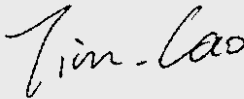




Test report No:
2580829R.703

TEST REPORT

Product Name	5G Smartphone
Trademark	Schok
Model and /or type reference	Schok Volt SV69S
FCC ID	2AM9L-SV69S
Applicant´s name / address	Schok, LLC. 5850 Town and Country Blvd, Suite 203 Frisco, TX 75034
Test method requested, standard	47 CFR FCC Part 15 (Section 15.247) ANSI C63.10-2020 + Cor.1-2023
Verdict Summary	IN COMPLIANCE
Tested By (name / position & signature)	Tim Cao/ Project Manager 
Approved by (name / position & signature)	Frank He/ Technical Manager 
Date of issue	2025-12-18
Report Version	V1.1
Report template No.	Template_FCC Part 15C-RF-V1.0

INDEX

	page
Competences and Guarantees.....	4
General conditions.....	4
Document History	5
TEST SUMMARY	5
Used Equipment	6
Uncertainty.....	9
1 General Information.....	10
2 Description of Test Setup	11
2.1 Power setting in test.....	11
3 Verdict summary section	12
3.1 Standards	12
3.2 Deviation(s) from the Standard(s) / Test Specification(s)	12
4 Test Results.....	13
4.1 AC Power Line Conducted Emission	13
4.1.1 Limit.....	13
4.1.2 Test Setup.....	13
4.1.3 Test Procedure	13
4.2 Emissions in restricted frequency bands	14
4.2.1 Limit.....	14
4.2.2 Test Setup.....	16
4.2.3 Test Procedure	17
4.3 Emissions in non-restricted frequency band	18
4.3.1 Limit.....	18
4.3.2 Test Setup.....	18
4.3.3 Test Procedure	18
4.4 Duty cycle.....	19
4.4.1 Limit.....	19
4.4.2 Test Setup.....	19
4.4.3 Test Procedure	19
4.5 Radiated Emission Band Edge	20
4.5.1 Limit.....	20
4.5.2 Test Setup.....	20
4.5.3 Test Procedure	21
4.6 DTS Bandwidth	22

4.6.1	Limit.....	22
4.6.2	Test Setup.....	22
4.6.3	Test Procedure	22
4.7	Fundamental emission output power	23
4.7.1	Limit.....	23
4.7.2	Test Setup.....	23
4.7.3	Test Procedure	24
4.8	Power Density	25
4.8.1	Limit:.....	25
4.8.2	Test Setup.....	25
4.8.3	Test Procedure	25
4.9	Antenna Requirement	26
4.9.1	Limit:.....	26
4.9.2	Antenna Connector Construction:.....	26
5	Test setup photo and EUT Photo	26
Appendix A: Test results of DTS Bandwidth.....		27
Appendix B: Test results of Maximum conducted output power		34
Appendix C: Test results of Maximum power spectral density.....		36
Appendix D: Test results of Band edge measurements		43
Appendix E: Test results of Conducted Spurious Emission		75
Appendix F: Test results of Duty cycle		99
Appendix G: Test results of Emissions in Restricted Bands		106
Appendix F: AC Power Line Conducted Emission		134

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.

IMPORTANT: No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

GENERAL CONDITIONS

Test Location A	No. 99, Hongye Road, Suzhou Industrial Park Suzhou, 215006, P.R. China	
Test Location B	No. 8213, Fanhua Avenue, Baohe District, Hefei City, Anhui Province, China	
Test Facility	Test Location A	Test Location B
	A2LA (Certificate No. 3235.01)	A2LA (Certificate No. 6579.01)
	CNAS (Certificate No. L5313)	CNAS (Certificate No. L21125)
	FCC - Designation Number: CN1199	FCC - Designation Number: CN1231
	Test Firm Registration Number: 566524	Test Firm Registration Number: 690292
	ISED - CAB identifier: CN0040	ISED - CAB identifier: CN0175
	IC#: 4075B	IC#: 32222
Date (receive sample)	Sept. 15, 2025	
Date (start test)	Sept. 16, 2025	
Date (finish test)	Nov. 16, 2025	
Note: Radiated Emission and Radiated Emission Band Edge were completed at Test Location B, and other tests were completed at Test Location A.		

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.
5. 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.

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
2580829R.703	V1.0	Initial issue of report.	2025-12-10
2580829R.703	V1.1	Page 130~131: Add data for Emissions in restricted frequency bands above 18GHz. (The test report No.: 2580829R.703 V1.1 is to replace the test report No.: 2580829R.703 V1.0, and test report 2580829R.703 V1.0 is obsoleted.)	2025-12-13

TEST SUMMARY

Requirement – Test Item of FCC	Standard(s)	Verdict
DTS Bandwidth	FCC 15.247(a)(2)	PASS
Maximum conducted output power	15.247 (b)(3)	PASS
Maximum power spectral density	FCC 15.247(e)	PASS
Band edge measurements	FCC 15.247(d) FCC 15.205 FCC 15.209	PASS
Conducted Spurious Emission	FCC 15.247(d), FCC 15.209	PASS
Duty cycle	ANSI C63.10-2020 + Cor.1-2023	PASS
Emissions in Restricted Bands	FCC 15.205 FCC 15.209	PASS
AC Power Line Conducted Emission	FCC 15.207	PASS
Antenna Requirement	FCC 15.203	PASS

USED EQUIPMENT

Location A: Conducted Test/ TR8

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date	Firmware Version	Software version
Wireless Connectivity Tester	R&S	CMW 270	102593	2025.05.10	2026.05.09	V 4.0.60	N/A
Coaxial Cable	N/A	N/A	2477	2025.06.10	2026.06.09	N/A	N/A
Coaxial Cable	N/A	N/A	2478	2025.06.10	2026.06.09	N/A	N/A
High and low temperature and fast temperature change test box	ASTUOD	ASTD-FBT-225K	N/A	2025.04.13	2026.04.12	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	RF08	2025.06.17	2026.06.16	N/A	N/A
Test system							
Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date	Firmware Version	Software version
MAX Signal Analyzer	Keysight	N9010A	MY48030494	2024.10.26	2025.10.25	A.14.03	N/A
MAX Signal Analyzer	Keysight	N9010A	MY48030494	2025.09.20	2026.09.19	A.14.03	N/A
RF Control Unit	Tonscend	JS0806-2	22G8060594	2025.01.26	2026.01.25	N/A	N/A
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY61252529	2025.03.23	2026.03.22	B.01.96	N/A
Frequency extender for EXG or MXG	Keysight	N5182BX07	MY59362500	2025.03.23	2026.03.22	N/A	N/A
EXG-B MW Analog Signal Generator	Keysight	N5173B	MY61252566	2025.05.10	2026.05.09	B.01.95	N/A
Test Software	Tonscend	TS1120	JS1120-3	N/A	N/A	N/A	V3.0.22

Location A: AC Power Line Conducted Emission / TR1

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date	Firmware Version	Software version
EMI Test Receiver	R&S	ESCI	100726	2025.05.18	2026.05.17	4.42 SP1	N/A
Two-Line V-Network	R&S	ENV 216	101189	2025.05.10	2026.05.09	N/A	N/A
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2025.03.16	2026.03.15	N/A	N/A
Coaxial Cable	Huber+Suhner	RG 223	TR1-C1	2025.03.16	2026.03.15	N/A	N/A
Impedance Stabilization Network	Teseq GmbH	ISN T800	57318	2025.02.25	2026.02.24	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	EMC01	2025.06.17	2026.06.16	N/A	N/A
Dekra test software	Dekra	N/A	N/A	N/A	N/A	N/A	3

Location A: Radiated Emission(9kHz-1GHz) / AC6

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date	Firmware Version	Software version
Signal analyzer	Agilent	N9020A	MY49100159	2025.05.10	2026.05.09	A 08.54	N/A
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9168	01231	2025.05.28	2026.05.27	N/A	N/A
Loop Antenna	R&S	HFH2-Z2E	101149	2025.04.16	2026.04.15	N/A	N/A
Coaxial Cable	N/A	N/A	2225	2025.06.10	2026.06.09	N/A	N/A
Coaxial Cable	N/A	N/A	2229	2025.06.10	2026.06.09	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	RF07	2025.06.17	2026.06.16	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	RF06	2025.06.17	2026.06.16	N/A	N/A
Test Software	Tonscend	JS36	N/A	N/A	N/A	N/A	5.0.0

Test Location B: Radiated Emission Band Edge / AC103

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date	Firmware Version	Software version
Signal analyzer	keysight	N9020B	MY63490118	2025.07.19	2026.07.18	A 08.54	N/A
Bilog Antenna	TESEQ	CBL6112D	64164	2024.11.23	2025.11.22	N/A	N/A
Bilog Antenna	TESEQ	CBL6112D	64164	2025.10.27	2026.10.26	N/A	N/A
Horn Antenna	RF SPIN	DRH18-E	KV2D11A18ES	2024.11.02	2025.11.01	N/A	N/A
Horn Antenna	RF SPIN	DRH18-E	KV2D11A18ES	2025.10.19	2026.10.18	N/A	N/A
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	01312	2024.10.28	2025.10.27	N/A	N/A
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	01312	2025.10.24	2026.10.23	N/A	N/A
Amplifier	ESE	LNA0118	LNA23100009	2024.08.10	2025.08.09	N/A	N/A
Amplifier	ESE	LNA0118	LNA23100009	2025.05.10	2026.05.09	N/A	N/A
Amplifier	Tonscend	TAP01018048S	AP23J8060307	2024.11.16	2025.11.15	N/A	N/A
Amplifier	Tonscend	TAP01018048S	AP23J8060307	2025.10.16	2026.10.15	N/A	N/A
Band Reject Filter Group	Tonscend	JS0806-F	23G806F0701	2025.05.10	2026.05.09	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	026	2025.08.29	2026.08.28	N/A	N/A
Test Software	Tonscend	JS36	N/A	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 A	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~200MHz: 3.5 dB 300MHz~1GHz: 3.6 dB Vertical: 30MHz~200MHz: 3.6 dB 300MHz~1GHz: 3.5 dB
Radiated Emission(1GHz~26.5GHz)	Horizontal: 1GHz~18GHz: 5.0 dB Vertical: 1GHz~18GHz: 4.8 dB Horizontal: 18GHz~26.5GHz: 5.3 dB Vertical: 18GHz~26.5GHz: 4.9 dB
RF antenna conducted test	± 1.3 dB
Radiated Emission Band Edge	± 3.9 dB
DTS Bandwidth	± 1.0 kHz
Occupied Bandwidth	± 1.0 kHz
Power Density	± 1.3 dB

Test item Test Location B	Uncertainty
Radiated Emission(30MHz~1GHz)	Horizontal: 30MHz~300MHz: 4.9 dB, 300MHz~1GHz: 4.9 dB Vertical: 30MHz~300MHz: 4.9 dB, 300MHz~1GHz: 4.9 dB
Radiated Emission(1GHz~40GHz)	Horizontal: 1GHz~40GHz: 6.0 dB Vertical: 1GHz~40GHz: 5.8 dB
Radiated Emission Band Edge	± 6.0 dB

1 GENERAL INFORMATION

Product Name	5G Smartphone	
Model No.....	Schok Volt SV69S	
Trademark.....	Schok	
FCC ID	2AM9L-SV69S	
Manufacturer	Schok, LLC.	
Manufacturer Address.....	5850 Town and Country Blvd, Suite 203 Frisco, TX 75034	
Hardware version.....	V1.0	
Software version	SV69S4128_v01.01.25_USERDEBUG	
Power Supply	3.87V/2A/20W from internal rechargeable battery which can be charged by AC/DC adapter.	
Test Matrix/ IMEI	RF Conducted	S6835TPFAA000072
	RF Radiated	S6835TPFAA000103
Wireless specification	Wi-Fi	
Operating frequency range(s)	2400~2483.5MHz	
Type of modulation	802.11b: DSSS-DBPSK, DQPSK, CCK 802.11g/n: OFDM-BPSK, QPSK, 16QAM, 64QAM	
Channel Spacing.....	802.11b/g/n: 20MHz 802.11n: 40MHz	
Device category	☐	Fixed point-to-point
	☐	Emit multiple directional beams, simultaneously or sequentially
	☒	Other cases
Antenna type	Ant 7: PIFA Ant 8: PIFA	
Antenna Gain	Ant 7: -3.53 dBi Ant 8: -2.65 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) Notebook computer	Latitude 5420	DELL	Battery
(2) USB Cable	N/A	N/A	N/A
(3) USB Cable	N/A	N/A	N/A
Software	Type / Version	Manufacturer	Supplied by
SamsungRFTTestTool	V3.4	N/A	N/A

Accessories Information	Cable		
	Length used during test [m]	Attached during test	Shielded
(2) USB Cable	1	☒	☒
(3) USB Cable	8	☒	☒

2.1 Power setting in test

Mode	Channel	Frequency (MHz)	Power setting	
			SISO	MIMO
11b	1	2412	20	N/A
	6	2437	20	N/A
	11	2462	20	N/A
11g	1	2412	20	N/A
	6	2437	20	N/A
	11	2462	20	N/A
11n (20MHz)	1	2412	20	20
	6	2437	20	20
	11	2462	20	20
11n (40MHz)	3	2422	20	20
	6	2437	20	20
	9	2452	20	20

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
FCC CFR Title 47 Part 15 Subpart C Section 15.247	2024	Operation within the bands 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz.
ANSI C63.10-2020 + Cor.1-2023	2023	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB 558074 D01V05r02	2019	Guidance for performing compliance measurements on Digital Transmission System (DTS) operating under section 15.247
KDB 662911 D01V02r01	2020	Provision to Allow Measurement of Directional Gain of Multi-Antenna Systems for Compliance Verification

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)

4 TEST RESULTS

4.1 AC Power Line Conducted Emission	VERDICT: PASS
---	----------------------

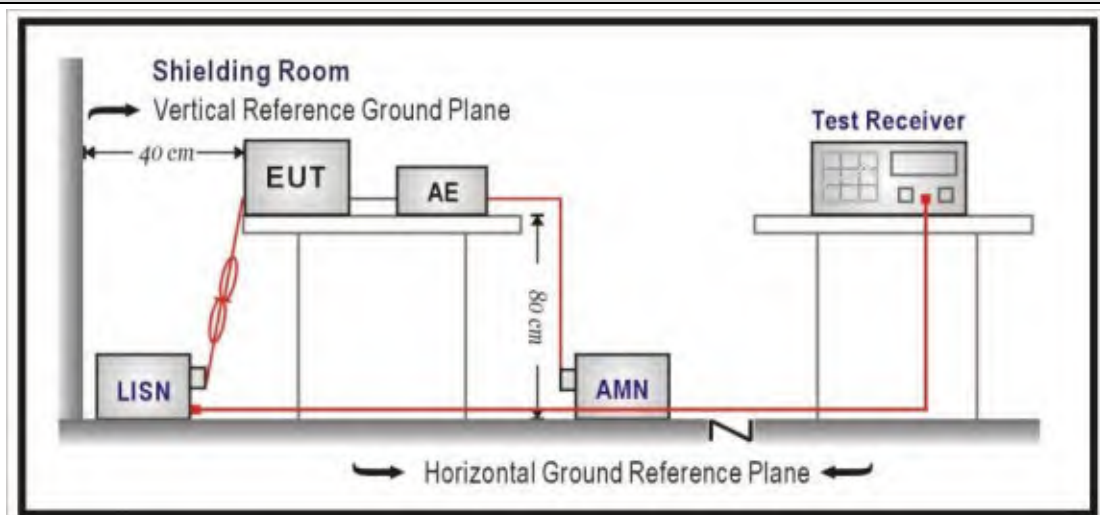
4.1.1 Limit

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.

4.1.2 Test Setup



4.1.3 Test Procedure

	References Rule	Chapter	Item
☒	ANSI C63.10-2013	6.2	Standard test method for ac power-line conducted emissions from unlicensed wireless devices

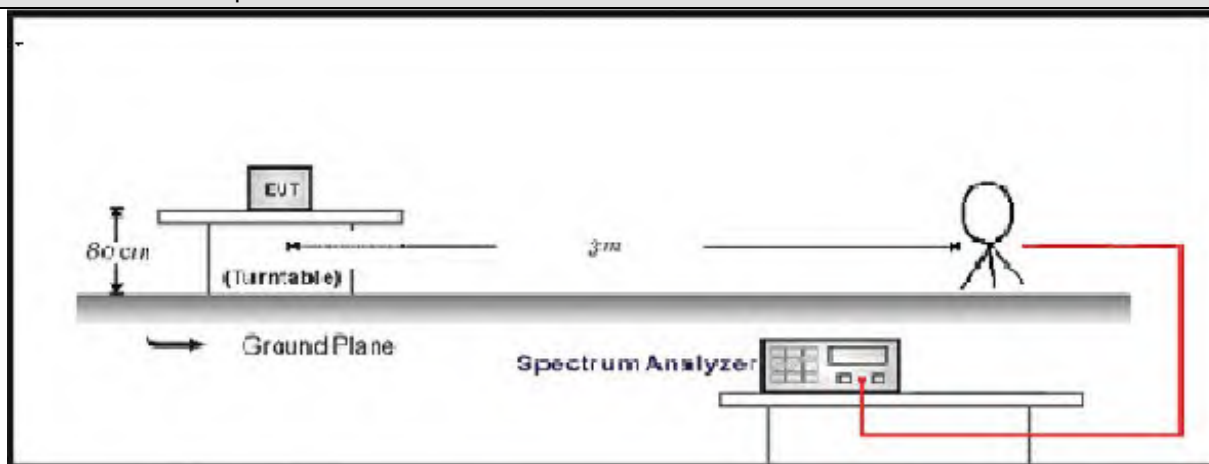
4.2 Emissions in restricted frequency bands**VERDICT: PASS****4.2.1 Limit**

Standard		FCC Part 15 Subpart C Paragraph 15.205; 15.209	
Restricted Bands of operation for FCC			
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	Above 38.6
13.36 – 13.41	--	--	--
Restricted Band Emissions Limit			
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			

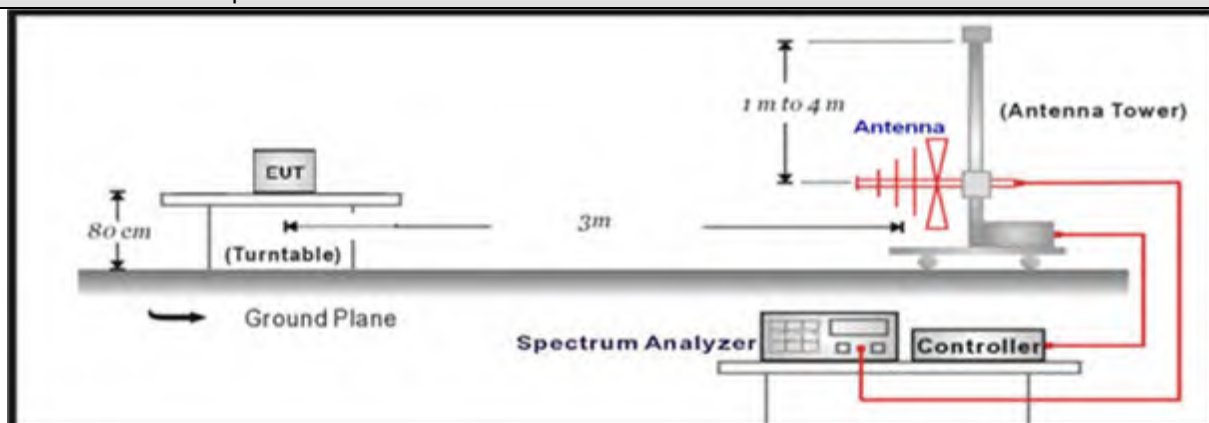
that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

4.2.2 Test Setup

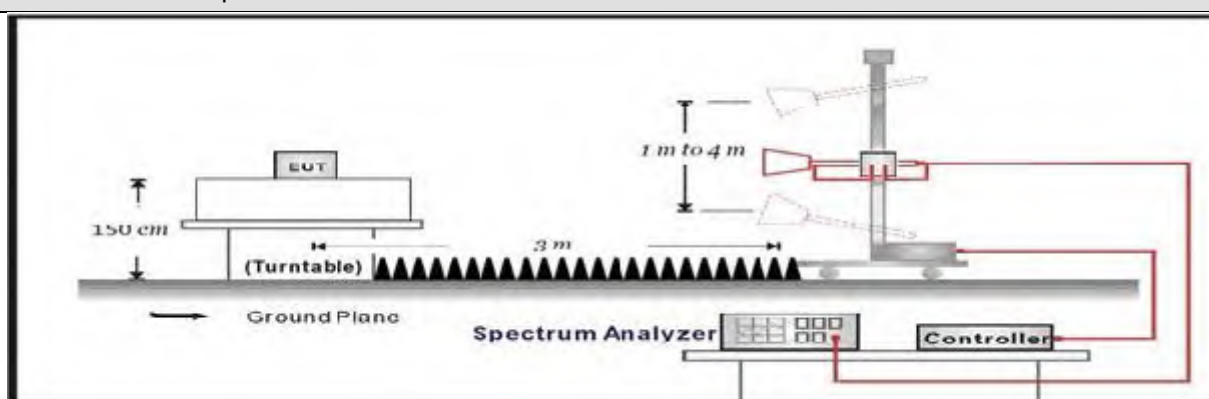
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



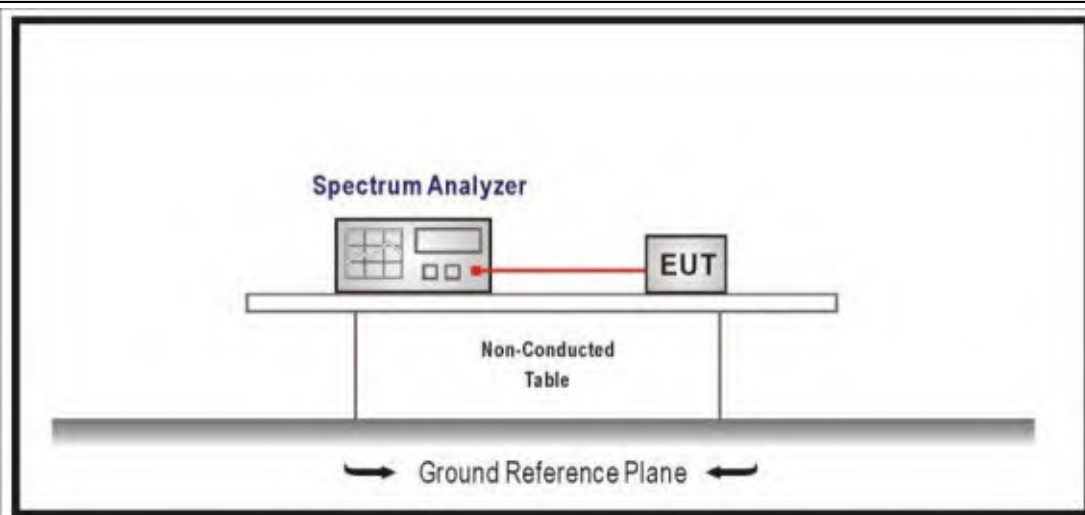
4.2.3 Test Procedure				
	References Rule		Chapter	Description
☒	ANSI C63.10		11.12	Emissions in restricted frequency bands
	☒	ANSI C63.10	11.12.1	Radiated emission measurements
	☒	ANSI C63.10	6.3	Radiated spurious emission test
	☒	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 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
	☐	ANSI C63.10	11.12.2	Antenna-port conducted measurements
	☐	ANSI C63.10	11.12.2.3	Quasi-peak measurement procedure
	☐	ANSI C63.10	11.12.2.4	Peak power measurement procedure
	☐	ANSI C63.10	11.12.2.5	Average power measurement procedures
	☐	ANSI C63.10	11.12.2.5.1	Trace averaging with continuous EUT transmission at full power
	☐	ANSI C63.10	11.12.2.5.2	Trace averaging across ON and OFF times of the EUT transmissions followed by duty cycle correction
	☐	ANSI C63.10	11.12.2.5.3	Reduced VBW averaging across ON and OFF times of the EUT transmissions with max hold

4.3 Emissions in non-restricted frequency band**VERDICT: PASS****4.3.1 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).

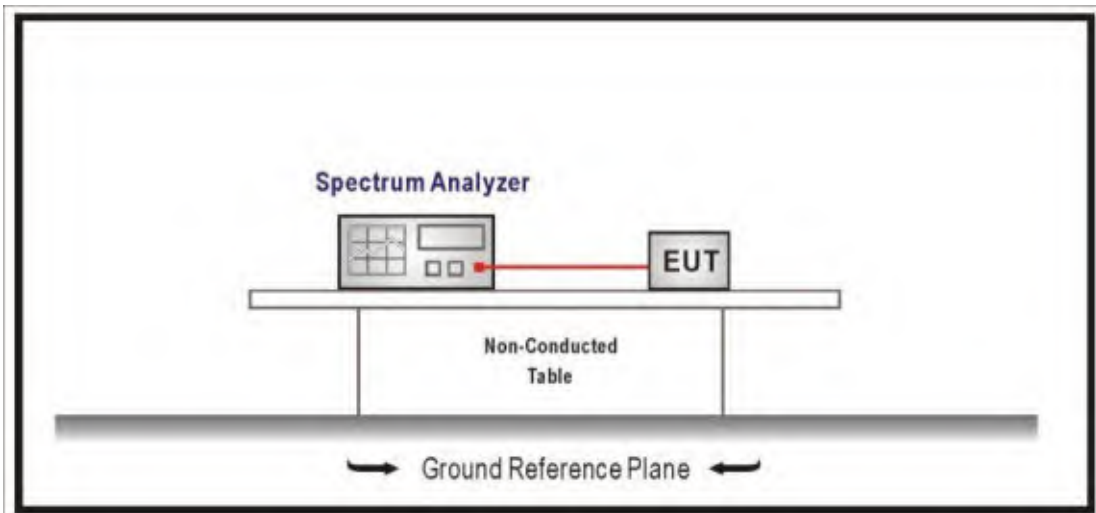
Note 2: If the maximum peak conducted output power procedure was used, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).

4.3.2 Test Setup**4.3.3 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

4.4 Duty cycle	VERDICT: PASS
-----------------------	----------------------

4.4.1 Limit
N/A

4.4.2 Test Setup
 The diagram illustrates the test setup. A Spectrum Analyzer is connected via a red cable to an EUT (Equipment Under Test). Both are placed on a Non-Conducted Table. Below the table is a Ground Reference Plane, indicated by a horizontal line with arrows pointing outwards.

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

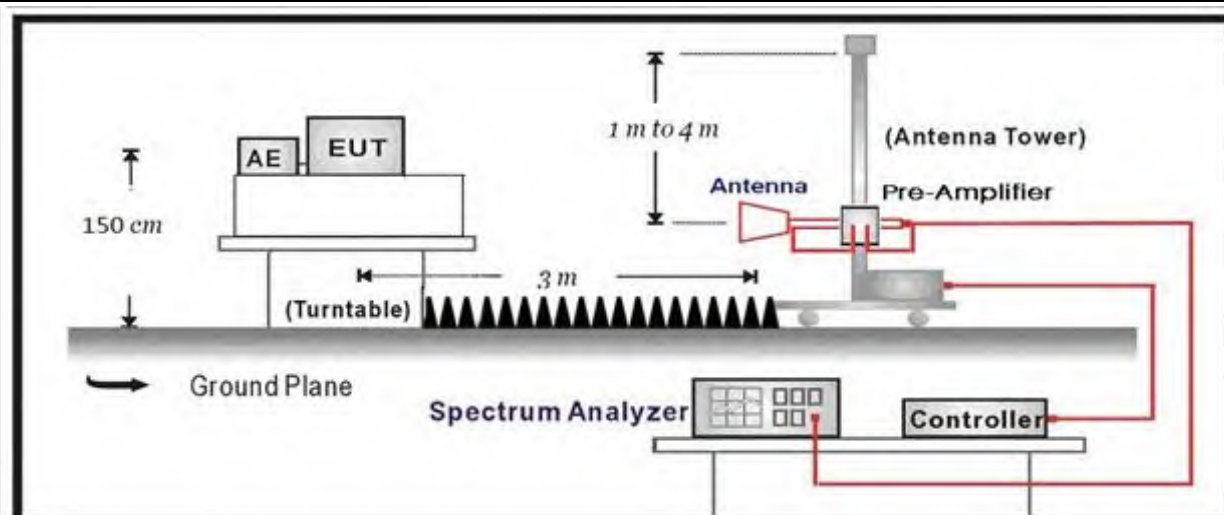
4.5 Radiated Emission Band Edge**VERDICT: PASS****4.5.1 Limit**

Standard		FCC Part 15 Subpart C Paragraph 15.247(d) , 15.205, 15.209		
Frequency bands (MHz)	Detector	Limit (dB μ V/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	6.3	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

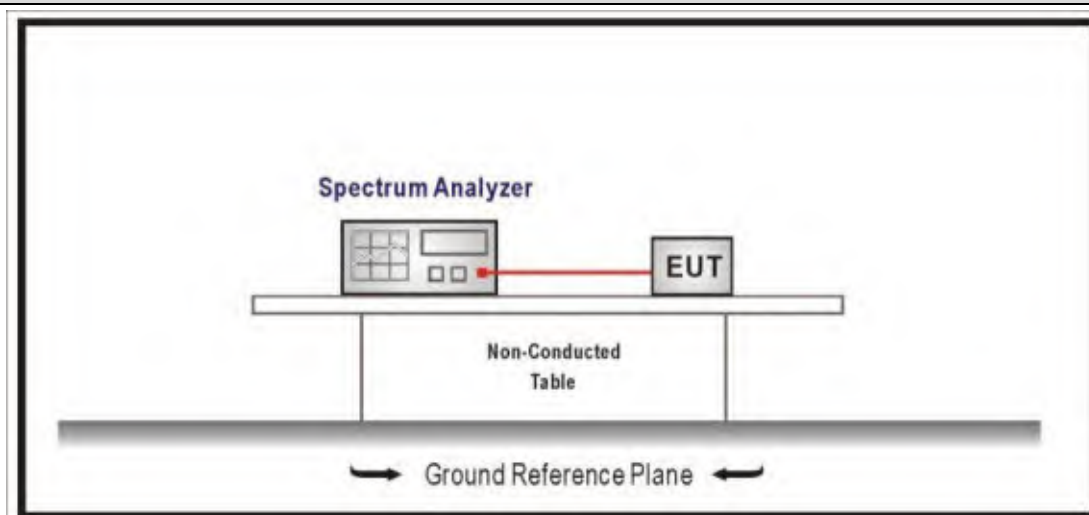
4.6 DTS Bandwidth**VERDICT: PASS****4.6.1 Limit**

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

Standard	ANSI C63.10 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. The occupied bandwidth should be within the required frequency range.

4.6.2 Test Setup**4.6.3 Test Procedure**

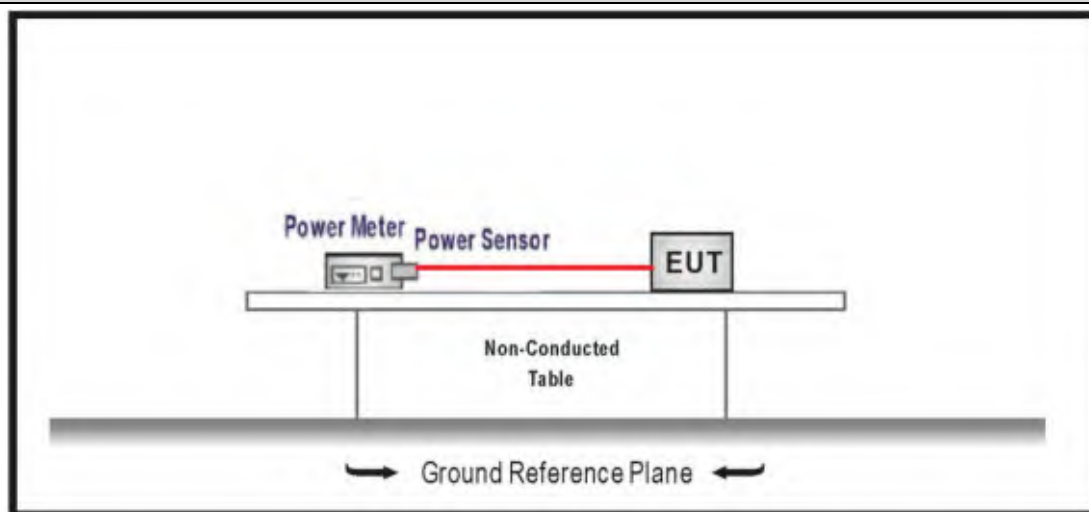
	Reference Rule	Chapter	Description
☒	ANSI C63.10	11.8	DTS bandwidth
	☐ ANSI C63.10	11.8.1	Option 1
	☒ ANSI C63.10	11.8.2	Option 2
☒	ANSI C63.10	6.9	Occupied bandwidth
	☐ ANSI C63.10	6.9.2	relative measurement procedure
	☒ ANSI C63.10	6.9.3	power bandwidth (99%) measurement procedure

4.7 Fundamental emission output power**VERDICT: PASS****4.7.1 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
☐	Avgregate 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.

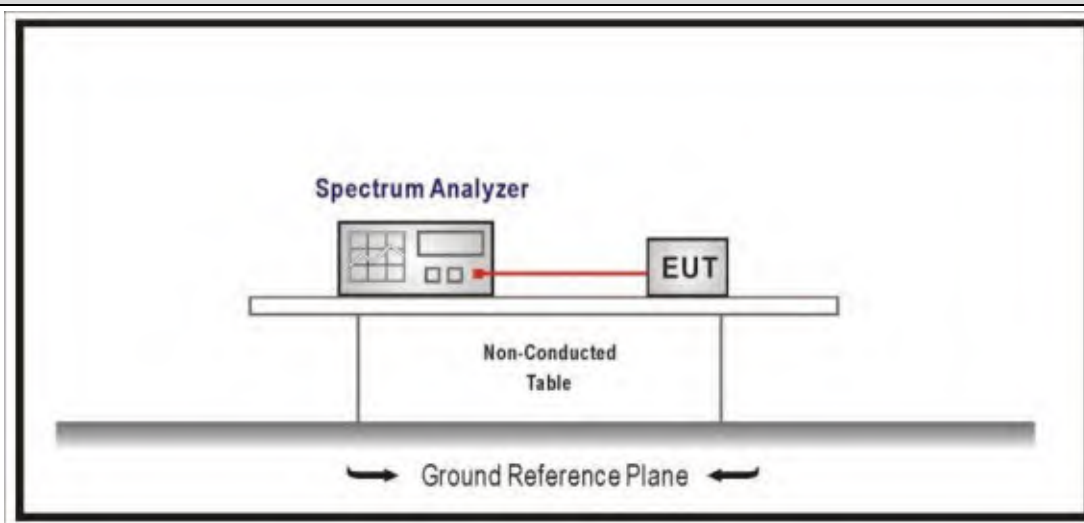
Note 2 : Pout is maximum conducted output power .

4.7.2 Test Setup

4.7.3 Test Procedure				
	References Rule		Chapter	Description
☒	ANSI C63.10		11.9	Fundamental emission output power
	☐	ANSI C63.10		Maximum peak conducted output power
	☐	☐	ANSI C63.10	11.9.1.1 RBW $\geq$ DTS bandwidth
		☐	ANSI C63.10	11.9.1.2 Integrated band power method
		☐	ANSI C63.10	11.9.1.3 PKPM1 Peak power meter method
	☒	ANSI C63.10		Maximum conducted (average) output power
	☐	☐	ANSI C63.10	11.9.2.2 Measurement using a spectrum analyzer (SA)
		☐	ANSI C63.10	11.9.2.2.2 Method AVGSA-1(Duty cycle $\geq$ 98%)
		☐	ANSI C63.10	11.9.2.2.3 Method AVGSA-1A(Duty cycle $\geq$ 98%)
		☐	ANSI C63.10	11.9.2.2.4 Method AVGSA-2(Duty cycle $\leq$ 98%)
		☐	ANSI C63.10	11.9.2.2.5 Method AVGSA-2A(Duty cycle $\leq$ 98%)
		☐	ANSI C63.10	11.9.2.2.4 Method AVGSA-3
		☐	ANSI C63.10	11.9.2.2.5 Method AVGSA-3A
		☒	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

4.8 Power Density**VERDICT: PASS****4.8.1 Limit:****Standard**

FCC Part 15 Subpart C Paragraph 15.247 (e)

Power Spectral Density $\leq 8\text{dBm}/3\text{kHz}$ **4.8.2 Test Setup****4.8.3 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)
	☐	ANSI C63.10	11.10.3	Method AVGPSD-1(Duty cycle $\geq 98\%$)
	☐	ANSI C63.10	11.10.4	Method AVGPSD-1A(Duty cycle $\geq 98\%$)
	☐	ANSI C63.10	11.10.5	Method AVGPSD-2(Duty cycle $< 98\%$)
	☐	ANSI C63.10	11.10.6	Method AVGPSD-2A(Duty cycle $< 98\%$)
	☐	ANSI C63.10	11.10.7	Method AVGPSD-3
	☐	ANSI C63.10	11.10.8	Method AVGPSD-3A

4.9 Antenna Requirement	VERDICT: PASS
--------------------------------	----------------------

4.9.1 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.	

4.9.2 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.

Appendix A: Test results of DTS Bandwidth

6dB bandwidth:

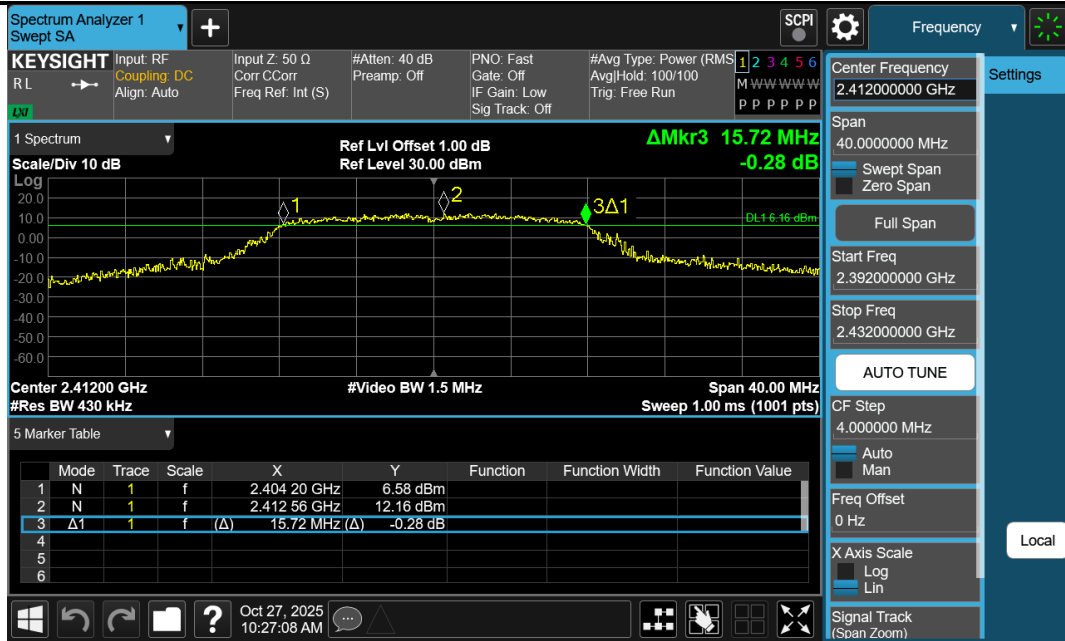
TestMode	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	2412	8.280	2407.880	2416.160	0.5	PASS
11B	2437	8.200	2432.880	2441.080	0.5	PASS
11B	2462	8.280	2457.880	2466.160	0.5	PASS
11G	2412	15.720	2404.200	2419.920	0.5	PASS
11G	2437	15.120	2429.040	2444.160	0.5	PASS
11G	2462	15.760	2454.200	2469.960	0.5	PASS
11N20	2412	16.320	2404.040	2420.360	0.5	PASS
11N20	2437	14.240	2429.120	2443.360	0.5	PASS
11N20	2462	15.720	2454.480	2470.200	0.5	PASS
11N40	2422	36.160	2404.240	2440.400	0.5	PASS
11N40	2437	35.680	2419.240	2454.920	0.5	PASS
11N40	2452	36.720	2433.440	2470.160	0.5	PASS

Note: We have evaluated each antenna, only worst data shown in report.

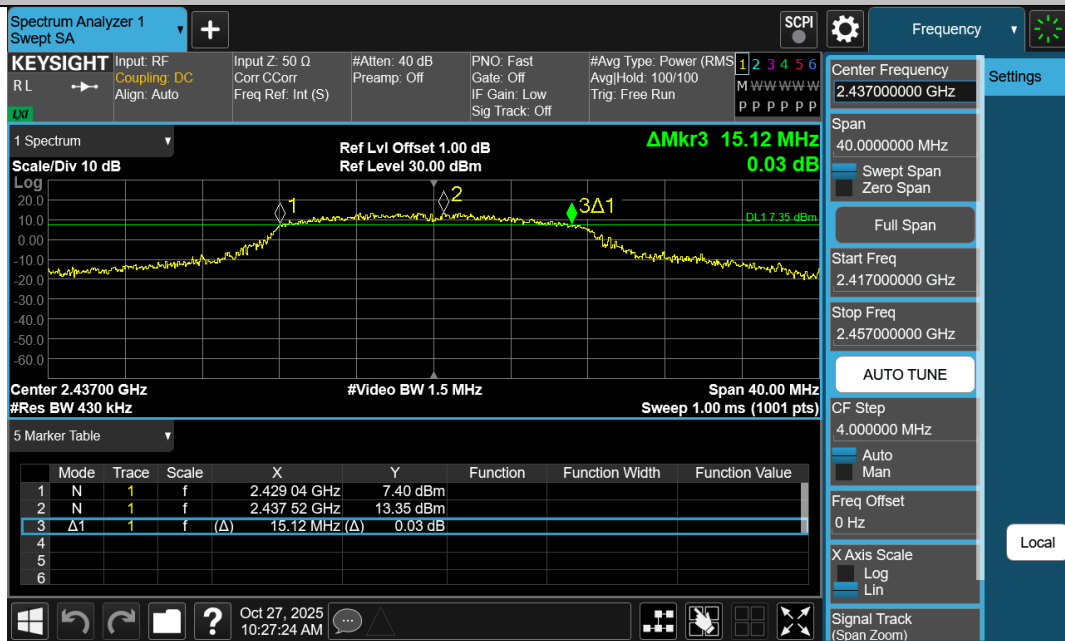


11B-Ant1-2412-PASS

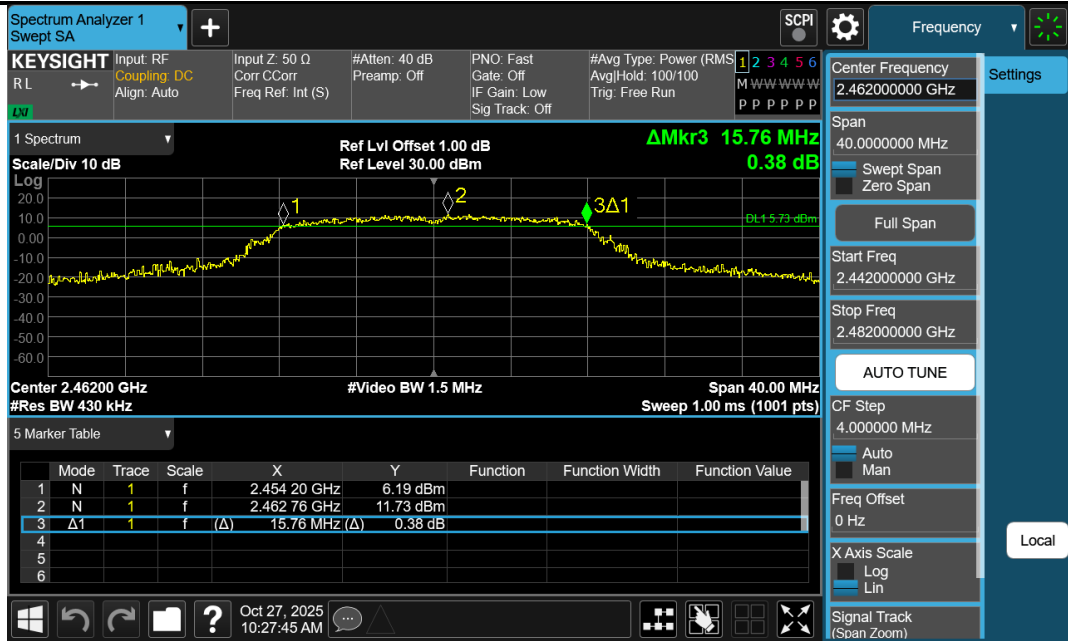




11G-Ant1-2412-PASS



11G-Ant1-2437-PASS



11G-Ant1-2462-PASS



11N20SISO-Ant1-2412-PASS

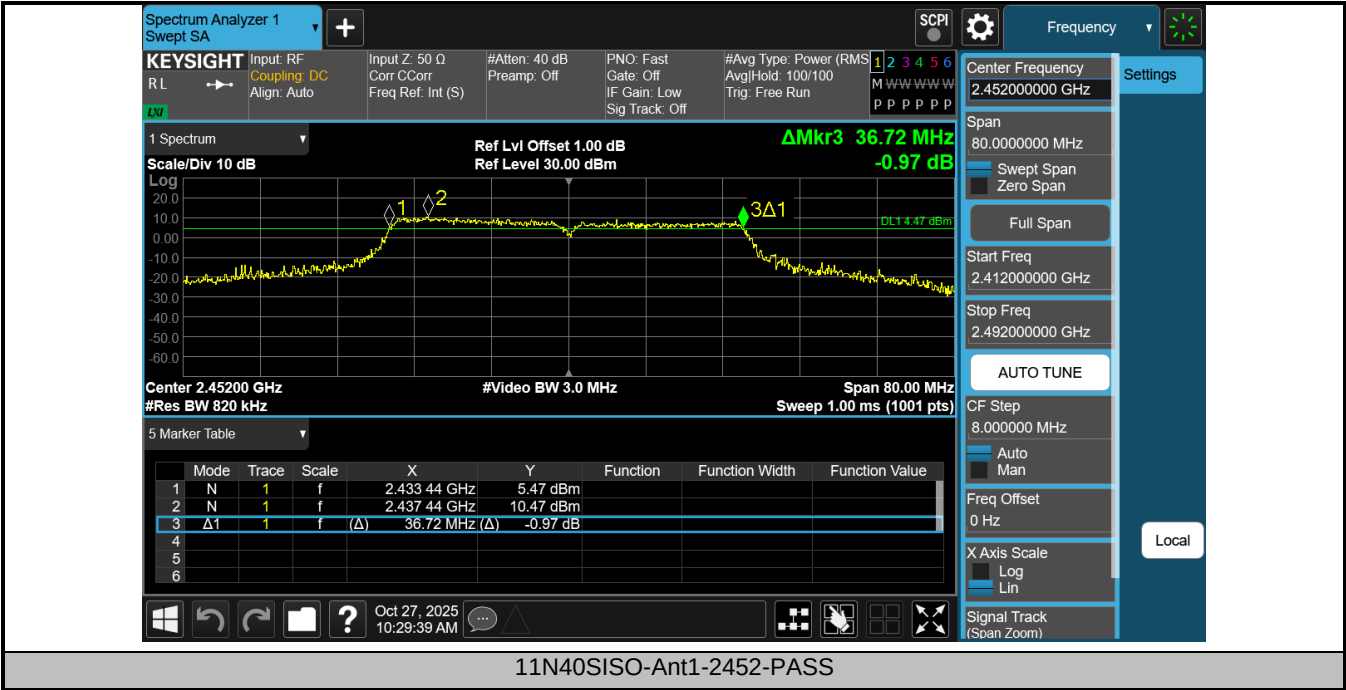




11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



Appendix B: Test results of Maximum conducted output power

SISO- Ant7

Mode	Channel	Frequency (MHz)	Peak Measure result (dBm)	Average Measure result (dBm)	Limit (dBm)	Verdict
11b	1	2412	20.13	16.83	≤30	Pass
	6	2437	20.28	17.51	≤30	Pass
	11	2462	20.21	17.14	≤30	Pass
11g	1	2412	25.45	16.56	≤30	Pass
	6	2437	25.23	17.00	≤30	Pass
	11	2462	25.14	16.44	≤30	Pass
11n(20MHz)	1	2412	25.22	15.42	≤30	Pass
	6	2437	24.96	15.77	≤30	Pass
	11	2462	24.87	15.37	≤30	Pass
11n(40MHz)	3	2422	23.29	12.76	≤30	Pass
	6	2437	21.39	11.94	≤30	Pass
	9	2452	23.27	13.89	≤30	Pass

SISO- Ant8

Mode	Channel	Frequency (MHz)	Peak Measure result (dBm)	Average Measure result (dBm)	Limit (dBm)	Verdict
11b	1	2412	19.25	16.30	≤30	Pass
	6	2437	20.00	17.02	≤30	Pass
	11	2462	19.20	16.17	≤30	Pass
11g	1	2412	24.00	15.36	≤30	Pass
	6	2437	24.66	15.97	≤30	Pass
	11	2462	24.01	15.42	≤30	Pass
11n(20MHz)	1	2412	23.67	14.42	≤30	Pass
	6	2437	24.40	14.88	≤30	Pass
	11	2462	23.80	14.21	≤30	Pass
11n(40MHz)	3	2422	21.31	11.87	≤30	Pass
	6	2437	21.23	11.91	≤30	Pass
	9	2452	21.79	12.43	≤30	Pass

MIMO- Ant7+8

Mode	Channel	Frequency (MHz)	Peak Measure result (dBm)			Average Measure result (dBm)			Limit (dBm)	Verdict
			Ant1	Ant2	Total	Ant1	Ant2	Total		
11n(20MHz)	1	2412	22.18	22.60	25.41	14.76	13.34	17.12	≤30	Pass
	6	2437	25.96	22.90	27.70	14.63	13.51	17.12	≤30	Pass
	11	2462	24.21	22.23	26.34	15.07	13.02	17.18	≤30	Pass
11n(40MHz)	3	2422	22.54	19.92	24.43	12.30	10.72	14.59	≤30	Pass
	6	2437	20.58	19.70	23.17	11.19	11.05	14.13	≤30	Pass
	9	2452	22.14	20.40	24.37	13.32	11.50	15.51	≤30	Pass

Appendix C: Test results of Maximum power spectral density

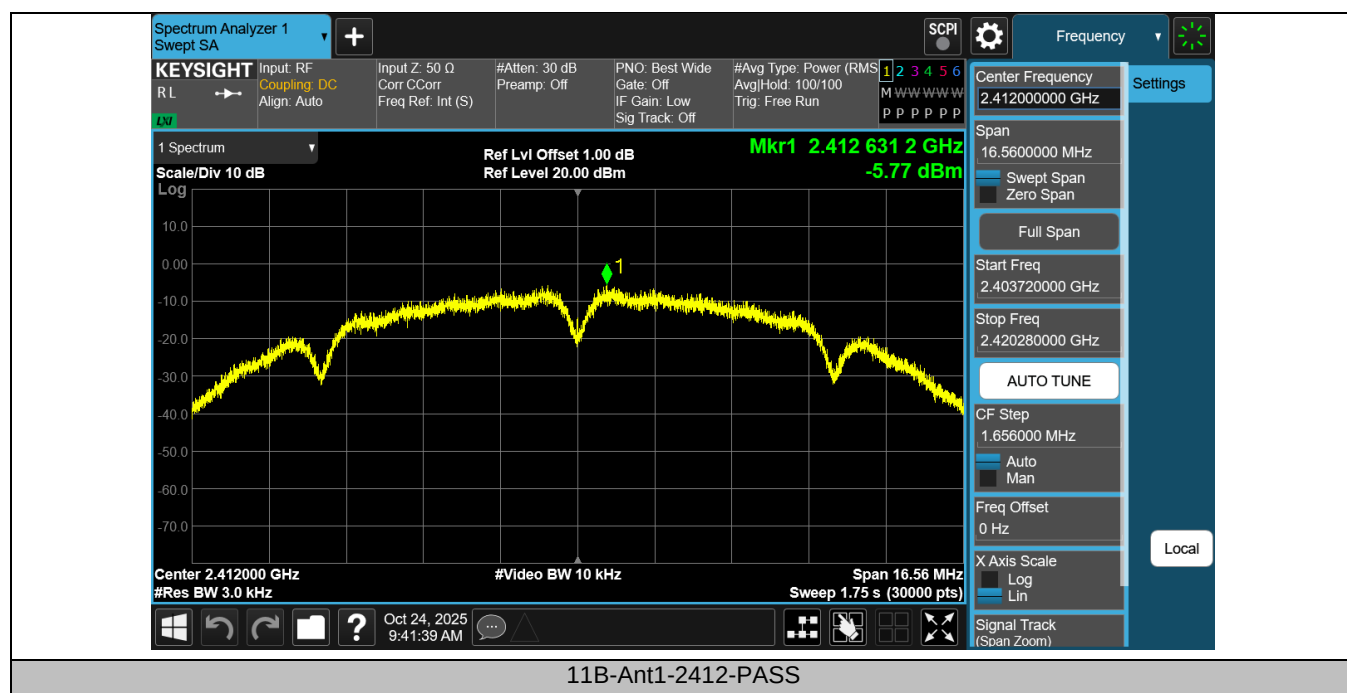
Test Mode	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	2412	-5.77	≤8.00	PASS
11B	2437	-4.99	≤8.00	PASS
11B	2462	-5.90	≤8.00	PASS
11G	2412	-3.05	≤8.00	PASS
11G	2437	-6.68	≤8.00	PASS
11G	2462	-7.26	≤8.00	PASS

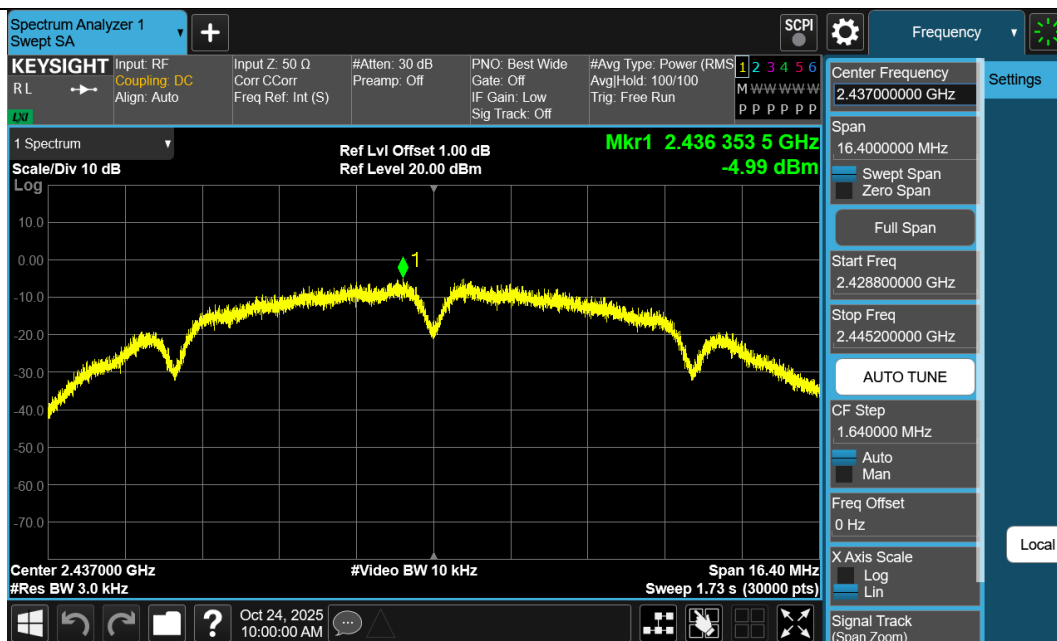
Note: Only the highest power chain date shown in this report.

Test Mode	Frequency[MHz]	SISO Result[dBm/3kHz]	SISO Limit[dBm/3kHz]	MIMO Result[dBm/3kHz]	MIMO Limit[dBm/3kHz]	Verdict
11N20	2412	-7.51	≤8.00	-4.5	≤8.00	PASS
11N20	2437	-5.64	≤8.00	-2.63	≤8.00	PASS
11N20	2462	-7.68	≤8.00	-4.67	≤8.00	PASS
11N40	2422	-10.57	≤8.00	-7.56	≤8.00	PASS
11N40	2437	-12.24	≤8.00	-9.23	≤8.00	PASS
11N40	2452	-10.90	≤8.00	-7.89	≤8.00	PASS

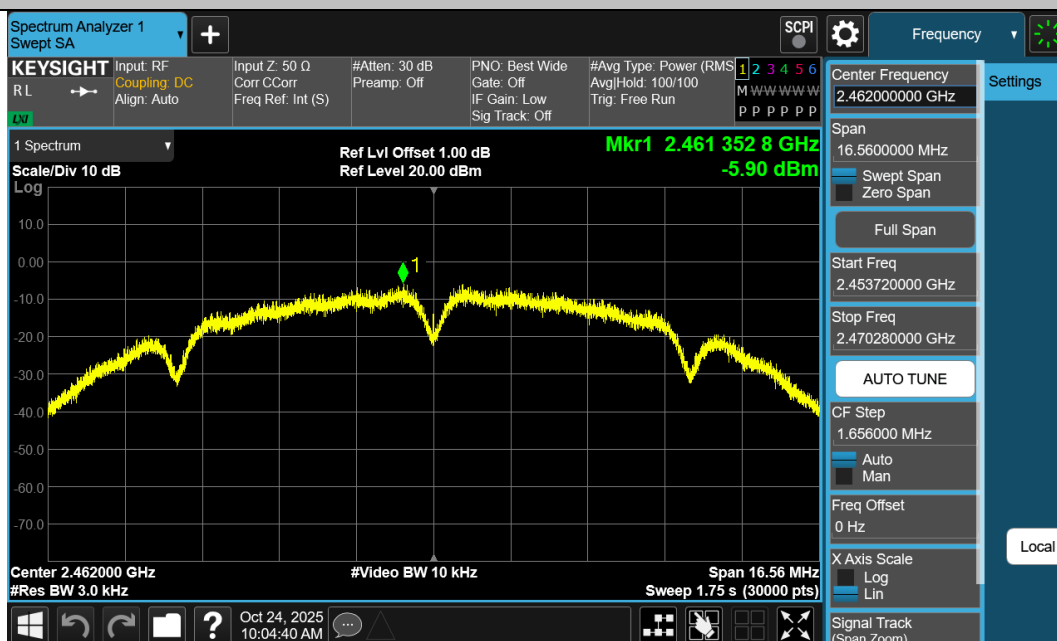
Note 1: The SISO PSD data is measure by highest power chain.

Note 2: The MIMO PSD is calculate form SISO PSD,which is tight than real result: $MIMO\ PSD = SISO\ PSD + 10\log(n) = SISO\ PSD + 3.01$ $n =$ chain number.

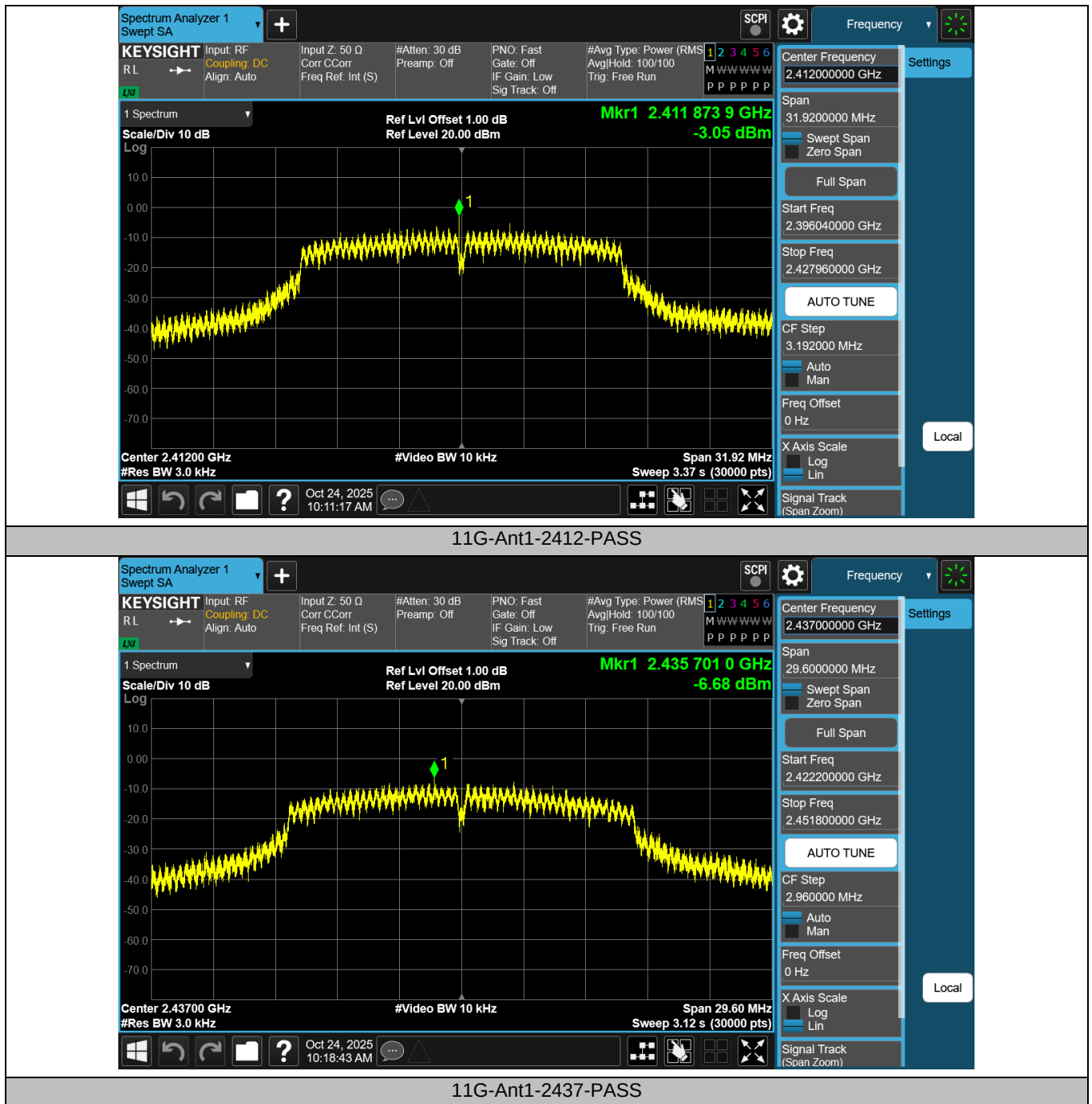


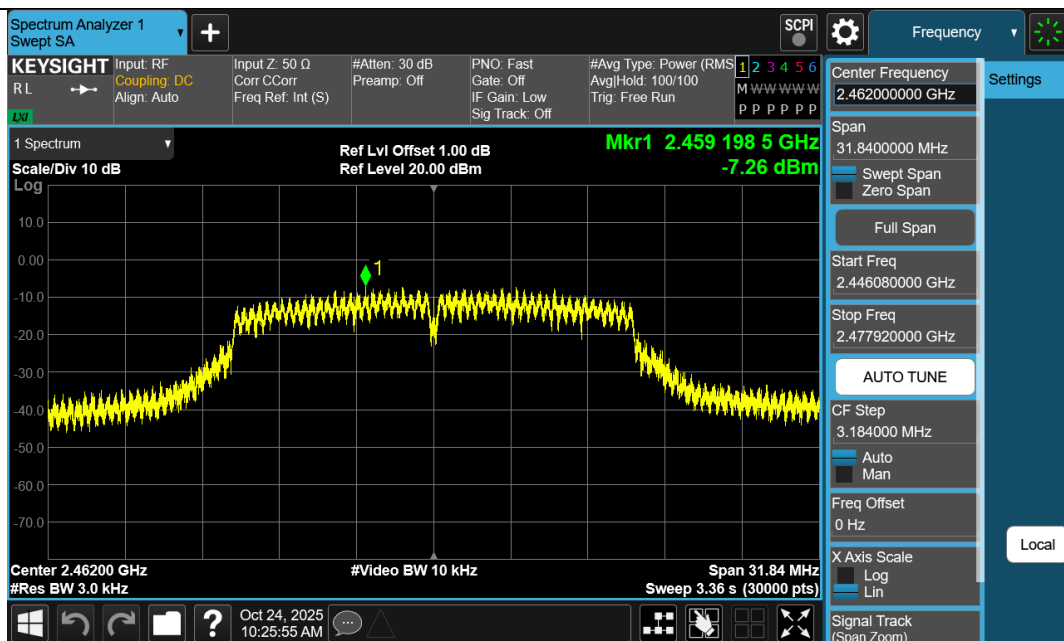


11B-Ant1-2437-PASS

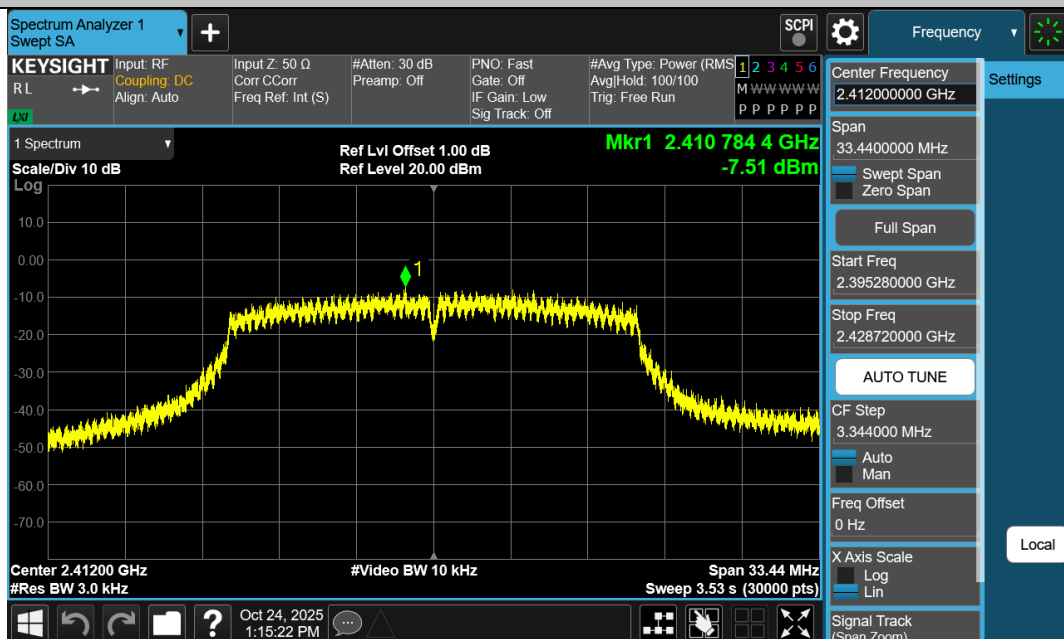


11B-Ant1-2462-PASS

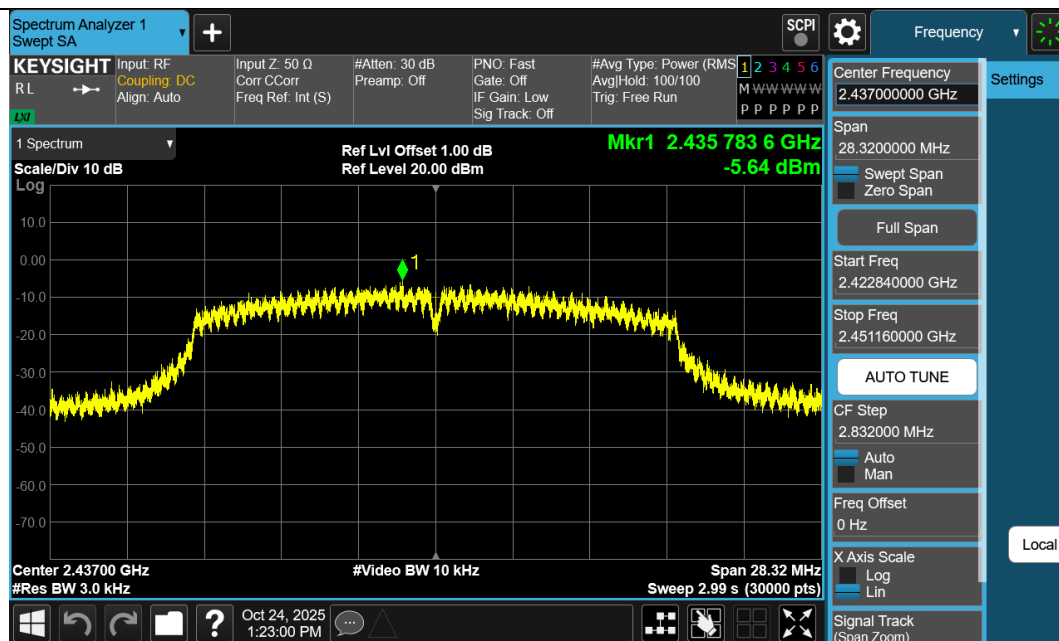




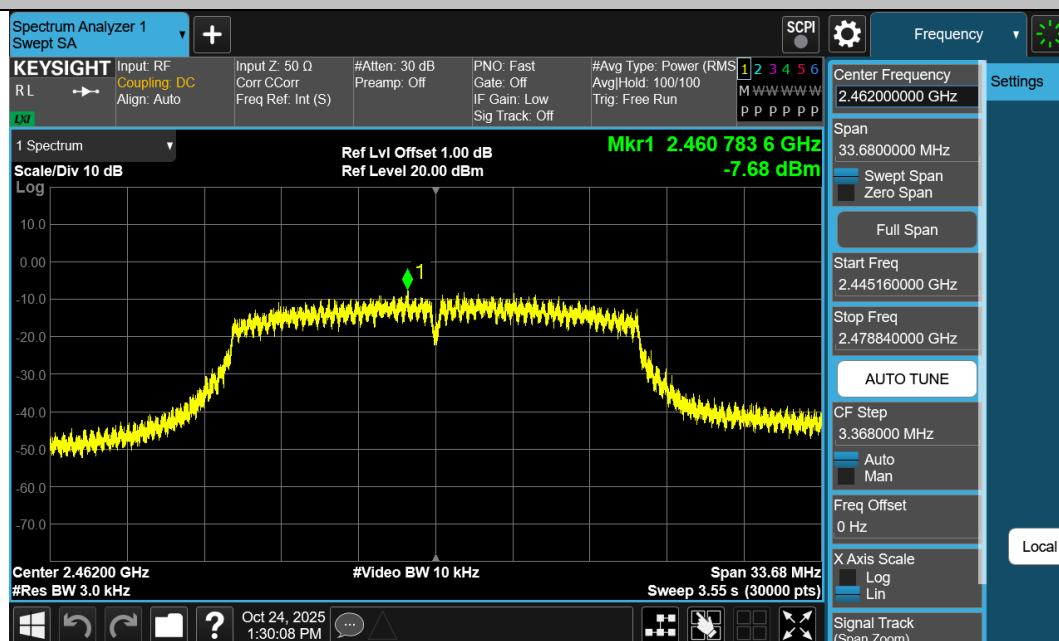
11G-Ant1-2462-PASS



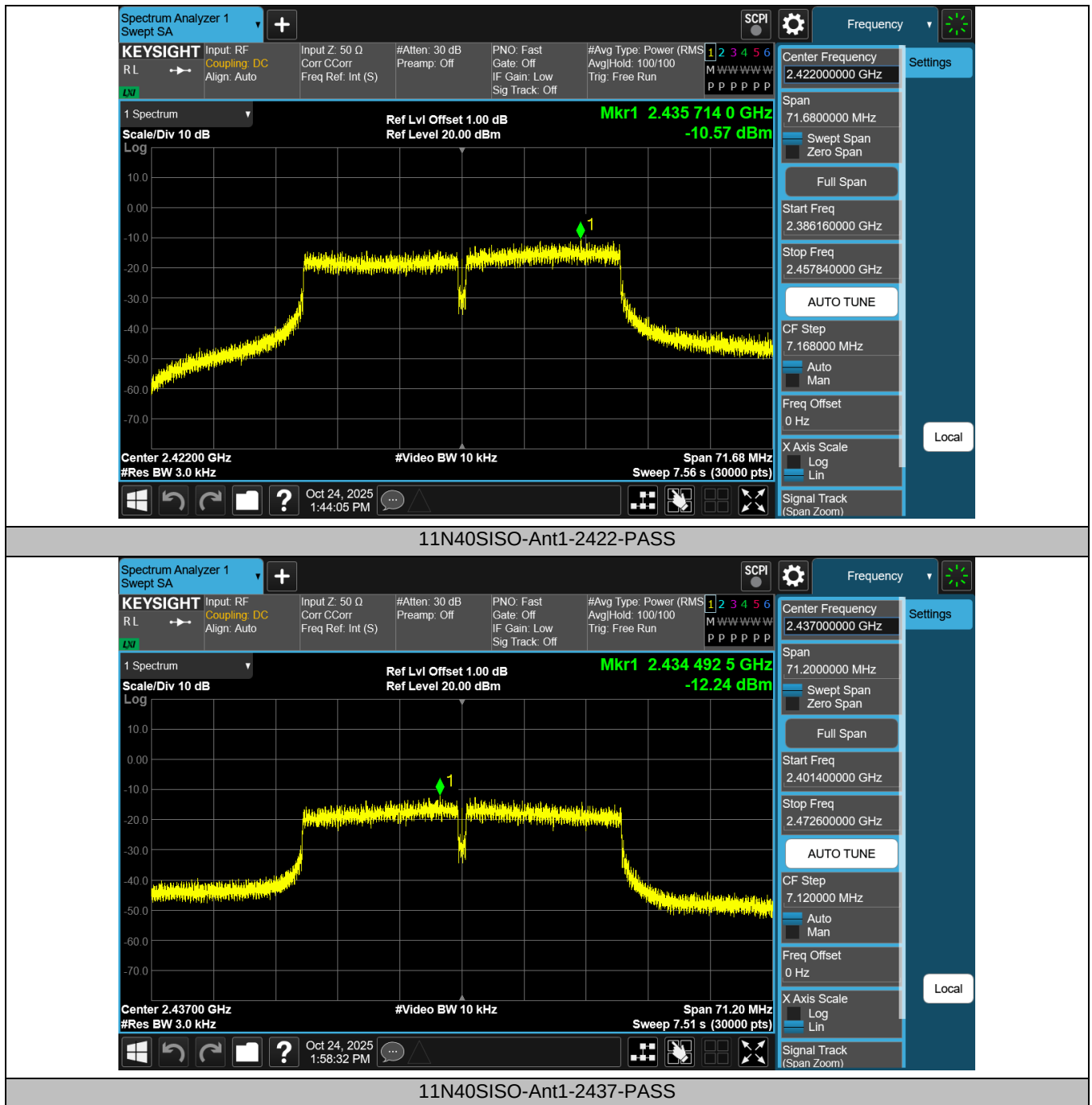
11N20SISO-Ant1-2412-PASS

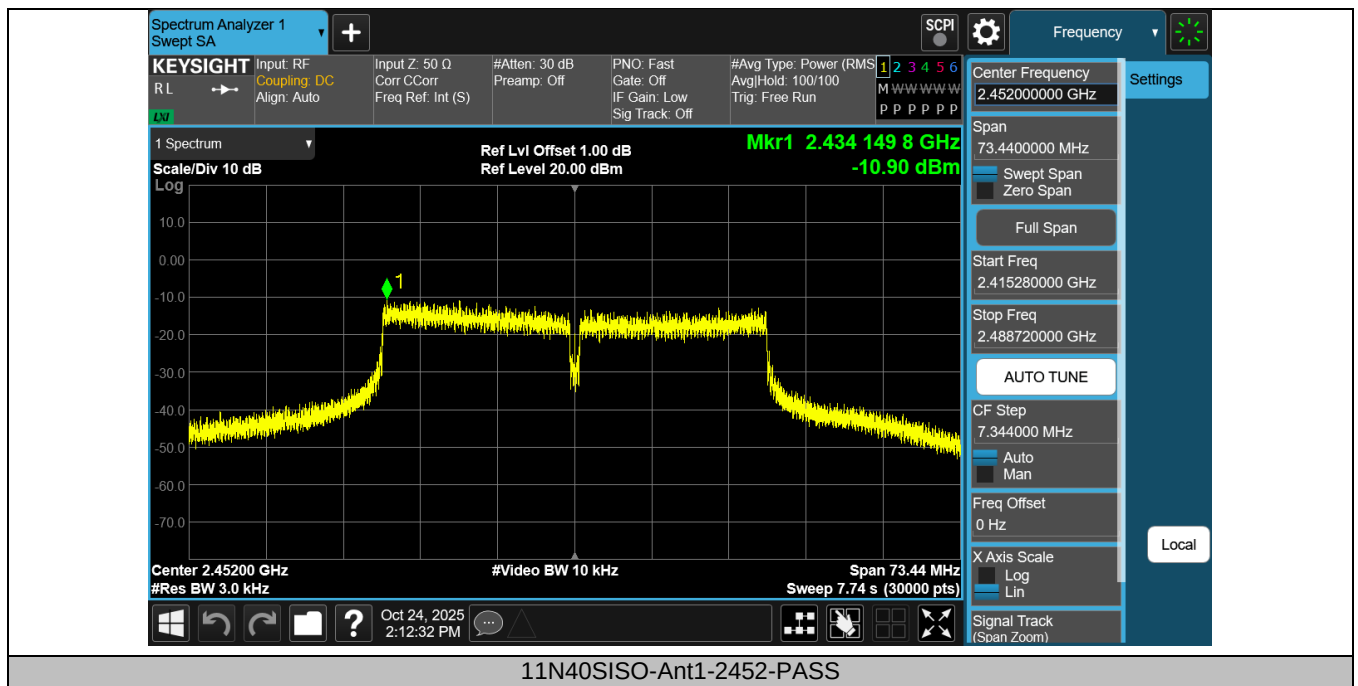


11N20SISO-Ant1-2437-PASS



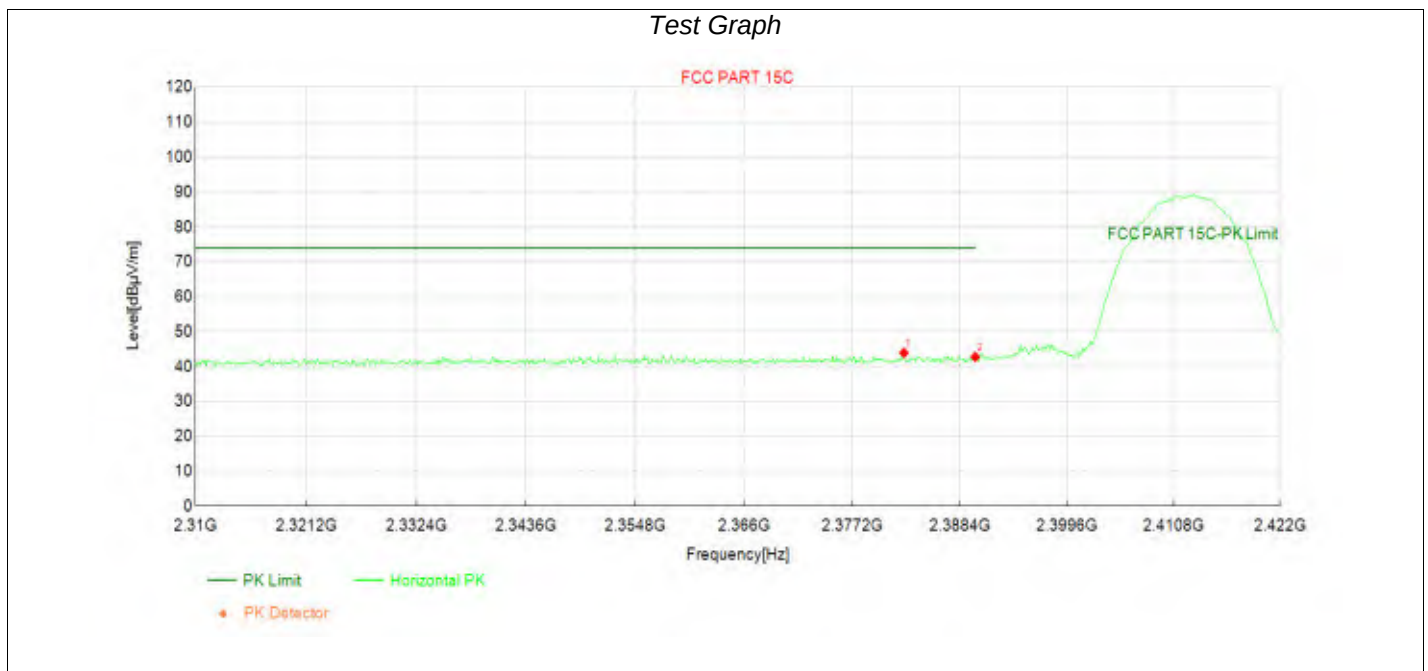
11N20SISO-Ant1-2462-PASS





Appendix D: Test results of Band edge measurements

Transmit at 2412MHz by 802.11b with Ant7

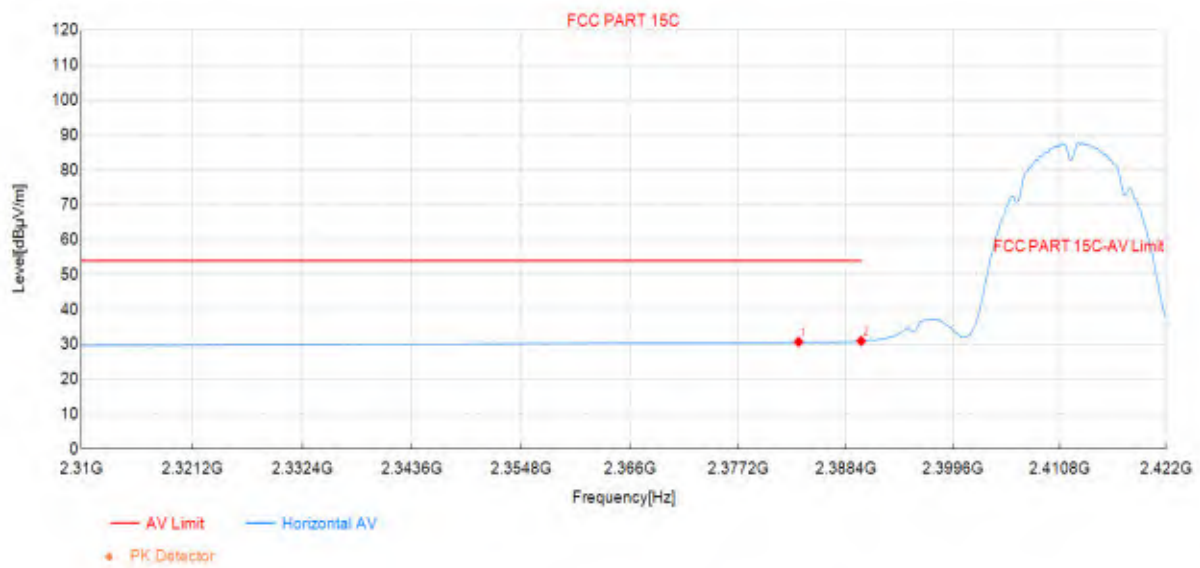


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2382.58	38.85	43.93	5.08	74.00	30.07	PK	Horizo	PASS
2	2390.00	37.65	42.79	5.14	74.00	31.21	PK	Horizo	PASS

Transmit at 2412MHz by 802.11b with Ant7

Test Graph

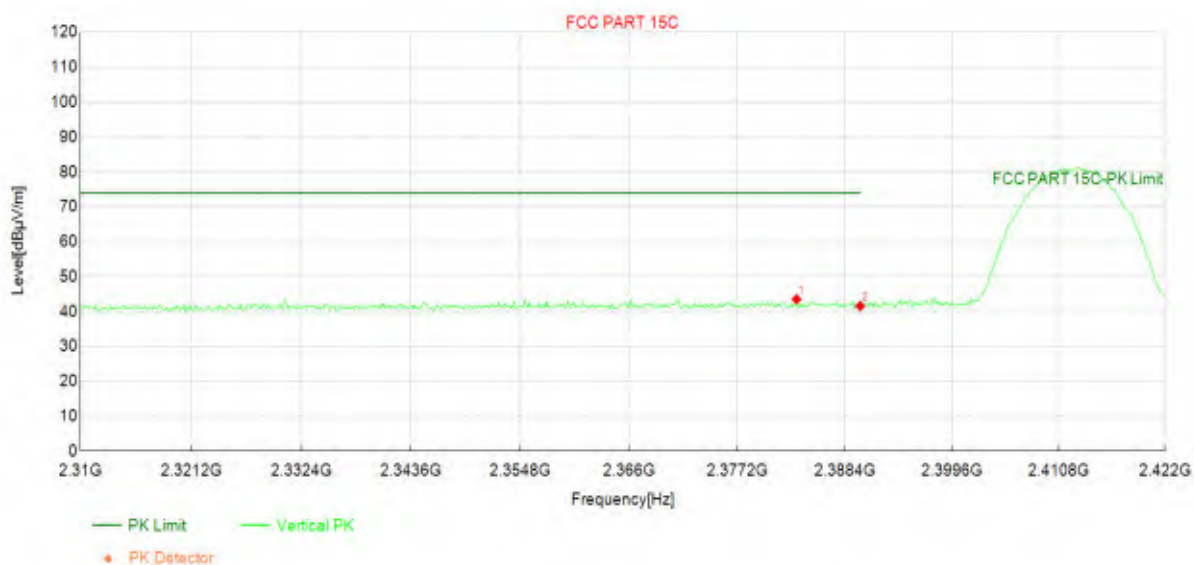


Data List

NO	Frequenc y [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdi ct
1	2383.47	25.63	30.73	5.10	54.00	23.27	AV	Horizo	PASS
2	2390.00	25.83	30.97	5.14	54.00	23.03	AV	Horizo	PASS

Transmit at 2412MHz by 802.11b with Ant7

Test Graph

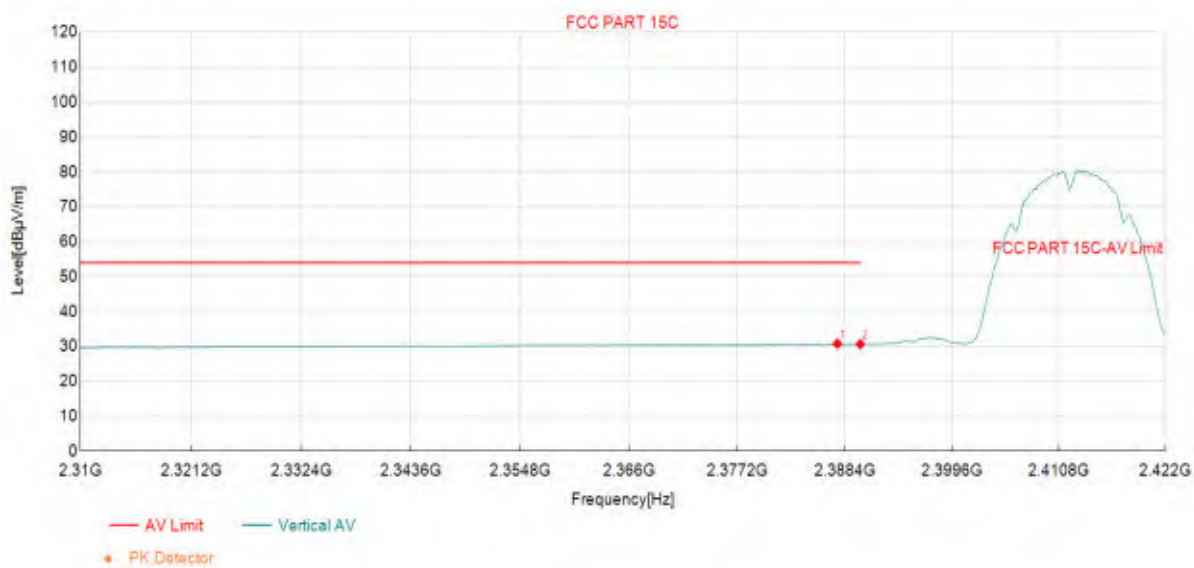


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2383.36	38.39	43.49	5.10	74.00	30.51	PK	Vertic	PASS
2	2390.00	36.44	41.58	5.14	74.00	32.42	PK	Vertic	PASS

Transmit at 2412MHz by 802.11b with Ant7

Test Graph

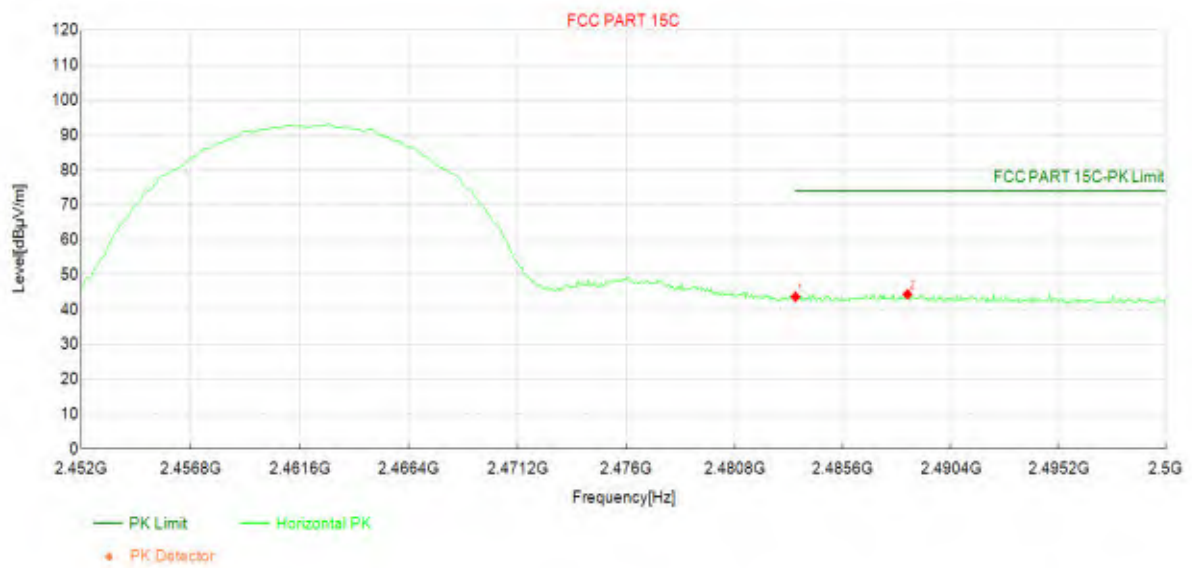


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2387.62	25.65	30.77	5.12	54.00	23.23	AV	Vertic	PASS
2	2390.00	25.51	30.65	5.14	54.00	23.35	AV	Vertic	PASS

Transmit at 2462MHz by 802.11b with Ant7

Test Graph

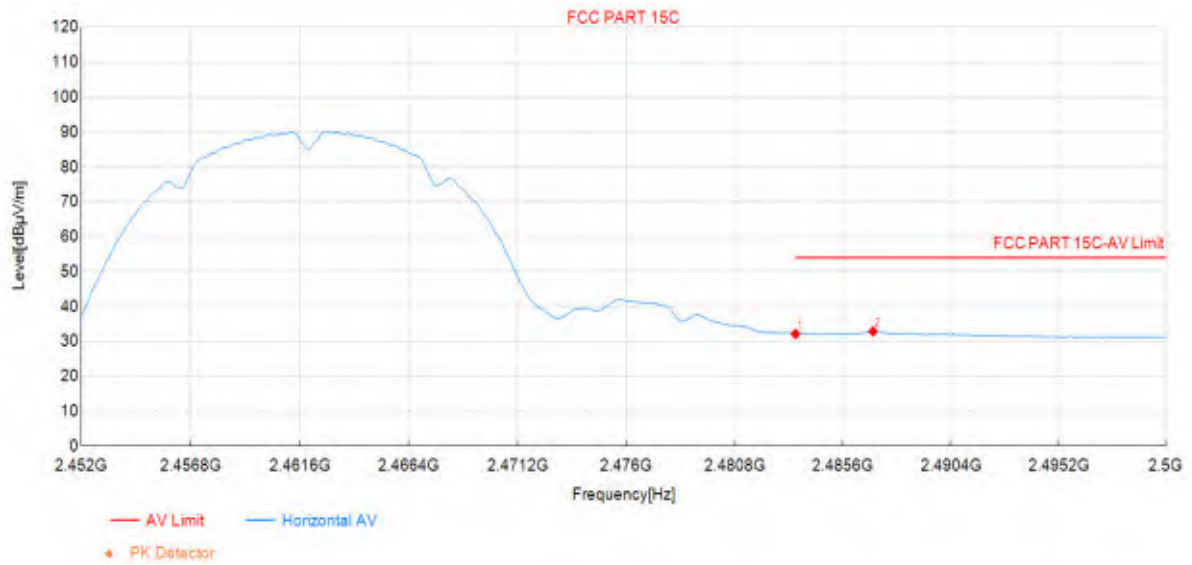


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	38.15	43.66	5.51	74.00	30.34	PK	Horizo	PASS
2	2488.48	38.84	44.37	5.53	74.00	29.63	PK	Horizo	PASS

Transmit at 2462MHz by 802.11b with Ant7

Test Graph

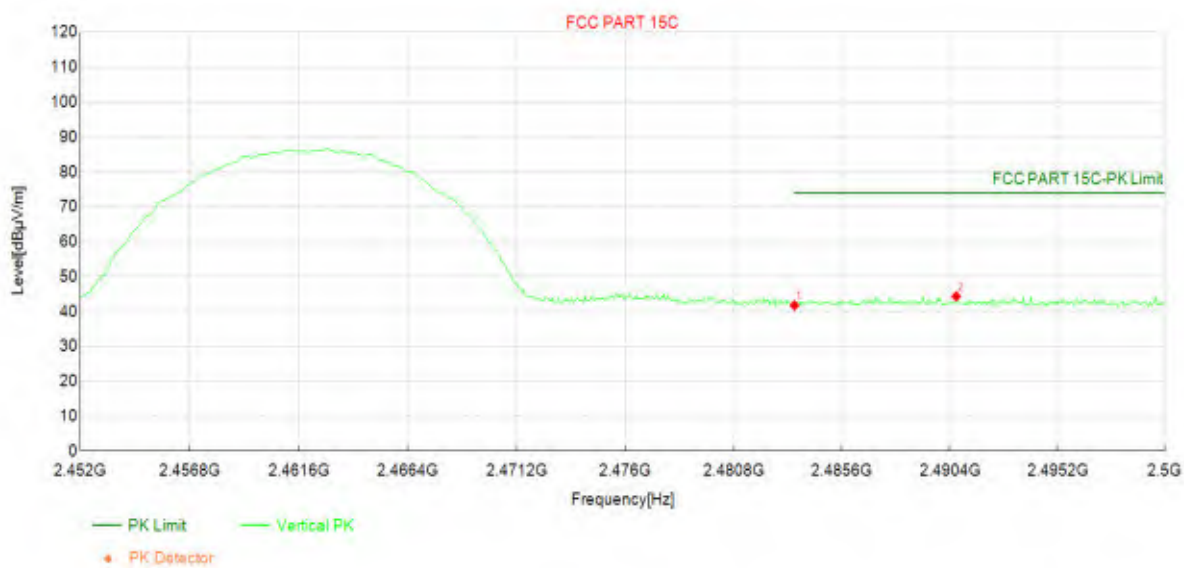


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	26.63	32.14	5.51	54.00	21.86	AV	Horizo	PASS
2	2486.94	27.37	32.90	5.53	54.00	21.10	AV	Horizo	PASS

Transmit at 2462MHz by 802.11b with Ant7

Test Graph

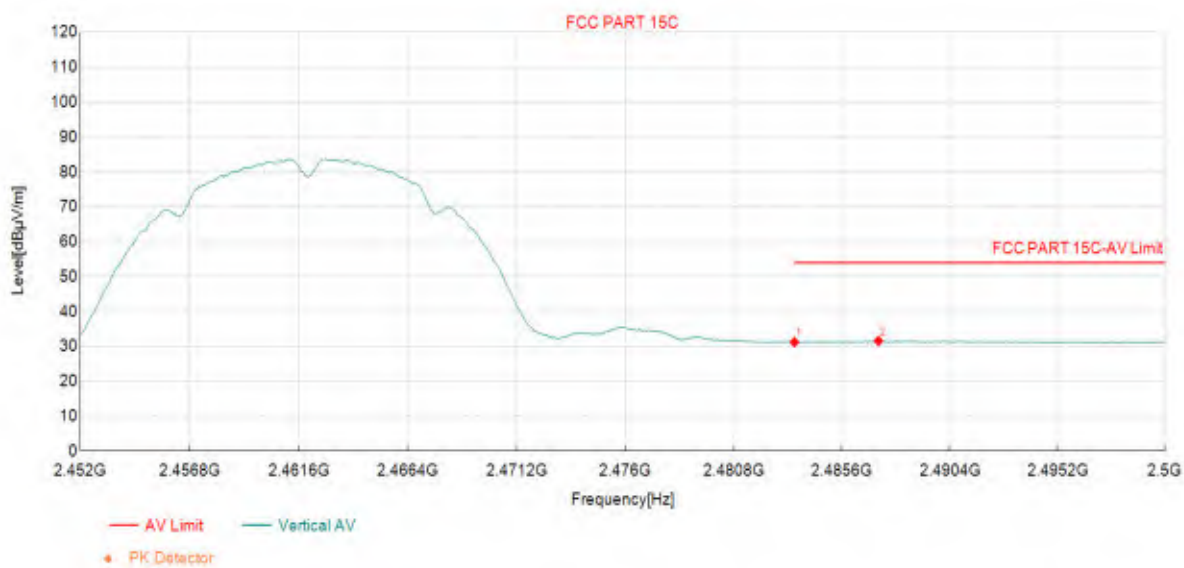


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	36.27	41.78	5.51	74.00	32.22	PK	Vertic	PASS
2	2490.69	38.79	44.34	5.55	74.00	29.66	PK	Vertic	PASS

Transmit at 2462MHz by 802.11b with Ant7

Test Graph

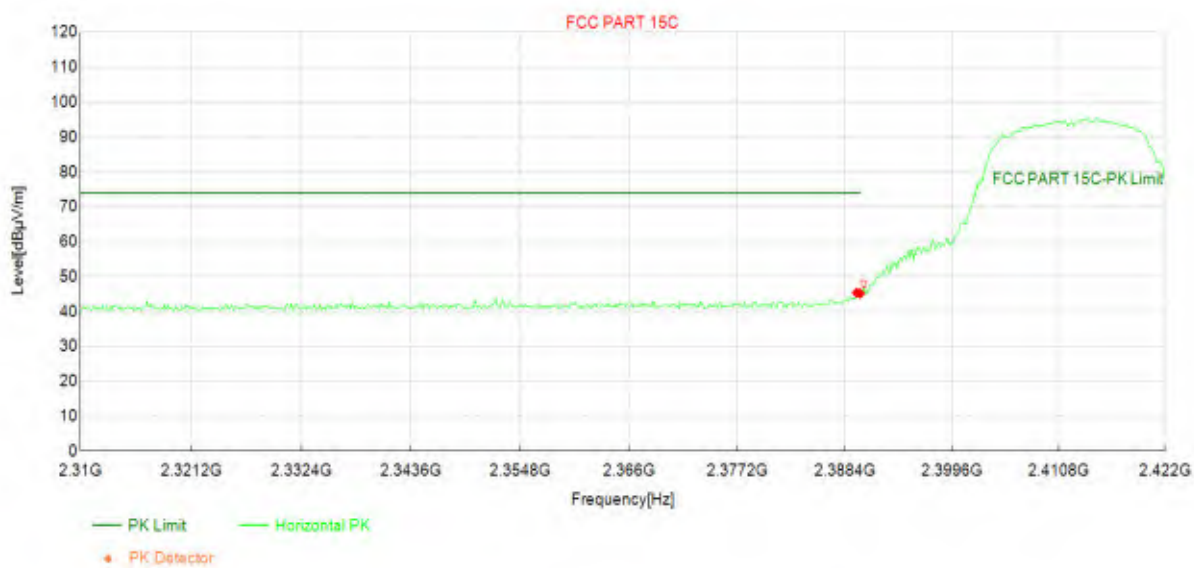


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	25.71	31.22	5.51	54.00	22.78	AV	Vertic	PASS
2	2487.23	26.05	31.58	5.53	54.00	22.42	AV	Vertic	PASS

Transmit at 2412MHz by 802.11g with Ant7

Test Graph

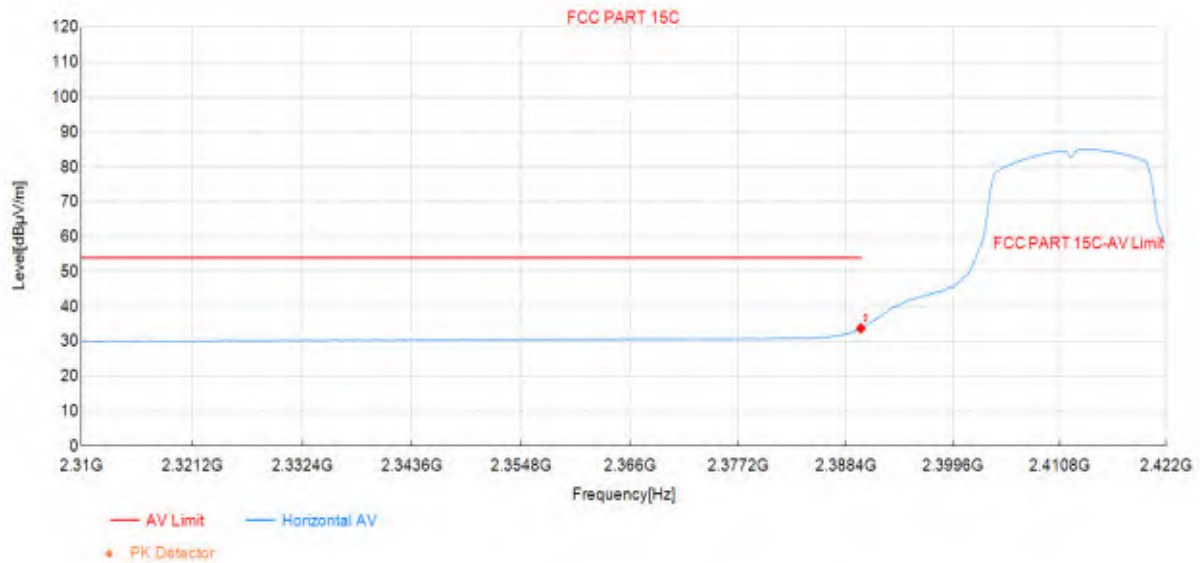


Data List

NO	Frequenc y [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdi ct
1	2389.63	40.22	45.36	5.14	74.00	28.64	PK	Horizo	PASS
2	2390.00	40.05	45.19	5.14	74.00	28.81	PK	Horizo	PASS

Transmit at 2412MHz by 802.11g with Ant7

Test Graph

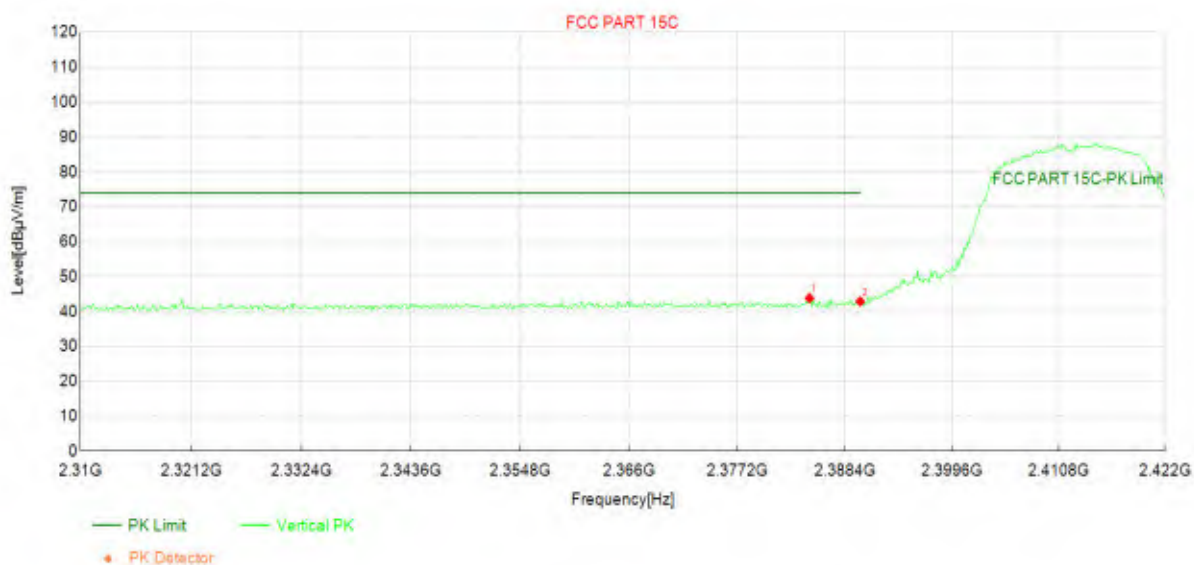


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2389.97	28.60	33.74	5.14	54.00	20.26	AV	Horizo	PASS
2	2390.00	28.90	34.04	5.14	54.00	19.96	AV	Horizo	PASS

Transmit at 2412MHz by 802.11g with Ant7

Test Graph

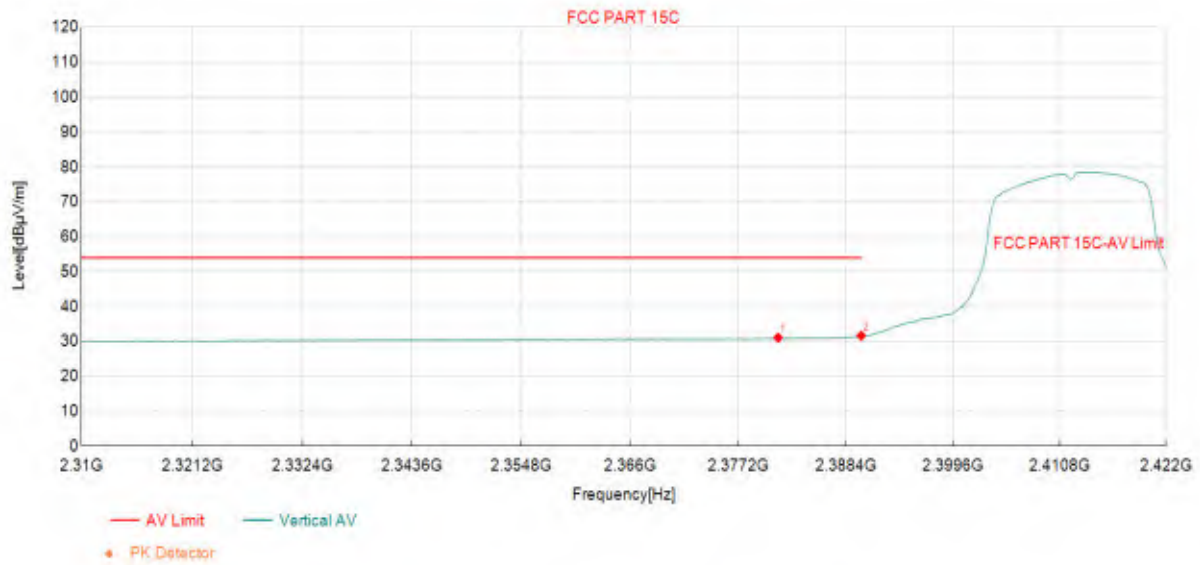


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2384.70	38.73	43.83	5.10	74.00	30.17	PK	Vertic	PASS
2	2390.00	37.77	42.91	5.14	74.00	31.09	PK	Vertic	PASS

Transmit at 2412MHz by 802.11g with Ant7

Test Graph

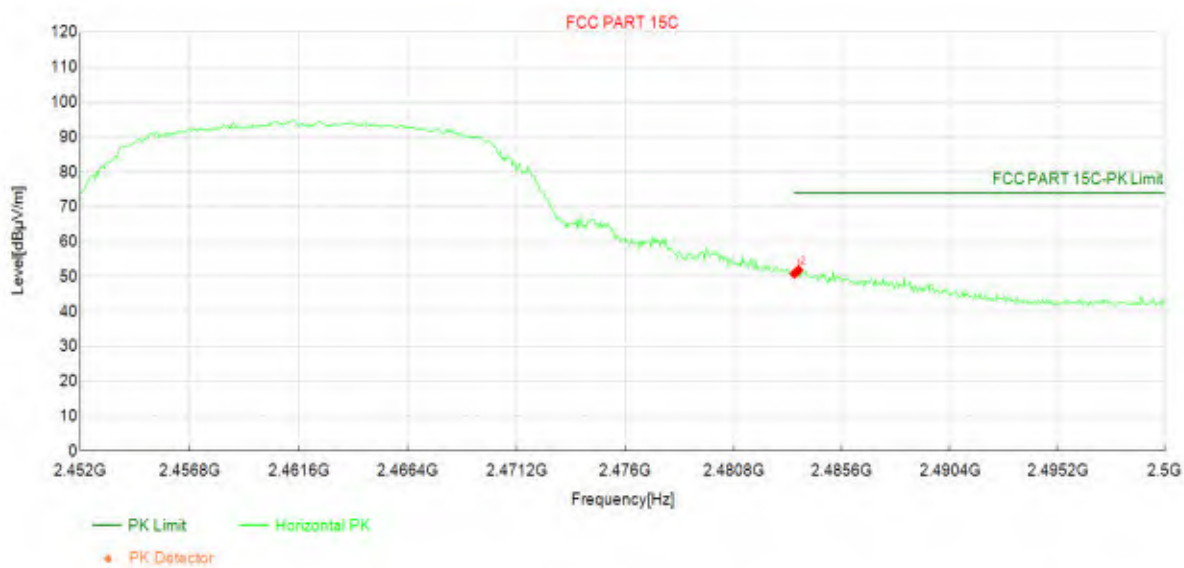


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2381.34	25.97	31.05	5.08	54.00	22.95	AV	Vertic	PASS
2	2390.00	26.49	31.63	5.14	54.00	22.37	AV	Vertic	PASS

Transmit at 2462MHz by 802.11g with Ant7

Test Graph

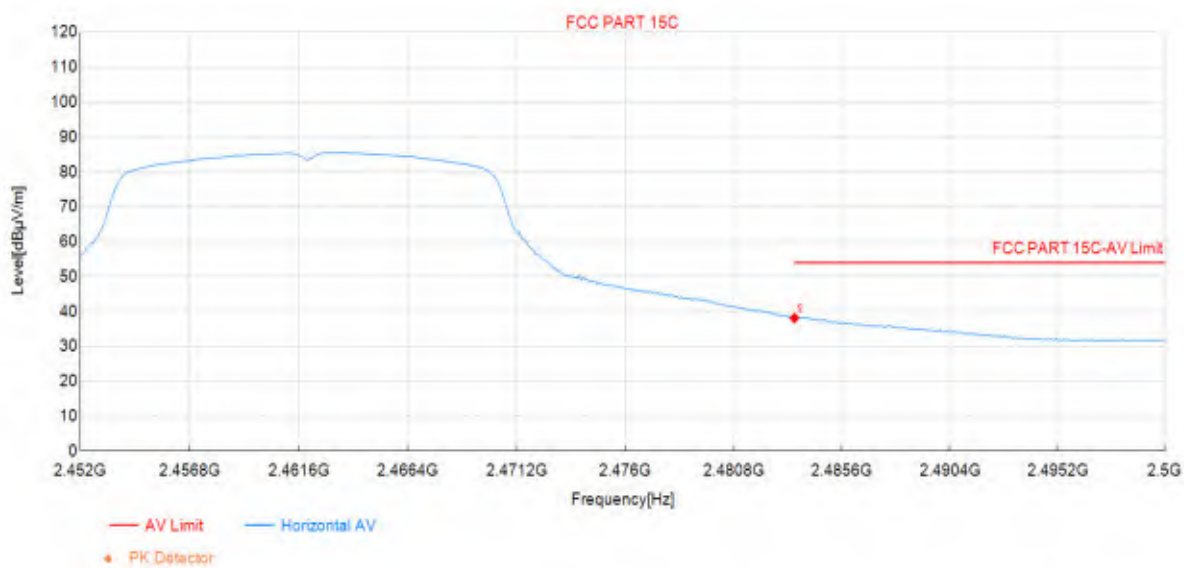


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	45.36	50.87	5.51	74.00	23.13	PK	Horizo	PASS
2	2483.68	46.35	51.86	5.51	74.00	22.14	PK	Horizo	PASS

Transmit at 2462MHz by 802.11g with Ant7

Test Graph

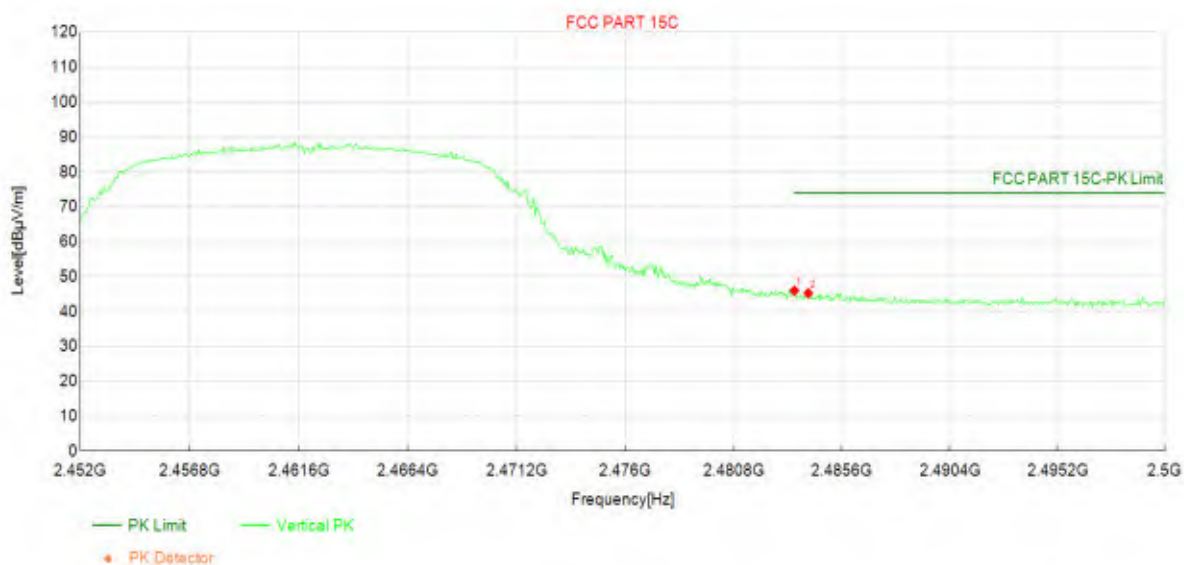


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	32.62	38.13	5.51	54.00	15.87	AV	Horizo	PASS
2	2483.58	32.98	38.49	5.51	54.00	15.51	AV	Horizo	PASS

Transmit at 2462MHz by 802.11g with Ant7

Test Graph

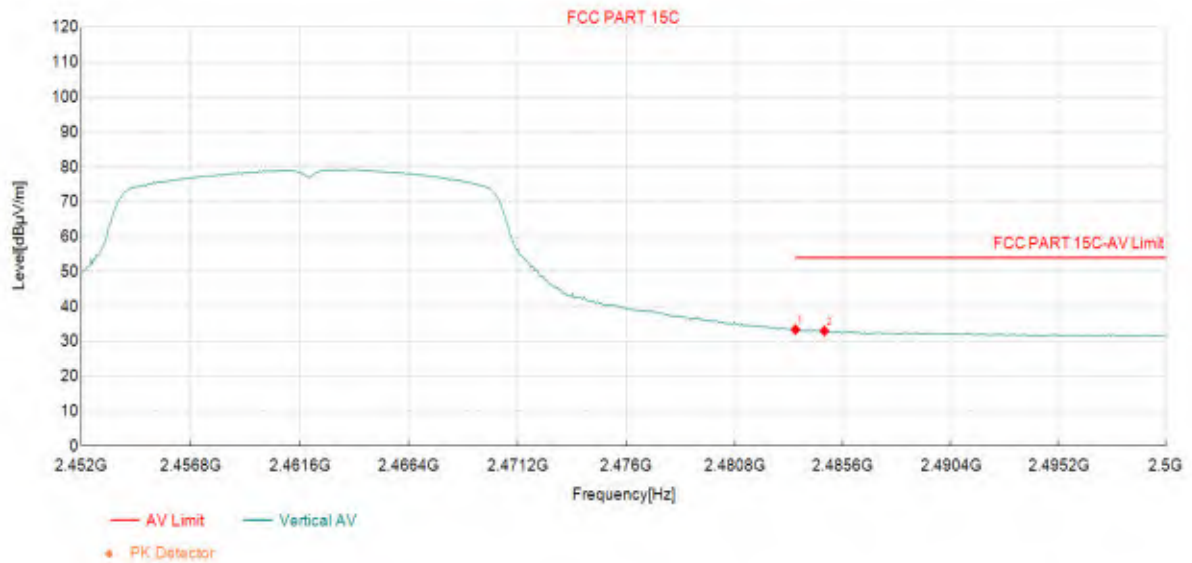


Data List

NO	Frequenc y [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdi ct
1	2483.50	40.49	46.00	5.51	74.00	28.00	PK	Vertic	PASS
2	2484.11	39.74	45.26	5.52	74.00	28.74	PK	Vertic	PASS

Transmit at 2462MHz by 802.11g with Ant7

Test Graph

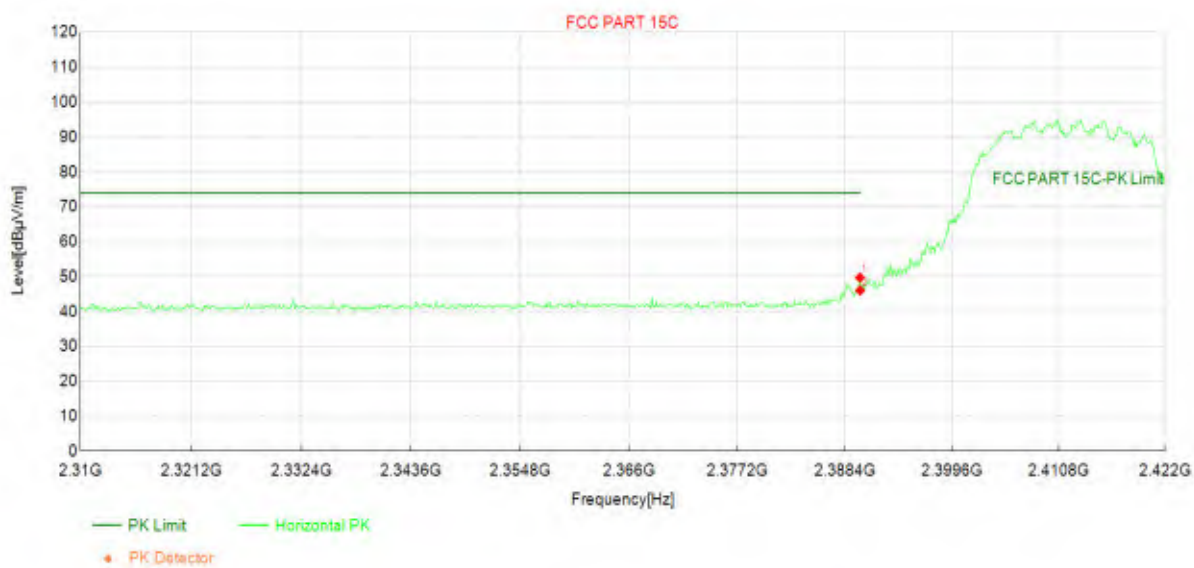


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	27.88	33.39	5.51	54.00	20.61	AV	Vertic	PASS
2	2484.78	27.51	33.04	5.53	54.00	20.96	AV	Vertic	PASS

Transmit at 2412MHz by 802.11n(20MHz) with Ant7 + Ant8

Test Graph

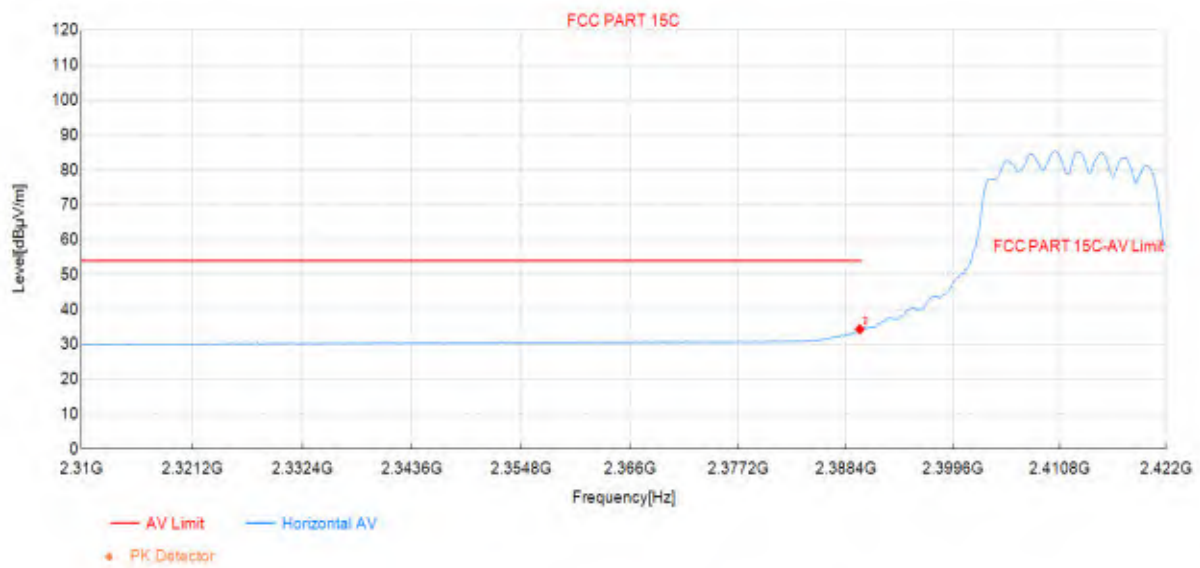


Data List

NO	Frequenc y [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdi ct
1	2389.97	44.59	49.73	5.14	74.00	24.27	PK	Horizo	PASS
2	2390.00	40.91	46.05	5.14	74.00	27.95	PK	Horizo	PASS

Transmit at 2412MHz by 802.11n(20MHz) with Ant7 + Ant8

Test Graph

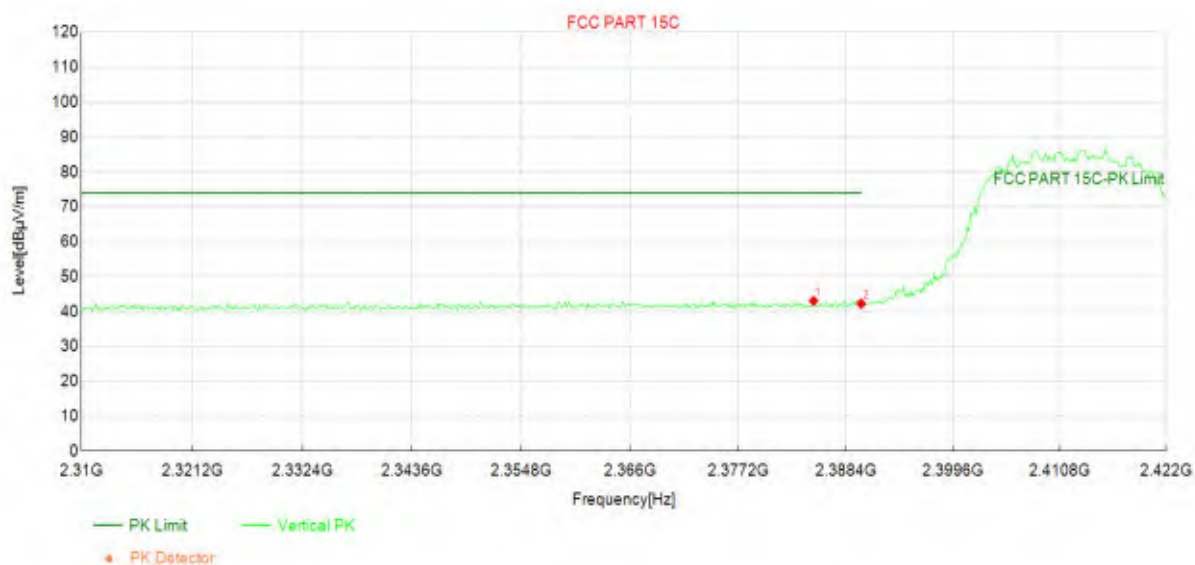


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2389.86	29.22	34.36	5.14	54.00	19.64	AV	Horizo	PASS
2	2390.00	29.05	34.19	5.14	54.00	19.81	AV	Horizo	PASS

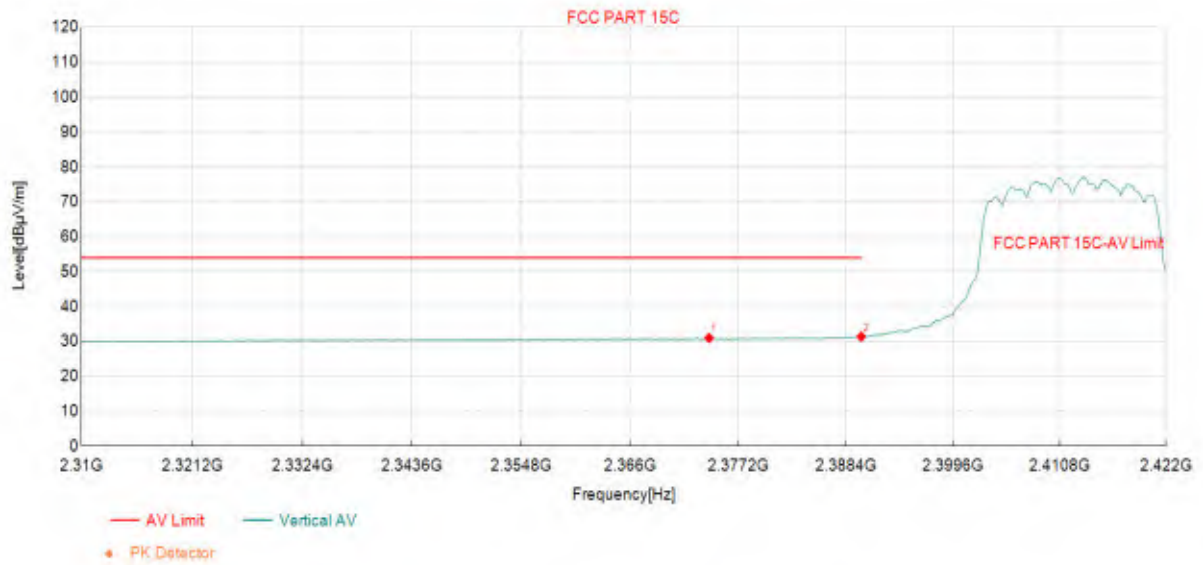
Transmit at 2412MHz by 802.11n(20MHz) with Ant7 + Ant8

Test Graph



Data List

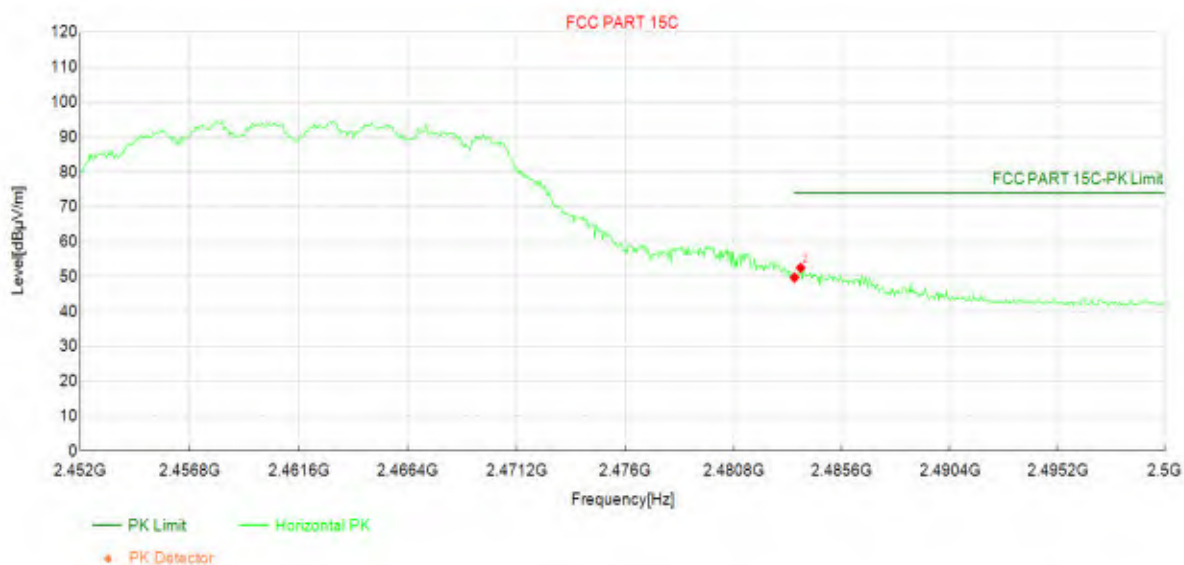
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2385.04	37.95	43.05	5.10	74.00	30.95	PK	Vertic	PASS
2	2390.00	37.12	42.26	5.14	74.00	31.74	PK	Vertic	PASS

Transmit at 2412MHz by 802.11n(20MHz) with Ant7 + Ant8*Test Graph***Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2374.18	25.96	30.98	5.02	54.00	23.02	AV	Vertic	PASS
2	2390.00	26.23	31.37	5.14	54.00	22.63	AV	Vertic	PASS

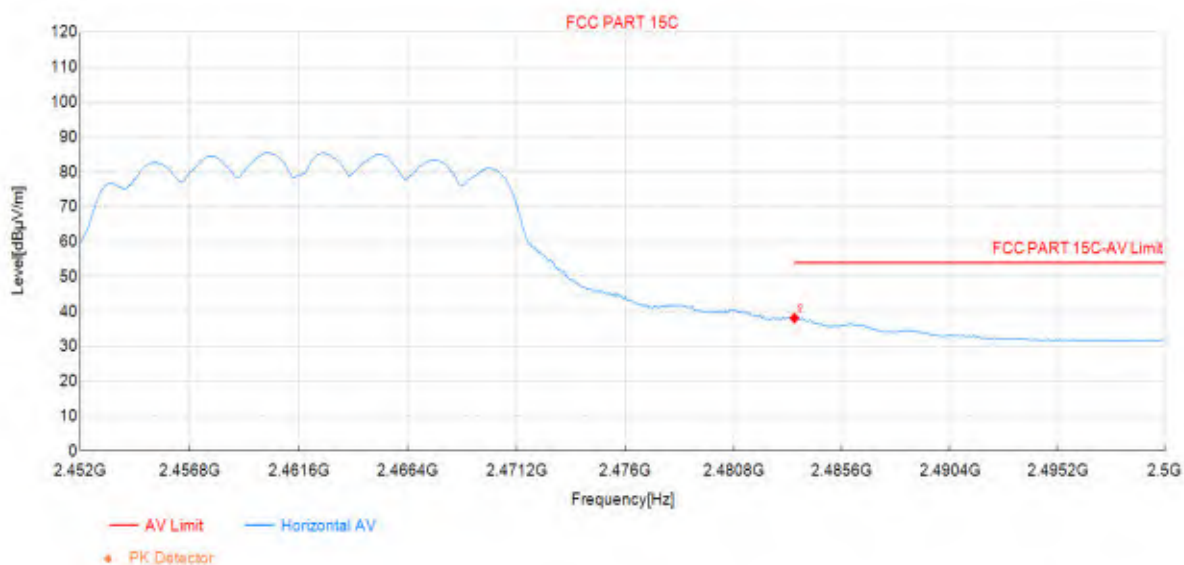
Transmit at 2462MHz by 802.11n(20MHz) with Ant7 + Ant8

Test Graph



Data List

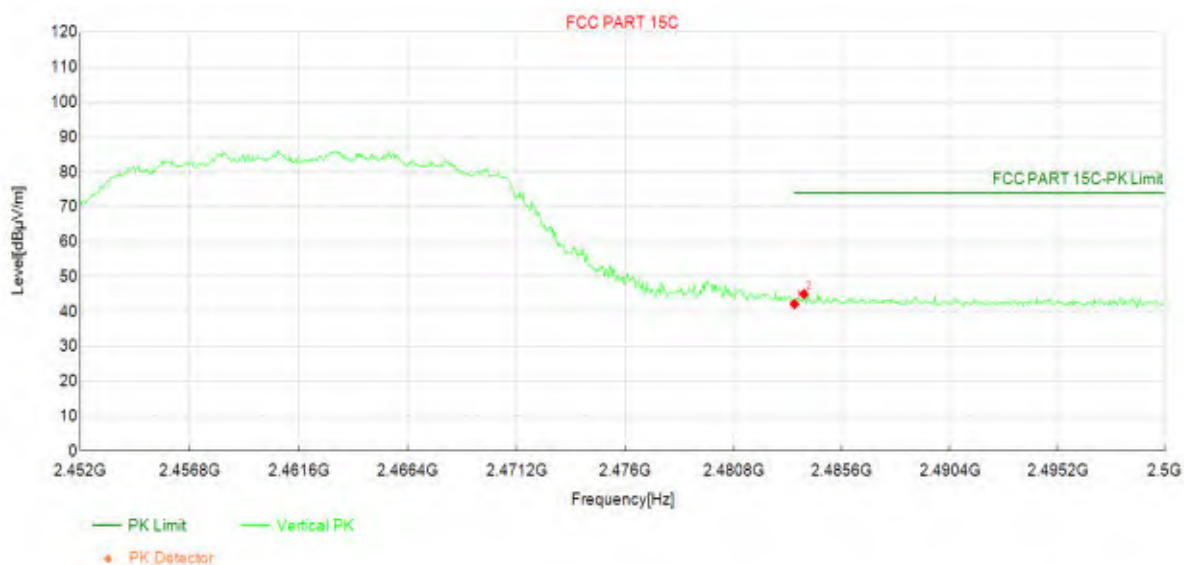
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	44.23	49.74	5.51	74.00	24.26	PK	Horizo	PASS
2	2483.78	46.99	52.50	5.51	74.00	21.50	PK	Horizo	PASS

Transmit at 2462MHz by 802.11n(20MHz) with Ant7 + Ant8*Test Graph***Data List**

NO	Frequenc y [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdi ct
1	2483.50	32.62	38.13	5.51	54.00	15.87	AV	Horizo	PASS
2	2483.58	32.76	38.27	5.51	54.00	15.73	AV	Horizo	PASS

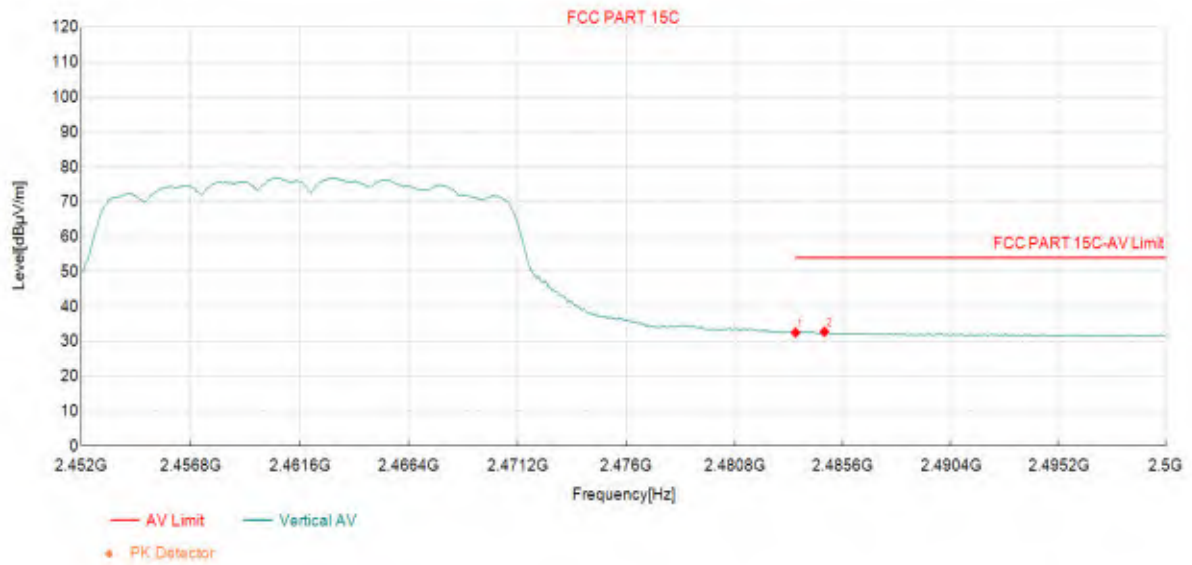
Transmit at 2462MHz by 802.11n(20MHz) with Ant7 + Ant8

Test Graph



Data List

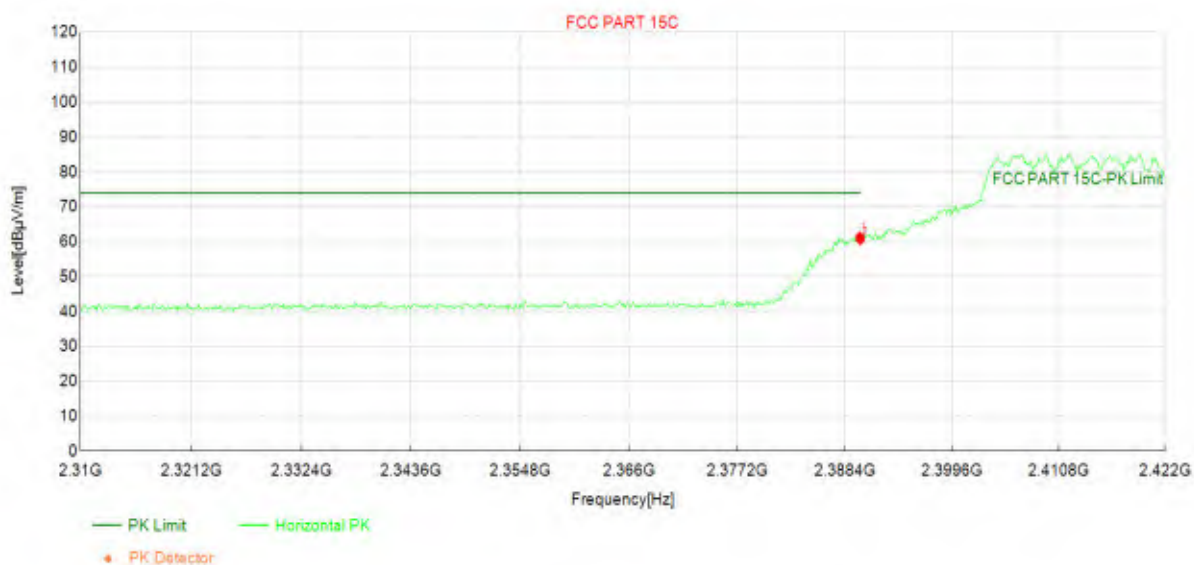
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	36.66	42.17	5.51	74.00	31.83	PK	Vertic	PASS
2	2483.92	39.50	45.01	5.51	74.00	28.99	PK	Vertic	PASS

Transmit at 2462MHz by 802.11n(20MHz) with Ant7 + Ant8*Test Graph***Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	27.05	32.56	5.51	54.00	21.44	AV	Vertic	PASS
2	2484.78	27.25	32.78	5.53	54.00	21.22	AV	Vertic	PASS

Transmit at 2422MHz by 802.11n(40MHz) with Ant7 + Ant8

Test Graph

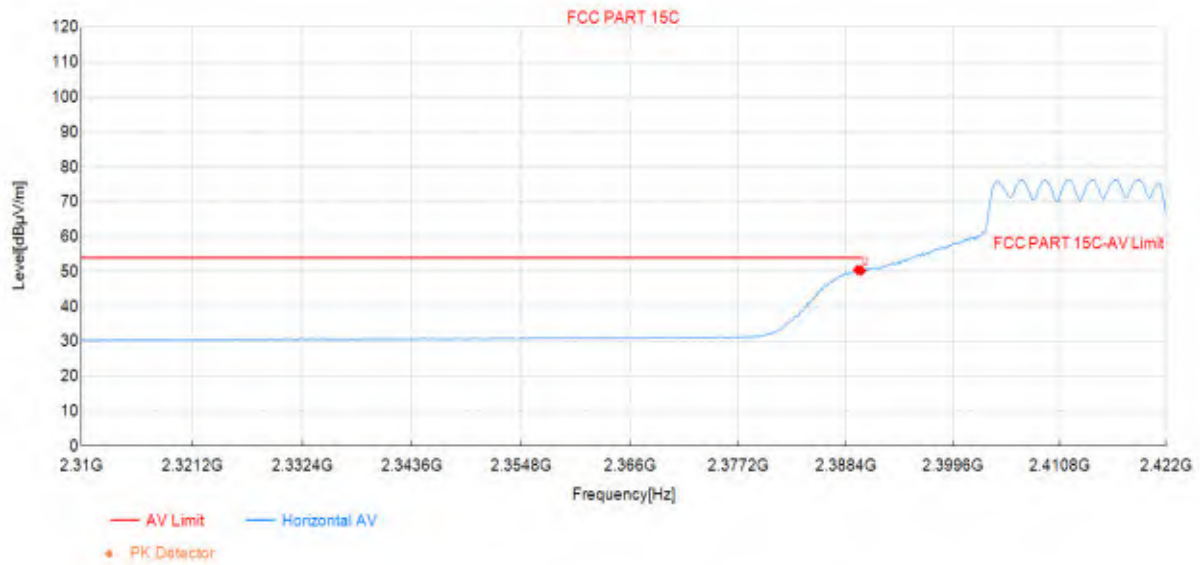


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2389.97	56.33	61.47	5.14	74.00	12.53	PK	Horizo	PASS
2	2390.00	55.37	60.51	5.14	74.00	13.49	PK	Horizo	PASS

Transmit at 2422MHz by 802.11n(40MHz) with Ant7 + Ant8

Test Graph

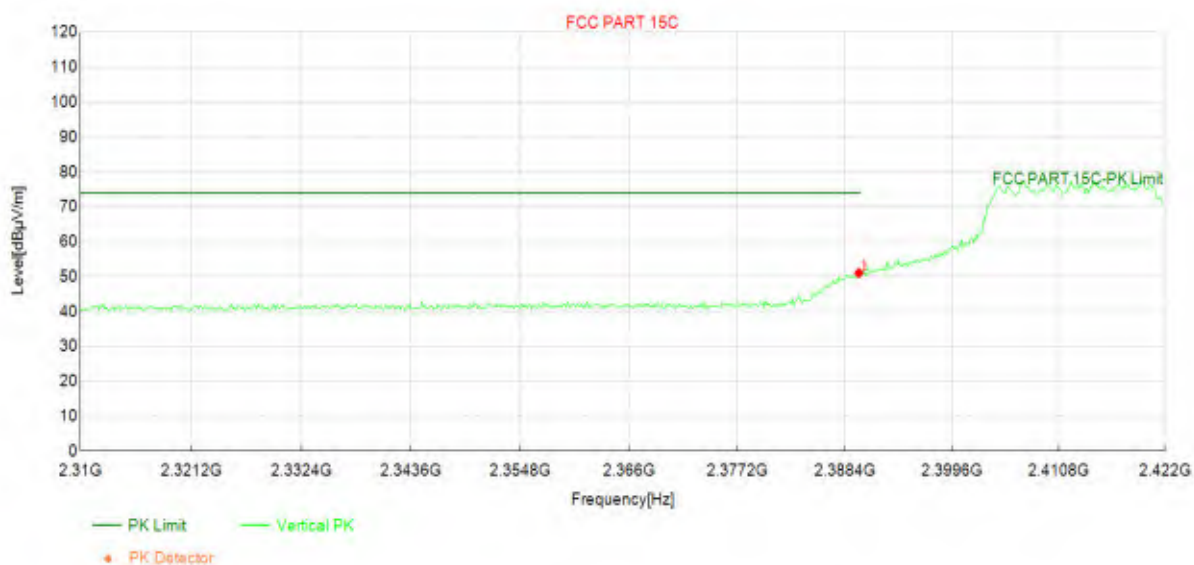


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2389.63	45.35	50.49	5.14	54.00	3.51	AV	Horizo	PASS
2	2390.00	45.17	50.31	5.14	54.00	3.69	AV	Horizo	PASS

Transmit at 2422MHz by 802.11n(40MHz) with Ant7 + Ant8

Test Graph

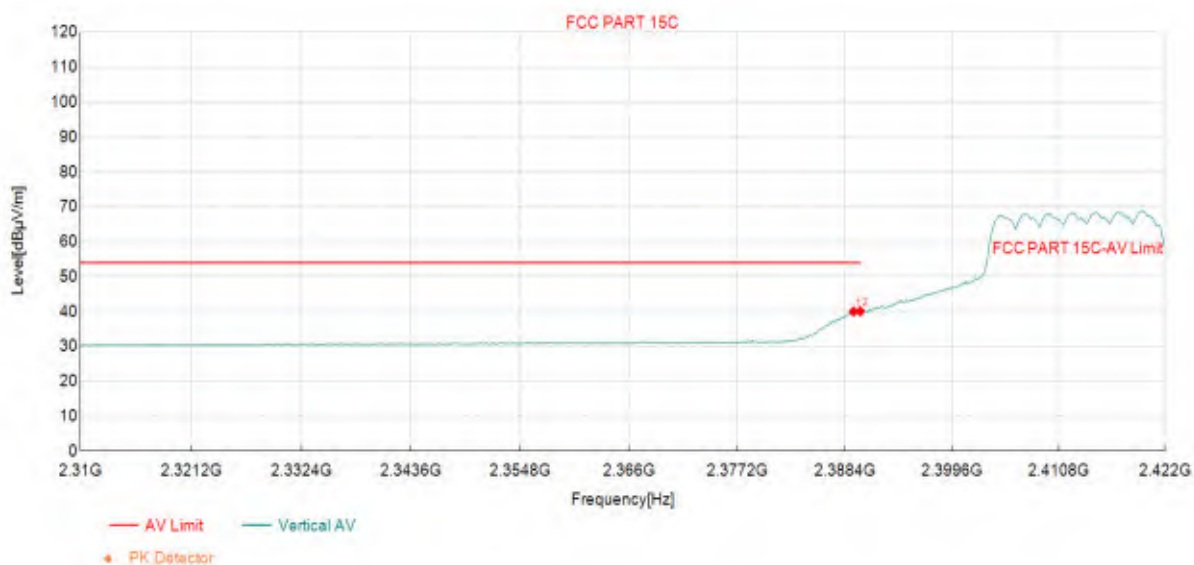


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2389.86	45.89	51.03	5.14	74.00	22.97	PK	Vertic	PASS
2	2390.00	45.15	50.29	5.14	74.00	23.71	PK	Vertic	PASS

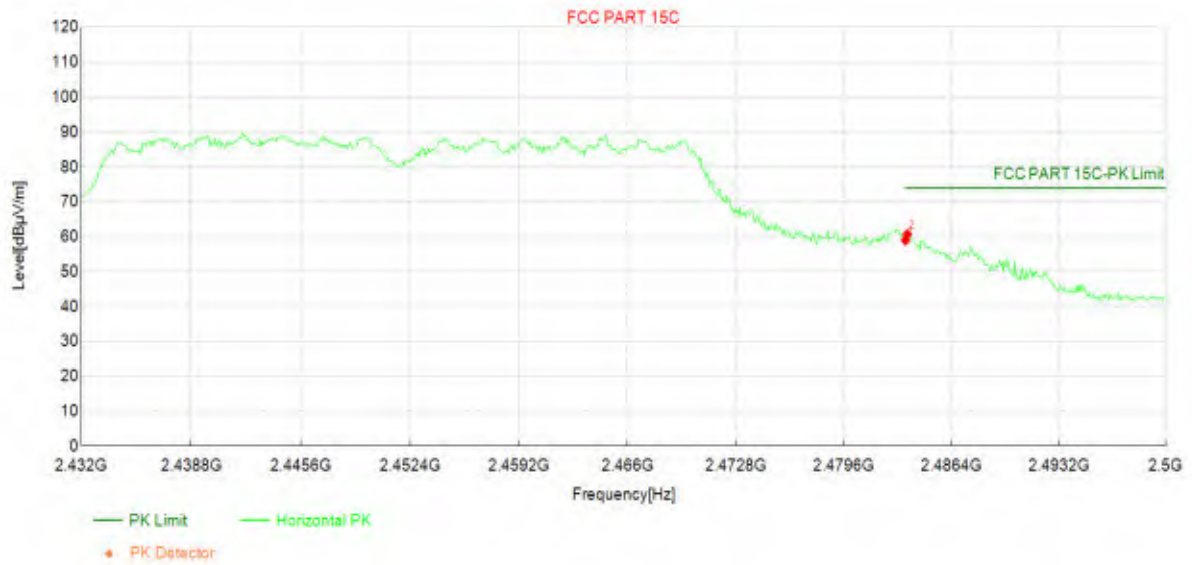
Transmit at 2422MHz by 802.11n(40MHz) with Ant7 + Ant8

Test Graph



Data List

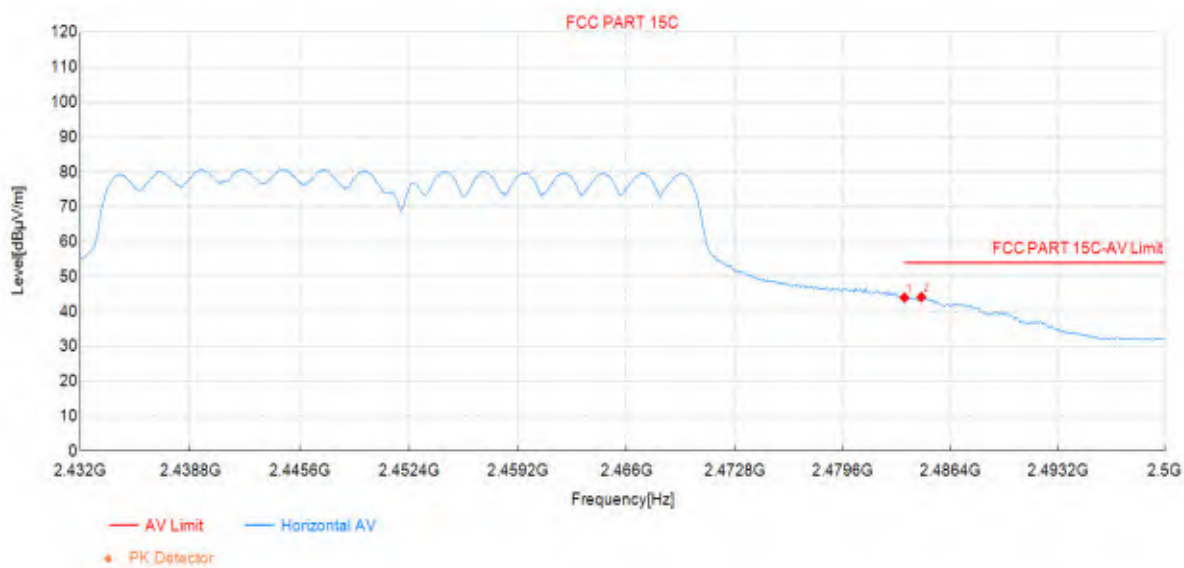
NO	Frequenc y [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdi ct
1	2389.30	34.85	39.98	5.13	54.00	14.02	AV	Vertic	PASS
2	2390.00	34.93	40.07	5.14	54.00	13.93	AV	Vertic	PASS

Transmit at 2452MHz by 802.11n(40MHz) with Ant7 + Ant8*Test Graph***Data List**

NO	Frequenc y [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdi ct
1	2483.50	53.45	58.96	5.51	74.00	15.04	PK	Horizo	PASS
2	2483.61	55.18	60.69	5.51	74.00	13.31	PK	Horizo	PASS

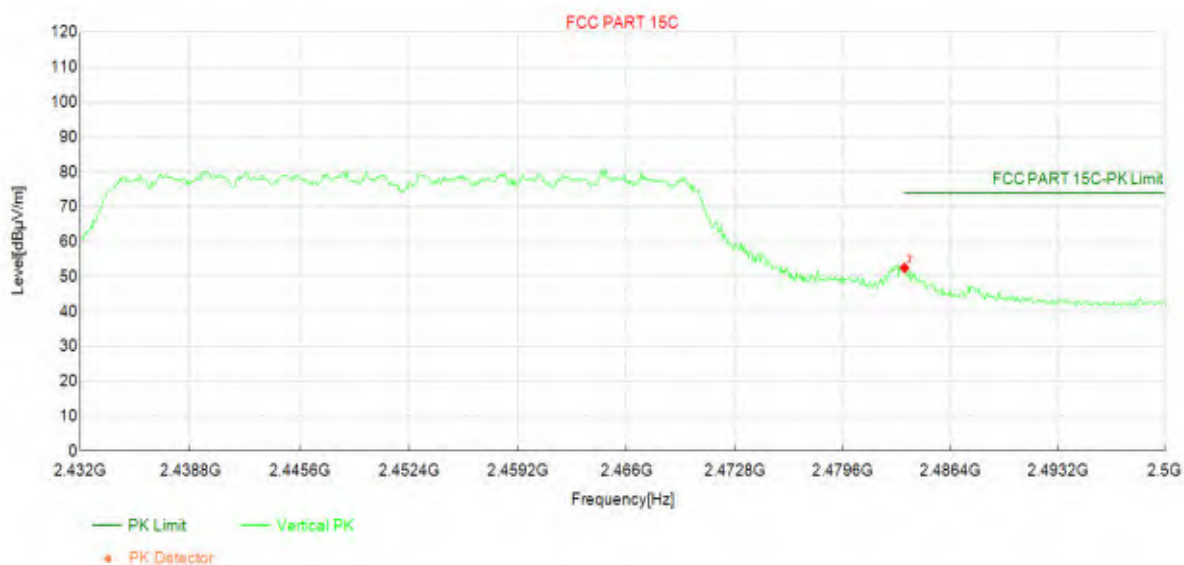
Transmit at 2452MHz by 802.11n(40MHz) with Ant7 + Ant8

Test Graph

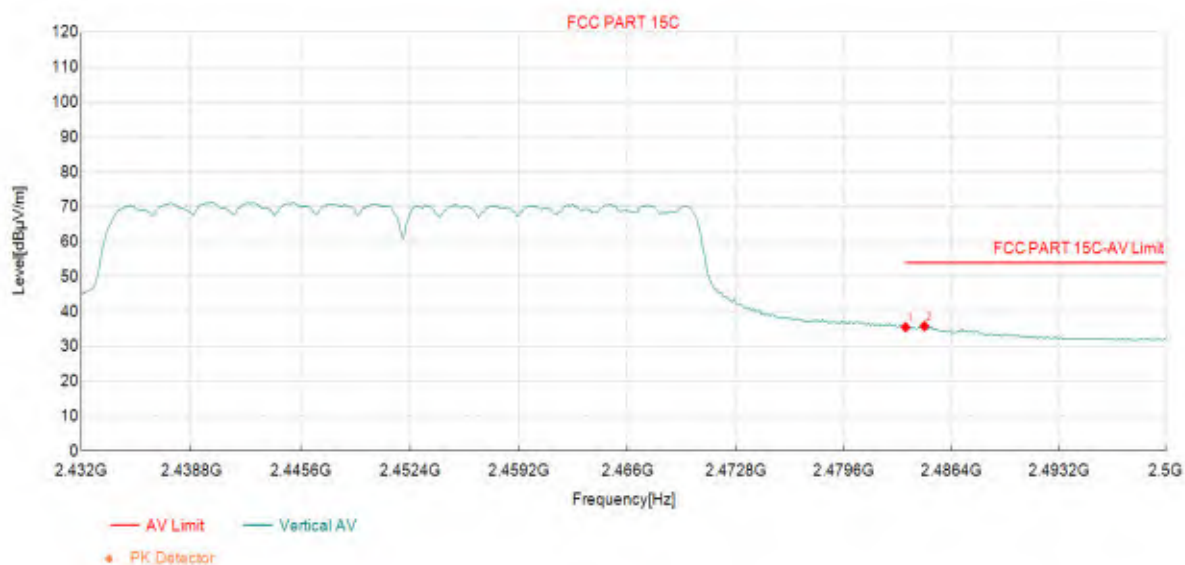


Data List

NO	Frequenc y [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdi ct
1	2483.50	38.48	43.99	5.51	54.00	10.01	AV	Horizo	PASS
2	2484.56	38.59	44.12	5.53	54.00	9.88	AV	Horizo	PASS

Transmit at 2452MHz by 802.11n(40MHz) with Ant7 + Ant8*Test Graph***Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	46.99	52.50	5.51	74.00	21.50	PK	Vertic	PASS
2	2483.54	46.99	52.50	5.51	74.00	21.50	PK	Vertic	PASS

Transmit at 2452MHz by 802.11n(40MHz) with Ant7 + Ant8*Test Graph***Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	30.00	35.51	5.51	54.00	18.49	AV	Vertic	PASS
2	2484.70	30.27	35.80	5.53	54.00	18.20	AV	Vertic	PASS

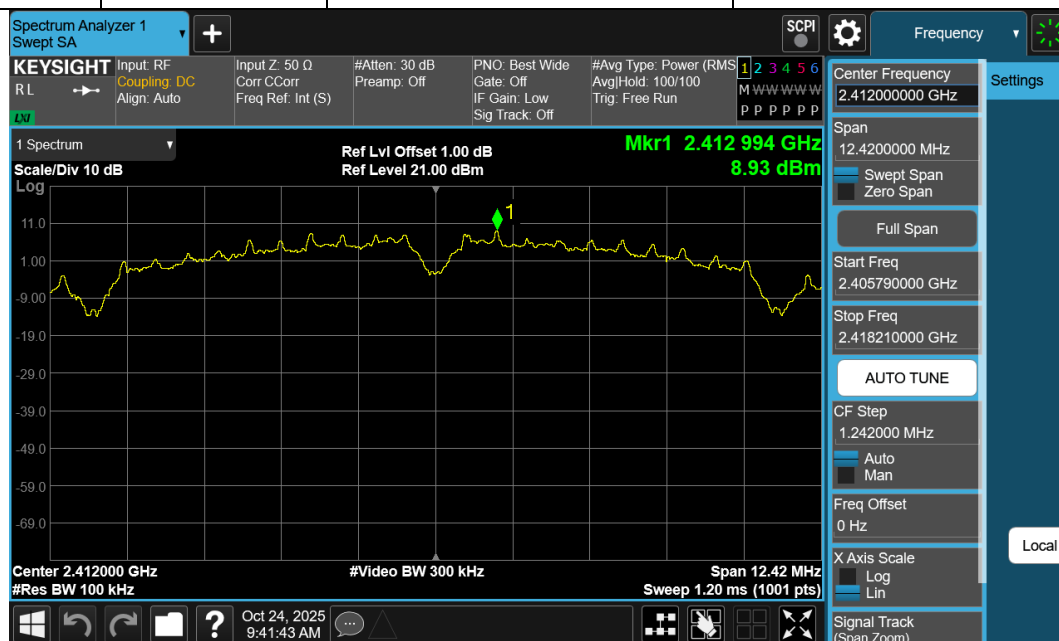
Note:

1. Level = Reading + Factor(Probe+Cable-Amp)
2. Margin = Limit – Level
3. We have evaluated both SISO Ant7, SISO Ant8 and MIMO Ant+Ant8, shown in report is the worst data only.

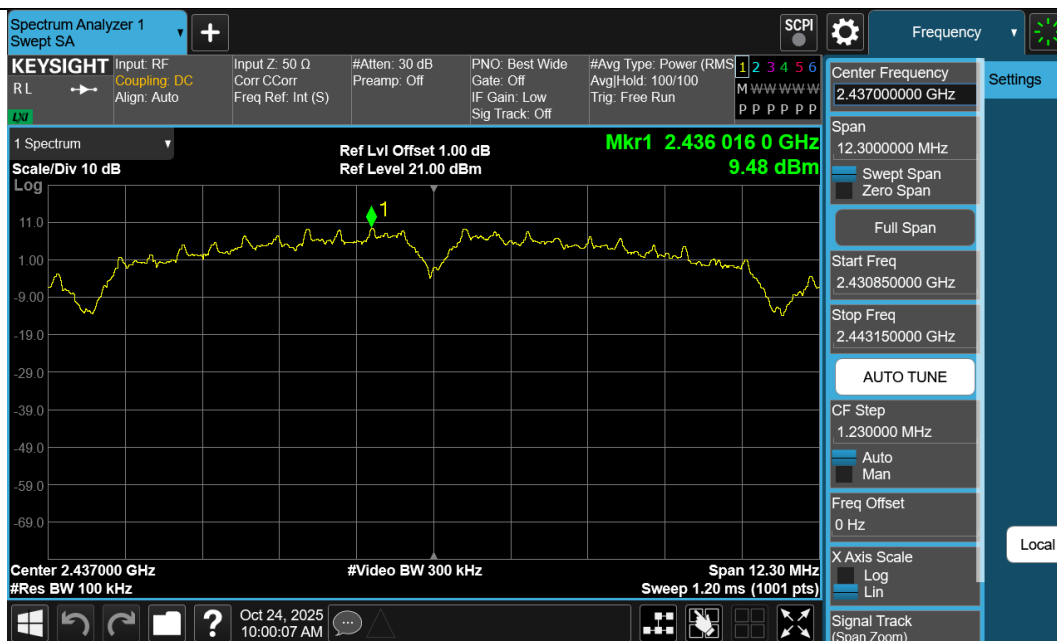
Appendix E: Test results of Conducted Spurious Emission

Reference level measurement:

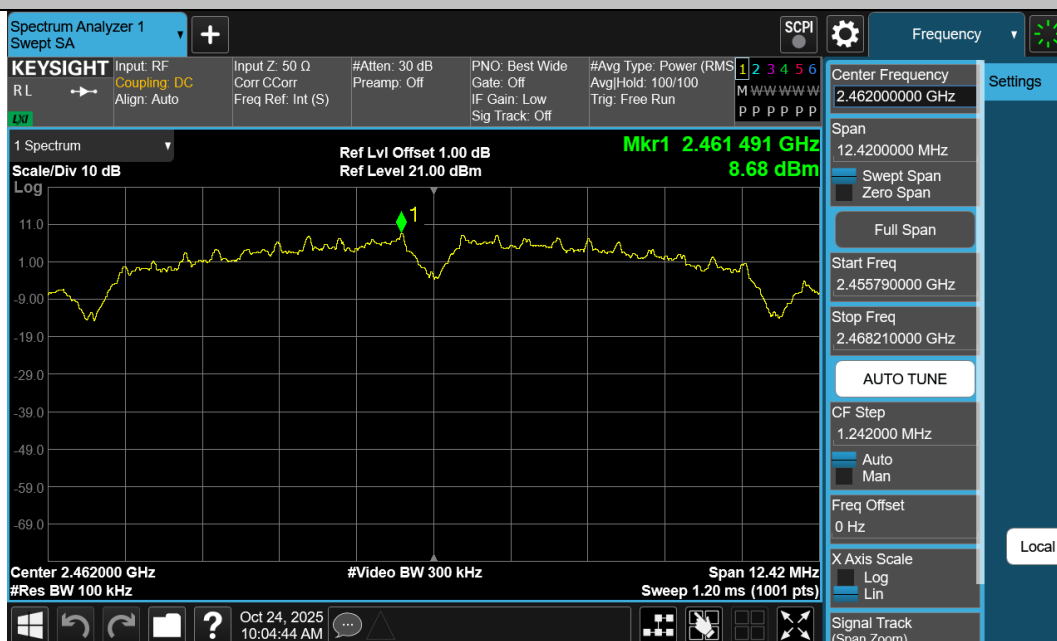
TestMode	Freq(MHz)	Max.Point[MHz]	Result[dBm]
11B	2412	2412.99	8.93
11B	2437	2436.02	9.49
11B	2462	2461.49	8.68
11G	2412	2409.51	7.91
11G	2437	2433.27	6.85
11G	2462	2458.25	7.18
11N20	2412	2414.51	6.79
11N20	2437	2432.01	7.02
11N20	2462	2467.00	5.17
11N40	2422	2434.47	3.14
11N40	2437	2434.49	1.52
11N40	2452	2435.75	3.87



11B-2412-PASS

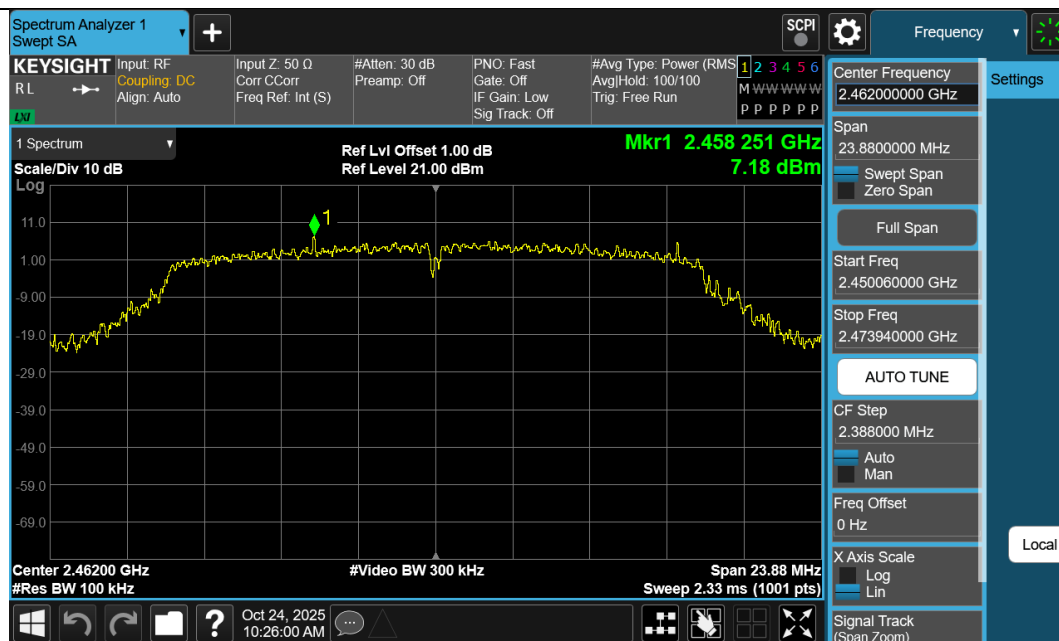


11B-2437-PASS

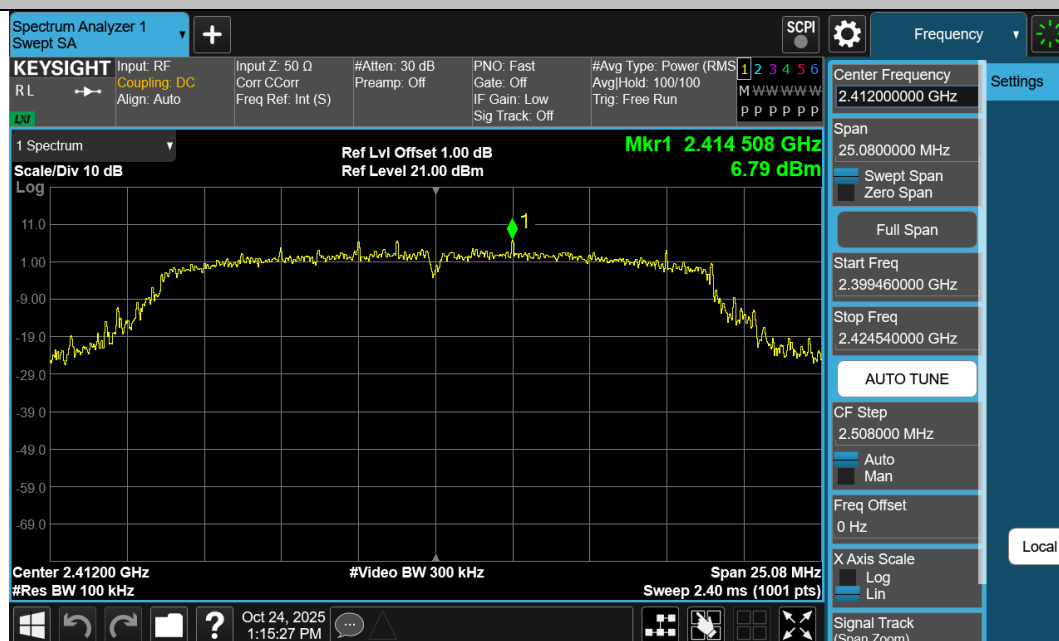


11B-2462-PASS

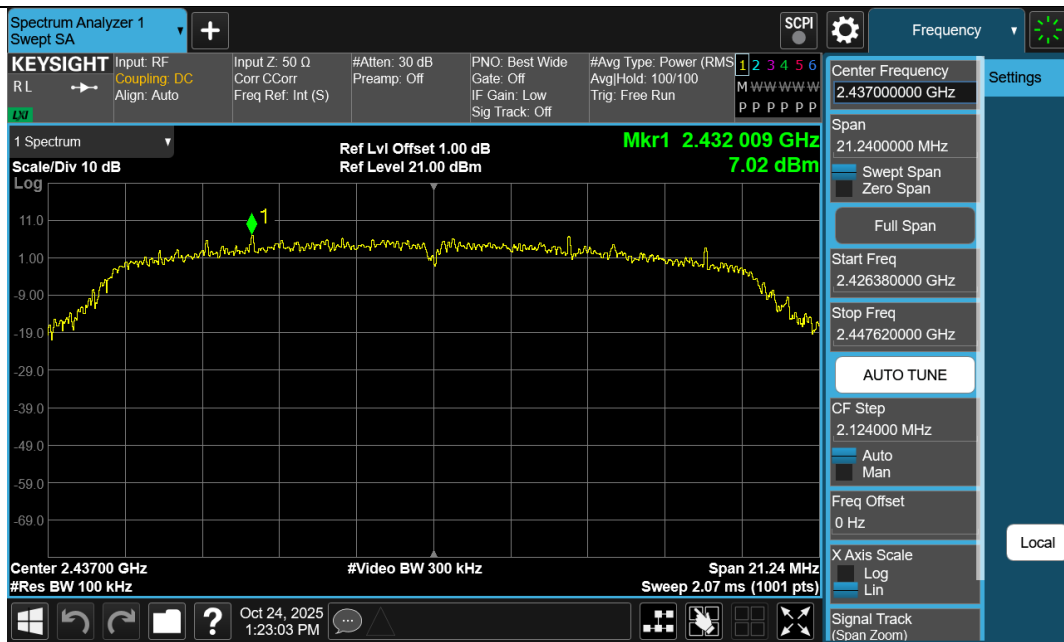




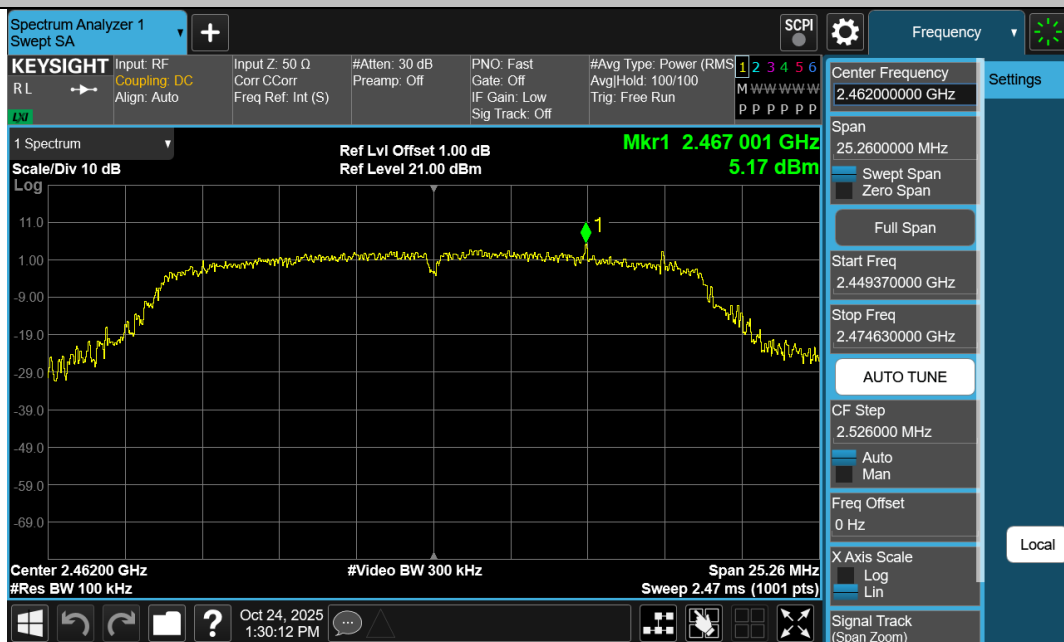
11G-2462-PASS



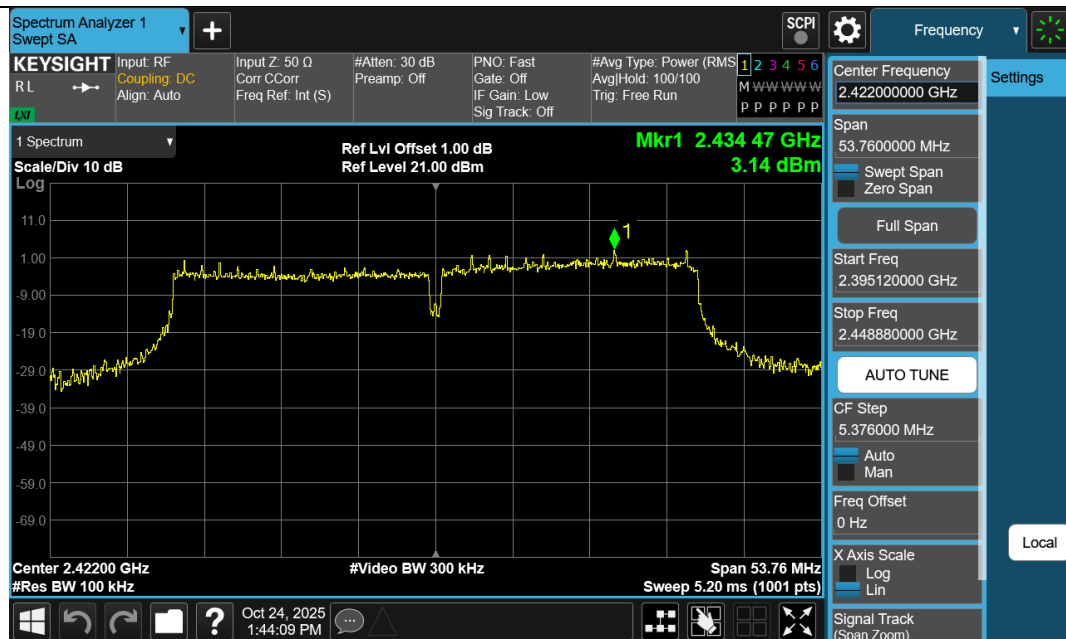
11N20-2412-PASS



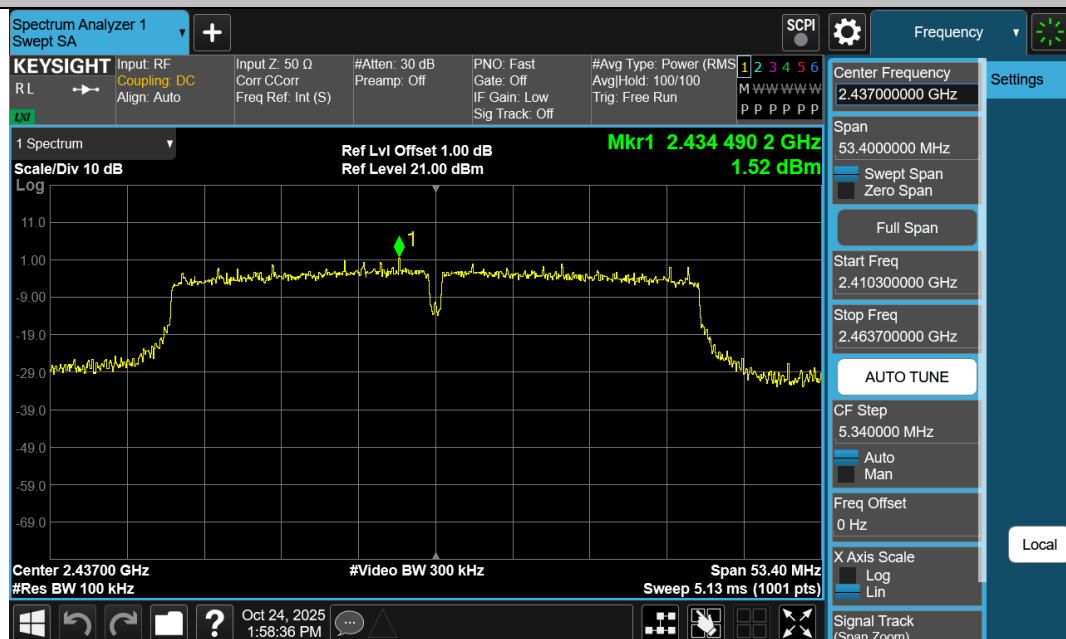
11N20-2437-PASS



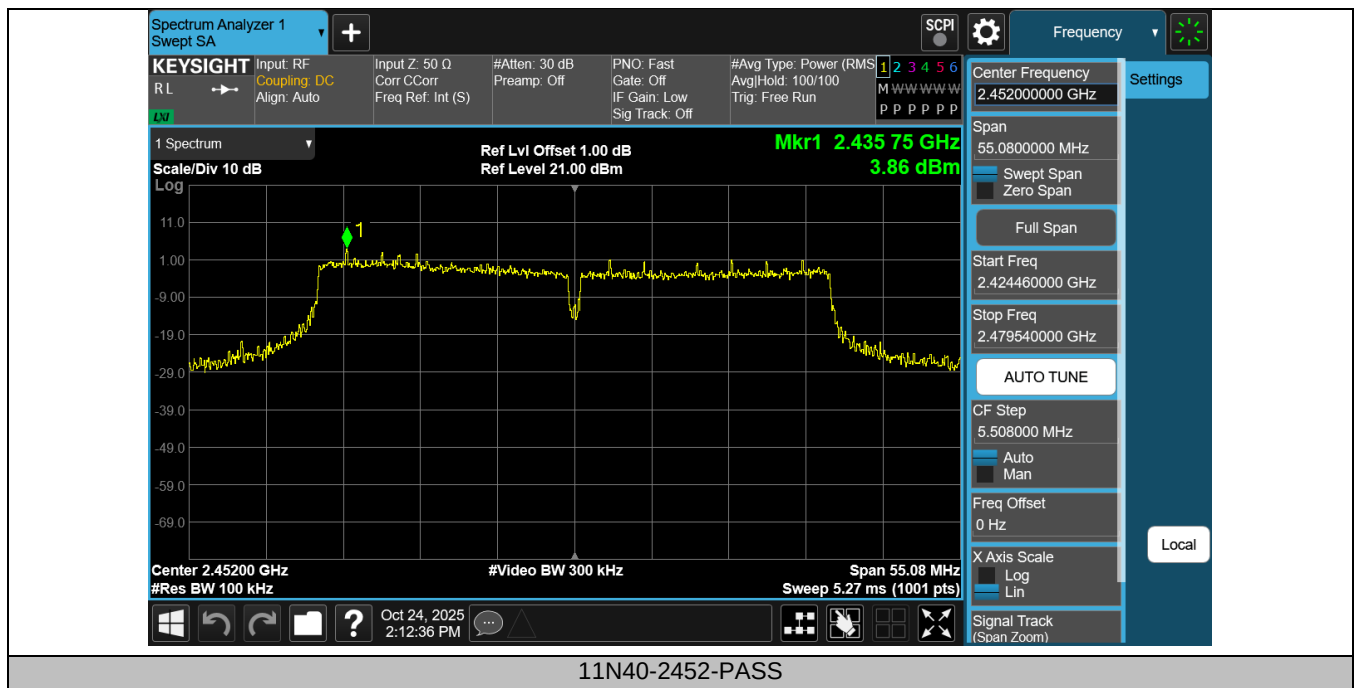
11N20-2462-PASS



11N40-2422-PASS



11N40-2437-PASS



Band edge measurements

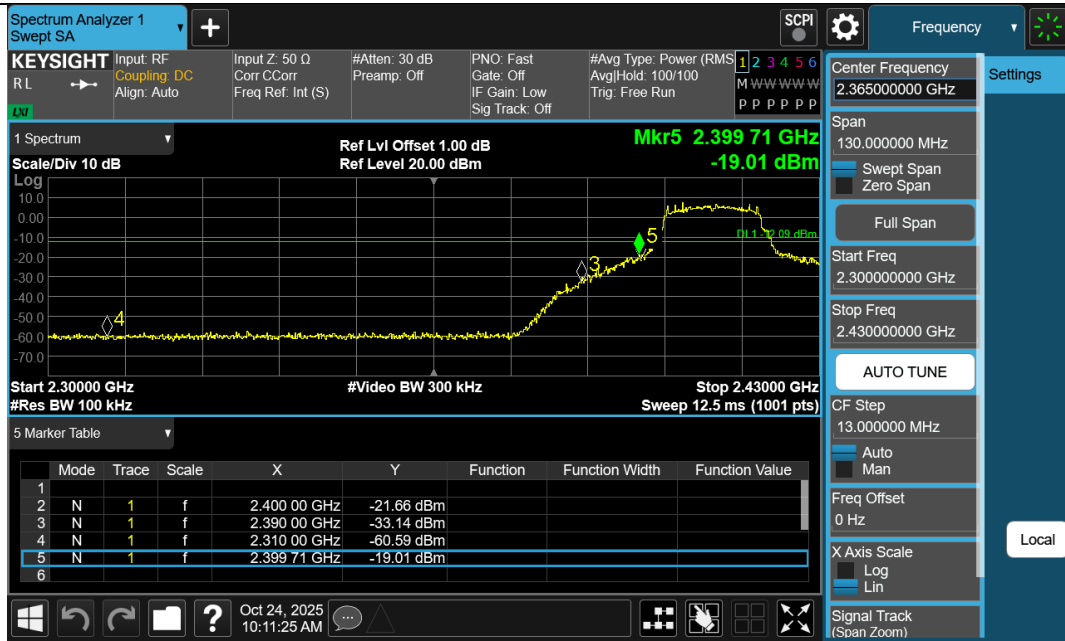
TestMode	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Low	2412	8.93	-39.62	≤-11.07	PASS
11B	High	2462	8.68	-47.72	≤-11.32	PASS
11G	Low	2412	7.91	-19.01	≤-12.09	PASS
11G	High	2462	7.18	-28.58	≤-12.82	PASS
11N20	Low	2412	6.79	-19.45	≤-13.21	PASS
11N20	High	2462	5.17	-31.82	≤-14.83	PASS
11N40	Low	2422	3.14	-25.85	≤-16.86	PASS
11N40	High	2452	3.87	-27	≤-16.13	PASS



11B-2412-PASS



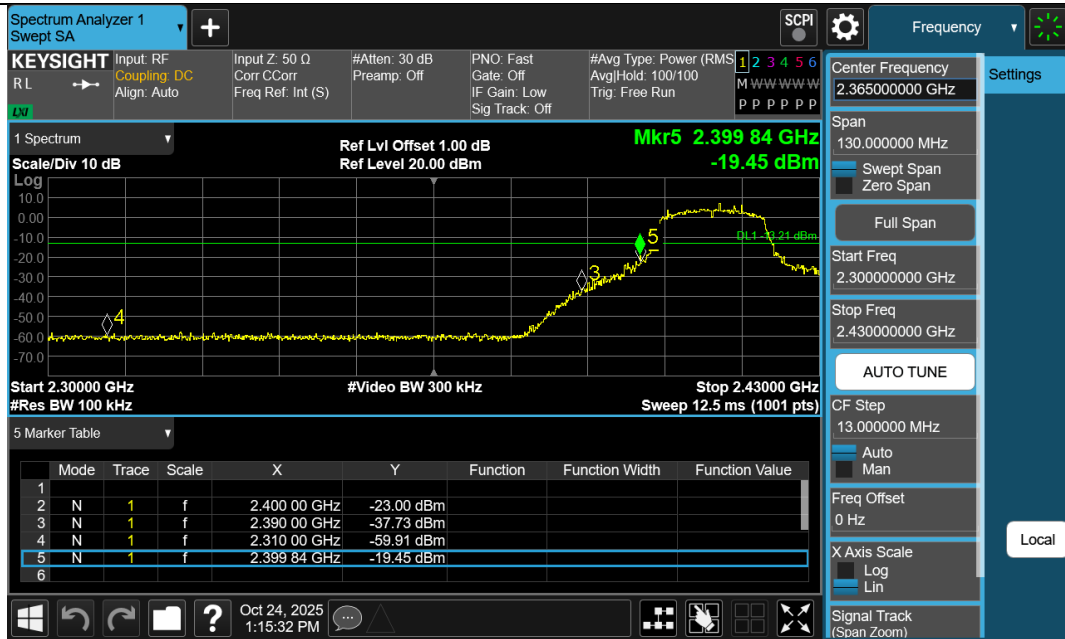
11B-2462-PASS



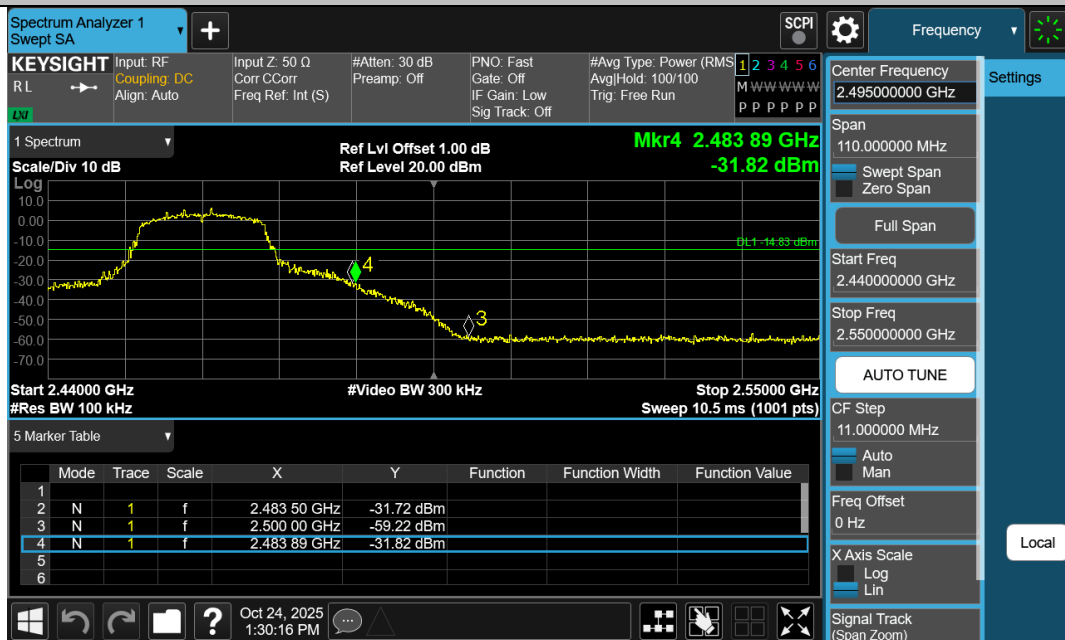
11G-2412-PASS



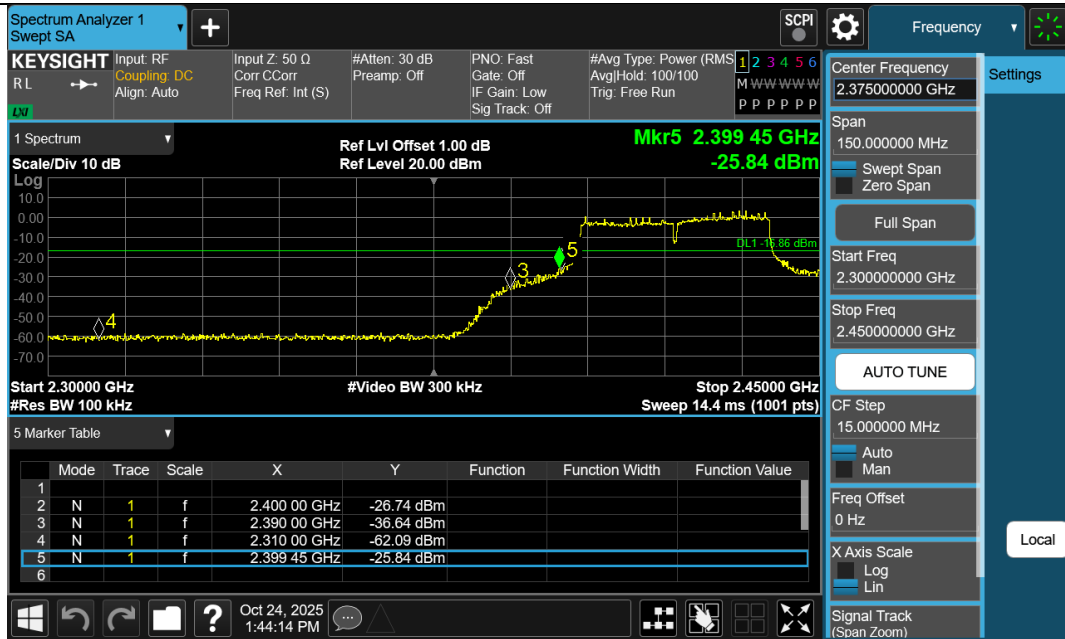
11G-2462-PASS



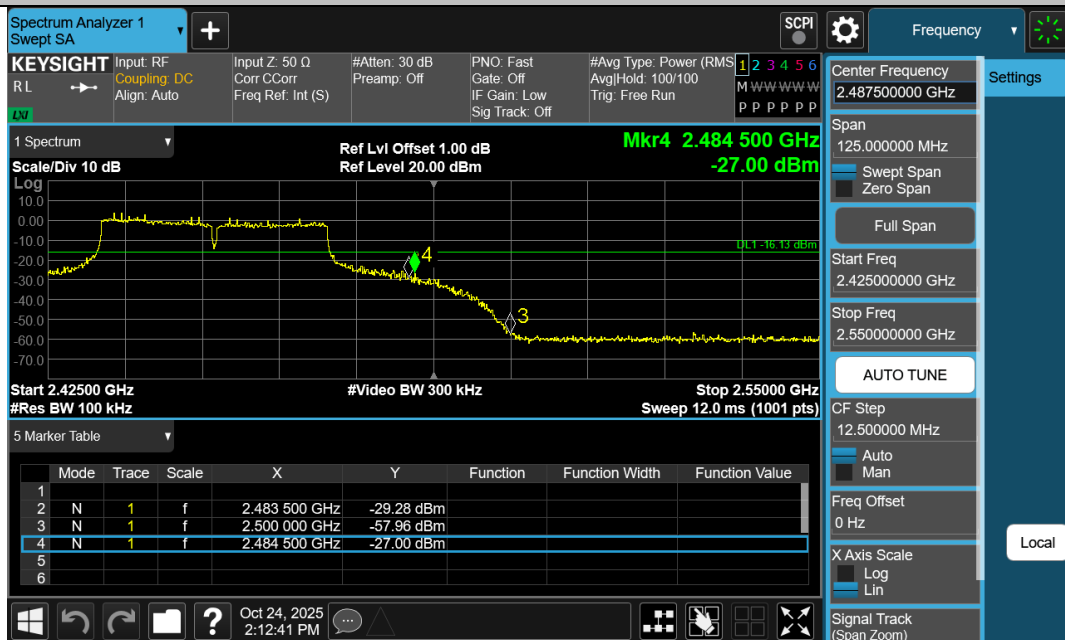
11N20-2412-PASS



11N20-2462-PASS



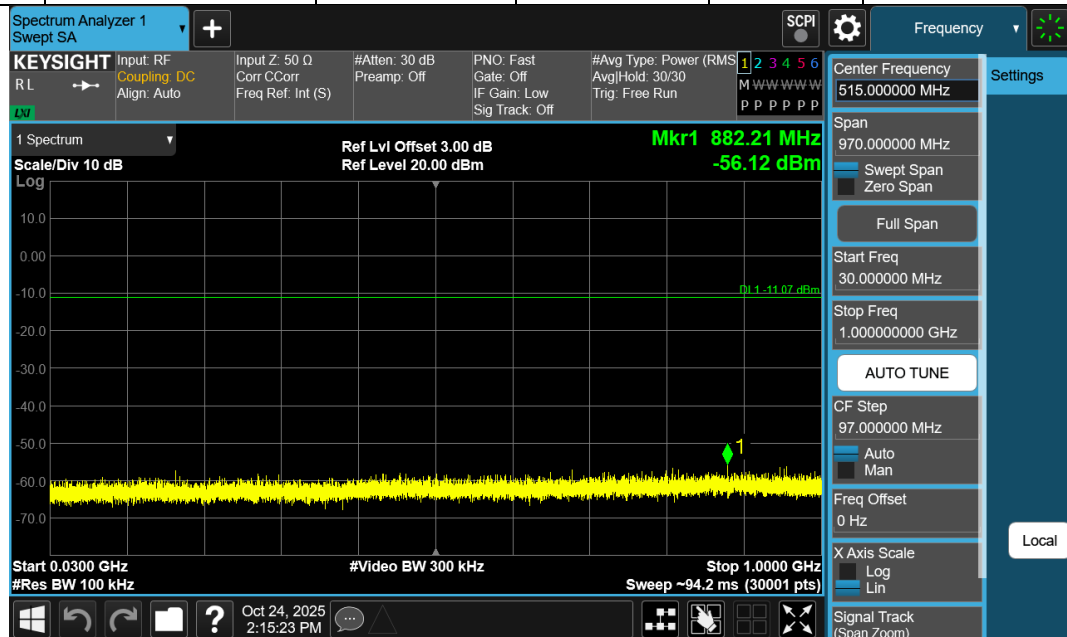
11N40-2422-PASS



11N40-2452-PASS

Conducted Spurious Emission:

TestMode	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	2412	30~1000	8.93	-56.12	≤-11.07	PASS
11B	2412	1000~25000	8.93	-46.76	≤-11.07	PASS
11B	2437	30~1000	9.49	-56.58	≤-10.51	PASS
11B	2437	1000~25000	9.49	-48.77	≤-10.51	PASS
11B	2462	30~1000	8.68	-56.89	≤-11.32	PASS
11B	2462	1000~25000	8.68	-48.98	≤-11.32	PASS
11G	2412	30~1000	7.91	-57.41	≤-12.09	PASS
11G	2412	1000~25000	7.91	-48.54	≤-12.09	PASS
11G	2437	30~1000	6.85	-56	≤-13.15	PASS
11G	2437	1000~25000	6.85	-48.16	≤-13.15	PASS
11G	2462	30~1000	7.18	-56.58	≤-12.82	PASS
11G	2462	1000~25000	7.18	-38.76	≤-12.82	PASS
11N20	2412	30~1000	6.79	-57.21	≤-13.21	PASS
11N20	2412	1000~25000	6.79	-48.96	≤-13.21	PASS
11N20	2437	30~1000	7.02	-57.29	≤-12.98	PASS
11N20	2437	1000~25000	7.02	-48.96	≤-12.98	PASS
11N20	2462	30~1000	5.17	-56.91	≤-14.83	PASS
11N20	2462	1000~25000	5.17	-48.22	≤-14.83	PASS
11N40	2422	30~1000	3.14	-56.5	≤-16.86	PASS
11N40	2422	1000~25000	3.14	-49.08	≤-16.86	PASS
11N40	2437	30~1000	1.52	-57.25	≤-18.48	PASS
11N40	2437	1000~25000	1.52	-49.13	≤-18.48	PASS
11N40	2452	30~1000	3.87	-56.79	≤-16.13	PASS
11N40	2452	1000~25000	3.87	-49.17	≤-16.13	PASS



11B-2412-30~1000-PASS