TEST REPORT

Application No.:	SZCR2410003810WM
Applicant:	Sonim Technologies, Inc.
Address of Applicant:	4445 Eastgate Mall, Suite 200, San Diego, CA 92121, USA
Manufacturer:	Sonim Technologies, Inc.
Address of Manufacturer:	4445 Eastgate Mall, Suite 200, San Diego, CA 92121, USA
Equipment Under Test (EUT):	
EUT Name:	smartphone
Model No.:	X800
Type No.:	S1003/S1001/S1004/S1005/S1006/S1010
Trade Mark:	Sonim
FCC ID:	WYPS1003
Standard(s) :	47 CFR Part 15, Subpart E 15.407
Date of Receipt:	2024-10-15
Date of Test:	2024-10-16 to 2024-12-06
Date of Issue:	2024-12-23
Test Result:	**Pass***

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

Keny Xu
EMC Laboratory Manager

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Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2024-12-23		Original

Authorized for issue by:				
		Calvin Weng **Calvin Weng/Project Engineer**		
		Eric Fu **Eric Fu/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

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 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)	Pass
Maximum Conducted output power		ANSI C63.10 (2013) Section 12.3	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Radiated Emissions (Below 1GHz)		ANSI C63.10 (2013) 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 (2013) 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 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
In-band Emission(Emission Mask)		ANSI C63.10 (2013) Section 12.5	47 CFR Part 15, Subpart E 15.407 (b)	Pass
Duty Cycle		ANSI C63.10 (2013) Section 12.2	ANSI C63.10 (2013) Section 12.2	Pass
99% Bandwidth		ANSI C63.10 (2013) Section 12.4.2	ANSI C63.10 (2013) Section 12.4.2	Pass
26dB Emission bandwidth		ANSI C63.10 (2013) Section 12.4.1	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Peak Power spectrum density		ANSI C63.10 (2013) Section 12.5	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Contention-based Protocol		KDB 987594 D02	47 CFR Part 15, Subpart E 15.407 (d)(6)	Pass
Frequency Stability		ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart E 15.407 (g)	Pass

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4 General Information

4.1 Details of E.U.T.

Power supply:	DC3.87V by Li-ion battery(5000mAh) Recharged by AC/DC power adapter Adapter M/N:1-CHUSQ302-097 Adapter Manufacturer: HUIZHOU PUAN ELEOTRONICS CO.,LTD Adapter output: 5V/3A,9V/2A,12V/1.5A Battery M/N:BAT-05000-21S Battery Manufacturer: Shenzhen Aerospace Electronic Co.,Ltd.
Cable(s):	USB type C cable M/N: HX-YLMK-16 1.5m shieled cable without ferrite core USB type C cable manufacturer: HUIZHOU WASHIN ELECTRONICS CO.,LTD
Cable Loss (for RF conducted test):	1.5dB
Operation Frequency:	IEEE 802.11 ax(HE20/40/80/160): 5925 MHz ~ 6425 MHz IEEE 802.11 ax(HE20/40/80/160): 6425 MHz ~ 6525 MHz IEEE 802.11 ax(HE20/40/80/160): 6525 MHz ~ 6875 MHz IEEE 802.11 ax(HE20/40/80/160): 6875 MHz ~ 7125 MHz
Modulation Type:	OFDMA
Support Bandwidth:	20MHz;40MHz:80MHz;160MHz
Equipment Class:	6GHz Low Power Indoor Client (6XD)
Antenna Type:	PIFA Antenna
Antenna gain:	Ant9:-1.29dBi, Ant10: 1.34dBi

Remark:The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
--	--	--	--
The EUT has been tested as an independent unit.			

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	± 3.1dB
Maximum Conducted output power	± 0.75dB
Radiated Emissions (Below 1GHz)	± 6.0dB for 3m; ± 5.0dB for 10m
Radiated Emissions (Above 1GHz)	± 4.6dB (1-18GHz);± 4.8dB (18-40GHz)
Radiated Emissions which fall in the restricted bands	± 6.0dB (below 1GHz); ± 4.6dB (above 1GHz);
Duty Cycle	± 0.37%
99% Bandwidth	± 3%
26dB Emission bandwidth	± 3%
Peak Power spectrum density	± 2.84dB
Frequency Stability	± 7.25 x 10-8

Remark:
The U_{lab} (lab Uncertainty) is less than $U_{cispr/ETSI}$ (CISPR/ETSI Uncertainty), so the test results
– compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit;
– non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

4.5 Test Facility

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

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI (Member No. 1937)

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• FCC –Designation Number: CN1336

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

• Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2022-05-14	2025-05-13
EMI Test Receiver	Rohde&Schwarz	ESR	SZ-WRG-M-047	2024-01-30	2025-01-29
Matching Pad	N/A	N/A	SEM021-23	2024-03-20	2025-03-19
Matching Pad	N/A	N/A	SEM021-24	2024-03-20	2025-03-19
Measurement Software	AUDIX	e3 V8.2014-6-27a	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM024-01	2024-07-06	2025-07-05
LISN	Rohde&Schwarz	ENV216	SEM007-01	2024-08-15	2025-08-14
LISN	ETS-LINDGREN	3816/2	SEM007-02	2024-03-14	2025-03-13

RF Conducted Test					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Power Sensor	TST PASS	TSPS2023R	SEM009-26	2024-03-27	2025-03-26
Power Sensor	KEYSIGHT	U2021XA	SEM009-16	2024-03-14	2025-03-13
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2024-08-14	2025-08-13
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2024-03-14	2025-03-13
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2024-09-14	2025-09-13
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2024-07-06	2025-07-05
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2024-03-27	2025-03-26
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2024-03-19	2025-03-18

Radiated Emissions (Below 1GHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2023-11-20	2025-11-19
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2023-06-19	2026-06-18
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2024-08-14	2025-08-13
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-01	2023-09-16	2025-09-15
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2024-03-14	2025-03-13
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A

Coaxial Cable	SGS	N/A	SEM025-01	2024-07-06	2025-07-05

Radiated Emissions (Above 1GHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Signal & Spectrum Analyzer	Rohde & Schwarz	FSV	SZ-WRG-M-048	2024-01-30	2025-01-29
Low Noise Amplifier 1G-18GHz	Tonscend	TAP01018050	SZ-WRG-M-051	2024-01-30	2025-01-29
Low Noise Amplifier 18G-40GHz	Tonscend	TAP18040048	SZ-WRG-M-052	2024-01-30	2025-01-29
Double Ridge Horn Antenna 1GHz-18GHz	SCHWARZBECK	BBHA 9120 D	SZ-WRG-M-055	2023-12-21	2025-12-20
SHF-EHF Horn 15GHz-40GHz	SCHWARZBECK	BBHA 9170	SZ-WRG-M-056	2023-12-25	2025-12-24
RSE Test Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Chamber	CRTSGSSAC966	N/A	SZ-WRG-C-063	2022-01-05	2025-01-04
Humidity and Temperature Indicator	deli	8838	SEM002-46	2024-07-24	2025-07-23

Radiated Emissions which fall in the restricted bands					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Signal & Spectrum Analyzer	Rohde & Schwarz	FSV	SZ-WRG-M-048	2024-01-30	2025-01-29
Low Noise Amplifier 30M-8GHz	Tonscend	TAP30M8G30	SZ-WRG-M-050	2024-01-30	2025-01-29
Double Ridge Horn Antenna 1GHz-18GHz	SCHWARZBECK	BBHA 9120 D	SZ-WRG-M-055	2023-12-21	2025-12-20
SHF-EHF Horn 15GHz-40GHz	SCHWARZBECK	BBHA 9170	SZ-WRG-M-056	2023-12-25	2025-12-24
RSE Test Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Chamber	CRTSGSSAC966	N/A	SZ-WRG-C-063	2022-01-05	2025-01-04
Humidity and Temperature Indicator	deli	8838	SEM002-46	2024-07-24	2025-07-23

General used equipment					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Humidity/ Temperature Indicator	deli	8838	SEM002-32	2024-07-24	2025-07-23
Humidity/ Temperature Indicator	deli	8838	SEM002-33	2024-07-24	2025-07-23
Barometer	Changchun Meteorological Industry Factory	DYM3	SEM002-01	2024-03-18	2025-03-17

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 integrated on the main PCB and no consideration of replacement. The best case gain of the Ant9:-1.29dBi, Ant10: 1.34dBi, directional gain: 3.13dBi.

Antenna location: Refer to internal photo.

7 Radio Spectrum Matter Test Results

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

Test Requirement 47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency.		

7.1.1 E.U.T. Operation

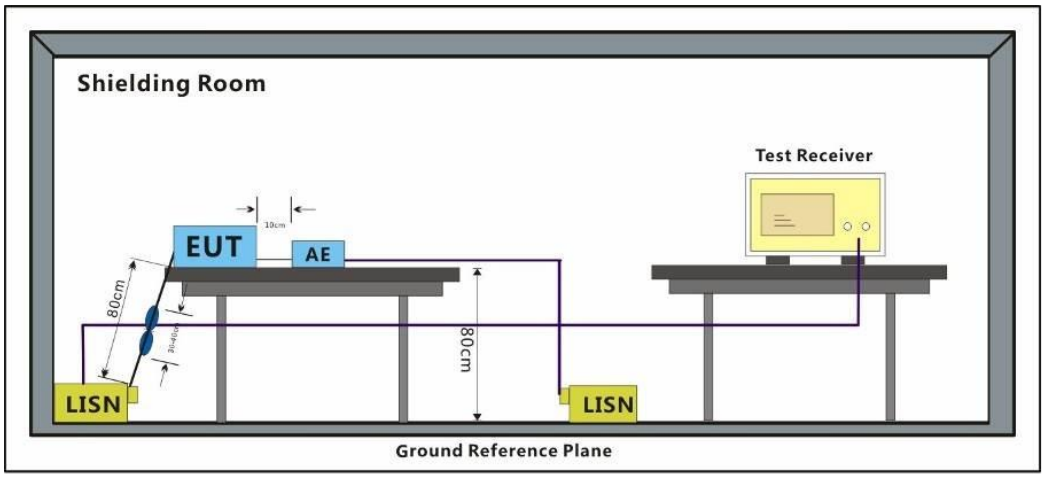
Operating Environment:

Temperature: 22.5 °C Humidity: 44.5 % RH Atmospheric Pressure: 1020 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	23	Charge + TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	24	Charge + TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	25	Charge + TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	26	Charge + TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.

7.1.3 Test Setup Diagram



7.1.4 Measurement Procedure and Data

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

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

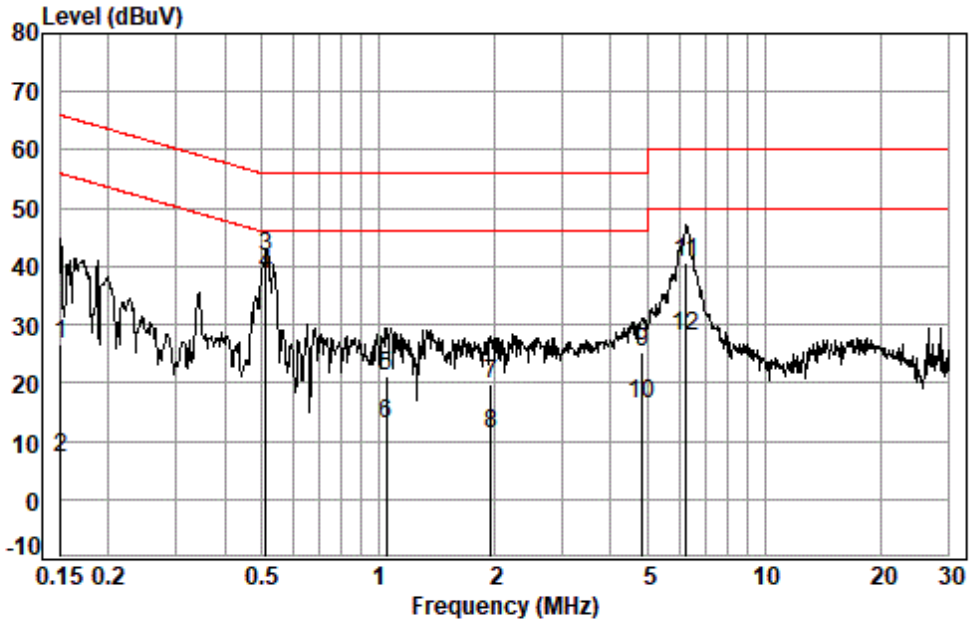
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

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

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

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

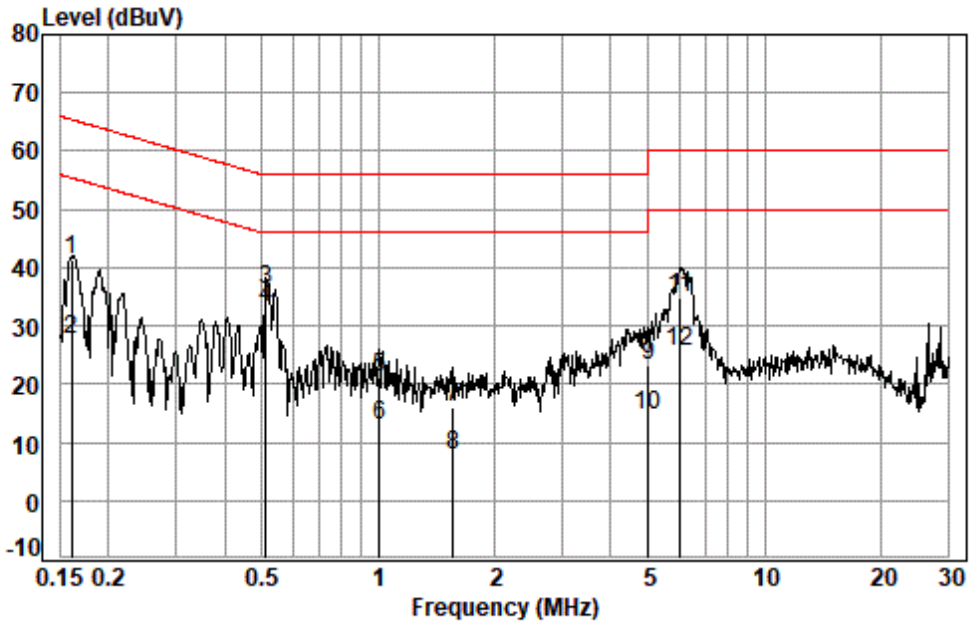
Test Mode: 23; Line: Live line



Site : Shielding Room
Condition: Line
Job No. : 03810WM
Test mode: 23

		Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
		MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1		0.1508	0.06	10.19	16.29	26.54	65.96	-39.42	QP
2		0.1508	0.06	10.19	-3.10	7.15	55.96	-48.81	Average
3	*	0.5128	0.08	9.55	31.96	41.59	56.00	-14.41	QP
4	*	0.5128	0.08	9.55	28.89	38.52	46.00	-7.48	Average
5		1.0485	0.09	9.58	11.59	21.26	56.00	-34.74	QP
6		1.0485	0.09	9.58	3.42	13.09	46.00	-32.91	Average
7		1.9593	0.10	9.58	10.14	19.82	56.00	-36.18	QP
8		1.9593	0.10	9.58	1.63	11.31	46.00	-34.69	Average
9		4.8224	0.12	9.66	15.63	25.41	56.00	-30.59	QP
10		4.8224	0.12	9.66	6.74	16.52	46.00	-29.48	Average
11		6.2852	0.15	9.67	30.91	40.73	60.00	-19.27	QP
12		6.2852	0.15	9.67	18.01	27.83	50.00	-22.17	Average

Test Mode: 23; Line: Neutral Line



Site : Shielding Room
Condition: Neutral
Job No. : 03810WM
Test mode: 23

		Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
		MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1		0.1607	0.06	10.13	31.19	41.38	65.43	-24.05	QP
2		0.1607	0.06	10.13	17.45	27.64	55.43	-27.79	Average
3	*	0.5128	0.08	9.71	26.40	36.19	56.00	-19.81	QP
4	*	0.5128	0.08	9.71	23.16	32.95	46.00	-13.05	Average
5		1.0050	0.09	9.54	11.53	21.16	56.00	-34.84	QP
6		1.0050	0.09	9.54	3.40	13.03	46.00	-32.97	Average
7		1.5601	0.10	9.55	6.44	16.09	56.00	-39.91	QP
8		1.5601	0.10	9.55	-1.84	7.81	46.00	-38.19	Average
9		5.0046	0.12	9.56	13.54	23.22	60.00	-36.78	QP
10		5.0046	0.12	9.56	5.00	14.68	50.00	-35.32	Average
11		6.0563	0.14	9.61	25.08	34.83	60.00	-25.17	QP
12		6.0563	0.14	9.61	15.95	25.70	50.00	-24.30	Average

7.2 Maximum Conducted output power

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

Test Method: ANSI C63.10 (2013) Section 12.3

Limit:

Device Type	Frequency Range (MHz)	EIRP Limit (dBm)	EIRP PSD Limit(dBm/MHz)
Low power indoor access point and indoor subordinate devices	5925-7125	⩽30	⩽5
Low power client devices	5925-7125	⩽24	⩽-1

7.2.1 E.U.T. Operation

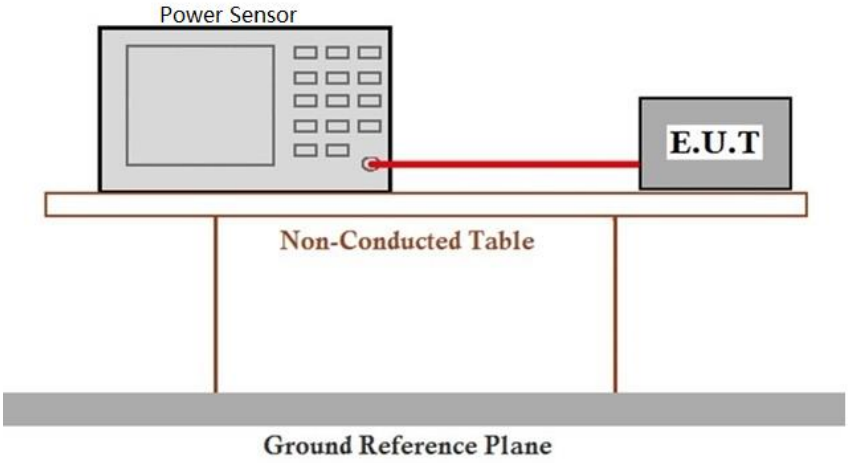
Operating Environment:

Temperature: 23.7 °C Humidity: 49.5 % RH Atmospheric Pressure: 1020 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	18	TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	19	TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	20	TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	21	TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.3 Radiated Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)
Test Method: ANSI C63.10 (2013) 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

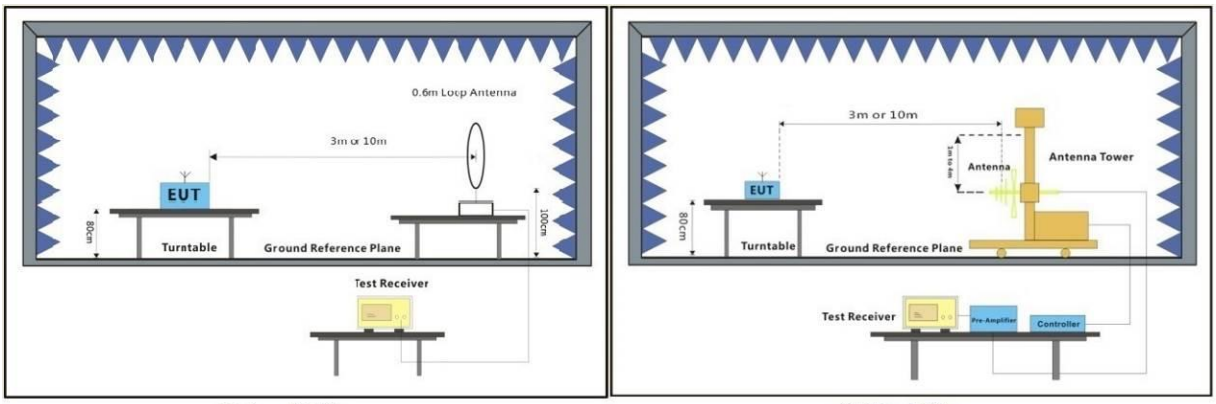
7.3.1 E.U.T. Operation

Operating Environment:
Temperature: 23.2 °C Humidity: 45.8 % RH Atmospheric Pressure: 1020 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	18	TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	19	TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	20	TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	21	TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



Below 30MHz　　30MHz-1GHz

7.3.4 Measurement Procedure and Data

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

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

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

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

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

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

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

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

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

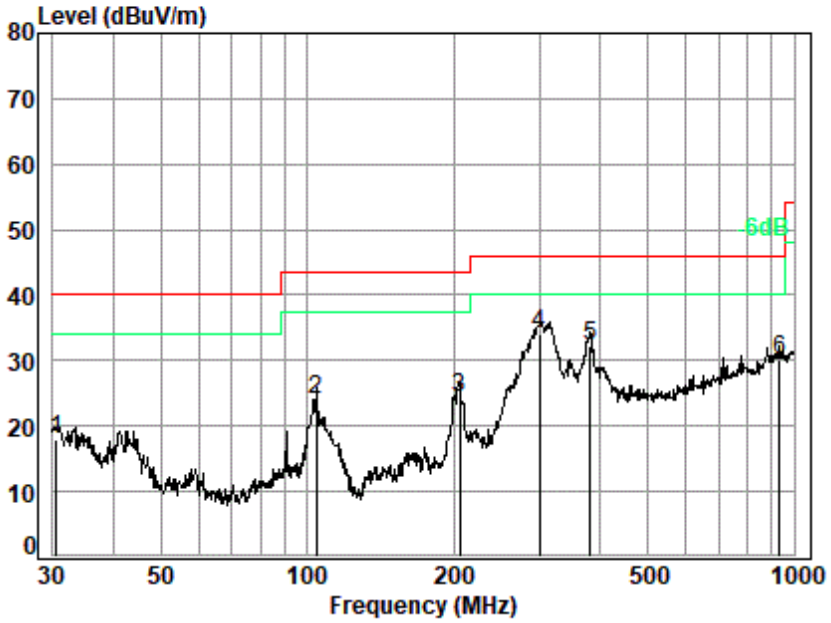
Remark:

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

2. 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.

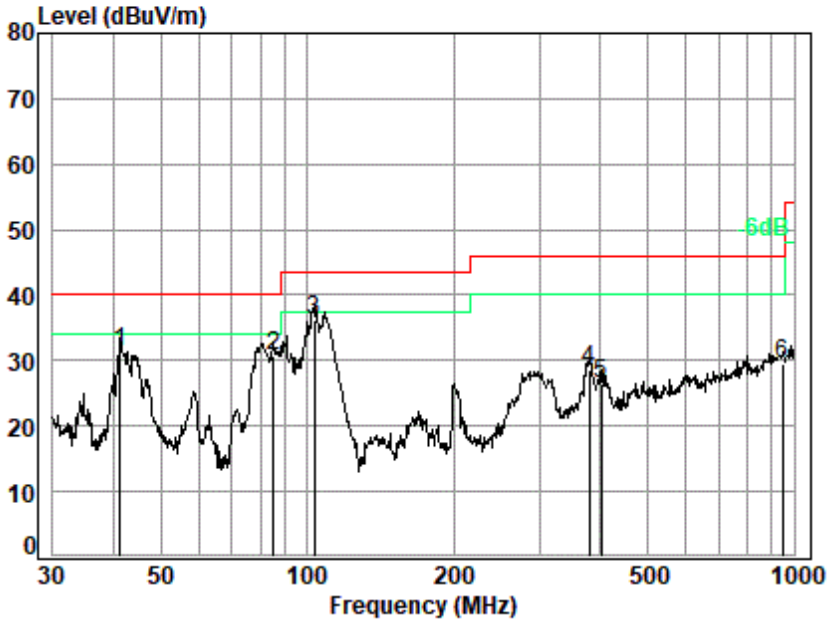
Test Mode: 23; Polarity: Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : 03810WM
Test Mode: 23

	Freq	Ant Factor	Cable Loss	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	30.531	20.95	0.65	27.79	24.09	17.90	40.00	-22.10	QP
2	104.170	12.22	1.21	27.57	38.13	23.99	43.50	-19.51	QP
3	205.675	14.57	1.75	27.15	35.30	24.47	43.50	-19.03	QP
4 q	300.367	18.05	2.17	26.75	40.56	34.03	46.00	-11.97	QP
5	381.249	20.91	2.48	27.08	35.97	32.28	46.00	-13.72	QP
6	932.272	28.16	4.17	26.53	24.36	30.16	46.00	-15.84	QP

Test Mode: 23; Polarity: Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : 03810WM
Test Mode: 23

	Freq	Ant Factor	Cable Loss	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	41.277	15.76	0.76	27.76	42.68	31.44	40.00	-8.56	QP
2	85.298	11.07	1.10	27.63	46.29	30.83	40.00	-9.17	QP
3 q	103.442	12.26	1.21	27.58	50.30	36.19	43.50	-7.31	QP
4	379.914	20.91	2.47	27.07	32.16	28.47	46.00	-17.53	QP
5	401.839	20.58	2.56	27.16	30.53	26.51	46.00	-19.49	QP
6	945.440	28.26	4.21	26.44	23.35	29.38	46.00	-16.62	QP

7.4 Radiated Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)
Test Method: ANSI C63.10 (2013) Section 6.6
Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1GHz	500	3

a. any emission outside the 5925-7125 MHz frequency band shall not exceed −27 dBm/MHz e.i.r.p. spectral density

b. the e.i.r.p. spectral density of unwanted emissions falling into the 5925-7125 MHz frequency band shall be attenuated below the reference spectral density by:

i. 20dB at 1MHz away from the channel edges.

ii. a value, linearly interpolated in a dB scale, between 20 dB and 28 dB at frequencies between 1MHz outside of channel edges and 1 channel bandwidth away from the operating channel center, respectively

iii. 28dB at 1 channel bandwidth away from the operating channel center

iv. a value, linearly interpolated in a dB scale, between 28 dB and 40 dB at frequencies between 1 channel bandwidth away from the operating channel center and 1.5 times the channel bandwidth away from the operating channel center, respectively

v. 40dB at 1.5 times the channel bandwidth away from the operating channel center

vi. a minimum of 40 dB at frequencies that are further away than 1.5 times the channel bandwidth from the operating channel center.

7.4.1 E.U.T. Operation

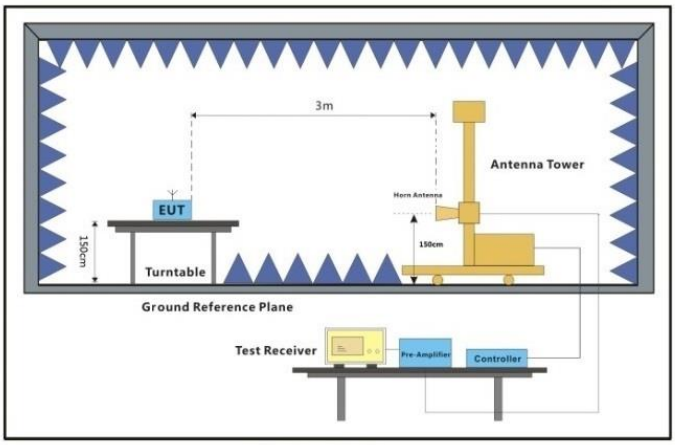
Operating Environment:

Temperature: 22.2 °C Humidity: 59.8 % RH Atmospheric Pressure: 1020 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	18	TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	19	TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	20	TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	21	TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	23	Charge + TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	24	Charge + TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	25	Charge + TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	26	Charge + TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram



Above 1GHz

7.4.4 Measurement Procedure and Data

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

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

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

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

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

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

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

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

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

Remark:

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

2. Scan from 1GHz to 40GHz, the disturbance below 8GHz and 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.

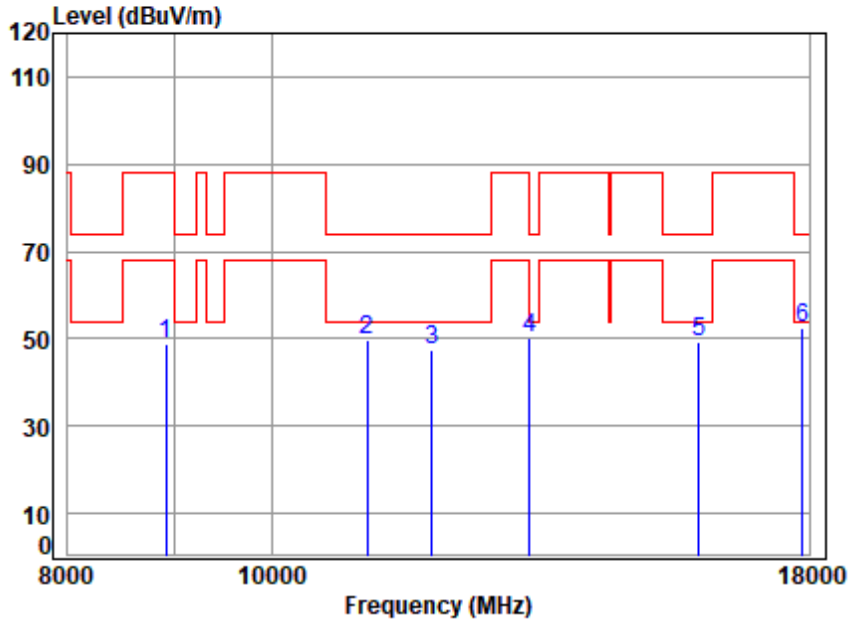
4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

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 ≥1/T (Duty cycle＜98%) or 10Hz (Duty cycle≥98%) for Average detection (AV) at frequency above 1GHz.

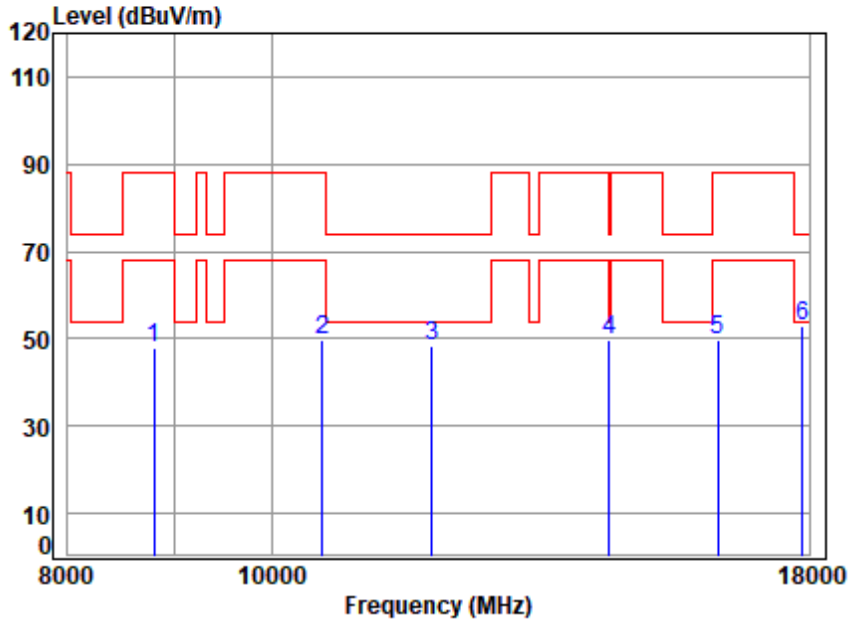
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5955 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8903.855	12.59	38.59	55.09	52.93	49.02	88.20	-39.18	peak
2	11101.250	14.24	39.50	53.53	49.54	49.75	74.00	-24.25	Peak
3	11910.000	14.62	39.71	53.77	46.82	47.38	74.00	-26.62	peak
4	13258.660	15.94	40.26	54.47	48.36	50.09	74.00	-23.91	Peak
5	15951.340	17.59	38.65	54.01	47.12	49.35	74.00	-24.65	Peak
6	pp17865.000	19.21	42.89	54.47	44.92	52.55	74.00	-21.45	peak

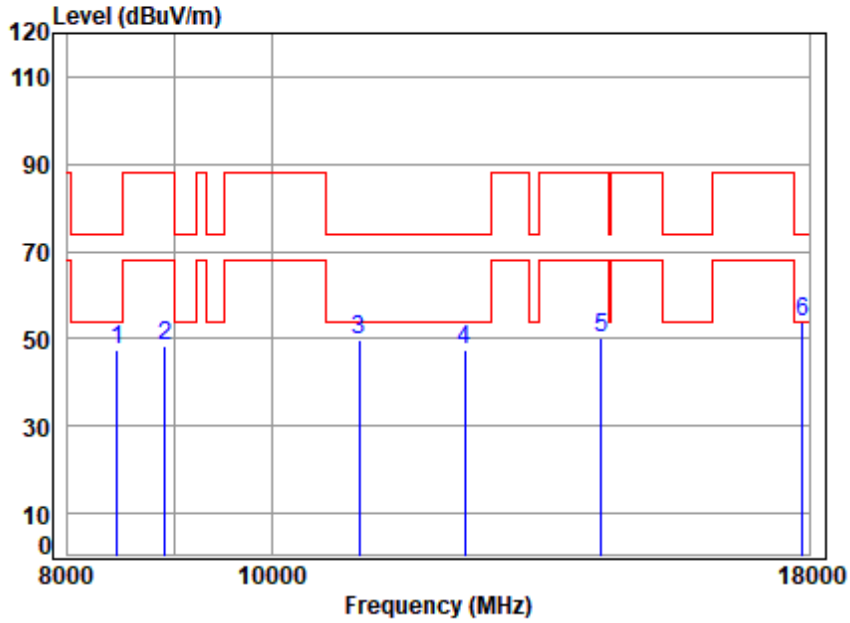
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5955 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8796.205	12.45	38.50	55.18	52.10	47.87	88.20	-40.33	peak
2	10574.040	13.50	39.25	53.76	50.56	49.55	88.20	-38.65	Peak
3	11910.000	14.62	39.71	53.77	47.91	48.47	74.00	-25.53	peak
4	14472.230	16.67	39.53	54.35	47.91	49.76	74.00	-24.24	Peak
5	16291.240	17.63	38.59	54.09	47.46	49.59	88.20	-38.61	Peak
6	pp17865.000	19.21	42.89	54.47	45.46	53.09	74.00	-20.91	peak

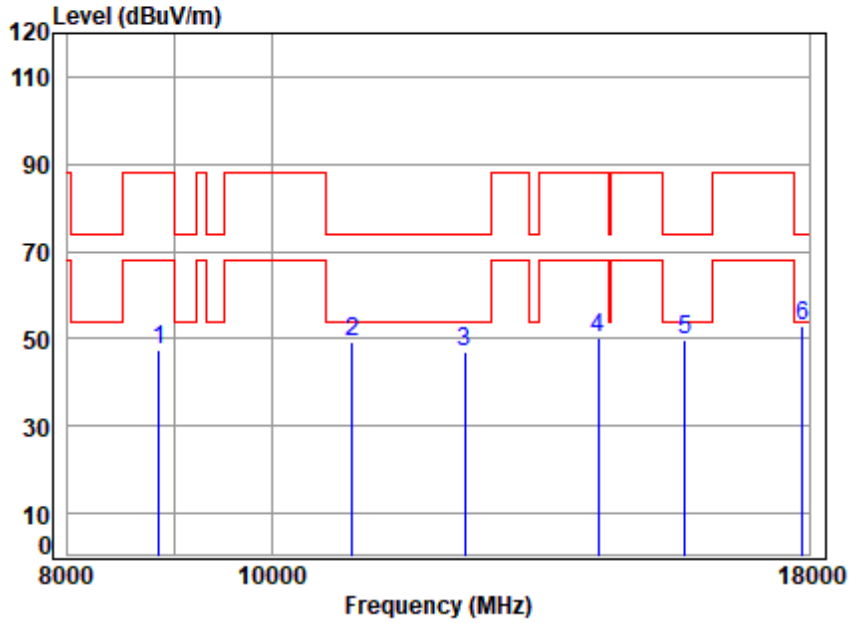
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6175 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8439.837	12.23	38.44	55.50	52.42	47.59	74.00	-26.41	Peak
2	8896.638	12.59	38.59	55.09	52.09	48.18	88.20	-40.02	peak
3	11002.660	14.07	39.40	53.50	49.86	49.83	74.00	-24.17	Peak
4	12350.000	14.81	39.85	54.04	46.89	47.51	74.00	-26.49	peak
5	14343.710	16.89	39.71	54.37	48.09	50.32	88.20	-37.88	Peak
6	pp17869.110	19.22	42.91	54.47	46.05	53.71	74.00	-20.29	peak

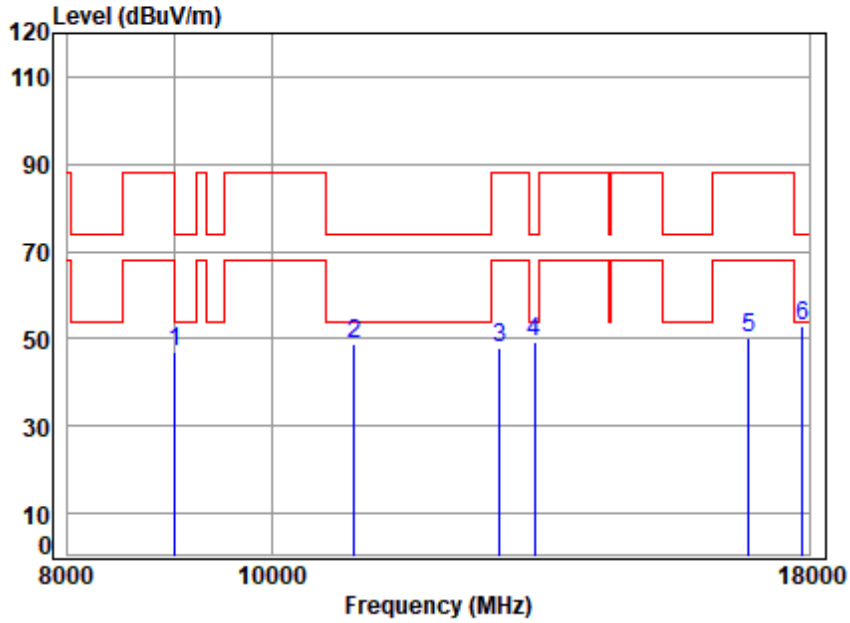
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6175 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8839.108	12.51	38.50	55.14	51.56	47.43	88.20	-40.77	peak
2	10922.650	13.88	39.32	53.55	49.60	49.25	74.00	-24.75	Peak
3	12350.000	14.81	39.85	54.04	46.39	47.01	74.00	-26.99	peak
4	14285.670	16.45	39.80	54.37	48.48	50.36	88.20	-37.84	Peak
5	15707.460	17.25	38.59	54.09	47.82	49.57	74.00	-24.43	Peak
6	pp17869.110	19.22	42.91	54.47	45.43	53.09	74.00	-20.91	peak

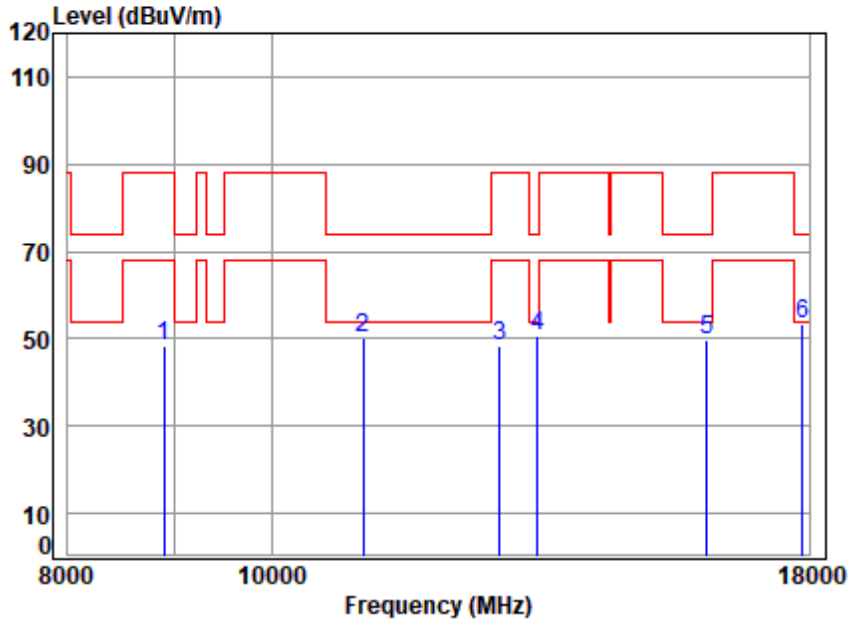
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6415 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8998.217	12.37	38.60	55.00	51.17	47.14	88.20	-41.06	peak
2	10949.260	13.95	39.35	53.53	48.90	48.67	74.00	-25.33	Peak
3	12830.000	15.28	40.33	54.38	46.72	47.95	88.20	-40.25	peak
4	13323.330	15.95	40.30	54.47	47.49	49.27	74.00	-24.73	Peak
5	16842.000	18.22	39.60	54.25	46.52	50.09	88.20	-38.11	Peak
6	pp17869.110	19.22	42.91	54.47	45.34	53.00	74.00	-21.00	peak

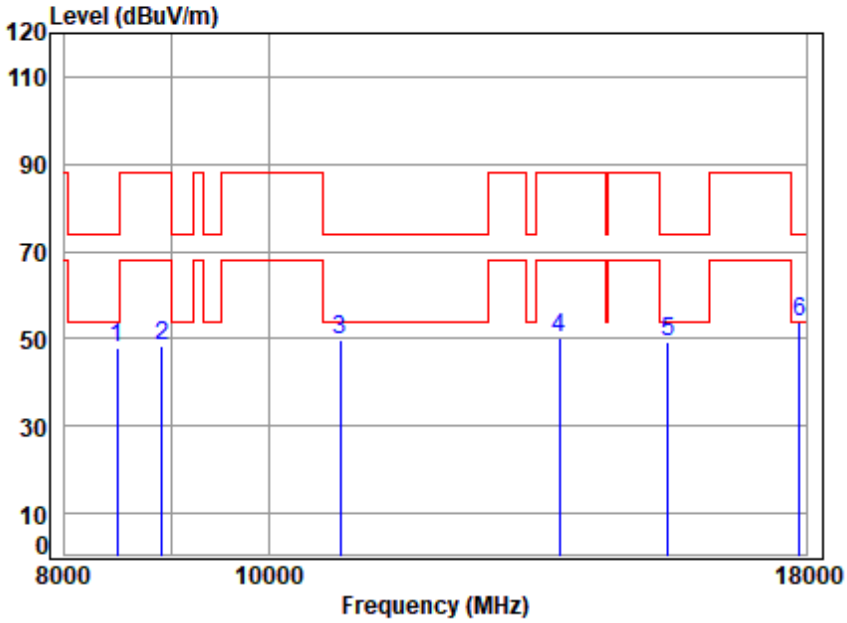
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6415 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8889.426	12.58	38.58	55.10	52.44	48.50	88.20	-39.70	peak
2	11047.360	14.15	39.45	53.51	50.08	50.17	74.00	-23.83	Peak
3	12830.000	15.28	40.33	54.38	47.14	48.37	88.20	-39.83	peak
4	13377.460	15.74	40.30	54.46	49.19	50.77	74.00	-23.23	Peak
5	16094.270	17.34	38.51	54.03	47.93	49.75	74.00	-24.25	Peak
6	pp17869.110	19.22	42.91	54.47	45.79	53.45	74.00	-20.55	peak

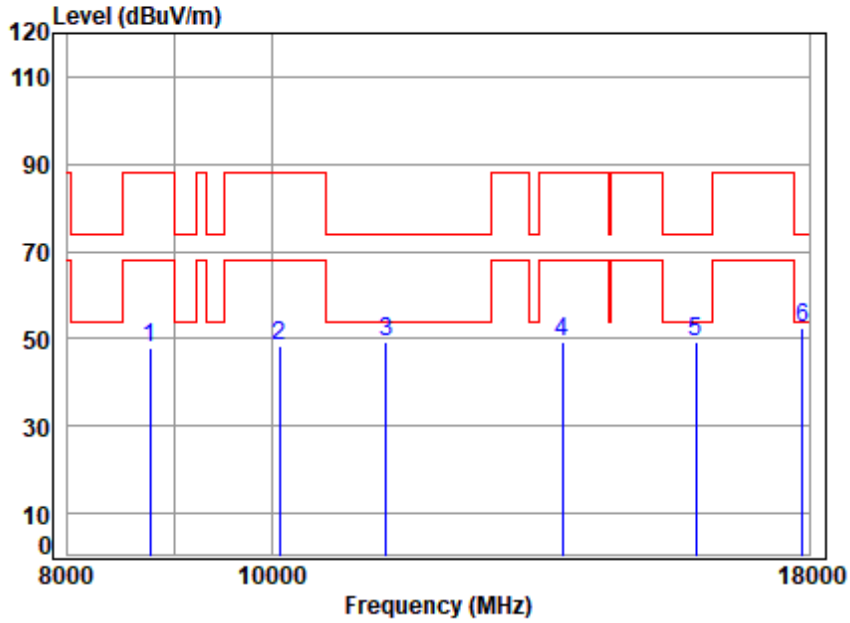
Test Mode: 26; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6875 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8474.127	12.52	38.35	55.47	52.73	48.13	74.00	-25.87	Peak
2	8896.638	12.59	38.59	55.09	52.49	48.58	88.20	-39.62	peak
3	10816.880	13.56	39.30	53.61	50.42	49.67	74.00	-24.33	Peak
4	13750.000	15.89	39.95	54.43	48.62	50.03	88.20	-38.17	peak
5	15479.840	17.50	38.60	54.16	47.26	49.20	74.00	-24.80	Peak
6	pp17869.110	19.22	42.91	54.47	46.05	53.71	74.00	-20.29	peak

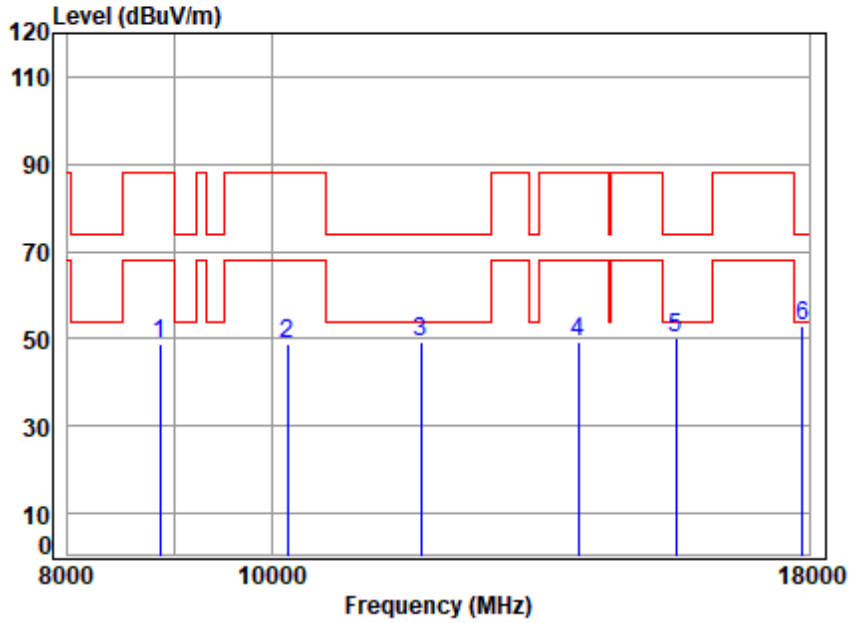
Test Mode: 26; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6875 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8753.511	12.45	38.50	55.22	51.97	47.70	88.20	-40.50	peak
2	10088.210	13.02	39.08	54.05	50.35	48.40	88.20	-39.80	Peak
3	11337.790	14.49	39.70	53.60	48.61	49.20	74.00	-24.80	Peak
4	13750.000	15.89	39.95	54.43	47.81	49.22	88.20	-38.98	peak
5	15899.690	17.92	38.70	54.03	46.54	49.13	74.00	-24.87	Peak
6	pp17869.110	19.22	42.91	54.47	45.04	52.70	74.00	-21.30	peak

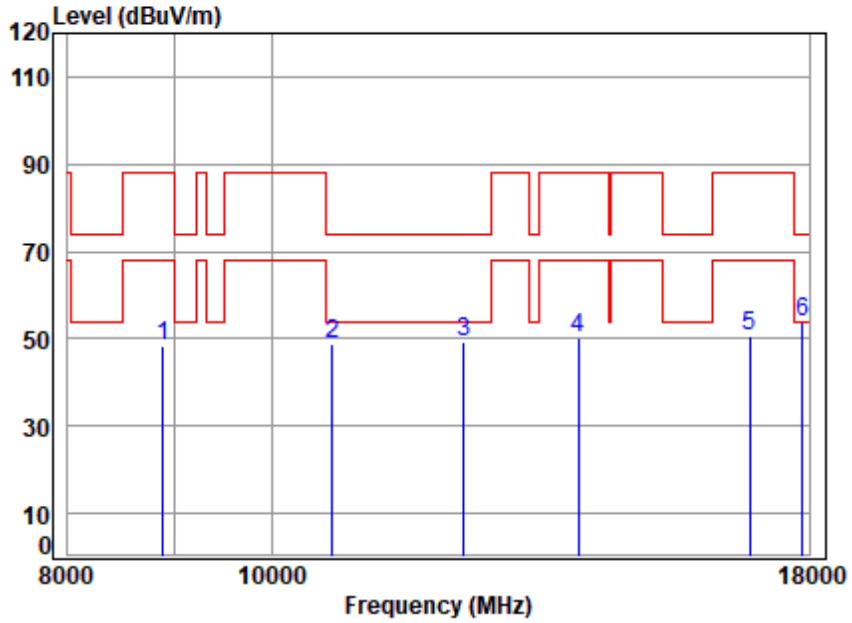
Test Mode: 26; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6995 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8846.278	12.52	38.50	55.14	52.93	48.81	88.20	-39.39	peak
2	10178.600	12.98	39.10	53.99	50.53	48.62	88.20	-39.58	Peak
3	11768.710	14.48	39.57	53.73	49.13	49.45	74.00	-24.55	Peak
4	13990.000	16.42	39.90	54.40	47.50	49.42	88.20	-38.78	peak
5	15567.960	17.17	38.53	54.13	48.62	50.19	74.00	-23.81	Peak
6	pp17869.110	19.22	42.91	54.47	45.35	53.01	74.00	-20.99	peak

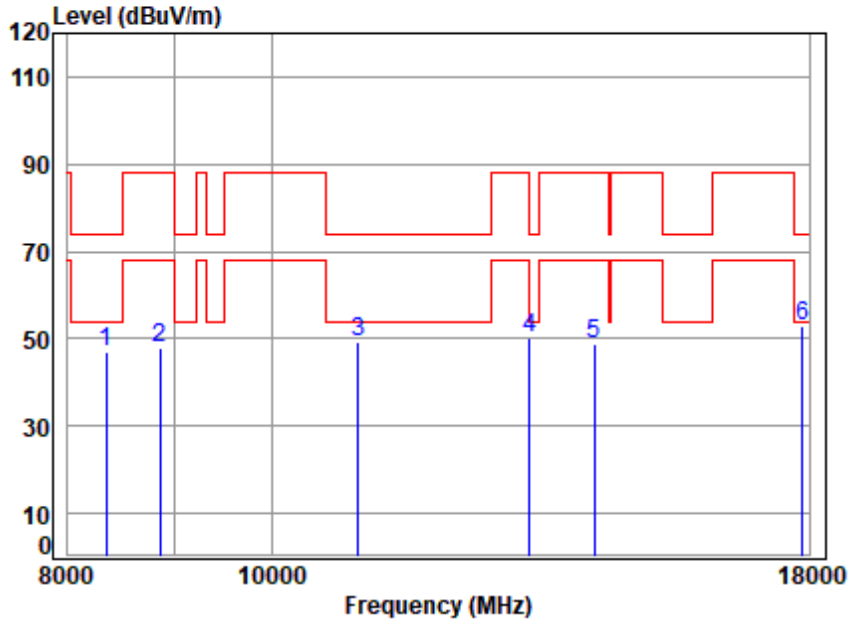
Test Mode: 26; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:middle



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6995 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8882.220	12.57	38.56	55.11	52.51	48.53	88.20	-39.67	peak
2	10686.100	13.65	39.39	53.69	49.68	49.03	74.00	-24.97	Peak
3	12335.460	14.81	39.84	54.03	48.64	49.26	74.00	-24.74	Peak
4	13990.000	16.42	39.90	54.40	48.07	49.99	88.20	-38.21	peak
5	16869.330	18.64	39.60	54.26	46.60	50.58	88.20	-37.62	Peak
6	pp17869.110	19.22	42.91	54.47	46.26	53.92	74.00	-20.08	peak

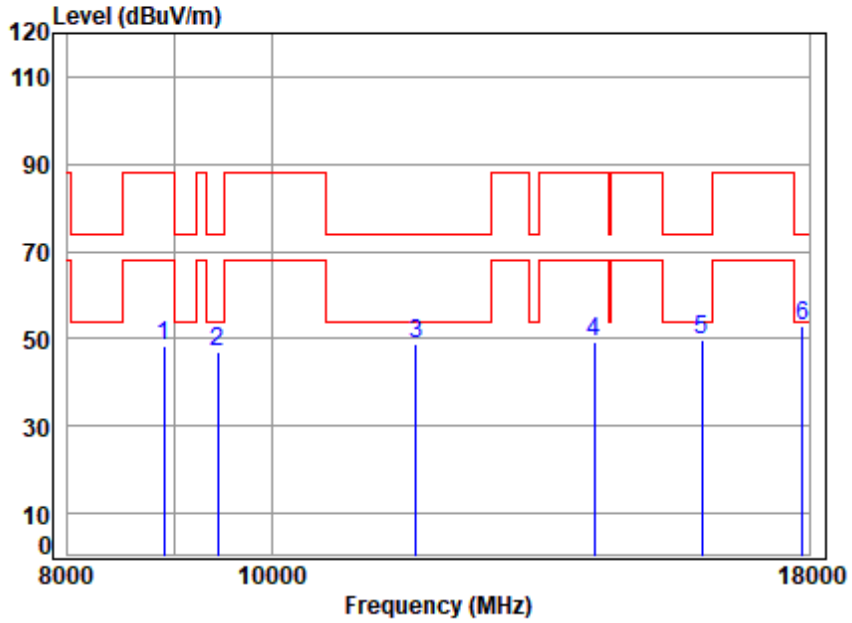
Test Mode: 26; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7115 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8344.561	11.96	38.61	55.59	52.14	47.12	74.00	-26.88	Peak
2	8846.278	12.52	38.50	55.14	52.10	47.98	88.20	-40.22	peak
3	10993.740	14.05	39.39	53.50	49.48	49.42	74.00	-24.58	Peak
4	13258.660	15.94	40.26	54.47	48.50	50.23	74.00	-23.77	Peak
5	14230.000	16.31	39.80	54.38	47.01	48.74	88.20	-39.46	peak
6	pp17869.110	19.22	42.91	54.47	45.47	53.13	74.00	-20.87	peak

Test Mode: 26; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 7115 TX SE
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	8889.426	12.58	38.58	55.10	52.13	48.19	88.20	-40.01	peak
2	9431.549	12.44	38.80	54.61	50.53	47.16	74.00	-26.84	Peak
3	11711.590	14.44	39.51	53.71	48.67	48.91	74.00	-25.09	Peak
4	14230.000	16.31	39.80	54.38	47.76	49.49	88.20	-38.71	peak
5	16016.150	17.29	38.58	54.00	47.83	49.70	74.00	-24.30	Peak
6	pp17869.110	19.22	42.91	54.47	45.49	53.15	74.00	-20.85	peak

7.5 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 (2013) Section 6.10.5
Measurement Distance: 3m

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
Above 1GHz	500	3

c. any emission outside the 5925-7125 MHz frequency band shall not exceed −27 dBm/MHz e.i.r.p. spectral density

d. the e.i.r.p. spectral density of unwanted emissions falling into the 5925-7125 MHz frequency band shall be attenuated below the reference spectral density by:

vii. 20dB at 1MHz away from the channel edges.

viii. a value, linearly interpolated in a dB scale, between 20 dB and 28 dB at frequencies between 1MHz outside of channel edges and 1 channel bandwidth away from the operating channel center, respectively

ix. 28dB at 1 channel bandwidth away from the operating channel center

x. a value, linearly interpolated in a dB scale, between 28 dB and 40 dB at frequencies between 1 channel bandwidth away from the operating channel center and 1.5 times the channel bandwidth away from the operating channel center, respectively

xi. 40dB at 1.5 times the channel bandwidth away from the operating channel center

xii. a minimum of 40 dB at frequencies that are further away than 1.5 times the channel bandwidth from the operating channel center.

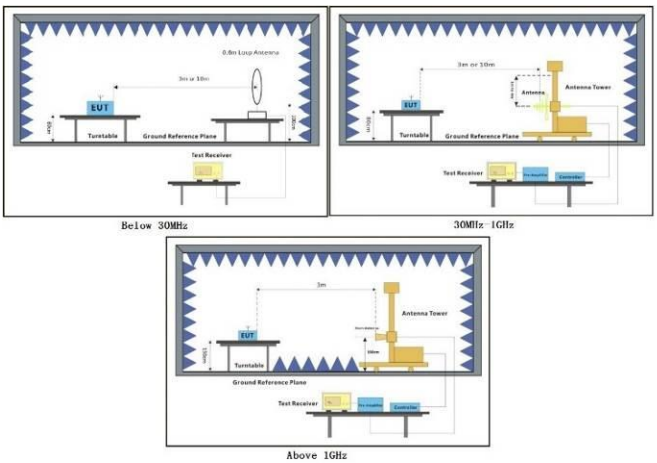
7.5.1 E.U.T. Operation

Operating Environment:
Temperature: 23.5 °C Humidity: 60.1 % RH Atmospheric Pressure: 1020 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	18	TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	19	TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	20	TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	21	TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	23	Charge + TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	24	Charge + TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Pre-scan	25	Charge + TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	26	Charge + TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

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

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

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

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

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

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

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

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

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

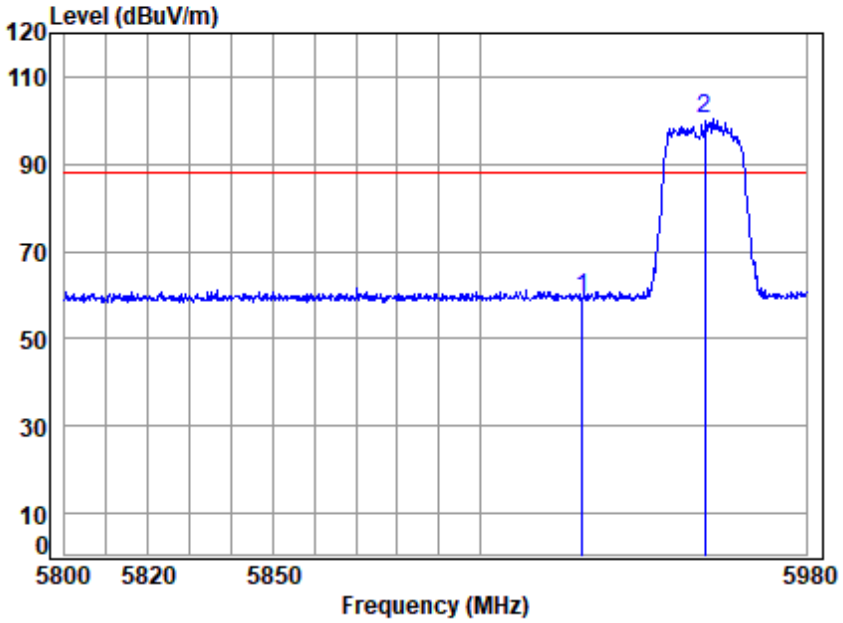
j. Repeat above procedures until all frequencies measured was complete.

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

Remark 2.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 ⩾1/T (Duty cycle＜98%) or 10Hz (Duty cycle⩾98%) for Average detection (AV) at frequency above 1GHz.

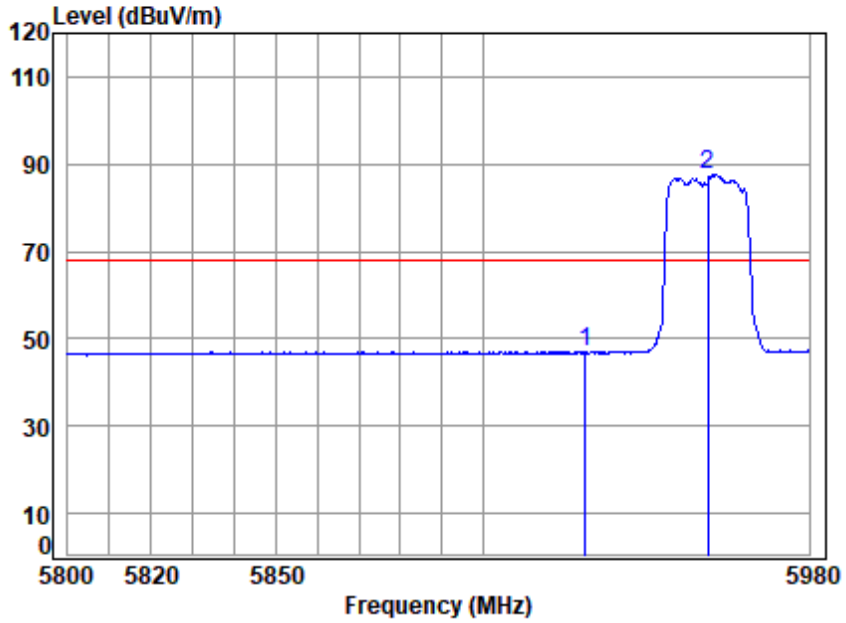
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5955 Band edge
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	45.60	59.49	88.20	-28.71	peak
2 pp	5955.000	10.85	33.62	30.52	86.36	100.31	88.20	12.11	peak

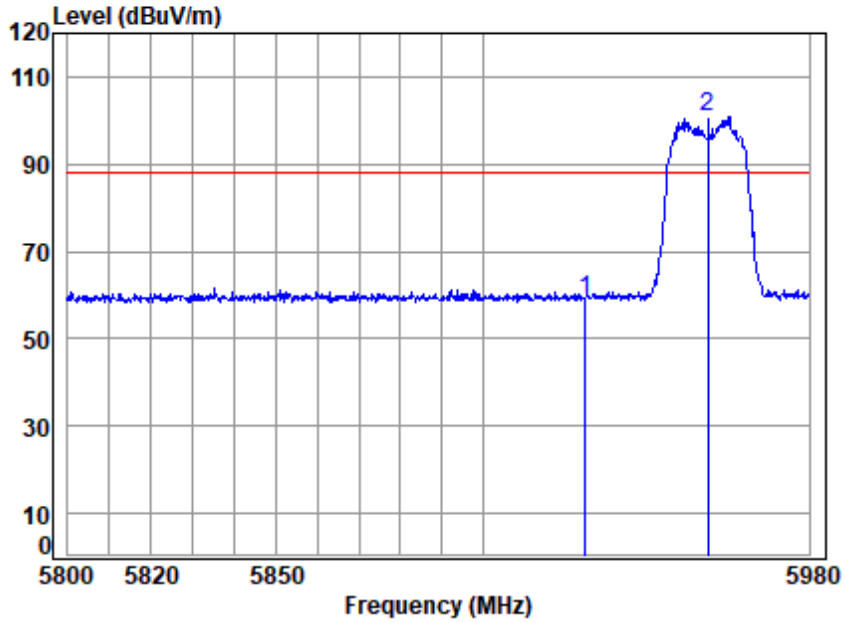
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5955 Band edge
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	32.99	46.88	68.20	-21.32	Average
2 pp	5955.000	10.85	33.62	30.52	73.66	87.61	68.20	19.41	Average

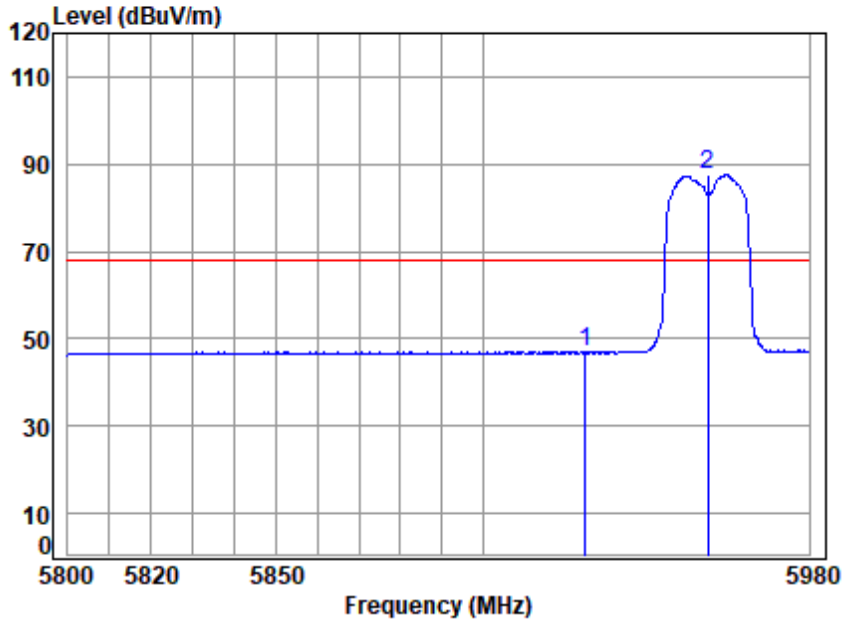
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5955 Band edge
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	45.14	59.03	88.20	-29.17	peak
2 pp	5955.000	10.85	33.62	30.52	86.83	100.78	88.20	12.58	peak

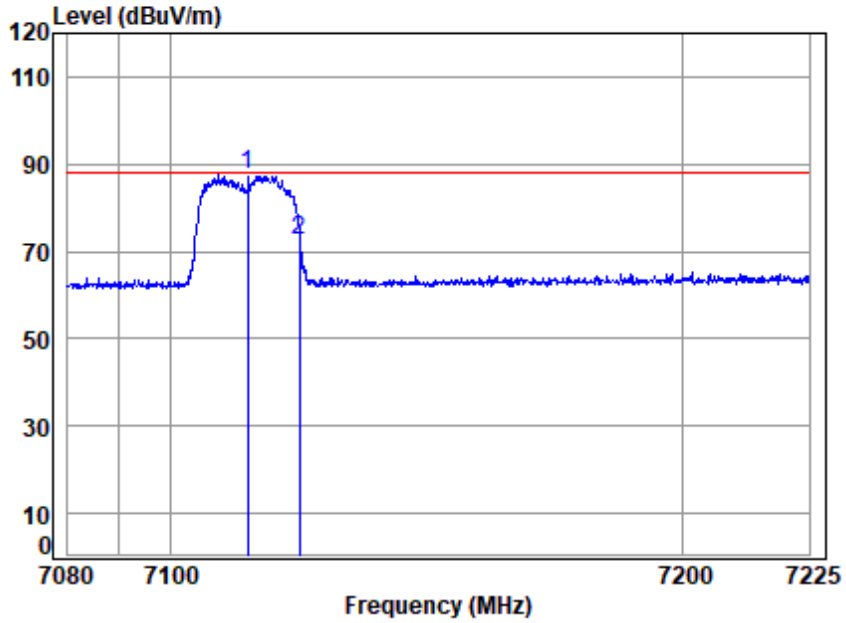
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5955 Band edge
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	33.01	46.90	68.20	-21.30	Average
2 pp	5955.000	10.85	33.62	30.52	73.84	87.79	68.20	19.59	Average

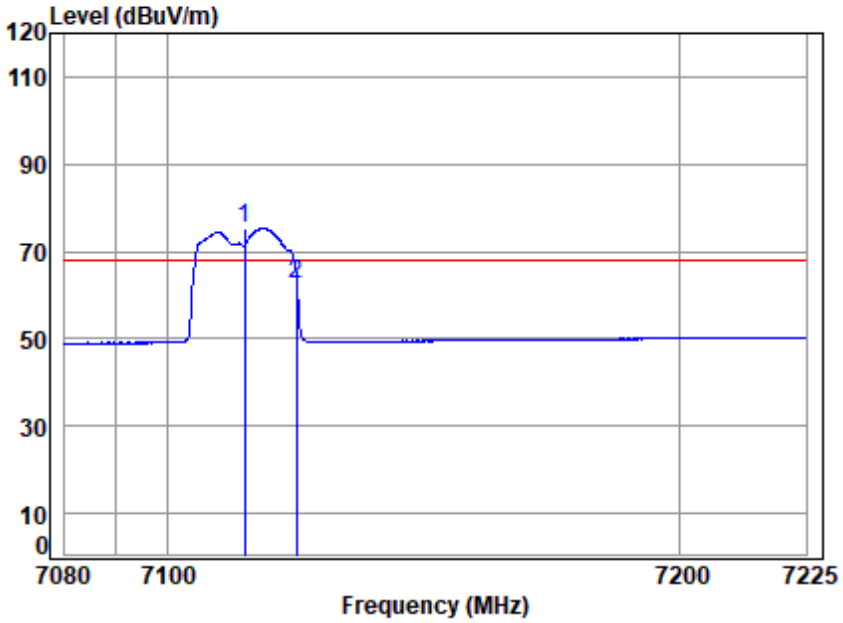
Test Mode: 26; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7115 Band edge
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7115.000	11.81	36.43	31.26	70.51	87.49	88.20	-0.71	peak
2	7125.000	11.82	36.45	31.26	55.70	72.71	88.20	-15.49	peak

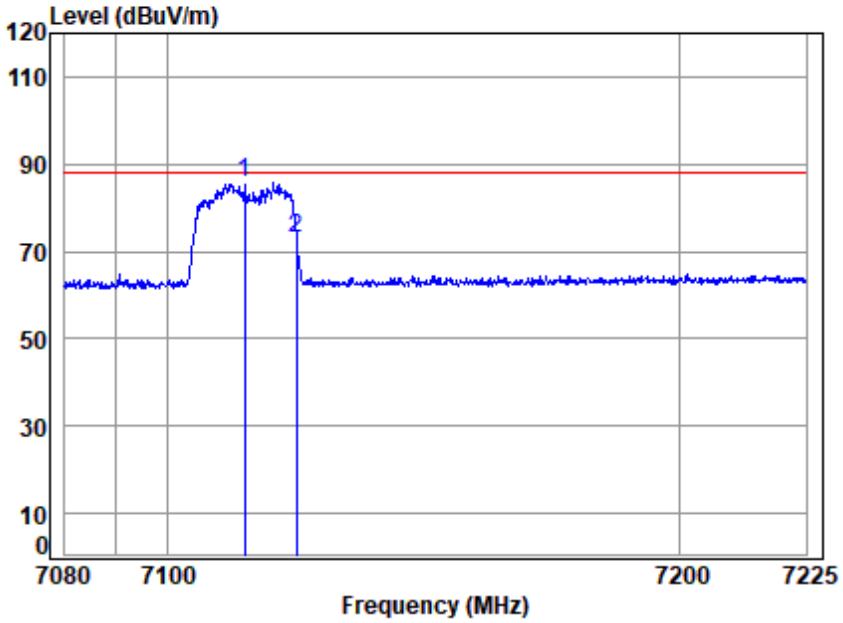
Test Mode: 26; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7115 Band edge
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7115.000	11.82	36.44	31.26	58.31	75.31	68.20	7.11	Average
2	7125.000	11.82	36.45	31.26	45.50	62.51	68.20	-5.69	Average

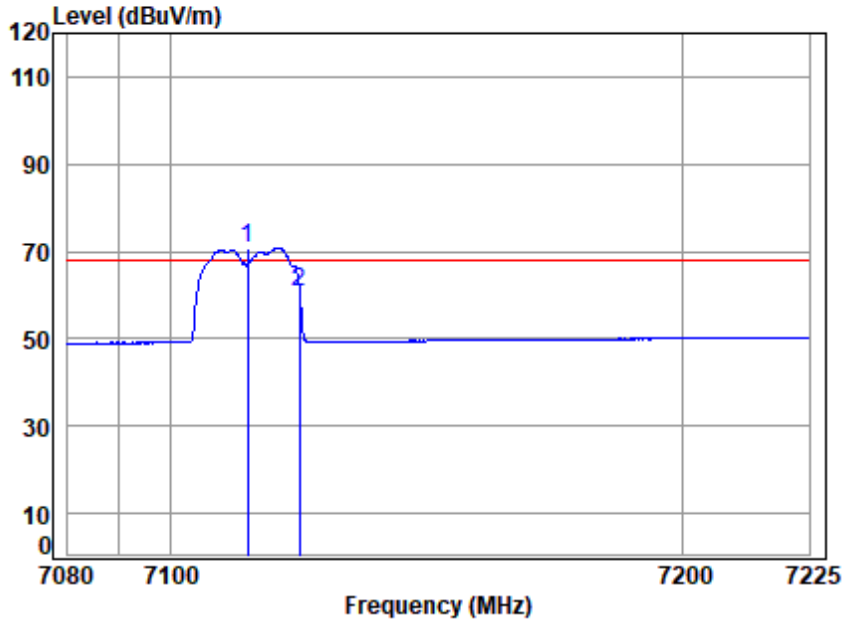
Test Mode: 26; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 7115 Band edge
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7115.000	11.81	36.43	31.26	68.60	85.58	88.20	-2.62	peak
2	7125.000	11.82	36.45	31.26	55.97	72.98	88.20	-15.22	peak

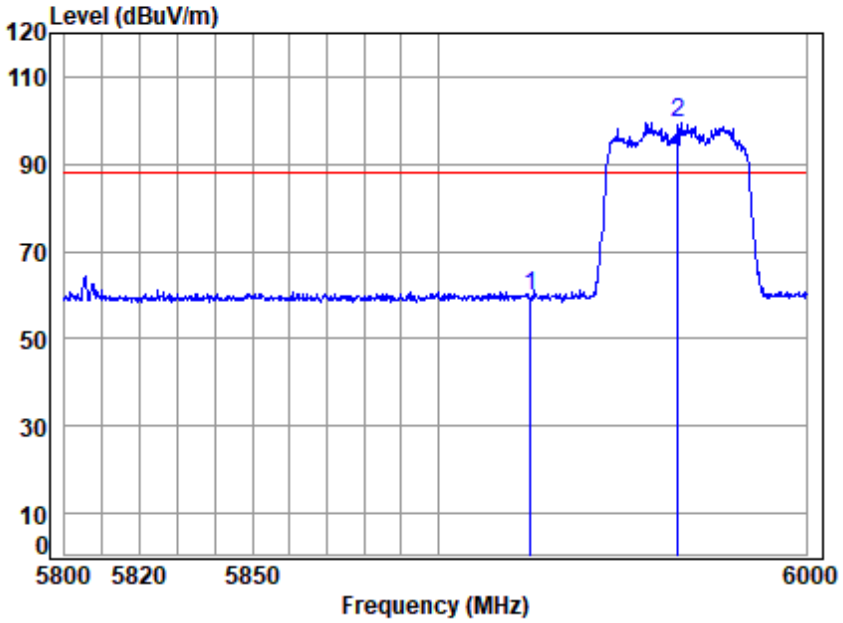
Test Mode: 26; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:20MHz; Channel:High



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 7115 Band edge
: WIFI 6E 11AX20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7115.000	11.82	36.44	31.26	53.91	70.91	68.20	2.71	Average
2	7125.000	11.82	36.45	31.26	43.54	60.55	68.20	-7.65	Average

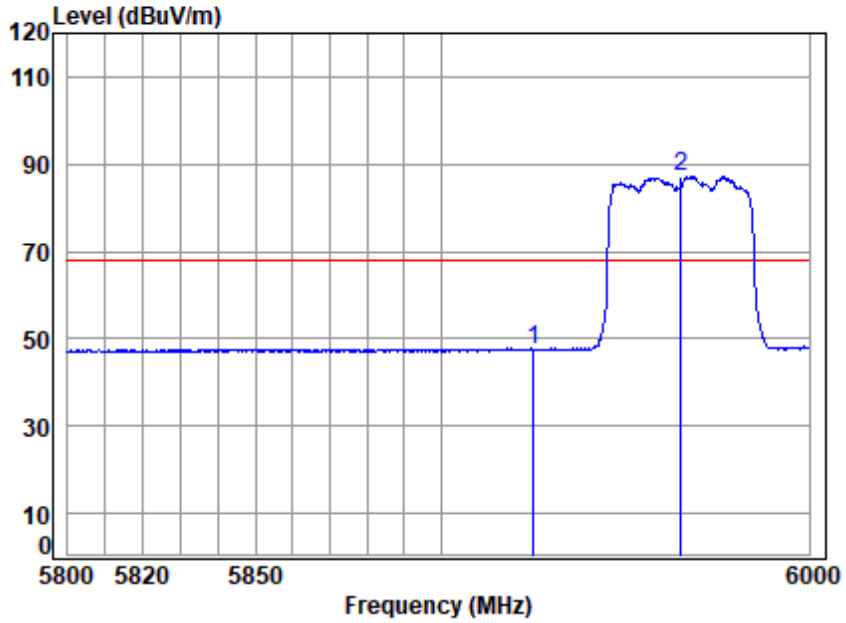
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5965 Band edge
: WIFI 6E 11AX40

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	45.68	59.57	88.20	-28.63	peak
2 pp	5965.000	10.84	33.66	30.51	85.55	99.54	88.20	11.34	peak

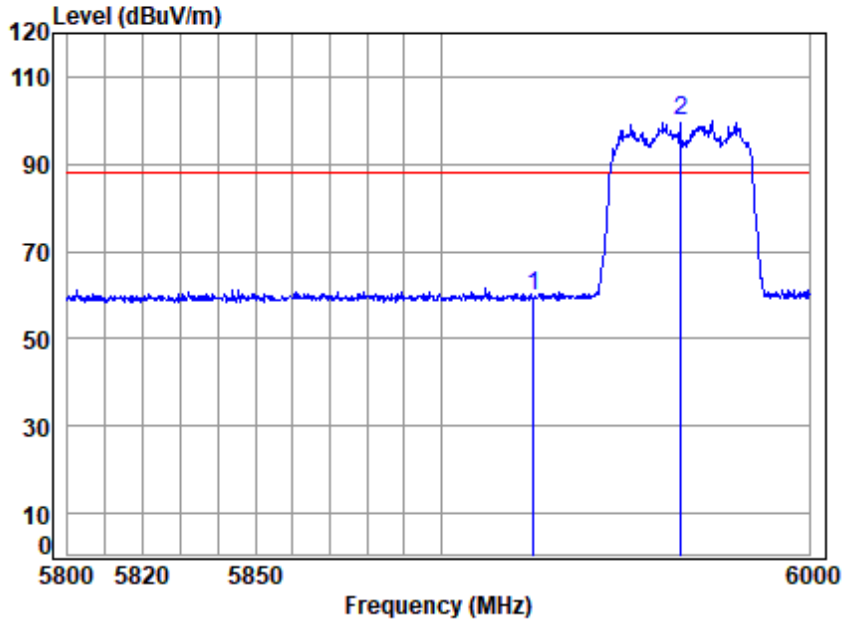
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5965 Band edge
: WIFI 6E 11AX40

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	33.52	47.41	68.20	-20.79	Average
2 pp	5965.000	10.84	33.66	30.51	73.09	87.08	68.20	18.88	Average

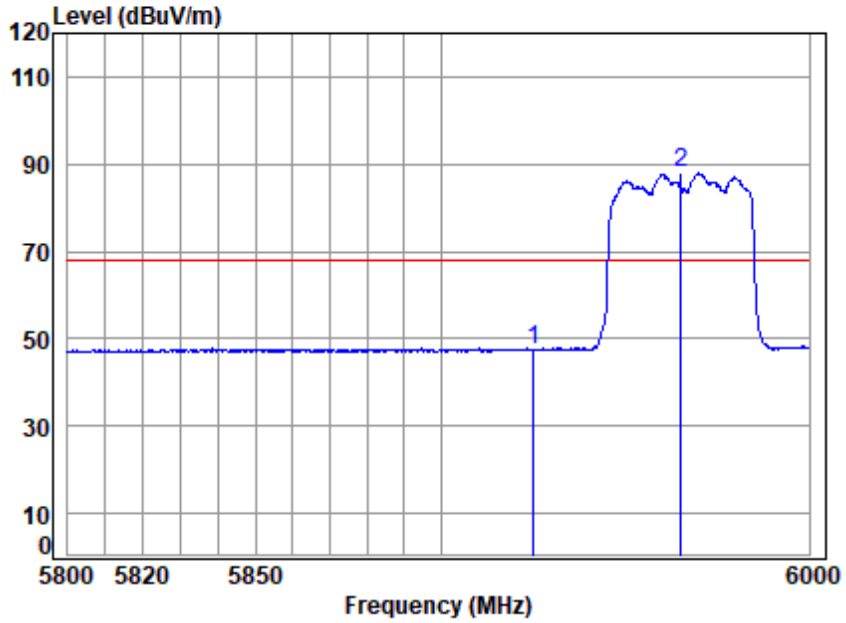
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5965 Band edge
: WIFI 6E 11AX40

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	45.87	59.76	88.20	-28.44	peak
2 pp	5965.000	10.84	33.66	30.51	85.89	99.88	88.20	11.68	peak

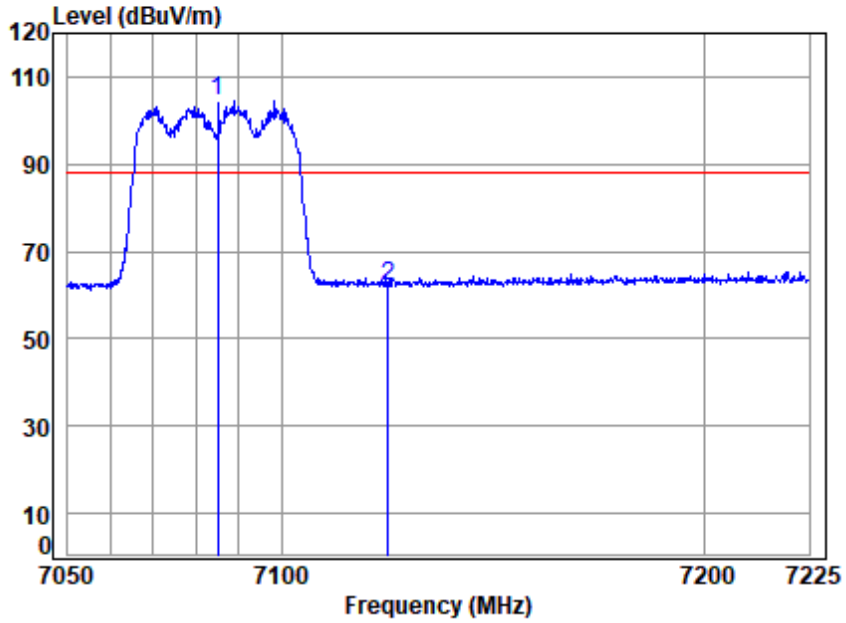
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5965 Band edge
: WIFI 6E 11AX40

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	33.48	47.37	68.20	-20.83	Average
2 pp	5965.000	10.84	33.66	30.51	73.90	87.89	68.20	19.69	Average

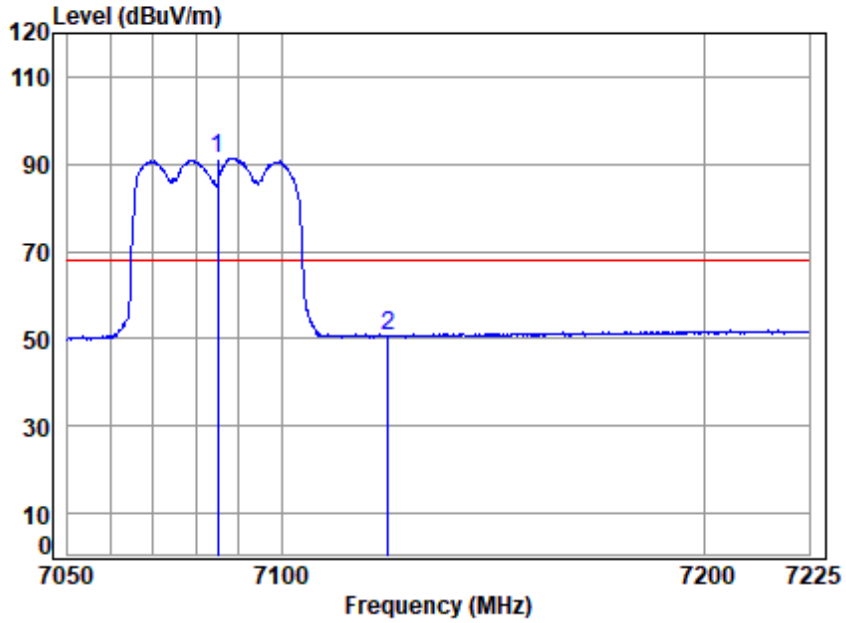
Test Mode: 26; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7085 Band edge
: WIFI 6E 11AX40

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7085.000	11.77	36.37	31.24	87.79	104.69	88.20	16.49	peak
2	7125.000	11.82	36.45	31.26	44.97	61.98	88.20	-26.22	peak

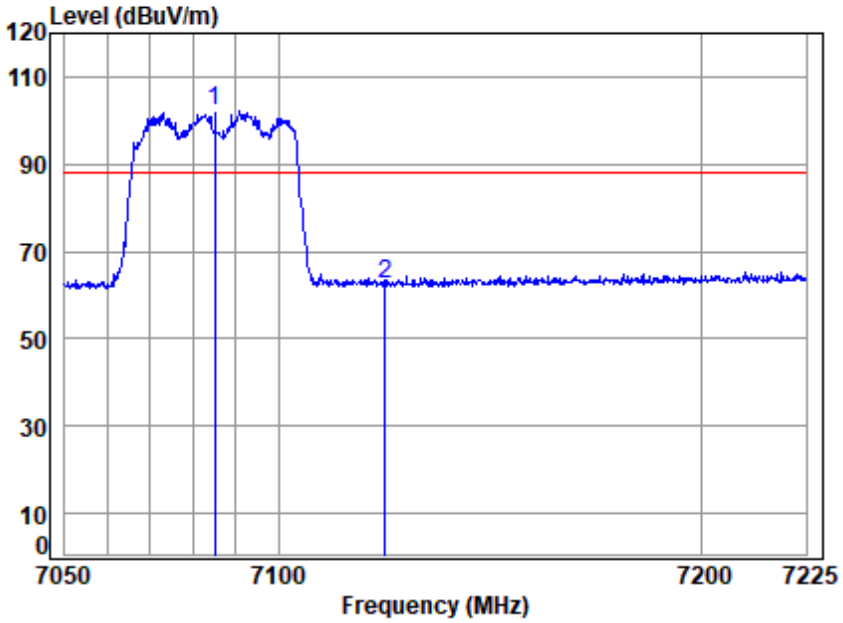
Test Mode: 26; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7085 Band edge
: WIFI 6E 11AX40

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7085.000	11.77	36.37	31.24	74.48	91.38	68.20	23.18	Average
2	7125.000	11.82	36.45	31.26	33.55	50.56	68.20	-17.64	Average

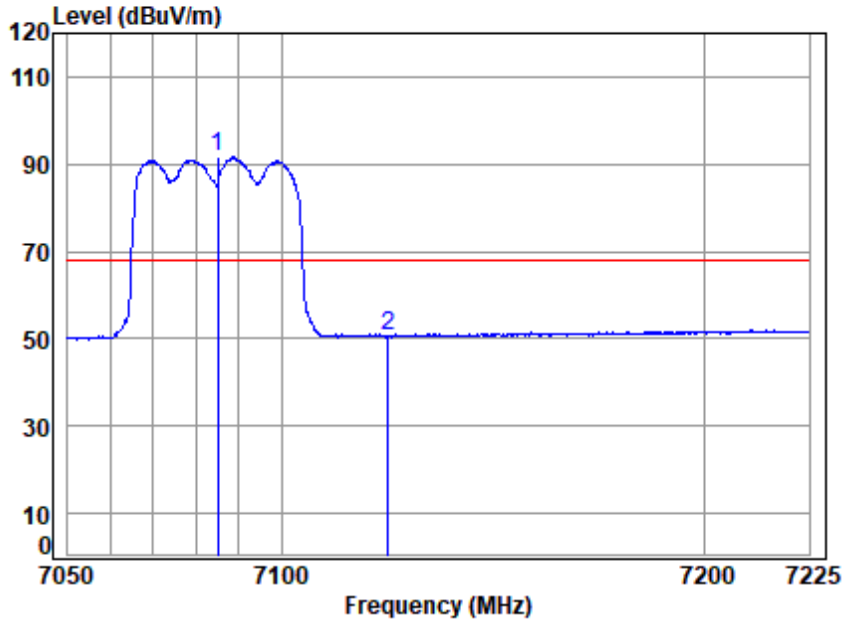
Test Mode: 26; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 7085 Band edge
: WIFI 6E 11AX40

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7085.000	11.77	36.37	31.24	85.51	102.41	88.20	14.21	peak
2	7125.000	11.82	36.45	31.26	45.43	62.44	88.20	-25.76	peak

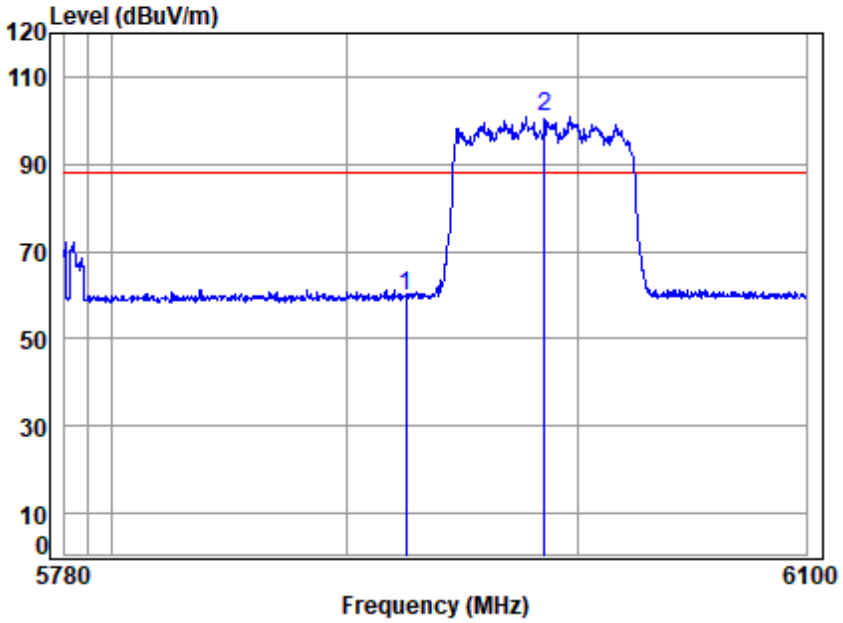
Test Mode: 26; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:40MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7085 Band edge
: WIFI 6E 11AX40

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7085.000	11.77	36.37	31.24	74.79	91.69	68.20	23.49	Average
2	7125.000	11.82	36.45	31.26	33.45	50.46	68.20	-17.74	Average

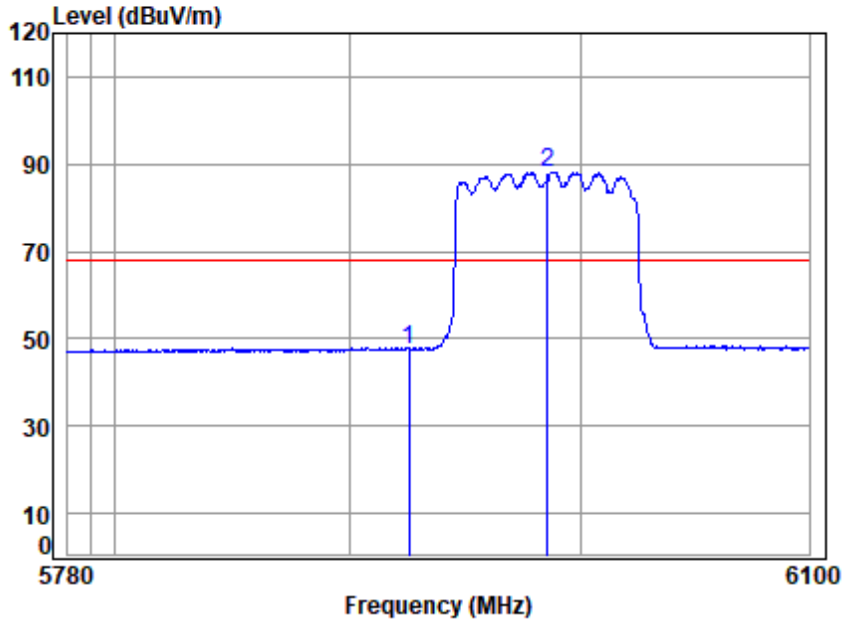
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5985 Band edge
: WIFI 6E 11AX80

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	46.02	59.91	88.20	-28.29	peak
2 pp	5985.000	10.82	33.74	30.51	86.98	101.03	88.20	12.83	peak

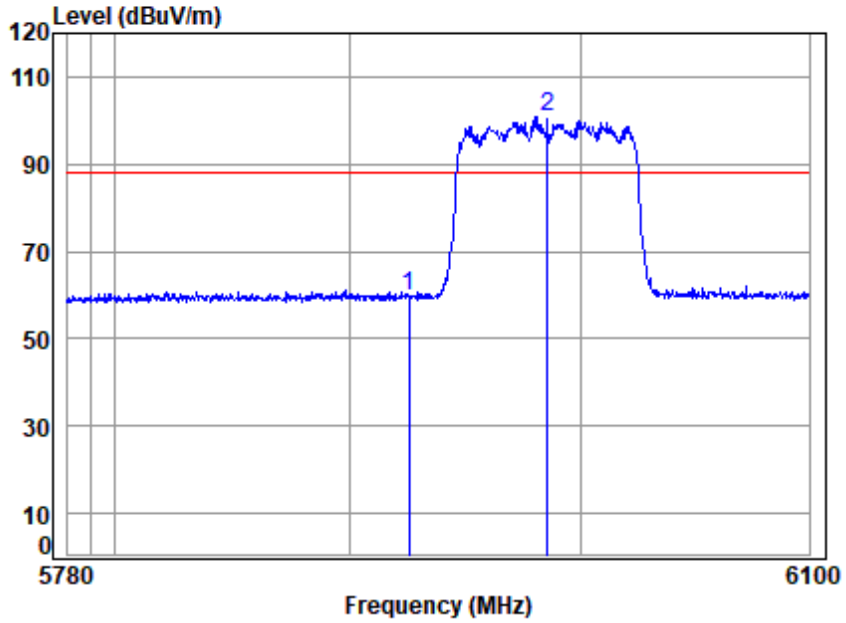
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5985 Band edge
: WIFI 6E 11AX80

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	33.78	47.67	68.20	-20.53	Average
2 pp	5985.000	10.82	33.74	30.51	74.11	88.16	68.20	19.96	Average

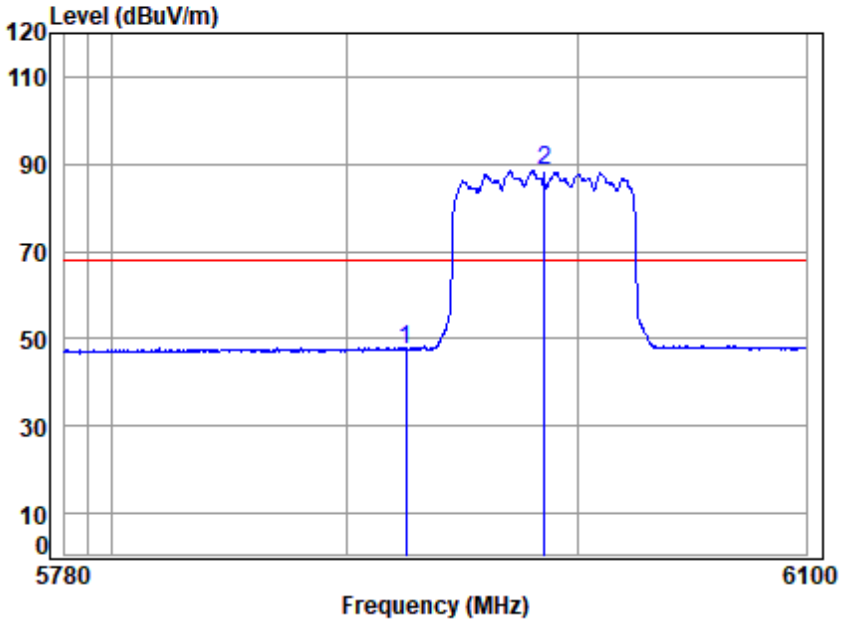
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5985 Band edge
: WIFI 6E 11AX80

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	45.81	59.70	88.20	-28.50	peak
2 pp	5985.000	10.82	33.74	30.51	86.72	100.77	88.20	12.57	peak

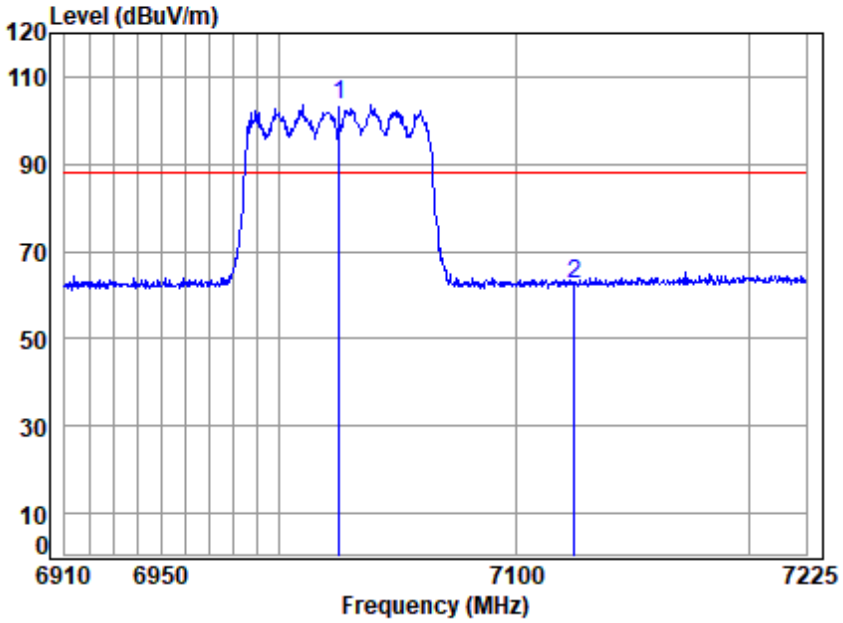
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5985 Band edge
: WIFI 6E 11AX80

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	33.64	47.53	68.20	-20.67	Average
2 pp	5985.000	10.82	33.74	30.51	74.64	88.69	68.20	20.49	Average

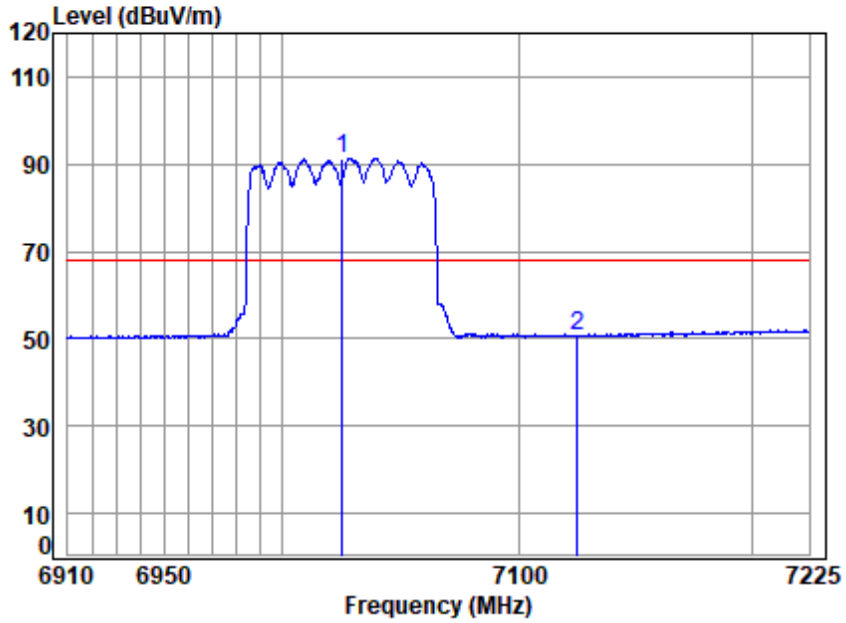
Test Mode: 26; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7025 Band edge
: WIFI 6E 11AX80

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7025.000	11.64	36.25	31.21	87.07	103.75	88.20	15.55	peak
2	7125.000	11.82	36.45	31.26	45.58	62.59	88.20	-25.61	peak

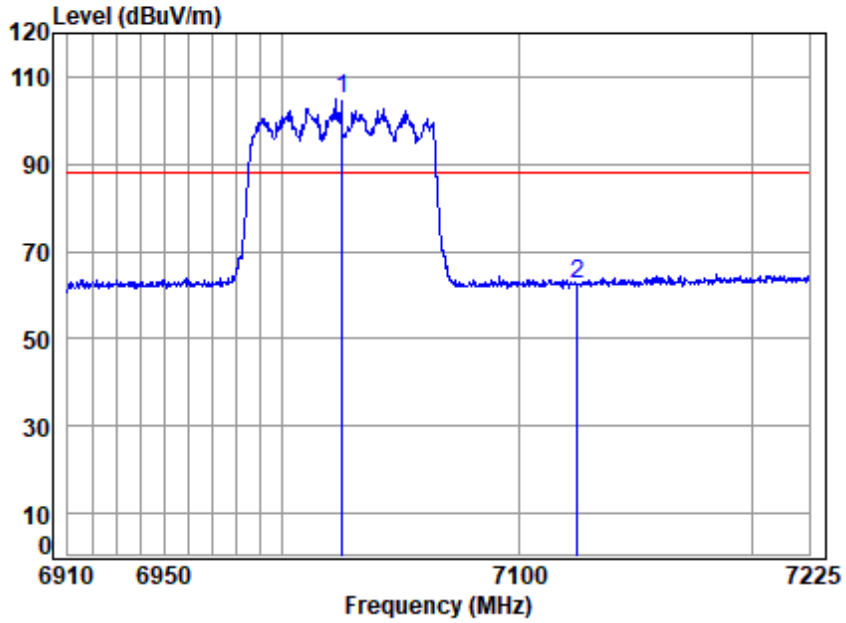
Test Mode: 26; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7025 Band edge
: WIFI 6E 11AX80

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7025.000	11.64	36.25	31.21	74.68	91.36	68.20	23.16	Average
2	7125.000	11.82	36.45	31.26	33.68	50.69	68.20	-17.51	Average

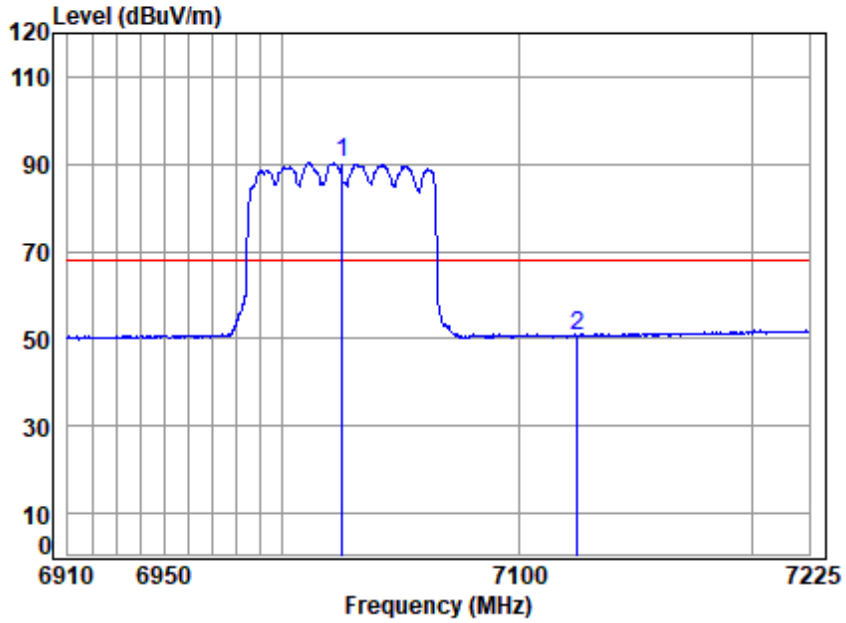
Test Mode: 26; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:High



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 7025 Band edge
: WIFI 6E 11AX80

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7025.000	11.64	36.25	31.21	88.05	104.73	88.20	16.53	peak
2	7125.000	11.82	36.45	31.26	45.69	62.70	88.20	-25.50	peak

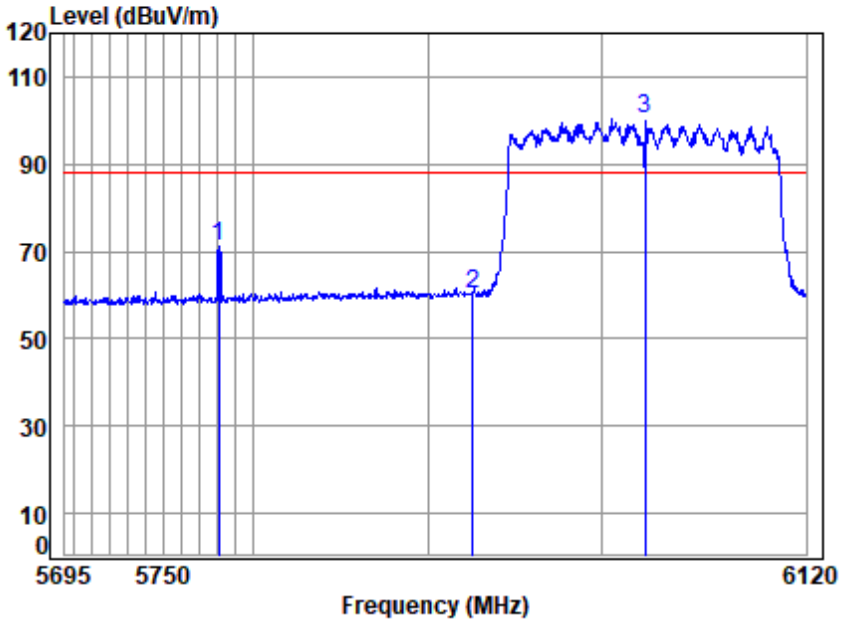
Test Mode: 26; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:80MHz; Channel:High



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 7025 Band edge
: WIFI 6E 11AX80

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	pp 7025.000	11.64	36.25	31.21	73.70	90.38	68.20	22.18	Average
2	7125.000	11.82	36.45	31.26	33.67	50.68	68.20	-17.52	Average

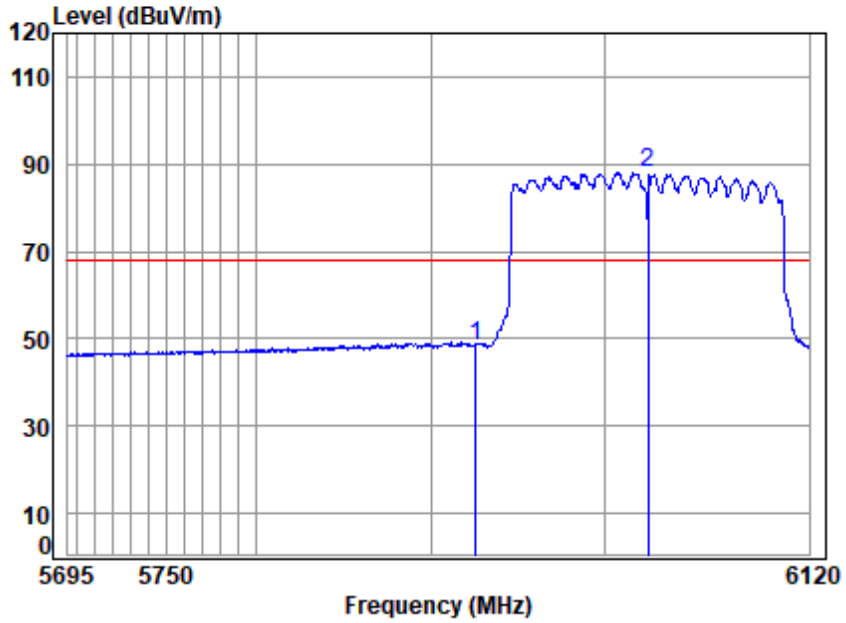
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:160MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6025 Band edge
: WIFI 6E 11AX160

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5780.898	10.93	33.36	30.59	57.39	71.09	88.20	-17.11	Peak
2	5925.000	10.87	33.55	30.53	46.51	60.40	88.20	-27.80	peak
3 pp	6025.000	10.82	33.85	30.52	86.05	100.20	88.20	12.00	peak

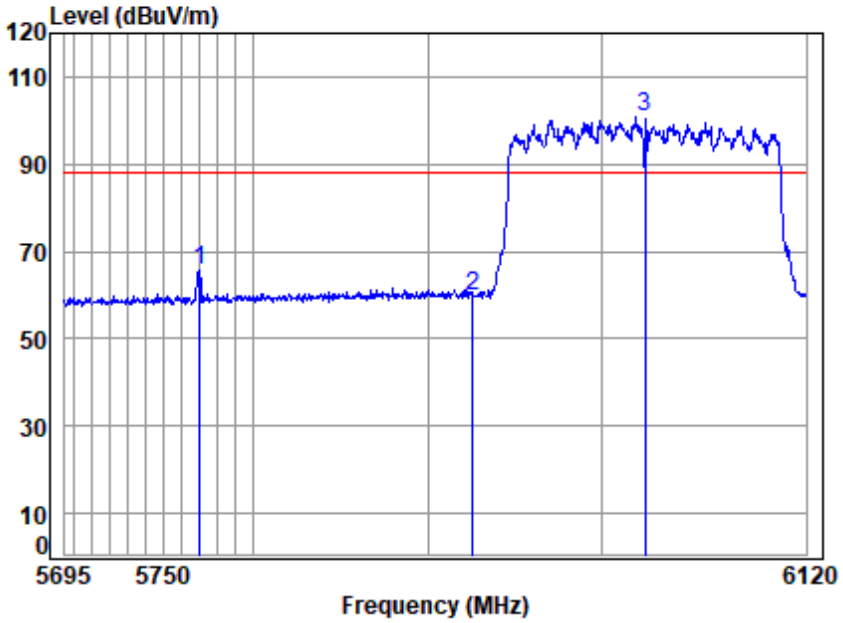
Test Mode: 23; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:160MHz; Channel:Low



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6025 Band edge
: WIFI 6E 11AX160

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	34.65	48.54	68.20	-19.66	Average
2 pp	6025.000	10.82	33.85	30.52	73.93	88.08	68.20	19.88	Average

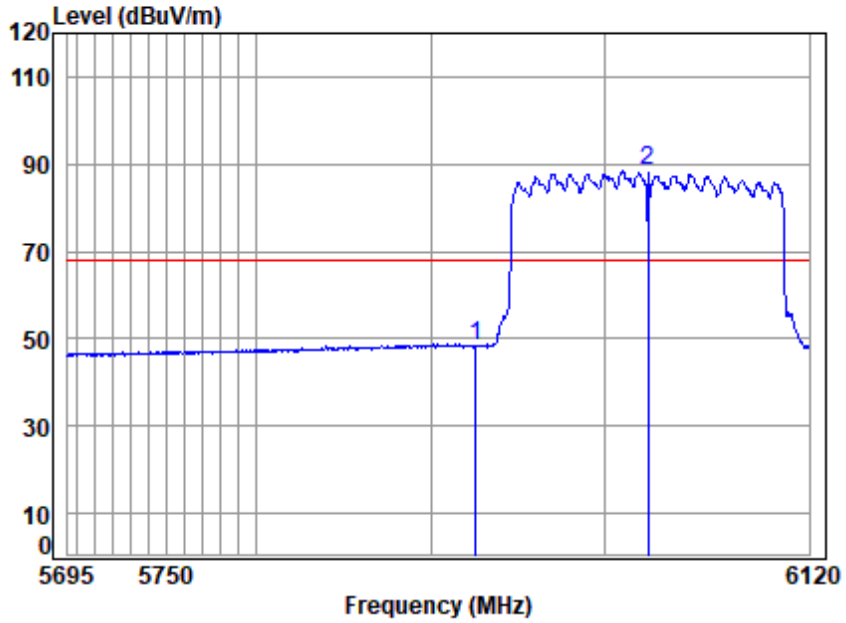
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:160MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6025 Band edge
: WIFI 6E 11AX160

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5770.090	10.88	33.34	30.59	51.86	65.49	88.20	-22.71	Peak
2	5925.000	10.87	33.55	30.53	46.03	59.92	88.20	-28.28	peak
3 pp	6025.000	10.82	33.85	30.52	86.58	100.73	88.20	12.53	peak

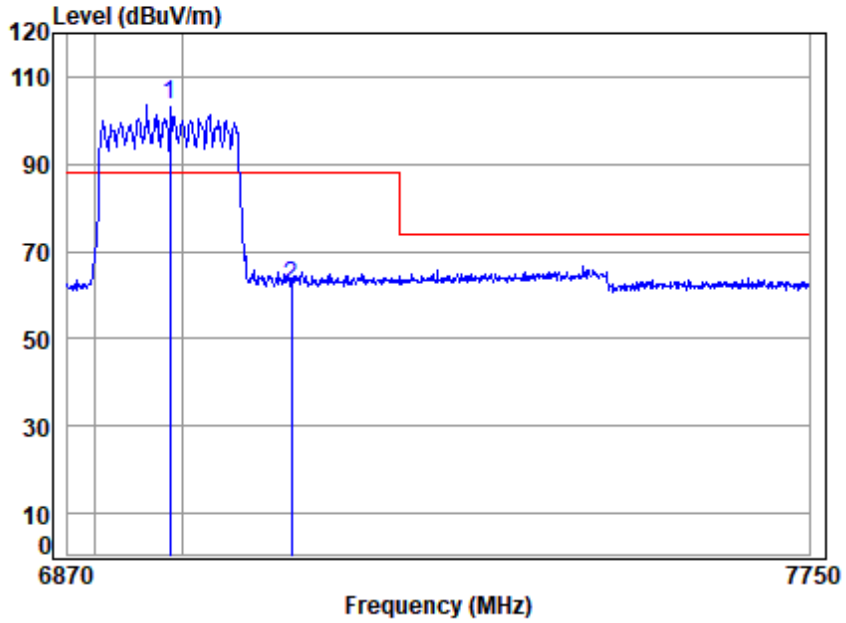
Test Mode: 23; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:160MHz; Channel:Low



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6025 Band edge
: WIFI 6E 11AX160

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	34.70	48.59	68.20	-19.61	Average
2 pp	6025.000	10.82	33.85	30.52	74.16	88.31	68.20	20.11	Average

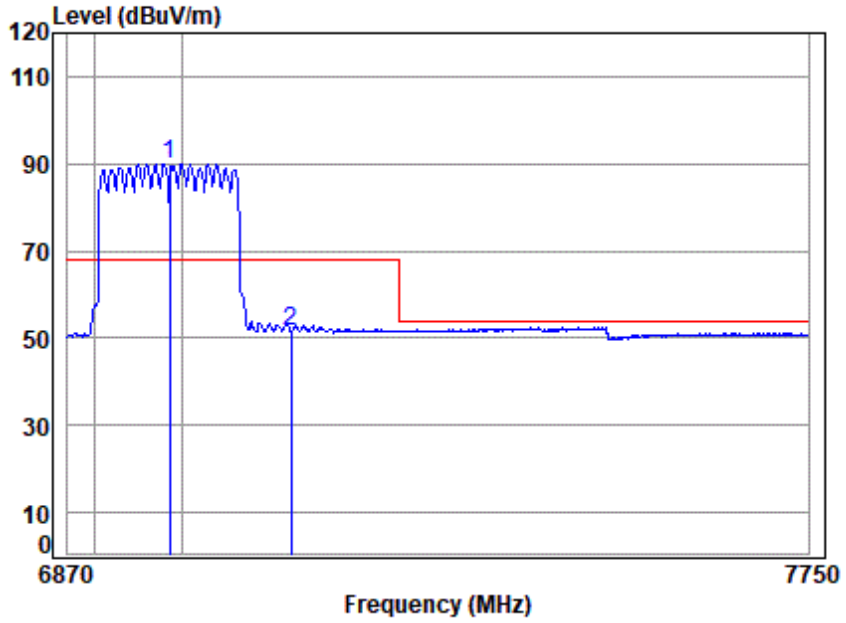
Test Mode: 26; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:160MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6985 Band edge
: WIFI 6E 11AX160

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	6985.000	11.57	36.17	31.19	86.80	103.35	88.20	15.15	peak
2	7125.000	11.82	36.45	31.26	45.21	62.22	88.20	-25.98	peak

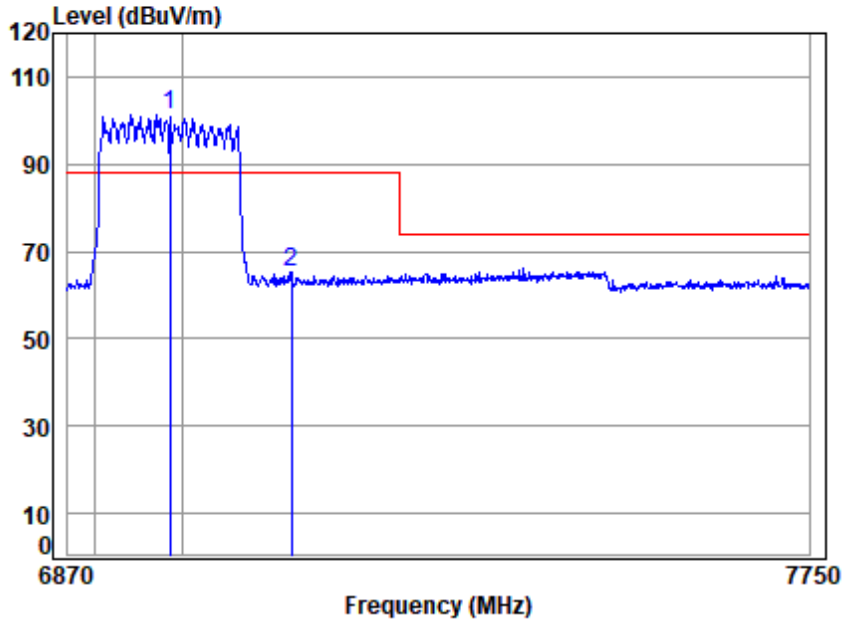
Test Mode: 26; Polarity: Horizontal; Modulation:802.11ax(Full RU0); Bandwidth:160MHz; Channel:High



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6985 Band edge
: WIFI 6E 11AX160

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	6985.000	11.57	36.17	31.19	73.53	90.08	68.20	21.88	Average
2	7125.000	11.82	36.45	31.26	34.68	51.69	68.20	-16.51	Average

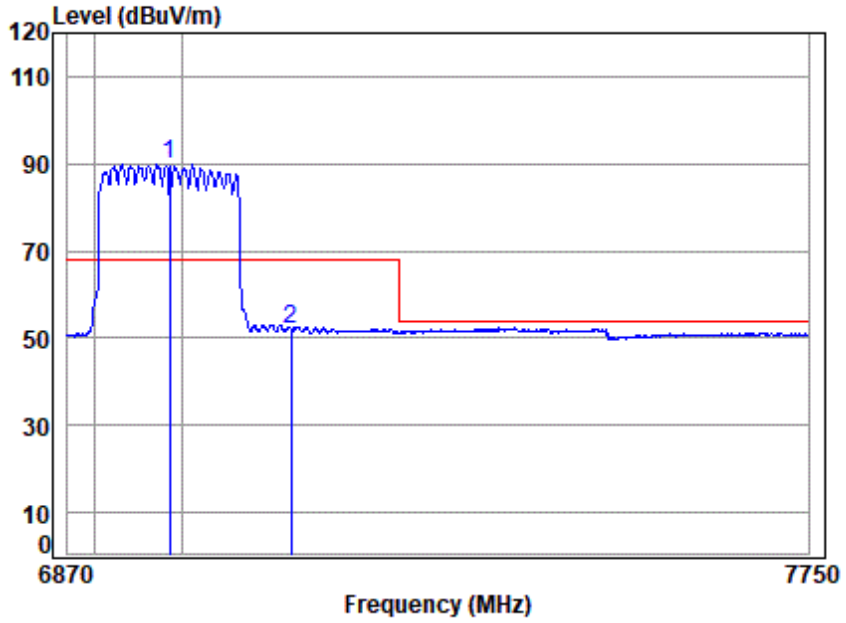
Test Mode: 26; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:160MHz; Channel:High



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6985 Band edge
: WIFI 6E 11AX160

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	6985.000	11.57	36.17	31.19	84.83	101.38	88.20	13.18	peak
2	7125.000	11.82	36.45	31.26	48.05	65.06	88.20	-23.14	peak

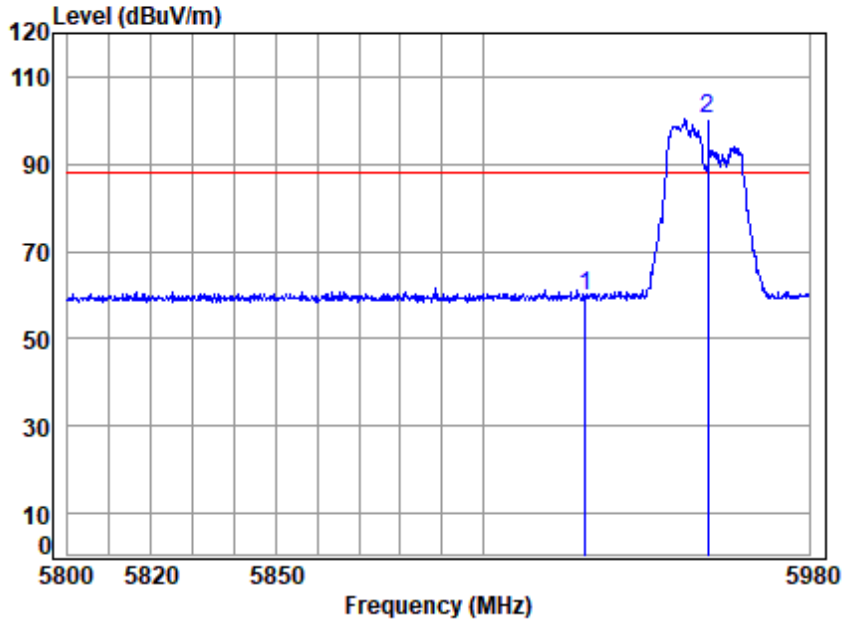
Test Mode: 26; Polarity: Vertical; Modulation:802.11ax(Full RU0); Bandwidth:160MHz; Channel:High



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6985 Band edge
: WIFI 6E 11AX160

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	6985.000	11.57	36.17	31.19	73.38	89.93	68.20	21.73	Average
2	7125.000	11.82	36.45	31.26	34.90	51.91	68.20	-16.29	Average

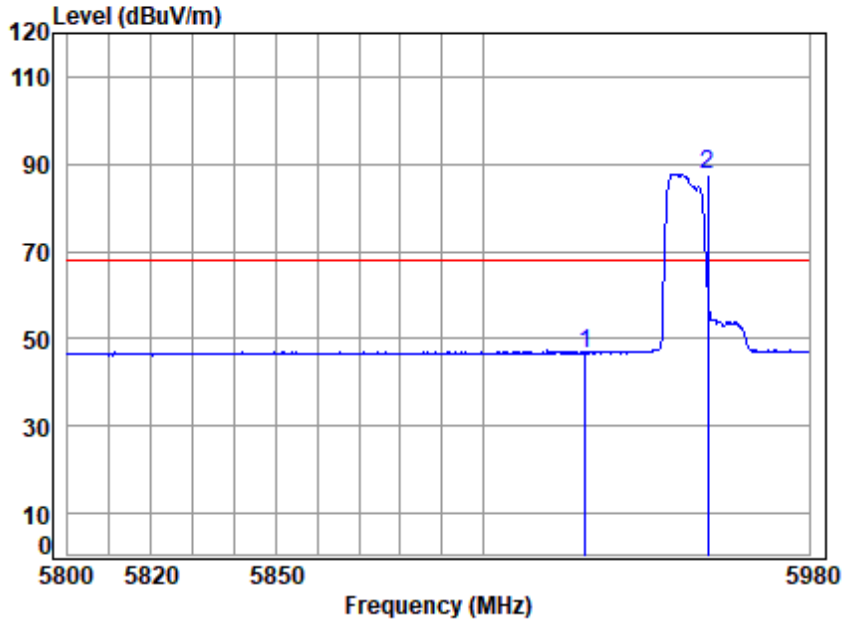
Test Mode: 23; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5955 Band edge
: WIFI 6E 11AX20 RU106

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	45.82	59.71	88.20	-28.49	peak
2 pp	5955.000	10.85	33.62	30.52	86.38	100.33	88.20	12.13	peak

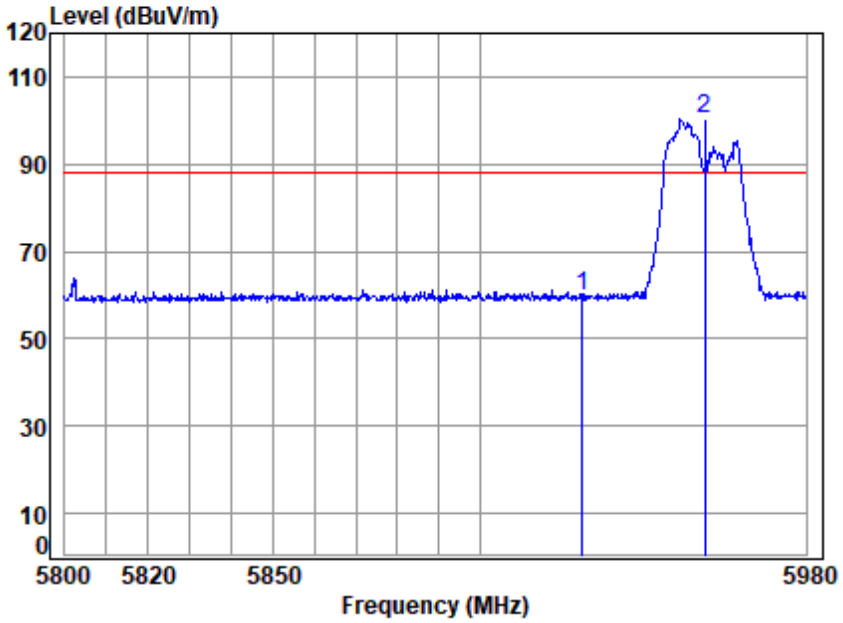
Test Mode: 23; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5955 Band edge
: WIFI 6E 11AX20 RU106

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	32.83	46.72	68.20	-21.48	Average
2 pp	5955.000	10.85	33.62	30.52	73.81	87.76	68.20	19.56	Average

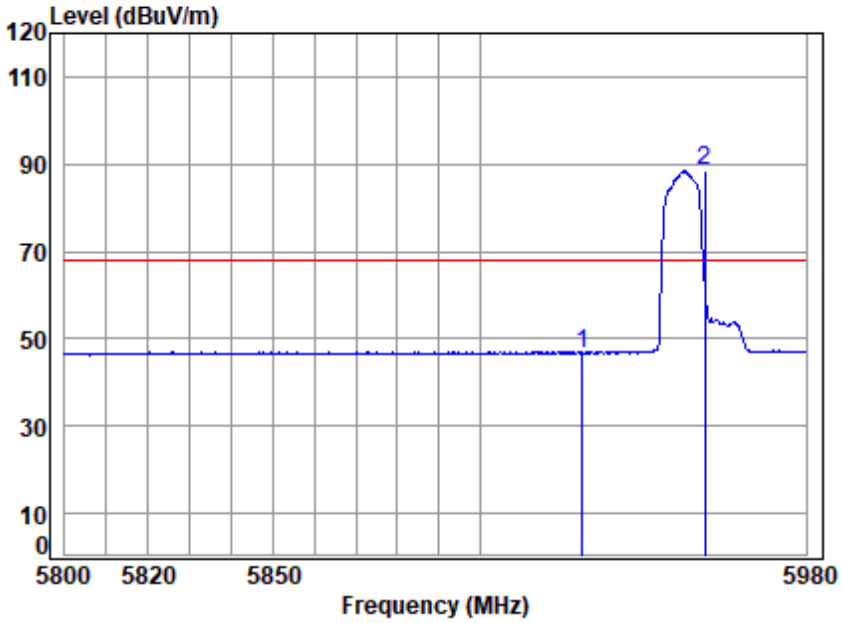
Test Mode: 23; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5955 Band edge
: WIFI 6E 11AX20 RU106

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	45.89	59.78	88.20	-28.42	peak
2 pp	5955.000	10.85	33.62	30.52	86.32	100.27	88.20	12.07	peak

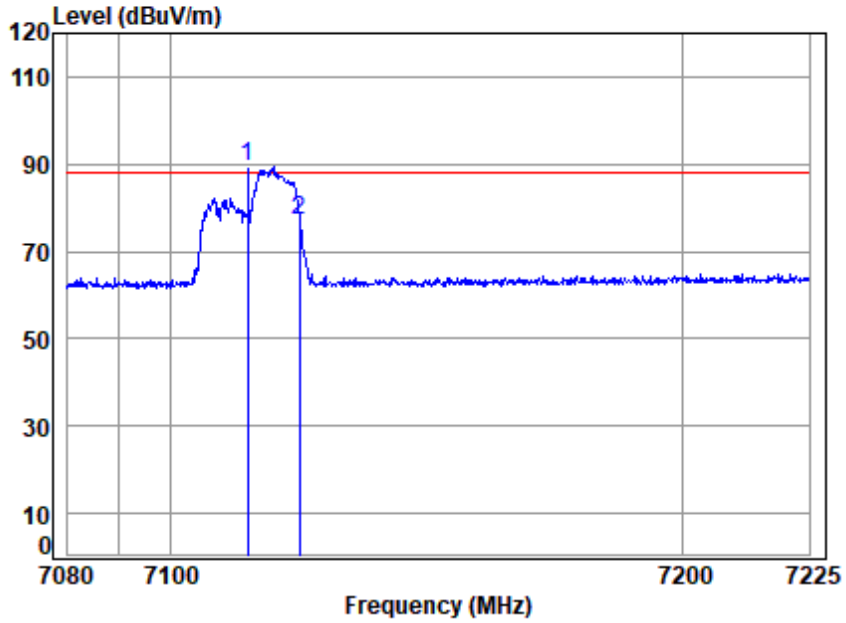
Test Mode: 23; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5955 Band edge
: WIFI 6E 11AX20 RU106

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	32.81	46.70	68.20	-21.50	Average
2 pp	5955.000	10.85	33.62	30.52	74.48	88.43	68.20	20.23	Average

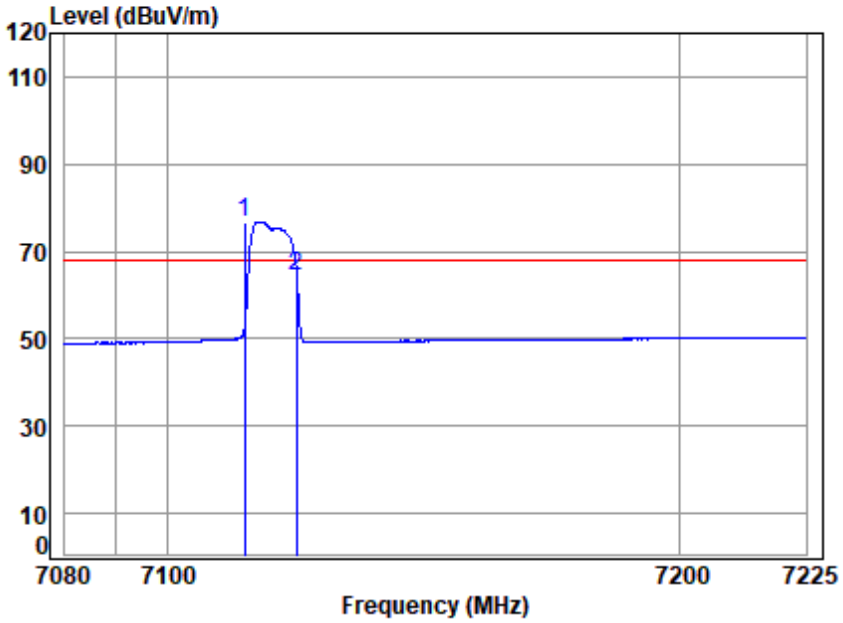
Test Mode: 26; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7115 Band edge
: WIFI 6E 11AX20 RU106

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7115.000	11.81	36.43	31.26	72.28	89.26	88.20	1.06	peak
2	7125.000	11.82	36.45	31.26	59.92	76.93	88.20	-11.27	peak

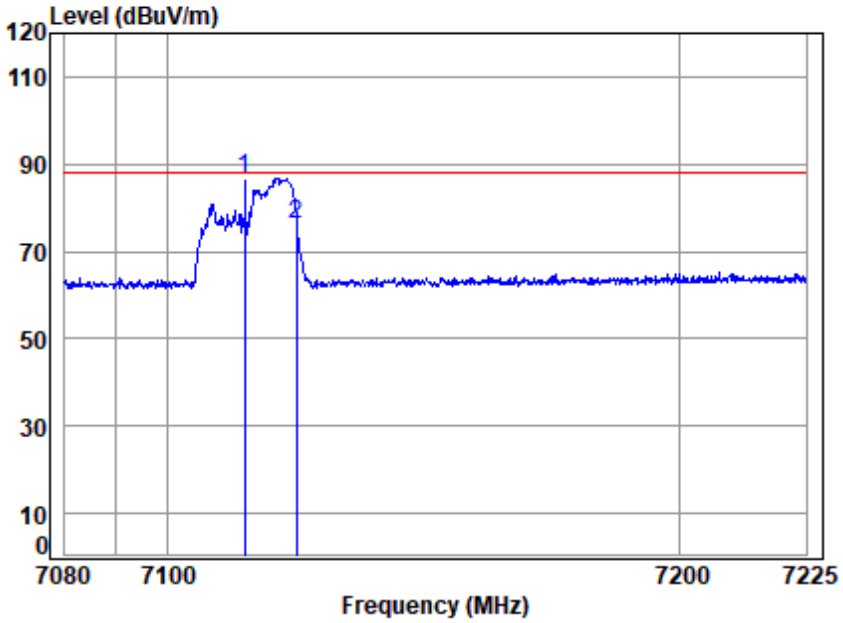
Test Mode: 26; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7115 Band edge
: WIFI 6E 11AX20 RU106

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7115.000	11.82	36.44	31.26	59.75	76.75	68.20	8.55	Average
2	7125.000	11.82	36.45	31.26	47.24	64.25	68.20	-3.95	Average

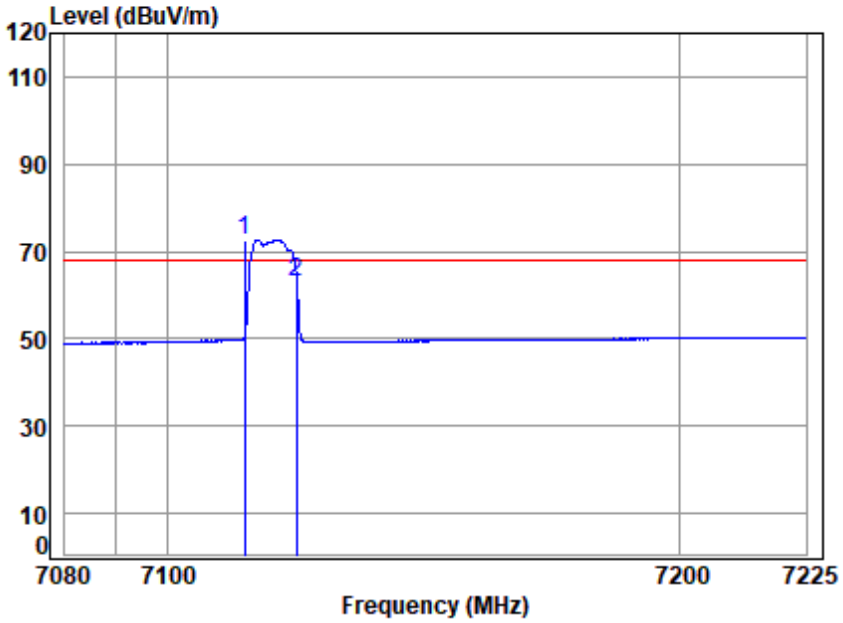
Test Mode: 26; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 7115 Band edge
: WIFI 6E 11AX20 RU106

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7115.000	11.81	36.43	31.26	69.85	86.83	88.20	-1.37	peak
2	7125.000	11.82	36.45	31.26	59.27	76.28	88.20	-11.92	peak

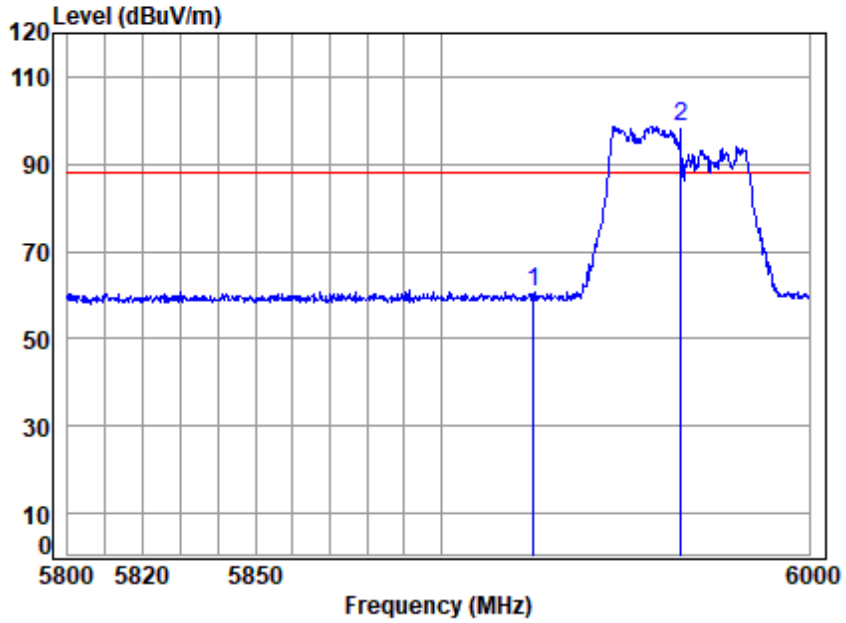
Test Mode: 26; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 7115 Band edge
: WIFI 6E 11AX20 RU106

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7115.000	11.82	36.43	31.26	55.62	72.61	68.20	4.41	Average
2	7125.000	11.82	36.45	31.26	45.86	62.87	68.20	-5.33	Average

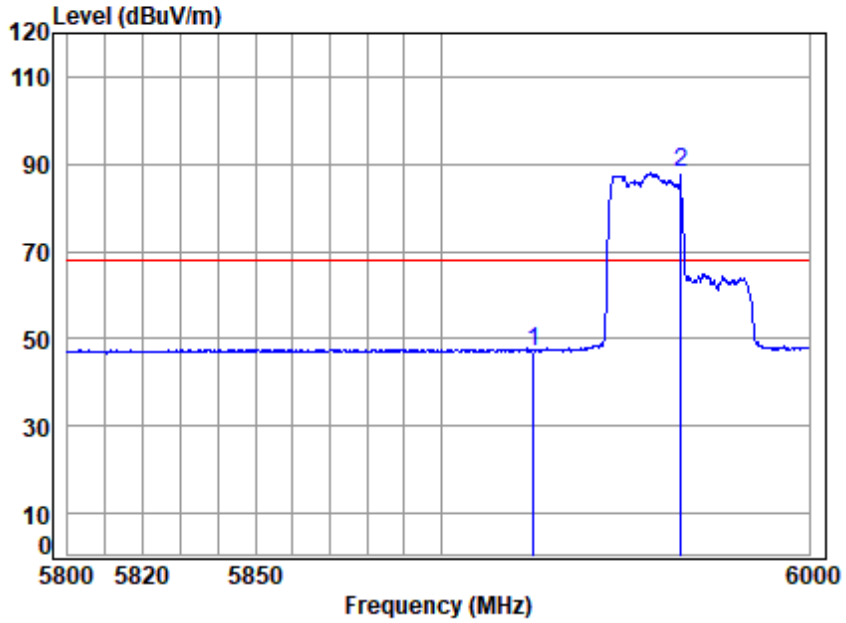
Test Mode: 23; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5965 Band edge
: WIFI 6E 11AX40 RU242

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	47.01	60.90	88.20	-27.30	peak
2 pp	5965.000	10.84	33.66	30.51	84.72	98.71	88.20	10.51	peak

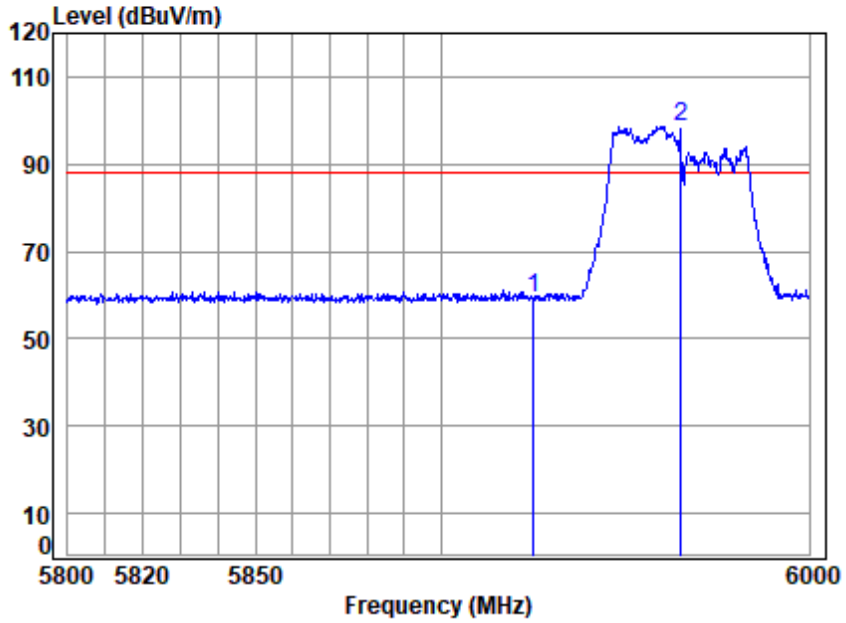
Test Mode: 23; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5965 Band edge
: WIFI 6E 11AX40 RU242

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	33.30	47.19	68.20	-21.01	Average
2 pp	5965.000	10.84	33.66	30.51	74.03	88.02	68.20	19.82	Average

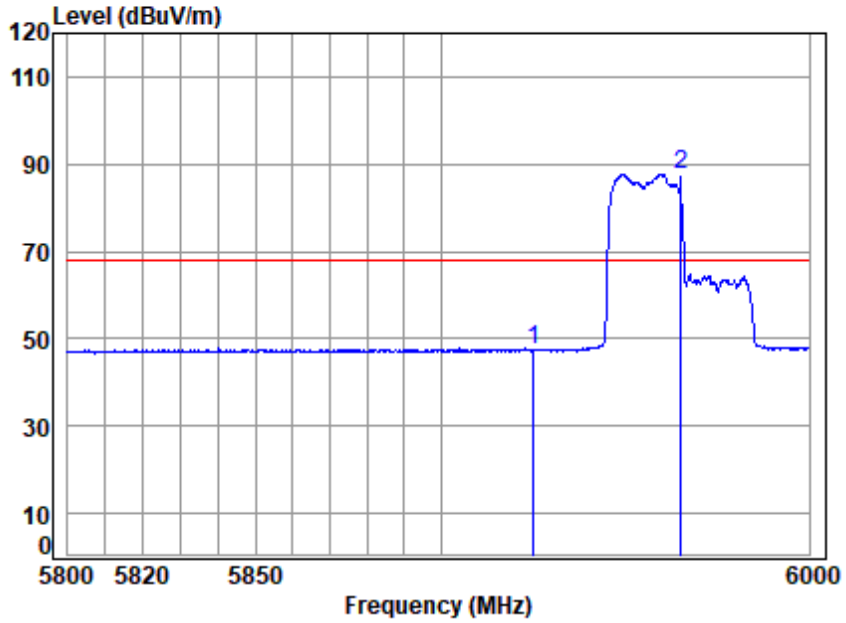
Test Mode: 23; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5965 Band edge
: WIFI 6E 11AX40 RU242

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	45.40	59.29	88.20	-28.91	peak
2 pp	5965.000	10.84	33.66	30.51	84.67	98.66	88.20	10.46	peak

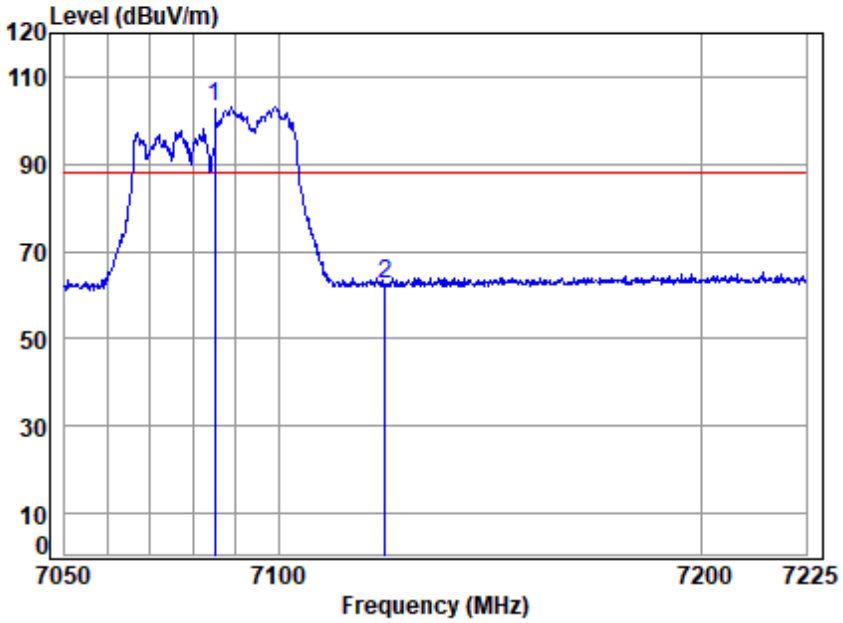
Test Mode: 23; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5965 Band edge
: WIFI 6E 11AX40 RU242

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	33.42	47.31	68.20	-20.89	Average
2 pp	5965.000	10.84	33.66	30.51	73.80	87.79	68.20	19.59	Average

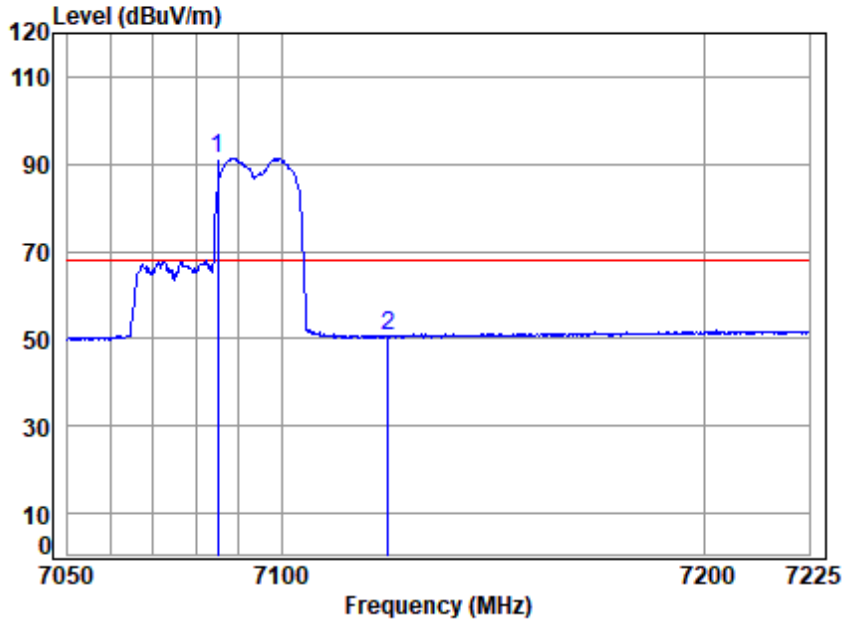
Test Mode: 26; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7085 Band edge
: WIFI 6E 11AX40 RU242

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7085.000	11.77	36.37	31.24	86.30	103.20	88.20	15.00	peak
2	7125.000	11.82	36.45	31.26	45.71	62.72	88.20	-25.48	peak

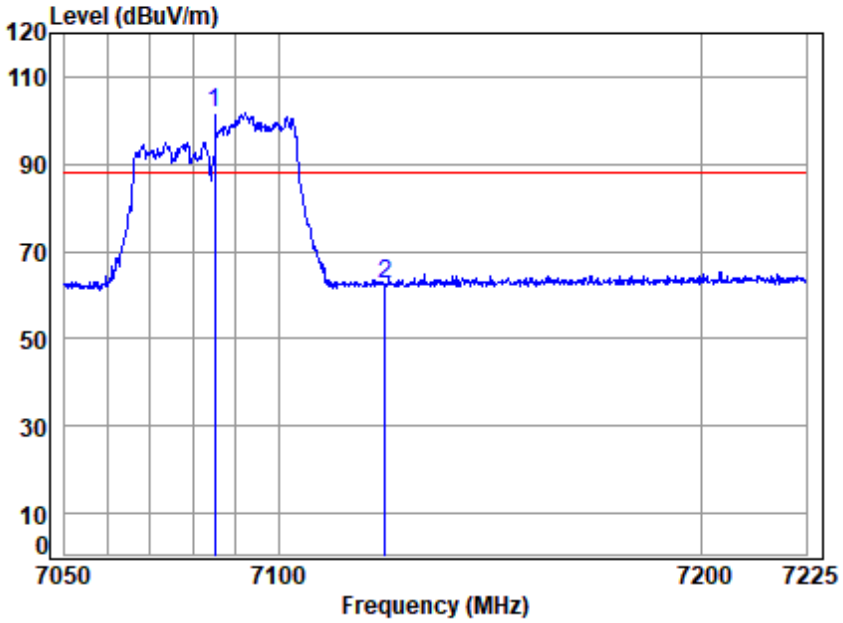
Test Mode: 26; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7085 Band edge
: WIFI 6E 11AX40 RU242

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7085.000	11.77	36.37	31.24	74.29	91.19	68.20	22.99	Average
2	7125.000	11.82	36.45	31.26	33.47	50.48	68.20	-17.72	Average

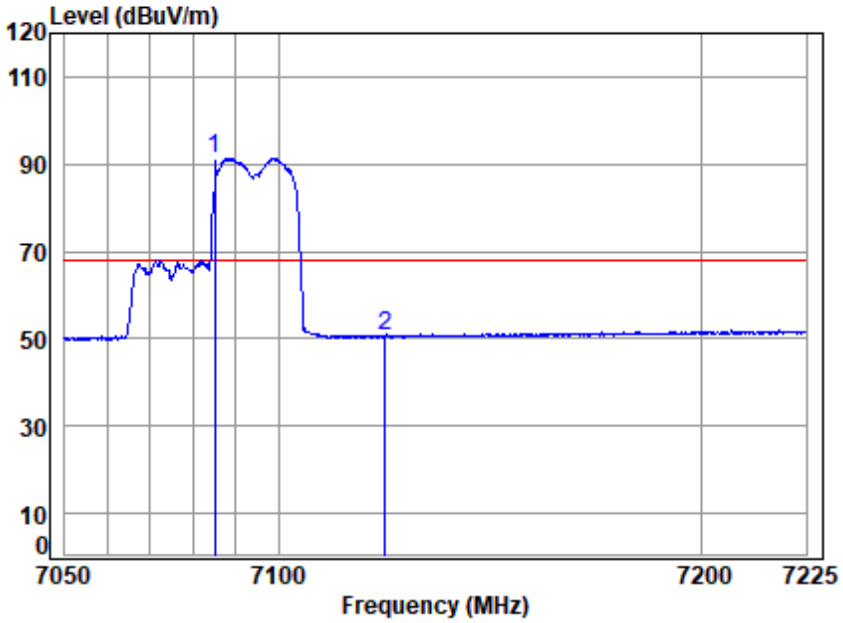
Test Mode: 26; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 7085 Band edge
: WIFI 6E 11AX40 RU242

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7085.000	11.77	36.37	31.24	84.79	101.69	88.20	13.49	peak
2	7125.000	11.82	36.45	31.26	45.69	62.70	88.20	-25.50	peak

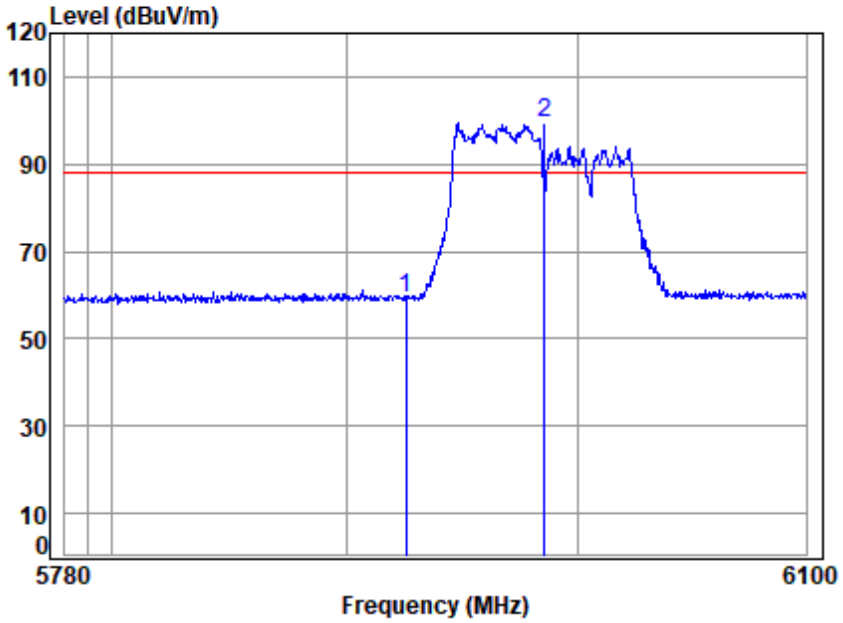
Test Mode: 26; Polarity: Vertical; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7085 Band edge
: WIFI 6E 11AX40 RU242

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7085.000	11.77	36.37	31.24	74.32	91.22	68.20	23.02	Average
2	7125.000	11.82	36.45	31.26	33.54	50.55	68.20	-17.65	Average

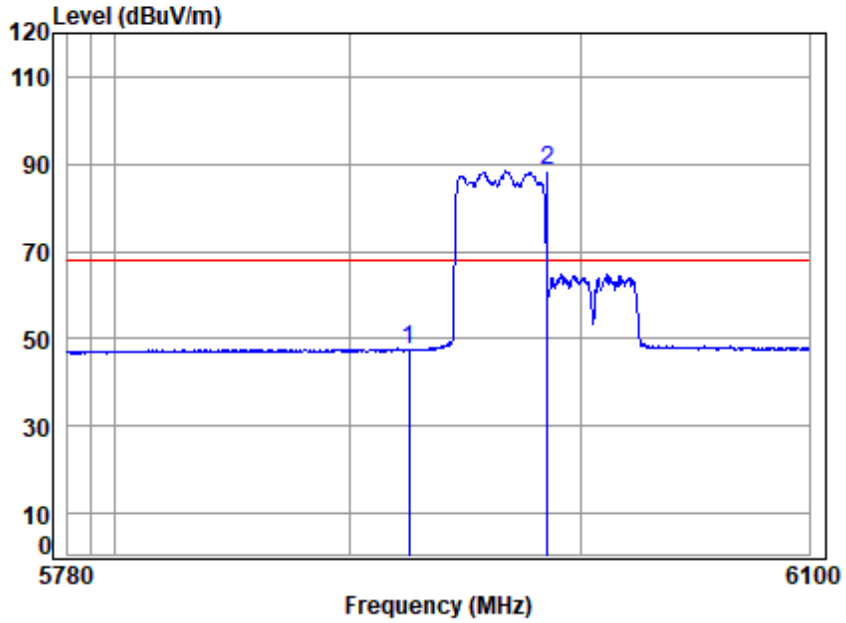
Test Mode: 23; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5985 Band edge
: WIFI 6E 11AX80 RU484

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	45.25	59.14	88.20	-29.06	peak
2 pp	5985.000	10.82	33.74	30.51	85.26	99.31	88.20	11.11	peak

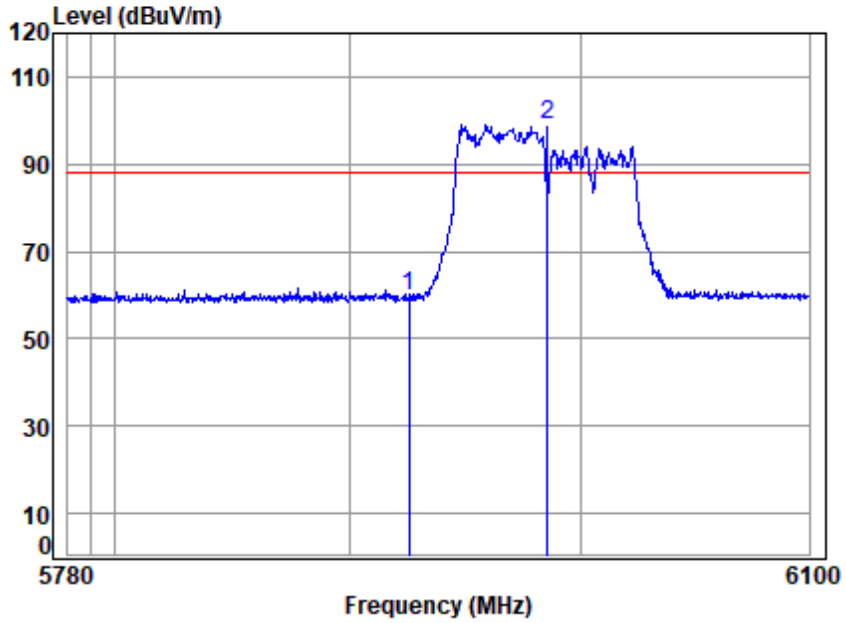
Test Mode: 23; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 5985 Band edge
: WIFI 6E 11AX80 RU484

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	33.34	47.23	68.20	-20.97	Average
2 pp	5985.000	10.82	33.74	30.51	74.36	88.41	68.20	20.21	Average

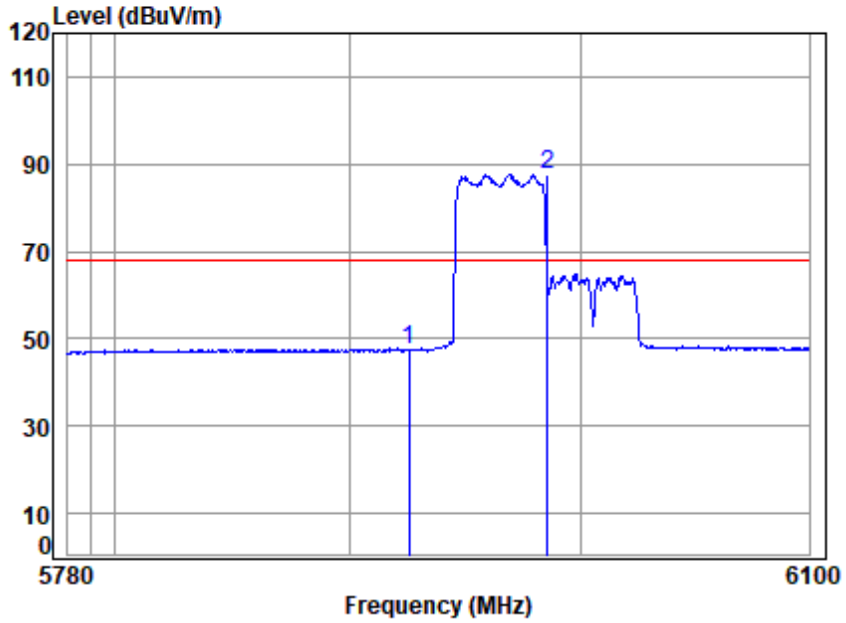
Test Mode: 23; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5985 Band edge
: WIFI 6E 11AX80 RU484

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	46.01	59.90	88.20	-28.30	peak
2 pp	5985.000	10.82	33.74	30.51	85.08	99.13	88.20	10.93	peak

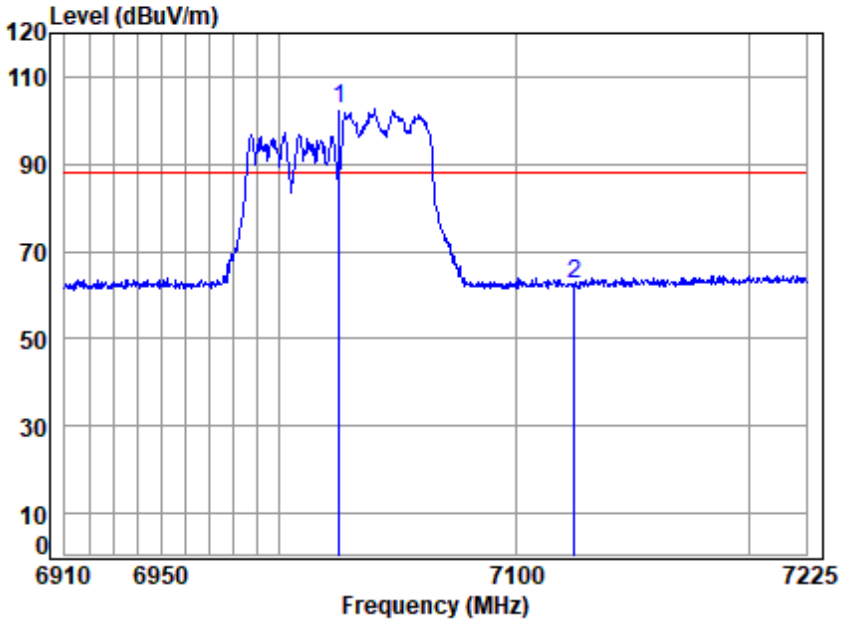
Test Mode: 23; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 5985 Band edge
: WIFI 6E 11AX80 RU484

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	33.50	47.39	68.20	-20.81	Average
2 pp	5985.000	10.82	33.74	30.51	73.67	87.72	68.20	19.52	Average

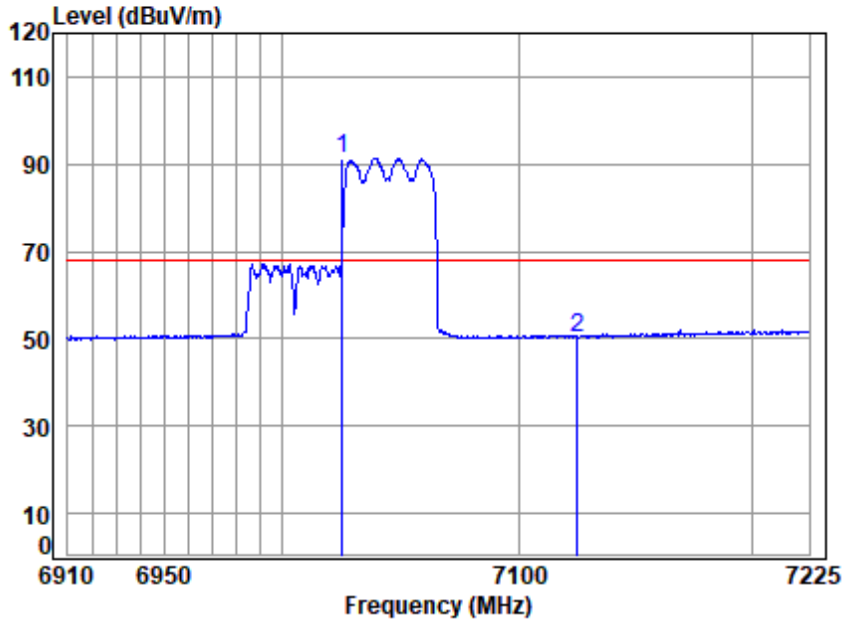
Test Mode: 26; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7025 Band edge
: WIFI 6E 11AX80 RU484

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7025.000	11.64	36.25	31.21	85.95	102.63	88.20	14.43	peak
2	7125.000	11.82	36.45	31.26	45.37	62.38	88.20	-25.82	peak

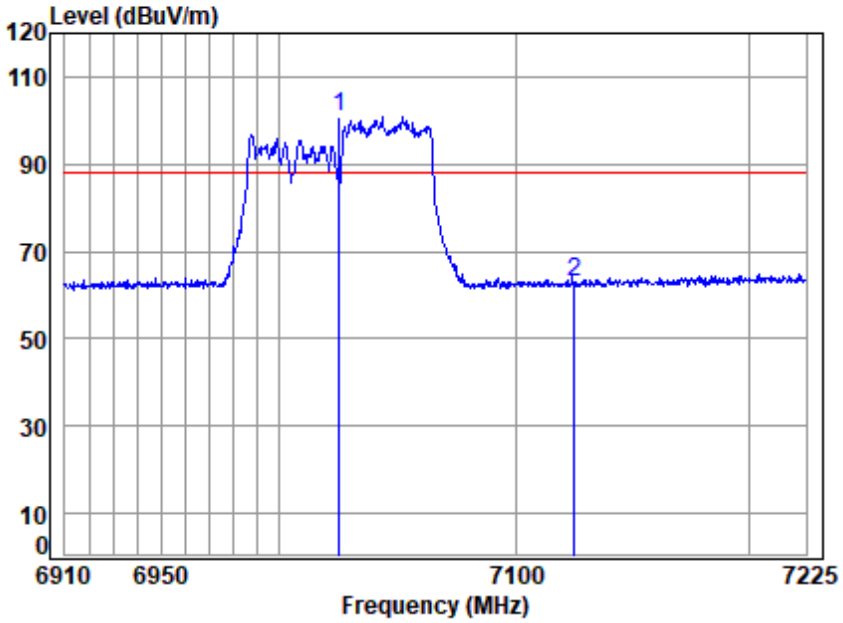
Test Mode: 26; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 7025 Band edge
: WIFI 6E 11AX80 RU484

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7025.000	11.64	36.25	31.21	74.72	91.40	68.20	23.20	Average
2	7125.000	11.82	36.45	31.26	33.33	50.34	68.20	-17.86	Average

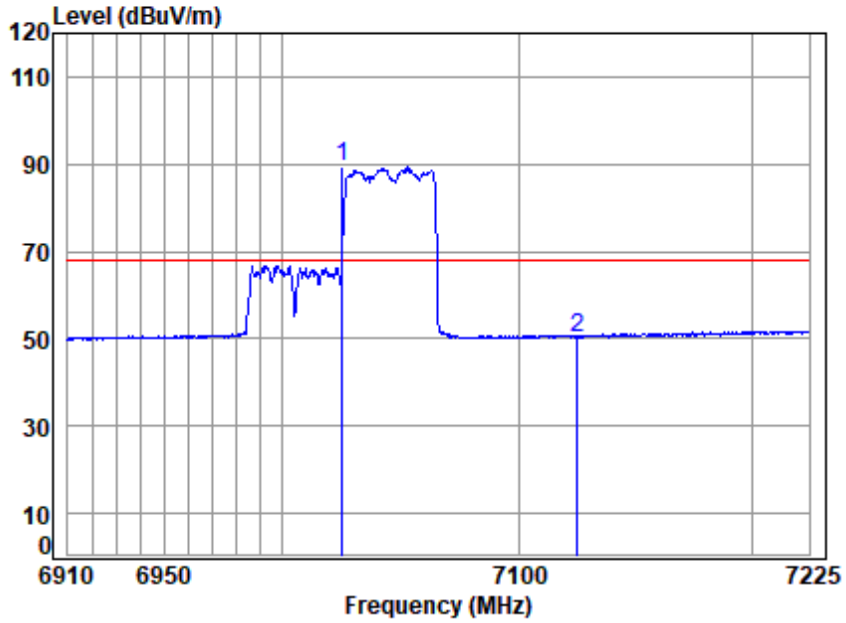
Test Mode: 26; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 7025 Band edge
: WIFI 6E 11AX80 RU484

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7025.000	11.64	36.25	31.21	84.03	100.71	88.20	12.51	peak
2	7125.000	11.82	36.45	31.26	45.74	62.75	88.20	-25.45	peak

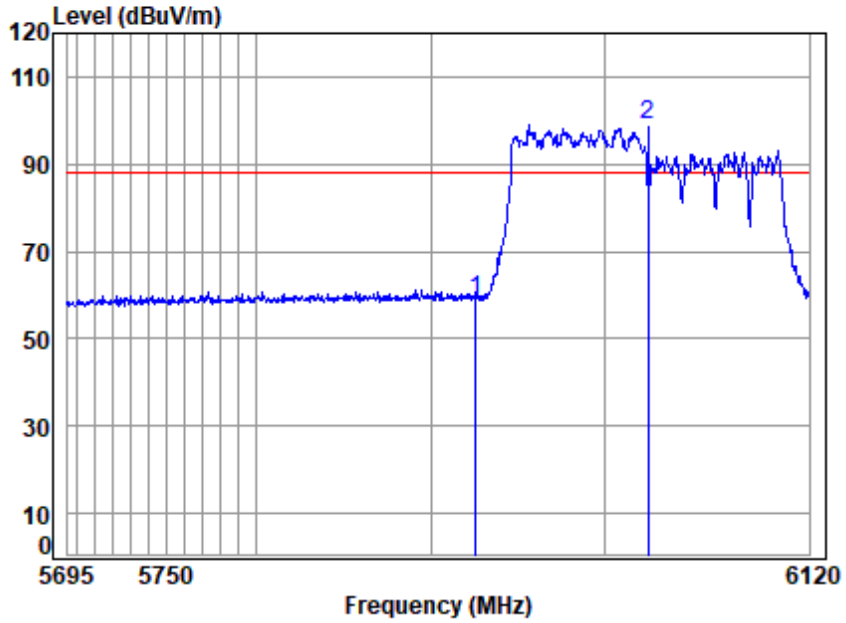
Test Mode: 26; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 7025 Band edge
: WIFI 6E 11AX80 RU484

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	7025.000	11.64	36.25	31.21	72.58	89.26	68.20	21.06	Average
2	7125.000	11.82	36.45	31.26	33.34	50.35	68.20	-17.85	Average

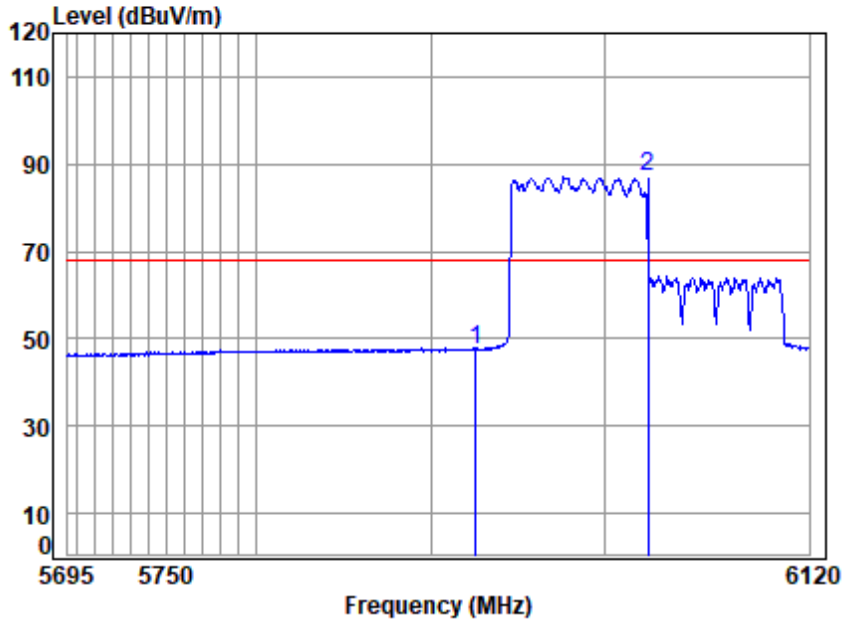
Test Mode: 23; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6025 Band edge
: WIFI 6E 11AX160 RU996

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	44.95	58.84	88.20	-29.36	peak
2 pp	6025.000	10.82	33.85	30.52	84.64	98.79	88.20	10.59	peak

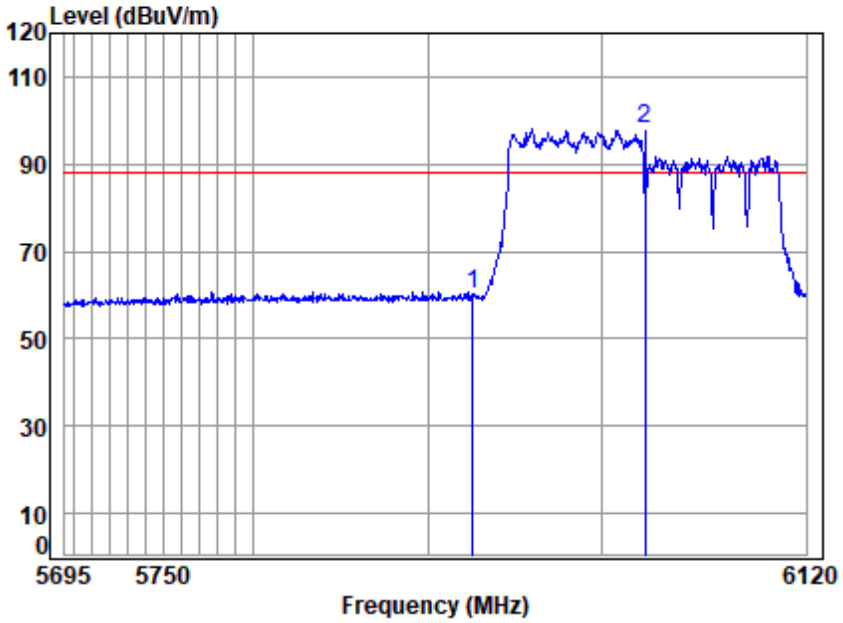
Test Mode: 23; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6025 Band edge
: WIFI 6E 11AX160 RU996

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	33.64	47.53	68.20	-20.67	Average
2 pp	6025.000	10.82	33.85	30.52	72.80	86.95	68.20	18.75	Average

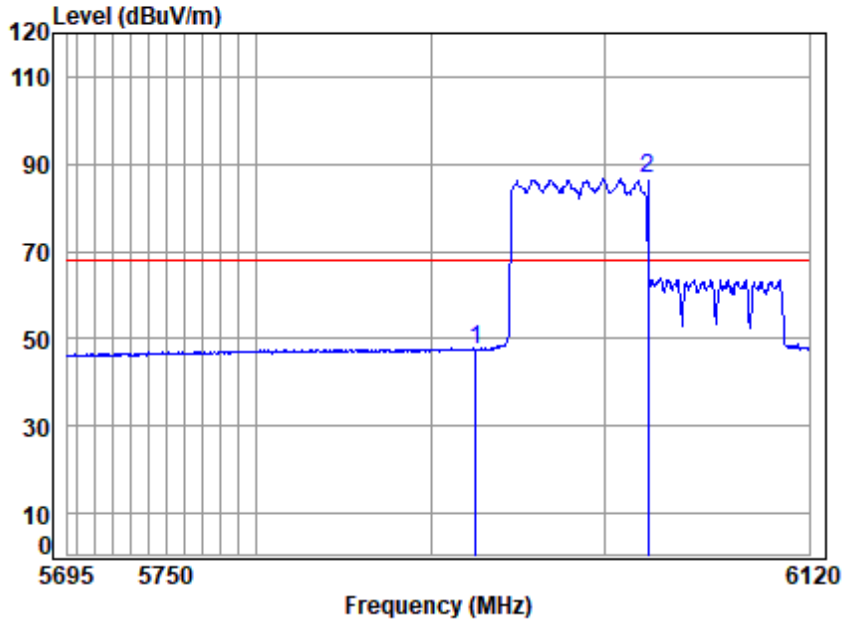
Test Mode: 23; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6025 Band edge
: WIFI 6E 11AX160 RU996

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	46.36	60.25	88.20	-27.95	peak
2 pp	6025.000	10.82	33.85	30.52	83.81	97.96	88.20	9.76	peak

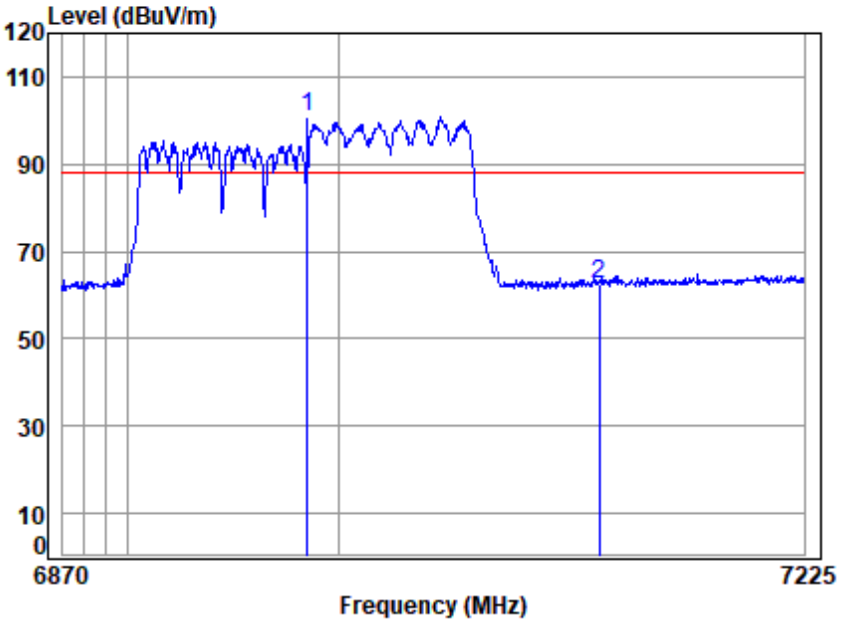
Test Mode: 23; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6025 Band edge
: WIFI 6E 11AX160 RU996

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5925.000	10.87	33.55	30.53	33.60	47.49	68.20	-20.71	Average
2 pp	6025.000	10.82	33.85	30.52	72.41	86.56	68.20	18.36	Average

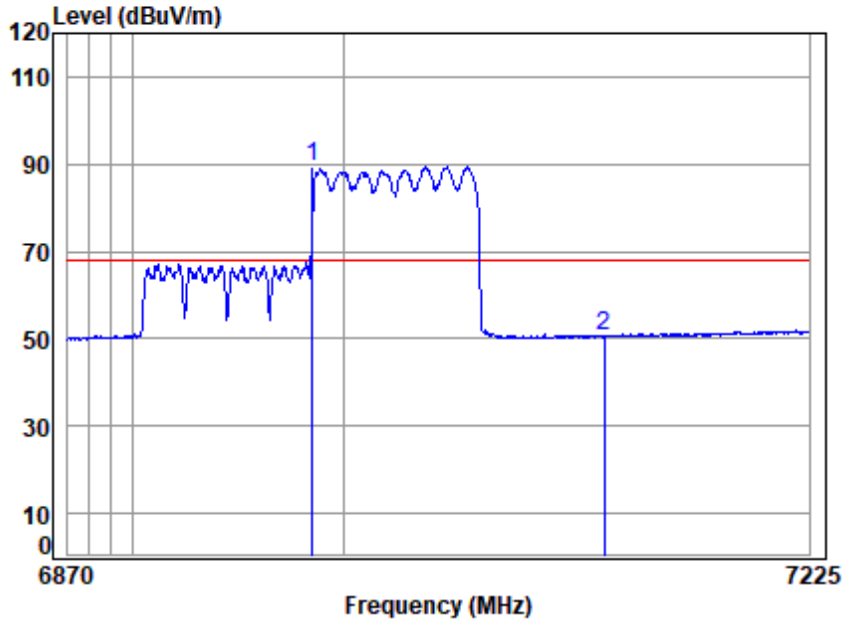
Test Mode: 26; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6985 Band edge
: WIFI 6E 11AX160 RU996

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	6985.000	11.57	36.17	31.19	84.32	100.87	88.20	12.67	peak
2	7125.000	11.82	36.45	31.26	45.27	62.28	88.20	-25.92	peak

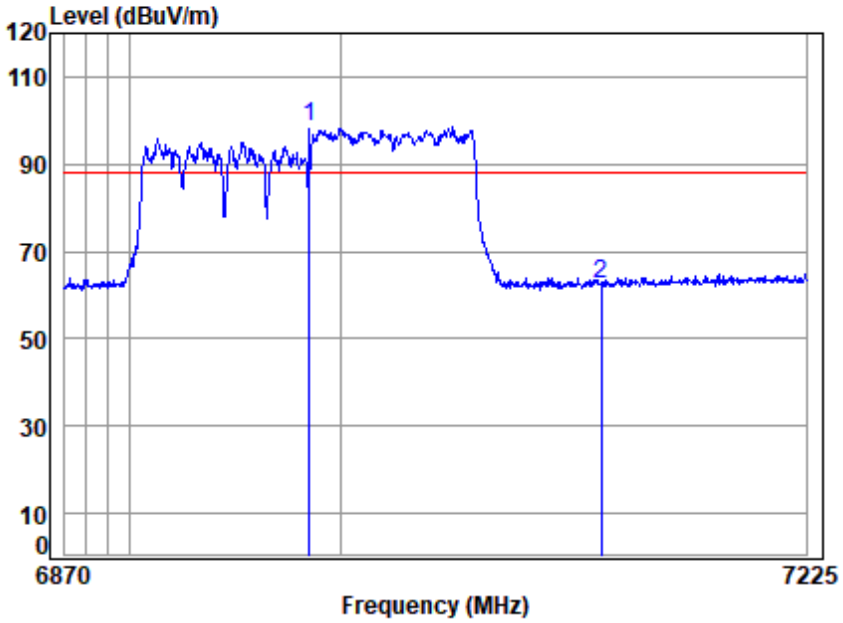
Test Mode: 26; Polarity: Horizontal; Hob Position Right; Up



Condition: 3m HORIZONTAL
Job No : 03810WM/03809WM
Mode : 6985 Band edge
: WIFI 6E 11AX160 RU996

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	6985.000	11.57	36.17	31.19	72.97	89.52	68.20	21.32	Average
2	7125.000	11.82	36.45	31.26	33.63	50.64	68.20	-17.56	Average

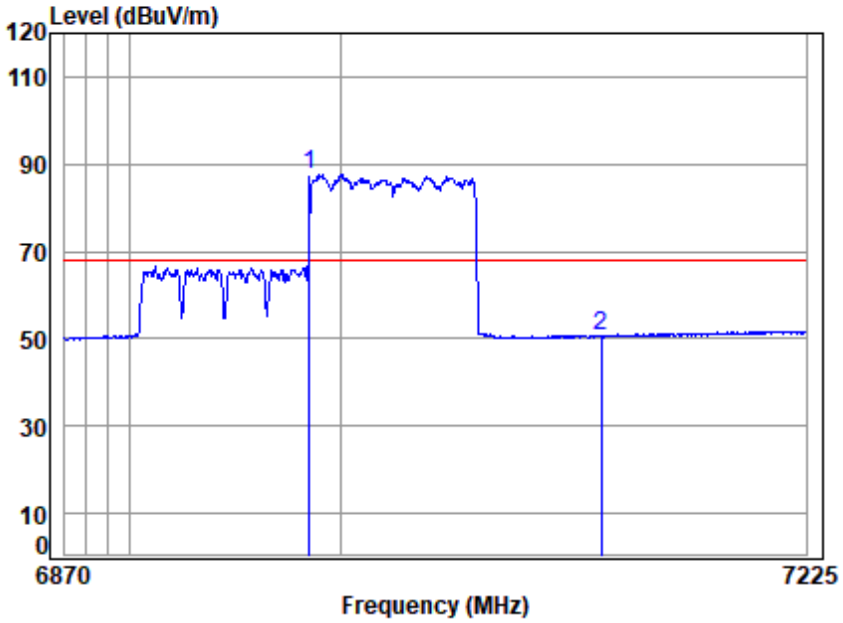
Test Mode: 26; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6985 Band edge
: WIFI 6E 11AX160 RU996

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	6985.000	11.57	36.17	31.19	81.91	98.46	88.20	10.26	peak
2	7125.000	11.82	36.45	31.26	45.40	62.41	88.20	-25.79	peak

Test Mode: 26; Polarity: Vertical; Hob Position Right; Up



Condition: 3m VERTICAL
Job No : 03810WM/03809WM
Mode : 6985 Band edge
: WIFI 6E 11AX160 RU996

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 pp	6985.000	11.57	36.17	31.19	71.06	87.61	68.20	19.41	Average
2	7125.000	11.82	36.45	31.26	33.44	50.45	68.20	-17.75	Average

7.6 In-Band Emissions

Test Requirement 47 CFR Part 15, Subpart E 15.407 (b)(7)
Test Method: KDB 987594 D02

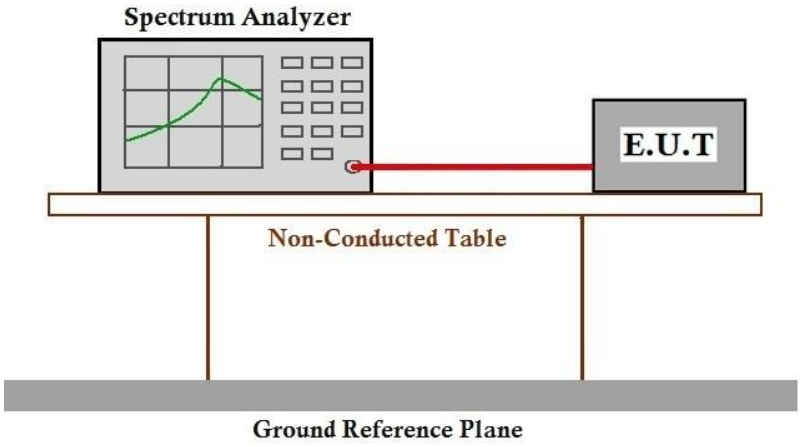
7.6.1 E.U.T. Operation

Operating Environment:
Temperature: 23.7 °C Humidity: 49.5 % RH Atmospheric Pressure: 1020 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	18	TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	19	TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	20	TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	21	TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. 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 Duty Cycle

Test Requirement ANSI C63.10 (2013) Section 12.2
Test Method: ANSI C63.10 (2013) Section 12.2

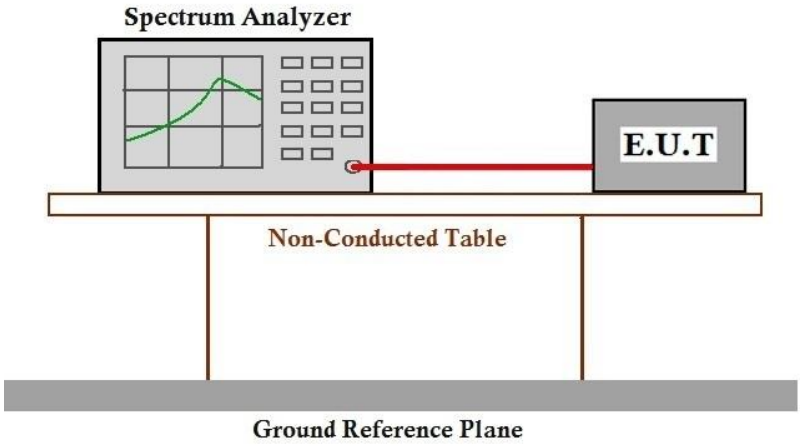
7.7.1 E.U.T. Operation

Operating Environment:
Temperature: 23.7 °C Humidity: 49.5 % RH Atmospheric Pressure: 1020 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	18	TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	19	TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	20	TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	21	TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. 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 99% Bandwidth

Test Requirement ANSI C63.10 (2013) Section 12.4.2
Test Method: ANSI C63.10 (2013) Section 12.4.2

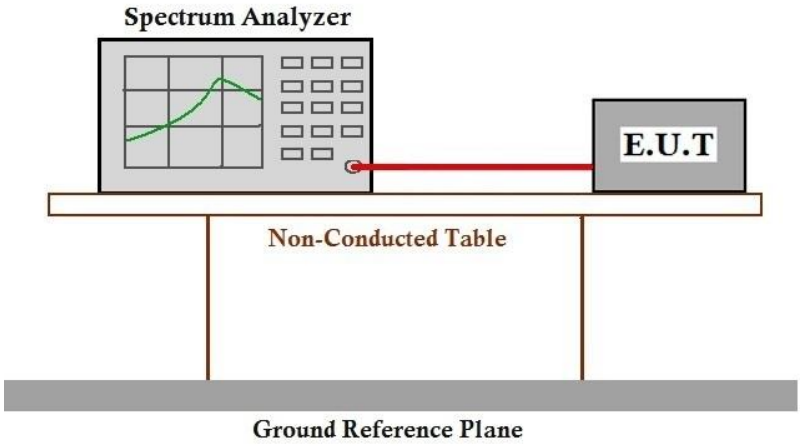
7.8.1 E.U.T. Operation

Operating Environment:
Temperature: 23.7 °C Humidity: 49.5 % RH Atmospheric Pressure: 1020 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	18	TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	19	TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	20	TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	21	TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.

7.8.3 Test Setup Diagram



7.8.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.9 26dB Emission bandwidth

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)
Test Method: ANSI C63.10 (2013) Section 12.4.1

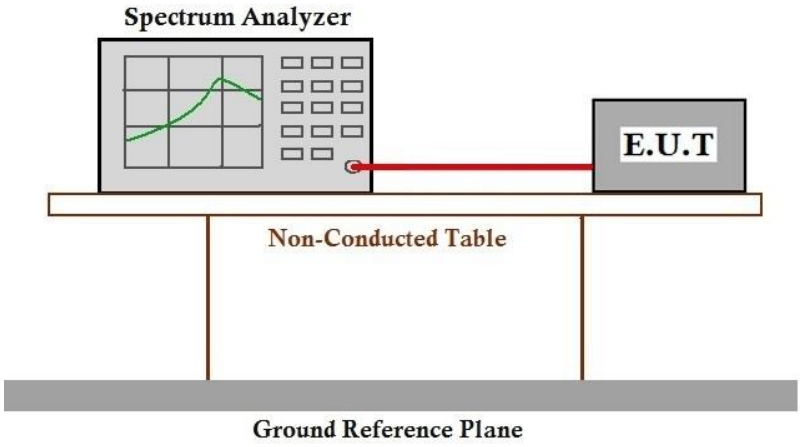
7.9.1 E.U.T. Operation

Operating Environment:
Temperature: 23.7 °C Humidity: 49.5 % RH Atmospheric Pressure: 1020 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	18	TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	19	TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	20	TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	21	TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.

7.9.3 Test Setup Diagram



7.9.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.10 Peak Power spectrum density

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

Test Method: ANSI C63.10 (2013) Section 12.5

Limit:

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

7.10.1 E.U.T. Operation

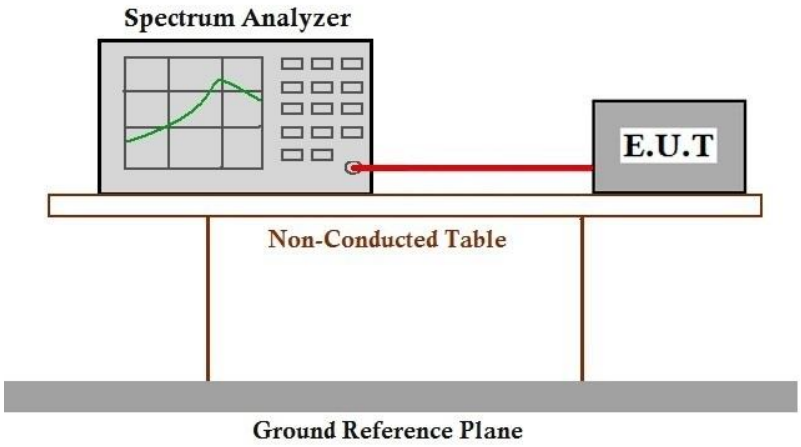
Operating Environment:

Temperature: 23.7 °C Humidity: 49.5 % RH Atmospheric Pressure: 1020 mbar

7.10.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	18	TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	19	TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	20	TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	21	TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.

7.10.3 Test Setup Diagram



7.10.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.11 Contention-based Protocol

Test Requirement 47 CFR Part 15, Subpart E 15.407 (d)(6)

Test Method: KDB 987594 D02

Limit:

Unlicensed low-power indoor devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel (in which incumbent signal is transmitted) and stay off the incumbent channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm). The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain. To ensure incumbent operations are reliably detected in the band, low power indoor devices must detect RF energy throughout their intended operating channel. For example, an 802.11 device that plans to transmit a 40 MHz- wide signal (on a primary 20 MHz channel and a secondary 20 MHz channel) must detect energy throughout the entire 40 MHz channel. Additionally, low-power indoor devices must detect co-channel energy with 90% or greater certainty.

7.11.1 E.U.T. Operation

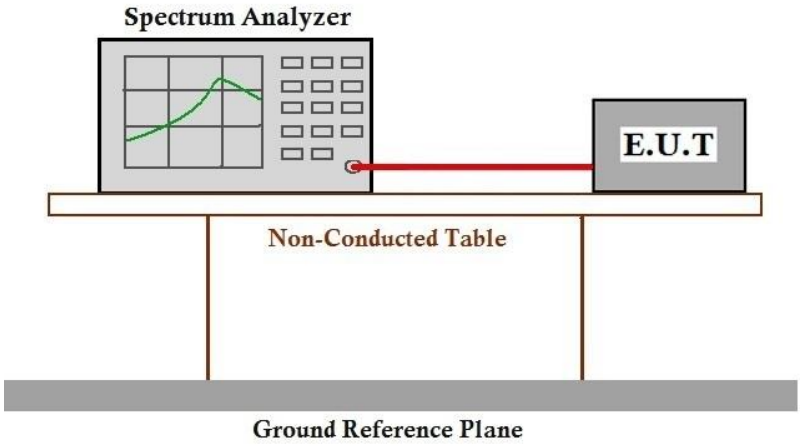
Operating Environment:

Temperature: 23.7 °C Humidity: 49.5 % RH Atmospheric Pressure: 1020 mbar

7.11.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	22	Normal operating_Keep the EUT communication with the companion device.

7.11.3 Test Setup Diagram



7.11.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.12 Frequency Stability

Test Requirement 47 CFR Part 15, Subpart E 15.407 (g)
Test Method: ANSI C63.10 (2013) Section 6.8

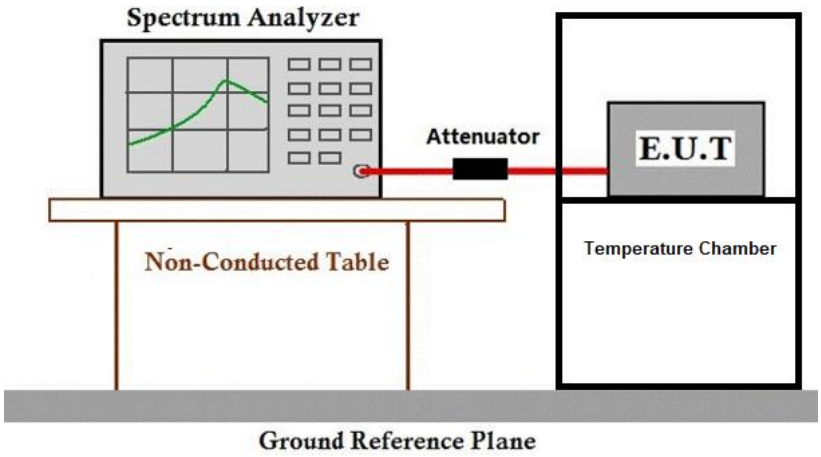
7.12.1 E.U.T. Operation

Operating Environment:
Temperature: 23.7 °C Humidity: 49.5 % RH Atmospheric Pressure: 1020 mbar

7.12.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	18	TX mode (U-NII-5) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	19	TX mode (U-NII-6) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	20	TX mode (U-NII-7) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.
Final test	21	TX mode (U-NII-8) _Keep the EUT in continuously transmitting mode with all modulation types. Only the data of worst case is recorded in the report.

7.12.3 Test Setup Diagram



7.12.4 Measurement Procedure and Data

Please Refer to Appendix for Details

8 Test Setup Photo

Refer to Appendix – WLAN Test Setup Photo for SZCR2410003810WM

9 EUT Constructional Details (EUT Photos)

Refer to Appendix – External and Internal Photos for SZCR2410003810WM

10 Appendix

Remark: due to test software design, test data appendix for ant1 refers to ant 9 of the EUT, ant2 refers to ant 10 of the EUT.

1. Duty Cycle

1.1 Test Result

1.1.1 Ant1

Ant1									
ENV	Mode	TX Type	Frequency (MHz)	RU	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11ax (HEW20)	MIMO	5955	SU	5.428	5.445	99.69	0.01	0.03
			6175	SU	5.445	5.462	99.69	0.01	0.00
			6415	SU	5.445	5.462	99.69	0.01	0.00
	802.11ax (HEW40)	MIMO	5965	SU	5.444	5.462	99.67	0.01	0.04
			6165	SU	5.444	5.462	99.67	0.01	0.04
			6405	SU	5.444	5.460	99.71	0.01	0.00
	802.11ax (HEW80)	MIMO	5985	SU	5.444	5.460	99.71	0.01	0.04
			6145	SU	5.444	5.460	99.71	0.01	0.04
			6385	SU	5.445	5.462	99.69	0.01	0.03
	802.11ax (HEW160)	MIMO	6025	SU	5.444	5.460	99.71	0.01	0.00
			6185	SU	5.444	5.460	99.71	0.01	0.04
			6345	SU	5.444	5.460	99.71	0.01	0.04

1.1.2 Ant1

Ant1									
ENV	Mode	TX Type	Frequency (MHz)	RU	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11ax (HEW20)	MIMO	6435	SU	5.445	5.461	99.71	0.01	0.00
			6475	SU	5.444	5.462	99.67	0.01	0.04
			6515	SU	5.445	5.462	99.69	0.01	0.03
	802.11ax (HEW40)	MIMO	6445	SU	5.445	5.462	99.69	0.01	0.03
			6485	SU	5.444	5.460	99.71	0.01	0.04

	802.11ax (HEW80)	MIMO	6465	SU	5.445	5.462	99.69	0.01	0.03

1.1.3 Ant1

Ant1									
ENV	Mode	TX Type	Frequency (MHz)	RU	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11ax (HEW20)	MIMO	6535	SU	5.444	5.462	99.67	0.01	0.04
			6695	SU	5.444	5.462	99.67	0.01	0.04
			6855	SU	5.444	5.462	99.67	0.01	0.04
	802.11ax (HEW40)	MIMO	6565	SU	5.444	5.460	99.71	0.01	0.04
			6685	SU	5.445	5.462	99.69	0.01	0.03
			6845	SU	5.446	5.462	99.71	0.01	0.04
	802.11ax (HEW80)	MIMO	6625	SU	5.444	5.460	99.71	0.01	0.04
			6705	SU	5.445	5.462	99.69	0.01	0.03
			6785	SU	5.445	5.462	99.69	0.01	0.03
	802.11ax (HEW160)	MIMO	6665	SU	5.444	5.460	99.71	0.01	0.04

1.1.4 Ant1

Ant1									
ENV	Mode	TX Type	Frequency (MHz)	RU	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11ax (HEW20)	MIMO	6895	SU	5.444	5.462	99.67	0.01	0.04
			6995	SU	5.444	5.462	99.67	0.01	0.04
			7115	SU	5.444	5.462	99.67	0.01	0.04
	802.11ax (HEW40)	MIMO	6925	SU	5.445	5.462	99.69	0.01	0.03
			7005	SU	5.444	5.460	99.71	0.01	0.00
			7085	SU	5.444	5.462	99.67	0.01	0.04
	802.11ax (HEW80)	MIMO	6945	SU	5.444	5.460	99.71	0.01	0.04
			7025	SU	5.444	5.460	99.71	0.01	0.04
	802.11ax (HEW160)	MIMO	6985	SU	5.444	5.460	99.71	0.01	0.00

1.1.5 Ant1

Ant1									
ENV	Mode	TX Type	Frequency (MHz)	RU	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11ax (HEW20)	MIMO	6875	SU	5.445	5.462	99.69	0.01	0.00
	802.11ax (HEW40)	MIMO	6885	SU	5.444	5.460	99.71	0.01	0.00
	802.11ax (HEW80)	MIMO	6865	SU	5.444	5.460	99.71	0.01	0.04
	802.11ax (HEW160)	MIMO	6825	SU	5.445	5.462	99.69	0.01	0.03

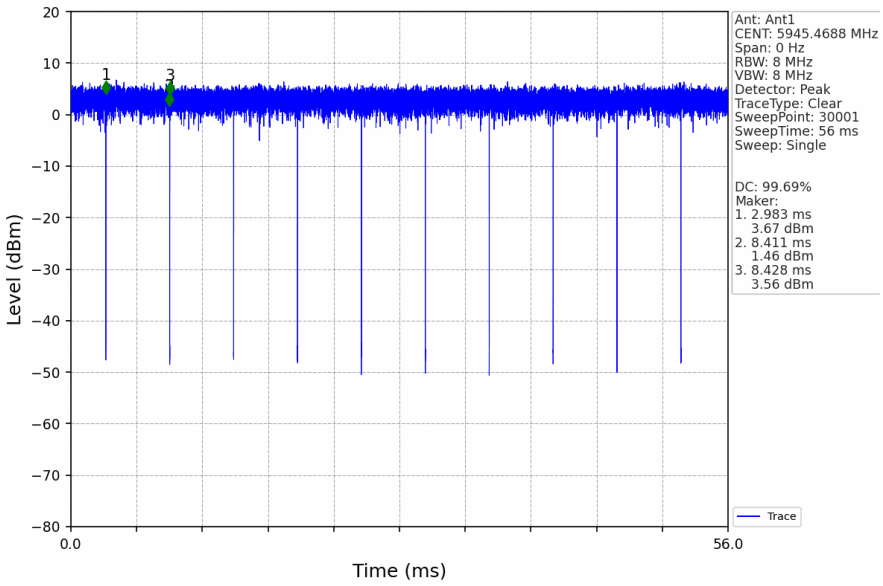
1.1.6 Ant1

Ant1									
ENV	Mode	TX Type	Frequency (MHz)	RU	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
NTNV	802.11ax (HEW40)	MIMO	6525	SU	5.444	5.462	99.67	0.01	0.04
	802.11ax (HEW80)	MIMO	6545	SU	5.444	5.460	99.71	0.01	0.04
	802.11ax (HEW160)	MIMO	6505	SU	5.445	5.462	99.69	0.01	0.03

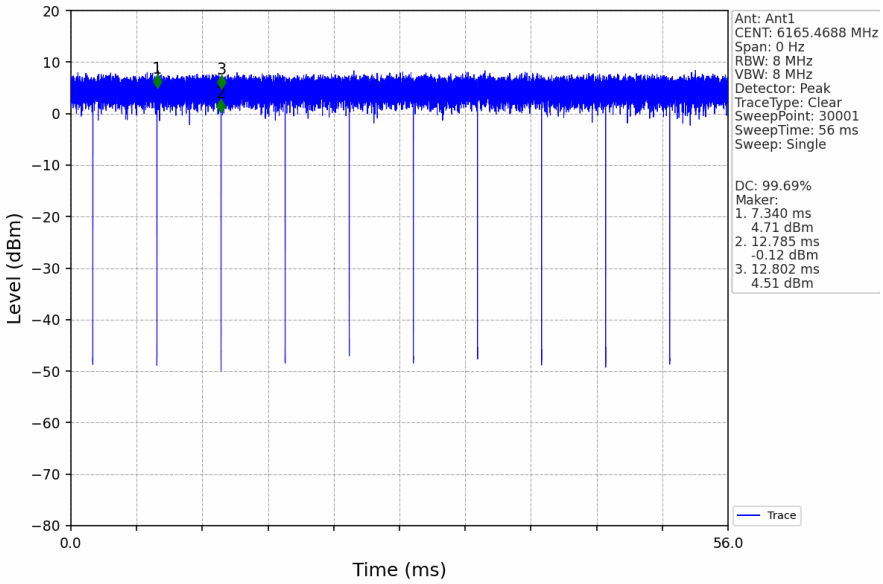
1.2 Test Graph

1.2.1 Ant1

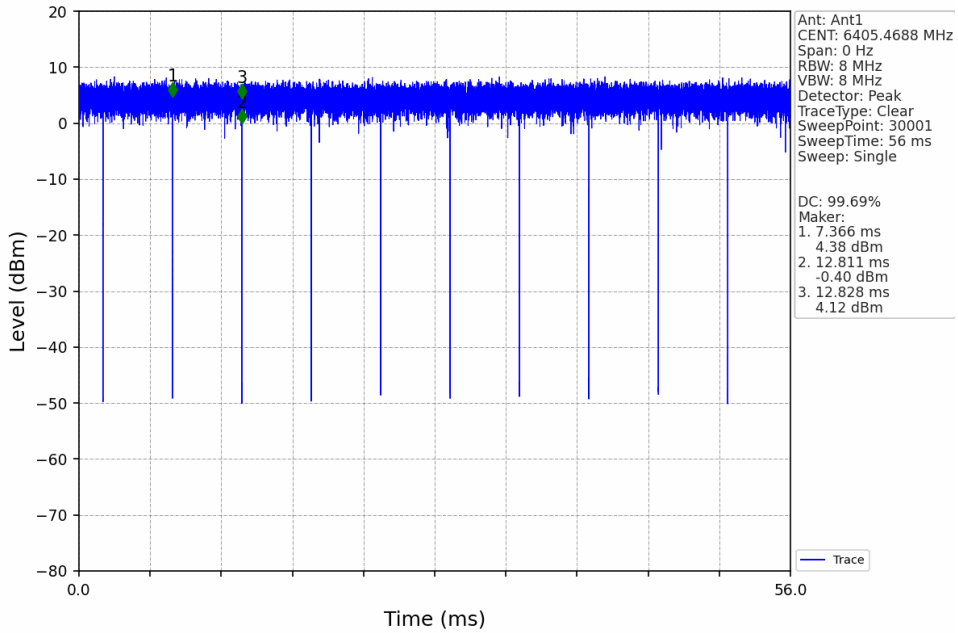
802.11ax(HEW20)_LCH_5955MHz_SU_Ant1_NTNV



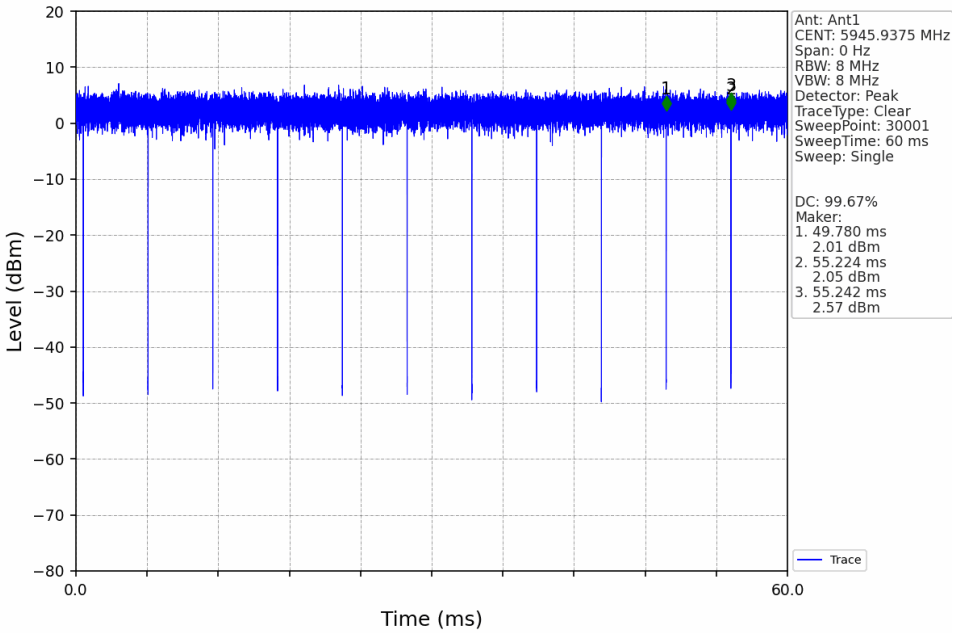
802.11ax(HEW20)_MCH_6175MHz_SU_Ant1_NTNV



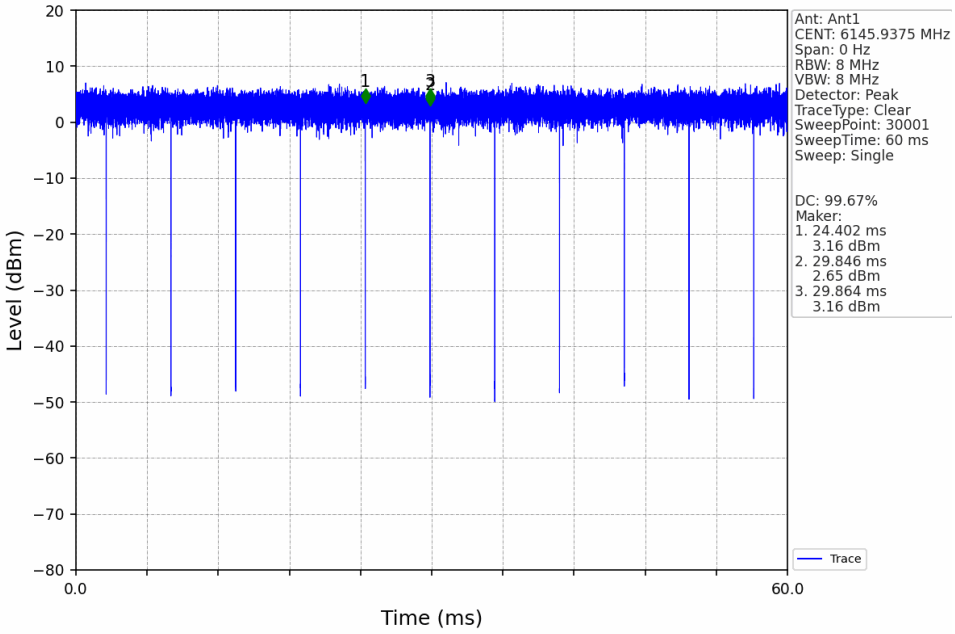
802.11ax(HEW20)_HCH_6415MHz_SU_Ant1_NTNV



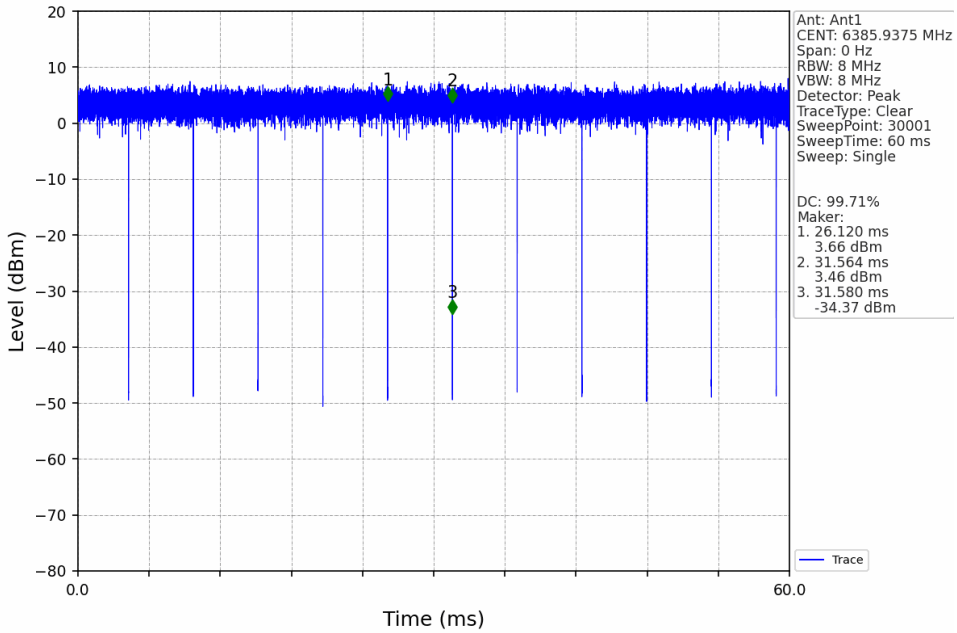
802.11ax(HEW40)_LCH_5965MHz_SU_Ant1_NTNV



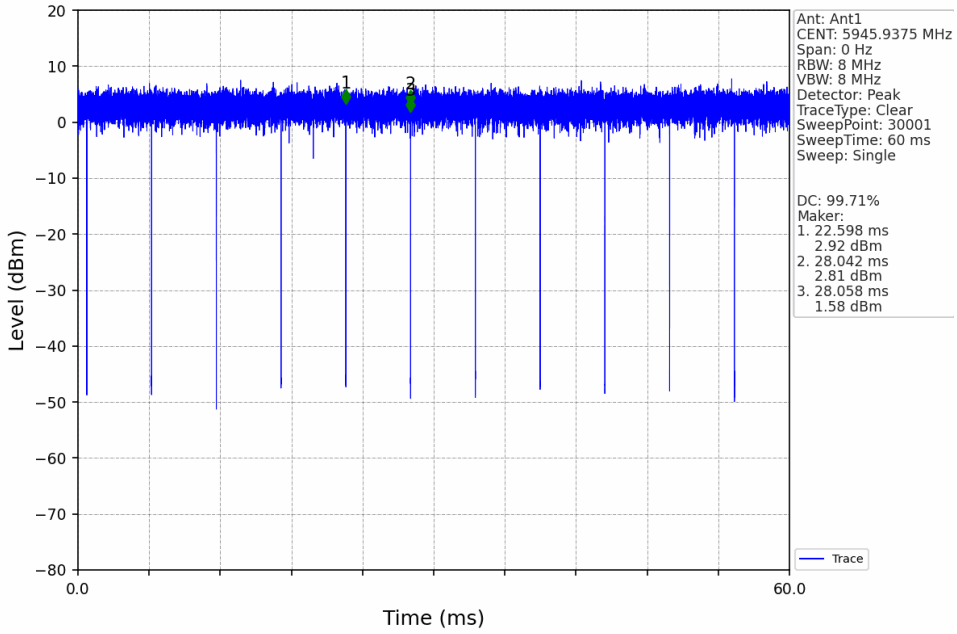
802.11ax(HEW40)_MCH_6165MHz_SU_Ant1_NTNV



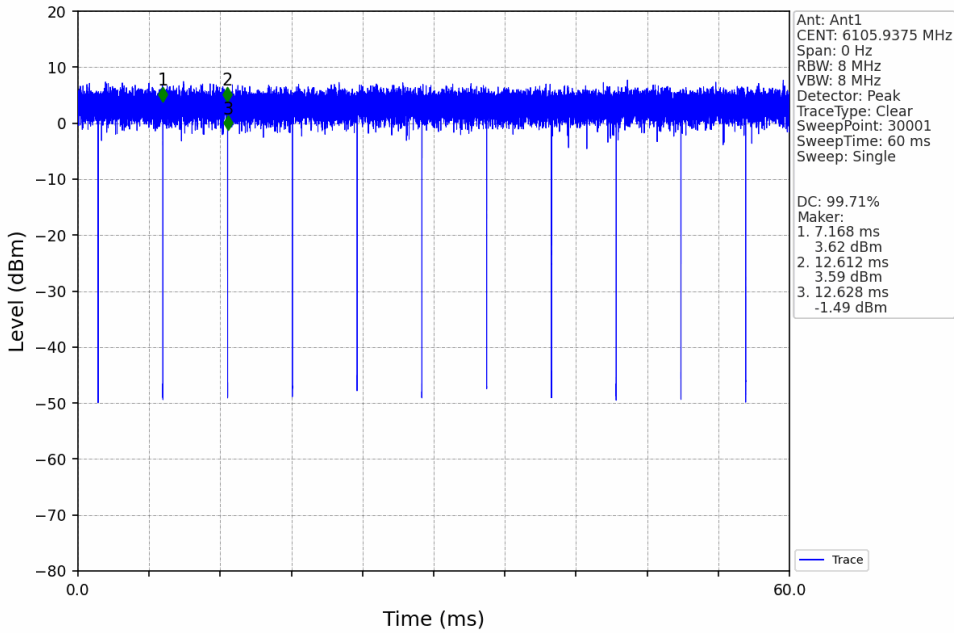
802.11ax(HEW40)_HCH_6405MHz_SU_Ant1_NTNV



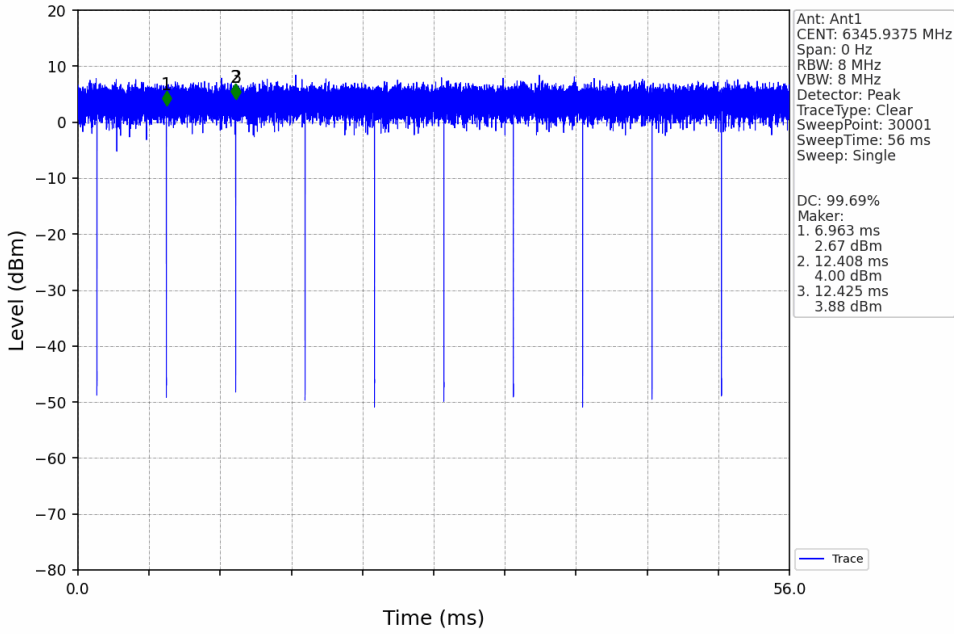
802.11ax(HEW80)_LCH_5985MHz_SU_Ant1_NTNV



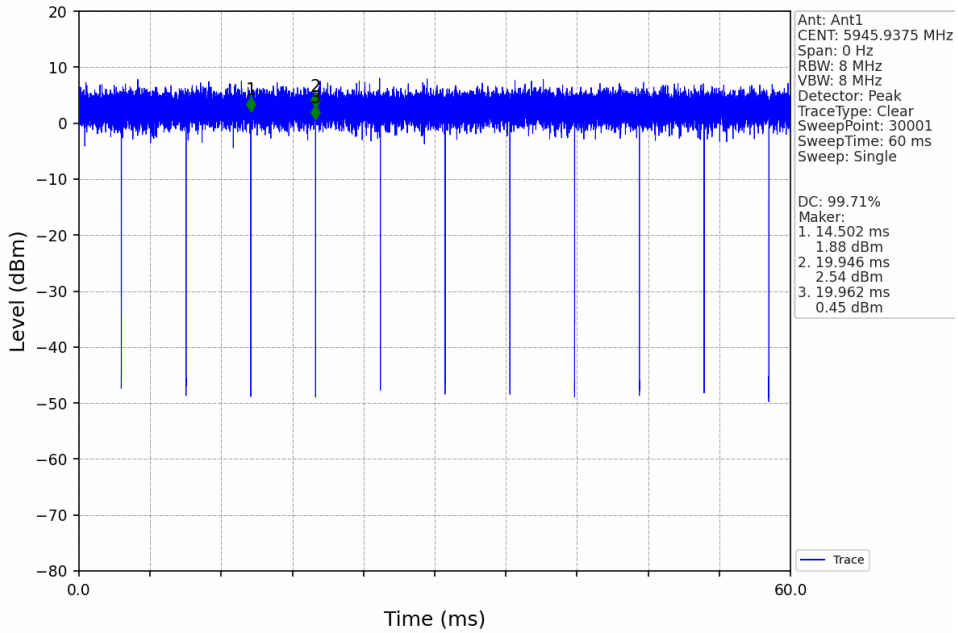
802.11ax(HEW80)_MCH_6145MHz_SU_Ant1_NTNV



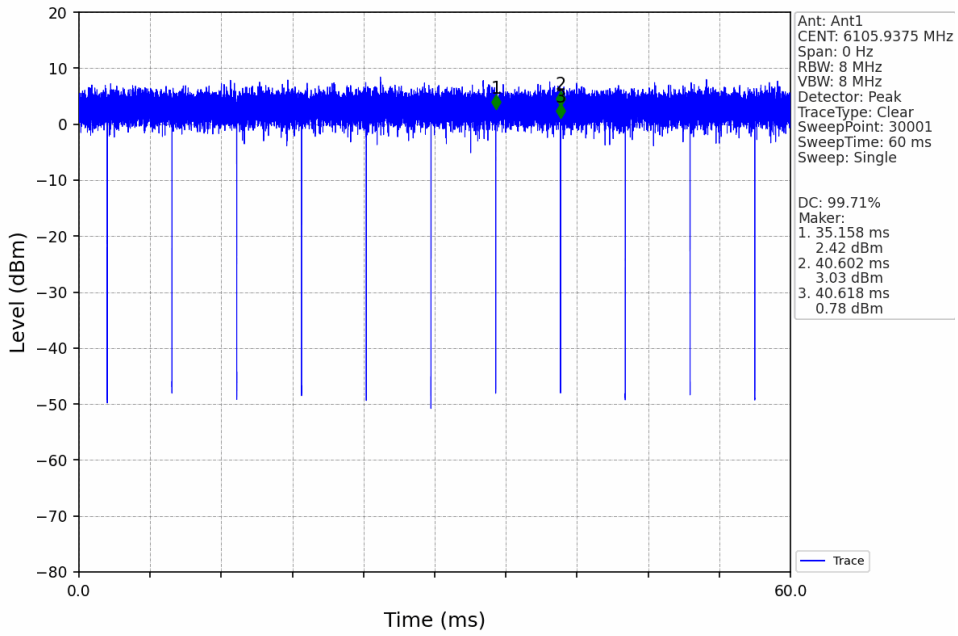
802.11ax(HEW80)_HCH_6385MHz_SU_Ant1_NTNV



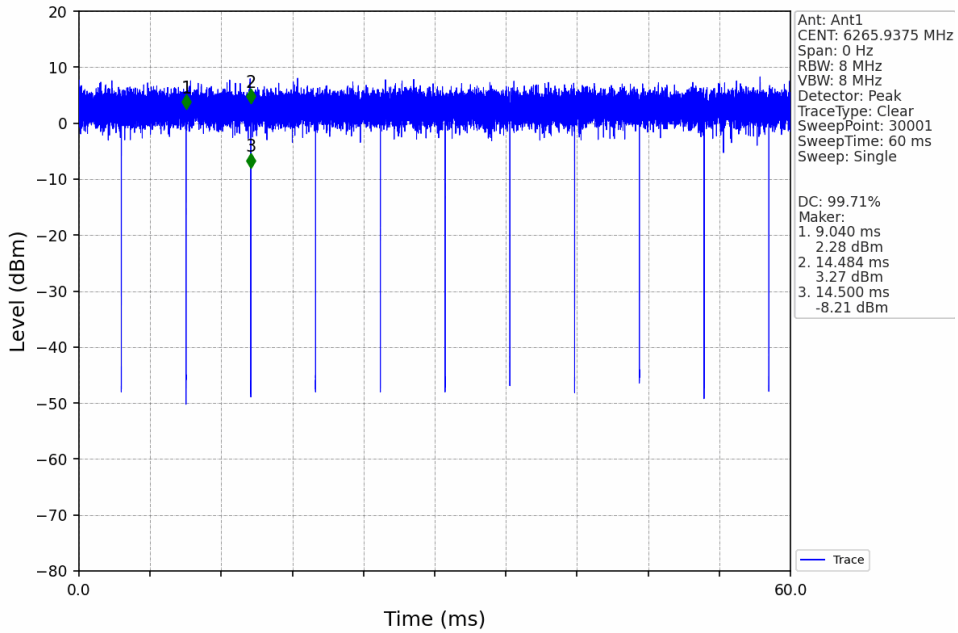
802.11ax(HEW160)_LCH_6025MHz_SU_Ant1_NTNV



802.11ax(HEW160)_MCH_6185MHz_SU_Ant1_NTNV

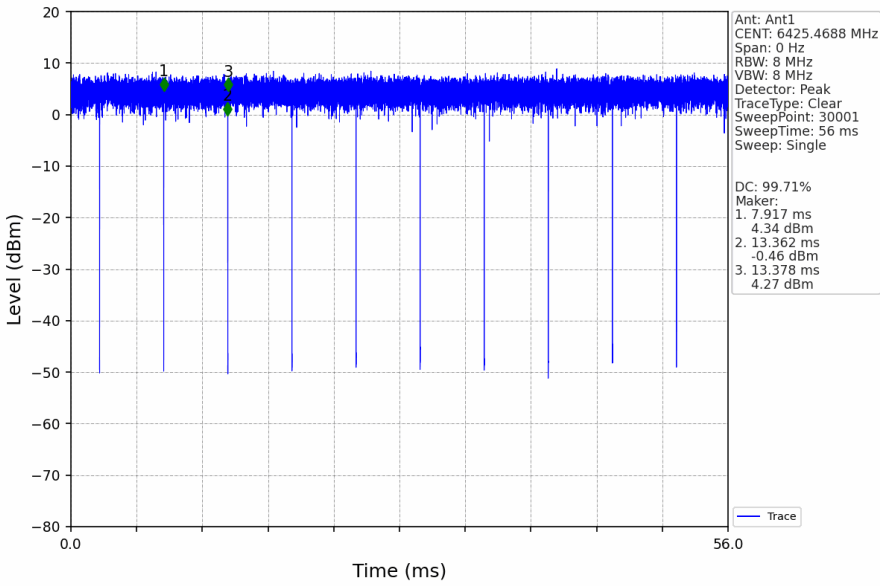


802.11ax(HEW160)_HCH_6345MHz_SU_Ant1_NTNV

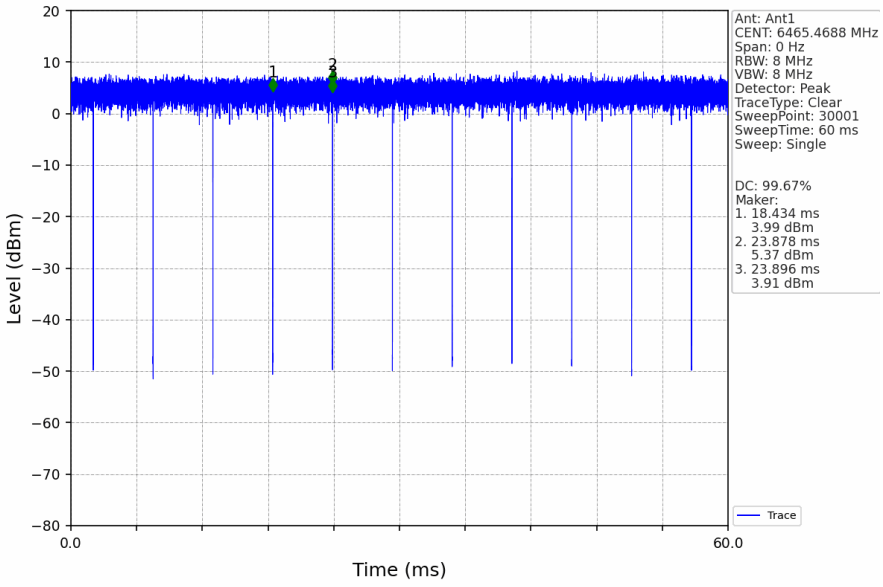


1.2.2 Ant1

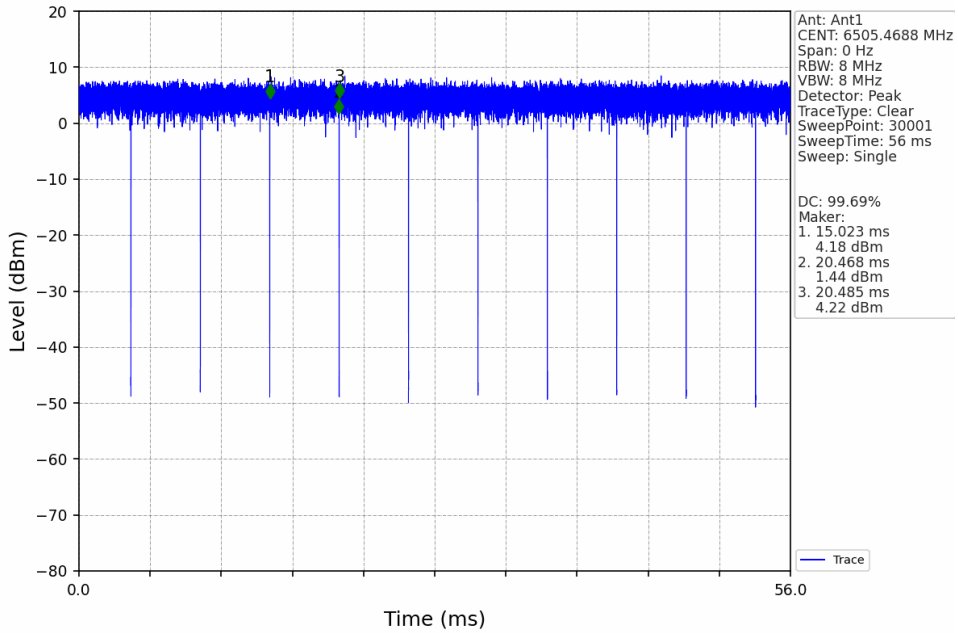
802.11ax(HEW20)_LCH_6435MHz_SU_Ant1_NTNV



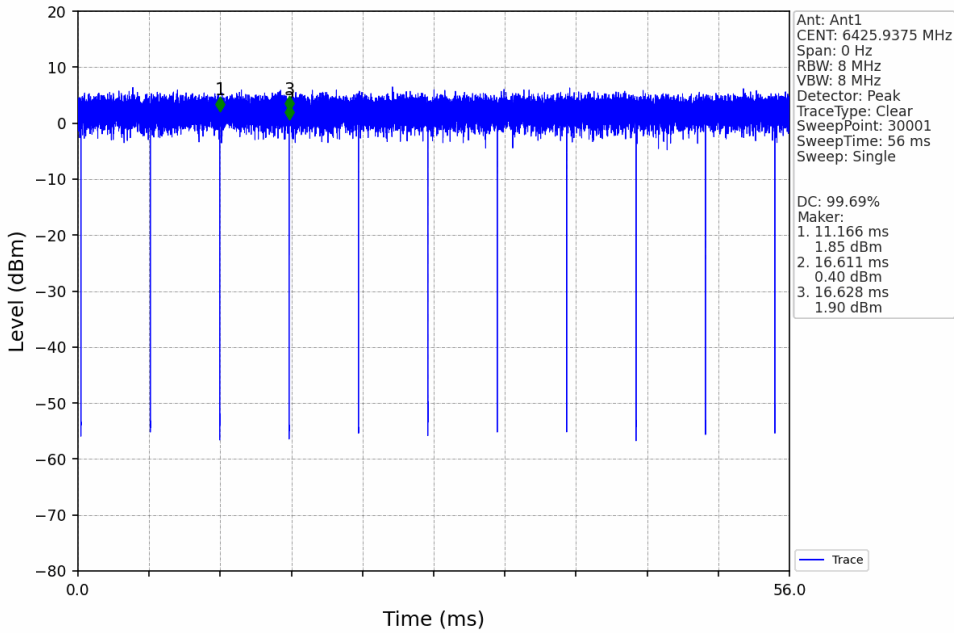
802.11ax(HEW20)_MCH_6475MHz_SU_Ant1_NTNV



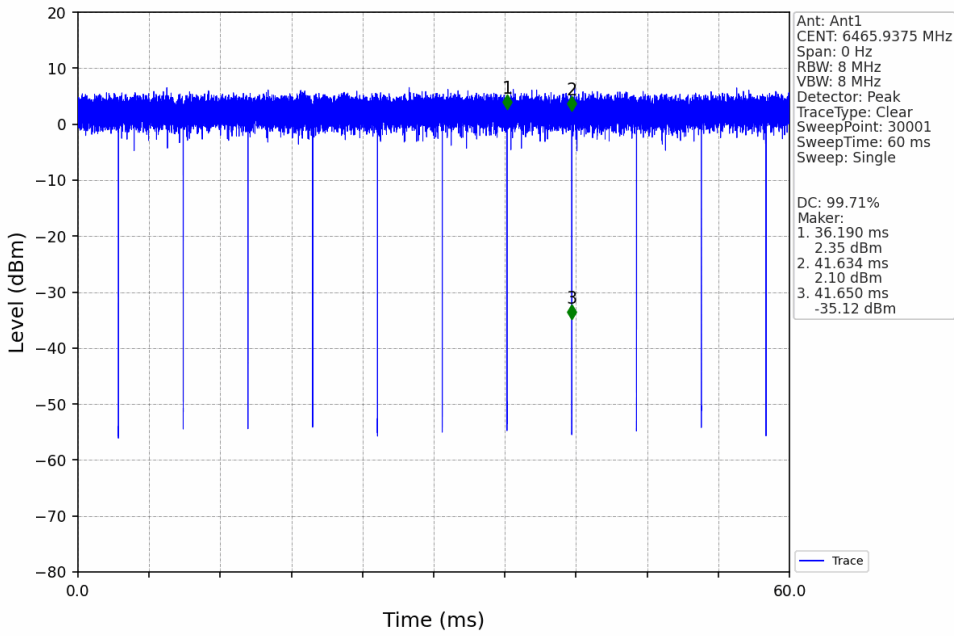
802.11ax(HEW20)_HCH_6515MHz_SU_Ant1_NTNV



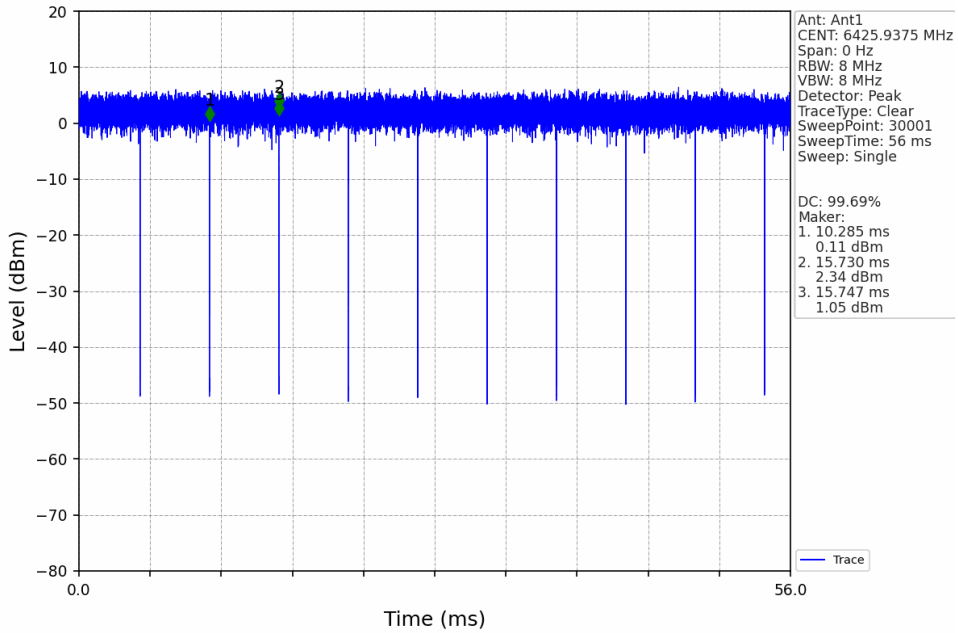
802.11ax(HEW40)_LCH_6445MHz_SU_Ant1_NTNV



802.11ax(HEW40)_MCH_6485MHz_SU_Ant1_NTNV

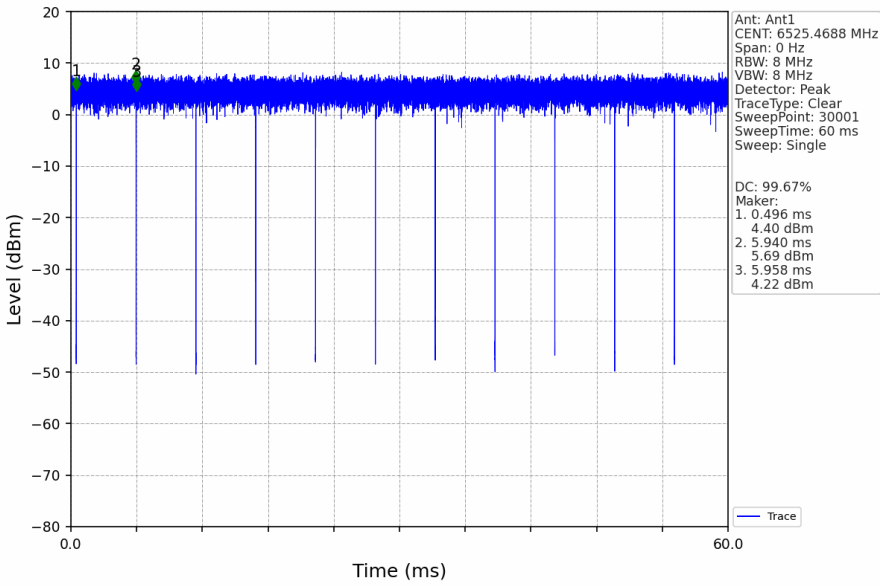


802.11ax(HEW80)_LCH_6465MHz_SU_Ant1_NTNV

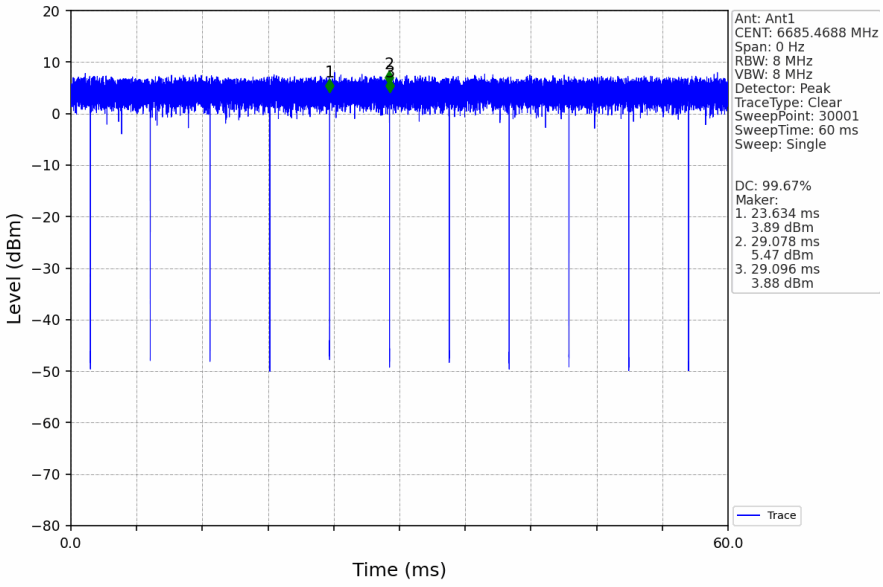


1.2.3 Ant1

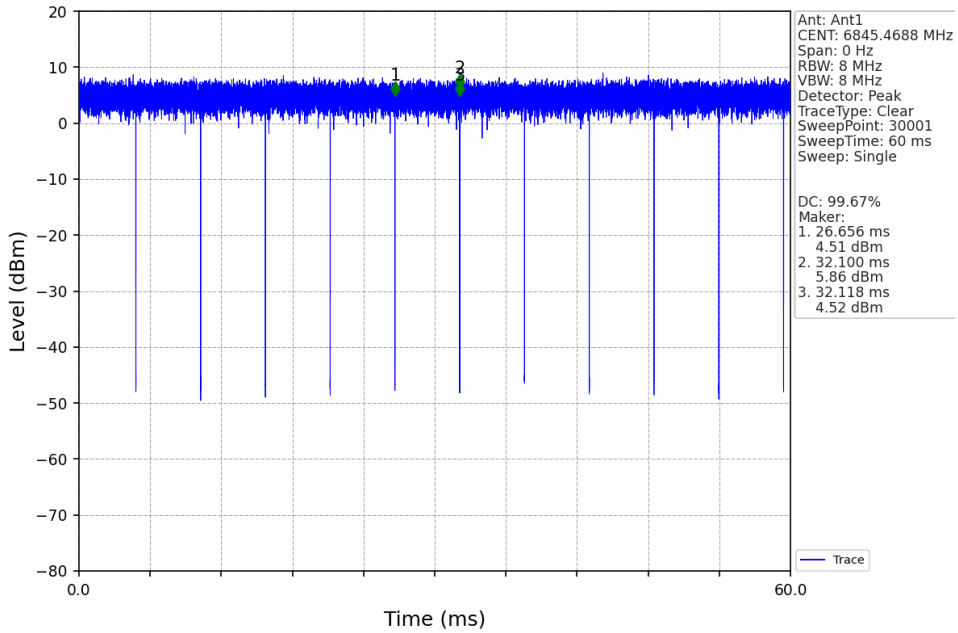
802.11ax(HEW20)_LCH_6535MHz_SU_Ant1_NTNV



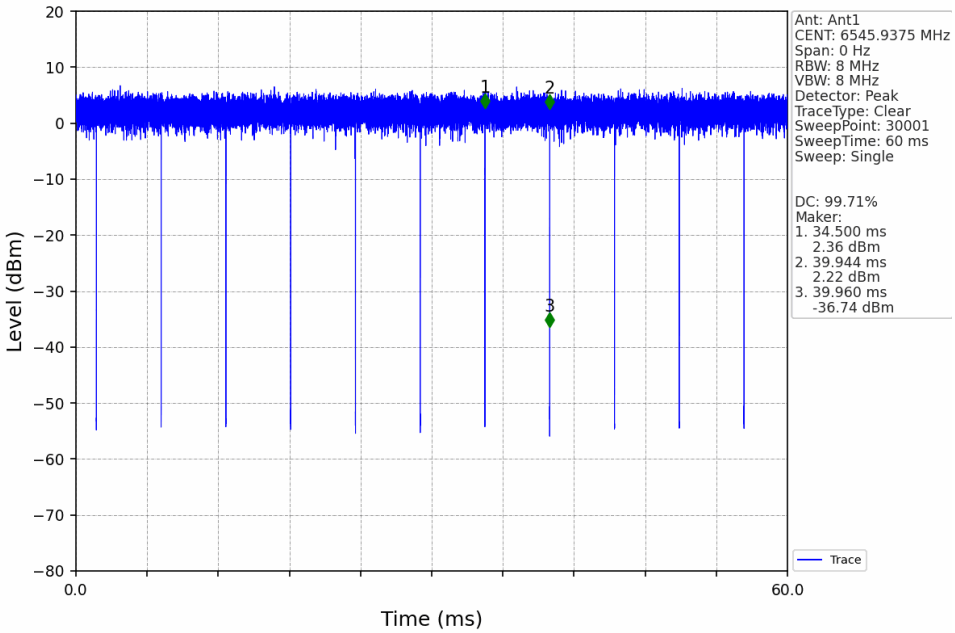
802.11ax(HEW20)_MCH_6695MHz_SU_Ant1_NTNV



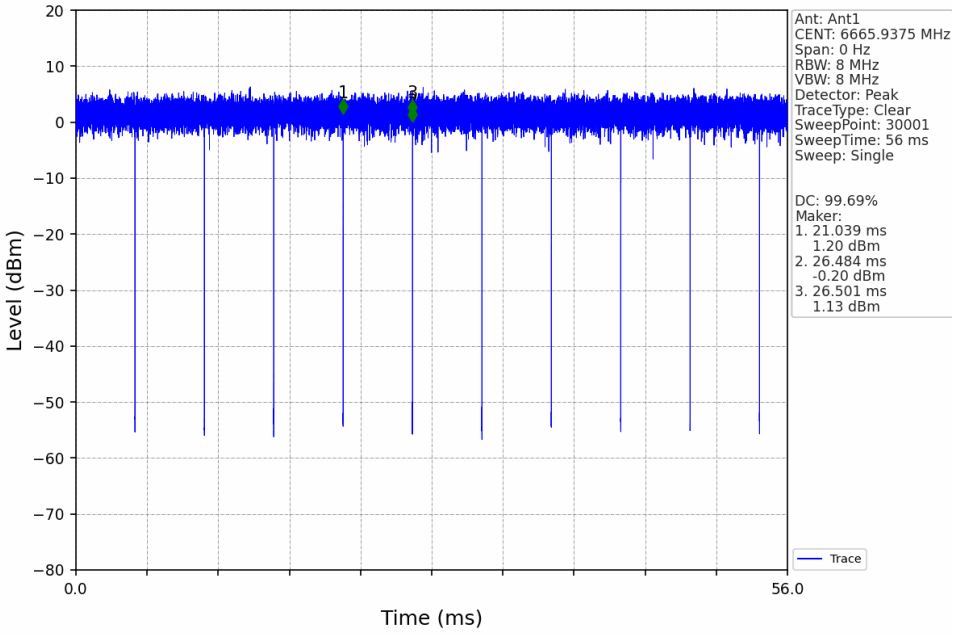
802.11ax(HEW20)_HCH_6855MHz_SU_Ant1_NTNV



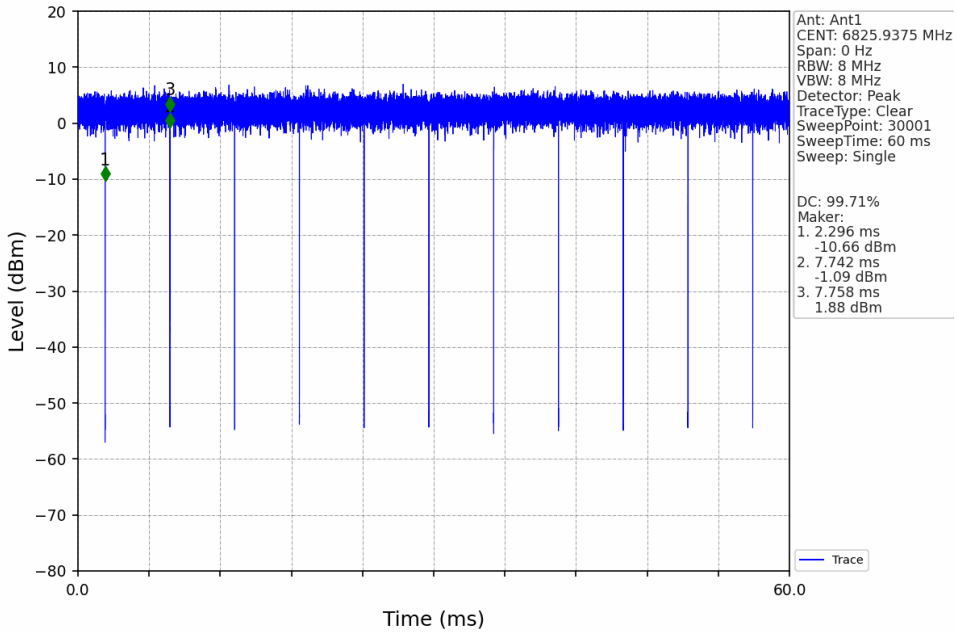
802.11ax(HEW40)_LCH_6565MHz_SU_Ant1_NTNV



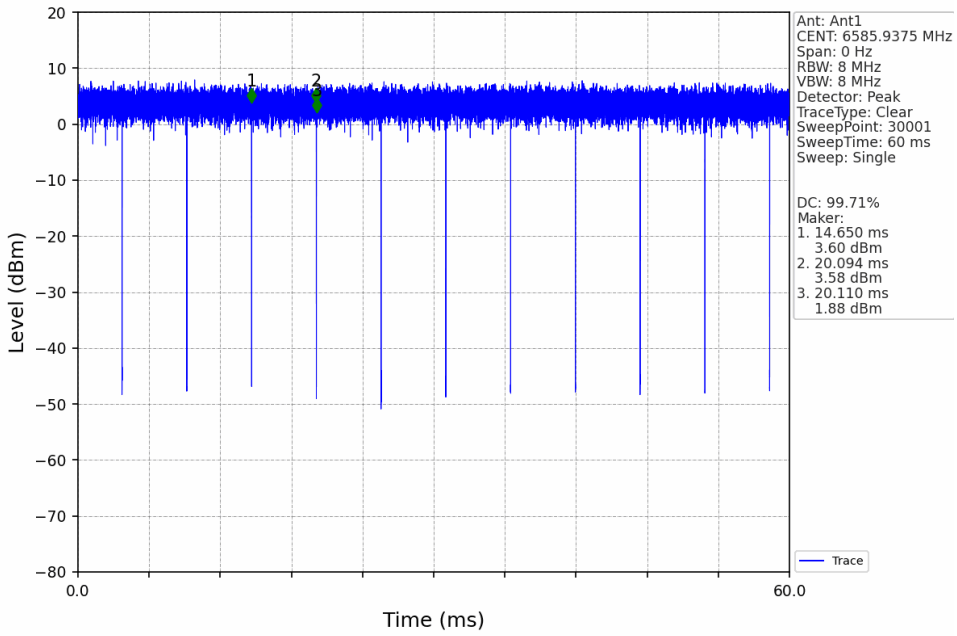
802.11ax(HEW40)_MCH_6685MHz_SU_Ant1_NTNV



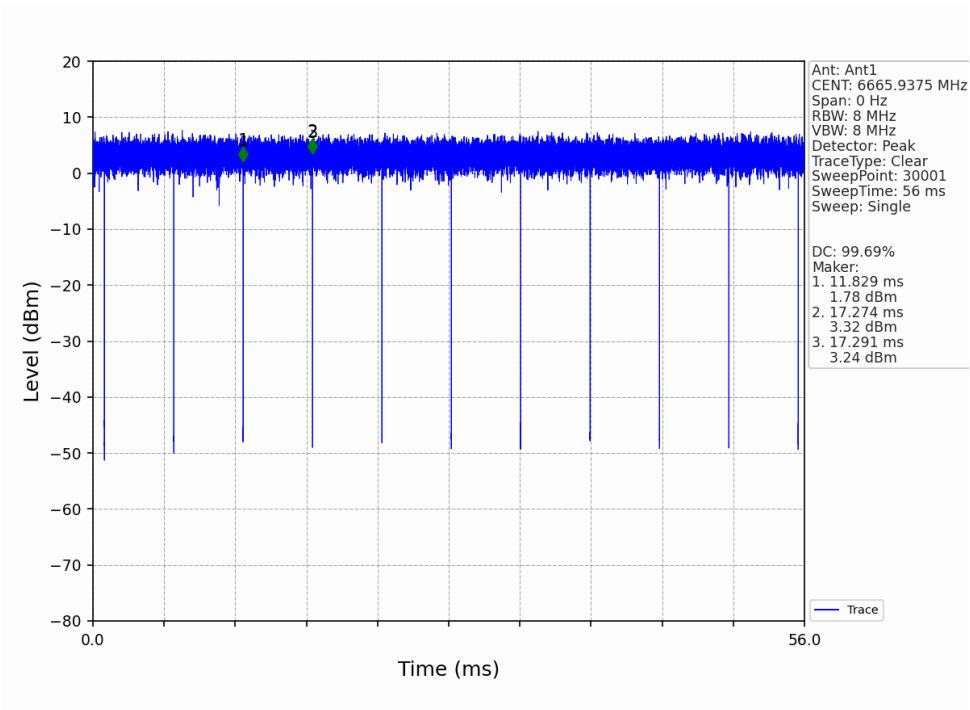
802.11ax(HEW40)_HCH_6845MHz_SU_Ant1_NTNV



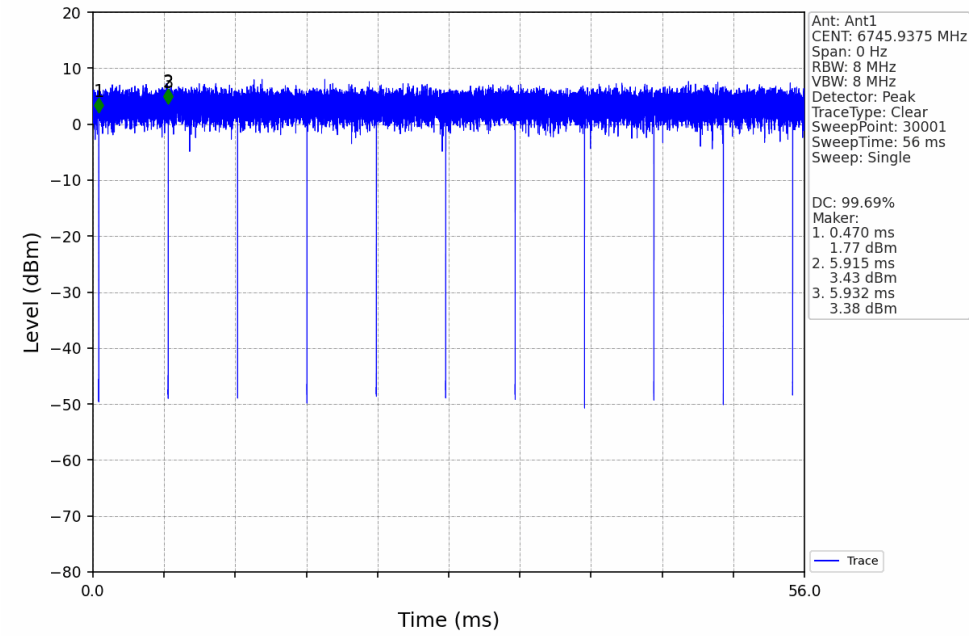
802.11ax(HEW80)_LCH_6625MHz_SU_Ant1_NTNV



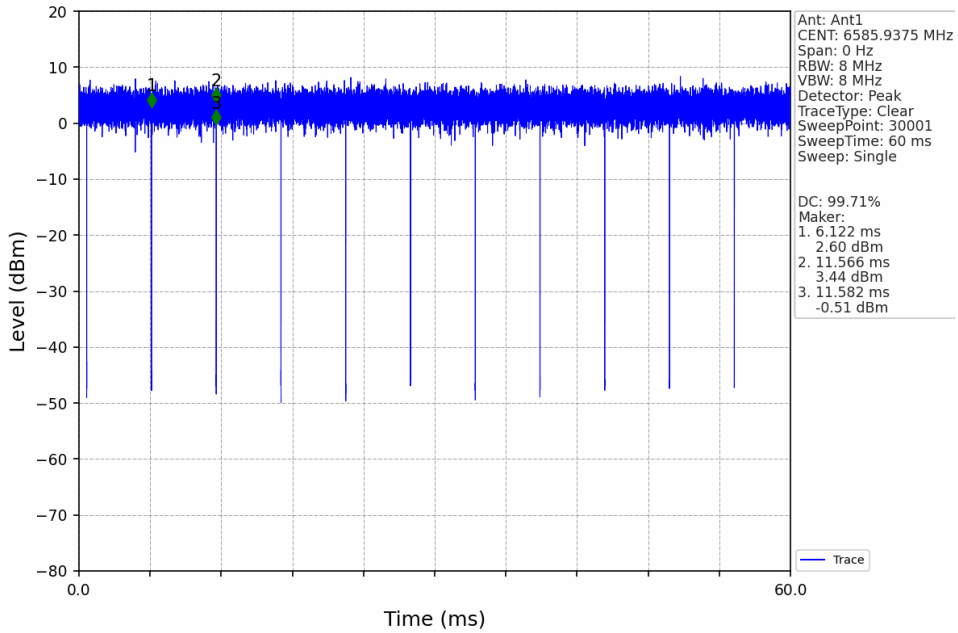
802.11ax(HEW80)_MCH_6705MHz_SU_Ant1_NTNV



802.11ax(HEW80)_HCH_6785MHz_SU_Ant1_NTNV

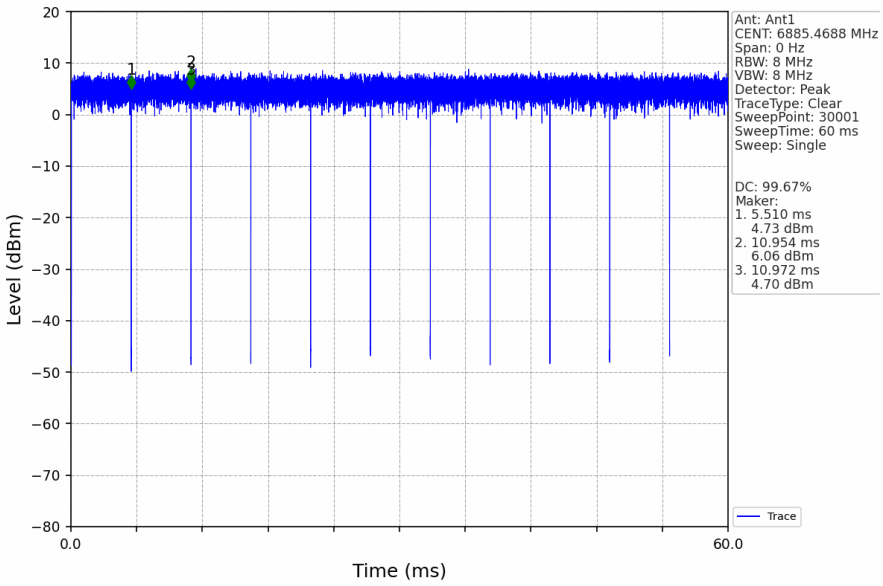


802.11ax(HEW160)_MCH_6665MHz_SU_Ant1_NTNV

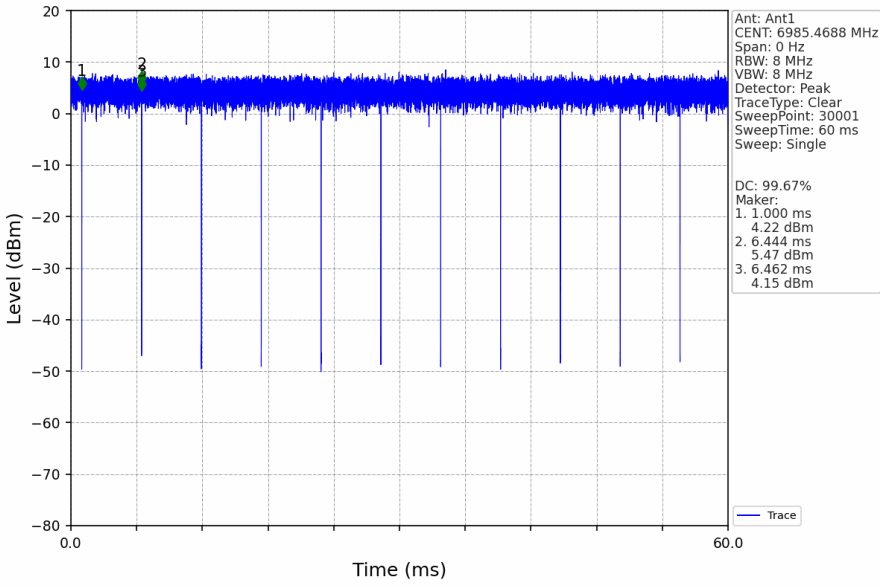


1.2.4 Ant1

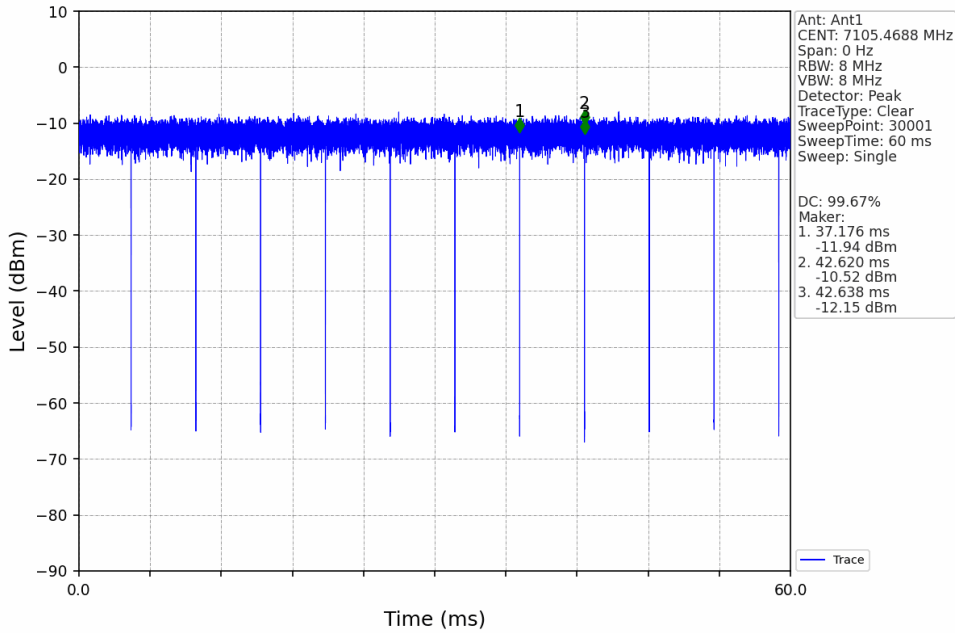
802.11ax(HEW20)_LCH_6895MHz_SU_Ant1_NTNV



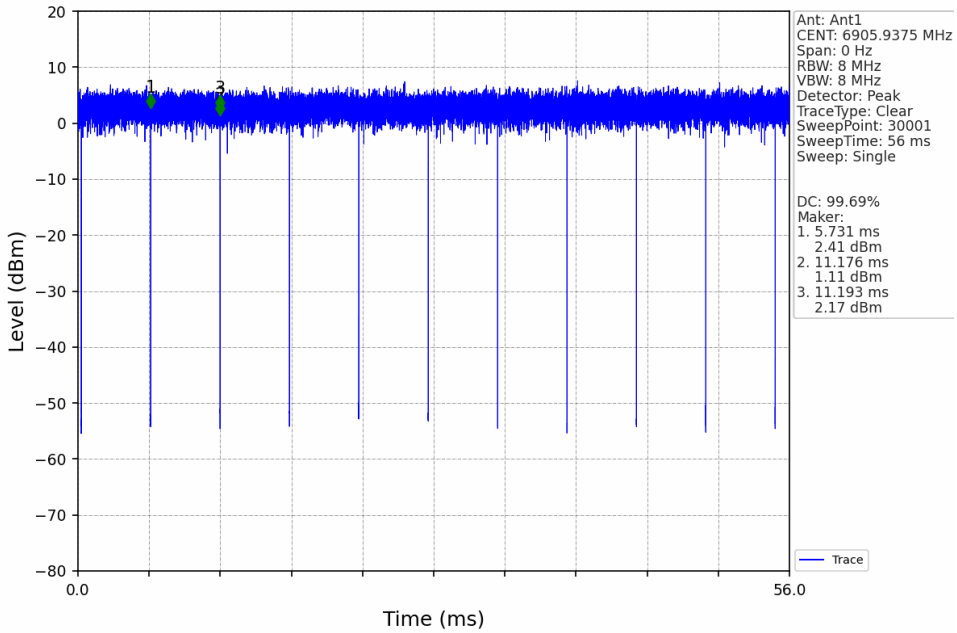
802.11ax(HEW20)_MCH_6995MHz_SU_Ant1_NTNV



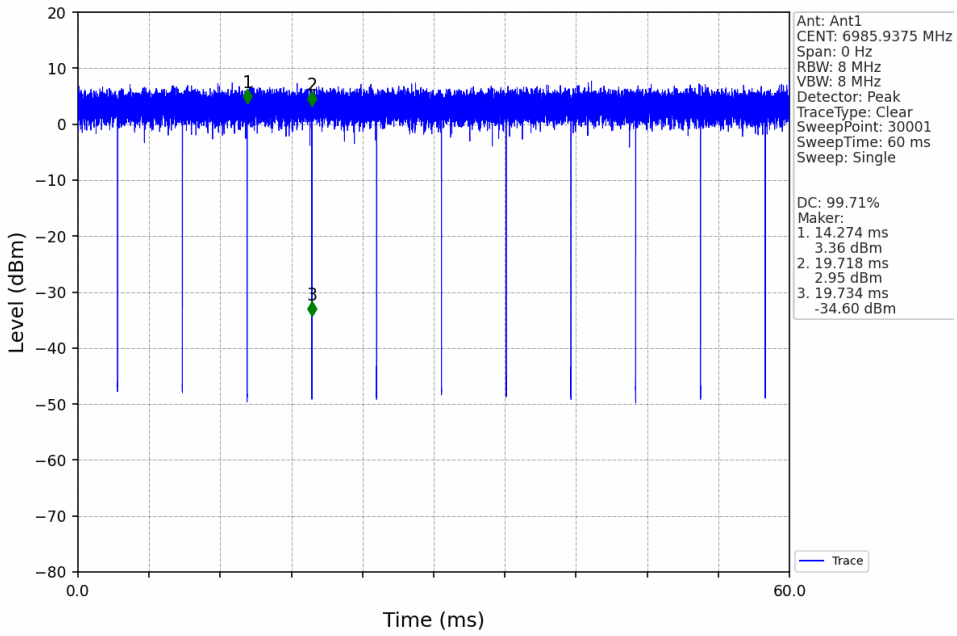
802.11ax(HEW20)_HCH_7115MHz_SU_Ant1_NTNV



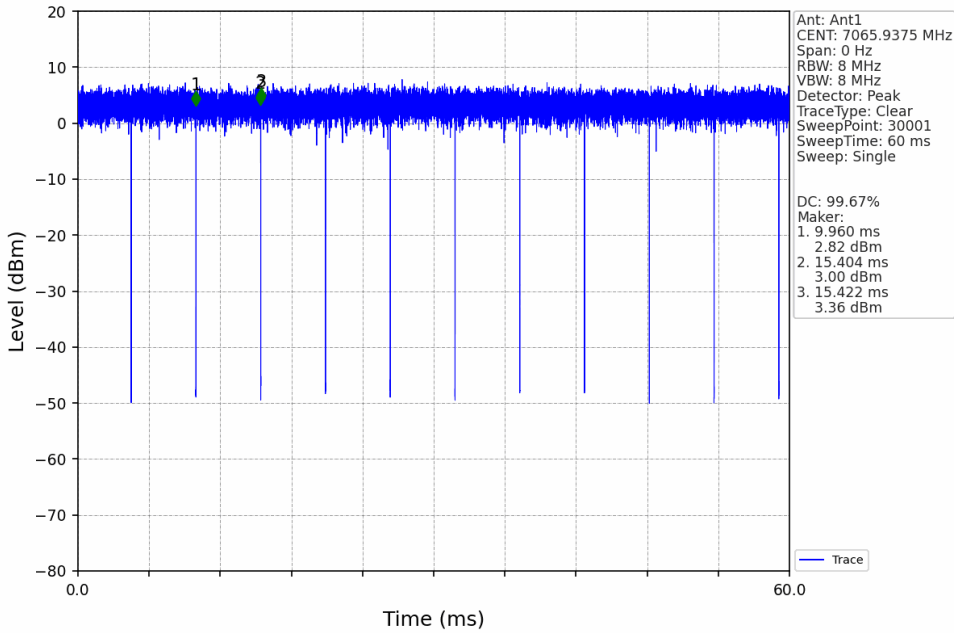
802.11ax(HEW40)_LCH_6925MHz_SU_Ant1_NTNV



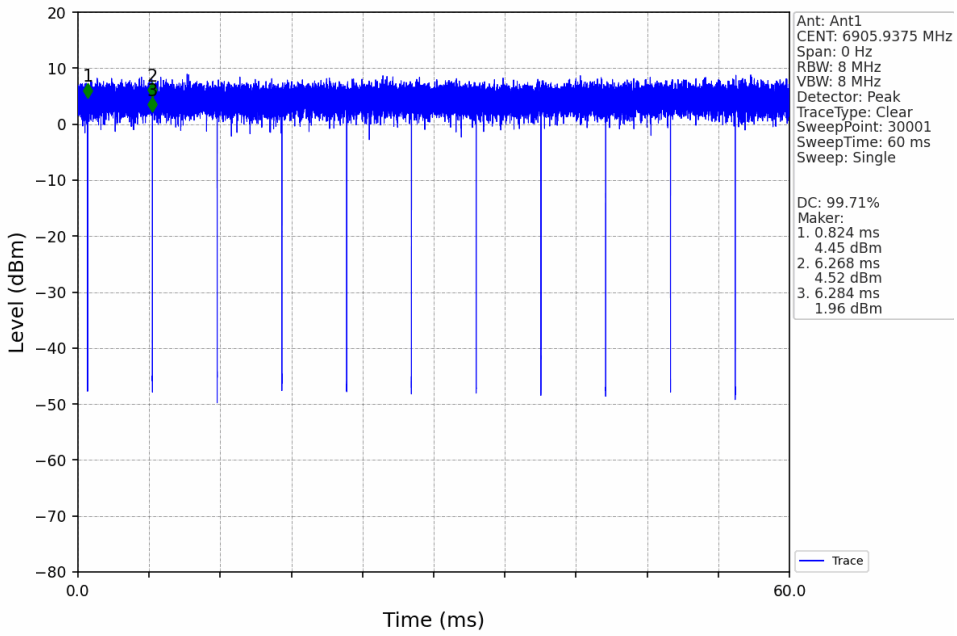
802.11ax(HEW40)_MCH_7005MHz_SU_Ant1_NTNV



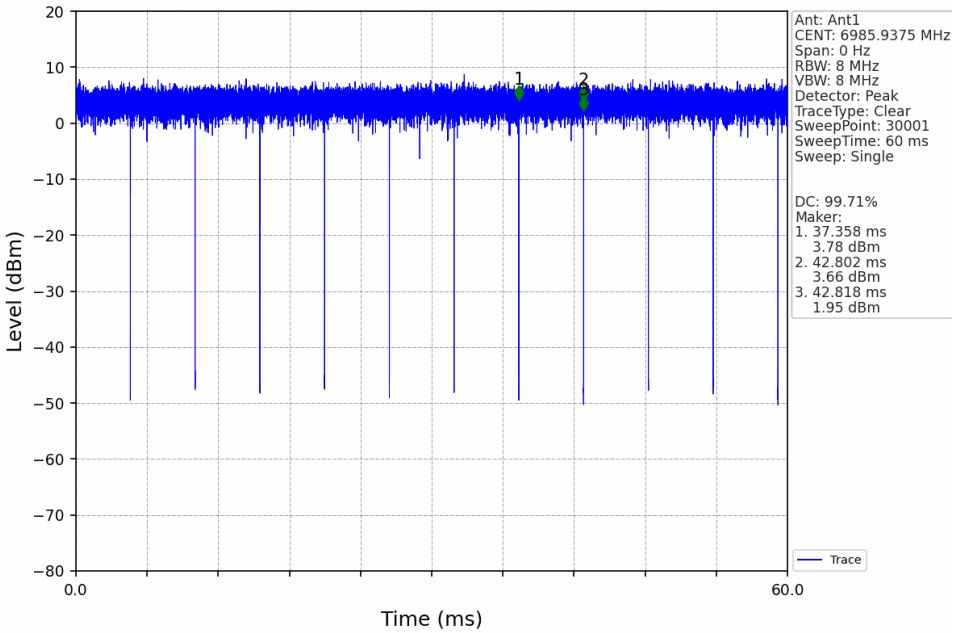
802.11ax(HEW40)_HCH_7085MHz_SU_Ant1_NTNV



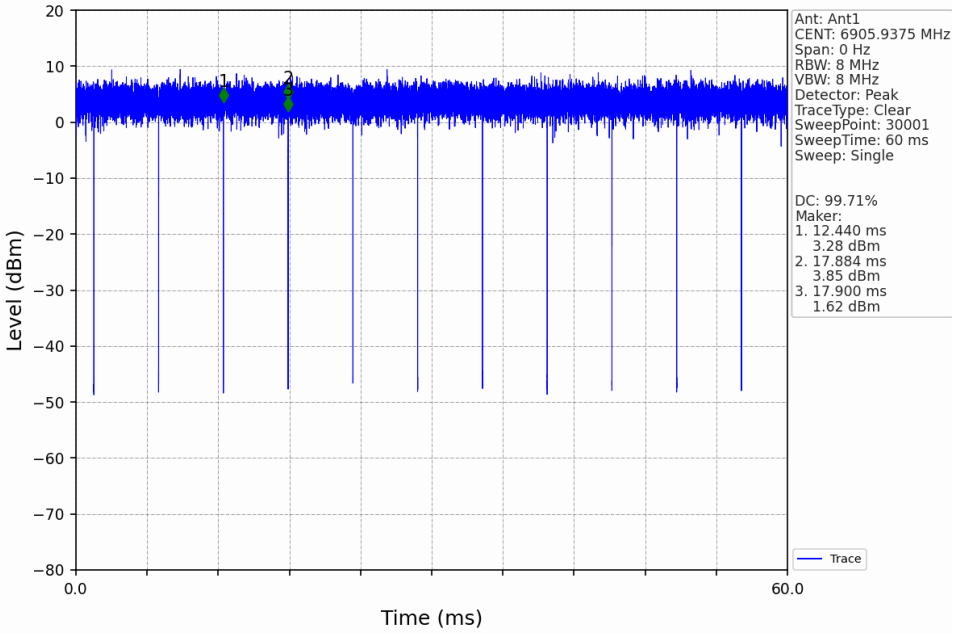
802.11ax(HEW80)_LCH_6945MHz_SU_Ant1_NTNV



802.11ax(HEW80)_HCH_7025MHz_SU_Ant1_NTNV

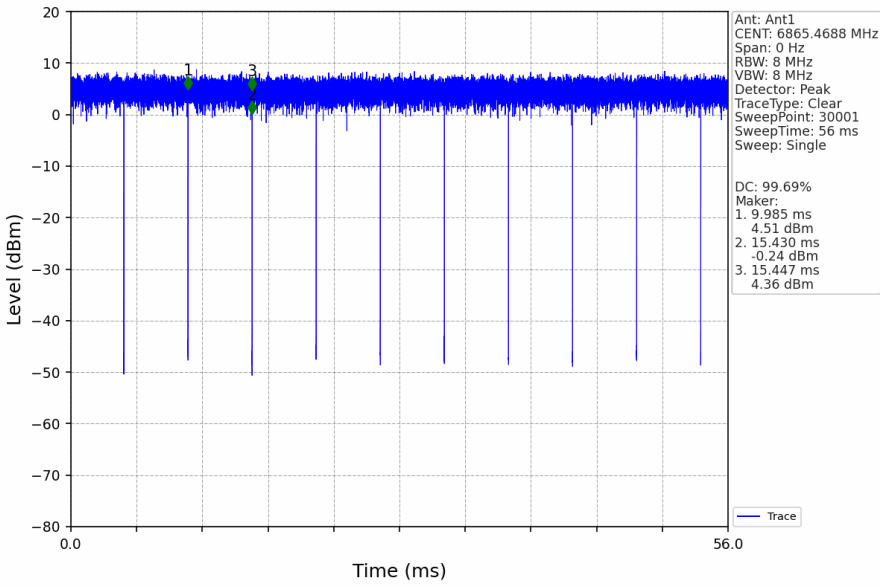


802.11ax(HEW160)_MCH_6985MHz_SU_Ant1_NTNV

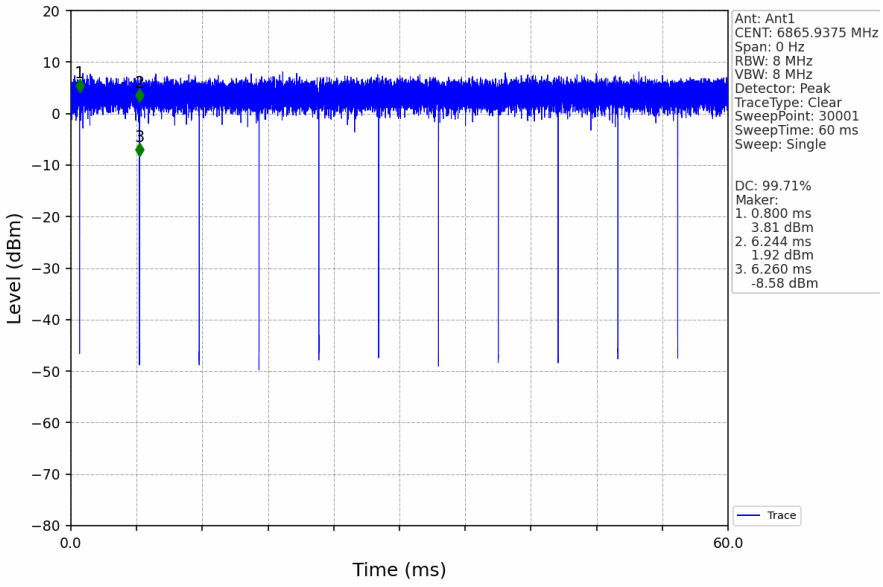


1.2.5 Ant1

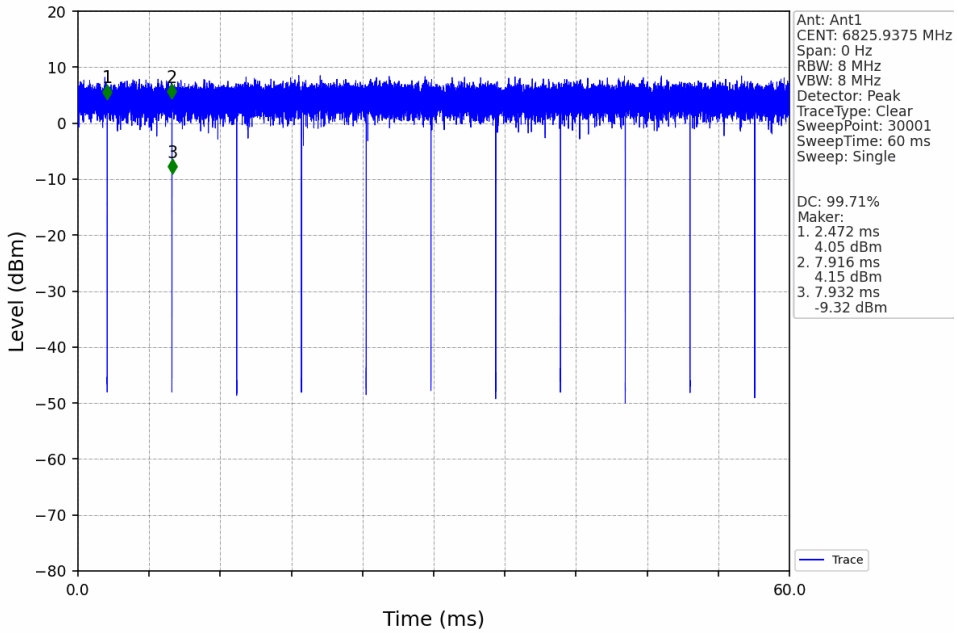
802.11ax(HEW20)_HCH_6875MHz_SU_Ant1_NTNV



802.11ax(HEW40)_HCH_6885MHz_SU_Ant1_NTNV



802.11ax(HEW80)_HCH_6865MHz_SU_Ant1_NTNV



802.11ax(HEW160)_HCH_6825MHz_SU_Ant1_NTNV