



FCC PART 15.247 TEST REPORT

For

Quanzhou Chierda Electronic Telecom Co., Ltd.

No.8,Zi'an Road,Jiangnan High-tech Industrial Zone Licheng District, Quanzhou Fujian, China

FCC ID: OA8-M520D

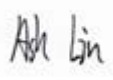
Report Type: Original Report	Product Name: AMATEUR RADIO
Report Number:	<u>2507Z03677E-RF-02</u>
Report Date:	<u>2026-06-13</u>
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TEST SETUP PHOTOGRAPHS74

REPORT REVISION HISTORY

Number of Revisions	Report No.	Version	Issue Date	Description
0	2507Z03677E-RF-02	R1V1	2026-06-13	Initial Release

GENERAL INFORMATION**Product Description for Equipment under Test (EUT)**

Applicant:	Quanzhou Chierda Electronic Telecom Co., Ltd.
Product Name:	AMATEUR RADIO
Tested Model:	M520D
Multiple Model(s):	AR-7800
Trade Mark:	Chierda, ABBREE
Power Supply:	DC 13.8V from DC Source
Maximum Conducted Output Peak Power:	-2.99 dBm
Frequency Range:	2402~2480MHz
Modulation Technique:	GFSK
Antenna Type:	PCB Antenna
★Maximum Antenna Gain:	-0.9dBi
EUT Received Status:	Good
<i>Note:</i> 1. The Maximum Antenna Gain was declared by manufacturer. 2. The difference between tested model and series model are model name and color, please refer to declaration letter for more detail. 3. All measurement and test data in this report was gathered from production sample serial number: 3CEA-1(RF conducted), 3CEA-2(Radiated Spurious Emission)(Assigned by the BACL(Xiamen). The EUT supplied by the applicant was received on 2025-11-04)	

Objective

This report is prepared on behalf of *Quanzhou Chierda Electronic Telecom Co., Ltd.* in accordance with Part 2-Subpart J, Part 15-Subparts A and C of the Federal Communication Commission's rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.209 and 15.247 rules.

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.

And KDB 558074 D01 15.247 Meas Guidance v05r02.

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Xiamen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Xiamen) to collect test data is located on the Unit 102, No. 902 Meifeng South Road, Binhai West Avenue Science and Technology Innovation Park, Torch High Tech Zone Xiamen, People's Republic of China.

Bay Area Compliance Laboratories Corp. (Xiamen) Lab is accredited to ISO/IEC 17025 by A2LA (Certificate Number: 7134.01) and the lab has been recognized as the FCC accredited lab under the KDB 974614 D01, the FCC Designation No. : CN1384.

Measurement Uncertainty

Item		U_{lab}
Radiated Spurious Emission	9kHz-150 kHz	2.82 dB
	150kHz-30MHz	2.74 dB
	30MHz~1GHz	4.68 dB
	1GHz~18GHz	5.00 dB
	18GHz-26.5GHz	4.90 dB
Occupied Channel Bandwidth		1.69%
Transmitter Conducted Power(Conducted RF power)		± 0.43 dB
Conducted Spurious Emission		± 2.92 dB
Power Spectral Density		± 2.52 dB
Duty Cycle		1%
Temperature		$\pm 1^{\circ}\text{C}$
Humidity		$\pm 5\%$
Supply voltages		$\pm 0.4\%$

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.

SYSTEM TEST CONFIGURATION

Test Mode and Voltage

The system was configured for testing in a typical mode (as normally used by a typical user).	
Test mode:	Transmitting
Test voltage:	DC 13.8V
Remark:	During all emission tests, the EUT was configured to measure its highest possible emission level and the worst case's test data was presented in this test report.

Description of Test Configuration

For BLE mode, 40 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2442
1	2404	21	2444
2	2406	22	2446
3	2408	23	2448
4	2410	24	2450
5	2412	25	2452
6	2414	26	2454
7	2416	27	2456
8	2418	28	2458
9	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	2440	39	2480

EUT was tested with Channel 0, 19 and 39.

Equipment Modifications

No modification was made to the EUT tested.

★EUT Exercise Software

RF Test Tool: FCC assist 1.0.2.2.exe

Mode	Power level		
	Low channel	Middle channel	High channel
BLE 1Mbps	default	default	default
BLE 2Mbps	default	default	default

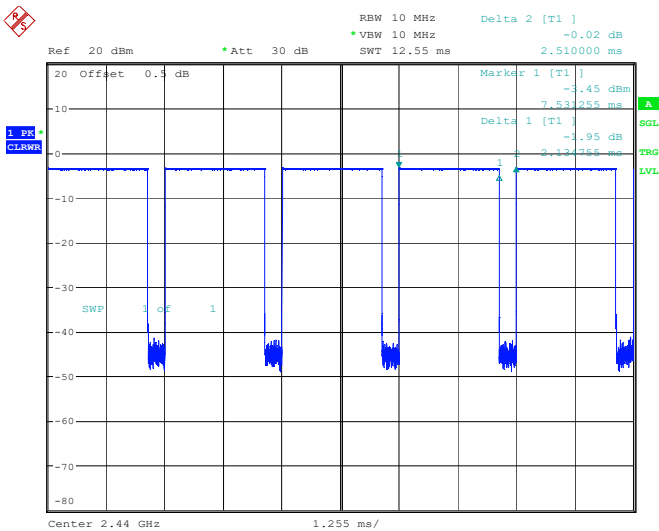
Note: the applicant declared the power level.

Duty cycle

Test Mode:	Transmitting	Test Engineer:	Lucas Lin
Test Date:	2025-11-27	Environment:	Temp.: 24.1°C Humi.: 51% Atm :100.1 kPa

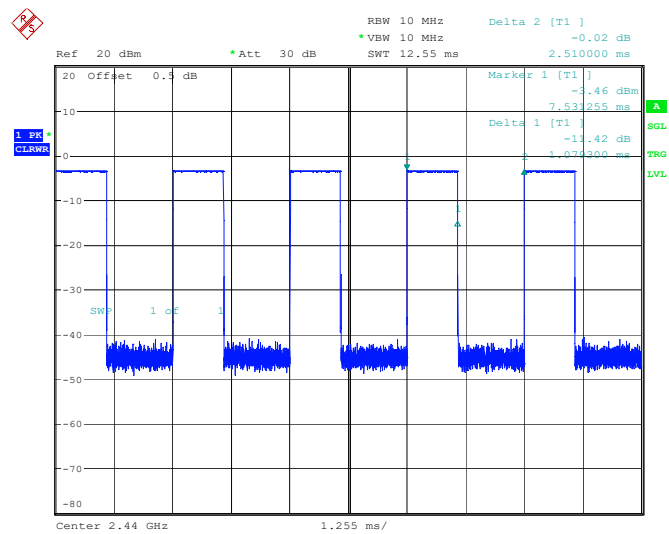
Test Modes	Test Frequency (MHz)	Ton (ms)	Ton+off (ms)	Duty cycle (%)	1/T (Hz)	VBW Setting (kHz)
BLE 1Mbps	2440	2.135	2.51	85.06	468	0.50
BLE 2Mbps	2440	1.079	2.51	42.99	927	1.00

BLE 1Mbps: Middle Channel



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
 Date: 27.NOV.2025 10:01:39

BLE 2Mbps: Middle Channel



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:02:33

Support Equipment List and Details

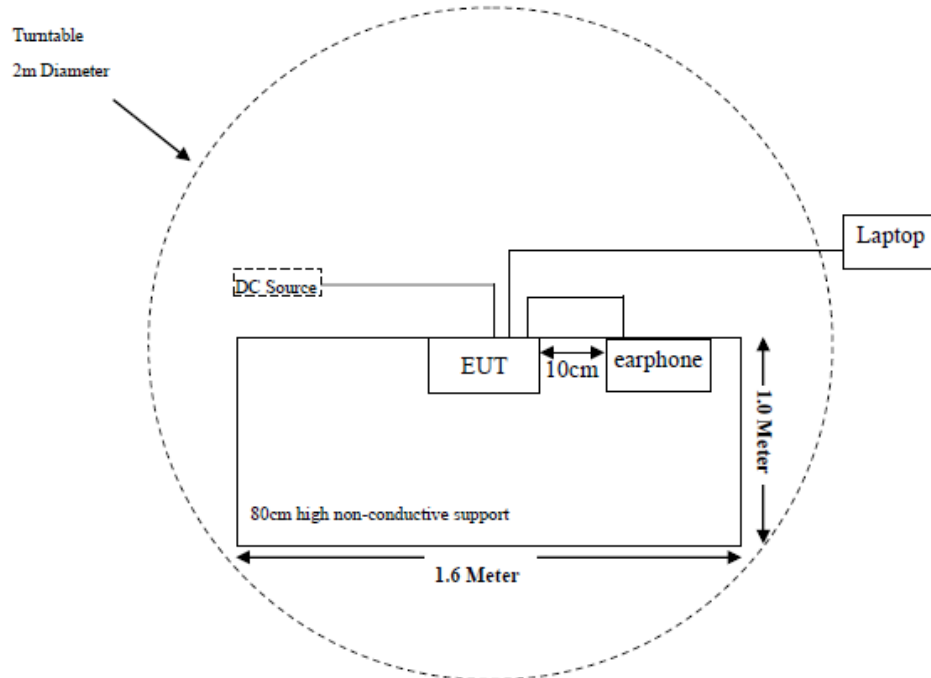
Manufacturer	Description	Model	Serial Number
Lenovo	Laptop	T480	PF1P5K4F
Unknown	earphone	Unknown	Unknown

External I/O Cable

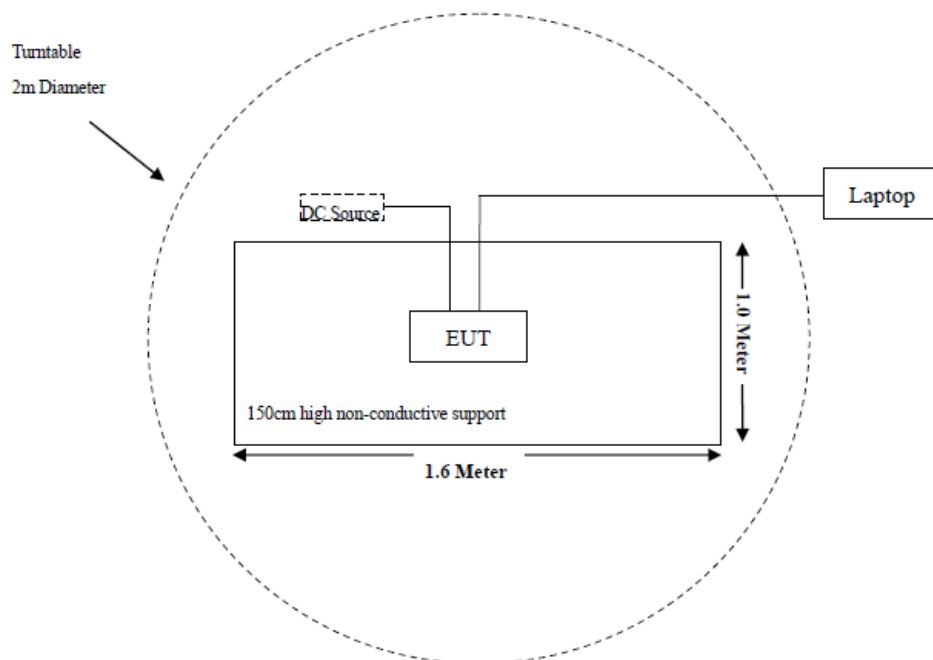
Cable Description	Length (m)	From Port	To
Power cable	10	EUT	DC Source
Network-USB cable	10	Laptop	EUT
RF Cable	0.1	EUT antenna port	Spectrum Analyzer

Block Diagram of Test Setup

Radiated Spurious Emission
Below 1GHz:



Above 1GHz:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.203	Antenna Requirement	Compliant
§15.207(a)	AC Line Conducted Emissions	Not Applicable (See Note 1)
§15.205, §15.209, §15.247(d)	Radiated Emissions & Restricted Bands Emissions & Antenna-port conducted emission	Compliant
§15.247(a)(2)	6 dB Emission Bandwidth	Compliant
§15.247(b)(3)	Maximum Conducted Output Power	Compliant
§15.247(d)	100 kHz Bandwidth of Frequency Band Edge	Compliant
§15.247(e)	Power Spectral Density	Compliant

Note:

1. The EUT is powered by DC source.

TEST EQUIPMENT LIST

Test Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emissions Below 1GHz					
EMI Test Receiver	Rohde & Schwarz	ESR	103103	2026/01/21	2027/01/20
Loop Antenna	Rohde & Schwarz	HFH2-Z2	830749/001	2023/07/27	2026/07/26
Antenna	Sunol Sciences	JB6	A122022-5	2023/07/27	2026/07/26
Amplifier	Sonoma	310B	120903	2026/01/22	2027/01/21
Coaxial Cable	XINHANGWEIBO	XH400T-N-4M	CC002	2026/01/20	2027/01/19
Coaxial Cable	XINHANGWEIBO	XH460B-N-2M	CC006	2026/01/20	2027/01/19
Coaxial Cable	XINHANGWEIBO	XH460B-N-12M	CC007	2026/01/20	2027/01/19
Coaxial Cable	XINHANGWEIBO	HFH2-CC	335.3609	2023/07/27	2026/07/26
Test Software	Audix	E3	18621a	N/A	N/A
Radiated Emissions Above 1 GHz					
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102051	2026/01/21	2027/01/20
Filter Switch Unit	Decentest	DT7220FSU	DS79904	2026/01/20	2027/01/19
Multiplex Switch Test Control Set	Decentest	DT7220SCU	DS79901	2026/01/20	2027/01/19
Horn Antenna	EMCO	3115	9002-3355	2024/11/19	2027/11/18
Preamplifier	GLOBAL	1313-A100M18G	4121301	2026/01/14	2027/01/13
Coaxial Cable	XINHANGWEIBO	XH800A-N-6M	CC003	2026/01/20	2027/01/19
Coaxial Cable	XINHANGWEIBO	XH800A-N-1M	CC005	2026/01/20	2027/01/19
Horn Antenna	EMCO	3116	9407-2232	2023/07/31	2026/07/30
Preamplifier	A.H.Systems	PAM-1840	200	2026/01/20	2027/01/19
Coaxial Cable	XINHANGWEIBO	XH360A-2.92-3M	CC008	2026/01/20	2027/01/19
Coaxial Cable	XINHANGWEIBO	XH360A-2.92-1M	CC009	2026/01/20	2027/01/19
Test Software	Audix	E3	18621a	N/A	N/A
RF Conducted Test					
Spectrum Analyzer	Rohde & Schwarz	FSU	100405	2025/02/20	2026/02/19
Test Software	JD	JDAutoTestSystem	1.0.0.3813	N/A	N/A

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Xiamen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §15.203 - ANTENNA REQUIREMENT

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. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.247 (b), if the transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

The EUT has one PCB antenna arrangement for BLE, which was permanently attached and the antenna gain is -0.9dBi, fulfill the requirement of this section. Please refer to the EUT photos.

Result: Compliant

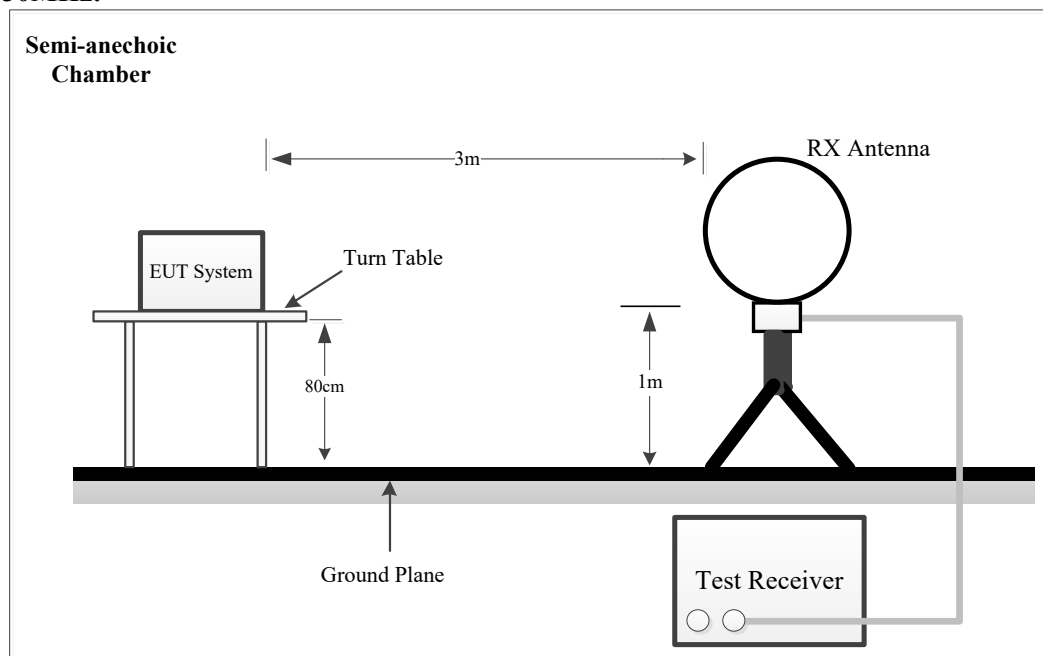
FCC §15.209, §15.205 & §15.247(d) - SPURIOUS EMISSIONS**Applicable Standard**

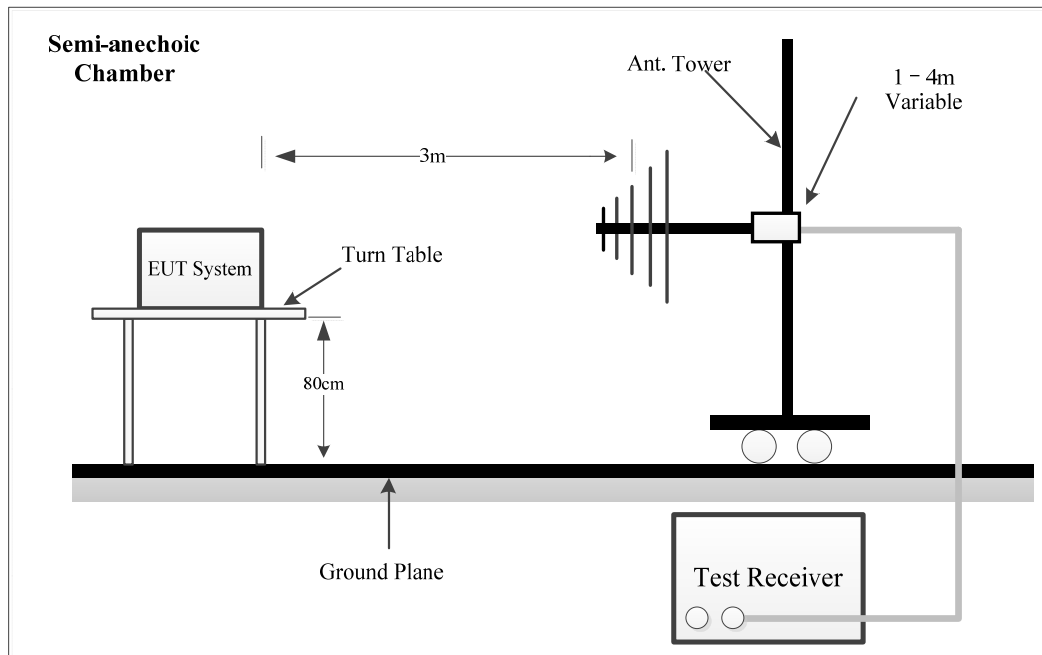
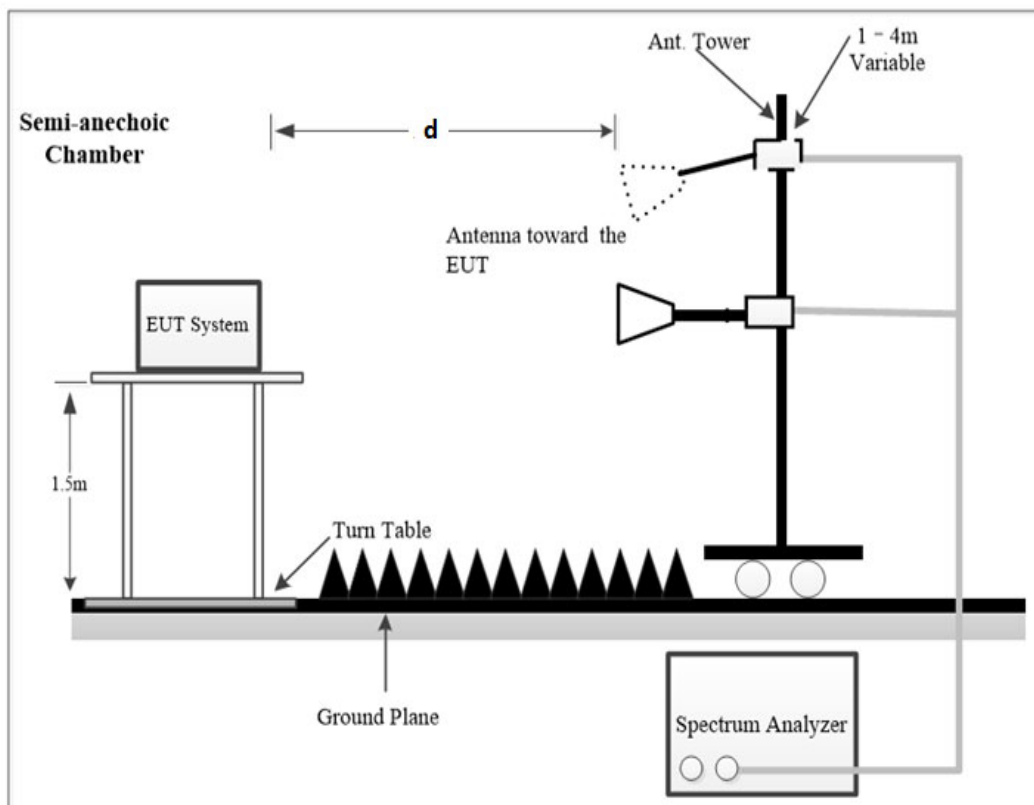
FCC §15.247 (d); §15.209; §15.205;

(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)).

EUT Setup

9 kHz-30MHz:



30MHz -1 GHz:**Above 1GHz:**

The radiated emission tests using the setup accordance with the ANSI C63.10-2020. The specification used was the FCC 15.209, and FCC 15.247 limits.

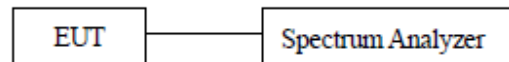
NOTE: d is testing distance;

For Radiated Emission test (1GHz-18GHz) and Bandedge Emission test, which was performed at 3 m distance.

For Radiated Emission test (18GHz-25GHz), which was performed at 1.5 m distance, according to ANSI C63.10-2020, the test result shall be extrapolated to the specified distance using an extrapolation Factor of 20dB/decade from 3m to 1.5m.

Distance extrapolation Factor = $20 \log (\text{specific distance [3m]}/\text{test distance [1.5m]})$ dB = 6 dB

Antenna-port conducted emission:



Note: A short RF cable with low cable loss connected to the EUT antenna port. The insert loss of this RF cable was TDF into the setting of test equipment:

TDF = Insert loss of RF cable

★ The Insert loss was declared by manufacturer.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 9 kHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Below 1GHz:

Frequency Range	RBW	VBW	Measurement
9 kHz – 150 kHz	300Hz	1 kHz	PK
	200Hz	/	QP
150 kHz – 30 MHz	10 kHz	30 kHz	PK
	9kHz	/	QP
30 MHz – 1000 MHz	100 kHz	300 kHz	PK
	120kHz	/	QP

Above 1GHz:

Pre-scan:

Measurement	Duty Cycle	RBW	Video B/W	Detector
PK	Any	1MHz	3MHz	PK
Ave.	>98%	1MHz	5kHz	PK
	<98%	1MHz	1/T, not less than 5kHz	PK

Final measurement for emission identified during the pre-scan:

Measurement	Duty Cycle	RBW	Video B/W	Detector
PK	Any	1MHz	3MHz	PK
Ave.	>98%	1MHz	10Hz	PK
	<98%	1MHz	1/T	PK

Note: T is minimum transmission duration

Test Procedure

Radiated Emissions:

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

For each measurement antenna alignment, the EUT shall be rotated through 0° to 360° on a turntable. The report shall list the six emissions with the smallest margin relative to the limit, for each of the three antenna orientations (parallel, perpendicular, and ground parallel) unless the margin is greater than 20 dB, then the following statement shall be made: "all emissions were greater than 20 dB below the limit."

Below 1GHz, if the measured peak level of the emissions that the measuring receiver reading level plus corrected factor is at least 6 dB below the QP emission limit, there's no need to record the measured QP level of the emissions in the report.

Above 1GHz, if the measured peak level of the emissions that the measuring receiver reading level plus corrected factor is below the AV emission limit, there's no need to record the measured AV level of the emissions in the report.

Antenna-port conducted emission:

Typical regulatory requirements specify that in any 100 kHz bandwidth outside of the authorized frequency band, the power shall be attenuated by an amount specified by the regulator.

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

Result & Margin Calculation

The Result 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:

For 9 kHz to 18GHz Radiated emission test and Bandedge emissions test

$$\text{Factor (dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Amplifier Gain (dB)}$$

For 18GHz to 25GHz Radiated emission test

$$\text{Factor (dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Amplifier Gain (dB)} - \text{Extrapolation factor (dB)}$$

$$\text{Extrapolation factor} = 6\text{dB (distance} = 1.5\text{m)}$$

$$\text{Result (dB}\mu\text{V/m)} = \text{Reading (dB}\mu\text{V)} + \text{Factor (dB/m)}$$

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

$$\text{Margin (dB)} = \text{Limit (dB}\mu\text{V/m)} - \text{Result (dB}\mu\text{V/m)}$$

Test Data

Please refer to the below table and plots.

Frequency Range:	Below 1 GHz	Above 1 GHz	Antenna-port conducted emission
Temperature:	22.6°C	22.6°C	24.1°C
Relative Humidity:	58 %	58 %	51%
ATM Pressure:	100.1kPa	100.1kPa	100.1kPa
Test Date:	2026-06-05	2026-06-05	2025-11-27
Test Engineer:	Wlif Wu	Wlif Wu	Lucas Lin

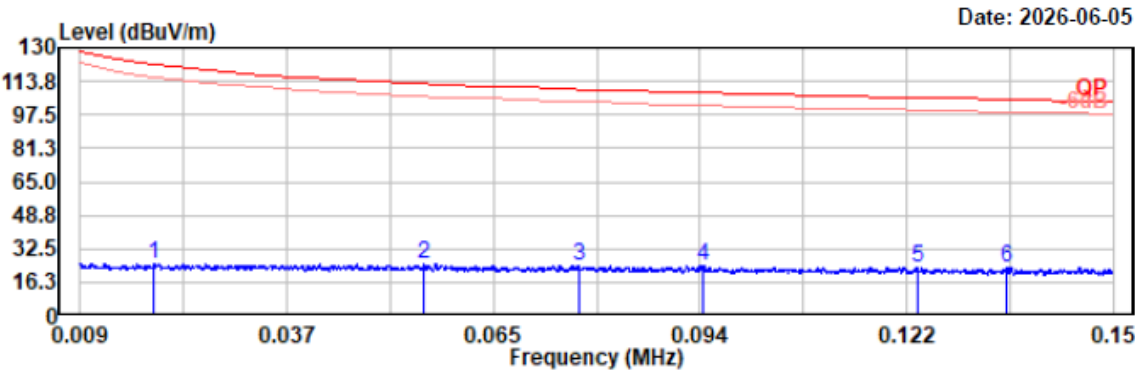
1) 9 kHz~30MHz

Pre-scan in parallel, ground-parallel and perpendicular of orientation of loop antenna, parallel is worst case

Note: The maximum output power mode: BLE 2M high channel was tested.

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

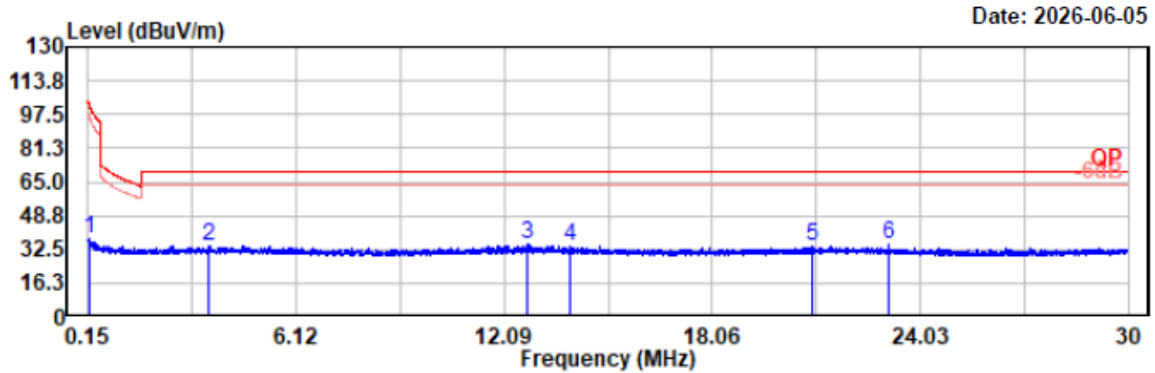


Condition: PK RBW:300Hz VBW:1kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.019	5.68	19.79	25.47	121.97	96.50	Peak
0.056	5.40	19.91	25.31	112.66	87.35	Peak
0.077	4.89	19.74	24.63	109.88	85.25	Peak
0.094	4.25	19.78	24.03	108.13	84.10	Peak
0.123	3.88	19.73	23.61	105.79	82.18	Peak
0.136	3.64	19.73	23.37	104.97	81.60	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



Condition: PK RBW:10kHz VBW:30kHz SWT:auto

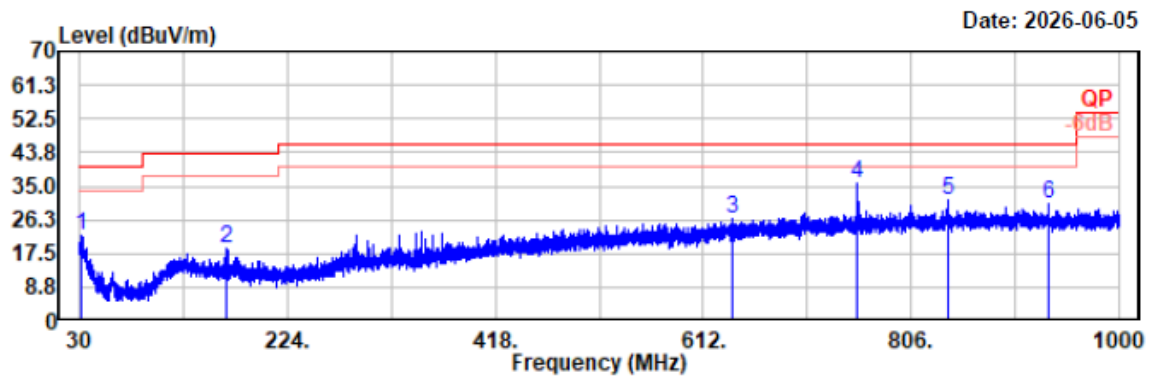
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
0.216	17.58	19.72	37.30	100.93	63.63	Peak
3.636	14.15	19.80	33.95	69.54	35.59	Peak
12.750	15.42	19.73	35.15	69.54	34.39	Peak
13.982	14.69	19.75	34.44	69.54	35.10	Peak
20.908	14.39	20.12	34.51	69.54	35.03	Peak
23.129	14.81	20.17	34.98	69.54	34.56	Peak

2) 30MHz-1GHz

Note: The maximum output power mode: BLE 2M high channel was tested.

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

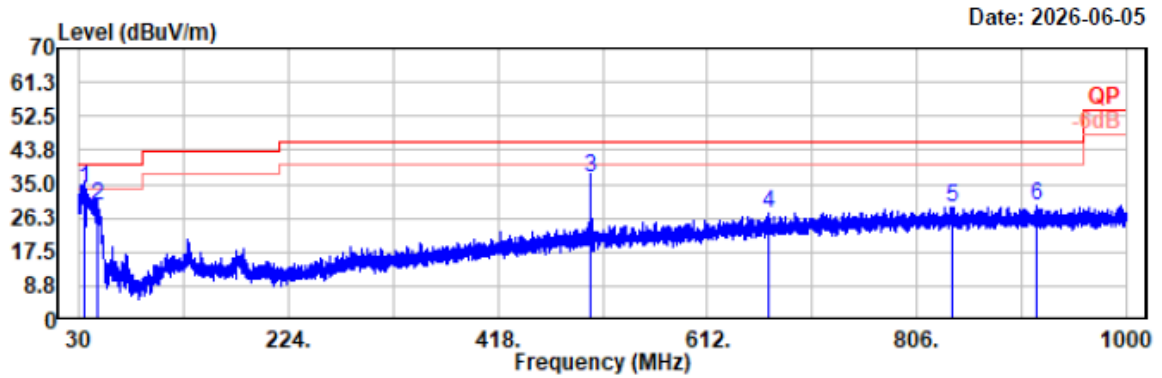


Condition: PK RBW:10kHz VBW:30kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Remark
31.649	28.19	-6.19	22.00	40.00	18.00	Peak
167.061	30.36	-11.75	18.61	43.50	24.89	Peak
639.839	27.84	-1.11	26.73	46.00	19.27	Peak
755.851	35.16	0.52	35.68	46.00	10.32	Peak
840.047	29.59	1.80	31.39	46.00	14.61	Peak
934.137	27.31	3.03	30.34	46.00	15.66	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



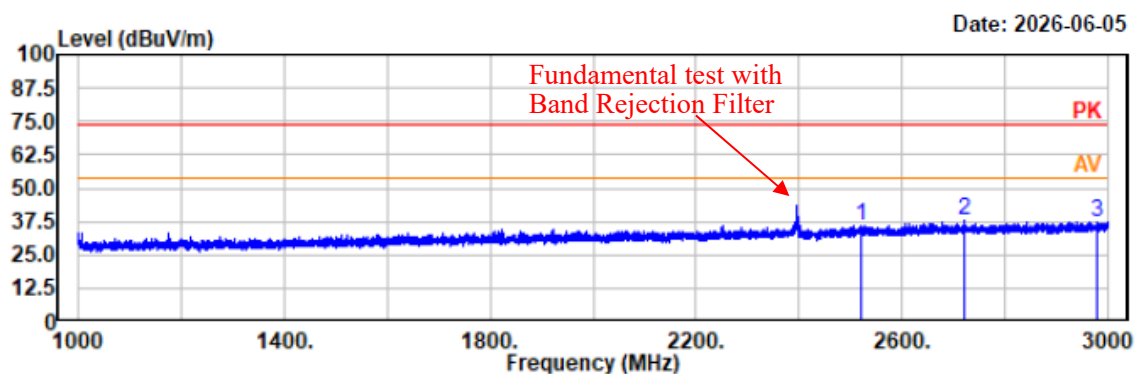
Condition: PK RBW:10kHz VBW:30kHz SWT:auto

Freq MHz	Reading dBUV	Factor dB/m	Result dBUV/m	Limit dBUV/m	Margin dB	Remark
35.432	41.98	-8.34	33.64	40.00	6.36	QP
46.684	45.50	-16.17	29.33	40.00	10.67	QP
504.039	40.13	-3.38	36.75	46.00	9.25	QP
668.551	28.16	-0.66	27.50	46.00	18.50	Peak
839.368	27.31	1.80	29.11	46.00	16.89	Peak
917.550	26.51	2.71	29.22	46.00	16.78	Peak

3) 1GHz~3GHz

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2402MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

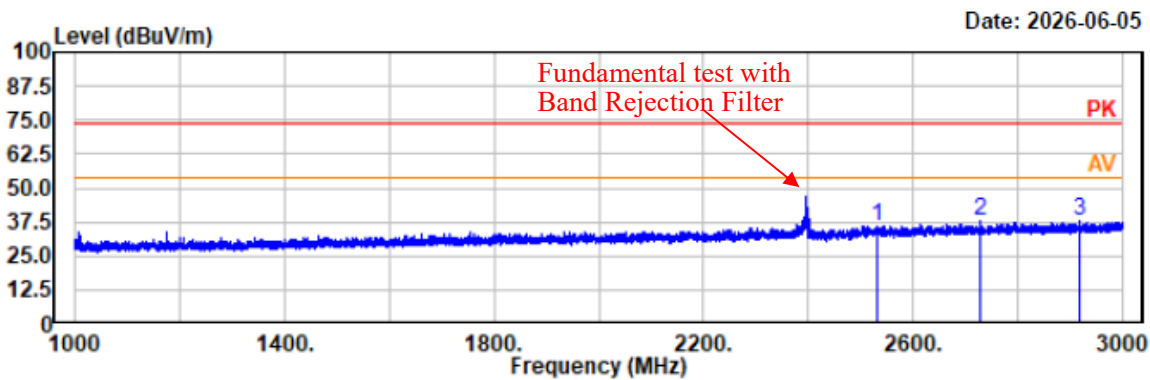


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2522.40	46.81	-10.66	36.15	74.00	37.85	horizontal	Peak
2720.20	47.91	-9.98	37.93	74.00	36.07	horizontal	Peak
2980.40	46.51	-9.05	37.46	74.00	36.54	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2402MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

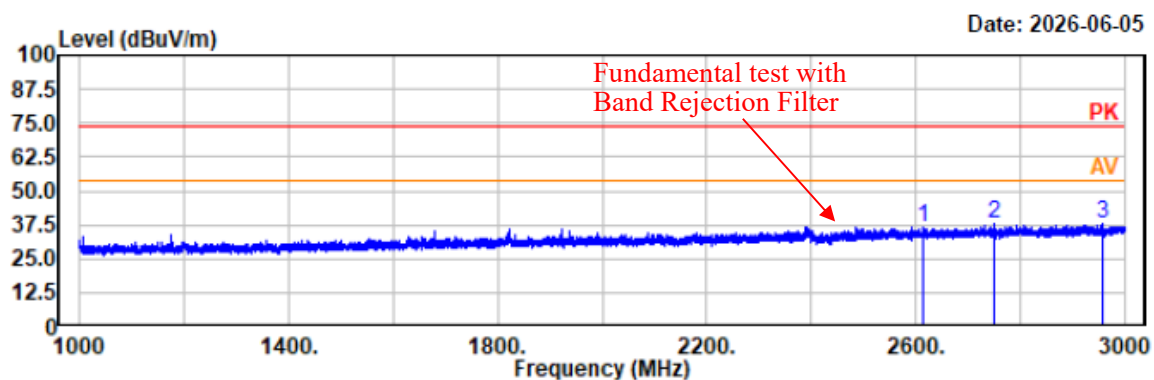


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2530.40	46.63	-10.64	35.99	74.00	38.01	vertical	Peak
2728.80	47.87	-9.97	37.90	74.00	36.10	vertical	Peak
2919.40	47.10	-9.41	37.69	74.00	36.31	vertical	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2440MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

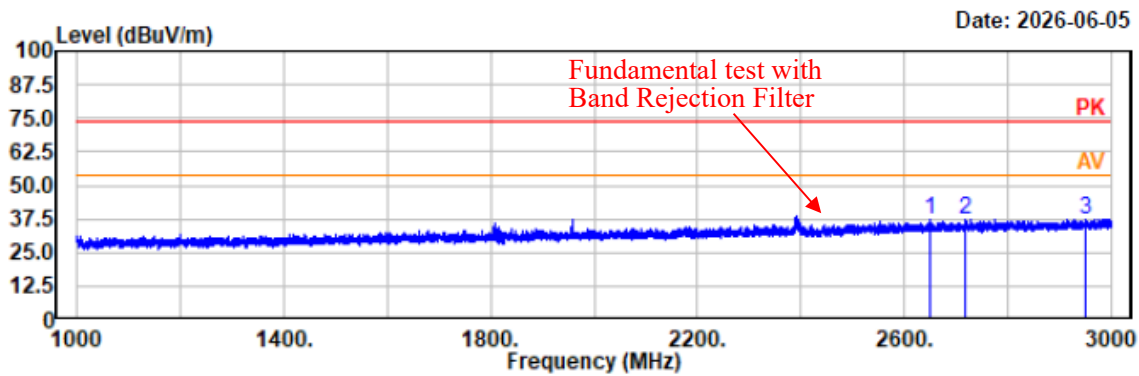


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2613.40	46.76	-10.34	36.42	74.00	37.58	horizontal	Peak
2749.20	47.57	-9.95	37.62	74.00	36.38	horizontal	Peak
2959.40	47.00	-9.16	37.84	74.00	36.16	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2440MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



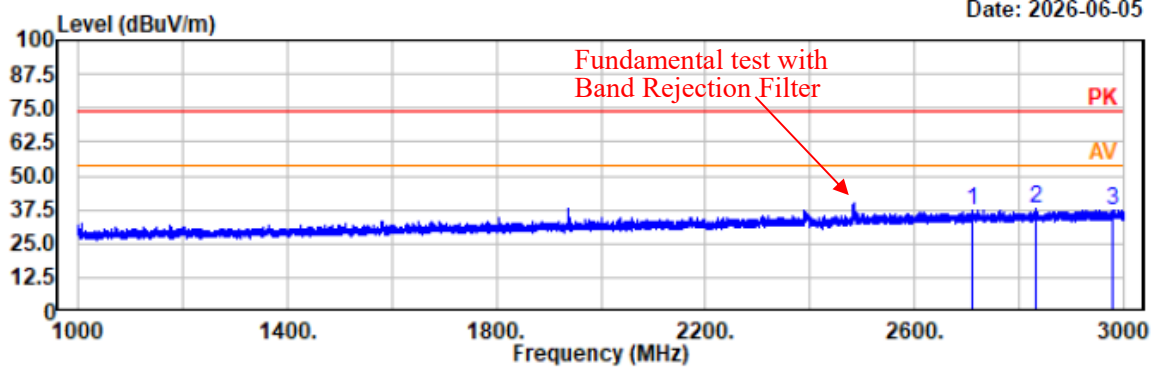
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2650.20	47.17	-10.20	36.97	74.00	37.03	vertical	Peak
2719.40	47.27	-9.98	37.29	74.00	36.71	vertical	Peak
2950.40	46.54	-9.20	37.34	74.00	36.66	vertical	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

Date: 2026-06-05

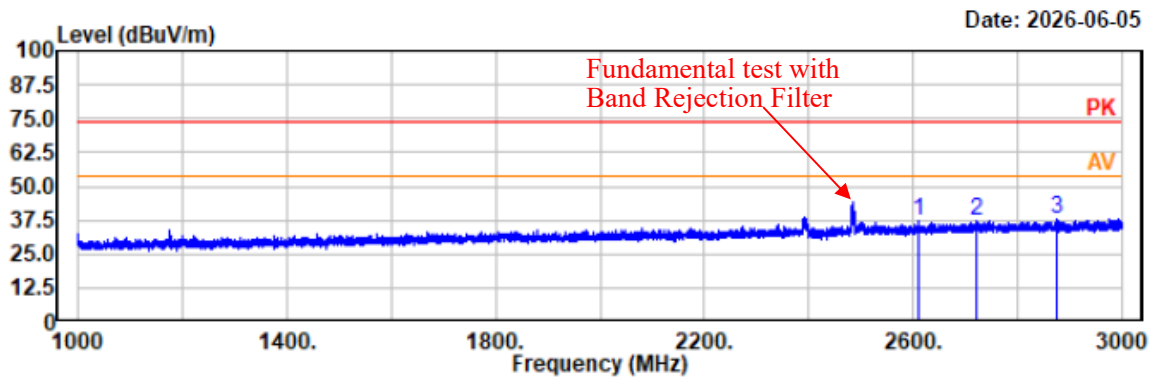


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2711.80	47.02	-9.99	37.03	74.00	36.97	horizontal	Peak
2831.20	47.81	-9.68	38.13	74.00	35.87	horizontal	Peak
2979.20	46.41	-9.05	37.36	74.00	36.64	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



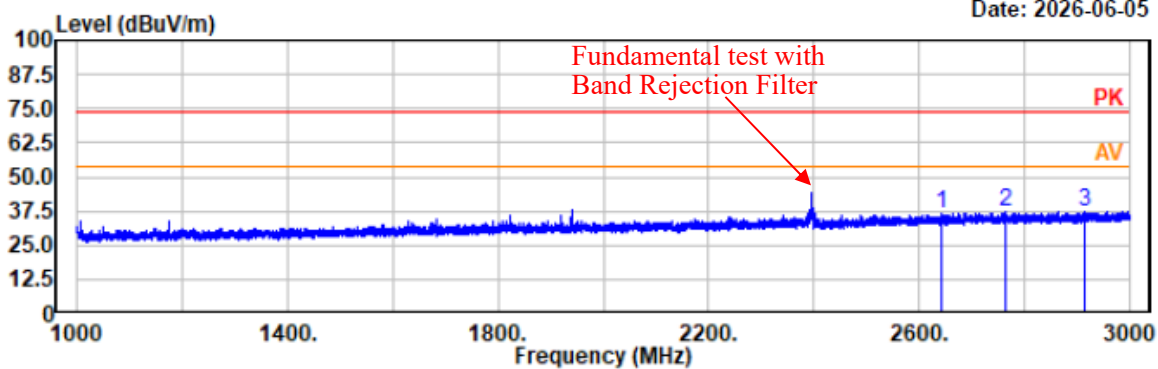
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2611.60	47.27	-10.34	36.93	74.00	37.07	vertical	Peak
2719.80	47.38	-9.98	37.40	74.00	36.60	vertical	Peak
2876.20	47.44	-9.59	37.85	74.00	36.15	vertical	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2402MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

Date: 2026-06-05



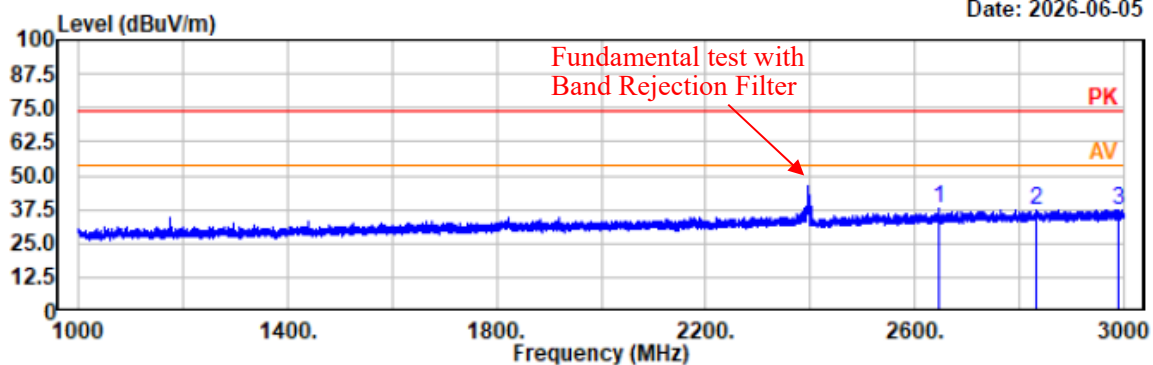
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2642.00	46.76	-10.23	36.53	74.00	37.47	horizontal	Peak
2765.20	47.16	-9.90	37.26	74.00	36.74	horizontal	Peak
2915.40	46.55	-9.45	37.10	74.00	36.90	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2402MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

Date: 2026-06-05



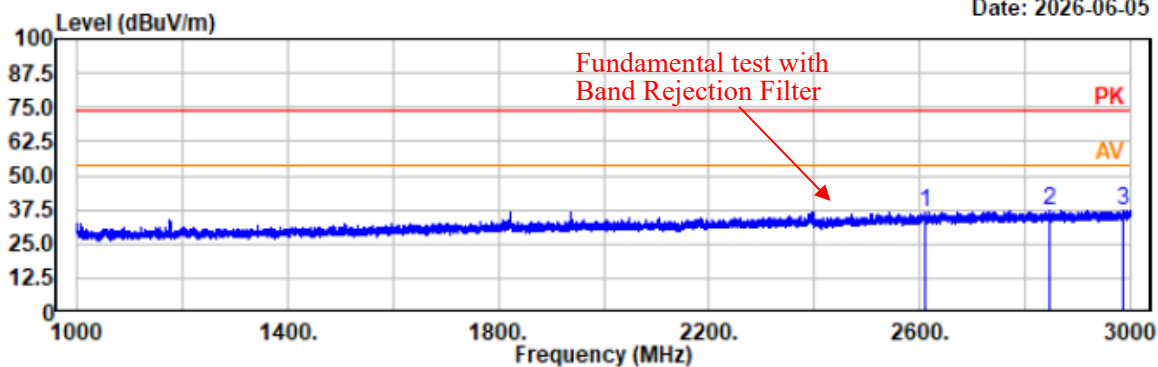
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2646.80	47.88	-10.21	37.67	74.00	36.33	vertical	Peak
2834.00	47.15	-9.67	37.48	74.00	36.52	vertical	Peak
2990.20	46.33	-9.00	37.33	74.00	36.67	vertical	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2440MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

Date: 2026-06-05

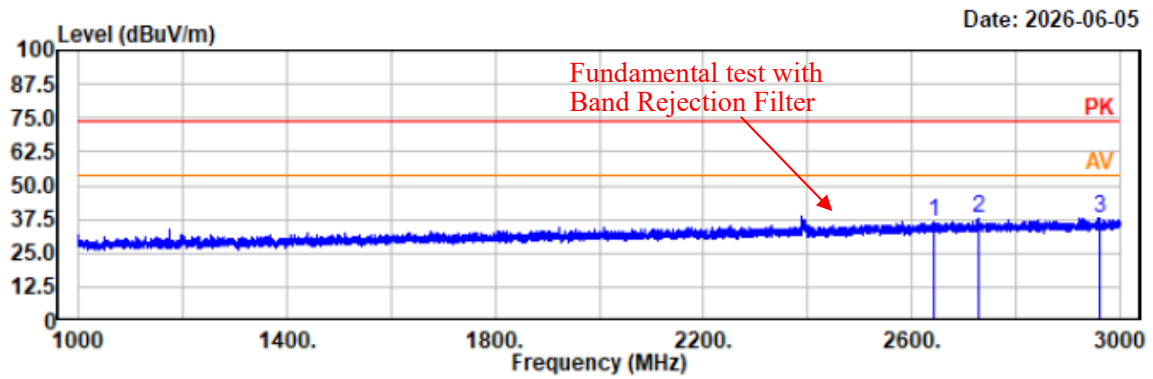


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2609.20	46.99	-10.35	36.64	74.00	37.36	horizontal	Peak
2846.80	47.12	-9.63	37.49	74.00	36.51	horizontal	Peak
2985.80	46.47	-9.02	37.45	74.00	36.55	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2440MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

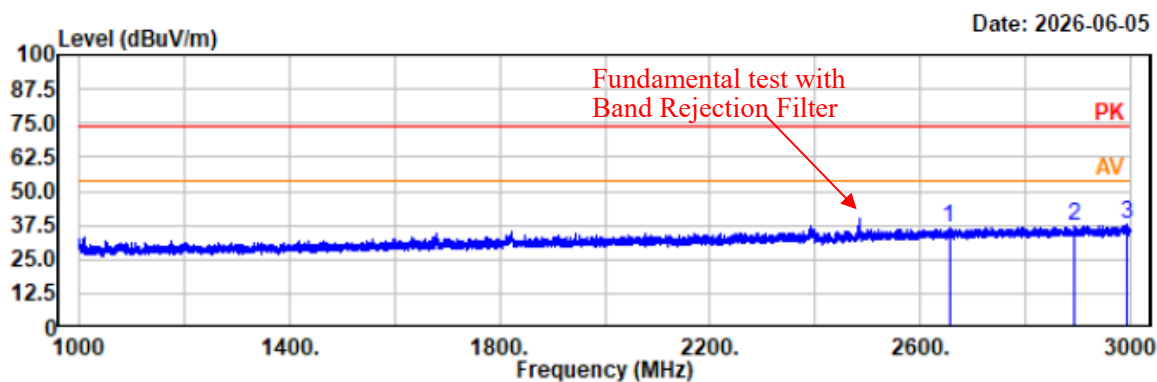


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2641.40	46.93	-10.23	36.70	74.00	37.30	vertical	Peak
2728.60	47.92	-9.97	37.95	74.00	36.05	vertical	Peak
2960.80	47.18	-9.16	38.02	74.00	35.98	vertical	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

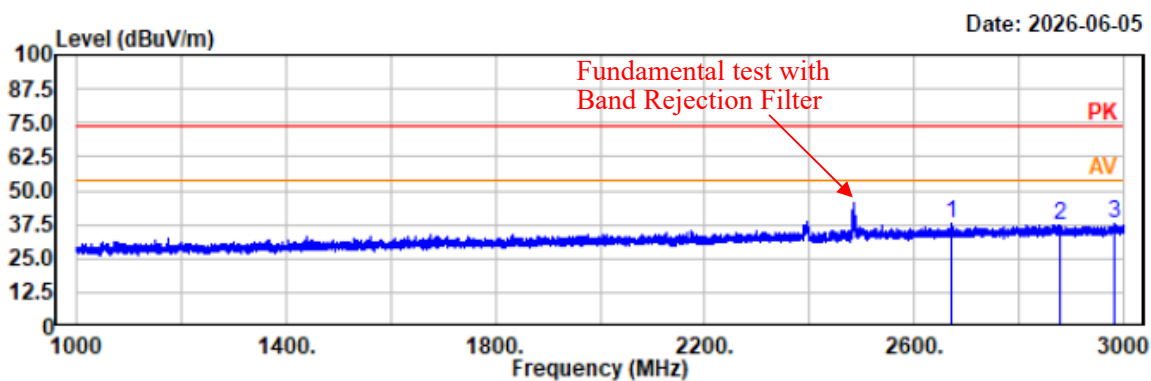


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2655.20	46.92	-10.18	36.74	74.00	37.26	horizontal	Peak
2893.00	47.10	-9.55	37.55	74.00	36.45	horizontal	Peak
2992.80	46.78	-8.99	37.79	74.00	36.21	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



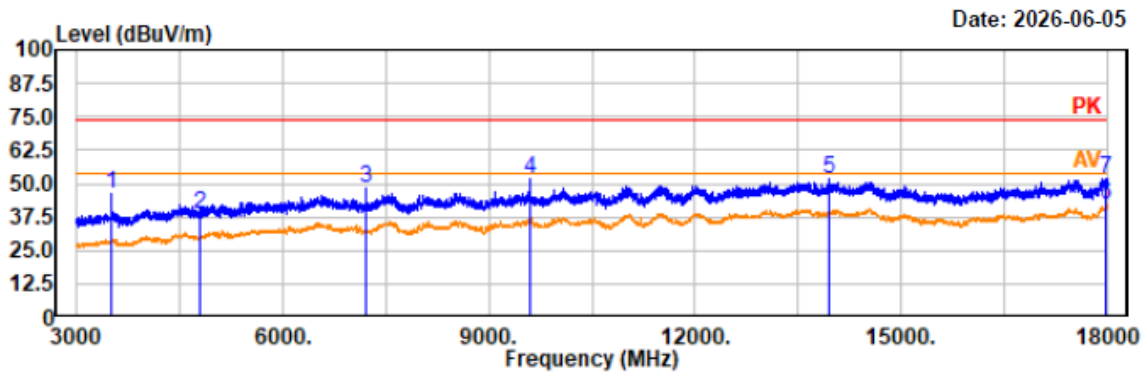
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2672.80	47.76	-10.11	37.65	74.00	36.35	vertical	Peak
2877.80	47.07	-9.58	37.49	74.00	36.51	vertical	Peak
2983.60	46.77	-9.03	37.74	74.00	36.26	vertical	Peak

4) 3 GHz ~18 GHz

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2402MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



Trace: 1

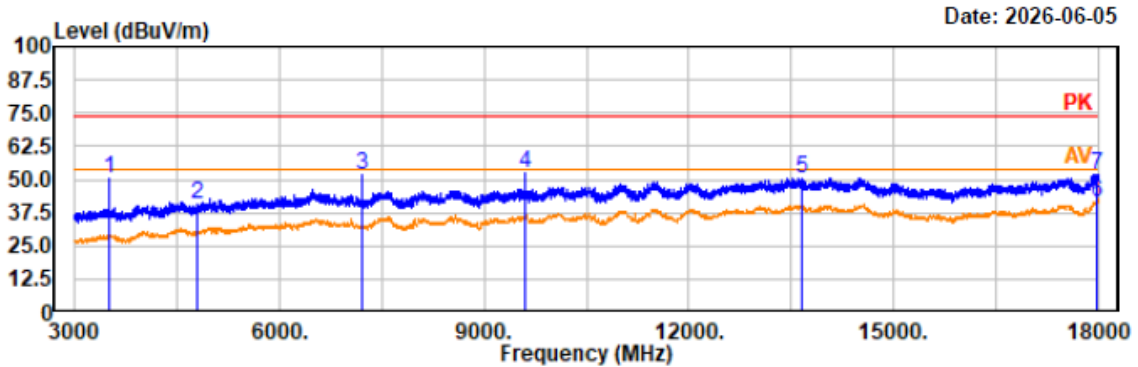
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	53.75	-7.56	46.19	74.00	27.81	horizontal	Peak
4804.50	44.18	-5.24	38.94	74.00	35.06	horizontal	Peak
7204.50	50.58	-2.55	48.03	74.00	25.97	horizontal	Peak
9606.00	50.90	1.01	51.91	74.00	22.09	horizontal	Peak
13960.50	46.41	5.19	51.60	74.00	22.40	horizontal	Peak
17983.50	34.87	6.89	41.76	54.00	12.24	horizontal	Average
17983.50	44.77	6.89	51.66	74.00	22.34	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2402MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



Trace: 1

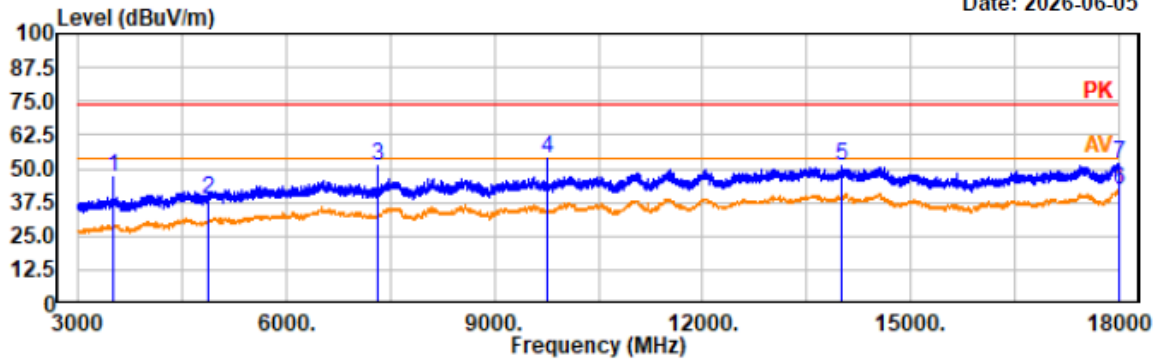
Condition: PK RBW:1MHz VBW:3MHz SWT:auto
AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	58.17	-7.56	50.61	74.00	23.39	vertical	Peak
4804.50	45.66	-5.24	40.42	74.00	33.58	vertical	Peak
7204.50	54.51	-2.55	51.96	74.00	22.04	vertical	Peak
9606.00	51.51	1.01	52.52	74.00	21.48	vertical	Peak
13647.00	45.82	4.79	50.61	74.00	23.39	vertical	Peak
17989.50	34.78	6.90	41.68	54.00	12.32	vertical	Average
17989.50	44.97	6.90	51.87	74.00	22.13	vertical	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2440MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

Date: 2026-06-05



Trace: 1

Condition: PK RBW:1MHz VBW:3MHz SWT:auto

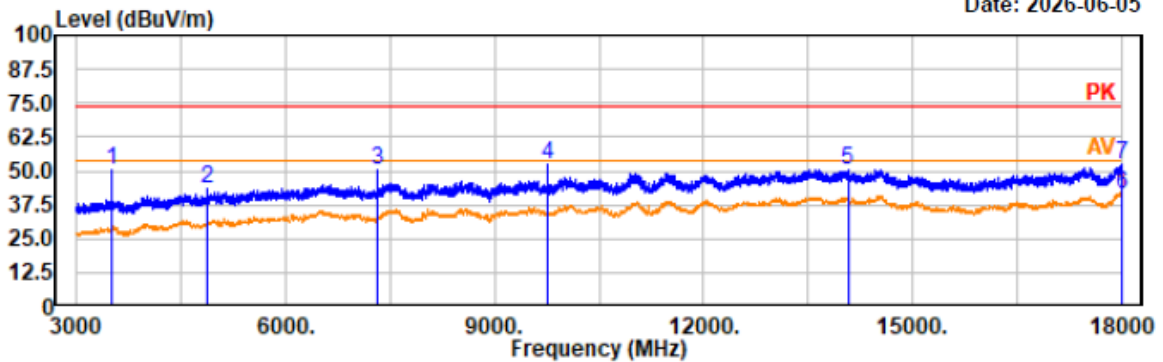
AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	54.40	-7.56	46.84	74.00	27.16	horizontal	Peak
4880.00	44.19	-5.30	38.89	74.00	35.11	horizontal	Peak
7318.50	53.13	-2.25	50.88	74.00	23.12	horizontal	Peak
9759.00	52.39	1.18	53.57	74.00	20.43	horizontal	Peak
14005.50	45.52	5.21	50.73	74.00	23.27	horizontal	Peak
17995.50	35.35	6.91	42.26	54.00	11.74	horizontal	Average
17995.50	45.08	6.91	51.99	74.00	22.01	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2440MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

Date: 2026-06-05



Trace: 1

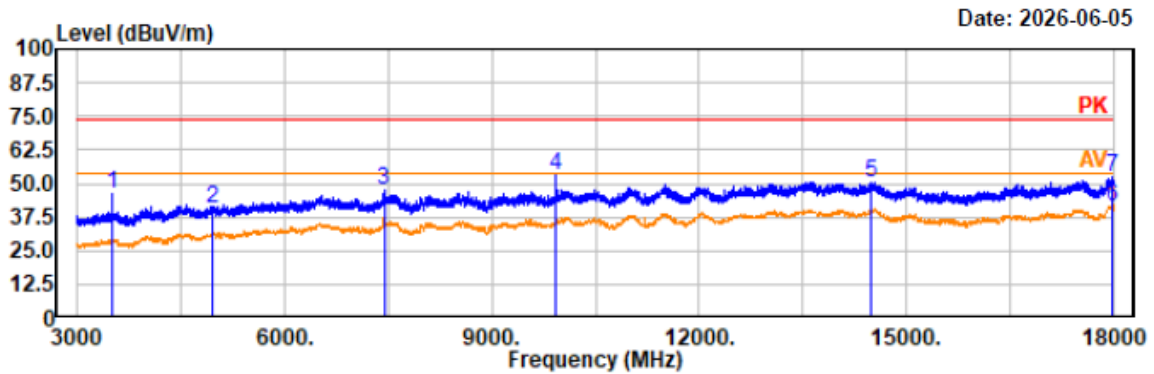
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	58.01	-7.56	50.45	74.00	23.55	vertical	Peak
4879.50	48.41	-5.30	43.11	74.00	30.89	vertical	Peak
7321.50	52.44	-2.25	50.19	74.00	23.81	vertical	Peak
9759.00	51.47	1.18	52.65	74.00	21.35	vertical	Peak
14071.50	45.03	5.29	50.32	74.00	23.68	vertical	Peak
17995.50	34.80	6.91	41.71	54.00	12.29	vertical	Average
17995.50	45.22	6.91	52.13	74.00	21.87	vertical	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



Trace: 1

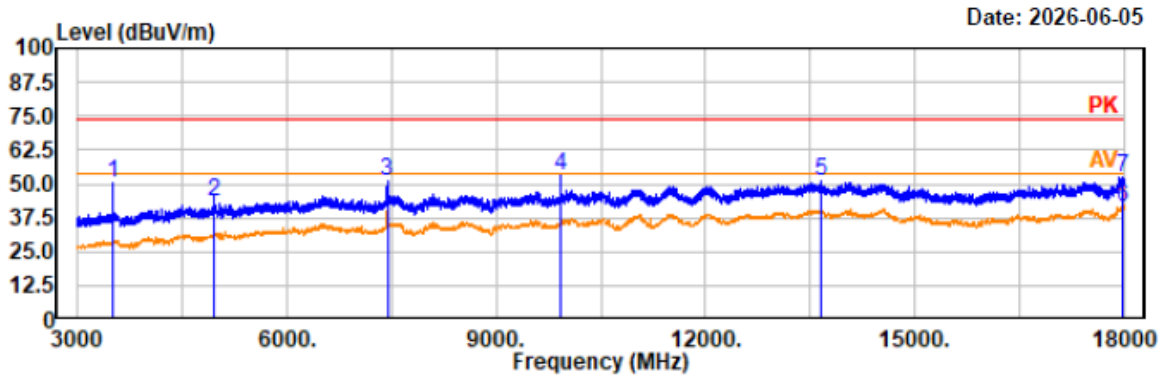
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	53.82	-7.56	46.26	74.00	27.74	horizontal	Peak
4960.50	45.97	-5.11	40.86	74.00	33.14	horizontal	Peak
7440.00	49.49	-2.03	47.46	74.00	26.54	horizontal	Peak
9919.50	51.92	1.36	53.28	74.00	20.72	horizontal	Peak
14499.00	45.21	5.07	50.28	74.00	23.72	horizontal	Peak
17986.50	34.57	6.89	41.46	54.00	12.54	horizontal	Average
17986.50	45.45	6.89	52.34	74.00	21.66	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



Trace: 1

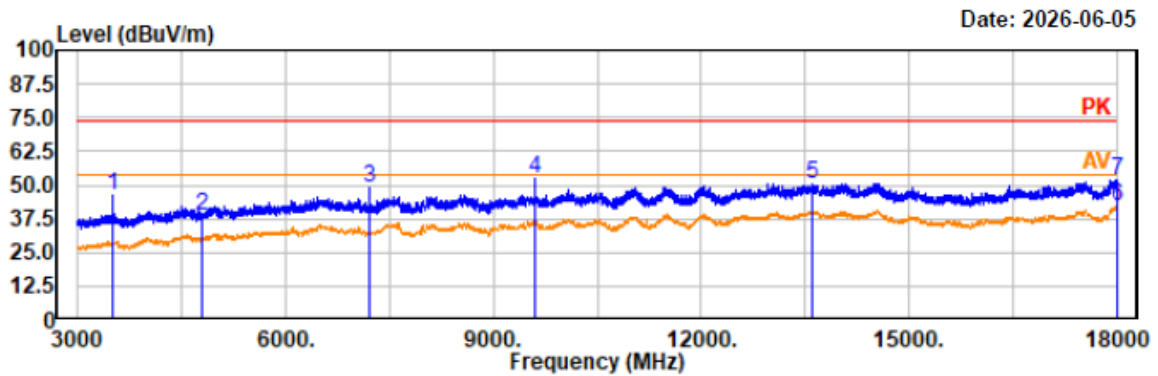
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	58.08	-7.56	50.52	74.00	23.48	vertical	Peak
4960.50	48.60	-5.11	43.49	74.00	30.51	vertical	Peak
7440.00	52.98	-2.03	50.95	74.00	23.05	vertical	Peak
9919.50	51.94	1.36	53.30	74.00	20.70	vertical	Peak
13663.50	46.44	4.83	51.27	74.00	22.73	vertical	Peak
17988.00	34.82	6.89	41.71	54.00	12.29	vertical	Average
17988.00	45.71	6.89	52.60	74.00	21.40	vertical	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2402MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



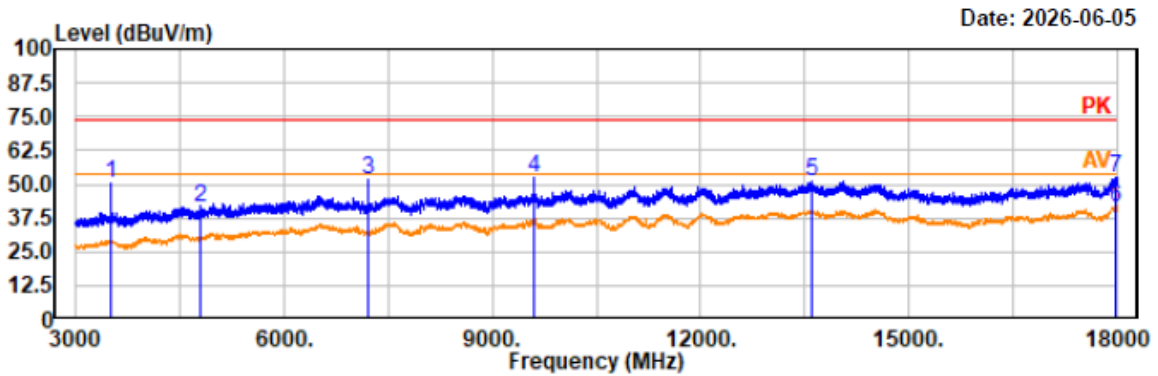
Trace: 1

Condition: PK RBW:1MHz VBW:3MHz SWT:auto
AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	53.95	-7.56	46.39	74.00	27.61	horizontal	Peak
4804.00	43.52	-5.24	38.28	74.00	35.72	horizontal	Peak
7204.50	51.71	-2.55	49.16	74.00	24.84	horizontal	Peak
9610.50	51.44	1.02	52.46	74.00	21.54	horizontal	Peak
13608.00	45.88	4.71	50.59	74.00	23.41	horizontal	Peak
17994.00	34.88	6.90	41.78	54.00	12.22	horizontal	Average
17994.00	44.99	6.90	51.89	74.00	22.11	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2402MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



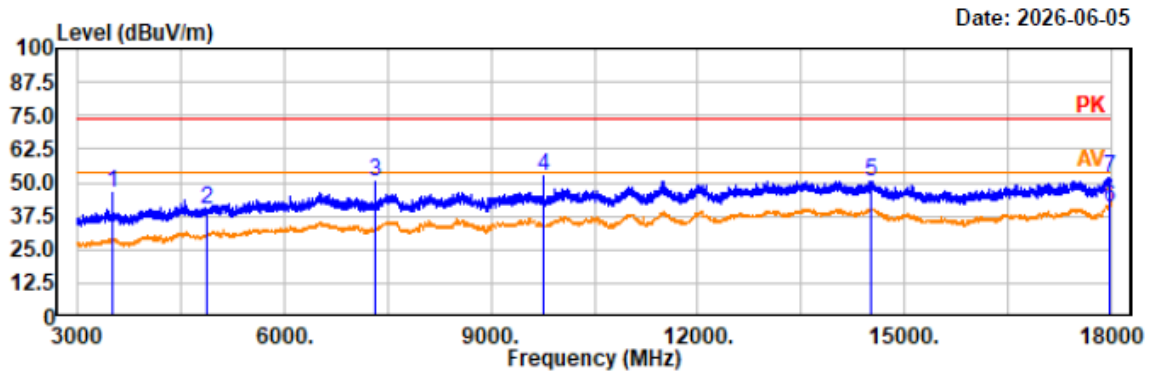
Trace: 1

Condition: PK RBW:1MHz VBW:3MHz SWT:auto
AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	57.95	-7.56	50.39	74.00	23.61	vertical	Peak
4804.50	46.47	-5.24	41.23	74.00	32.77	vertical	Peak
7204.50	54.36	-2.55	51.81	74.00	22.19	vertical	Peak
9610.50	51.45	1.02	52.47	74.00	21.53	vertical	Peak
13593.00	46.17	4.69	50.86	74.00	23.14	vertical	Peak
17979.00	34.82	6.89	41.71	54.00	12.29	vertical	Average
17979.00	45.78	6.89	52.67	74.00	21.33	vertical	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2440MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



Trace: 1

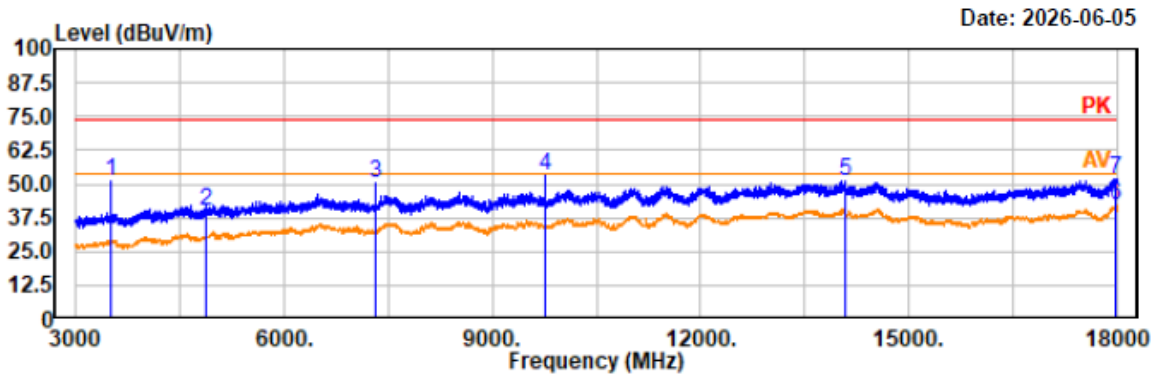
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	53.75	-7.56	46.19	74.00	27.81	horizontal	Peak
4880.00	45.44	-5.30	40.14	74.00	33.86	horizontal	Peak
7318.50	52.77	-2.25	50.52	74.00	23.48	horizontal	Peak
9759.00	51.11	1.18	52.29	74.00	21.71	horizontal	Peak
14502.00	45.47	5.07	50.54	74.00	23.46	horizontal	Peak
17971.50	34.14	6.88	41.02	54.00	12.98	horizontal	Average
17971.50	45.08	6.88	51.96	74.00	22.04	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2440MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



Trace: 1

Condition: PK RBW:1MHz VBW:3MHz SWT:auto
AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	58.32	-7.56	50.76	74.00	23.24	vertical	Peak
4880.00	45.35	-5.30	40.05	74.00	33.95	vertical	Peak
7321.50	52.38	-2.25	50.13	74.00	23.87	vertical	Peak
9759.00	52.05	1.18	53.23	74.00	20.77	vertical	Peak
14073.00	45.84	5.30	51.14	74.00	22.86	vertical	Peak
17988.00	35.06	6.89	41.95	54.00	12.05	vertical	Average
17988.00	45.15	6.89	52.04	74.00	21.96	vertical	Peak

Project No.: 2507Z03677E-RF

Test Mode: BLE 2M 2480MHz

EUT Model: M520D

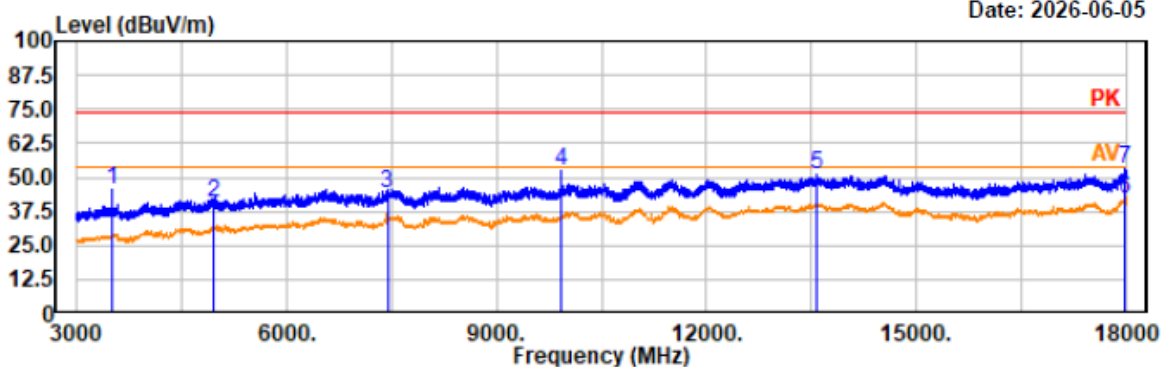
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa

Tested by: Wlif Wu

Power Source: DC 13.8V

Date: 2026-06-05



Trace: 1

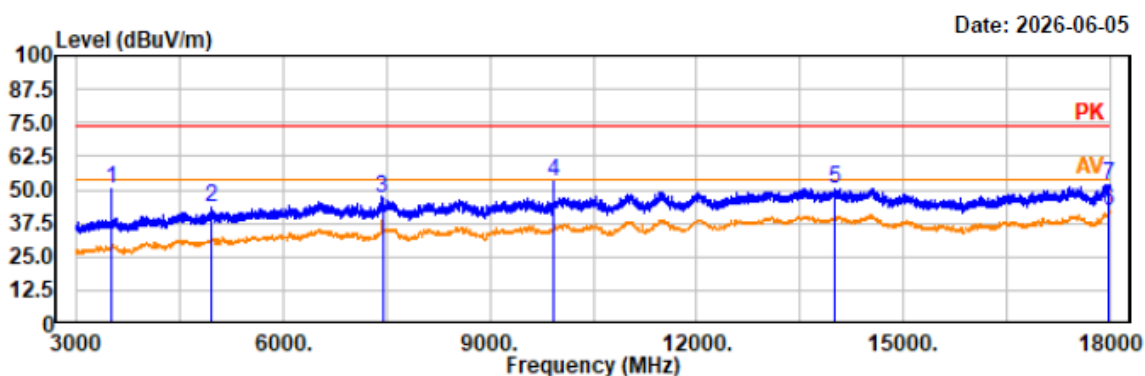
Condition: PK RBW:1MHz VBW:3MHz SWT:auto

AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	53.35	-7.56	45.79	74.00	28.21	horizontal	Peak
4960.00	45.72	-5.11	40.61	74.00	33.39	horizontal	Peak
7440.00	46.49	-2.03	44.46	74.00	29.54	horizontal	Peak
9918.00	51.13	1.35	52.48	74.00	21.52	horizontal	Peak
13587.00	46.16	4.69	50.85	74.00	23.15	horizontal	Peak
17986.50	34.86	6.89	41.75	54.00	12.25	horizontal	Average
17986.50	46.16	6.89	53.05	74.00	20.95	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



Trace: 1

Condition: PK RBW:1MHz VBW:3MHz SWT:auto
AV RBW:1MHz VBW:5kHz SWT:auto

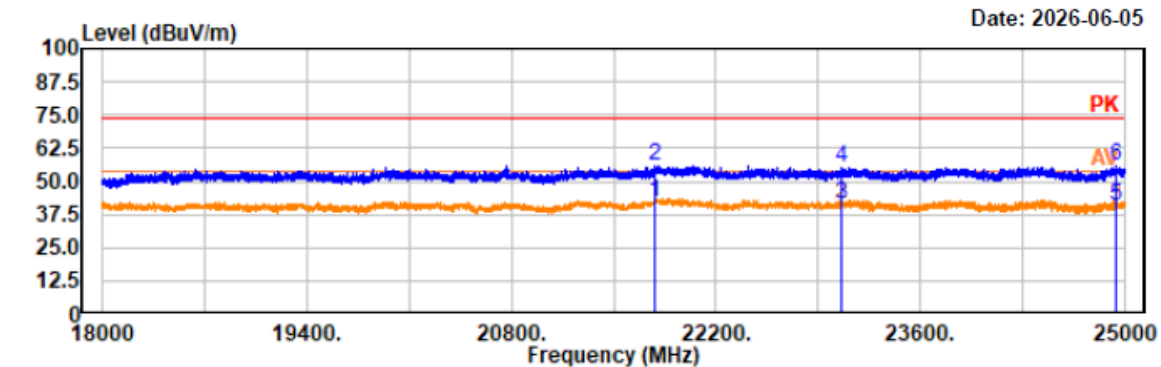
Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
3511.50	58.08	-7.56	50.52	74.00	23.48	vertical	Peak
4960.50	48.49	-5.11	43.38	74.00	30.62	vertical	Peak
7440.00	48.74	-2.03	46.71	74.00	27.29	vertical	Peak
9918.00	51.44	1.35	52.79	74.00	21.21	vertical	Peak
13999.50	45.10	5.20	50.30	74.00	23.70	vertical	Peak
17991.00	35.04	6.90	41.94	54.00	12.06	vertical	Average
17991.00	45.10	6.90	52.00	74.00	22.00	vertical	Peak

5) 18 GHz ~25 GHz

Note: The maximum output power mode: BLE 2M high channel was tested.

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2480MHz
EUT Model: M520D
Test distance: 1.5m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

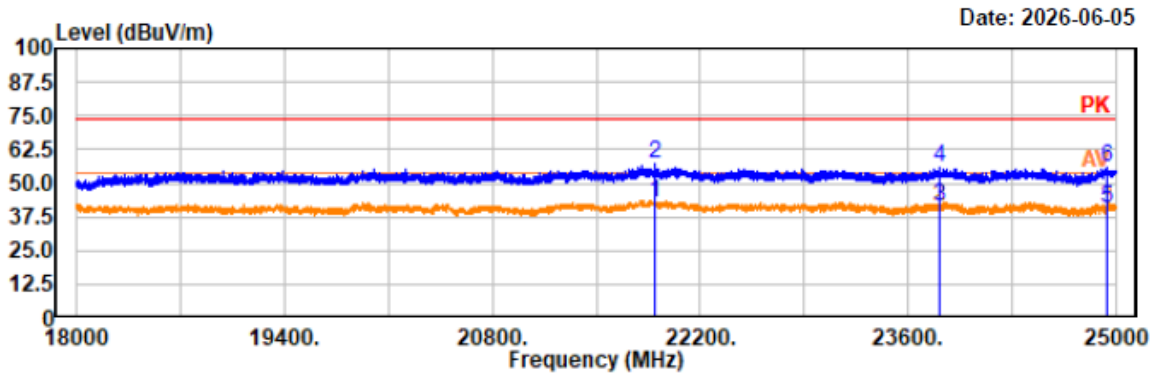


Trace: 1
Condition: PK RBW:1MHz VBW:3MHz SWT:auto
AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
21781.40	37.37	4.88	42.25	54.00	11.75	horizontal	Average
21781.40	51.21	4.88	56.09	74.00	17.91	horizontal	Peak
23063.80	36.47	4.96	41.43	54.00	12.57	horizontal	Average
23063.80	50.28	4.96	55.24	74.00	18.76	horizontal	Peak
24934.90	34.52	6.32	40.84	54.00	13.16	horizontal	Average
24934.90	49.44	6.32	55.76	74.00	18.24	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2480MHz
EUT Model: M520D
Test distance: 1.5m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



Trace: 1

Condition: PK RBW:1MHz VBW:3MHz SWT:auto
AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
21892.70	37.48	5.23	42.71	54.00	11.29	vertical	Average
21892.70	51.92	5.23	57.15	74.00	16.85	vertical	Peak
23806.50	36.07	5.22	41.29	54.00	12.71	vertical	Average
23806.50	50.60	5.22	55.82	74.00	18.18	vertical	Peak
24937.70	34.53	6.31	40.84	54.00	13.16	vertical	Average
24937.70	49.45	6.31	55.76	74.00	18.24	vertical	Peak

Restricted Bands Emissions:

Project No.: 2507Z03677E-RF

Test Mode: BLE 1M 2402MHz

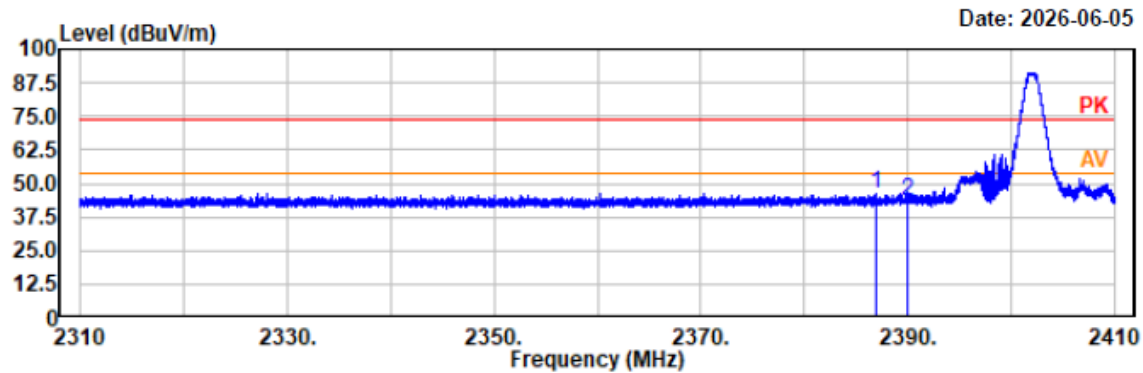
EUT Model: M520D

Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa

Tested by: Wlif Wu

Power Source: DC 13.8V

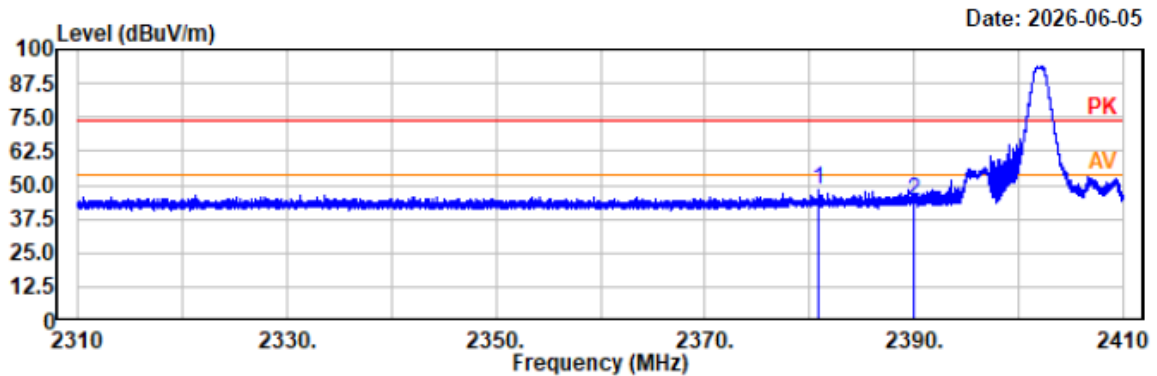


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2386.89	47.50	-1.16	46.34	74.00	27.66	horizontal	Peak
2390.00	44.32	-1.15	43.17	74.00	30.83	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2402MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

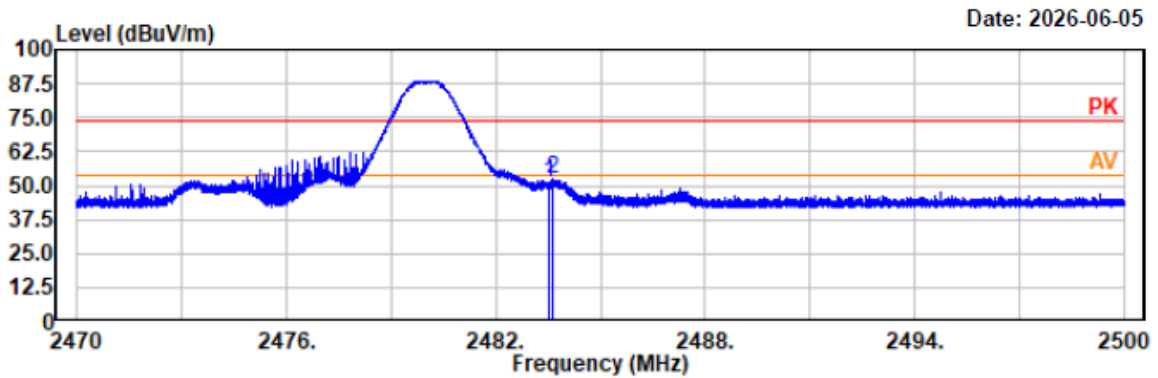


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2380.89	49.54	-1.20	48.34	74.00	25.66	vertical	Peak
2390.00	45.18	-1.15	44.03	74.00	29.97	vertical	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

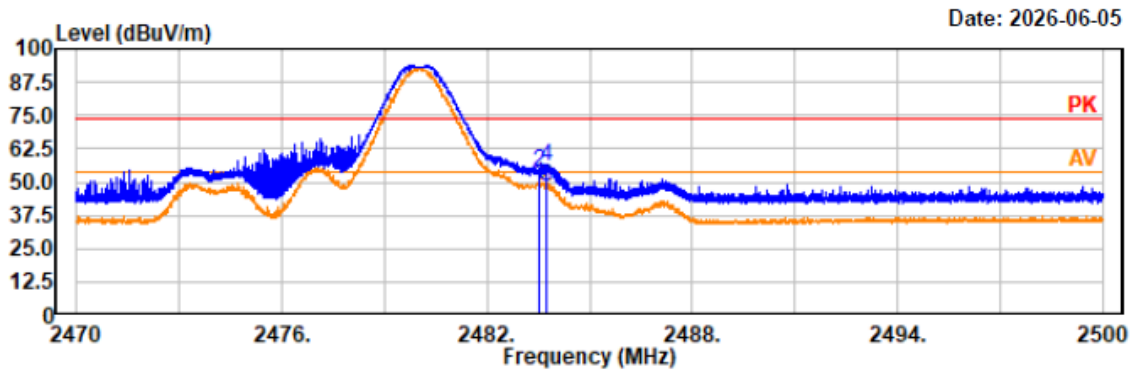


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2483.50	51.47	-0.77	50.70	74.00	23.30	horizontal	Peak
2483.66	52.91	-0.77	52.14	74.00	21.86	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 1M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V



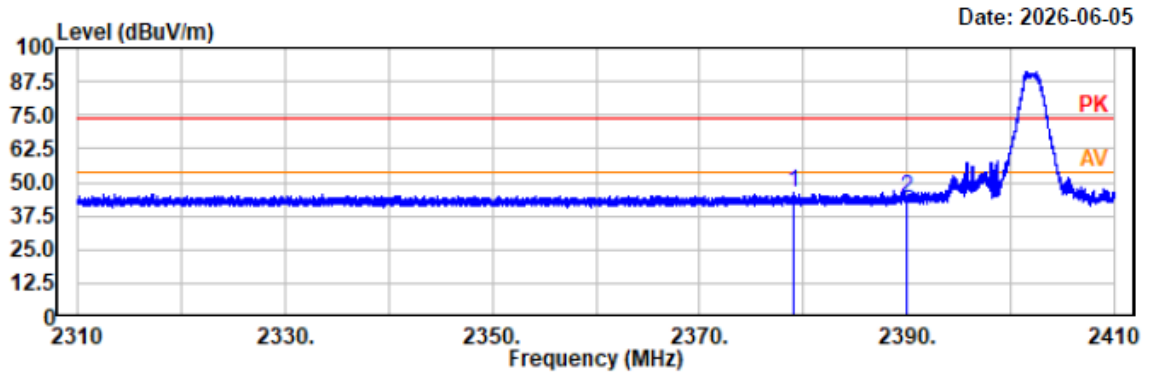
Trace: 1

Condition: PK RBW:1MHz VBW:3MHz SWT:auto
AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2483.50	49.88	-0.77	49.11	54.00	4.89	vertical	Average
2483.50	54.49	-0.77	53.72	74.00	20.28	vertical	Peak
2483.73	48.94	-0.77	48.17	54.00	5.83	vertical	Average
2483.73	56.72	-0.77	55.95	74.00	18.05	vertical	Peak

Project No.: 2507Z03677E-RF
 Test Mode: BLE 2M 2402MHz
 EUT Model: M520D
 Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
 Tested by: Wlif Wu
 Power Source: DC 13.8V

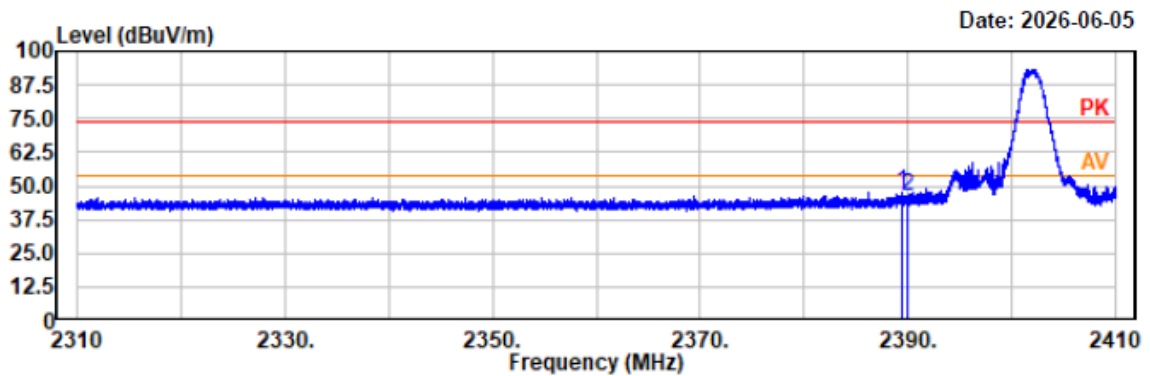


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2379.13	47.07	-1.20	45.87	74.00	28.13	horizontal	Peak
2390.00	45.20	-1.15	44.05	74.00	29.95	horizontal	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2402MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

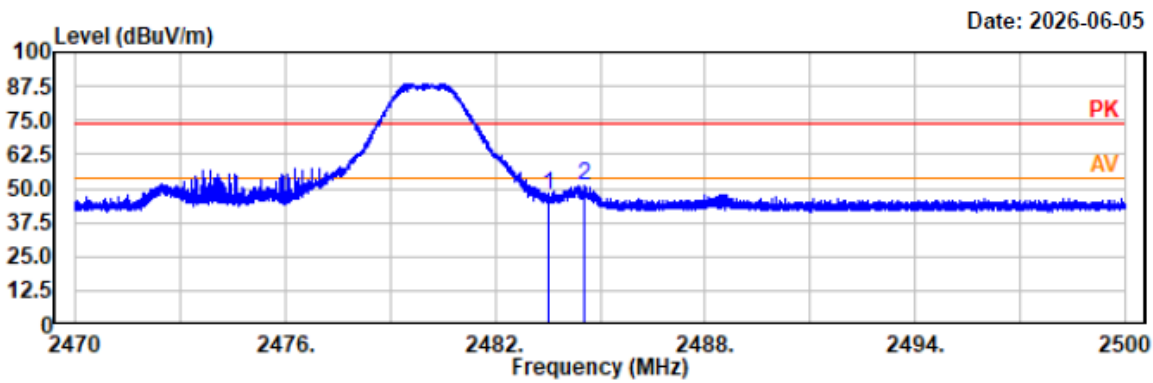


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2389.51	48.94	-1.15	47.79	74.00	26.21	vertical	Peak
2390.00	47.13	-1.15	45.98	74.00	28.02	vertical	Peak

Project No.: 2507Z03677E-RF
Test Mode: BLE 2M 2480MHz
EUT Model: M520D
Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
Tested by: Wlif Wu
Power Source: DC 13.8V

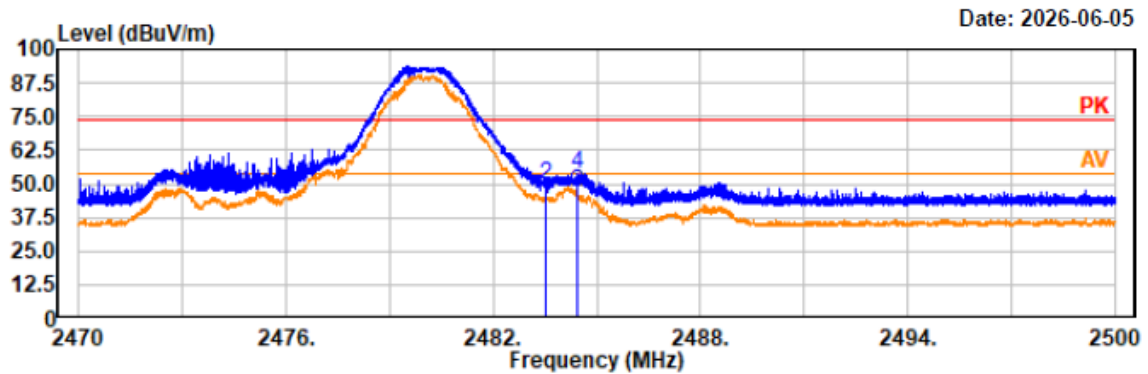


Condition: PK RBW:1MHz VBW:3MHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2483.50	48.44	-0.77	47.67	74.00	26.33	horizontal	Peak
2484.52	51.96	-0.76	51.20	74.00	22.80	horizontal	Peak

Project No.: 2507Z03677E-RF
 Test Mode: BLE 2M 2480MHz
 EUT Model: M520D
 Test distance: 3m

Temp/Humi/ATM: 22.6°C/58%/100.1kPa
 Tested by: Wlif Wu
 Power Source: DC 13.8V



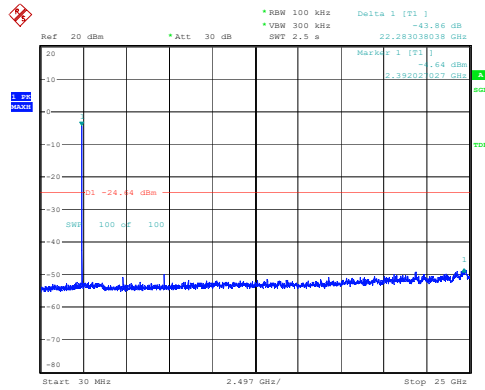
Trace: 1

Condition: PK RBW:1MHz VBW:3MHz SWT:auto
 AV RBW:1MHz VBW:5kHz SWT:auto

Freq MHz	Reading dBuV	Factor dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Polarity	Remark
2483.50	45.16	-0.77	44.39	54.00	9.61	vertical	Average
2483.50	50.61	-0.77	49.84	74.00	24.16	vertical	Peak
2484.41	47.33	-0.76	46.57	54.00	7.43	vertical	Average
2484.41	54.82	-0.76	54.06	74.00	19.94	vertical	Peak

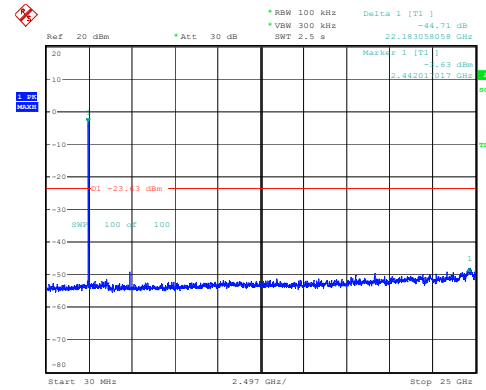
Antenna-port conducted emission:**BLE 1M**

BLE_1M_Low_Channel



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:33:21

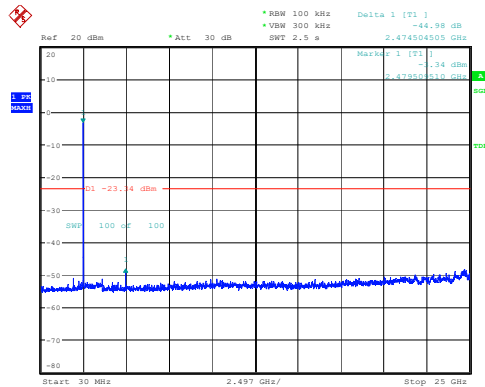
BLE_1M_Middle_Channel



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:38:06

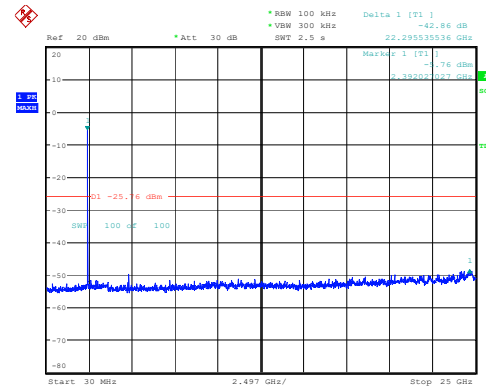
BLE 2M

BLE_1M_High_Channel



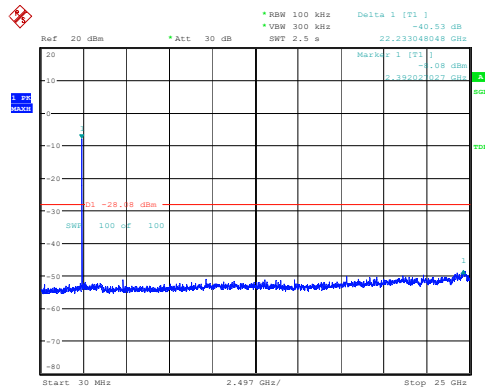
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:42:48

BLE_2M_Low_Channel



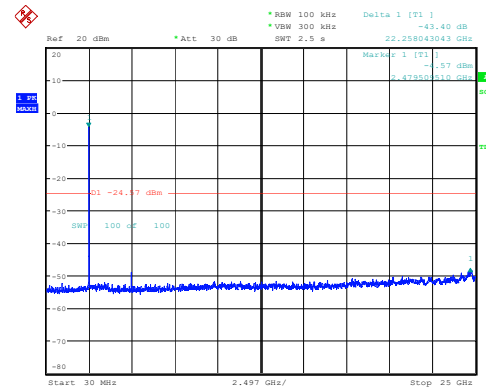
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:47:36

BLE_2M_Middle_Channel



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:52:17

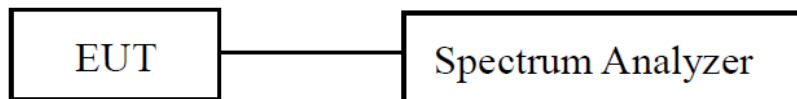
BLE_2M_High_Channel



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:57:45

FCC §15.247(a) (2) – 6 dB EMISSION BANDWIDTH**Applicable Standard**

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.

EUT Setup

Note: A short RF cable with low cable loss connected to the EUT antenna port. The insert loss of this RF cable was offset into the setting of test equipment:

Offset = Insert loss of RF cable

★ The Insert loss was declared by manufacturer.

Test Procedure

According to ANSI C63.10-2020 Section 11.8

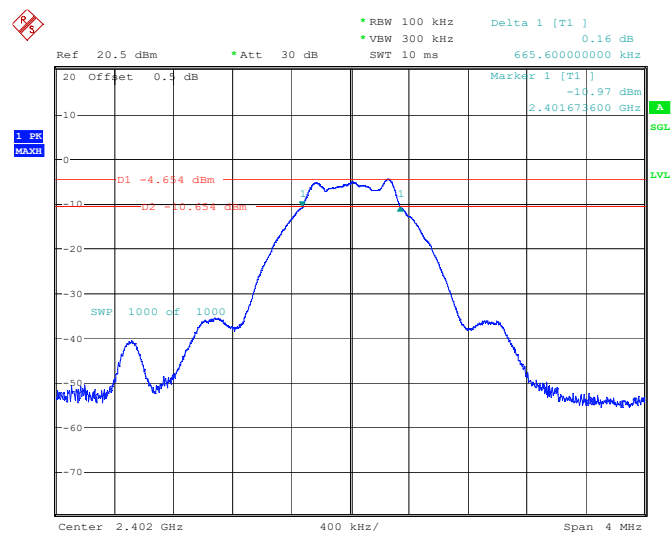
- Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.
- Set the VBW $\geq [3 \times \text{RBW}]$.
- Detector = peak.
- Trace mode = max-hold.
- Sweep = No faster than coupled (auto) time.
- Allow the trace to stabilize.
- Measure the maximum width of the emission by placing 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.

Test Data

Test Mode:	Transmitting		Test Engineer:	Lucas Lin	
Test Date:	2025-11-27		Environment:	Temp.: 24.1°C Humi.: 51% Atm :100.1 kPa	
Test Modes	Test Channel	Test Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)	
BLE 1Mbps	Lowest	2402	0.666	≥ 0.5	
	Middle	2440	0.666	≥ 0.5	
	Highest	2480	0.669	≥ 0.5	
BLE 2Mbps	Lowest	2402	1.176	≥ 0.5	
	Middle	2440	1.171	≥ 0.5	
	Highest	2480	1.176	≥ 0.5	

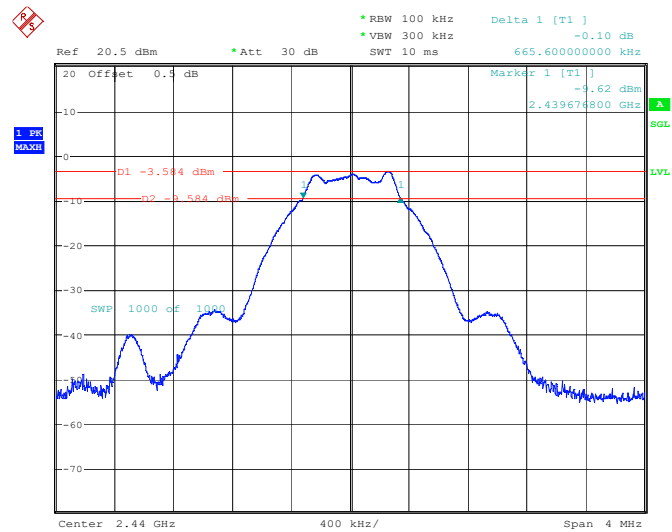
Test Result: Compliant, Please refer to the below plots:

1Mbps_Lowest



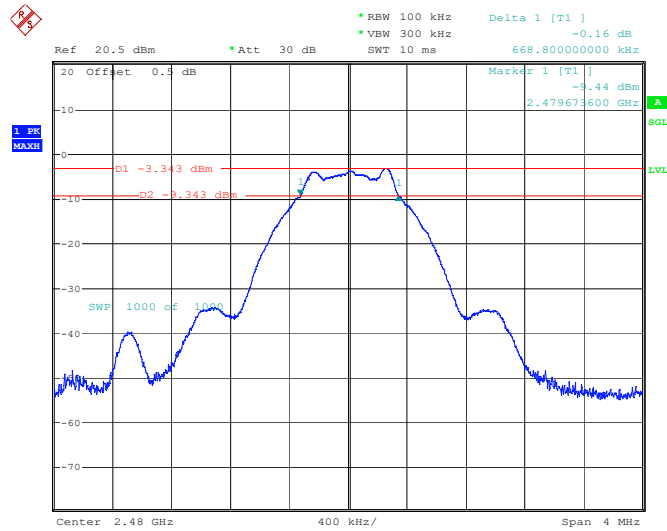
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:04:36

1Mbps_Middle



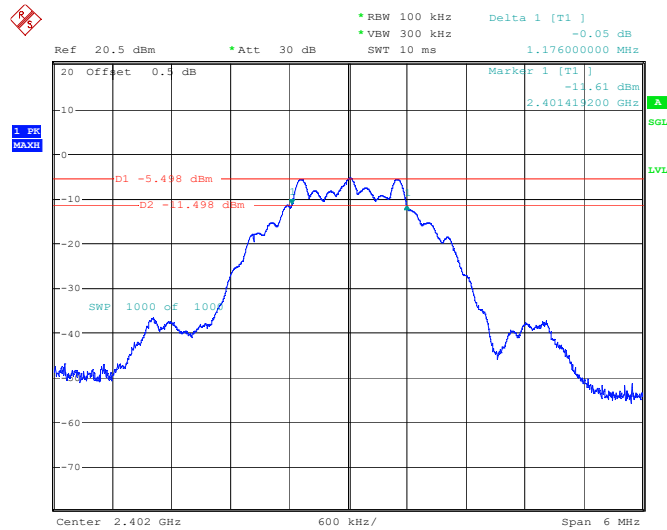
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:07:39

1Mbps_Highest



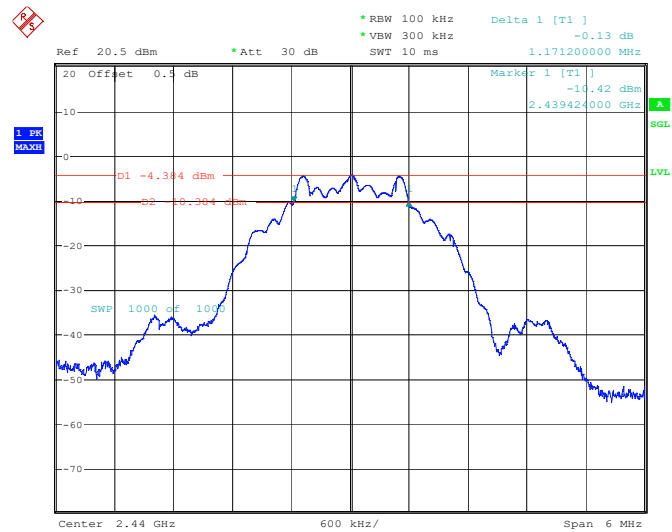
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
 Date: 27.NOV.2025 10:11:19

2Mbps_Lowest



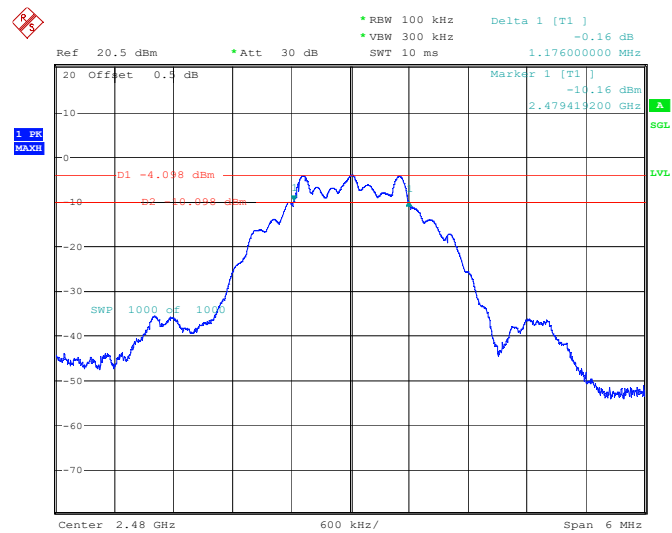
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
 Date: 27.NOV.2025 10:15:46

2Mbps_Middle



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:19:01

2Mbps_Highest

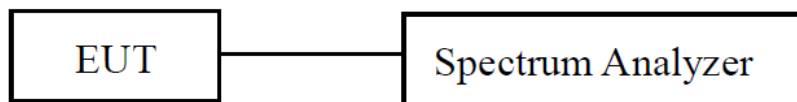


ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:21:17

FCC §15.247(b) (3) - MAXIMUM CONDUCTED OUTPUT POWER

Applicable Standard

According to FCC §15.247(b) (3), for 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.

EUT Setup

Note: A short RF cable with low cable loss connected to the EUT antenna port. The insert loss of this RF cable was offset into the setting of test equipment:

Offset = Insert loss of RF cable

★ The Insert loss was declared by manufacturer.

Test Procedure

According to ANSI C63.10-2020 Section 11.9.1.1 the DTS bandwidth is available to perform the measurement:

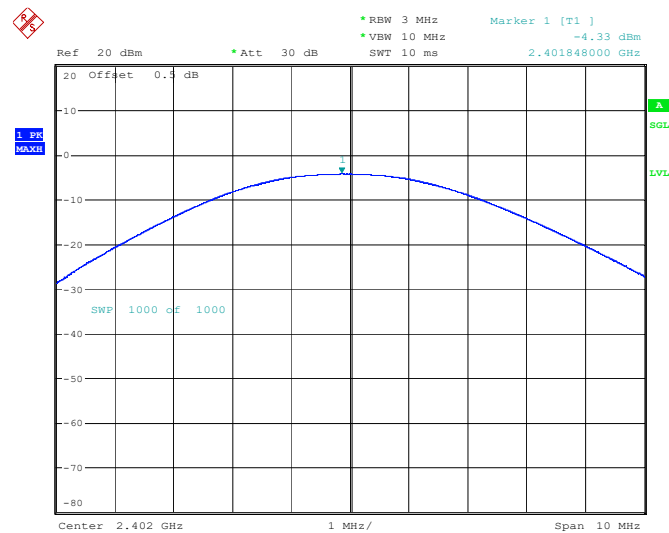
- a) Set the RBW $\geq$ DTS bandwidth.
- b) Set VBW $\geq [3 \times \text{RBW}]$.
- c) Set span $\geq [3 \times \text{RBW}]$.
- d) Sweep time = No faster than coupled (auto) time.
- e) Detector = peak.
- f) Trace mode = max-hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.

Test Data

Test Mode:	Transmitting	Test Engineer:	Lucas Lin	
Test Date:	2025-11-27	Environment:	Temp.: 24.1°C Humi.: 51% Atm :100.1 kPa	
Test Modes	Test Channel	Test Frequency (MHz)	Maximum Conducted Peak Output Power(dBm)	Limit (dBm)
BLE 1Mbps	Lowest	2402	-4.33	≤30
	Middle	2440	-3.25	≤30
	Highest	2480	-3.04	≤30
BLE 2Mbps	Lowest	2402	-4.32	≤30
	Middle	2440	-3.25	≤30
	Highest	2480	-2.99	≤30

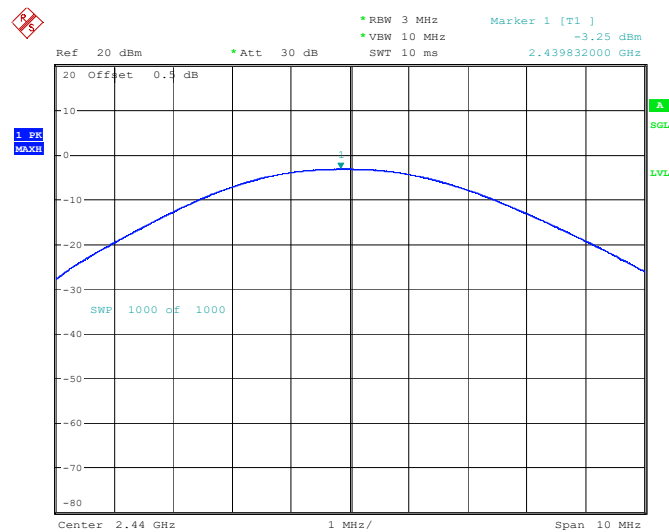
Test Result: Compliant, Please refer to the below plots:

1Mbps_Lowest



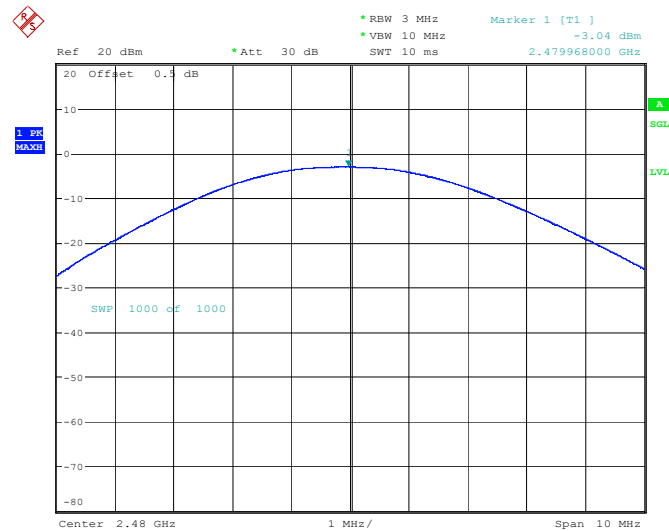
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:05:27

1Mbps_Middle



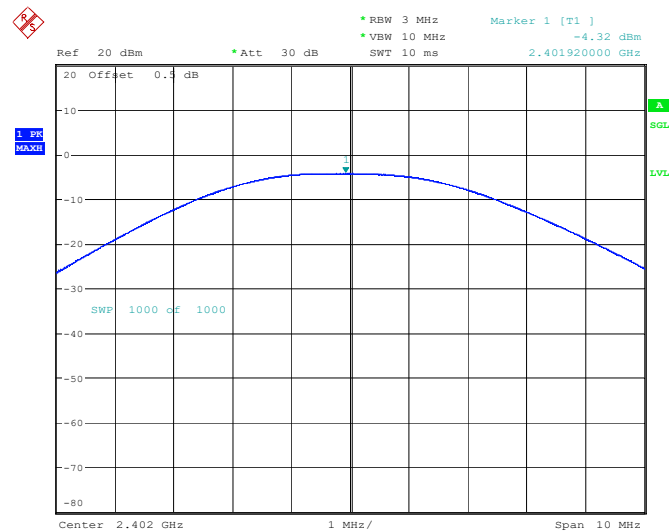
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:09:28

1Mbps_Highest



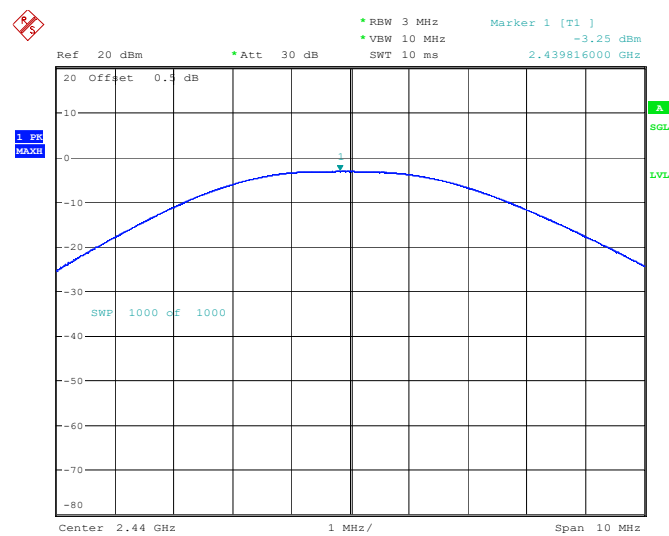
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:12:08

2Mbps_Lowest



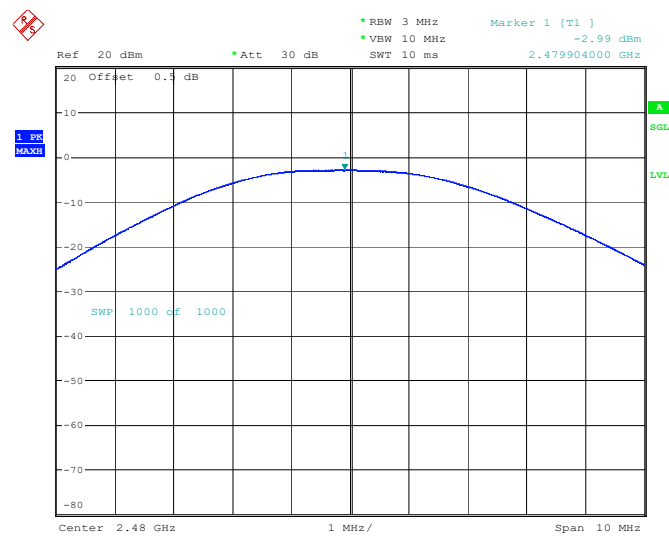
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:16:43

2Mbps_Middle



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:19:53

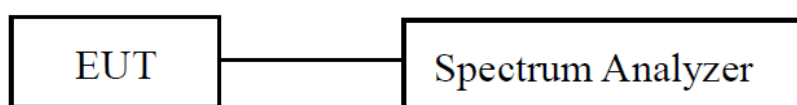
2Mbps_Highest



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:22:05

FCC §15.247(d) – 100 kHz BANDWIDTH OF FREQUENCY BAND EDGE**Applicable Standard**

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)).

EUT Setup

Note: A short RF cable with low cable loss connected to the EUT antenna port. The insert loss of this RF cable was offset into the setting of test equipment:

Offset = Insert loss of RF cable

★ The Insert loss was declared by manufacturer.

Test Procedure

According to ANSI C63.10-2020 Section 11.11

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

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

b) Set the RBW = 100 kHz.

c) Set the VBW $\geq [3 \times \text{RBW}]$.

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.

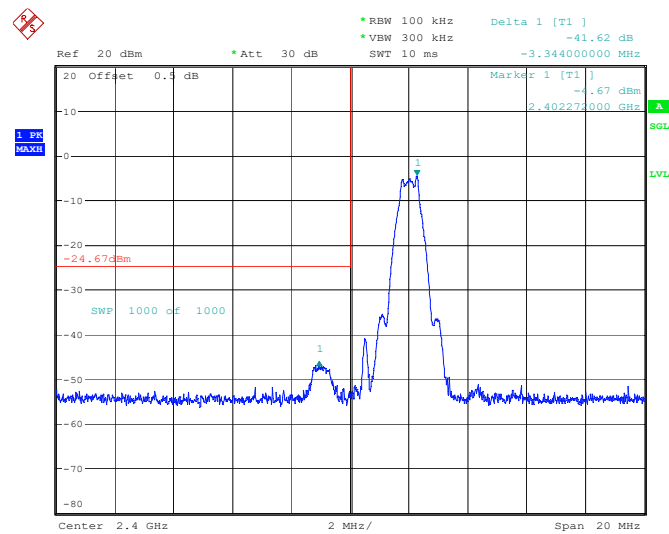
Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

Test Data

Test Mode:	Transmitting	Test Engineer:	Lucas Lin
Test Date:	2025-11-27	Environment:	Temp.: 24.1°C Humi.: 51% Atm :100.1 kPa

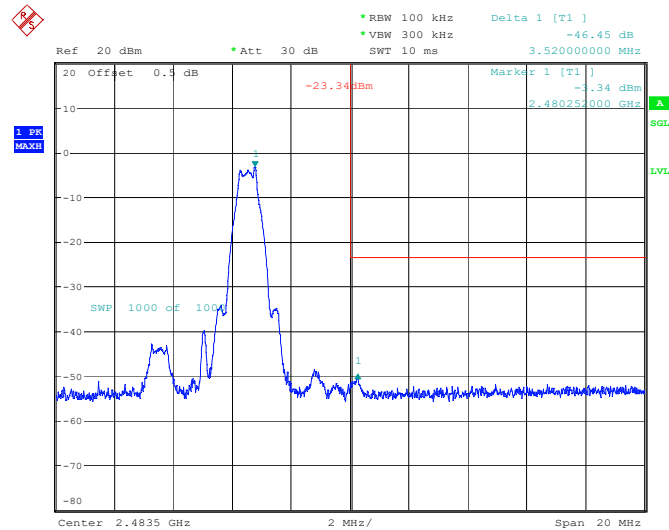
Test Result: Compliant, Please refer to the below plots:

BLE 1Mbps_Lowest



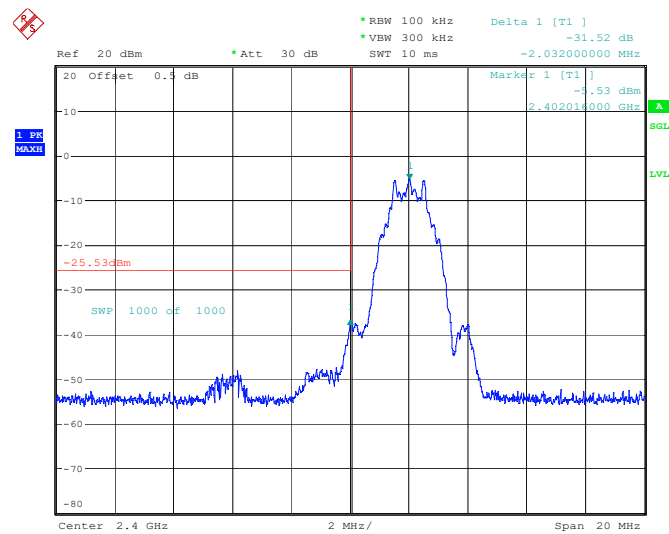
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:06:31

BLE 1Mbps_Highest



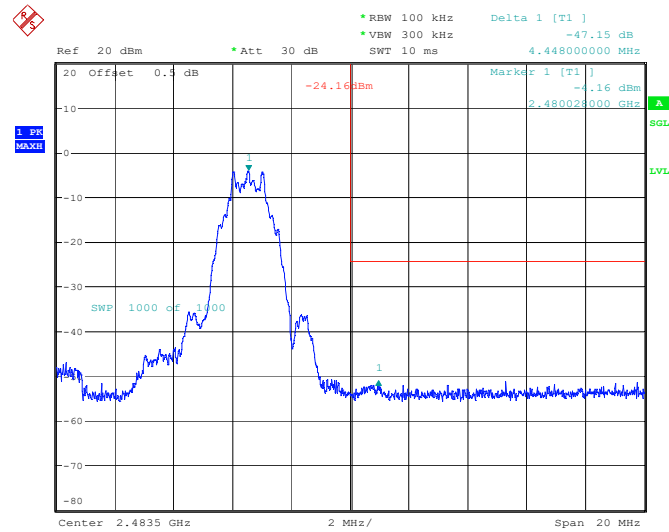
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:13:14

BLE 2Mbps_Lowest



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:17:47

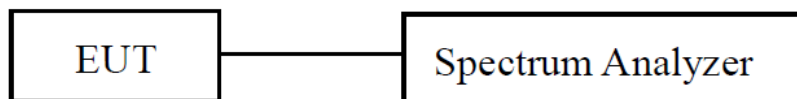
BLE 2Mbps_Highest



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:23:09

FCC §15.247(e) - POWER SPECTRAL DENSITY**Applicable Standard**

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.

EUT Setup

Note: A short RF cable with low cable loss connected to the EUT antenna port. The insert loss of this RF cable was offset into the setting of test equipment:

Offset = Insert loss of RF cable

★ The Insert loss was declared by manufacturer.

Test Procedure

According to ANSI C63.10-2020 Section 11.10.2

- Set analyzer center frequency to DTS channel center frequency.
- Set the span >1.5 times the DTS bandwidth.
- Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- Set the VBW $\geq [3 \times \text{RBW}]$.
- Detector = peak.
- Sweep time = No faster than coupled (auto) time.
- Trace mode = max-hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level within the RBW.
- If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat

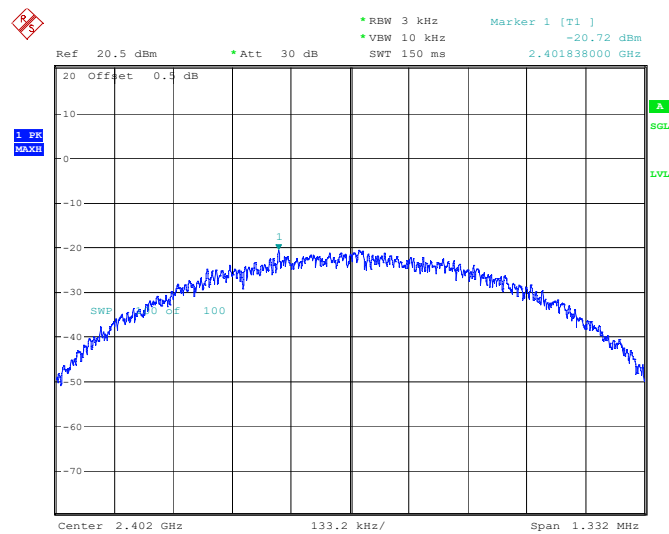
Test Data

Test Mode:	Transmitting	Test Engineer:	Lucas Lin
Test Date:	2025-11-27	Environment:	Temp.: 24.1°C Humi.: 51% Atm :100.1 kPa

Test Result: Compliant

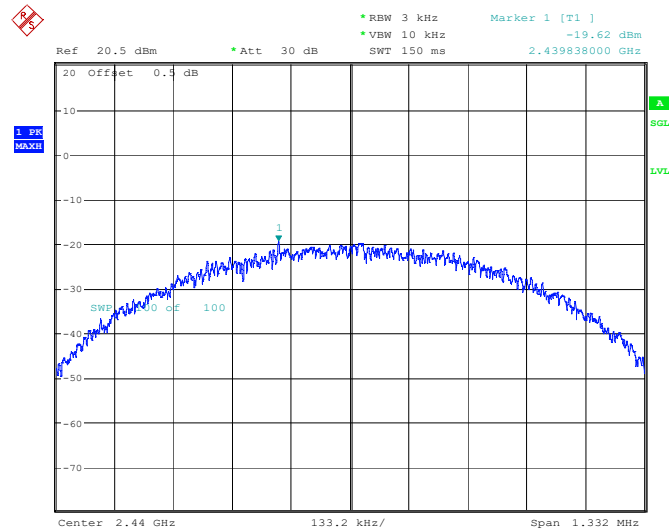
Test Modes	Test Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
BLE 1Mbps	2402	-20.72	≤8.00
	2440	-19.62	≤8.00
	2480	-19.33	≤8.00
BLE 2Mbps	2402	-24.28	≤8.00
	2440	-23.13	≤8.00
	2480	-22.81	≤8.00

BLE 1Mbps_Lowest



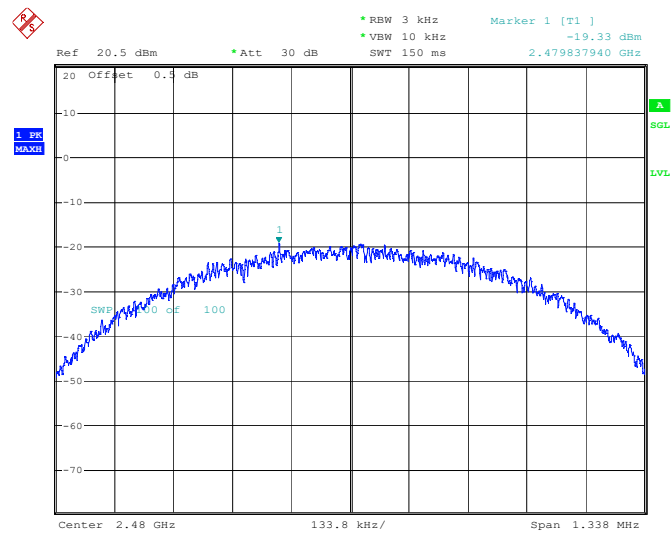
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:24:12

BLE 1Mbps_Middle



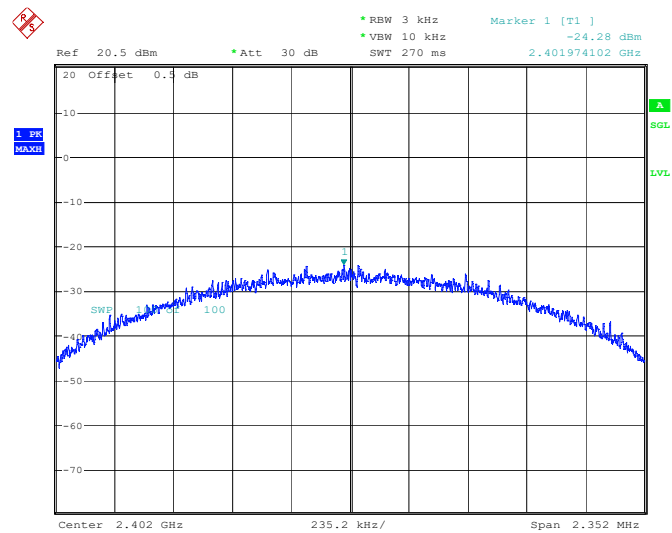
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:24:51

BLE 1Mbps_Highest



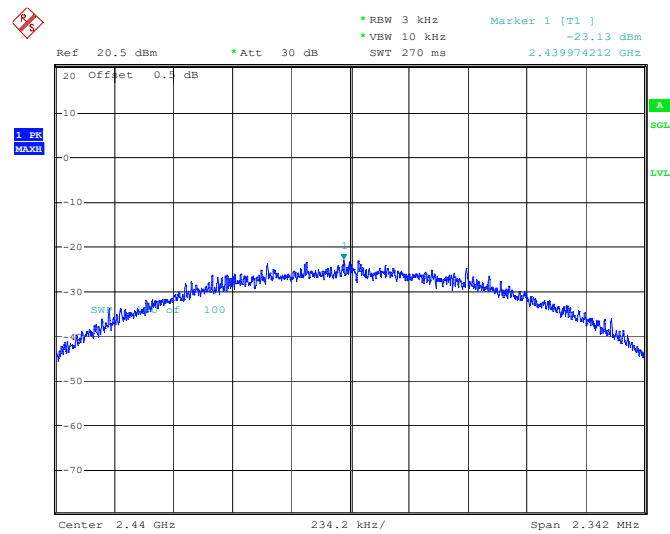
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:25:21

BLE 2Mbps_Lowest



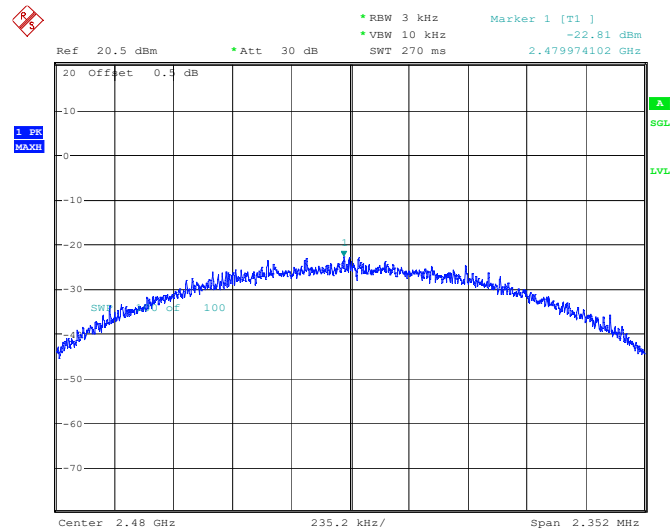
ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:26:15

BLE 2Mbps_Middle



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:27:05

BLE 2Mbps_Highest



ProjectNo.:2507Z03677E-RF Tester:Lucas Lin
Date: 27.NOV.2025 10:27:47

EUT PHOTOGRAPHS

Please refer to the attachment 2507Z03677E-EM-EXP EUT EXTERNAL PHOTOGRAPHS and 2507Z03677E-EM-INP EUT INTERNAL PHOTOGRAPHS.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2507Z03677E-RF-TSP-02 SETUP PHOTOGRAPHS.

Declarations

1. Bay Area Compliance Laboratories Corp. (Xiamen) is not responsible for authenticity of any information provided by the applicant. Information from the applicant that may affect test results are marked with an asterisk “★”.
2. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.
3. Unless required by the rule provided by the applicant or product regulations, then decision rule in this report did not consider the uncertainty.
4. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor k with the 95% confidence interval.
5. This report cannot be reproduced except in full, without prior written approval of Bay Area Compliance Laboratories Corp. (Xiamen).
6. This report is valid only with a valid digital signature. The digital signature may be available only under the adobe software above version 7.0.

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