

FCC Part 15.247 TEST REPORT

For

EWIC PHILIPPINES INC.

BLDG NOS 7&8 S BLK 2 LOT 2 EZP WAREHOUSE, LAGUNA TECHNOPARK
ANNEX, BARANGAY BO BINAN, BINAN, PHILIPPINES

FCC ID: 2BLTA-CF4A

Report Type: Original Report	Product Type: Access Controller
Report Producer : <u>Coco Lin</u>	
Report Number : <u>RXZ250821063RF01</u>	
Report Date : <u>2025-10-27</u>	
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Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RXZ250821063	RXZ250821063RF01	2025-10-27	Original Report	Coco Lin

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1 General Information

1.1 Product Description for Equipment under Test (EUT)

Applicant	EWIC PHILIPPINES INC.
	BLDG NOS 7&8 S BLK 2 LOT 2 EZP WAREHOUSE, LAGUNA TECHNOPARK ANNEX, BARANGAY BO BINAN, BINAN, PHILIPPINES
Brand(Trade) Name	N/A
Product (Equipment) / PMN	Access Controller
Main Model Name	C-F4A
Series Model Name	FC01
Model Discrepancy	Please refer to the difference declaration letter provided by the Applicant.
Frequency Range	IEEE 802.11b/ g/ n HT20 Mode: 2412 ~ 2462 MHz IEEE 802.11n HT40 Mode: 2422 ~ 2452 MHz
Maximum Conducted Peak Output Power	IEEE 802.11b Mode: 13.16 dBm IEEE 802.11g Mode: 17.07 dBm IEEE 802.11n HT20 Mode: 16.64 dBm IEEE 802.11n HT40 Mode: 16.48 dBm
Modulation Technique	IEEE 802.11b Mode: DSSS IEEE 802.11g Mode: OFDM IEEE 802.11n HT20 Mode: OFDM IEEE 802.11n HT40 Mode: OFDM
Power Operation (Voltage Range)	12Vdc
Received Date	2025/08/21

*All measurement and test data in this report was gathered from production sample serial number:
RXZ250821063-1 (Assigned by BACL, New Taipei Laboratory).

1.2 Objective

This report is prepared on behalf of *EWIC PHILIPPINES 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, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices KDB 558074 D01 15.247 Meas Guidance v05r02.

1.4 Statement

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

1. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. (New Taipei 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. (New Taipei Laboratory) is not responsible for the authenticity of the information provided by the applicant that affects the test results.

1.5 Measurement Uncertainty

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

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

1.6 Environmental Conditions

Test Site	Test Date	Temperature (°C)	Relative Humidity (%)	Test Engineer
AC Line Conducted Emissions	2025/9/16	22.3	46	Jing Chang
Radiation Spurious Emissions	2025/9/5~2025/9/9	24.9~25.8	45~63	Nick Hsieh
Duty Cycle	2025/9/15	25.6	47	Jet Lin
Conducted Spurious Emissions	2025/9/12	25.8	46	Jet Lin
Emission Bandwidth	2025/9/12	25.8	46	Jet Lin
Maximum Output Power	2025/9/12	25.8	46	Jet Lin
100 kHz Bandwidth of Frequency Band Edge	2025/9/12	25.8	46	Jet Lin
Power Spectral Density	2025/9/12	25.8	46	Jet Lin

1.7 Test Facility

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

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

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

2 System Test Configuration

2.1 Description of Test Configuration

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

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

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

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

2.2 Equipment Modifications

No modification was made to the EUT.

2.3 EUT Exercise Software

The test software was used “SecureCRT v7.0.0.326”

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

Engineering Mode		Power Level Setting		
Test Frequency		Low	Middle	High
Mode	802.11b Mode	25	25	25
	802.11g Mode	30	30	30
	802.11n HT20 Mode	30	30	30
	802.11n HT40 Mode	30	30	30

The worst case data rates are as follows:

802.11b: 1Mbps

802.11g: 6Mbps

802.11n HT20: MCS0

802.11n HT40: MCS0

2.4 Support Equipment List and Details

Description	Manufacturer	Model Number
NB	ACER	N16Q1
Fixture	CHENG UEI PRECISION INDUSTRY CO., LTD.	D9FTTL
Adapter	Shenzhen Keyu Power	BS12A-1201000US
Power Supply	KIKUSUI	PMC35-2

2.5 External Cable List and Details

Description	Manufacturer	Model Number
RJ-45 Cable	BACL	1m
RS232 to USB	Shenzhen Greenlink Technology Co., LTD	CR104
RS232 to RS232	CHENG UEI PRECISION INDUSTRY CO., LTD.	DB9 F/F

2.6 Test Mode

Pre-scan

Mode 1: EUT (model : C-F4A) + Adapter

Mode 2: EUT (model : C-F4A) + POE

Worst case is the Mode 1

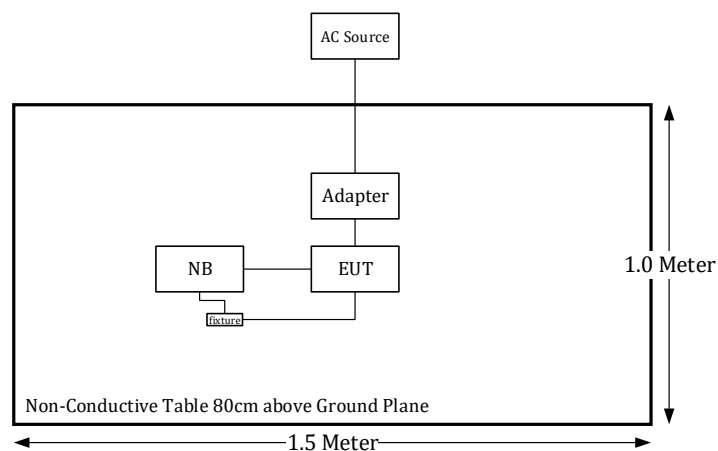
Mode 1: EUT (model : C-F4A) + Adapter for all test item.

2.7 Block Diagram of Test Setup

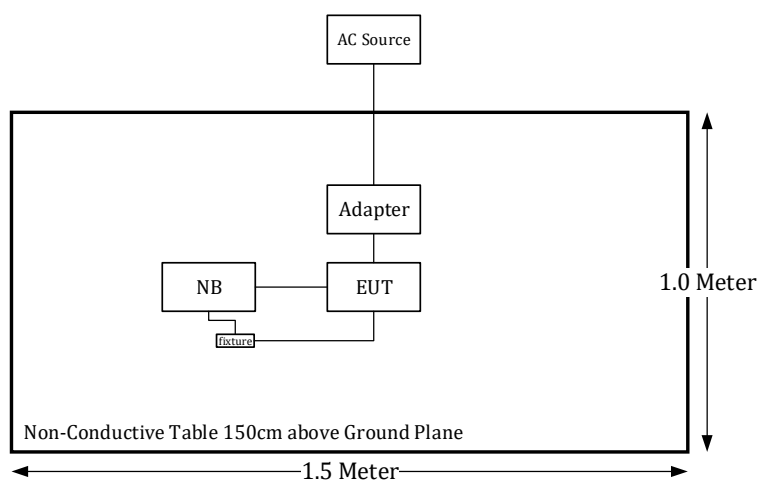
See test photographs attached in setup photos for the actual connections between EUT and support equipment.

Radiation:

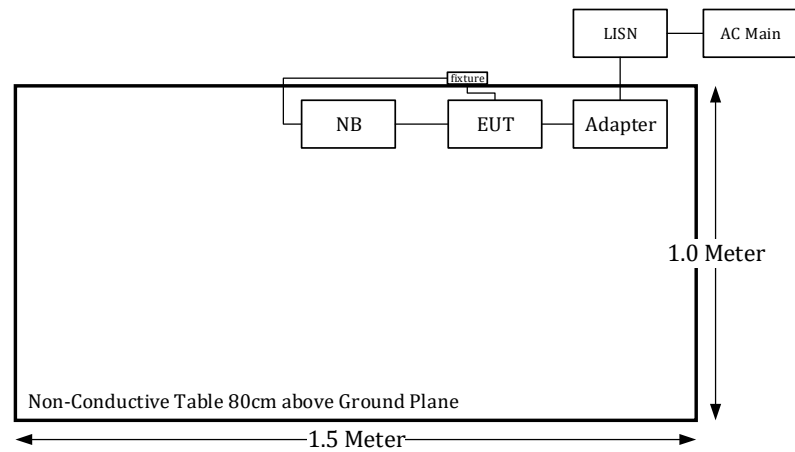
Below 1GHz



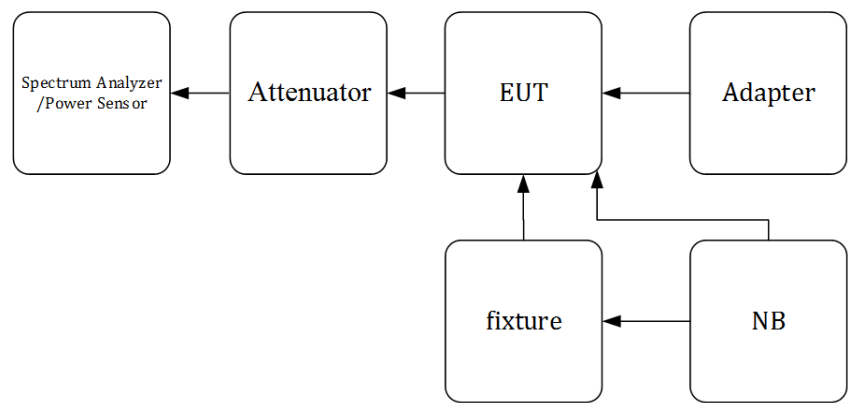
Above 1GHz:



Conduction:



Conducted:



2.8 Duty Cycle

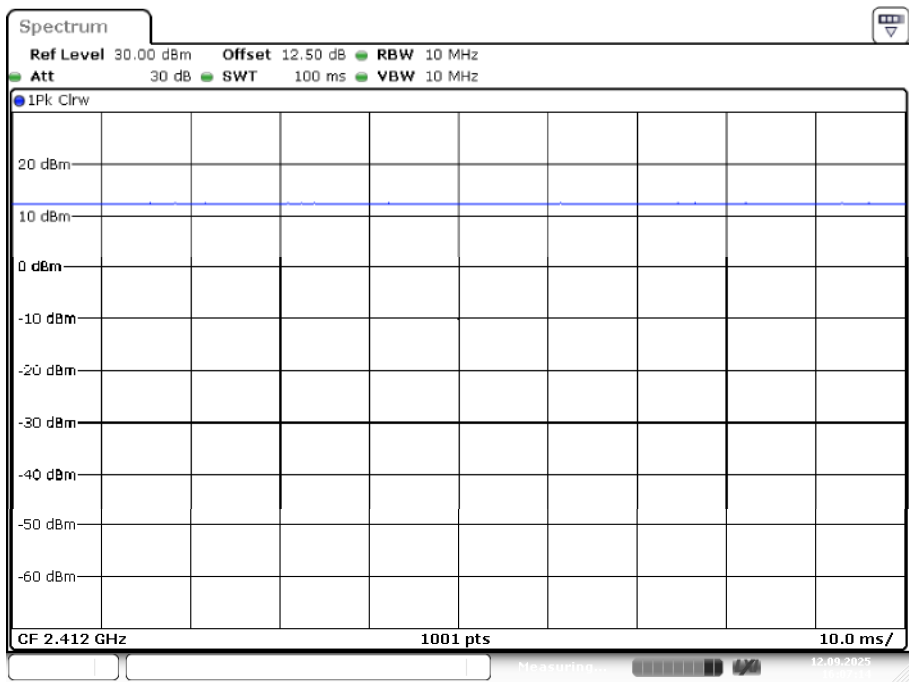
The duty cycle as below:

Radio Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty factor (dB)	1/T (kHz)	VBW Setting (kHz)
802.11b	100	100	100	/	/	0.01
802.11g	100	100	100	/	/	0.01
802.11n20	100	100	100	/	/	0.01
802.11n40	100	100	100	/	/	0.01

Note: Duty Cycle Correction Factor = $10 \cdot \log(1/\text{duty cycle})$

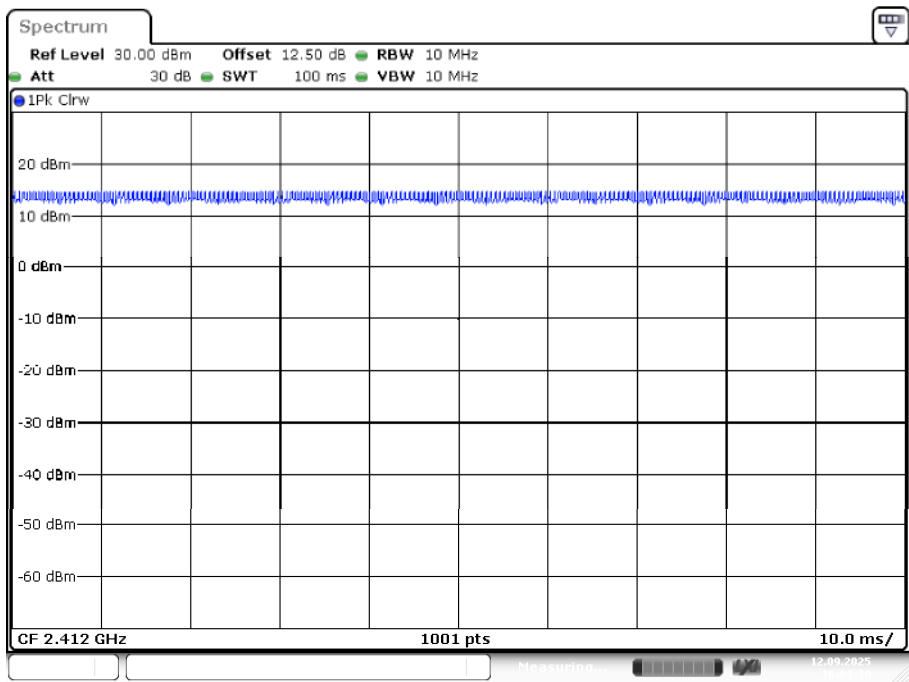
Please refer to the following plots.

B Mode



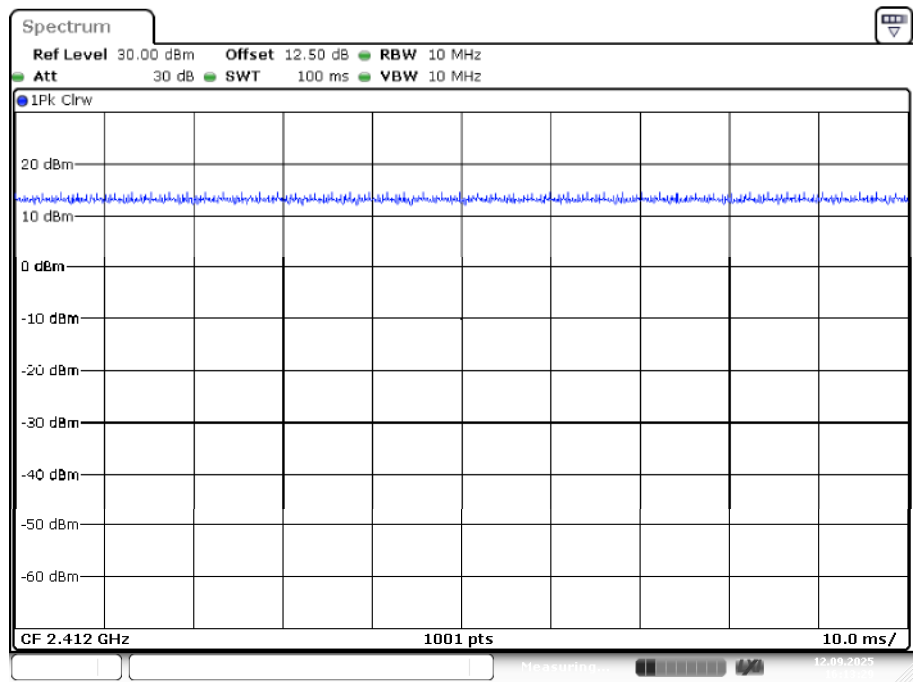
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 16:07:14

G Mode



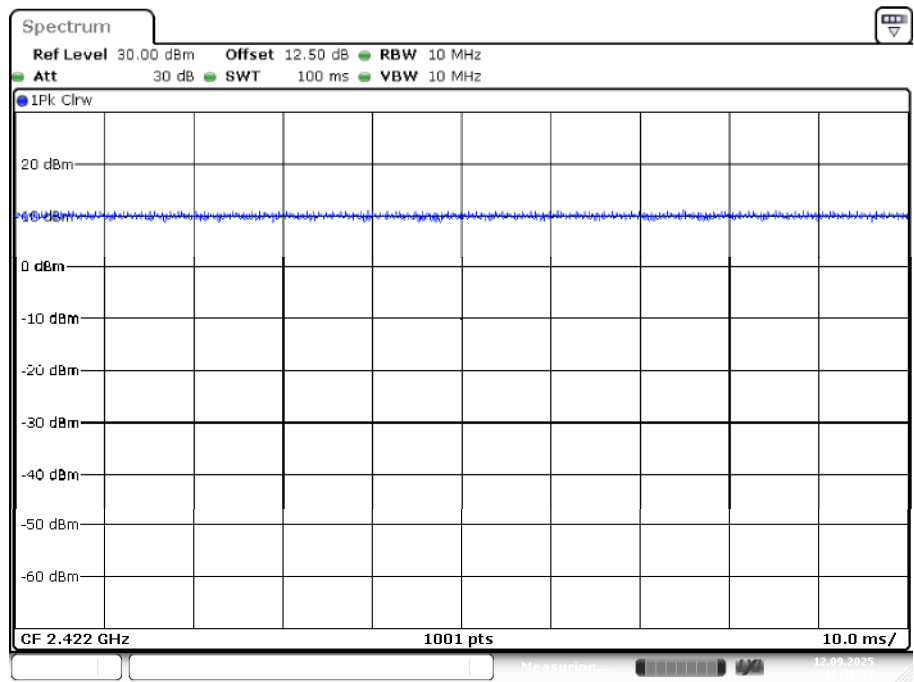
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 16:09:30

N20 Mode



ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 16:13:30

N40 Mode



ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 16:19:05

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

4 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
AC Line Conduction Room (CON-A)					
LISN	Rohde & Schwarz	ENV216	101612	2025/2/17	2026/2/17
EMI Test Receiver	Rohde & Schwarz	ESW	100947	2025/5/28	2026/5/28
RF Cable	EMEC	EM-CB5D	1	2025/6/30	2026/6/30
Software	AUDIX	E3	V9.150826k	N.C.R	N.C.R
Radiation 3M Room - Below 1GHz (966-A)					
Active Loop Antenna	ETS-Lindgren	6502	35796	2025/3/27	2026/3/27
Bilog Antenna with 6 dB Attenuator	SUNOL SCIENCES & MINI-CIRCUITS	JB6/UNAT-6+	A050115/1554 2_01	2025/1/16	2026/1/16
Preamplifier	Sonoma	310N	130602	2025/6/17	2026/6/17
Spectrum Analyzer	Rohde & Schwarz	FSV40	101939	2025/3/27	2026/3/27
EMI Test Receiver	Rohde & Schwarz	ESR3	102759	2024/9/19	2025/9/19
Microflex Cable	UTIFLEX	UFB197C-1-2362-70U-70U	225757-001	2024/12/20	2025/12/20
Coaxial Cable	UTIFLEX	UFB311A-Q-1440-300300	220490-006	2024/12/20	2025/12/20
Coaxial Cable	COMMATE	PEWC	8Dr	2024/12/20	2025/12/20
Cable	EMC	EMC105-SM-SM-10000	201003	2024/12/20	2025/12/20
Coaxial Cable	JUNFLON	J12J102248-00-B-5	AUG-07-15-044	2024/12/20	2025/12/20
Software	AUDIX	E3	18621a	N.C.R	N.C.R
Radiation 3M Room - Above 1GHz (966-A)					
Horn Antenna	ETS-Lindgren	3115	40736	2025/5/6	2026/5/6
Horn Antenna	ETS-Lindgren	3116	62638	2025/9/4	2026/9/4
Preamplifier	Channel	ERA-100M-18G-01D1748	EC2300051	2025/4/10	2026/4/10
Preamplifier	BACL	BACL-1313-A1840	4011511	2025/2/12	2026/2/12
Spectrum Analyzer	Rohde & Schwarz	FSV40	101939	2025/3/27	2026/3/27
EMI Test Receiver	Rohde & Schwarz(R&S)	ESR3	102759	2024/9/19	2025/9/19
Microflex Cable	UTIFLEX	UFB197C-1-2362-70U-70U	225757-001	2024/12/20	2025/12/20
Coaxial Cable	UTIFLEX	UFB311A-Q-1440-300300	220490-006	2024/12/20	2025/12/20
Coaxial Cable	COMMATE	PEWC	8Dr	2024/12/20	2025/12/20
Cable	EMC	EMC105-SM-SM-10000	201003	2024/12/20	2025/12/20
Coaxial Cable	JUNFLON	J12J102248-00-B-5	AUG-07-15-044	2024/12/20	2025/12/20
Coaxial Cable	ROSNOL	K1K50-UP0264-K1K50-450CM	160309-1	2025/1/21	2026/1/21
Microflex Cable	ROSNOL	K1K50-UP0264-K1K50-80CM	160309-2	2025/1/21	2026/1/21
Band-reject filter	MICRO-TRONICS	BRC50722	G014	2024/10/2	2025/10/2
High-pass filter	XINGBOKEJI	XBLBQ-GTA54	200108-3-2	2024/10/19	2025/10/19
Software	AUDIX	E3	18621a	N.C.R	N.C.R

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(New Taipei Laboratory)

Conducted Room					
Spectrum Analyzer	Rohde & Schwarz(R&S)	FSV40	101204	2025/6/4	2026/6/4
Power Sensor	Boonton	RTP5006	11037	2025/5/16	2026/5/16
Attenuator	MTJ cooperation	MTJ6004-10	001	2025/3/6	2026/3/6

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

5 FCC §15.203 – 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 Information

Type	Antenna Gain	Impedance
PCB Antenna	2.27 dBi	50Ω

The antenna is permanently connected to the EUT.

Result: Compliance

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

6.1 Applicable Standard

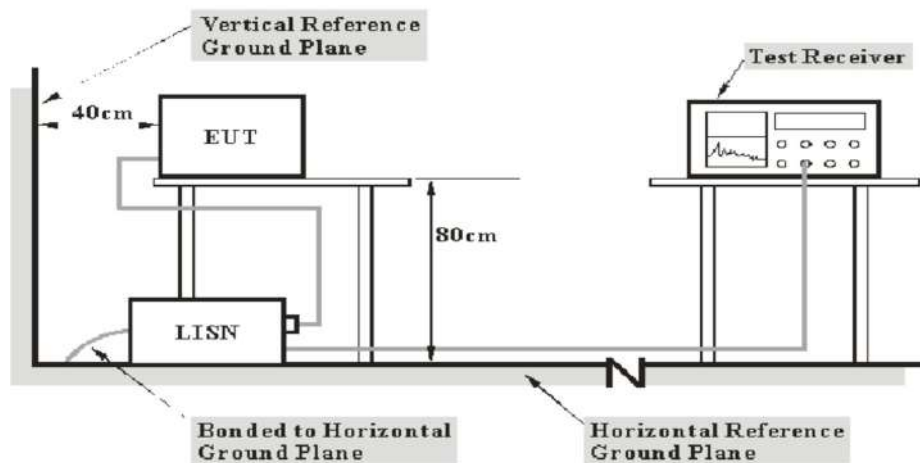
According to §15.207

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 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequencies ranges.

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

Note 1: Decreases with the logarithm of the frequency.

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 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 Corrected Factor & Over Limit Calculation

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

$$\text{Factor} = \text{LISN VDF} + \text{Cable Loss} + \text{Transient Limiter Attenuation}$$

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:

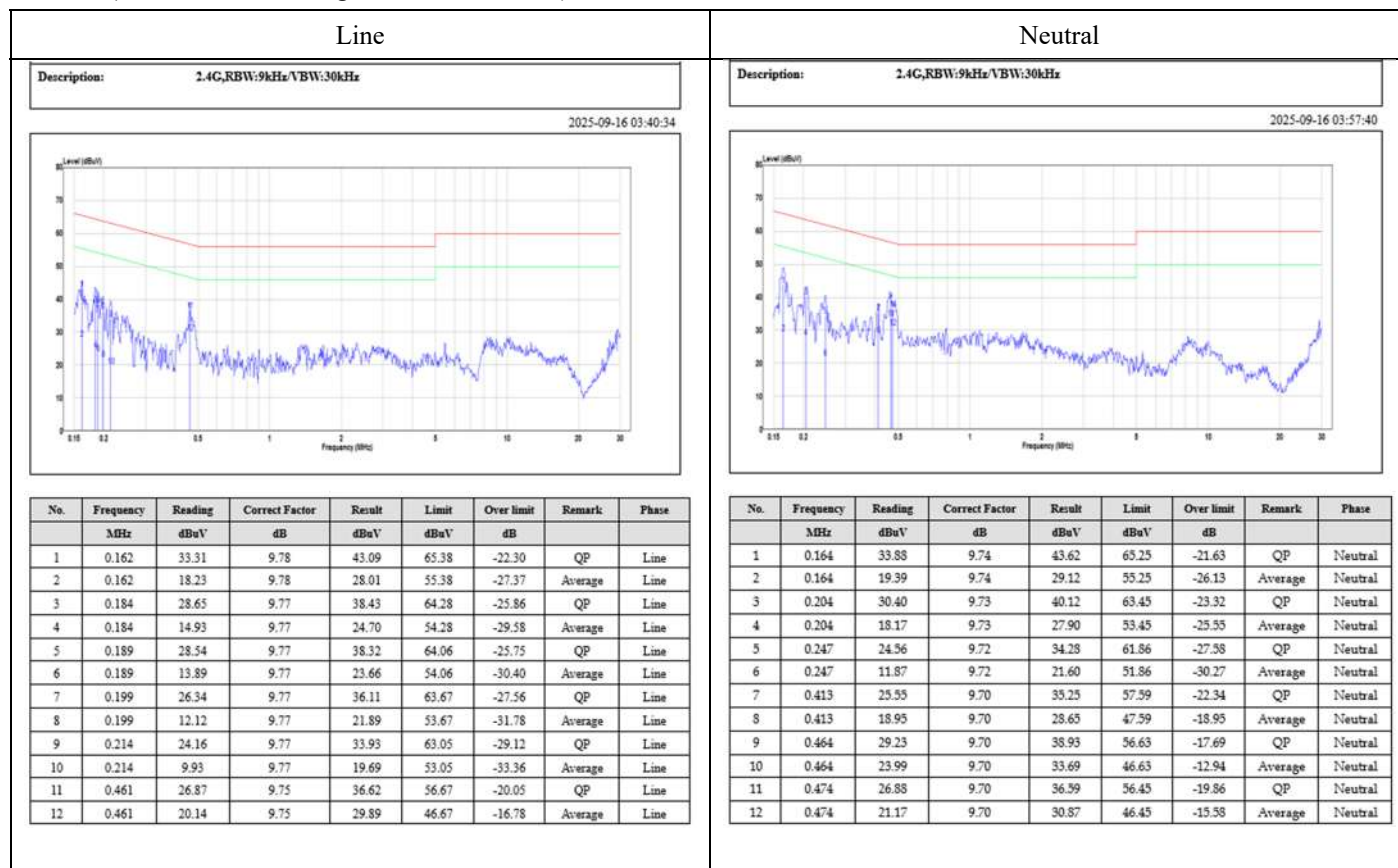
$$\text{Over Limit} = \text{Result} - \text{Limit Line}$$

6.6 Test Results

Test Mode: Transmitting

Main: AC120 V, 60 Hz

(Worst case is 802.11g mode Low channel)



Note:

Result = Reading + Factor

Over Limit = Result – Limit Line

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

7 FCC §15.209, §15.205, §15.247(d) & RSS-247 §5.5, RSS-GEN §8.9, §8.10 – 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) and RSS-GEN §8.9: Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

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

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

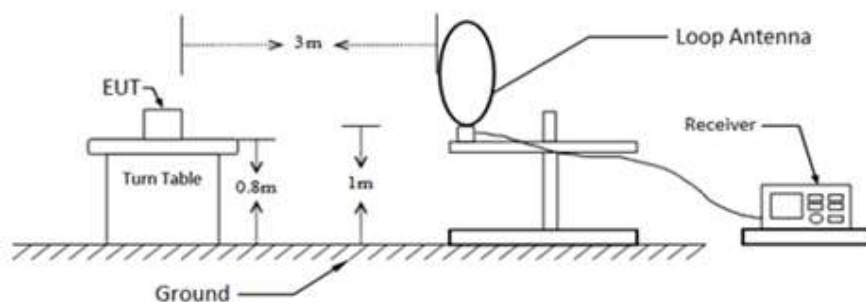
According to ANSI C63.10-2020, section 5.3.3

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).

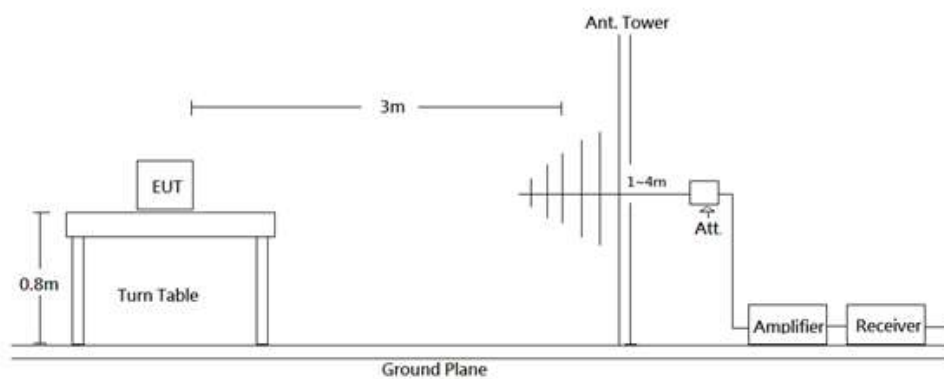
As per FCC §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the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

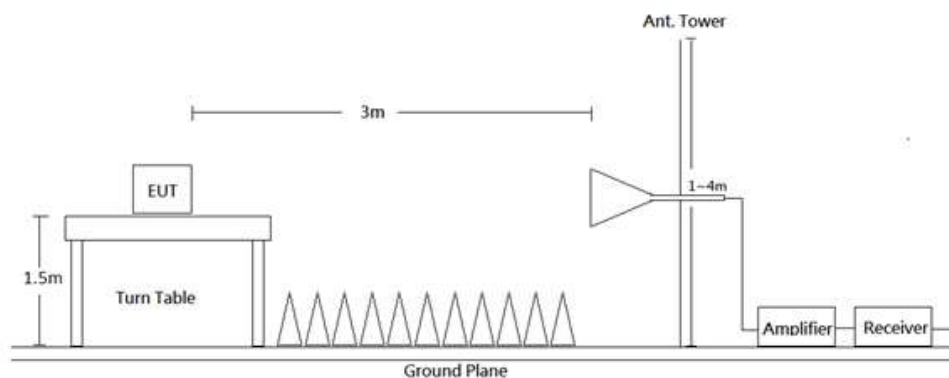
9kHz-30MHz:



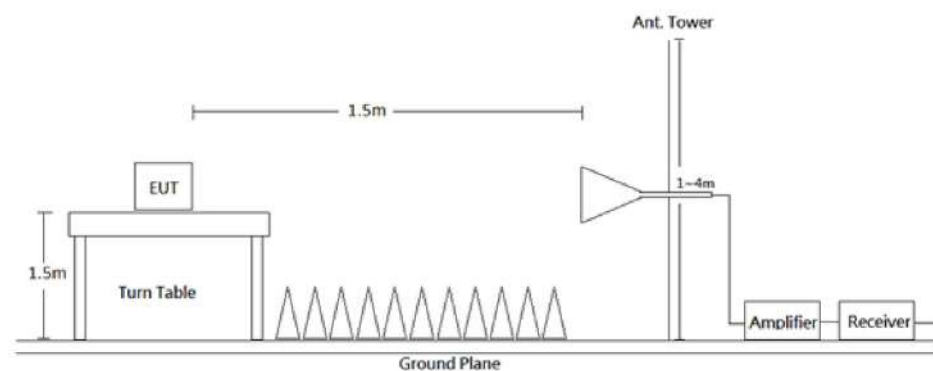
30MHz-1GHz:



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. The specification used was the FCC Part 15.209 and FCC 15.247 Limits.

7.3 EMI Test Receiver & Spectrum Analyzer Setup

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

Frequency Range	RBW	Video B/W	IF B/W	Duty cycle	Measurement method	Detector
9 kHz - 150 kHz	300 Hz	1 kHz	200 Hz	/	QP/AV	QP/AV
150 kHz - 30 MHz	10 kHz	30 kHz	9 kHz	/	QP/AV	QP/AV
30-1000 MHz	100 kHz	300 kHz	/	/	PK	PK
	/	/	120 kHz	/	QP	QP
Above 1 GHz	Pre-scan :					
	1 MHz	3 MHz	/	/	PK	PK
	1 MHz	1 kHz	/	>98%	Ave	PK
	1 MHz	$\geq 1/T_{on}$, not less than 1 kHz	/	<98%	Ave	PK
	Final measurement for emission identified during pre-scan :					
	1 MHz	3 MHz	/	/	PK	PK
	1 MHz	10 Hz	/	>98%	Ave	PK
	1 MHz	$\geq 1/T_{on}$	/	<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.

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.

For Conducted Spurious Emissions:

According to ANSI C63.10-2020, section 11.11.3

- Set the frequency range to be measured.
- Set the RBW = 100 kHz.
- Set the VBW $\geq [3 \times \text{RBW}]$.
- Detector = peak.
- Sweep time = No faster than coupled (auto) time.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level.

7.5 Corrected Factor & Margin Calculation

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

Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain

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

Margin = Level – Limit

7.6 Test Results

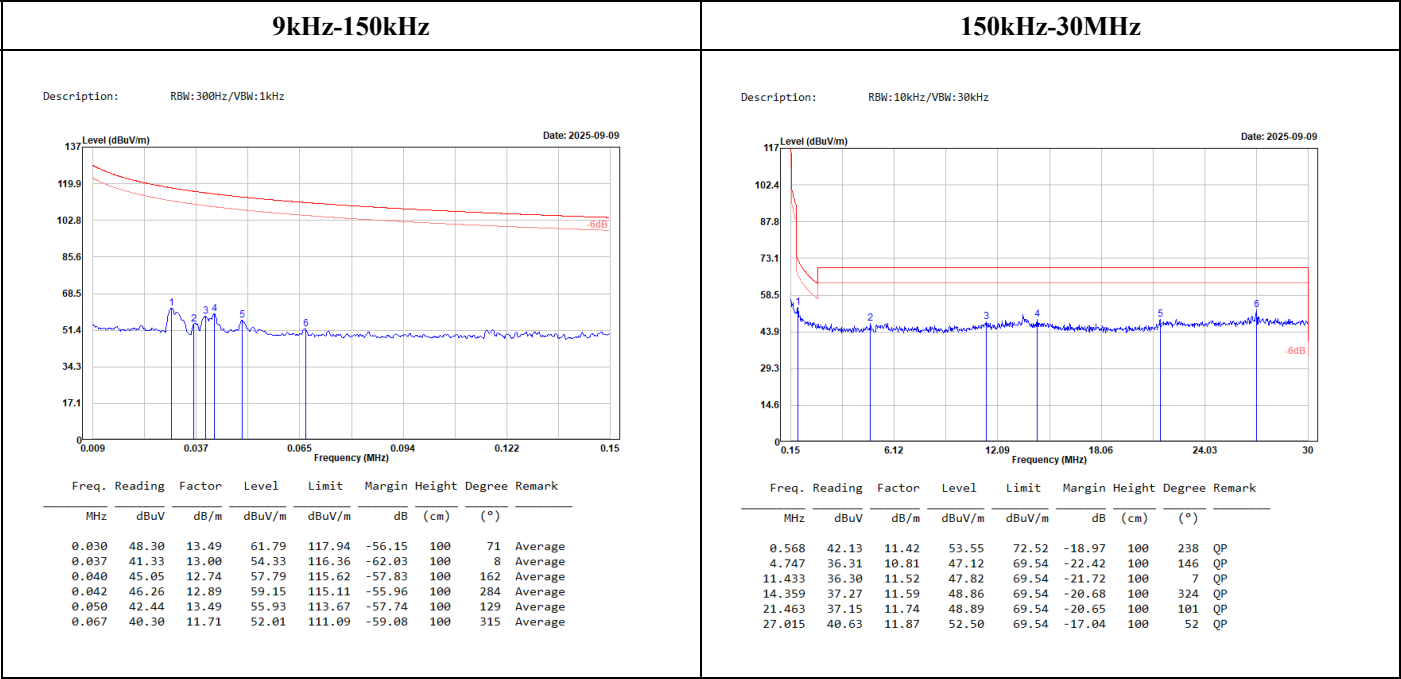
Test Mode: Transmitting

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

9kHz-30MHz:

(Worst case is 802.11g mode, low channel)

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



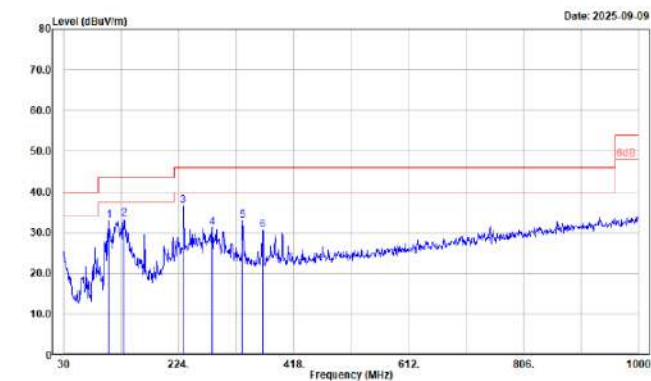
30MHz-1GHz:

(Worst case is 802.11g mode)

Low channel

Horizontal

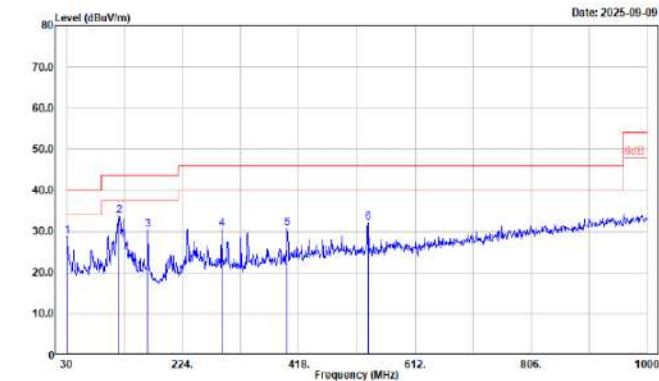
Description: TX-2412, RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
106.630	45.89	-12.96	32.93	43.50	-10.57	100	81	QP
131.850	44.35	-11.01	33.34	43.50	-10.16	100	154	QP
231.760	49.24	-12.62	36.62	46.00	-9.38	100	210	QP
280.260	41.39	-10.21	31.18	46.00	-14.82	100	34	QP
331.670	42.19	-9.22	32.97	46.00	-13.03	100	92	QP
364.650	39.10	-8.55	30.55	46.00	-15.45	100	104	QP

Vertical

Description: TX-2412, RBW:100kHz/VBW:300kHz

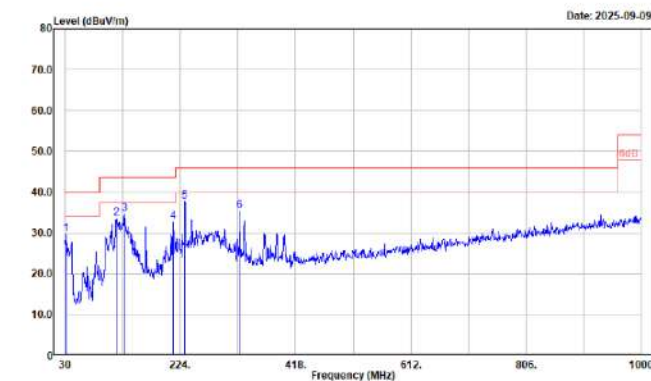


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.970	34.30	-5.47	28.83	40.00	-11.17	100	21	QP
118.270	45.11	-11.21	33.90	43.50	-9.60	100	138	QP
165.800	42.50	-12.22	30.28	43.50	-13.22	100	191	QP
288.990	40.39	-9.89	30.50	46.00	-15.50	100	222	QP
398.600	38.02	-7.27	30.75	46.00	-15.25	100	191	QP
533.430	36.36	-4.35	32.01	46.00	-13.99	100	66	QP

Middle channel

Horizontal

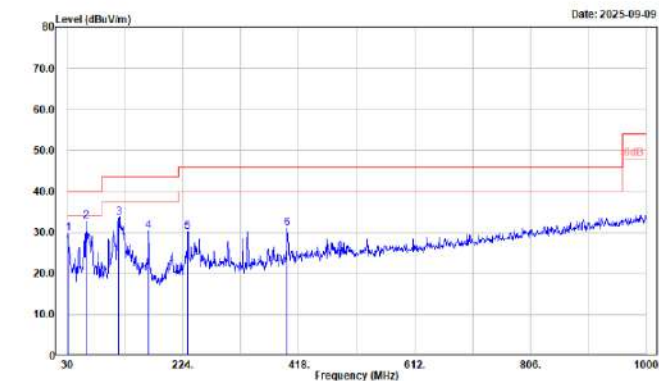
Description: TX-2437, RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
31.940	35.39	-5.76	29.63	40.00	-10.37	100	145	QP
116.330	45.06	-11.43	33.63	43.50	-9.87	100	108	QP
129.910	45.51	-10.85	34.66	43.50	-8.84	100	137	QP
211.390	46.24	-13.52	32.72	43.50	-10.78	100	78	QP
231.760	50.43	-12.62	37.81	46.00	-8.19	100	192	QP
323.910	44.81	-9.39	35.42	46.00	-10.58	100	209	QP

Vertical

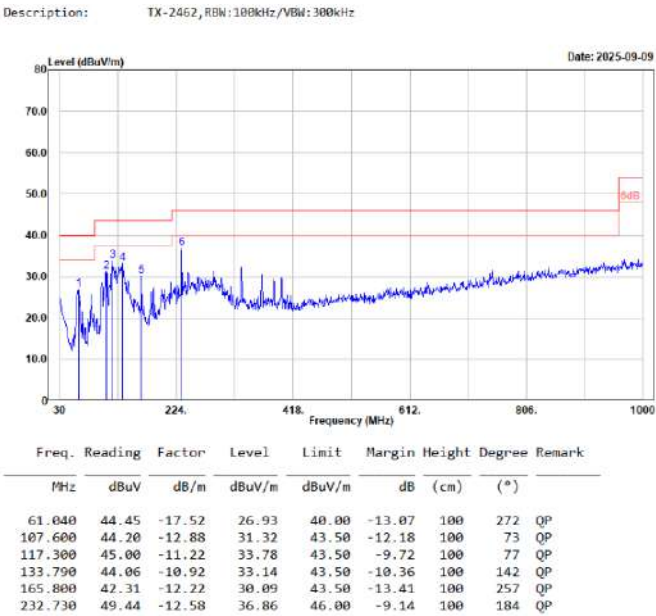
Description: TX-2437, RBW:100kHz/VBW:300kHz



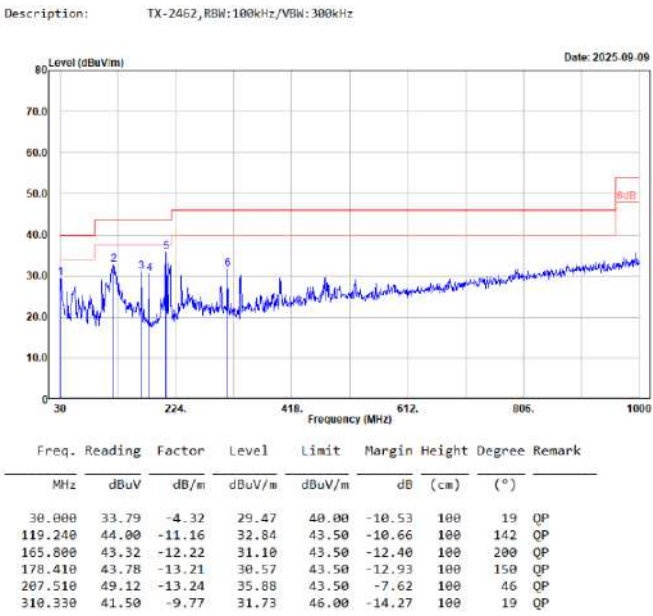
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.970	35.19	-5.47	29.72	40.00	-10.28	100	85	QP
61.040	50.18	-17.52	32.66	40.00	-7.34	100	116	QP
116.330	44.97	-11.43	33.54	43.50	-9.96	100	173	QP
165.800	42.57	-12.22	30.35	43.50	-13.15	100	360	QP
231.760	42.74	-12.62	30.12	46.00	-15.88	100	180	QP
398.600	38.18	-7.27	30.91	46.00	-15.09	100	158	QP

High channel

Horizontal



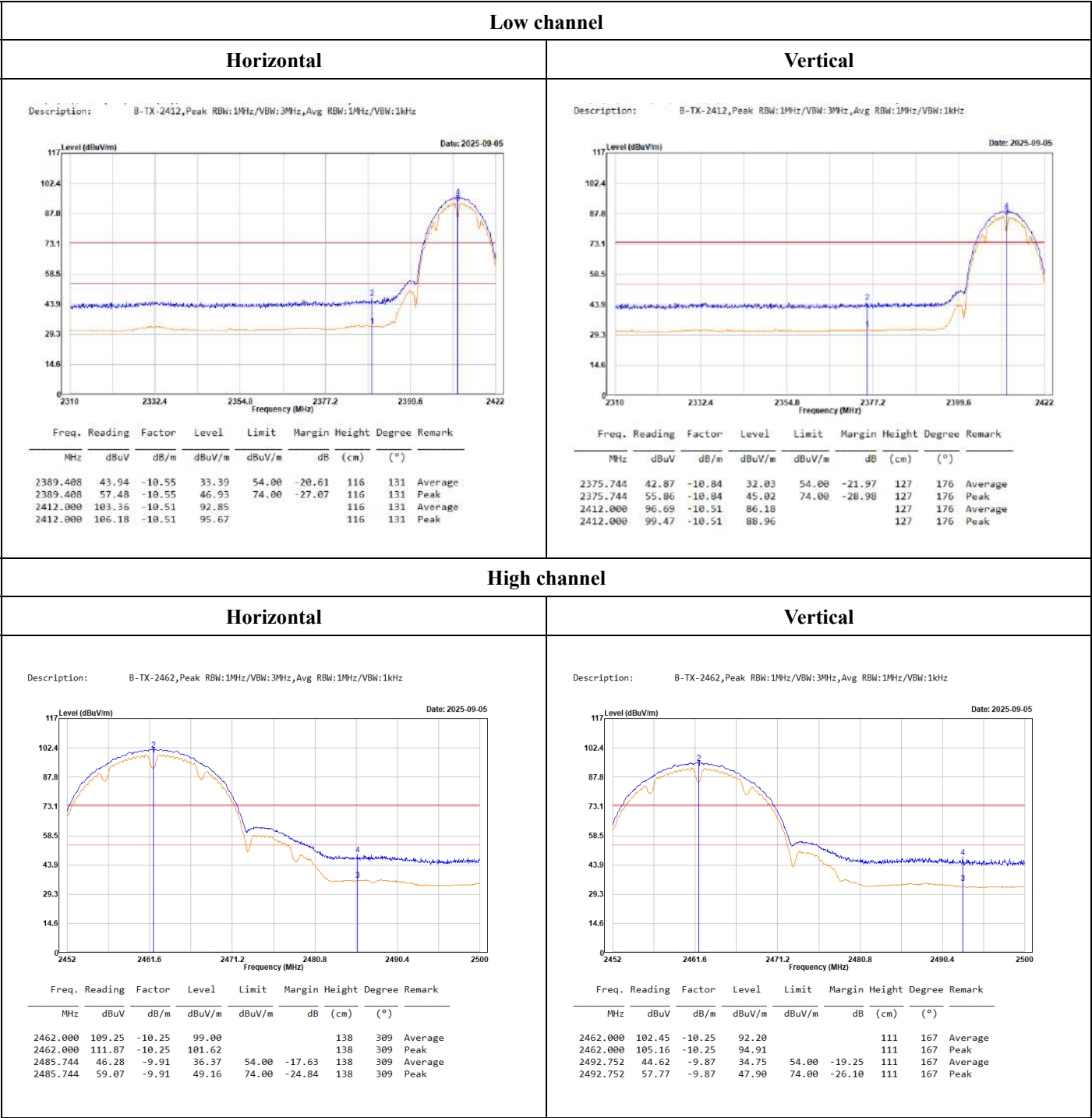
Vertical



Level = Reading + Factor.
Margin = Level - Limit.
Factor = Antenna Factor + Cable Loss - Amplifier Gain.

Band-Edge:

802.11b Mode

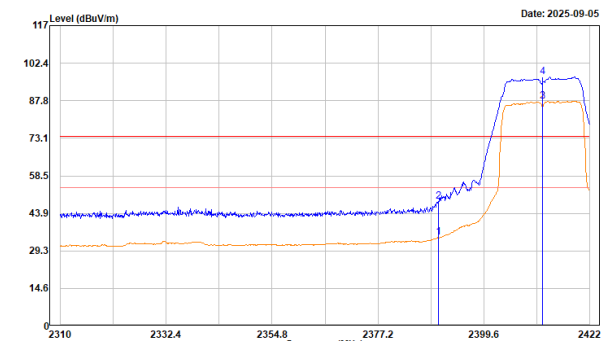


802.11g Mode

Low channel

Horizontal

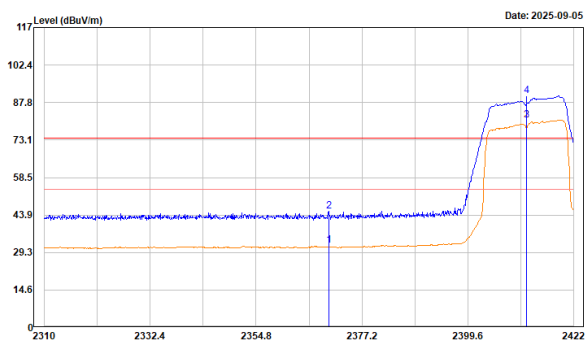
Description: G-TX-2412, Peak RBW:1MHz/VBW:3MHz, Avg RBW:1MHz/VBW:1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.968	45.09	-10.54	34.55	54.00	-19.45	138	306	Average
2389.968	58.97	-10.54	48.43	74.00	-25.57	138	306	Peak
2412.000	98.10	-10.51	87.59			138	306	Average
2412.000	107.43	-10.51	96.92			138	306	Peak

Vertical

Description: G-TX-2412, Peak RBW:1MHz/VBW:3MHz, Avg RBW:1MHz/VBW:1kHz

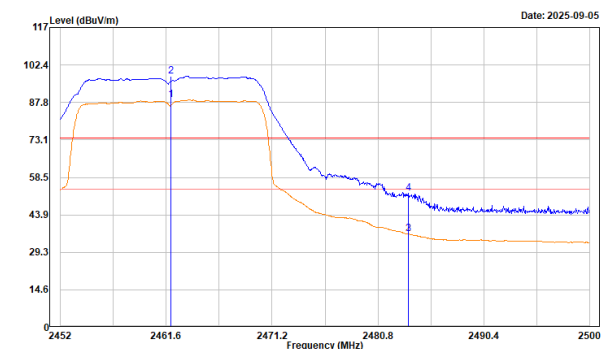


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2370.144	43.07	-10.96	32.11	54.00	-21.89	320	157	Average
2370.144	56.29	-10.96	45.33	74.00	-28.67	320	157	Peak
2412.000	91.47	-10.51	80.96			320	157	Average
2412.000	100.76	-10.51	90.25			320	157	Peak

High channel

Horizontal

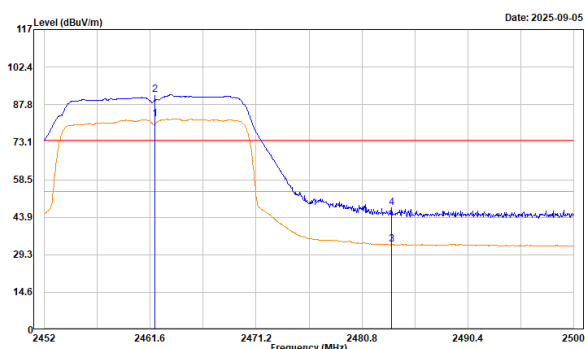
Description: G-TX-2462, Peak RBW:1MHz/VBW:3MHz, Avg RBW:1MHz/VBW:1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	98.98	-10.25	88.73			138	307	Average
2462.000	108.31	-10.25	98.06			138	307	Peak
2483.584	46.40	-9.93	36.47	54.00	-17.53	138	307	Average
2483.584	62.32	-9.93	52.39	74.00	-21.61	138	307	Peak

Vertical

Description: G-TX-2462, Peak RBW:1MHz/VBW:3MHz, Avg RBW:1MHz/VBW:1kHz



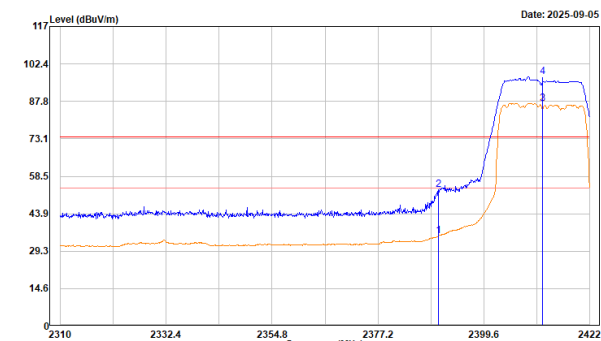
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	92.49	-10.25	82.24			114	155	Average
2462.000	101.85	-10.25	91.60			114	155	Peak
2483.500	43.19	-9.94	33.25	54.00	-20.75	114	155	Average
2483.500	57.61	-9.94	47.67	74.00	-26.33	114	155	Peak

802.11n HT20 Mode

Low channel

Horizontal

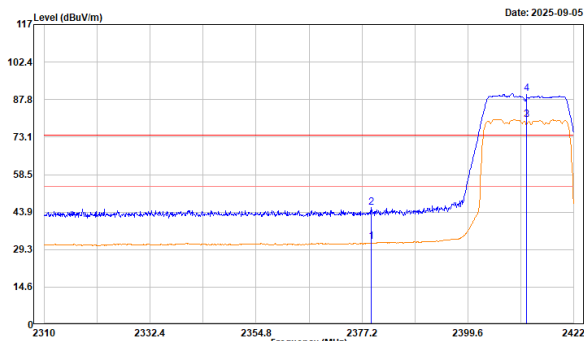
Description: N20-TX-2412, Peak RBW: 1MHz/VBW: 3MHz, Avg RBW: 1MHz/VBW: 1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.968	45.69	-10.54	35.15	54.00	-18.85	147	310	Average
2389.968	63.79	-10.54	53.25	74.00	-20.75	147	310	Peak
2412.000	97.49	-10.51	86.98			147	310	Average
2412.000	107.78	-10.51	97.27			147	310	Peak

Vertical

Description: N20-TX-2412, Peak RBW: 1MHz/VBW: 3MHz, Avg RBW: 1MHz/VBW: 1kHz

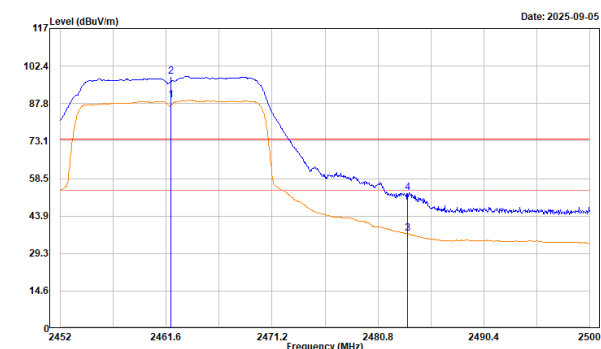


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2379.104	43.19	-10.77	32.42	54.00	-21.58	100	154	Average
2379.104	56.54	-10.77	45.77	74.00	-28.23	100	154	Peak
2412.000	90.49	-10.51	79.98			100	154	Average
2412.000	100.68	-10.51	90.17			100	154	Peak

High channel

Horizontal

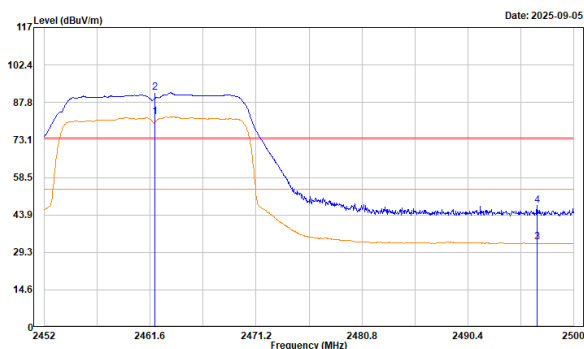
Description: N20-TX-2462, Peak RBW: 1MHz/VBW: 3MHz, Avg RBW: 1MHz/VBW: 1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	99.31	-10.25	89.06			108	305	Average
2462.000	108.66	-10.25	98.41			108	305	Peak
2483.500	47.03	-9.94	37.09	54.00	-16.91	108	305	Average
2483.500	62.83	-9.94	52.89	74.00	-21.11	108	305	Peak

Vertical

Description: N20-TX-2462, Peak RBW: 1MHz/VBW: 3MHz, Avg RBW: 1MHz/VBW: 1kHz



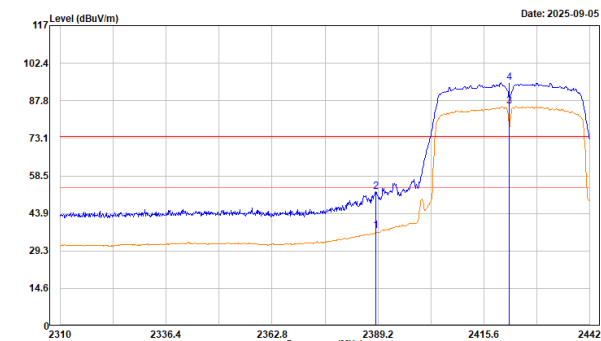
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	92.36	-10.25	82.11			118	157	Average
2462.000	101.74	-10.25	91.49			118	157	Peak
2496.688	43.05	-9.86	33.19	54.00	-20.81	118	157	Average
2496.688	57.44	-9.86	47.58	74.00	-26.42	118	157	Peak

802.11n HT40 Mode

Low channel

Horizontal

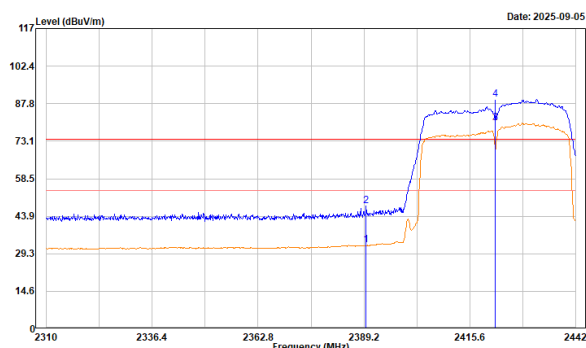
Description: N40-TX-2422, Peak RBW: 1MHz/VBW: 3MHz, Avg RBW: 1MHz/VBW: 1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2388.672	47.52	-10.57	36.95	54.00	-17.05	142	310	Average
2388.672	62.97	-10.57	52.40	74.00	-21.60	142	310	Peak
2422.000	95.94	-10.40	85.54			142	310	Average
2422.000	105.27	-10.40	94.87			142	310	Peak

Vertical

Description: N40-TX-2422, Peak RBW: 1MHz/VBW: 3MHz, Avg RBW: 1MHz/VBW: 1kHz

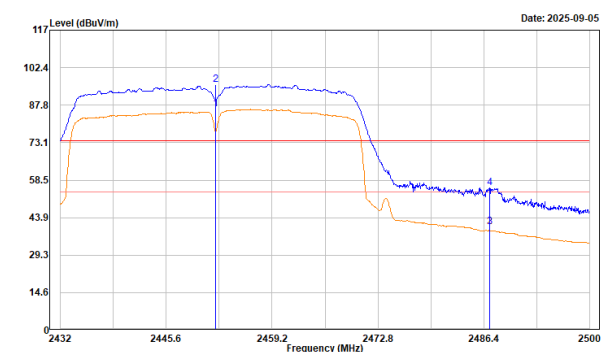


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.728	43.12	-10.55	32.57	54.00	-21.43	114	171	Average
2389.728	58.36	-10.55	47.81	74.00	-26.19	114	171	Peak
2422.000	90.48	-10.40	80.08			114	171	Average
2422.000	99.81	-10.40	89.41			114	171	Peak

High channel

Horizontal

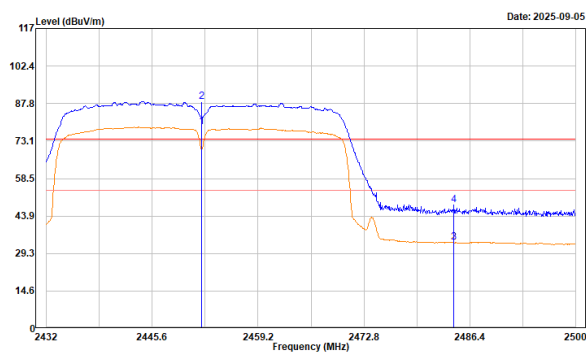
Description: N40-TX-2452, Peak RBW: 1MHz/VBW: 3MHz, Avg RBW: 1MHz/VBW: 1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2452.000	96.46	-10.37	86.09			120	305	Average
2452.000	106.20	-10.37	95.83			120	305	Peak
2487.148	50.12	-9.90	40.22	54.00	-13.78	120	305	Average
2487.148	65.45	-9.90	55.55	74.00	-18.45	120	305	Peak

Vertical

Description: N40-TX-2452, Peak RBW: 1MHz/VBW: 3MHz, Avg RBW: 1MHz/VBW: 1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2452.000	88.91	-10.37	78.54			120	155	Average
2452.000	98.91	-10.37	88.54			120	155	Peak
2484.360	43.63	-9.93	33.70	54.00	-20.30	120	155	Average
2484.360	58.13	-9.93	48.20	74.00	-25.80	120	155	Peak

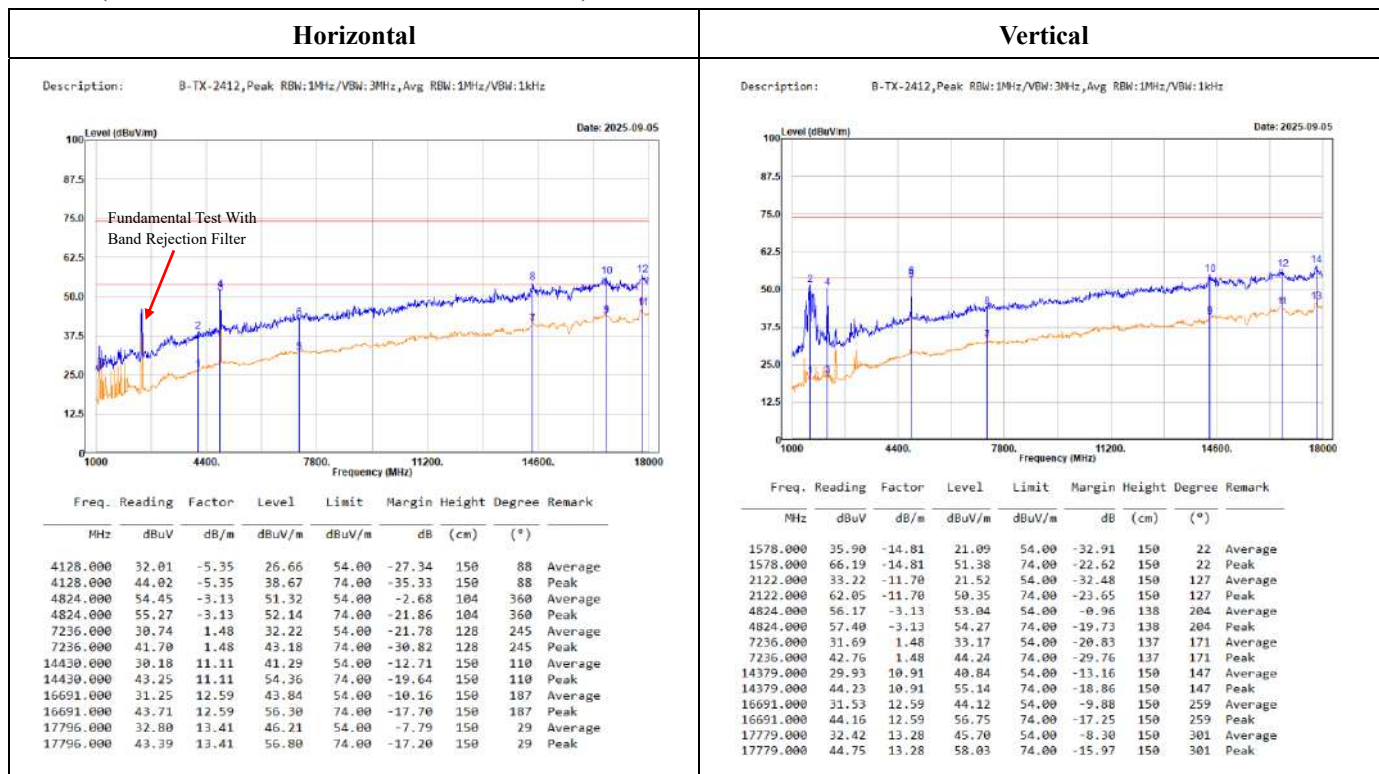
Level = Reading + Factor.

Margin = Level - Limit.

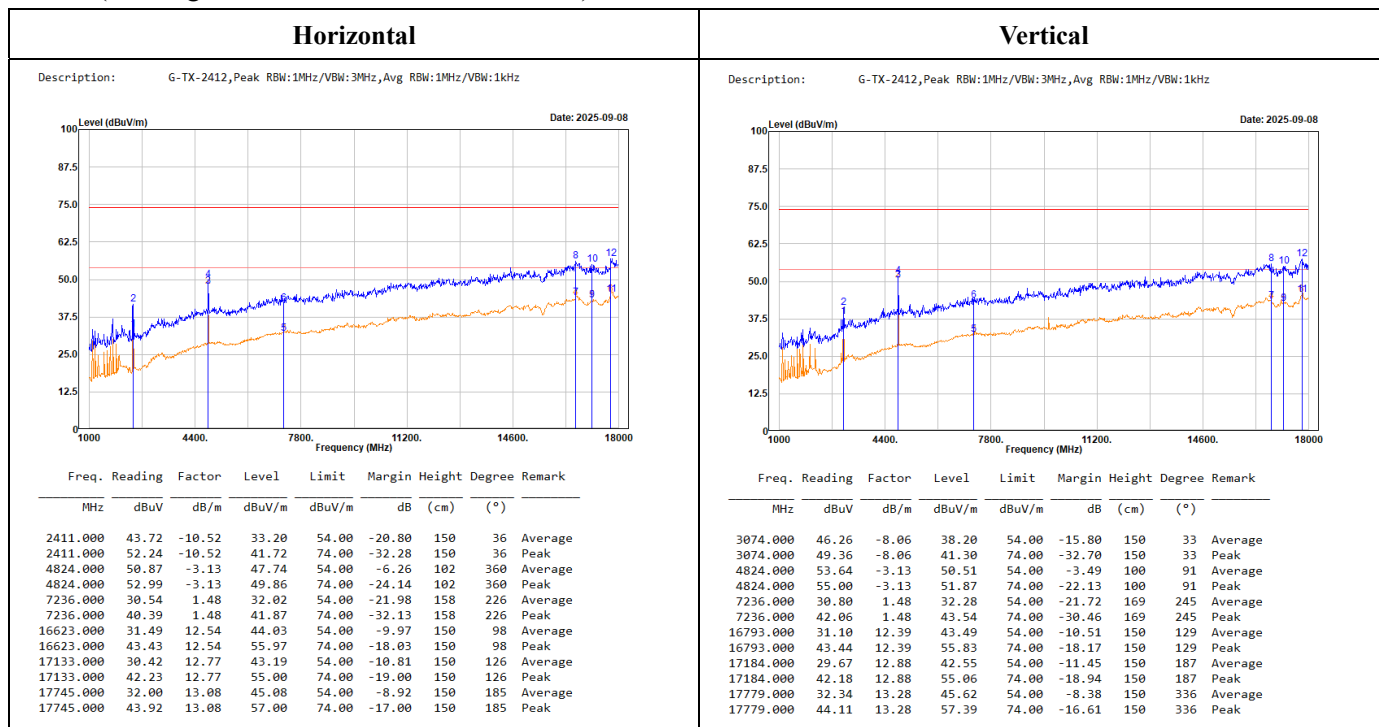
Factor = Antenna Factor + Cable Loss - Amplifier Gain.

1GHz-18GHz:

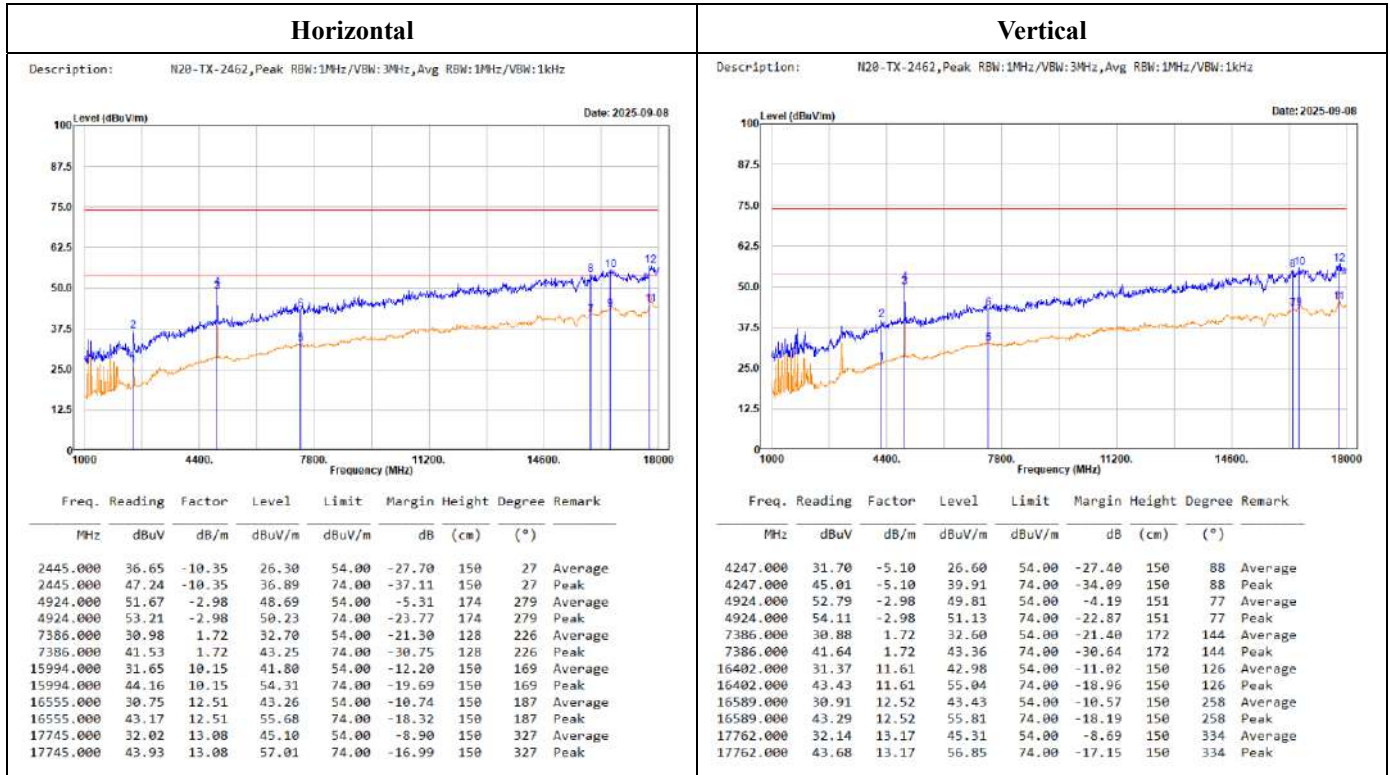
(802.11b mode worst case is low channel)



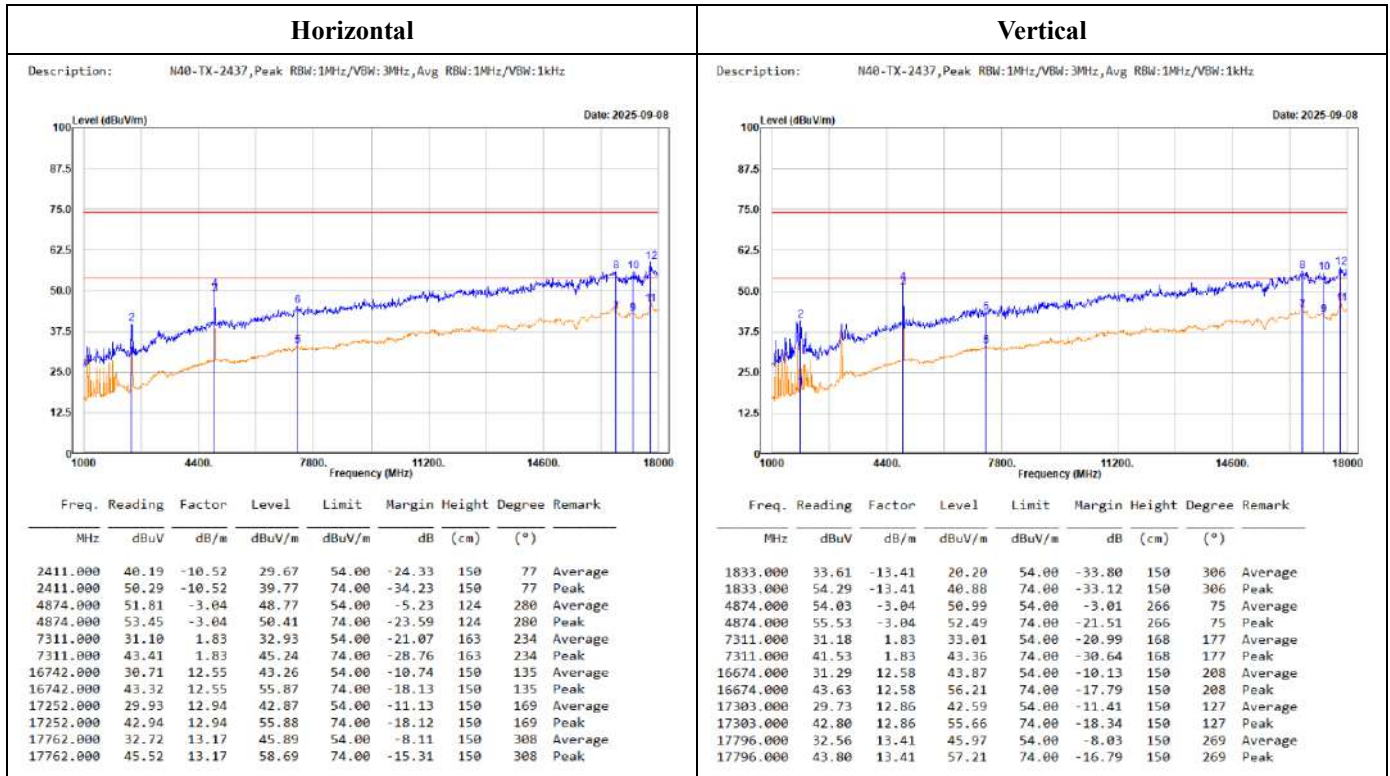
(802.11g mode worst case is low channel)



(802.11n HT20 mode worst case is high channel)



(802.11n HT40 mode worst case is middle channel)



Level = Reading + Factor.

Margin = Level - Limit.

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.

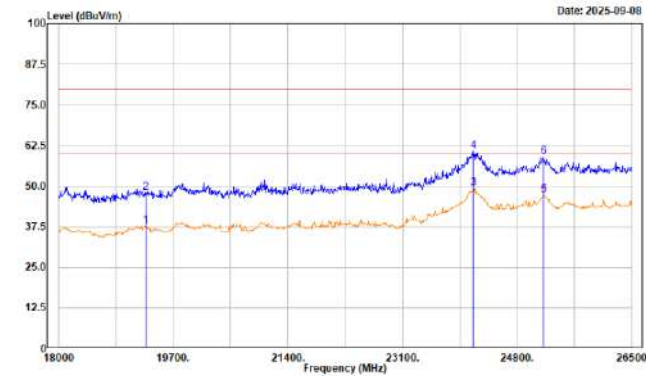
(New Taipei Laboratory)

18GHz-26.5GHz:

(worst case is 802.11g mode low channel)

Horizontal

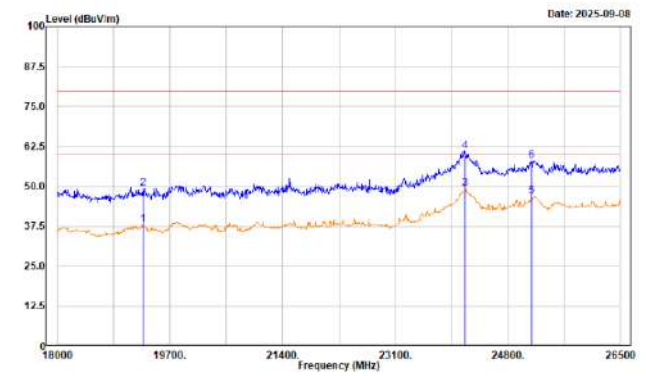
Description: TX-2412, Peak RBW:1MHz/VBW:3MHz, Avg RBW:1MHz/VBW:1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
19296.000	39.12	-1.35	37.77	60.00	-22.23	147	324	Average
19296.000	49.28	-1.35	47.93	80.00	-32.07	147	324	Peak
24145.500	36.66	12.74	49.40	60.00	-10.60	155	268	Average
24145.500	47.88	12.74	60.62	80.00	-19.38	155	268	Peak
25199.500	36.57	10.46	47.03	60.00	-12.97	163	304	Average
25199.500	48.51	10.46	58.97	80.00	-21.03	163	304	Peak

Vertical

Description: TX-2412, Peak RBW:1MHz/VBW:3MHz, Avg RBW:1MHz/VBW:1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
19296.000	39.23	-1.35	37.88	60.00	-22.12	141	222	Average
19296.000	50.61	-1.35	49.26	80.00	-30.74	141	222	Peak
24145.500	36.62	12.74	49.36	60.00	-10.64	151	354	Average
24145.500	48.29	12.74	61.03	80.00	-18.97	151	354	Peak
25157.000	36.87	9.91	46.78	60.00	-13.22	161	326	Average
25157.000	48.19	9.91	58.10	80.00	-21.90	161	326	Peak

Level = Reading + Factor.

Margin = Level - Limit.

Factor = Antenna Factor + Cable Loss - Amplifier Gain.

For 18-26.5GHz Convert the test distance limit of 3 meters to a limit of 1.5 meter:

Conversion factor = $20 \log(1.5\text{m}/3\text{m}) = 6 \text{ dB}$,

Average Limit = $54+6 = 60 \text{ dBuV/m}@1.5\text{m}$, Peak Limit = $60+20 = 80 \text{ dBuV/m}@1.5\text{m}$

Above 1GHz

802.11b Mode:

Low channel									
Horizontal					Vertical				
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark	
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		
4128.000	32.01	-5.35	26.66	54.00	-27.34	150	88	Average	
4128.000	44.02	-5.35	38.67	74.00	-35.33	150	88	Peak	
4824.000	54.45	-3.13	51.32	54.00	-2.68	104	360	Average	
4824.000	55.27	-3.13	52.14	74.00	-21.86	104	360	Peak	
7236.000	30.74	1.48	32.22	54.00	-21.78	128	245	Average	
7236.000	41.70	1.48	43.18	74.00	-30.82	128	245	Peak	
14430.000	30.18	11.11	41.29	54.00	-12.71	150	110	Average	
14430.000	43.25	11.11	54.36	74.00	-19.64	150	110	Peak	
16691.000	31.25	12.59	43.84	54.00	-10.16	150	187	Average	
16691.000	43.71	12.59	56.30	74.00	-17.70	150	187	Peak	
17796.000	32.00	13.41	45.41	54.00	-7.79	150	29	Average	
17796.000	43.39	13.41	56.80	74.00	-17.20	150	29	Peak	
Middle channel									
Horizontal					Vertical				
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark	
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		
2428.000	55.09	-10.33	44.76	54.00	-9.24	150	36	Average	
2428.000	58.14	-10.33	47.81	74.00	-26.19	150	36	Peak	
4874.000	52.21	-3.04	49.17	54.00	-4.83	137	276	Average	
4874.000	53.36	-3.04	50.32	74.00	-23.68	137	276	Peak	
7311.000	32.10	1.83	33.93	54.00	-20.07	168	201	Average	
7311.000	43.56	1.83	45.39	74.00	-28.61	168	201	Peak	
16436.000	31.26	11.86	43.12	54.00	-10.88	150	106	Average	
16436.000	44.23	11.86	56.09	74.00	-17.91	150	106	Peak	
16742.000	31.12	12.55	43.67	54.00	-10.33	150	172	Average	
16742.000	43.89	12.55	56.44	74.00	-17.56	150	172	Peak	
17796.000	32.34	13.41	45.75	54.00	-8.25	150	347	Average	
17796.000	43.74	13.41	57.15	74.00	-16.85	150	347	Peak	
High channel									
Horizontal					Vertical				
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark	
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		
2462.000	45.91	-10.25	35.66	54.00	-18.34	150	79	Average	
2462.000	50.46	-10.25	40.21	74.00	-33.79	150	79	Peak	
4924.000	54.11	-2.98	51.13	54.00	-2.87	132	281	Average	
4924.000	55.36	-2.98	52.38	74.00	-21.62	132	281	Peak	
7386.000	32.41	1.72	34.13	54.00	-19.87	147	222	Average	
7386.000	41.98	1.72	43.70	74.00	-30.30	147	222	Peak	
16368.000	31.28	11.42	42.70	54.00	-11.30	150	136	Average	
16368.000	44.42	11.42	55.84	74.00	-18.16	150	136	Peak	
16640.000	31.90	12.55	44.45	54.00	-9.55	150	198	Average	
16640.000	43.18	12.55	55.73	74.00	-18.27	150	198	Peak	
17796.000	32.49	13.41	45.90	54.00	-8.10	150	334	Average	
17796.000	43.93	13.41	57.34	74.00	-16.66	150	334	Peak	
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark	
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		
3074.000	45.47	-8.06	37.41	54.00	-16.59	150	48	Average	
3074.000	48.92	-8.06	40.86	74.00	-33.14	150	48	Peak	
4924.000	54.59	-2.98	51.61	54.00	-2.39	151	78	Average	
4924.000	55.44	-2.98	52.46	74.00	-21.54	151	78	Peak	
7386.000	30.72	1.72	32.44	54.00	-21.56	155	99	Average	
7386.000	42.26	1.72	43.98	74.00	-30.02	155	99	Peak	
16079.000	31.09	10.78	41.87	54.00	-12.13	150	134	Average	
16079.000	44.71	10.78	55.49	74.00	-18.51	150	134	Peak	
16623.000	31.54	12.54	44.08	54.00	-9.92	150	169	Average	
16623.000	43.85	12.54	56.39	74.00	-17.61	150	169	Peak	
17830.000	31.42	13.51	44.93	54.00	-9.07	150	258	Average	
17830.000	44.70	13.51	58.21	74.00	-15.79	150	258	Peak	

Note:

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11g Mode:

Low channel																	
Horizontal								Vertical									
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark	Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV		dBuV/m	dBuV/m	dB	(cm)	(°)		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2411.000	43.72	-10.52	33.20	54.00	-20.80	150	36	Average	3074.000	46.26	-8.06	38.20	54.00	-15.80	150	33	Average
2411.000	52.24	-10.52	41.72	74.00	-32.28	150	36	Peak	3074.000	49.36	-8.06	41.30	74.00	-32.70	150	33	Peak
4824.000	50.87	-3.13	47.74	54.00	-6.26	102	360	Average	4824.000	53.64	-3.13	50.51	54.00	-3.49	100	91	Average
4824.000	52.99	-3.13	49.86	74.00	-24.14	102	360	Peak	4824.000	55.00	-3.13	51.87	74.00	-22.13	100	91	Peak
7236.000	30.54	1.48	32.02	54.00	-21.98	158	226	Average	7236.000	30.80	1.48	32.28	54.00	-21.72	169	245	Average
7236.000	40.39	1.48	41.87	74.00	-32.13	158	226	Peak	7236.000	42.06	1.48	43.54	74.00	-30.46	169	245	Peak
16623.000	31.49	12.54	44.03	54.00	-9.97	150	98	Average	16793.000	31.10	12.39	43.49	54.00	-10.51	150	129	Average
16623.000	43.43	12.54	55.97	74.00	-18.03	150	98	Peak	16793.000	43.44	12.39	55.83	74.00	-18.17	150	129	Peak
17133.000	30.42	12.77	43.19	54.00	-10.81	150	126	Average	17184.000	29.67	12.88	42.55	54.00	-11.45	150	187	Average
17133.000	42.23	12.77	55.00	74.00	-19.00	150	126	Peak	17184.000	42.18	12.88	55.06	74.00	-18.94	150	187	Peak
17745.000	32.00	13.08	45.08	54.00	-8.92	150	185	Average	17779.000	32.34	13.28	45.62	54.00	-8.38	150	336	Average
17745.000	43.92	13.08	57.00	74.00	-17.00	150	185	Peak	17779.000	44.11	13.28	57.39	74.00	-16.61	150	336	Peak

Middle channel																	
Horizontal								Vertical									
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark	Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2428.000	42.32	-10.33	31.99	54.00	-22.01	150	16	Average	1986.000	42.47	-11.84	30.63	54.00	-23.37	150	330	Average
2428.000	51.91	-10.33	41.58	74.00	-32.42	150	16	Peak	1986.000	54.06	-11.84	42.22	74.00	-31.78	150	330	Peak
4874.000	51.46	-3.04	48.42	54.00	-5.58	129	280	Average	4874.000	52.49	-3.04	49.45	54.00	-4.55	139	76	Average
4874.000	53.40	-3.04	50.36	74.00	-23.64	129	280	Peak	4874.000	54.13	-3.04	51.09	74.00	-22.91	139	76	Peak
7311.000	31.06	1.83	32.89	54.00	-21.11	163	224	Average	7311.000	30.81	1.83	32.64	54.00	-21.36	177	206	Average
7311.000	42.23	1.83	44.06	74.00	-29.94	163	224	Peak	7311.000	42.10	1.83	43.93	74.00	-30.07	177	206	Peak
14447.000	30.02	11.21	41.23	54.00	-12.77	150	158	Average	16079.000	31.24	10.78	42.02	54.00	-11.98	150	269	Average
14447.000	43.98	11.21	55.19	74.00	-18.81	150	158	Peak	16079.000	44.52	10.78	55.30	74.00	-18.70	150	269	Peak
16623.000	31.66	12.54	44.20	54.00	-9.80	150	206	Average	16606.000	31.18	12.53	43.71	54.00	-10.29	150	157	Average
16623.000	43.77	12.54	56.31	74.00	-17.69	150	206	Peak	16606.000	44.31	12.53	56.84	74.00	-17.16	150	157	Peak
17762.000	32.28	13.17	45.45	54.00	-8.55	150	327	Average	17779.000	32.76	13.28	46.04	54.00	-7.96	150	88	Average
17762.000	44.66	13.17	57.83	74.00	-16.17	150	327	Peak	17779.000	43.78	13.28	57.06	74.00	-16.94	150	88	Peak

High channel																	
Horizontal								Vertical									
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark	Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2462.000	37.14	-10.25	26.89	54.00	-27.11	150	16	Average	3074.000	42.34	-8.06	34.28	54.00	-19.72	150	27	Average
2462.000	46.32	-10.25	36.07	74.00	-37.93	150	16	Peak	3074.000	46.56	-8.06	38.50	74.00	-35.50	150	27	Peak
4924.000	51.61	-2.98	48.63	54.00	-5.37	151	280	Average	4924.000	52.90	-2.98	49.92	54.00	-4.08	149	79	Average
4924.000	52.76	-2.98	49.78	74.00	-24.22	151	280	Peak	4924.000	55.04	-2.98	52.06	74.00	-21.94	149	79	Peak
7386.000	31.10	1.72	32.82	54.00	-21.18	122	245	Average	7386.000	30.86	1.72	32.58	54.00	-21.42	209	158	Average
7386.000	41.62	1.72	43.34	74.00	-30.66	122	245	Peak	7386.000	41.80	1.72	43.52	74.00	-30.48	209	158	Peak
16368.000	31.37	11.42	42.79	54.00	-11.21	150	79	Average	16640.000	31.75	12.55	44.30	54.00	-9.70	150	228	Average
16368.000	44.21	11.42	55.63	74.00	-18.37	150	79	Peak	16640.000	44.20	12.55	56.75	74.00	-17.25	150	228	Peak
16623.000	31.61	12.54	44.15	54.00	-9.85	150	126	Average	17133.000	30.06	12.77	42.83	54.00	-11.17	150	307	Average
16623.000	44.80	12.54	57.34	74.00	-16.66	150	126	Peak	17133.000	42.68	12.77	55.45	74.00	-18.55	150	307	Peak
17898.000	30.23	13.89	44.12	54.00	-9.88	150	336	Average	17796.000	32.19	13.41	45.60	54.00	-8.40	150	129	Average
17898.000	42.92	13.89	56.81	74.00	-17.19	150	336	Peak	17796.000	42.63	13.41	56.04	74.00	-17.96	150	129	Peak

Note:

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11n HT20 Mode:

Low channel																	
Horizontal									Vertical								
Freq. Reading Factor Level Limit Margin Height Degree Remark									Freq. Reading Factor Level Limit Margin Height Degree Remark								
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2411.000	43.33	-10.52	32.81	54.00	-21.19	150	39	Average	3074.000	47.77	-8.06	39.71	54.00	-14.29	150	33	Average
2411.000	52.53	-10.52	42.01	74.00	-31.99	150	39	Peak	3074.000	50.95	-8.06	42.89	74.00	-31.11	150	33	Peak
4824.000	52.23	-3.13	49.10	54.00	-4.90	109	275	Average	4824.000	52.80	-3.13	49.67	54.00	-4.33	160	122	Average
4824.000	54.98	-3.13	51.85	74.00	-22.15	109	275	Peak	4824.000	54.33	-3.13	51.20	74.00	-22.80	160	122	Peak
7236.000	30.75	1.48	32.23	54.00	-21.77	166	105	Average	7236.000	30.71	1.48	32.19	54.00	-21.81	147	169	Average
7236.000	41.69	1.48	43.17	74.00	-30.83	166	105	Peak	7236.000	40.27	1.48	41.75	74.00	-32.25	147	169	Peak
16317.000	31.85	11.26	43.11	54.00	-10.89	150	76	Average	15382.000	31.59	9.22	40.81	54.00	-13.19	150	247	Average
16317.000	44.63	11.26	55.89	74.00	-18.11	150	76	Peak	15382.000	44.91	9.22	54.13	74.00	-19.87	150	247	Peak
16759.000	31.32	12.50	43.82	54.00	-10.18	150	331	Average	16623.000	31.68	12.54	44.22	54.00	-9.78	150	315	Average
16759.000	43.51	12.50	56.01	74.00	-17.99	150	331	Peak	16623.000	43.40	12.54	55.94	74.00	-18.06	150	315	Peak
17779.000	32.63	13.28	45.91	54.00	-8.09	150	186	Average	17813.000	31.97	13.46	45.43	54.00	-8.57	150	96	Average
17779.000	43.57	13.28	56.85	74.00	-17.15	150	186	Peak	17813.000	43.56	13.46	57.02	74.00	-16.98	150	96	Peak

Middle channel																	
Horizontal									Vertical								
Freq. Reading Factor Level Limit Margin Height Degree Remark									Freq. Reading Factor Level Limit Margin Height Degree Remark								
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2428.000	42.85	-10.33	32.52	54.00	-21.48	150	36	Average	3312.000	31.78	-6.87	24.91	54.00	-29.09	150	77	Average
2428.000	52.13	-10.33	41.80	74.00	-32.20	150	36	Peak	3312.000	44.03	-6.87	37.16	74.00	-36.84	150	77	Peak
4874.000	51.21	-3.04	48.17	54.00	-5.83	121	281	Average	4874.000	48.58	-3.04	45.54	54.00	-8.46	151	331	Average
4874.000	52.71	-3.04	49.67	74.00	-24.33	121	281	Peak	4874.000	49.93	-3.04	46.89	74.00	-27.11	151	331	Peak
7311.000	30.73	1.83	32.56	54.00	-21.44	130	185	Average	7311.000	30.79	1.83	32.62	54.00	-21.38	169	228	Average
7311.000	42.46	1.83	44.29	74.00	-29.71	130	185	Peak	7311.000	43.17	1.83	45.00	74.00	-29.00	169	228	Peak
16623.000	31.70	12.54	44.24	54.00	-9.76	150	126	Average	16640.000	31.68	12.55	44.23	54.00	-9.77	150	156	Average
16623.000	43.04	12.54	55.58	74.00	-18.42	150	126	Peak	16640.000	42.99	12.55	55.54	74.00	-18.46	150	156	Peak
17269.000	29.88	12.92	42.80	54.00	-11.20	150	332	Average	17303.000	30.07	12.86	42.93	54.00	-11.07	150	20	Average
17269.000	42.66	12.92	55.58	74.00	-18.42	150	332	Peak	17303.000	43.22	12.86	56.08	74.00	-17.92	150	20	Peak
17762.000	32.48	13.17	45.65	54.00	-8.35	150	46	Average	17796.000	31.82	13.41	45.23	54.00	-8.77	150	258	Average
17762.000	45.27	13.17	58.44	74.00	-15.56	150	46	Peak	17796.000	42.79	13.41	56.20	74.00	-17.80	150	258	Peak

High channel																	
Horizontal									Vertical								
Freq. Reading Factor Level Limit Margin Height Degree Remark									Freq. Reading Factor Level Limit Margin Height Degree Remark								
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2445.000	36.65	-10.35	26.30	54.00	-27.70	150	27	Average	4247.000	31.70	-5.10	26.60	54.00	-27.40	150	88	Average
2445.000	47.24	-10.35	36.89	74.00	-37.11	150	27	Peak	4247.000	45.01	-5.10	39.91	74.00	-34.09	150	88	Peak
4924.000	51.67	-2.98	48.69	54.00	-5.31	174	279	Average	4924.000	52.79	-2.98	49.81	54.00	-4.19	151	77	Average
4924.000	53.21	-2.98	50.23	74.00	-23.77	174	279	Peak	4924.000	54.11	-2.98	51.13	74.00	-22.87	151	77	Peak
7386.000	30.98	1.72	32.70	54.00	-21.30	128	226	Average	7386.000	30.88	1.72	32.60	54.00	-21.40	172	144	Average
7386.000	41.53	1.72	43.25	74.00	-30.75	128	226	Peak	7386.000	41.64	1.72	43.36	74.00	-30.64	172	144	Peak
15994.000	31.65	10.15	41.80	54.00	-12.20	150	169	Average	16402.000	31.37	11.61	42.98	54.00	-11.02	150	126	Average
15994.000	44.16	10.15	54.31	74.00	-19.69	150	169	Peak	16402.000	43.43	11.61	55.04	74.00	-18.96	150	126	Peak
16555.000	30.75	12.51	43.26	54.00	-10.74	150	187	Average	16589.000	30.91	12.52	43.43	54.00	-10.57	150	258	Average
16555.000	43.17	12.51	55.68	74.00	-18.32	150	187	Peak	16589.000	43.29	12.52	55.81	74.00	-18.19	150	258	Peak
17745.000	32.02	13.08	45.10	54.00	-8.90	150	327	Average	17762.000	32.14	13.17	45.31	54.00	-8.69	150	334	Average
17745.000	43.93	13.08	57.01	74.00	-16.99	150	327	Peak	17762.000	43.68	13.17	56.85	74.00	-17.15	150	334	Peak

Note:

Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

802.11n HT40 Mode:

Low channel																	
Horizontal									Vertical								
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark	Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2428.000	41.28	-10.33	30.95	54.00	-23.05	150	74	Average	3074.000	46.99	-8.06	38.93	54.00	-15.07	150	33	Average
2428.000	52.19	-10.33	41.86	74.00	-32.14	150	74	Peak	3074.000	49.86	-8.06	41.80	74.00	-32.20	150	33	Peak
4844.000	51.94	-3.08	48.86	54.00	-5.14	118	279	Average	4844.000	52.84	-3.08	49.76	54.00	-4.24	269	76	Average
4844.000	54.01	-3.08	50.93	74.00	-23.07	118	279	Peak	4844.000	53.59	-3.08	50.51	74.00	-23.49	269	76	Peak
7266.000	30.75	1.63	32.38	54.00	-21.62	168	254	Average	7266.000	31.05	1.63	32.68	54.00	-21.32	181	156	Average
7266.000	43.42	1.63	45.05	74.00	-28.95	168	254	Peak	7266.000	43.18	1.63	44.81	74.00	-29.19	181	156	Peak
16113.000	30.97	10.92	41.89	54.00	-12.11	150	136	Average	16045.000	31.46	10.59	42.05	54.00	-11.95	150	87	Average
16113.000	44.38	10.92	55.30	74.00	-18.70	150	136	Peak	16045.000	43.99	10.59	54.58	74.00	-19.42	150	87	Peak
16742.000	30.87	12.55	43.42	54.00	-10.58	150	334	Average	16640.000	32.31	12.55	44.86	54.00	-9.14	150	267	Average
16742.000	44.77	12.55	57.32	74.00	-16.68	150	334	Peak	16640.000	43.52	12.55	56.07	74.00	-17.93	150	267	Peak
17762.000	32.30	13.17	45.47	54.00	-8.53	150	50	Average	17813.000	32.53	13.46	45.99	54.00	-8.01	150	314	Average
17762.000	45.21	13.17	58.38	74.00	-15.62	150	50	Peak	17813.000	43.88	13.46	57.34	74.00	-16.66	150	314	Peak

Middle channel																	
Horizontal									Vertical								
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark	Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2411.000	40.19	-10.52	29.67	54.00	-24.33	150	77	Average	1833.000	33.61	-13.41	20.20	54.00	-33.80	150	306	Average
2411.000	50.29	-10.52	39.77	74.00	-34.23	150	77	Peak	1833.000	54.29	-13.41	40.88	74.00	-33.12	150	306	Peak
4874.000	51.81	-3.04	48.77	54.00	-5.23	124	280	Average	4874.000	54.03	-3.04	50.99	54.00	-3.01	266	75	Average
4874.000	53.45	-3.04	50.41	74.00	-23.59	124	280	Peak	4874.000	55.53	-3.04	52.49	74.00	-21.51	266	75	Peak
7311.000	31.10	1.83	32.93	54.00	-21.07	163	234	Average	7311.000	31.18	1.83	33.01	54.00	-20.99	168	177	Average
7311.000	43.41	1.83	45.24	74.00	-28.76	163	234	Peak	7311.000	41.53	1.83	43.36	74.00	-30.64	168	177	Peak
16742.000	30.71	12.55	43.26	54.00	-10.74	150	135	Average	16674.000	31.29	12.58	43.87	54.00	-10.13	150	208	Average
16742.000	43.32	12.55	55.87	74.00	-18.13	150	135	Peak	16674.000	43.63	12.58	56.21	74.00	-17.79	150	208	Peak
17252.000	29.93	12.94	42.87	54.00	-11.13	150	169	Average	17303.000	29.73	12.86	42.59	54.00	-11.41	150	127	Average
17252.000	42.94	12.94	55.88	74.00	-18.12	150	169	Peak	17303.000	42.80	12.86	55.66	74.00	-18.34	150	127	Peak
17762.000	32.72	13.17	45.89	54.00	-8.11	150	308	Average	17796.000	32.56	13.41	45.97	54.00	-8.03	150	269	Average
17762.000	45.52	13.17	58.69	74.00	-15.31	150	308	Peak	17796.000	43.80	13.41	57.21	74.00	-16.79	150	269	Peak

High channel																	
Horizontal									Vertical								
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark	Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2428.000	38.21	-10.33	27.88	54.00	-26.12	150	78	Average	3074.000	48.42	-8.06	40.36	54.00	-13.64	150	321	Average
2428.000	48.28	-10.33	37.95	74.00	-36.05	150	78	Peak	3074.000	51.20	-8.06	43.14	74.00	-30.86	150	321	Peak
4904.000	51.75	-3.01	48.74	54.00	-5.26	154	279	Average	4904.000	52.88	-3.01	49.87	54.00	-4.13	149	118	Average
4904.000	52.89	-3.01	49.88	74.00	-24.12	154	279	Peak	4904.000	54.71	-3.01	51.70	74.00	-22.30	149	118	Peak
7356.000	31.13	1.76	32.89	54.00	-21.11	163	222	Average	7356.000	30.75	1.76	32.51	54.00	-21.49	160	223	Average
7356.000	41.89	1.76	43.65	74.00	-30.35	163	222	Peak	7356.000	42.07	1.76	43.83	74.00	-30.17	160	223	Peak
16776.000	30.85	12.45	43.30	54.00	-10.70	150	129	Average	15773.000	32.24	9.50	41.74	54.00	-12.26	150	29	Average
16776.000	44.24	12.45	56.69	74.00	-17.31	150	129	Peak	15773.000	45.44	9.50	54.94	74.00	-19.06	150	29	Peak
17286.000	30.19	12.91	43.10	54.00	-10.90	150	197	Average	16640.000	32.06	12.55	44.61	54.00	-9.39	150	88	Average
17286.000	42.41	12.91	55.32	74.00	-18.68	150	197	Peak	16640.000	43.68	12.55	56.23	74.00	-17.77	150	88	Peak
17813.000	32.76	13.46	46.22	54.00	-7.78	150	335	Average	17813.000	32.21	13.46	45.67	54.00	-8.33	150	156	Average
17813.000	44.03	13.46	57.49	74.00	-16.51	150	335	Peak	17813.000	43.53	13.46	56.99	74.00	-17.01	150	156	Peak

Note:

Level = Reading + Factor.

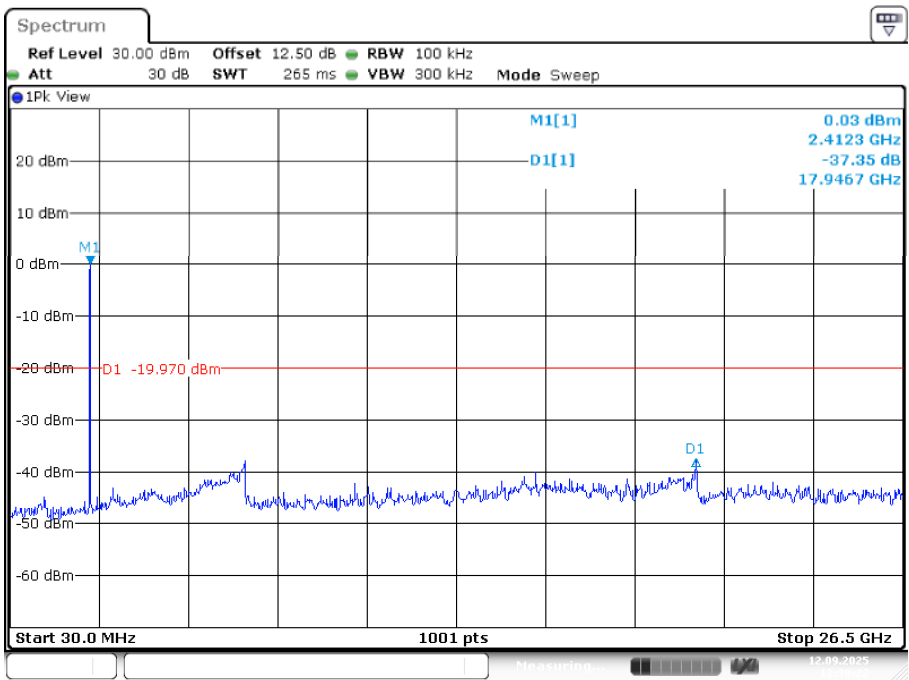
Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

Conducted Spurious Emissions:

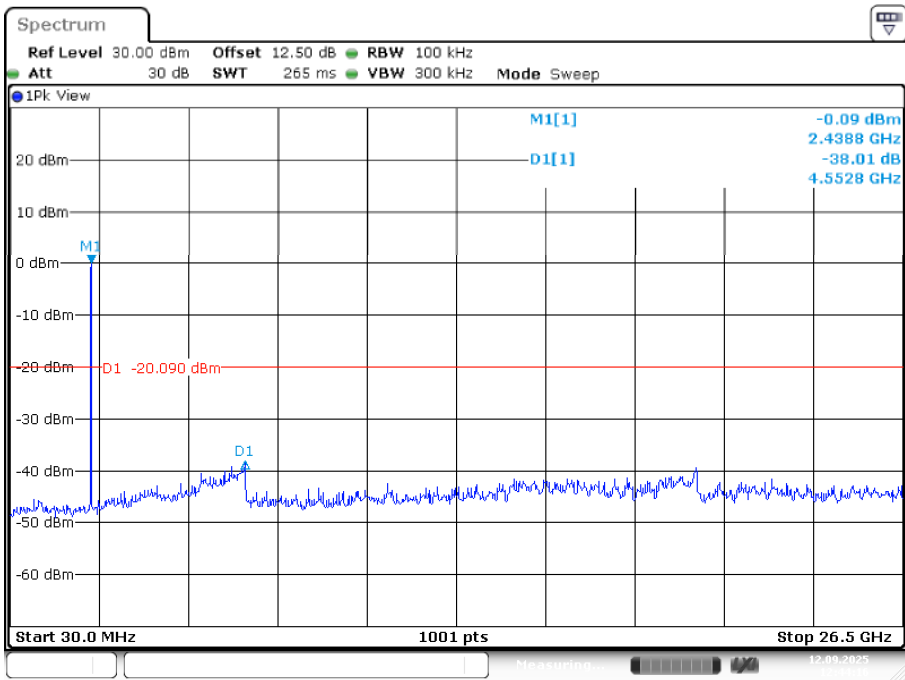
Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
B Mode				
Low	2412	37.35	≥ 20	PASS
Mid	2437	38.01	≥ 20	PASS
High	2462	38.71	≥ 20	PASS
G Mode				
Low	2412	31.32	≥ 20	PASS
Mid	2437	30.70	≥ 20	PASS
High	2462	31.12	≥ 20	PASS
N20 Mode				
Low	2412	30.54	≥ 20	PASS
Mid	2437	30.75	≥ 20	PASS
High	2462	30.65	≥ 20	PASS
N40 Mode				
Low	2422	25.99	≥ 20	PASS
Mid	2437	27.50	≥ 20	PASS
High	2452	27.25	≥ 20	PASS

B Mode
Low Channel



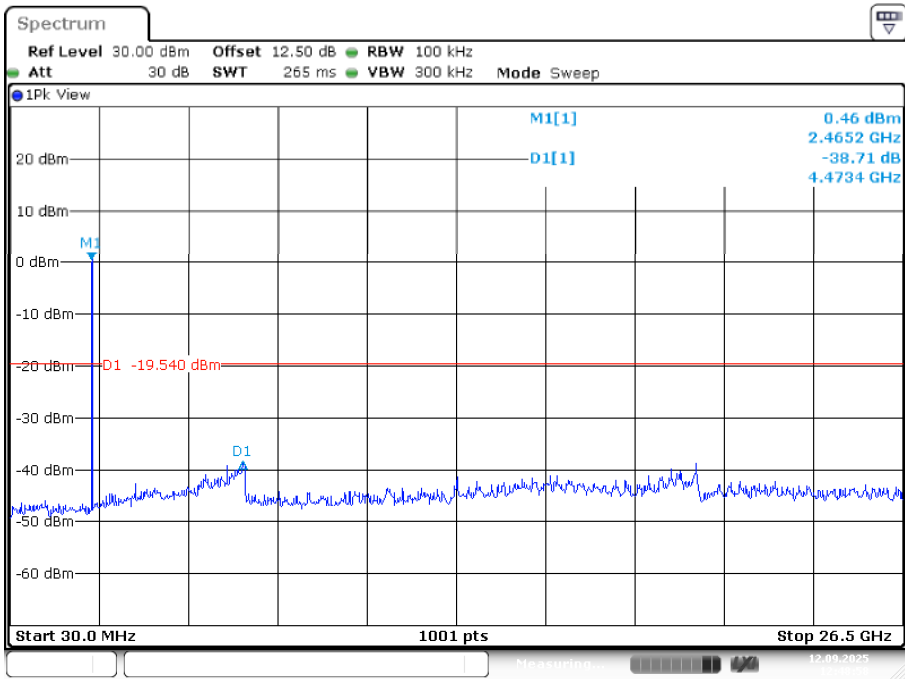
ProjectNo.: RXZ250821063 Tester:Jet
Date: 12.SEP.2025 12:38:22

Middle Channel



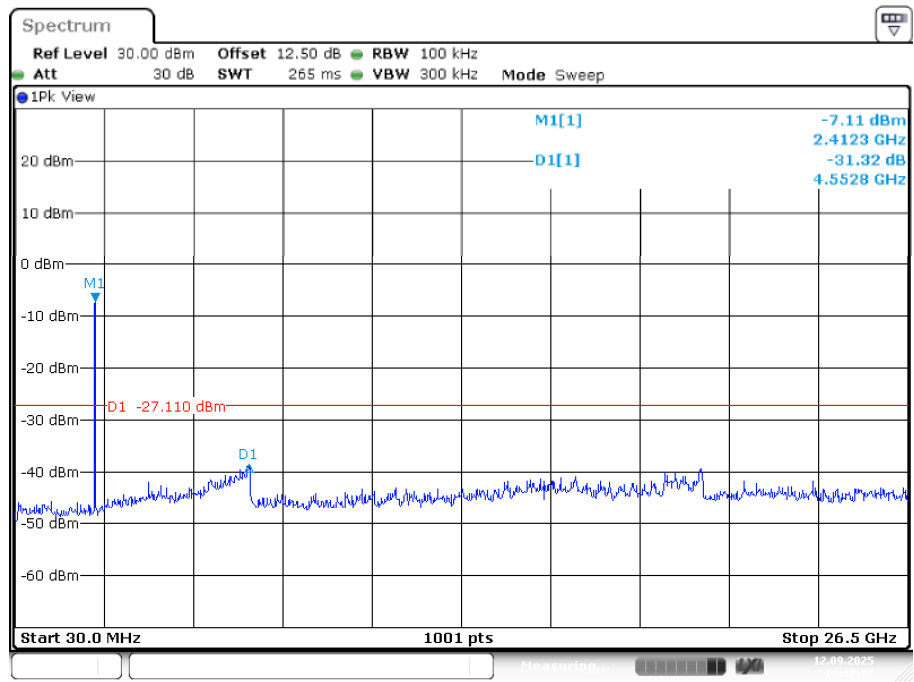
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High Channel



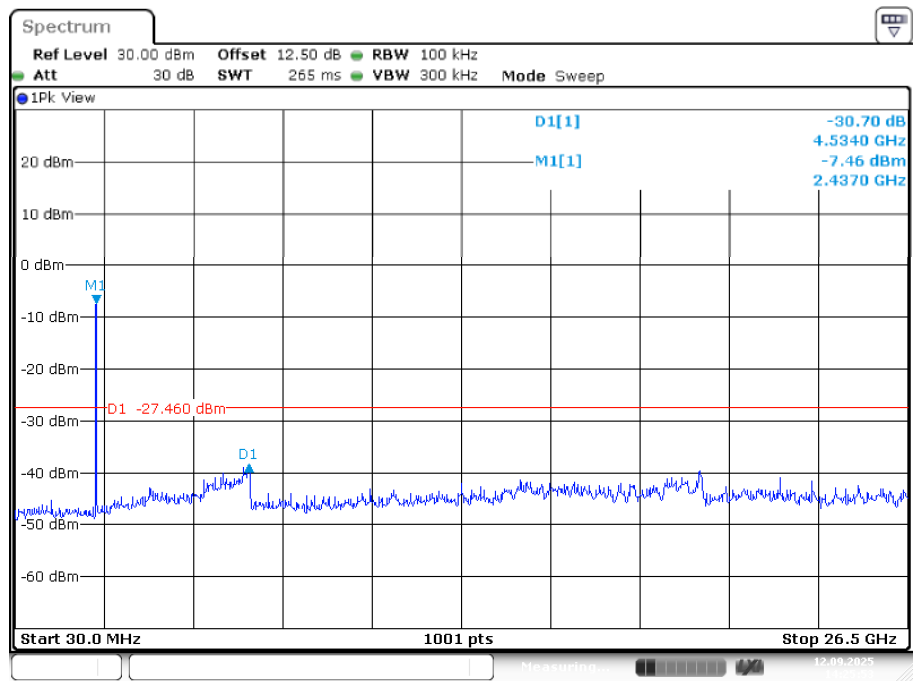
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Date: 12.SEP.2025 12:48:58

G Mode
Low Channel



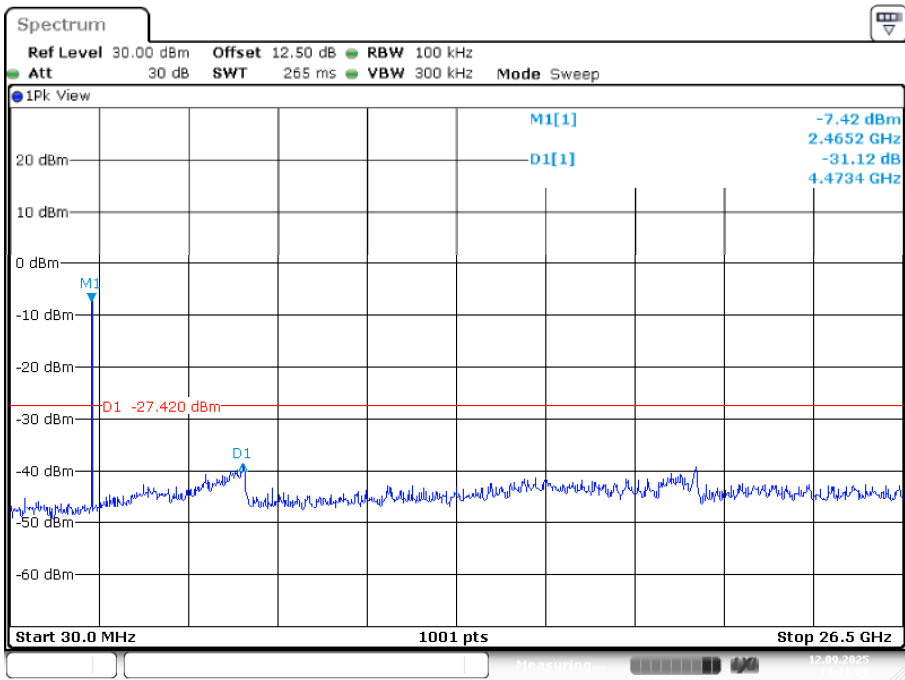
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Date: 12.SEP.2025 14:12:07

Middle Channel



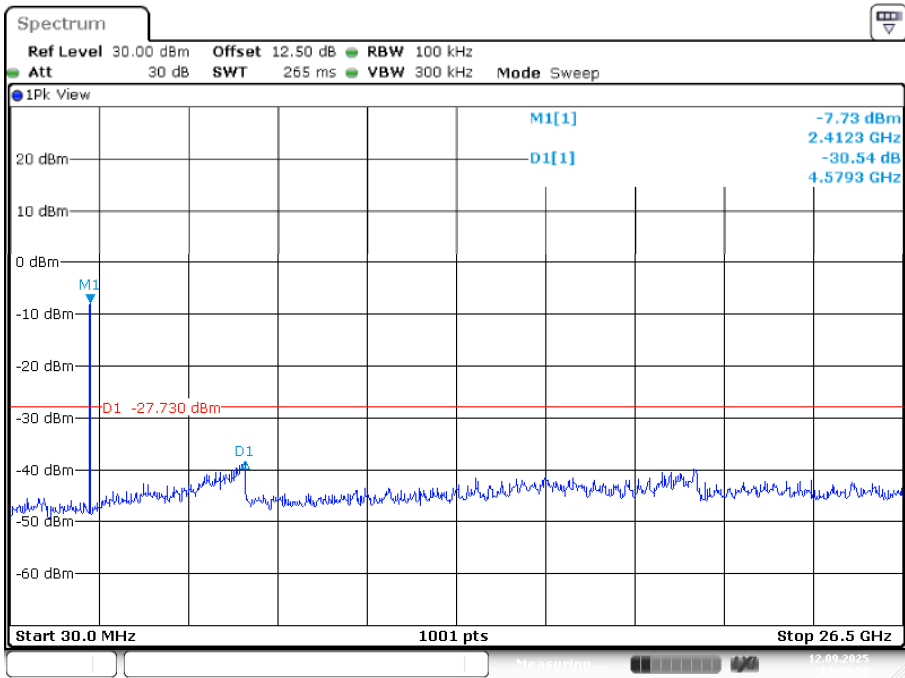
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Date: 12.SEP.2025 14:25:53

High Channel



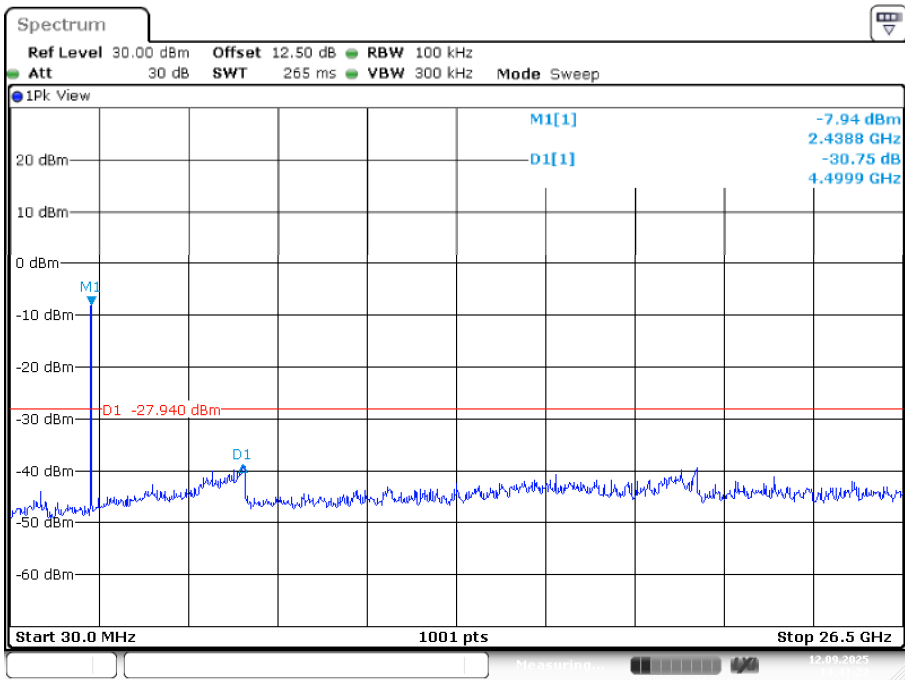
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:31:29

N20 Mode
Low Channel



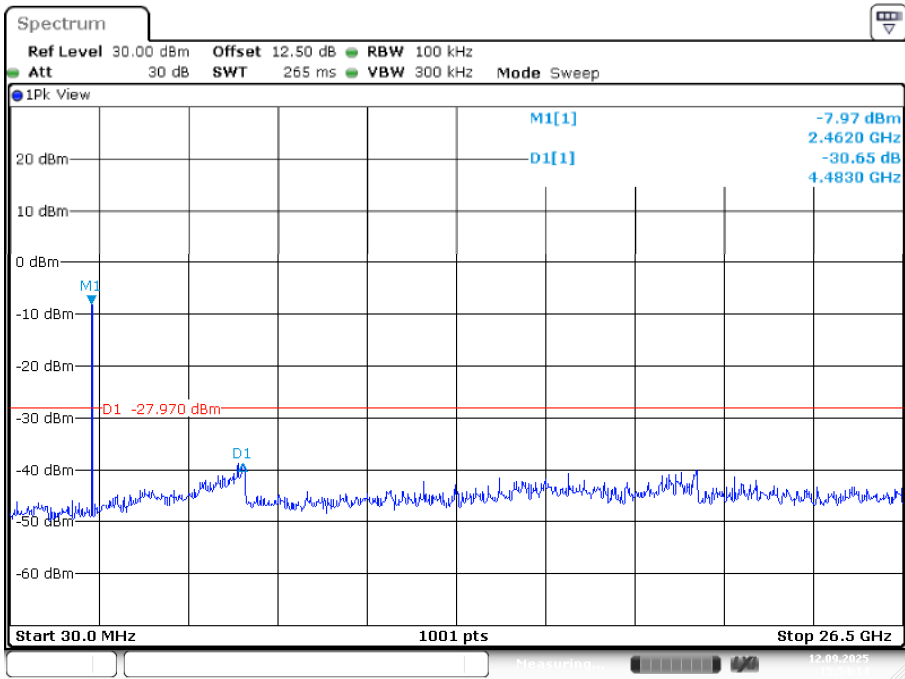
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:39:50

Middle Channel



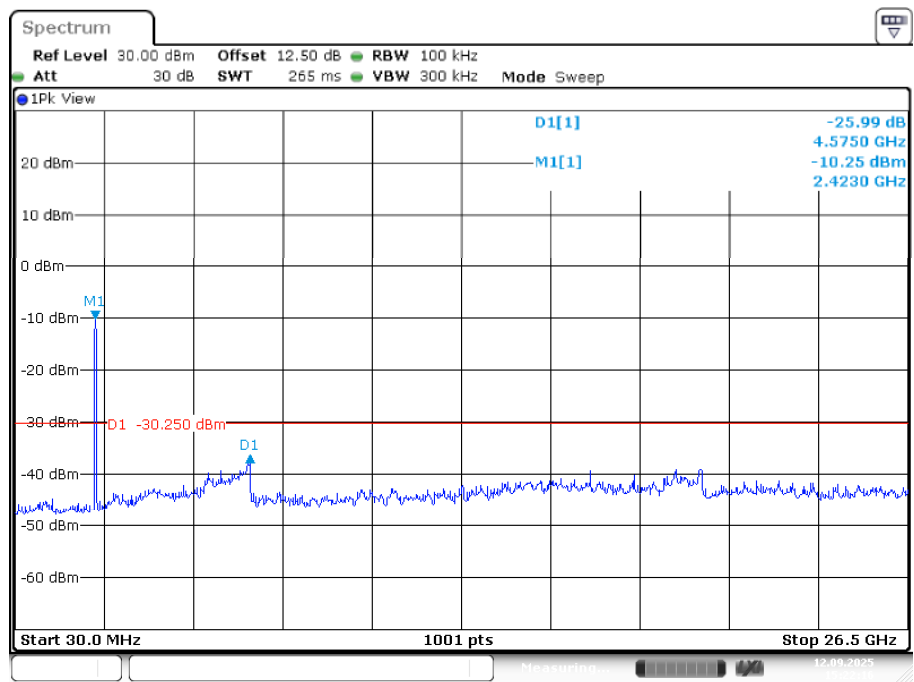
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:43:21

High Channel



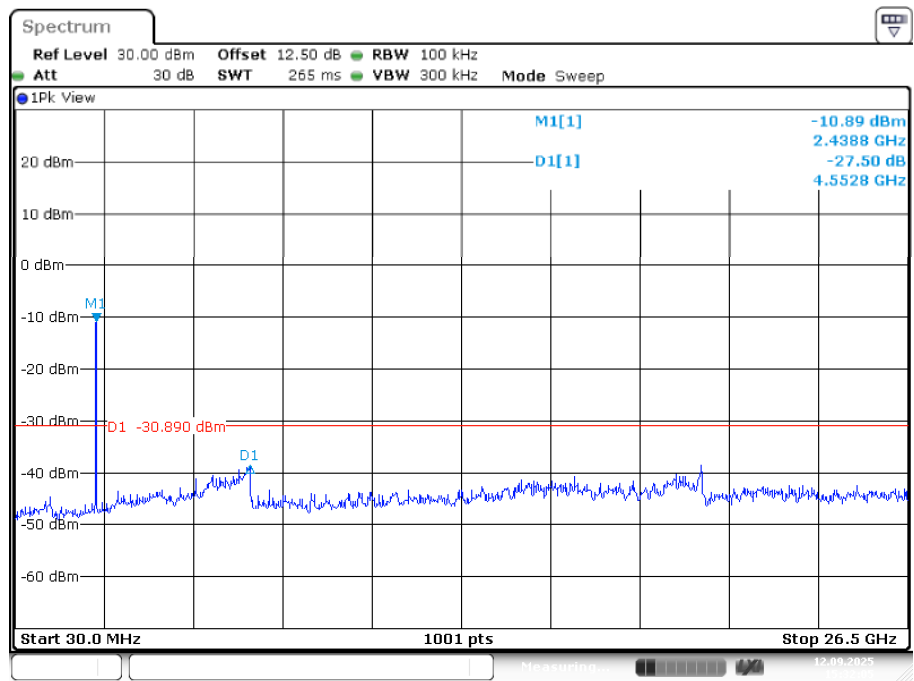
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:54:15

N40 Mode
Low Channel



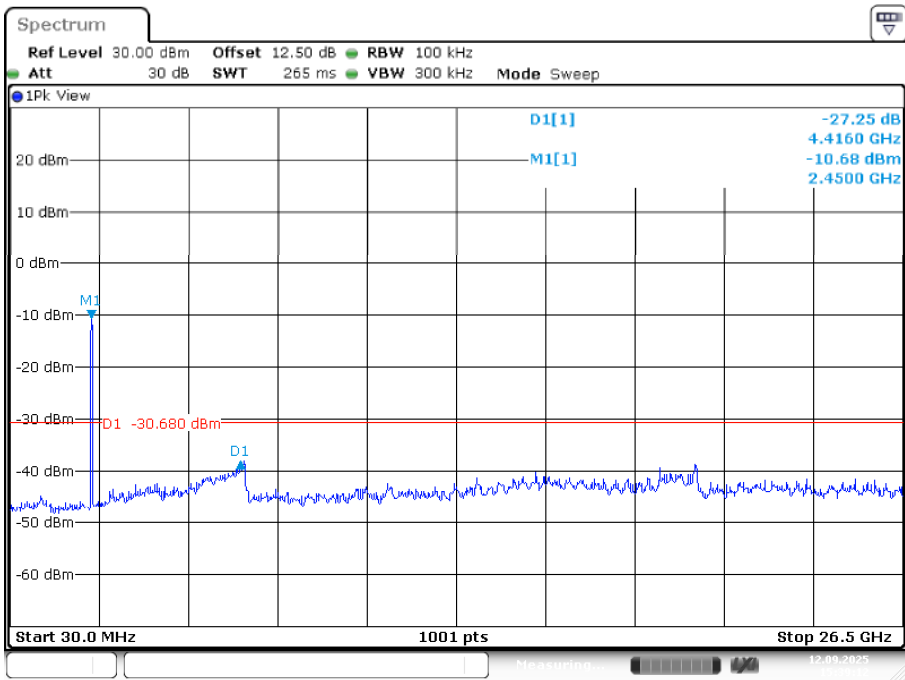
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:22:16

Middle Channel



ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:32:05

High Channel



ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:39:12

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

According to ANSI C63.10-2020, section 11.8.1

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 $\geq [3 \times \text{RBW}]$.
- 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.

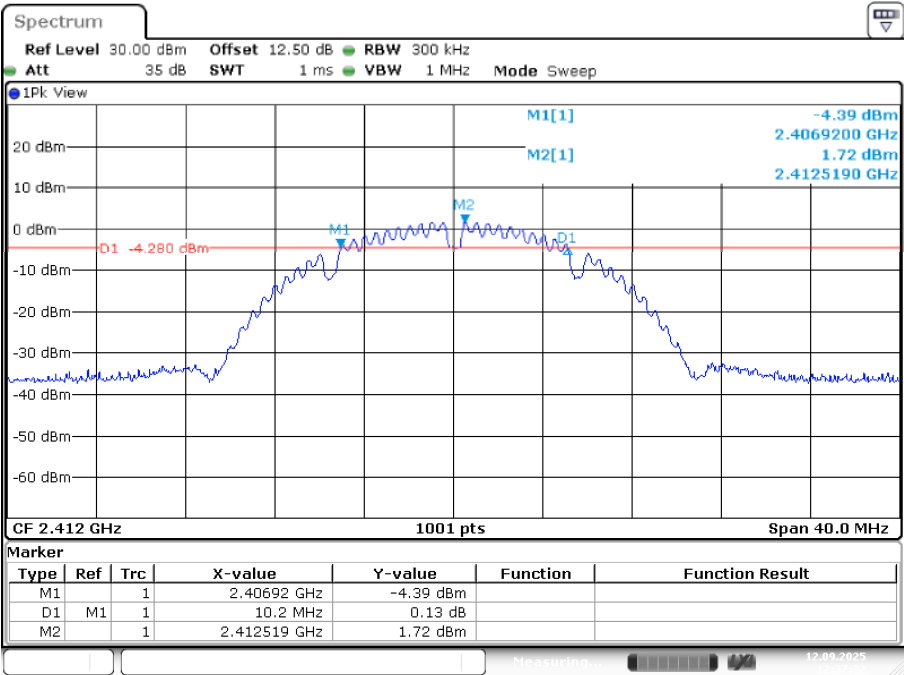
8.3 Test Results

Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	Limit (kHz)	Result
B Mode				
Low	2412	10.20	> 500	PASS
Middle	2437	10.20	> 500	PASS
High	2462	10.20	> 500	PASS
G Mode				
Low	2412	16.64	> 500	PASS
Middle	2437	16.64	> 500	PASS
High	2462	16.64	> 500	PASS
N20 Mode				
Low	2412	17.68	> 500	PASS
Middle	2437	17.68	> 500	PASS
High	2462	17.68	> 500	PASS
N40 Mode				
Low	2422	36.08	> 500	PASS
Middle	2437	36.08	> 500	PASS
High	2452	36.08	> 500	PASS

Please refer to the following plots

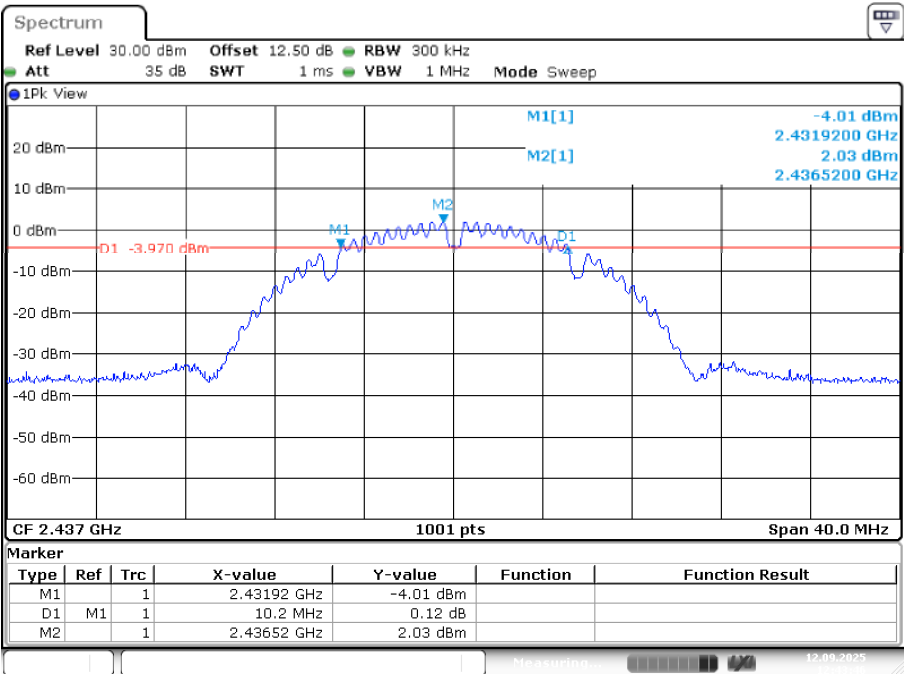
6 dB Emission Bandwidth

B Mode
Low Channel



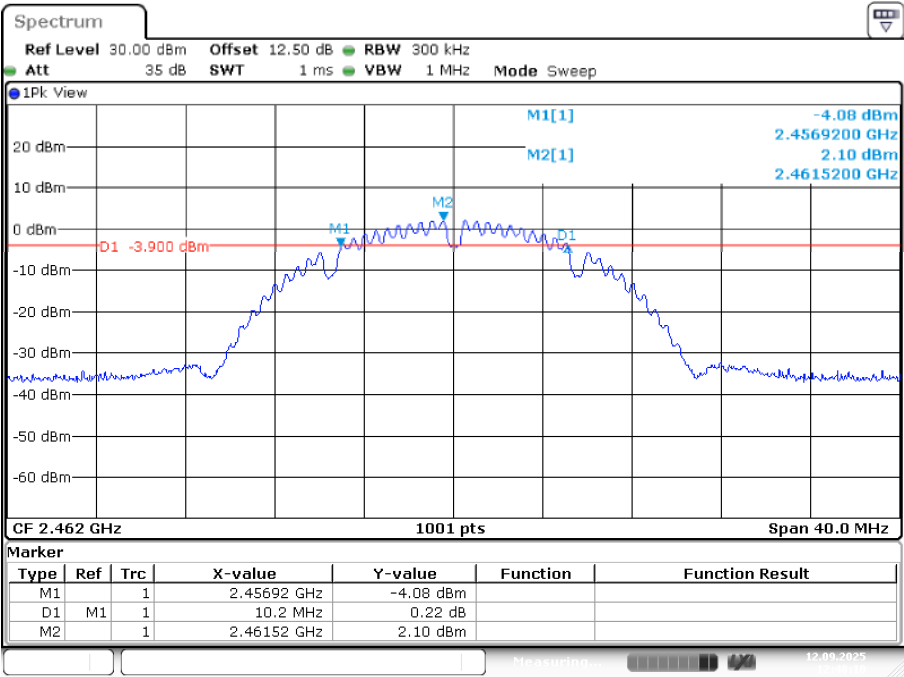
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 12:37:33

Middle Channel



ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 12:43:47

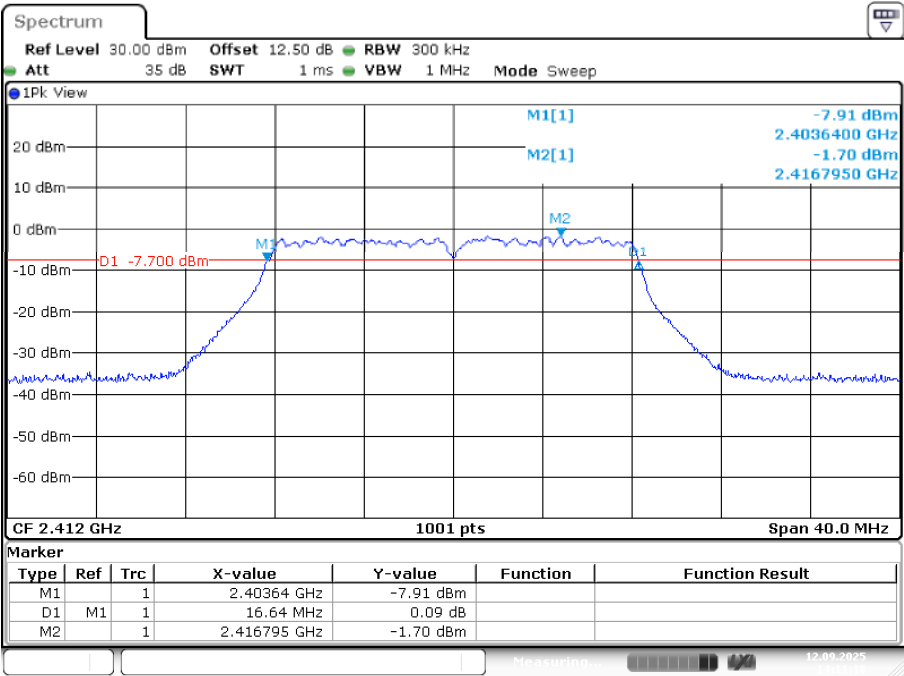
High Channel



ProjectNo.:RXZ250821063 Tester:Jet

Date: 12.SEP.2025 12:48:10

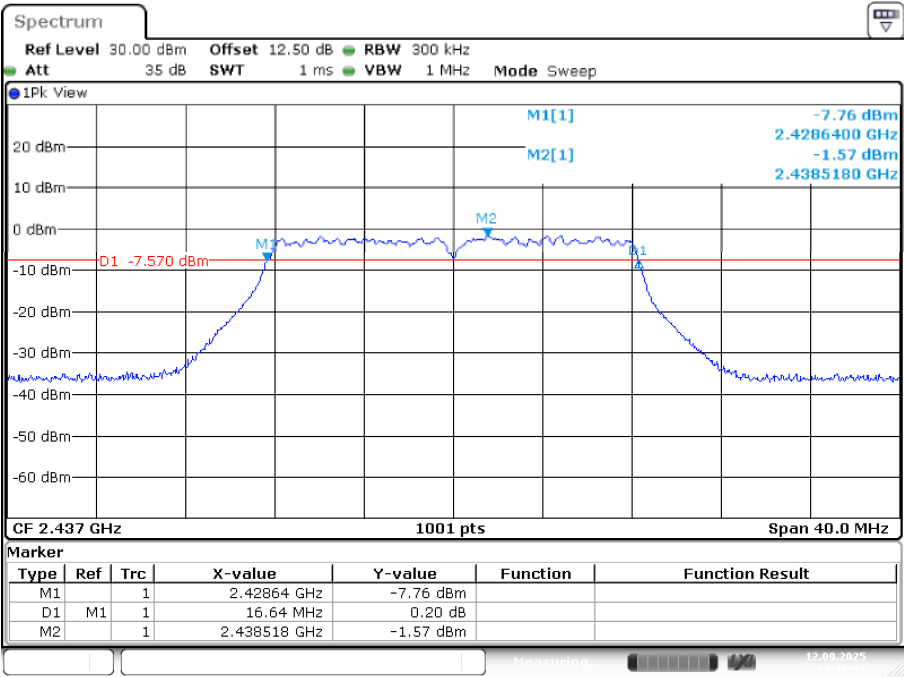
G Mode
Low Channel



ProjectNo.:RXZ250821063 Tester:Jet

Date: 12.SEP.2025 14:11:18

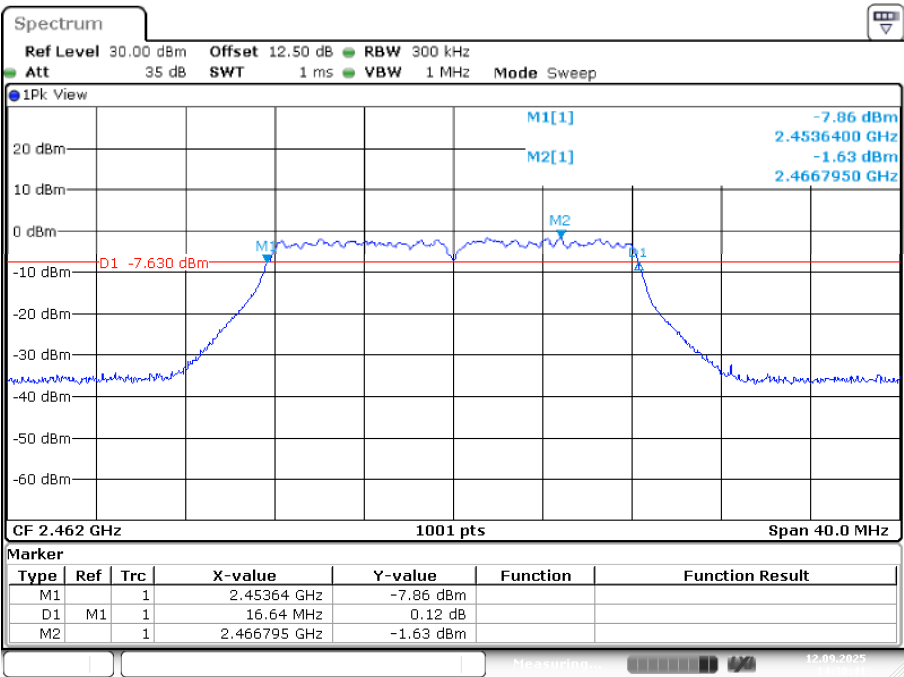
Middle Channel



ProjectNo.:RXZ250821063 Tester:Jet

Date: 12.SEP.2025 14:15:11

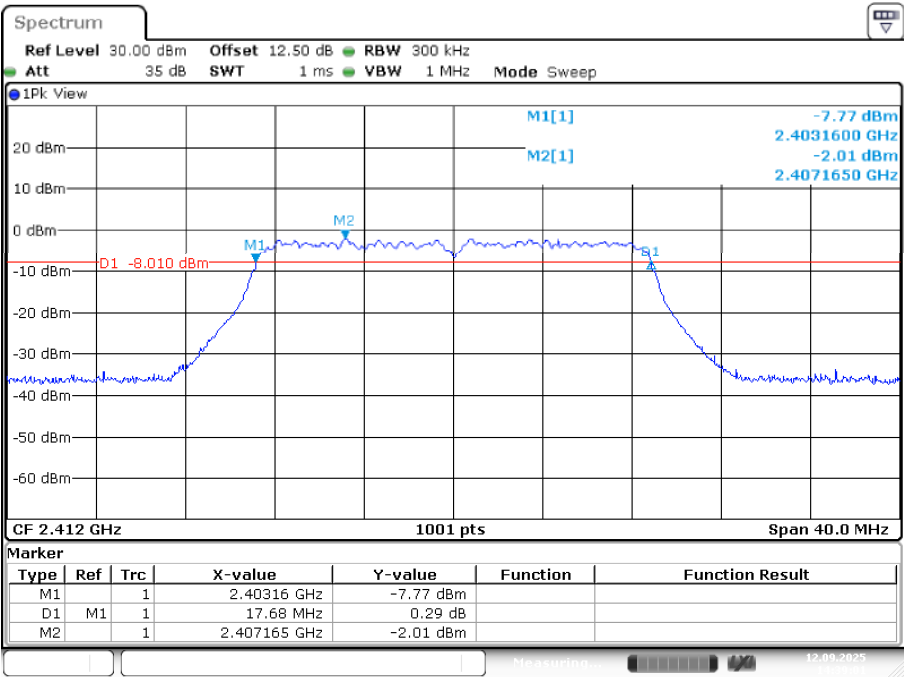
High Channel



ProjectNo.:RXZ250821063 Tester:Jet

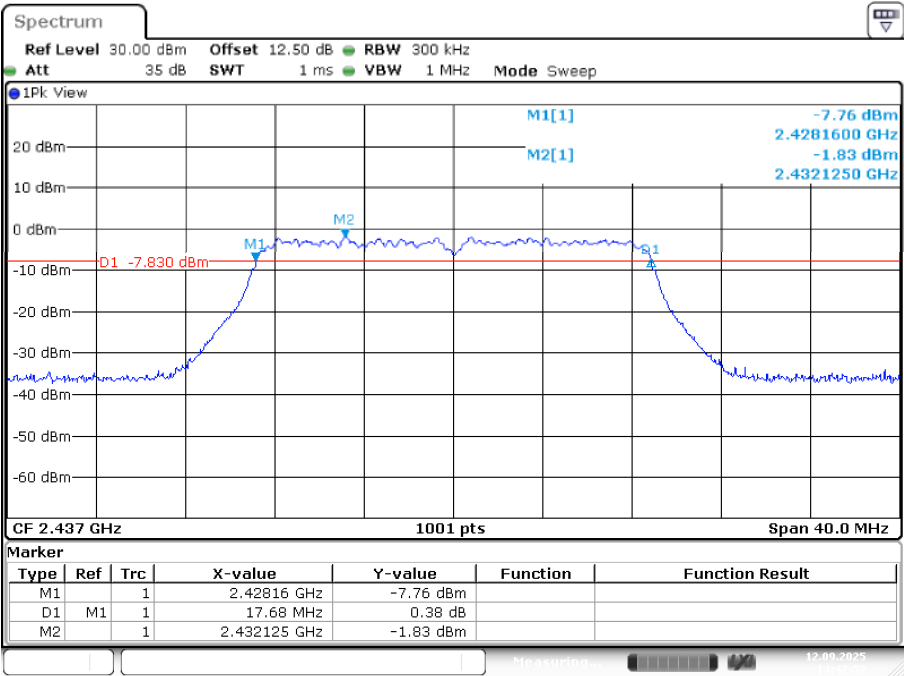
Date: 12.SEP.2025 14:30:41

N20 Mode
Low Channel



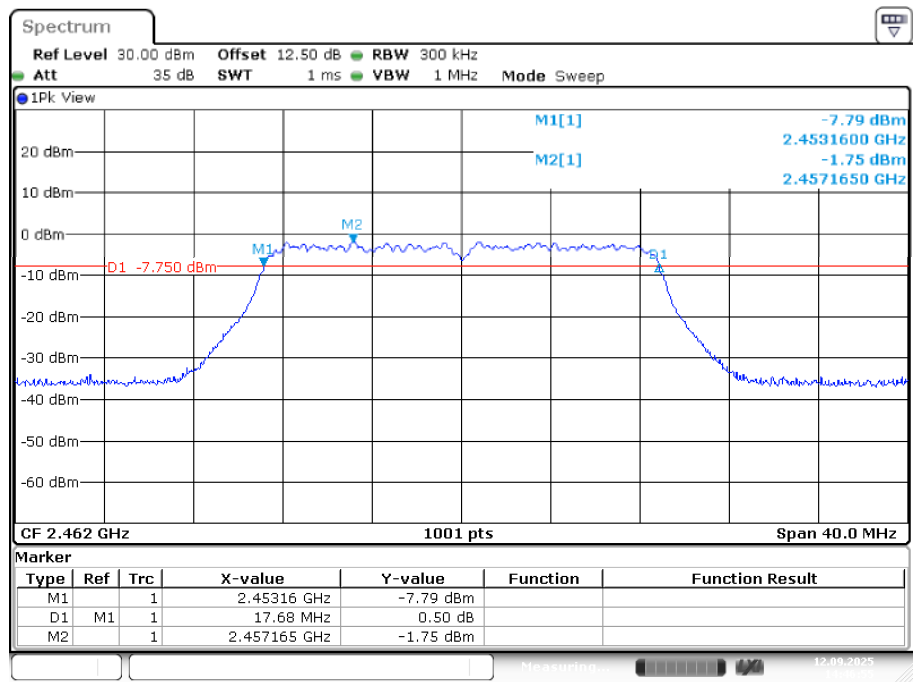
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:39:01

Middle Channel



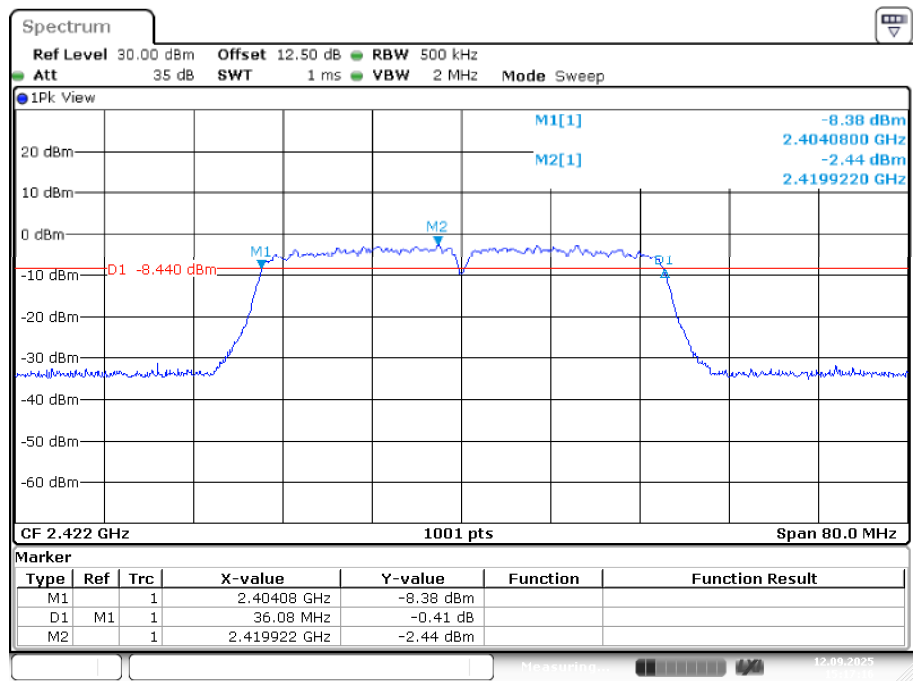
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Date: 12.SEP.2025 14:42:53

High Channel



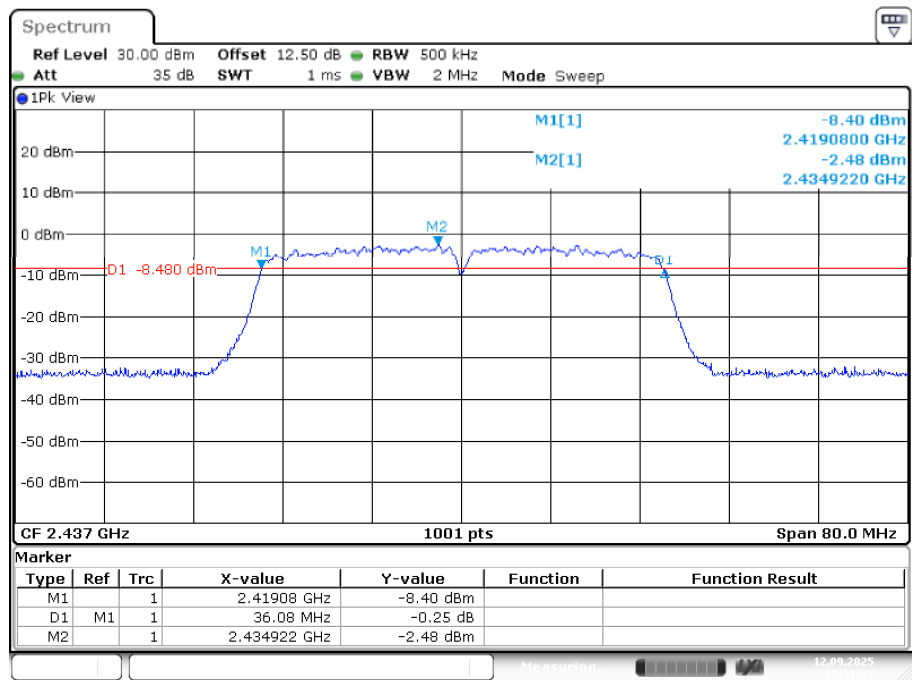
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Date: 12.SEP.2025 14:46:56

N40 Mode
Low Channel



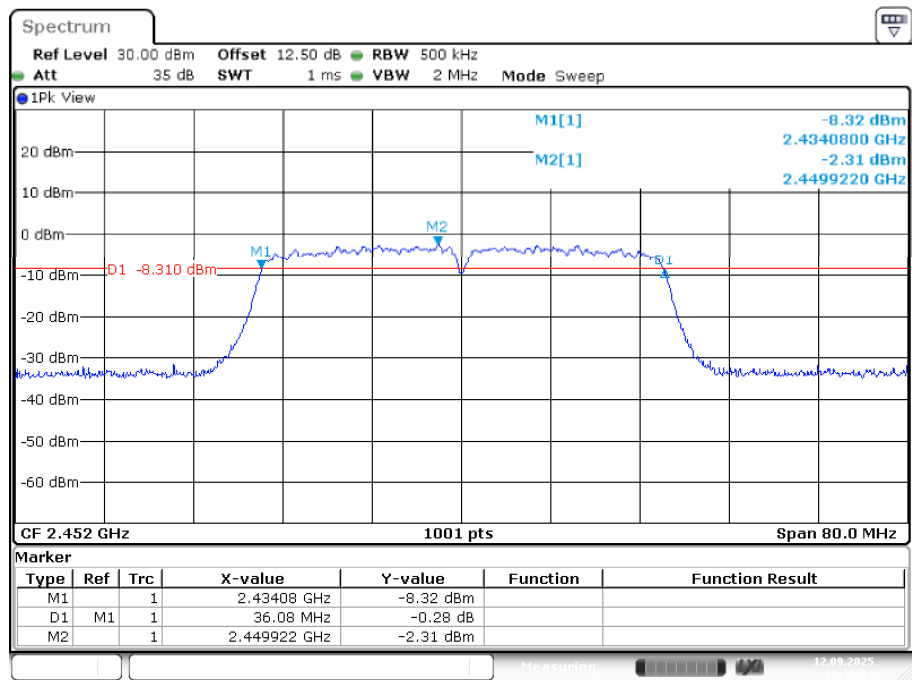
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:17:16

Middle Channel



ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:31:36

High Channel



ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:35:52

9 FCC §15.247(b)(3) & RSS-247 §5.4(d) – Maximum Output Power

9.1 Applicable Standard

According to FCC §15.247(b) (3).

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.

9.2 Test Procedure

According to ANSI C63.10-2020, section 11.9.1.2

According to ANSI C63.10-2020, 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.

9.3 Test Results

Conducted Peak Output Power

Channel	Frequency (MHz)	Conducted Peak Output Power (dBm)	Limit (dBm)
802.11b Mode			
Low	2412	12.97	30
Middle	2437	13.08	30
High	2462	13.16	30
802.11g Mode			
Low	2412	17.06	30
Middle	2437	17.04	30
High	2462	17.07	30
802.11n HT20 Mode			
Low	2412	16.63	30
Middle	2437	16.64	30
High	2462	16.63	30
802.11n HT40 Mode			
Low	2422	16.45	30
Middle	2437	16.48	30
High	2452	16.46	30

Conducted Average Output Power

Channel	Frequency (MHz)	Conducted Average Output Power (dBm)	Total Maximum Conducted Average Output Power With Duty Factor (dBm)	Limit (dBm)
802.11b Mode				
Low	2412	10.45	10.45	30
Middle	2437	10.56	10.56	30
High	2462	10.61	10.61	30
802.11g Mode				
Low	2412	7.41	7.41	30
Middle	2437	7.48	7.48	30
High	2462	7.53	7.53	30
802.11n HT20 Mode				
Low	2412	7.39	7.39	30
Middle	2437	7.50	7.50	30
High	2462	7.53	7.53	30
802.11n HT40 Mode				
Low	2422	6.92	6.92	30
Middle	2437	6.96	6.96	30
High	2452	6.98	6.98	30

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

10.1 Applicable Standard

According to 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)).

10.2 Test Procedure

According to ANSI C63.10-2020 Section 11.11.3

1. Set the center frequency and span to encompass frequency range to be measured.
2. Set the RBW = 100 kHz.
3. Set the VBW $\geq [3 \times \text{RBW}]$.
4. Detector = peak.
5. Sweep time = No faster than coupled (auto) time
6. Trace mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the maximum amplitude level.

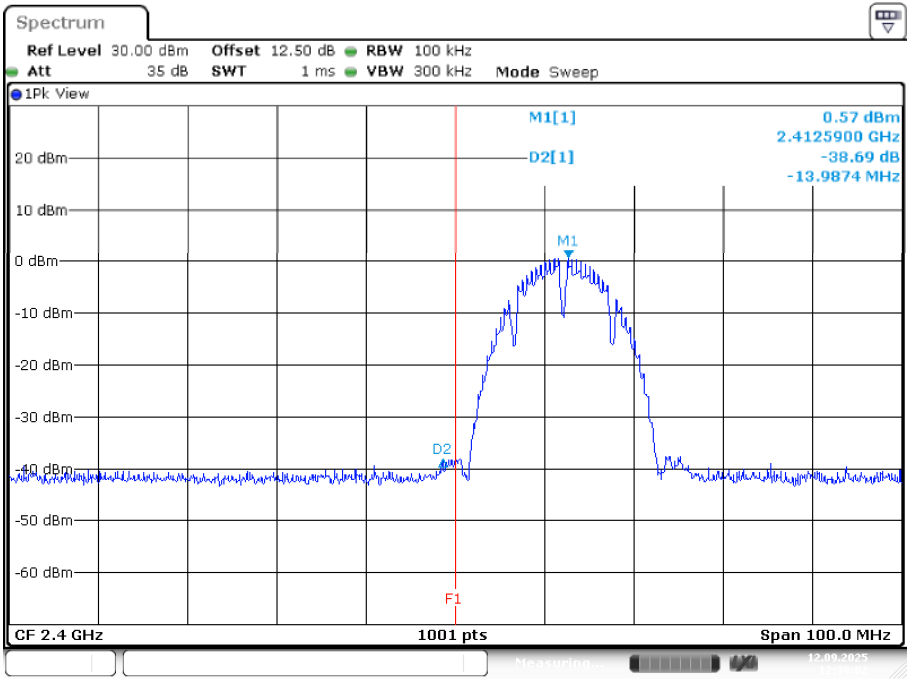
Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

10.3 Test Results

Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
B Mode				
Low	2412	38.69	≥ 20	PASS
High	2462	40.13	≥ 20	PASS
G Mode				
Low	2412	32.07	≥ 20	PASS
High	2462	31.81	≥ 20	PASS
N20 Mode				
Low	2412	31.84	≥ 20	PASS
High	2462	32.28	≥ 20	PASS
N40 Mode				
Low	2422	29.48	≥ 20	PASS
High	2452	29.10	≥ 20	PASS

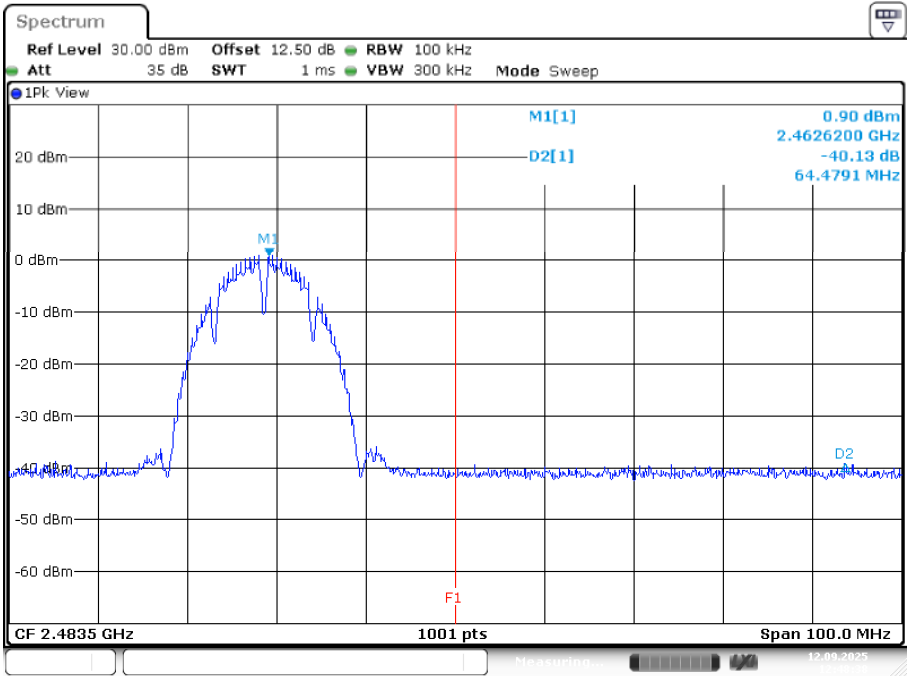
Please refer to the following plots

B Mode
Band Edge, Left Side



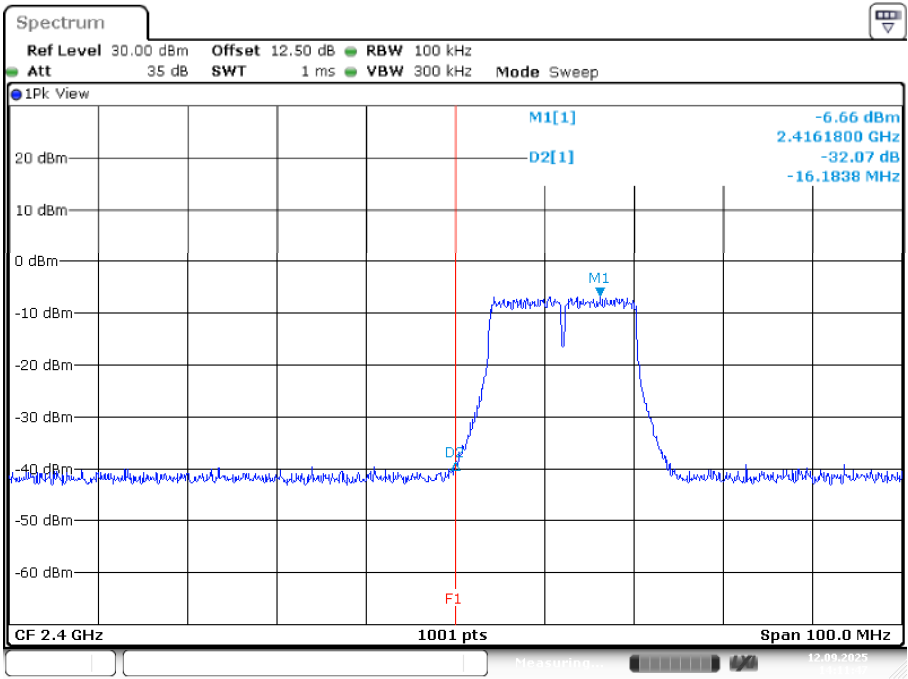
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 12:38:02

Band Edge, Right Side



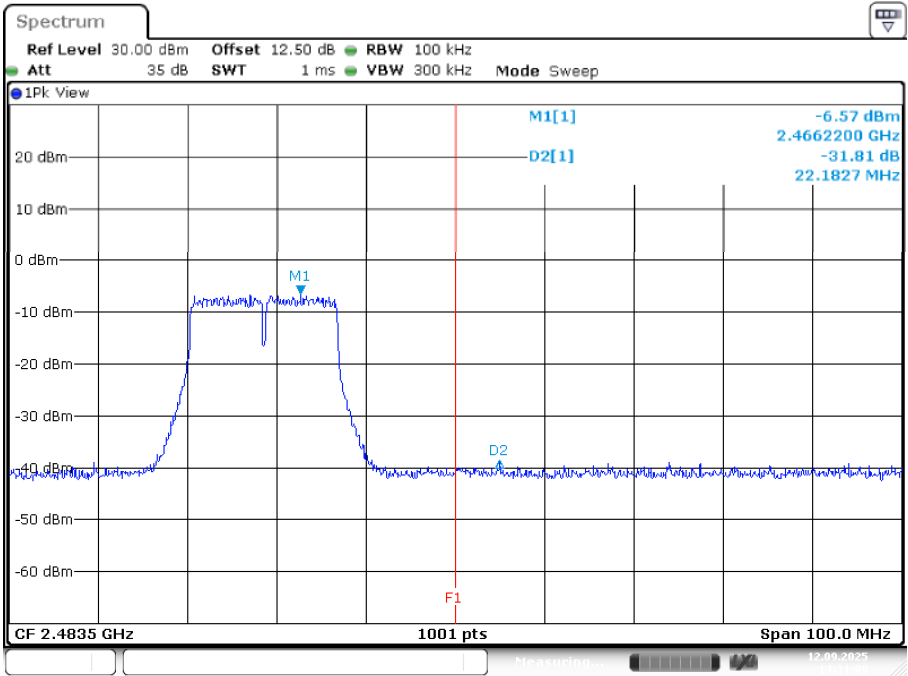
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 12:48:39

G Mode
Band Edge, Left Side



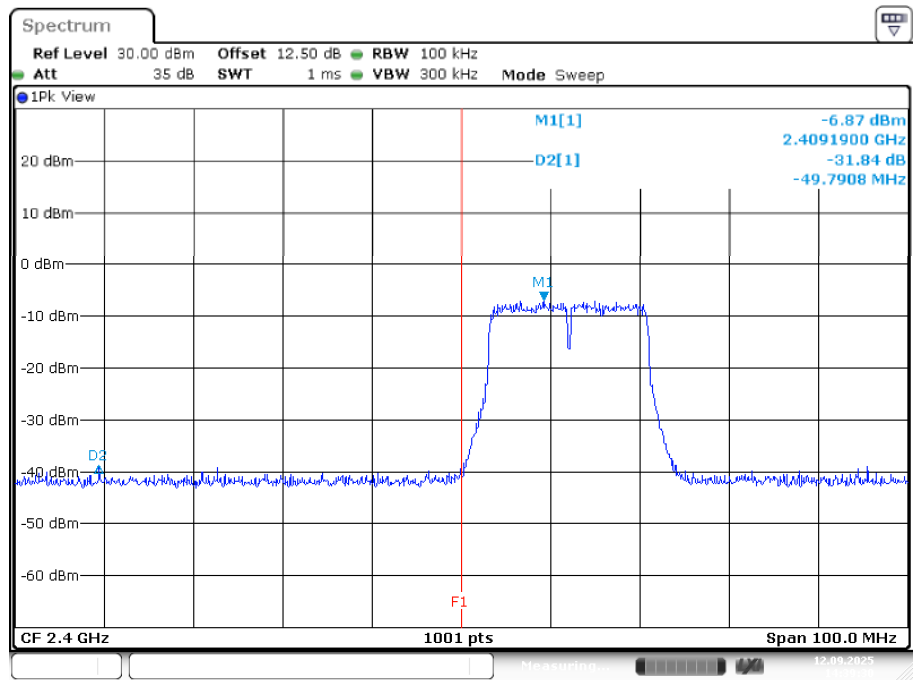
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:11:47

Band Edge, Right Side



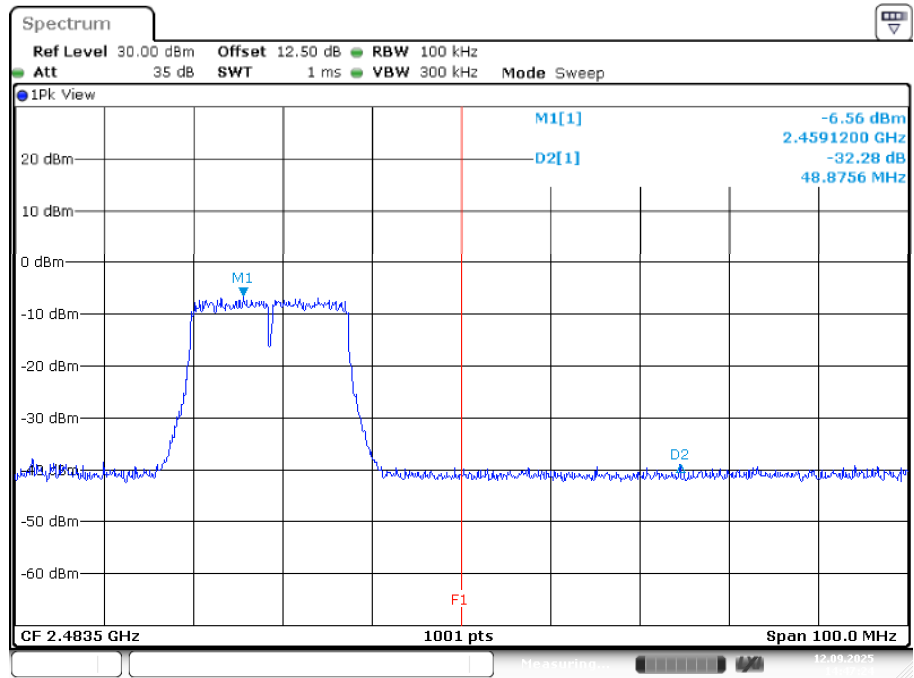
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:31:10

N20 Mode
Band Edge, Left Side



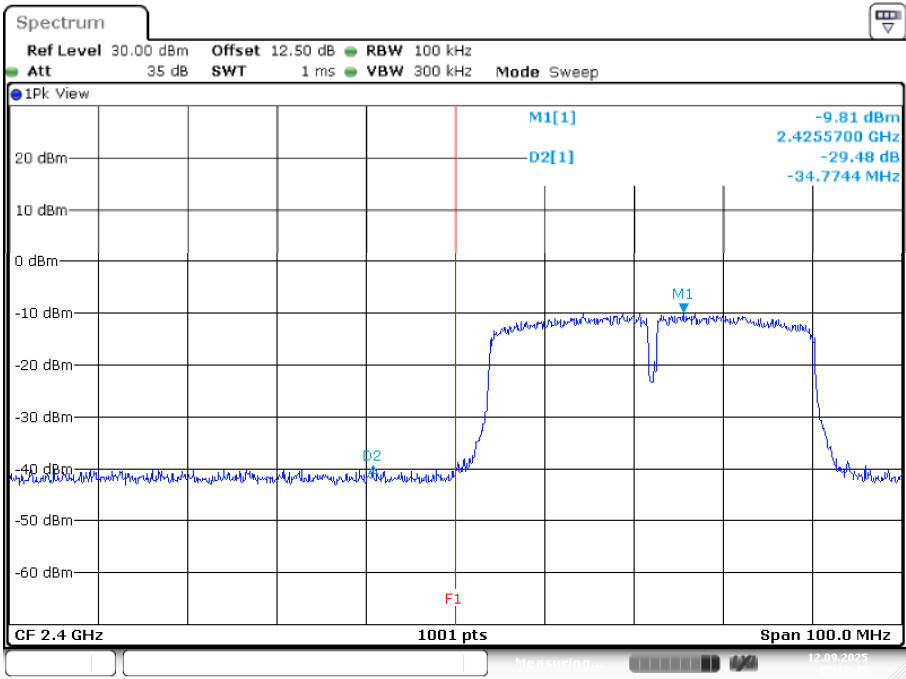
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:39:31

Band Edge, Right Side



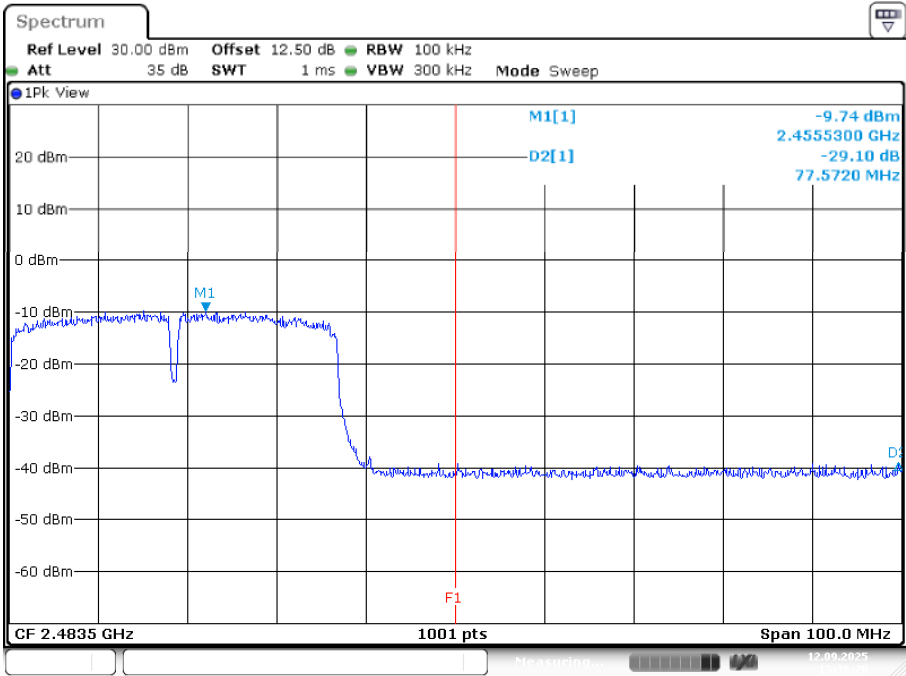
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:47:25

N40 Mode
Band Edge, Left Side



ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:17:45

Band Edge, Right Side



ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:36:21

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, section 11.10.2

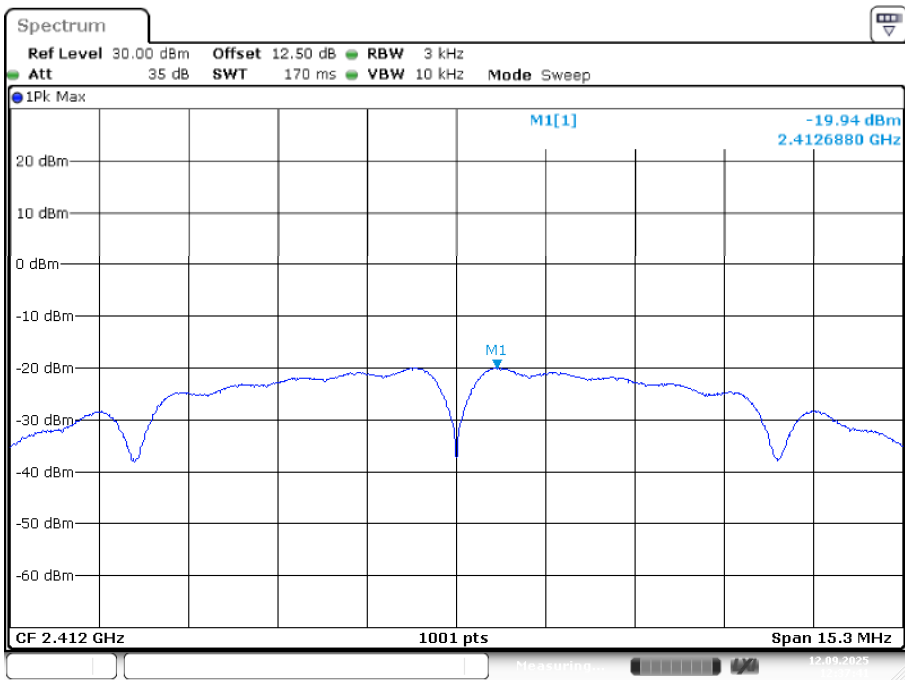
- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span >1.5 times the DTS bandwidth
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = No faster than coupled (auto) time.
- 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.

11.3 Test Results

Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Limit (dBm/3 kHz)	Result
B Mode				
Low	2412	-19.94	8	PASS
Middle	2437	-19.70	8	PASS
High	2462	-19.64	8	PASS
G Mode				
Low	2412	-21.55	8	PASS
Middle	2437	-21.38	8	PASS
High	2462	-21.48	8	PASS
N20 Mode				
Low	2412	-21.40	8	PASS
Middle	2437	-20.96	8	PASS
High	2462	-20.94	8	PASS
N40 Mode				
Low	2422	-22.04	8	PASS
Middle	2437	-21.16	8	PASS
High	2452	-21.51	8	PASS

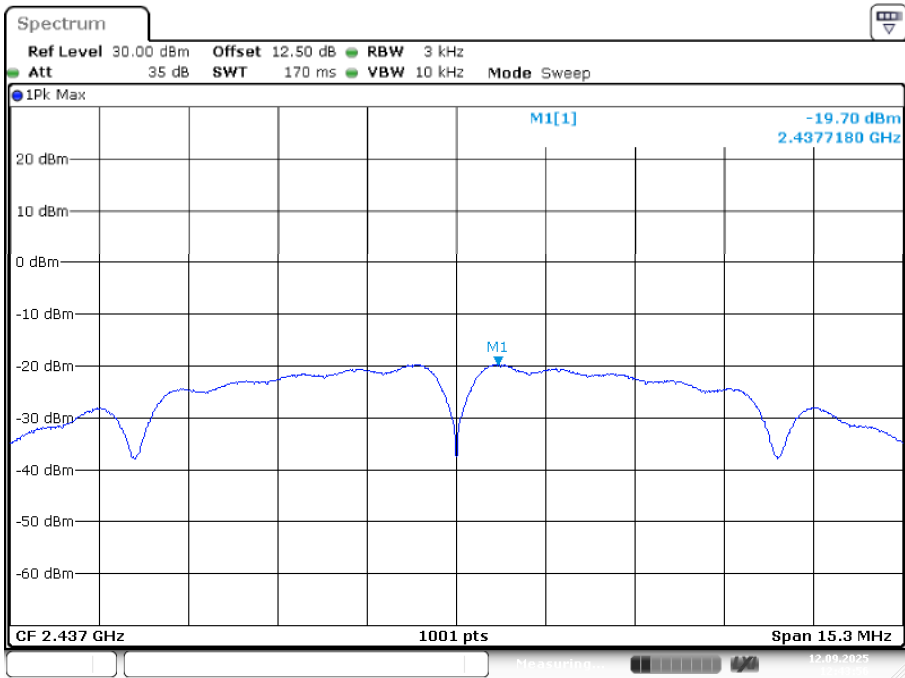
Please refer to the following plots

B Mode
Low Channel



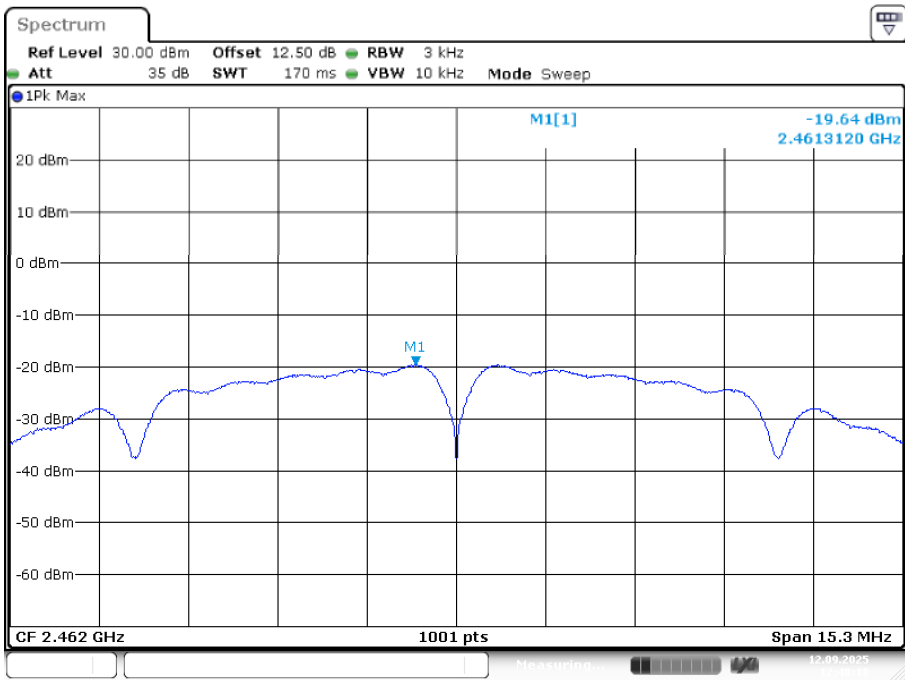
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 12:37:42

Middle Channel



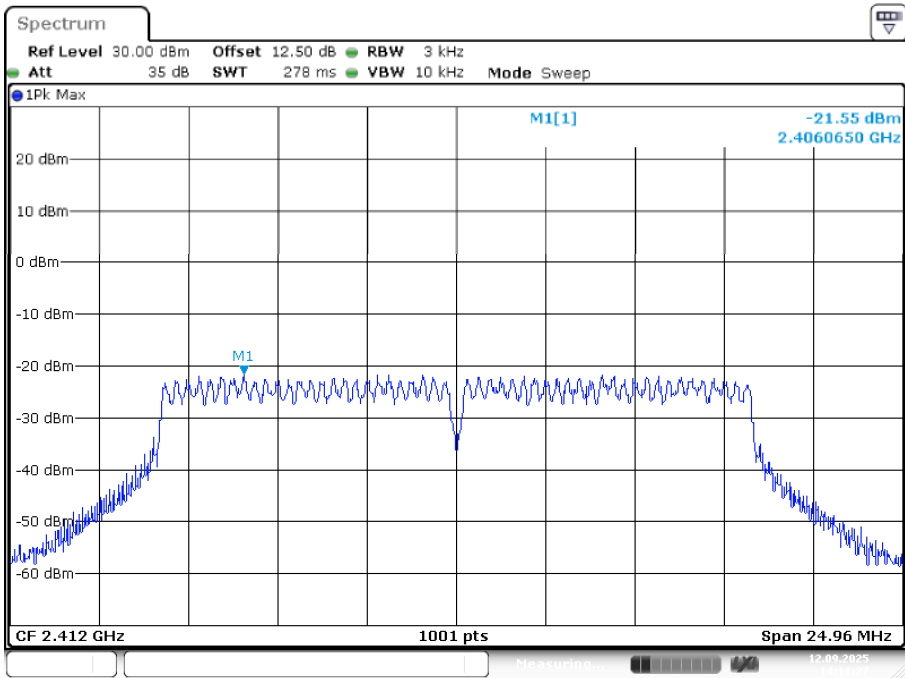
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 12:43:56

High Channel



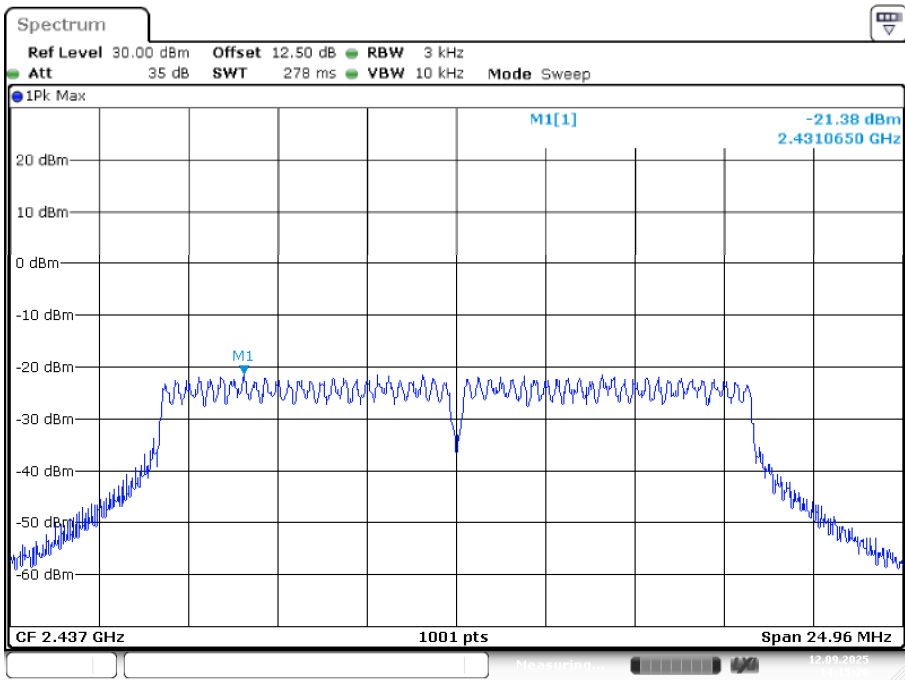
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 12:48:19

G Mode
Low Channel



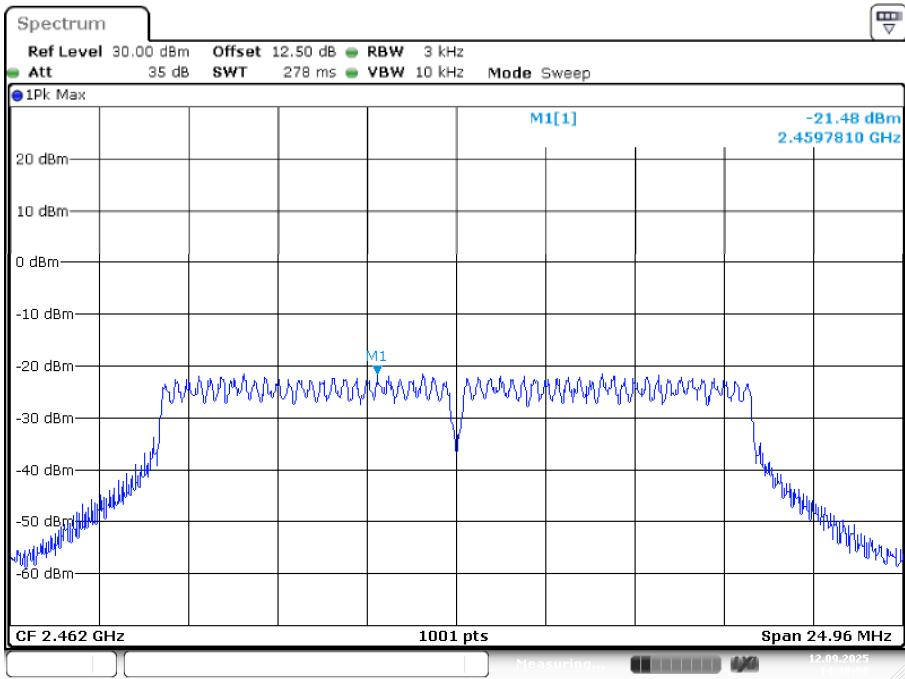
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:11:28

Middle Channel



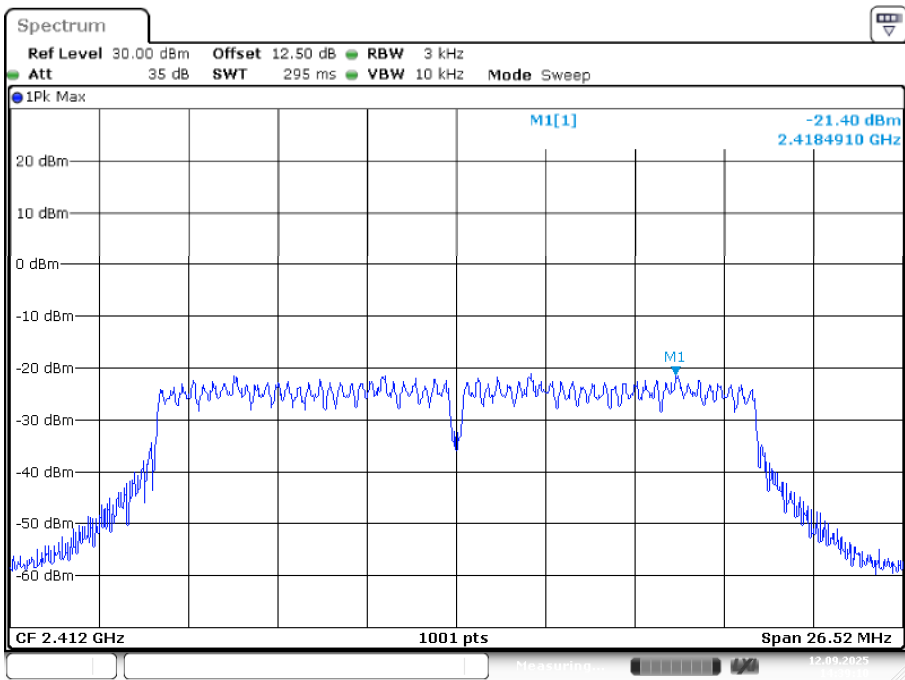
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:15:21

High Channel



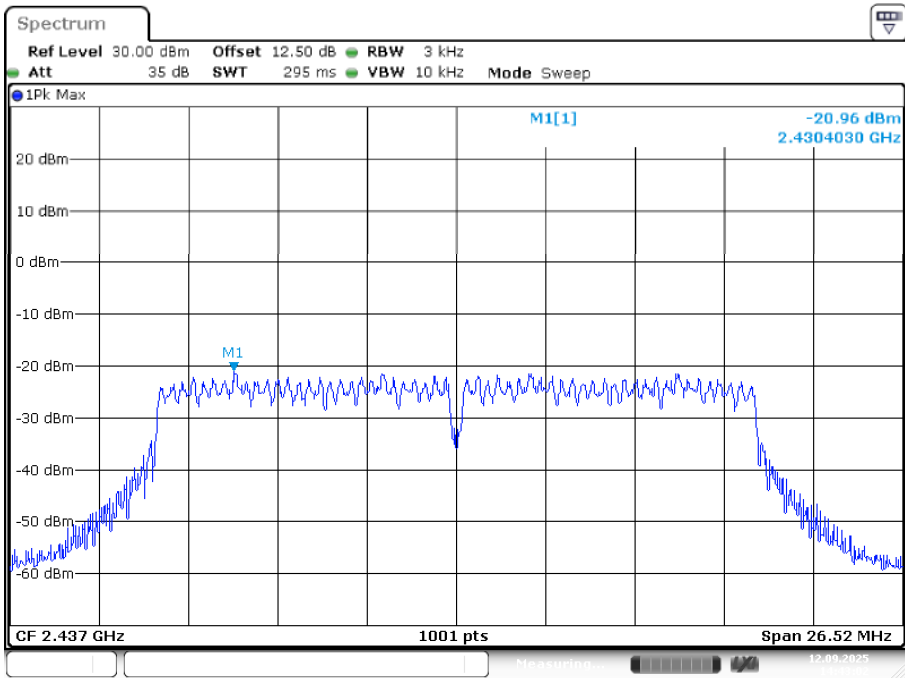
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:30:50

N20 Mode
Low Channel



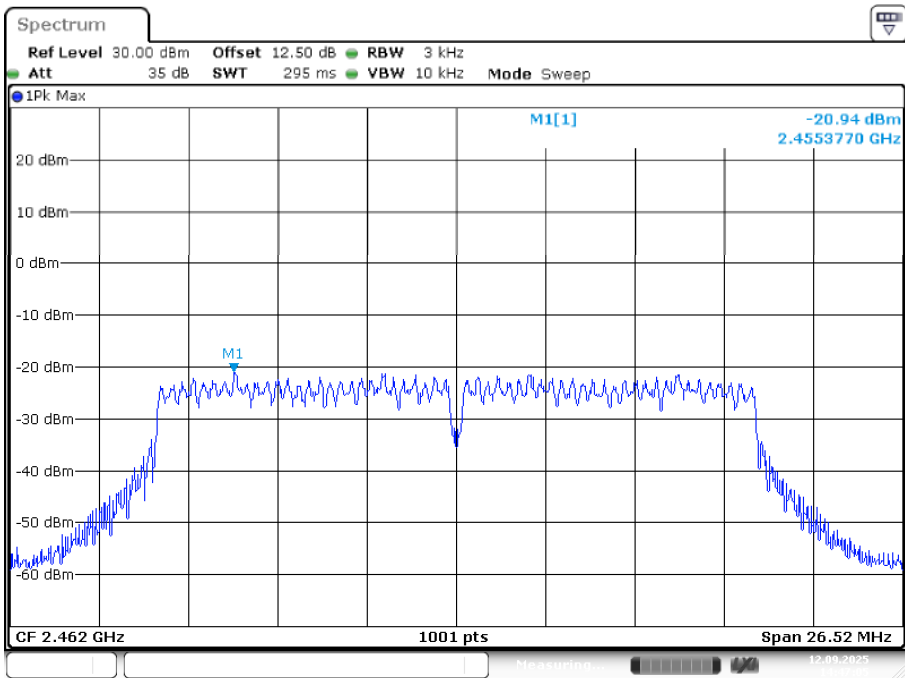
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:39:10

Middle Channel



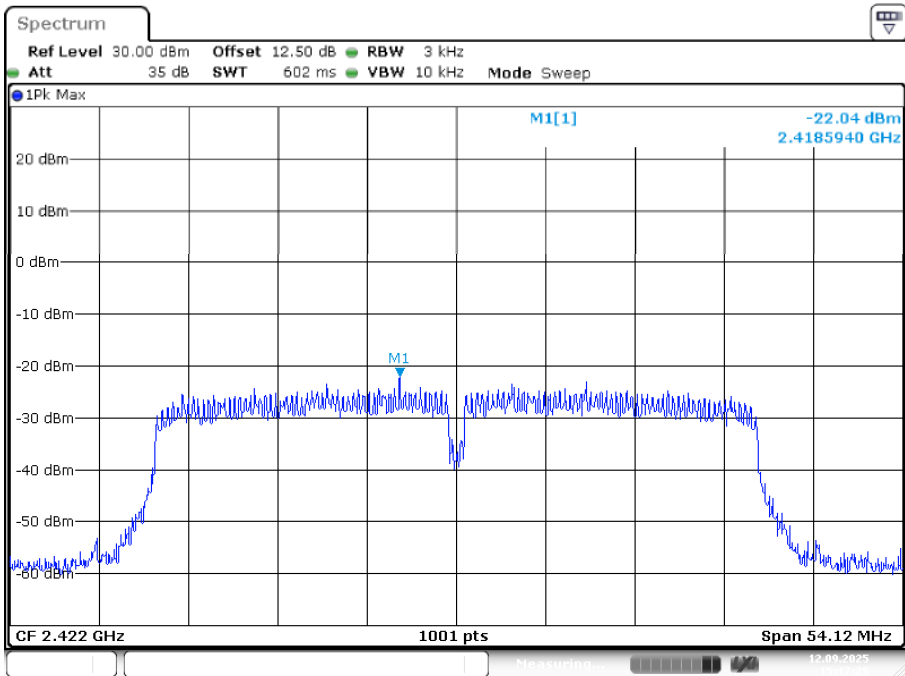
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:43:02

High Channel



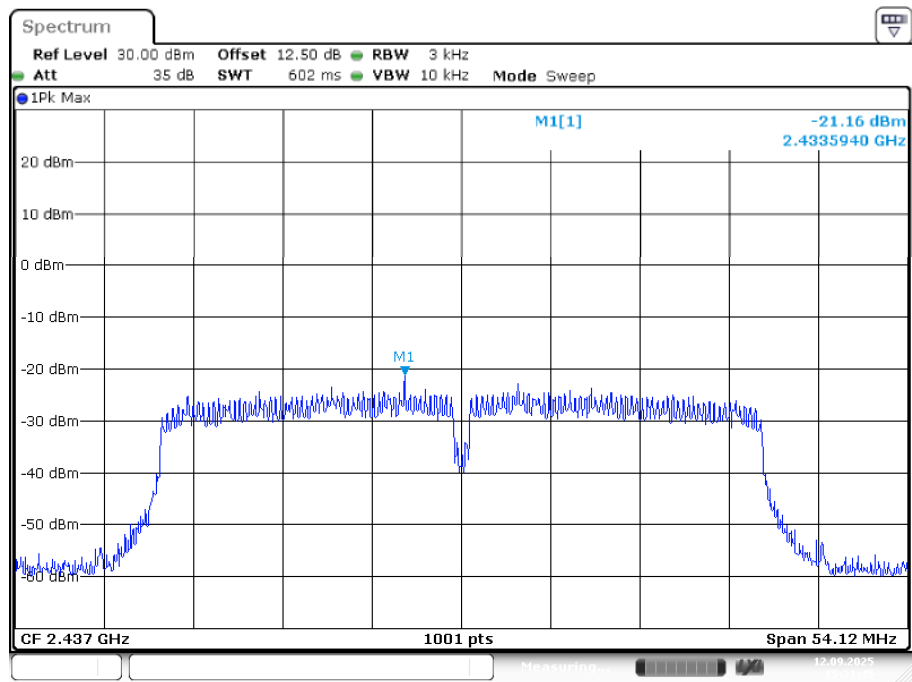
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 14:47:05

N40 Mode
Low Channel



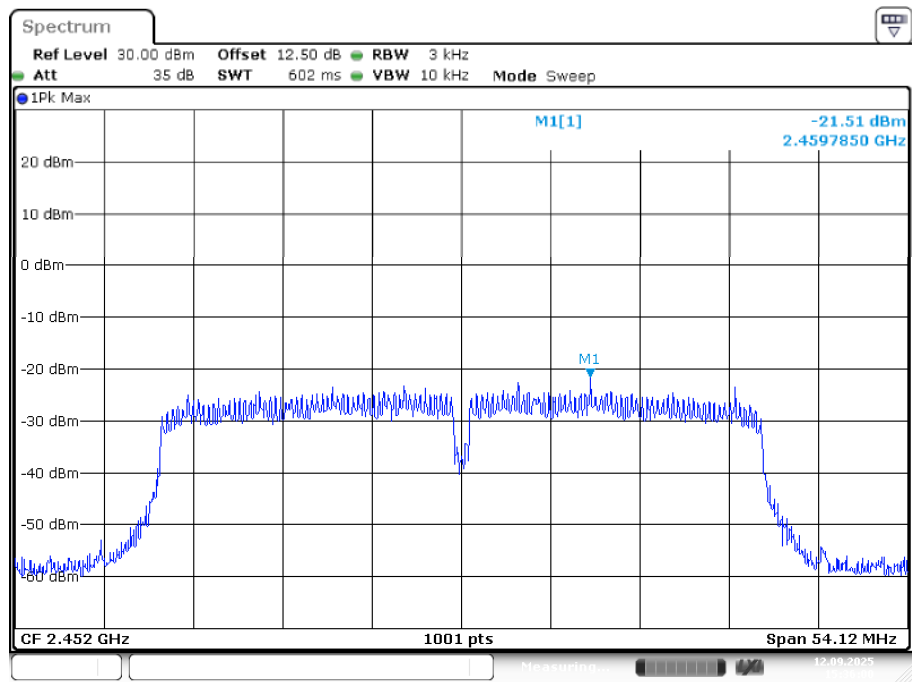
ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:17:25

Middle Channel



ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:31:45

High Channel



ProjectNo.:RXZ250821063 Tester:Jet
Date: 12.SEP.2025 15:36:01

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