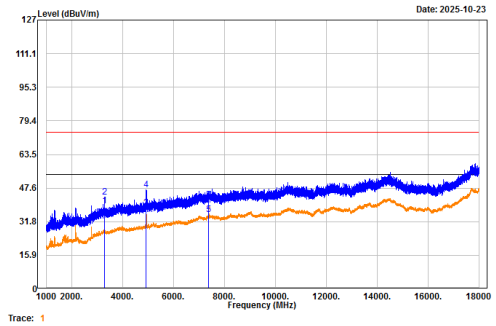


Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : AX20-TX-2437
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3249.100	47.72	-4.15	43.57	54.00	-10.43	Average
2	3249.100	49.88	-4.15	45.73	74.00	-28.27	Peak
3	4874.000	36.24	-0.27	35.97	54.00	-18.03	Average
4	4874.000	46.38	-0.27	46.11	74.00	-27.89	Peak
5	7311.000	27.79	6.27	34.06	54.00	-19.94	Average
6	7311.000	36.30	6.27	42.57	74.00	-31.43	Peak

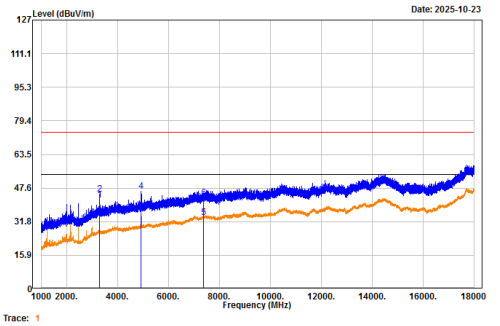
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High channel	
Horizontal	**Vertical**



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : AX20-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3282.533	43.34	-4.04	39.30	54.00	-14.70	Average
2	3282.533	47.24	-4.04	43.20	74.00	-30.80	Peak
3	4924.000	38.43	-0.08	38.35	54.00	-15.65	Average
4	4924.000	46.80	-0.08	46.72	74.00	-27.28	Peak
5	7386.000	28.63	6.39	35.02	54.00	-18.98	Average
6	7386.000	35.63	6.39	42.02	74.00	-31.98	Peak



Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 48%
Memo : AX20-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3282.533	46.12	-4.04	42.08	54.00	-11.92	Average
2	3282.533	48.69	-4.04	44.65	74.00	-29.35	Peak
3	4924.000	37.01	-0.08	36.93	54.00	-17.07	Average
4	4924.000	46.05	-0.08	45.97	74.00	-28.03	Peak
5	7386.000	27.32	6.39	33.71	54.00	-20.29	Average
6	7386.000	36.62	6.39	43.01	74.00	-30.99	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

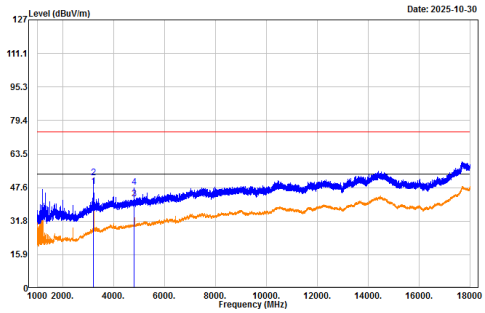
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

BLE(1M) Mode

1GHz-18GHz:

Low channel

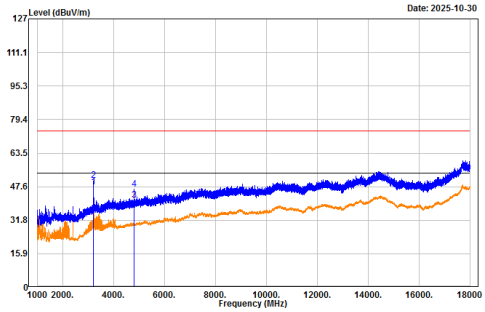
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 21℃/ 58%
Memo : BLE-1M-TX-2402
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	52.57	-4.36	48.21	54.00	-5.79	Average
2	3215.667	56.56	-4.36	52.20	74.00	-21.80	Peak
3	4804.000	42.86	-0.67	42.19	54.00	-11.81	Average
4	4804.000	48.66	-0.67	47.99	74.00	-26.01	Peak

Vertical

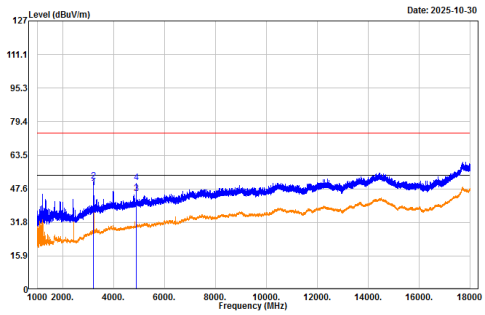


Trace: 1
Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 21℃/ 58%
Memo : BLE-1M-TX-2402
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	51.88	-4.36	47.52	54.00	-6.48	Average
2	3215.667	54.82	-4.36	50.46	74.00	-23.54	Peak
3	4804.000	41.82	-0.67	41.15	54.00	-12.85	Average
4	4804.000	47.20	-0.67	46.53	74.00	-27.47	Peak

Middle channel

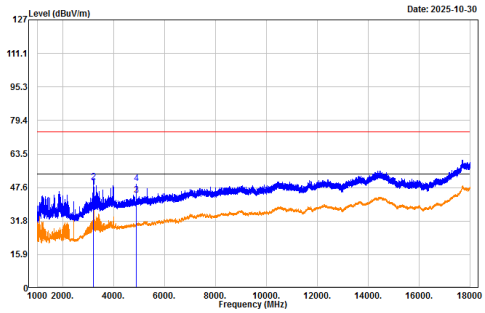
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 21℃/ 58%
Memo : BLE-1M-TX-2440
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	52.58	-4.36	48.22	54.00	-5.78	Average
2	3215.667	55.48	-4.36	51.12	74.00	-22.88	Peak
3	4880.000	45.69	-0.24	45.45	54.00	-8.55	Average
4	4880.000	50.93	-0.24	50.69	74.00	-23.31	Peak

Vertical



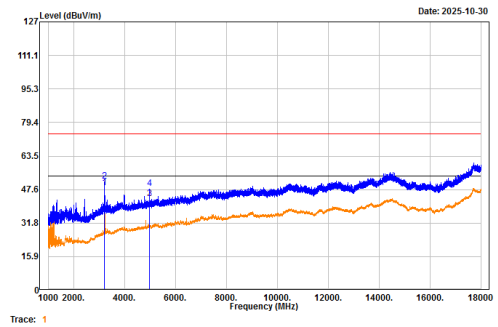
Trace: 1
Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 21℃/ 58%
Memo : BLE-1M-TX-2440
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	52.20	-4.36	47.84	54.00	-6.16	Average
2	3215.667	54.49	-4.36	50.13	74.00	-23.87	Peak
3	4880.000	44.33	-0.24	44.09	54.00	-9.91	Average
4	4880.000	49.71	-0.24	49.47	74.00	-24.53	Peak

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High channel

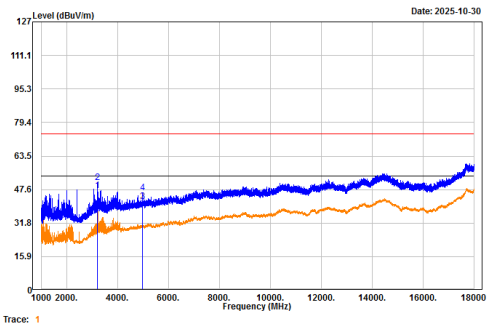
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 21℃/ 58%
Memo : BLE-1M-TX-2480
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	52.74	-4.36	48.38	54.00	-5.62	Average
2	3215.667	55.91	-4.36	51.55	74.00	-22.45	Peak
3	4960.000	43.36	-0.02	43.34	54.00	-10.66	Average
4	4960.000	48.31	-0.02	48.29	74.00	-25.71	Peak

Vertical



Trace: 1
Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 21℃/ 58%
Memo : BLE-1M-TX-2480
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	3215.667	51.56	-4.36	47.20	54.00	-6.80	Average
2	3215.667	55.30	-4.36	50.94	74.00	-23.06	Peak
3	4960.000	41.88	-0.02	41.86	54.00	-12.14	Average
4	4960.000	46.11	-0.02	46.09	74.00	-27.91	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

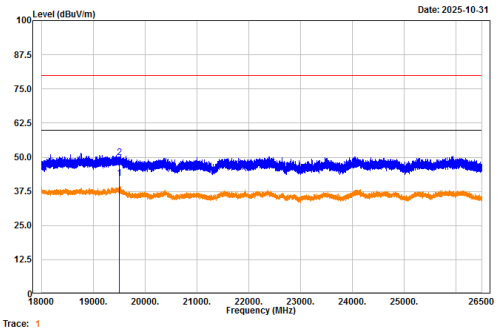
Factor = Antenna Factor + Cable Loss – Amplifier Gain

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18GHz-26.5GHz:

WiFi 2.4G Middle channel

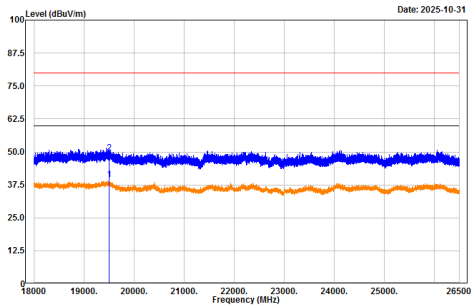
Horizontal



Trace: 1
Site : LK-966A
Condition: 1.5m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 20℃/ 48%
Memo : 11B-TX-2437
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	19496.000	43.18	-0.93	42.25	60.00	-17.75	Average
2	19496.000	50.78	-0.93	49.85	80.00	-30.15	Peak

Vertical

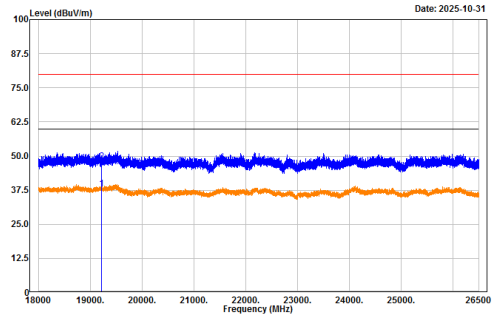


Trace: 1
Site : LK-966A
Condition: 1.5m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 20℃/ 48%
Memo : 11B-TX-2437
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	19496.000	40.58	-0.93	39.65	60.00	-20.35	Average
2	19496.000	50.43	-0.93	49.50	80.00	-30.50	Peak

BLE(1M) Low channel

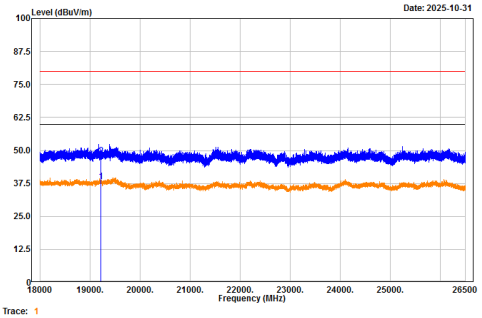
Horizontal



Trace: 1
Site : LK-966A
Condition: 1.5m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 20℃/ 48%
Memo : BLE-1M-TX-2402
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	19216.000	39.43	-1.38	38.05	60.00	-21.95	Average
2	19216.000	49.25	-1.38	47.87	80.00	-32.13	Peak

Vertical



Trace: 1
Site : LK-966A
Condition: 1.5m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 20℃/ 48%
Memo : BLE-1M-TX-2402
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	19216.000	39.59	-1.38	38.21	60.00	-21.79	Average
2	19216.000	49.29	-1.38	47.91	80.00	-32.09	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

For 18-26.5GHz Convert the test distance limit of 3 meters to a limit of 1.5 meter:
Conversion factor = 20 log (1.5m/3m) = 6 dB,
Average Limit = 54+6 = 60 dBuV/m@1.5m , Peak Limit = 60+20 = 80 dBuV/m@1.5m

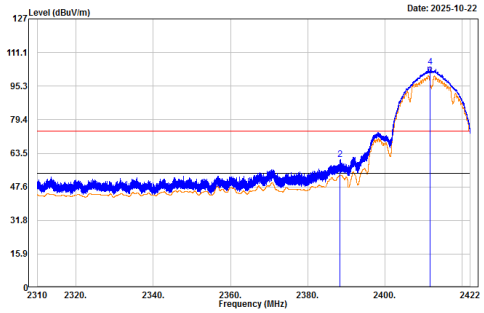
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

Band-Edge:

802.11b Mode

Low channel

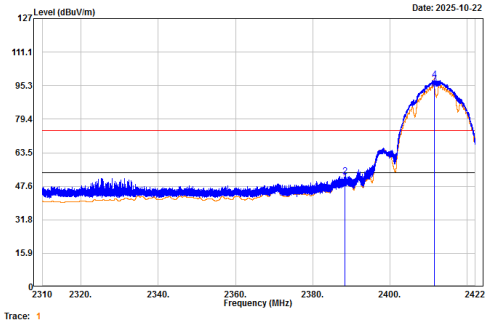
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11B-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2388.254	60.76	-7.65	53.11	54.00	-0.89	Average
2	2388.254	68.22	-7.65	60.57	74.00	-13.43	Peak
3	2411.625	107.80	-7.56	100.24	------	------	Average
4	2411.625	111.74	-7.56	104.18	------	------	Peak

Vertical

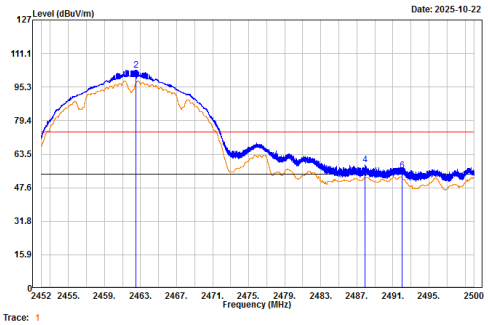


Trace: 1
Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11B-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2388.247	57.08	-7.65	49.43	54.00	-4.57	Average
2	2388.247	60.04	-7.65	52.39	74.00	-21.61	Peak
3	2411.446	103.51	-7.56	95.95	------	------	Average
4	2411.446	105.48	-7.56	97.92	------	------	Peak

High channel

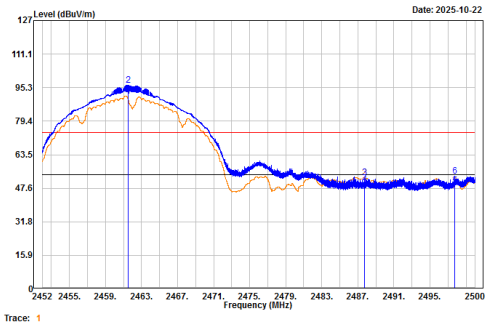
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11B-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2462.475	105.55	-7.43	98.12	------	------	Average
2	2462.475	110.60	-7.43	103.17	------	------	Peak
3	2487.889	59.54	-7.31	52.23	54.00	-1.77	Average
4	2487.889	65.76	-7.31	58.45	74.00	-15.55	Peak
5	2492.010	60.11	-7.30	52.81	54.00	-1.19	Average
6	2492.010	63.02	-7.30	55.72	74.00	-18.28	Peak

Vertical



Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11B-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2461.521	98.78	-7.43	91.35	------	------	Average
2	2461.521	103.75	-7.43	96.32	------	------	Peak
3	2487.749	60.10	-7.31	52.79	54.00	-1.21	Average
4	2487.749	56.87	-7.31	49.56	74.00	-24.44	Peak
5	2497.724	56.30	-7.27	49.03	54.00	-4.97	Average
6	2497.724	60.47	-7.27	53.20	74.00	-20.80	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

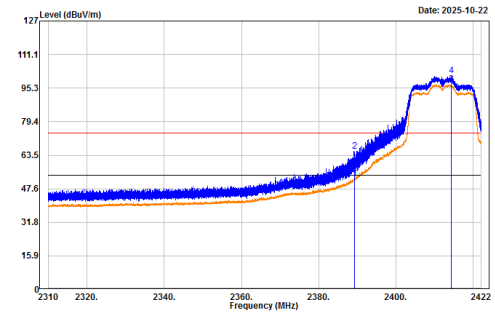
Factor = Antenna Factor + Cable Loss – Amplifier Gain

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

802.11g Mode

Low channel

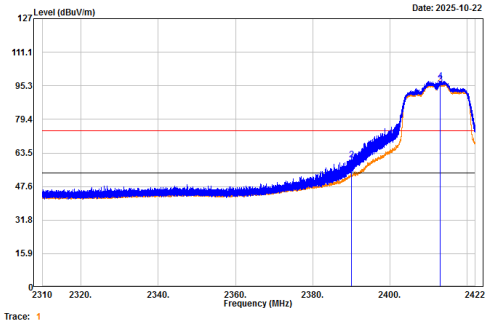
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11G-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2389.262	59.94	-7.63	52.31	54.00	-1.69	Average
2	2389.262	73.17	-7.63	65.54	74.00	-8.46	Peak
3	2414.306	104.51	-7.54	96.97	------	------	Average
4	2414.306	108.65	-7.54	101.11	------	------	Peak

Vertical

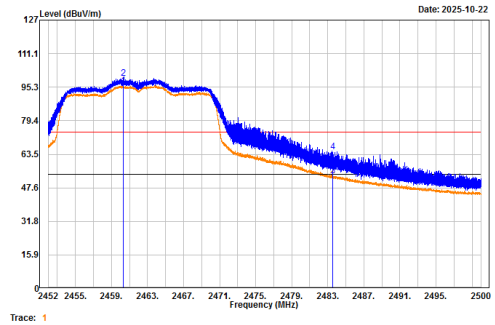


Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11G-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2389.953	61.56	-7.63	53.93	54.00	-0.07	Average
2	2389.953	67.74	-7.63	60.11	74.00	-13.89	Peak
3	2413.021	103.56	-7.54	96.02	------	------	Average
4	2413.021	105.03	-7.54	97.49	------	------	Peak

High channel

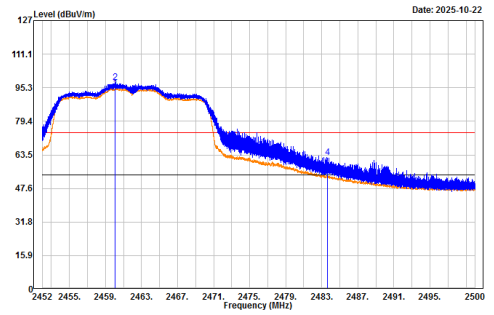
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11G-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2460.339	103.47	-7.44	96.03	------	------	Average
2	2460.339	106.85	-7.44	99.41	------	------	Peak
3	2483.570	60.83	-7.34	53.49	54.00	-0.51	Average
4	2483.570	72.12	-7.34	64.78	74.00	-9.22	Peak

Vertical



Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : 11G-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2460.078	102.56	-7.44	95.12	------	------	Average
2	2460.078	105.31	-7.44	97.87	------	------	Peak
3	2483.602	61.04	-7.34	53.70	54.00	-0.30	Average
4	2483.602	69.53	-7.34	62.19	74.00	-11.81	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

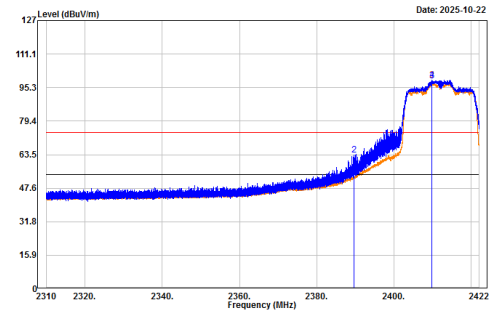
Factor = Antenna Factor + Cable Loss – Amplifier Gain

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802.11n HT20 Mode

Low channel

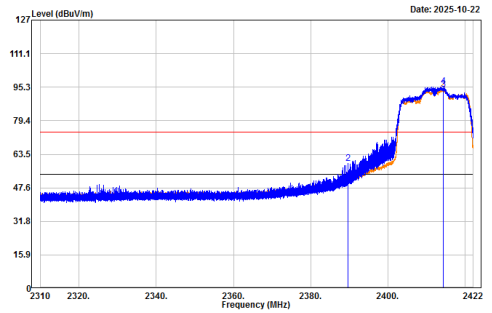
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : N20-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/5K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2389.699	60.68	-7.63	53.05	54.00	-0.95	Average
2	2389.699	71.11	-7.63	63.48	74.00	-10.52	Peak
3	2409.669	106.15	-7.56	98.59	------	------	Average
4	2409.669	106.25	-7.56	98.69	------	------	Peak

Vertical

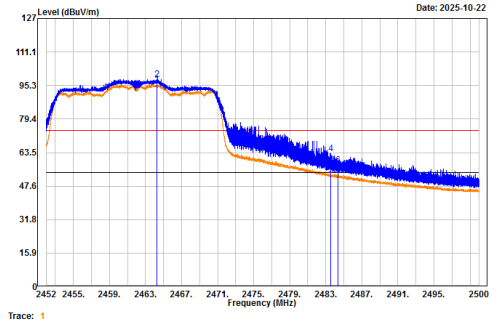


Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : N20-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/5K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2389.531	58.99	-7.63	51.36	54.00	-2.64	Average
2	2389.531	66.72	-7.63	59.09	74.00	-14.91	Peak
3	2414.212	101.77	-7.54	94.23	------	------	Average
4	2414.212	103.08	-7.54	95.54	------	------	Peak

High channel

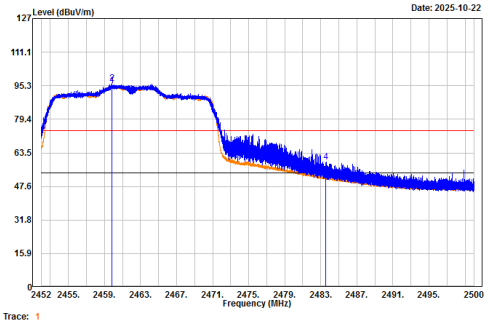
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : N20-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/5K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2464.288	103.11	-7.41	95.70	------	------	Average
2	2464.288	105.61	-7.41	98.20	------	------	Peak
3	2483.544	60.03	-7.34	52.69	54.00	-1.31	Average
4	2483.544	70.29	-7.34	62.95	74.00	-11.05	Peak
5	2484.371	60.51	-7.34	53.17	54.00	-0.83	Average
6	2484.371	64.84	-7.34	57.50	74.00	-16.50	Peak

Vertical



Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : N20-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/5K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2459.802	102.84	-7.44	95.40	------	------	Average
2	2459.802	103.87	-7.44	96.43	------	------	Peak
3	2483.552	59.60	-7.34	52.26	54.00	-1.74	Average
4	2483.552	66.61	-7.34	59.27	74.00	-14.73	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

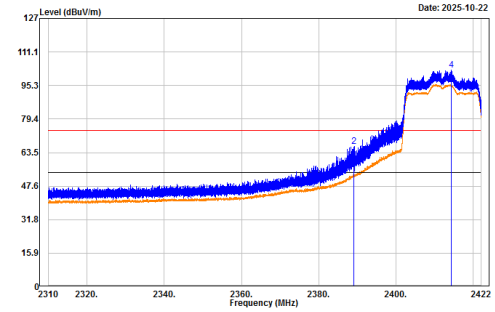
Factor = Antenna Factor + Cable Loss – Amplifier Gain

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802.11ax HE20 Mode

Low channel

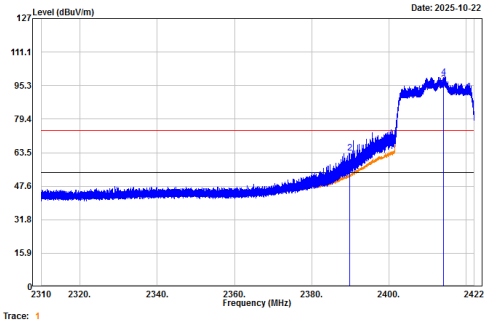
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : AX20-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2389.053	60.83	-7.63	53.20	54.00	-0.80	Average
2	2389.053	74.01	-7.63	66.38	74.00	-7.62	Peak
3	2414.298	103.22	-7.54	95.68	------	------	Average
4	2414.298	109.94	-7.54	102.40	------	------	Peak

Vertical

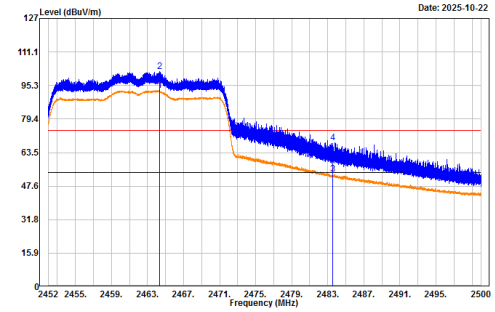


Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : AX20-TX-2412
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2389.737	60.44	-7.63	52.81	54.00	-1.19	Average
2	2389.737	70.91	-7.63	63.28	74.00	-10.72	Peak
3	2414.130	103.40	-7.54	95.86	------	------	Average
4	2414.130	106.78	-7.54	99.24	------	------	Peak

High channel

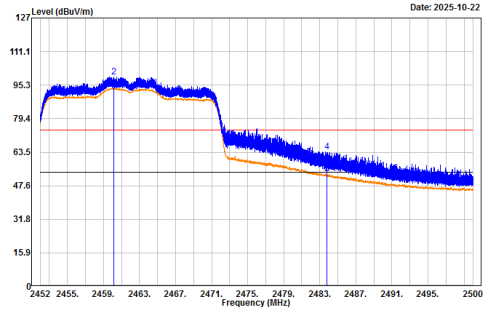
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m Horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : AX20-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2464.342	100.36	-7.41	92.95	------	------	Average
2	2464.342	109.15	-7.41	101.74	------	------	Peak
3	2483.546	60.77	-7.34	53.43	54.00	-0.57	Average
4	2483.546	75.41	-7.34	68.07	74.00	-5.93	Peak

Vertical



Trace: 1
Site : LK-966A
Condition: 3m Vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 22℃/ 51%
Memo : AX20-TX-2462
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2460.117	101.42	-7.44	93.98	------	------	Average
2	2460.117	106.53	-7.44	99.09	------	------	Peak
3	2483.797	60.72	-7.34	53.38	54.00	-0.62	Average
4	2483.797	71.05	-7.34	63.71	74.00	-10.29	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

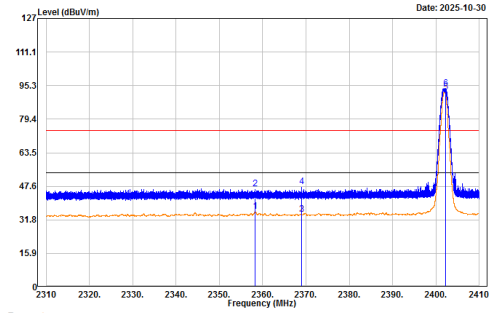
Factor = Antenna Factor + Cable Loss – Amplifier Gain

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BLE(1M) Mode

Low channel

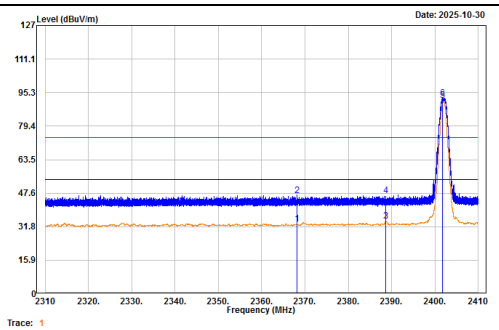
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 21℃/ 58%
Memo : BLE-1M-TX-2402
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2358.310	43.63	-7.84	35.79	54.00	-18.21	Average
2	2358.310	54.41	-7.84	46.57	74.00	-27.43	Peak
3	2369.063	42.24	-7.76	34.48	54.00	-19.52	Average
4	2369.063	55.16	-7.76	47.40	74.00	-26.60	Peak
5	2402.283	99.73	-7.57	92.16	------	------	Average
6	2402.283	101.36	-7.57	93.79	------	------	Peak

Vertical

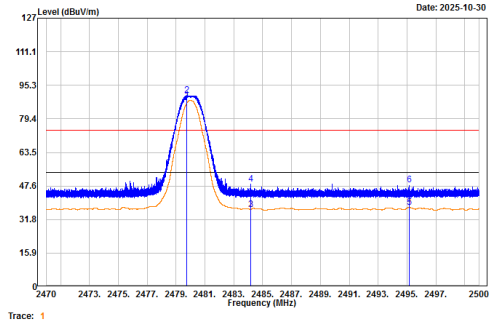


Trace: 1
Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 21℃/ 58%
Memo : BLE-1M-TX-2402
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2368.100	40.65	-7.77	32.88	54.00	-21.12	Average
2	2368.100	54.34	-7.77	46.57	74.00	-27.43	Peak
3	2388.723	42.16	-7.64	34.52	54.00	-19.48	Average
4	2388.723	54.15	-7.64	46.51	74.00	-27.49	Peak
5	2401.760	98.96	-7.57	91.39	------	------	Average
6	2401.760	100.13	-7.57	92.56	------	------	Peak

High channel

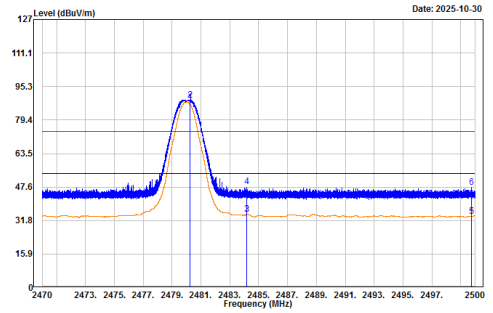
Horizontal



Trace: 1
Site : LK-966A
Condition: 3m horizontal
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 21℃/ 58%
Memo : BLE-1M-TX-2480
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2479.730	95.37	-7.35	88.02	------	------	Average
2	2479.730	97.71	-7.35	90.36	------	------	Peak
3	2484.171	43.78	-7.34	36.44	54.00	-17.56	Average
4	2484.171	55.83	-7.34	48.49	74.00	-25.51	Peak
5	2495.153	44.95	-7.29	37.66	54.00	-16.34	Average
6	2495.153	55.59	-7.29	48.30	74.00	-25.70	Peak

Vertical



Trace: 1
Site : LK-966A
Condition: 3m vertical
Job No : RLK250801004
Model : RRQ61051-008
Power : From Test Development Board.
Tester : Yue
Temp./ Hum.: 21℃/ 58%
Memo : BLE-1M-TX-2480
RBW/VBW : PK: 1M/3M; AV: 1M/3K

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	2480.255	95.28	-7.35	87.93	------	------	Average
2	2480.255	96.17	-7.35	88.82	------	------	Peak
3	2484.188	42.07	-7.34	34.73	54.00	-19.27	Average
4	2484.188	55.05	-7.34	47.71	74.00	-26.29	Peak
5	2499.743	40.99	-7.27	33.72	54.00	-20.28	Average
6	2499.743	54.64	-7.27	47.37	74.00	-26.63	Peak

Note:

Level = Read Level + Factor

Over Limit = Level – Limit Line

Factor = Antenna Factor + Cable Loss – Amplifier Gain

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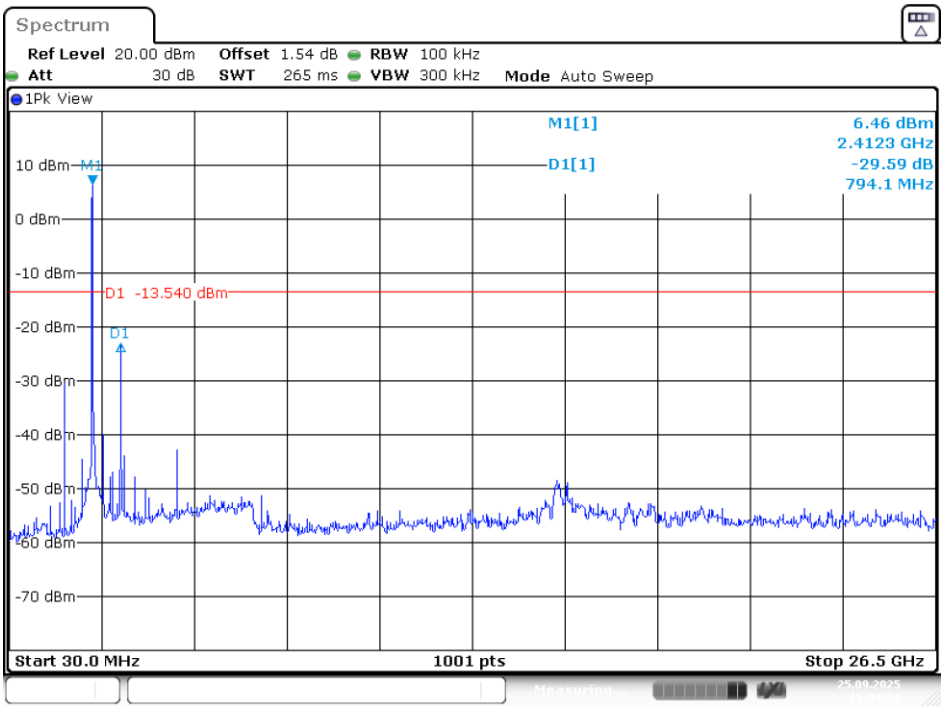
Conducted Spurious Emissions:

Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
b Mode				
Low	2412	29.59	≥ 20	PASS
Mid	2437	31.77	≥ 20	PASS
High	2462	29.98	≥ 20	PASS
g Mode				
Low	2412	29.99	≥ 20	PASS
Mid	2437	28.44	≥ 20	PASS
High	2462	31.75	≥ 20	PASS
n20 Mode				
Low	2412	36.18	≥ 20	PASS
Mid	2437	29.51	≥ 20	PASS
High	2462	33.21	≥ 20	PASS
ax20 Mode				
Low	2412	29.28	≥ 20	PASS
Mid	2437	32.16	≥ 20	PASS
High	2462	31.20	≥ 20	PASS
BLE(1M) Mode				
Low	2402	47.13	≥ 20	PASS
Mid	2440	48.35	≥ 20	PASS
High	2480	48.31	≥ 20	PASS

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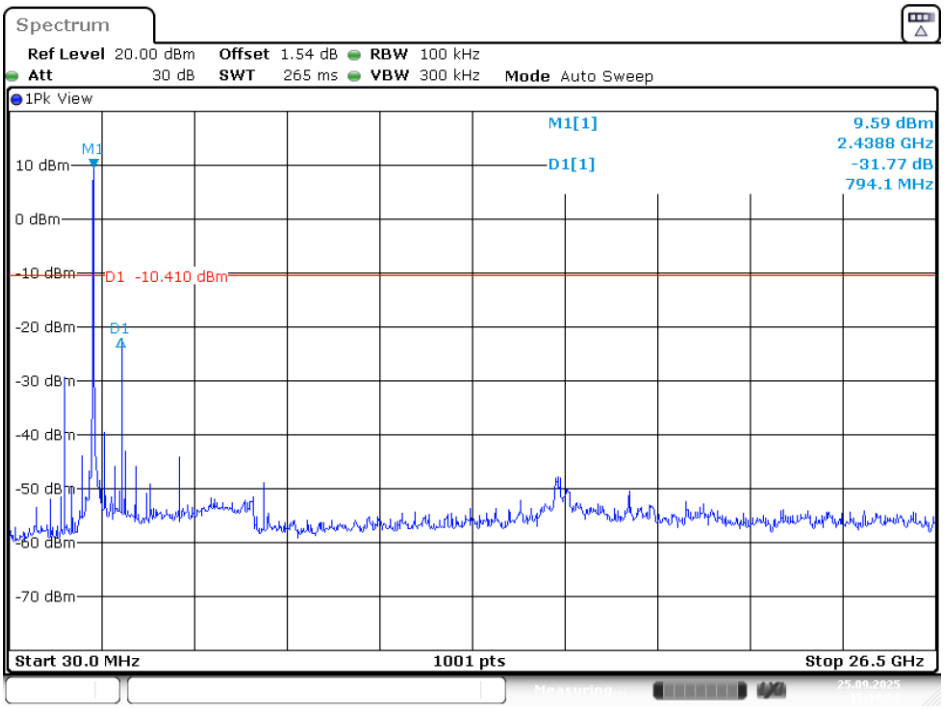
b Mode

Low Channel



Date: 25.SEP.2025 15:09:50

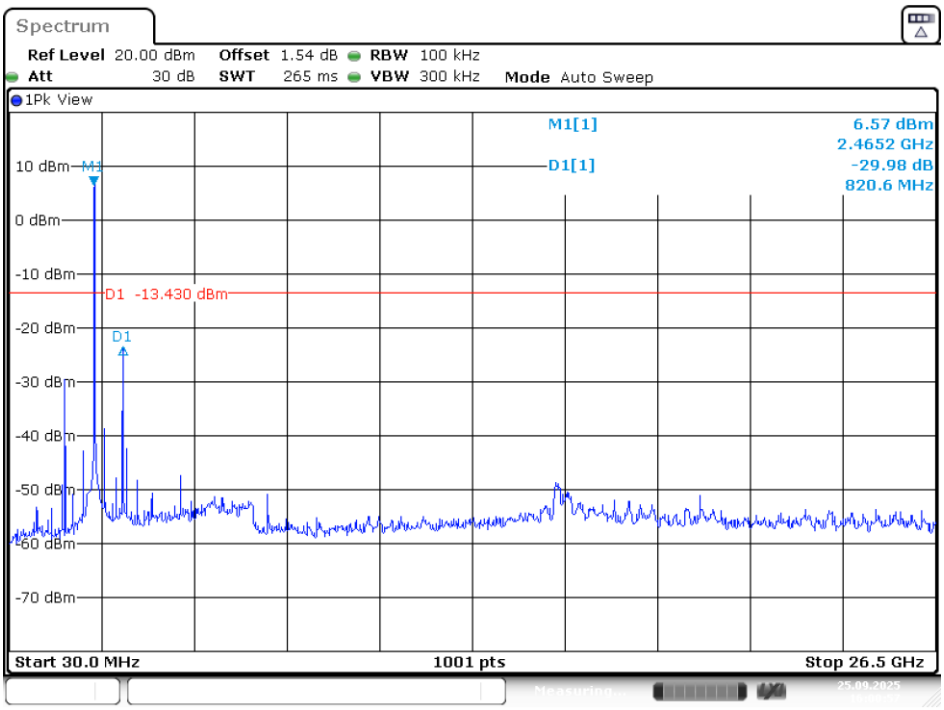
Middle Channel



Date: 25.SEP.2025 15:18:59

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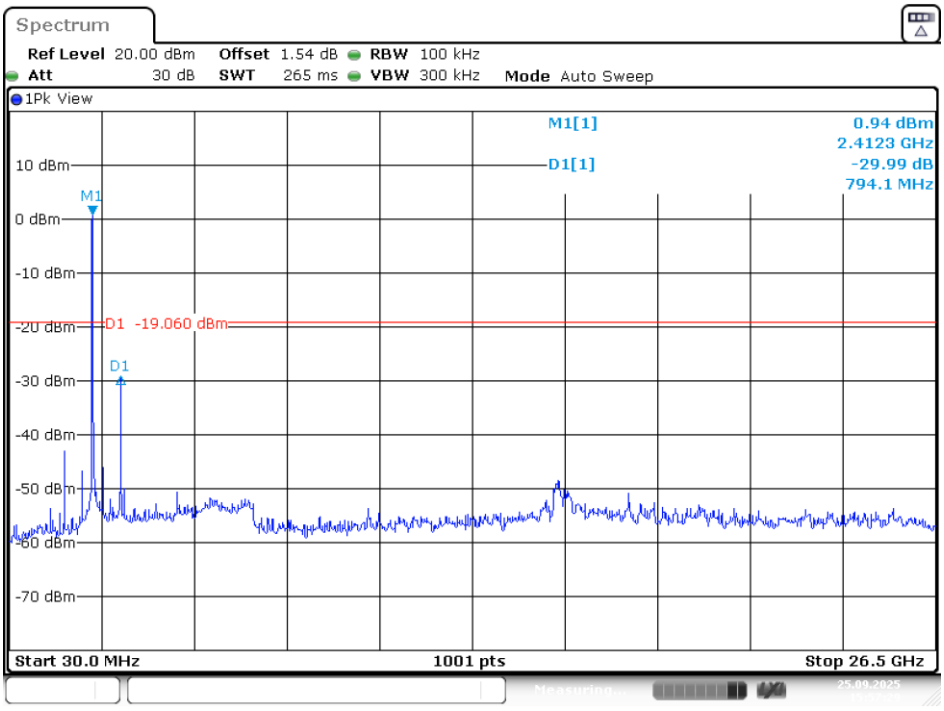
High Channel



Date: 25.SEP.2025 16:00:57

g Mode

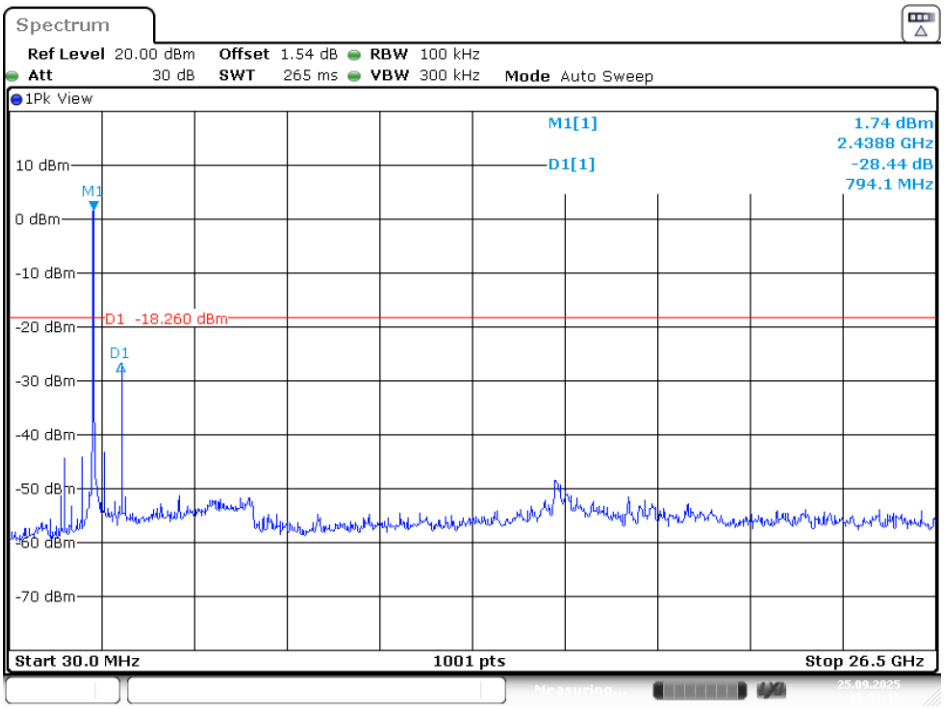
Low Channel



Date: 25.SEP.2025 15:57:29

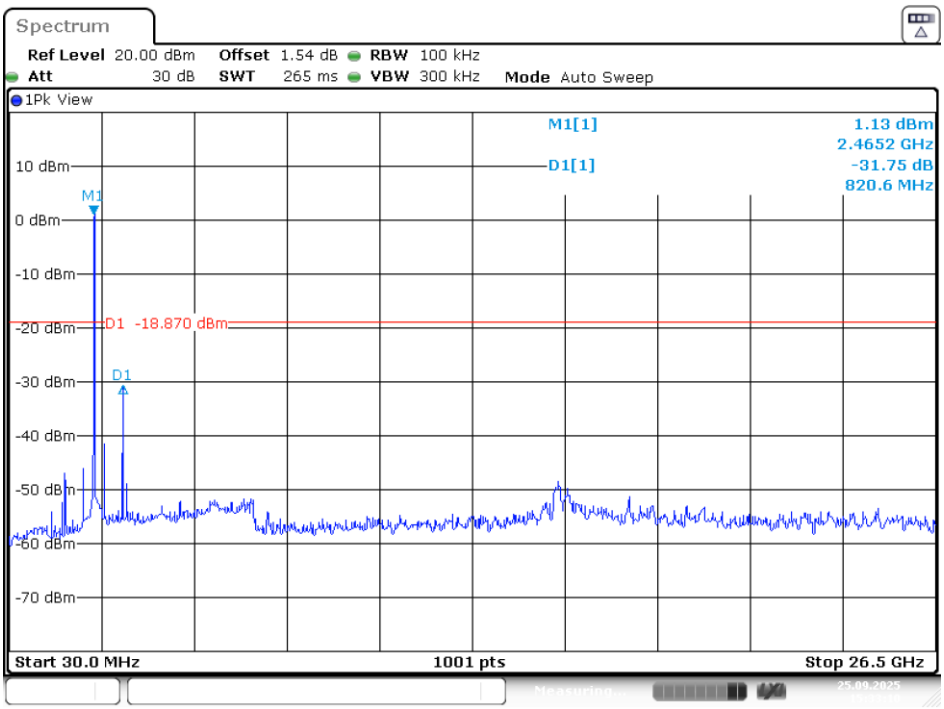
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

Middle Channel



Date: 25.SEP.2025 15:31:15

High Channel

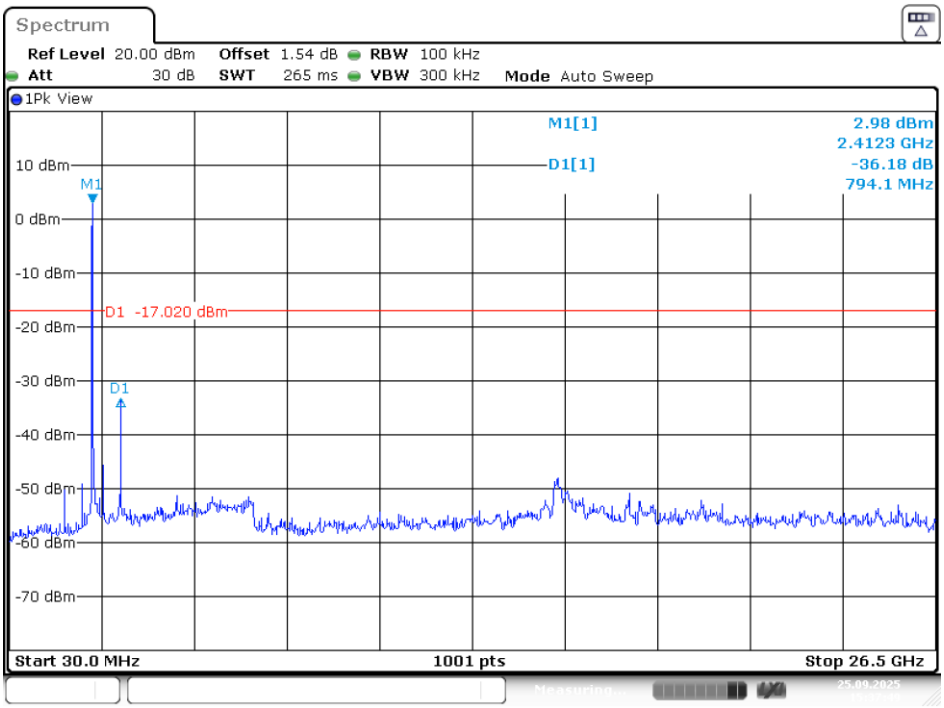


Date: 25.SEP.2025 15:33:10

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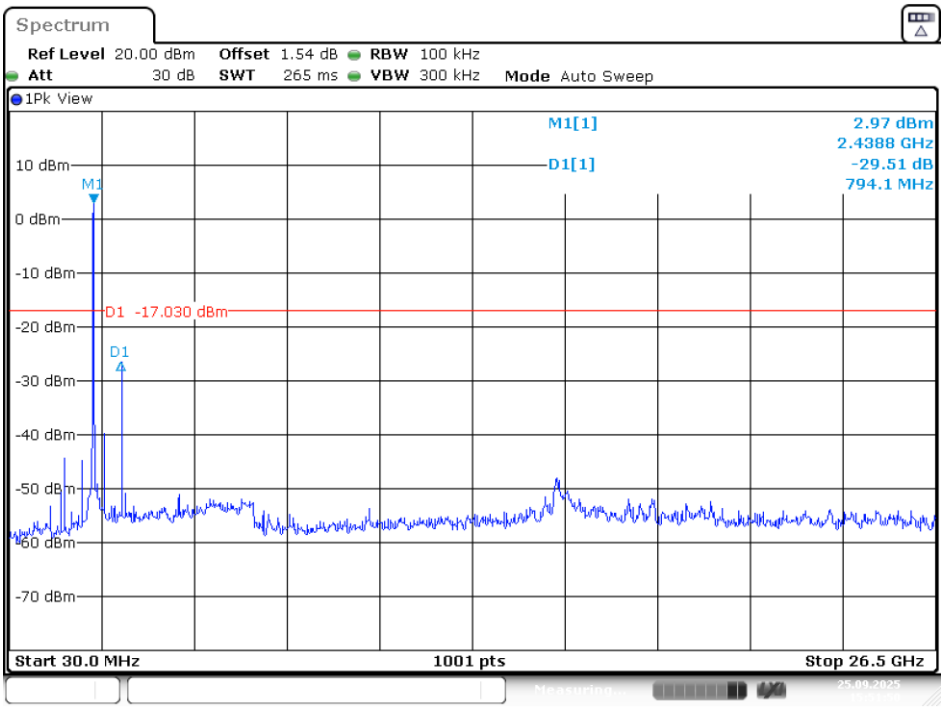
n20 Mode

Low Channel



Date: 25.SEP.2025 15:37:49

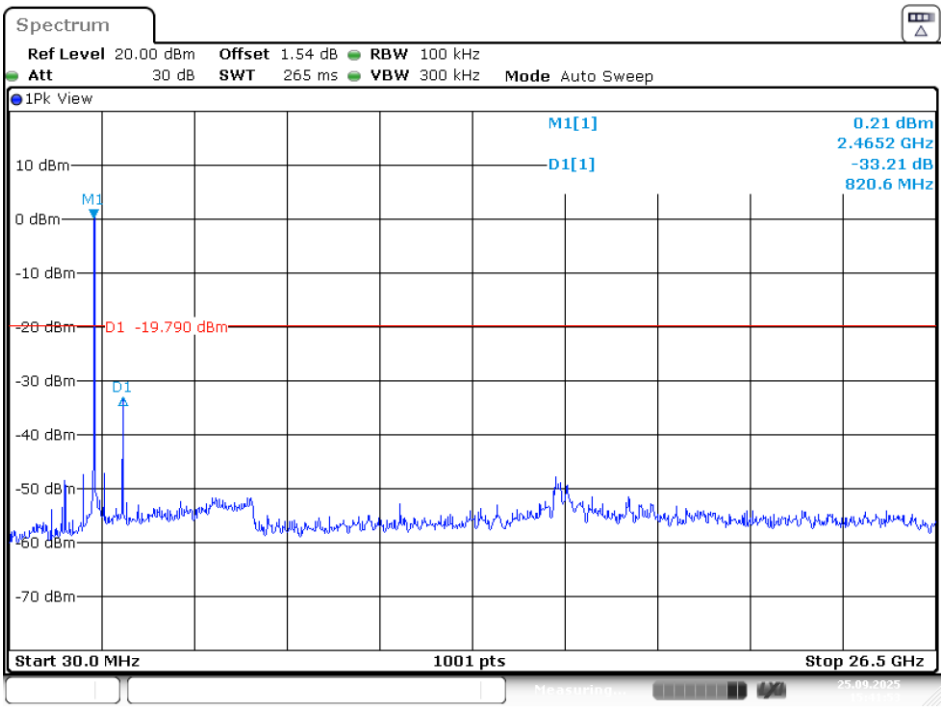
Middle Channel



Date: 25.SEP.2025 15:51:51

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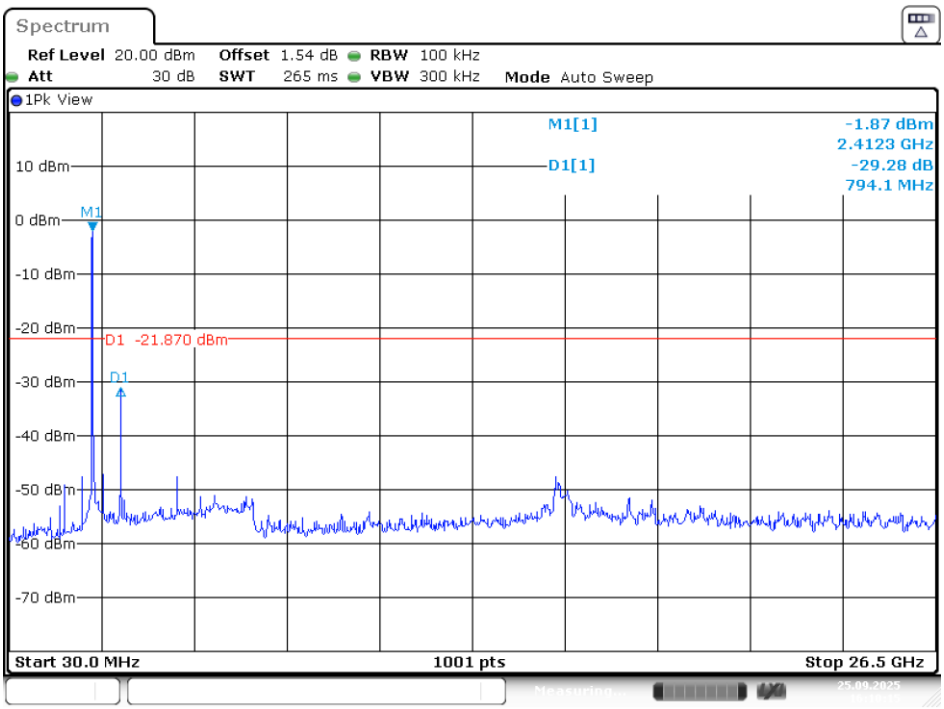
High Channel



Date: 25.SEP.2025 15:41:53

ax20 Mode

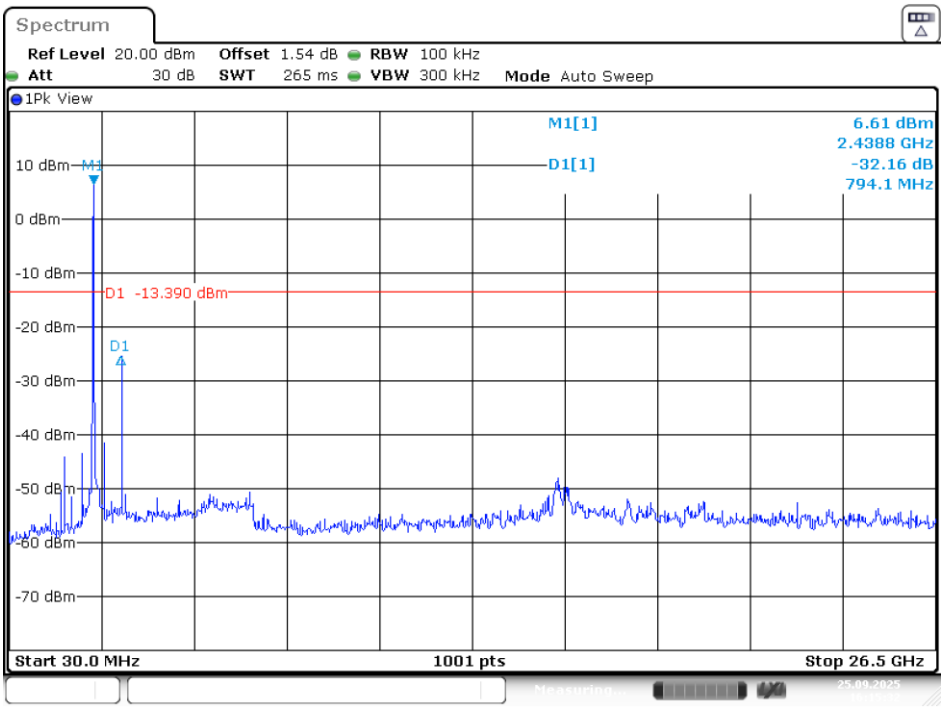
Low Channel



Date: 25.SEP.2025 16:10:15

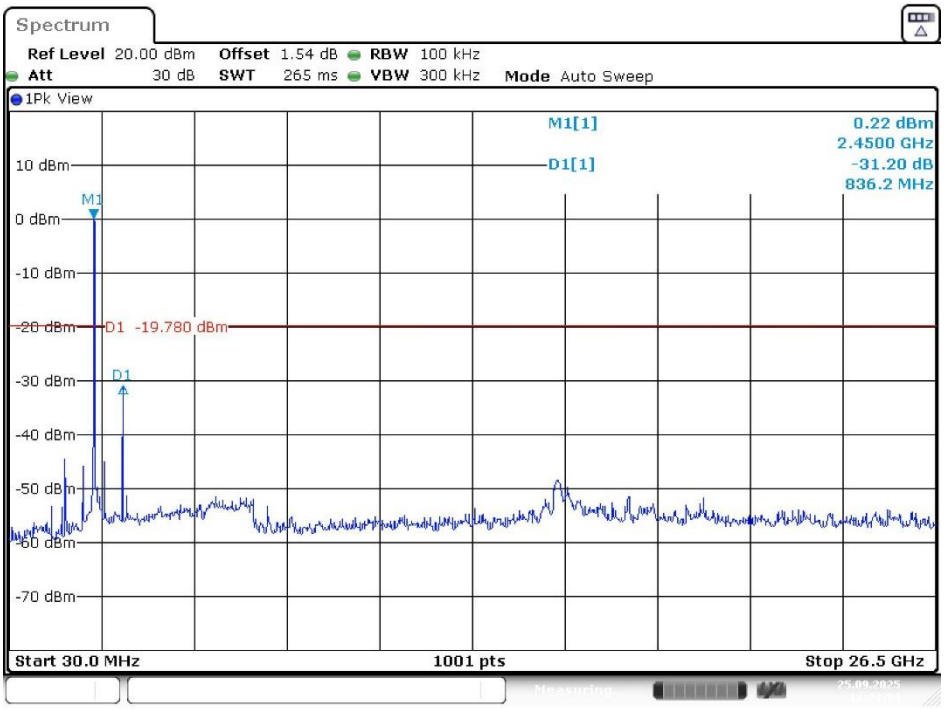
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

Middle Channel



Date: 25.SEP.2025 16:15:32

High Channel

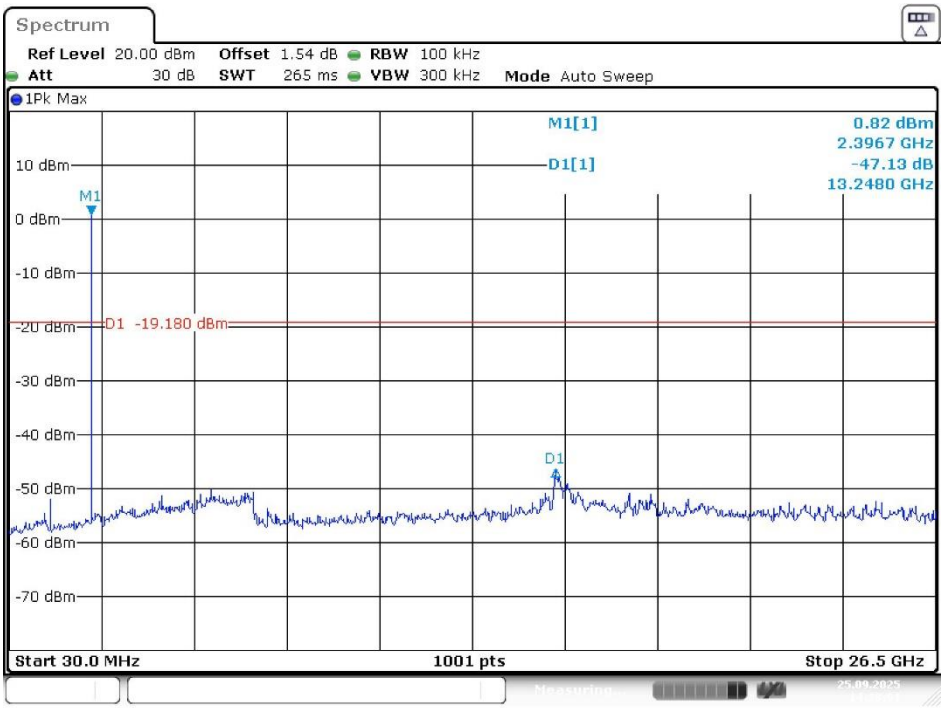


Date: 25.SEP.2025 16:21:04

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

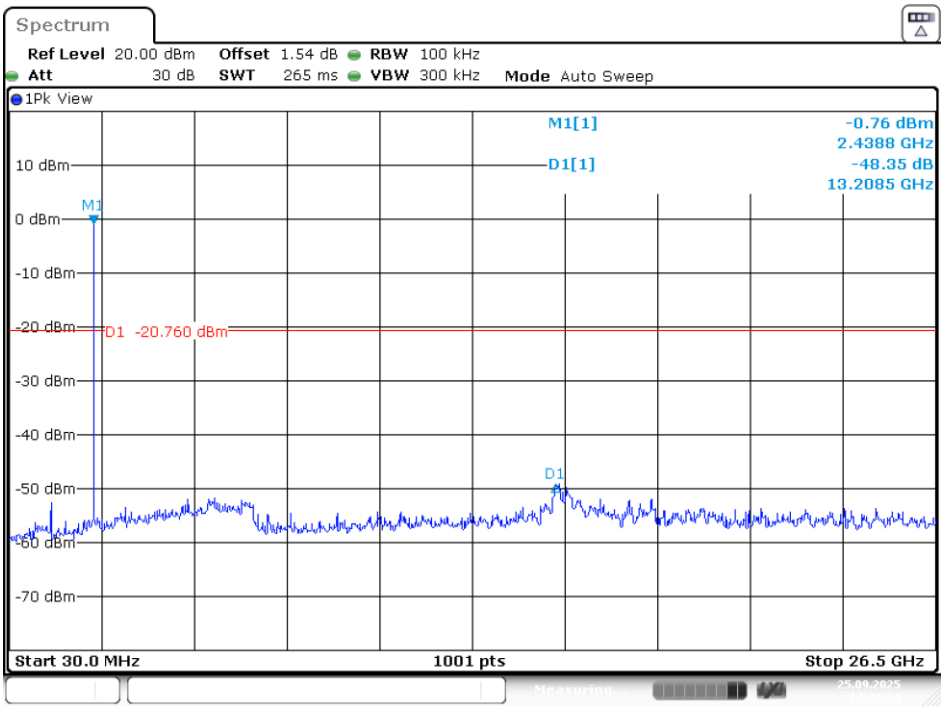
BLE (1M) Mode

Low Channel



Date: 25.SEP.2025 14:28:01

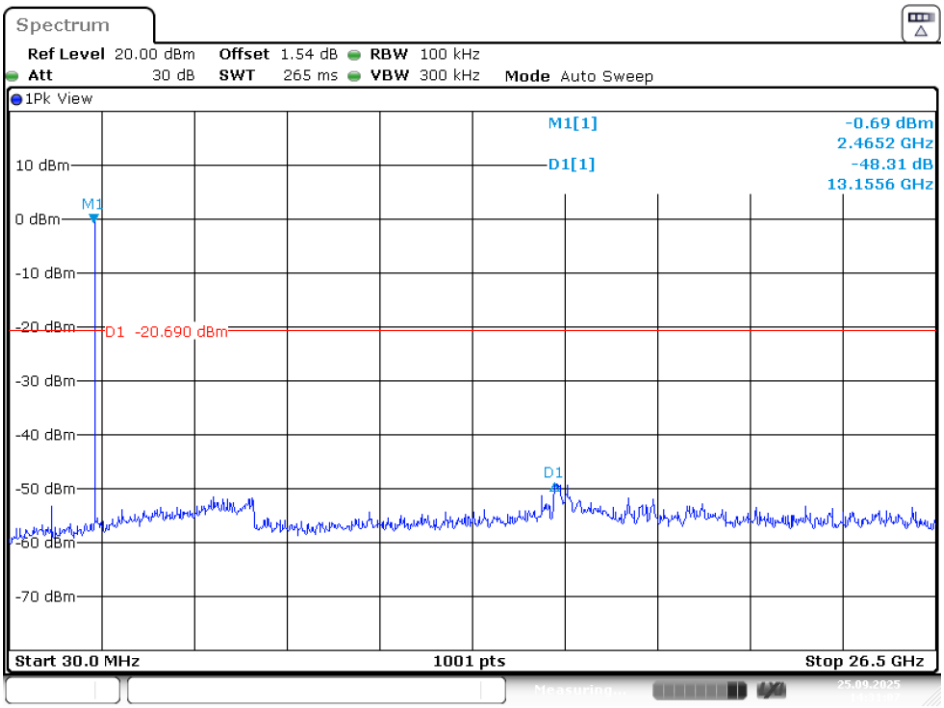
Middle Channel



Date: 25.SEP.2025 14:29:24

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High Channel



Date: 25.SEP.2025 14:31:07

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8 FCC §15.247(a)(2) – 6 dB Emission Bandwidth And Occupied Bandwidth

8.1 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.

8.2 Test Procedure

For – 6 dB Emission Bandwidth:

According to ANSI C63.10-2020+Cor.1-2023 ,section 11.8

The steps for the first option are as follows:

a) Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.

b) Set the VBW ≥ [3 × RBW].

c) Detector = peak.

d) Trace mode = max-hold.

e) Sweep = No faster than coupled (auto) time.

f) Allow the trace to stabilize.

g) Measure the maximum width of the emission by placing two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the "−6 dB down amplitude". If a marker is below this "−6 dB down amplitude" value, then it shall be as close as possible to this value.

For 99% Occupied Bandwidth

According to ANSI C63.10-2020+Cor.1-2023 ,section 6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

The following procedure shall be used for measuring 99% power bandwidth:

a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.

b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement.

c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.6.2.

d) Step a) through step c) might require iteration to adjust within the specified range.

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e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max-hold mode (until the trace stabilizes) shall be used.
f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
h) The occupied bandwidth shall be reported by providing spectral plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

8.3 Test Results

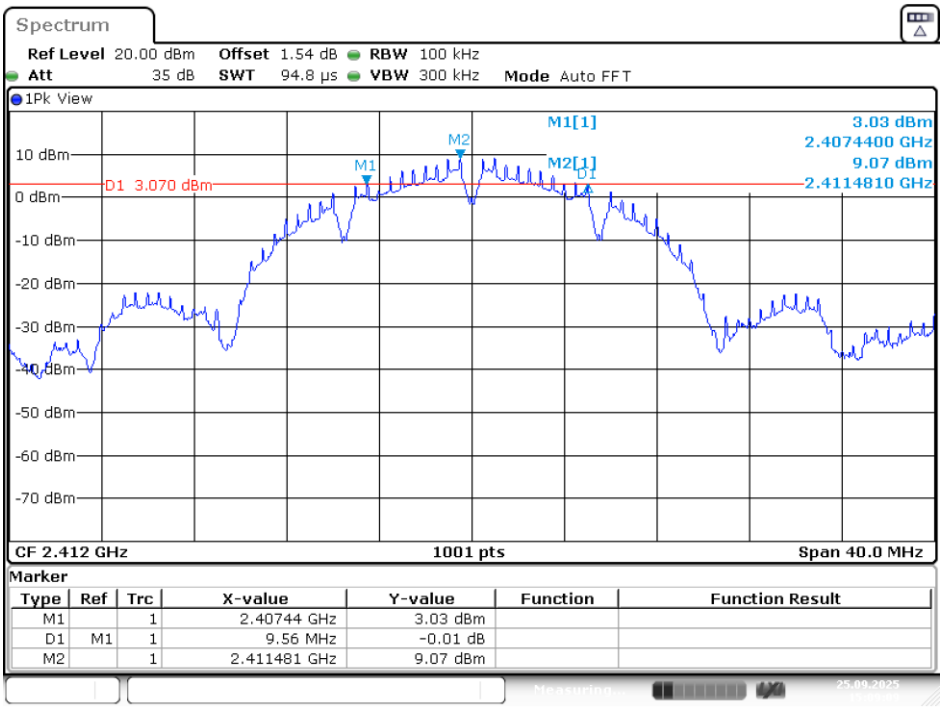
Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Emission Bandwidth (MHz)	Limit (kHz)	Result
b Mode					
Low	2412	9.56	15.94	> 500	PASS
Middle	2437	5.04	16.18	> 500	PASS
High	2462	9.00	15.10	> 500	PASS
g Mode					
Low	2412	15.80	16.78	> 500	PASS
Middle	2437	16.08	17.02	> 500	PASS
High	2462	16.20	16.58	> 500	PASS
n20 Mode					
Low	2412	17.08	17.62	> 500	PASS
Middle	2437	17.12	18.10	> 500	PASS
High	2462	17.16	17.66	> 500	PASS
ax20 Mode					
Low	2412	17.88	18.82	> 500	PASS
Middle	2437	17.24	19.22	> 500	PASS
High	2462	18.00	18.90	> 500	PASS
BLE(1M) Mode					
Low	2402	0.843	1.10	> 500	PASS
Middle	2440	0.783	1.08	> 500	PASS
High	2480	0.759	1.07	> 500	PASS

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-6db Bandwidth:

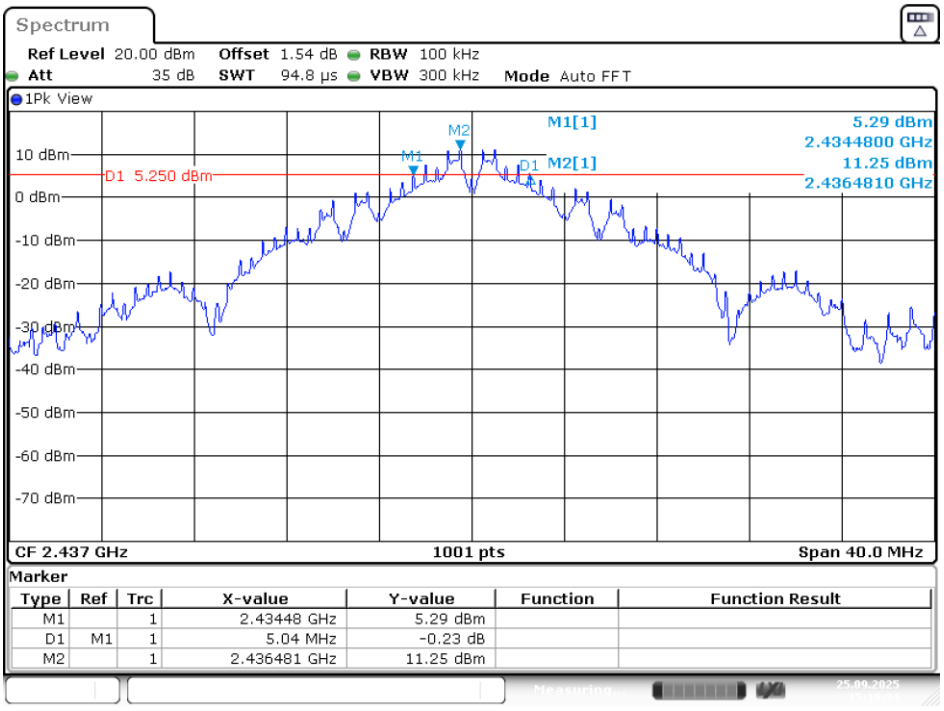
b Mode

Low Channel



Date: 25.SEP.2025 15:09:09

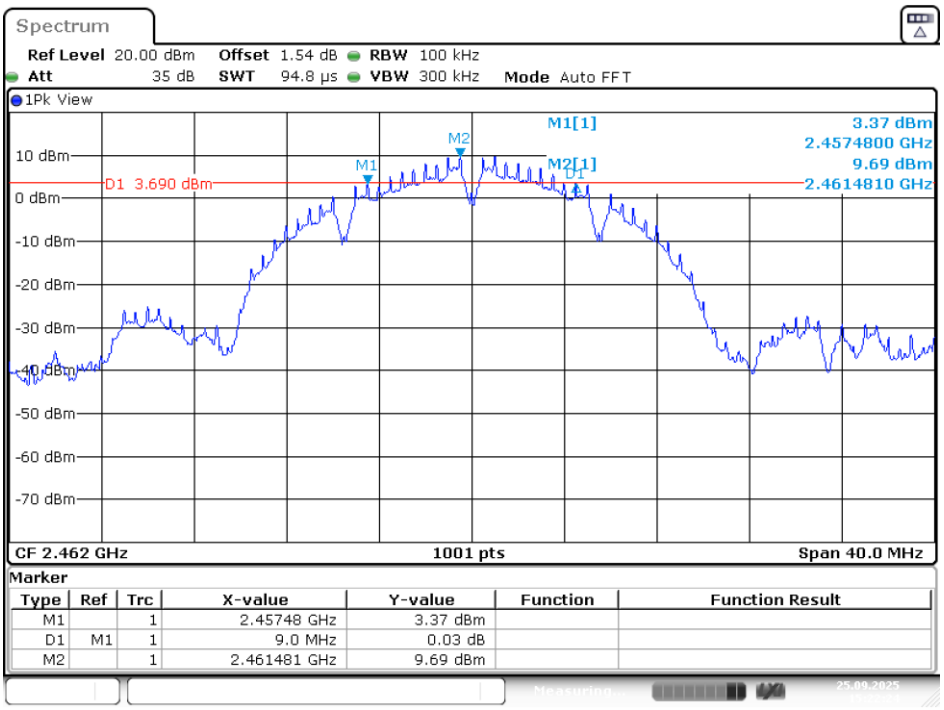
Middle Channel



Date: 25.SEP.2025 15:18:34

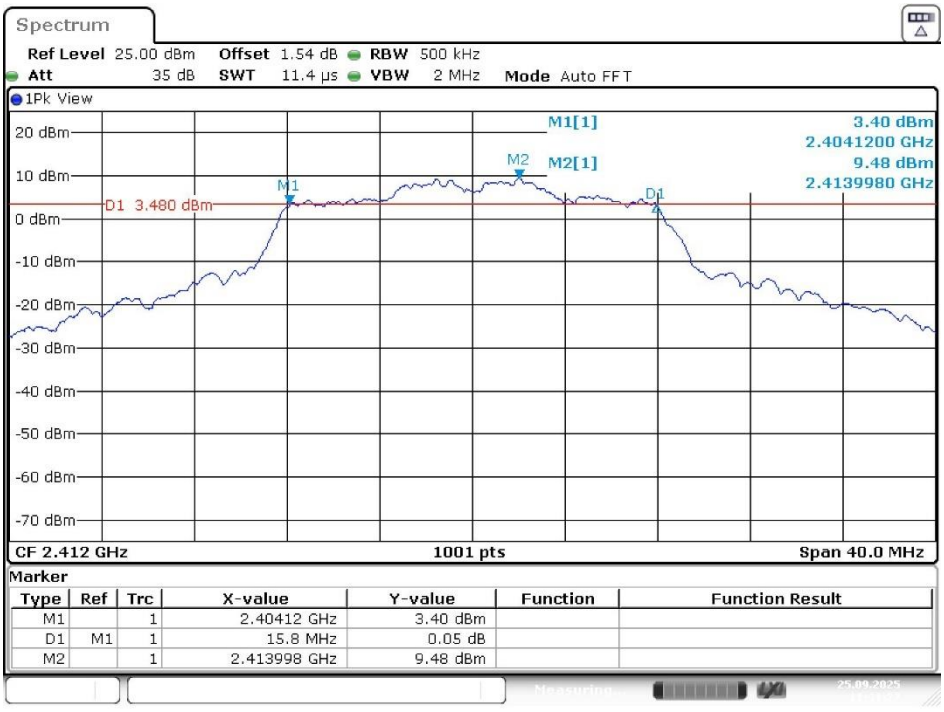
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

High Channel



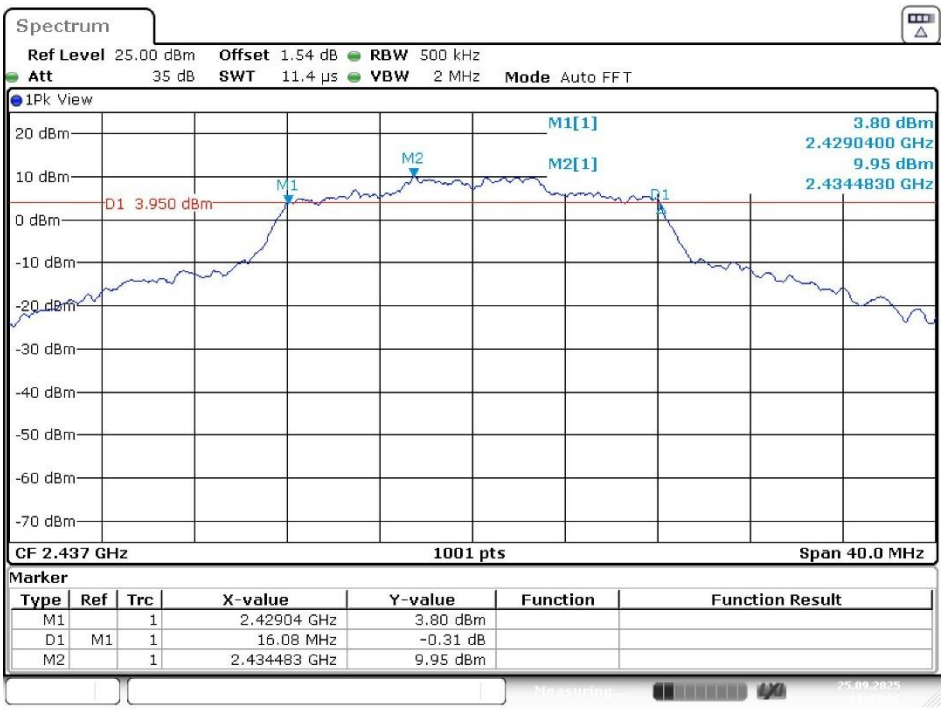
g Mode

Low Channel



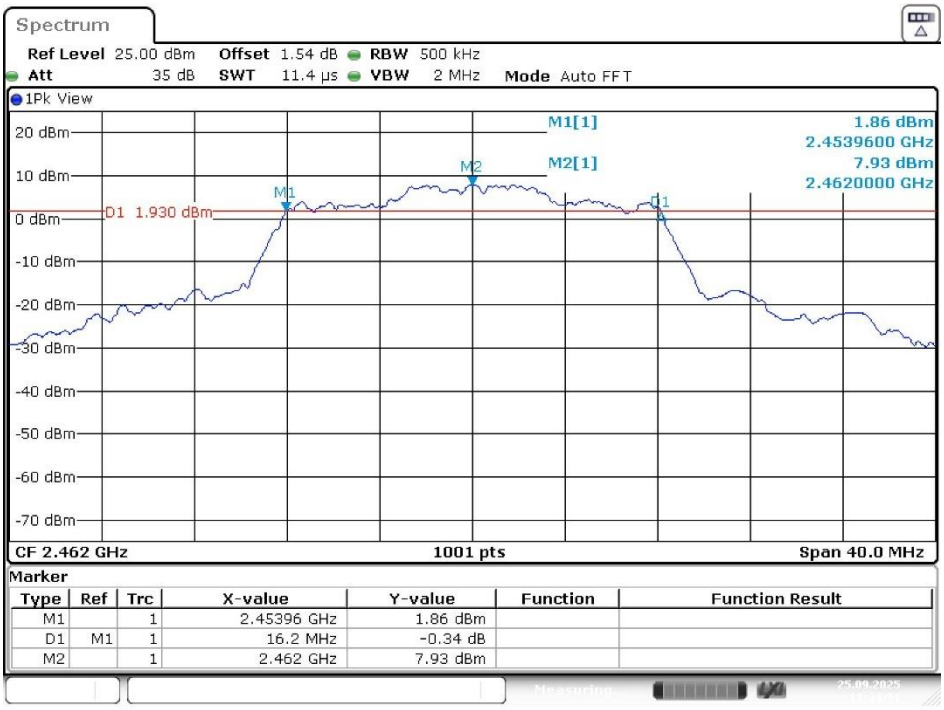
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

Middle Channel



Date: 25.SEP.2025 11:33:38

High Channel

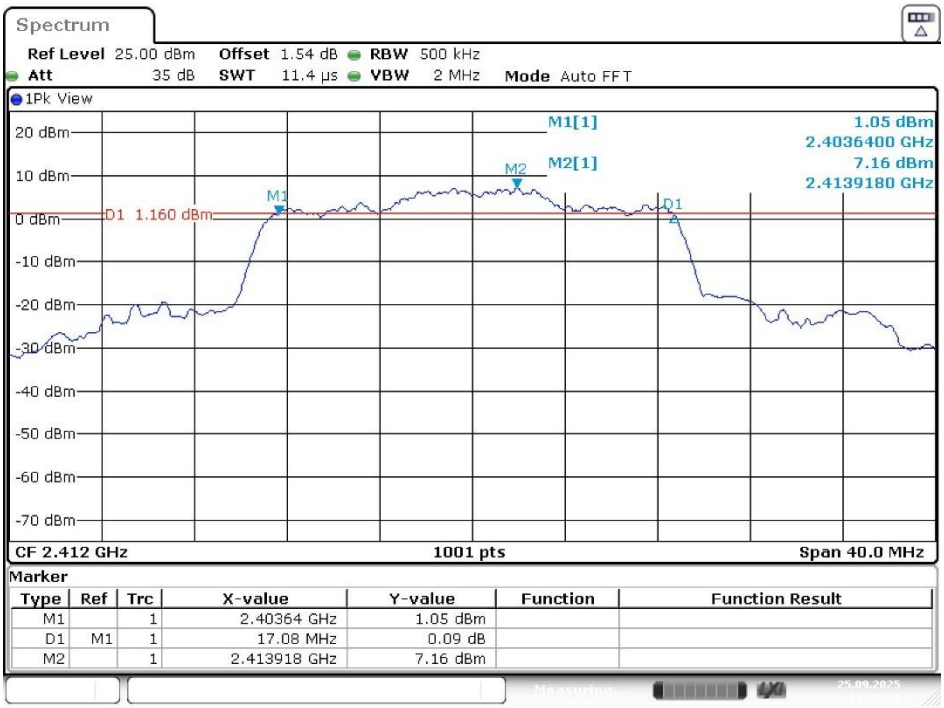


Date: 25.SEP.2025 11:34:51

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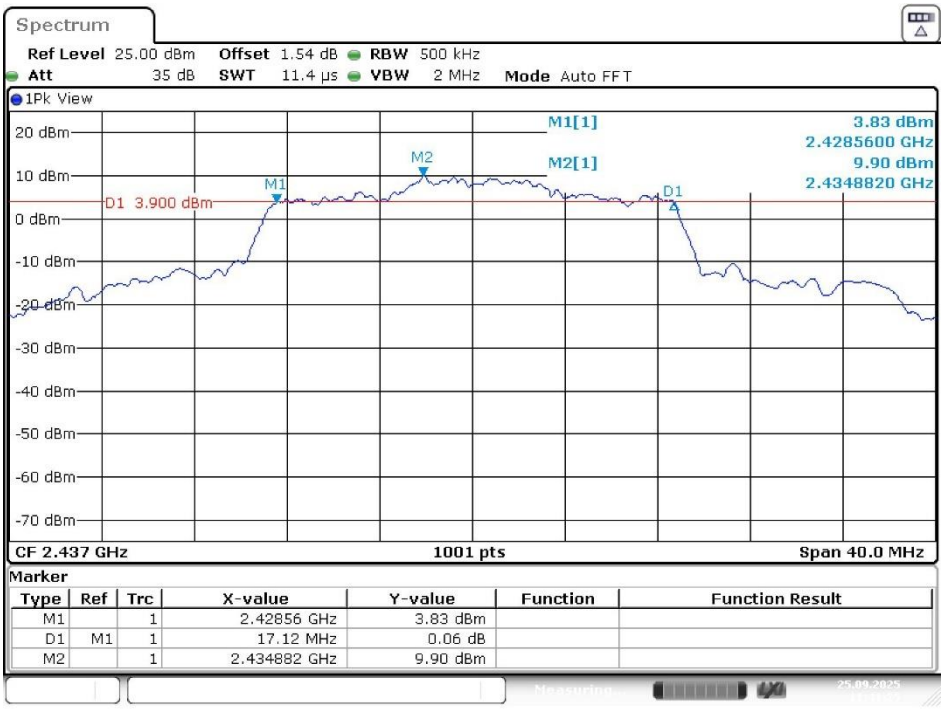
n20 Mode

Low Channel



Date: 25.SEP.2025 11:40:15

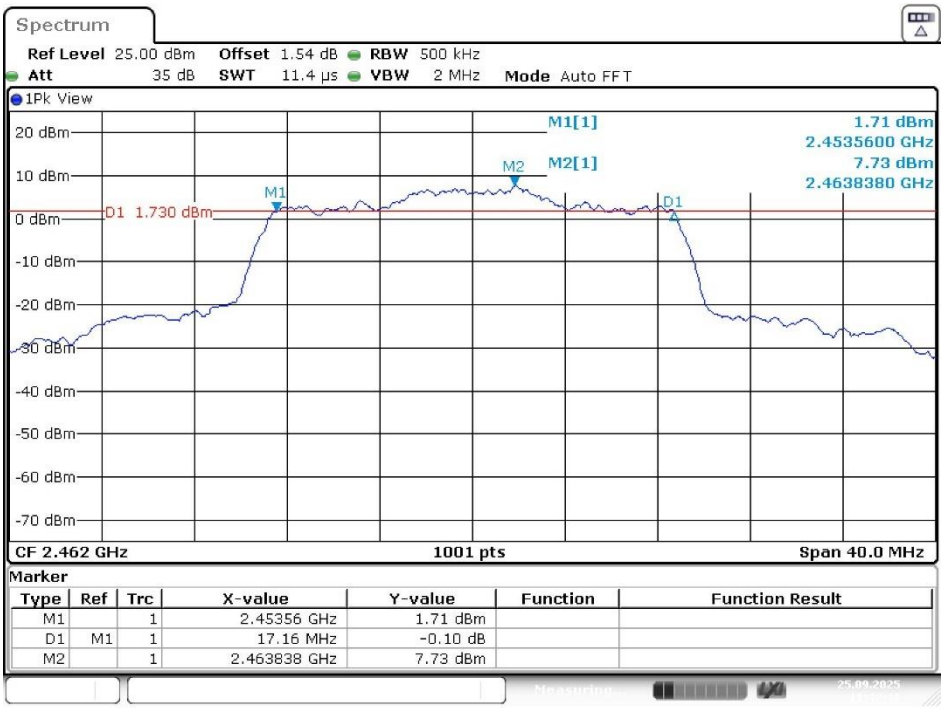
Middle Channel



Date: 25.SEP.2025 11:41:25

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

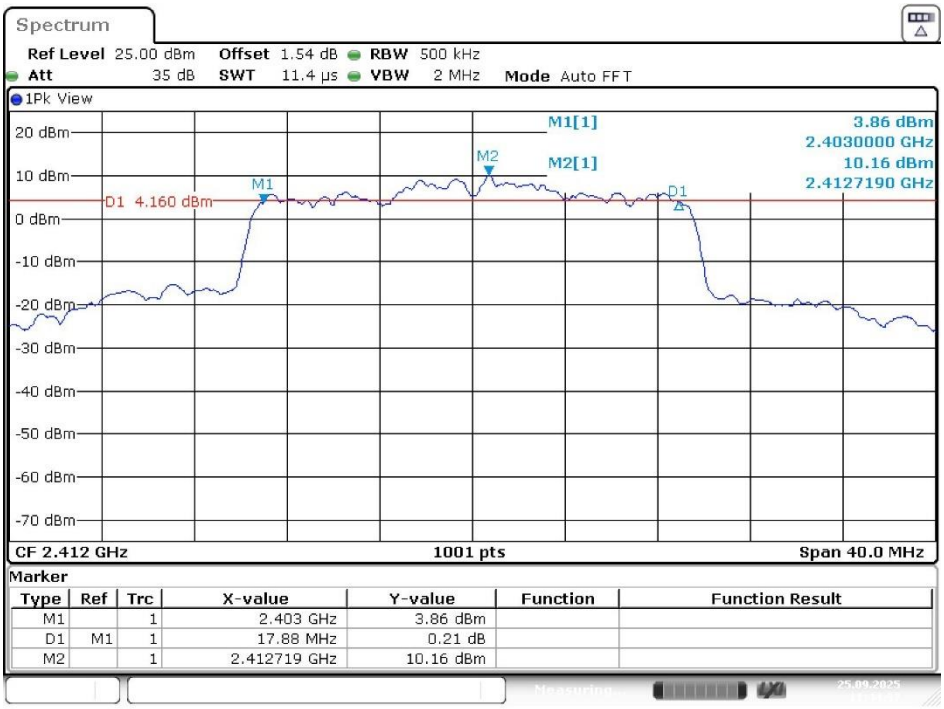
High Channel



Date: 25.SEP.2025 11:42:40

ax20 Mode

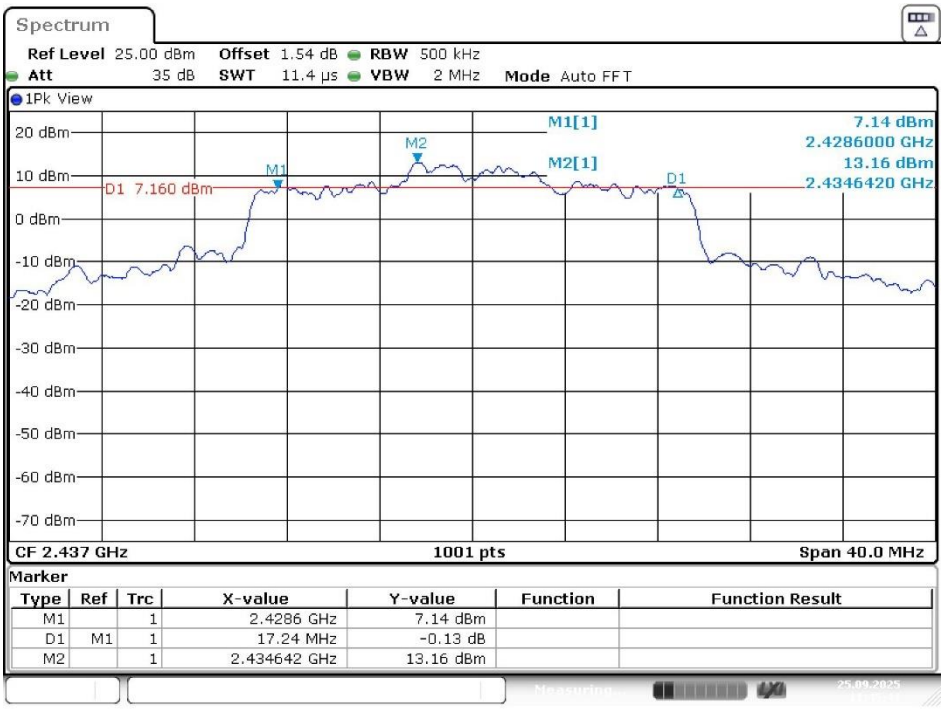
Low Channel



Date: 25.SEP.2025 11:44:37

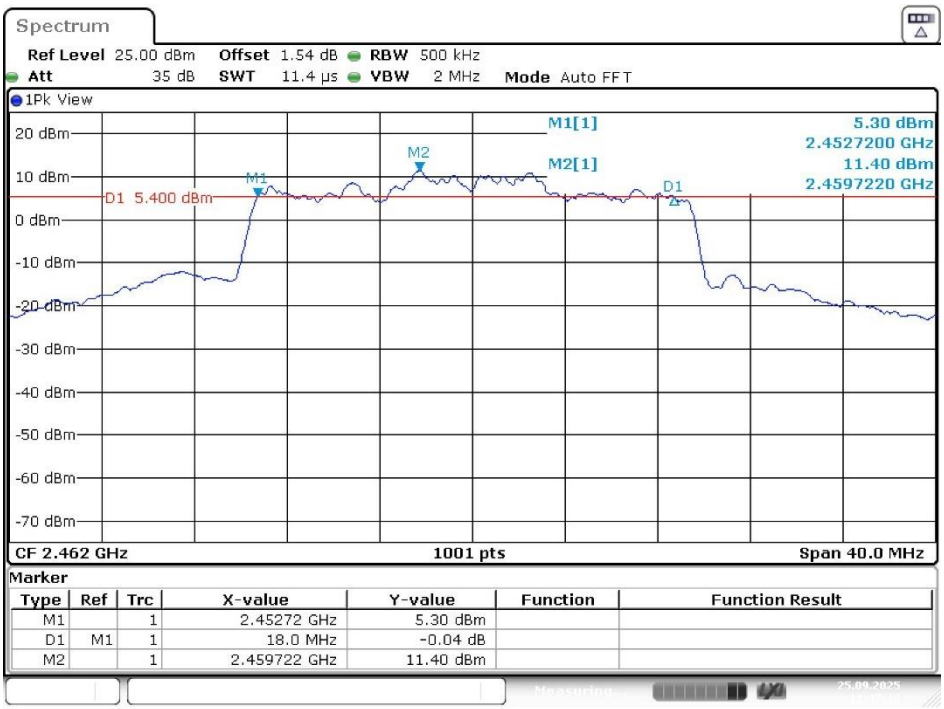
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

Middle Channel



Date: 25.SEP.2025 11:45:41

High Channel

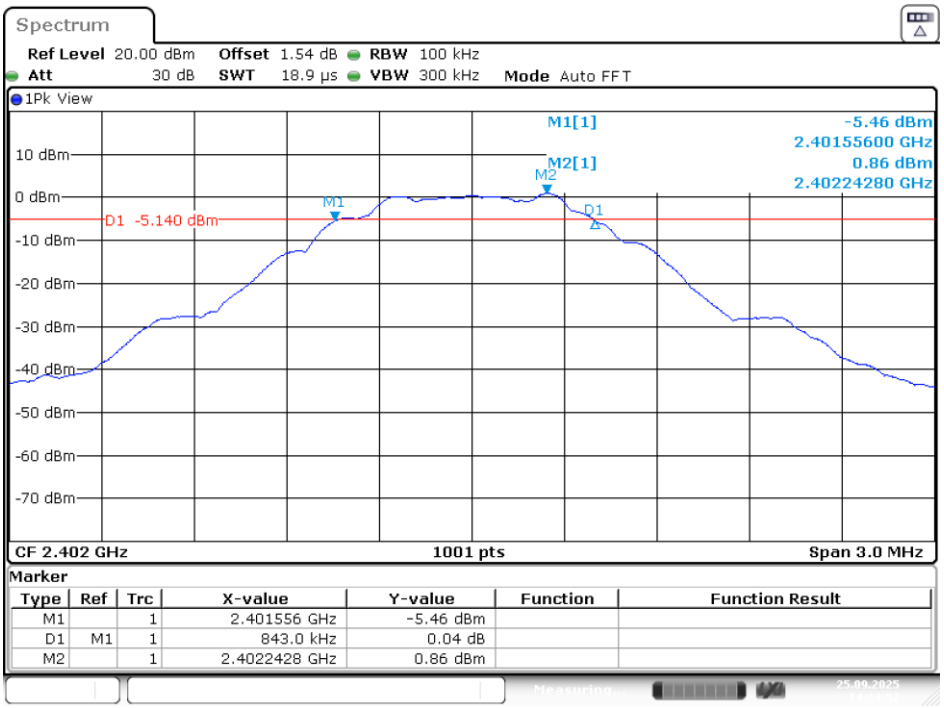


Date: 25.SEP.2025 11:47:12

Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

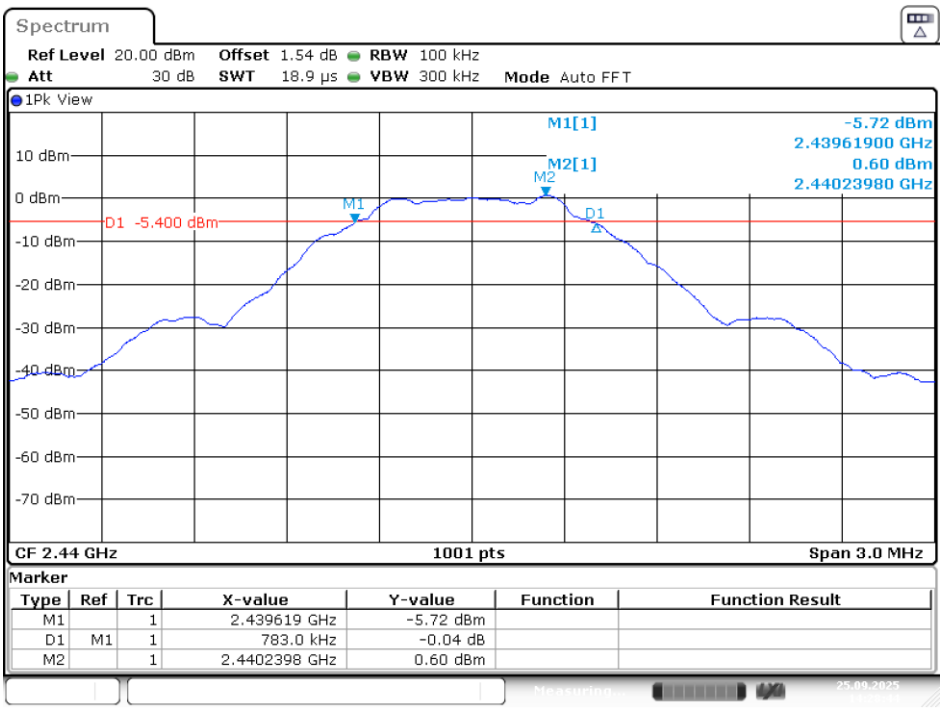
BLE (1M) Mode

Low Channel



Date: 25.SEP.2025 14:24:52

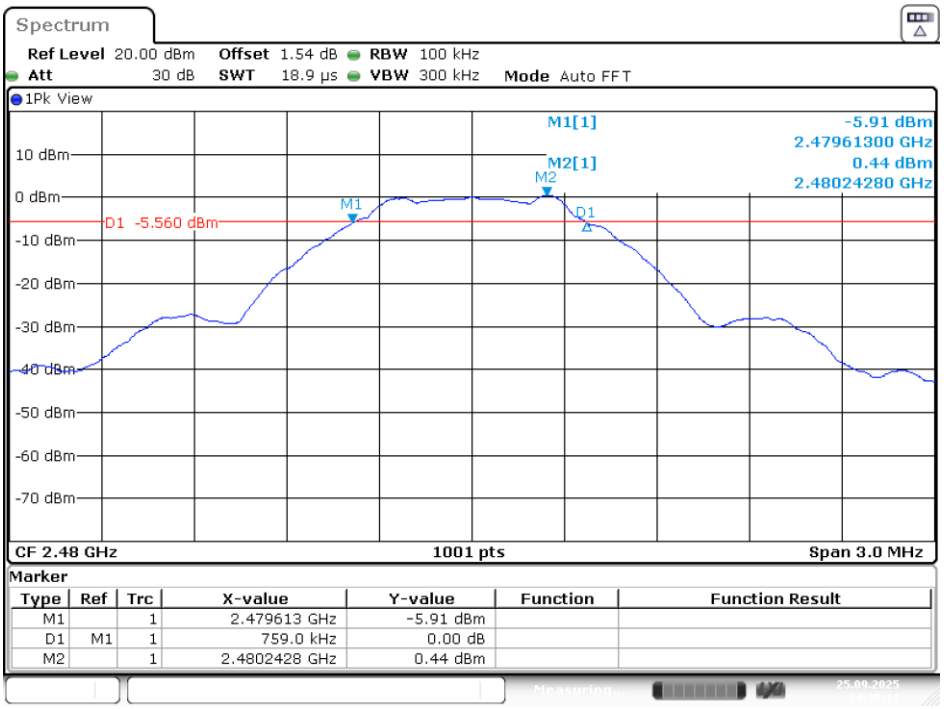
Middle Channel



Date: 25.SEP.2025 14:28:44

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High Channel

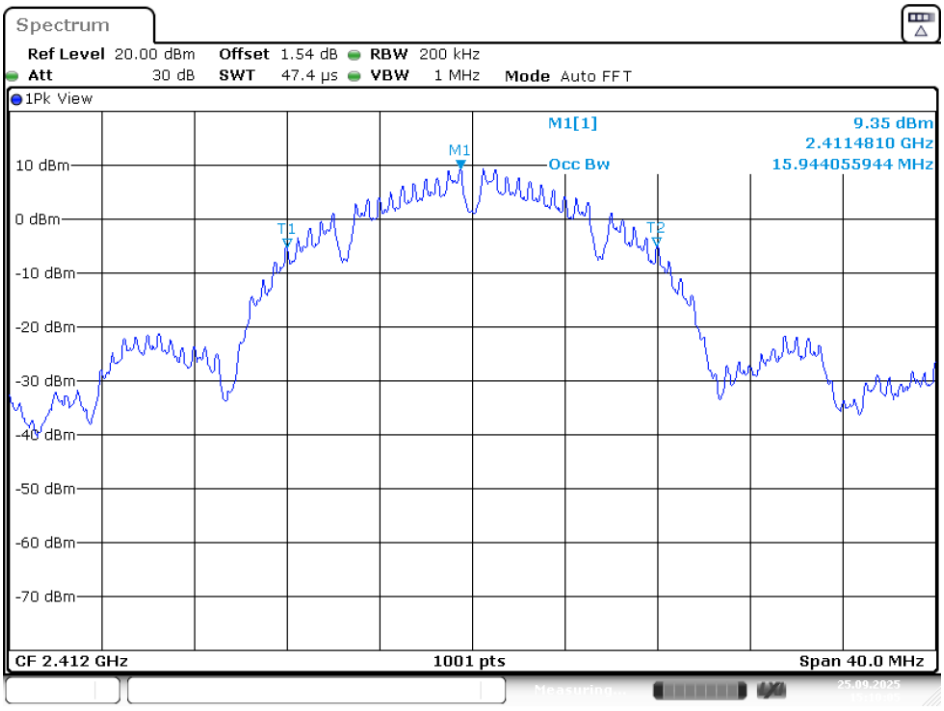


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99%Occupied Bandwidth:

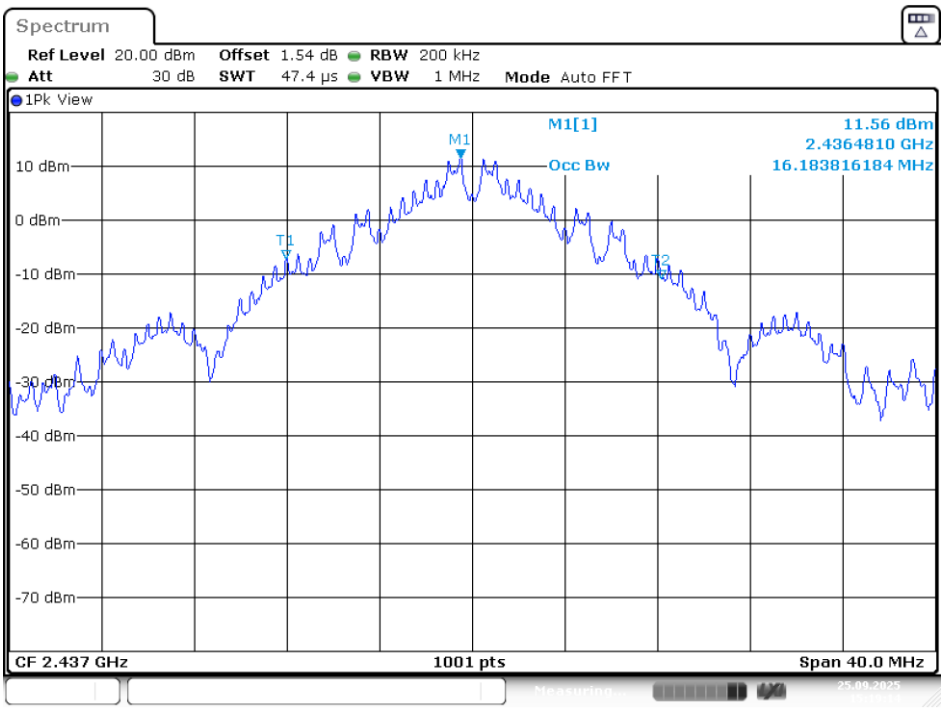
b Mode

Low Channel



Date: 25.SEP.2025 15:10:05

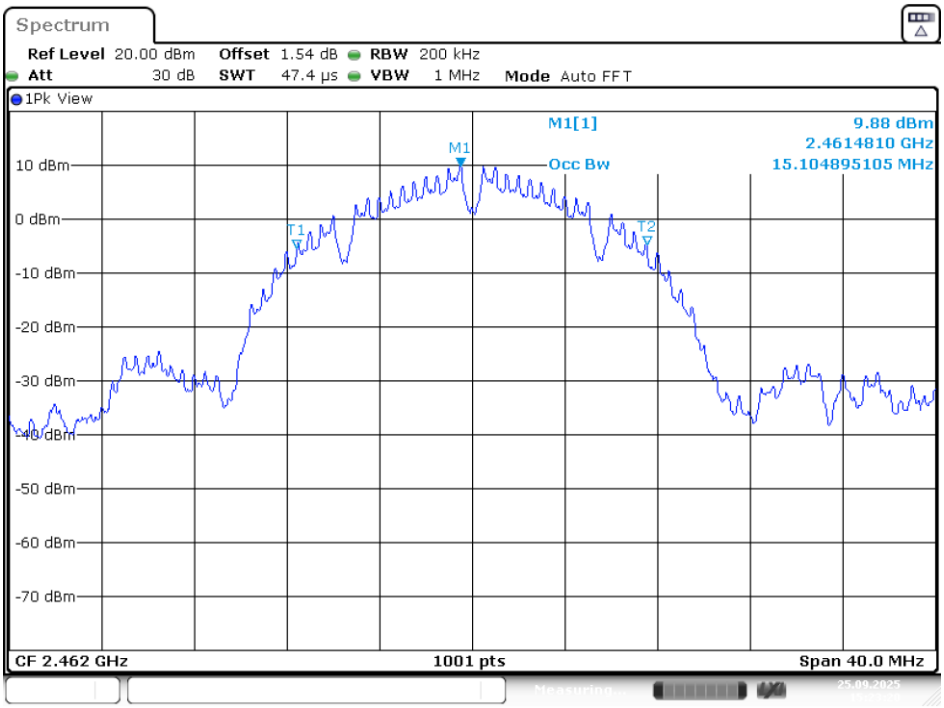
Middle Channel



Date: 25.SEP.2025 15:19:14

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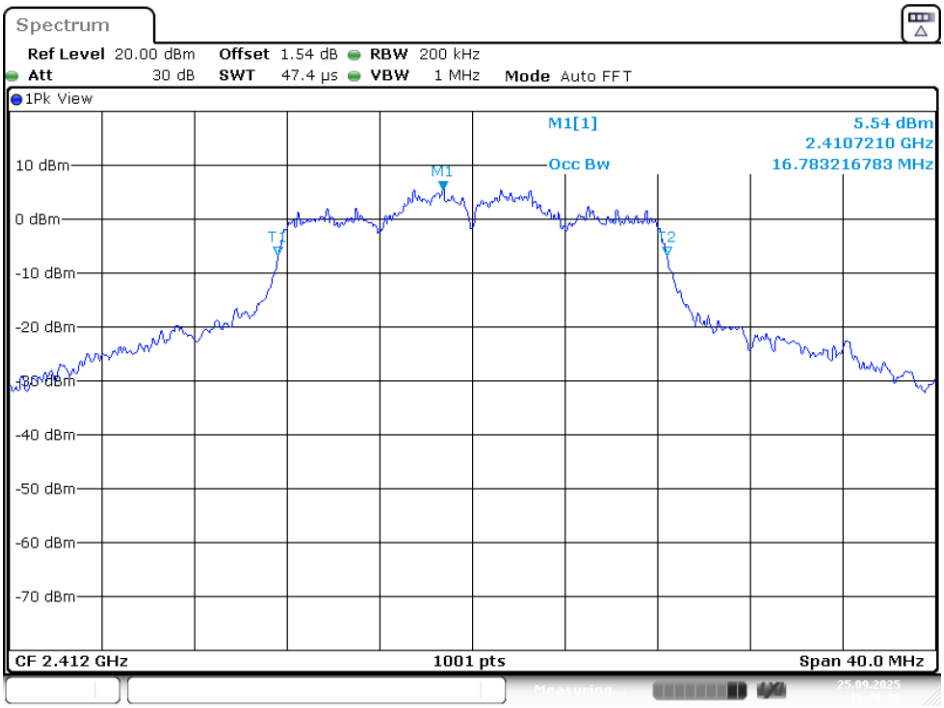
High Channel



Date: 25.SEP.2025 15:23:20

g Mode

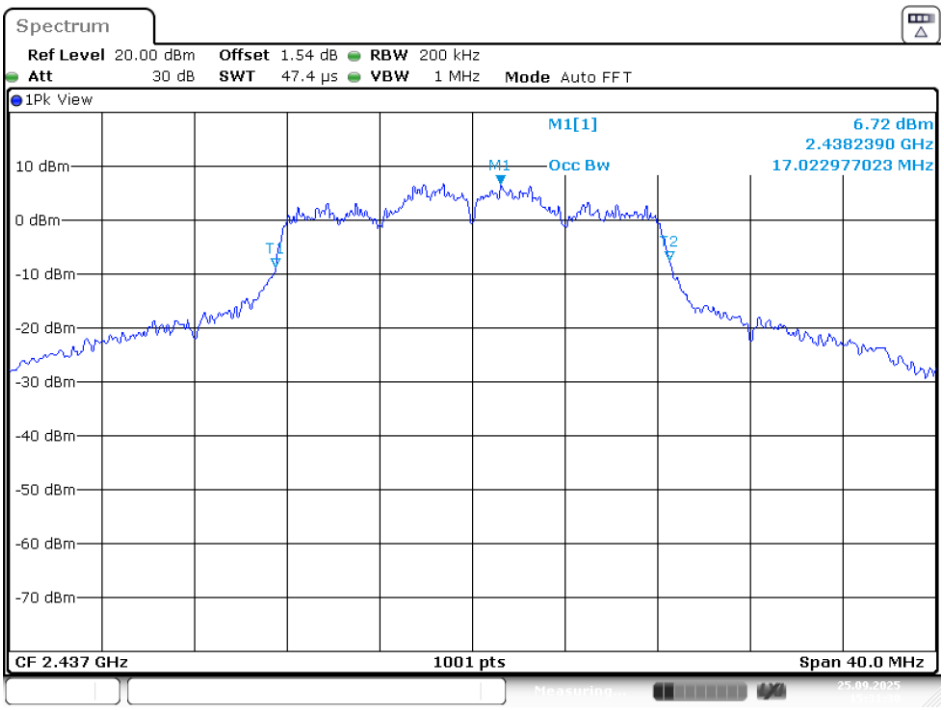
Low Channel



Date: 25.SEP.2025 15:26:38

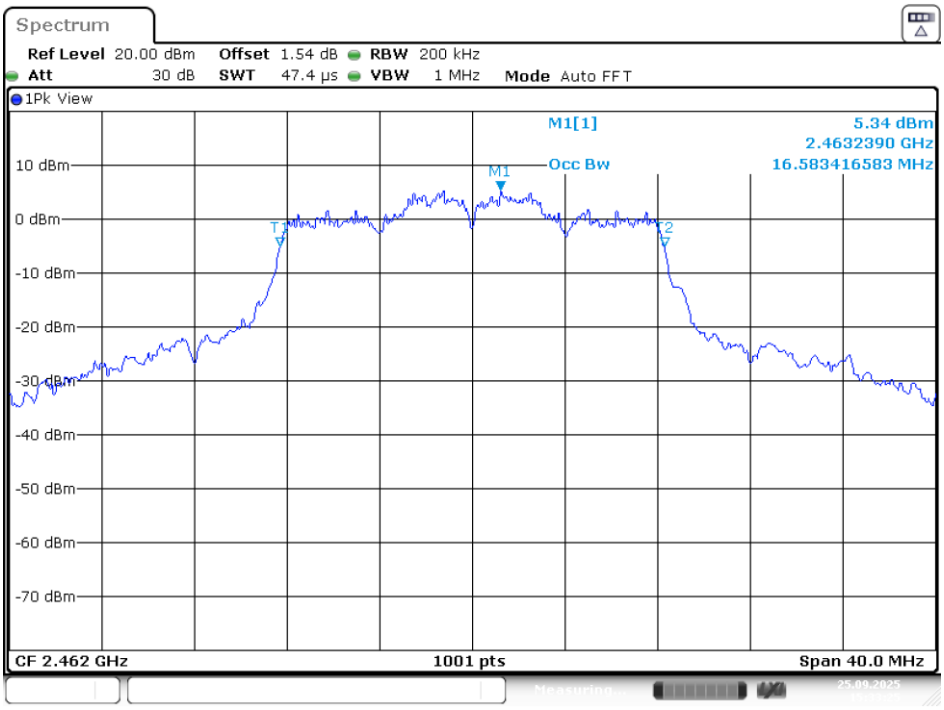
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Middle Channel



Date: 25.SEP.2025 15:31:30

High Channel

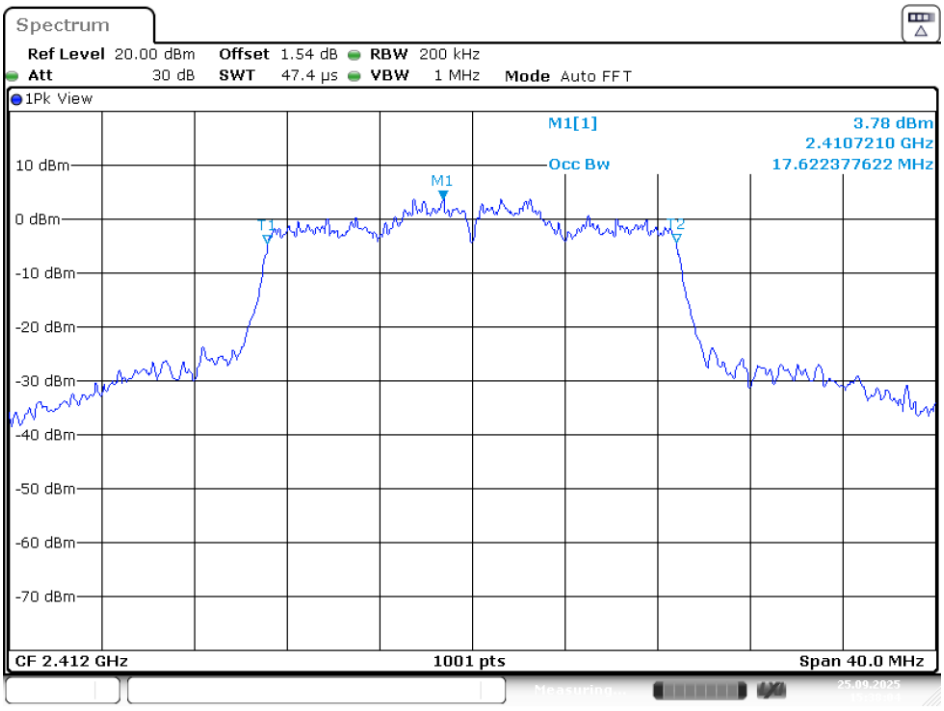


Date: 25.SEP.2025 15:33:25

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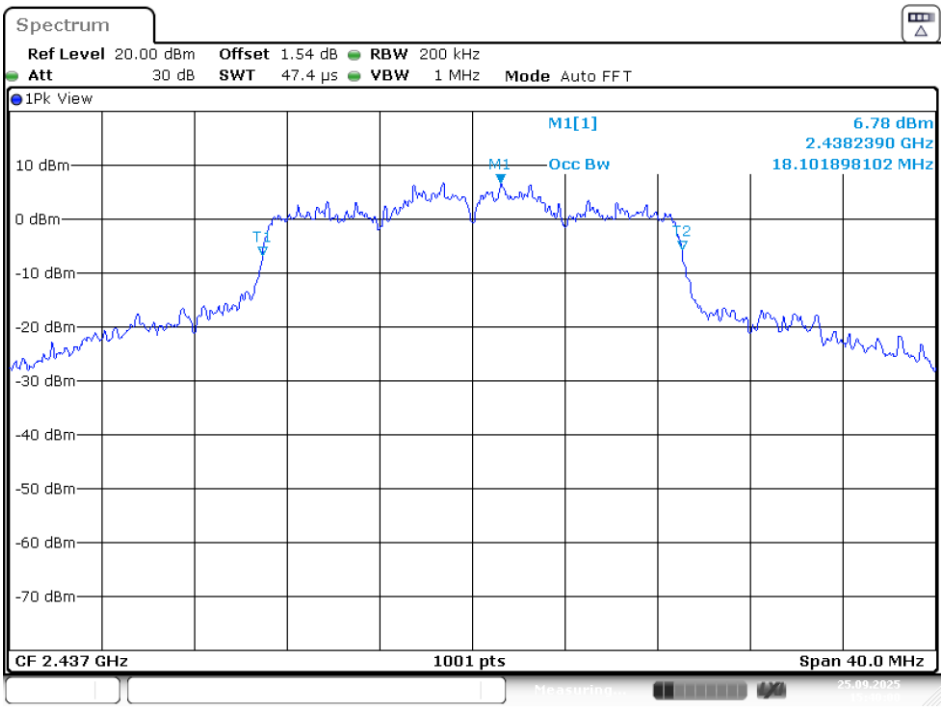
n20 Mode

Low Channel



Date: 25.SEP.2025 15:38:04

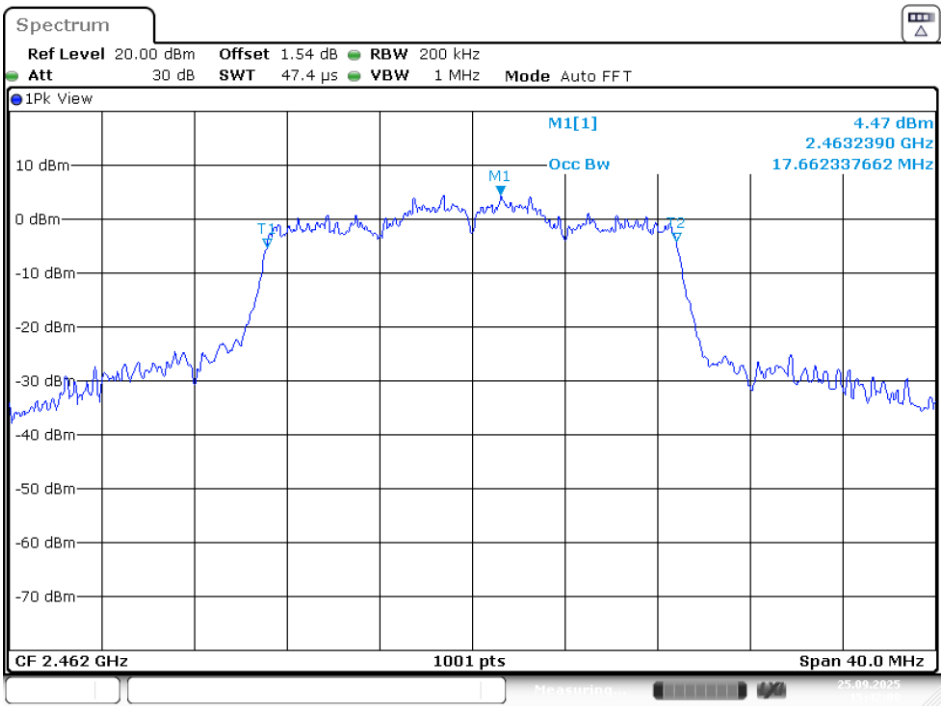
Middle Channel



Date: 25.SEP.2025 15:40:00

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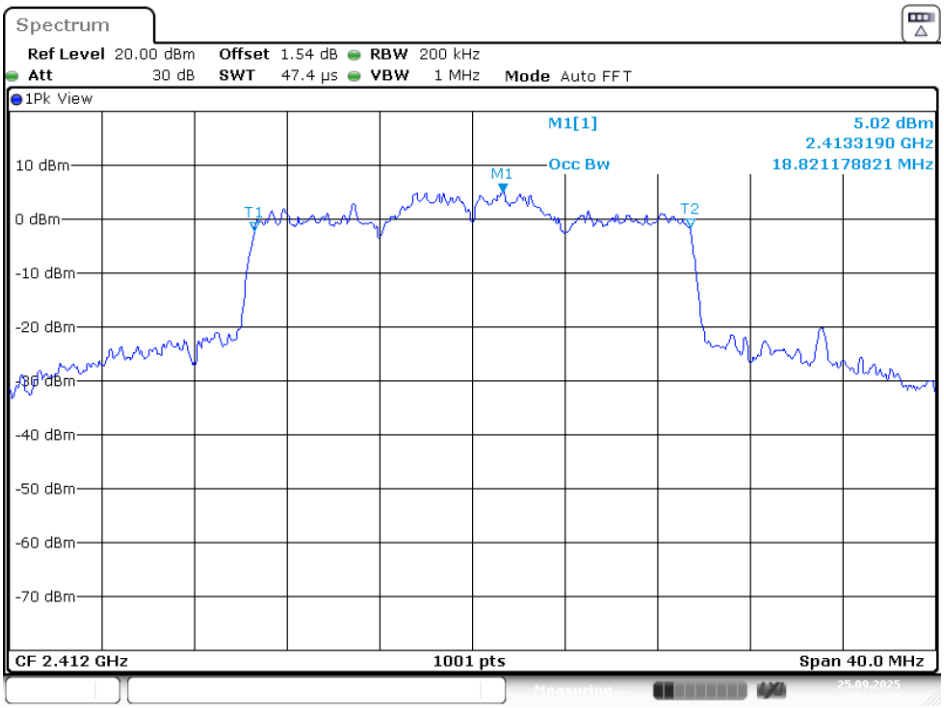
High Channel



Date: 25.SEP.2025 15:42:08

ax20 Mode

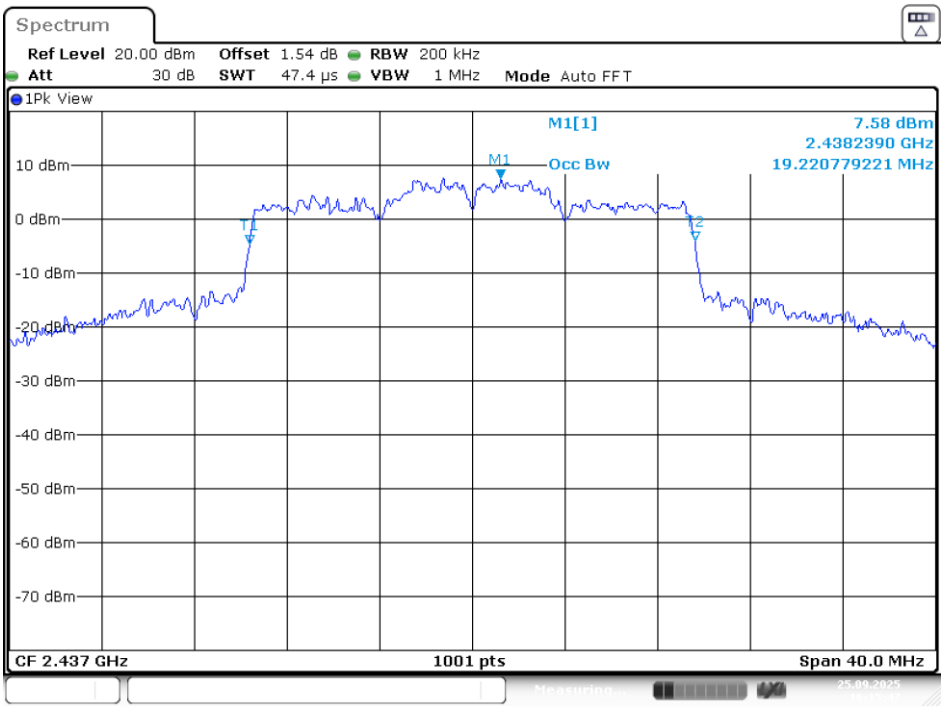
Low Channel



Date: 25.SEP.2025 16:10:30

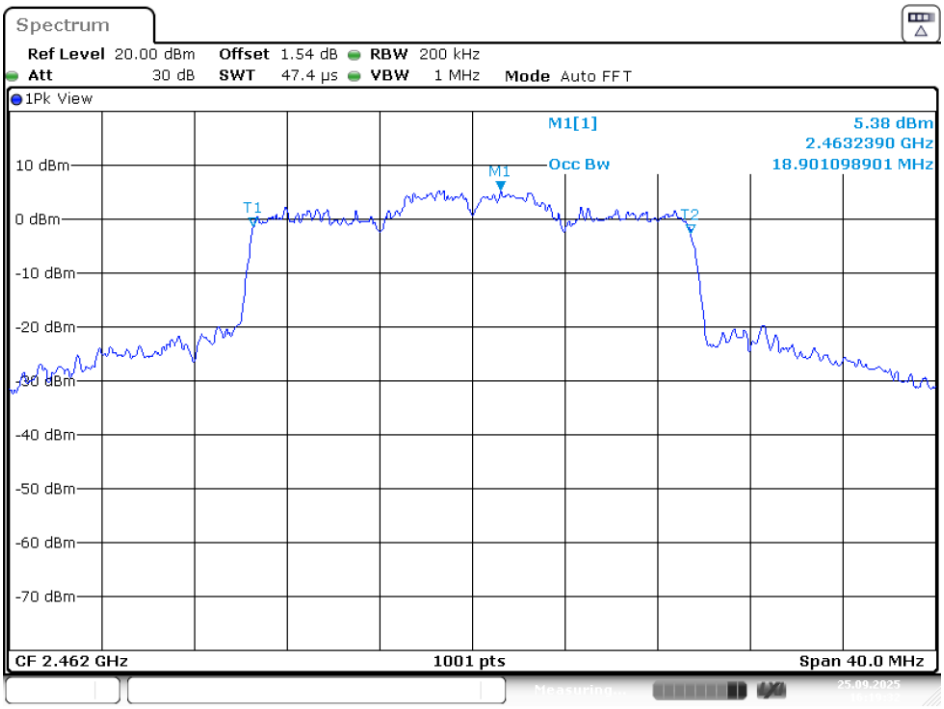
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

Middle Channel



Date: 25.SEP.2025 16:15:47

High Channel

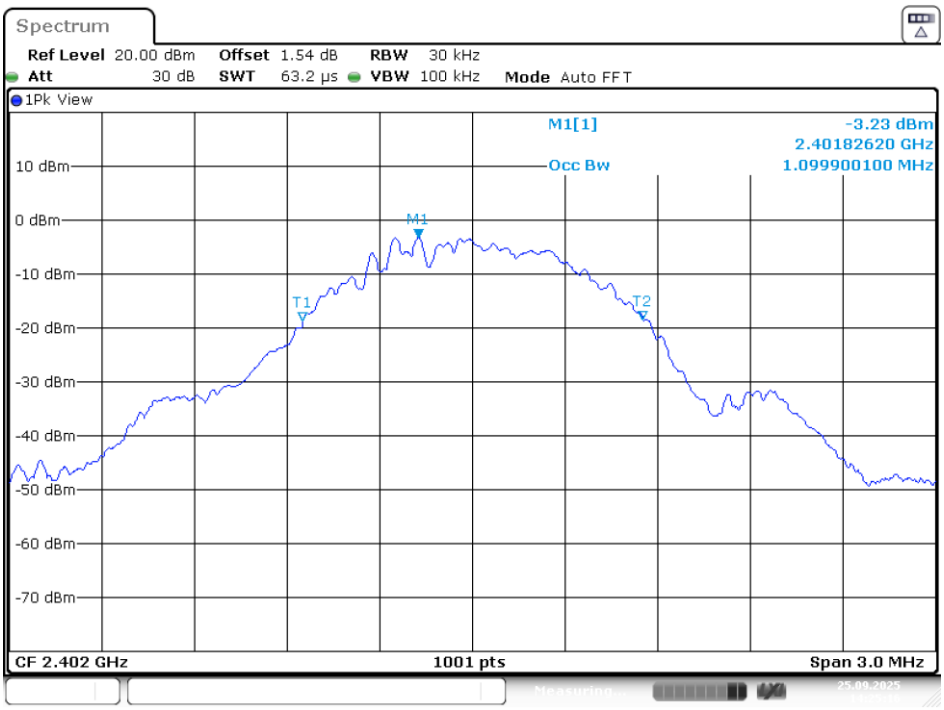


Date: 25.SEP.2025 16:19:32

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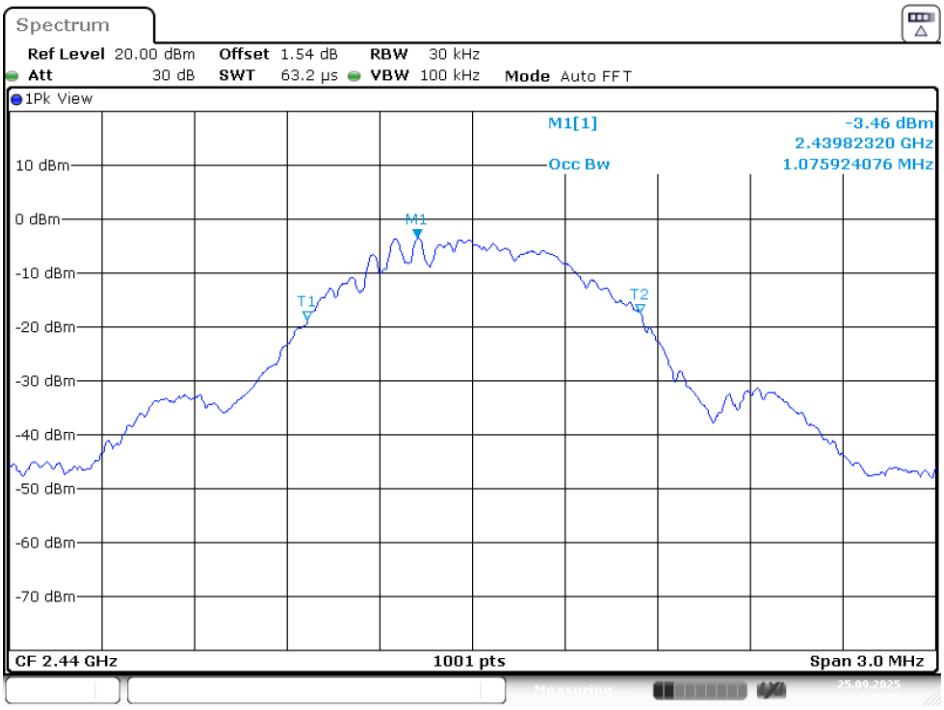
BLE (1M) Mode

Low Channel



Date: 25.SEP.2025 14:25:16

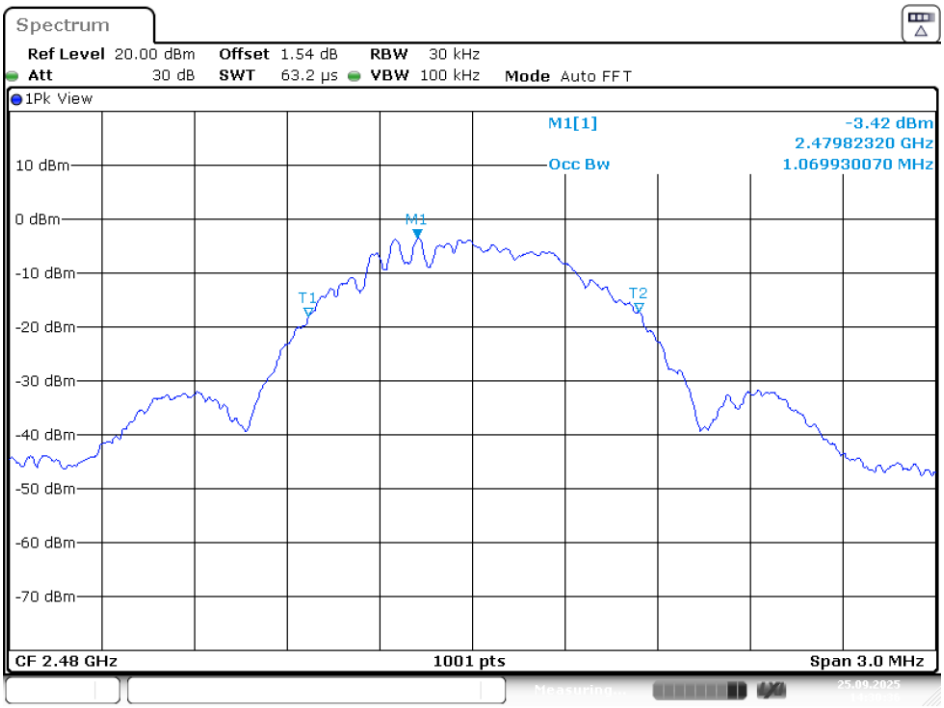
Middle Channel



Date: 25.SEP.2025 14:29:08

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High Channel



Date: 25.SEP.2025 14:30:36

9 FCC §15.247(b)(3) – Maximum Output Power

9.1 Applicable Standard

According to FCC §15.247(b).

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of this section.

Systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

9.2 Test Procedure

According to ANSI C63.10-2020+Cor.1-2023 ,section 11.9.1.2

According to ANSI C63.10-2020+Cor.1-2023 ,section 11.9.2.3.1

1. Place the EUT on a bench and set it in transmitting mode.

2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to measuring equipment.

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9.3 Test Results

Conducted Peak Output Power

Channel	Frequency (MHz)	Average Power (dBm)	Peak Power (dBm)	Power (W)	Limit (W)	Result
b Mode						
Low	2412	17.98	19.89	0.097	1	PASS
Middle	2437	18.04	19.97	0.099	1	PASS
High	2462	17.95	19.87	0.097	1	PASS
g Mode						
Low	2412	14.92	19.58	0.091	1	PASS
Middle	2437	15.19	19.59	0.091	1	PASS
High	2462	15.25	19.80	0.095	1	PASS
n20 Mode						
Low	2412	13.54	19.76	0.095	1	PASS
Middle	2437	14.70	19.77	0.095	1	PASS
High	2462	14.71	19.96	0.099	1	PASS
ax20 Mode						
Low	2412	14.00	19.80	0.095	1	PASS
Middle	2437	15.18	19.65	0.092	1	PASS
High	2462	15.19	19.81	0.096	1	PASS
BLE(1M) Mode						
Low	2402	1.58	1.63	0.0015	1	PASS
Middle	2440	1.45	1.51	0.0014	1	PASS
High	2480	1.16	1.23	0.0013	1	PASS

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10 FCC§15.247(d) – 100 kHz Bandwidth of Frequency Band Edge

10.1 Applicable Standard

According to FCC §15.247(d).

In any 100kHz 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 20dB below that in the 100kHz 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 30dB instead of 20dB. 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)).

10.2 Test Procedure

According to ANSI C63.10-2020+Cor.1-2023 ,Section 11.11

a) Set the center frequency and span to encompass frequency range to be measured. Note that the frequency range might need to be divided into multiple frequency ranges to retain frequency resolution.

NOTE—the number of points can also be increased for large spans to retain frequency resolution

b) Set the RBW = 100 kHz.

c) Set the VBW ≥ [3 × RBW].

d) Detector = peak.

e) Sweep time = No faster than coupled (auto) time.

f) Trace mode = max-hold.

g) Allow trace to fully stabilize.

h) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

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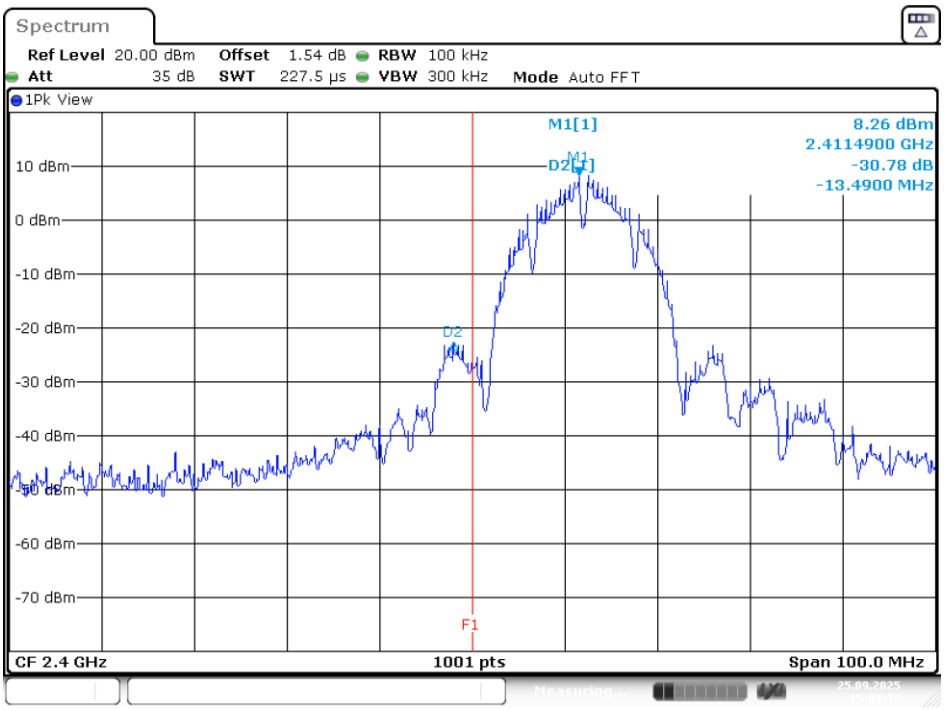
10.3 Test Results

Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
b Mode				
Low	2412	30.78	≥ 20	PASS
High	2462	46.17	≥ 20	PASS
g Mode				
Low	2412	26.69	≥ 20	PASS
High	2462	41.09	≥ 20	PASS
n20 Mode				
Low	2412	30.36	≥ 20	PASS
High	2462	42.10	≥ 20	PASS
ax20 Mode				
Low	2412	28.49	≥ 20	PASS
High	2462	38.37	≥ 20	PASS
BLE(1M) Mode				
Low	2402	44.74	≥ 20	PASS
High	2480	47.79	≥ 20	PASS

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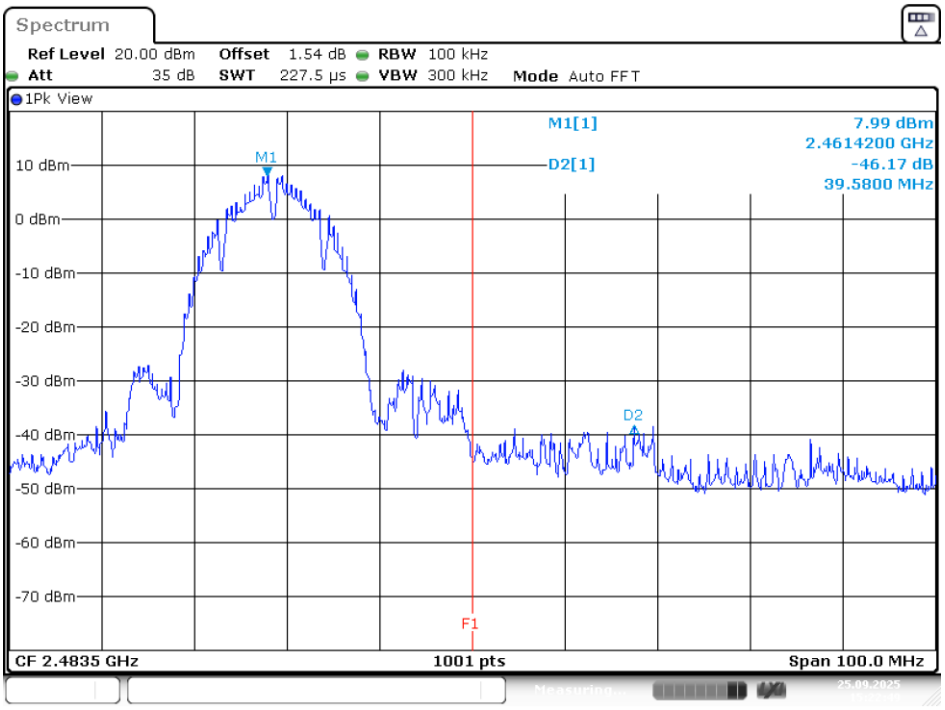
b Mode

Band Edge, Left Side



Date: 25.SEP.2025 15:09:34

Band Edge, Right Side

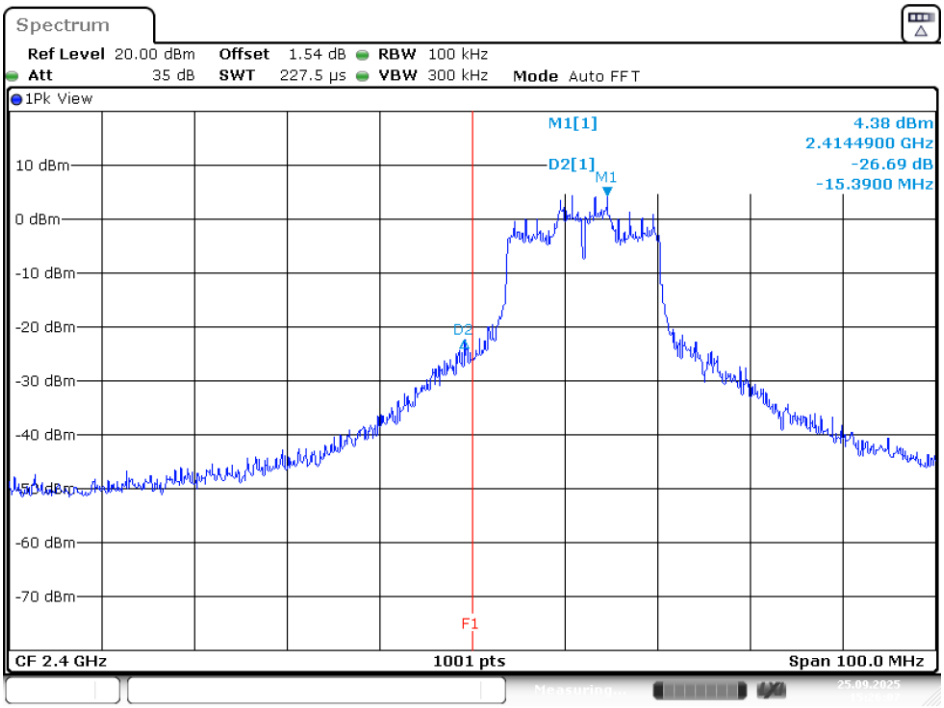


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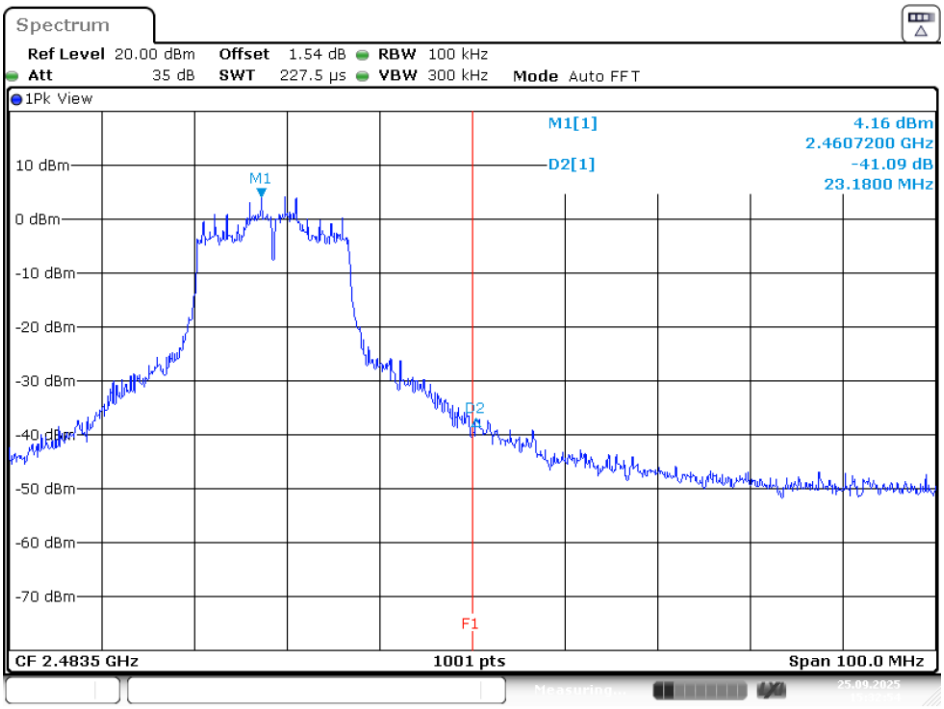
g Mode

Band Edge, Left Side



Date: 25.SEP.2025 15:26:08

Band Edge, Right Side

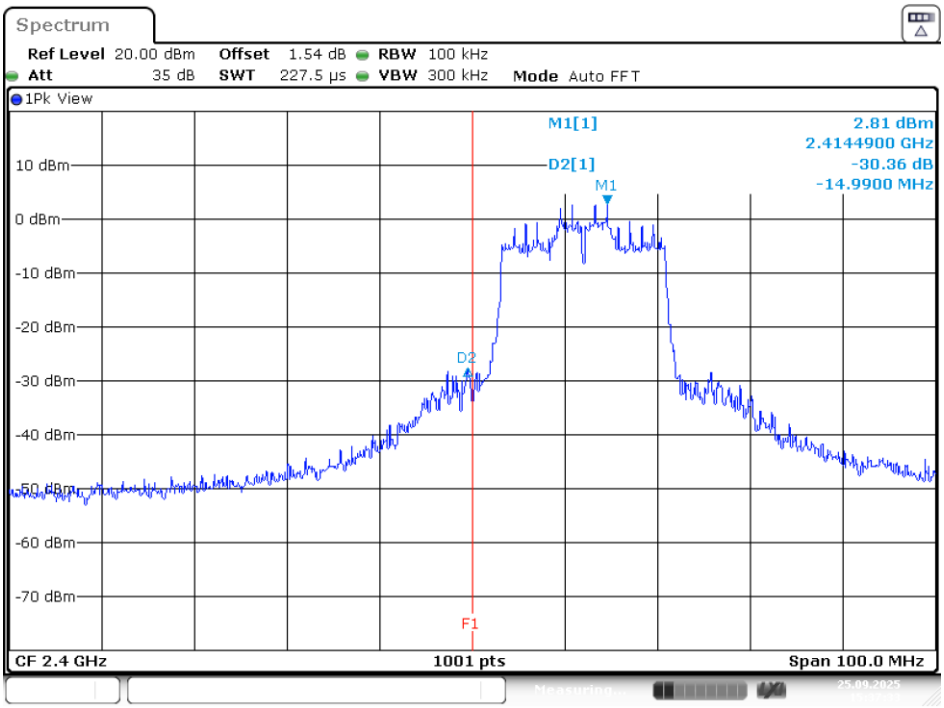


Date: 25.SEP.2025 15:32:55

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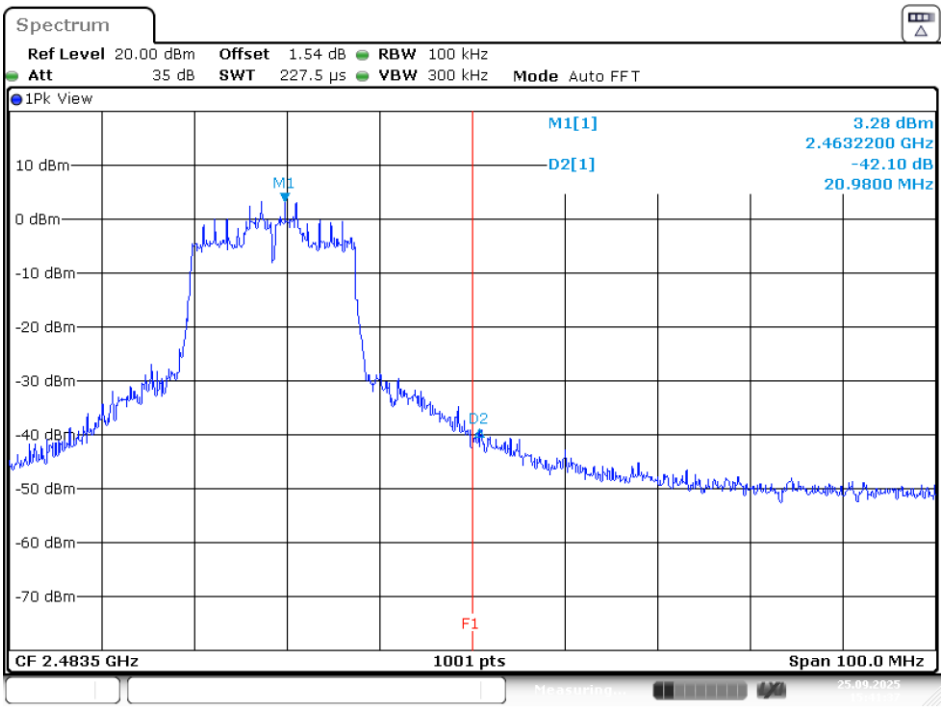
n20 Mode

Band Edge, Left Side



Date: 25.SEP.2025 15:37:33

Band Edge, Right Side

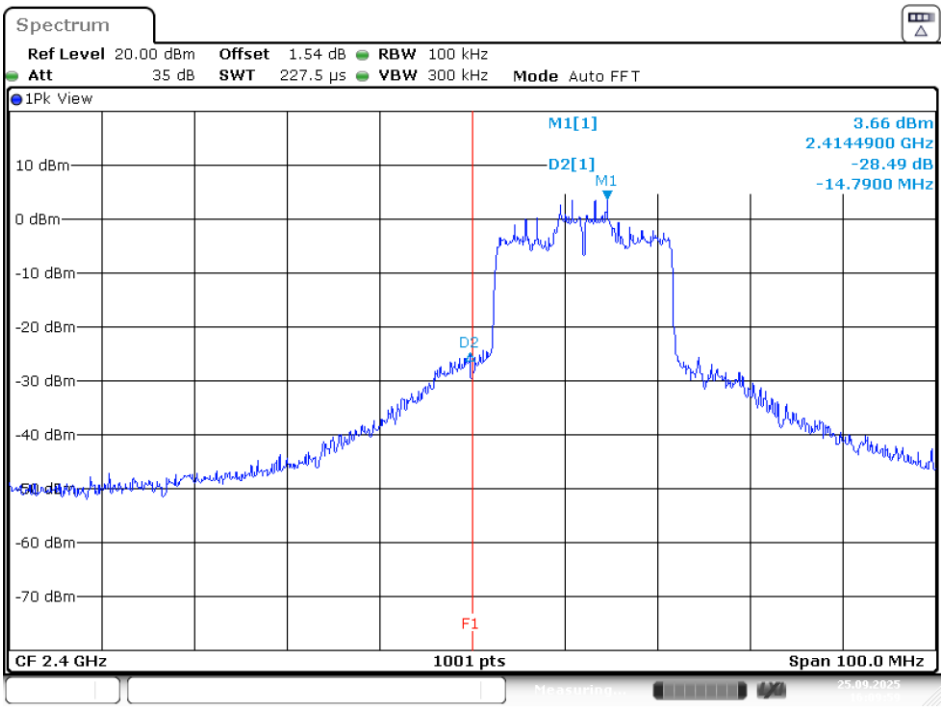


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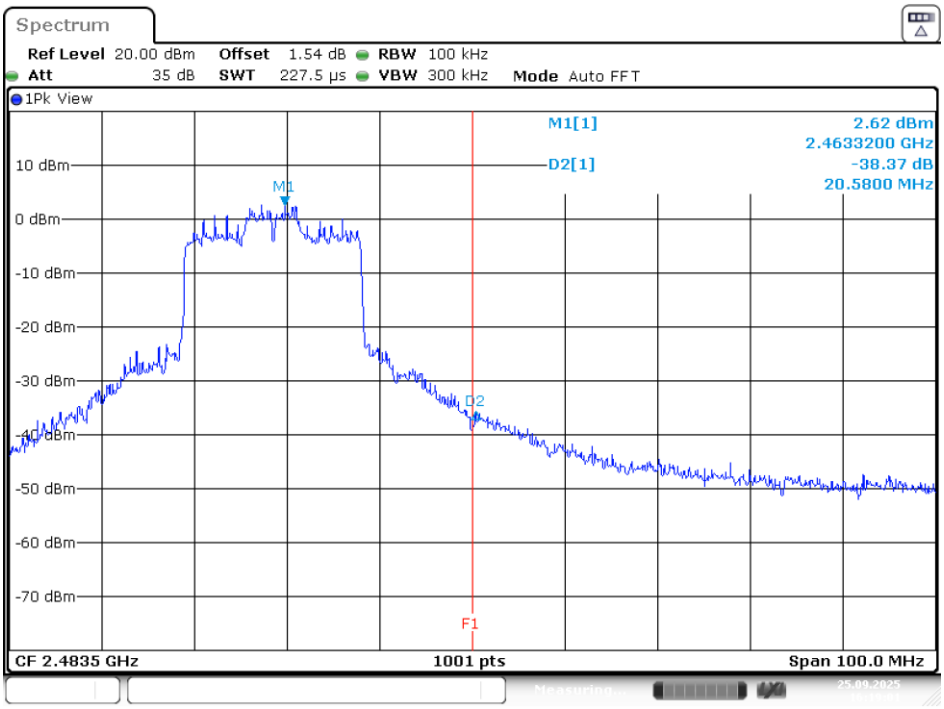
ax20 Mode

Band Edge, Left Side



Date: 25.SEP.2025 16:09:59

Band Edge, Right Side

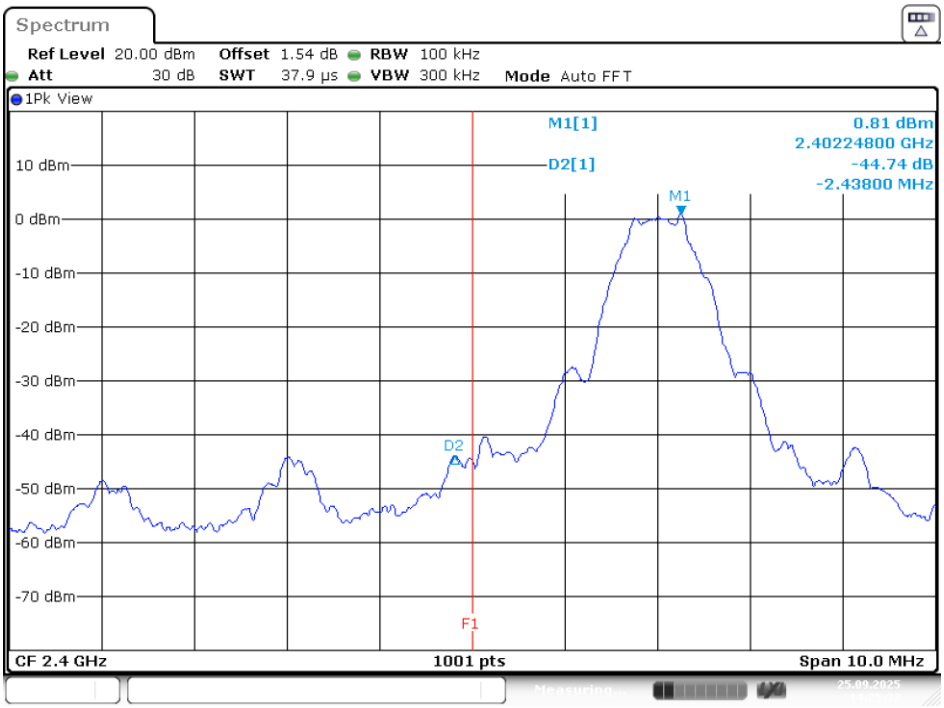


Date: 25.SEP.2025 16:19:01

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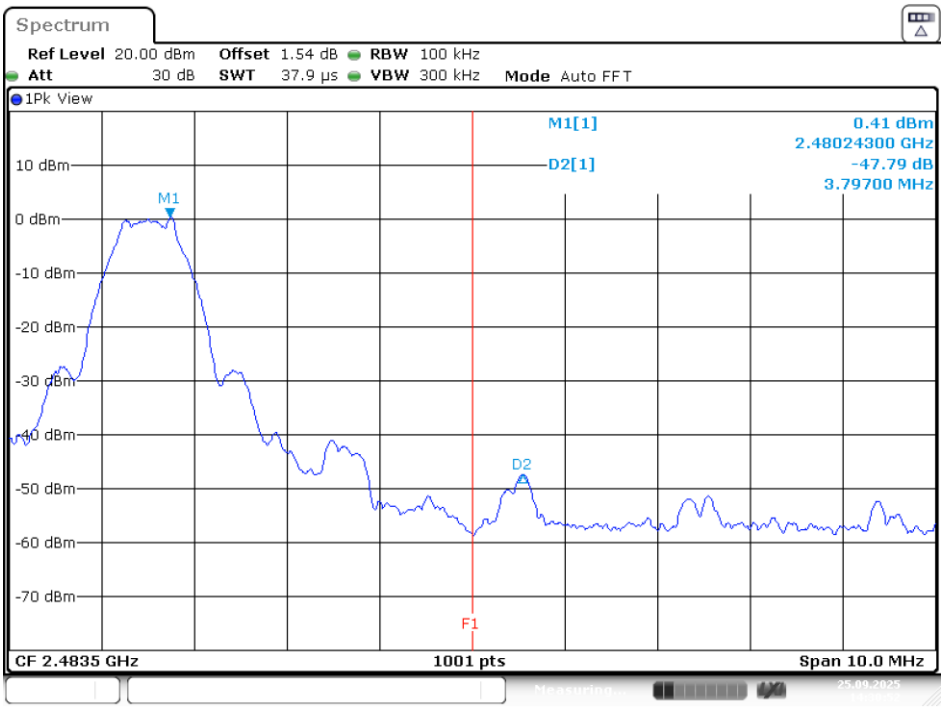
BLE (1M) Mode

Band Edge, Left Side



Date: 25.SEP.2025 14:25:32

Band Edge, Right Side



Date: 25.SEP.2025 14:30:52

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11 FCC §15.247(e) – Power Spectral Density

11.1 Applicable Standard

According to FCC §15.247(e).

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

11.2 Test Procedure

According to ANSI C63.10-2020+Cor.1-2023

a) Set analyzer center frequency to DTS channel center frequency.

b) Set the span > 1.5 times the DTS bandwidth.

c) Set the RBW to 3 kHz ≤ RBW ≤ 100 kHz.

d) Set the VBW ≥ [3 × RBW].

e) Detector = peak.

f) Sweep time = auto couple.

g) Trace mode = max hold.

h) Allow trace to fully stabilize.

i) Use the peak marker function to determine the maximum amplitude level within the RBW.

j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat

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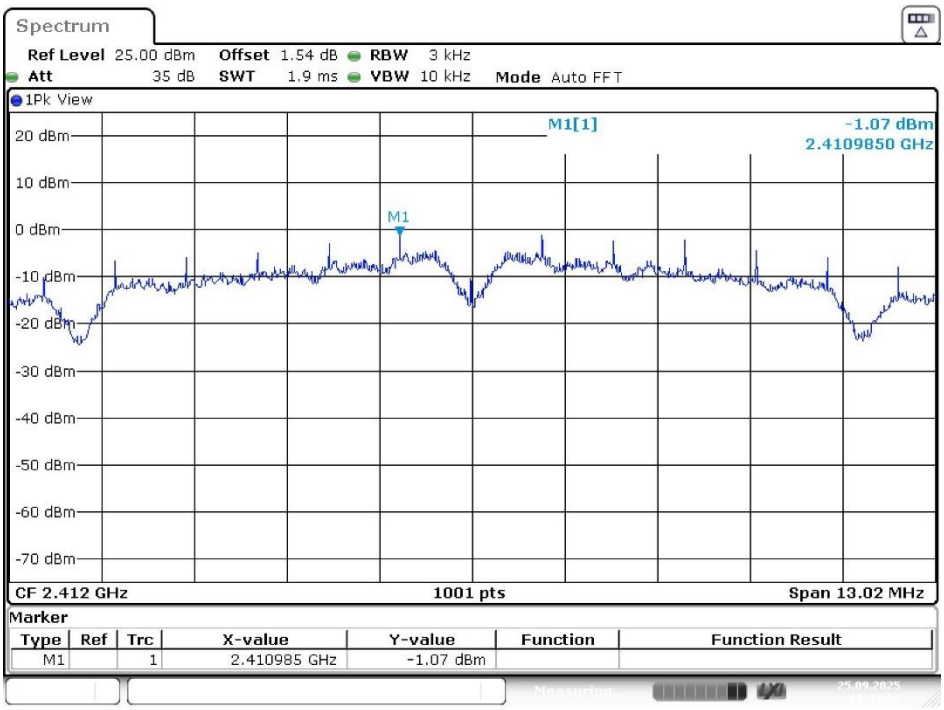
11.3 Test Results

Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Limit (dBm/3 kHz)	Result
b Mode				
Low	2412	-1.07	8	PASS
Middle	2437	1.88	8	PASS
High	2462	-0.37	8	PASS
g Mode				
Low	2412	-8.23	8	PASS
Middle	2437	-6.97	8	PASS
High	2462	-9.46	8	PASS
n20 Mode				
Low	2412	-10.1	8	PASS
Middle	2437	-7.22	8	PASS
High	2462	-10.09	8	PASS
ax20 Mode				
Low	2412	-10.03	8	PASS
Middle	2437	-7.92	8	PASS
High	2462	-8.97	8	PASS
BLE(1M) Mode				
Low	2402	-14.94	8	PASS
Middle	2440	-14.99	8	PASS
High	2480	-15.59	8	PASS

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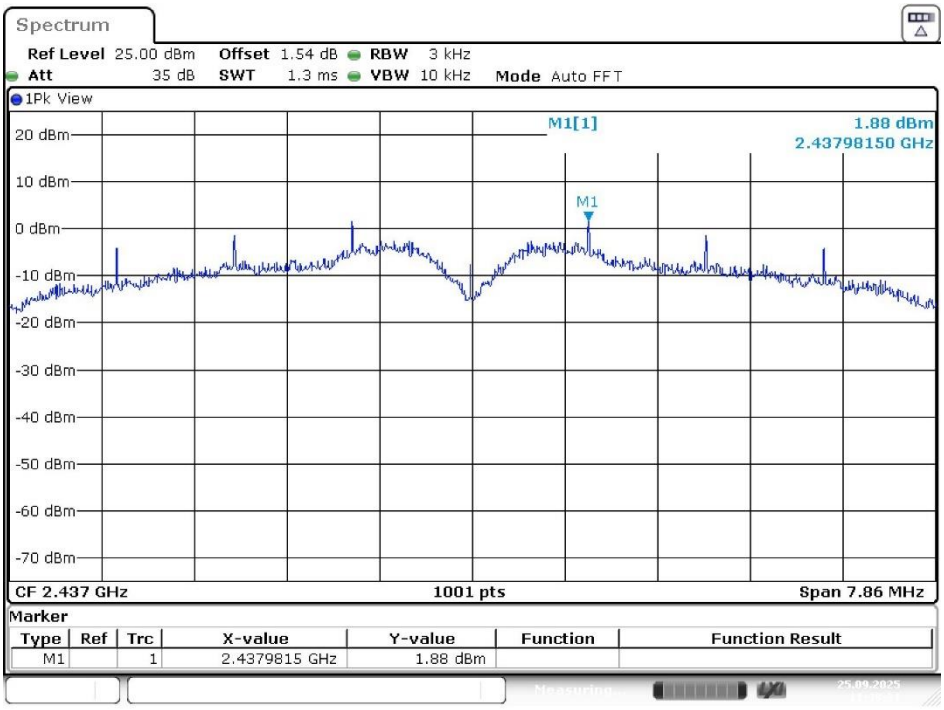
b Mode

Low Channel



Date: 25.SEP.2025 11:39:36

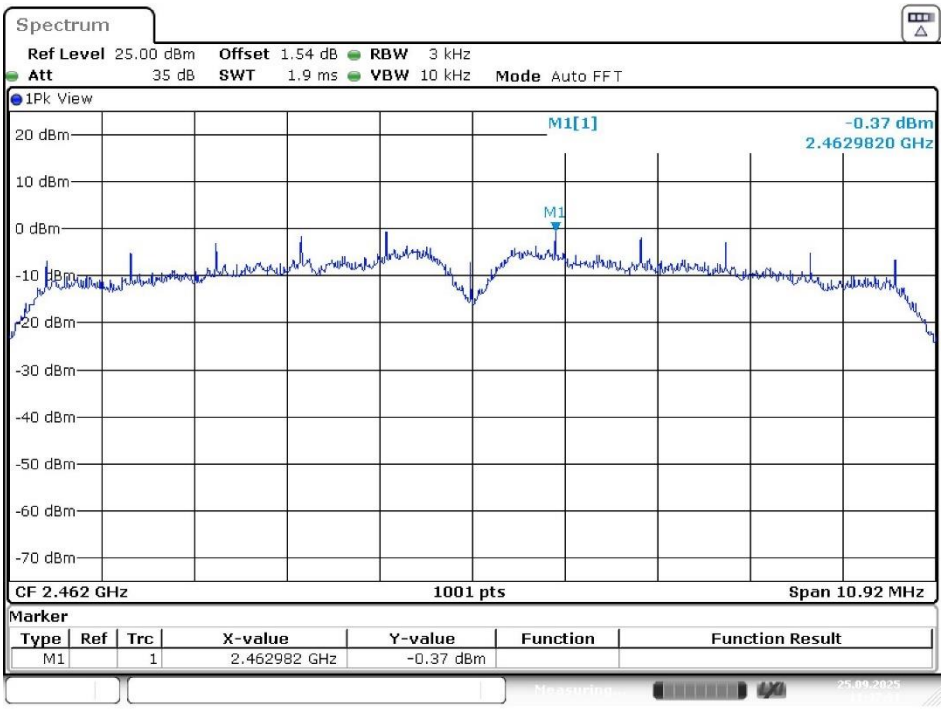
Middle Channel



Date: 25.SEP.2025 11:38:31

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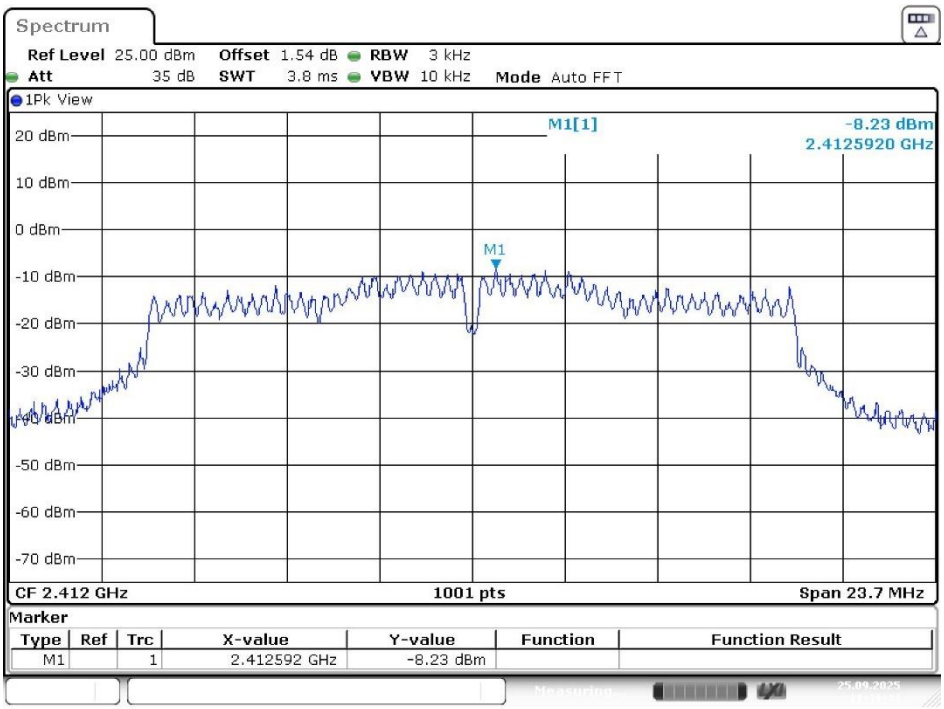
High Channel



Date: 25.SEP.2025 11:37:31

g Mode

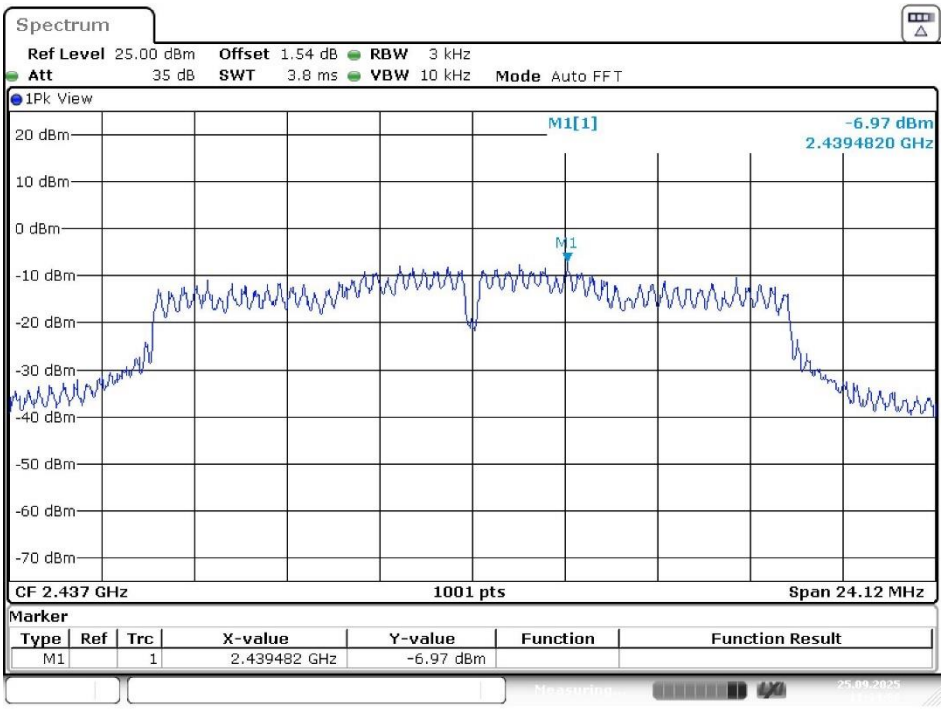
Low Channel



Date: 25.SEP.2025 11:31:44

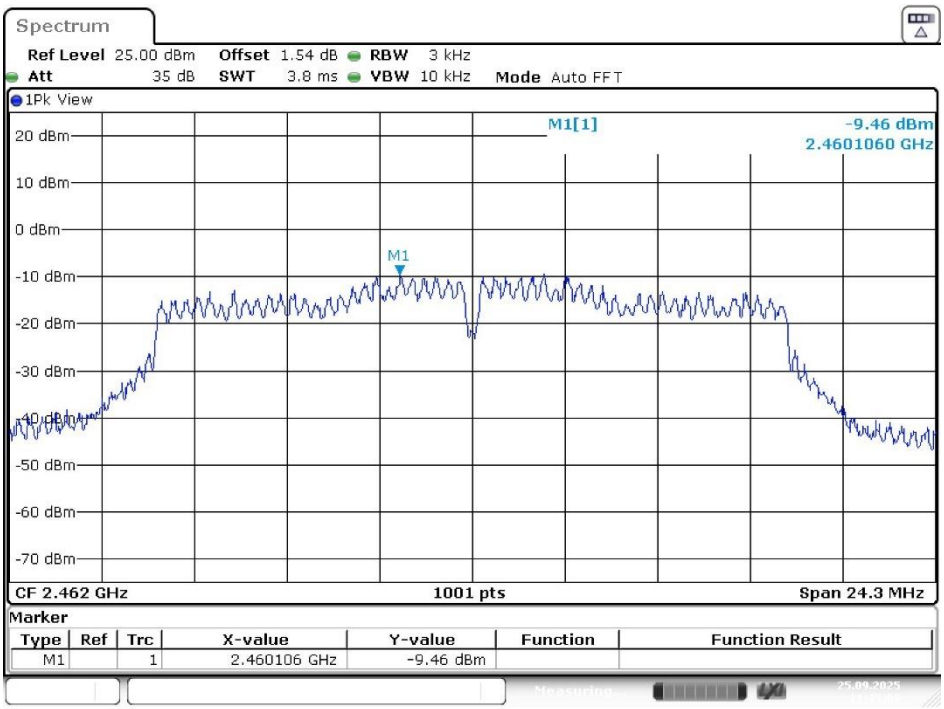
Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (Linkou Laboratory)

Middle Channel



Date: 25.SEP.2025 11:34:00

High Channel

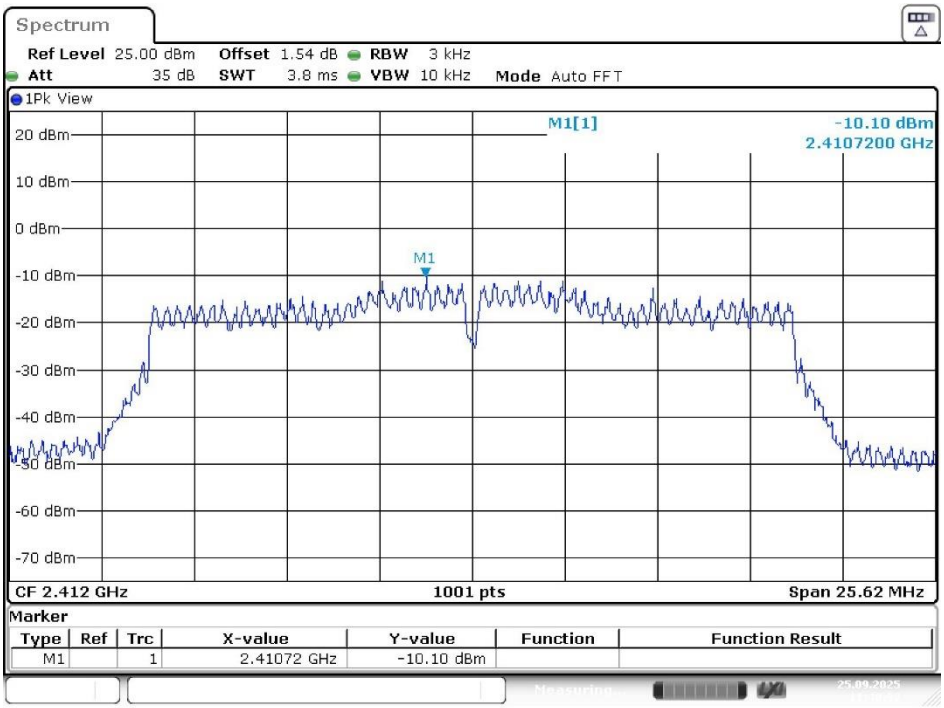


Date: 25.SEP.2025 11:35:07

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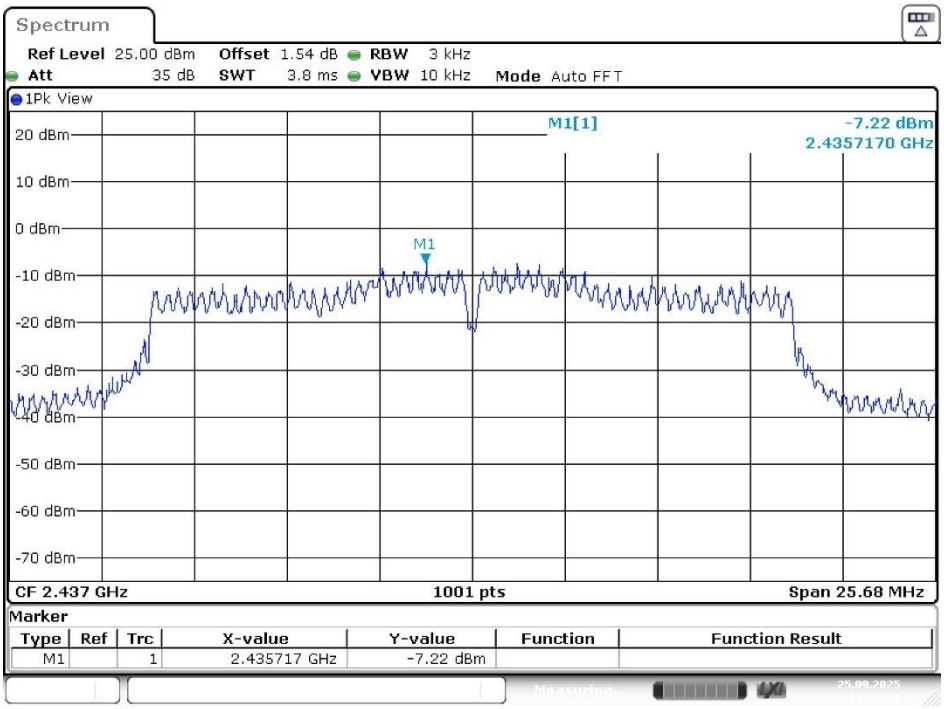
n20 Mode

Low Channel



Date: 25.SEP.2025 11:40:32

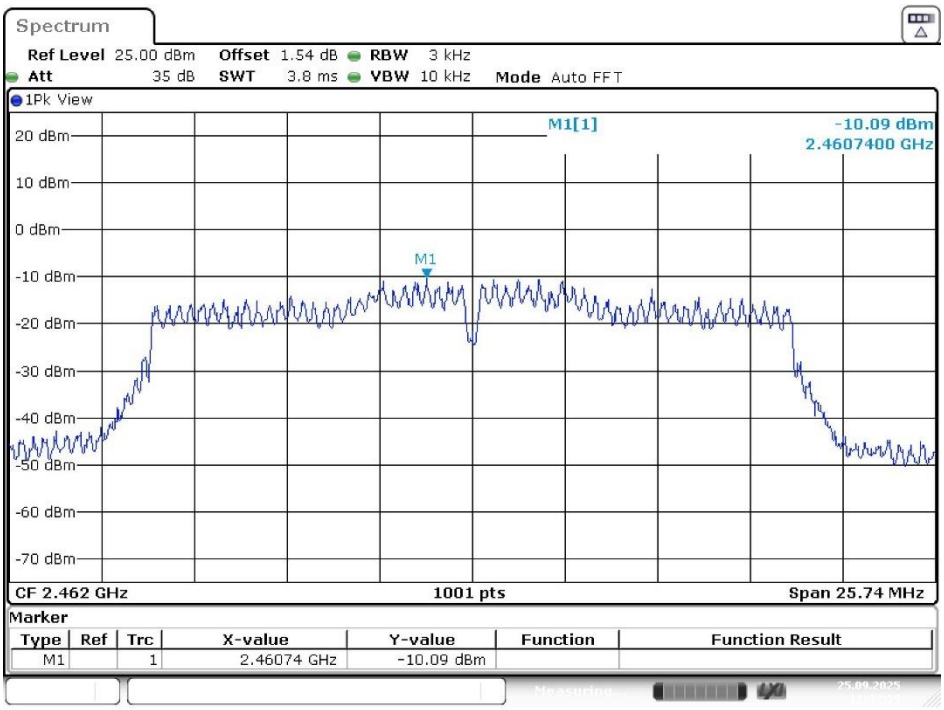
Middle Channel



Date: 25.SEP.2025 11:42:11

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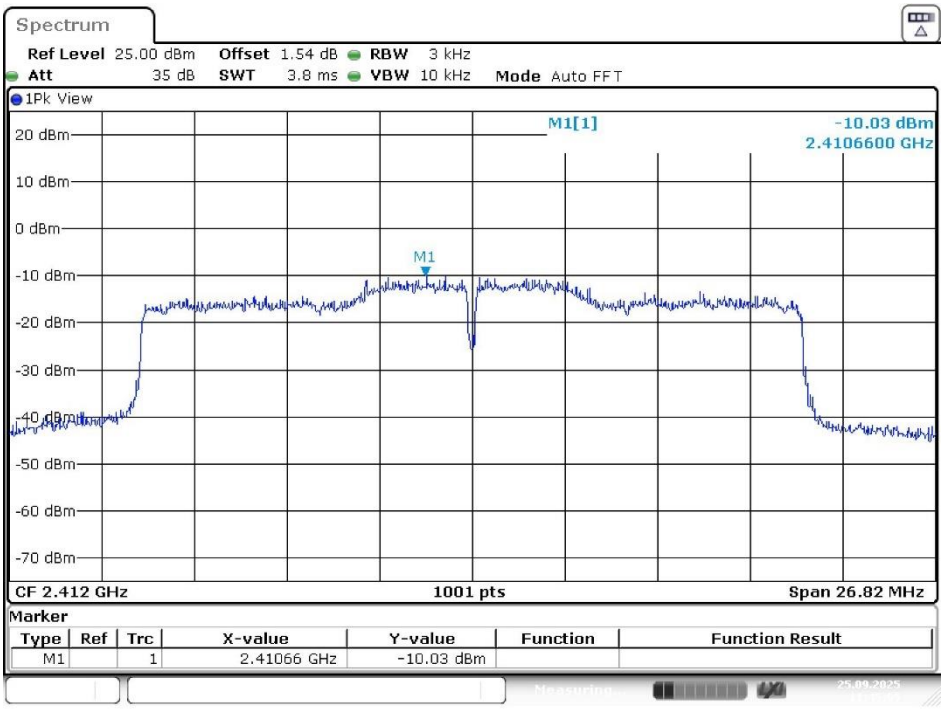
High Channel



Date: 25.SEP.2025 11:42:59

ax20 Mode

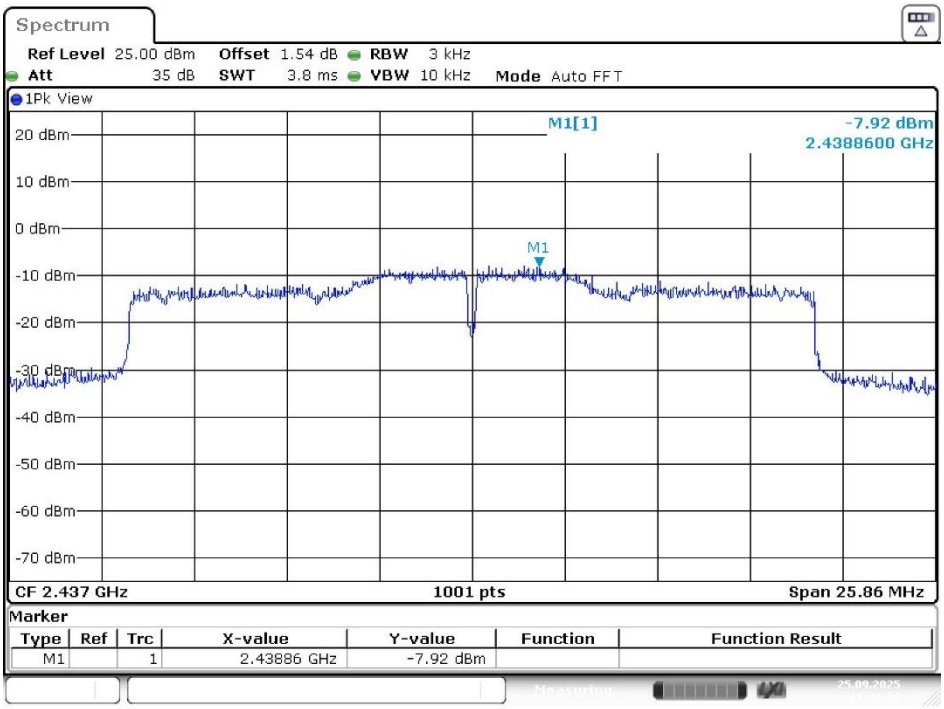
Low Channel



Date: 25.SEP.2025 11:45:05

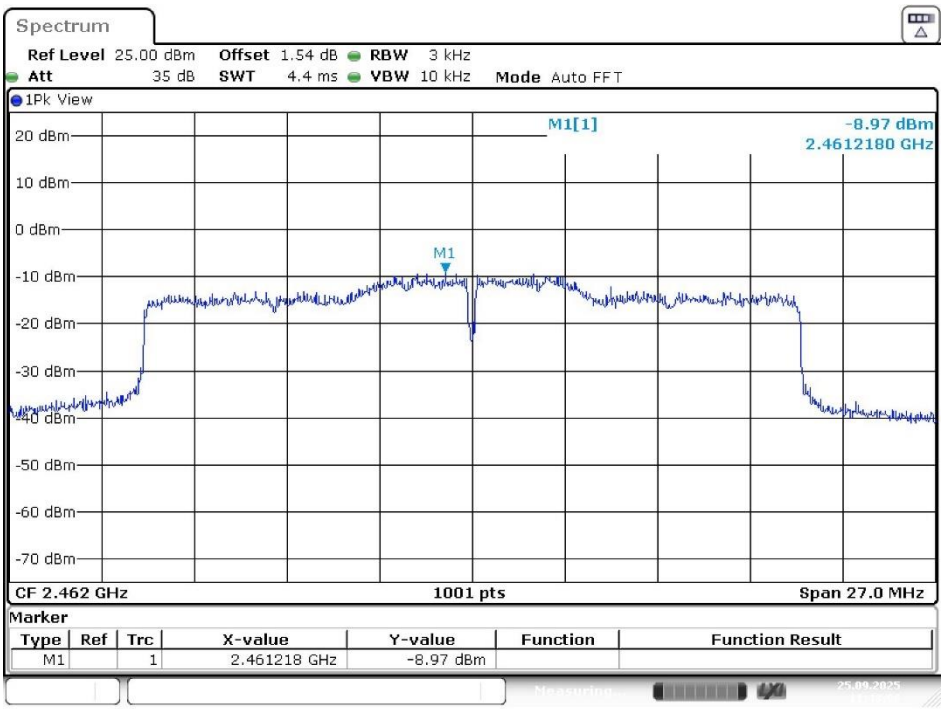
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Middle Channel



Date: 25.SEP.2025 11:46:39

High Channel

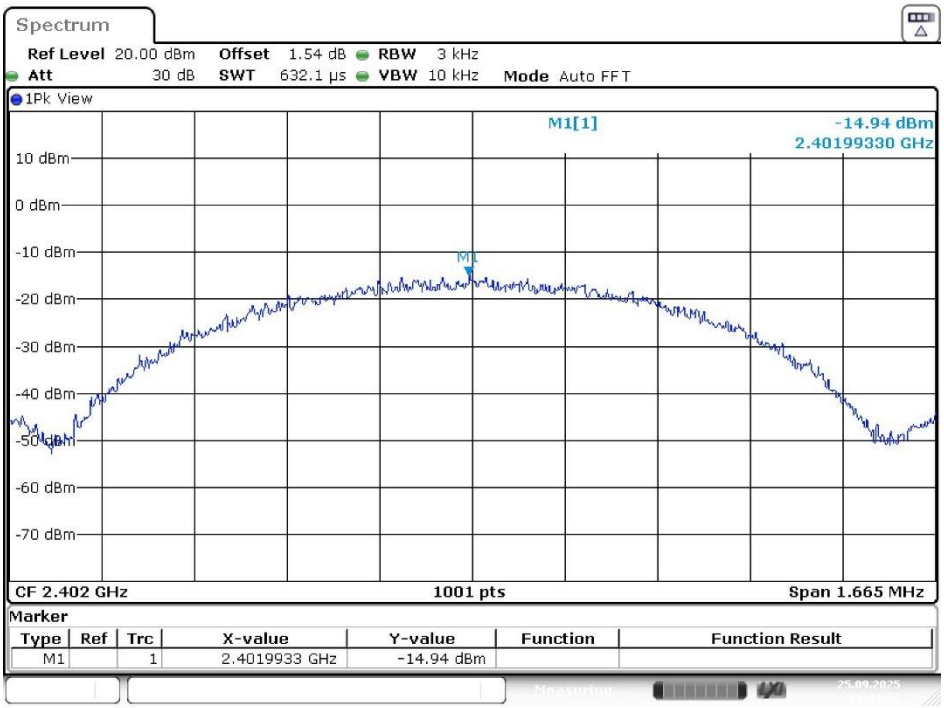


Date: 25.SEP.2025 11:48:01

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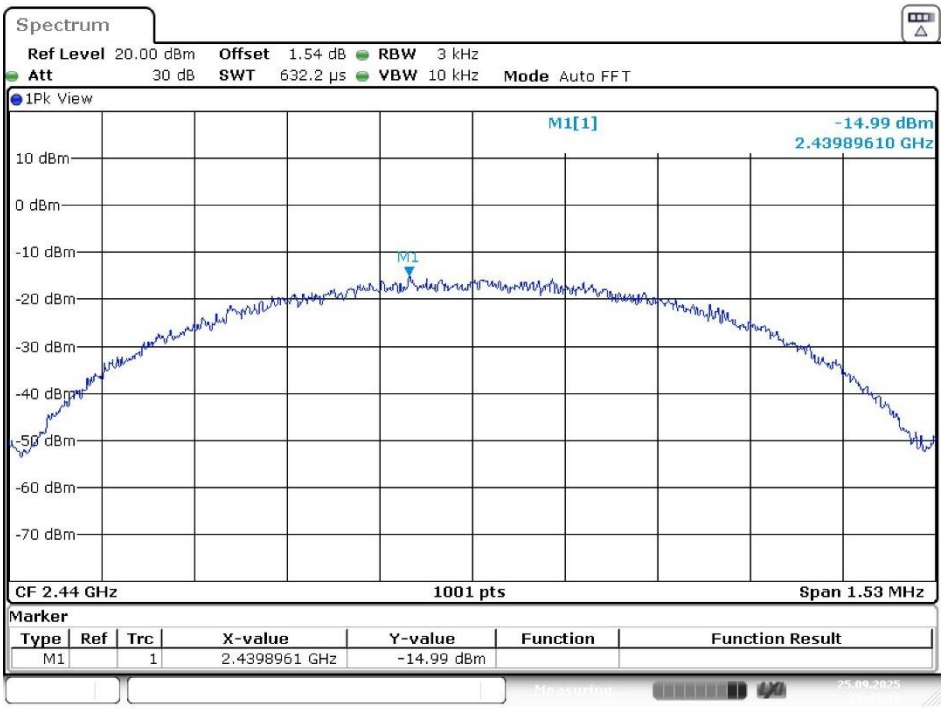
BLE (1M) Mode

Low Channel



Date: 25.SEP.2025 20:48:24

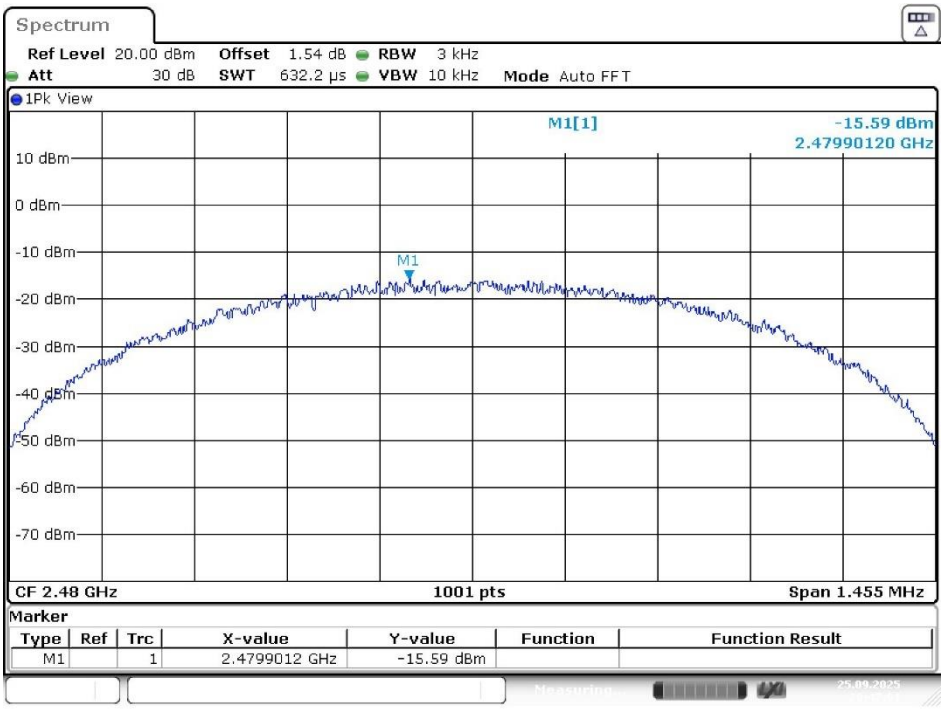
Middle Channel



Date: 25.SEP.2025 20:46:19

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High Channel



Date: 25.SEP.2025 20:47:01

******* END OF REPORT *******

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