

Test report No:
2530770R.702A

FCC TEST REPORT

Product Name	Smart Controller
Trademark	N/A
Model and /or type reference	GS-ONE
FCC ID	2BP40-GS-ONE
Applicant's name / address	Aerora North America, Inc. 2570 N. First St, Suite 200 San Jose, CA 95131
Test method requested, standard	47 CFR FCC Part 15 (Section 15.247) ANSI C63.10: 2020
Verdict Summary	IN COMPLIANCE
Documented by (name / position & signature)	Tim Cao / Project Manager 
Approved by (name / position & signature)	Frank He / Technical Manager 
Date of issue	2025-09-08
Report Version	V1.0
Report template No	Template_FCC Part 15C-RF-V1.0

INDEX

	page
General conditions	4
Environmental conditions	4
Possible test case verdicts	5
Abbreviations.....	5
Document History.....	6
Remarks and Comments	6
Used Equipment.....	7
Uncertainty	9
1 General Information	10
2 Description of Test Setup.....	11
3 Verdict summary section.....	12
3.1 Standards	12
3.2 Deviation(s) from the Standard(s) / Test Specification(s).....	12
3.3 Overview of results	13
3.4 Test Facility.....	14
4 Test Items Of Limit/Setup/Procedure.....	15
4.1 DTS Bandwidth.....	15
4.1.1 Limit	15
4.1.2 Test Setup	15
4.1.3 Test Procedure	15
4.2 Occupied Channel Bandwidth	16
4.2.1 Limit	16
4.2.2 Test Setup	16
4.2.3 Test Procedure	16
4.3 Maximum Conducted Output Power.....	17
4.3.1 Limit	17
4.3.2 Test Setup	17
4.3.3 Test Procedure	17
4.4 Maximum Power Spectral Density.....	18
4.4.1 Limit	18
4.4.2 Test Setup	18
4.4.3 Test Procedure	18
4.5 Band Edge Measurements	19
4.5.1 Limit	19

4.5.2 Test Setup	19
4.5.3 Test Procedure	19
4.6 Conducted Spurious Emission	20
4.6.1 Limit	20
4.6.2 Test Setup	20
4.6.3 Test Procedure	20
4.7 Duty cycle	21
4.7.1 Limit	21
4.7.2 Test Setup	21
4.7.3 Test Procedure	21
4.8 Emissions in Restricted Bands	22
4.8.1 Limit	22
4.8.2 Test Setup	24
4.8.3 Test Procedure	25
4.9 AC Power Line Conducted Emission.....	26
4.9.1 Limit	26
4.9.2 Test Setup	26
4.9.3 Test Procedure	26
4.10 Antenna Requirement.....	27
4.10.1 Limit:	27
4.10.2 Antenna Connector Construction:	27
5 Test setup photo and EUT Photo	28
6 Test Result	29
Appendix A: DTS Bandwidth.....	29
Appendix B: Maximum conducted output power	34
Appendix C: Maximum power spectral density.....	35
Appendix D: Band edge measurements	40
Appendix E: Conducted Spurious Emission	72
Appendix F: Duty Cycle	128
Appendix G: Emissions in Restricted Bands	133
Appendix H: AC Power Line Conducted Emission	159

COMPETENCES AND GUARANTEES

DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

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GENERAL CONDITIONS

Test Location	No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China
Date (receive sample)	Mar. 25, 2025
Date (start test)	Apr. 05, 2025
Date (finish test)	Apr. 25, 2025

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or Competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA.

ENVIRONMENTAL CONDITIONS

The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:

Ambient temperature	15 °C – 35 °C
Relative Humidity air	30% - 60%

If explicitly required in the basic standard or applied product / product family standard the climatic values are recorded and documented separately in this test report.

POSSIBLE TEST CASE VERDICTS

Test case does not apply to test object	N/A
Test object does meet requirement	P (Pass) / PASS
Test object does not meet requirement	F (Fail) / FAIL
Not measured	N/M

ABBREVIATIONS

For the purposes of the present document, the following abbreviations apply:

EUT	: Equipment Under Test
QP	: Quasi-Peak
CAV	: CISPR Average
AV	: Average
CDN	: Coupling Decoupling Network
SAC	: Semi-Anechoic Chamber
OATS	: Open Area Test Site
BW	: Bandwidth
AM	: Amplitude Modulation
PM	: Pulse Modulation
HCP	: Horizontal Coupling Plane
VCP	: Vertical Coupling Plane
U_N	: Nominal voltage
Tx	: Transmitter
Rx	: Receiver
N/A	: Not Applicable
N/M	: Not Measured

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
2530770R.702A	V1.0	Initial issue of report.	2025-09-08

REMARKS AND COMMENTS

1. The equipment under test (EUT) does meet the essential requirements of the stated standard(s)/test(s).
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with 47 CFR FCC Part 15 (Section 15.247).
3. The measurement result is considered in conformance with the requirement if it is within the prescribed limit, It is not necessary to account the uncertainty associated with the measurement result.
4. The test results presented in this report relate only to the object tested.
5. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification (Suzhou) Co., Ltd.
6. This report will not be used for social proof function in China market.
7. DEKRA declines any responsibility with the following test data provided by customer that may affect the validity of result:
 - Chapter 1 General Information;

USED EQUIPMENT

AC Power Line Conducted Emission / TR1

Instrument	Manufacturer	Model No.	Serial No.	Next Cal. Date
EMI Test Receiver	R&S	ESCI	100726	2026.05.17
Two-Line V-Network	R&S	ENV216	101044	2025.10.25
Current Probe	R&S	EZ-17	100678	2025.10.18
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2026.03.15
50ohm Termination	Xinghu	N/A	N/A	2026.01.10
Temperature/Humidity Meter	RTS	RTS-1909	THM-012	2026.04.29
Coaxial Cable	Suhner	RG 223	TR1-C1	2026.03.15
Dekra test software	Dekra	N/A	N/A	N/A

Conducted Test / TR8

Instrument	Manufacturer	Model No.	Serial No.	Next Cal. Date
Wireless Connectivity Tester	R&S	CMW 270	102593	2026.05.09
Coaxial Cable	N/A	N/A	2477	2025.06.10
Coaxial Cable	N/A	N/A	2478	2025.06.10
High and low temperature and fast temperature change test box	ASTUOD	ASTD-FBT-225K	N/A	2026.03.14
Temperature/Humidity Meter	RTS	RTS-8S	N/A	2025.07.10
Power Meter	Anritsu	MA2411B	1339267	2025.08.23
MAX Signal Analyzer	Keysight	N9010A	THM-032	2025.10.25
RF Control Unit	Tonscend	JS0806-2	MY48030494	2026.01.25
MXG-B RF Vector Signal Generator	Keysight	N5182B	22G8060594	2026.03.22
Frequency extender for EXG or MXG	Keysight	N5182BX07	MY61252529	2026.03.22
EXG-B MW Analog Signal Generator	Keysight	N5173B	MY59362500	2025.07.05
Test Software	Tonscend	TS1120	MY61252566	N/A

Radiated Emission(9KHz-1GHz) / AC2

Instrument	Manufacturer	Model No.	Serial No.	Next Cal. Date
EMI Test Receiver	R&S	ESCI	100573	2026.01.10
Loop Antenna	R&S	HFH2-Z2E	101149	2026.04.15
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2026.03.23
Temperature/Humidity Meter	RTS	RTS-1909	THM-021	2026.04.29
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2026.03.15
Dekra test software	Dekra	N/A	N/A	N/A

Radiated Emission Band Edge / AC6

Instrument	Manufacturer	Model No.	Serial No.	Next Cal. Date
Anechoic chamber	Quietek	9m*5.5m*5.5m	AC6	2029.06.29
Signal Analyzer	Agilent	N9010A	MY55370495	2025.10.18

Loop Antenna	R&S	HFH2-Z2E	101149	2026.04.15
DRG Horn Antenna	RFSPIN	DRH18-E	CE2C07A18EN	2025.12.06
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9170	750	2025.11.23
Pre-Amplifier	Schwarzbeck	BBV 9721	'00114	2026.05.16
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9168	1231	2026.05.27
Temperature/Humidity Meter	RTS	RTS-8S	RF07	2026.06.16
Temperature/Humidity Meter	RTS	RTS-8S	RF04	2026.06.16
Pre-amplifier	Tonscend	TAP01008028	806JSAP041204251019	2026.05.16
Pre-amplifier	Tonscend	TAP01018048S	806JSAP040204251009	2026.05.16
Wideband Radio Communication Tester	R&S	CMW 500	170870	2026.05.09
Test Software	Tonscend	JS36	JS36-RSE	N/A

AC Power Line Conducted Emission / TR1

Instrument	Manufacturer	Model No.	Serial No.	Firmware Version	Software version
EMI Test Receiver	R&S	ESCI	100726	4.42 SP3	N/A
Dekra test software	Dekra	N/A	N/A	N/A	3

Conducted Test / TR8

Instrument	Manufacturer	Model No.	Serial No.	Firmware Version	Software version
Wireless Connectivity Tester	R&S	CMW 270	102593	V 4.0.60	N/A
MAX Signal Analyzer	Keysight	N9010A	MY48030494	A.14.03	N/A
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY61252529	B.01.96	N/A
EXG-B MW Analog Signal Generator	Keysight	N5173B	MY61252566	B.01.95	N/A
Test Software	Tonscend	TS1120	JS1120-3	N/A	V3.0.22

Radiated Emission(9KHz-1GHz) / AC2

Instrument	Manufacturer	Model No.	Serial No.	Firmware Version	Software version
EMI Test Receiver	R&S	ESCI	100573	4.42 SP2	N/A
Dekra test software	Dekra	N/A	N/A	N/A	3

Radiated Emission Band Edge / AC6

Instrument	Manufacturer	Model No.	Serial No.	Firmware Version	Software version
Signal Analyzer	Agilent	N9010A	MY55370495	A.18.17	N/A
Wideband Radio Communication Tester	R&S	CMW 500	170870	X 4.0.62.11	N/A
Dekra test software	Dekra	N/A	N/A	N/A	5.0.0

UNCERTAINTY

Uncertainties have been calculated according to the DEKRA internal document. The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95% .

Test item Test Location	Uncertainty
AC Power Line Conducted Emission	9kHz~150kHz: 2.8 dB 150kHz~30MHz: 2.4 dB
Peak Power Output	± 1.3 dB
Radiated Emission(30MHz~1GHz)	Horizontal: 30MHz~300MHz: 3.5 dB, 300MHz~1GHz: 3.6 dB Vertical: 30MHz~300MHz: 3.6 dB, 300MHz~1GHz: 3.5 dB
Radiated Emission(1GHz~40GHz)	Horizontal: 1GHz~40GHz: 5.0 dB Vertical: 1GHz~40GHz: 4.8 dB
RF antenna conducted test	± 1.3 dB
Radiated Emission Band Edge	± 5.0 dB
DTS Bandwidth	± 1.0 kHz
Occupied Bandwidth	± 1.0 kHz
Power Density	± 1.3 dB

1 GENERAL INFORMATION

Product Name	Smart Controller				
Trademark	N/A				
Model No.	GS-ONE				
FCC ID.....	2BP40-GS-ONE				
Hardware Version.....	V1.3				
Software Version	T05				
Operating Temperature	-40℃ ~ 70℃				
Power Supply	DC 7.4 V, 3 A 22.2 W from internal rechargeable battery which can be charged by AC/DC adapter.				
Manufacturer	Aerora North America, Inc.				
Manufacturer address	2570 N. First St, Suite 200 San Jose, CA 95131				
Factory.....	ROTOTEK VIETNAM CO., LTD				
Factory address.....	House S4_2nd floor, Hap Linh Industrial Park, Bac Ninh City, Vietnam				
Wireless specification	Bluetooth				
Operating frequency range(s) :	2402~2480MHz				
Type of Modulation	GFSK				
PHYs	☒	LE 1M	☒	LE 2M	☒ LE Coded S=2/8
Data Rate	☒	1Mbit/s	☒	2Mbit/s	☒ 500/125 Kbit/s
Number of channels	40				
Antenna Type	FPC				
Antenna Gain	3.0 dBi				

Remark:

As above information is provided and confirmed by the applicant. DEKRA is not liable to the accuracy, suitability, reliability or/and integrity of the information.

2 DESCRIPTION OF TEST SETUP

Auxiliary equipment	Type / Version	Manufacturer	Supplied by
(1) N/A	N/A	N/A	N/A
(2) N/A	N/A	N/A	N/A
(3) N/A	N/A	N/A	N/A
software	Type / Version	Manufacturer	Supplied by
QRCT	N/A	N/A	N/A

3 VERDICT SUMMARY SECTION

This chapter presents an overview of standards and results. Refer to the next chapters for details of measured test results and applied test levels.

3.1 Standards

Standard	Year	Description
CFR 47, FCC Part 15 C	2024	Operation within the bands 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz.
ANSI C63.10	2020	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

3.2 Deviation(s) from the Standard(s) / Test Specification(s)

The following deviation(s) was / were made from the published requirements of the listed standards: N/A.
(Please define the deviations from the standard(s) if applicable)

3.3 Overview of results

Requirement – Test Item	Standard(s)	Verdict	Remark
DTS Bandwidth	FCC 15.247(a)(2)	PASS	Test data please refer to Appendix A
Maximum conducted output power	15.247 (b)(3)	PASS	Test data please refer to Appendix B
Maximum power spectral density	FCC 15.247(e)	PASS	Test data please refer to Appendix C
Band edge measurements	FCC 15.247(d) FCC 15.205 FCC 15.209	PASS	Test data please refer to Appendix D
Conducted Spurious Emission	FCC 15.247(d), FCC 15.209	PASS	Test data please refer to Appendix E
Duty cycle	ANSI C63.10	PASS	Test data please refer to Appendix F
Emissions in Restricted Bands	FCC 15.205 FCC 15.209	PASS	Test data please refer to Appendix G
AC Power Line Conducted Emission	FCC 15.207	PASS	Test data please refer to Appendix H
Antenna Requirement	FCC 15.203	PASS	---

3.4 Test Facility

Tset Location : FCC Designation Number: CN1199

4 TEST ITEMS OF LIMIT/SETUP/PROCEDURE

4.1 DTS Bandwidth

VERDICT: PASS

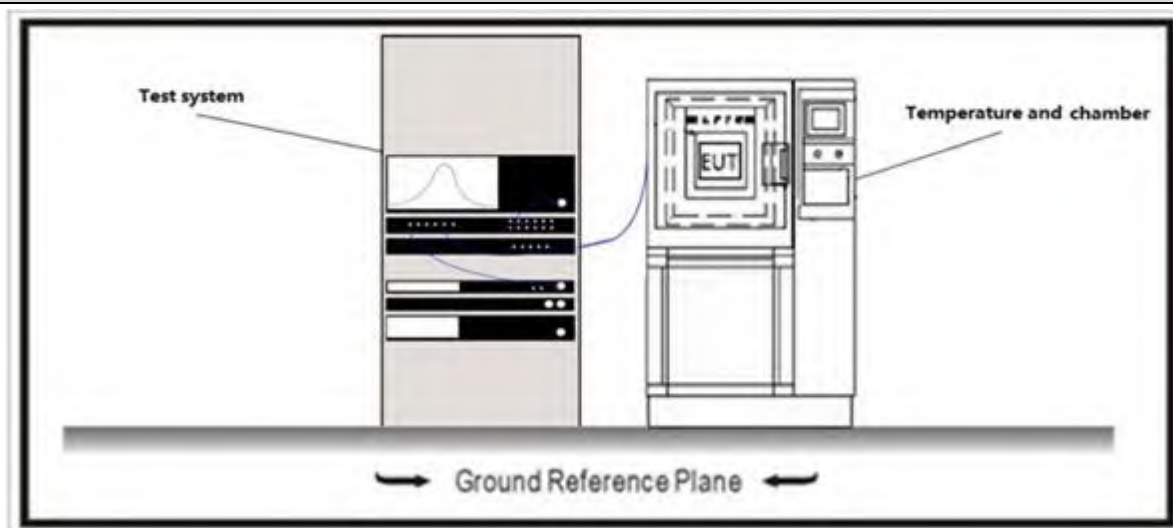
4.1.1 Limit

Standard

FCC Part 15 Subpart C Paragraph 15.247 (a)(2);

Systems using digital modulation techniques operate in the 2400-2483.5 MHz. The minimum 6 dB bandwidth shall be at least 500 kHz

4.1.2 Test Setup



4.1.3 Test Procedure

	Reference Rule		Chapter	Description
☒	ANSI C63.10		11.8	DTS bandwidth
	☒	ANSI C63.10	11.8.1	Option 1
	☐	ANSI C63.10	11.8.2	Option 2

4.2 Occupied Channel Bandwidth

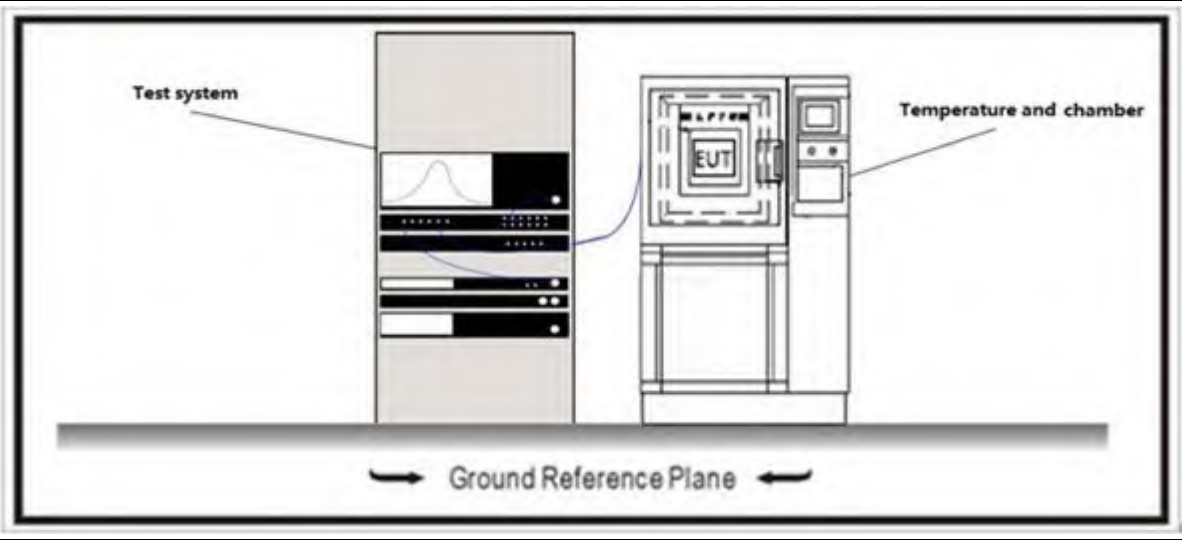
VERDICT: PASS

4.2.1 Limit

Standard RSS-Gen Issue 5 Paragraph 6.7

The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs

4.2.2 Test Setup



4.2.3 Test Procedure

	Reference Rule		Chapter	Description
☒	ANSI C63.10		6.9	Occupied bandwidth tests
	☐	ANSI C63.10	6.9.2	Option 1
	☒	ANSI C63.10	6.9.3	Option 2

4.3 Maximum Conducted Output Power

VERDICT: PASS

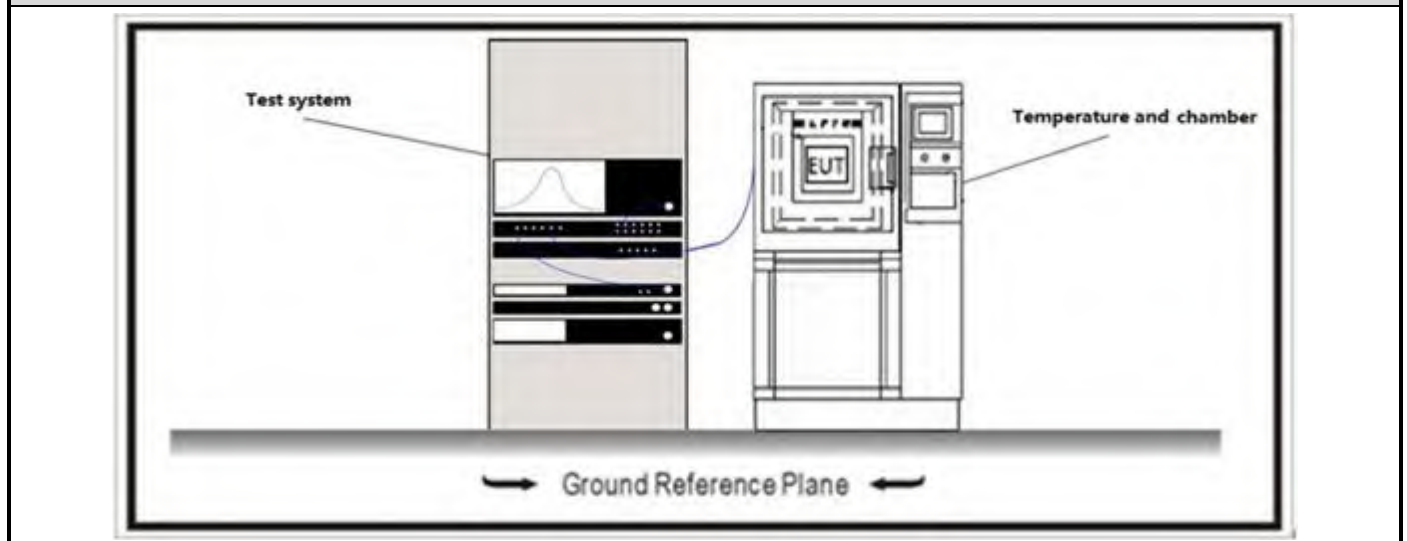
4.3.1 Limit

Standard		FCC Part 15 Subpart C Paragraph 15.247 (b)(3);
☒	GTX <6dBi	Pout≤30dBm
☐	GTX >6dBi	
☐	Non-Fix point-point	Pout≤30-(GTX -6)
☐	Fix point-point	Pout≤30-[(GTX-6)]/3
☐	Point-to-multipoint	Pout≤30-(GTX-6)
☐	Overlap Beams	Pout≤30-[(GTX-6)]/3
☐	Aggregate power transmitted simultaneously on all beams	Pout≤30-[(GTX-6)]/3
☐	single directional beam	Pout≤30-[(GTX-6)]/3+8dB

Note 1 : GTX directional gain of transmitting antennas.

Note 2 : Pout is maximum peak conducted output power .

4.3.2 Test Setup



4.3.3 Test Procedure

	References Rule		Chapter	Description
☒	ANSI C63.10		11.9	Fundamental emission output power
☒	ANSI C63.10		11.9.2	Maximum conducted (average) output power
☒	☒	ANSI C63.10	11.9.2.3	Measurement using a power meter (PM)
☒	☒	☒ ANSI C63.10	11.9.2.3.1	Method AVGPM
☒	☒	☐ ANSI C63.10	11.9.2.3.2	Method AVGPM-G

4.4 Maximum Power Spectral Density

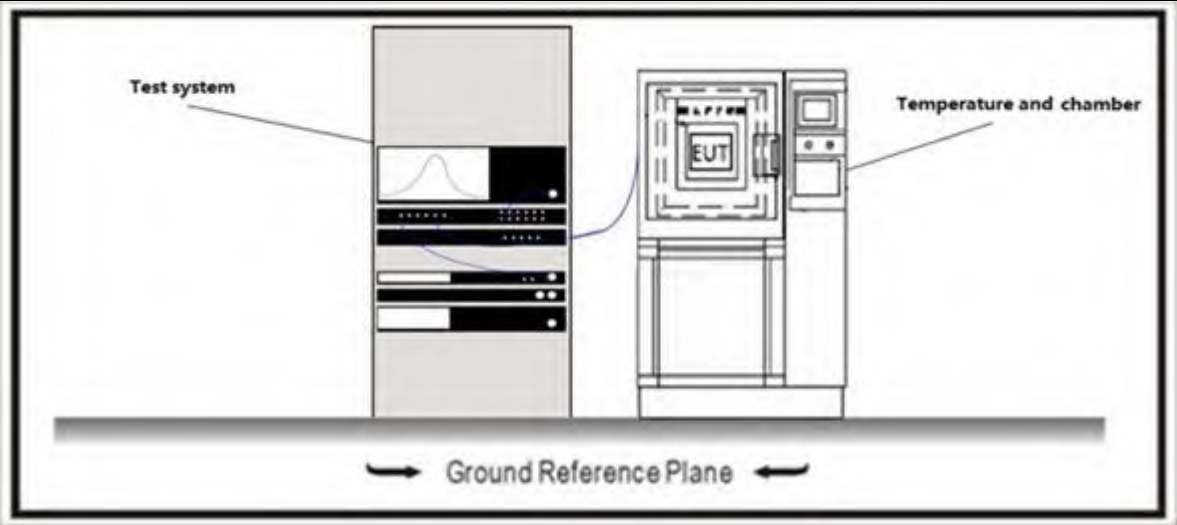
VERDICT: PASS

4.4.1 Limit

Standard FCC Part 15 Subpart C Paragraph 15.247 (b)(3);

Power Spectral Density≤8dBm/3kHz

4.4.2 Test Setup



4.4.3 Test Procedure

	References Rule		Chapter	Description
☒	ANSI C63.10		11.10	Maximum power spectral density level in the fundamental emission
☒	ANSI C63.10		11.10.2	Method PKPSD (peak PSD)

4.5 Band Edge Measurements

VERDICT: PASS

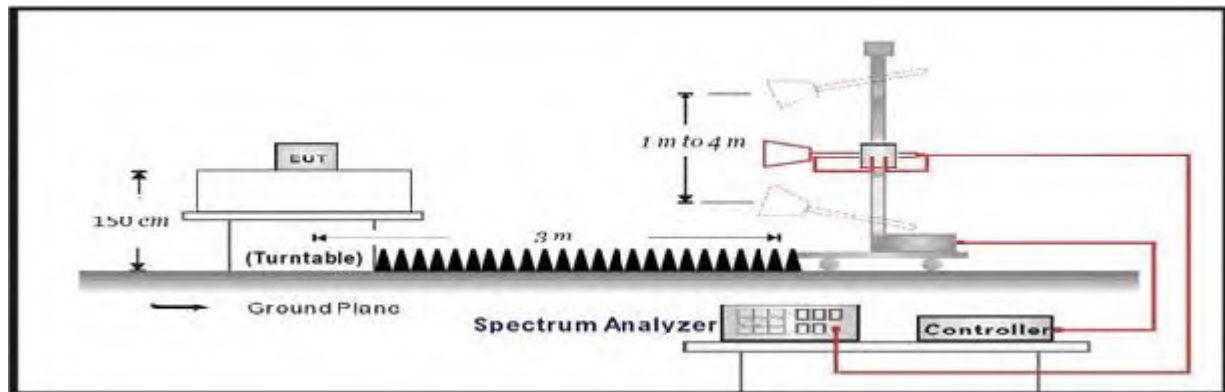
4.5.1 Limit

Standard		FCC Part 15 Subpart C Paragraph 15.247(d) , 15.209;		
Frequency bands (MHz)	Detector	Limit (dBμV/m)	RBW (MHz)	Distance (m)
2310-2390	PK	74	1	3
2483.5-2500	AV	54	1	3

Note: The field strength of emissions appearing within these frequency bands shall not exceed the limits.

4.5.2 Test Setup

Above 1GHz Test Setup:



4.5.3 Test Procedure

	References Rule	Chapter	Description
☒	ANSI C63.10	6.10	Band-edge testing
☒	ANSI C63.10	6.10.5	Restricted-band band-edge measurements
☐	ANSI C63.10	6.10.6	Marker-delta method
☒	ANSI C63.10	11.12	Emissions in restricted frequency bands
☒	ANSI C63.10	11.12.1	Radiated emission measurements
☒	ANSI C63.10	11.12.2.7	Radiated spurious emission test
☐	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
☐	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
☒	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz

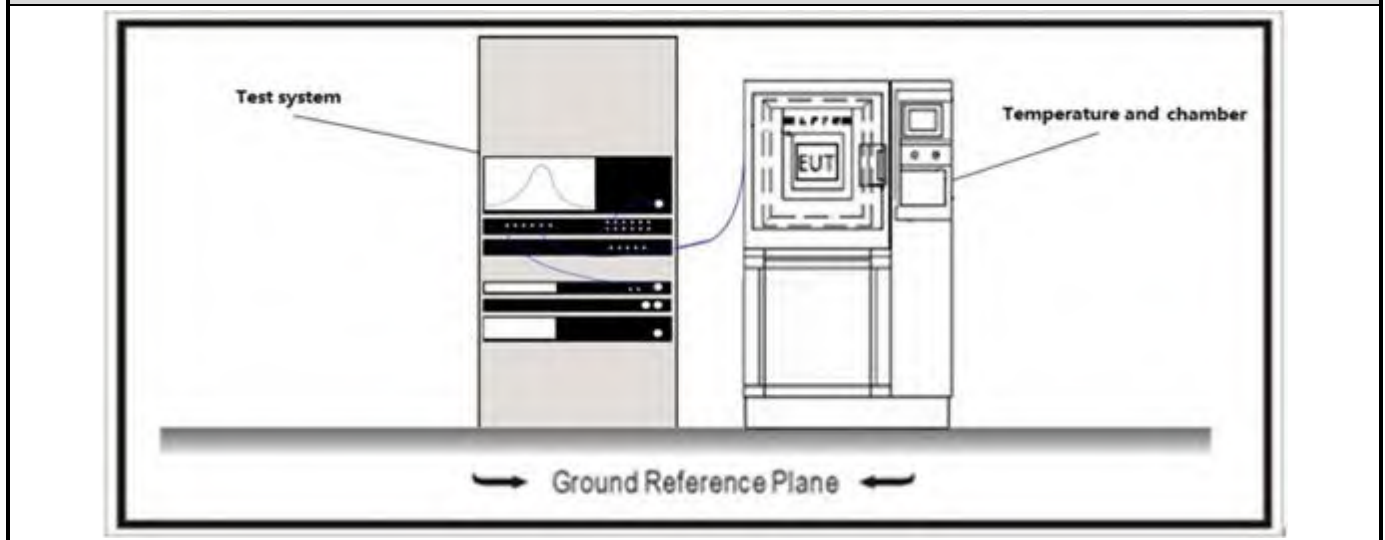
4.6 Conducted Spurious Emission	VERDICT: PASS
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4.6.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.247(d);
RF Output power (Detection methods)	Limit(dB)
RF Output power(Average detector)	30dBc(Note1)
RF Output power(PK detector)	20dBc(Note2)

Note 1: If maximum conducted (average) output power was used to demonstrate compliance as described in 9.2, then the peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 30 dBc).

Note 2: If the maximum peak conducted output power procedure was used, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).

4.6.2 Test Setup**4.6.3 Test Procedure**

References Rule		Chapter	Description
☒	ANSI C63.10	11.11	Emissions in non-restricted frequency bands
☒	ANSI C63.10	11.11.1	General
☒	ANSI C63.10	11.11.2	Reference level measurement
☒	ANSI C63.10	11.11.3	Emission level measurement

4.7 Duty cycle	VERDICT: PASS
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4.7.1 Limit
N/A

4.7.2 Test Setup

The diagram illustrates the test setup. On the left, a 'Test system' is shown with a screen displaying a waveform. A cable connects this system to a 'Temperature and chamber' on the right, which contains a unit labeled 'EUT'. Below these components, a horizontal line with arrows at both ends is labeled 'Ground Reference Plane'.

4.7.3 Test Procedure			
References Rule		Chapter	Description
☒	ANSI C63.10	11.6	Duty cycle (D), transmission duration (T), and maximum power control level

4.8 Emissions in Restricted Bands**VERDICT: PASS****4.8.1 Limit****Standard** FCC Part 15 Subpart C Paragraph 15.205

Restricted Bands of operation

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 – 16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1300 – 1427	8.025 – 8.5
4.17725 – 4.17775	37.5 – 38.25	1435 – 1626.5	9.0 – 9.2
4.20725 – 4.20775	73 – 74.6	1645.5 – 1646.5	9.3 – 9.5
6.215 – 6.218	74.8 – 75.2	1660 – 1710	10.6 – 12.7
6.26775 – 6.26825	108 – 121.94	1718.8 – 1722.2	13.25 – 13.4
6.31175 – 6.31225	123 – 138	2200 – 2300	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2310 – 2390	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2483.5 – 2500	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	2690 – 2900	22.01 – 23.12
8.81425 – 8.81475	162.0125 – 167.17	3260 – 3267	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3332 – 3339	31.2 – 31.8
12.51975 – 12.52025	240 – 285	3345.8 – 3358	36.43 – 36.5
12.57675 – 12.57725	322 – 335.4	3600 – 4400	
13.36 – 13.41			

Restricted Band Emissions Limit

FCC Part 15 Subpart C Paragraph 15.209

Frequency (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Measurement distance (m)
0.009 - 0.49	2400/F(kHz)	48.5 – 13.8	300 _(Note 1)
0.49 - 1.705	24000/F(kHz)	33.8 - 23	30 _(Note 1)
1.705 - 30	30	29.5	30 _(Note 1)
30 - 88	100	40	3 _(Note 2)
88 - 216	150	43.5	3 _(Note 2)
216 - 960	200	46	3 _(Note 2)
Above 960	500	54	3 _(Note 2)

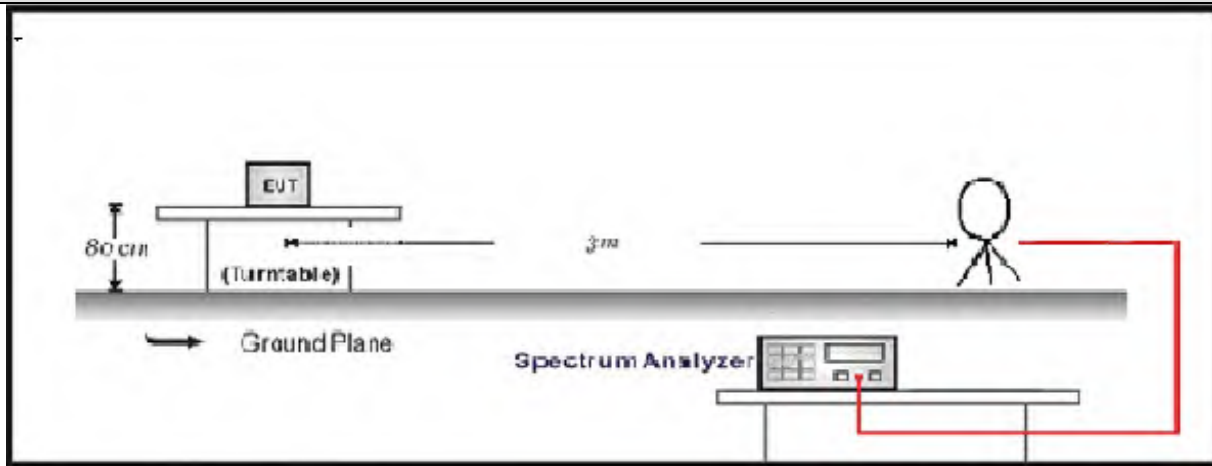
Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment.

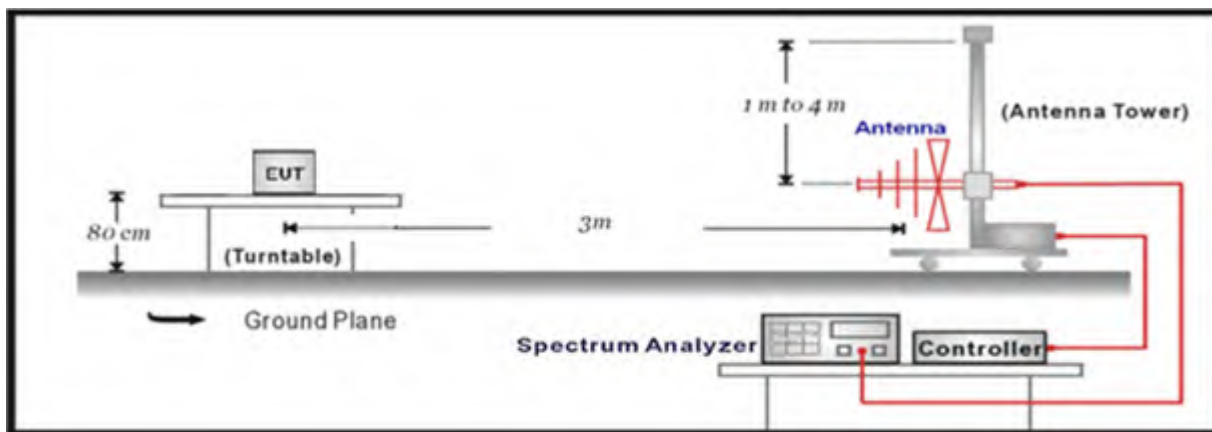
Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

4.8.2 Test Setup

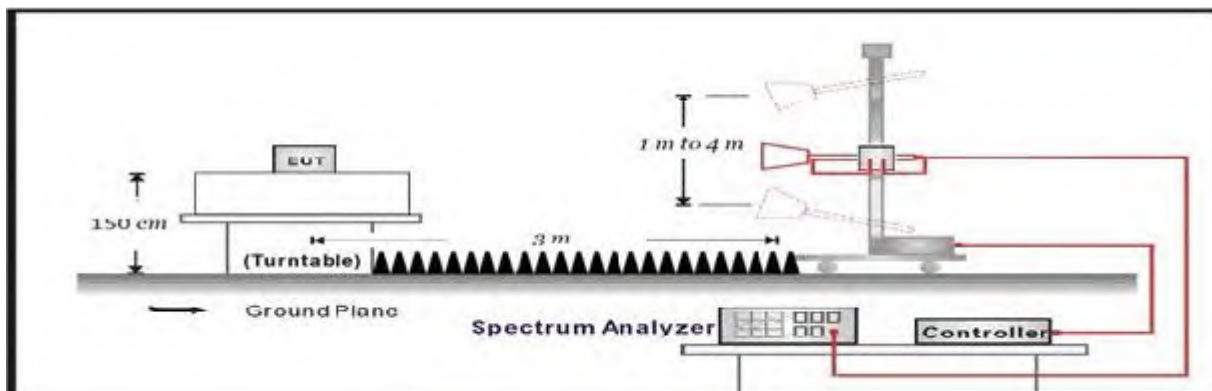
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



4.8.3 Test Procedure

	References Rule		Chapter	Description
☒	ANSI C63.10		11.12	Emissions in restricted frequency bands
	☒	ANSI C63.10	11.12.1	Radiated emission measurements
	☒	ANSI C63.10	11.12.2.7	Radiated spurious emission test
	☒	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
	☒	ANSI C63.10	6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
	☒	ANSI C63.10	6.6	Radiated emissions from unlicensed wireless devices above 1 GHz

4.9 AC Power Line Conducted Emission

VERDICT: PASS

4.9.1 Limit

Standard	FCC Part 15 Subpart C Paragraph 15.207 ;	
Frequency range [MHz]	Limit: QP [dB(μV) ¹⁾]	Limit: AV [dB(μV) ¹⁾]
0,15 - 0,50	66 - 56 ²⁾	56 - 46 ²⁾
0,50 - 5,0	56	46
5,0 - 30	60	50

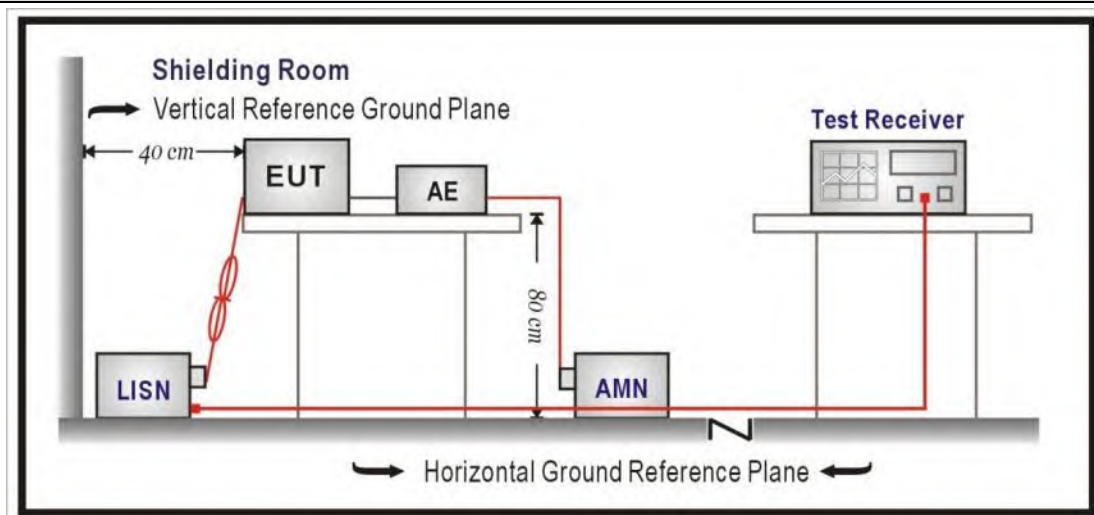
¹⁾ At the transition frequency, the lower limit applies.

²⁾ The limit decreases linearly with the logarithm of the frequency.

NOTE 1: The exclusion band for transmitters shall be considered for transmitters operating at frequencies below 30 MHz.

NOTE 2: Where the AC output port is directly connected (or via a circuit breaker) to the AC power input port of the EUT the AC power output port need not to be tested.

4.9.2 Test Setup



4.9.3 Test Procedure

	References Rule	Chapter	Item
☒	ANSI C63.10	6.2	Standard test method for ac power-line conducted emissions from unlicensed wireless devices

4.10 Antenna Requirement**VERDICT: PASS****4.10.1 Limit:**

Standard	FCC Part 15 Subpart C Paragraph 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 use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.	

4.10.2 Antenna Connector Construction:

☒	The use of a permanently attached antenna
☐	The antenna use of a unique coupling to the intentional radiator
☐	The use of a nonstandard antenna jack or electrical connector
Please refer to the attached document "Internal Photograph" to show the antenna connector.	

5 TEST SETUP PHOTO AND EUT PHOTO

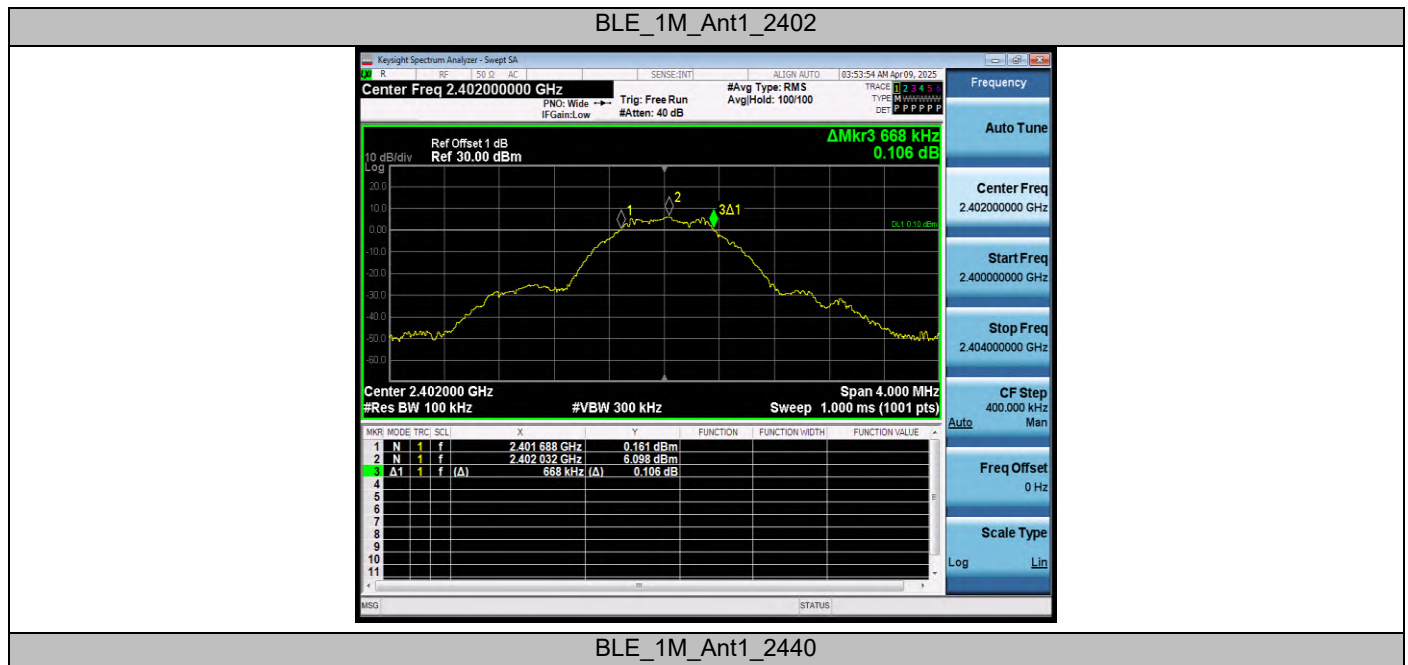
Remark: The test setup photo and EUT Photo please see appendix.

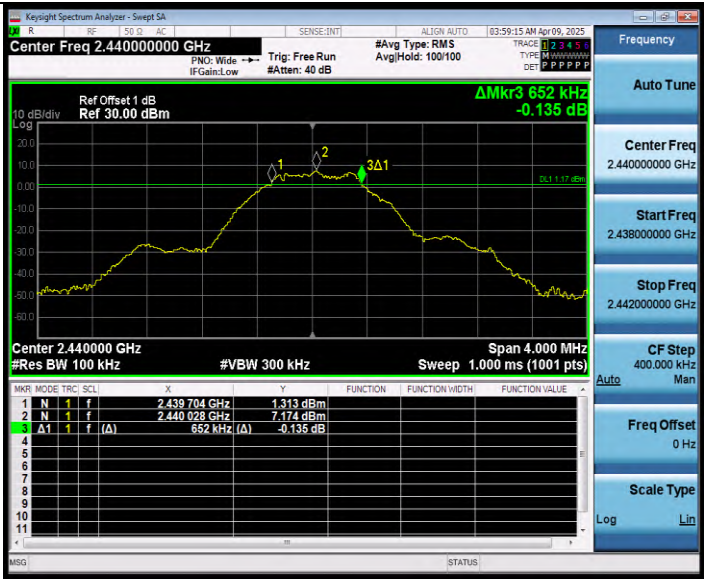
6 TEST RESULT

Appendix A: DTS Bandwidth

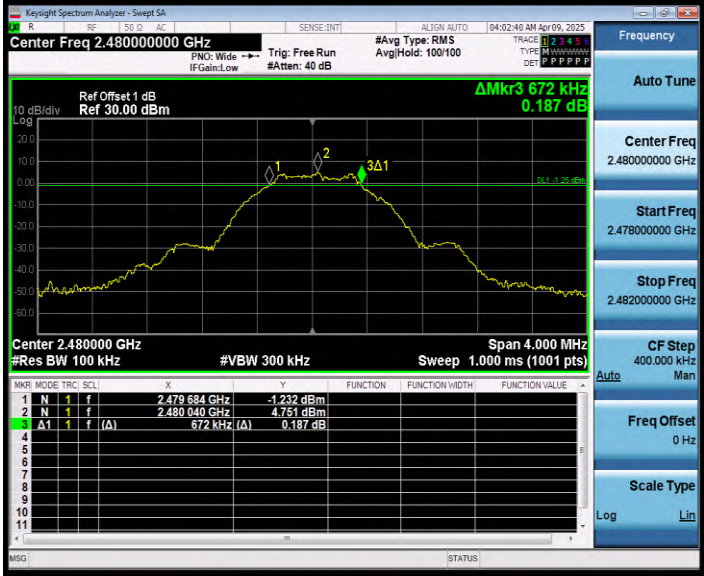
TestMode	Frequency [MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	2402	0.668	2401.688	2402.356	0.5	PASS
	2440	0.652	2439.704	2440.356	0.5	PASS
	2480	0.672	2479.684	2480.356	0.5	PASS
BLE_2M	2402	1.028	2401.536	2402.564	0.5	PASS
	2440	1.120	2439.472	2440.592	0.5	PASS
	2480	1.176	2479.440	2480.616	0.5	PASS
BLE_125K	2402	0.636	2401.708	2402.344	0.5	PASS
	2440	0.700	2439.680	2440.380	0.5	PASS
	2480	0.628	2479.716	2480.344	0.5	PASS
BLE_500K	2402	0.660	2401.704	2402.364	0.5	PASS
	2440	0.676	2439.704	2440.380	0.5	PASS
	2480	0.672	2479.708	2480.380	0.5	PASS

Test Graphs

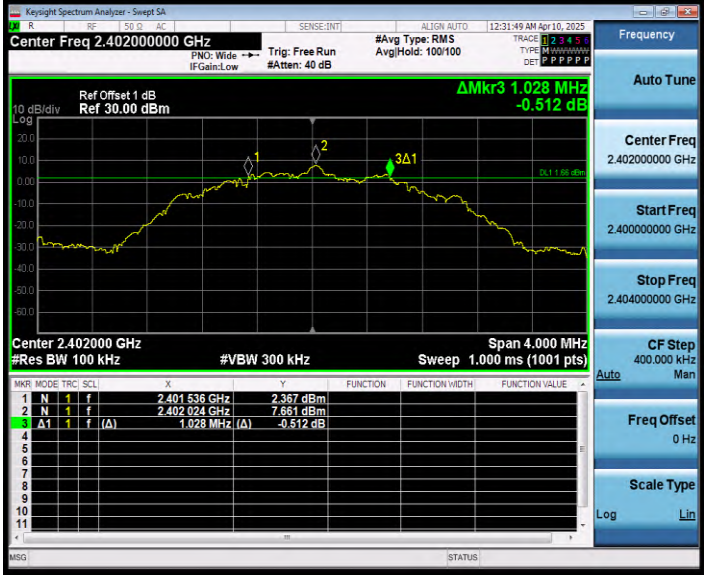




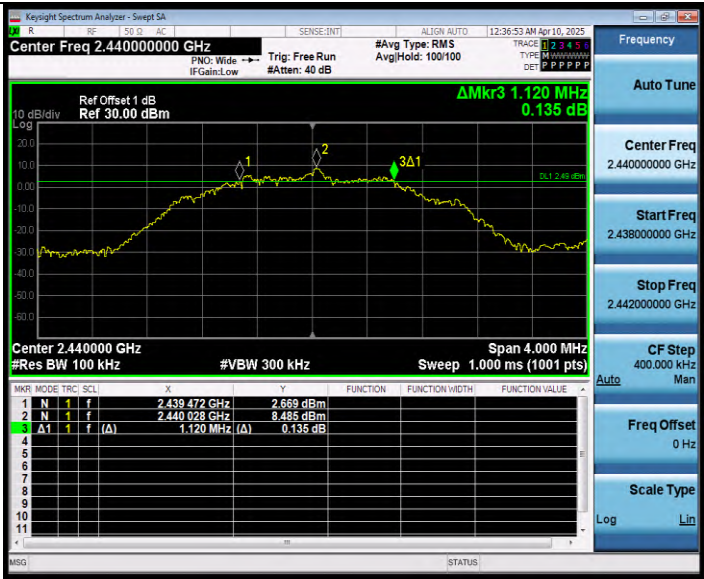
BLE_1M_Ant1_2480



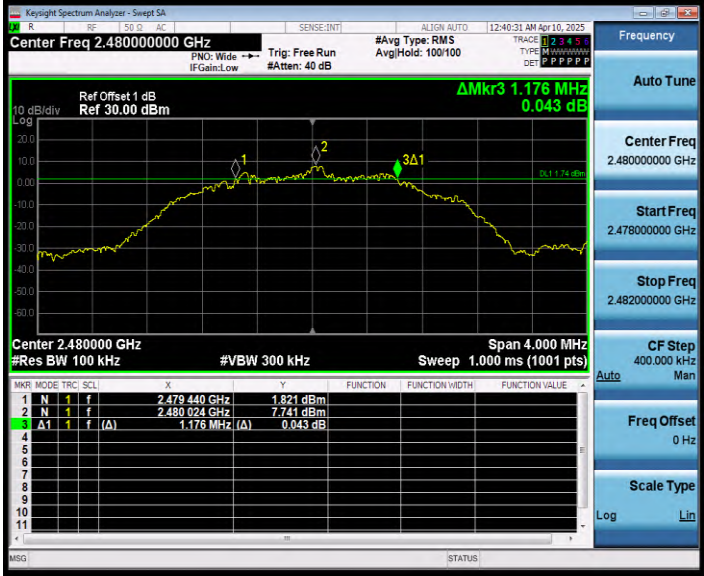
BLE_2M_Ant1_2402



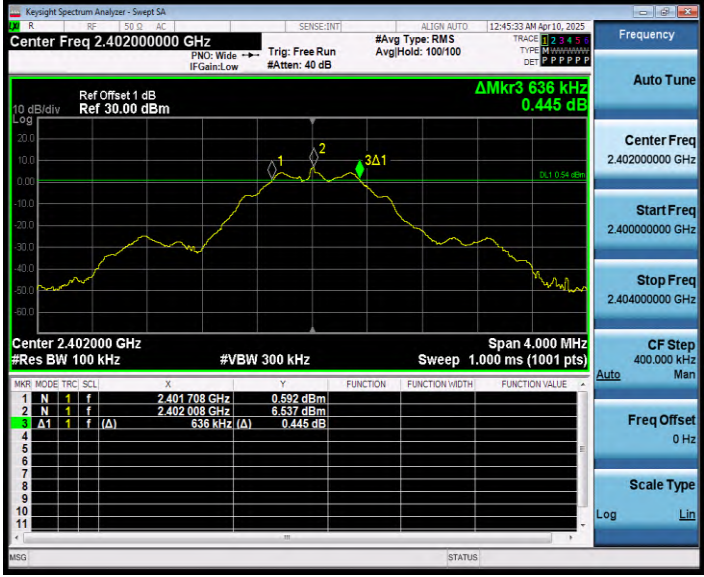
BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



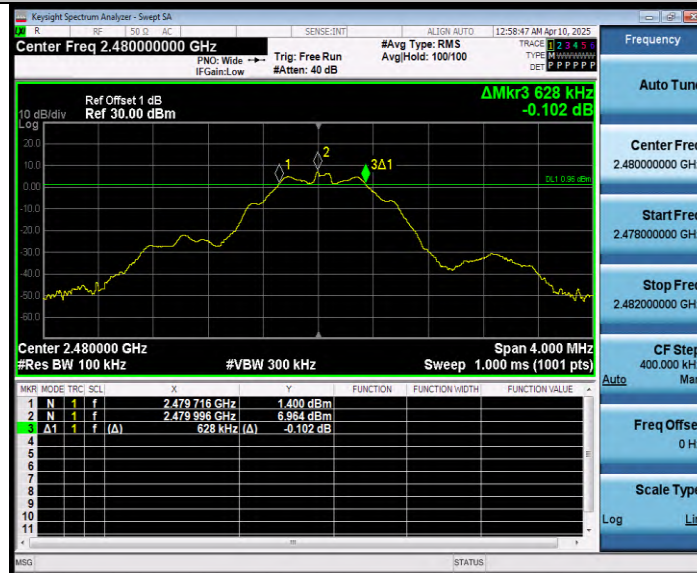
BLE_125K_Ant1_2402



BLE_125K_Ant1_2440



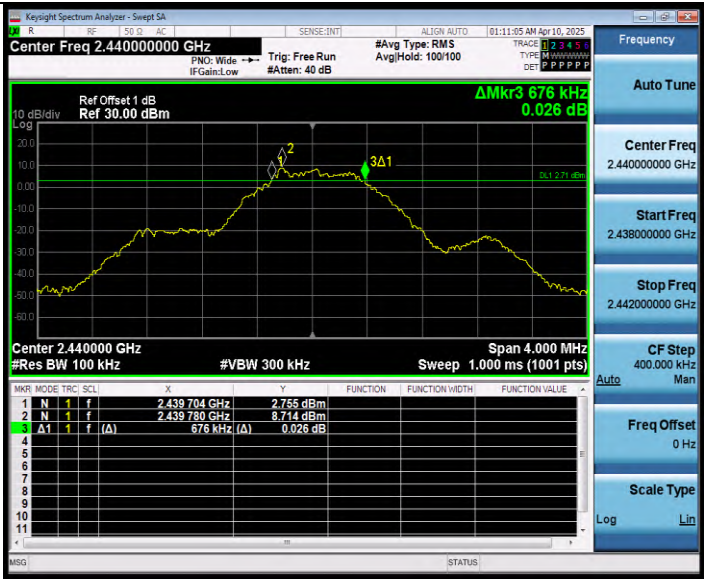
BLE_125K_Ant1_2480



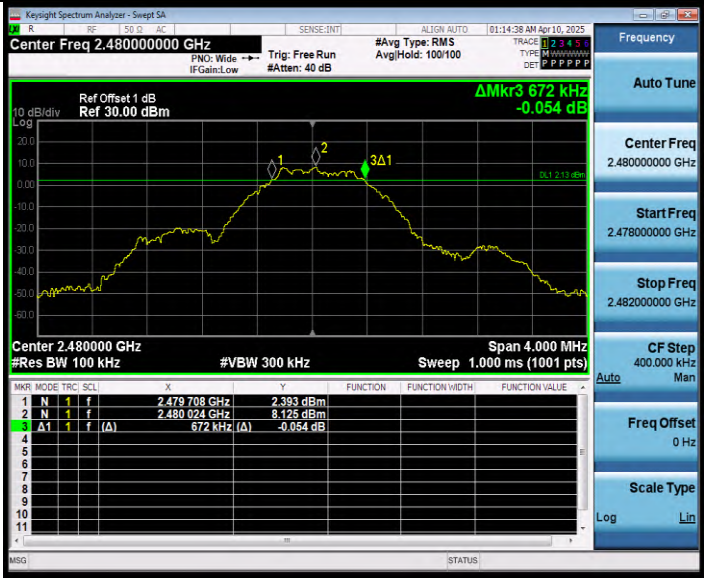
BLE_500K_Ant1_2402



BLE_500K_Ant1_2440



BLE_500K_Ant1_2480



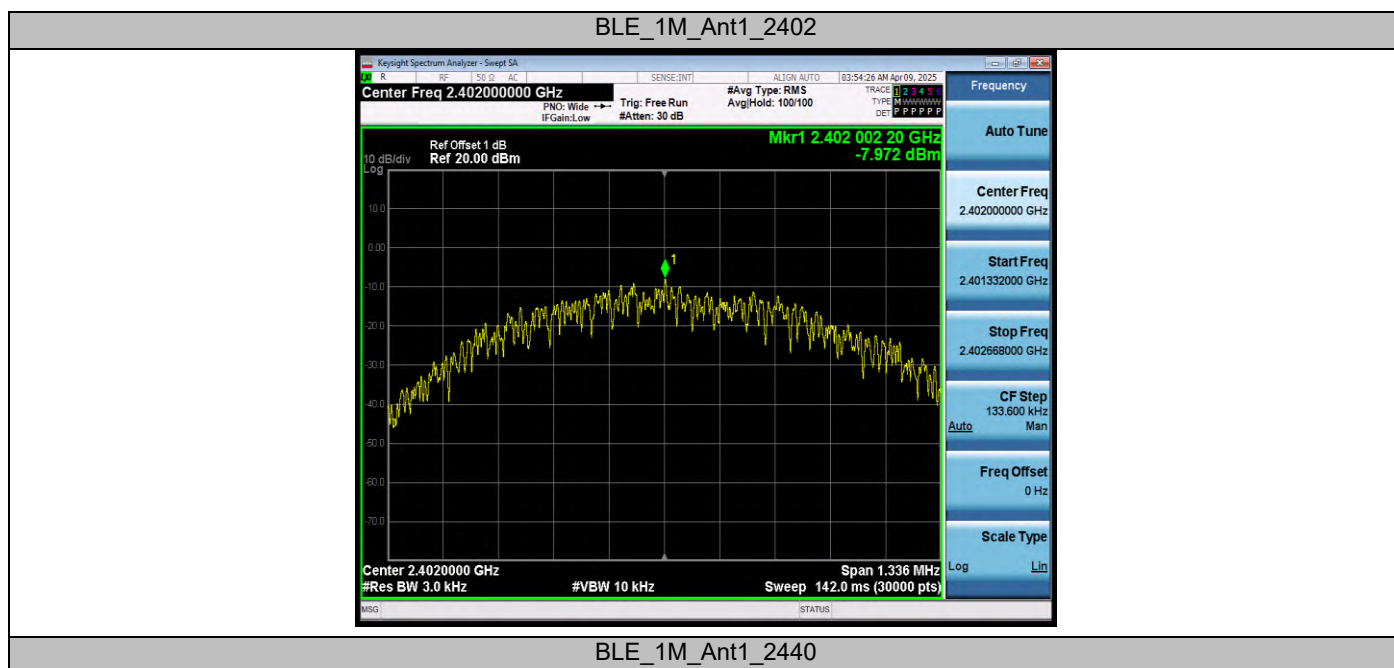
Appendix B: Maximum conducted output power

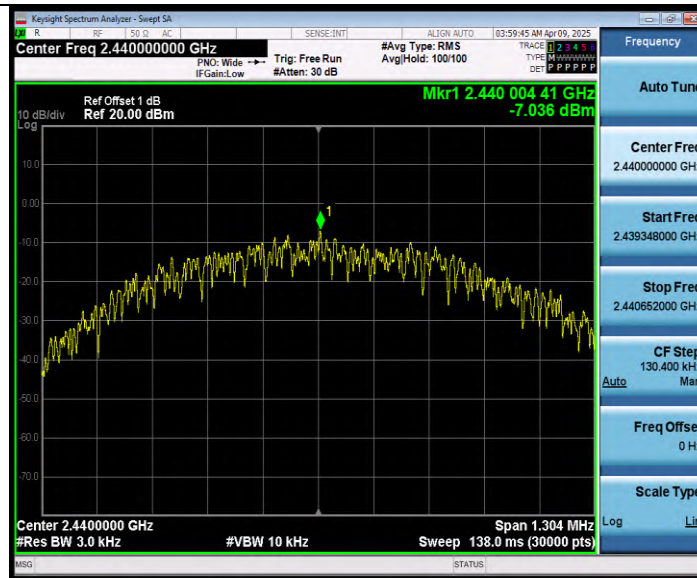
Test Mode	Frequency [MHz]	Conducted Power [dBm]	Limit [dBm]	Verdict
BLE_1M	2402	6.35	≤ 30	PASS
	2440	7.63	≤ 30	PASS
	2480	5.61	≤ 30	PASS
BLE_2M	2402	7.94	≤ 30	PASS
	2440	8.90	≤ 30	PASS
	2480	9.13	≤ 30	PASS
BLE_125K	2402	7.90	≤ 30	PASS
	2440	8.90	≤ 30	PASS
	2480	9.03	≤ 30	PASS
BLE_500K	2402	7.82	≤ 30	PASS
	2440	8.96	≤ 30	PASS
	2480	9.20	≤ 30	PASS

Appendix C: Maximum power spectral density

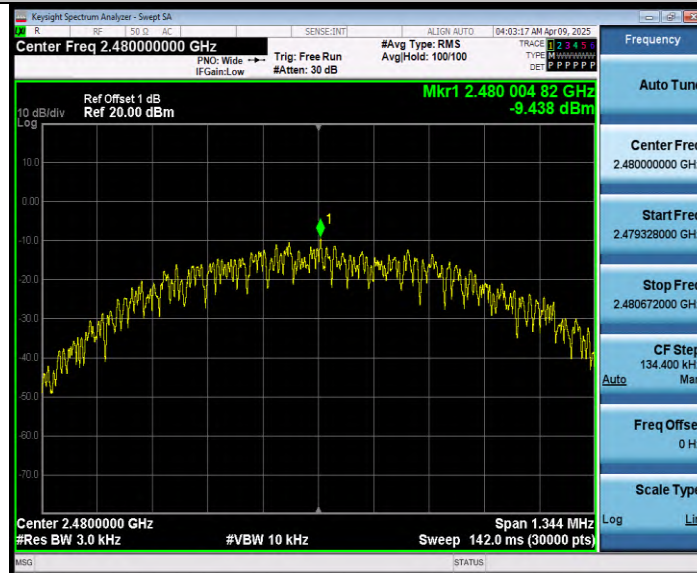
TestMode	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	2402	-7.97	≤8.00	PASS
	2440	-7.04	≤8.00	PASS
	2480	-9.44	≤8.00	PASS
BLE_2M	2402	-9.01	≤8.00	PASS
	2440	-8.40	≤8.00	PASS
	2480	-8.94	≤8.00	PASS
BLE_125K	2402	1.99	≤8.00	PASS
	2440	2.89	≤8.00	PASS
	2480	2.55	≤8.00	PASS
BLE_500K	2402	1.90	≤8.00	PASS
	2440	2.80	≤8.00	PASS
	2480	2.53	≤8.00	PASS

Test Graphs

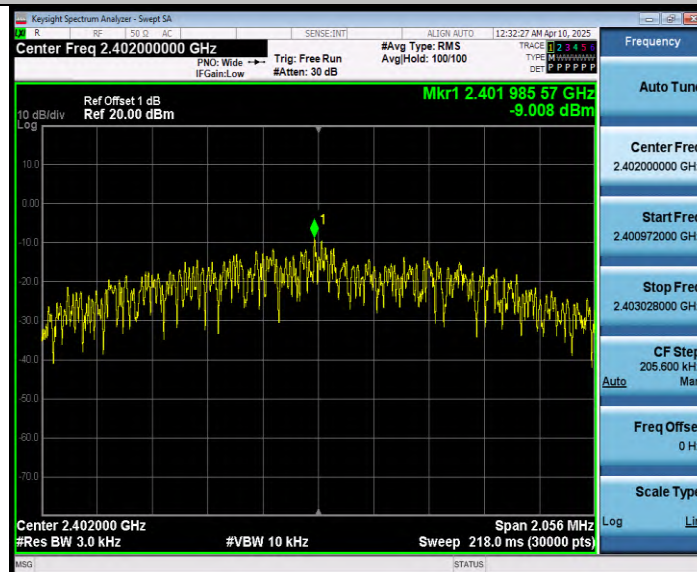




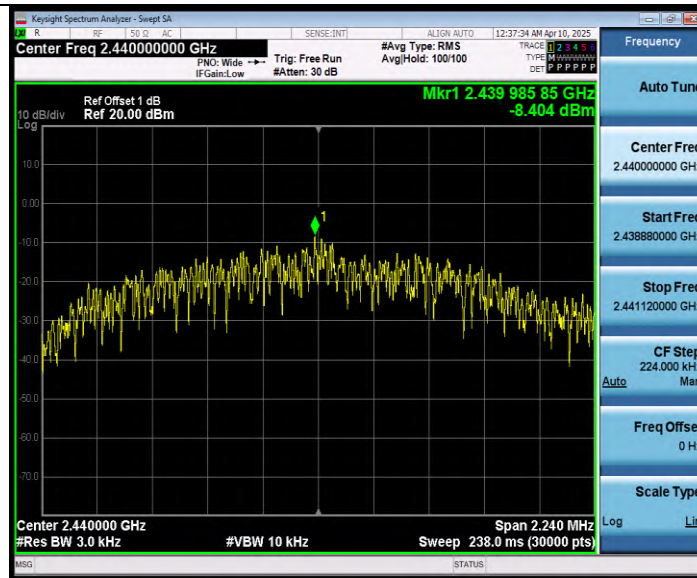
BLE_1M_Ant1_2480



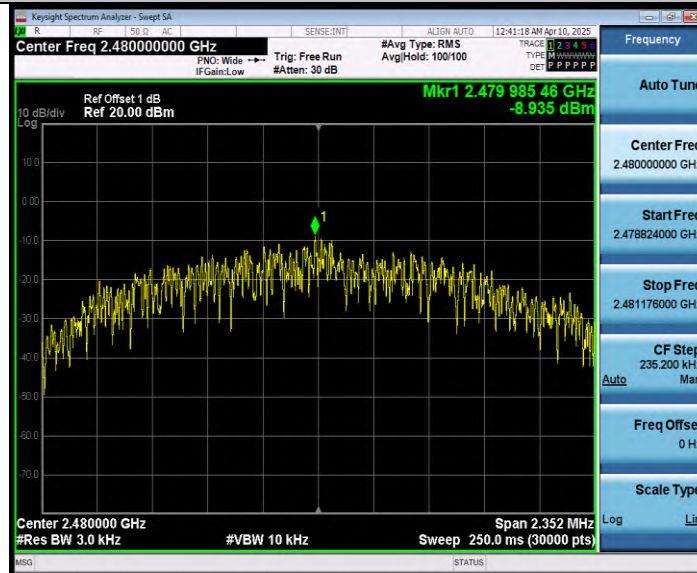
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



BLE_125K_Ant1_2402



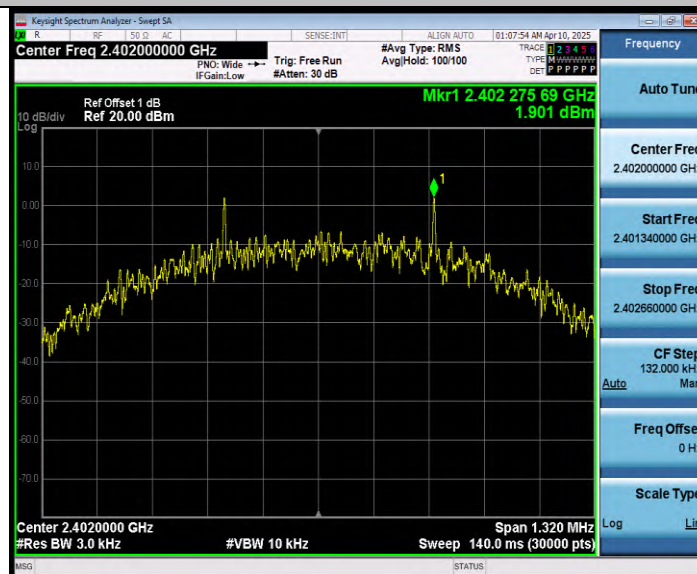
BLE_125K_Ant1_2440



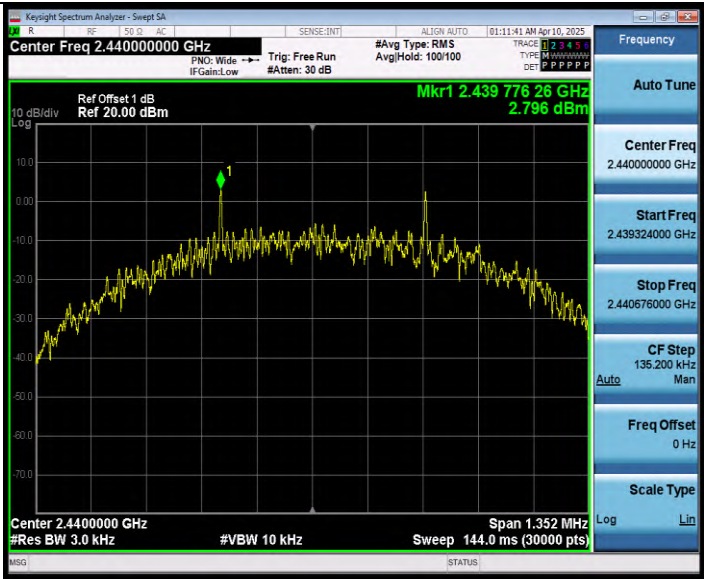
BLE_125K_Ant1_2480



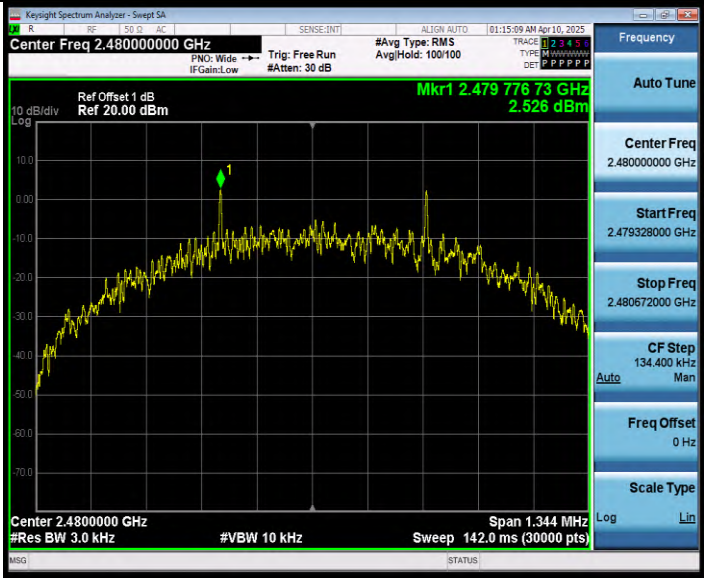
BLE_500K_Ant1_2402



BLE_500K_Ant1_2440



BLE_500K_Ant1_2480



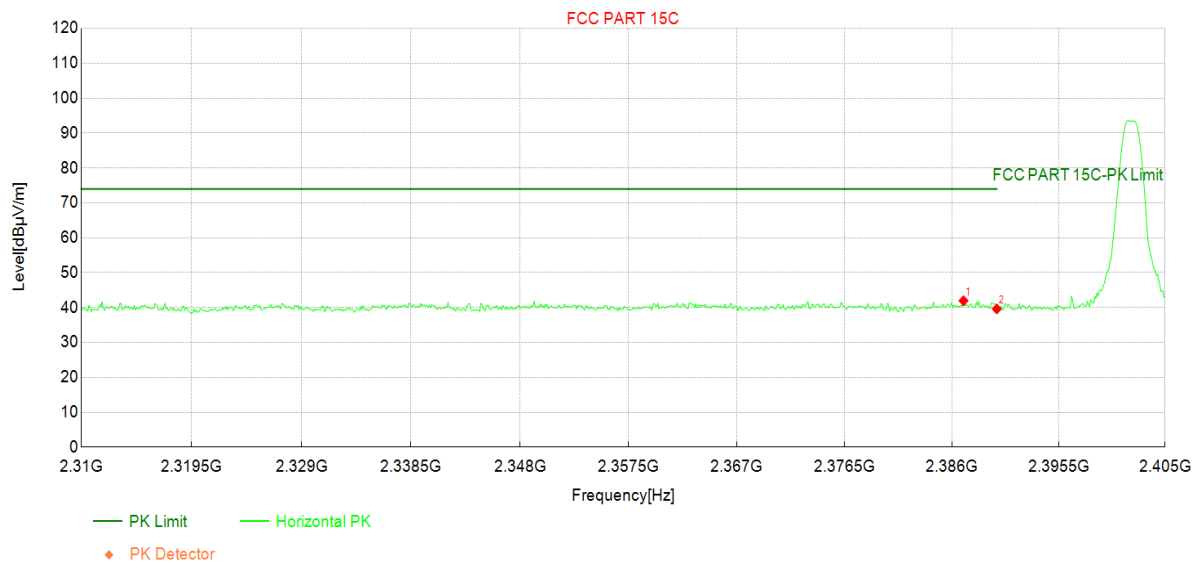
Appendix D: Band edge measurements

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode1:Transmit at 2402MHz by LE_1Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

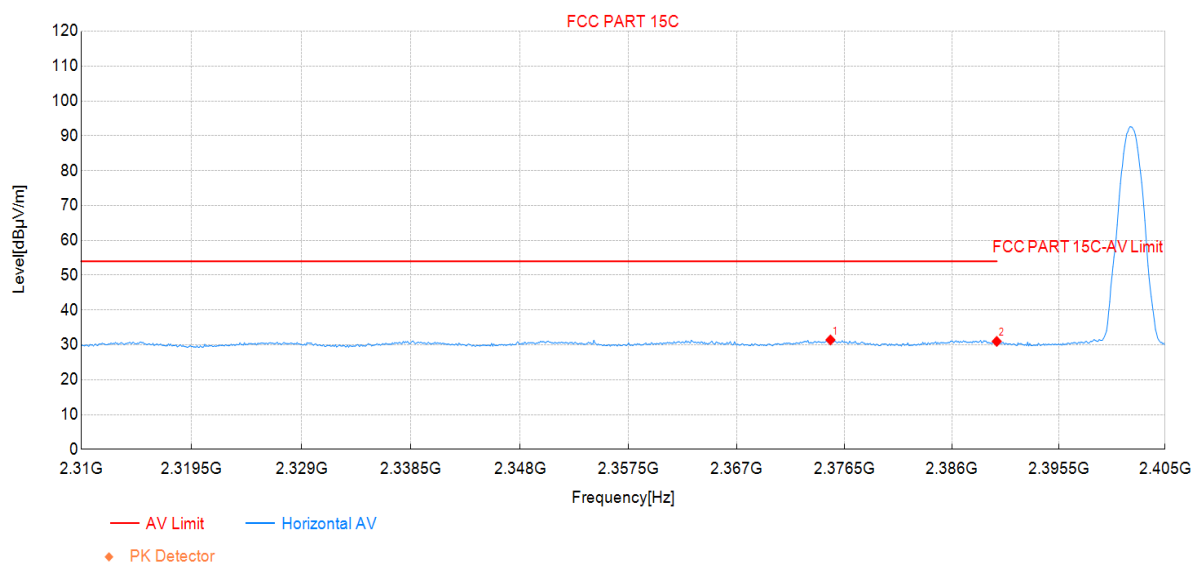
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2387.05	38.33	41.96	3.63	74.00	32.04	PK	Horizo	PASS
2	2390.00	35.96	39.61	3.65	74.00	34.39	PK	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode1:Transmit at 2402MHz by LE_1Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

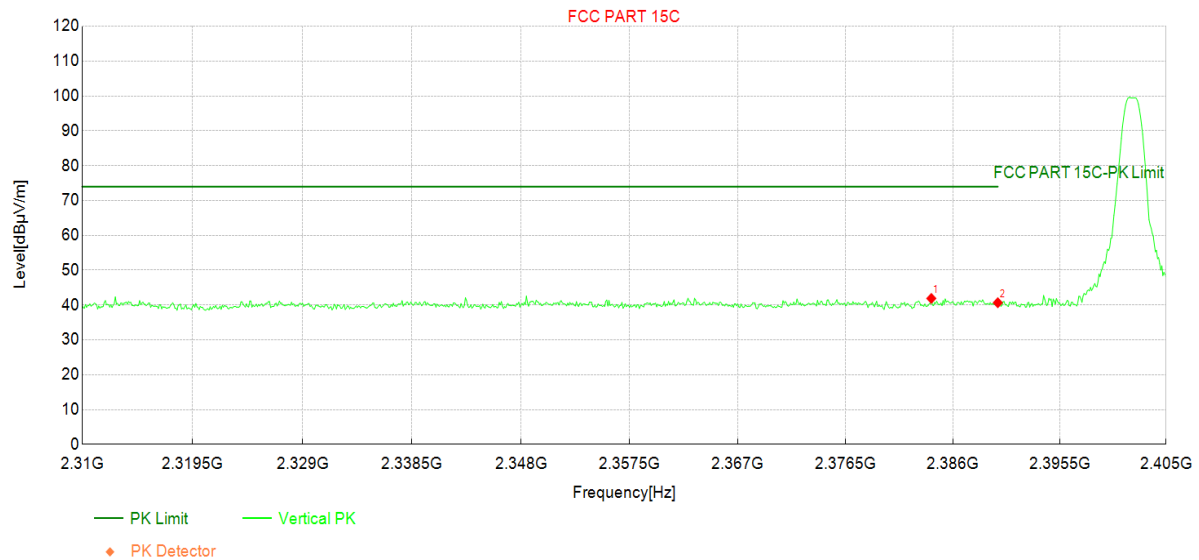
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2375.27	27.82	31.41	3.59	54.00	22.59	AV	Horizo	PASS
2	2390.00	27.34	30.99	3.65	54.00	23.01	AV	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode1:Transmit at 2402MHz by LE_1Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

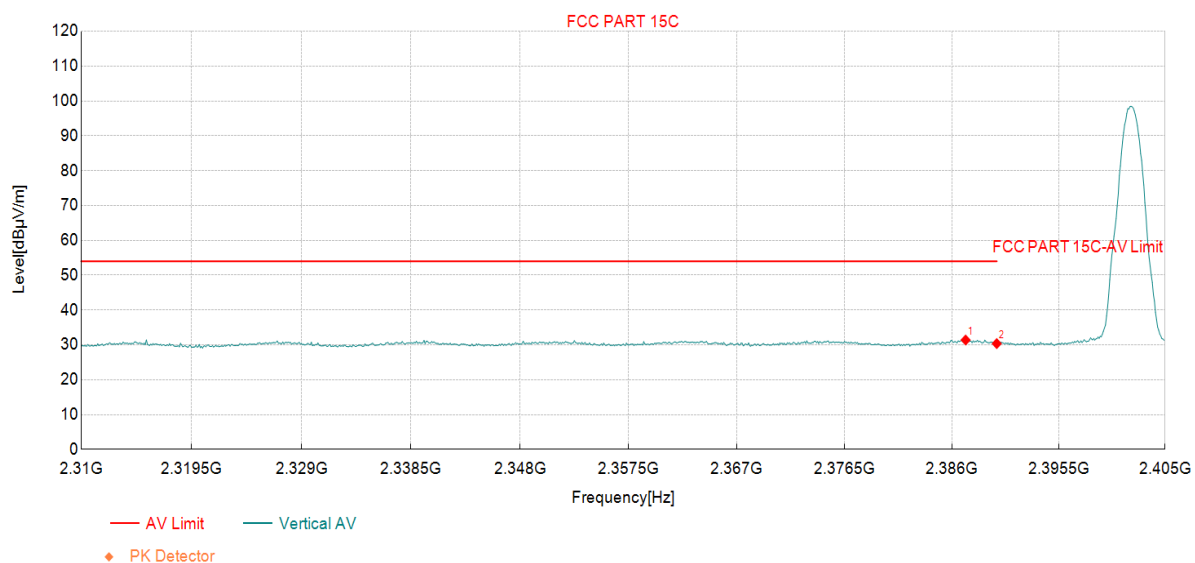
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2384.10	38.27	41.89	3.62	74.00	32.11	PK	Vertic	PASS
2	2390.00	37.01	40.66	3.65	74.00	33.34	PK	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode1:Transmit at 2402MHz by LE_1Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

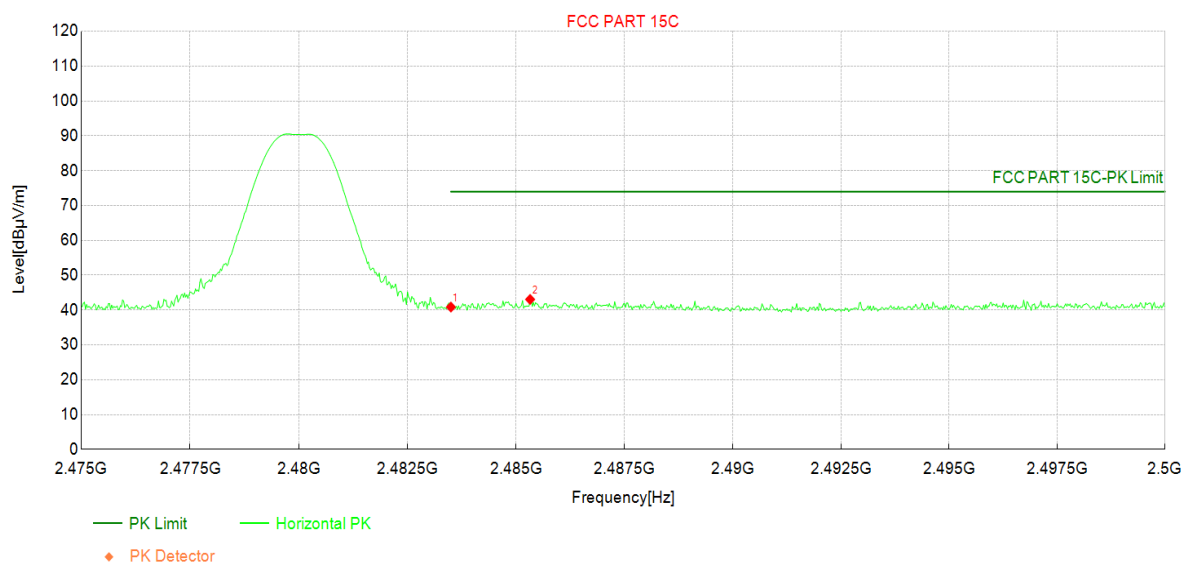
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2387.24	27.76	31.39	3.63	54.00	22.61	AV	Vertic	PASS
2	2390.00	26.71	30.36	3.65	54.00	23.64	AV	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode1:Transmit at 2480MHz by LE_1Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

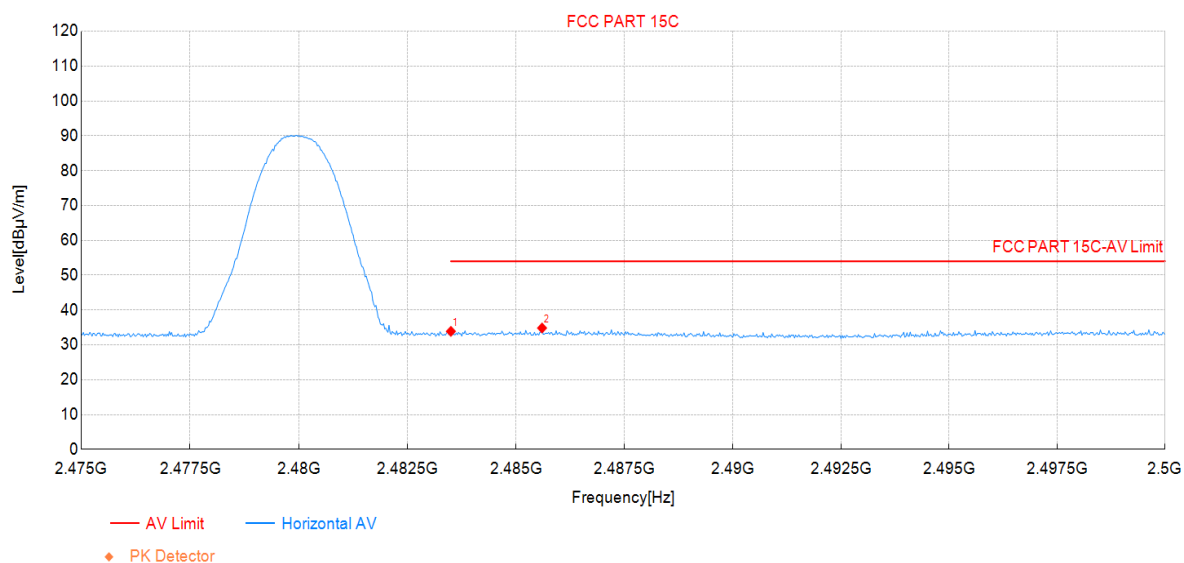
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	36.76	40.85	4.09	74.00	33.15	PK	Horizo	PASS
2	2485.33	38.93	43.04	4.11	74.00	30.96	PK	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode1:Transmit at 2480MHz by LE_1Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

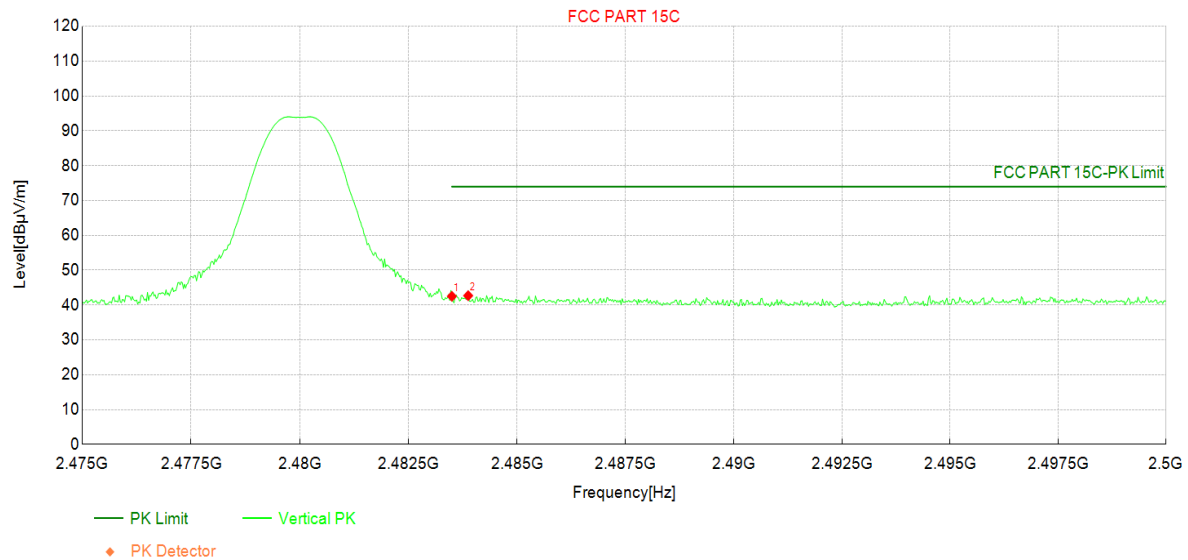
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	29.79	33.88	4.09	54.00	20.12	AV	Horizo	PASS
2	2485.60	30.72	34.83	4.11	54.00	19.17	AV	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode1:Transmit at 2480MHz by LE_1Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

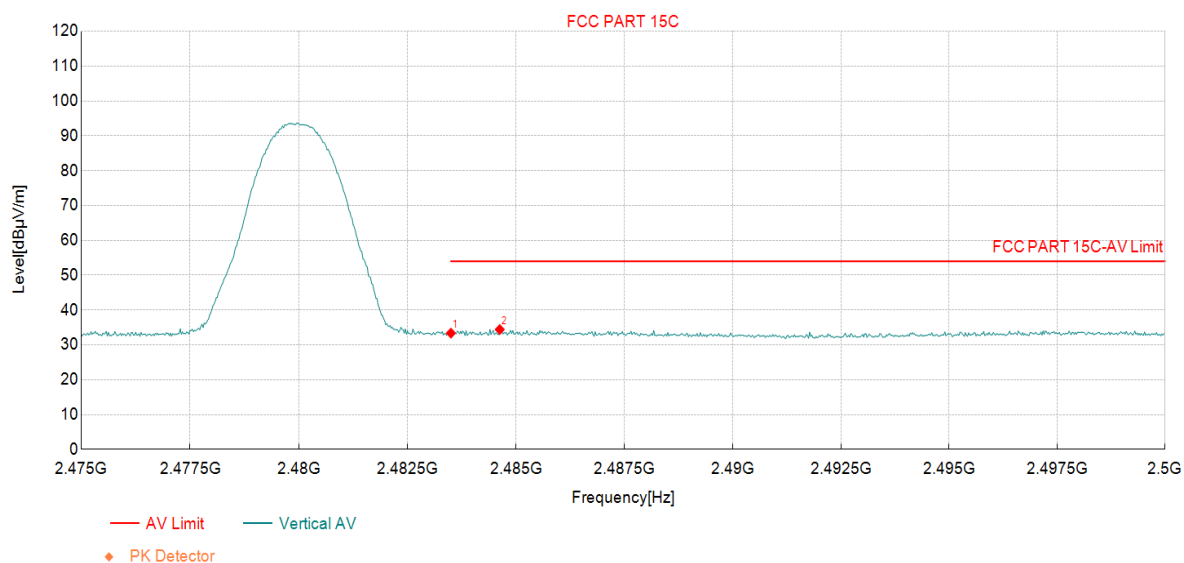
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	38.41	42.50	4.09	74.00	31.50	PK	Vertic	PASS
2	2483.88	38.60	42.69	4.09	74.00	31.31	PK	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode1:Transmit at 2480MHz by LE_1Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

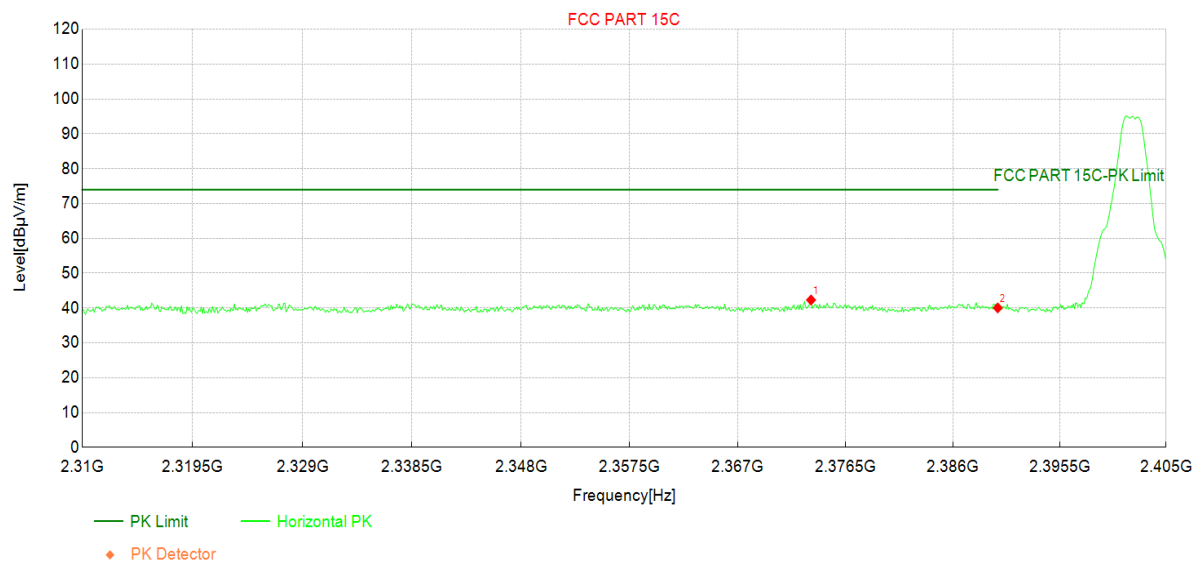
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	29.27	33.36	4.09	54.00	20.64	AV	Vertic	PASS
2	2484.63	30.29	34.40	4.11	54.00	19.60	AV	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2402MHz by LE_2Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Enginee	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

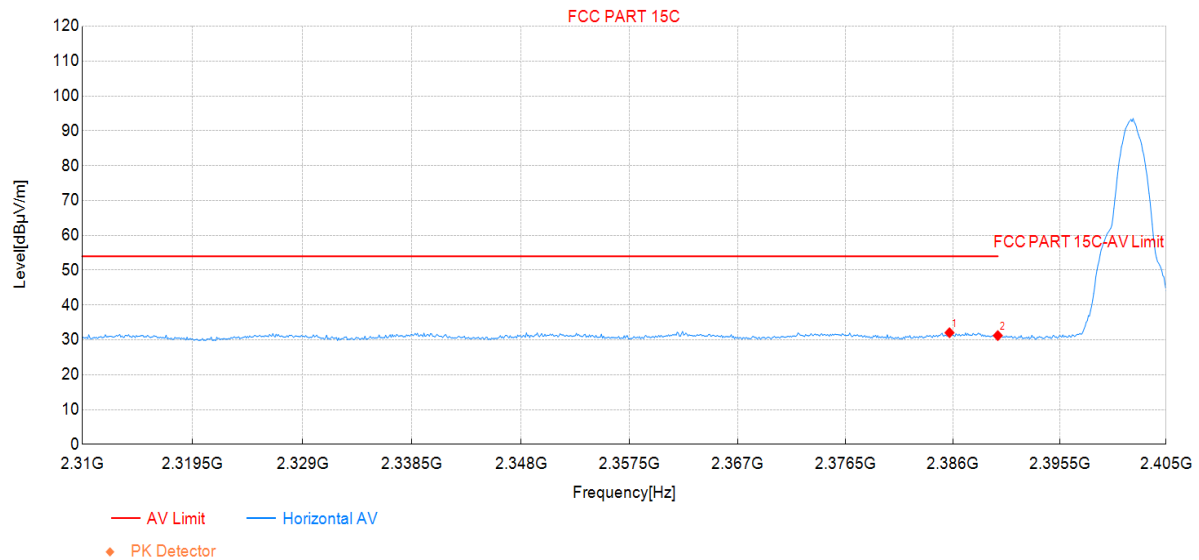
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2373.46	38.74	42.31	3.57	74.00	31.69	PK	Horizo	PASS
2	2390.00	36.39	40.04	3.65	74.00	33.96	PK	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2402MHz by LE_2Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

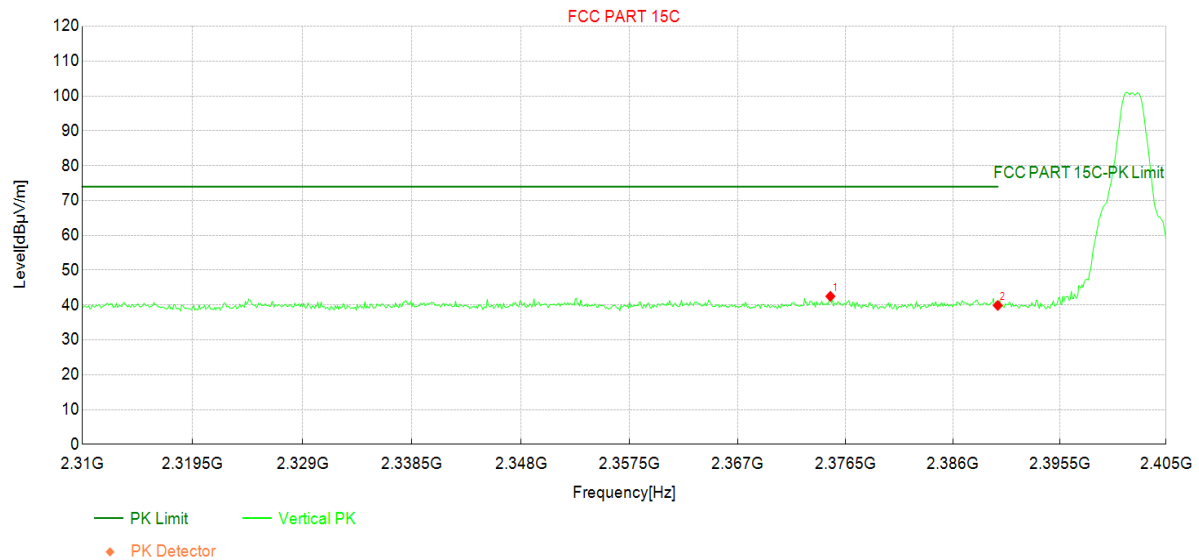
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2385.72	28.42	32.05	3.63	54.00	21.95	AV	Horizo	PASS
2	2390.00	27.57	31.22	3.65	54.00	22.78	AV	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2402MHz by LE_2Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Enginee	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

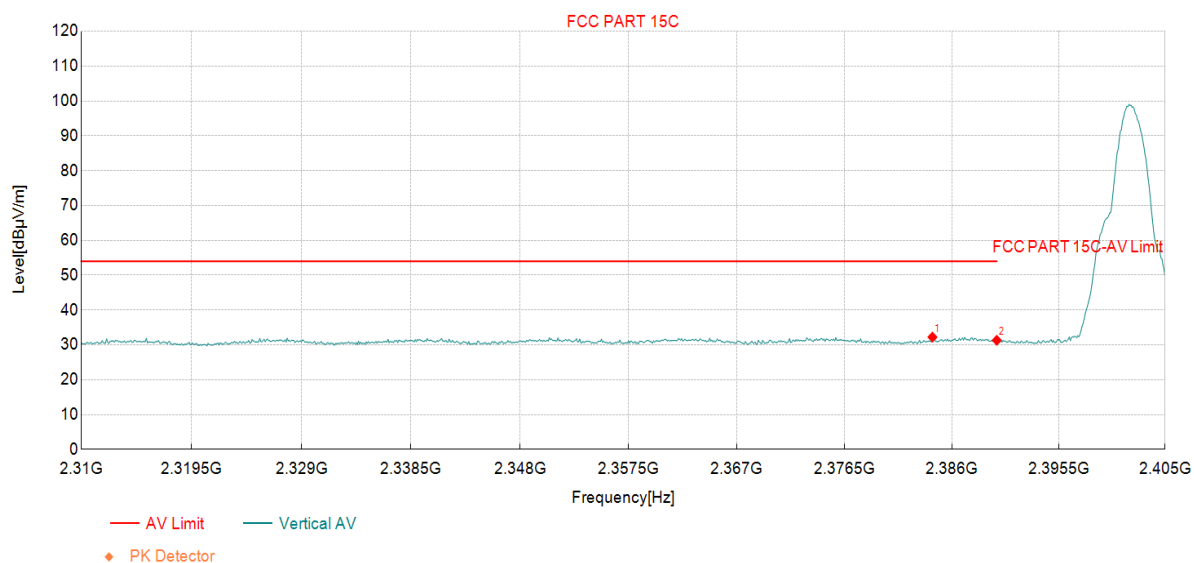
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2375.17	38.90	42.49	3.59	74.00	31.51	PK	Vertic	PASS
2	2390.00	36.22	39.87	3.65	74.00	34.13	PK	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2402MHz by LE_2Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

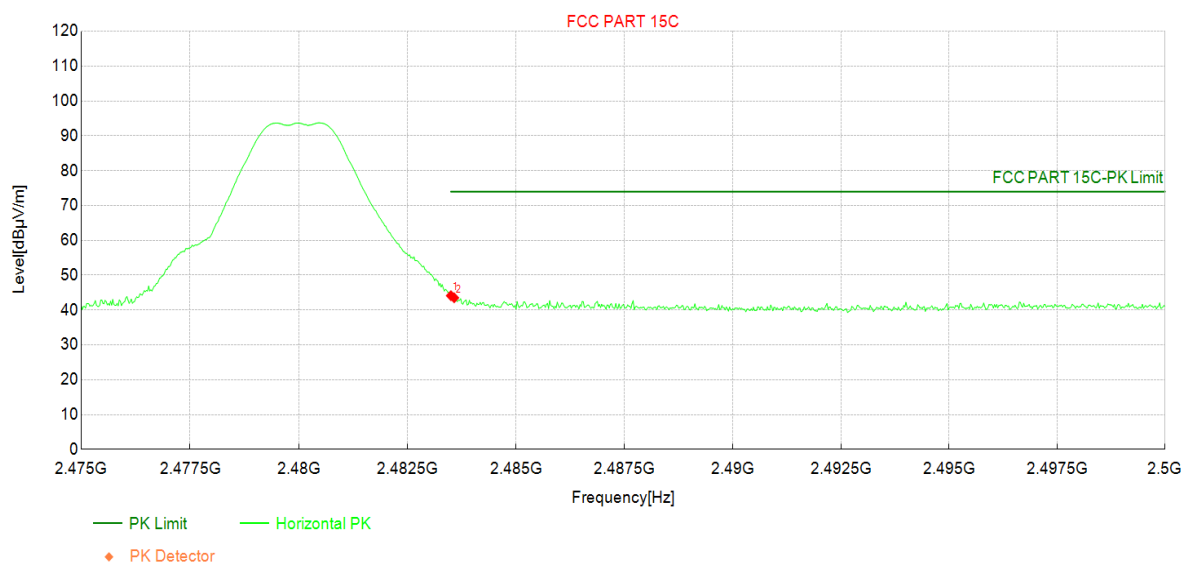
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2384.29	28.60	32.22	3.62	54.00	21.78	AV	Vertic	PASS
2	2390.00	27.66	31.31	3.65	54.00	22.69	AV	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2480MHz by LE_2Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

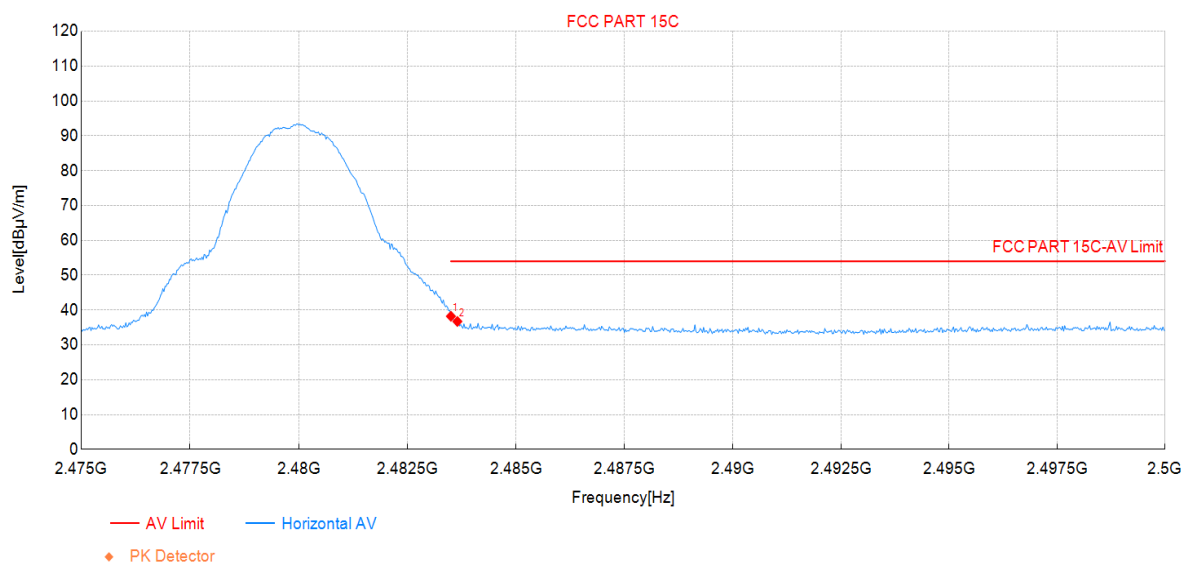
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	40.02	44.11	4.09	74.00	29.89	PK	Horizo	PASS
2	2483.58	39.42	43.51	4.09	74.00	30.49	PK	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2480MHz by LE_2Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

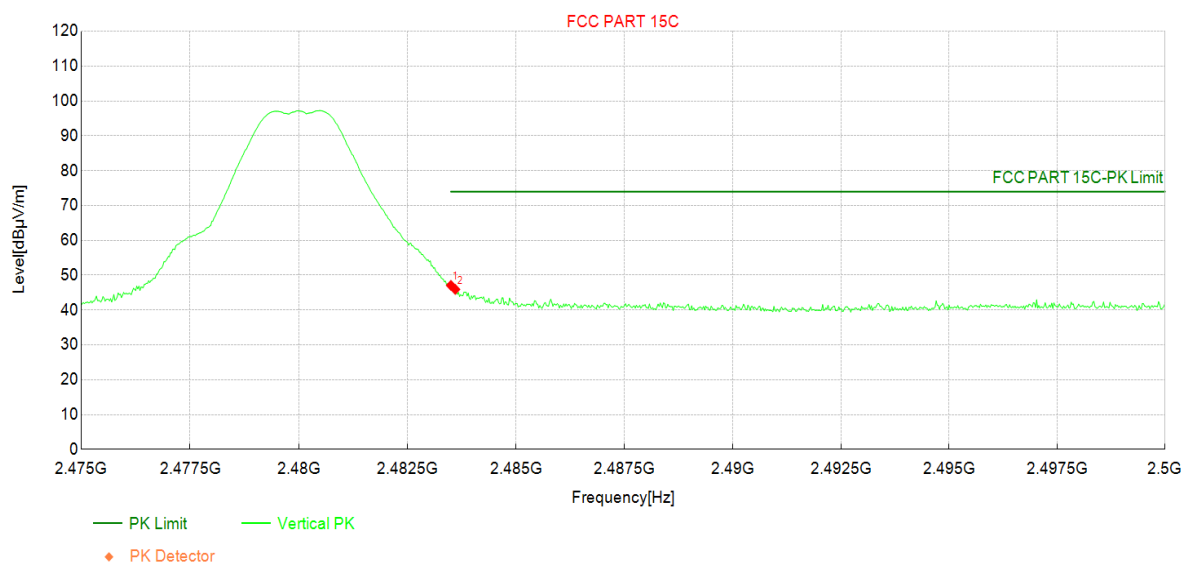
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	34.12	38.21	4.09	54.00	15.79	AV	Horizo	PASS
2	2483.65	32.62	36.71	4.09	54.00	17.29	AV	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2480MHz by LE_2Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

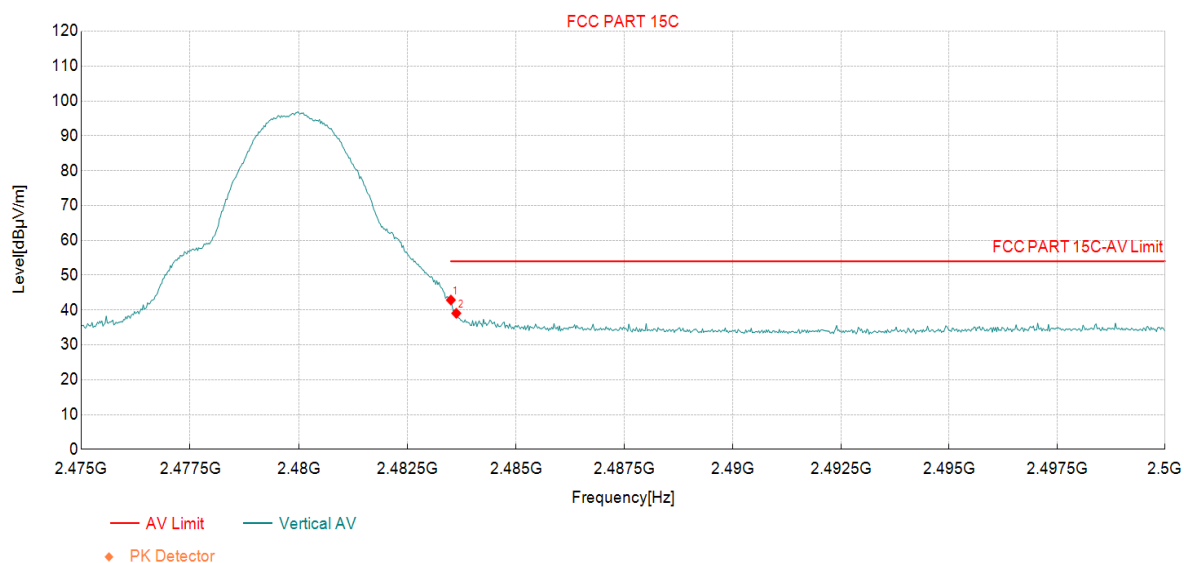
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	42.99	47.08	4.09	74.00	26.92	PK	Vertic	PASS
2	2483.60	41.83	45.92	4.09	74.00	28.08	PK	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2480MHz by LE_2Mbps	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

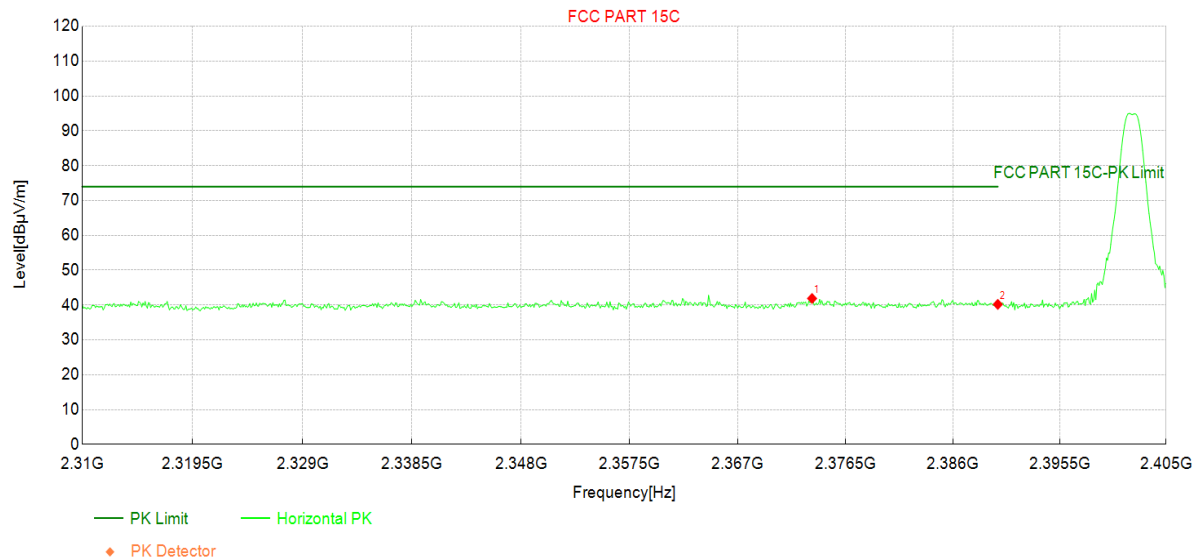
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	38.78	42.87	4.09	54.00	11.13	AV	Vertic	PASS
2	2483.63	34.96	39.05	4.09	54.00	14.95	AV	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2402MHz by LE_Coded S=8	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

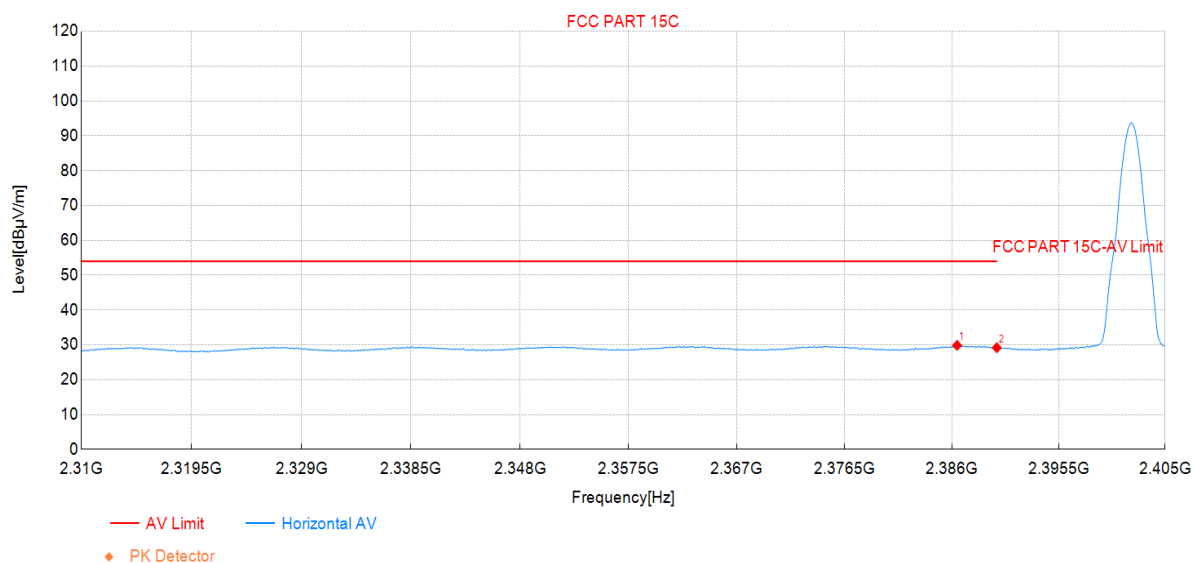
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2373.56	38.30	41.87	3.57	74.00	32.13	PK	Horizo	PASS
2	2390.00	36.53	40.18	3.65	74.00	33.82	PK	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2402MHz by LE_Coded S=8	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

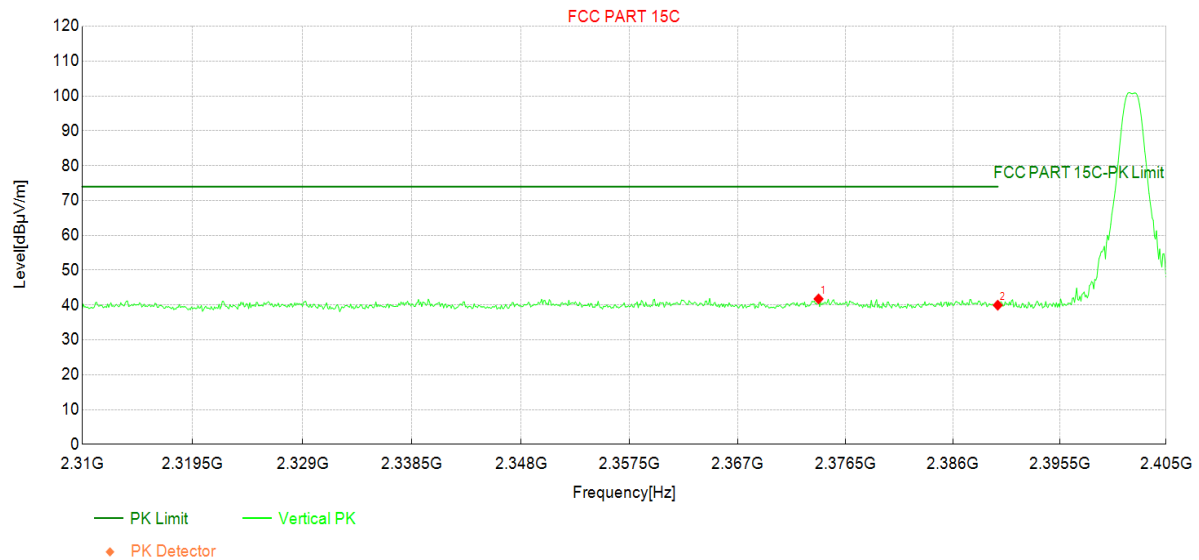
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2386.48	26.23	29.86	3.63	54.00	24.14	AV	Horizo	PASS
2	2390.00	25.53	29.18	3.65	54.00	24.82	AV	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2402MHz by LE_Coded S=8	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Enginee	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

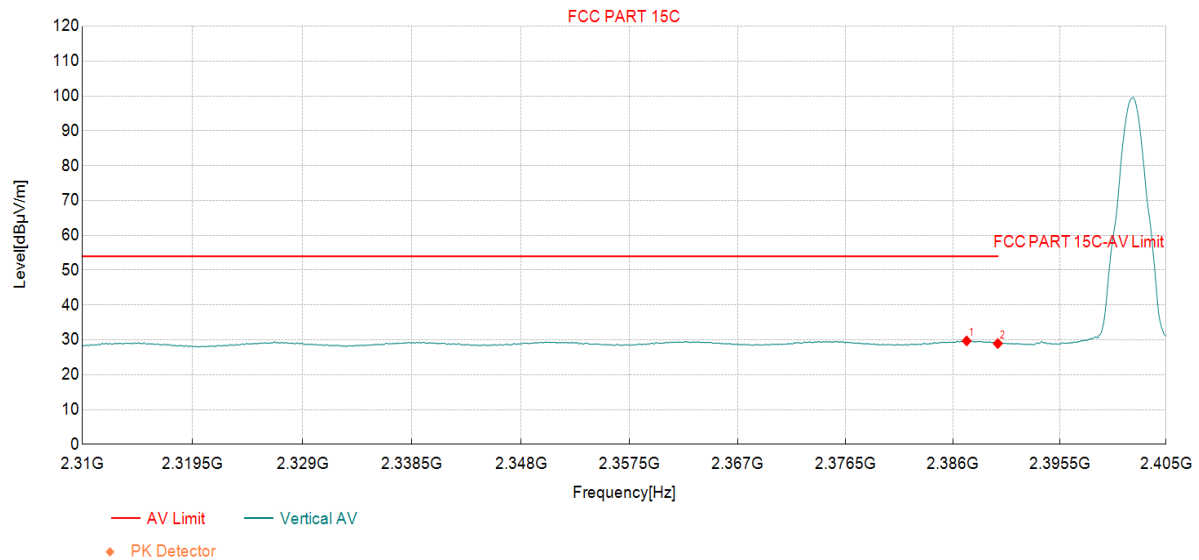
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2374.13	38.18	41.75	3.57	74.00	32.25	PK	Vertic	PASS
2	2390.00	36.30	39.95	3.65	74.00	34.05	PK	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2402MHz by LE_Coded S=8	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

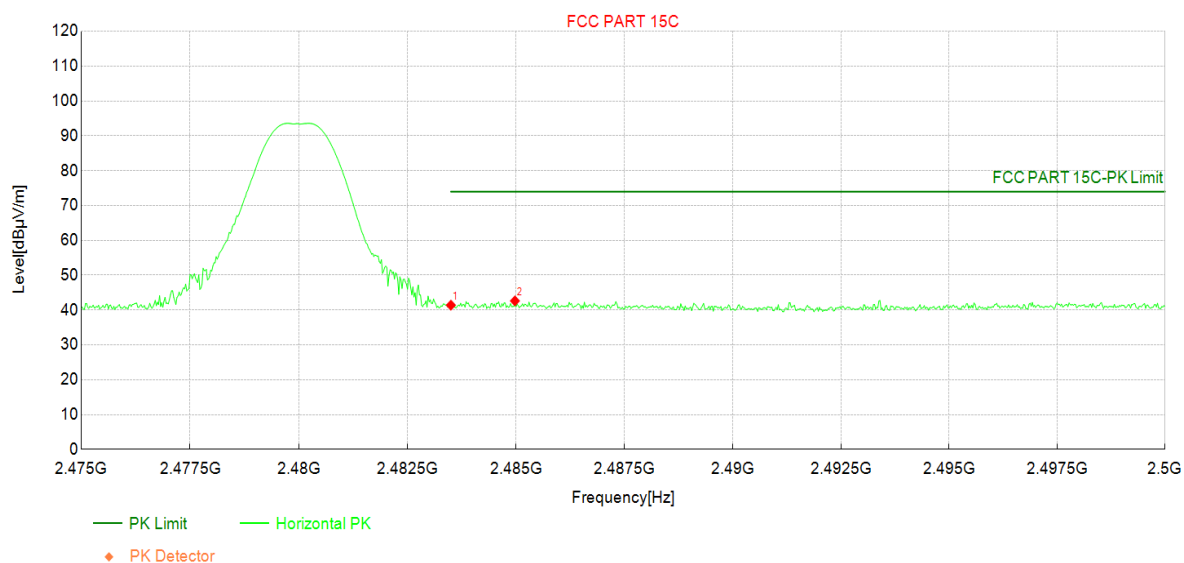
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2387.24	26.06	29.69	3.63	54.00	24.31	AV	Vertic	PASS
2	2390.00	25.28	28.93	3.65	54.00	25.07	AV	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2480MHz by LE_Coded S=8	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

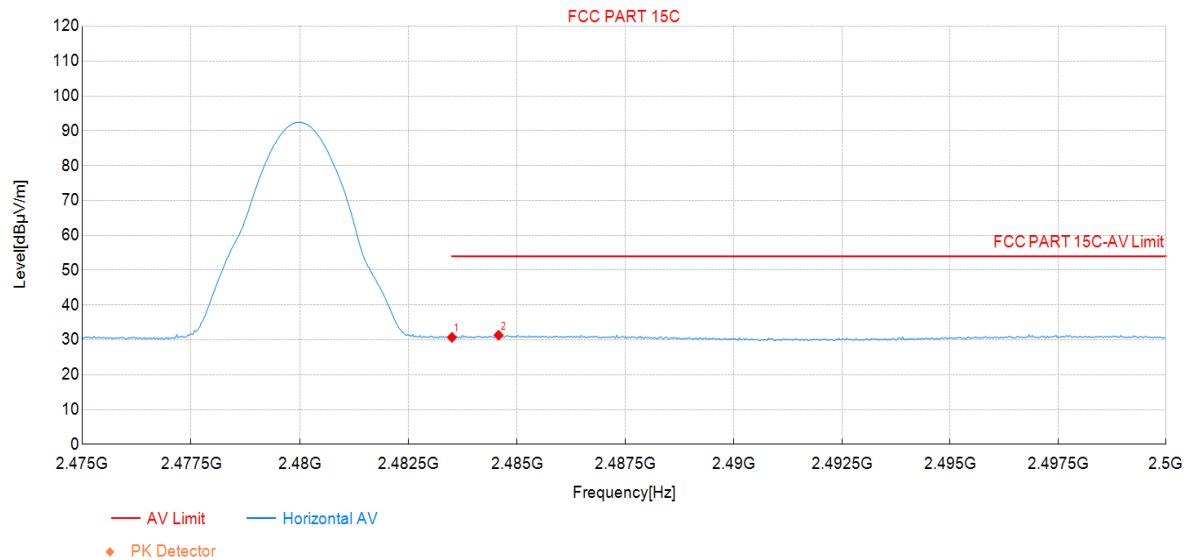
NO	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	37.30	41.39	4.09	74.00	32.61	PK	Horizo	PASS
2	2484.98	38.51	42.62	4.11	74.00	31.38	PK	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2480MHz by LE_Coded S=8	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

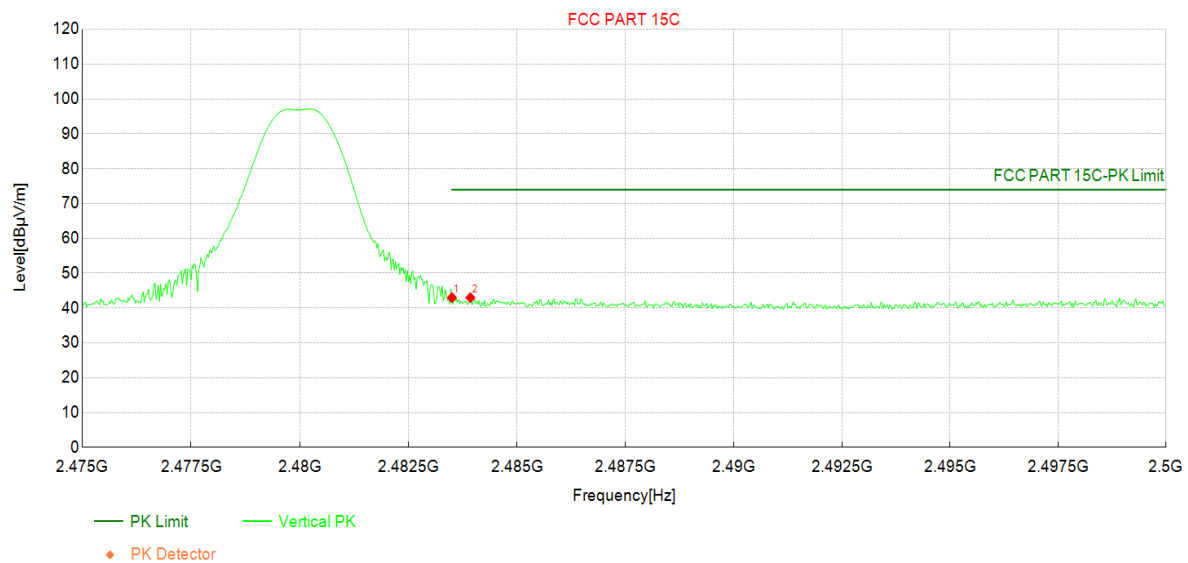
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	26.63	30.72	4.09	54.00	23.28	AV	Horizo	PASS
2	2484.58	27.24	31.35	4.11	54.00	22.65	AV	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2480MHz by LE_Coded S=8	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

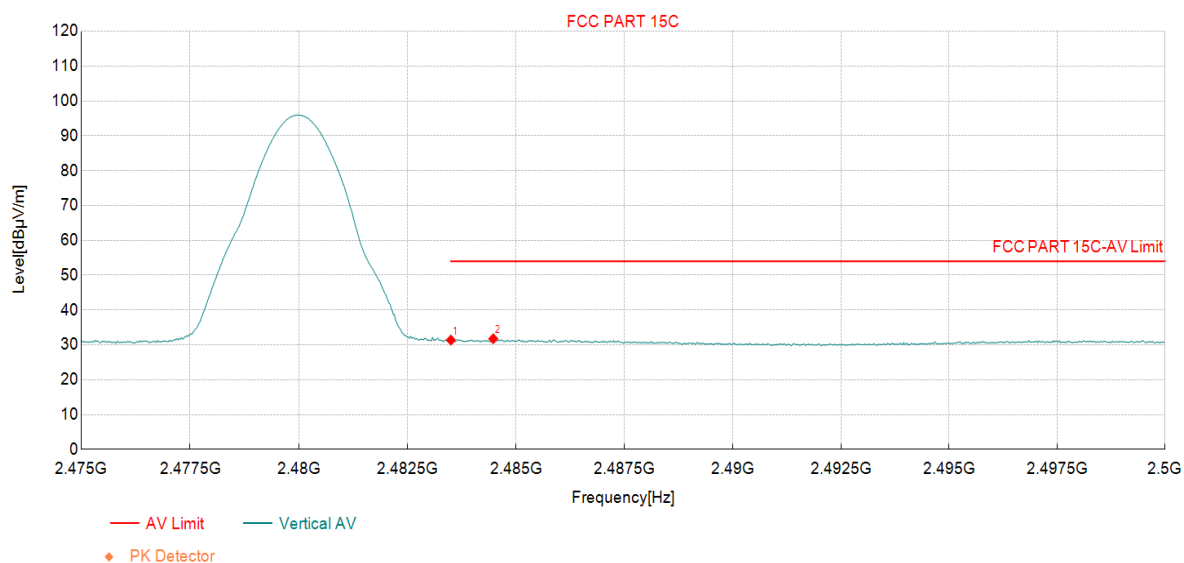
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	38.89	42.98	4.09	74.00	31.02	PK	Vertic	PASS
2	2483.93	38.90	42.99	4.09	74.00	31.01	PK	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2480MHz by LE_Coded S=8	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

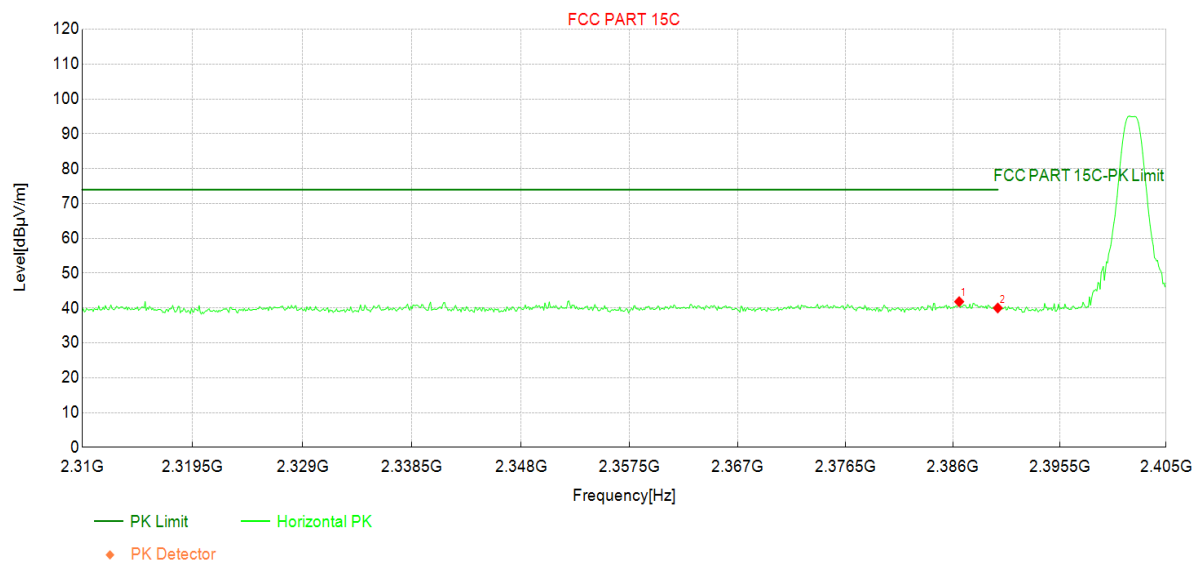
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	27.28	31.37	4.09	54.00	22.63	AV	Vertic	PASS
2	2484.48	27.64	31.75	4.11	54.00	22.25	AV	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2402MHz by LE_Coded S=2	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

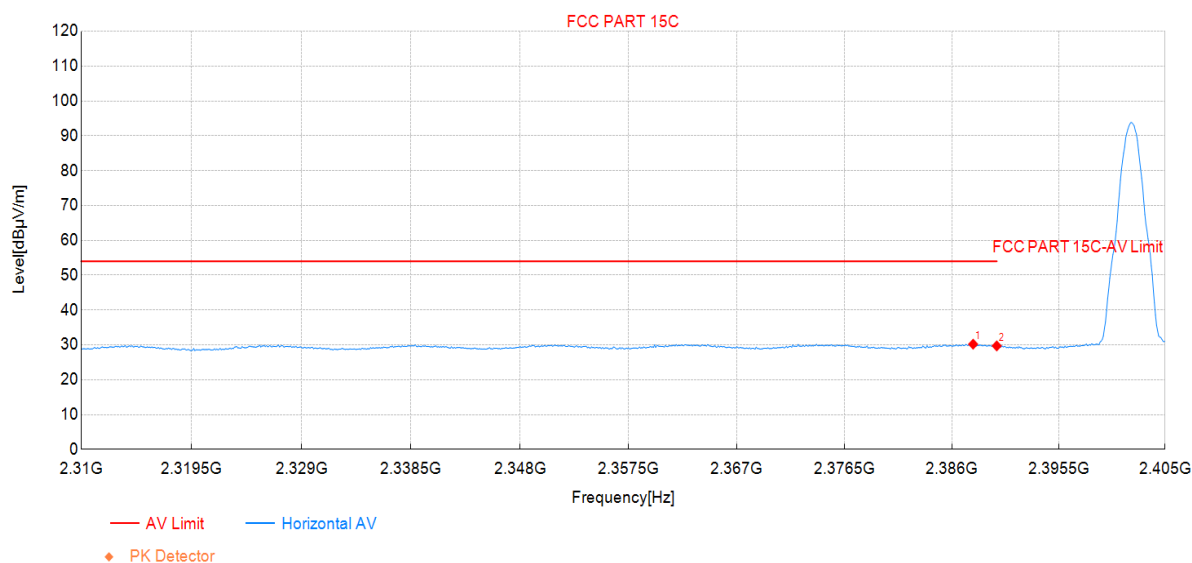
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2386.57	38.19	41.82	3.63	74.00	32.18	PK	Horizo	PASS
2	2390.00	36.36	40.01	3.65	74.00	33.99	PK	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2402MHz by LE_Coded S=2	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

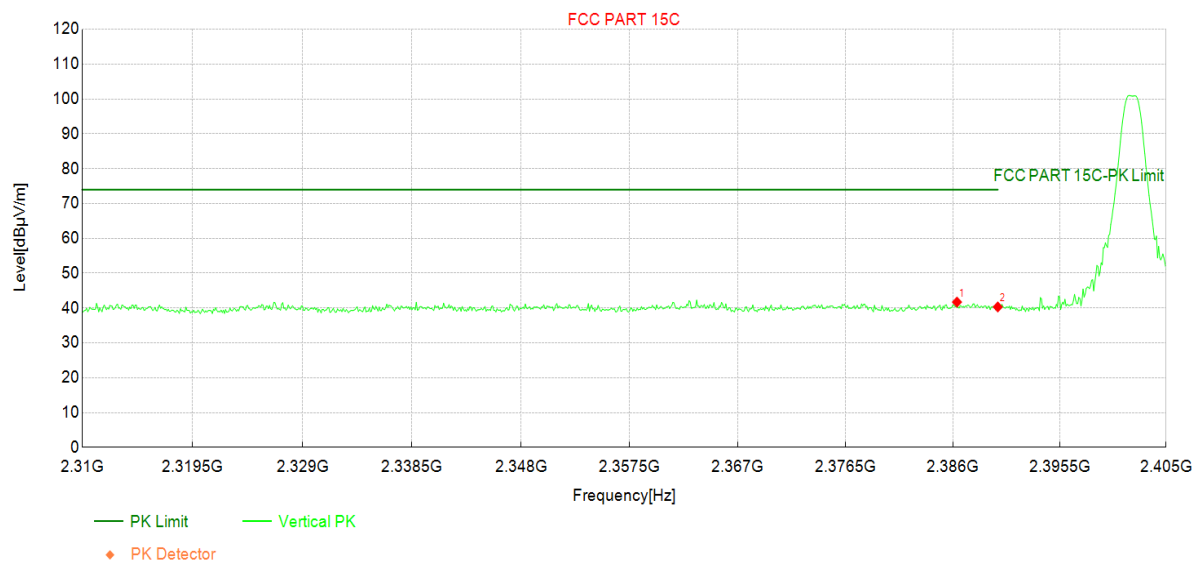
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2387.90	26.57	30.20	3.63	54.00	23.80	AV	Horizo	PASS
2	2390.00	26.05	29.70	3.65	54.00	24.30	AV	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2402MHz by LE_Coded S=2	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

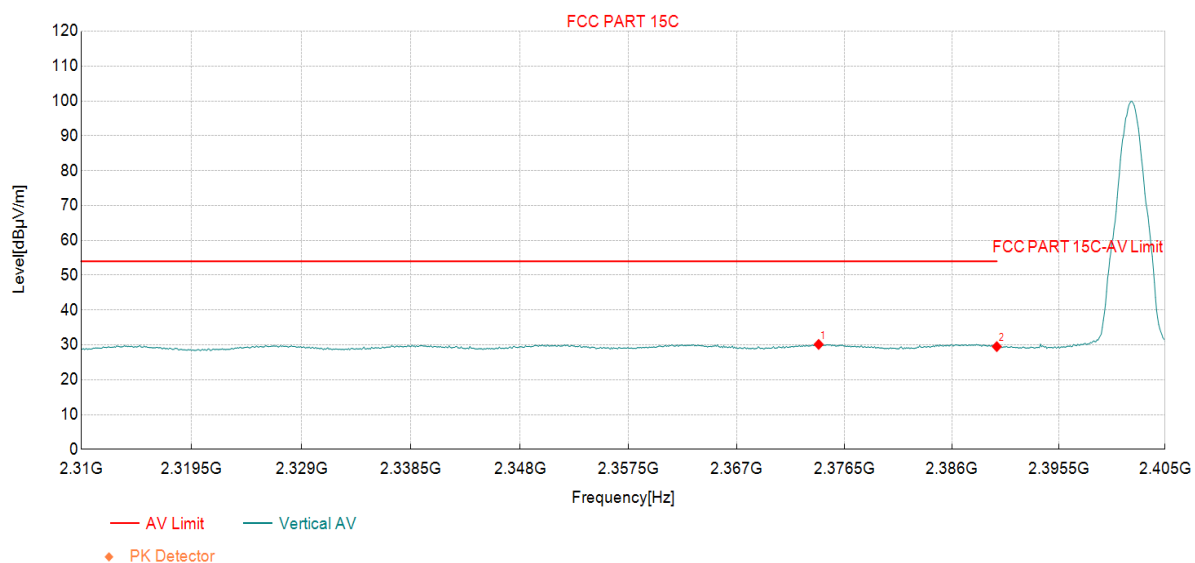
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2386.38	38.08	41.71	3.63	74.00	32.29	PK	Vertic	PASS
2	2390.00	36.66	40.31	3.65	74.00	33.69	PK	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2402MHz by LE_Coded S=2	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

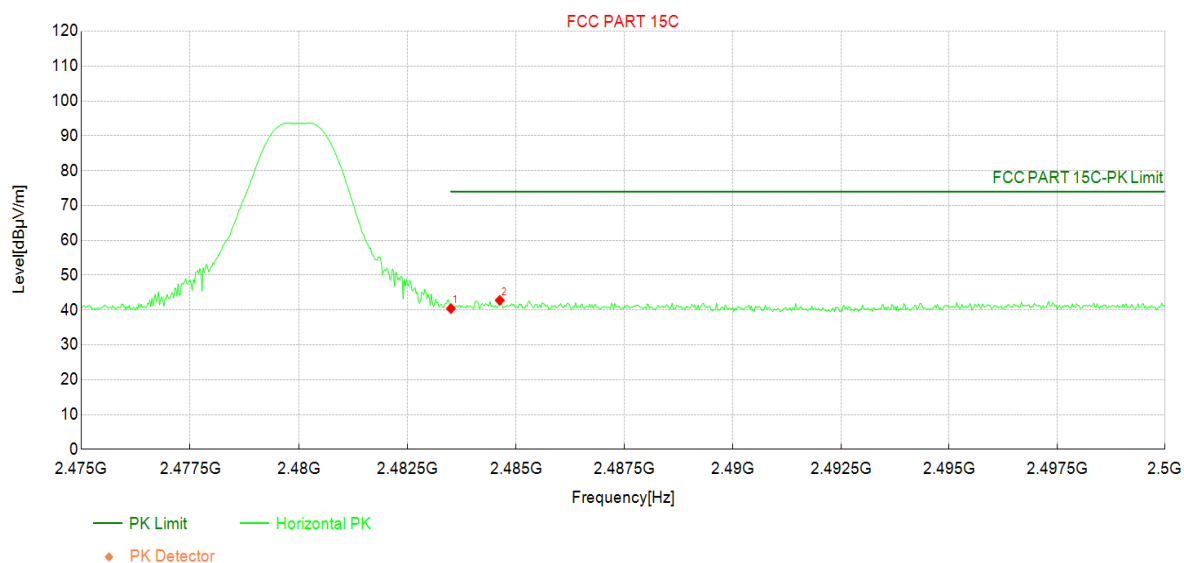
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2374.22	26.55	30.12	3.57	54.00	23.88	AV	Vertic	PASS
2	2390.00	25.85	29.50	3.65	54.00	24.50	AV	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2480MHz by LE_Coded S=2	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

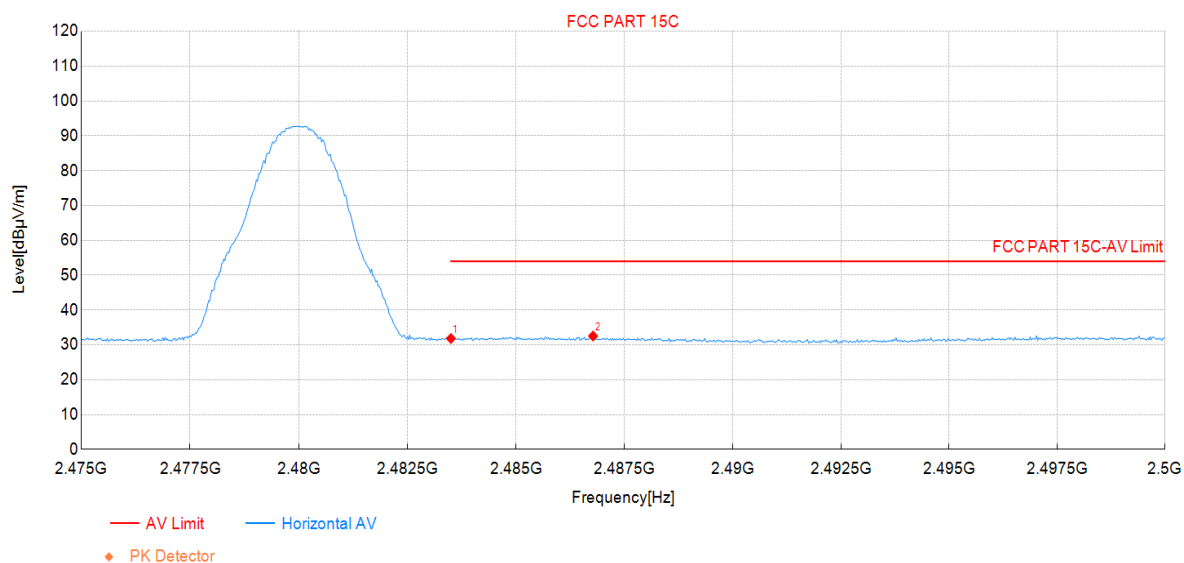
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	36.32	40.41	4.09	74.00	33.59	PK	Horizo	PASS
2	2484.63	38.67	42.78	4.11	74.00	31.22	PK	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2480MHz by LE_Coded S=2	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

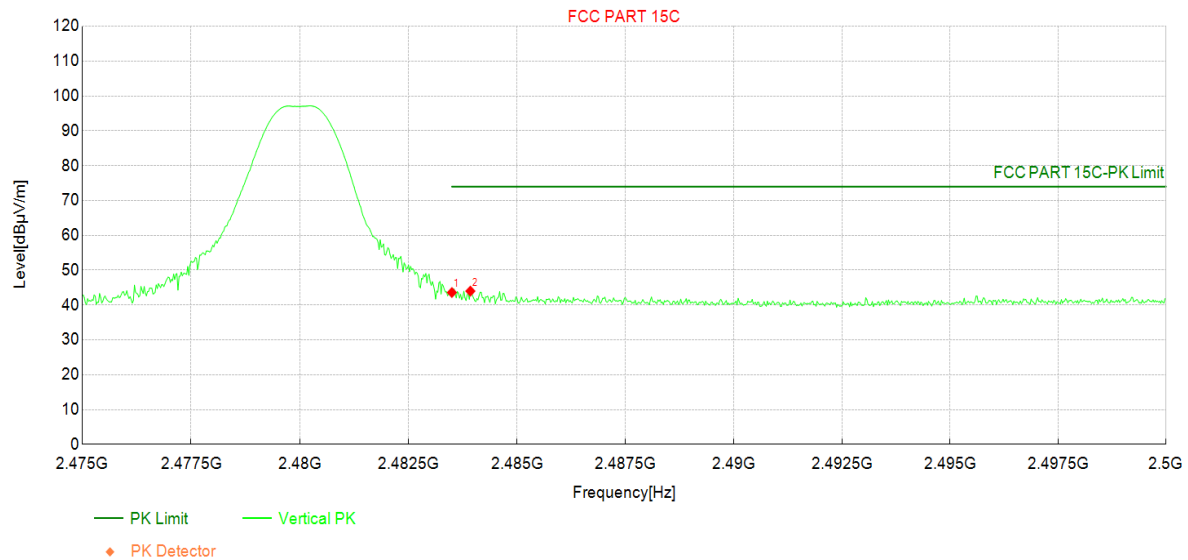
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	27.74	31.83	4.09	54.00	22.17	AV	Horizo	PASS
2	2486.78	28.42	32.53	4.11	54.00	21.47	AV	Horizo	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2480MHz by LE_Coded S=2	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

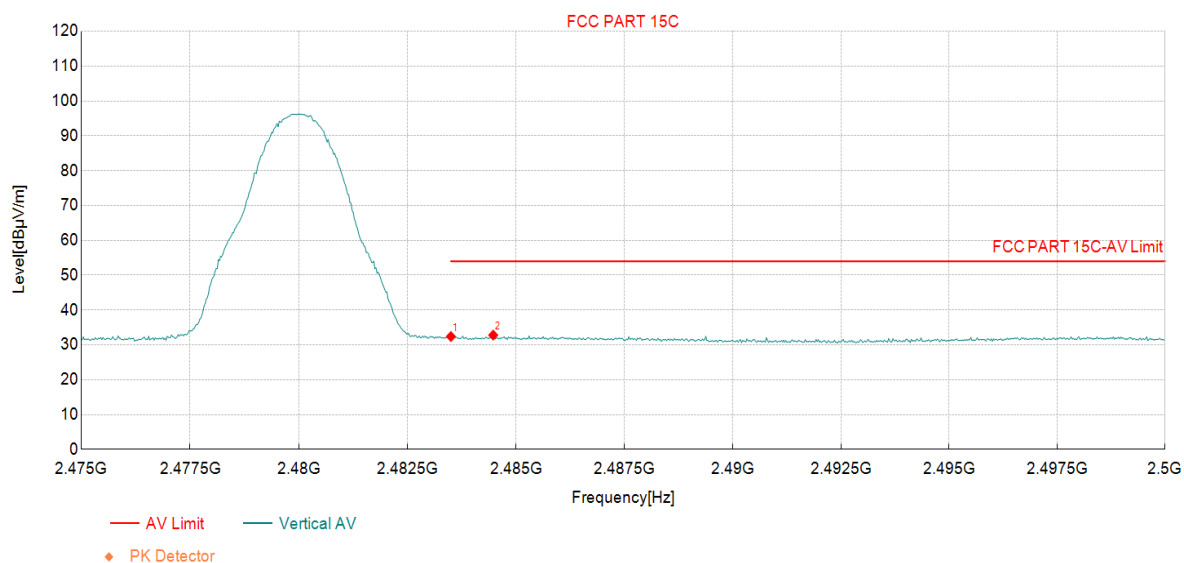
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	39.50	43.59	4.09	74.00	30.41	PK	Vertic	PASS
2	2483.93	39.90	43.99	4.09	74.00	30.01	PK	Vertic	PASS

Test Report

Project Information

Profile:	2530770R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2480MHz by LE_Coded S=2	Voltage:	120 Vac / 60 Hz
Environment:	Temp: 25°C ; Humi:60%	Engineer	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



Suspected Data List

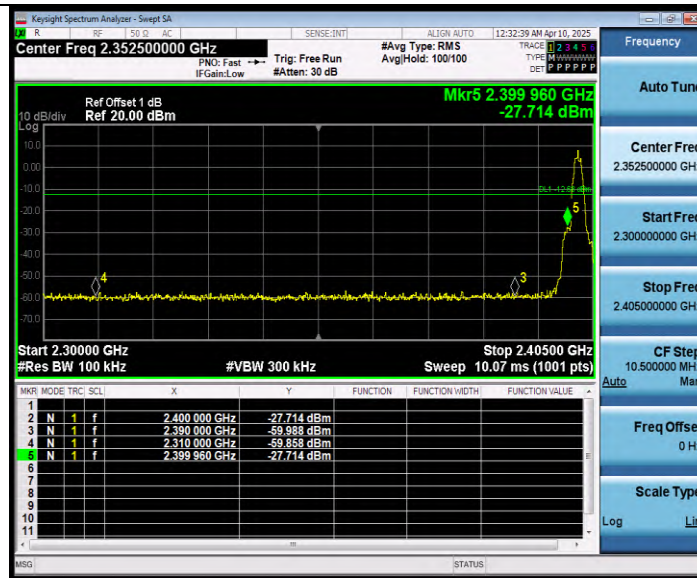
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	28.30	32.39	4.09	54.00	21.61	AV	Vertic	PASS
2	2484.48	28.69	32.80	4.11	54.00	21.20	AV	Vertic	PASS

Note:

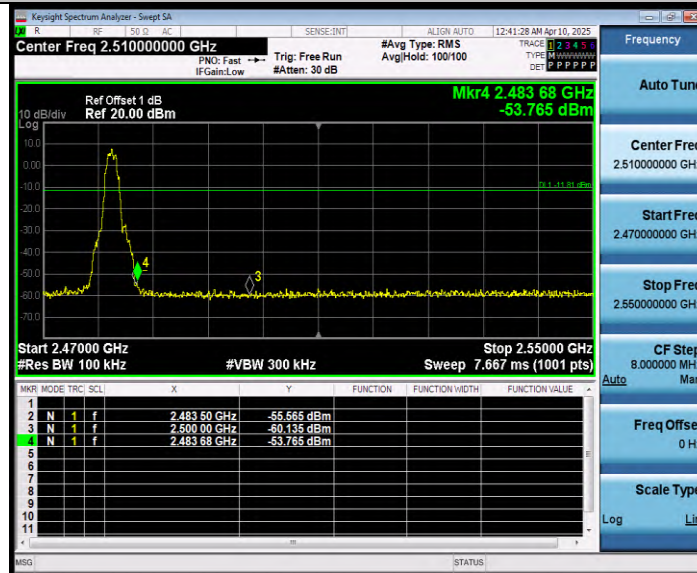
- 1.Level=Reading+Factor .
2. Margin=Limit-Level.

Appendix E: Conducted Spurious Emission
Test Result for Band edge

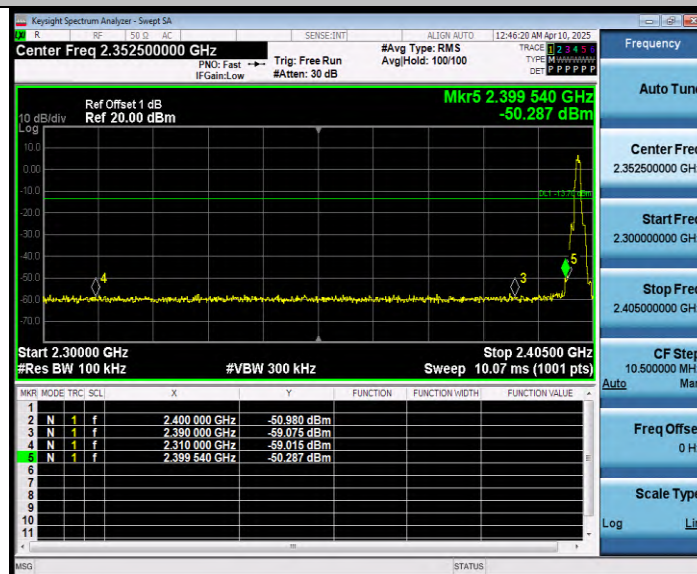




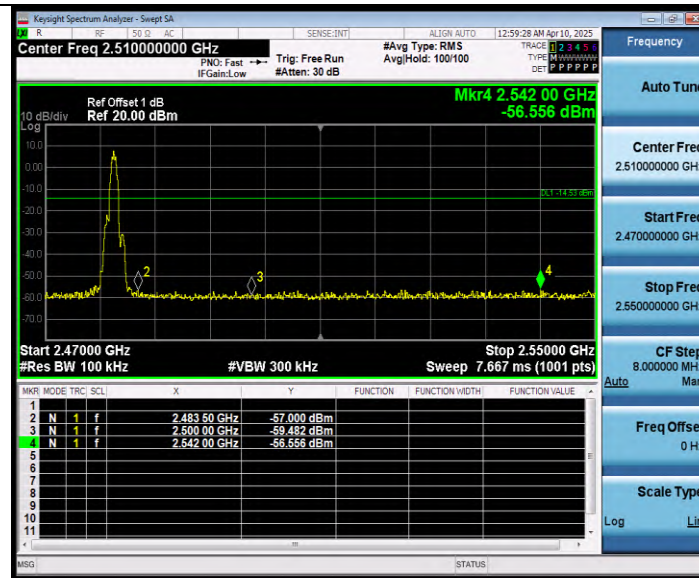
BLE_2M_Ant1_High_2480



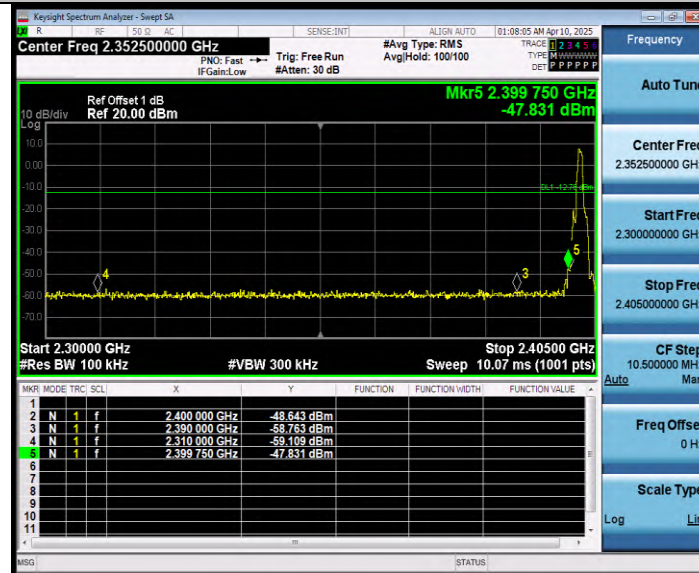
BLE_125K_Ant1_Low_2402



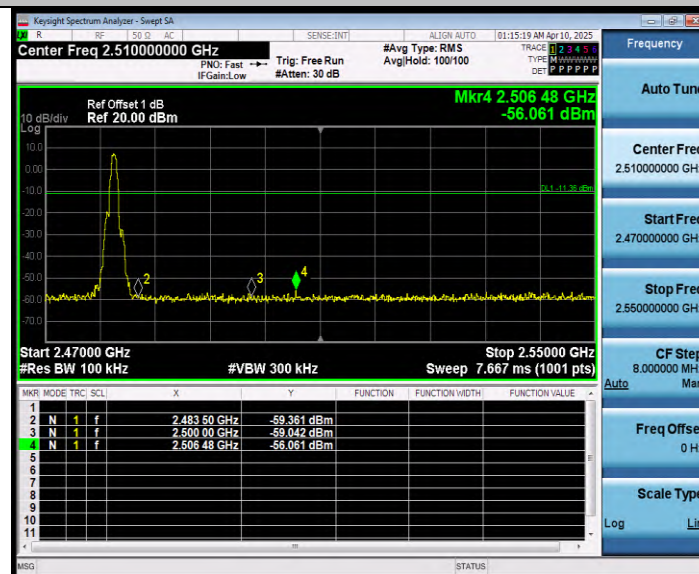
BLE_125K_Ant1_High_2480



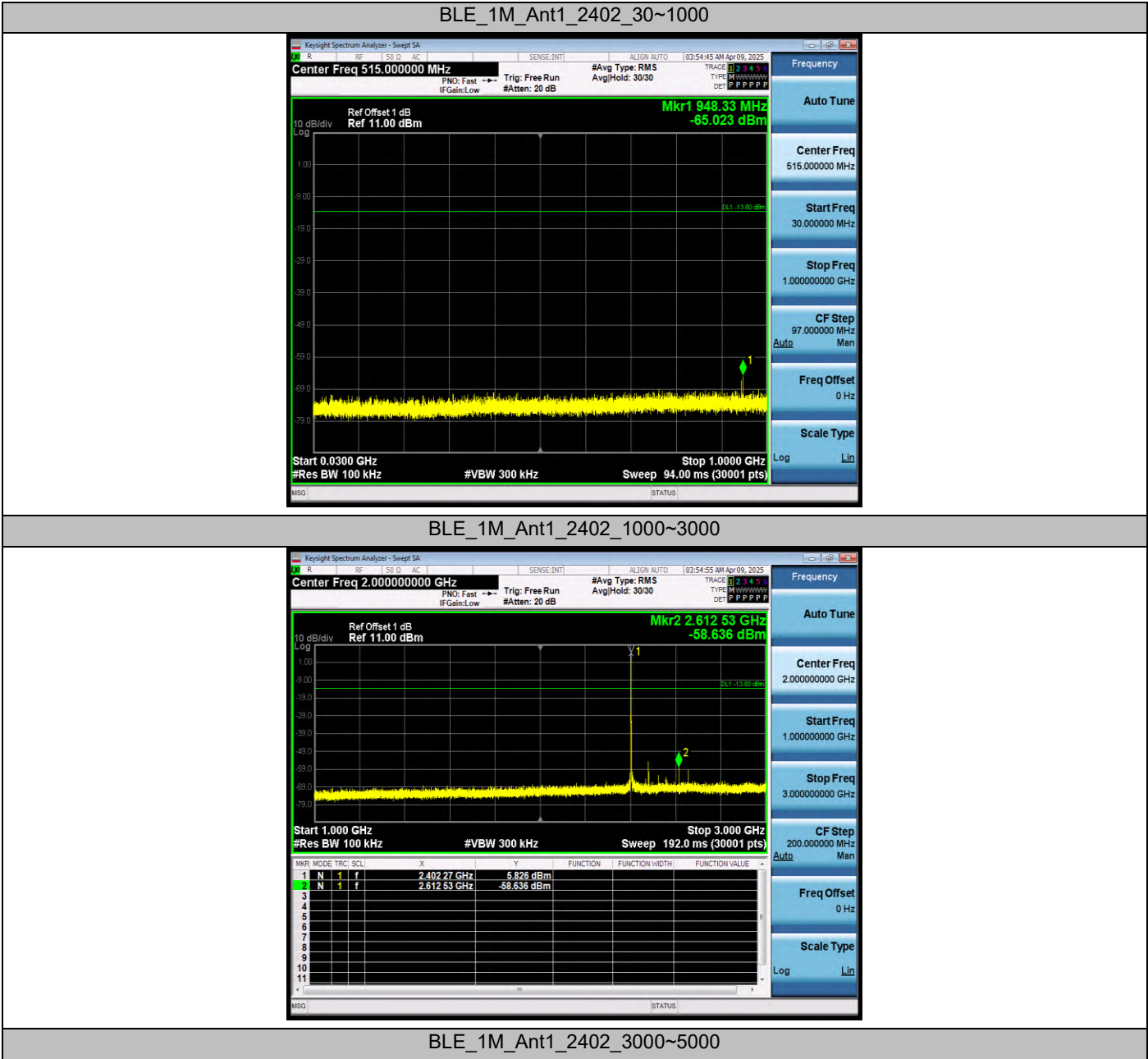
BLE_500K_Ant1_Low_2402



BLE_500K_Ant1_High_2480

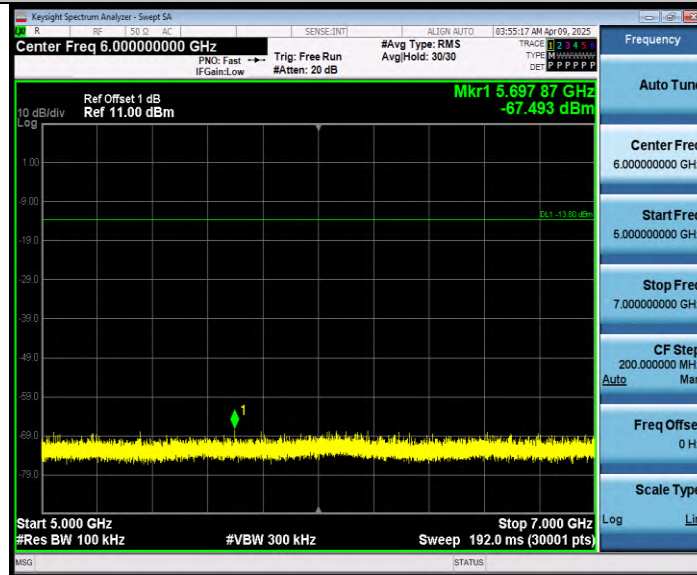


Test Result for Spurious Emission





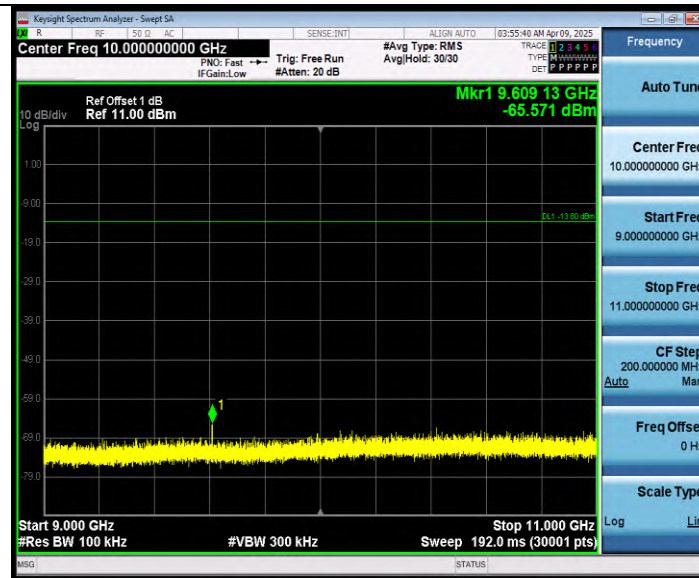
BLE_1M_Ant1_2402_5000~7000



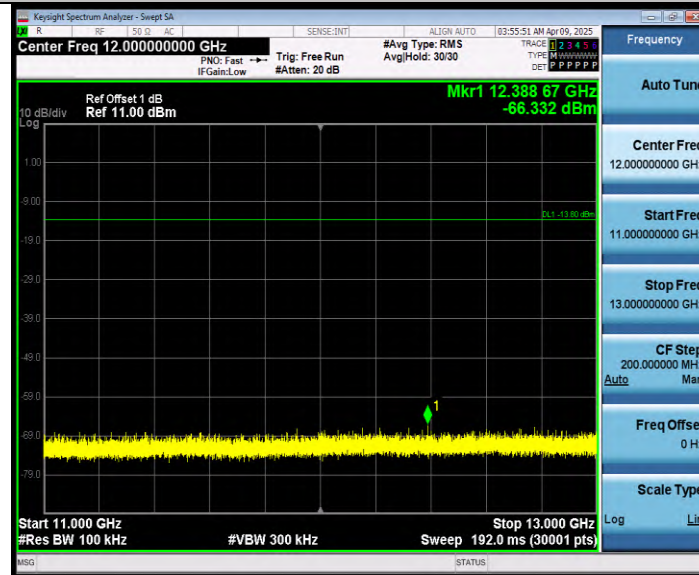
BLE_1M_Ant1_2402_7000~9000



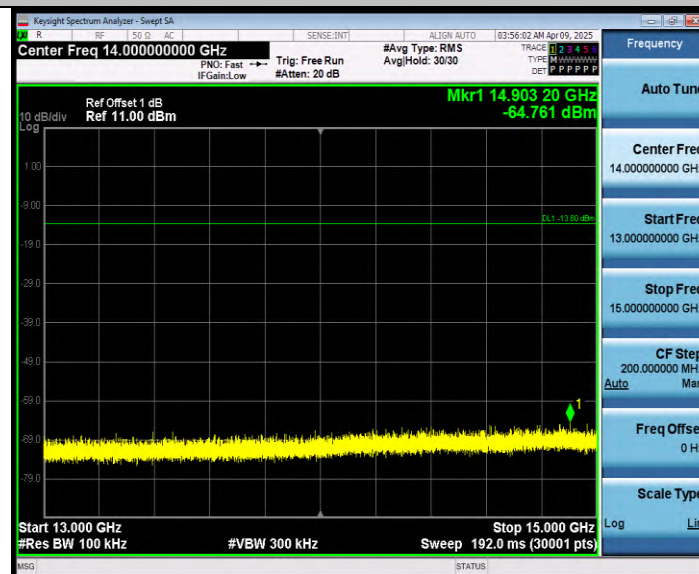
BLE_1M_Ant1_2402_9000~11000



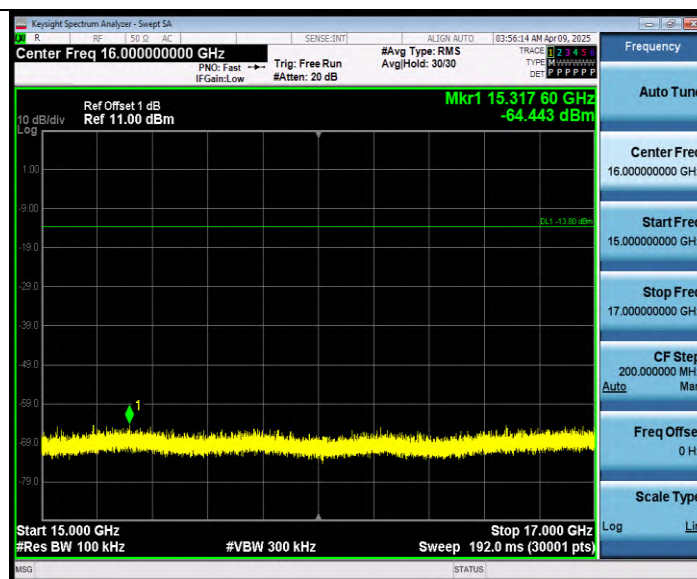
BLE_1M_Ant1_2402_11000~13000



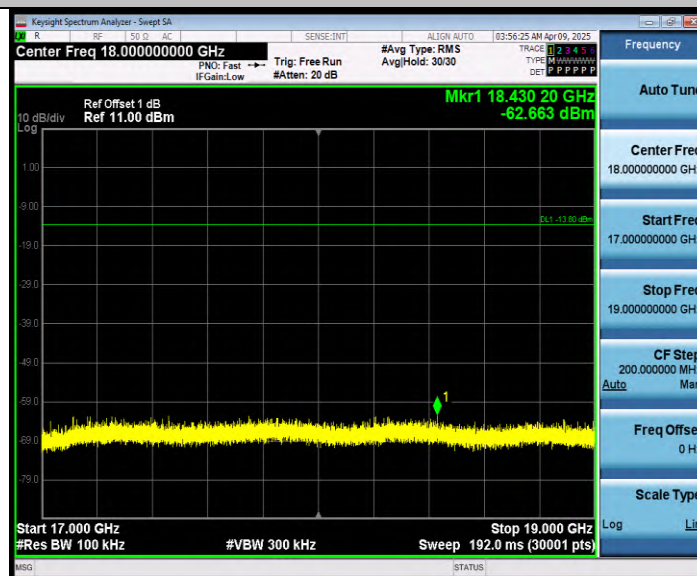
BLE_1M_Ant1_2402_13000~15000



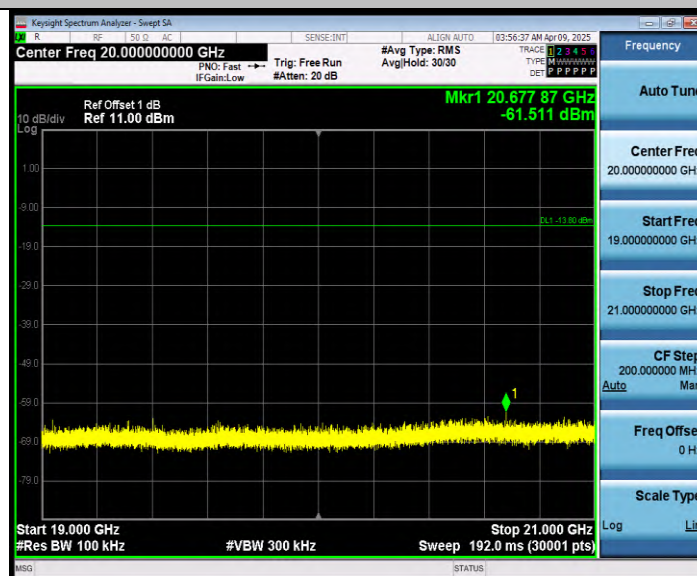
BLE_1M_Ant1_2402_15000~17000



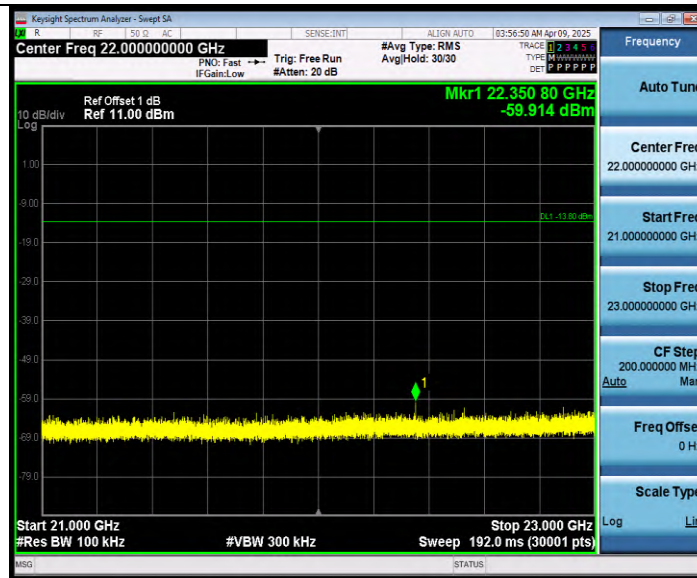
BLE_1M_Ant1_2402_17000~19000



BLE_1M_Ant1_2402_19000~21000



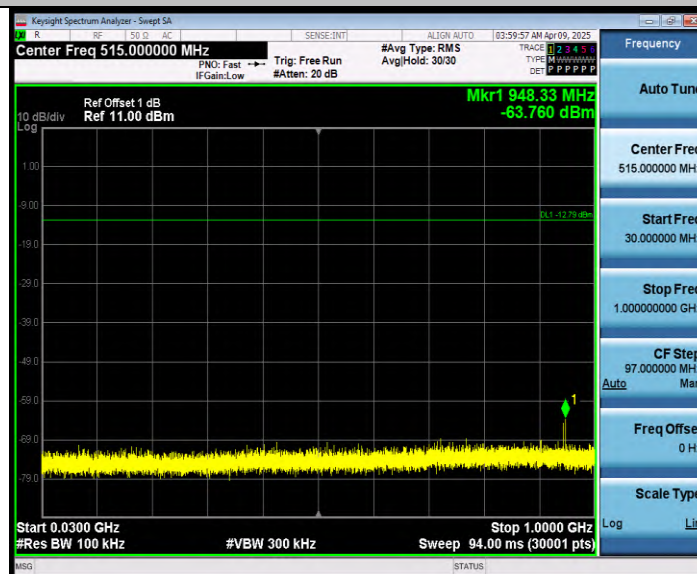
BLE_1M_Ant1_2402_21000~23000



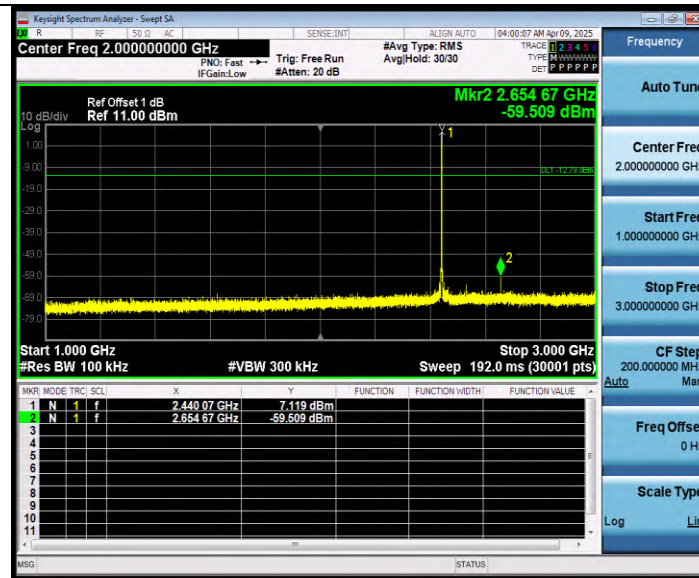
BLE_1M_Ant1_2402_23000~25000



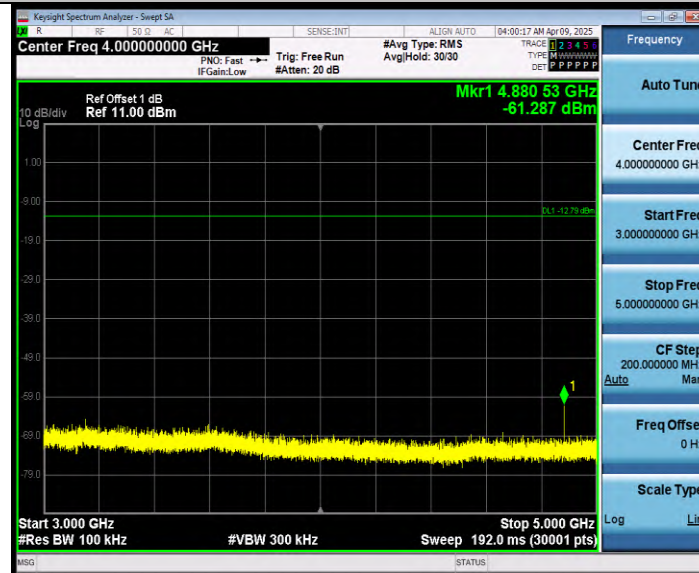
BLE_1M_Ant1_2440_30~1000



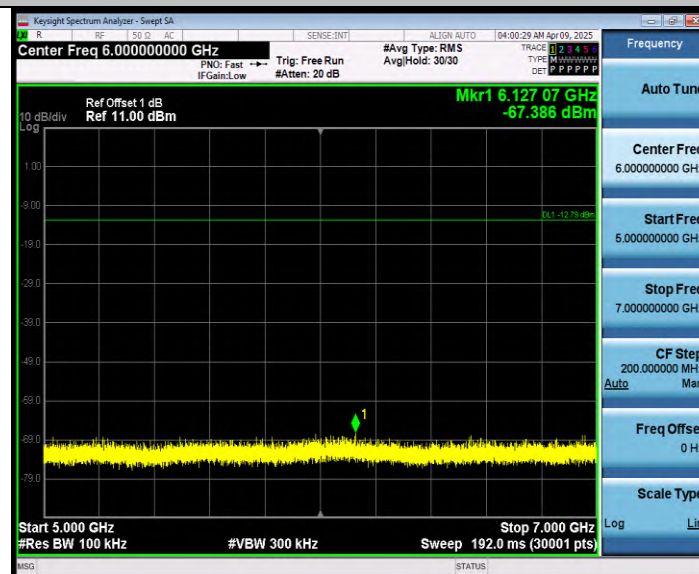
BLE_1M_Ant1_2440_1000~3000



BLE_1M_Ant1_2440_3000~5000



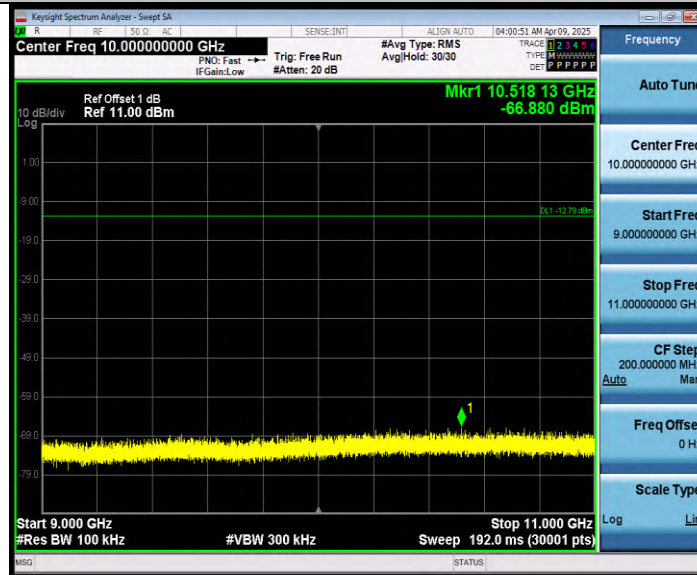
BLE_1M_Ant1_2440_5000~7000



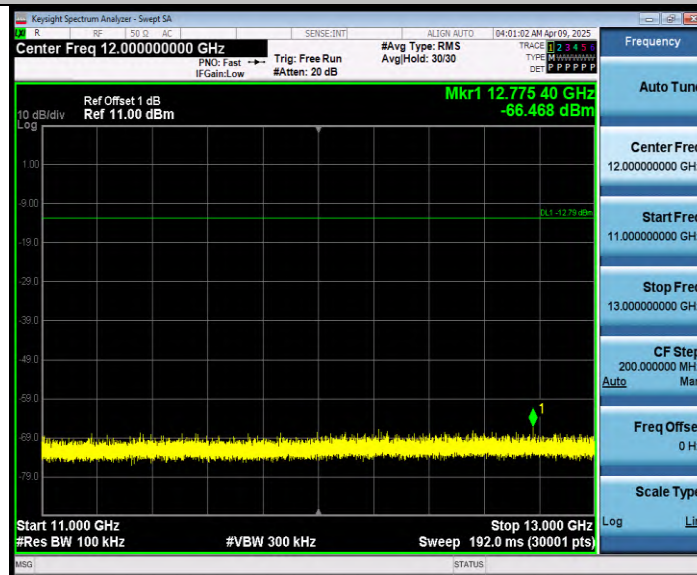
BLE_1M_Ant1_2440_7000~9000



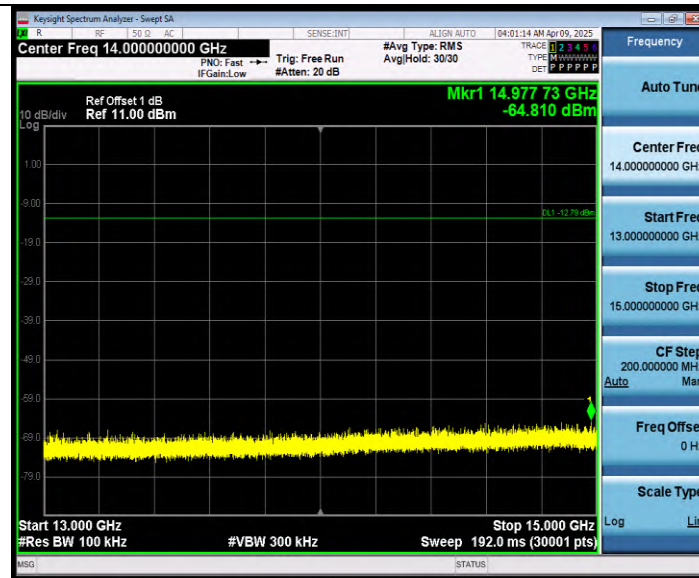
BLE_1M_Ant1_2440_9000~11000



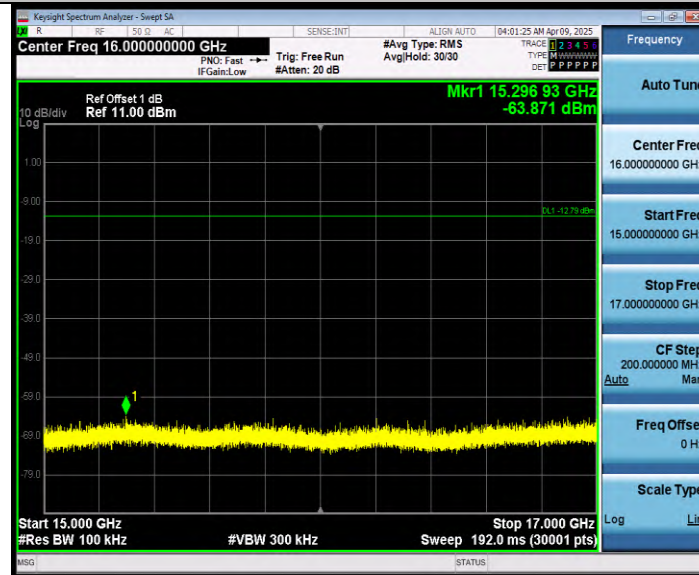
BLE_1M_Ant1_2440_11000~13000



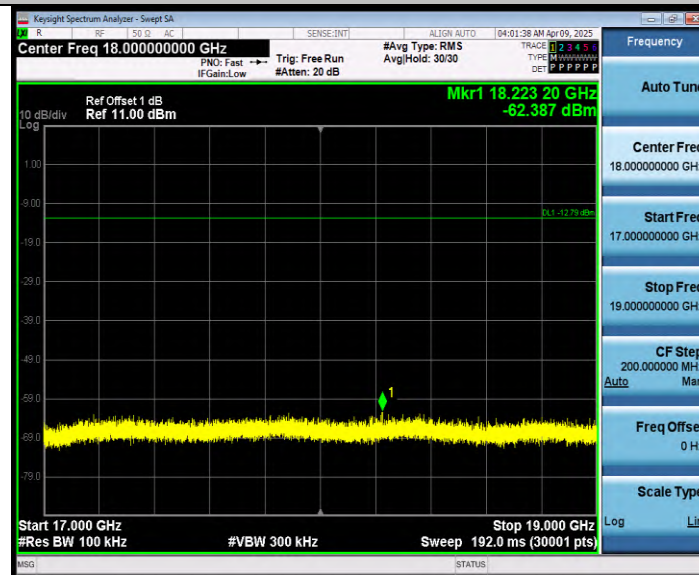
BLE_1M_Ant1_2440_13000~15000



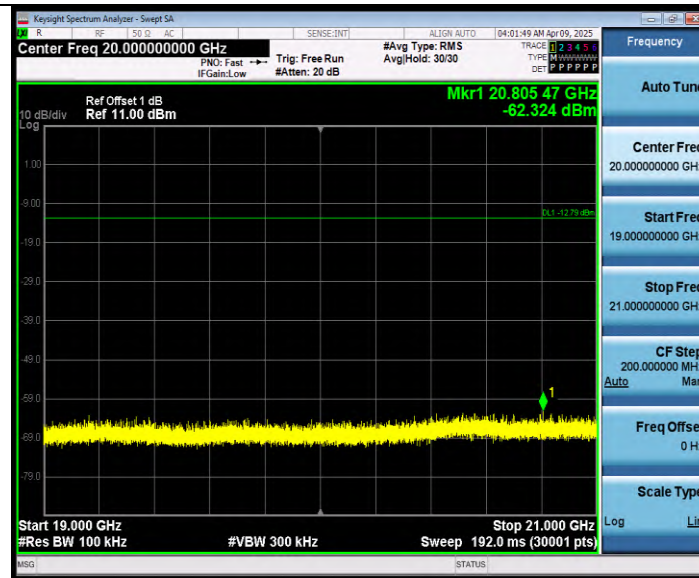
BLE_1M_Ant1_2440_15000~17000



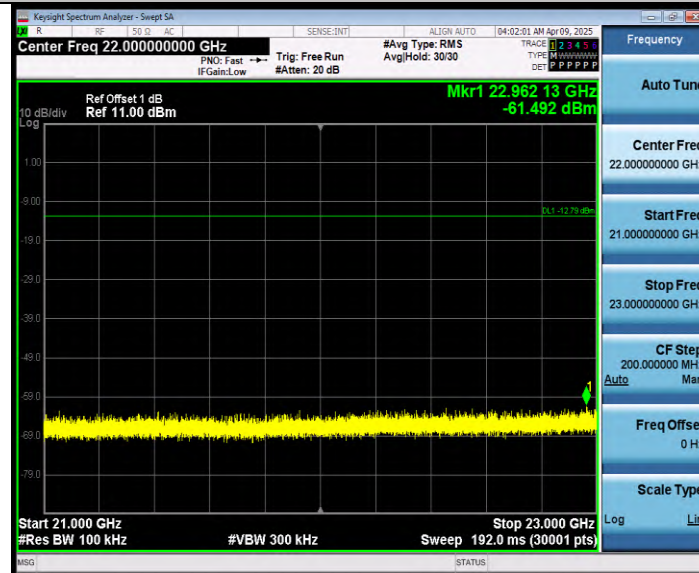
BLE_1M_Ant1_2440_17000~19000



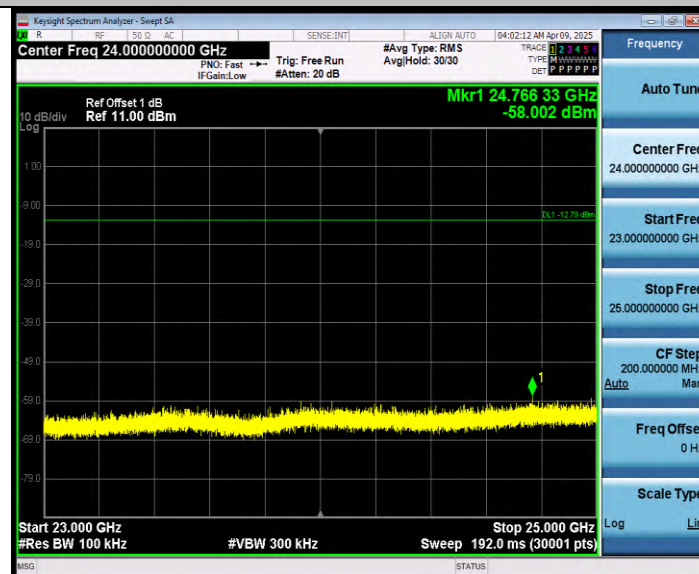
BLE_1M_Ant1_2440_19000~21000



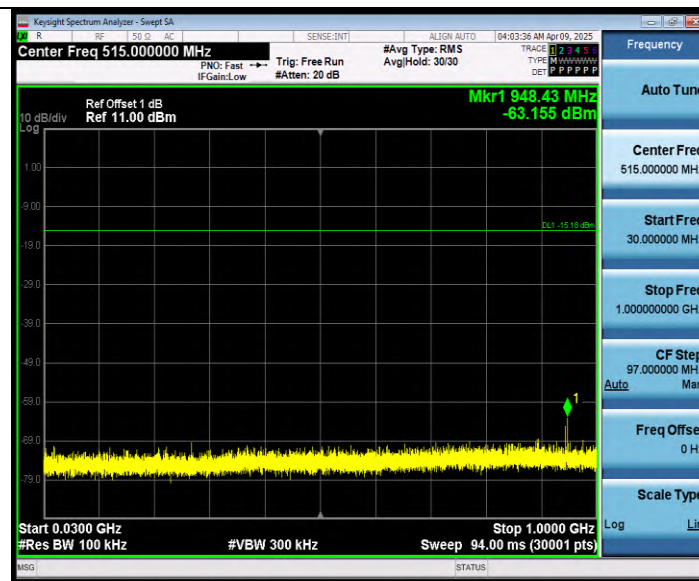
BLE_1M_Ant1_2440_21000~23000



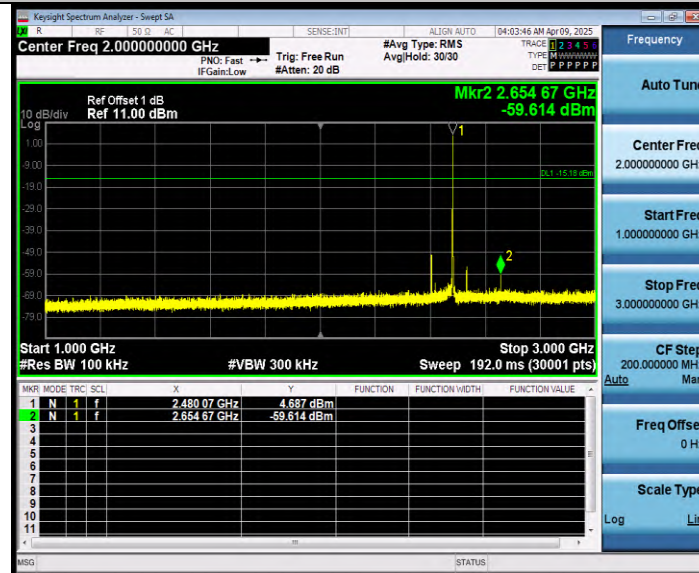
BLE_1M_Ant1_2440_23000~25000



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~3000



BLE_1M_Ant1_2480_3000~5000



BLE_1M_Ant1_2480_5000~7000