

Prüfbericht-Nr.: Test report no.:	CN2505ZU 003	Auftrags-Nr.: Order no.:	168585865	Page 1 of 22 Seite 1 von 22
Kunden-Referenz-Nr.: Client reference no.:	N/A	Auftragsdatum: Order date:	2025-11-26	
Auftraggeber: Client:	Edifier International Limited P.O. Box 6264 General Post Office, Hong Kong			
Prüfgegenstand: Test item:	2.4GHz receiver			
Bezeichnung / Typ-Nr.: Identification / Type no.:	EDF700083 (Trademark: EDIFIER, HECATE)			
Auftrags-Inhalt: Order content:	Type test			
Prüfgrundlage: Test specification:	CFR Title 47 FCC Part 15: Subpart C Section 15.247 RSS-247 Issue 4 July 2025 RSS-Gen Issue 5 February 2021			
Wareneingangsdatum: Date of sample receipt:	2025-11-27	Refer to photos document		
Prüfmuster-Nr.: Test sample no.:	A004147965			
Prüfzeitraum: Testing period:	2025-11-27 – 2025-12-19			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: Test result*:	Pass			
geprüft von: tested by:			genehmigt von: authorized by:	
Datum: Date:	2026-01-12 Signed by: Harry W. C. Wu		Ausstellungsdatum: Issue date:	2026-01-12 Signed by: Alex Lan
Stellung / Position:	Project Manager		Stellung / Position:	Authorizer
Sonstiges / Other:	FCC ID: Z9G-EDF299 IC: 10004A-EDF299 HVIN: EDF700083			
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:	Prüfmuster vollständig und unbeschädigt Test item complete and undamaged			
* Legende:	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
* Legend:	P(ass) = passed a.m. test specification(s)	F(ail) = failed a.m. test specification(s)	N/A = not applicable	N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				
TUV Rheinland (Shenzhen) Co., Ltd., 1601-1604, 1801-1804, Tower A Building 2, Shenzhen International Innovation Valley, Dashi 1st Road, Xili Street, Xili Community, Nanshan District, Shenzhen 518052, P. R. China Mail: service-gc@tuv.com · Web: www.tuv.com				

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Remarks
Anmerkungen

1	The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request. <i>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben.</i> <i>Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</i>
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3	Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report. <i>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</i>
4	The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019. <i>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</i>

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Test Summary

5.1.1 ANTENNA REQUIREMENT

RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER

RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY

RESULT: Pass

5.1.4 99%dB BANDWIDTH

RESULT: Pass

5.1.5 6dB BANDWIDTH

RESULT: Pass

5.1.6 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHz BANDWIDTH

RESULT: Pass

5.1.7 RADIATED SPURIOUS EMISSION

RESULT: Pass

5.1.8 CONDUCTED EMISSION ON AC MAINS

RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

Appendix B: Test Results of Bluetooth Low Energy.

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.

2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China

FCC Registration No.: CN1260

IC Registration No.: 25069 and the CAB identifier is CN0078.

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2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Radio Spectrum Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY60241175	22.09.2026
MXG X-Series RF Vector Signal Generator	Keysight	N5182B	MY61250137	22.09.2026
EXG X-Series Microwave Analog Signal Generator	Keysight	N5173B	MY61250141	22.09.2026
DC Power Supply	Keysight	E3642A	MY61276100	22.09.2026
Wireless Connectivity Tester	R&S	CMW270	102505	22.09.2026
Power Control Unit	Tonscend	JS0806-4ADC	N/A	22.09.2026
Automation Control Unit	Tonscend	JS0806-2	21C8060396	22.09.2026
Test Software	Tonscend	JS1120-3	N/A	N/A
Control PC	Lenovo	TianYi510S-071MB	YLX23JMF	N/A
Humid & Temp Programmable Tester	BOST	NTH090-60	19040801	24.02.2026
Unwanted Emission Testing				
Equipment	Manufacturer	Model	Serial No.	Cal. until
EMI Test Receiver	R&S	ESR 7	102021	21.09.2026
Signal Analyzer	R&S	FSV 40	101439	21.09.2026
System Controller Interface	R&S	SCI-100	S10010038	N/A
Filterbank	R&S	Wlan	100759	21.09.2026
OSP	R&S	OSP 120	102040	N/A
Pre-amplifier	R&S	SCU08F1	08320031	21.09.2026
Amplifier	R&S	SCU-18F	180070	21.09.2026
Amplifier	R&S	SCU40A	100475	21.09.2026
Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	27.09.2026
Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	27.09.2026
Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	27.09.2026
Active Loop Antenna	Schwarzbeck	FMZB 1513	302	27.09.2026
Test software	R&S	EMC32 (V10.60.10)	N/A	N/A
Control PC	Dell	OptiPlex 7050	36NV9P2	N/A
3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	13.09.2027

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Conducted Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
EMI Test Receiver	R&S	ESR3	102680	2026-02-09
Artificial Mains Network	R&S	ENV216	102333	2026-07-18
Artificial Mains Network	R&S	ENV216	101445	2026-02-09
Shield Cable(9k-30MHz)	N/A	N/A	N/A	2026-12-21
EMC32 Test Software	R&S	EMC32(Ver.10.50.00)	N/A	N/A

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Parameter	Uncertainty (k=2)
Occupied Channel Bandwidth	± 2.08 %
RF output power, conducted	± 0.99 dB
RF power density, conducted	± 0.99 dB
Unwanted Emissions, conducted	± 0.89 dB
All emissions, radiated	± 4.17 dB

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 2-3F, 101 & 102, No.2, Nuclear Power Industrial Park, Fuming Community, Fucheng Street, Longhua District, Shenzhen 518000, People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The product is a Bluetooth headset which consist of a headset and a Dongle, the headset supports Bluetooth dual mode technology and the Dongle support Bluetooth BLE technology.

The Classical Bluetooth and Bluetooth low energy can't transmit at the same time.

For details refer to the User Manual and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	2.4GHz recevier
Type Designation	EDF700083
Trademark	EDIFIER, HECATE
FCC ID	Z9G-EDF299
IC	10004A-EDF299
HVIN	EDF700083
Extreme Temperature Range	-20°C to +55°C
Operating Voltage	Input: 5Vdc, 1A
Technical Specification of Bluetooth Low Energy	
Operating Frequency band	2402 ~ 2480 MHz
Channel Number	40 channels
Channel separation	2MHz
Modulation	GFSK
Antenna Type	Integral antenna
Antenna Gain	0.8 dBi (Provided by the Client)

Table 3: RF Channel and Frequency of Bluetooth Low Energy

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
00	2402.00	10	2422.00	20	2442.00	30	2462.00
01	2404.00	11	2424.00	21	2444.00	31	2464.00
02	2406.00	12	2426.00	22	2446.00	32	2466.00
03	2408.00	13	2428.00	23	2448.00	33	2468.00
04	2410.00	14	2430.00	24	2450.00	34	2470.00
05	2412.00	15	2432.00	25	2452.00	35	2472.00
06	2414.00	16	2434.00	26	2454.00	36	2474.00
07	2416.00	17	2436.00	27	2456.00	37	2476.00
08	2418.00	18	2438.00	28	2458.00	38	2478.00
09	2420.00	19	2440.00	29	2460.00	39	2480.00

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Bluetooth LE transmitting mode
 - 1. Low channel
 - 2. Middle channel
 - 3. High channel
- B. On, Bluetooth connecting mode
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- | | |
|----------------------------------|------------------|
| - Application Form | - Photo Document |
| - Block Diagram | - Schematics |
| - FCC/IC Label and Location Info | - User Manual |
| - Operation Description | |

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10-2020, ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024.

4.3 Special Accessories and Auxiliary Equipment

Table 4: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	S/N or Rating
Laptop	Lenovo	T480	PF-16A6N8
THX Spatial Audio Quad-mode Gaming Headset	Edifier	EDF700088	/

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 30MHz)

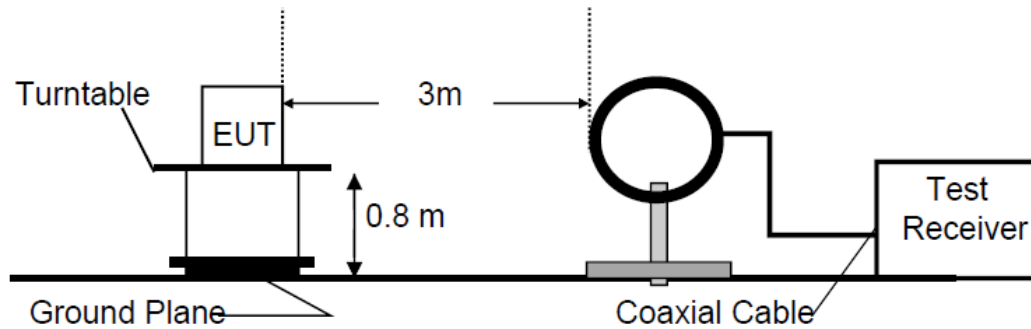


Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

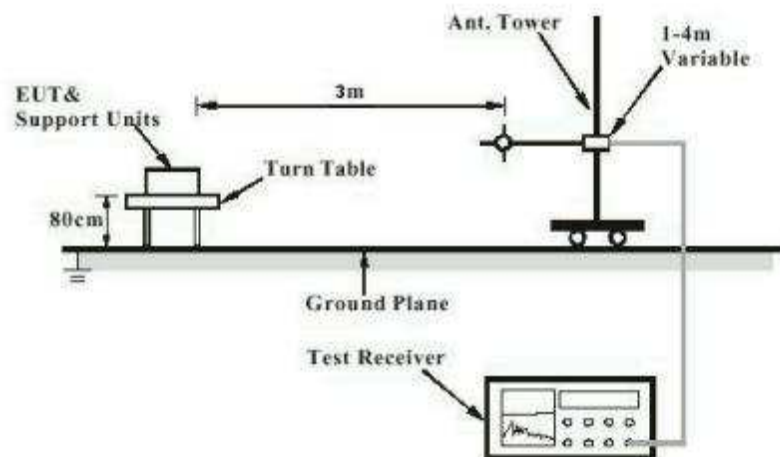


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

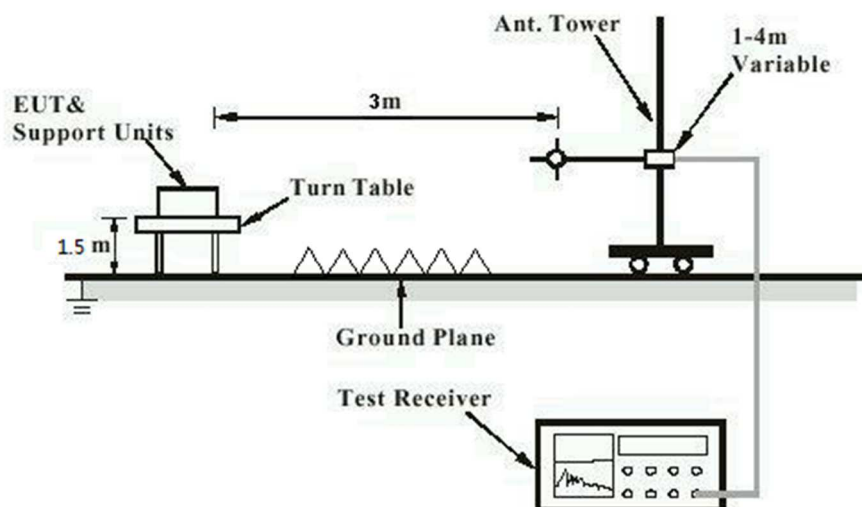


Diagram of Measurement Configuration for Mains Conduction Measurement

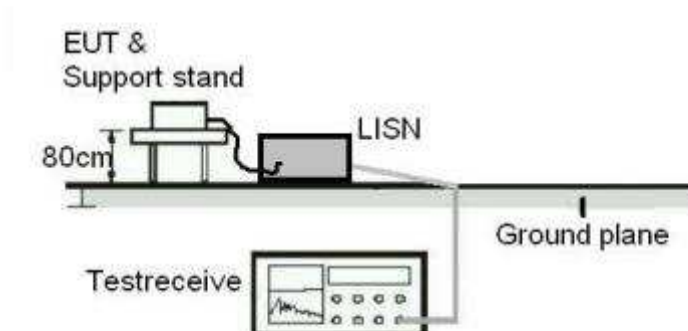
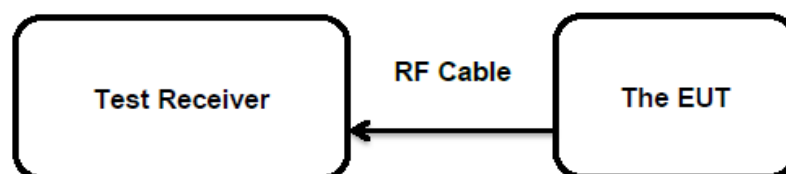


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT:

Pass

Test Specification

Test standard	:	FCC Part 15.247(b)(4) and Part 15.203
	:	RSS-Gen Clause 6.7
Limit	:	the use of antennas with directional gains that do not exceed 6 dBi

According to the manufacturer declared, the EUT has one FPC antenna, the directional gain of antennas is 0.8 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

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5.1.2 Maximum Peak Conducted Output Power

RESULT:
Pass
Test Specification

Test standard : FCC Part 15.247(b)(3)
RSS-247 Clause 6.3.2
Basic standard : ANSI C63.10-2020, ANSI C63.10-2020+Cor. 1-
2023+C63.10a-2024
Limits : < 1 Watt (Maximum Conducted Peak Power)
e.i.r.p. <4W
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-11-27 to 2025-12-19
Input voltage : DC 5.0V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 22.3 °C
Relative humidity : 47.8 %
Atmospheric pressure : 101 kPa

For details refer to following test result.

Table 5: Test Result of Maximum Peak Conducted Output Power

Data Rate	Test Channel (MHz)	Measured Peak Power		Limit (W)
		(dBm)	(W)	
1 Mbps	2402	8.5	0.00708	< 1.0
	2440	7.7	0.00589	
	2480	8.4	0.00692	
2 Mbps	2402	8.4	0.00692	
	2440	7.6	0.00575	
	2480	8.2	0.00661	
Maximum Measured Value		8.5	0.00708	

Note: The cable loss is taken into account in results and the maximum e.i.r.p. is 9.3dBm less than 4W (36 dBm).

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5.1.3 Conducted Power Spectral Density

RESULT:

Pass

Test Specification

Test standard	:	FCC Part 15.247(e) RSS-247 Clause 6.3.1
Basic standard	:	ANSI C63.10-2020, ANSI C63.10-2020+Cor. 1- 2023+C63.10a-2024
Limits	:	8 dBm / 3kHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2025-11-27 to 2025-12-19
Input voltage	:	DC 5.0V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	22.3 °C
Relative humidity	:	47.8 %
Atmospheric pressure	:	101 kPa

For the measurement records, refer to the appendix B.

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5.1.4 99%dB Bandwidth

RESULT:

Pass

Test Specification

Test standard : RSS-Gen clause 6.7
Basic standard : ANSI C63.10-2020, ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-11-27 to 2025-12-19
Input voltage : DC 5.0V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 22.3 °C
Relative humidity : 47.8 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

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5.1.5 6dB Bandwidth

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(a)(2)
RSS-247 Clause 6.3.1
Basic standard : ANSI C63.10-2020, ANSI C63.10-2020+Cor. 1-
2023+C63.10a-2024
Kind of test site : Shielded Room

Test Setup

Date of testing : 2025-11-27 to 2025-12-19
Input voltage : DC 5.0V
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 22.3 °C
Relative humidity : 47.8 %
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

Prüfbericht-Nr.: **CN2505ZU 003**
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Page 19 of 22**5.1.6 Conducted Spurious Emissions Measured in 100 kHz Bandwidth****RESULT:****Pass****Test Specification**

Test standard	: FCC Part 15.247(d) RSS-247 Clause 6.6
Basic standard	: ANSI C63.10-2020, ANSI C63.10-2020+Cor. 1- 2023+C63.10a-2024
Limits	: 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-11-27 to 2025-12-19
Input voltage	: DC 5.0V
Operation mode	: A
Test channel	: Low / Middle / High
Ambient temperature	: 22.3 °C
Relative humidity	: 47.8 %
Atmospheric pressure	: 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix B .

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5.1.7 Radiated Spurious Emission

RESULT:

Pass

Test Specification

Test standard	:	FCC Part 15.247(d) & FCC Part 15.205 RSS-247 Clause 6.6
Basic standard	:	ANSI C63.10-2020, ANSI C63.10-2020+Cor. 1- 2023+C63.10a-2024
Limits	:	Refer to 15.209(a) of FCC part 15.247(d) RSS-Gen Table 4 & Table 5
Kind of test site	:	3m Semi-anechoic Chamber

Test Setup

Date of testing	:	2025-11-27 to 2025-12-19
Input voltage	:	DC 5.0V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	Refer to test result
Relative humidity	:	Refer to test result
Atmospheric pressure	:	101 kPa

Remark:

Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix B.

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5.1.8 Conducted Emission on AC Mains

RESULT:

Pass

Test Specification

Test standard	: FCC Part 15.207(a) RSS-Gen Section 8.8
Basic standard	: ANSI C63.10-2020, ANSI C63.10-2020+Cor. 1- 2023+C63.10a-2024
Frequency range	: 0.15 – 30MHz
Limits	: FCC Part 15.207(a) RSS-Gen Table 4
Kind of test site	: Shielded Room

Test Setup

Date of testing	: 2025-11-27 to 2025-12-19
Input voltage	: AC 120V, 60Hz
Operation mode	: B
Earthing	: Not connected
Ambient temperature	: Refer to test result
Relative humidity	: Refer to test result
Atmospheric pressure	: 101 kPa

For the measurement records, refer to the appendix B.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix A.

7 List of Tables

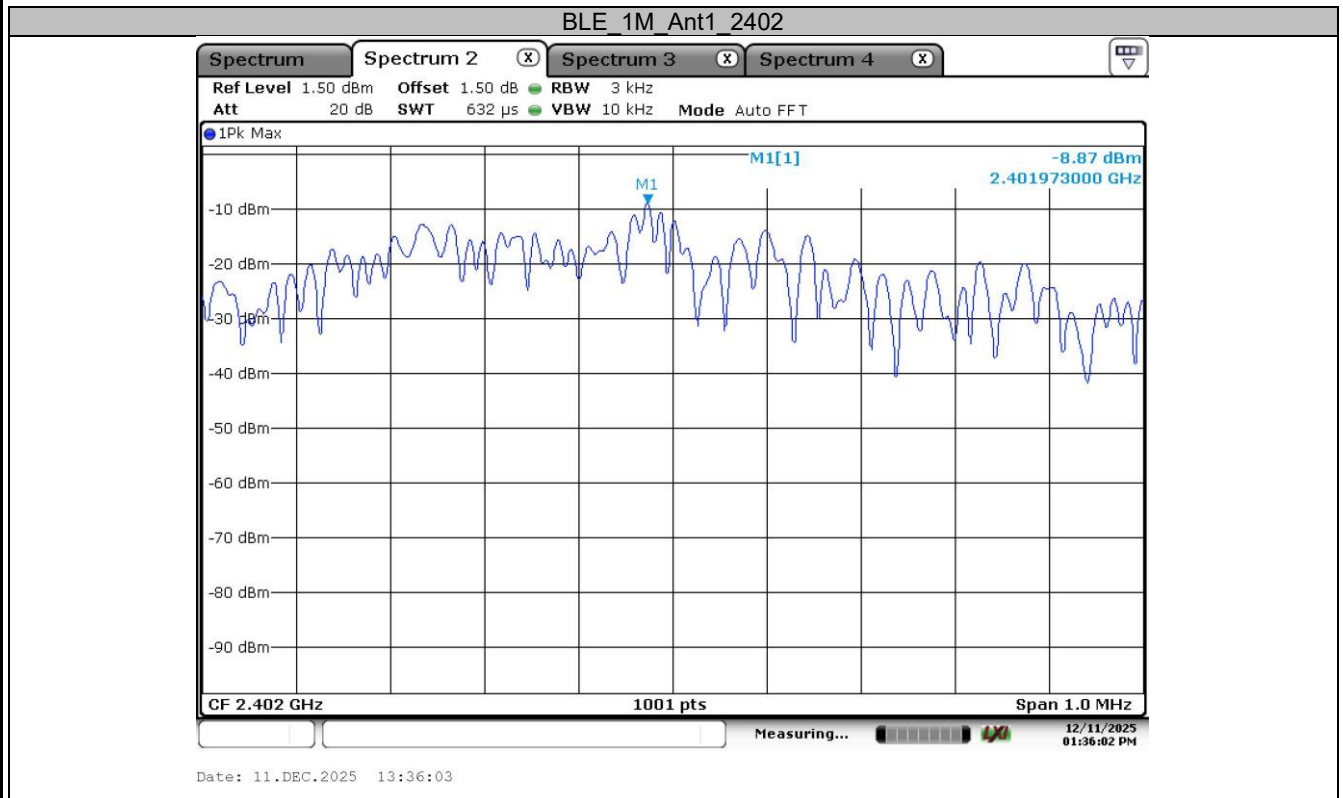
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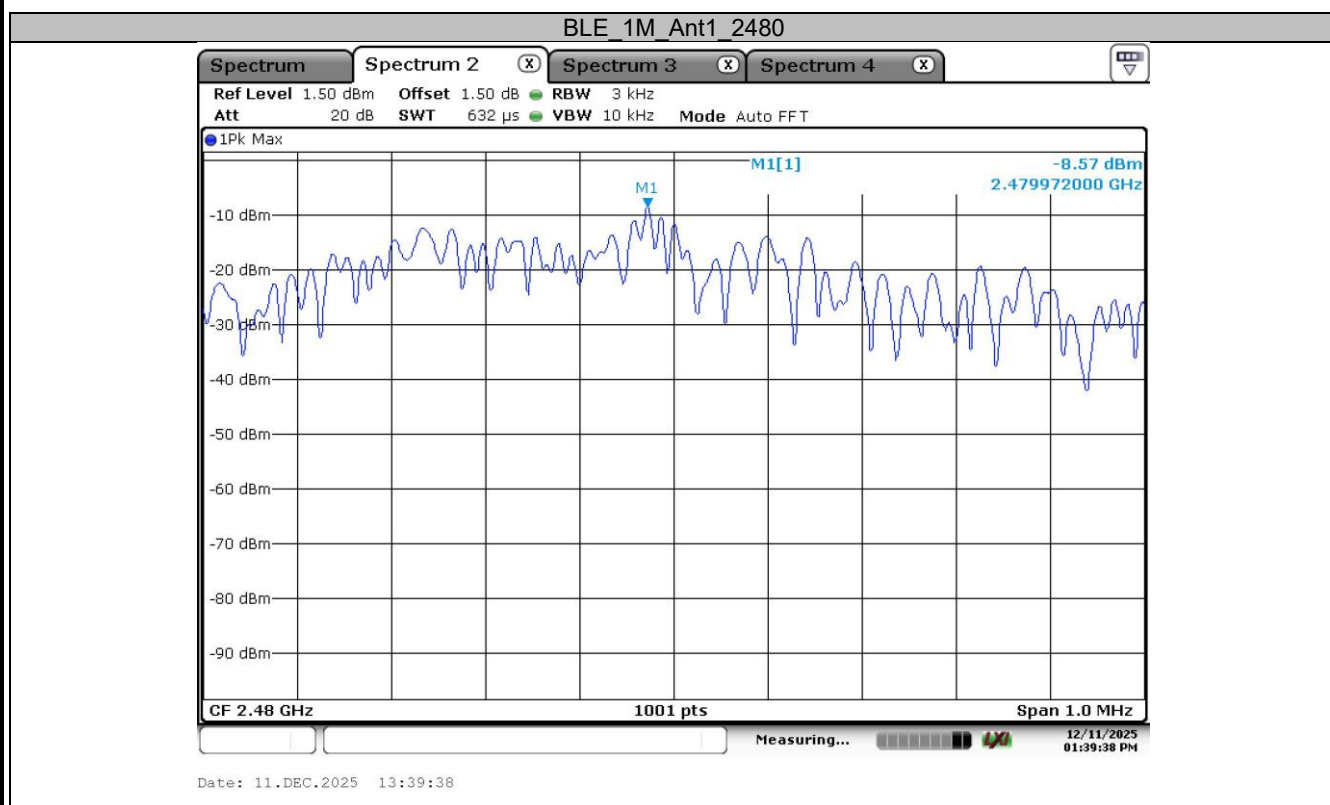
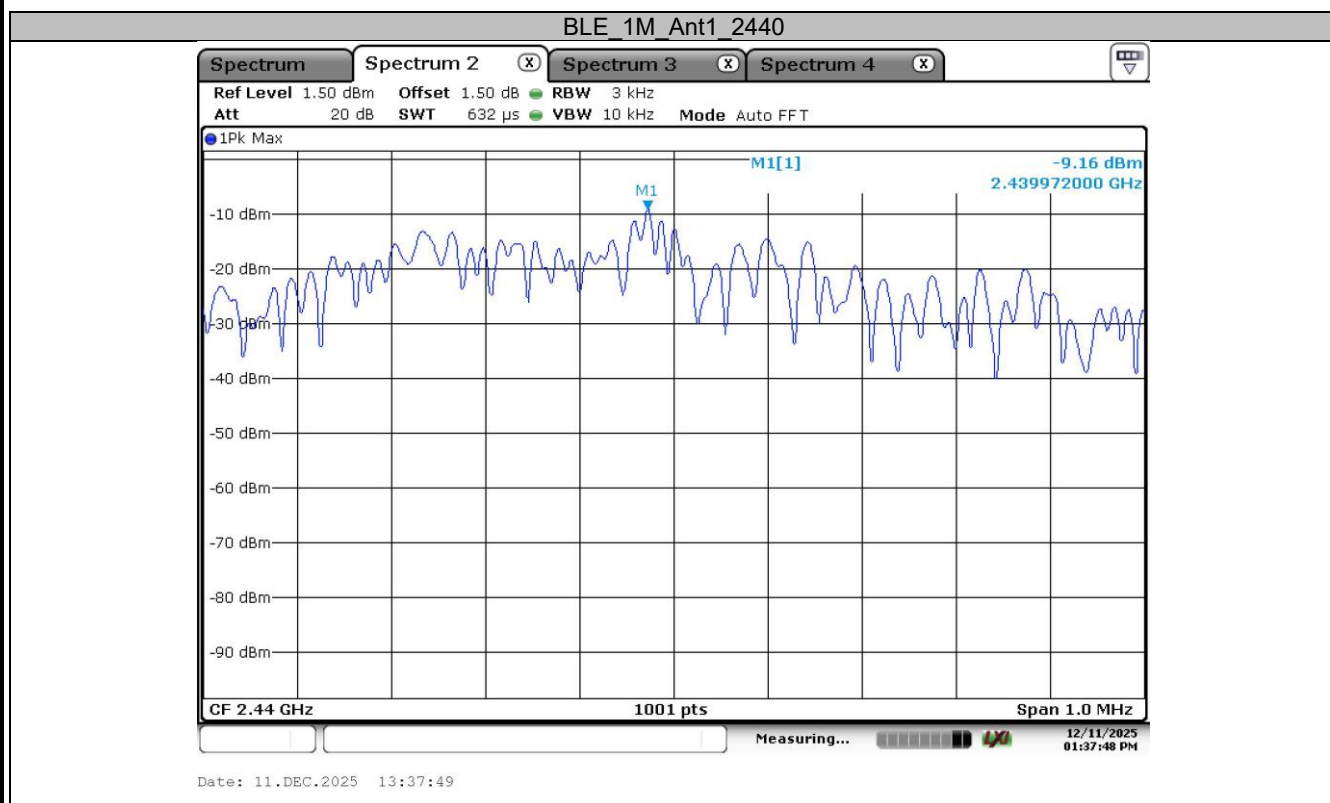
Appendix A: Test Results of Bluetooth LE

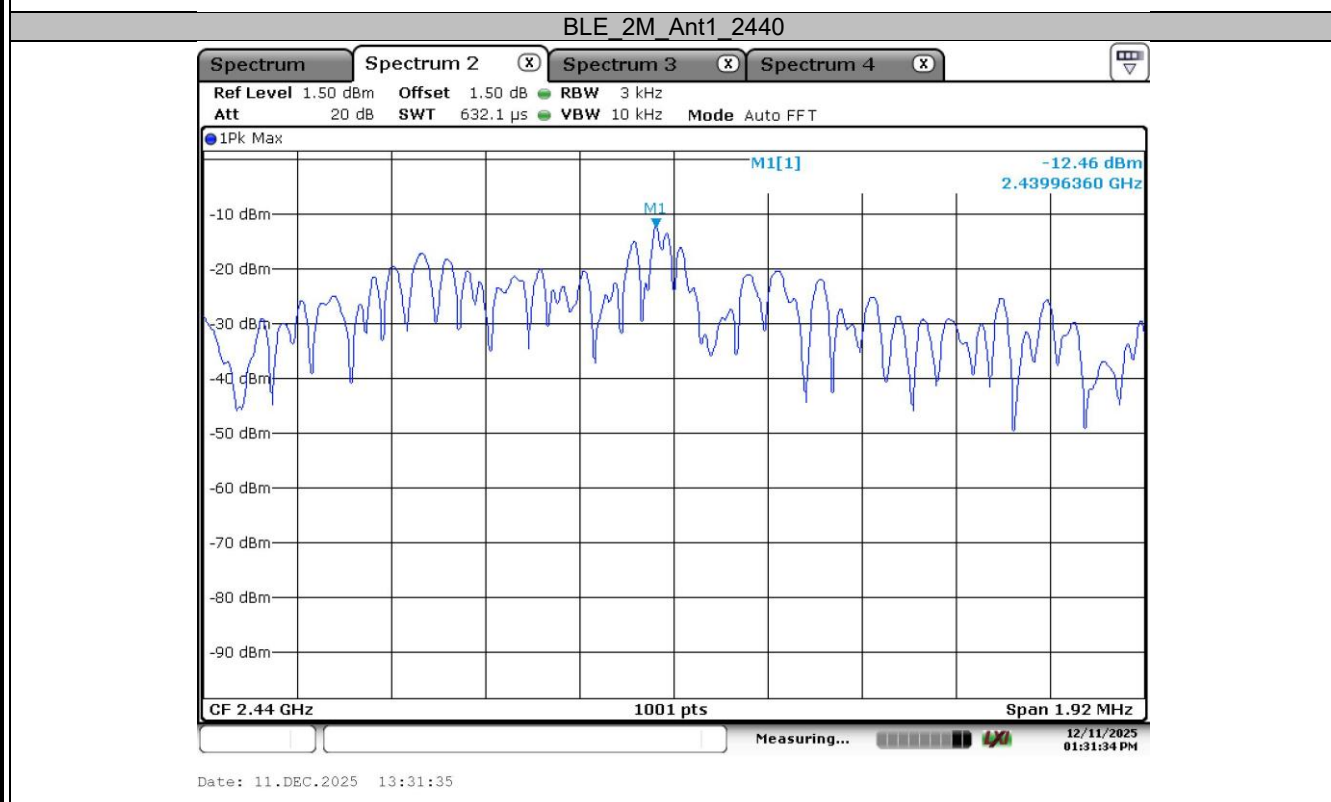
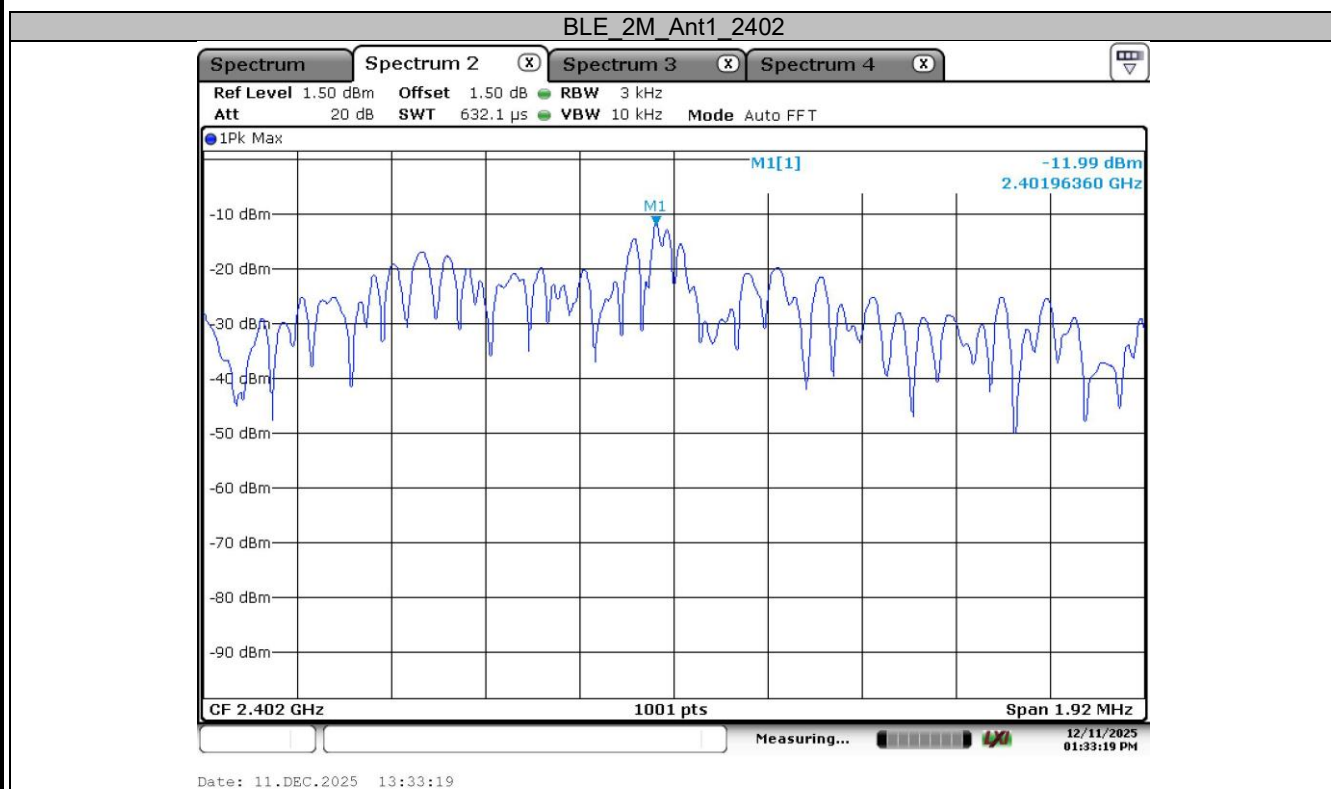
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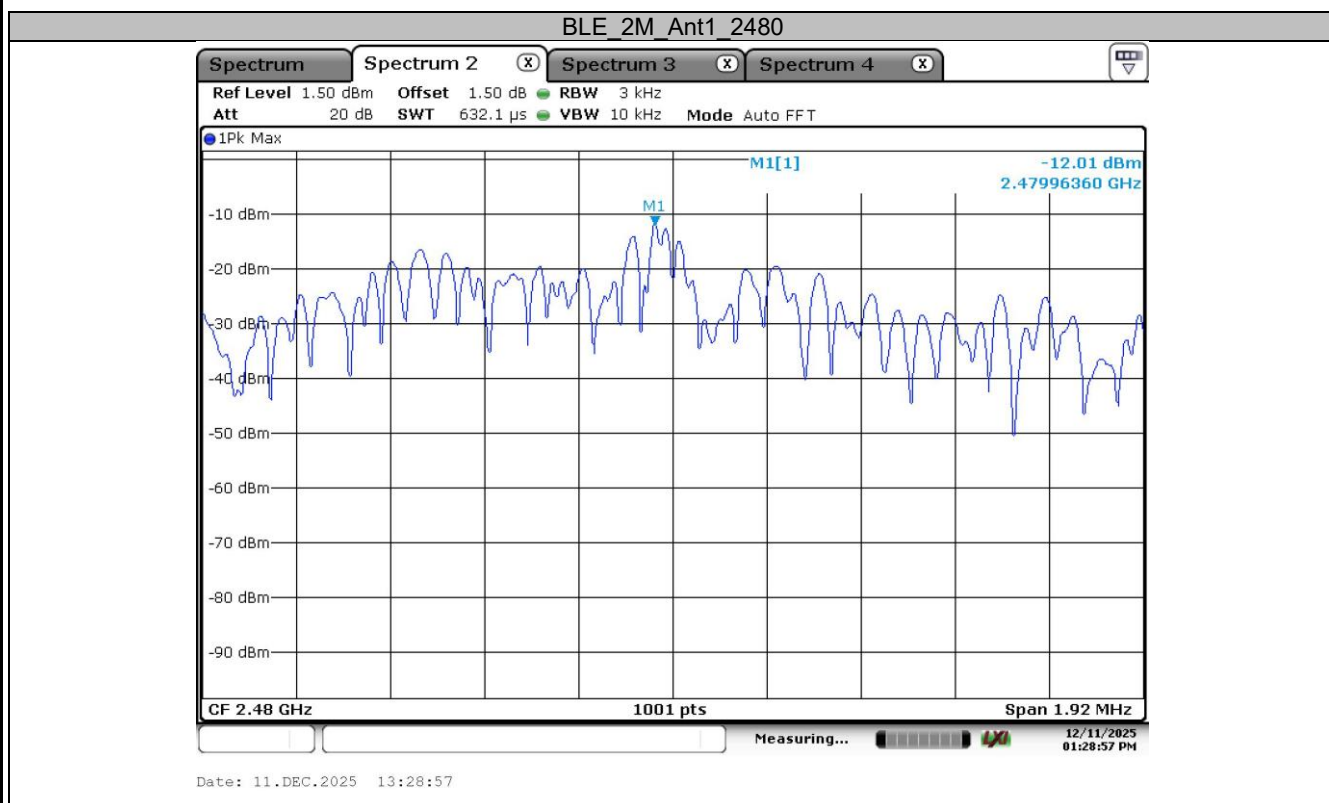
Appendix AA.1: Test Results of Conducted Power Spectral Density

Data Rate	Channel Frequency (MHz)	Measured Conducted Power Spectral Density	Limit
		(dBm / 3kHz)	
1 Mbps	2402	-9.04	8 dBm / 3kHz
	2440	-9.23	
	2480	-9.56	
2 Mbps	2402	-11.83	8 dBm / 3kHz
	2440	-12.01	
	2480	-12.24	







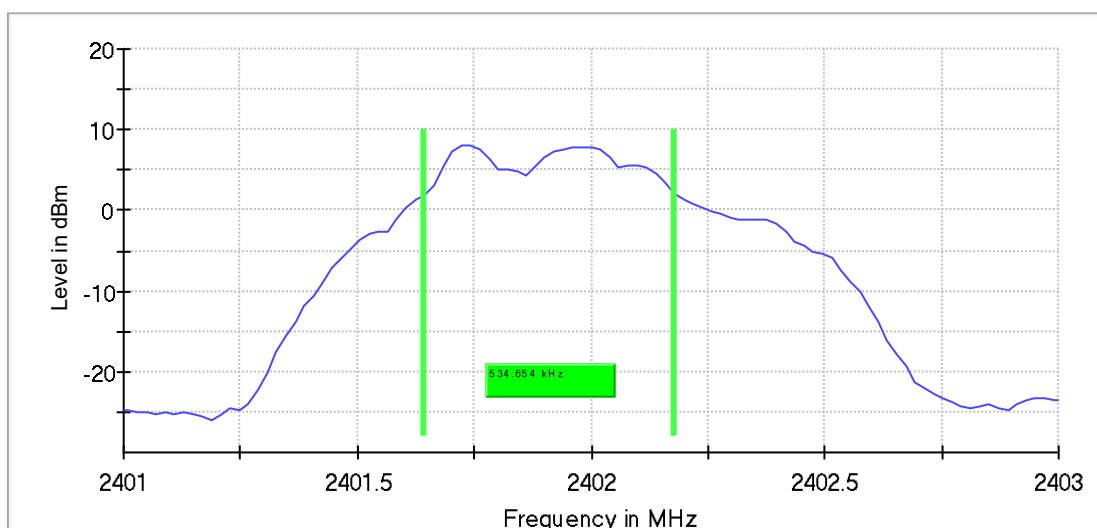


Appendix A.2: Test Results of 6dB Bandwidth

Data Rate	Channel Frequency (MHz)	Measured 6dB Bandwidth	Limit
		(MHz)	
1 Mbps	2402	0.534	>500kHz
	2440	0.574	
	2480	0.574	
2 Mbps	2402	0.910	>500kHz
	2440	0.950	
	2480	0.950	

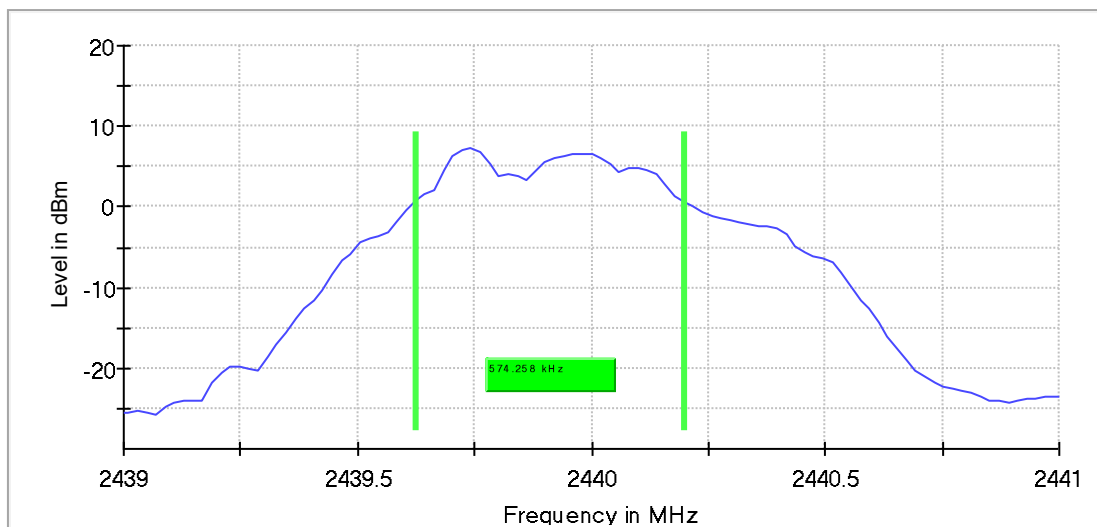
BLE_1M_Ant1_2402

6 dB Bandwidth



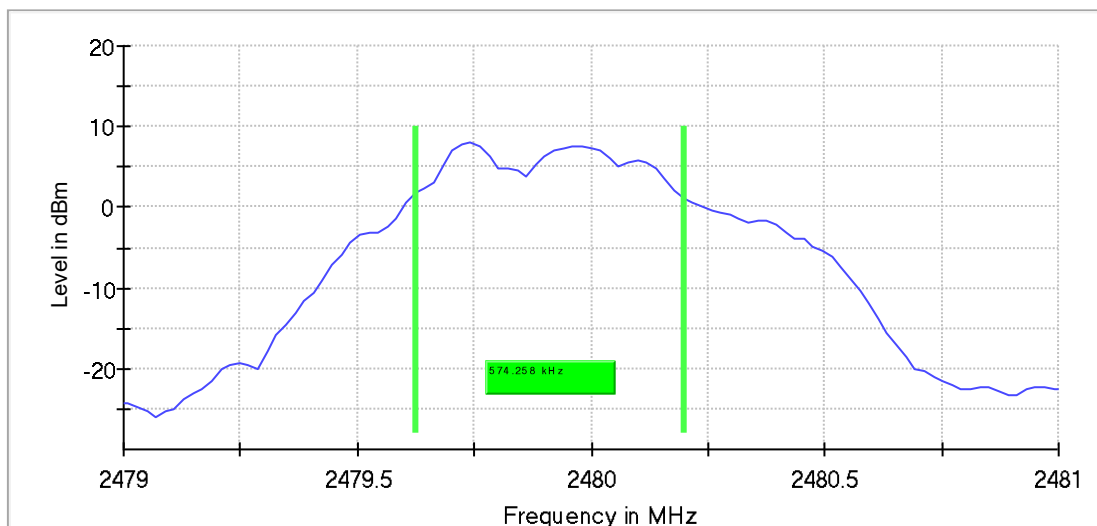
BLE_1M_Ant1_2440

6 dB Bandwidth



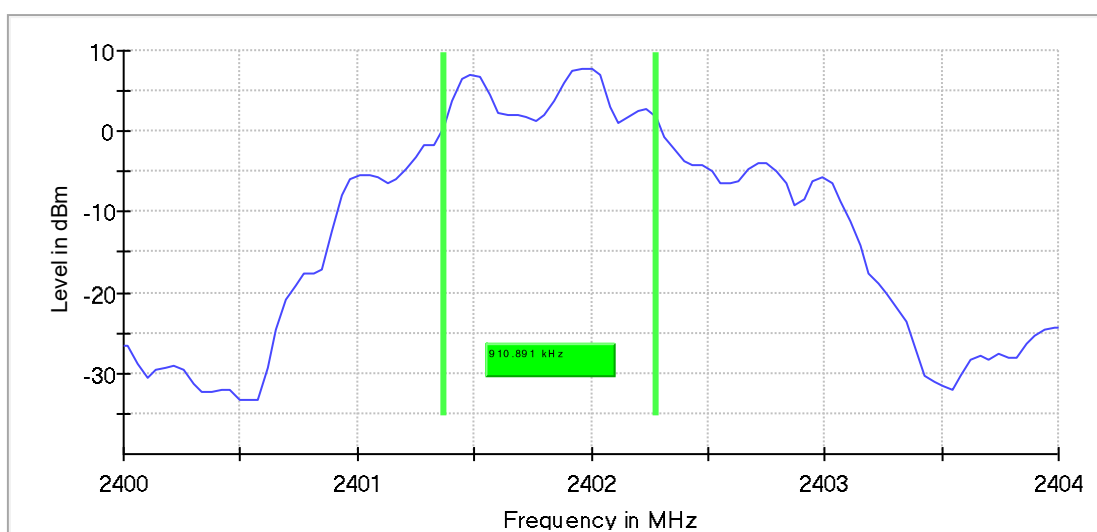
BLE_1M_Ant1_2480

6 dB Bandwidth



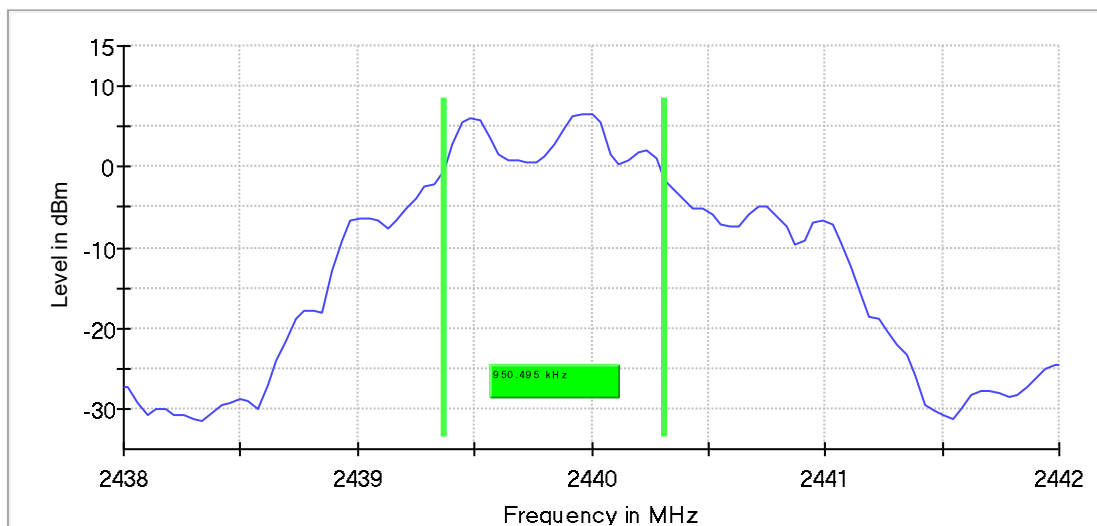
BLE_2M_Ant1_2402

6 dB Bandwidth



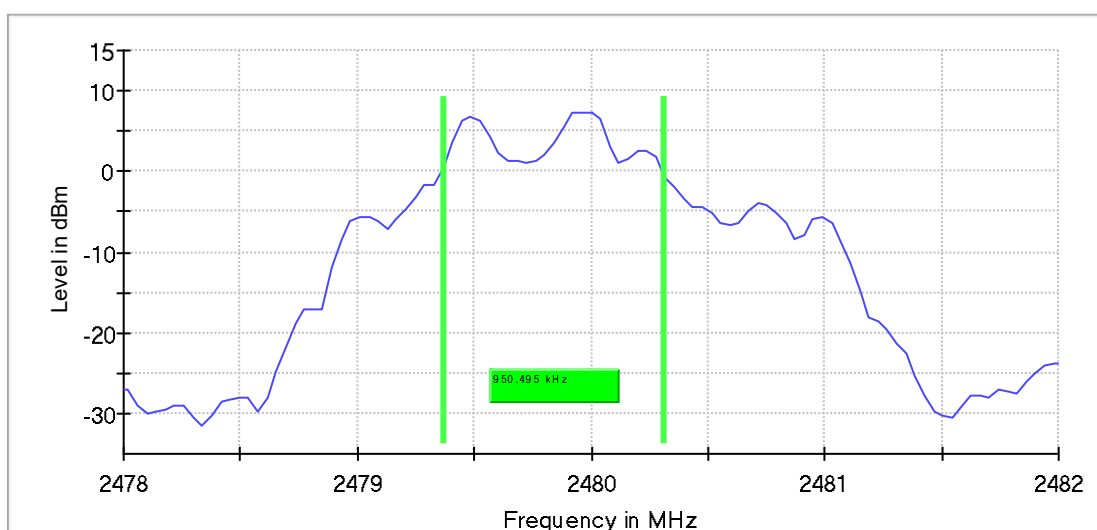
BLE_2M_Ant1_2440

6 dB Bandwidth



BLE_2M_Ant1_2480

6 dB Bandwidth

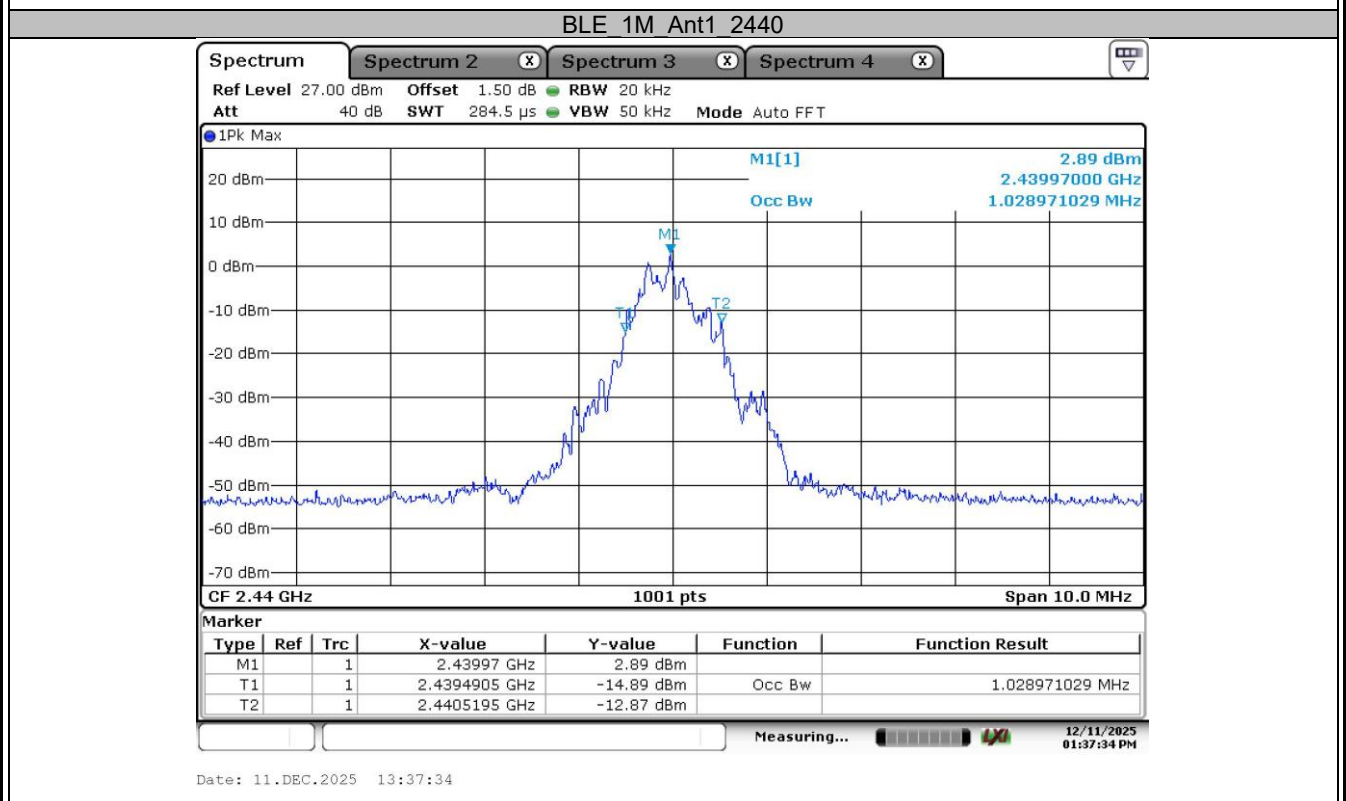
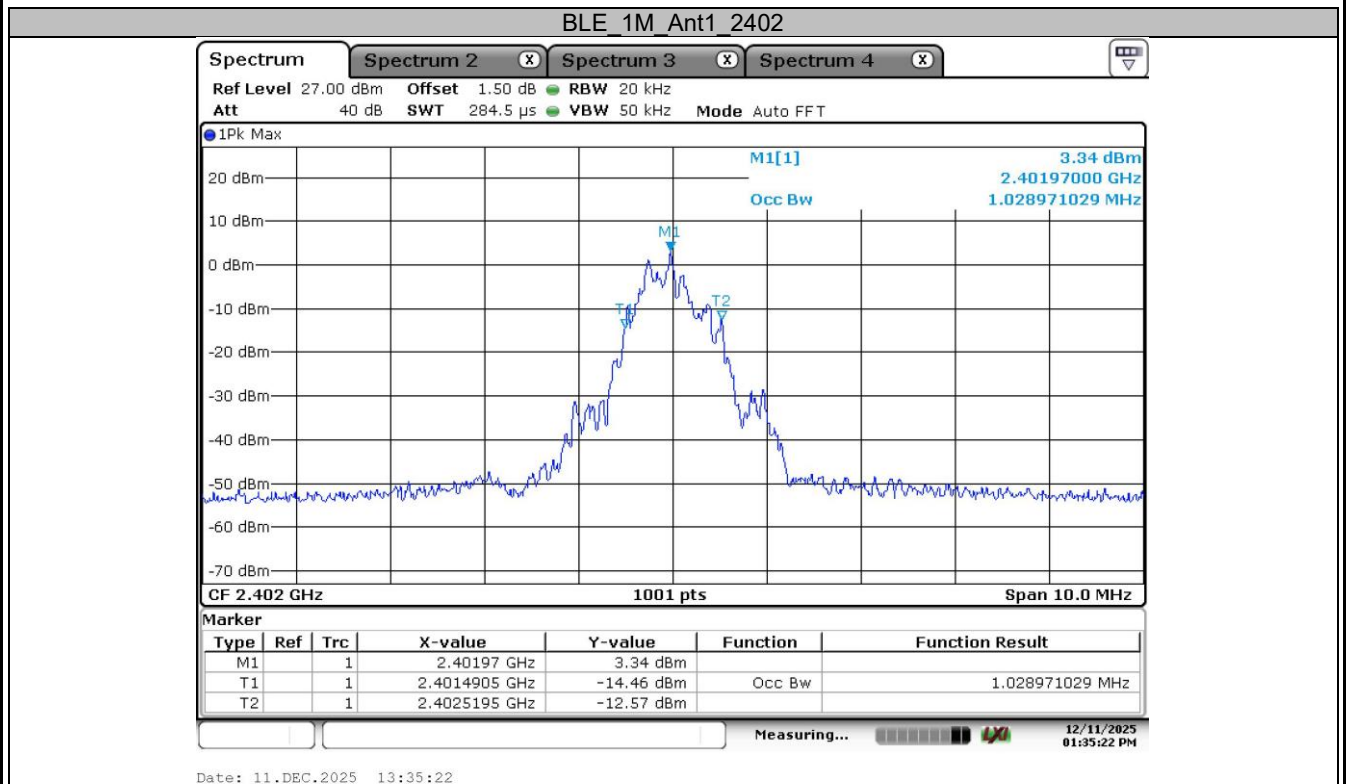


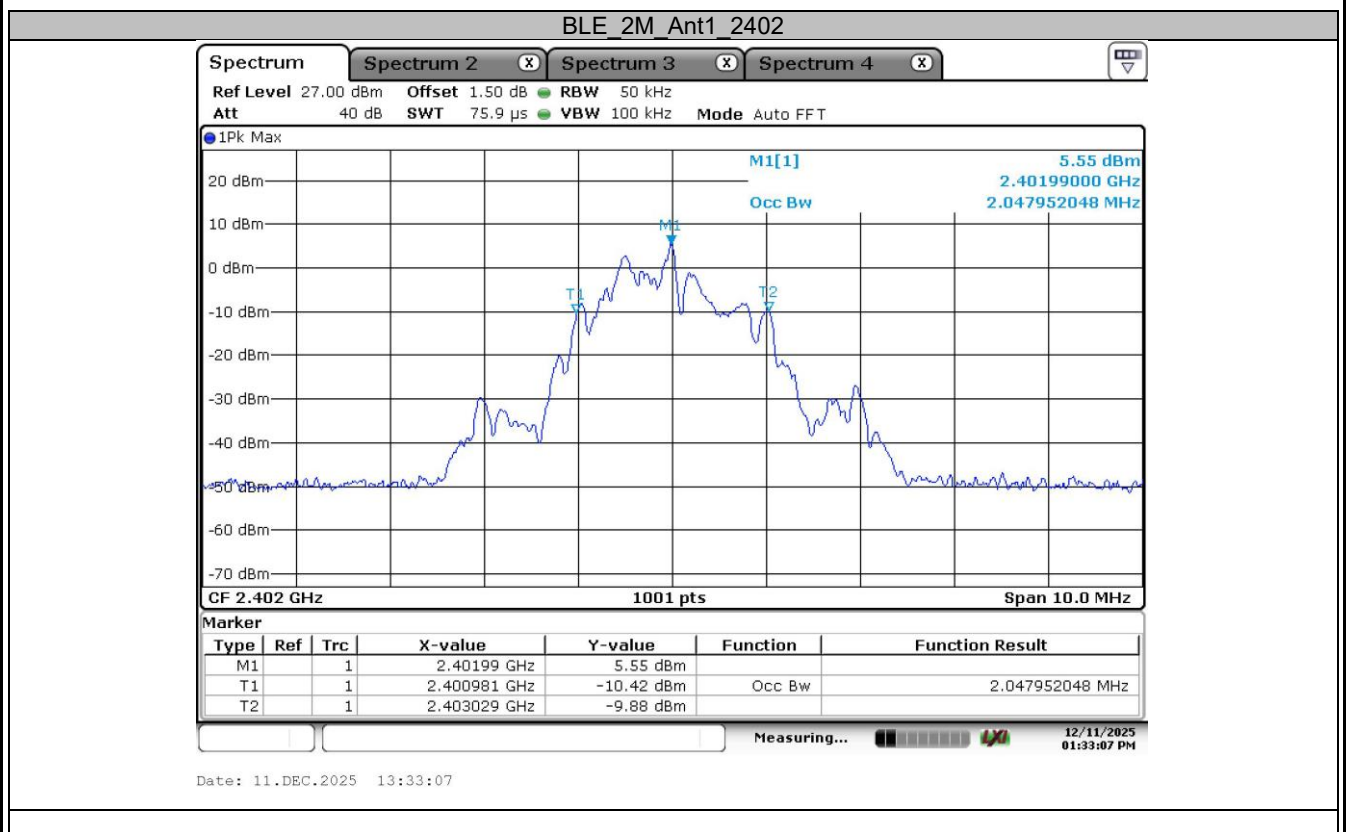
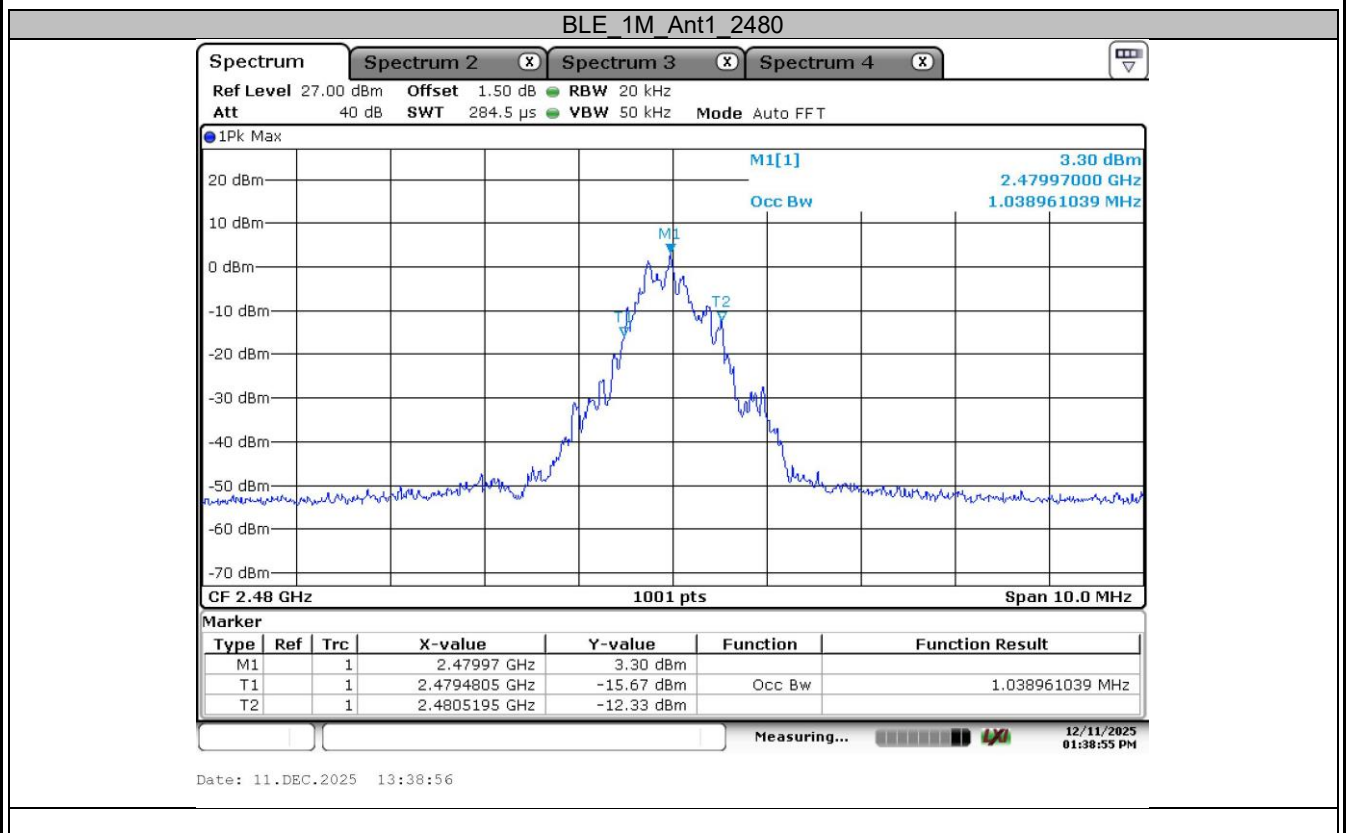
Measurement

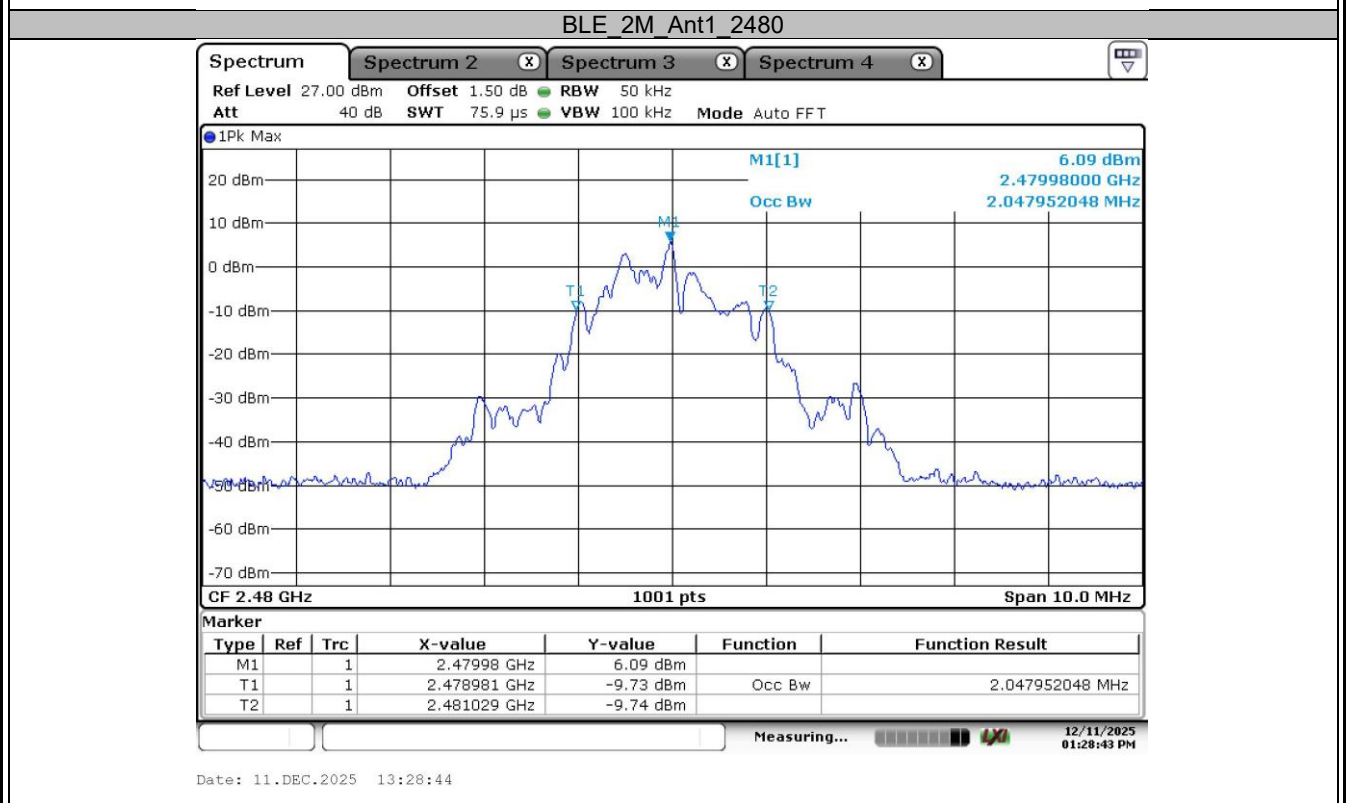
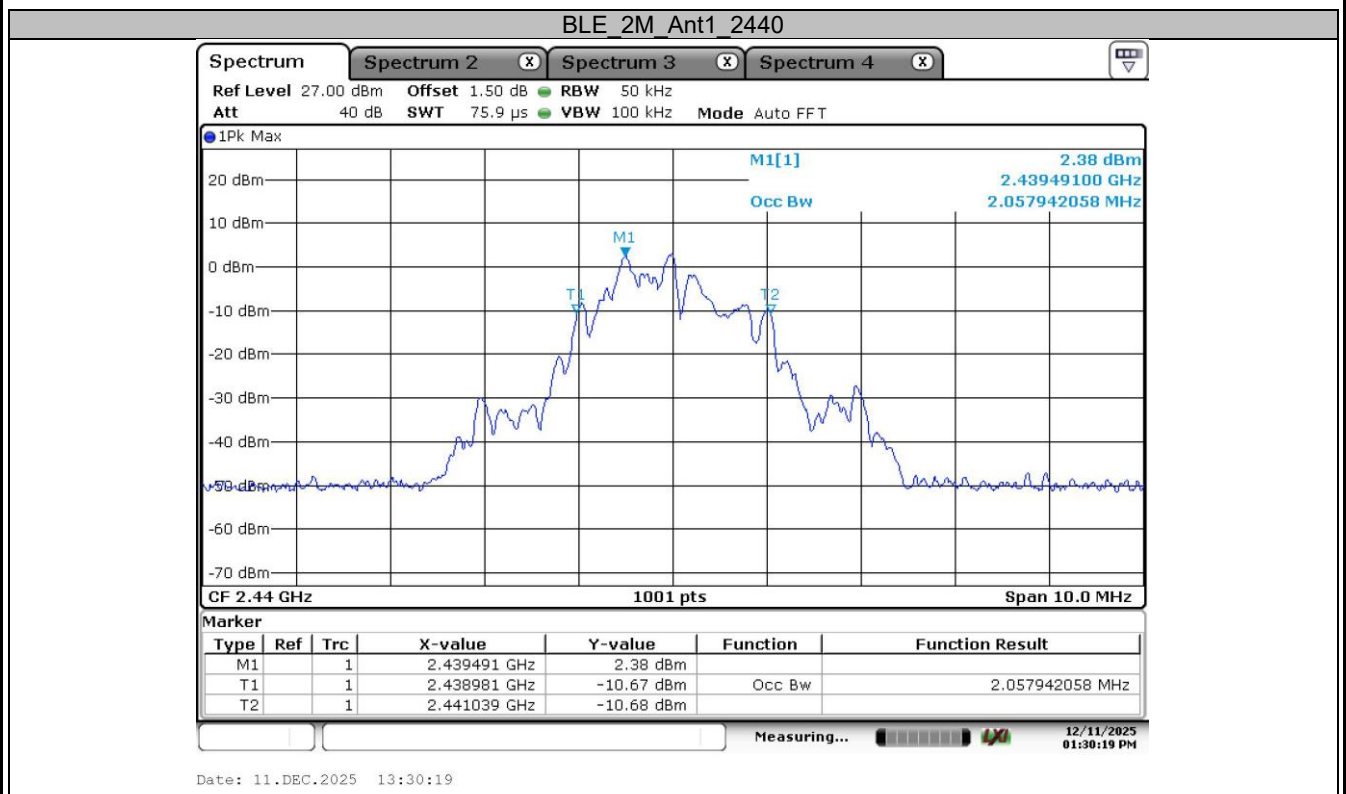
Setting	Instrument Value
Span	2.000 MHz
RBW	100.000 kHz
VBW	300.000 kHz
SweepPoints	101
Sweeptime	18.938 µs
Reference Level	0.000 dBm
Attenuation	20.000 dB
Detector	MaxPeak
SweepCount	100
Filter	3 dB
Trace Mode	Max Hold

Appendix AA.3: Test Results of 99% Bandwidth

Data Rate	Channel Frequency (MHz)	Measured 99% Bandwidth	Limit
		(MHz)	
1 Mbps	2402	1.0290	/
	2440	1.0290	
	2480	1.0390	
2 Mbps	2402	2.0480	/
	2440	2.0580	
	2480	2.0480	



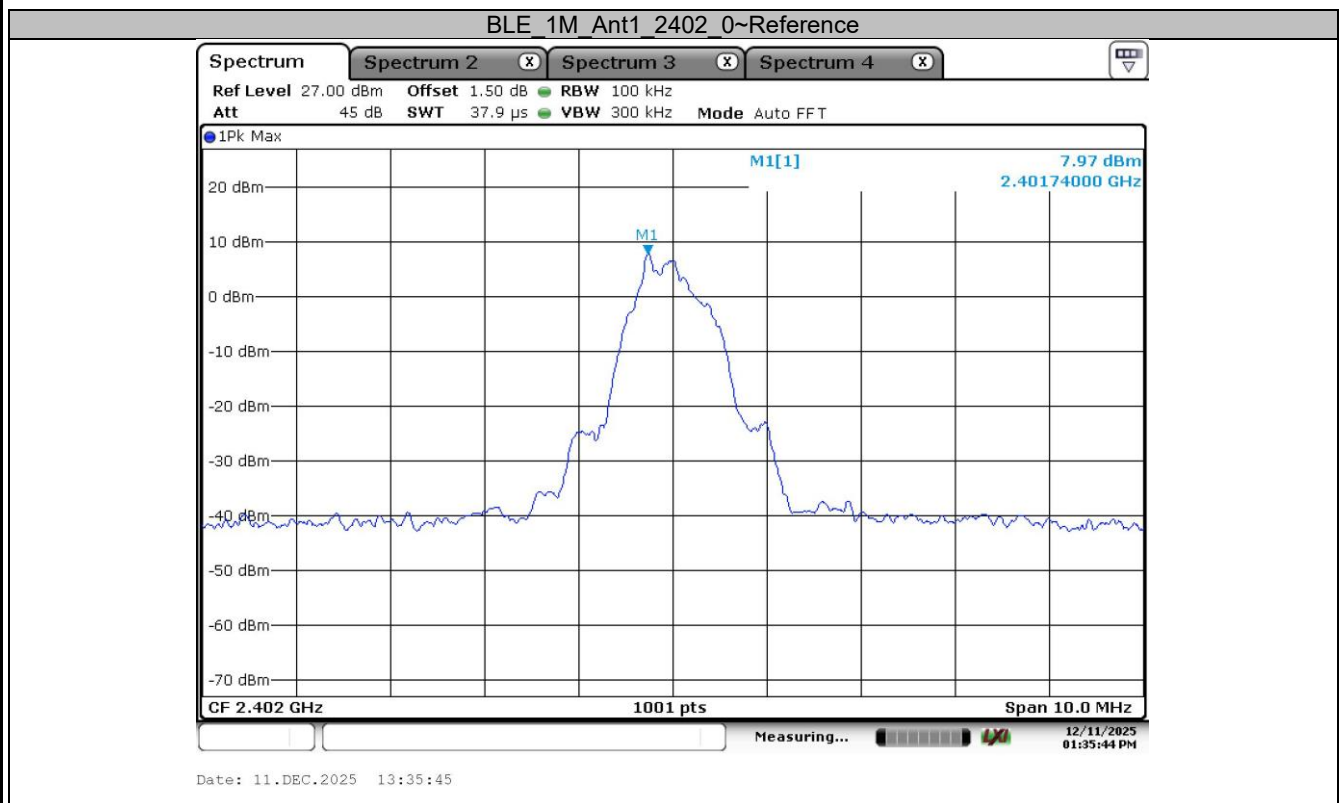


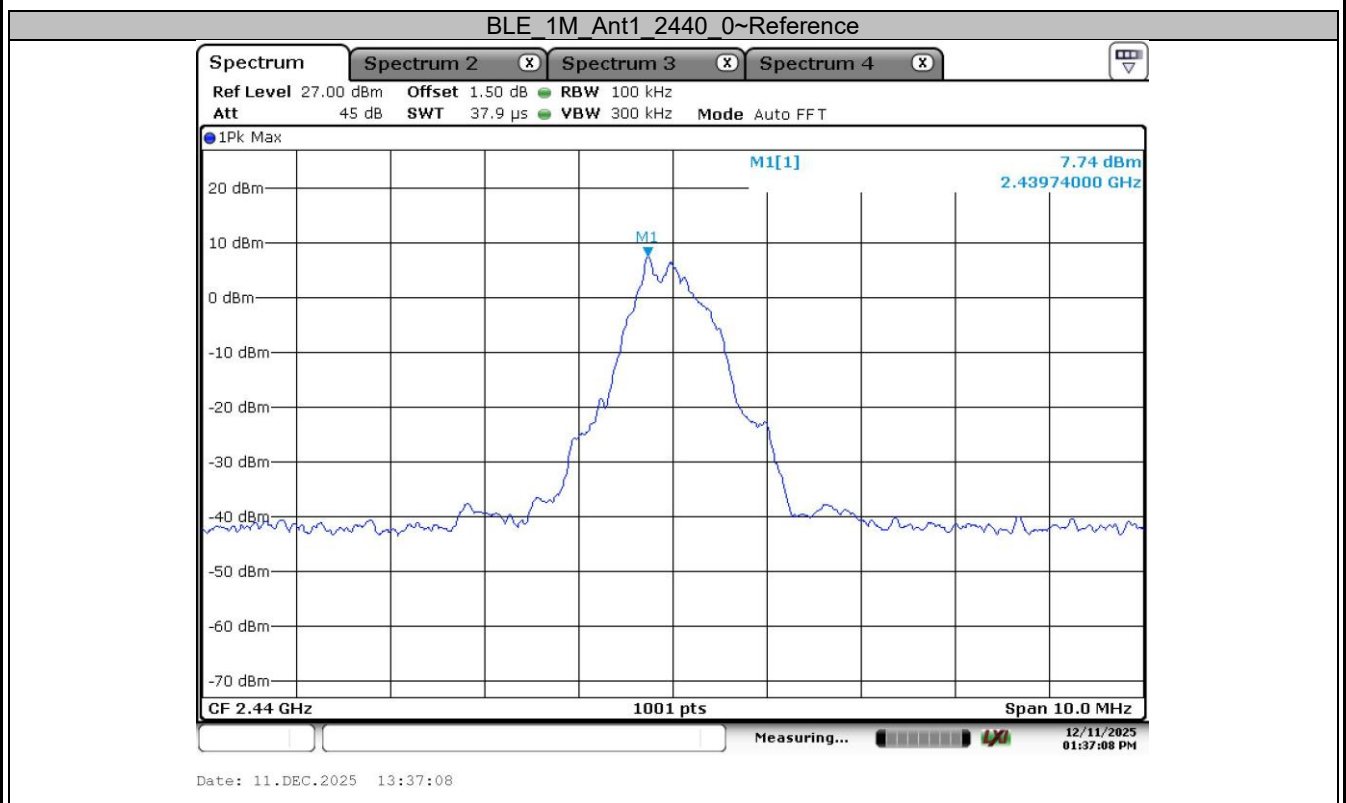
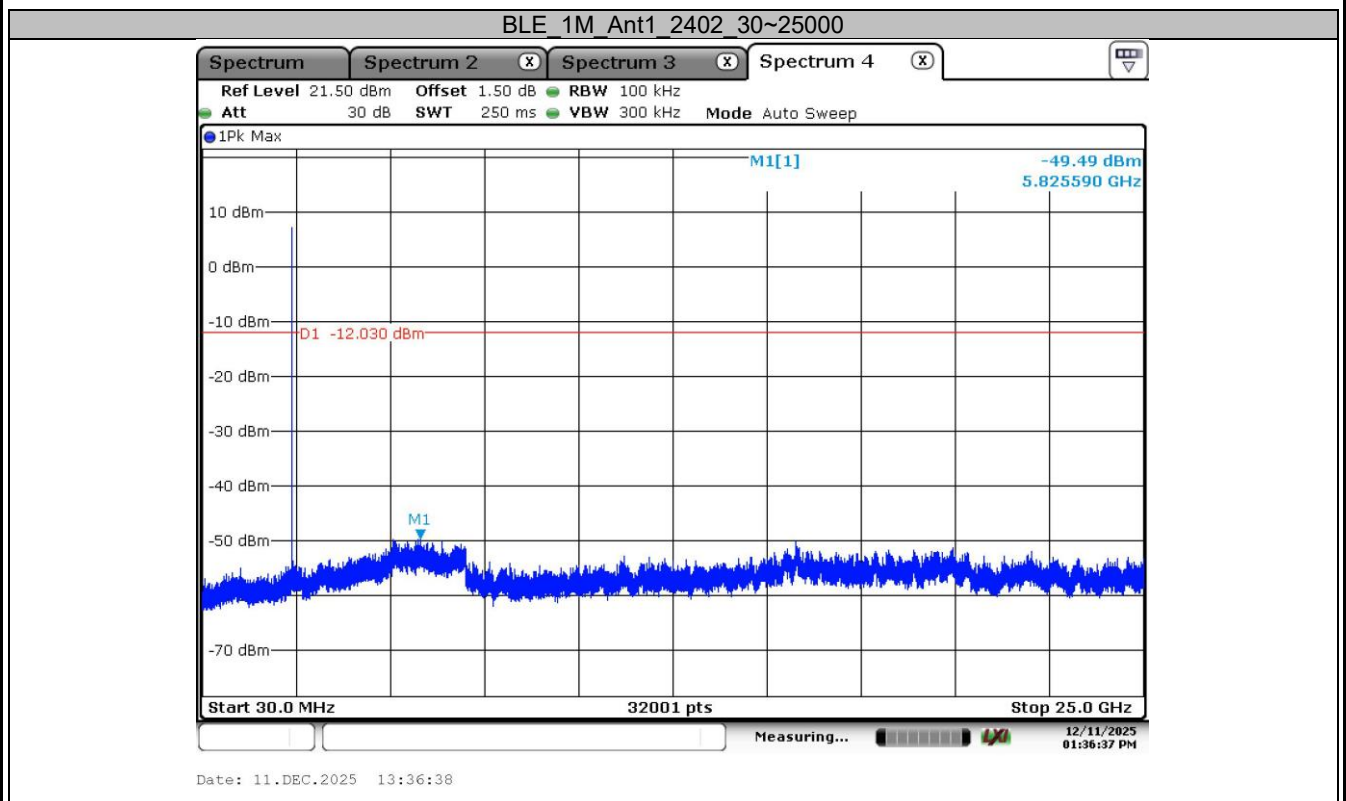


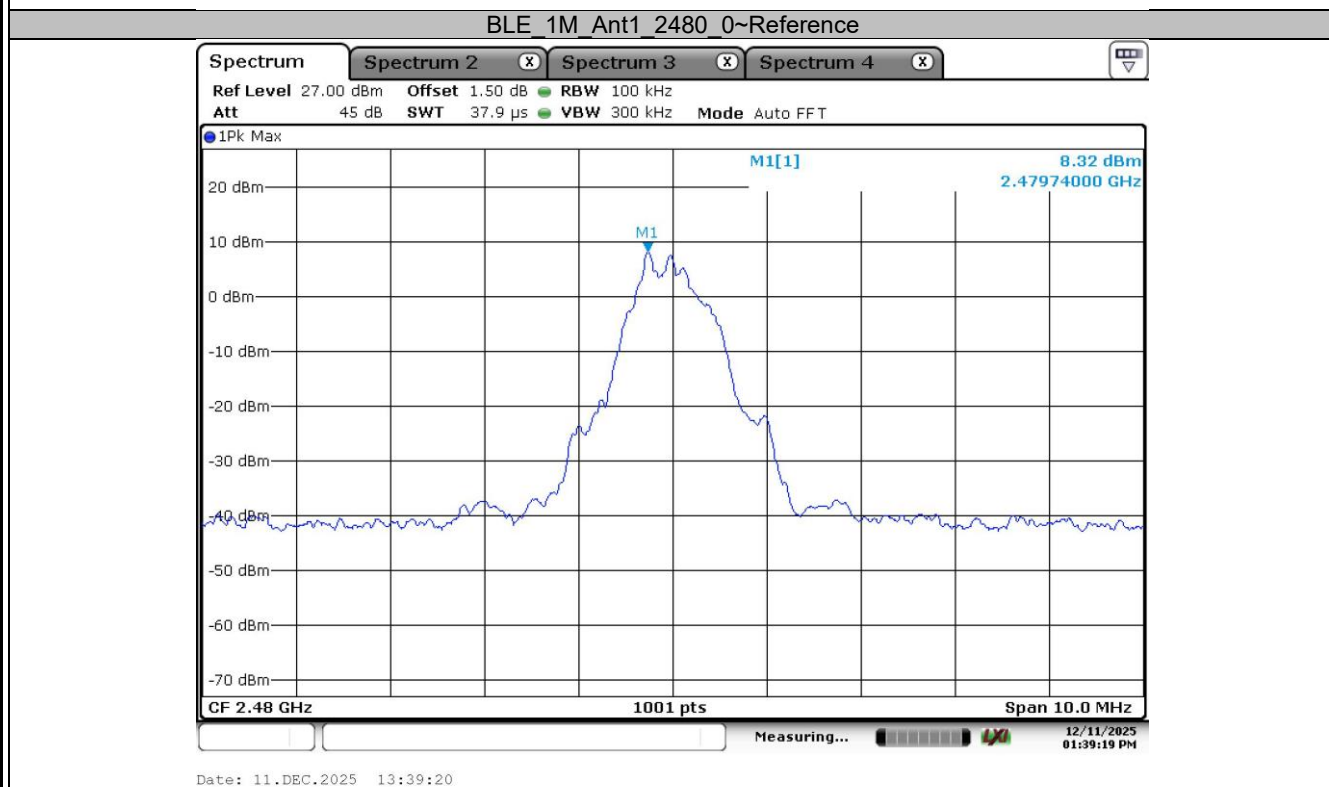
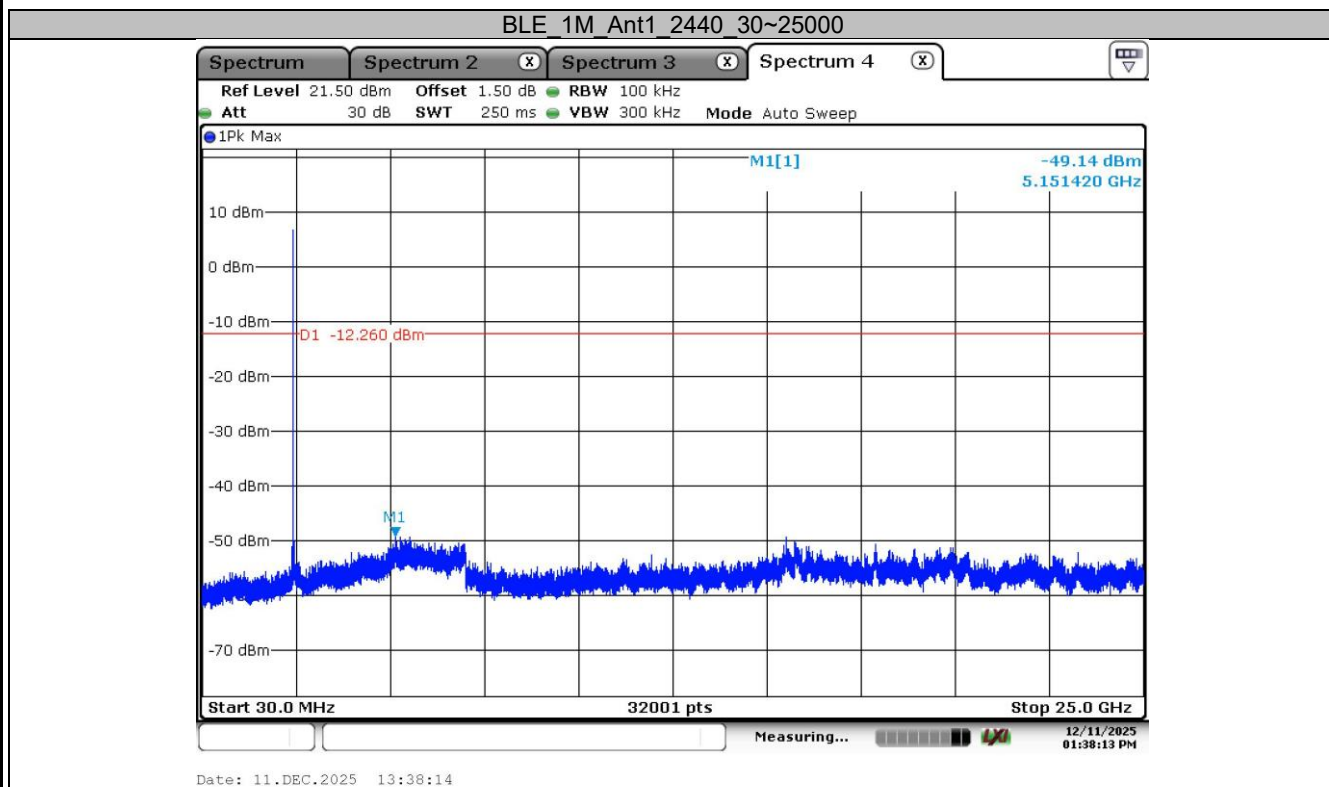
Appendix AA.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

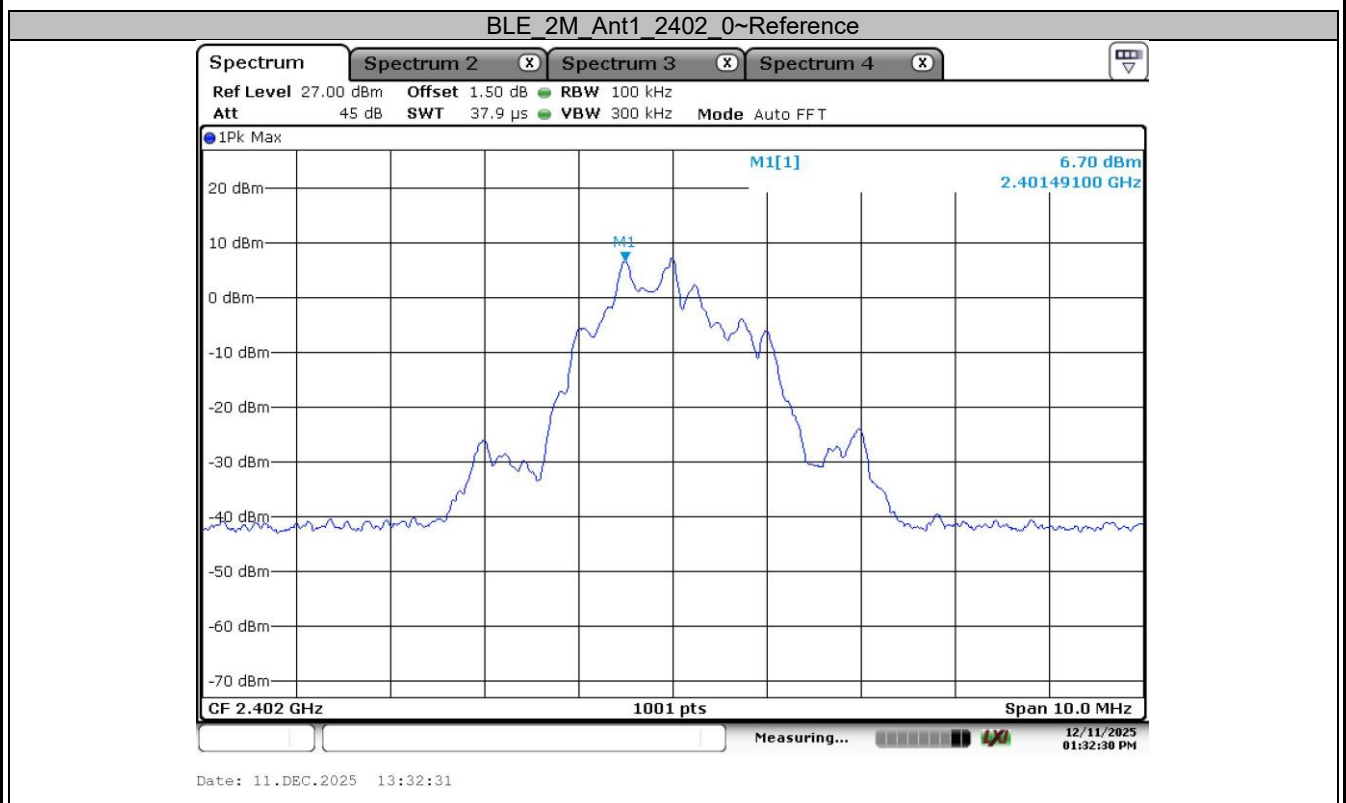
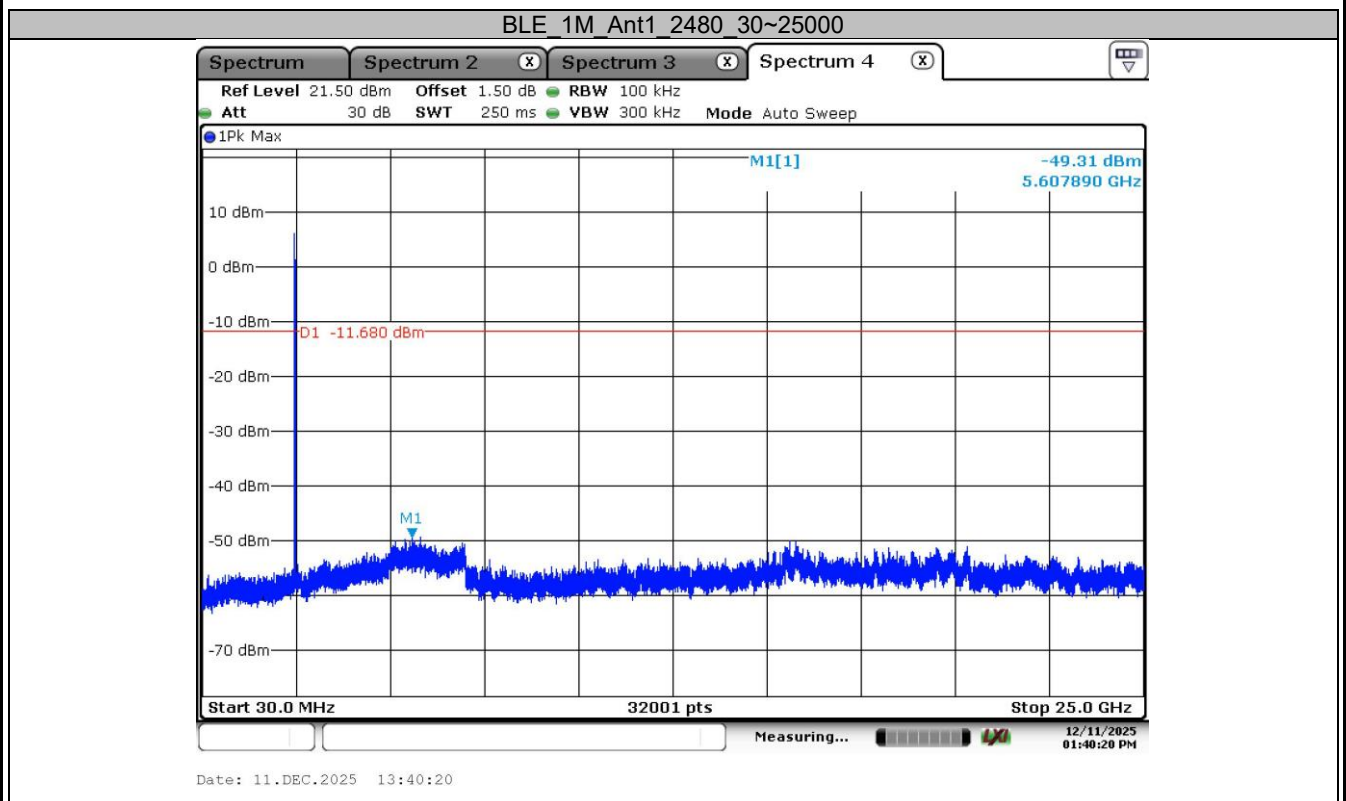
Conducted measurements

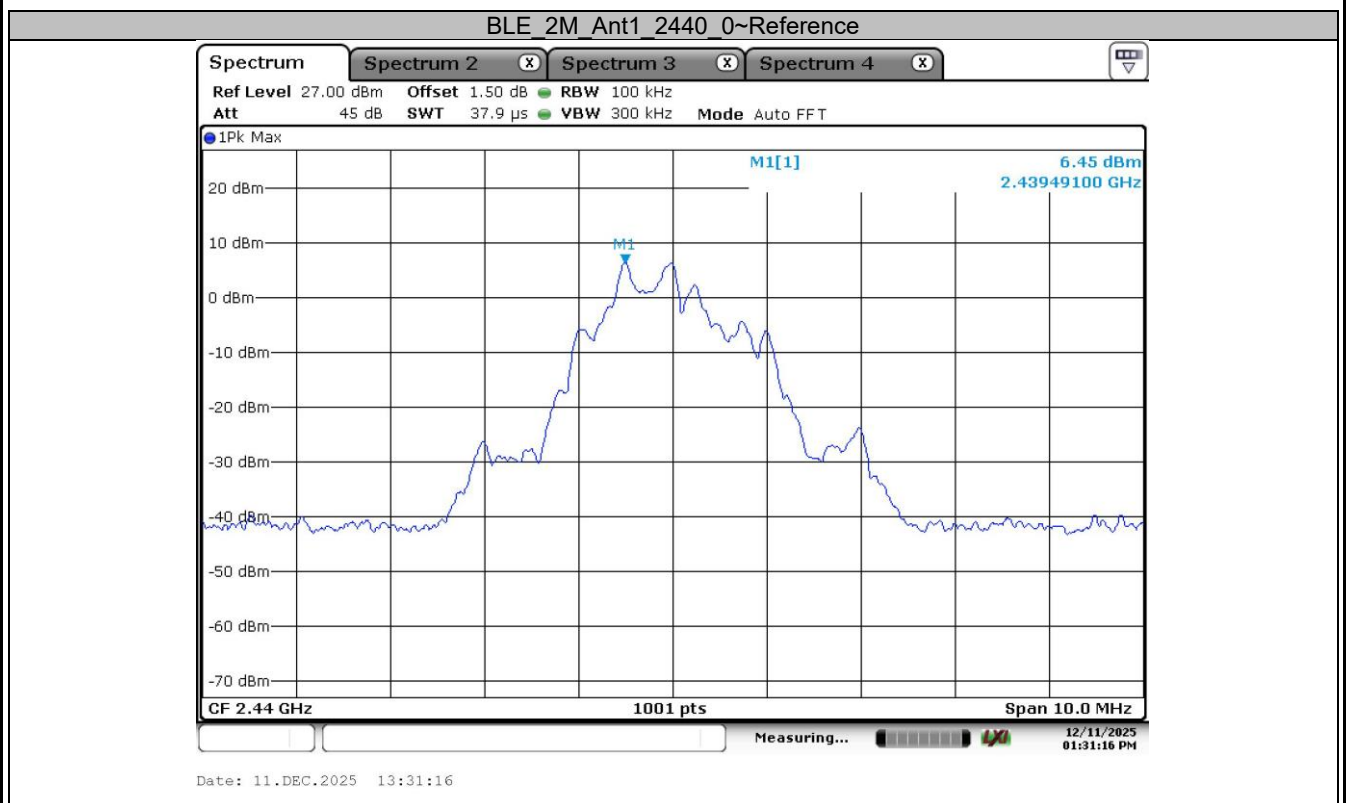
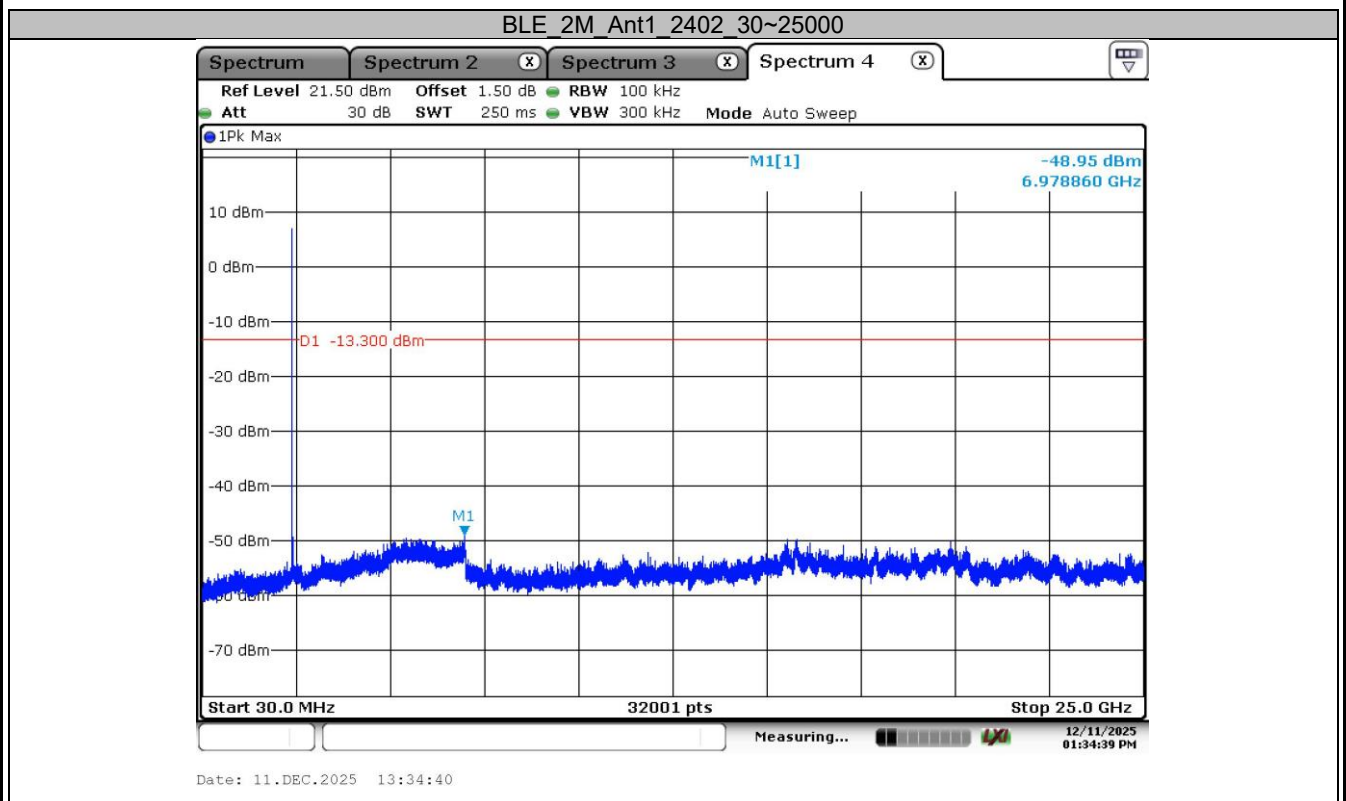
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE 1M	ANT1	2402	30~25000	7.97	-49.49	≤-12.03	PASS
		2440	30~25000	7.74	-49.14	≤-12.26	PASS
		2480	30~25000	8.32	-49.31	≤-11.68	PASS
BLE 2M	ANT1	2402	30~25000	6.70	-48.95	≤-13.30	PASS
		2440	30~25000	6.45	-49.61	≤-13.55	PASS
		2480	30~25000	6.80	-49.45	≤-13.20	PASS

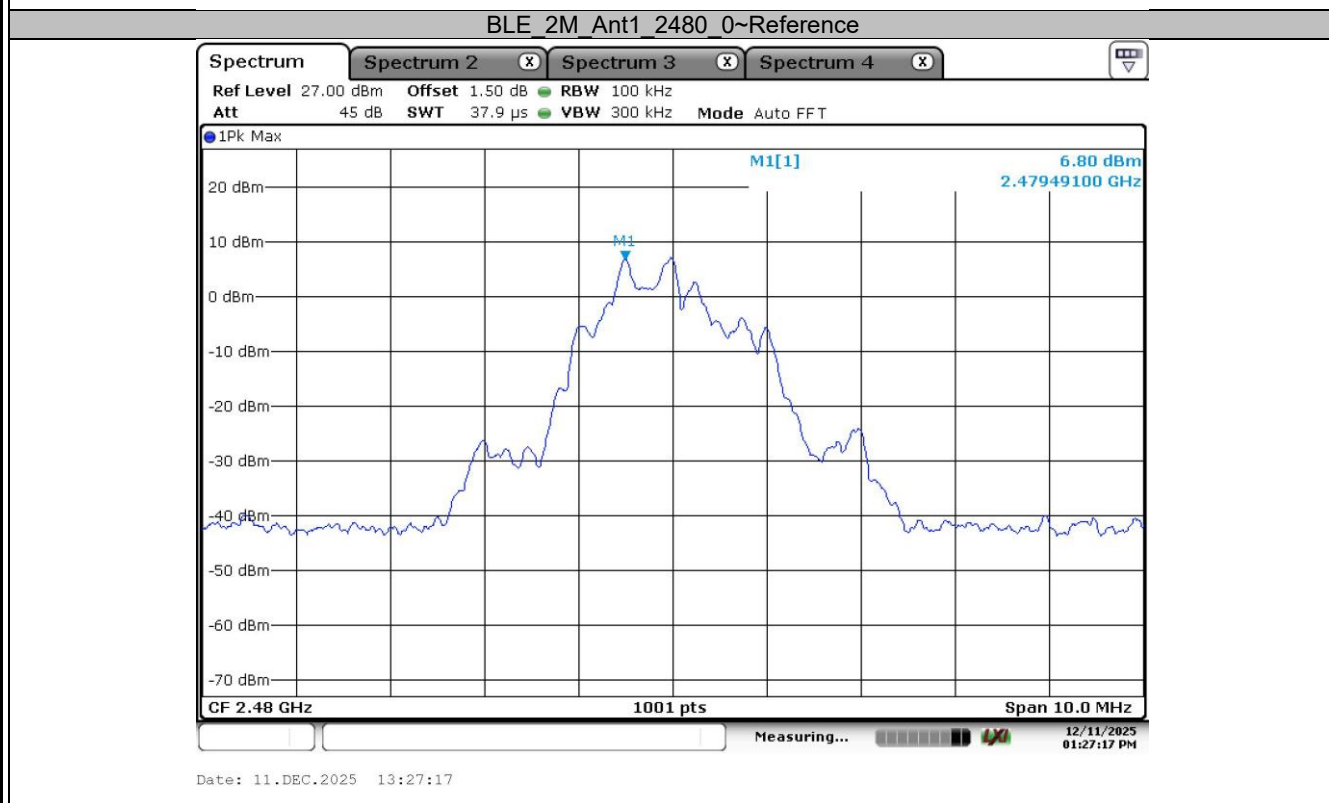
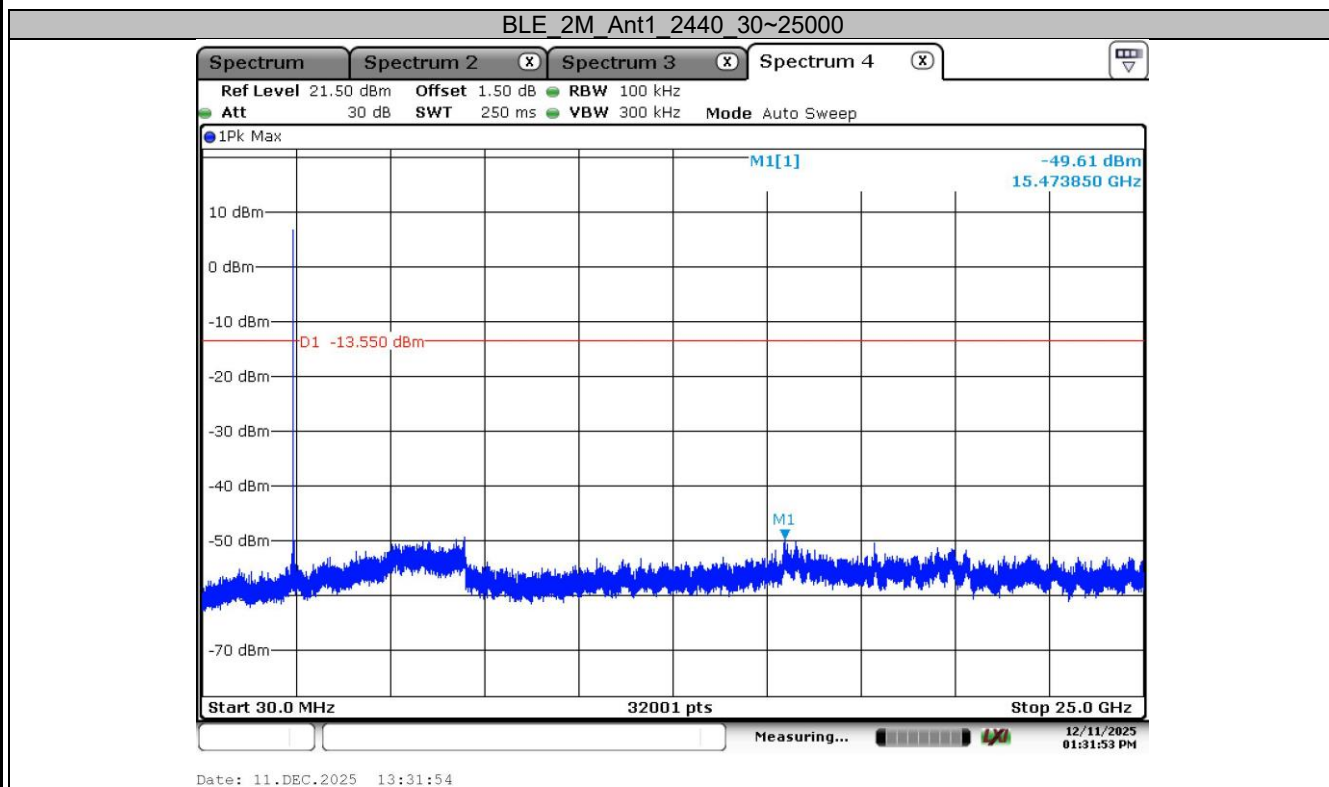


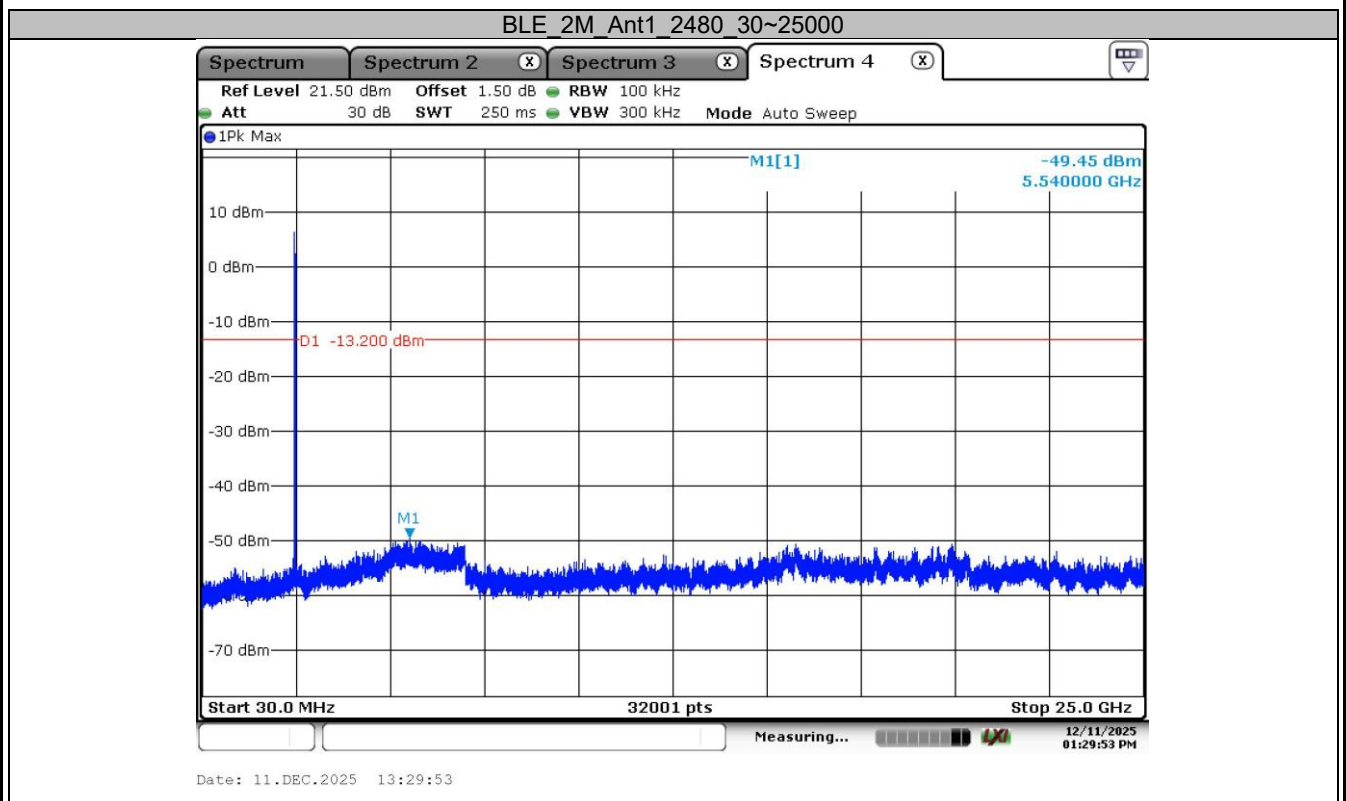






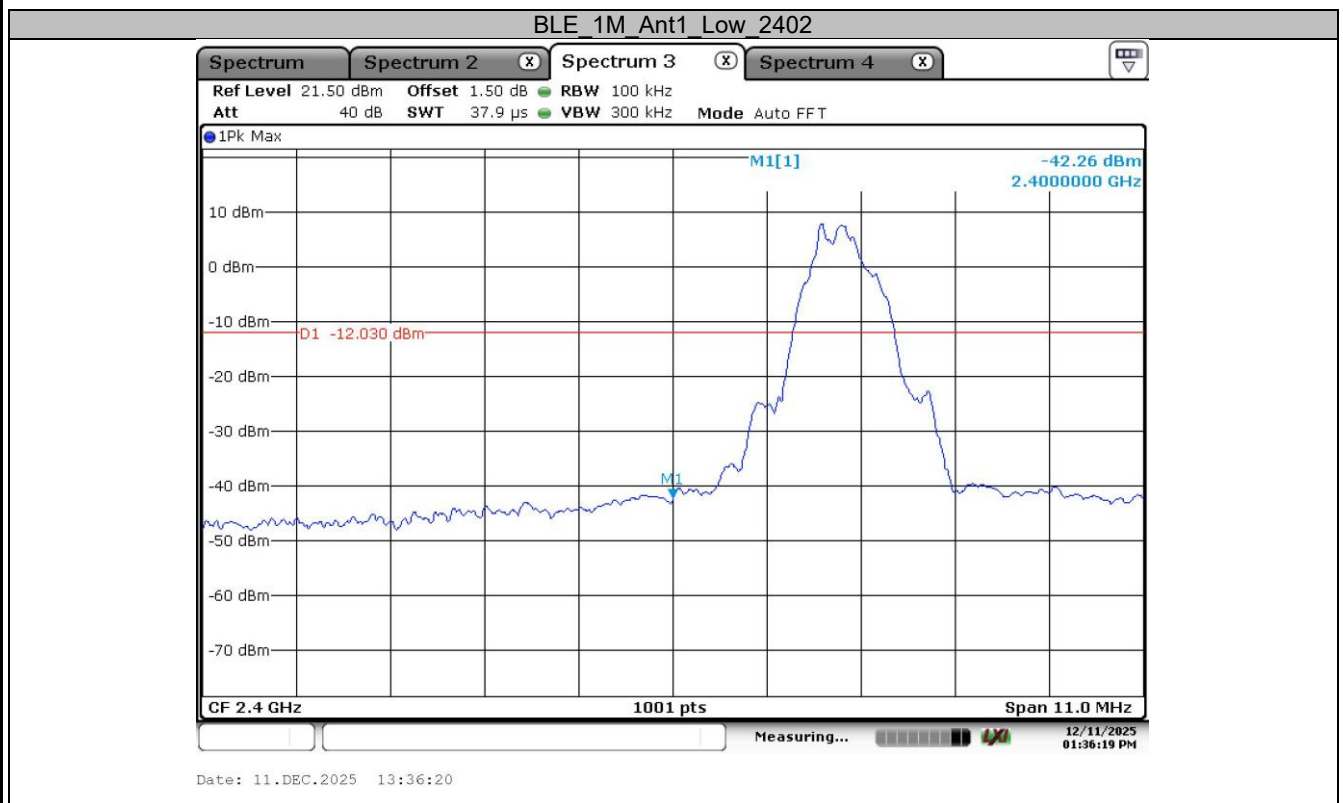


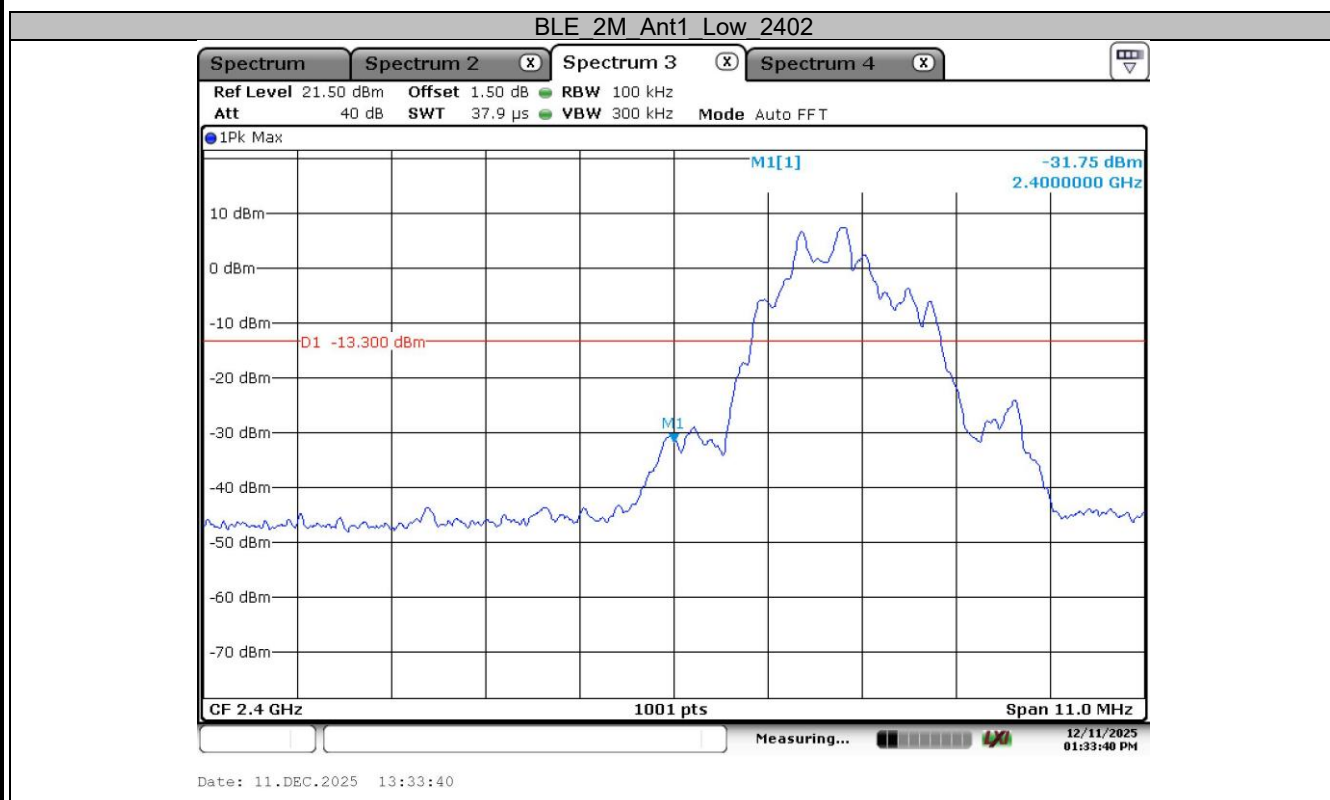
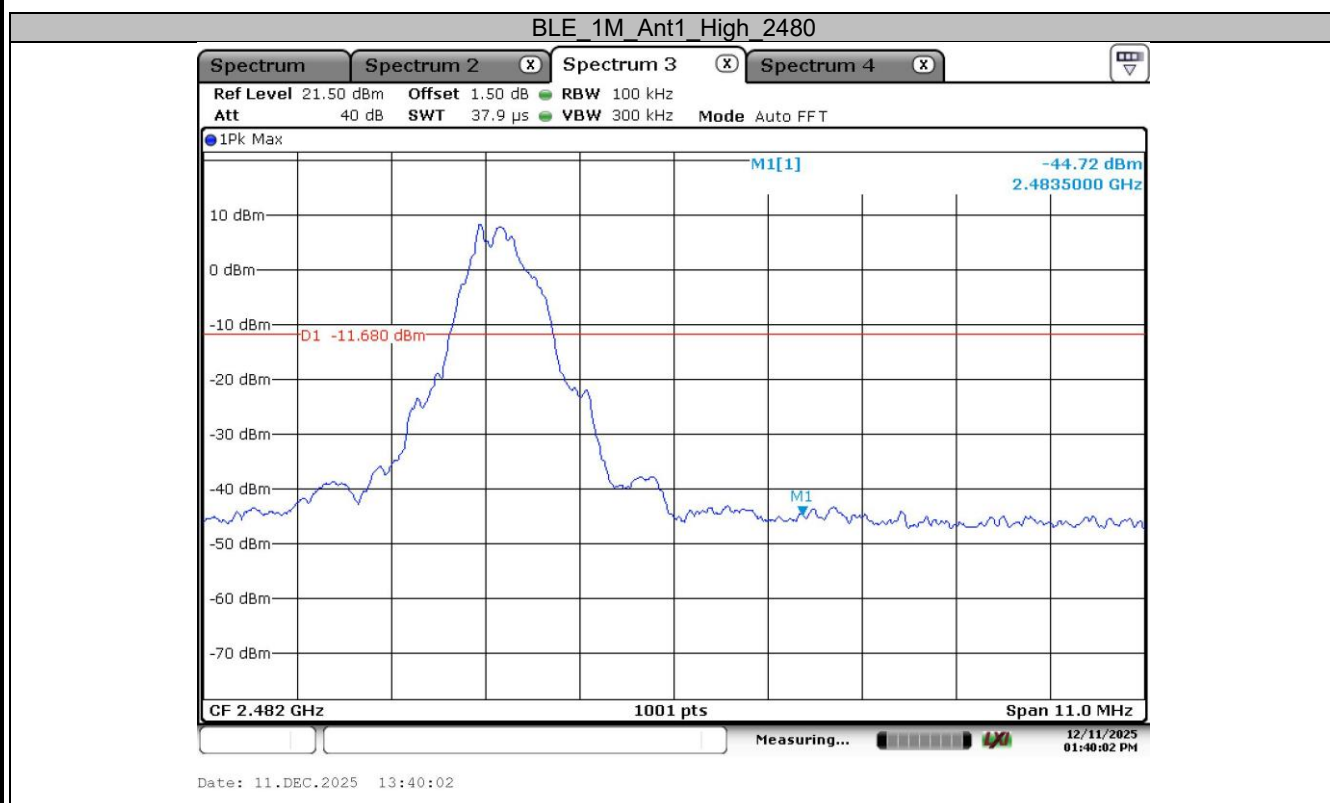


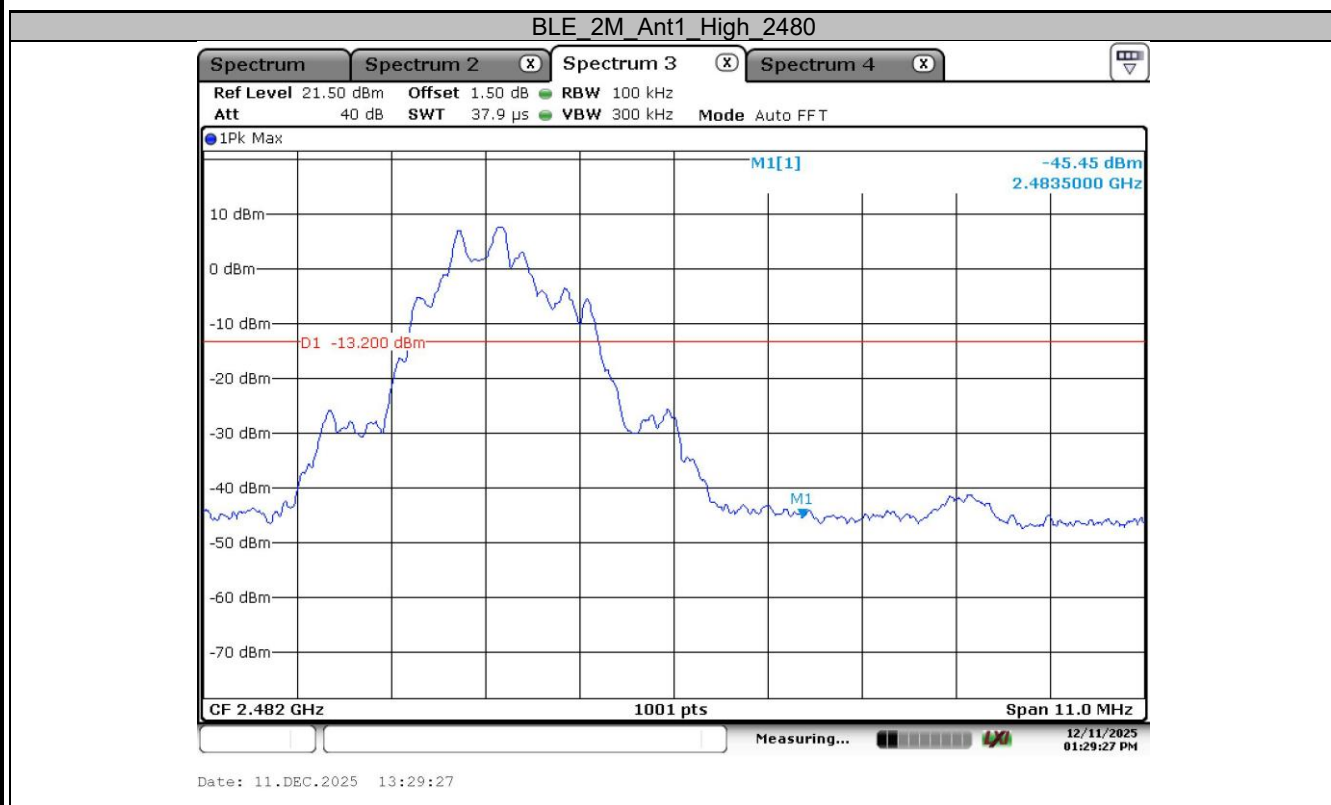


Band edge measurements

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	7.97	-42.26	≤-12.03	PASS
		High	2480	8.32	-44.72	≤-11.68	PASS
BLE_2M	Ant1	Low	2402	6.70	-31.75	≤-13.30	PASS
		High	2480	6.80	-49.45	≤-13.20	PASS







Appendix AA.5: Test Results of Radiated Spurious Emissions

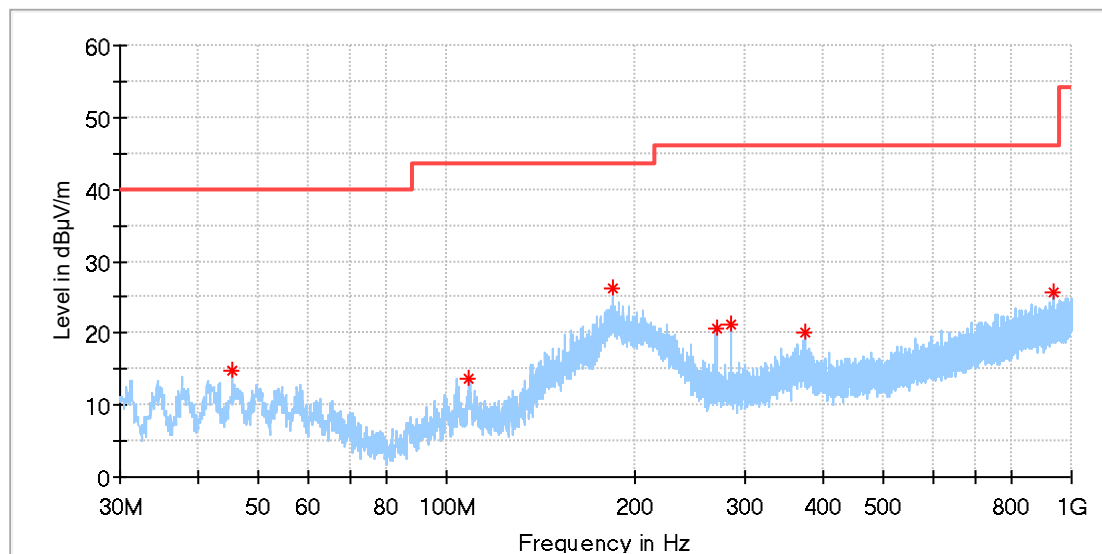
Note:

- 1) This testing was carried out on different modulations, but only the worst case was presented in this report.
- 2) Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

30 MHz to 1GHz

EUT Information

EUT Name:	2.4GHz receiver
Model:	EDF700083
Test Mode:	BLE 1M_Mid_channel
Order No/Sample No:	168585865/A004147965-004
Test Voltage::	DC 5V From USB
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical Freqs

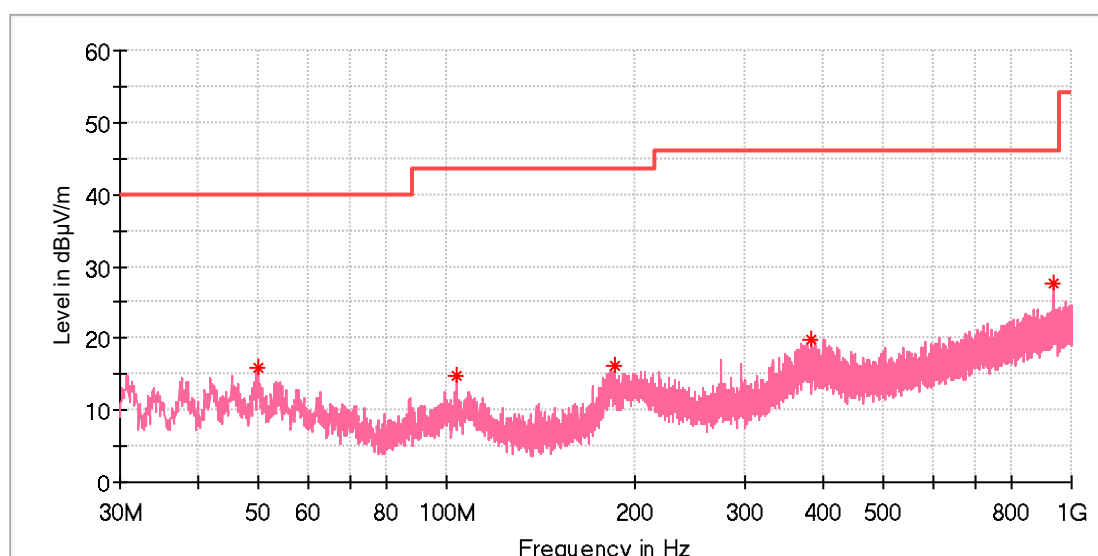
Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
45.412222	14.69	40.00	25.31	100.0	H	339.0	-18.9
108.785556	13.76	43.50	29.74	100.0	H	144.0	-19.1
183.960556	26.24	43.50	17.26	100.0	H	346.0	-20.2
269.805556	20.68	46.00	25.32	100.0	H	46.0	-17.0
284.571111	21.20	46.00	24.80	100.0	H	38.0	-16.6
374.996667	20.21	46.00	25.79	100.0	H	159.0	-14.3
938.458889	25.79	46.00	20.21	100.0	H	114.0	-4.4

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

EUT Information

EUT Name: 2.4GHz receiver
Model: EDF700083
Test Mode: BLE 1M_Mid_channel
Order No/Sample No: 168585865/A004147965-004
Test Voltage:: DC 5V From USB
Remark: Temp 24 Humi:50%
Test Standard: FCC 15.247
Tested By: Kei Zhang
Reviewed By: Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
49.992778	15.90	40.00	24.10	100.0	V	268.0	-18.4
103.612222	14.90	43.50	28.60	100.0	V	289.0	-19.0
186.008333	16.22	43.50	27.28	100.0	V	182.0	-20.0
382.864444	19.87	46.00	26.13	100.0	V	0.0	-14.2
937.542778	27.71	46.00	18.29	100.0	V	147.0	-4.4

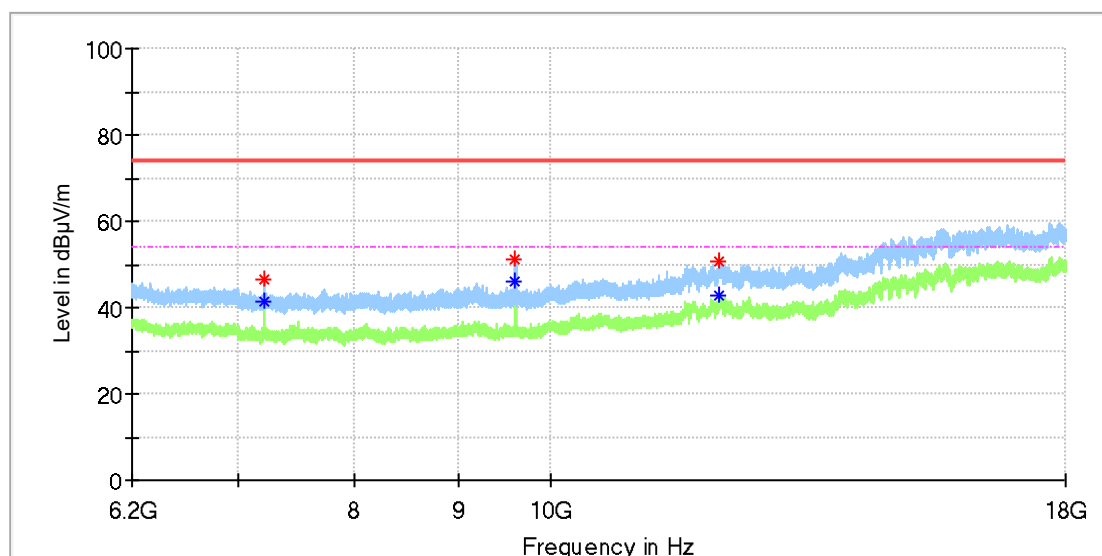
Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---	---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.7	122.0	118.0	120.0	2.0	30.0	V	135	0.0

EUT Information

EUT Name:	2.4GHz receiver
Model:	EDF700083
Test Mode:	BLE 1M_Low_channel
Order No/Sample No:	168585865/A004147965-004
Test Voltage::	DC 5V From USB
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

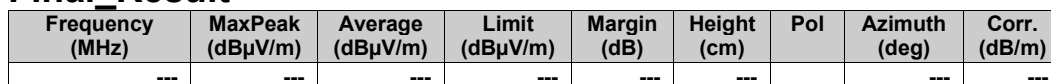
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7204.475000	46.42	---	74.00	27.58	150.0	H	185.0	8.8
7206.441667	---	41.37	54.00	12.63	150.0	H	112.0	8.8
9607.250000	---	46.07	54.00	7.93	150.0	H	149.0	10.4
9607.250000	51.17	---	74.00	22.83	150.0	H	149.0	10.4
12122.125000	---	42.92	54.00	11.08	150.0	H	58.0	16.0
12122.125000	50.83	---	74.00	23.17	150.0	H	58.0	16.0

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

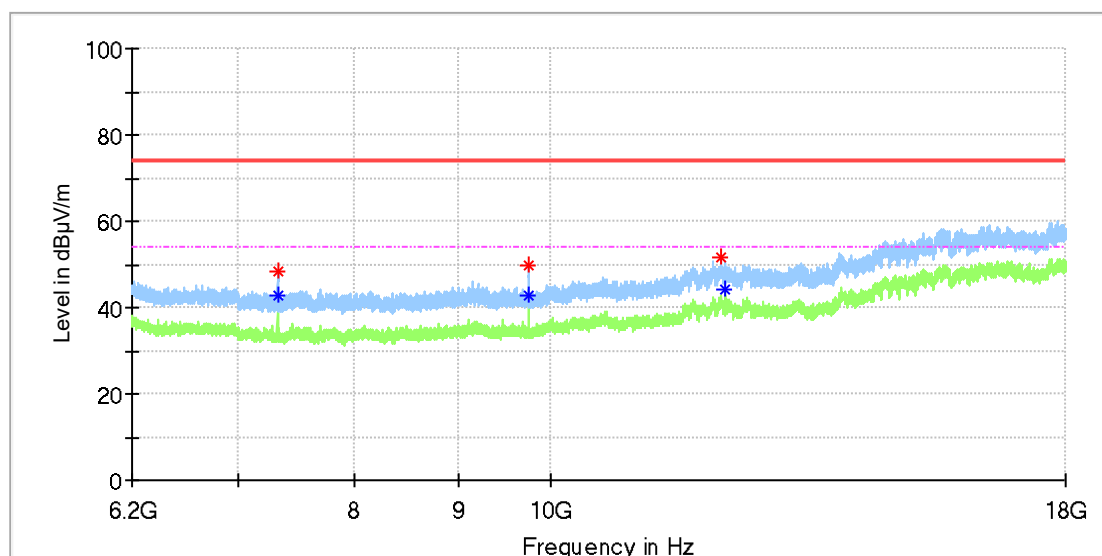
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.7	122.5	122.5	122.5	0.0	100.0	V	135.0	0.0

EUT Name:	2.4GHz receiver
Model:	EDF700083
Test Mode:	BLE 1M_Mid_channel
Order No/Sample No:	168585865/A004147965-004
Test Voltage::	DC 5V From USB
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



EUT Information

EUT Name:	2.4GHz receiver
Model:	EDF700083
Test Mode:	BLE 1M_Mid_channel
Order No/Sample No:	168585865/A004147965-004
Test Voltage::	DC 5V From USB
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

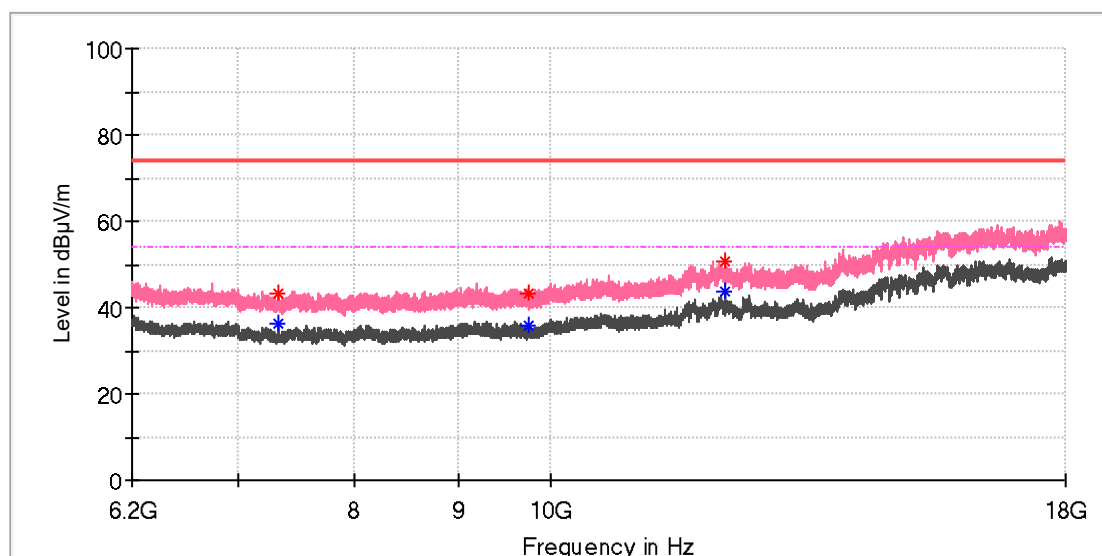
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.033333	48.60	---	74.00	25.40	150.0	H	223.0	8.2
7320.508333	---	42.86	54.00	11.14	150.0	H	191.0	8.2
9759.175000	---	42.80	54.00	11.20	150.0	H	282.0	10.4
9759.175000	49.57	---	74.00	24.43	150.0	H	282.0	10.4
12149.658333	51.63	---	74.00	22.37	150.0	H	69.0	16.7
12198.333333	---	44.12	54.00	9.88	150.0	H	113.0	15.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

EUT Information

EUT Name:	2.4GHz receiver
Model:	EDF700083
Test Mode:	BLE 1M_Mid_channel
Order No/Sample No:	168585865/A004147965-004
Test Voltage::	DC 5V From USB
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

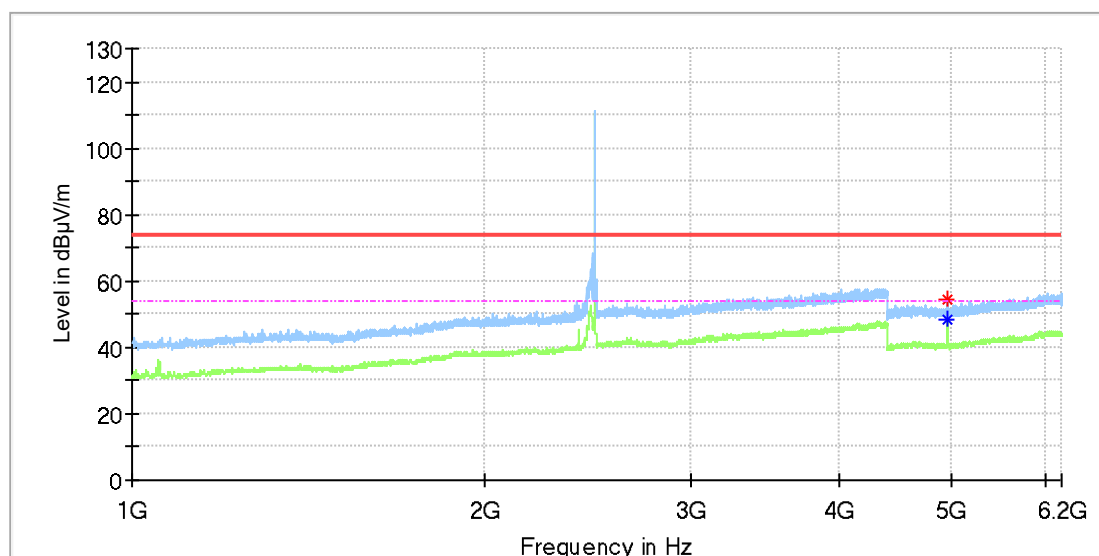
Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7319.033333	---	36.06	54.00	17.94	150.0	V	188.0	8.2
7321.000000	43.06	---	74.00	30.94	150.0	V	312.0	8.2
9760.650000	43.33	---	74.00	30.67	150.0	V	257.0	10.4
9760.650000	---	35.96	54.00	18.04	150.0	V	257.0	10.4
12200.791667	---	43.71	54.00	10.29	150.0	V	210.0	15.7
12201.283333	50.65	---	74.00	23.35	150.0	V	222.0	15.7

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

EUT Information

EUT Name:	2.4GHz receiver
Model:	EDF700083
Test Mode:	BLE 1M_High_channel
Order No/Sample No:	168585865/A004147965-004
Test Voltage::	DC 5V From USB
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

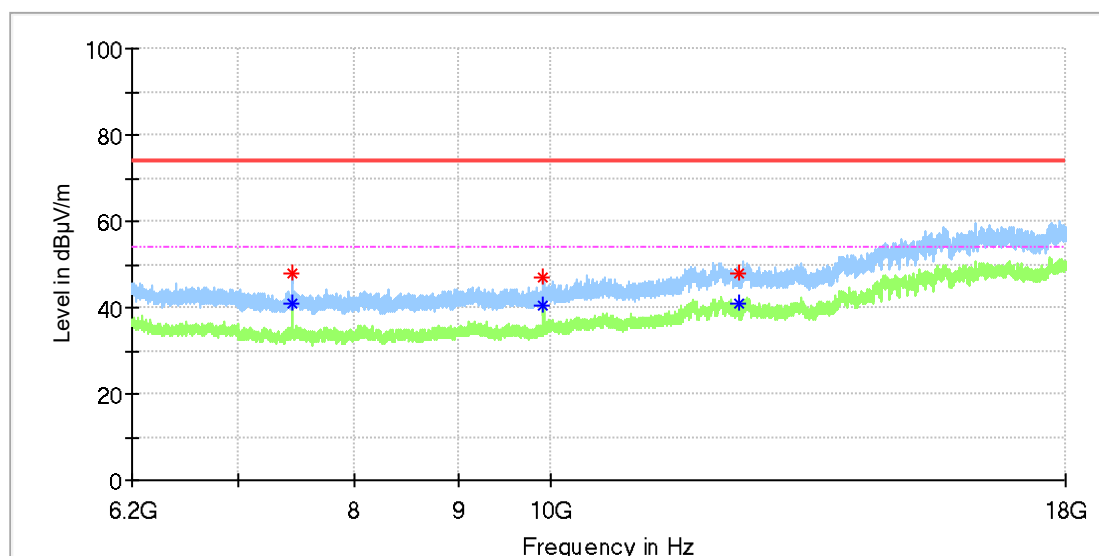
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4960.000000	54.39	---	74.00	19.61	150.0	H	336.0	13.3
4960.000000	---	48.54	54.00	5.46	150.0	H	336.0	13.3

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr (dB/m)
100.000	100.000	100.000	100.000	100.000	100.000		100.000	100.000

EUT Information

EUT Name:	2.4GHz receiver
Model:	EDF700083
Test Mode:	BLE 1M_High_channel
Order No/Sample No:	168585865/A004147965-004
Test Voltage::	DC 5V From USB
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
7439.491667	---	40.80	54.00	13.20	150.0	H	94.0	8.4
7439.491667	47.79	---	74.00	26.21	150.0	H	94.0	8.4
9919.950000	46.78	---	74.00	27.22	150.0	H	150.0	10.8
9919.950000	---	40.62	54.00	13.38	150.0	H	150.0	10.8
12398.933333	48.12	---	74.00	25.88	150.0	H	38.0	15.4
12399.916667	---	40.80	54.00	13.20	150.0	H	117.0	15.4

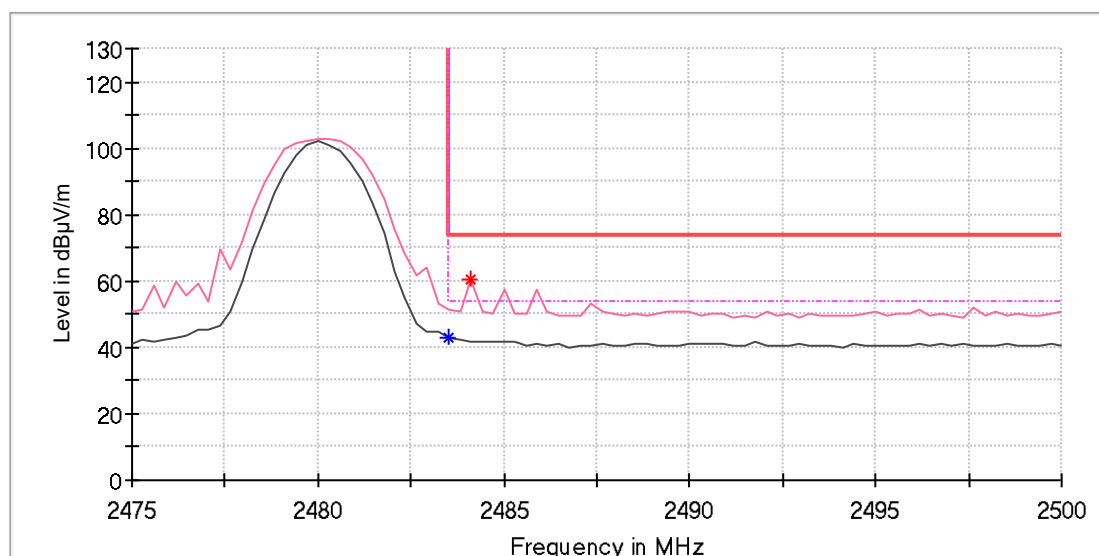
Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.5	59.5	59.5	60.0	-0.5	1.0	h	135	0.0

EUT Information

EUT Name:	2.4GHz receiver
Model:	EDF700083
Test Mode:	BLE 1M_High_channel
Order No/Sample No:	168585865/A004147965-004
Test Voltage::	DC 5V From USB
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.529412	---	42.64	54.00	11.36	150.0	V	300.0	9.0
2484.117647	60.62	---	74.00	13.38	150.0	V	328.0	9.0

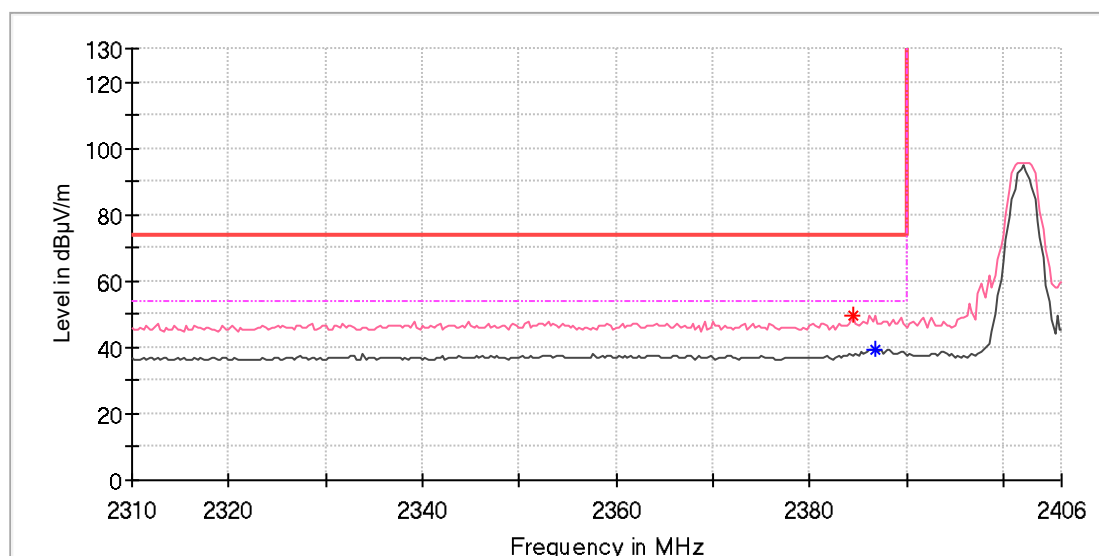
Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.5	118.0	115.0	115.0	3.0	100	V	135	0.0

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
100.000	100.000	100.000	100.000	100.000	100.000		100.000	100.000

EUT Information

EUT Name:	2.4GHz receiver
Model:	EDF700083
Test Mode:	BLE 2M_Low_channel
Order No/Sample No:	168585865/A004147965-004
Test Voltage::	DC 5V From USB
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

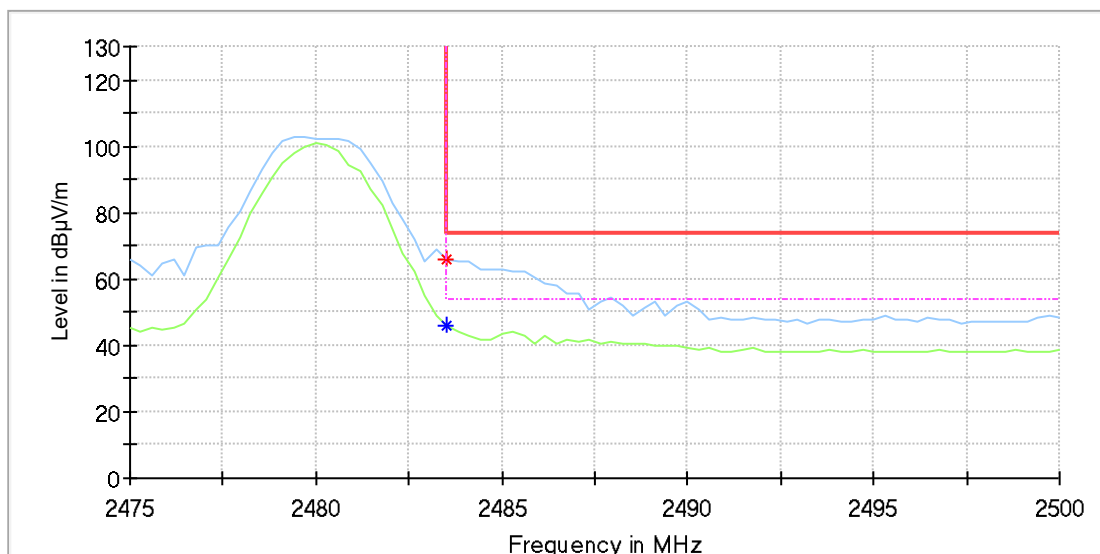
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2384.411765	49.69	---	74.00	24.31	150.0	V	138.0	8.5
2386.764706	---	39.52	54.00	14.48	150.0	V	353.0	8.5

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
100.0	100.0	100.0	100.0	100.0	100.0		100.0	100.0

EUT Information

EUT Name:	2.4GHz receiver
Model:	EDF700083
Test Mode:	BLE 2M_High_channel
Order No/Sample No:	168585865/A004147965-004
Test Voltage::	DC 5V From USB
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

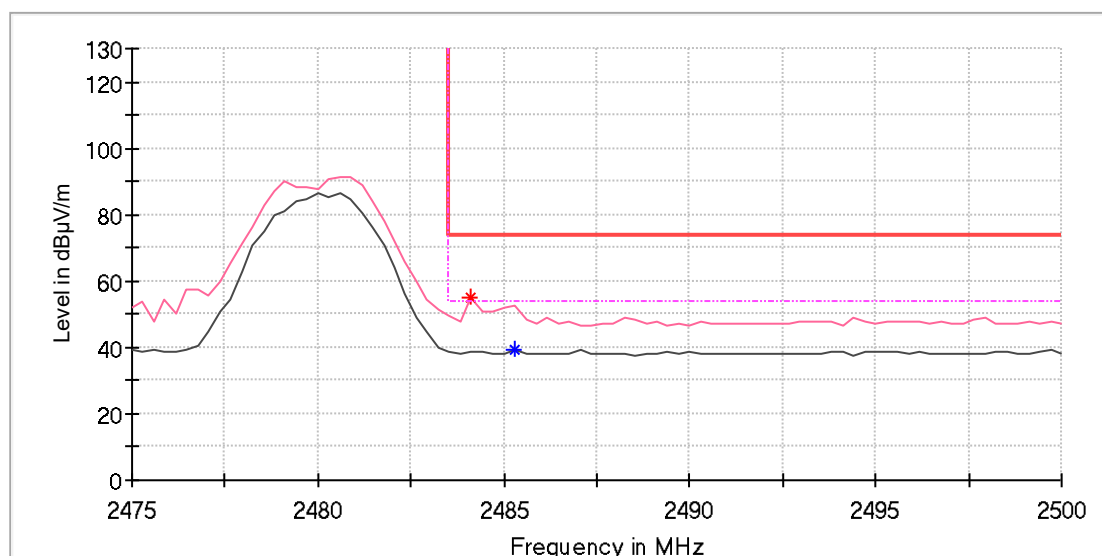
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.529412	---	45.77	54.00	8.23	150.0	H	0.0	9.0
2483.529412	66.13	---	74.00	7.87	150.0	H	0.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.7	122.0	118.0	120.0	2.0	30.0	V	180.0	0.0

EUT Information

EUT Name:	2.4GHz receiver
Model:	EDF700083
Test Mode:	BLE 2M_High_channel
Order No/Sample No:	168585865/A004147965-004
Test Voltage::	DC 5V From USB
Remark:	Temp 24 Humi:50%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

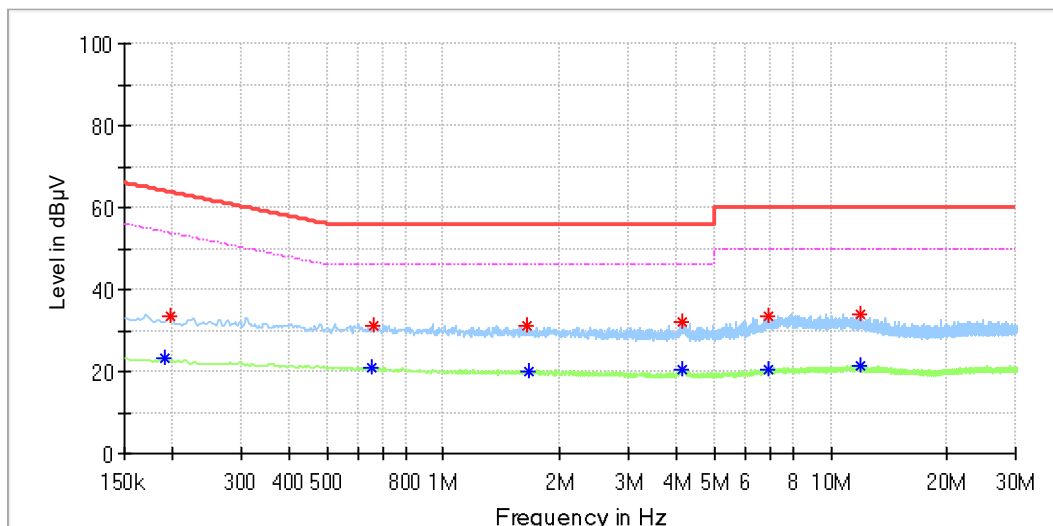
Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2484.117647	54.84	---	74.00	19.16	150.0	V	50.0	9.0
2485.294118	---	39.33	54.00	14.67	150.0	V	96.0	9.0

Final Result

Frequency (MHz)	MaxPeak (dBμV/m)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
93.7	122.0	118.0	120.0	2.0	1.0	V	135	0.0

EUT Information

EUT Name:	2.4GHz receiver
Order Number:	168585865
Model:	EDF700088
Test Mode:	Charging + Bluetooth connecting
Test Voltage:	AC 120V/ 60Hz
Test Standard:	FCC Part 15
Test By:/Review By:	Aric Wang/Murphy Chen
Tem./Hum./Pressure:	24.3°C/51.0%/101kPa
Remark:	



Critical_Freqs

Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.190	---	23.1	54.05	30.95	N	9.9
0.197	33.6	---	63.73	30.12	N	9.9
0.650	---	21.2	46.00	24.84	N	9.9
0.662	31.1	---	56.00	24.93	N	9.9
1.647	31.0	---	56.00	24.96	N	9.9
1.665	---	19.8	46.00	26.23	N	9.9
4.120	---	20.6	46.00	25.36	N	9.7
4.152	31.9	---	56.00	24.12	N	9.7
6.889	33.7	---	60.00	26.34	N	9.9
6.936	---	20.7	50.00	29.32	N	9.9
11.913	34.0	---	60.00	26.01	N	9.6
11.936	---	21.2	50.00	28.80	N	9.6

Final Result

[illegible]