

FCC Part 15.247

TEST REPORT

For

Suzhou Etag-Technology Corporation

Room 236,2/F Ming De Building, No.166 Ren ai Road,Suzhou Industrial
Park,Suzhou,China

FCC ID: 2ARJ5-ET0154-80

Report Type: Original Report	Product Type: ESL (Electronic Shelf Label)
Report Producer : <u>Jojo Lu</u>	
Report Number : <u>RXZ251216041RF02</u>	
Report Date : <u>2026-06-05</u>	
Reviewed By: <u>Andy Shih</u> <i>Andy Shih</i>	
Prepared By: Bay Area Compliance Laboratories Corp. (New Taipei Laboratory) 70, Lane 169, Sec. 2, Datong Road, Xizhi Dist., New Taipei City 221, Taiwan, R.O.C. Tel: +886 (2) 2647 6898 Fax: +886 (2) 2647 6895 www.baclcorp.com.tw	

Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
0.0	RXZ251216041	RXZ251216041RF02	2026-06-05	Original Report	Jojo Lu

TABLE OF CONTENTS

1	General Information.....	4
1.1	Product Description for Equipment under Test (EUT)	4
1.2	Objective	5
1.3	Test Methodology.....	5
1.4	Statement.....	5
1.5	Measurement Uncertainty	6
1.6	Environmental Conditions.....	6
1.7	Test Facility.....	6
2	System Test Configuration.....	7
2.1	Description of Test Configuration.....	7
2.2	EUT Exercise Software	7
2.3	Equipment Modifications	7
2.4	Test Mode.....	7
2.5	Support Equipment List and Details.....	8
2.6	External Cable List and Details.....	8
2.7	Block Diagram of Test Setup	8
2.8	Duty Cycle.....	10
3	Summary of Test Results.....	11
4	Test Equipment List and Details	12
5	FCC §15.203 – Antenna Requirements.....	13
5.1	Applicable Standard	13
5.2	Antenna List and Details	13
6	FCC §15.209, §15.205 , §15.247(d) – Spurious Emissions	14
6.1	Applicable Standard	14
6.2	EUT Setup	15
6.3	EMI Test Receiver & Spectrum Analyzer Setup.....	16
6.4	Test Procedure.....	17
6.5	Corrected Factor & Margin Calculation.....	17
6.6	Test Results	18
7	FCC §15.247(a)(2) – 6 dB Emission Bandwidth.....	31
7.1	Applicable Standard	31
7.2	Test Procedure.....	31
7.3	Test Results	32
8	FCC §15.247(b)(3) – Maximum Output Power.....	39
8.1	Applicable Standard	39
8.2	Test Procedure.....	39
8.3	Test Results	39
9	FCC§15.247(d) – 100 kHz Bandwidth of Frequency Band Edge	40
9.1	Applicable Standard	40
9.2	Test Procedure.....	40
9.3	Test Results	40
10	FCC §15.247(e) – Power Spectral Density	43
10.1	Applicable Standard	43
10.2	Test Procedure.....	43
10.3	Test Results	43

1 General Information

1.1 Product Description for Equipment under Test (EUT)

Applicant	Suzhou Etag-Technology Corporation
	Room 236,2/F Ming De Building, No.166 Ren ai Road,Suzhou Industrial Park,Suzhou,China
Brand(Trade) Name	ETGtag
Product (Equipment)	ESL(Electronic Shelf Label)
Main Model Name	ET0154-80
Series Model Name	N/A
Model Discrepancy	N/A
Frequency Range	BLE(1M) / BLE(2M) : 2402 ~ 2480 MHz
Maximum Conducted Peak Output Power	BLE(1M) Mode : 0.22 dBm BLE(2M) Mode : 0.24 dBm
Modulation Technique	BLE(1M) / BLE(2M) : GFSK
Transmit Data Rate	BLE(1M) Mode : 1 Mbps BLE(2M) Mode : 2 Mbps
Power Operation (Voltage Range)	3Vdc from Battery
Received Date	2025/12/16

*All measurement and test data in this report was gathered from production sample serial number:

RXZ251216041-1 (Assigned by BACL, New Taipei Laboratory).

1.2 Objective

This report is prepared on behalf of *Suzhou Etag-Technology 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
Radiation Spurious Emissions	2025/12/18~2025/12/22	20.6~22.9	59~68	Toney Chen
Duty Cycle	2026/01/13	20.1	51	Jet Lin
Conducted Spurious Emissions	2026/01/13	20.1	51	Jet Lin
Emission Bandwidth	2026/01/13	20.1	51	Jet Lin
Maximum Output Power	2026/01/13	20.1	51	Jet Lin
100 kHz Bandwidth of Frequency Band Edge	2026/01/13	20.1	51	Jet Lin
Power Spectral Density	2026/01/13	20.1	51	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 BLE mode, there are totally 40 channels.

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

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

2.2 EUT Exercise Software

The test software was used “Atmosic RF Tool v1.5.3”

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

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

2.3 Equipment Modifications

No modification was made to the EUT.

2.4 Test Mode

Full System (model: ET0154-80) for all test item.

2.5 Support Equipment List and Details

Description	Manufacturer	Model Number
NB	DELL	E6410
Fixture	GZU	USB->TTL V2.2

2.6 External Cable List and Details

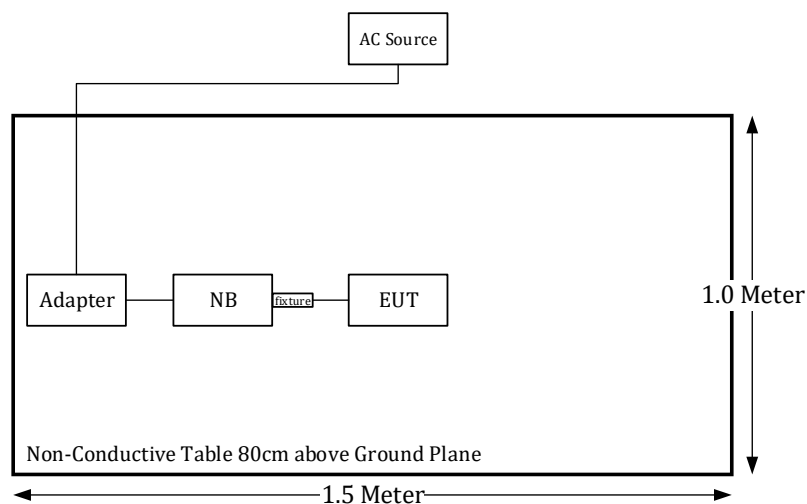
N/A

2.7 Block Diagram of Test Setup

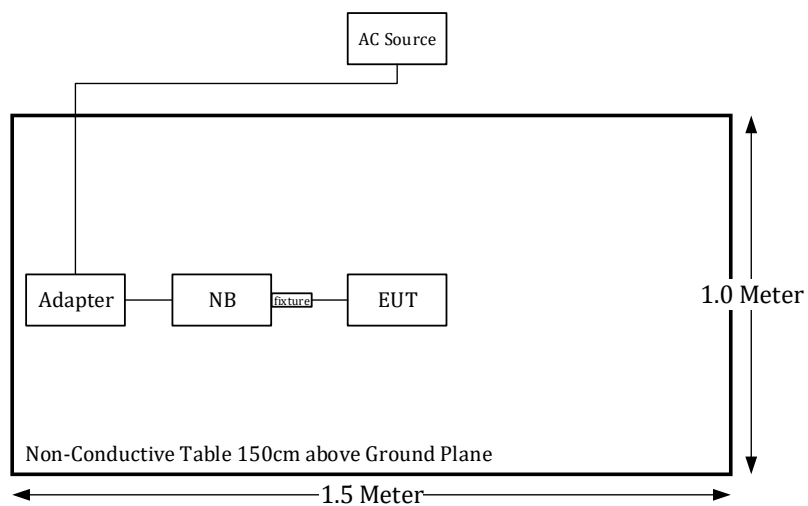
See test photographs attached in setup photos for the actual connections between EUT and support equipment.

Radiation:

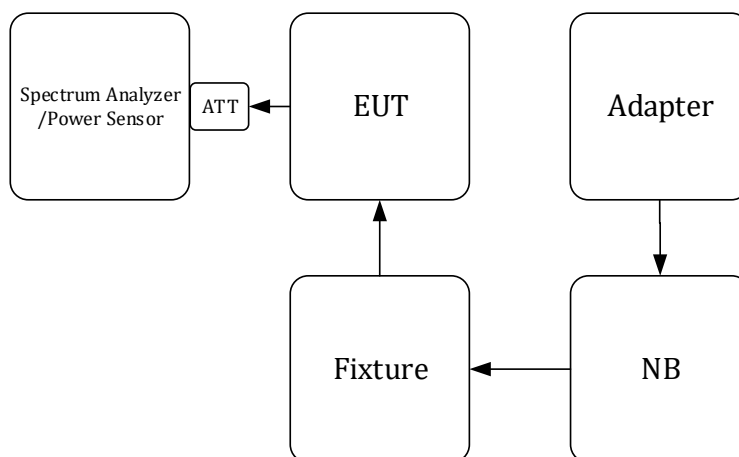
Below 1GHz:



Above 1GHz:



Conducted:



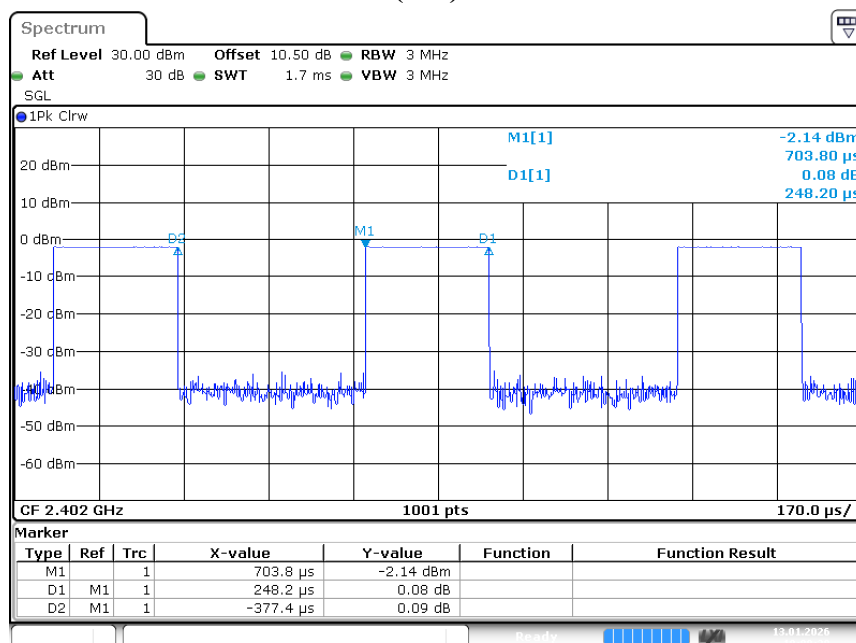
2.8 Duty Cycle

The duty cycle as below:

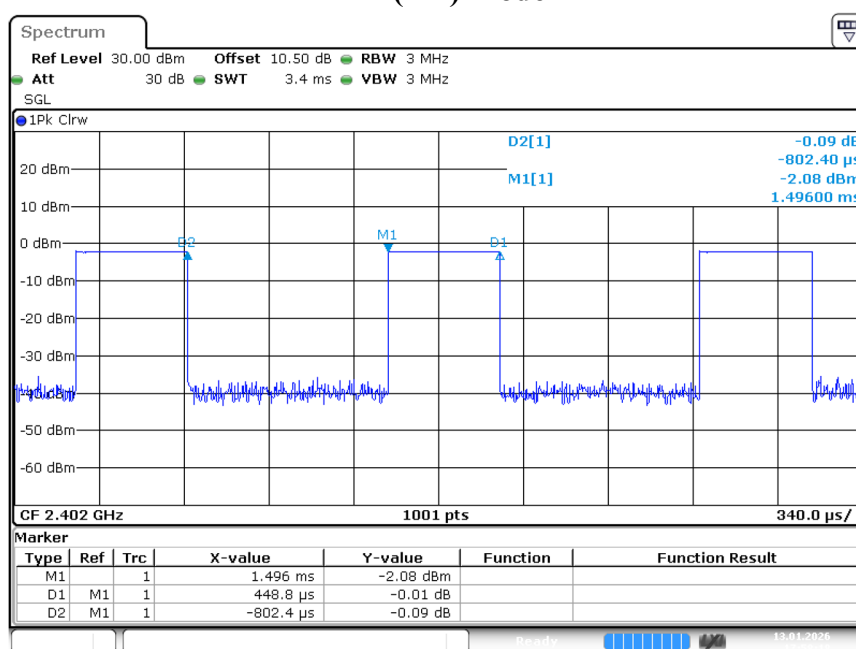
Radio Mode	Ton (ms)	Toff (ms)	Duty Cycle (%)	1/Ton (kHz)	1/T VBW setting (kHz)
BLE(1M)	0.248	0.377	0.40	4.03	5
BLE(2M)	0.449	0.802	0.36	2.23	3

Please refer to the following plots.

BLE(1M) Mode



BLE(2M) Mode



3 Summary of Test Results

FCC Rules	Description of Test	Results
§15.203	Antenna Requirement	Compliance
§15.207(a)	AC Line Conducted Emissions	Not Applicable
§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

Not Applicable: The EUT is powered by battery only.

4 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
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
EMI Test Receiver	Rohde & Schwar	ESR3	102415	2025/3/19	2026/3/19
Microflex Cable	UTIFLEX	UFB197C-1-2362-70U-70U	225757-001	2024/12/20	2025/12/20
				2025/12/19	2026/12/19
Coaxial Cable	UTIFLEX	UFB311A-Q-1440-300300	220490-006	2024/12/20	2025/12/20
				2025/12/19	2026/12/19
Coaxial Cable	COMMATE	PEWC	8Dr	2024/12/20	2025/12/20
				2025/12/19	2026/12/19
Cable	EMC	EMC105-SM-SM-10000	201003	2024/12/20	2025/12/20
				2025/12/19	2026/12/19
Coaxial Cable	JUNFLON	J12J102248-00-B-5	AUG-07-15-044	2024/12/20	2025/12/20
				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	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
Microflex Cable	UTIFLEX	UFB197C-1-2362-70U-70U	225757-001	2024/12/20	2025/12/20
				2025/12/19	2026/12/19
Coaxial Cable	UTIFLEX	UFB311A-Q-1440-300300	220490-006	2024/12/20	2025/12/20
				2025/12/19	2026/12/19
Coaxial Cable	COMMATE	PEWC	8Dr	2024/12/20	2025/12/20
				2025/12/19	2026/12/19
Cable	EMC	EMC105-SM-SM-10000	201003	2024/12/20	2025/12/20
				2025/12/19	2026/12/19
Coaxial Cable	JUNFLON	J12J102248-00-B-5	AUG-07-15-044	2024/12/20	2025/12/20
				2025/12/19	2026/12/19
Coaxial Cable	ROSNO	K1K50-UP0264-K1K50-450CM	160309-1	2025/1/21	2026/1/21
Microflex Cable	ROSNO	K1K50-UP0264-K1K50-80CM	160309-2	2025/1/21	2026/1/21
Band-reject 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(R&S)	FSV40	101204	2025/6/4	2026/6/4
Cable	UTIFLEX	UFA210A	9435	2025/9/30	2026/9/30
Power Sensor	Boonton	RTP5006	11037	2025/5/16	2026/5/16
Attenuator	MCL	BW-S10W5+	1419	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.

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

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	-1.4 dBi

Antenna was permanently attached to the unit.

Result: Compliance

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

6.1 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.

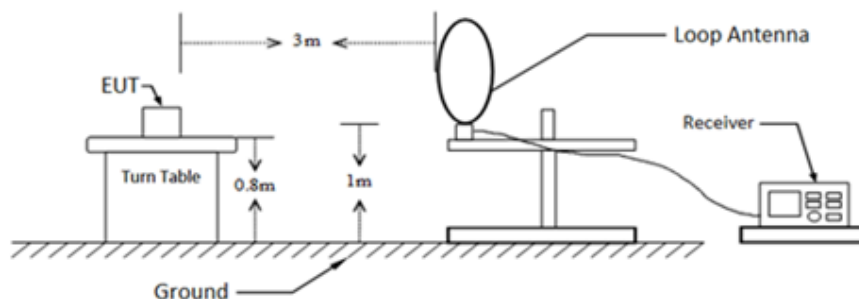
According to ANSI C63.10-2020, section 5.3.3

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).

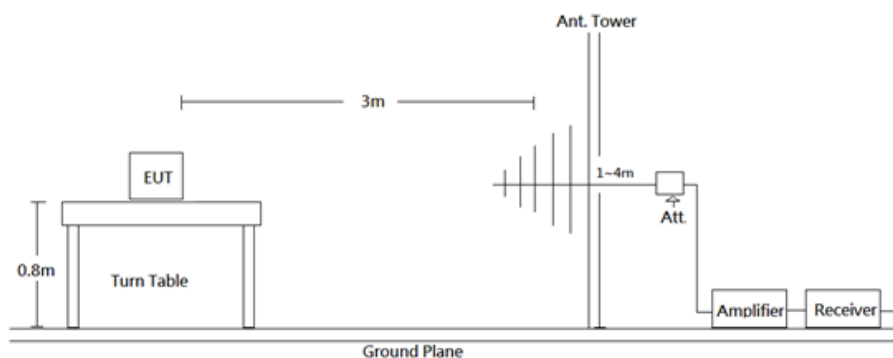
As per FCC §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the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

6.2 EUT Setup

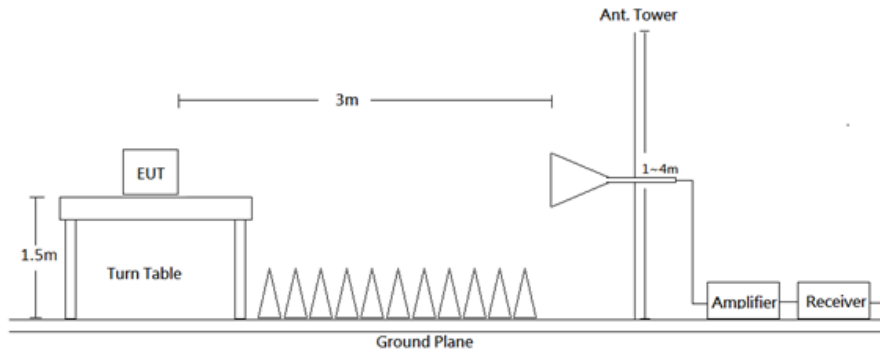
9kHz-30MHz:



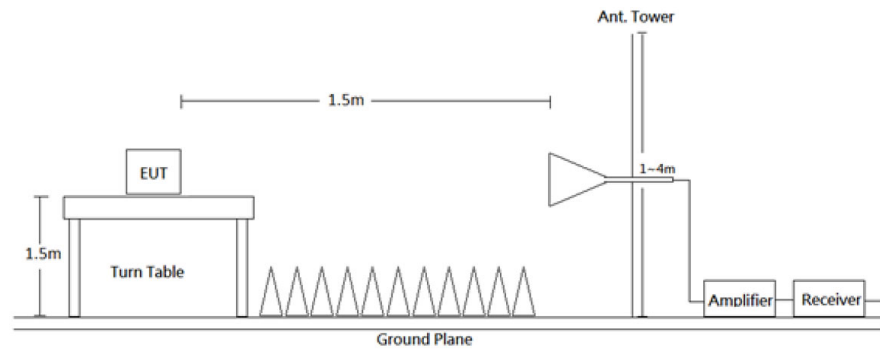
30MHz-1GHz:



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.

6.3 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

6.4 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.

6.5 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:

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

6.6 Test Results

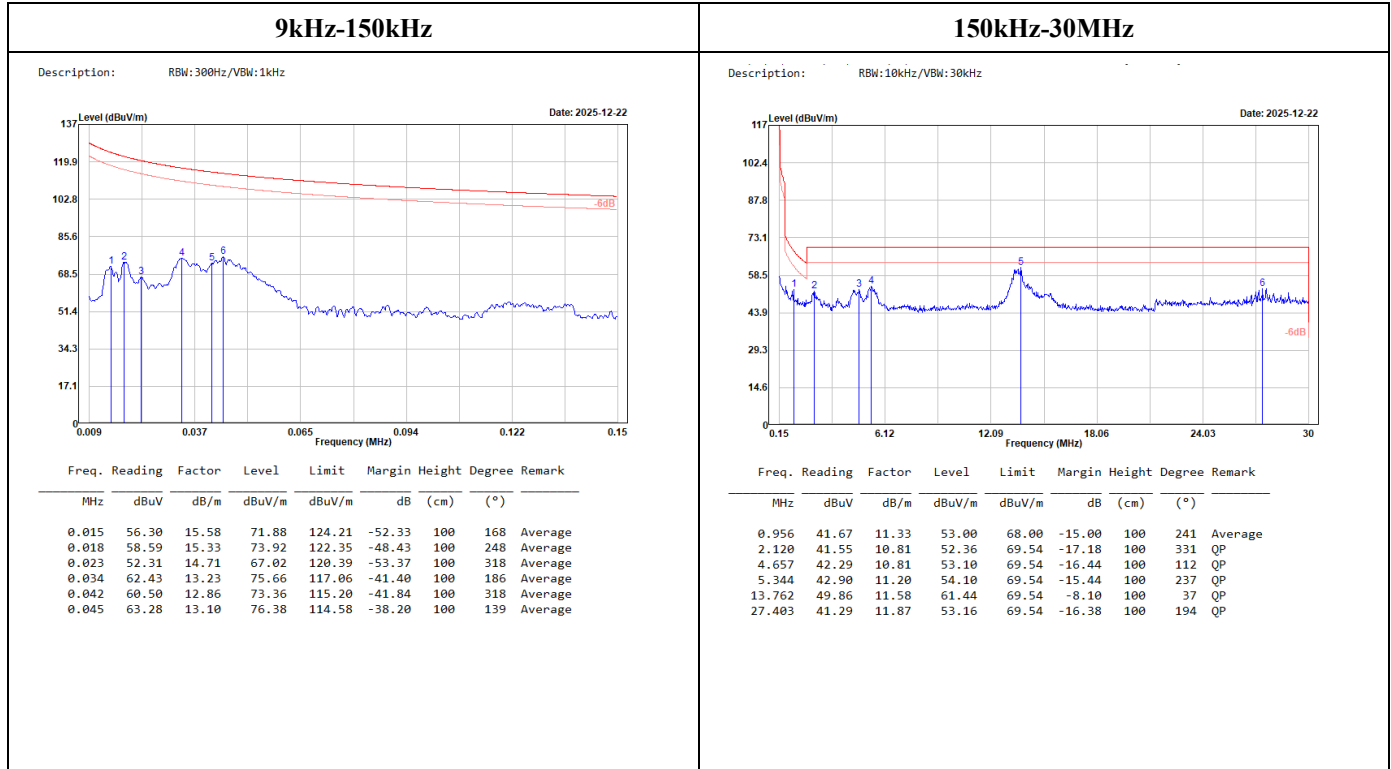
Test Mode: Transmitting

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

9kHz-30MHz:

(Worst case is BLE(2M) mode, low channel)

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



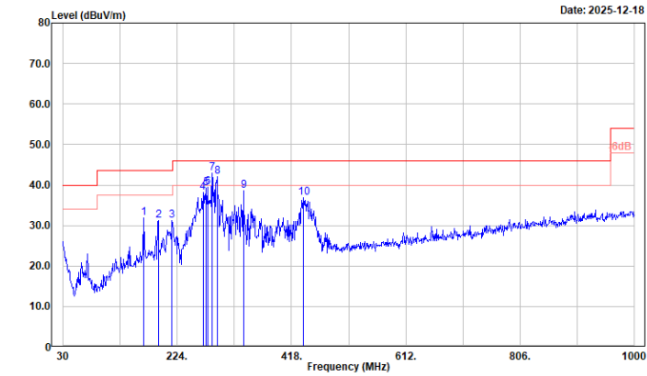
30MHz-1GHz:

Worst case is BLE(2M) mode

Low channel

Horizontal

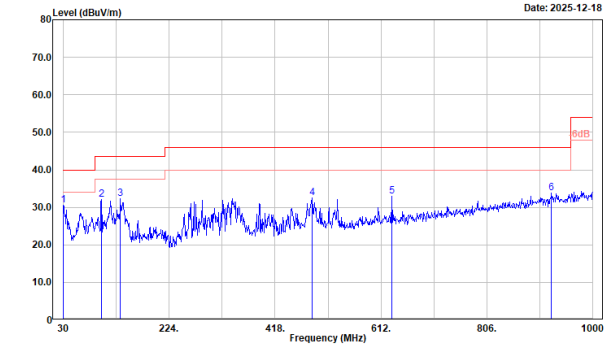
Description: BLE-TX-LOW, RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
167.740	44.17	-12.38	31.79	43.50	-11.71	100	359	QP
191.990	44.00	-12.72	31.28	43.50	-12.22	100	26	QP
215.270	44.47	-13.35	31.12	43.50	-12.38	100	352	QP
267.650	48.86	-10.60	38.26	46.00	-7.74	100	64	QP
272.500	49.47	-10.32	39.15	46.00	-6.85	100	114	QP
275.410	49.80	-10.25	39.55	46.00	-6.45	100	64	QP
283.170	52.91	-10.06	42.85	46.00	-3.15	100	46	QP
291.900	51.81	-9.84	41.97	46.00	-4.03	100	38	QP
336.520	47.63	-9.14	38.49	46.00	-7.51	100	42	QP
438.370	42.78	-6.00	36.78	46.00	-9.22	100	2	QP

Vertical

Description: BLE-TX-LOW, RBW:100kHz/VBW:300kHz

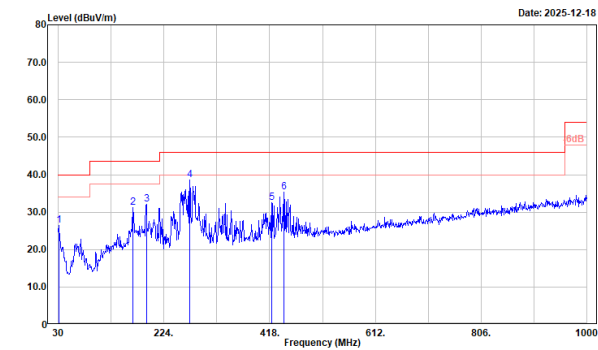


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	34.90	-4.32	30.58	40.00	-9.42	100	89	QP
99.840	46.85	-14.77	32.08	43.50	-11.42	100	81	QP
134.760	43.29	-11.00	32.29	43.50	-11.21	100	13	QP
485.900	37.39	-4.96	32.43	46.00	-13.57	100	70	QP
632.370	35.59	-2.68	32.91	46.00	-13.09	100	177	QP
924.340	30.85	3.00	33.85	46.00	-12.15	100	144	QP

Middle channel

Horizontal

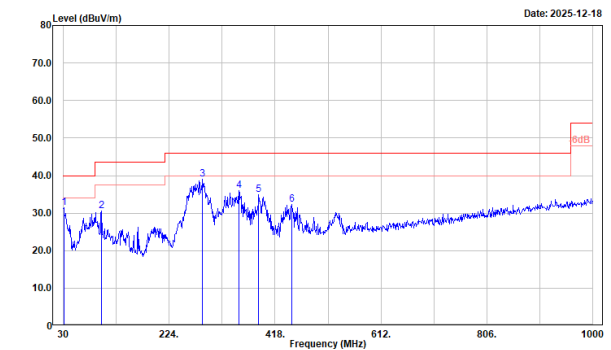
Description: BLE-TX-Middle, RBW:100kHz/VBW:300kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
31.940	32.15	-5.76	26.39	40.00	-13.61	100	101	QP
167.740	43.57	-12.38	31.19	43.50	-12.31	100	23	QP
191.990	44.80	-12.72	32.08	43.50	-11.42	100	71	QP
271.530	49.03	-10.35	38.68	46.00	-7.32	100	75	QP
421.880	39.16	-6.65	32.51	46.00	-13.49	100	360	QP
444.190	41.02	-5.69	35.33	46.00	-10.67	100	162	QP

Vertical

Description: BLE-TX-Middle, RBW:100kHz/VBW:300kHz



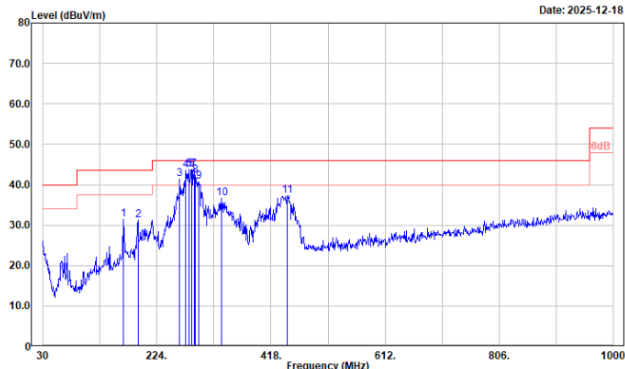
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.970	36.80	-5.47	31.33	40.00	-8.67	100	294	QP
99.840	45.26	-14.77	30.49	43.50	-13.01	100	75	QP
285.110	49.03	-9.98	39.05	46.00	-6.95	100	104	QP
352.040	44.95	-8.96	35.99	46.00	-10.01	100	56	QP
387.930	42.69	-7.69	35.00	46.00	-11.00	100	75	QP
448.070	37.98	-5.68	32.30	46.00	-13.70	100	327	QP

High channel

Horizontal

Description: BLE-TX-Hight,RBW:100kHz/VBW:300kHz

Date: 2025-12-18

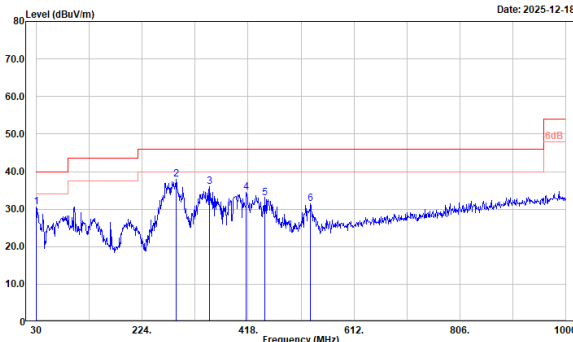


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
167.740	43.88	-12.38	31.50	43.50	-12.00	100	24	QP
191.990	43.98	-12.72	31.26	43.50	-12.24	100	9	QP
262.800	52.63	-11.18	41.45	46.00	-4.55	100	317	QP
273.470	53.98	-10.30	43.68	46.00	-2.32	100	59	QP
278.320	53.95	-10.23	43.72	46.00	-2.28	100	246	QP
283.170	53.88	-10.06	43.82	46.00	-2.18	100	137	QP
287.050	53.76	-9.93	43.83	46.00	-2.17	100	51	QP
289.960	52.02	-9.85	42.17	46.00	-3.83	100	27	QP
295.780	50.56	-9.83	40.73	46.00	-5.27	100	182	QP
333.610	45.72	-9.17	36.55	46.00	-9.45	100	43	QP
445.160	42.88	-5.63	37.25	46.00	-8.75	100	1	QP

Vertical

Description: BLE-TX-Hight,RBW:100kHz/VBW:300kHz

Date: 2025-12-18



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
30.000	34.96	-4.32	30.64	40.00	-9.36	100	186	QP
286.080	47.95	-9.96	37.99	46.00	-8.01	100	45	QP
347.190	45.00	-9.07	35.93	46.00	-10.07	100	53	QP
415.090	41.31	-6.86	34.45	46.00	-11.55	100	45	QP
448.070	38.74	-5.68	33.06	46.00	-12.94	100	64	QP
532.460	35.82	-4.34	31.48	46.00	-14.52	100	152	QP

Level = Reading + Factor.

Margin = Level - Limit.

Factor = Antenna Factor + Cable Loss - Amplifier Gain.

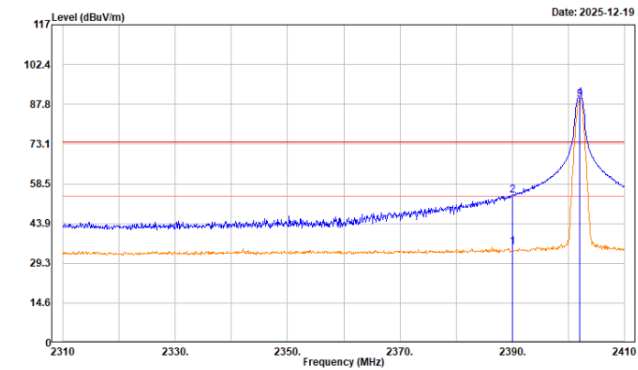
Band-Edge:

BLE(1M) Mode

Low channel

Horizontal

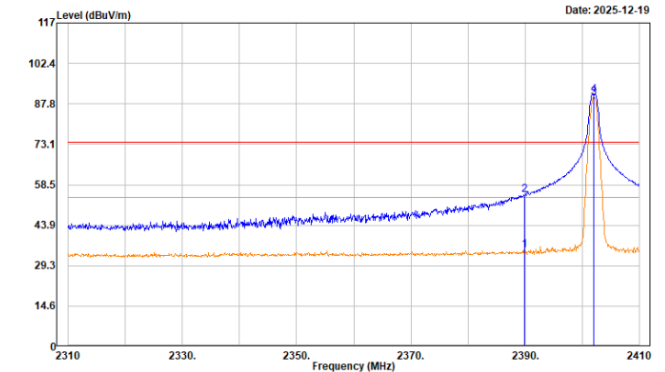
Description: BLE_1M-TX-2402,Peak RBW:1MHz/VBW:3MHz,Avg RBW:1MHz/VBW:5kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.980	45.89	-10.72	35.17	54.00	-18.83	137	203	Average
2389.980	65.01	-10.72	54.29	74.00	-19.71	137	203	Peak
2402.000	99.98	-10.71	89.27			137	203	Average
2402.000	100.87	-10.71	90.16			137	203	Peak

Vertical

Description: BLE_1M-TX-2402,Peak RBW:1MHz/VBW:3MHz,Avg RBW:1MHz/VBW:5kHz

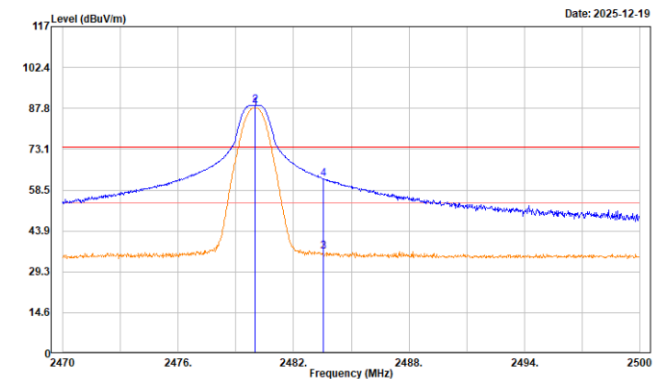


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.920	45.47	-10.72	34.75	54.00	-19.25	129	15	Average
2389.920	65.47	-10.72	54.75	74.00	-19.25	129	15	Peak
2402.000	100.76	-10.71	90.05			129	15	Average
2402.000	101.66	-10.71	90.95			129	15	Peak

High channel

Horizontal

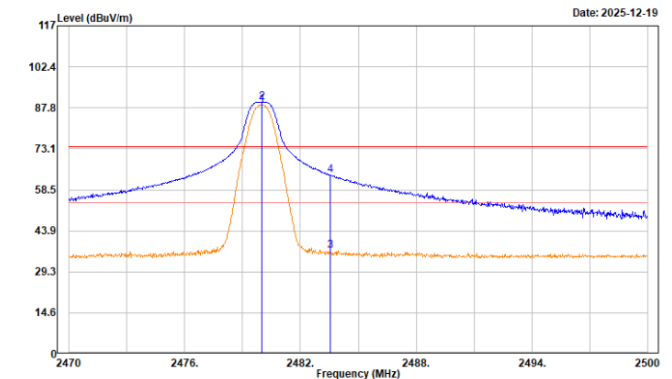
Description: BLE_1M-TX-2480,Peak RBW:1MHz/VBW:3MHz,Avg RBW:1MHz/VBW:5kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2480.000	98.14	-10.17	87.97			100	200	Average
2480.000	99.03	-10.17	88.86			100	200	Peak
2483.560	46.64	-10.12	36.52	54.00	-17.48	100	200	Average
2483.560	72.69	-10.12	62.57	74.00	-11.43	100	200	Peak

Vertical

Description: BLE_1M-TX-2480,Peak RBW:1MHz/VBW:3MHz,Avg RBW:1MHz/VBW:5kHz



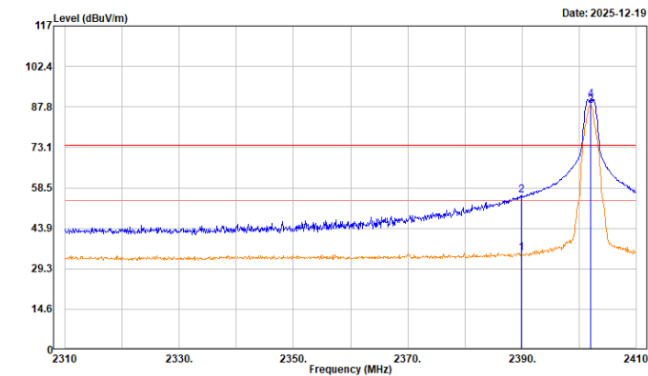
Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2480.000	99.03	-10.17	88.86			100	16	Average
2480.000	99.92	-10.17	89.75			100	16	Peak
2483.530	46.74	-10.12	36.62	54.00	-17.38	100	16	Average
2483.530	73.88	-10.12	63.76	74.00	-10.24	100	16	Peak

BLE(2M) Mode

Low channel

Horizontal

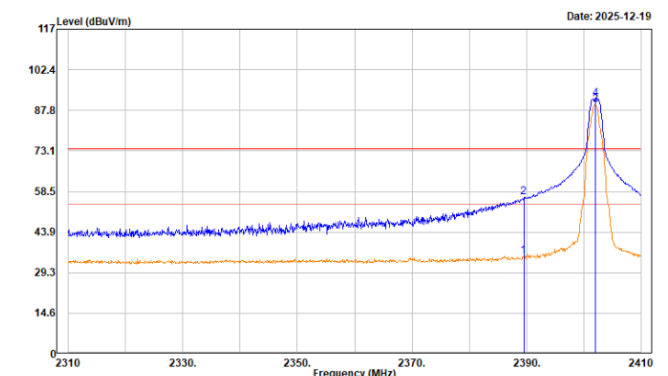
Description: BLE_2M-TX-2402,Peak RBW:1MHz/VBW:3MHz,Avg RBW:1MHz/VBW:3kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.900	45.74	-10.72	35.02	54.00	-18.98	114	206	Average
2389.900	66.55	-10.72	55.83	74.00	-18.17	114	206	Peak
2402.000	98.96	-10.71	88.25			114	206	Average
2402.000	101.10	-10.71	90.39			114	206	Peak

Vertical

Description: BLE_2M-TX-2402,Peak RBW:1MHz/VBW:3MHz,Avg RBW:1MHz/VBW:3kHz

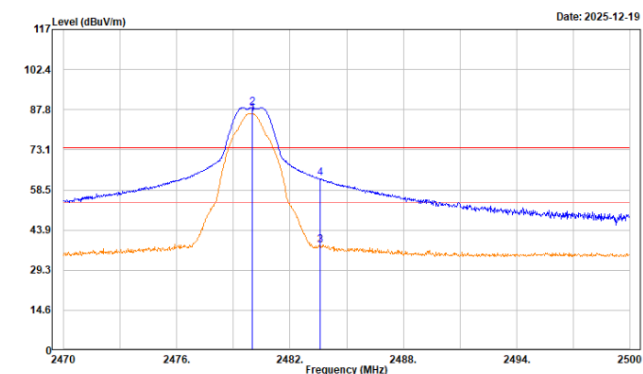


Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2389.500	46.04	-10.73	35.31	54.00	-18.69	209	60	Average
2389.500	67.11	-10.73	56.38	74.00	-17.62	209	60	Peak
2402.000	100.42	-10.71	89.71			209	60	Average
2402.000	102.56	-10.71	91.85			209	60	Peak

High channel

Horizontal

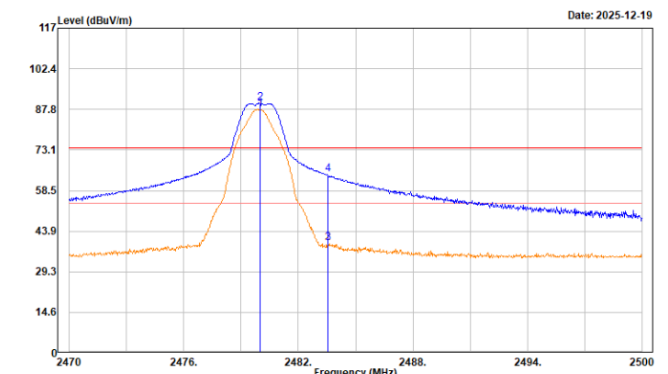
Description: BLE_2M-TX-2480,Peak RBW:1MHz/VBW:3MHz,Avg RBW:1MHz/VBW:3kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2480.000	96.54	-10.17	86.37			215	191	Average
2480.000	98.67	-10.17	88.50			215	191	Peak
2483.580	48.57	-10.12	38.45	54.00	-15.55	215	191	Average
2483.580	72.85	-10.12	62.73	74.00	-11.27	215	191	Peak

Vertical

Description: BLE_2M-TX-2480,Peak RBW:1MHz/VBW:3MHz,Avg RBW:1MHz/VBW:3kHz



Freq.	Reading	Factor	Level	Limit	Margin	Height	Degree	Remark
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	(cm)	(°)	
2480.000	97.92	-10.17	87.75			100	13	Average
2480.000	100.11	-10.17	89.94			100	13	Peak
2483.530	49.70	-10.12	39.58	54.00	-14.42	100	13	Average
2483.530	74.45	-10.12	64.33	74.00	-9.67	100	13	Peak

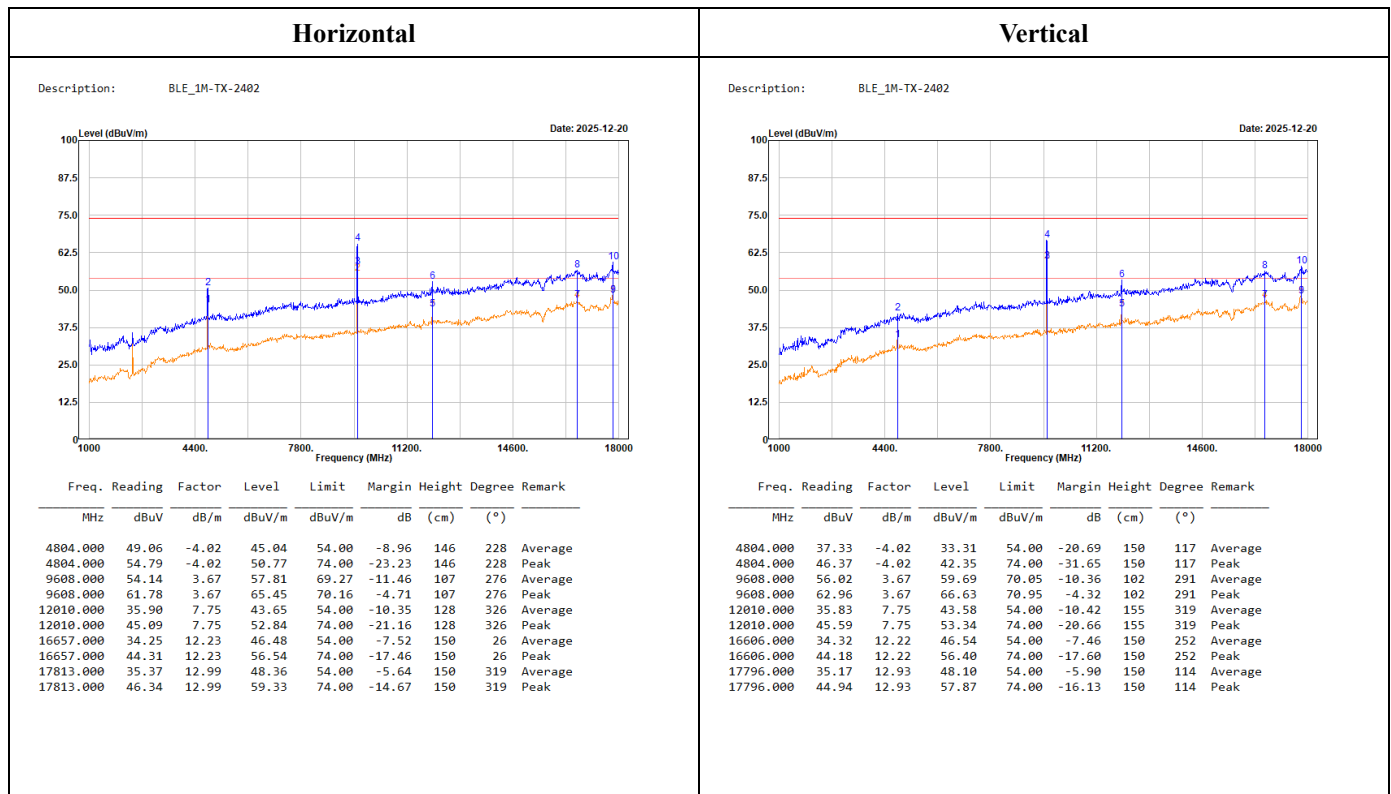
Level = Reading + Factor.

Margin = Level - Limit.

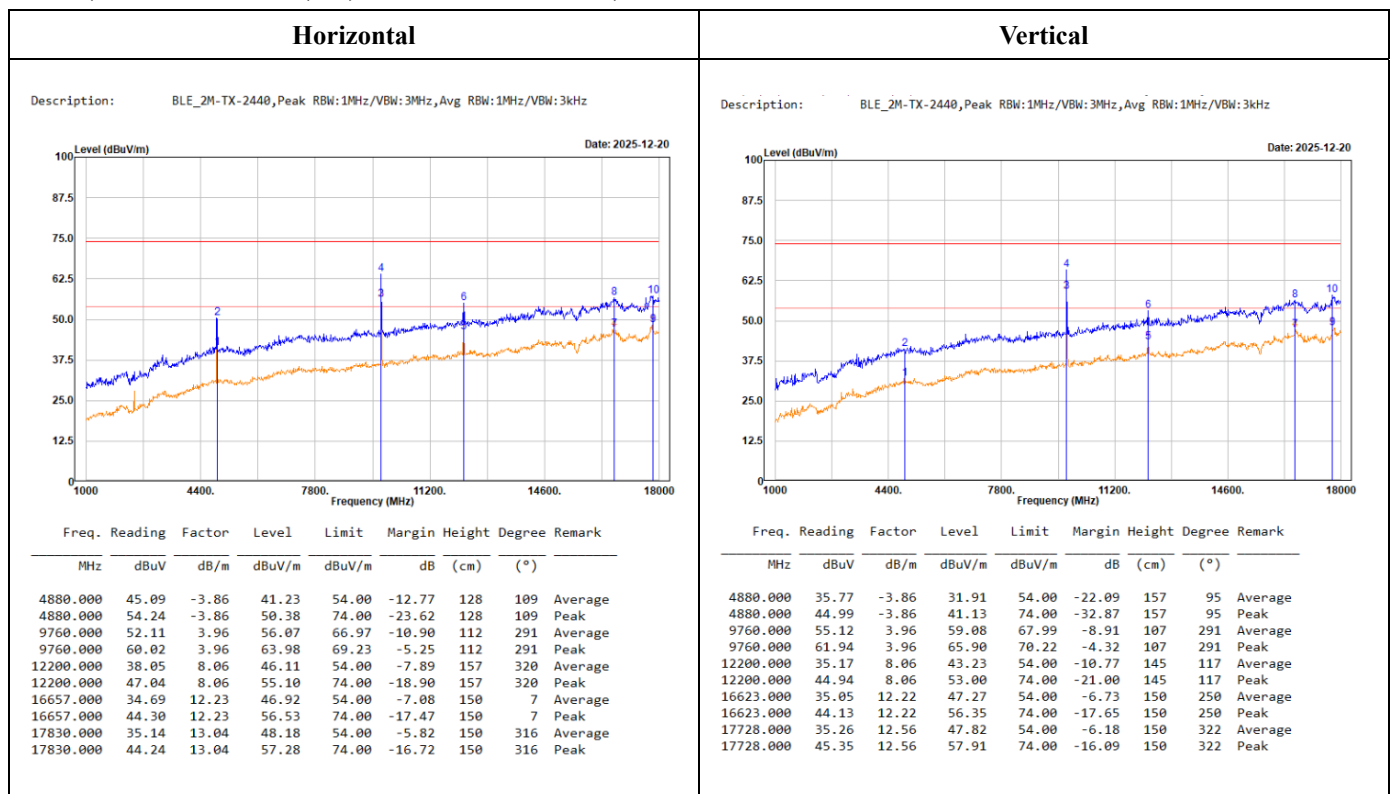
Factor = Antenna Factor + Cable Loss - Amplifier Gain.

1GHz-18GHz:

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



(Worst case is BLE(2M) mode, middle channel)

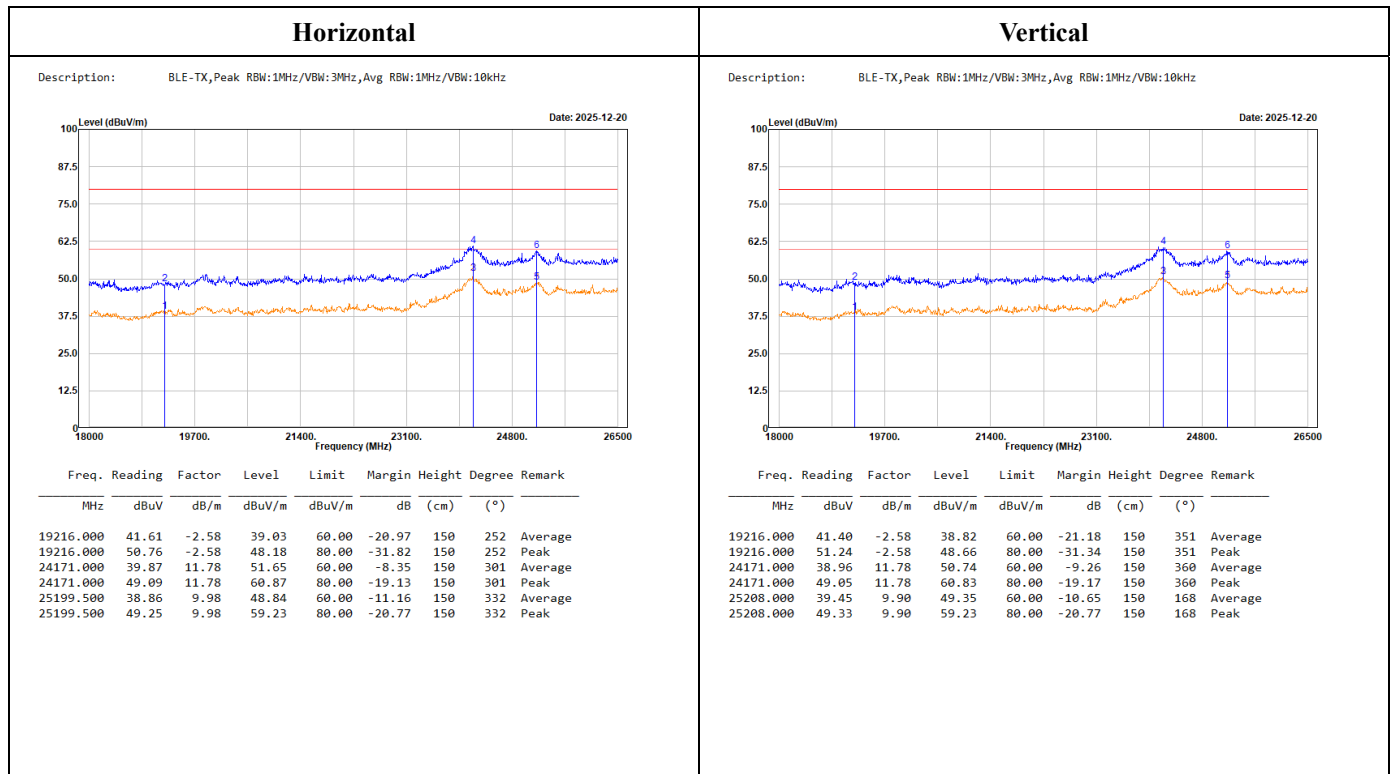


Note: It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.

(New Taipei Laboratory)

18GHz-26.5GHz:

(Worst case is BLE(2M) mode, 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 = $20 \log(1.5\text{m}/3\text{m}) = 6 \text{ dB}$,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

BLE 1M 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	49.06	-4.02	45.04	54.00	-8.96	146	228	Average	4804.000	37.33	-4.02	33.31	54.00	-20.69	150	117	Average
4804.000	54.79	-4.02	50.77	74.00	-23.23	146	228	Peak	4804.000	46.37	-4.02	42.35	74.00	-31.65	150	117	Peak
9608.000	54.14	3.67	57.81	69.27	-11.46	107	276	Average	9608.000	56.02	3.67	59.69	70.05	-10.36	102	291	Average
9608.000	61.78	3.67	65.45	70.16	-4.71	107	276	Peak	9608.000	62.96	3.67	66.63	70.95	-4.32	102	291	Peak
12010.000	35.90	7.75	43.65	54.00	-10.35	128	326	Average	12010.000	35.83	7.75	43.58	54.00	-10.42	155	319	Average
12010.000	45.09	7.75	52.84	74.00	-21.16	128	326	Peak	12010.000	45.59	7.75	53.34	74.00	-20.66	155	319	Peak
16657.000	34.25	12.23	46.48	54.00	-7.52	150	26	Average	16606.000	34.32	12.22	46.54	54.00	-7.46	150	252	Average
16657.000	44.31	12.23	56.54	74.00	-17.46	150	26	Peak	16606.000	44.18	12.22	56.40	74.00	-17.60	150	252	Peak
17813.000	35.37	12.99	48.36	54.00	-5.64	150	319	Average	17796.000	35.17	12.93	48.10	54.00	-5.90	150	114	Average
17813.000	46.34	12.99	59.33	74.00	-14.67	150	319	Peak	17796.000	44.94	12.93	57.87	74.00	-16.13	150	114	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	48.75	-3.86	44.89	54.00	-9.11	132	143	Average	4880.000	35.88	-3.86	32.02	54.00	-21.98	129	205	Average
4880.000	53.72	-3.86	49.86	74.00	-24.14	132	143	Peak	4880.000	46.56	-3.86	42.70	74.00	-31.30	129	205	Peak
9760.000	54.32	3.96	58.28	68.37	-10.09	109	271	Average	9760.000	50.30	3.96	54.26	69.34	-15.08	109	290	Average
9760.000	60.68	3.96	64.64	69.32	-4.68	109	271	Peak	9760.000	61.85	3.96	65.81	70.31	-4.50	109	290	Peak
12200.000	32.51	8.06	40.57	54.00	-13.43	155	213	Average	12200.000	35.62	8.06	43.68	54.00	-10.32	146	212	Average
12200.000	44.63	8.06	52.69	74.00	-21.31	155	213	Peak	12200.000	44.21	8.06	52.27	74.00	-21.73	146	212	Peak
16640.000	34.27	12.23	46.50	54.00	-7.50	150	8	Average	16691.000	34.47	12.25	46.72	54.00	-7.28	150	213	Average
16640.000	45.45	12.23	57.68	74.00	-16.32	150	8	Peak	16691.000	44.30	12.25	56.55	74.00	-17.45	150	213	Peak
17779.000	35.03	12.80	47.83	54.00	-6.17	150	132	Average	17796.000	35.05	12.93	47.98	54.00	-6.02	150	19	Average
17779.000	44.84	12.80	57.64	74.00	-16.36	150	132	Peak	17796.000	44.21	12.93	57.14	74.00	-16.86	150	19	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	49.15	-3.76	45.39	54.00	-8.61	128	221	Average	4960.000	39.86	-3.76	36.10	54.00	-17.90	140	113	Average
4960.000	54.31	-3.76	50.55	74.00	-23.45	128	221	Peak	4960.000	46.83	-3.76	43.07	74.00	-30.93	140	113	Peak
9920.000	51.83	3.97	55.80	67.97	-12.17	104	302	Average	9920.000	52.93	3.97	56.90	68.86	-11.96	106	315	Average
9920.000	59.39	3.97	63.36	68.86	-5.50	104	302	Peak	9920.000	60.29	3.97	64.26	69.75	-5.49	106	315	Peak
12400.000	35.26	8.12	43.38	54.00	-10.62	144	153	Average	16640.000	34.22	12.23	46.45	54.00	-7.55	150	227	Average
12400.000	45.40	8.12	53.52	74.00	-20.48	144	153	Peak	16640.000	44.90	12.23	57.13	74.00	-16.87	150	227	Peak
16640.000	33.98	12.23	46.21	54.00	-7.79	150	195	Average	17813.000	35.13	12.99	48.12	54.00	-5.88	150	93	Average
16640.000	45.01	12.23	57.24	74.00	-16.76	150	195	Peak	17813.000	44.57	12.99	57.56	74.00	-16.44	150	93	Peak
17813.000	34.53	12.99	47.52	54.00	-6.48	150	227	Average									
17813.000	45.08	12.99	58.07	74.00	-15.93	150	227	Peak									

BLE 2M 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	47.72	-4.02	43.70	54.00	-10.30	129	11	Average	4804.000	48.35	-4.02	44.33	54.00	-9.67	120	312	Average
4804.000	54.38	-4.02	50.36	74.00	-23.64	129	11	Peak	4804.000	55.28	-4.02	51.26	74.00	-22.74	120	312	Peak
9608.000	50.28	3.67	53.95	68.25	-14.30	104	276	Average	9608.000	51.70	3.67	55.37	69.71	-14.34	101	186	Average
9608.000	60.80	3.67	64.47	70.39	-5.92	104	276	Peak	9608.000	61.45	3.67	65.12	71.85	-6.73	101	186	Peak
12010.000	36.92	7.75	44.67	54.00	-9.33	150	149	Average	12010.000	38.15	7.75	45.90	54.00	-8.10	163	225	Average
12010.000	44.41	7.75	52.16	74.00	-21.84	150	149	Peak	12010.000	44.43	7.75	52.18	74.00	-21.82	163	225	Peak
16691.000	33.82	12.25	46.07	54.00	-7.93	150	360	Average	14412.000	34.36	10.66	45.02	54.00	-8.98	150	39	Average
16691.000	44.39	12.25	56.64	74.00	-17.36	150	360	Peak	14412.000	47.04	10.66	57.70	74.00	-16.30	150	39	Peak
17813.000	34.52	12.99	47.51	54.00	-6.49	150	221	Average	16623.000	34.44	12.22	46.66	54.00	-7.34	150	112	Average
17813.000	44.78	12.99	57.77	74.00	-16.23	150	221	Peak	16623.000	44.61	12.22	56.83	74.00	-17.17	150	112	Peak
									17745.000	34.90	12.60	47.50	54.00	-6.50	150	112	Average
									17745.000	45.00	12.60	57.60	74.00	-16.40	150	112	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	45.09	-3.86	41.23	54.00	-12.77	128	109	Average	4880.000	35.77	-3.86	31.91	54.00	-22.09	157	95	Average
4880.000	54.24	-3.86	50.38	74.00	-23.62	128	109	Peak	4880.000	44.99	-3.86	41.13	74.00	-32.87	157	95	Peak
9760.000	52.11	3.96	56.07	66.97	-10.90	112	291	Average	9760.000	55.12	3.96	59.08	67.99	-8.91	107	291	Average
9760.000	60.02	3.96	63.98	69.23	-5.25	112	291	Peak	9760.000	61.94	3.96	65.90	70.22	-4.32	107	291	Peak
12200.000	38.05	8.06	46.11	54.00	-7.89	157	320	Average	12200.000	35.17	8.06	43.23	54.00	-10.77	145	117	Average
12200.000	47.04	8.06	55.10	74.00	-18.90	157	320	Peak	12200.000	44.94	8.06	53.00	74.00	-21.00	145	117	Peak
16657.000	34.69	12.23	46.92	54.00	-7.08	150	7	Average	16623.000	35.05	12.22	47.27	54.00	-6.73	150	250	Average
16657.000	44.30	12.23	56.53	74.00	-17.47	150	7	Peak	16623.000	44.13	12.22	56.35	74.00	-17.65	150	250	Peak
17830.000	35.14	13.04	48.18	54.00	-5.82	150	316	Average	17728.000	35.26	12.56	47.82	54.00	-6.18	150	322	Average
17830.000	44.24	13.04	57.28	74.00	-16.72	150	316	Peak	17728.000	45.35	12.56	57.91	74.00	-16.09	150	322	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	42.44	-3.76	38.68	54.00	-15.32	131	228	Average	4960.000	39.71	-3.76	35.95	54.00	-18.05	138	216	Average
4960.000	51.27	-3.76	47.51	74.00	-26.49	131	228	Peak	4960.000	46.49	-3.76	42.73	74.00	-31.27	138	216	Peak
9920.000	50.73	3.97	54.70	66.37	-11.67	106	266	Average	9920.000	53.23	3.97	57.20	67.75	-10.55	106	315	Average
9920.000	57.61	3.97	61.58	68.50	-6.92	106	266	Peak	9920.000	60.03	3.97	64.00	69.94	-5.94	106	315	Peak
16725.000	34.43	12.21	46.64	54.00	-7.36	150	119	Average	16623.000	34.19	12.22	46.41	54.00	-7.59	150	207	Average
16725.000	44.28	12.21	56.49	74.00	-17.51	150	119	Peak	16623.000	44.71	12.22	56.93	74.00	-17.07	150	207	Peak
17796.000	34.63	12.93	47.56	54.00	-6.44	150	82	Average	17813.000	34.48	12.99	47.47	54.00	-6.53	150	143	Average
17796.000	44.95	12.93	57.88	74.00	-16.12	150	82	Peak	17813.000	44.02	12.99	57.01	74.00	-16.99	150	143	Peak

Note:

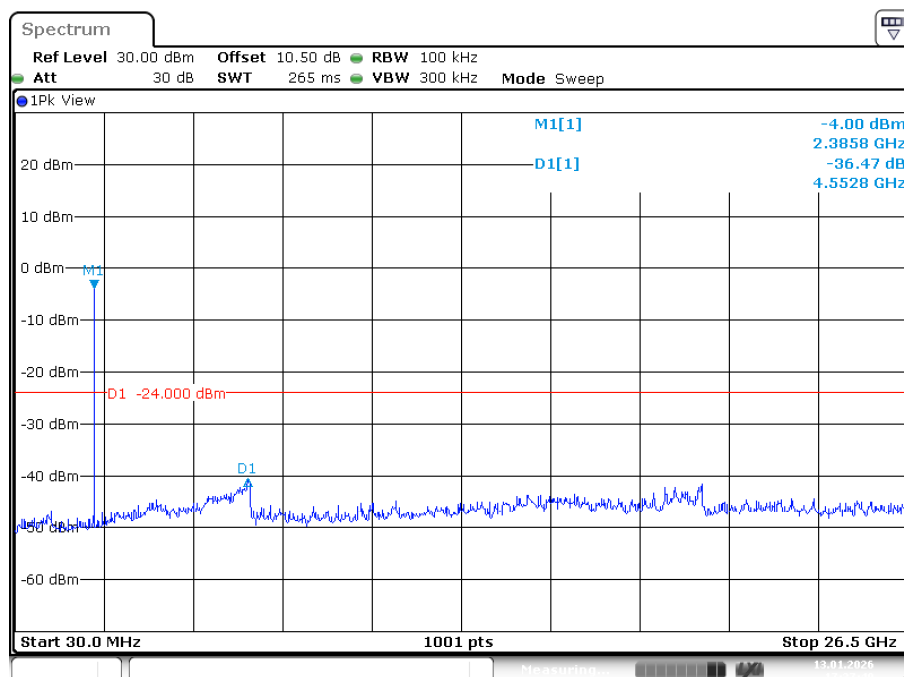
Level = Reading + Factor.

Margin = Level – Limit.

Factor = Antenna Factor + Cable Loss – Amplifier Gain.

Conducted Spurious Emissions:

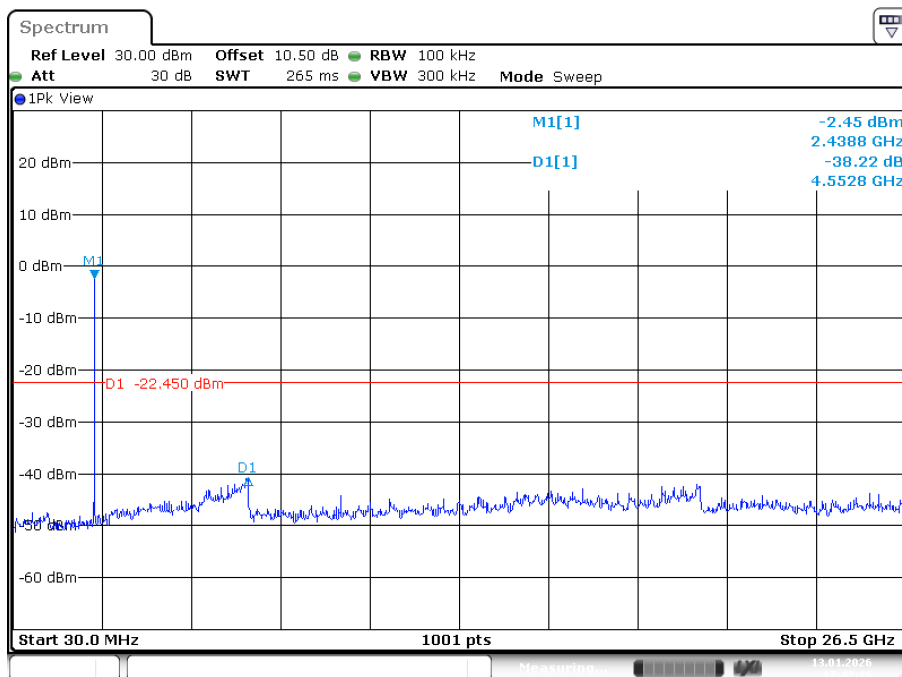
Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
BLE(1M) Mode				
Low	2402	36.47	≥ 20	PASS
Mid	2440	38.22	≥ 20	PASS
High	2480	34.17	≥ 20	PASS
BLE(2M) Mode				
Low	2402	34.66	≥ 20	PASS
Mid	2440	34.05	≥ 20	PASS
High	2480	34.55	≥ 20	PASS

BLE(1M) Mode**Low Channel**

ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:37:49

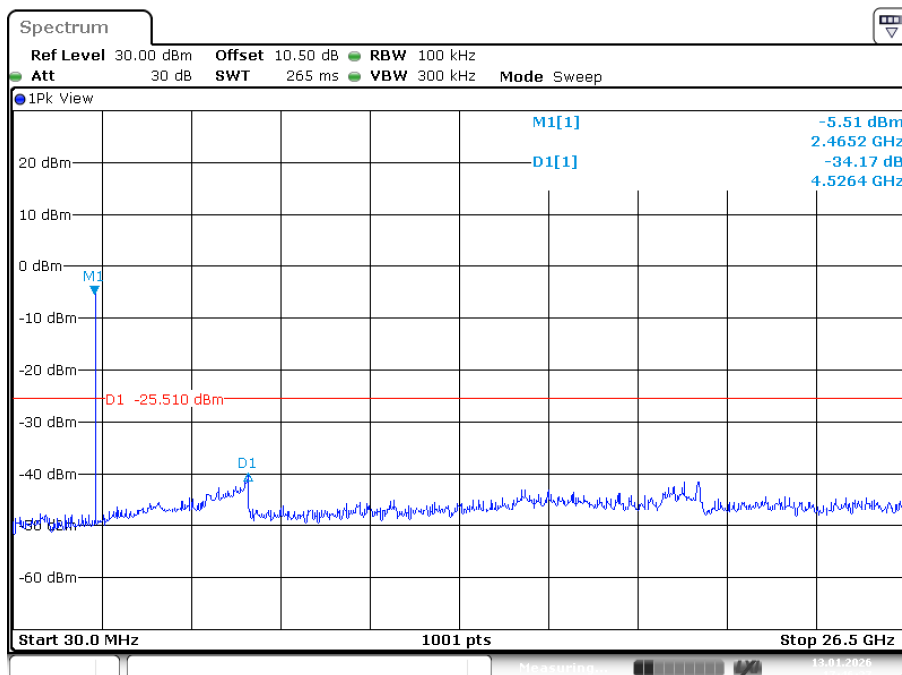
Middle Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:42:17

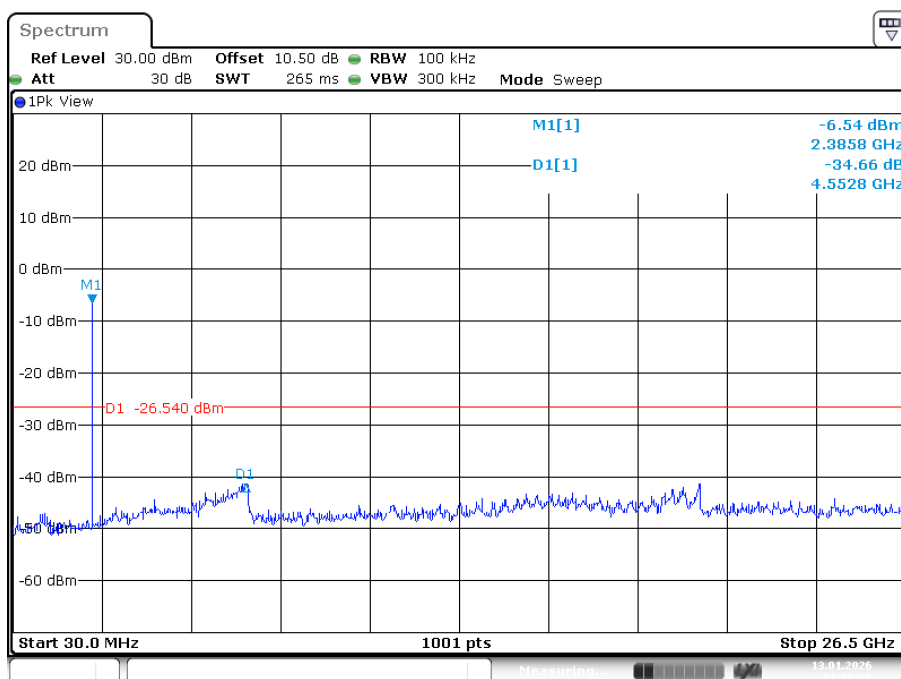
High Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:46:27

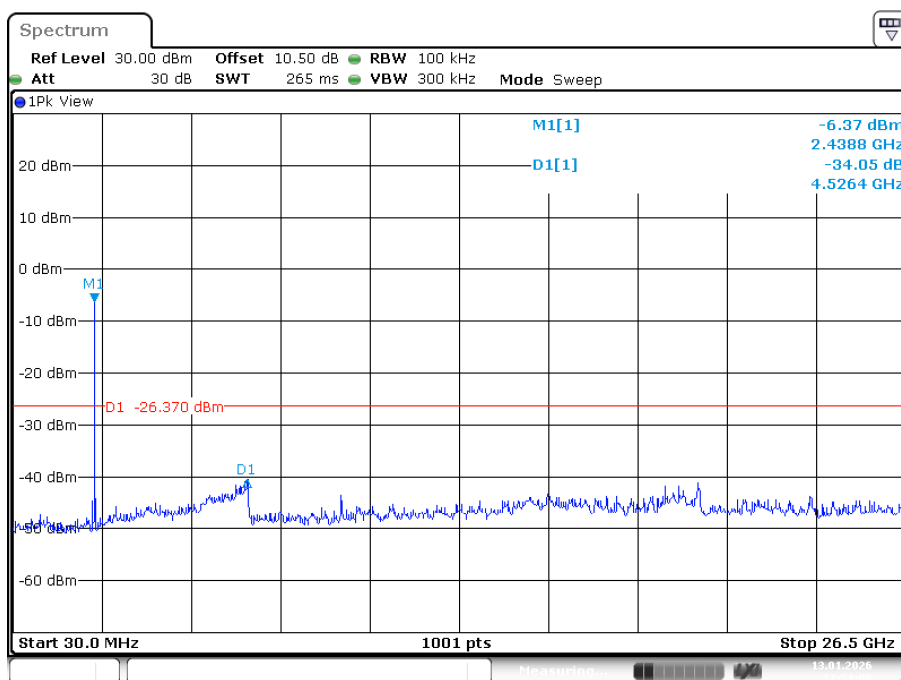
BLE(2M) Mode Low Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:49:30

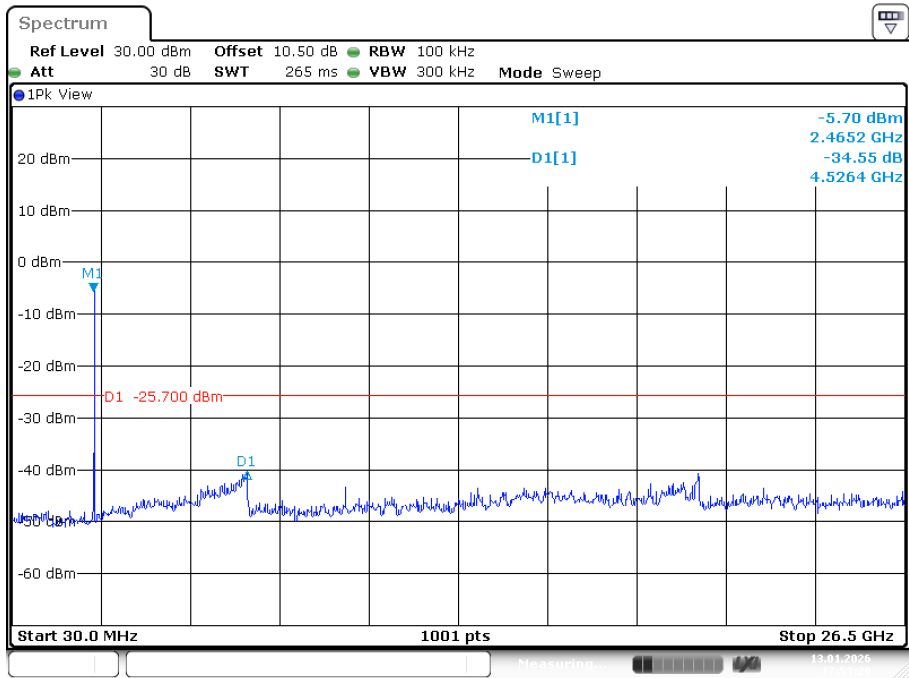
Middle Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:51:08

High Channel



ProjectNo.:RXZ251216041 Tester:Jet
Date: 13.JAN.2026 17:53:29

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

7.1 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.

7.2 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).

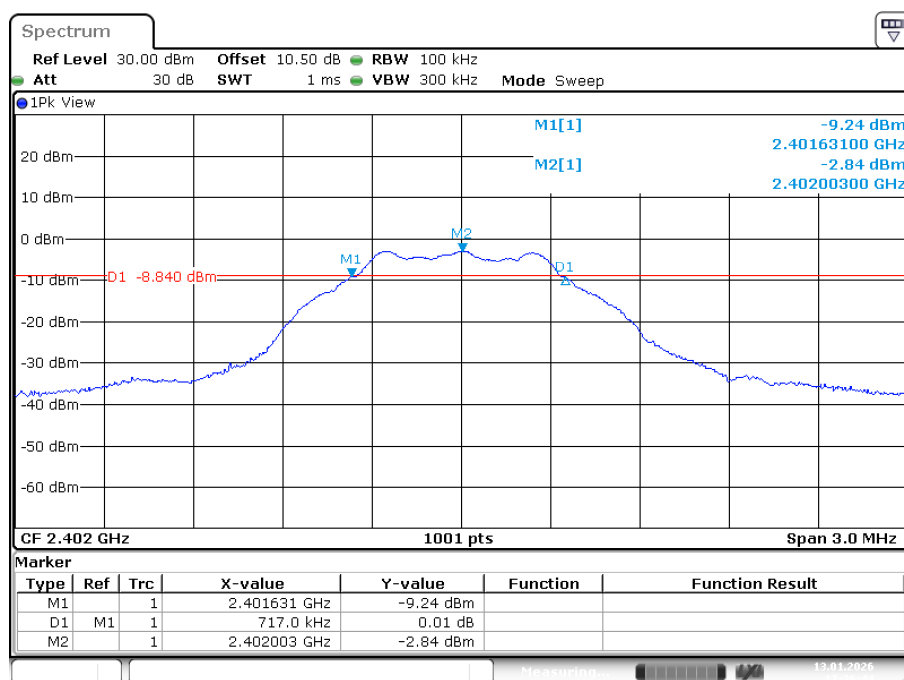
7.3 Test Results

Channel	Frequency (MHz)	6 dB Emission Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (kHz)	Result
BLE(1M) Mode					
Low	2402	0.72	1.02	> 500	PASS
Middle	2440	0.73	1.22	> 500	PASS
High	2480	0.71	1.04	> 500	PASS
BLE(2M) Mode					
Low	2402	1.21	2.02	> 500	PASS
Middle	2440	1.24	2.03	> 500	PASS
High	2480	1.21	2.04	> 500	PASS

Please refer to the following plots

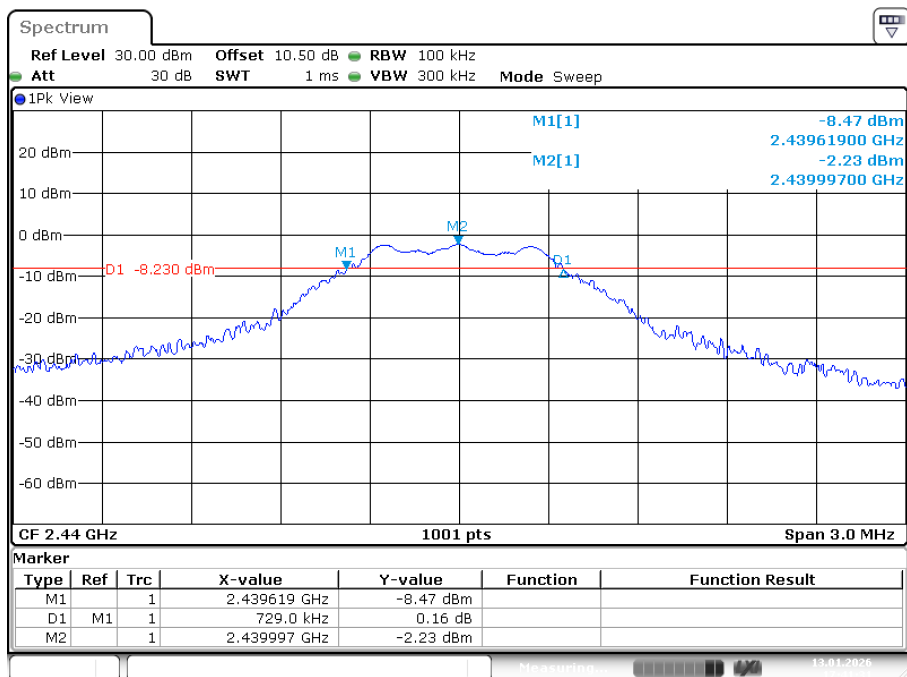
6 dB Emission Bandwidth

BLE(1M) Mode Low Channel



ProjectNo.:RXZ251216041 Tester:Jet
Date: 13.JAN.2026 17:36:44

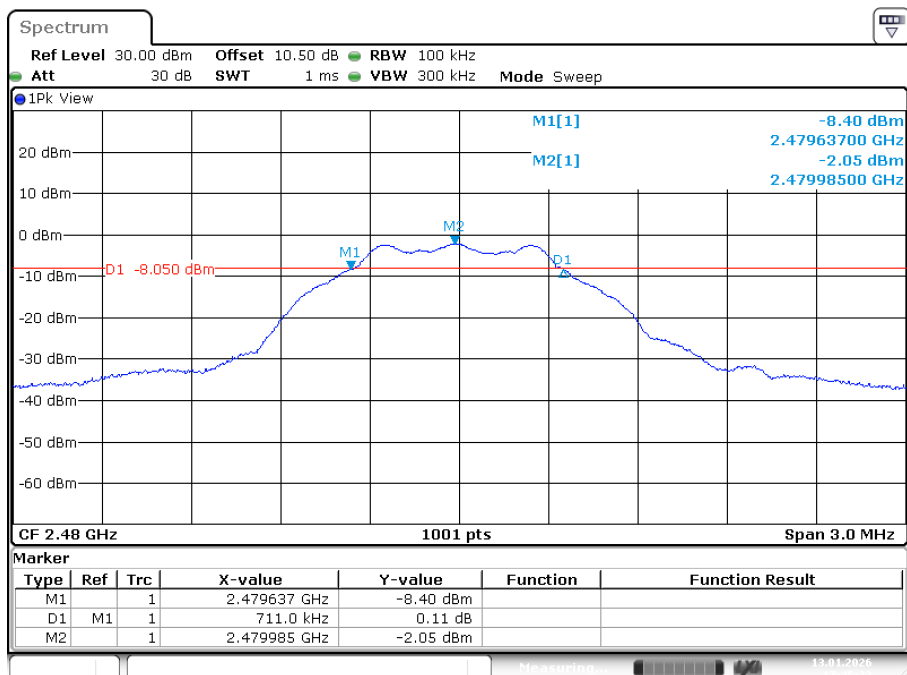
Middle Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:41:31

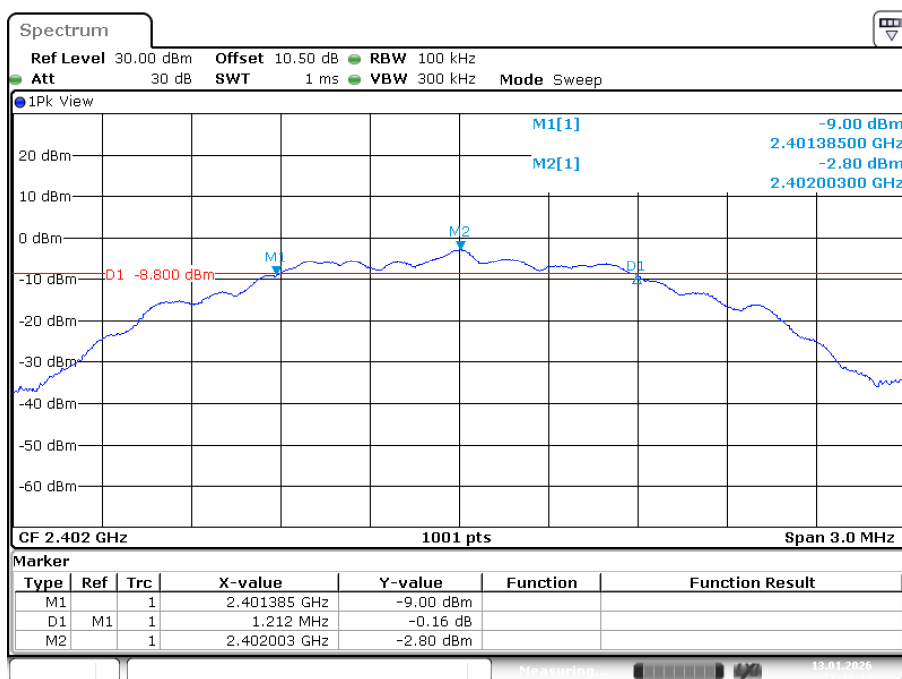
High Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:45:22

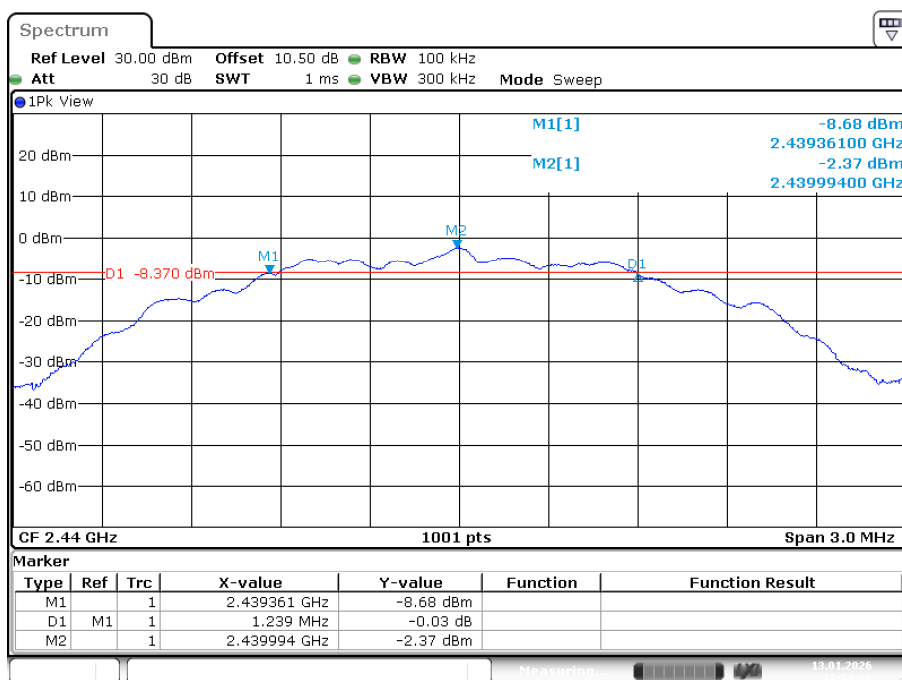
BLE(2M) Mode Low Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:48:25

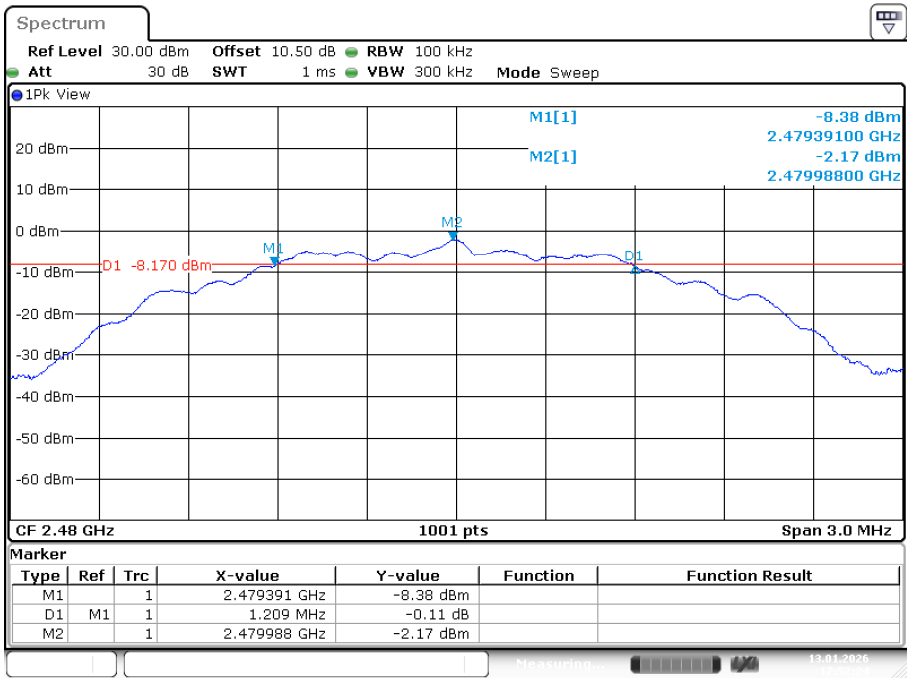
Middle Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:50:22

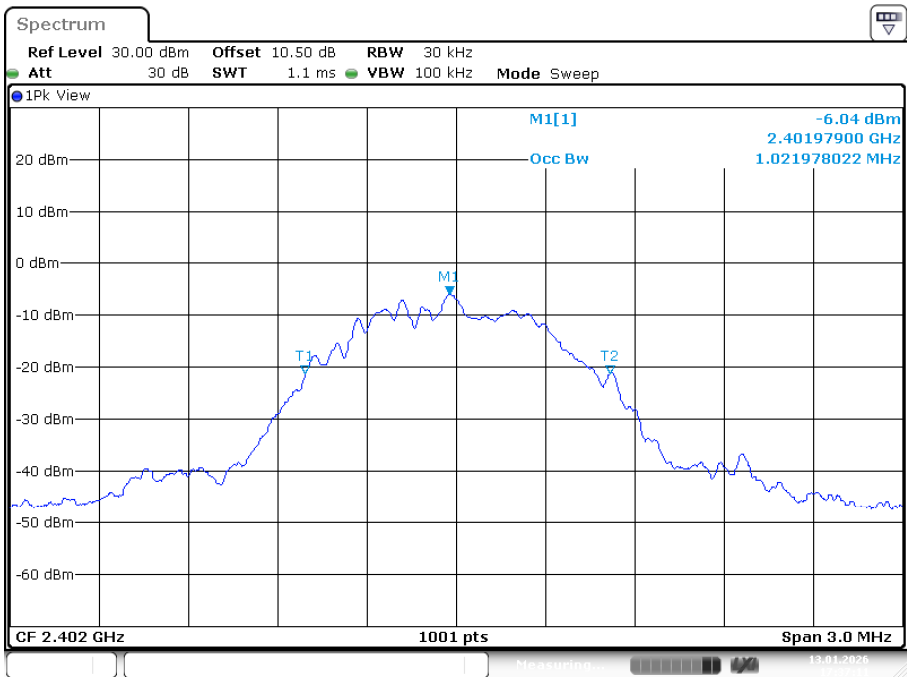
High Channel



ProjectNo.:RXZ251216041 Tester:Jet
Date: 13.JAN.2026 17:52:24

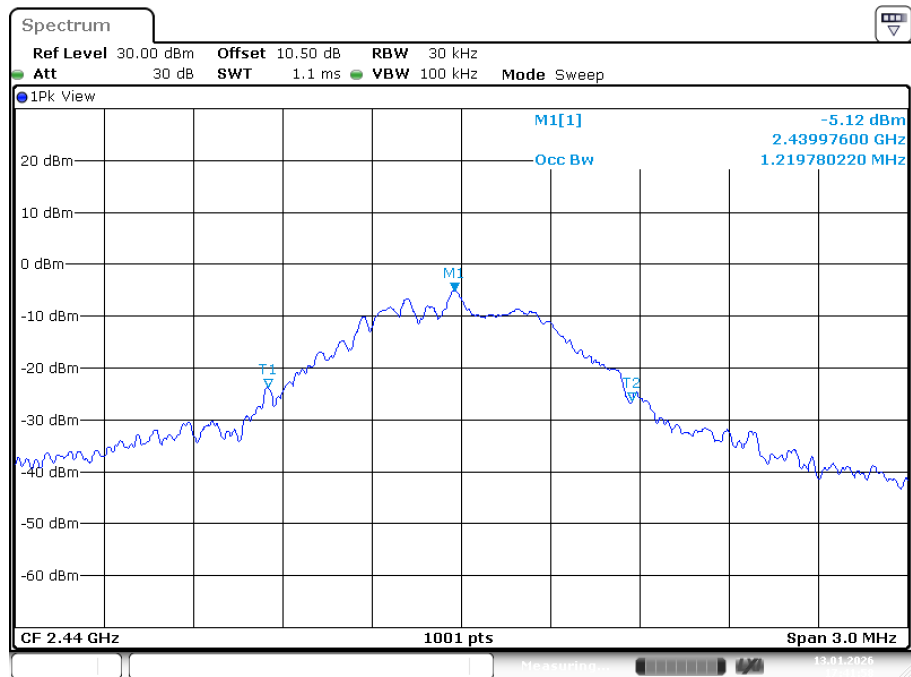
99% Bandwidth

BLE(1M) Mode
Low Channel



ProjectNo.:RXZ251216041 Tester:Jet
Date: 13.JAN.2026 17:37:11

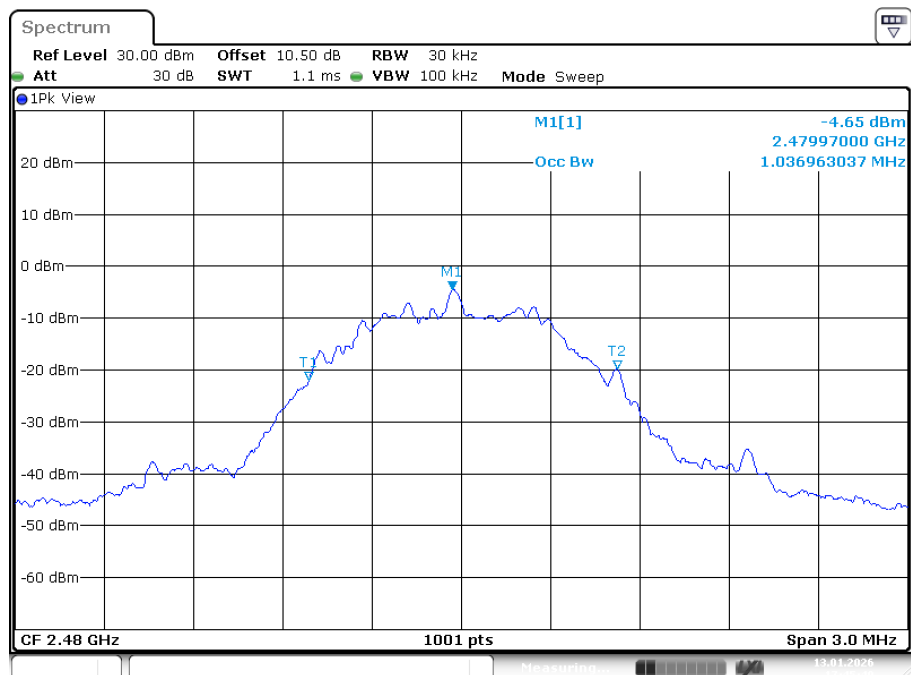
Middle Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:41:58

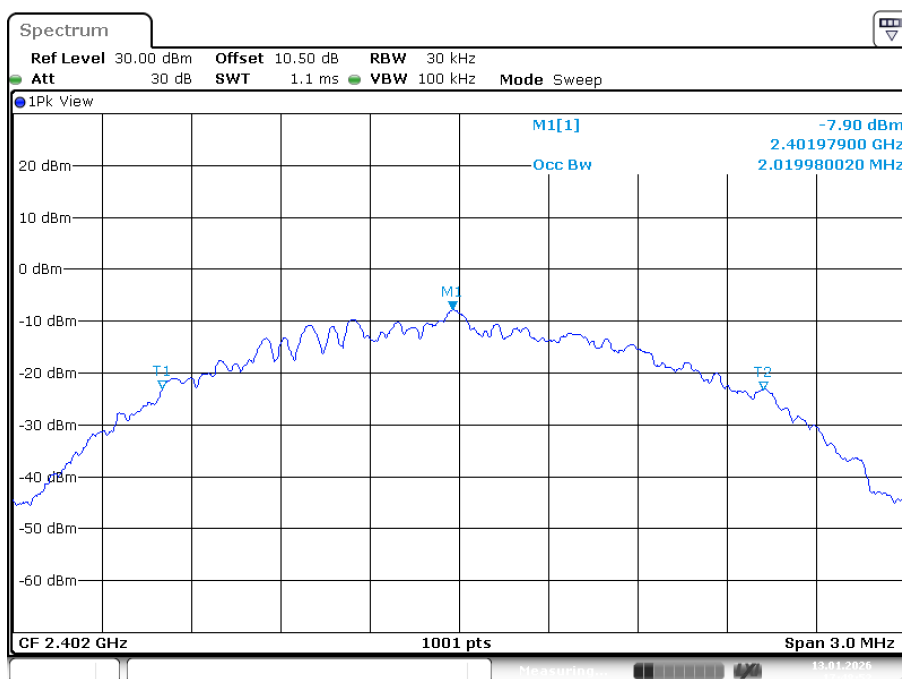
High Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:45:49

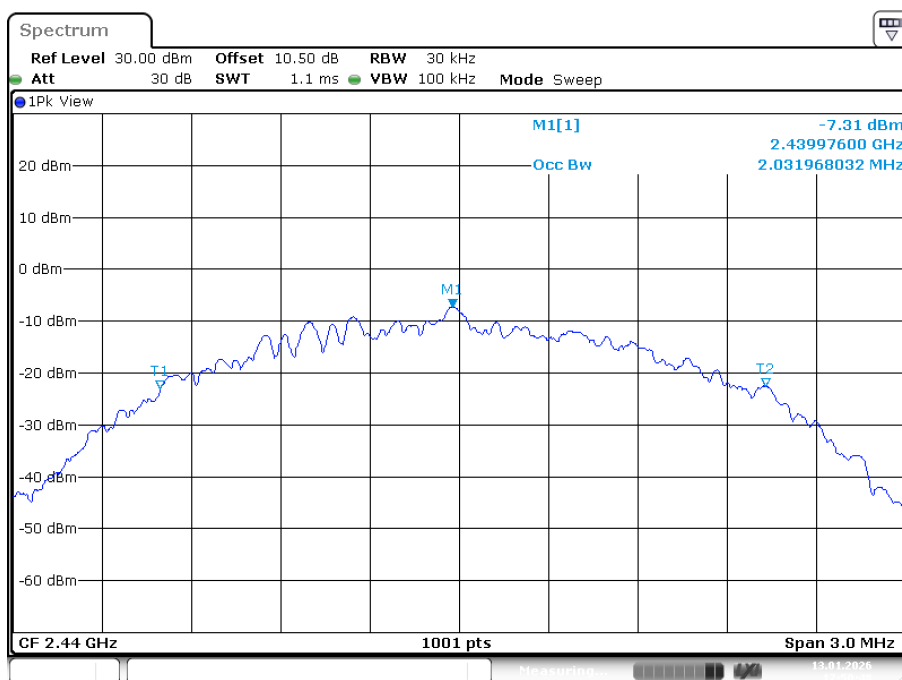
BLE(2M) Mode Low Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:48:52

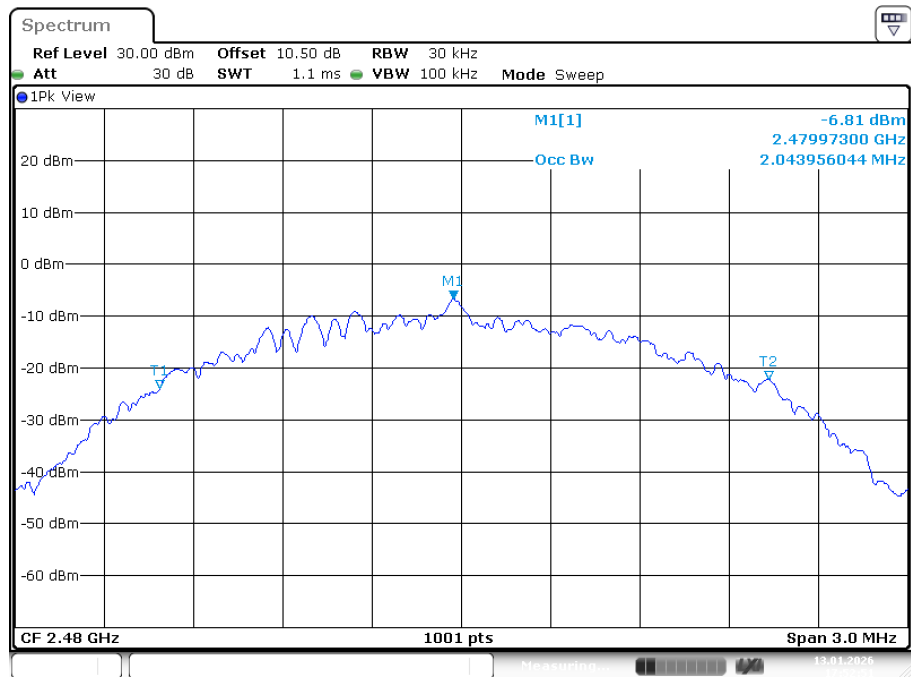
Middle Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:50:49

High Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:52:51

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

8.1 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.

8.2 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.

8.3 Test Results

Conducted Peak Output Power

Channel	Frequency (MHz)	Conducted Peak Output Power (dBm)	Limit (dBm)	Result
BLE(1M) Mode				
Low	2402	0.22	30	PASS
Middle	2440	0.13	30	PASS
High	2480	-0.18	30	PASS
BLE(2M) Mode				
Low	2402	0.24	30	PASS
Middle	2440	0.17	30	PASS
High	2480	-0.14	30	PASS

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

9.1 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)).

9.2 Test Procedure

According to ANSI C63.10-2020 Section 11.11.3

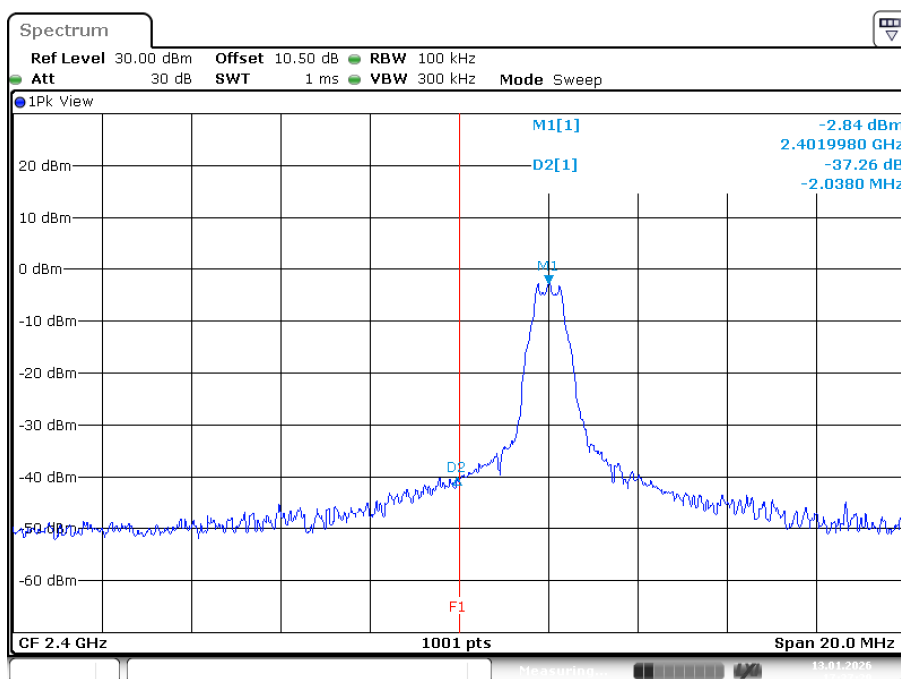
1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then 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.

9.3 Test Results

Channel	Frequency (MHz)	Delta Peak to Band Emission (dBc)	Limit (dBc)	Result
BLE(1M) Mode				
Low	2402	37.26	≥ 20	PASS
High	2480	40.82	≥ 20	PASS
BLE(2M) Mode				
Low	2402	31.80	≥ 20	PASS
High	2480	41.04	≥ 20	PASS

Please refer to the following plots.

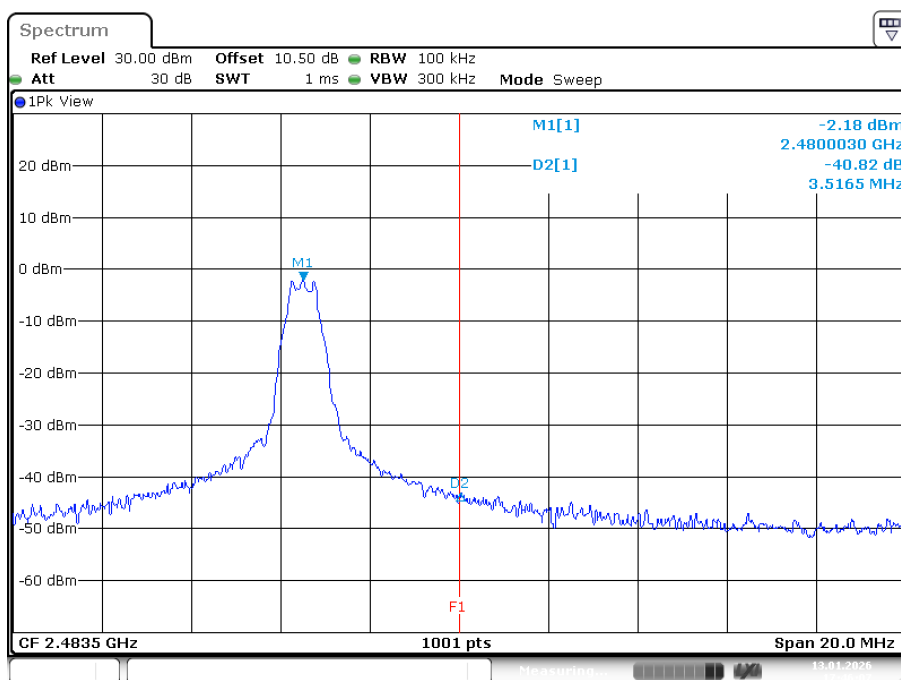
BLE(1M) Mode Band Edge, Low Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:37:30

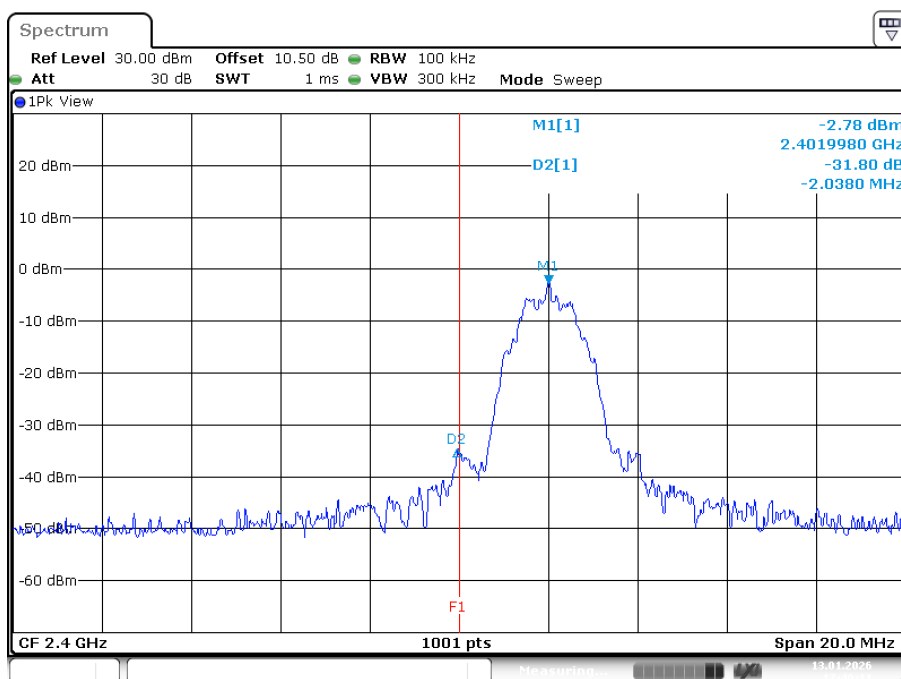
Band Edge, High Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:46:08

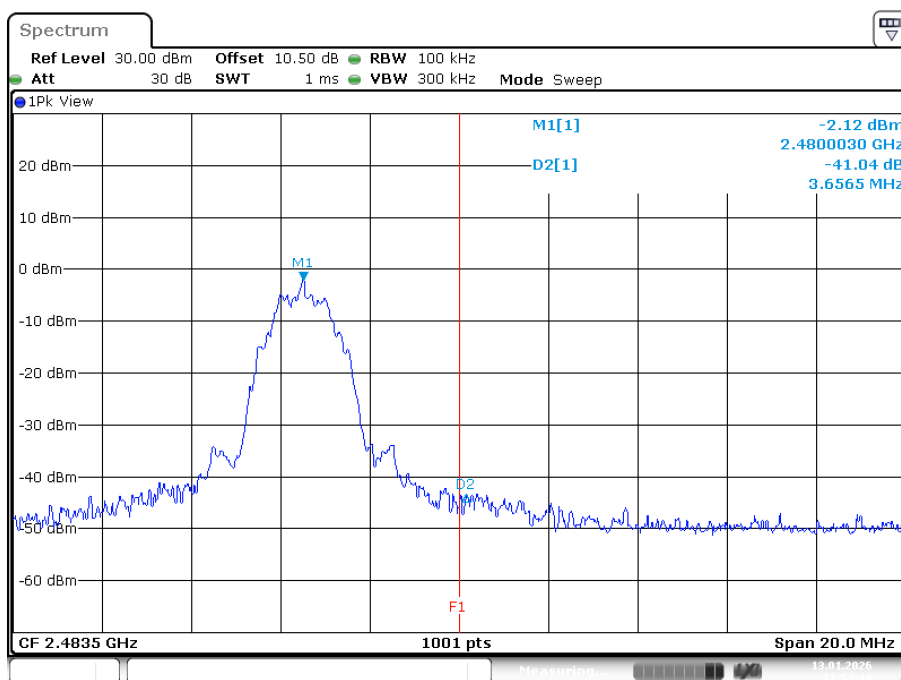
BLE(2M) Mode Band Edge, Low Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:49:11

Band Edge, High Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:53:10

10 FCC §15.247(e) – Power Spectral Density

10.1 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.

10.2 Test Procedure

According to ANSI C63.10-2020, section 11.10.2

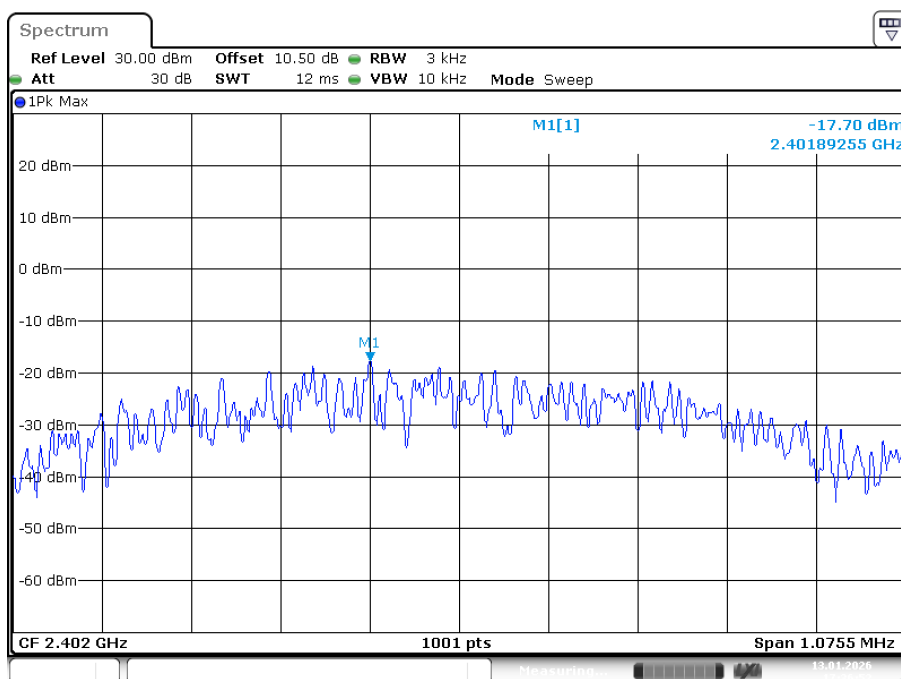
- a) Set analyzer center frequency to DTS channel center frequency.
- b) Set the span >1.5 times the DTS bandwidth.
- c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d) Set the VBW $\geq [3 \times \text{RBW}]$.
- e) Detector = peak.
- f) Sweep time = No faster than coupled (auto)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

10.3 Test Results

Channel	Frequency (MHz)	Power Spectral Density (dBm/3 kHz)	Limit (dBm/3 kHz)	Result
BLE(1M) Mode				
Low	2402	-17.70	8	PASS
Middle	2440	-17.20	8	PASS
High	2480	-17.90	8	PASS
BLE(2M) Mode				
Low	2402	-20.63	8	PASS
Middle	2440	-20.21	8	PASS
High	2480	-19.96	8	PASS

Please refer to the following plots

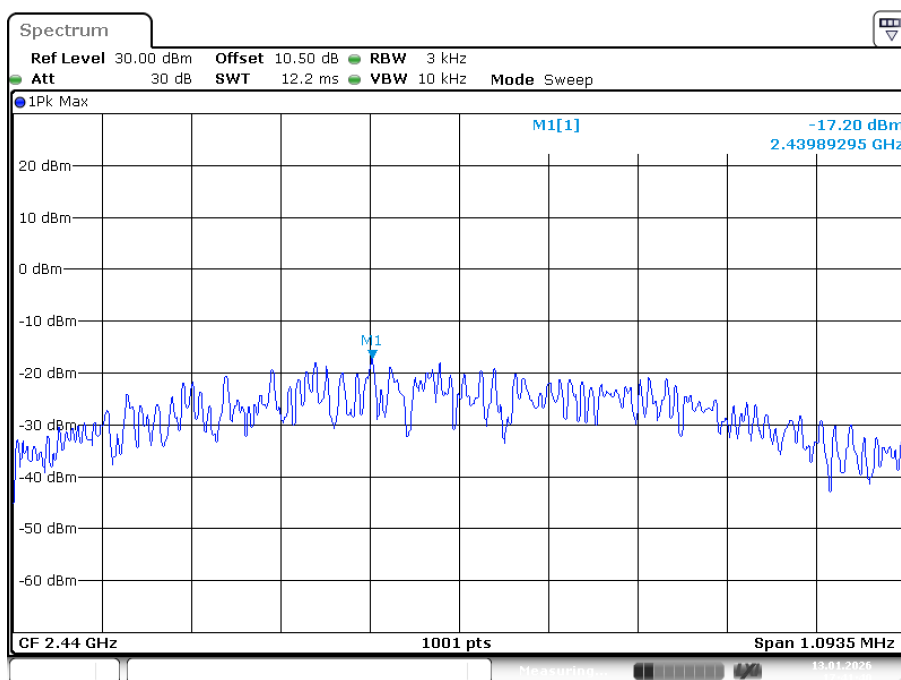
BLE(1M) Mode Low Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:36:53

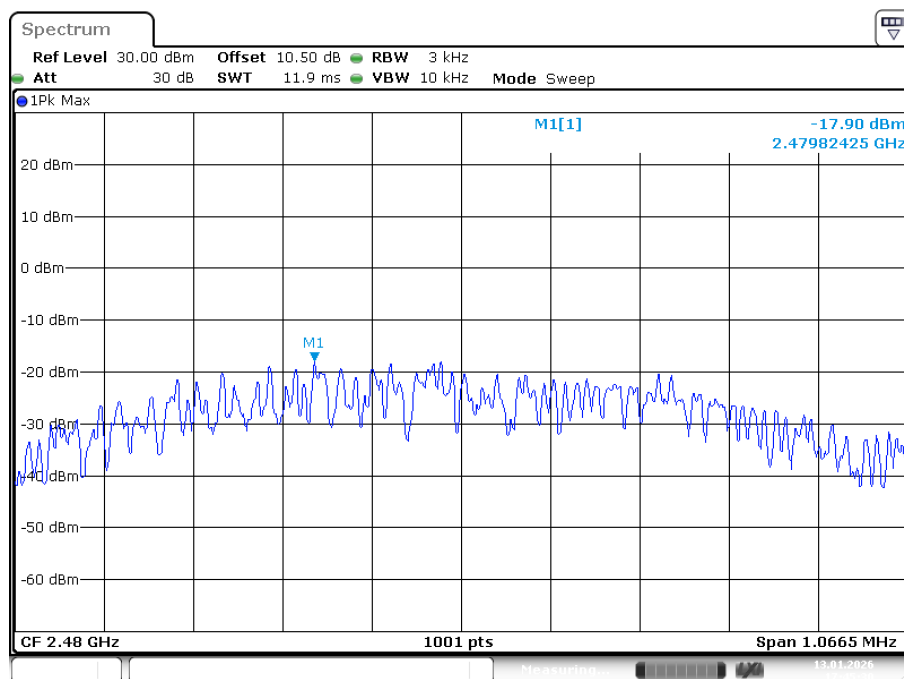
Middle Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:41:40

High Channel

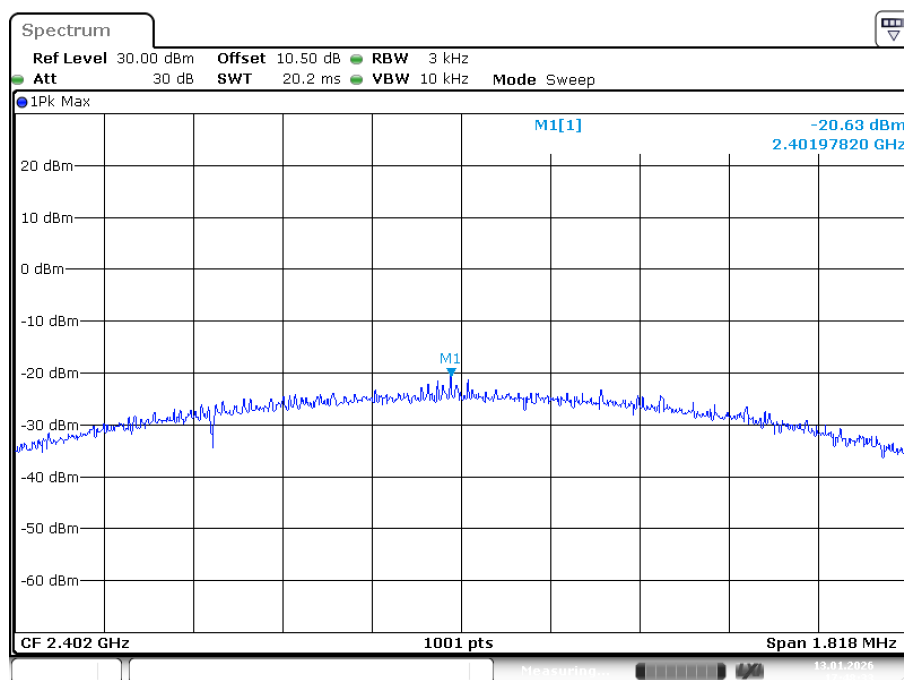


ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:45:31

BLE(2M) Mode

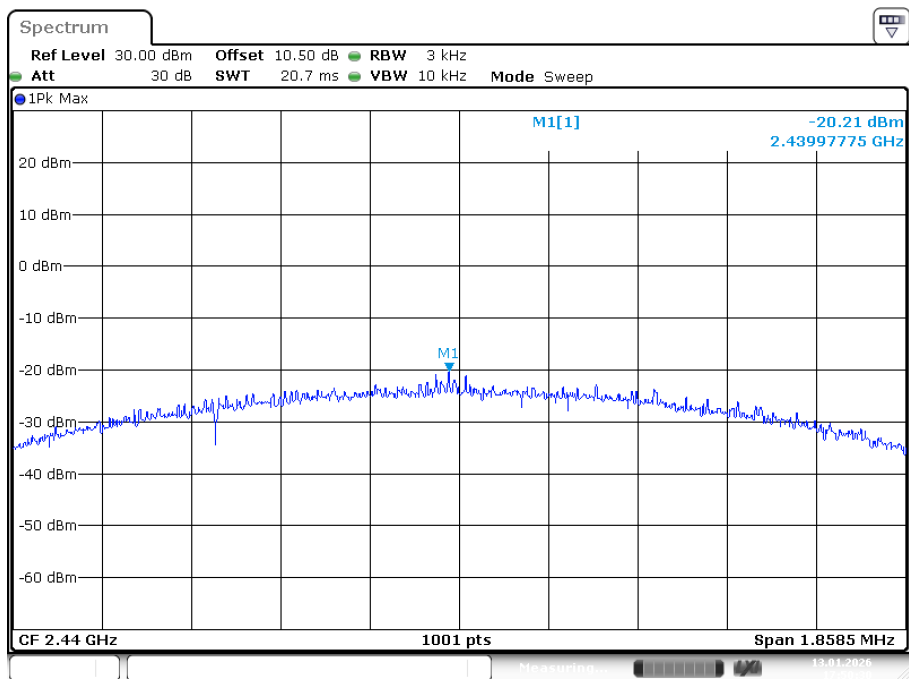
Low Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:48:34

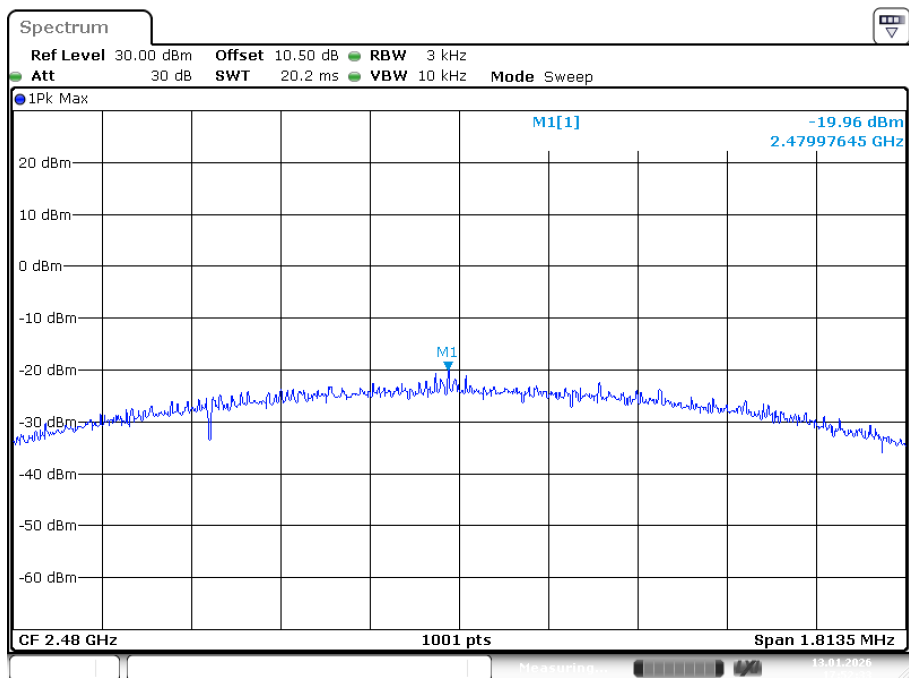
Middle Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:50:31

High Channel



ProjectNo.:RXZ251216041 Tester:Jet

Date: 13.JAN.2026 17:52:33

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