

# TEST REPORT

**Application No.:** KSCR2506001181AT  
**FCC ID:** 2BHTA-B311E  
**Applicant:** SYNLAN TECHNOLOGY PTE. LTD.  
**Address of Applicant:** 7 TEMASEK BOULEVARD #29-01D SUNTEC TOWER ONE SINGAPORE (038987)  
**Manufacturer:** SYNLAN TECHNOLOGY PTE. LTD.  
**Address of Manufacturer:** 7 TEMASEK BOULEVARD #29-01D SUNTEC TOWER ONE SINGAPORE (038987)  
**Equipment Under Test (EUT):**  
**EUT Name:** iFLYTEK AINOTE 2  
**Model No.:** XF-DX-B311E  
**Standard(s) :** 47 CFR Part 15, Subpart E 15.407  
KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02  
**Date of Receipt:** 2025-06-04  
**Date of Test:** 2025-08-16 to 2025-08-18  
**Date of Issue:** 2025-08-18

**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	2025-08-18	/

Authorized for issue by:			
Tested By		Damon Zhou	
		Damon_Zhou/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	Pass
Transmission in the Absence of Data		N/A	47 CFR Part 15, Subpart E 15.407 (c)	Pass

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 (2013) Section 12.2	Pass
99% Bandwidth		ANSI C63.10 (2020) Section 12.5.3	ANSI C63.10 (2013) 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

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## 4 General Information

### 4.1 Details of E.U.T.

Power supply:	DC 5V,2A Rechargeable Lithium-ion battery model: T5 Nominal Voltage: DC 3.90V Limited charge Voltage: DC 4.50V Rated Capacity: 4000mAh Nominal Energy: 15.6Wh
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)
Modulation Type:	802.11a: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM) 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024-QAM)
Channel Spacing:	802.11a/n/ac/ax 20: 20MHz 802.11n/ac/ax 40: 40MHz 802.11ac/ax 80: 80MHz
DFS Function:	Slave without Radar detection
Antenna Type:	PIFA Antenna
Antenna Gain:	UNII-1: -0.27dBi; (Provided by the manufacturer) UNII-2A: 0.76dBi; (Provided by the manufacturer) UNII-2C: -0.19dBi; (Provided by the manufacturer) UNII-3: -2.2dBi; (Provided by the manufacturer)

## 4.2 Power level setting using in test

Channel	802.11a	802.11ac(HT20)	802.11ax(HT20)
	Ant 1	Ant 1	Ant 1
36	1C	1C	1C
40	1C	1C	1C
48	1C	1C	1C
52	1A	1B	1B
60	1A	1B	1B
64	1A	1B	1B
100	22	1C	24
116	22	1C	24
140	22	1B	24
149	26	26	26
157	26	26	26
165	26	26	26
Channel	802.11ac40	802.11ax40	
	Ant 1	Ant 1	
38	1C	1C	
46	1C	1C	
54	1B	1B	
62	1B	1B	
102	1C	1C	
110	1C	1C	
134	1C	1C	
151	26	26	
159	26	26	
Channel	802.11ac80	802.11ax80	
	Ant 1	Ant 1	
42	1C	1C	
58	19	19	
106	16	16	
122	16	16	
138	16	16	
155	26	26	

## 4.3 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Notebook	Lenovo	/	/

#### 4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	$8.4 \times 10^{-8}$
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
<b>Conducted Emission at Mains Terminals</b>						
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
<b>RF Conducted Test</b>						
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
<b>RF Radiated Test</b>						
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 antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is PIFA antenna no consideration of replacement. The best case gain of the

5G UNII-1: -0.27dBi,5G UNII-2A: 0.76dBi,5G UNII-2C: -0.19dBi,5G UNII-3: -2.2dBi,

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**

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: 26.0 °C

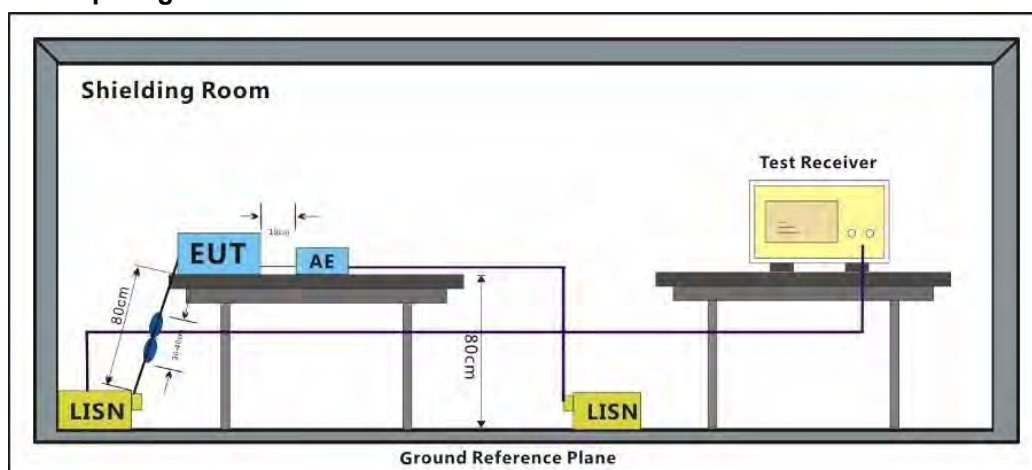
Humidity: 56.2 % RH

Atmospheric Pressure: 1010 mbar

#### 7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	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 only the data of worst case is recorded in the report.

#### 7.1.3 Test Setup Diagram



#### 7.1.4 Measurement Procedure and Data

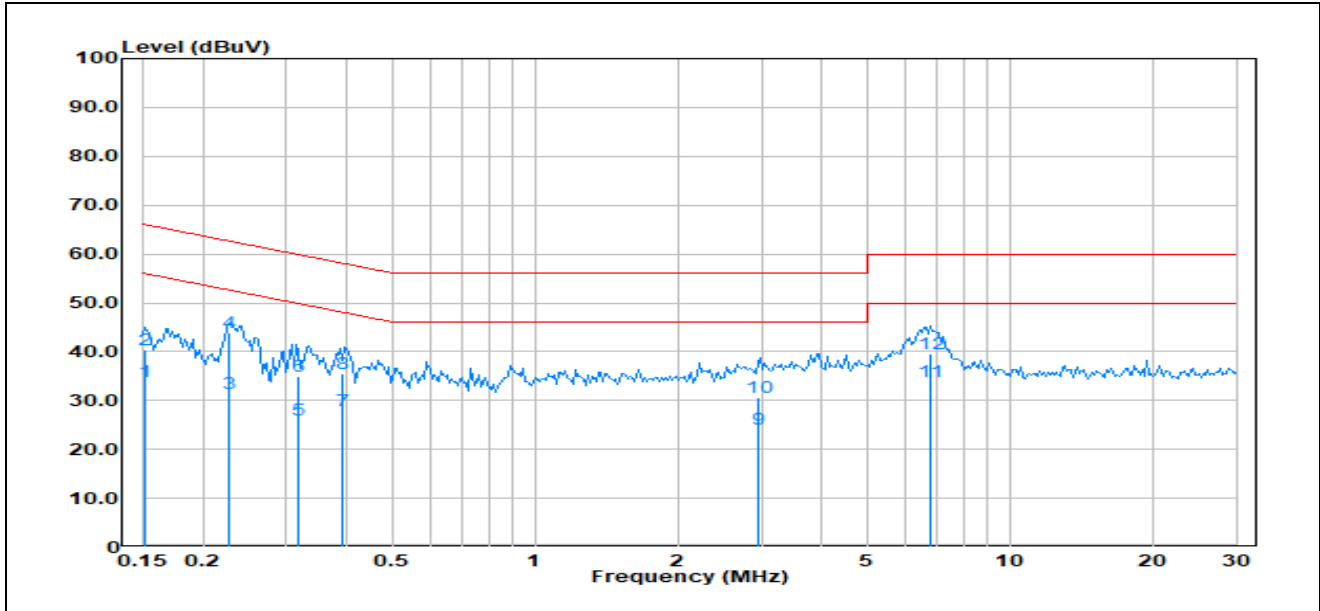
- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a  $50\Omega/50\mu\text{H} + 50\Omega$  linear impedance. The power cables of all other units of the 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: 05; Line: Live line

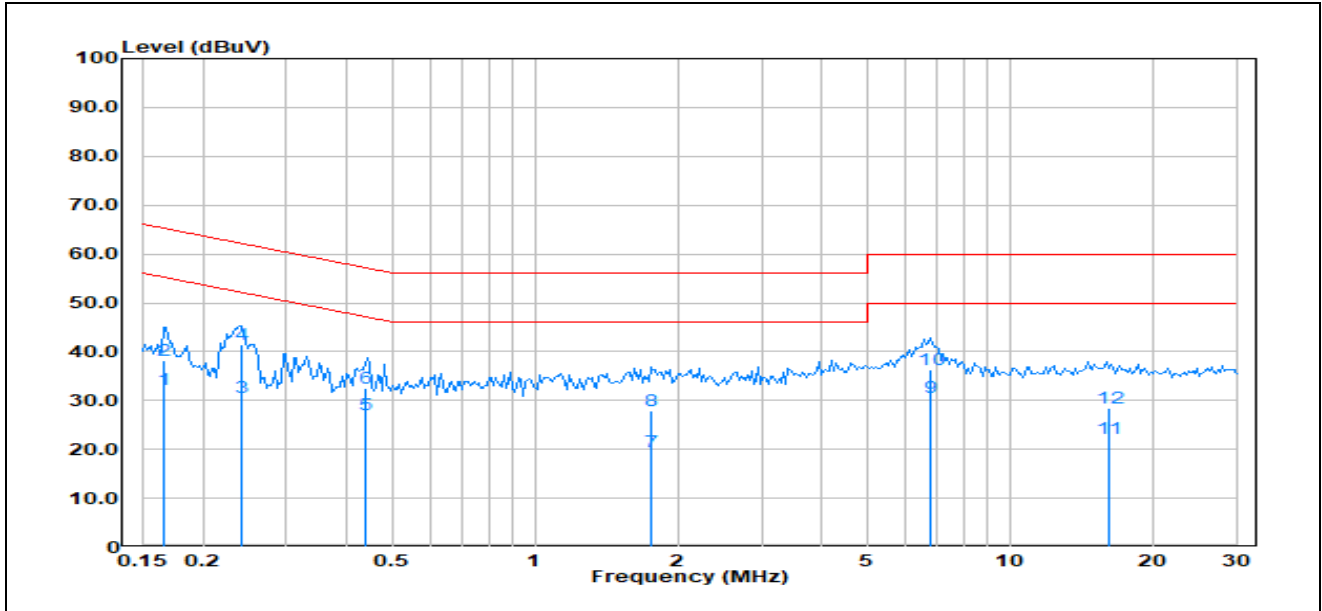
### Test Data :



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1509	13.72	20.03	33.75	55.95	-22.20	Average
2	0.1509	20.35	20.03	40.38	65.95	-25.57	QP
3	0.2274	11.82	19.72	31.54	52.54	-21.00	Average
4	0.2274	24.19	19.72	43.91	62.54	-18.63	QP
5	0.3162	6.22	19.68	25.90	49.81	-23.91	Average
6	0.3162	15.25	19.68	34.93	59.81	-24.88	QP
7	0.3947	8.24	19.68	27.92	47.96	-20.04	Average
8	0.3947	15.84	19.68	35.52	57.96	-22.44	QP
9	2.9590	4.09	19.97	24.06	46.00	-21.94	Average
10	2.9590	10.57	19.97	30.54	56.00	-25.46	QP
11	6.7820	14.17	19.67	33.84	50.00	-16.16	Average
12	6.7820	19.77	19.67	39.44	60.00	-20.56	QP

Test Mode: 05; Line: Neutral Line

## Test Data :



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.1652	12.20	19.92	32.12	55.20	-23.08	Average
2	0.1652	18.19	19.92	38.11	65.20	-27.09	QP
3	0.2404	10.80	19.71	30.51	52.08	-21.57	Average
4	0.2404	21.65	19.71	41.36	62.08	-20.72	QP
5	0.4391	7.61	19.59	27.20	47.08	-19.88	Average
6	0.4391	12.96	19.59	32.55	57.08	-24.53	QP
7	1.7550	-0.30	19.86	19.56	46.00	-26.44	Average
8	1.7550	8.07	19.86	27.93	56.00	-28.07	QP
9	6.8340	11.02	19.60	30.62	50.00	-19.38	Average
10	6.8340	16.69	19.60	36.29	60.00	-23.71	QP
11	16.1610	2.23	20.06	22.29	50.00	-27.71	Average
12	16.1610	8.34	20.06	28.40	60.00	-31.60	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: 24.6 °C

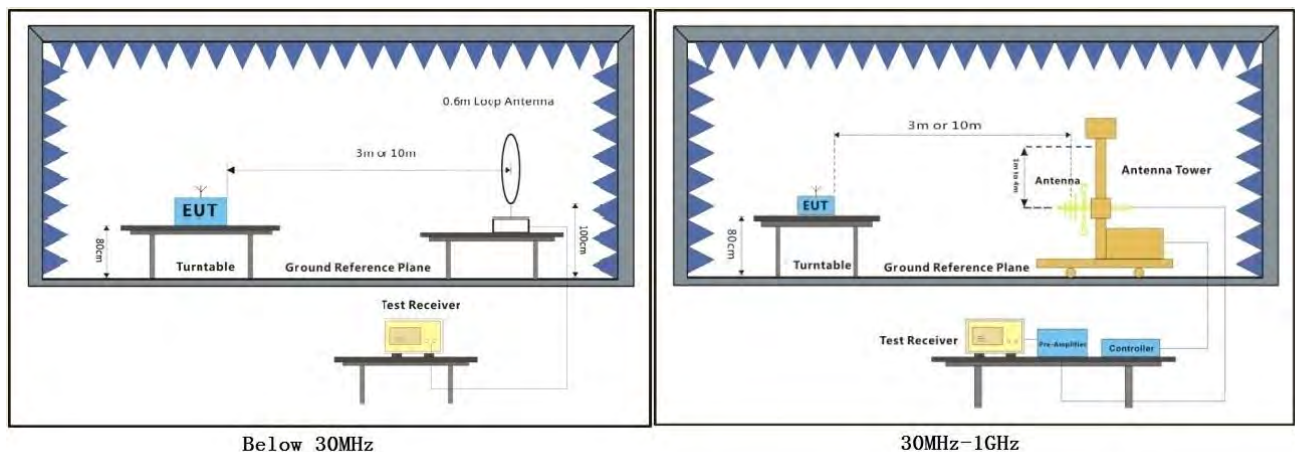
Humidity: 47.9 % RH

Atmospheric Pressure: 1010 mbar

### 7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	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 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.

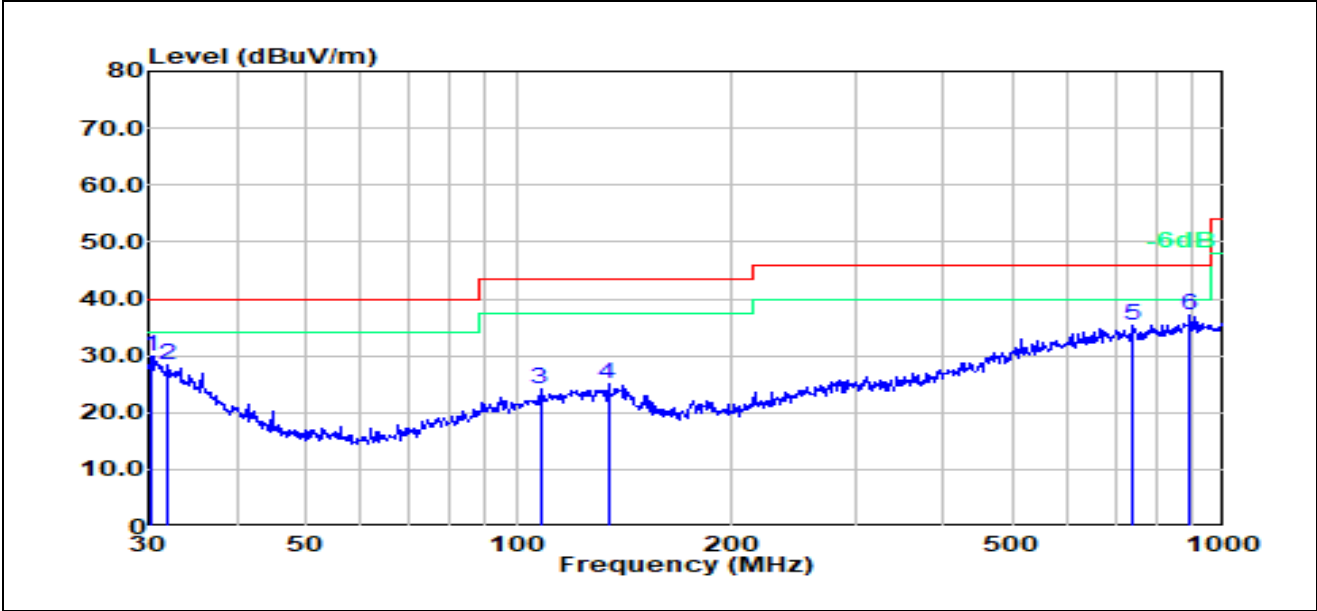
Remark:

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: 05; Polarity: Horizontal

Test Data :



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBUV)	Factor(dB/m)	(dBUV/m)	(dBUV/m)	(dB)	(cm)	(deg.)	
1	30.32	4.99	24.87	29.85	40.00	-10.15	100	308	Peak
2	31.95	5.05	23.38	28.43	40.00	-11.57	100	268	Peak
3	107.51	5.17	19.06	24.23	43.50	-19.27	100	68	Peak
4	134.09	5.19	20.02	25.21	43.50	-18.29	100	32	Peak
5	739.66	5.51	29.79	35.30	46.00	-10.70	100	130	Peak
6	890.73	5.67	31.35	37.02	46.00	-8.98	100	315	Peak

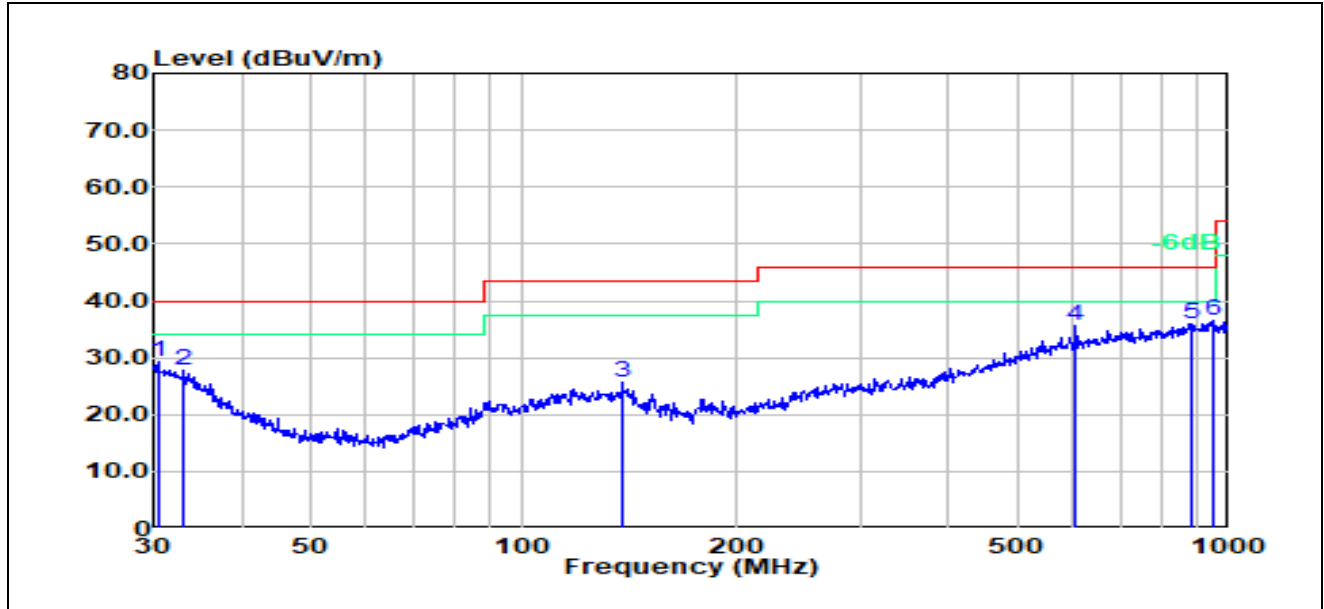


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Test Mode: 05; Polarity: Vertical

**Test Data :**



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBUV)	Factor(dB/m)	(dBUV/m)	(dBUV/m)	(dB)	(cm)	(deg.)	
1	30.42	4.63	24.78	29.41	40.00	-10.59	100	210	Peak
2	33.10	4.64	23.08	27.72	40.00	-12.28	100	142	Peak
3	138.39	5.03	20.50	25.53	43.50	-17.97	100	0	Peak
4	605.66	6.87	28.63	35.50	46.00	-10.50	100	357	Peak
5	884.50	4.78	31.28	36.06	46.00	-9.94	100	0	Peak
6	945.44	5.18	31.37	36.55	46.00	-9.45	100	0	Peak

### 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: 24.6 °C

Humidity: 47.9 % RH

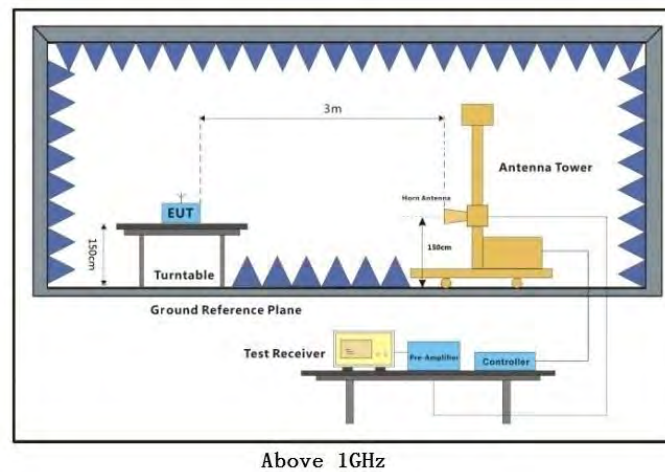
Atmospheric Pressure: 1010 mbar

#### 7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	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 only the data of worst case is recorded in the report.
Final test	06	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 only the data of worst case is recorded in the report.
Final test	07	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 only the data of worst case is recorded in the report.
Final test	08	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 only the data of worst case is recorded in the report.

### 7.3.3 Test Setup Diagram



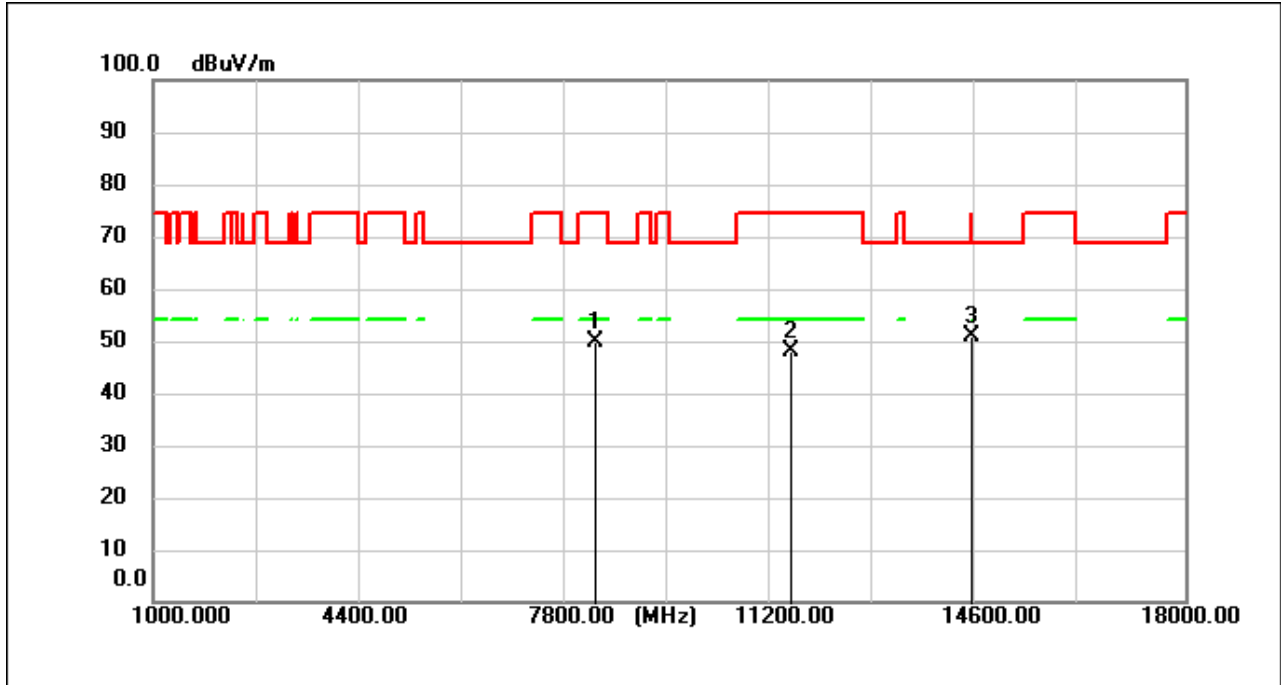
### 7.3.4 Measurement Procedure and Data

- 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:

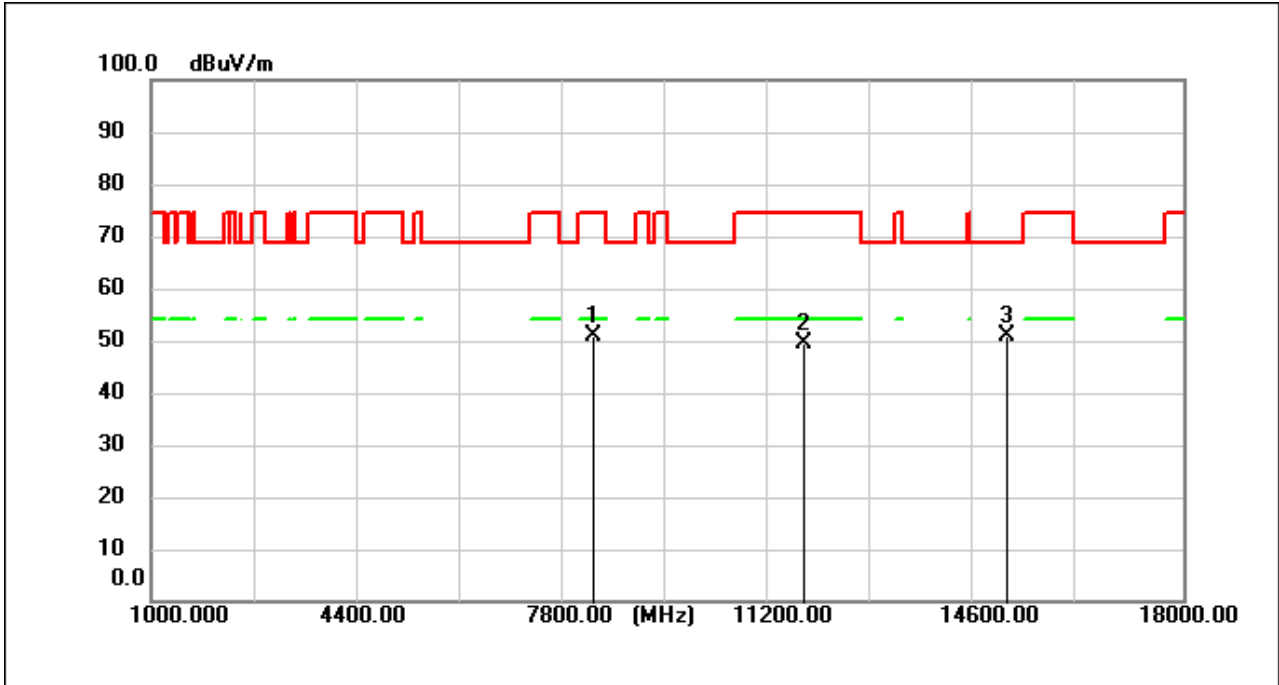
1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from 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.

11a\_TX\_CH\_36\_Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8287.900	59.42	-9.61	49.81	74.00	-24.19	peak
2	11511.950	53.77	-5.77	48.00	74.00	-26.00	peak
3	14465.700	54.80	-3.75	51.05	68.30	-17.25	peak

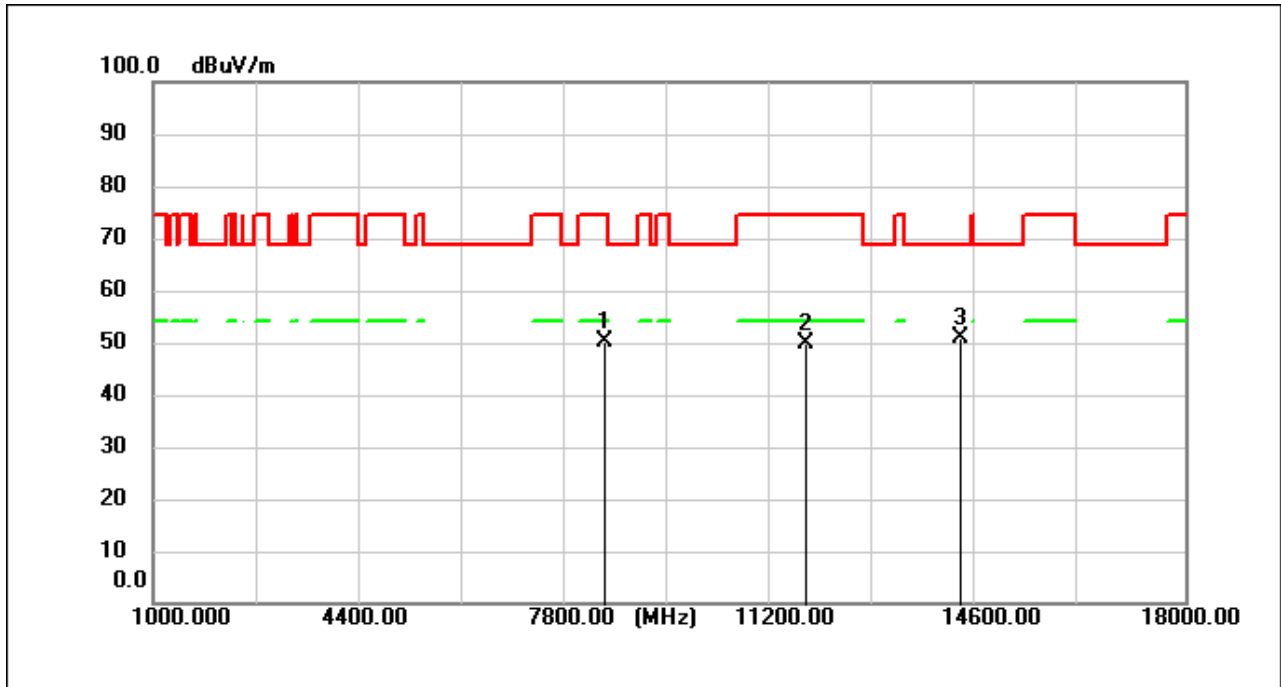
11a\_TX\_CH\_36\_Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8287.900	60.33	-9.61	50.72	74.00	-23.28	peak
2	11738.050	55.40	-5.78	49.62	74.00	-24.38	peak
3	15083.650	54.77	-3.71	51.06	68.30	-17.24	peak

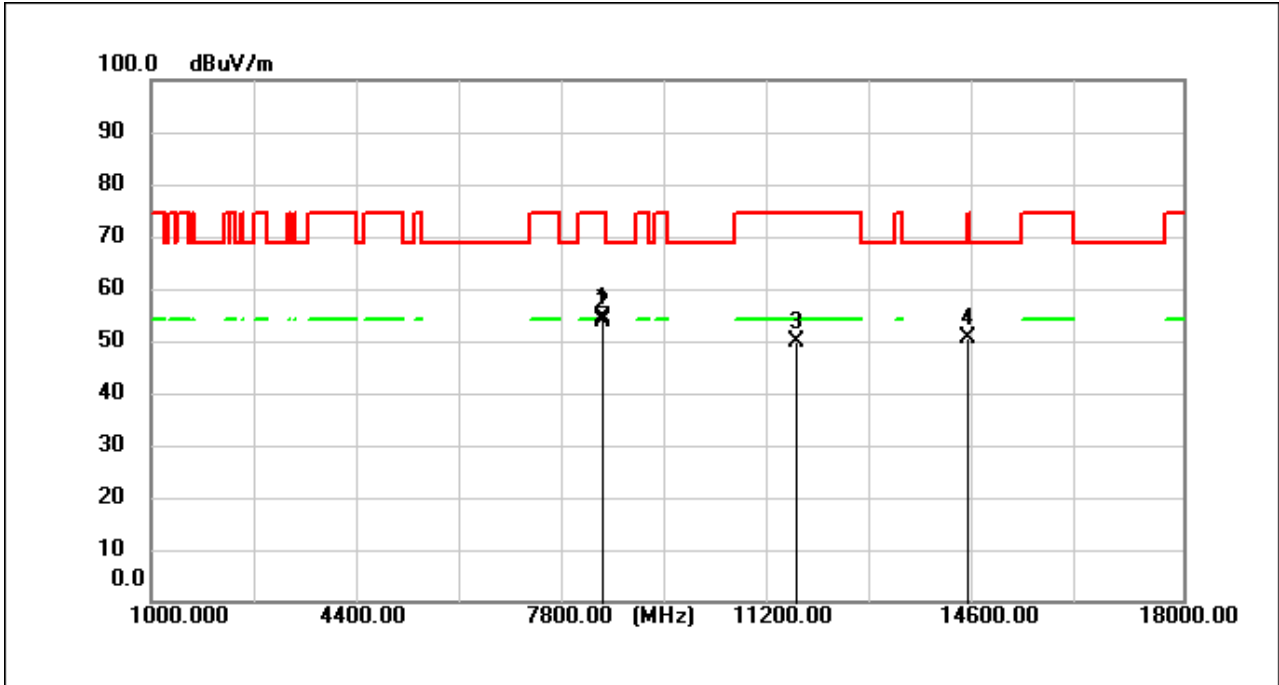


11a\_TX\_CH\_52\_Horizontal



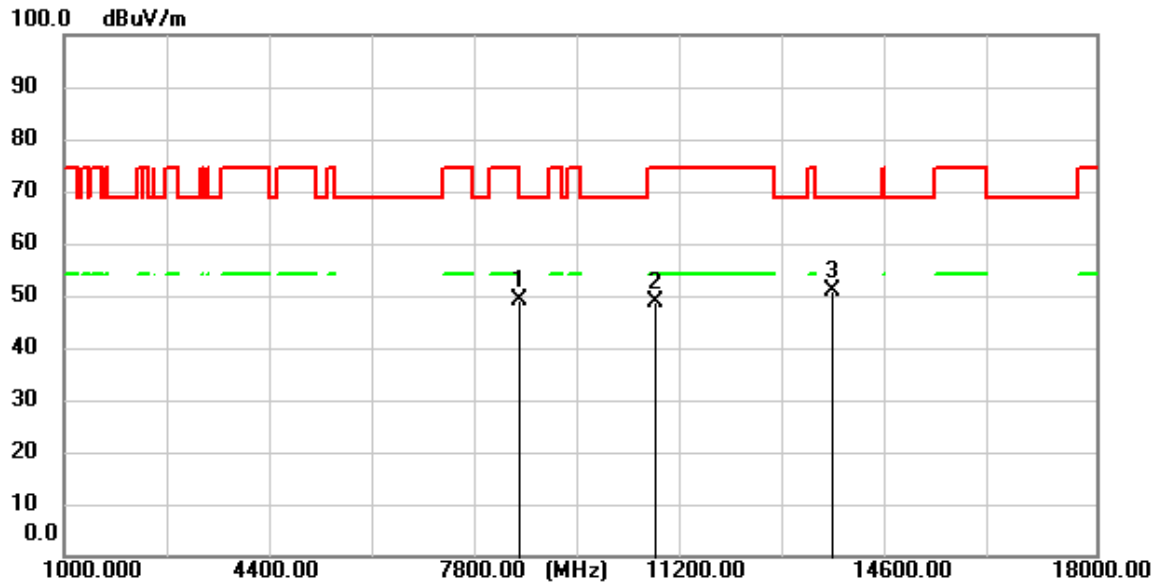
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8416.250	59.67	-9.54	50.13	74.00	-23.87	peak
2	11736.350	55.62	-5.78	49.84	74.00	-24.16	peak
3	14309.300	54.59	-3.61	50.98	68.30	-17.32	peak

11a\_TX\_CH\_52\_Vertical



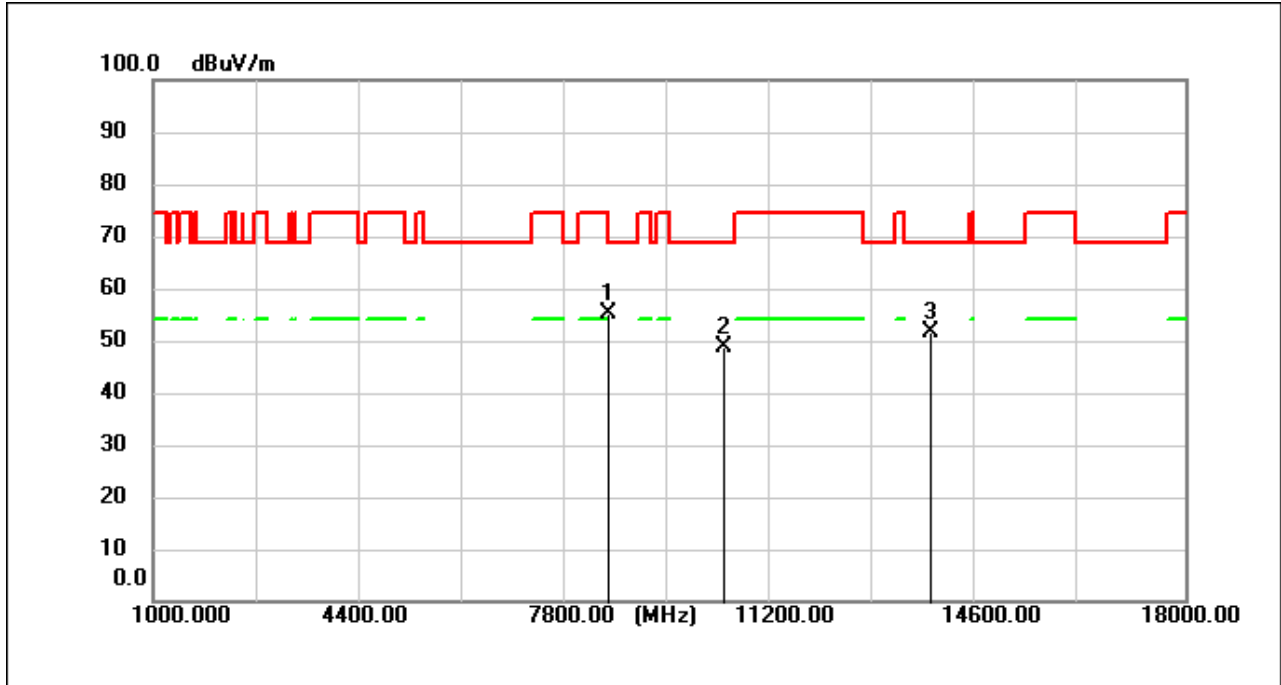
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8416.250	64.09	-9.54	54.55	74.00	-19.45	peak
2	8416.250	63.27	-9.54	53.73	54.00	-0.27	AVG
3	11612.250	55.50	-5.78	49.72	74.00	-24.28	peak
4	14439.350	54.37	-3.72	50.65	68.30	-17.65	peak

## 11a\_TX\_CH\_64\_Horizontal



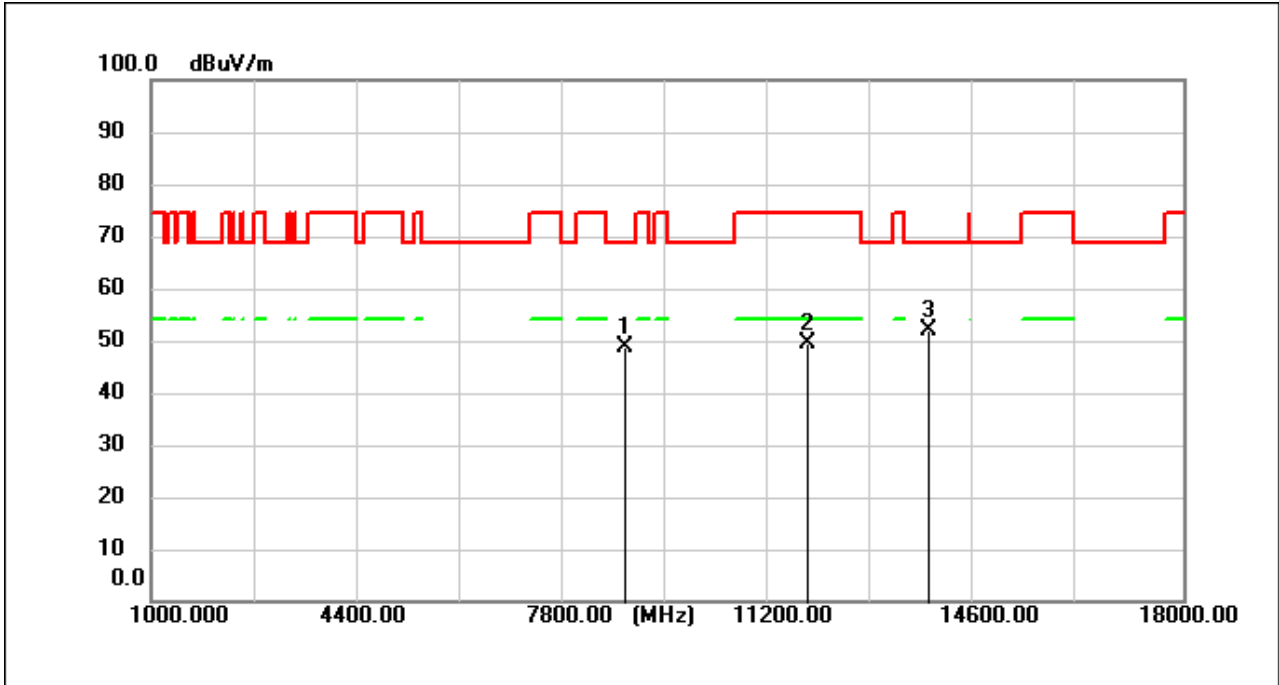
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8512.300	58.62	-9.47	49.15	68.30	-19.15	peak
2	10732.500	54.91	-6.08	48.83	74.00	-25.17	peak
3	13639.500	54.48	-3.71	50.77	68.30	-17.53	peak

11a\_TX\_CH\_64\_Vertical



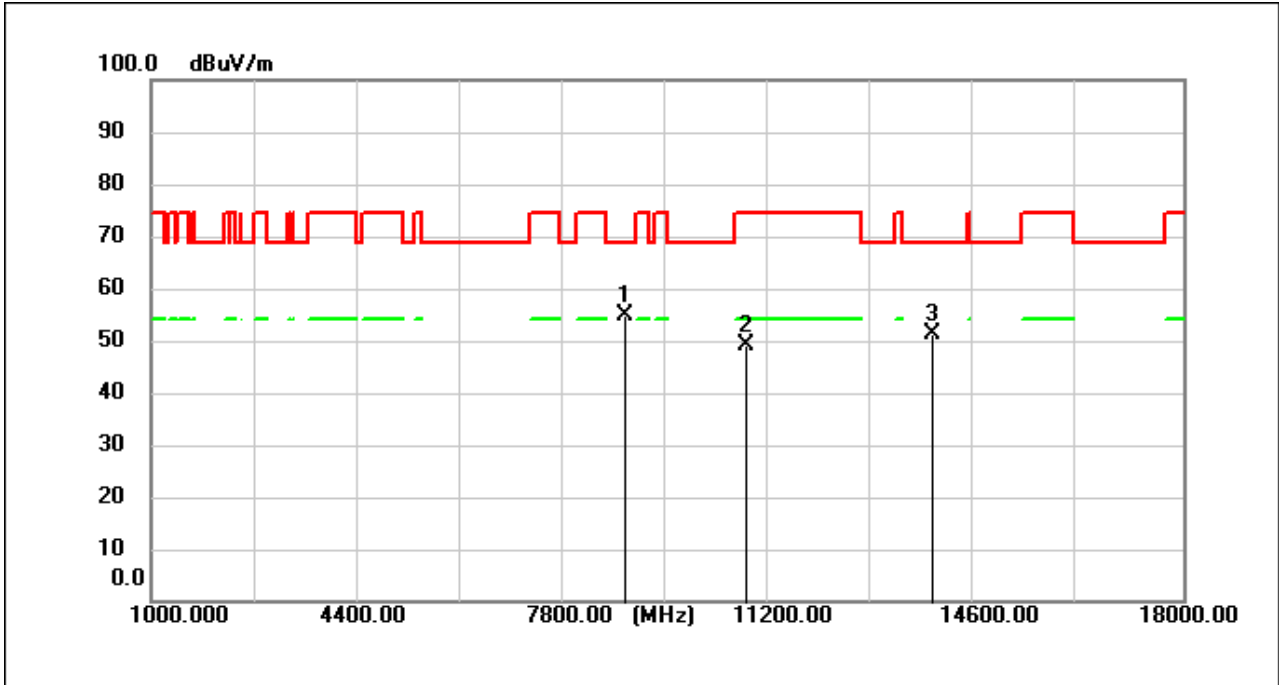
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8512.300	64.59	-9.47	55.12	68.30	-13.18	peak
2	10418.000	55.04	-6.18	48.86	68.30	-19.44	peak
3	13814.600	55.15	-3.53	51.62	68.30	-16.68	peak

## 11a\_TX\_CH\_100\_Horizontal



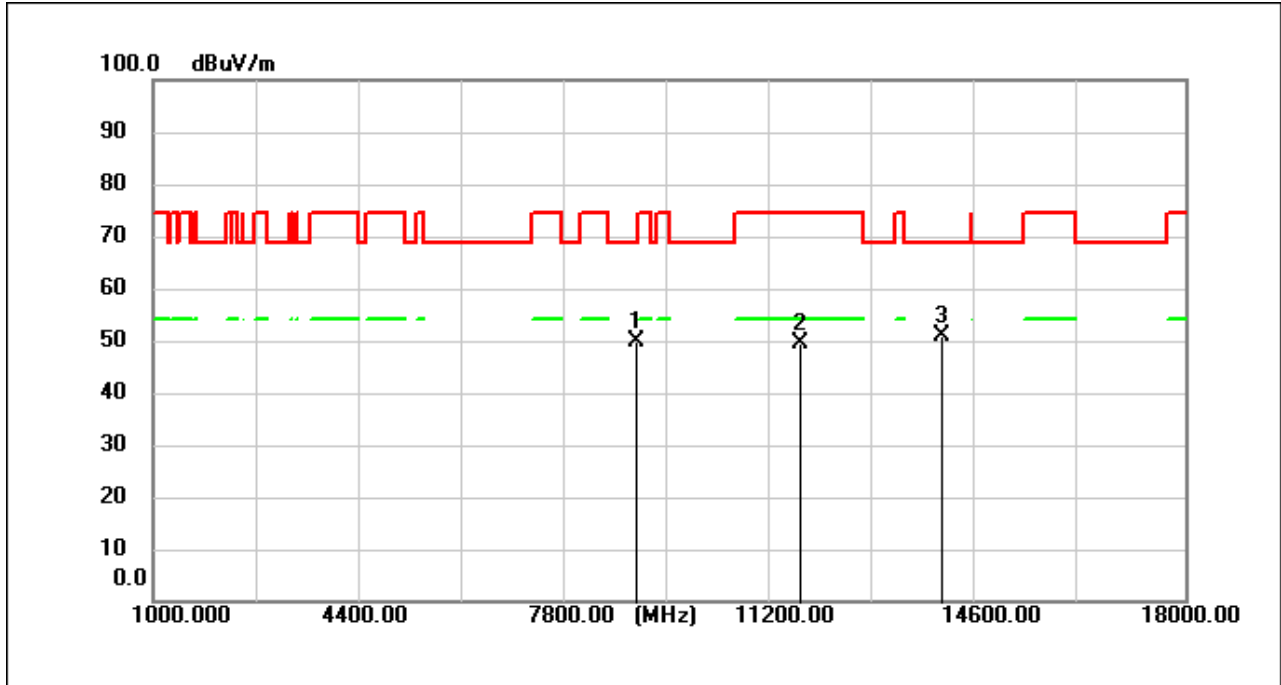
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8799.600	57.48	-8.72	48.76	68.30	-19.54	peak
2	11823.900	55.23	-5.79	49.44	74.00	-24.56	peak
3	13805.250	55.41	-3.53	51.88	68.30	-16.42	peak

11a\_TX\_CH\_100\_Vertical



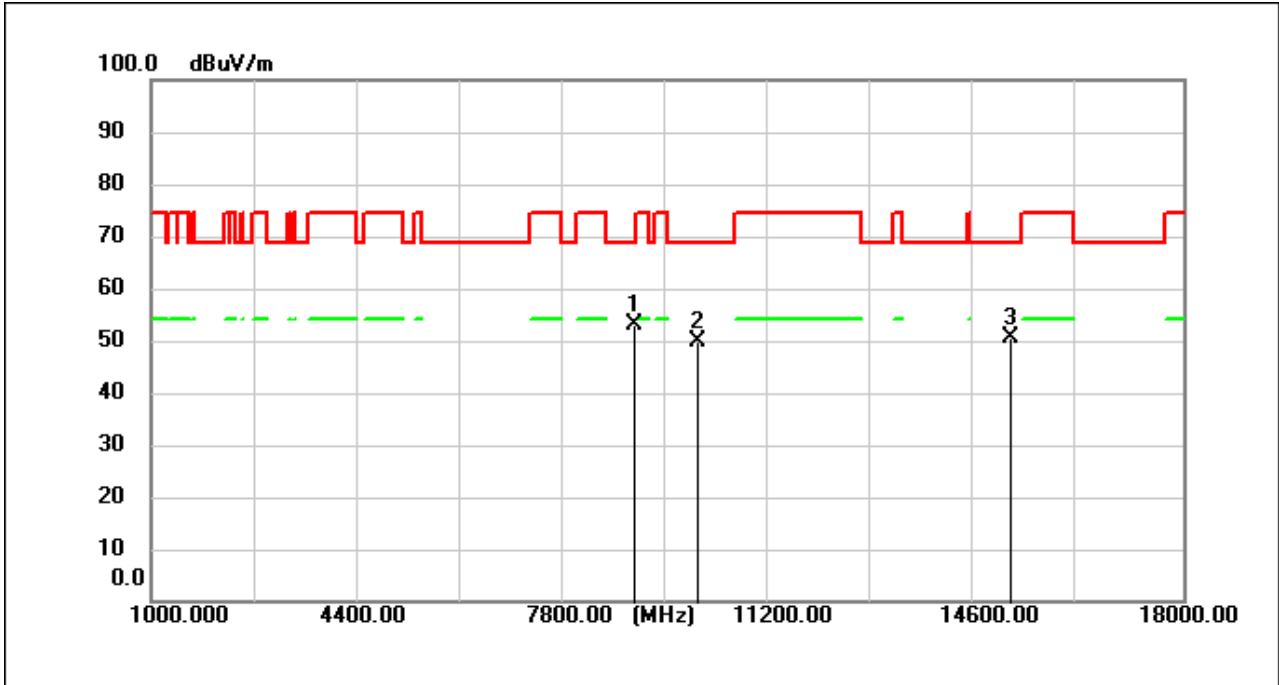
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8799.600	63.43	-8.72	54.71	68.30	-13.59	peak
2	10793.700	55.14	-6.07	49.07	74.00	-24.93	peak
3	13886.000	54.67	-3.46	51.21	68.30	-17.09	peak

11a\_TX\_CH\_120\_Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8960.250	58.07	-8.29	49.78	68.30	-18.52	peak
2	11653.900	55.13	-5.78	49.35	74.00	-24.65	peak
3	13976.100	54.32	-3.37	50.95	68.30	-17.35	peak

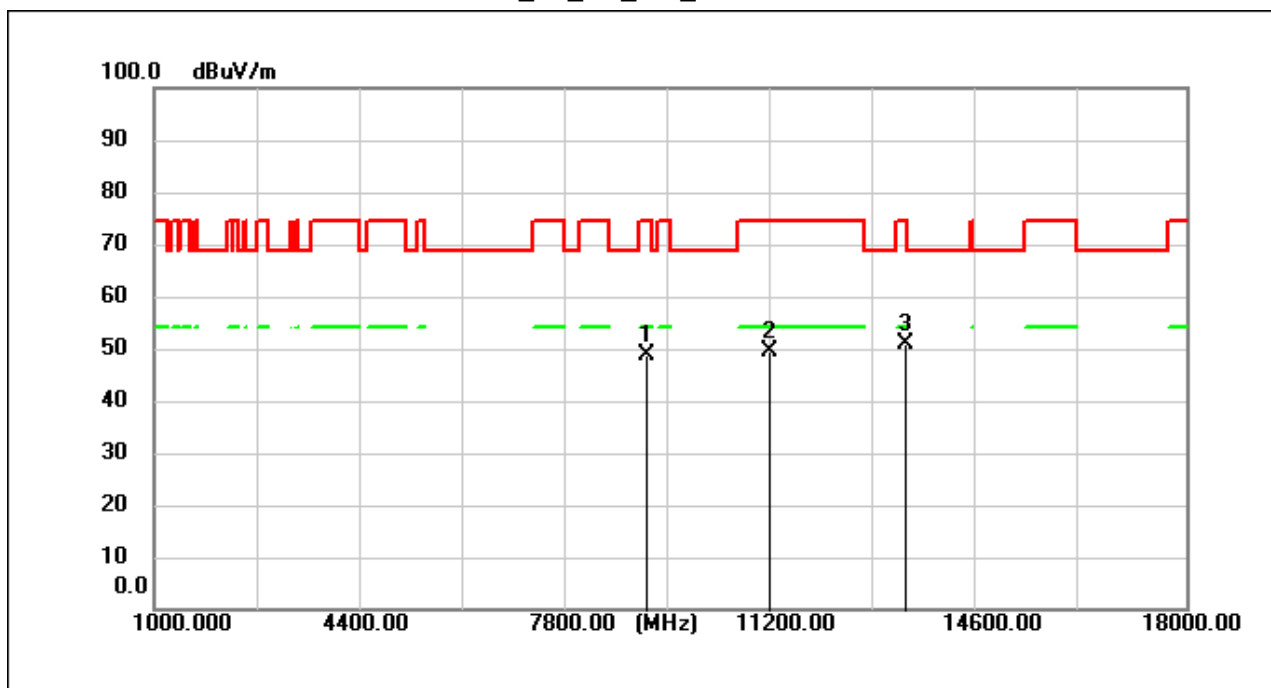
11a\_TX\_CH\_120\_Vertical



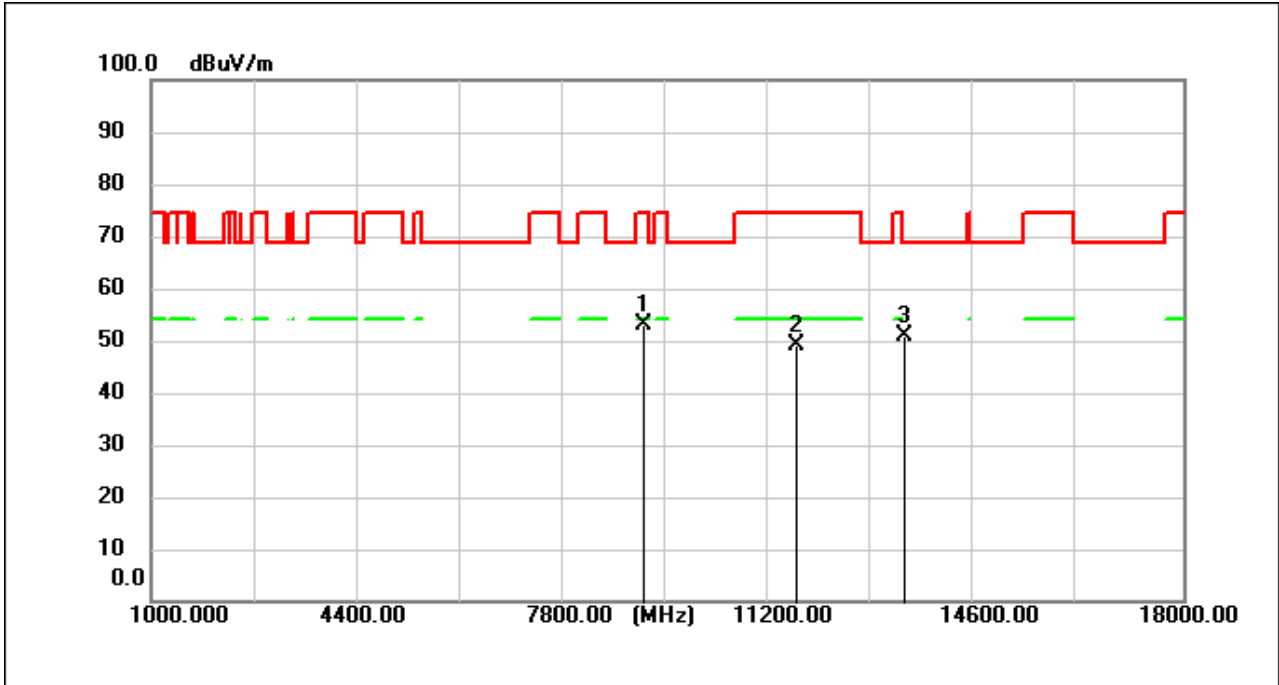
No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8960.250	61.39	-8.29	53.10	68.30	-15.20	peak
2	10005.750	56.27	-6.59	49.68	68.30	-18.62	peak
3	15146.550	54.49	-3.79	50.70	68.30	-17.60	peak



11a\_TX\_CH\_140\_Horizontal

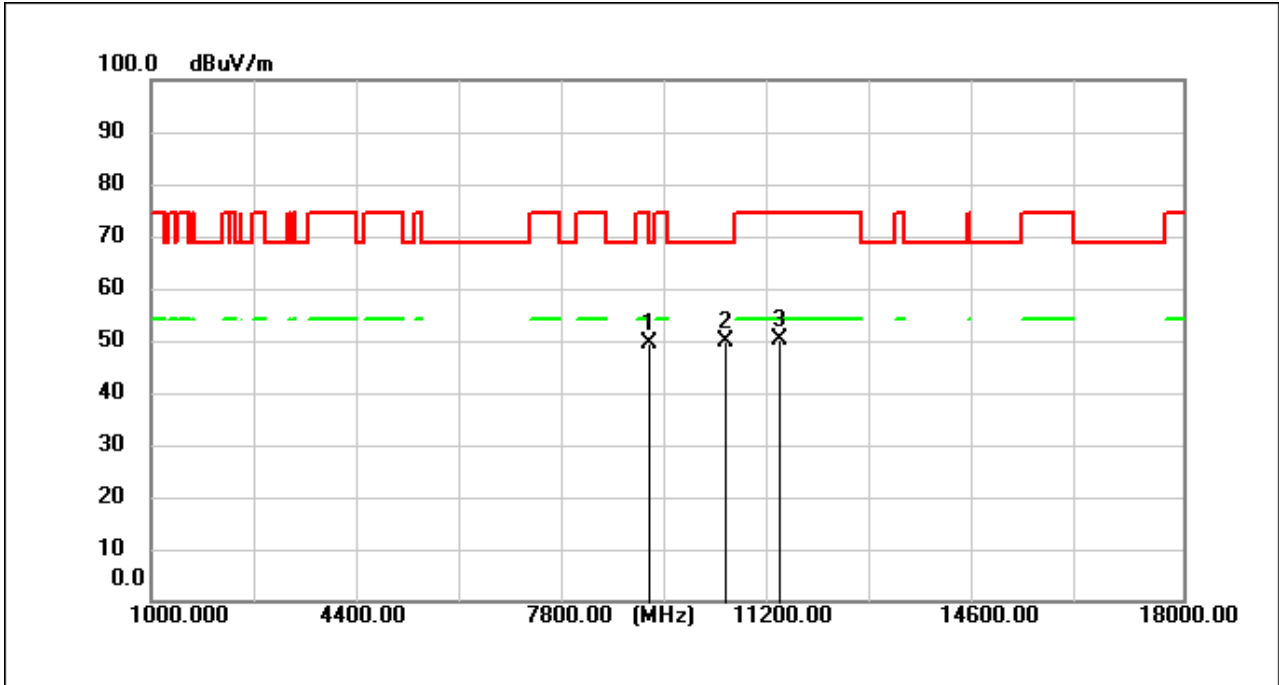


11a\_TX\_CH\_140\_Vertical



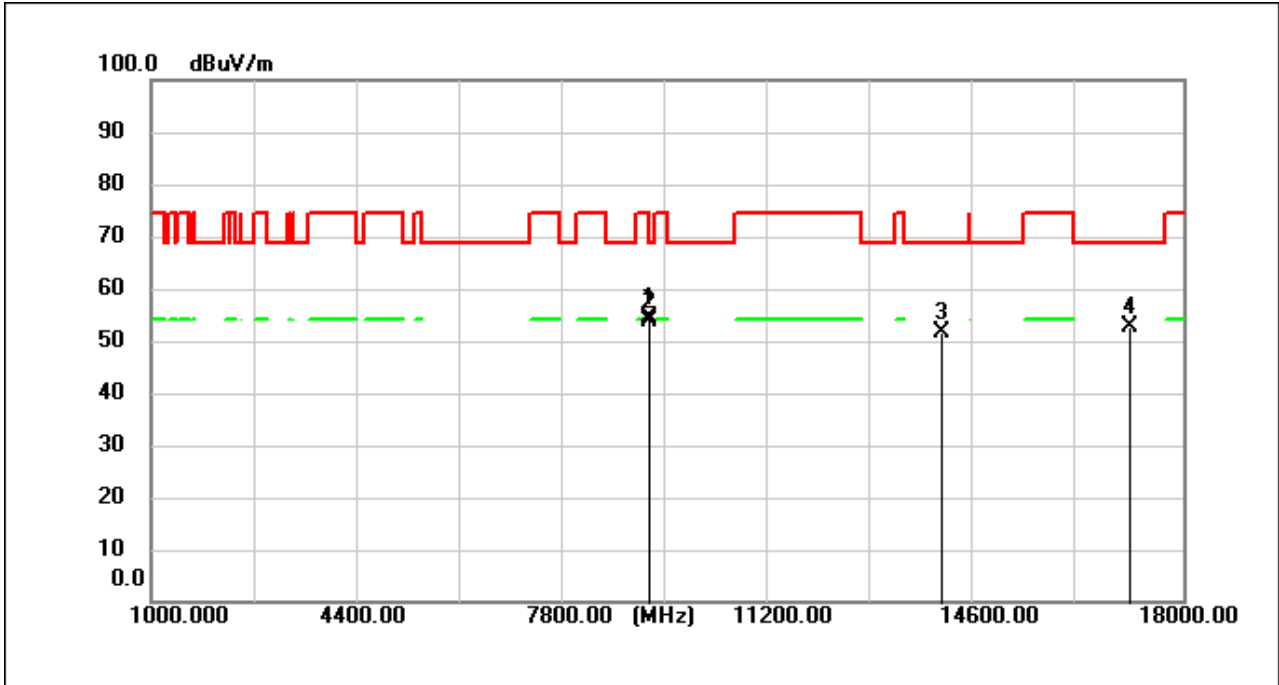
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9120.050	61.21	-8.01	53.20	74.00	-20.80	peak
2	11635.200	54.86	-5.78	49.08	74.00	-24.92	peak
3	13411.700	54.86	-4.05	50.81	68.30	-17.49	peak

11a\_TX\_CH\_149\_Horizontal



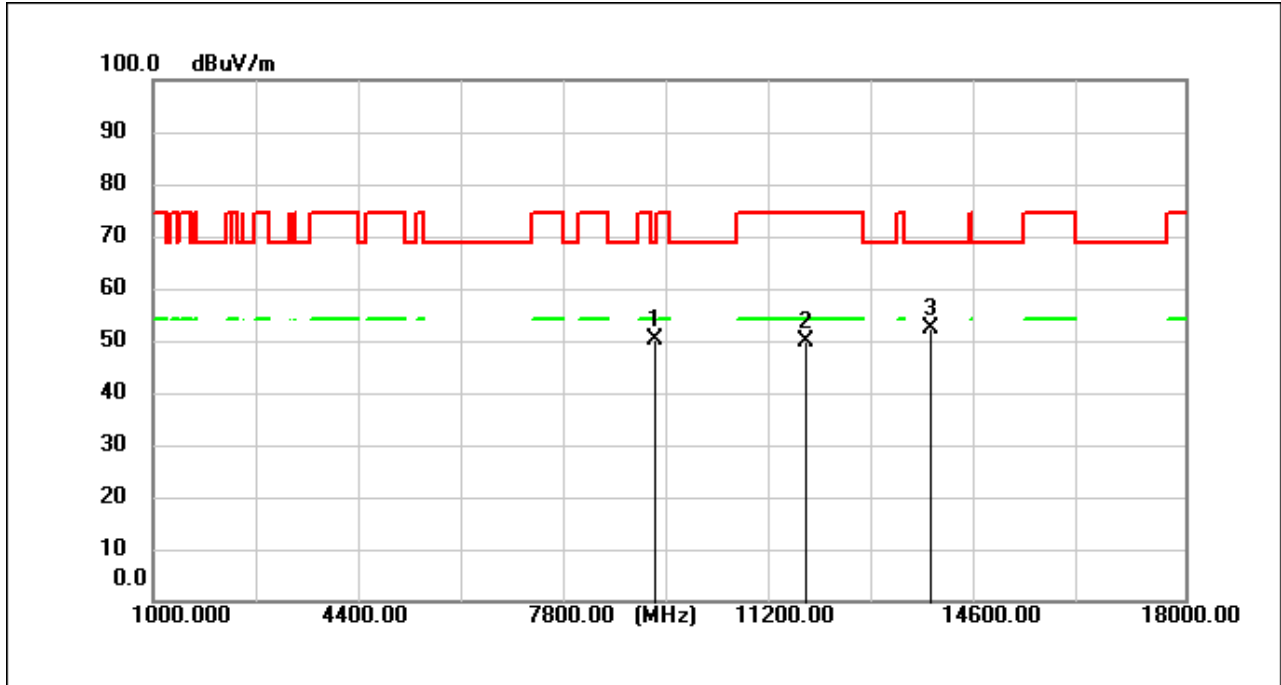
No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9192.300	57.29	-7.90	49.39	74.00	-24.61	peak
2	10439.250	56.04	-6.15	49.89	68.30	-18.41	peak
3	11365.750	55.93	-5.85	50.08	74.00	-23.92	peak

11a\_TX\_CH\_149\_Vertical



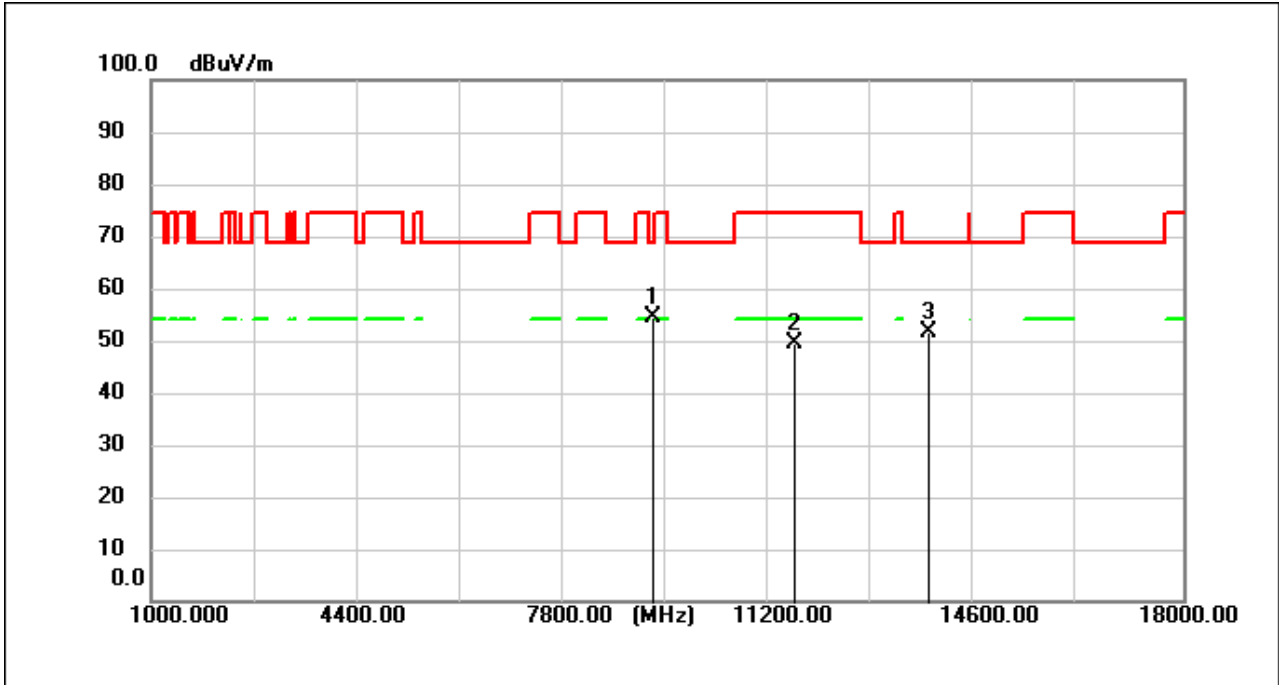
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9191.450	62.46	-7.90	54.56	74.00	-19.44	peak
2	9191.450	61.68	-7.90	53.78	54.00	-0.22	AVG
3	14006.700	54.86	-3.35	51.51	68.30	-16.79	peak
4	17125.350	54.37	-1.56	52.81	68.30	-15.49	peak

## 11a\_TX\_CH\_157\_Horizontal

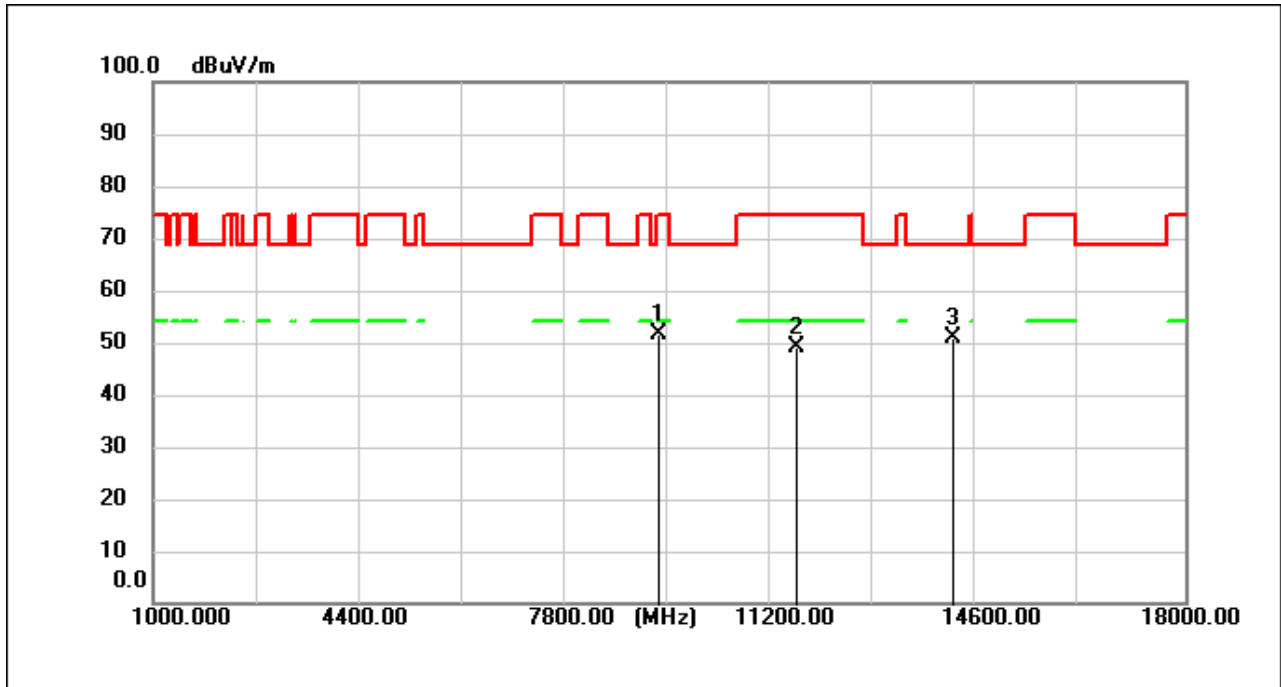


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9256.050	57.92	-7.79	50.13	68.30	-18.17	peak
2	11737.200	55.53	-5.78	49.75	74.00	-24.25	peak
3	13811.200	55.74	-3.53	52.21	68.30	-16.09	peak

11a\_TX\_CH\_157\_Vertical

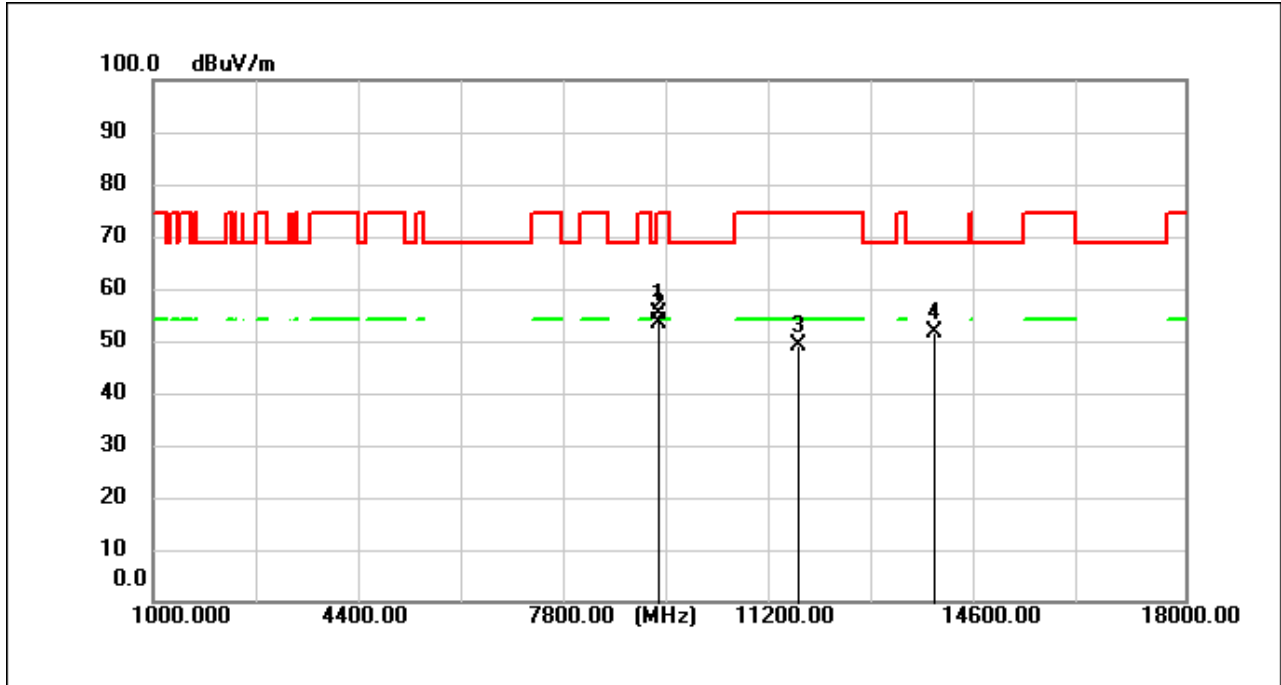


## 11a\_TX\_CH\_165\_Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9319.800	59.41	-7.70	51.71	74.00	-22.29	peak
2	11577.400	55.01	-5.77	49.24	74.00	-24.76	peak
3	14169.050	54.39	-3.49	50.90	68.30	-17.40	peak

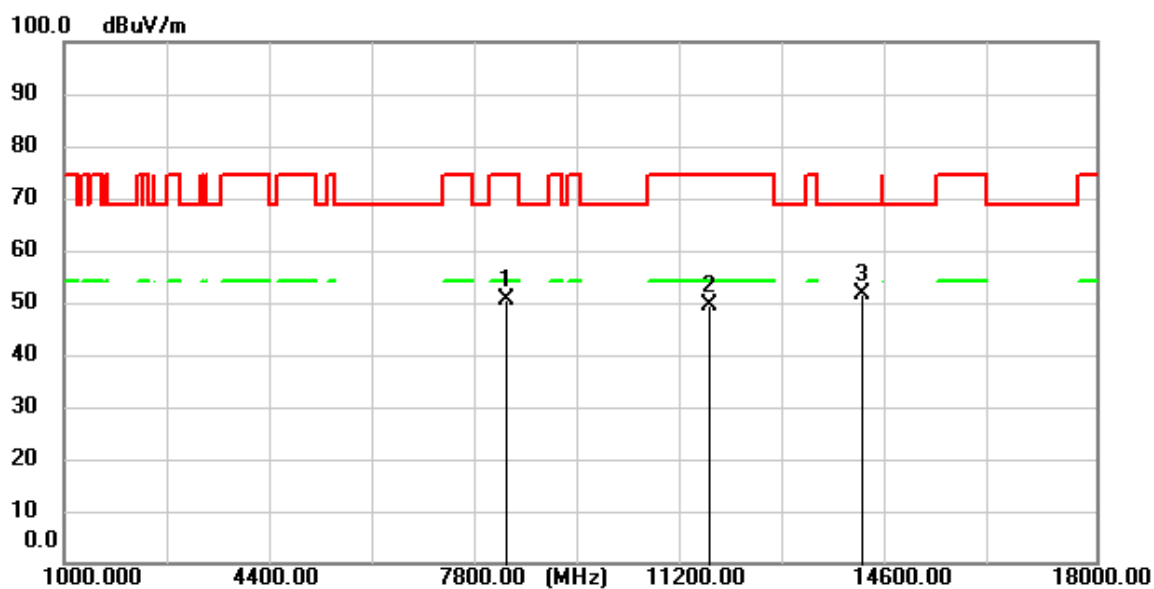
11a\_TX\_CH\_165\_Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9319.800	62.83	-7.70	55.13	74.00	-18.87	peak
2	9319.800	61.27	-7.70	53.57	54.00	-0.43	AVG
3	11611.400	54.91	-5.78	49.13	74.00	-24.87	peak
4	13869.850	54.96	-3.47	51.49	68.30	-16.81	peak

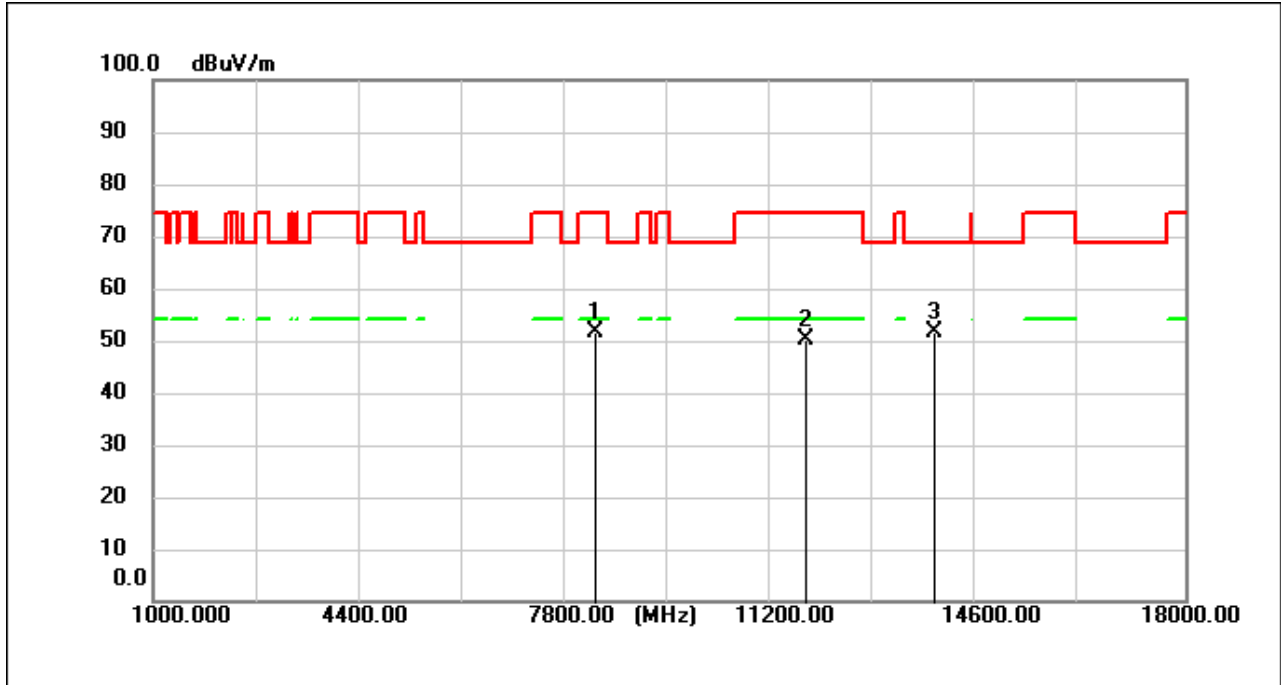


## 11ax(HE20)\_TX\_CH\_36\_Horizontal



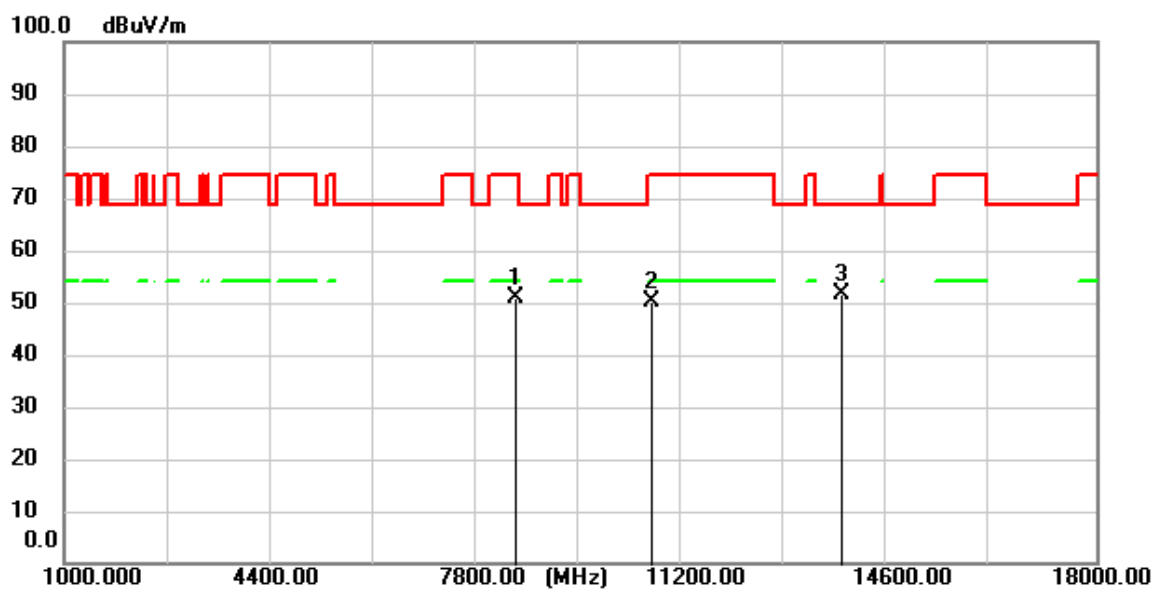
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8287.900	60.08	-9.61	50.47	74.00	-23.53	peak
2	11639.450	55.12	-5.79	49.33	74.00	-24.67	peak
3	14135.050	54.93	-3.46	51.47	68.30	-16.83	peak

## 11ax(HE20)\_TX\_CH\_36\_Vertical



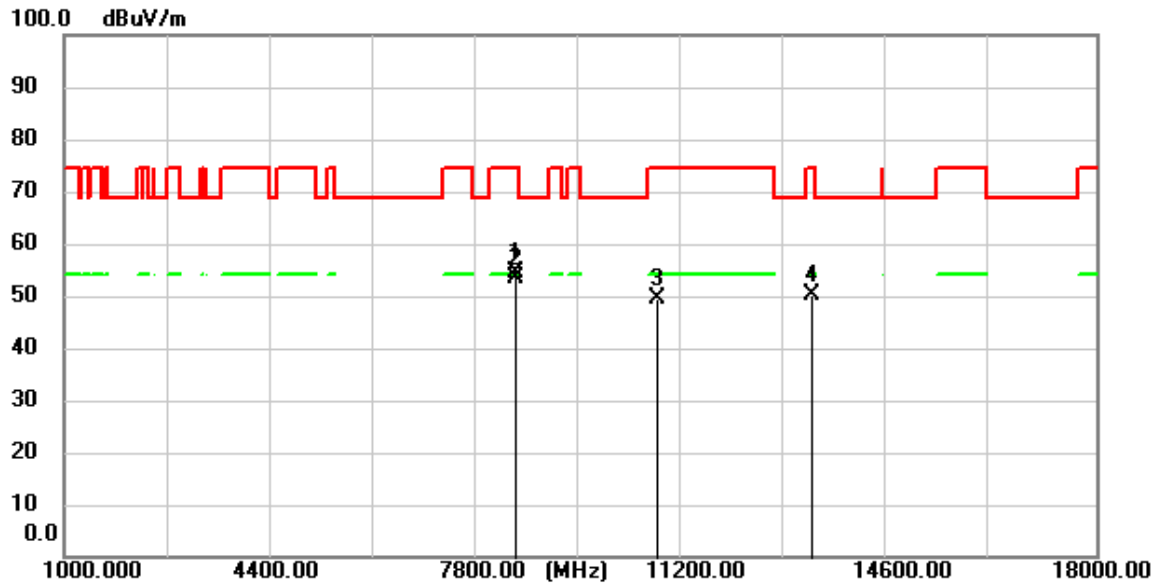
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8287.900	61.10	-9.61	51.49	74.00	-22.51	peak
2	11737.200	55.80	-5.78	50.02	74.00	-23.98	peak
3	13869.000	55.11	-3.47	51.64	68.30	-16.66	peak

## 11ax(HE20)\_TX\_CH\_52\_Horizontal



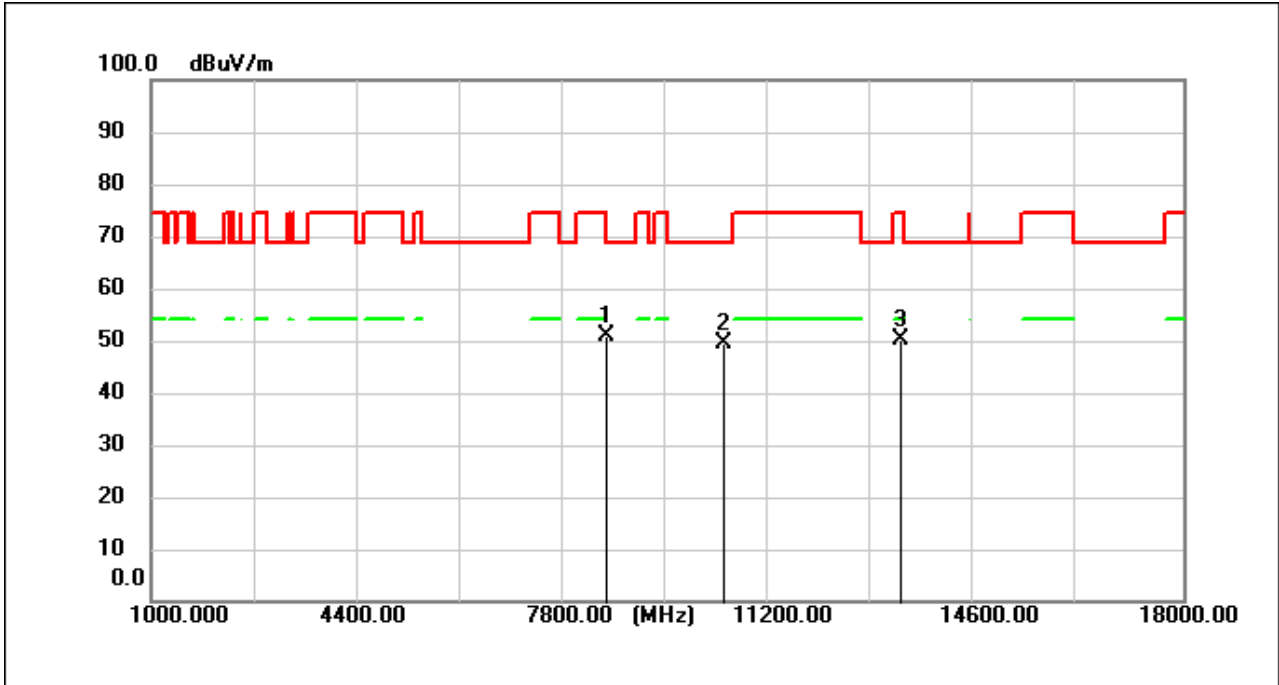
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8416.250	60.52	-9.54	50.98	74.00	-23.02	peak
2	10680.650	56.30	-6.08	50.22	74.00	-23.78	peak
3	13789.100	55.30	-3.56	51.74	68.30	-16.56	peak

11ax(HE20)\_TX\_CH\_52\_Verical



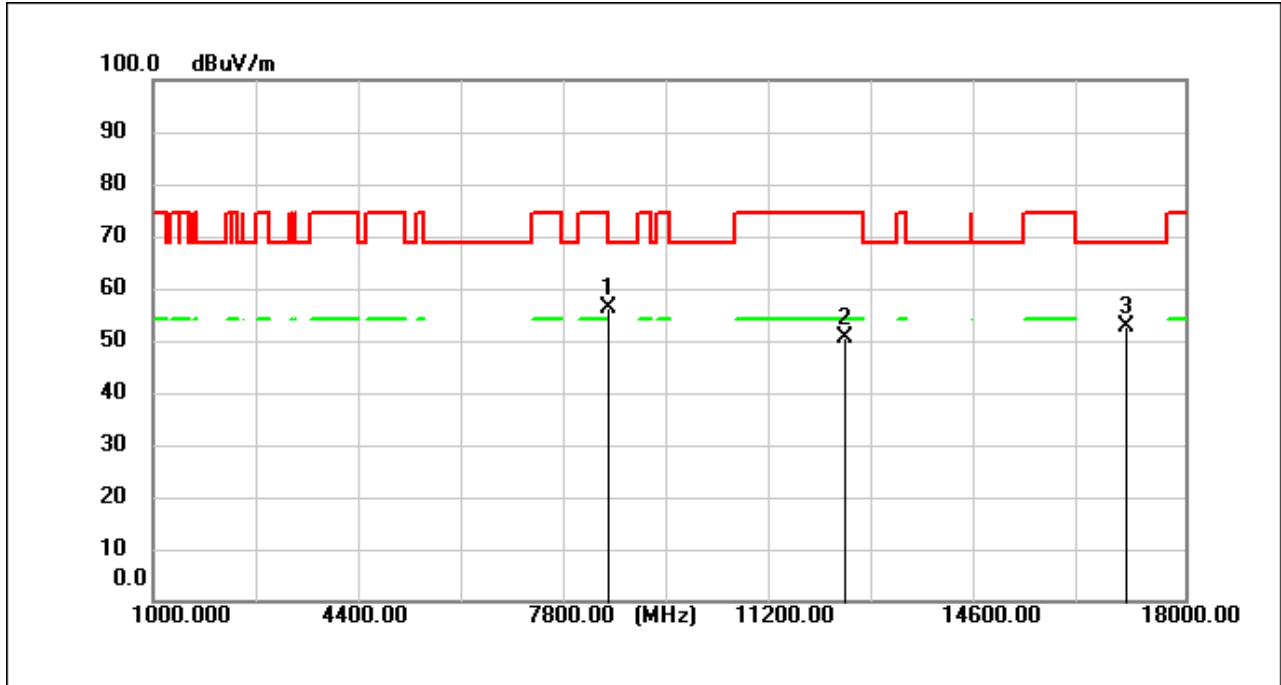
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8416.250	63.85	-9.54	54.31	74.00	-19.69	peak
2	8416.250	62.81	-9.54	53.27	54.00	-0.73	AVG
3	10769.900	55.69	-6.08	49.61	74.00	-24.39	peak
4	13295.250	54.42	-4.31	50.11	74.00	-23.89	peak

## 11ax(HE20)\_TX\_CH\_64\_Horizontal



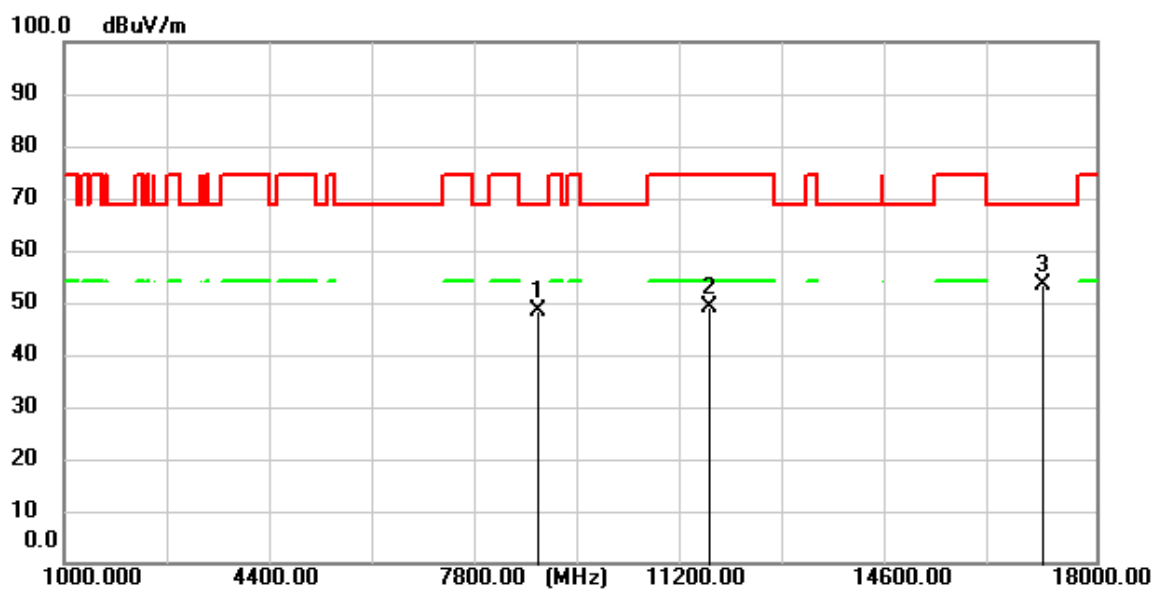
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8512.300	60.24	-9.47	50.77	68.30	-17.53	peak
2	10421.400	55.74	-6.18	49.56	68.30	-18.74	peak
3	13336.900	54.56	-4.21	50.35	74.00	-23.65	peak

## 11ax(HE20)\_TX\_CH\_64\_Verical

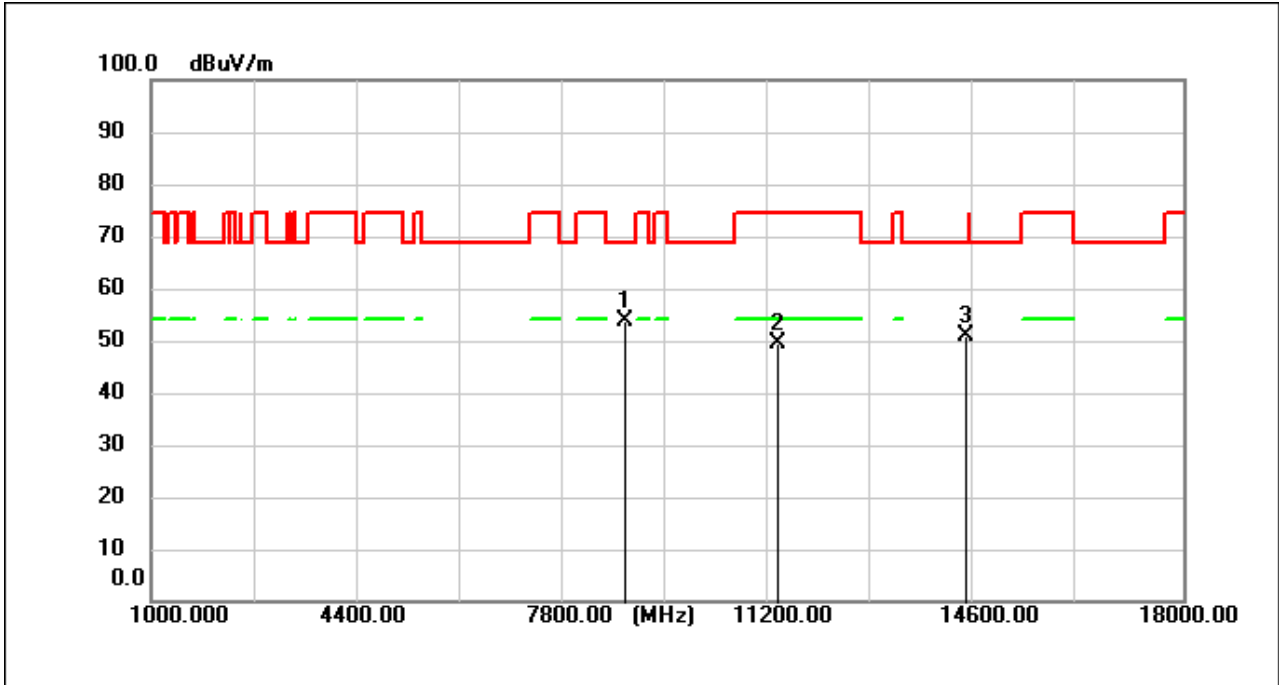


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8512.300	65.73	-9.47	56.26	68.30	-12.04	peak
2	12378.950	56.28	-5.90	50.38	74.00	-23.62	peak
3	17025.050	54.42	-1.65	52.77	68.30	-15.53	peak

## 11ax(HE20)\_TX\_CH\_100\_Horizontal



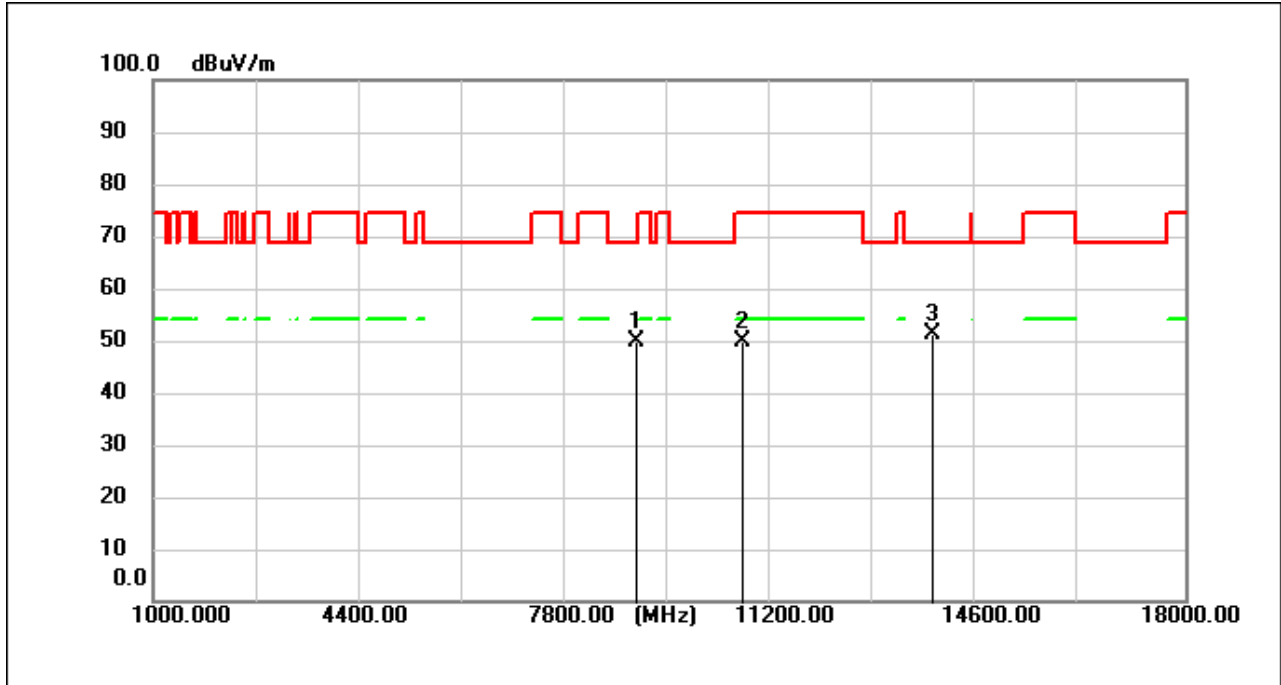
## 11ax(HE20)\_TX\_CH\_100\_Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8800.450	62.43	-8.71	53.72	68.30	-14.58	peak
2	11324.100	55.43	-5.88	49.55	74.00	-24.45	peak
3	14413.850	54.50	-3.71	50.79	68.30	-17.51	peak

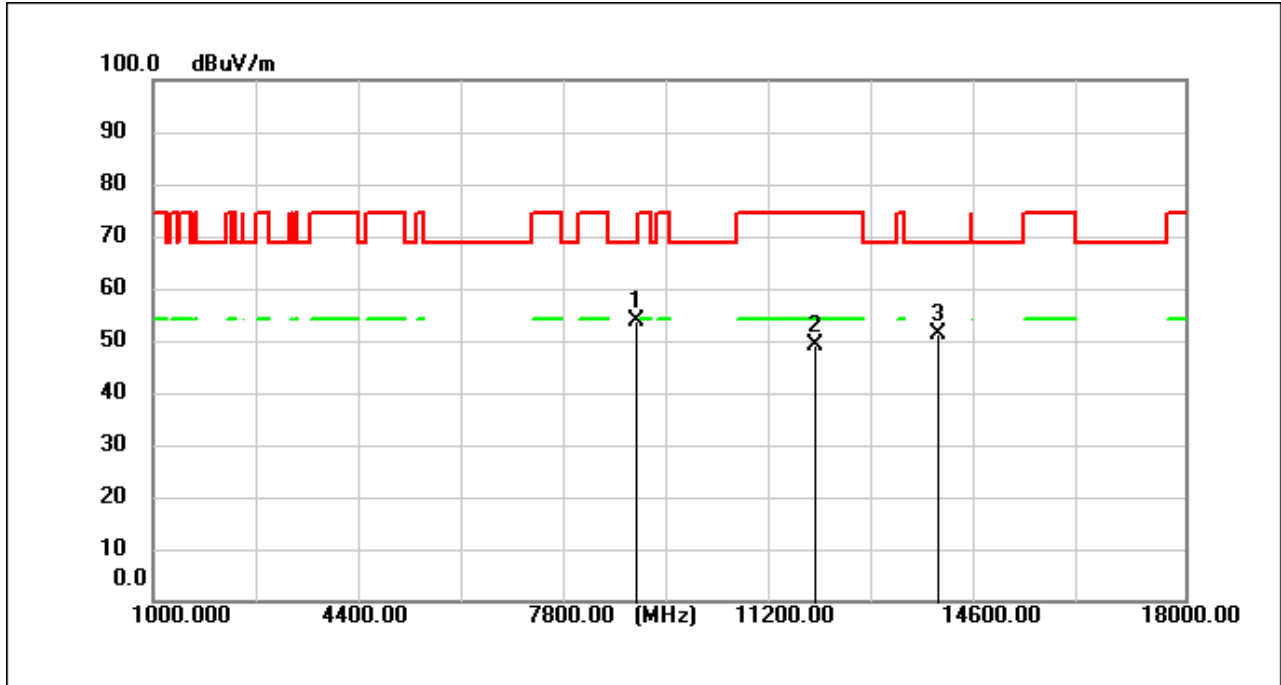


## 11ax(HE20)\_TX\_CH\_120\_Horizontal



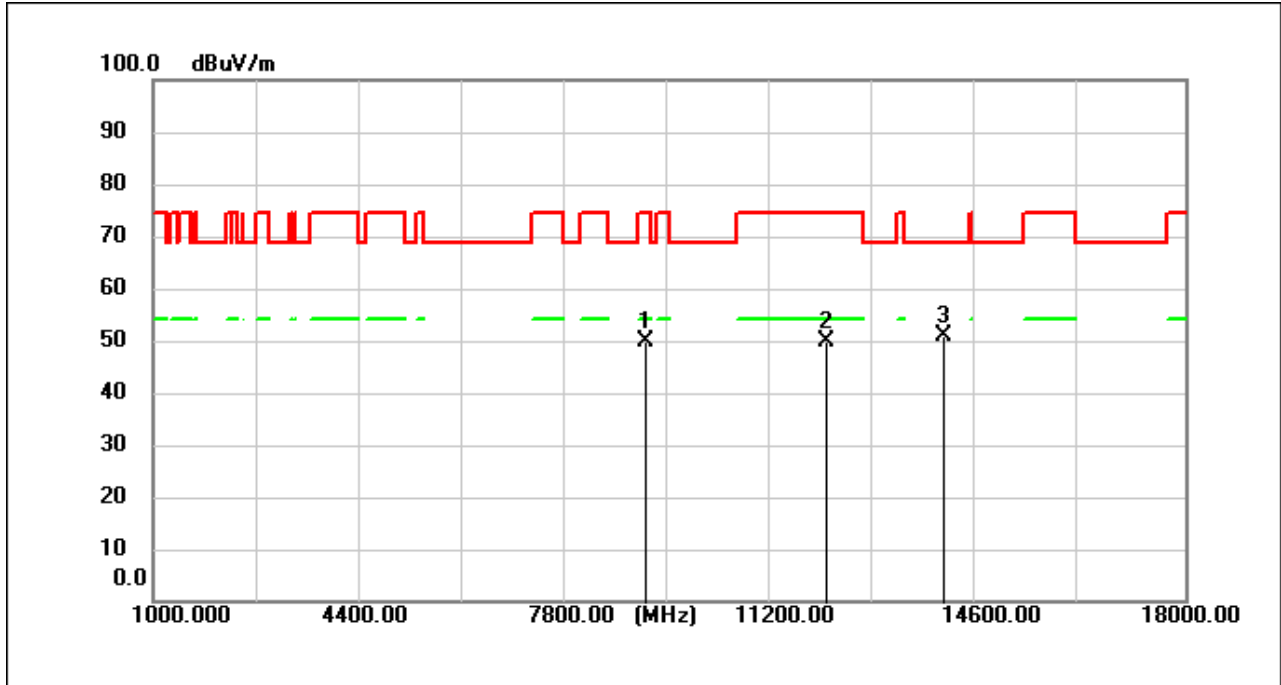
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8960.250	58.23	-8.29	49.94	68.30	-18.36	peak
2	10715.500	55.75	-6.08	49.67	74.00	-24.33	peak
3	13847.750	54.83	-3.50	51.33	68.30	-16.97	peak

## 11ax(HE20)\_TX\_CH\_120\_Vertical



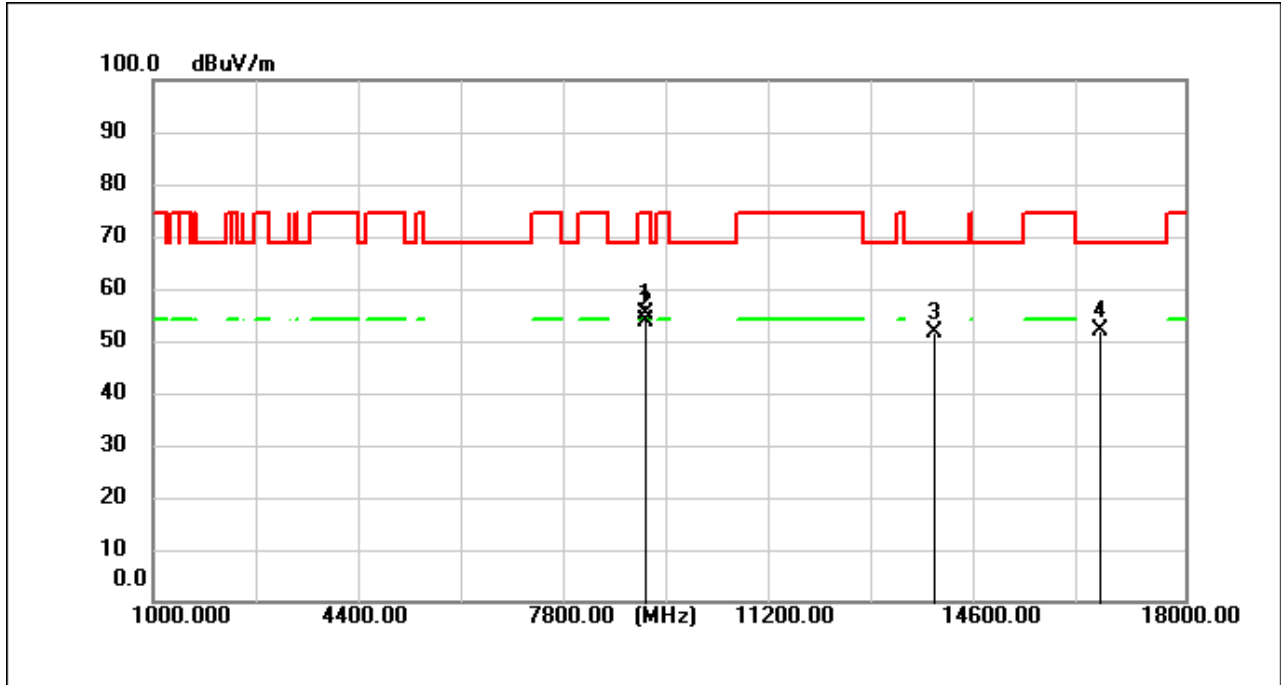
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	8960.250	62.03	-8.29	53.74	68.30	-14.56	peak
2	11902.950	54.98	-5.79	49.19	74.00	-24.81	peak
3	13906.400	54.74	-3.43	51.31	68.30	-16.99	peak

## 11ax(HE20)\_TX\_CH\_140\_Horizontal



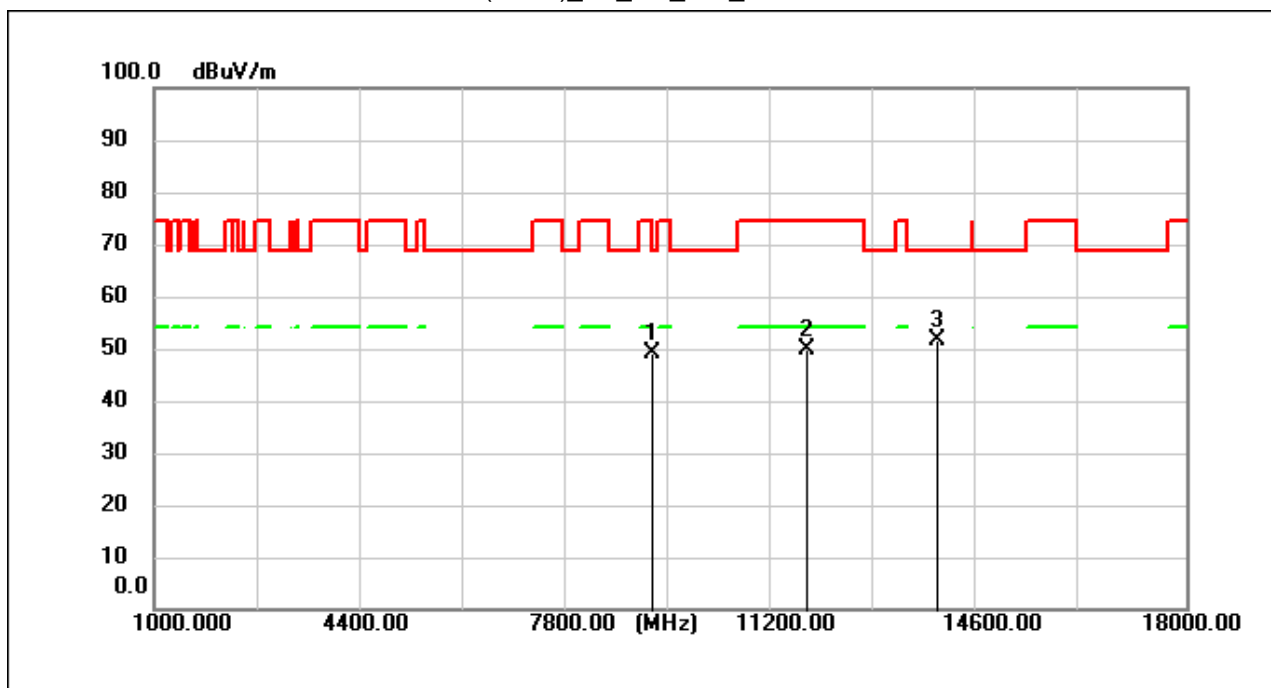
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9120.050	57.86	-8.01	49.85	74.00	-24.15	peak
2	12073.800	55.73	-5.82	49.91	74.00	-24.09	peak
3	14014.350	54.41	-3.36	51.05	68.30	-17.25	peak

## 11ax(HE20)\_TX\_CH\_140\_Vertical



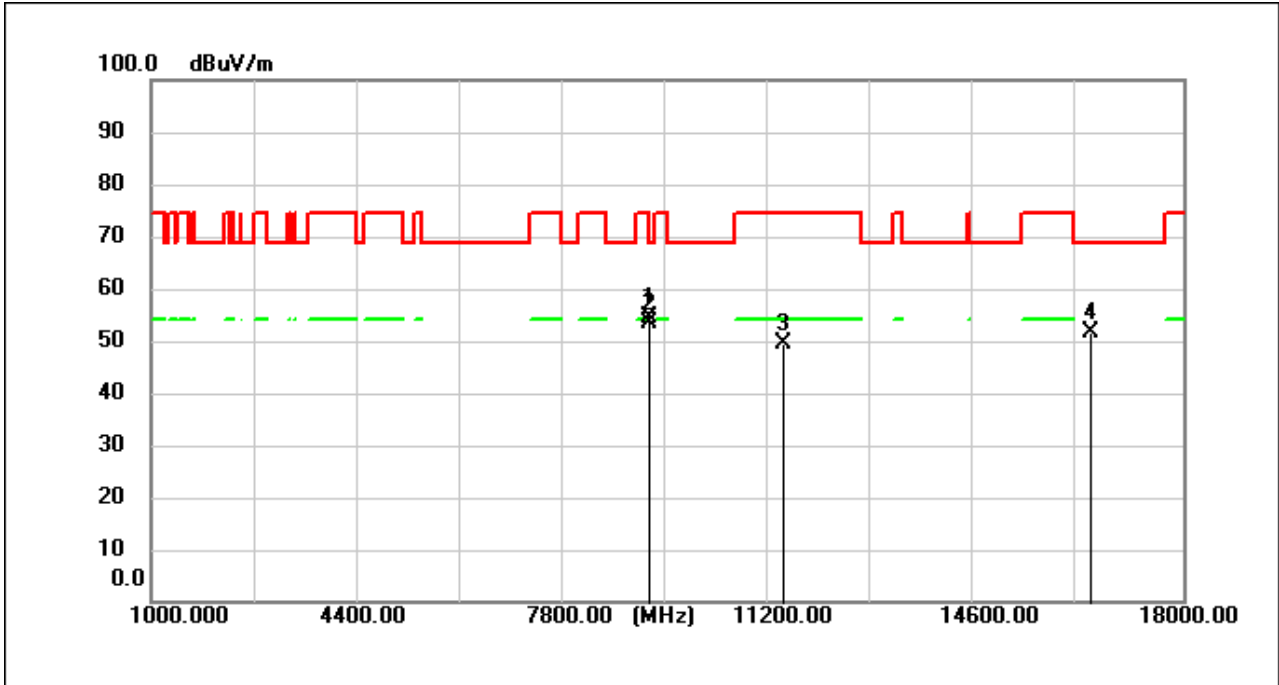
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9120.050	63.04	-8.01	55.03	74.00	-18.97	peak
2	9120.050	61.76	-8.01	53.75	54.00	-0.25	AVG
3	13864.750	55.20	-3.47	51.73	68.30	-16.57	peak
4	16582.200	54.28	-2.14	52.14	68.30	-16.16	peak

## 11ax(HE20)\_TX\_CH\_149\_Horizontal



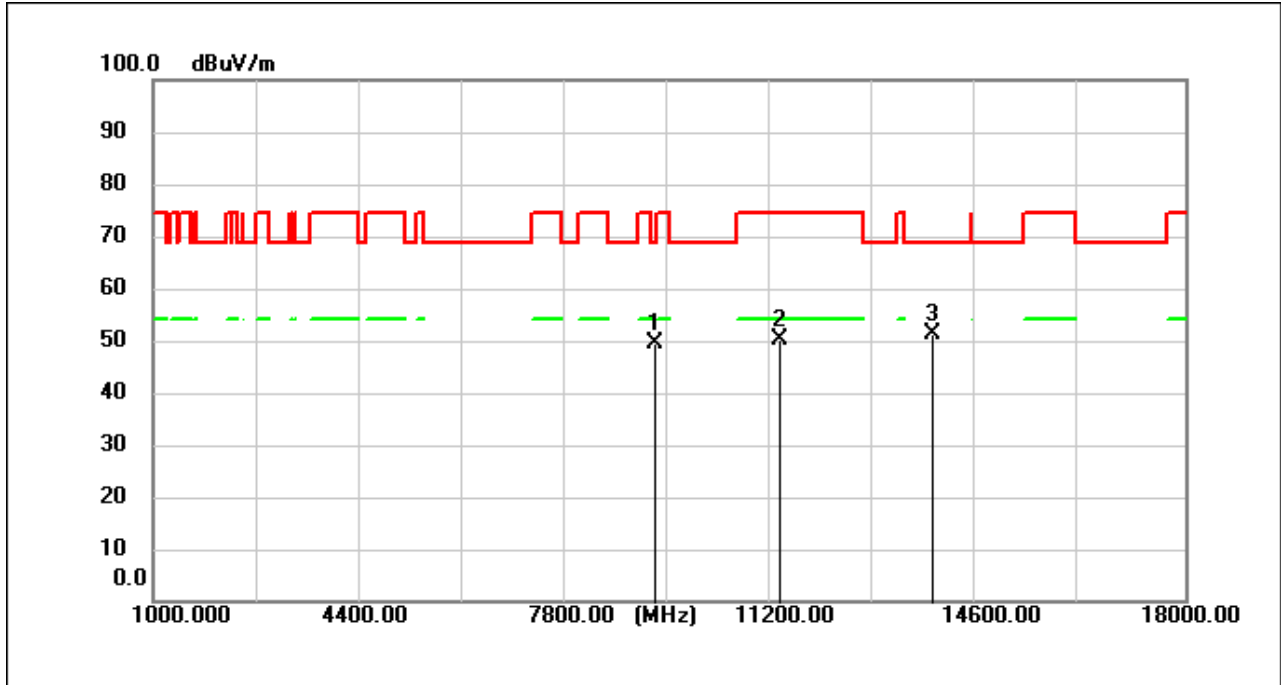
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9192.300	57.18	-7.90	49.28	74.00	-24.72	peak
2	11732.950	55.75	-5.78	49.97	74.00	-24.03	peak
3	13899.600	54.99	-3.44	51.55	68.30	-16.75	peak

## 11ax(HE20)\_TX\_CH\_149\_Vertical



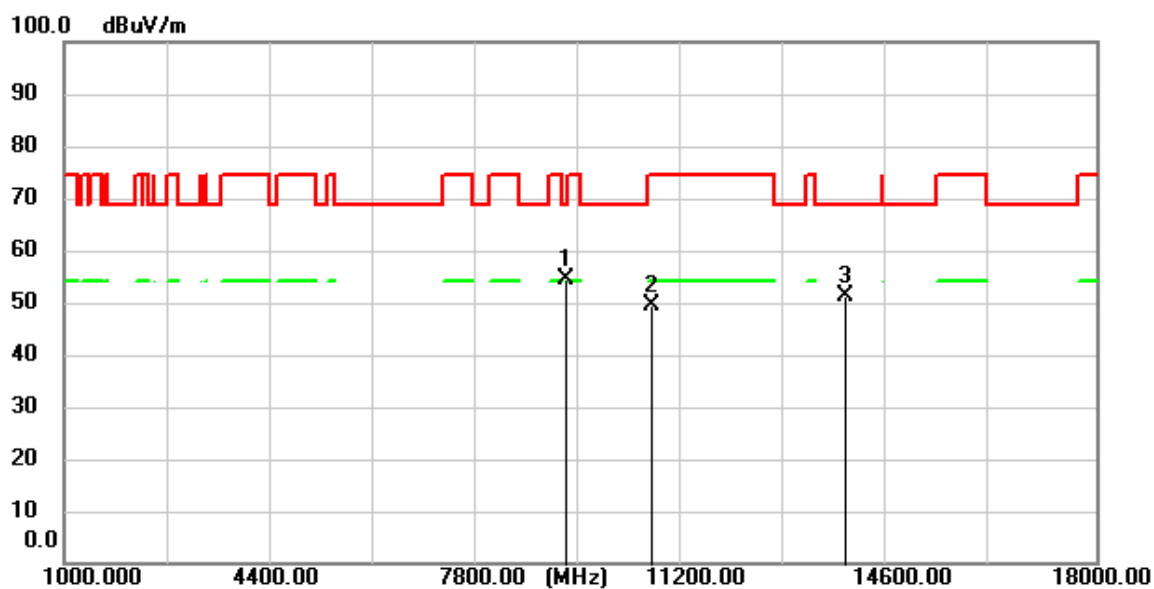
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9191.450	62.37	-7.90	54.47	74.00	-19.53	peak
2	9191.450	61.40	-7.90	53.50	54.00	-0.50	AVG
3	11397.200	55.43	-5.84	49.59	74.00	-24.41	peak
4	16476.800	53.87	-2.32	51.55	68.30	-16.75	peak

## 11ax(HE20)\_TX\_CH\_157\_Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9256.050	57.10	-7.79	49.31	68.30	-18.99	peak
2	11317.300	55.93	-5.88	50.05	74.00	-23.95	peak
3	13821.400	54.86	-3.52	51.34	68.30	-16.96	peak

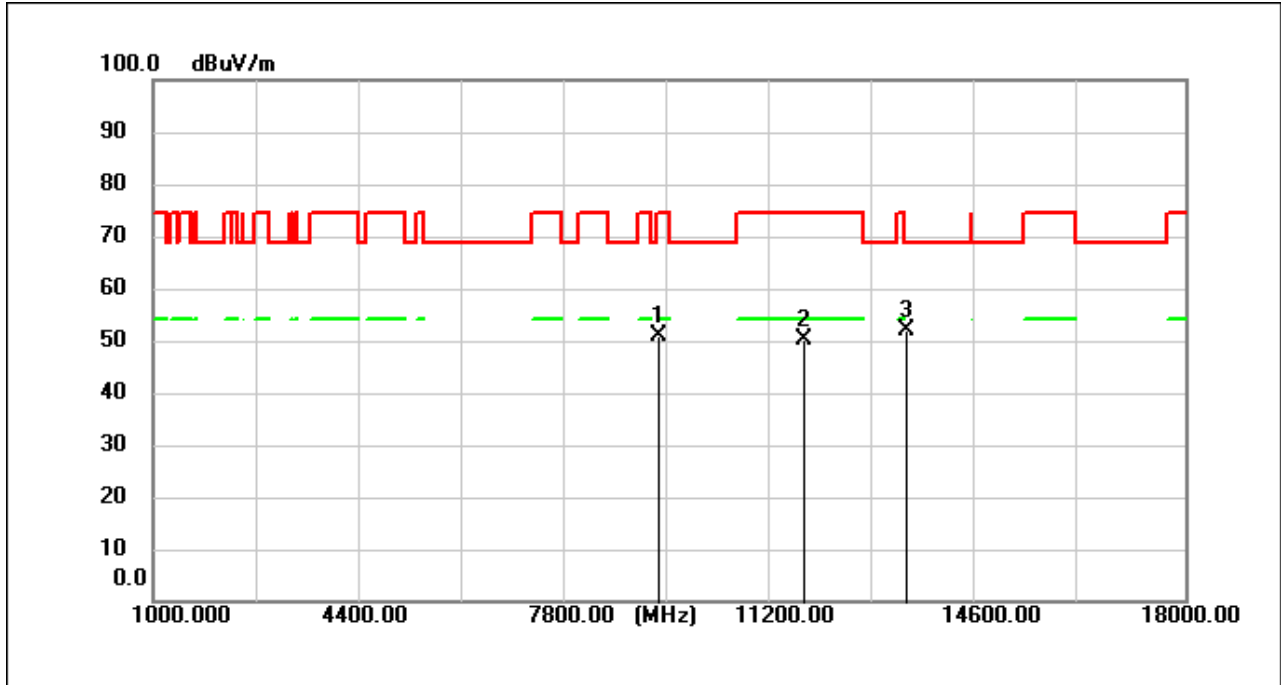
## 11ax(HE20)\_TX\_CH\_157\_Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9256.050	62.32	-7.79	54.53	68.30	-13.77	peak
2	10688.300	55.38	-6.08	49.30	74.00	-24.70	peak
3	13868.150	54.69	-3.47	51.22	68.30	-17.08	peak

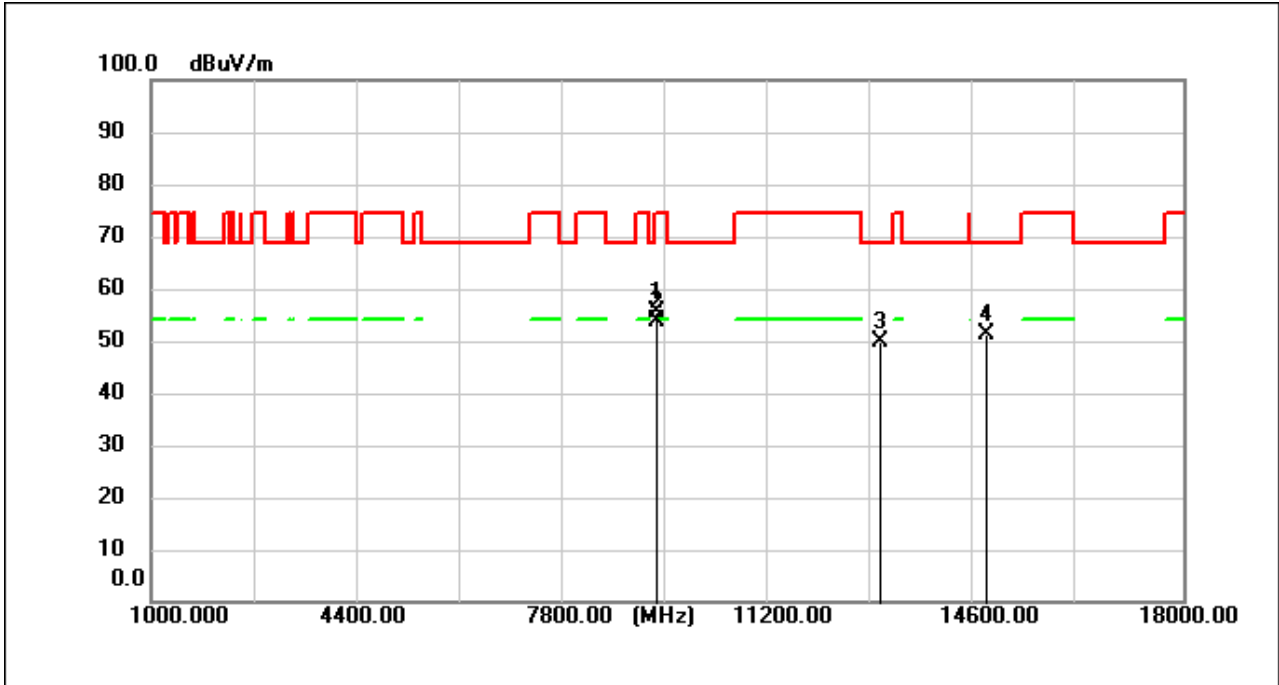


## 11ax(HE20)\_TX\_CH\_165\_Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9319.800	58.61	-7.70	50.91	74.00	-23.09	peak
2	11721.050	56.07	-5.79	50.28	74.00	-23.72	peak
3	13417.650	55.93	-4.03	51.90	68.30	-16.40	peak

## 11ax(HE20)\_TX\_CH\_165\_Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	9319.800	63.40	-7.70	55.70	74.00	-18.30	peak
2	9319.800	61.52	-7.70	53.82	54.00	-0.18	AVG
3	12996.050	54.85	-4.97	49.88	68.30	-18.42	peak
4	14751.300	55.00	-3.69	51.31	68.30	-16.99	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: 24.6 °C

Humidity: 47.9 % RH

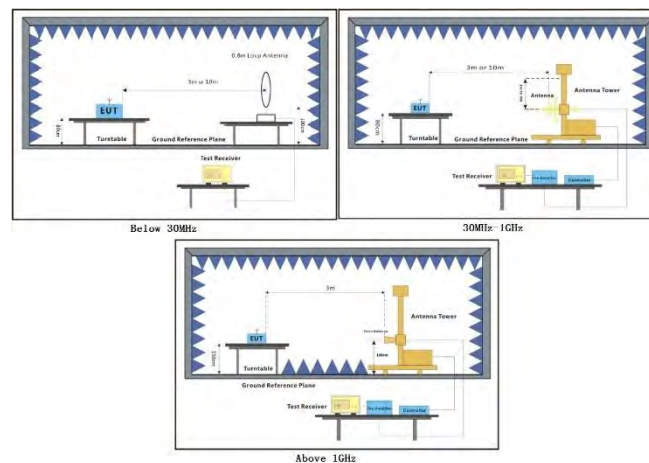
Atmospheric Pressure: 1010 mbar

### 7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	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 only the data of worst case is recorded in the report.
Final test	06	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 only the data of worst case is recorded in the report.
Final test	07	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 only the data of worst case is recorded in the report.
Final test	08	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 only the data of worst case is recorded in the report.

### 7.4.3 Test Setup Diagram



#### 7.4.4 Measurement Procedure and Data

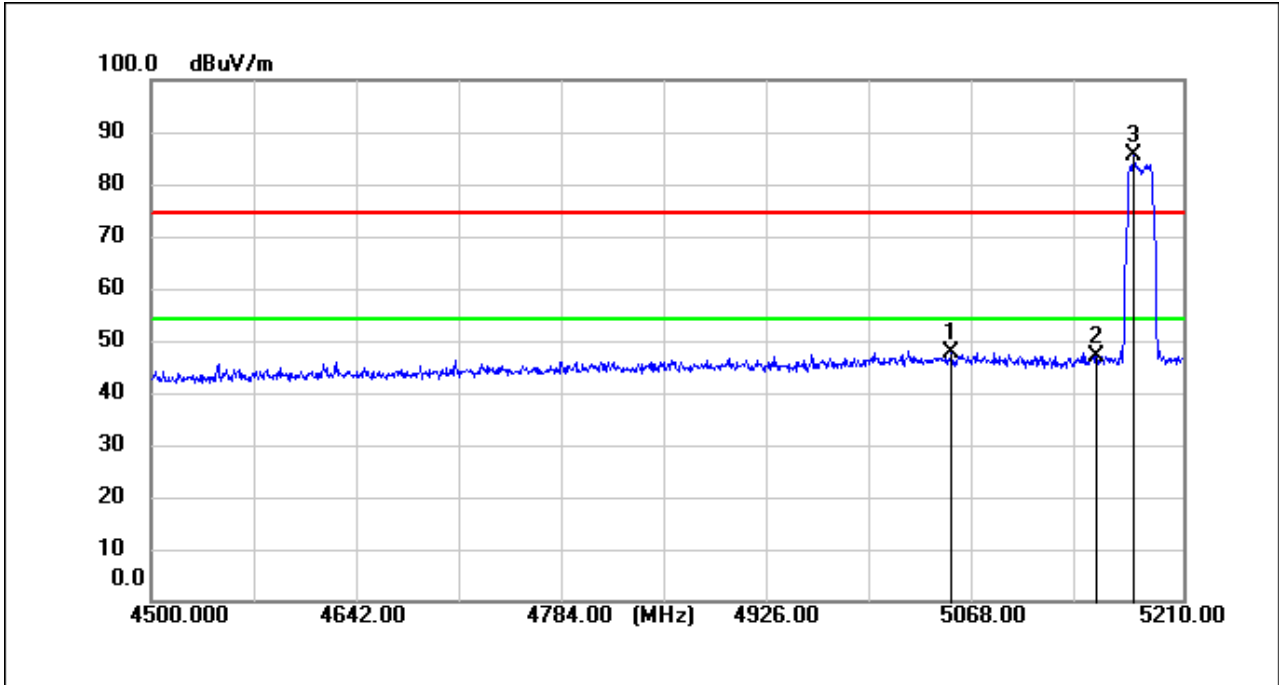
- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 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.

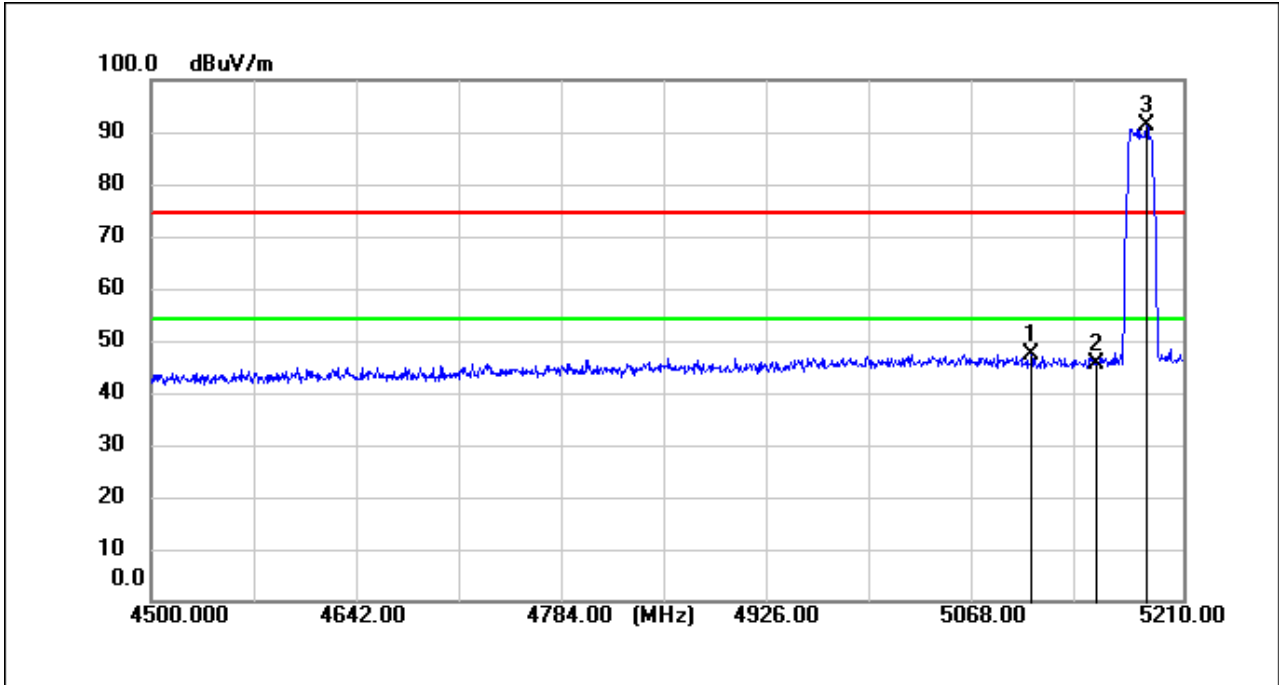
Remark 3. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle  $< 98\%$ ) or 10Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1GHz.

## 11a\_TX\_CH\_36\_Horizontal\_Peak



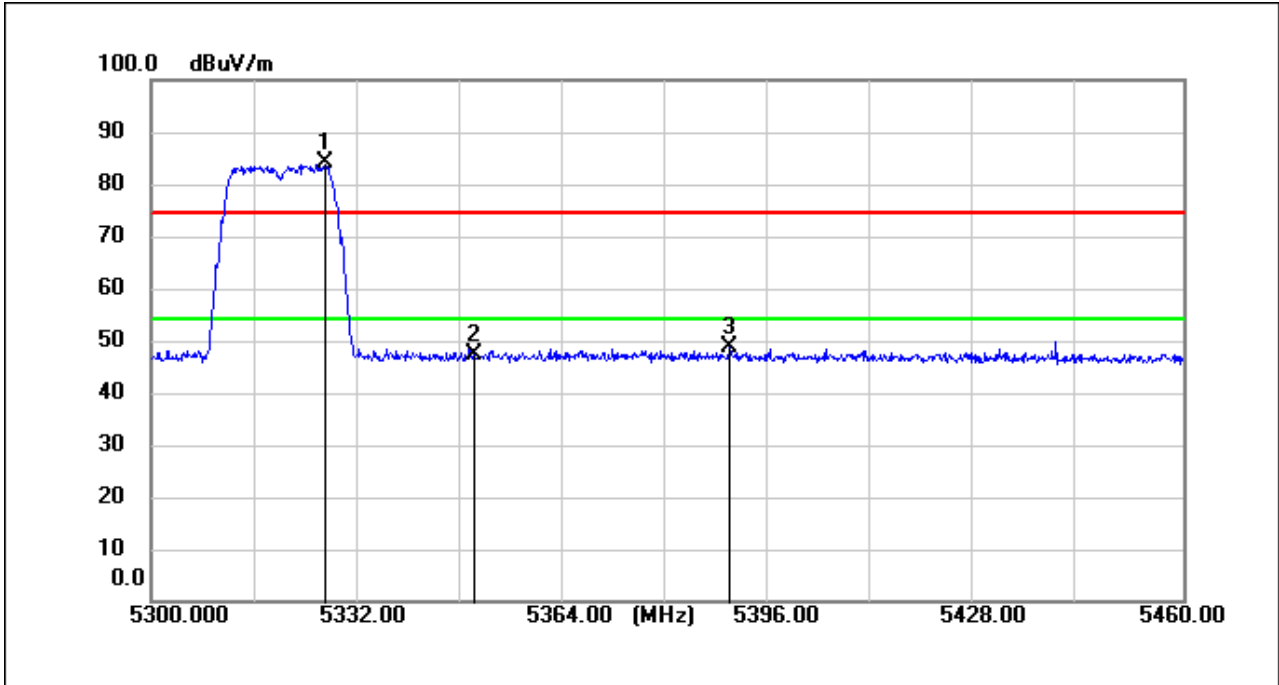
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5050.960	40.77	6.76	47.53	74.00	-26.47	peak
2	5150.000	40.04	6.75	46.79	74.00	-27.21	peak
3	5176.630	78.78	6.73	85.51	74.00	11.51	peak

## 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	5105.630	40.66	6.75	47.41	74.00	-26.59	peak
2	5150.000	38.84	6.75	45.59	74.00	-28.41	peak
3	5185.150	84.69	6.73	91.42	74.00	17.42	peak

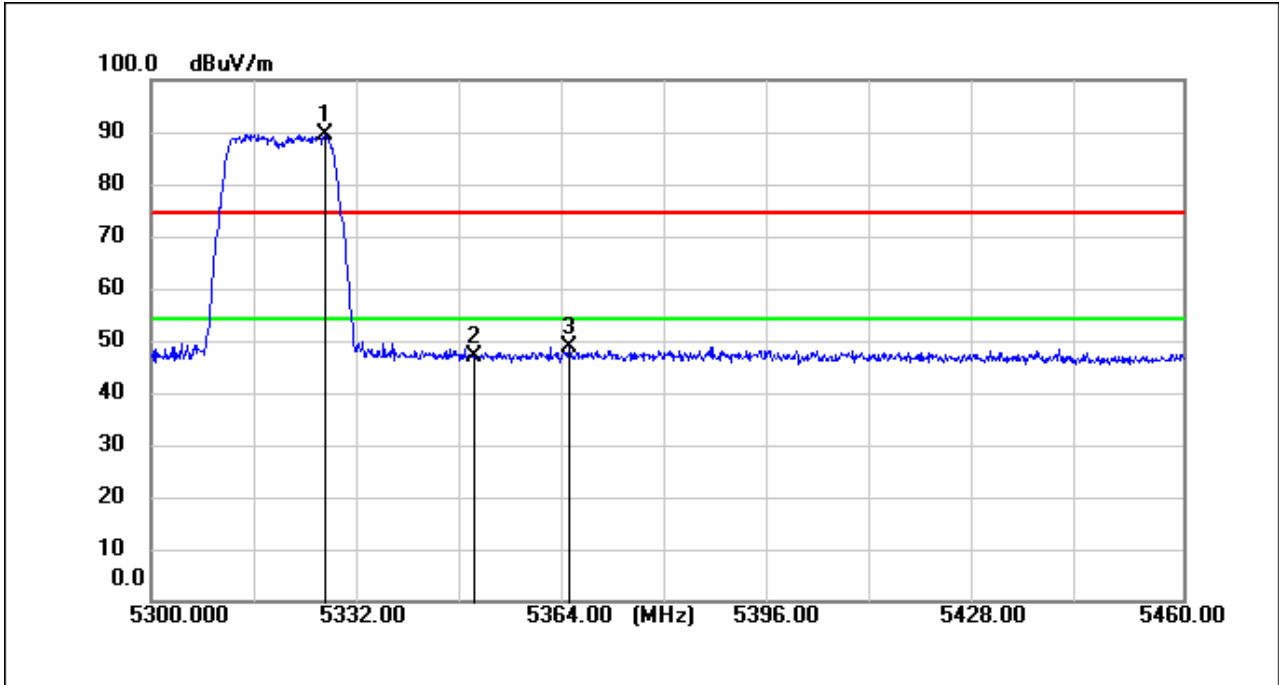
11a\_TX\_CH\_64\_Horizontal\_Peak



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5326.880	77.22	6.71	83.93	74.00	9.93	peak
2	5350.000	40.79	6.69	47.48	74.00	-26.52	peak
3	5389.760	42.09	6.69	48.78	74.00	-25.22	peak

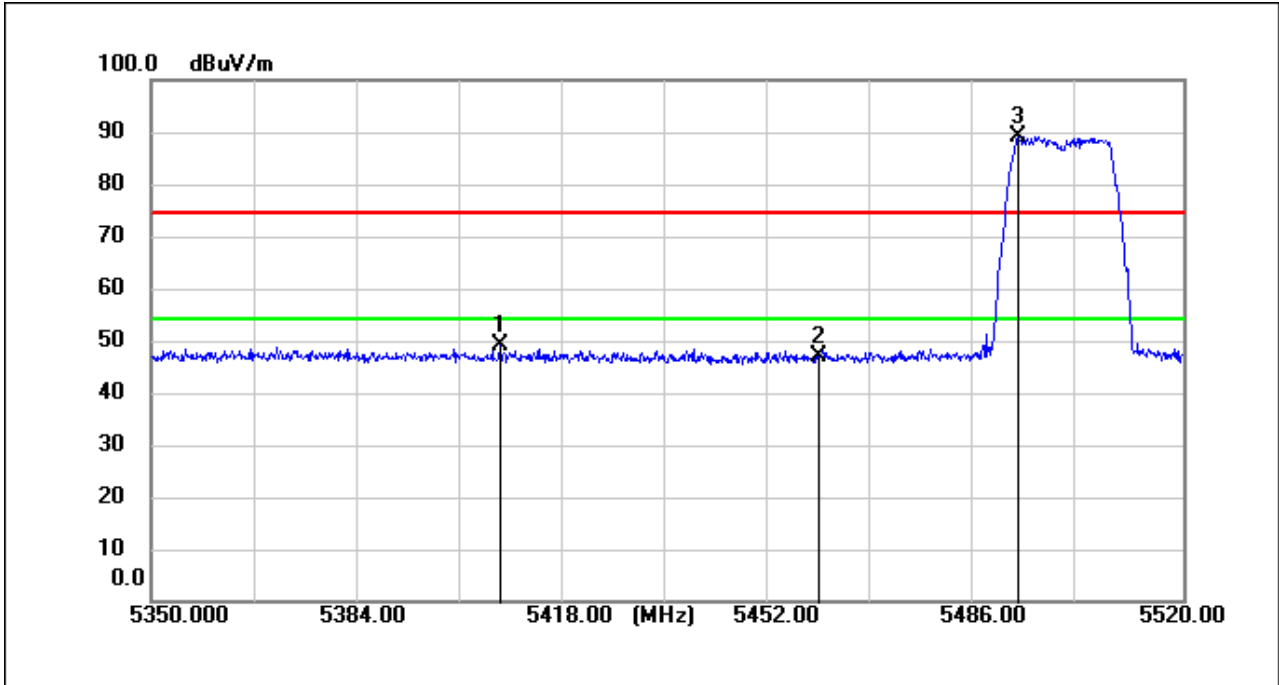


11a\_TX\_CH\_64\_Vertical\_Peak



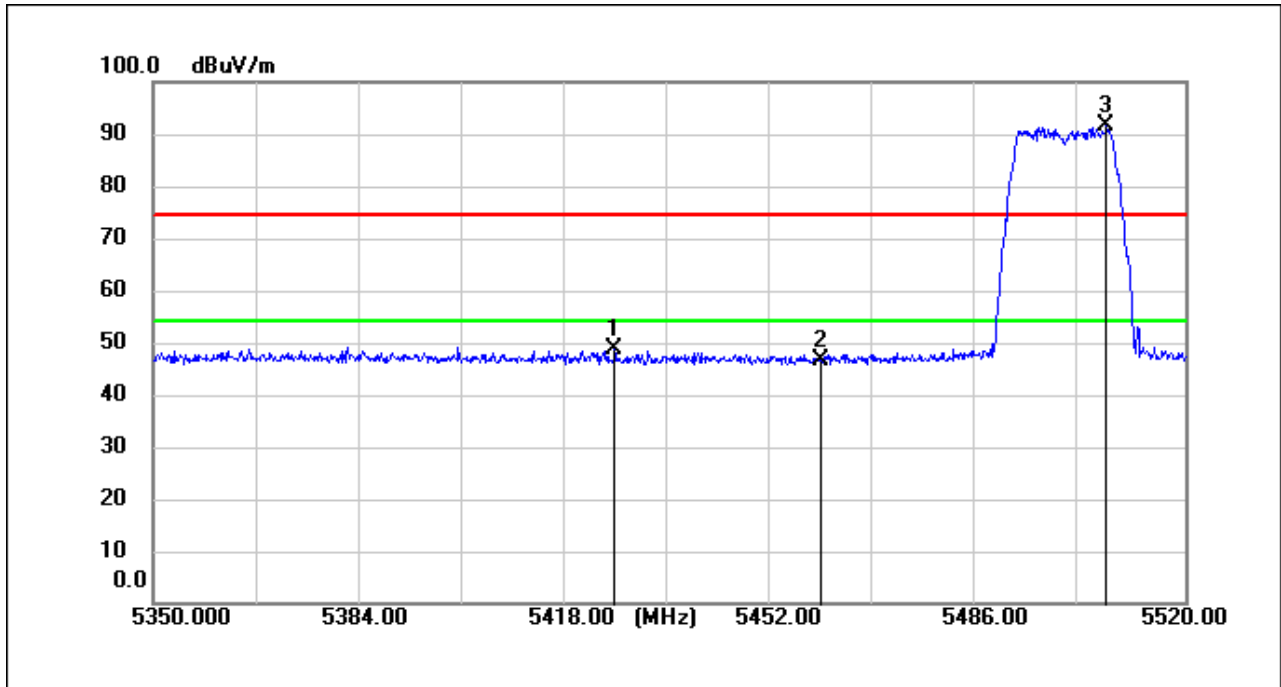
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5327.040	82.80	6.70	89.50	74.00	15.50	peak
2	5350.000	40.27	6.69	46.96	74.00	-27.04	peak
3	5364.960	42.14	6.70	48.84	74.00	-25.16	peak

11a\_TX\_CH\_100\_Horizontal\_Peak



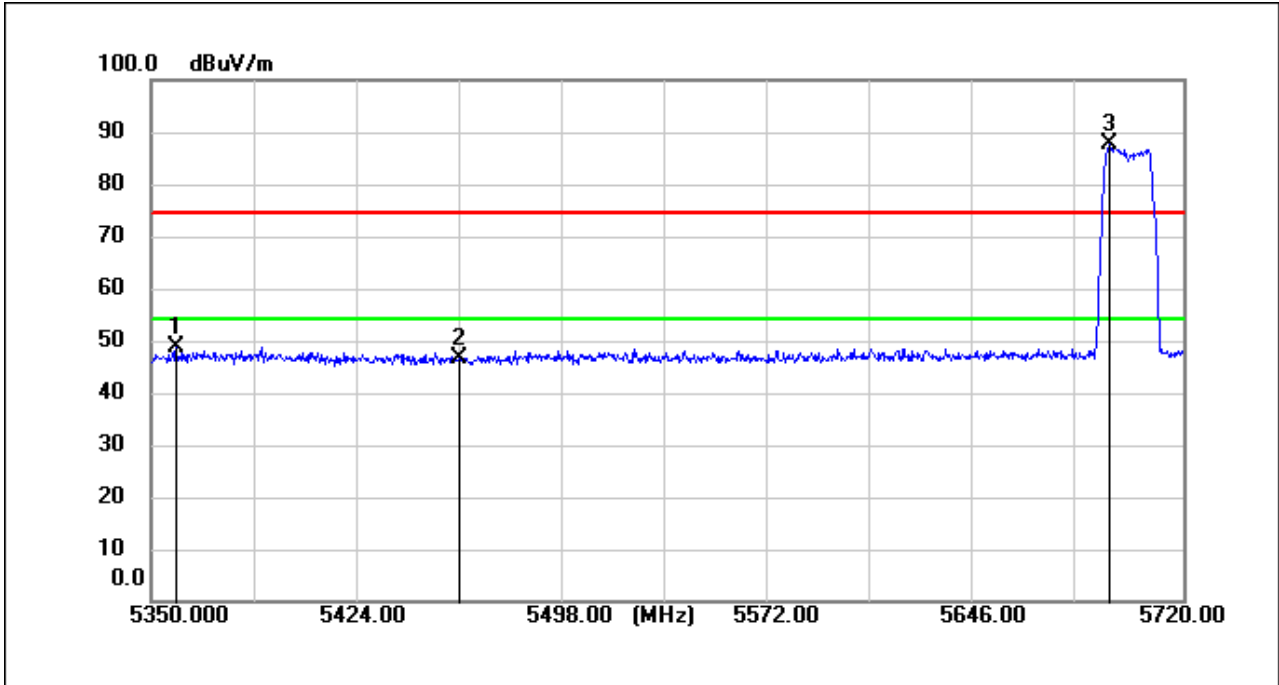
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5407.460	42.37	6.69	49.06	74.00	-24.94	peak
2	5460.000	40.23	6.68	46.91	74.00	-27.09	peak
3	5492.970	82.46	6.67	89.13	74.00	15.13	peak

11a\_TX\_CH\_100\_Vertical\_Peak



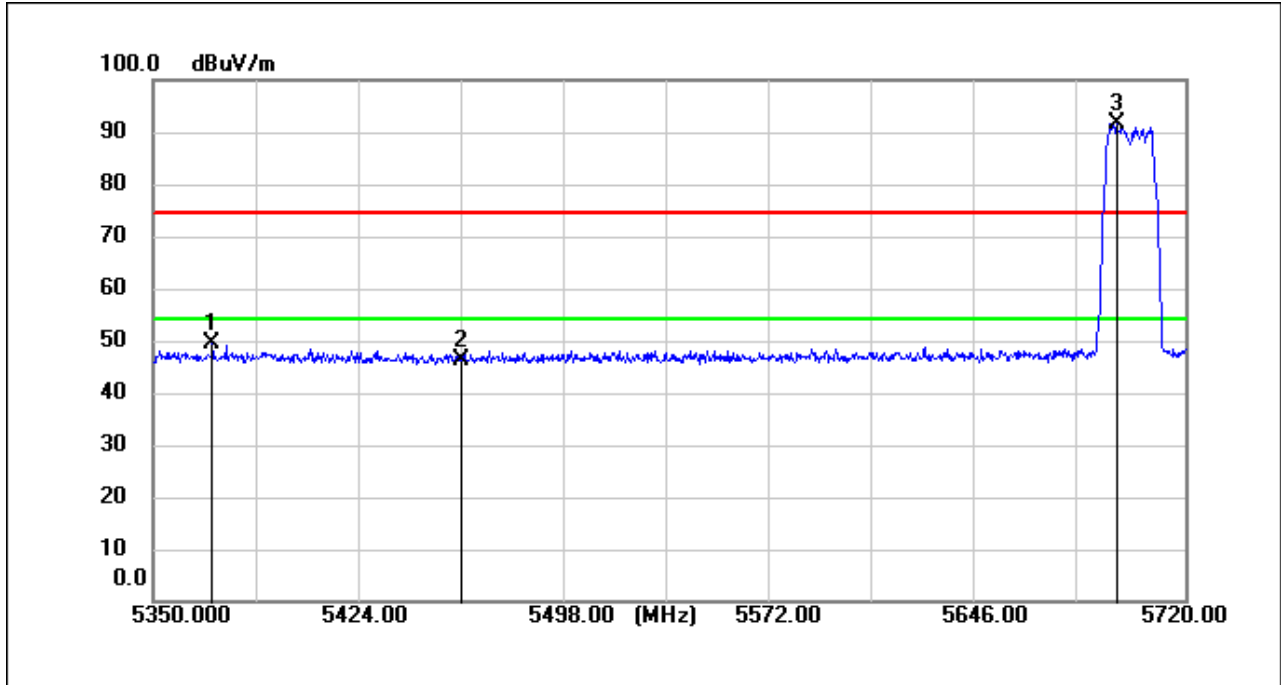
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5425.990	42.10	6.69	48.79	74.00	-25.21	peak
2	5460.000	39.89	6.68	46.57	74.00	-27.43	peak
3	5507.080	84.83	6.68	91.51	74.00	17.51	peak

11a\_TX\_CH\_140\_Horizontal\_Peak



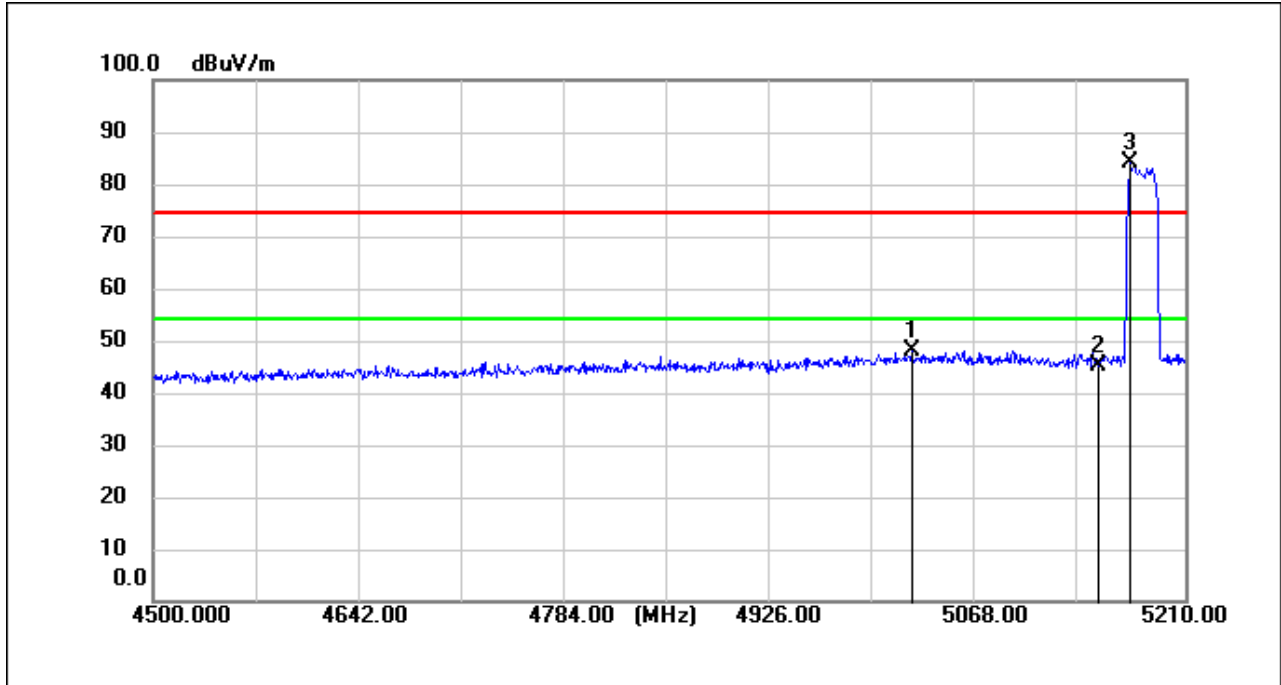
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5358.880	41.96	6.69	48.65	74.00	-25.35	peak
2	5460.000	39.76	6.68	46.44	74.00	-27.56	peak
3	5693.730	80.87	6.95	87.82	74.00	13.82	peak

11a\_TX\_CH\_140\_Vertical\_Peak



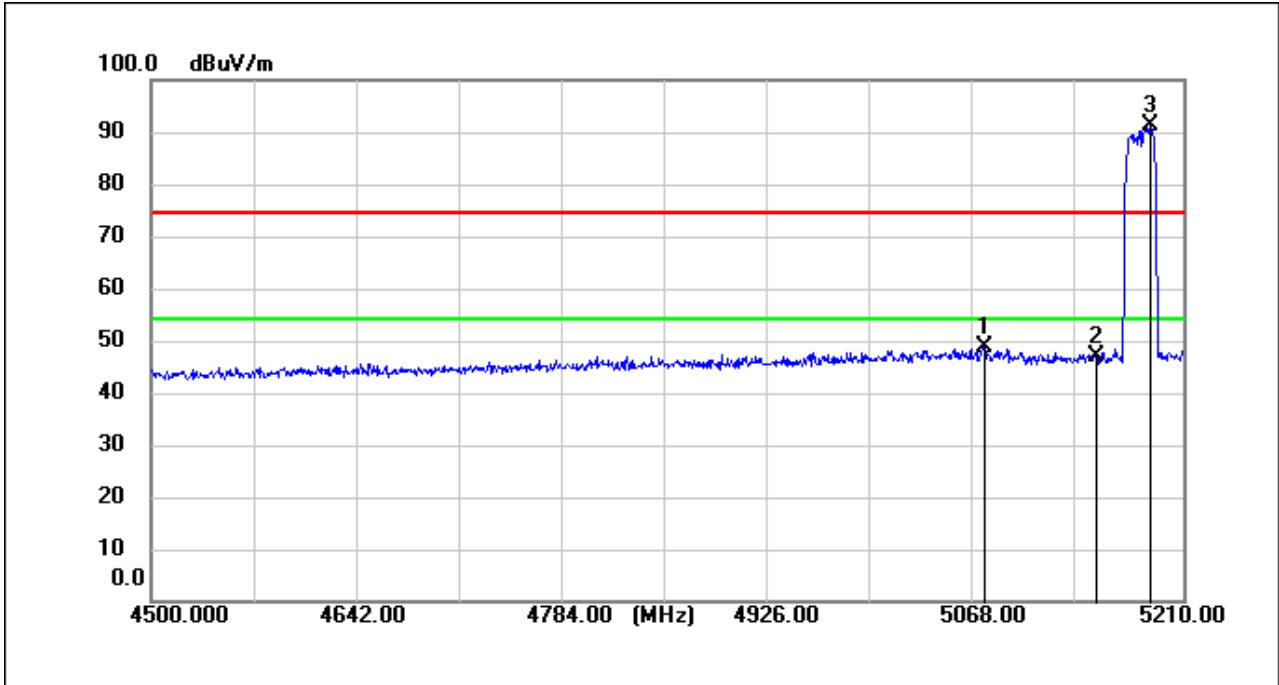
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5371.090	42.59	6.70	49.29	74.00	-24.71	peak
2	5460.000	39.52	6.68	46.20	74.00	-27.80	peak
3	5695.580	84.76	6.95	91.71	74.00	17.71	peak

## 11ax(HE20)\_TX\_CH\_36\_Horizontal\_Peak



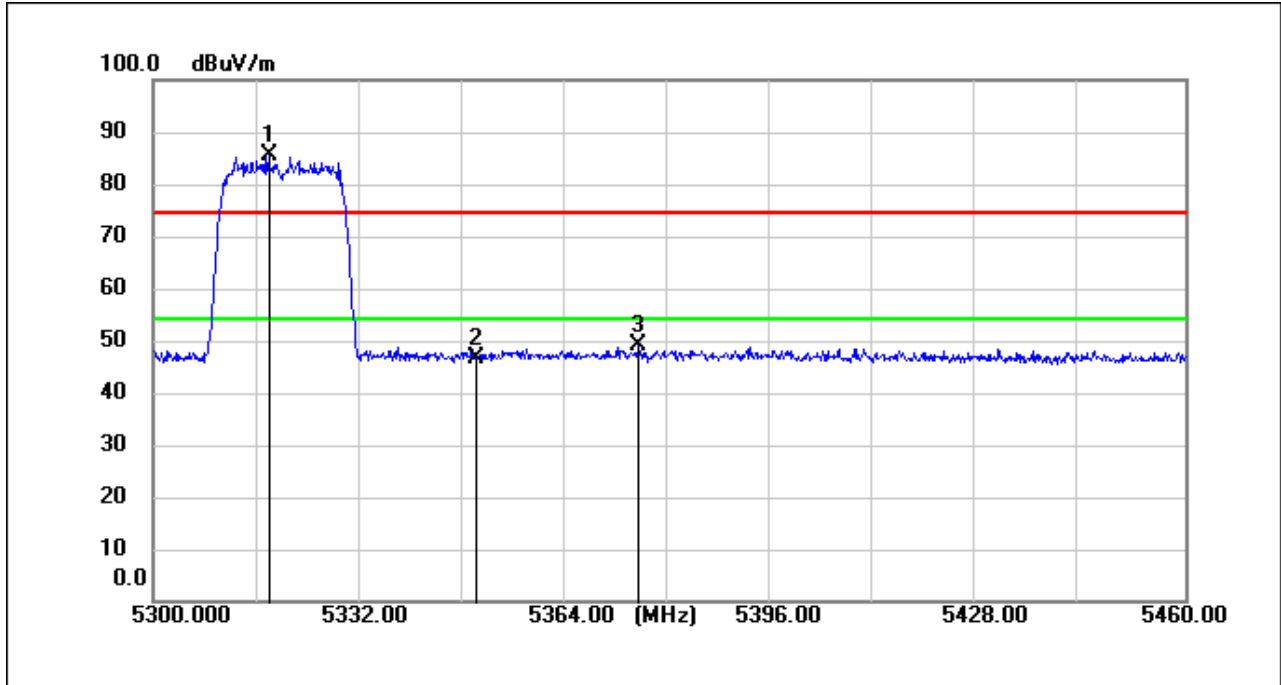
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5021.850	41.27	6.76	48.03	74.00	-25.97	peak
2	5150.000	38.32	6.75	45.07	74.00	-28.93	peak
3	5172.370	77.25	6.74	83.99	74.00	9.99	peak

## 11ax(HE20)\_TX\_CH\_36\_Vertical\_Peak



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5072.970	41.84	6.76	48.60	74.00	-25.40	peak
2	5150.000	40.07	6.75	46.82	74.00	-27.18	peak
3	5187.280	84.53	6.74	91.27	74.00	17.27	peak

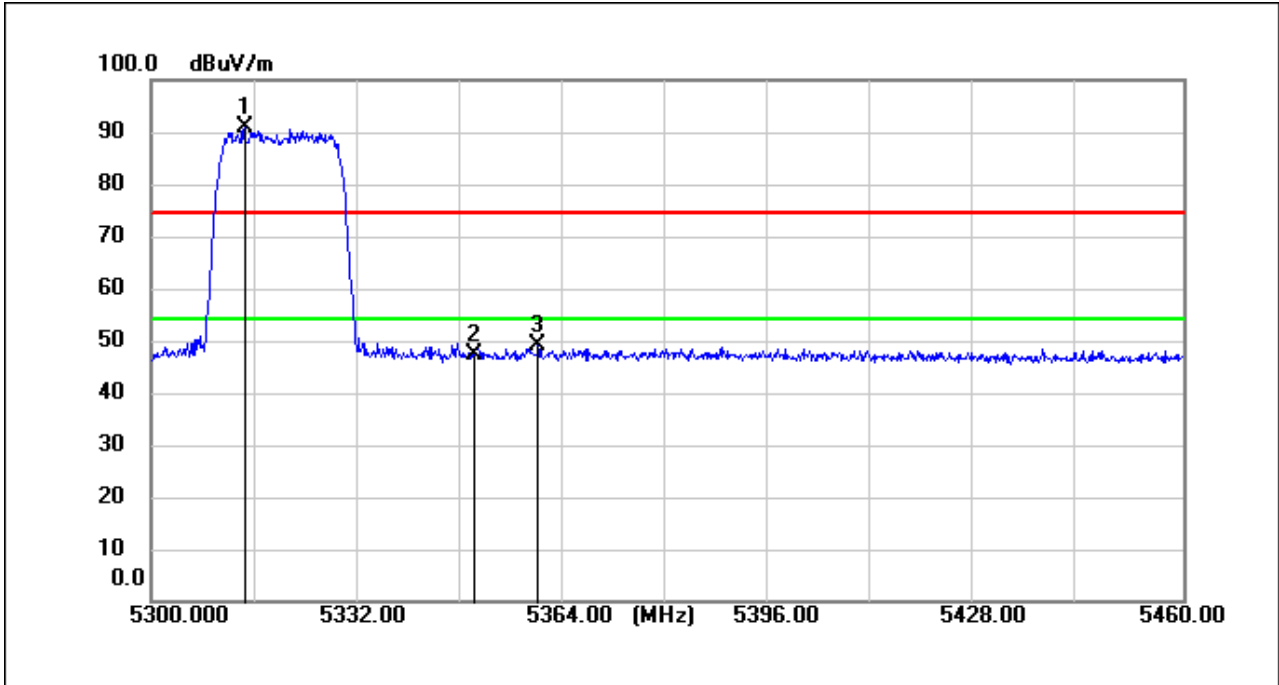
11ax(HE20)\_TX\_CH\_64\_Horizontal\_Peak



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5317.920	78.84	6.71	85.55	74.00	11.55	peak
2	5350.000	40.05	6.69	46.74	74.00	-27.26	peak
3	5375.360	42.30	6.69	48.99	74.00	-25.01	peak

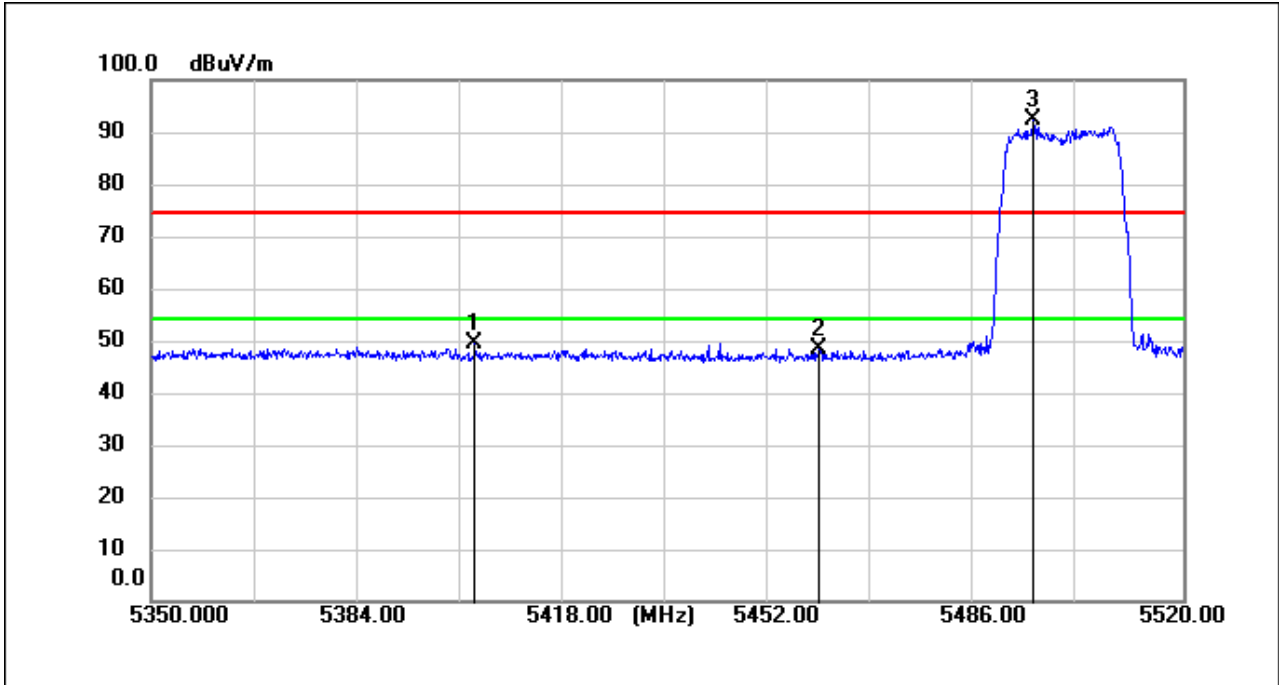


11ax(HE20)\_TX\_CH\_64\_Vertical\_Peak



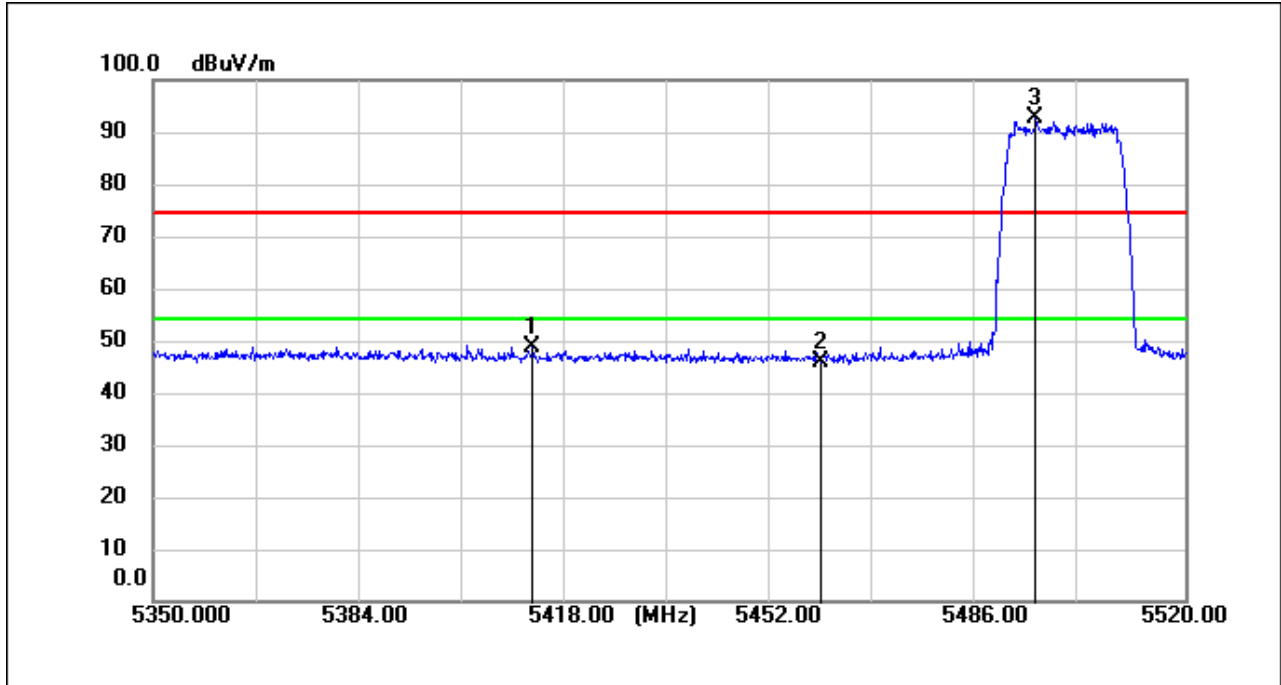
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5314.560	84.20	6.71	90.91	74.00	16.91	peak
2	5350.000	40.71	6.69	47.40	74.00	-26.60	peak
3	5360.000	42.25	6.70	48.95	74.00	-25.05	peak

11ax(HE20)\_Full\_TX\_CH\_100\_Horizontal\_Peak



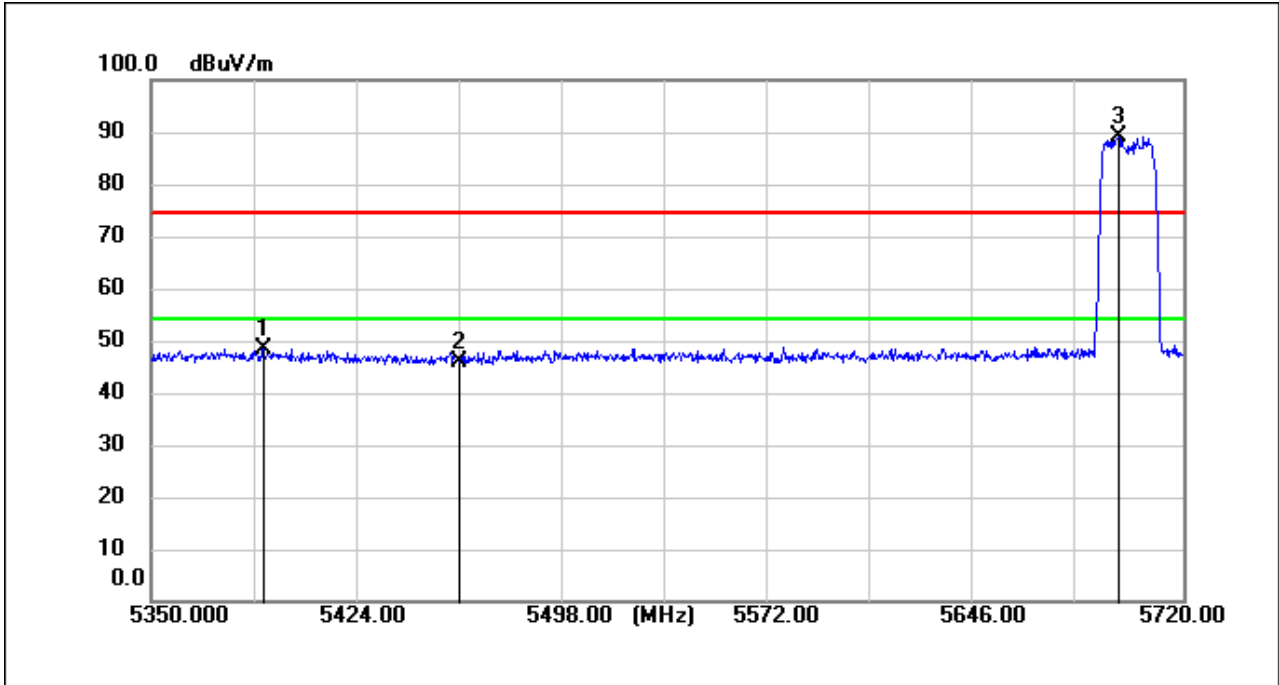
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5403.380	42.79	6.69	49.48	74.00	-24.52	peak
2	5460.000	41.62	6.68	48.30	74.00	-25.70	peak
3	5495.350	85.52	6.67	92.19	74.00	18.19	peak

11ax(HE20)\_Full\_TX\_CH\_100\_Veritical\_Peak



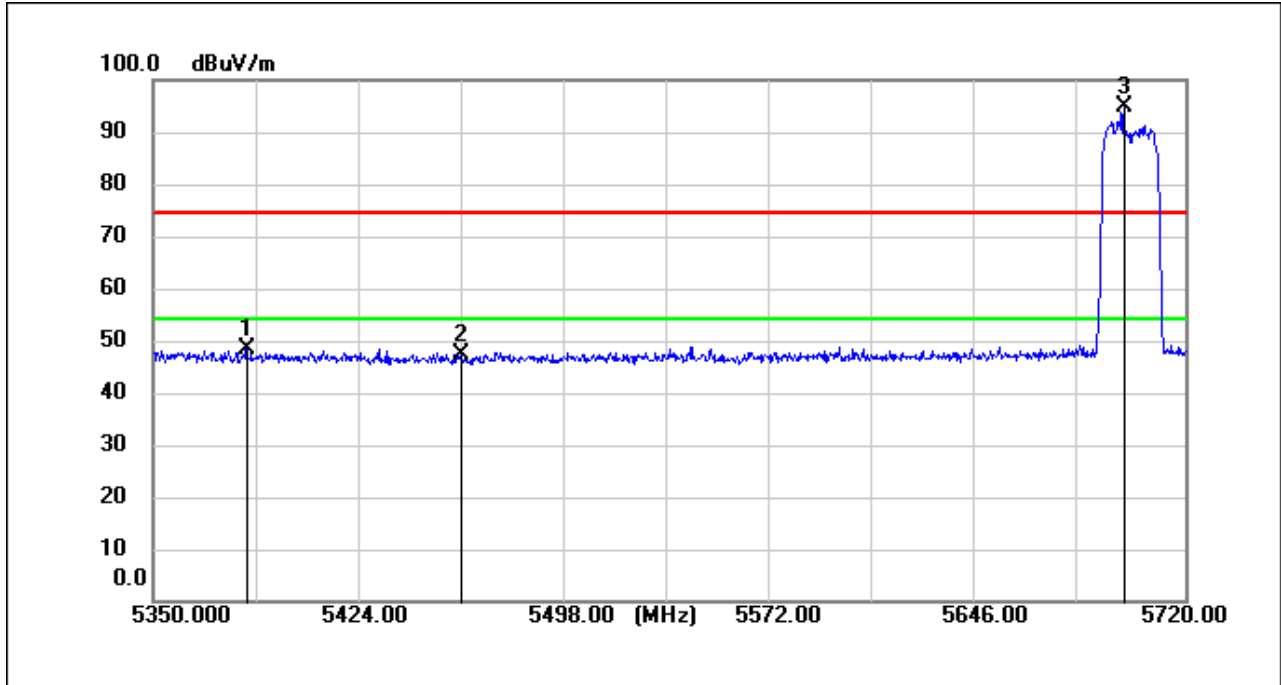
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5412.560	42.18	6.68	48.86	74.00	-25.14	peak
2	5460.000	39.16	6.68	45.84	74.00	-28.16	peak
3	5495.350	86.02	6.67	92.69	74.00	18.69	peak

11ax(HE20)\_Full\_TX\_CH\_140\_Horizontal\_Peak



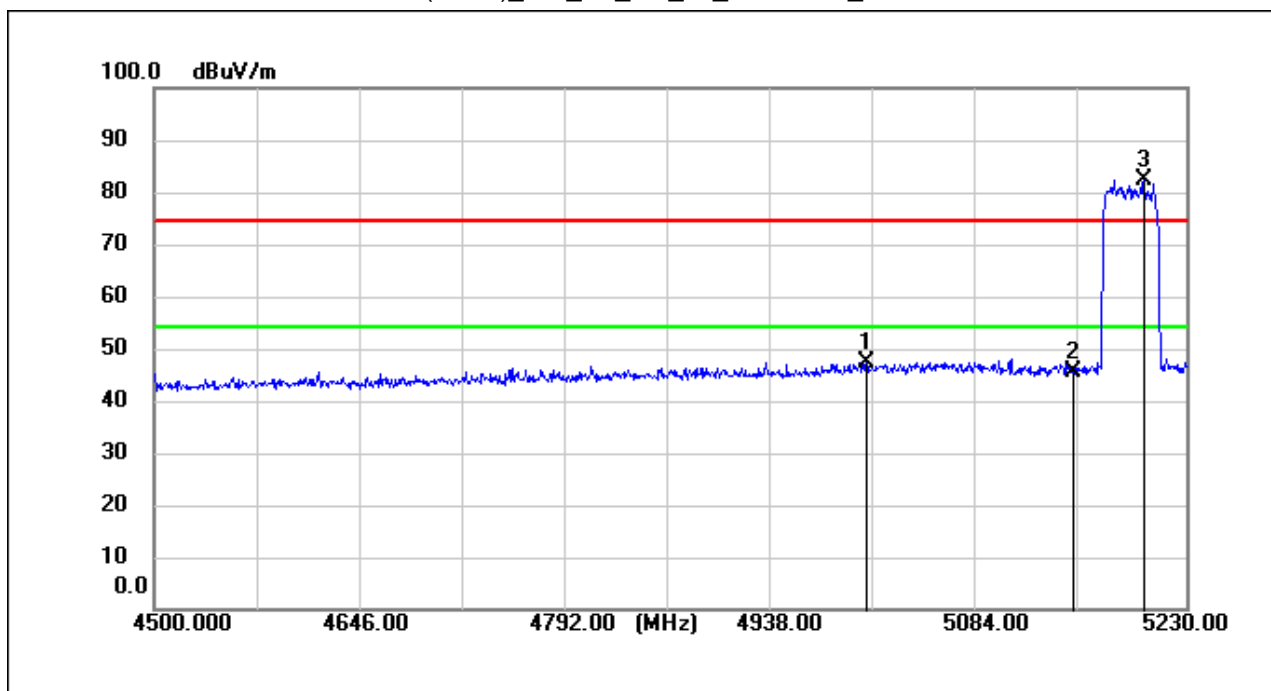
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5390.330	41.62	6.69	48.31	74.00	-25.69	peak
2	5460.000	39.35	6.68	46.03	74.00	-27.97	peak
3	5696.690	82.08	6.94	89.02	74.00	15.02	peak

## 11ax(HE20)\_Full\_TX\_CH\_140\_Vertical\_Peak



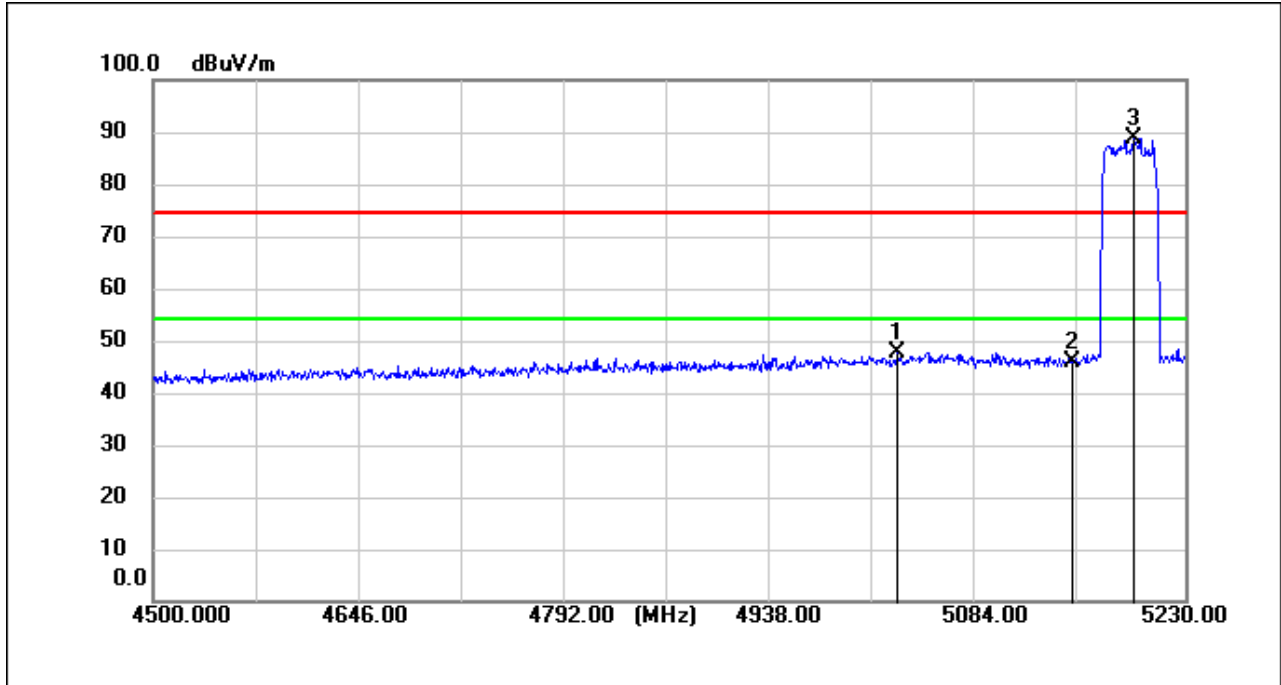
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5383.670	41.87	6.69	48.56	74.00	-25.44	peak
2	5460.000	40.60	6.68	47.28	74.00	-26.72	peak
3	5698.170	87.71	6.95	94.66	74.00	20.66	peak

## 11ax(HE40)\_Full\_TX\_CH\_38\_Horizontal\_Peak



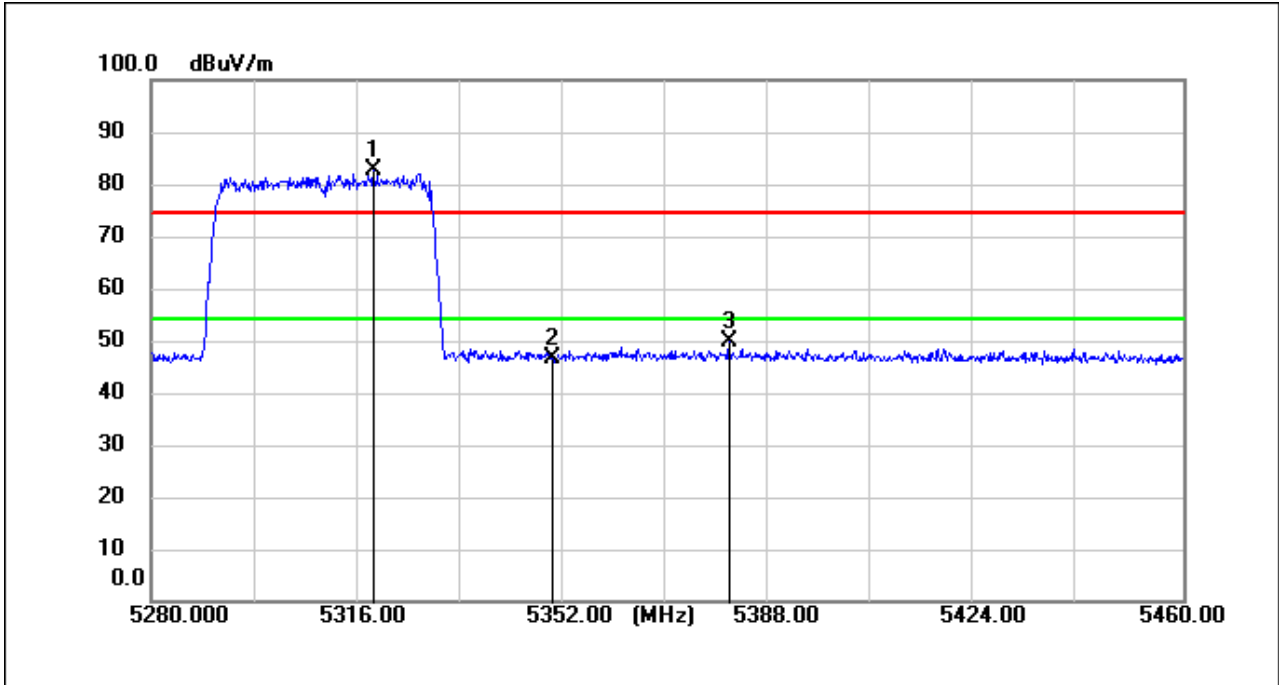
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5003.700	40.59	6.77	47.36	74.00	-26.64	peak
2	5150.000	38.74	6.75	45.49	74.00	-28.51	peak
3	5200.070	75.57	6.73	82.30	74.00	8.30	peak

## 11ax(HE40)\_Full\_TX\_CH\_38\_Vertical\_Peak



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5027.060	41.01	6.76	47.77	74.00	-26.23	peak
2	5150.000	39.18	6.75	45.93	74.00	-28.07	peak
3	5193.500	82.19	6.73	88.92	74.00	14.92	peak

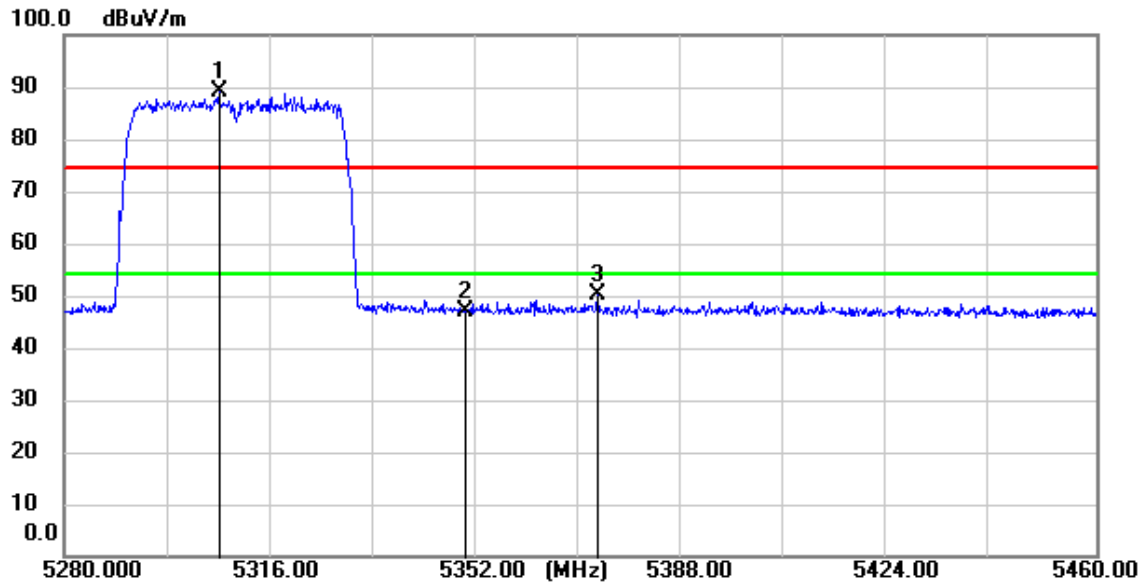
11ax(HE40)\_Full\_TX\_CH\_62\_Horizontal\_Peak



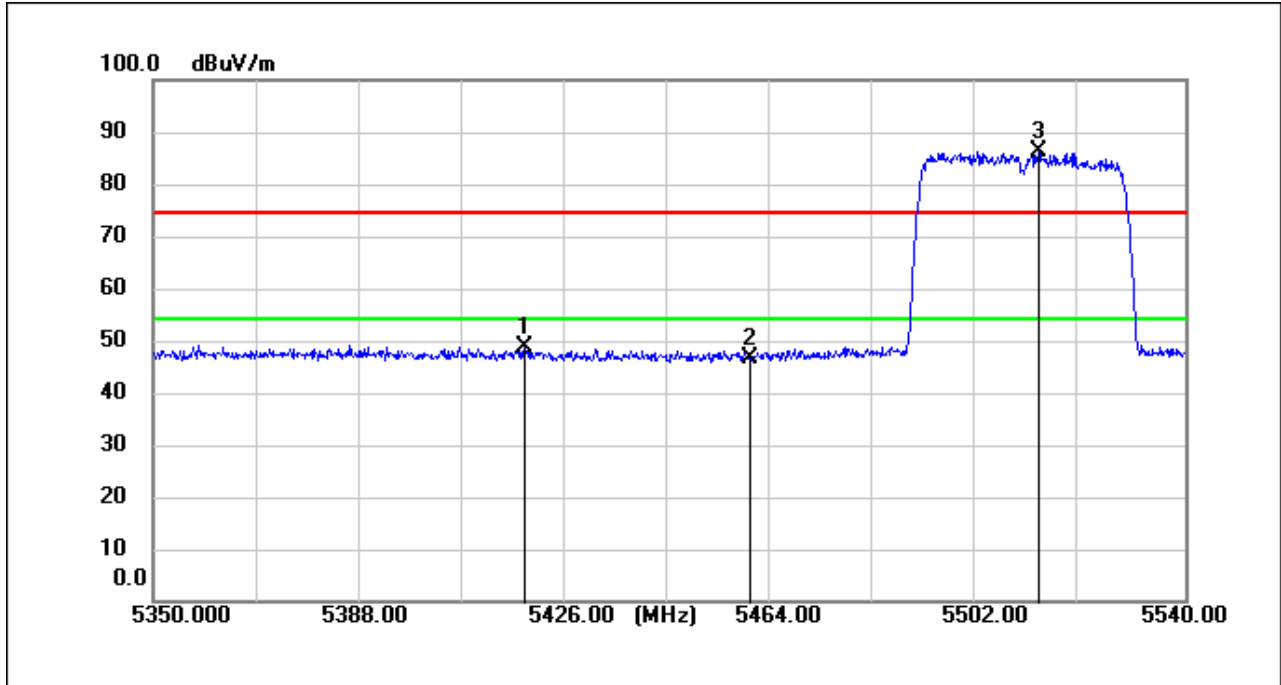
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5318.700	76.03	6.71	82.74	74.00	8.74	peak
2	5350.000	39.76	6.69	46.45	74.00	-27.55	peak
3	5380.800	43.01	6.69	49.70	74.00	-24.30	peak



11ax(HE40)\_Full\_TX\_CH\_62\_Verical\_Peak

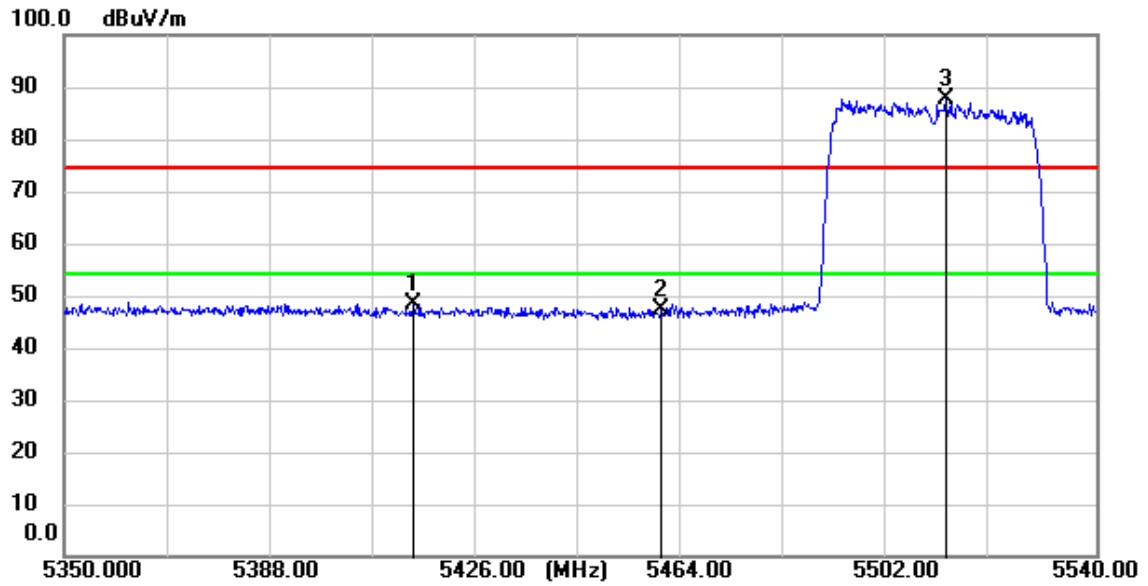


11ax(HE40)\_Full\_TX\_CH\_102\_Horizontal\_Peak



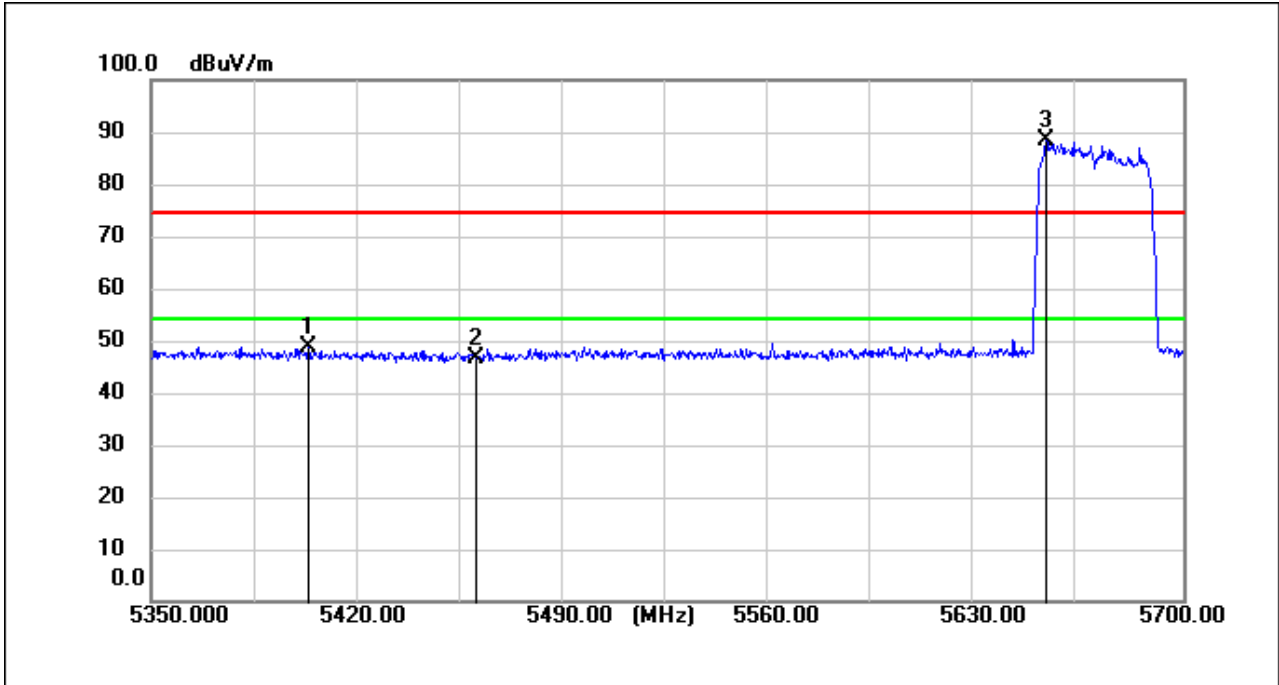
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5418.590	42.12	6.69	48.81	74.00	-25.19	peak
2	5460.000	39.92	6.68	46.60	74.00	-27.40	peak
3	5513.020	79.61	6.69	86.30	74.00	12.30	peak

## 11ax(HE40)\_Full\_TX\_CH\_102\_Vertical\_Peak



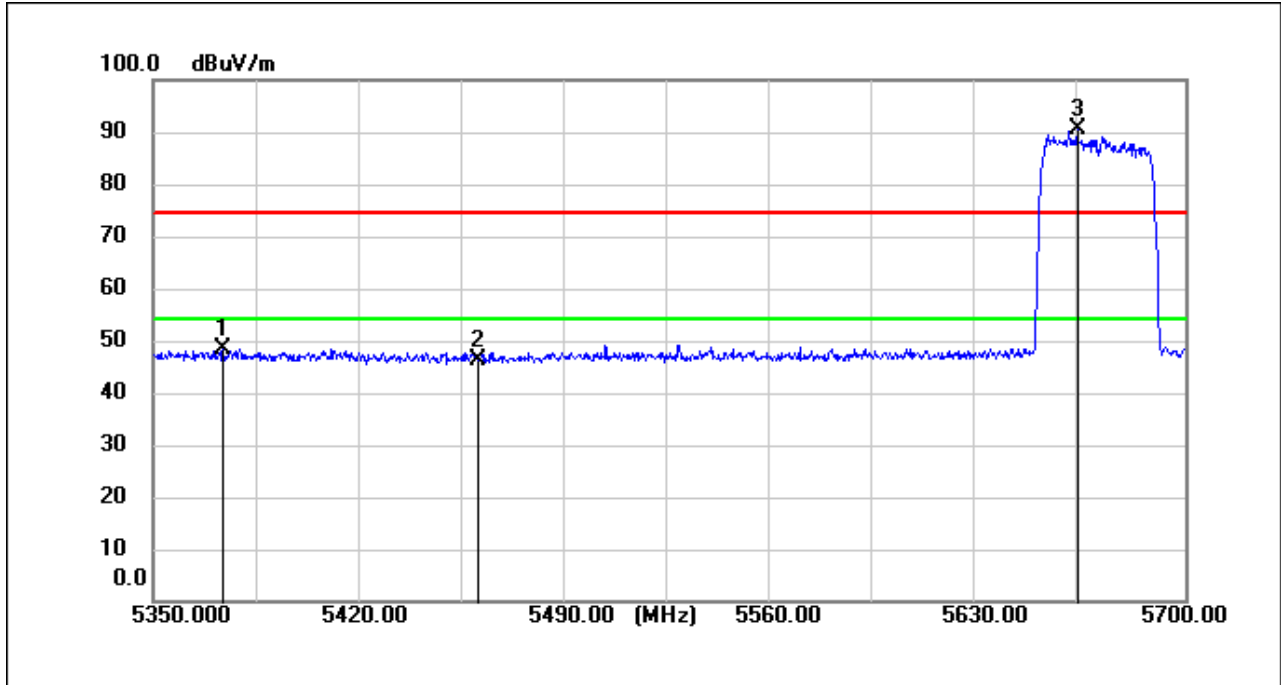
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5414.410	41.55	6.69	48.24	74.00	-25.76	peak
2	5460.000	40.53	6.68	47.21	74.00	-26.79	peak
3	5512.260	80.95	6.68	87.63	74.00	13.63	peak

11ax(HE40)\_Full\_TX\_CH\_134\_Horizontal\_Peak



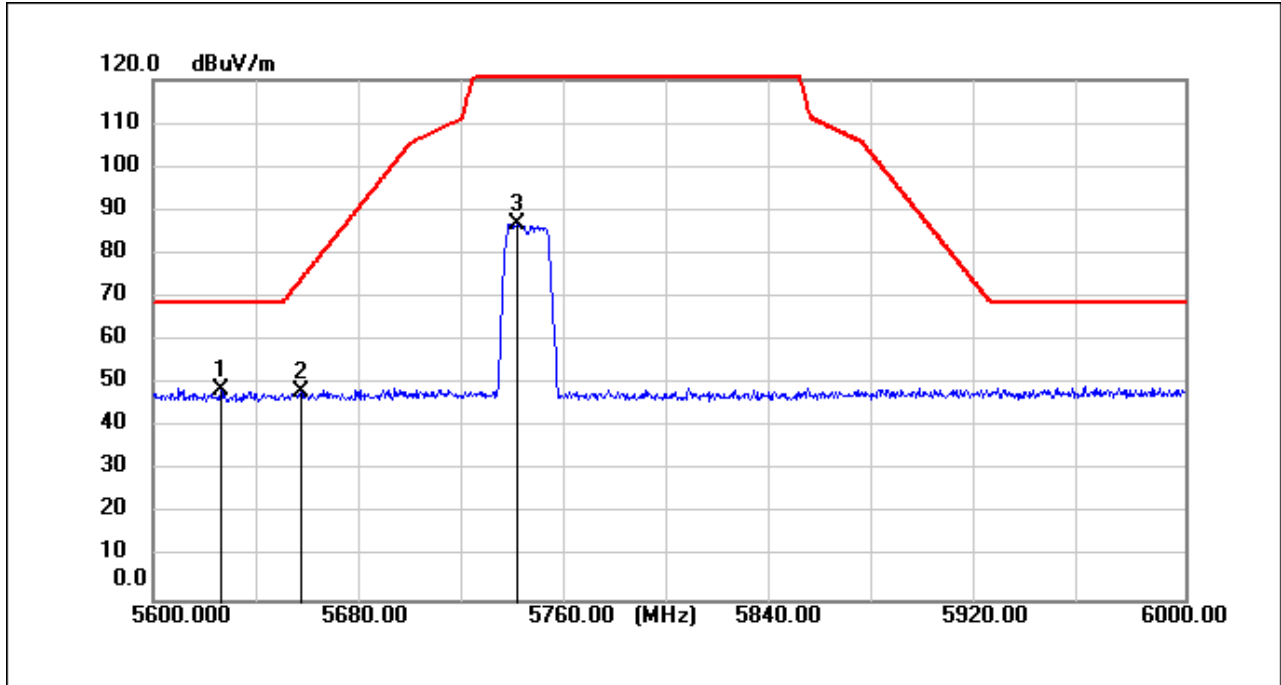
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5403.550	42.00	6.69	48.69	74.00	-25.31	peak
2	5460.000	39.79	6.68	46.47	74.00	-27.53	peak
3	5653.800	81.63	6.89	88.52	74.00	14.52	peak

## 11ax(HE40)\_Full\_TX\_CH\_134\_Vertical\_Peak



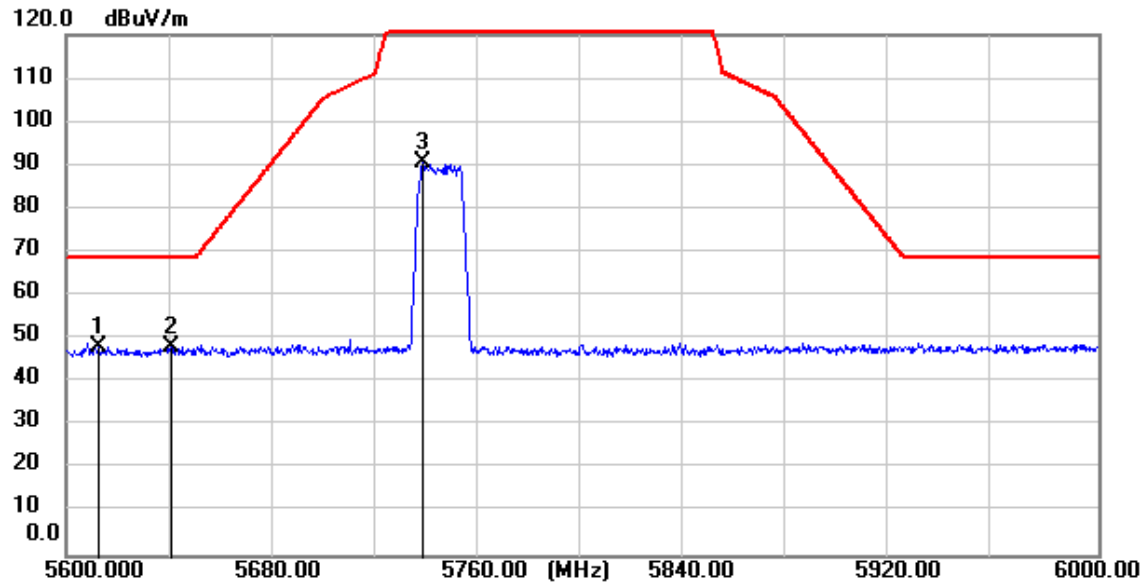
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5373.800	41.77	6.69	48.46	74.00	-25.54	peak
2	5460.000	39.57	6.68	46.25	74.00	-27.75	peak
3	5663.600	83.48	6.90	90.38	74.00	16.38	peak

11a\_TX\_CH\_149\_Horizontal\_Peak



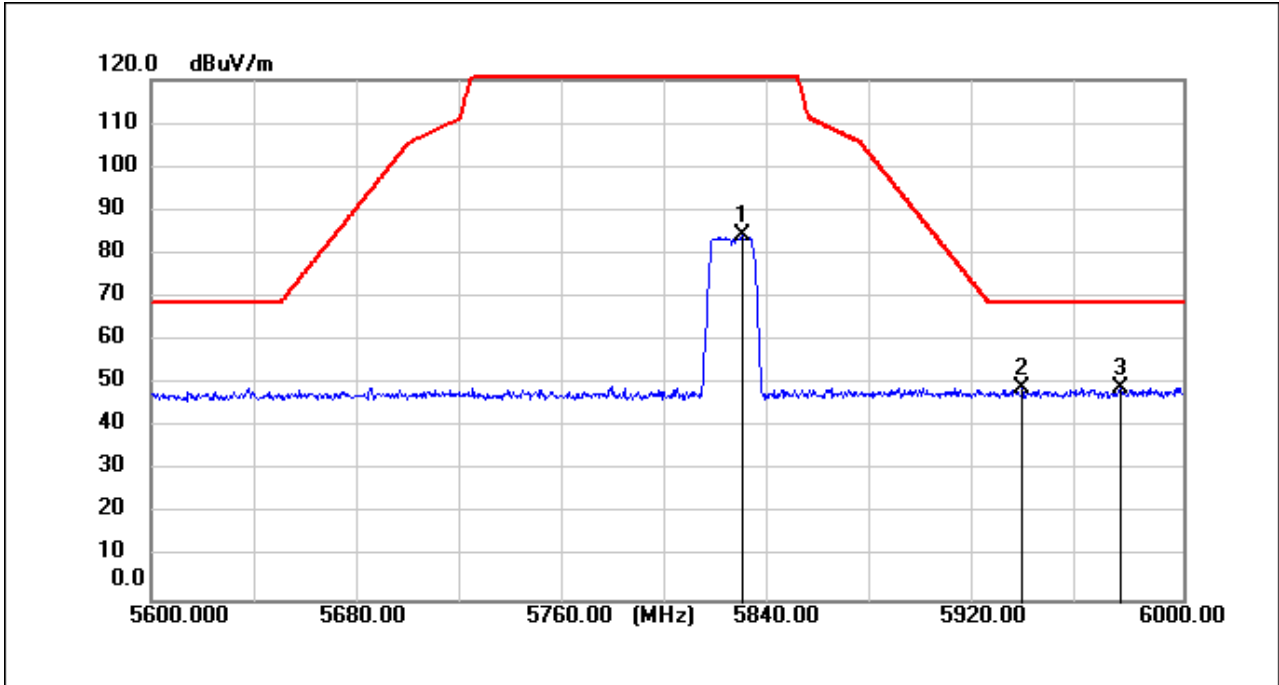
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5626.000	41.82	6.85	48.67	68.20	-19.53	peak
2	5657.200	41.27	6.90	48.17	73.53	-25.36	peak
3	5740.800	79.91	7.01	86.92	135.00	-48.08	peak

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	5612.800	41.27	6.83	48.10	68.20	-20.10	peak
2	5640.800	41.26	6.87	48.13	68.20	-20.07	peak
3	5738.000	83.64	7.01	90.65	135.00	-44.35	peak

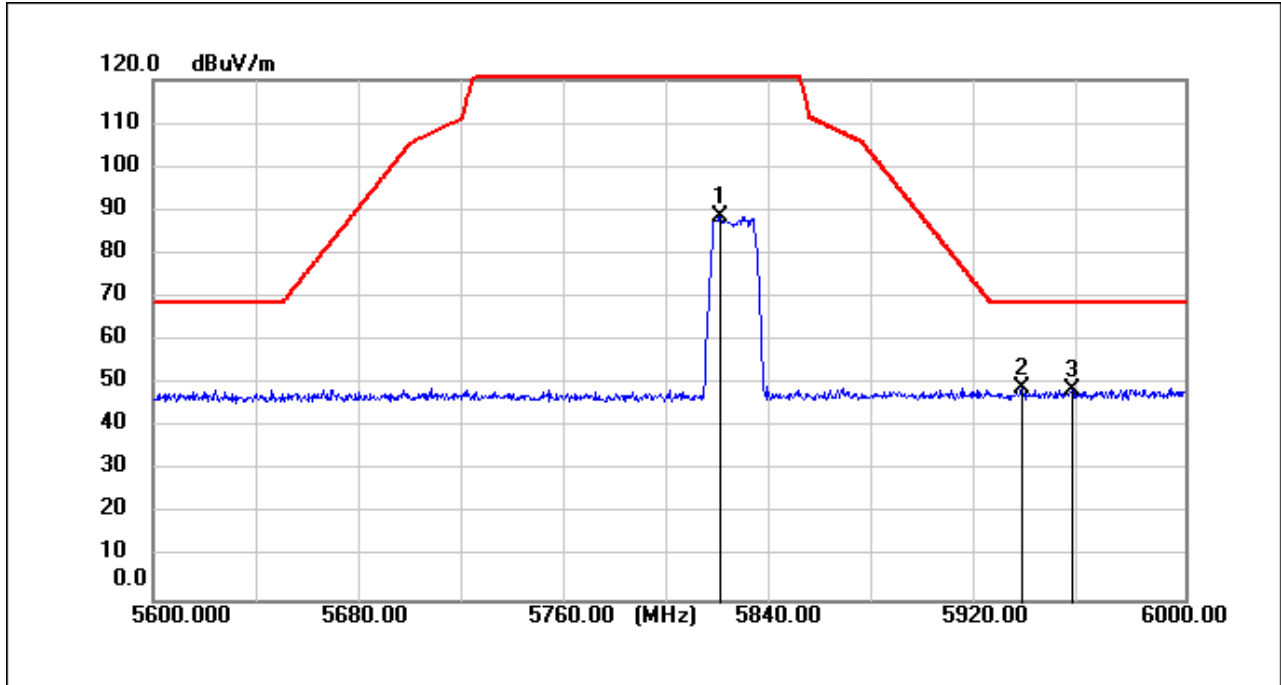
11a\_TX\_CH\_165\_Horizontal\_Peak



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5829.200	76.94	7.14	84.08	135.00	-50.92	peak
2	5937.600	41.64	7.29	48.93	68.20	-19.27	peak
3	5976.000	41.71	7.34	49.05	68.20	-19.15	peak

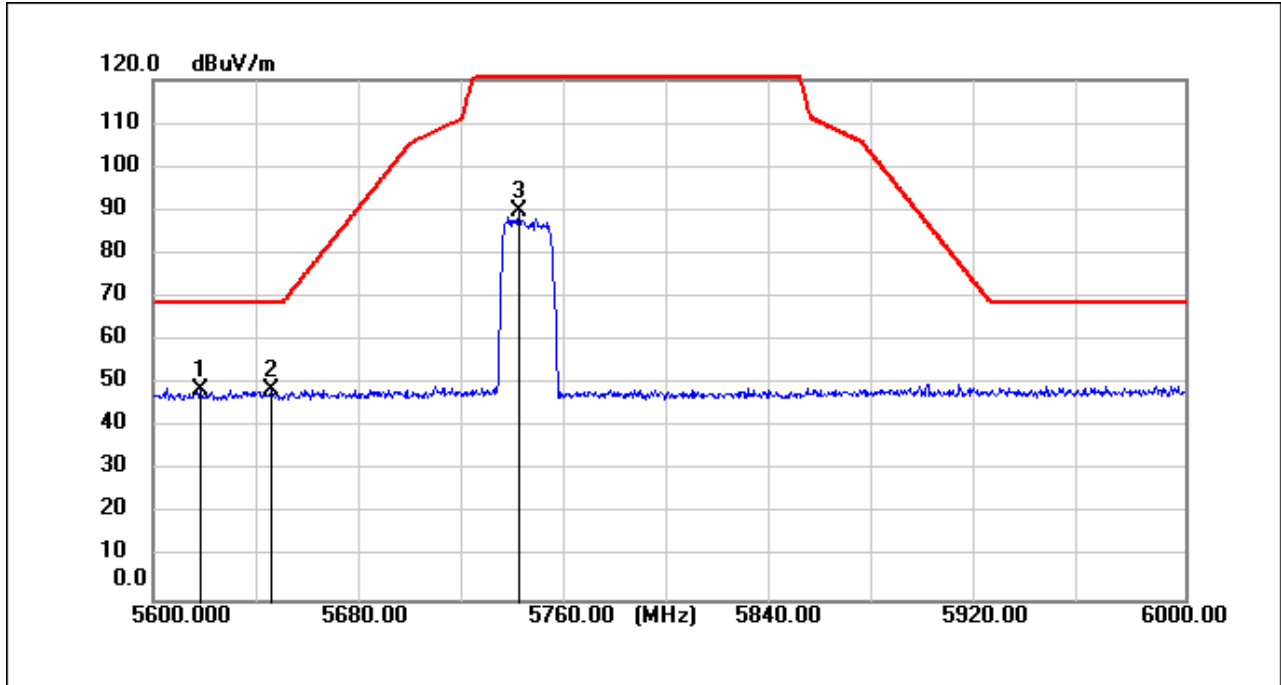


11a\_TX\_CH\_165\_Vertical\_Peak



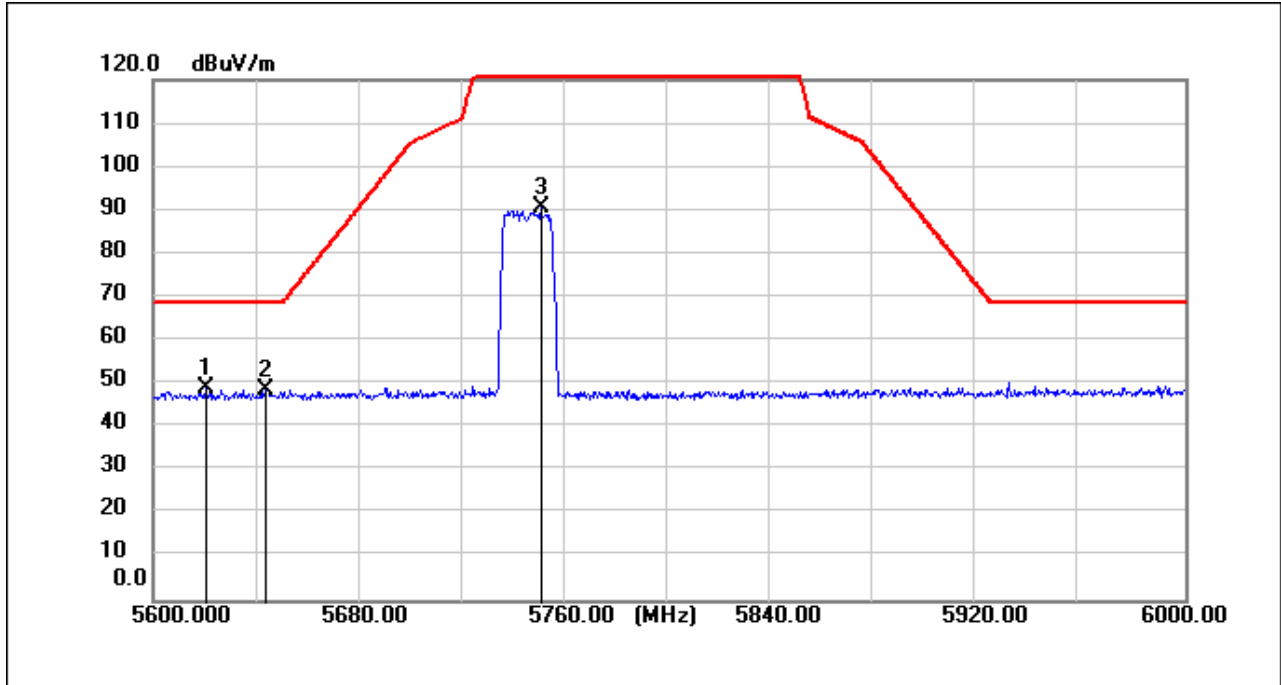
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5820.000	81.43	7.12	88.55	135.00	-46.45	peak
2	5936.800	41.97	7.29	49.26	68.20	-18.94	peak
3	5956.000	41.41	7.32	48.73	68.20	-19.47	peak

11ax(HE20)\_Full\_TX\_CH\_149\_Horizontal\_Peak



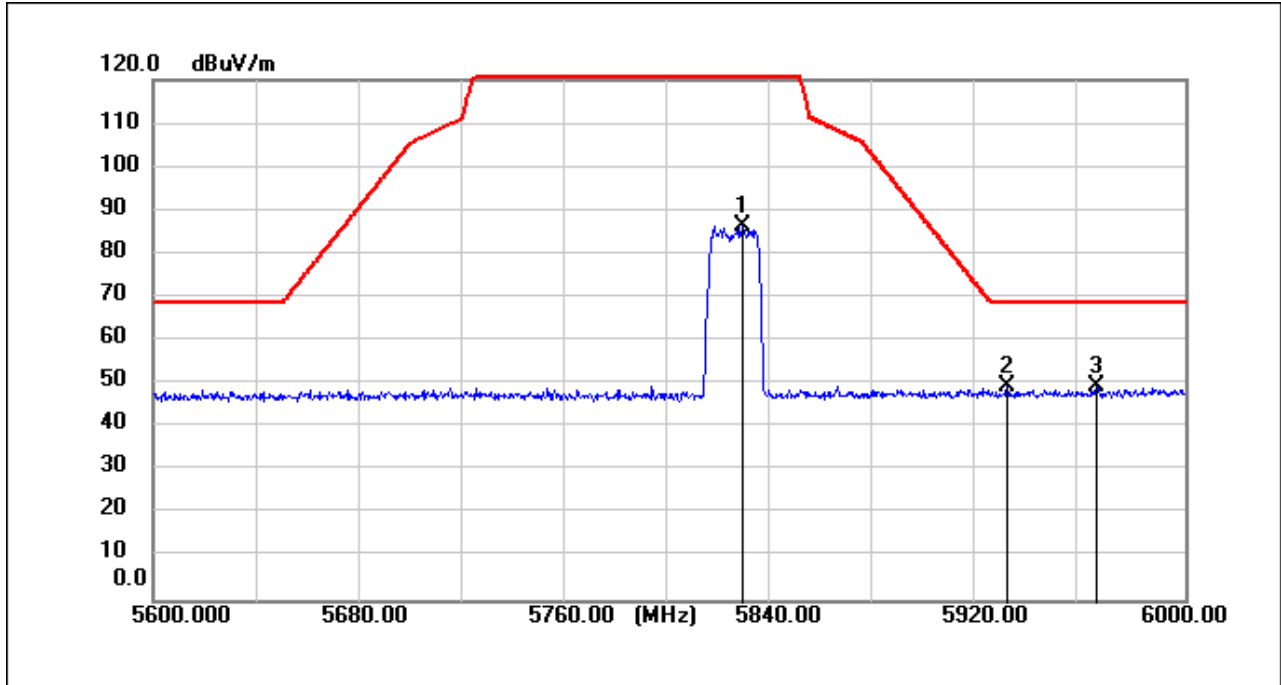
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5618.400	41.72	6.84	48.56	68.20	-19.64	peak
2	5646.000	41.57	6.88	48.45	68.20	-19.75	peak
3	5741.600	82.82	7.02	89.84	135.00	-45.16	peak

11ax(HE20)\_Full\_TX\_CH\_149\_Vertical\_Peak



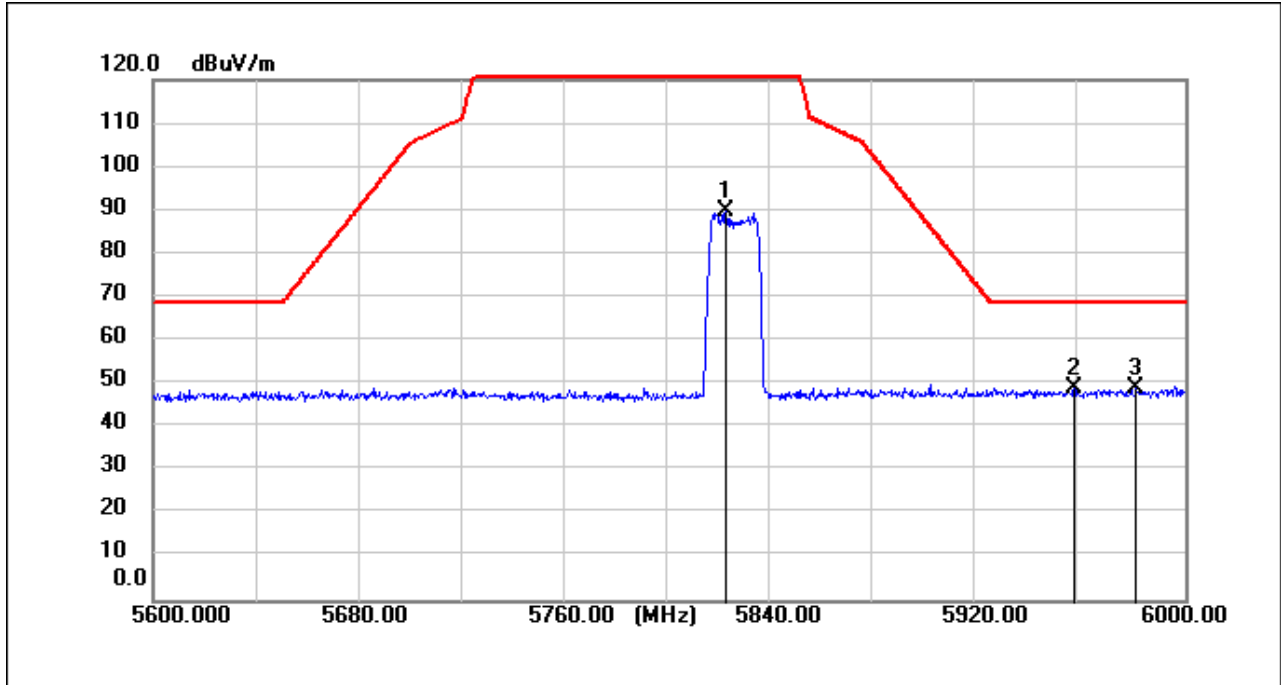
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5620.400	42.23	6.84	49.07	68.20	-19.13	peak
2	5644.000	41.76	6.87	48.63	68.20	-19.57	peak
3	5750.400	83.49	7.02	90.51	135.00	-44.49	peak

11ax(HE20)\_Full\_TX\_CH\_165\_Horizontal\_Peak



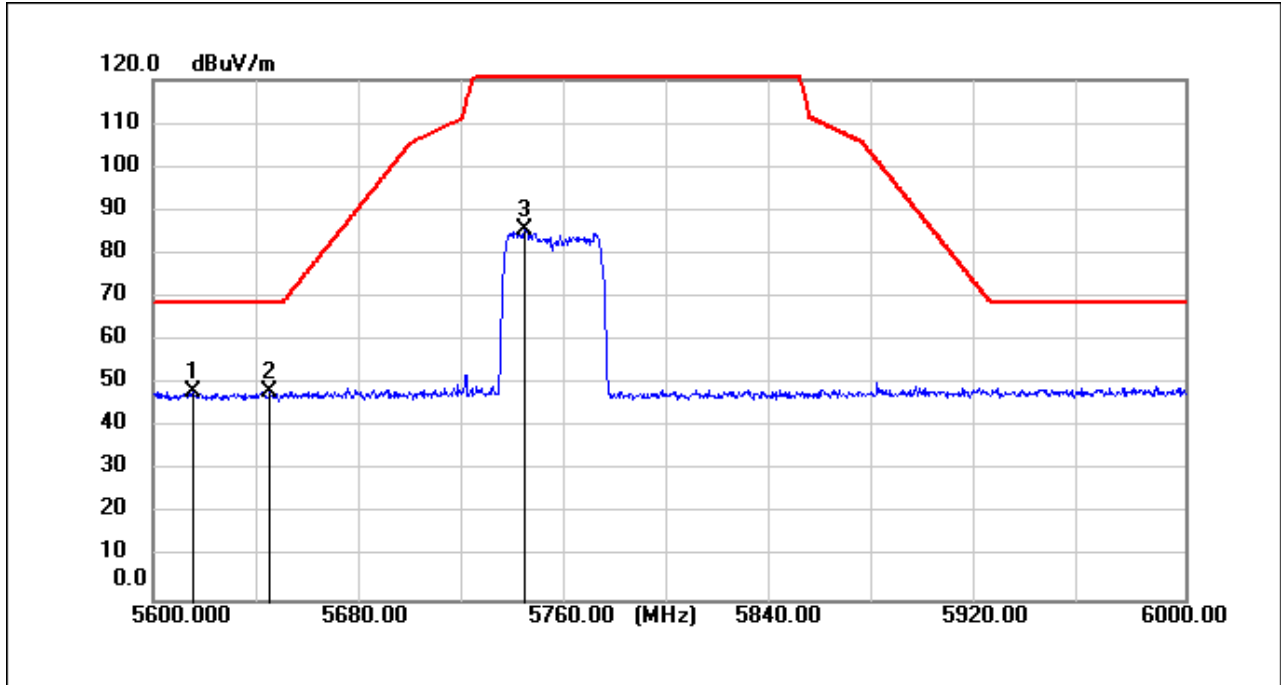
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5828.400	79.12	7.13	86.25	135.00	-48.75	peak
2	5930.800	42.14	7.28	49.42	68.20	-18.78	peak
3	5966.000	42.29	7.33	49.62	68.20	-18.58	peak

11ax(HE20)\_Full\_TX\_CH\_165\_Vertical\_Peak



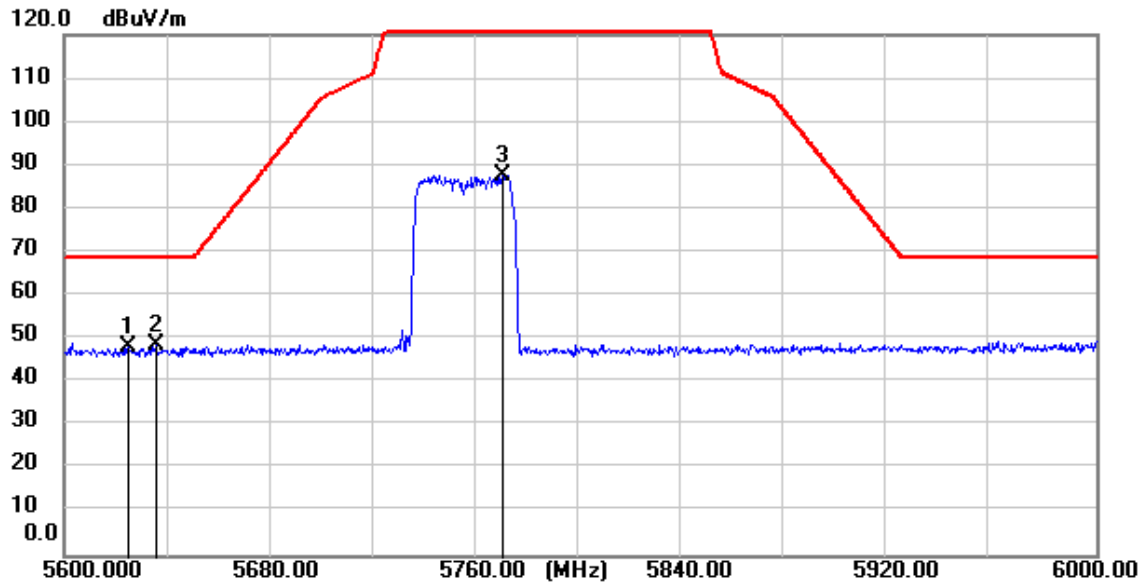
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5822.000	82.48	7.13	89.61	135.00	-45.39	peak
2	5956.800	41.81	7.32	49.13	68.20	-19.07	peak
3	5981.200	41.80	7.35	49.15	68.20	-19.05	peak

11ax(HE40)\_Full\_TX\_CH\_151\_Horizontal\_Peak



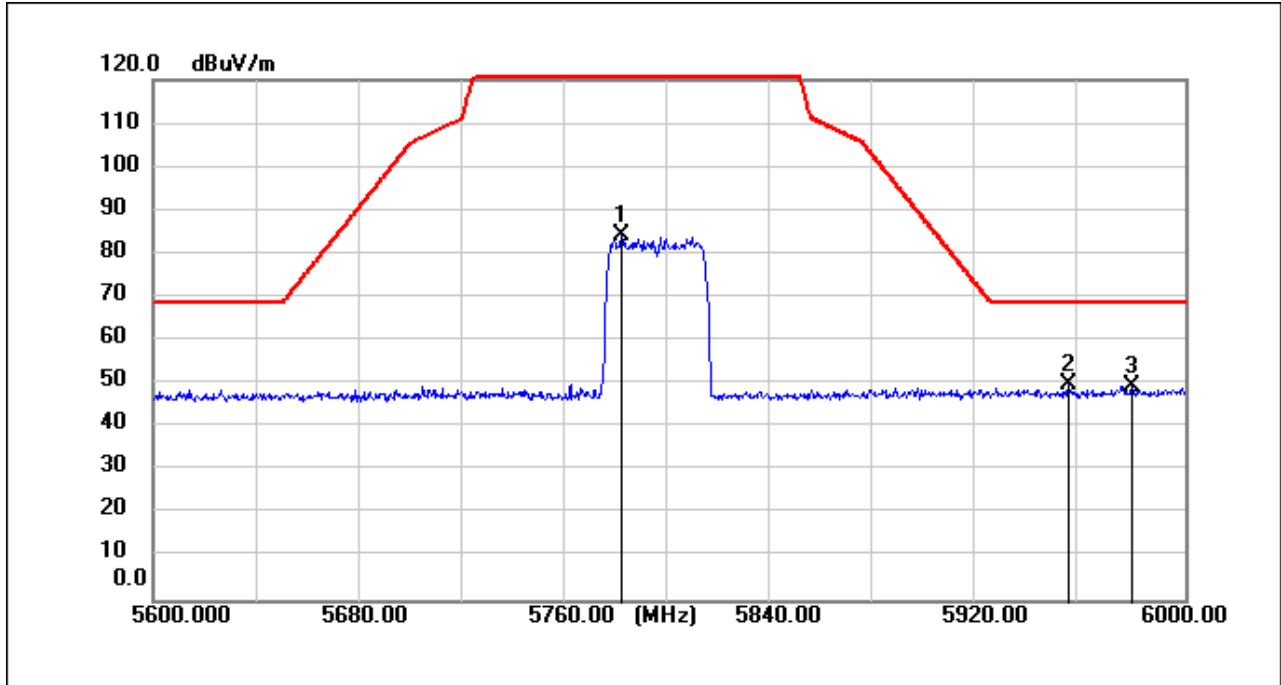
No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5615.600	41.40	6.83	48.23	68.20	-19.97	peak
2	5645.200	41.55	6.87	48.42	68.20	-19.78	peak
3	5744.400	78.30	7.01	85.31	135.00	-49.69	peak

11ax(HE40)\_Full\_TX\_CH\_151\_Vertical\_Peak



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5625.200	41.16	6.85	48.01	68.20	-20.19	peak
2	5635.600	41.84	6.86	48.70	68.20	-19.50	peak
3	5770.000	80.68	7.05	87.73	135.00	-47.27	peak

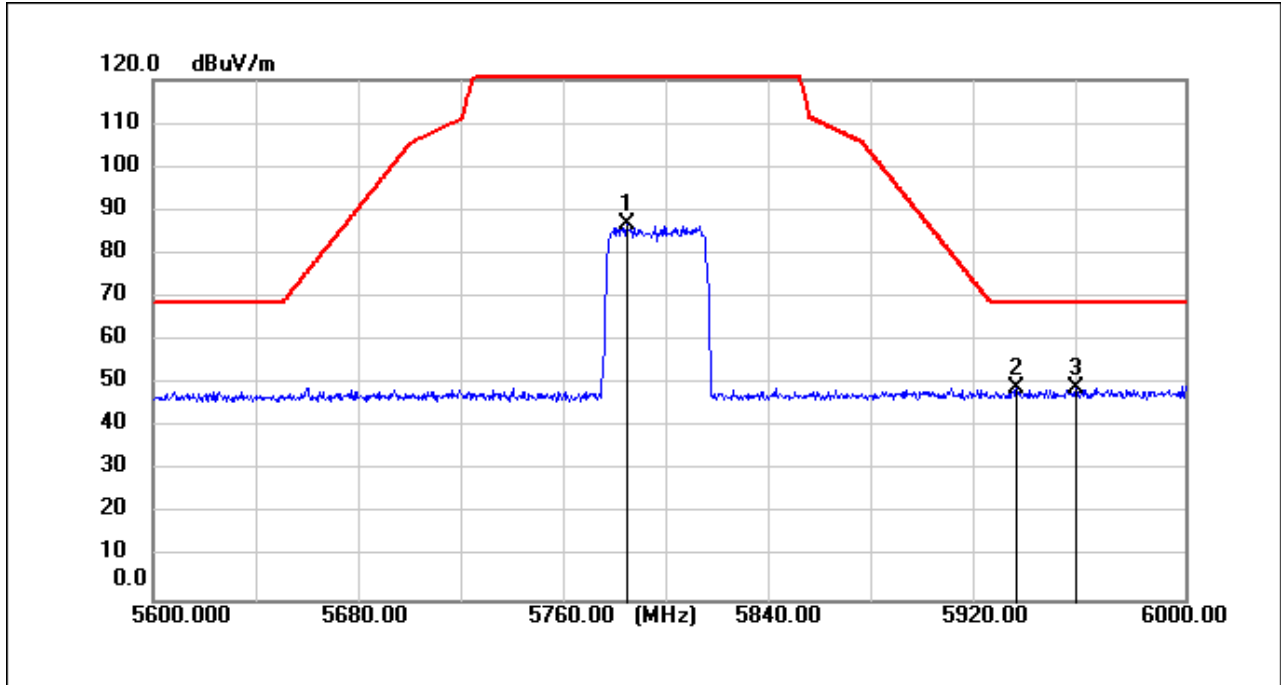
11ax(HE40)\_Full\_TX\_CH\_159\_Horizontal\_Peak



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5781.600	76.97	7.07	84.04	135.00	-50.96	peak
2	5954.800	42.43	7.32	49.75	68.20	-18.45	peak
3	5979.200	42.19	7.35	49.54	68.20	-18.66	peak



11ax(HE40)\_Full\_TX\_CH\_159\_Verical\_Peak



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5783.600	79.77	7.07	86.84	135.00	-48.16	peak
2	5934.400	41.97	7.29	49.26	68.20	-18.94	peak
3	5958.000	41.70	7.32	49.02	68.20	-19.18	peak

## 7.5 Duty Cycle

Test Requirement ANSI C63.10 (2013) Section 12.2

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

### 7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 26.0 °C

Humidity: 56.2 % RH

Atmospheric Pressure: 1010 mbar

### 7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	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 only the data of worst case is recorded in the report.
Final test	06	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 only the data of worst case is recorded in the report.
Final test	07	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 only the data of worst case is recorded in the report.
Final test	08	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 only the data of worst case is recorded in the report.

### 7.5.3 Measurement Procedure and Data

Please Refer to Appendix for Details

## 7.6 99% Bandwidth

Test Requirement ANSI C63.10 (2013) Section 12.4.2

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

### 7.6.1 E.U.T. Operation

Operating Environment:

Temperature: 26.0 °C

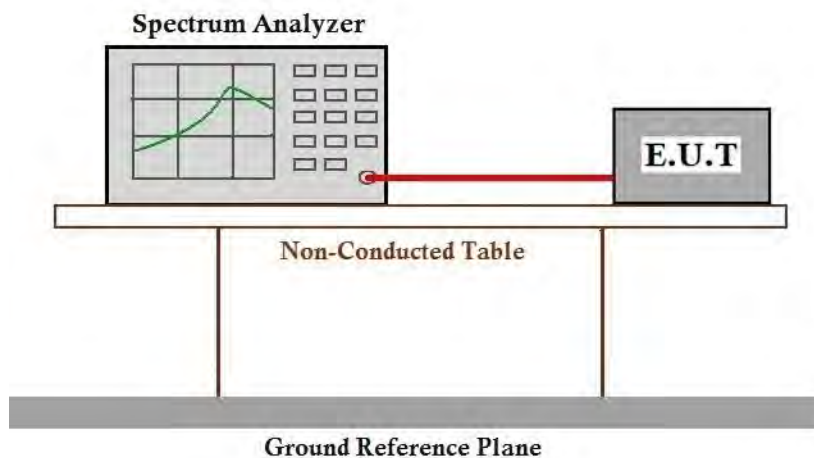
Humidity: 56.2 % RH

Atmospheric Pressure: 1010 mbar

### 7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	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 only the data of worst case is recorded in the report.
Final test	06	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 only the data of worst case is recorded in the report.
Final test	07	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 only the data of worst case is recorded in the report.
Final test	08	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 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: 26.0 °C

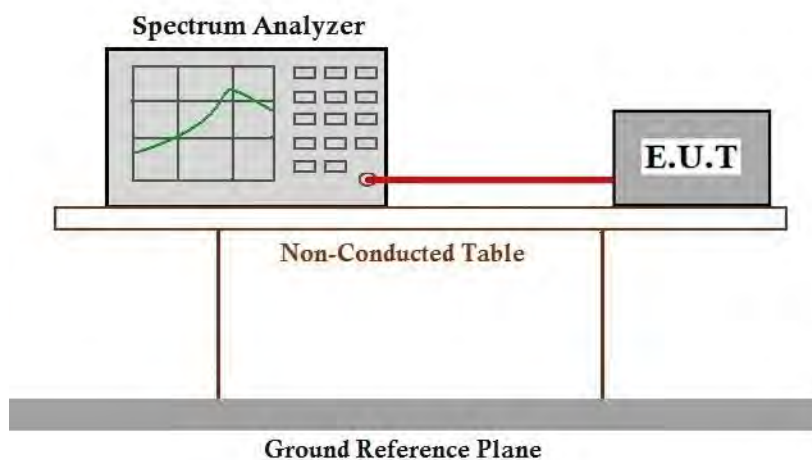
Humidity: 56.2 % RH

Atmospheric Pressure: 1010 mbar

### 7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	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 only the data of worst case is recorded in the report.
Final test	06	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 only the data of worst case is recorded in the report.
Final test	07	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 only the data of worst case is recorded in the report.
Final test	08	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 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: 26.0 °C

Humidity: 56.2 % RH

Atmospheric Pressure: 1010 mbar

### 7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	08	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 only the data of worst case is recorded in the report.

### 7.8.3 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:	<p>* Where B is the 26dB emission bandwidth in MHz.</p> <p>The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.</p>

### 7.9.1 E.U.T. Operation

Operating Environment:

Temperature: 26.0 °C

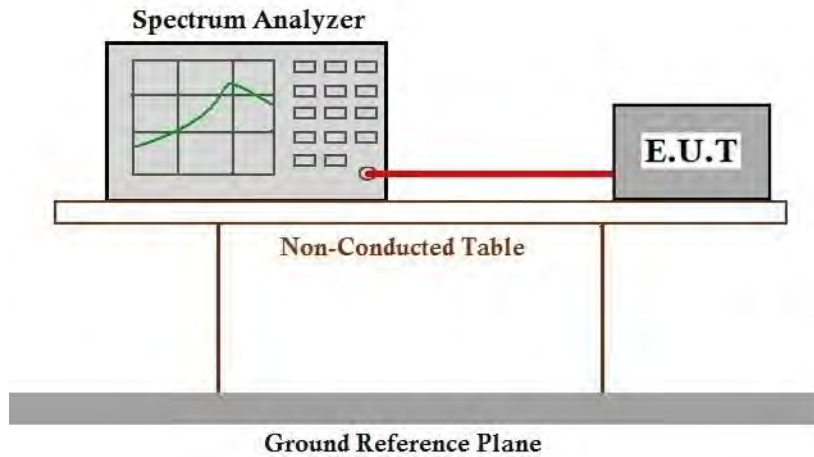
Humidity: 56.2 % RH

Atmospheric Pressure: 1010 mbar

### 7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	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 only the data of worst case is recorded in the report.
Final test	06	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 only the data of worst case is recorded in the report.
Final test	07	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 only the data of worst case is recorded in the report.
Final test	08	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 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: 26.0 °C

Humidity: 56.2 % RH

Atmospheric Pressure: 1010 mbar

### 7.10.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	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 only the data of worst case is recorded in the report.
Final test	06	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 only the data of worst case is recorded in the report.
Final test	07	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 only the data of worst case is recorded in the report.
Final test	08	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 only the data of worst case is recorded in the report.

### 7.10.3 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: 26.0 °C

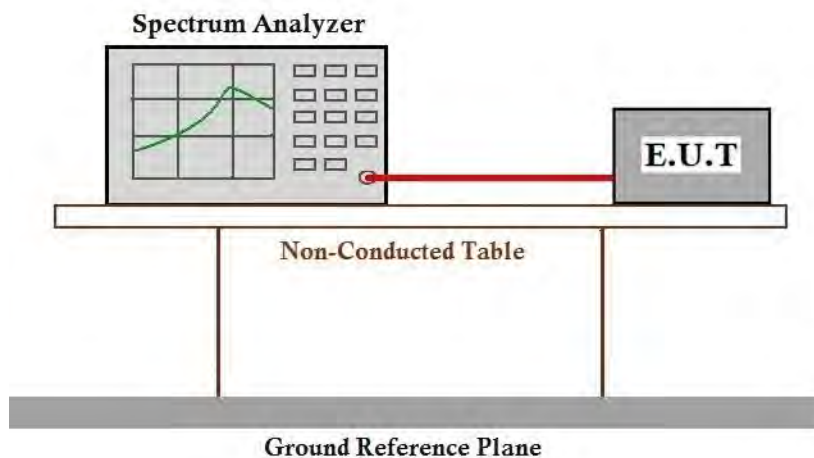
Humidity: 56.2 % RH

Atmospheric Pressure: 1010 mbar

### 7.11.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	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 only the data of worst case is recorded in the report.
Final test	06	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 only the data of worst case is recorded in the report.
Final test	07	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 only the data of worst case is recorded in the report.
Final test	08	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 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:

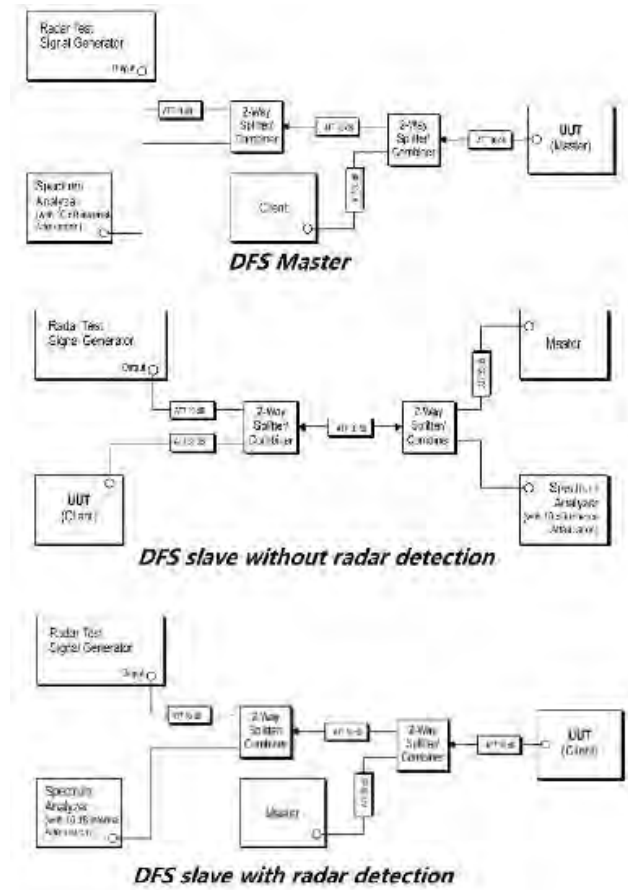
Temperature: 26.0 °C Humidity: 56.2 % RH Atmospheric Pressure: 1010 mbar

### 7.12.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
-----------------------	-----------	-------------

Final test	06	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 only the data of worst case is recorded in the report.
Final test	07	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 only the data of worst case is recorded in the report.

## 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:

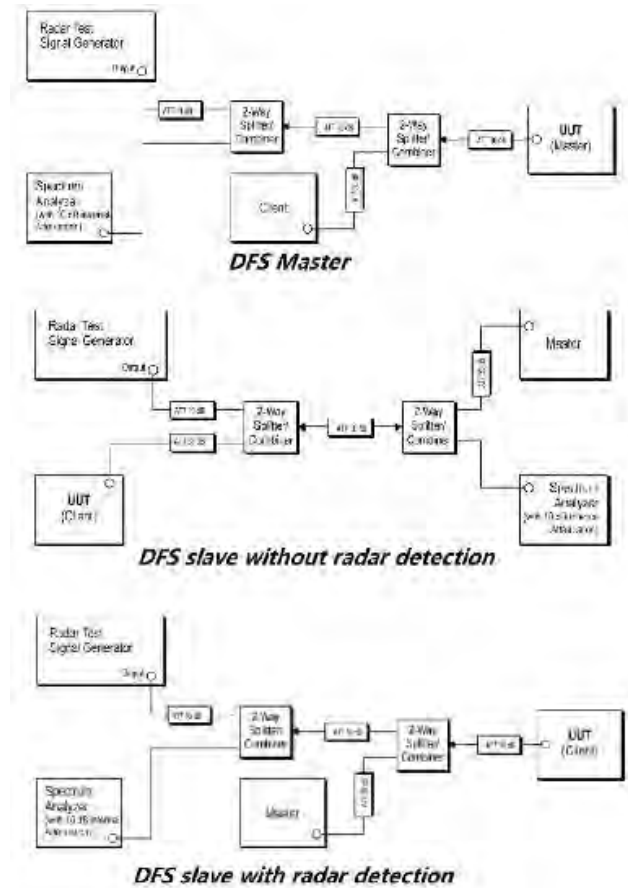
Temperature: 26.0 °C Humidity: 56.2 % RH Atmospheric Pressure: 1010 mbar

#### 7.13.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
-----------------------	-----------	-------------

Final test	06	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 only the data of worst case is recorded in the report.
Final test	07	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 only the data of worst case is recorded in the report.

### 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: 26.0 °C Humidity: 56.2 % RH Atmospheric Pressure: 1010 mbar

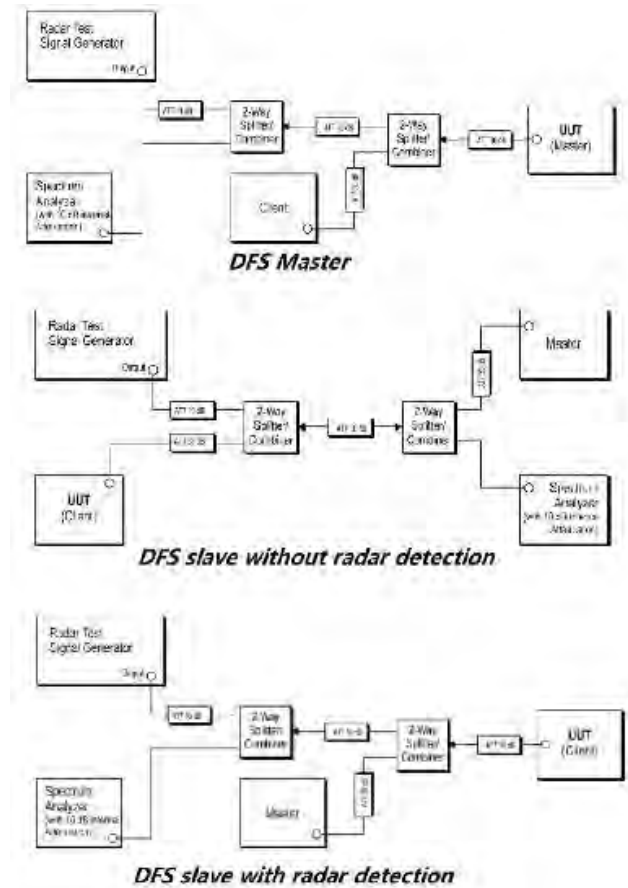
### 7.14.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
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Final test	06	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 only the data of worst case is recorded in the report.
Final test	07	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 only the data of worst case is recorded in the report.

## 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



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## **8 Test Setup Photo**

Refer to Appendix - Test Setup Photo for KSCR2506001182AT

## **9 EUT Constructional Details (EUT Photos)**

Refer to Appendix\_Photographs of EUT Constructional Details for KSCR2506001182AT

## 10 Appendix

### 1. Duty Cycle

#### 1.1 Test Result

##### 1.1.1 Ant1

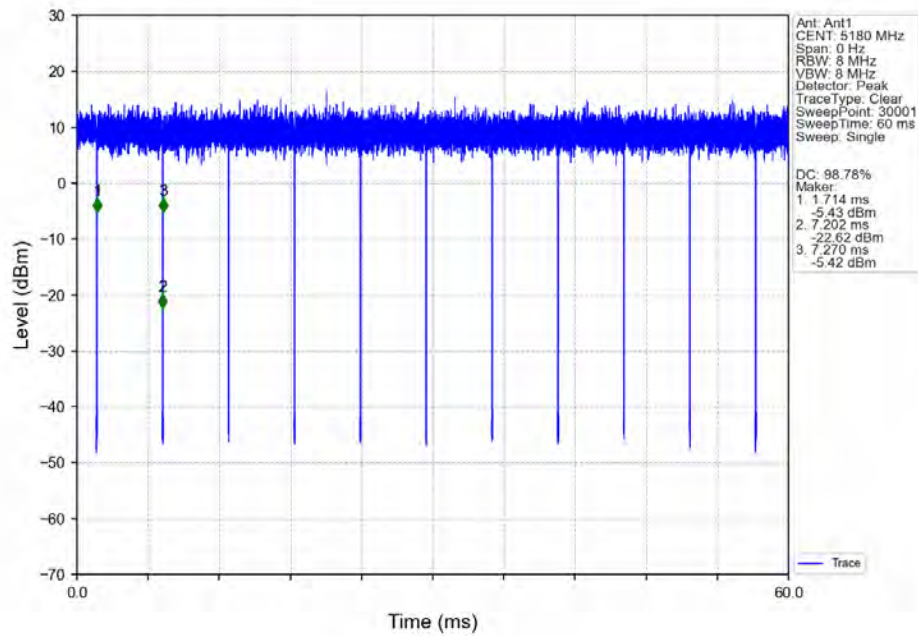
Ant1									
Mode	Tx Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	/	/	5.488	5.556	98.78	0.05	0.00
		5200	/	/	5.486	5.564	98.60	0.06	0.18
		5240	/	/	5.492	5.566	98.67	0.06	0.32
		5260	/	/	5.488	5.556	98.78	0.05	0.00
		5300	/	/	5.486	5.556	98.74	0.06	0.00
		5320	/	/	5.488	5.564	98.63	0.06	0.14
		5500	/	/	5.486	5.564	98.60	0.06	0.18
		5580	/	/	5.486	5.556	98.74	0.06	0.00
		5700	/	/	5.488	5.564	98.63	0.06	0.14
		5745	/	/	5.488	5.566	98.60	0.06	0.18
		5785	/	/	5.488	5.566	98.60	0.06	0.18
		5825	/	/	5.486	5.564	98.60	0.06	0.18
802.11ac (VHT20)	SISO	5180	/	/	5.382	5.460	98.57	0.06	0.18
		5200	/	/	5.384	5.462	98.57	0.06	0.18
		5240	/	/	5.384	5.462	98.57	0.06	0.20
		5260	/	/	100.000	100.000	100.00	0.00	0.00
		5300	/	/	5.383	5.461	98.57	0.06	0.20
		5320	/	/	5.383	5.460	98.59	0.06	0.17
		5500	/	/	5.383	5.461	98.57	0.06	0.20
		5580	/	/	5.382	5.460	98.57	0.06	0.18
		5700	/	/	5.383	5.462	98.55	0.06	0.20
		5745	/	/	5.384	5.462	98.57	0.06	0.18
		5785	/	/	5.384	5.462	98.57	0.06	0.18
		5825	/	/	5.383	5.462	98.55	0.06	0.20
802.11ac (VHT40)	SISO	5190	/	/	5.165	5.242	98.53	0.06	0.17
		5230	/	/	5.163	5.241	98.51	0.07	0.21
		5270	/	/	5.163	5.241	98.51	0.07	0.18
		5310	/	/	5.163	5.241	98.51	0.07	0.21
		5510	/	/	5.163	5.241	98.51	0.07	0.21
		5550	/	/	5.163	5.241	98.51	0.07	0.18
		5670	/	/	5.163	5.242	98.49	0.07	0.21
		5755	/	/	5.163	5.242	98.49	0.07	0.21
802.11ac (VHT80)	SISO	5795	/	/	5.164	5.242	98.51	0.07	0.21
		5210	/	/	4.759	4.839	98.35	0.07	0.22
		5290	/	/	4.758	4.836	98.39	0.07	0.20
		5530	/	/	4.760	4.837	98.41	0.07	0.18
		5610	/	/	4.760	4.837	98.41	0.07	0.18

		5775	/	/	4.759	4.836	98.41	0.07	0.18
802.11ax (HEW20)	SISO	5180	SU	/	4.648	4.725	98.37	0.07	0.20
		5200	SU	/	4.643	4.725	98.26	0.08	0.28
		5240	SU	/	4.645	4.725	98.31	0.07	0.20
		5260	SU	/	4.647	4.725	98.35	0.07	0.21
		5300	SU	/	4.645	4.725	98.31	0.07	0.21
		5320	SU	/	4.644	4.724	98.31	0.07	0.20
		5500	SU	/	4.647	4.725	98.35	0.07	0.21
		5580	SU	/	4.645	4.725	98.31	0.07	0.21
		5700	SU	/	4.645	4.725	98.31	0.07	0.21
		5745	SU	/	4.647	4.725	98.35	0.07	0.21
		5785	SU	/	4.644	4.726	98.26	0.08	0.23
802.11ax (HEW40)	SISO	5825	SU	/	4.645	4.725	98.31	0.07	0.21
		5190	SU	/	4.635	4.717	98.26	0.08	0.21
		5230	SU	/	4.635	4.715	98.30	0.07	0.17
		5270	SU	/	4.635	4.717	98.26	0.08	0.20
		5310	SU	/	4.636	4.717	98.28	0.08	0.23
		5510	SU	/	4.635	4.715	98.30	0.07	0.17
		5550	SU	/	4.635	4.717	98.26	0.08	0.21
		5670	SU	/	4.635	4.717	98.26	0.08	0.20
		5755	SU	/	4.635	4.716	98.28	0.08	0.21
802.11ax (HEW80)	SISO	5795	SU	/	4.635	4.717	98.26	0.08	0.21
		5210	SU	/	4.424	4.493	98.46	0.07	0.00
		5290	SU	/	4.422	4.501	98.24	0.08	0.21
		5530	SU	/	4.429	4.501	98.40	0.07	0.39
		5610	SU	/	4.423	4.503	98.22	0.08	0.21
		5775	SU	/	4.424	4.502	98.27	0.08	0.21

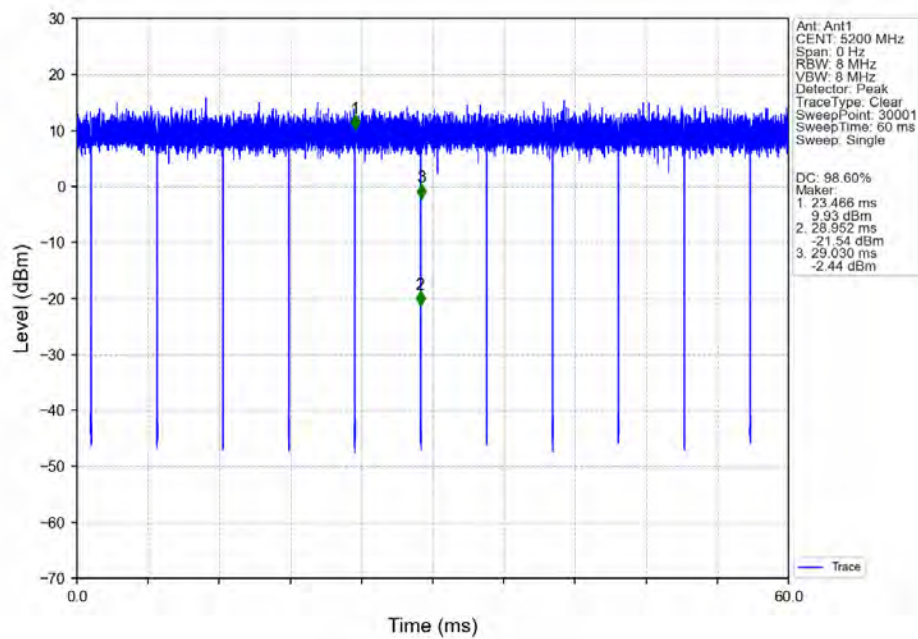
## 1.2 Test Graph

### 1.2.1 Ant1

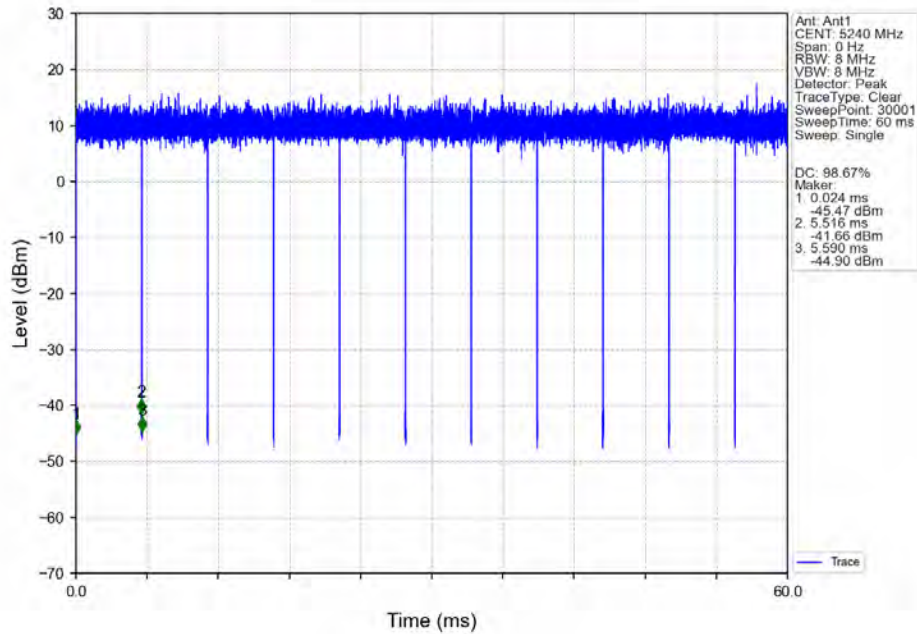
## 802.11a\_LCH\_5180MHz\_Ant1\_NTNV



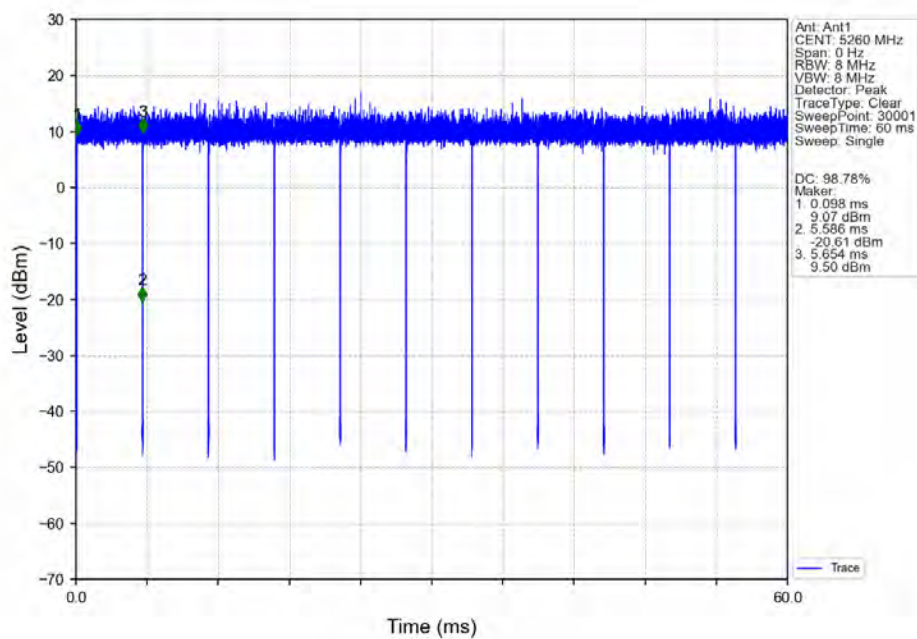
## 802.11a\_MCH\_5200MHz\_Ant1\_NTNV



## 802.11a\_HCH\_5240MHz\_Ant1\_NTNV

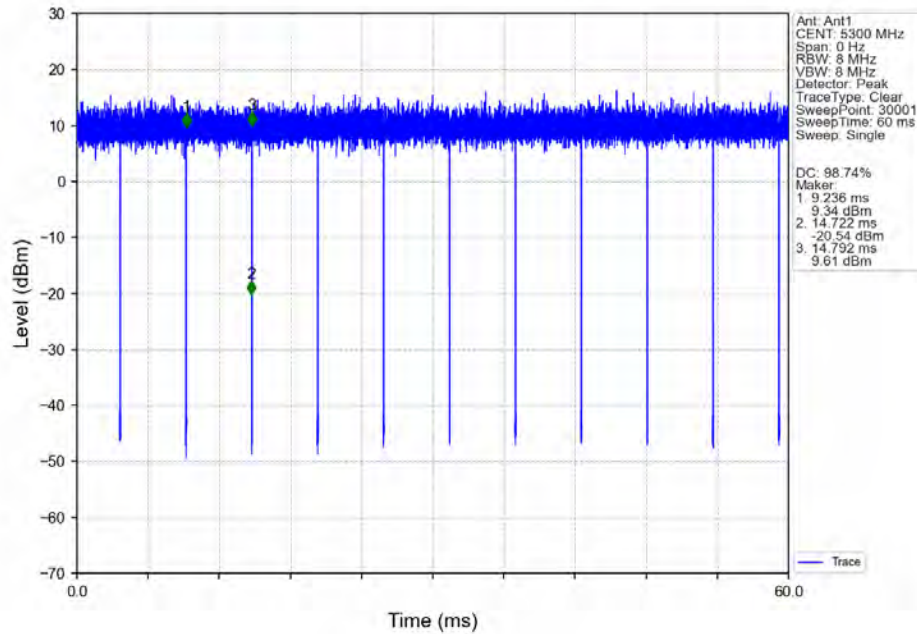


## 802.11a\_LCH\_5260MHz\_Ant1\_NTNV

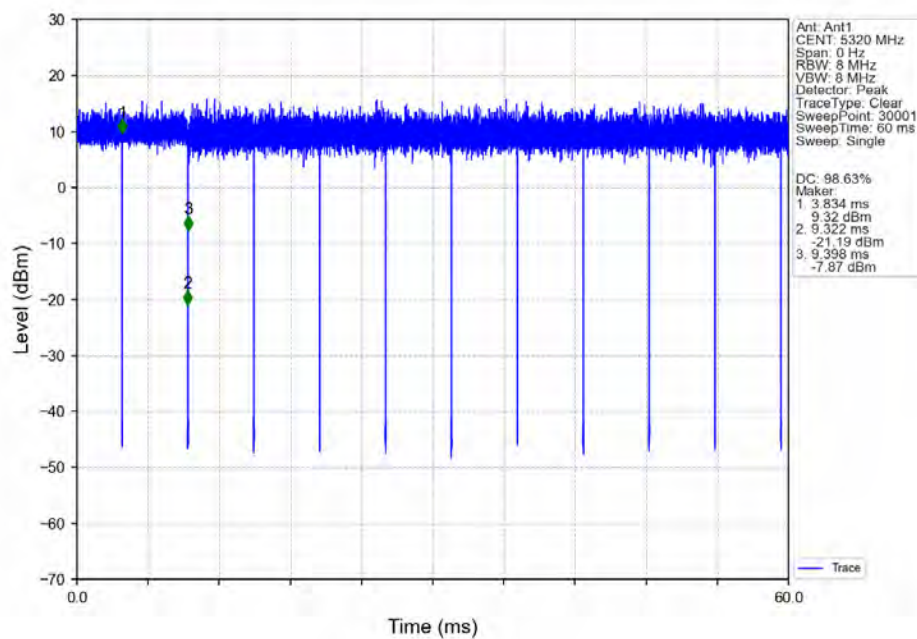




## 802.11a\_MCH\_5300MHz\_Ant1\_NTNV

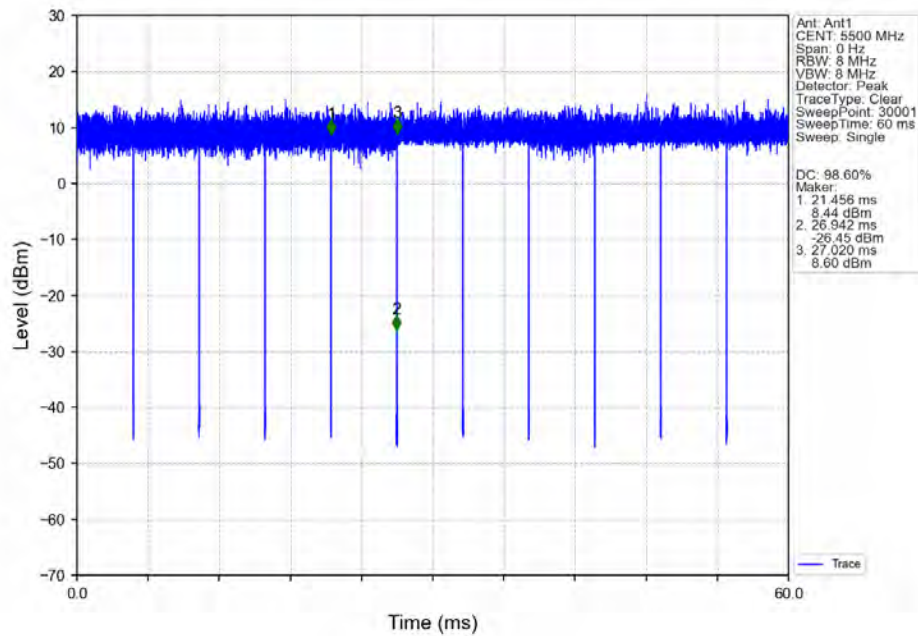


## 802.11a\_HCH\_5320MHz\_Ant1\_NTNV

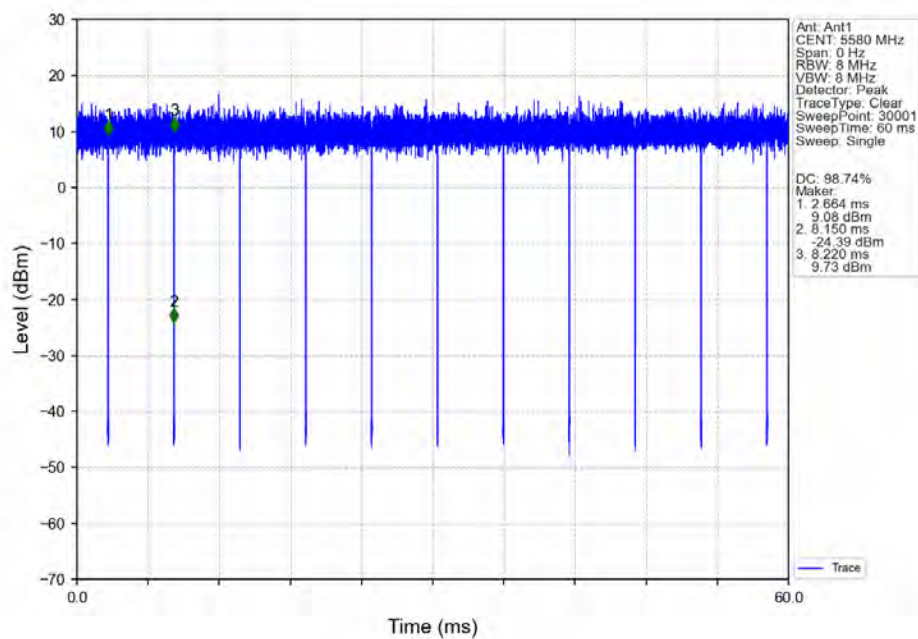




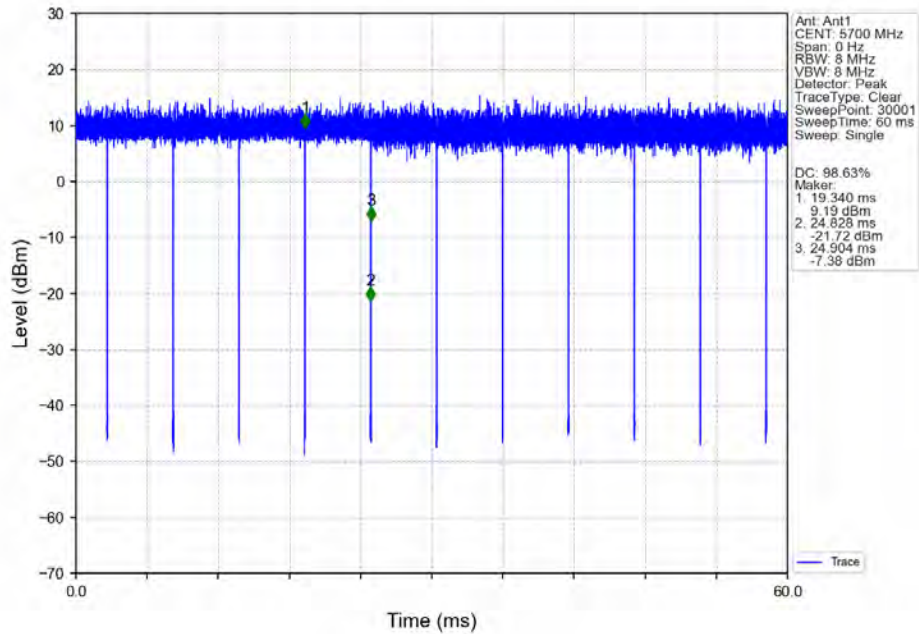
## 802.11a\_LCH\_5500MHz\_Ant1\_NTNV



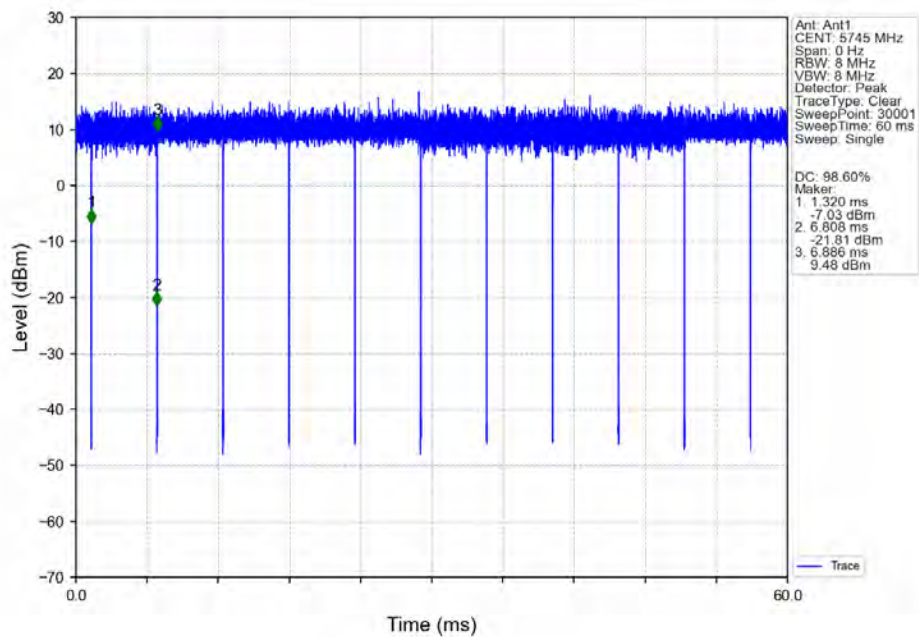
## 802.11a\_MCH\_5580MHz\_Ant1\_NTNV



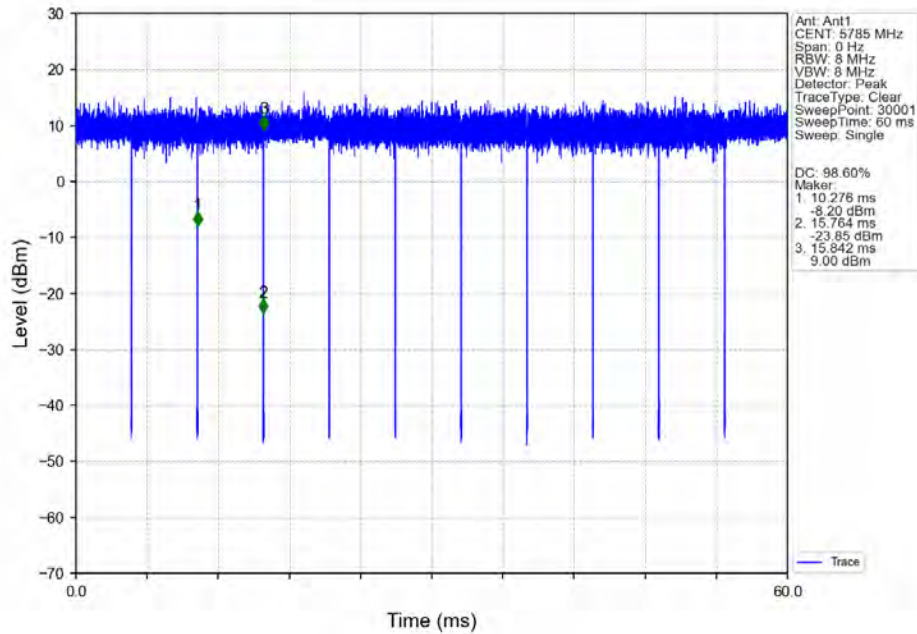
## 802.11a\_HCH\_5700MHz\_Ant1\_NTNV



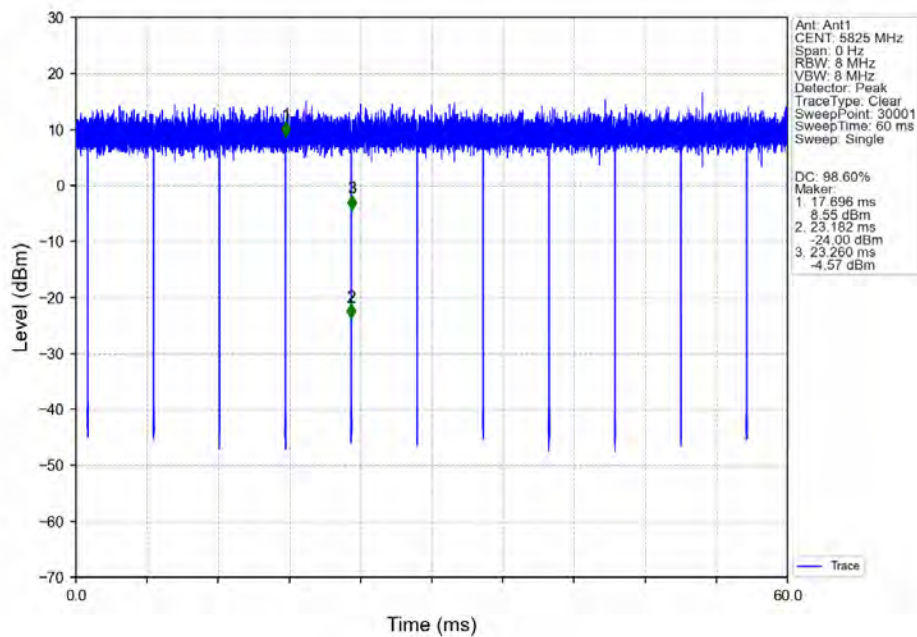
## 802.11a\_LCH\_5745MHz\_Ant1\_NTNV



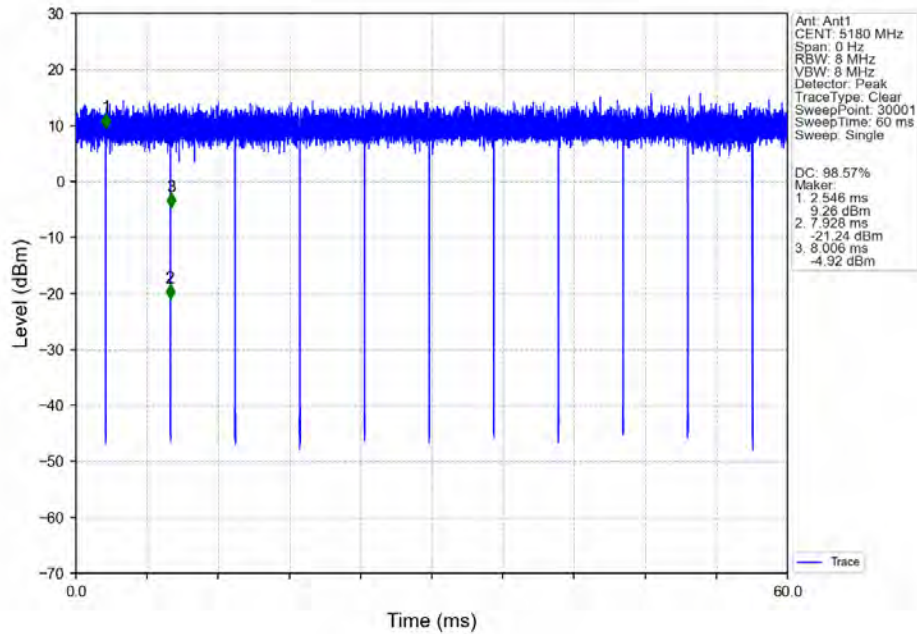
## 802.11a\_MCH\_5785MHz\_Ant1\_NTNV



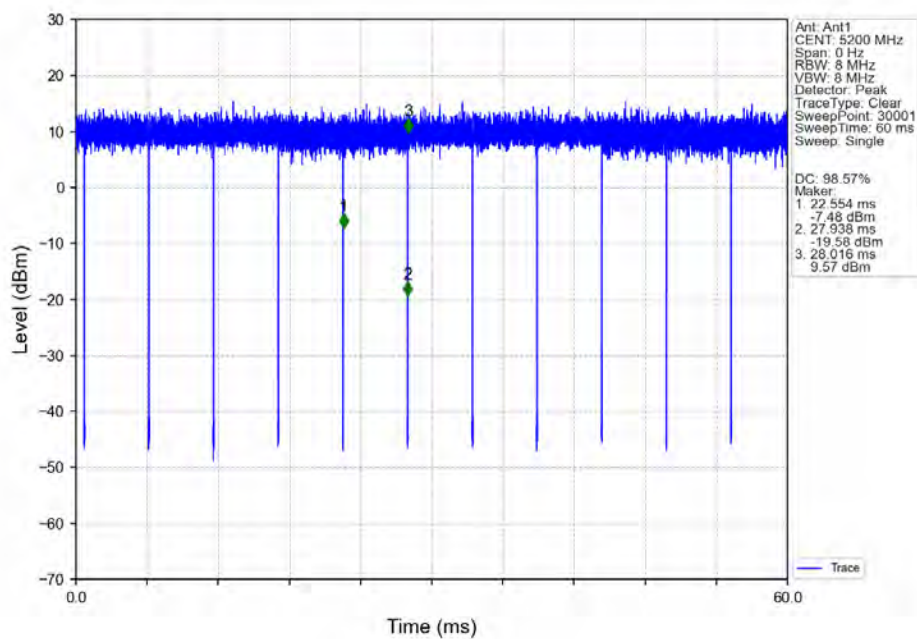
## 802.11a\_HCH\_5825MHz\_Ant1\_NTNV



## 802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV

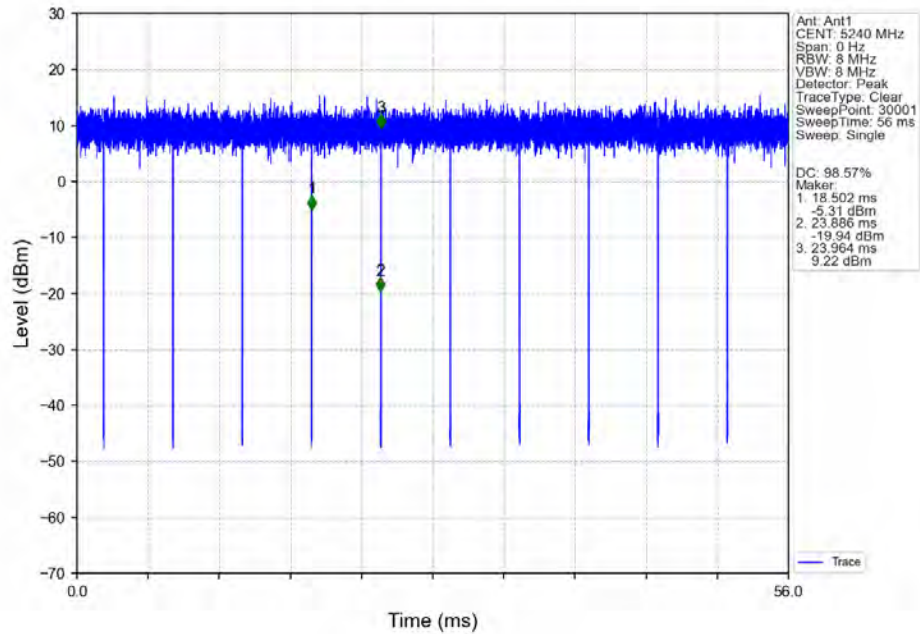


## 802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV

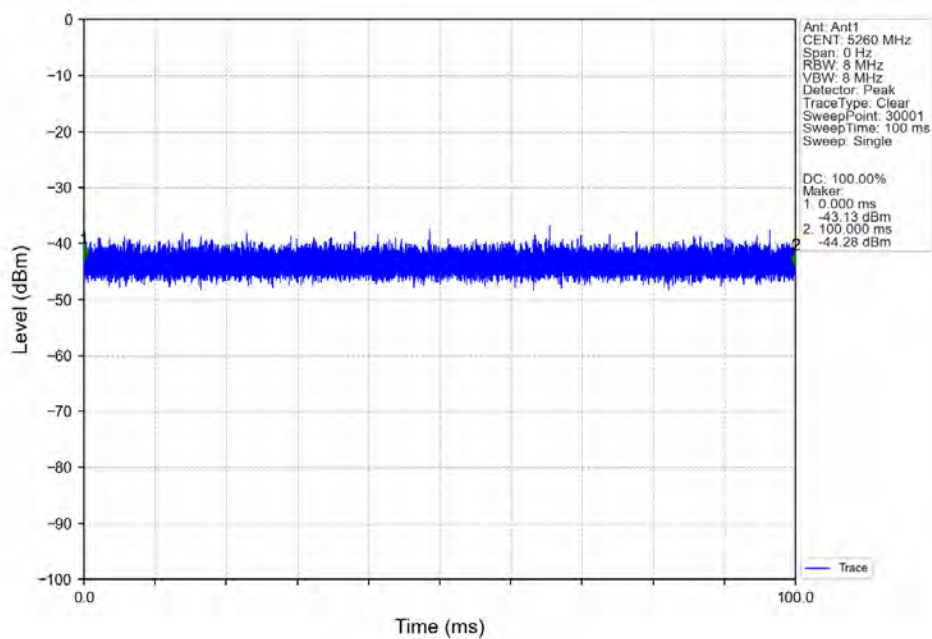




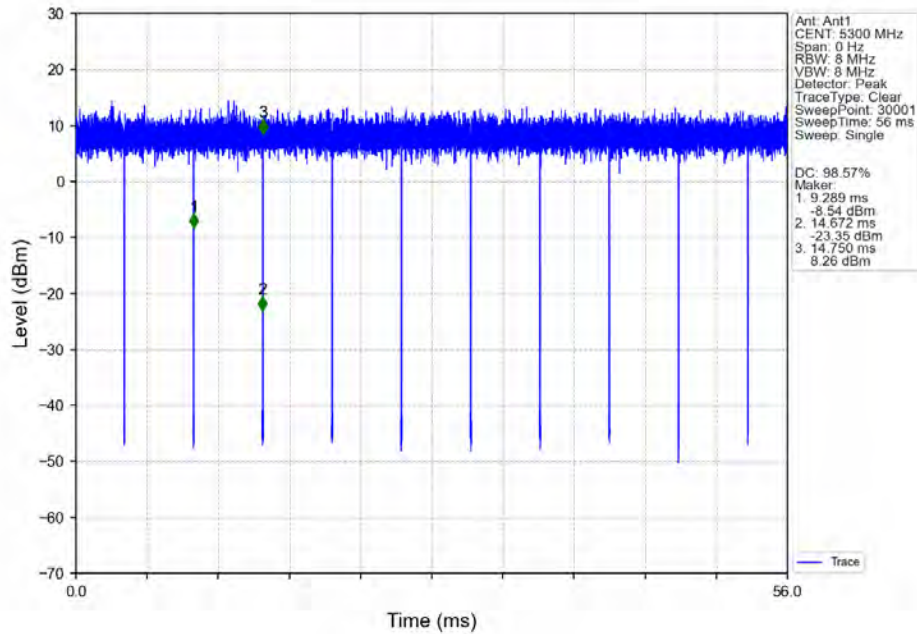
## 802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



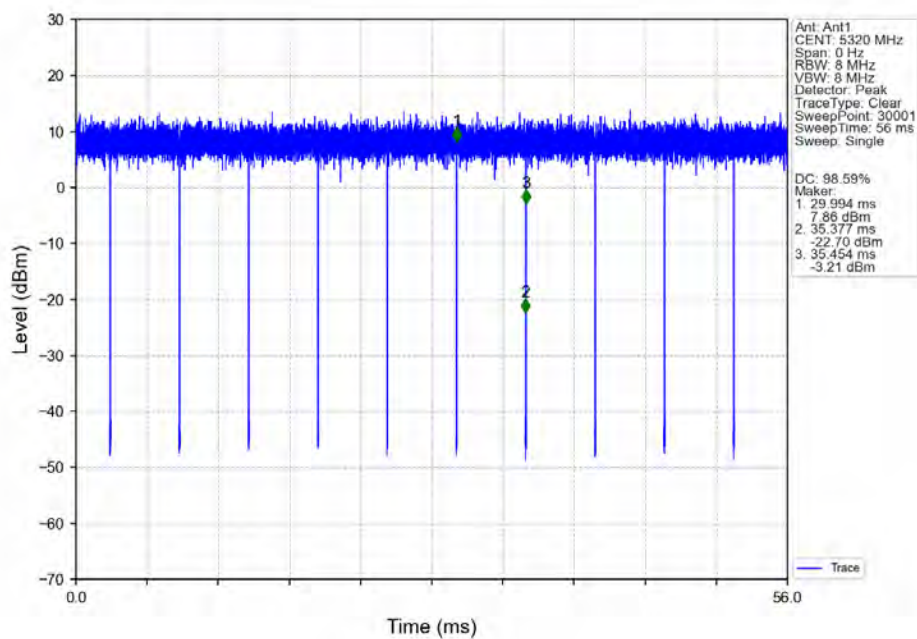
## 802.11ac(VHT20)\_LCH\_5260MHz\_Ant1\_NTNV



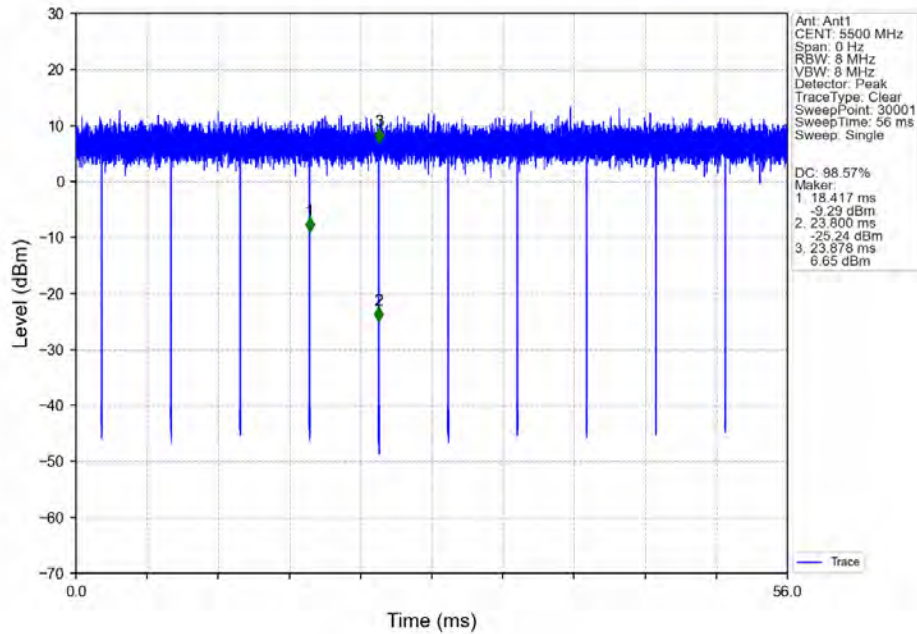
## 802.11ac(VHT20)\_MCH\_5300MHz\_Ant1\_NTNV



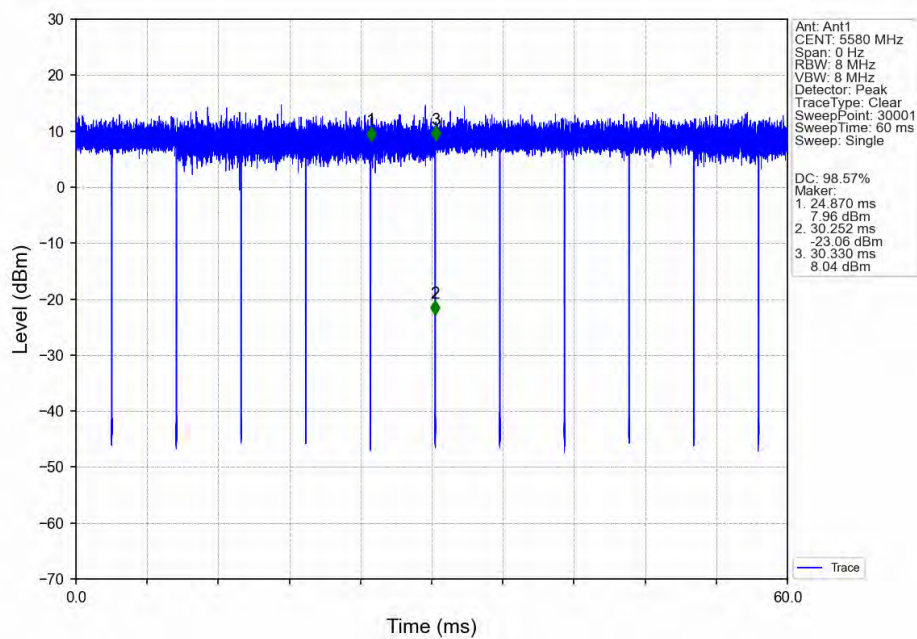
## 802.11ac(VHT20)\_HCH\_5320MHz\_Ant1\_NTNV



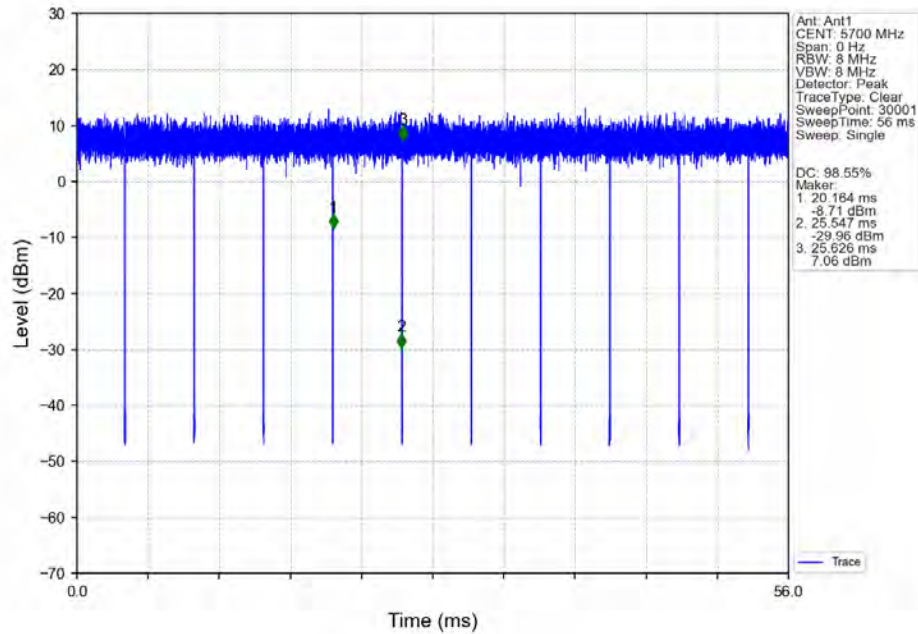
802.11ac(VHT20)\_LCH\_5500MHz\_Ant1\_NTNV



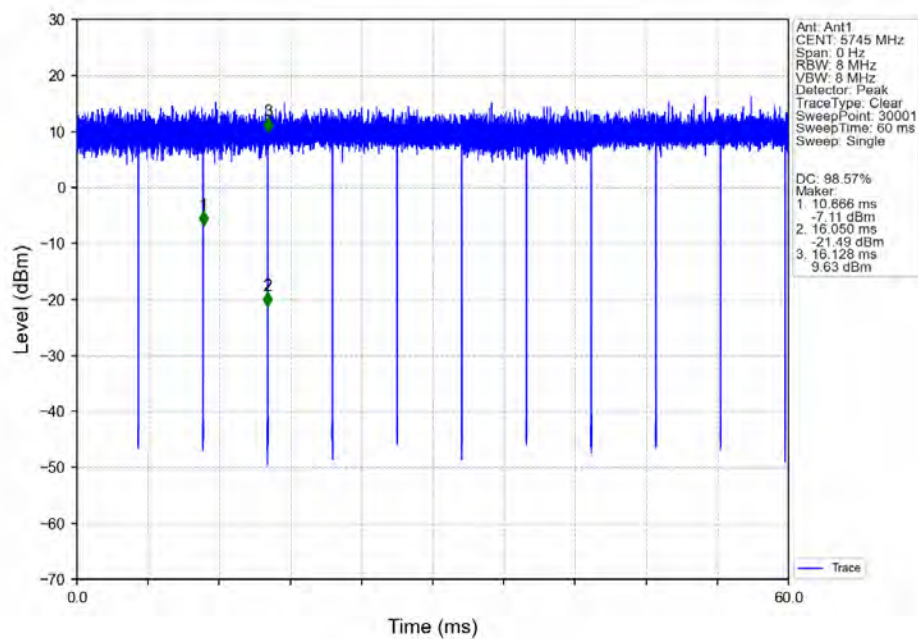
802.11ac(VHT20)\_MCH\_5580MHz\_Ant1\_NTNV



## 802.11ac(VHT20)\_HCH\_5700MHz\_Ant1\_NTNV

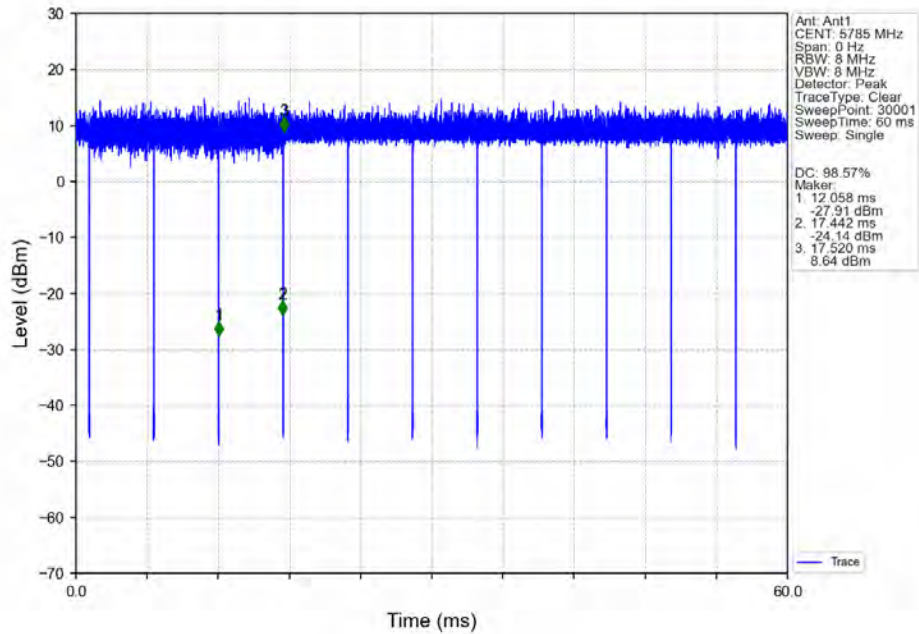


## 802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV

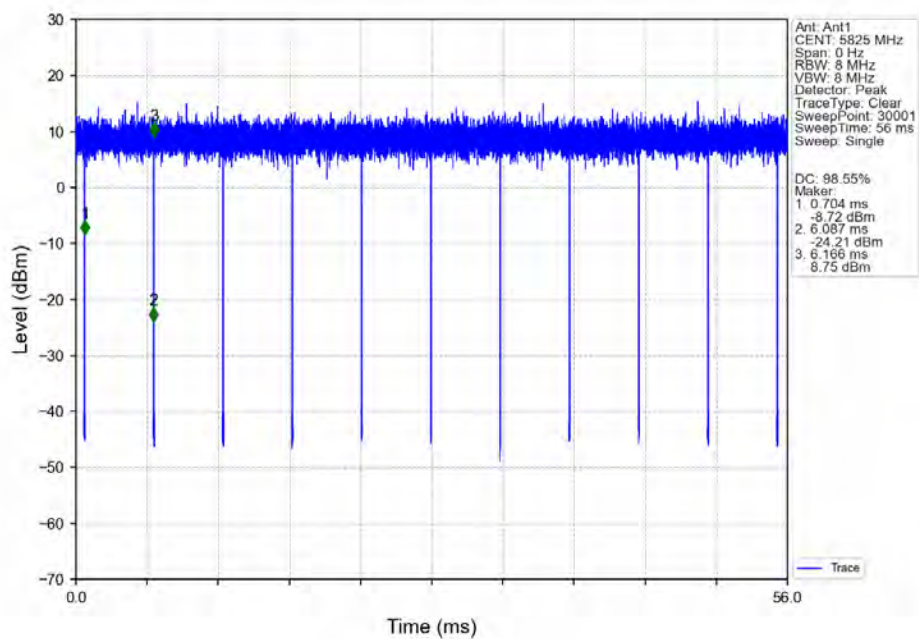




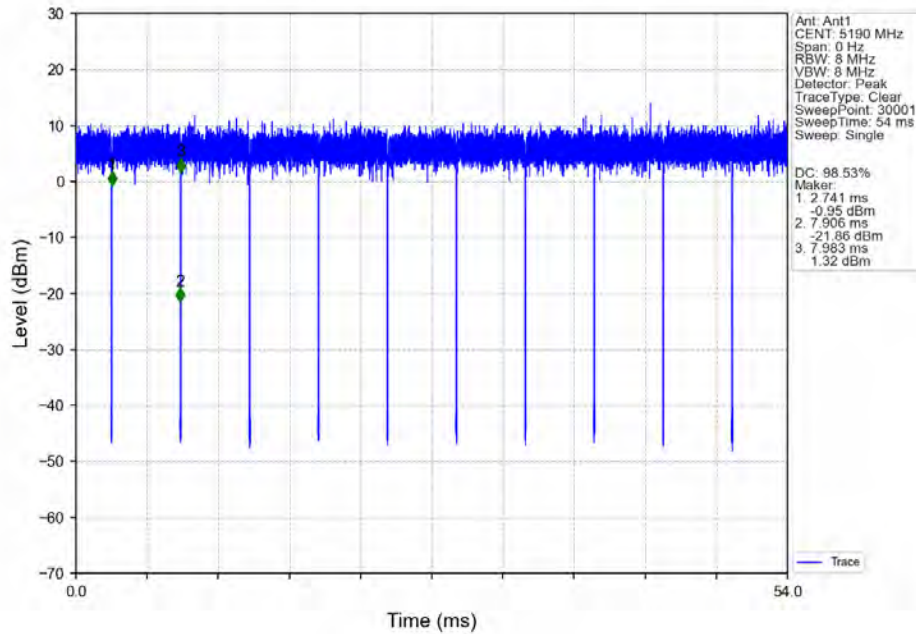
## 802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



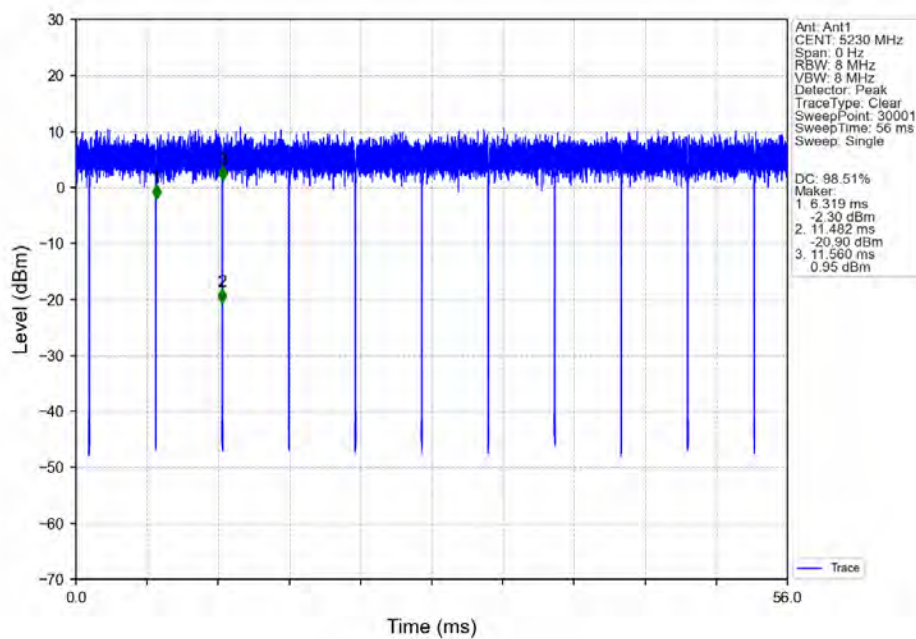
## 802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV



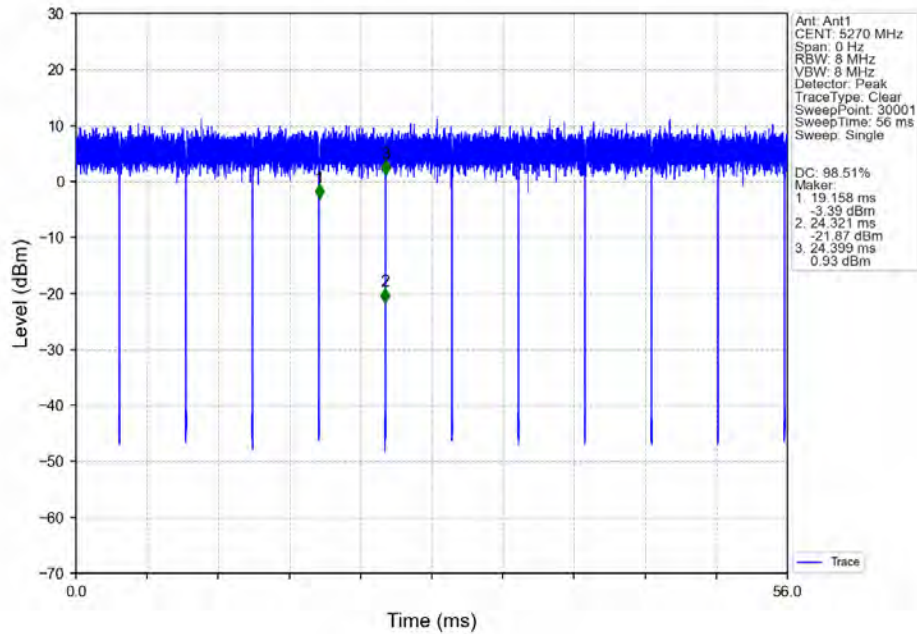
## 802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



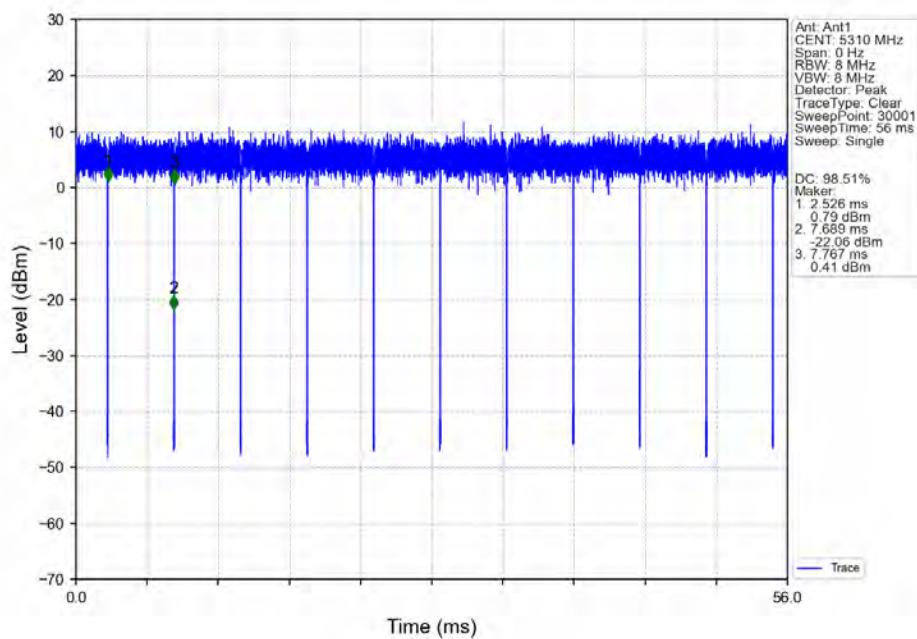
## 802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



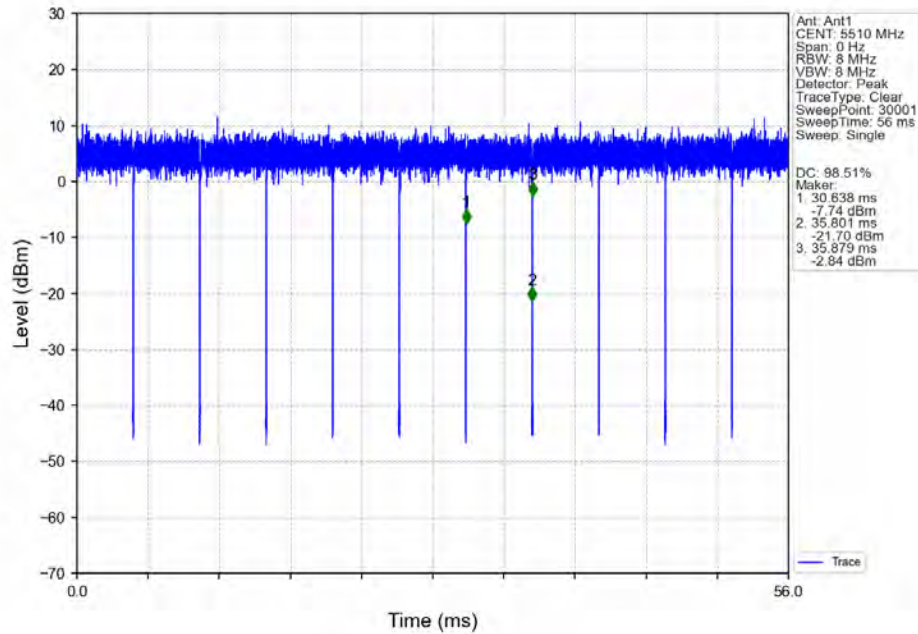
## 802.11ac(VHT40)\_LCH\_5270MHz\_Ant1\_NTNV



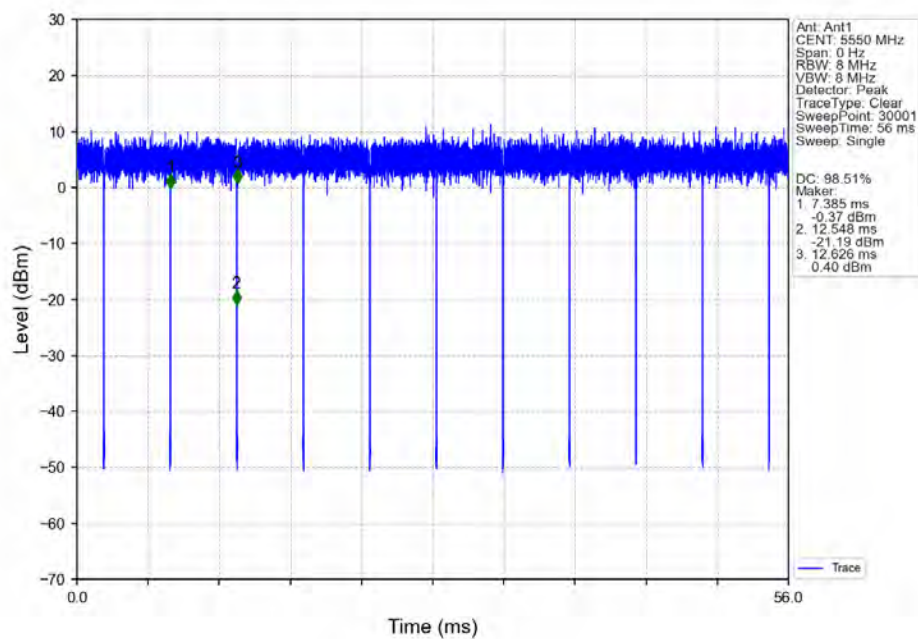
## 802.11ac(VHT40)\_HCH\_5310MHz\_Ant1\_NTNV



## 802.11ac(VHT40)\_LCH\_5510MHz\_Ant1\_NTNV

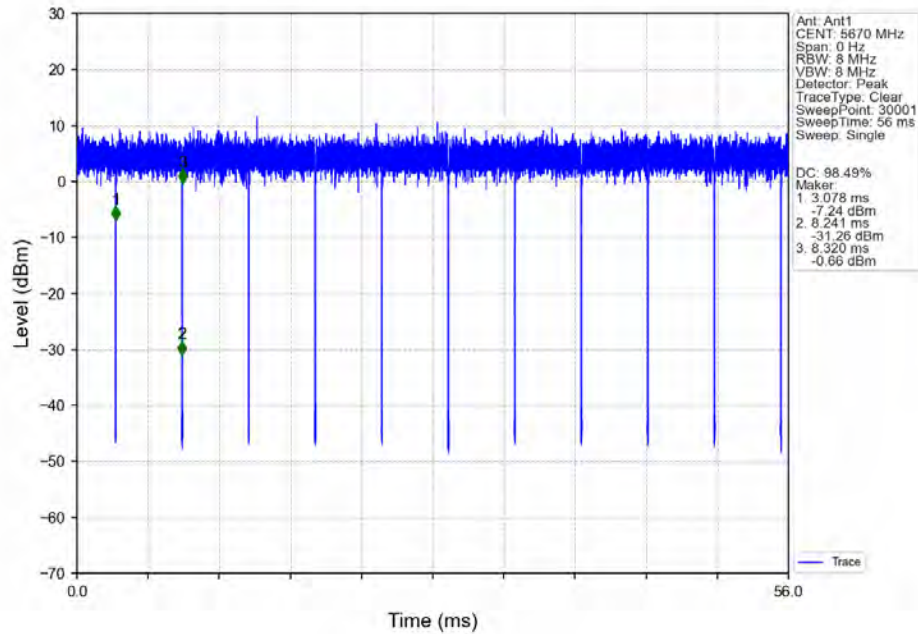


## 802.11ac(VHT40)\_MCH\_5550MHz\_Ant1\_NTNV

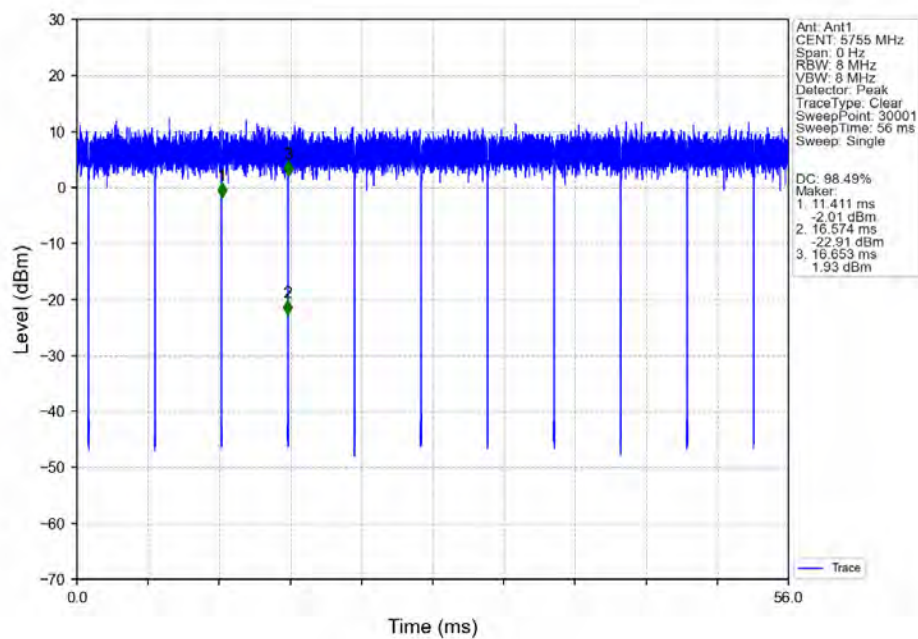




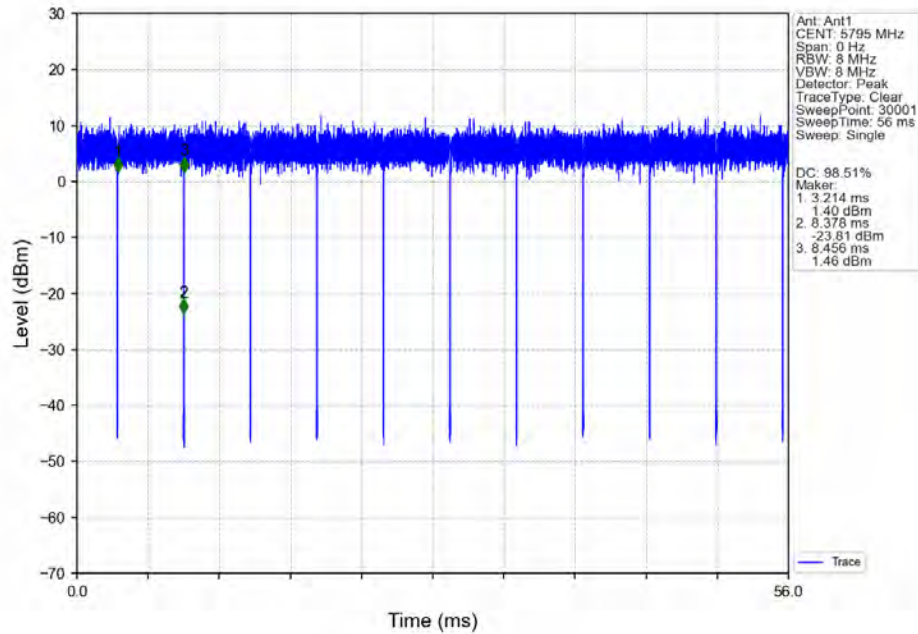
## 802.11ac(VHT40)\_HCH\_5670MHz\_Ant1\_NTNV



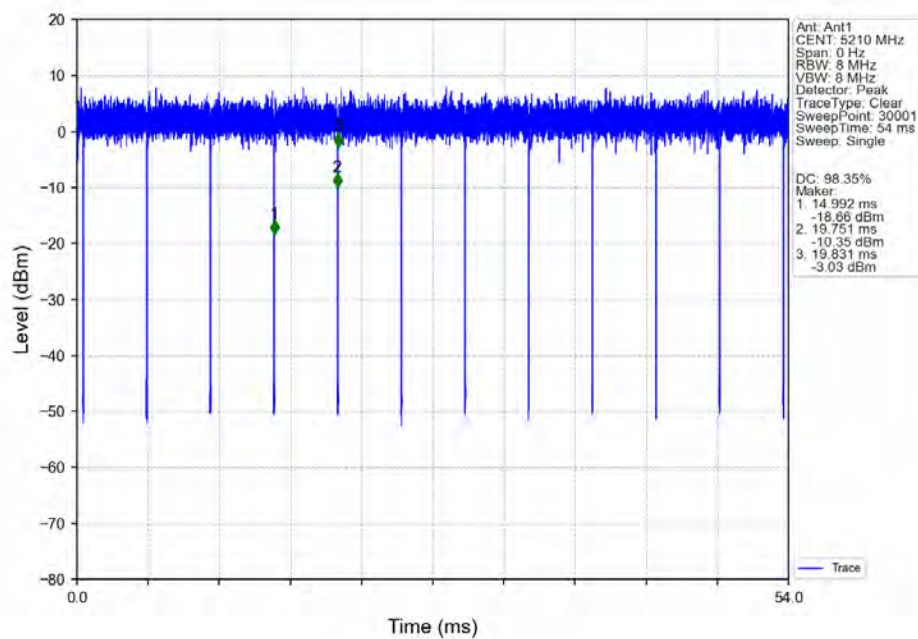
## 802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV



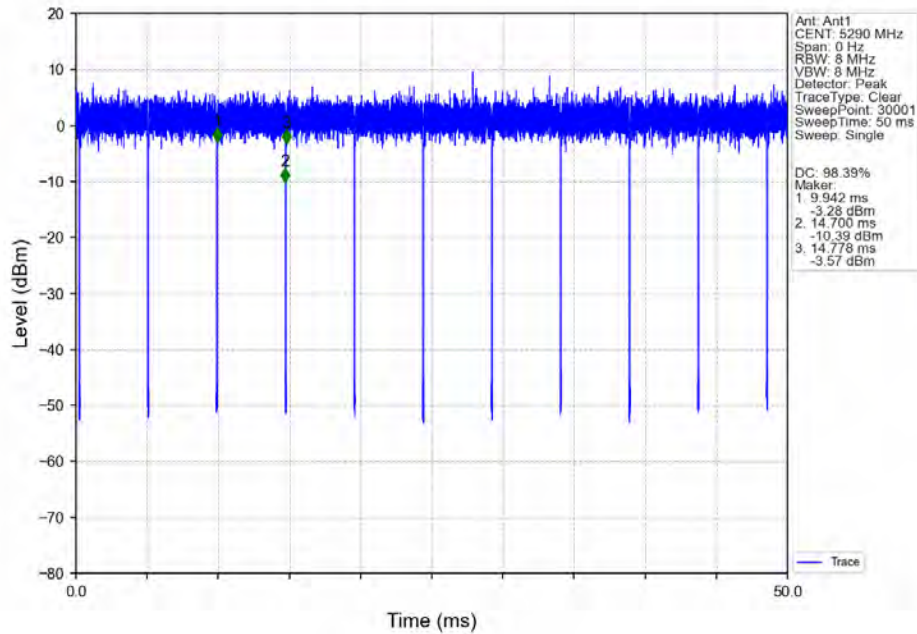
## 802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



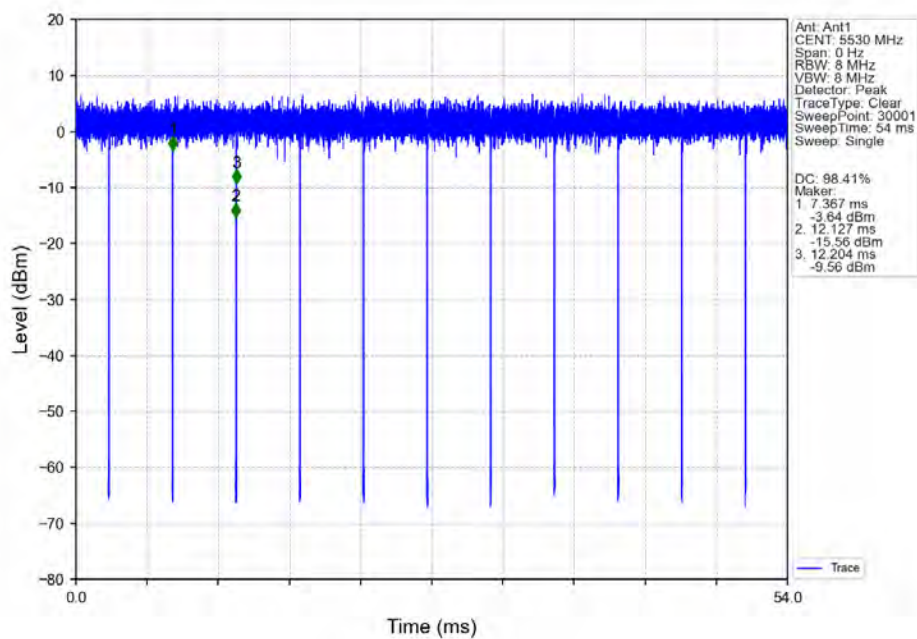
## 802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



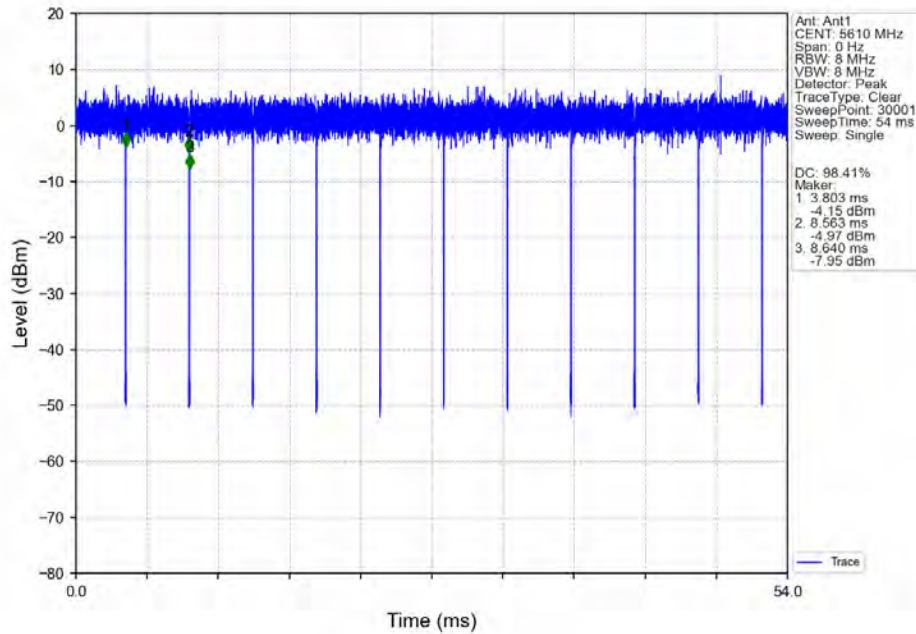
## 802.11ac(VHT80)\_MCH\_5290MHz\_Ant1\_NTNV



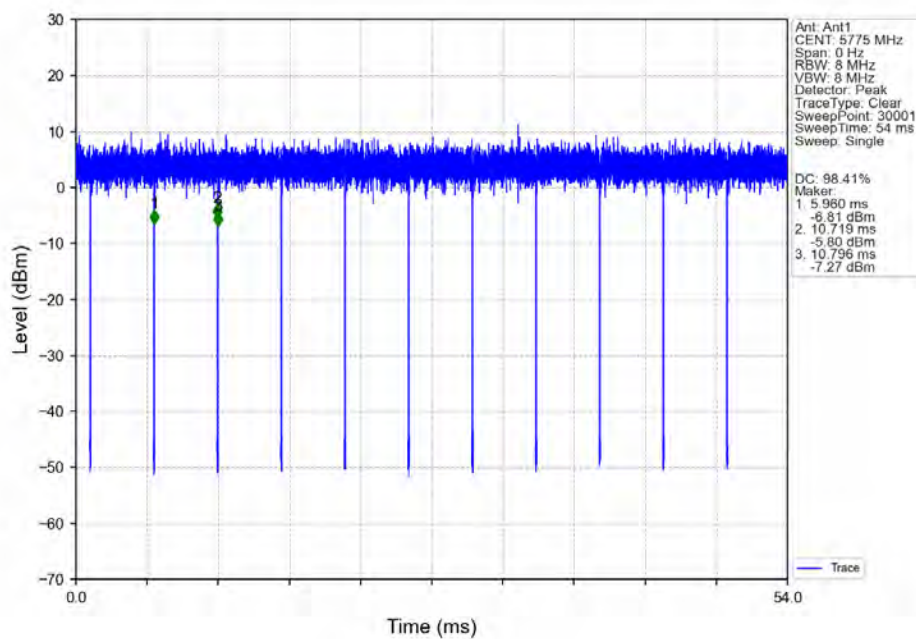
## 802.11ac(VHT80)\_LCH\_5530MHz\_Ant1\_NTNV



## 802.11ac(VHT80)\_HCH\_5610MHz\_Ant1\_NTNV

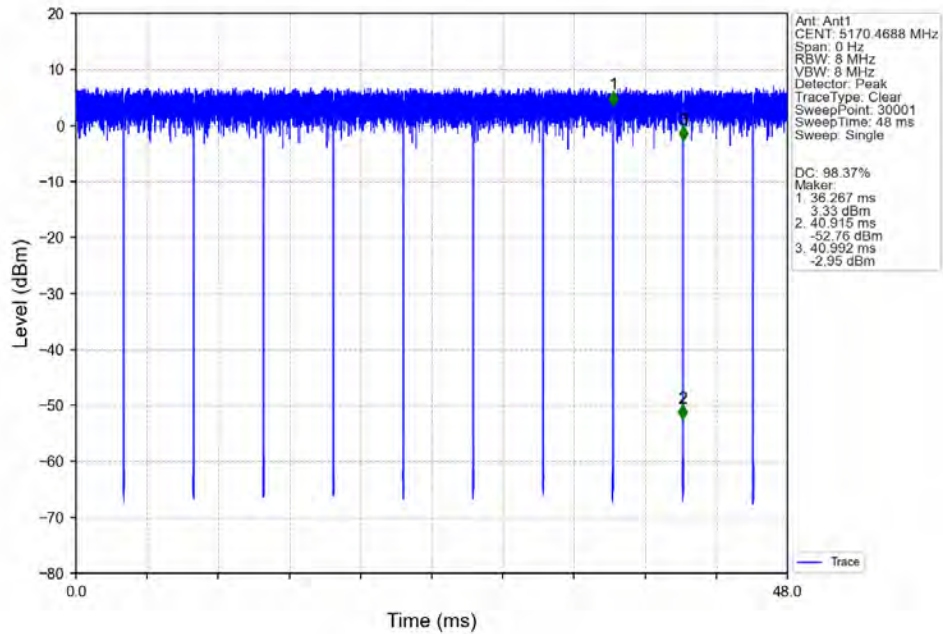


## 802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV

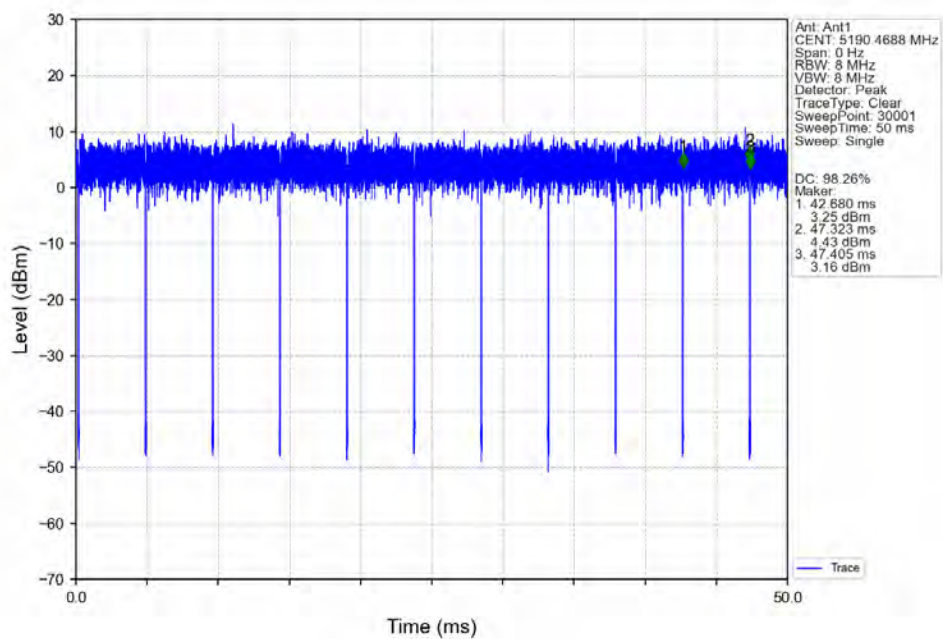




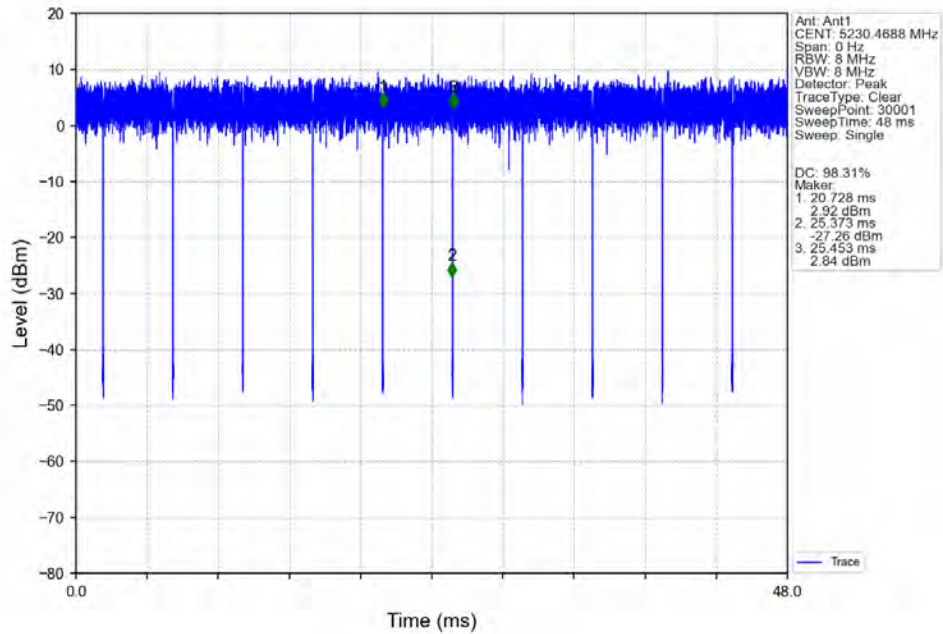
## 802.11ax(HEW20) LCH\_5180MHz\_SU / Ant1\_NTNV



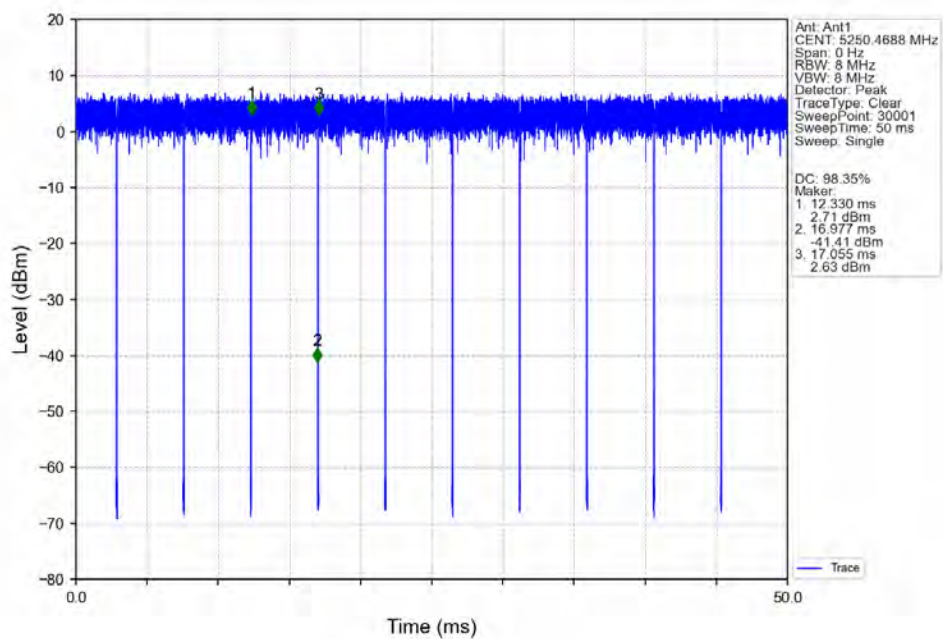
## 802.11ax(HEW20) MCH\_5200MHz\_SU / Ant1\_NTNV



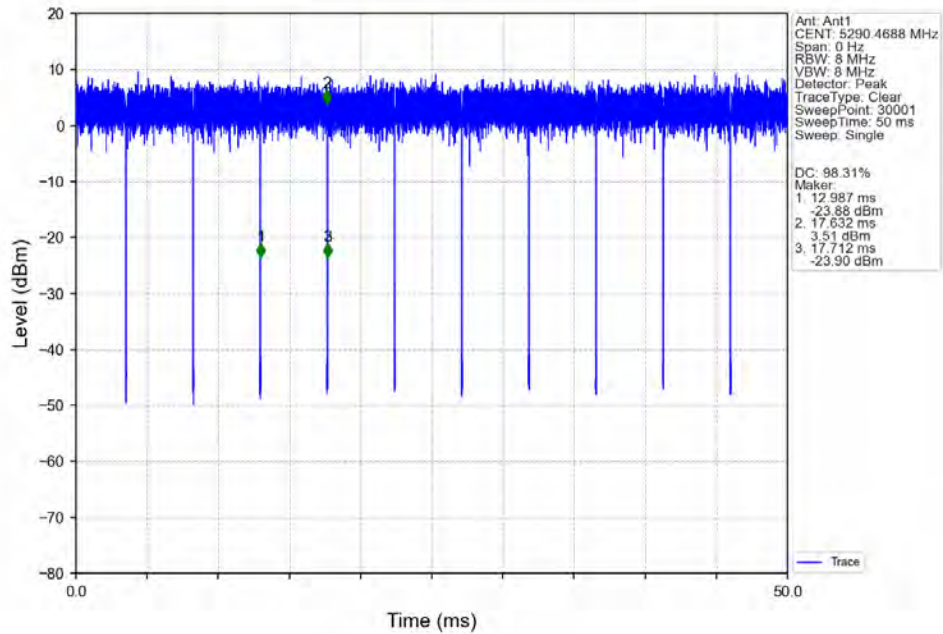
## 802.11ax(HEW20) HCH\_5240MHz\_SU / Ant1\_NTNV



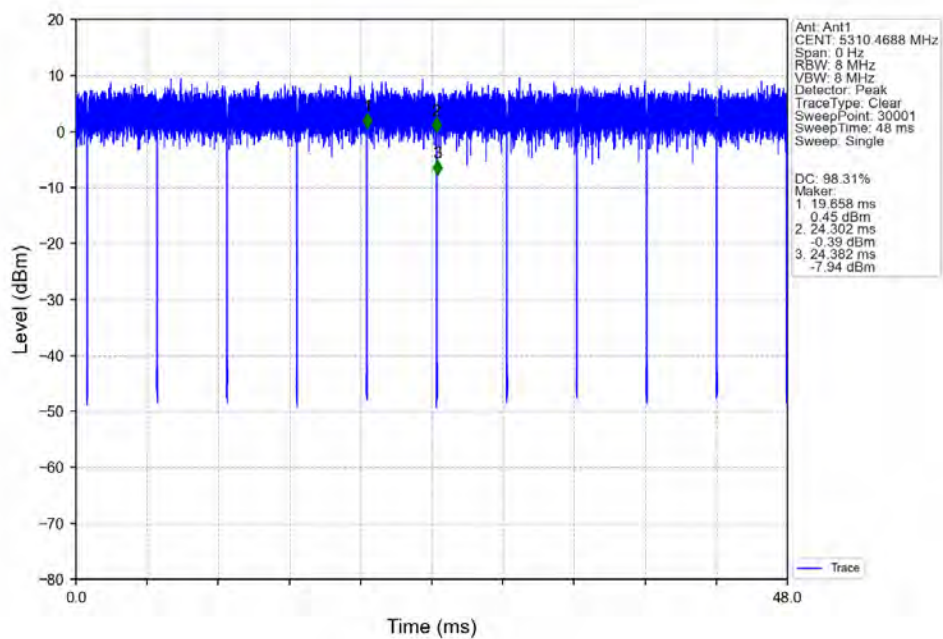
## 802.11ax(HEW20) LCH\_5260MHz\_SU / Ant1\_NTNV



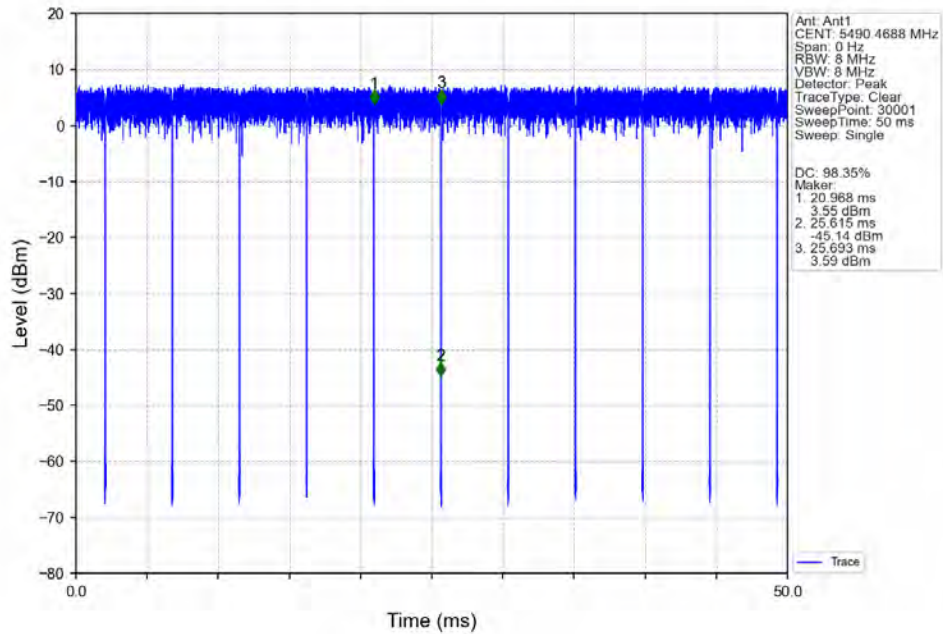
## 802.11ax(HEW20) MCH\_5300MHz\_SU / Ant1\_NTNV



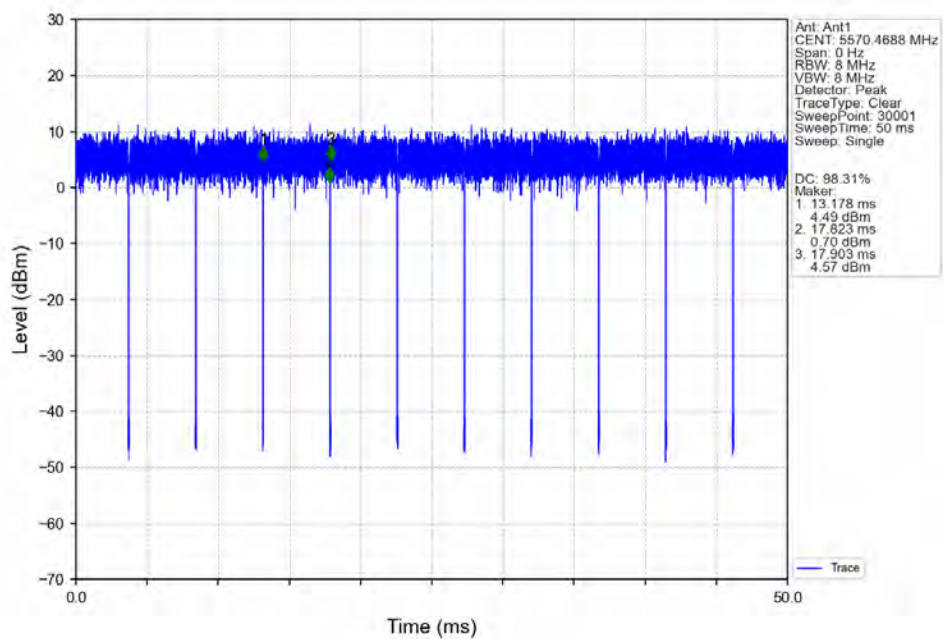
## 802.11ax(HEW20) HCH\_5320MHz\_SU / Ant1\_NTNV



## 802.11ax(HEW20) LCH 5500MHz SU / Ant1 NTNV

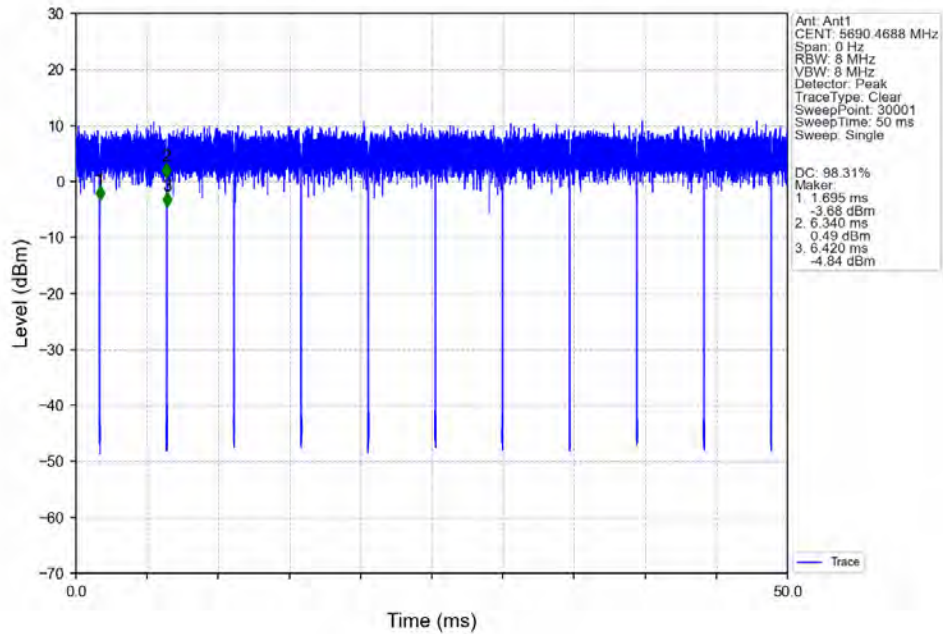


## 802.11ax(HEW20) MCH 5580MHz SU / Ant1 NTNV

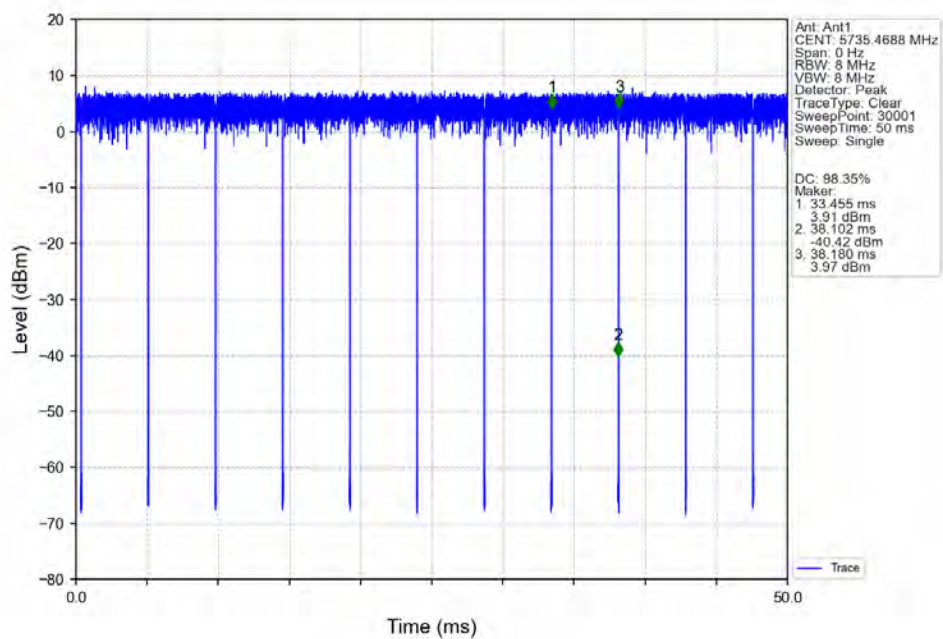




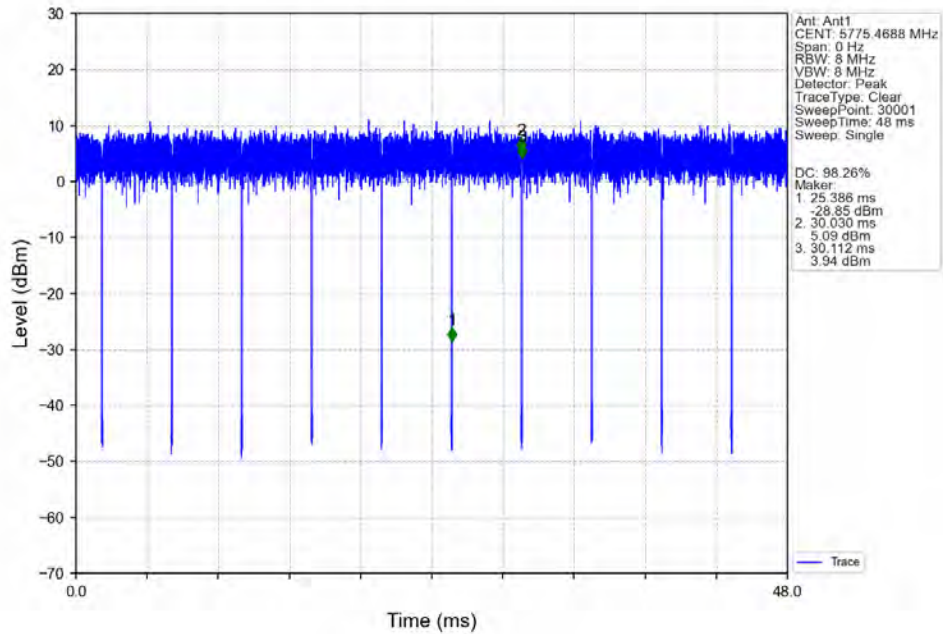
## 802.11ax(HEW20) HCH\_5700MHz\_SU / Ant1\_NTNV



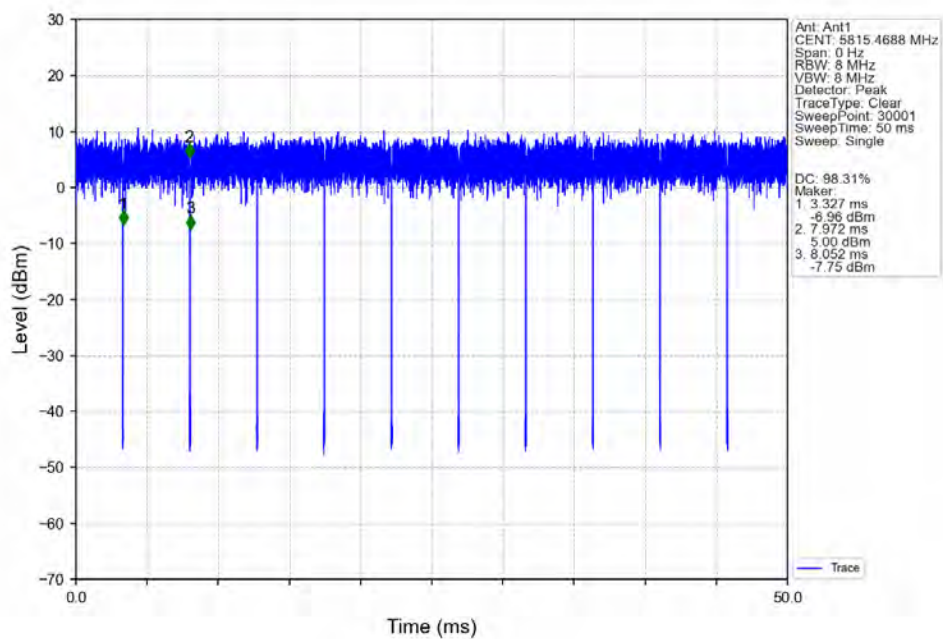
## 802.11ax(HEW20) LCH\_5745MHz\_SU / Ant1\_NTNV



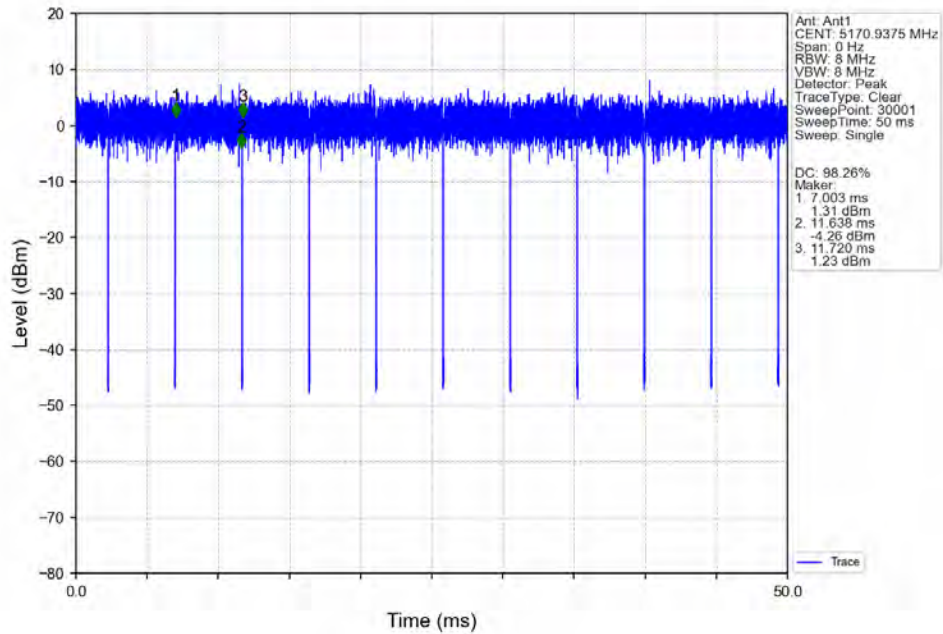
## 802.11ax(HEW20) MCH\_5785MHz SU / Ant1 NTN



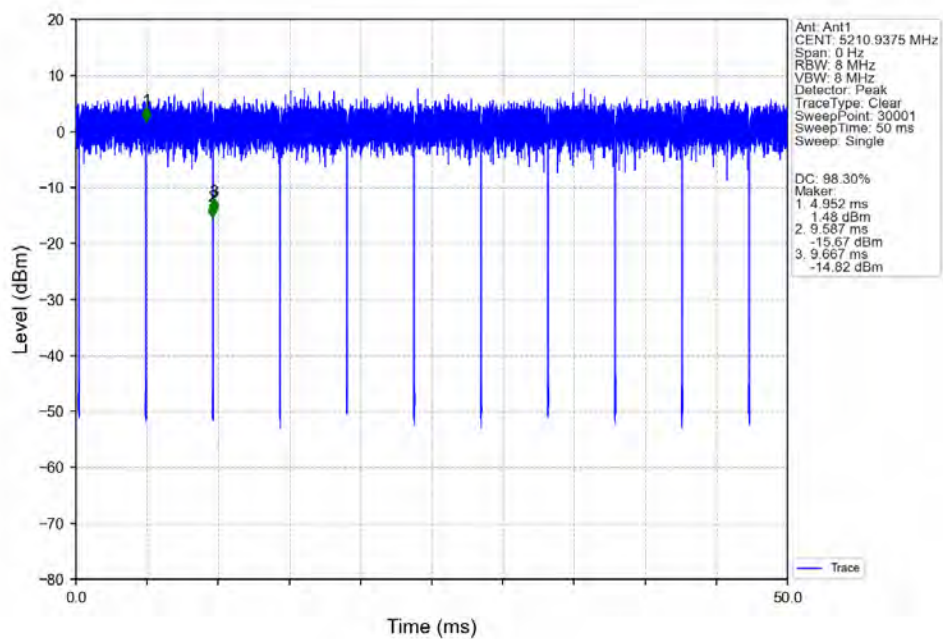
## 802.11ax(HEW20) HCH\_5825MHz SU / Ant1 NTN



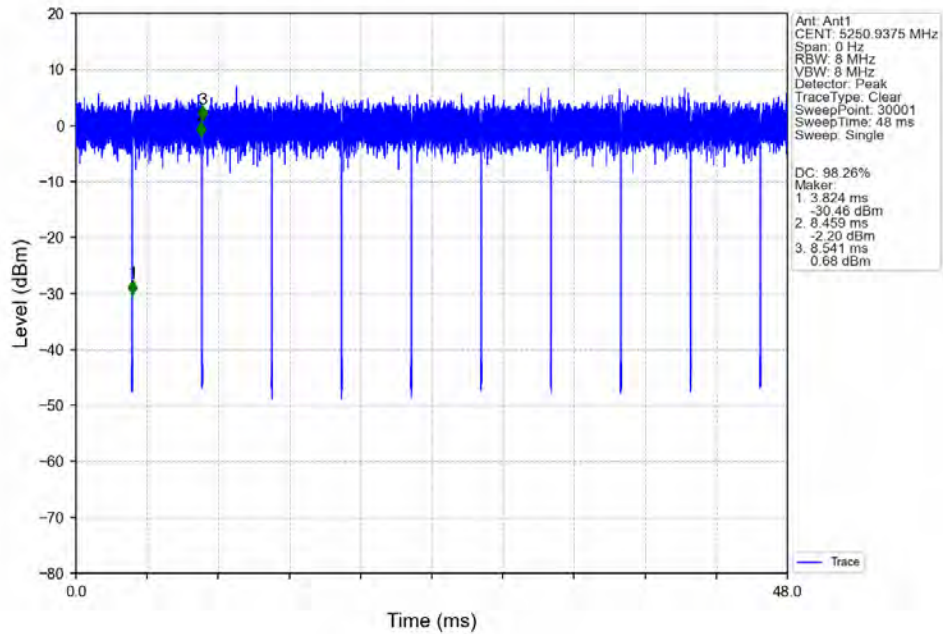
## 802.11ax(HEW40) LCH\_5190MHz\_SU / Ant1\_NTNV



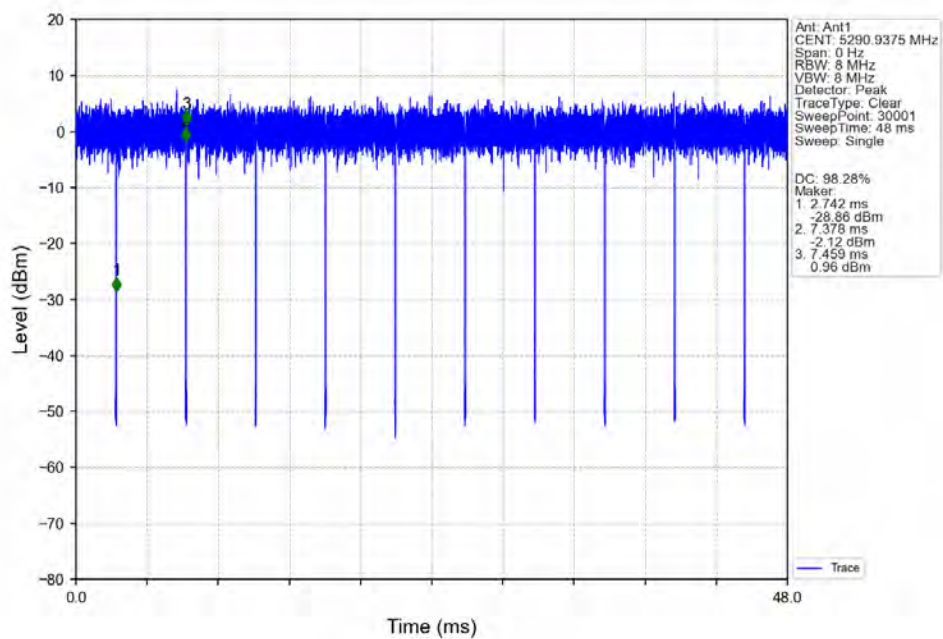
## 802.11ax(HEW40) HCH\_5230MHz\_SU / Ant1\_NTNV



## 802.11ax(HEW40) LCH\_5270MHz\_SU / Ant1\_NTNV

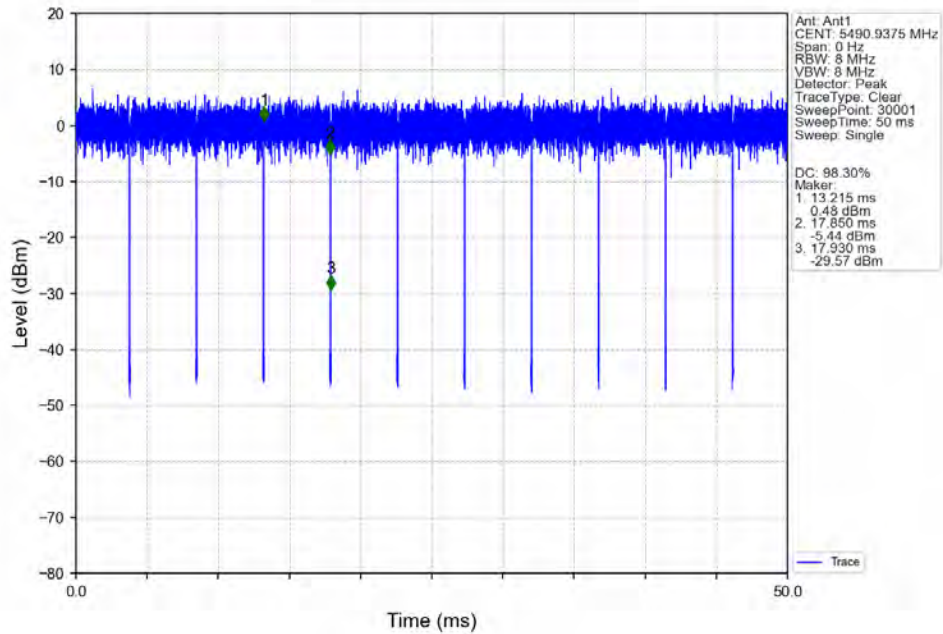


## 802.11ax(HEW40) HCH\_5310MHz\_SU / Ant1\_NTNV

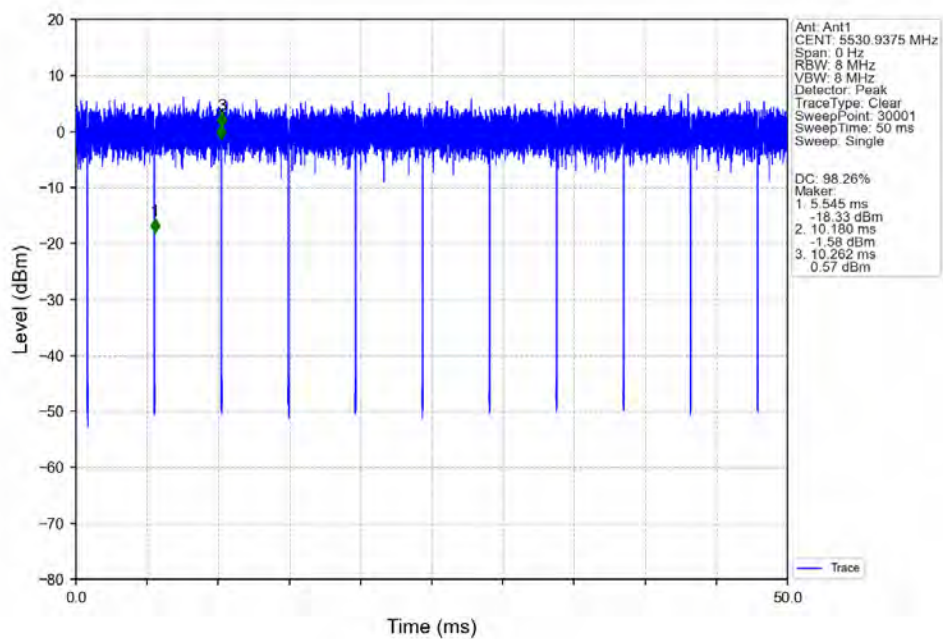




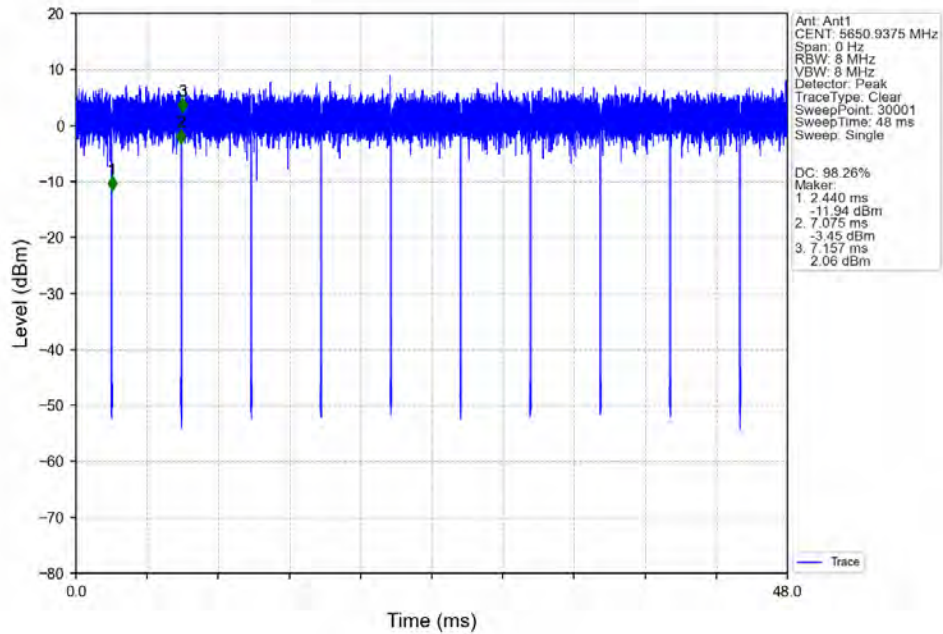
## 802.11ax(HEW40)\_LCH\_5510MHz\_SU / Ant1\_NTNV



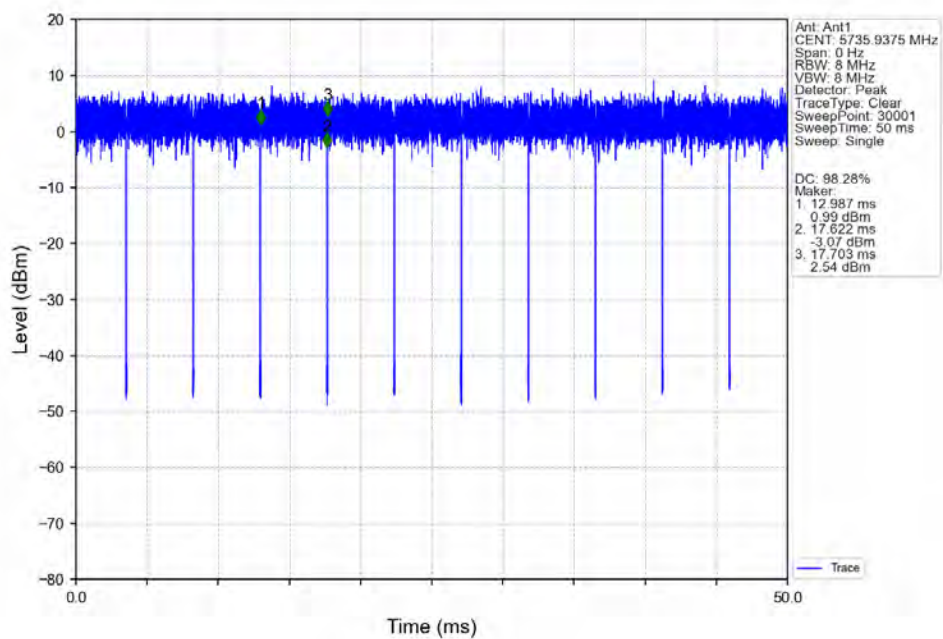
## 802.11ax(HEW40)\_MCH\_5550MHz\_SU / Ant1\_NTNV



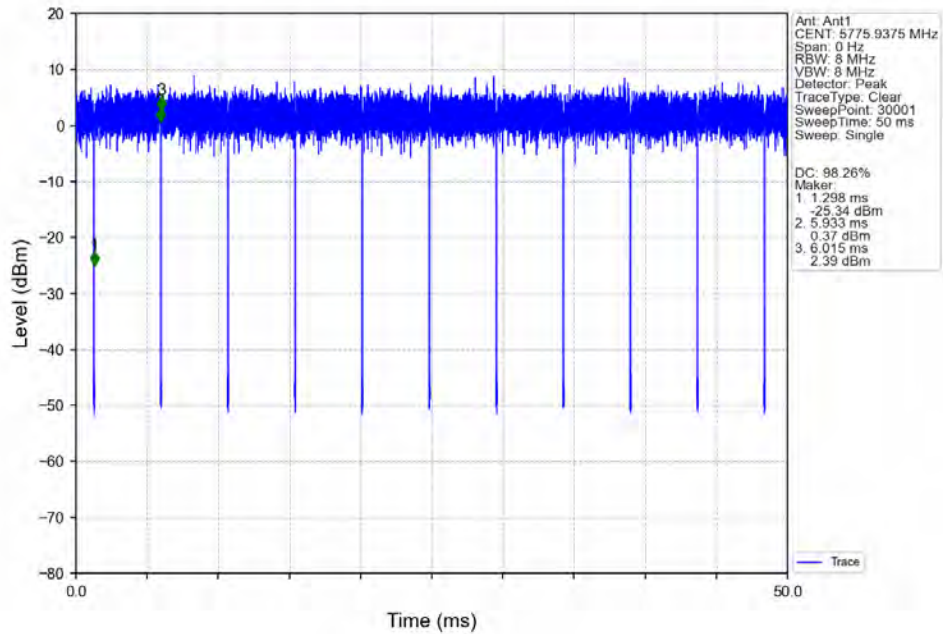
## 802.11ax(HEW40) HCH\_5670MHz\_SU / Ant1\_NTNV



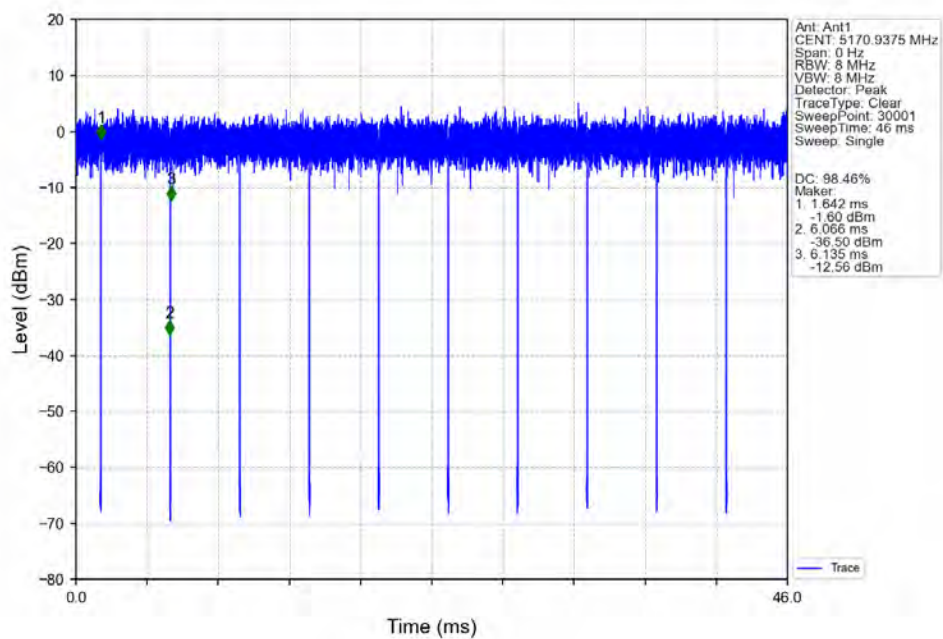
## 802.11ax(HEW40) LCH\_5755MHz\_SU / Ant1\_NTNV



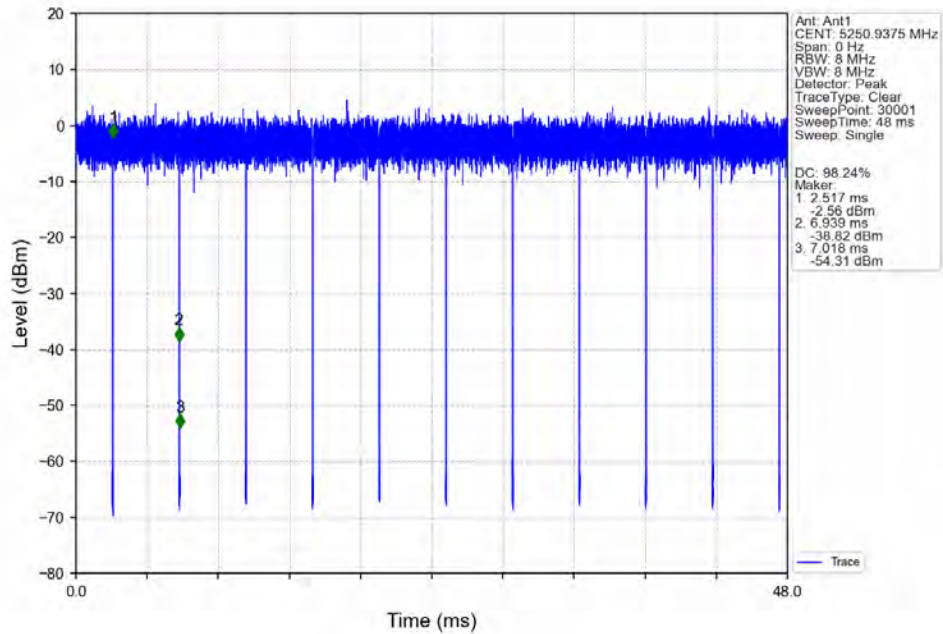
## 802.11ax(HEW40)\_HCH\_5795MHz\_SU / Ant1\_NTNV



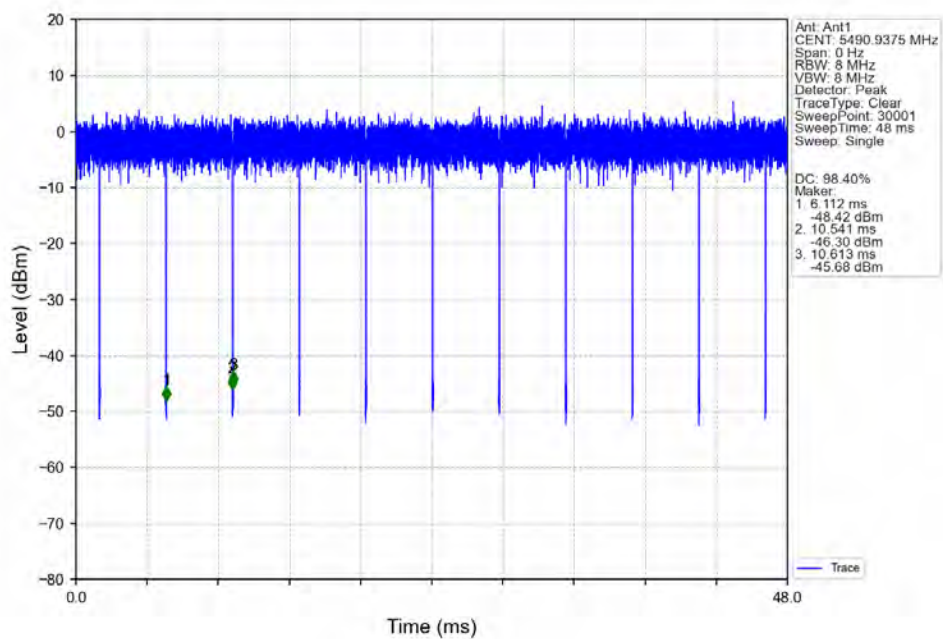
## 802.11ax(HEW80)\_MCH\_5210MHz\_SU / Ant1\_NTNV



## 802.11ax(HEW80) MCH\_5290MHz\_SU / Ant1\_NTNV

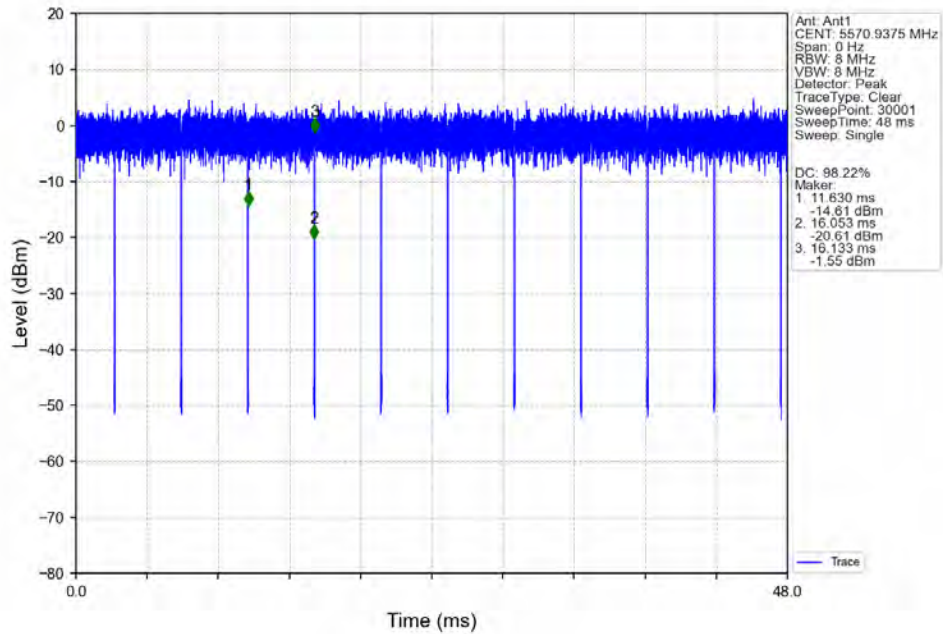


## 802.11ax(HEW80) LCH\_5530MHz\_SU / Ant1\_NTNV

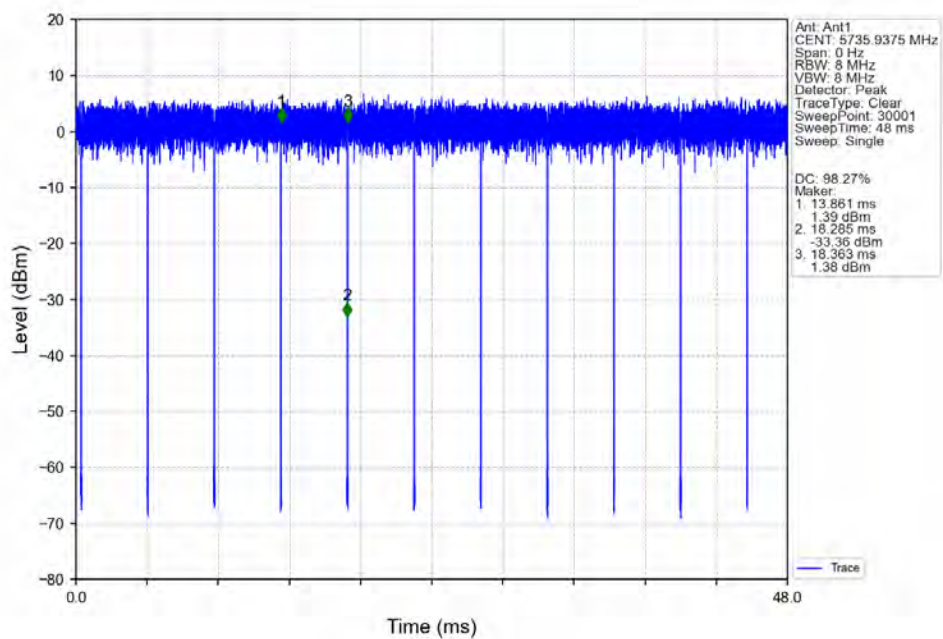




## 802.11ax(HEW80) HCH\_5610MHz\_SU / Ant1\_NTNV



## 802.11ax(HEW80) MCH\_5775MHz\_SU / Ant1\_NTNV



## 2. Bandwidth

### 2.1 Test Result

#### 2.1.1 OBW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	17.137	/	Pass
		5200	/	/	1	17.091	/	Pass
		5240	/	/	1	17.134	/	Pass
		5260	/	/	1	17.112	/	Pass
		5300	/	/	1	17.034	/	Pass
		5320	/	/	1	17.045	/	Pass
		5500	/	/	1	17.123	/	Pass
		5580	/	/	1	17.174	/	Pass
		5700	/	/	1	17.118	/	Pass
		5745	/	/	1	17.143	/	Pass
		5785	/	/	1	17.132	/	Pass
		5825	/	/	1	17.203	/	Pass
802.11ac (VHT20)	SISO	5180	/	/	1	17.982	/	Pass
		5200	/	/	1	17.889	/	Pass
		5240	/	/	1	17.900	/	Pass
		5260	/	/	1	17.896	/	Pass
		5300	/	/	1	17.944	/	Pass
		5320	/	/	1	17.937	/	Pass
		5500	/	/	1	17.930	/	Pass
		5580	/	/	1	17.957	/	Pass
		5700	/	/	1	17.951	/	Pass
		5745	/	/	1	18.024	/	Pass
		5785	/	/	1	17.970	/	Pass
		5825	/	/	1	17.970	/	Pass
802.11ac (VHT40)	SISO	5190	/	/	1	36.245	/	Pass
		5230	/	/	1	36.193	/	Pass
		5270	/	/	1	36.238	/	Pass
		5310	/	/	1	36.293	/	Pass
		5510	/	/	1	36.306	/	Pass
		5550	/	/	1	36.211	/	Pass
		5670	/	/	1	36.356	/	Pass
		5755	/	/	1	36.393	/	Pass
		5795	/	/	1	36.293	/	Pass
802.11ac (VHT80)	SISO	5210	/	/	1	76.505	/	Pass
		5290	/	/	1	76.103	/	Pass
		5530	/	/	1	76.206	/	Pass
		5610	/	/	1	76.439	/	Pass
		5775	/	/	1	76.483	/	Pass
802.11ax (HEW20)	SISO	5180	SU	/	1	18.815	/	Pass
		5200	SU	/	1	18.844	/	Pass
		5240	SU	/	1	18.815	/	Pass

		5260	SU	/	1	18.794	/	Pass
		5300	SU	/	1	18.834	/	Pass
		5320	SU	/	1	18.774	/	Pass
		5500	SU	/	1	18.882	/	Pass
		5580	SU	/	1	18.862	/	Pass
		5700	SU	/	1	18.831	/	Pass
		5745	SU	/	1	18.829	/	Pass
		5785	SU	/	1	18.900	/	Pass
		5825	SU	/	1	18.877	/	Pass
802.11ax (HEW40)	SISO	5190	SU	/	1	37.386	/	Pass
		5230	SU	/	1	37.535	/	Pass
		5270	SU	/	1	37.383	/	Pass
		5310	SU	/	1	37.442	/	Pass
		5510	SU	/	1	37.380	/	Pass
		5550	SU	/	1	37.326	/	Pass
		5670	SU	/	1	37.541	/	Pass
		5755	SU	/	1	37.454	/	Pass
		5795	SU	/	1	37.512	/	Pass
802.11ax (HEW80)	SISO	5210	SU	/	1	78.322	/	Pass
		5290	SU	/	1	78.070	/	Pass
		5530	SU	/	1	78.107	/	Pass
		5610	SU	/	1	78.384	/	Pass
		5775	SU	/	1	78.433	/	Pass

## 2.1.2 26dB BW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	19.752	/	Pass
		5200	/	/	1	19.884	/	Pass
		5240	/	/	1	20.184	/	Pass
		5260	/	/	1	19.964	/	Pass
		5300	/	/	1	19.812	/	Pass
		5320	/	/	1	19.711	/	Pass
		5500	/	/	1	19.952	/	Pass
		5580	/	/	1	19.919	/	Pass
		5700	/	/	1	20.238	/	Pass
802.11ac (VHT20)	SISO	5180	/	/	1	20.475	/	Pass
		5200	/	/	1	20.281	/	Pass
		5240	/	/	1	20.247	/	Pass
		5260	/	/	1	20.385	/	Pass
		5300	/	/	1	20.096	/	Pass
		5320	/	/	1	20.226	/	Pass
		5500	/	/	1	20.082	/	Pass
		5580	/	/	1	20.206	/	Pass
		5700	/	/	1	20.179	/	Pass
802.11ac (VHT40)	SISO	5190	/	/	1	39.836	/	Pass
		5230	/	/	1	39.649	/	Pass
		5270	/	/	1	39.869	/	Pass
		5310	/	/	1	39.811	/	Pass

		5510	/	/	1	39.797	/	Pass
		5550	/	/	1	39.542	/	Pass
		5670	/	/	1	39.794	/	Pass
802.11ac (VHT80)	SISO	5210	/	/	1	81.127	/	Pass
		5290	/	/	1	81.011	/	Pass
		5530	/	/	1	80.990	/	Pass
		5610	/	/	1	81.112	/	Pass
802.11ax (HEW20)	SISO	5180	SU	/	1	20.514	/	Pass
		5200	SU	/	1	20.637	/	Pass
		5240	SU	/	1	20.475	/	Pass
		5260	SU	/	1	20.523	/	Pass
		5300	SU	/	1	20.521	/	Pass
		5320	SU	/	1	20.340	/	Pass
		5500	SU	/	1	20.758	/	Pass
		5580	SU	/	1	20.528	/	Pass
		5700	SU	/	1	20.427	/	Pass
802.11ax (HEW40)	SISO	5190	SU	/	1	39.927	/	Pass
		5230	SU	/	1	39.867	/	Pass
		5270	SU	/	1	39.927	/	Pass
		5310	SU	/	1	39.995	/	Pass
		5510	SU	/	1	40.039	/	Pass
		5550	SU	/	1	40.127	/	Pass
		5670	SU	/	1	40.057	/	Pass
802.11ax (HEW80)	SISO	5210	SU	/	1	82.593	/	Pass
		5290	SU	/	1	82.685	/	Pass
		5530	SU	/	1	83.010	/	Pass
		5610	SU	/	1	83.495	/	Pass

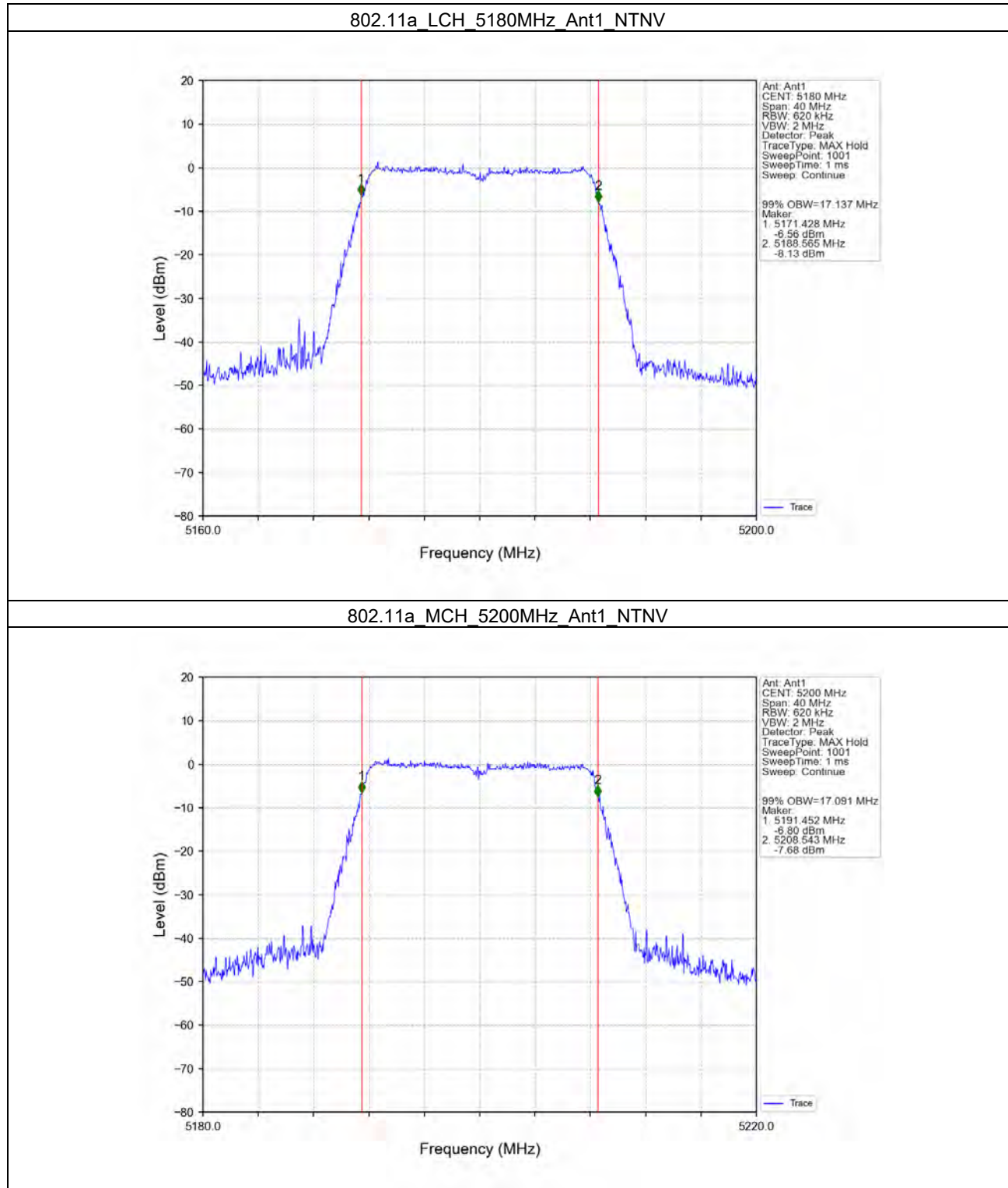
### 2.1.3 6dB BW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	6dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5745	/	/	1	16.513	>=0.5	Pass
		5785	/	/	1	16.544	>=0.5	Pass
		5825	/	/	1	16.401	>=0.5	Pass
802.11ac (VHT20)	SISO	5745	/	/	1	17.566	>=0.5	Pass
		5785	/	/	1	17.770	>=0.5	Pass
		5825	/	/	1	17.335	>=0.5	Pass
802.11ac (VHT40)	SISO	5755	/	/	1	36.040	>=0.5	Pass
		5795	/	/	1	35.714	>=0.5	Pass
802.11ac (VHT80)	SISO	5775	/	/	1	75.098	>=0.5	Pass
802.11ax (HEW20)	SISO	5745	SU	/	1	18.331	>=0.5	Pass
		5785	SU	/	1	18.234	>=0.5	Pass
		5825	SU	/	1	18.386	>=0.5	Pass
802.11ax (HEW40)	SISO	5755	SU	/	1	37.242	>=0.5	Pass
		5795	SU	/	1	37.402	>=0.5	Pass
802.11ax (HEW80)	SISO	5775	SU	/	1	78.126	>=0.5	Pass

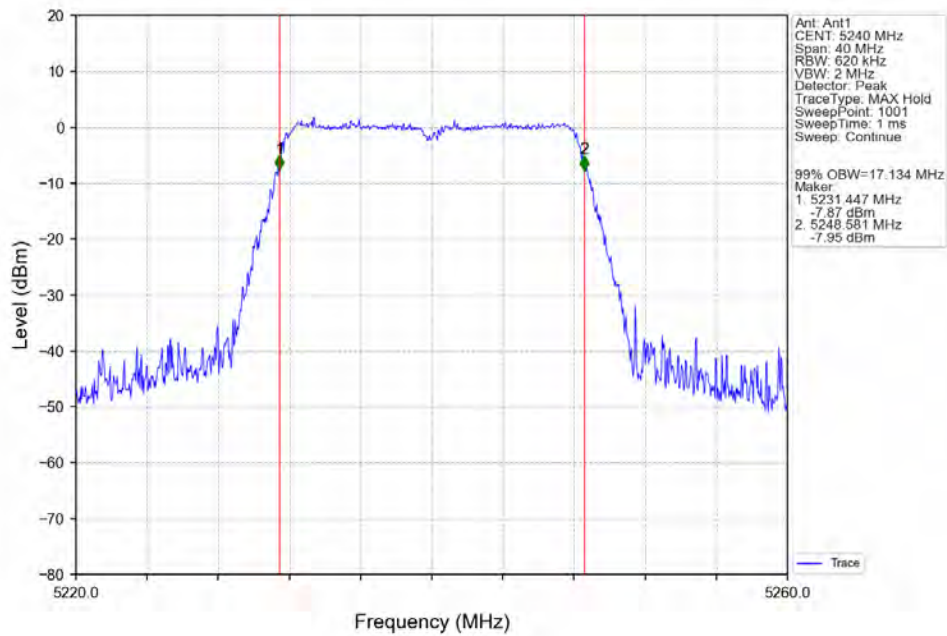


## 2.2 Test Graph

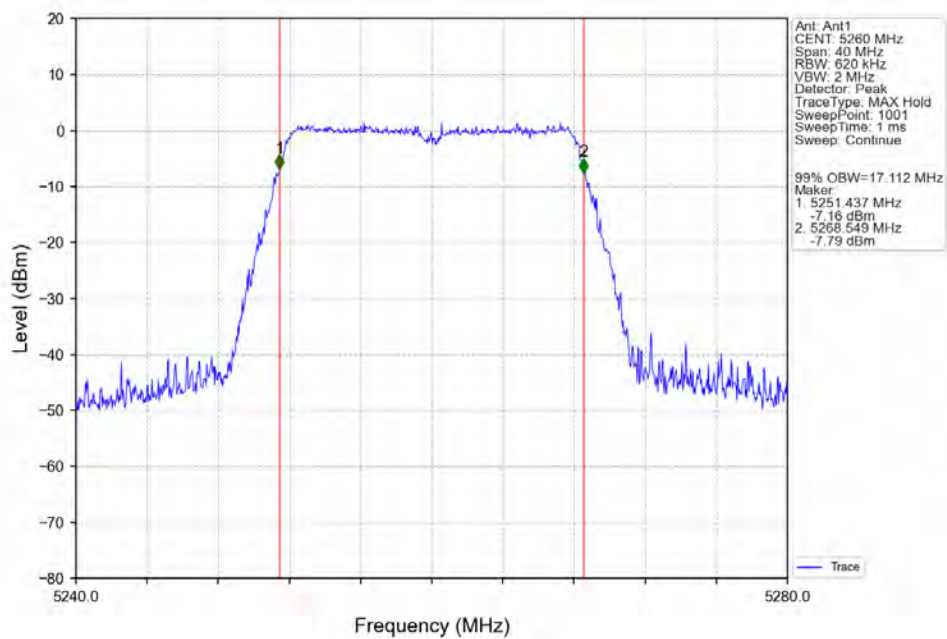
### 2.2.1 OBW



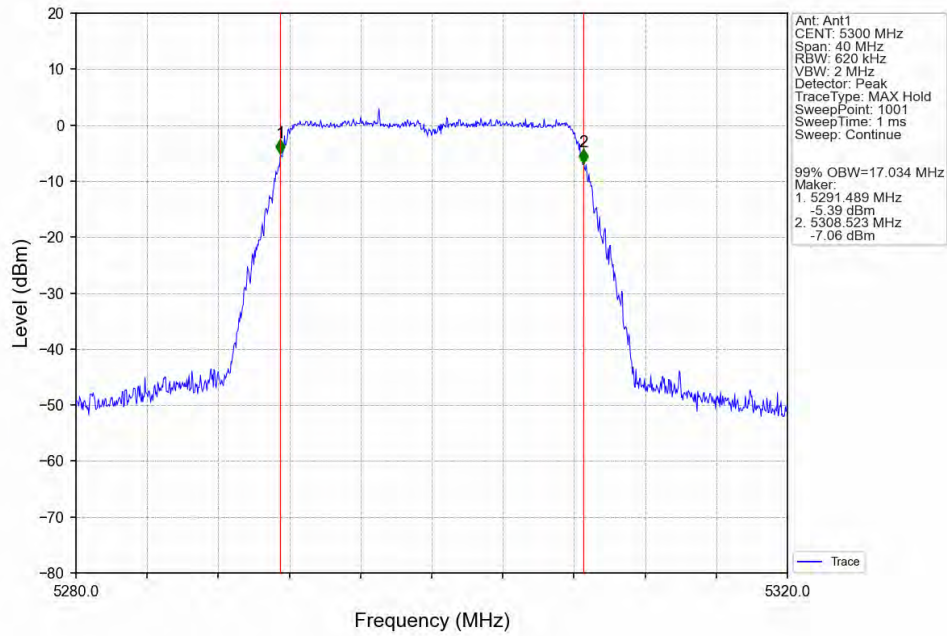
## 802.11a\_HCH\_5240MHz\_Ant1\_NTNV



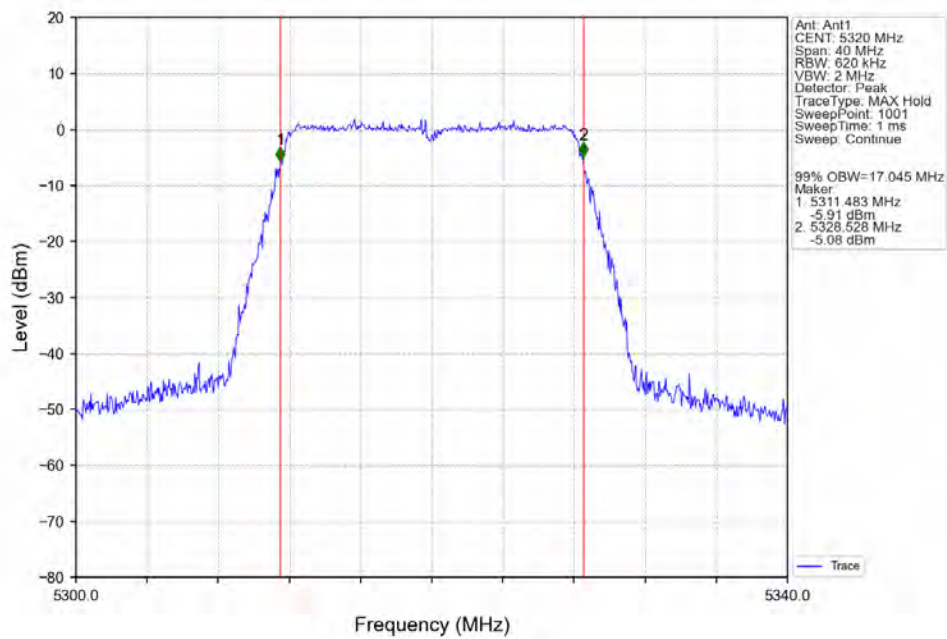
## 802.11a\_LCH\_5260MHz\_Ant1\_NTNV



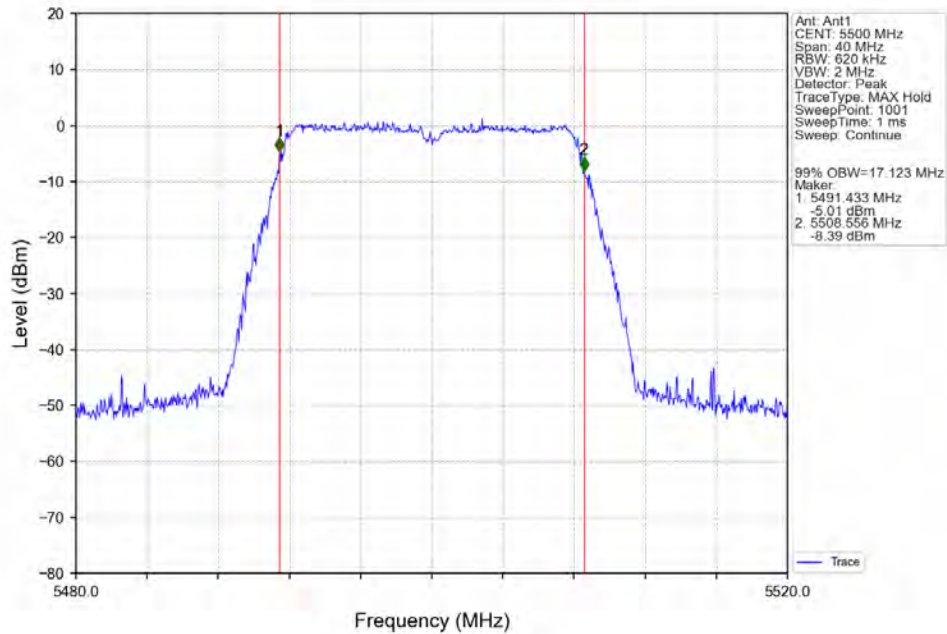
## 802.11a\_MCH\_5300MHz\_Ant1\_NTNV



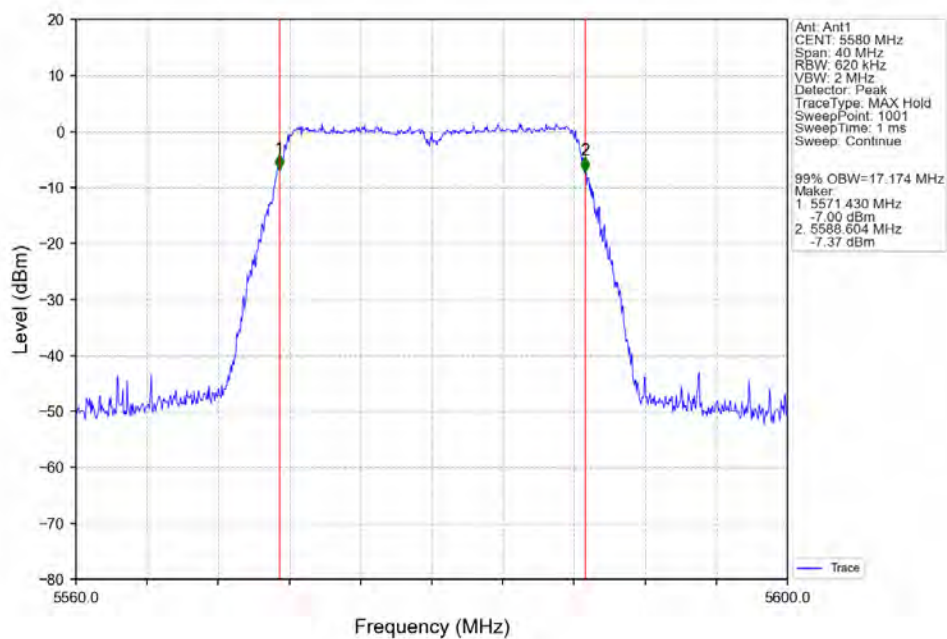
## 802.11a\_HCH\_5320MHz\_Ant1\_NTNV



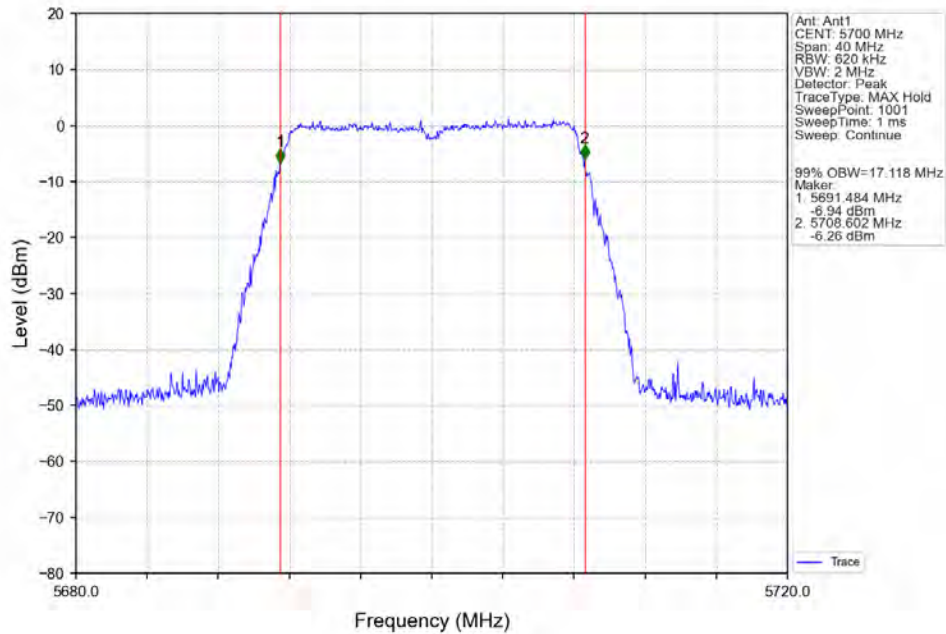
802.11a\_LCH\_5500MHz\_Ant1\_NTNV



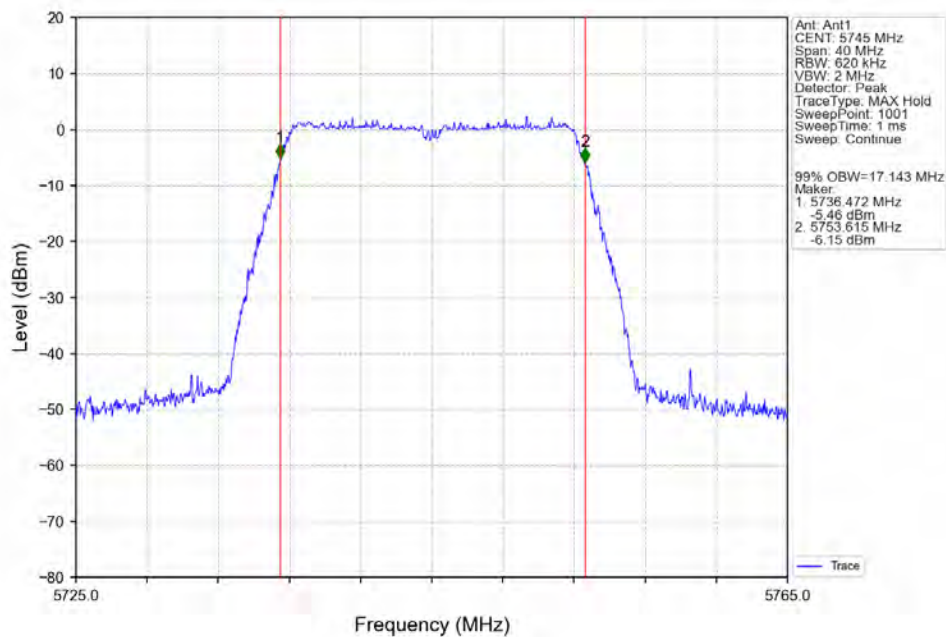
802.11a\_MCH\_5580MHz\_Ant1\_NTNV



802.11a\_HCH\_5700MHz\_Ant1\_NTNV

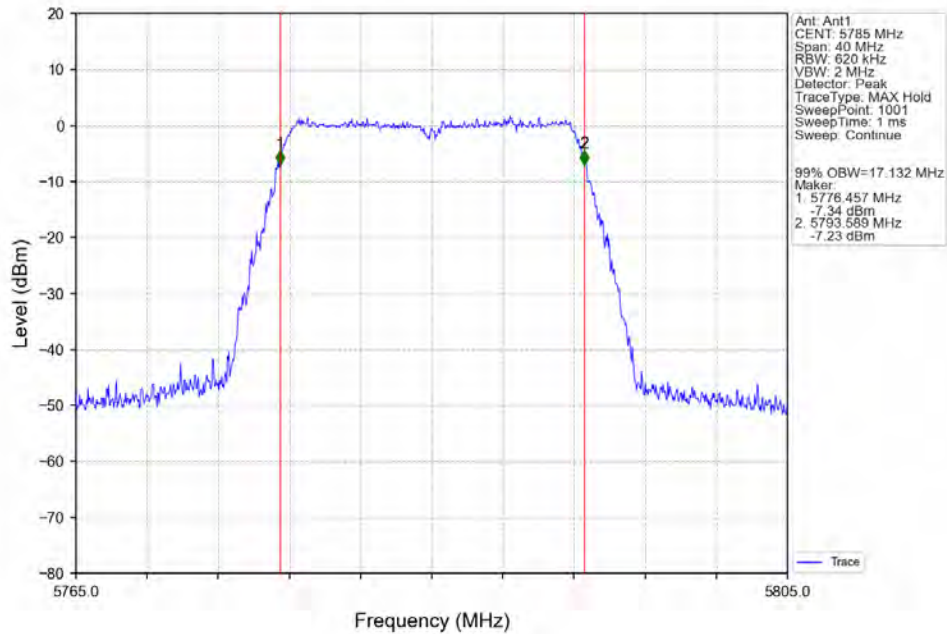


802.11a\_LCH\_5745MHz\_Ant1\_NTNV

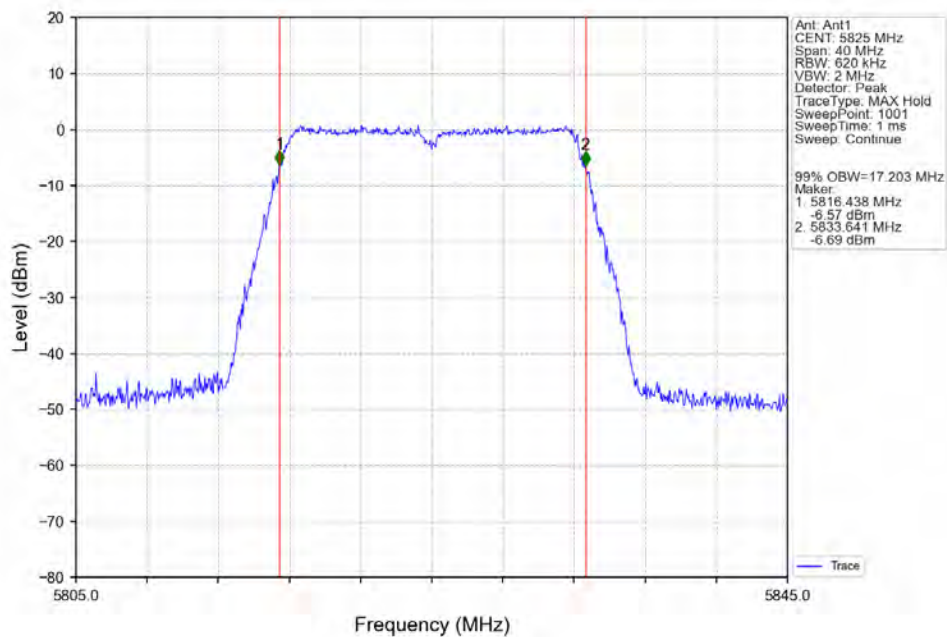




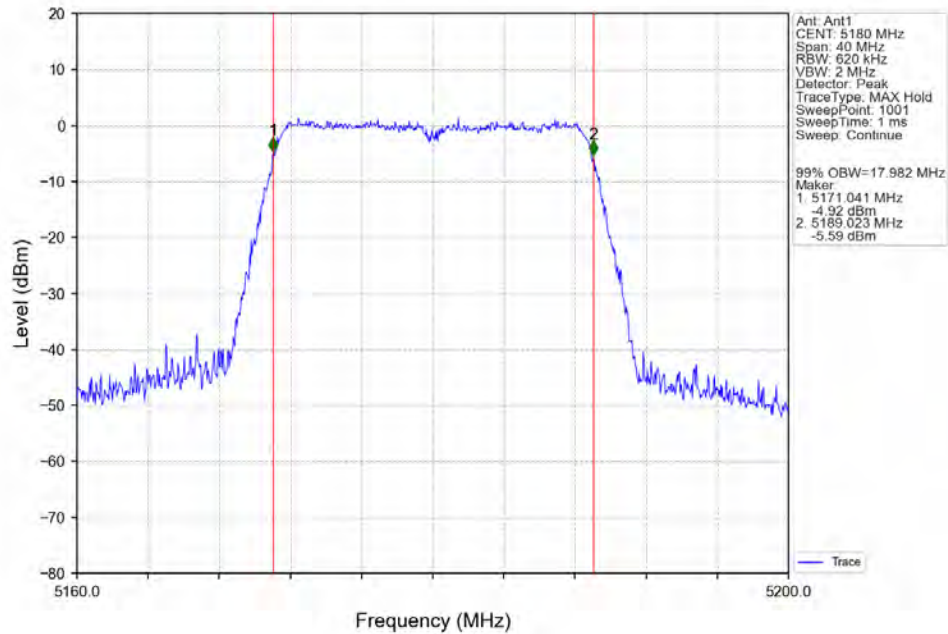
## 802.11a\_MCH\_5785MHz\_Ant1\_NTNV



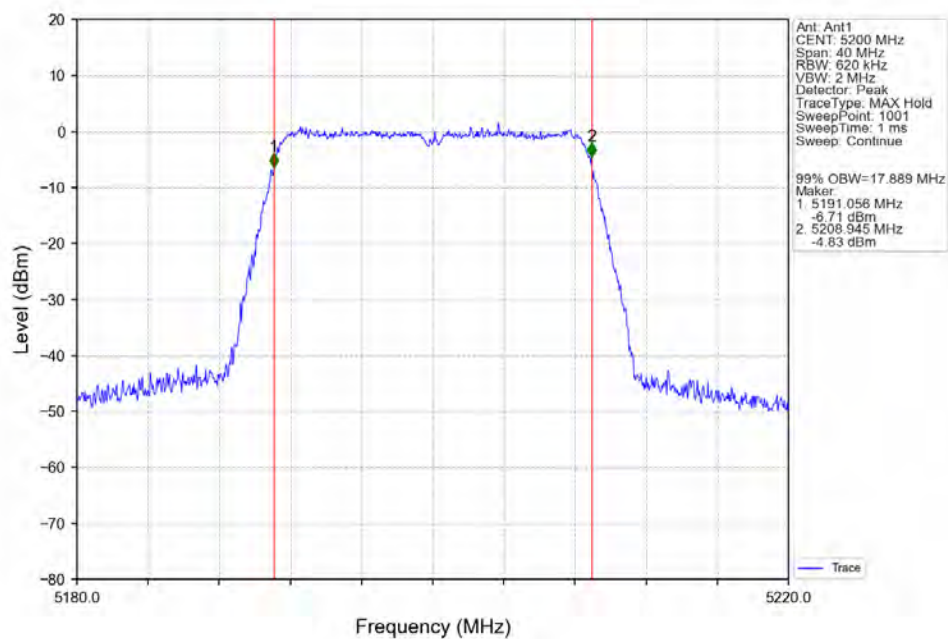
## 802.11a\_HCH\_5825MHz\_Ant1\_NTNV



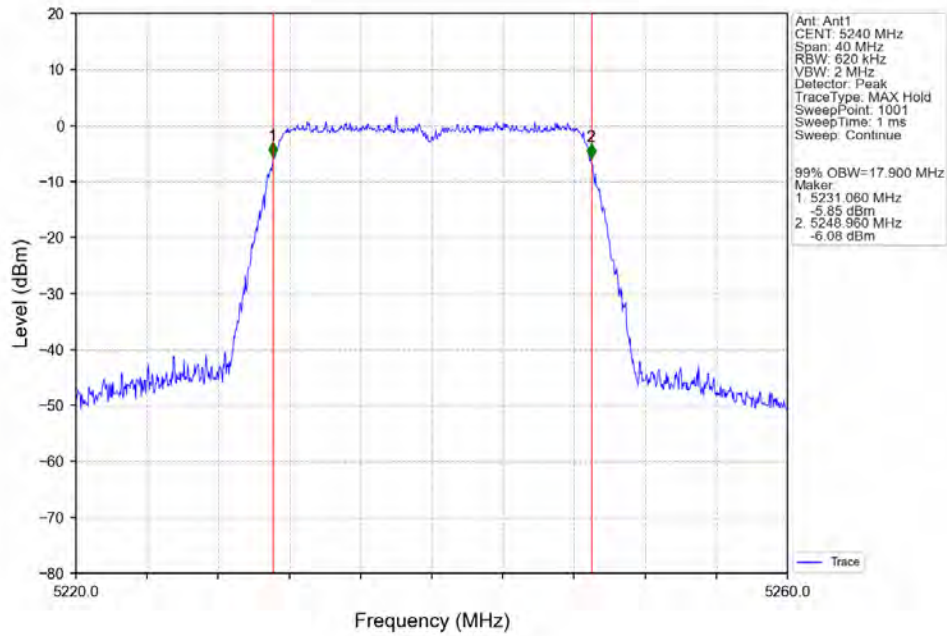
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



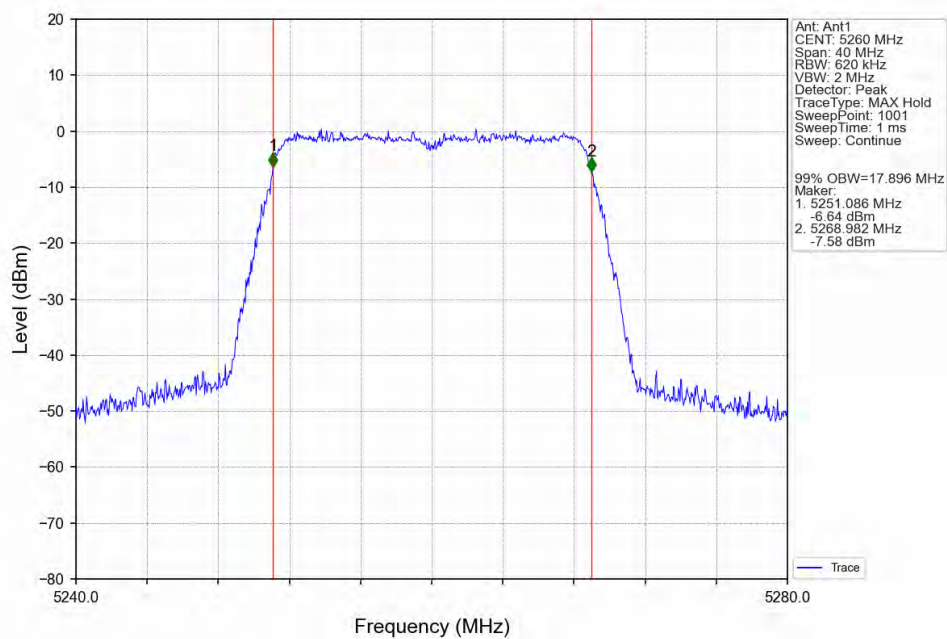
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



802.11ac(VHT20) HCH 5240MHz Ant1 NTN

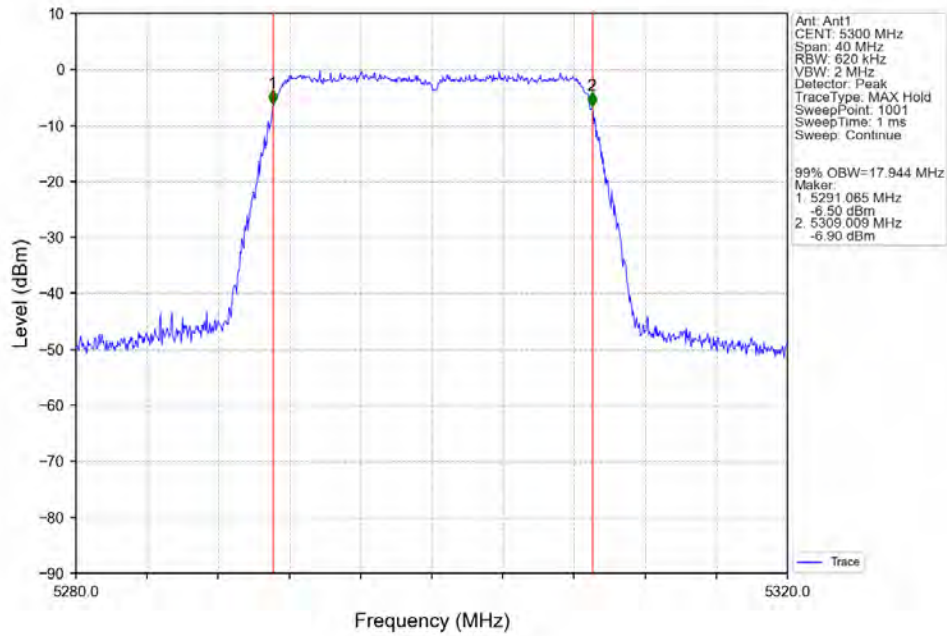


802.11ac(VHT20) LCH 5260MHz Ant1 NTN

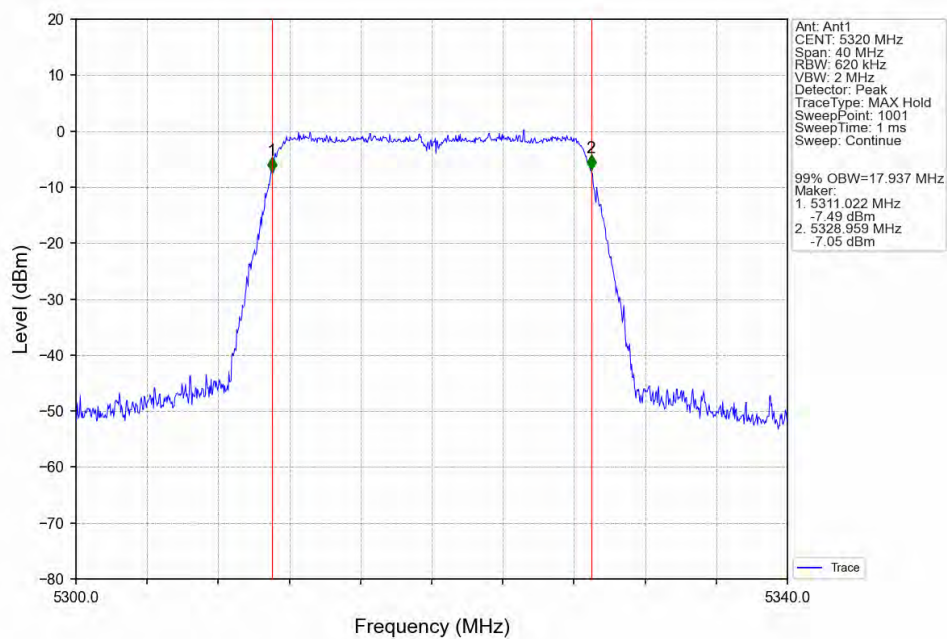




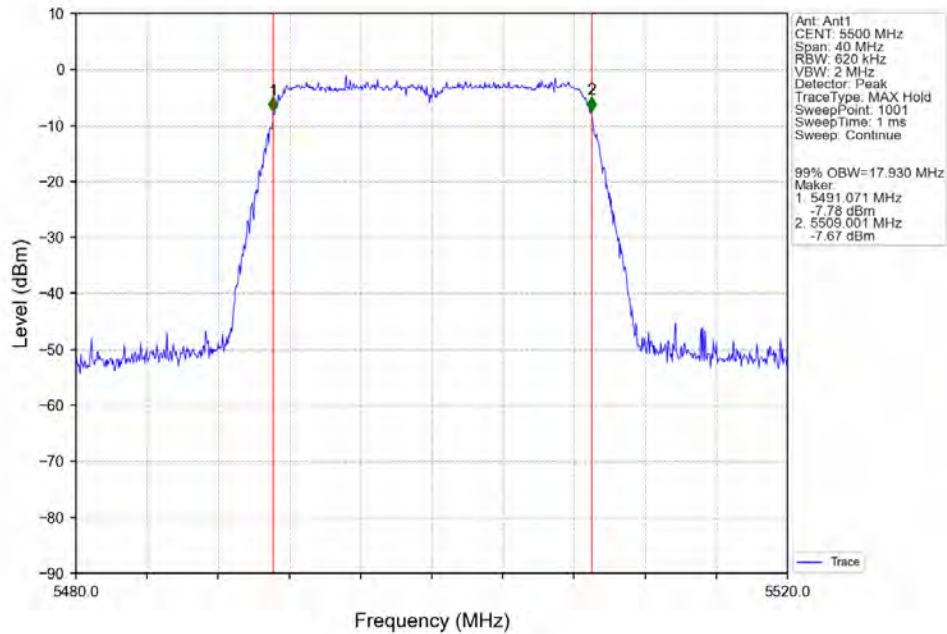
802.11ac(VHT20) MCH 5300MHz Ant1 NTN



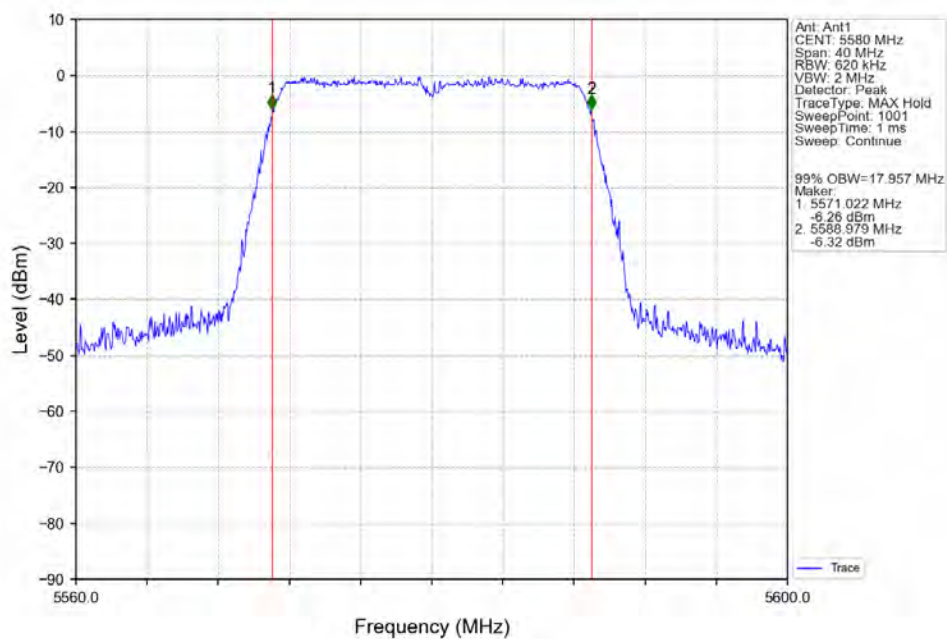
802.11ac(VHT20) HCH 5320MHz Ant1 NTN



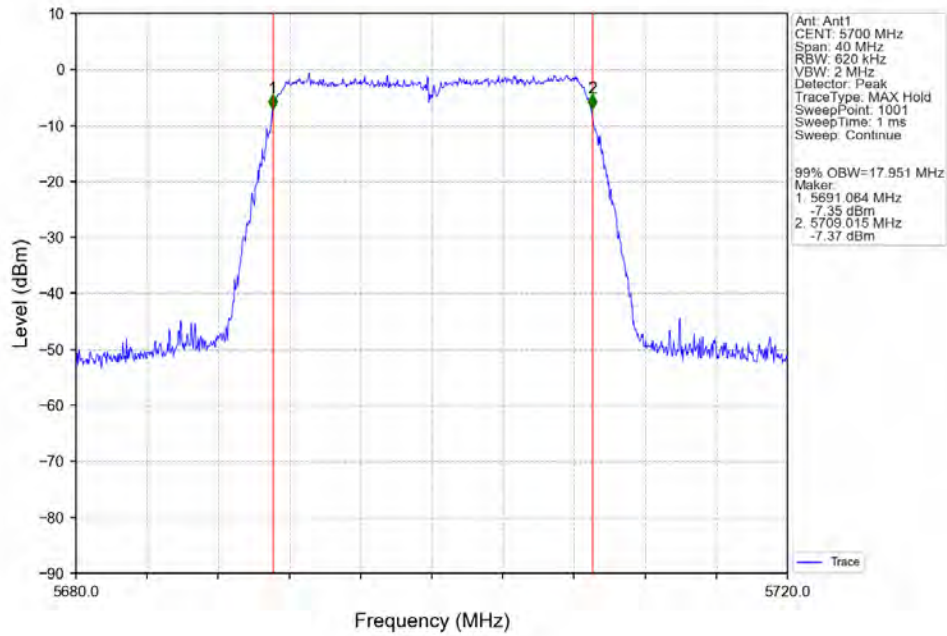
802.11ac(VHT20)\_LCH\_5500MHz\_Ant1\_NTNV



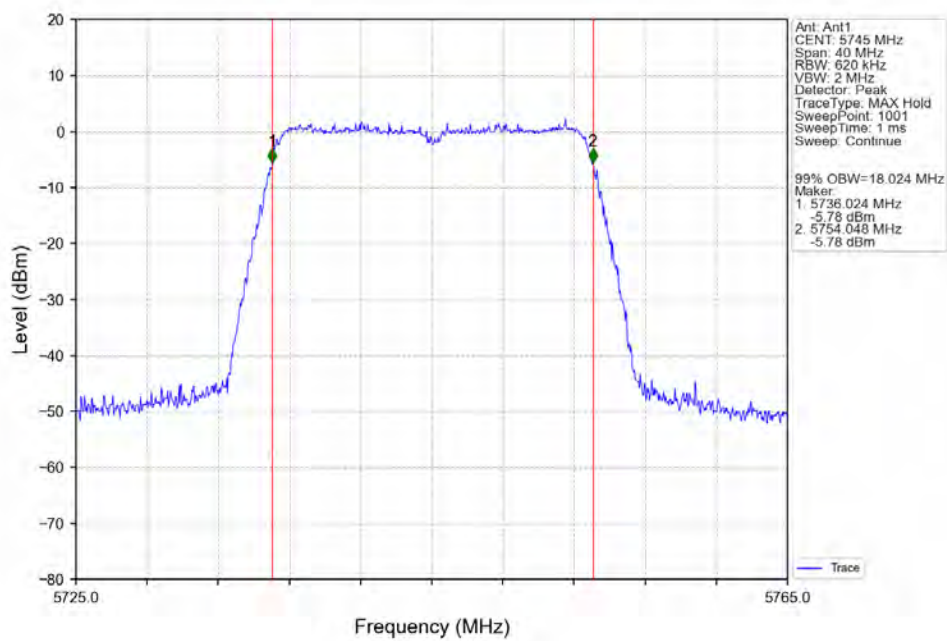
802.11ac(VHT20)\_MCH\_5580MHz\_Ant1\_NTNV



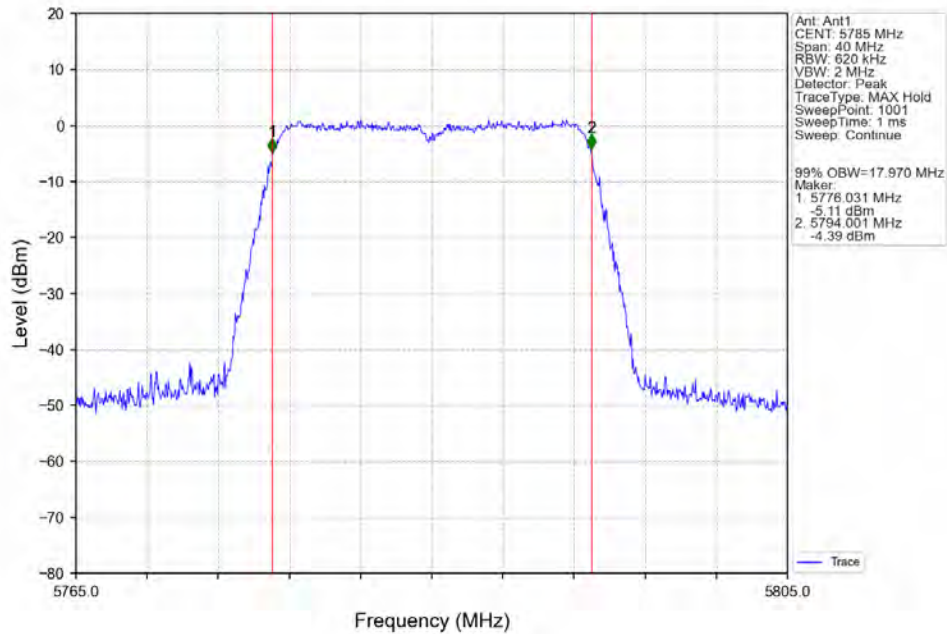
802.11ac(VHT20) HCH 5700MHz Ant1 NTN



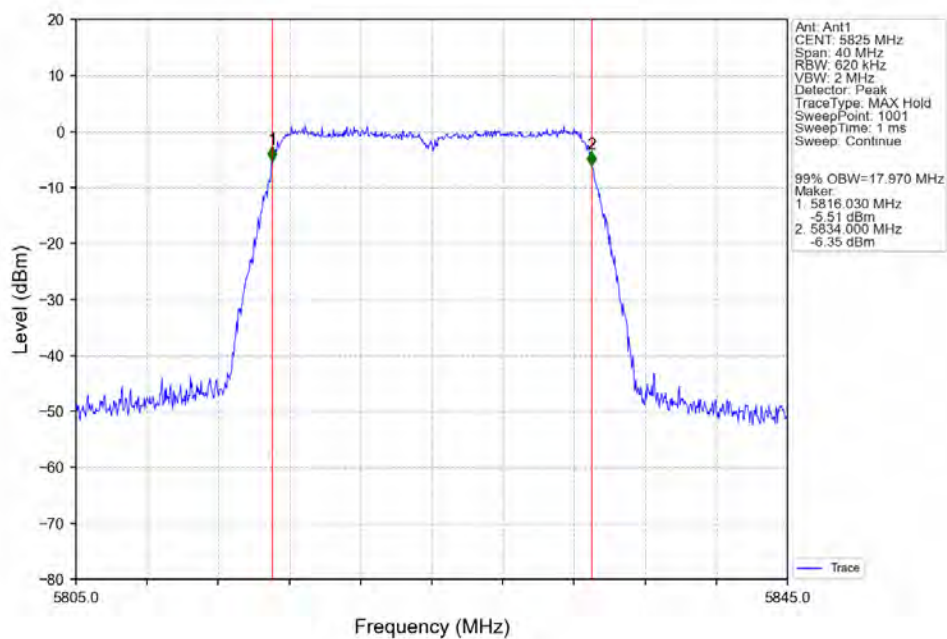
802.11ac(VHT20) LCH 5745MHz Ant1 NTN



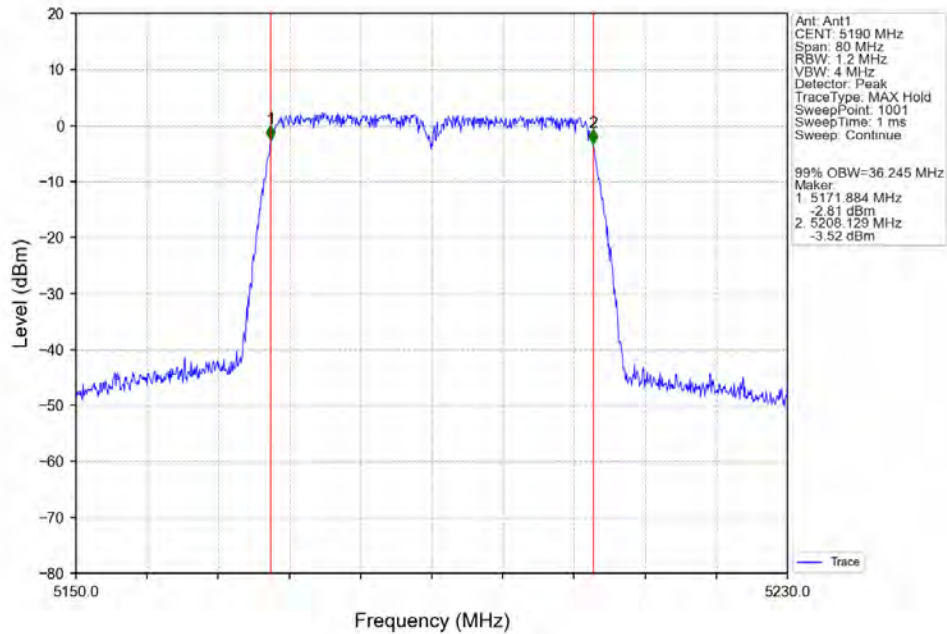
802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



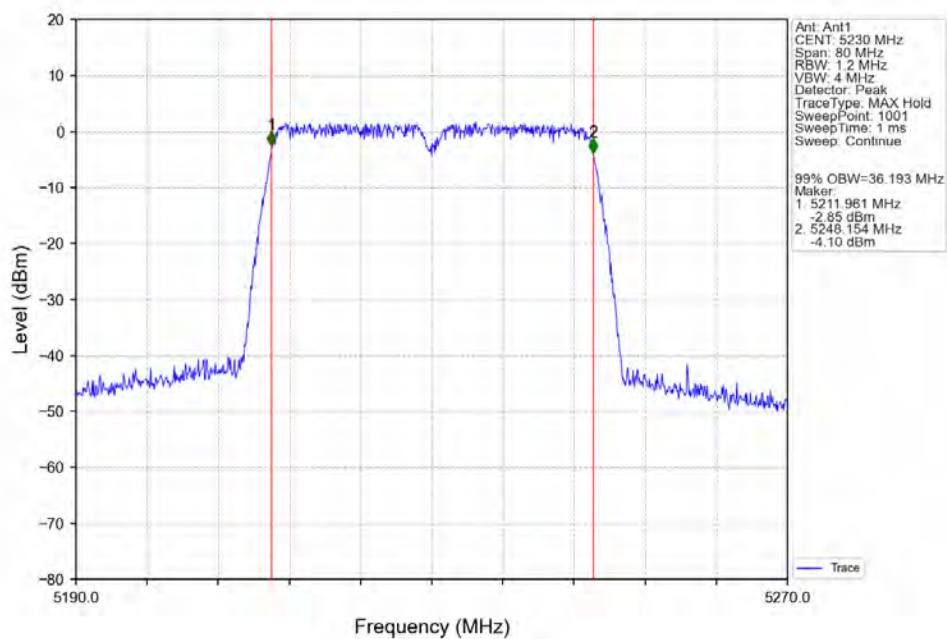
802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV



802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV

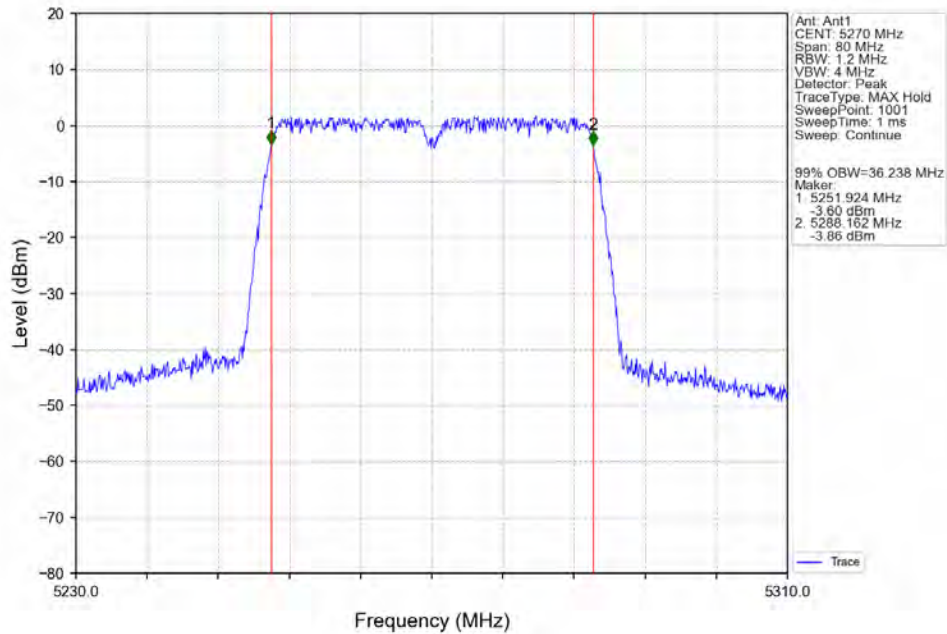


802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV

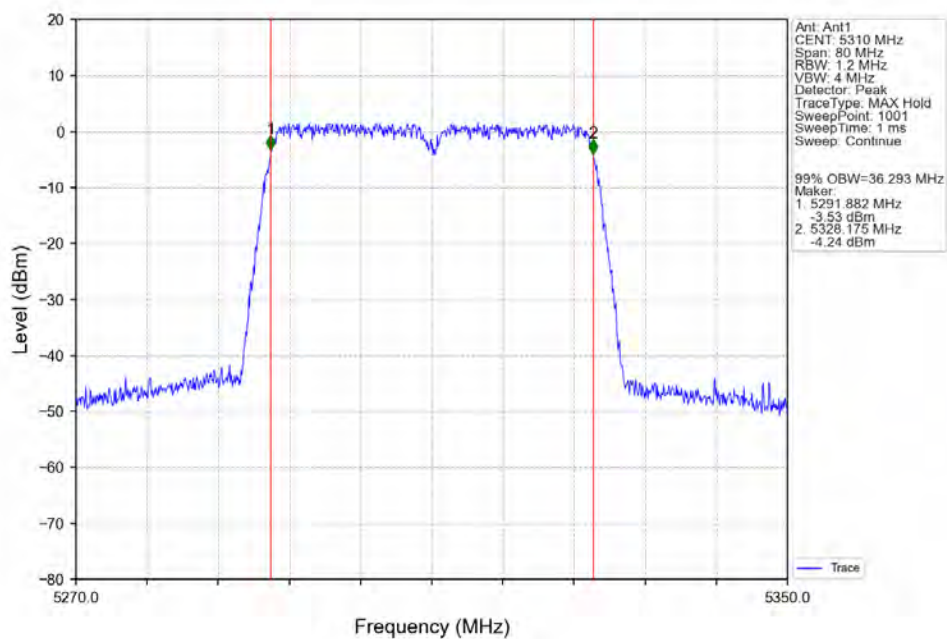




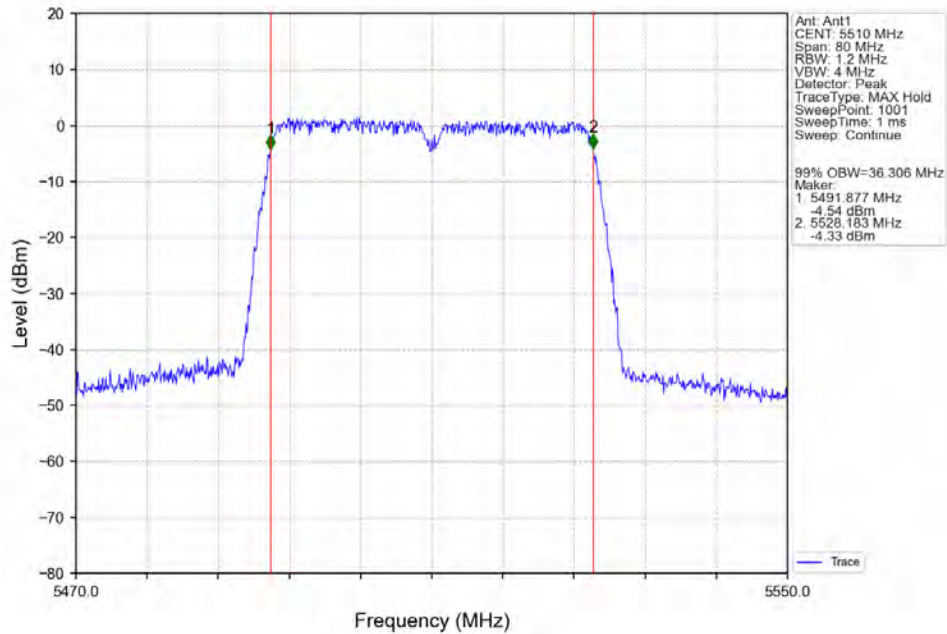
802.11ac(VHT40)\_LCH\_5270MHz\_Ant1\_NTNV



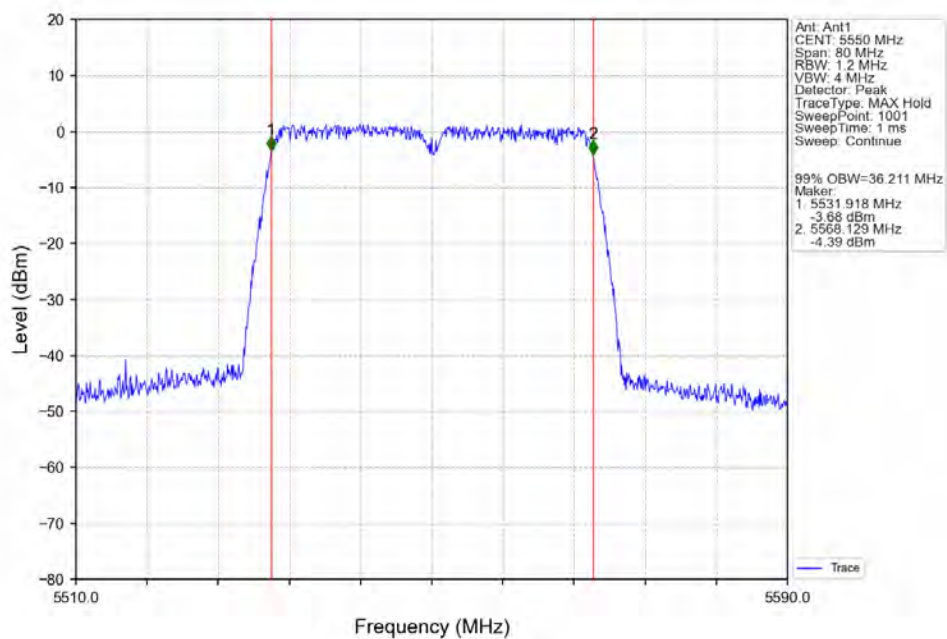
802.11ac(VHT40)\_HCH\_5310MHz\_Ant1\_NTNV



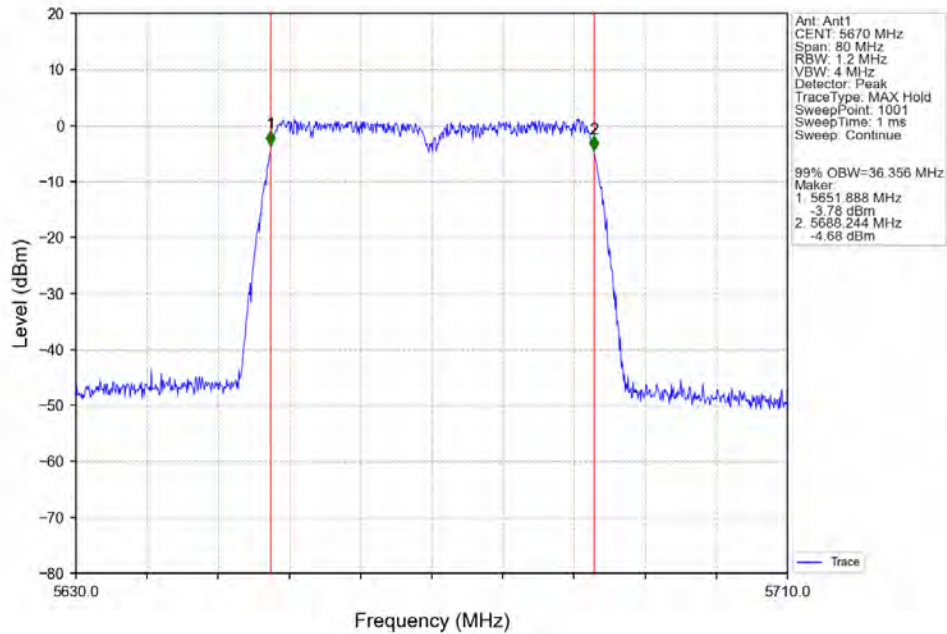
802.11ac(VHT40)\_LCH\_5510MHz\_Ant1\_NTNV



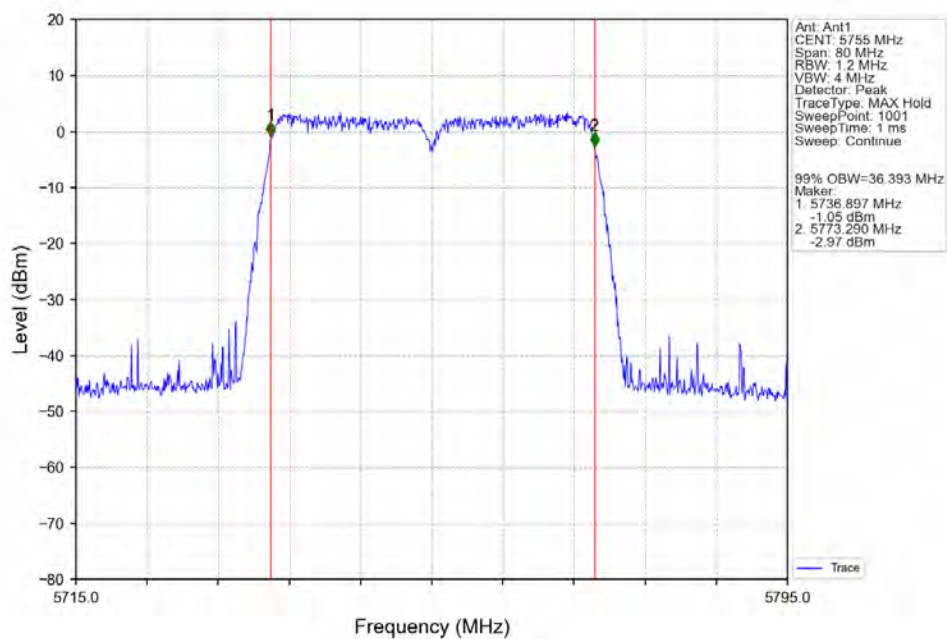
802.11ac(VHT40)\_MCH\_5550MHz\_Ant1\_NTNV



## 802.11ac(VHT40) HCH 5670MHz Ant1 NTN

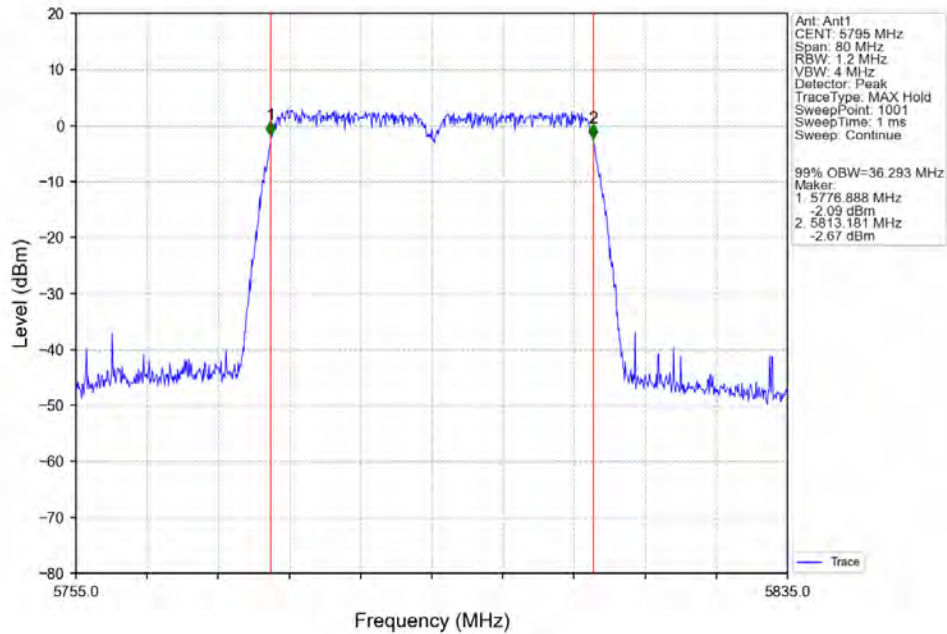


## 802.11ac(VHT40) LCH 5755MHz Ant1 NTN





## 802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



## 802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV

