

Test report No:
2570594R.701A

FCC TEST REPORT

Product Name	WIFI/BT Module
Model and /or type reference	MWH558S
Trademark	Hisense
FCC ID	2AJVQ-MWH558S
Applicant's name / address	Qingdao Intelligent & Precise Electronics Co., Ltd. No.218 Qianwangang Road, Qingdao Economic & Technological Development Zone, Qingdao City, Shandong Province, P. R. China
Test method requested, standard	47 CFR FCC Part 15 (Section 15.247) ANSI C63.10: 2020
Verdict Summary	IN COMPLIANCE
Tested By (name / position & signature)	Jun Xu/Project Engineer 
Approved by (name / position & signature)	Frank He/Technical Manager 
Date of issue	2025-08-14
Report Version	V1.0
Report template No	Template_FCC Part 15C-RF-V1.0

INDEX

	page
Competences and Guarantees.....	4
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
1.1 General Description of the Item(s)	10
1.2 Channel List	11
2 Description of Test Setup	12
3 Verdict summary section	13
3.1 Standards	13
3.2 Deviation(s) from the Standard(s) / Test Specification(s)	13
3.3 Overview of results.....	14
3.4 Worst-case configuration and mode	15
3.5 Power setting in test.....	16
3.6 Test Facility	17
4 TEST ITEMS OF LIMIT/SETUP/PROCEDURE.....	18
4.1 Emissions in restricted frequency bands	18
4.1.1 Limit.....	18
4.1.2 Test Setup.....	20
4.1.3 Test Procedure	21
4.2 Emissions in non-restricted frequency band	22
4.2.1 Limit.....	22
4.2.2 Test Setup.....	22
4.2.3 Test Procedure	22
4.3 Duty cycle.....	23
4.3.1 Limit.....	23
4.3.2 Test Setup.....	23
4.3.3 Test Procedure	23
4.4 Radiated Emission Band Edge	24

4.4.1	Limit.....	24
4.4.2	Test Setup.....	24
4.4.3	Test Procedure	25
4.5	DTS Bandwidth	26
4.5.1	Limit.....	26
4.5.2	Test Setup.....	26
4.5.3	Test Procedure	26
4.6	Fundamental emission output power	27
4.6.1	Limit.....	27
4.6.2	Test Setup.....	27
4.6.3	Test Procedure	28
4.7	Power Density	30
4.7.1	Limit:.....	30
4.7.2	Test Setup.....	30
4.7.3	Test Procedure	30
4.8	AC Power Line Conducted Emission	32
4.8.1	Limit.....	32
4.8.2	Test Setup	32
4.8.3	Test Procedure.....	32
4.9	Antenna Requirement	33
4.9.1	Limit:.....	33
4.9.2	Antenna Connector Construction:.....	33
5	Test setup photo and EUT Photo	34
6	Test Result	35
	Appendix A: DTS Bandwidth	35
	Appendix B: Maximum conducted output power	42
	Appendix C: Maximum power spectral density	43
	Appendix D: Band edge measurements.....	50
	Appendix E: Conducted Spurious Emission.....	82
	Appendix F: Duty Cycle	104
	Appendix G: Emissions in Restricted Bands	111

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
Date(receive sample)	Jul. 21, 2025
Date (start test)	Jul. 23, 2025
Date (finish test)	Aug. 14, 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.

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
T_x	: Transmitter
R_x	: Receiver
N/A	: Not Applicable
N/M	: Not Measured

DOCUMENT HISTORY

Report No.	Version	Description	Issued Date
2570594R.701A	V1.0	Initial issue of report.	2025-08-13

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 1.1 General Description of the Item(s);
 - Chapter 1.2 Channel List;

USED EQUIPMENT

Test 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	2025.03.16	2026.03.15	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	RF07	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
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

Test Location A :Radiated Emission(9KHz-1GHz) / AC2

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date	Firmware Version	Software version
EMI Test Receiver	R&S	ESCI	100573	2025.01.11	2026.01.10	4.42 SP3	N/A
EXA Spectrum Analyzer	Keysight	N9020B	MY60112218	2024.11.02	2025.11.01	A.31.05	N/A
Loop Antenna	R&S	HFH2-Z2E	101149	2025.04.16	2026.04.15	N/A	N/A
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2025.03.24	2026.03.23	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	AC2-TH	2025.06.17	2026.06.16	N/A	N/A
Coaxial Cable	Huber+Suhner	RTS-1909	THM-021	2025.04.30	2026.04.29	N/A	N/A
Anechoic chamber	Quietek	9m*6m*6m	AC2	2024.07.07	2029.07.06	N/A	N/A
Dekra test software	Dekra	N/A	N/A	N/A	N/A	N/A	3

Test Location A: Radiated Emission (1GHz-40GHz) / 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
Power Amplifier	MVE	MPC1018.50	C30002D	2025.05.17	2026.05.16	N/A	N/A
DRG Horn Antenna	RFSPIN	DRH18-E	CE2C07A18EN	2024.12.07	2025.12.06	N/A	N/A
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9170	750	2024.11.24	2025.11.23	N/A	N/A
Pre-Amplifier	Schwarzbeck	BBV 9721	00114	2025.05.17	2026.05.16	N/A	N/A
TRILOG Broadband Antenna	SCHWARZBECK	VULB 9168	1231	2025.05.28	2026.05.27	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	RF04	2025.06.17	2026.06.16	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	RF08	2025.06.17	2026.06.16	N/A	N/A
Anechoic chamber	Quietek	9m*5.5m*5.5m	AC6	2024.06.30	2029.06.29	N/A	N/A
Test Software	Tonscend	JS36	JS36-RSE	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	2025.07.11	2026.07.10	A 08.54	N/A
Bilog Antenna	TESEQ	CBL6112D	64164	2024.11.23	2025.11.22	N/A	N/A
Horn Antenna	RF SPIN	DRH18-E	KV2D11A18ES	2024.11.02	2025.11.01	N/A	N/A
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	01312	2024.10.28	2025.10.27	N/A	N/A
Amplifier	ESE	LNA0118	LNA23100009	2024.08.10	2025.08.09	N/A	N/A
Amplifier	Tonscend	TAP01018048S	AP23J8060307	2024.11.16	2025.11.15	N/A	N/A
Band Reject Filter Group	Tonscend	JS0806-F	23G806F0701	2024.11.20	2025.11.19	N/A	N/A
Temperature/Humidity Meter	RTS	RTS-8S	026	2024.09.04	2025.09.03	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	± 2.92 dB
Peak Power Output	± 1.13 dB
Radiated Emission(30MHz~1GHz)	Horizontal: 30MHz~200MHz: 4.60 dB 200MHz~1GHz: 4.10 dB Vertical: 30MHz~200MHz: 4.80 dB 200MHz~1GHz: 4.10 dB
Radiated Emission(1GHz~40GHz)	Horizontal: 1GHz~18GHz: 5.00 dB Vertical: 1GHz~18GHz: 4.80 dB Horizontal: 18GHz~40GHz: 4.70 dB Vertical: 18GHz~40GHz: 4.60 dB
RF antenna conducted test	± 1.13 dB
Radiated Emission Band Edge	± 5.00 dB
DTS Bandwidth	± 279 Hz
Occupied Bandwidth	± 279 Hz
Power Density	± 1.13 dB

Test item Test Location B	Uncertainty
Radiated Emission(30MHz~1GHz)	Horizontal: 30MHz~200MHz: 4.86 dB 300MHz~1GHz: 4.86 dB Vertical: 30MHz~200MHz: 4.92 dB 300MHz~1GHz: 4.92 dB
Radiated Emission(1GHz~40GHz)	Horizontal: 1GHz~18GHz: 5.99 dB Vertical: 1GHz~18GHz: 5.76 dB Horizontal: 18GHz~40GHz: 5.99 dB Vertical: 18GHz~40GHz: 5.76 dB
Radiated Emission Band Edge	± 5.99 dB

1 GENERAL INFORMATION

1.1 General Description of the Item(s)

Product Name:	WIFI/BT Module	
Model No.:	MWH558S	
Trademark:	Hisense	
Hardware Version:	N/A	
Software Version:	N/A	
FCC ID:	2AJVQ-MWH558S	
Power Supply:	3.30Vdc	
Manufacturer:	Qingdao Intelligent & Precise Electronics Co., Ltd.	
Manufacturer address:	No.218 Qianwangang Road, Qingdao Economic & Technological Development Zone, Qingdao City, Shandong Province, P. R. China	
Test Matrix/ IMEI:	RF Conducted	#1
	RSE	#2
Wireless specification:	802.11b/g/n	
Operating frequency range(s):	2412~2462MHz	
Type of Modulation :	802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g/n: OFDM (BPSK, QPSK, 16QAM, 64QAM)	
Smart System:	☒	SISO
	☒	MIMO-CDD
	☐	MIMO-Beamforming
Antenna Type:	PCB Antenna	
Antenna Gain:	SISO:	WIFI0: 0.00dBi; WIFI1: 2.32dBi
	CDD:	Power: 2.32dBi
		PSD: 4.25dBi

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.

1.2 Channel List

IEEE 802.11b/g & IEEE 802.11n(20MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412 MHz	2	2417 MHz	3	2422 MHz	4	2427 MHz
5	2432 MHz	6	2437 MHz	7	2442 MHz	8	2447 MHz
9	2452 MHz	10	2457 MHz	11	2462 MHz	-	-

IEEE 802.11n (40MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
3	2422 MHz	4	2427 MHz	5	2432 MHz	6	2437 MHz
7	2442 MHz	8	2447 MHz	9	2452 MHz	-	-

Note: The General Description of the Item, Channel List in clause 1 are provided and confirmed by the client.

2 DESCRIPTION OF TEST SETUP

Auxiliary equipment	Type / Version	Manufacturer	Supplied by
(1) Notebook	Think pad x220	Lenovo	Adapter
(2) USB Control Cable	N/A	N/A	N/A
(3) USB Control Cable	N/A	N/A	N/A
software	Type / Version		
RTL11ac_8822EU_Tool	v2.40		

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

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	2020	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
KDB 662911	2020	Provision to Allow Measurement of Directional Gain of Multi-Antenna Systems for Compliance Verification
KDB 558074 D01V05r02	2019	Guidance for performing compliance measurements on Digital Transmission System (DTS) operating under section 15.247

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 of FCC	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 C63.10:2020	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	N/A(See Note2)	N/A(See Note2)
Antenna Requirement	FCC 15.203	PASS	---
Note1: The radiation measurement is pre tested under X, Y, and Z axis positioning to find the worst placement for final testing.			
Note2: EUT is DC powered, not applicable.			

3.4 Worst-case configuration and mode

Low data rate was used to test on antenna port conducted tests and radiated spurious emissions since it has the highest maximum power. Following are the worst-case data rates set for test:

Modulation Type	SISO - Data Rate	MIMO - Data Rate
802.11b	1Mbps	N/A
802.11g	6Mbps	N/A
802.11n (HT 20)	MCS0(6.5 Mbps)	MCS0(6.5 Mbps)
802.11n (HT 40)	MCS0(13.5 Mbps)	MCS0(13.5 Mbps)
Note: EUT supports SISO Ant 1 antenna mode, SISO Ant 2 mode and MIMO Ant 1+2 mode. What is shown in the report is the data of the worst antenna mode.		

3.5 Power setting in test

Mode	Channel	Frequency (MHz)	Power setting			
			SISO:Ant1	SISO:Ant2	CDD:Ant1	CDD:Ant2
802.11b	01	2412	88	88	N/A	N/A
	06	2437	86	88	N/A	N/A
	11	2462	86	88	N/A	N/A
802.11g	01	2412	86	86	N/A	N/A
	06	2437	86	86	N/A	N/A
	11	2462	86	86	N/A	N/A
802.11n20	01	2412	86	86	86	86
	06	2437	86	86	86	86
	11	2462	86	86	86	86
802.11n40	03	2422	76	76	76	76
	06	2437	76	76	76	76
	09	2452	76	76	76	76

3.6 Test Facility

Tset Location A : FCC Designation Number: CN1199

Tset Location B : FCC Designation Number: CN1321

4 TEST ITEMS OF LIMIT/SETUP/PROCEDURE

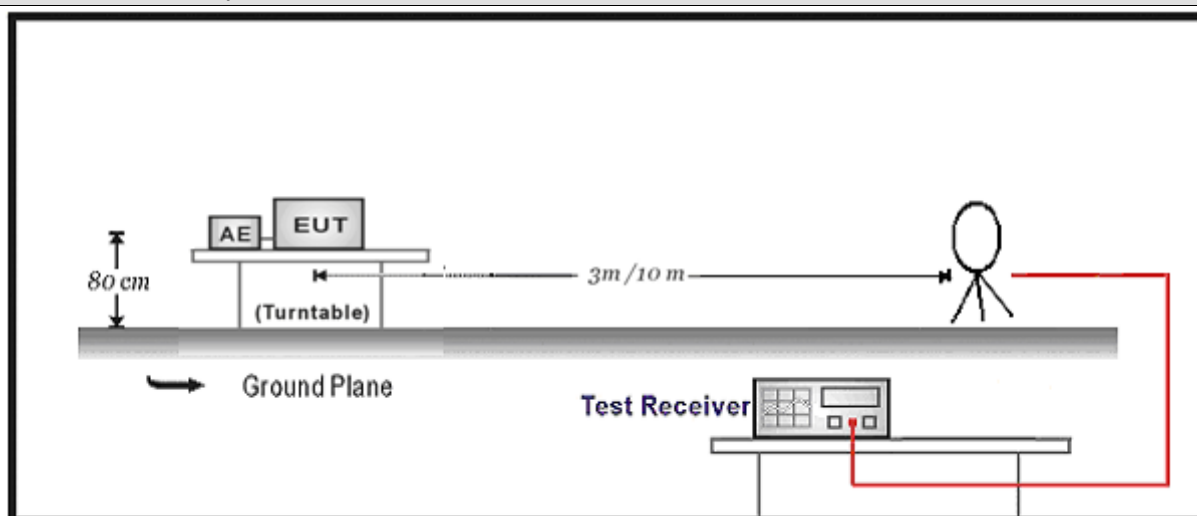
4.1 Emissions in restricted frequency bands	VERDICT: PASS
--	----------------------

4.1.1 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			

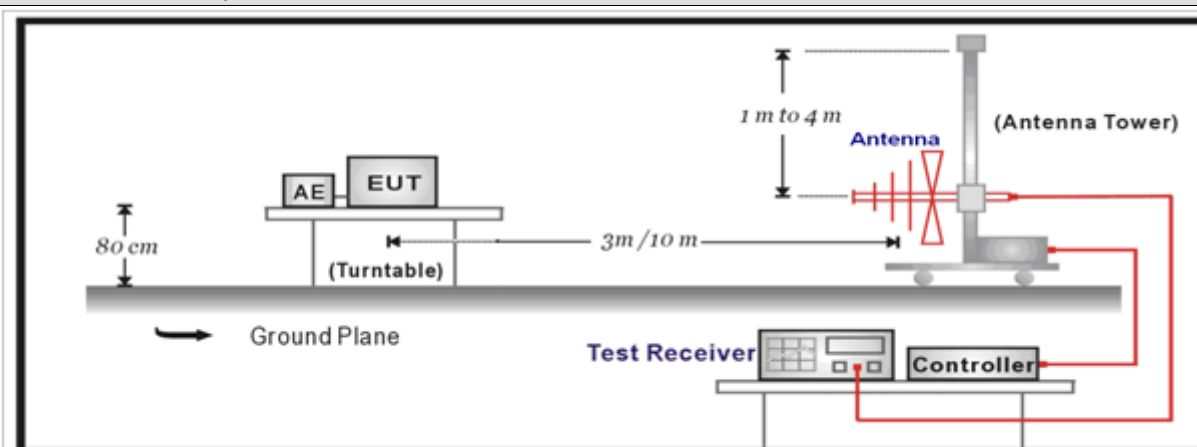
measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can 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).

4.1.2 Test Setup

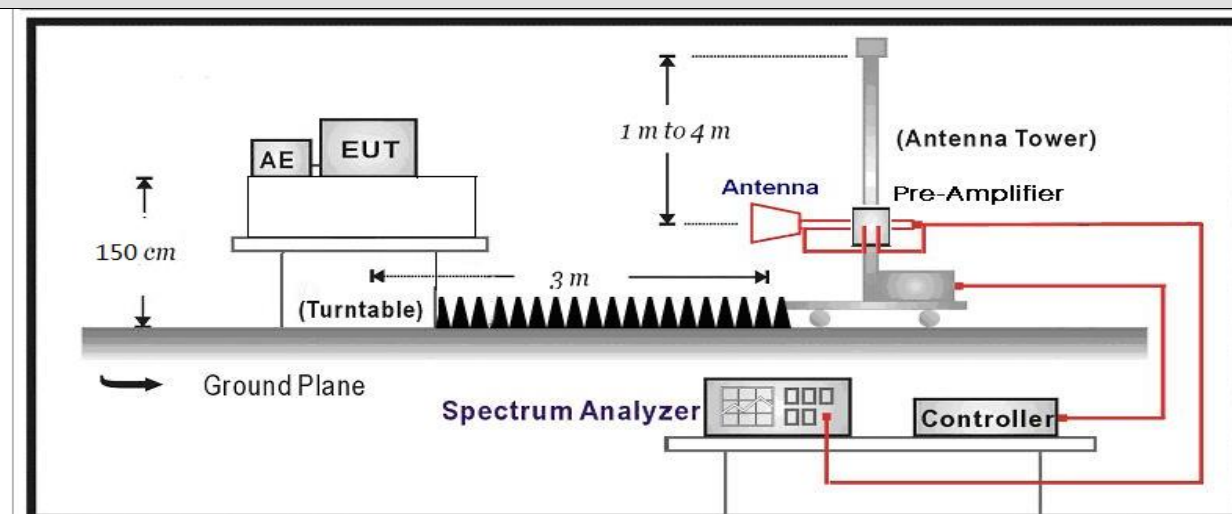
Below 30MHz Test Setup:



30MHz-1GHz Test Setup:



Above 1GHz Test Setup:



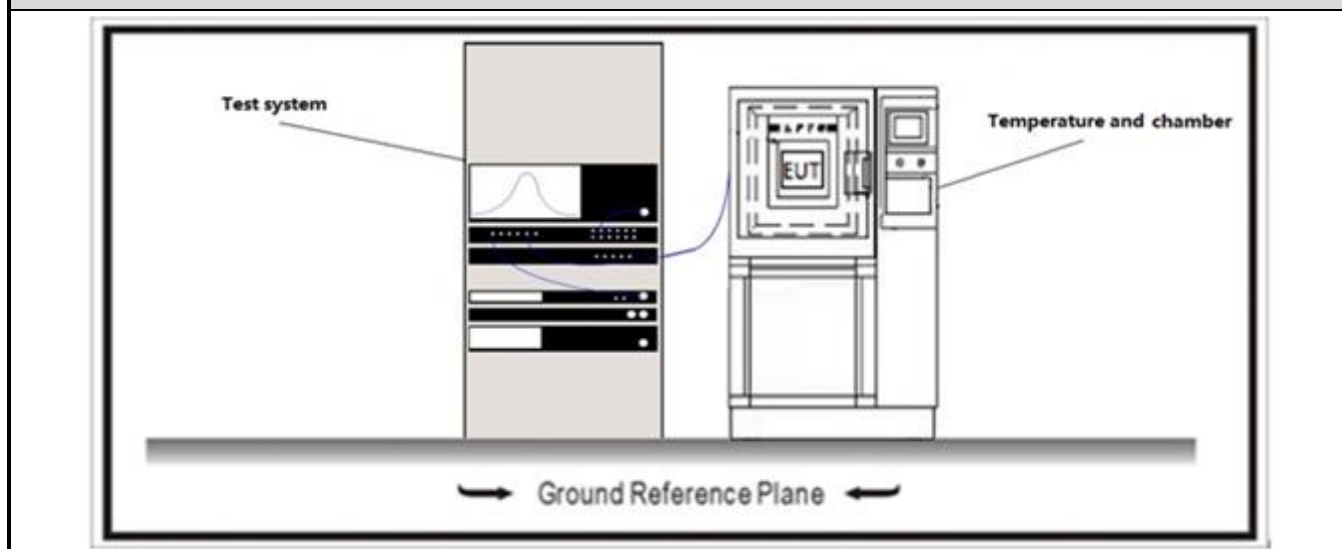
4.1.3 Test Procedure				
	References Rule		Chapter	Description
☒	ANSI C63.10		11.12	Emissions in restricted frequency bands
	☒	ANSI C63.10	11.12.1	Radiated emission measurements
	☒	ANSI C63.10	6.3	Radiated spurious emission test
	☒	ANSI C63.10	6.4	Radiated emissions from unlicensed wireless devices below 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

4.2 Emissions in non-restricted frequency band**VERDICT: PASS****4.2.1 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).

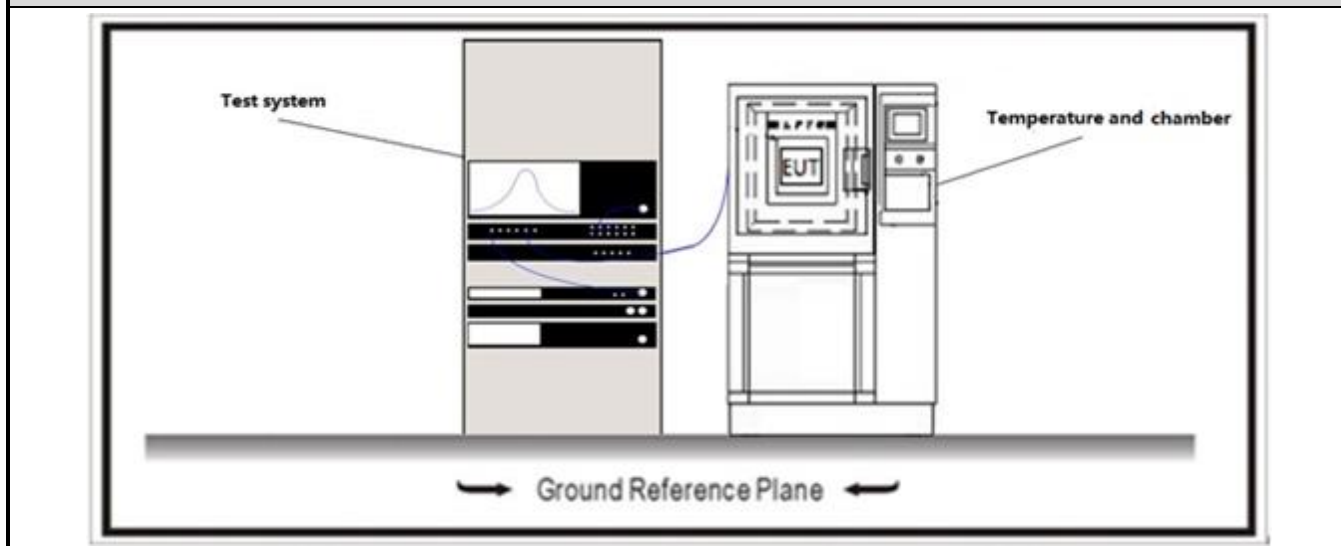
Note 2: If the maximum peak conducted output power procedure was used, then the peak output power measured in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz (i.e., 20 dBc).

4.2.2 Test Setup**4.2.3 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

4.3 Duty cycle**VERDICT: PASS****4.3.1 Limit**

N/A

4.3.2 Test Setup**4.3.3 Test Procedure**

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

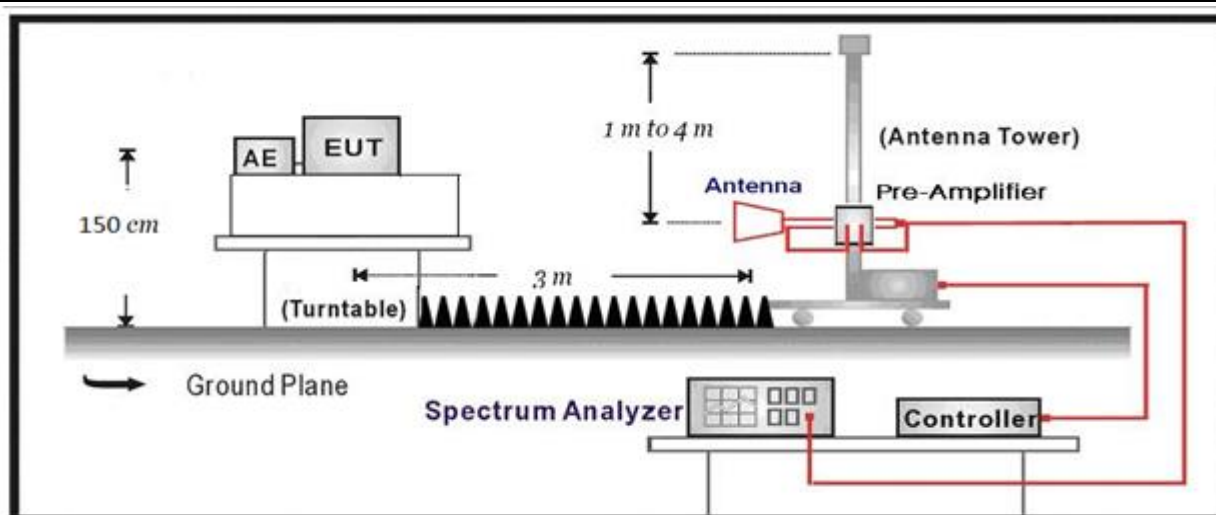
4.4 Radiated Emission Band Edge**VERDICT: PASS****4.4.1 Limit**

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.

4.4.2 Test Setup

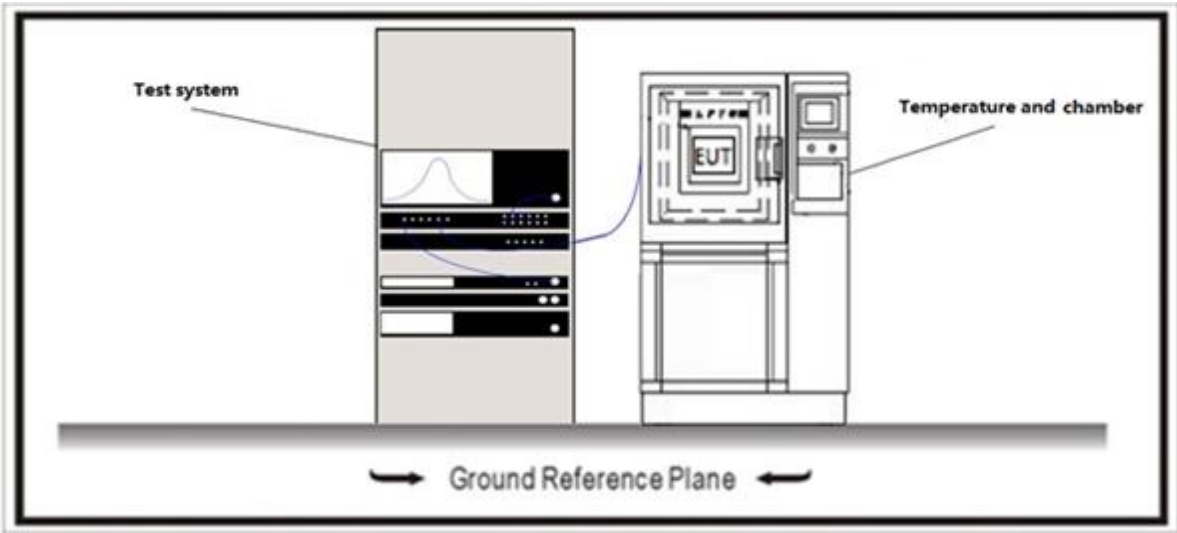
Above 1GHz Test Setup:



4.4.3 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

4.5 DTS Bandwidth	VERDICT: PASS
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4.5.1 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.	

4.5.2 Test Setup	
	

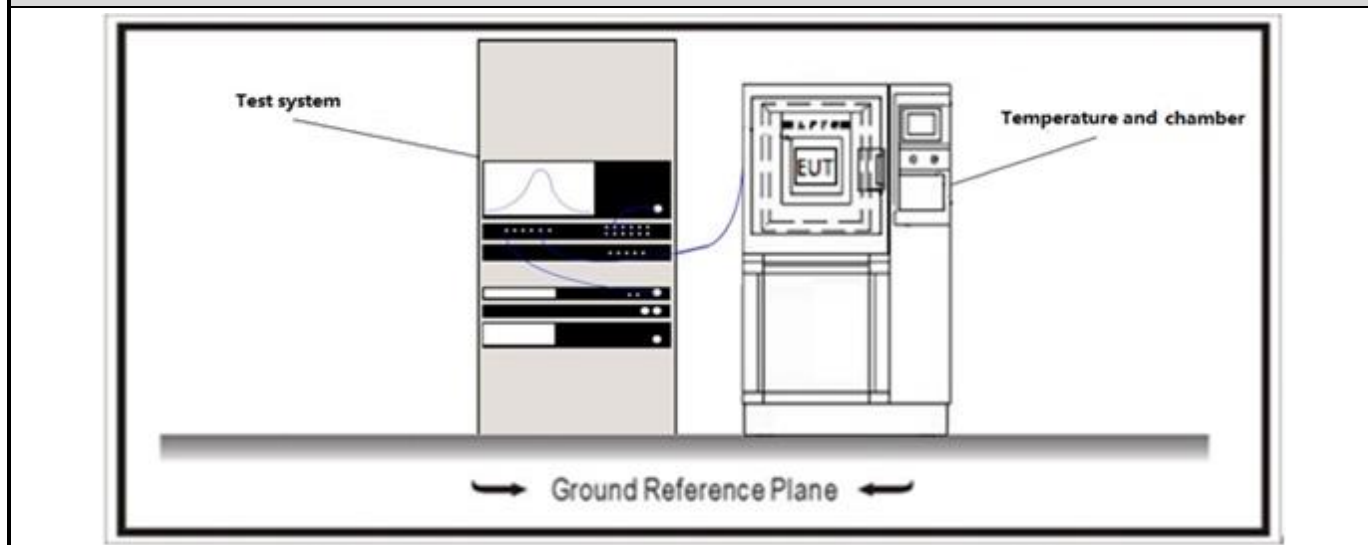
4.5.3 Test Procedure			
	Reference Rule	Chapter	Description
☒	ANSI C63.10	11.8	DTS bandwidth
☐	ANSI C63.10	11.8.1	Option 1
☒	ANSI C63.10	11.8.2	Option 2
☒	ANSI C63.10	6.9	Occupied bandwidth
☐	ANSI C63.10	6.9.2	relative measurement procedure
☒	ANSI C63.10	6.9.3	power bandwidth (99%) measurement procedure

4.6 Fundamental emission output power**VERDICT: PASS****4.6.1 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 .

4.6.2 Test Setup

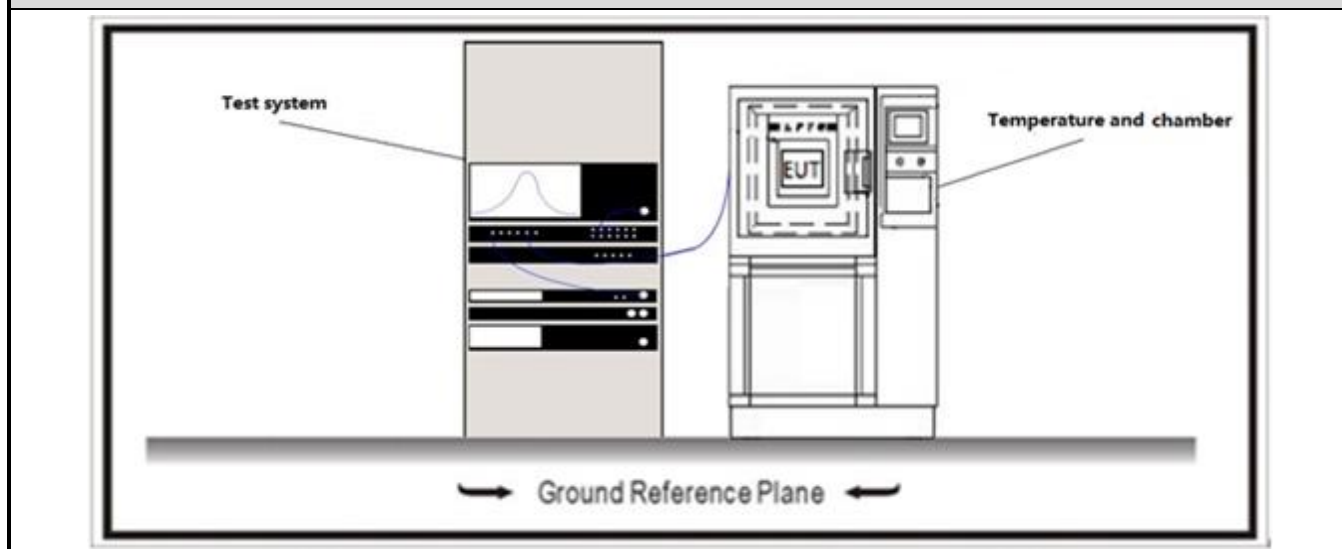
4.6.3 Test Procedure						
	References Rule		Chapter	Description		
☒	ANSI C63.10		11.9	Fundamental emission output power		
	☐	ANSI C63.10		11.9.1	Maximum peak conducted output power	
		☐	ANSI C63.10	11.9.1.1	RBW ≥ DTS bandwidth	
		☐	ANSI C63.10	11.9.1.2	Integrated band power method	
		☐	ANSI C63.10	11.9.1.3	PKPM1 Peak power meter method	
	☒	ANSI C63.10		11.9.2	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≥98%)
			☐	ANSI C63.10	11.9.2.2.3	Method AVGSA-1A(Duty cycle≥98%)
			☐	ANSI C63.10	11.9.2.2.4	Method AVGSA-2(Duty cycle≤98%)
			☐	ANSI C63.10	11.9.2.2.5	Method AVGSA-2A(Duty cycle≤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

Directional Gain Calculations for In-Band test method

	References Rule		Chapter	Description
☐	KDB 662911		F2)a)	Basic methodology
	☐	KDB 662911	F2)a) (i)	transmit signals are correlated
	☐	KDB 662911	F2)a) (ii)	transmit signals are uncorrelated
☐	KDB 662911		F2)b)	Sectorized antenna systems.
☐	KDB 662911		F2)c)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (i)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (ii)	Multiple antennas
☐	KDB 662911		F2)e)	Spatial stream
	☐	KDB 662911	F2)e) (i)	Antennas have the same gain
	☐	KDB 662911	F2)e) (ii)	Antenna have the different gain with one spatial stream
	☐	KDB 662911	F2)e) (iii)	Antenna have the different gain with more than one spatial stream
☒	KDB 662911		F2)f)	Cyclic Delay Diversity (CDD)
	☐	KDB 662911	F2)f) (i)	Antennas have the same gain
	☐	KDB 662911	F2)f) (ii)	Antenna have the different gain with one spatial stream
	☒	KDB 662911	F2)f) (iii)	Antenna have the different gain with more than one spatial stream

4.7 Power Density**VERDICT: PASS****4.7.1 Limit:****Standard**

FCC Part 15 Subpart C Paragraph 15.247 (e)

Power Spectral Density $\leq 8\text{dBm}/3\text{kHz}$ **4.7.2 Test Setup****4.7.3 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

Directional Gain Calculations for In-Band test method				
	References Rule		Chapter	Description
☒	KDB 662911		E)2)	In-Band Power Spectral Density (PSD) Measurements
	☐	KDB 662911	E)2)a)	Measure and sum the spectra across the outputs.
	☐	KDB 662911	E)2)b)	Measure and sum spectral maxima across the outputs.
	☒	KDB 662911	E)2)c)	Measure and add 10 log(NANT) dB, where NANT is the number of outputs.
☐	KDB 662911		F2)a)	Basic methodology
	☐	KDB 662911	F2)a) (i)	transmit signals are correlated
	☐	KDB 662911	F2)a) (ii)	transmit signals are uncorrelated
☐	KDB 662911		F2)b)	Sectorized antenna systems.
☐	KDB 662911		F2)c)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (i)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (ii)	Multiple antennas
☐	KDB 662911		F2)e)	Spatial stream
	☐	KDB 662911	F2)e) (i)	Antennas have the same gain
	☐	KDB 662911	F2)e) (ii)	Antenna have the different gain with one spatial stream
	☐	KDB 662911	F2)e) (iii)	Antenna have the different gain with more than one spatial stream
☒	KDB 662911		F2)f)	Cyclic Delay Diversity (CDD)
	☐	KDB 662911	F2)f) (i)	Antennas have the same gain
	☒	KDB 662911	F2)f) (ii)	Antenna have the different gain with one spatial stream
	☐	KDB 662911	F2)f) (iii)	Antenna have the different gain with more than one spatial stream

4.8 AC Power Line Conducted Emission

VERDICT: N/A

4.8.1 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

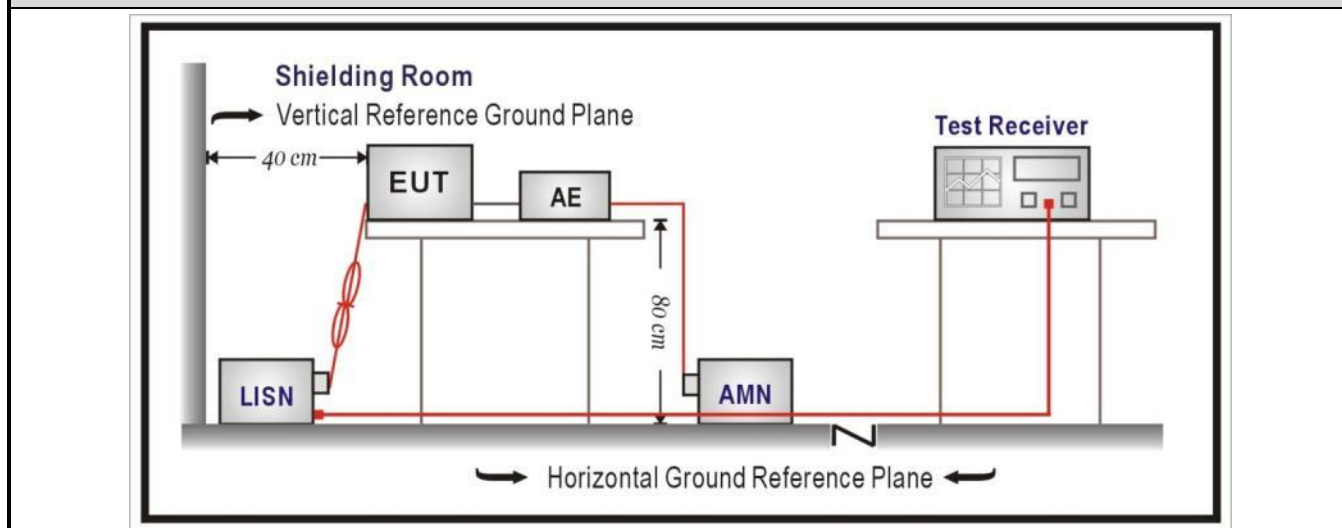
¹⁾ At the transition frequency, the lower limit applies.

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.

4.8.2 Test Setup



4.8.3 Test Procedure

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

4.9 Antenna Requirement	VERDICT: PASS
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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.

6 TEST RESULT

Appendix A: DTS Bandwidth

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	10.040	2407.080	2417.120	0.5	PASS
11B	Ant1	2437	10.080	2432.040	2442.120	0.5	PASS
11B	Ant1	2462	10.040	2457.080	2467.120	0.5	PASS
11G	Ant1	2412	14.400	2404.320	2418.720	0.5	PASS
11G	Ant1	2437	15.040	2429.600	2444.640	0.5	PASS
11G	Ant1	2462	12.800	2455.200	2468.000	0.5	PASS
11N20SISO	Ant1	2412	16.160	2404.320	2420.480	0.5	PASS
11N20SISO	Ant1	2437	16.520	2428.680	2445.200	0.5	PASS
11N20SISO	Ant1	2462	16.480	2453.960	2470.440	0.5	PASS
11N40SISO	Ant1	2422	33.840	2405.760	2439.600	0.5	PASS
11N40SISO	Ant1	2437	30.160	2420.760	2450.920	0.5	PASS
11N40SISO	Ant1	2452	32.560	2434.560	2467.120	0.5	PASS

11B-Ant1-2412-PASS



11B-Ant1-2437-PASS

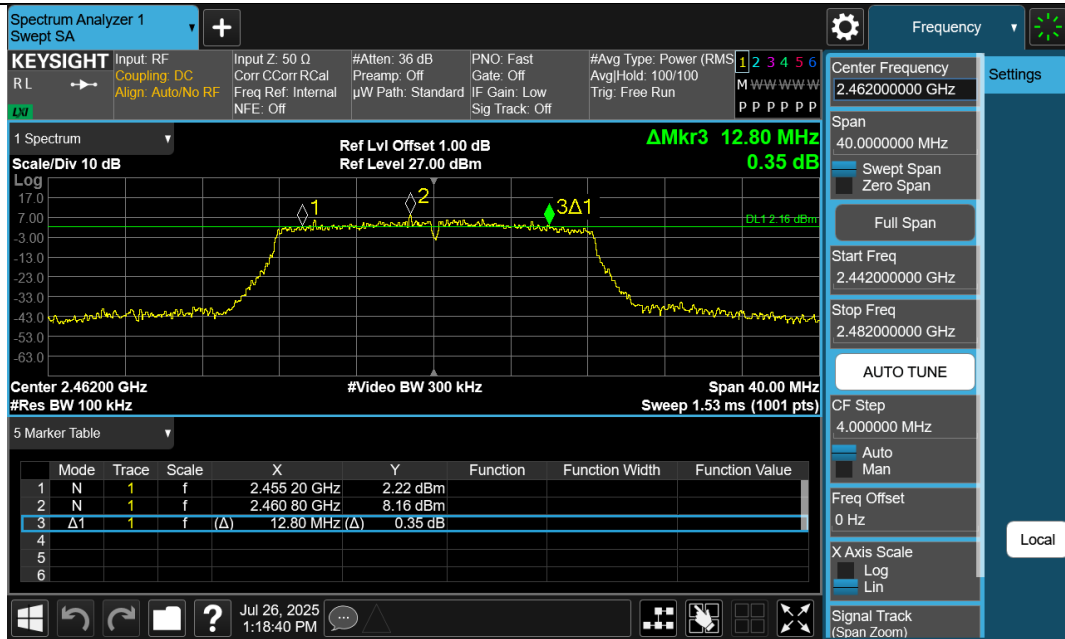


11B-Ant1-2462-PASS



11G-Ant1-2412-PASS

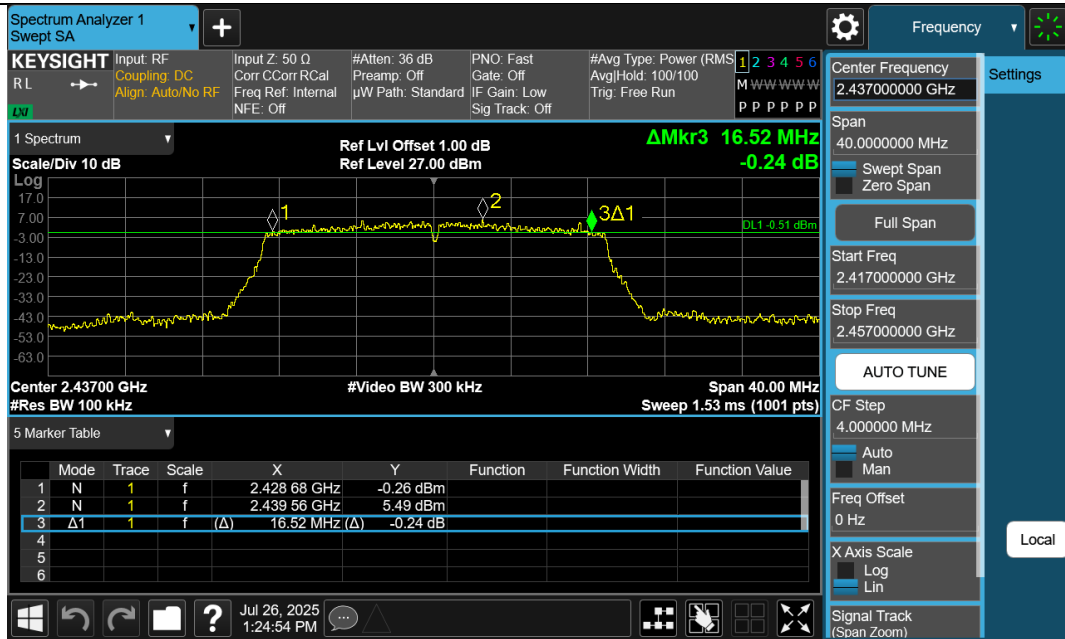




11N20SISO-Ant1-2412-PASS



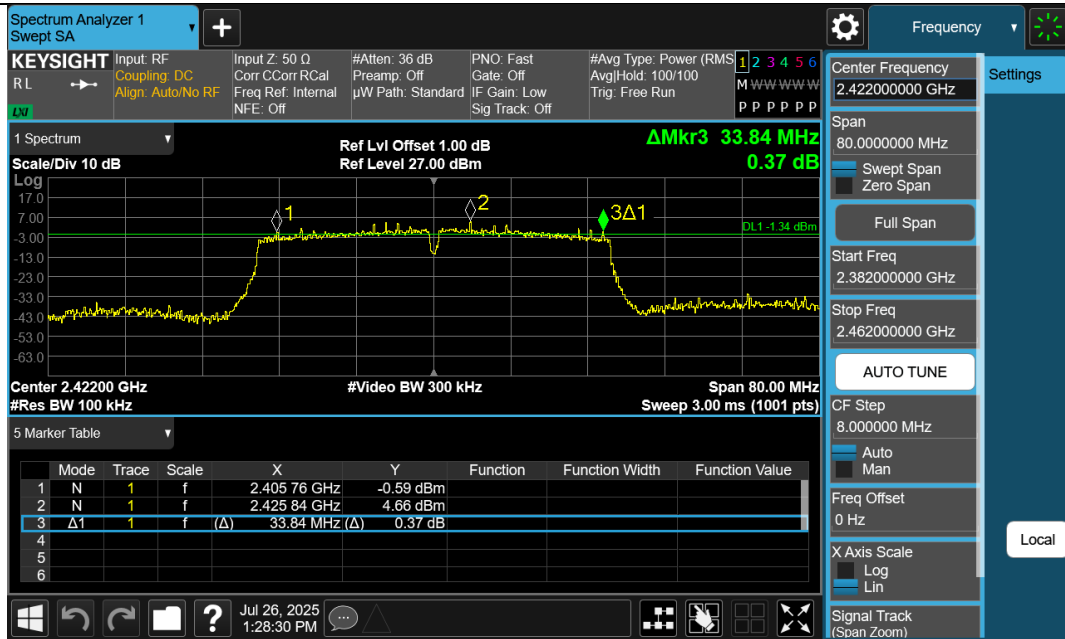
11N20SISO-Ant1-2437-PASS



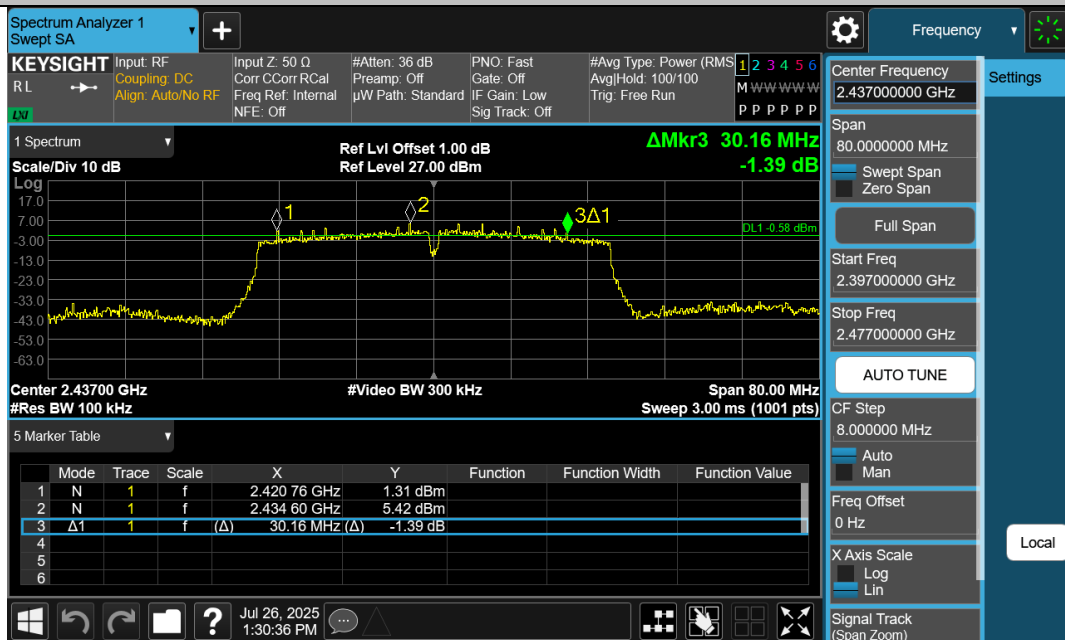
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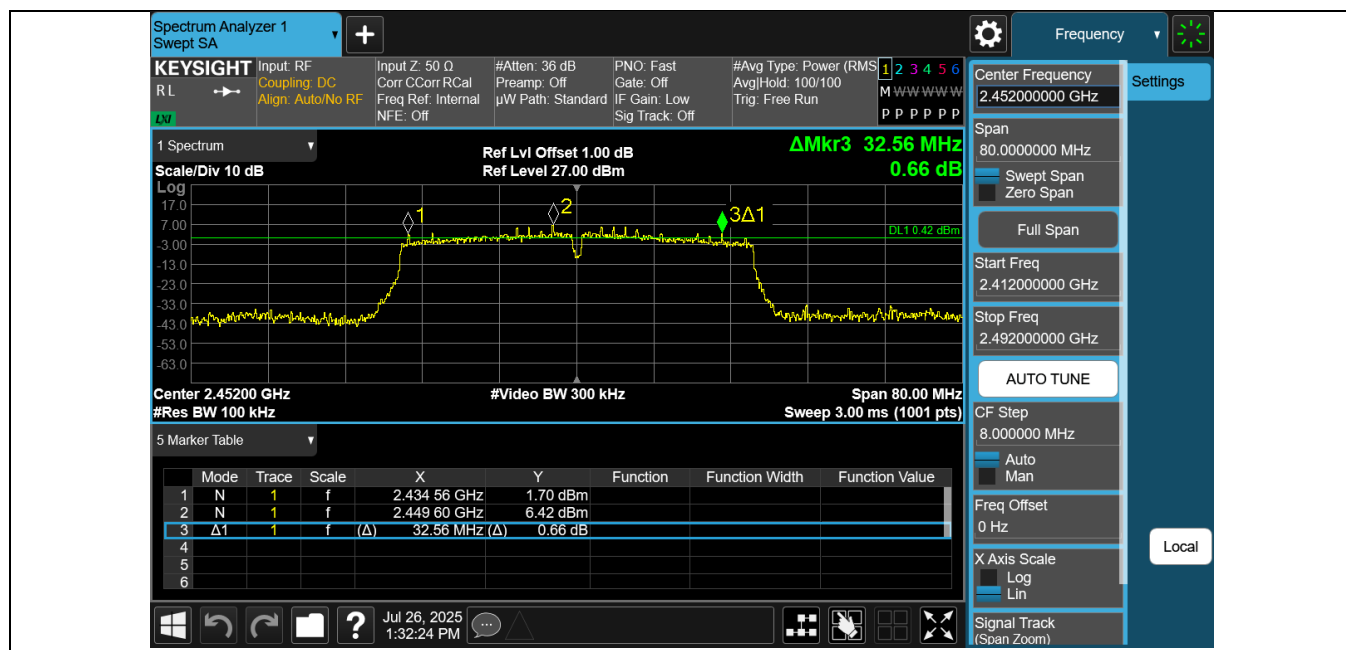
11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



11N40SISO-Ant1-2452-PASS



Appendix B: Maximum conducted output power

SISO:

Mode	Channel	Test Frequency (MHz)	Conducted Peak Power (dBm)		Conducted Power Limit (dBm)	Result
			Ant1	Ant2		
802.11b	1	2412	21.13	21.11	≤30	Pass
	6	2437	20.39	21.02	≤30	Pass
	11	2462	19.96	20.39	≤30	Pass
802.11g	1	2412	22.73	22.56	≤30	Pass
	6	2437	22.81	22.66	≤30	Pass
	11	2462	22.93	22.73	≤30	Pass
802.11n20	1	2412	22.87	22.83	≤30	Pass
	6	2437	22.85	22.62	≤30	Pass
	11	2462	22.79	22.66	≤30	Pass
802.11n40	3	2422	21.32	21.53	≤30	Pass
	6	2437	21.26	21.59	≤30	Pass
	9	2452	21.36	21.67	≤30	Pass

CDD:

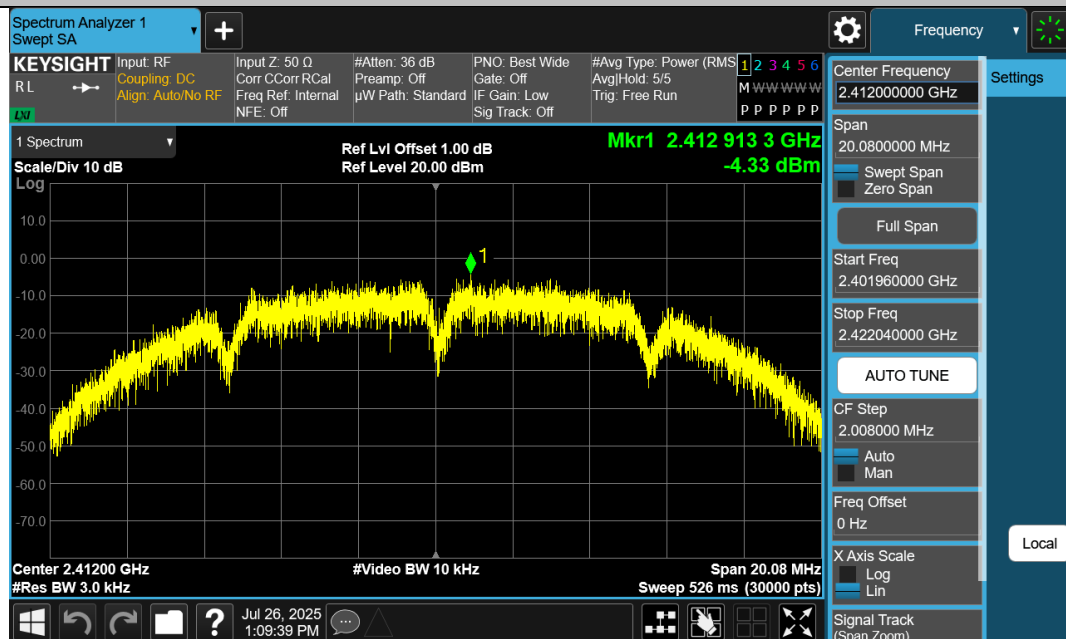
Mode	Channel	Test Frequency (MHz)	Conducted Peak Power (dBm)			Conducted Power Limit (dBm)	Result
			Ant1	Ant2	Ant1+2		
802.11n20	1	2412	22.86	22.98	25.93	≤30	Pass
	6	2437	22.84	22.58	25.72	≤30	Pass
	11	2462	22.70	22.84	25.78	≤30	Pass
802.11n40	3	2422	21.68	22.20	24.96	≤30	Pass
	6	2437	21.56	22.48	25.05	≤30	Pass
	9	2452	21.65	22.65	25.19	≤30	Pass

Appendix C: Maximum power spectral density

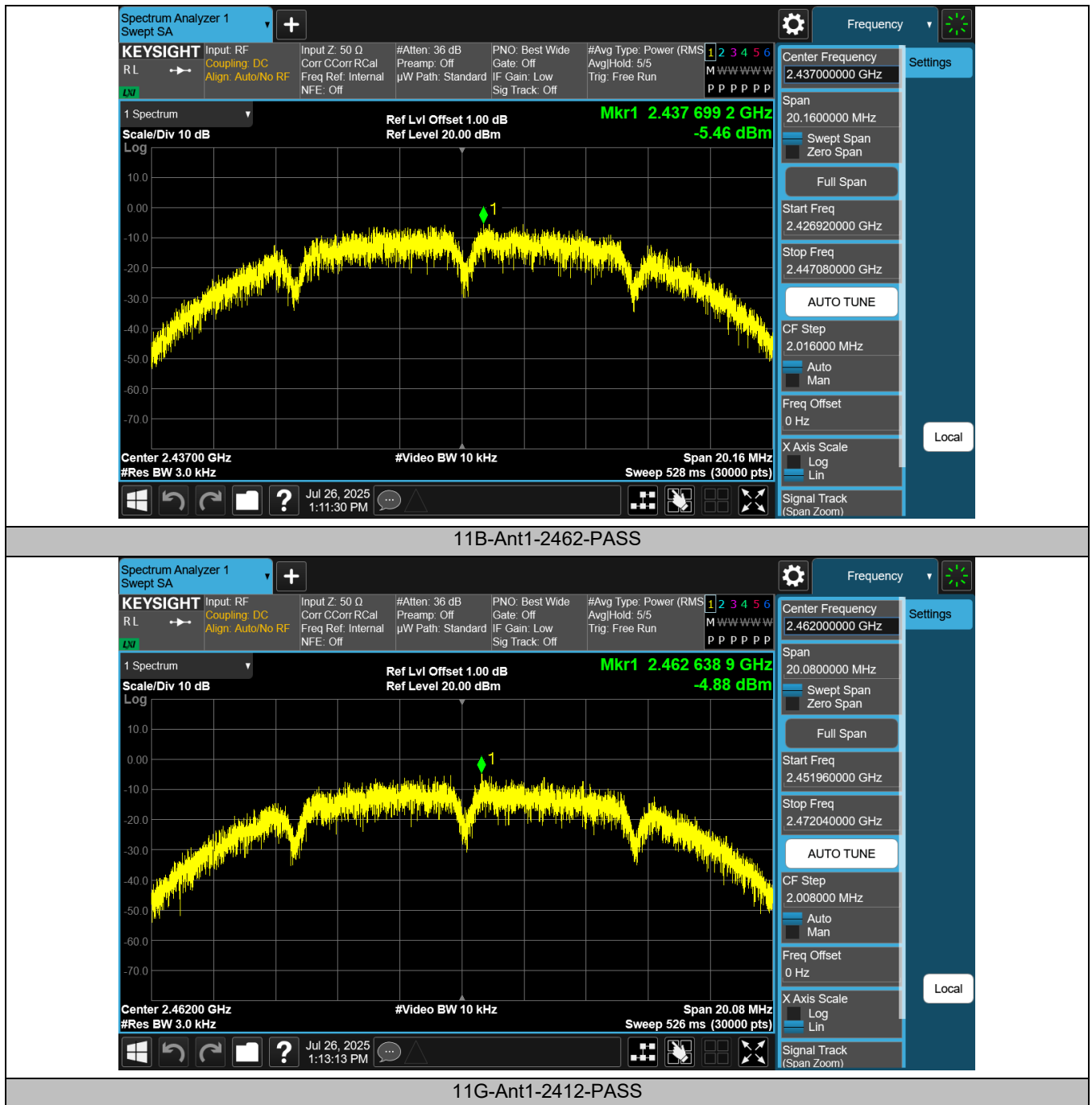
TestMode	Antenna	Frequency[MHz]	SISO Result[dBm/3kHz]	CDD Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-4.33	N/A	≤8.00	PASS
11B	Ant1	2437	-5.46	N/A	≤8.00	PASS
11B	Ant1	2462	-4.88	N/A	≤8.00	PASS
11G	Ant1	2412	-7.47	N/A	≤8.00	PASS
11G	Ant1	2437	-7.31	N/A	≤8.00	PASS
11G	Ant1	2462	-6.31	N/A	≤8.00	PASS
11N20SISO	Ant1	2412	-7.01	-4.00	≤8.00	PASS
11N20SISO	Ant1	2437	-6.71	-3.7	≤8.00	PASS
11N20SISO	Ant1	2462	-5.93	-2.92	≤8.00	PASS
11N40SISO	Ant1	2422	-10.10	-7.09	≤8.00	PASS
11N40SISO	Ant1	2437	-9.55	-6.54	≤8.00	PASS
11N40SISO	Ant1	2452	-8.54	-5.53	≤8.00	PASS

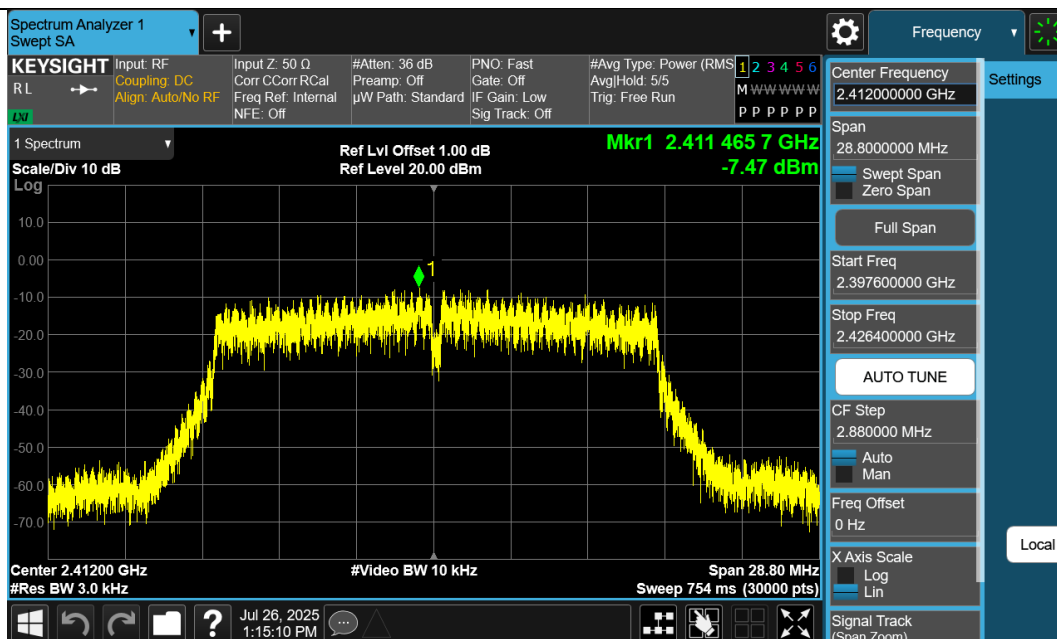
Note: CDD PSD = SISO PSD + 10*Log(N), N = Antenna number.

11B-Ant1-2412-PASS

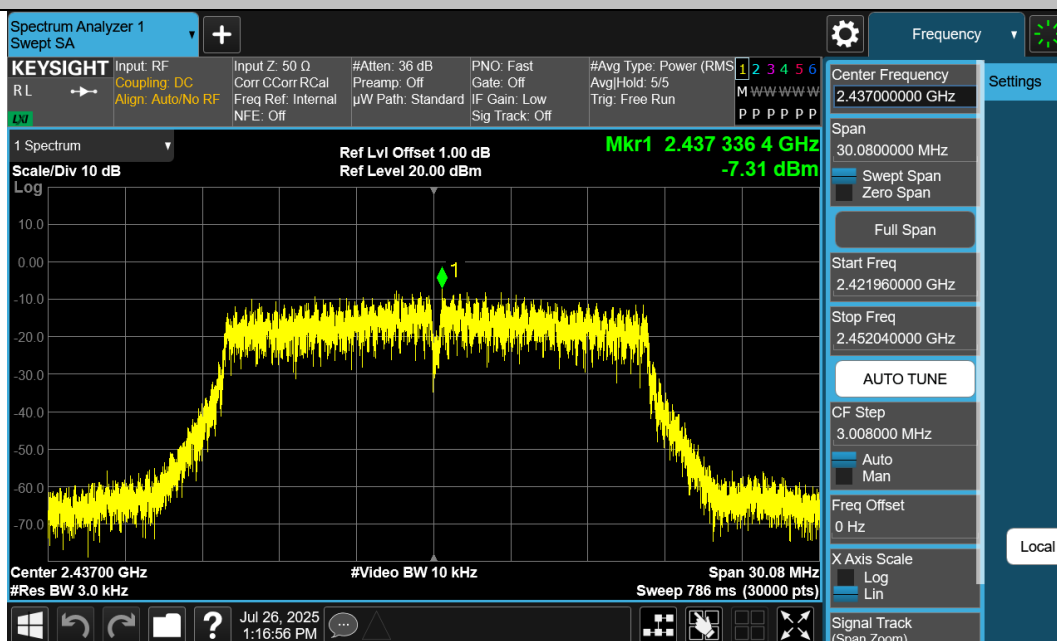


11B-Ant1-2437-PASS

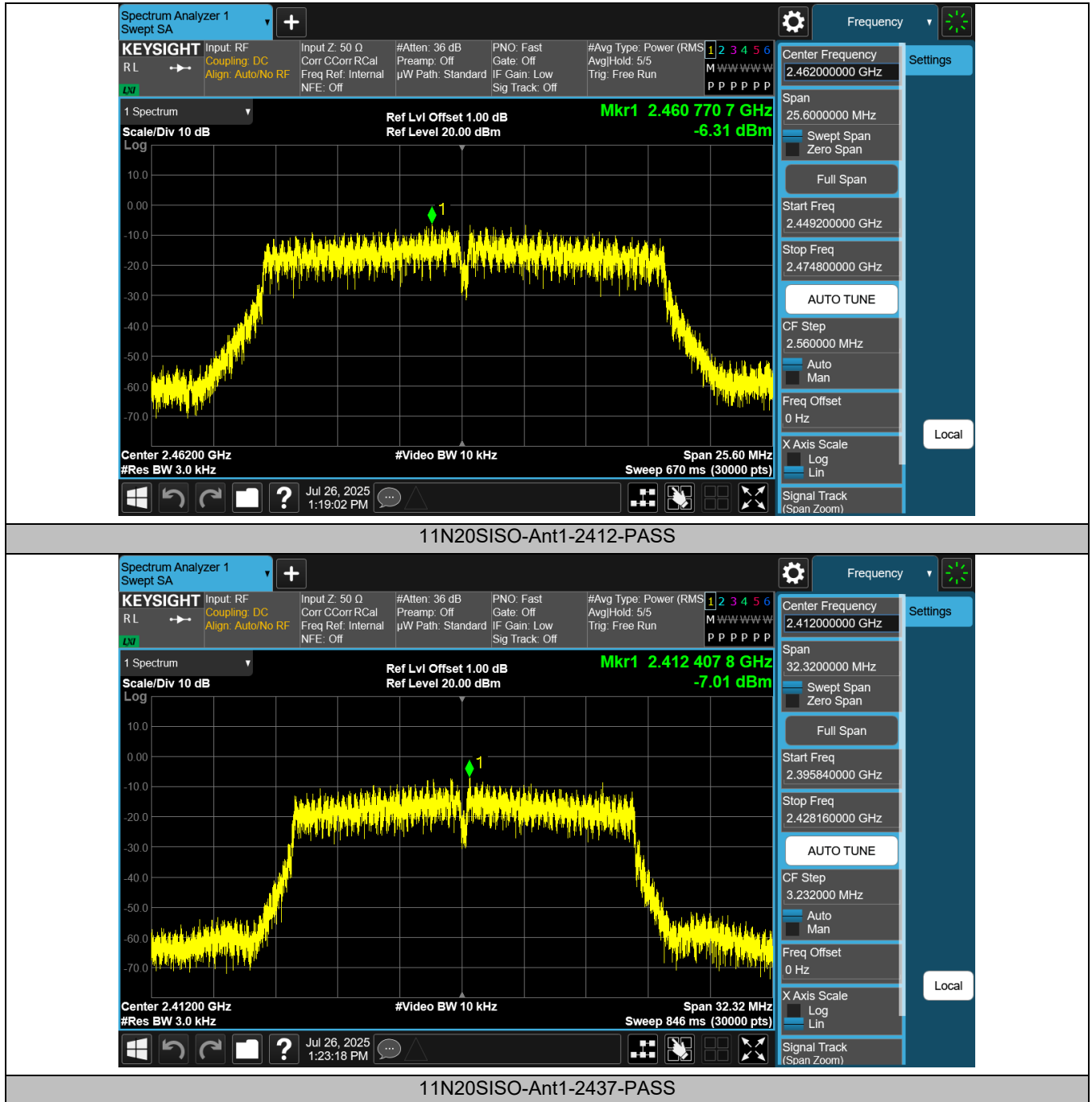


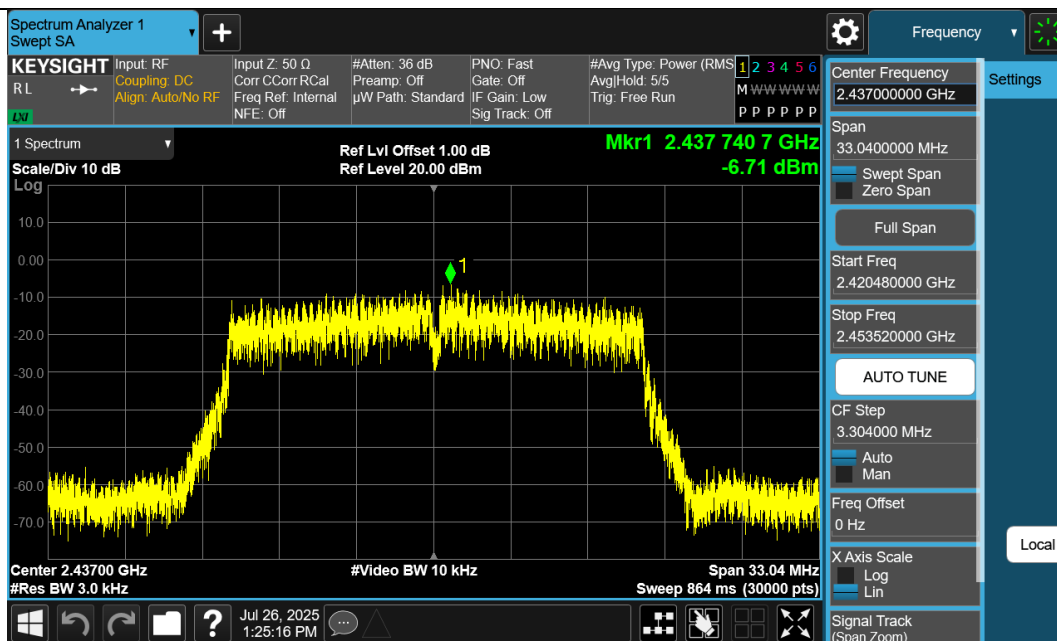


11G-Ant1-2437-PASS

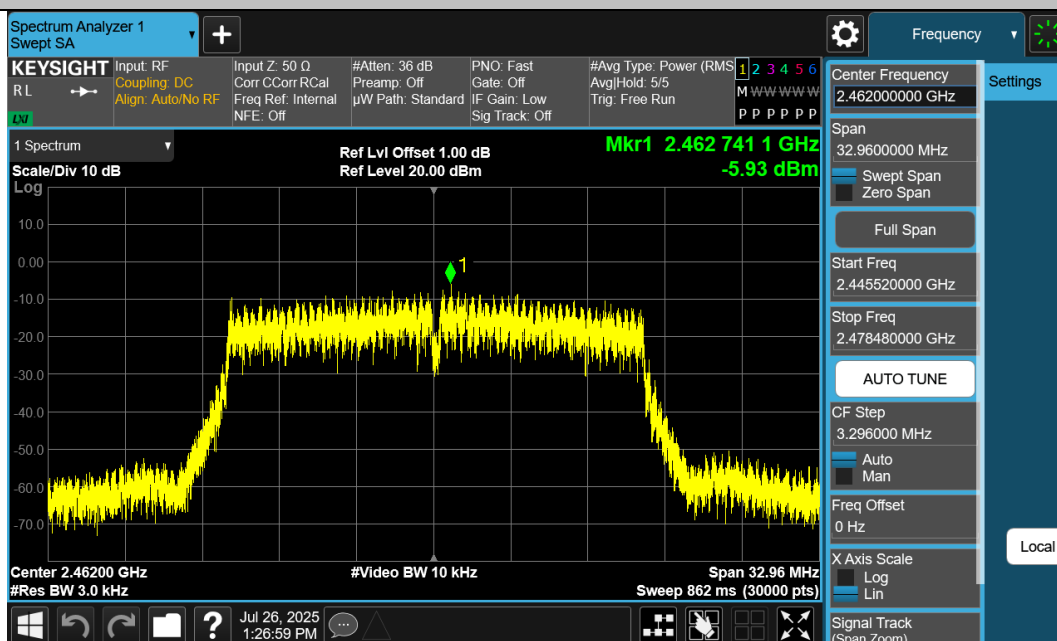


11G-Ant1-2462-PASS

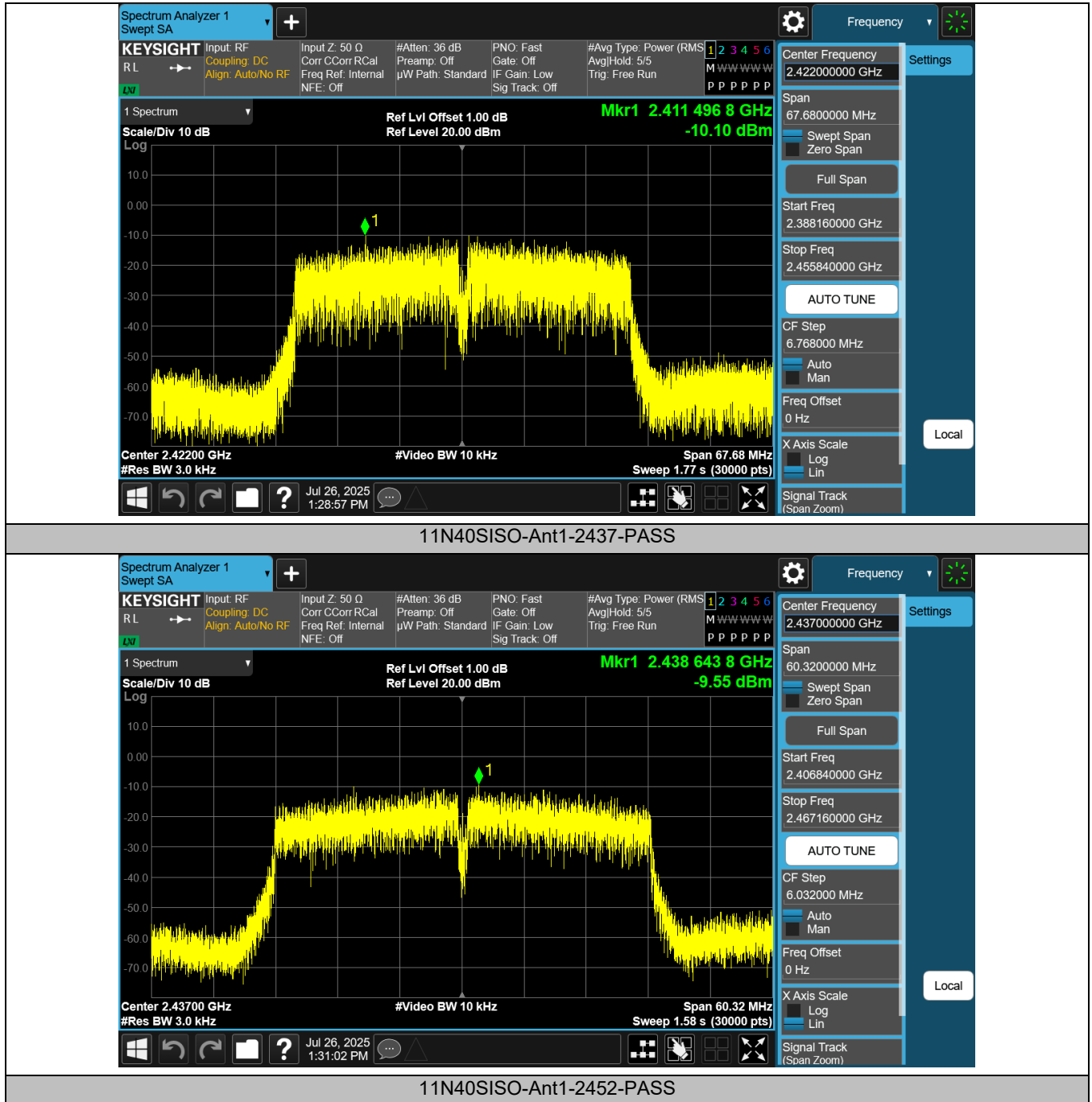


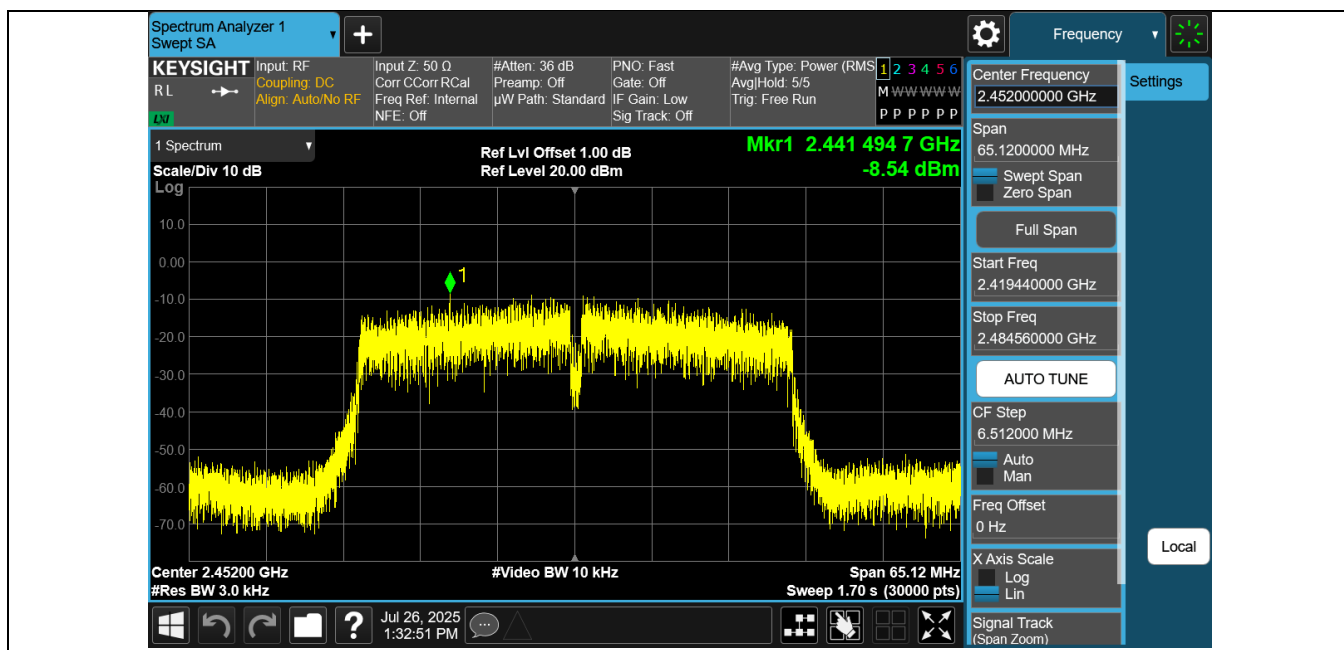


11N20SISO-Ant1-2462-PASS



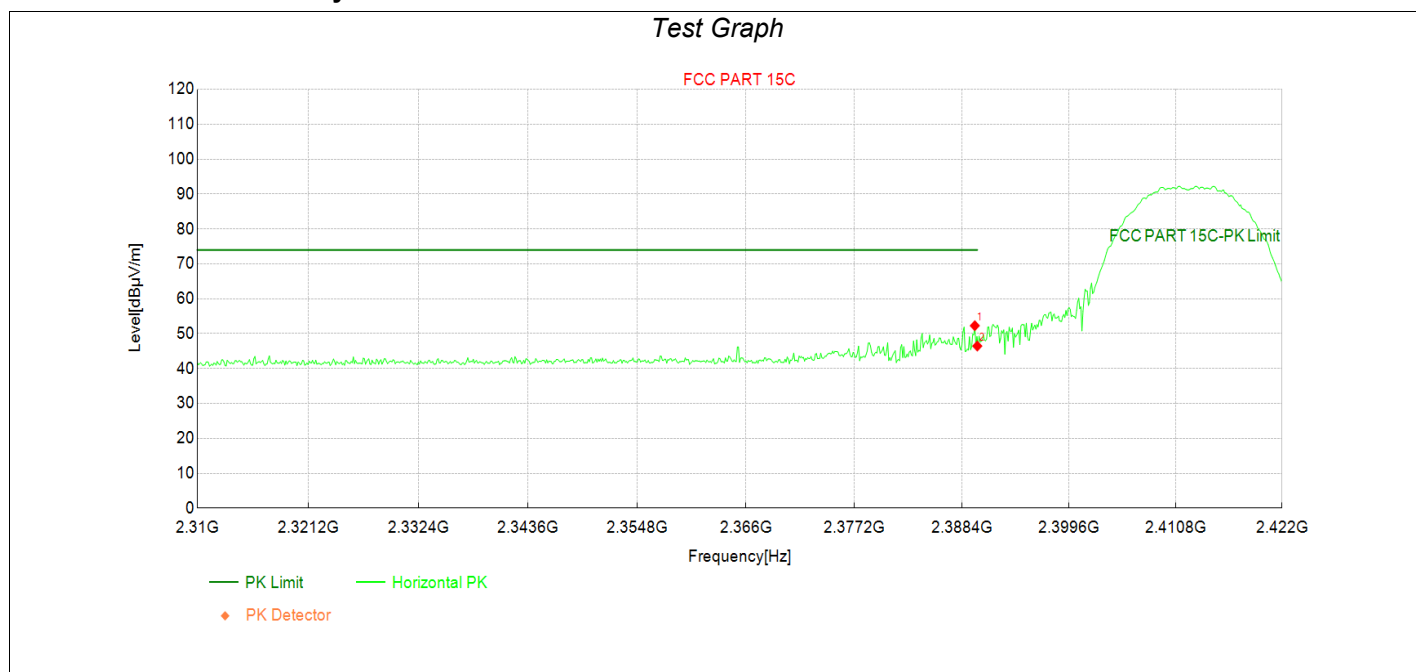
11N40SISO-Ant1-2422-PASS





Appendix D: Band edge measurements

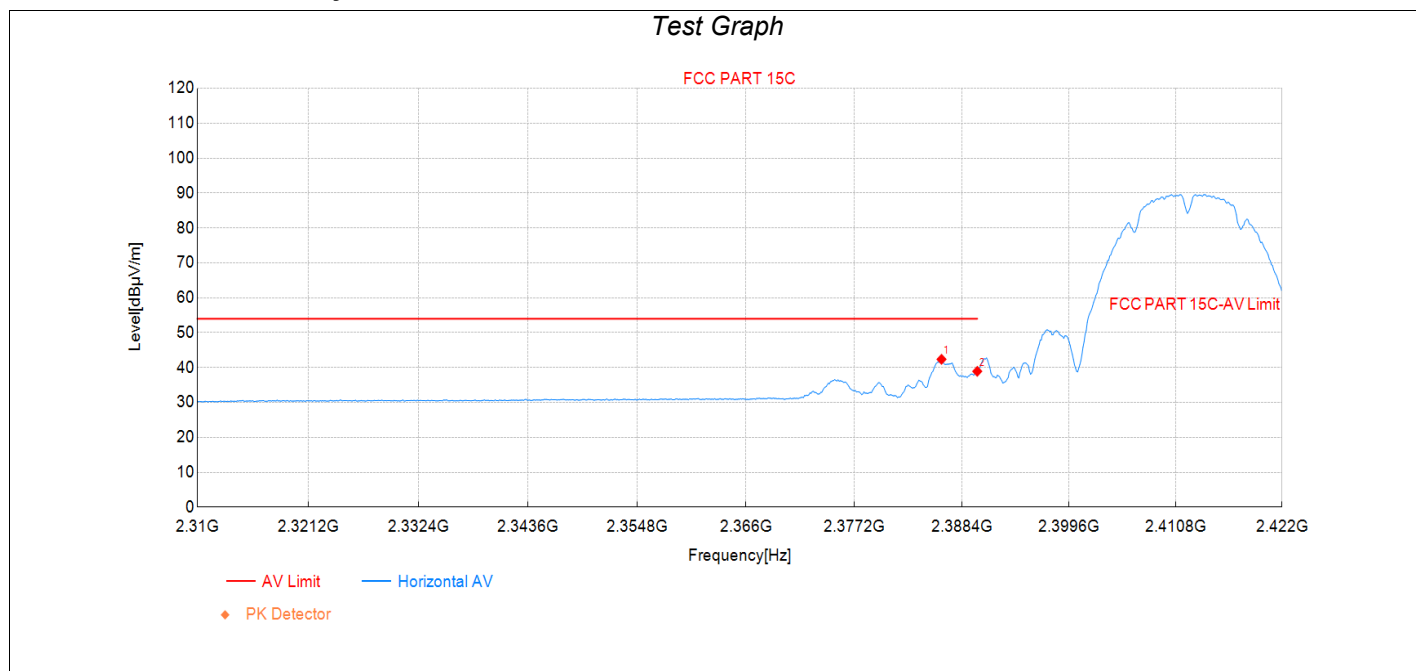
Transmit at 2412MHz by 802.11b with Ant1



Data List

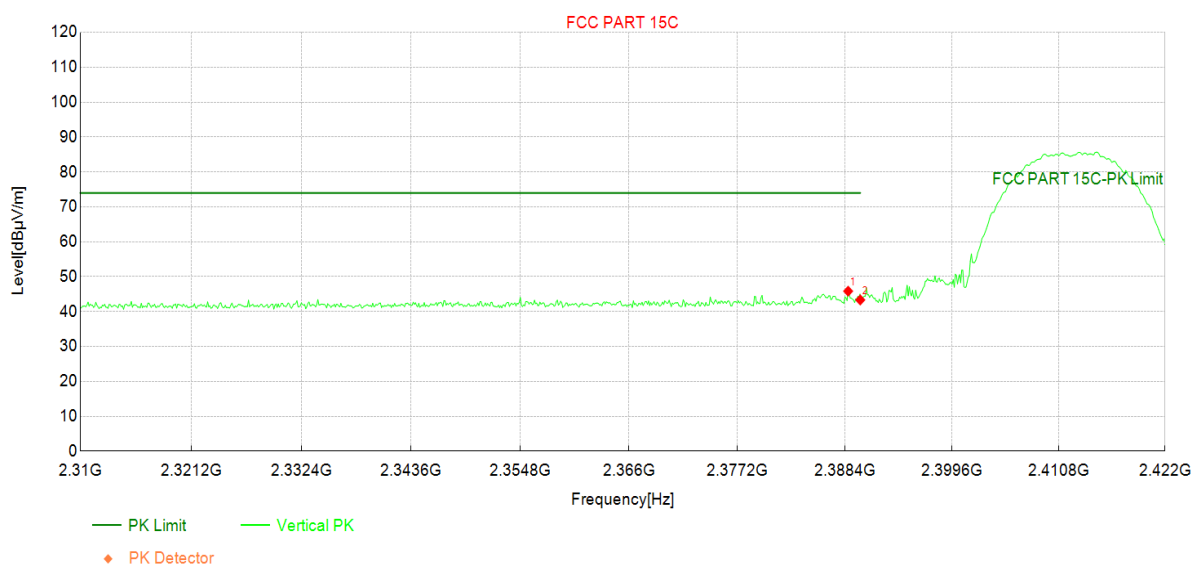
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2389.74	47.05	52.28	5.23	74.00	21.72	PK	Horizo	PASS
2	2390.00	41.23	46.46	5.23	74.00	27.54	PK	Horizo	PASS

Transmit at 2412MHz by 802.11b with Ant1



Data List

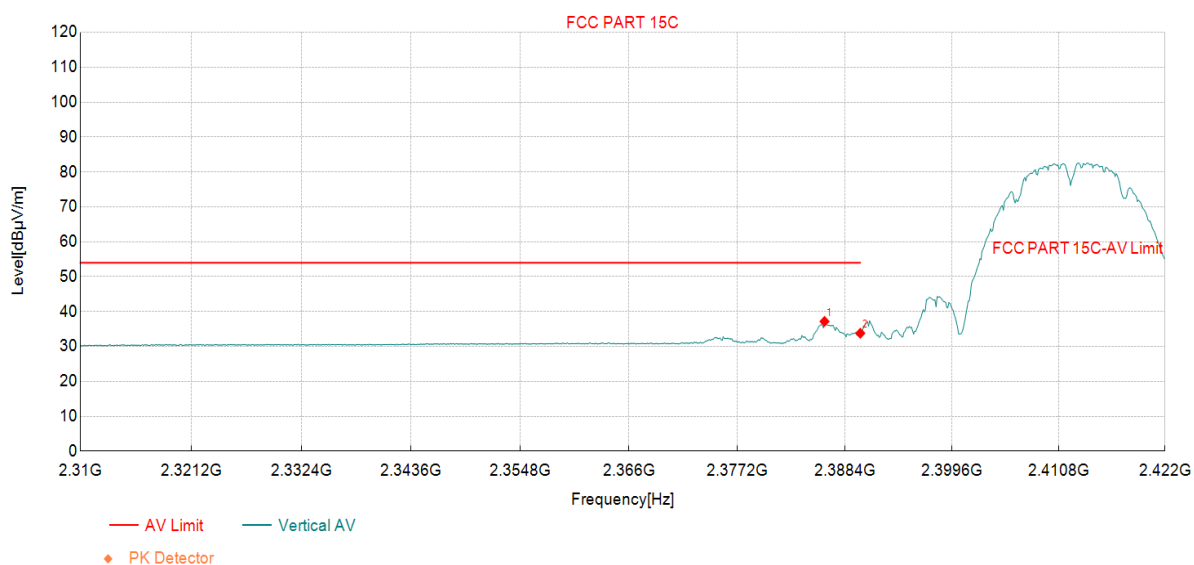
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2386.27	37.16	42.36	5.20	54.00	11.64	AV	Horizo	PASS
2	2390.00	33.69	38.92	5.23	54.00	15.08	AV	Horizo	PASS

Transmit at 2412MHz by 802.11b with Ant1**Test Graph****Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2388.74	40.63	45.85	5.22	74.00	28.15	PK	Vertic	PASS
2	2390.00	38.10	43.33	5.23	74.00	30.67	PK	Vertic	PASS

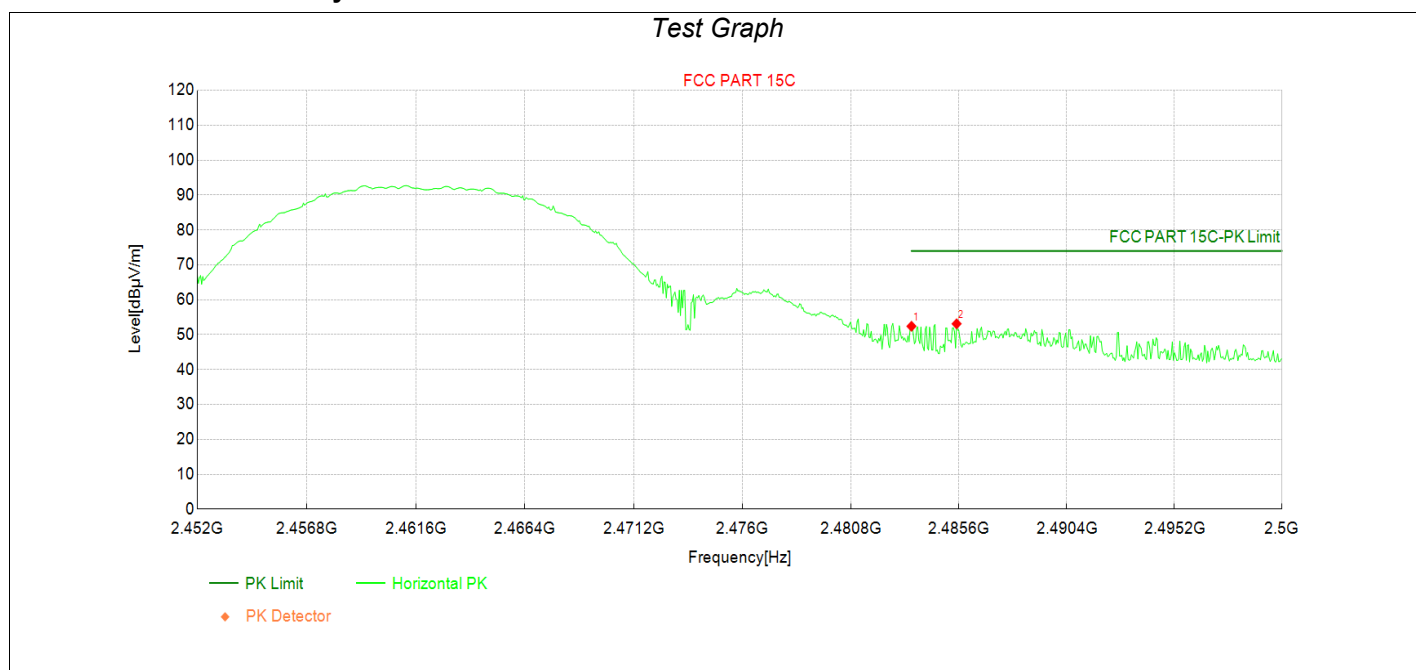
Transmit at 2412MHz by 802.11b with Ant1

Test Graph



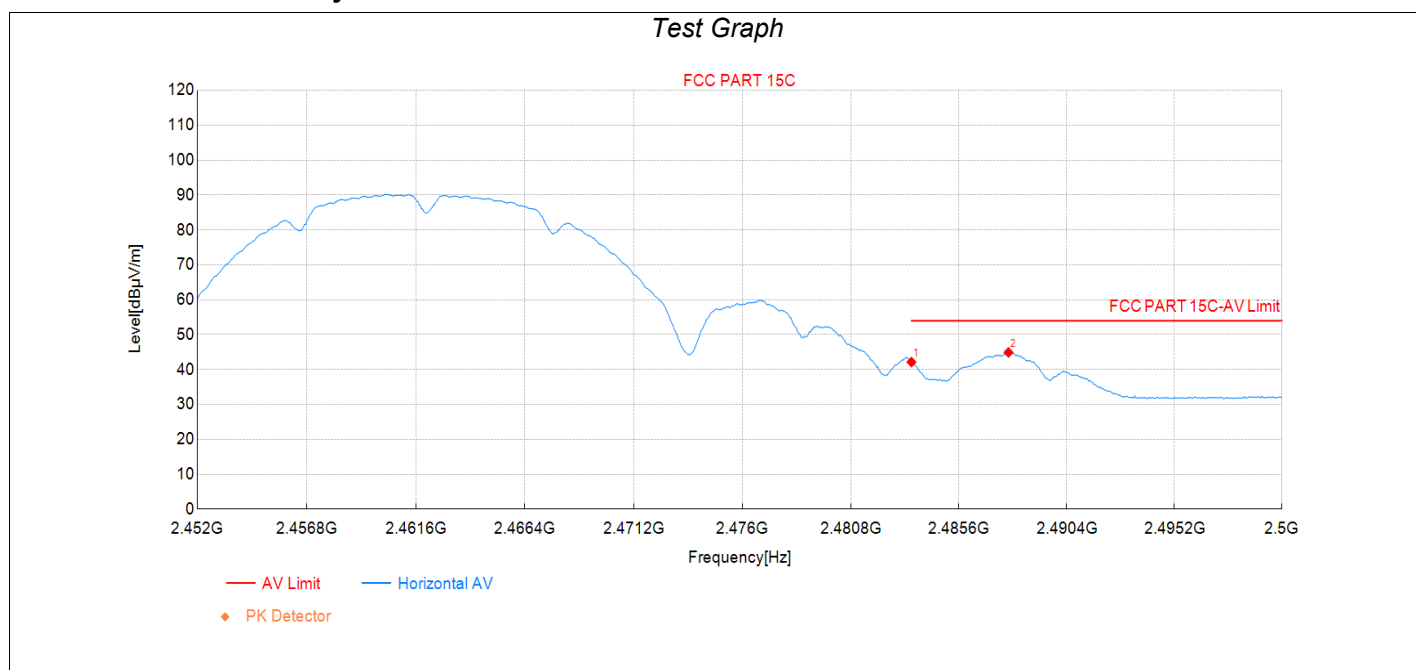
Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2386.27	31.97	37.17	5.20	54.00	16.83	AV	Vertic	PASS
2	2390.00	28.56	33.79	5.23	54.00	20.21	AV	Vertic	PASS

Transmit at 2462MHz by 802.11b with Ant1**Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	46.81	52.40	5.59	74.00	21.60	PK	Horizo	PASS
2	2485.50	47.50	53.11	5.61	74.00	20.89	PK	Horizo	PASS

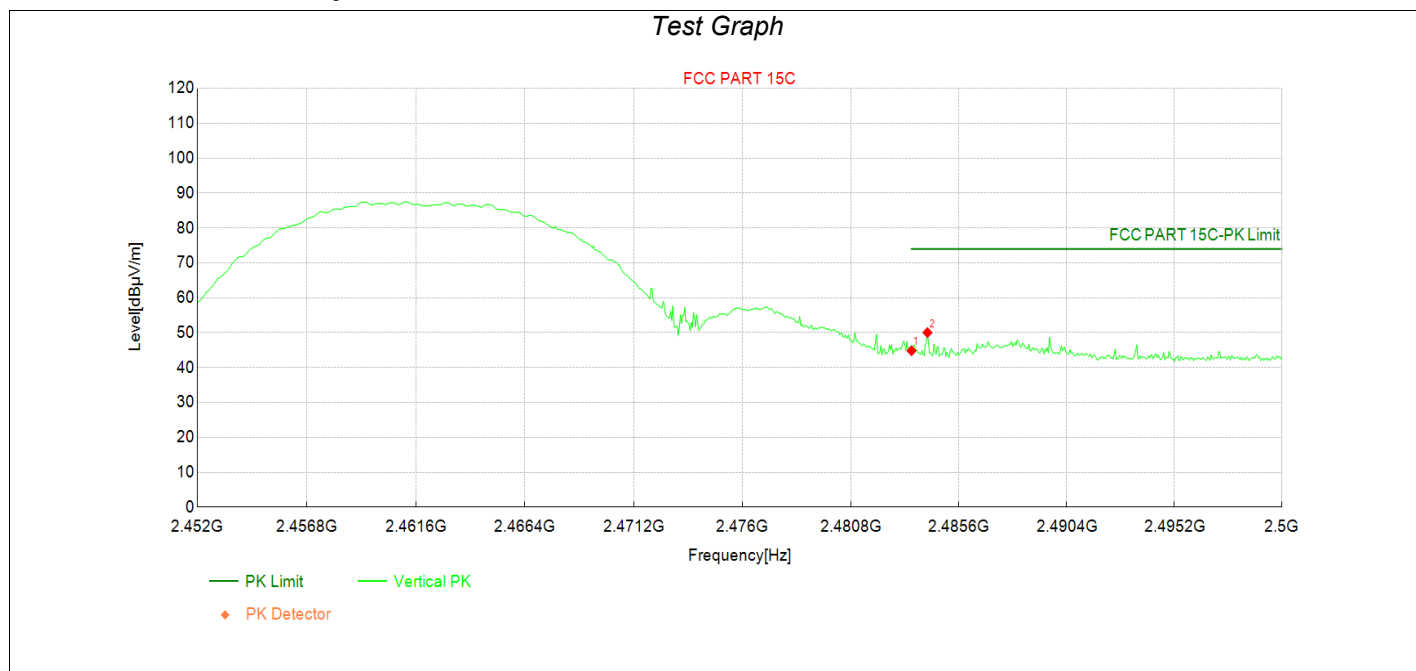
Transmit at 2462MHz by 802.11b with Ant1



Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	36.55	42.14	5.59	54.00	11.86	AV	Horizo	PASS
2	2487.81	39.30	44.91	5.61	54.00	9.09	AV	Horizo	PASS

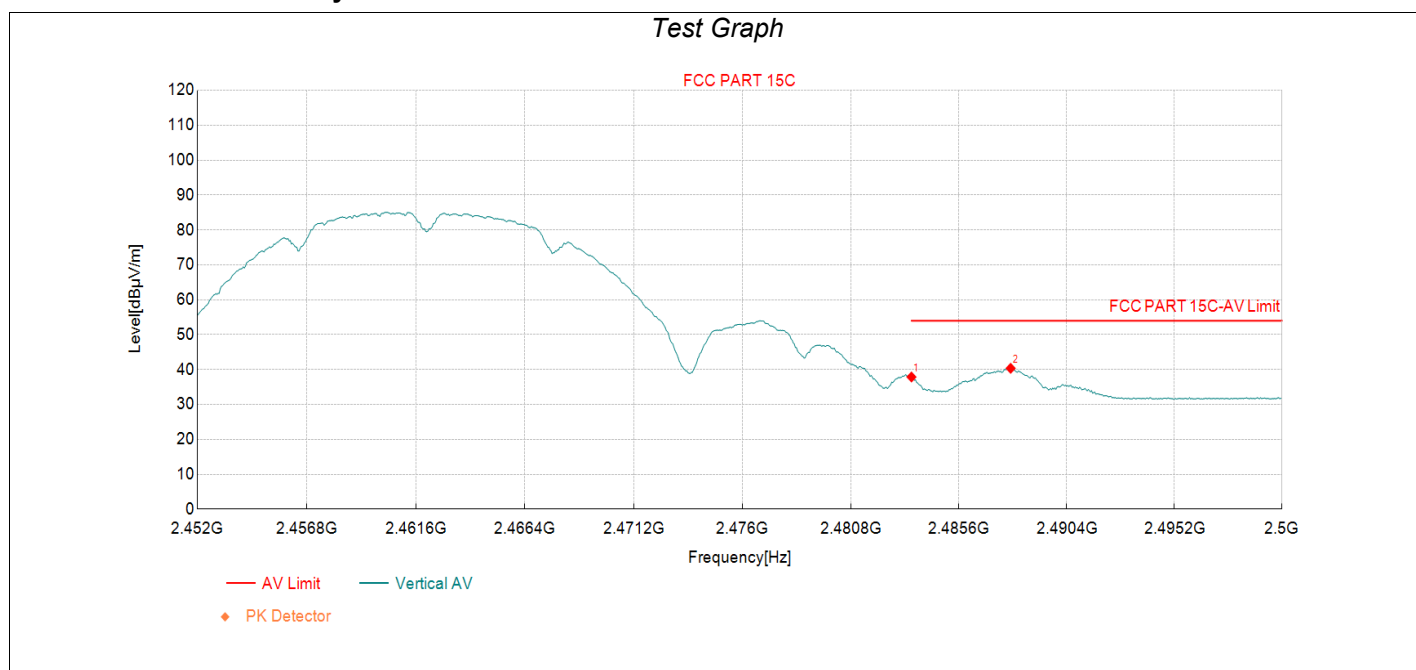
Transmit at 2462MHz by 802.11b with Ant1



Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	39.23	44.82	5.59	74.00	29.18	PK	Vertic	PASS
2	2484.21	44.42	50.02	5.60	74.00	23.98	PK	Vertic	PASS

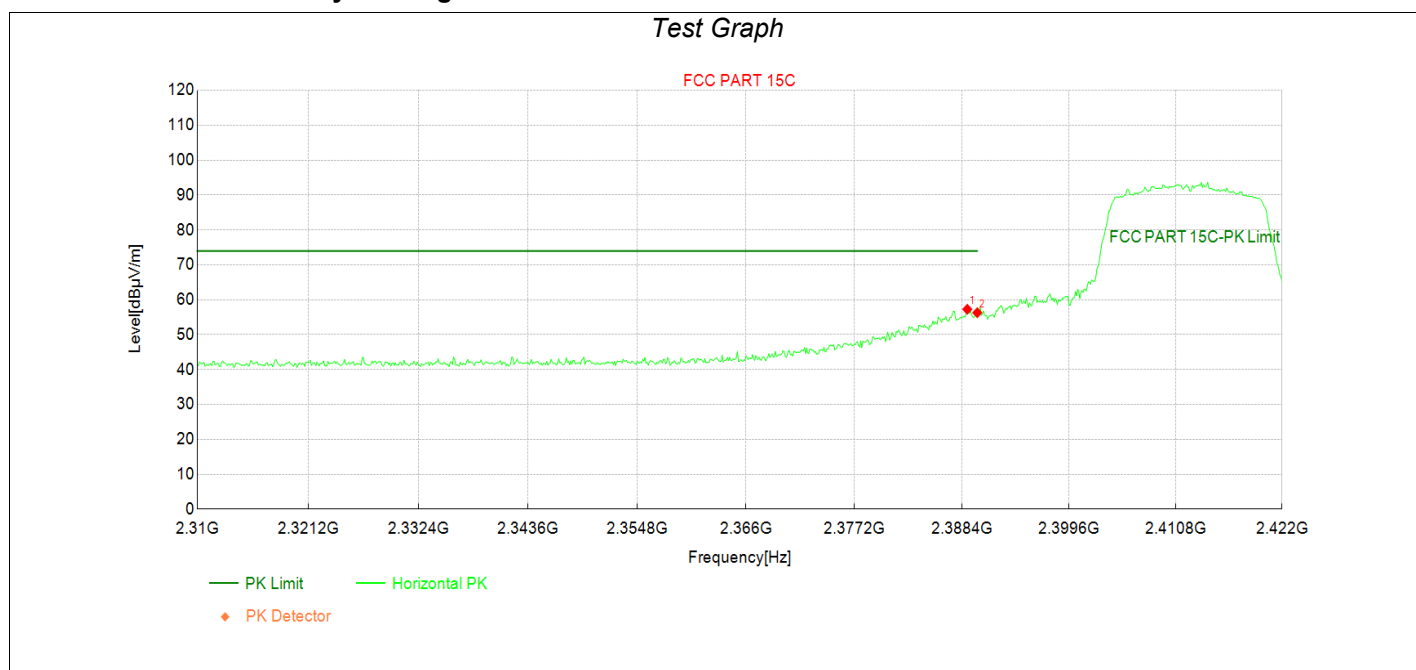
Transmit at 2462MHz by 802.11b with Ant1



Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	32.28	37.87	5.59	54.00	16.13	AV	Vertic	PASS
2	2487.90	34.75	40.36	5.61	54.00	13.64	AV	Vertic	PASS

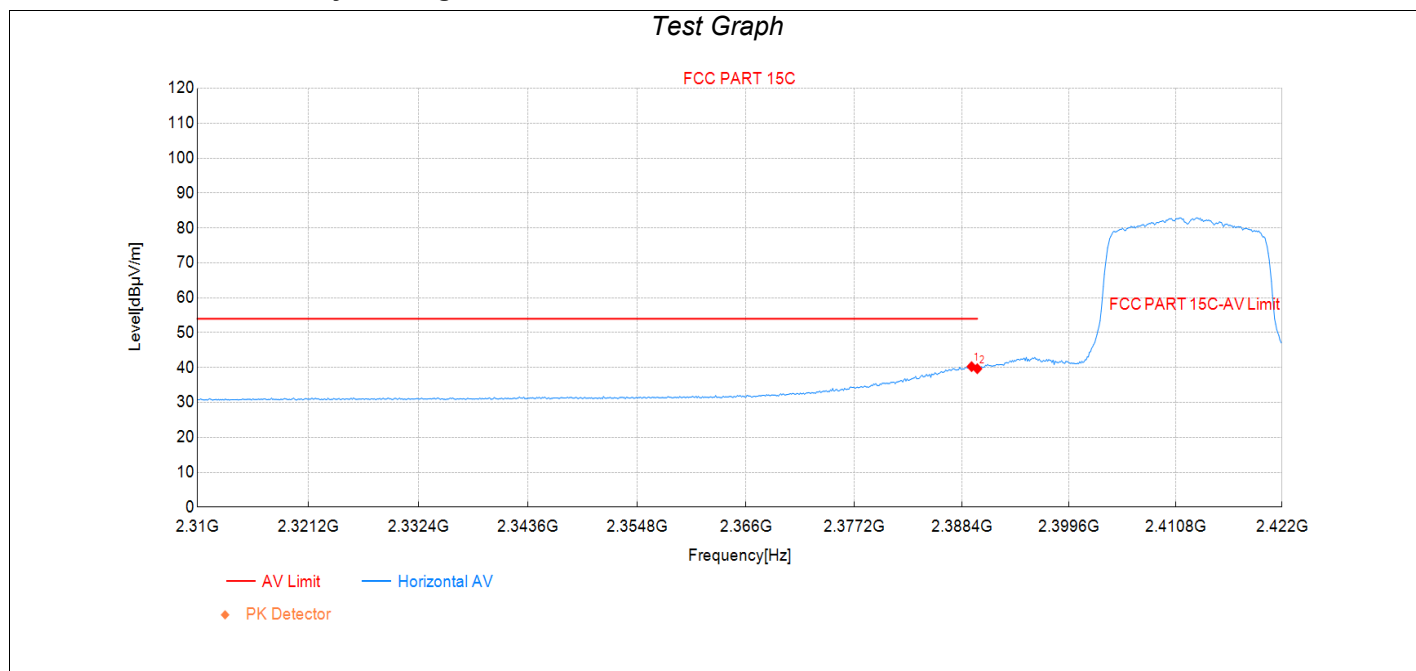
Transmit at 2412MHz by 802.11g with Ant1



Data List

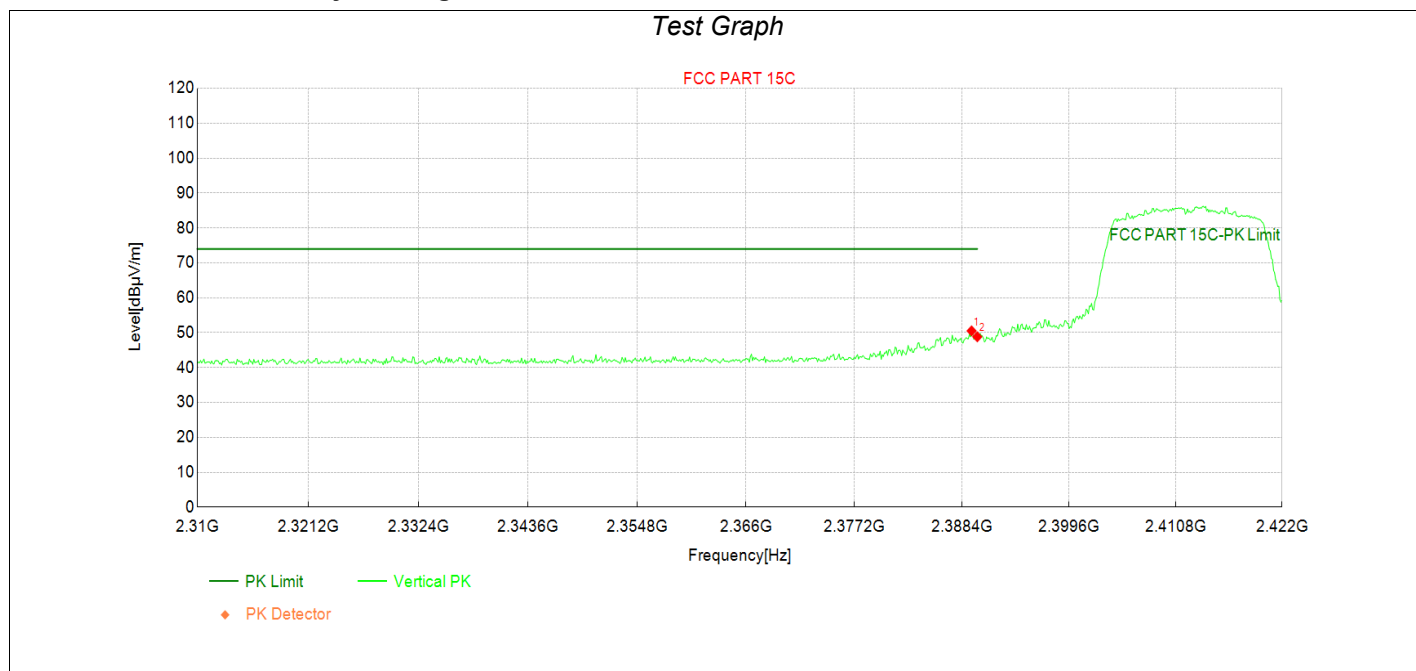
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2388.96	52.05	57.27	5.22	74.00	16.73	PK	Horizo	PASS
2	2390.00	51.06	56.29	5.23	74.00	17.71	PK	Horizo	PASS

Transmit at 2412MHz by 802.11g with Ant1

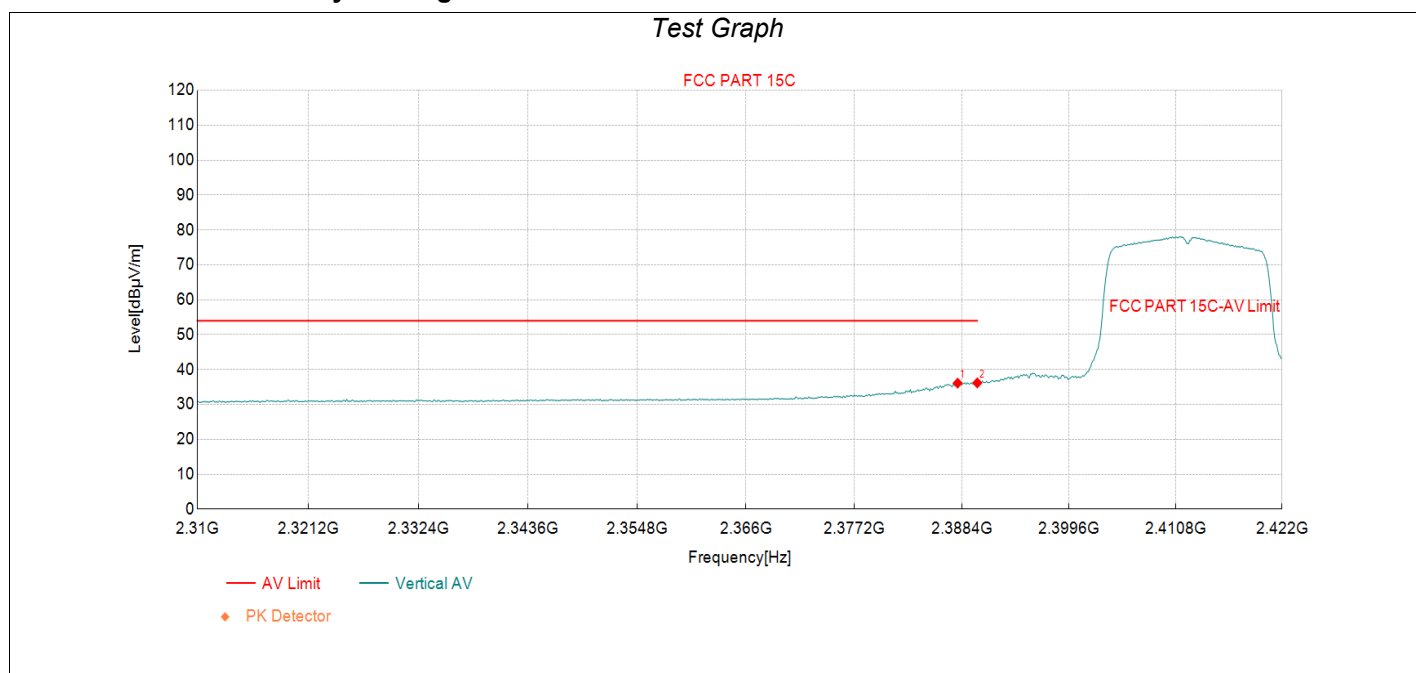


Data List

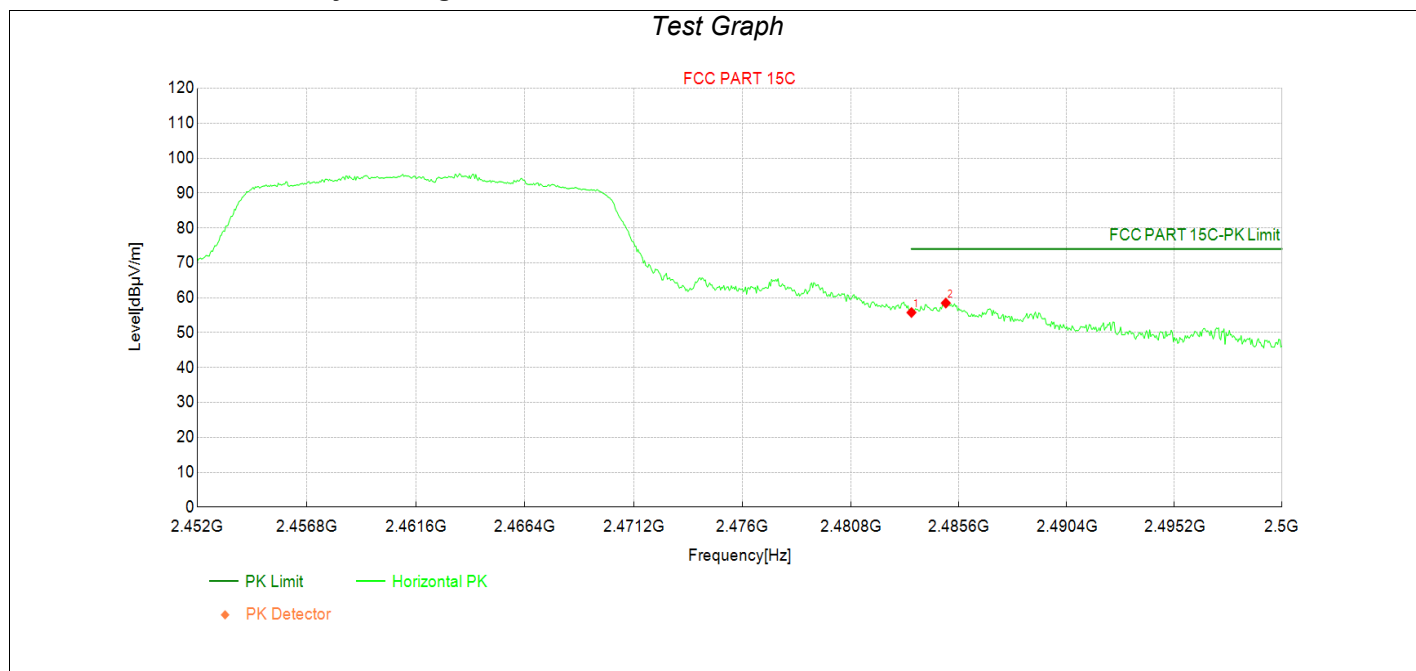
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2389.41	35.04	40.27	5.23	54.00	13.73	AV	Horizo	PASS
2	2390.00	34.44	39.67	5.23	54.00	14.33	AV	Horizo	PASS

Transmit at 2412MHz by 802.11g with Ant1**Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2389.41	45.28	50.51	5.23	74.00	23.49	PK	Vertic	PASS
2	2390.00	43.59	48.82	5.23	74.00	25.18	PK	Vertic	PASS

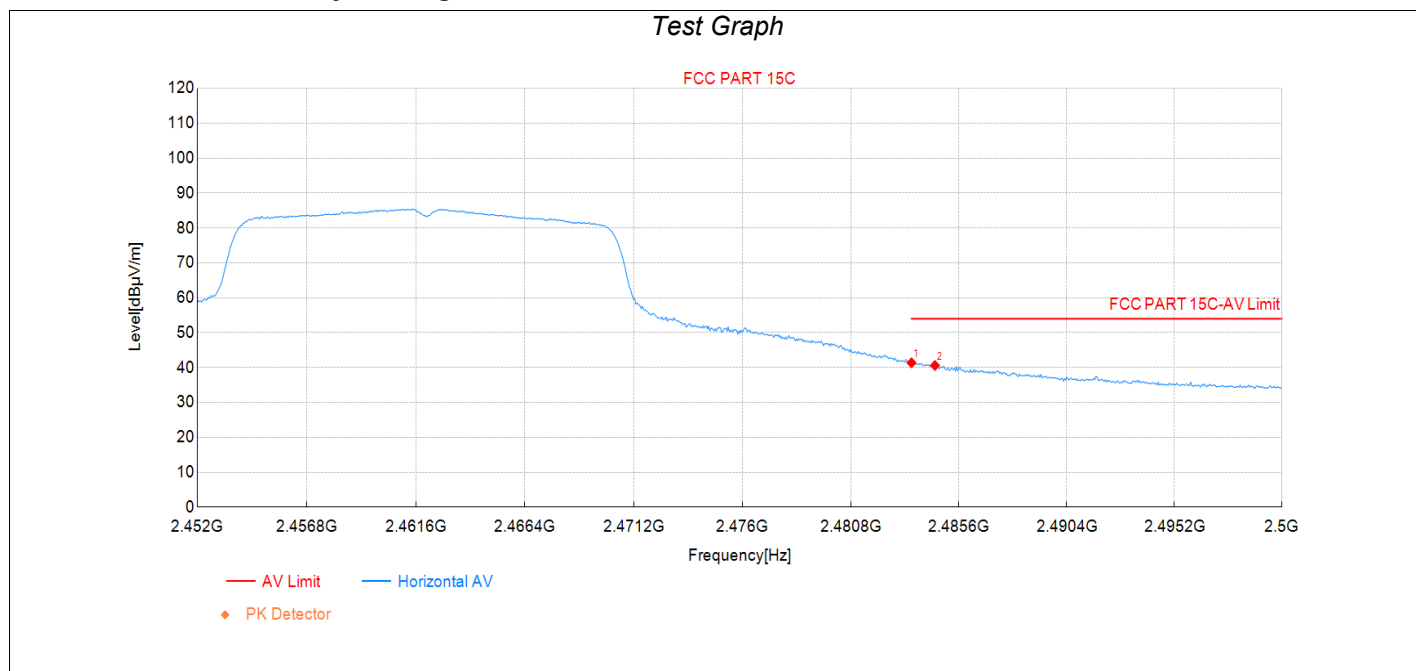
Transmit at 2412MHz by 802.11g with Ant1**Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2387.95	30.90	36.11	5.21	54.00	17.89	AV	Vertic	PASS
2	2390.00	30.94	36.17	5.23	54.00	17.83	AV	Vertic	PASS

Transmit at 2462MHz by 802.11g with Ant1**Data List**

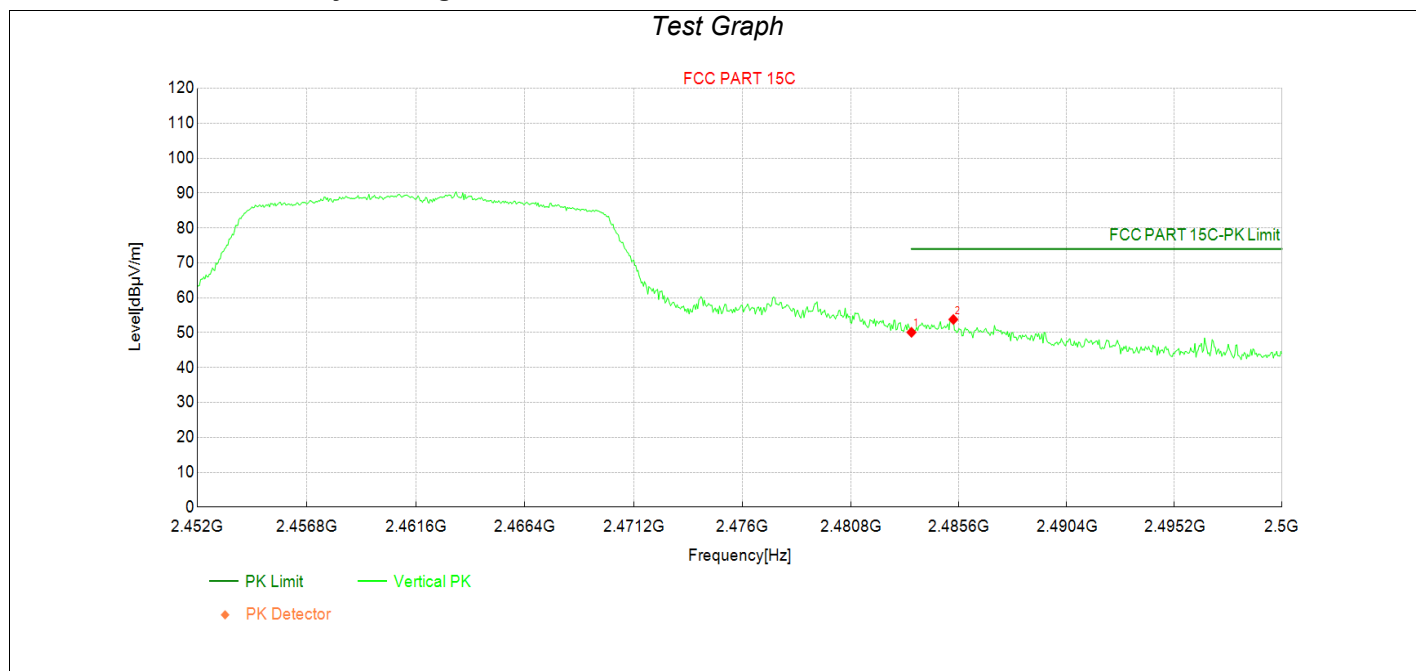
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	50.18	55.77	5.59	74.00	18.23	PK	Horizo	PASS
2	2485.02	52.87	58.48	5.61	74.00	15.52	PK	Horizo	PASS

Transmit at 2462MHz by 802.11g with Ant1



Data List

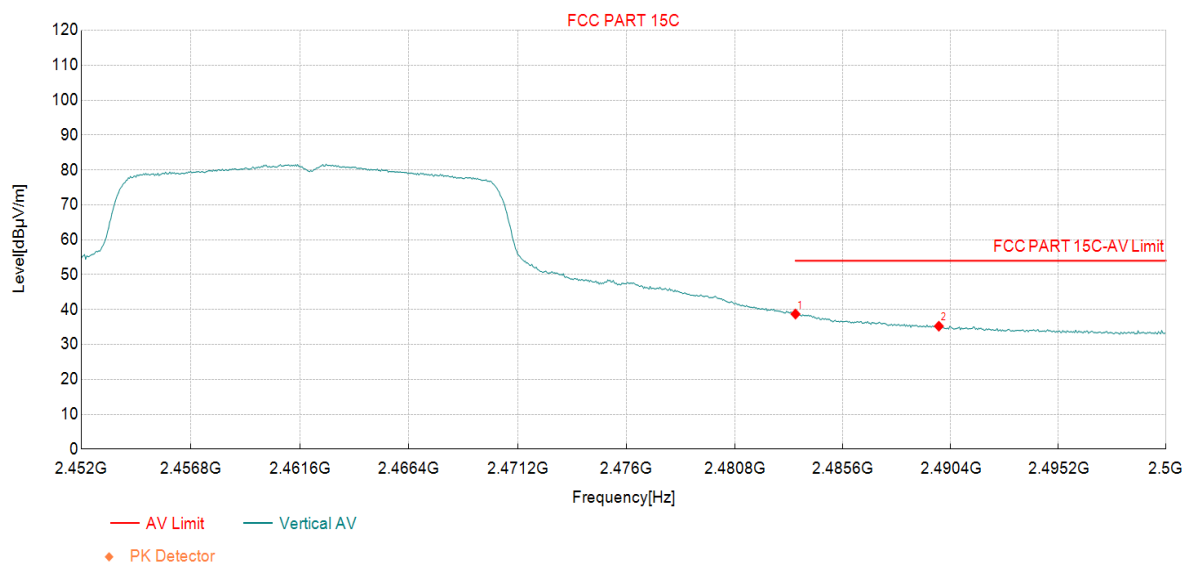
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	35.78	41.37	5.59	54.00	12.63	AV	Horizo	PASS
2	2484.54	35.00	40.61	5.61	54.00	13.39	AV	Horizo	PASS

Transmit at 2462MHz by 802.11g with Ant1**Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	44.50	50.09	5.59	74.00	23.91	PK	Vertic	PASS
2	2485.36	48.17	53.78	5.61	74.00	20.22	PK	Vertic	PASS

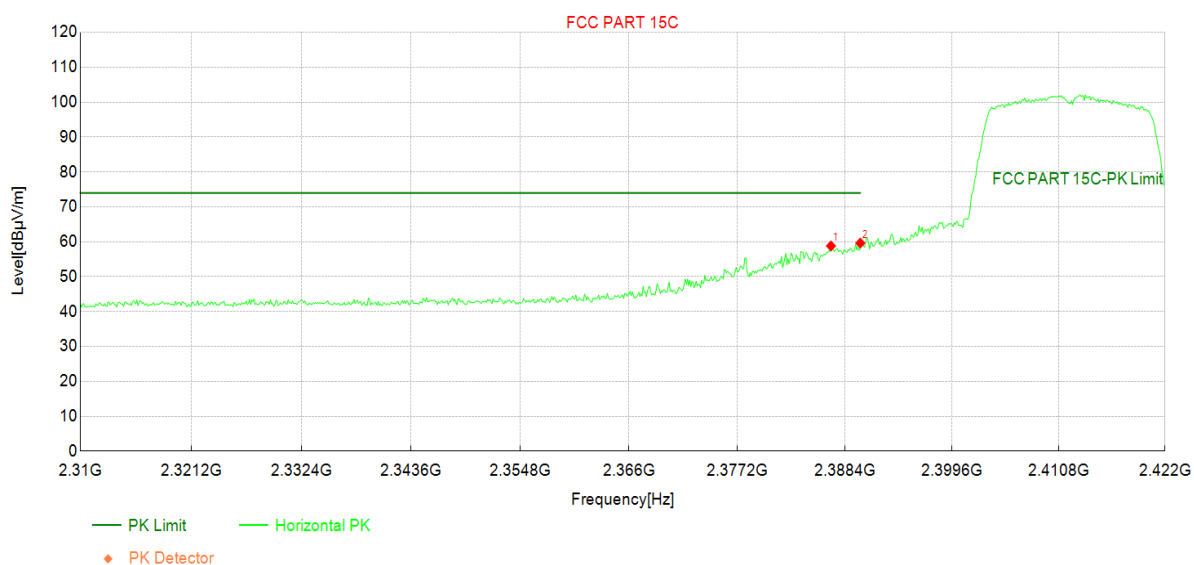
Transmit at 2462MHz by 802.11g with Ant1

Test Graph



Data List

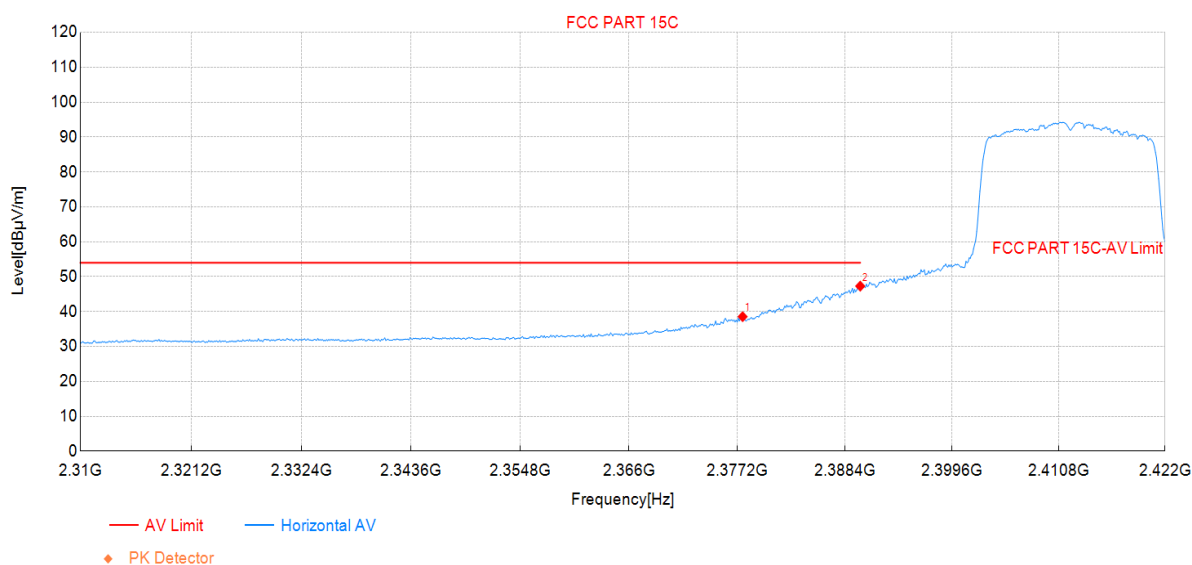
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	33.12	38.71	5.59	54.00	15.29	AV	Vertic	PASS
2	2489.87	29.62	35.24	5.62	54.00	18.76	AV	Vertic	PASS

Transmit at 2412MHz by 802.11n(20MHz) with Ant1+2**Test Graph****Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2386.94	53.58	58.79	5.21	74.00	15.21	PK	Horizo	PASS
2	2390.00	54.40	59.63	5.23	74.00	14.37	PK	Horizo	PASS

Transmit at 2412MHz by 802.11n(20MHz) with Ant1+2

Test Graph

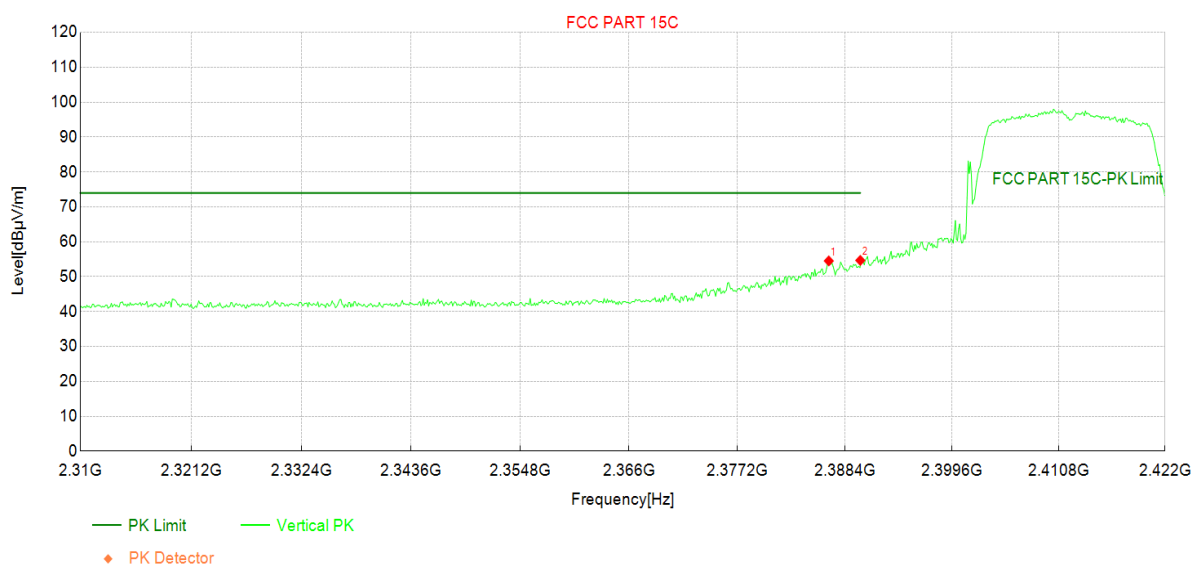


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2377.76	33.38	38.53	5.15	54.00	15.47	AV	Horizo	PASS
2	2390.00	42.06	47.29	5.23	54.00	6.71	AV	Horizo	PASS

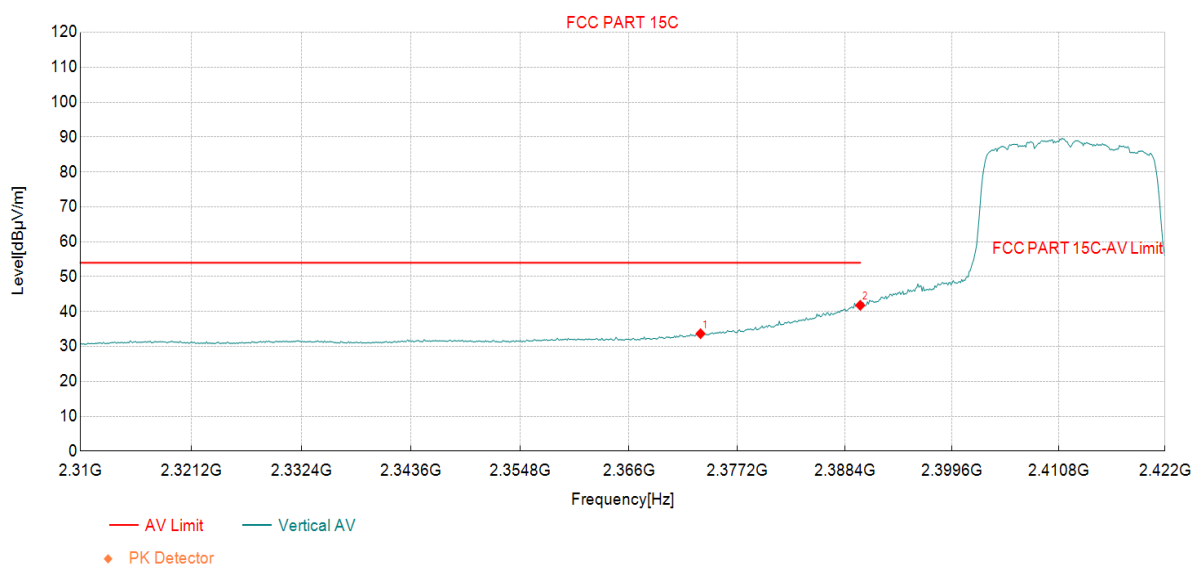
Transmit at 2412MHz by 802.11n(20MHz) with Ant1+2

Test Graph

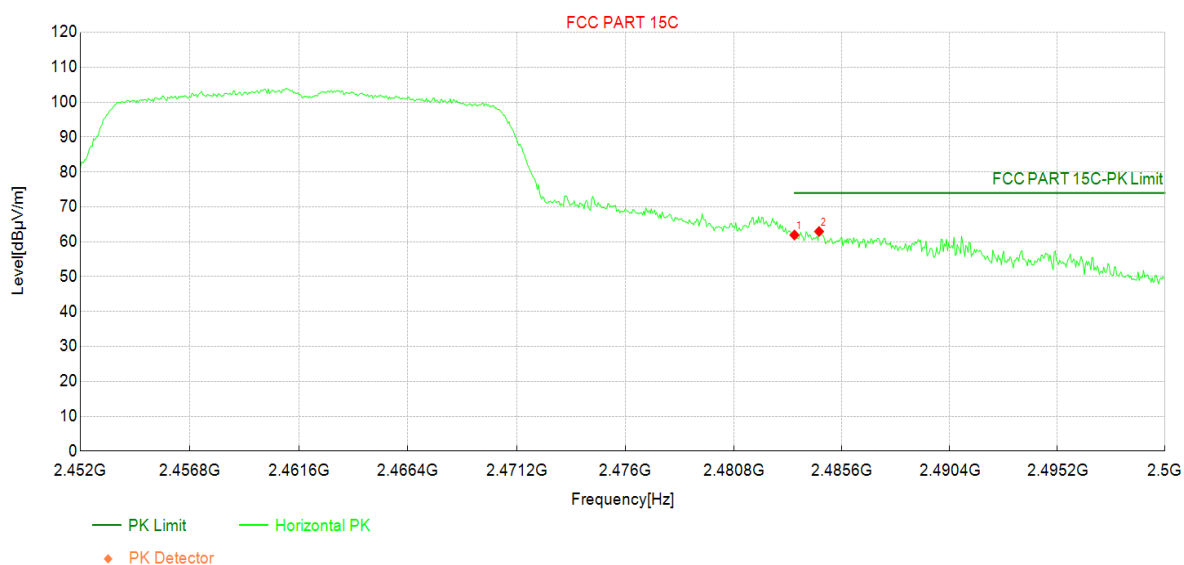


Data List

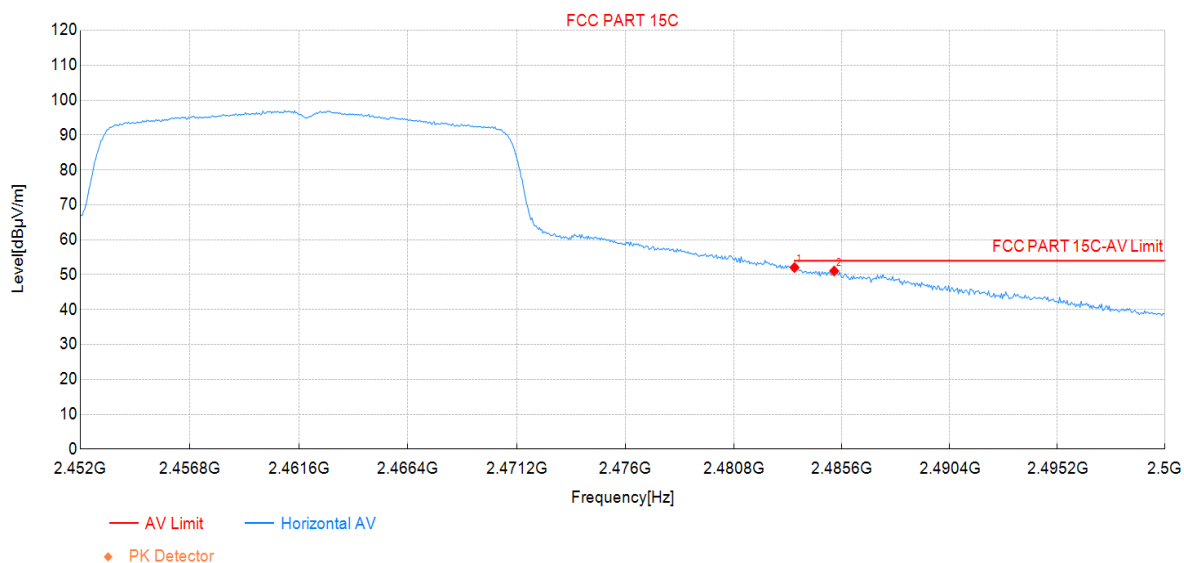
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2386.72	49.30	54.51	5.21	74.00	19.49	PK	Vertic	PASS
2	2390.00	49.43	54.66	5.23	74.00	19.34	PK	Vertic	PASS

Transmit at 2412MHz by 802.11n(20MHz) with Ant1+2*Test Graph***Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2373.39	28.54	33.66	5.12	54.00	20.34	AV	Vertic	PASS
2	2390.00	36.56	41.79	5.23	54.00	12.21	AV	Vertic	PASS

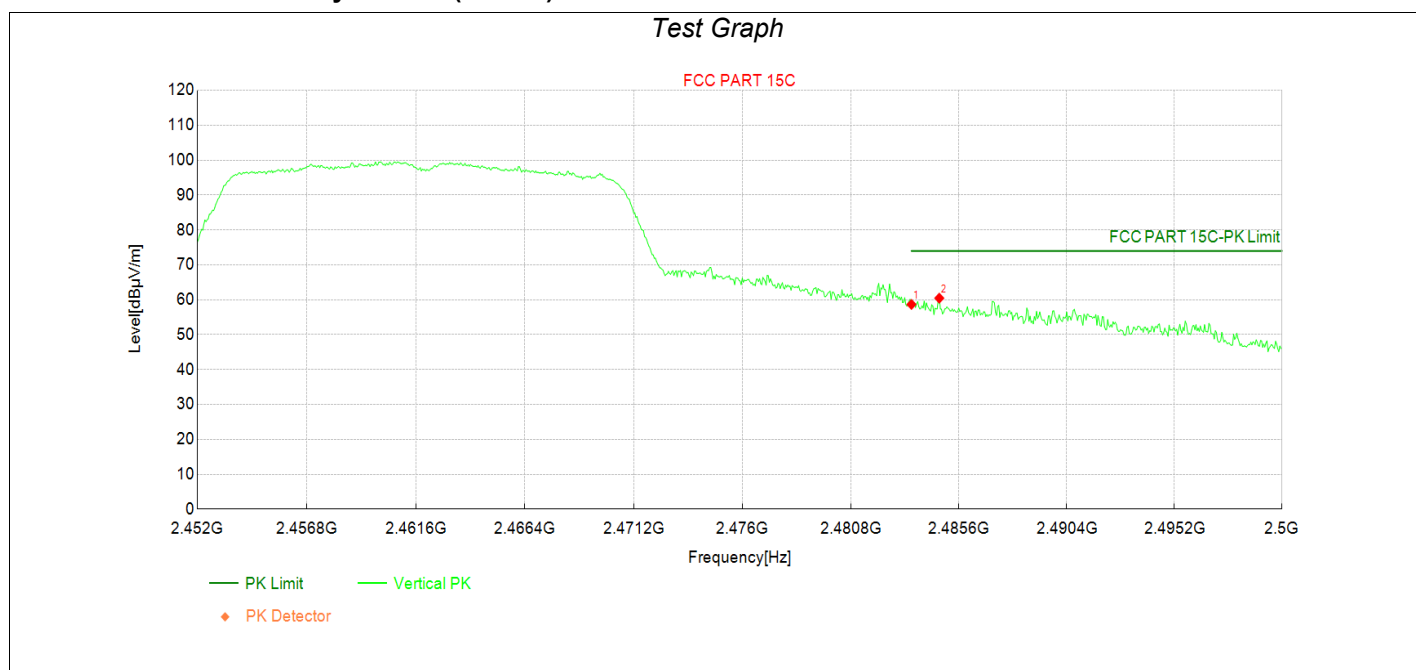
Transmit at 2462MHz by 802.11n(20MHz) with Ant1+2**Test Graph****Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	56.34	61.93	5.59	74.00	12.07	PK	Horizo	PASS
2	2484.59	57.34	62.95	5.61	74.00	11.05	PK	Horizo	PASS

Transmit at 2462MHz by 802.11n(20MHz) with Ant1+2*Test Graph***Data List**

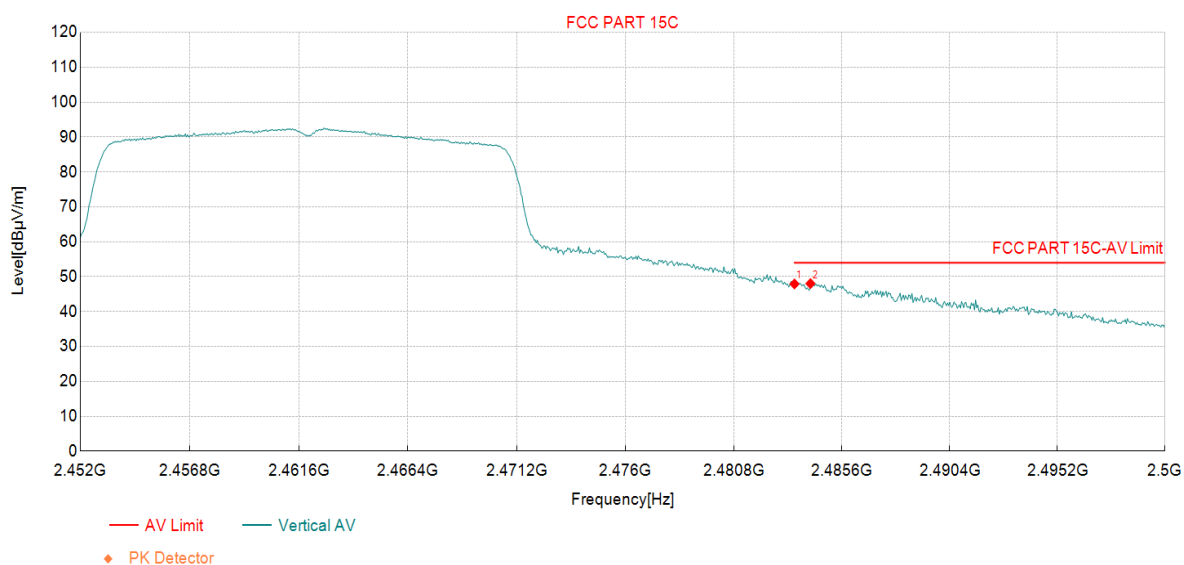
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	46.46	52.05	5.59	54.00	1.95	AV	Horizo	PASS
2	2485.26	45.44	51.05	5.61	54.00	2.95	AV	Horizo	PASS

Transmit at 2462MHz by 802.11n(20MHz) with Ant1+2

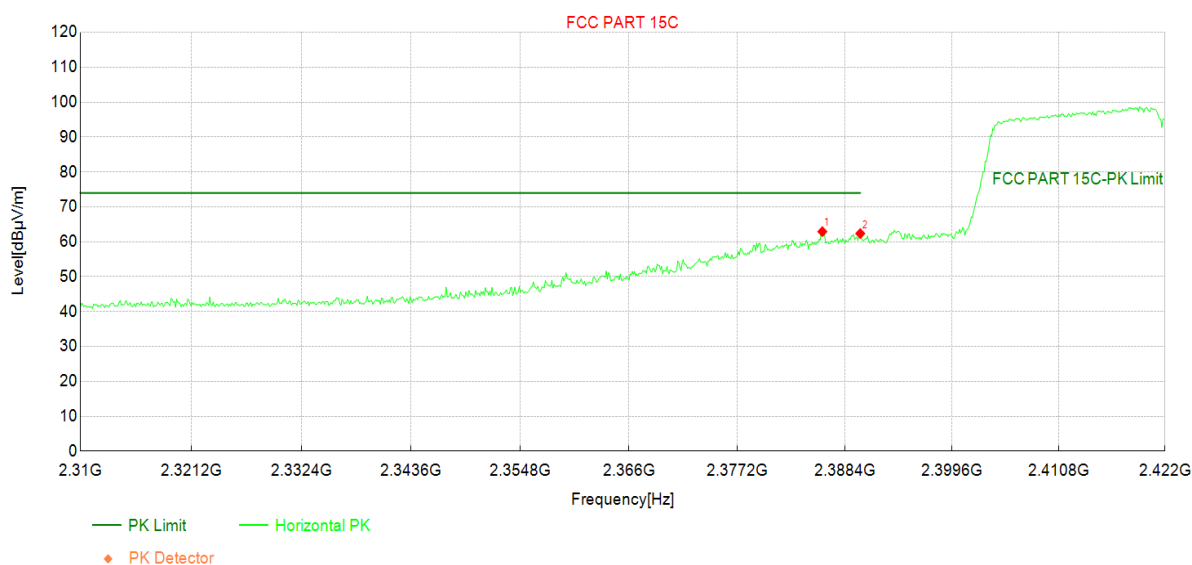


Data List

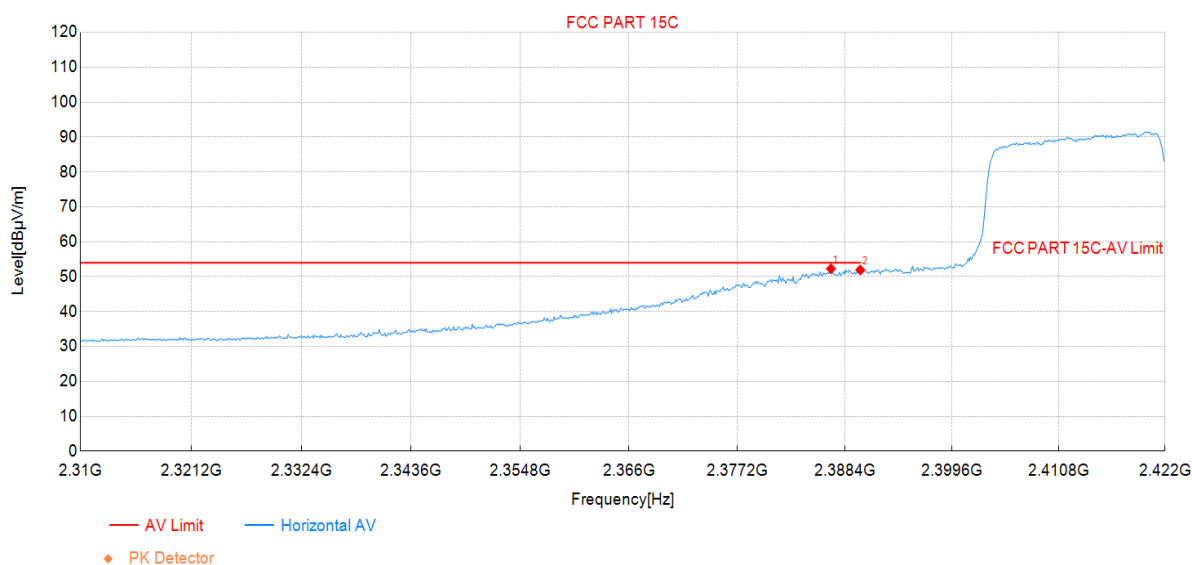
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	53.07	58.66	5.59	74.00	15.34	PK	Vertic	PASS
2	2484.74	54.85	60.46	5.61	74.00	13.54	PK	Vertic	PASS

Transmit at 2462MHz by 802.11n(20MHz) with Ant1+2*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	42.32	47.91	5.59	54.00	6.09	AV	Vertic	PASS
2	2484.21	42.42	48.02	5.60	54.00	5.98	AV	Vertic	PASS

Transmit at 2422MHz by 802.11n(40MHz) with Ant1+2**Test Graph****Data List**

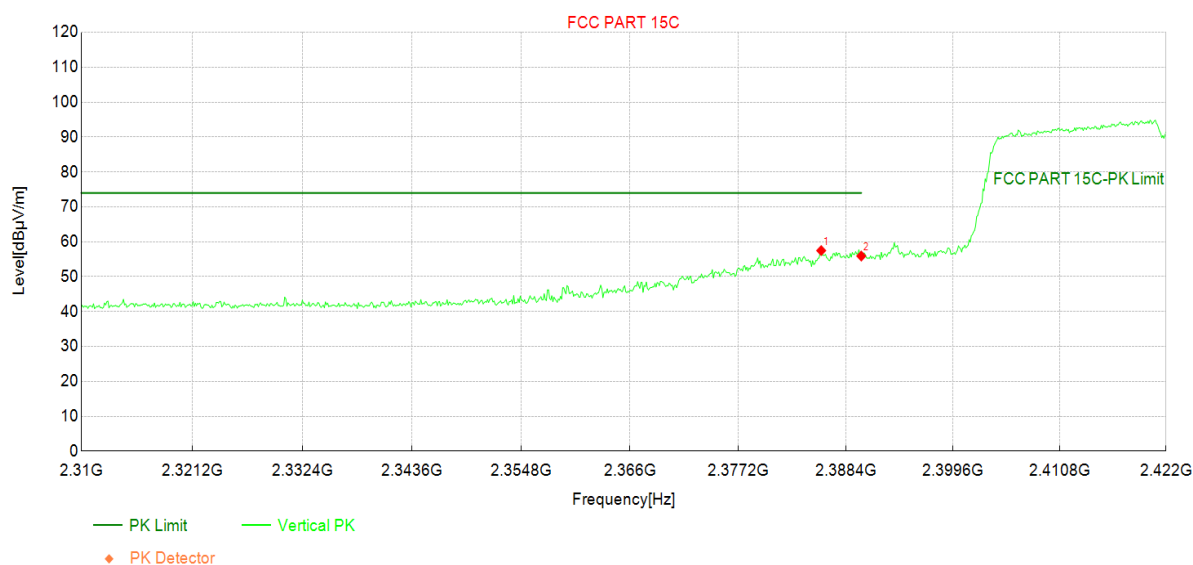
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2386.05	57.72	62.92	5.20	74.00	11.08	PK	Horizo	PASS
2	2390.00	57.12	62.35	5.23	74.00	11.65	PK	Horizo	PASS

Transmit at 2422MHz by 802.11n(40MHz) with Ant1+2**Test Graph****Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2386.94	47.05	52.26	5.21	54.00	1.74	AV	Horizo	PASS
2	2390.00	46.68	51.91	5.23	54.00	2.09	AV	Horizo	PASS

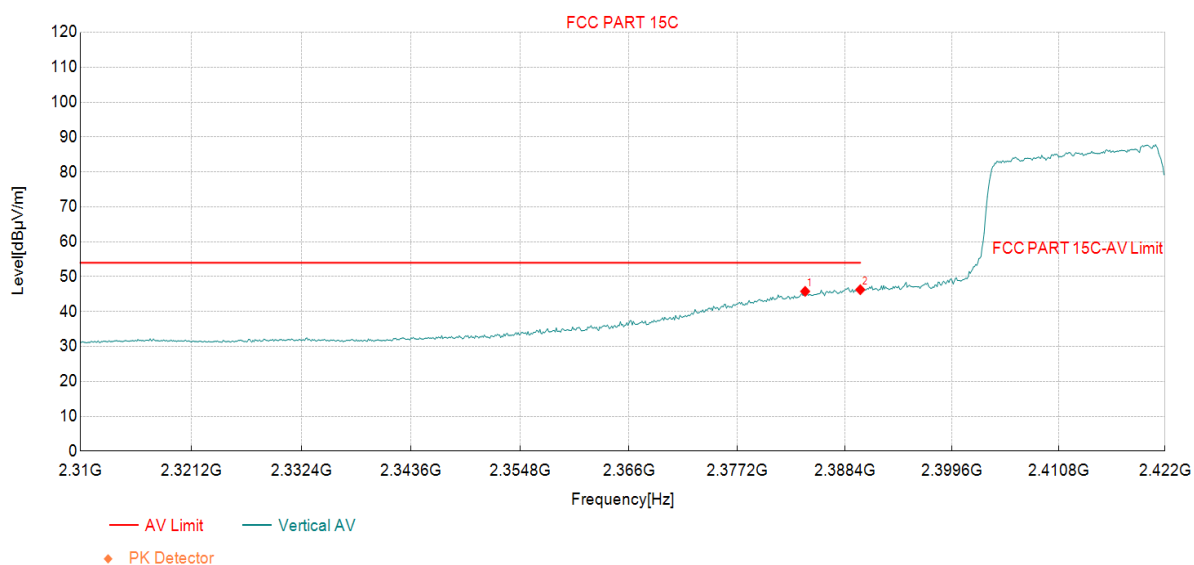
Transmit at 2422MHz by 802.11n(40MHz) with Ant1+2

Test Graph



Data List

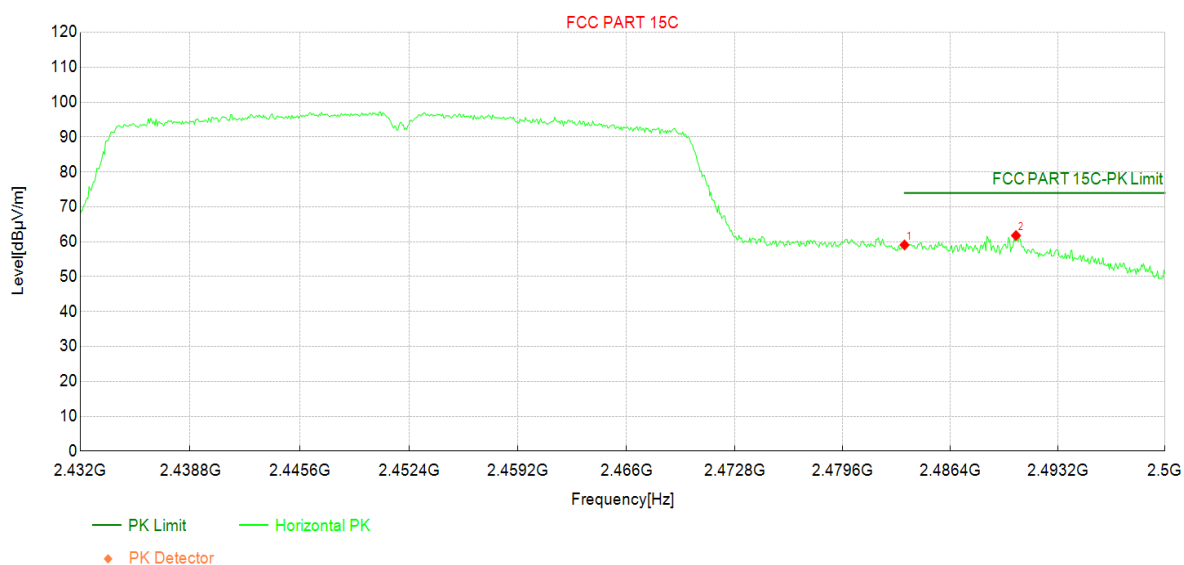
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2385.82	52.27	57.47	5.20	74.00	16.53	PK	Vertic	PASS
2	2390.00	50.68	55.91	5.23	74.00	18.09	PK	Vertic	PASS

Transmit at 2422MHz by 802.11n(40MHz) with Ant1+2**Test Graph****Data List**

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2384.26	40.59	45.78	5.19	54.00	8.22	AV	Vertic	PASS
2	2390.00	41.03	46.26	5.23	54.00	7.74	AV	Vertic	PASS

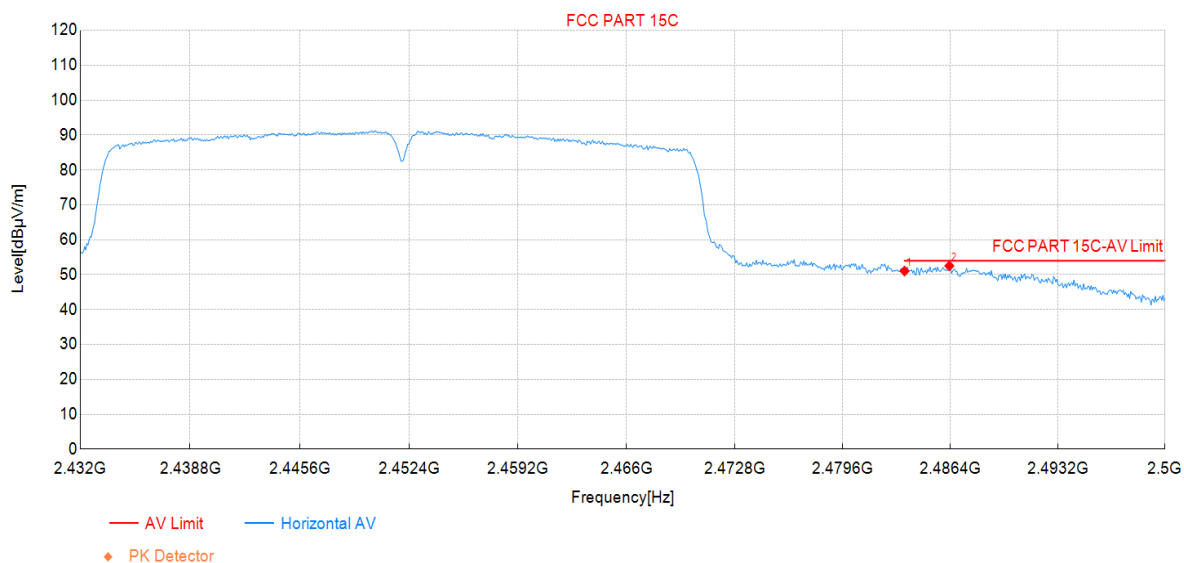
Transmit at 2452MHz by 802.11n(40MHz) with Ant1+2

Test Graph

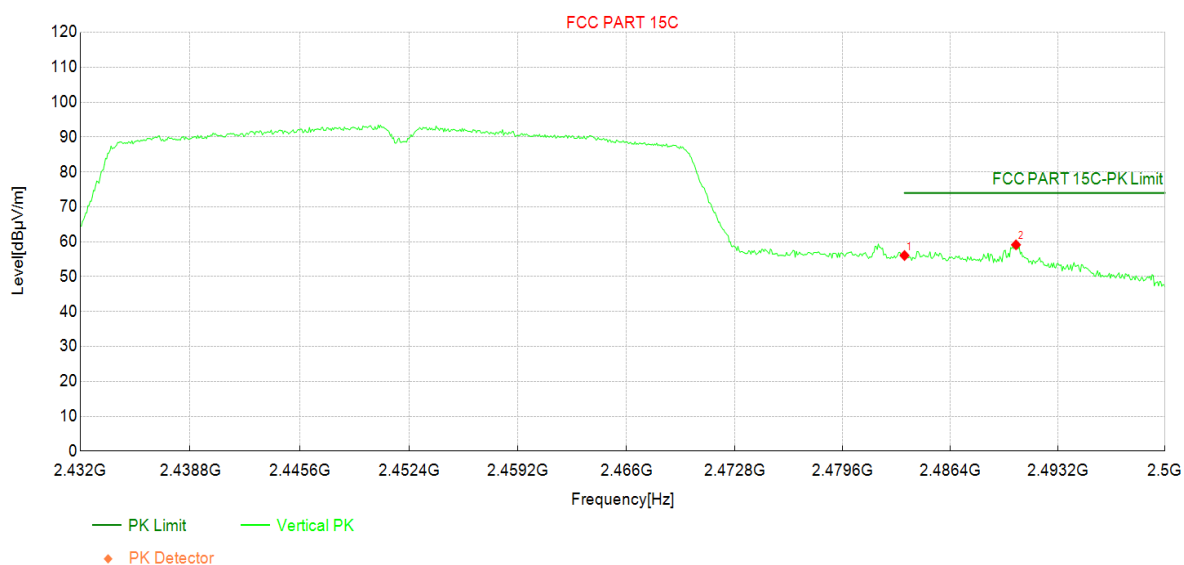


Data List

NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	53.50	59.09	5.59	74.00	14.91	PK	Horizo	PASS
2	2490.55	56.16	61.78	5.62	74.00	12.22	PK	Horizo	PASS

Transmit at 2452MHz by 802.11n(40MHz) with Ant1+2*Test Graph***Data List**

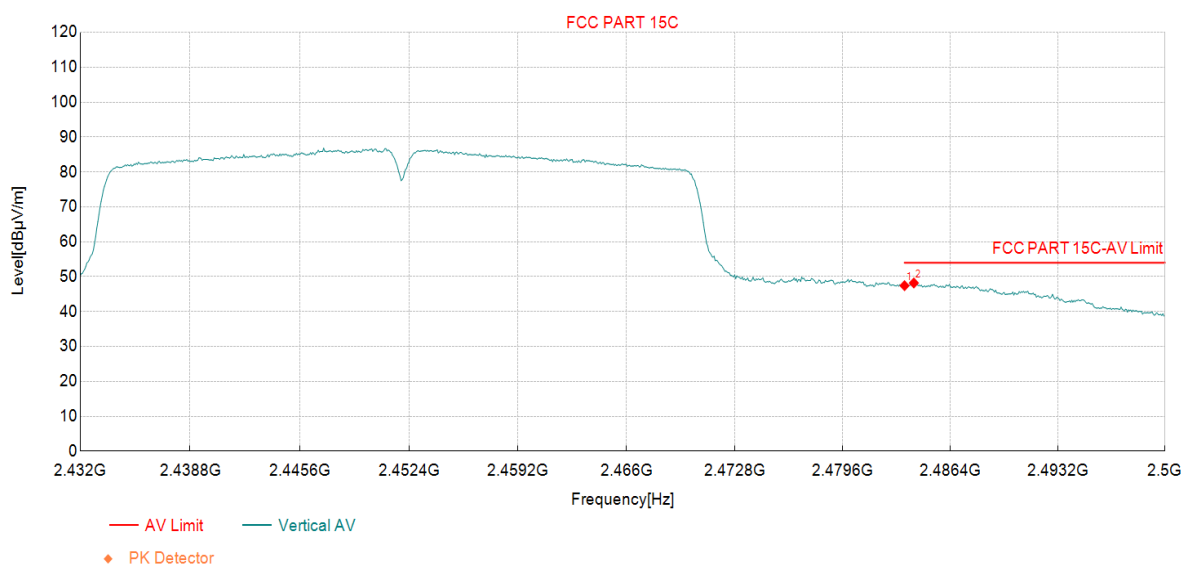
NO	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	2483.50	45.45	51.04	5.59	54.00	2.96	AV	Horizo	PASS
2	2486.33	46.90	52.51	5.61	54.00	1.49	AV	Horizo	PASS

Transmit at 2452MHz by 802.11n(40MHz) with Ant1+2*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	50.47	56.06	5.59	74.00	17.94	PK	Vertic	PASS
2	2490.55	53.51	59.13	5.62	74.00	14.87	PK	Vertic	PASS

Transmit at 2452MHz by 802.11n(40MHz) with Ant1+2

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	41.83	47.42	5.59	54.00	6.58	AV	Vertic	PASS
2	2484.09	42.59	48.19	5.60	54.00	5.81	AV	Vertic	PASS

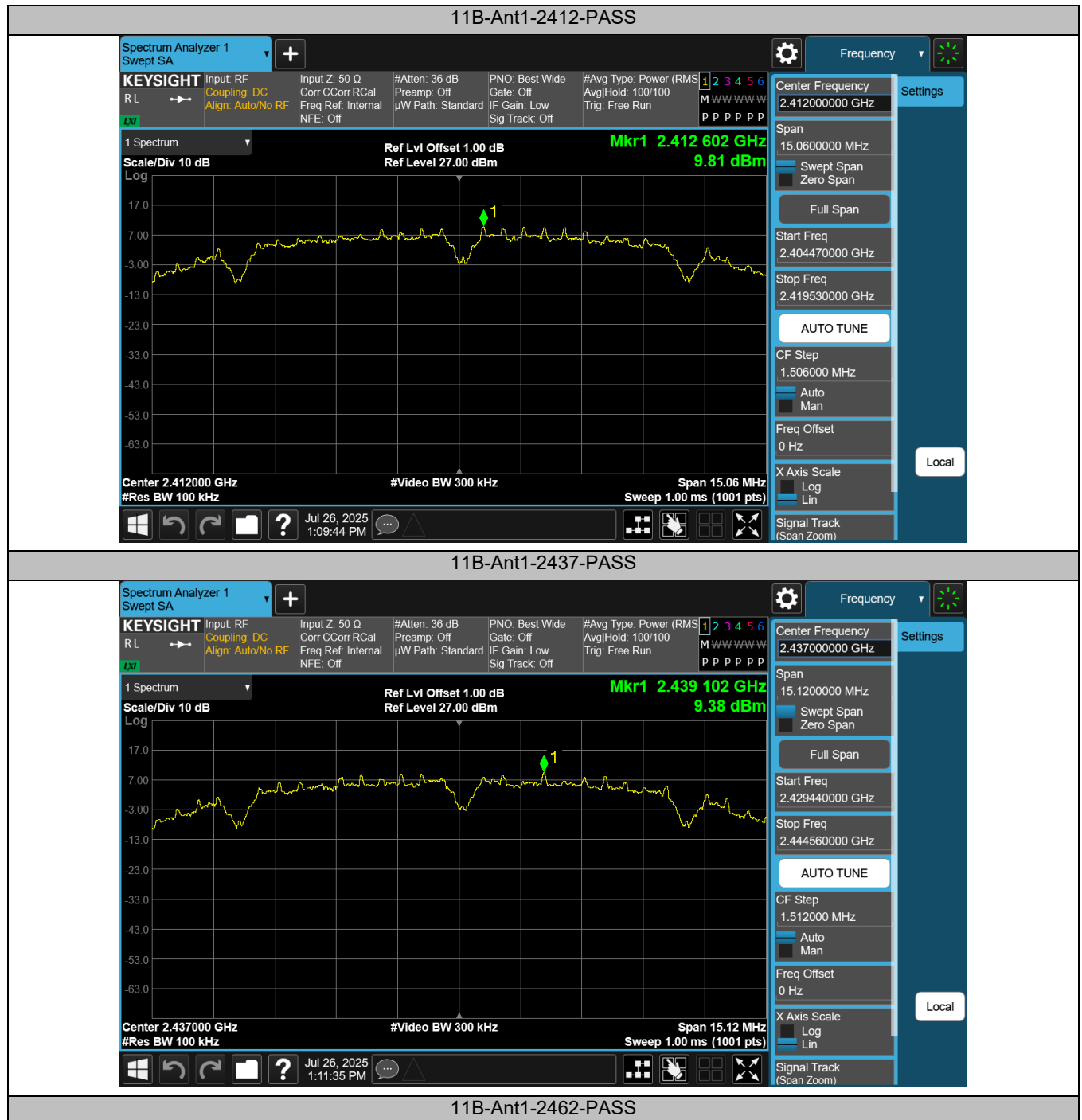
Note:

1. Level = Reading + Factor

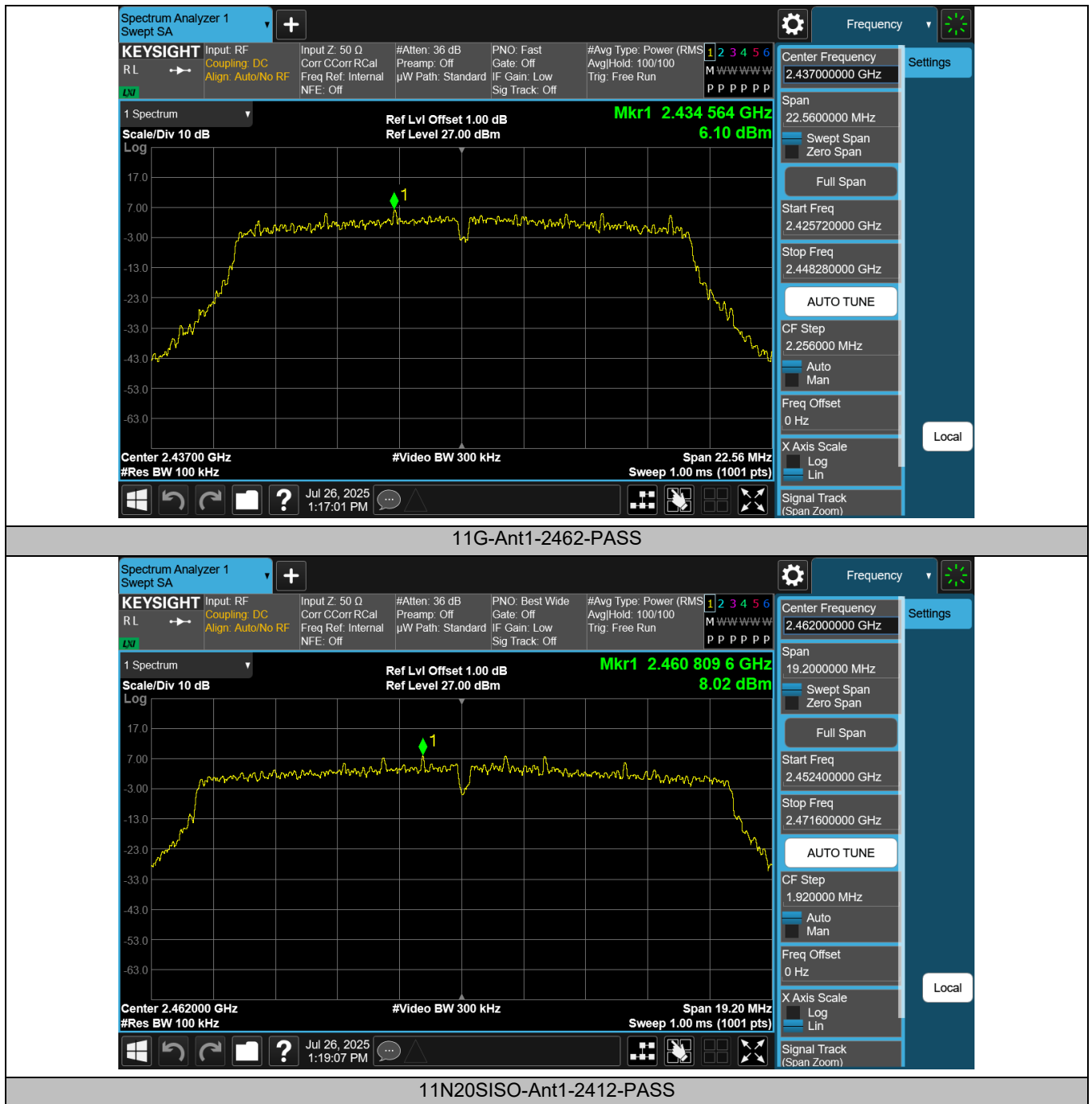
2. Margin = Limit - Level

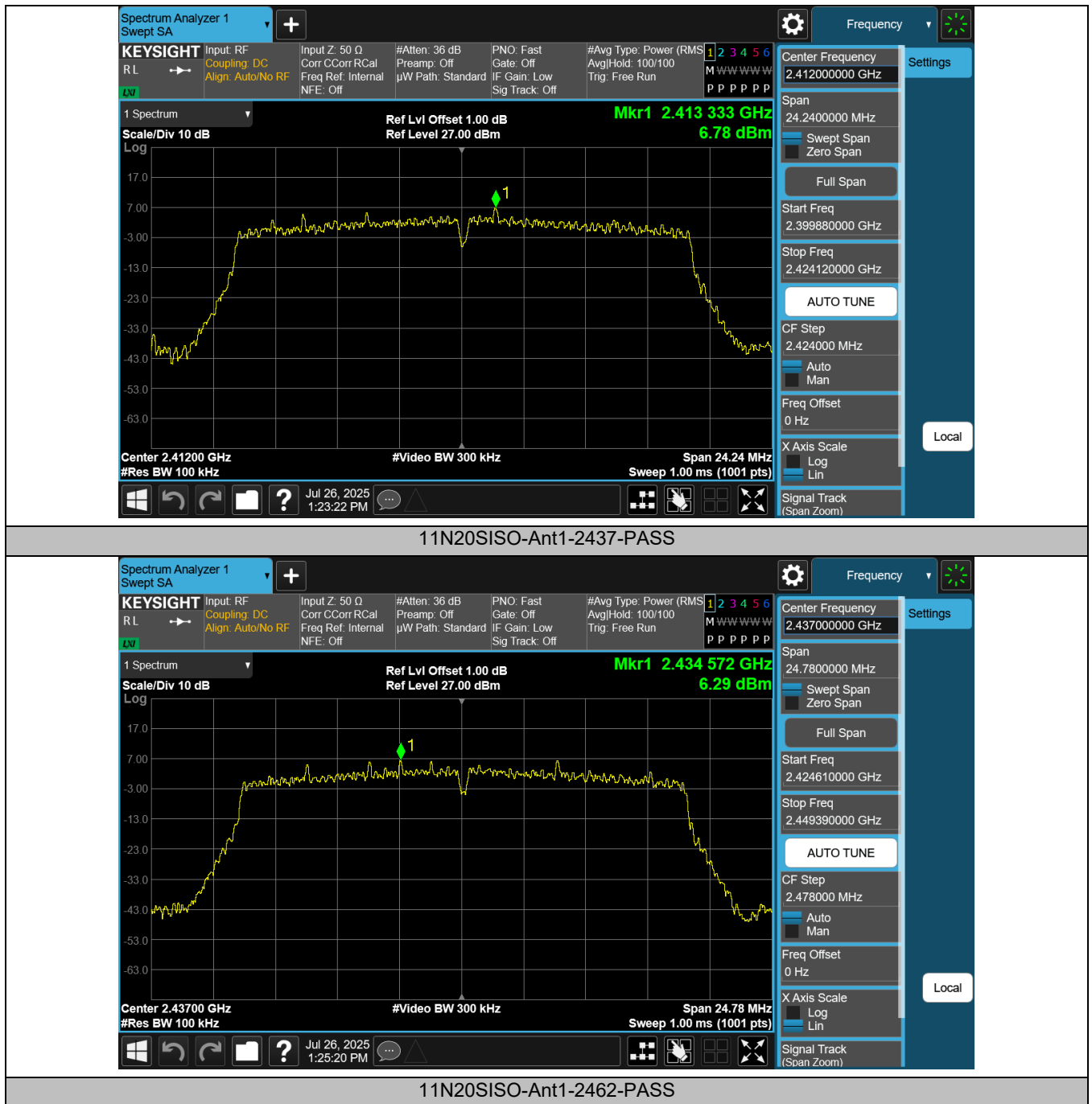
Appendix E: Conducted Spurious Emission

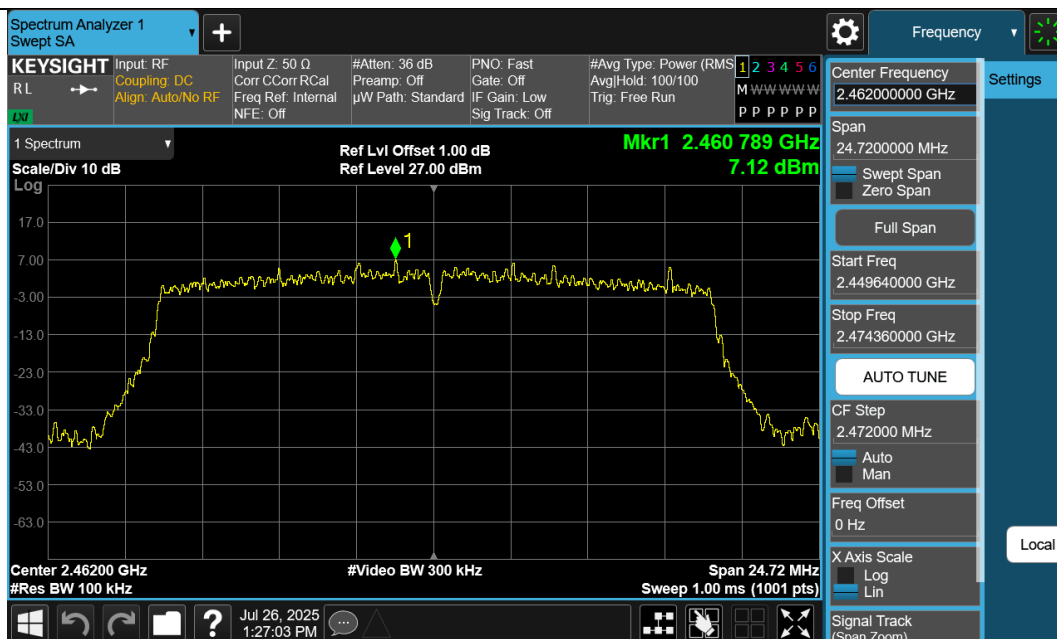
Test Result for Reference level:



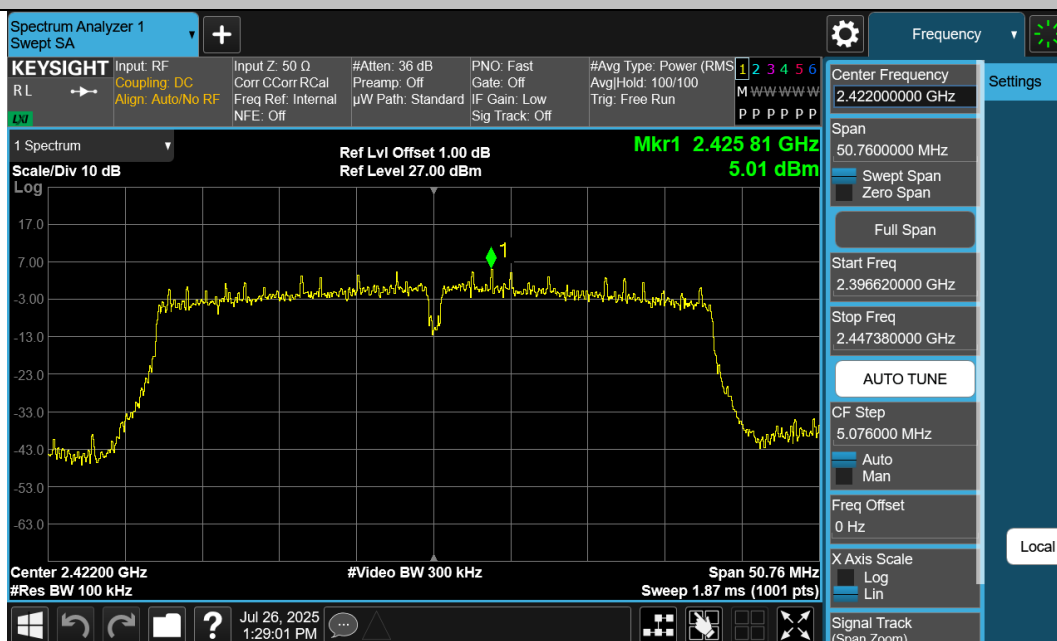




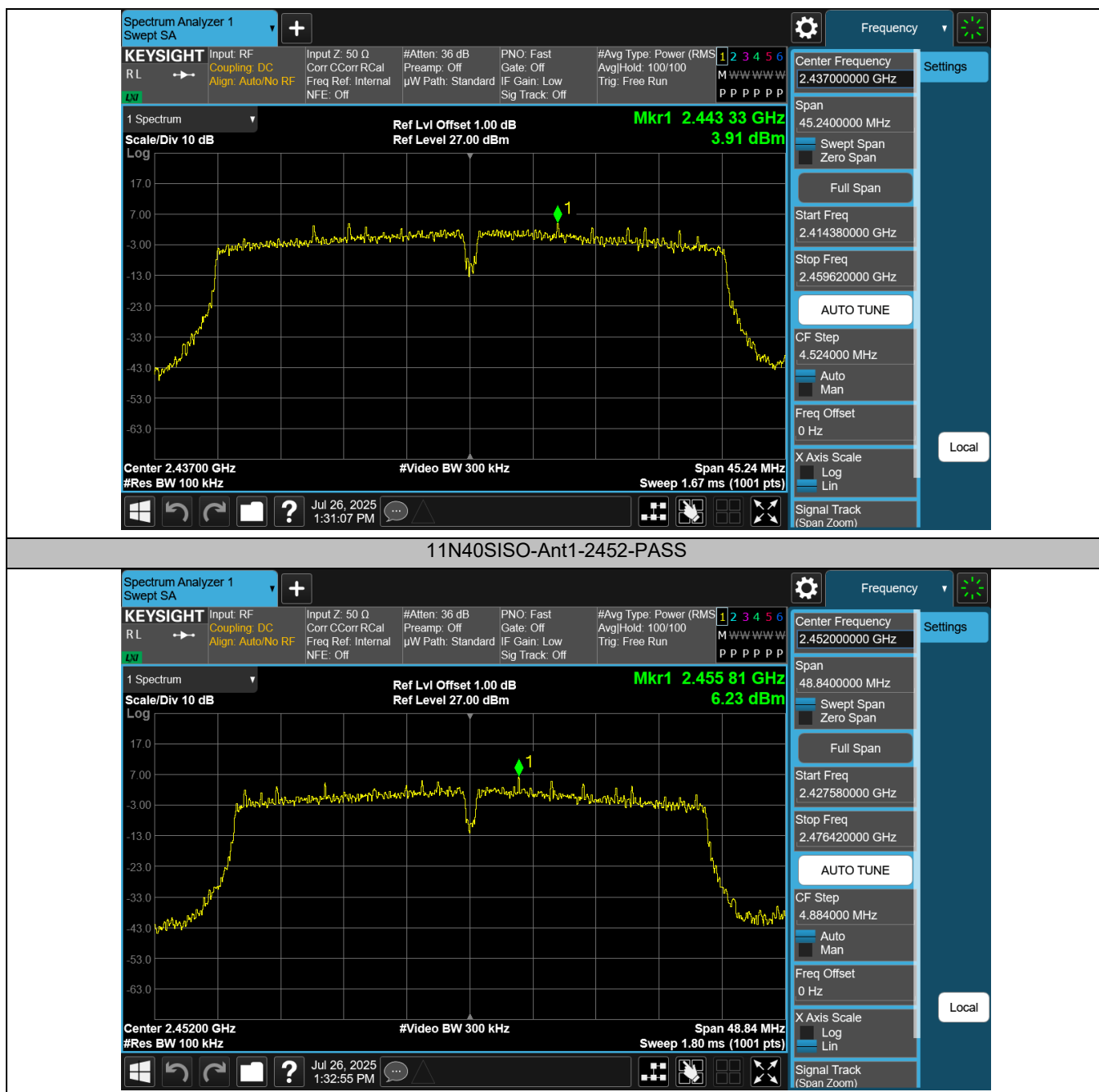




11N40SISO-Ant1-2422-PASS



11N40SISO-Ant1-2437-PASS



Test Result for Band edge:

