

FCC Part 15.247

TEST REPORT

For

VAXEE Corporation

No. 61-3, Sec. 2, Jiayuan Rd., Shulin Dist., New Taipei City 23804, Taiwan

FCC ID: 2A9L8-ERP1

Report Type:
Original Report

Product Type:
VAXEE NP-01 Ergo Wireless
Mouse

Report Producer : Coco Lin

Report Number : RXZ260526091RF02

Report Date : 2026-08-21

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Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
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1 General Information

1.1 Product Description for Equipment under Test (EUT)

Applicant	VAXEE Corporation
	No. 61-3, Sec. 2, Jiayuan Rd., Shulin Dist., New Taipei City 23804, Taiwan
Brand(Trade) Name	VAXEE
Product (Equipment)	VAXEE NP-01 Ergo Wireless Mouse
Main Model Name	VXERP101
Series Model Name	VXERP102 , VXERP103
Model Discrepancy	Different Switch Types VXERP101: Mechanical switch VXERP102: SPDT switch VXERP103: Optical switch
Frequency Range	2402 ~ 2480 MHz
Maximum Conducted Peak Output Power	SRD Mode: 0.25 dBm
Modulation Technique	SRD Mode: GFSK
Power Operation (Voltage Range)	3.85Vdc from Battery, 5Vdc from Adapter
Received Date	2026/05/25

*All measurement and test data in this report was gathered from production sample serial number:
RXZ260526091-1 , RXZ260526091-2 , RXZ260526091-3 (Assigned by BACL, New Taipei Laboratory).

1.2 Objective

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

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2020, 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	2025/6/23	24.3	45	Jing Chang
Radiation Spurious Emissions	2026/6/23~2026/6/30	22.4~23.5	45~67	Aaron Pan
Duty Cycle	2026/6/30	26.1	50	Victor Cheng
Conducted Spurious Emissions	2026/6/30	26.1	50	Victor Cheng
Emission Bandwidth	2026/6/30	26.1	50	Victor Cheng
Maximum Output Power	2026/6/30	26.1	50	Victor Cheng
100 kHz Bandwidth of Frequency Band Edge	2026/6/30	26.1	50	Victor Cheng
Power Spectral Density	2026/6/30	26.1	50	Victor Cheng

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 SRD mode, there are totally 40 channels.

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2402	21	2442
2	2404	22	2444
3	2406	23	2446
4	2408	24	2448
5	2410	25	2450
6	2412	26	2452
7	2414	27	2454
8	2416	28	2456
9	2418	29	2458
10	2420	30	2460
11	2422	31	2462
12	2424	32	2464
13	2426	33	2466
14	2428	34	2468
15	2430	35	2470
16	2432	36	2472
17	2434	37	2474
18	2436	38	2476
19	2438	39	2478
20	2440	40	2480

For SRD Modes were tested with channel 1, 20 and 40.

2.2 EUT Exercise Software

The test software was used “PXI_LINK_Tool_20251113_v1.1.8”

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

Test Frequency		Low	Middle	High
Power Level Setting	SRD	0	0	0

2.3 Equipment Modifications

No modification was made to the EUT.

2.4 Test Mode

Pre-scan

Mode 1: VXERP101 (Serial number: RXZ260526091-1)

Mode 2: VXERP102 (Serial number: RXZ260526091-2)

Mode 3: VXERP103 (Serial number: RXZ260526091-3)

The worst mode is Mode 1

Mode 1 tested all measure item.

Mode 2 and Mode 3 test Below 1GHz Radiated Spurious Emissions.

2.5 Support Equipment List and Details

Description	Manufacturer	Model Number
NB	DELL	E6410
Fixture	GZU	USB->TTL V2.2
Adapter	NEXGO	ADS-12CG-06 05010EPCU

2.6 External Cable List and Details

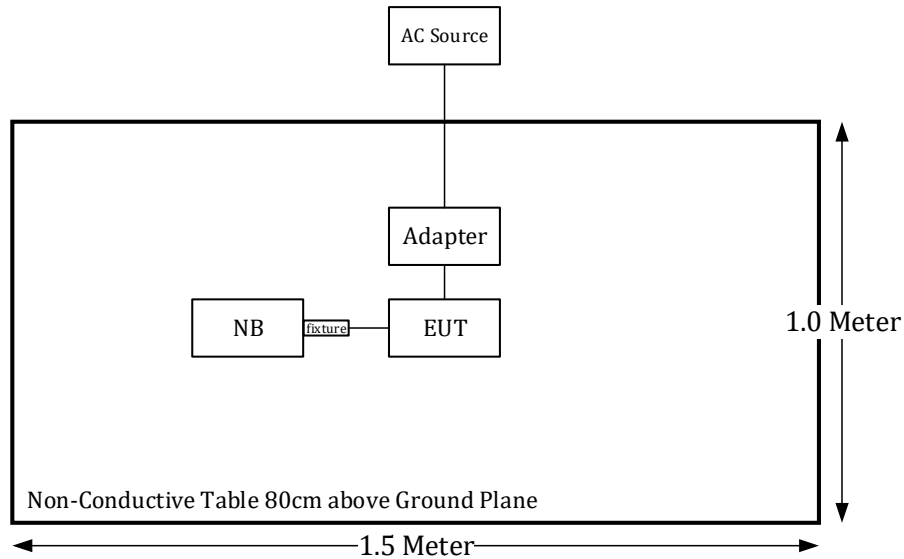
Description	Manufacturer	Cable length
USB A to USB C Cable	BACL	1m

2.7 Block Diagram of Test Setup

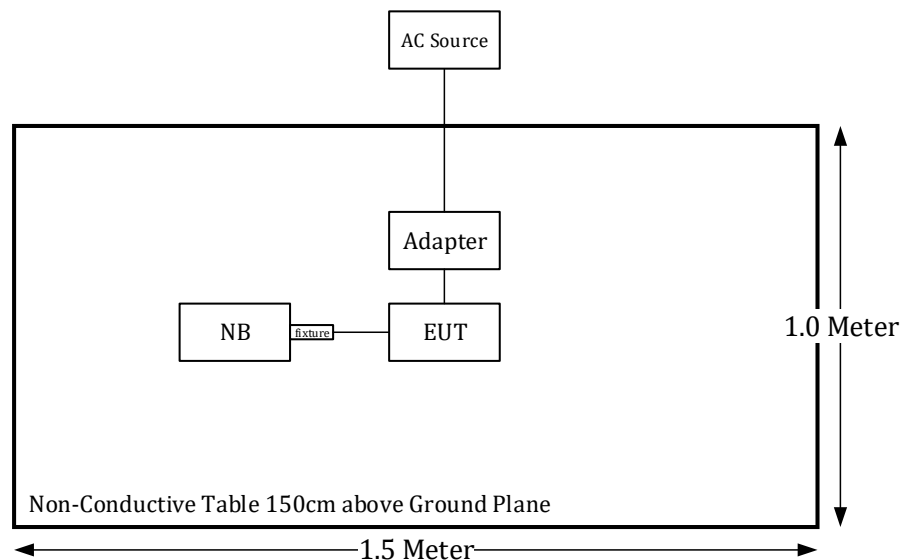
See test photographs attached in setup photos for the actual connections between EUT and support equipment.

Radiation:

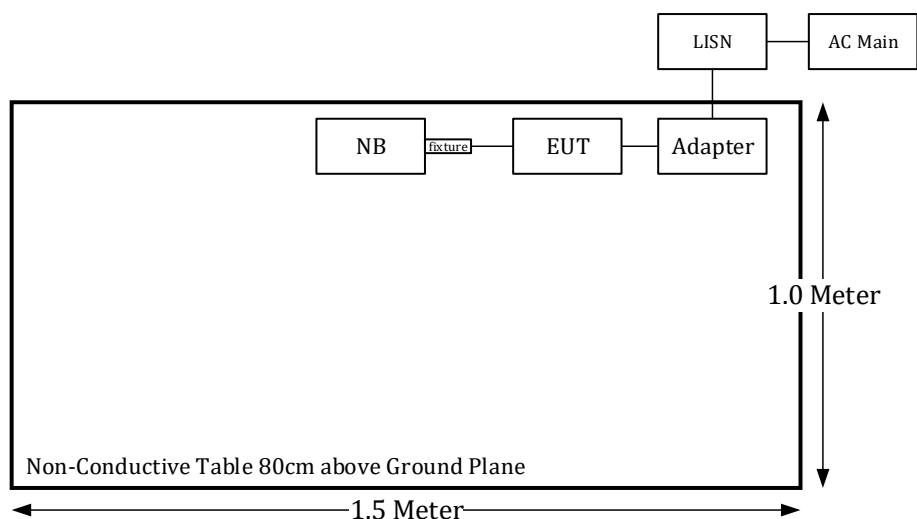
Below 1GHz:



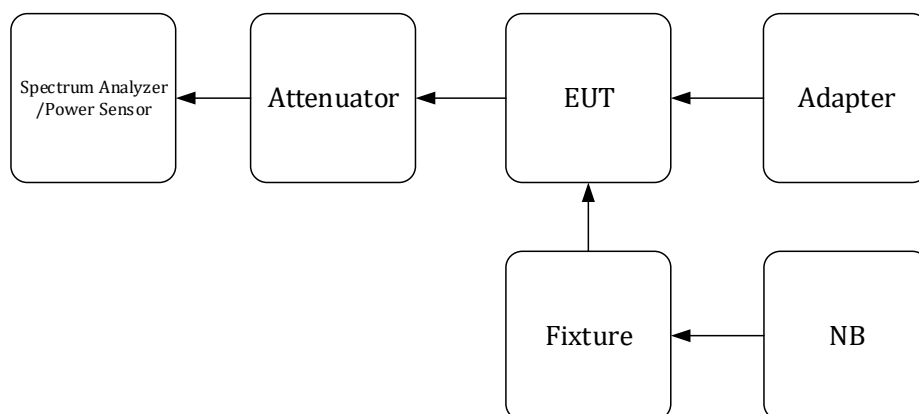
Above 1GHz:



Conduction:



Conducted:

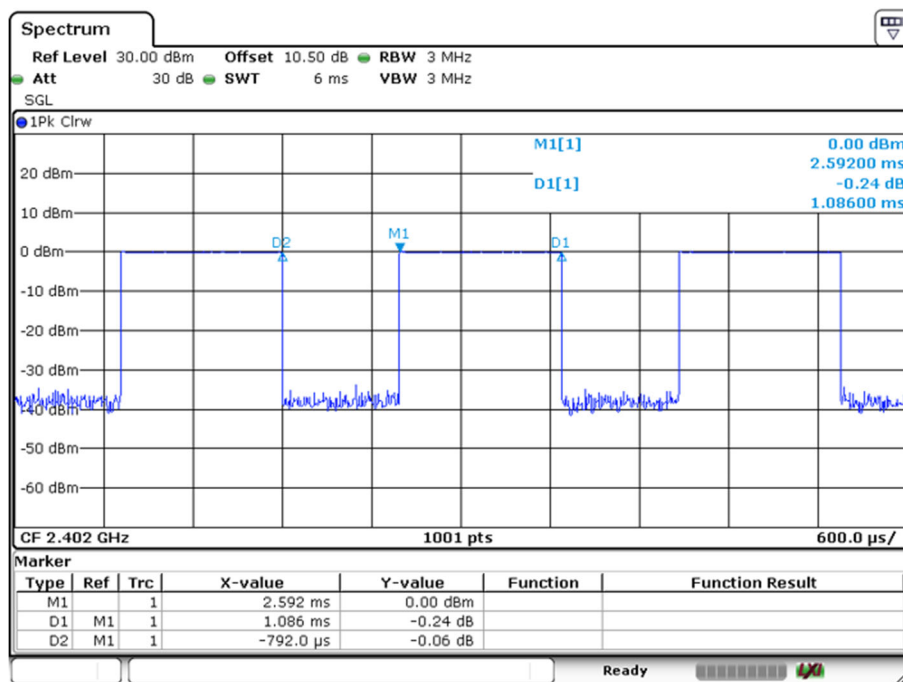


2.8 Duty Cycle

The duty cycle as below:

Radio Mode	Ton (ms)	Toff (ms)	Duty Cycle (%)	1/Ton (kHz)	1/T VBW setting (kHz)
SRD	1.086	0.792	58	0.92	1

Please refer to the following plots.



ProjectNo.:RXZ260526091 Tester:Victor

Date: 30.JUN.2026 22:38:16

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	100010	2025/8/29	2026/8/29
EMI Test Receiver	Rohde & Schwarz	ESR7	101419	2025/10/13	2026/10/13
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	2026/3/30	2027/3/30
Bilog Antenna with 6 dB Attenuator	SUNOL SCIENCES & MINI-CIRCUITS	JB6/UNAT-6+	A050115/15542_01	2026/1/15	2027/1/15
Preamplifier	Sonoma	310N	130601	2026/2/3	2027/2/3
EMI Test Receiver	Rohde & Schwarz(R&S)	ESR3	102415	2026/3/20	2027/3/20
Microflex Cable	UTIFLEX	UFB197C-1-2362-70U-70U	225757-001	2025/12/19	2026/12/19
Coaxial Cable	UTIFLEX	UFB311A-Q-1440-300300	220490-006	2025/12/19	2026/12/19
Coaxial Cable	COMMATE	PEWC	8Dr	2025/12/19	2026/12/19
Cable	EMC	EMC105-SM-SM-10000	201003	2025/12/19	2026/12/19
Coaxial Cable	JUNFLON	J12J102248-00-B-5	AUG-07-15-044	2025/12/19	2026/12/19
Software	AUDIX	E3	18621a	N.C.R	N.C.R
Radiation 3M Room - Above 1GHz (966-A)					
Horn Antenna	A.H. system	SAS-571	1020	2026/6/8	2027/6/8
Horn Antenna	ETS-Lindgren	3116	62638	2025/9/4	2026/9/4
Preamplifier	Channel	ERA-100M-18G-01D1748	EC2300049	2025/12/19	2026/12/19
Preamplifier	BACL	BACL-1313-A1840	4011511	2026/2/12	2027/2/12
Spectrum Analyzer	Rohde & Schwarz	FSV40	101939	2026/3/25	2027/3/25
Microflex Cable	UTIFLEX	UFB197C-1-2362-70U-70U	225757-001	2025/12/19	2026/12/19
Coaxial Cable	UTIFLEX	UFB311A-Q-1440-300300	220490-006	2025/12/19	2026/12/19
Coaxial Cable	COMMATE	PEWC	8Dr	2025/12/19	2026/12/19
Cable	EMC	EMC105-SM-SM-10000	201003	2025/12/19	2026/12/19
Coaxial Cable	JUNFLON	J12J102248-00-B-5	AUG-07-15-044	2025/12/19	2026/12/19
Coaxial Cable	ROSNOI	K1K50-UP0264-K1K50-450CM	160309-1	2026/1/21	2027/1/21
Microflex Cable	ROSNOI	K1K50-UP0264-K1K50-80CM	160309-2	2026/1/21	2027/1/21
Band-stop filter	Woken	STI15-9831	STI15-9831-1	2025/10/17	2026/10/17
High-pass filter	XINGBOKEJI	XBLBQ-GTA54	200108-3-2	2025/10/17	2026/10/17
Software	AUDIX	E3	18621a	N.C.R	N.C.R

Conducted Room					
Spectrum Analyzer	Rohde & Schwarz	FSV40	101606	2025/9/12	2026/9/12
Cable	UTIFLEX	UFA210A	9435	2025/9/30	2026/9/30
Power Sensor	Boonton	RTP5006	11037	2026/5/21	2027/5/21
Attenuator	MCL	BW-S10W5+	1419	2026/3/25	2027/3/25

***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.

5.2 Antenna List and Details

Antenna Type	Antenna Gain
PCB	-2.02 dBi

Antenna was permanently attached to the unit.

Result: Compliance

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

6.1 Applicable Standard

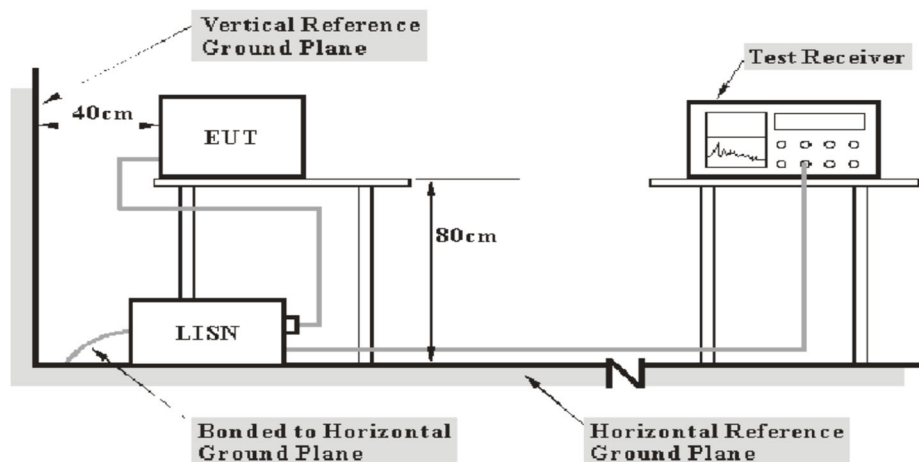
According to §15.207

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

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

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.

The basic equation is as follows:

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

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:

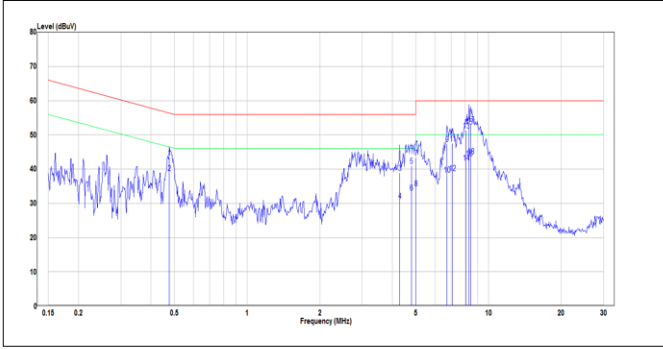
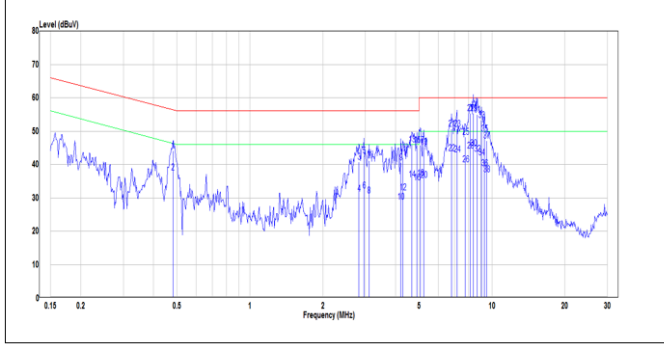
$$\text{Over Limit} = \text{Result} - \text{Limit Line}$$

6.6 Test Results

Test Mode: Transmitting

Main: AC120 V, 60 Hz

(Worst case is low Channel)

Line									Neutral								
Description: RBW:9kHz/VBW:30kHz									Description: RBW:9kHz/VBW:30kHz								
2026-06-23									2026-06-23								
																	
No.	Frequency	Reading	Correct Factor	Result	Limit	Over limit	Remark	Phase	No.	Frequency	Reading	Correct Factor	Result	Limit	Over limit	Remark	Phase
	MHz	dBuV	dB	dBuV	dBuV	dB				MHz	dBuV	dB	dBuV	dBuV	dB		
1	0.476	33.80	9.63	43.43	56.41	-12.98	QP	Line	1	0.481	34.58	9.62	44.20	56.32	-12.12	QP	Neutral
2	0.476	29.20	9.63	38.83	46.41	-7.58	Average	Line	2	0.481	27.98	9.62	37.60	46.32	-8.72	Average	Neutral
3	4.292	29.15	9.74	38.89	56.00	-17.11	QP	Line	3	2.824	30.97	9.70	40.67	56.00	-15.33	QP	Neutral
4	4.292	21.05	9.74	30.79	46.00	-15.21	Average	Line	4	2.824	21.47	9.70	31.17	46.00	-14.83	Average	Neutral
5	4.797	31.22	9.75	40.97	56.00	-15.03	QP	Line	5	2.962	33.00	9.70	42.70	56.00	-13.30	QP	Neutral
6	4.797	23.41	9.75	33.16	46.00	-12.84	Average	Line	6	2.962	22.36	9.70	32.06	46.00	-13.94	Average	Neutral
7	5.005	33.56	9.76	43.32	60.00	-16.68	QP	Line	7	3.107	31.36	9.70	41.06	56.00	-14.94	QP	Neutral
8	5.005	24.72	9.76	34.48	50.00	-15.52	Average	Line	8	3.107	21.01	9.70	30.71	46.00	-15.29	Average	Neutral
9	6.733	37.49	9.79	47.28	60.00	-12.72	QP	Line	9	4.202	30.86	9.73	40.59	56.00	-15.41	QP	Neutral
10	6.733	28.65	9.79	38.44	50.00	-11.56	Average	Line	10	4.202	19.01	9.73	28.74	46.00	-17.26	Average	Neutral
11	7.100	37.68	9.79	47.47	60.00	-12.53	QP	Line	11	4.292	32.26	9.73	41.99	56.00	-14.01	QP	Neutral
12	7.100	29.10	9.79	38.89	50.00	-11.11	Average	Line	12	4.292	21.89	9.73	31.62	46.00	-14.38	Average	Neutral
13	8.062	41.49	9.81	51.30	60.00	-8.70	QP	Line	13	4.672	36.32	9.74	46.06	56.00	-9.94	QP	Neutral
14	8.062	32.14	9.81	41.95	50.00	-8.05	Average	Line	14	4.672	25.76	9.74	35.50	46.00	-10.50	Average	Neutral
15	8.323	42.69	9.81	52.50	60.00	-7.50	QP	Line	15	4.900	36.02	9.75	45.77	56.00	-10.23	QP	Neutral
16	8.323	33.45	9.81	43.26	50.00	-6.74	Average	Line	16	4.900	24.76	9.75	34.51	46.00	-11.49	Average	Neutral
17	8.456	43.31	9.81	53.12	60.00	-6.88	QP	Line	17	5.058	36.14	9.75	45.89	60.00	-14.11	QP	Neutral
18	8.456	33.94	9.81	43.75	50.00	-6.25	Average	Line	18	5.058	26.09	9.75	35.84	50.00	-14.16	Average	Neutral
									19	5.221	35.40	9.75	45.15	60.00	-14.85	QP	Neutral
									20	5.221	25.62	9.75	35.37	50.00	-14.63	Average	Neutral
									21	6.805	40.91	9.78	50.69	60.00	-9.31	QP	Neutral
									22	6.805	33.61	9.78	43.39	50.00	-6.61	Average	Neutral
									23	7.175	40.93	9.79	50.72	60.00	-9.28	QP	Neutral
									24	7.175	33.16	9.79	42.95	50.00	-7.05	Average	Neutral
									25	7.769	38.46	9.80	48.26	60.00	-11.74	QP	Neutral
									26	7.769	30.18	9.80	39.98	50.00	-10.02	Average	Neutral
									27	8.148	45.56	9.81	55.37	60.00	-4.63	QP	Neutral
									28	8.148	34.34	9.81	44.15	50.00	-5.85	Average	Neutral
									29	8.367	45.60	9.81	55.41	60.00	-4.59	QP	Neutral
									30	8.367	35.14	9.81	44.95	50.00	-5.05	Average	Neutral
									31	8.683	45.13	9.82	54.95	60.00	-5.05	QP	Neutral
									32	8.683	33.32	9.82	43.14	50.00	-6.86	Average	Neutral
									33	9.059	43.42	9.82	53.24	60.00	-6.76	QP	Neutral
									34	9.059	32.33	9.82	42.15	50.00	-7.85	Average	Neutral
									35	9.302	39.37	9.83	49.20	60.00	-10.80	QP	Neutral
									36	9.302	29.08	9.83	38.91	50.00	-11.09	Average	Neutral
									37	9.502	37.31	9.83	47.14	60.00	-12.86	QP	Neutral
									38	9.502	27.25	9.83	37.08	50.00	-12.92	Average	Neutral

Note:

Result = Reading + Factor

Over Limit = Result - Limit Line

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

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.

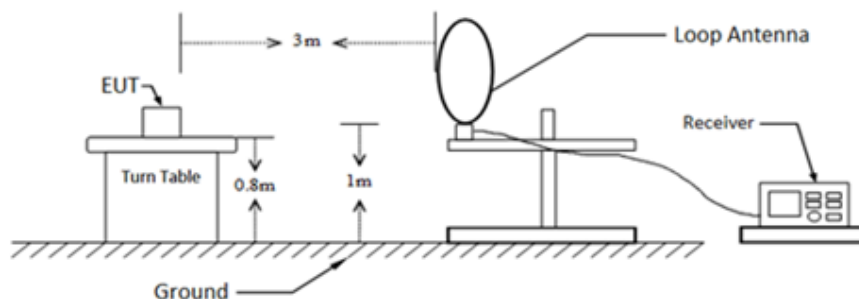
According to ANSI C63.10-2020, section 5.3.3

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).

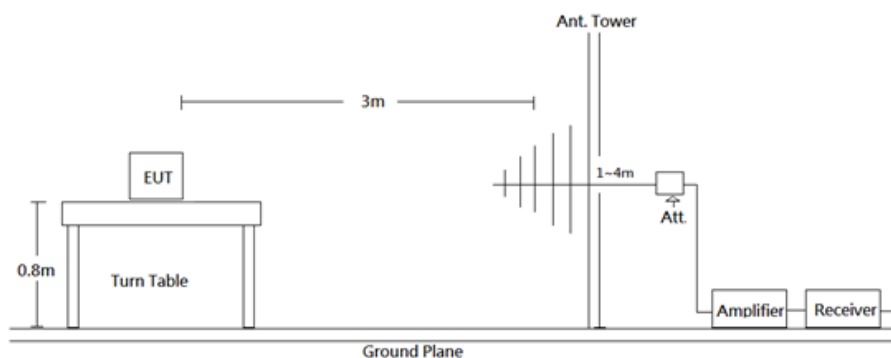
As per FCC §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the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

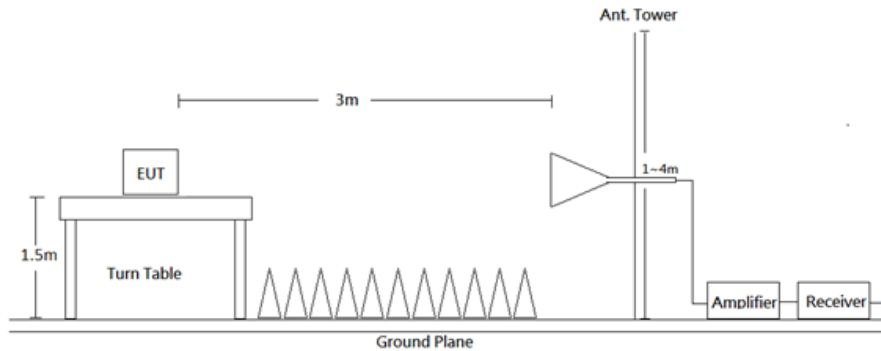
9kHz-30MHz:



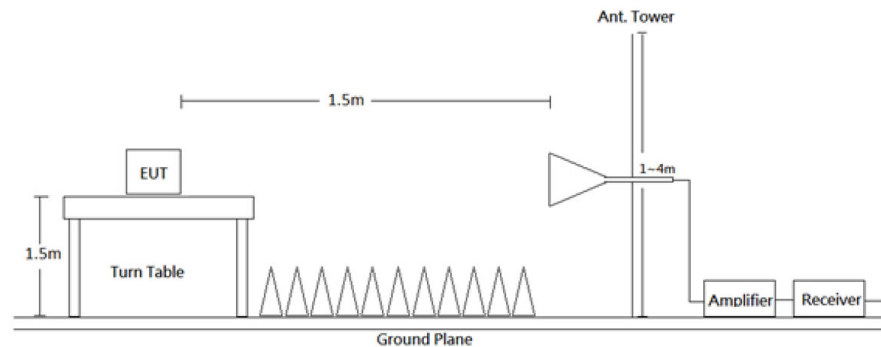
30MHz-1GHz:



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	$\geq 1/\text{Ton}$, not less than 1 kHz	/	<98%	Ave	PK
	Final measurement for emission identified during pre-scan :					
	1 MHz	3 MHz	/	/	PK	PK
	1 MHz	10 Hz	/	>98%	Ave	PK
	1 MHz	$\geq 1/\text{Ton}$	/	<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

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

- a) Set the frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW $\geq [3 \times \text{RBW}]$.
- 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.

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:

$$\text{Correct Factor} = \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

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:

$$\text{Margin} = \text{Level} - \text{Limit}$$

7.6 Test Results

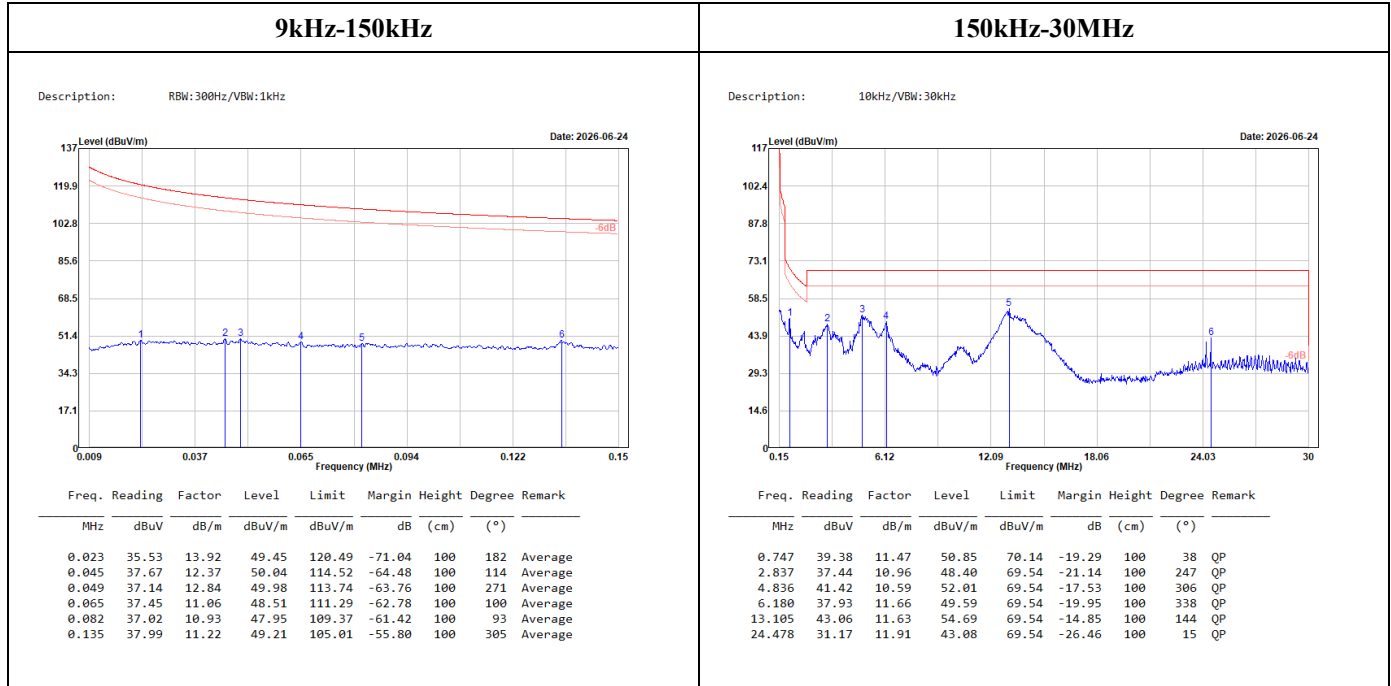
Test Mode: Transmitting

(EUT pre-scan with three orthogonal axis Z axis(Lay flat), X axis(On its side), Y axis(Upright) and worse case as Y axis.)

9kHz-30MHz:

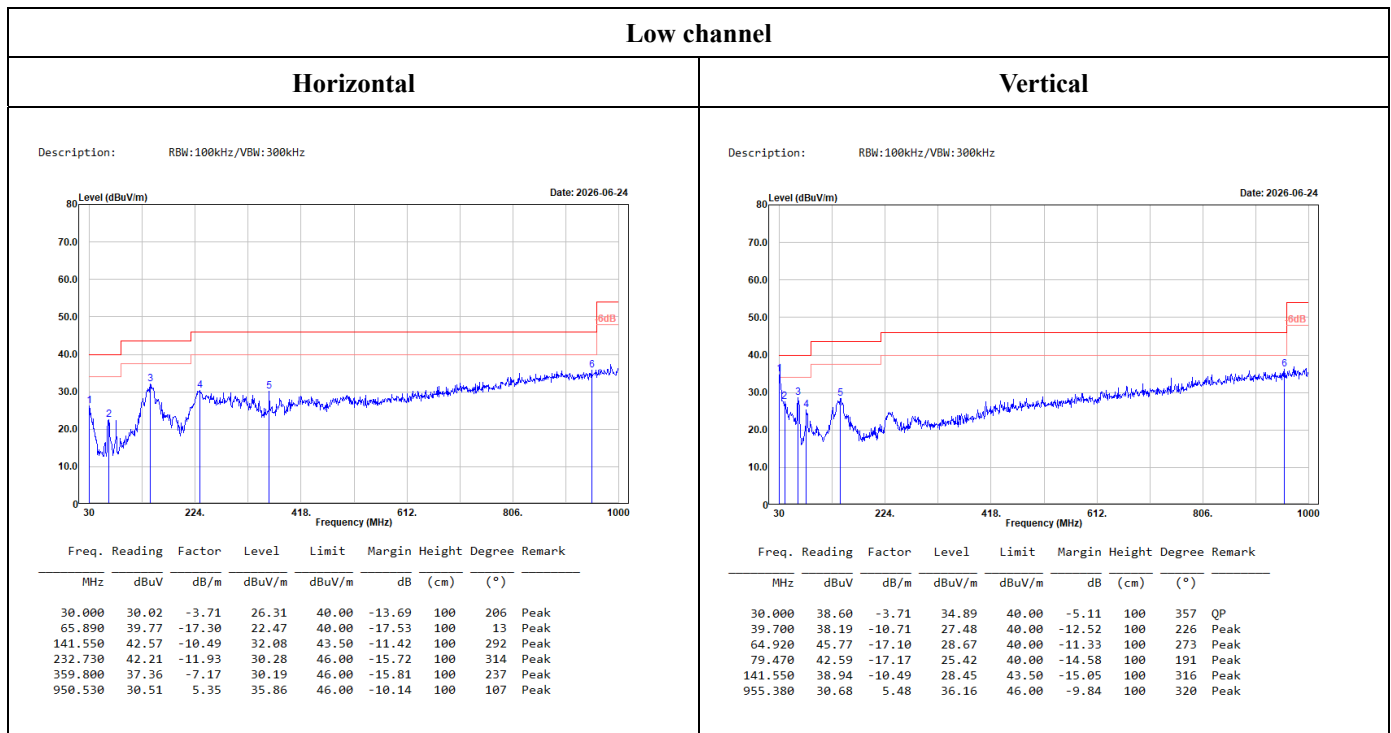
(Pre-scan Mode1、Mode 2 and Mode 3, Worst case is Mode 1, low channel)

(Antenna Pre-scan using three directional polarities parallel, perpendicular, and ground parallel, worst case as parallel.)



30MHz-1GHz:

Mode 1

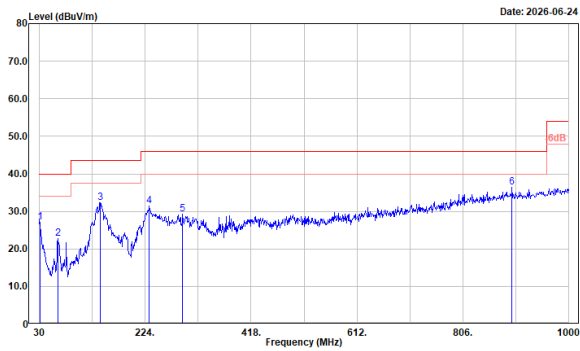


Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.
(New Taipei Laboratory)

Middle channel

Horizontal

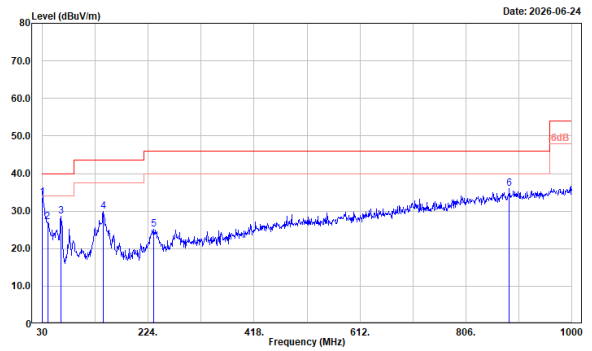
Description: RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
31.940	32.42	-5.38	27.04	40.00	-12.96	100	245	Peak
63.950	39.80	-17.08	22.72	40.00	-17.28	100	358	Peak
141.550	42.84	-10.49	32.35	43.50	-11.15	100	281	Peak
231.760	43.35	-11.97	31.38	46.00	-14.62	100	292	Peak
292.870	38.02	-8.67	29.35	46.00	-16.65	100	117	Peak
896.210	31.49	4.83	36.32	46.00	-9.68	100	203	Peak

Vertical

Description: RBW:100kHz/VBW:300kHz

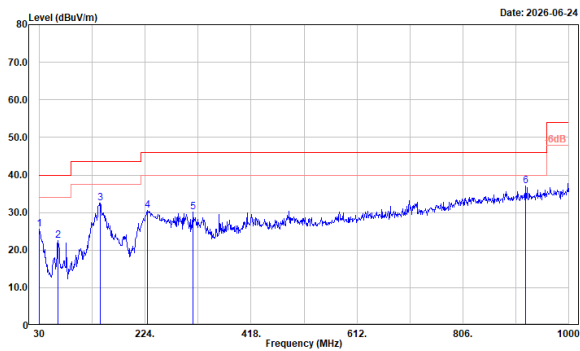


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	37.22	-3.71	33.51	40.00	-6.49	100	347	QP
39.700	37.76	-10.71	27.05	40.00	-12.95	100	224	Peak
63.950	45.59	-17.08	28.51	40.00	-11.49	100	250	Peak
141.550	40.38	-10.49	29.89	43.50	-13.61	100	316	Peak
233.700	37.00	-11.88	25.12	46.00	-20.88	100	29	Peak
885.540	31.32	4.65	35.97	46.00	-10.03	100	195	Peak

High channel

Horizontal

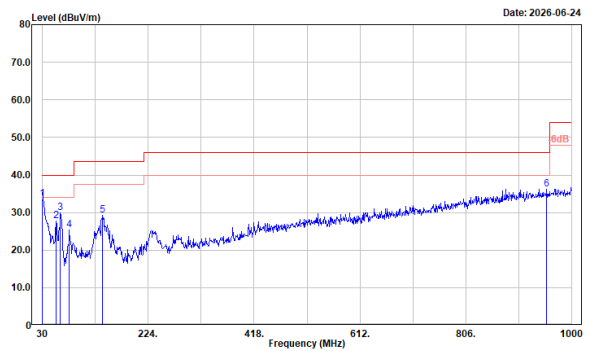
Description: RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	29.31	-3.71	25.60	40.00	-14.40	100	0	Peak
64.920	39.57	-17.10	22.47	40.00	-17.53	100	0	Peak
141.550	43.00	-10.49	32.51	43.50	-10.99	100	299	Peak
227.880	42.70	-12.19	30.51	46.00	-15.49	100	295	Peak
312.270	38.47	-8.37	30.10	46.00	-15.90	100	211	Peak
920.460	32.31	4.82	37.13	46.00	-8.87	100	150	Peak

Vertical

Description: RBW:100kHz/VBW:300kHz



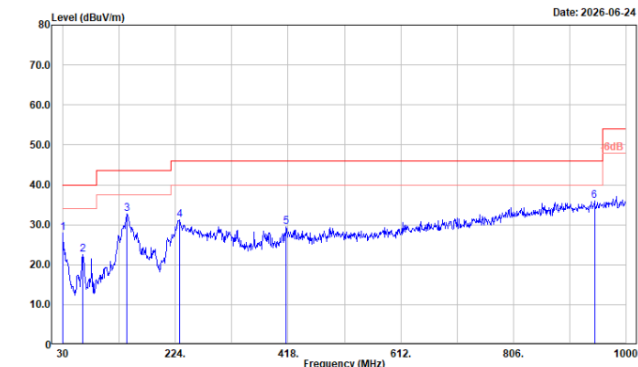
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	37.38	-3.71	33.67	40.00	-6.33	100	216	QP
55.220	45.01	-17.35	27.66	40.00	-12.34	100	234	Peak
62.980	47.17	-17.15	30.02	40.00	-9.98	100	246	Peak
79.470	42.51	-17.17	25.34	40.00	-14.66	100	127	Peak
140.580	39.82	-10.54	29.28	43.50	-14.22	100	304	Peak
954.410	30.80	5.46	36.26	46.00	-9.74	100	273	Peak

Mode 2

Low channel

Horizontal

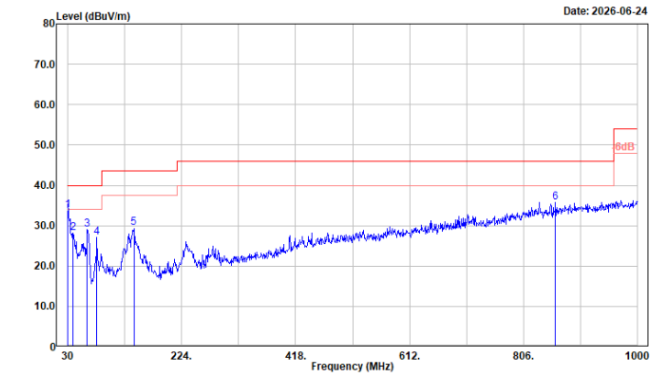
Description: RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	31.62	-3.71	27.91	40.00	-12.09	100	204	Peak
64.920	39.66	-17.10	22.56	40.00	-17.44	100	184	Peak
140.580	43.18	-10.54	32.64	43.50	-10.86	100	302	Peak
231.760	43.08	-11.97	31.11	46.00	-14.89	100	298	Peak
415.090	34.96	-5.46	29.50	46.00	-16.50	100	266	Peak
945.680	30.71	5.22	35.93	46.00	-10.07	100	130	Peak

Vertical

Description: RBW:100kHz/VBW:300kHz

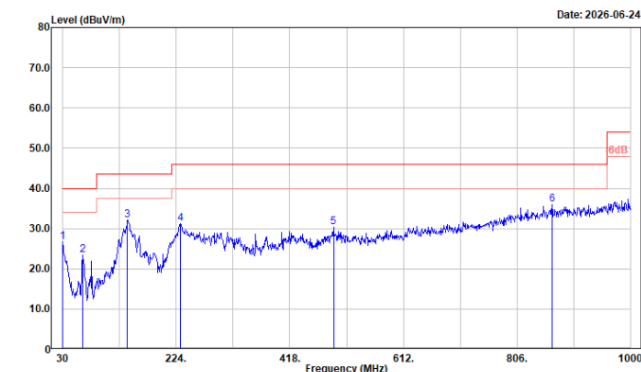


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	37.45	-3.71	33.74	40.00	-6.26	100	190	QP
38.730	38.17	-9.93	28.24	40.00	-11.76	100	221	Peak
62.980	46.20	-17.15	29.05	40.00	-10.95	100	247	Peak
79.470	44.30	-17.17	27.13	40.00	-12.87	100	91	Peak
142.520	39.87	-10.49	29.38	43.50	-14.12	100	336	Peak
860.320	31.78	4.07	35.85	46.00	-10.15	100	282	Peak

Middle channel

Horizontal

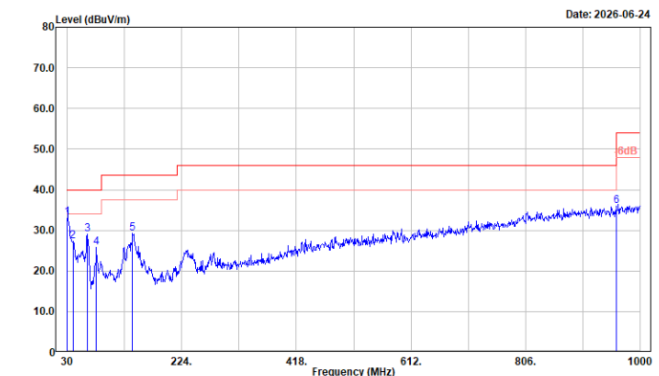
Description: RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	30.38	-3.71	26.67	40.00	-13.33	100	55	Peak
64.920	40.48	-17.10	23.38	40.00	-16.62	100	0	Peak
140.580	42.65	-10.54	32.11	43.50	-11.39	100	280	Peak
231.760	43.11	-11.97	31.14	46.00	-14.86	100	295	Peak
492.690	33.41	-3.01	30.40	46.00	-15.60	100	288	Peak
866.140	31.79	4.21	36.00	46.00	-10.00	100	322	Peak

Vertical

Description: RBW:100kHz/VBW:300kHz

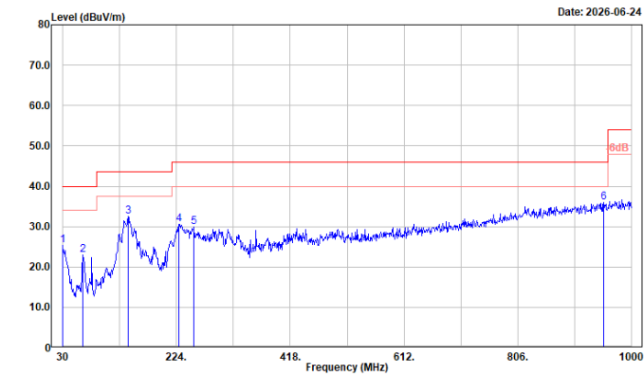


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	36.98	-3.71	33.27	40.00	-6.73	100	226	QP
39.700	38.05	-10.71	27.34	40.00	-12.66	100	176	Peak
63.950	46.07	-17.08	28.99	40.00	-11.01	100	245	Peak
79.470	42.91	-17.17	25.74	40.00	-14.26	100	102	Peak
140.580	39.91	-10.54	29.37	43.50	-14.13	100	311	Peak
959.260	30.47	5.60	36.07	46.00	-9.93	100	307	Peak

High channel

Horizontal

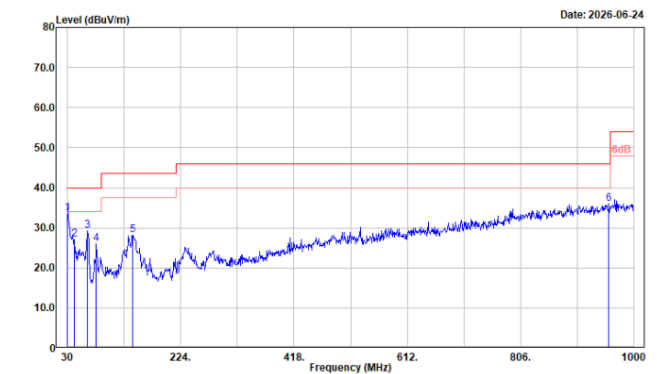
Description: RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	29.06	-3.71	25.35	40.00	-14.65	100	360	Peak
64.920	39.99	-17.10	22.89	40.00	-17.11	100	30	Peak
141.550	42.94	-10.49	32.45	43.50	-11.05	100	305	Peak
228.850	42.74	-12.13	30.61	46.00	-15.39	100	308	Peak
254.070	41.26	-11.42	29.84	46.00	-16.16	100	174	Peak
952.470	30.49	5.40	35.89	46.00	-10.11	100	193	Peak

Vertical

Description: RBW:100kHz/VBW:300kHz



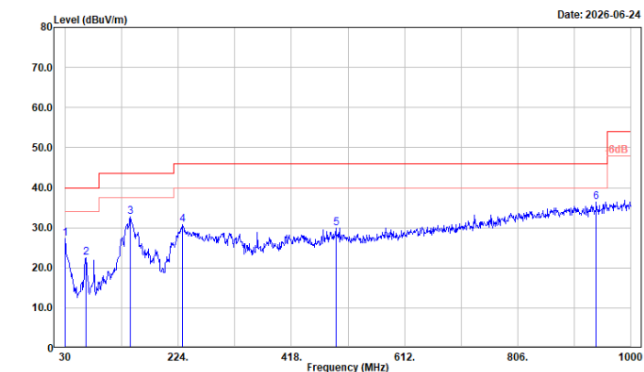
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	37.23	-3.71	33.52	40.00	-6.48	100	0	QP
42.610	39.60	-12.56	27.04	40.00	-12.96	100	200	Peak
64.920	46.36	-17.10	29.26	40.00	-10.74	100	230	Peak
79.470	43.23	-17.17	26.06	40.00	-13.94	100	107	Peak
141.550	38.78	-10.49	28.29	43.50	-15.21	100	304	Peak
957.320	30.37	5.54	35.91	46.00	-10.09	100	14	Peak

Mode 3

Low channel

Horizontal

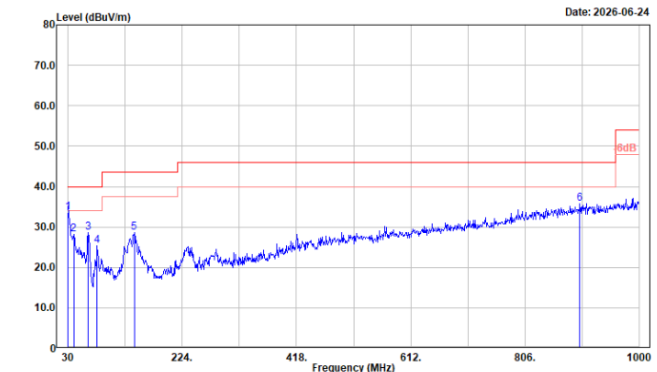
Description: RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	31.02	-3.71	27.31	40.00	-12.69	100	306	Peak
65.890	39.81	-17.30	22.51	40.00	-17.49	100	356	Peak
141.550	43.19	-10.49	32.70	43.50	-10.80	100	298	Peak
231.760	42.69	-11.97	30.72	46.00	-15.28	100	298	Peak
494.630	32.96	-3.00	29.96	46.00	-16.04	100	302	Peak
940.830	31.33	5.09	36.42	46.00	-9.58	100	313	Peak

Vertical

Description: RBW:100kHz/VBW:300kHz

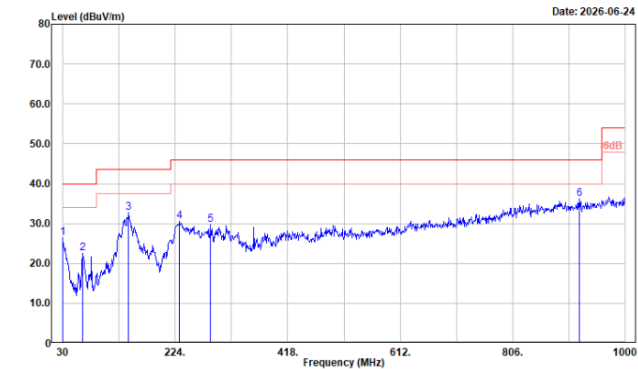


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	37.38	-3.71	33.67	40.00	-6.33	100	201	QP
39.700	38.91	-10.71	28.20	40.00	-11.80	100	217	Peak
64.920	45.71	-17.10	28.61	40.00	-11.39	100	243	Peak
79.470	42.63	-17.17	25.46	40.00	-14.54	100	79	Peak
142.520	39.02	-10.49	28.53	43.50	-14.97	100	309	Peak
899.120	30.99	4.85	35.84	46.00	-10.16	100	217	Peak

Middle channel

Horizontal

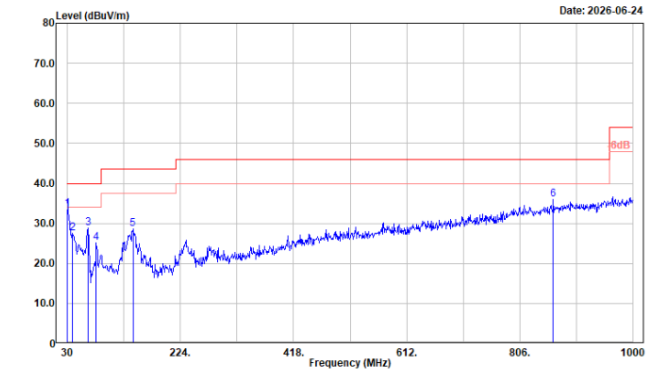
Description: RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	30.06	-3.71	26.35	40.00	-13.65	100	9	Peak
64.920	39.62	-17.10	22.52	40.00	-17.48	100	188	Peak
143.490	43.24	-10.59	32.65	43.50	-10.85	100	292	Peak
231.760	42.50	-11.97	30.53	46.00	-15.47	100	296	Peak
285.110	38.63	-8.99	29.64	46.00	-16.36	100	122	Peak
920.460	31.33	4.82	36.15	46.00	-9.85	100	226	Peak

Vertical

Description: RBW:100kHz/VBW:300kHz

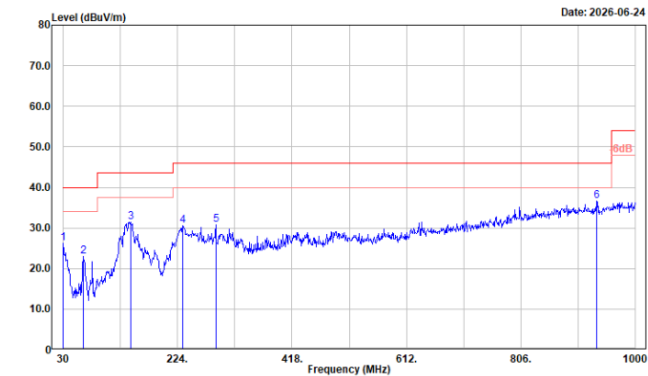


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	37.42	-3.71	33.71	40.00	-6.29	100	289	QP
38.730	37.43	-9.93	27.50	40.00	-12.50	100	237	Peak
65.890	46.21	-17.30	28.91	40.00	-11.09	100	266	Peak
79.470	42.33	-17.17	25.16	40.00	-14.84	100	45	Peak
142.520	39.16	-10.49	28.67	43.50	-14.83	100	301	Peak
863.230	31.90	4.15	36.05	46.00	-9.95	100	76	Peak

High channel

Horizontal

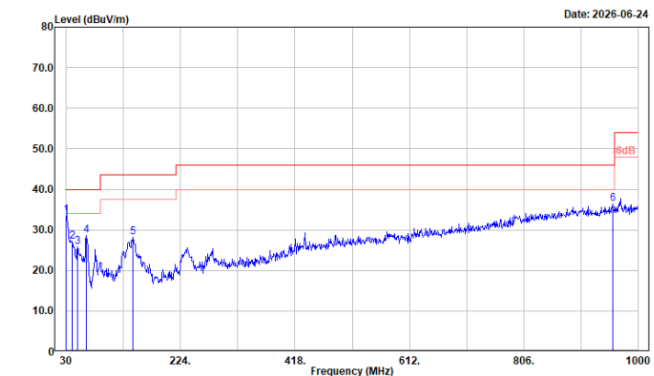
Description: RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	29.98	-3.71	26.27	40.00	-13.73	100	309	Peak
63.950	39.97	-17.08	22.89	40.00	-17.11	100	360	Peak
144.460	42.17	-10.64	31.53	43.50	-11.97	100	305	Peak
232.730	42.40	-11.93	30.47	46.00	-15.53	100	300	Peak
288.990	39.58	-8.78	30.80	46.00	-15.20	100	116	Peak
935.010	31.54	5.06	36.60	46.00	-9.40	100	343	Peak

Vertical

Description: RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	37.22	-3.71	33.51	40.00	-6.49	100	237	QP
40.670	38.52	-11.47	27.05	40.00	-12.95	100	320	Peak
49.400	41.92	-16.12	25.80	40.00	-14.20	100	222	Peak
64.920	45.82	-17.10	28.72	40.00	-11.28	100	268	Peak
143.490	38.72	-10.59	28.13	43.50	-15.37	100	331	Peak
956.350	30.95	5.51	36.46	46.00	-9.54	100	356	Peak

Level = Reading + Factor.

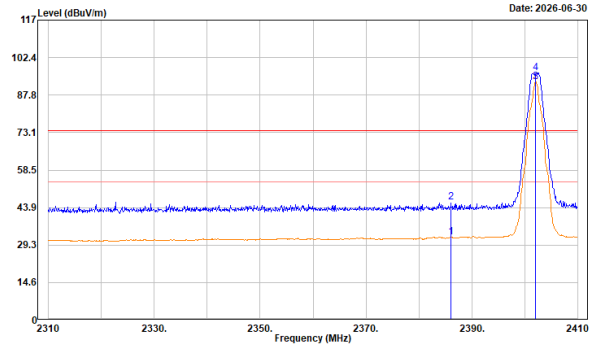
Margin = Level - Limit.

Factor = Antenna Factor + Cable Loss - Amplifier Gain.

Low channel

Vertical

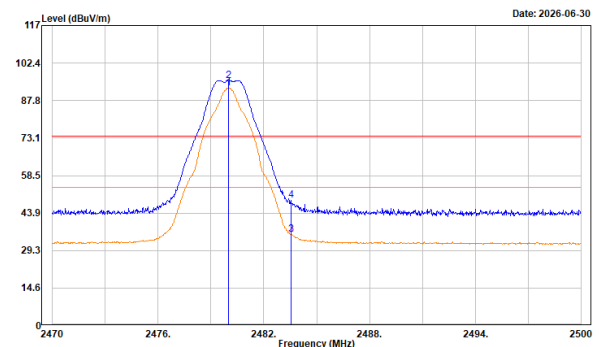
Description: SRD-TX-2402, Peak RBW:1MHz/VBW:3MHz, Avg RBW:1MHz/VBW:1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m		dB (cm)	(°)	
2386.000	43.04	-10.65	32.39	54.00	-21.61	100	317	Average
2386.000	56.71	-10.65	46.06	74.00	-27.94	100	317	Peak
2402.000	103.50	-10.48	93.02			100	317	Average
2402.000	106.73	-10.48	96.25			100	317	Peak

Vertical

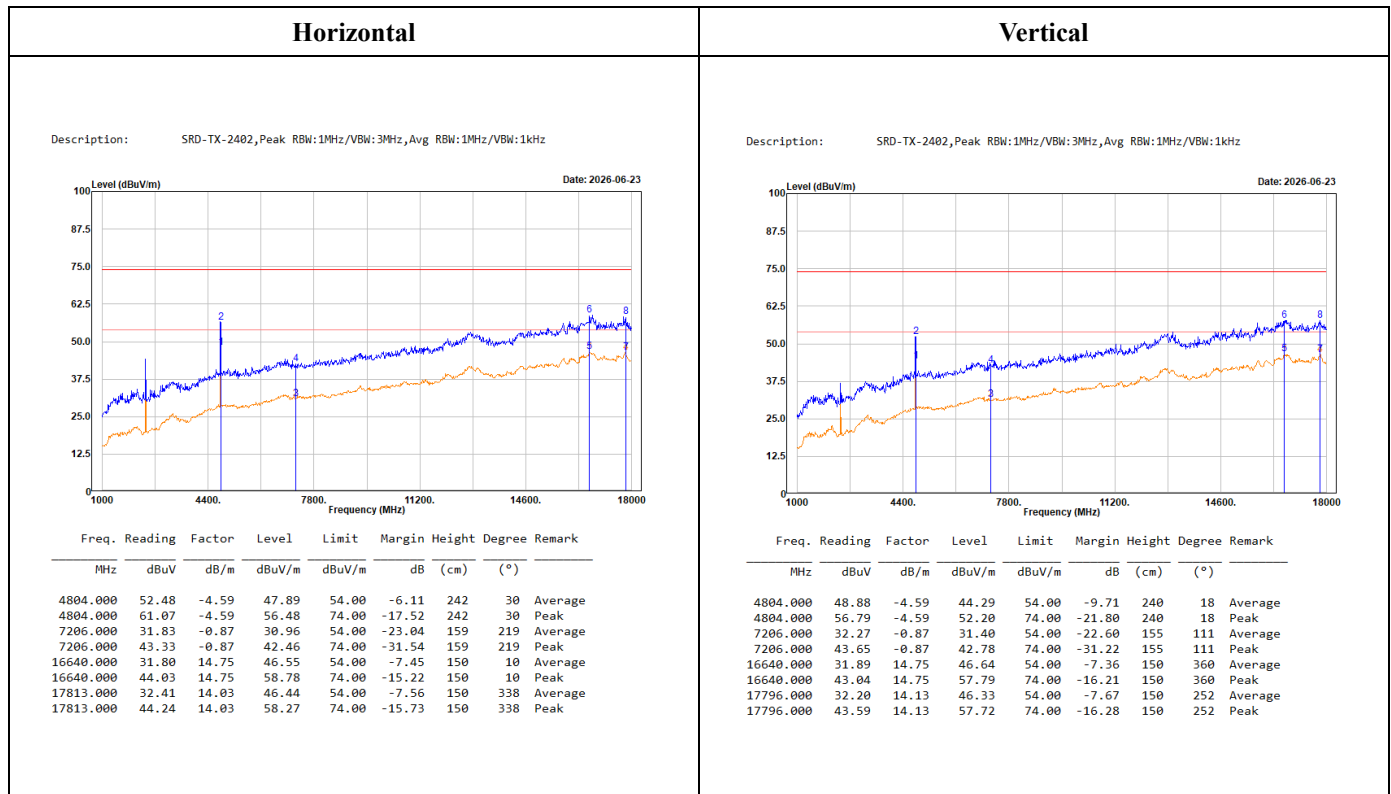
Description: SRD-TX-2480, Peak RBW:1MHz/VBW:3MHz, Avg RBW:1MHz/VBW:1kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2480.000	103.16	-10.62	92.54			109	351	Average
	106.21	-10.62	95.59			109	351	Peak
2483.530	46.25	-10.61	35.64	54.00	-18.36	109	351	Average
2483.530	59.28	-10.61	48.67	74.00	-25.33	109	351	Peak

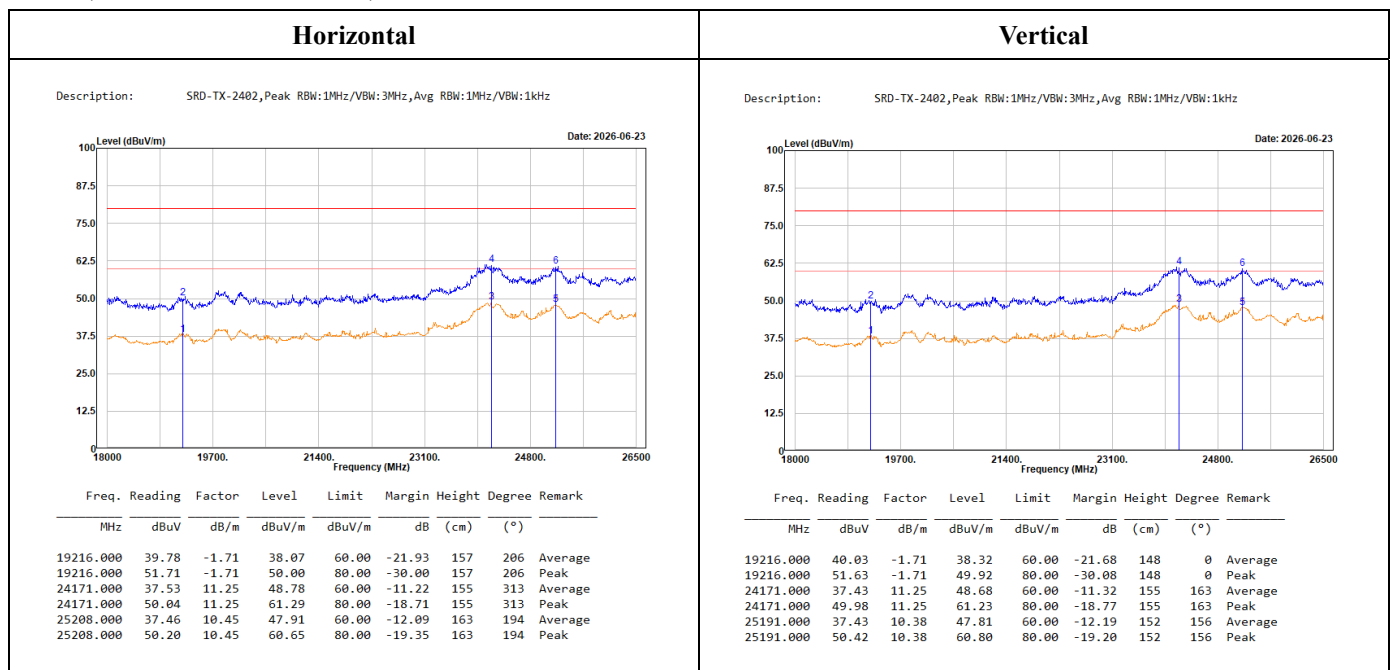
1GHz-18GHz:

(Worst case is low channel)



18GHz-26.5GHz:

(Worst case is low channel)



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 = $20 \log(3\text{m}/1.5\text{m}) = 6 \text{ dB}$,Average Limit = $54 + 6 = 60 \text{ dBuV/m}@1.5\text{m}$, Peak Limit = $60 + 20 = 80 \text{ dBuV/m}@1.5\text{m}$

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

(New Taipei Laboratory)

Above 1GHz

SRD 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)	(°)	
4804.000	52.48	-4.59	47.89	54.00	-6.11	242	30	Average	4804.000	48.88	-4.59	44.29	54.00	-9.71	240	18	Average
4804.000	61.07	-4.59	56.48	74.00	-17.52	242	30	Peak	4804.000	56.79	-4.59	52.20	74.00	-21.80	240	18	Peak
7206.000	31.83	-0.87	30.96	54.00	-23.04	159	219	Average	7206.000	32.27	-0.87	31.40	54.00	-22.60	155	111	Average
7206.000	43.33	-0.87	42.46	74.00	-31.54	159	219	Peak	7206.000	43.65	-0.87	42.78	74.00	-31.22	155	111	Peak
16640.000	31.80	14.75	46.55	54.00	-7.45	150	10	Average	16640.000	31.89	14.75	46.64	54.00	-7.36	150	360	Average
16640.000	44.03	14.75	58.78	74.00	-15.22	150	10	Peak	16640.000	43.04	14.75	57.79	74.00	-16.21	150	360	Peak
17813.000	32.41	14.03	46.44	54.00	-7.56	150	338	Average	17796.000	32.20	14.13	46.33	54.00	-7.67	150	252	Average
17813.000	44.24	14.03	58.27	74.00	-15.73	150	338	Peak	17796.000	43.59	14.13	57.72	74.00	-16.28	150	252	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)	(°)	
4880.000	49.72	-3.96	45.76	54.00	-8.24	247	28	Average	4880.000	46.79	-3.96	42.83	54.00	-11.17	294	18	Average
4880.000	57.92	-3.96	53.96	74.00	-20.04	247	28	Peak	4880.000	55.34	-3.96	51.38	74.00	-22.62	294	18	Peak
7320.000	32.98	-0.33	32.65	54.00	-21.35	140	211	Average	7320.000	32.76	-0.33	32.43	54.00	-21.57	156	222	Average
7320.000	42.68	-0.33	42.35	74.00	-31.65	140	211	Peak	7320.000	42.69	-0.33	42.36	74.00	-31.64	156	222	Peak
16640.000	31.88	14.75	46.63	54.00	-7.37	150	117	Average	16657.000	31.96	14.74	46.70	54.00	-7.30	150	37	Average
16640.000	43.48	14.75	58.23	74.00	-15.77	150	117	Peak	16657.000	43.46	14.74	58.20	74.00	-15.80	150	37	Peak
17796.000	32.38	14.13	46.51	54.00	-7.49	150	325	Average	17813.000	32.60	14.03	46.63	54.00	-7.37	150	117	Average
17796.000	43.73	14.13	57.86	74.00	-16.14	150	325	Peak	17813.000	43.23	14.03	57.26	74.00	-16.74	150	117	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)	(°)	
4960.000	48.21	-3.95	44.26	54.00	-9.74	238	28	Average	4960.000	45.41	-3.95	41.46	54.00	-12.54	259	17	Average
4960.000	57.55	-3.95	53.60	74.00	-20.40	238	28	Peak	4960.000	54.96	-3.95	51.01	74.00	-22.99	259	17	Peak
7440.000	31.99	-0.29	31.70	54.00	-22.30	157	229	Average	7440.000	32.96	-0.29	32.67	54.00	-21.33	144	230	Average
7440.000	44.11	-0.29	43.82	74.00	-30.18	157	229	Peak	7440.000	44.67	-0.29	44.38	74.00	-29.62	144	230	Peak
16691.000	31.63	14.68	46.31	54.00	-7.69	150	227	Average	16640.000	32.14	14.75	46.89	54.00	-7.11	150	219	Average
16691.000	44.57	14.68	59.25	74.00	-14.75	150	227	Peak	16640.000	44.09	14.75	58.84	74.00	-15.16	150	219	Peak
17796.000	32.44	14.13	46.57	54.00	-7.43	150	149	Average	17796.000	32.01	14.13	46.14	54.00	-7.86	150	300	Average
17796.000	44.68	14.13	58.81	74.00	-15.19	150	149	Peak	17796.000	44.97	14.13	59.10	74.00	-14.90	150	300	Peak

Note:

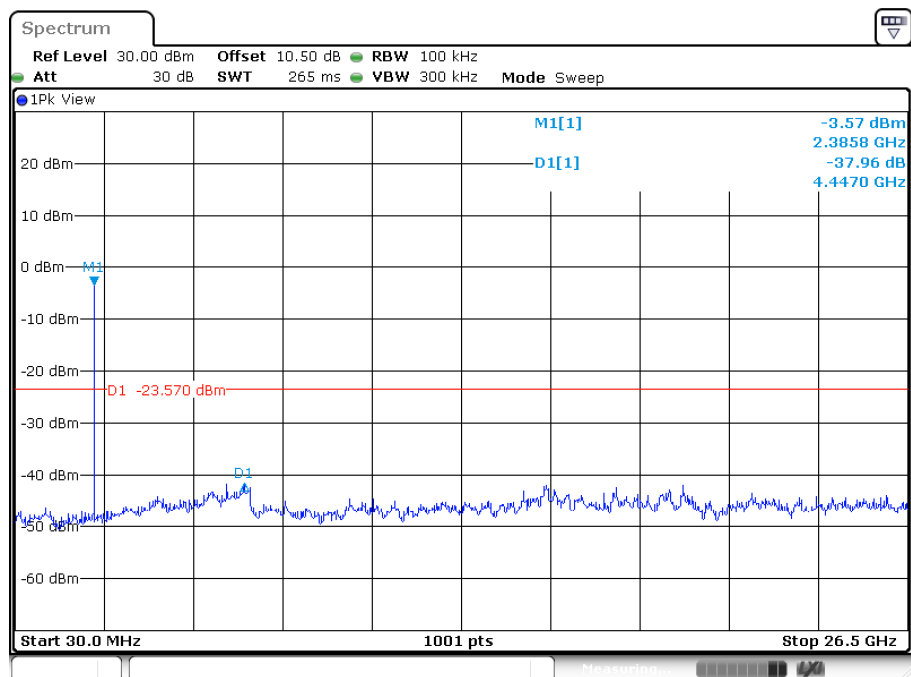
Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

Conducted Spurious Emissions:

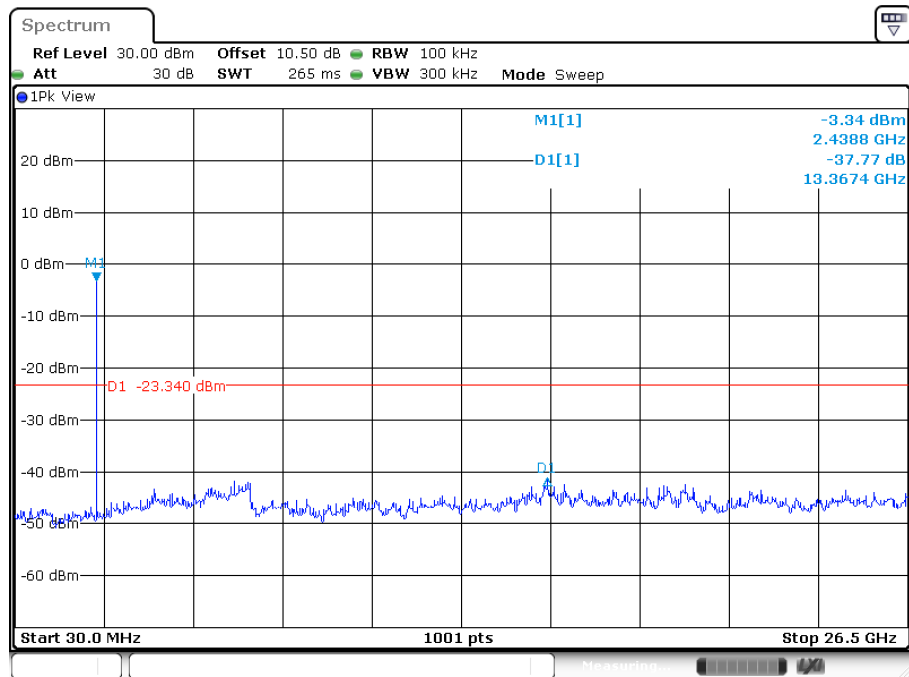
Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
Low	2402	37.96	≥ 20	PASS
Mid	2440	37.77	≥ 20	PASS
High	2480	37.39	≥ 20	PASS

Low Channel

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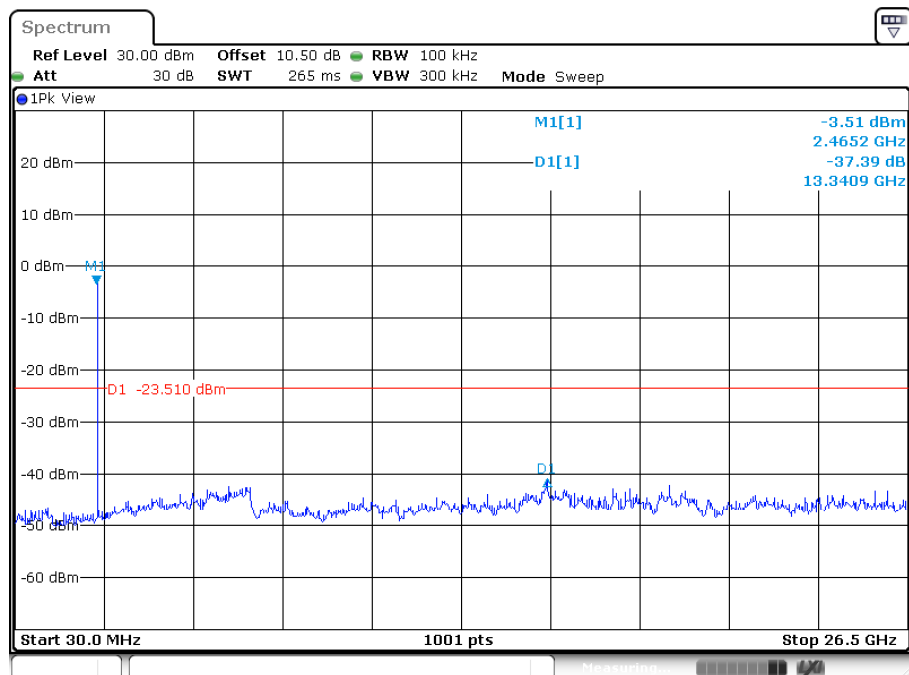
Middle Channel



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High Channel



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8 FCC §15.247(a)(2) – 6 dB Emission 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

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.

According to ANSI C63.10-2020, section 6.9.3

For the 99% emission bandwidth, the trace data points are recovered and directly summed in linear power level 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, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99% emission bandwidth).

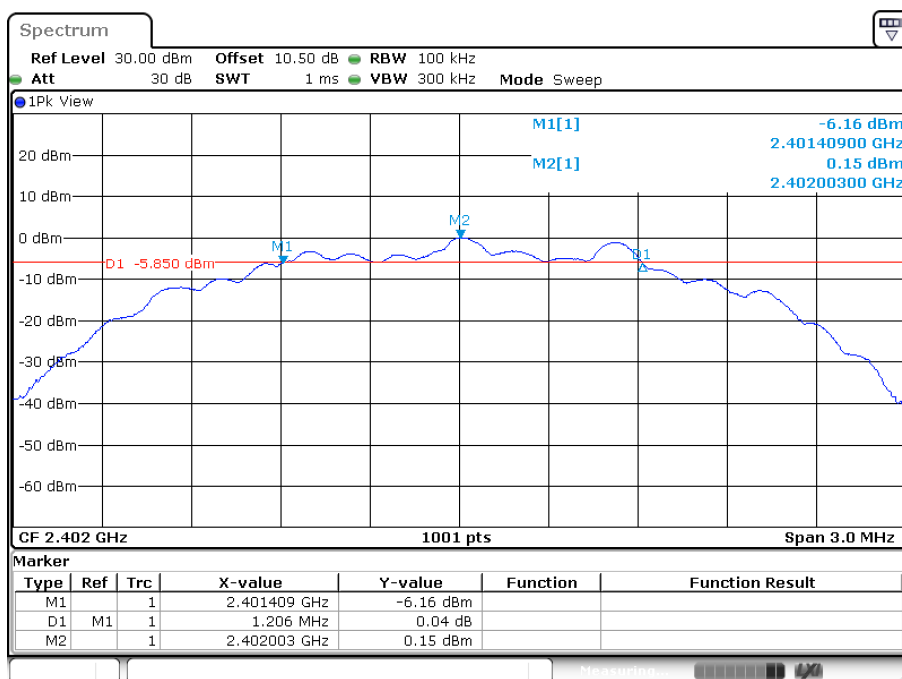
8.3 Test Results

Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (kHz)	Result
Low	2402	1.21	2.04	> 500	PASS
Middle	2440	1.22	2.04	> 500	PASS
High	2480	1.21	2.04	> 500	PASS

Please refer to the following plots

6 dB Emission Bandwidth

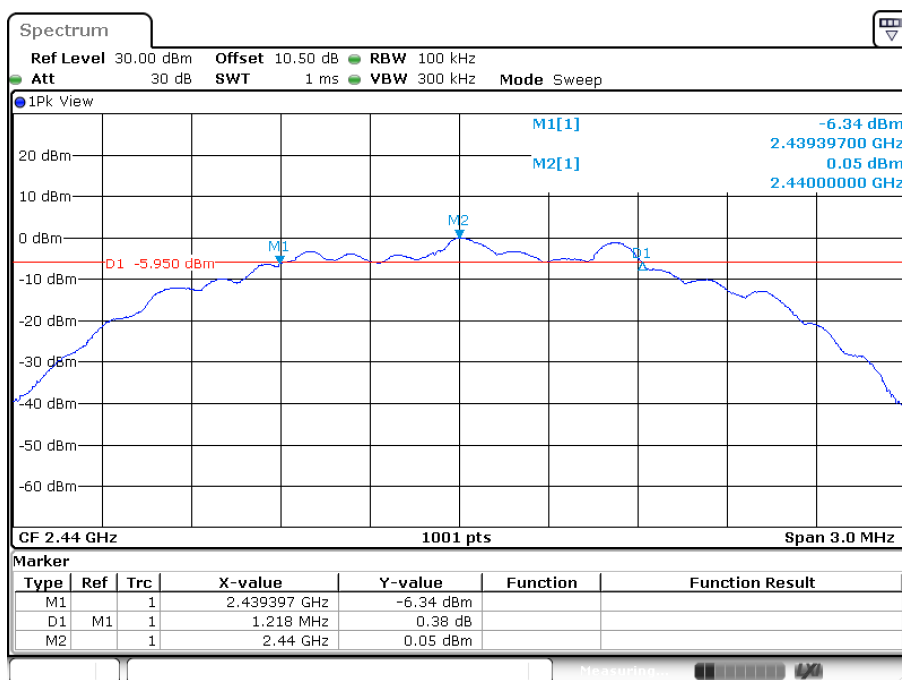
Low Channel



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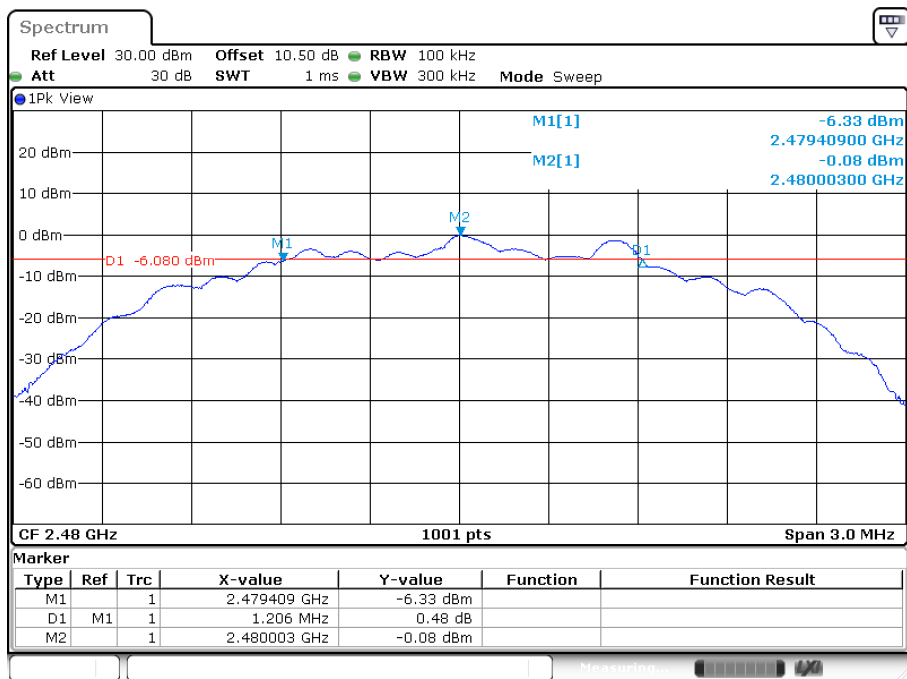
Middle Channel



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High Channel

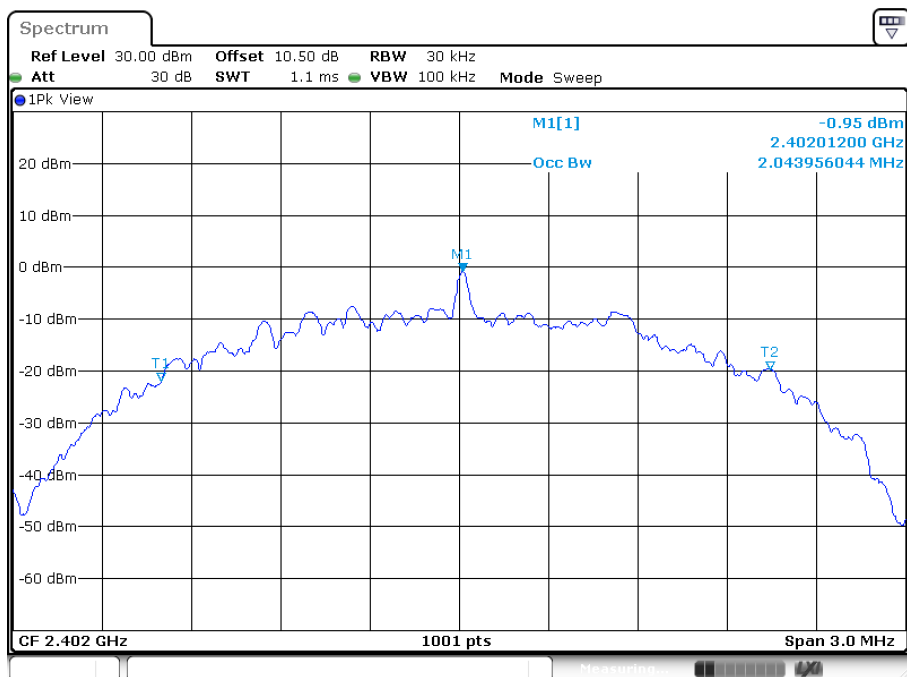


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99% Bandwidth

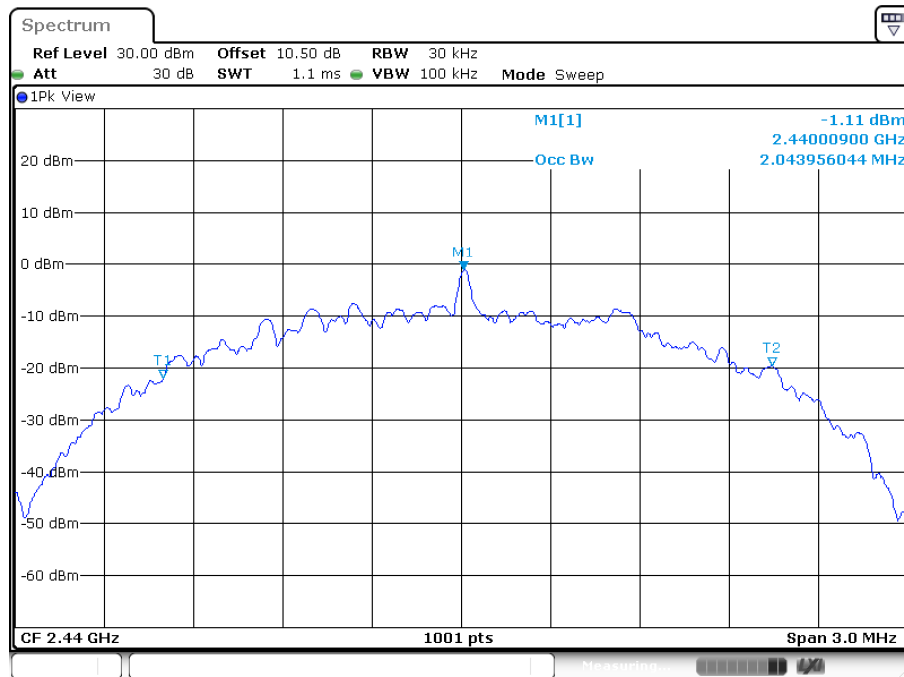
Low Channel



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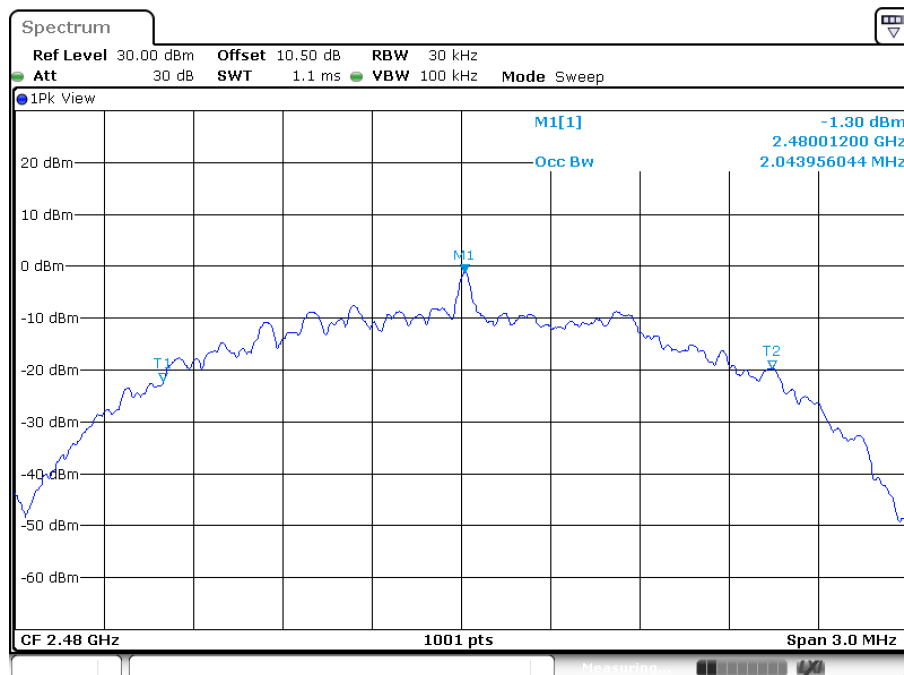
Middle Channel



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High Channel



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9 FCC §15.247(b)(3) – 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

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 power meter.

9.3 Test Results

Conducted Peak Output Power

Channel	Frequency (MHz)	Conducted Peak Output Power (dBm)	Limit (dBm)	Result
Low	2402	0.25	30	PASS
Middle	2440	0.23	30	PASS
High	2480	0.14	30	PASS

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 Section 11.11.3

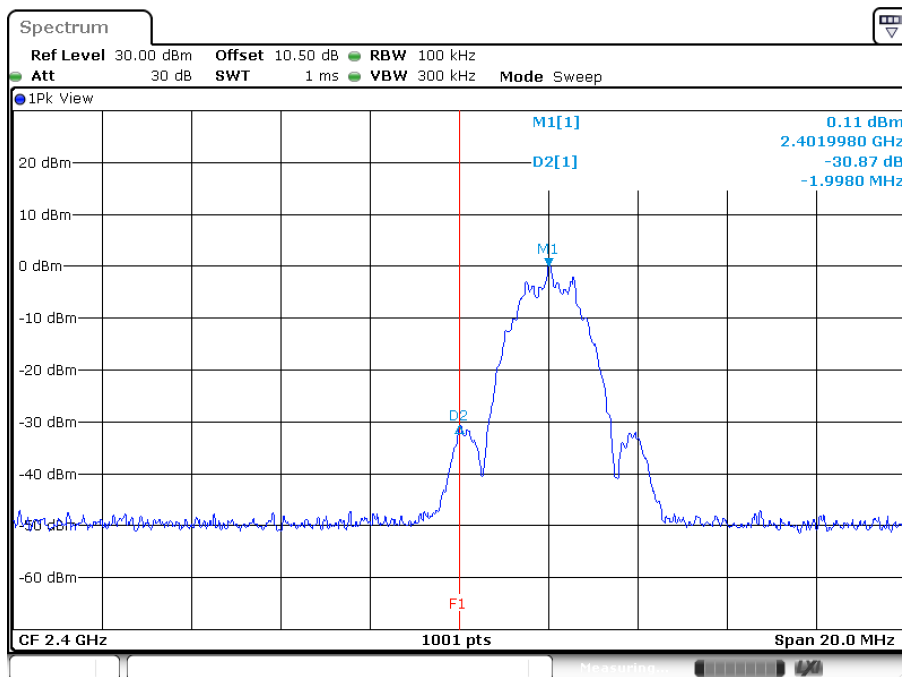
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

10.3 Test Results

Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
Low	2402	30.87	≥ 20	PASS
High	2480	47.10	≥ 20	PASS

Please refer to the following plots.

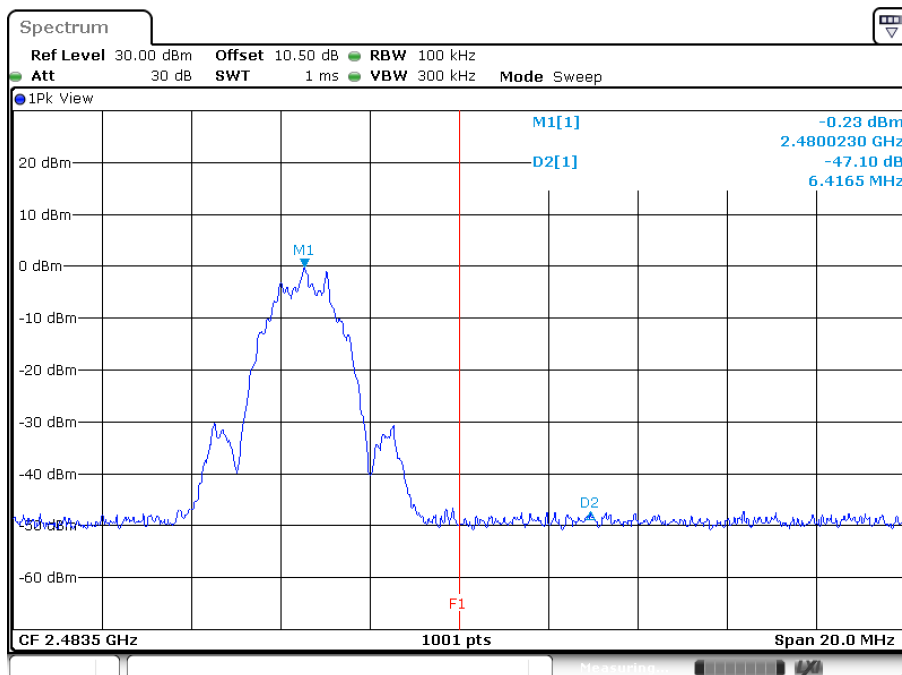
Band Edge, Low Channel



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Band Edge, High Channel



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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, section 11.10.2

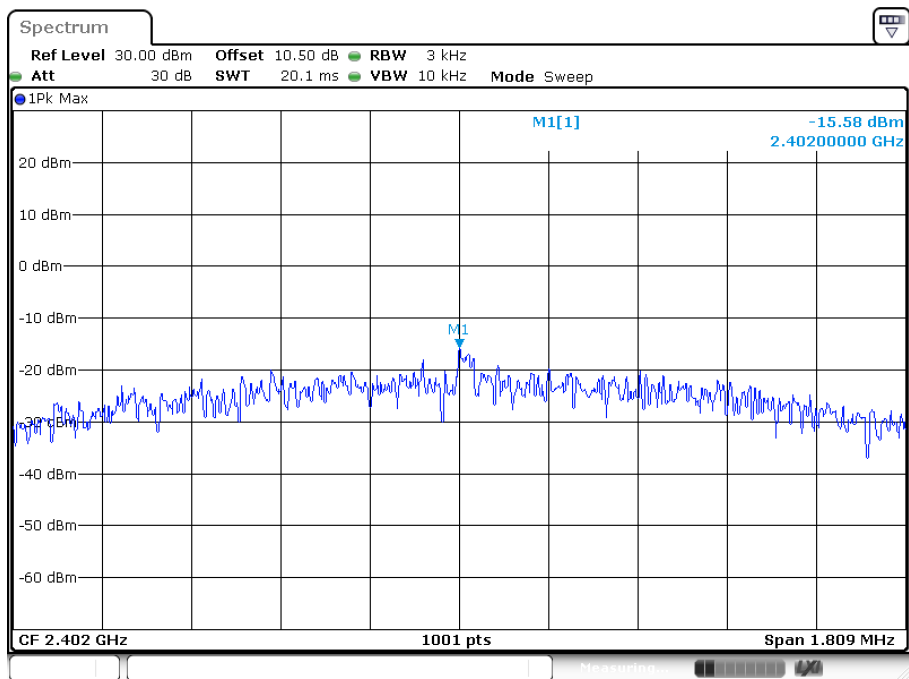
- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span >1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = No faster than coupled (auto) 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
Low	2402	-15.58	8	PASS
Middle	2440	-15.84	8	PASS
High	2480	-16.04	8	PASS

Please refer to the following plots

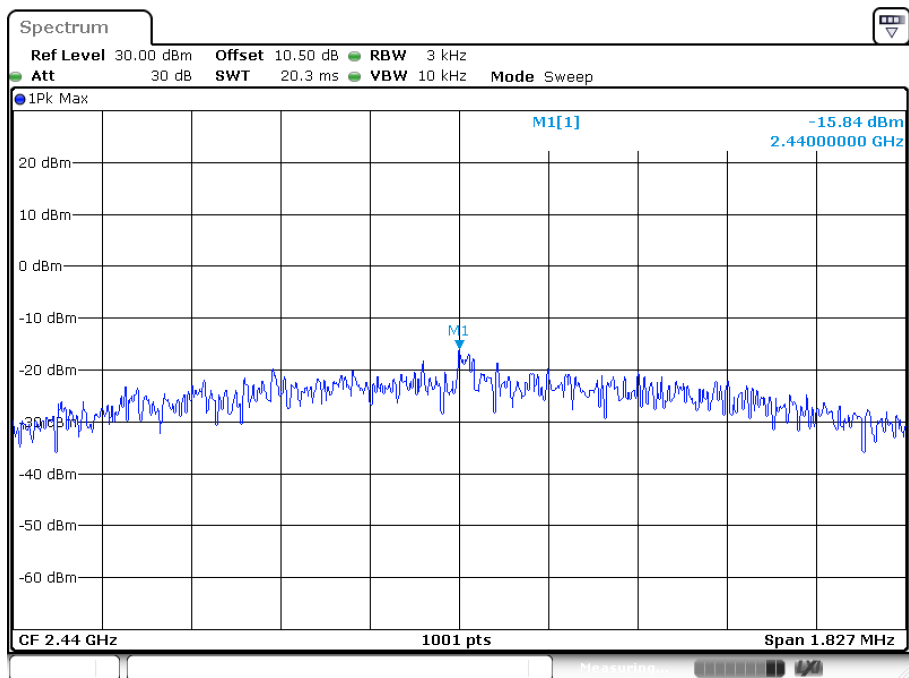
Low Channel



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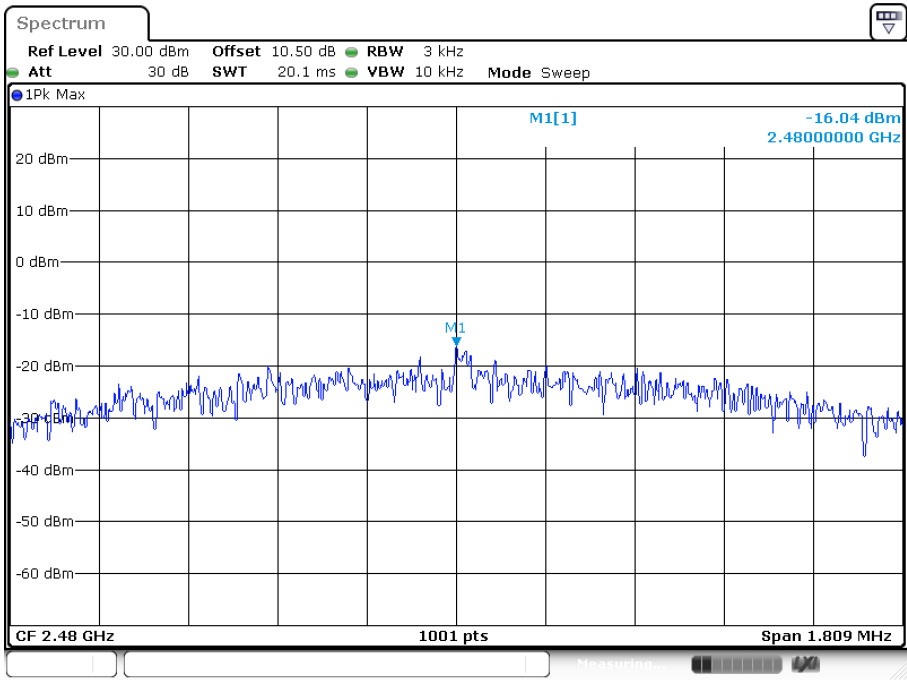
Middle Channel



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High Channel



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