TEST REPORT

Application No.:	KSCR2407001419AT
FCC ID:	2BHGF-0235C8GG
IC:	32743-0235C8GG
Applicant:	KeyLife International Technology Limited
Address of Applicant:	27th Floor, Alexandra House, 18 Chater Road,Central, Hong Kong
Manufacturer:	KeyLife International Technology Limited
Address of Manufacturer:	27th Floor, Alexandra House, 18 Chater Road,Central, Hong Kong
Factory:	Zhejiang Uniview Systems Technology Co., Ltd.
Address of Factory:	No.1277 South Qingfeng South Road, Tongxiang City, Jiaxing City, Zhejiang Province, China
Equipment Under Test (EUT):	
EUT Name:	Wireless Security Camera
Model No.:	S320,S320 XXX XXX(where X may be 0-9 A-Z a-z or blank. The differences no impact safety related constructions and EMC) ♣
♣	Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
For IC Model No.:	S320
Standard(s) :	47 CFR Part 15, Subpart C 15.247 RSS-247 Issue 3, August 2023 RSS-Gen Issue 5 Amendment 2 (February 2021)
Date of Receipt:	2024-07-24
Date of Test:	2024-08-27 to 2024-09-05
Date of Issue:	2024-09-06
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

Revision Record			
Version	**Description**	***Date***	***Remark***
00	Original	2024-09-06	/

Authorized for issue by:				
Tested By		Maker Qi **Maker_Qi/Project Engineer**		
Approved By		Terry Hou **Terry Hou /Reviewer**		

2 Test Summary

Radio Spectrum Technical Requirement				
Item	**FCC Requirement**	**IC Requirement**	**Method**	**Result**
Antenna Requirement	47 CFR Part 15, Subpart C 15.203 & 15.247(c)	RSS-Gen Clause 6.8	N/A	Customer Declaration

N/A: Not applicable

Radio Spectrum Matter Part				
Item	**FCC Requirement**	**IC Requirement**	**Method**	**Result**
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.207	RSS-Gen Clause 8.8	ANSI C63.10 (2013) Section 6.2	Pass
Minimum 6dB Bandwidth	47 CFR Part 15, Subpart C 15.247a(2)	RSS-247 Clause 5.2(a)	ANSI C63.10 (2013) Section 11.8.1	Pass
Conducted Peak Output Power	47 CFR Part 15, Subpart C 15.247(b)(3)	RSS-247 Clause 5.4(d)	ANSI C63.10 (2013) Section 11.9.1	Pass
Power Spectrum Density	47 CFR Part 15, Subpart C 15.247(e)	RSS-247 Clause 5.2(b)	ANSI C63.10 (2013) Section 11.10.3	Pass
Conducted Band Edges Measurement	47 CFR Part 15, Subpart C 15.247(d)	RSS-247 Clause 5.5	ANSI C63.10 (2013) Section 11.13.3.2	Pass
Conducted Spurious Emissions	47 CFR Part 15, Subpart C 15.247(d)	RSS-247 Clause 5.5	ANSI C63.10 (2013) Section 11.11	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	RSS-247 Section 3.3 & RSS-Gen Section 8.9	ANSI C63.10 (2013) Section 6.10.5	Pass
Radiated Spurious Emissions	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	RSS-247 Section 3.3 & RSS-Gen Section 8.9	ANSI C63.10 (2013) Section 6.4,6.5,6.6	Pass
99% Bandwidth	-	RSS-Gen Section 6.7	ANSI C63.10 Section 6.9.3	Pass

Note: There are series models mentioned in this report, and they are identical in electrical and electronic characters. Only the model S320 was tested since their differences were the model number and appearance.

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply:	DC 5V/2A Rechargeable Lithium ion Battery: Model: A130-13 3.6V/6400mAh/23.04Wh 1INR19/66-2
Test voltage:	AC 120V/60Hz
Operation Frequency:	802.11b/g/n(HT20)/ax(HE20):2412MHz to 2462MHz;802.11n(HT40)/ax(HE40):2422MHz to 2452MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK), 802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK),802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024-QAM)
Number of Channels:	802.11b/g/n(HT20)/ax(HE20):11;802.11n(HT40)/ax(HE40):7
Channel Spacing:	5MHz
Antenna Type:	Internal antenna
Antenna Gain:	2.7dBi(Provided by the manufacturer)

4.2 Power level setting using in test:

Channel	802.11b	802.11g	802.11n(HT20)	802.11ax (HE20)
	Ant 1	Ant 1	Ant 1	Ant 1
1	12	12	13	12
6	12	12	13	12
11	12	12	13	12

Channel	802.11n (HT40)	802.11ax (HE40)
	Ant 1	Ant 1
3	12	12
6	12	12
9	12	12

4.3 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
AC Adapter	/	/	/
Notebook	LENOVO	K27	EB24537645

4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4×10^{-8}
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	RF Radiated Power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious Emission Test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%
Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.		

4.5 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).

2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).

3. Sample source: sent by customer.

4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• A2LA

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• FCC

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

• ISED

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

• VCCI

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None

5 Equipment List

Item	Equipment	Manufacturer	Model	Inventory No	Cal Date	Cal. Due Date
Conducted Emission at Mains Terminals						
1	EMI Test Receive	R&S	ESCI	KS301101	01/15/2024	01/14/2025
2	LISN	R&S	ENV216	KS301197	01/15/2024	01/14/2025
3	LISN	Schwarzbeck	NNLK 8129	KS301091	01/15/2024	01/14/2025
4	Pulse Limiter	R&S	ESH3-Z2	KUS1902E001	01/15/2024	01/14/2025
5	CE test Cable	Thermax	/	CZ301102	01/15/2024	01/14/2025
6	Test Software	ESE	E3_V 6.111221a	/	N.C.R	N.C.R
RF Conducted Test						
1	Spectrum Analyzer	Keysight	N9020A	KUS1911E004-2	08/01/2024	07/31/2025
2	Spectrum Analyzer	Keysight	N9020A	KUS2001M001-2	08/01/2024	07/31/2025
3	Spectrum Analyzer	Keysight	N9030B	KSEM021-1	01/15/2024	01/14/2025
4	Signal Generator	R&S	SMBV100B	KSEM032	03/19/2024	03/18/2025
5	Signal Generator	R&S	SMW200A	KSEM020-1	08/02/2024	08/01/2025
6	Signal Generator	Agilent	N5182A	KUS2001M001-1	08/01/2024	07/31/2025
7	Signal Generator	Agilent	E8257C	KS301066	08/06/2024	08/05/2025
8	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	08/01/2024	07/31/2025
9	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	03/19/2024	03/18/2025
10	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	08/12/2024	08/11/2025
11	Switcher	TST	FY562	KUS2001M001-4	01/15/2024	01/14/2025
12	Conducted Test Cable	Thermax	RF01-RF04	CZ301111-CZ301120	01/15/2024	01/14/2025
13	Temp. / Humidity Chamber	TERCHY	MHK-120AK	KS301190	08/26/2024	08/25/2025
14	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-5	03/19/2024	03/18/2025
15	Software	BST	TST-PASS	/	NCR	NCR
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	08/06/2024	08/05/2025
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	03/19/2024	03/18/2025
4	Loop Antenna	COM-POWER	AL-130R	KUS1806E001	03/18/2023	03/17/2025
5	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E005	06/29/2023	06/28/2025
6	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E006	03/19/2024	03/18/2025
7	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	03/23/2024	08/22/2026
8	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	KS301186	04/07/2023	04/06/2025
9	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	01/07/2024	01/06/2026
10	Amplifier(30MHz~18GHz)	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-1	01/15/2024	01/14/2025
11	Amplifier(18~40GHz)	PANSHAN TECHNOLOGY	LNA180400G40	KSEM038	08/12/2024	08/11/2025
12	RE Test Cable	REBES MICROWAVE	/	CZ301097	08/12/2024	08/11/2025
13	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	03/21/2024	03/20/2025
14	Software	Faratronic	EZ_EMC-v 3A1	/	NCR	NCR
15	Software	ESE	E3_V 6.111221a	/	NCR	NCR

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203 & 15.247(b)(4)

6.1.2 Conclusion

Standard Requirement:

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, 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.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is internal antenna and no consideration of replacement. The best case gain is 2.7dBi.

Antenna location: Refer to internal photo.

7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207
Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency.		
Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz		

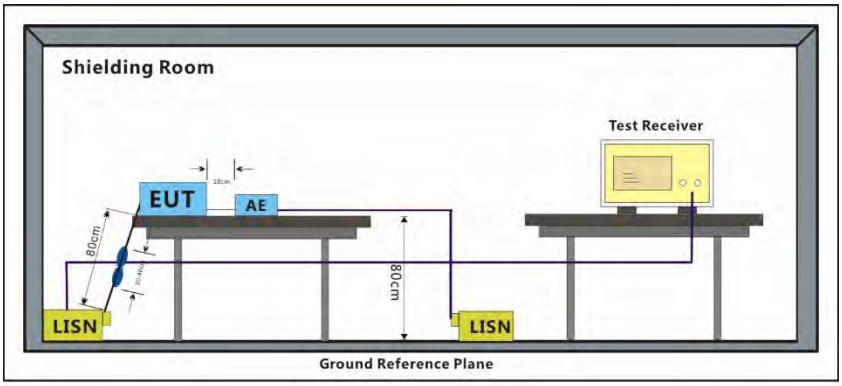
7.1.1 E.U.T. Operation

Operating Environment:
Temperature: 26 °C Humidity: 52.8 % RH Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE40). Only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram



7.1.4 Measurement Procedure and Data

1) The mains terminal disturbance voltage test was conducted in a shielded room.

2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

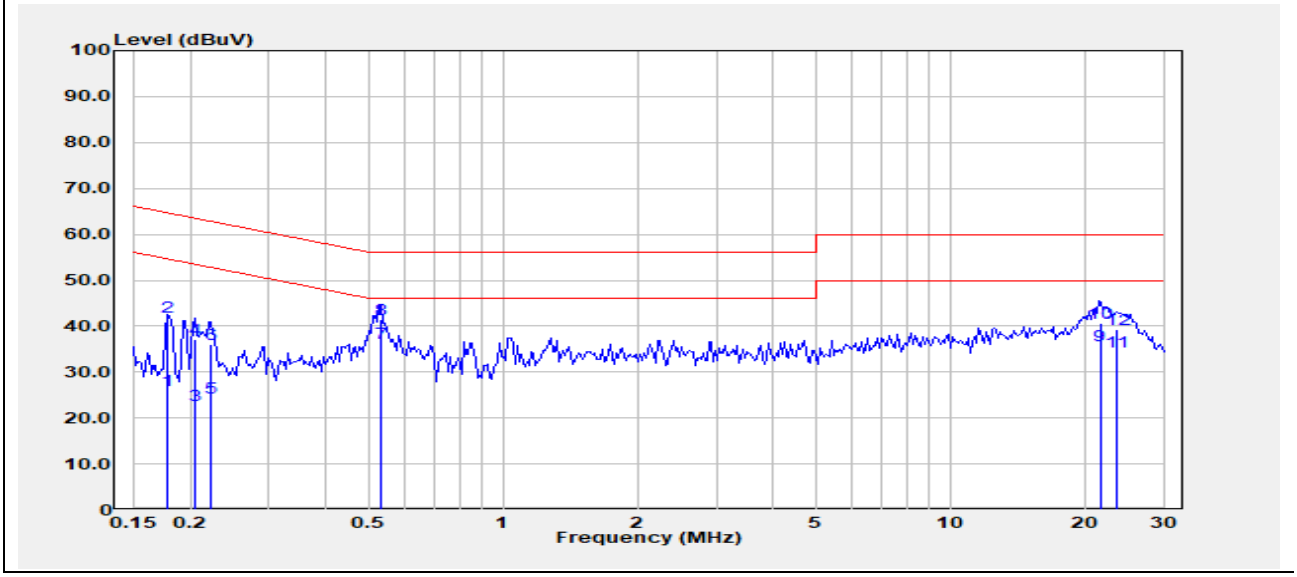
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.

4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

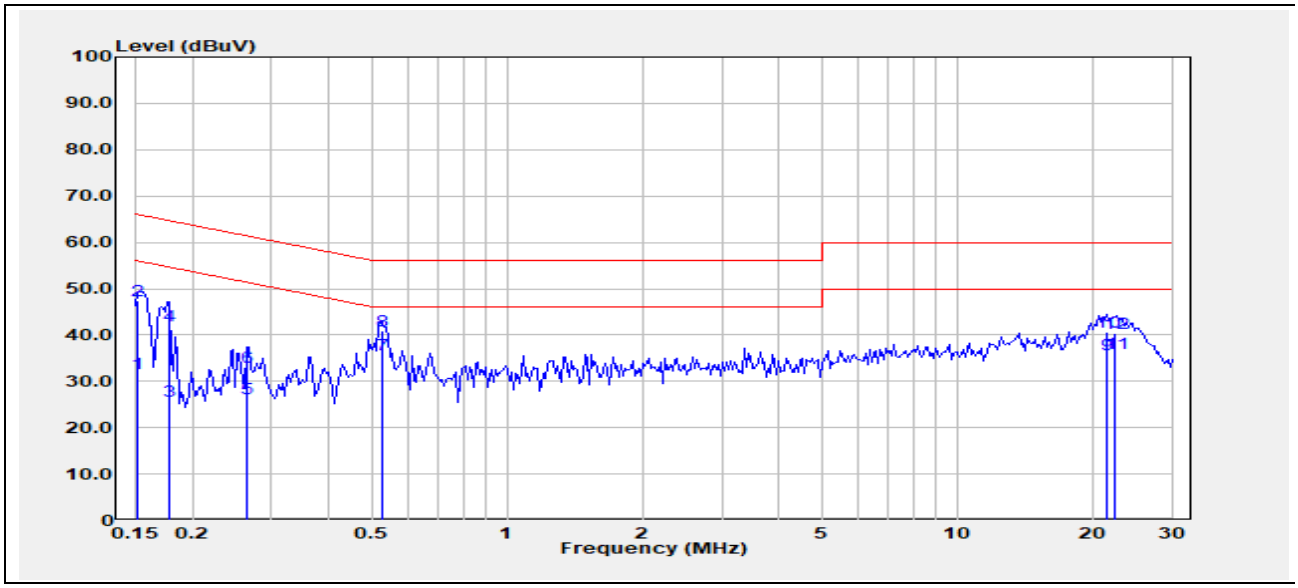
Remark: Level=Read Level+ Cable Loss+ LISN Factor

Test Mode: 02; Line: Live line



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1775	5.82	20.14	25.96	54.60	-28.64	Average
2	0.1775	21.78	20.14	41.92	64.60	-22.68	QP
3	0.2041	2.64	20.06	22.70	53.44	-30.74	Average
4	0.2041	16.99	20.06	37.05	63.44	-26.39	QP
5	0.2233	4.42	20.06	24.48	52.69	-28.21	Average
6	0.2233	15.98	20.06	36.04	62.69	-26.65	QP
7	0.5330	16.46	19.98	36.44	46.00	-9.56	Average
8	0.5330	21.56	19.98	41.54	56.00	-14.46	QP
9	21.6400	16.05	19.76	35.81	50.00	-14.19	Average
10	21.6400	20.84	19.76	40.60	60.00	-19.40	QP
11	23.5030	14.78	19.76	34.54	50.00	-15.46	Average
12	23.5030	19.42	19.76	39.18	60.00	-20.82	QP

Test Mode: 02; Line: Neutral Line



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1517	11.57	20.18	31.75	55.91	-24.16	Average
2	0.1517	27.31	20.18	47.49	65.91	-18.42	QP
3	0.1780	5.54	20.14	25.68	54.58	-28.90	Average
4	0.1780	21.77	20.14	41.91	64.58	-22.67	QP
5	0.2642	6.24	20.09	26.33	51.30	-24.97	Average
6	0.2642	12.97	20.09	33.06	61.30	-28.24	QP
7	0.5282	15.96	19.91	35.87	46.00	-10.13	Average
8	0.5282	20.98	19.91	40.89	56.00	-15.11	QP
9	21.5520	15.99	19.81	35.80	50.00	-14.20	Average
10	21.5520	20.86	19.81	40.67	60.00	-19.33	QP
11	22.5100	16.11	19.80	35.91	50.00	-14.09	Average
12	22.5100	20.67	19.80	40.47	60.00	-19.53	QP

7.2 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209
Test Method: ANSI C63.10 (2013) Section 6.10.5

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3
Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.		

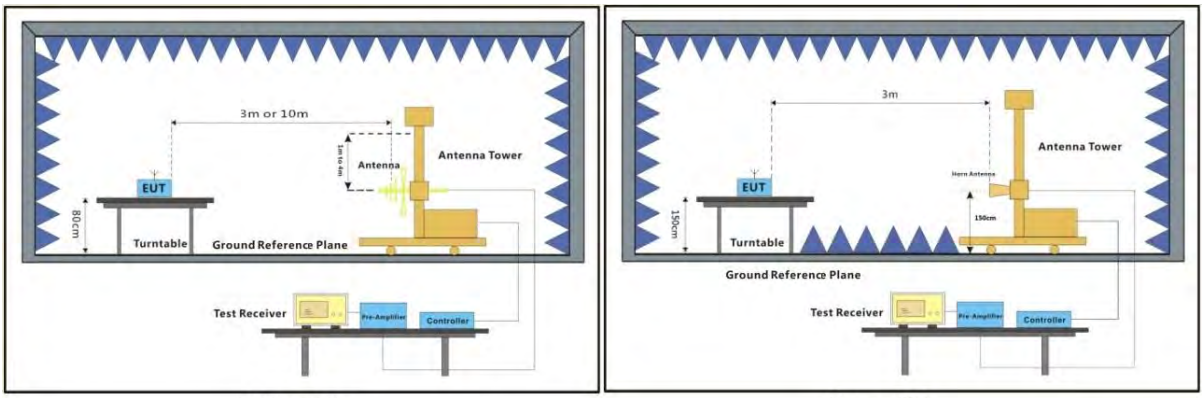
7.2.1 E.U.T. Operation

Operating Environment:
Temperature: 21.9 °C Humidity: 47.8 % RH Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE40). Only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



30MHz-1GHz　　Above 1GHz

7.2.4 Measurement Procedure and Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

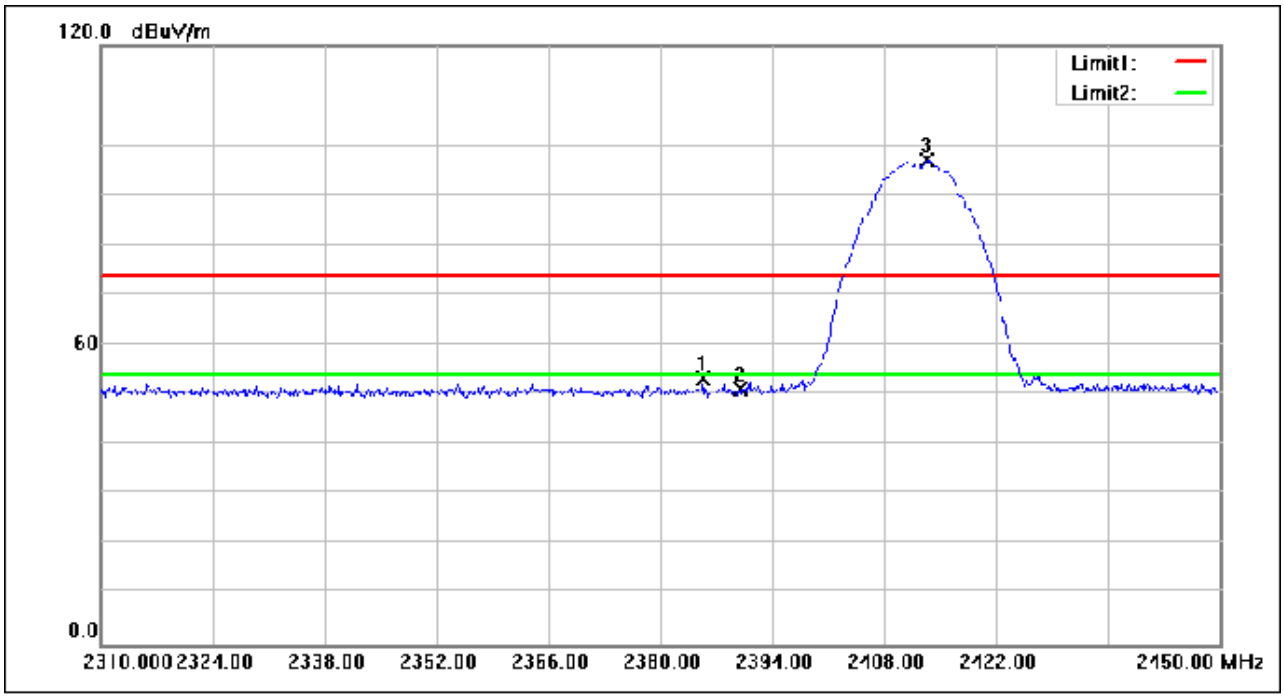
i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

j. Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

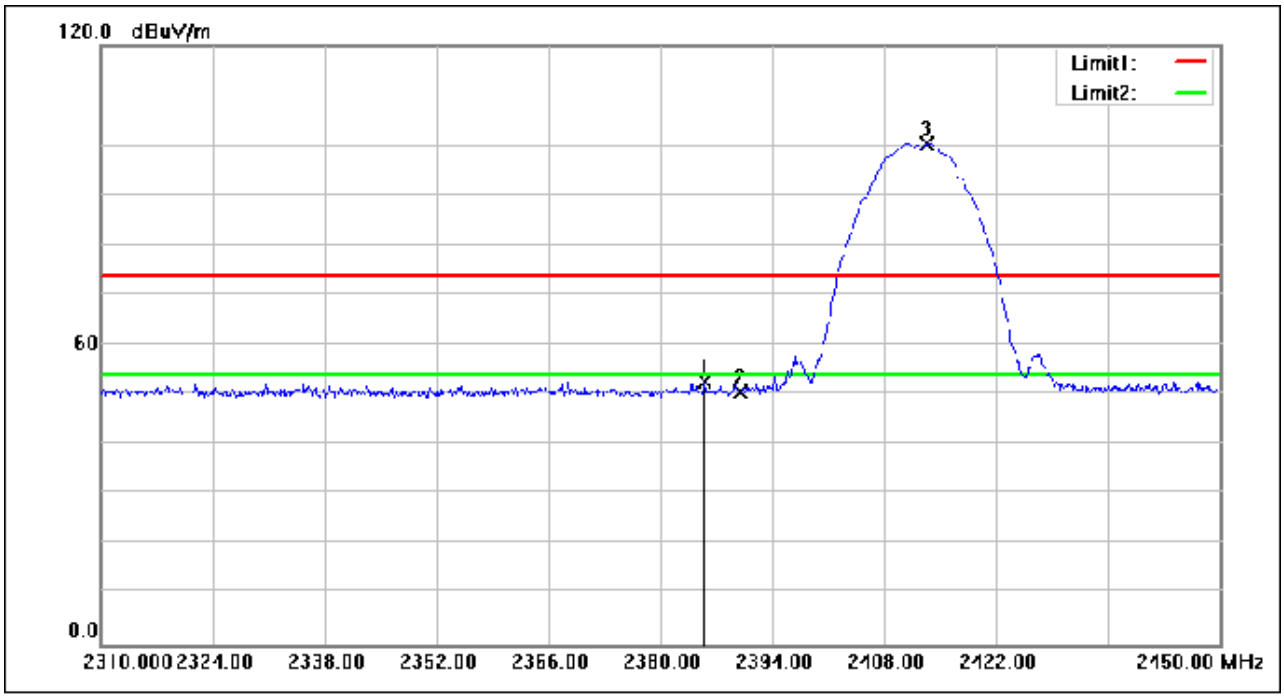
Remark 2: For frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

Test Mode: 02; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



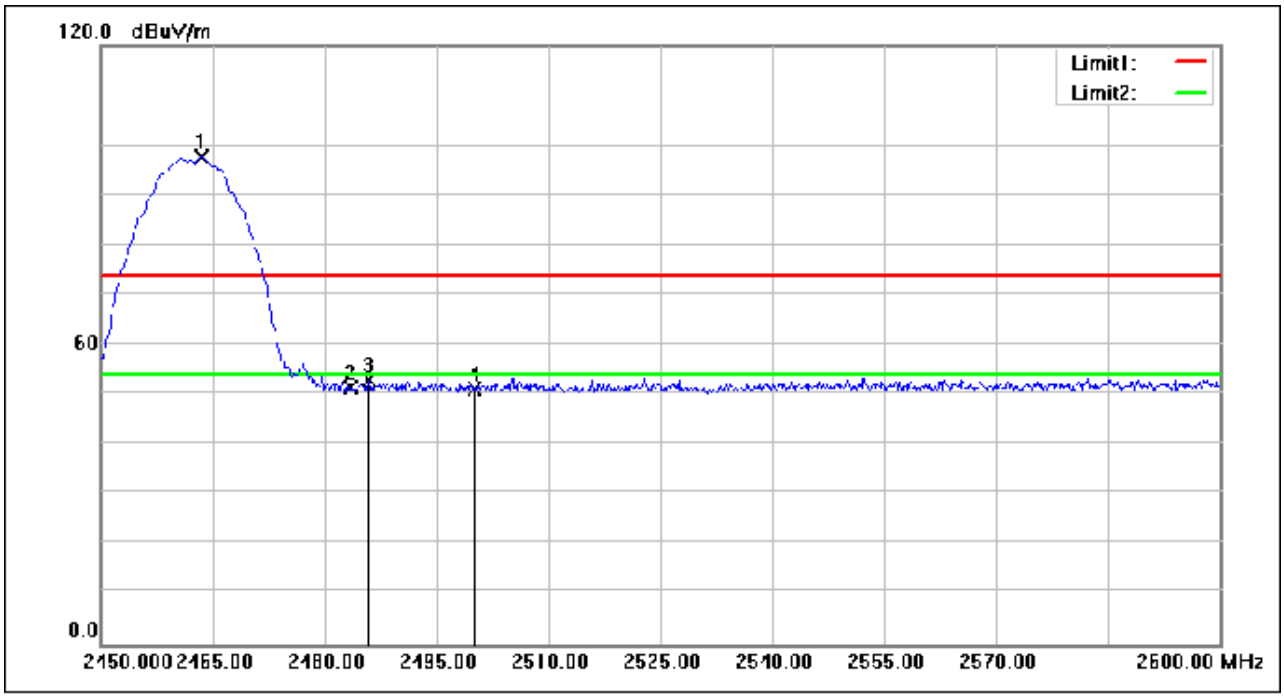
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.320	77.96	-24.73	53.23	74.00	-20.77	peak
2	2390.000	75.80	-24.71	51.09	74.00	-22.91	peak
3	2413.320	121.55	-24.60	96.95	74.00	22.95	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



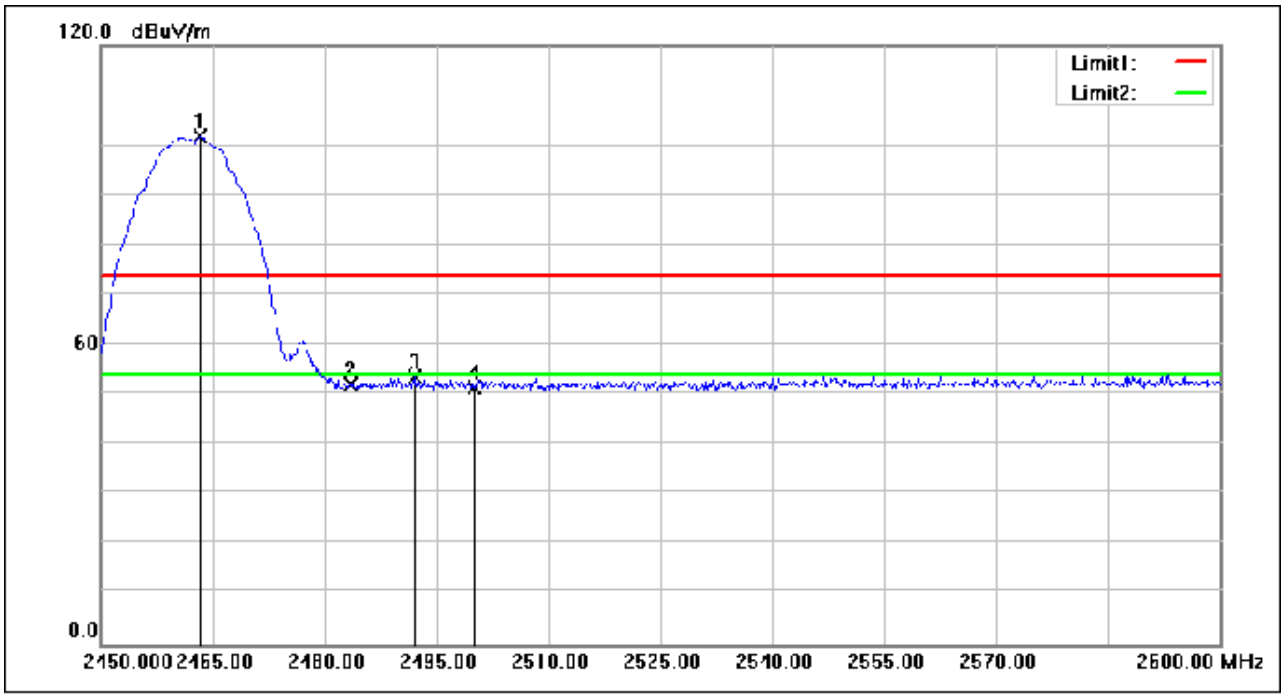
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.460	77.31	-24.73	52.58	74.00	-21.42	peak
2	2390.000	75.16	-24.71	50.45	74.00	-23.55	peak
3	2413.320	125.10	-24.60	100.50	74.00	26.50	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High



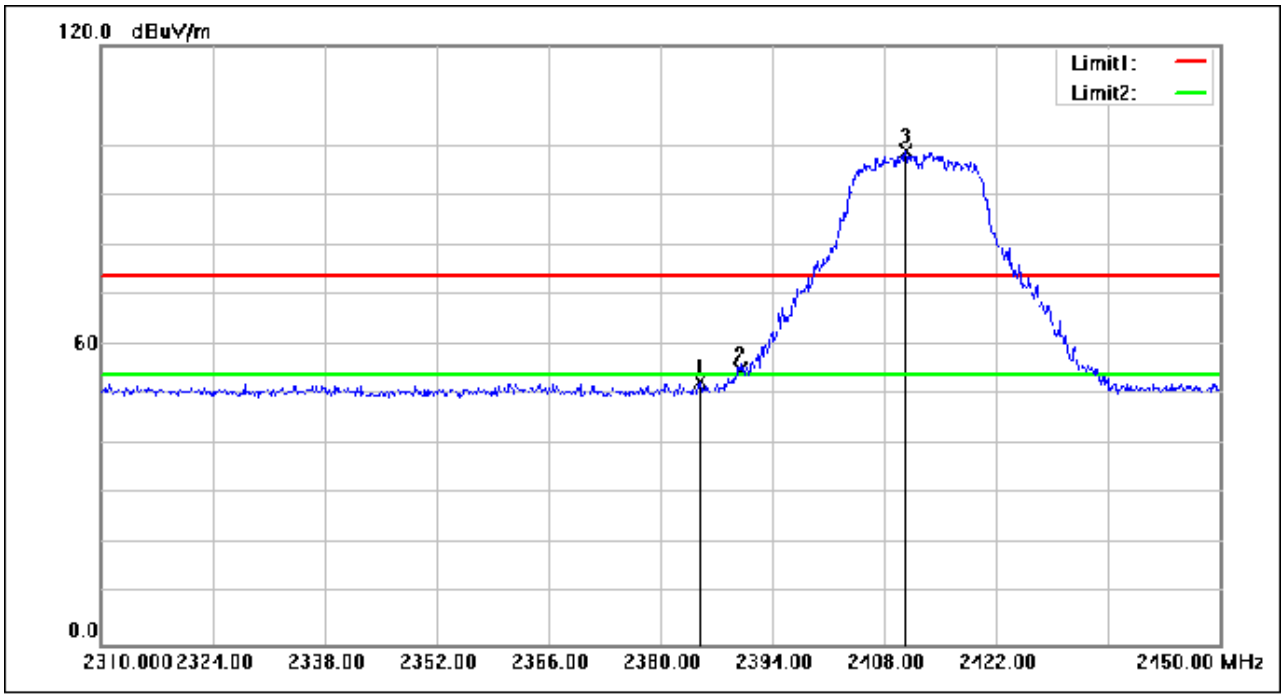
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.500	121.95	-24.37	97.58	74.00	23.58	peak
2	2483.500	75.61	-24.27	51.34	74.00	-22.66	peak
3	2485.850	77.32	-24.26	53.06	74.00	-20.94	peak
4	2500.000	75.27	-24.19	51.08	74.00	-22.92	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High



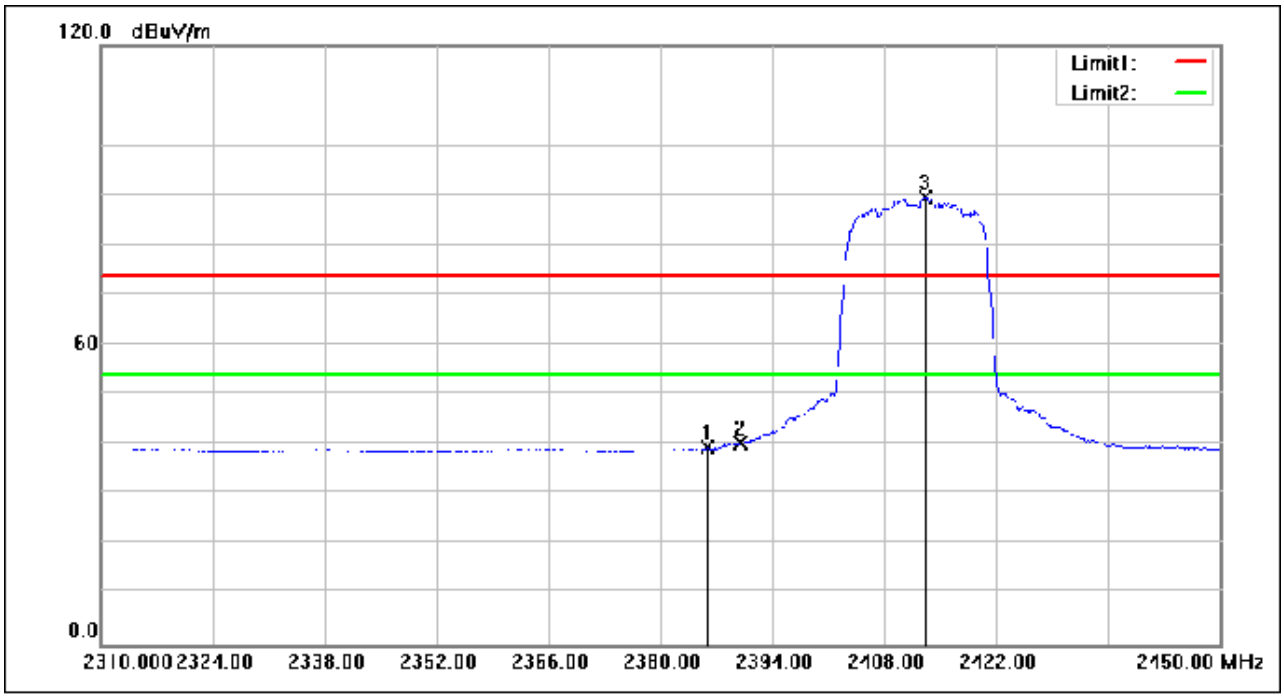
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.200	126.11	-24.37	101.74	74.00	27.74	peak
2	2483.500	76.42	-24.27	52.15	74.00	-21.85	peak
3	2492.000	77.90	-24.23	53.67	74.00	-20.33	peak
4	2500.000	75.67	-24.19	51.48	74.00	-22.52	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



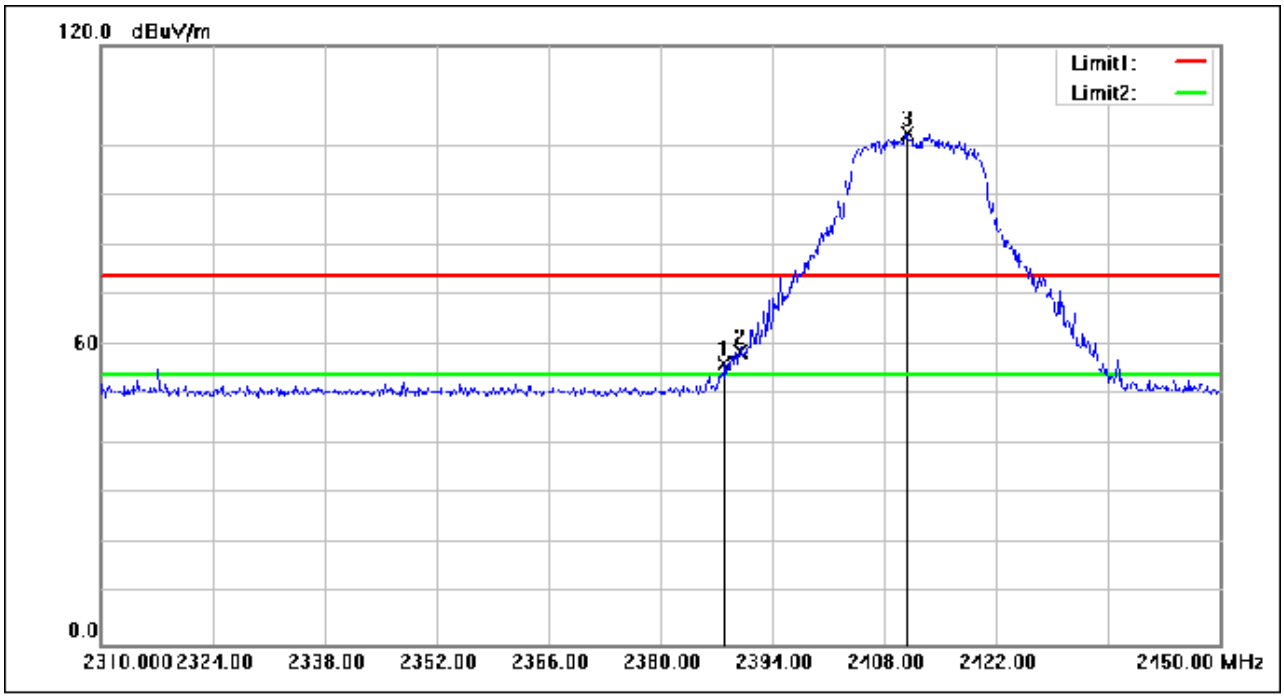
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2384.900	77.24	-24.73	52.51	74.00	-21.49	peak
2	2390.000	79.71	-24.71	55.00	74.00	-19.00	peak
3	2410.660	123.44	-24.61	98.83	74.00	24.83	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



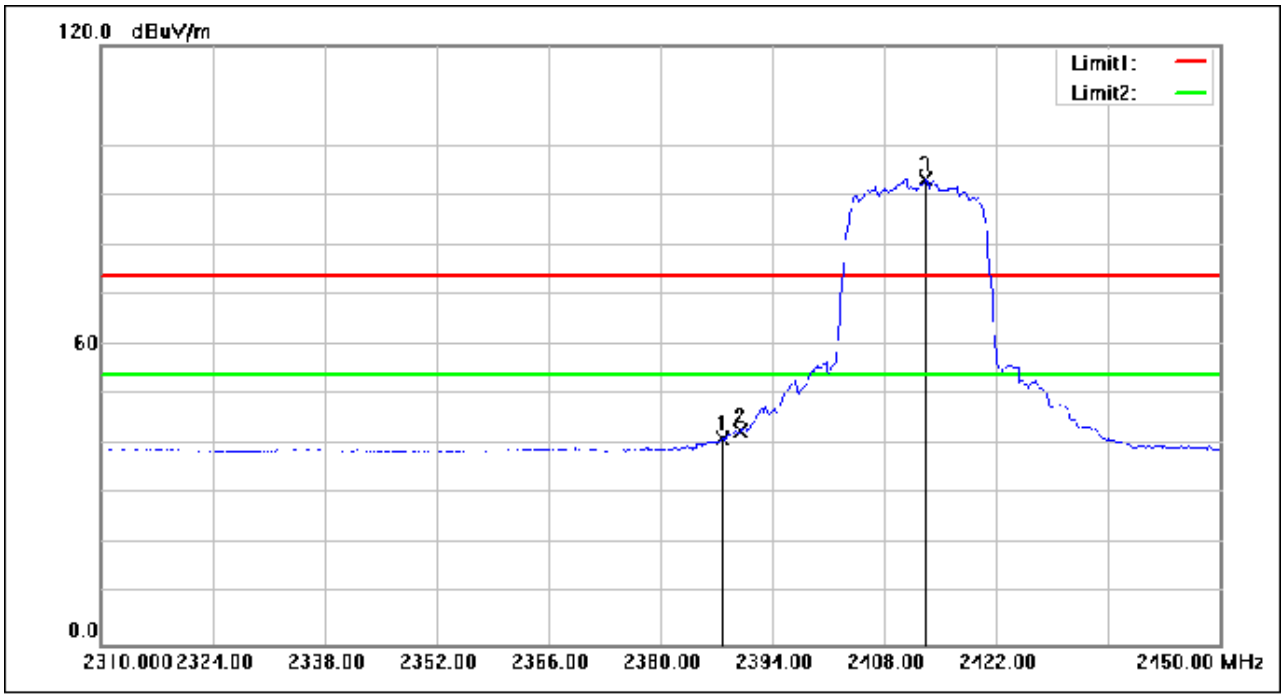
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.880	64.13	-24.72	39.41	54.00	-14.59	AVG
2	2390.000	64.98	-24.71	40.27	54.00	-13.73	AVG
3	2413.180	114.25	-24.60	89.65	54.00	35.65	AVG

Test Mode: 02; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



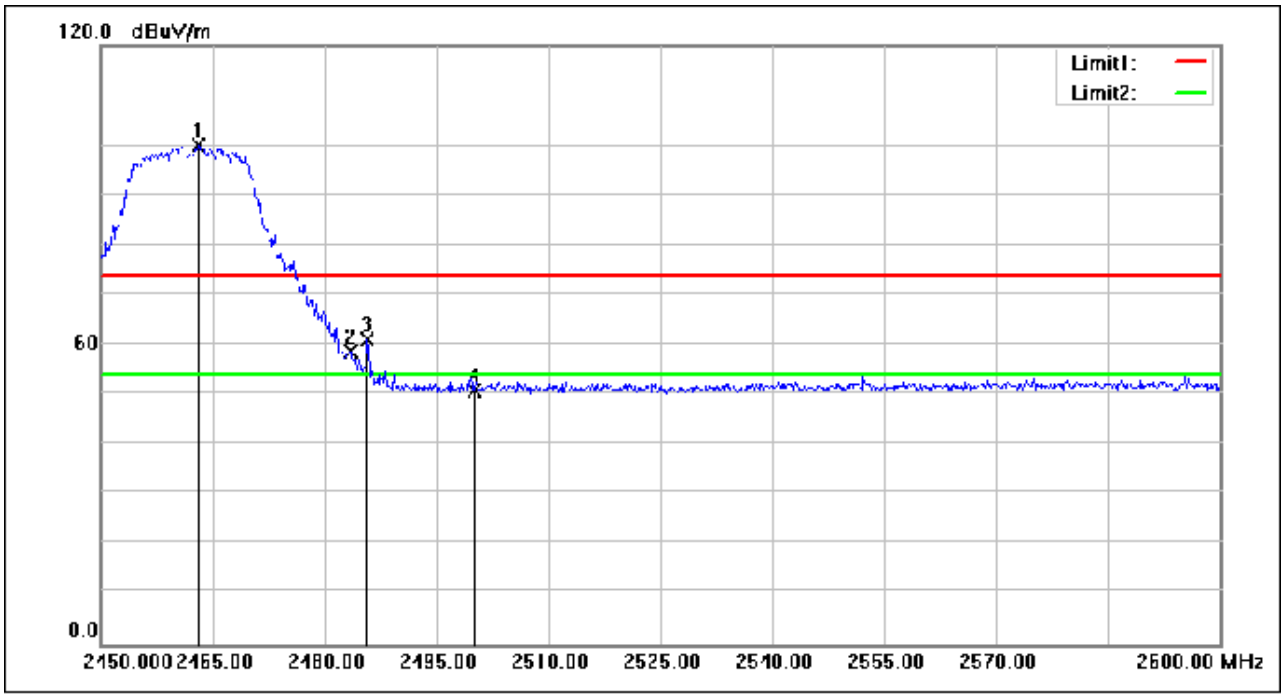
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.980	80.99	-24.72	56.27	74.00	-17.73	peak
2	2390.000	83.36	-24.71	58.65	74.00	-15.35	peak
3	2410.800	127.06	-24.61	102.45	74.00	28.45	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



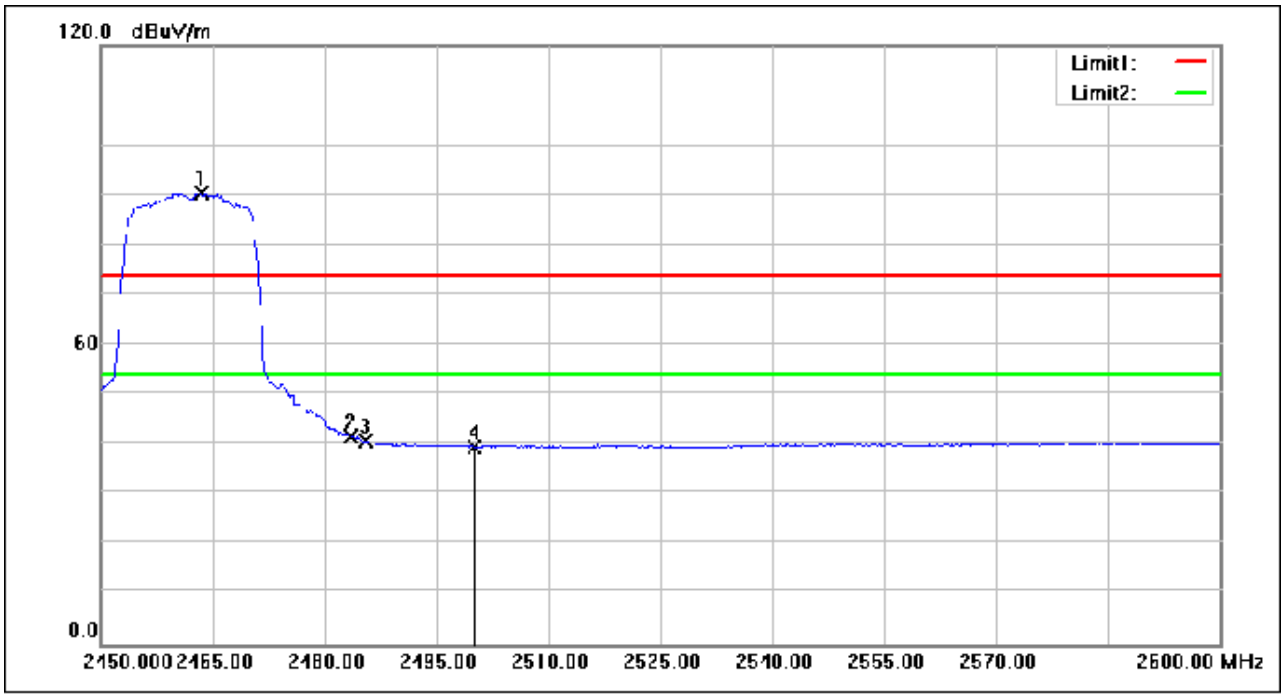
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.700	65.85	-24.72	41.13	54.00	-12.87	AVG
2	2390.000	67.60	-24.71	42.89	54.00	-11.11	AVG
3	2413.180	117.70	-24.60	93.10	54.00	39.10	AVG

Test Mode: 02; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:High



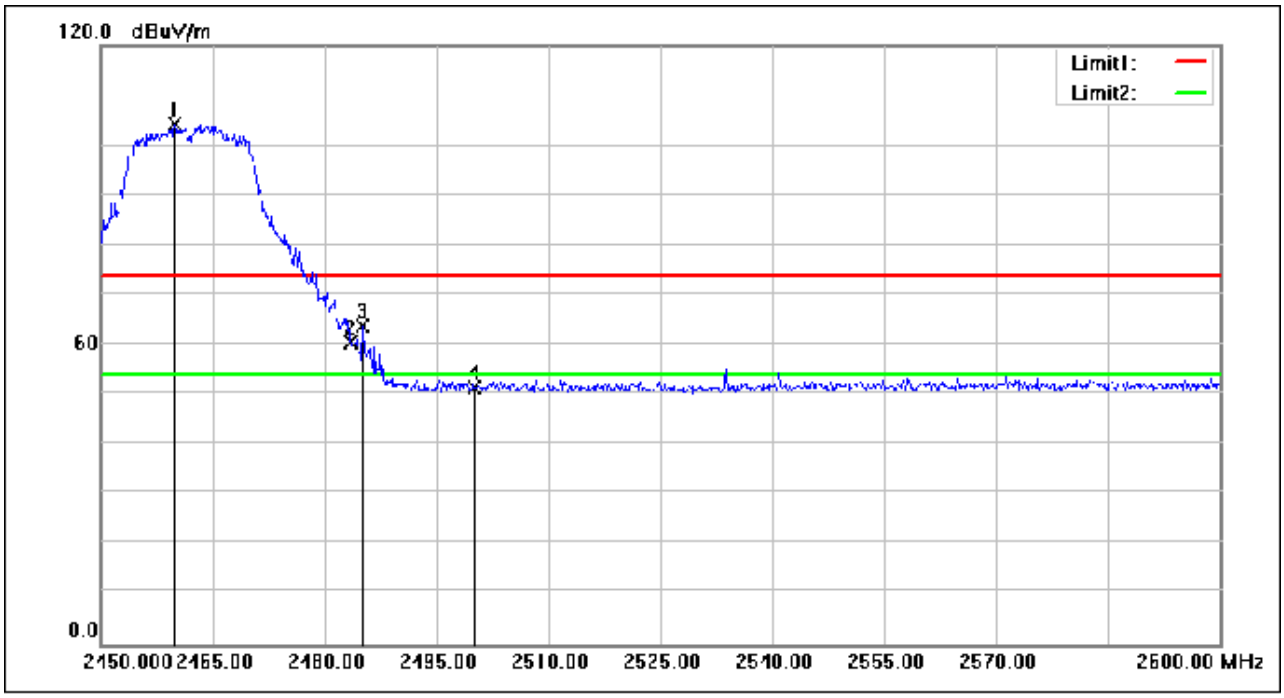
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.050	124.44	-24.37	100.07	74.00	26.07	peak
2	2483.500	82.83	-24.27	58.56	74.00	-15.44	peak
3	2485.700	85.25	-24.26	60.99	74.00	-13.01	peak
4	2500.000	75.11	-24.19	50.92	74.00	-23.08	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:High



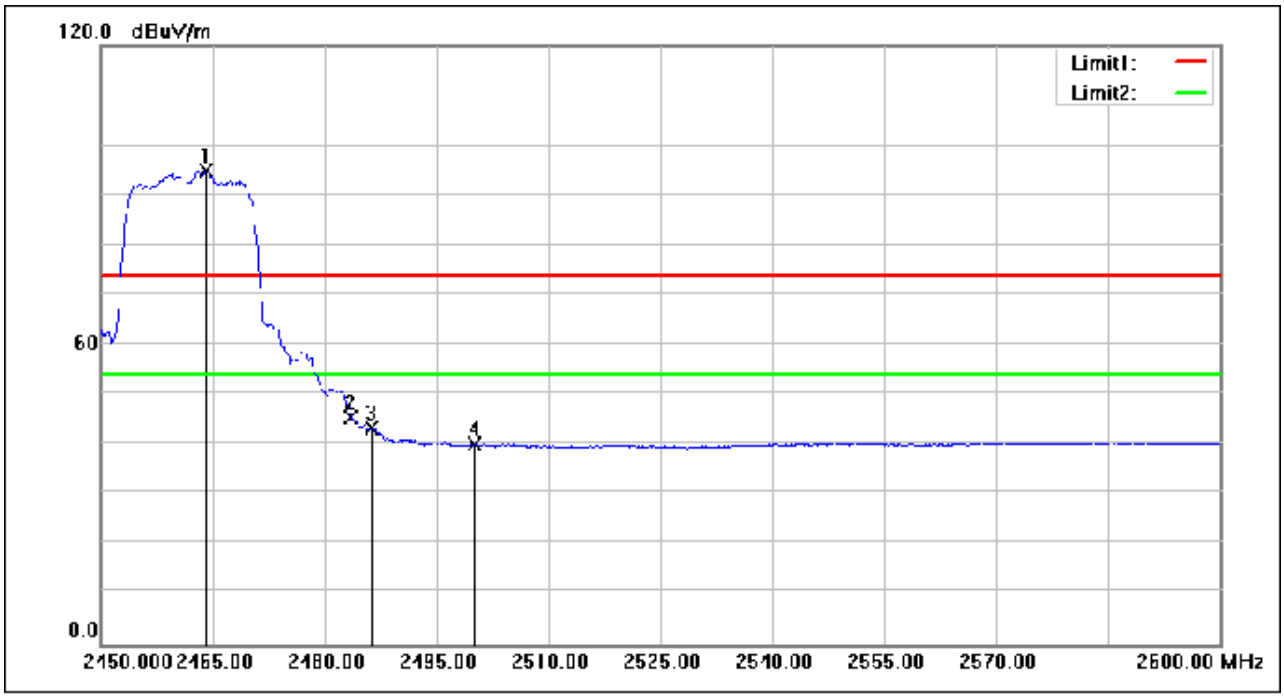
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.500	114.79	-24.37	90.42	54.00	36.42	AVG
2	2483.500	65.93	-24.27	41.66	54.00	-12.34	AVG
3	2485.550	64.93	-24.26	40.67	54.00	-13.33	AVG
4	2500.000	63.78	-24.19	39.59	54.00	-14.41	AVG

Test Mode: 02; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:High



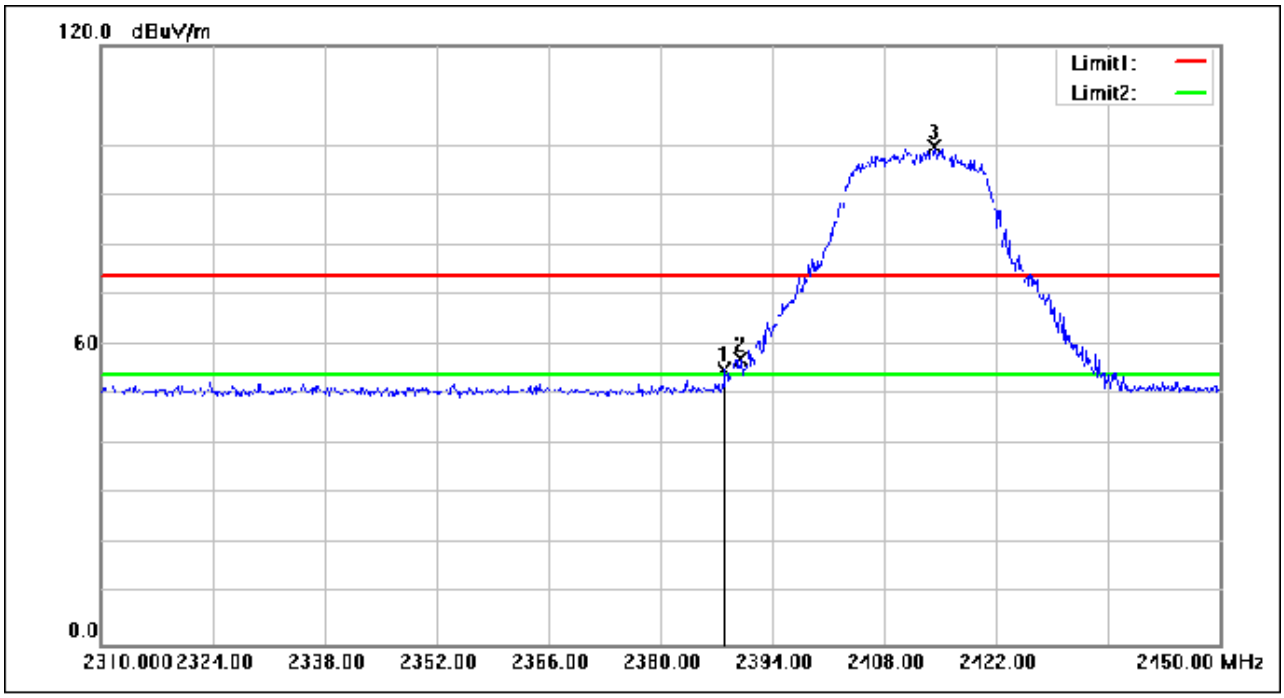
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2459.900	128.62	-24.38	104.24	74.00	30.24	peak
2	2483.500	84.71	-24.27	60.44	74.00	-13.56	peak
3	2485.100	87.99	-24.26	63.73	74.00	-10.27	peak
4	2500.000	75.75	-24.19	51.56	74.00	-22.44	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:High



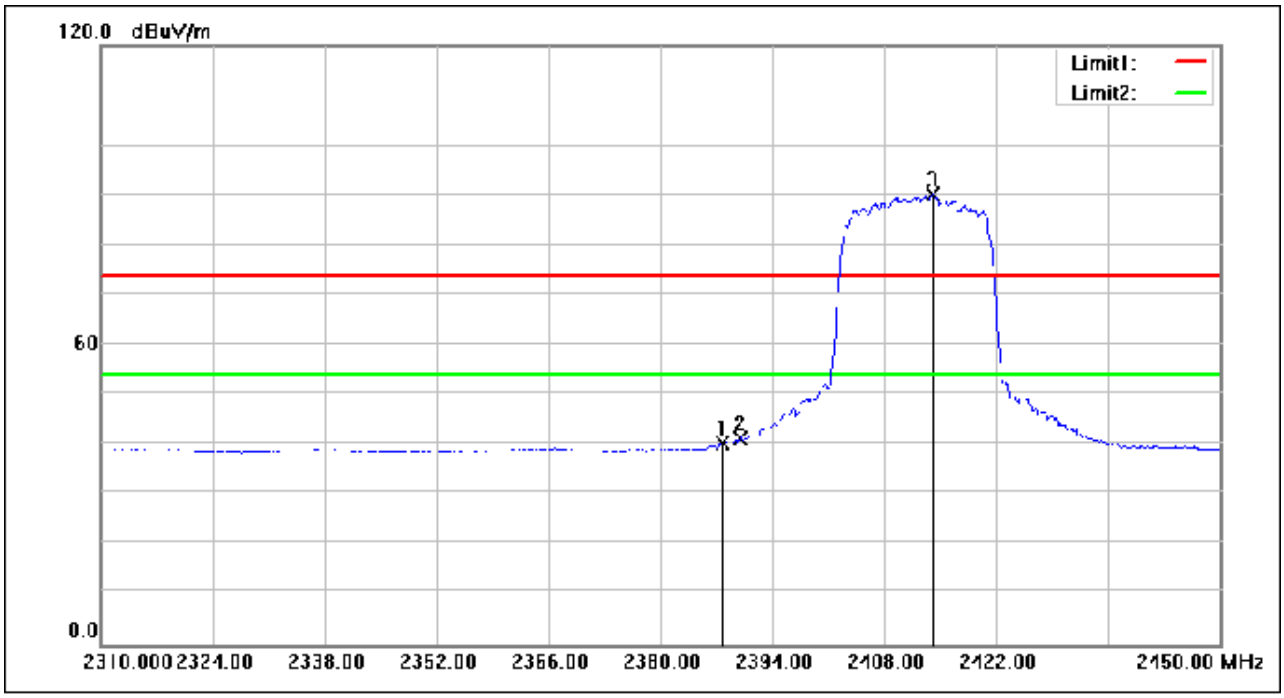
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2464.100	119.27	-24.36	94.91	54.00	40.91	AVG
2	2483.500	69.63	-24.27	45.36	54.00	-8.64	AVG
3	2486.300	67.70	-24.25	43.45	54.00	-10.55	AVG
4	2500.000	64.20	-24.19	40.01	54.00	-13.99	AVG

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



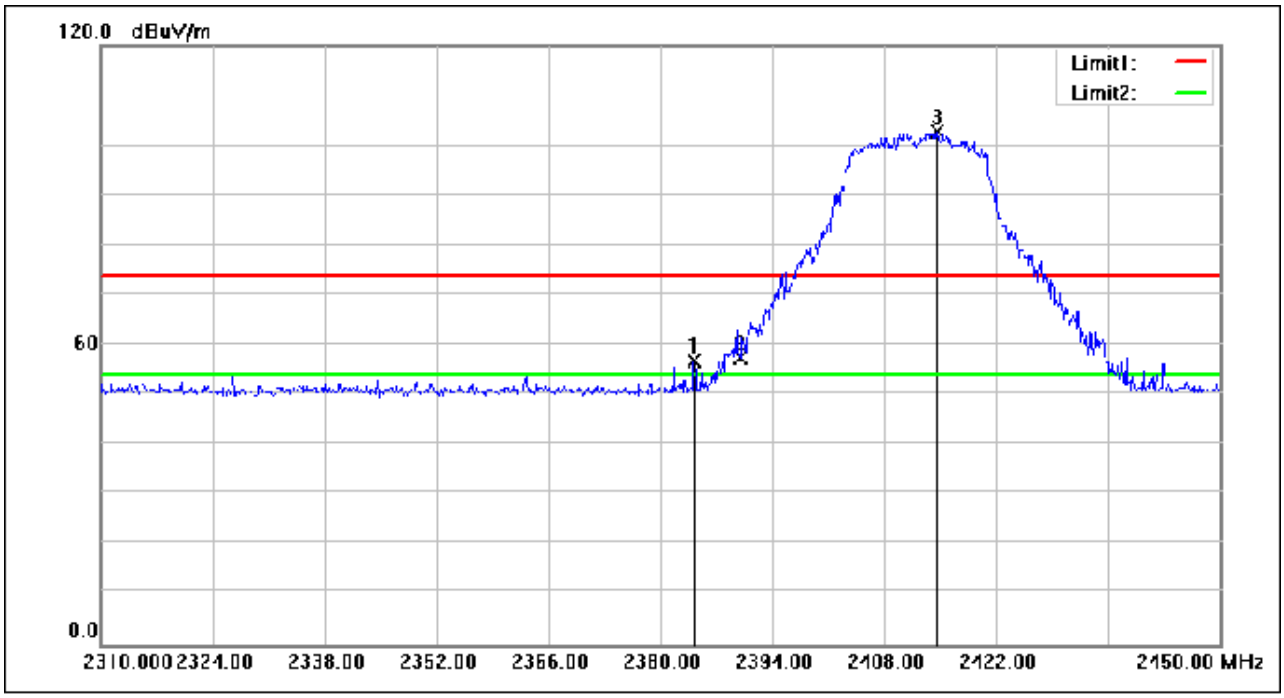
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.980	79.67	-24.72	54.95	74.00	-19.05	peak
2	2390.000	81.93	-24.71	57.22	74.00	-16.78	peak
3	2414.160	124.26	-24.59	99.67	74.00	25.67	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



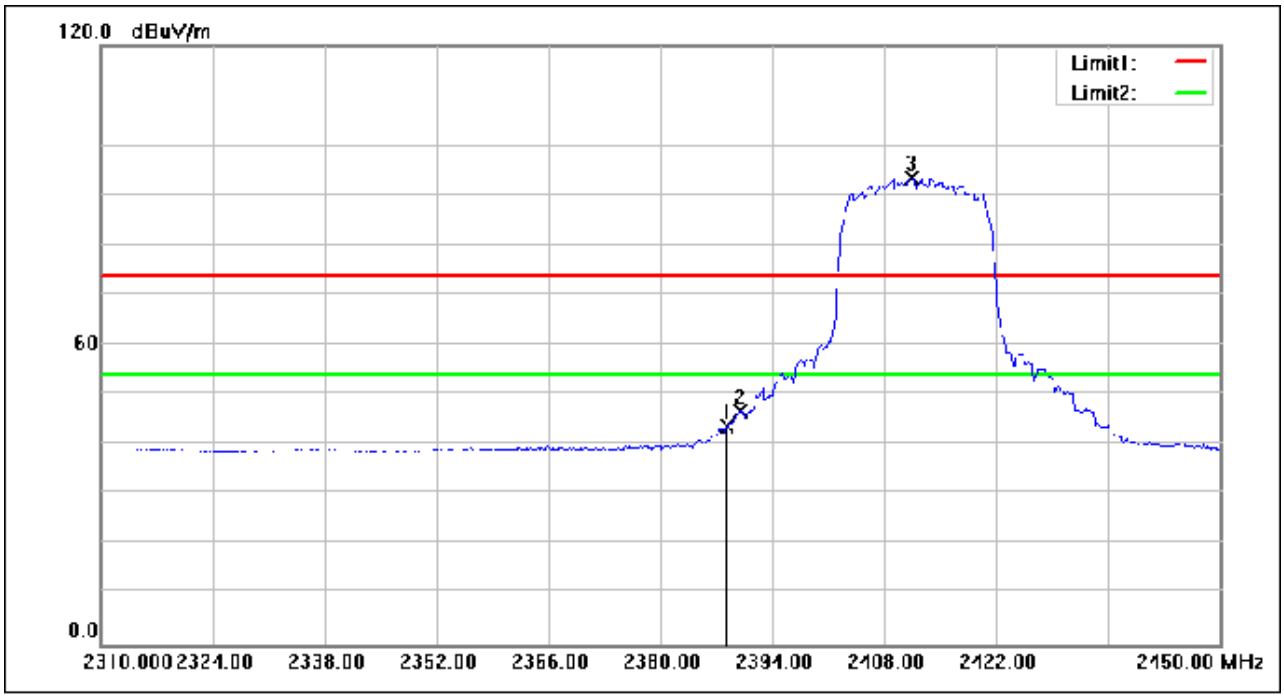
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.700	64.95	-24.72	40.23	54.00	-13.77	AVG
2	2390.000	66.02	-24.71	41.31	54.00	-12.69	AVG
3	2414.020	114.77	-24.59	90.18	54.00	36.18	AVG

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



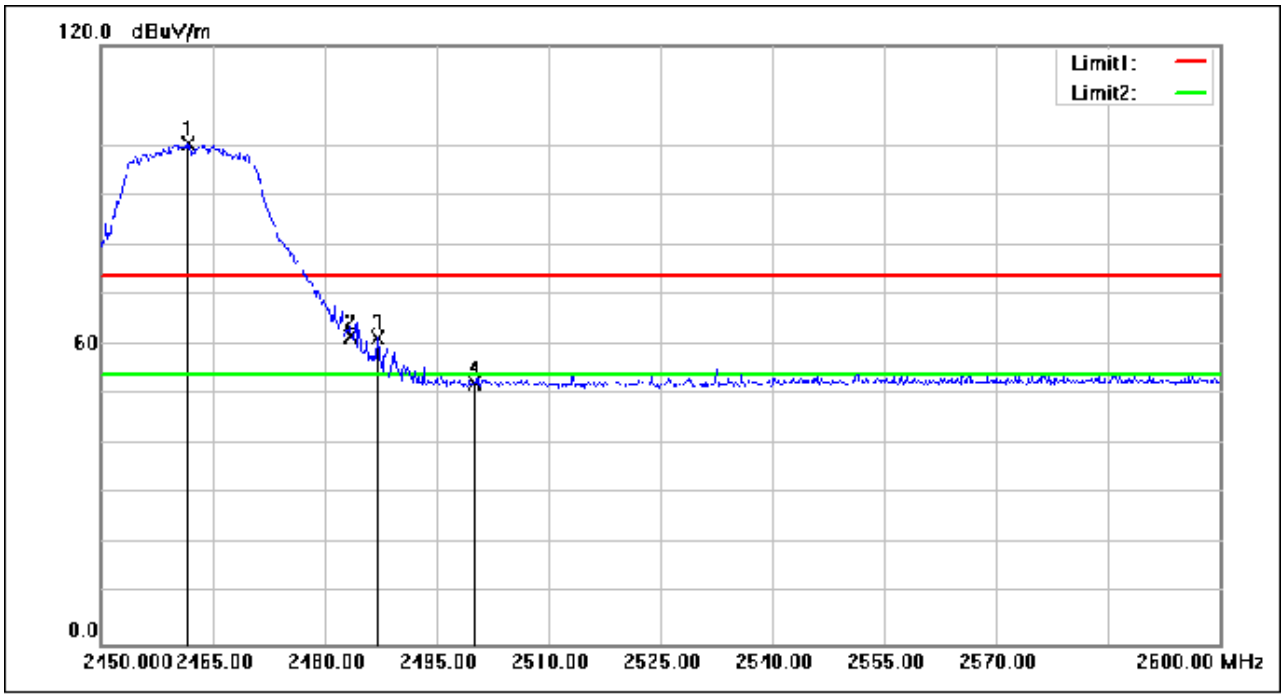
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2384.200	81.57	-24.73	56.84	74.00	-17.16	peak
2	2390.000	82.12	-24.71	57.41	74.00	-16.59	peak
3	2414.580	127.48	-24.59	102.89	74.00	28.89	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



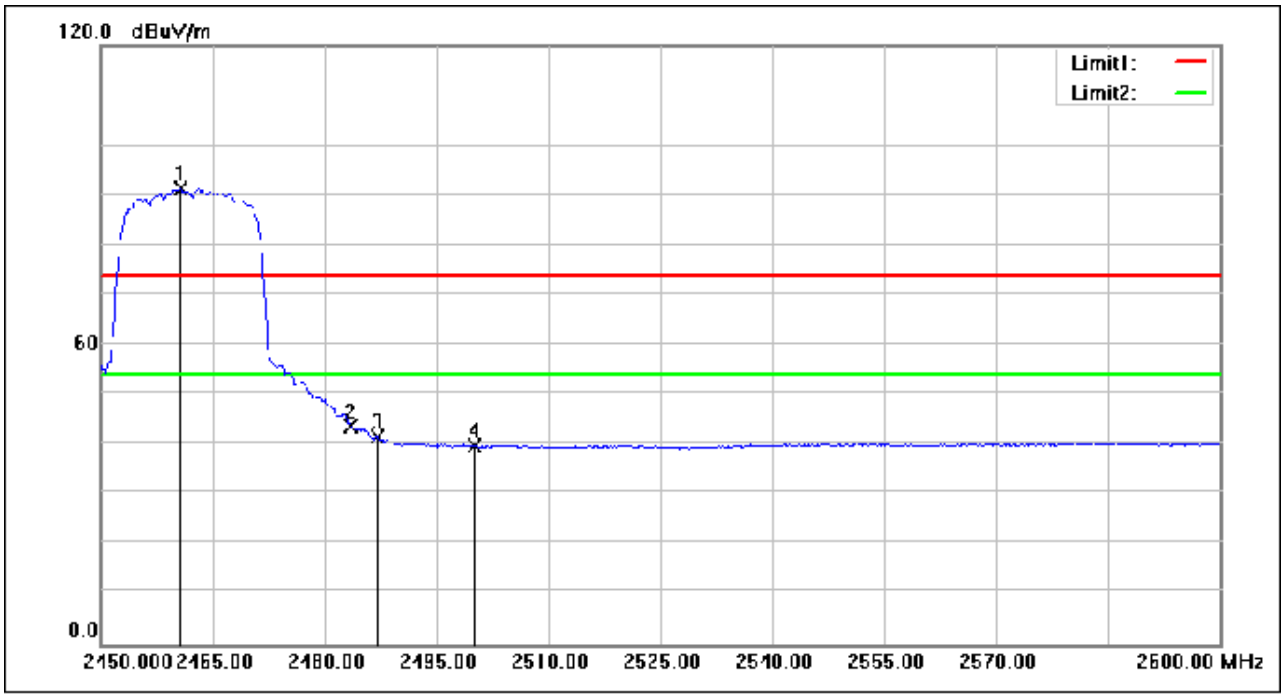
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.260	68.36	-24.72	43.64	54.00	-10.36	AVG
2	2390.000	71.34	-24.71	46.63	54.00	-7.37	AVG
3	2411.360	117.96	-24.60	93.36	54.00	39.36	AVG

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2461.700	124.71	-24.37	100.34	74.00	26.34	peak
2	2483.500	86.06	-24.27	61.79	74.00	-12.21	peak
3	2487.050	85.66	-24.25	61.41	74.00	-12.59	peak
4	2500.000	76.69	-24.19	52.50	74.00	-21.50	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High

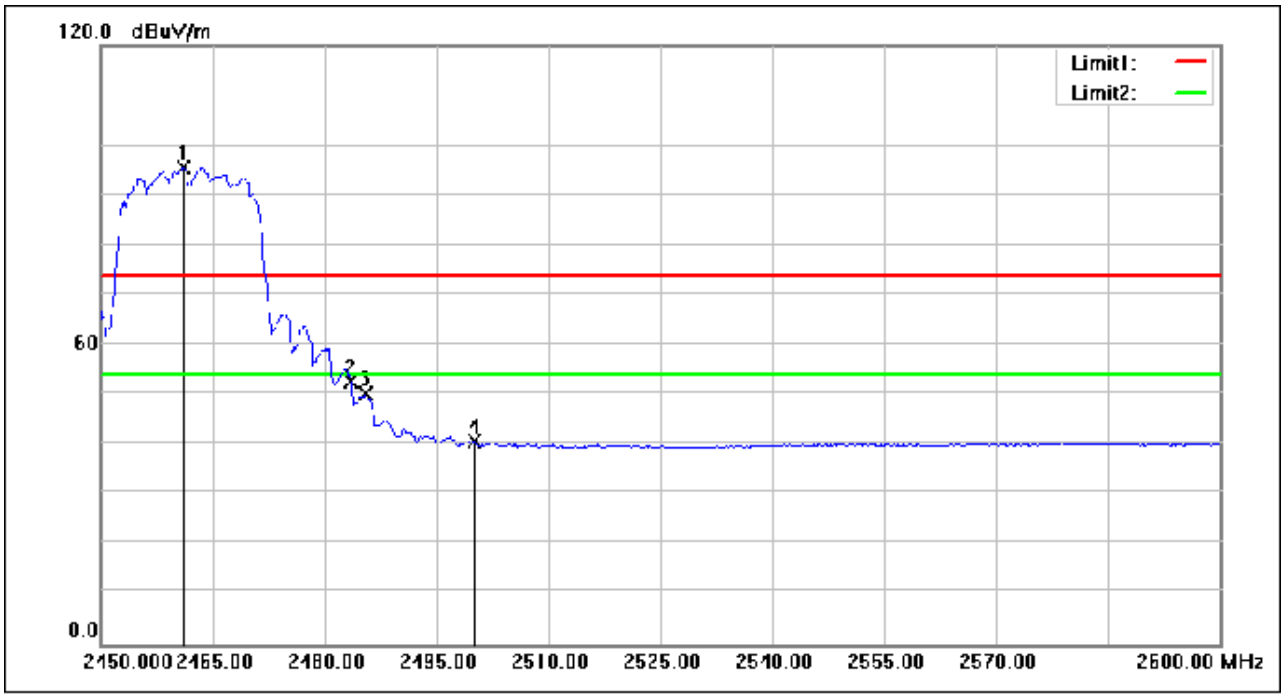


No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2460.650	115.82	-24.38	91.44	54.00	37.44	AVG
2	2483.500	68.05	-24.27	43.78	54.00	-10.22	AVG
3	2487.050	65.88	-24.25	41.63	54.00	-12.37	AVG
4	2500.000	63.80	-24.19	39.61	54.00	-14.39	AVG

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High

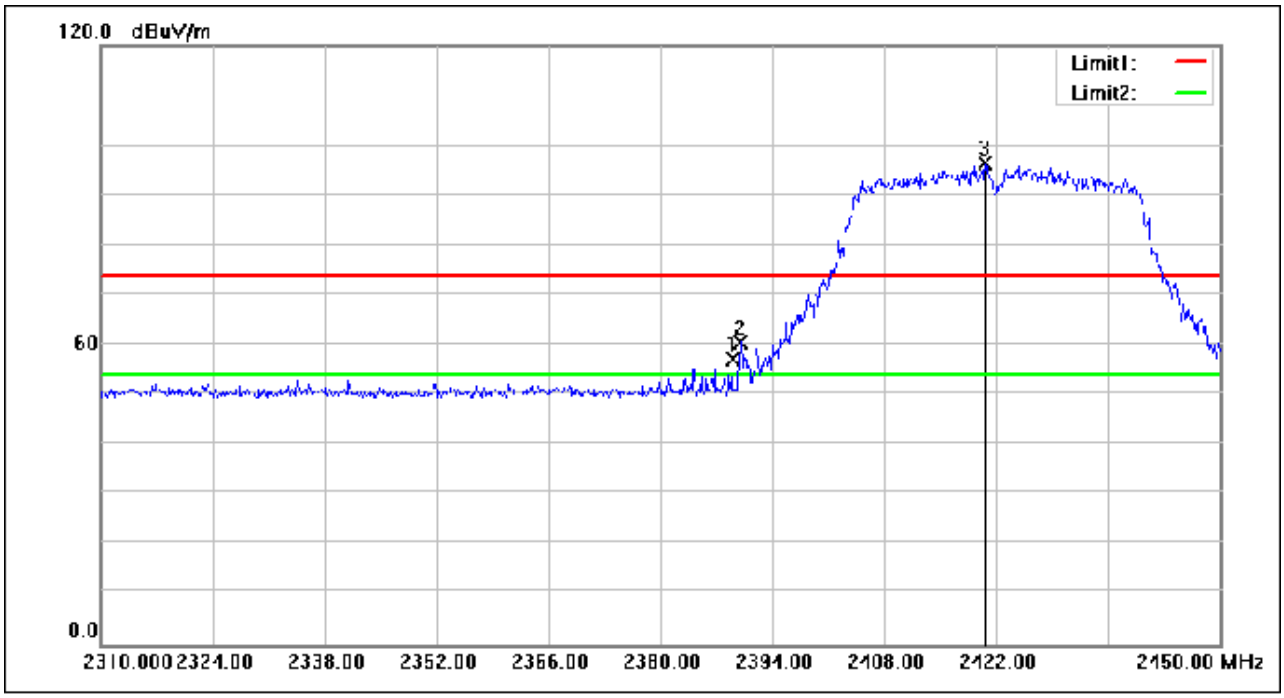
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.500	129.17	-24.37	104.80	74.00	30.80	peak
2	2483.500	89.93	-24.27	65.66	74.00	-8.34	peak
3	2484.050	96.63	-24.26	72.37	74.00	-1.63	peak
4	2500.000	75.54	-24.19	51.35	74.00	-22.65	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



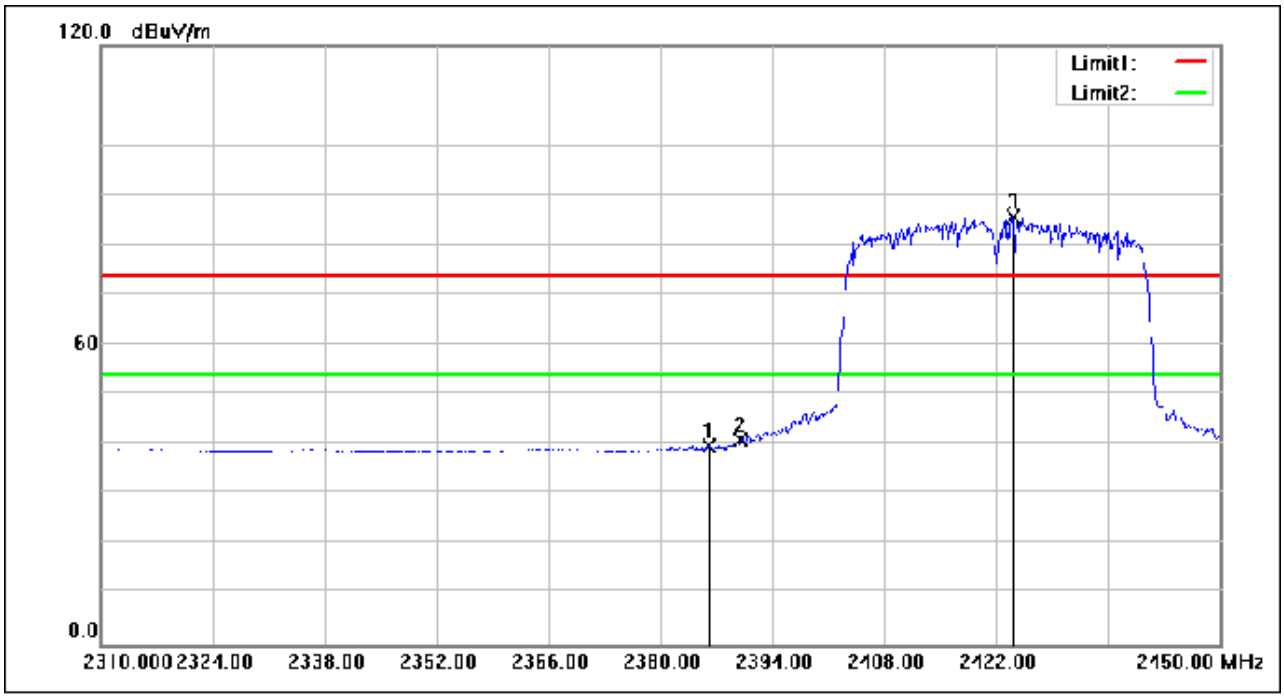
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2461.100	120.05	-24.38	95.67	54.00	41.67	AVG
2	2483.500	76.90	-24.27	52.63	54.00	-1.37	AVG
3	2485.400	74.39	-24.26	50.13	54.00	-3.87	AVG
4	2500.000	64.74	-24.19	40.55	54.00	-13.45	AVG

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



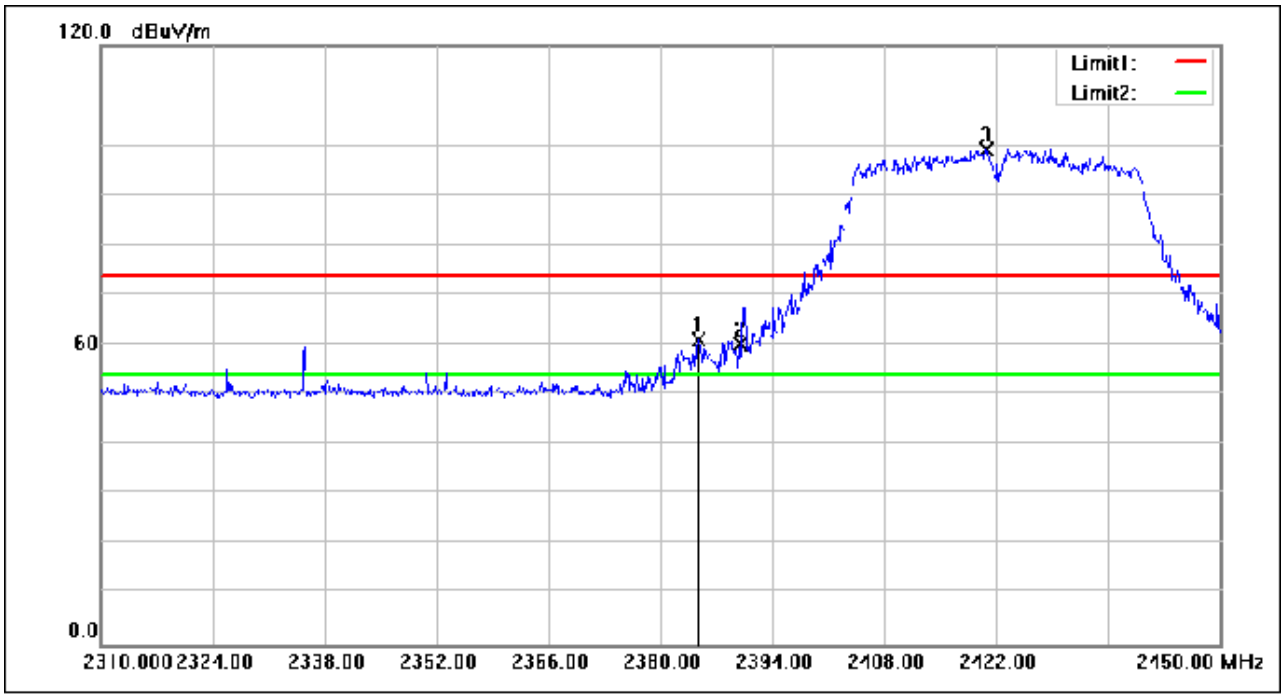
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.960	81.95	-24.71	57.24	74.00	-16.76	peak
2	2390.000	85.10	-24.71	60.39	74.00	-13.61	peak
3	2420.600	120.95	-24.57	96.38	74.00	22.38	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



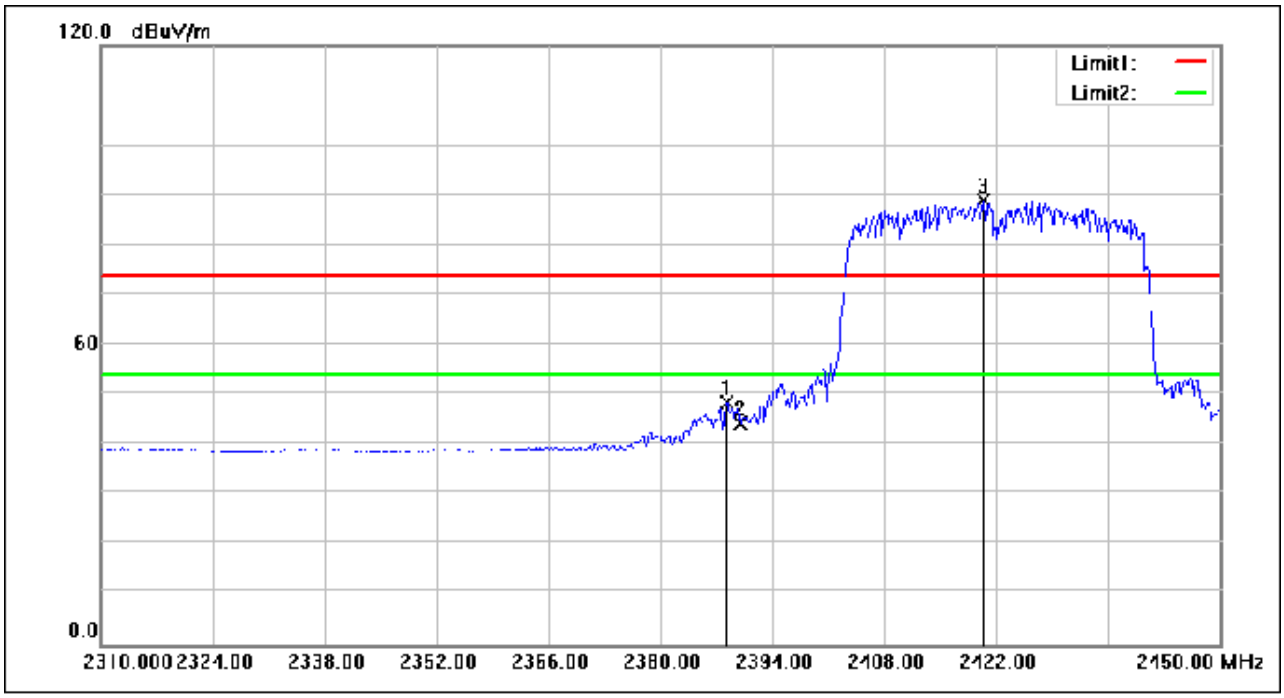
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2386.020	64.52	-24.72	39.80	54.00	-14.20	AVG
2	2390.000	65.53	-24.71	40.82	54.00	-13.18	AVG
3	2424.100	110.31	-24.54	85.77	54.00	31.77	AVG

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



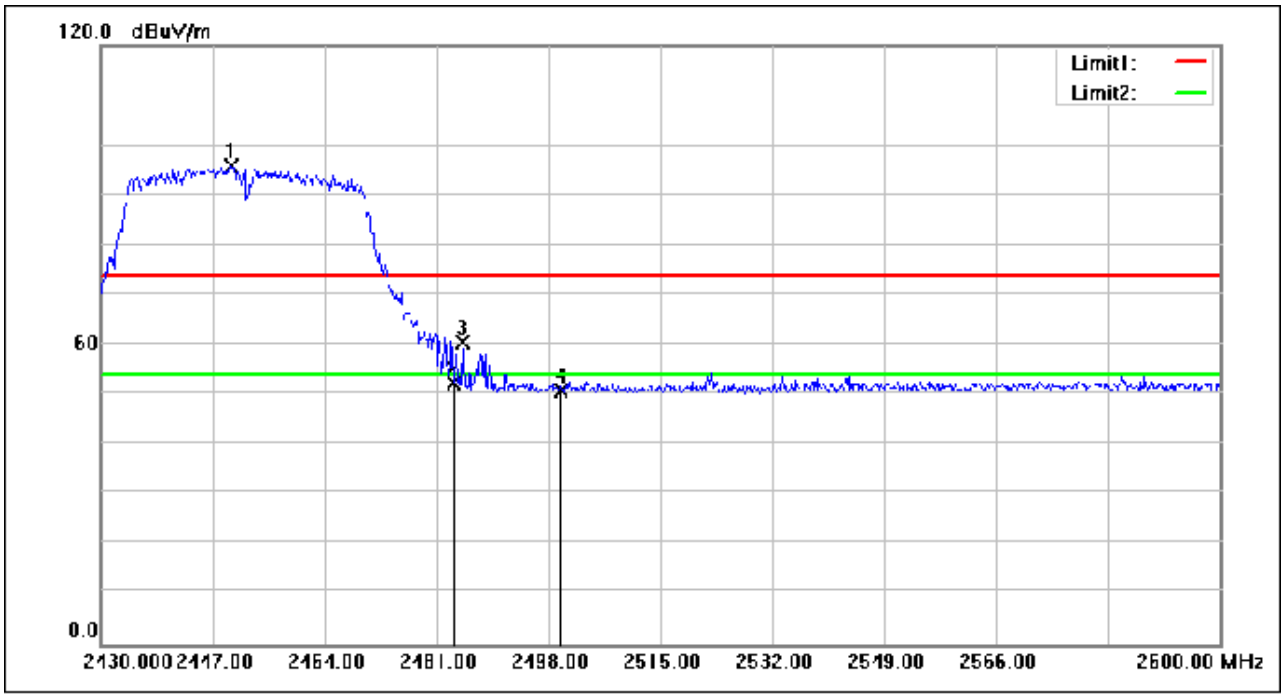
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2384.760	85.69	-24.73	60.96	74.00	-13.04	peak
2	2390.000	84.72	-24.71	60.01	74.00	-13.99	peak
3	2420.740	123.87	-24.57	99.30	74.00	25.30	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



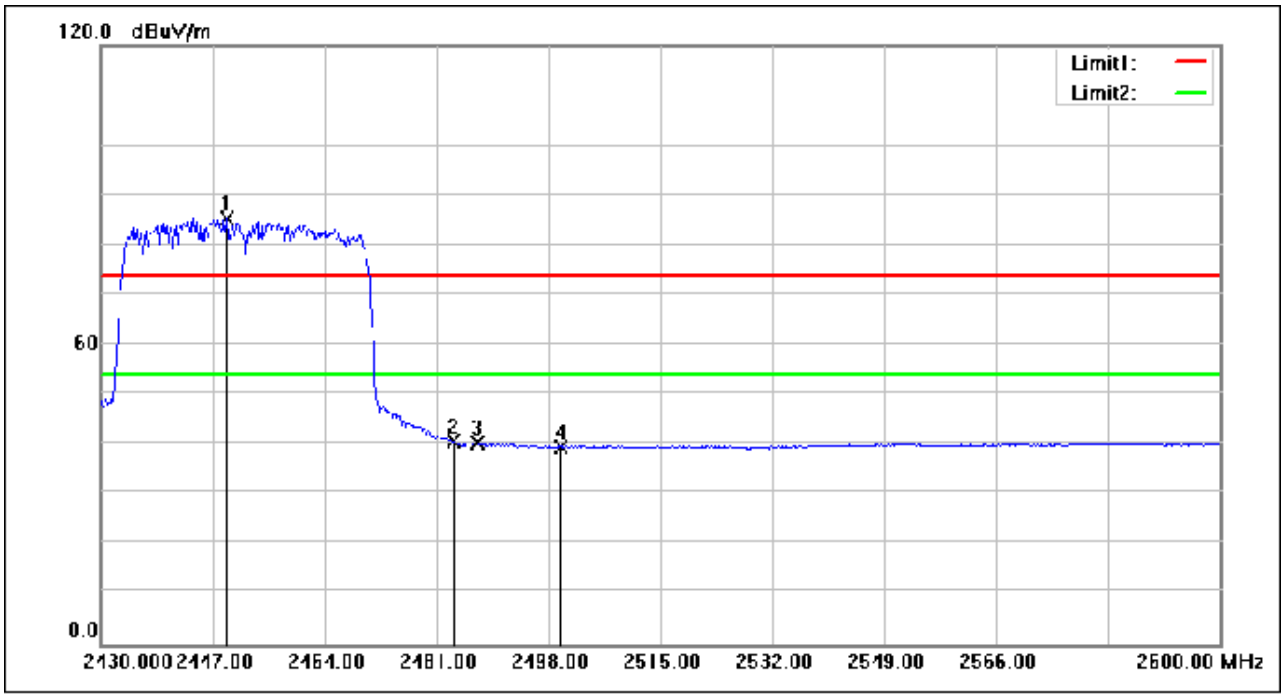
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.260	73.23	-24.72	48.51	54.00	-5.49	AVG
2	2390.000	68.87	-24.71	44.16	54.00	-9.84	AVG
3	2420.460	113.54	-24.57	88.97	54.00	34.97	AVG

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



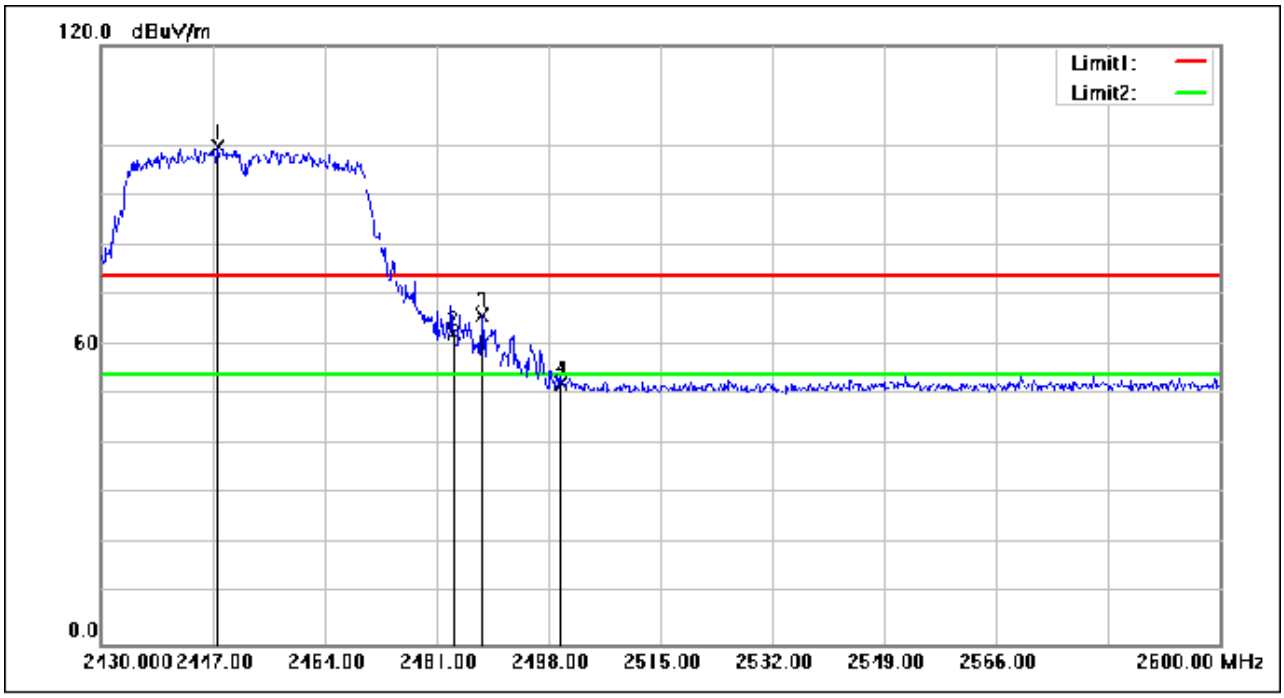
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2449.720	120.37	-24.43	95.94	74.00	21.94	peak
2	2483.500	76.72	-24.27	52.45	74.00	-21.55	peak
3	2484.910	84.62	-24.26	60.36	74.00	-13.64	peak
4	2500.000	75.19	-24.19	51.00	74.00	-23.00	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



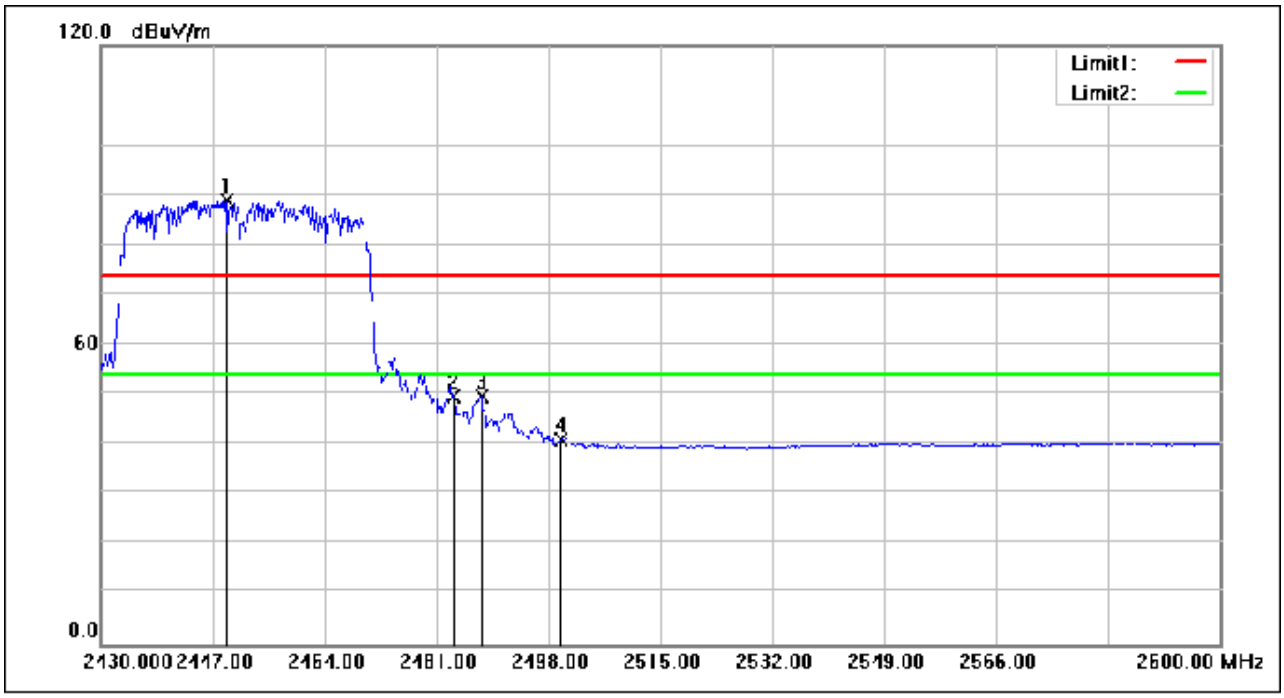
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2449.210	109.73	-24.43	85.30	54.00	31.30	AVG
2	2483.500	64.96	-24.27	40.69	54.00	-13.31	AVG
3	2487.120	64.75	-24.25	40.50	54.00	-13.50	AVG
4	2500.000	63.76	-24.19	39.57	54.00	-14.43	AVG

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



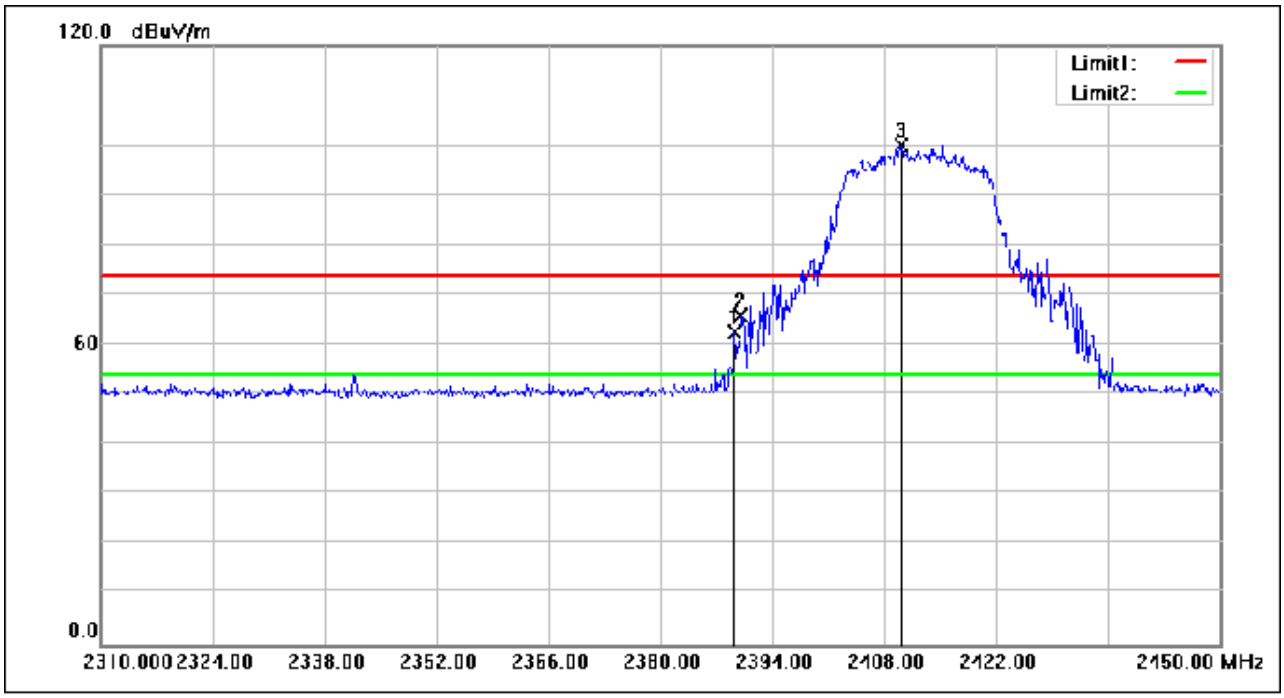
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2447.850	124.23	-24.44	99.79	74.00	25.79	peak
2	2483.500	86.40	-24.27	62.13	74.00	-11.87	peak
3	2487.800	90.21	-24.25	65.96	74.00	-8.04	peak
4	2500.000	76.59	-24.19	52.40	74.00	-21.60	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



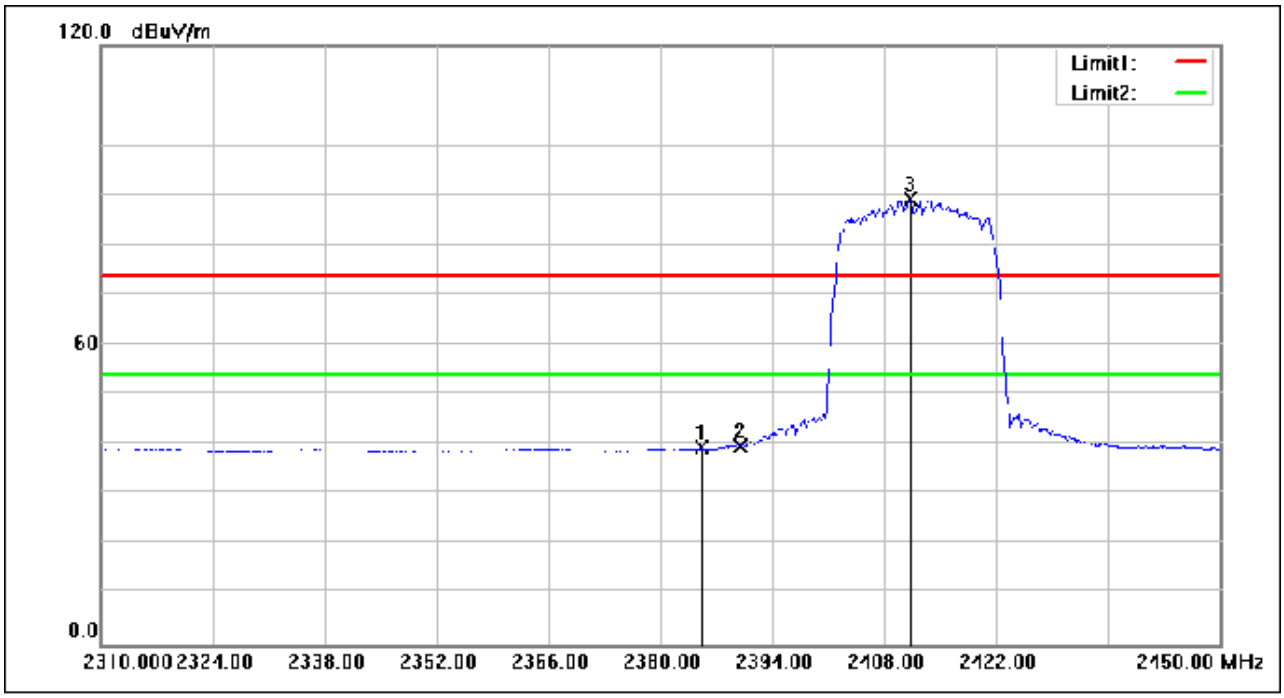
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2449.040	113.50	-24.43	89.07	54.00	35.07	AVG
2	2483.500	73.89	-24.27	49.62	54.00	-4.38	AVG
3	2487.800	74.00	-24.25	49.75	54.00	-4.25	AVG
4	2500.000	65.29	-24.19	41.10	54.00	-12.90	AVG

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



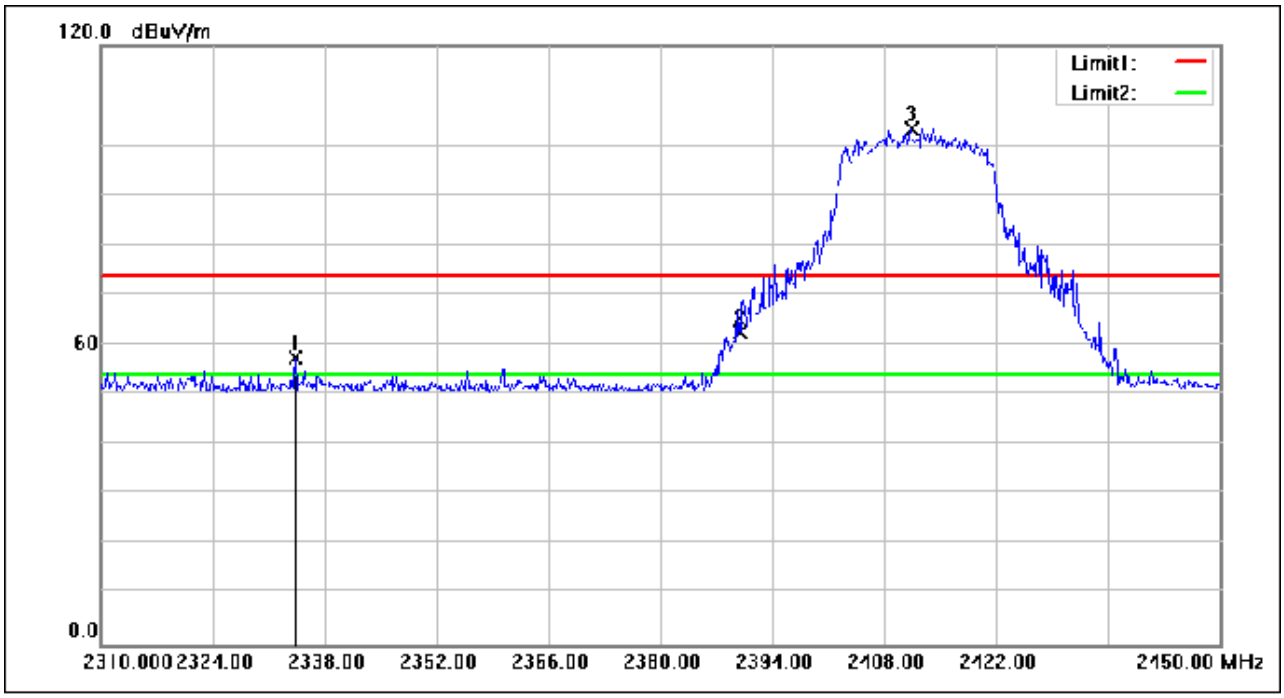
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.240	87.16	-24.71	62.45	74.00	-11.55	peak
2	2390.000	90.56	-24.71	65.85	74.00	-8.15	peak
3	2410.100	124.77	-24.61	100.16	74.00	26.16	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



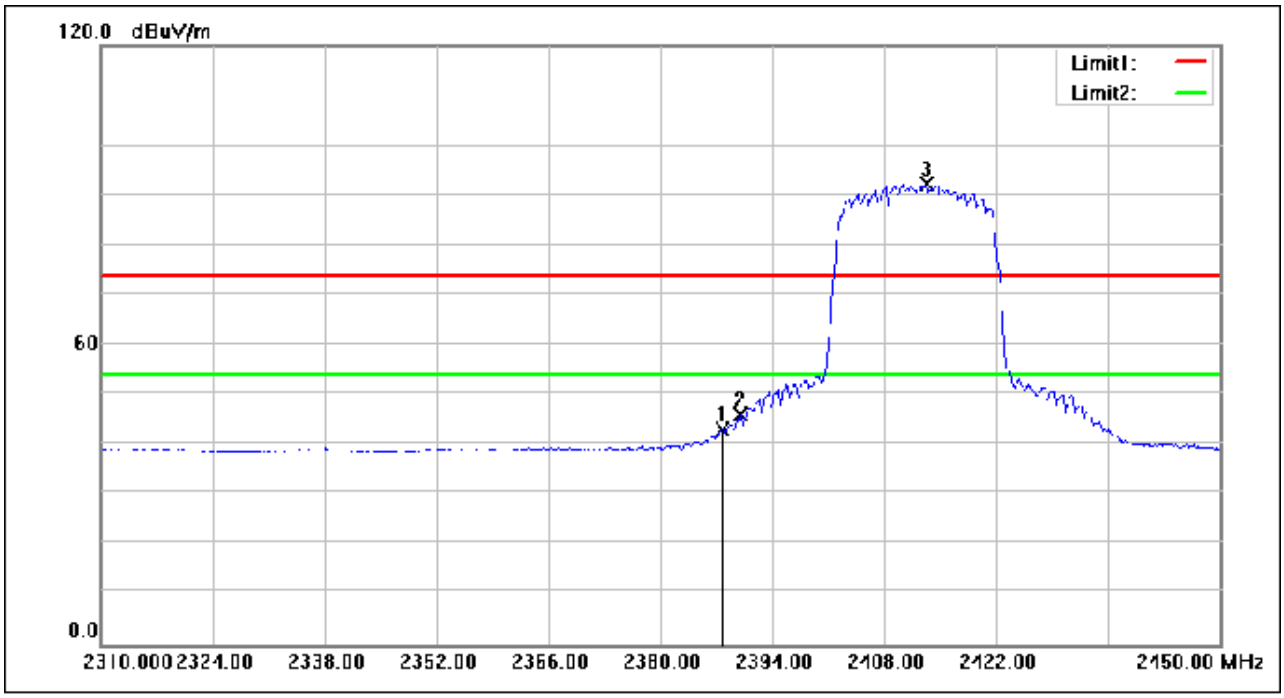
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2385.180	64.06	-24.73	39.33	54.00	-14.67	AVG
2	2390.000	64.47	-24.71	39.76	54.00	-14.24	AVG
3	2411.220	113.82	-24.60	89.22	54.00	35.22	AVG

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2334.360	82.40	-24.96	57.44	74.00	-16.56	peak
2	2390.000	87.15	-24.71	62.44	74.00	-11.56	peak
3	2411.360	127.95	-24.60	103.35	74.00	29.35	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low

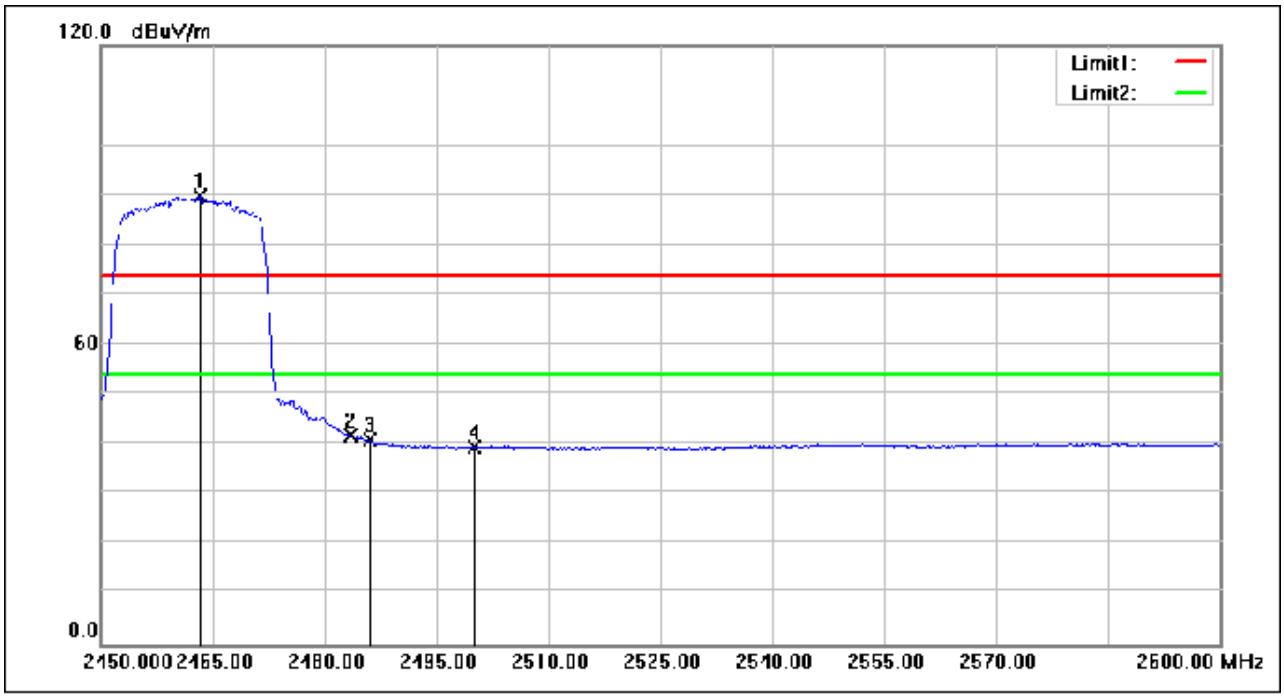


No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.700	67.63	-24.72	42.91	54.00	-11.09	AVG
2	2390.000	70.65	-24.71	45.94	54.00	-8.06	AVG
3	2413.320	116.76	-24.60	92.16	54.00	38.16	AVG

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High

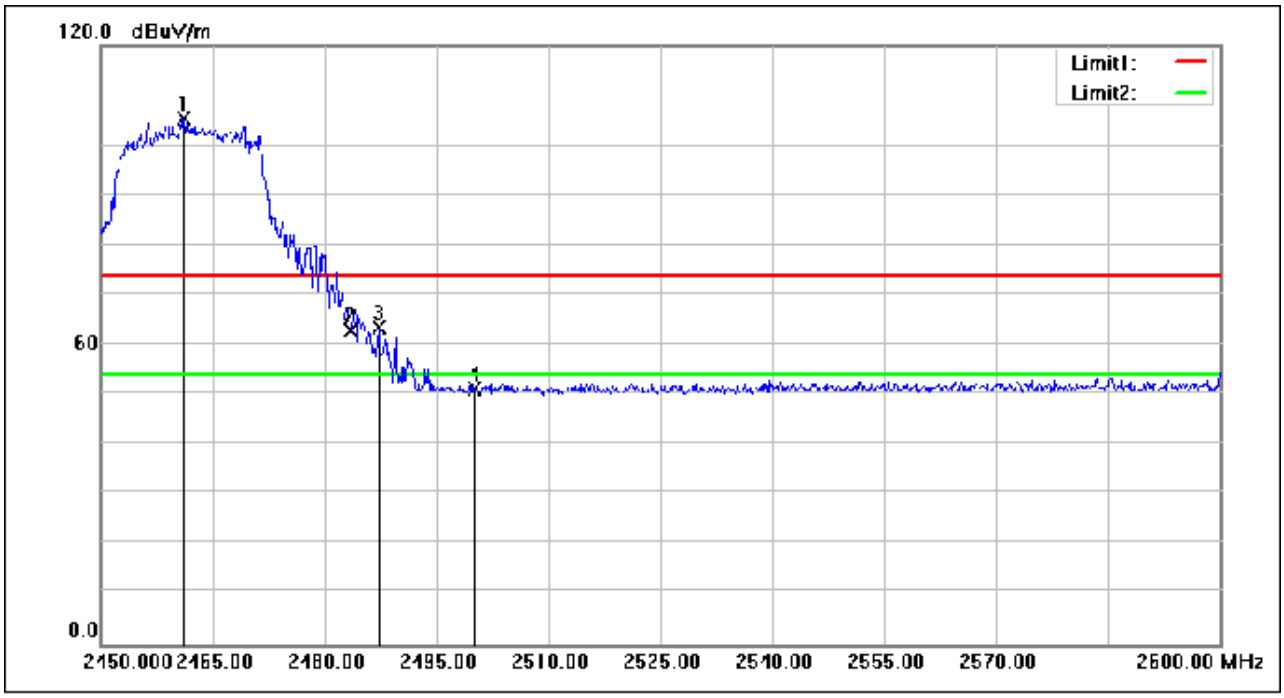
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.800	125.77	-24.36	101.41	74.00	27.41	peak
2	2483.500	88.99	-24.27	64.72	74.00	-9.28	peak
3	2487.050	81.69	-24.25	57.44	74.00	-16.56	peak
4	2500.000	75.99	-24.19	51.80	74.00	-22.20	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



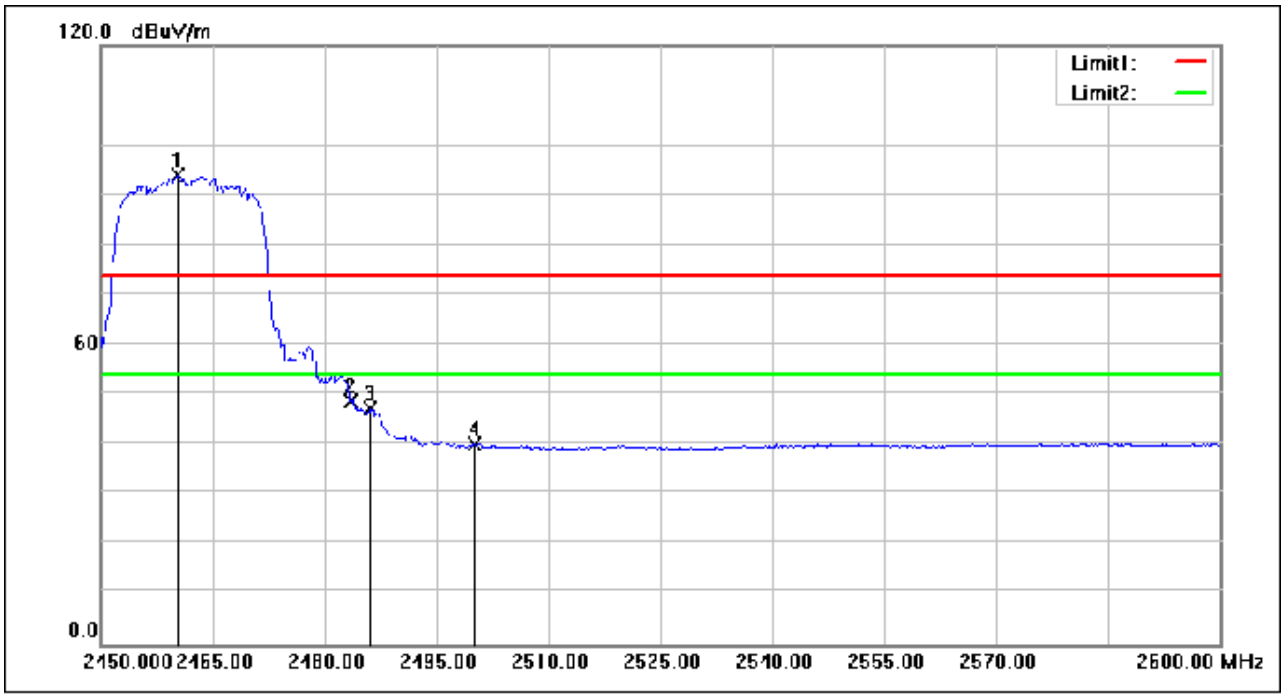
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2463.200	114.17	-24.37	89.80	54.00	35.80	AVG
2	2483.500	65.97	-24.27	41.70	54.00	-12.30	AVG
3	2486.150	65.07	-24.26	40.81	54.00	-13.19	AVG
4	2500.000	63.57	-24.19	39.38	54.00	-14.62	AVG

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



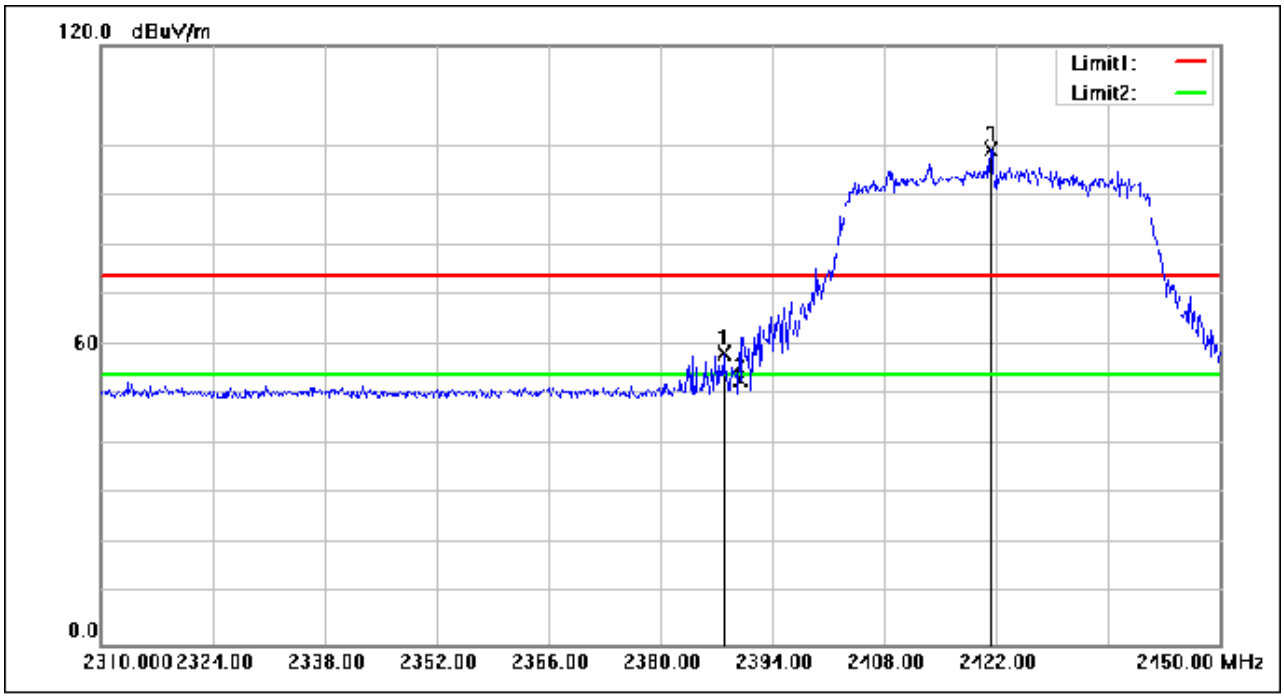
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2461.100	129.70	-24.38	105.32	74.00	31.32	peak
2	2483.500	87.24	-24.27	62.97	74.00	-11.03	peak
3	2487.200	87.74	-24.25	63.49	74.00	-10.51	peak
4	2500.000	75.31	-24.19	51.12	74.00	-22.88	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



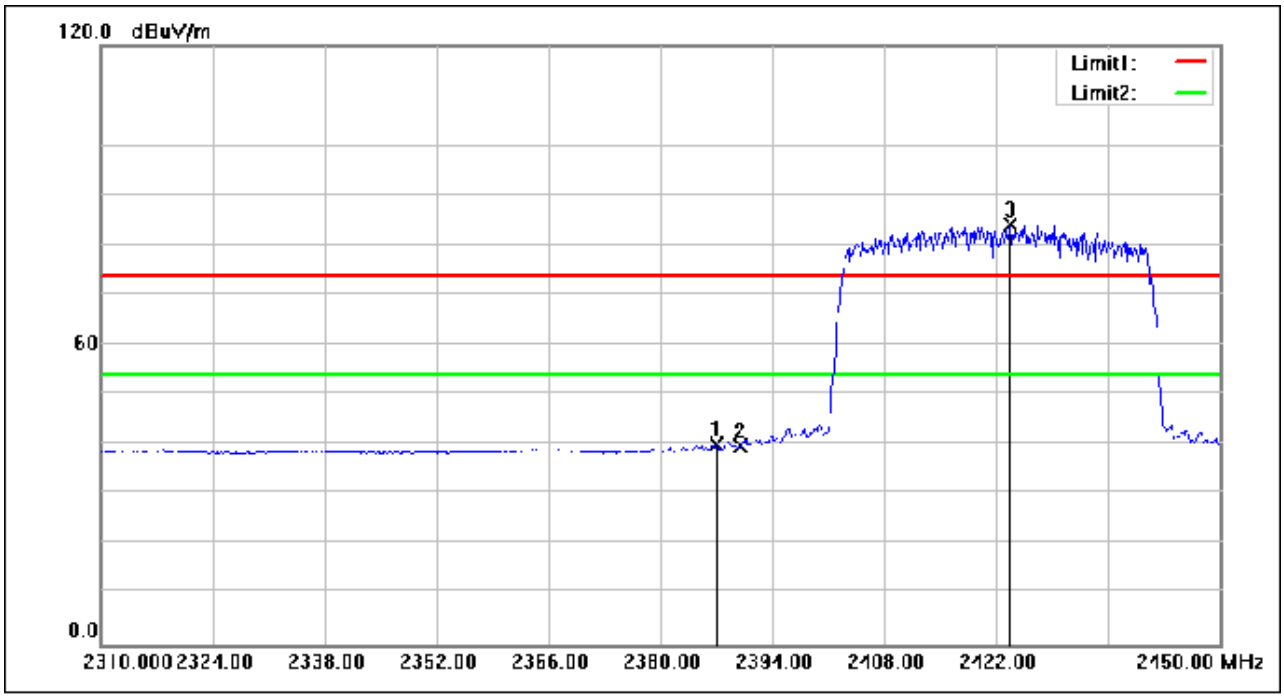
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2460.350	118.41	-24.38	94.03	54.00	40.03	AVG
2	2483.500	72.96	-24.27	48.69	54.00	-5.31	AVG
3	2486.150	71.37	-24.26	47.11	54.00	-6.89	AVG
4	2500.000	64.18	-24.19	39.99	54.00	-14.01	AVG

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



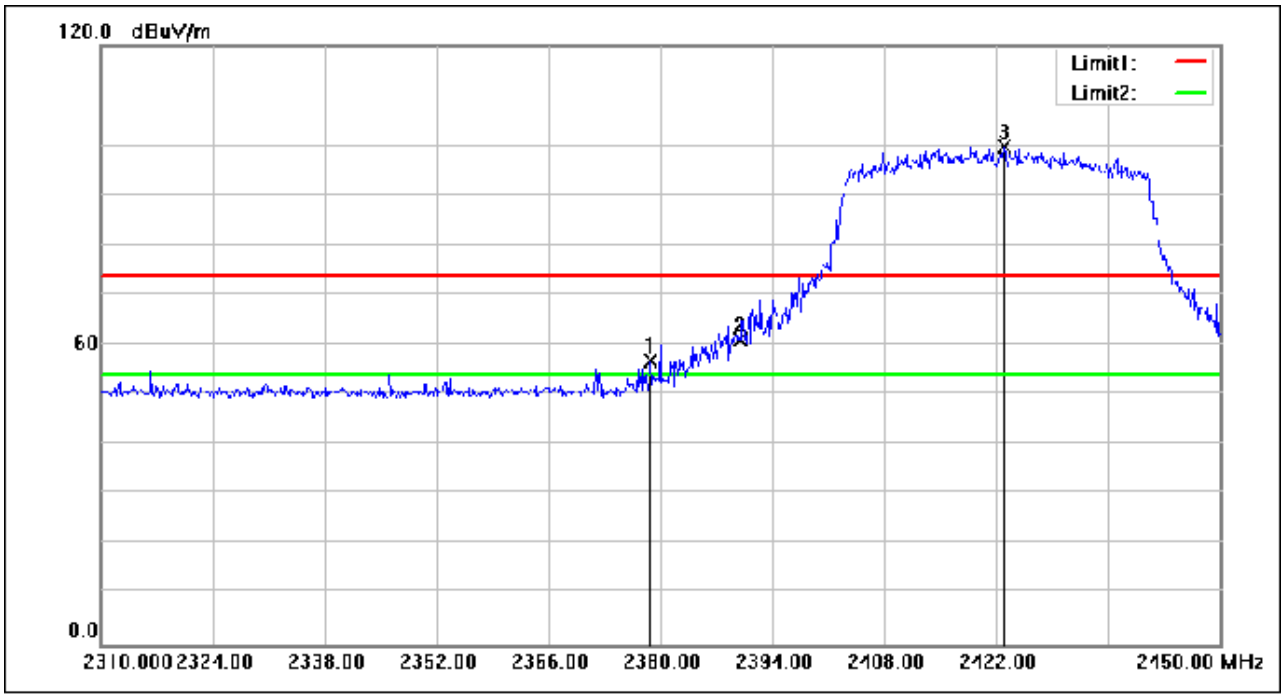
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.840	82.98	-24.72	58.26	74.00	-15.74	peak
2	2390.000	77.70	-24.71	52.99	74.00	-21.01	peak
3	2421.300	123.62	-24.56	99.06	74.00	25.06	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



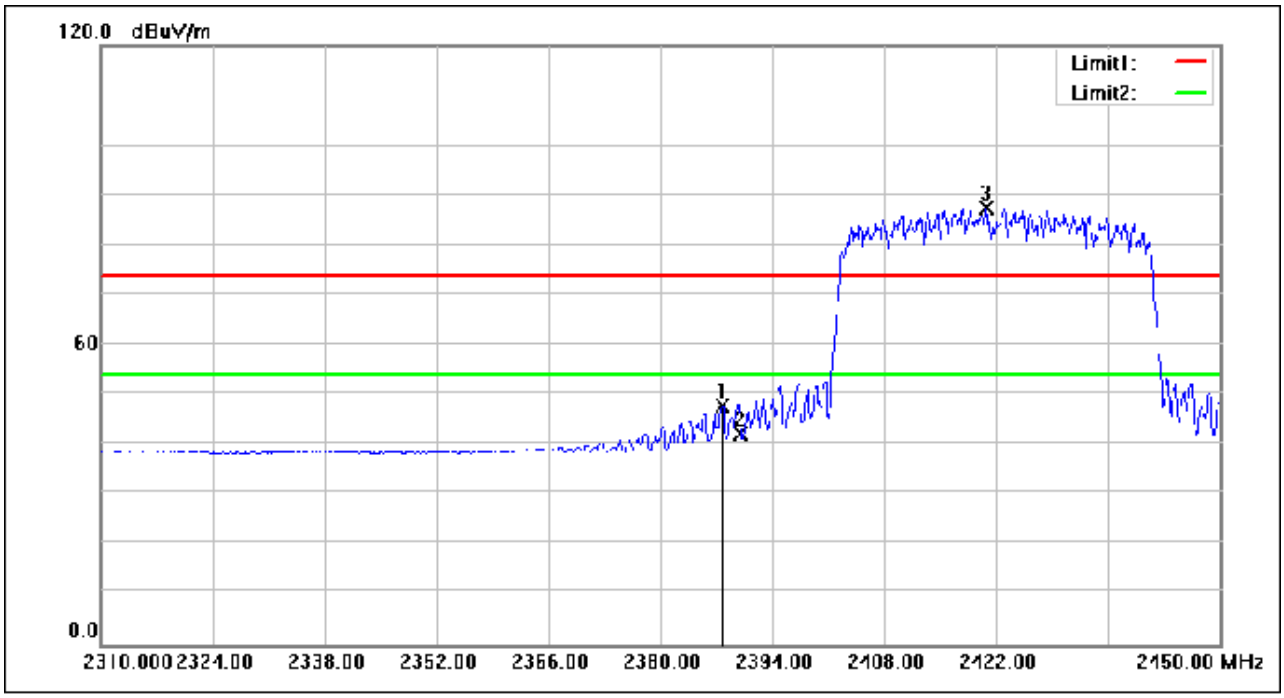
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.000	64.67	-24.72	39.95	54.00	-14.05	AVG
2	2390.000	64.40	-24.71	39.69	54.00	-14.31	AVG
3	2423.820	108.66	-24.54	84.12	54.00	30.12	AVG

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



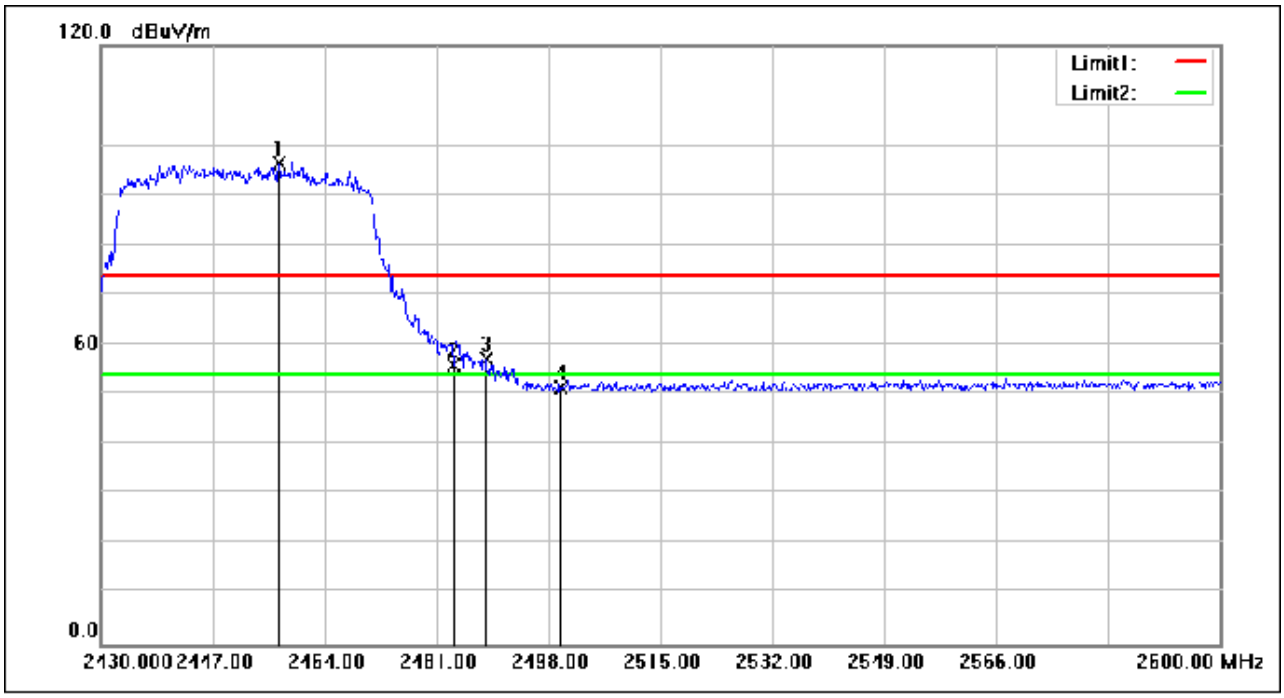
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2378.740	81.52	-24.75	56.77	74.00	-17.23	peak
2	2390.000	85.78	-24.71	61.07	74.00	-12.93	peak
3	2422.980	124.32	-24.55	99.77	74.00	25.77	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



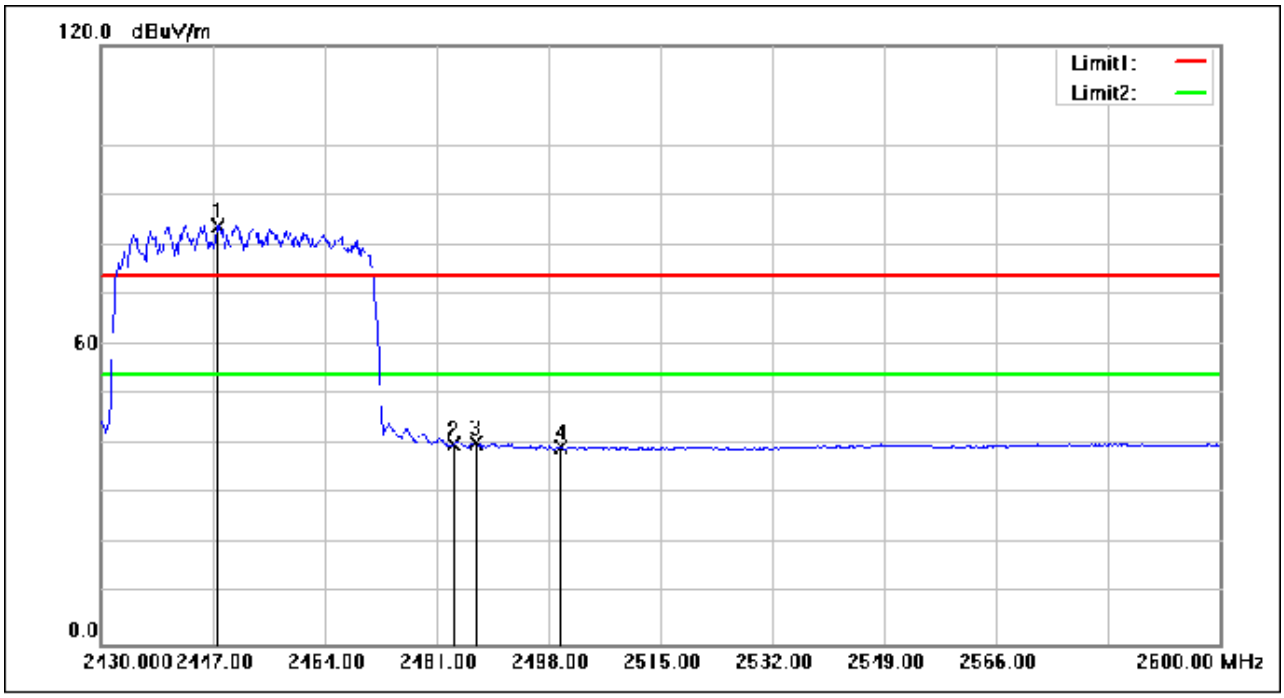
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2387.700	72.63	-24.72	47.91	54.00	-6.09	AVG
2	2390.000	66.77	-24.71	42.06	54.00	-11.94	AVG
3	2420.740	112.03	-24.57	87.46	54.00	33.46	AVG

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



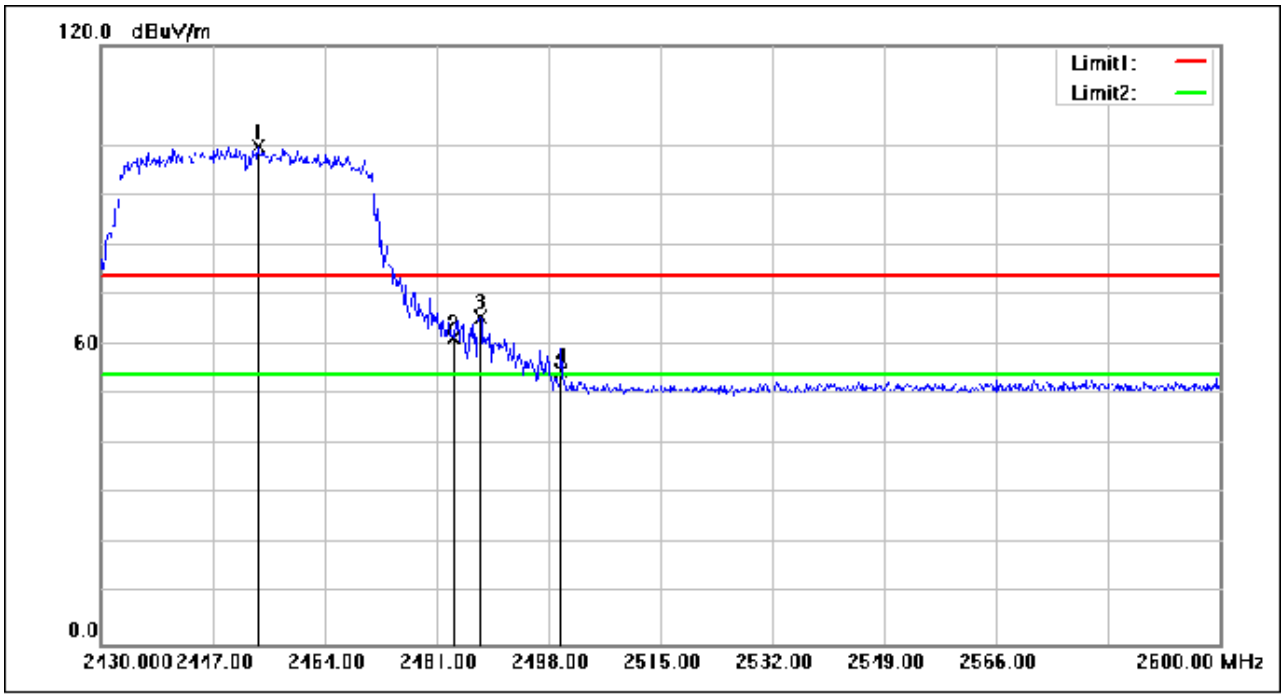
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2457.030	120.77	-24.39	96.38	74.00	22.38	peak
2	2483.500	80.31	-24.27	56.04	74.00	-17.96	peak
3	2488.480	81.55	-24.25	57.30	74.00	-16.70	peak
4	2500.000	75.76	-24.19	51.57	74.00	-22.43	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



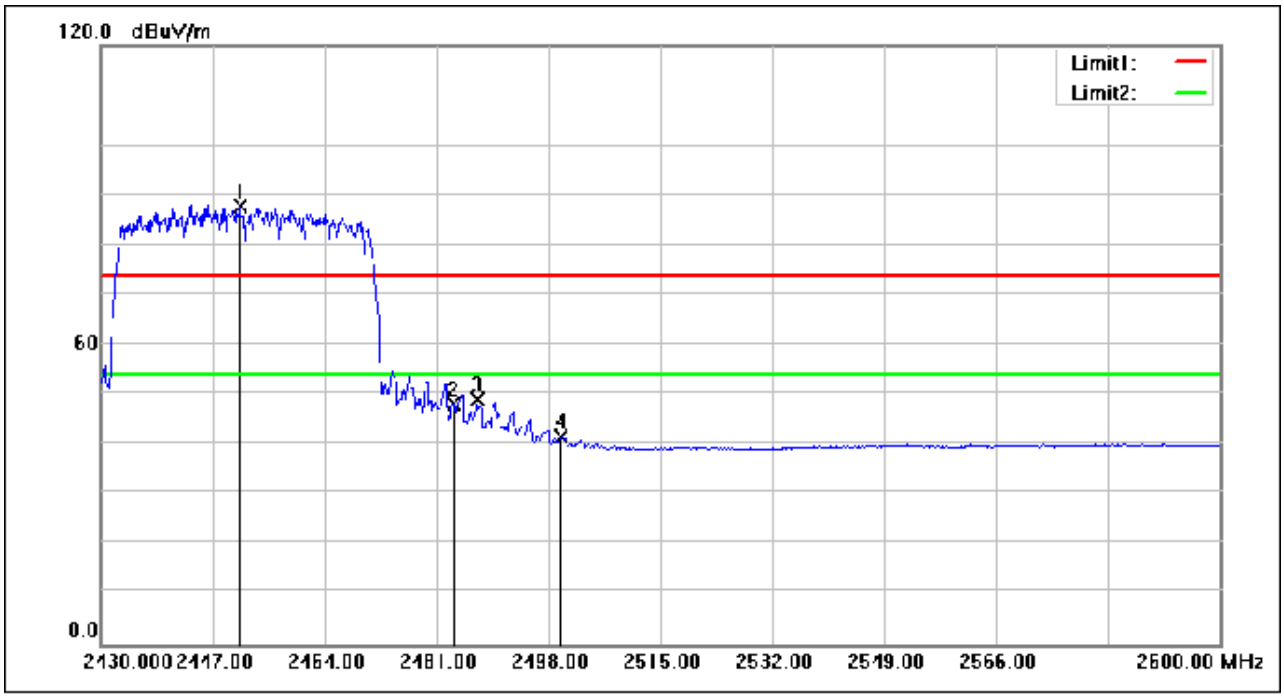
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2447.680	108.36	-24.44	83.92	54.00	29.92	AVG
2	2483.500	64.29	-24.27	40.02	54.00	-13.98	AVG
3	2486.950	64.65	-24.25	40.40	54.00	-13.60	AVG
4	2500.000	63.69	-24.19	39.50	54.00	-14.50	AVG

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2453.800	124.18	-24.40	99.78	74.00	25.78	peak
2	2483.500	85.64	-24.27	61.37	74.00	-12.63	peak
3	2487.630	89.84	-24.25	65.59	74.00	-8.41	peak
4	2500.000	79.09	-24.19	54.90	74.00	-19.10	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2451.080	112.08	-24.42	87.66	54.00	33.66	AVG
2	2483.500	72.39	-24.27	48.12	54.00	-5.88	AVG
3	2487.290	73.19	-24.25	48.94	54.00	-5.06	AVG
4	2500.000	65.84	-24.19	41.65	54.00	-12.35	AVG

7.3 Radiated Spurious Emissions Below 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209
Test Method: ANSI C63.10 (2013) Section 6.4,6.5

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

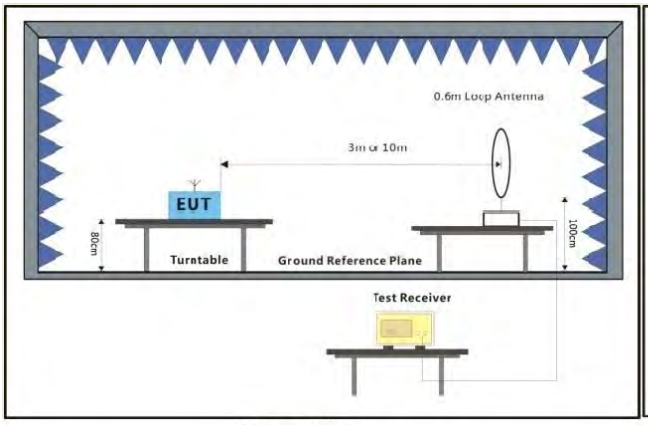
7.3.1 E.U.T. Operation

Operating Environment:
Temperature: 21.6 °C Humidity: 47.6 % RH Atmospheric Pressure: 1010 mbar

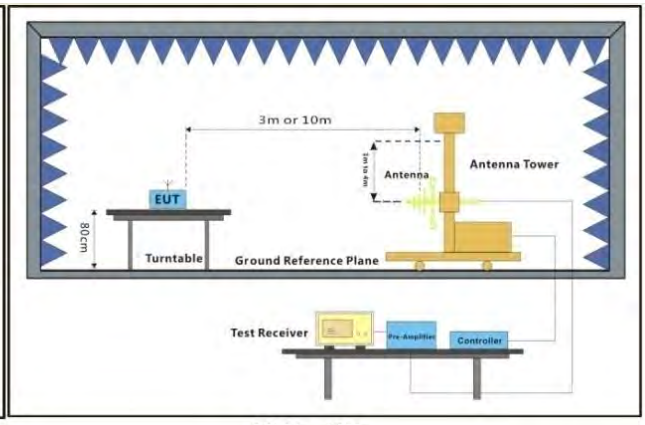
7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE40). Only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



Below 30MHz



30MHz-1GHz

7.3.4 Measurement Procedure and Data

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.

g. Test the EUT in the lowest channel, the middle channel, the Highest channel.

h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

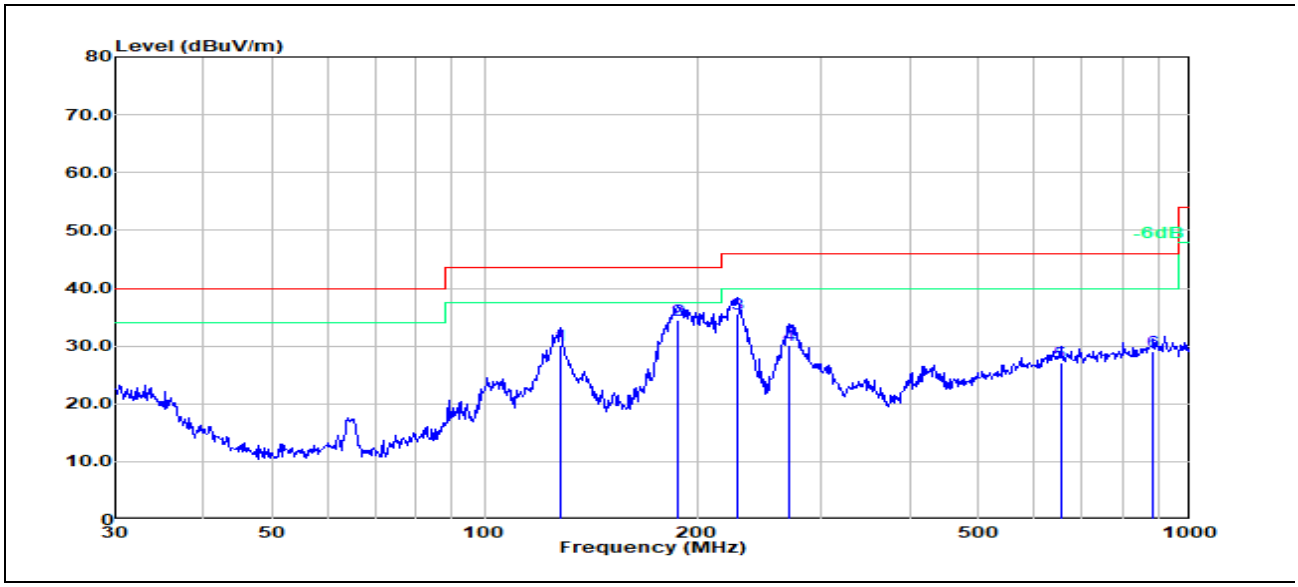
i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

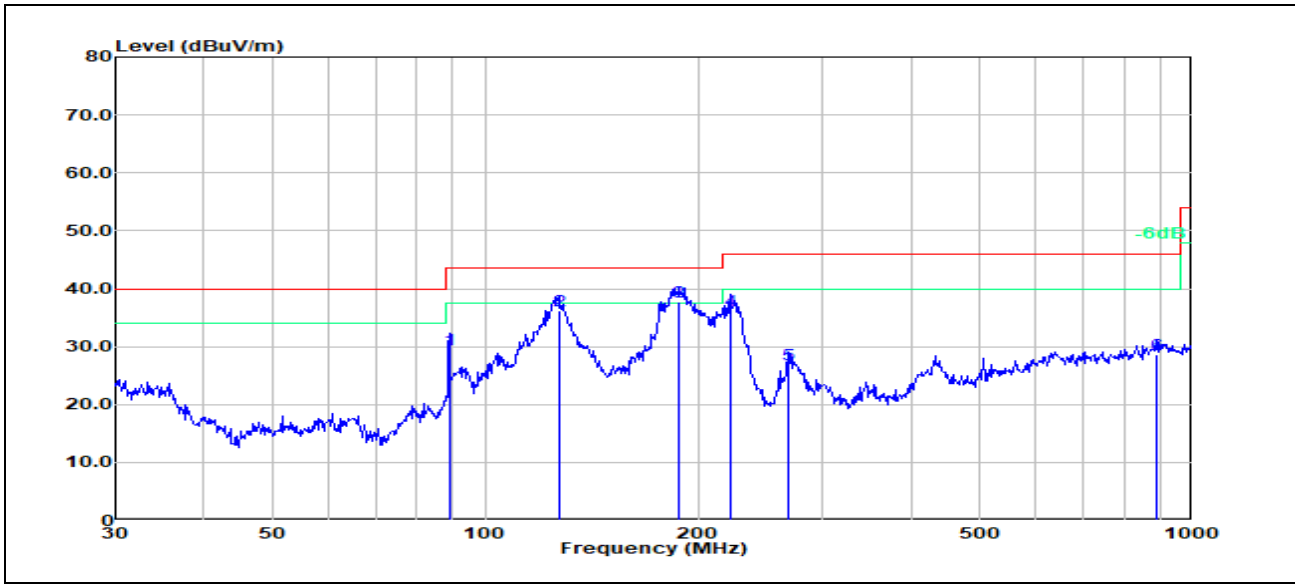
2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

Test Mode: 02; Polarity: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	128.1130	15.58	14.45	30.03	43.50	-13.47	100	31	QP
2	187.7530	22.25	12.26	34.51	43.50	-8.99	200	304	QP
3	227.6906	22.74	12.89	35.63	46.00	-10.37	100	65	QP
4	269.4284	15.02	15.04	30.06	46.00	-15.94	100	0	QP
5	654.2318	3.77	23.38	27.15	46.00	-18.85	100	359	QP
6	884.5029	3.48	25.48	28.96	46.00	-17.04	100	45	QP

Test Mode: 02; Polarity: Vertical



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	88.9639	17.86	11.59	29.45	43.50	-14.05	100	157	QP
2	127.2176	22.12	14.18	36.30	43.50	-7.20	200	70	QP
3	187.7530	25.37	12.26	37.63	43.50	-5.87	100	38	QP
4	222.1698	23.56	12.71	36.27	46.00	-9.73	100	224	QP
5	267.5455	11.96	14.90	26.86	46.00	-19.14	100	18	QP
6	887.6099	3.17	25.49	28.66	46.00	-17.34	100	257	QP

7.4 Radiated Spurious Emissions Above 1GHz

Test Requirement 47 CFR Part 15, Subpart C 15.205 & 15.209
Test Method: ANSI C63.10 (2013) Section 6.6

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1000	500	3

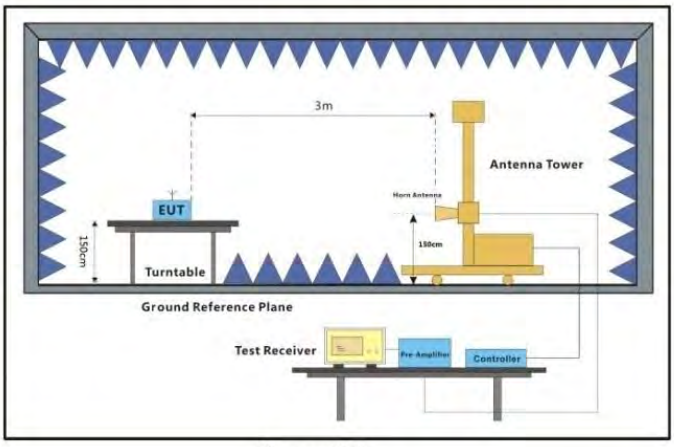
7.4.1 E.U.T. Operation

Operating Environment:
Temperature: 21.8 °C Humidity: 48.1 % RH Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE40). Only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram



Above 1GHz

7.4.4 Measurement Procedure and Data

a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.

g. Test the EUT in the lowest channel, the middle channel, the Highest channel.

h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

i. Repeat above procedures until all frequencies measured was complete.

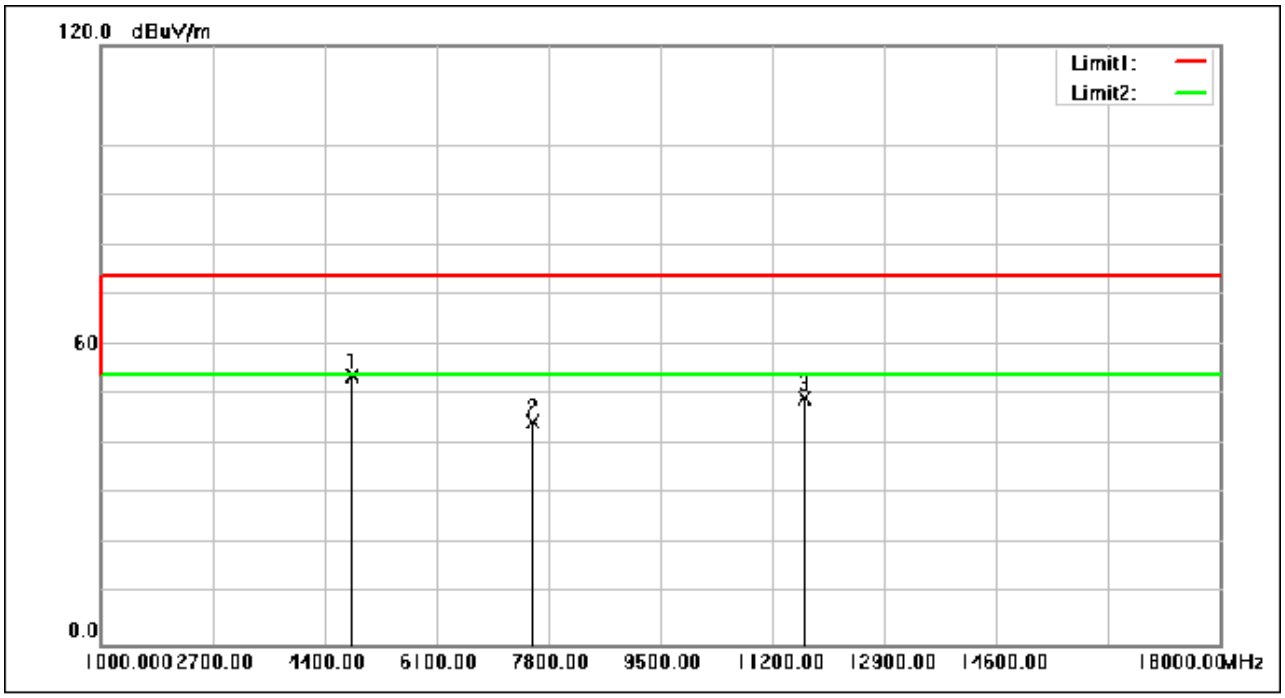
Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

2. Scan from 1GHz to 25GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

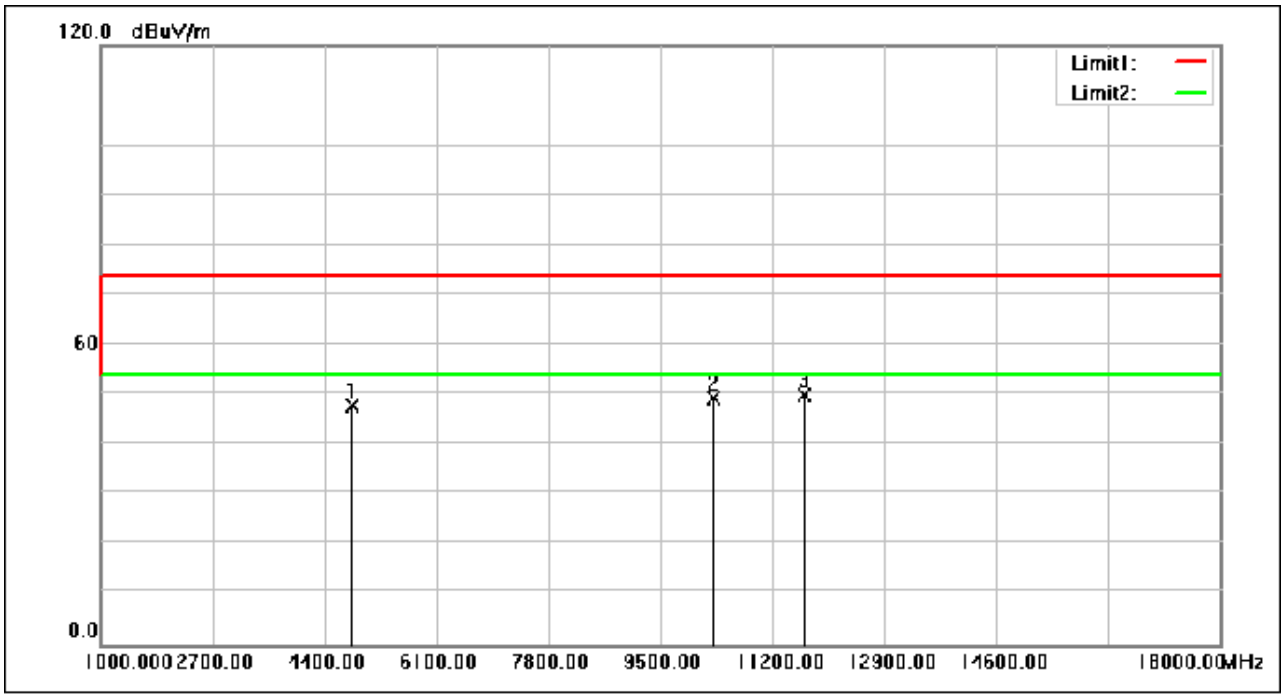
3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

Test Mode: 02; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



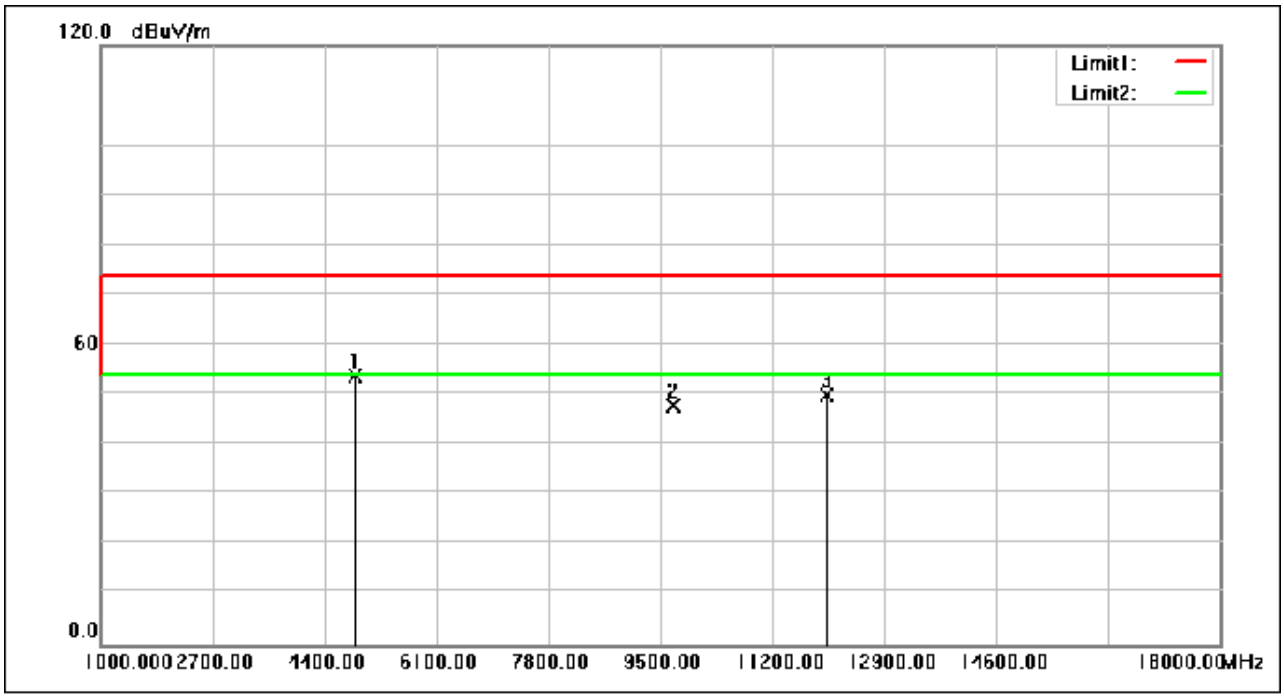
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4823.640	72.54	-18.55	53.99	74.00	-20.01	peak
2	7570.160	55.69	-11.16	44.53	74.00	-29.47	peak
3	11695.040	55.66	-6.20	49.46	74.00	-24.54	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:Low



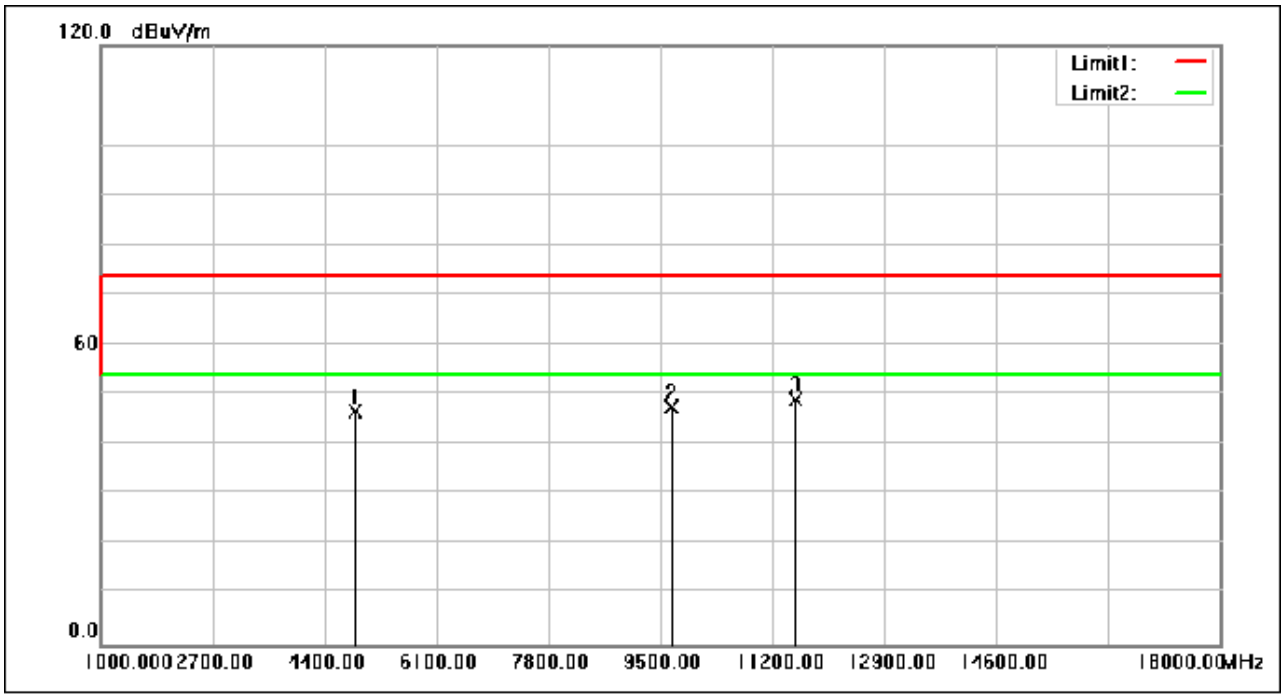
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.320	66.33	-18.54	47.79	74.00	-26.21	peak
2	10303.080	56.43	-7.16	49.27	74.00	-24.73	peak
3	11690.960	56.19	-6.21	49.98	74.00	-24.02	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



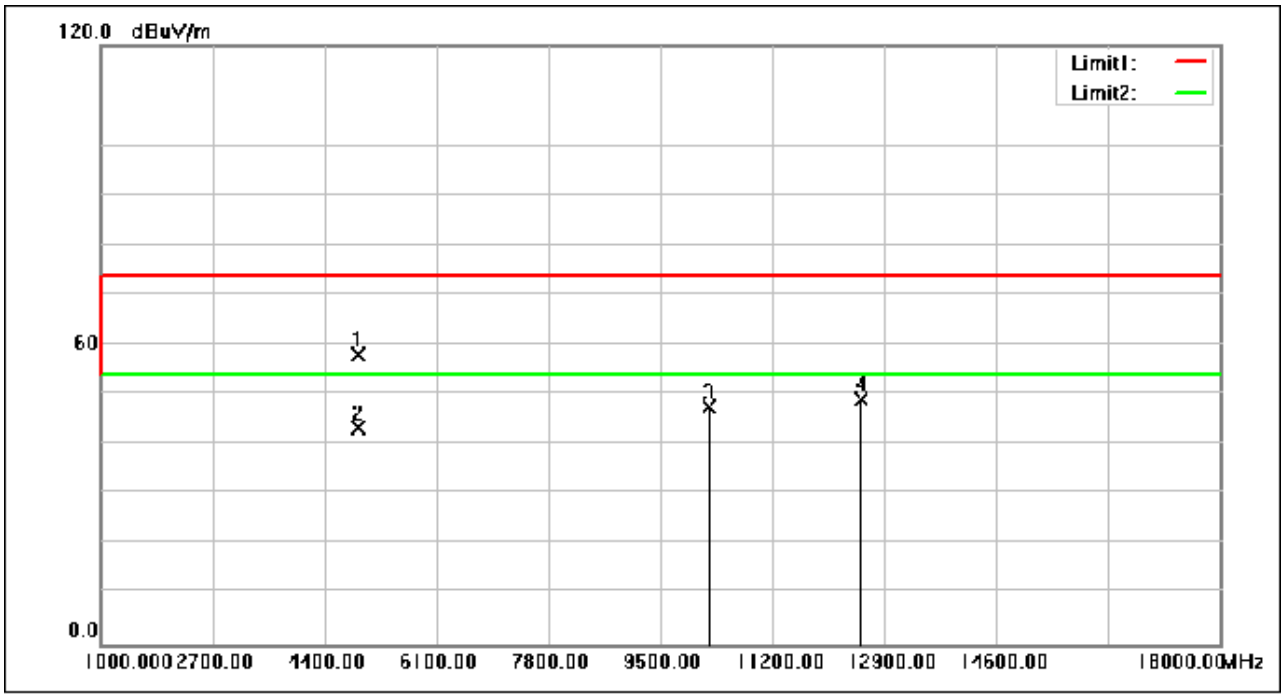
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4873.960	72.30	-18.52	53.78	74.00	-20.22	peak
2	9702.640	55.49	-7.57	47.92	74.00	-26.08	peak
3	12026.200	55.73	-5.90	49.83	74.00	-24.17	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:middle



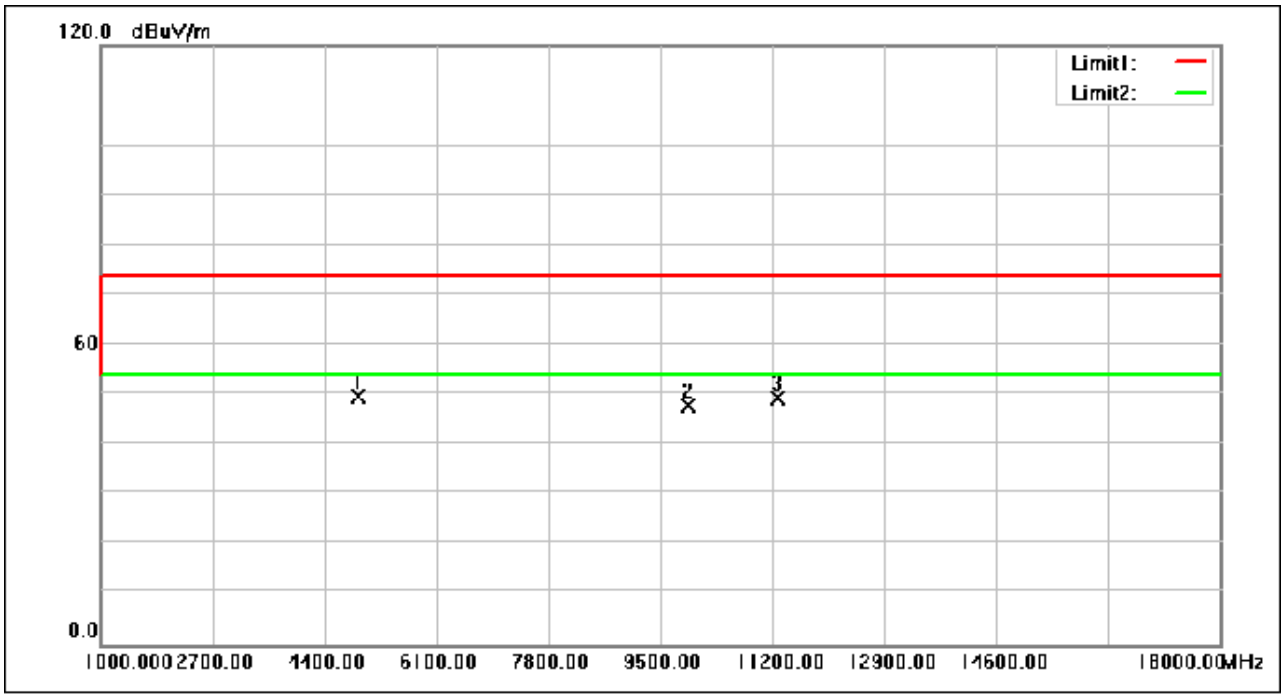
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4873.960	65.14	-18.52	46.62	74.00	-27.38	peak
2	9682.920	55.28	-7.61	47.67	74.00	-26.33	peak
3	11549.520	55.36	-6.32	49.04	74.00	-24.96	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11b; Bandwidth:20MHz; Channel:High



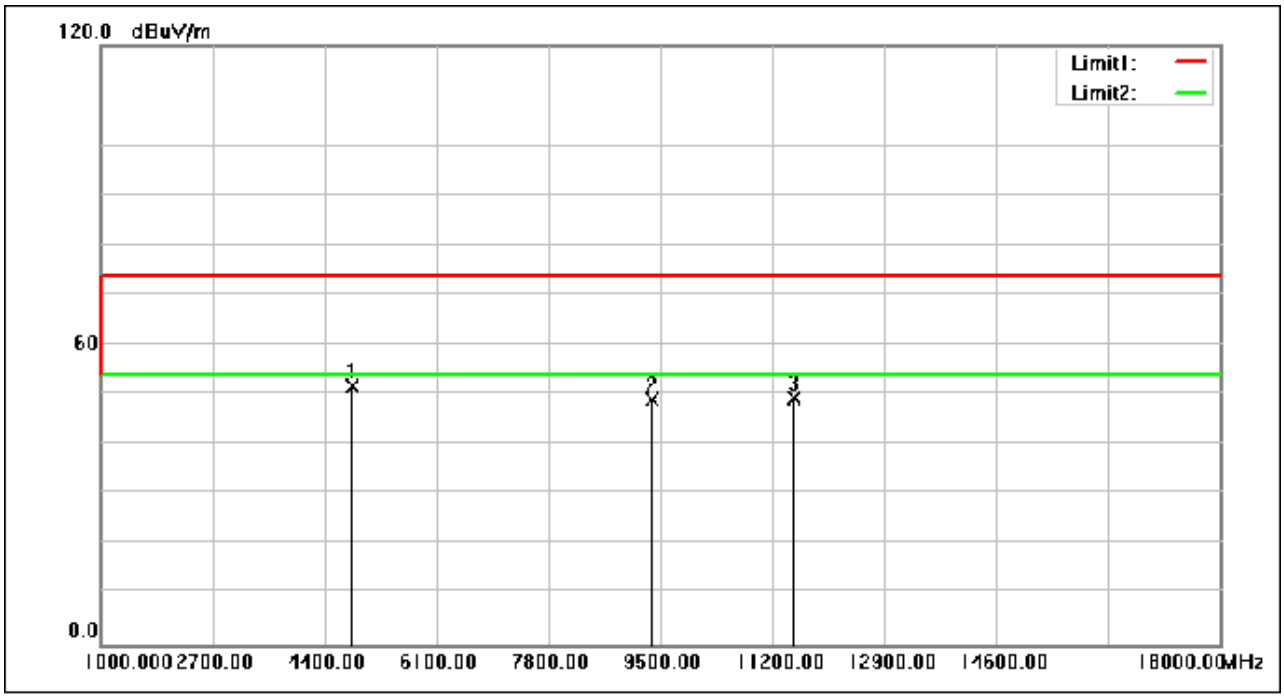
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.280	76.40	-18.49	57.91	74.00	-16.09	peak
2	4924.280	61.82	-18.49	43.33	54.00	-10.67	AVG
3	10232.360	54.84	-7.20	47.64	74.00	-26.36	peak
4	12550.480	55.29	-6.14	49.15	74.00	-24.85	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11b; Bandwidth:20MHz; Channel:High



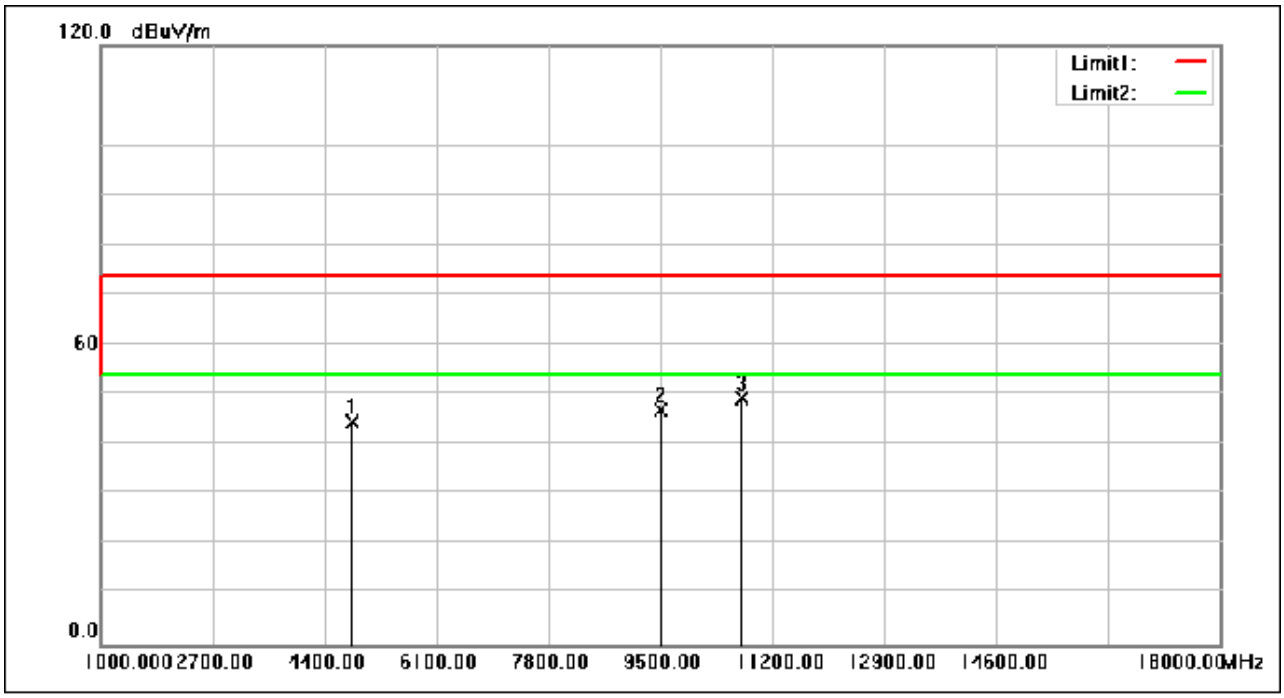
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.280	68.24	-18.49	49.75	74.00	-24.25	peak
2	9937.920	55.29	-7.31	47.98	74.00	-26.02	peak
3	11274.800	55.92	-6.55	49.37	74.00	-24.63	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



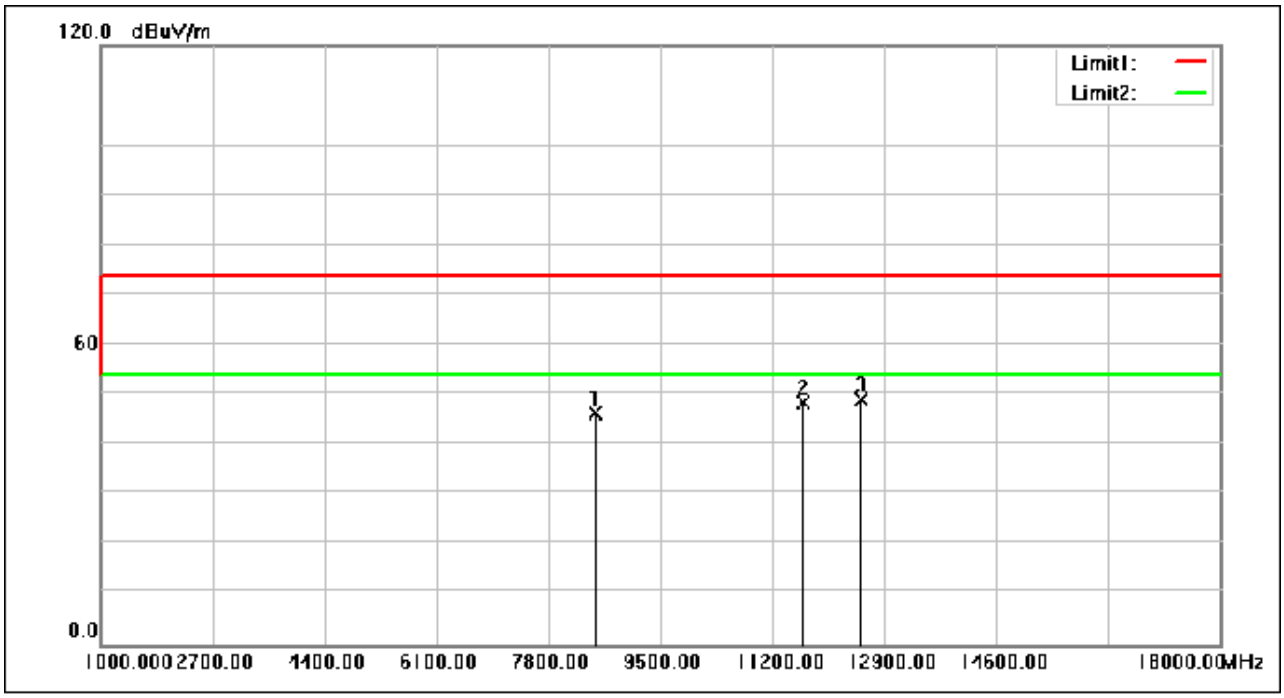
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4819.560	70.43	-18.55	51.88	74.00	-22.12	peak
2	9386.440	57.20	-8.17	49.03	74.00	-24.97	peak
3	11535.240	55.73	-6.33	49.40	74.00	-24.60	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:Low



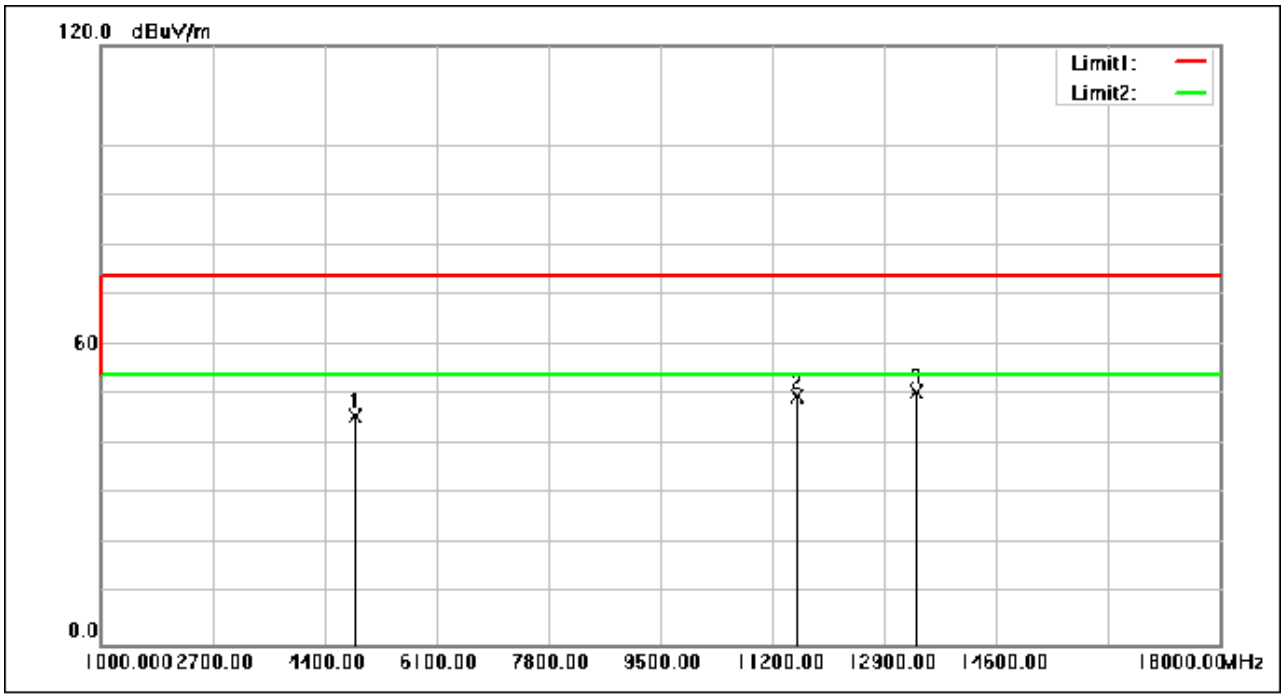
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4822.280	63.11	-18.55	44.56	74.00	-29.44	peak
2	9519.720	54.82	-7.91	46.91	74.00	-27.09	peak
3	10736.920	56.17	-6.90	49.27	74.00	-24.73	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:middle



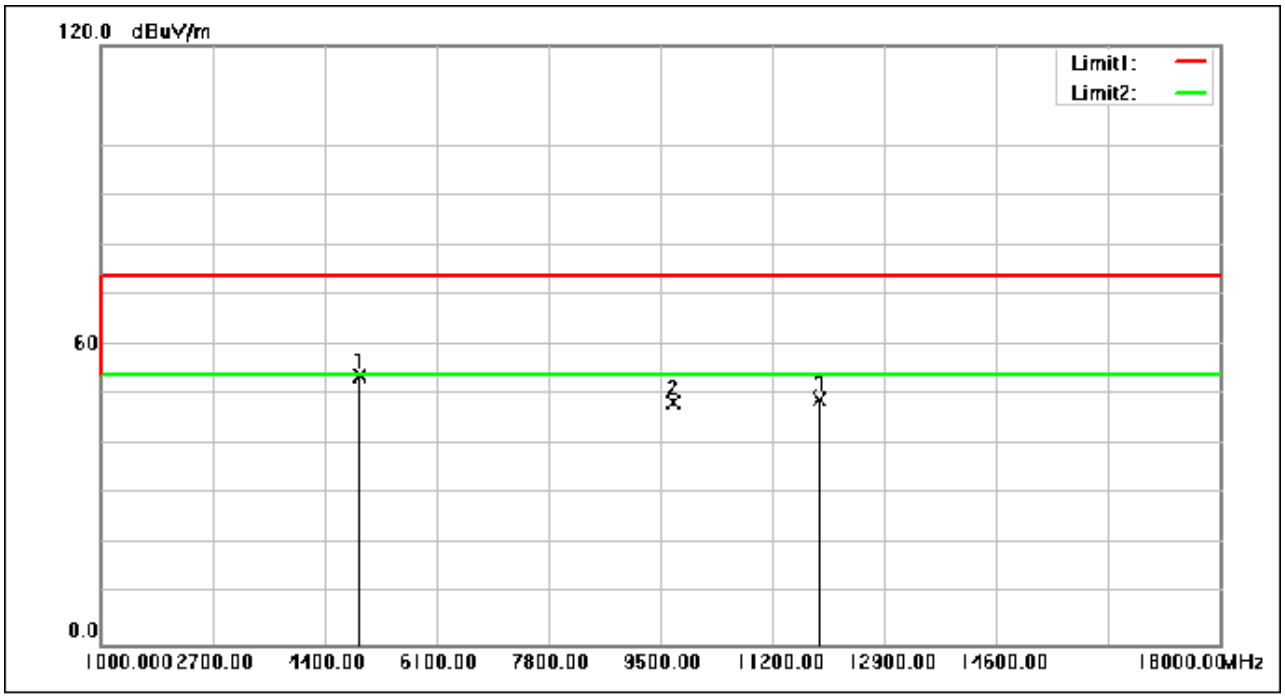
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8529.640	56.11	-9.70	46.41	74.00	-27.59	peak
2	11673.280	54.67	-6.22	48.45	74.00	-25.55	peak
3	12551.160	55.13	-6.14	48.99	74.00	-25.01	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:middle



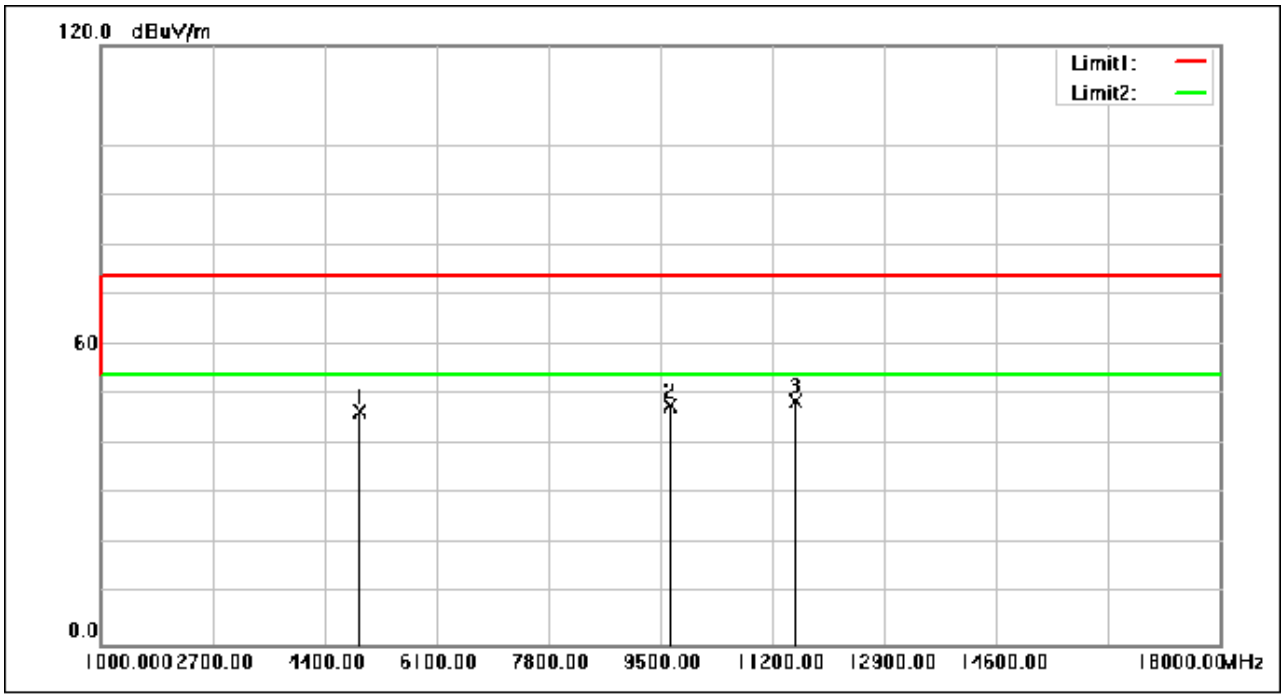
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4873.960	64.25	-18.52	45.73	74.00	-28.27	peak
2	11588.960	56.05	-6.29	49.76	74.00	-24.24	peak
3	13392.320	56.73	-6.32	50.41	74.00	-23.59	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11g; Bandwidth:20MHz; Channel:High



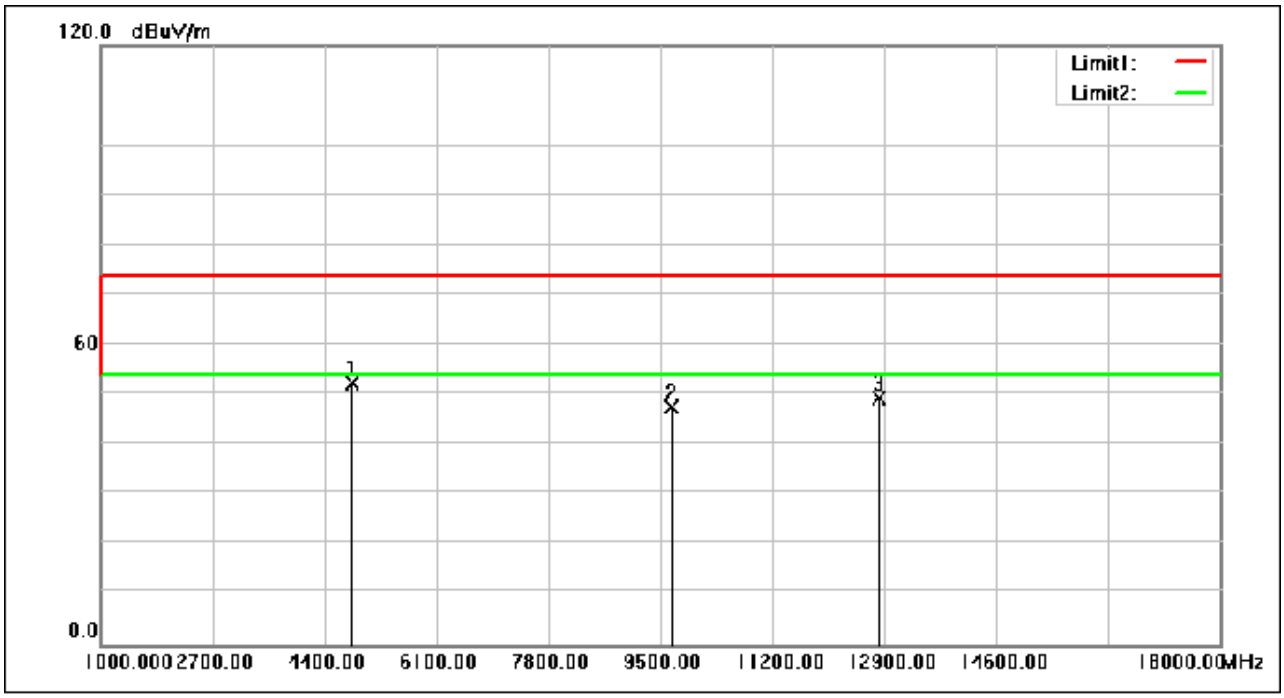
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4929.040	72.41	-18.49	53.92	74.00	-20.08	peak
2	9690.400	56.20	-7.60	48.60	74.00	-25.40	peak
3	11916.720	55.07	-6.02	49.05	74.00	-24.95	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11g; Bandwidth:20MHz; Channel:High



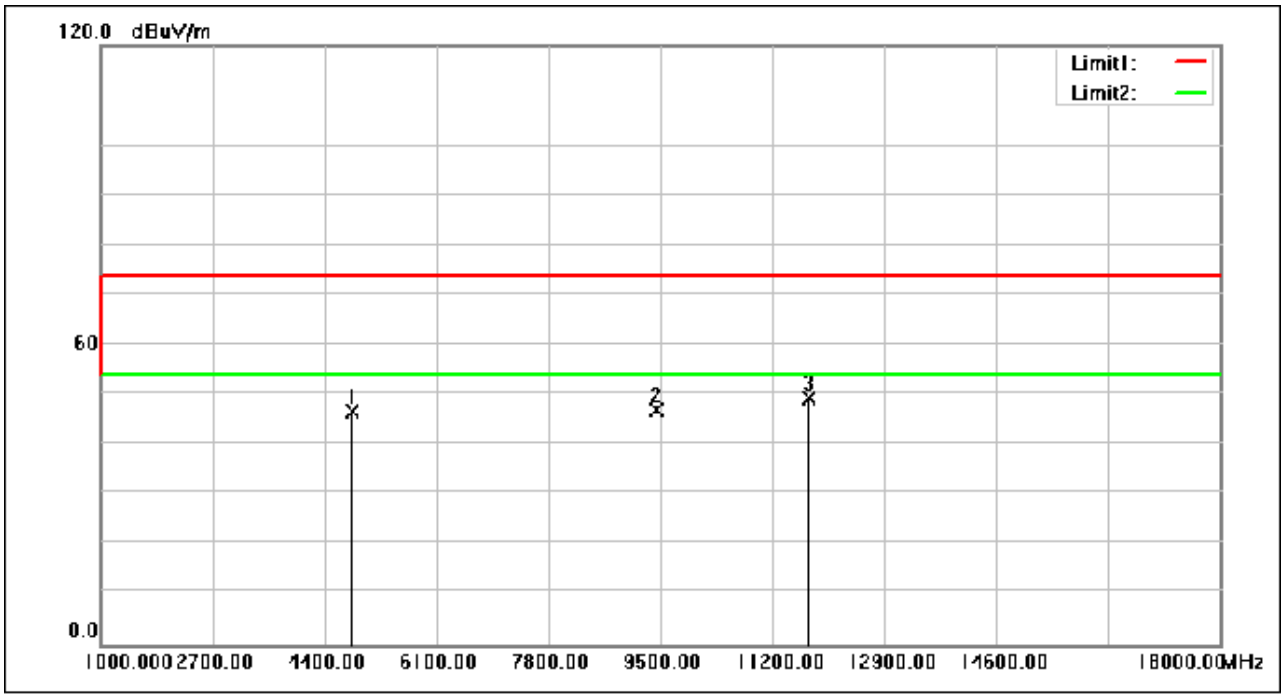
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4930.400	65.22	-18.49	46.73	74.00	-27.27	peak
2	9663.200	55.45	-7.65	47.80	74.00	-26.20	peak
3	11551.560	55.18	-6.32	48.86	74.00	-25.14	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



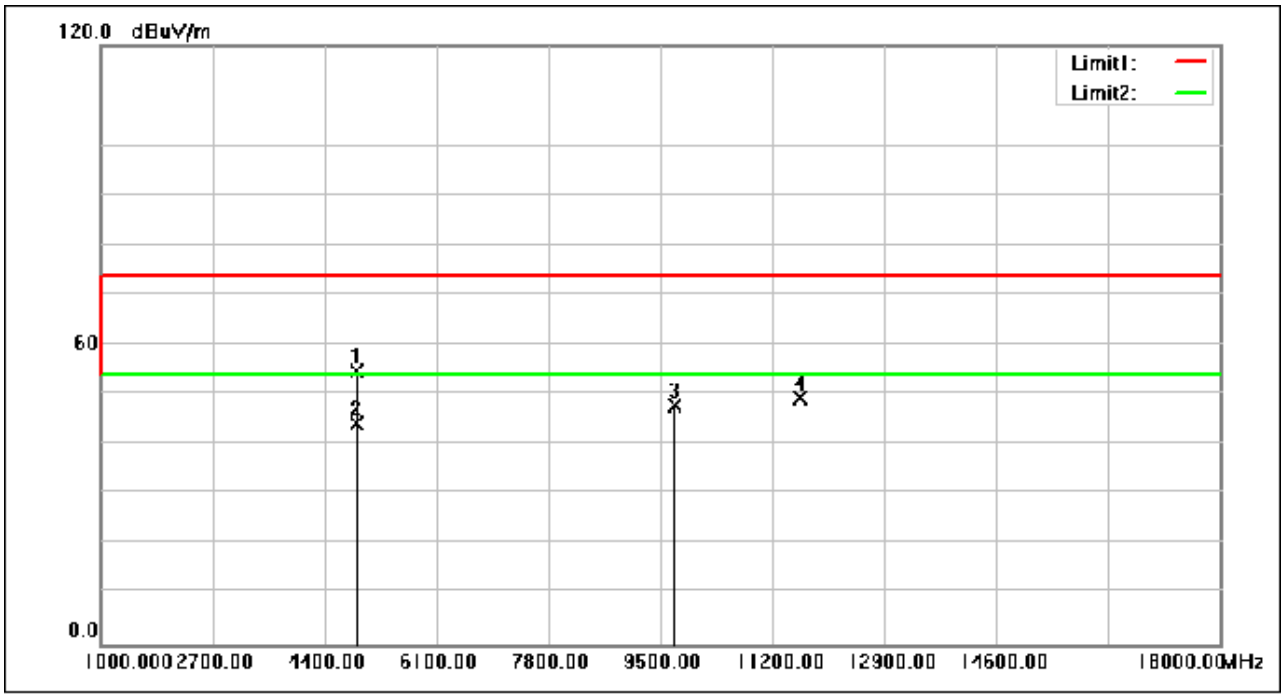
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4822.960	70.96	-18.55	52.41	74.00	-21.59	peak
2	9670.000	55.12	-7.64	47.48	74.00	-26.52	peak
3	12819.760	55.59	-6.26	49.33	74.00	-24.67	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



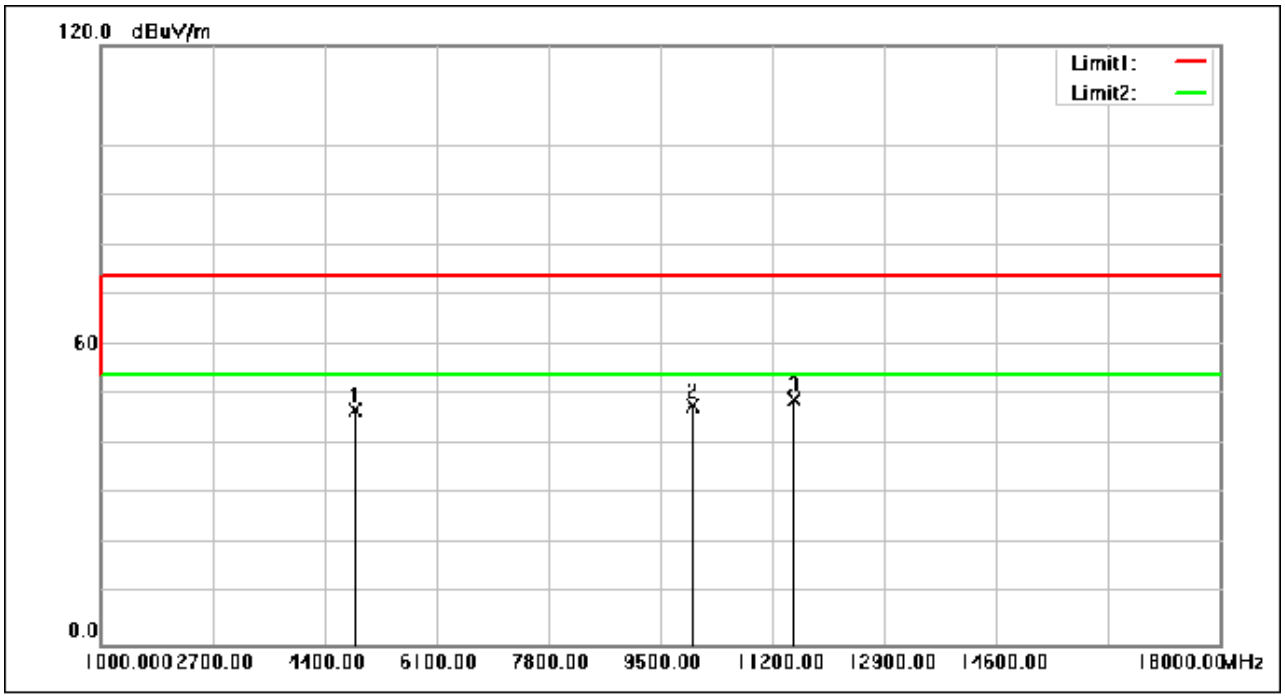
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.320	65.09	-18.54	46.55	74.00	-27.45	peak
2	9459.880	55.05	-8.03	47.02	74.00	-26.98	peak
3	11763.040	55.65	-6.15	49.50	74.00	-24.50	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



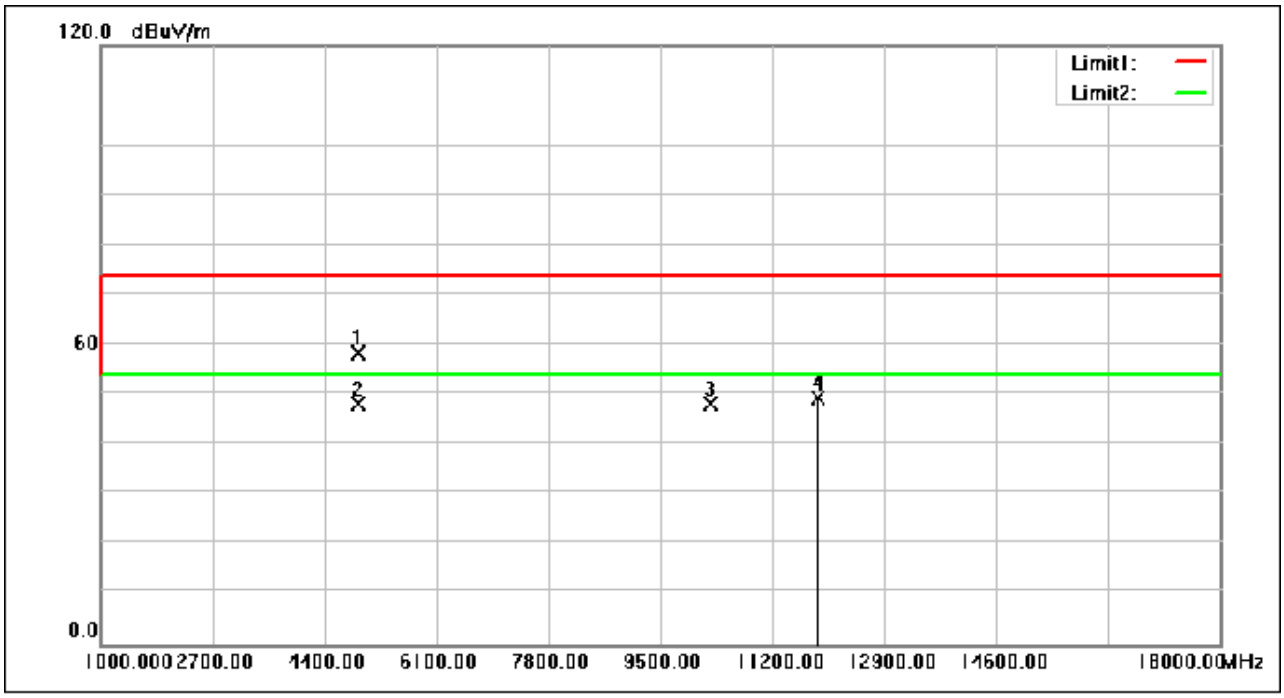
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4876.000	73.42	-18.52	54.90	74.00	-19.10	peak
2	4876.000	62.89	-18.52	44.37	54.00	-9.63	AVG
3	9706.040	55.53	-7.56	47.97	74.00	-26.03	peak
4	11612.760	55.59	-6.27	49.32	74.00	-24.68	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



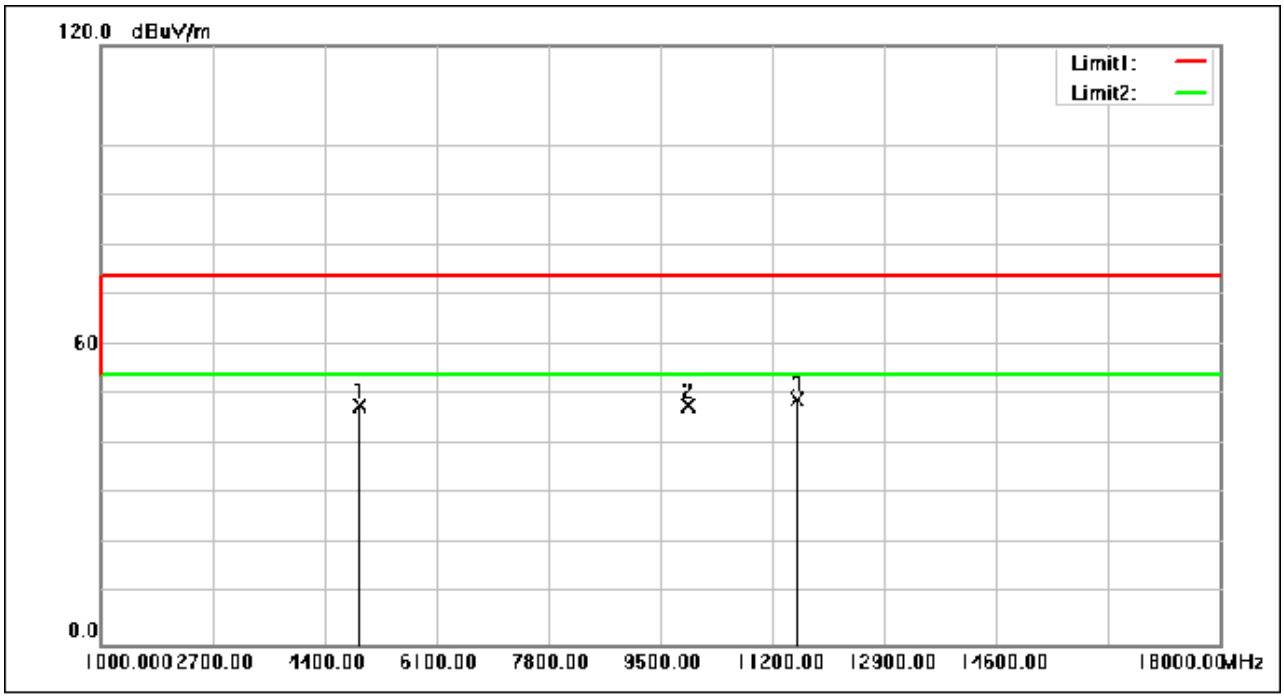
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4870.560	65.51	-18.52	46.99	74.00	-27.01	peak
2	9978.720	55.31	-7.33	47.98	74.00	-26.02	peak
3	11537.960	55.30	-6.33	48.97	74.00	-25.03	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



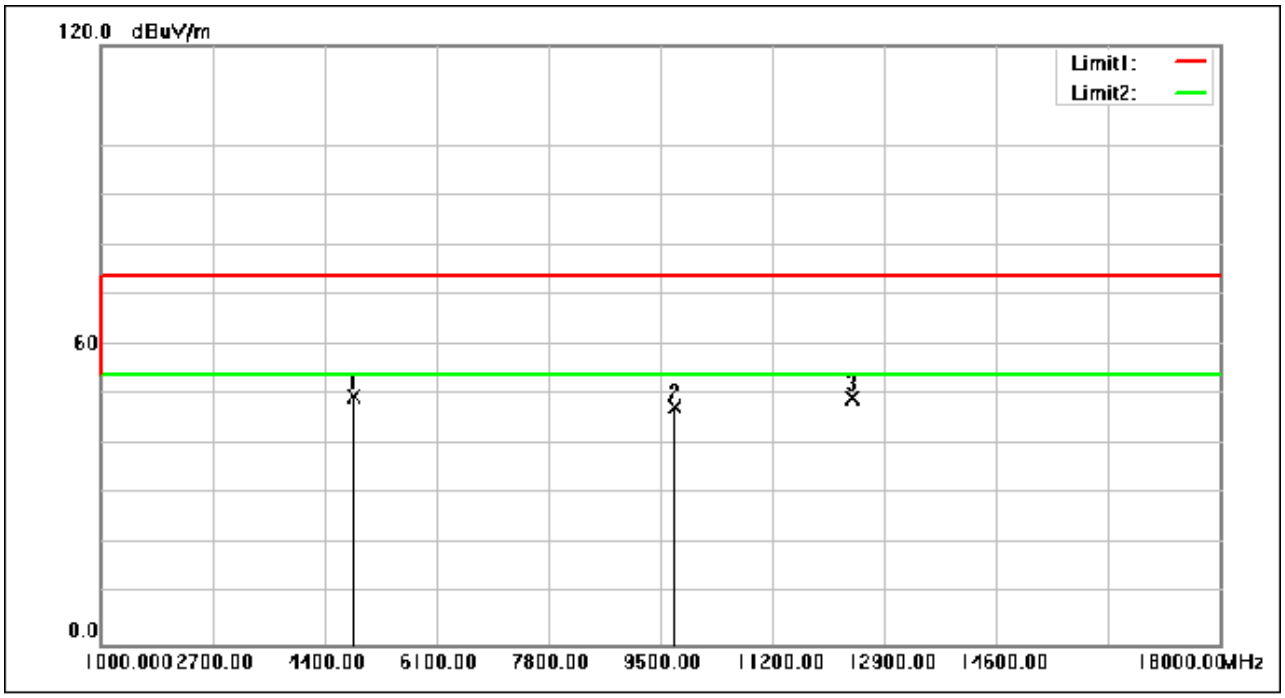
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4924.280	76.77	-18.49	58.28	74.00	-15.72	peak
2	4924.280	66.51	-18.49	48.02	54.00	-5.98	AVG
3	10253.440	55.23	-7.18	48.05	74.00	-25.95	peak
4	11906.520	55.34	-6.03	49.31	74.00	-24.69	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



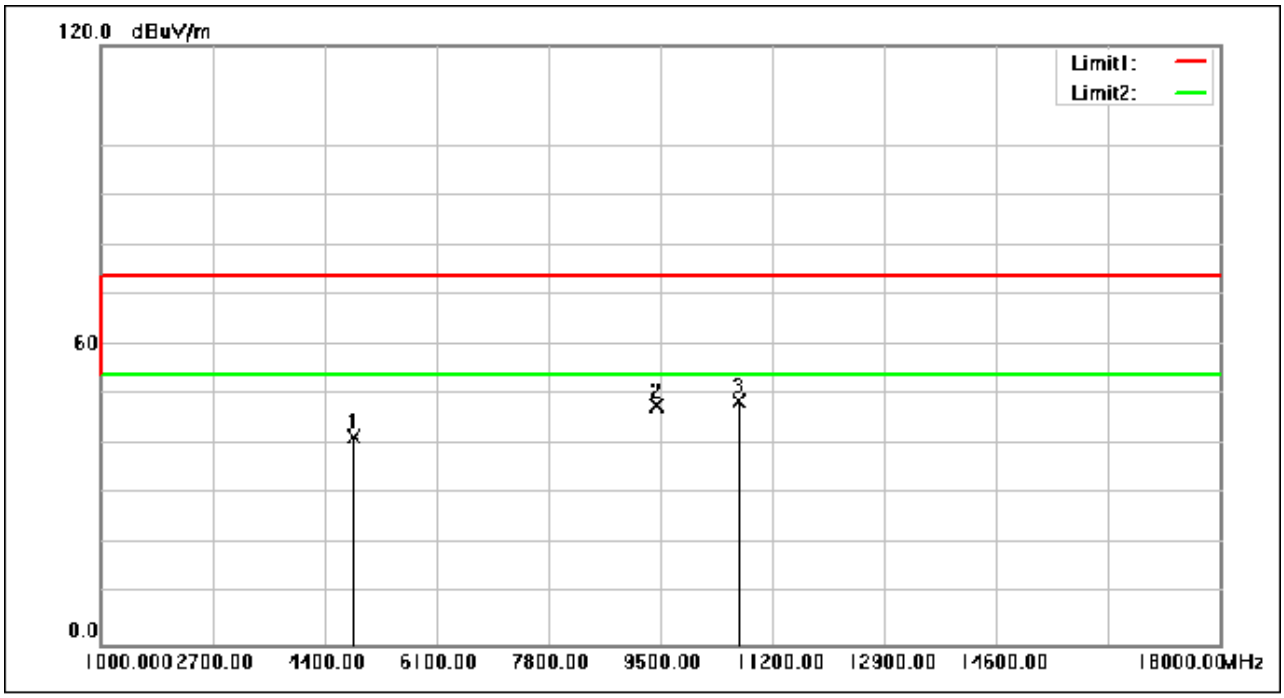
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4929.720	66.39	-18.49	47.90	74.00	-26.10	peak
2	9938.600	55.05	-7.31	47.74	74.00	-26.26	peak
3	11574.680	55.41	-6.30	49.11	74.00	-24.89	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



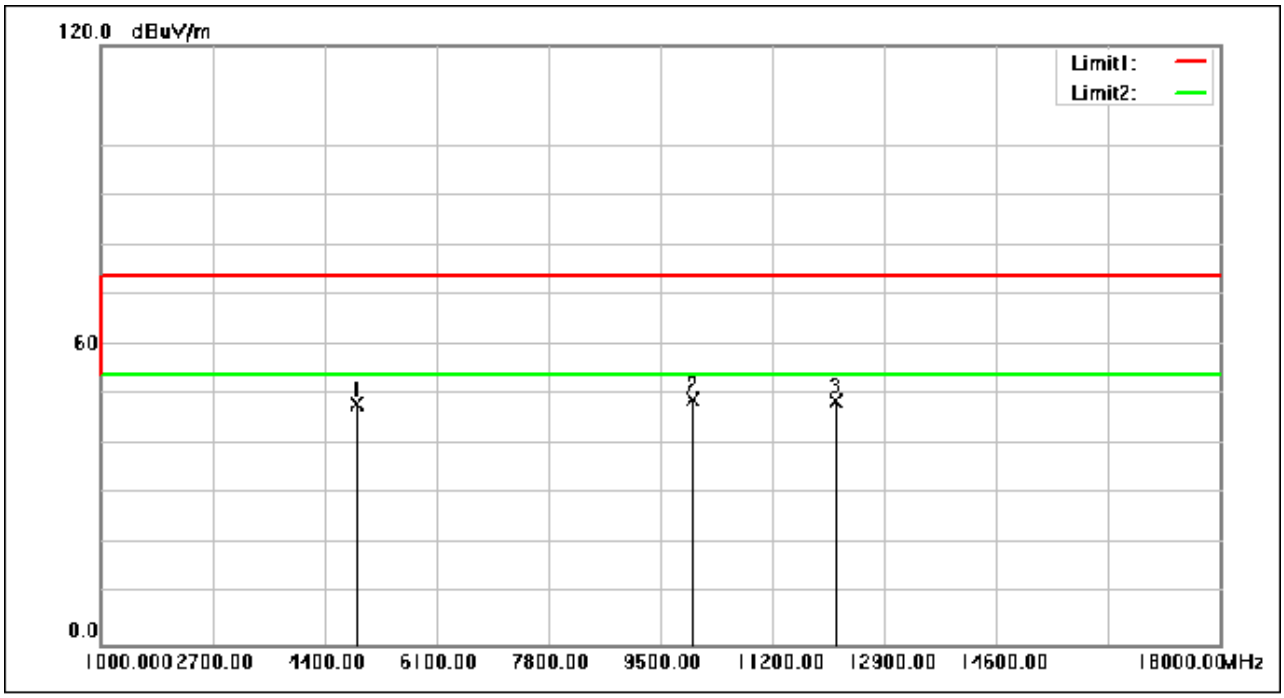
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4852.200	68.15	-18.53	49.62	74.00	-24.38	peak
2	9735.280	55.20	-7.51	47.69	74.00	-26.31	peak
3	12423.320	55.47	-6.08	49.39	74.00	-24.61	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



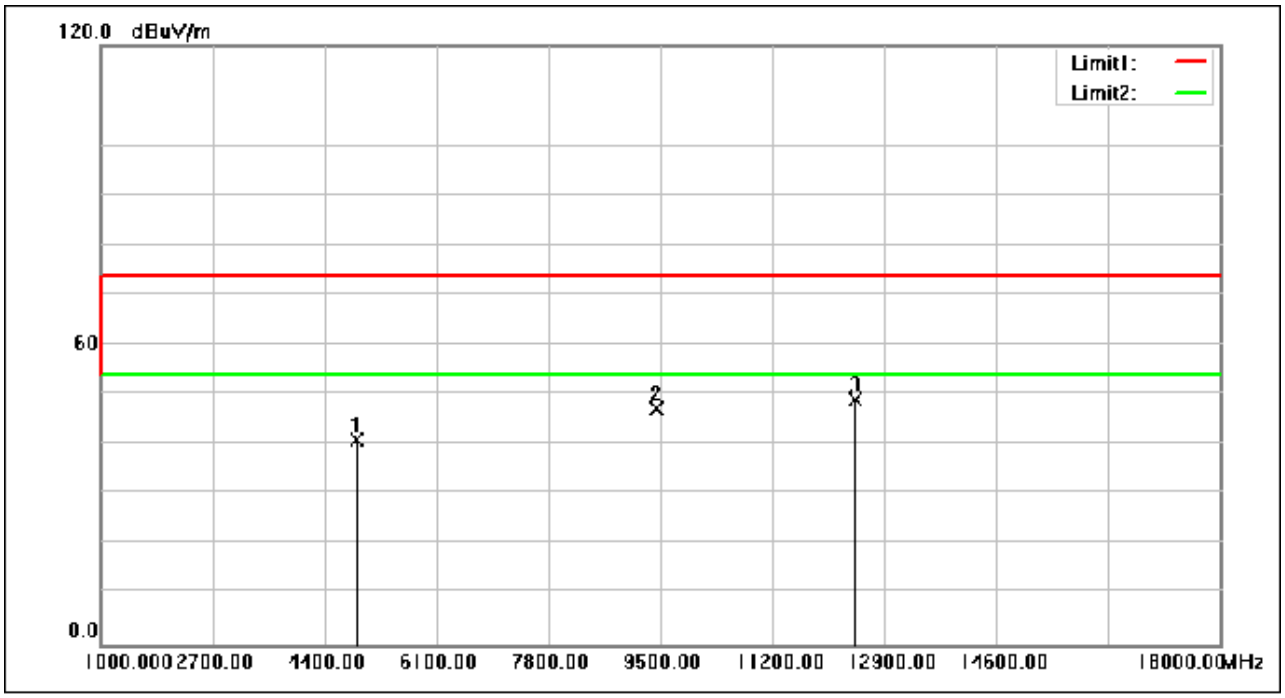
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4844.720	60.09	-18.54	41.55	74.00	-32.45	peak
2	9462.600	55.78	-8.03	47.75	74.00	-26.25	peak
3	10694.080	55.64	-6.92	48.72	74.00	-25.28	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:middle



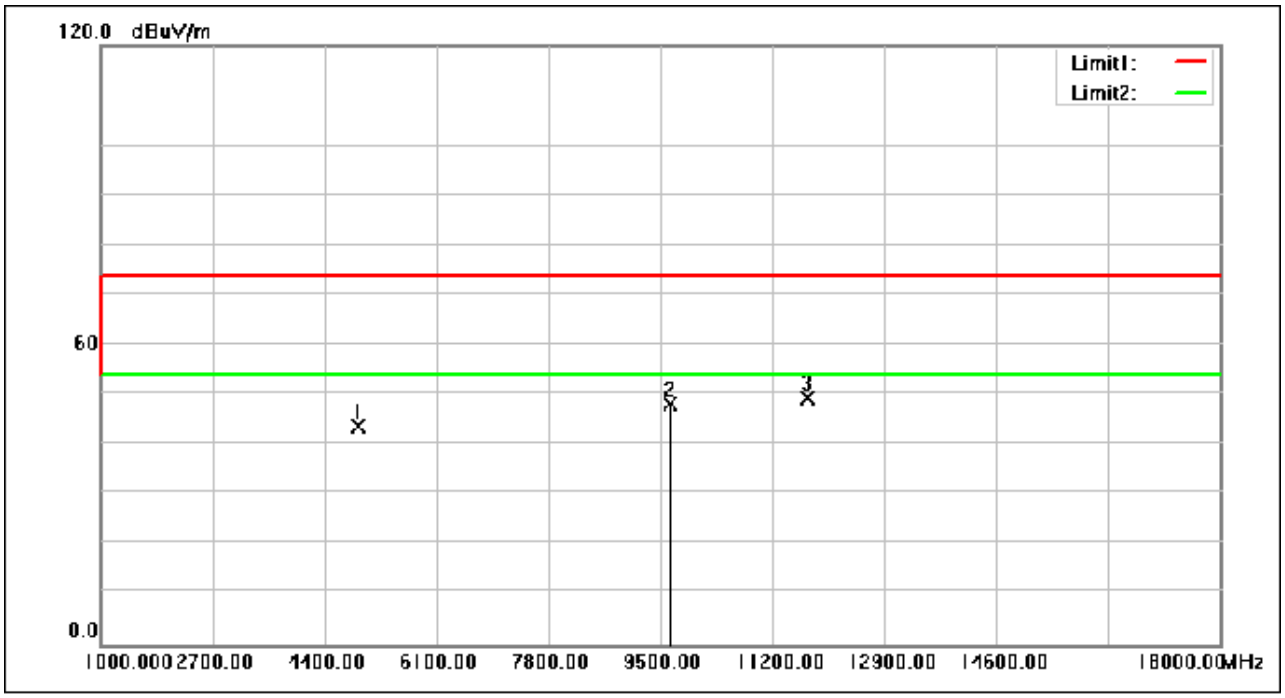
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4878.040	66.53	-18.52	48.01	74.00	-25.99	peak
2	9995.720	56.35	-7.33	49.02	74.00	-24.98	peak
3	12162.200	54.80	-5.96	48.84	74.00	-25.16	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:middle



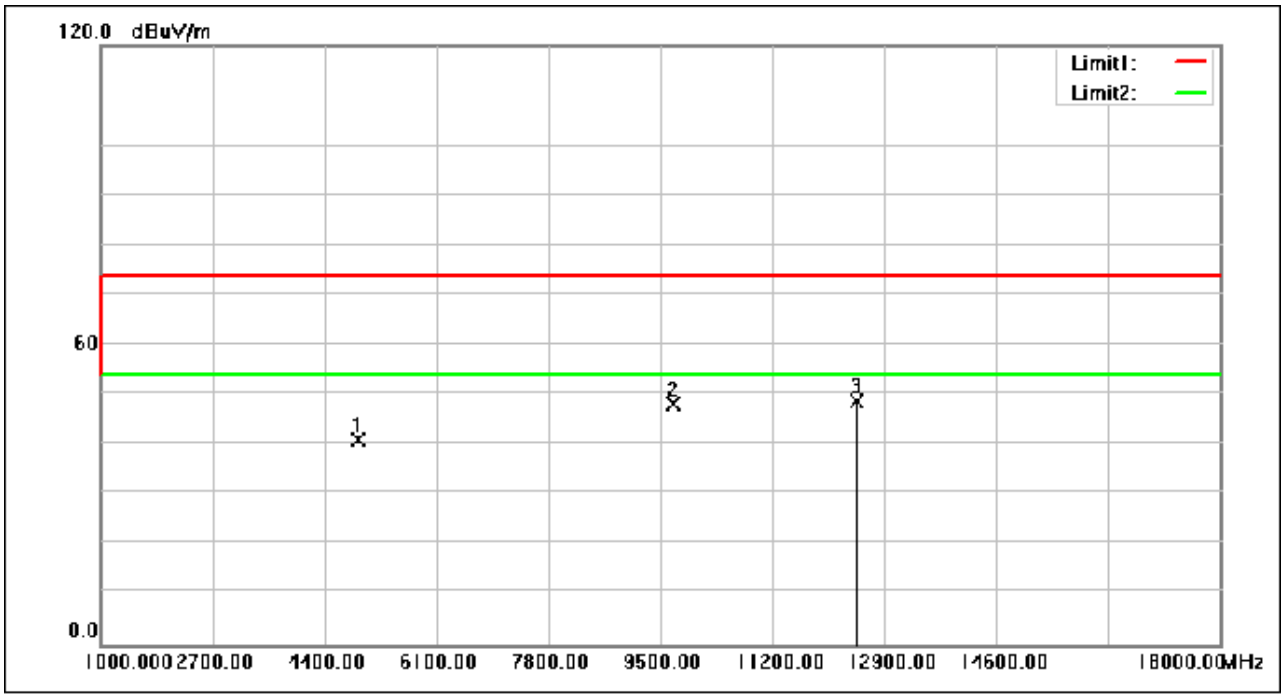
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4877.360	59.42	-18.52	40.90	74.00	-33.10	peak
2	9462.600	55.38	-8.03	47.35	74.00	-26.65	peak
3	12460.040	55.20	-6.10	49.10	74.00	-24.90	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



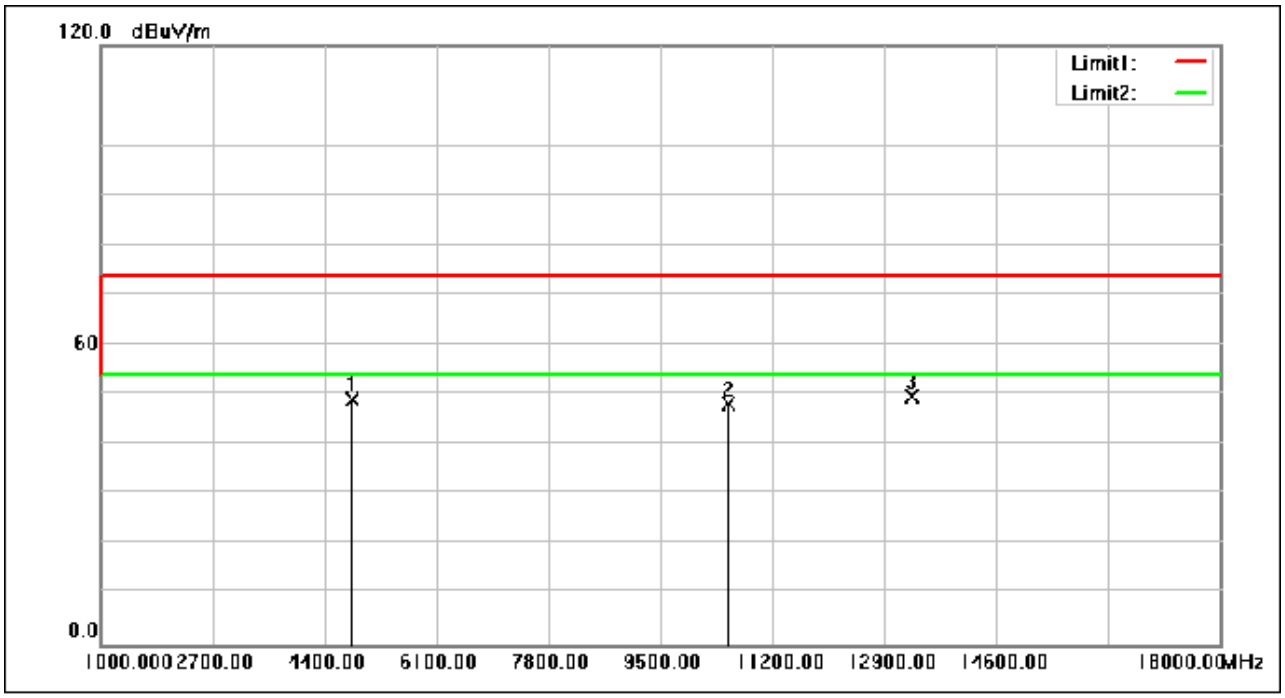
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4916.120	62.14	-18.49	43.65	74.00	-30.35	peak
2	9667.280	55.67	-7.64	48.03	74.00	-25.97	peak
3	11736.520	55.58	-6.16	49.42	74.00	-24.58	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



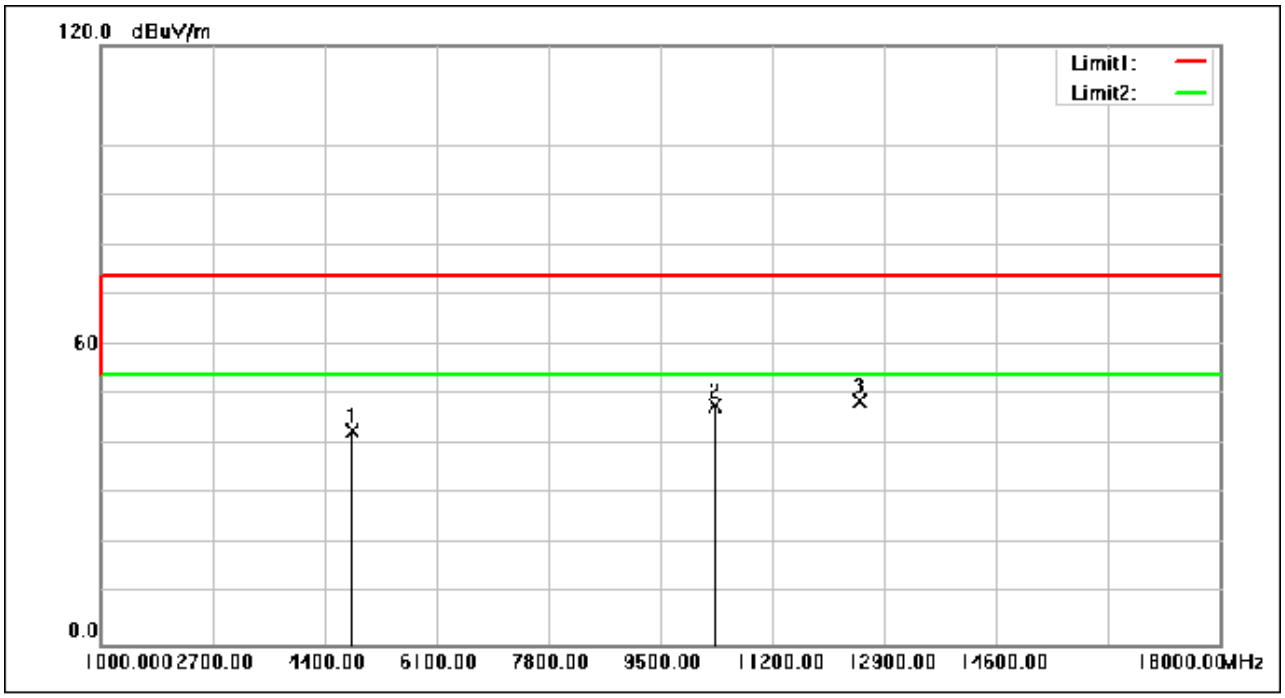
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4910.000	59.52	-18.50	41.02	74.00	-32.98	peak
2	9701.960	55.60	-7.57	48.03	74.00	-25.97	peak
3	12475.000	54.84	-6.10	48.74	74.00	-25.26	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



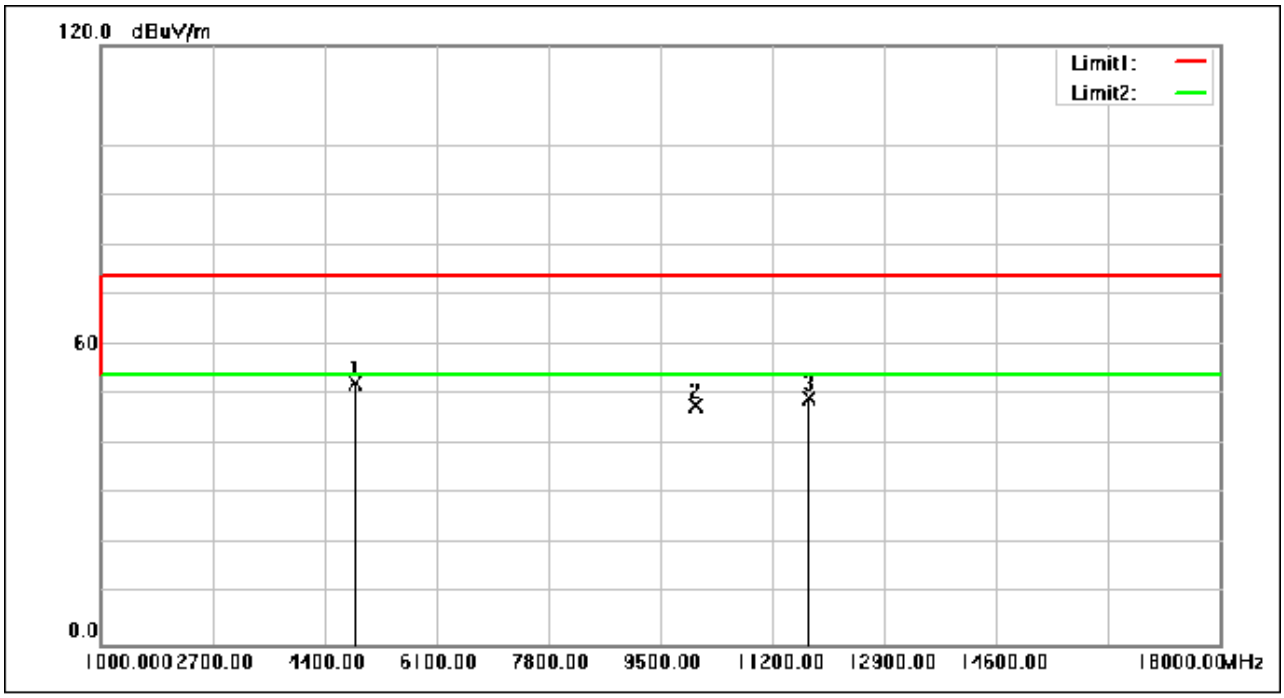
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4827.720	67.46	-18.55	48.91	74.00	-25.09	peak
2	10551.960	55.31	-7.01	48.30	74.00	-25.70	peak
3	13337.920	55.96	-6.31	49.65	74.00	-24.35	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



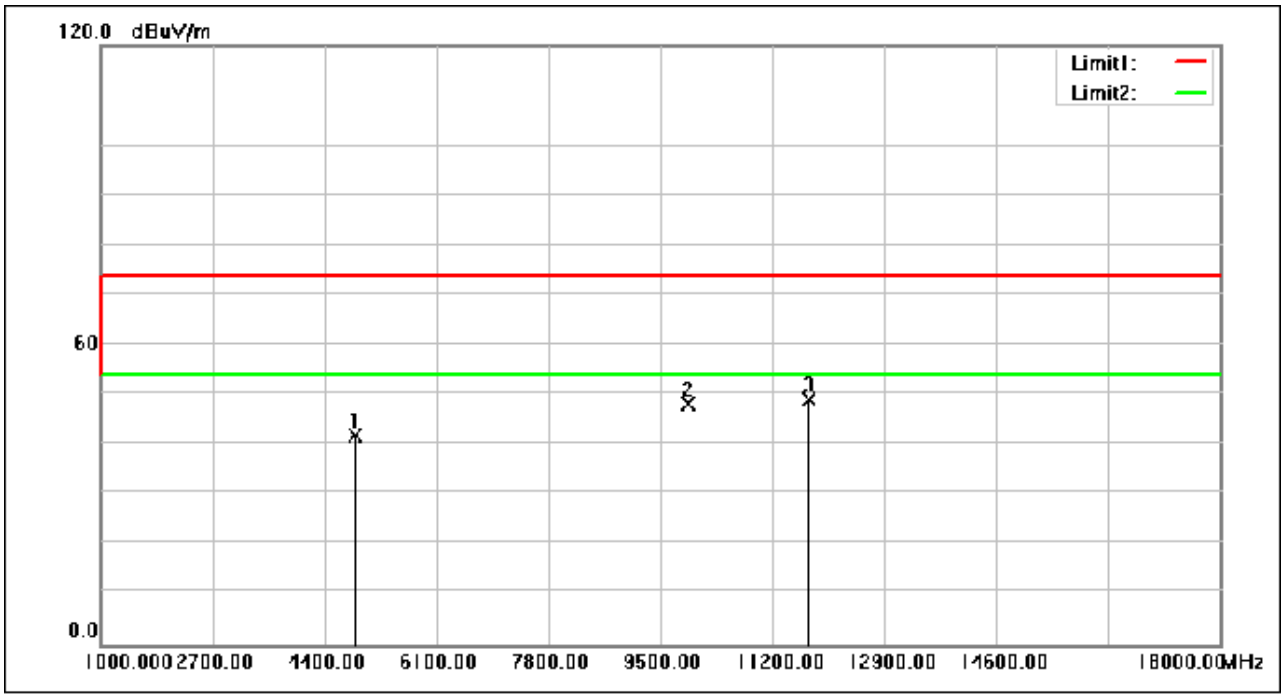
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4824.320	61.19	-18.54	42.65	74.00	-31.35	peak
2	10340.480	55.03	-7.13	47.90	74.00	-26.10	peak
3	12530.080	54.92	-6.12	48.80	74.00	-25.20	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



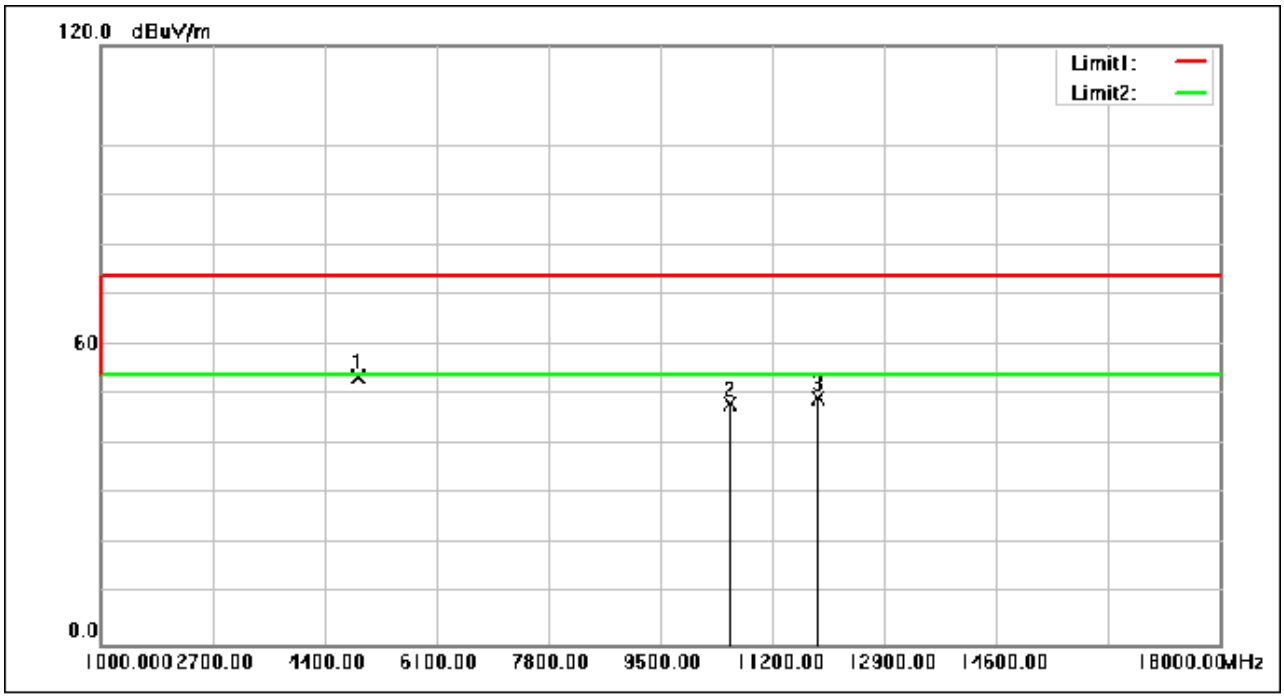
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4873.960	70.89	-18.52	52.37	74.00	-21.63	peak
2	10035.840	55.18	-7.30	47.88	74.00	-26.12	peak
3	11762.360	55.42	-6.15	49.27	74.00	-24.73	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



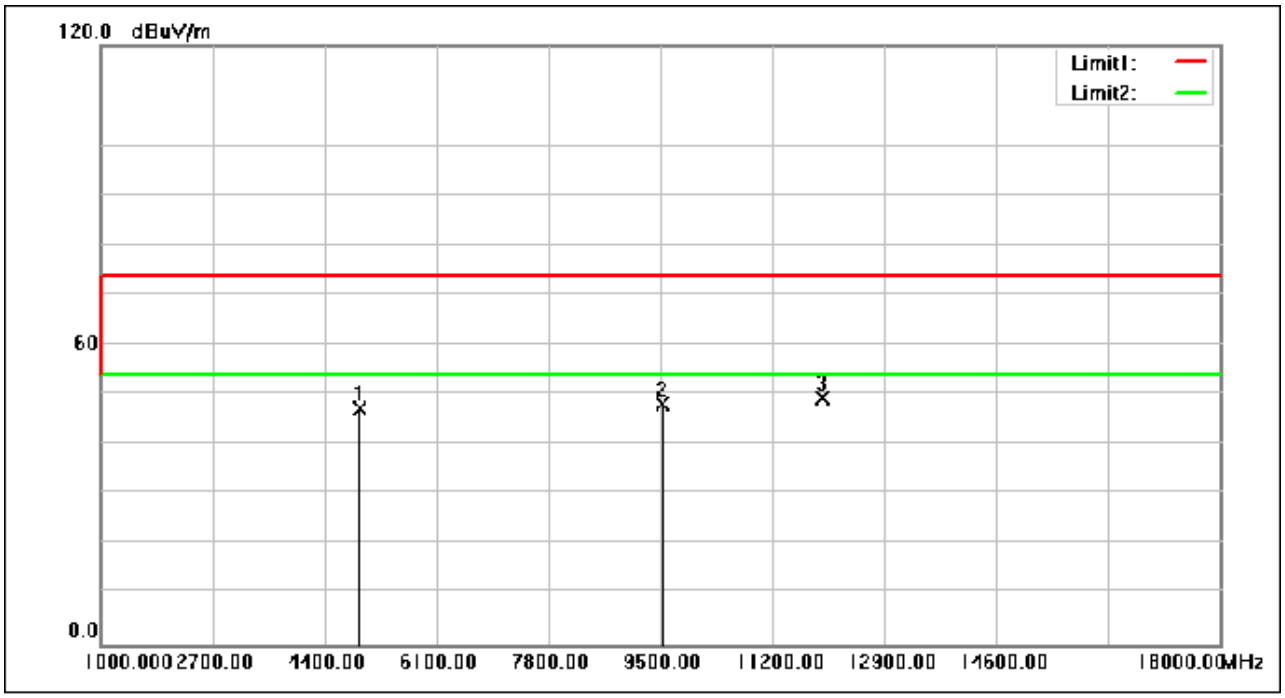
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4866.480	60.48	-18.52	41.96	74.00	-32.04	peak
2	9940.640	55.37	-7.31	48.06	74.00	-25.94	peak
3	11771.200	55.17	-6.14	49.03	74.00	-24.97	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



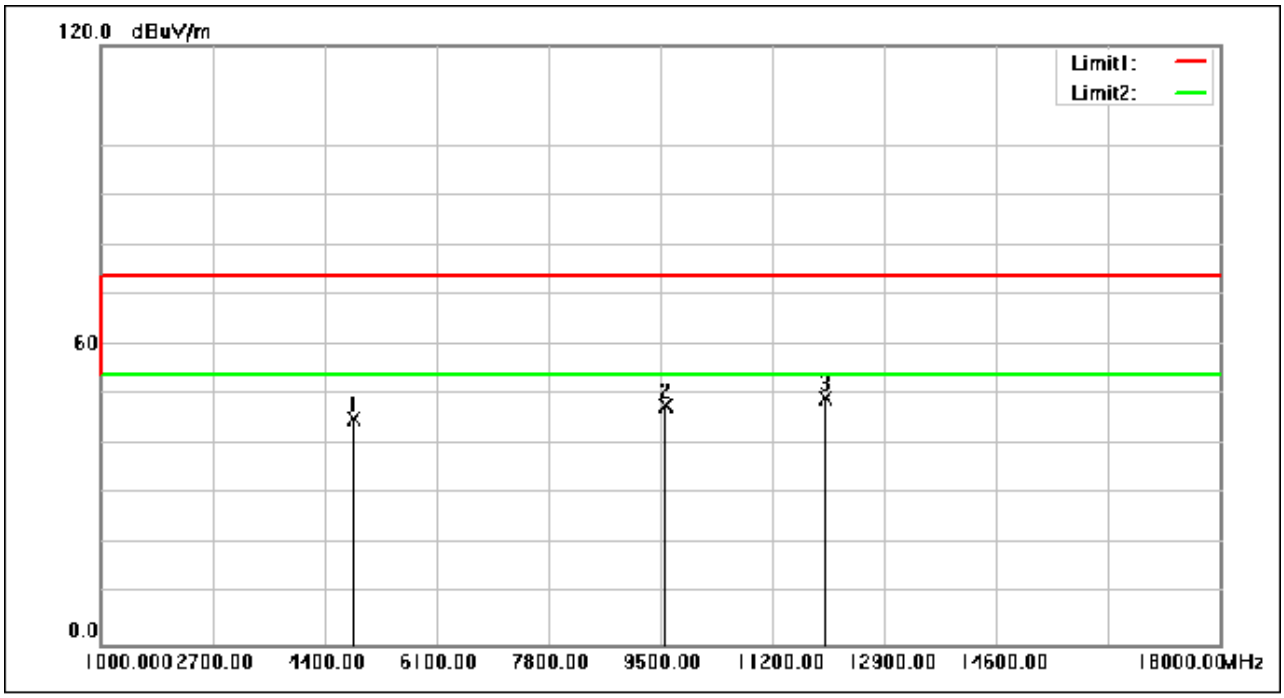
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4921.560	72.14	-18.49	53.65	74.00	-20.35	peak
2	10568.280	55.30	-7.00	48.30	74.00	-25.70	peak
3	11905.840	55.38	-6.03	49.35	74.00	-24.65	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



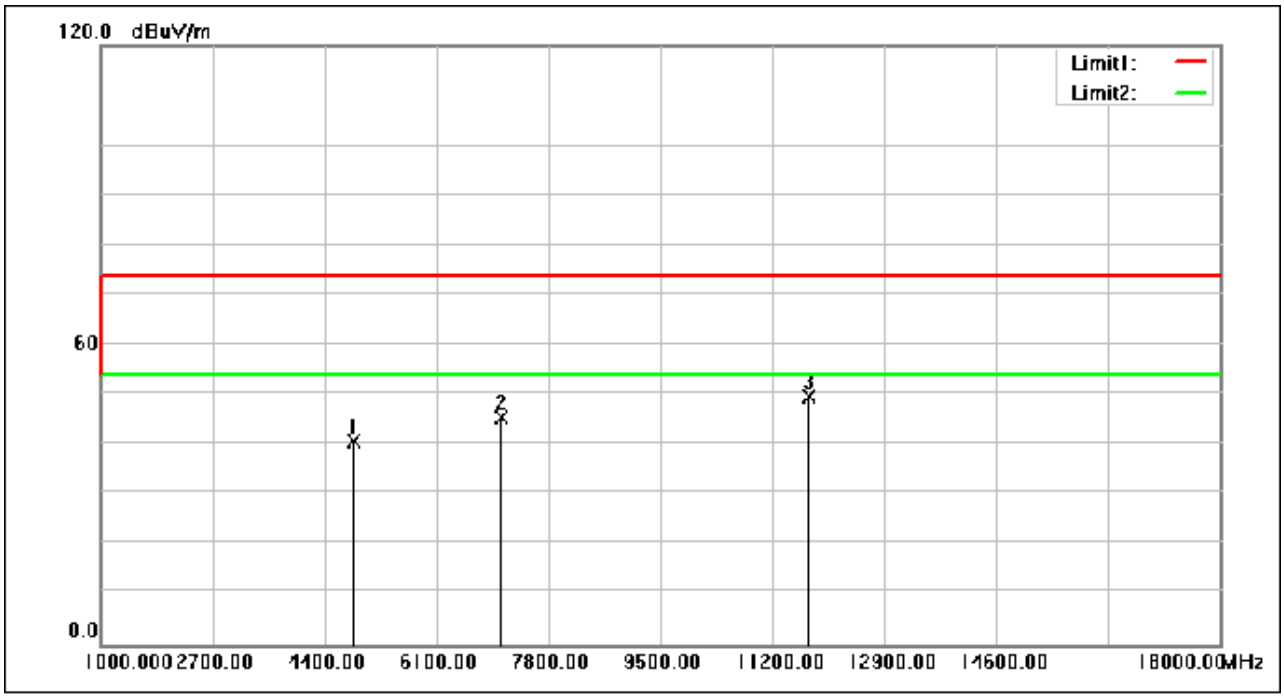
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4927.680	65.61	-18.49	47.12	74.00	-26.88	peak
2	9534.000	55.99	-7.89	48.10	74.00	-25.90	peak
3	11950.040	55.29	-5.97	49.32	74.00	-24.68	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



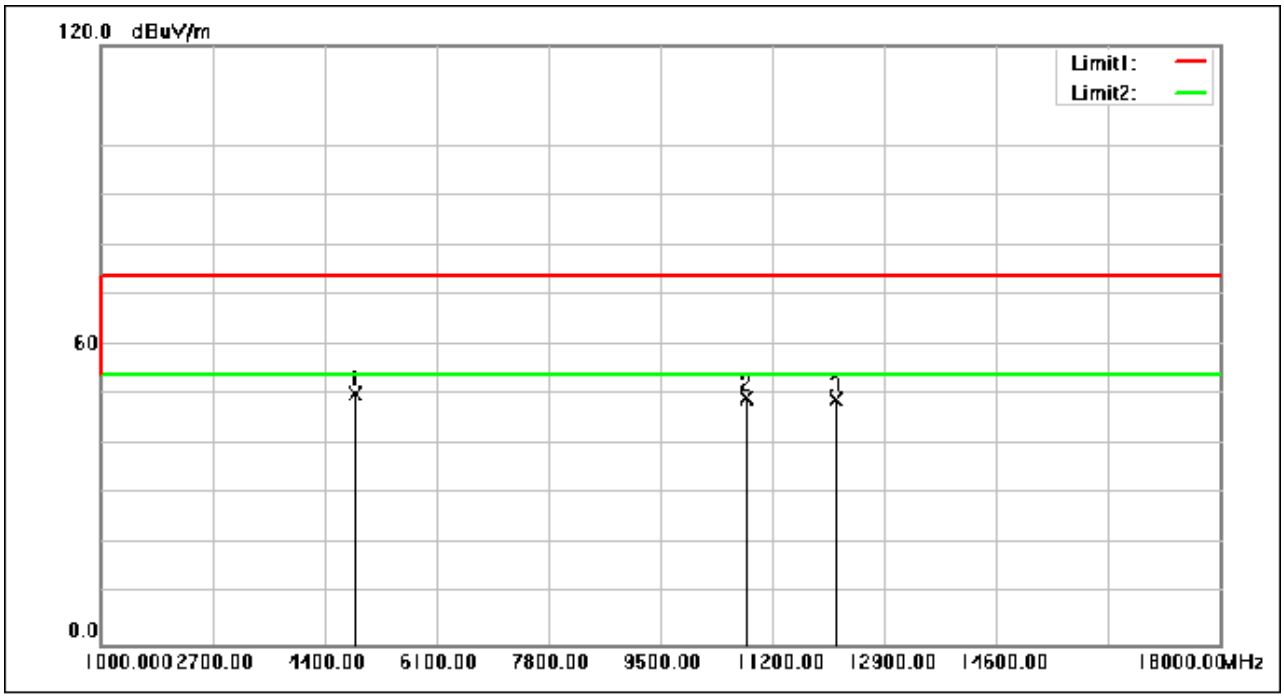
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4844.040	63.61	-18.54	45.07	74.00	-28.93	peak
2	9579.560	55.65	-7.81	47.84	74.00	-26.16	peak
3	12001.720	55.15	-5.89	49.26	74.00	-24.74	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



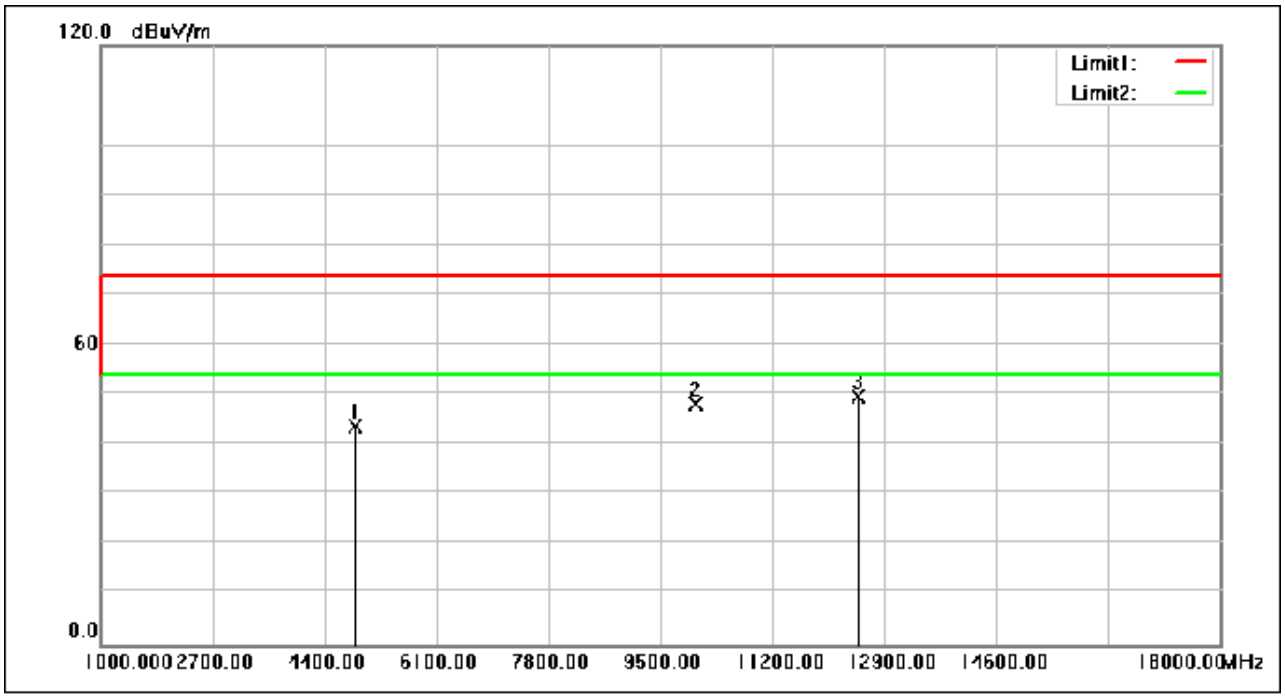
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4856.960	59.28	-18.53	40.75	74.00	-33.25	peak
2	7099.600	56.85	-11.52	45.33	74.00	-28.67	peak
3	11765.080	55.91	-6.14	49.77	74.00	-24.23	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:middle



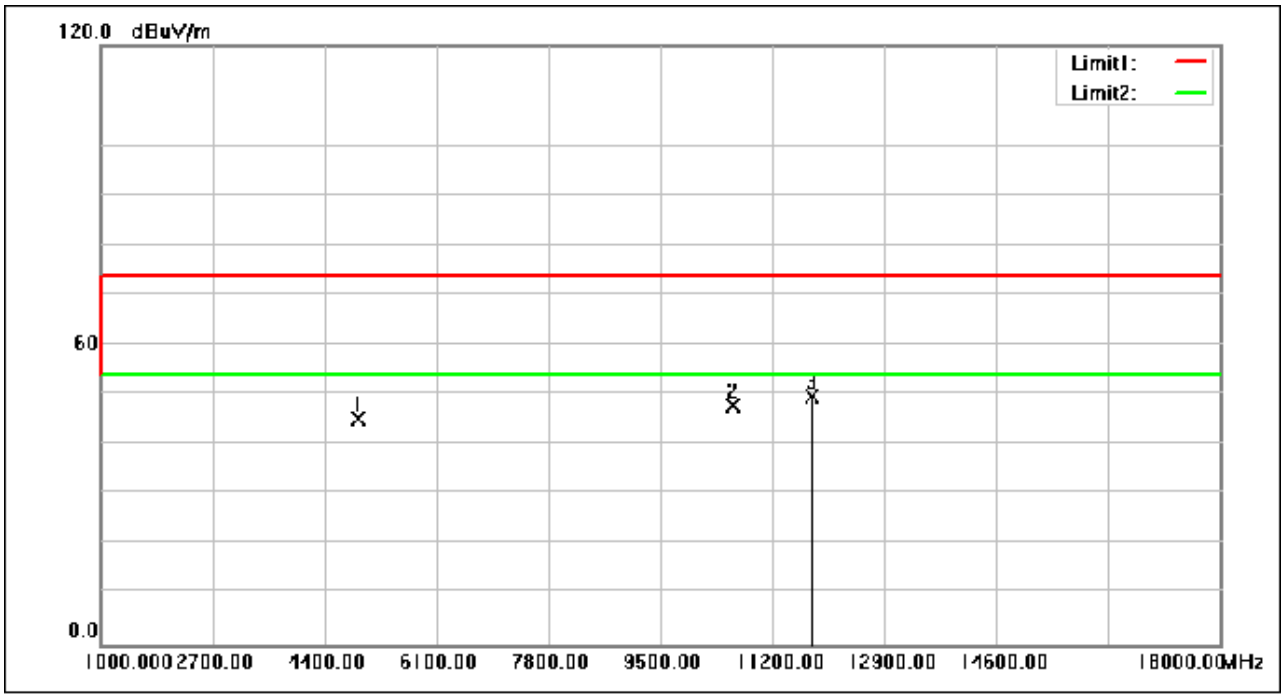
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4863.760	68.91	-18.53	50.38	74.00	-23.62	peak
2	10805.600	56.26	-6.87	49.39	74.00	-24.61	peak
3	12167.640	54.95	-5.96	48.99	74.00	-25.01	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:middle



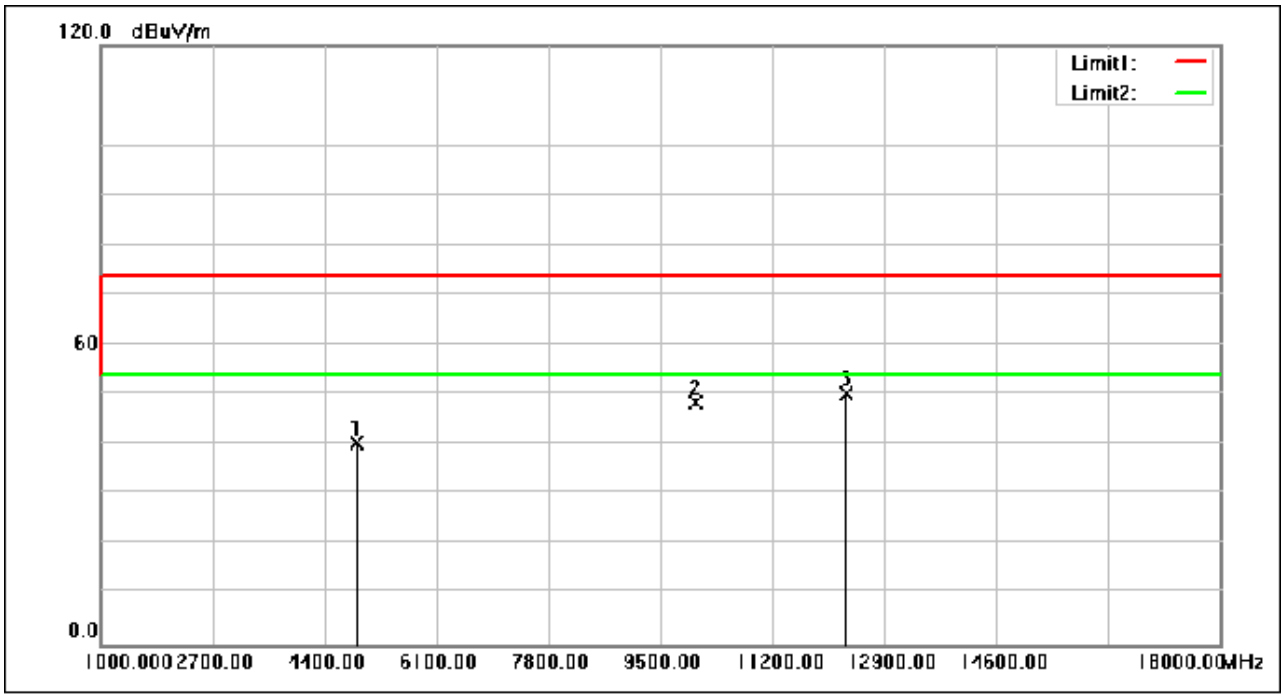
No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4866.480	62.17	-18.52	43.65	74.00	-30.35	peak
2	10040.600	55.44	-7.30	48.14	74.00	-25.86	peak
3	12513.760	55.81	-6.13	49.68	74.00	-24.32	peak

Test Mode: 02; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4913.400	63.80	-18.50	45.30	74.00	-28.70	peak
2	10618.600	54.89	-6.97	47.92	74.00	-26.08	peak
3	11811.320	55.80	-6.11	49.69	74.00	-24.31	peak

Test Mode: 02; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



No.	Frequency (MHz)	Reading (dBuV/m)	Correction factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4909.320	58.89	-18.50	40.39	74.00	-33.61	peak
2	10038.560	55.79	-7.30	48.49	74.00	-25.51	peak
3	12324.720	56.17	-6.04	50.13	74.00	-23.87	peak

7.5 Conducted Peak Output Power

Test Requirement 47 CFR Part 15, Subpart C 15.247(b)(3)
Test Method: ANSI C63.10 (2013) Section 11.9.1

Limit:

Frequency range(MHz)	Output power of the intentional radiator(watt)
902-928	1 for ≥50 hopping channels
	0.25 for 25≤ hopping channels <50
	1 for digital modulation
2400-2483.5	1 for ≥75 non-overlapping hopping channels
	0.125 for all other frequency hopping systems
	1 for digital modulation
5725-5850	1 for frequency hopping systems and digital modulation

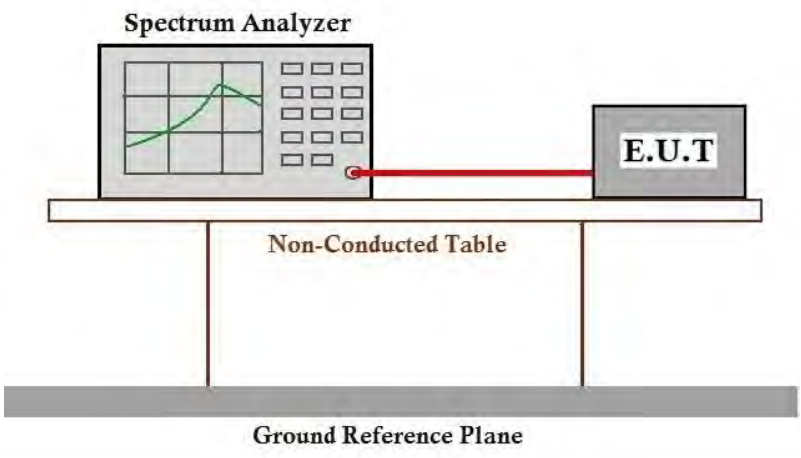
7.5.1 E.U.T. Operation

Operating Environment:
Temperature: 26 °C Humidity: 52.8 % RH Atmospheric Pressure: 1010 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE40). Only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

Note: Since the verify power the same operating range bandwidth and smaller power can be covered by the higher power.

Please Refer to Appendix for Details

7.6 Minimum 6dB Bandwidth

Test Requirement 47 CFR Part 15, Subpart C 15.247a(2)
Test Method: ANSI C63.10 (2013) Section 11.8.1

Limit:

≥500 kHz

7.6.1 E.U.T. Operation

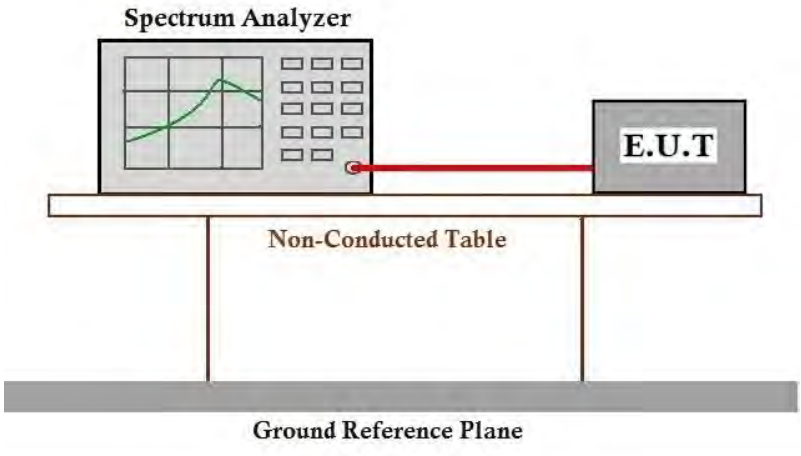
Operating Environment:

Temperature: 26 °C Humidity: 52.8 % RH Atmospheric Pressure: 1010 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE40). Only the data of worst case is recorded in the report.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.7 Power Spectrum Density

Test Requirement 47 CFR Part 15, Subpart C 15.247(e)
Test Method: ANSI C63.10 (2013) Section 11.10.2

Limit:
≤8dBm in any 3 kHz band during any time interval of continuous transmission

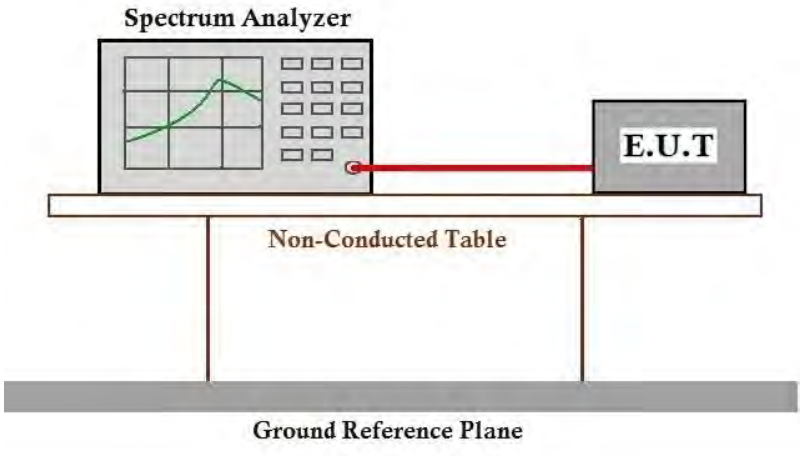
7.7.1 E.U.T. Operation

Operating Environment:
Temperature: 26 °C Humidity: 52.8 % RH Atmospheric Pressure: 1010 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE40). Only the data of worst case is recorded in the report.

7.7.3 Test Setup Diagram



7.7.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.8 Conducted Band Edges Measurement

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)
Test Method: ANSI C63.10 (2013) Section 11.13.3.2

Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c).

7.8.1 E.U.T. Operation

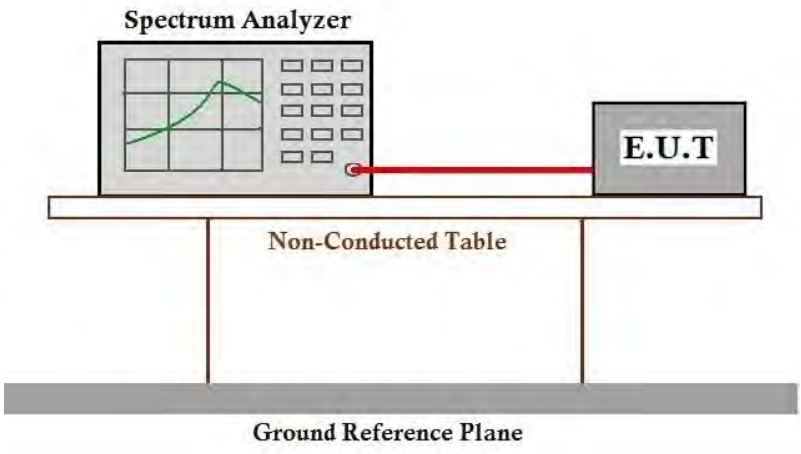
Operating Environment:

Temperature: 26 °C Humidity: 52.8 % RH Atmospheric Pressure: 1010 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE40). Only the data of worst case is recorded in the report.

7.8.3 Test Setup Diagram



7.8.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.9 Conducted Spurious Emissions

Test Requirement 47 CFR Part 15, Subpart C 15.247(d)
Test Method: ANSI C63.10 (2013) Section 11.11

Limit:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c).

7.9.1 E.U.T. Operation

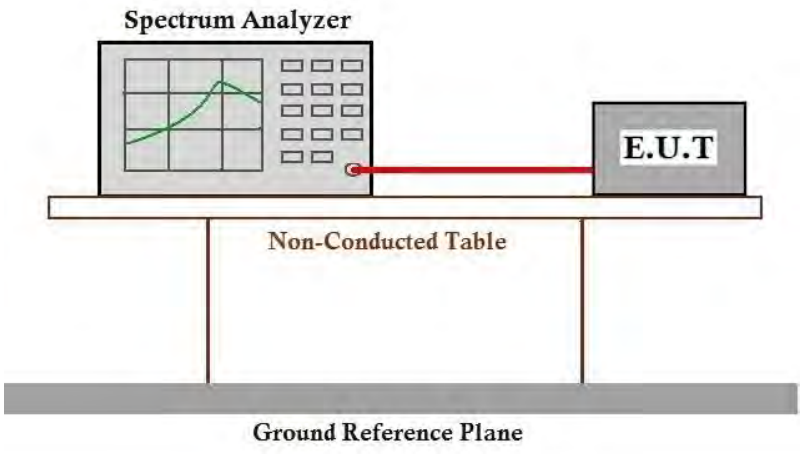
Operating Environment:

Temperature: 26 °C Humidity: 52.8 % RH Atmospheric Pressure: 1010 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE40). Only the data of worst case is recorded in the report.

7.9.3 Test Setup Diagram



7.9.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.10 99% Bandwidth

Test Requirement RSS-Gen Section 6.7
Test Method: ANSI C63.10 (2013) Section 6.9.3

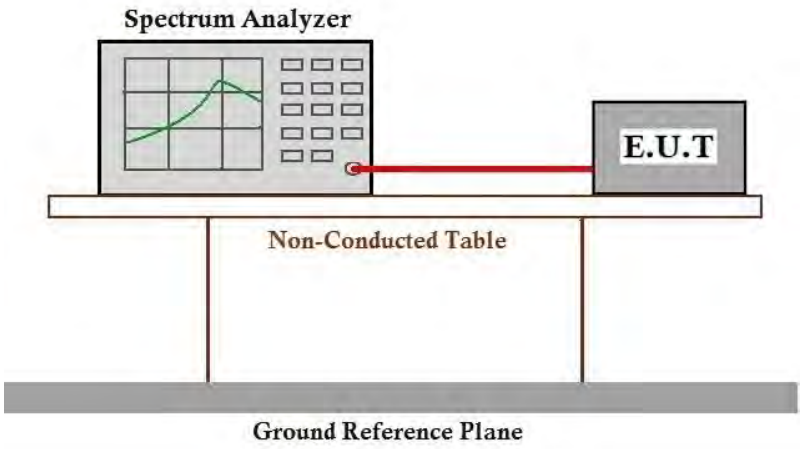
7.10.1 E.U.T. Operation

Operating Environment:
Temperature: 25.7 °C Humidity: 51.1 % RH Atmospheric Pressure: 1010 mbar

7.10.1 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 1Mbps is the worst case of IEEE 802.11b; data rate @ 6Mbps is the worst case of IEEE 802.11g; data rate @ 6.5Mbps is the worst case of IEEE 802.11n(HT20); data rate @ 13.5Mbps is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE20); data rate @ MCS0 is the worst case of IEEE 802.11ax(HE40). Only the data of worst case is recorded in the report.

7.10.2 Test Setup Diagram



7.10.3 Measurement Procedure and Data

Please Refer to Appendix for Details

8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2407001419AT

9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for KSCR2407001419AT

10 Appendix

1. Duty Cycle

1.1 Test Result

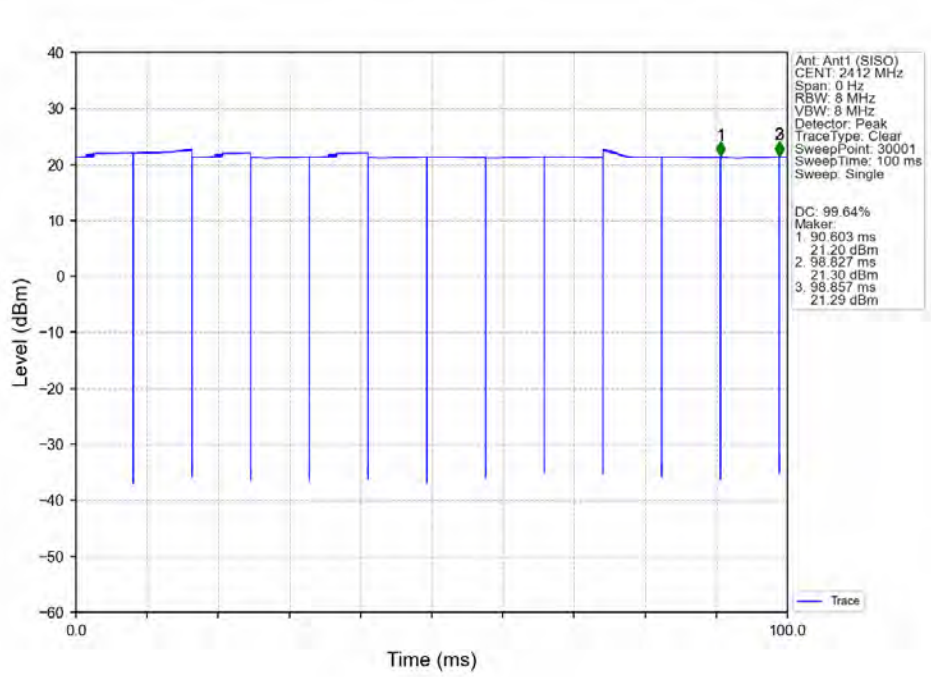
1.1.1 Ant1

Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	/	/	8.224	8.254	99.64	0.02	0.04
		2437	/	/	8.223	8.253	99.64	0.02	0.04
		2462	/	/	8.223	8.253	99.64	0.02	0.04
802.11g	SISO	2412	/	/	1.364	1.400	97.43	0.11	0.03
		2437	/	/	1.364	1.401	97.36	0.12	0.03
		2462	/	/	1.364	1.400	97.43	0.11	0.03
802.11n (HT20)	SISO	2412	/	/	1.279	1.379	92.75	0.33	0.03
		2437	/	/	1.276	1.312	97.26	0.12	0.03
		2462	/	/	1.276	1.313	97.18	0.12	0.03
802.11n (HT40)	SISO	2422	/	/	0.636	0.738	86.18	0.65	0.03
		2437	/	/	0.642	0.738	86.99	0.61	0.04
		2452	/	/	0.638	0.717	88.98	0.51	0.03
802.11ax (HE20)	SISO	2412	RU242	Left	0.999	1.102	90.65	0.43	0.03
		2437	RU242	Left	0.999	1.080	92.50	0.34	0.03
		2462	RU242	Left	0.999	1.080	92.50	0.34	0.03
802.11ax (HE40)	SISO	2422	RU484	Left	0.534	0.567	94.18	0.26	0.04
		2437	RU484	Left	0.533	0.566	94.17	0.26	0.14
		2452	RU484	Left	0.533	0.566	94.17	0.26	0.11

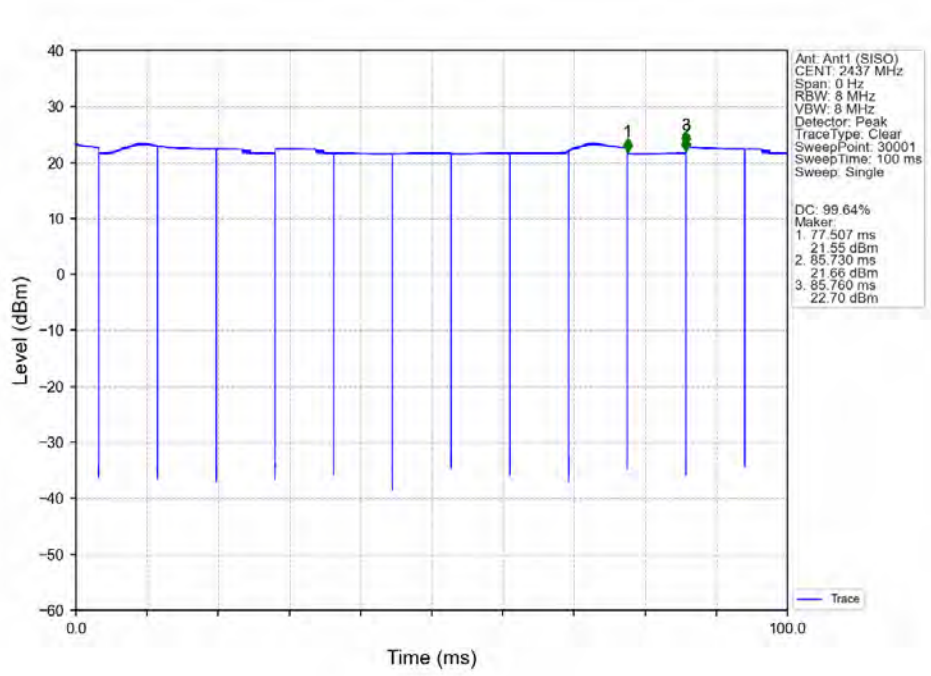
1.2 Test Graph

1.2.1 Ant1

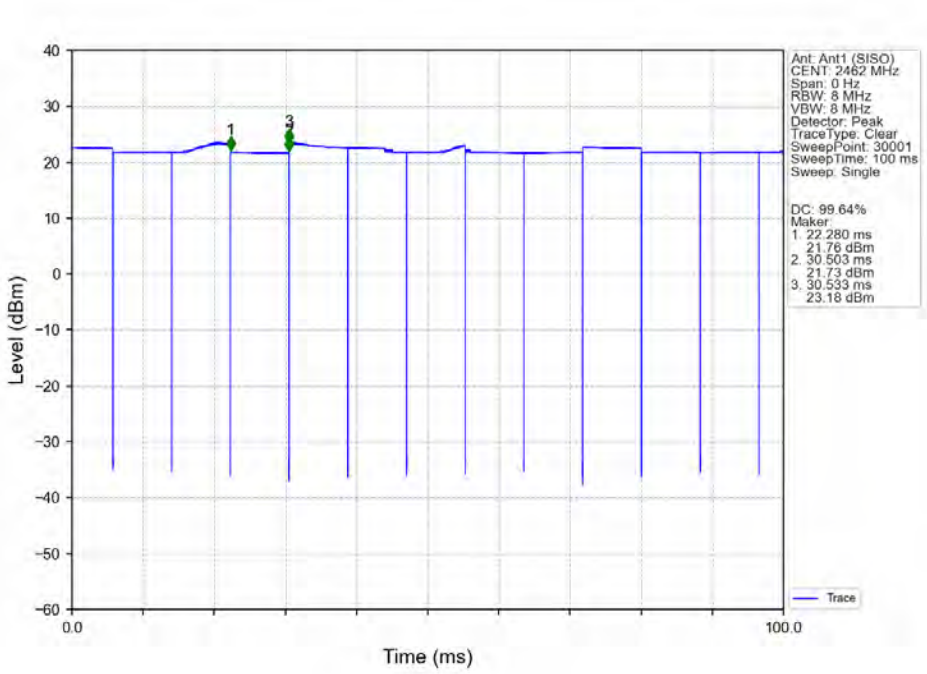
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



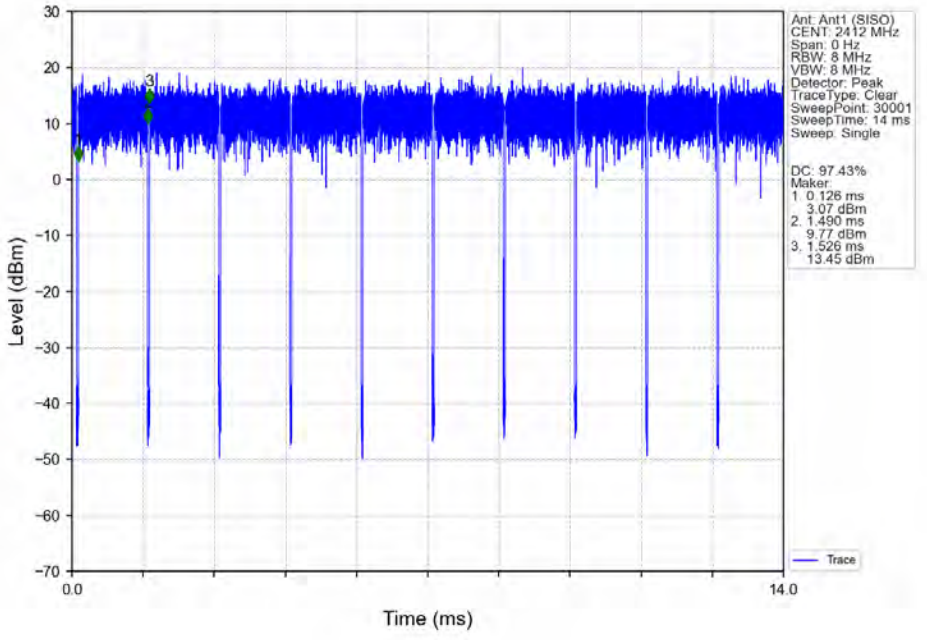
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



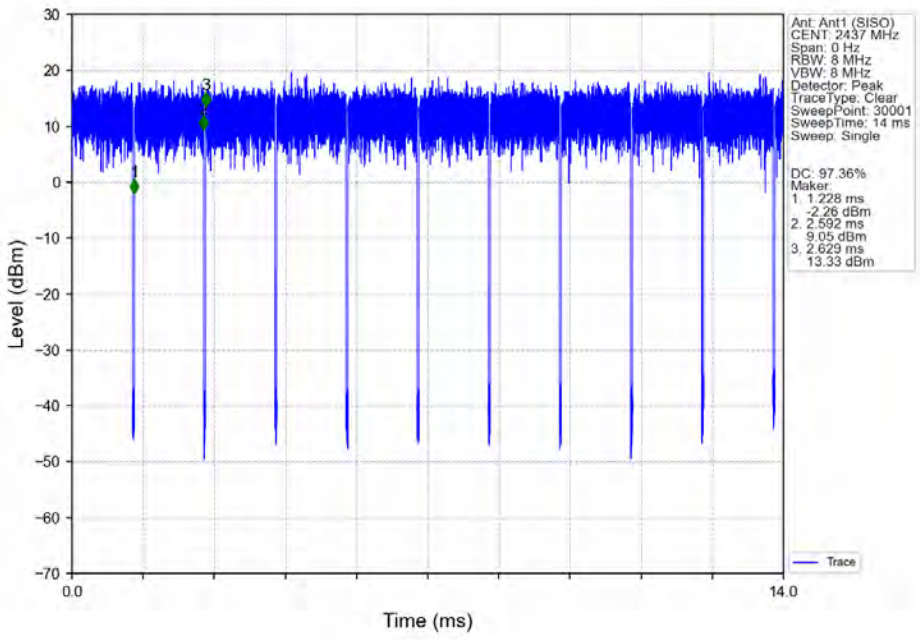
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



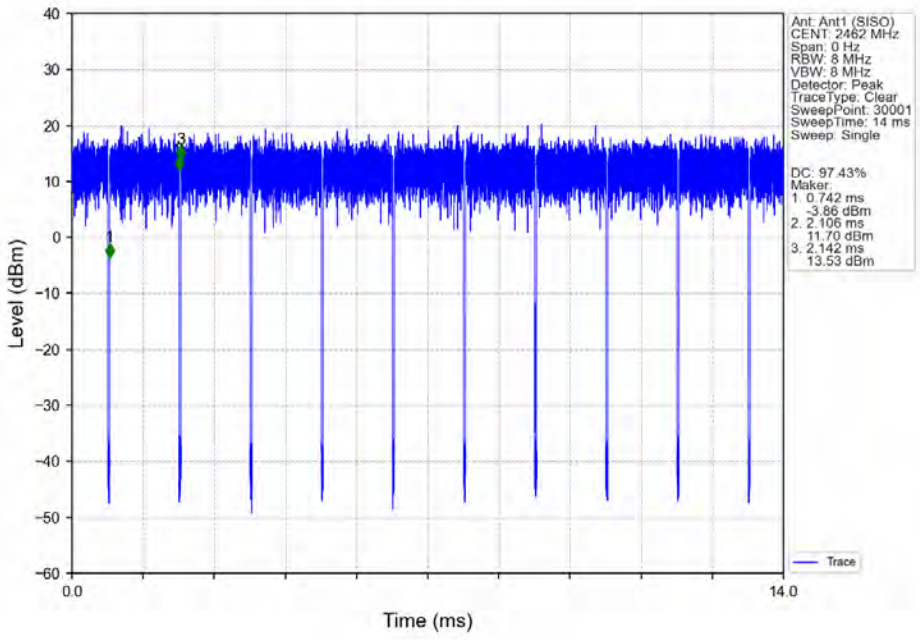
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



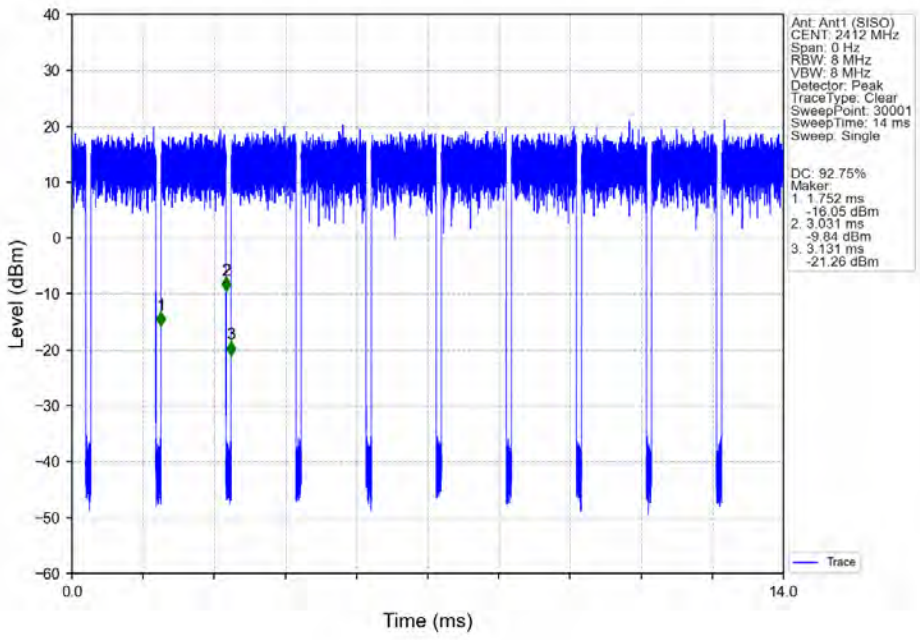
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



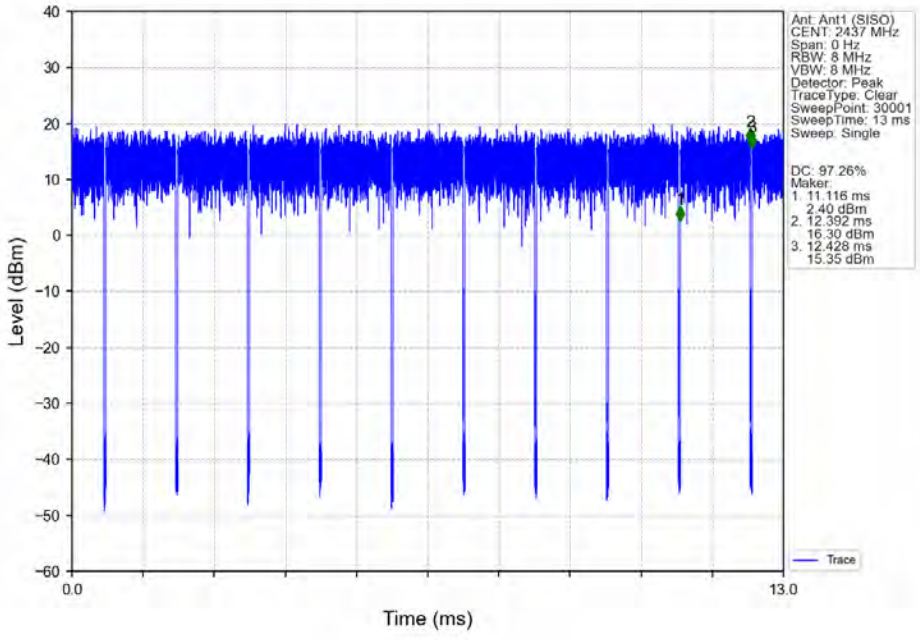
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



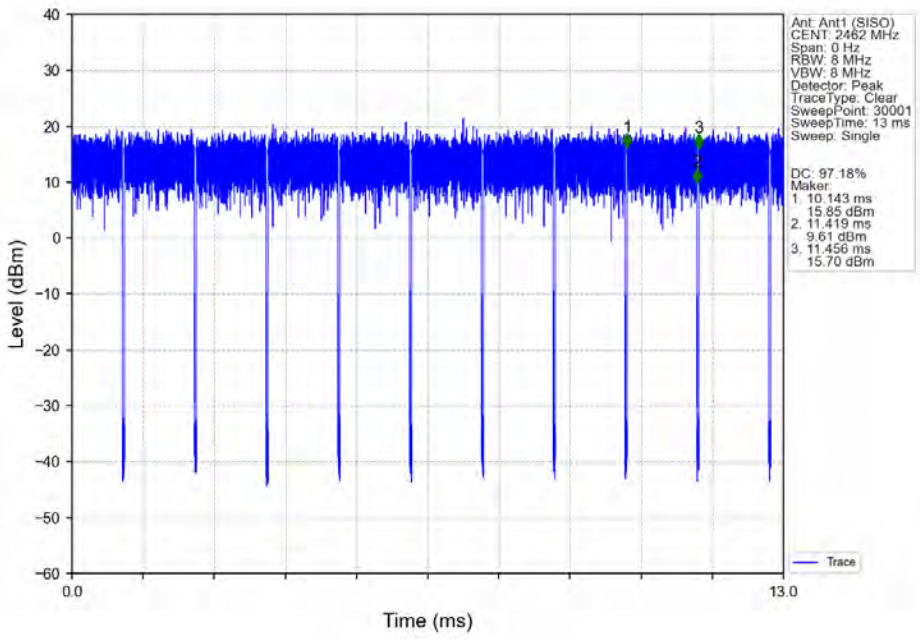
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



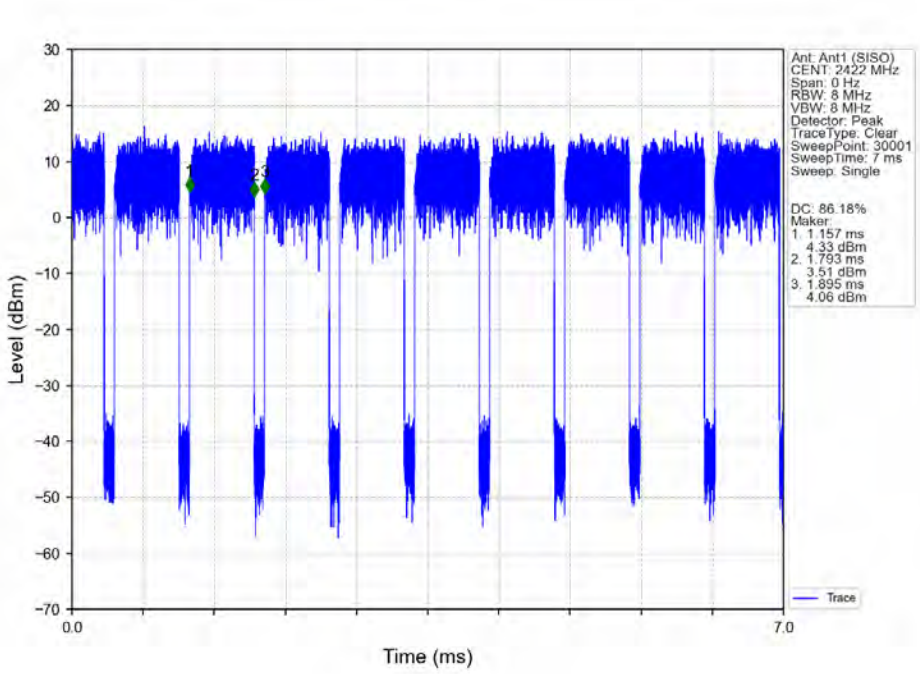
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



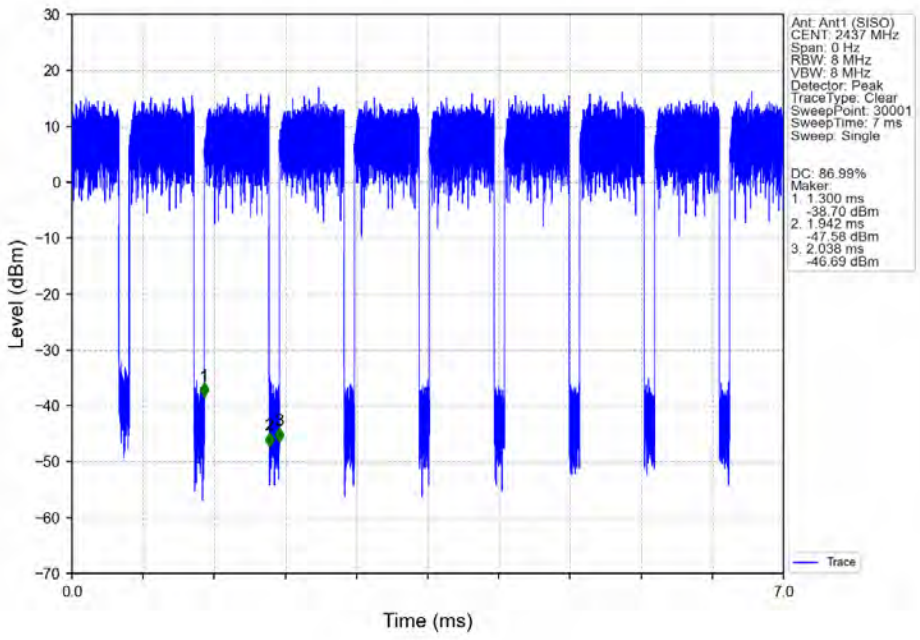
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



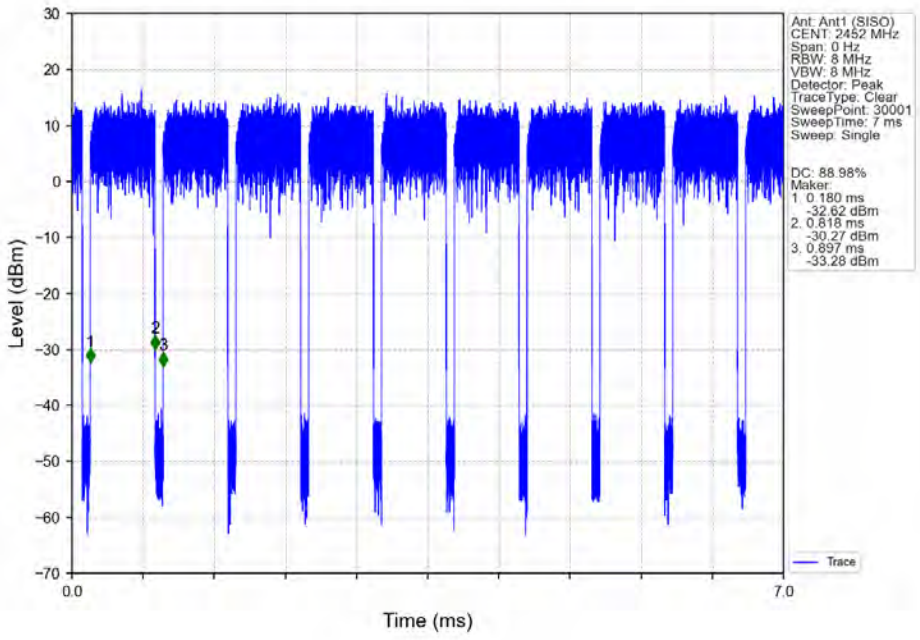
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



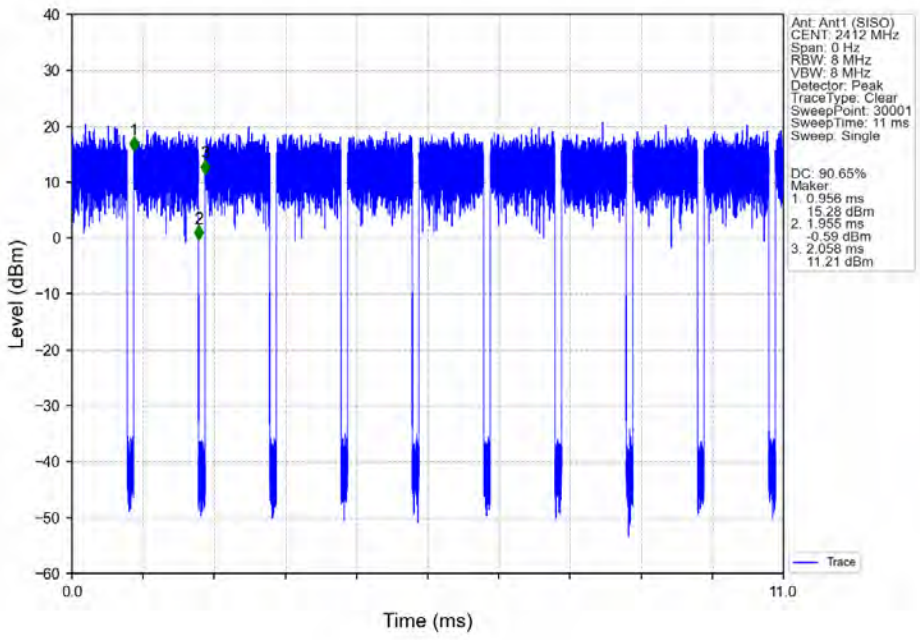
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



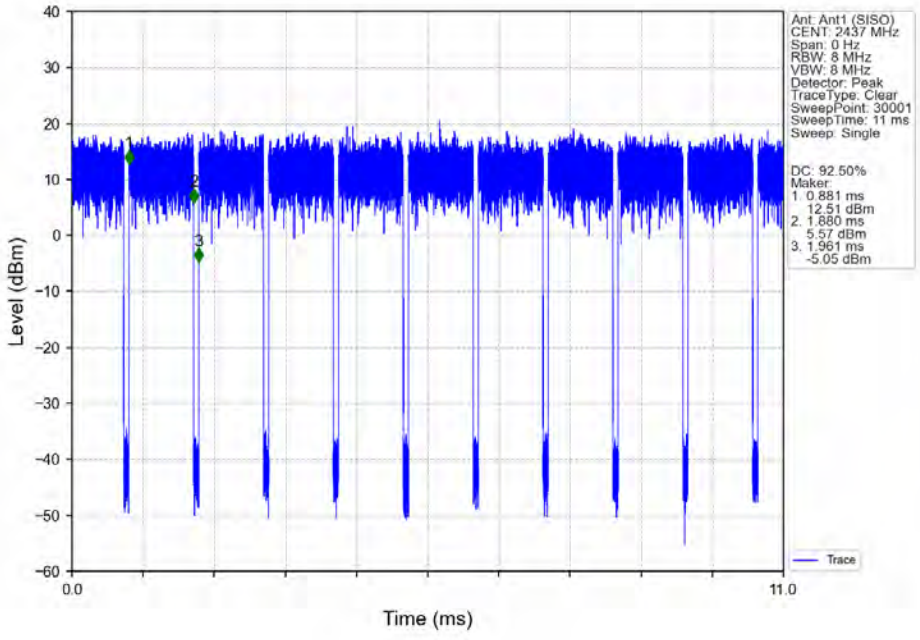
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



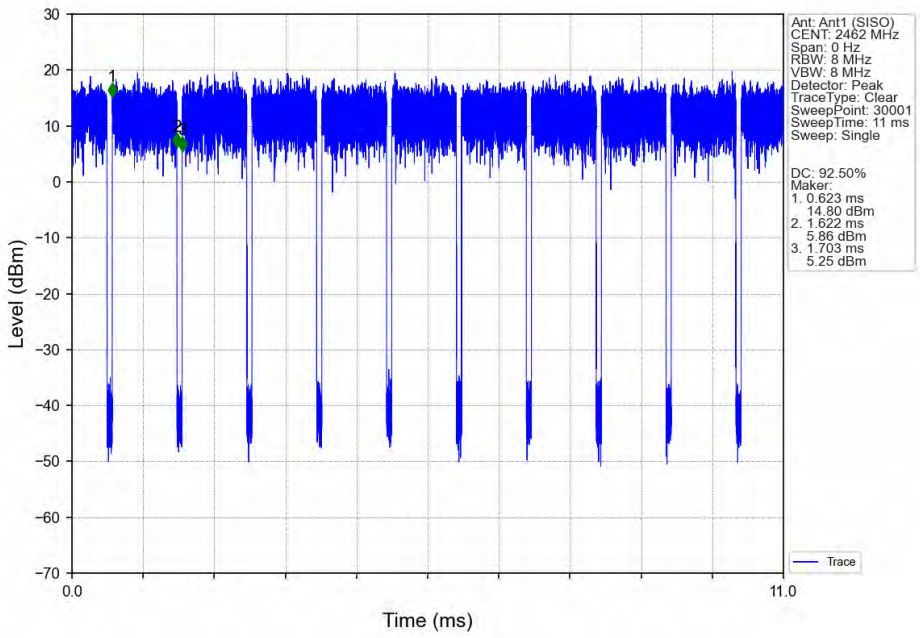
802.11ax(HE20)_LCH_2412MHz_RU242_Left_Ant1 (SISO)_NTNV



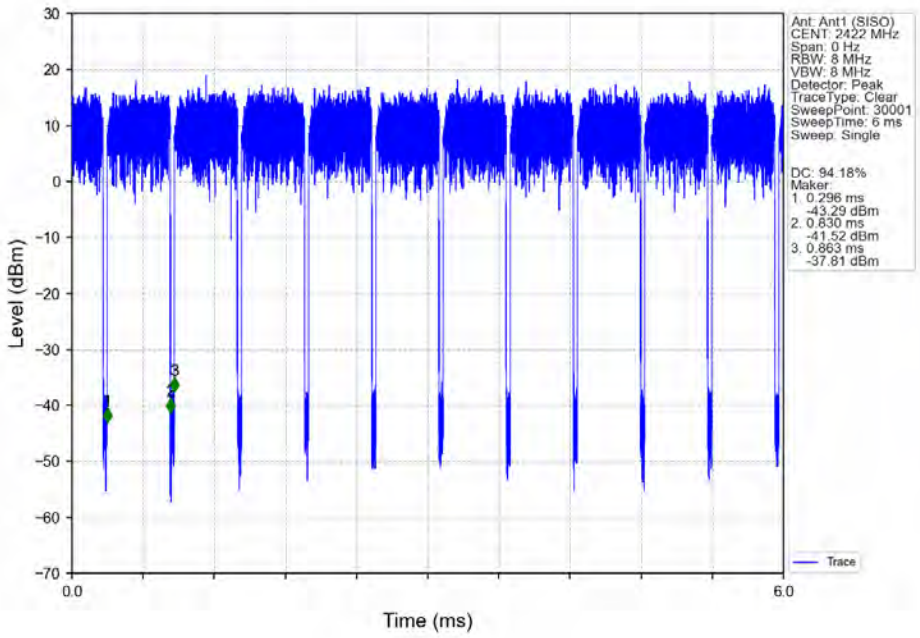
802.11ax(HE20)_MCH_2437MHz_RU242_Left_Ant1 (SISO)_NTNV



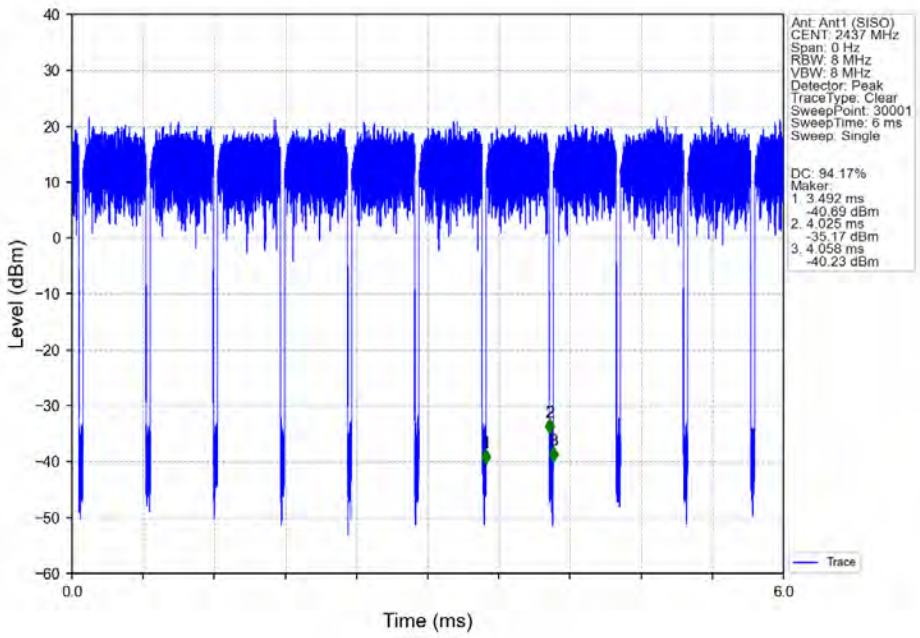
802.11ax(HE20)_HCH_2462MHz_RU242_Left_Ant1 (SISO)_NTNV



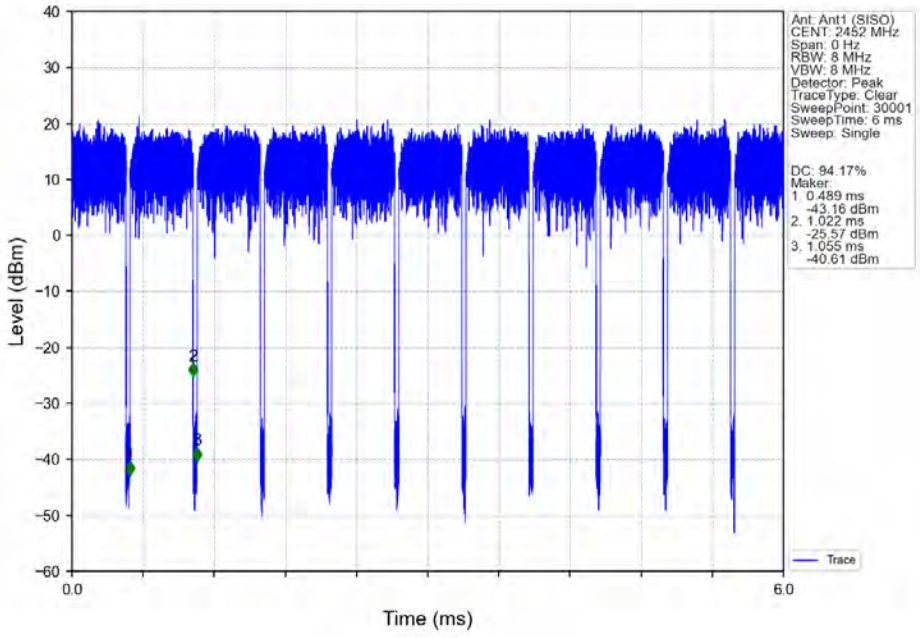
802.11ax(HE40)_LCH_2422MHz_RU484_Left_Ant1 (SISO)_NTNV



802.11ax(HE40)_MCH_2437MHz_RU484_Left_Ant1 (SISO)_NTNV



802.11ax(HE40)_HCH_2452MHz_RU484_Left_Ant1 (SISO)_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	14.987	/	Pass
		2437	/	/	1	15.066	/	Pass
		2462	/	/	1	15.151	/	Pass
802.11g	SISO	2412	/	/	1	18.494	/	Pass
		2437	/	/	1	18.437	/	Pass
		2462	/	/	1	18.496	/	Pass
802.11n (HT20)	SISO	2412	/	/	1	19.364	/	Pass
		2437	/	/	1	19.404	/	Pass
		2462	/	/	1	19.407	/	Pass
802.11n (HT40)	SISO	2422	/	/	1	37.314	/	Pass
		2437	/	/	1	37.447	/	Pass
		2452	/	/	1	37.417	/	Pass
802.11ax (HE20)	SISO	2412	RU242	Left	1	19.767	/	Pass
		2437	RU242	Left	1	19.743	/	Pass
		2462	RU242	Left	1	19.812	/	Pass
802.11ax (HE40)	SISO	2422	RU484	Left	1	38.308	/	Pass
		2437	RU484	Left	1	38.634	/	Pass
		2452	RU484	Left	1	38.705	/	Pass

2.1.2 6dB BW

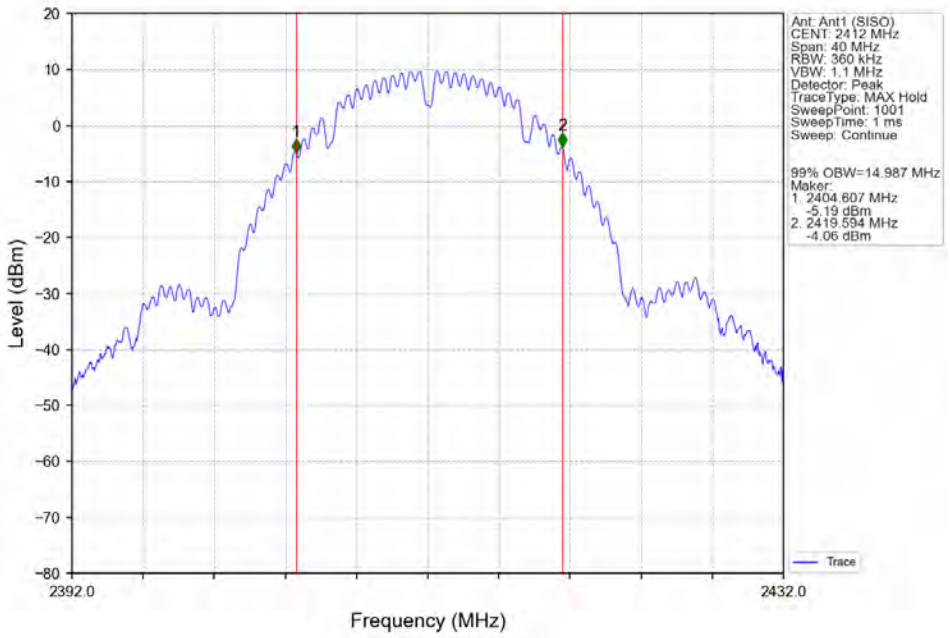
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	6dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11b	SISO	2412	/	/	1	10.054	>=0.5	Pass
		2437	/	/	1	9.608	>=0.5	Pass
		2462	/	/	1	10.062	>=0.5	Pass
802.11g	SISO	2412	/	/	1	15.387	>=0.5	Pass
		2437	/	/	1	15.510	>=0.5	Pass
		2462	/	/	1	15.802	>=0.5	Pass
802.11n (HT20)	SISO	2412	/	/	1	15.394	>=0.5	Pass
		2437	/	/	1	15.330	>=0.5	Pass
		2462	/	/	1	15.655	>=0.5	Pass
802.11n (HT40)	SISO	2422	/	/	1	35.176	>=0.5	Pass
		2437	/	/	1	35.174	>=0.5	Pass
		2452	/	/	1	35.180	>=0.5	Pass

802.11ax (HE20)	SISO	2412	RU242	Left	1	16.431	>=0.5	Pass
		2437	RU242	Left	1	18.187	>=0.5	Pass
		2462	RU242	Left	1	18.155	>=0.5	Pass
802.11ax (HE40)	SISO	2422	RU484	Left	1	36.202	>=0.5	Pass
		2437	RU484	Left	1	36.651	>=0.5	Pass
		2452	RU484	Left	1	36.391	>=0.5	Pass

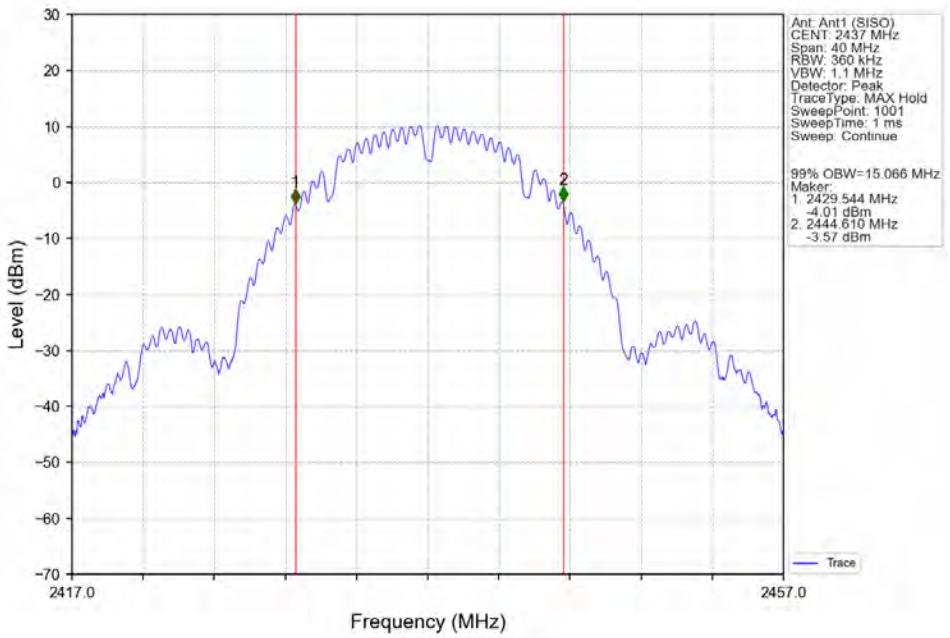
2.2 Test Graph

2.2.1 OBW

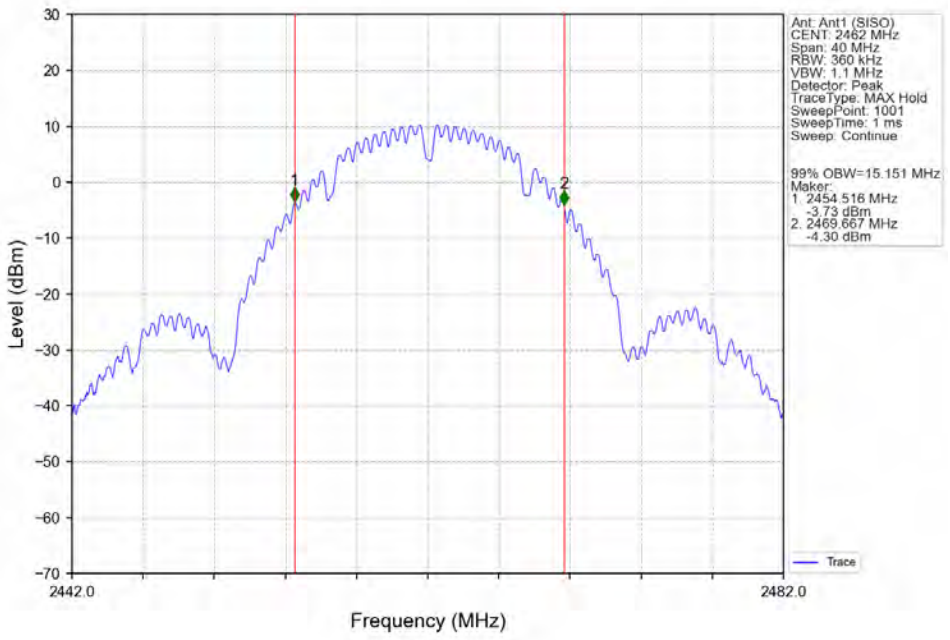
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



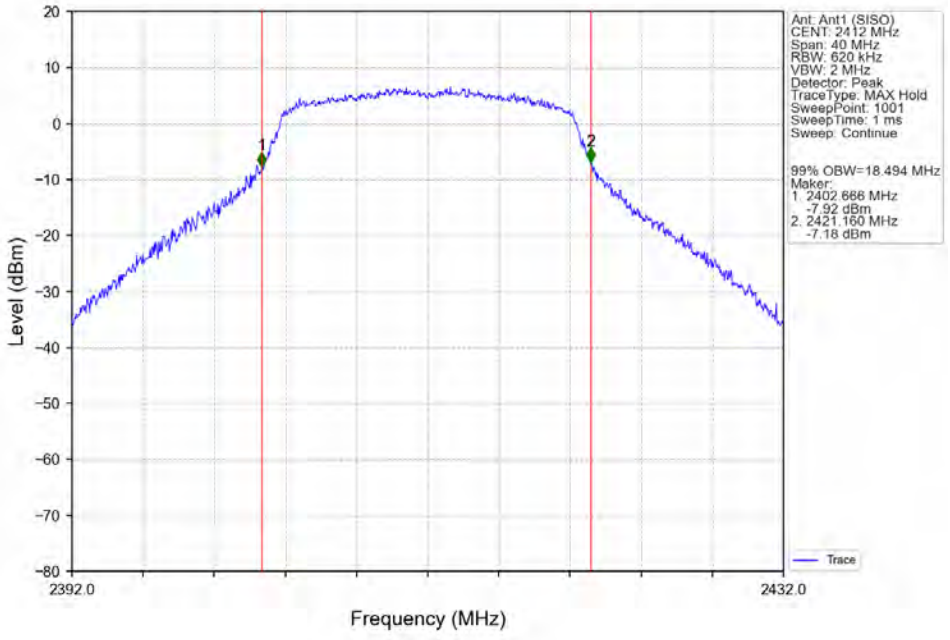
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



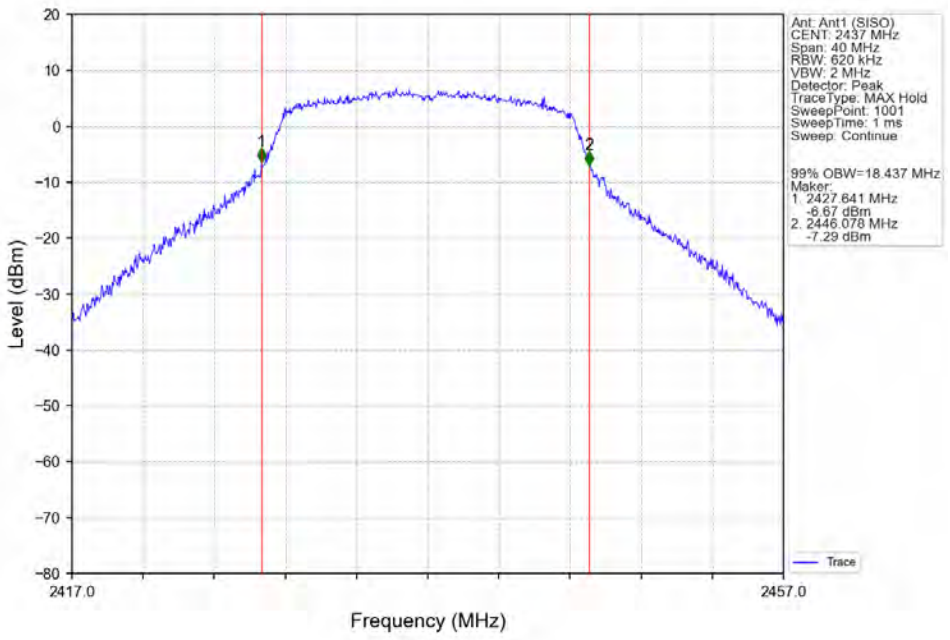
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



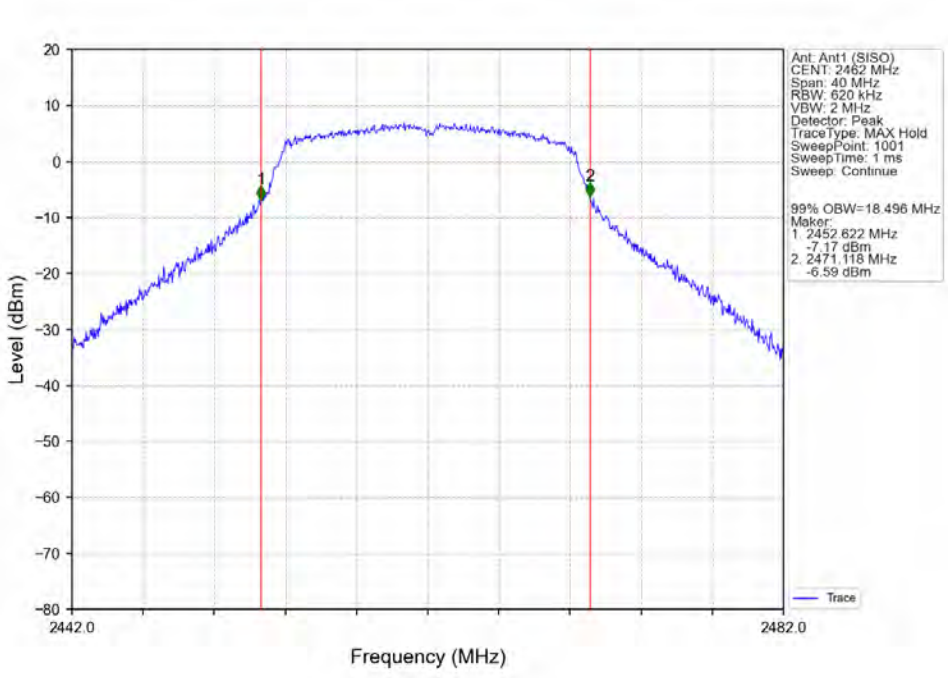
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



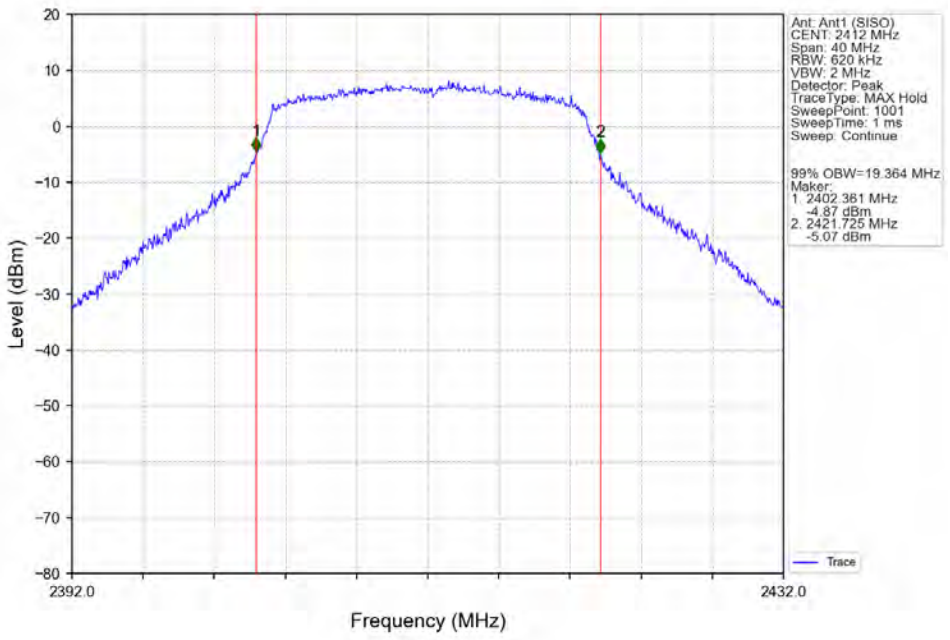
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



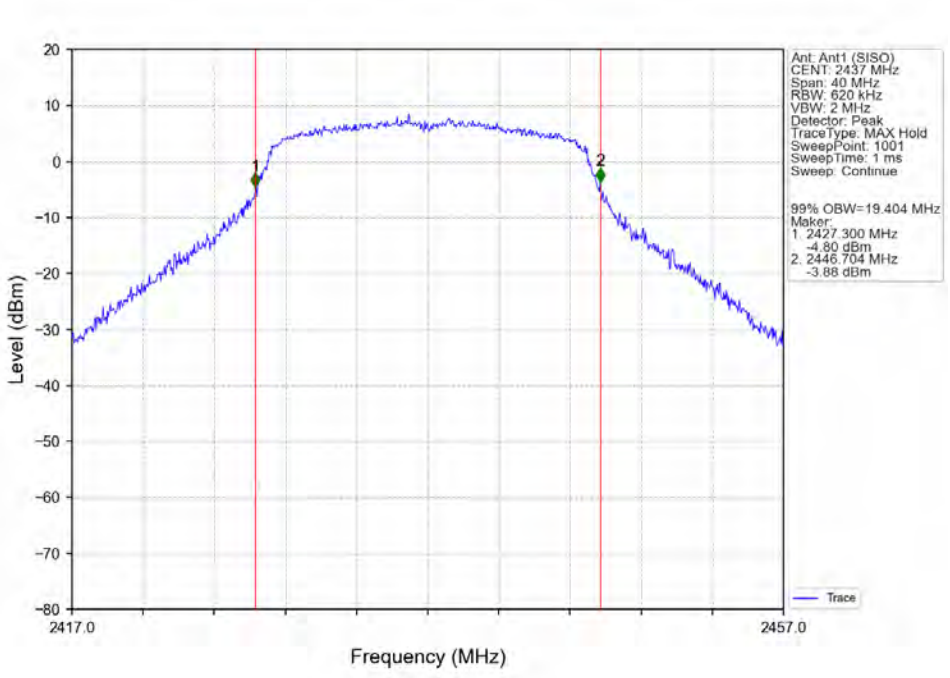
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



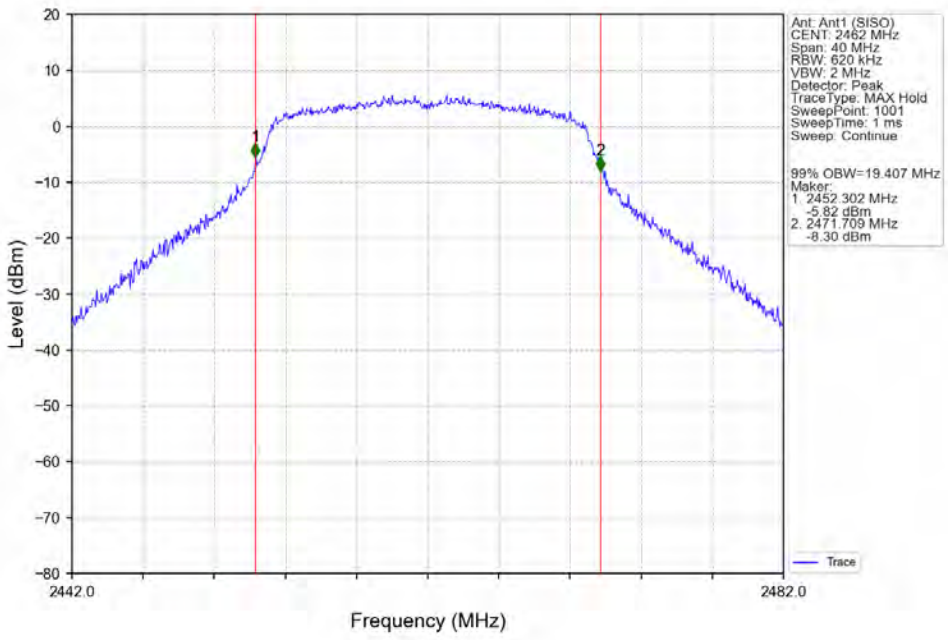
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



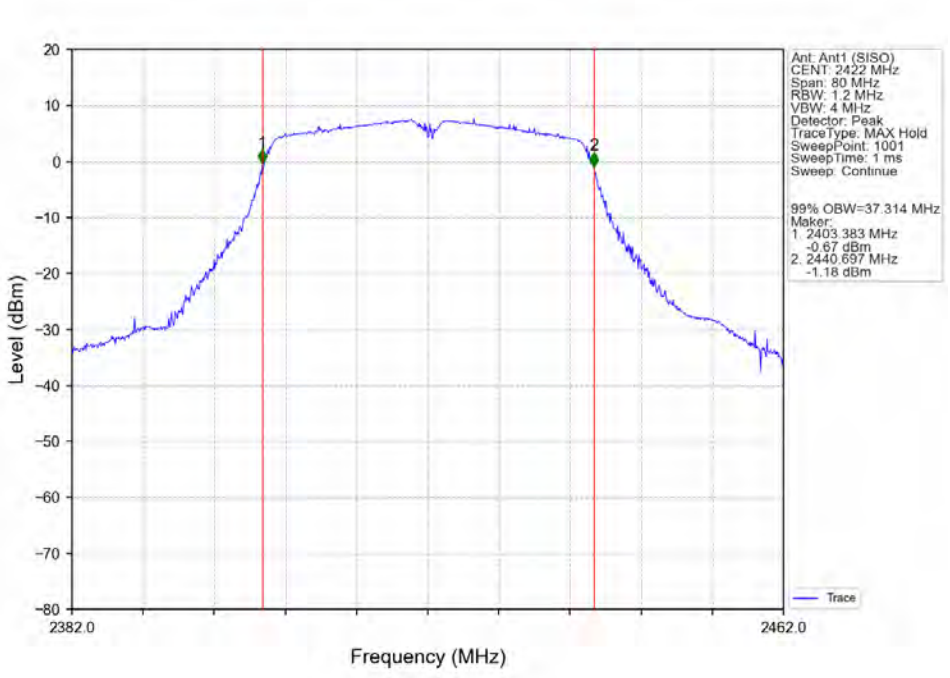
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



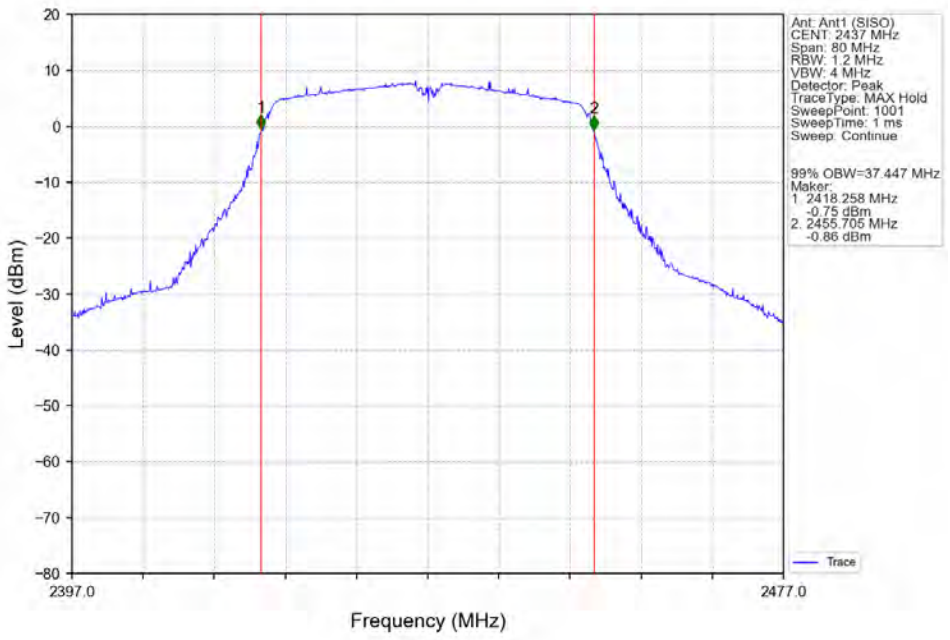
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



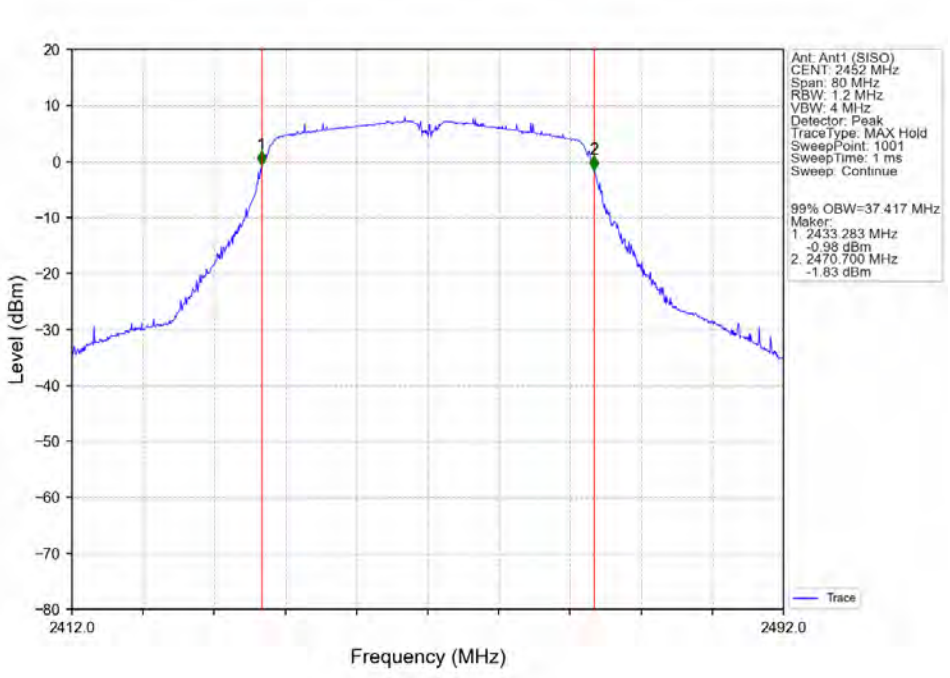
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



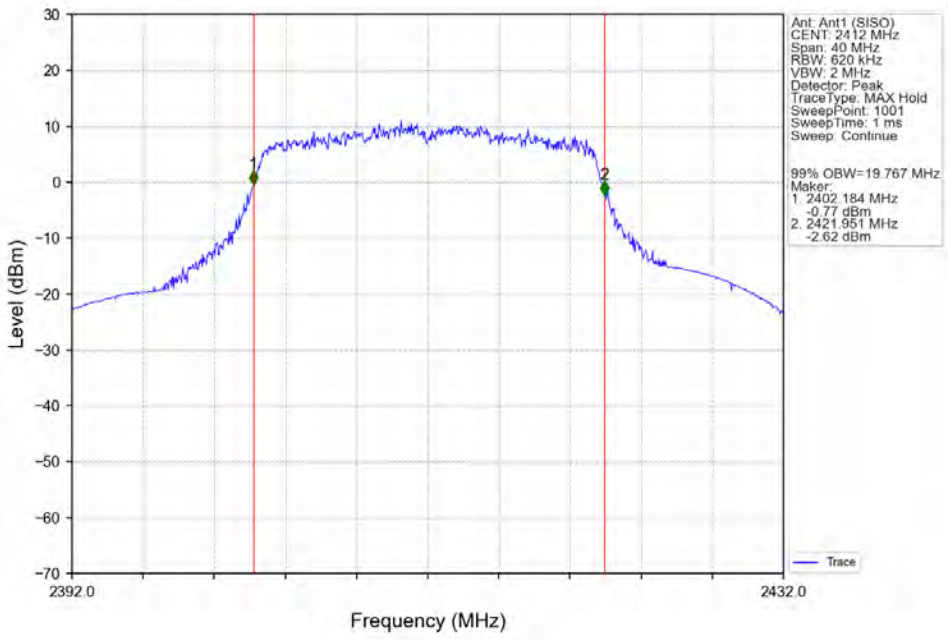
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



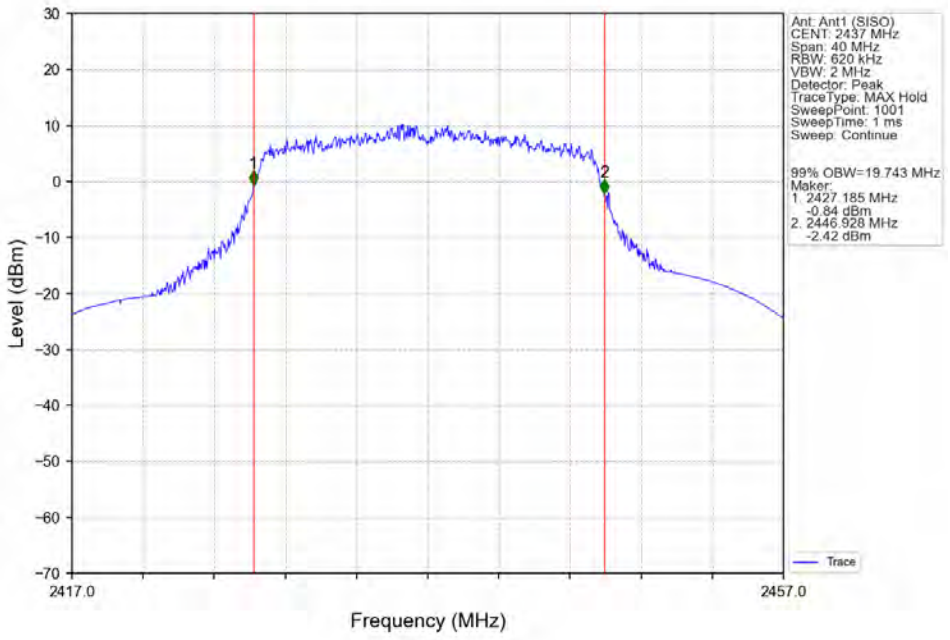
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



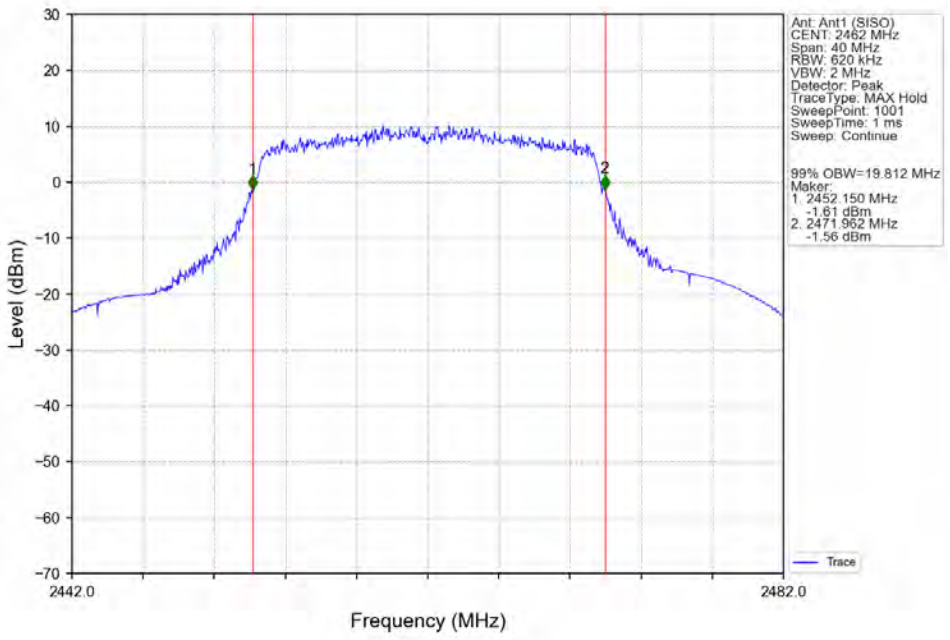
802.11ax(HE20)_LCH_2412MHz_RU242_Left_Ant1 (SISO)_NTNV



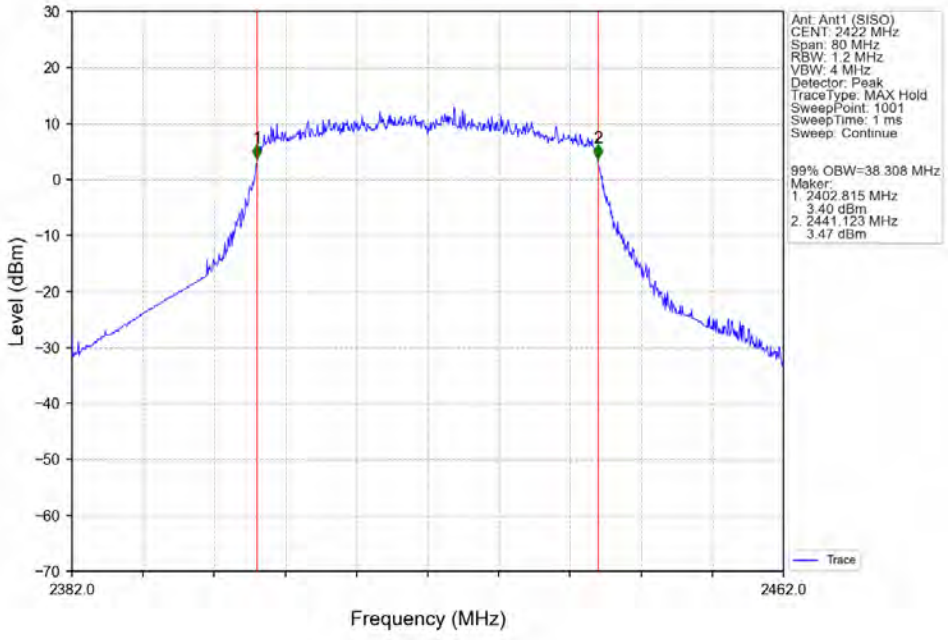
802.11ax(HE20)_MCH_2437MHz_RU242_Left_Ant1 (SISO)_NTNV



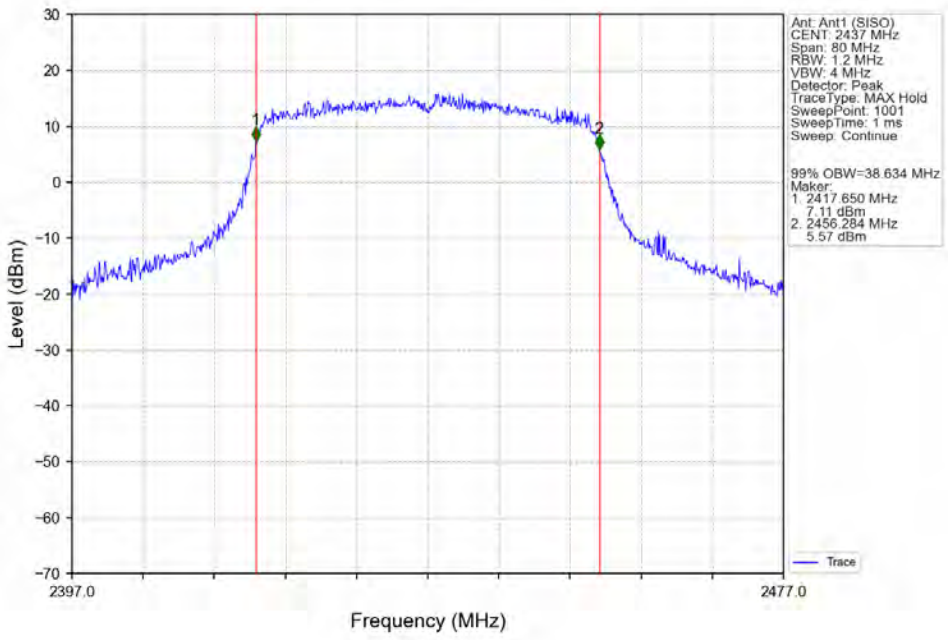
802.11ax(HE20)_HCH_2462MHz_RU242_Left_Ant1 (SISO)_NTNV



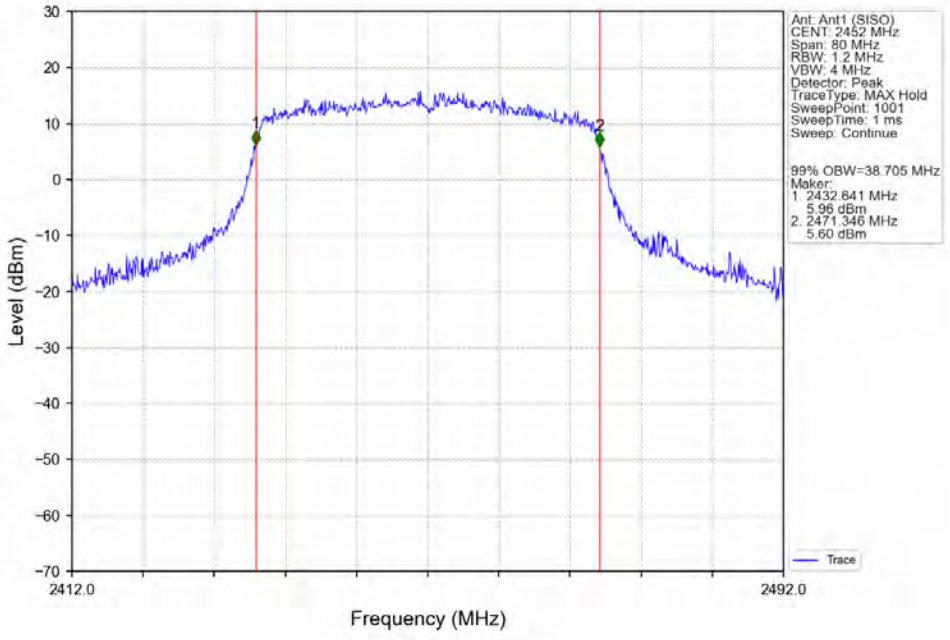
802.11ax(HE40)_LCH_2422MHz_RU484_Left_Ant1 (SISO)_NTNV



802.11ax(HE40)_MCH_2437MHz_RU484_Left_Ant1 (SISO)_NTNV

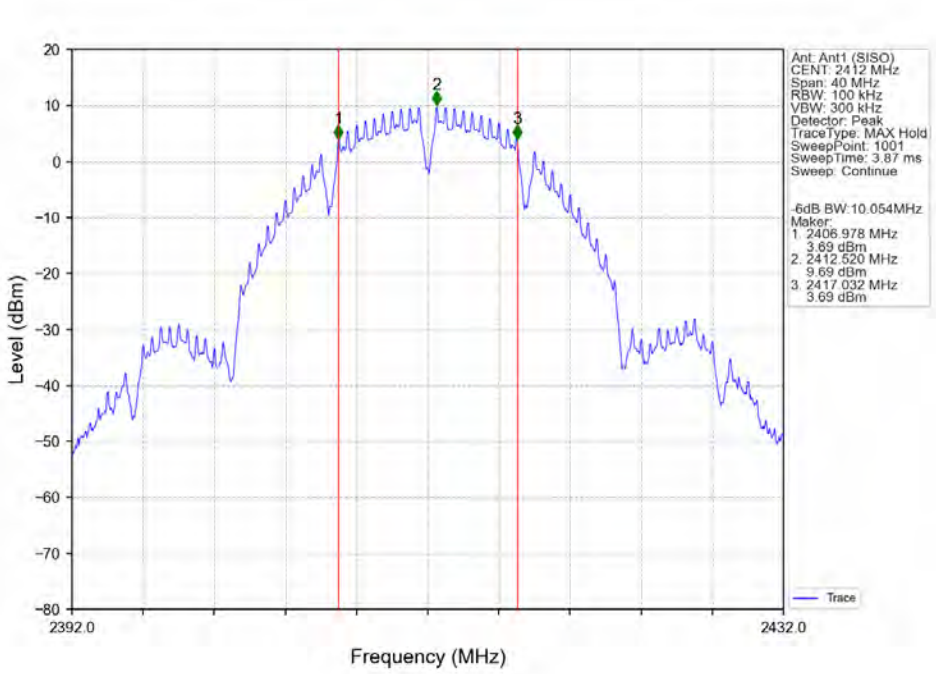


802.11ax(HE40)_HCH_2452MHz_RU484_Left_Ant1 (SISO)_NTNV

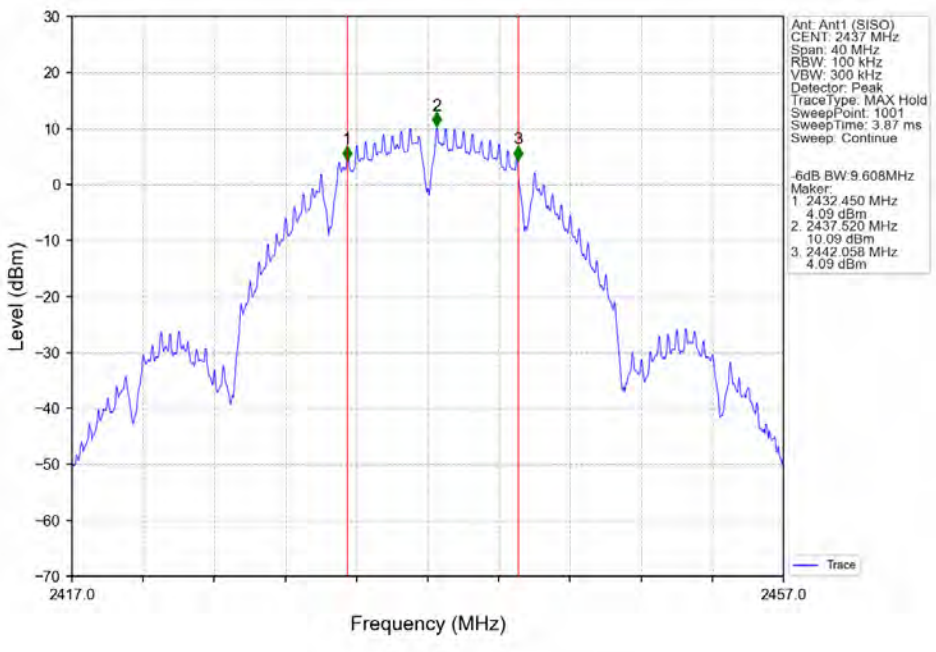


2.2.2 6dB BW

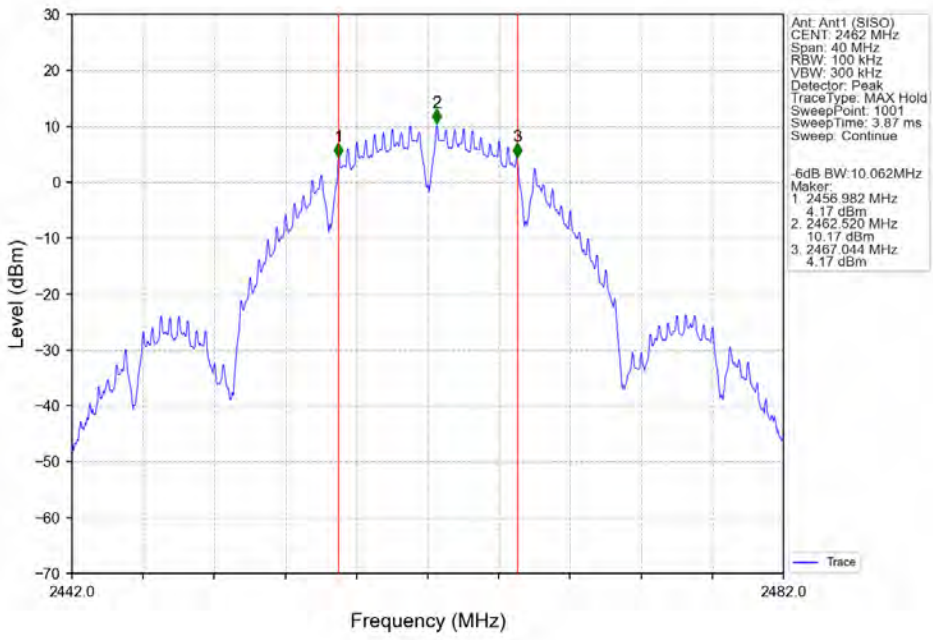
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



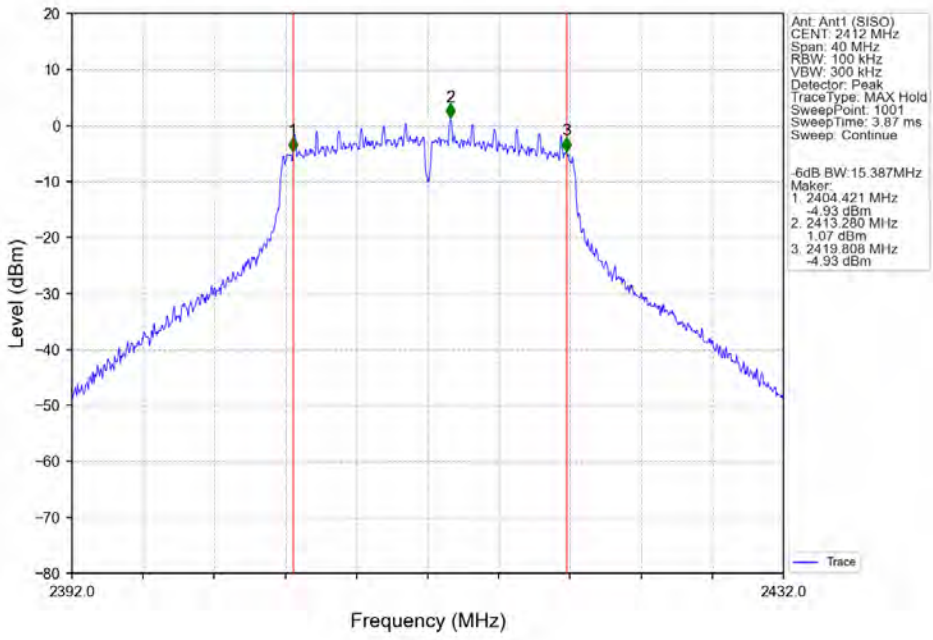
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



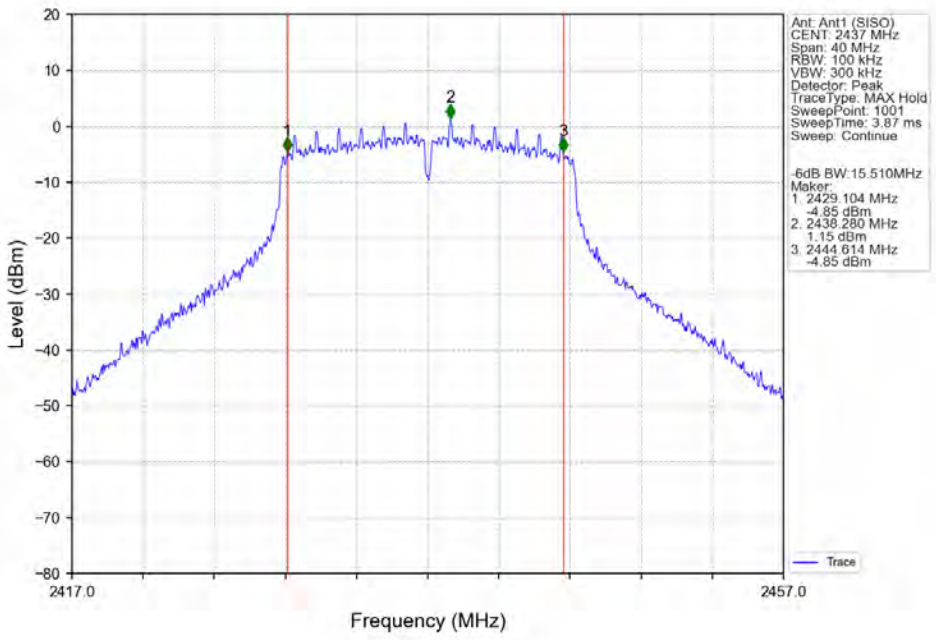
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



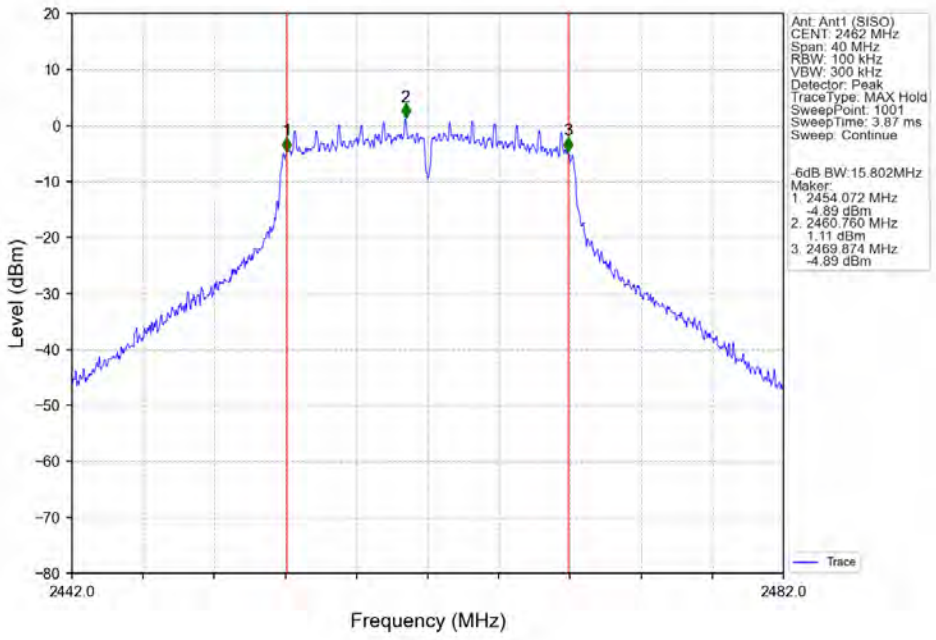
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



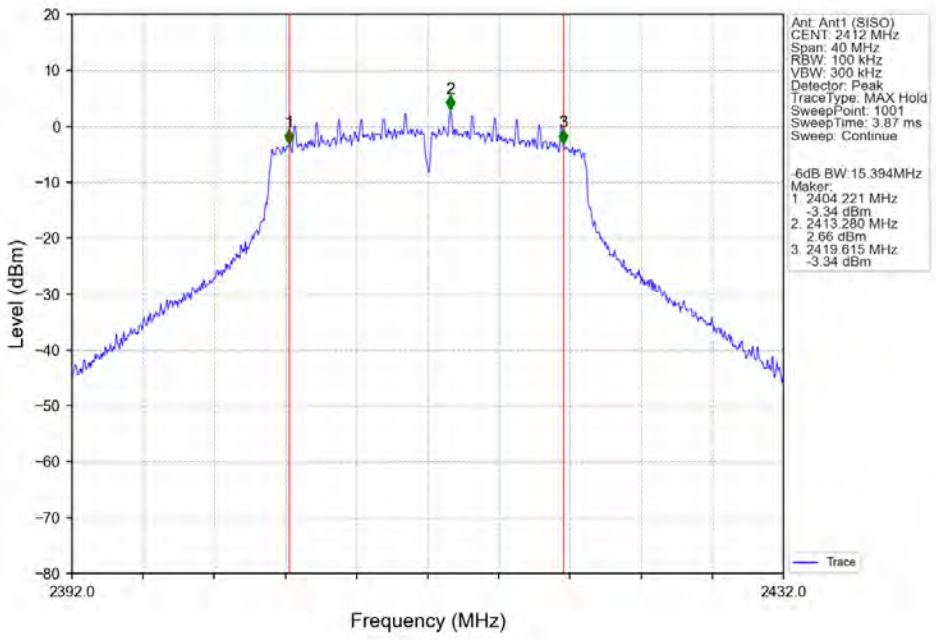
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



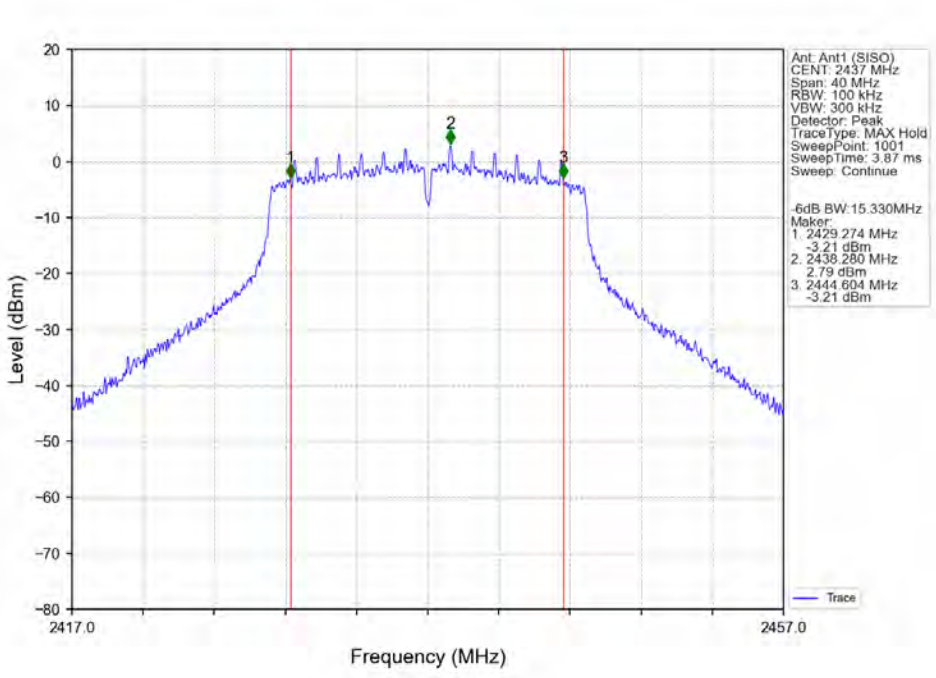
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



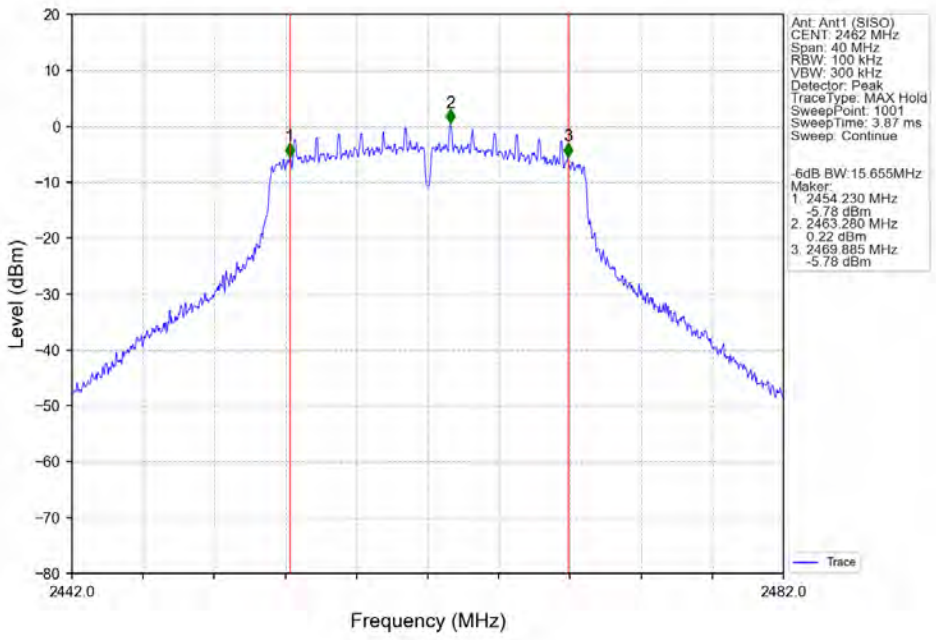
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



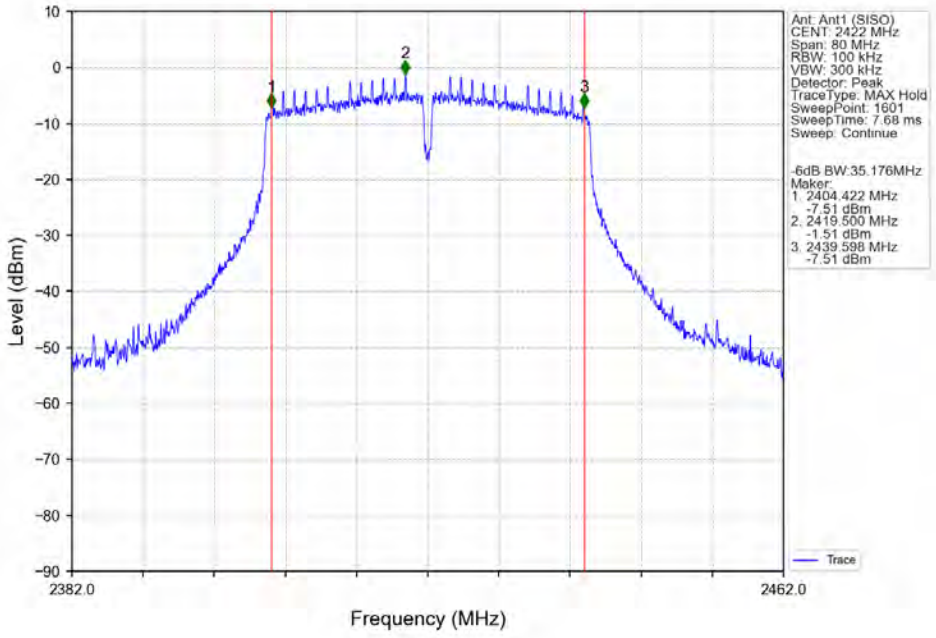
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



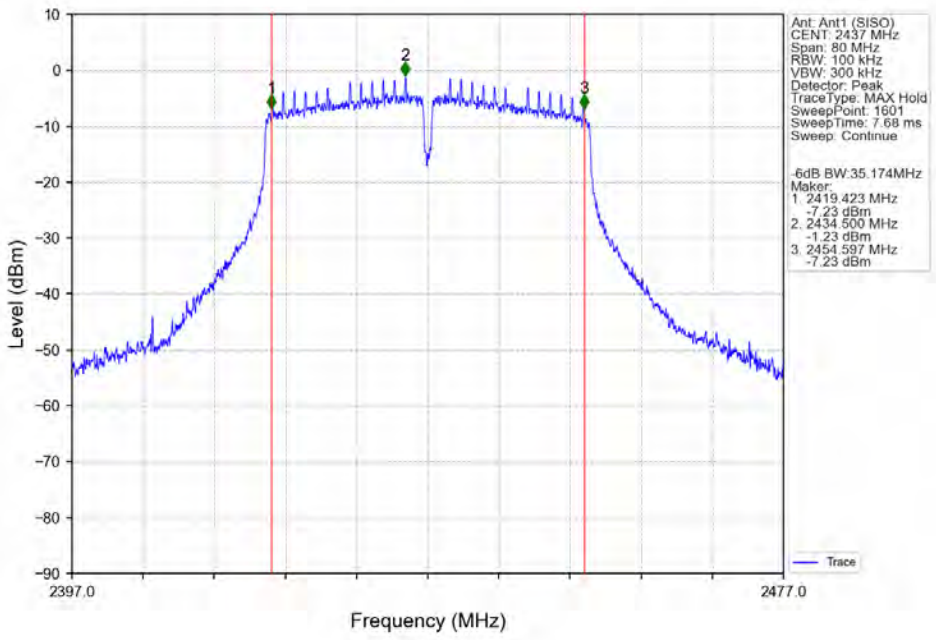
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



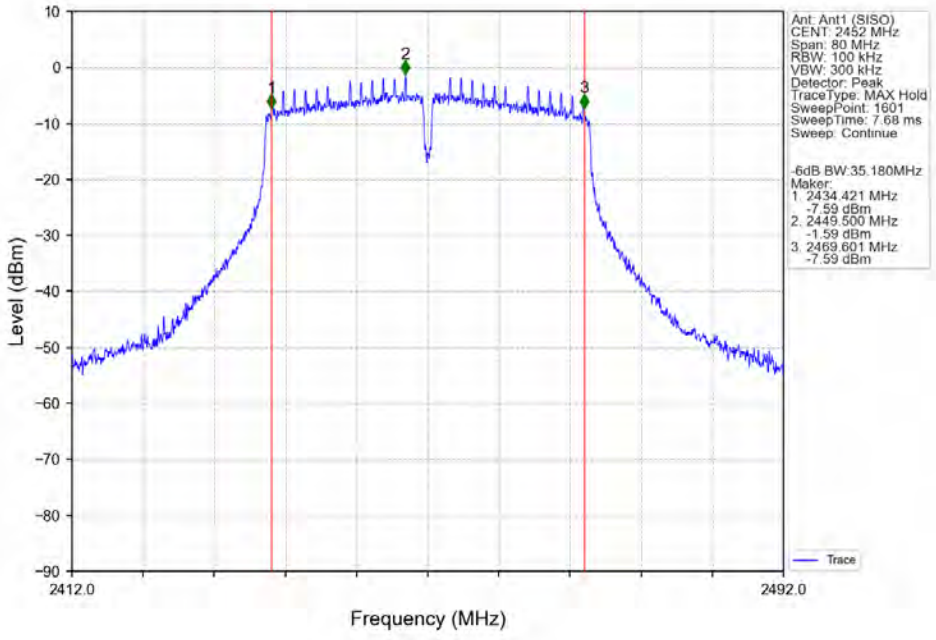
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



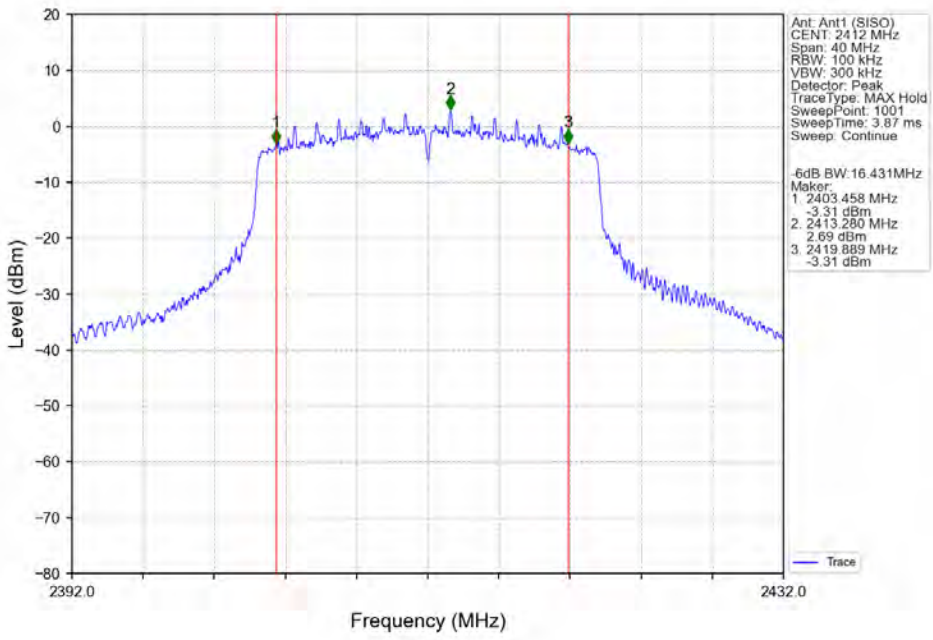
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



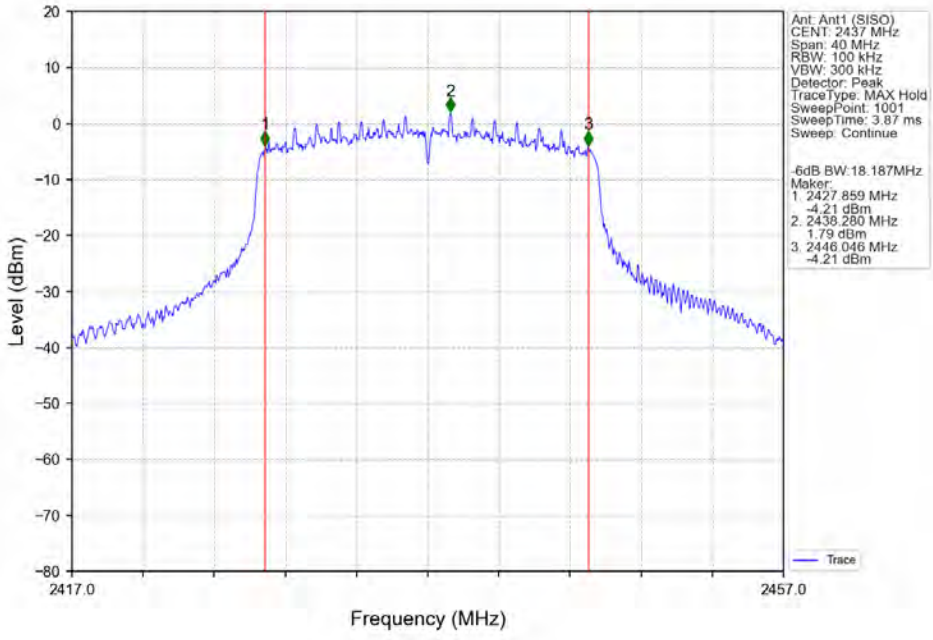
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



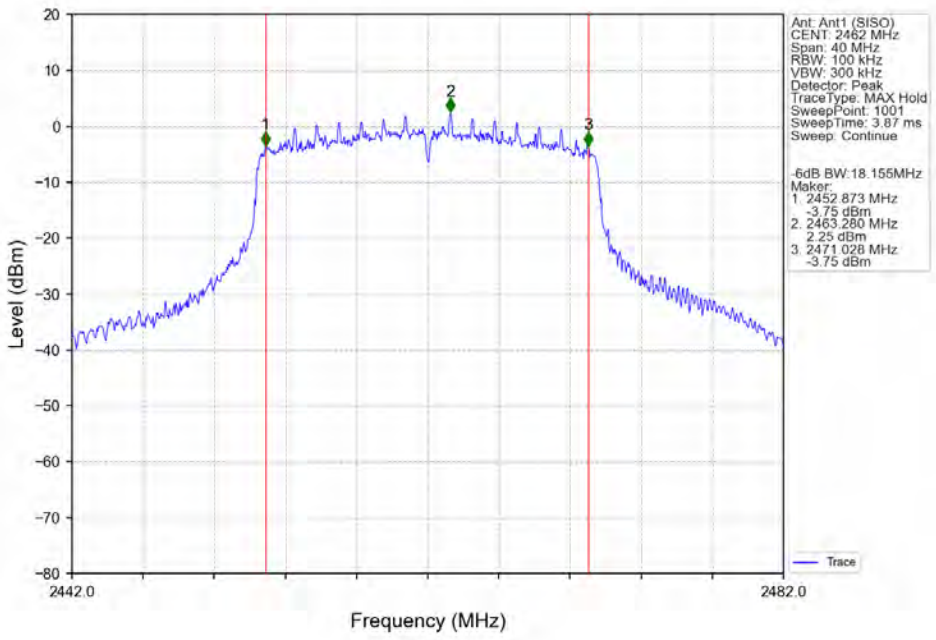
802.11ax(HE20)_LCH_2412MHz_RU242_Left_Ant1 (SISO)_NTNV



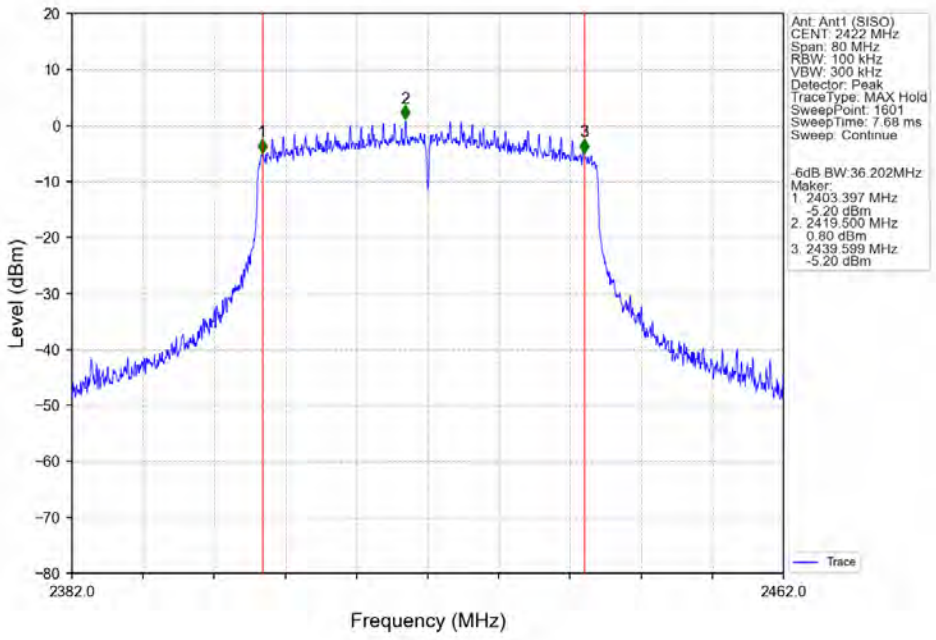
802.11ax(HE20)_MCH_2437MHz_RU242_Left_Ant1 (SISO)_NTNV



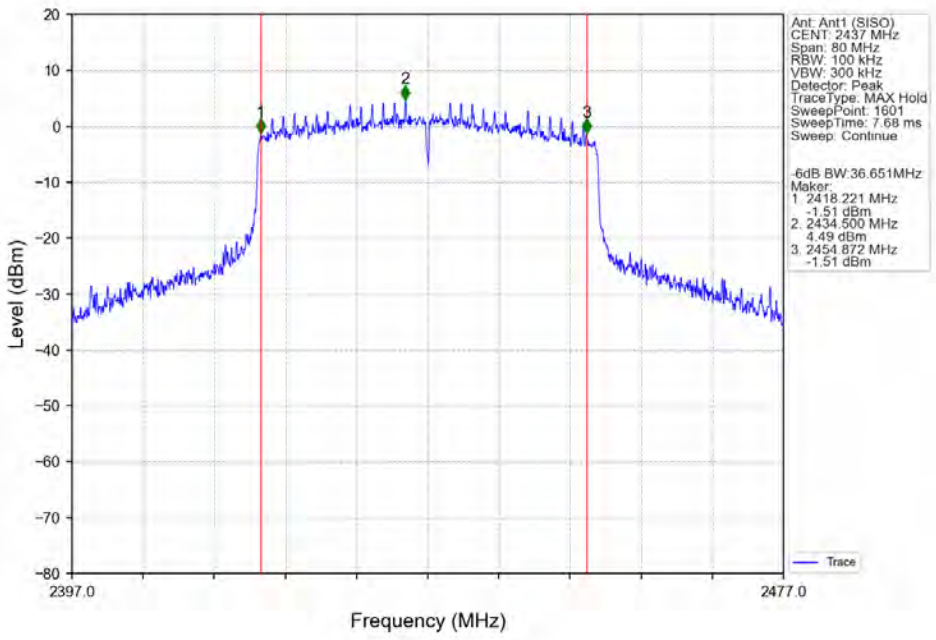
802.11ax(HE20)_HCH_2462MHz_RU242_Left_Ant1 (SISO)_NTNV



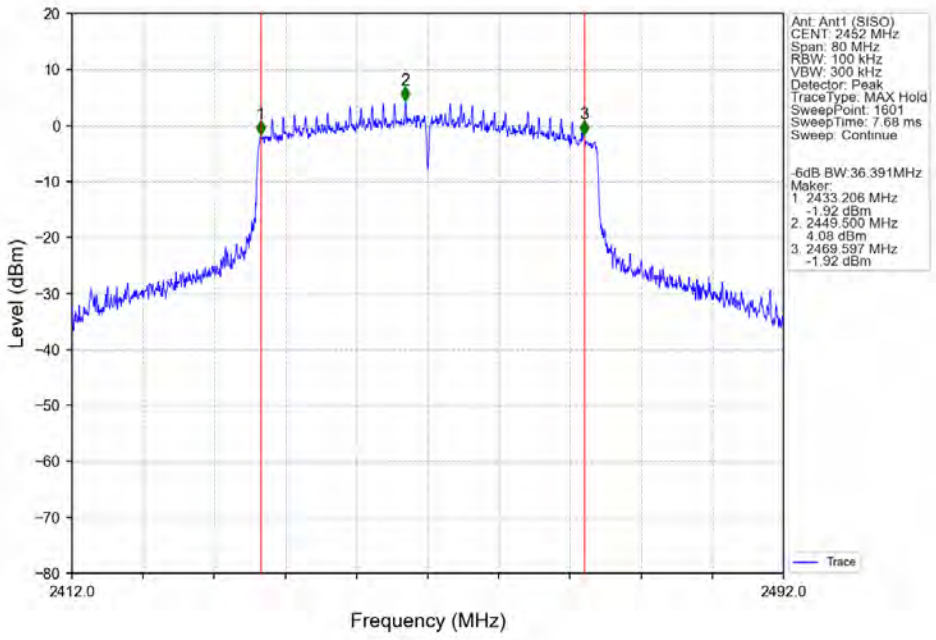
802.11ax(HE40)_LCH_2422MHz_RU484_Left_Ant1 (SISO)_NTNV



802.11ax(HE40)_MCH_2437MHz_RU484_Left_Ant1 (SISO)_NTNV



802.11ax(HE40)_HCH_2452MHz_RU484_Left_Ant1 (SISO)_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

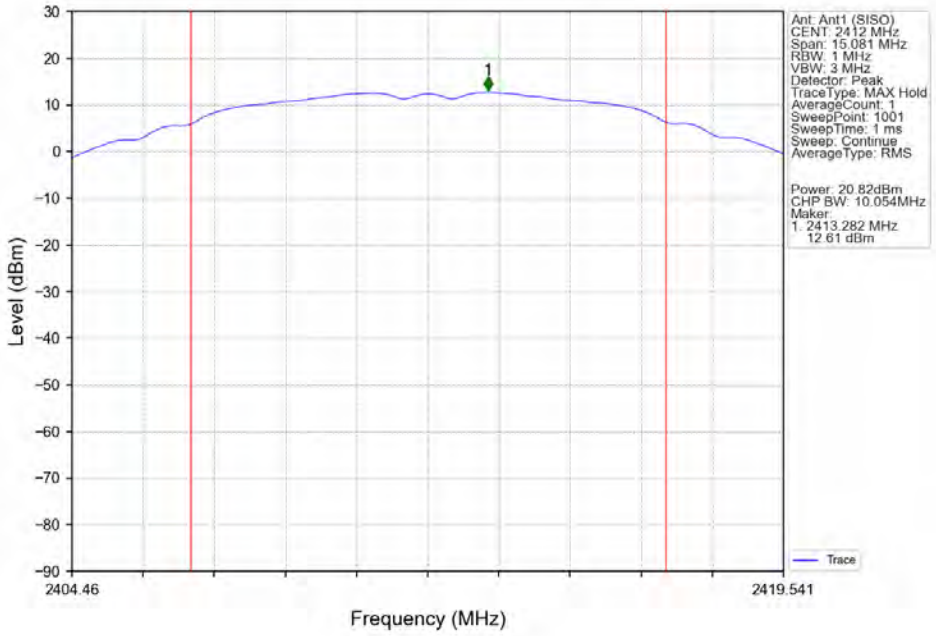
3.1.1 Power

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum Peak Conducted Output Power (dBm)		Verdict
					ANT1	Limit	
802.11b	SISO	2412	/	/	20.82	<=30	Pass
		2437	/	/	21.12	<=30	Pass
		2462	/	/	21.30	<=30	Pass
802.11g	SISO	2412	/	/	18.91	<=30	Pass
		2437	/	/	19.03	<=30	Pass
		2462	/	/	19.60	<=30	Pass
802.11n (HT20)	SISO	2412	/	/	20.29	<=30	Pass
		2437	/	/	20.35	<=30	Pass
		2462	/	/	20.77	<=30	Pass
802.11n (HT40)	SISO	2422	/	/	19.46	<=30	Pass
		2437	/	/	19.70	<=30	Pass
		2452	/	/	19.39	<=30	Pass
802.11ax (HE20)	SISO	2412	RU242	Left	21.74	<=30	Pass
		2437	RU242	Left	21.13	<=30	Pass
		2462	RU242	Left	21.54	<=30	Pass
802.11ax (HE40)	SISO	2422	RU484	Left	21.27	<=30	Pass
		2437	RU484	Left	21.44	<=30	Pass
		2452	RU484	Left	21.10	<=30	Pass
Note1: Antenna Gain: Ant1: 2.70dBi;							

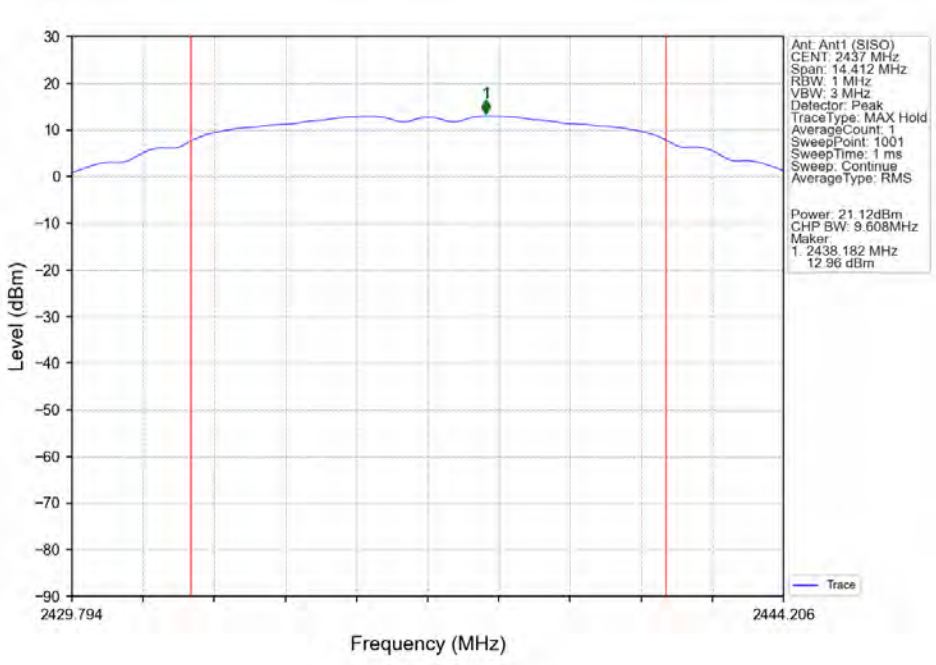
3.2 Test Graph

3.2.1 Power

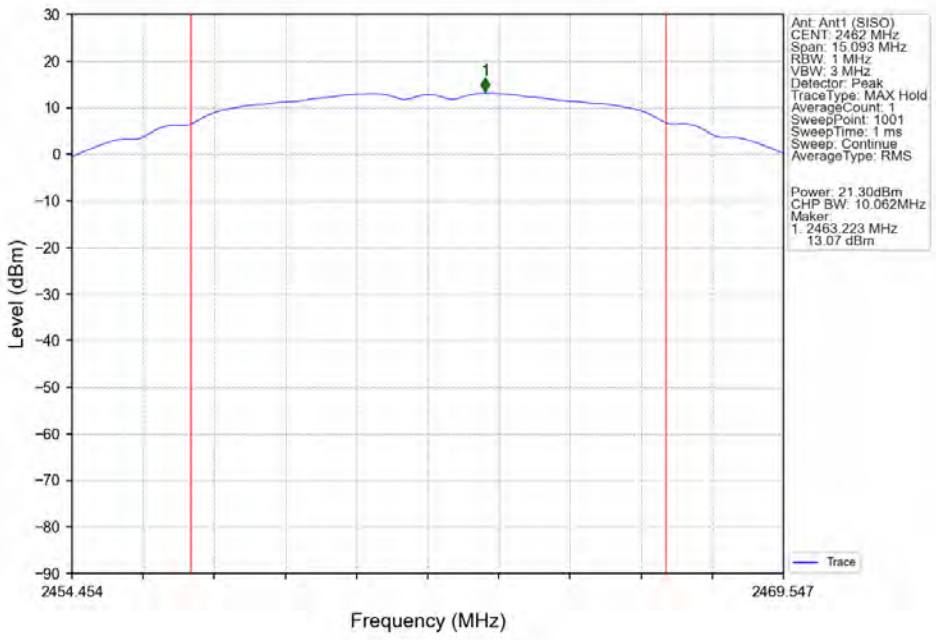
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



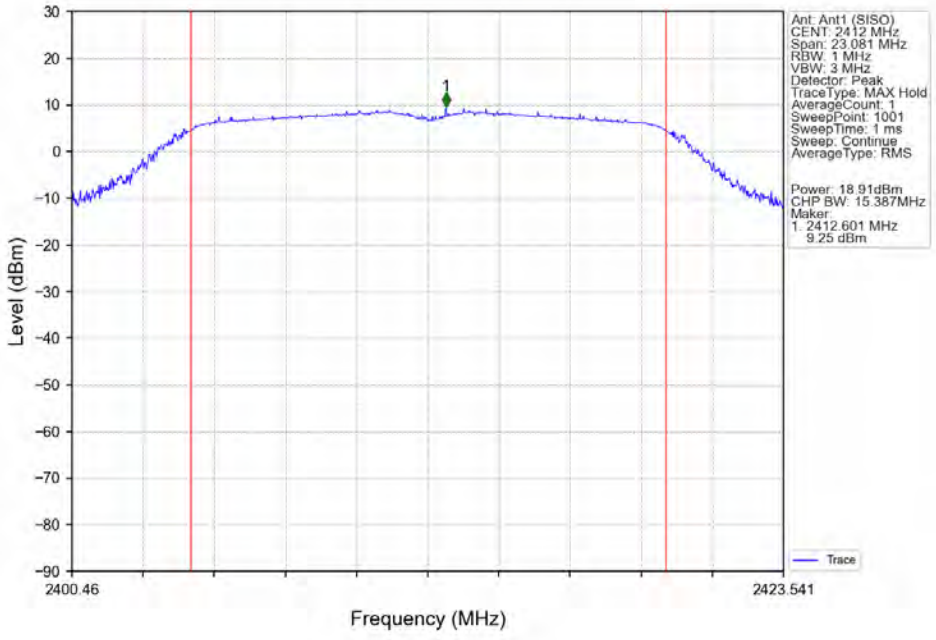
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



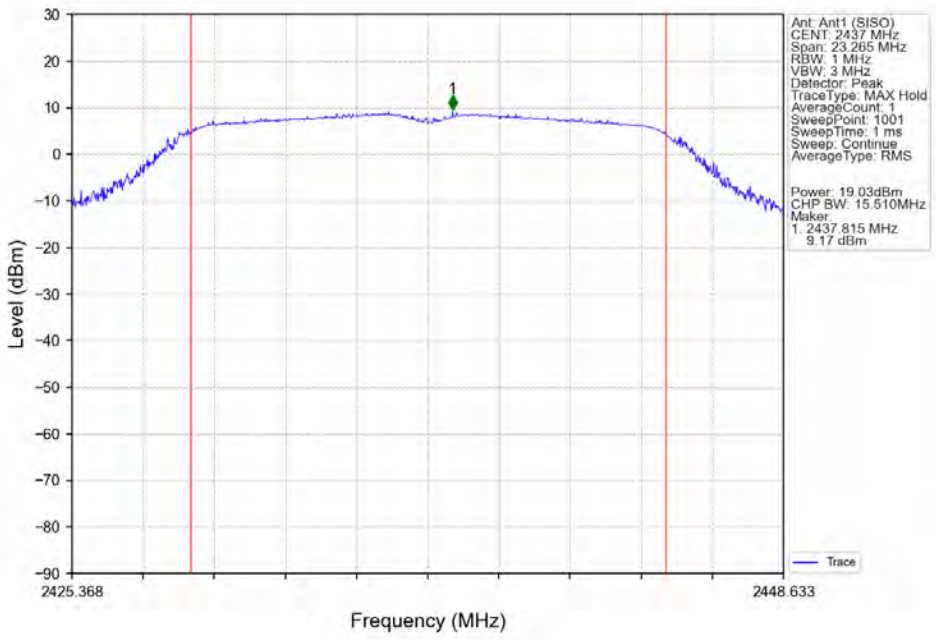
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



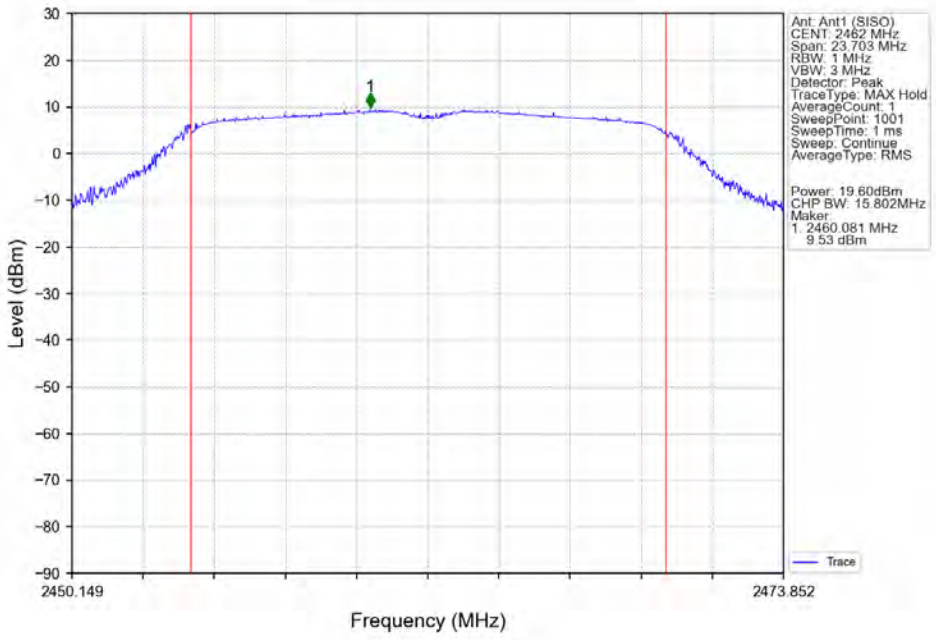
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



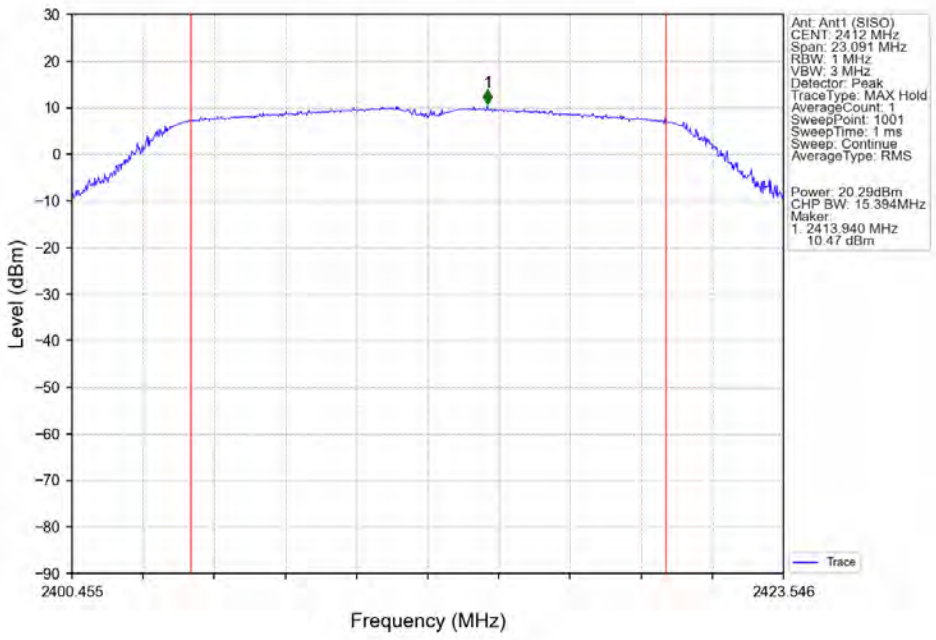
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



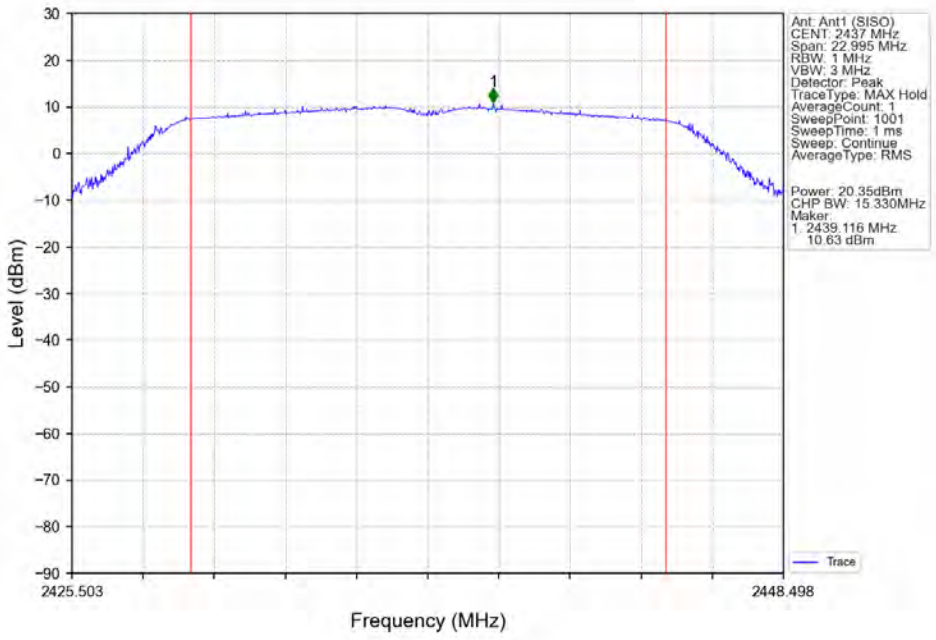
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



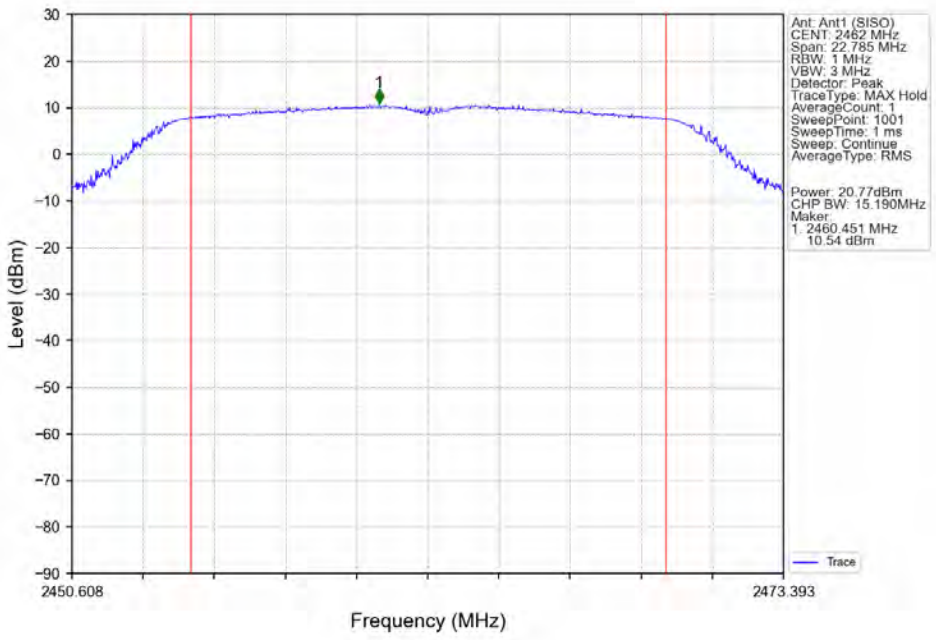
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



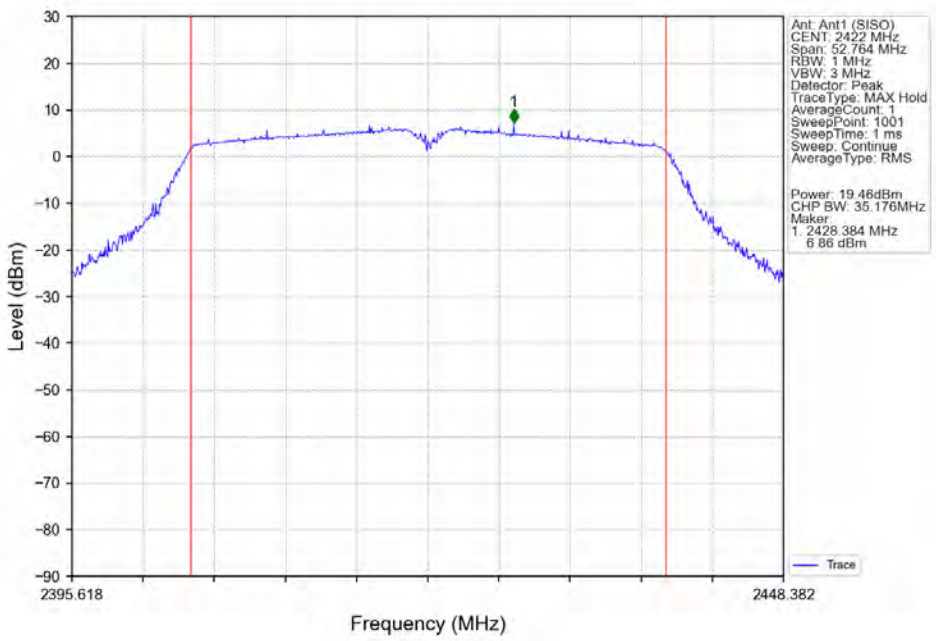
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



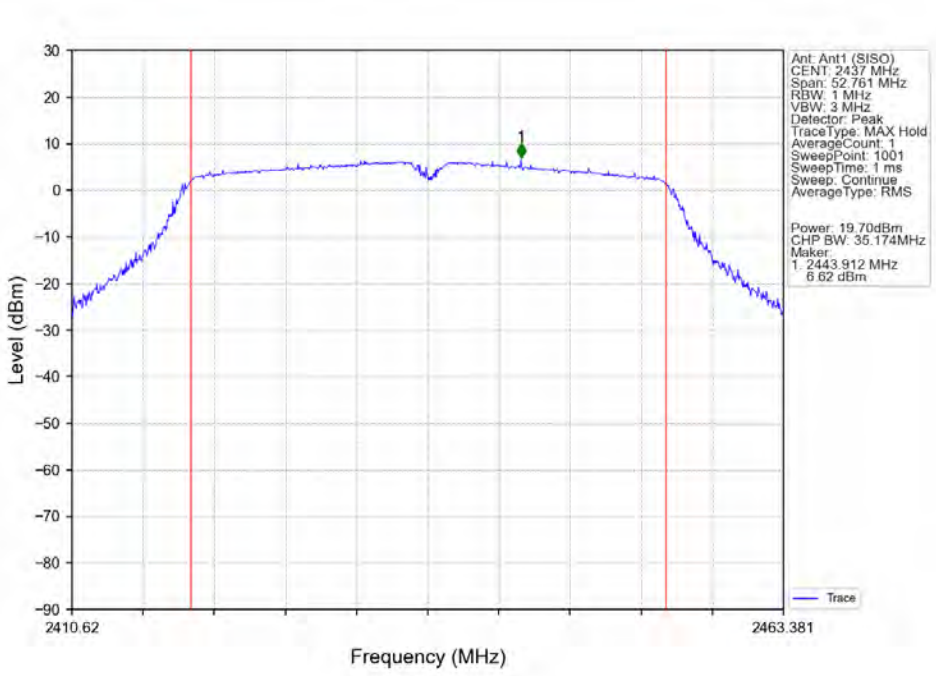
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



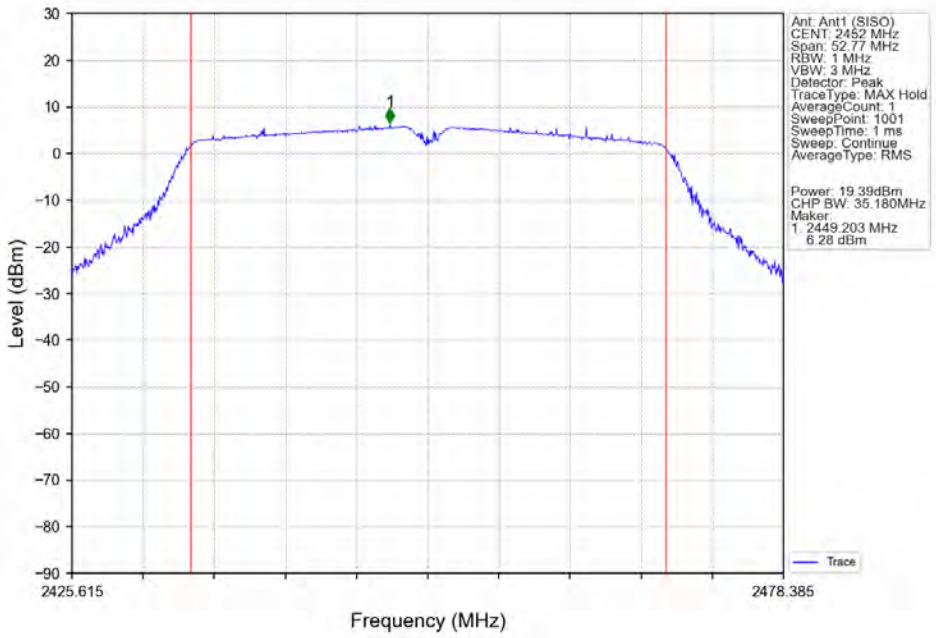
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



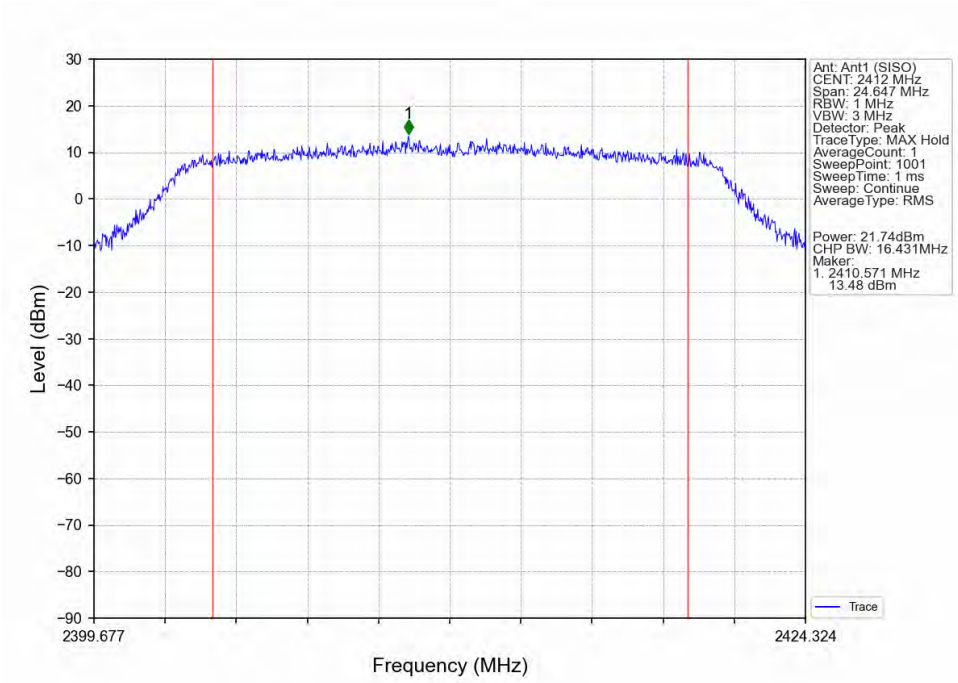
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



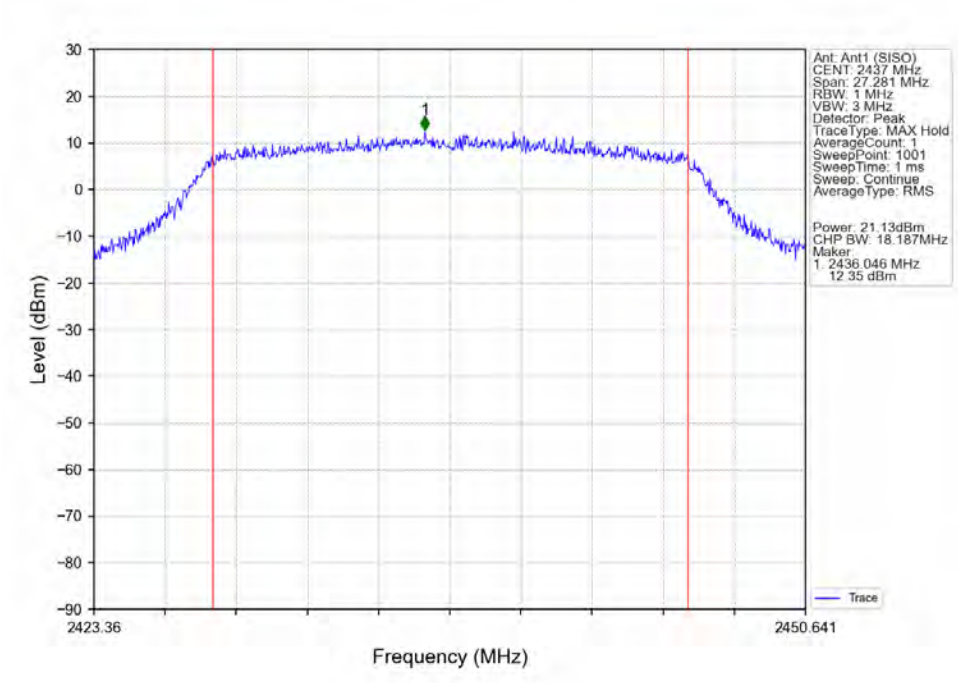
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



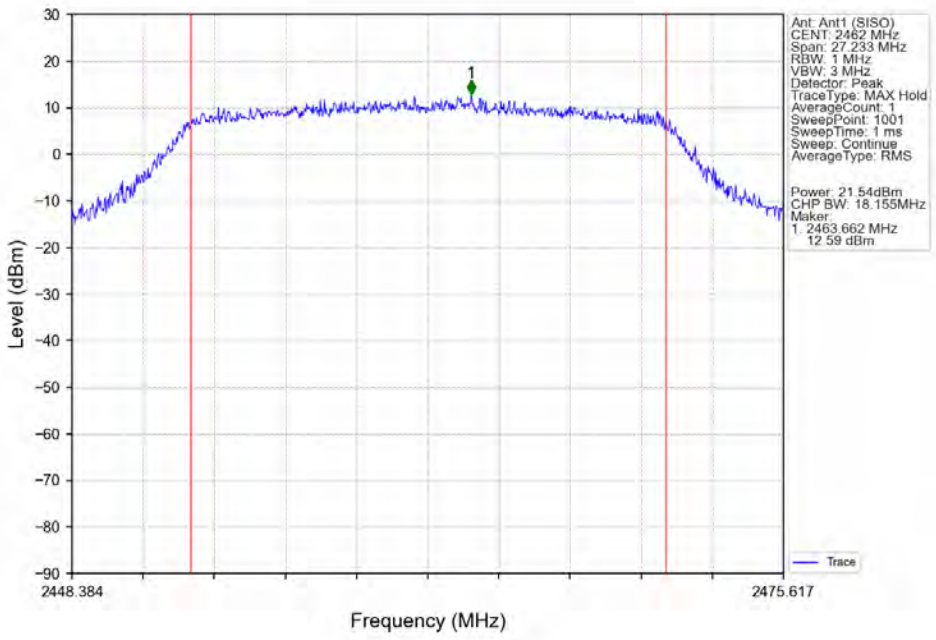
802.11ax(HE20)_LCH_2412MHz_RU242_Left_Ant1 (SISO)_NTNV



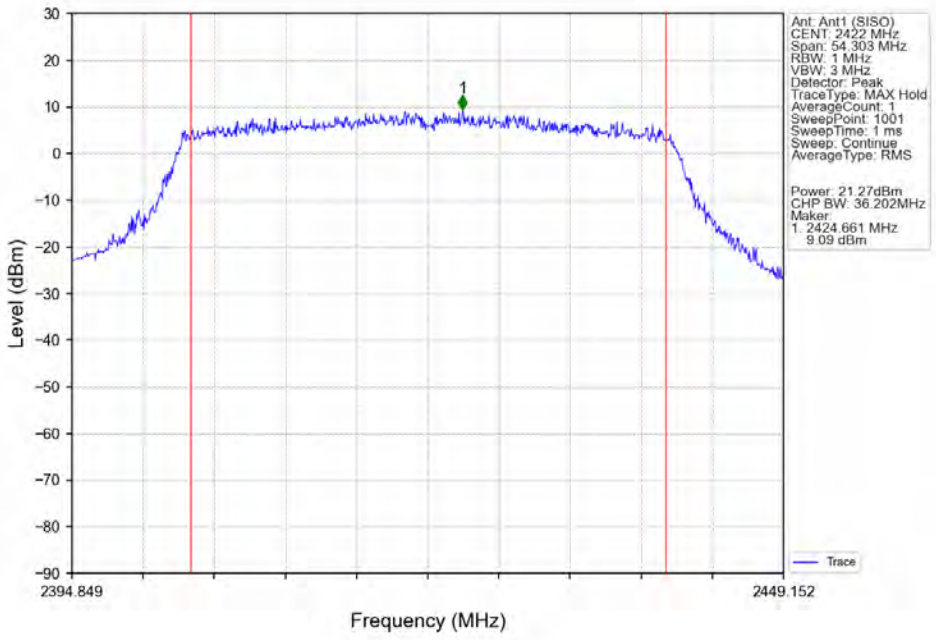
802.11ax(HE20)_MCH_2437MHz_RU242_Left_Ant1 (SISO)_NTNV



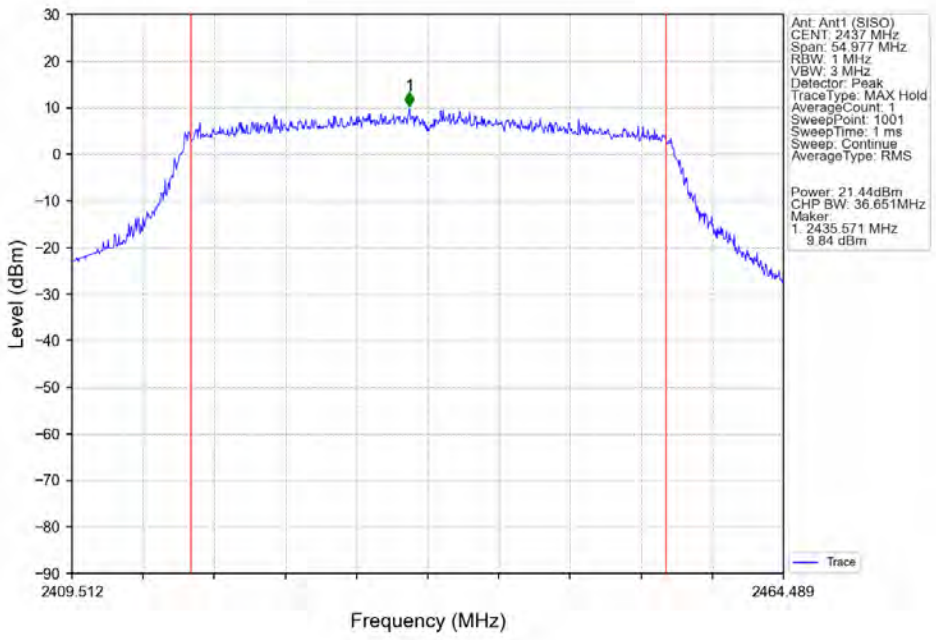
802.11ax(HE20)_HCH_2462MHz_RU242_Left_Ant1 (SISO)_NTNV



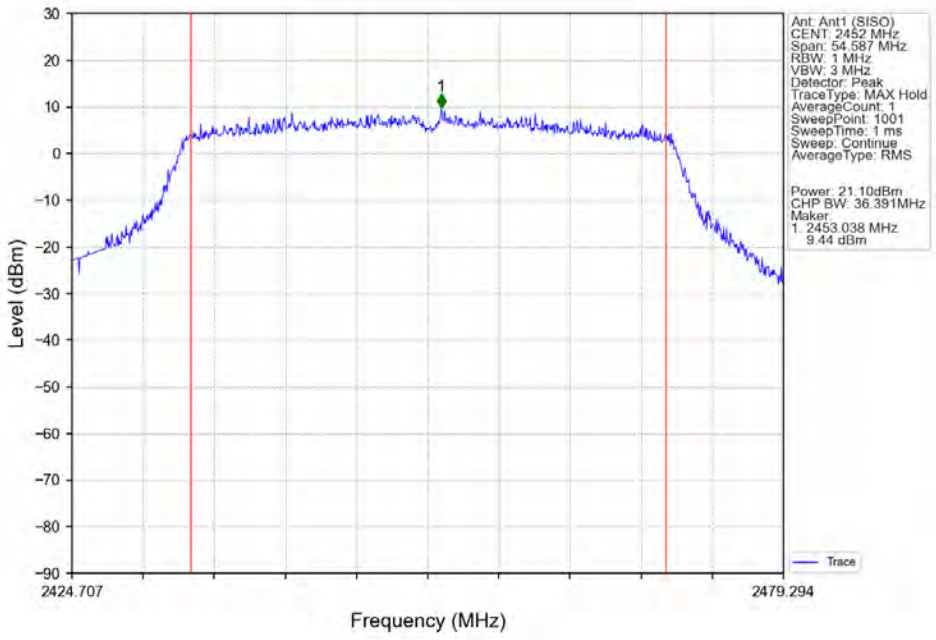
802.11ax(HE40)_LCH_2422MHz_RU484_Left_Ant1 (SISO)_NTNV



802.11ax(HE40)_MCH_2437MHz_RU484_Left_Ant1 (SISO)_NTNV



802.11ax(HE40)_HCH_2452MHz_RU484_Left_Ant1 (SISO)_NTNV



4. Maximum Power Spectral Density

4.1 Test Result

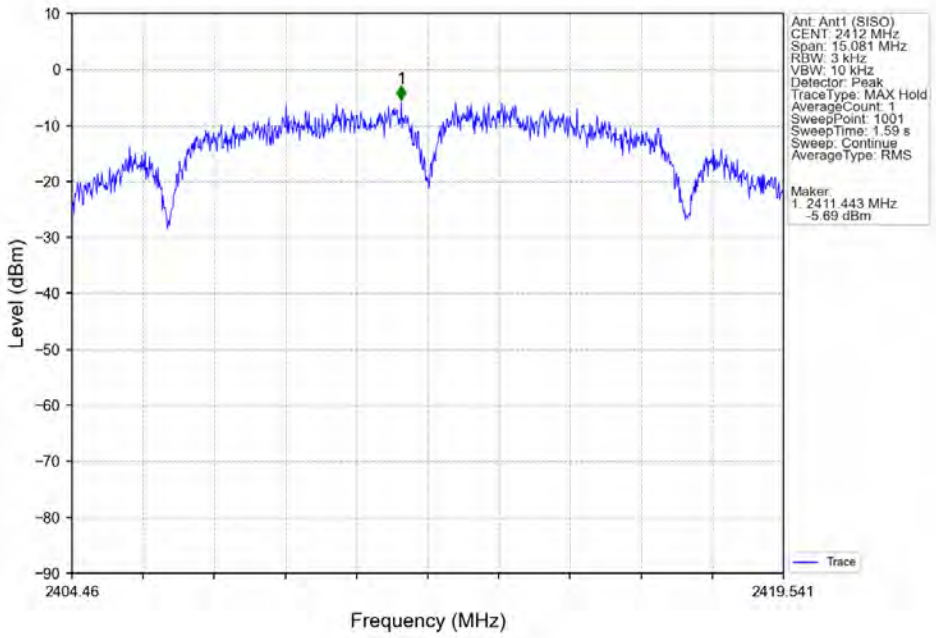
4.1.1 PSD

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/3kHz)		Verdict
					ANT1	Limit	
802.11b	SISO	2412	/	/	-5.69	<=8	Pass
		2437	/	/	-5.13	<=8	Pass
		2462	/	/	-4.46	<=8	Pass
802.11g	SISO	2412	/	/	-13.41	<=8	Pass
		2437	/	/	-14.38	<=8	Pass
		2462	/	/	-13.41	<=8	Pass
802.11n (HT20)	SISO	2412	/	/	-12.64	<=8	Pass
		2437	/	/	-12.64	<=8	Pass
		2462	/	/	-12.30	<=8	Pass
802.11n (HT40)	SISO	2422	/	/	-16.53	<=8	Pass
		2437	/	/	-15.03	<=8	Pass
		2452	/	/	-16.39	<=8	Pass
802.11ax (HE20)	SISO	2412	RU242	Left	-12.55	<=8	Pass
		2437	RU242	Left	-14.39	<=8	Pass
		2462	RU242	Left	-13.72	<=8	Pass
802.11ax (HE40)	SISO	2422	RU484	Left	-16.94	<=8	Pass
		2437	RU484	Left	-15.14	<=8	Pass
		2452	RU484	Left	-16.13	<=8	Pass
Note1: Antenna Gain: Ant1: 2.70dBi;							

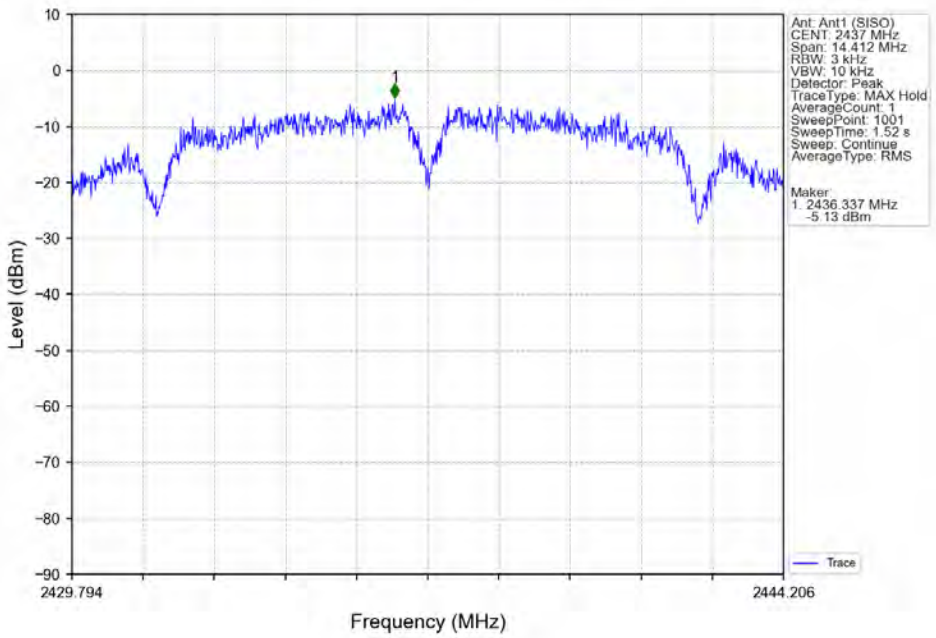
4.2 Test Graph

4.2.1 PSD

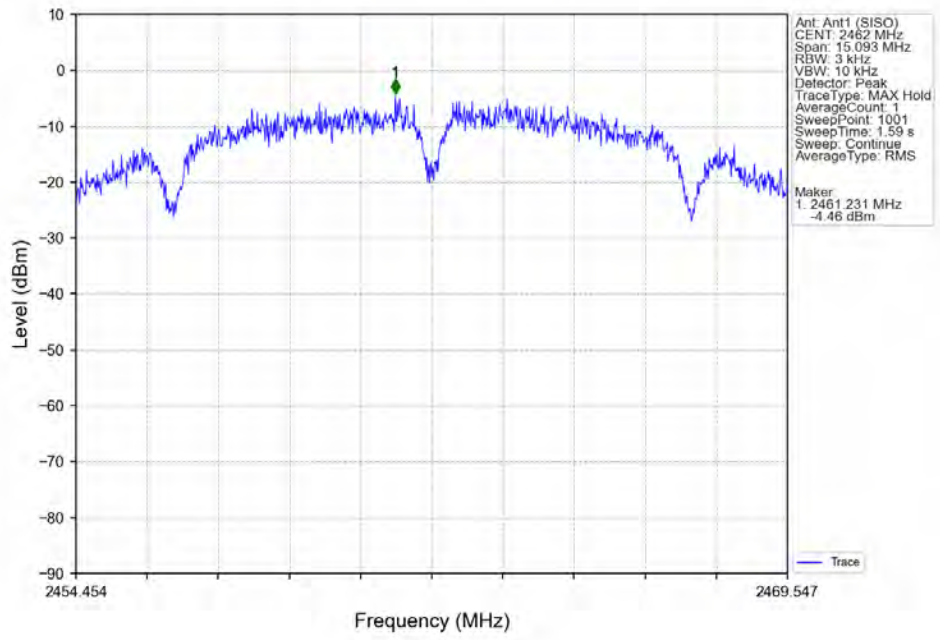
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



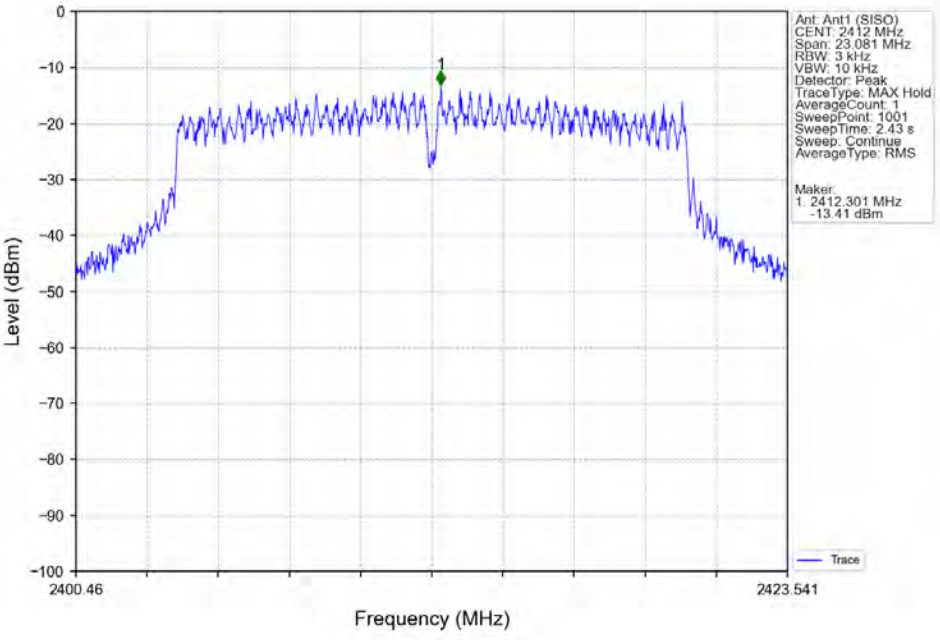
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



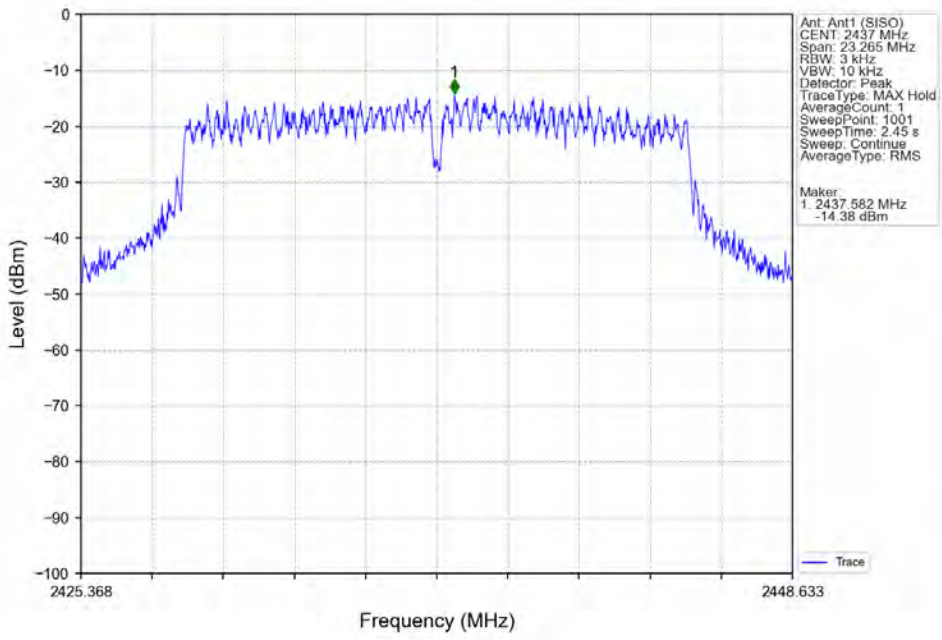
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



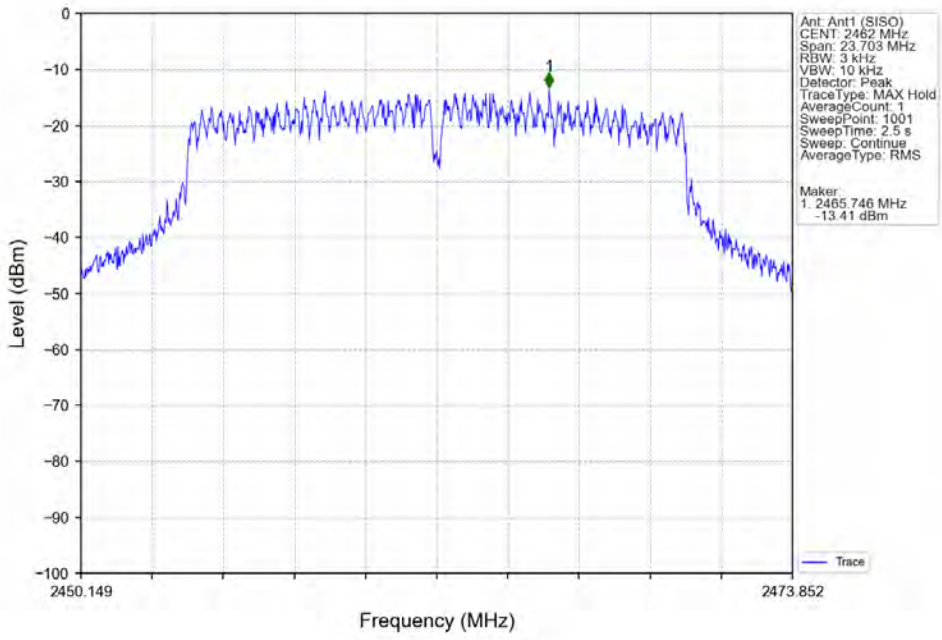
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



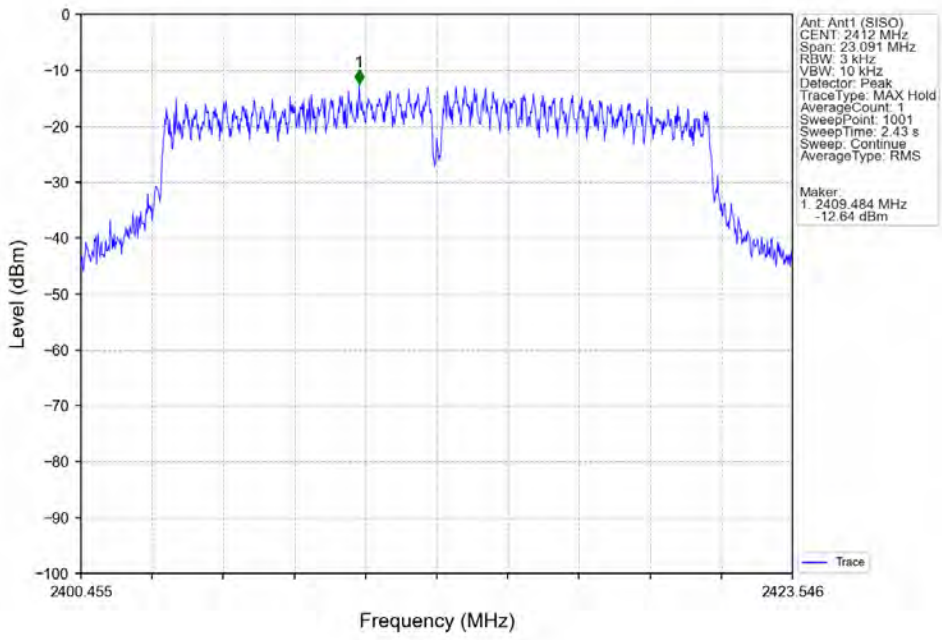
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



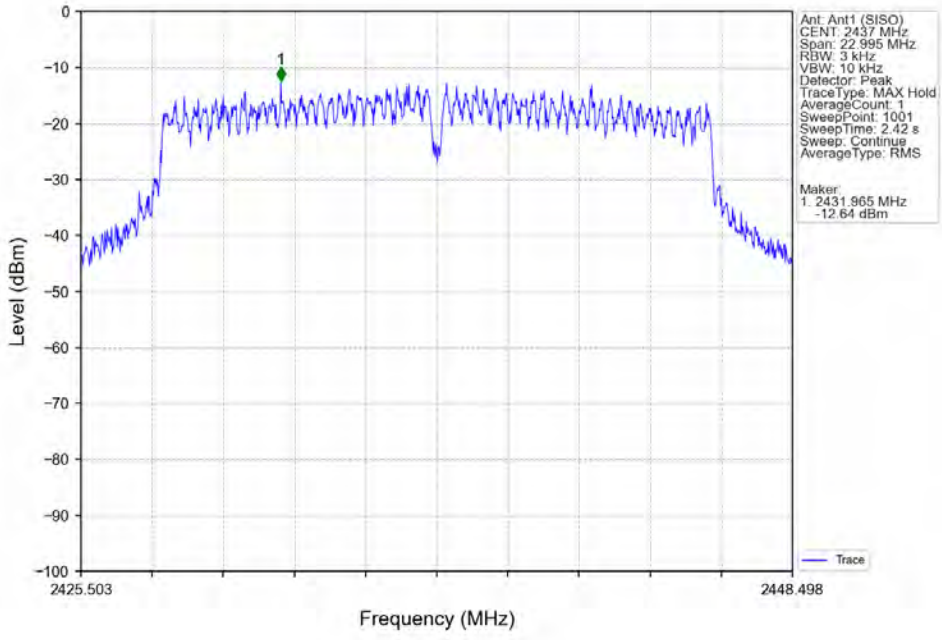
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



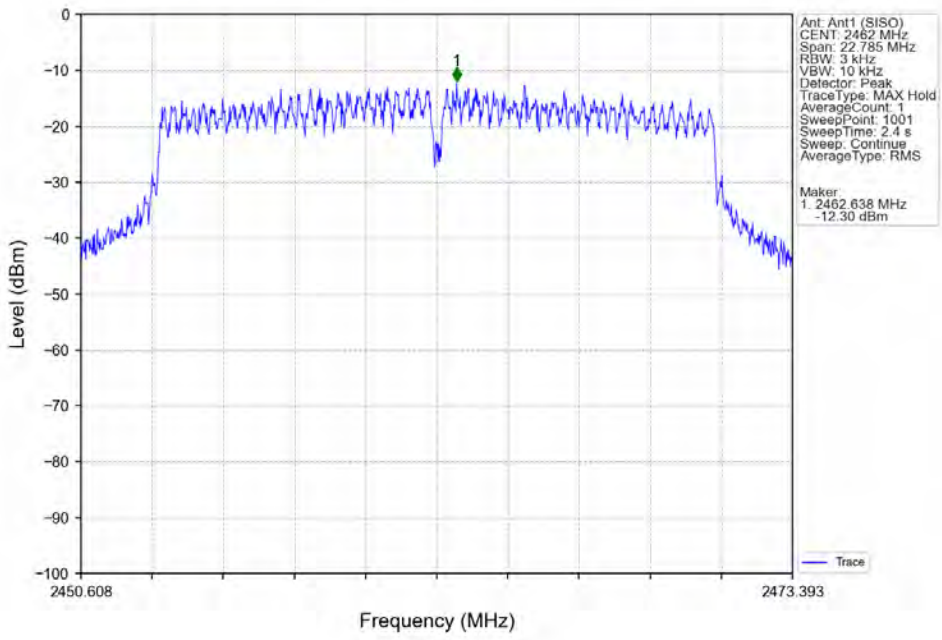
802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



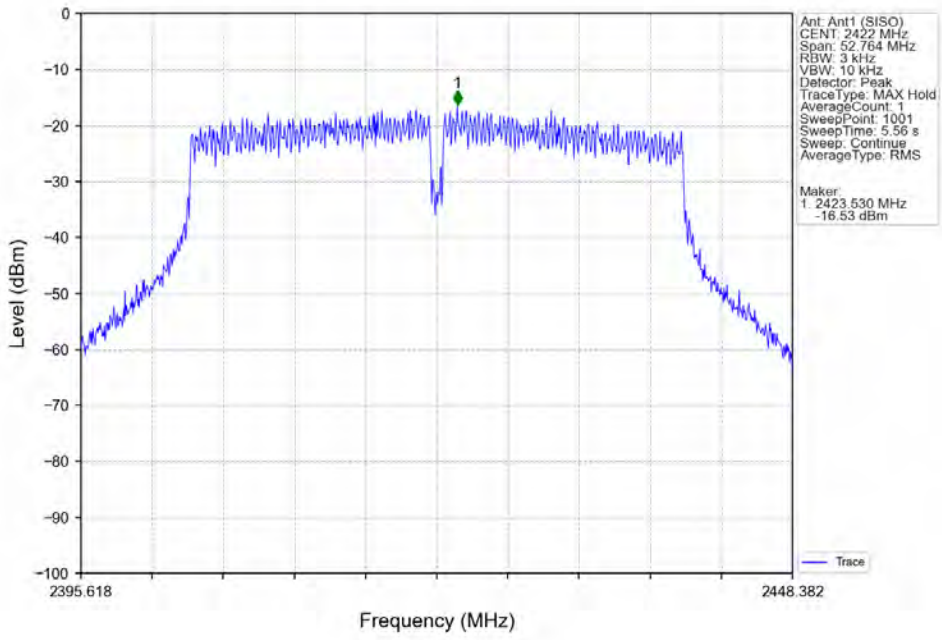
802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



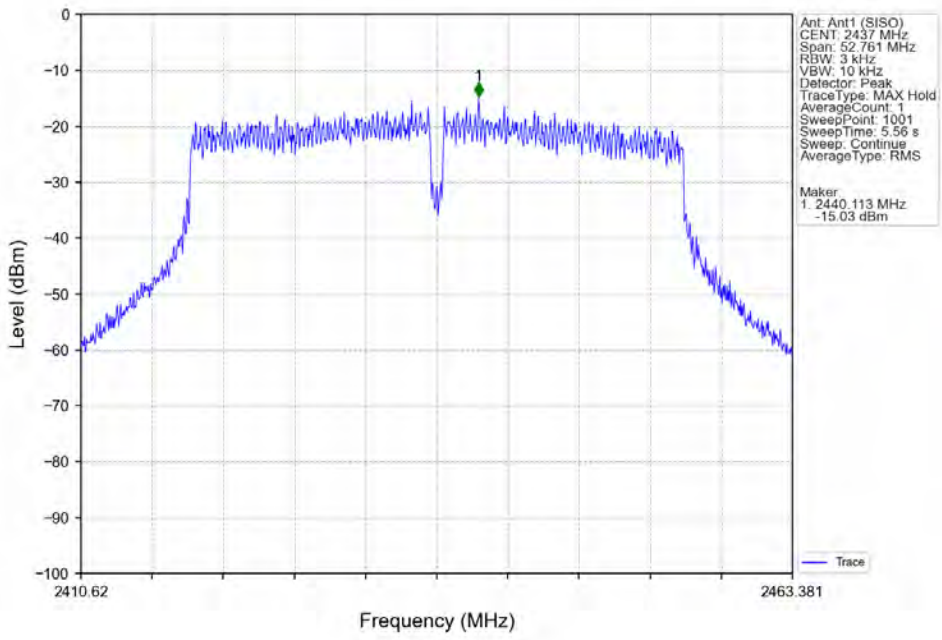
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



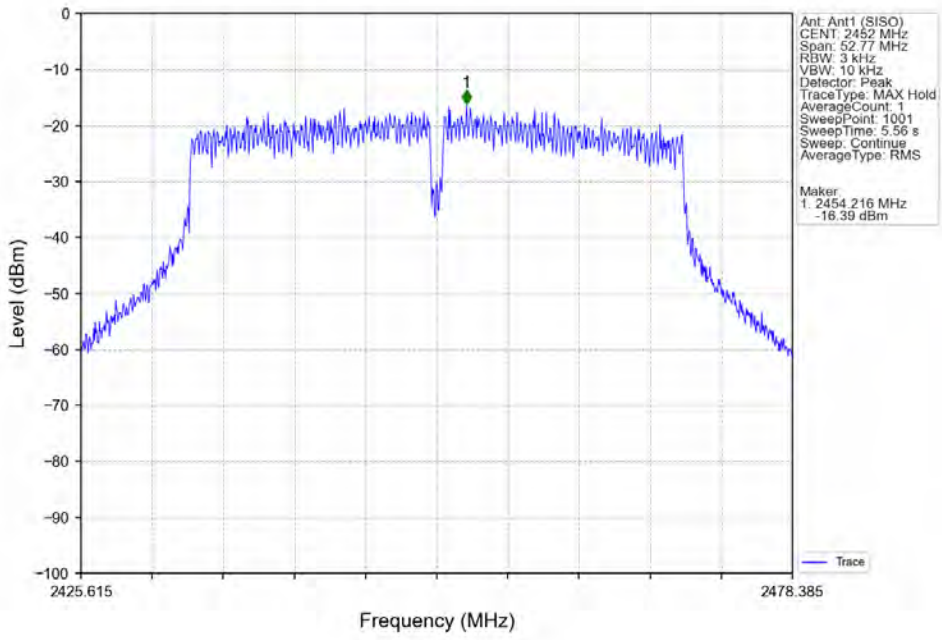
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



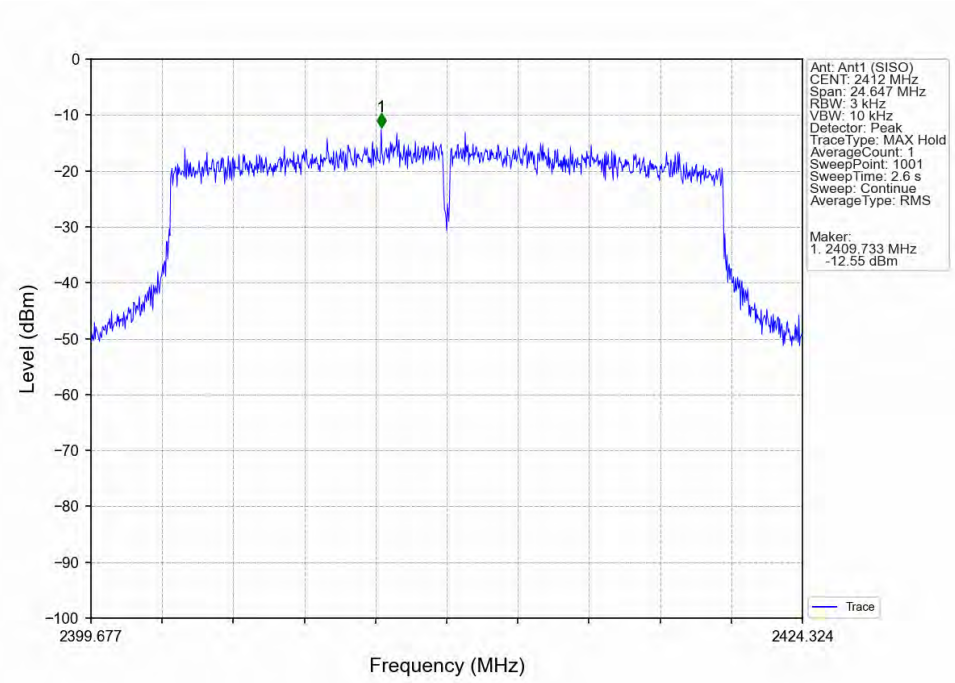
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



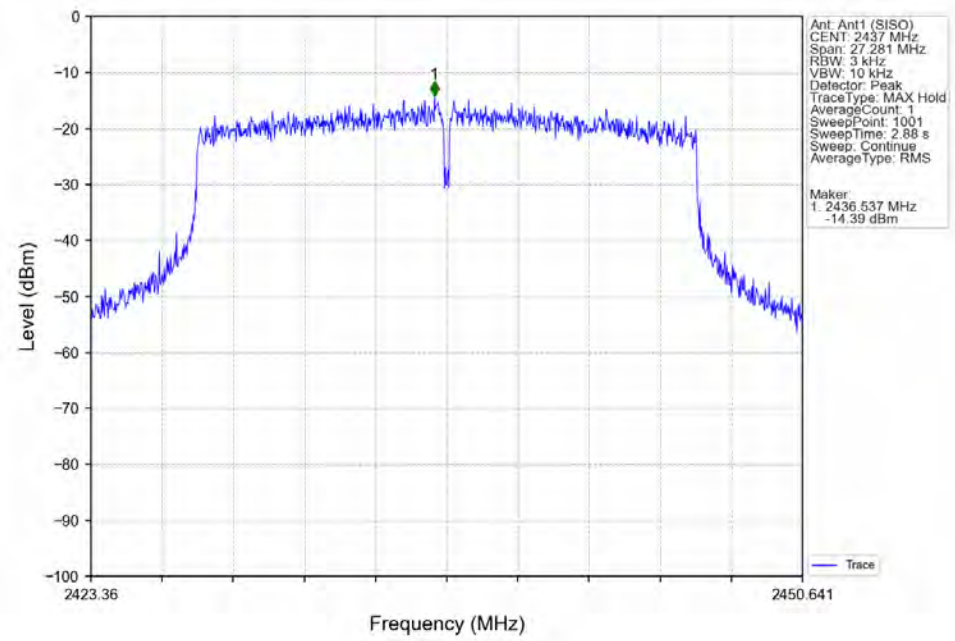
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



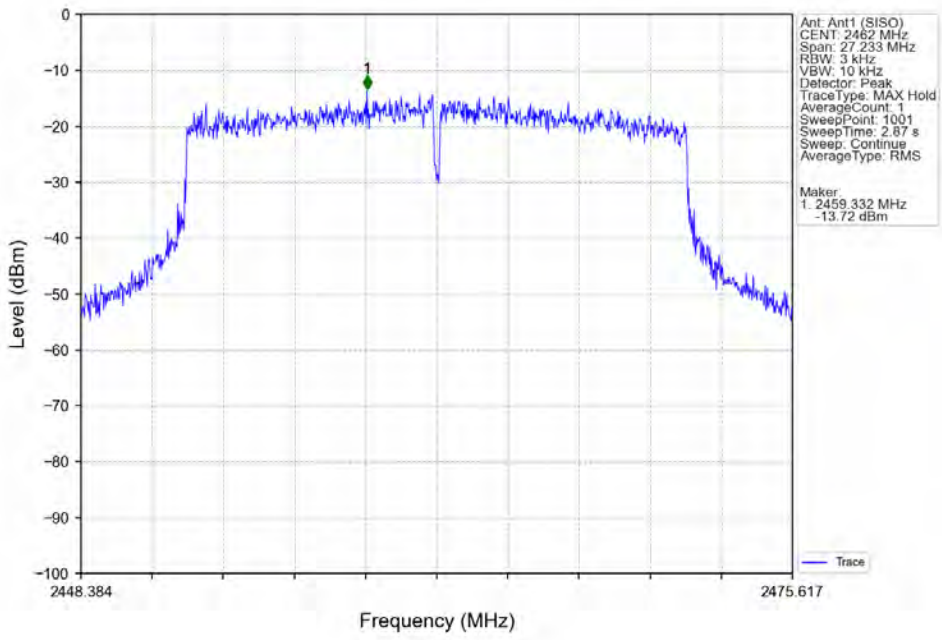
802.11ax(HE20)_LCH_2412MHz_RU242_Left_Ant1 (SISO)_NTNV



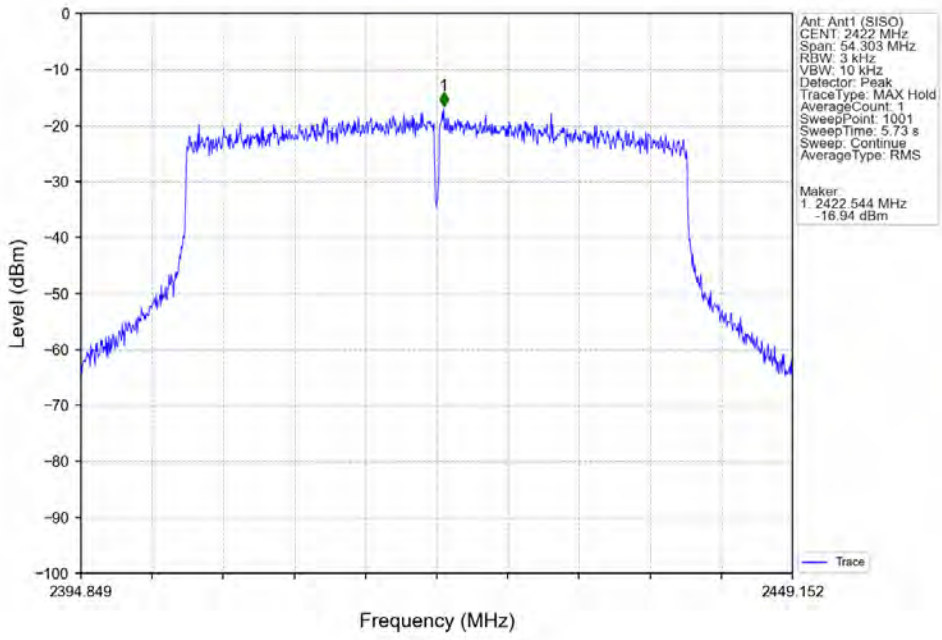
802.11ax(HE20)_MCH_2437MHz_RU242_Left_Ant1 (SISO)_NTNV



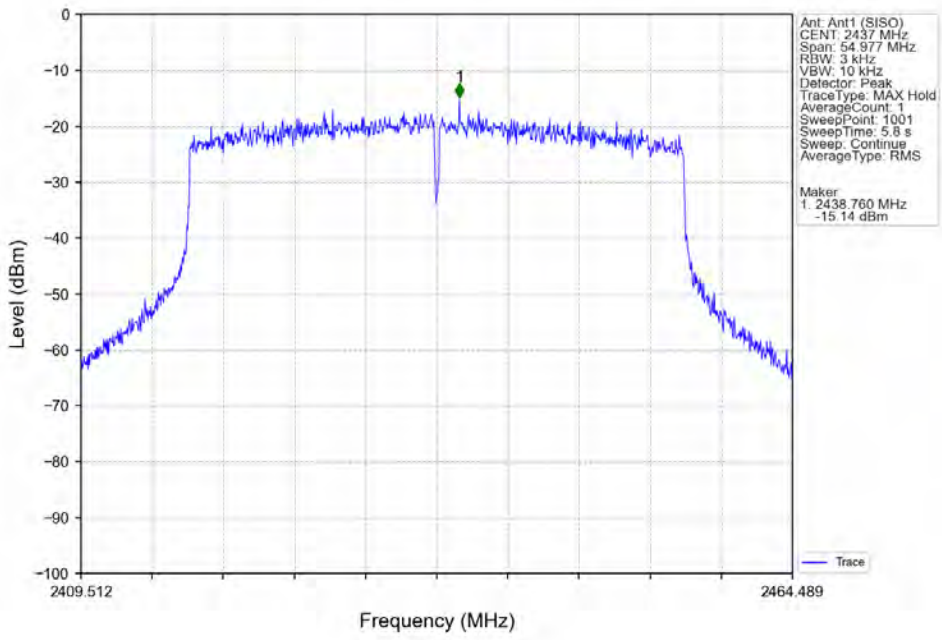
802.11ax(HE20)_HCH_2462MHz_RU242_Left_Ant1 (SISO)_NTNV



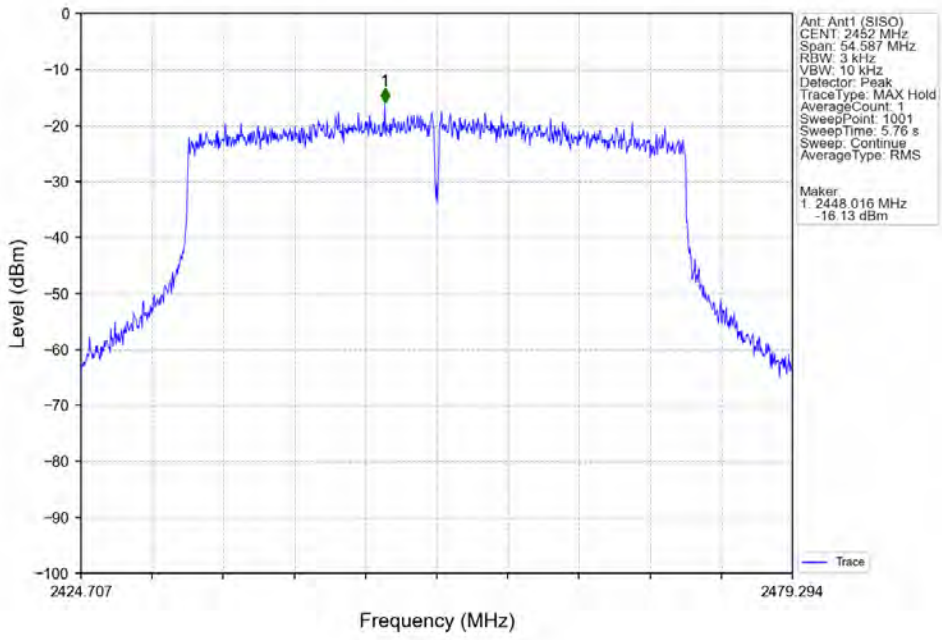
802.11ax(HE40)_LCH_2422MHz_RU484_Left_Ant1 (SISO)_NTNV



802.11ax(HE40)_MCH_2437MHz_RU484_Left_Ant1 (SISO)_NTNV



802.11ax(HE40)_HCH_2452MHz_RU484_Left_Ant1 (SISO)_NTNV



5. Unwanted Emissions In Non-restricted Frequency Bands

5.1 Test Result

5.1.1 Ref

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)
802.11b	SISO	2412	/	/	1	9.72
		2437	/	/	1	10.06
		2462	/	/	1	10.19
802.11g	SISO	2412	/	/	1	1.05
		2437	/	/	1	1.08
		2462	/	/	1	1.63
802.11n (HT20)	SISO	2412	/	/	1	2.67
		2437	/	/	1	2.72
		2462	/	/	1	3.28
802.11n (HT40)	SISO	2422	/	/	1	-1.54
		2437	/	/	1	-1.41
		2452	/	/	1	-1.63
802.11ax (HE20)	SISO	2412	RU242	Left	1	2.73
		2437	RU242	Left	1	1.19
		2462	RU242	Left	1	2.20
802.11ax (HE40)	SISO	2422	RU484	Left	1	4.24
		2437	RU484	Left	1	4.44
		2452	RU484	Left	1	4.10
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.						

5.1.2 CSE

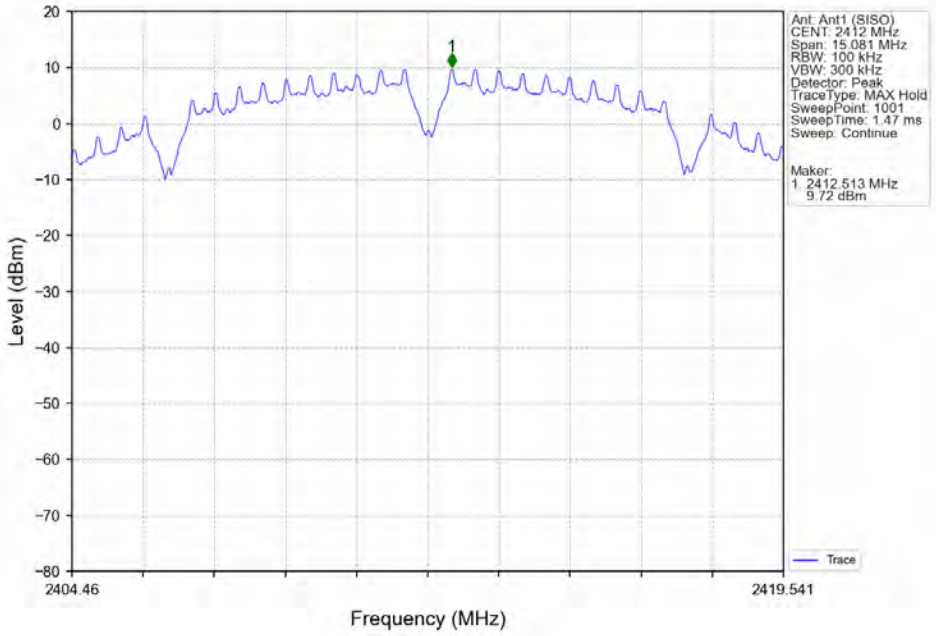
Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	Level of Reference (dBm)	Limit (dBm)	Verdict
802.11b	SISO	2412	/	/	1	10.19	-9.81	Pass
		2437	/	/	1	10.19	-9.81	Pass
		2462	/	/	1	10.19	-9.81	Pass
802.11g	SISO	2412	/	/	1	1.63	-18.37	Pass
		2437	/	/	1	1.63	-18.37	Pass
		2462	/	/	1	1.63	-18.37	Pass

802.11n (HT20)	SISO	2412	/	/	1	3.28	-16.72	Pass
		2437	/	/	1	3.28	-16.72	Pass
		2462	/	/	1	3.28	-16.72	Pass
802.11n (HT40)	SISO	2422	/	/	1	-1.41	-21.41	Pass
		2437	/	/	1	-1.41	-21.41	Pass
		2452	/	/	1	-1.41	-21.41	Pass
802.11ax (HE20)	SISO	2412	RU242	Left	1	2.73	-17.27	Pass
		2437	RU242	Left	1	2.73	-17.27	Pass
		2462	RU242	Left	1	2.73	-17.27	Pass
802.11ax (HE40)	SISO	2422	RU484	Left	1	4.44	-15.56	Pass
		2437	RU484	Left	1	4.44	-15.56	Pass
		2452	RU484	Left	1	4.44	-15.56	Pass
Note1: Refer to FCC Part 15.247 (d) and ANSI C63.10-2013, the channel contains the maximum PSD level was used to establish the reference level.								

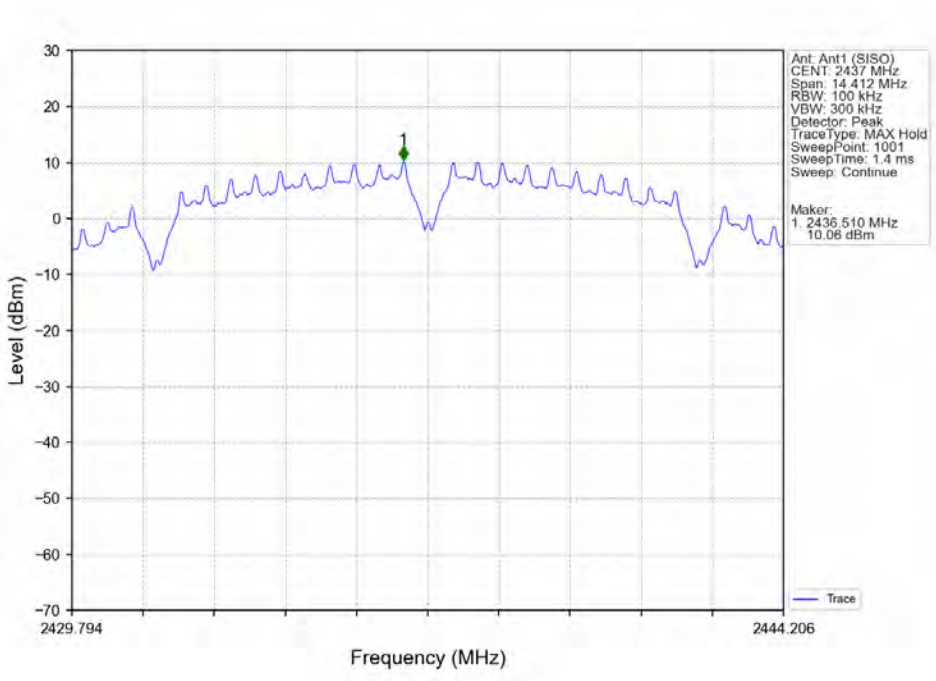
5.2 Test Graph

5.2.1 Ref

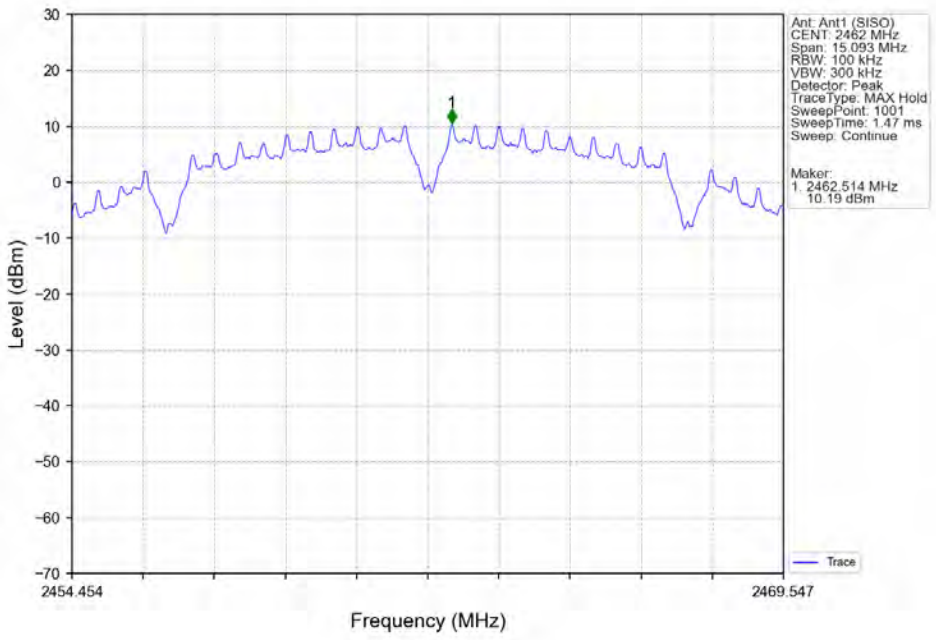
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



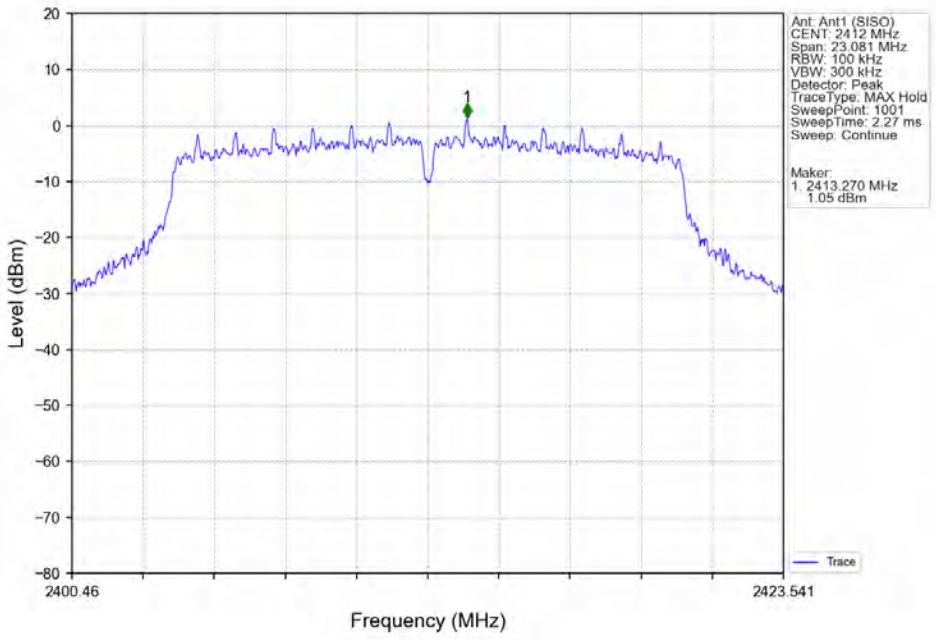
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



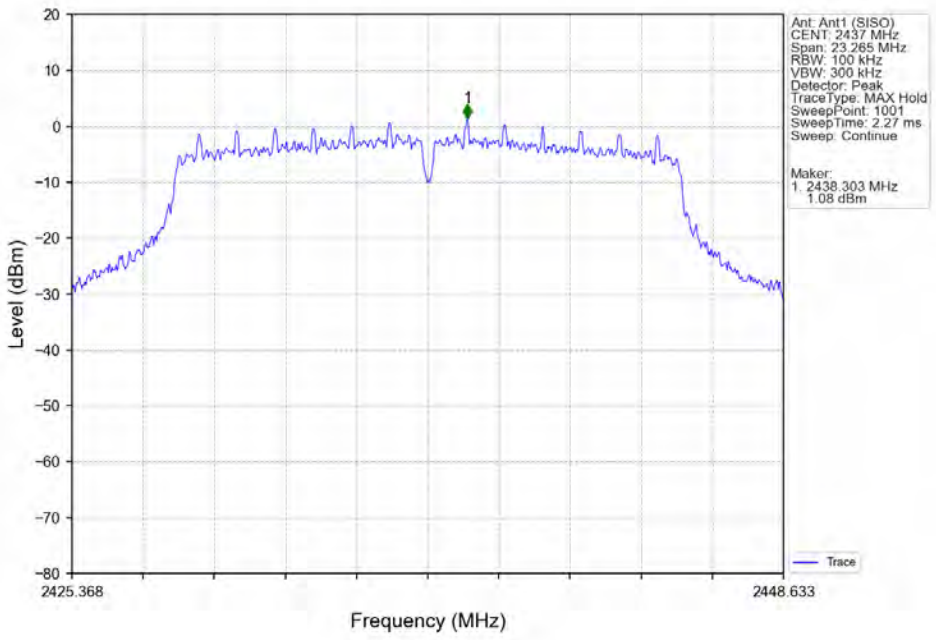
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



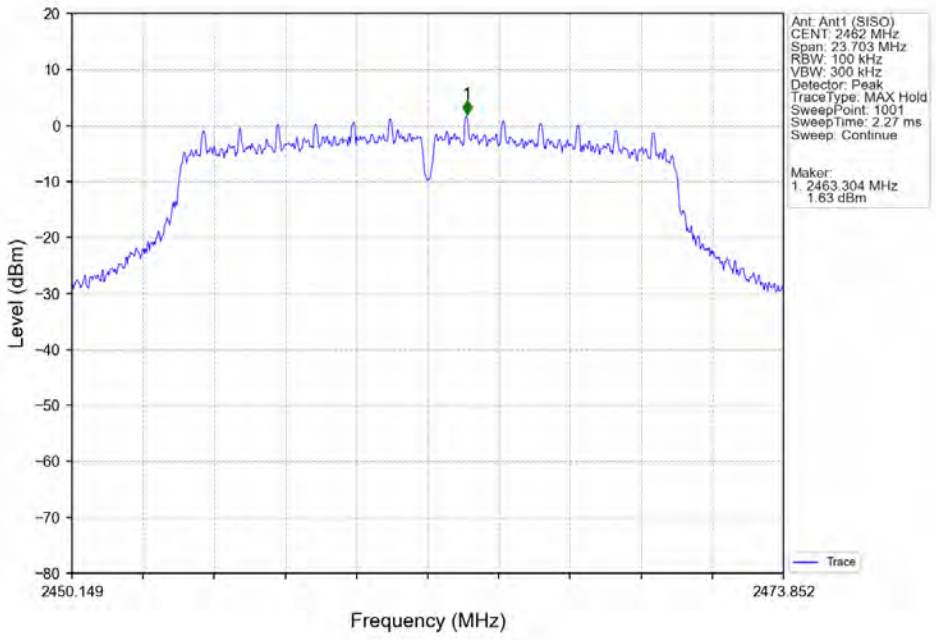
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



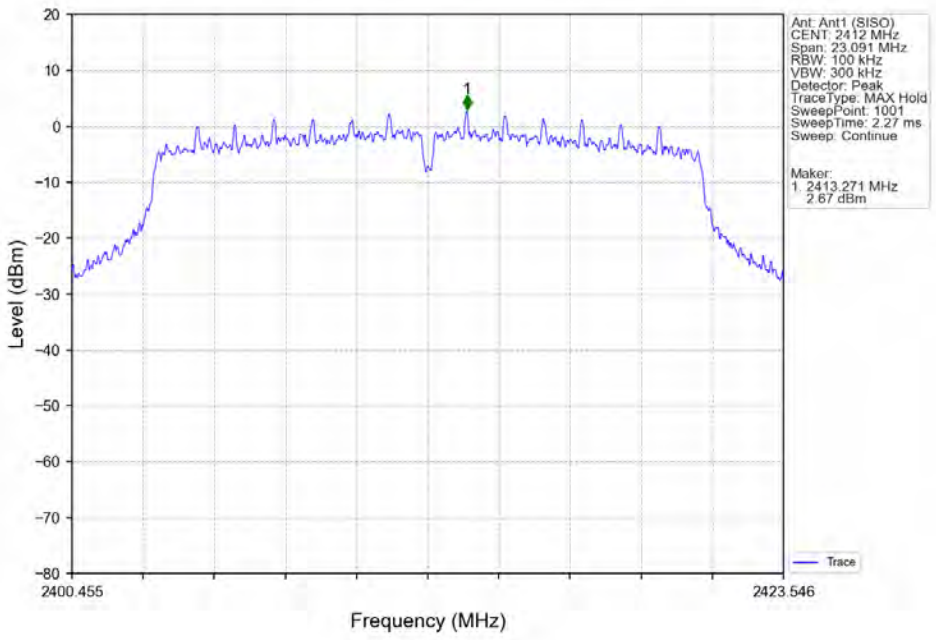
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



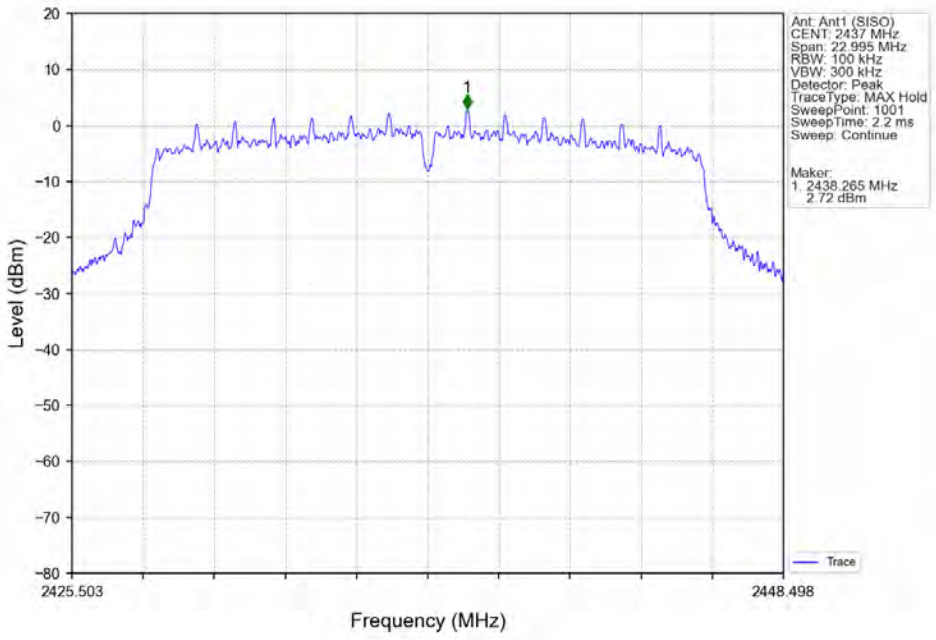
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_MCH_2437MHz_Ant1 (SISO)_NTNV



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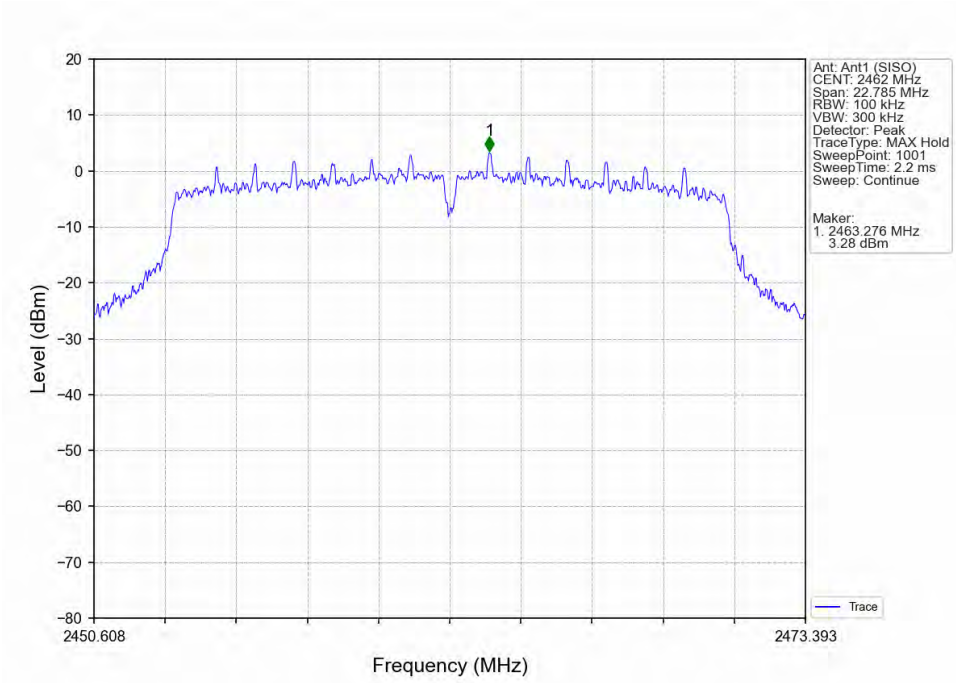
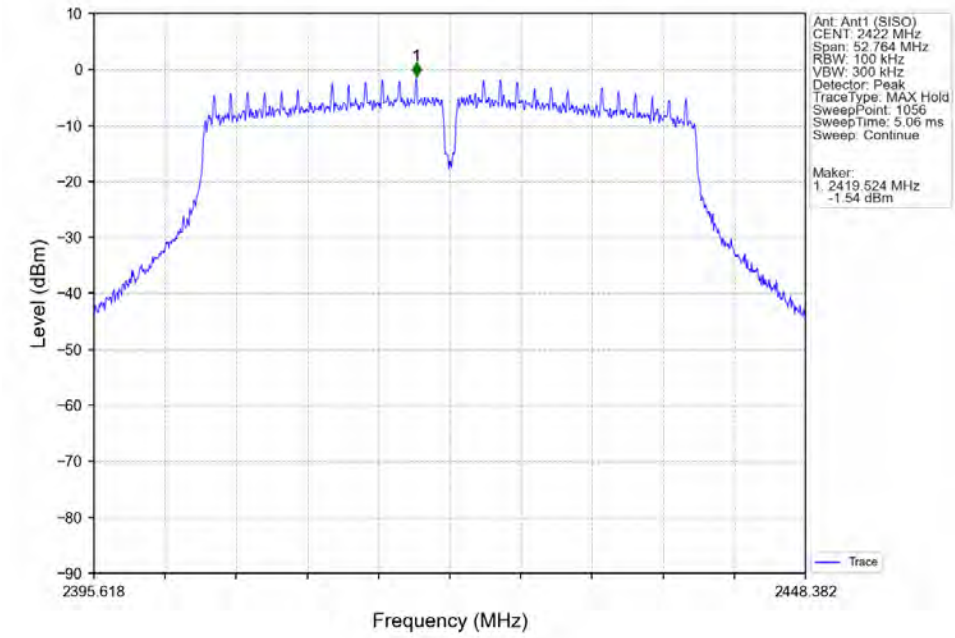


802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



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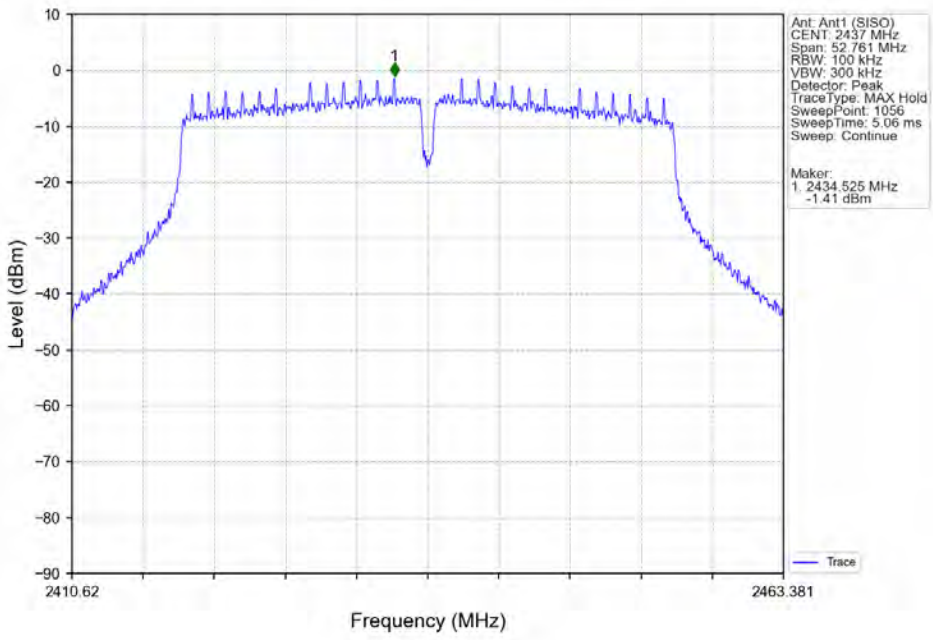
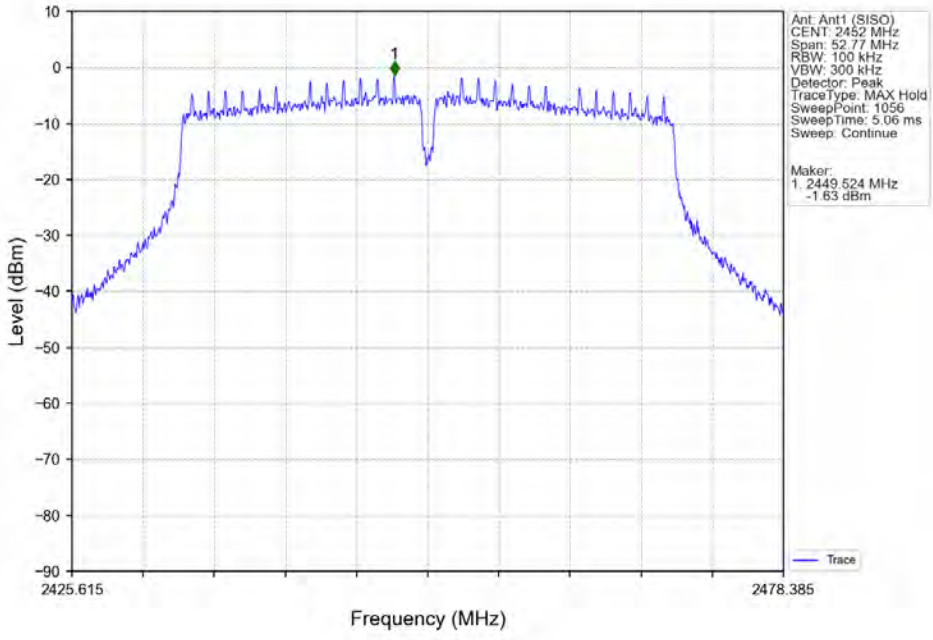
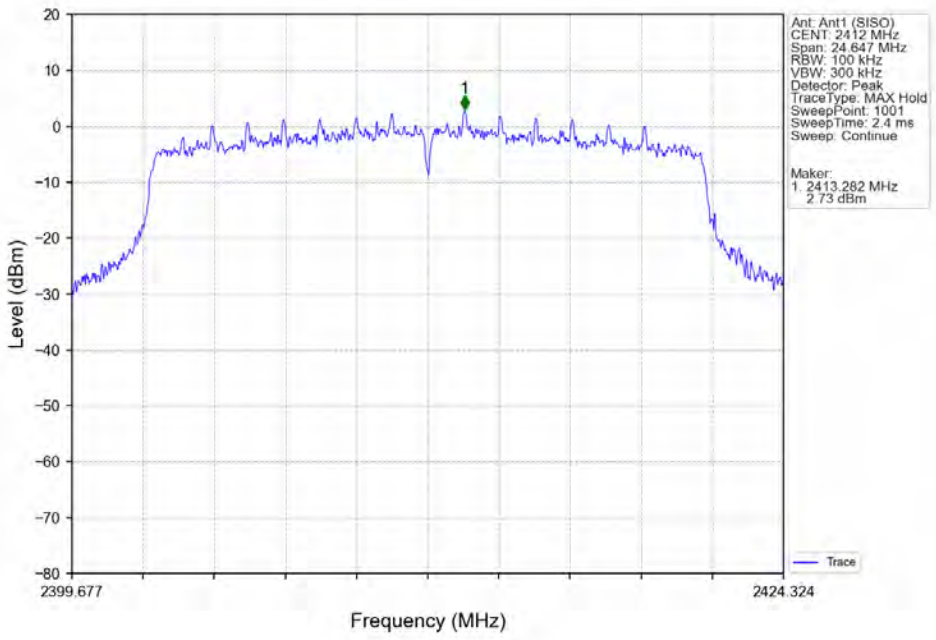


802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



802.11ax(HE20)_LCH_2412MHz_RU242_Left_Ant1 (SISO)_NTNV



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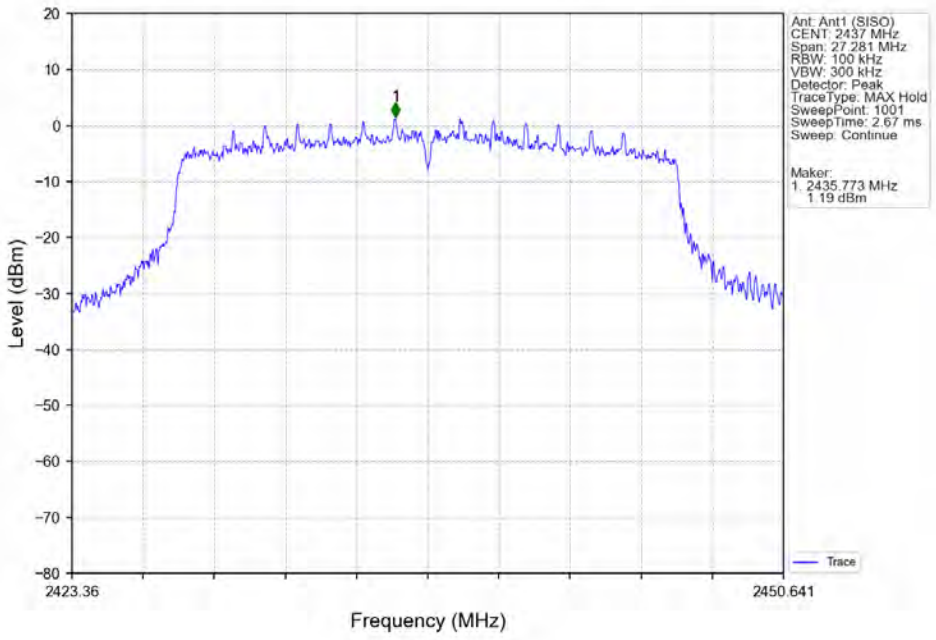

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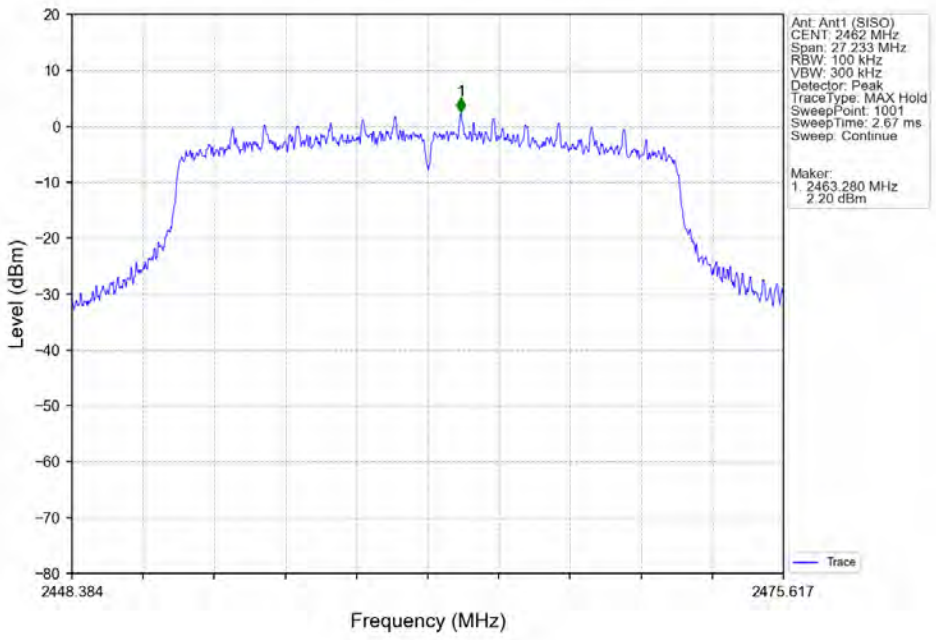

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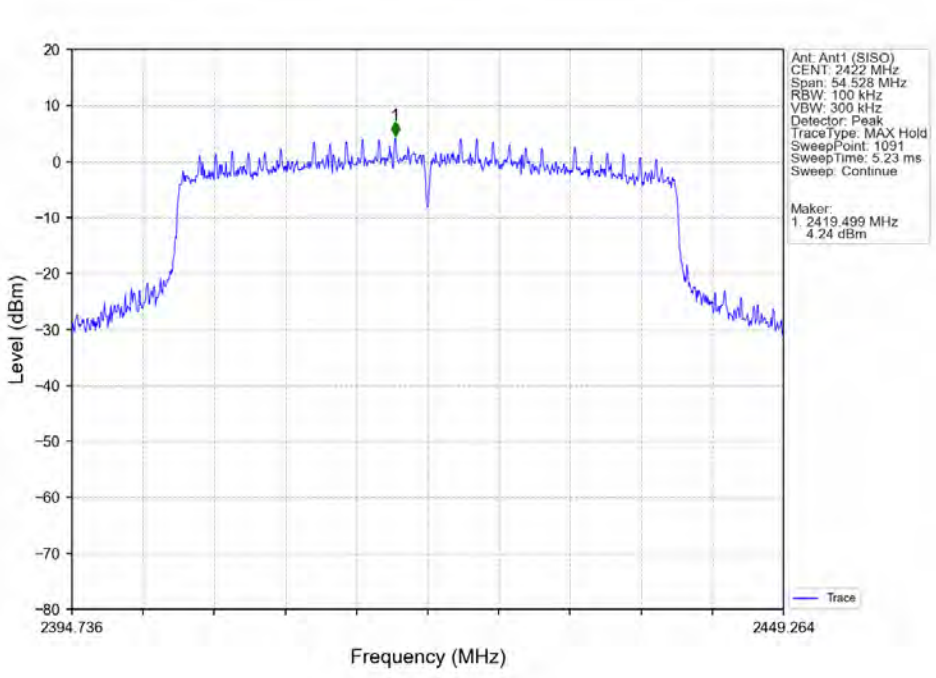
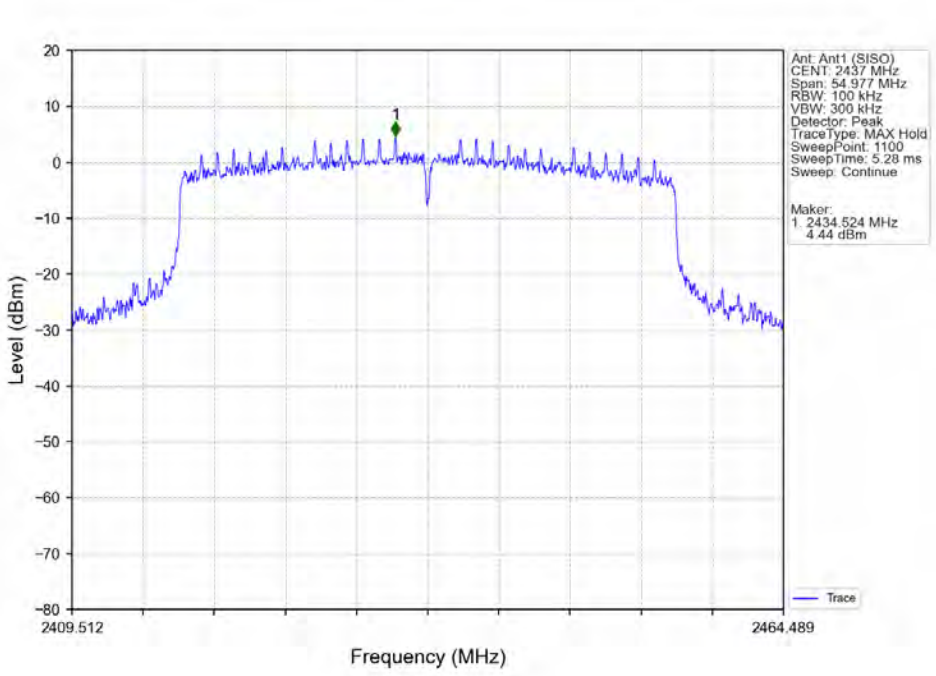
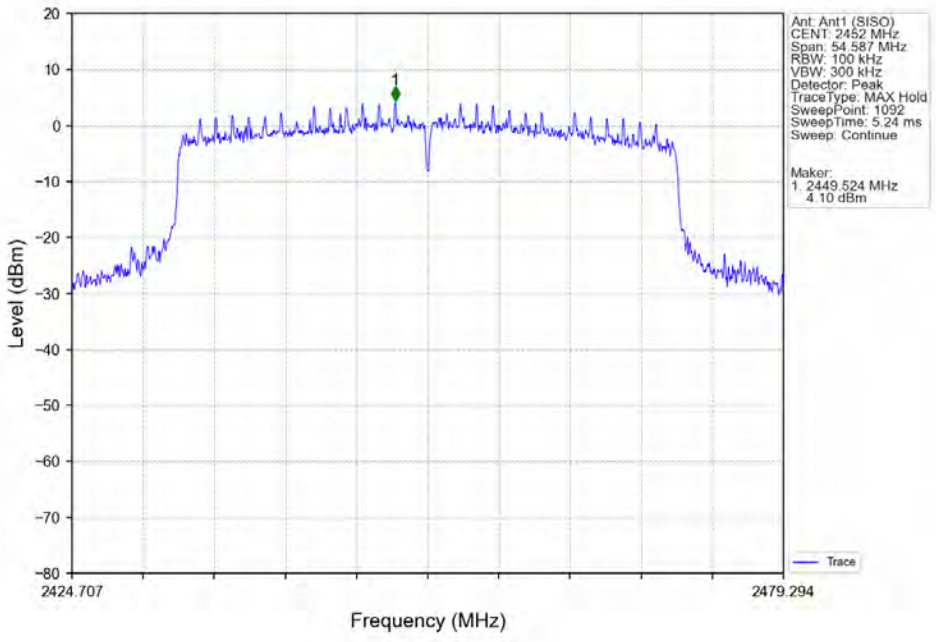


802.11ax(HE40)_MCH_2437MHz_RU484_Left_Ant1 (SISO)_NTNV

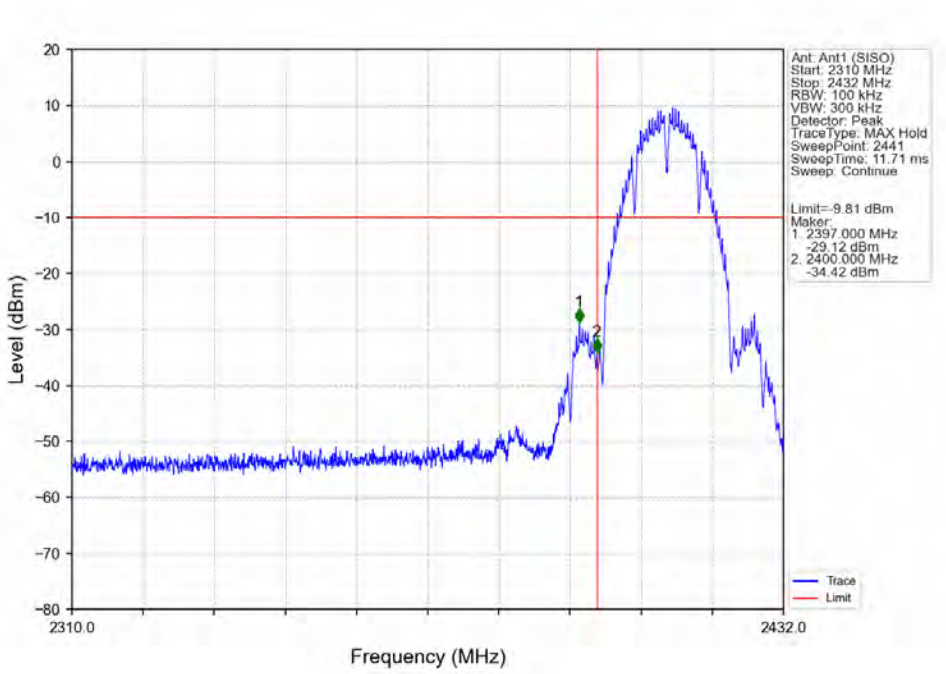


802.11ax(HE40)_HCH_2452MHz_RU484_Left_Ant1 (SISO)_NTNV



5.2.2 CSE

802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



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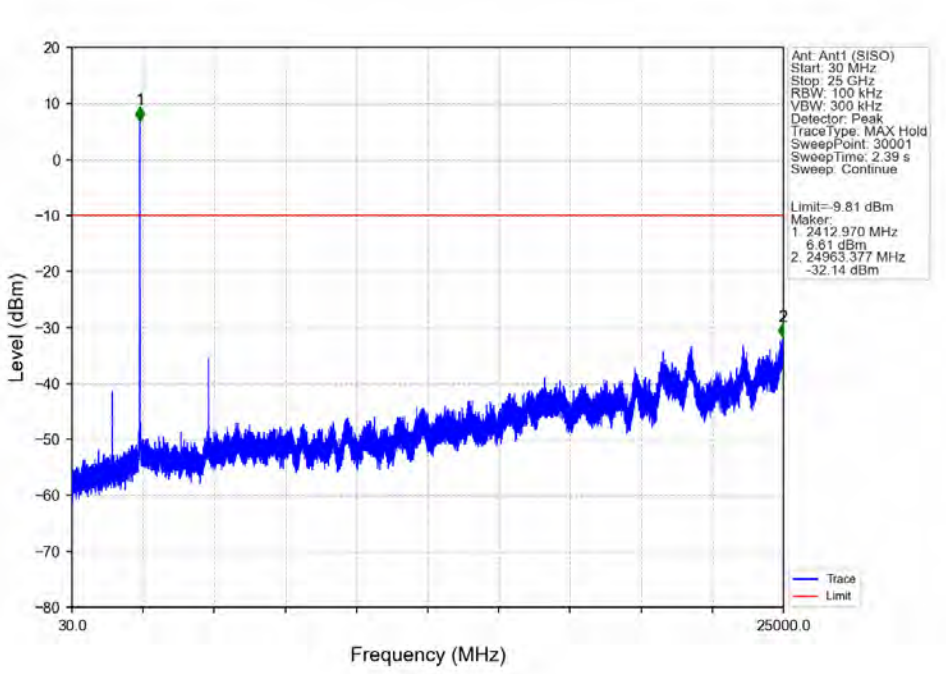

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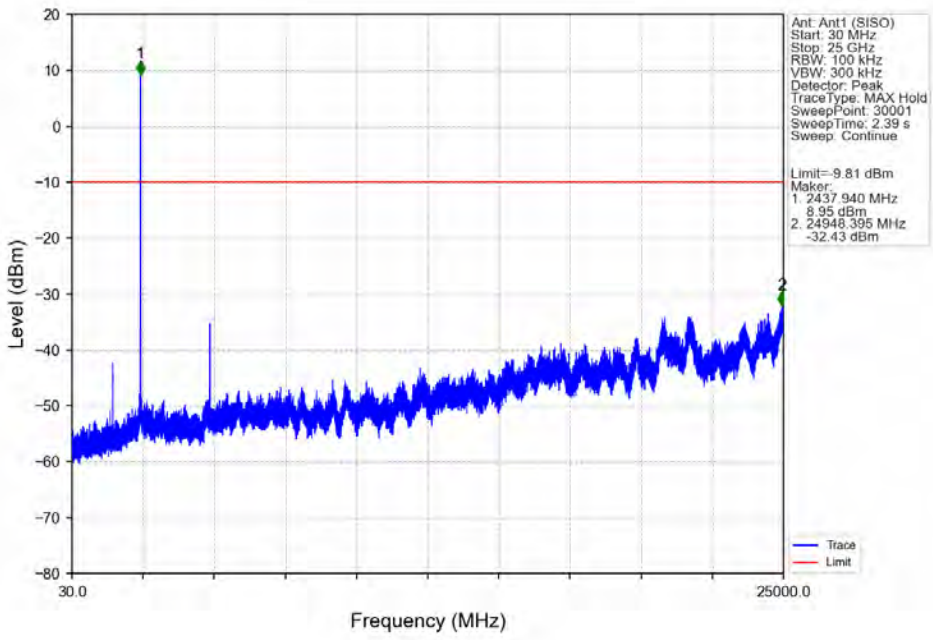

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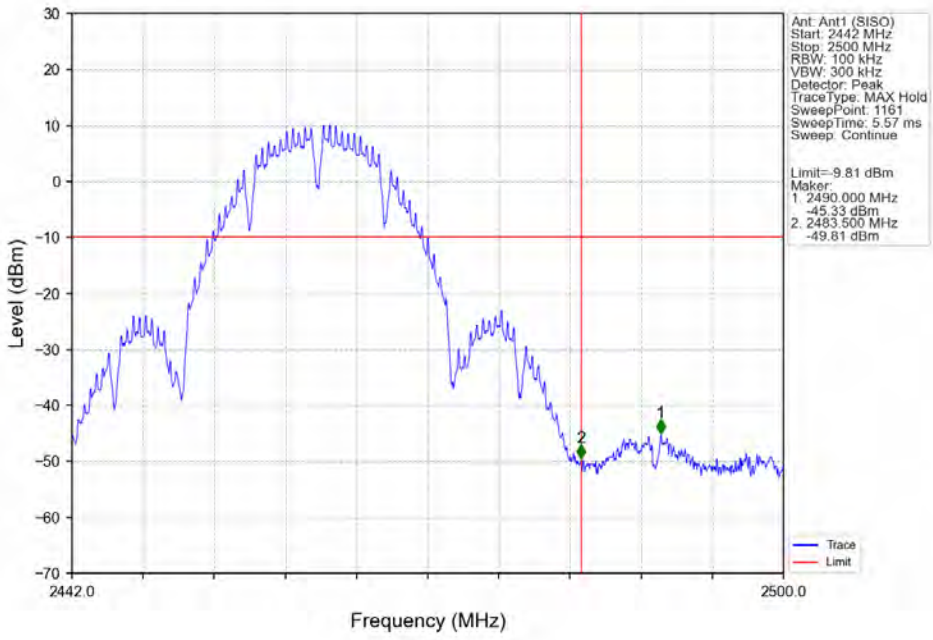

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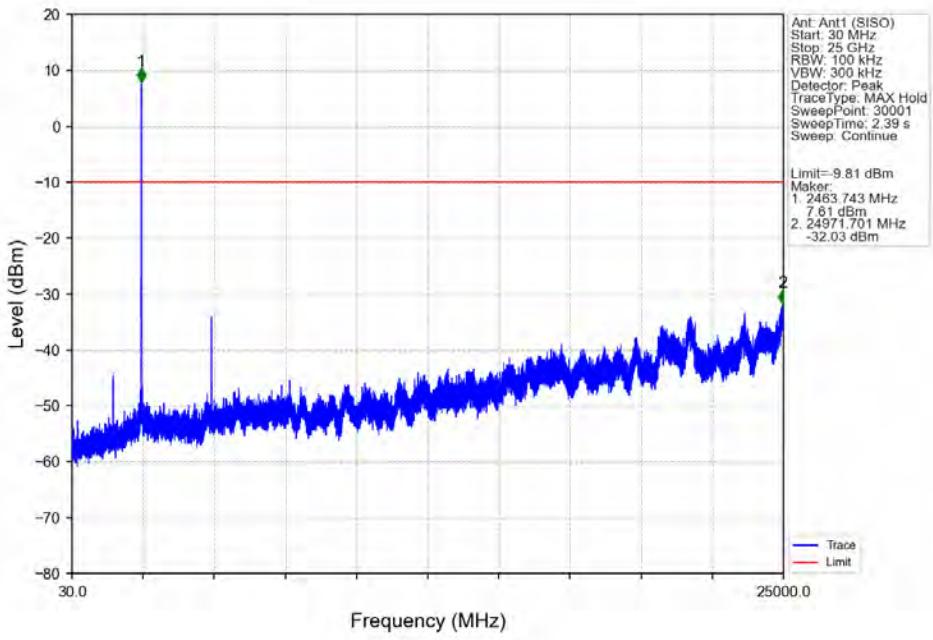
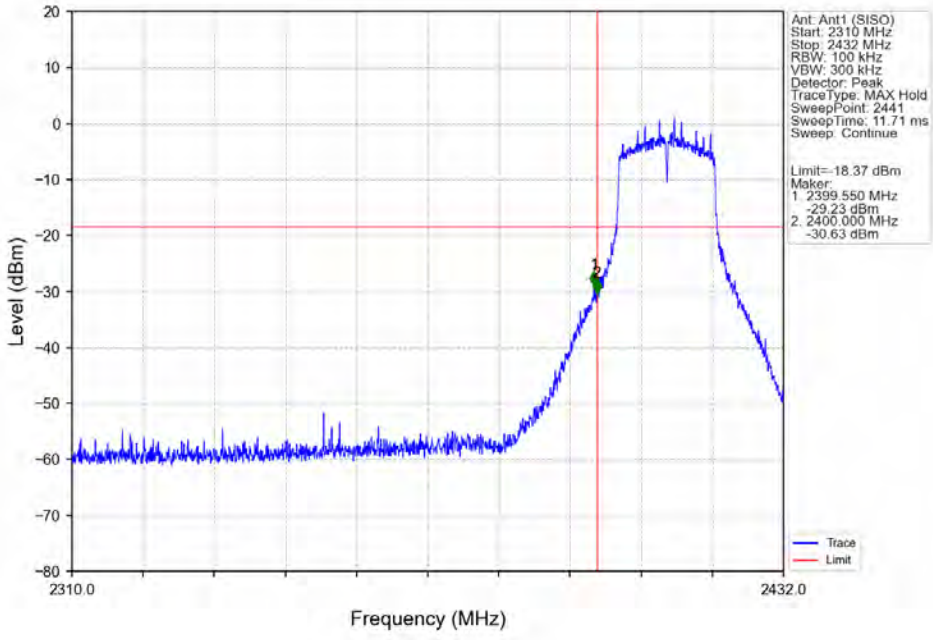


802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



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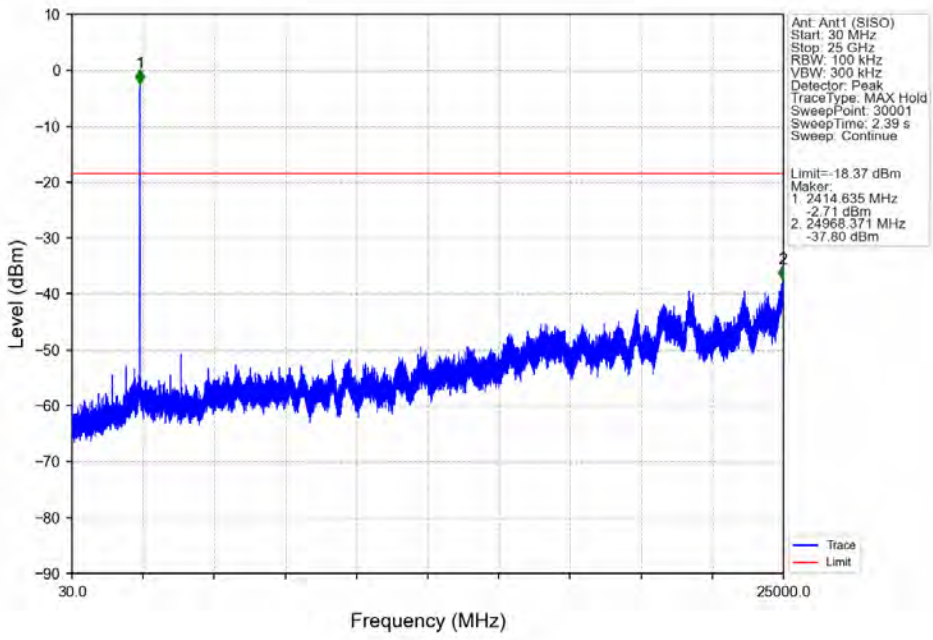

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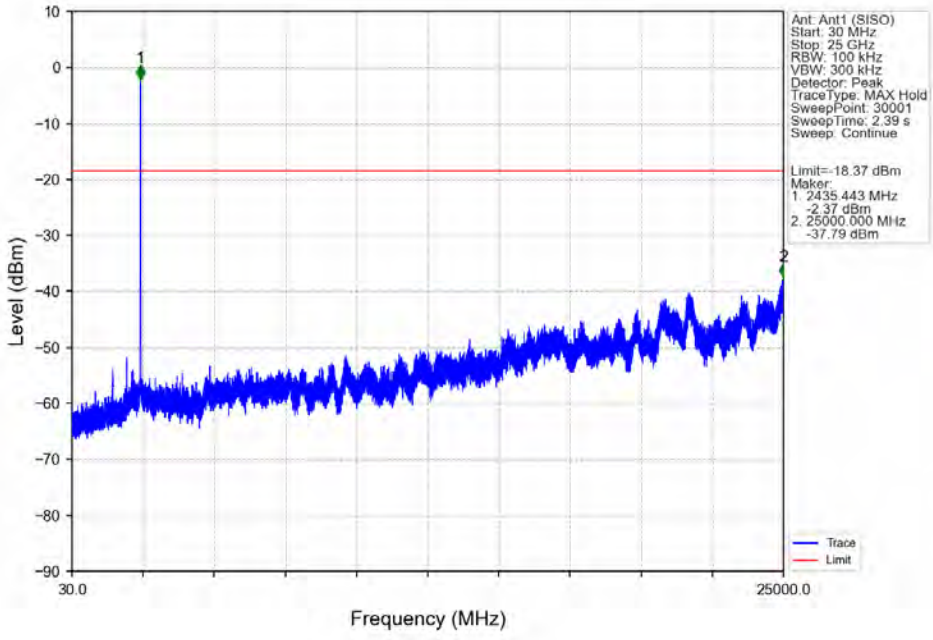

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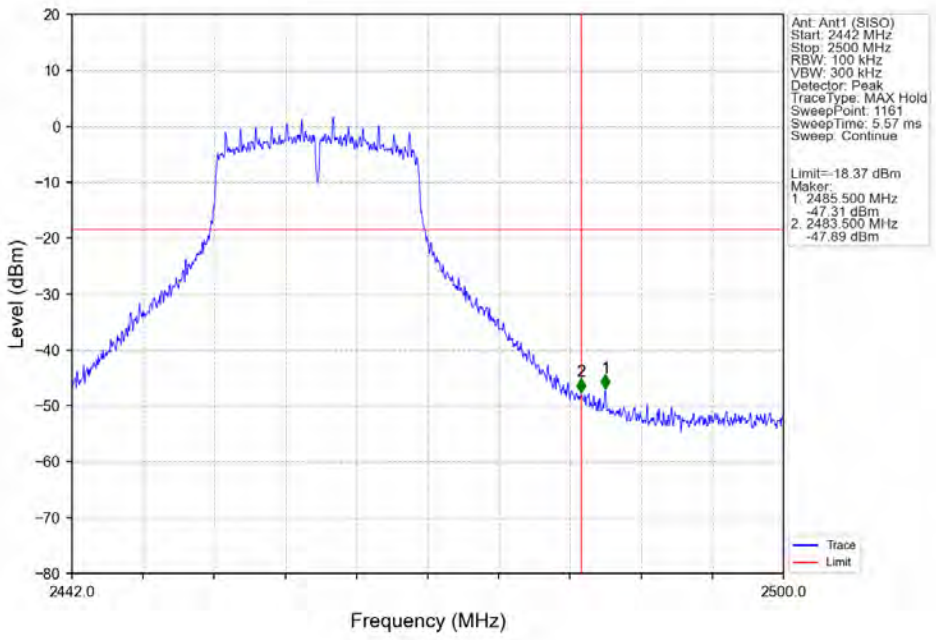
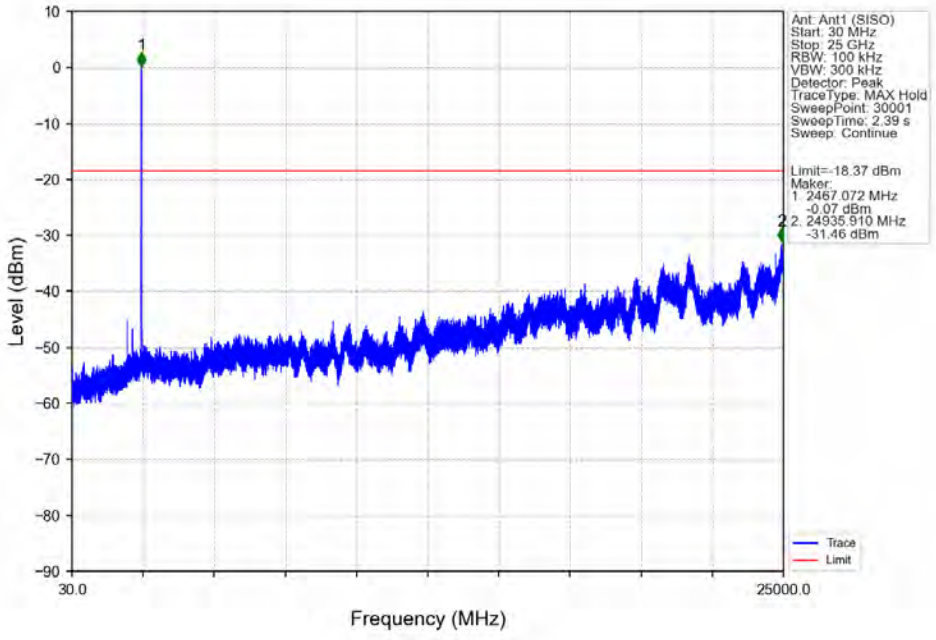
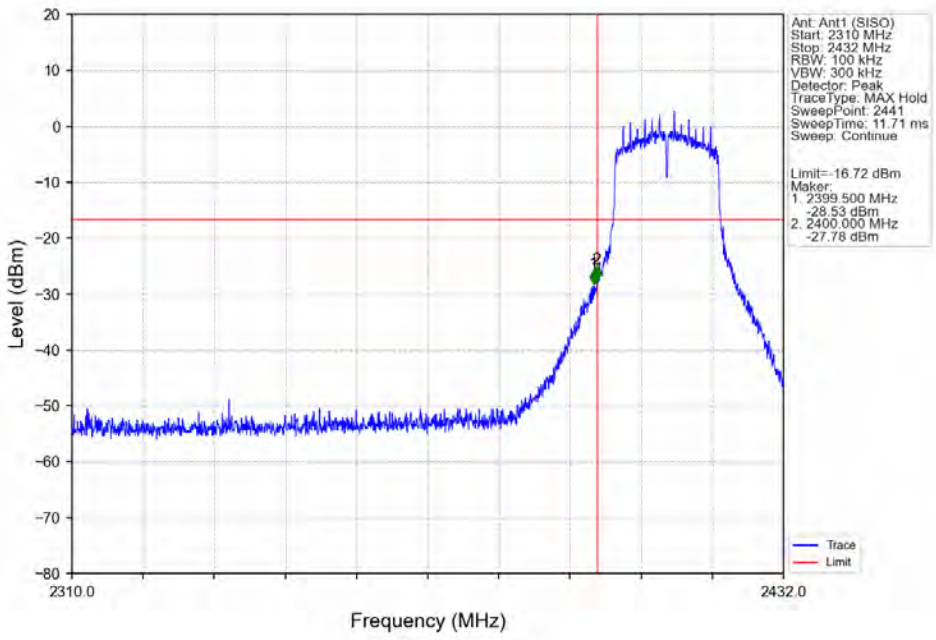


802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



802.11n(HT20)_LCH_2412MHz_Ant1 (SISO)_NTNV



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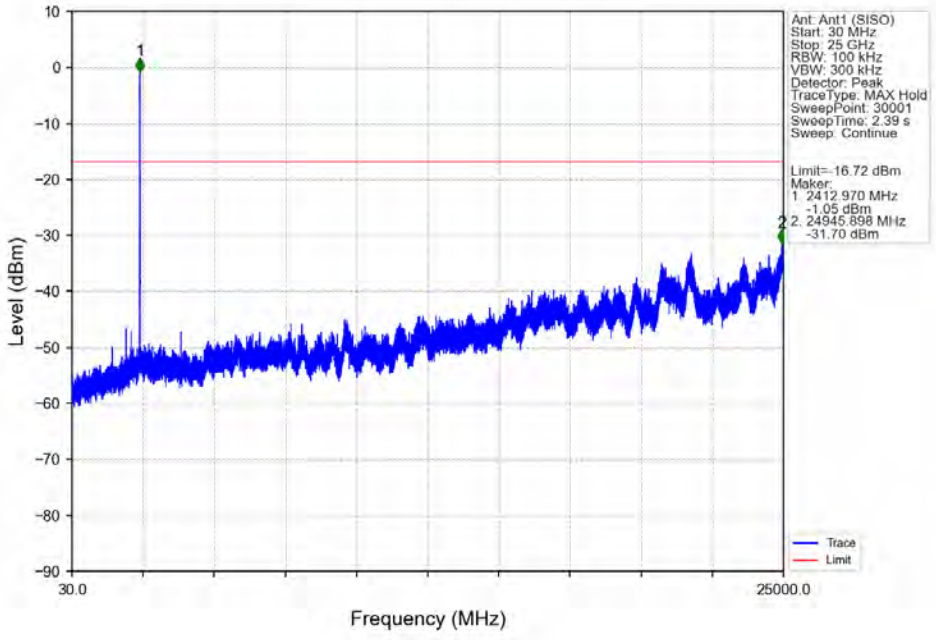

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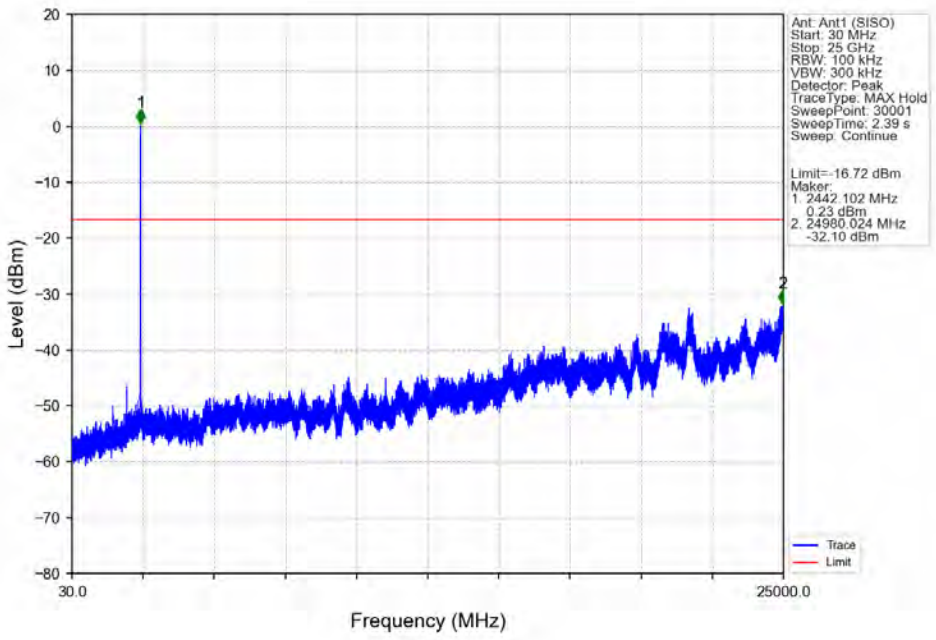

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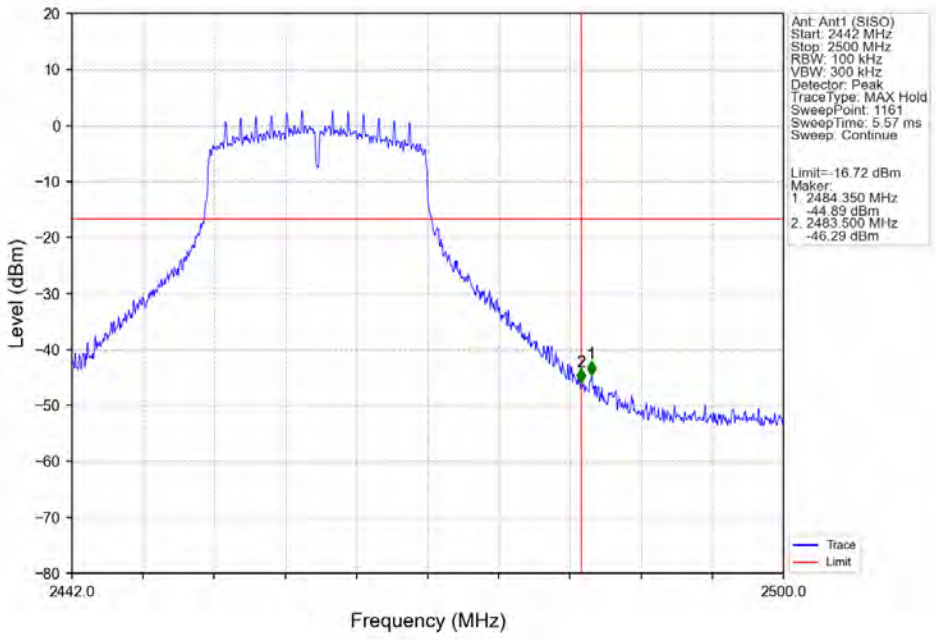
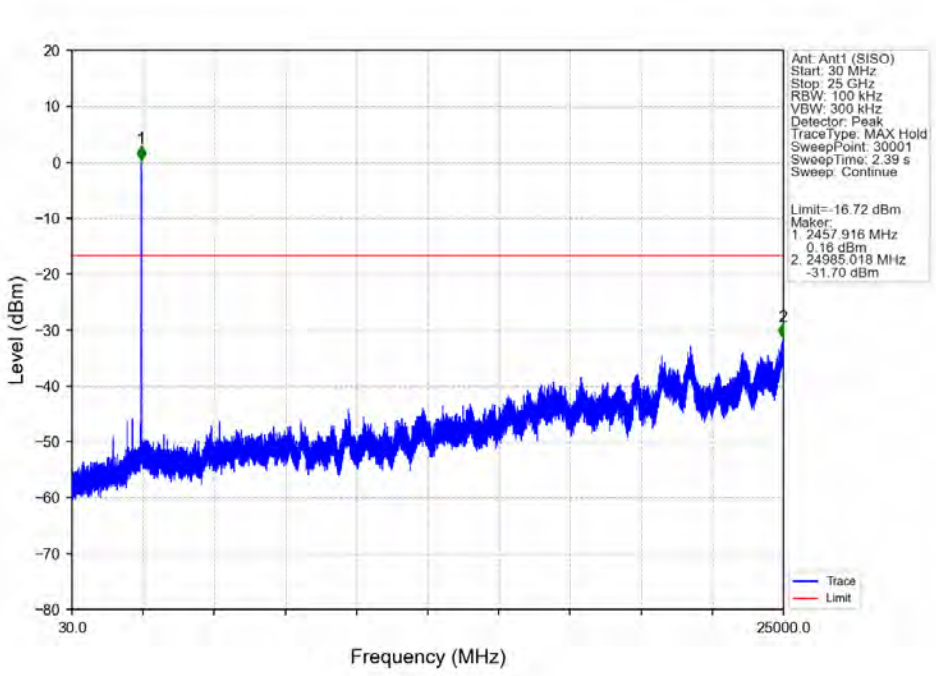
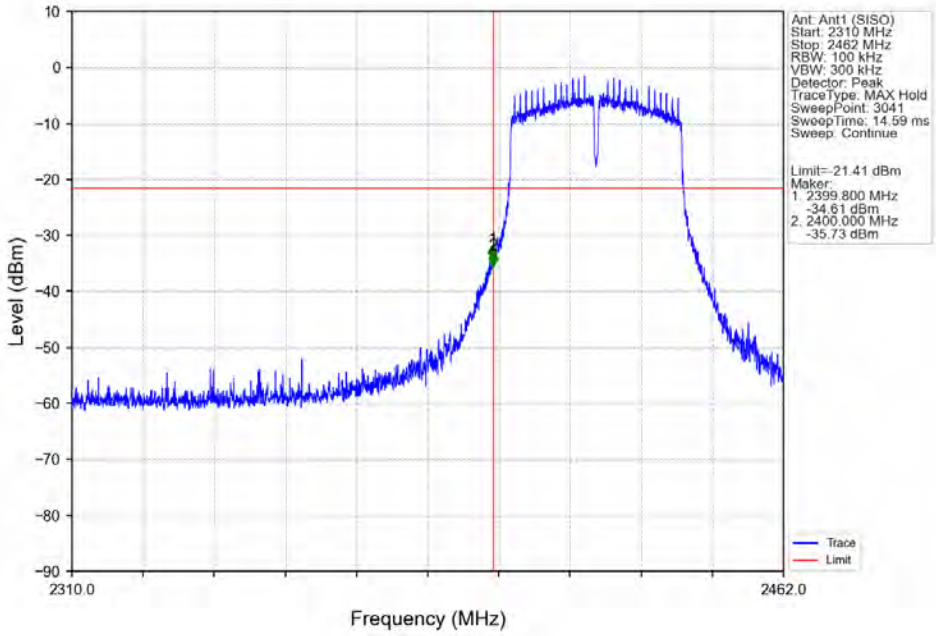


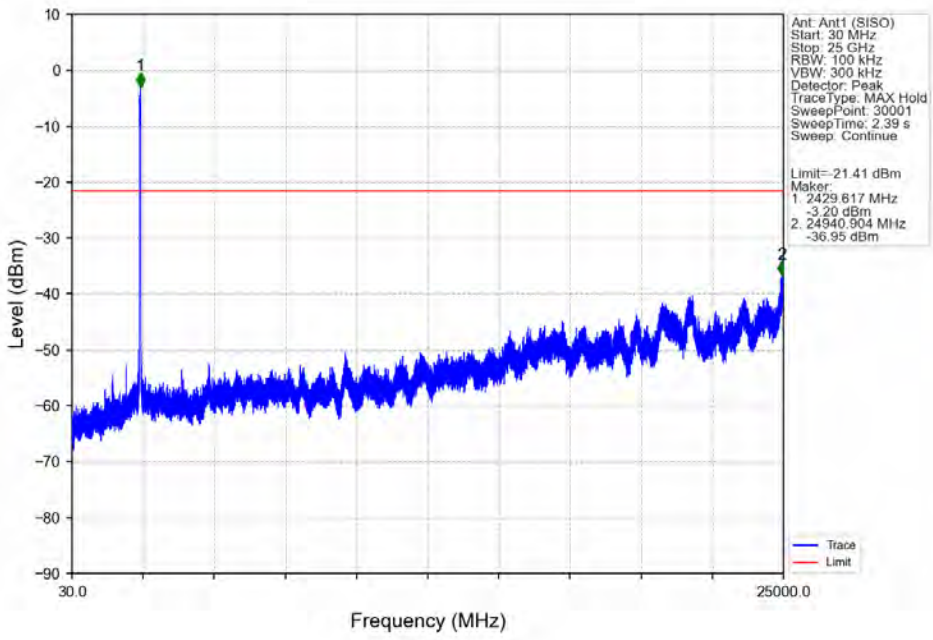
802.11n(HT20)_HCH_2462MHz_Ant1 (SISO)_NTNV



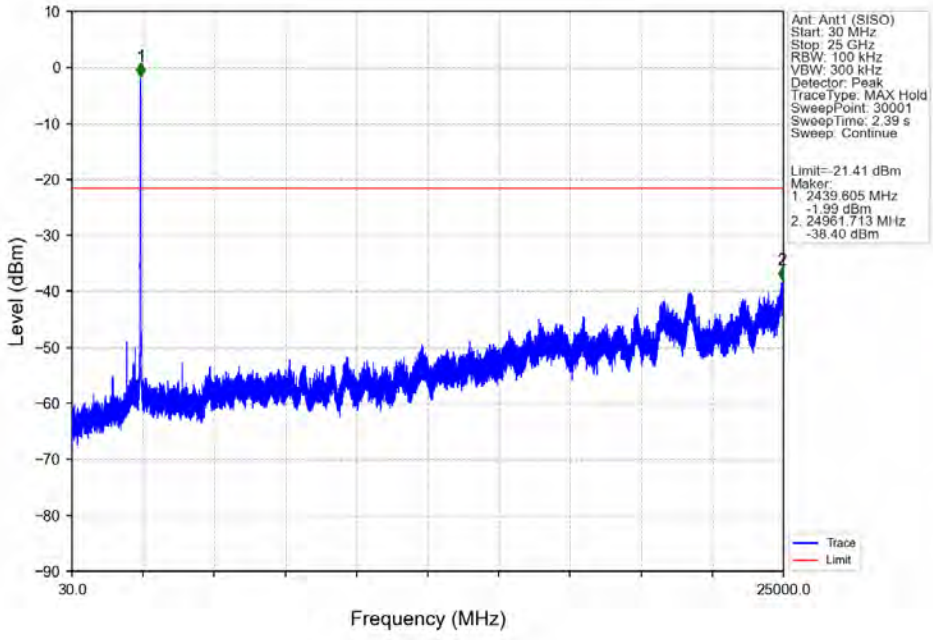
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



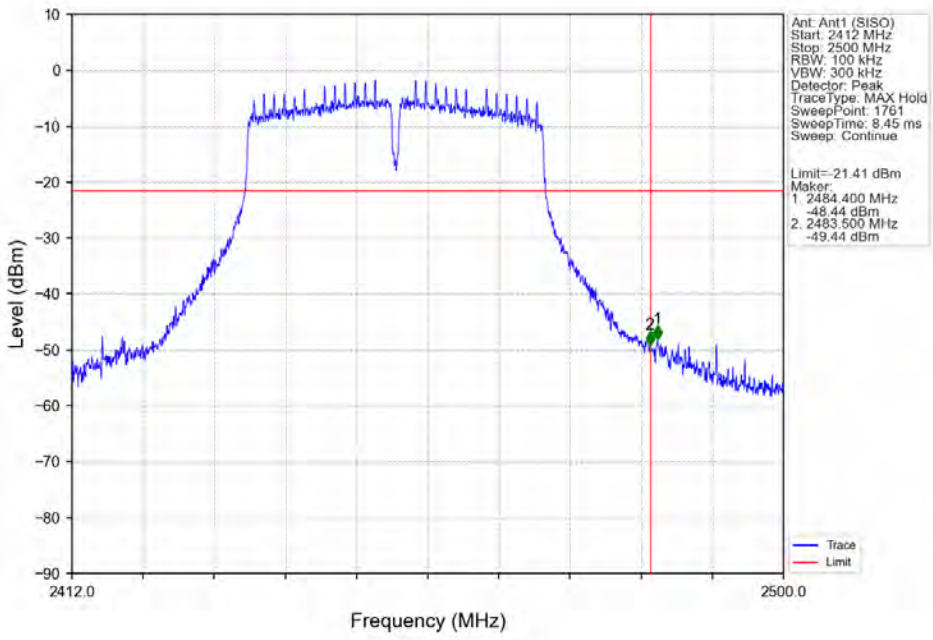
802.11n(HT40)_LCH_2422MHz_Ant1 (SISO)_NTNV



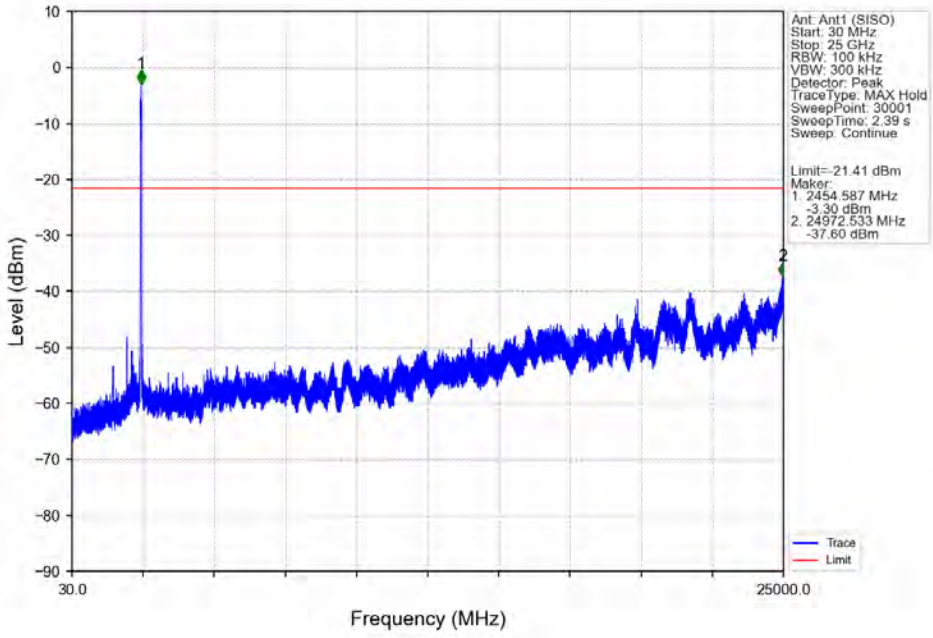
802.11n(HT40)_MCH_2437MHz_Ant1 (SISO)_NTNV



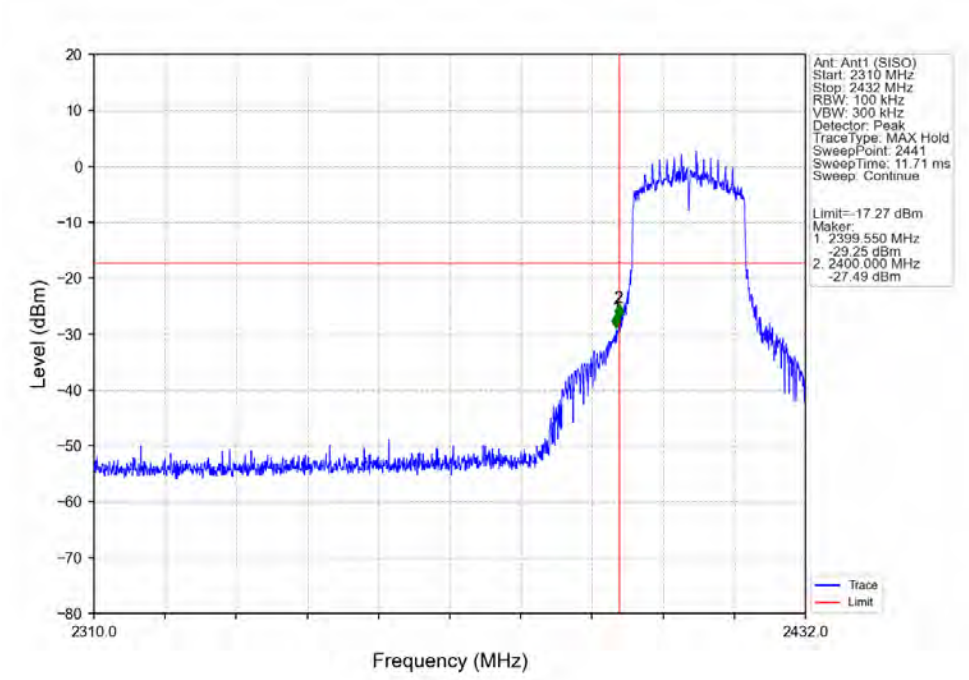
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



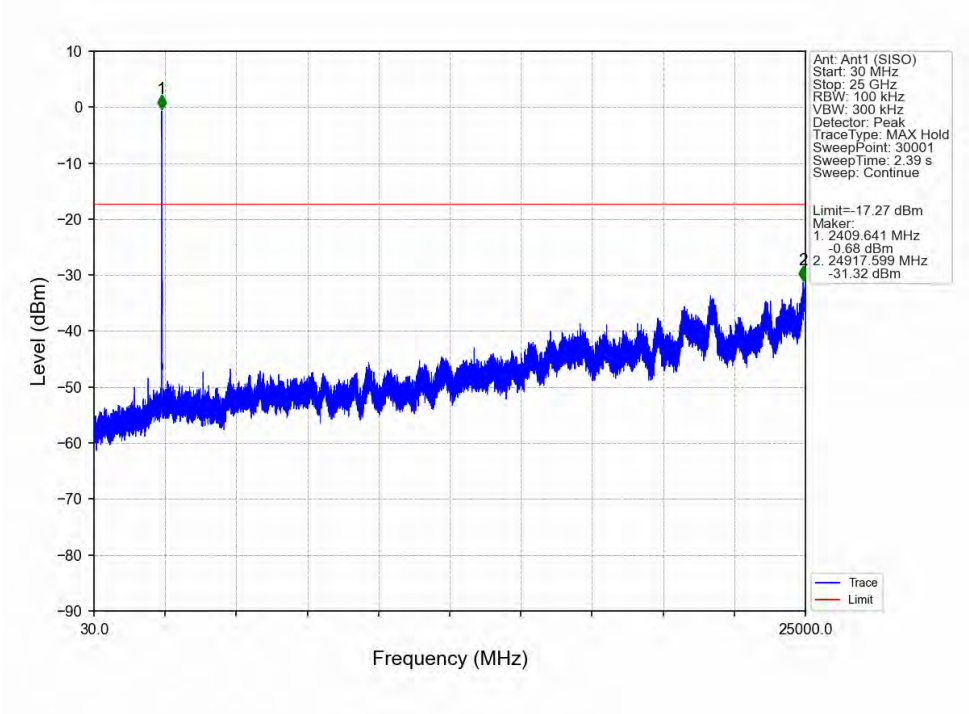
802.11n(HT40)_HCH_2452MHz_Ant1 (SISO)_NTNV



802.11ax(HE20)_LCH_2412MHz_RU242_Left_Ant1 (SISO)_NTNV



802.11ax(HE20)_LCH_2412MHz_RU242_Left_Ant1 (SISO)_NTNV



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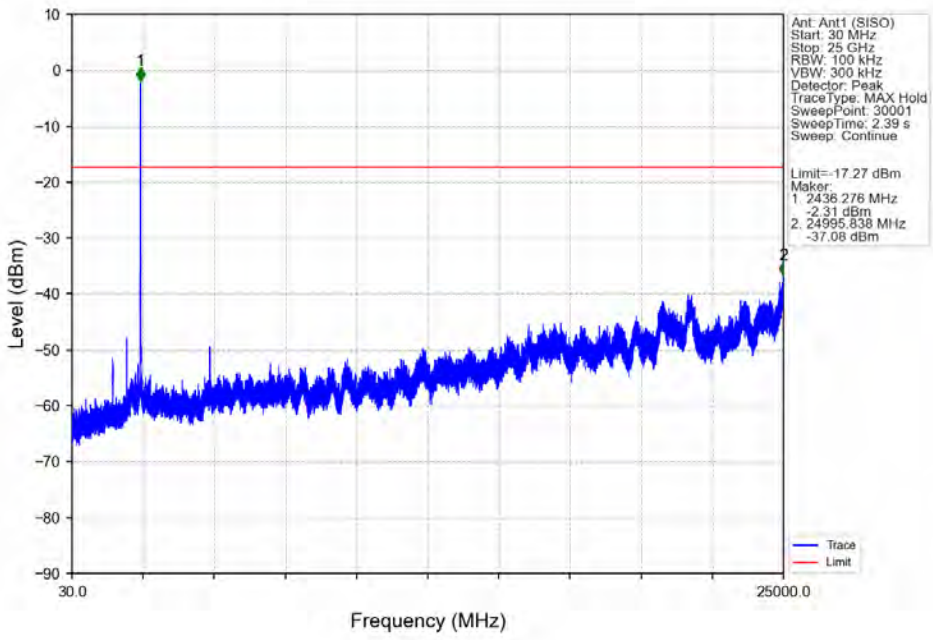
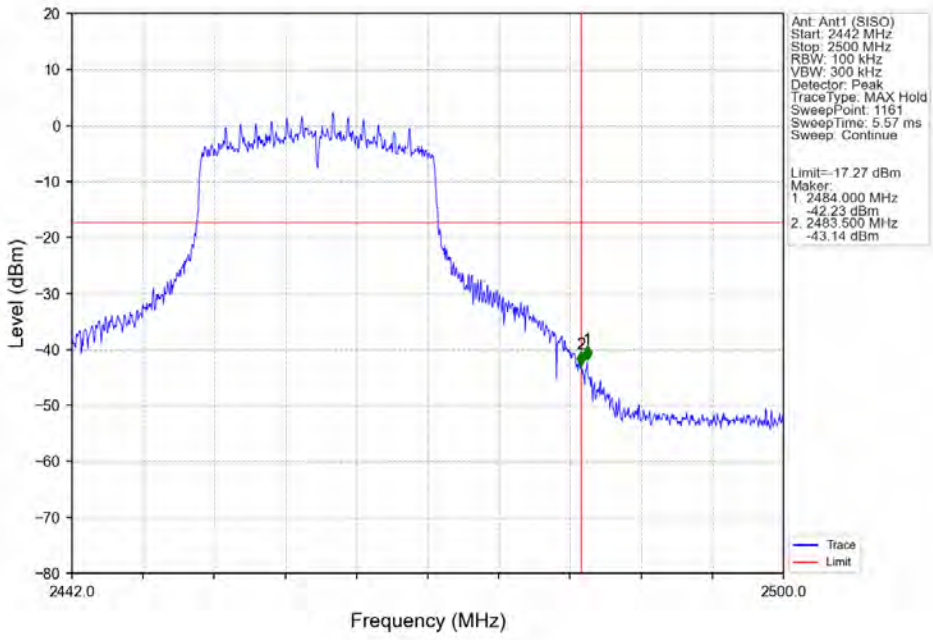
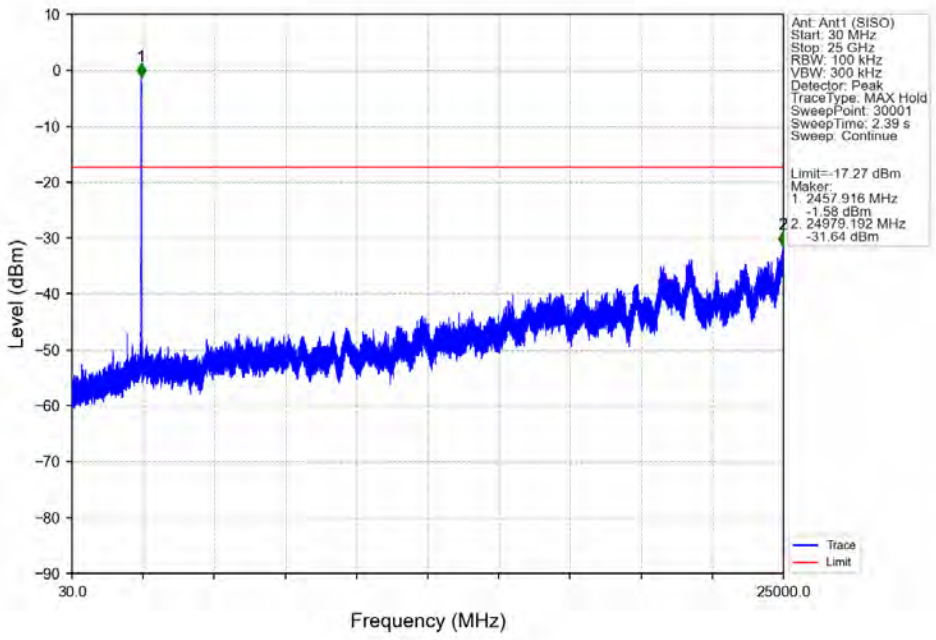


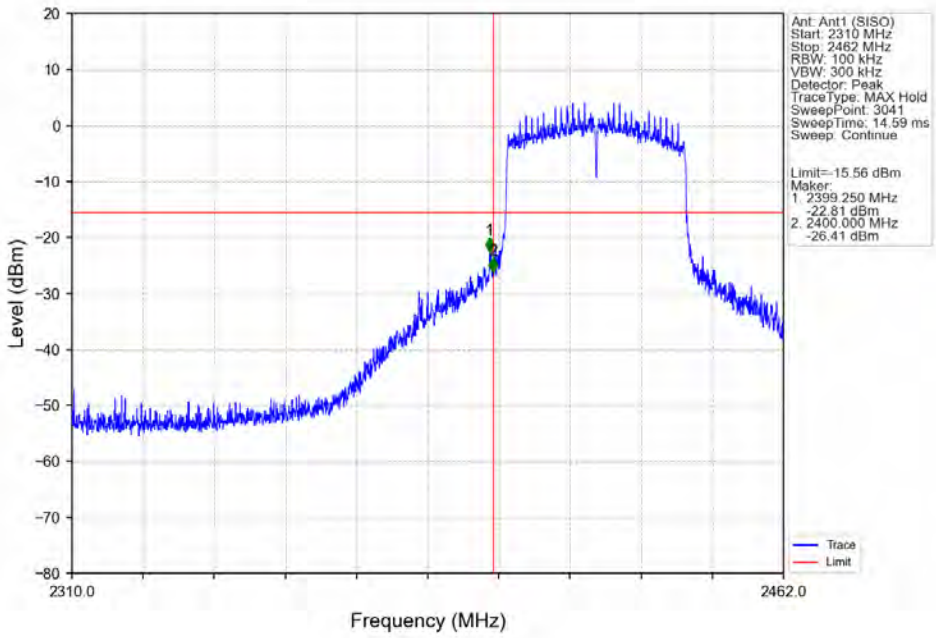
802.11ax(HE20)_HCH_2462MHz_RU242_Left_Ant1 (SISO)_NTNV



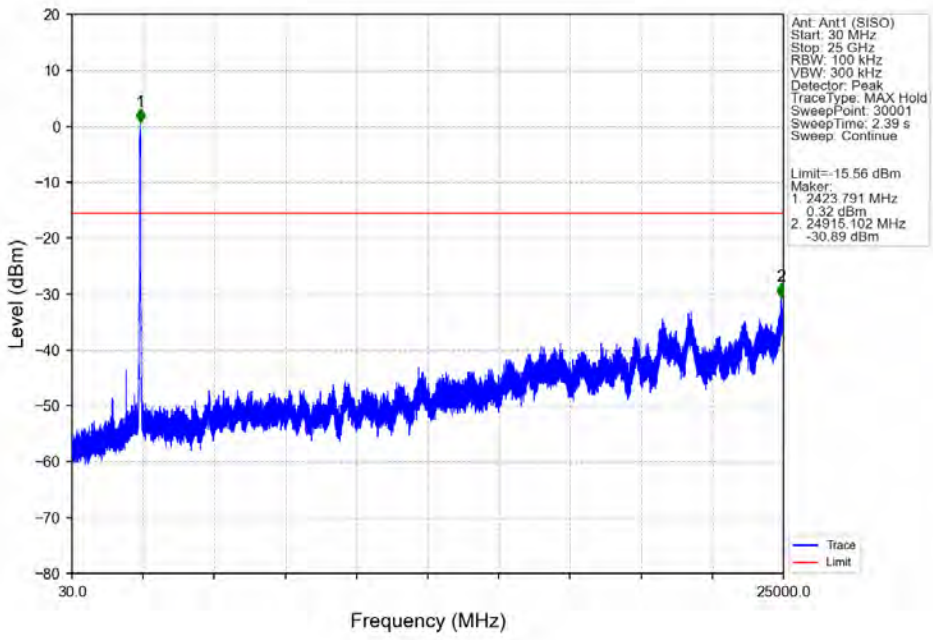
802.11ax(HE20)_HCH_2462MHz_RU242_Left_Ant1 (SISO)_NTNV



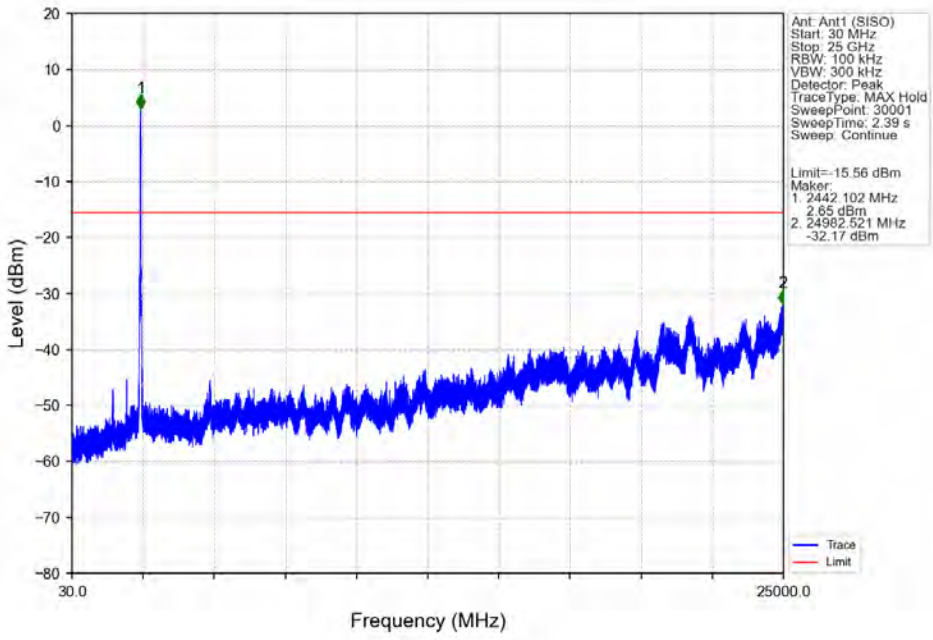
802.11ax(HE40)_LCH_2422MHz_RU484_Left_Ant1 (SISO)_NTNV



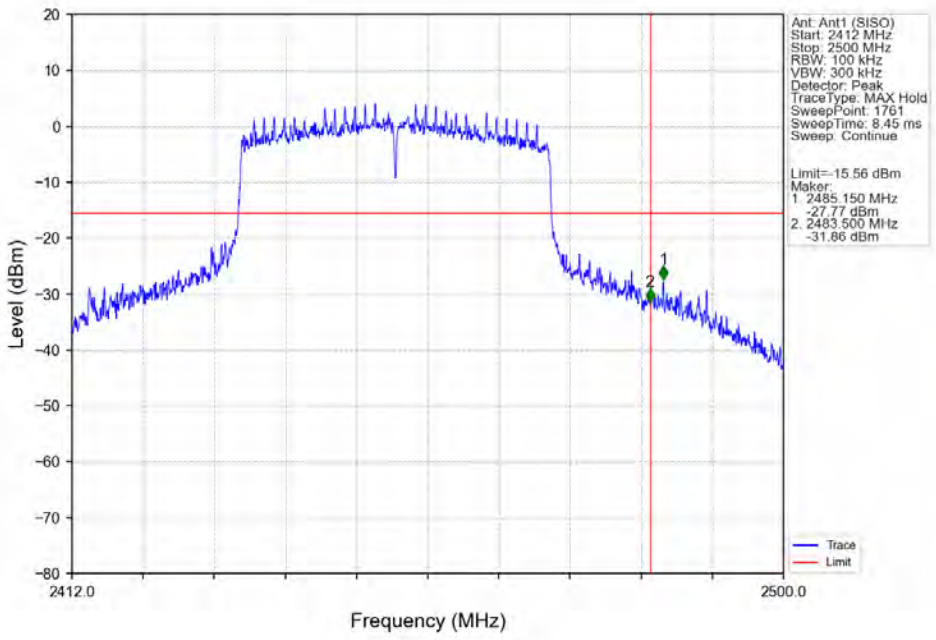
802.11ax(HE40)_LCH_2422MHz_RU484_Left_Ant1 (SISO)_NTNV



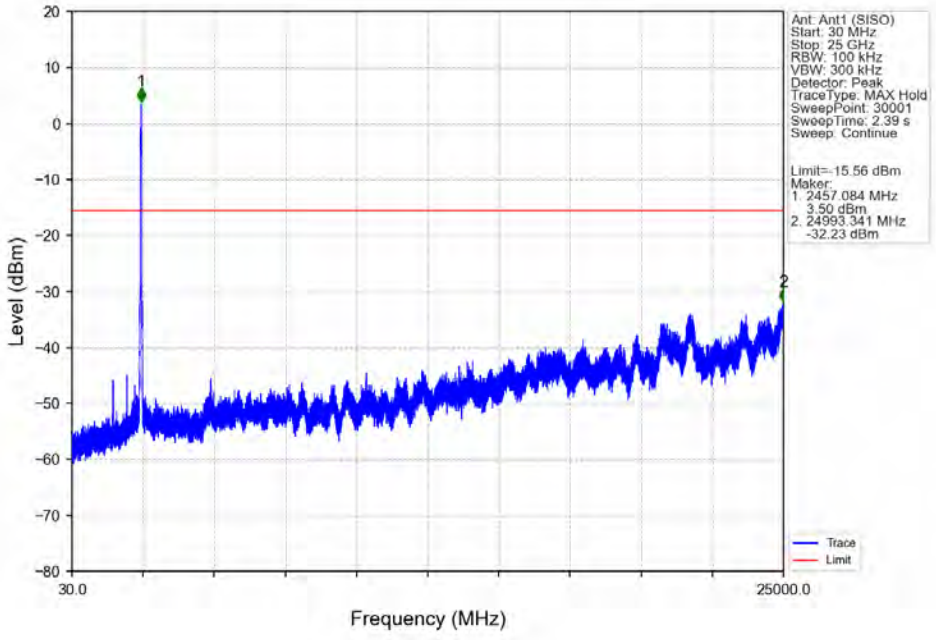
802.11ax(HE40)_MCH_2437MHz_RU484_Left_Ant1 (SISO)_NTNV



802.11ax(HE40)_HCH_2452MHz_RU484_Left_Ant1 (SISO)_NTNV



802.11ax(HE40)_HCH_2452MHz_RU484_Left_Ant1 (SISO)_NTNV



- End of the Report -