

TEST REPORT

Application No.: KSCR2509001945AU
FCC ID: 2BPTH-RG630
Applicant: Raythink Technology Co.,Ltd.
Address of Applicant: No.5, Wanshoushan Road, Yantai, Shandong, P.R.China
Manufacturer: Raythink Technology Co.,Ltd.
Address of Manufacturer: No.5, Wanshoushan Road, Yantai, Shandong, P.R.China
Factory: Raythink Technology Co.,Ltd.
Address of Factory: No.5, Wanshoushan Road, Yantai, Shandong, P.R.China
Equipment Under Test (EUT):
EUT Name: RG Series OGI Handheld Camera
Model No.: RG630C, RG630F, RG632C, RG632F, RG630, RG632, OGIC, OGIF ♣
♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Trade Mark: Raythink
Standard(s) : 47 CFR Part 15, Subpart E 15.407
Date of Receipt: 2025-09-04
Date of Test: 2025-09-13 to 2025-10-14
Date of Issue: 2025-10-15

Test Result:
Pass*

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

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Revision Record			
Version	Description	Date	Remark
00	Original	2025-10-15	/

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	Standard	Method	Requirement	Result
Antenna Requirement	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.203	Customer Declaration
Transmission in the Absence of Data		N/A	47 CFR Part 15, Subpart E 15.407 (c)	Customer Declaration

Radio Spectrum Matter Part				
Item	Standard	Method	Requirement	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2020) Section 6.2	47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)	Pass
Radiated Emissions (Below 1GHz)		ANSI C63.10 (2020) Section 6.4,6.5	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions (Above 1GHz)		ANSI C63.10 (2020) Section 6.6	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions which fall in the restricted bands		ANSI C63.10 (2020) Section 6.10.5	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Duty Cycle		ANSI C63.10 (2020) Section 12.2	ANSI C63.10 (2020) Section 12.2	Pass
99% Bandwidth		ANSI C63.10 (2020) Section 12.5.3	ANSI C63.10 (2020) Section 12.4.2	Pass
26dB Emission bandwidth		ANSI C63.10 (2020) Section 12.5.2	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Minimum 6 dB bandwidth (5.725-5.85 GHz band)		ANSI C63.10 (2020) Section 12.5.1	47 CFR Part 15, Subpart E 15.407 (e)	Pass
Maximum Conducted output power		ANSI C63.10 (2020) Section 12.4	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Peak Power spectrum density		ANSI C63.10 (2020) Section 12.6	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Frequency Stability		ANSI C63.10 (2020) Section 6.8	47 CFR Part 15, Subpart E 15.407 (g)	Pass
Non-occupancy period		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Channel Move Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass
Channel Closing Transmission Time		KDB 905462 D02 Section 7.8.3	KDB 905462 D02 Section 5.1	Pass

Declaration of EUT Family Grouping:

There are series models mentioned in this report and they are the Identical in electrical and electronic characters. Only RG630C models were tested because they differ in Temperature Range, Wavelength Range, and Detectable Gases.

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4 General Information

4.1 Details of E.U.T.

Power supply:	Power Adapter: Model: RWD067B-ESR Input: 100~240V~, 50-60Hz, 1.5A USB-C1 Output: 5V=3A/9V=3A/12V=3A/15V=3A/20V=3.35A(67W Max) USB-A Output: 5V=3A/9V=2A/12V=1.5A(18W Max) USB-C1 + USB-A Output: 45W+18W(63W Max)
Test Voltage:	Test Voltage: AC 120V/60Hz(Pre-test AC 120V/50-60Hz&AC 240V/50-60Hz then choose the AC 120/60Hz as worst case)
Operation Frequency/Number of channels (20MHz):	U-NII-1: 5180-5240MHz (4 Channels); U-NII-2A: 5260-5320MHz (4 Channels); U-NII-2C: 5500-5700MHz (11 Channels); U-NII-3: 5745-5825MHz (5 Channels)
Operation Frequency/Number of channels/(40MHz):	U-NII-1: 5190-5230MHz (2 Channels); U-NII-2A: 5270-5310MHz (2 Channels); U-NII-2C: 5510-5670MHz (5 Channels); U-NII-3: 5755-5795MHz (2 Channels)
Operation Frequency/Number of channels (80MHz):	U-NII-1: 5210MHz (1 Channel); U-NII-2A: 5290MHz (1 Channels); U-NII-2C: 5530-5610MHz (2 Channels); U-NII-3: 5775MHz (1 Channel)
Operation Frequency / Number of channels (160MHz):	U-NII-1&2A: 5250MHz (1 Channel); U-NII-2C: 5570MHz (1 Channels)
Modulation Type:	802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Channel Spacing:	802.11a/n/ac 20: 20MHz; 802.11n/ac 40: 40MHz; 802.11ac 80: 80MHz; 802.11ac 160: 160MHz
DFS Function:	Slave without Radar detection
TPC Function:	Without TPC function
Antenna Type:	FPC Antenna
Antenna Gain:	ANT1 2.77dBi (Provided by the manufacturer) ANT2 3.02dBi (Provided by the manufacturer)

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Notebook	LENOVO	K27	EB24537645

4.3 Power level setting using in test

Channel	802.11a	802.11ac(VHT20)
	Ant 1/2	Ant 1/2
36	14	11
40	14	11
48	14	11
52	14	11
60	14	11
64	13	11
100	11.5	10.5
116	11.5	10.5
140	15.5	13.5
149	15.5	14
157	15	13.5
165	15	13.5
Channel	802.11ac(VHT40)	
	MIMO	
38	11	
46	11	
54	11	
62	11	
102	10	
110	10	
134	12	
151	13.5	
159	13.5	
Channel	802.11ac(VHT80)	
	MIMO	
42	11.5	
58	11.5	
106	10.5	
122	12	
155	14	
Channel	802.11ac(VHT160)	
	MIMO	
50	11	
114	12.5	

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	KS301196	07/09/2025	07/08/2026
2	LISN	R&S	ENV216	KS301197	01/15/2025	01/14/2026
3	LISN	Schwarzbeck	NNLK 8129	KS301091	01/15/2025	01/14/2026
4	Pulse Limiter	R&S	ESH3-Z2	KUS1902E001	12/05/2024	12/04/2025
5	CE test Cable	Thermax	/	CZ301102	01/14/2025	01/13/2026
6	Test Software	Farad	EZ-EMC	/	N.C.R	N.C.R
RF Conducted Test						
1	Spectrum Analyzer	Keysight	N9020A	KUS1911E004-2	07/09/2025	07/08/2026
2	Spectrum Analyzer	Keysight	N9020A	KUS2001M001-2	07/09/2025	07/08/2026
3	Spectrum Analyzer	Keysight	N9030B	KSEM021-1	01/15/2025	01/14/2026
4	Signal Generator	R&S	SMBV100B	KSEM032	02/19/2025	02/18/2026
5	Signal Generator	R&S	SMW200A	KSEM020-1	07/09/2025	07/08/2026
6	Signal Generator	Agilent	N5182A	KUS2001M001-1	07/08/2025	07/07/2026
7	Signal Generator	Agilent	E8257C	KS301066	07/22/2025	07/21/2026
8	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	07/09/2025	07/08/2026
9	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	02/19/2025	02/18/2026
10	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	07/08/2025	07/07/2026
11	Switcher	TST	FY562	KUS2001M001-4	01/15/2025	01/14/2026
12	Conducted Test Cable	Thermax	RF01-RF04	CZ301111-CZ301120	01/14/2025	01/13/2026
13	Temp. / Humidity Chamber	TERCHY	MHK-120AK	KS301190	07/15/2025	07/14/2026
14	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-5	02/26/2025	02/25/2026
15	Software	BST	TST-PASS	/	NCR	NCR
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	07/09/2025	07/08/2026
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	02/18/2025	02/17/2026
3	Signal Generator	Agilent	E8257C	KS301066	07/22/2025	07/21/2026
4	Loop Antenna (9KHz-30MHz)	COM-POWER	AL-130R	KUS1806E001	07/11/2025	07/10/2026
5	Bilog Antenna (30MHz-1GHz)	TESEQ	CBL 6112D	KUS1806E005	07/12/2025	07/11/2026
6	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	03/23/2024	03/22/2026
7	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	01/07/2024	01/06/2026
8	Amplifier(30MHz~1GHz)	TST	LNA009100G30	KSEM061	01/15/2025	01/14/2026
9	Amplifier(400MHz~8GHz)	TST	LNA004080G30	KSEM062	01/15/2025	01/14/2026
10	Amplifier(1GHz~18GHz)	TST	LNA010180G45	KSEM039	07/09/2025	07/08/2026
11	Amplifier(18~40GHz)	TST	LNA180400G40	KSEM038	07/09/2025	07/08/2026
12	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	02/26/2025	02/25/2026
13	Software	Faratronic	EZ_EMG-v 3A1	/	NCR	NCR
14	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

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 FPC on the main PCB and no consideration of replacement. The best case gain of the antenna1 is 2.77 dBi and antenna1 is 3.02 dBi.

Antenna location: Refer to internal photo.

6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart E 15.407 (c)

6.2.2 Conclusion

6.2.2 Conclusion

Standard Requirement:

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals.

Applicants shall include in their application for equipment authorization a description of how this requirement is met.

EUT Details:

WIFI chip support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.

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 & Subpart E 15.407 b(9)

Test Method: ANSI C63.10 (2020) 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.

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C

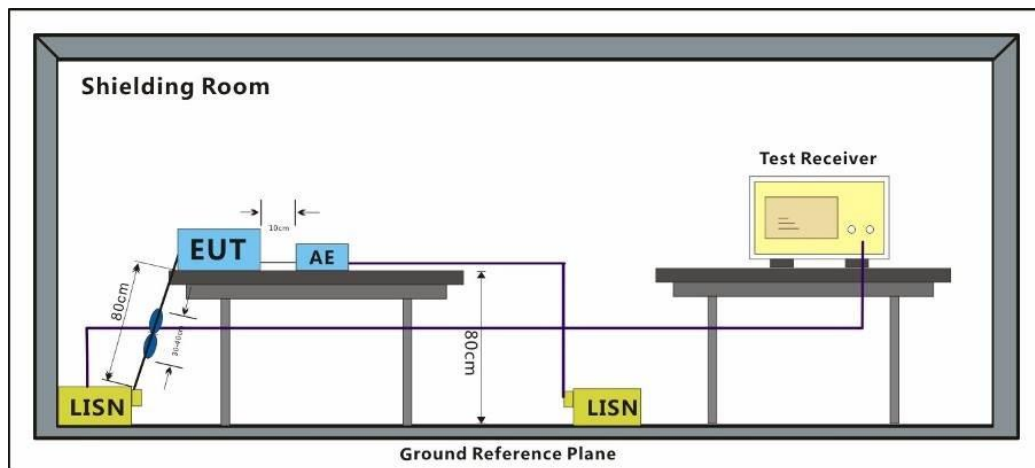
Humidity: 47.5 % RH

Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested, Only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram



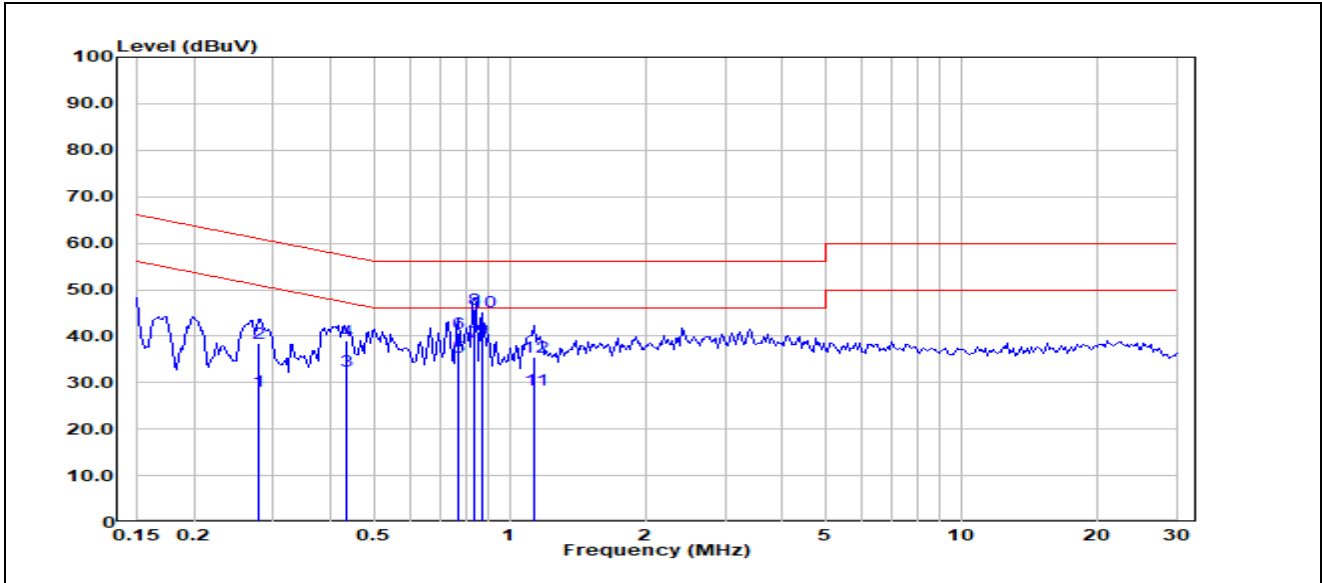
7.1.4 Measurement Procedure and Data

- 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 1: $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{LISN Factor}$

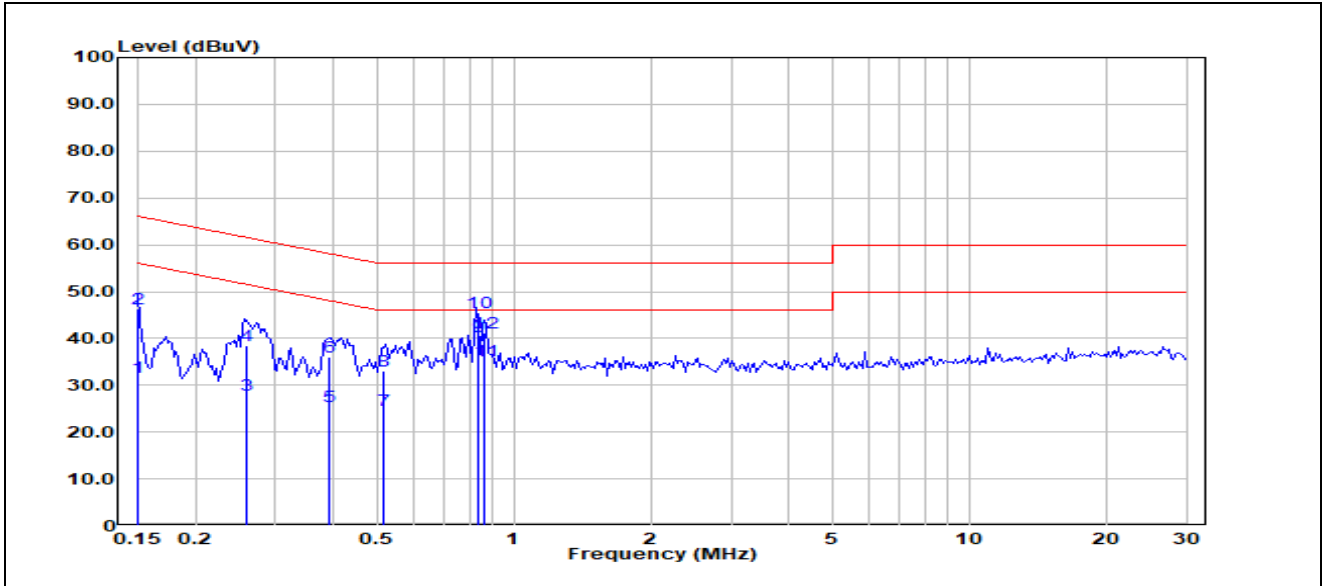
Remark 2: Pre-test AC 120V/50-60Hz & AC 240V/50-60Hz then choose the AC 120/60Hz as worst case.

Test Mode: 02; Line: Live line



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2778	8.51	19.72	28.23	50.88	-22.65	Average
2	0.2778	18.83	19.72	38.55	60.88	-22.33	QP
3	0.4334	12.91	19.69	32.60	47.19	-14.59	Average
4	0.4334	19.34	19.69	39.03	57.19	-18.16	QP
5	0.7694	15.63	19.80	35.43	46.00	-10.57	Average
6	0.7694	20.76	19.80	40.56	56.00	-15.44	QP
7	0.8386	18.97	19.83	38.80	46.00	-7.20	Average
8	0.8386	25.92	19.83	45.75	56.00	-10.25	QP
9	0.8712	19.58	19.84	39.42	46.00	-6.58	Average
10	0.8712	25.42	19.84	45.26	56.00	-10.74	QP
11	1.1390	8.69	19.90	28.59	46.00	-17.41	Average
12	1.1390	15.51	19.90	35.41	56.00	-20.59	QP

Test Mode: 02; Line: Neutral Line



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1500	11.69	20.07	31.76	56.00	-24.24	Average
2	0.1500	26.31	20.07	46.38	66.00	-19.62	QP
3	0.2599	8.30	19.70	28.00	51.43	-23.43	Average
4	0.2599	18.85	19.70	38.55	61.43	-22.88	QP
5	0.3945	5.90	19.62	25.52	47.97	-22.45	Average
6	0.3945	16.48	19.62	36.10	57.97	-21.87	QP
7	0.5200	5.18	19.61	24.79	46.00	-21.21	Average
8	0.5200	13.55	19.61	33.16	56.00	-22.84	QP
9	0.8325	20.66	19.75	40.41	46.00	-5.59	Average
10	0.8325	25.81	19.75	45.56	56.00	-10.44	QP
11	0.8656	15.36	19.77	35.13	46.00	-10.87	Average
12	0.8656	21.50	19.77	41.27	56.00	-14.73	QP

7.2 Radiated Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: ANSI C63.10 (2020) Section 6.4,6.5

Measurement Distance: 3M

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

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

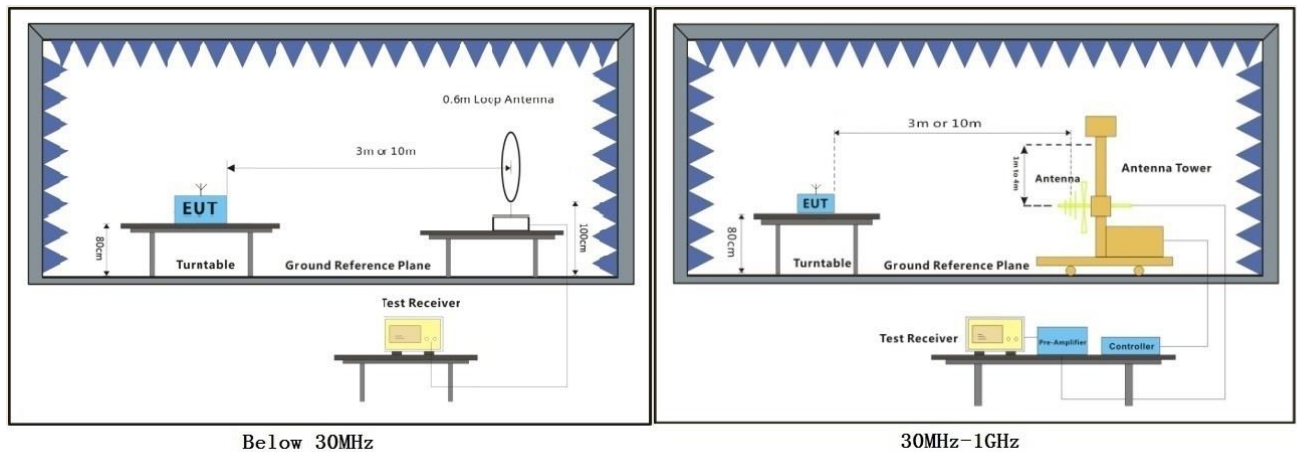
Humidity: 45.8 % RH

Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1) Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested, Only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



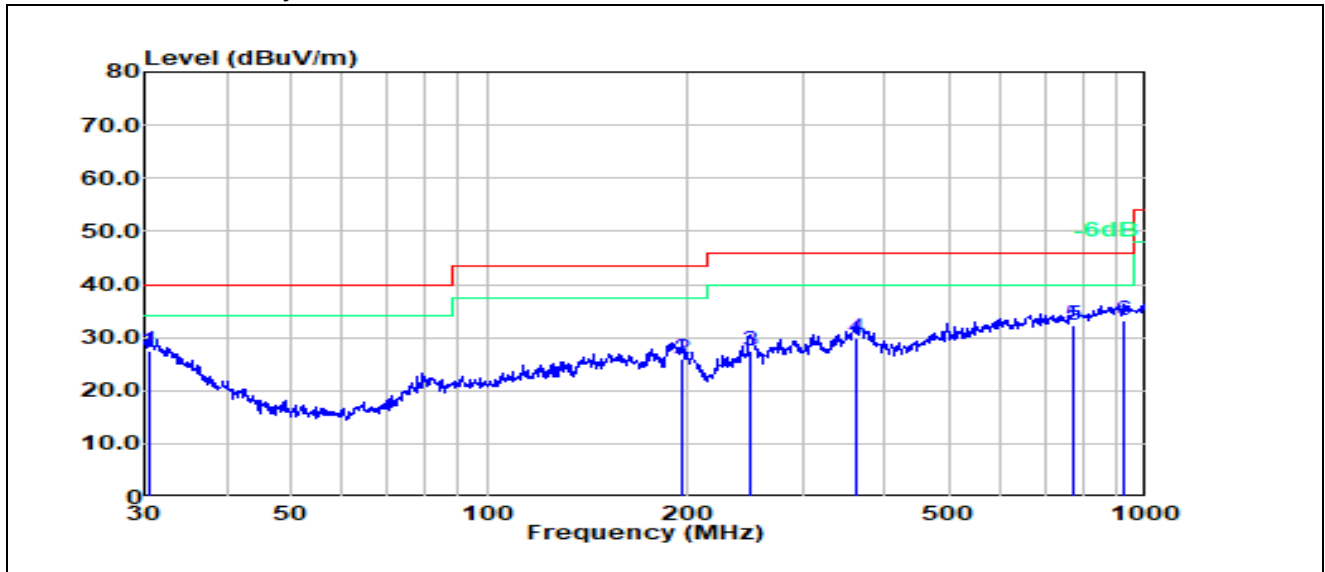
7.2.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 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:

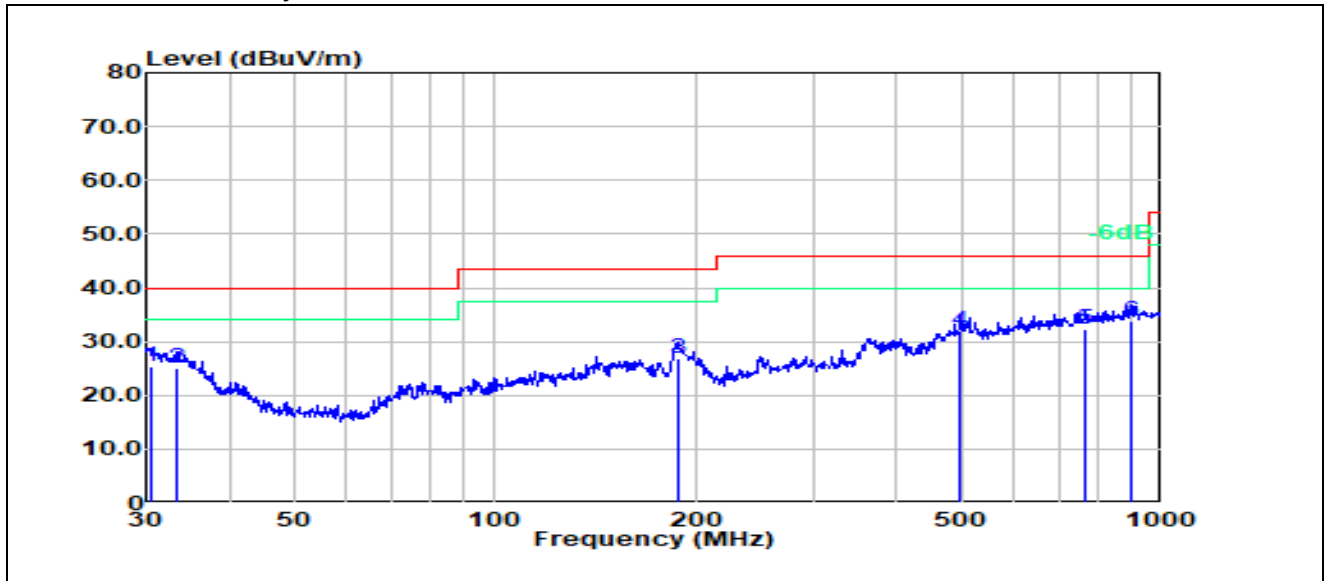
1. $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
3. Scan from 9kHz to 30MHz, the disturbance below 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.
4. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

Test Mode: 02; Polarity: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	30.42	2.63	24.78	27.41	40.00	-12.59	100	135	QP
2	197.20	8.98	17.04	26.02	43.50	-17.48	200	81	QP
3	249.43	7.46	20.12	27.58	46.00	-18.42	200	81	QP
4	361.71	7.07	22.72	29.79	46.00	-16.21	100	94	QP
5	774.16	2.37	30.04	32.41	46.00	-13.59	200	156	QP
6	922.52	2.06	31.06	33.12	46.00	-12.88	100	294	QP

Test Mode: 02; Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	30.42	0.69	24.78	25.47	40.00	-14.53	100	157	QP
2	33.33	2.21	22.92	25.13	40.00	-14.87	100	136	QP
3	187.75	8.83	17.96	26.79	43.50	-16.71	100	349	QP
4	499.43	5.14	26.73	31.87	46.00	-14.13	100	360	QP
5	768.75	2.24	30.21	32.45	46.00	-13.55	100	329	QP
6	897.00	2.09	31.60	33.69	46.00	-12.31	100	102	QP

7.3 Radiated Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: ANSI C63.10 (2020) Section 6.6

Measurement Distance: 3M

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

*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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.

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 23.8 °C

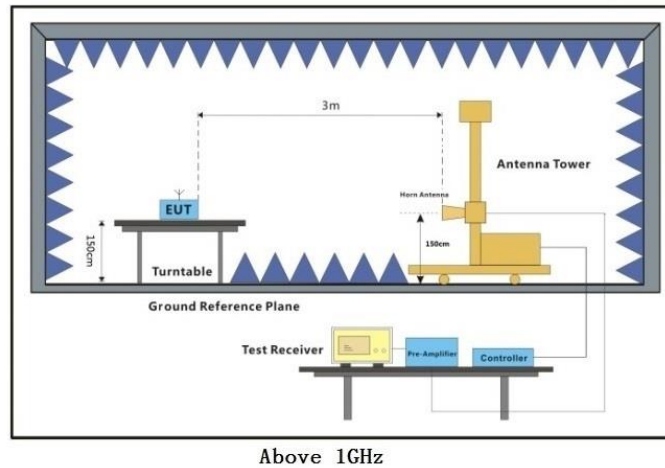
Humidity: 45.8 % RH

Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_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 @ 6Mbps is the worst case of IEEE 802.11a, Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A) _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 @ 6Mbps is the worst case of IEEE 802.11a, Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C) _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 @ 6Mbps is the worst case of IEEE 802.11a, Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3) _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 @ 6Mbps is the worst case of IEEE 802.11a, Only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



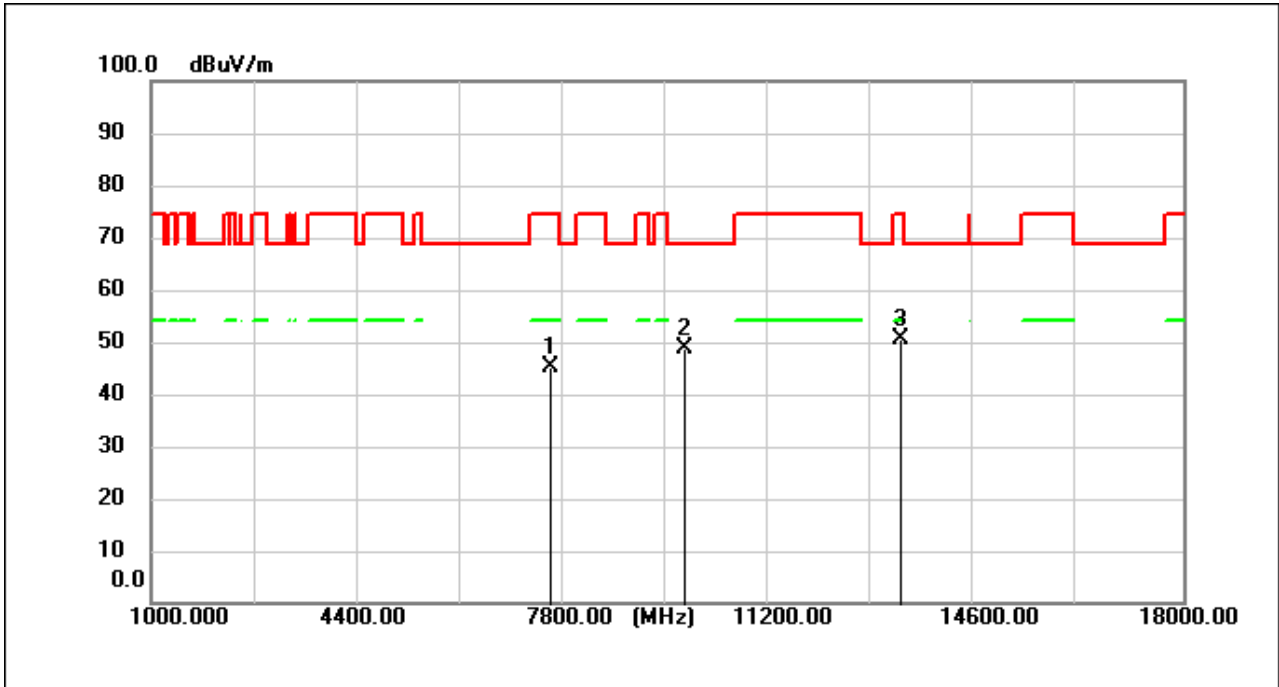
7.3.4 Measurement Procedure and Data

- 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:

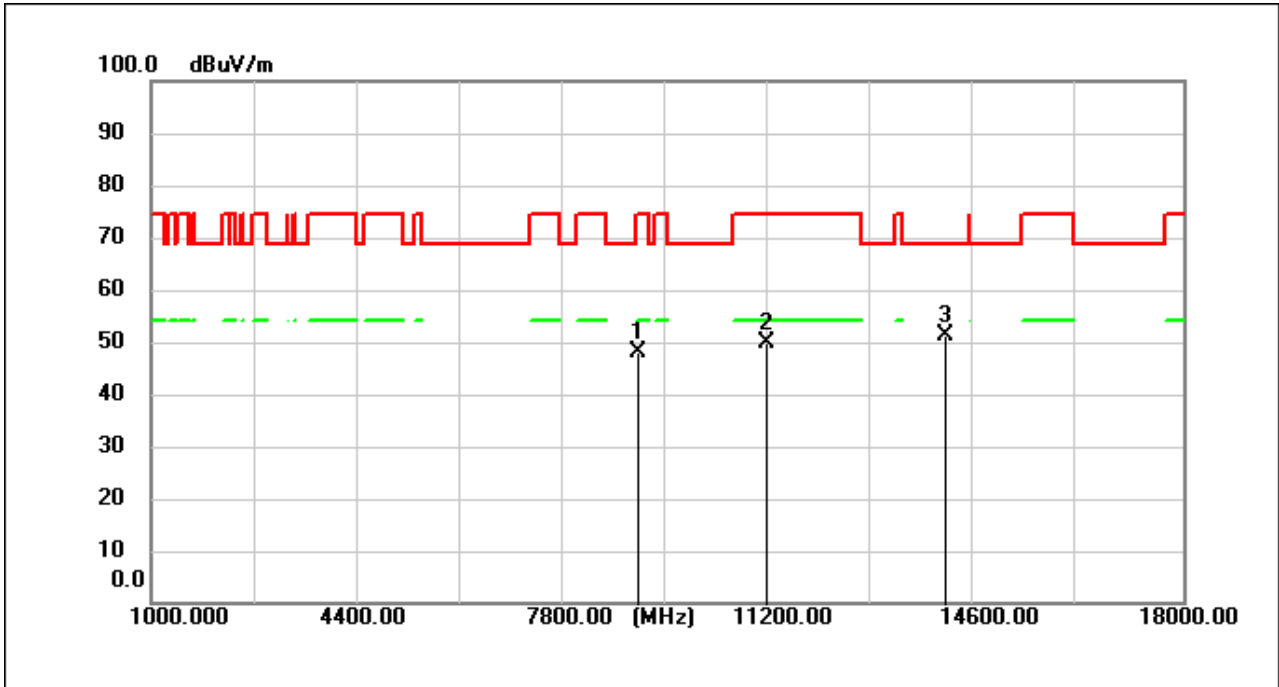
1. $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$
2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. 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.
4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
5. For devices with multiple operating modes, measurements on the middle channel is used to determine the worst-case mode(s). Only the worst case mode with the highest output power and the mode with the highest output power spectral density for each modulation family (e.g., OFDM and direct sequence spread spectrum) is recorded in the test report.
6. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for Peak detection (PK) and Average detection (AV) at frequency above 1GHz.
7. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
8. This test item was investigated while operating in SISO and MIMO mode, however, it was determined that SISO antenna 1 operation for a modulation produced the worst emissions. So the emissions produced from other operation are not recorded in report.

11a_TX_CH_36_Horizontal



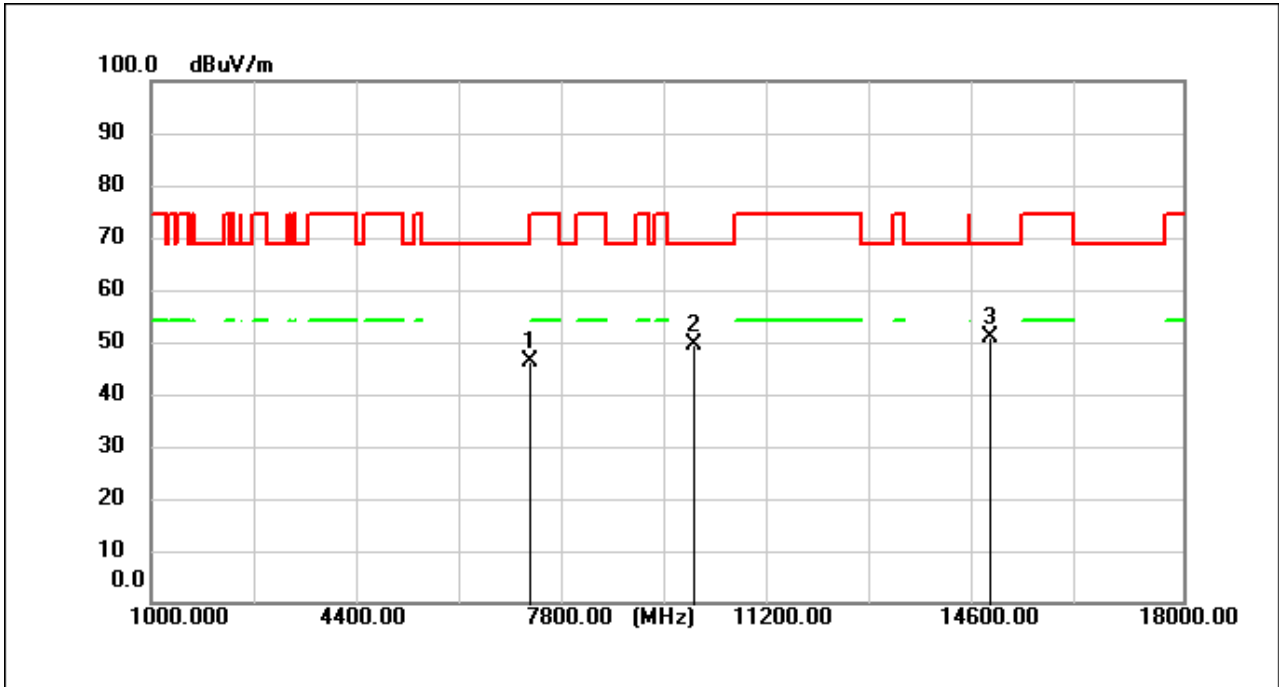
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7567.100	55.15	-9.92	45.23	74.00	-28.77	peak
2	9793.250	55.64	-6.94	48.70	68.30	-19.60	peak
3	13355.600	54.74	-4.16	50.58	74.00	-23.42	peak

11a_TX_CH_36_Vertical



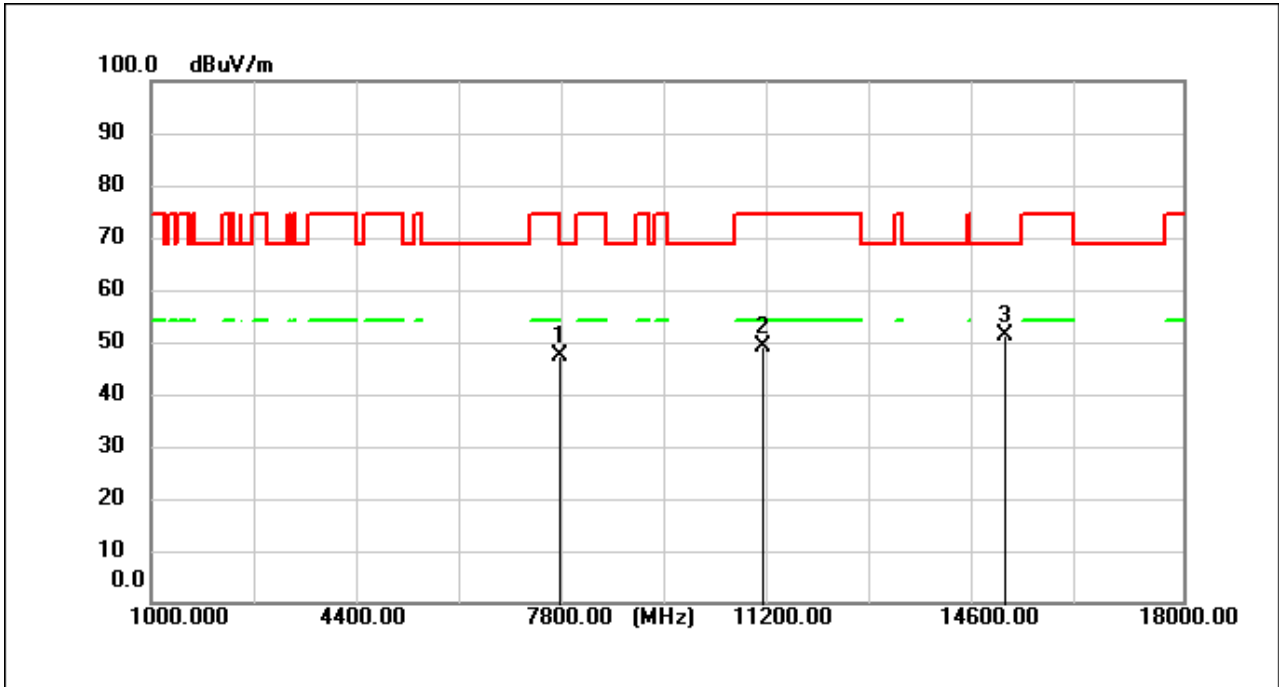
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9024.000	56.36	-8.16	48.20	74.00	-25.80	peak
2	11125.200	55.80	-5.98	49.82	74.00	-24.18	peak
3	14077.250	54.82	-3.40	51.42	68.30	-16.88	peak

11a_TX_CH_44_Horizontal



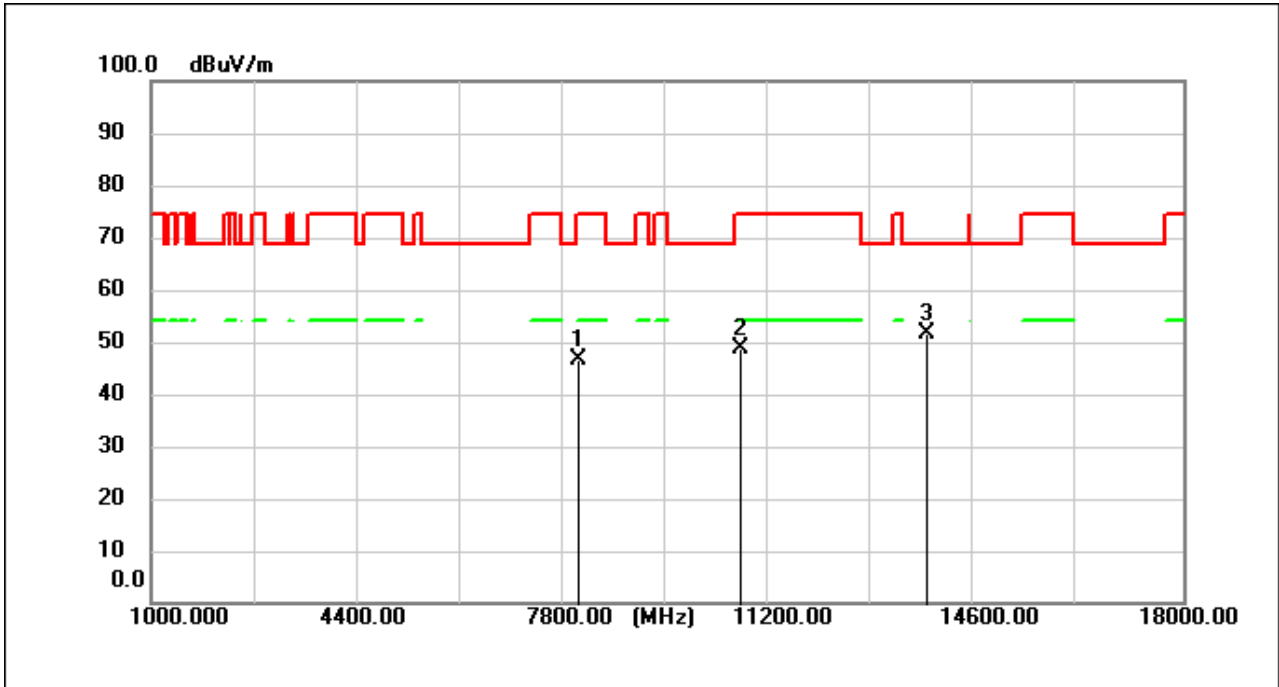
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7236.450	56.63	-10.51	46.12	68.30	-22.18	peak
2	9937.750	56.19	-6.70	49.49	68.30	-18.81	peak
3	14838.000	54.39	-3.66	50.73	68.30	-17.57	peak

11a_TX_CH_44_Vertical



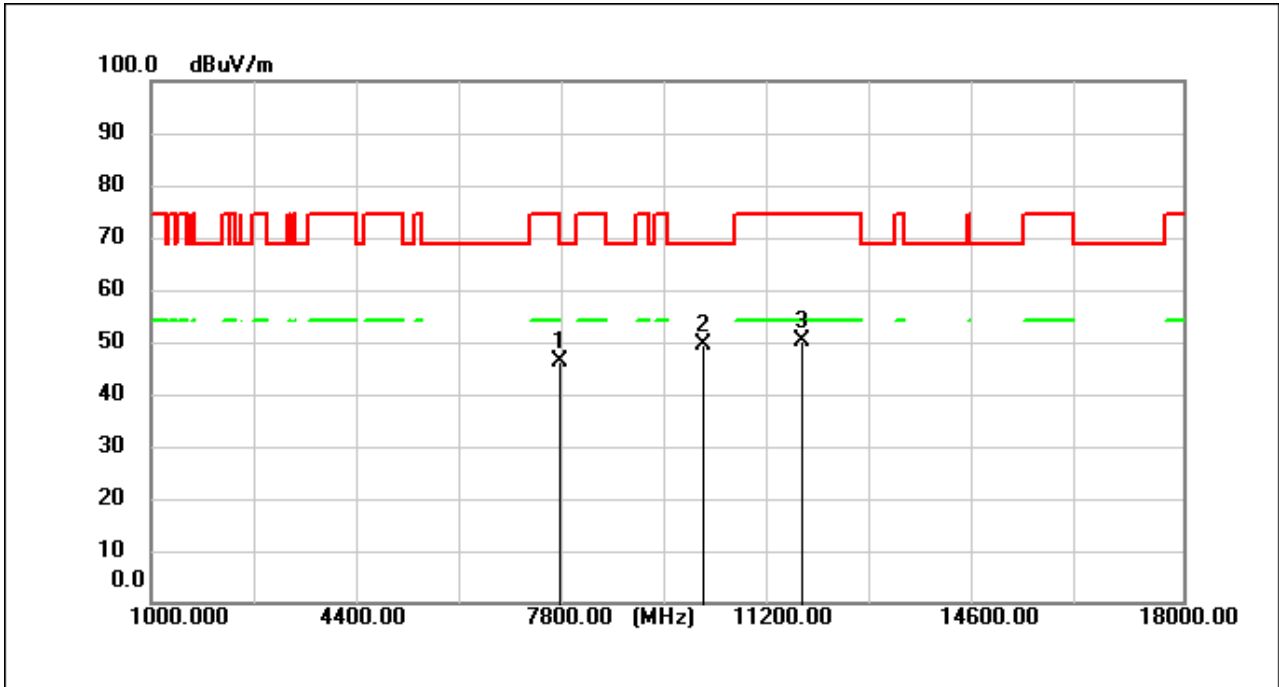
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7738.800	57.07	-9.84	47.23	74.00	-26.77	peak
2	11077.600	55.29	-6.02	49.27	74.00	-24.73	peak
3	15044.550	54.87	-3.67	51.20	68.30	-17.10	peak

11a_TX_CH_48_Horizontal



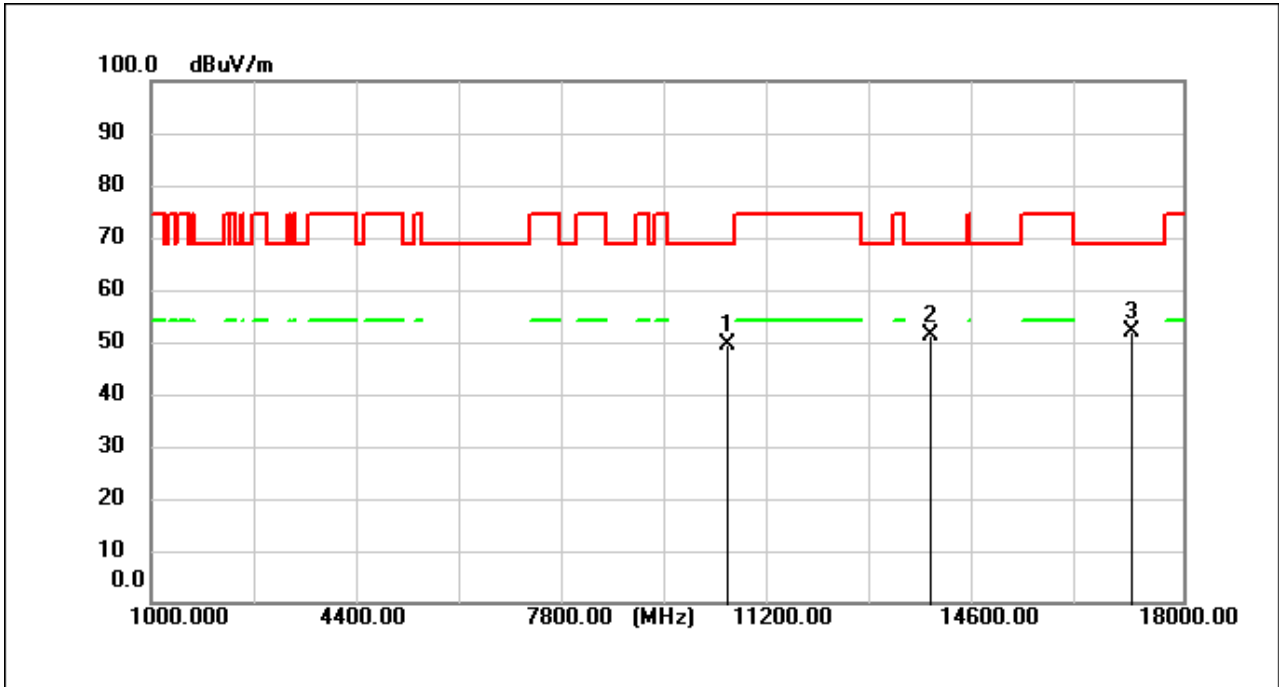
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8035.450	56.39	-9.73	46.66	74.00	-27.34	peak
2	10696.800	54.90	-6.08	48.82	74.00	-25.18	peak
3	13781.450	55.15	-3.56	51.59	68.30	-16.71	peak

11a_TX_CH_48_Vertical



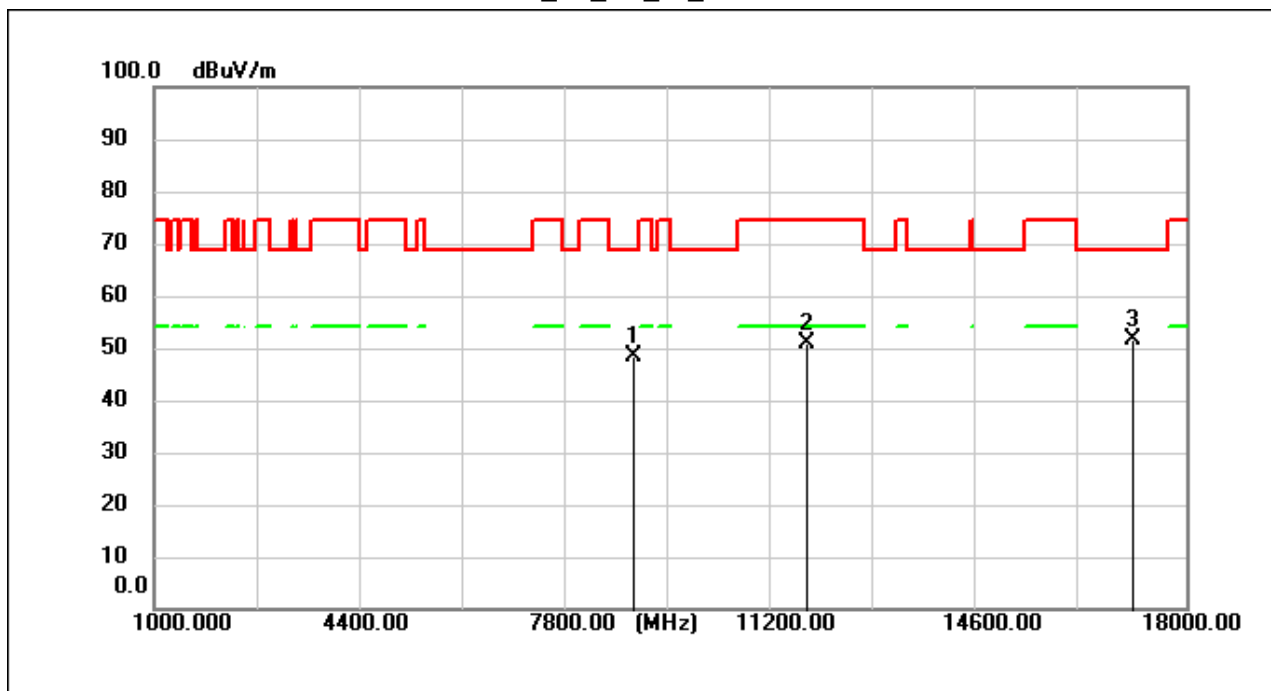
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7739.650	56.18	-9.84	46.34	74.00	-27.66	peak
2	10079.700	55.82	-6.52	49.30	68.30	-19.00	peak
3	11708.300	55.80	-5.79	50.01	74.00	-23.99	peak

11a_TX_CH_52_Horizontal



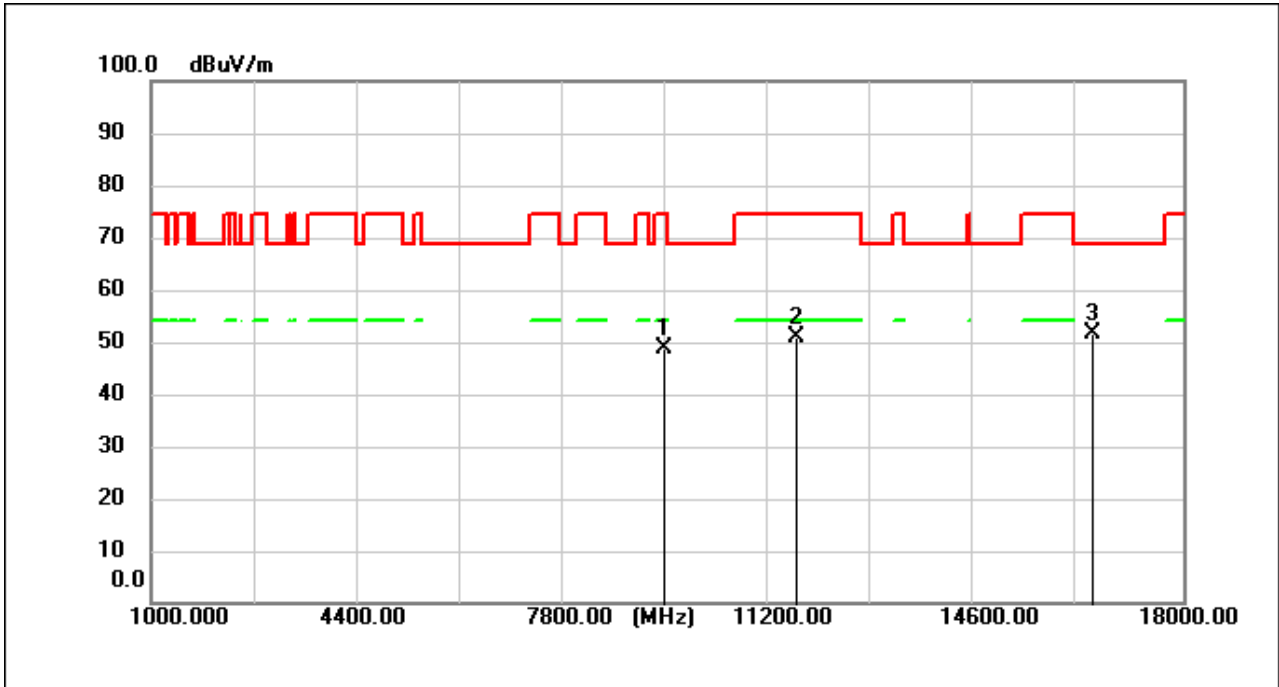
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10479.200	55.52	-6.12	49.40	68.30	-18.90	peak
2	13824.800	54.61	-3.52	51.09	68.30	-17.21	peak
3	17144.900	53.38	-1.54	51.84	68.30	-16.46	peak

11a_TX_CH_52_Vertical



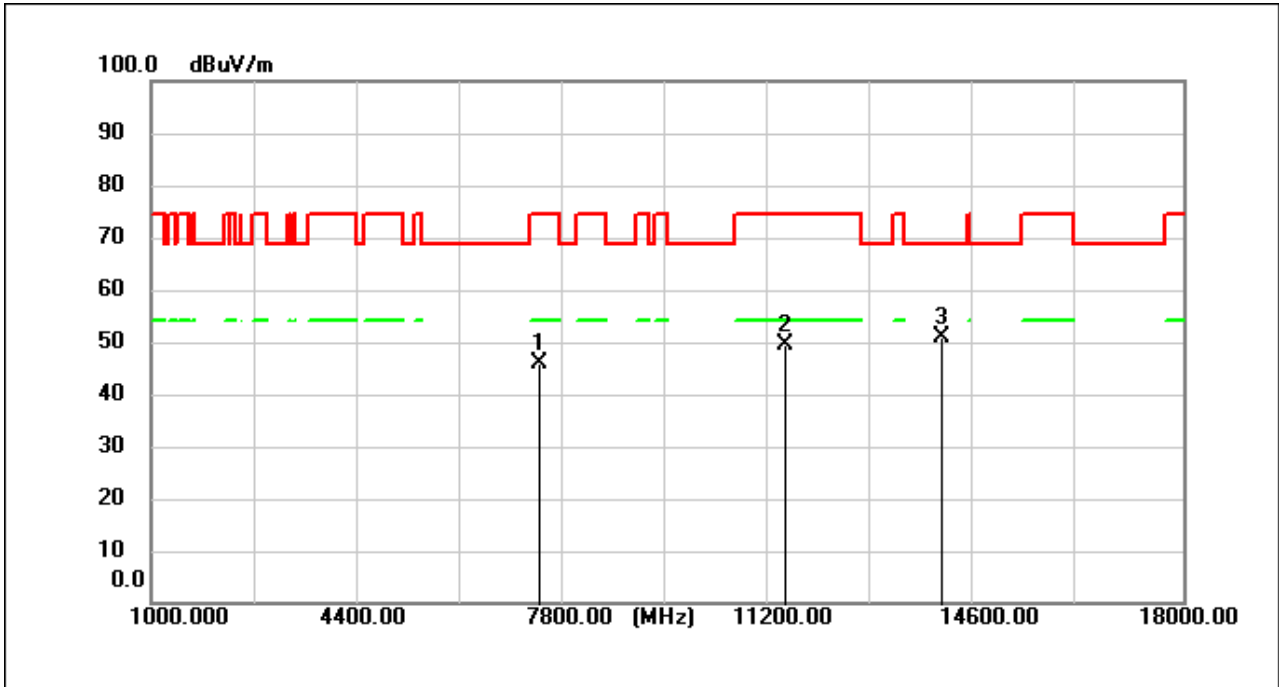
No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8899.900	56.74	-8.45	48.29	68.30	-20.01	peak
2	11751.650	56.59	-5.79	50.80	74.00	-23.20	peak
3	17110.900	53.18	-1.58	51.60	68.30	-16.70	peak

11a_TX_CH_60_Horizontal



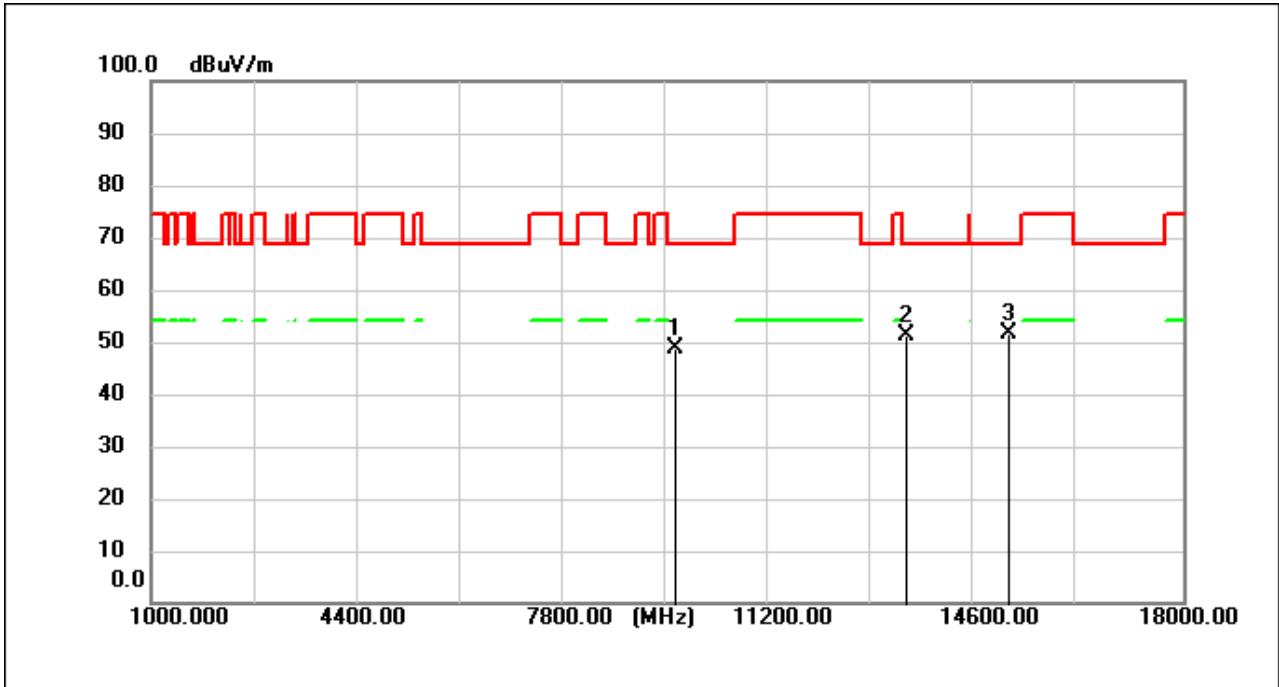
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9461.750	56.09	-7.48	48.61	74.00	-25.39	peak
2	11630.950	56.70	-5.78	50.92	74.00	-23.08	peak
3	16510.800	53.73	-2.22	51.51	68.30	-16.79	peak

11a_TX_CH_60_Vertical



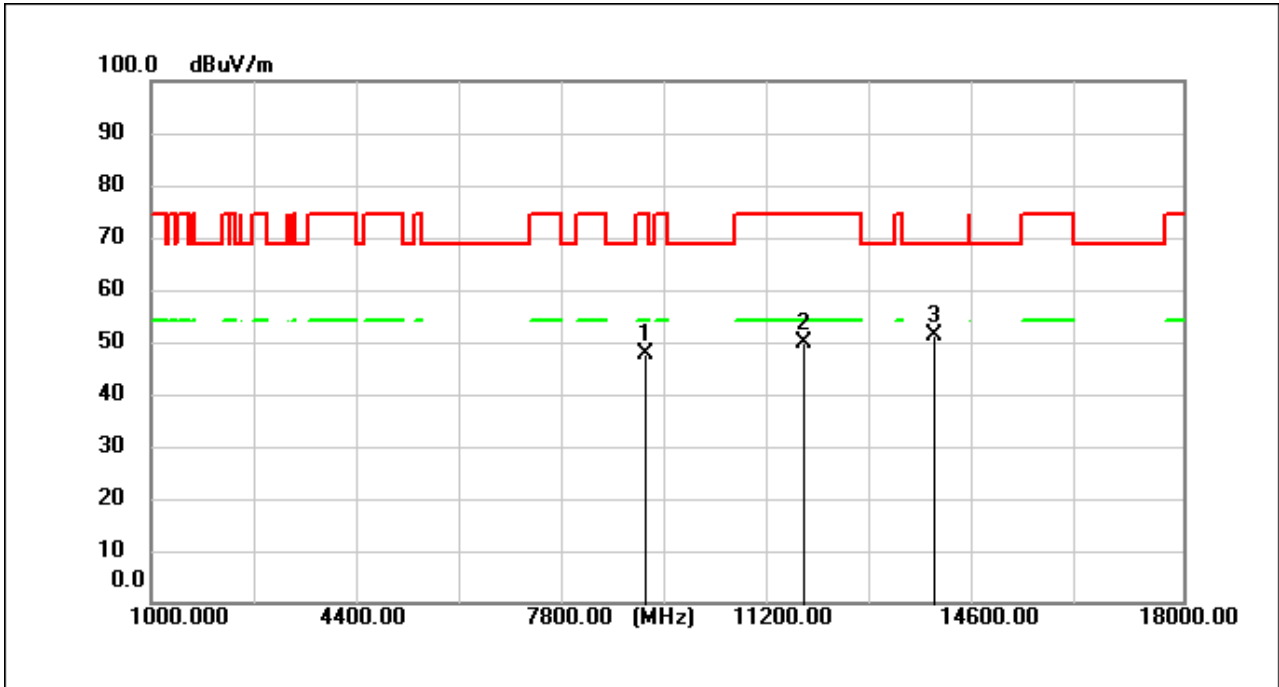
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7405.600	56.05	-10.15	45.90	74.00	-28.10	peak
2	11423.550	55.15	-5.81	49.34	74.00	-24.66	peak
3	14022.850	54.20	-3.36	50.84	68.30	-17.46	peak

11a_TX_CH_64_Horizontal



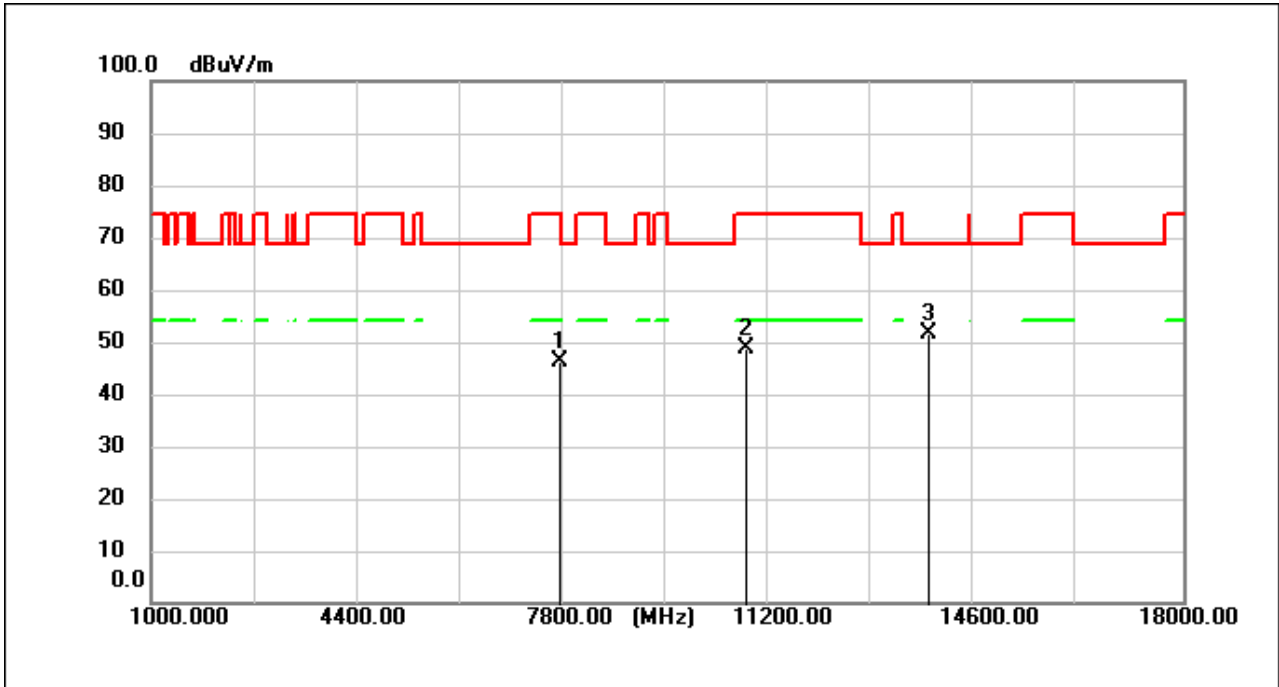
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9625.800	56.13	-7.21	48.92	68.30	-19.38	peak
2	13437.200	55.14	-3.99	51.15	68.30	-17.15	peak
3	15116.800	55.23	-3.75	51.48	68.30	-16.82	peak

11a_TX_CH_64_Vertical



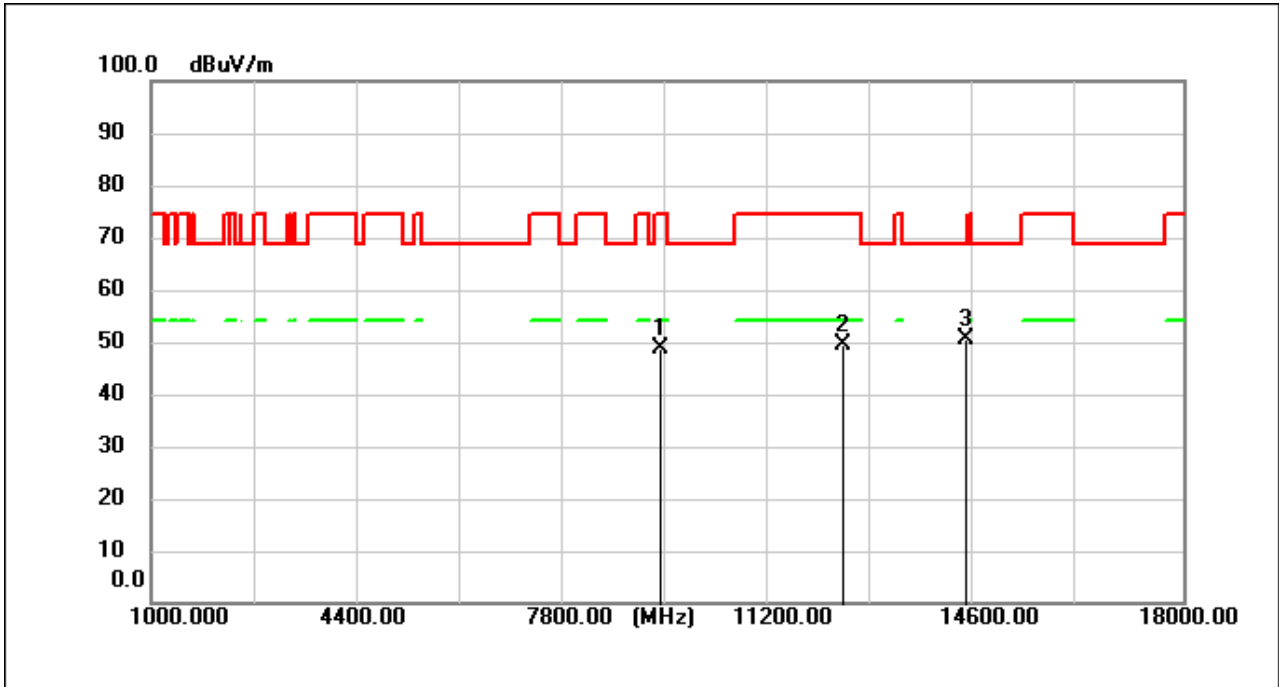
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9146.400	55.58	-7.96	47.62	74.00	-26.38	peak
2	11742.300	55.61	-5.78	49.83	74.00	-24.17	peak
3	13891.950	54.77	-3.44	51.33	68.30	-16.97	peak

11a_TX_CH_100_Horizontal



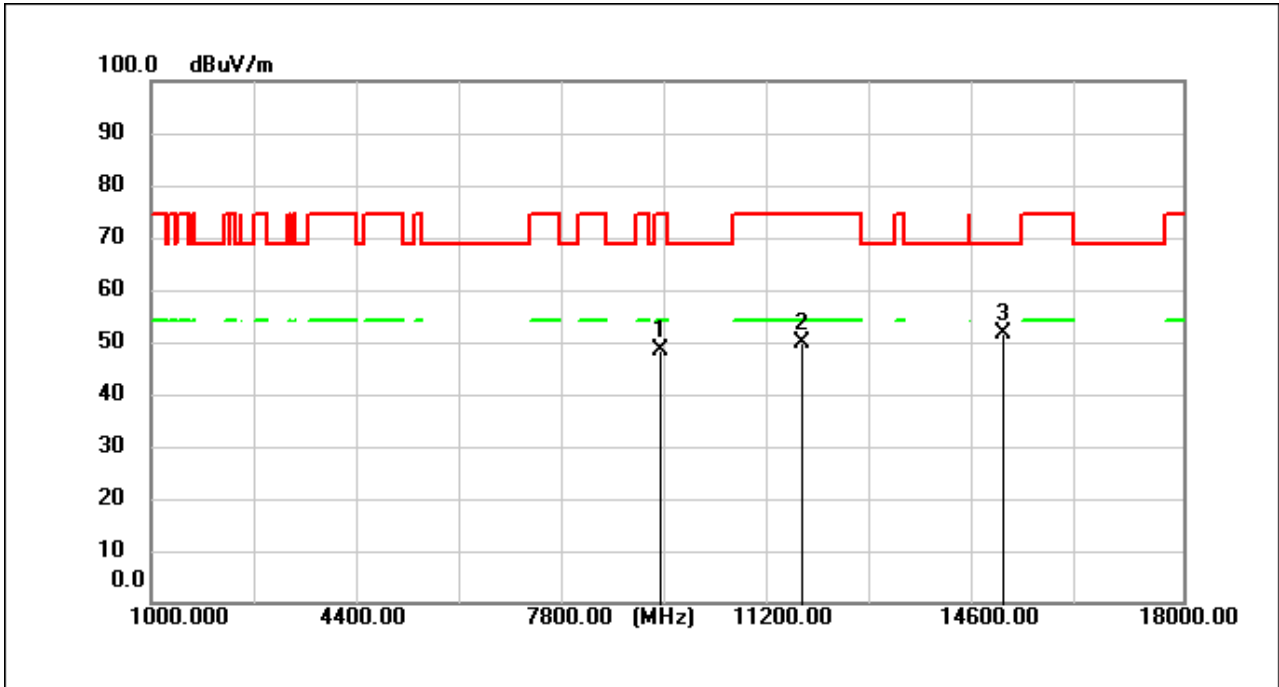
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7730.300	56.04	-9.85	46.19	74.00	-27.81	peak
2	10789.450	54.82	-6.07	48.75	74.00	-25.25	peak
3	13806.100	55.14	-3.53	51.61	68.30	-16.69	peak

11a_TX_CH_100_Vertical



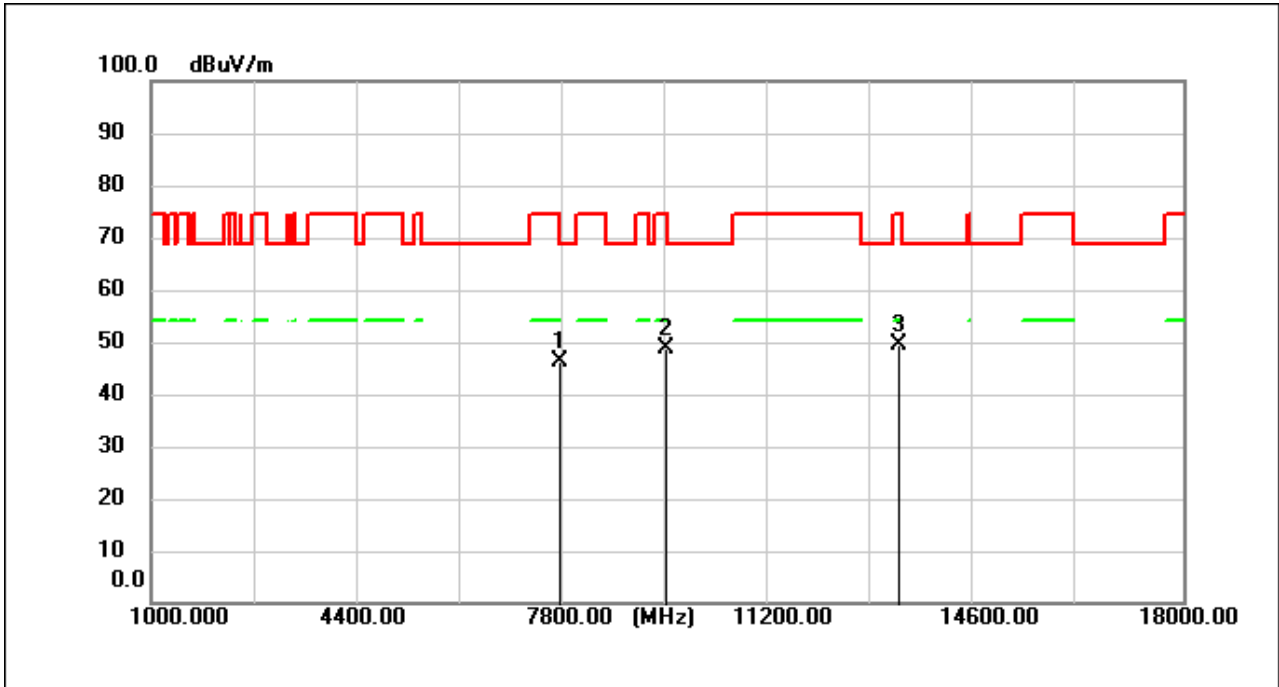
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9392.050	56.34	-7.59	48.75	74.00	-25.25	peak
2	12384.900	55.31	-5.90	49.41	74.00	-24.59	peak
3	14416.400	54.16	-3.71	50.45	68.30	-17.85	peak

11a_TX_CH_116_Horizontal



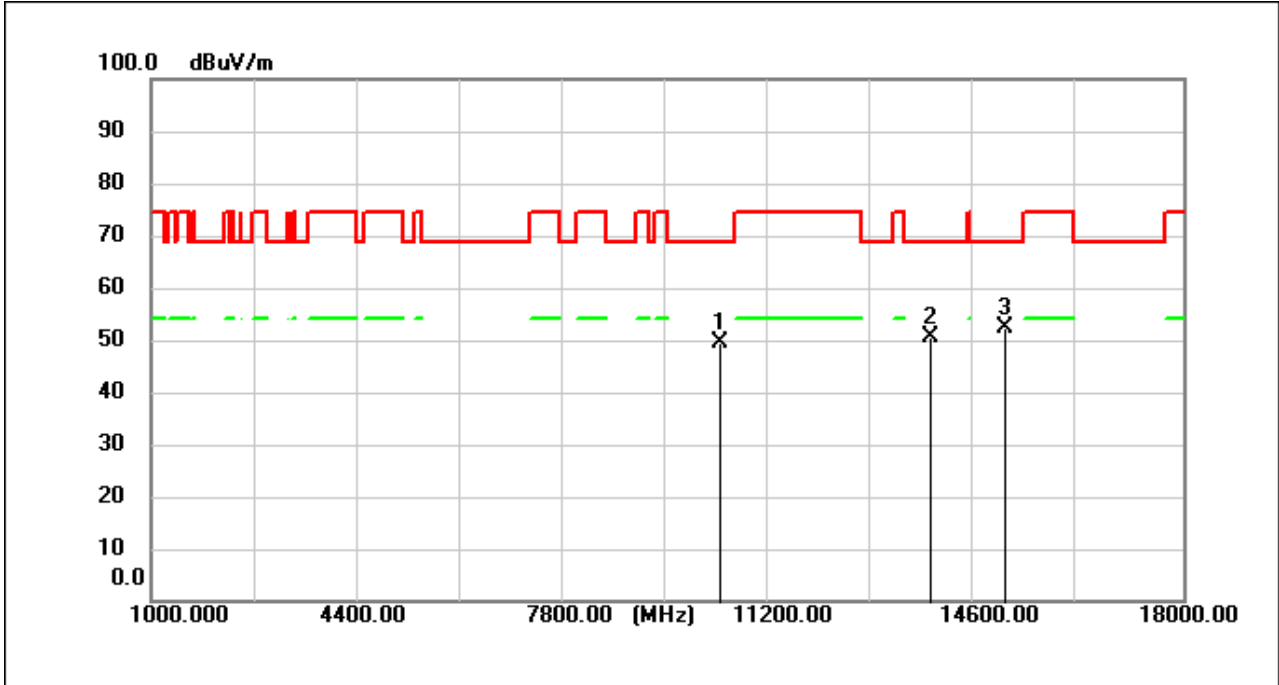
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9384.400	55.93	-7.60	48.33	74.00	-25.67	peak
2	11708.300	55.50	-5.79	49.71	74.00	-24.29	peak
3	15041.150	55.11	-3.66	51.45	68.30	-16.85	peak

11a_TX_CH_116_Vertical



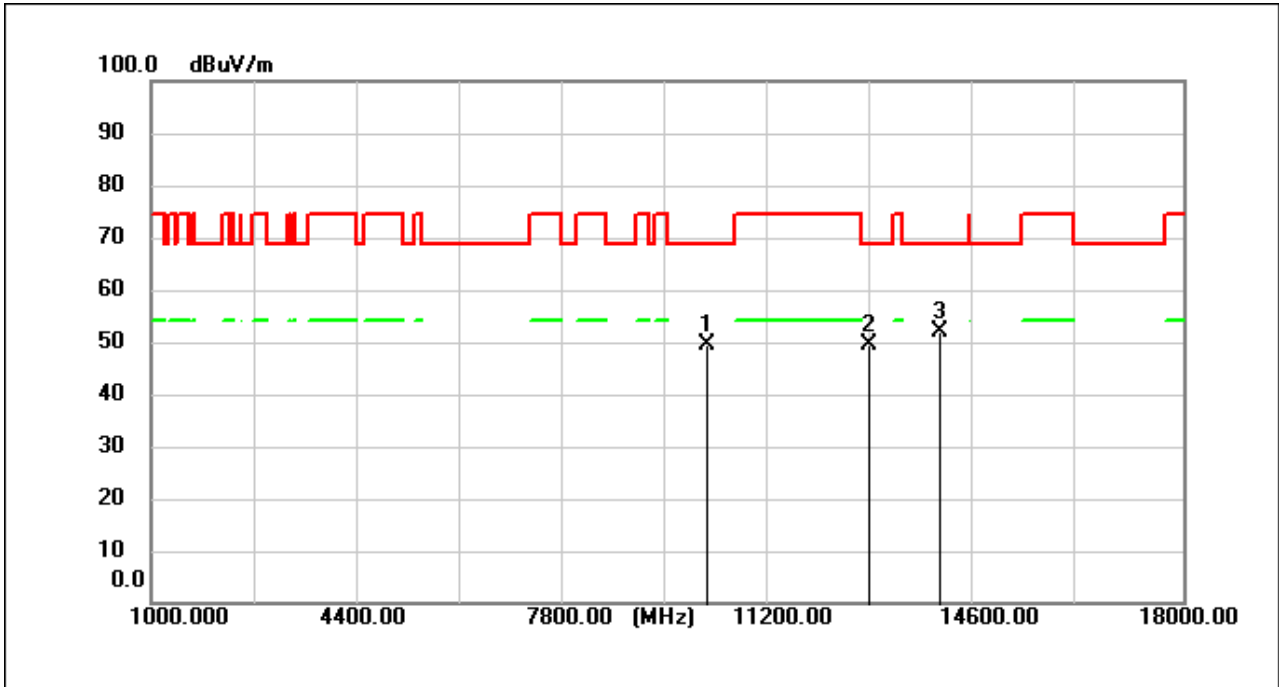
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7720.950	56.06	-9.86	46.20	74.00	-27.80	peak
2	9469.400	56.13	-7.47	48.66	74.00	-25.34	peak
3	13309.700	53.84	-4.27	49.57	74.00	-24.43	peak

11a_TX_CH_140_Horizontal



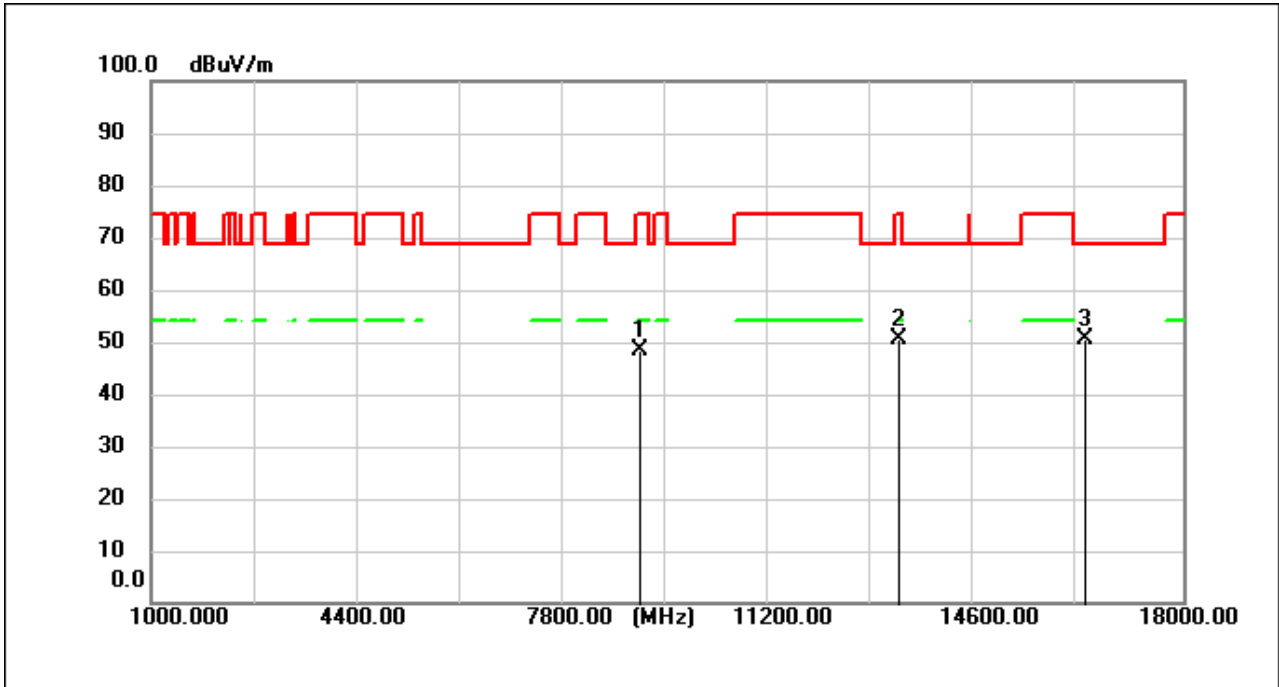
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10383.150	55.72	-6.21	49.51	68.30	-18.79	peak
2	13829.900	53.90	-3.51	50.39	68.30	-17.91	peak
3	15070.900	55.96	-3.69	52.27	68.30	-16.03	peak

11a_TX_CH_140_Vertical



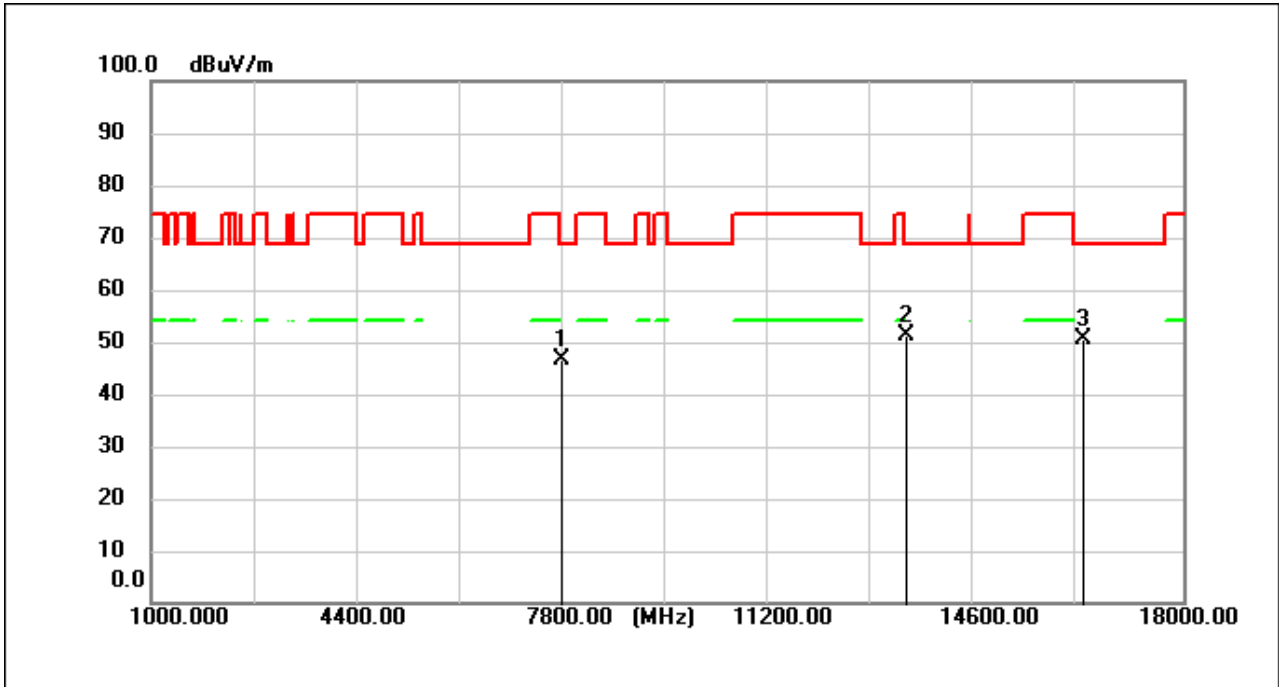
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10135.800	55.79	-6.47	49.32	68.30	-18.98	peak
2	12798.850	54.81	-5.35	49.46	68.30	-18.84	peak
3	13996.500	55.26	-3.34	51.92	68.30	-16.38	peak

11a_TX_CH_149_Horizontal



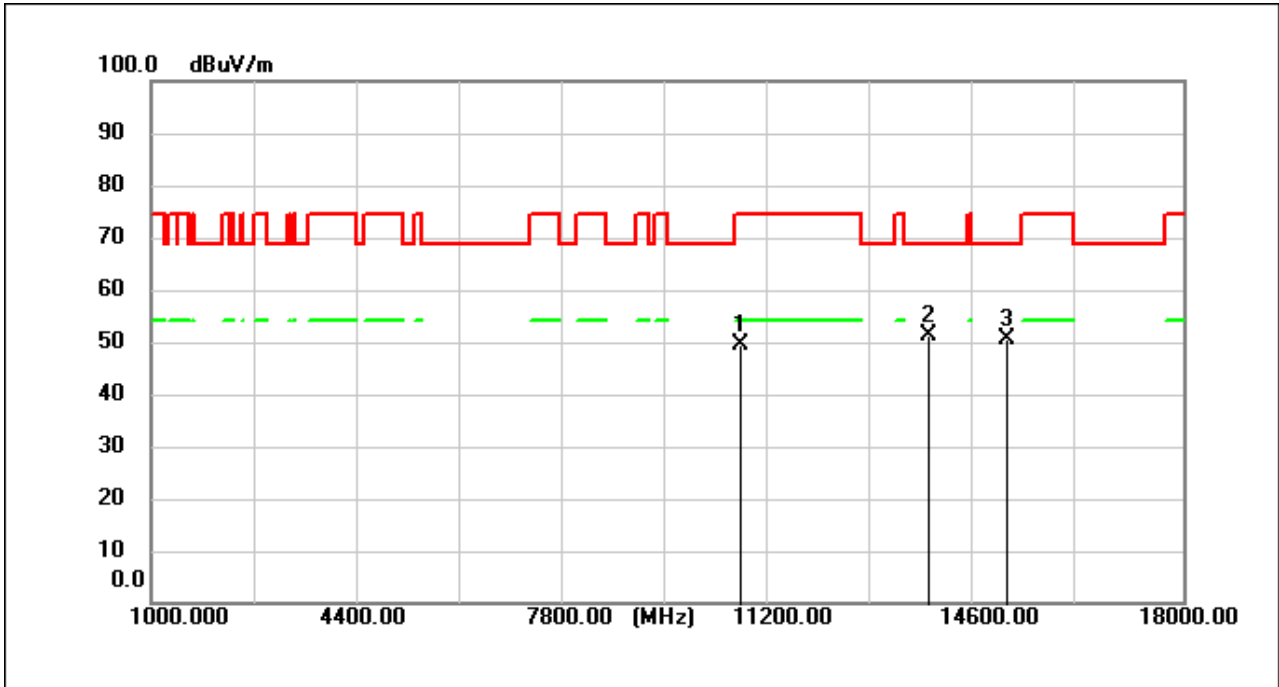
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9036.750	56.42	-8.13	48.29	74.00	-25.71	peak
2	13295.250	54.92	-4.31	50.61	74.00	-23.39	peak
3	16384.150	53.29	-2.67	50.62	68.30	-17.68	peak

11a_TX_CH_149_Vertical



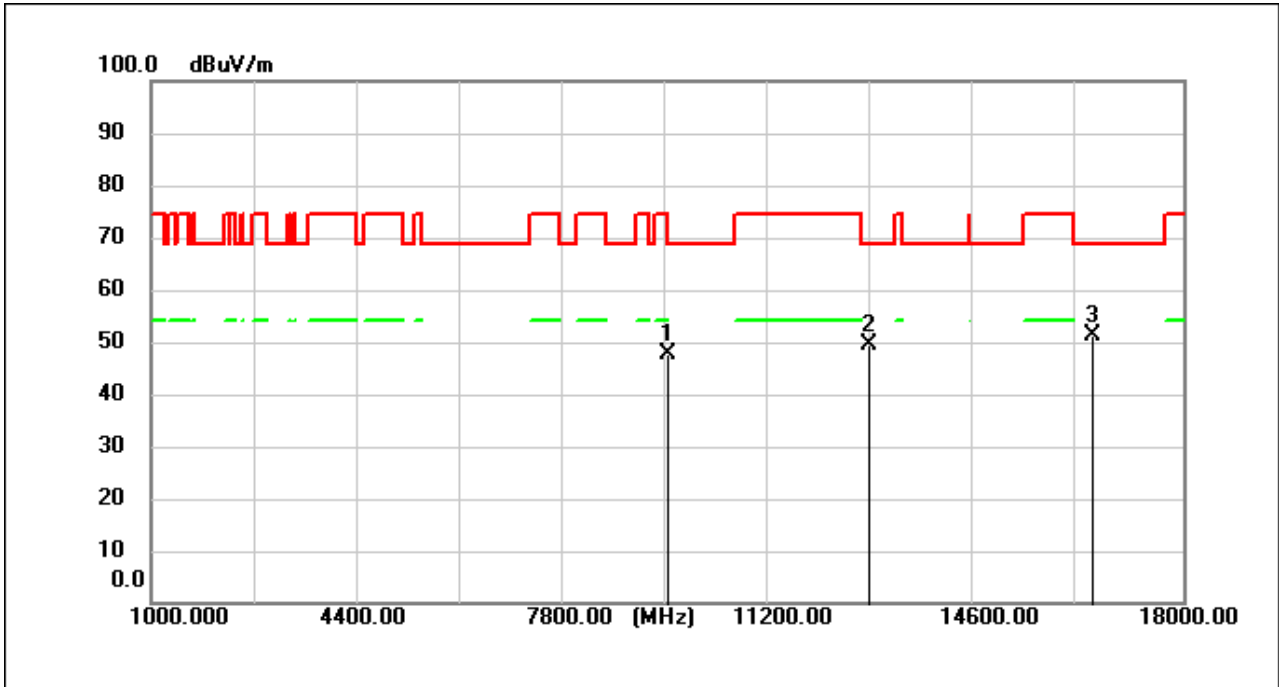
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	7753.250	56.38	-9.84	46.54	68.30	-21.76	peak
2	13436.350	55.16	-3.99	51.17	68.30	-17.13	peak
3	16360.350	53.20	-2.76	50.44	68.30	-17.86	peak

11a_TX_CH_157_Horizontal



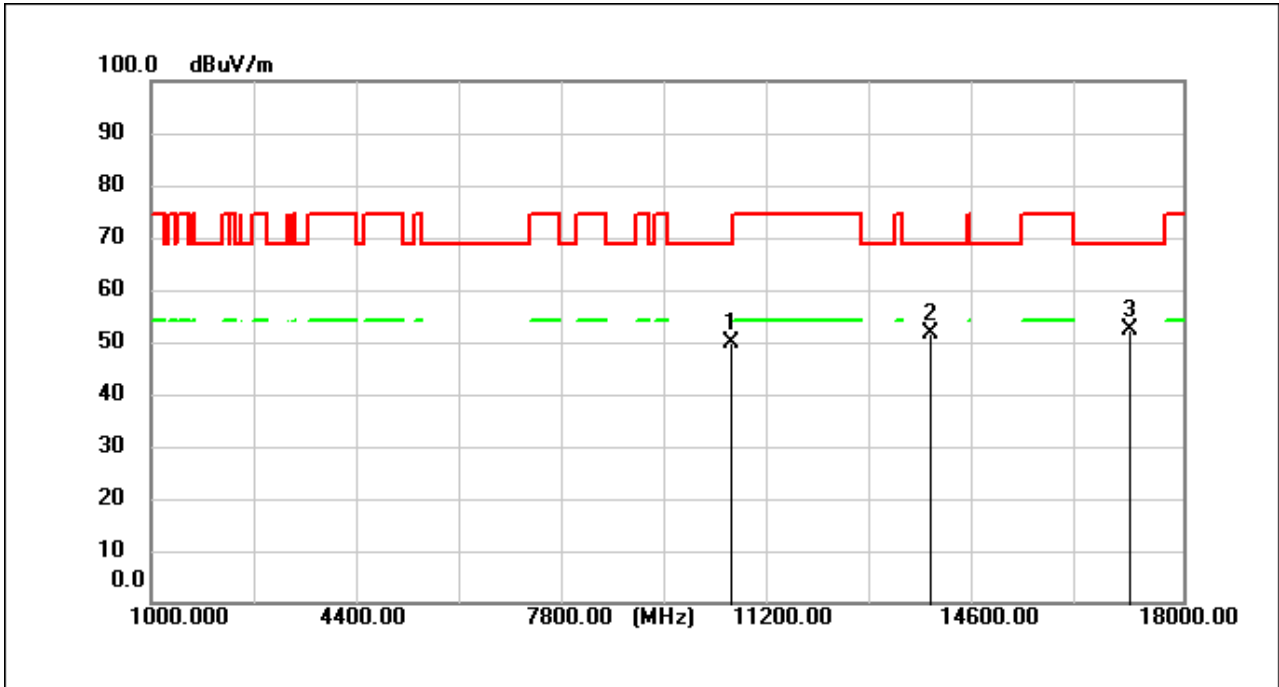
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10712.950	55.63	-6.08	49.55	74.00	-24.45	peak
2	13818.000	54.95	-3.53	51.42	68.30	-16.88	peak
3	15090.450	54.41	-3.72	50.69	68.30	-17.61	peak

11a_TX_CH_157_Vertical



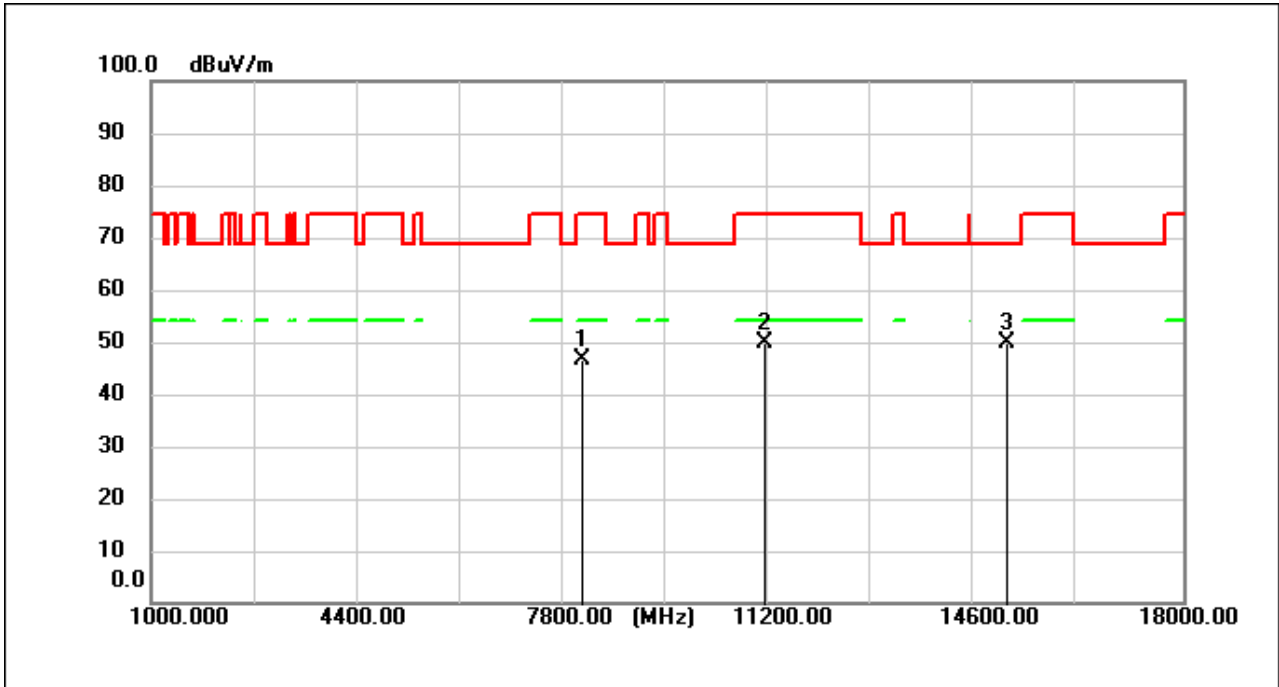
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9498.300	55.01	-7.42	47.59	74.00	-26.41	peak
2	12830.300	54.88	-5.29	49.59	68.30	-18.71	peak
3	16509.950	53.36	-2.22	51.14	68.30	-17.16	peak

11a_TX_CH_165_Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	10539.550	55.94	-6.09	49.85	68.30	-18.45	peak
2	13841.800	55.20	-3.50	51.70	68.30	-16.60	peak
3	17113.450	53.96	-1.57	52.39	68.30	-15.91	peak

11a_TX_CH_165_Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8087.300	56.18	-9.70	46.48	74.00	-27.52	peak
2	11098.000	55.75	-6.01	49.74	74.00	-24.26	peak
3	15105.750	53.69	-3.74	49.95	68.30	-18.35	peak

7.4 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: ANSI C63.10 (2020) Section 6.10.5

Measurement Distance: 3M

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

*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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.

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 23.5 °C

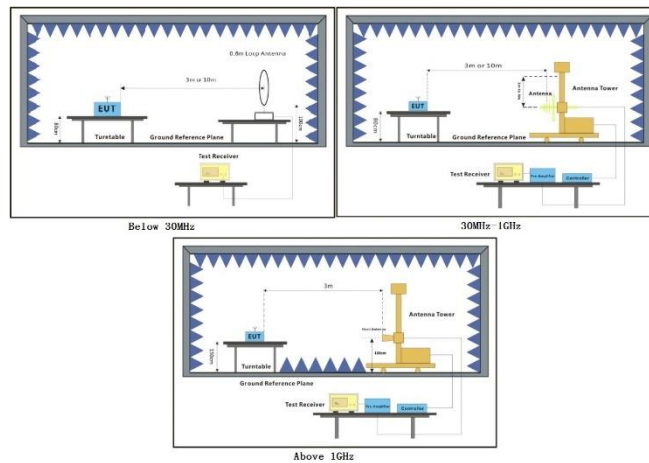
Humidity: 45.8 % RH

Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram



7.4.4 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.

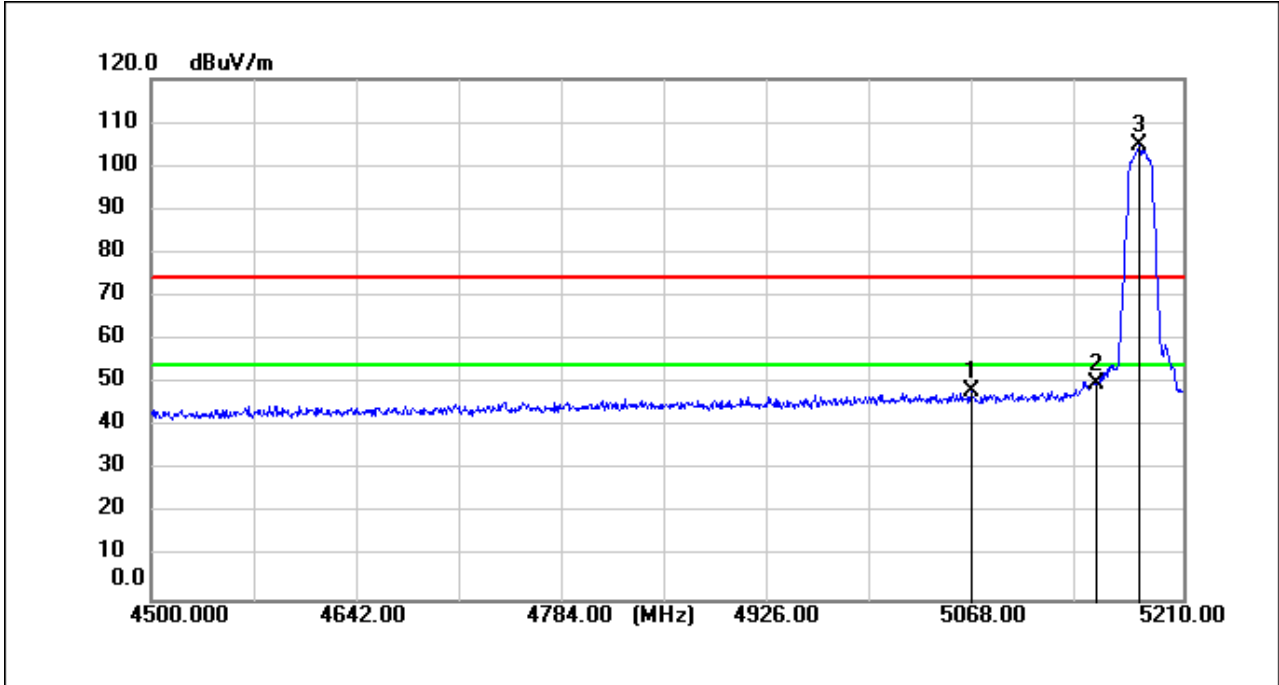
Remark 1: $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$

Remark 2: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for Peak detection (PK) and Average detection (AV) at frequency above 1GHz.

Remark 3: For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.

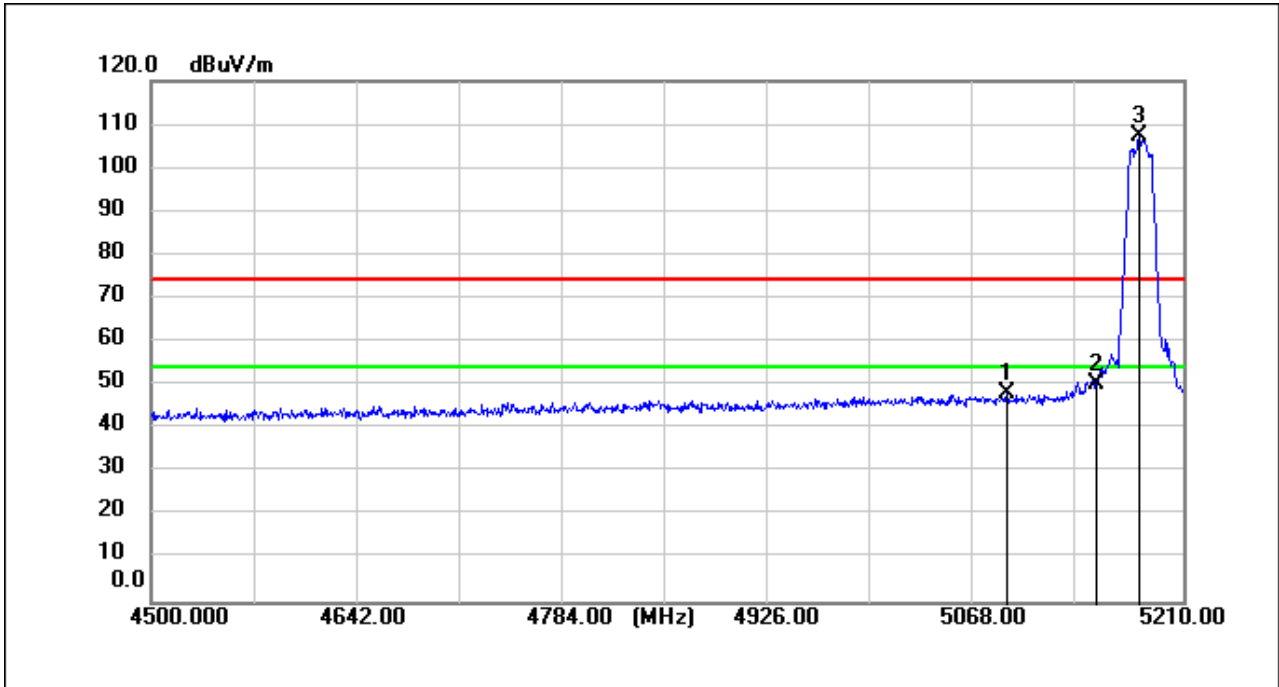
Remark 4: This test item was investigated while operating in SISO and MIMO mode, however, it was determined that SISO antenna 1 operation for a modulation and MiMO antenna operation for ac modulation produced the worst emissions. So the emissions produced from other operation are not recorded in report.

11a_TX_CH_36_Horizontal_Peak



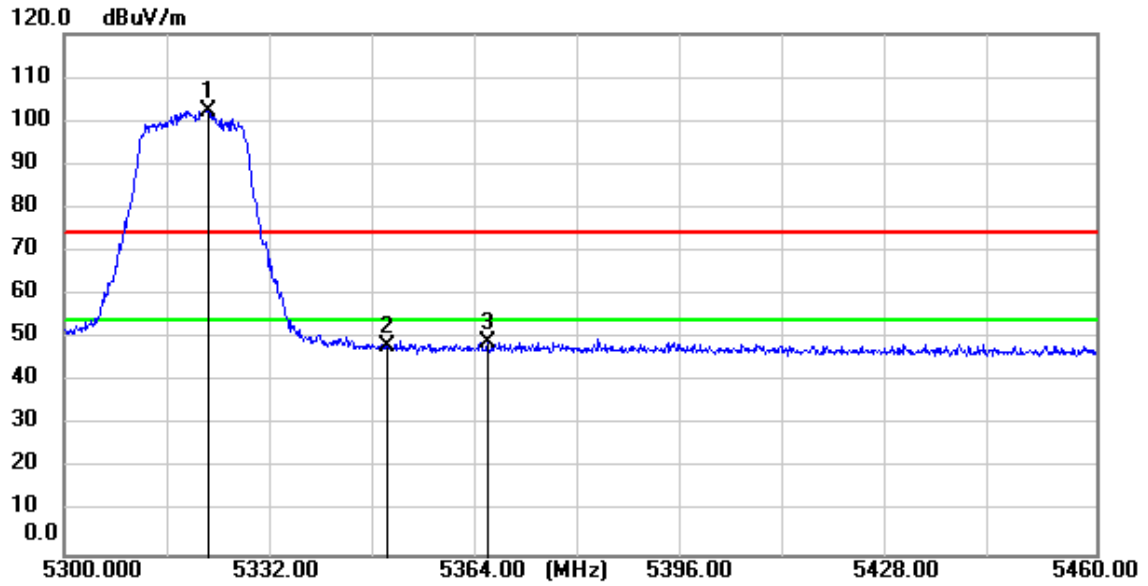
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5064.450	41.32	6.76	48.08	74.00	-25.92	peak
2	5150.000	43.10	6.75	49.85	74.00	-24.15	peak
3	5179.470	97.94	6.74	104.68	74.00	30.68	peak

11a_TX_CH_36_Vertical_Peak



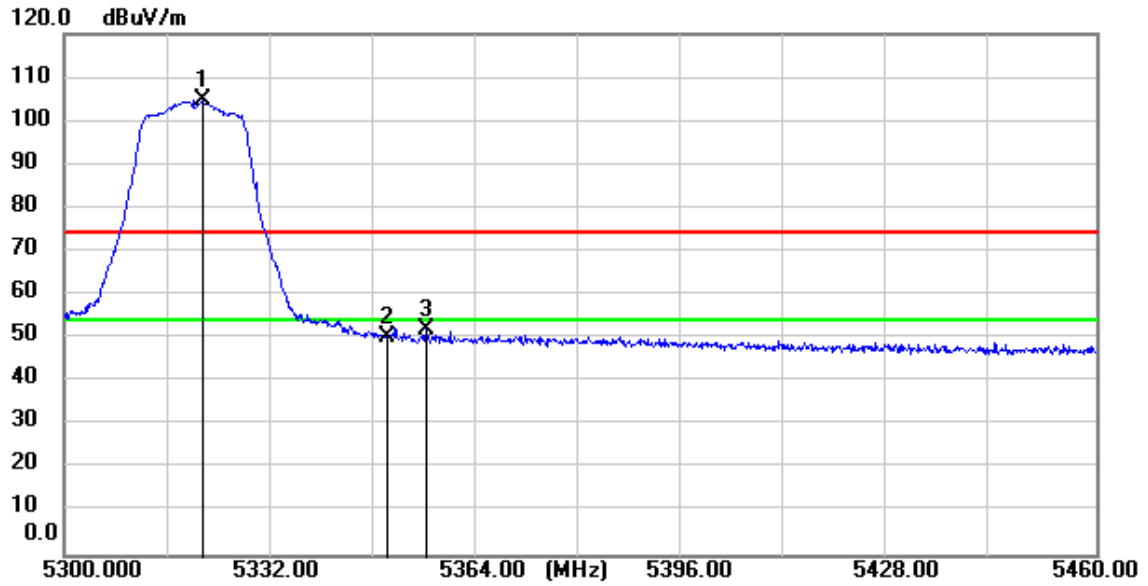
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5089.300	41.33	6.75	48.08	74.00	-25.92	peak
2	5150.000	43.54	6.75	50.29	74.00	-23.71	peak
3	5179.470	100.67	6.74	107.41	74.00	33.41	peak

11a_TX_CH_64_Horizontal_Peak

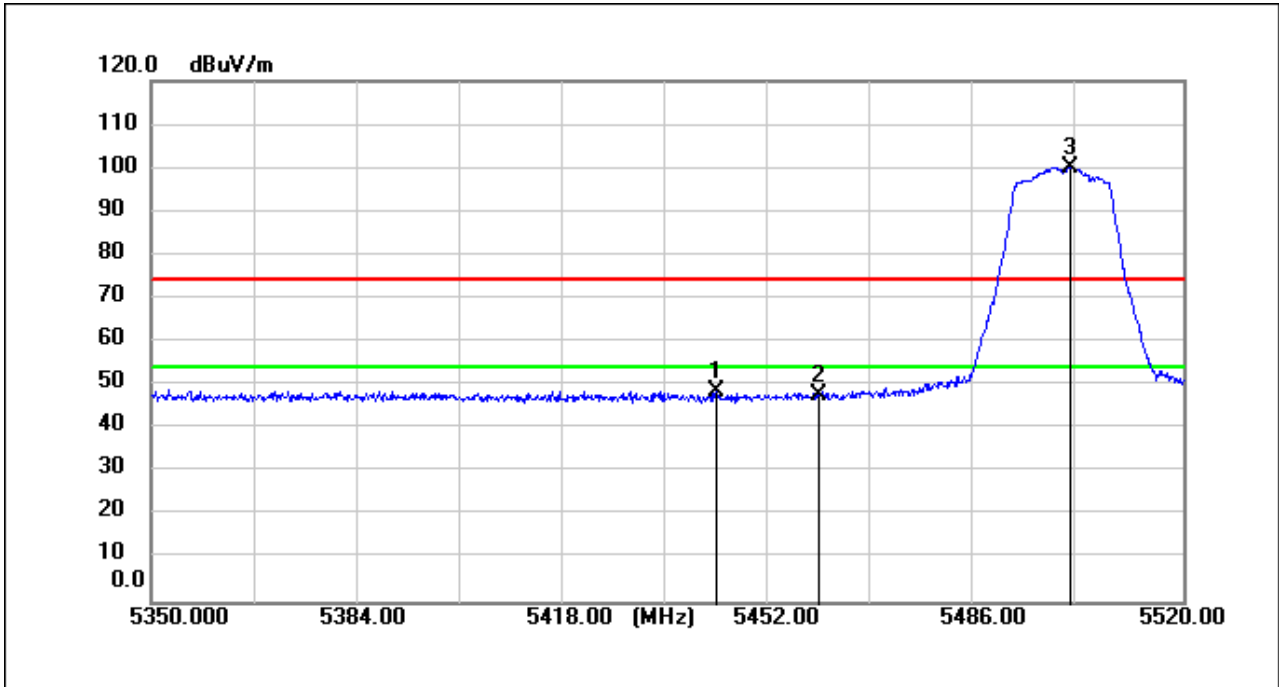


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5322.240	95.66	6.70	102.36	74.00	28.36	peak
2	5350.000	41.66	6.69	48.35	74.00	-25.65	peak
3	5365.600	42.40	6.69	49.09	74.00	-24.91	peak

11a_TX_CH_64_Vertical_Peak

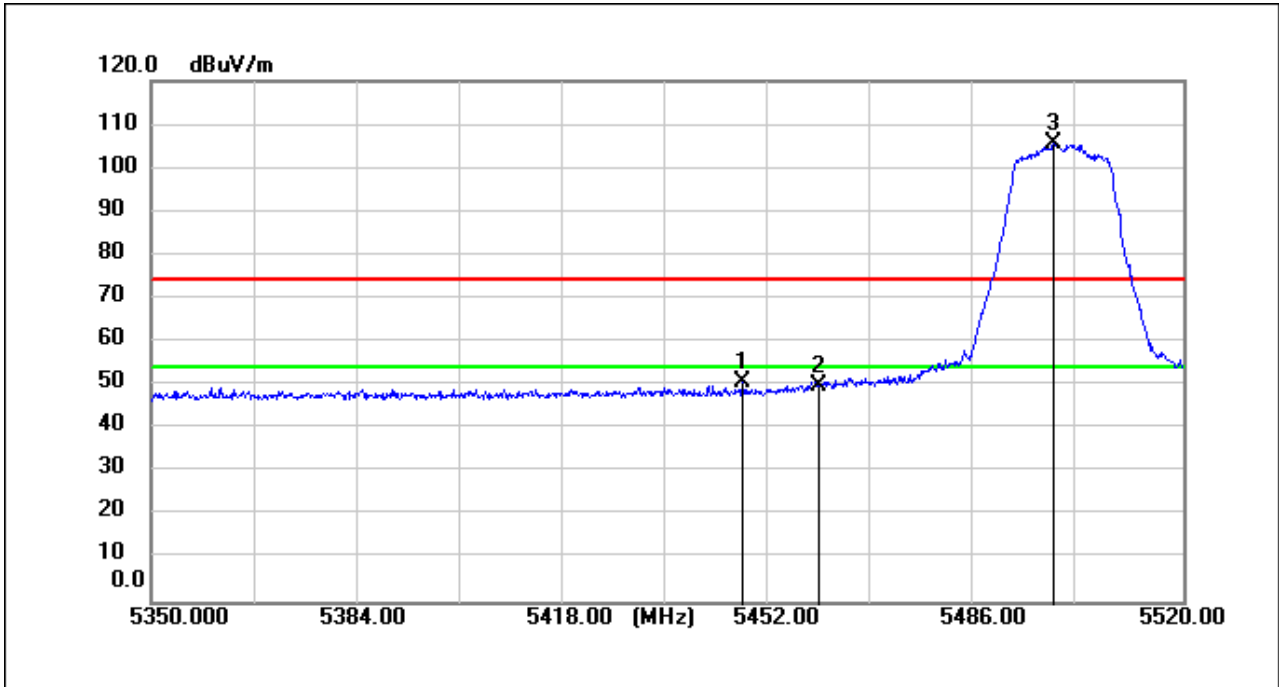


11a_TX_CH_100_Horizontal_Peak



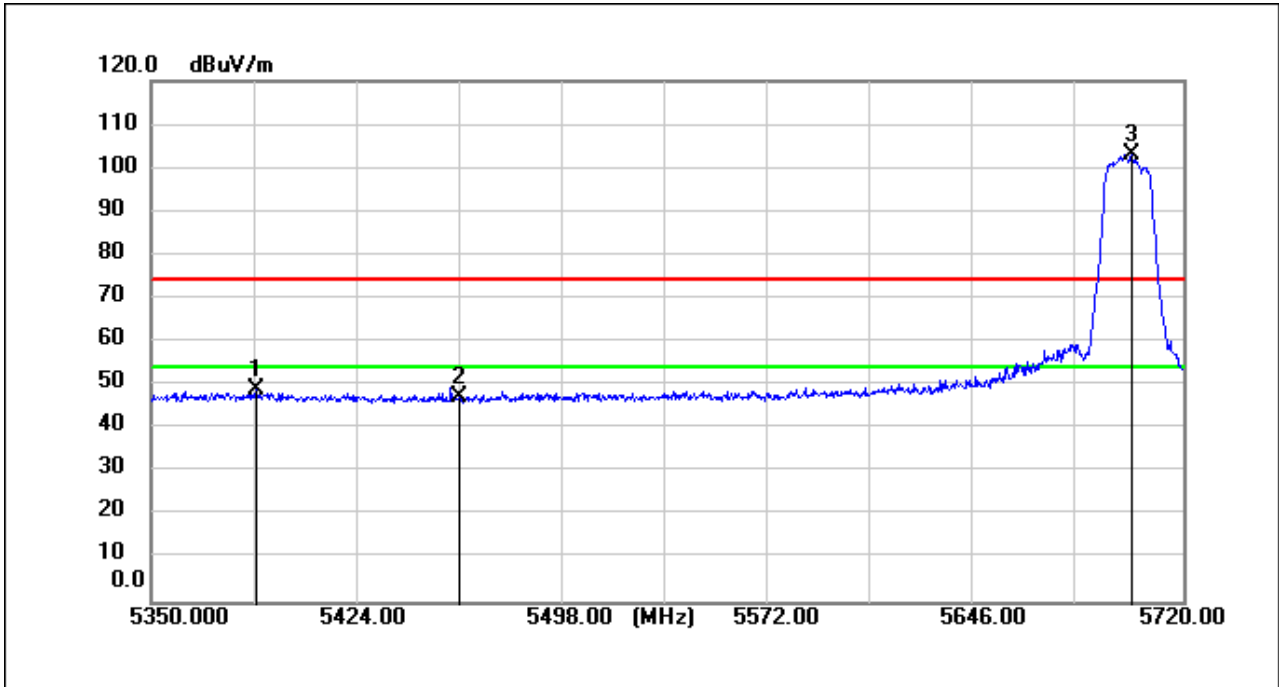
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5443.160	42.11	6.68	48.79	74.00	-25.21	peak
2	5460.000	41.00	6.68	47.68	74.00	-26.32	peak
3	5501.470	93.59	6.67	100.26	74.00	26.26	peak

11a_TX_CH_100_Vertical_Peak



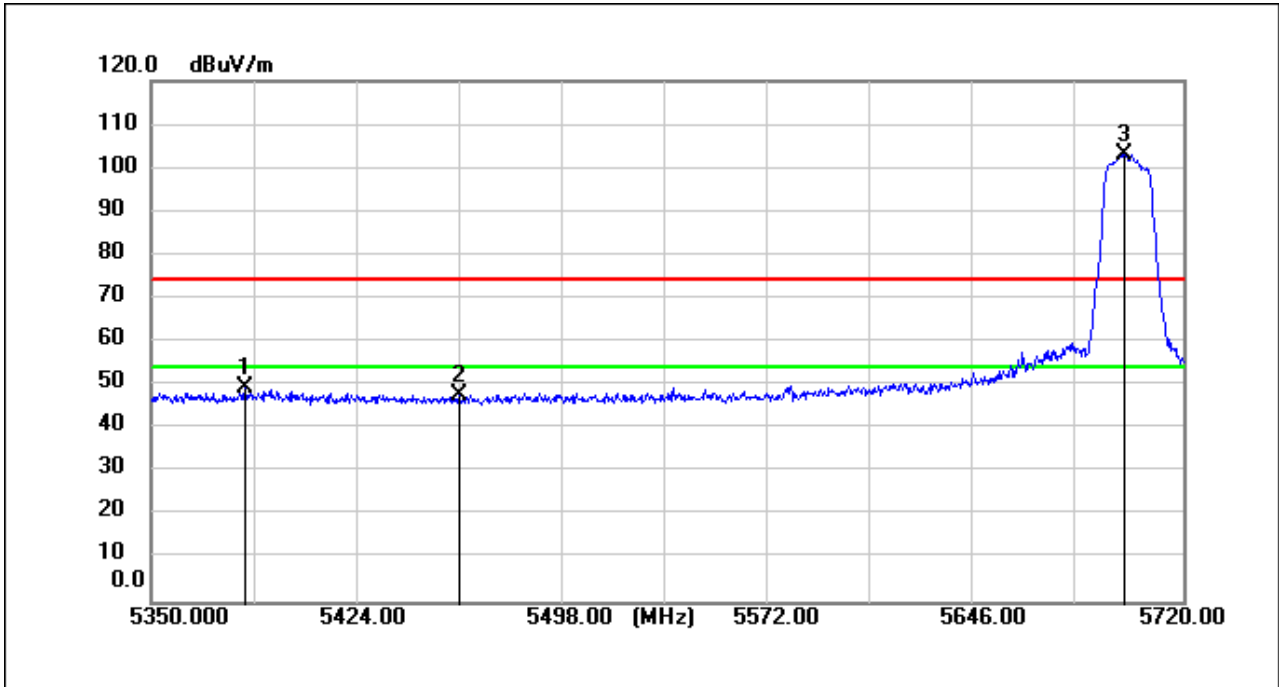
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5447.580	44.24	6.68	50.92	74.00	-23.08	peak
2	5460.000	43.36	6.68	50.04	74.00	-23.96	peak
3	5498.750	99.16	6.67	105.83	74.00	31.83	peak

11a_TX_CH_140_Horizontal_Peak



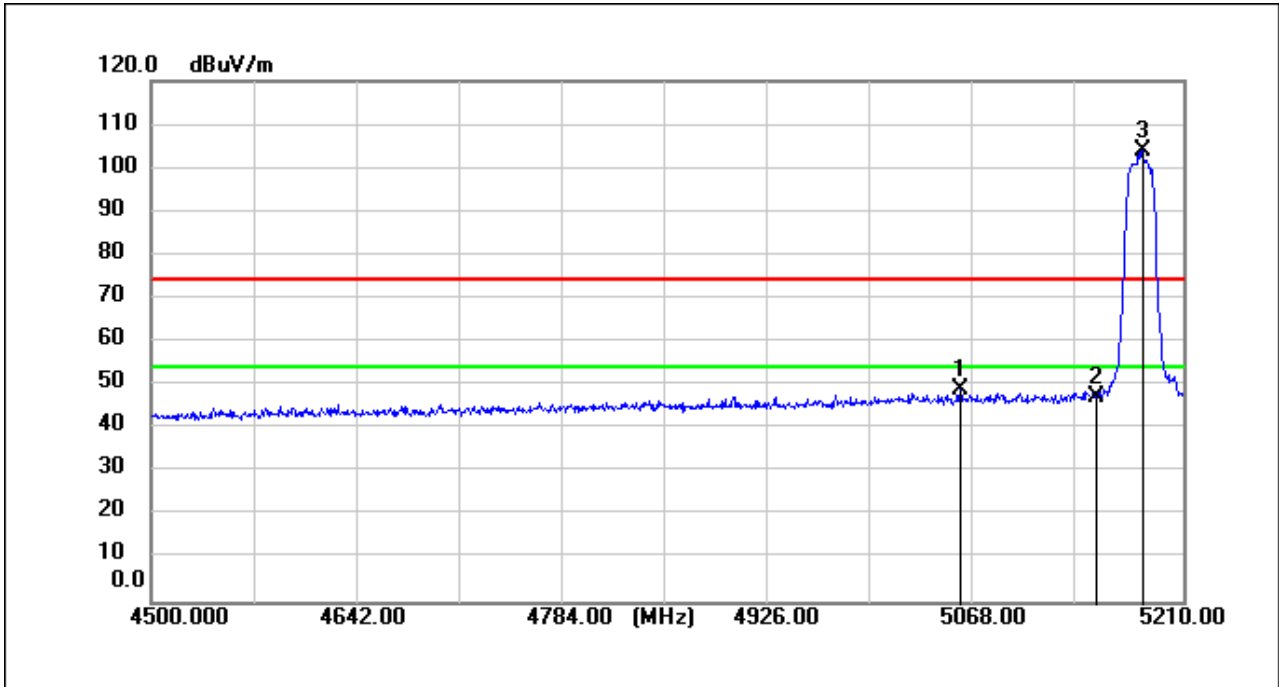
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5387.740	42.22	6.70	48.92	74.00	-25.08	peak
2	5460.000	40.62	6.68	47.30	74.00	-26.70	peak
3	5701.500	96.00	6.96	102.96	74.00	28.96	peak

11a_TX_CH_140_Vertical_Peak



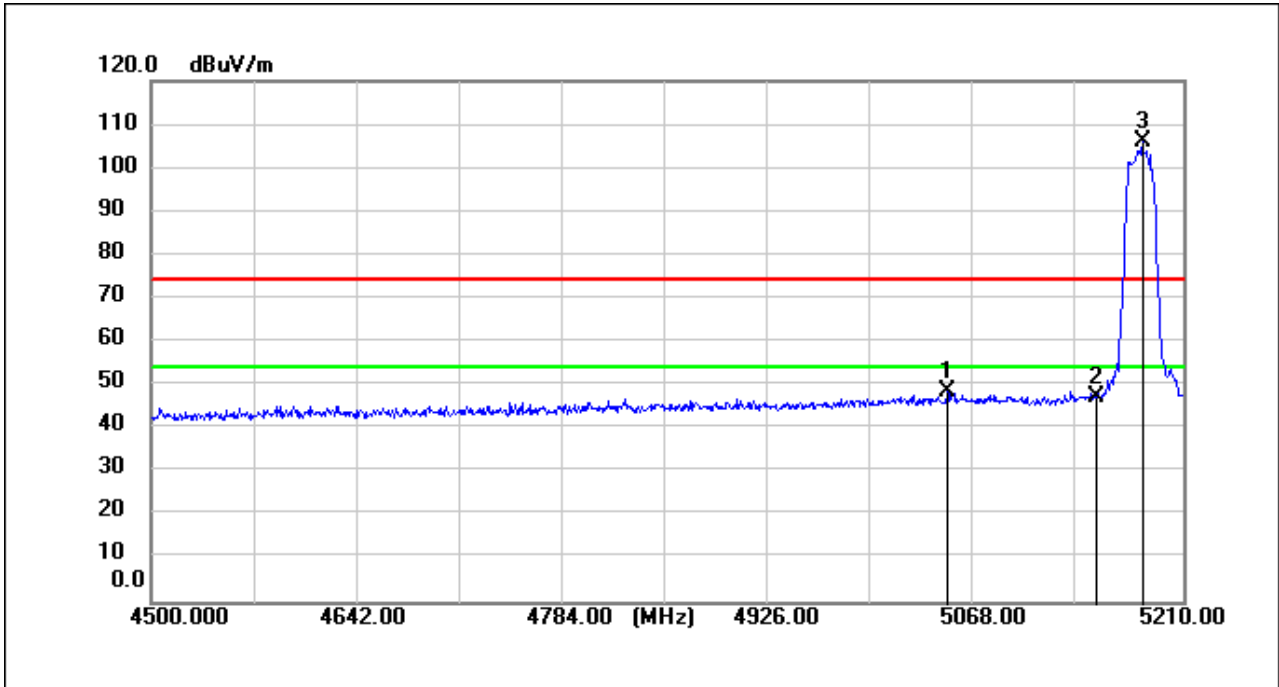
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5383.670	42.66	6.69	49.35	74.00	-24.65	peak
2	5460.000	40.99	6.68	47.67	74.00	-26.33	peak
3	5699.280	96.21	6.95	103.16	74.00	29.16	peak

11ac(VHT20)_TX_CH_36_Horizontal_Peak



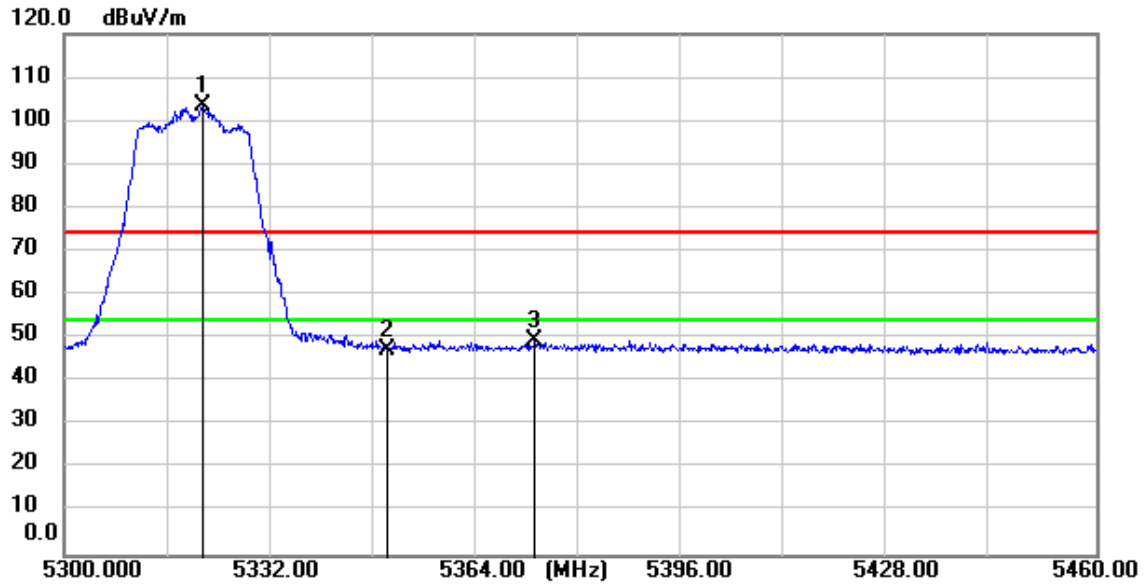
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5057.350	42.11	6.76	48.87	74.00	-25.13	peak
2	5150.000	40.74	6.75	47.49	74.00	-26.51	peak
3	5182.310	97.31	6.73	104.04	74.00	30.04	peak

11ac(VHT20)_TX_CH_36_Vertical_Peak

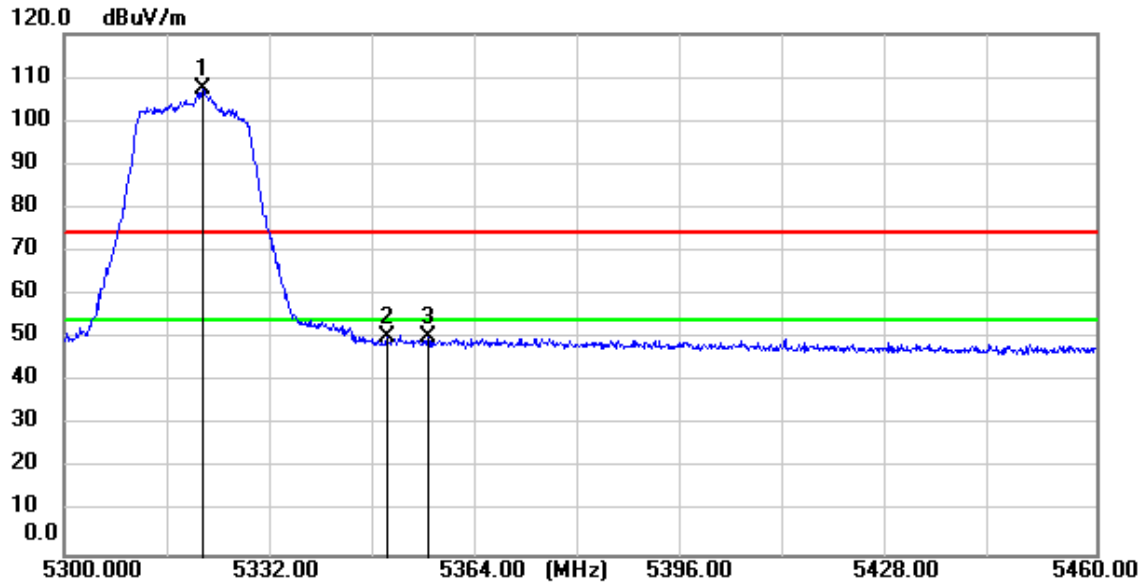


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5048.120	41.93	6.76	48.69	74.00	-25.31	peak
2	5150.000	40.56	6.75	47.31	74.00	-26.69	peak
3	5182.310	99.21	6.73	105.94	74.00	31.94	peak

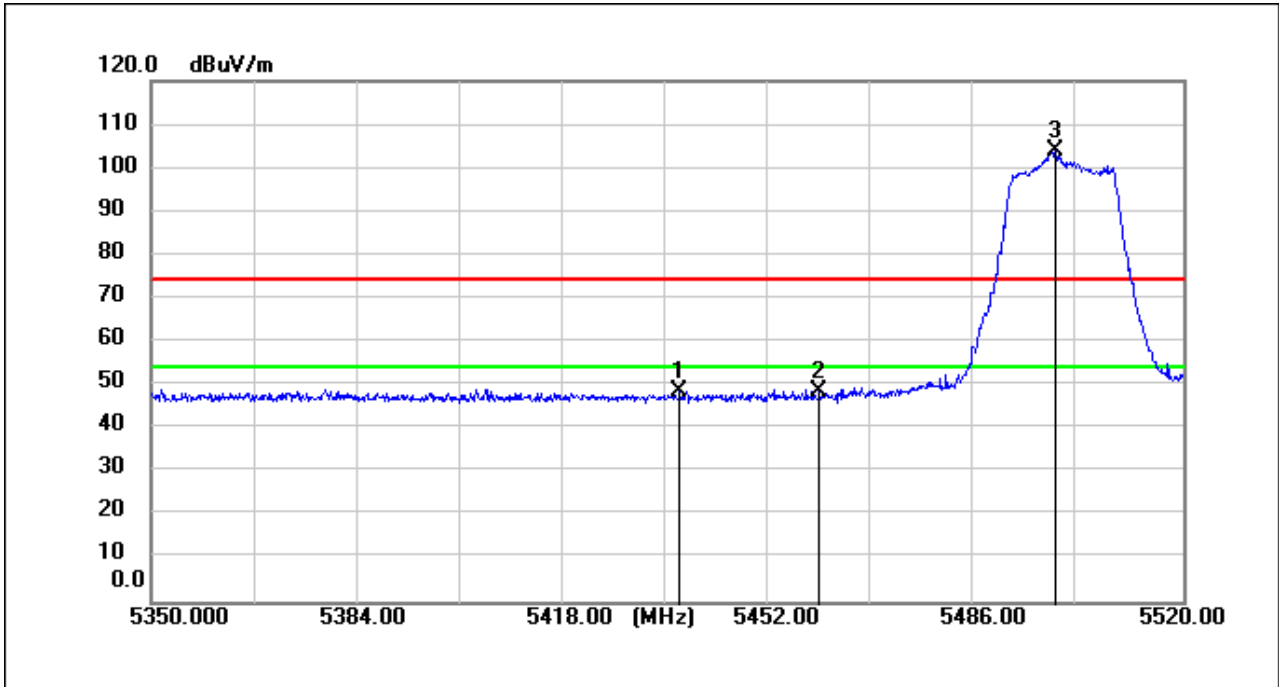
11ac(VHT20)_TX_CH_64_Horizontal_Peak



11ac(VHT20)_TX_CH_64_Vertical_Peak

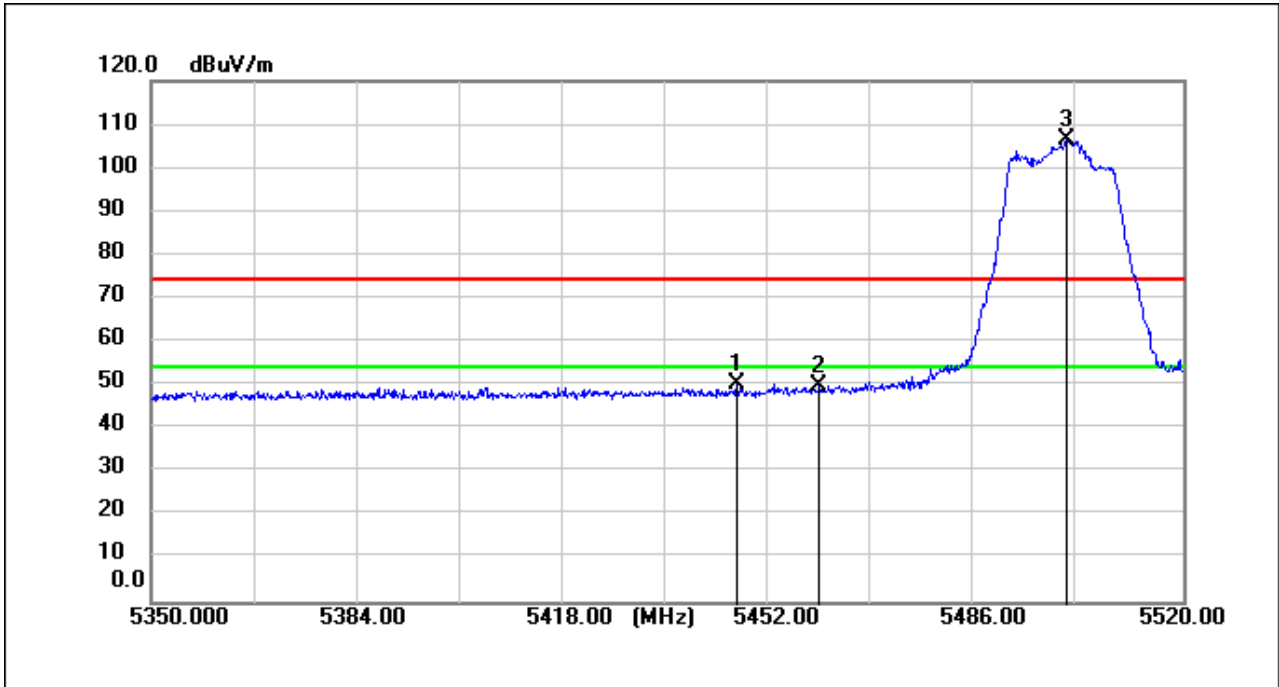


11ac(VHT20)_TX_CH_100_Horizontal_Peak



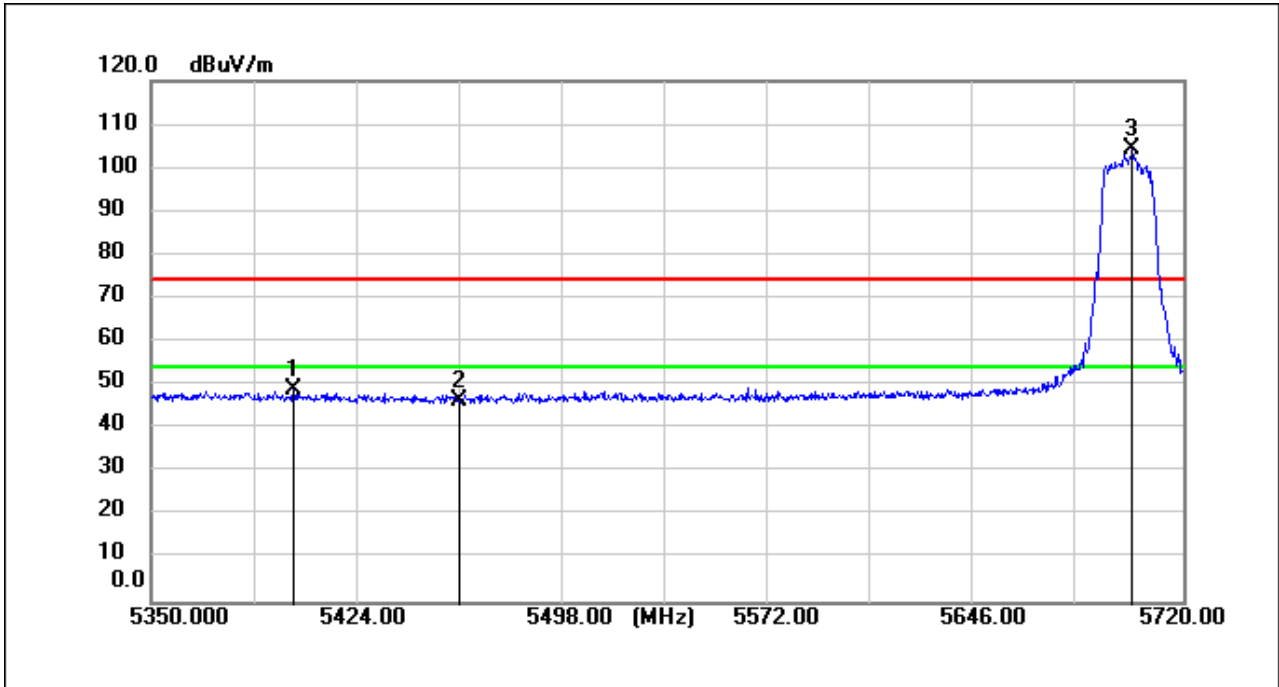
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5437.040	41.95	6.68	48.63	74.00	-25.37	peak
2	5460.000	41.80	6.68	48.48	74.00	-25.52	peak
3	5499.090	97.27	6.67	103.94	74.00	29.94	peak

11ac(VHT20)_TX_CH_100_Vertical_Peak



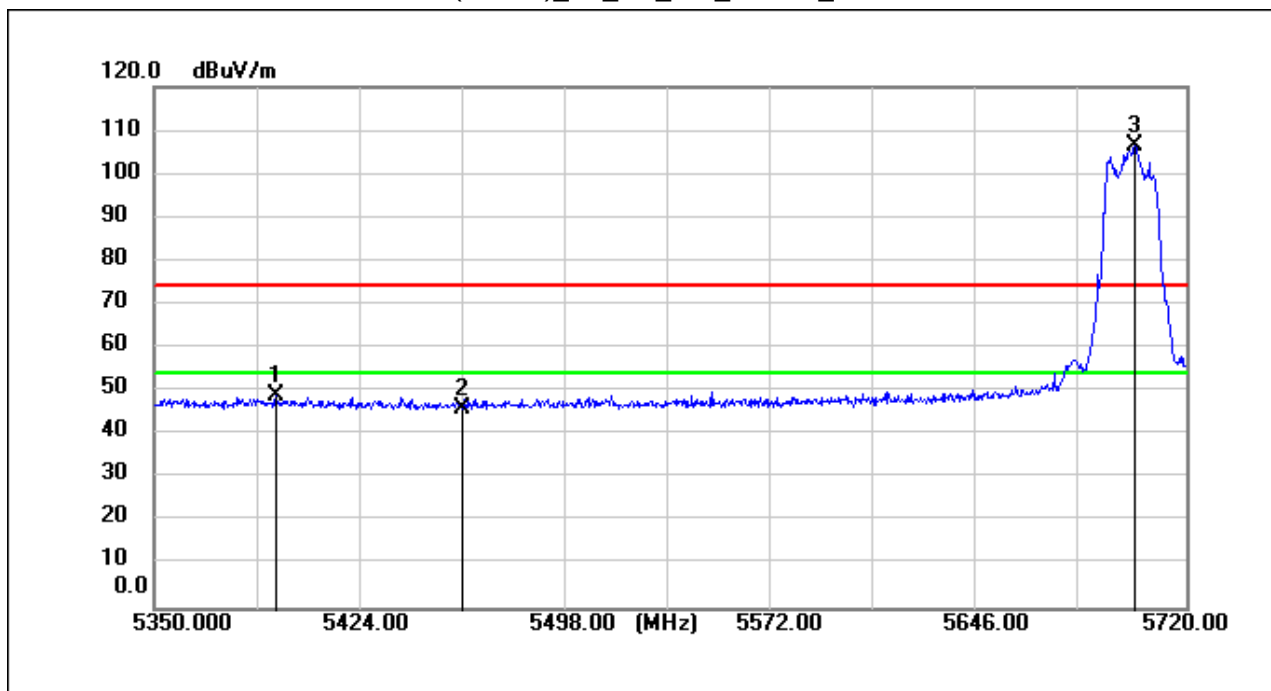
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5446.560	43.72	6.68	50.40	74.00	-23.60	peak
2	5460.000	43.41	6.68	50.09	74.00	-23.91	peak
3	5500.790	99.79	6.67	106.46	74.00	32.46	peak

11ac(VHT20)_TX_CH_140_Horizontal_Peak



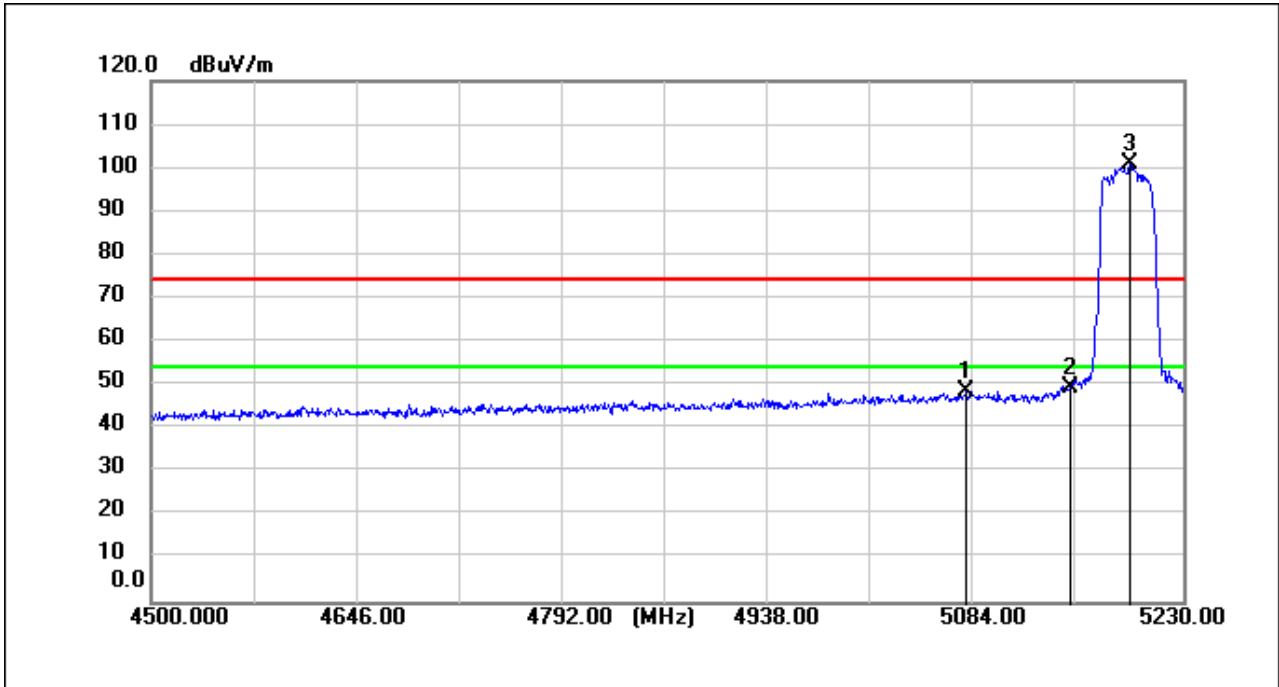
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5401.060	42.25	6.69	48.94	74.00	-25.06	peak
2	5460.000	39.75	6.68	46.43	74.00	-27.57	peak
3	5701.870	97.23	6.96	104.19	74.00	30.19	peak

11ac(VHT20)_TX_CH_140_Vertical_Peak



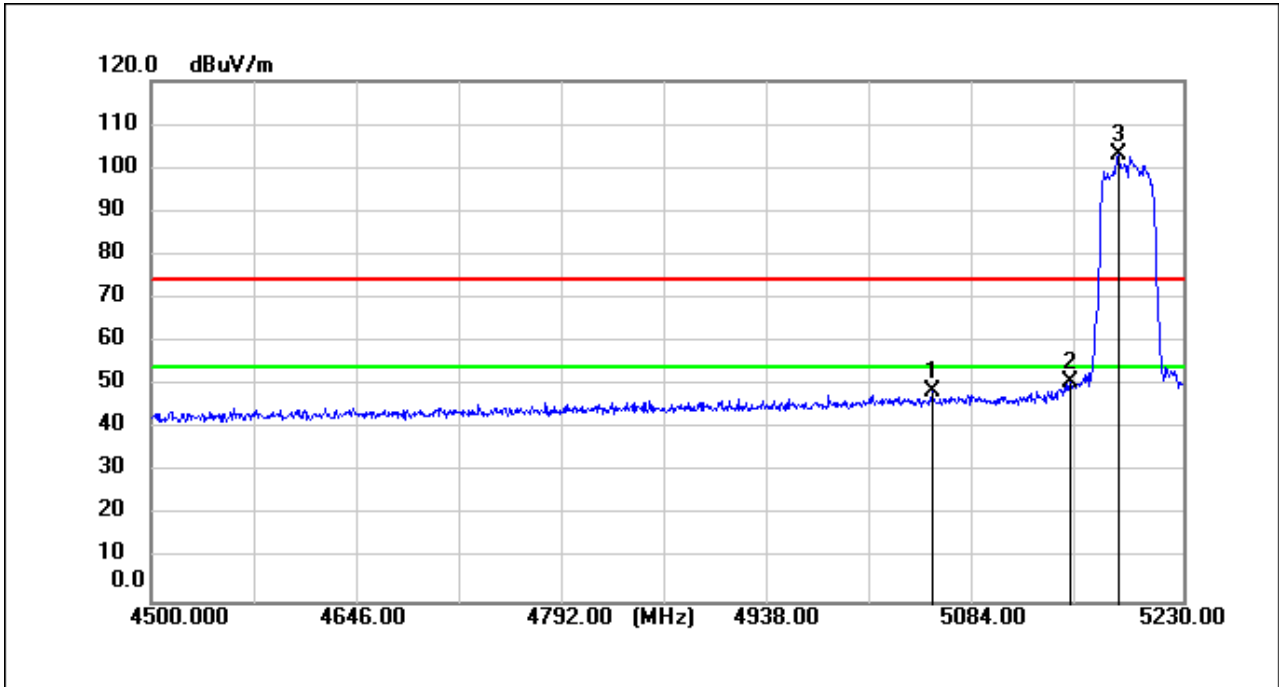
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5394.030	42.55	6.69	49.24	74.00	-24.76	peak
2	5460.000	39.59	6.68	46.27	74.00	-27.73	peak
3	5701.870	99.72	6.96	106.68	74.00	32.68	peak

11ac(VHT40)_TX_CH_38_Horizontal_Peak



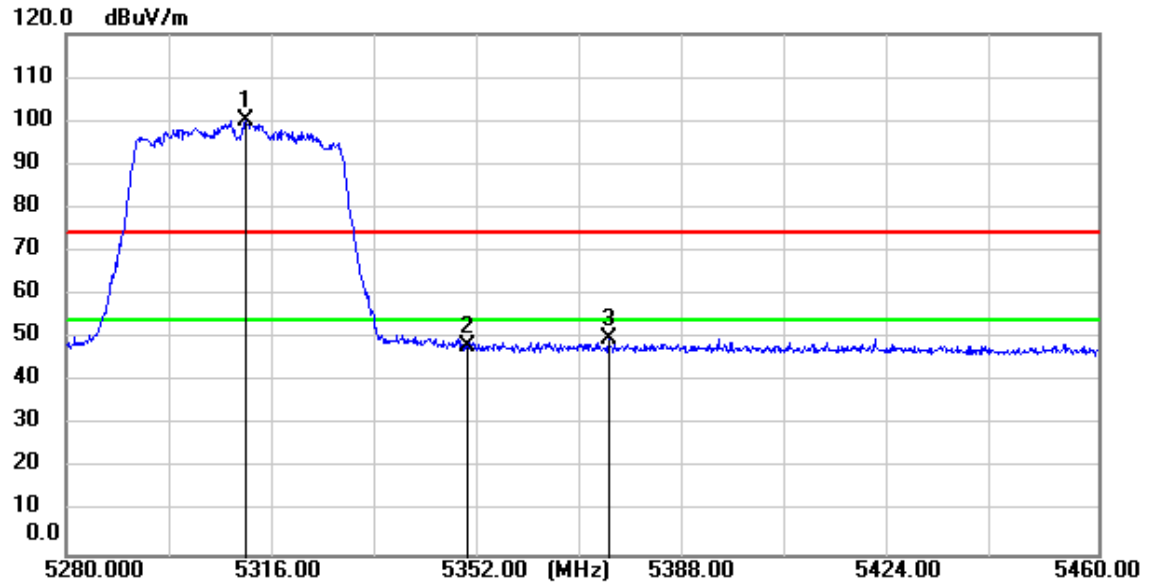
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5076.700	42.10	6.75	48.85	74.00	-25.15	peak
2	5150.000	42.70	6.75	49.45	74.00	-24.55	peak
3	5192.040	94.13	6.73	100.86	74.00	26.86	peak

11ac(VHT40)_TX_CH_38_Vertical_Peak

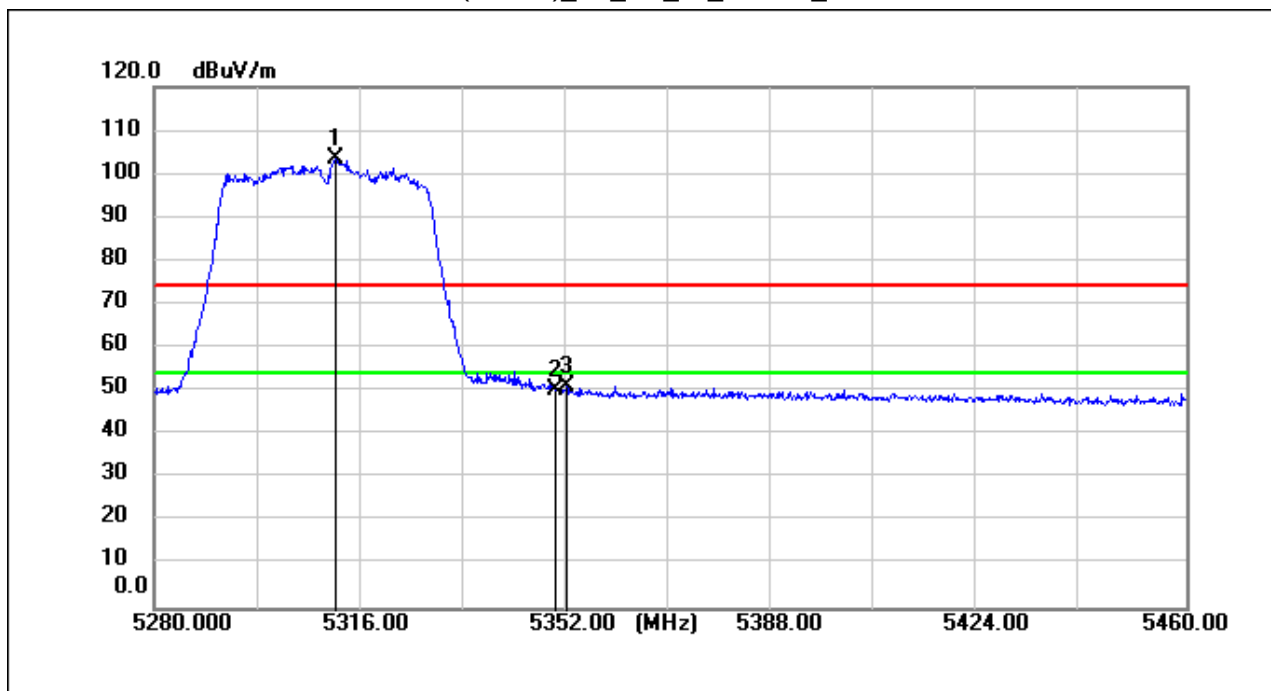


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5052.610	41.68	6.76	48.44	74.00	-25.56	peak
2	5150.000	44.23	6.75	50.98	74.00	-23.02	peak
3	5184.010	96.42	6.73	103.15	74.00	29.15	peak

11ac(VHT40)_TX_CH_62_Horizontal_Peak

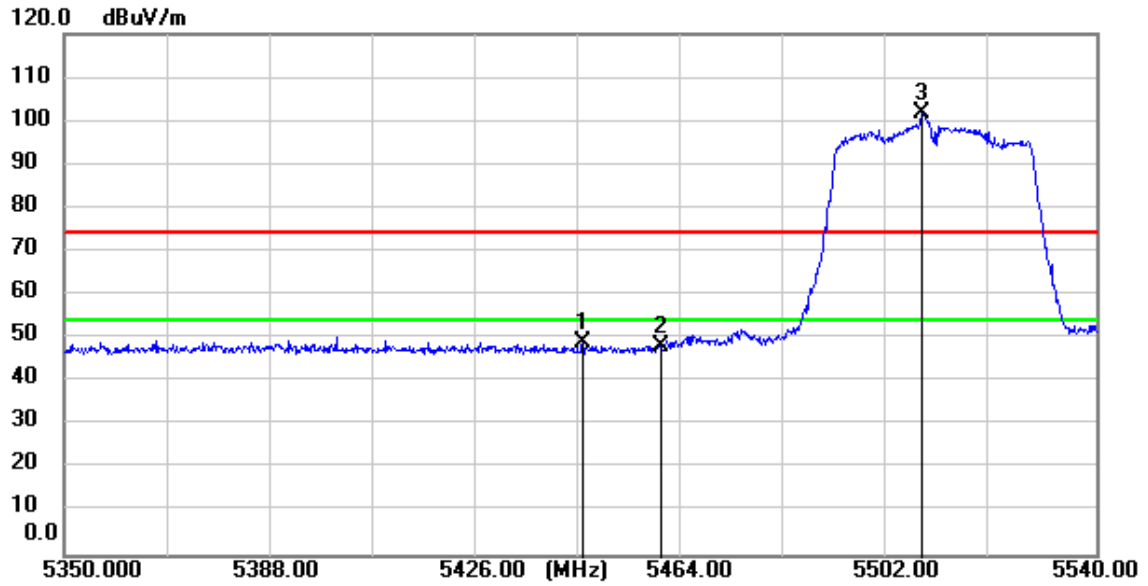


11ac(VHT40)_TX_CH_62_Vertical_Peak



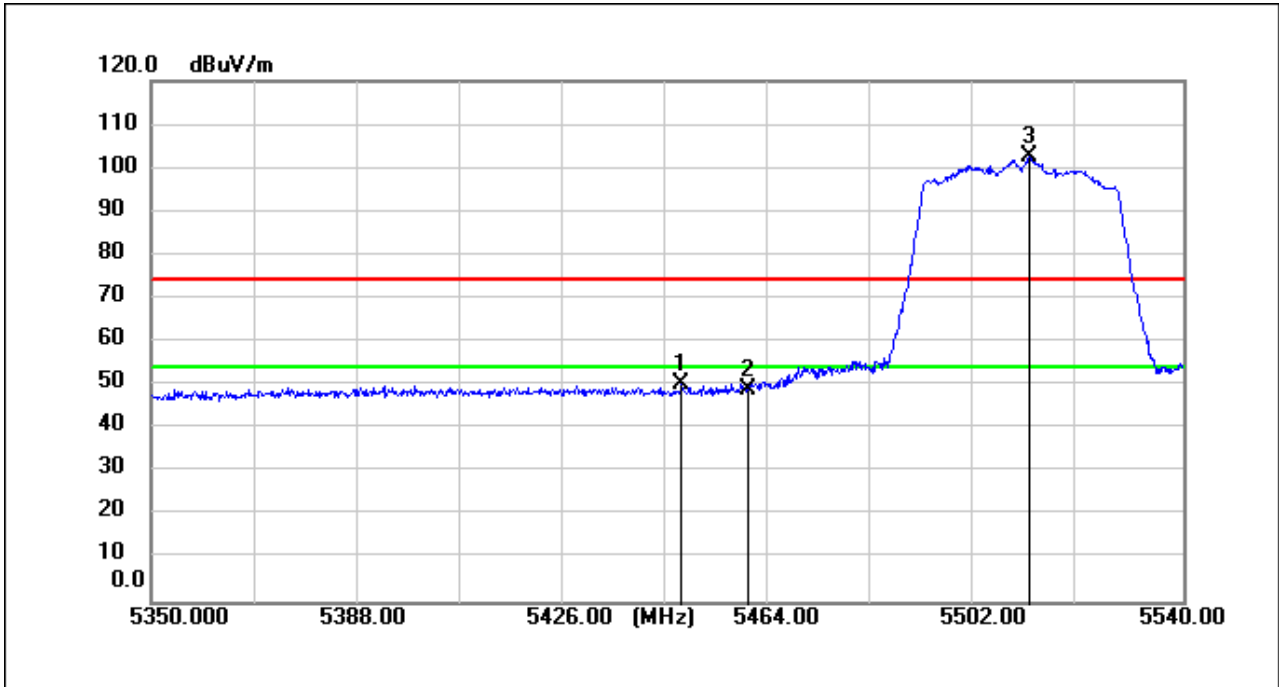
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5311.680	96.92	6.70	103.62	74.00	29.62	peak
2	5350.000	43.61	6.69	50.30	74.00	-23.70	peak
3	5352.000	44.53	6.70	51.23	74.00	-22.77	peak

11ac(VHT40)_TX_CH_102_Horizontal_Peak



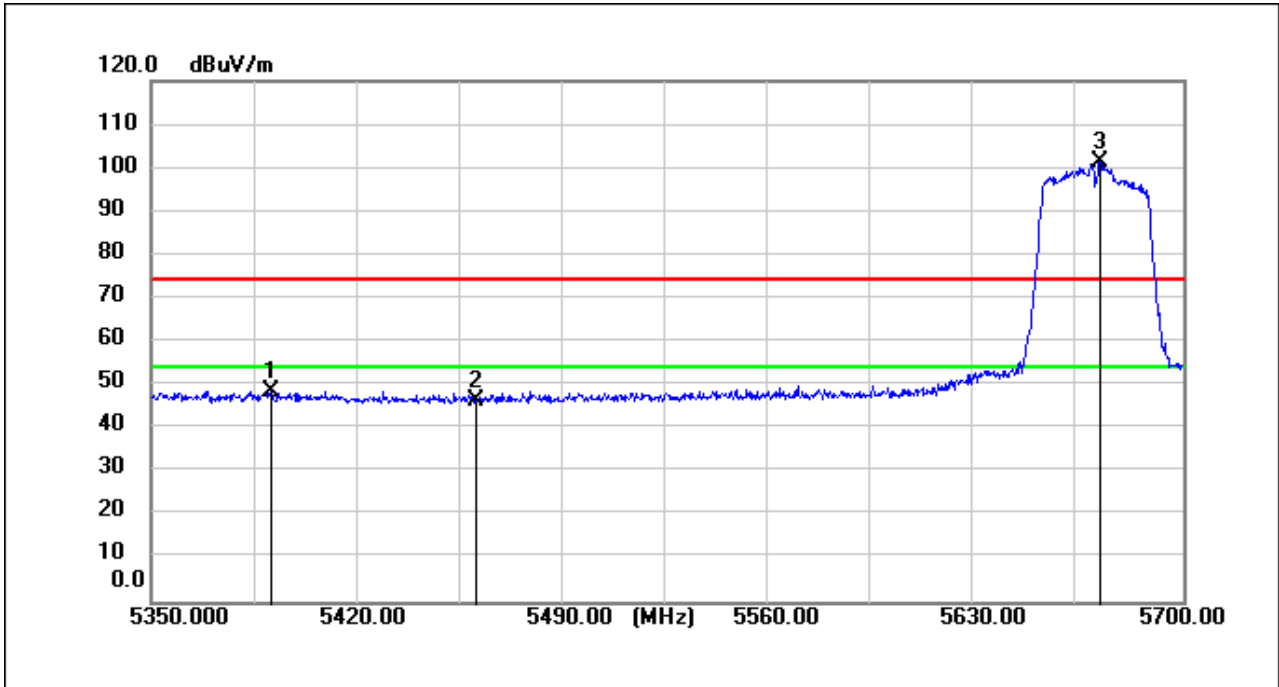
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5445.380	42.41	6.68	49.09	74.00	-24.91	peak
2	5460.000	41.63	6.68	48.31	74.00	-25.69	peak
3	5508.080	95.10	6.68	101.78	74.00	27.78	peak

11ac(VHT40)_TX_CH_102_Vertical_Peak



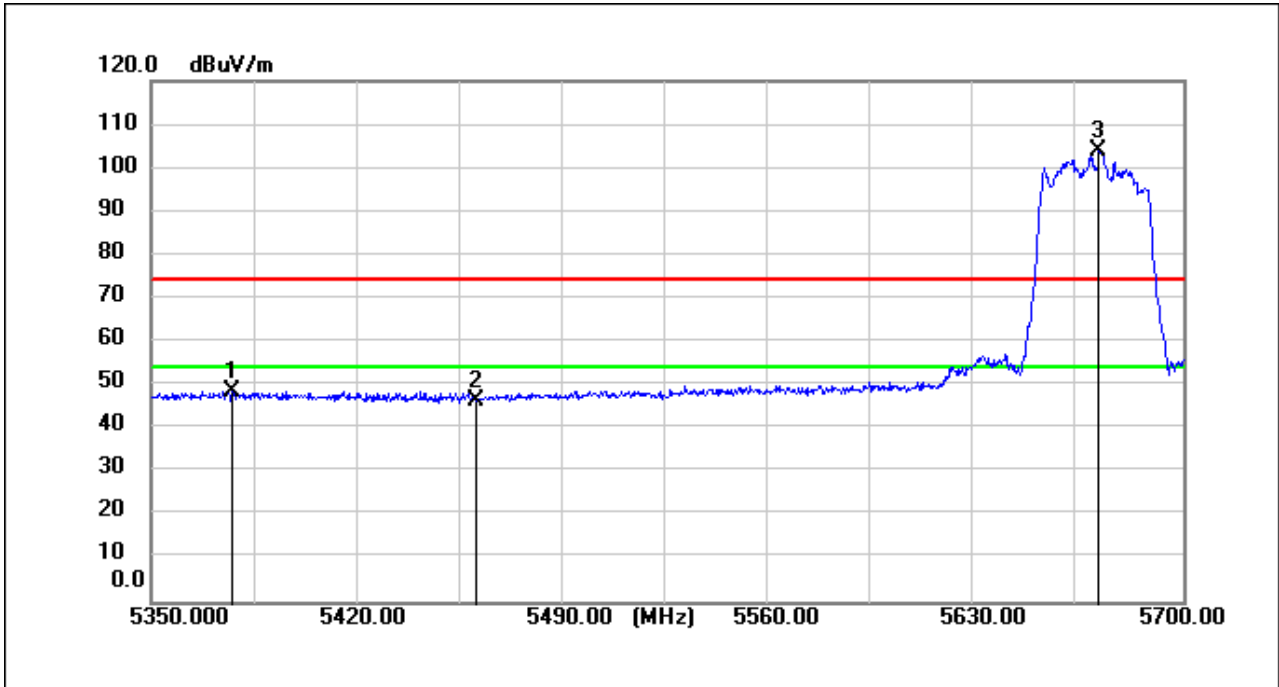
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5447.660	43.69	6.68	50.37	74.00	-23.63	peak
2	5460.000	42.48	6.68	49.16	74.00	-24.84	peak
3	5511.690	95.96	6.68	102.64	74.00	28.64	peak

11ac(VHT40)_TX_CH_134_Horizontal_Peak



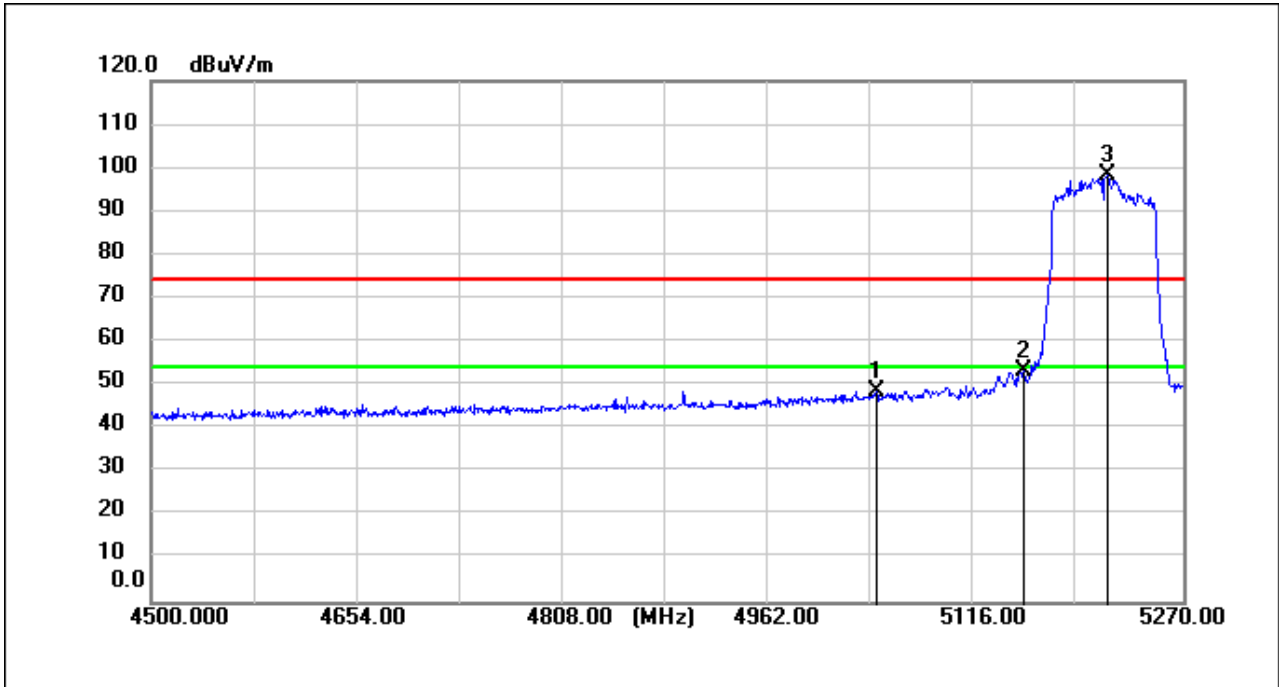
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5390.950	42.06	6.69	48.75	74.00	-25.25	peak
2	5460.000	39.61	6.68	46.29	74.00	-27.71	peak
3	5672.000	94.41	6.92	101.33	74.00	27.33	peak

11ac(VHT40)_TX_CH_134_Vertical_Peak



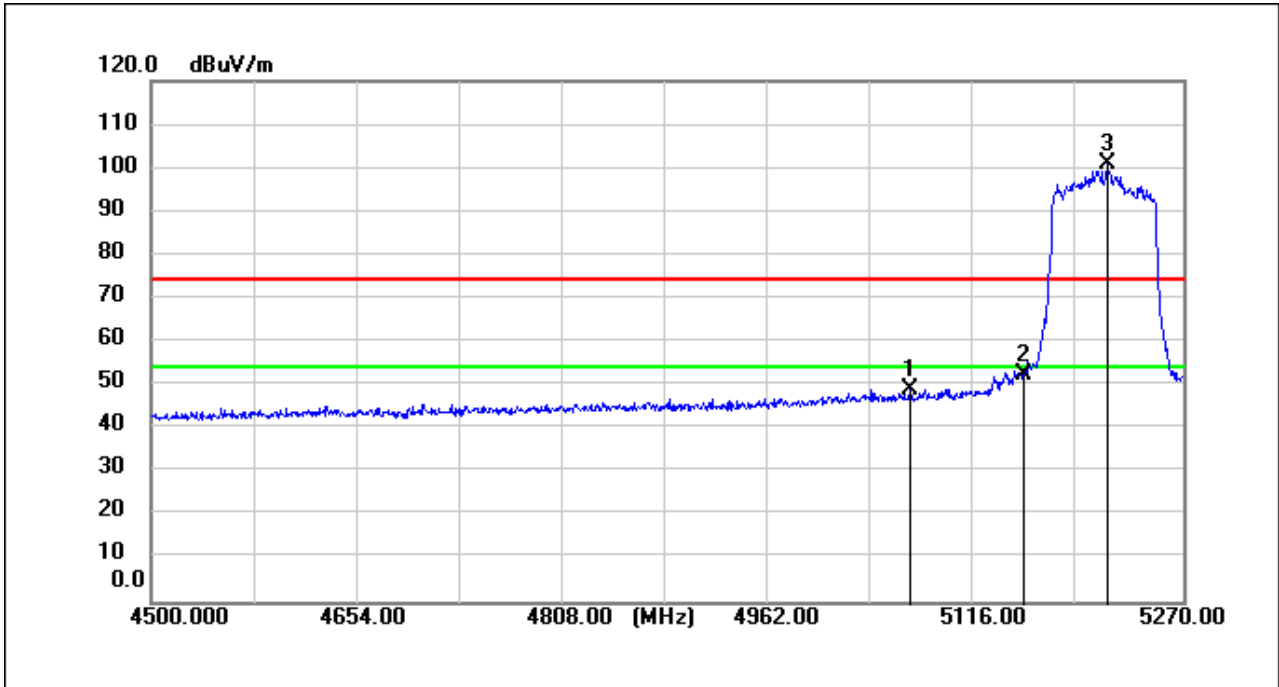
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5377.650	42.01	6.70	48.71	74.00	-25.29	peak
2	5460.000	39.89	6.68	46.57	74.00	-27.43	peak
3	5671.300	97.10	6.92	104.02	74.00	30.02	peak

11ac(VHT80)_TX_CH_42_Horizontal_Peak



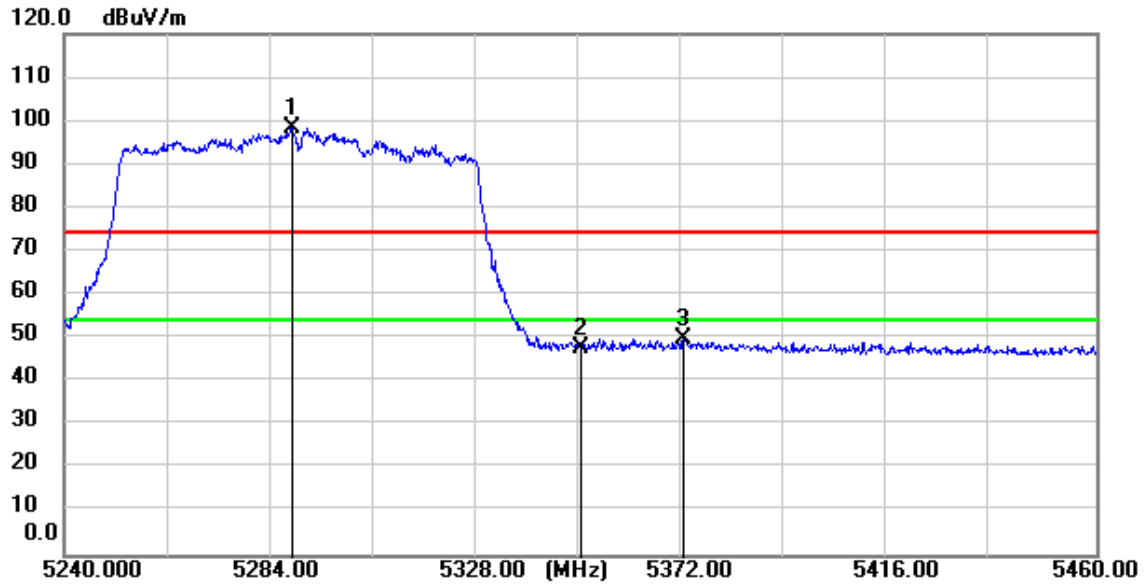
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5041.310	41.83	6.77	48.60	74.00	-25.40	peak
2	5150.000	46.64	6.75	53.39	74.00	-20.61	peak
3	5213.790	91.69	6.73	98.42	74.00	24.42	peak

11ac(VHT80)_TX_CH_42_Vertical_Peak



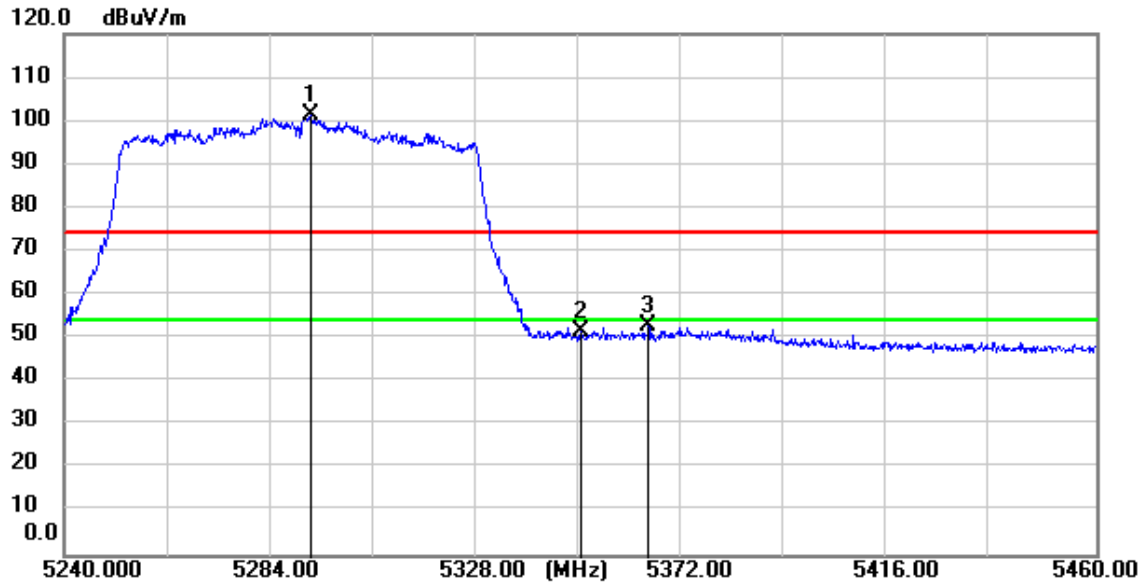
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5065.950	42.39	6.75	49.14	74.00	-24.86	peak
2	5150.000	45.71	6.75	52.46	74.00	-21.54	peak
3	5213.020	94.00	6.72	100.72	74.00	26.72	peak

11ac(VHT80)_TX_CH_58_Horizontal_Peak



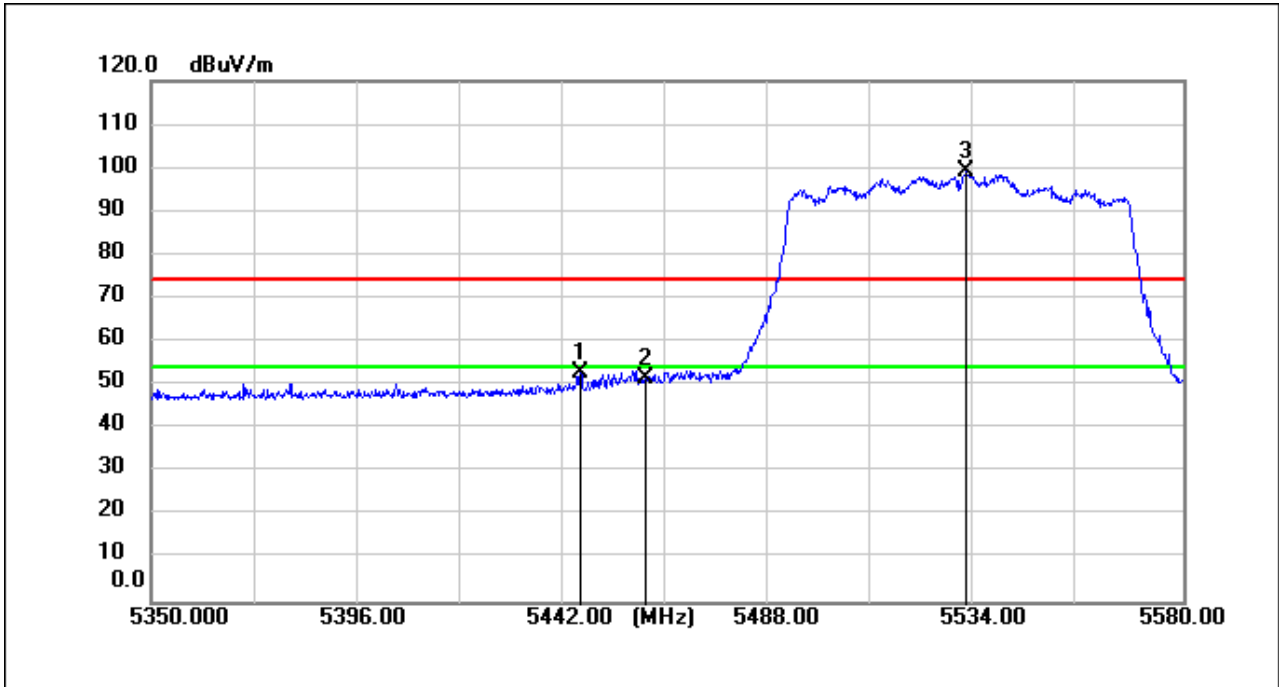
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5288.620	91.74	6.71	98.45	74.00	24.45	peak
2	5350.000	41.21	6.69	47.90	74.00	-26.10	peak
3	5372.220	43.17	6.70	49.87	74.00	-24.13	peak

11ac(VHT80)_TX_CH_58_Vertical_Peak



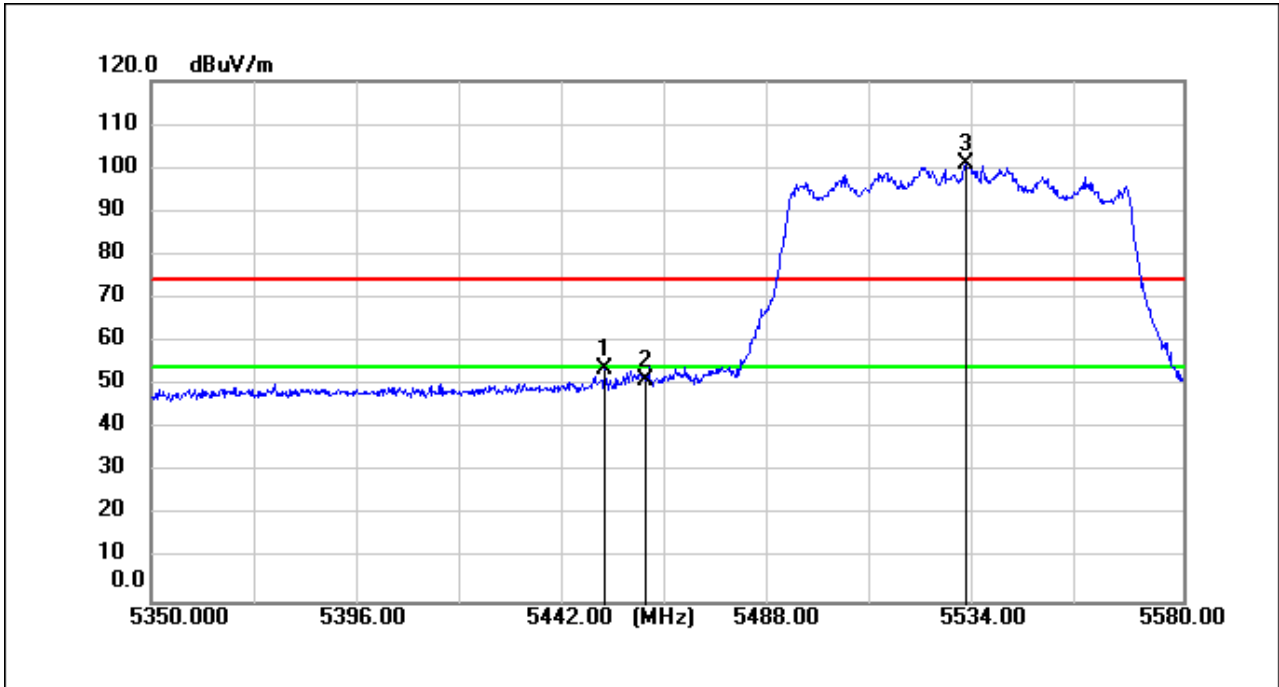
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5292.580	94.47	6.71	101.18	74.00	27.18	peak
2	5350.000	44.85	6.69	51.54	74.00	-22.46	peak
3	5364.520	46.07	6.70	52.77	74.00	-21.23	peak

11ac(VHT80)_TX_CH_106_Horizontal_Peak



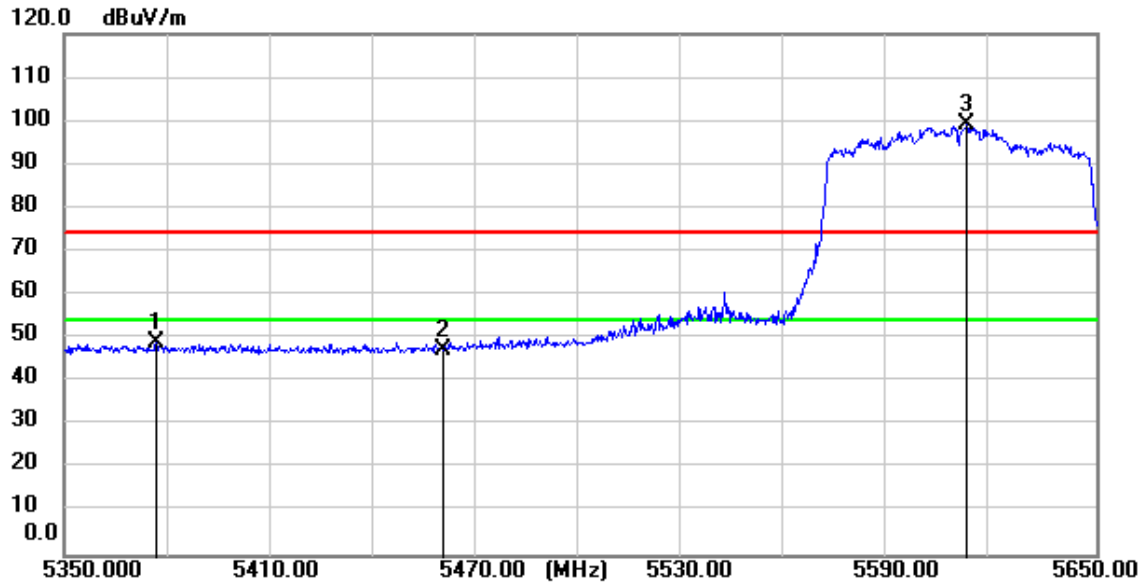
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5445.680	46.36	6.68	53.04	74.00	-20.96	peak
2	5460.000	45.11	6.68	51.79	74.00	-22.21	peak
3	5531.700	92.51	6.72	99.23	74.00	25.23	peak

11ac(VHT80)_TX_CH_106_Vertical_Peak

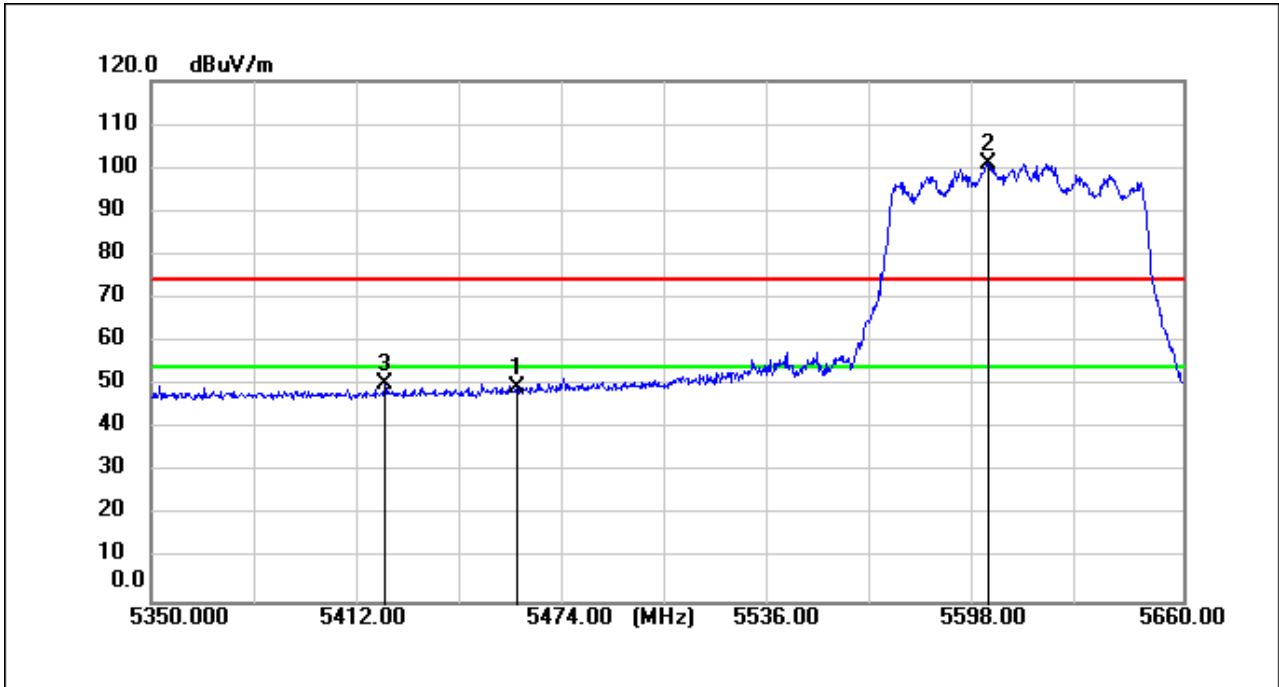


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5451.200	46.97	6.68	53.65	74.00	-20.35	peak
2	5460.000	44.61	6.68	51.29	74.00	-22.71	peak
3	5531.470	94.16	6.72	100.88	74.00	26.88	peak

11ac(VHT80)_TX_CH_122_Horizontal_Peak

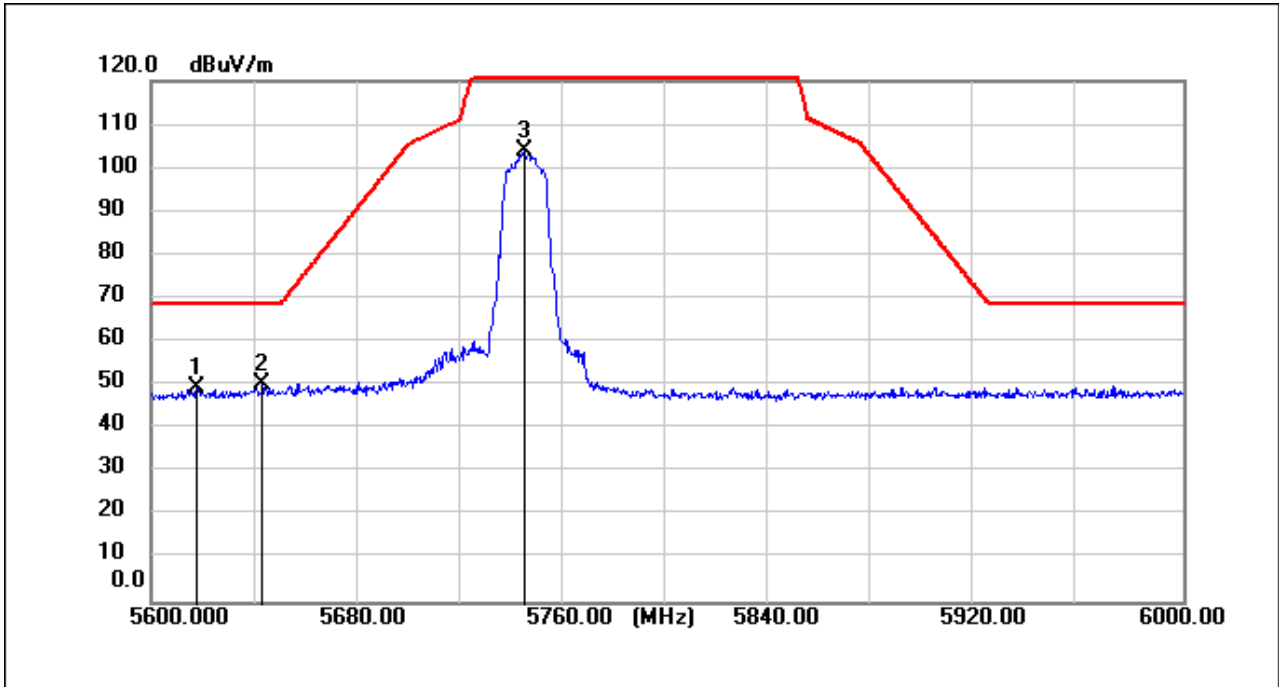


11ac(VHT80)_TX_CH_122_Vertical_Peak



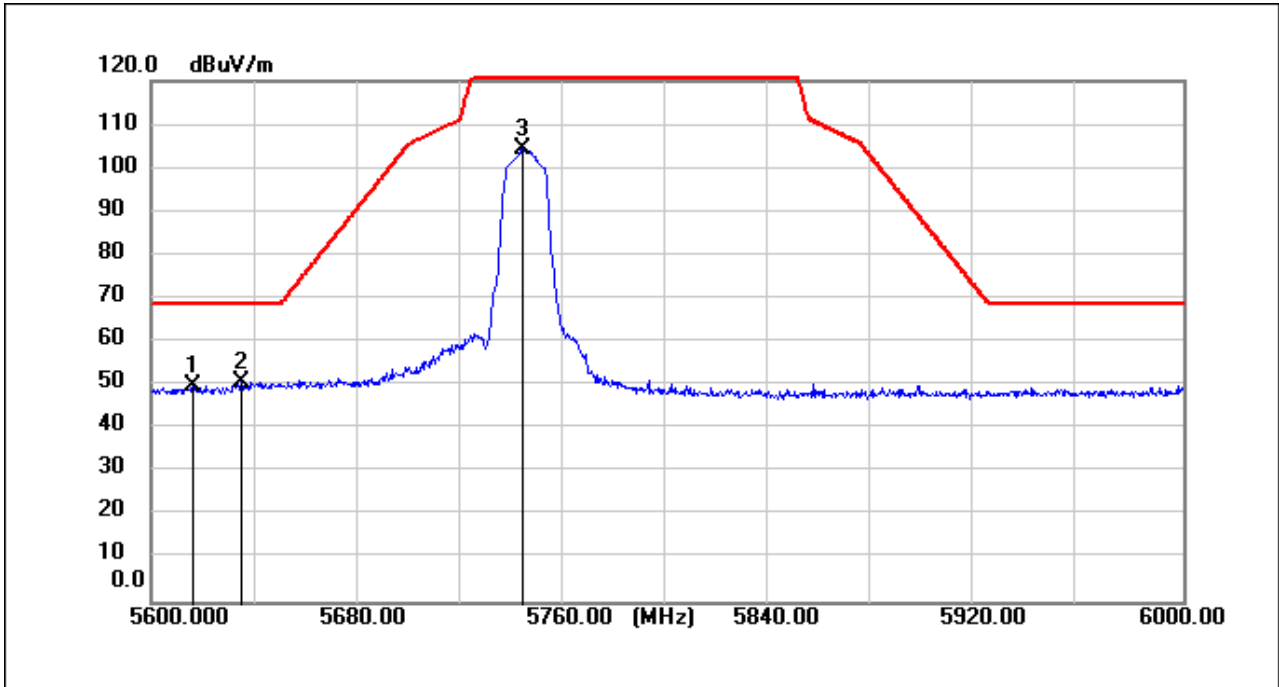
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5460.000	43.01	6.68	49.69	74.00	-24.31	peak
2	5601.720	94.22	6.82	101.04	74.00	27.04	peak
3	5420.370	43.56	6.68	50.24	74.00	-23.76	peak

11a_TX_CH_149_Horizontal_Peak



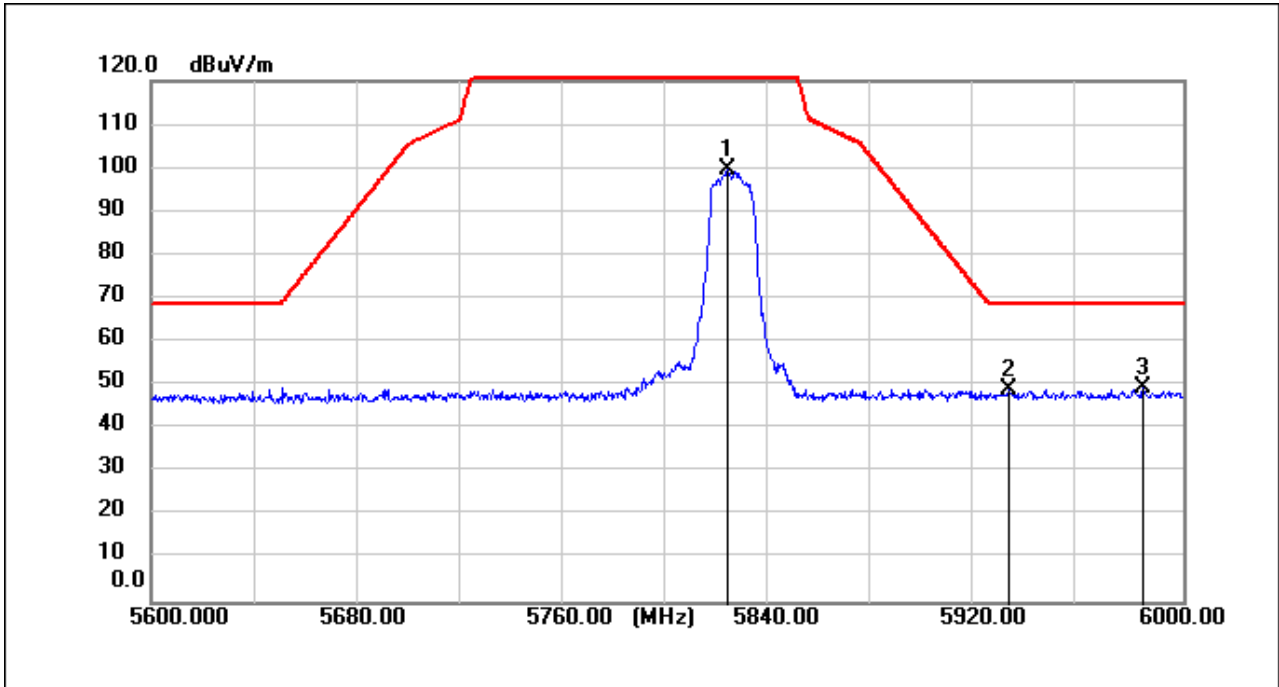
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5618.000	42.58	6.84	49.42	68.20	-18.78	peak
2	5643.200	43.52	6.87	50.39	68.20	-17.81	peak
3	5744.800	96.81	7.02	103.83	135.00	-31.17	peak

11a_TX_CH_149_Vertical_Peak



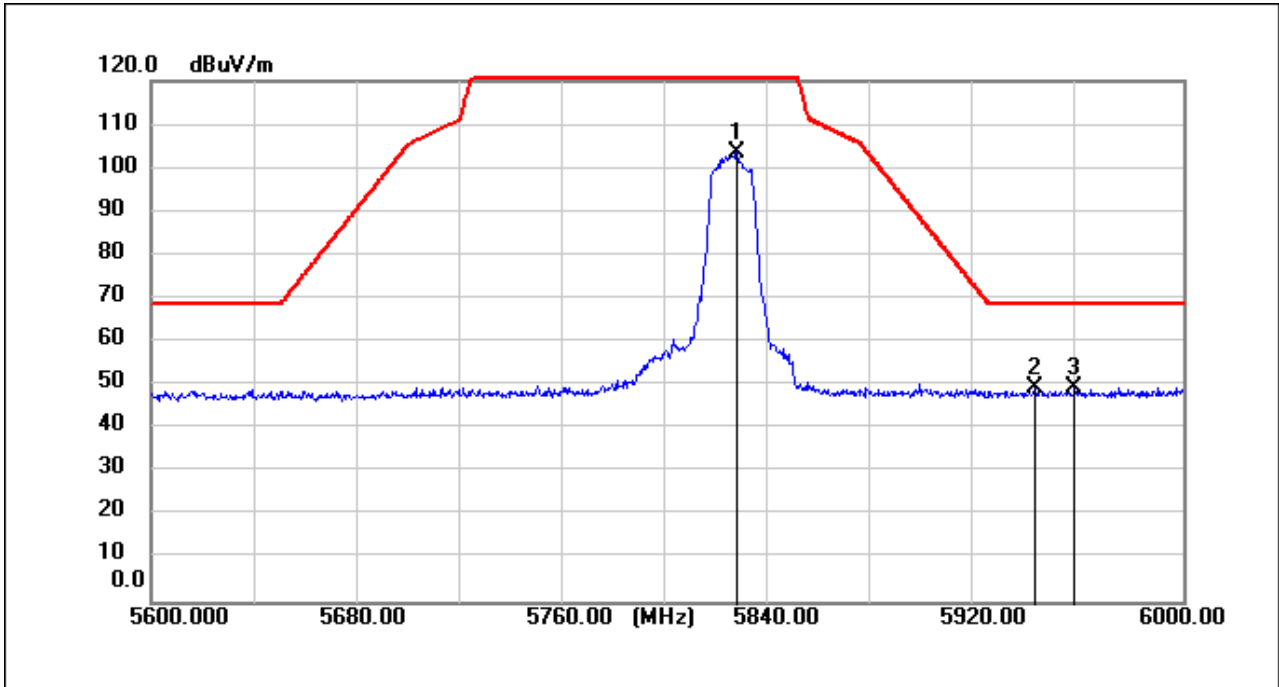
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5616.000	43.06	6.84	49.90	68.20	-18.30	peak
2	5634.800	44.08	6.86	50.94	68.20	-17.26	peak
3	5744.400	97.21	7.01	104.22	135.00	-30.78	peak

11a_TX_CH_165_Horizontal_Peak



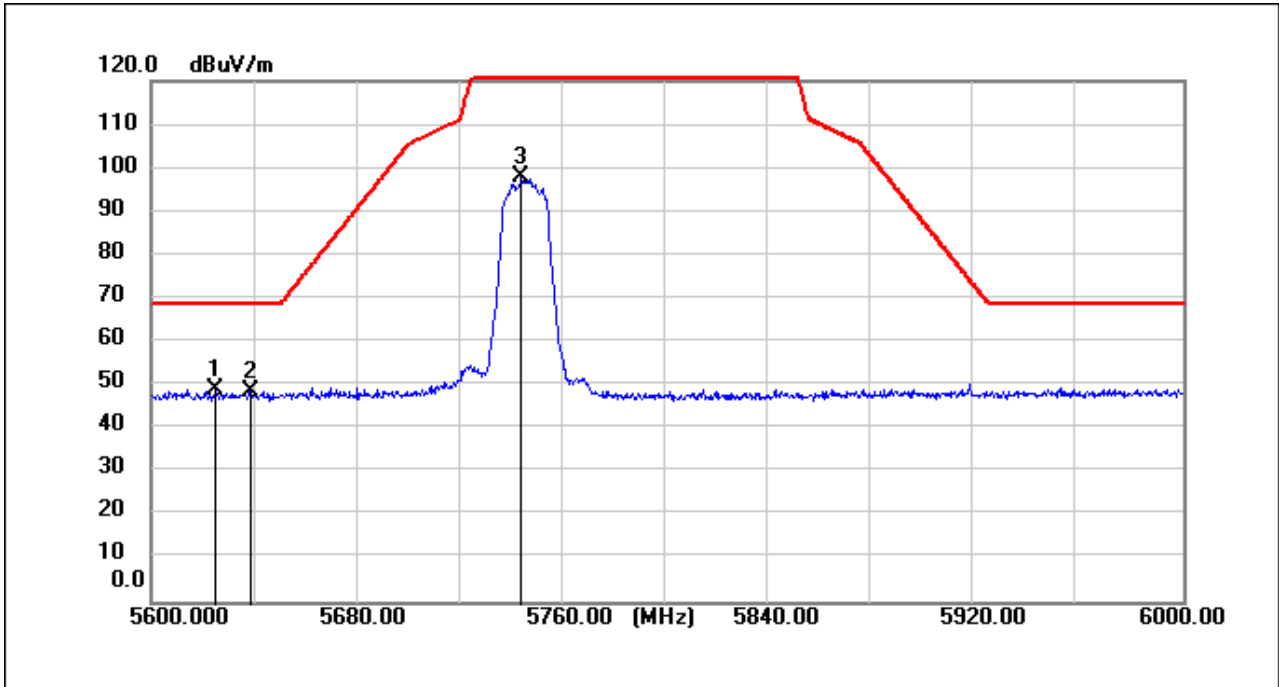
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5823.200	92.43	7.13	99.56	135.00	-35.44	peak
2	5932.400	41.87	7.29	49.16	68.20	-19.04	peak
3	5984.400	41.95	7.36	49.31	68.20	-18.89	peak

11a_TX_CH_165_Vertical_Peak



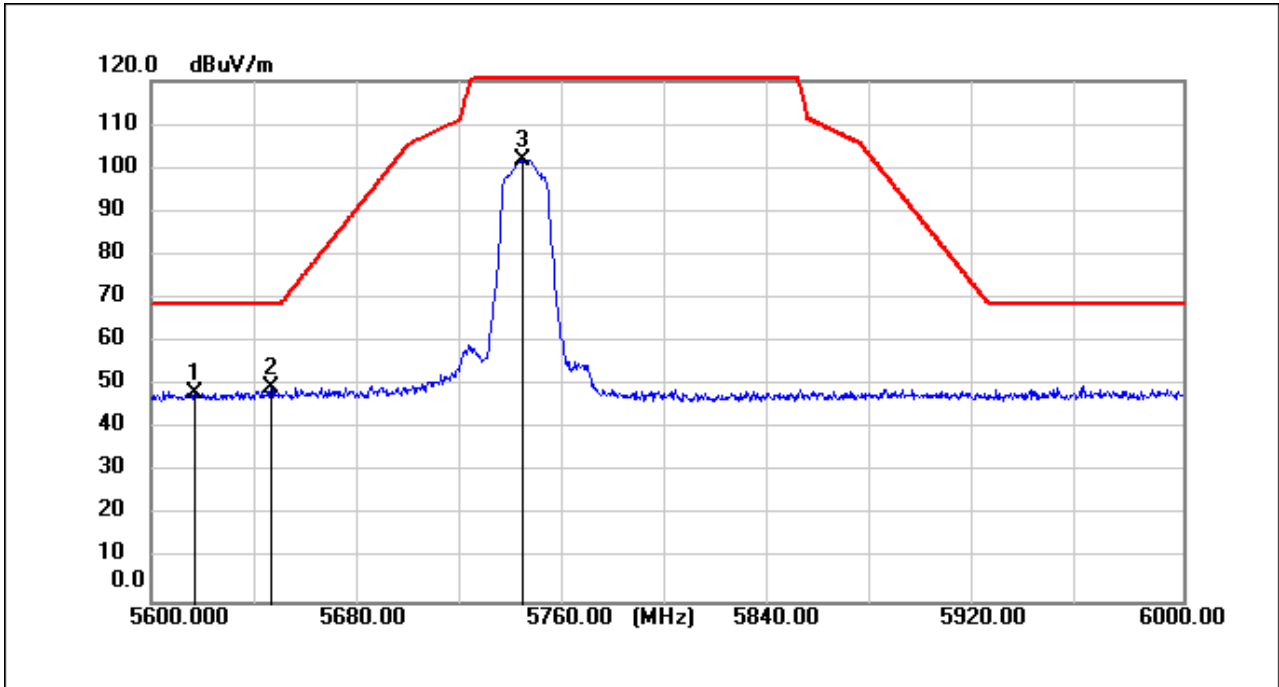
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5826.800	96.47	7.14	103.61	135.00	-31.39	peak
2	5942.400	42.17	7.29	49.46	68.20	-18.74	peak
3	5958.000	42.12	7.32	49.44	68.20	-18.76	peak

11ac(VHT20)_TX_CH_149_Horizontal_Peak



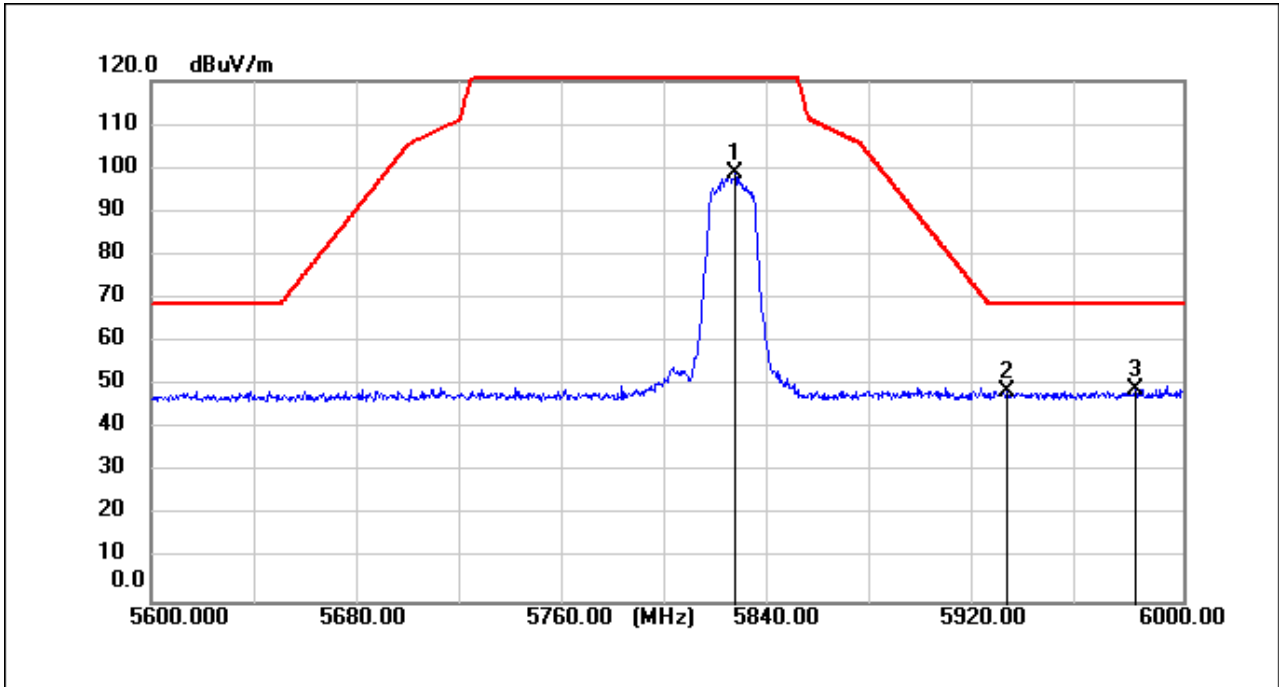
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5625.200	42.04	6.85	48.89	68.20	-19.31	peak
2	5638.800	41.79	6.87	48.66	68.20	-19.54	peak
3	5743.600	91.10	7.01	98.11	135.00	-36.89	peak

11ac(VHT20)_TX_CH_149_Vertical_Peak



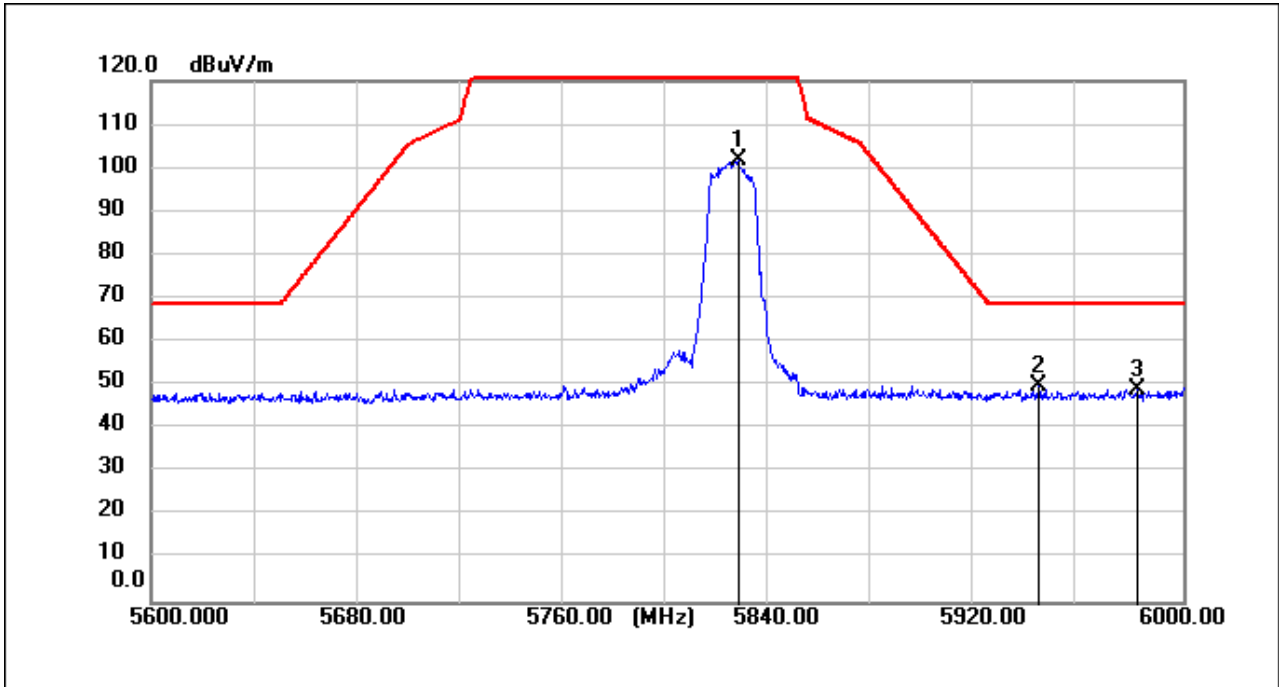
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5616.800	41.49	6.84	48.33	68.20	-19.87	peak
2	5646.400	42.70	6.88	49.58	68.20	-18.62	peak
3	5744.000	94.98	7.01	101.99	135.00	-33.01	peak

11ac(VHT20)_TX_CH_165_Horizontal_Peak



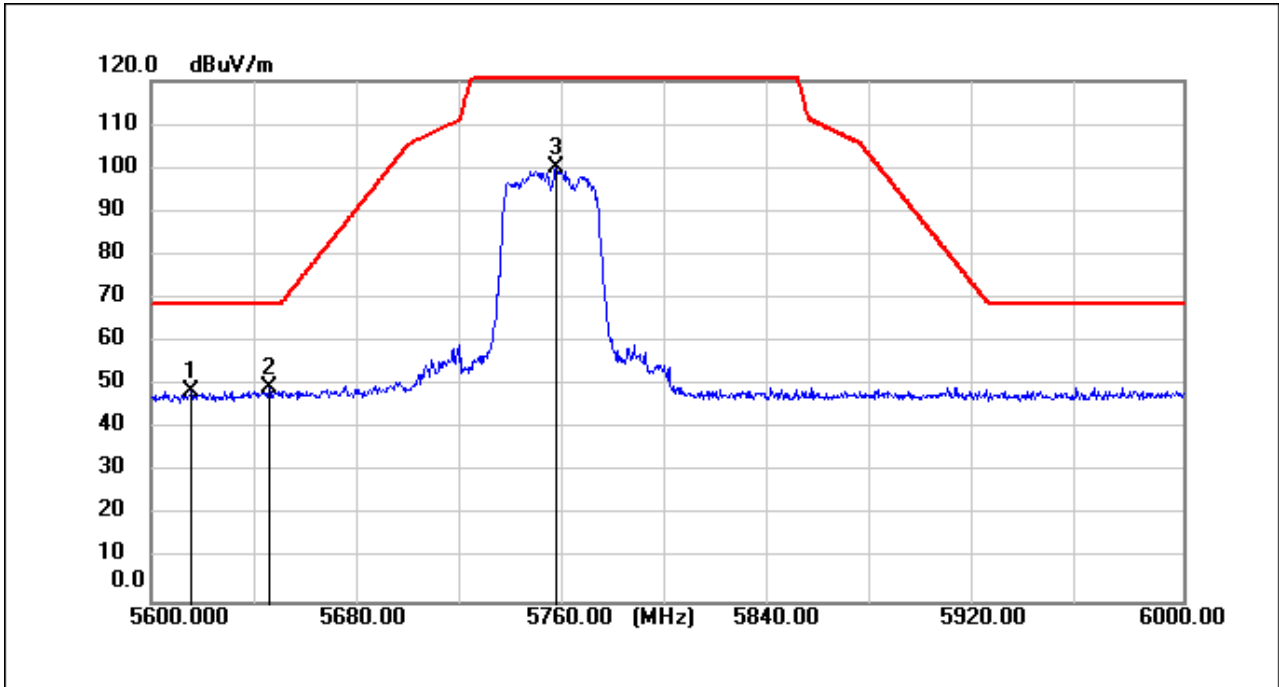
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5826.400	91.46	7.14	98.60	135.00	-36.40	peak
2	5932.000	41.44	7.29	48.73	68.20	-19.47	peak
3	5981.600	41.82	7.35	49.17	68.20	-19.03	peak

11ac(VHT20)_TX_CH_165_Vertical_Peak



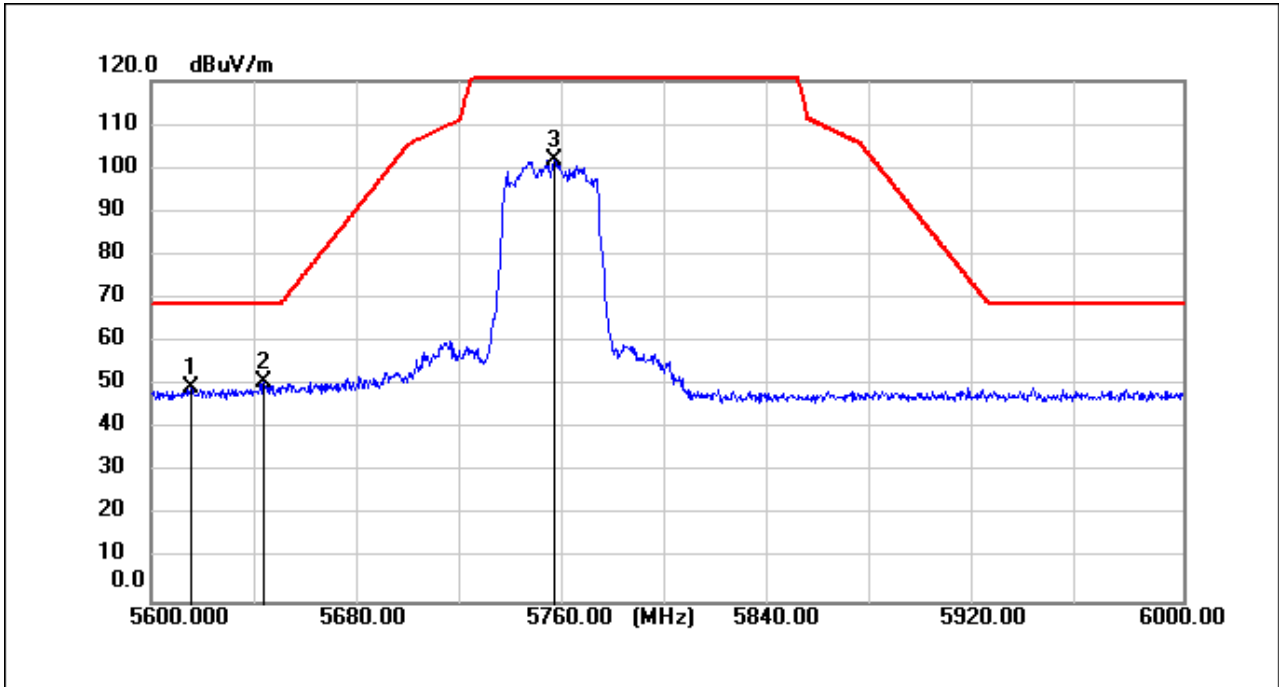
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5827.600	94.55	7.13	101.68	135.00	-33.32	peak
2	5944.400	42.45	7.30	49.75	68.20	-18.45	peak
3	5982.000	41.61	7.35	48.96	68.20	-19.24	peak

11ac(VHT40)_TX_CH_151_Horizontal_Peak



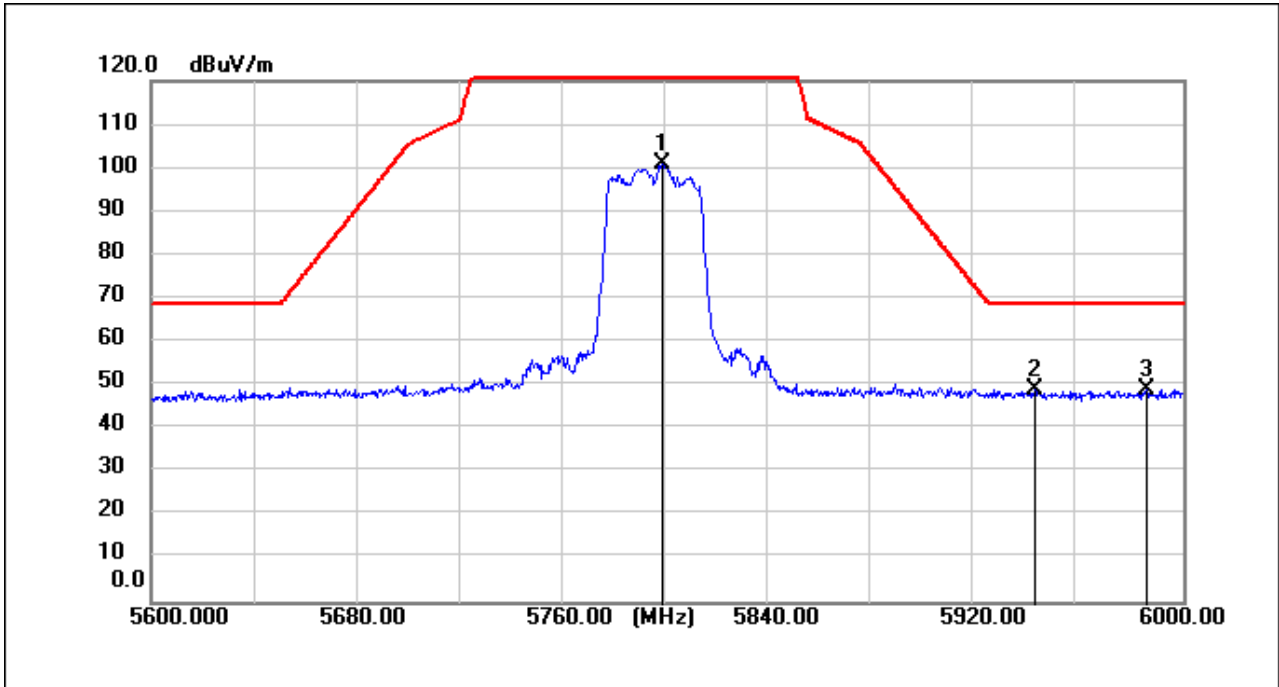
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5615.600	41.76	6.83	48.59	68.20	-19.61	peak
2	5646.000	42.70	6.88	49.58	68.20	-18.62	peak
3	5756.800	93.14	7.04	100.18	135.00	-34.82	peak

11ac(VHT40)_TX_CH_151_Vertical_Peak



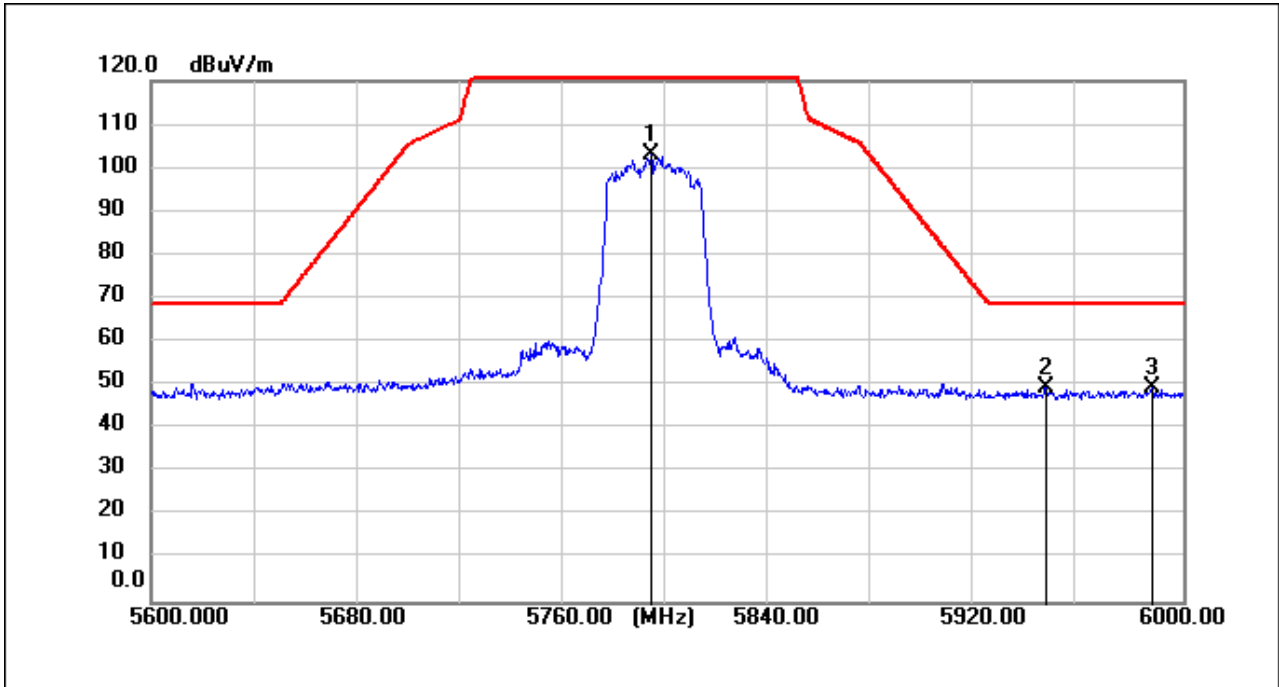
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5615.200	42.63	6.83	49.46	68.20	-18.74	peak
2	5644.000	43.89	6.87	50.76	68.20	-17.44	peak
3	5756.400	94.95	7.04	101.99	135.00	-33.01	peak

11ac(VHT40)_TX_CH_159_Horizontal_Peak



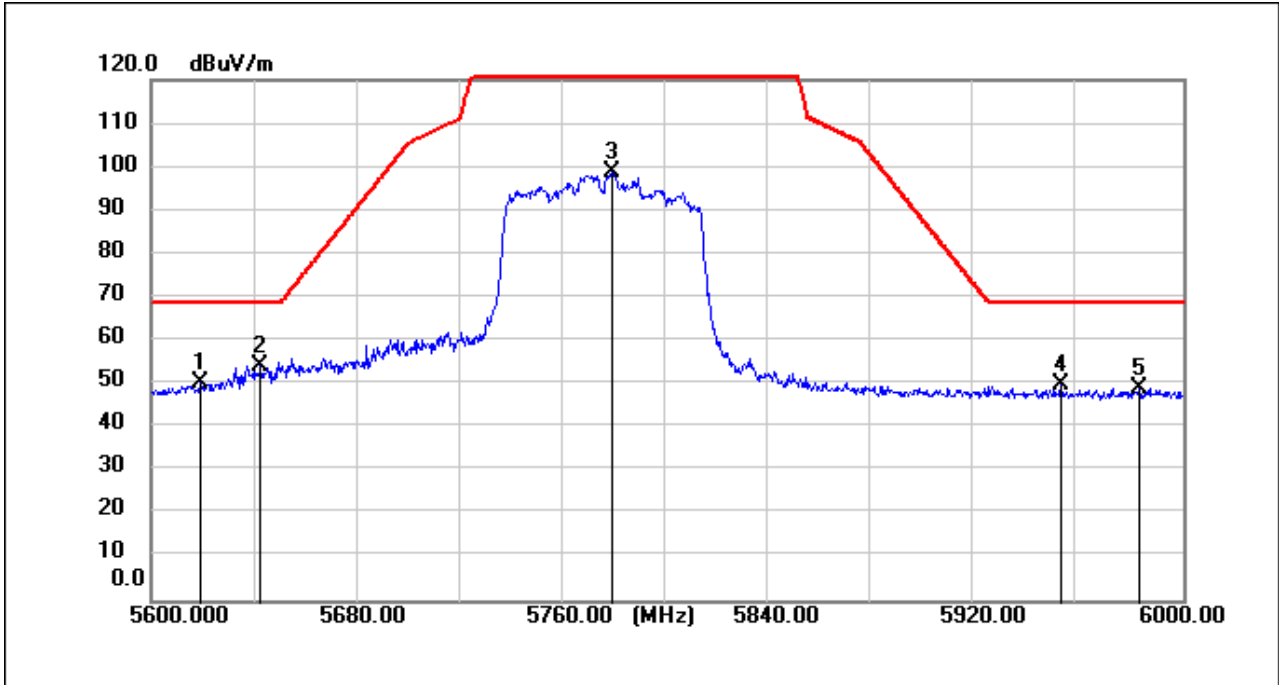
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5798.000	93.78	7.09	100.87	135.00	-34.13	peak
2	5942.800	41.91	7.29	49.20	68.20	-19.00	peak
3	5985.600	41.68	7.36	49.04	68.20	-19.16	peak

11ac(VHT40)_TX_CH_159_Vertical_Peak



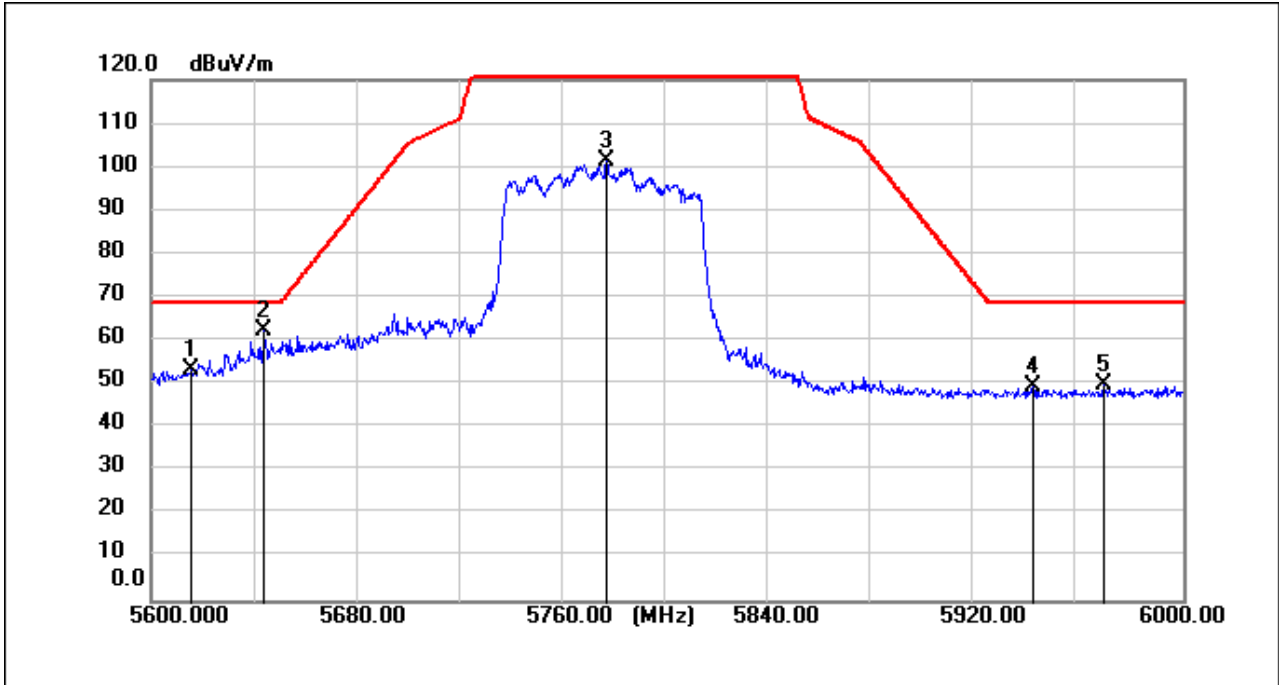
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5794.000	96.13	7.09	103.22	135.00	-31.78	peak
2	5946.800	42.25	7.31	49.56	68.20	-18.64	peak
3	5988.400	41.97	7.37	49.34	68.20	-18.86	peak

11ac(VHT80)_TX_CH_155_Horizontal_Peak



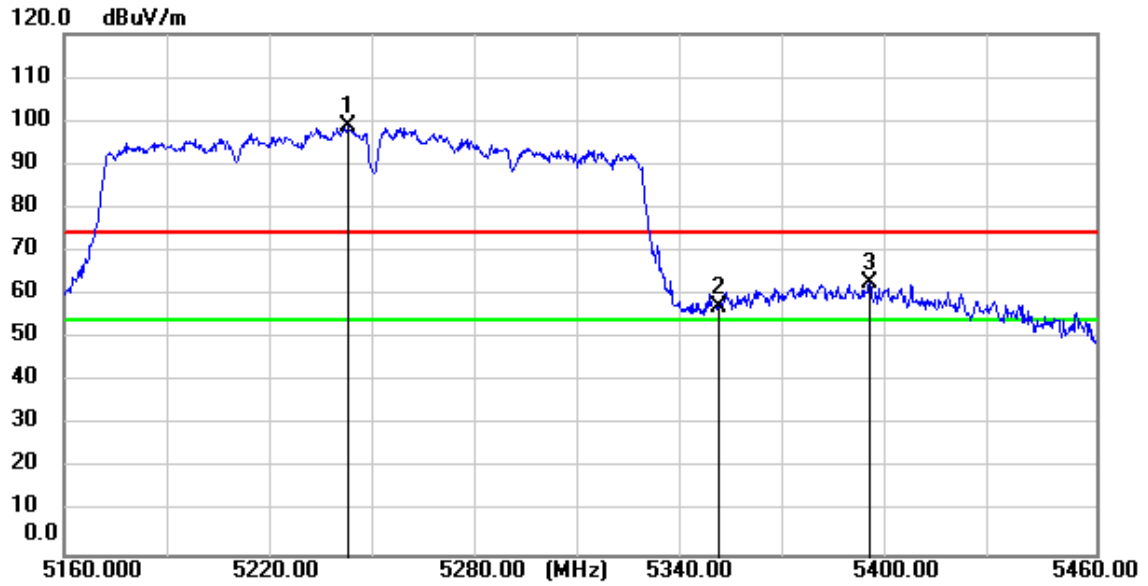
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5618.800	43.38	6.84	50.22	68.20	-17.98	peak
2	5642.400	47.36	6.87	54.23	68.20	-13.97	peak
3	5778.400	91.79	7.07	98.86	135.00	-36.14	peak
4	5952.400	42.46	7.31	49.77	68.20	-18.43	peak
5	5982.800	41.91	7.35	49.26	68.20	-18.94	peak

11ac(VHT80)_TX_CH_155_Veritical_Peak



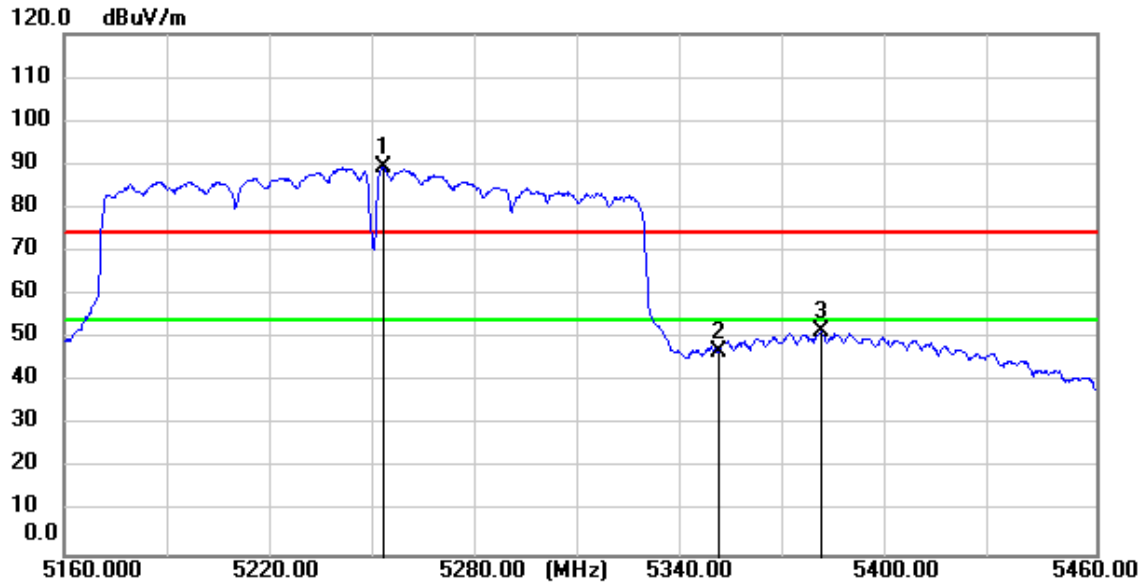
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5615.600	46.35	6.83	53.18	68.20	-15.02	peak
2	5644.000	55.35	6.87	62.22	68.20	-5.98	peak
3	5776.400	94.11	7.06	101.17	135.00	-33.83	peak
4	5942.000	42.28	7.30	49.58	68.20	-18.62	peak
5	5969.200	42.50	7.34	49.84	68.20	-18.36	peak

11ac(VHT160)_TX_CH_50_Horizontal_Peak



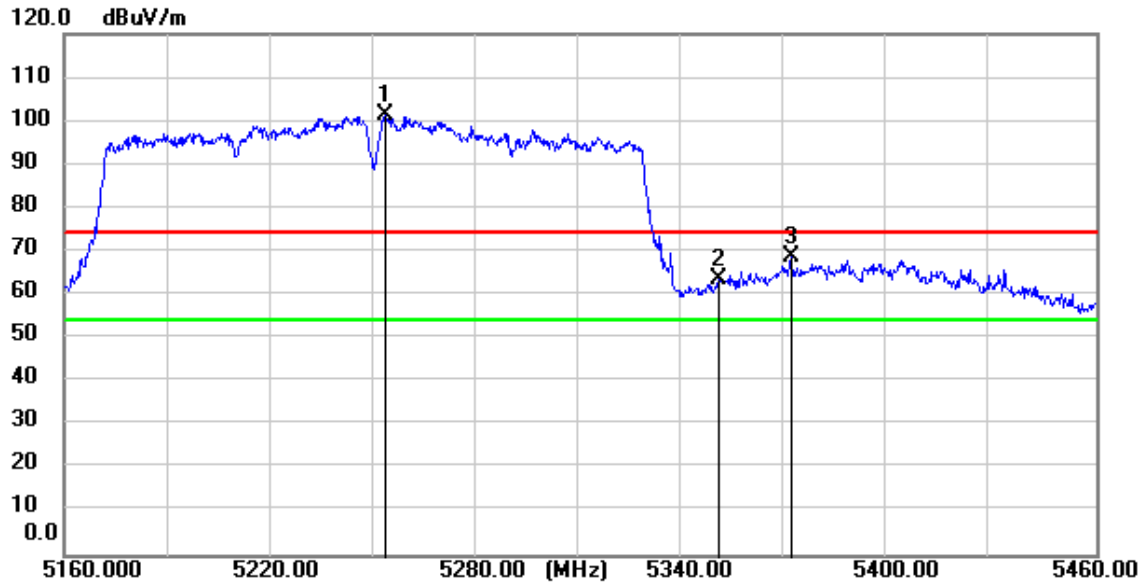
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5242.800	91.93	6.72	98.65	74.00	24.65	peak
2	5350.000	50.68	6.69	57.37	74.00	-16.63	peak
3	5394.000	56.09	6.69	62.78	74.00	-11.22	peak

11ac(VHT160)_TX_CH_50_Horizontal_Average

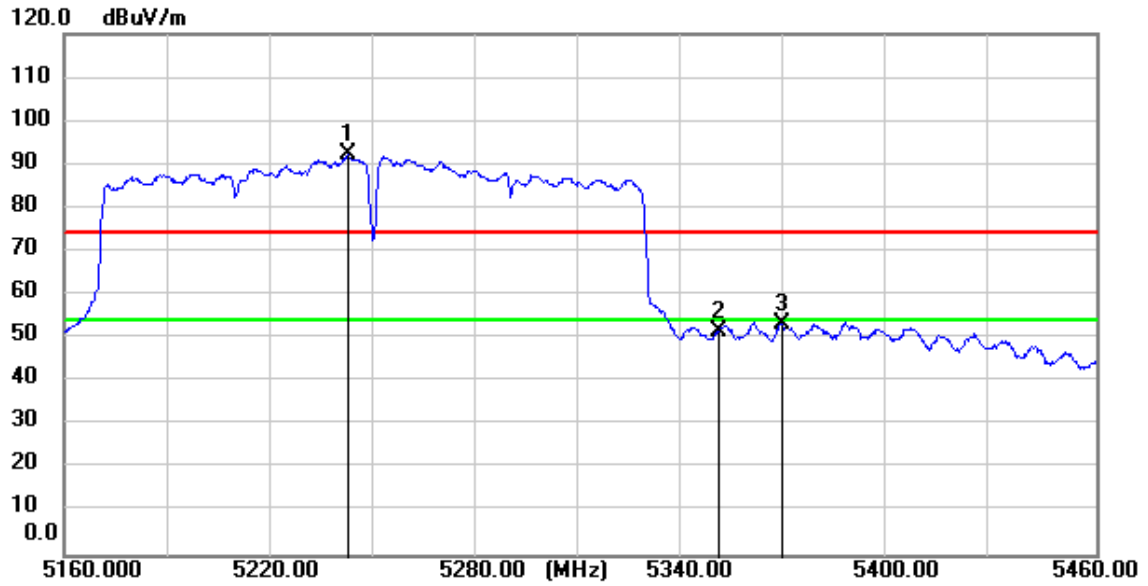


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5252.700	82.65	6.72	89.37	54.00	35.37	AVG
2	5350.000	40.33	6.69	47.02	54.00	-6.98	AVG
3	5379.900	44.91	6.70	51.61	54.00	-2.39	AVG

11ac(VHT160)_TX_CH_50_Vertical_Peak

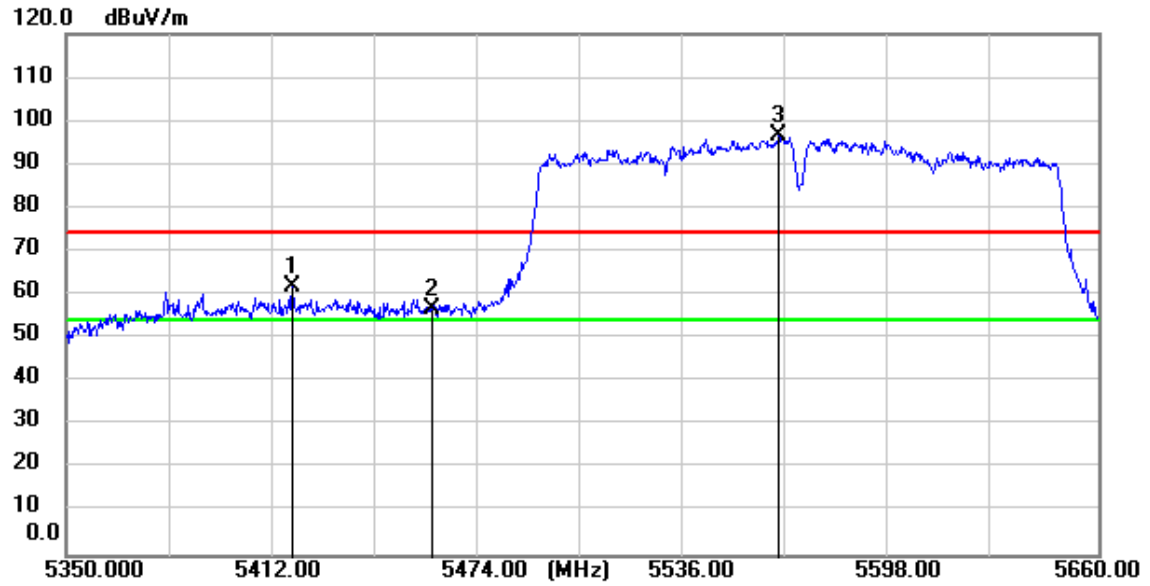


11ac(VHT160)_TX_CH_50_Vertical_Average



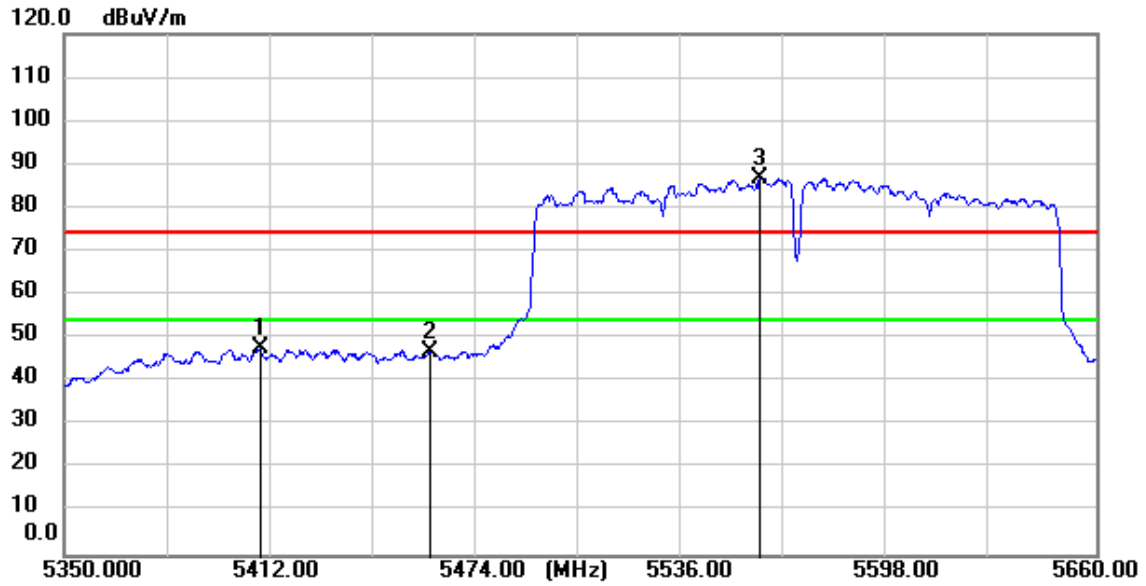
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5242.800	85.43	6.72	92.15	54.00	38.15	AVG
2	5350.000	44.97	6.69	51.66	54.00	-2.34	AVG
3	5368.500	46.86	6.70	53.56	54.00	-0.44	AVG

11ac(VHT160)_TX_CH_114_Horizontal_Peak



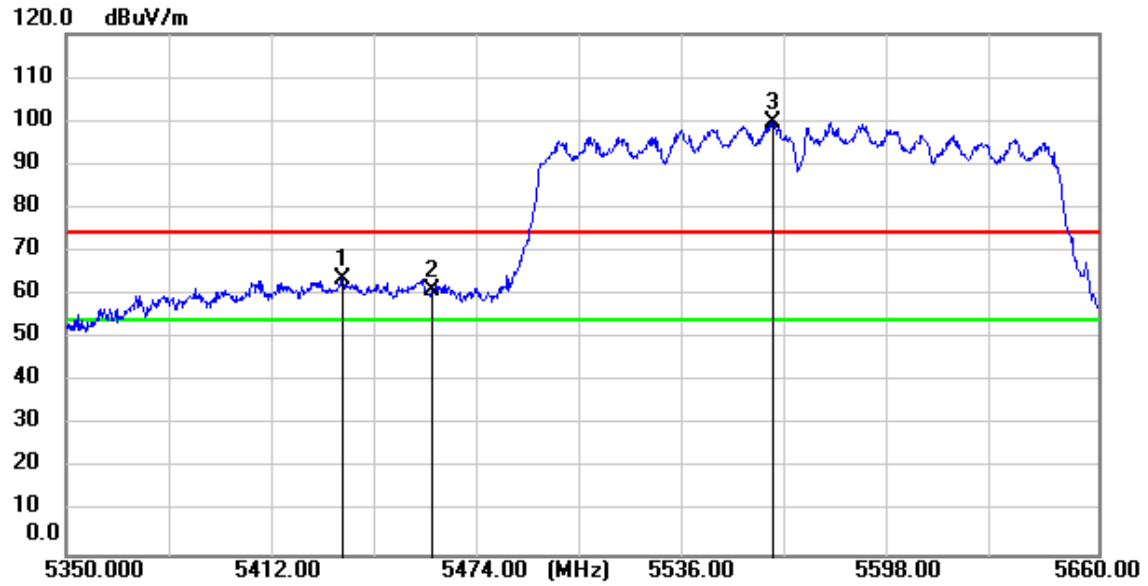
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5417.890	55.08	6.69	61.77	74.00	-12.23	peak
2	5460.000	50.09	6.68	56.77	74.00	-17.23	peak
3	5564.210	89.78	6.76	96.54	74.00	22.54	peak

11ac(VHT160)_TX_CH_114_Horizontal_Average



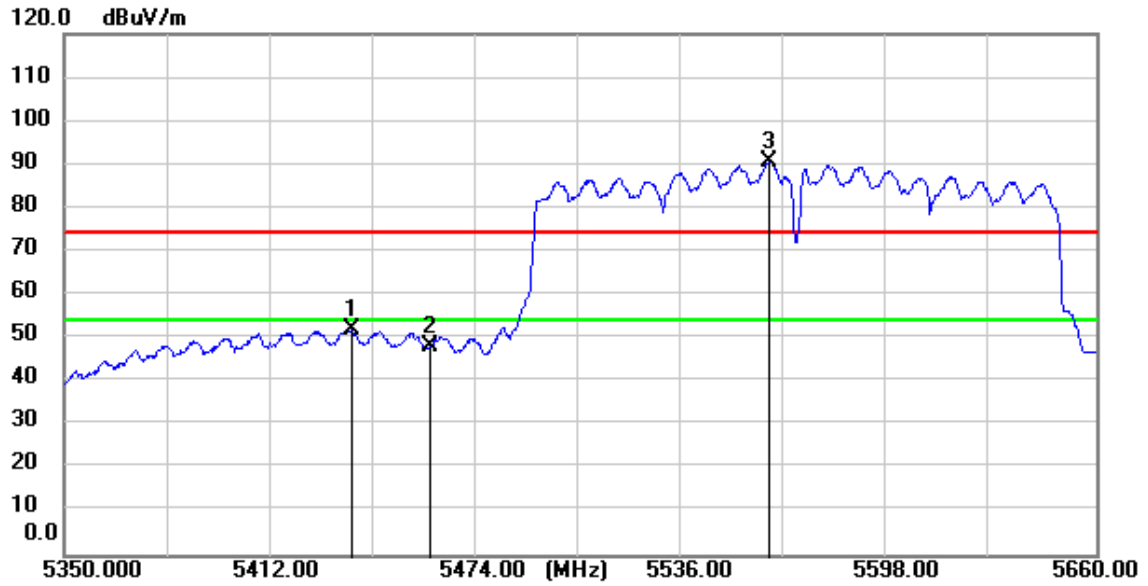
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5408.900	40.92	6.69	47.61	54.00	-6.39	AVG
2	5460.000	40.17	6.68	46.85	54.00	-7.15	AVG
3	5559.250	80.25	6.75	87.00	54.00	33.00	AVG

11ac(VHT160)_TX_CH_114_Vertical_Peak



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5433.080	56.80	6.69	63.49	74.00	-10.51	peak
2	5460.000	54.19	6.68	60.87	74.00	-13.13	peak
3	5562.350	93.00	6.76	99.76	74.00	25.76	peak

11ac(VHT160)_TX_CH_114_Vertical_Average



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5436.180	45.44	6.68	52.12	54.00	-1.88	AVG
2	5460.000	41.34	6.68	48.02	54.00	-5.98	AVG
3	5562.040	84.05	6.76	90.81	54.00	36.81	AVG

7.5 Duty Cycle

Test Requirement ANSI C63.10 (2020) Section 12.2

Test Method: ANSI C63.10 (2020) Section 12.2

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C

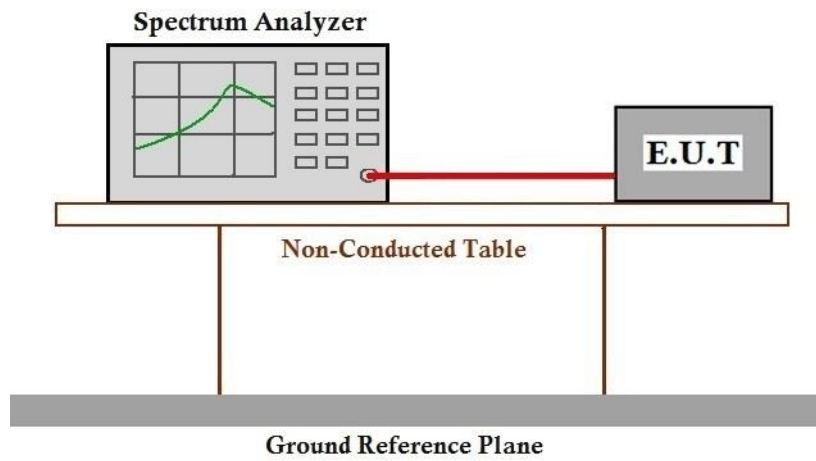
Humidity: 47.5 % RH

Atmospheric Pressure: 1010 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.6 99% Bandwidth

Test Requirement ANSI C63.10 (2020) Section 12.4.2

Test Method: ANSI C63.10 (2020) Section 12.5.3

7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C

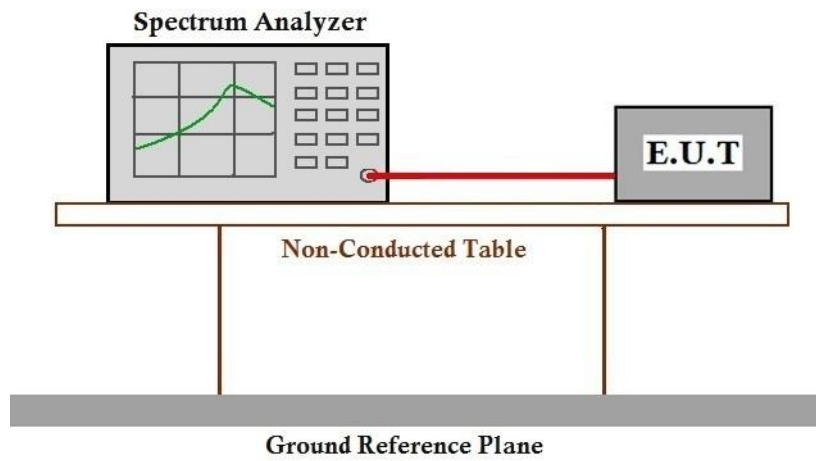
Humidity: 47.5 % RH

Atmospheric Pressure: 1010 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, 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 26dB Emission bandwidth

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: ANSI C63.10 (2020) Section 12.5.2

7.7.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C

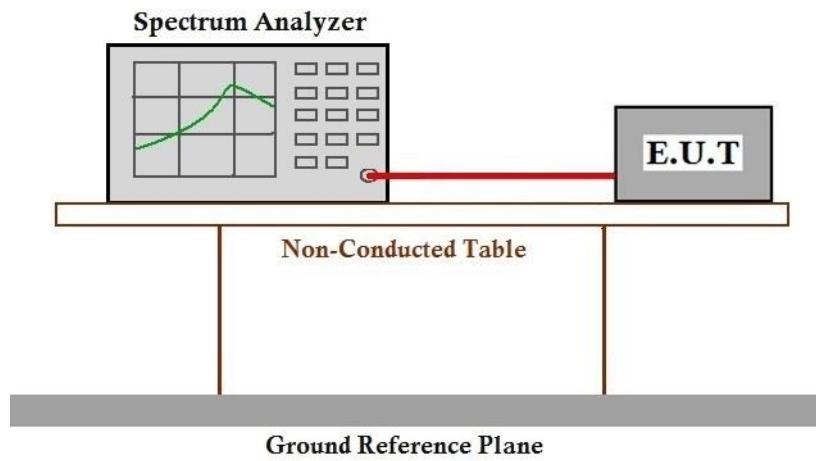
Humidity: 47.5 % RH

Atmospheric Pressure: 1010 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, 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 Minimum 6 dB bandwidth (5.725-5.85 GHz band)

Test Requirement 47 CFR Part 15, Subpart E 15.407 (e)

Test Method: ANSI C63.10 (2020) Section 12.5.1

Limit:

Frequency band(MHz)	Limit
5725-5850	≥500 kHz

7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C

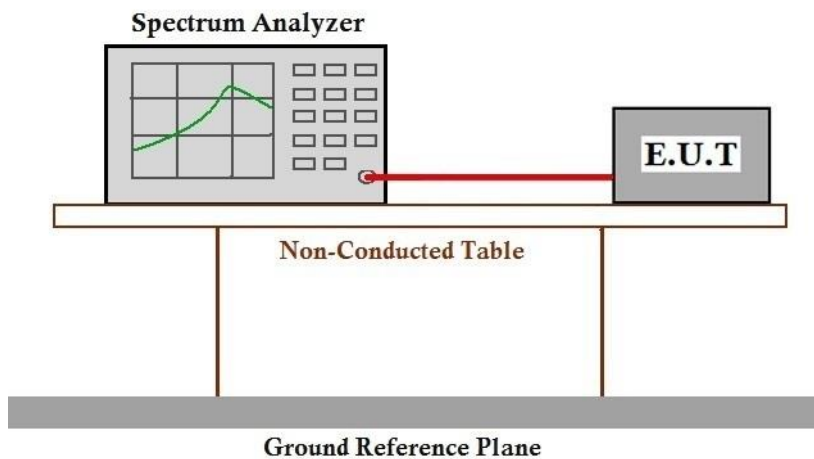
Humidity: 47.5 % RH

Atmospheric Pressure: 1010 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-3) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, 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 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: ANSI C63.10 (2020) Section 12.4

Limit:

Frequency band(MHz)	Limit
5150-5250	≤1W(30dBm) for master device
	≤250mW(24dBm) for client device
5250-5350	≤250mW(24dBm) or 11dBm+10logB*
5470-5725	≤250mW(24dBm) or 11dBm+10logB*
5725-5850	≤1W(30dBm)
Remark:	* Where B is the 26dB emission bandwidth in MHz. The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

7.9.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C

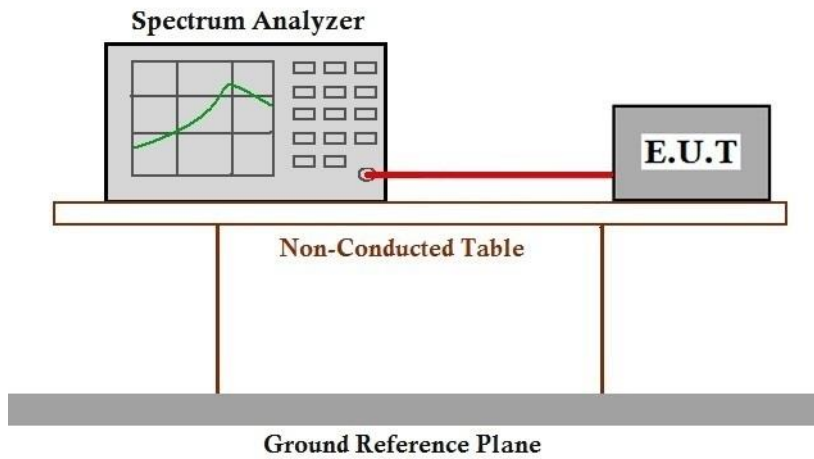
Humidity: 47.5 % RH

Atmospheric Pressure: 1010 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.

7.9.3 Test Setup Diagram



7.9.4 Measurement Procedure and Data

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

AV Output power Level = Reading level + Cable loss + DCCF

Please Refer to Appendix for Details

7.10 Peak Power spectrum density

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: ANSI C63.10 (2020) Section 12.6

Limit:

Frequency band(MHz)	Limit
5150-5250	≤17dBm in 1MHz for master device
	≤11dBm in 1MHz for client device
5250-5350	≤11dBm in 1MHz for client device
5470-5725	≤11dBm in 1MHz for client device
5725-5850	≤30dBm in 500 kHz
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.

7.10.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C

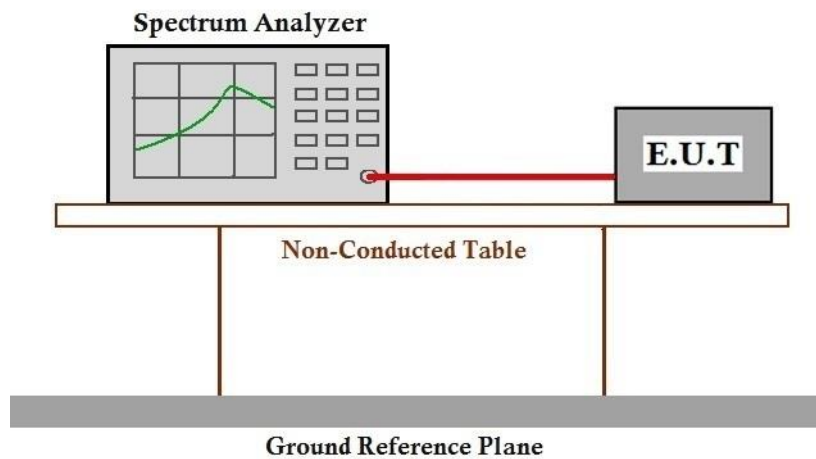
Humidity: 47.5 % RH

Atmospheric Pressure: 1010 mbar

7.10.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.

7.10.3 Test Setup Diagram



7.10.4 Measurement Procedure and Data

RBW conversion factor from 300kHz to 500kHz (2.22dB) for UNII Band 3 has been considered.

Please Refer to Appendix for Details

7.11 Frequency Stability

Test Requirement 47 CFR Part 15, Subpart E 15.407 (g)

Test Method: ANSI C63.10 (2020) Section 6.8

7.11.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C

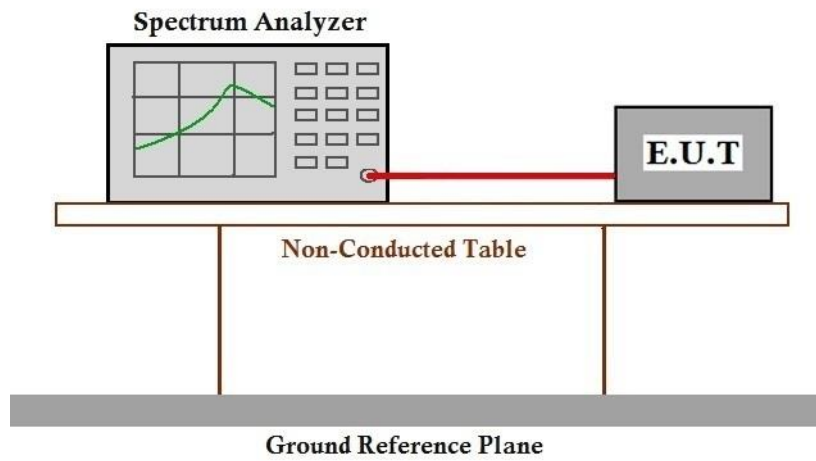
Humidity: 47.5 % RH

Atmospheric Pressure: 1010 mbar

7.11.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	02	TX mode (U-NII-1)_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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2A) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-2C) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80/160, Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-3) _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 @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11ac 20/40/80, Only the data of worst case is recorded in the report.

7.11.3 Test Setup Diagram



7.11.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.12 Non-occupancy period

Test Requirement KDB 905462 D02 Section 5.1

Test Method: KDB 905462 D02 Section 7.8.3

Limit:

Test item	Limit	Applicability	
		Master Device or client with Radar Detection	Client without Radar Detection
Non-occupancy period	Minimum 30 minutes	Yes	Not required
Channel Availability Check Time	60 seconds	Yes	Not required
Channel Move Time	10 seconds See Note 1.	Yes	Yes
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.	Yes	Yes
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.	Yes	Not required

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

7.12.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C

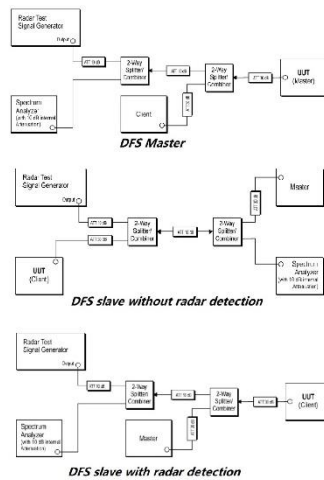
Humidity: 47.5 % RH

Atmospheric Pressure: 1010 mbar

7.12.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	Normal operating_Keep the EUT communication with the companion device.

7.12.3 Test Setup Diagram



7.12.4 Measurement Procedure and Data

- 1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
- 2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.
- 3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- 4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
- 5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
- 6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- 7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: $Dwell(0.3ms) = S(12000ms) / B(4000)$; where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: $C(ms) = N \times Dwell(0.3ms)$; where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.
- 8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer to Appendix for Details

7.13 Channel Move Time

Test Requirement KDB 905462 D02 Section 5.1
Test Method: KDB 905462 D02 Section 7.8.3

Limit:

Test item	Limit	Applicability	
		Master Device or client with Radar Detection	Client without Radar Detection
Non-occupancy period	Minimum 30 minutes	Yes	Not required
Channel Availability Check Time	60 seconds	Yes	Not required
Channel Move Time	10 seconds See Note 1.	Yes	Yes
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.	Yes	Yes
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.	Yes	Not required

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

7.13.1 E.U.T. Operation

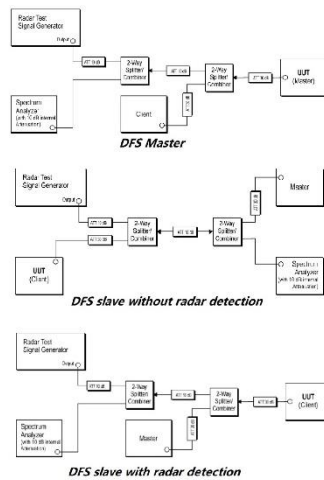
Operating Environment:

Temperature: 23.7 °C Humidity: 47.5 % RH Atmospheric Pressure: 1010 mbar

7.13.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	Normal operating_Keep the EUT communication with the companion device.

7.13.3 Test Setup Diagram



7.13.4 Measurement Procedure and Data

- 1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
- 2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.
- 3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- 4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
- 5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
- 6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- 7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: $Dwell(0.3ms) = S(12000ms) / B(4000)$; where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: $C(ms) = N \times Dwell(0.3ms)$; where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.
- 8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer to Appendix for Details

7.14 Channel Closing Transmission Time

Test Requirement KDB 905462 D02 Section 5.1

Test Method: KDB 905462 D02 Section 7.8.3

Limit:

Test item	Limit	Applicability	
		Master Device or client with Radar Detection	Client without Radar Detection
Non-occupancy period	Minimum 30 minutes	Yes	Not required
Channel Availability Check Time	60 seconds	Yes	Not required
Channel Move Time	10 seconds See Note 1.	Yes	Yes
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.	Yes	Yes
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.	Yes	Not required

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

7.14.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C

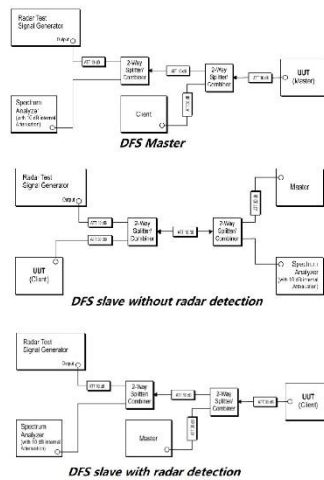
Humidity: 47.5 % RH

Atmospheric Pressure: 1010 mbar

7.14.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	Normal operating_Keep the EUT communication with the companion device.

7.14.3 Test Setup Diagram



7.14.4 Measurement Procedure and Data

- 1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
- 2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.
- 3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- 4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
- 5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
- 6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- 7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: $Dwell (0.3ms) = S (12000ms) / B (4000)$; where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: $C (ms) = N \times Dwell (0.3ms)$; where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.
- 8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer to Appendix for Details

8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2509001945AU

9 EUT Constructional Details (EUT Photos)

Refer to Appendix_Photographs of EUT Constructional Details for KSCR2509001945AU

10 Appendix

1. Duty Cycle

1.1 Test Result

1.1.1 Ant1

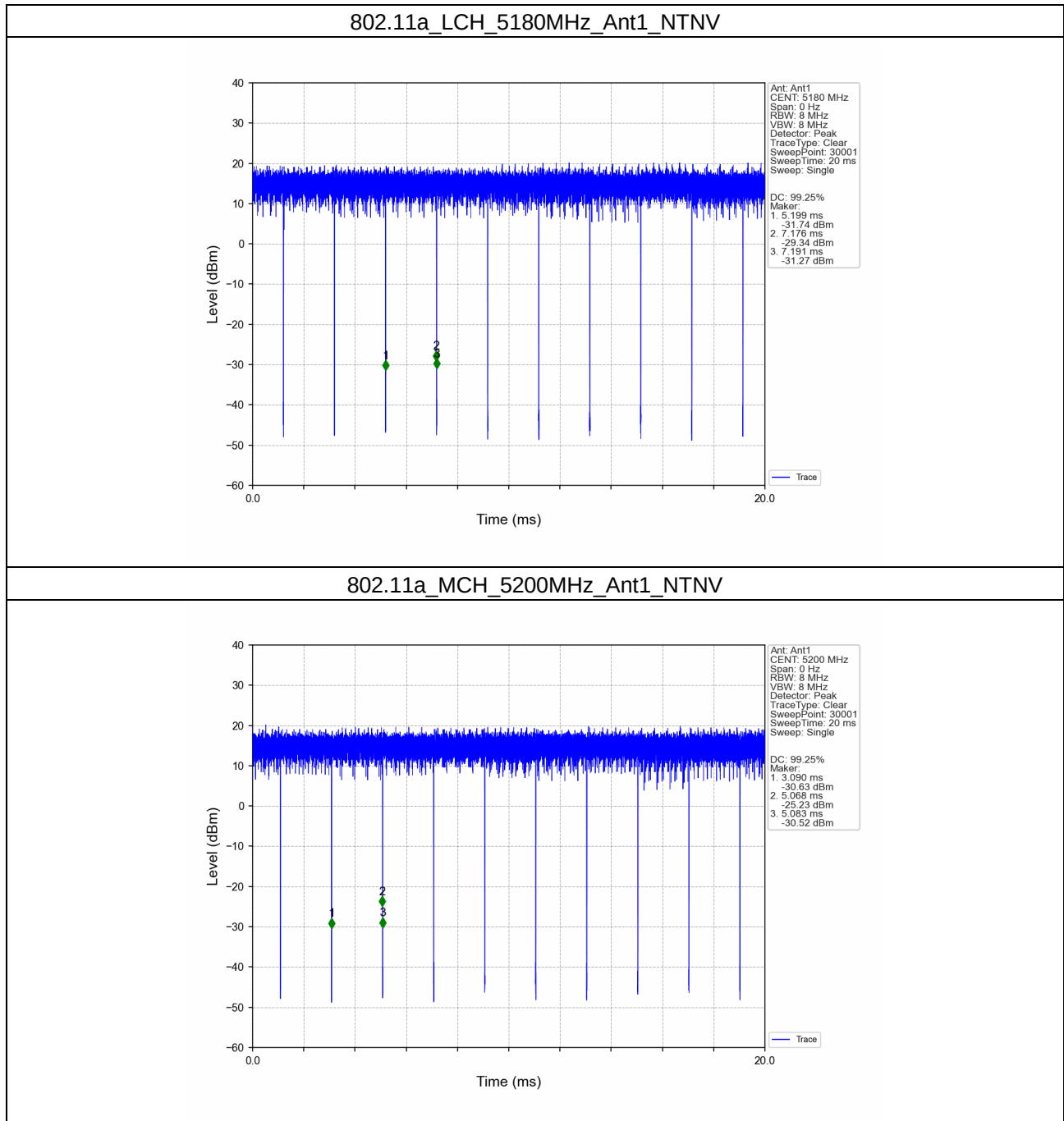
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	1.977	1.992	99.25	0.03	0.03
		5200	1.978	1.993	99.25	0.03	0.03
		5240	1.978	1.993	99.25	0.03	0.03
		5260	1.977	1.993	99.20	0.04	0.03
		5300	1.978	1.993	99.25	0.03	0.03
		5320	1.977	1.993	99.20	0.04	0.07
		5500	1.977	1.993	99.20	0.04	0.03
		5580	1.977	1.993	99.20	0.04	0.00
		5700	1.978	1.993	99.25	0.03	0.03
		5745	1.978	1.993	99.25	0.03	0.03
		5785	1.978	1.994	99.20	0.03	0.03
		5825	1.978	1.994	99.20	0.03	0.07
802.11ac (VHT20)	MIMO	5180	5.374	5.389	99.72	0.01	0.00
		5200	5.372	5.388	99.70	0.01	0.04
		5240	5.372	5.389	99.68	0.01	0.03
		5260	5.372	5.388	99.70	0.01	0.04
		5300	5.372	5.388	99.70	0.01	0.04
		5320	5.374	5.391	99.68	0.01	0.03
		5500	5.372	5.389	99.68	0.01	0.03
		5580	5.374	5.389	99.72	0.01	0.00
		5700	5.372	5.388	99.70	0.01	0.04
		5745	5.373	5.389	99.70	0.01	0.03
		5785	5.372	5.388	99.70	0.01	0.04
		5825	5.372	5.388	99.70	0.01	0.04
802.11ac (VHT40)	MIMO	5190	5.397	5.413	99.70	0.01	0.03
		5230	5.396	5.413	99.69	0.01	0.03
		5270	5.396	5.413	99.69	0.01	0.03
		5310	5.396	5.412	99.70	0.01	0.04
		5510	5.396	5.412	99.70	0.01	0.04
		5550	5.396	5.412	99.70	0.01	0.04
		5670	5.396	5.412	99.70	0.01	0.04



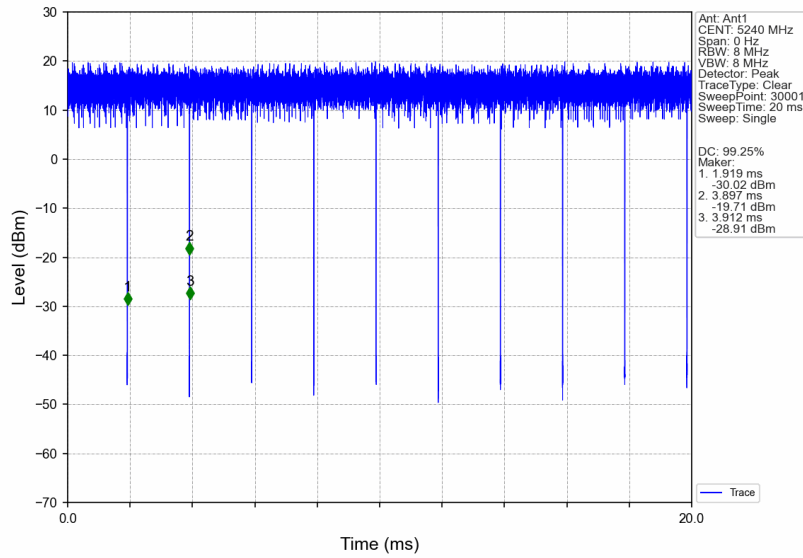
		5755	5.396	5.412	99.70	0.01	0.04
		5795	5.396	5.411	99.72	0.01	0.00
802.11ac (VHT80)	MIMO	5210	3.120	3.135	99.52	0.02	0.00
		5290	3.120	3.136	99.49	0.02	0.03
		5530	3.122	3.136	99.55	0.02	0.00
		5610	3.120	3.136	99.49	0.02	0.03
		5775	3.120	3.136	99.49	0.02	0.03
802.11ac (VHT160)	MIMO	5570	2.205	2.220	99.32	0.03	0.04
		5250	2.205	2.220	99.32	0.03	0.04

1.2 Test Graph

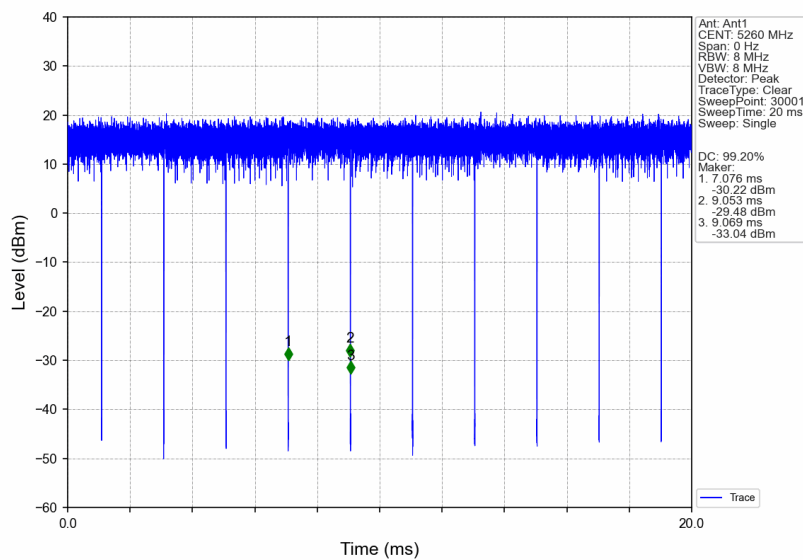
1.2.1 Ant1



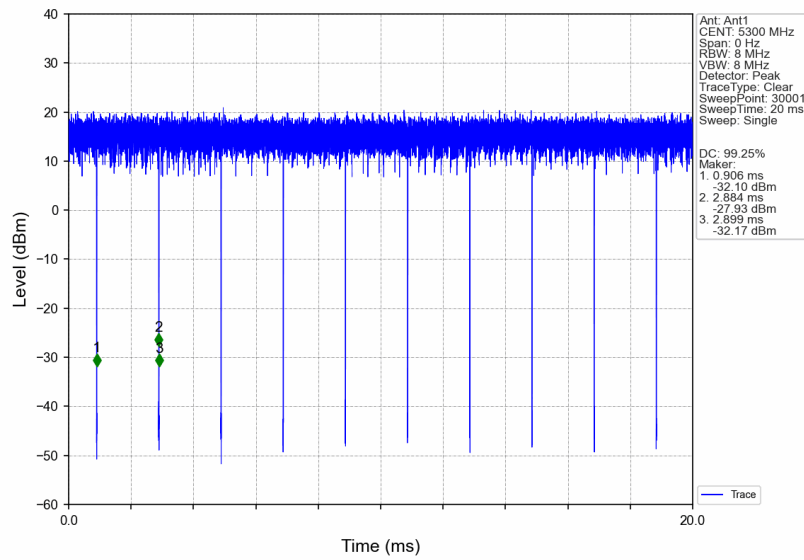
802.11a_HCH_5240MHz_Ant1_NTNV



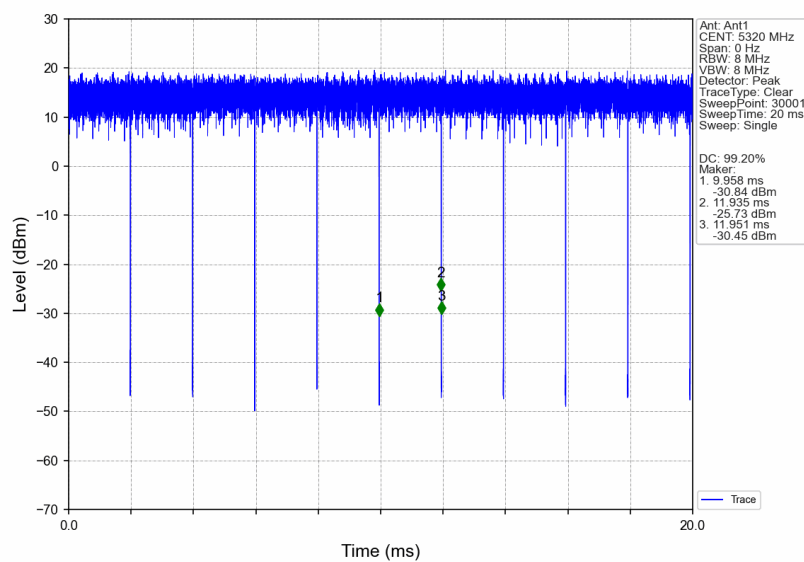
802.11a_LCH_5260MHz_Ant1_NTNV



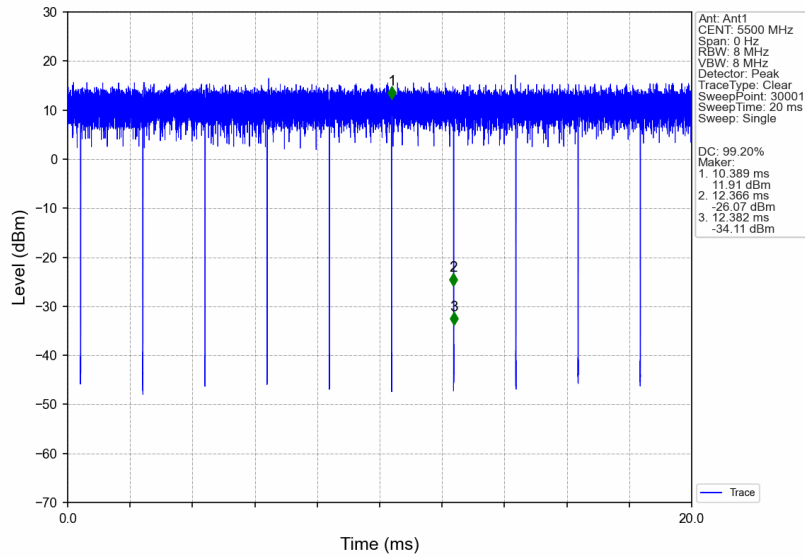
802.11a_MCH_5300MHz_Ant1_NTNV



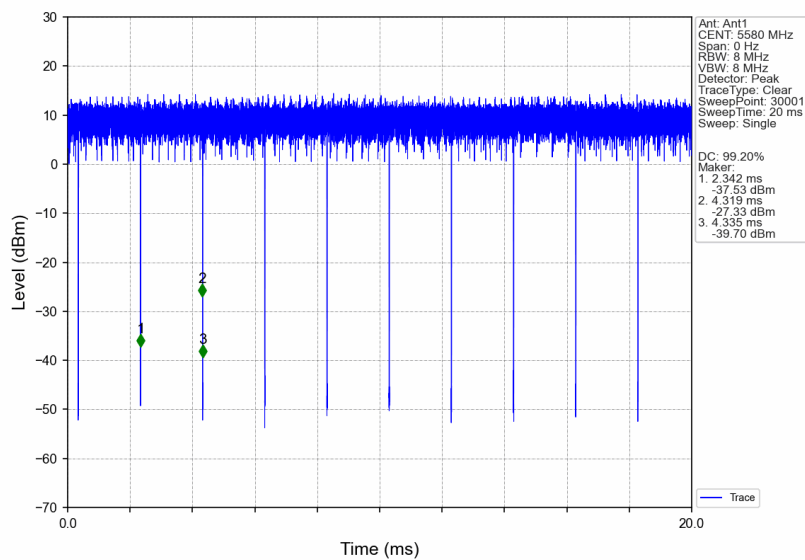
802.11a_HCH_5320MHz_Ant1_NTNV



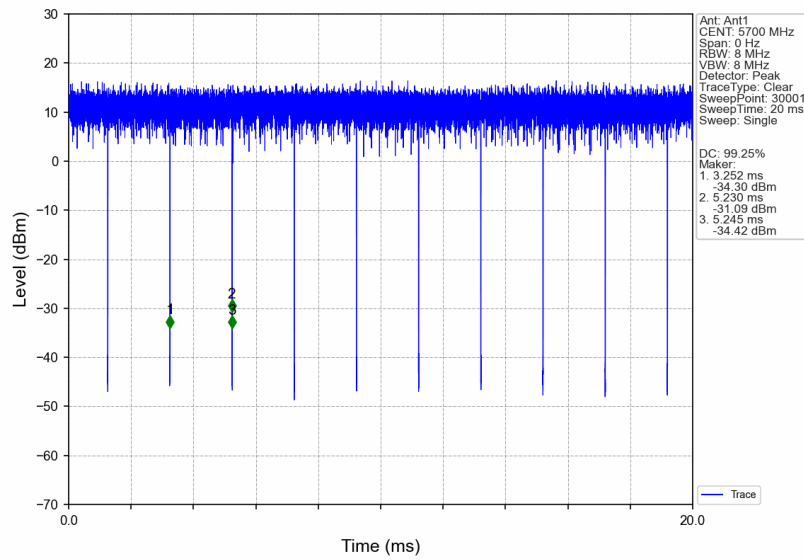
802.11a_LCH_5500MHz_Ant1_NTNV



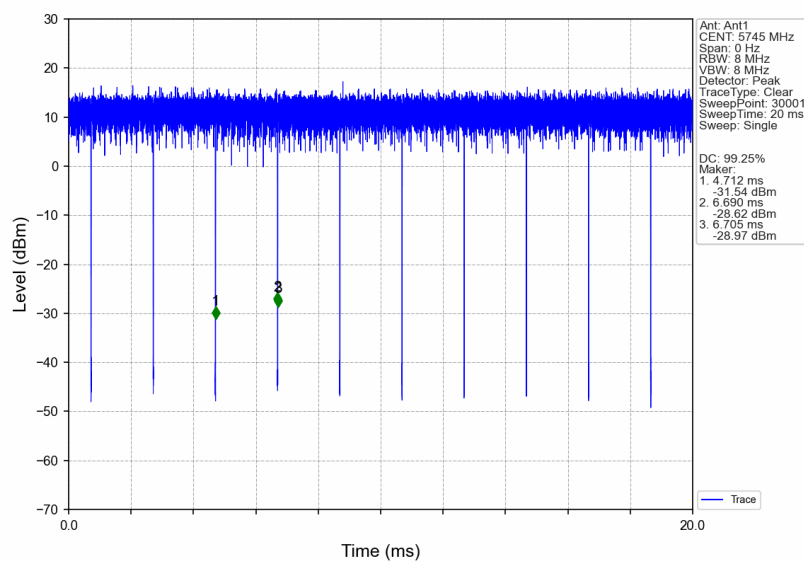
802.11a_MCH_5580MHz_Ant1_NTNV



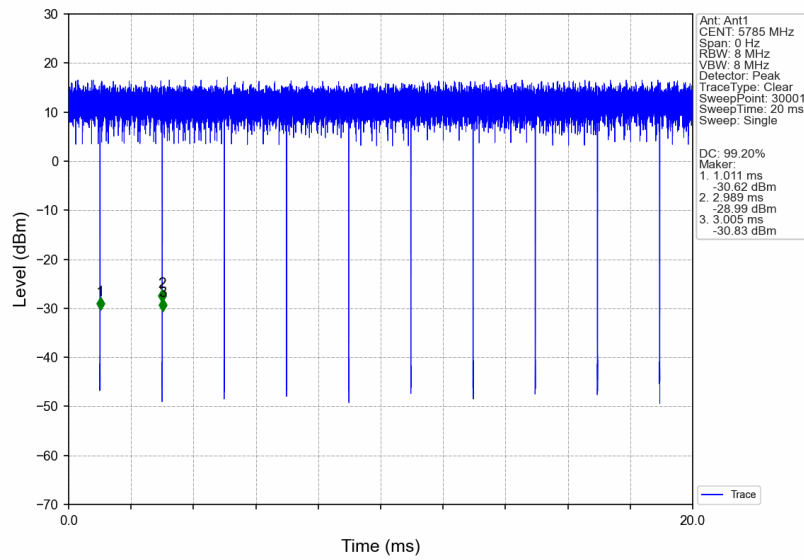
802.11a_HCH_5700MHz_Ant1_NTNV



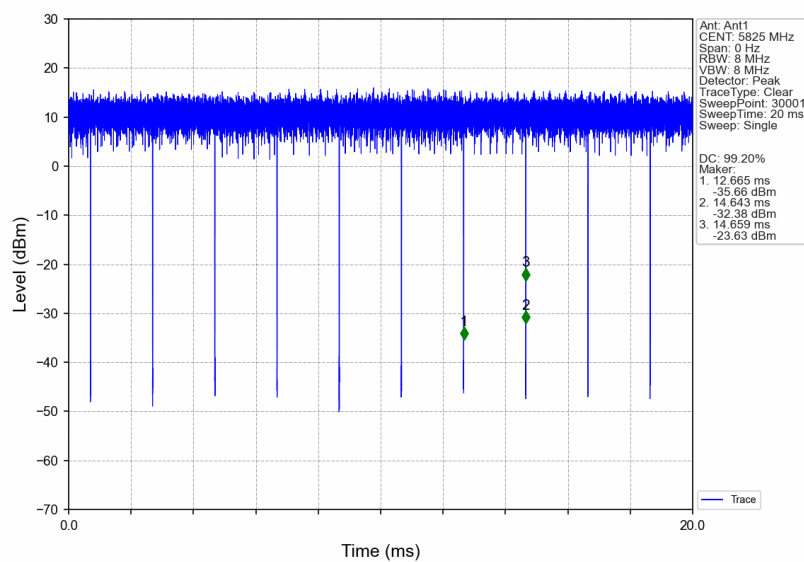
802.11a_LCH_5745MHz_Ant1_NTNV



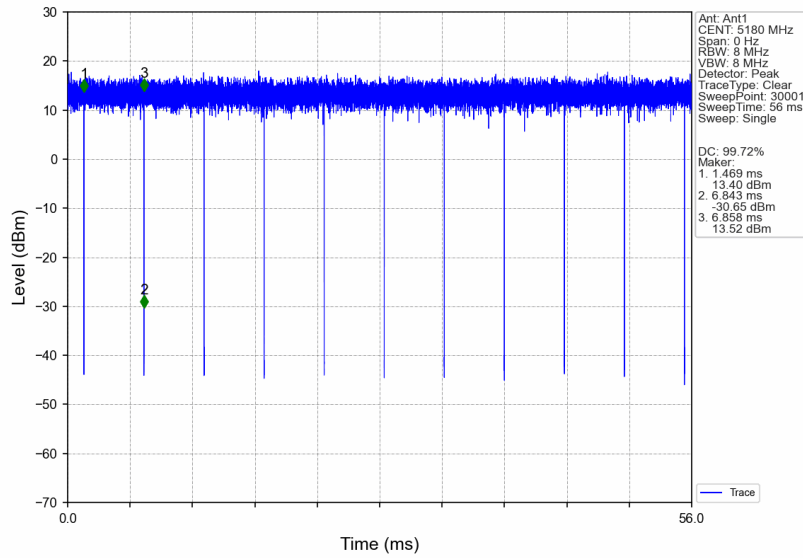
802.11a_MCH_5785MHz_Ant1_NTNV



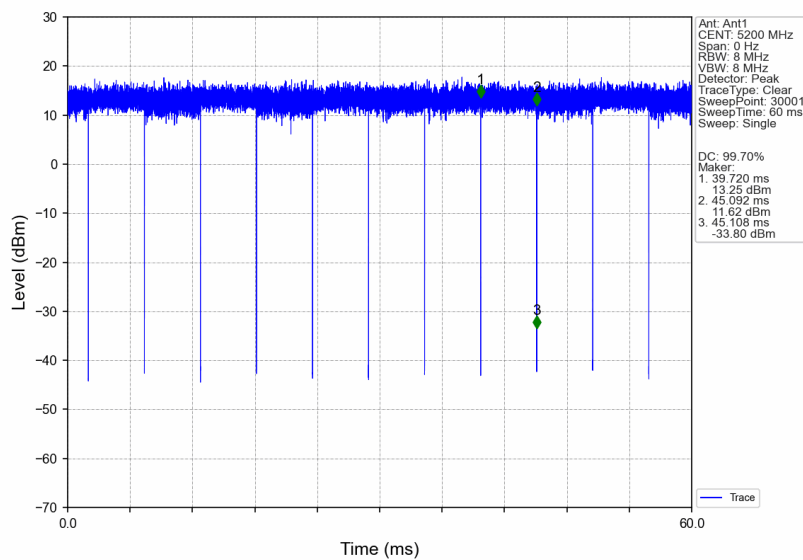
802.11a_HCH_5825MHz_Ant1_NTNV



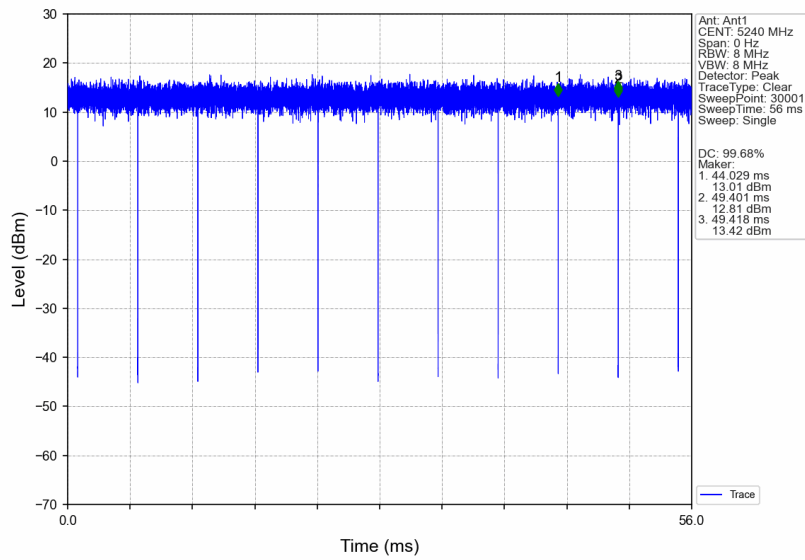
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



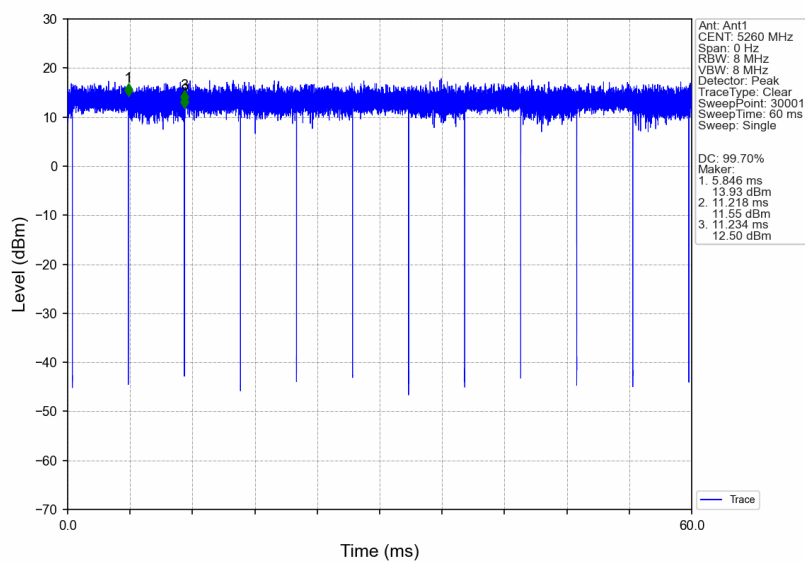
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



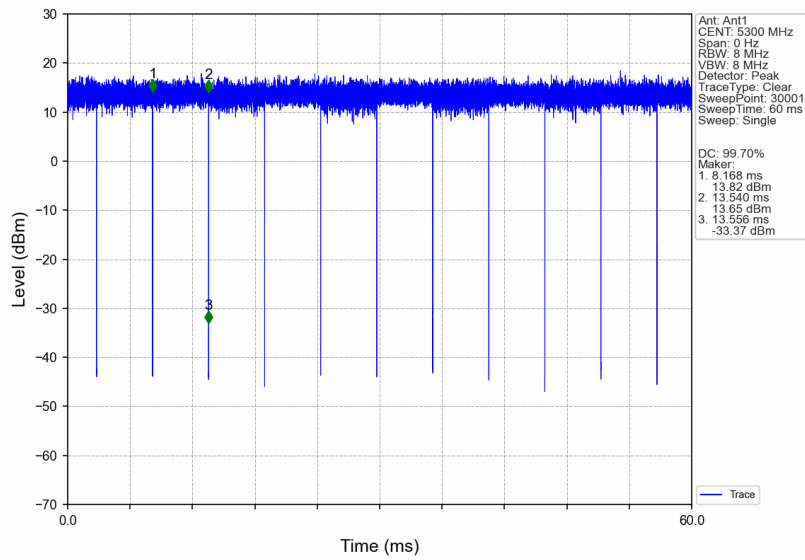
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



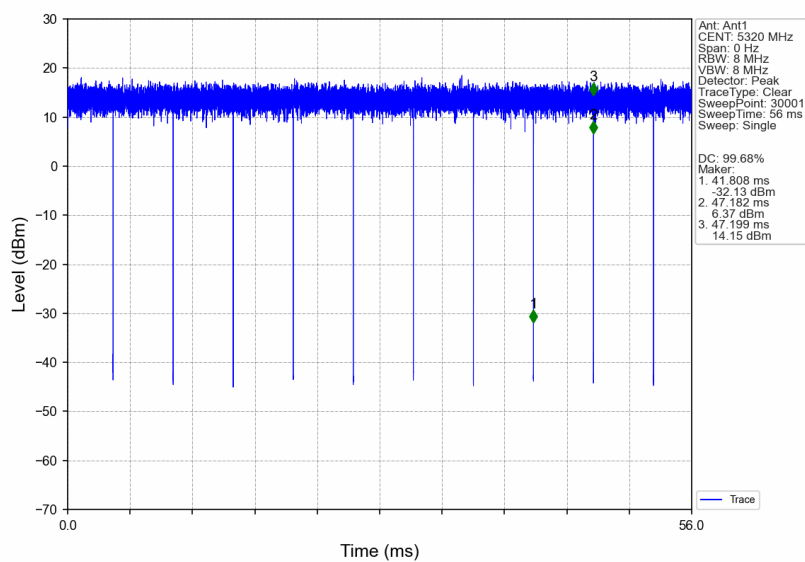
802.11ac(VHT20)_LCH_5260MHz_Ant1_NTNV



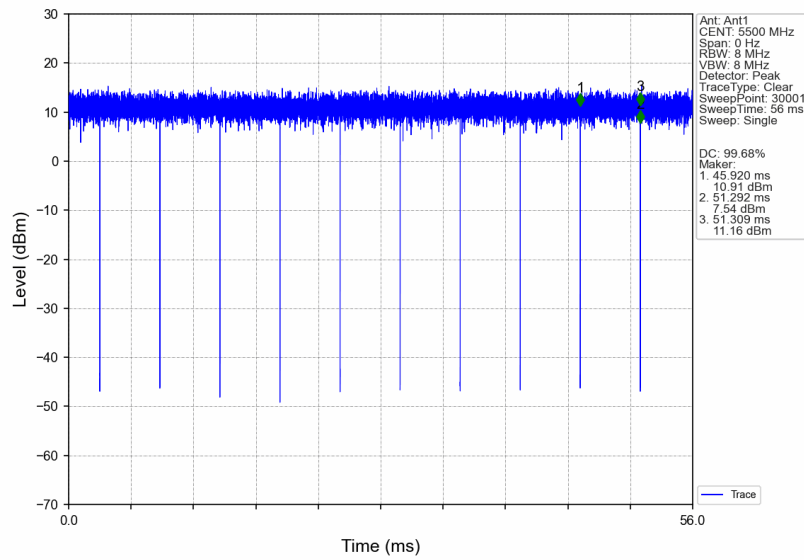
802.11ac(VHT20)_MCH_5300MHz_Ant1_NTNV



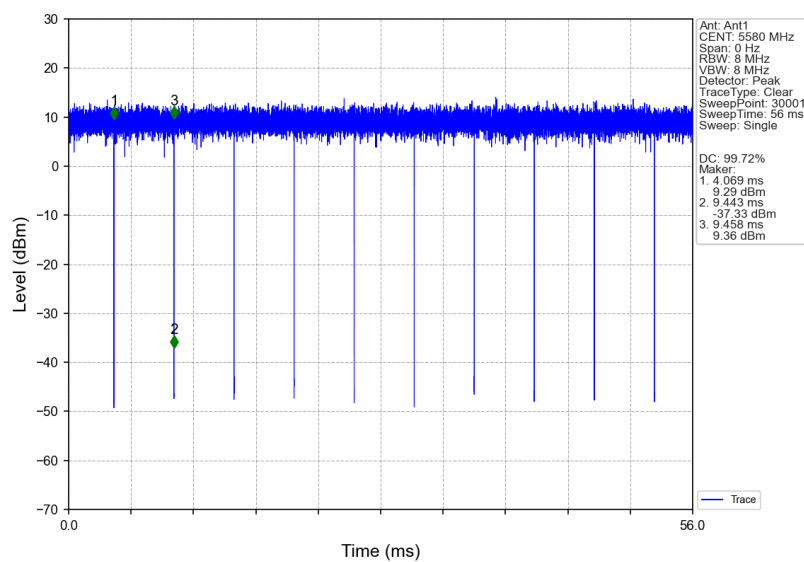
802.11ac(VHT20)_HCH_5320MHz_Ant1_NTNV



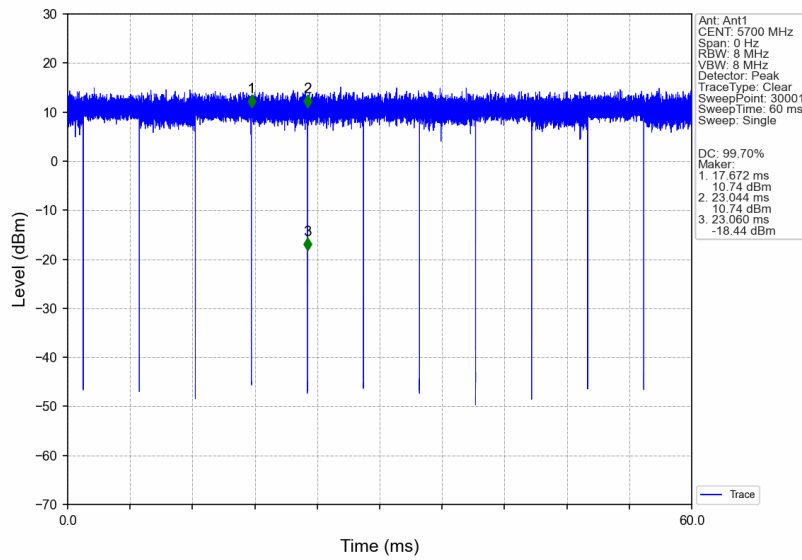
802.11ac(VHT20)_LCH_5500MHz_Ant1_NTNV



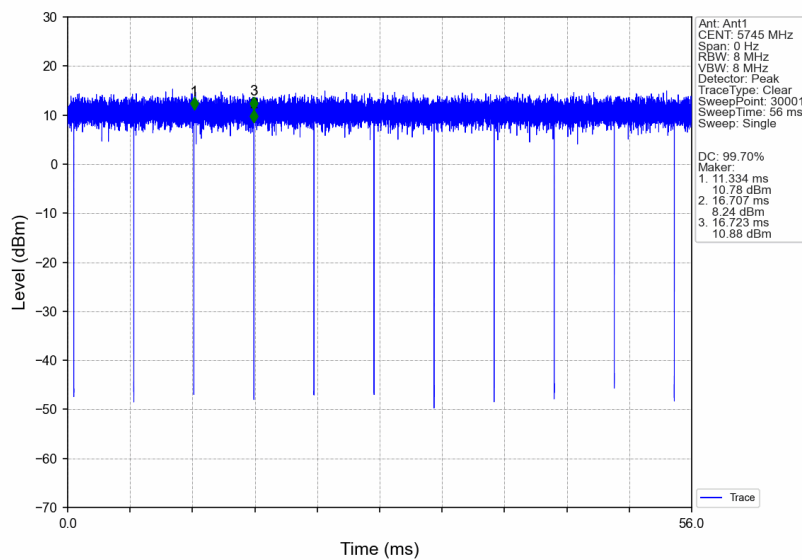
802.11ac(VHT20)_MCH_5580MHz_Ant1_NTNV



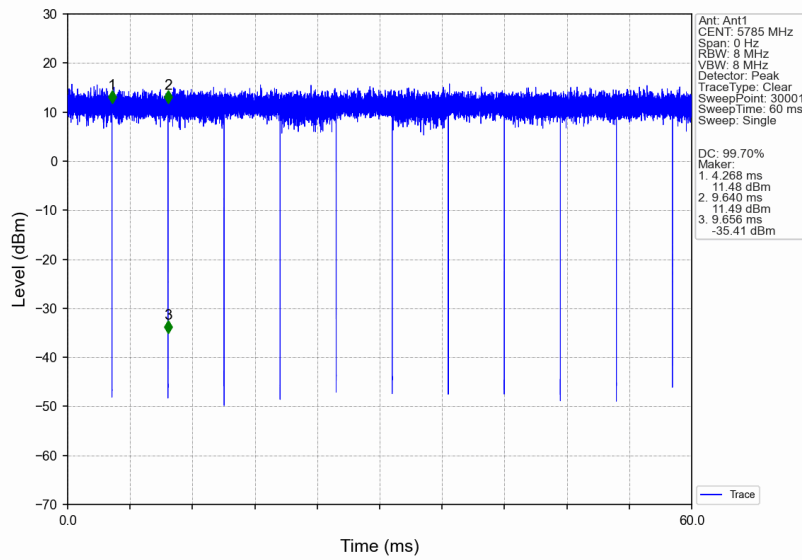
802.11ac(VHT20)_HCH_5700MHz_Ant1_NTNV



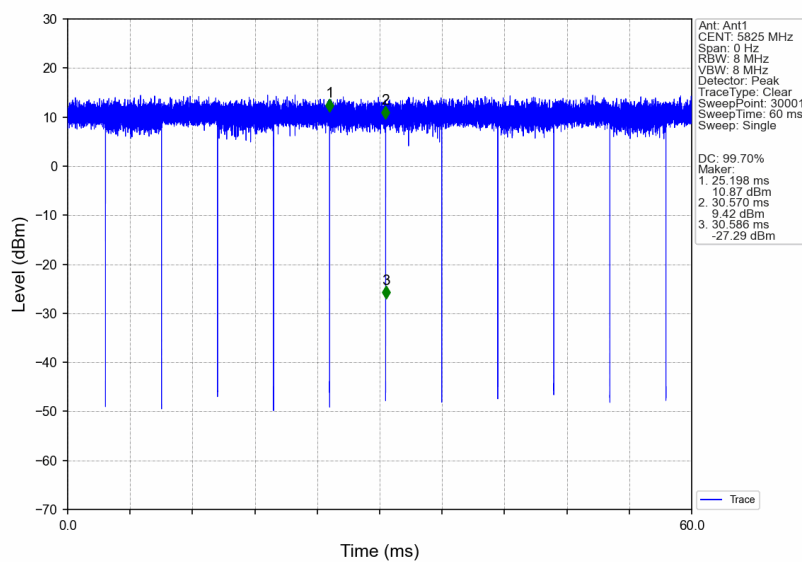
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



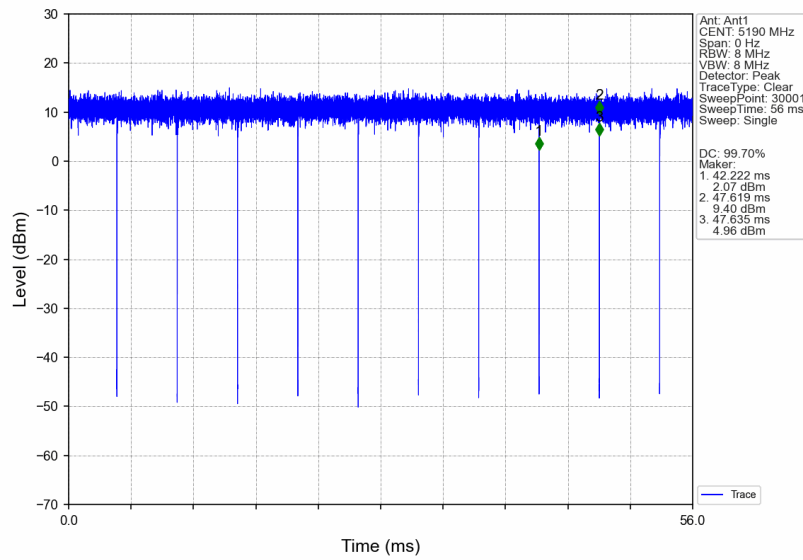
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



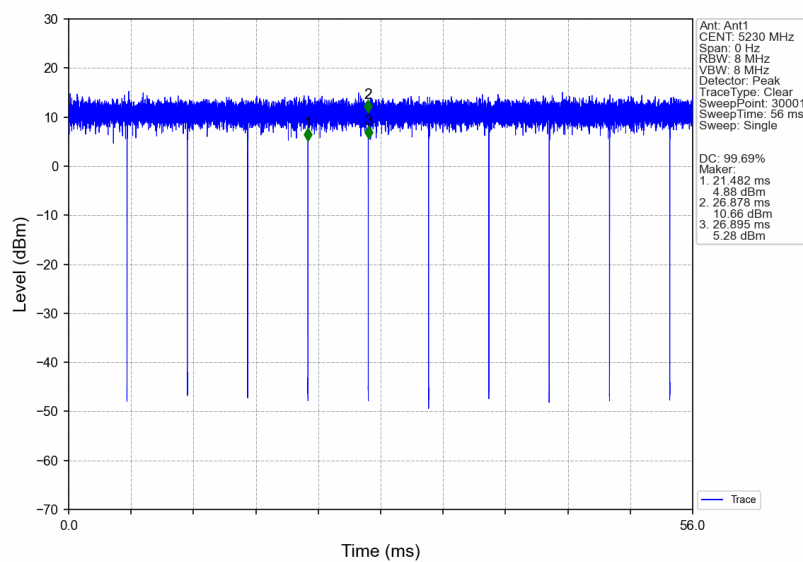
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



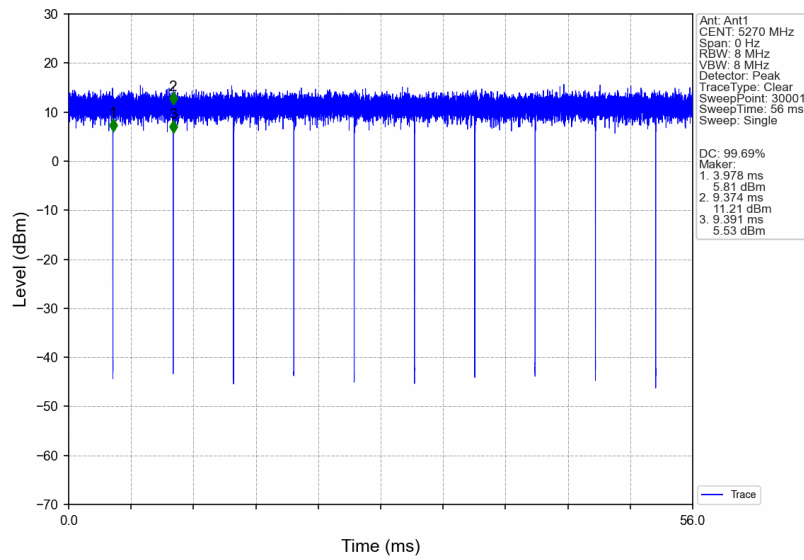
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



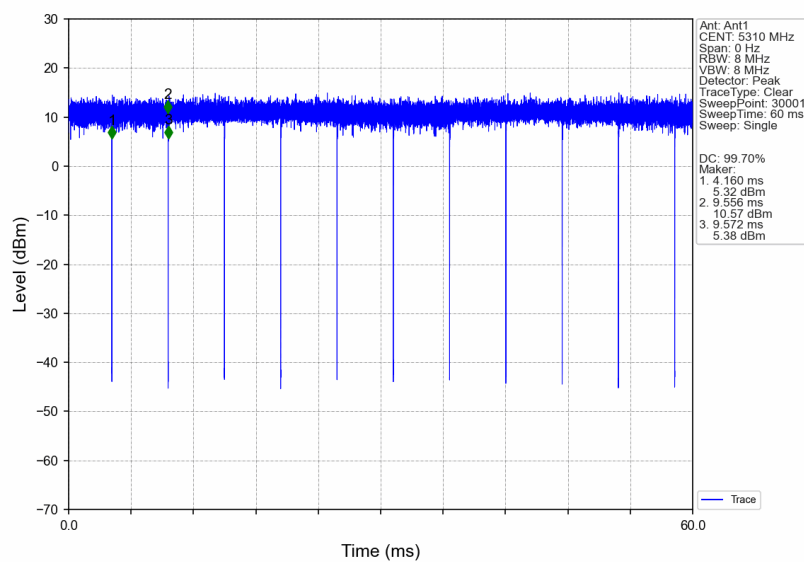
802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



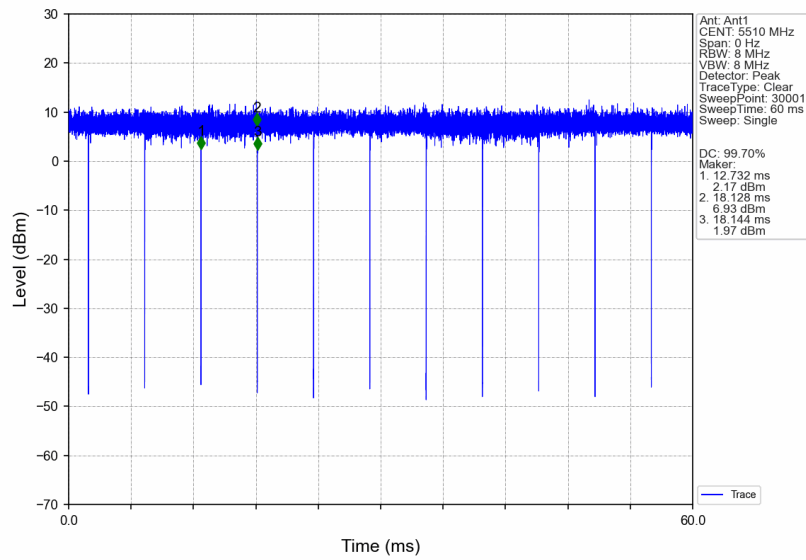
802.11ac(VHT40)_LCH_5270MHz_Ant1_NTNV



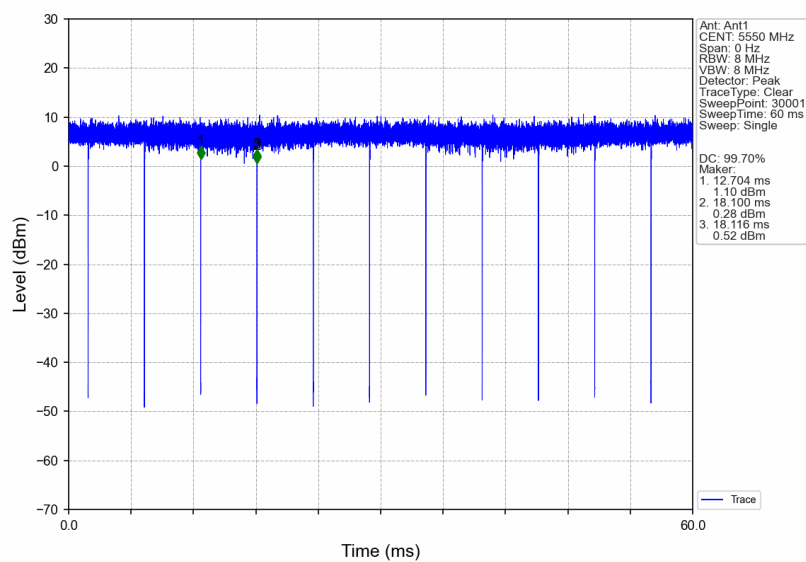
802.11ac(VHT40)_HCH_5310MHz_Ant1_NTNV



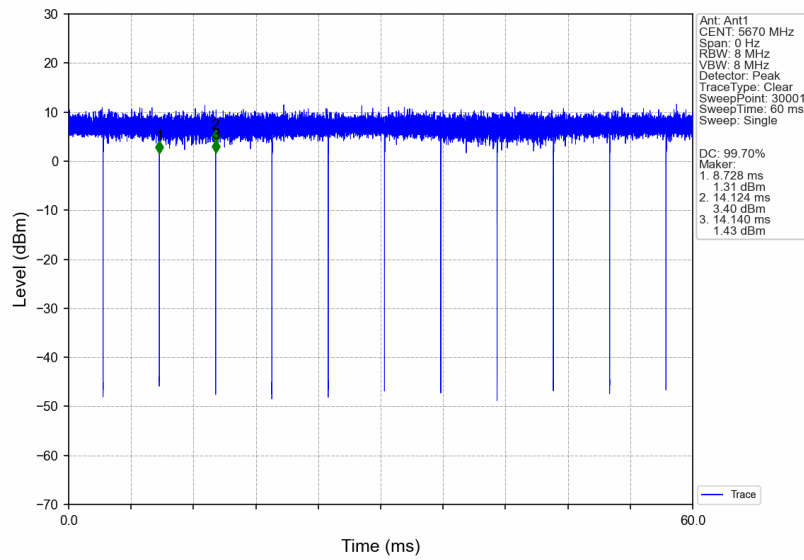
802.11ac(VHT40)_LCH_5510MHz_Ant1_NTNV



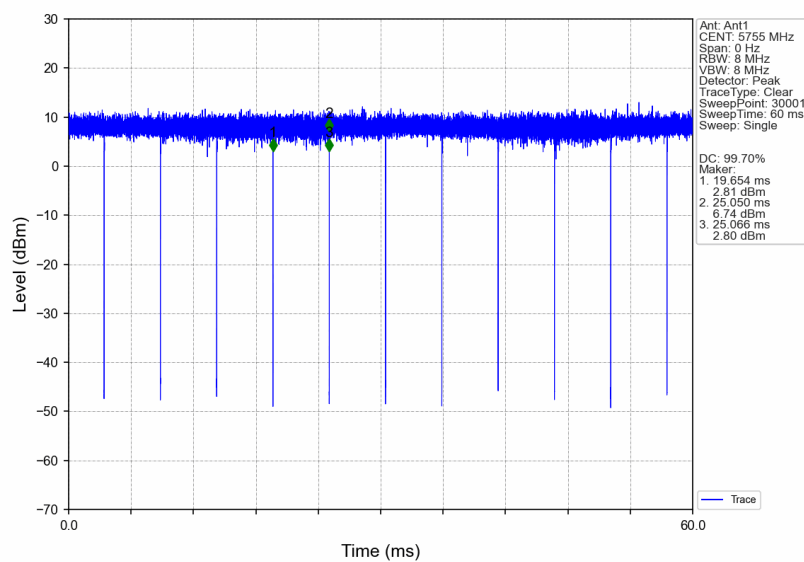
802.11ac(VHT40)_MCH_5550MHz_Ant1_NTNV



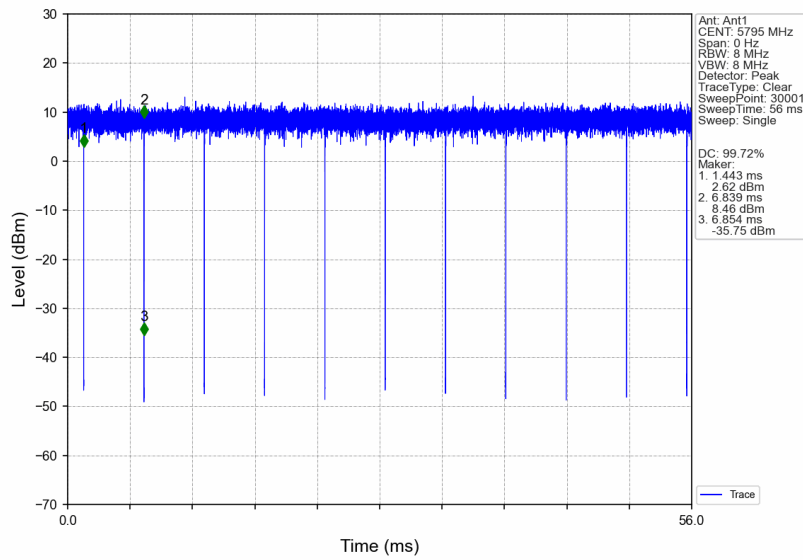
802.11ac(VHT40)_HCH_5670MHz_Ant1_NTNV



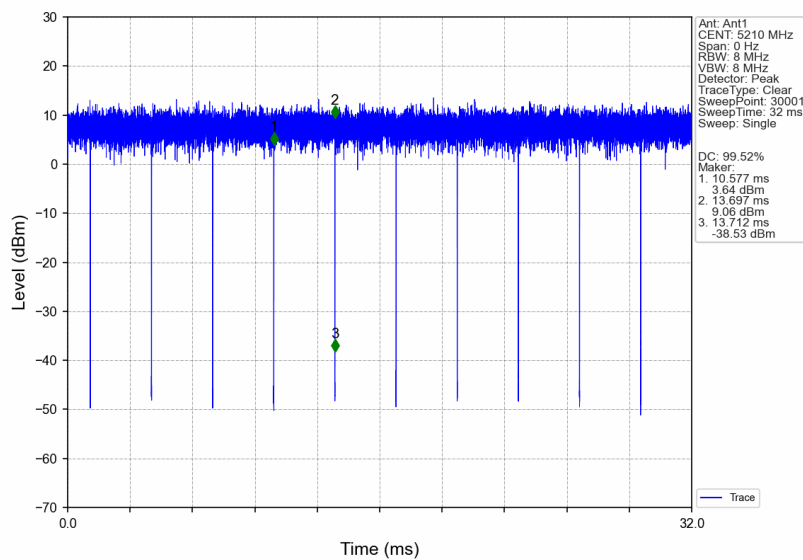
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



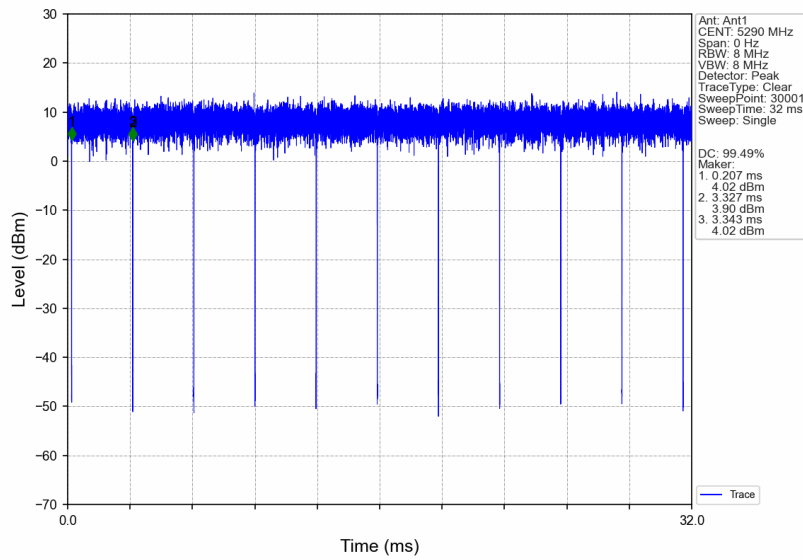
802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



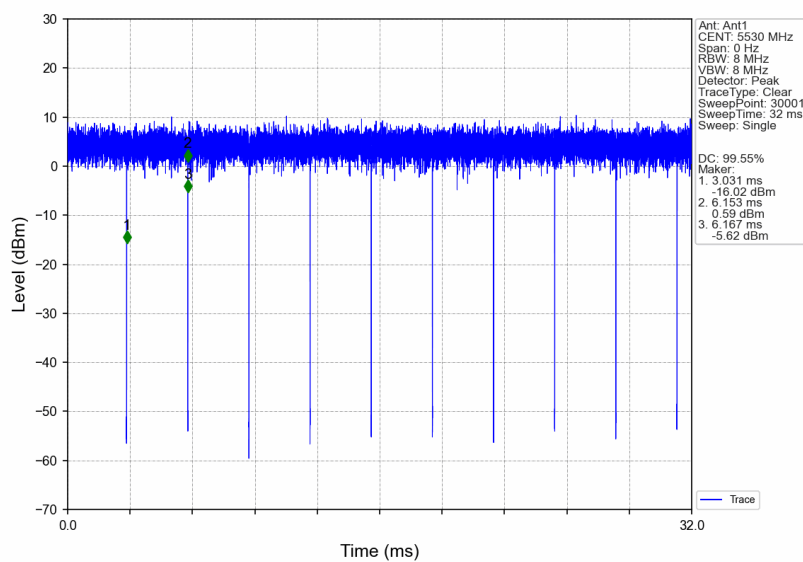
802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



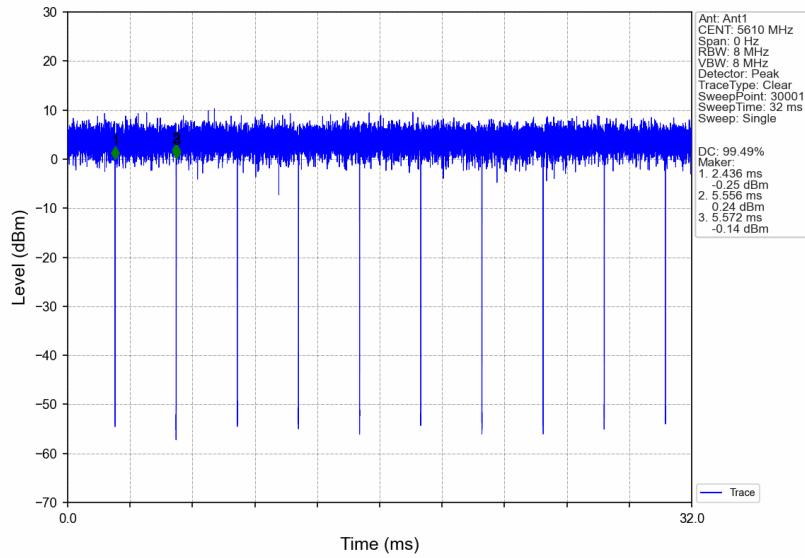
802.11ac(VHT80)_MCH_5290MHz_Ant1_NTNV



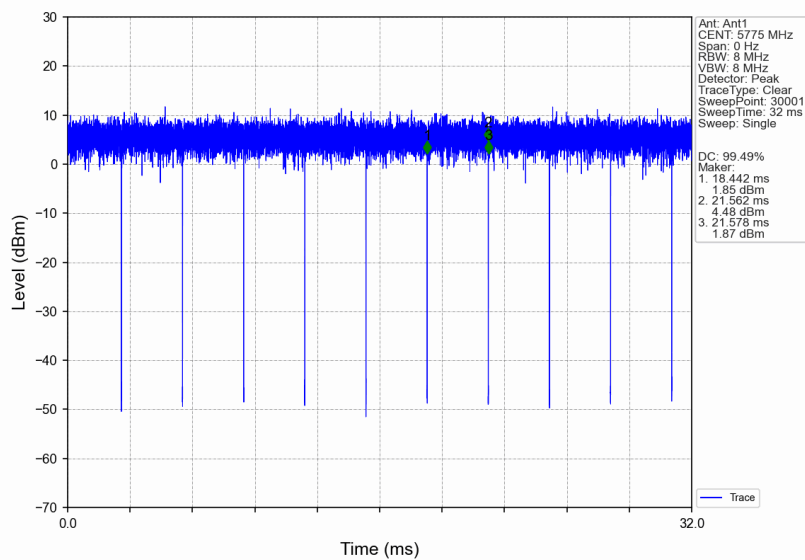
802.11ac(VHT80)_LCH_5530MHz_Ant1_NTNV



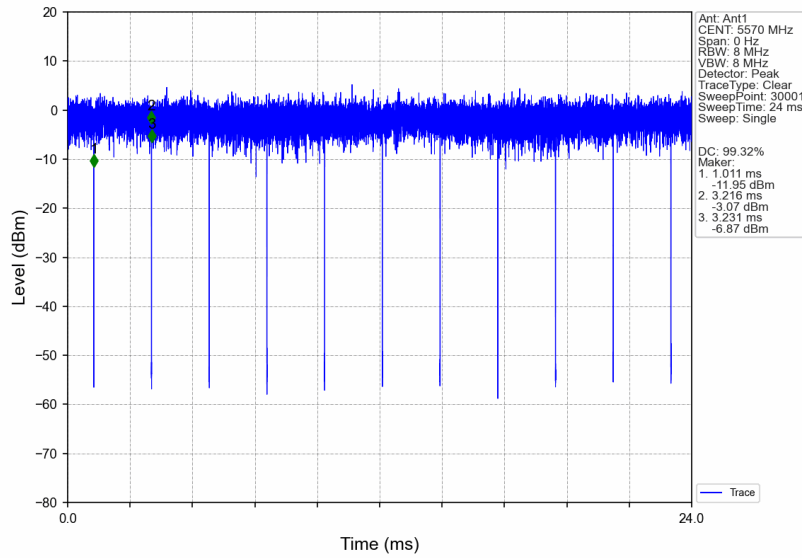
802.11ac(VHT80)_HCH_5610MHz_Ant1_NTNV



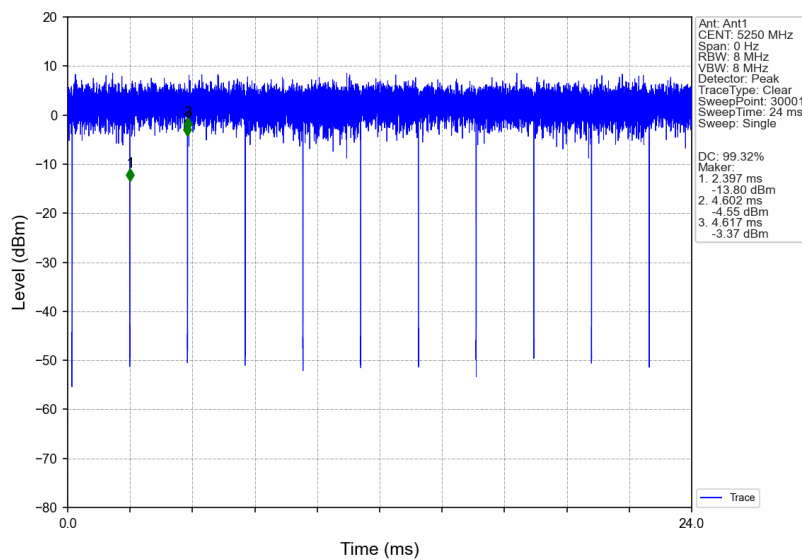
802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



802.11ac(VHT160)_MCH_5570MHz_Ant1_NTNV



802.11ac(VHT160)_MCH_5250MHz_Ant1_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	16.585	/	Pass
			2	16.592	/	Pass
		5200	1	16.531	/	Pass
			2	16.581	/	Pass
		5240	1	16.582	/	Pass
			2	16.621	/	Pass
		5260	1	16.533	/	Pass
			2	16.626	/	Pass
		5300	1	16.588	/	Pass
			2	16.616	/	Pass
		5320	1	16.579	/	Pass
			2	16.604	/	Pass
		5500	1	16.531	/	Pass
			2	16.581	/	Pass
		5580	1	16.525	/	Pass
			2	16.625	/	Pass
		5700	1	16.555	/	Pass
			2	16.626	/	Pass
		5745	1	16.543	/	Pass
			2	16.624	/	Pass
		5785	1	16.540	/	Pass
			2	16.579	/	Pass
		5825	1	16.589	/	Pass
			2	16.660	/	Pass
802.11ac (VHT20)	MIMO	5180	1	17.792	/	Pass
			2	17.706	/	Pass
		5200	1	17.772	/	Pass
			2	17.738	/	Pass
		5240	1	17.770	/	Pass
			2	17.726	/	Pass
		5260	1	17.765	/	Pass
			2	17.721	/	Pass
		5300	1	17.770	/	Pass
			2	17.696	/	Pass
		5320	1	17.741	/	Pass

			2	17.709	/	Pass
		5500	1	17.741	/	Pass
			2	17.714	/	Pass
		5580	1	17.753	/	Pass
			2	17.737	/	Pass
		5700	1	17.728	/	Pass
			2	17.727	/	Pass
		5745	1	17.815	/	Pass
			2	17.850	/	Pass
		5785	1	17.806	/	Pass
			2	17.755	/	Pass
802.11ac (VHT40)	MIMO	5190	1	36.103	/	Pass
			2	36.151	/	Pass
		5230	1	36.130	/	Pass
			2	36.141	/	Pass
		5270	1	36.039	/	Pass
			2	36.064	/	Pass
		5310	1	36.162	/	Pass
			2	36.125	/	Pass
		5510	1	36.037	/	Pass
			2	36.086	/	Pass
		5550	1	36.113	/	Pass
			2	36.106	/	Pass
		5670	1	36.063	/	Pass
			2	36.132	/	Pass
		5755	1	36.118	/	Pass
			2	36.100	/	Pass
802.11ac (VHT80)	MIMO	5210	1	75.110	/	Pass
			2	75.335	/	Pass
		5290	1	75.381	/	Pass
			2	75.291	/	Pass
		5530	1	75.121	/	Pass
			2	75.413	/	Pass
		5610	1	75.149	/	Pass
			2	75.329	/	Pass
802.11ac (VHT160)	MIMO	5570	1	74.929	/	Pass
			2	75.063	/	Pass

		5250	1	154.057	/	Pass
			2	154.444	/	Pass

2.1.2 26dB BW

Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	19.645	/	Pass
			2	19.293	/	Pass
		5200	1	19.337	/	Pass
			2	19.430	/	Pass
		5240	1	19.319	/	Pass
			2	19.728	/	Pass
		5260	1	20.015	/	Pass
			2	19.392	/	Pass
		5300	1	19.541	/	Pass
			2	19.287	/	Pass
		5320	1	19.620	/	Pass
			2	19.283	/	Pass
		5500	1	20.274	/	Pass
			2	19.377	/	Pass
		5580	1	19.961	/	Pass
			2	19.905	/	Pass
		5700	1	19.599	/	Pass
			2	19.667	/	Pass
802.11ac (VHT20)	MIMO	5180	1	20.533	/	Pass
			2	20.290	/	Pass
		5200	1	20.799	/	Pass
			2	20.091	/	Pass
		5240	1	20.462	/	Pass
			2	20.021	/	Pass
		5260	1	21.042	/	Pass
			2	20.612	/	Pass
		5300	1	20.543	/	Pass
			2	20.512	/	Pass
		5320	1	20.656	/	Pass
			2	20.541	/	Pass
		5500	1	20.829	/	Pass
			2	20.658	/	Pass
		5580	1	20.751	/	Pass
			2	20.519	/	Pass
		5700	1	20.884	/	Pass
			2	20.758	/	Pass

802.11ac (VHT40)	MIMO	5190	1	39.975	/	Pass
			2	40.342	/	Pass
		5230	1	39.875	/	Pass
			2	39.829	/	Pass
		5270	1	39.682	/	Pass
			2	40.131	/	Pass
		5310	1	40.300	/	Pass
			2	39.962	/	Pass
		5510	1	39.744	/	Pass
			2	39.916	/	Pass
		5550	1	40.052	/	Pass
			2	40.194	/	Pass
802.11ac (VHT80)	MIMO	5210	1	81.814	/	Pass
			2	81.944	/	Pass
		5290	1	82.064	/	Pass
			2	81.973	/	Pass
		5530	1	81.995	/	Pass
			2	81.251	/	Pass
802.11ac (VHT160)	MIMO	5610	1	81.429	/	Pass
			2	81.193	/	Pass
		5570	1	166.096	/	Pass
			2	165.647	/	Pass
		5250	1	166.745	/	Pass
			2	166.890	/	Pass

2.1.3 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	12.314	≥ 0.5	Pass
			2	14.449	≥ 0.5	Pass
		5785	1	12.634	≥ 0.5	Pass
			2	16.066	≥ 0.5	Pass
		5825	1	13.847	≥ 0.5	Pass
			2	15.361	≥ 0.5	Pass
802.11ac (VHT20)	MIMO	5745	1	10.132	≥ 0.5	Pass
			2	17.151	≥ 0.5	Pass
		5785	1	15.940	≥ 0.5	Pass
			2	16.463	≥ 0.5	Pass
		5825	1	17.571	≥ 0.5	Pass
			2	12.643	≥ 0.5	Pass



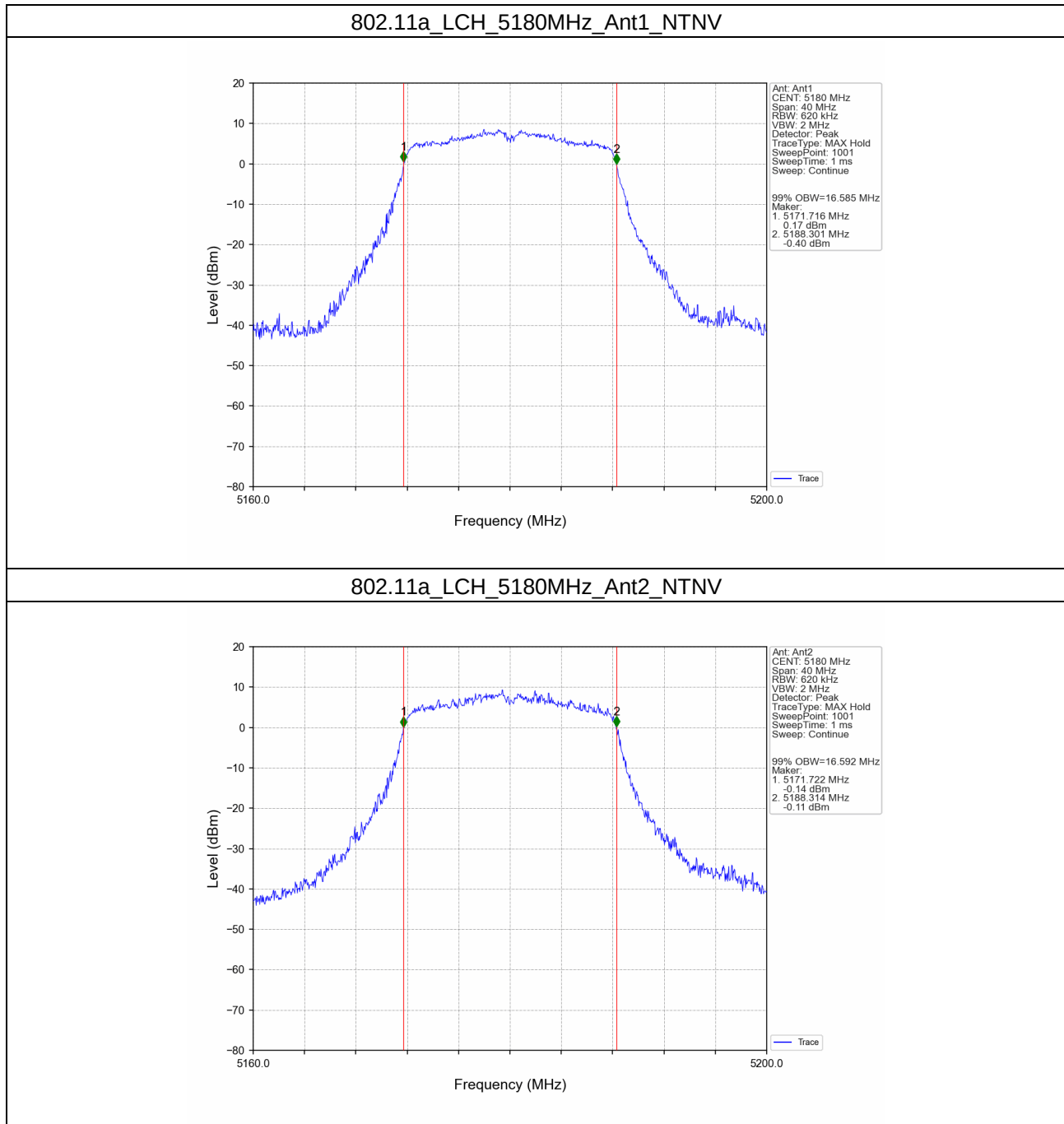
Report No.: KSCR250900194505

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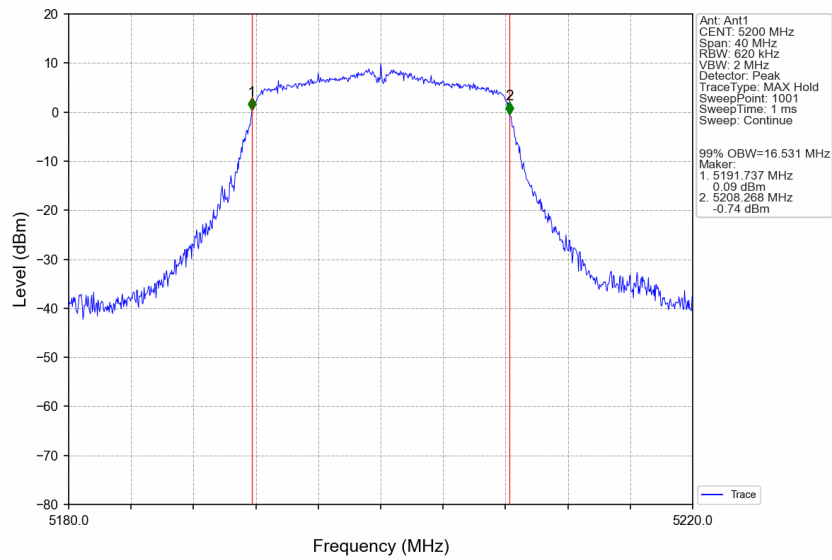
802.11ac (VHT40)	MIMO	5755	1	35.334	≥ 0.5	Pass
			2	35.307	≥ 0.5	Pass
		5795	1	34.745	≥ 0.5	Pass
			2	33.789	≥ 0.5	Pass
802.11ac (VHT80)	MIMO	5775	1	48.855	≥ 0.5	Pass
			2	49.812	≥ 0.5	Pass

2.2 Test Graph

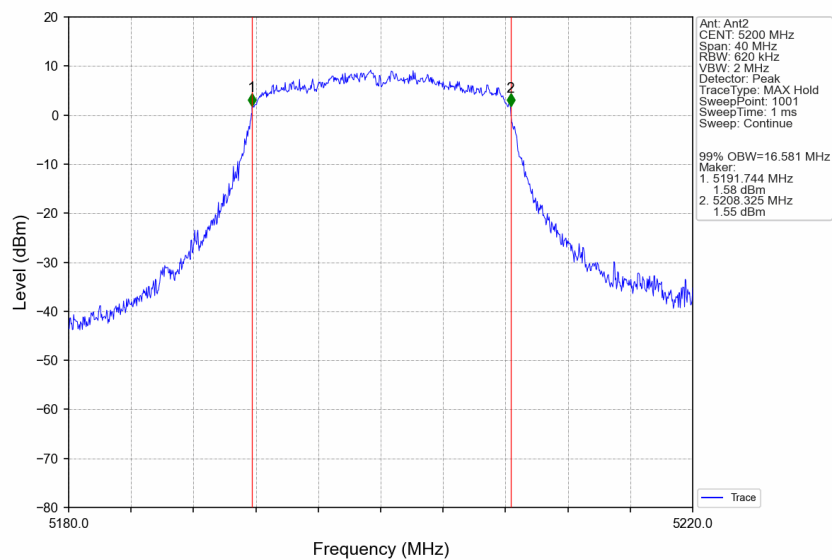
2.2.1 OBW



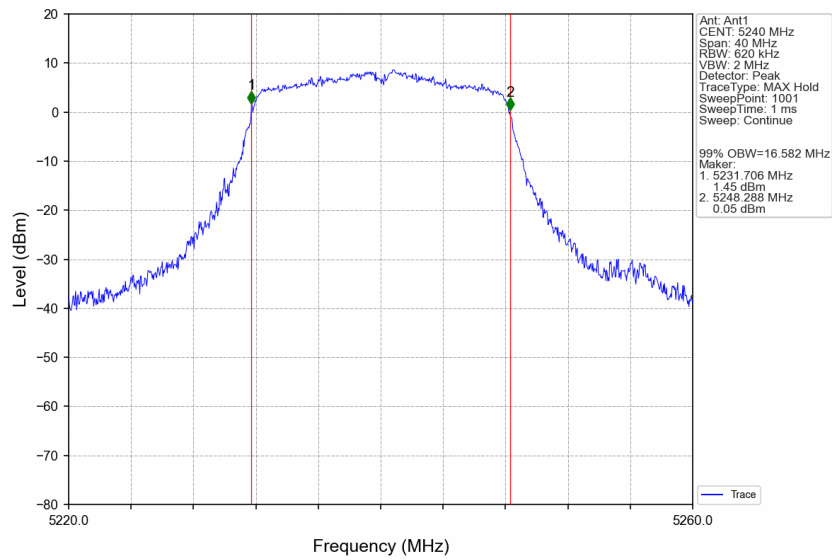
802.11a_MCH_5200MHz_Ant1_NTNV



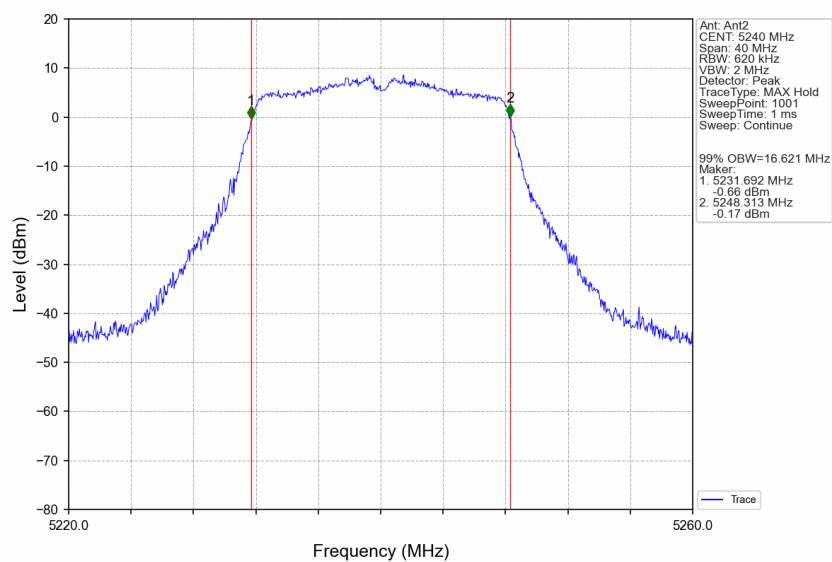
802.11a_MCH_5200MHz_Ant2_NTNV



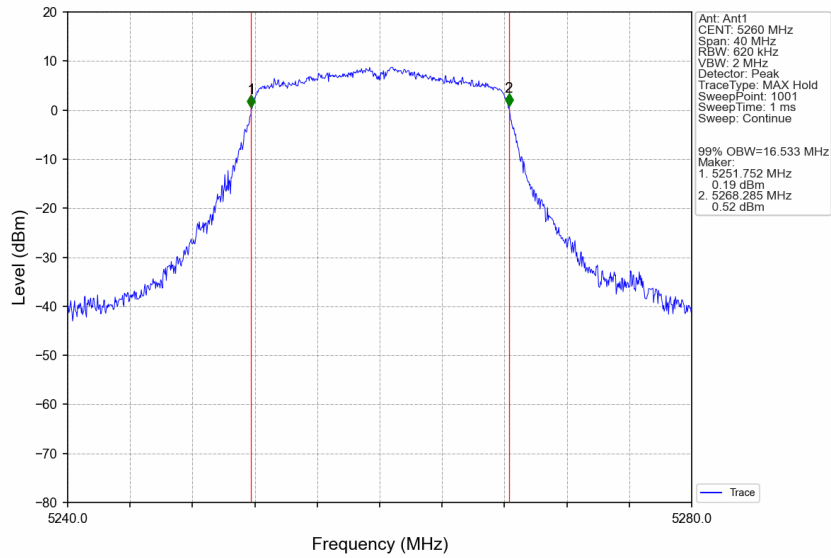
802.11a_HCH_5240MHz_Ant1_NTNV



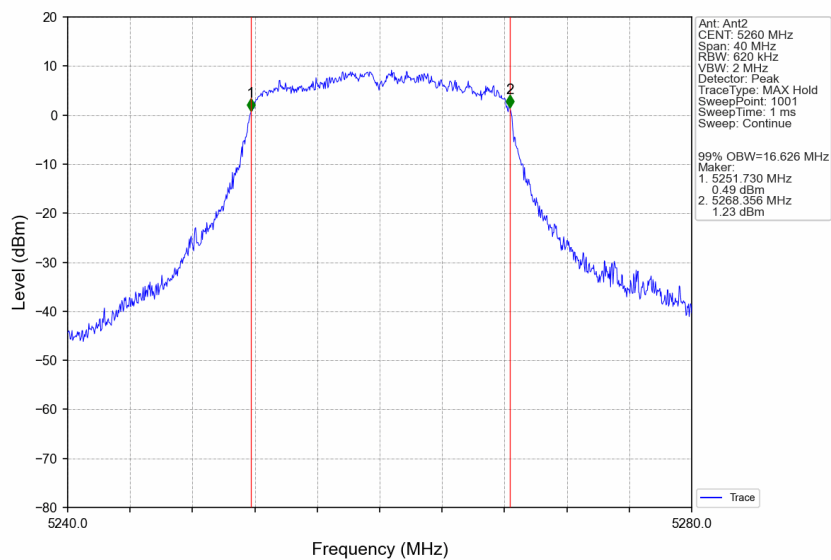
802.11a_HCH_5240MHz_Ant2_NTNV



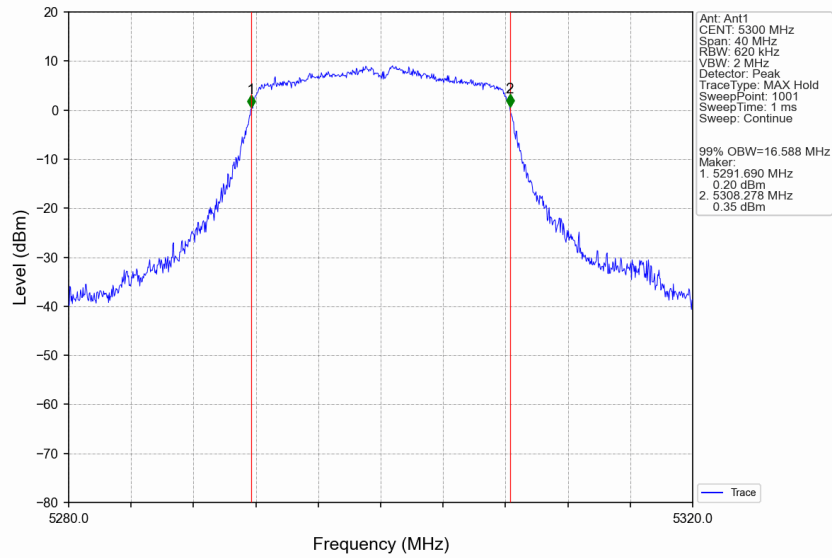
802.11a_LCH_5260MHz_Ant1_NTNV



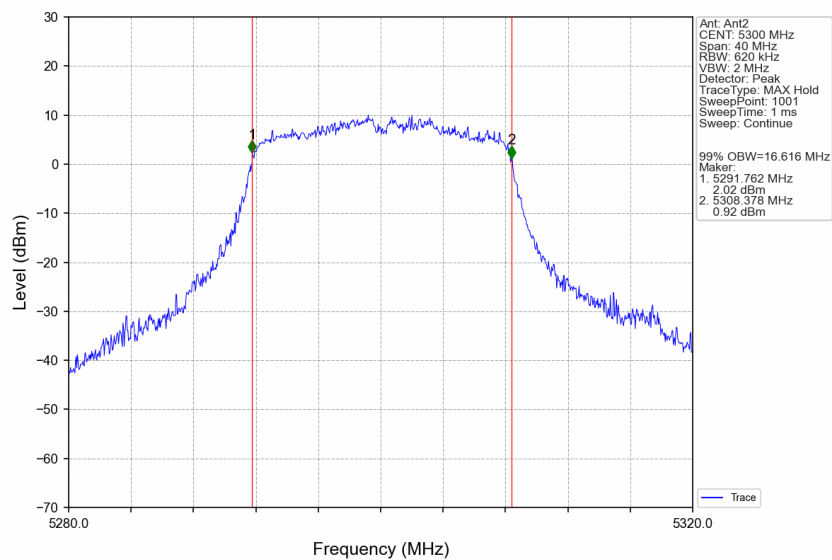
802.11a_LCH_5260MHz_Ant2_NTNV



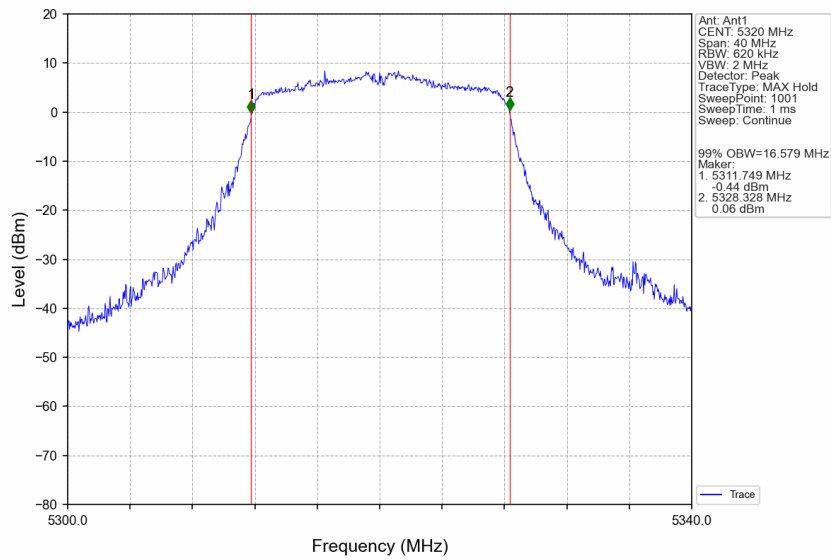
802.11a_MCH_5300MHz_Ant1_NTNV



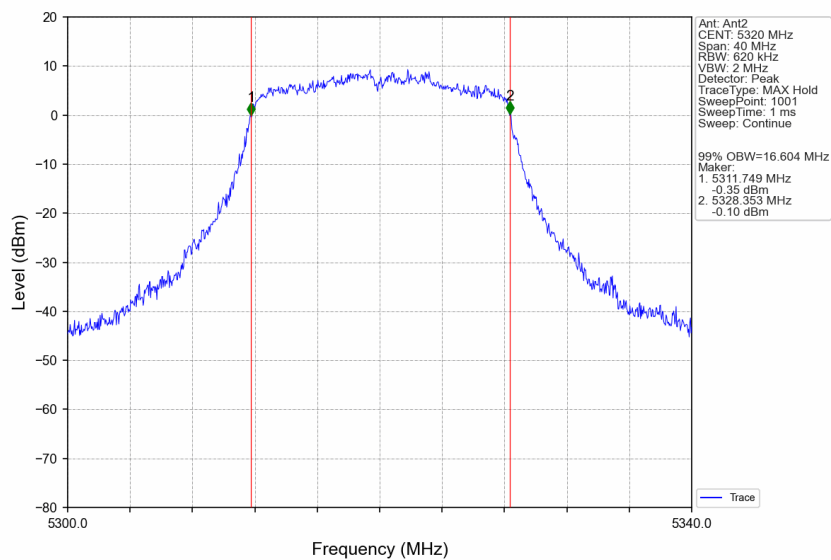
802.11a_MCH_5300MHz_Ant2_NTNV



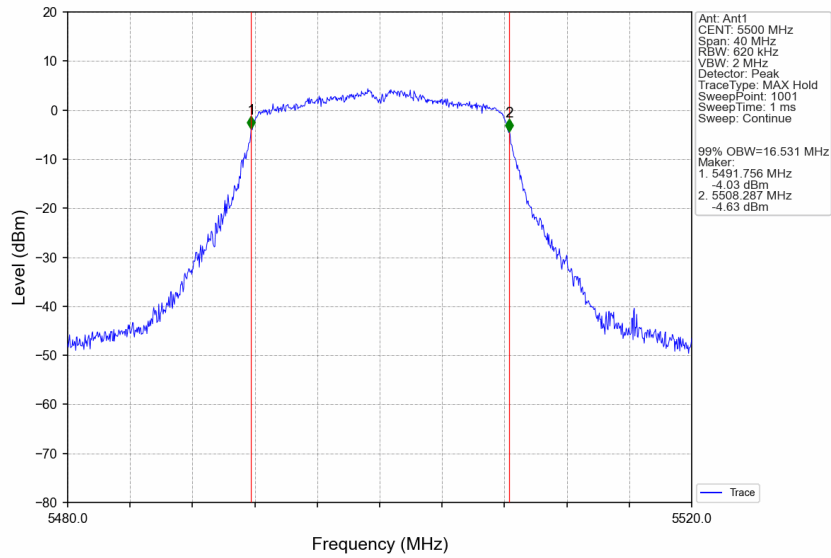
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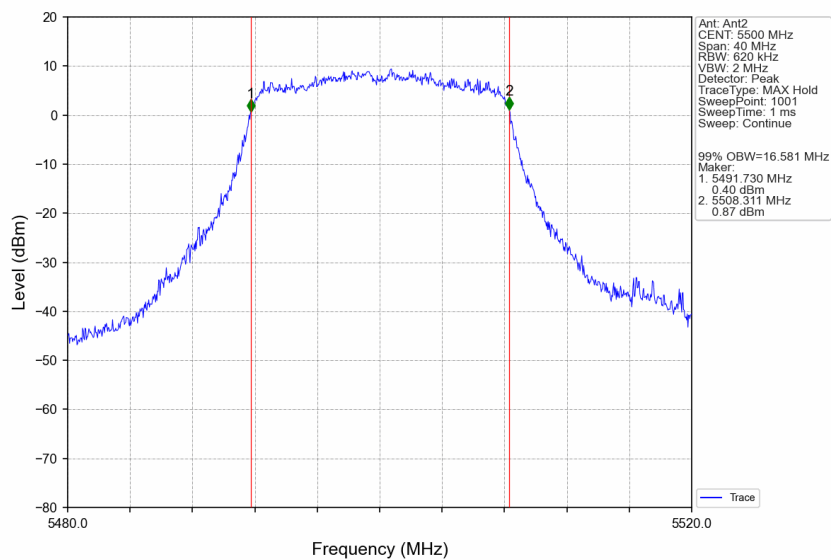
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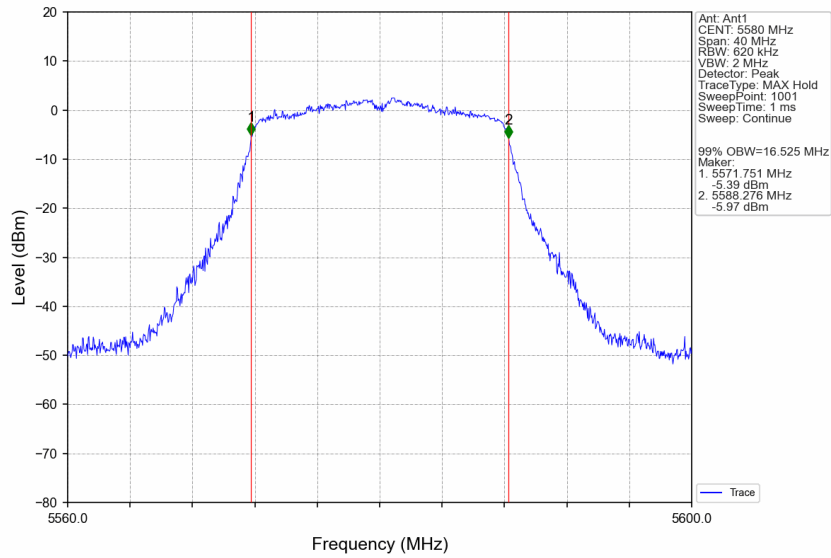
802.11a_LCH_5500MHz_Ant1_NTNV



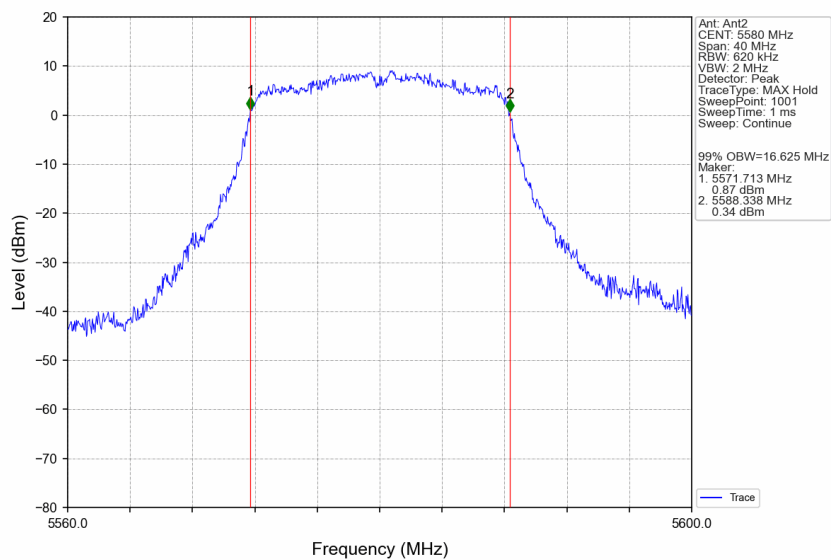
802.11a_LCH_5500MHz_Ant2_NTNV



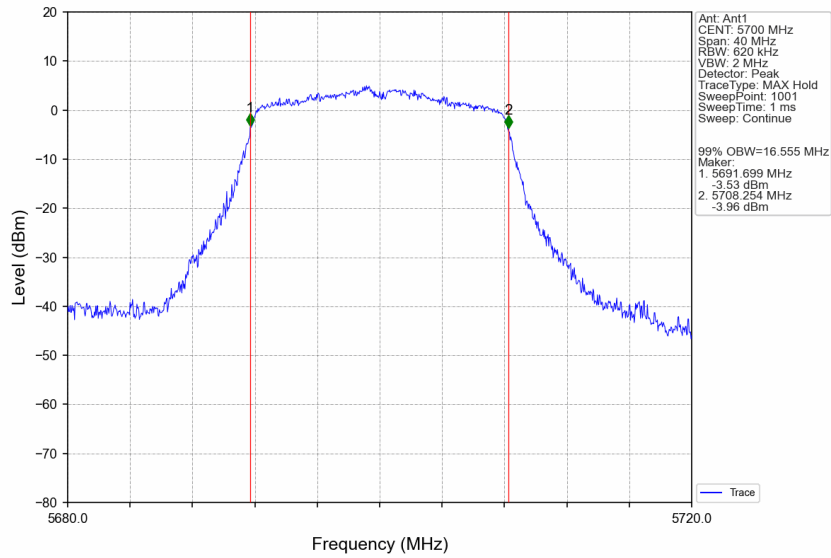
802.11a_MCH_5580MHz_Ant1_NTNV



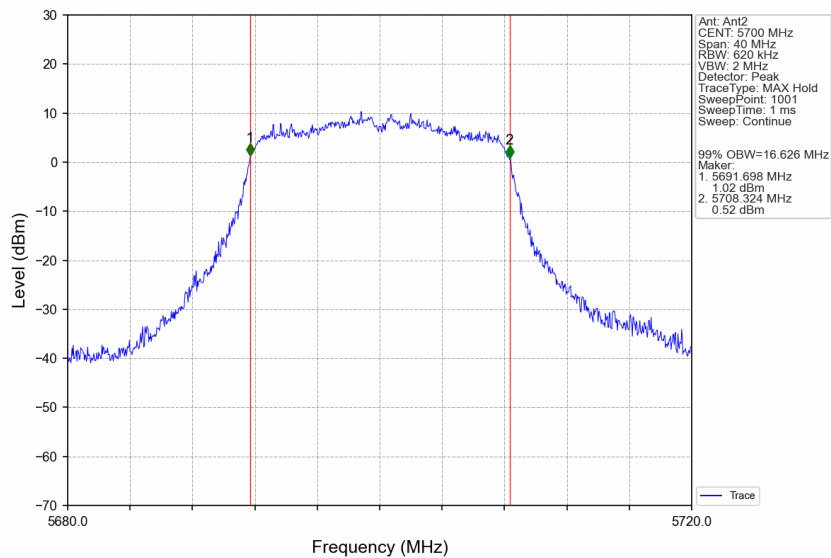
802.11a_MCH_5580MHz_Ant2_NTNV



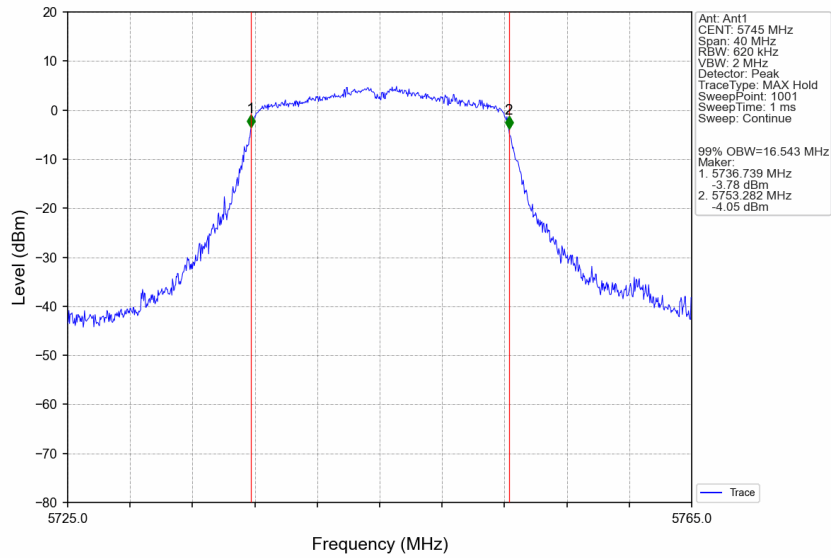
802.11a_HCH_5700MHz_Ant1_NTNV



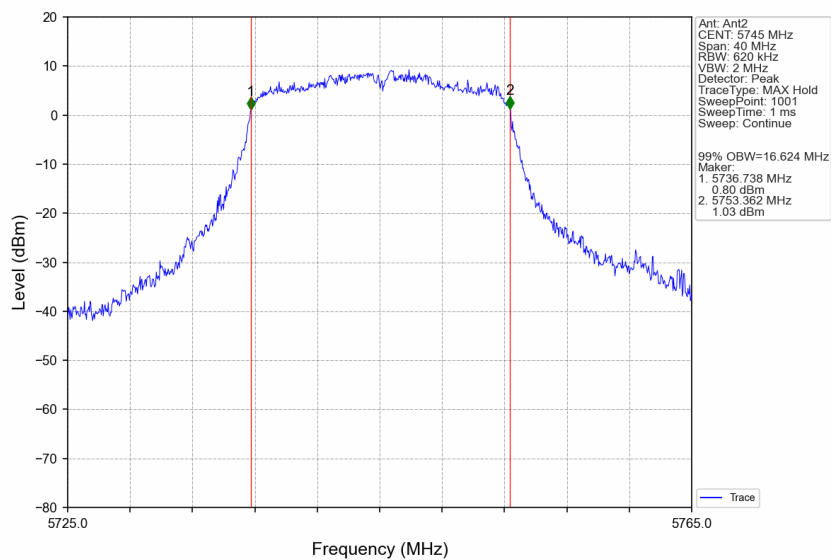
802.11a_HCH_5700MHz_Ant2_NTNV



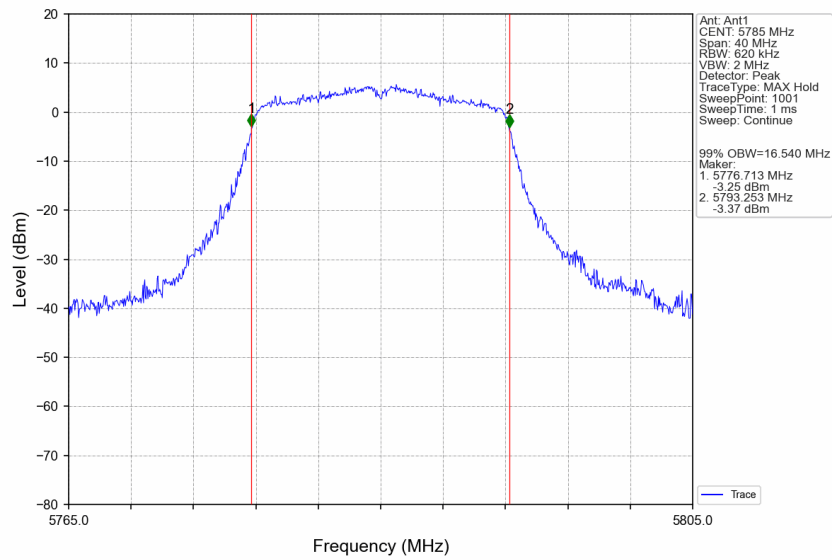
802.11a_LCH_5745MHz_Ant1_NTNV



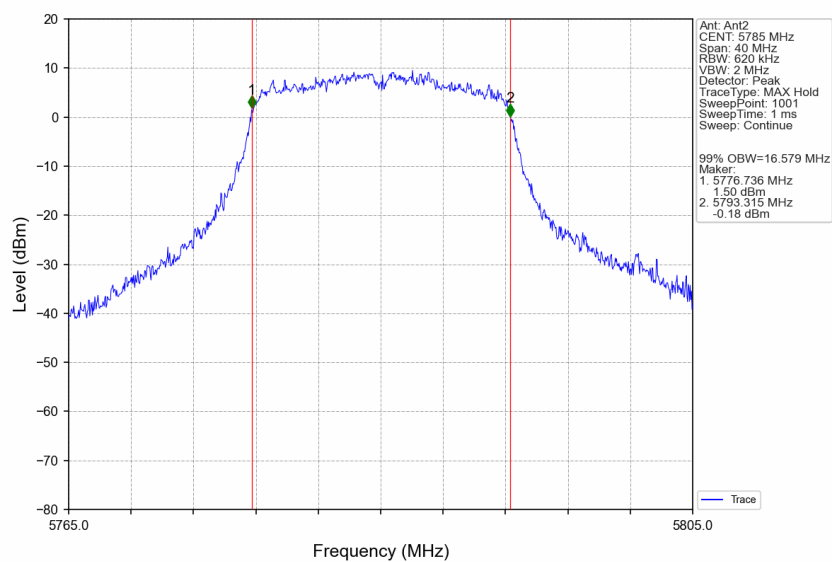
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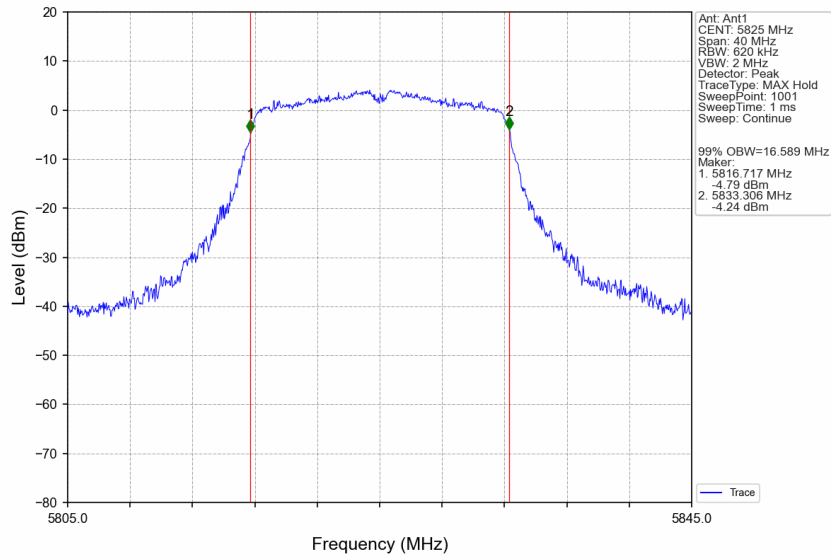
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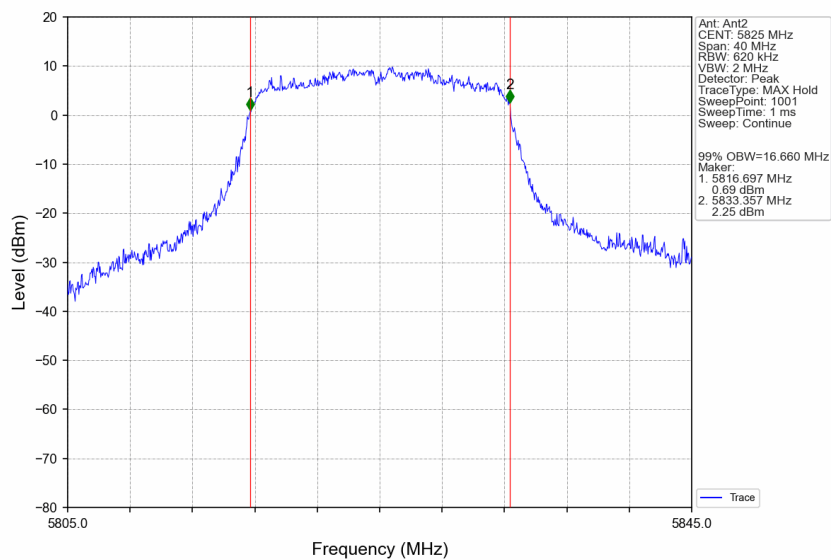
802.11a_MCH_5785MHz_Ant2_NTNV



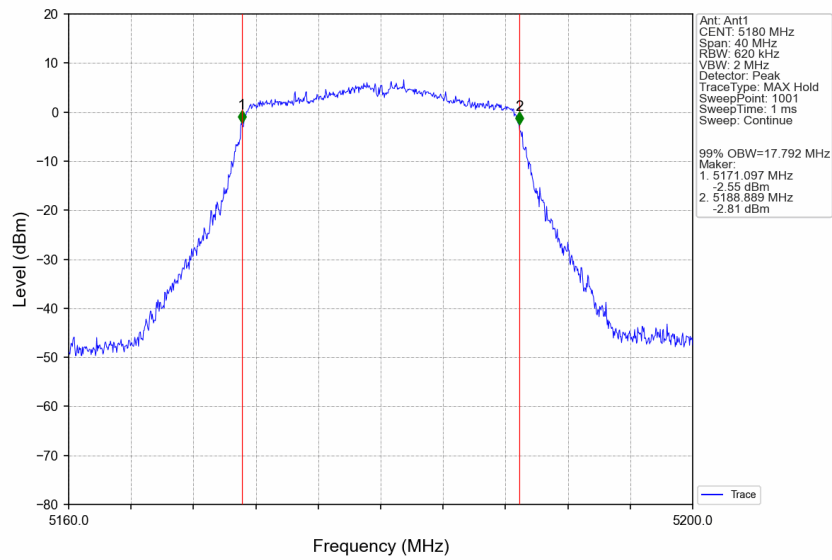
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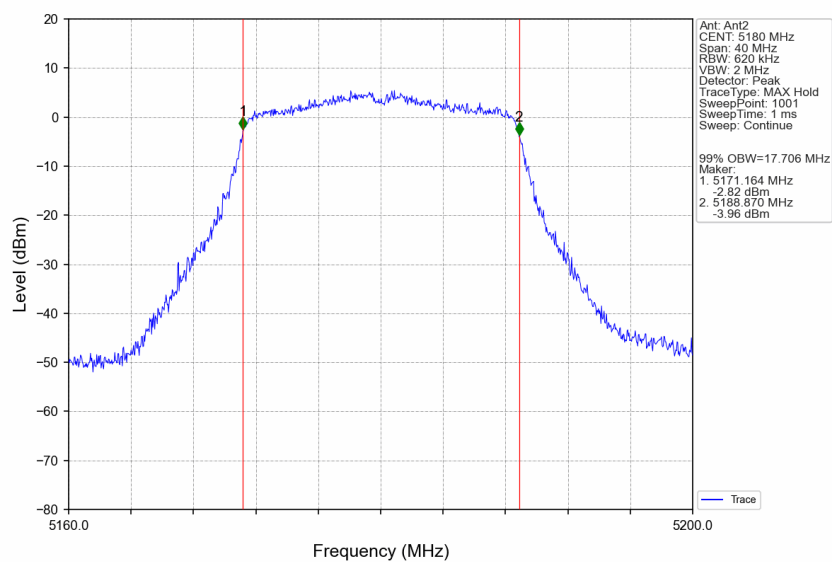
802.11a_HCH_5825MHz_Ant2_NTNV



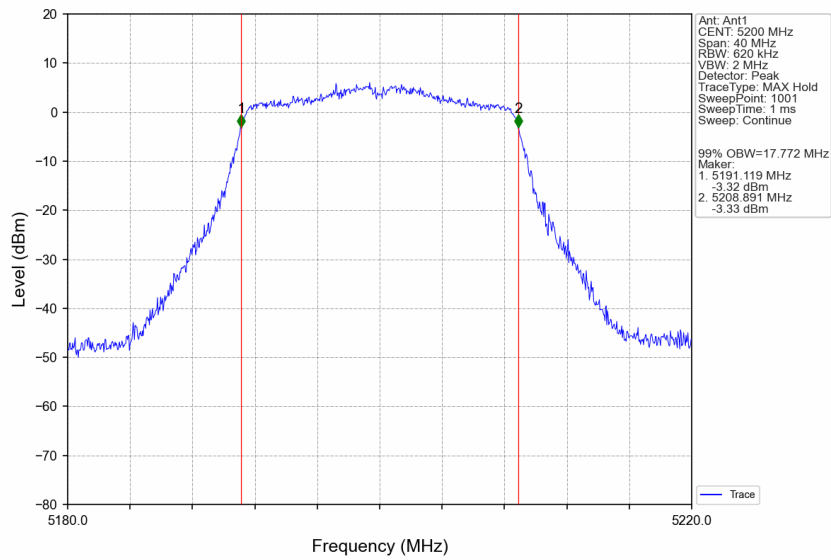
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



802.11ac(VHT20)_LCH_5180MHz_Ant2_NTNV



802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



802.11ac(VHT20)_MCH_5200MHz_Ant2_NTNV

