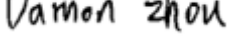
TEST REPORT

Application No.:	KSCR2308001517AT
FCC ID:	2AH25K2
IC:	22621-K2
Applicant:	Shanghai Sunmi Technology Co.,Ltd.
Address of Applicant:	Room 505, No.388 Song Hu Road, Yang Pu District, Shanghai,China
Manufacturer:	Shanghai Sunmi Technology Co.,Ltd.
Address of Manufacturer:	Room 505, No.388 Song Hu Road, Yang Pu District, Shanghai,China
Equipment Under Test (EUT):	
EUT Name:	Self-Checkout Kiosk
Model No.:	F4E00
HVIN:	F4E00-A
Standard(s) :	47 CFR Part 15, Subpart E 15.407 RSS-247 Issue 2, February 2017 RSS-Gen Issue 5 Amendment 2 (February 2021)
Date of Receipt:	2023-08-29
Date of Test:	2023-08-31 to 2023-09-08
Date of Issue:	2023-11-17
Test Result:	**Pass***

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

Revision Record			
Version	**Description**	***Date***	***Remark***
00	Original	2023-11-17	/

Authorized for issue by:				
Tested By				
		Damon_Zhou/Project Engineer		
Approved By				
		Terry Hou /Reviewer		

2 Test Summary

Radio Spectrum Technical Requirement				
Item	**FCC Requirement**	**IC Requirement**	**Method**	**Result**
Antenna Requirement	47 CFR Part 15, Subpart C 15.203	RSS-Gen Clause 6.8	N/A	Customer Declaration
Transmission in the Absence of Data	47 CFR Part 15, Subpart E 15.407 (c)	RSS-247 Section 6.4(a)	N/A	Pass

N/A: Not applicable

Radio Spectrum Matter Part				
Item	**FCC Requirement**	**IC Requirement**	**Method**	**Result**
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(6)	RSS-Gen Section 8.8	ANSI C63.10 (2013) Section 6.2	Pass
99% Bandwidth	N/A	RSS-Gen Section 6.7	ANSI C63.10 Section 6.9.3	Pass
26dB Emission bandwidth	47 CFR Part 15, Subpart E 15.407 (a)	RSS-247 Section 6.2.1(1)	KDB 789033 D02 II C 1	Pass
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	47 CFR Part 15, Subpart E 15.407 (e)	RSS-247 Section 6.2.4	KDB 789033 D02 II C 2	Pass
Maximum Conducted output power	47 CFR Part 15, Subpart E 15.407 (a)	RSS-247 Section 6.2.1&6.2.2&6.2.3&6.2.4	KDB 789033 D02 II E	Pass
Peak Power spectrum density	47 CFR Part 15, Subpart E 15.407 (a)	RSS-247 Section 6.2.1&6.2.2&6.2.3& 6.2.4	KDB 789033 D02 II F	Pass
Radiated Emissions	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	RSS-247 Section 3.3 & RSS-Gen Section 8.9	KDB 789033 D02 II G	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	RSS-247 Section 3.3 & RSS-Gen Section 8.9	KDB 789033 D02 II G	Pass
Frequency Stability	47 CFR Part 15, Subpart E 15.407 (g)	RSS-Gen Section 8.11	ANSI C63.10 (2013) Section 6.8& RSS-Gen Section 6.11	Pass

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply:	AC 100-120V,1.5A,50/60Hz
Operation Frequency/Number of channels (20MHz):	U-NII-1: 5180-5240MHz (4 Channels) U-NII-3: 5745-5825MHz (5 Channels)
Operation Frequency/Number of channels/(40MHz):	U-NII-1: 5190-5230MHz (2 Channels) U-NII-3: 5755-5795MHz (2 Channels)
Operation Frequency/Number of channels (80MHz):	U-NII-1: 5210MHz (1 Channel) U-NII-3: 5775MHz (1 Channel)
Modulation Type:	802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Channel Spacing:	802.11a/n/ac20: 20MHz; 802.11n/ac40: 40MHz; 802.11ac80: 80MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	U-NII-1: 2.07dBi(Provided by the manufacturer) U-NII-3: 0.89dBi(Provided by the manufacturer)
Serial Number:	K217232800030
Firmware Version:	1.5.3

4.2 Description of Support Units

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

4.3 Measurement Uncertainty

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

4.4 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

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

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

No tests were sub-contracted.

Note:

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

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

3. Sample source: sent by customer.

4.5 Test Facility

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

• A2LA

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

• FCC

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

• ISED

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

• VCCI

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

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Item	Equipment	Manufacturer	Model	Inventory No	Cal Date	Cal. Due Date
Conducted Emission at Mains Terminals (150kHz-30MHz)						
1	EMI Test Receive	R&S	ESCI	KS301101	02/03/2023	02/02/2024
2	LISN	R&S	ENV216	KS301197	01/17/2023	01/16/2024
3	LISN	Schwarzbeck	NNLK 8129	KS301091	01/17/2023	01/16/2024
4	Pulse Limiter	R&S	ESH3-Z2	KUS1902E001	01/17/2023	01/16/2024
5	CE test Cable	Thermax	/	CZ301102	01/17/2023	01/16/2024
6	Test Software	Farad	EZ-EMC	/	N.C.R	N.C.R
RF Conducted Test						
1	Spectrum Analyzer	Keysight	N9020A	KUS1911E004-2	08/24/2023	08/23/2024
2	Spectrum Analyzer	Keysight	N9020A	KUS2001M001-2	08/24/2023	08/23/2024
3	Spectrum Analyzer	Keysight	N9030B	KSEM021-1	02/03/2023	02/02/2024
4	Signal Generator	R&S	SMBV100B	KSEM032	03/16/2023	03/15/2024
5	Signal Generator	R&S	SMW200A	KSEM020-1	08/24/2023	08/23/2024
6	Signal Generator	Agilent	N5182A	KUS2001M001-1	08/24/2023	08/23/2024
7	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	08/24/2023	08/23/2024
8	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	03/16/2023	03/15/2024
9	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	08/24/2023	08/23/2024
10	Switcher	CCSRF	FY562	KUS2001M001-3	08/24/2023	08/23/2024
11	AC Power Source	EXTECH	6605	KS301178	N.C.R	N.C.R
12	DC Power Supply	Aglient	E3632A	KS301180	N.C.R	N.C.R
13	Conducted Test Cable	Thermax	RF01-RF04	CZ301111-CZ301120	02/03/2023	02/02/2024
14	Temp. / Humidity Chamber	TERCHY	MHK-120AK	KS301190	08/24/2023	08/23/2024
15	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-5	03/22/2023	03/21/2024
16	Software	BST	TST-PASS	/	N/A	N/A
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	08/24/2023	08/23/2024
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	03/16/2023	03/15/2024
3	Signal Generator	Agilent	E8257C	KS301066	08/24/2023	08/23/2024
4	Loop Antenna	COM-POWER	AL-130R	KUS1806E001	03/18/2023	03/17/2025
5	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E005	06/29/2023	06/28/2025
6	Bilog Antenna	SCHWARZBECK	VULB9160	CZ301016	04/13/2021	04/12/2024
7	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	08/24/2023	08/23/2024
8	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	KS301186	02/21/2023	02/20/2024
9	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	02/26/2023	02/25/2024
10	Amplifier(30MHz~18GHz)	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-1	01/17/2023	01/16/2024
11	Amplifier(18~40GHz)	COM-POWER	PAM-840A	KUS1710E001	01/21/2023	01/20/2024
12	RE Test Cable	REBES MICROWAVE	/	CZ301097	08/24/2023	08/23/2024
13	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	03/22/2023	03/21/2024
14	Software	ESE	E3	/	N/A	N/A
15	Software	Faratronic	EZ_EMC-v 3A1	/	N/A	N/A

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is PIFA Antenna and no consideration of replacement. The best case gain of the antenna is: 2.07dBi for U-NII-1,0.89dBi for U-NII-3.

Antenna location: Refer to internal photo.

6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart E 15.407 (c)

6.2.2 Conclusion

Conclusion

Standard Requirement:

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

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

EUT Details:

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

7 Radio Spectrum Matter Test Results

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

Test Requirement 47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)
Test Method: ANSI C63.10 (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.		

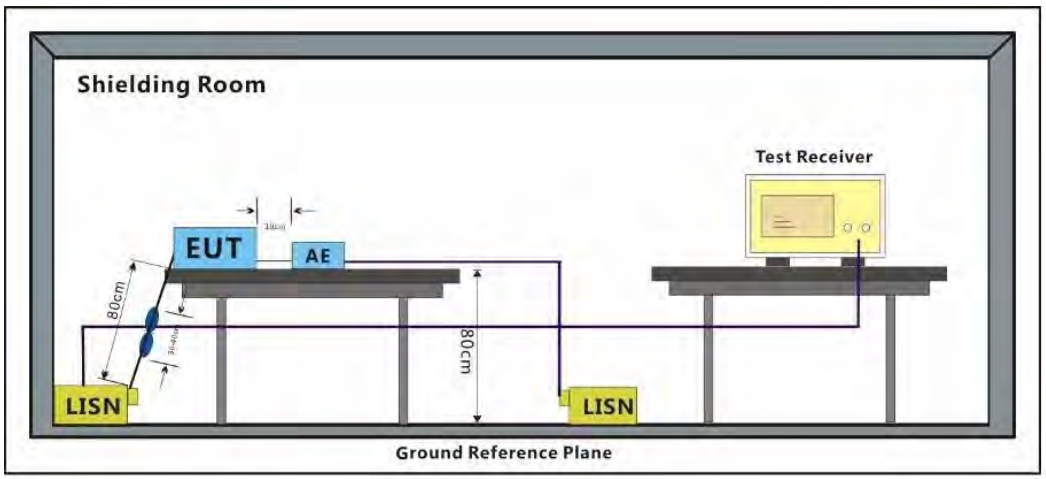
7.1.1 E.U.T. Operation

Operating Environment:
Temperature: 26.3 °C Humidity: 41.6 % RH Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, 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.

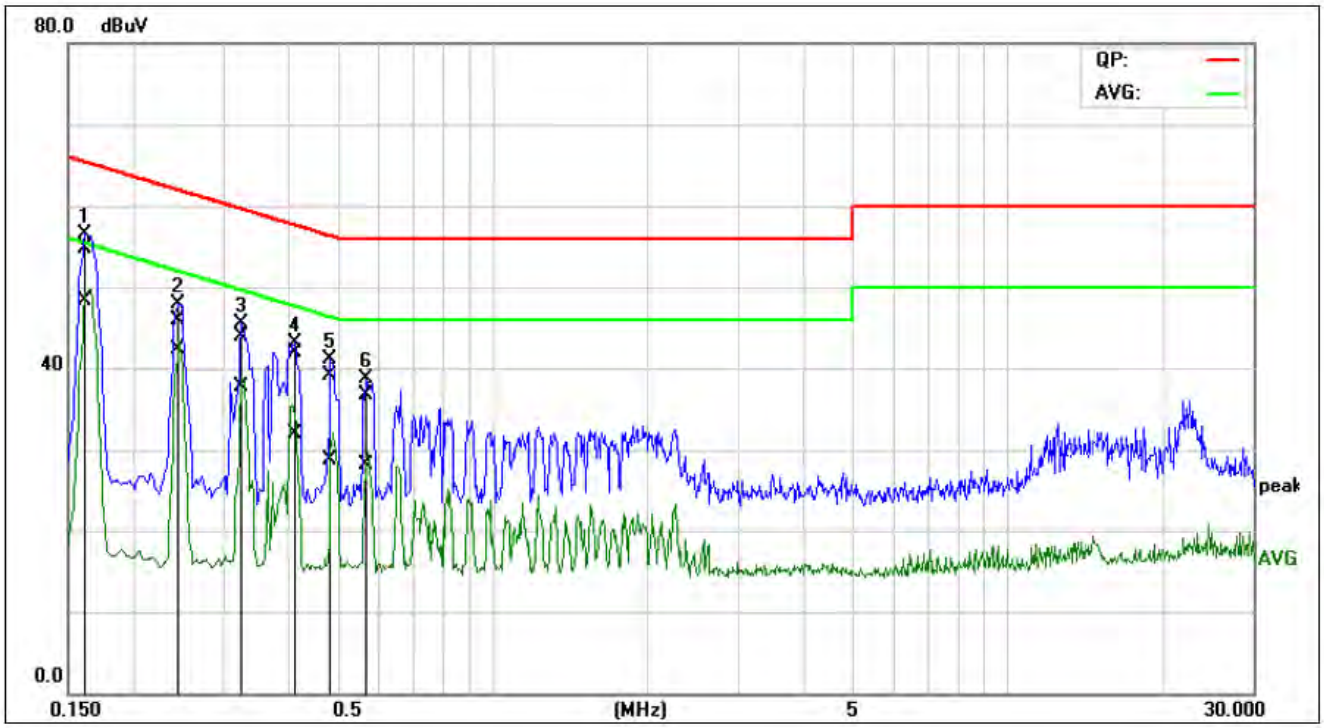
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

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.

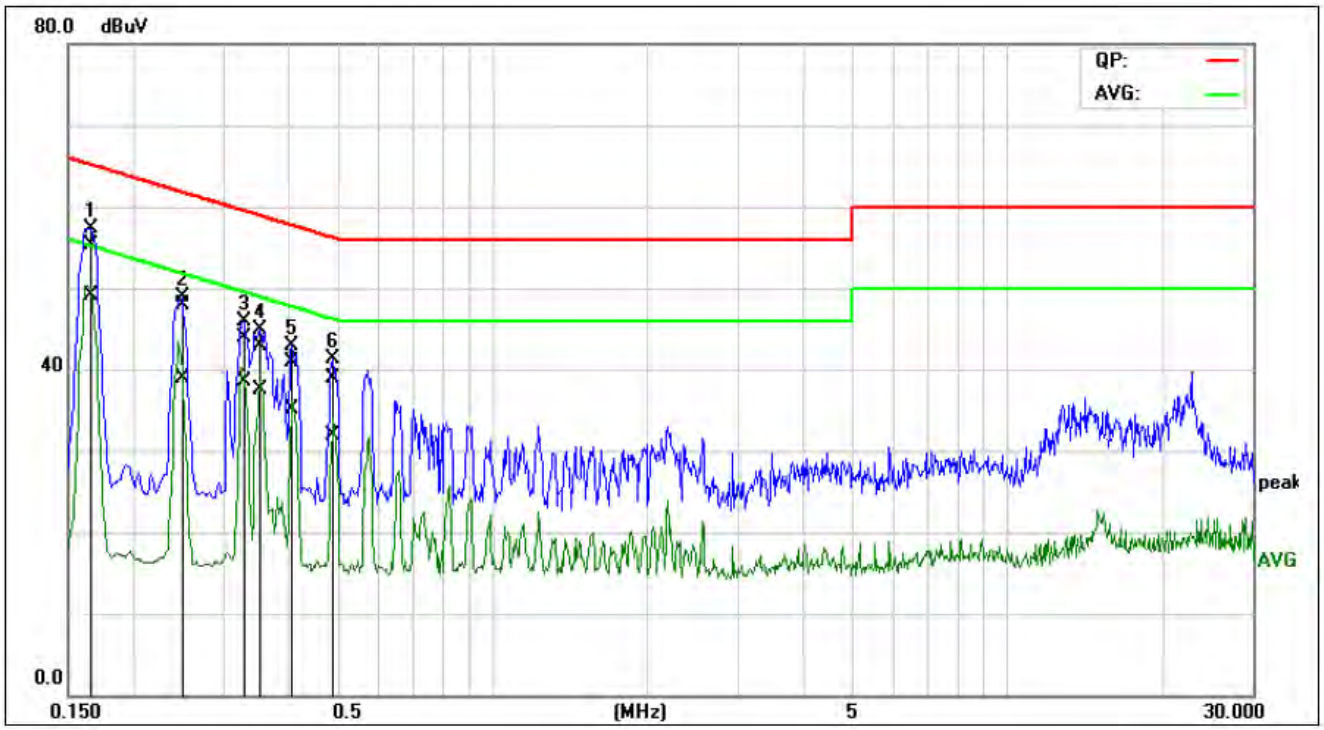
Remark: Level=Read Level+ Cable Loss+ LISN Factor

Test Mode: 05; Line: Live line



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1620	34.46	28.05	20.16	54.62	48.21	65.36	55.36	-10.74	-7.15	Pass
2	0.2460	25.94	22.30	20.03	45.97	42.33	61.89	51.89	-15.92	-9.56	Pass
3	0.3260	23.95	17.66	20.03	43.98	37.69	59.55	49.55	-15.57	-11.86	Pass
4	0.4140	21.96	11.82	20.04	42.00	31.86	57.57	47.57	-15.57	-15.71	Pass
5	0.4860	19.06	8.73	20.06	39.12	28.79	56.24	46.24	-17.12	-17.45	Pass
6	0.5700	16.77	8.13	20.00	36.77	28.13	56.00	46.00	-19.23	-17.87	Pass

Test Mode: 05; Line: Neutral Line



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1660	35.11	28.88	20.22	55.33	49.10	65.15	55.16	-9.82	-6.06	Pass
2	0.2500	27.66	18.68	20.15	47.81	38.83	61.75	51.76	-13.94	-12.93	Pass
3	0.3300	23.77	18.29	20.14	43.91	38.43	59.45	49.45	-15.54	-11.02	Pass
4	0.3540	22.86	17.42	20.12	42.98	37.54	58.87	48.87	-15.89	-11.33	Pass
5	0.4100	20.88	15.04	20.10	40.98	35.14	57.65	47.65	-16.67	-12.51	Pass
6	0.4900	18.86	11.88	20.07	38.93	31.95	56.17	46.17	-17.24	-14.22	Pass

7.2 Duty Cycle

Test Requirement KDB 789033 D02 II B 1
Test Method: KDB 789033 II B 1

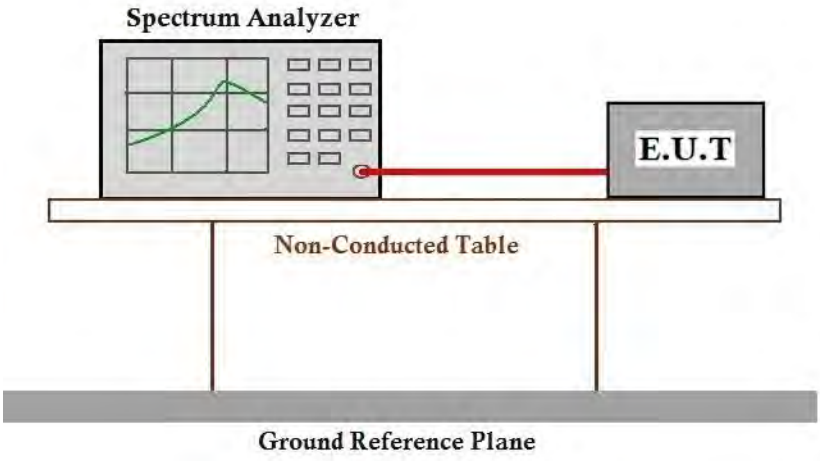
7.2.1 E.U.T. Operation

Operating Environment:
Temperature: 26.3 °C Humidity: 41.6 % RH Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, 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 99% Bandwidth

Test Requirement N/A
Test Method: KDB 789033 II D

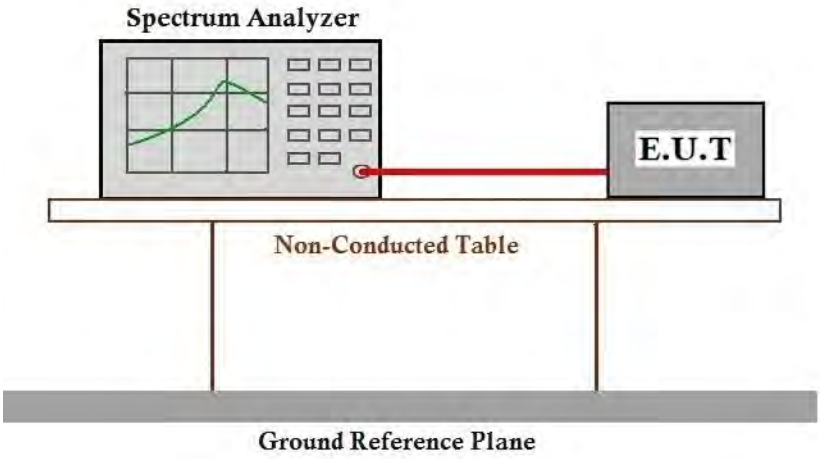
7.3.1 E.U.T. Operation

Operating Environment:
Temperature: 26.3 °C Humidity: 41.6 % RH Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



7.3.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.4 26dB Emission bandwidth

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)
Test Method: KDB 789033 D02 II C 1

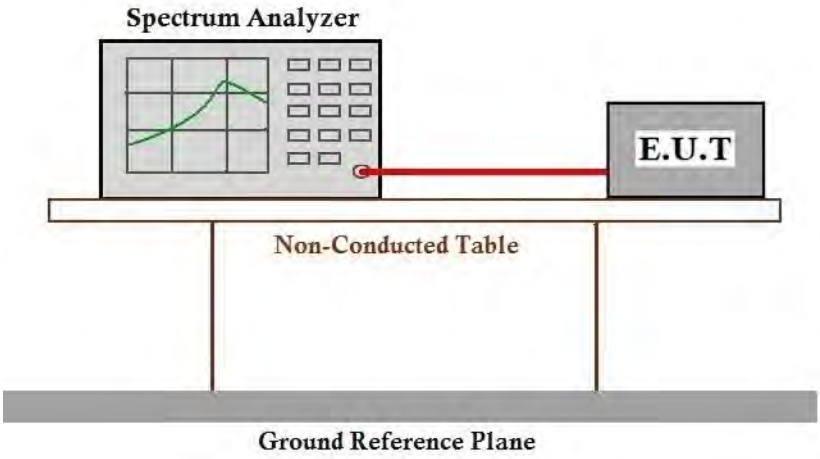
7.4.1 E.U.T. Operation

Operating Environment:
Temperature: 26.3 °C Humidity: 41.6 % RH Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.5 Minimum 6 dB bandwidth (5.725-5.85 GHz band)

Test Requirement 47 CFR Part 15, Subpart E 15.407 (e)
Test Method: KDB 789033 D02 II C 2

Limit:

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

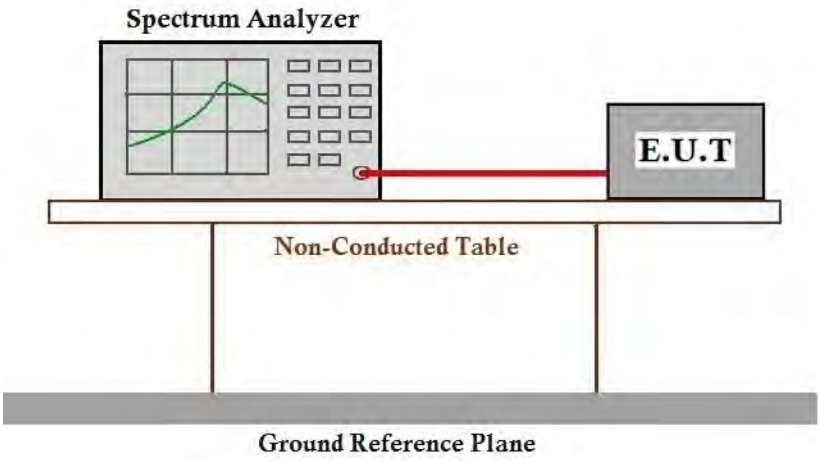
7.5.1 E.U.T. Operation

Operating Environment:
Temperature: 26.3 °C Humidity: 41.6 % RH Atmospheric Pressure: 1010 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.6 Maximum Conducted output power

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)
Test Method: KDB 789033 D02 II E

Limit:

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

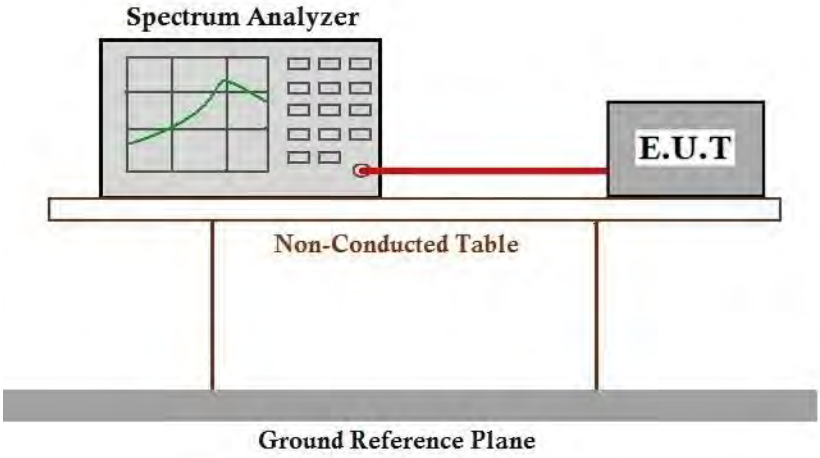
7.6.1 E.U.T. Operation

Operating Environment:
Temperature: 26.3 °C Humidity: 41.6 % RH Atmospheric Pressure: 1010 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

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

Please Refer to Appendix for Details

7.7 Peak Power spectrum density

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)
Test Method: KDB 789033 D02 II F

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.

7.7.1 E.U.T. Operation

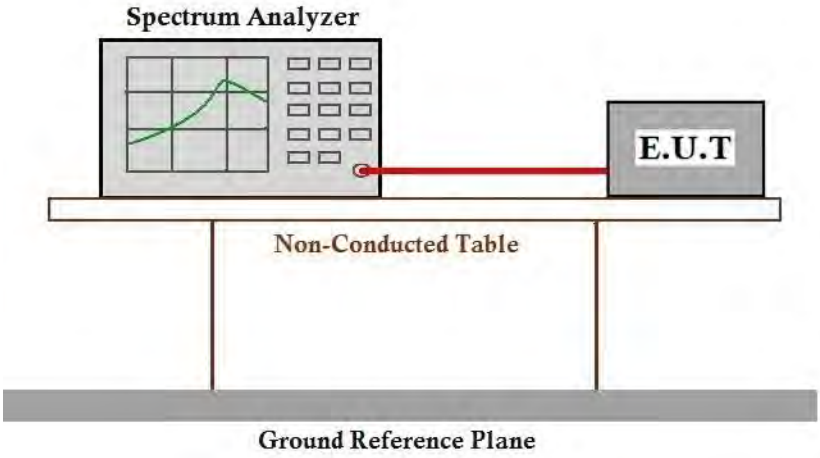
Operating Environment:

Temperature: 26.3 °C Humidity: 41.6 % RH Atmospheric Pressure: 1010 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, 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 Radiated Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)
Test Method: KDB 789033 D02 II G

Limit:

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

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

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

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

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

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

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.8.1 E.U.T. Operation

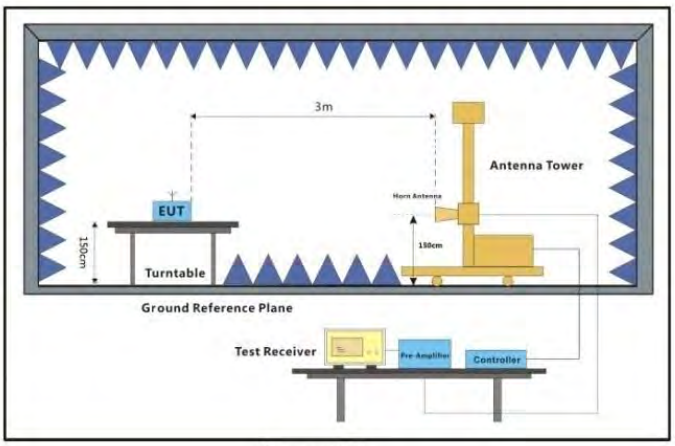
Operating Environment:

Temperature: 26.5 °C Humidity: 46.3 % RH Atmospheric Pressure: 1010 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.

7.8.3 Test Setup Diagram



Above 1GHz

7.8.4 Measurement Procedure and Data

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

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

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

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

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

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

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

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

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

Remark:

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

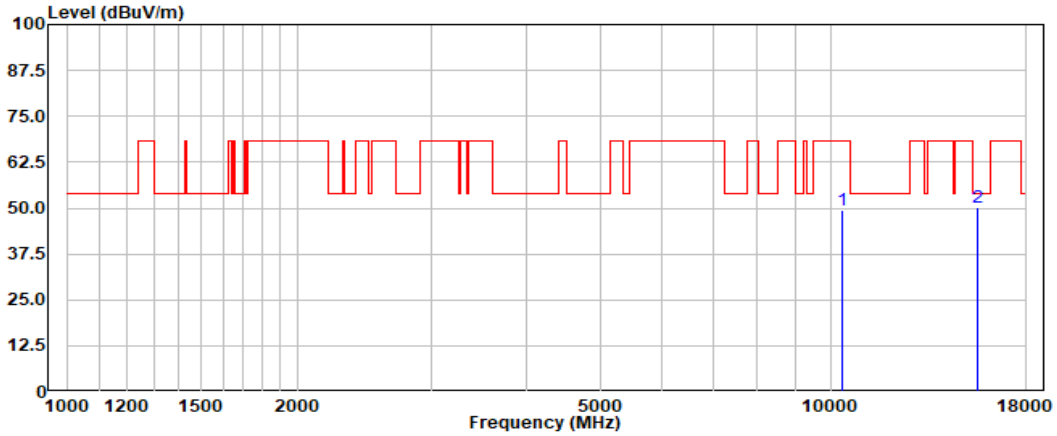
2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

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

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

5. For devices with multiple operating modes, measurements on the middle channel is used to determine the worst-case mode(s). Only the worst case mode with the highest output power and the mode with the highest output power spectral density for each modulation family (e.g., OFDM and direct sequence spread spectrum) is recorded in the test report.

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

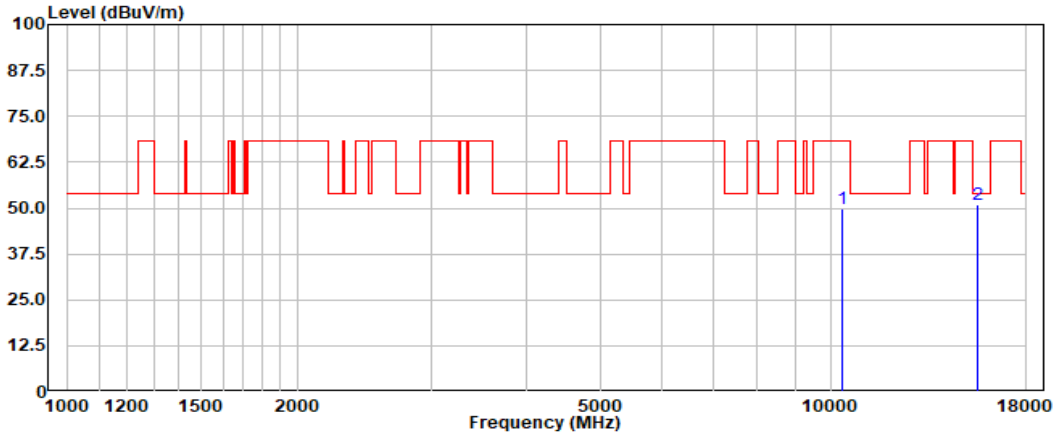


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10360.00	49.72	37.51	7.99	45.72	49.50	68.30	-18.80	Peak
	15540.00	45.43	39.91	9.96	45.03	50.27	54.00	-3.73	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

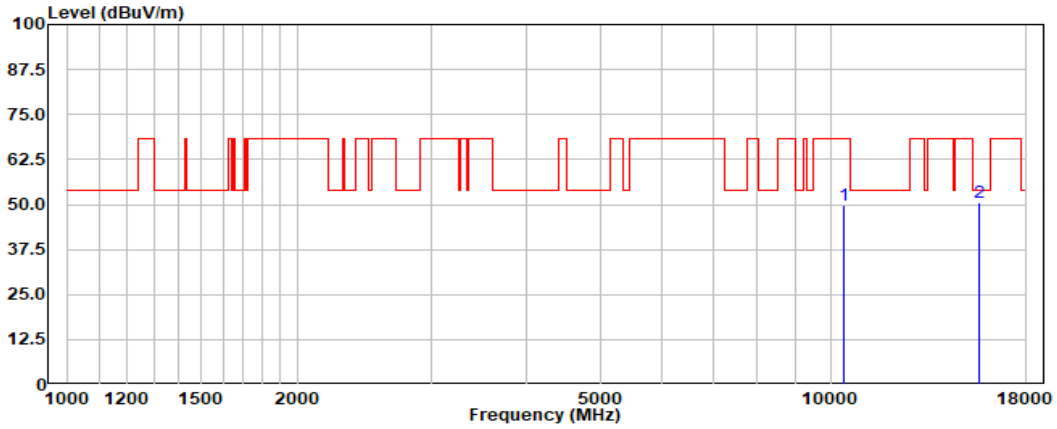


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10360.00	49.95	37.51	7.99	45.72	49.73	68.30	-18.57	Peak
	15540.00	45.96	39.91	9.96	45.03	50.80	54.00	-3.20	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle

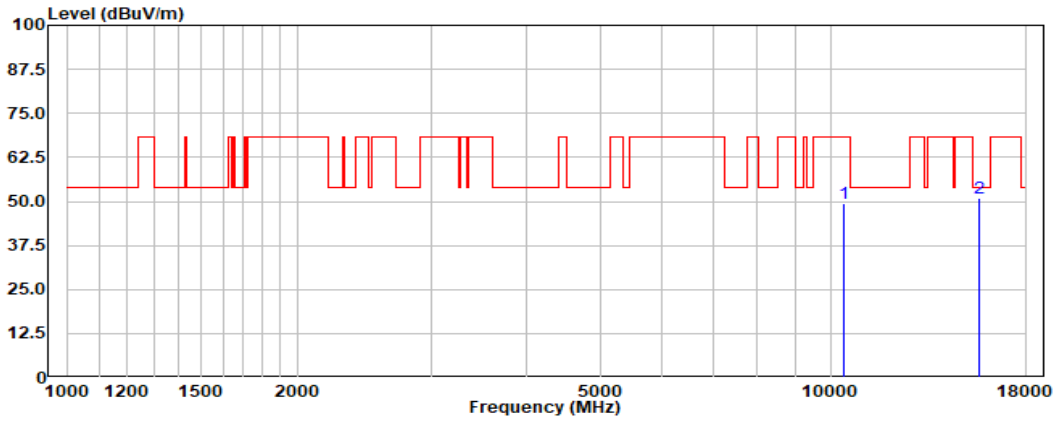


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10400.00	49.92	37.63	8.00	45.69	49.86	68.30	-18.44	Peak
	15600.00	45.64	39.93	9.98	45.00	50.55	54.00	-3.45	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle

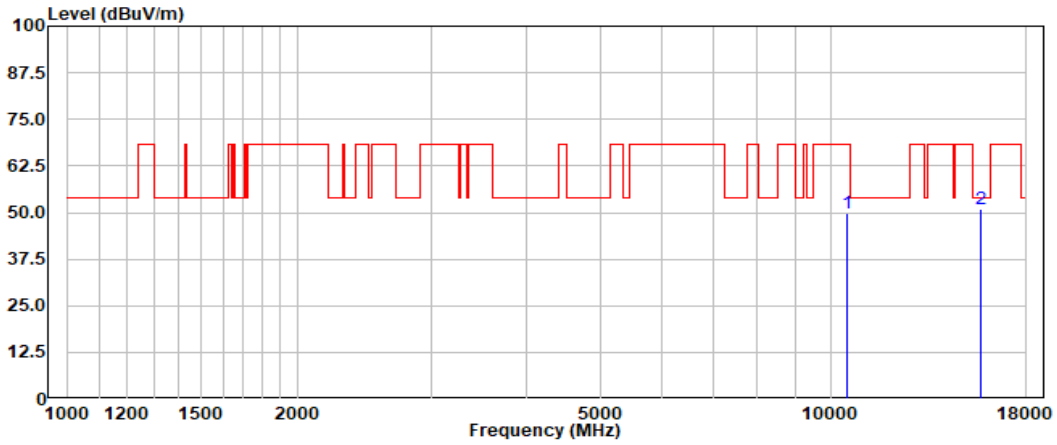


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10400.00	49.61	37.63	8.00	45.69	49.55	68.30	-18.75	Peak
	15600.00	46.00	39.93	9.98	45.00	50.91	54.00	-3.09	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High

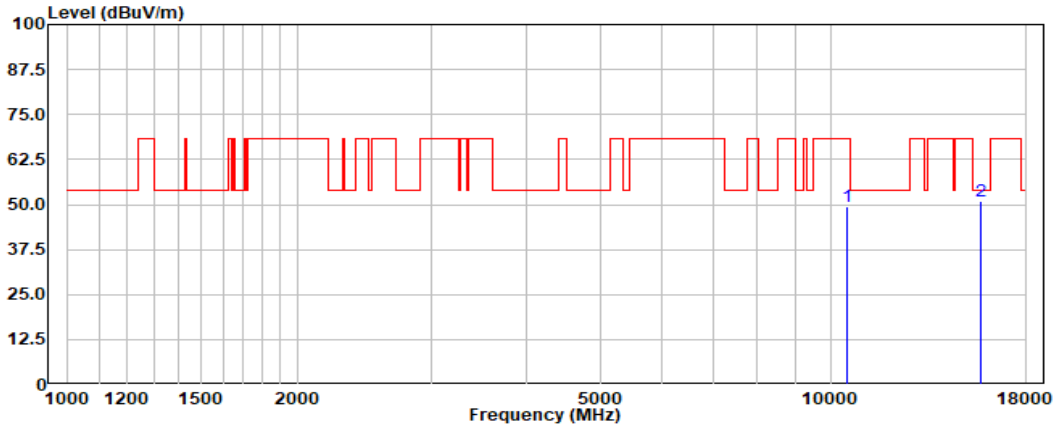


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10480.00	49.90	37.68	8.02	45.63	49.97	68.30	-18.33	Peak
	15720.00	45.63	40.09	10.02	44.95	50.79	54.00	-3.21	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High

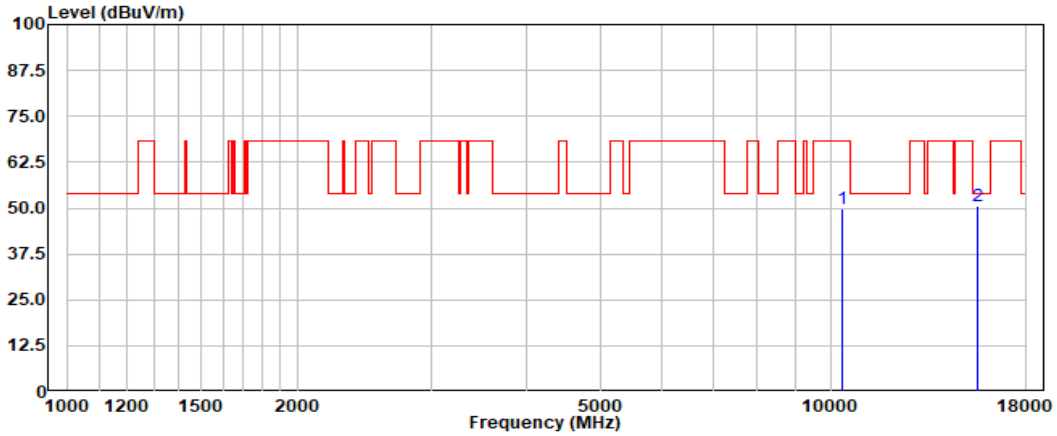


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10480.00	49.55	37.68	8.02	45.63	49.62	68.30	-18.68	Peak
	15720.00	45.82	40.09	10.02	44.95	50.98	54.00	-3.02	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

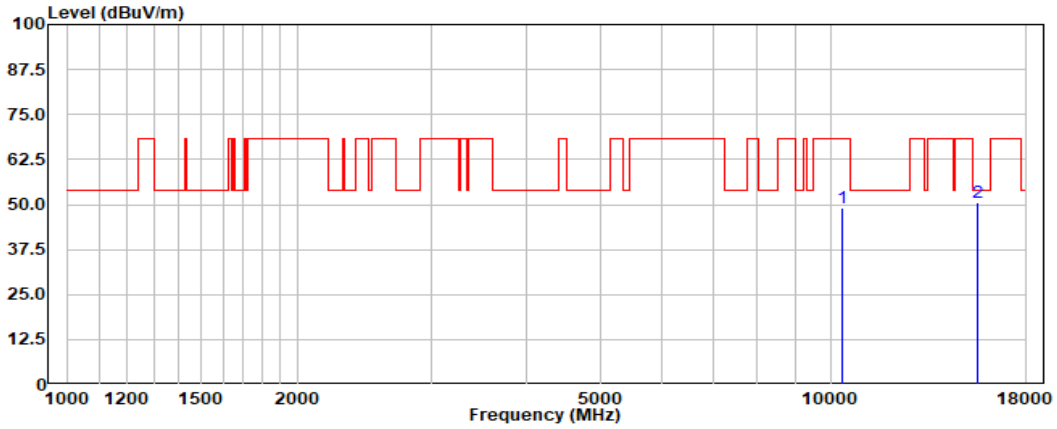


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10360.00	50.06	37.51	7.99	45.72	49.84	68.30	-18.46	Peak
	15540.00	45.71	39.91	9.96	45.03	50.55	54.00	-3.45	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

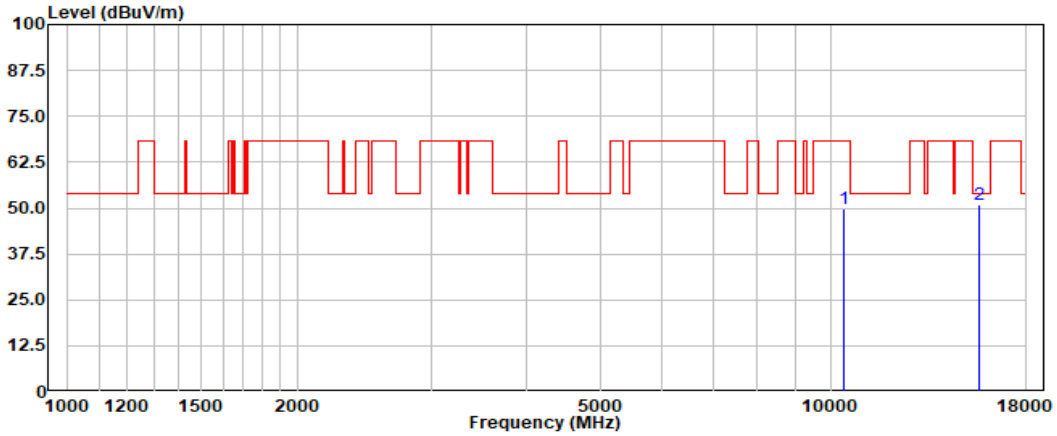


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10360.00	49.25	37.51	7.99	45.72	49.03	68.30	-19.27	Peak
	15540.00	45.77	39.91	9.96	45.03	50.61	54.00	-3.39	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle

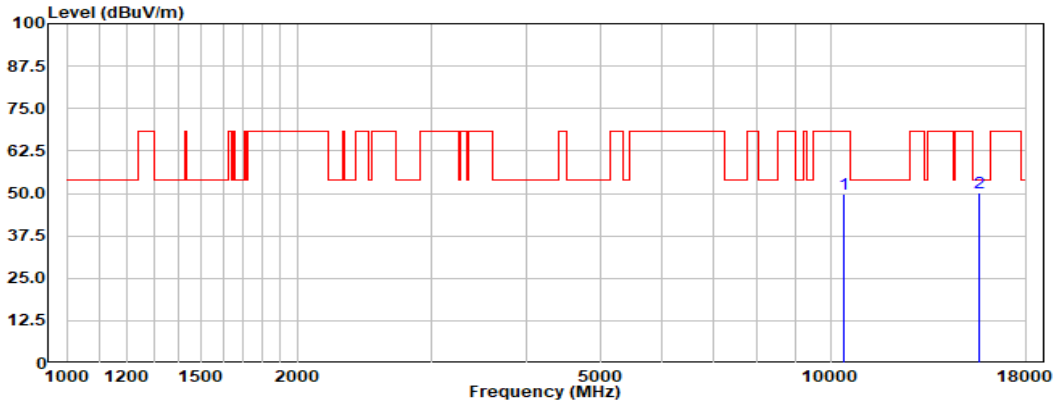


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10400.00	49.88	37.63	8.00	45.69	49.82	68.30	-18.48	Peak
	15600.00	45.90	39.93	9.98	45.00	50.81	54.00	-3.19	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle

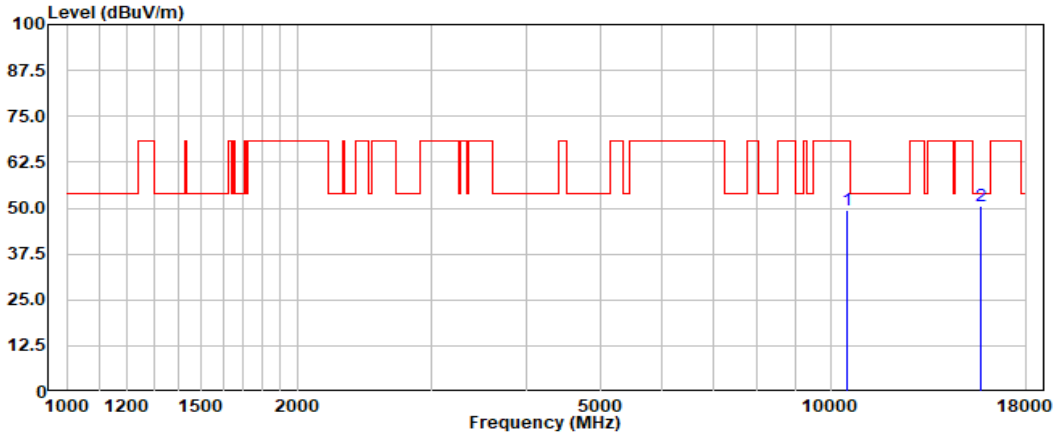


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10400.00	49.73	37.63	8.00	45.69	49.67	68.30	-18.63	Peak
	15600.00	45.36	39.93	9.98	45.00	50.27	54.00	-3.73	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High

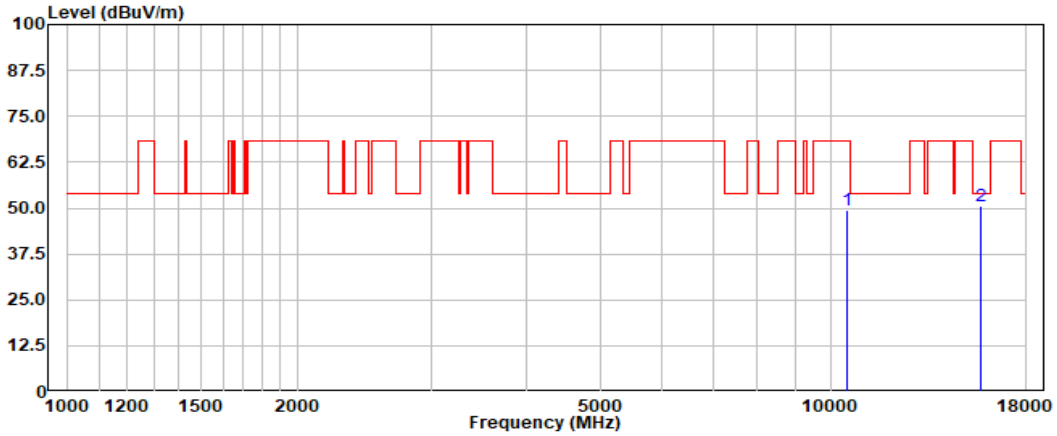


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10480.00	49.46	37.68	8.02	45.63	49.53	68.30	-18.77	Peak
	15720.00	45.59	40.09	10.02	44.95	50.75	54.00	-3.25	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High

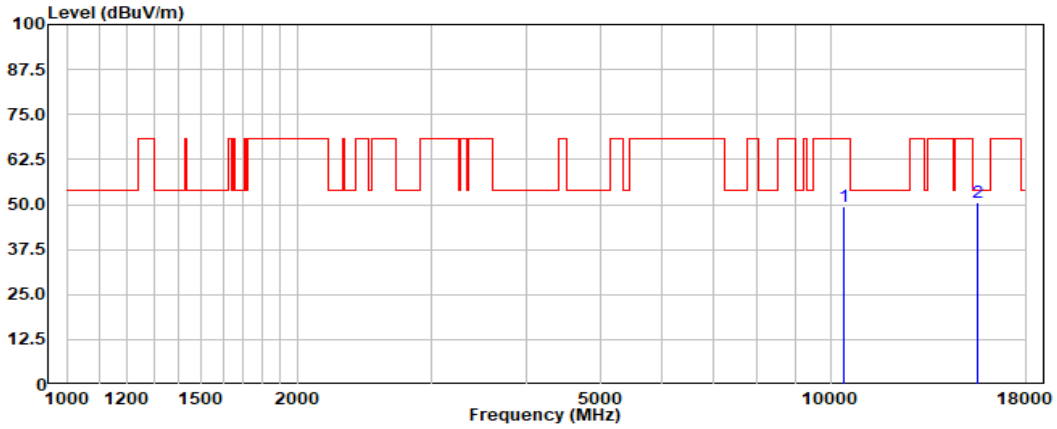


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10480.00	49.27	37.68	8.02	45.63	49.34	68.30	-18.96	Peak
	15720.00	45.30	40.09	10.02	44.95	50.46	54.00	-3.54	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low

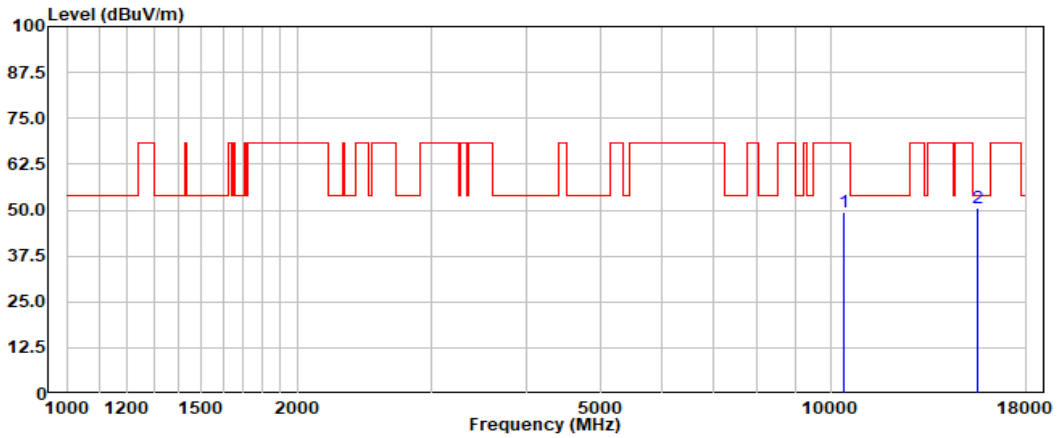


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10380.00	49.60	37.57	8.00	45.71	49.46	68.30	-18.84	Peak
	15570.00	45.63	39.92	9.97	45.02	50.50	54.00	-3.50	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low

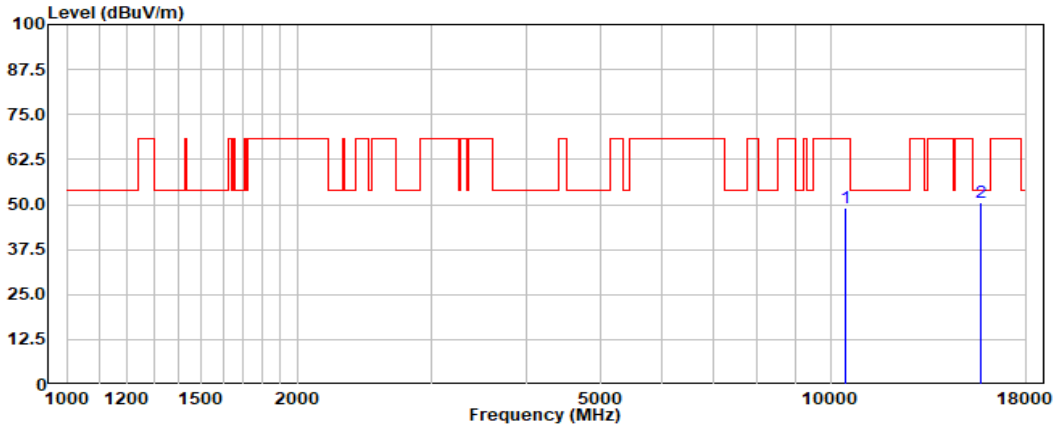


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10380.00	49.60	37.57	8.00	45.71	49.46	68.30	-18.84	Peak
	15570.00	45.75	39.92	9.97	45.02	50.62	54.00	-3.38	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High

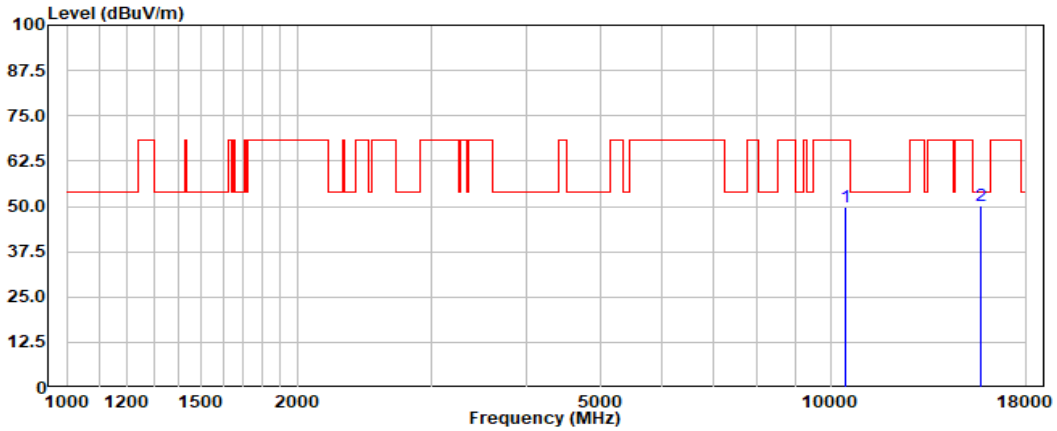


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10460.00	49.02	37.67	8.02	45.65	49.06	68.30	-19.24	Peak
	15690.00	45.46	40.08	10.01	44.96	50.59	54.00	-3.41	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High

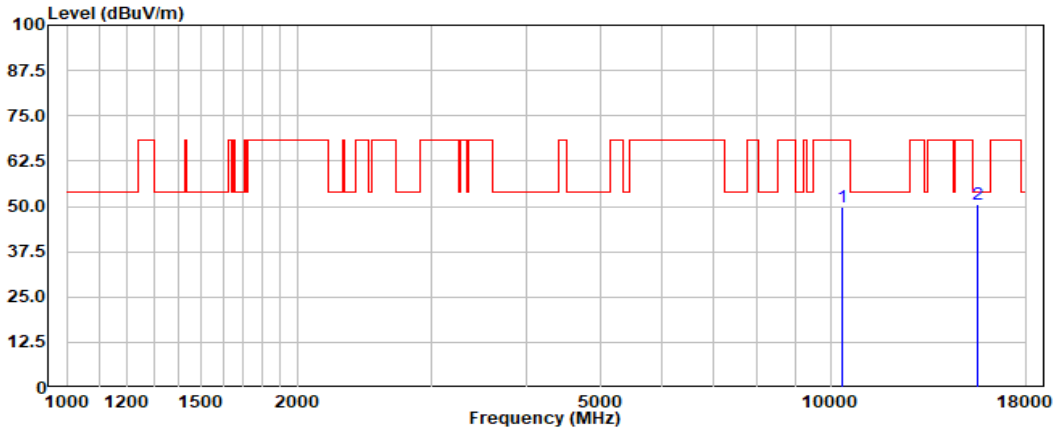


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10460.00	49.76	37.67	8.02	45.65	49.80	68.30	-18.50	Peak
	15690.00	45.06	40.08	10.01	44.96	50.19	54.00	-3.81	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low

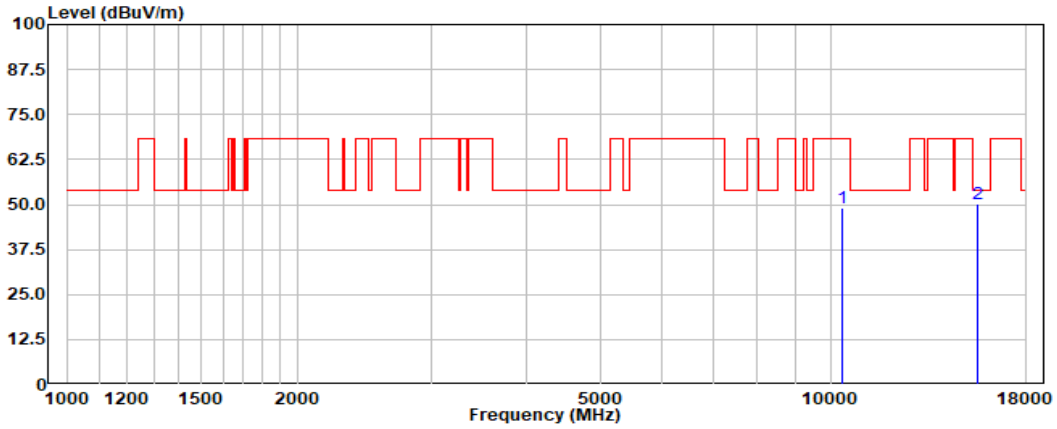


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10360.00	49.86	37.51	7.99	45.72	49.64	68.30	-18.66	Peak
	15540.00	45.88	39.91	9.96	45.03	50.72	54.00	-3.28	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low

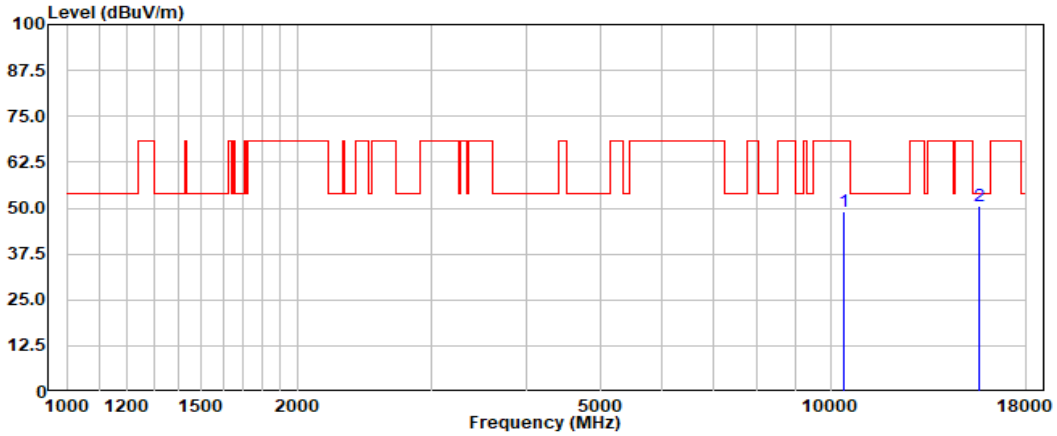


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10360.00	49.31	37.51	7.99	45.72	49.09	68.30	-19.21	Peak
	15540.00	45.48	39.91	9.96	45.03	50.32	54.00	-3.68	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle

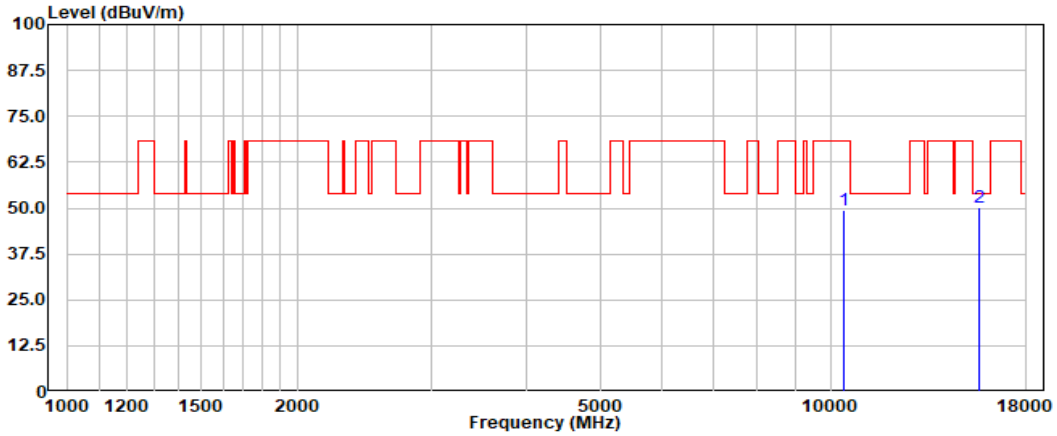


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10400.00	49.17	37.63	8.00	45.69	49.11	68.30	-19.19	Peak
	15600.00	45.49	39.93	9.98	45.00	50.40	54.00	-3.60	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle

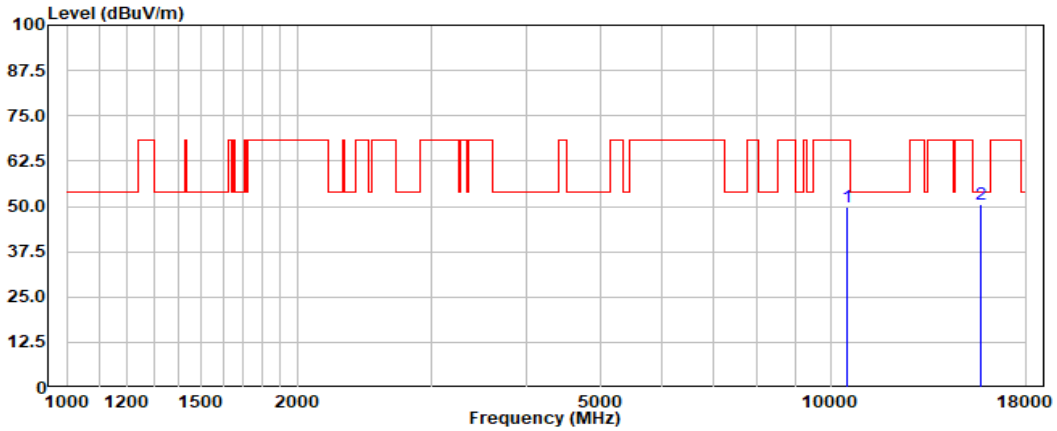


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10400.00	49.50	37.63	8.00	45.69	49.44	68.30	-18.86	Peak
	15600.00	45.42	39.93	9.98	45.00	50.33	54.00	-3.67	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High

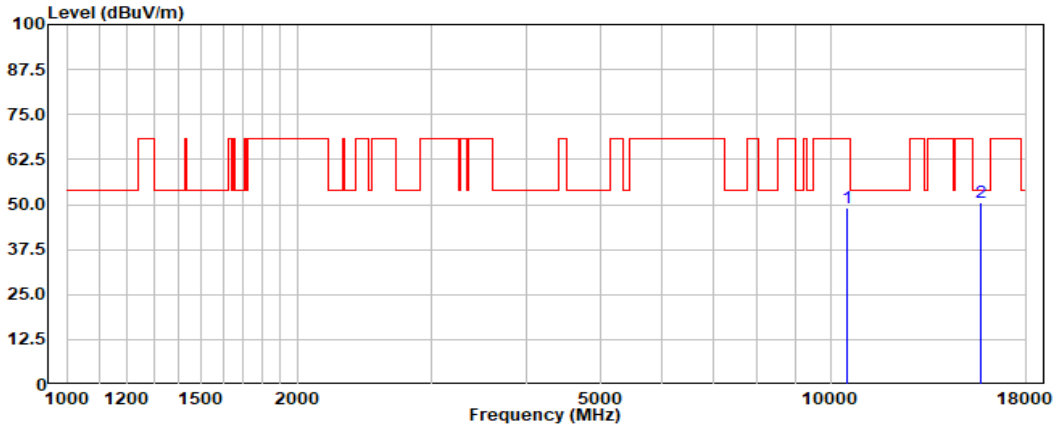


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10480.00	49.92	37.68	8.02	45.63	49.99	68.30	-18.31	Peak
	15720.00	45.56	40.09	10.02	44.95	50.72	54.00	-3.28	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High

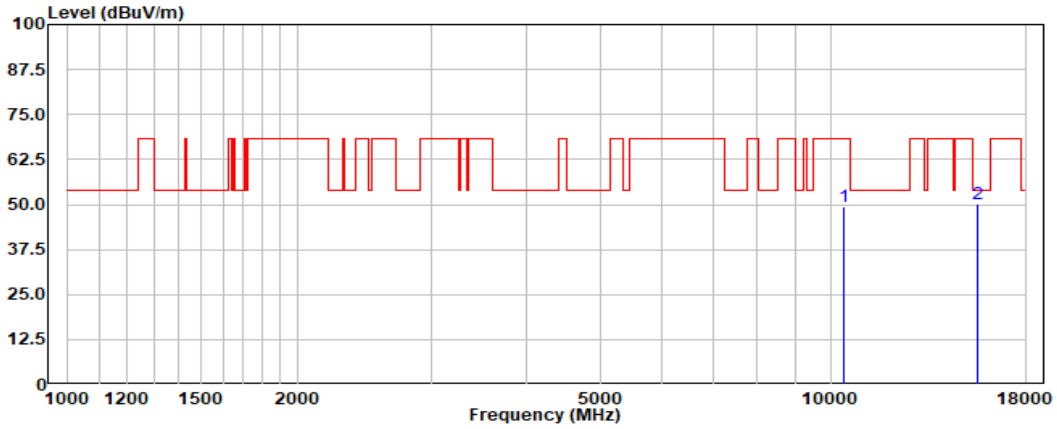


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10480.00	49.15	37.68	8.02	45.63	49.22	68.30	-19.08	Peak
	15720.00	45.42	40.09	10.02	44.95	50.58	54.00	-3.42	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low

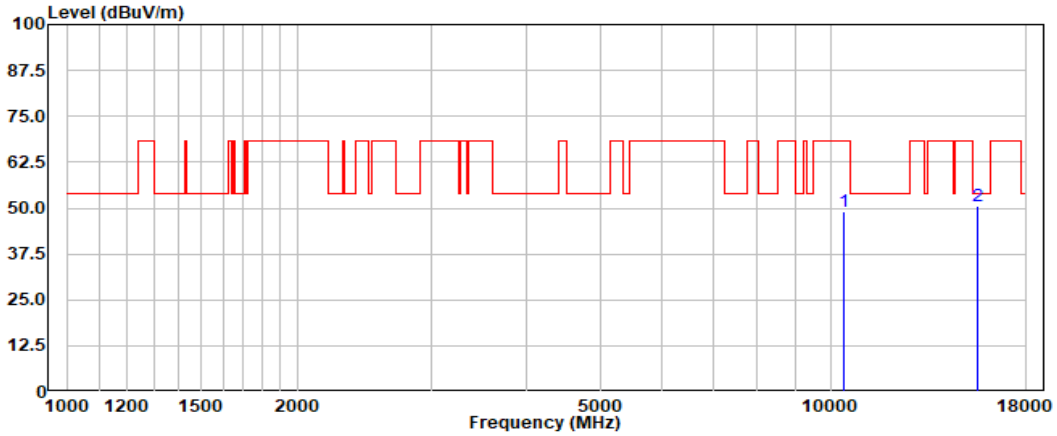


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10380.00	49.55	37.57	8.00	45.71	49.41	68.30	-18.89	Peak
	15570.00	45.15	39.92	9.97	45.02	50.02	54.00	-3.98	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low

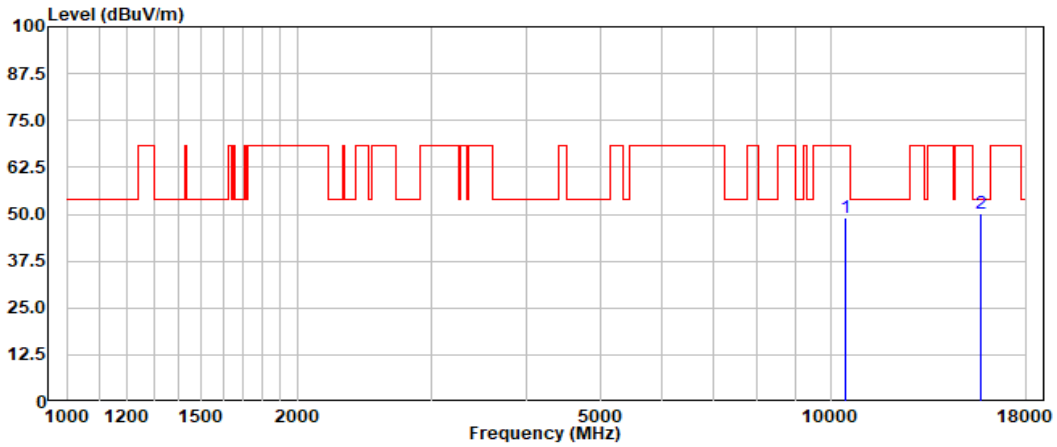


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10380.00	49.16	37.57	8.00	45.71	49.02	68.30	-19.28	Peak
	15570.00	45.51	39.92	9.97	45.02	50.38	54.00	-3.62	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High

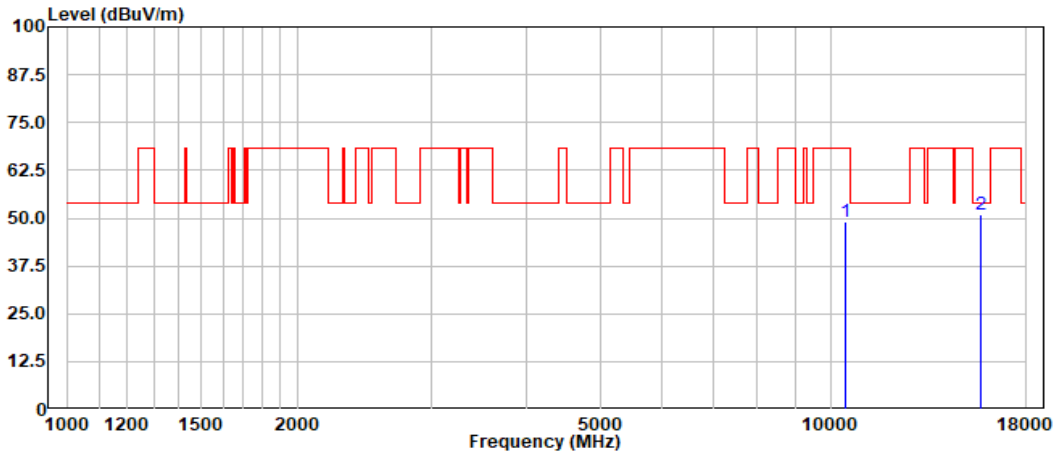


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10460.00	49.08	37.67	8.02	45.65	49.12	68.30	-19.18	Peak
	15690.00	45.15	40.08	10.01	44.96	50.28	54.00	-3.72	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High

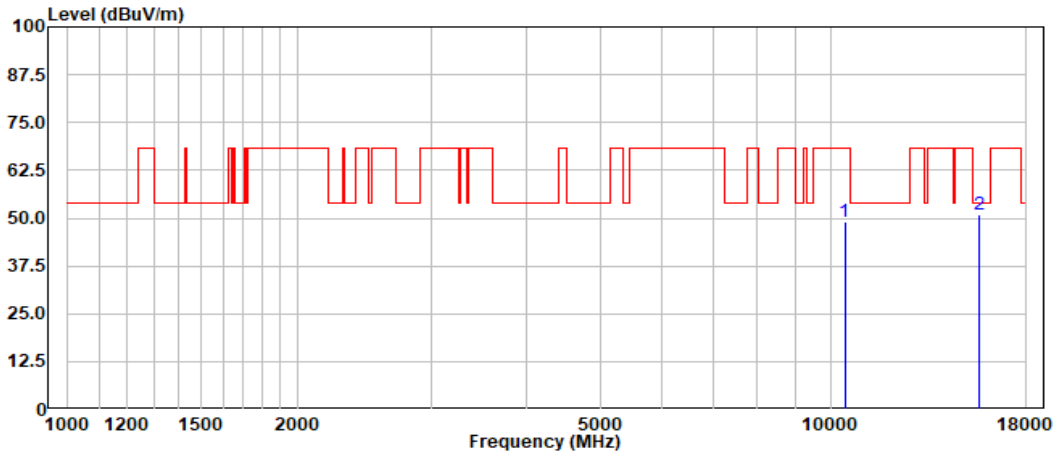


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10460.00	49.16	37.67	8.02	45.65	49.20	68.30	-19.10	Peak
	15690.00	45.66	40.08	10.01	44.96	50.79	54.00	-3.21	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low

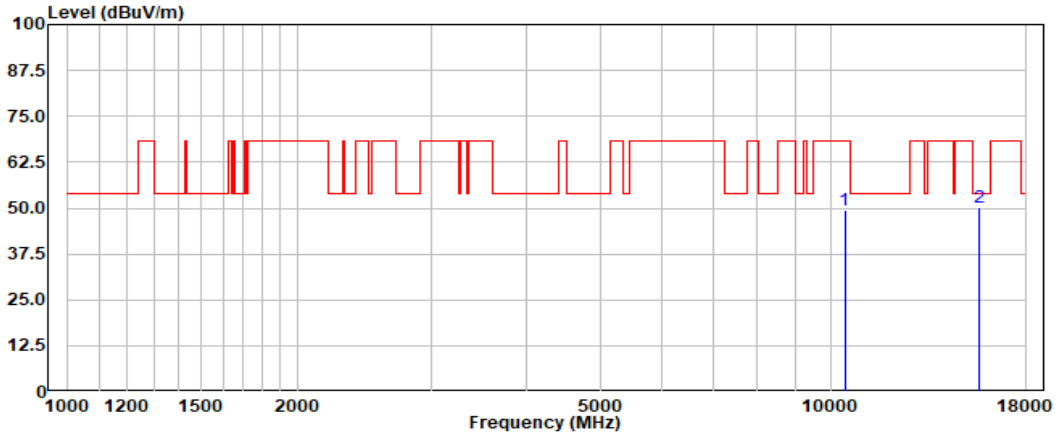


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10420.00	49.20	37.64	8.01	45.68	49.17	68.30	-19.13	Peak
	15630.00	45.83	39.98	9.99	44.99	50.81	54.00	-3.19	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low

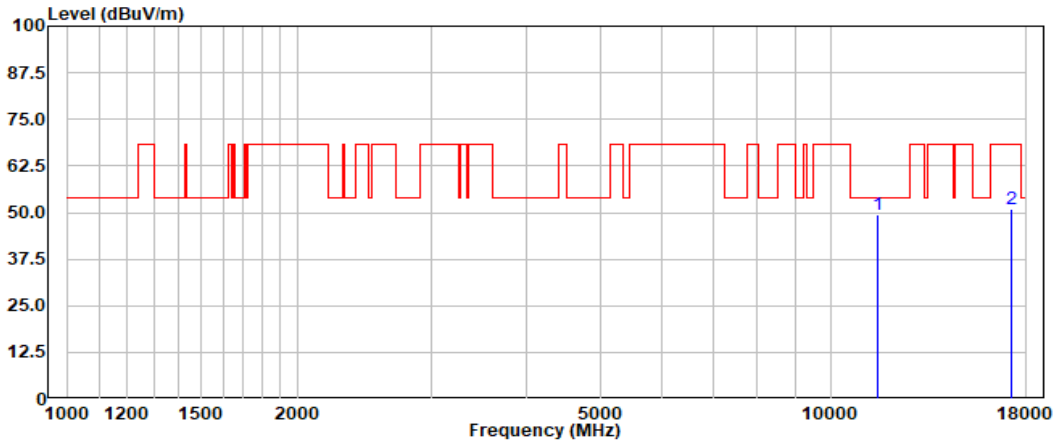


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	10420.00	49.45	37.64	8.01	45.68	49.42	68.30	-18.88	Peak
	15630.00	45.24	39.98	9.99	44.99	50.22	54.00	-3.78	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

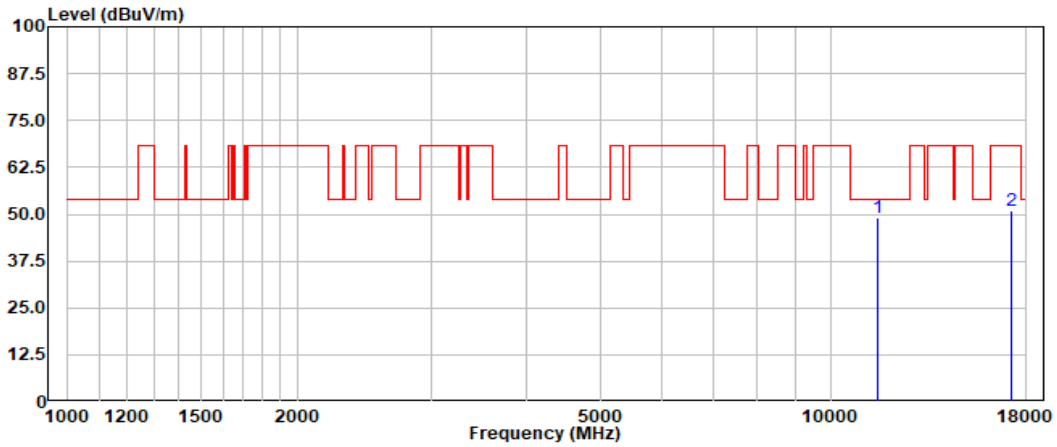


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11490.00	48.15	38.41	8.42	45.70	49.28	54.00	-4.72	Peak
	17235.00	43.82	40.82	10.47	44.27	50.84	68.30	-17.46	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

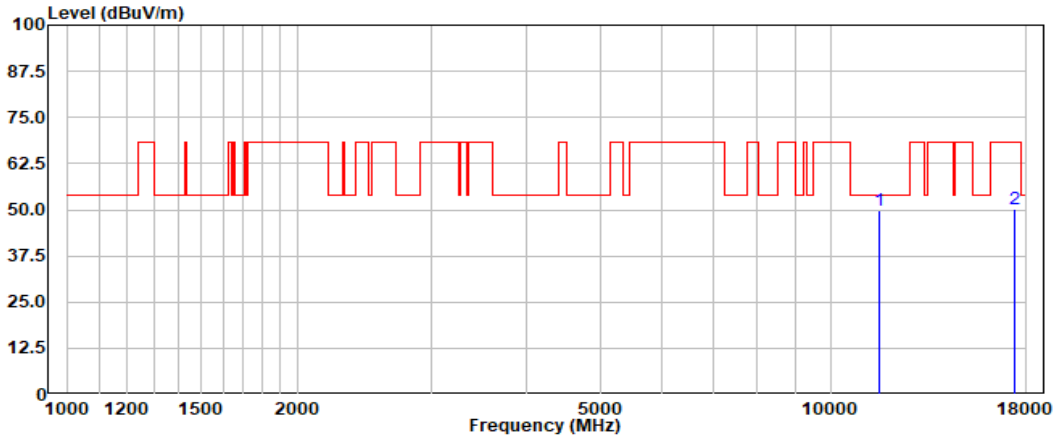


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11490.00	47.88	38.41	8.42	45.70	49.01	54.00	-4.99	Peak
	17235.00	43.96	40.82	10.47	44.27	50.98	68.30	-17.32	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle

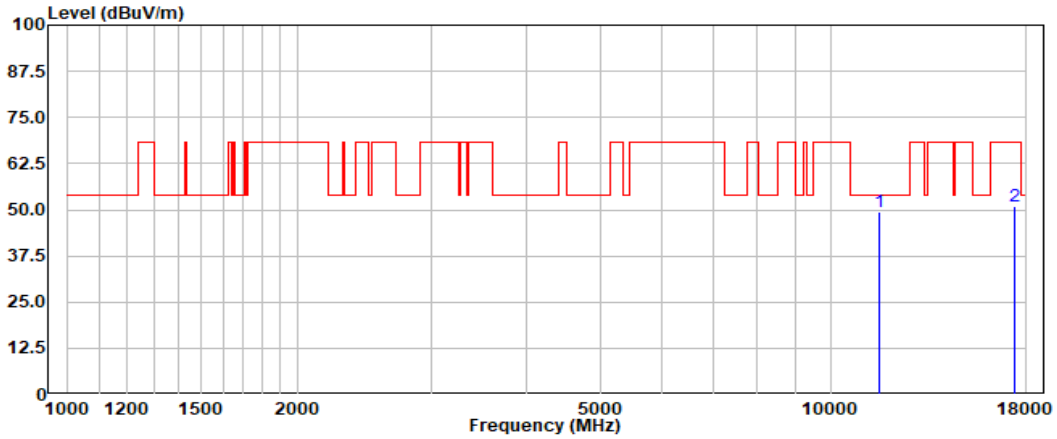


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11570.00	48.54	38.49	8.46	45.71	49.78	54.00	-4.22	Peak
	17355.00	43.09	40.85	10.50	44.23	50.21	68.30	-18.09	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle

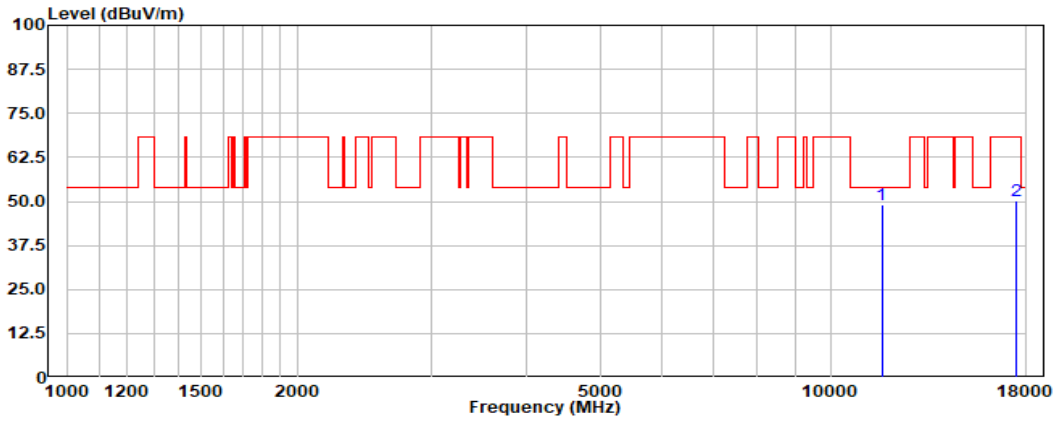


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11570.00	48.34	38.49	8.46	45.71	49.58	54.00	-4.42	Peak
	17355.00	43.78	40.85	10.50	44.23	50.90	68.30	-17.40	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High

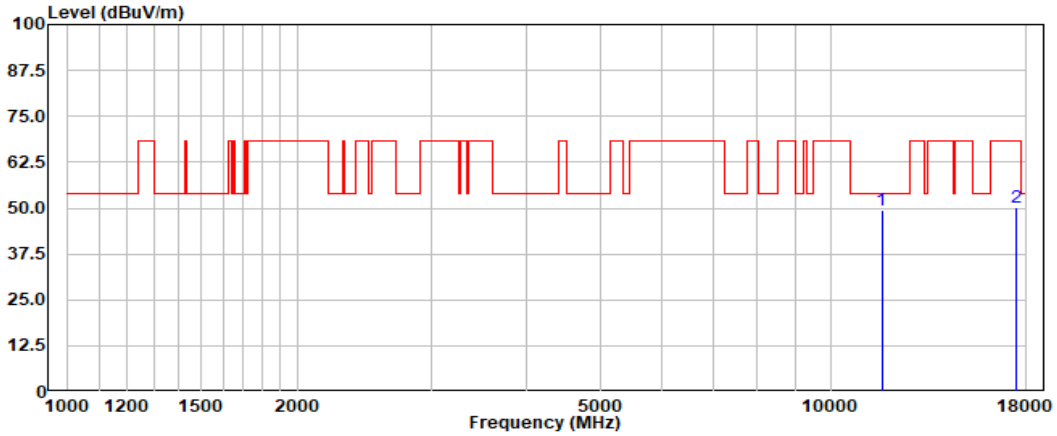


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11650.00	47.80	38.60	8.50	45.75	49.15	54.00	-4.85	Peak
	17475.00	43.00	40.94	10.54	44.18	50.30	68.30	-18.00	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High

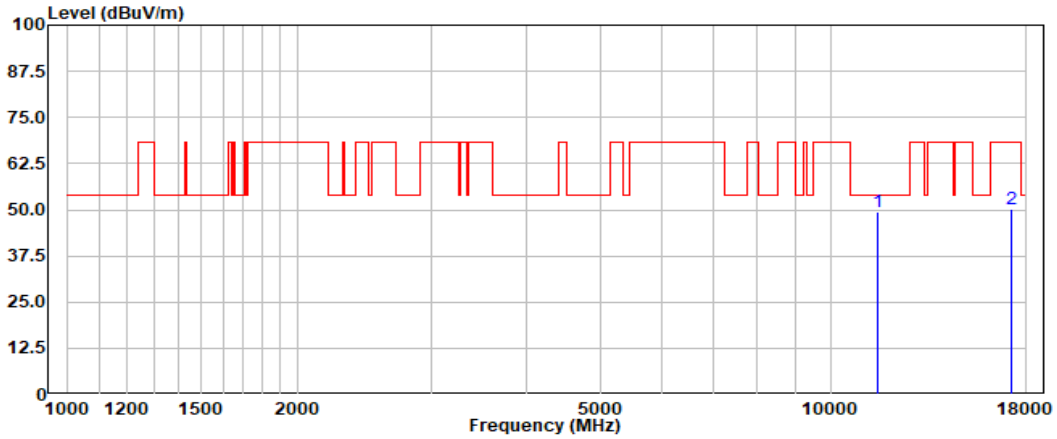


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11650.00	48.16	38.60	8.50	45.75	49.51	54.00	-4.49	Peak
	17475.00	43.07	40.94	10.54	44.18	50.37	68.30	-17.93	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

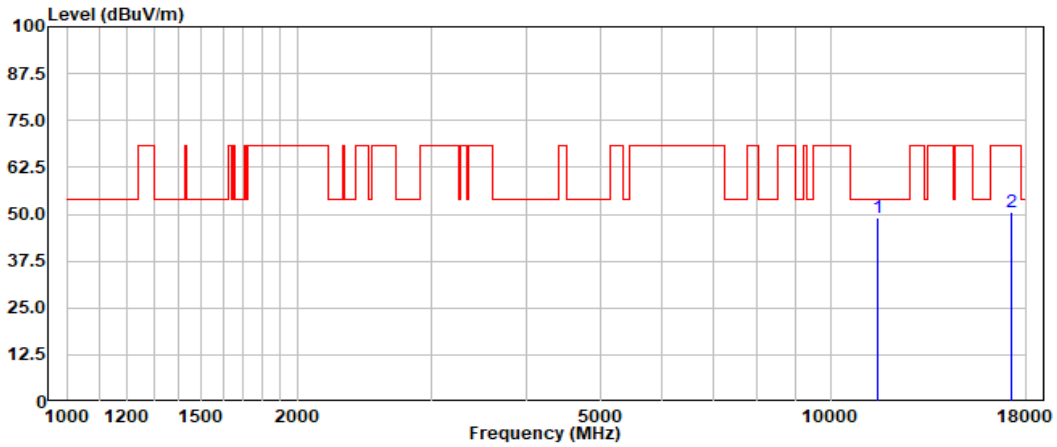


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11490.00	48.27	38.41	8.42	45.70	49.40	54.00	-4.60	Peak
	17235.00	43.01	40.82	10.47	44.27	50.03	68.30	-18.27	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

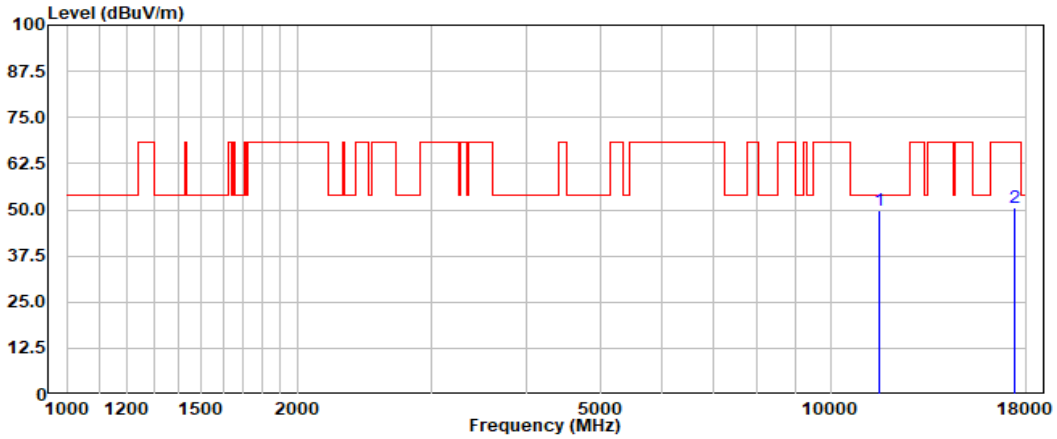


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11490.00	48.06	38.41	8.42	45.70	49.19	54.00	-4.81	Peak
	17235.00	43.46	40.82	10.47	44.27	50.48	68.30	-17.82	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle

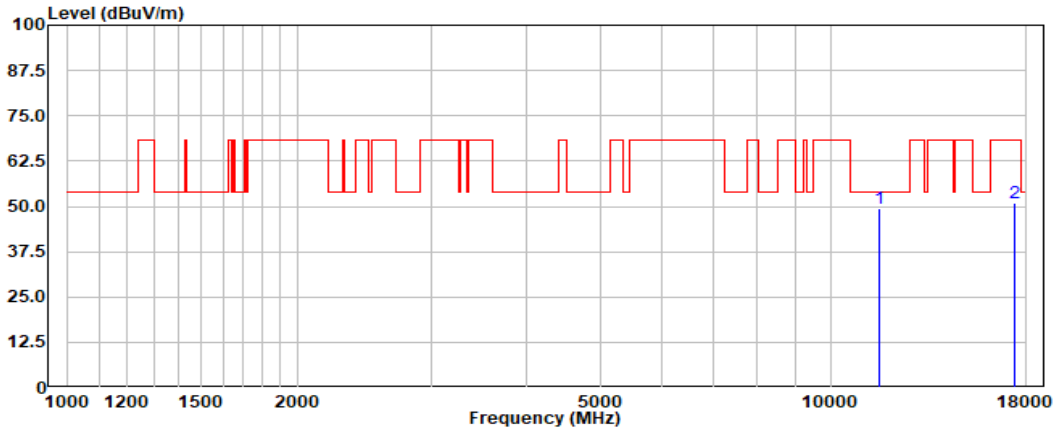


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11570.00	48.60	38.49	8.46	45.71	49.84	54.00	-4.16	Peak
	17355.00	43.44	40.85	10.50	44.23	50.56	68.30	-17.74	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle

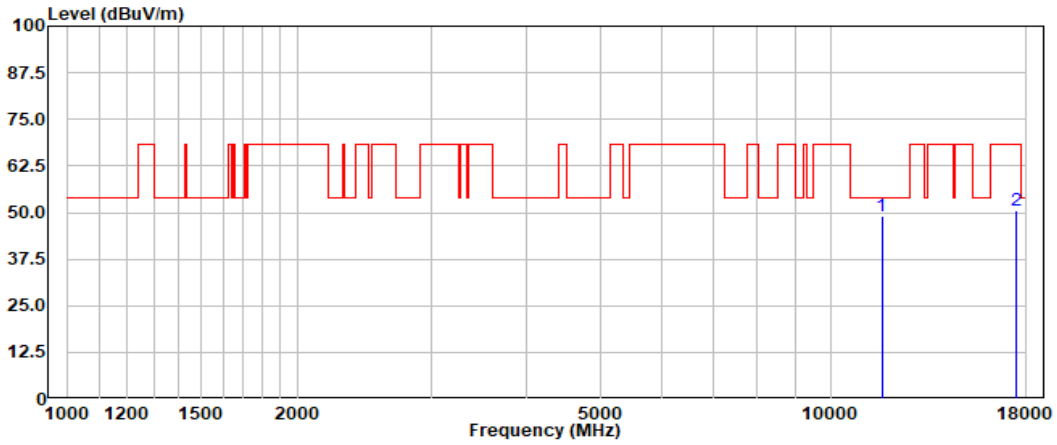


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11570.00	48.31	38.49	8.46	45.71	49.55	54.00	-4.45	Peak
	17355.00	43.77	40.85	10.50	44.23	50.89	68.30	-17.41	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High

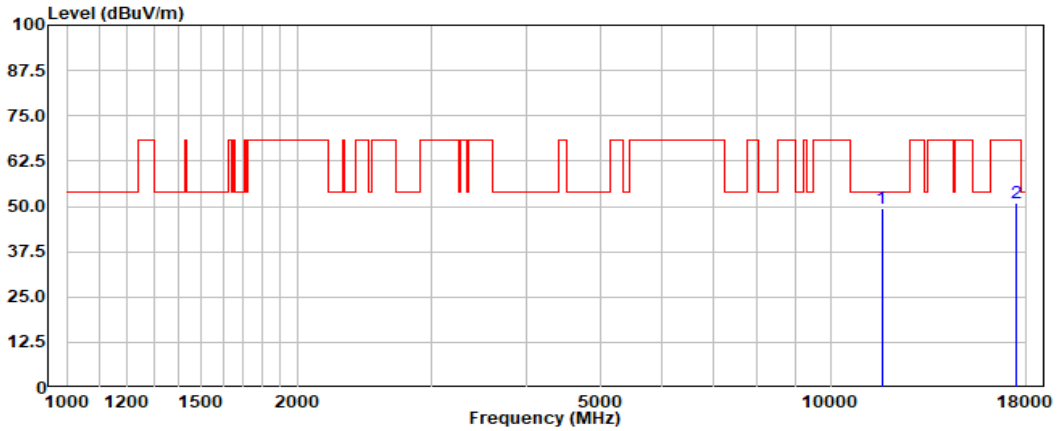


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11650.00	47.84	38.60	8.50	45.75	49.19	54.00	-4.81	Peak
	17475.00	43.35	40.94	10.54	44.18	50.65	68.30	-17.65	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High

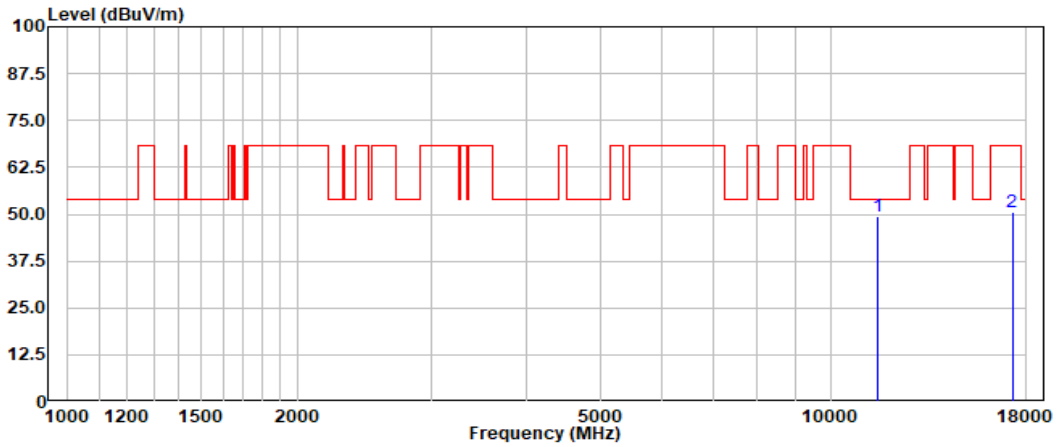


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11650.00	48.12	38.60	8.50	45.75	49.47	54.00	-4.53	Peak
	17475.00	43.65	40.94	10.54	44.18	50.95	68.30	-17.35	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low

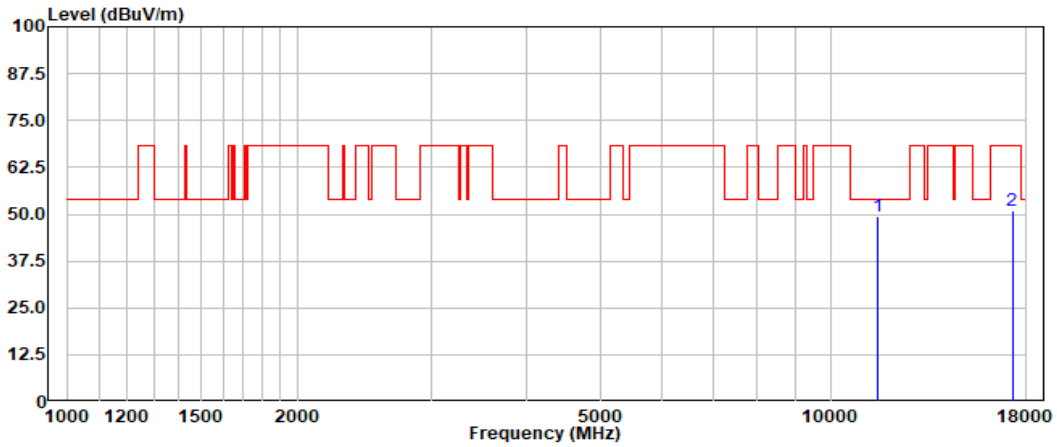


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11510.00	48.27	38.44	8.43	45.68	49.46	54.00	-4.54	Peak
	17265.00	43.54	40.80	10.48	44.26	50.56	68.30	-17.74	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low

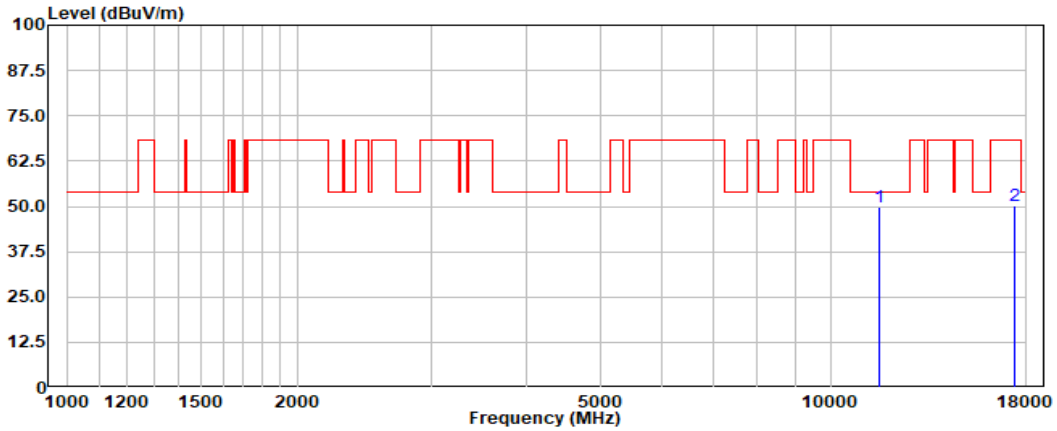


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11510.00	48.08	38.44	8.43	45.68	49.27	54.00	-4.73	Peak
	17265.00	43.75	40.80	10.48	44.26	50.77	68.30	-17.53	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High

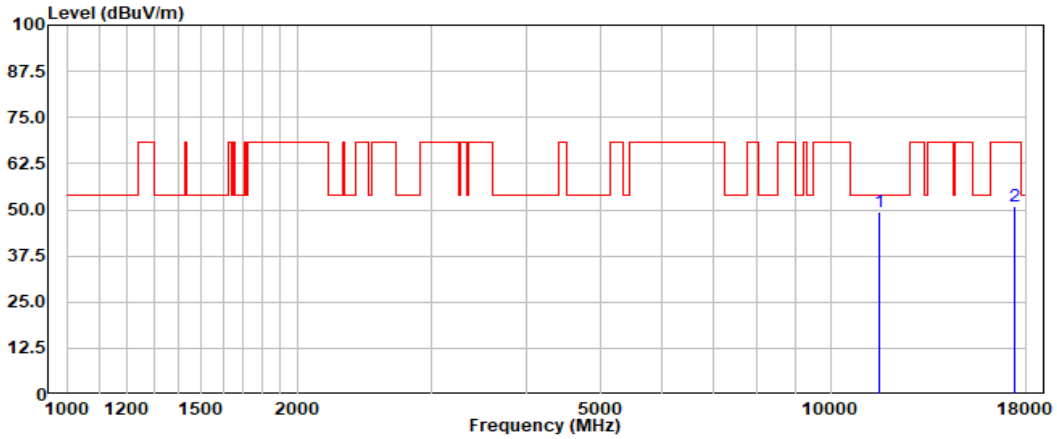


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11590.00	48.51	38.51	8.47	45.72	49.77	54.00	-4.23	Peak
	17385.00	42.89	40.88	10.51	44.21	50.07	68.30	-18.23	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High

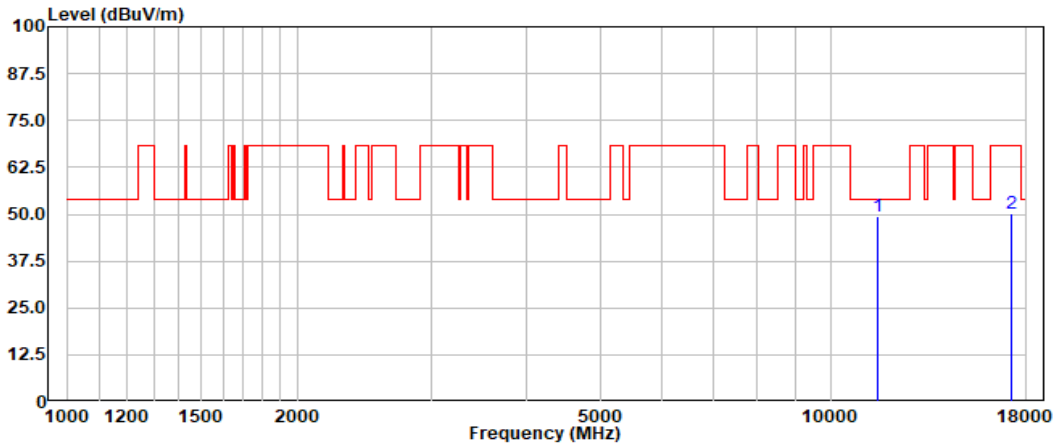


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11590.00	48.04	38.51	8.47	45.72	49.30	54.00	-4.70	Peak
	17385.00	43.76	40.88	10.51	44.21	50.94	68.30	-17.36	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low

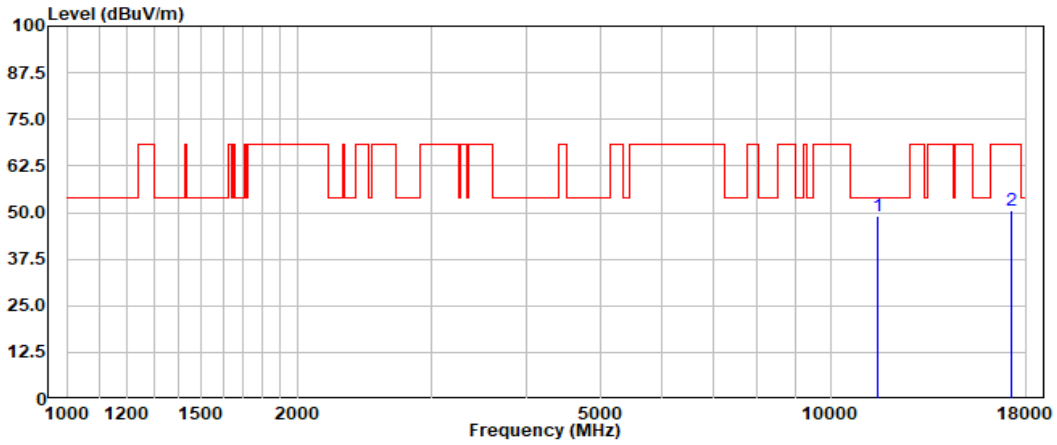


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11490.00	48.40	38.41	8.42	45.70	49.53	54.00	-4.47	Peak
	17235.00	43.06	40.82	10.47	44.27	50.08	68.30	-18.22	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low

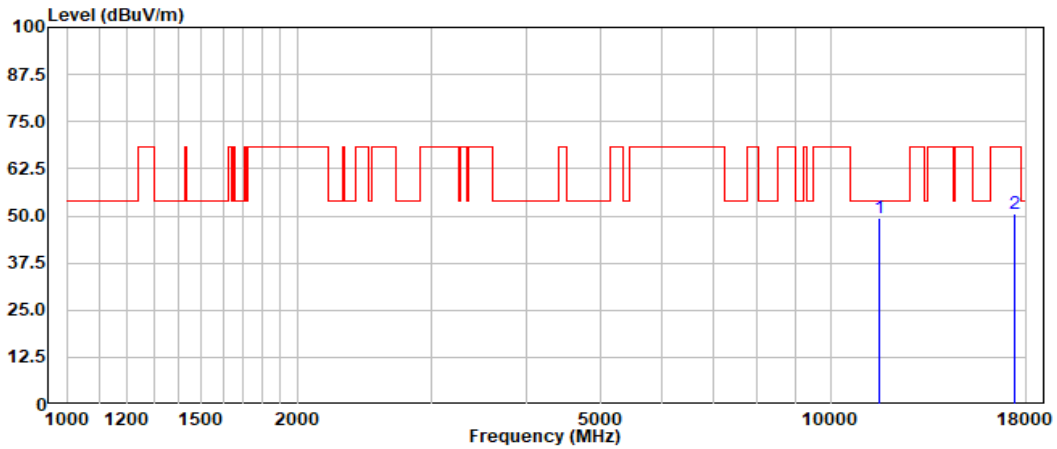


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11490.00	47.89	38.41	8.42	45.70	49.02	54.00	-4.98	Peak
	17235.00	43.46	40.82	10.47	44.27	50.48	68.30	-17.82	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle

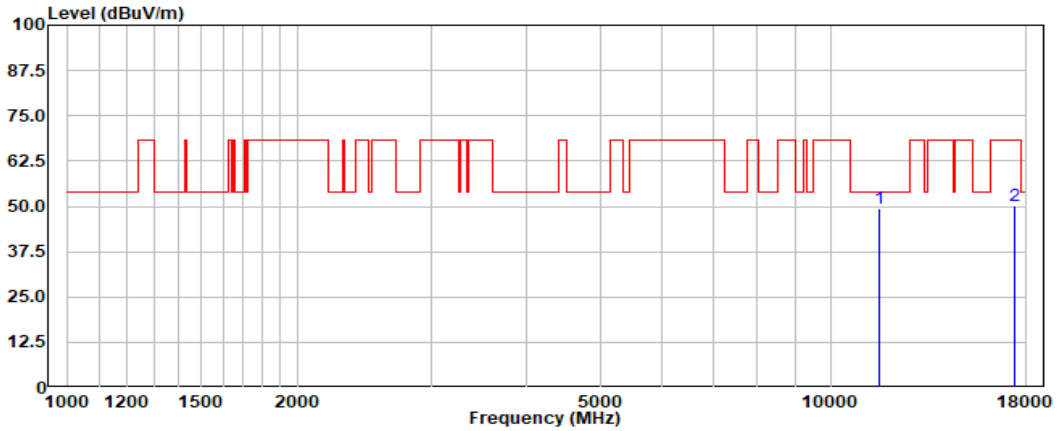


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11570.00	48.37	38.49	8.46	45.71	49.61	54.00	-4.39	Peak
	17355.00	43.41	40.85	10.50	44.23	50.53	68.30	-17.77	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle

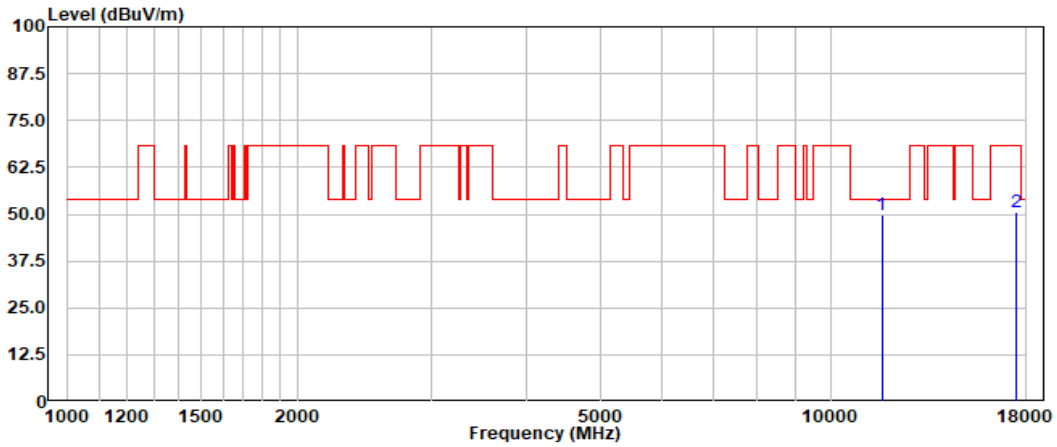


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11570.00	48.29	38.49	8.46	45.71	49.53	54.00	-4.47	Peak
	17355.00	42.96	40.85	10.50	44.23	50.08	68.30	-18.22	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High

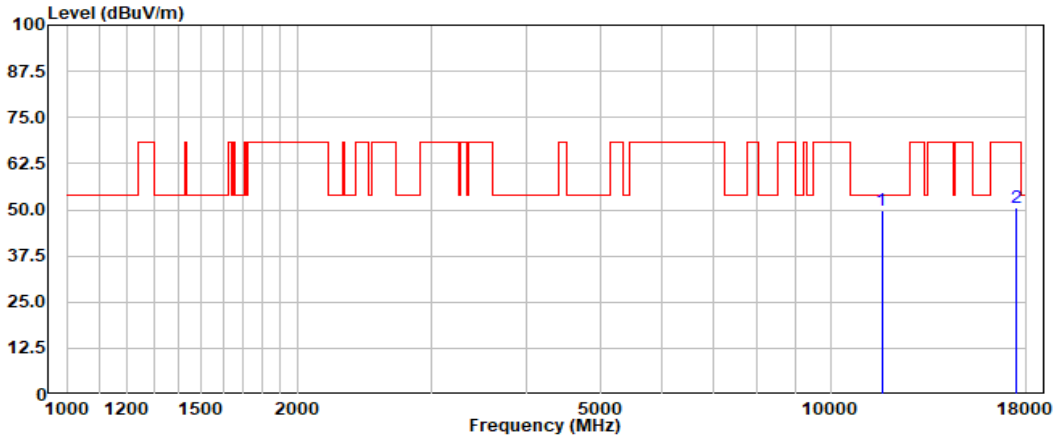


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11650.00	48.51	38.60	8.50	45.75	49.86	54.00	-4.14	Peak
	17475.00	43.17	40.94	10.54	44.18	50.47	68.30	-17.83	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High

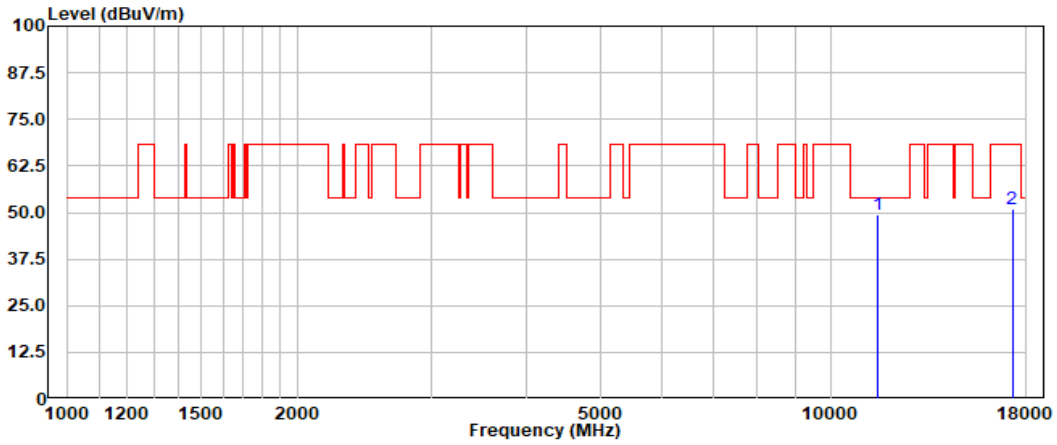


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11650.00	48.29	38.60	8.50	45.75	49.64	54.00	-4.36	Peak
	17475.00	43.43	40.94	10.54	44.18	50.73	68.30	-17.57	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low

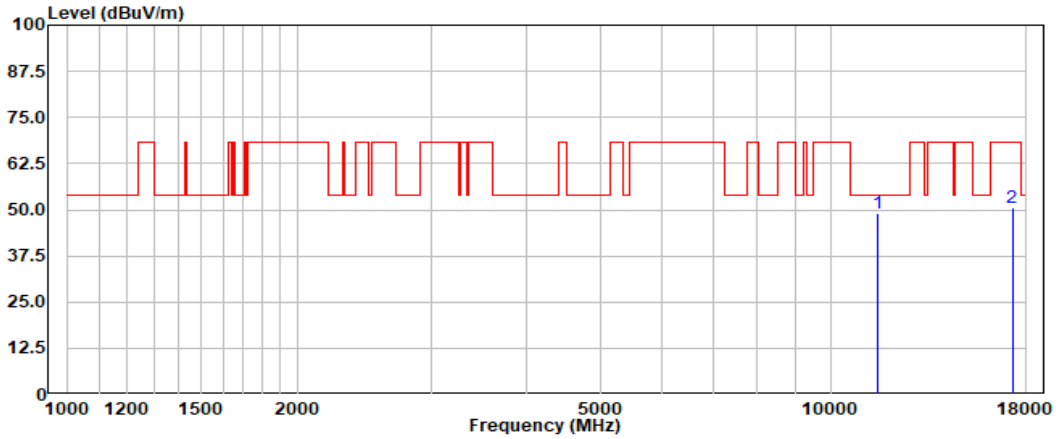


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11510.00	48.09	38.44	8.43	45.68	49.28	54.00	-4.72	Peak
	17265.00	43.95	40.80	10.48	44.26	50.97	68.30	-17.33	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low

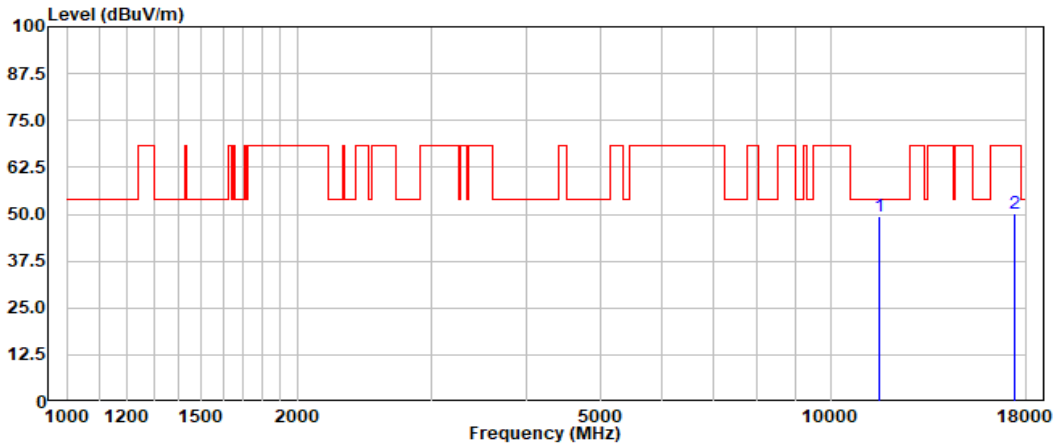


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11510.00	47.93	38.44	8.43	45.68	49.12	54.00	-4.88	Peak
	17265.00	43.44	40.80	10.48	44.26	50.46	68.30	-17.84	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High

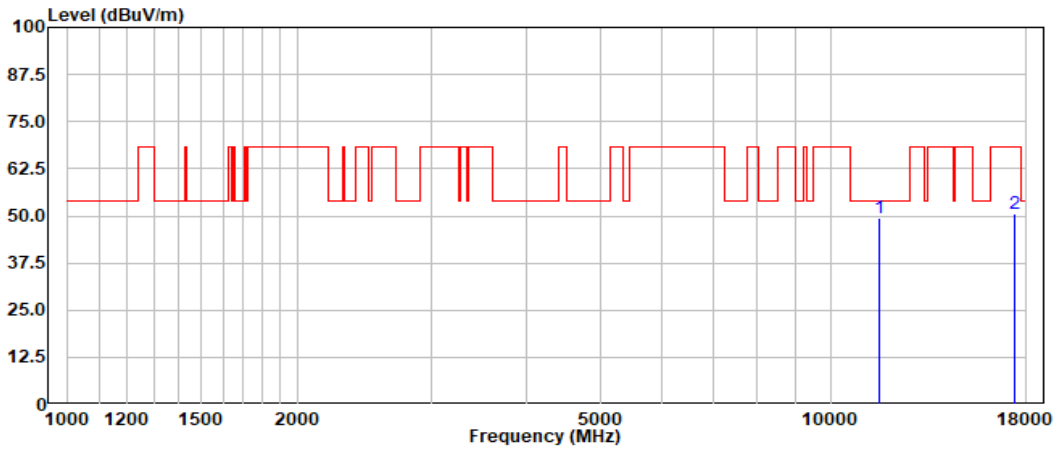


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11590.00	48.20	38.51	8.47	45.72	49.46	54.00	-4.54	Peak
	17385.00	43.10	40.88	10.51	44.21	50.28	68.30	-18.02	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High

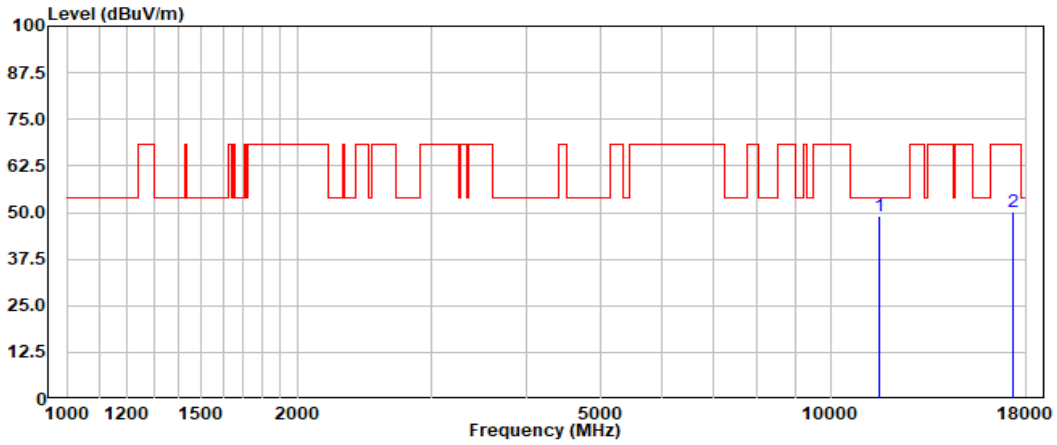


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11590.00	48.17	38.51	8.47	45.72	49.43	54.00	-4.57	Peak
	17385.00	43.34	40.88	10.51	44.21	50.52	68.30	-17.78	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low

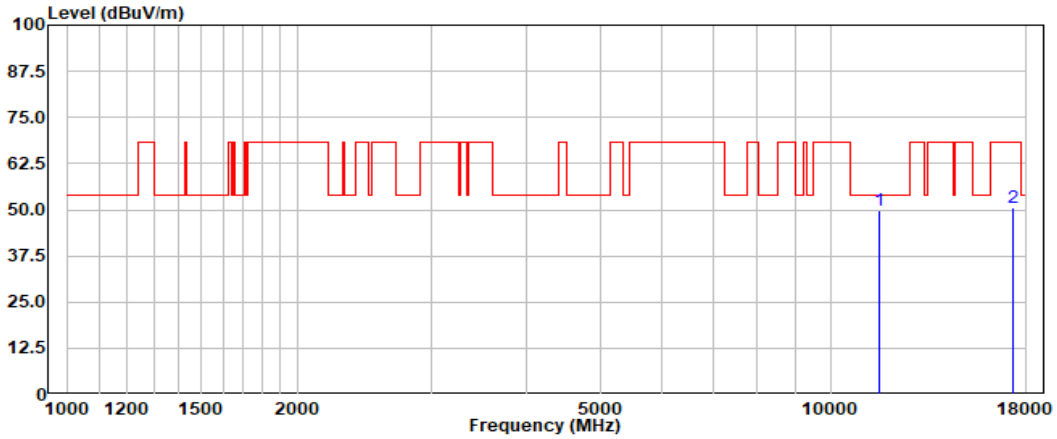


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11550.00	48.02	38.47	8.45	45.70	49.24	54.00	-4.76	Peak
	17325.00	43.13	40.82	10.49	44.24	50.20	68.30	-18.10	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	11550.00	48.64	38.47	8.45	45.70	49.86	54.00	-4.14	Peak
	17325.00	43.36	40.82	10.49	44.24	50.43	68.30	-17.87	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

7.9 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: KDB 789033 D02 II G

Limit:

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

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

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

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

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

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

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.9.1 E.U.T. Operation

Operating Environment:

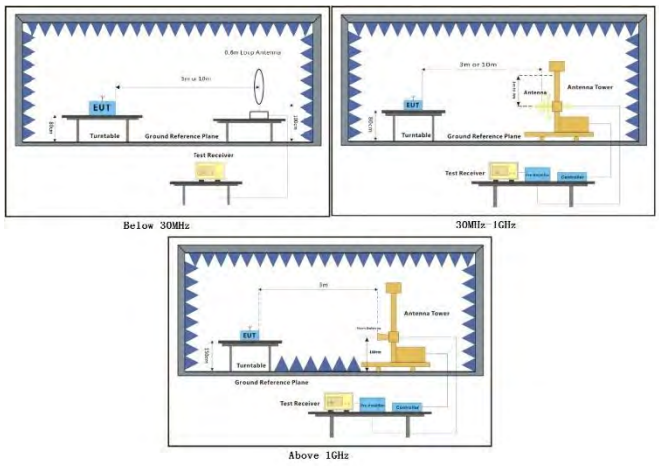
Temperature: 26.5 °C Humidity: 46.3 % RH Atmospheric Pressure: 1010 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.

Final test	06	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.

7.9.3 Test Setup Diagram



7.9.4 Measurement Procedure and Data

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.

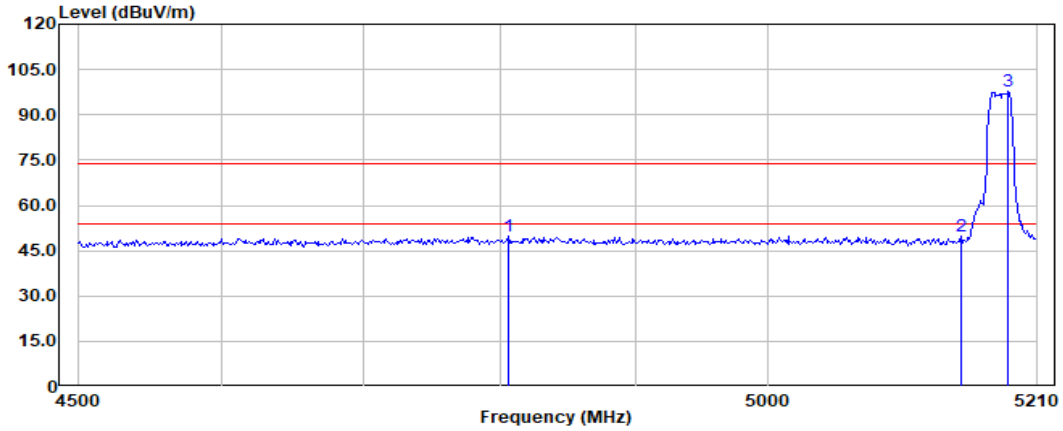
h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

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

Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

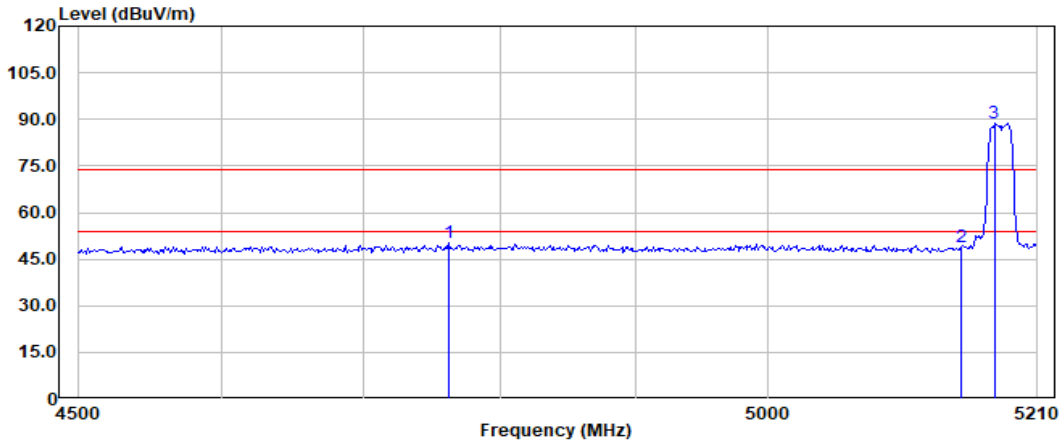


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	4805.61	58.47	33.88	5.41	47.81	49.95	74.00	-24.05	Peak
	5150.00	57.87	34.33	5.56	47.87	49.89	74.00	-24.11	Peak
	5187.36	105.55	34.47	5.58	47.83	97.77	74.00	23.77	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

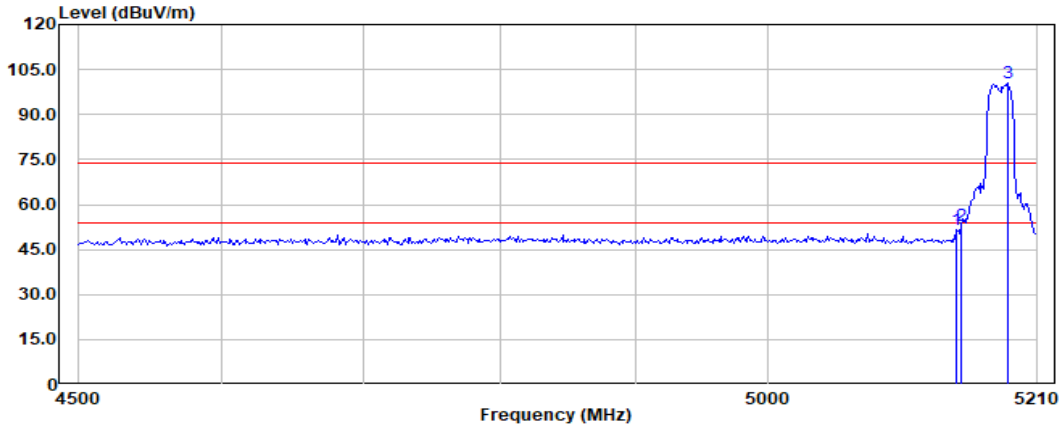


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	4762.39	59.00	33.85	5.39	47.84	50.40	74.00	-23.60	Peak
	5150.00	56.76	34.33	5.56	47.87	48.78	74.00	-25.22	Peak
	5176.04	96.64	34.43	5.58	47.84	88.81	74.00	14.81	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

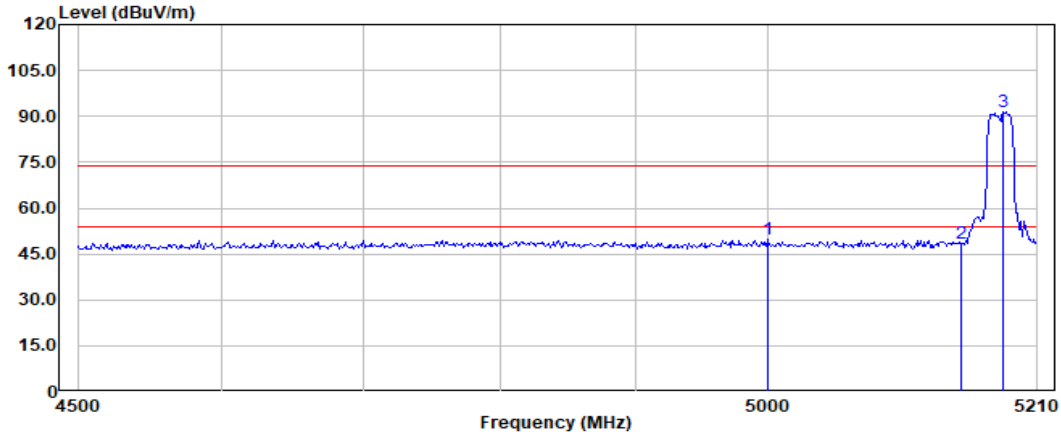


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5146.20	59.75	34.32	5.56	47.87	51.76	74.00	-22.24	Peak
	5150.00	60.84	34.33	5.56	47.87	52.86	74.00	-21.14	Peak
	5186.33	108.10	34.47	5.58	47.83	100.32	74.00	26.32	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

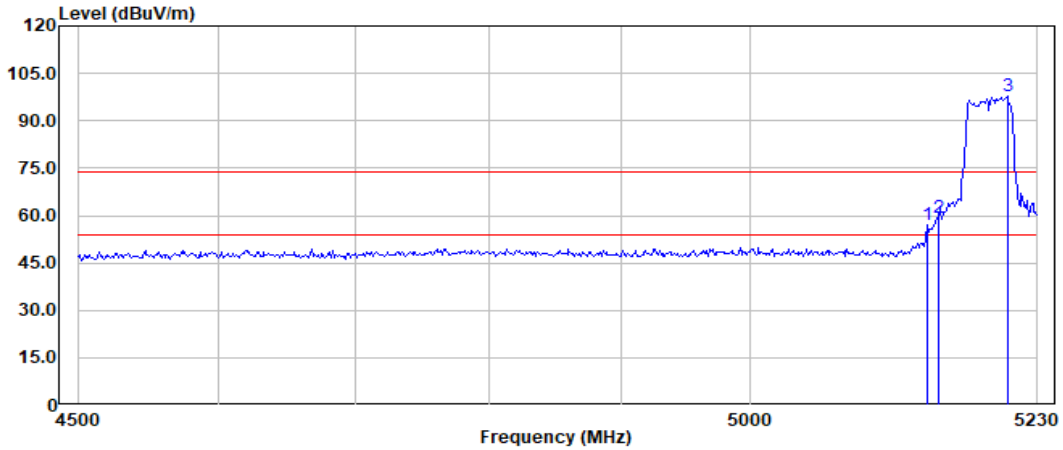


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5000.09	58.27	33.89	5.48	47.70	49.94	74.00	-24.06	Peak
	5150.00	56.31	34.33	5.56	47.87	48.33	74.00	-25.67	Peak
	5183.25	99.34	34.46	5.58	47.83	91.55	74.00	17.55	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low

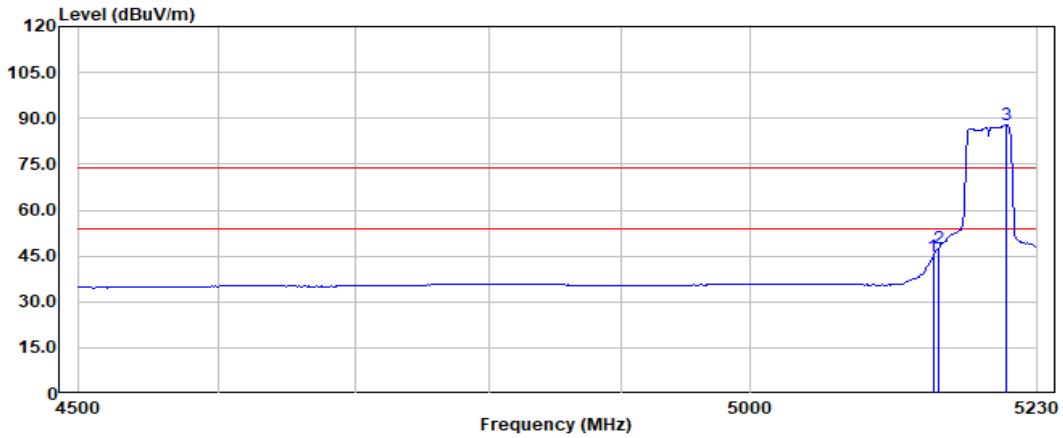


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5141.13	65.17	34.30	5.55	47.86	57.16	74.00	-16.84	Peak
	5150.00	67.09	34.33	5.56	47.87	59.11	74.00	-14.89	Peak
	5205.67	105.38	34.52	5.60	47.81	97.69	74.00	23.69	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low

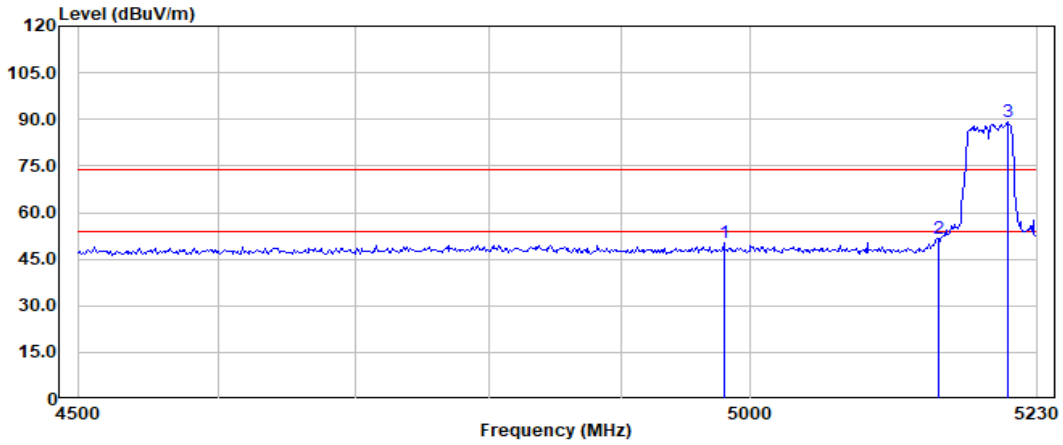


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5145.36	52.63	34.31	5.56	47.86	44.64	54.00	-9.36	Average
	5150.00	55.37	34.33	5.56	47.87	47.39	54.00	-6.61	Average
	5204.61	95.72	34.52	5.60	47.81	88.03	54.00	34.03	Average

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low

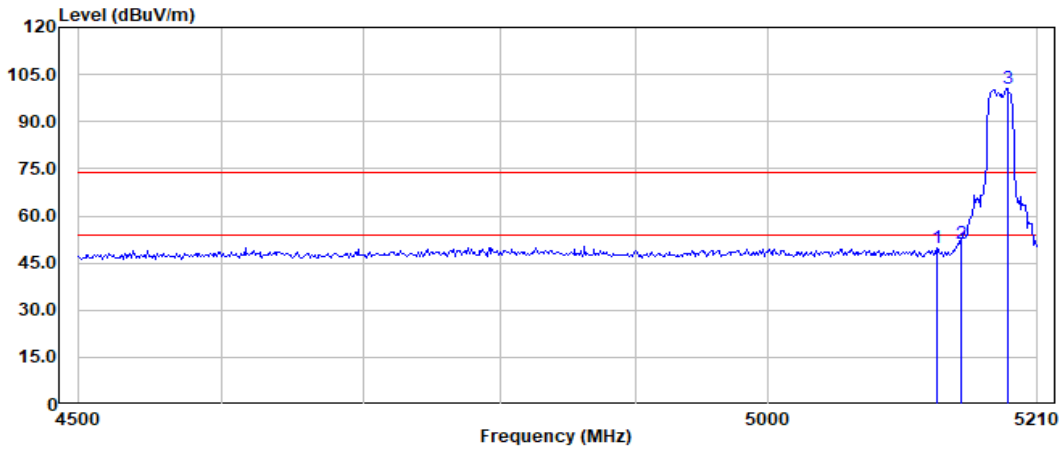


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	4979.26	58.73	33.84	5.47	47.71	50.33	74.00	-23.67	Peak
	5150.00	59.82	34.33	5.56	47.87	51.84	74.00	-22.16	Peak
	5205.67	96.69	34.52	5.60	47.81	89.00	74.00	15.00	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low

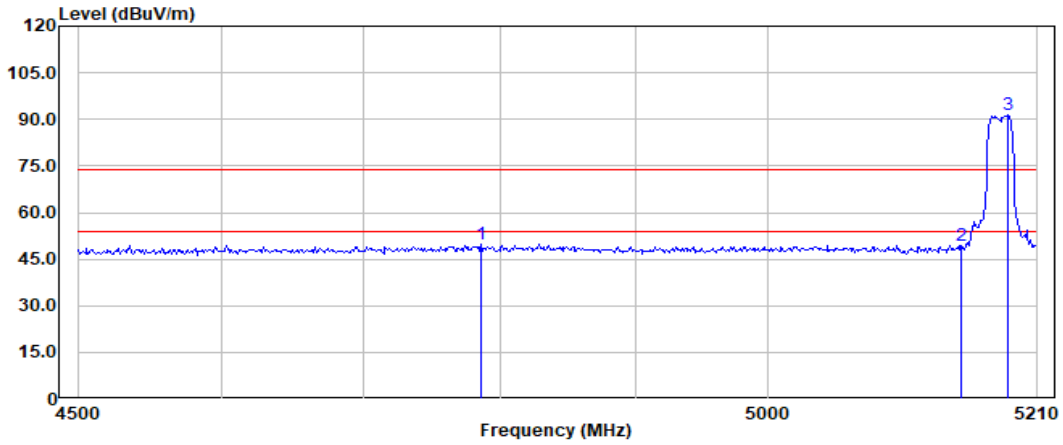


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5130.77	57.96	34.26	5.55	47.85	49.92	74.00	-24.08	Peak
	5150.00	58.98	34.33	5.56	47.87	51.00	74.00	-23.00	Peak
	5186.33	108.23	34.47	5.58	47.83	100.45	74.00	26.45	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low

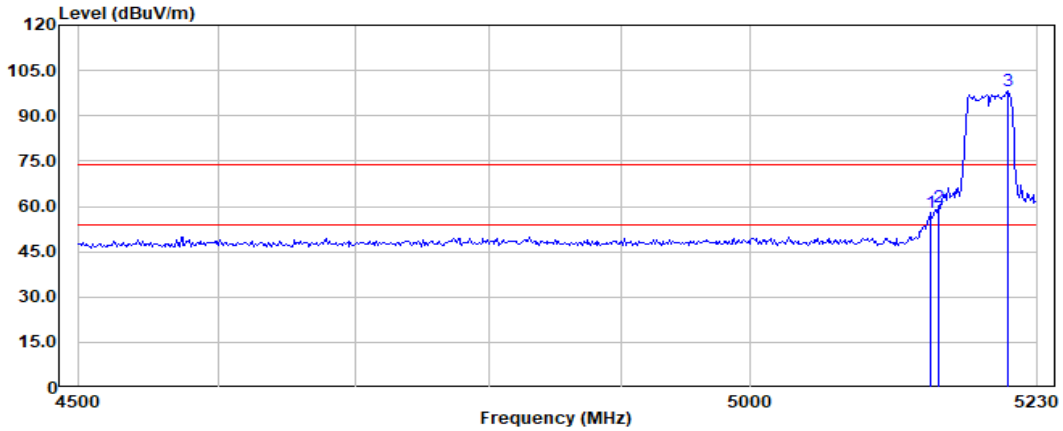


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	4786.06	58.35	33.88	5.40	47.82	49.81	74.00	-24.19	Peak
	5150.00	57.34	34.33	5.56	47.87	49.36	74.00	-24.64	Peak
	5186.33	99.26	34.47	5.58	47.83	91.48	74.00	17.48	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low

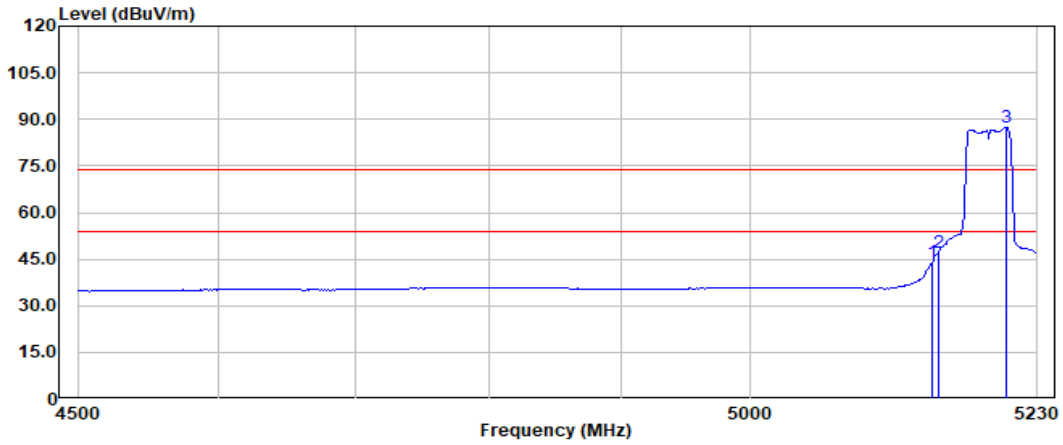


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5143.25	66.07	34.30	5.56	47.86	58.07	74.00	-15.93	Peak
	5150.00	67.65	34.33	5.56	47.87	59.67	74.00	-14.33	Peak
	5206.73	105.83	34.52	5.60	47.81	98.14	74.00	24.14	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low

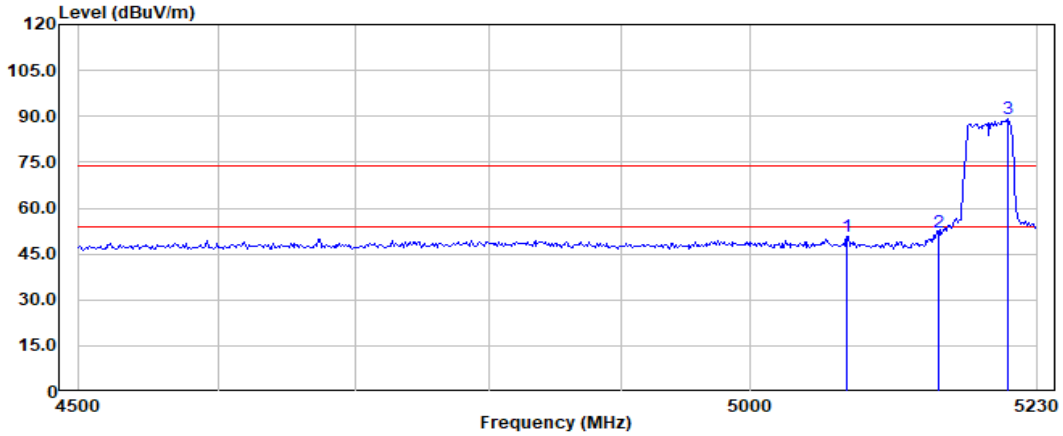


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5144.30	51.72	34.31	5.56	47.86	43.73	54.00	-10.27	Average
	5150.00	55.11	34.33	5.56	47.87	47.13	54.00	-6.87	Average
	5204.61	95.11	34.52	5.60	47.81	87.42	54.00	33.42	Average

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low

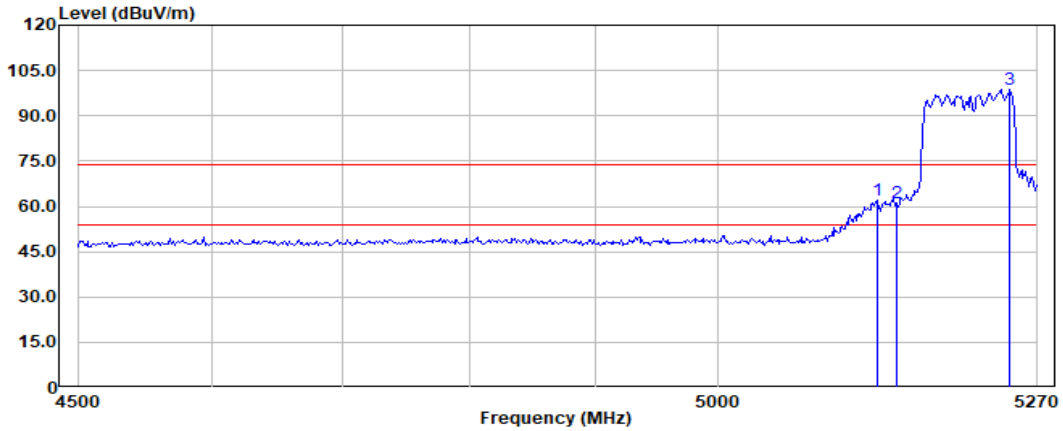


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5076.59	58.97	34.08	5.51	47.79	50.77	74.00	-23.23	Peak
	5150.00	59.96	34.33	5.56	47.87	51.98	74.00	-22.02	Peak
	5206.73	96.92	34.52	5.60	47.81	89.23	74.00	15.23	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low

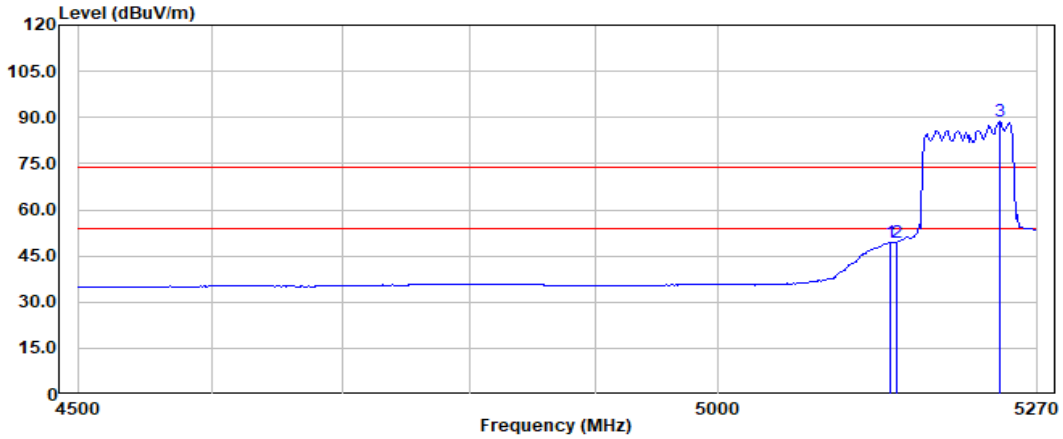


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5132.74	69.90	34.26	5.55	47.85	61.86	74.00	-12.14	Peak
	5150.00	68.97	34.33	5.56	47.87	60.99	74.00	-13.01	Peak
	5246.57	106.50	34.52	5.62	47.76	98.88	74.00	24.88	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low

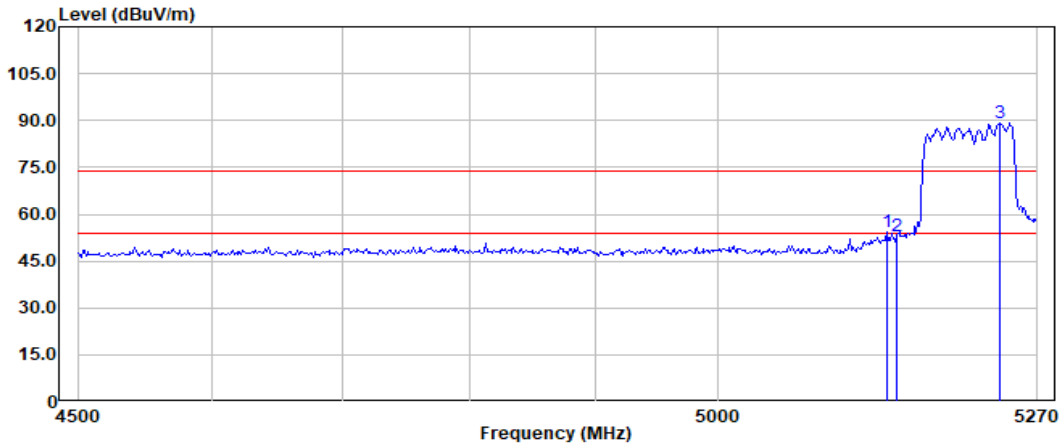


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5143.90	57.19	34.31	5.56	47.86	49.20	54.00	-4.80	Average
	5150.00	57.36	34.33	5.56	47.87	49.38	54.00	-4.62	Average
	5237.64	96.21	34.52	5.62	47.77	88.58	54.00	34.58	Average

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low

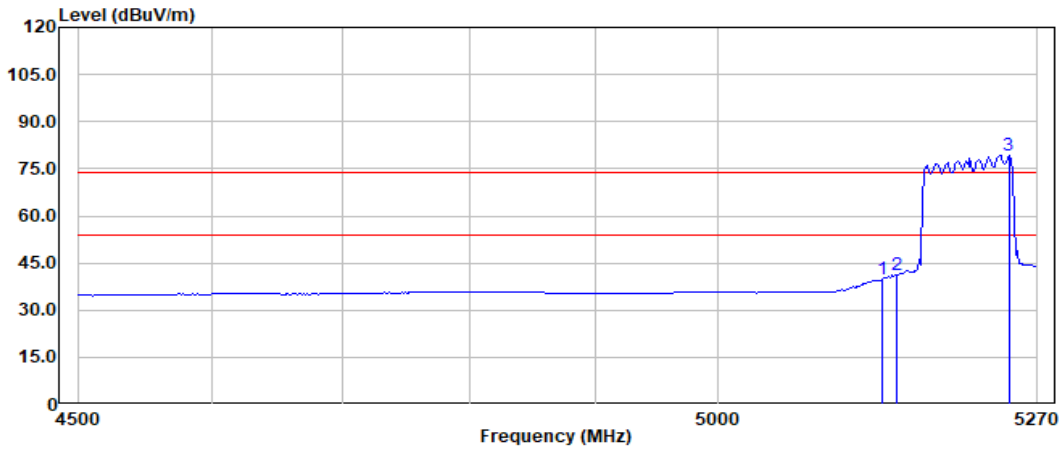


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5141.67	62.33	34.30	5.56	47.86	54.33	74.00	-19.67	Peak
	5150.00	60.77	34.33	5.56	47.87	52.79	74.00	-21.21	Peak
	5237.64	96.76	34.52	5.62	47.77	89.13	74.00	15.13	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low

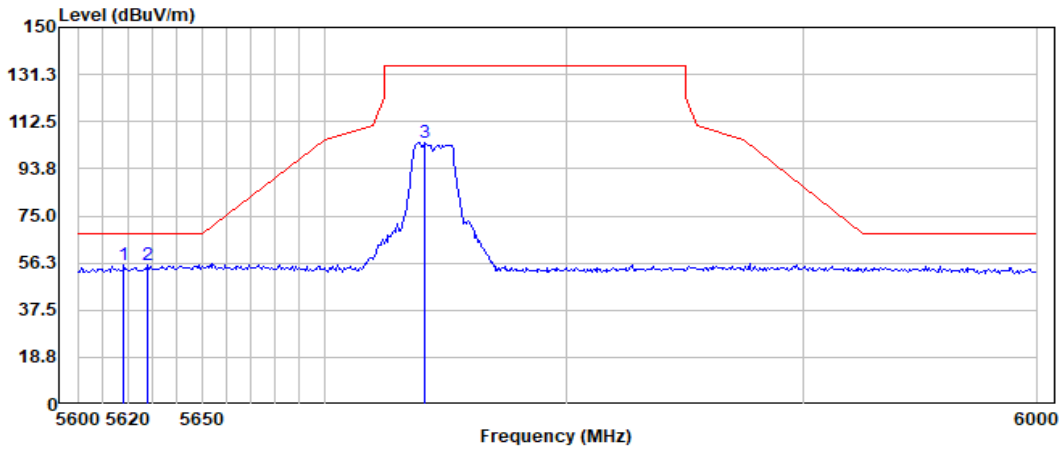


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5137.20	47.96	34.28	5.55	47.86	39.93	54.00	-14.07	Average
	5150.00	48.99	34.33	5.56	47.87	41.01	54.00	-12.99	Average
	5245.45	87.00	34.52	5.62	47.77	79.37	54.00	25.37	Average

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

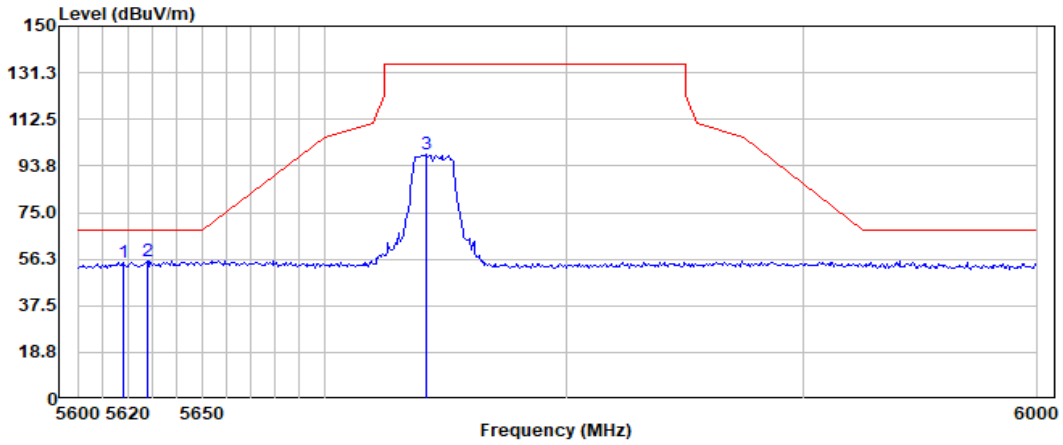


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5618.55	62.69	34.12	5.85	47.39	55.27	68.20	-12.93	Peak
	5627.83	62.77	34.13	5.86	47.38	55.38	68.20	-12.82	Peak
	5741.45	111.10	34.29	5.92	47.30	104.01	135.00	-30.99	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low

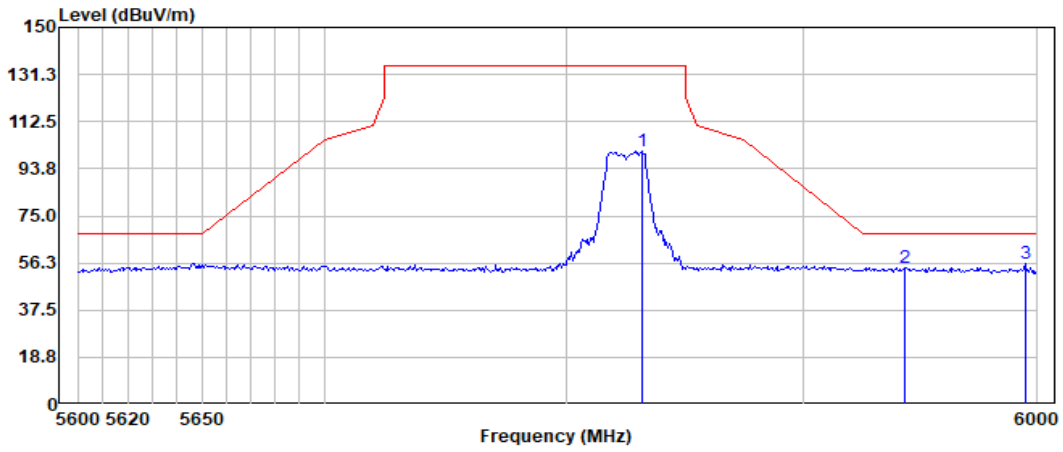


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5617.97	62.50	34.12	5.85	47.39	55.08	68.20	-13.12	Peak
	5627.83	62.67	34.13	5.86	47.38	55.28	68.20	-12.92	Peak
	5742.03	105.47	34.29	5.92	47.30	98.38	135.00	-36.62	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High

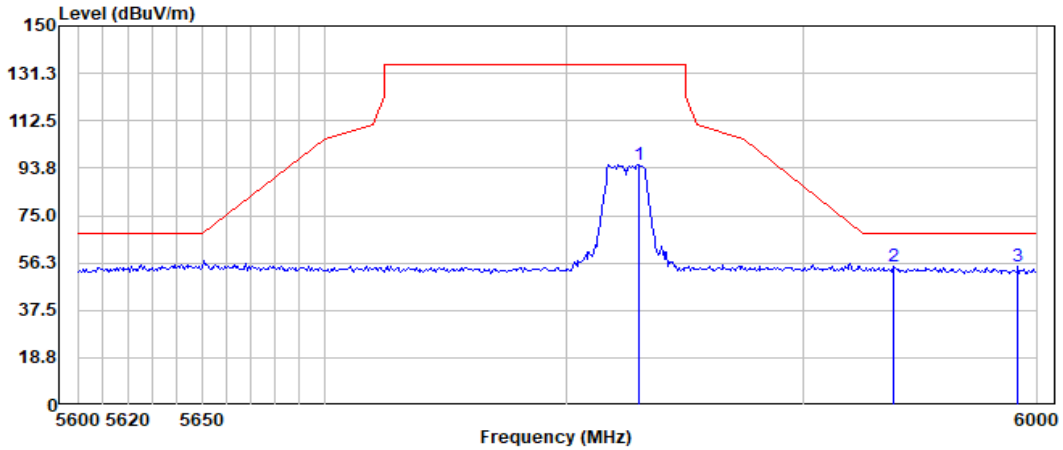


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5831.88	107.31	34.53	5.97	47.12	100.69	135.00	-34.31	Peak
	5943.19	61.25	34.85	6.03	47.57	54.56	68.20	-13.64	Peak
	5994.78	62.85	34.83	6.05	47.84	55.89	68.20	-12.31	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High

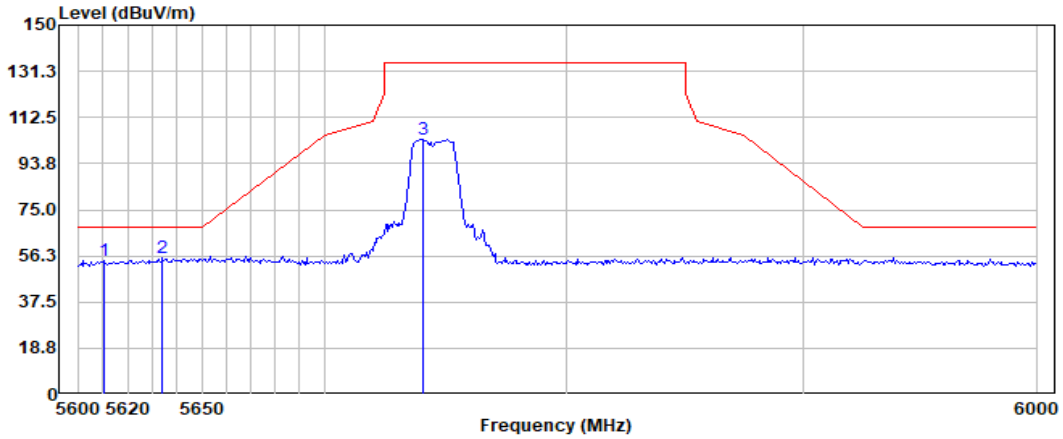


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5830.73	101.58	34.52	5.97	47.13	94.94	135.00	-40.06	Peak
	5938.55	61.41	34.85	6.02	47.55	54.73	68.20	-13.47	Peak
	5991.88	61.77	34.83	6.05	47.83	54.82	68.20	-13.38	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

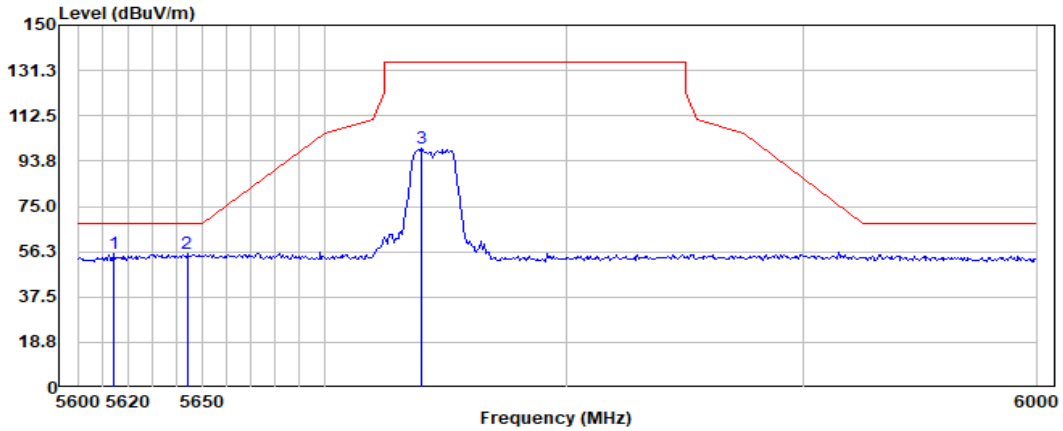


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5610.44	61.77	34.10	5.85	47.39	54.33	68.20	-13.87	Peak
	5634.20	62.65	34.14	5.86	47.38	55.27	68.20	-12.93	Peak
	5740.87	110.84	34.29	5.92	47.30	103.75	135.00	-31.25	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low

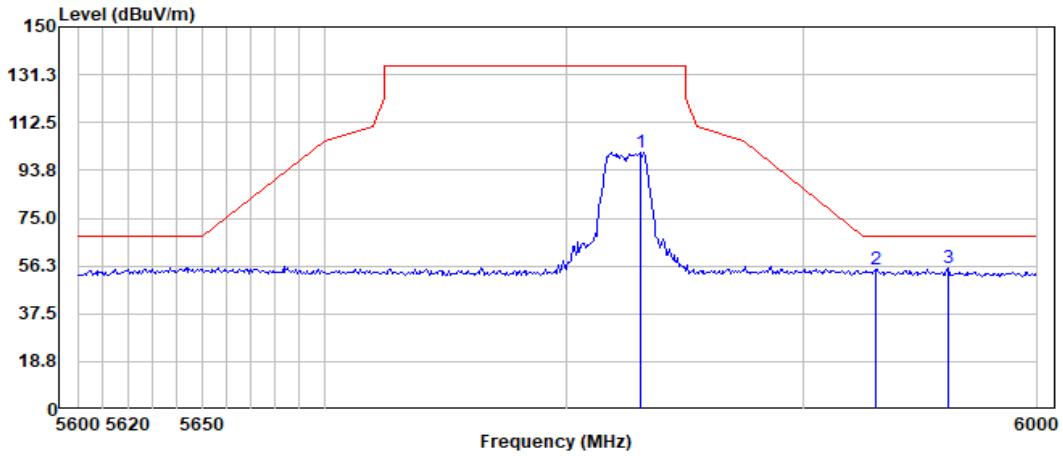


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5614.49	62.72	34.11	5.85	47.39	55.29	68.20	-12.91	Peak
	5644.06	62.75	34.15	5.87	47.37	55.40	68.20	-12.80	Peak
	5740.29	106.01	34.29	5.92	47.30	98.92	135.00	-36.08	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High

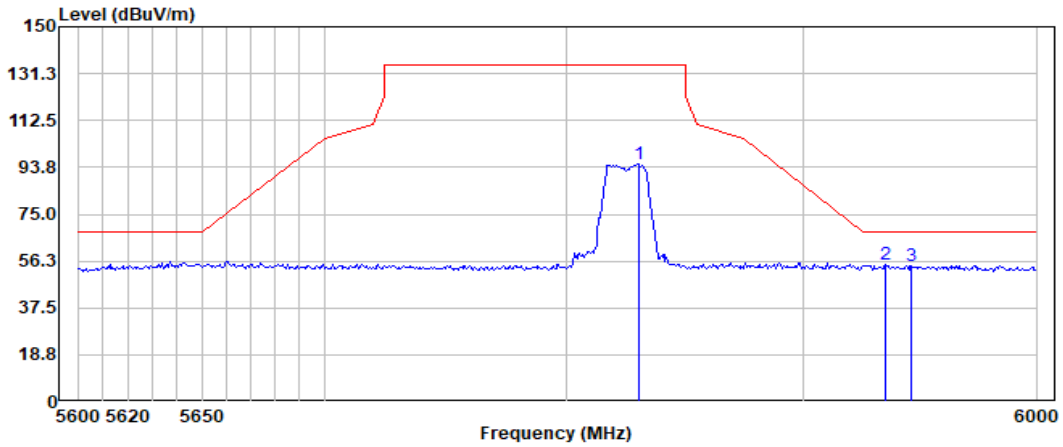


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5831.30	107.22	34.52	5.97	47.13	100.58	135.00	-34.42	Peak
	5931.02	61.69	34.85	6.02	47.51	55.05	68.20	-13.15	Peak
	5961.74	62.19	34.84	6.04	47.67	55.40	68.20	-12.80	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High

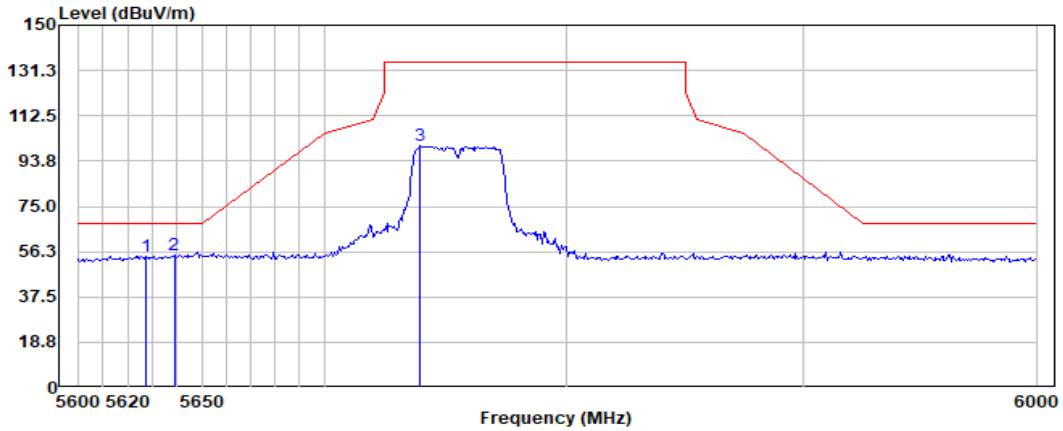


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5830.73	101.64	34.52	5.97	47.13	95.00	135.00	-40.00	Peak
	5935.07	61.58	34.85	6.02	47.53	54.92	68.20	-13.28	Peak
	5946.09	61.33	34.85	6.03	47.59	54.62	68.20	-13.58	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low

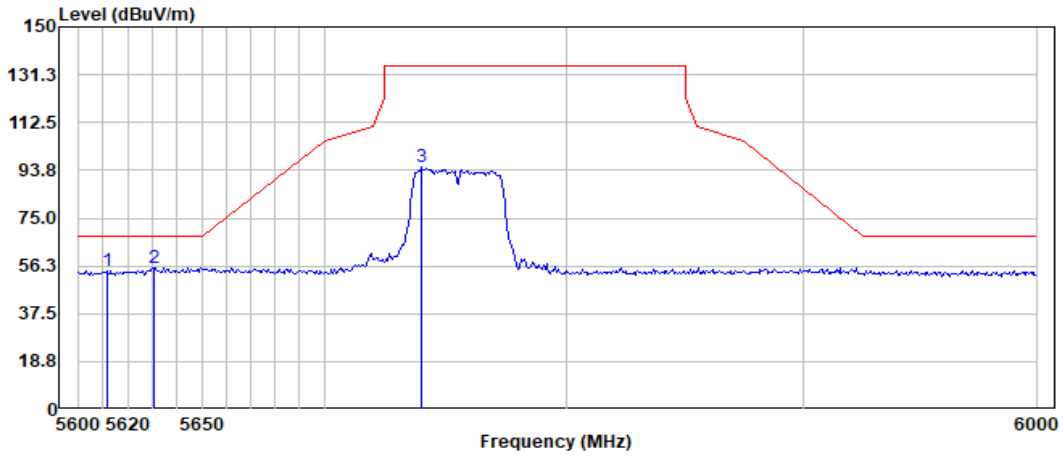


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5627.25	61.70	34.13	5.86	47.38	54.31	68.20	-13.89	Peak
	5638.84	62.16	34.14	5.86	47.38	54.78	68.20	-13.42	Peak
	5739.71	107.09	34.29	5.92	47.30	100.00	135.00	-35.00	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low

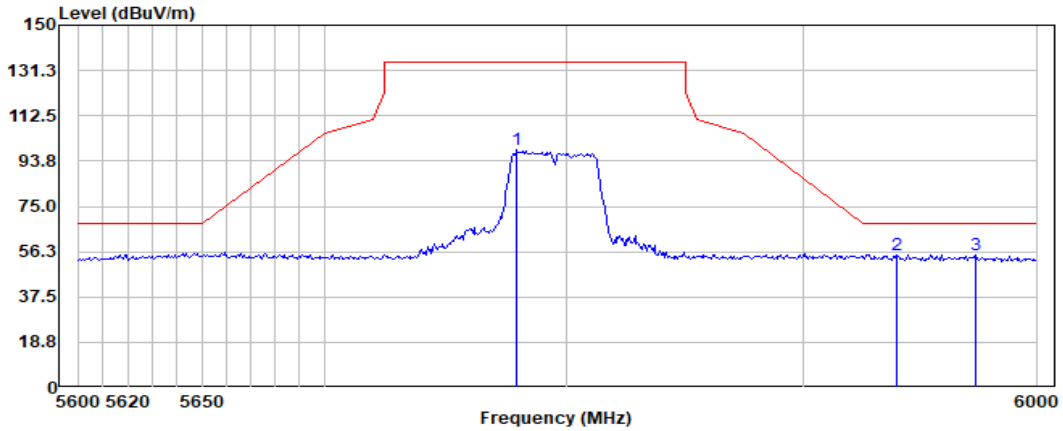


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5611.59	61.85	34.11	5.85	47.39	54.42	68.20	-13.78	Peak
	5630.73	62.74	34.13	5.86	47.38	55.35	68.20	-12.85	Peak
	5740.29	102.32	34.29	5.92	47.30	95.23	135.00	-39.77	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High

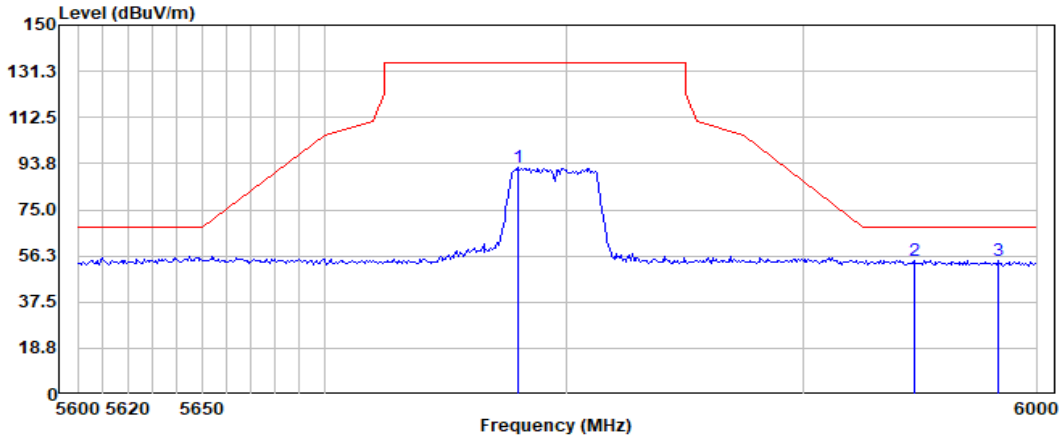


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5779.71	105.19	34.34	5.94	47.22	98.25	135.00	-36.75	Peak
	5939.71	61.84	34.85	6.02	47.56	55.15	68.20	-13.05	Peak
	5973.33	61.59	34.84	6.04	47.73	54.74	68.20	-13.46	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High

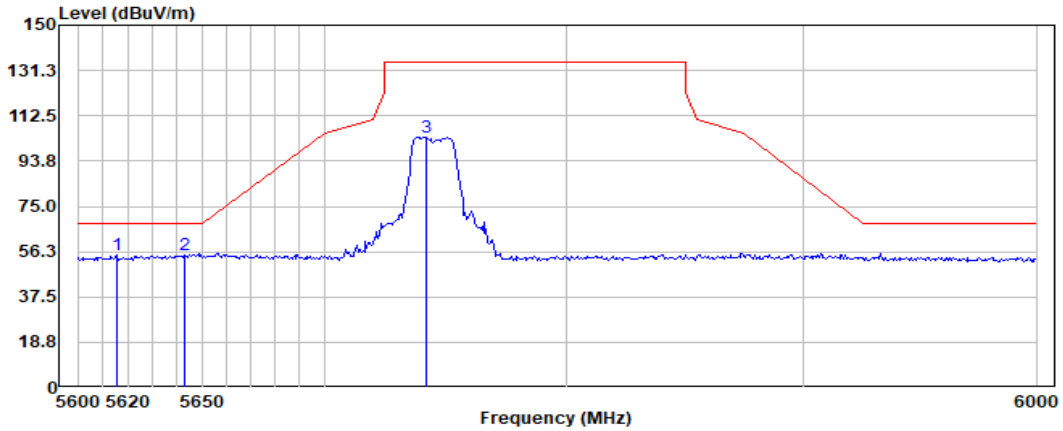


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5780.29	98.99	34.34	5.94	47.22	92.05	135.00	-42.95	Peak
	5947.25	61.31	34.85	6.03	47.60	54.59	68.20	-13.61	Peak
	5983.19	61.21	34.84	6.05	47.78	54.32	68.20	-13.88	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low

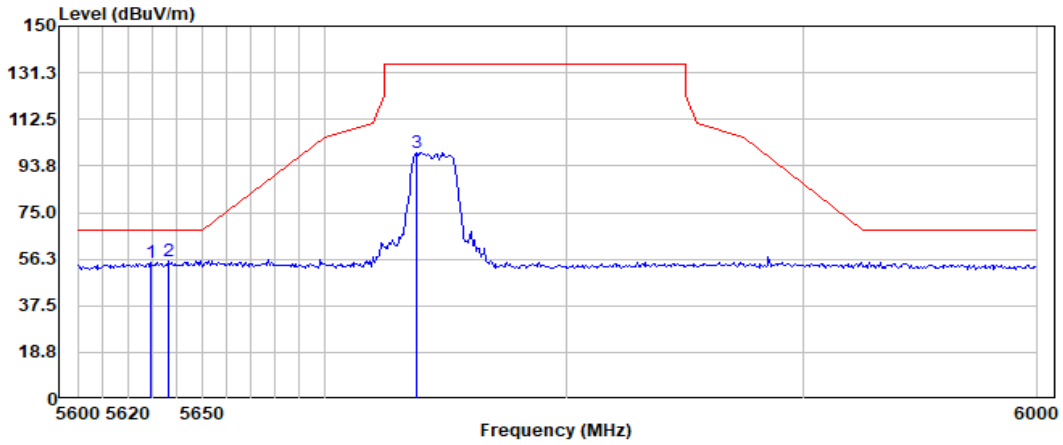


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5615.65	62.44	34.11	5.85	47.39	55.01	68.20	-13.19	Peak
	5642.90	62.37	34.15	5.86	47.38	55.00	68.20	-13.20	Peak
	5742.03	110.82	34.29	5.92	47.30	103.73	135.00	-31.27	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low

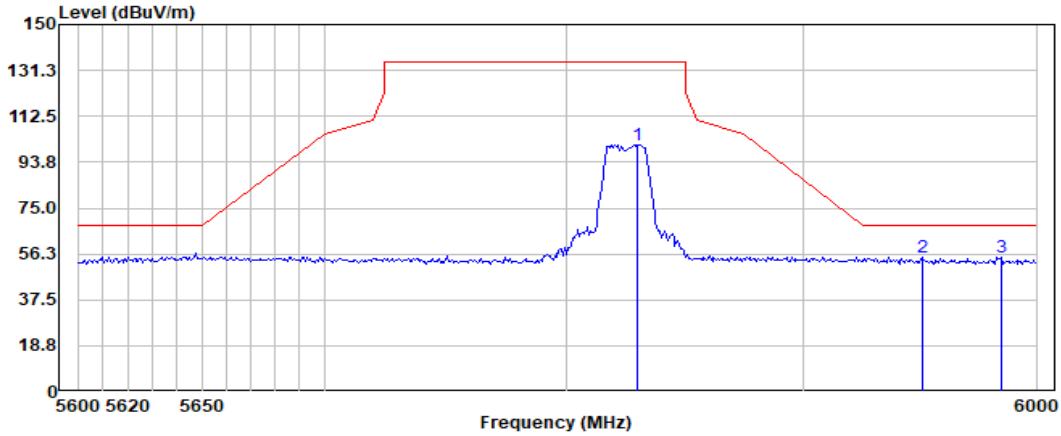


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5629.57	62.32	34.13	5.86	47.38	54.93	68.20	-13.27	Peak
	5636.52	63.00	34.14	5.86	47.38	55.62	68.20	-12.58	Peak
	5737.97	106.05	34.28	5.92	47.31	98.94	135.00	-36.06	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High

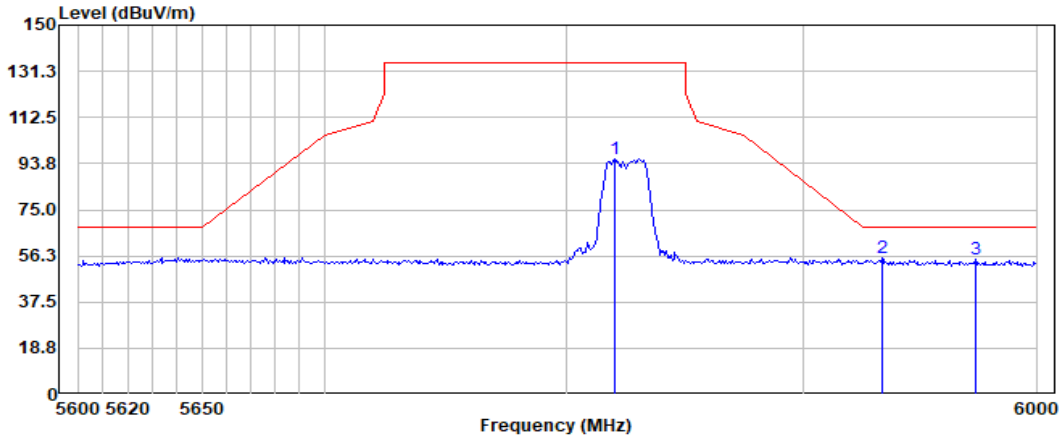


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5830.15	107.60	34.52	5.97	47.13	100.96	135.00	-34.04	Peak
	5950.73	61.55	34.84	6.03	47.61	54.81	68.20	-13.39	Peak
	5984.93	61.64	34.83	6.05	47.79	54.73	68.20	-13.47	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High

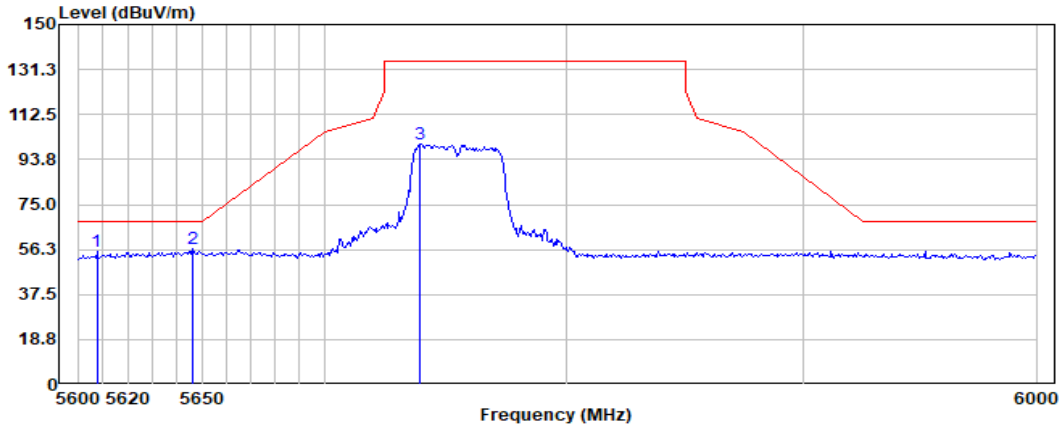


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5820.29	102.30	34.47	5.96	47.15	95.58	135.00	-39.42	Peak
	5933.33	61.85	34.85	6.02	47.52	55.20	68.20	-13.00	Peak
	5973.33	61.56	34.84	6.04	47.73	54.71	68.20	-13.49	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low

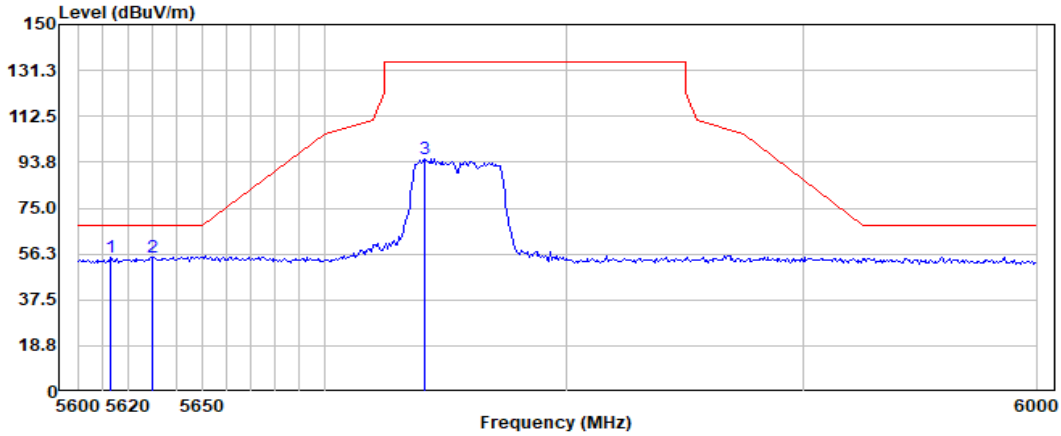


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5607.54	62.69	34.10	5.85	47.39	55.25	68.20	-12.95	Peak
	5646.38	63.80	34.15	5.87	47.37	56.45	68.20	-11.75	Peak
	5739.71	107.30	34.29	5.92	47.30	100.21	135.00	-34.79	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low

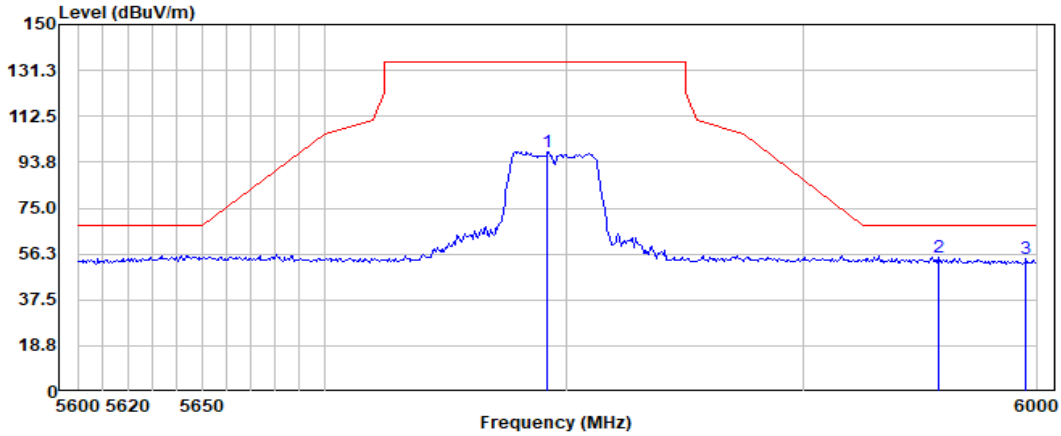


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5613.33	62.21	34.11	5.85	47.39	54.78	68.20	-13.42	Peak
	5630.15	62.57	34.13	5.86	47.38	55.18	68.20	-13.02	Peak
	5741.45	102.31	34.29	5.92	47.30	95.22	135.00	-39.78	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High

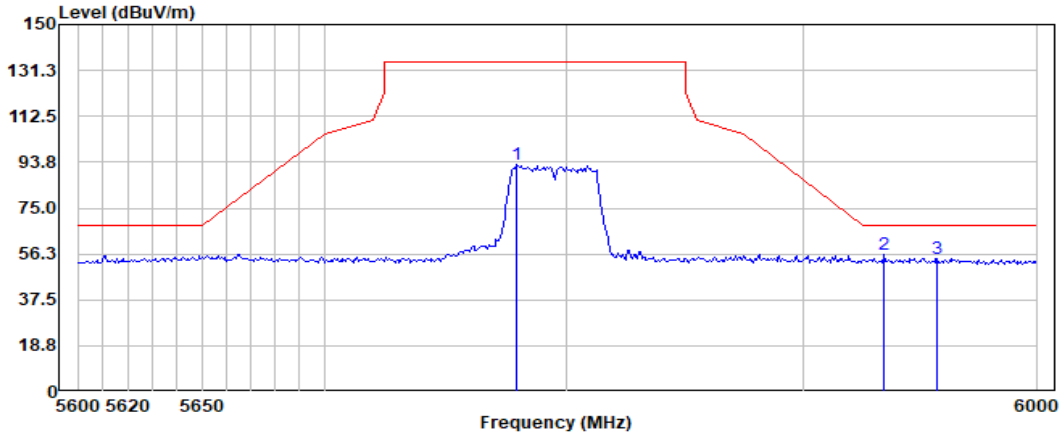


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5792.46	104.85	34.36	5.95	47.20	97.96	135.00	-37.04	Peak
	5957.68	61.62	34.84	6.03	47.65	54.84	68.20	-13.36	Peak
	5995.36	61.52	34.83	6.05	47.85	54.55	68.20	-13.65	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High

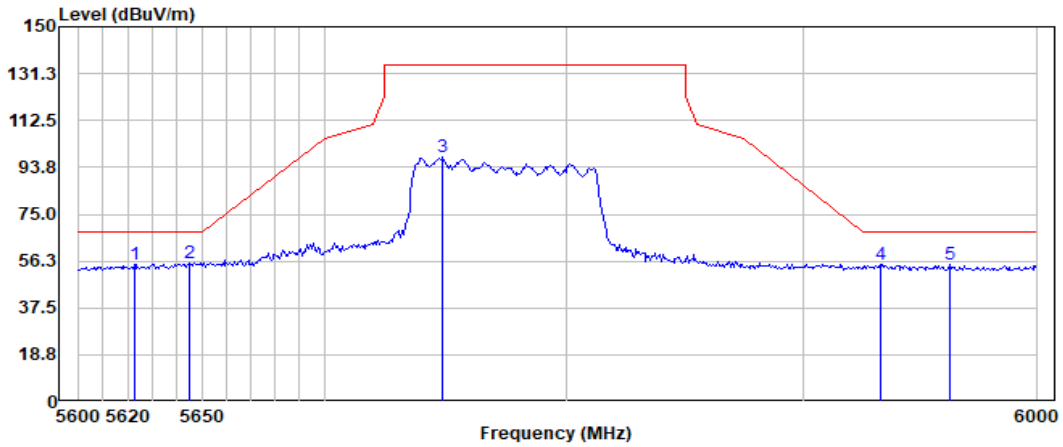


Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5779.71	99.78	34.34	5.94	47.22	92.84	135.00	-42.16	Peak
	5934.49	62.44	34.85	6.02	47.53	55.78	68.20	-12.42	Peak
	5957.10	61.04	34.84	6.03	47.65	54.26	68.20	-13.94	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low

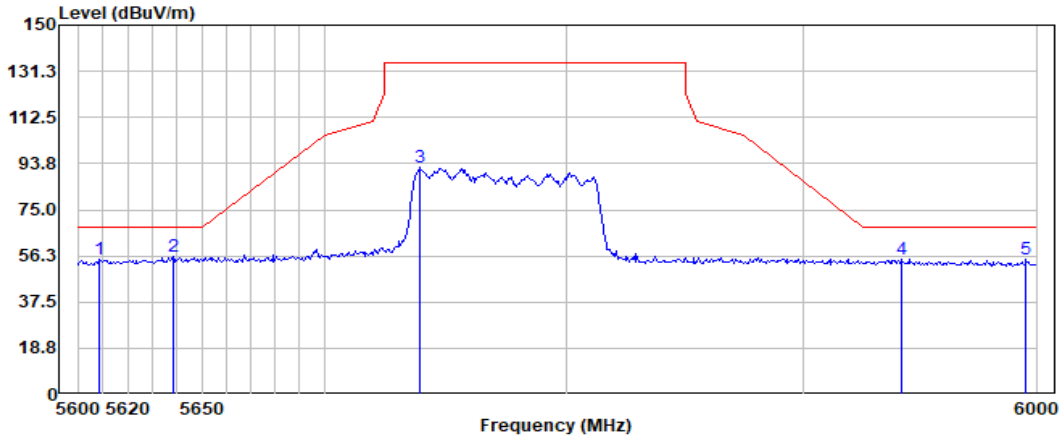


Antenna Polarity :Horizontal

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5622.61	62.52	34.12	5.85	47.39	55.10	68.20	-13.10	Peak
	5645.22	62.74	34.15	5.87	47.37	55.39	68.20	-12.81	Peak
	5748.99	104.92	34.30	5.92	47.28	97.86	135.00	-37.14	Peak
	5932.75	61.53	34.85	6.02	47.52	54.88	68.20	-13.32	Peak
	5962.32	61.54	34.84	6.04	47.67	54.75	68.20	-13.45	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Antenna Polarity :Vertical

No.	Freq	Read level	Antenna Factor	Cable Loss	Preamp Factor	Emission Level	Limit Line	Over Limit	Remark
	MHz	dBuv	dB/m	dB	dB	dBuv/m	dBuv/m	dB	
	5608.70	62.12	34.10	5.85	47.39	54.68	68.20	-13.52	Peak
	5638.26	63.25	34.14	5.86	47.38	55.87	68.20	-12.33	Peak
	5739.71	99.43	34.29	5.92	47.30	92.34	135.00	-42.66	Peak
	5942.03	61.70	34.85	6.03	47.57	55.01	68.20	-13.19	Peak
	5995.36	61.95	34.83	6.05	47.85	54.98	68.20	-13.22	Peak

Notes: Emission Level=Read Level+Antenna Factor+Cable loss-Preamp Factor

7.10 Frequency Stability

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

7.10.1 E.U.T. Operation

Operating Environment:
Temperature: 26.3 °C Humidity: 41.6 % RH Atmospheric Pressure: 1010 mbar

7.10.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.

7.10.3 Test Setup Diagram

7.10.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.11 Radiated Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)
Test Method: KDB 789033 D02 II G

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

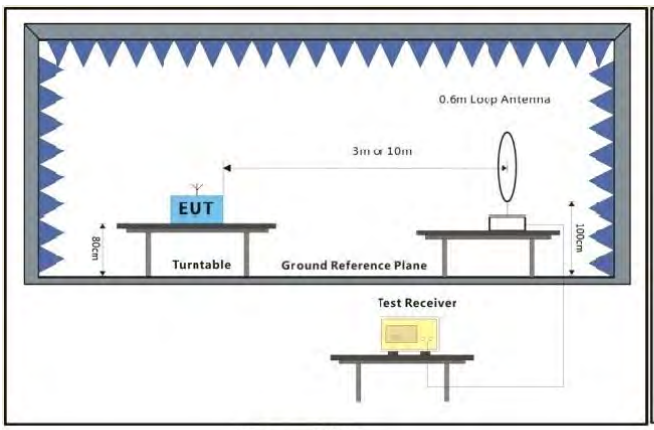
7.11.1 E.U.T. Operation

Operating Environment:
Temperature: 26.5 °C Humidity: 46.3 % RH Atmospheric Pressure: 1010 mbar

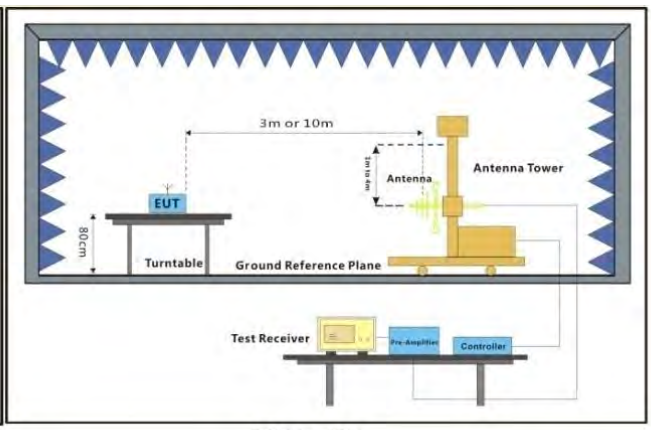
7.11.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac/ax/be 20/40/80, Only the data of worst case is recorded in the report.

7.11.3 Test Setup Diagram



Below 30MHz



30MHz-1GHz

7.11.4 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:

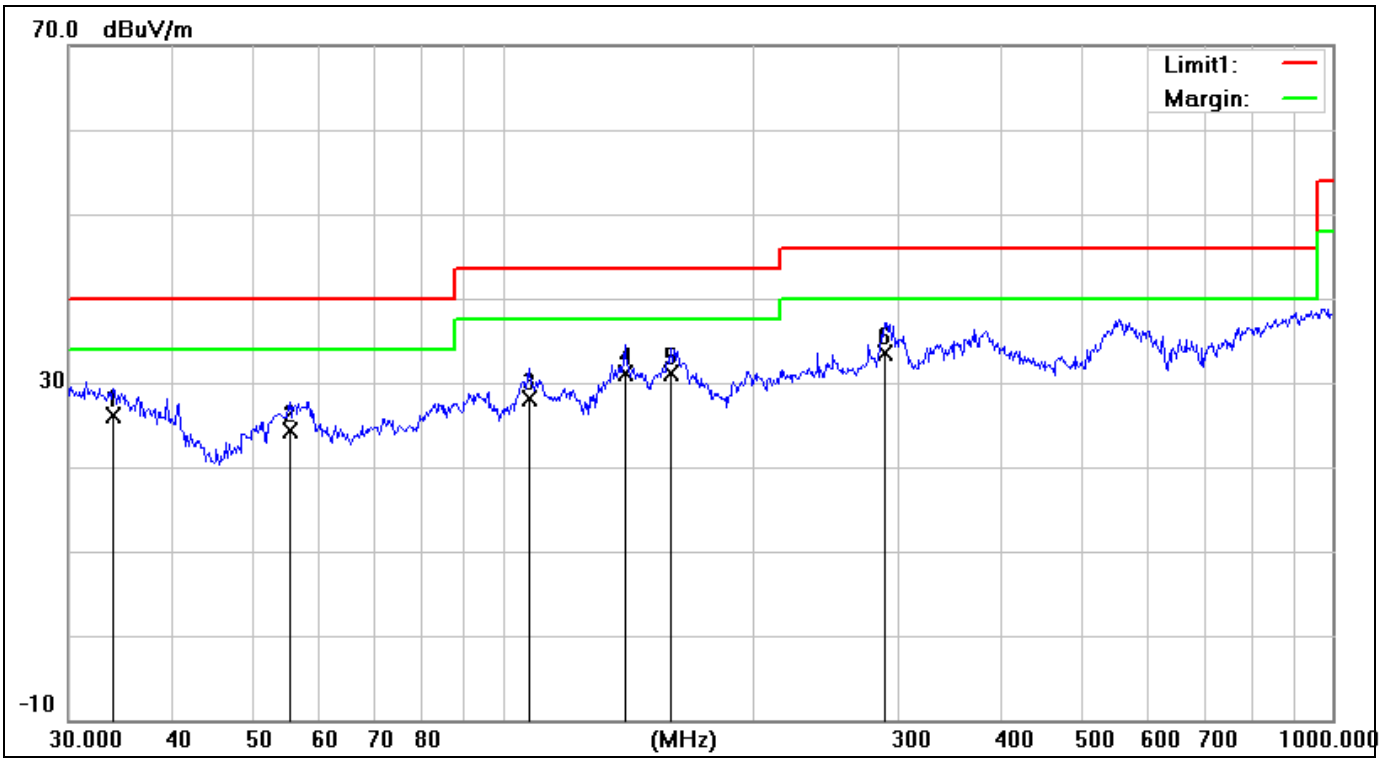
1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

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.

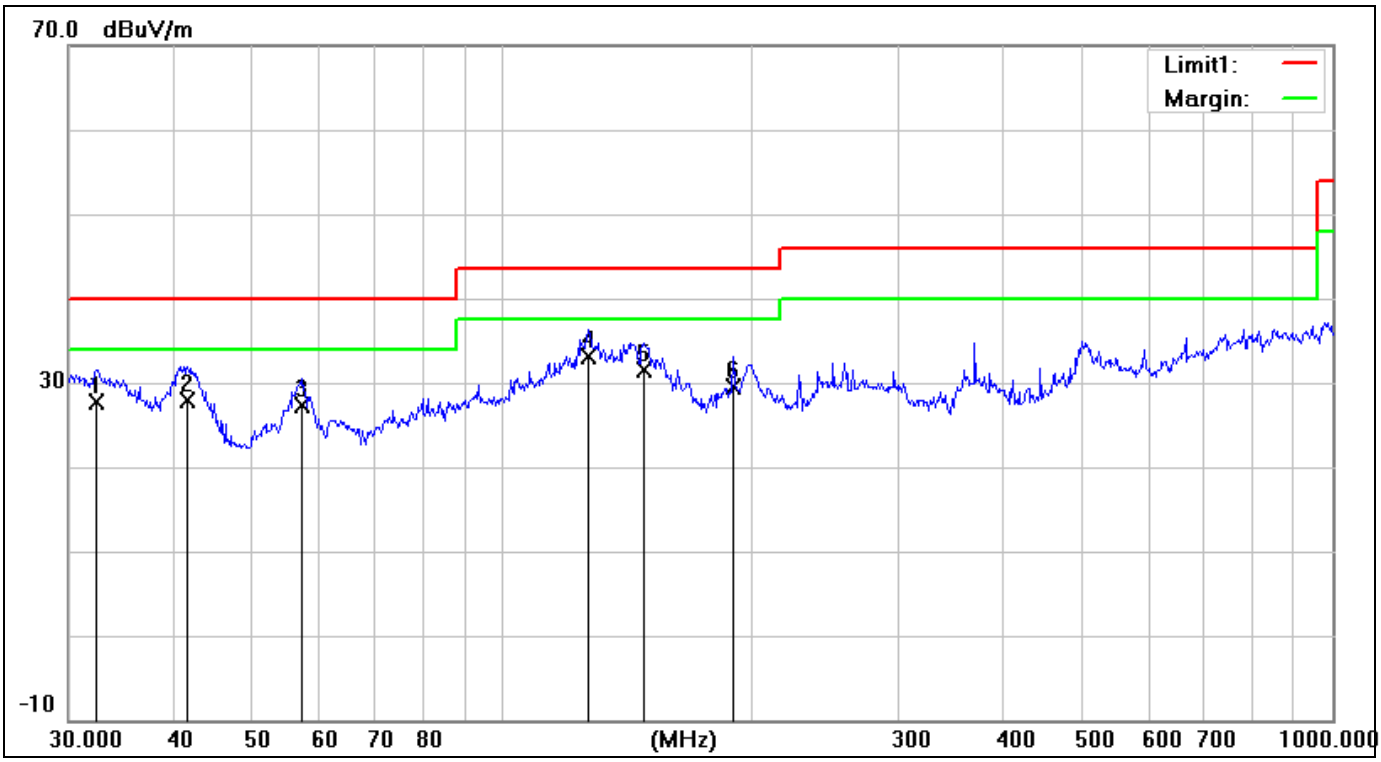
4. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

Test Mode: 05; Polarity: Horizontal



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	33.9174	1.15	24.96	26.11	40.00	-13.89	100	158	QP
2	55.4147	8.33	16.00	24.33	40.00	-15.67	100	154	QP
3	107.5100	9.94	18.20	28.14	43.50	-15.36	200	225	QP
4	140.3420	12.58	18.56	31.14	43.50	-12.36	200	126	QP
5	159.2250	13.53	17.52	31.05	43.50	-12.45	100	94	QP
6	289.0020	13.15	20.42	33.57	46.00	-12.43	100	323	QP

Test Mode: 05; Polarity: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	32.4060	2.49	25.16	27.65	40.00	-12.35	100	125	QP
2	41.7130	6.45	21.43	27.88	40.00	-12.12	200	144	QP
3	57.1914	11.75	15.50	27.25	40.00	-12.75	100	156	QP
4	126.7723	13.55	19.50	33.05	43.50	-10.45	100	68	QP
5	147.9214	13.54	17.93	31.47	43.50	-12.03	100	323	QP
6	189.7384	13.19	16.38	29.57	43.50	-13.93	100	305	QP

8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2308001517AT

9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for KSCR2308001517AT

10 Appendix

Power level setting using in test:

Channel	802.11a	802.11n(HT20)	802.11ac(VHT20)
	Ant 1	Ant 1	Ant 1
36	44	44	44
40	44	44	44
48	43	43	43
149	40	40	41
157	40	40	41
165	40	40	41

Channel	802.11n(HT40)	802.11ac(VHT40)
	Ant 1	Ant 1
38	43	43
46	42	43
151	39	39
159	39	39

Channel	802.11ac(VHT80)
	Ant 1
42	43
155	38

1. Duty Cycle

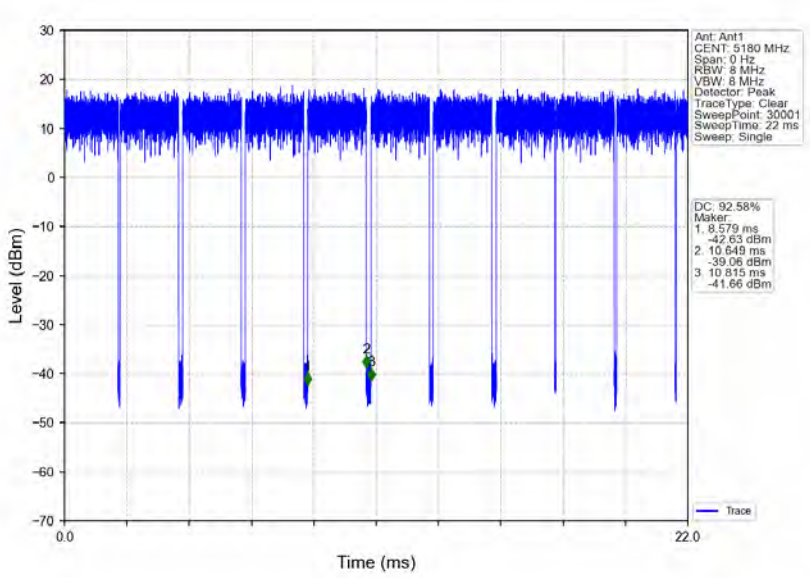
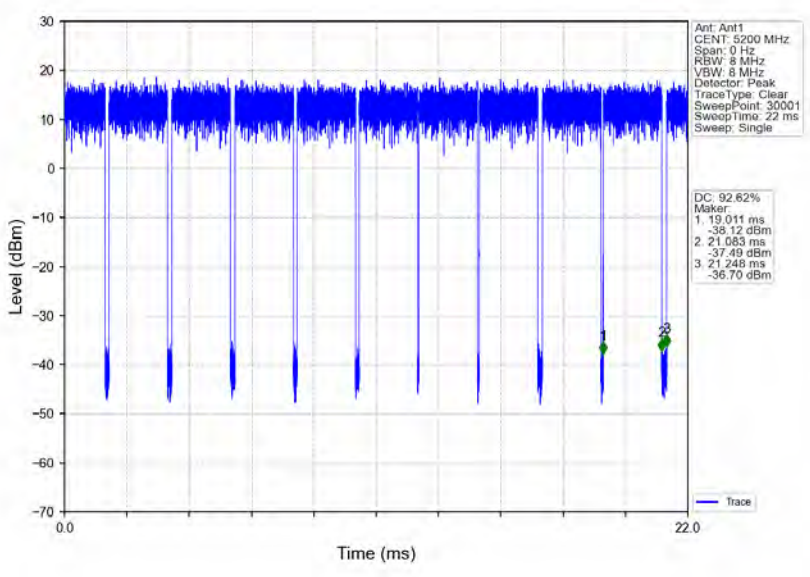
1.1 Ant1

1.1.1 Test Result

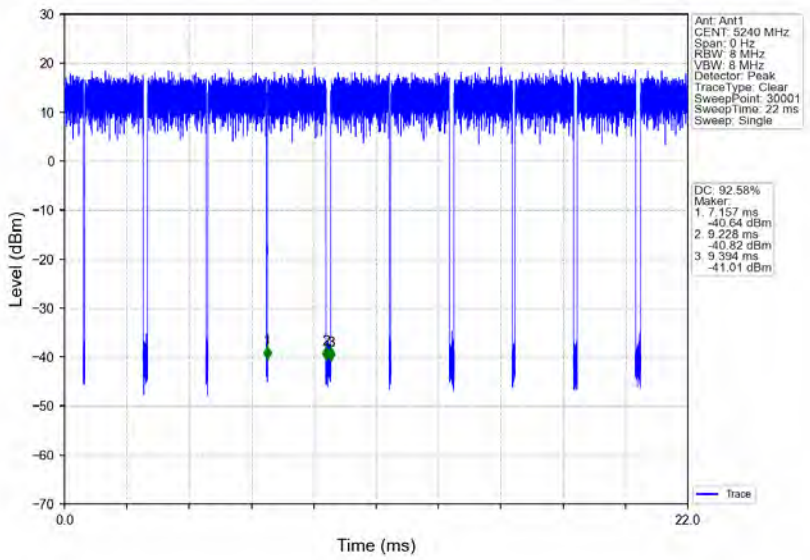
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	2.070	2.236	92.58	0.34	5.95
		5200	2.072	2.237	92.62	0.33	5.50
		5240	2.071	2.237	92.58	0.33	5.94
		5745	2.071	2.237	92.58	0.33	5.60
		5785	2.066	2.229	92.69	0.33	5.19
		5825	2.071	2.237	92.58	0.33	5.94
802.11n	SISO	5180	2.071	2.201	94.09	0.26	4.43

(HT20)		5200	2.071	2.228	92.95	0.32	5.58
		5240	2.071	2.209	93.75	0.28	4.40
		5745	2.071	2.238	92.54	0.34	5.98
		5785	2.071	2.237	92.58	0.33	5.95
		5825	2.072	2.229	92.96	0.32	5.58
802.11n (HT40)	SISO	5190	0.945	1.108	85.29	0.69	10.97
		5230	0.945	1.116	84.68	0.72	10.75
		5755	0.946	1.203	78.64	1.04	15.97
		5795	0.945	1.159	81.54	0.89	13.83
802.11ac (VHT20)	SISO	5180	1.939	2.096	92.51	0.34	5.45
		5200	1.939	2.104	92.16	0.35	5.84
		5240	1.939	2.105	92.11	0.36	6.31
		5745	1.933	2.257	85.64	0.67	10.77
		5785	1.939	2.087	92.91	0.32	5.54
		5825	1.934	2.105	91.88	0.37	5.39
802.11ac (VHT40)	SISO	5190	0.953	1.125	84.71	0.72	9.84
		5230	0.954	1.116	85.48	0.68	6.69
		5755	0.960	1.208	79.47	1.00	17.44
		5795	0.954	1.098	86.89	0.61	7.78
802.11ac (VHT80)	SISO	5210	0.461	0.624	73.88	1.31	18.72
		5775	0.462	0.624	74.04	1.31	15.50

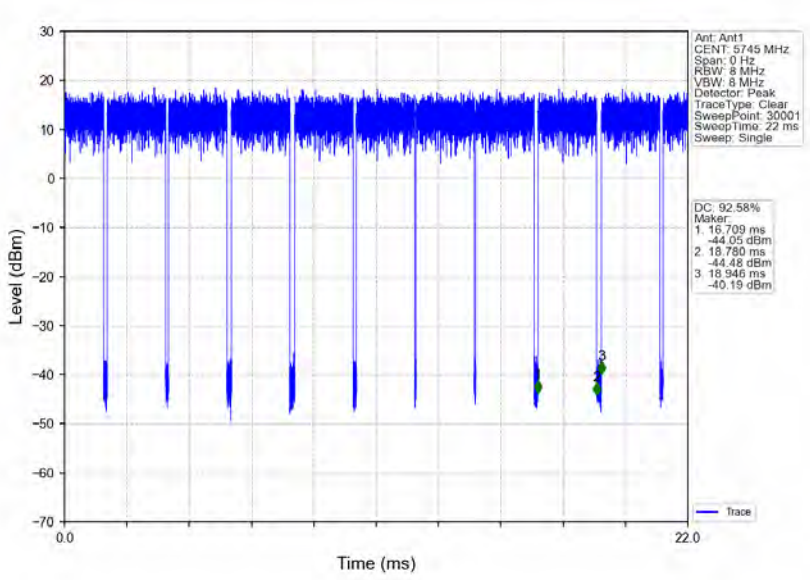
1.1.2 Test Graph

802.11a_LCH_5180MHz_Ant1_NTNV

802.11a_MCH_5200MHz_Ant1_NTNV


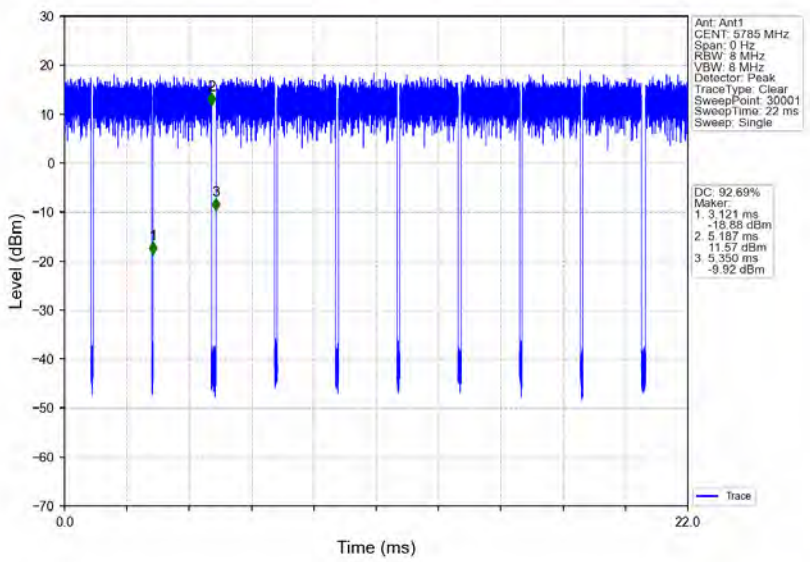
802.11a_HCH_5240MHz_Ant1_NTNV



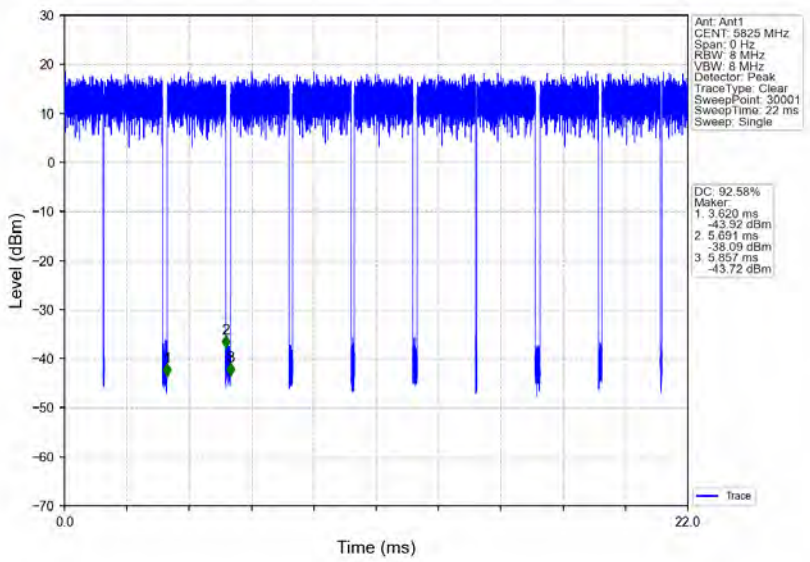
802.11a_LCH_5745MHz_Ant1_NTNV



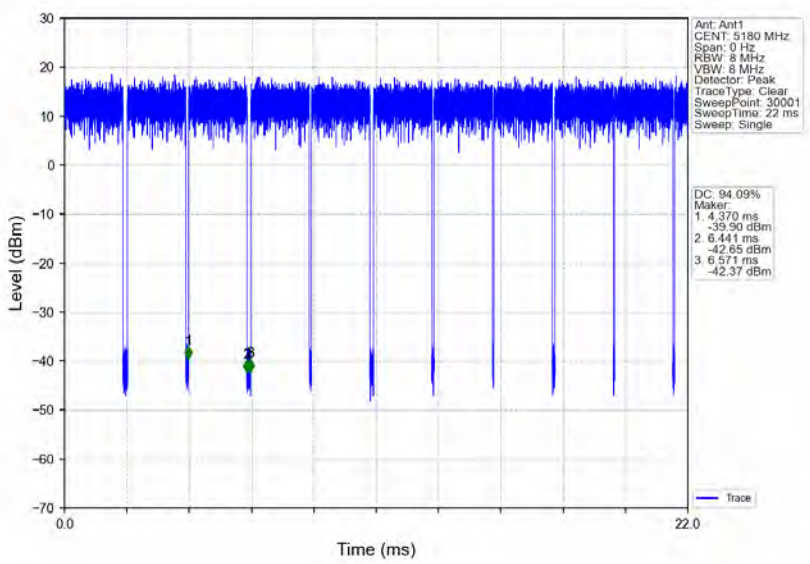
802.11a_MCH_5785MHz_Ant1_NTNV



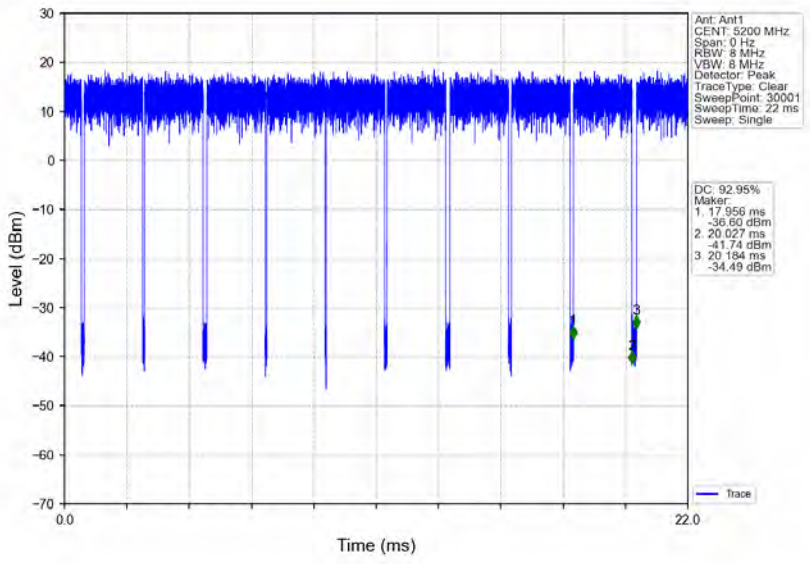
802.11a_HCH_5825MHz_Ant1_NTNV



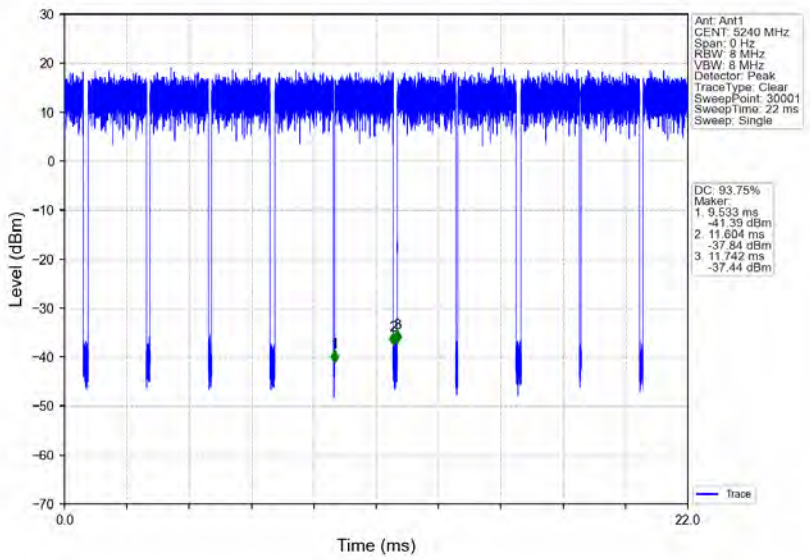
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



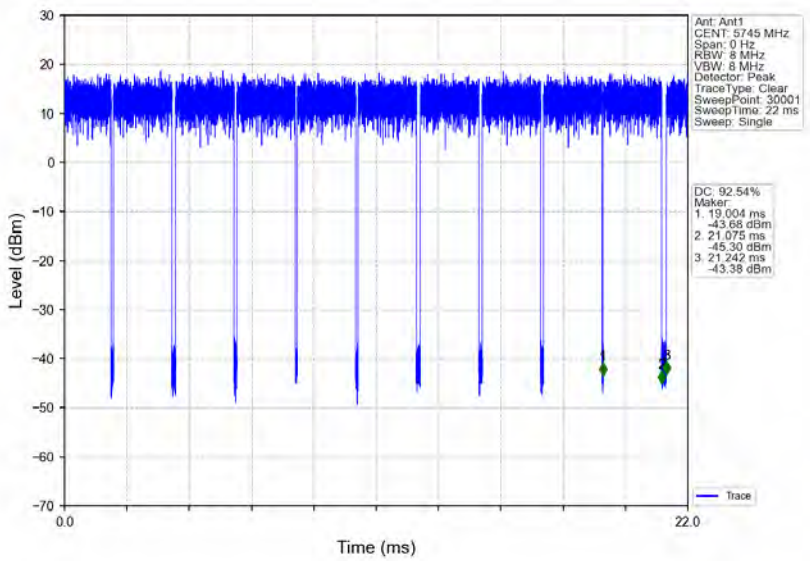
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



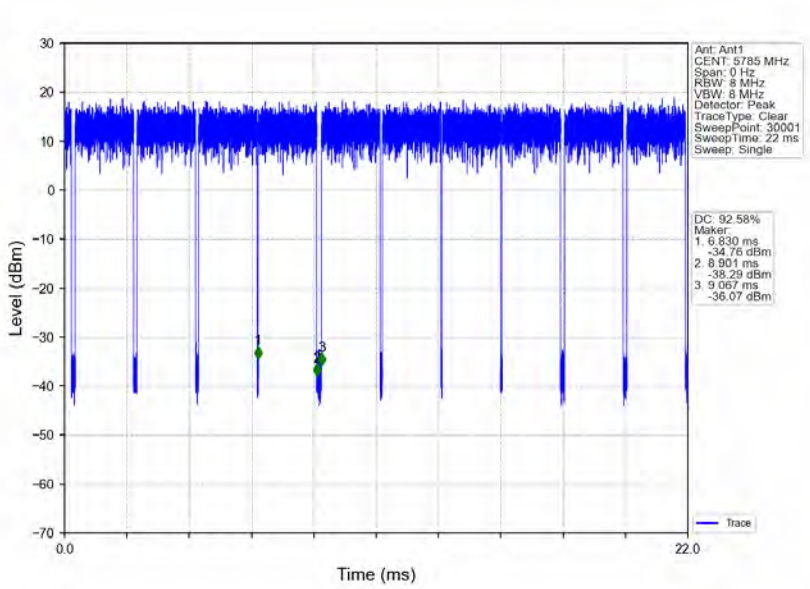
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



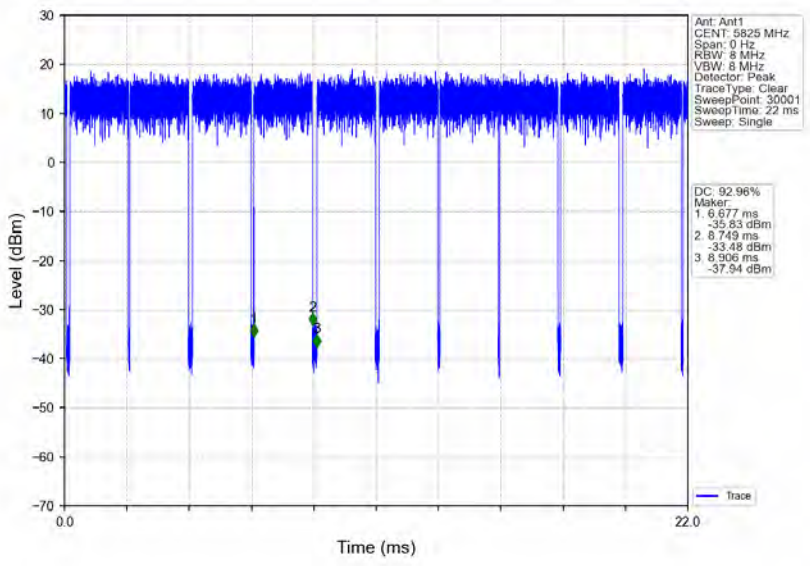
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



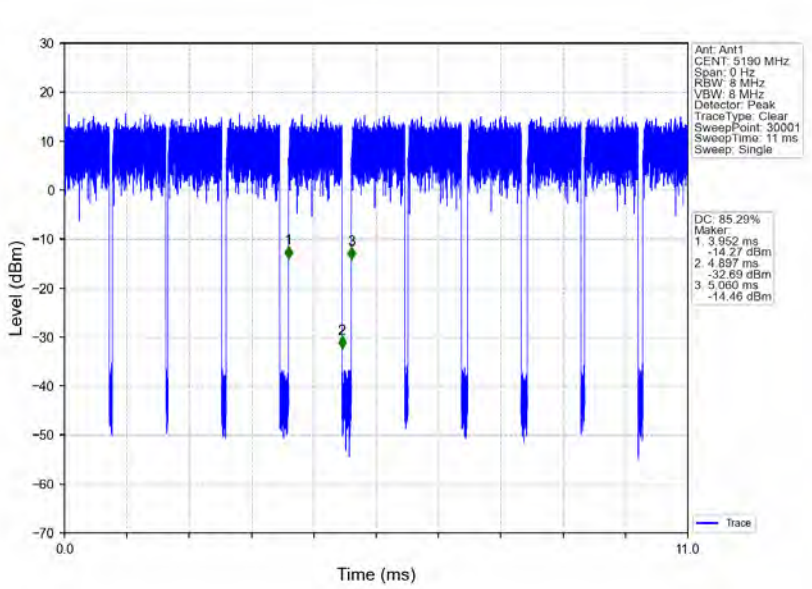
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



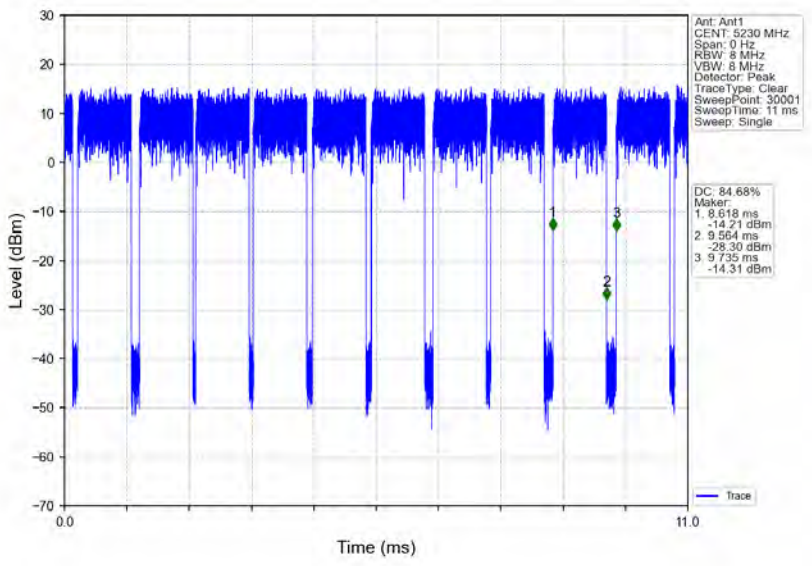
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



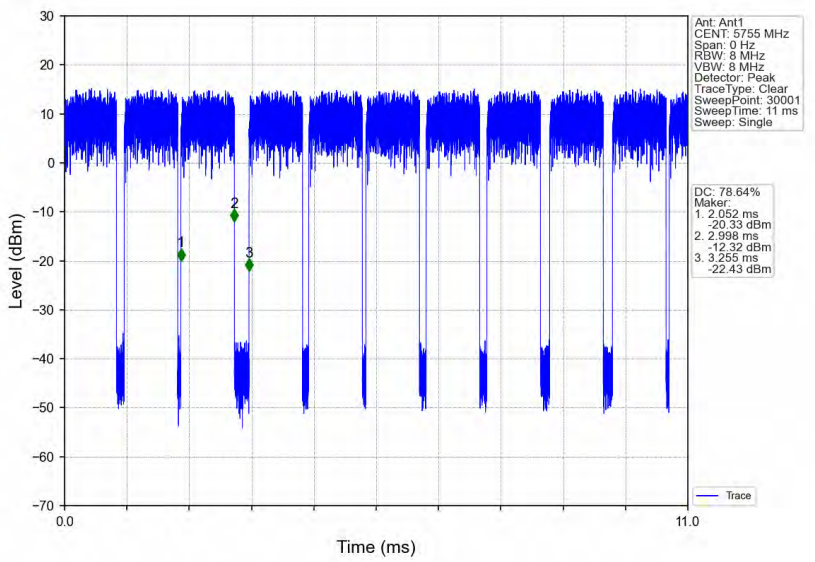
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



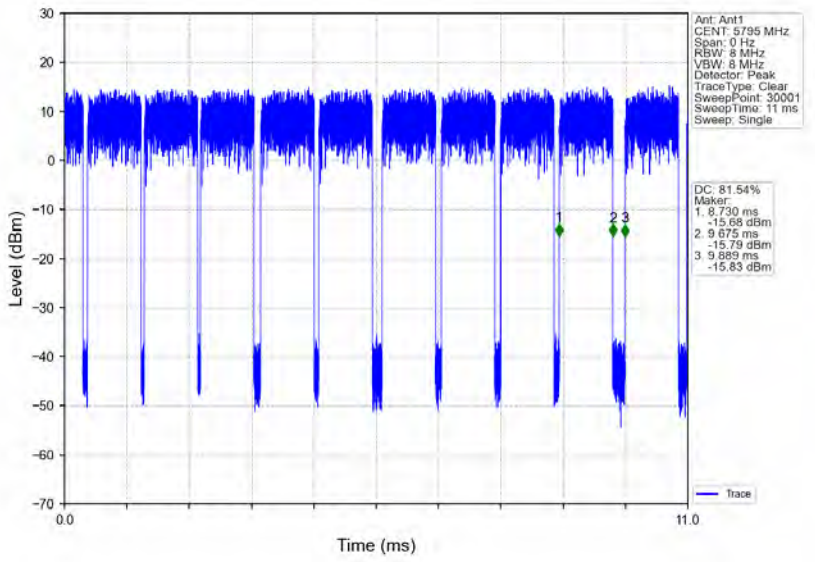
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



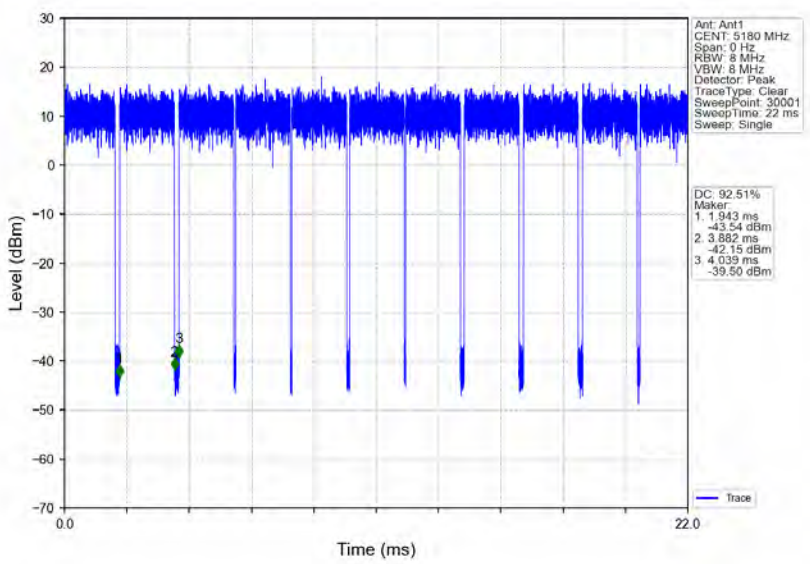
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



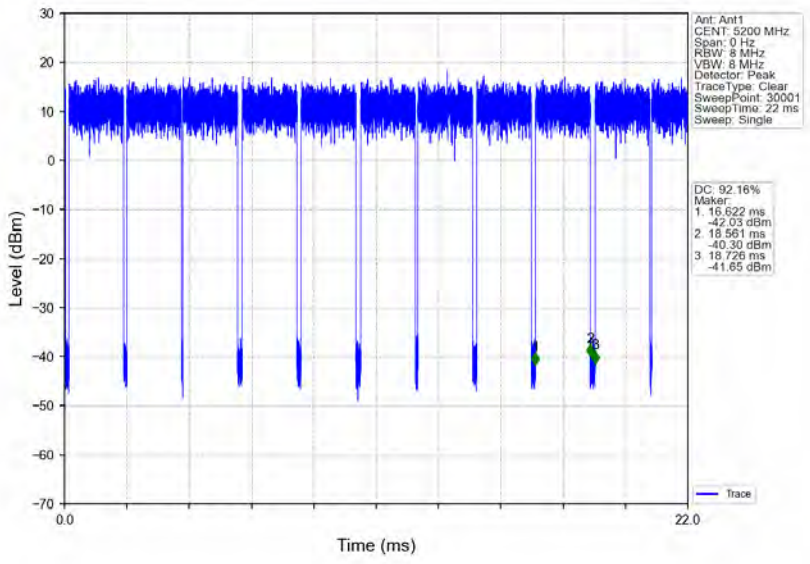
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



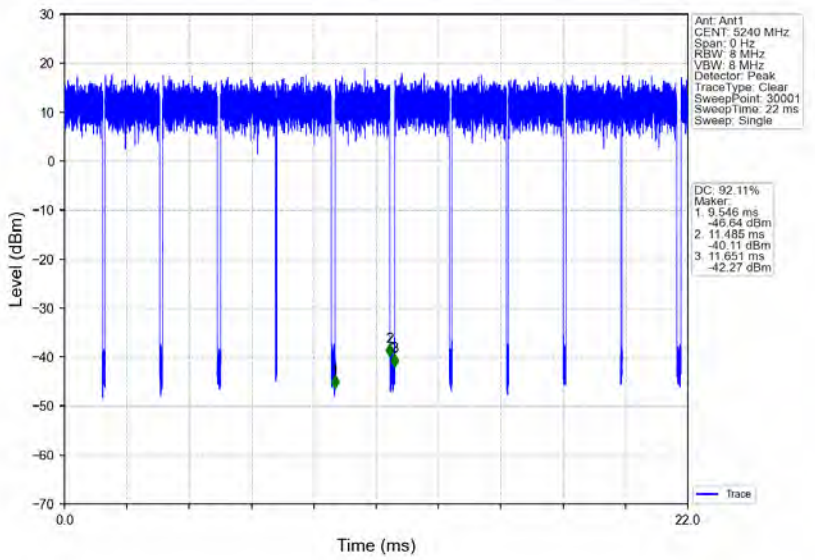
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



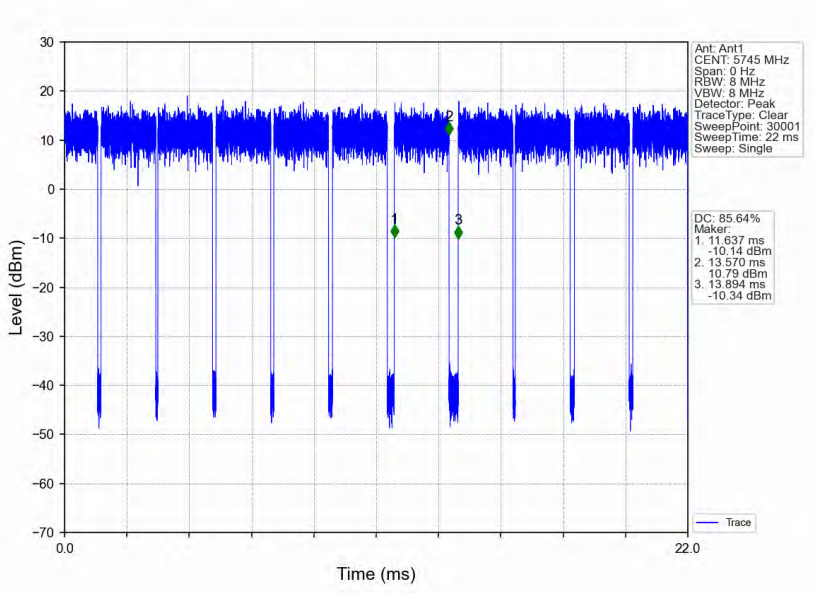
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



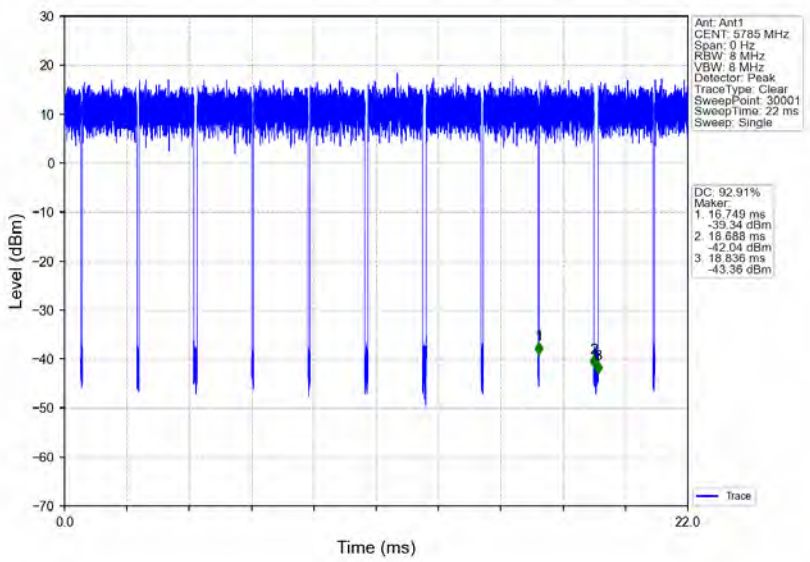
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



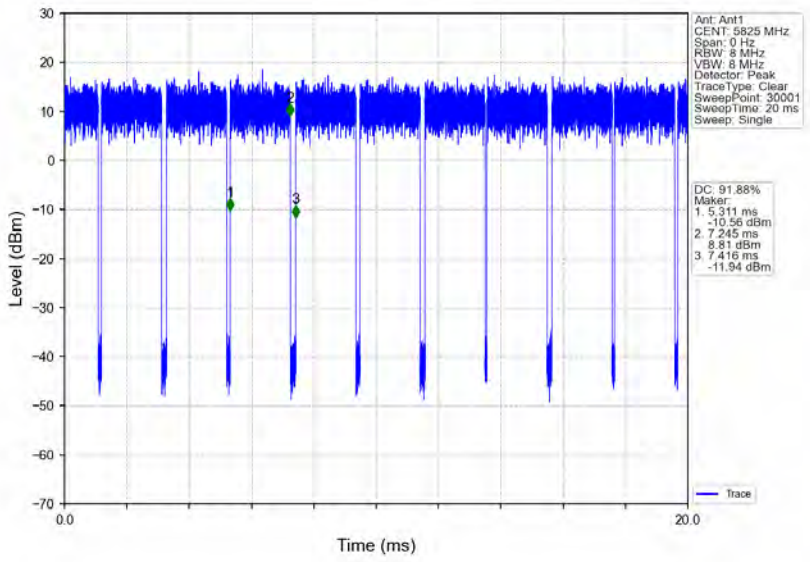
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



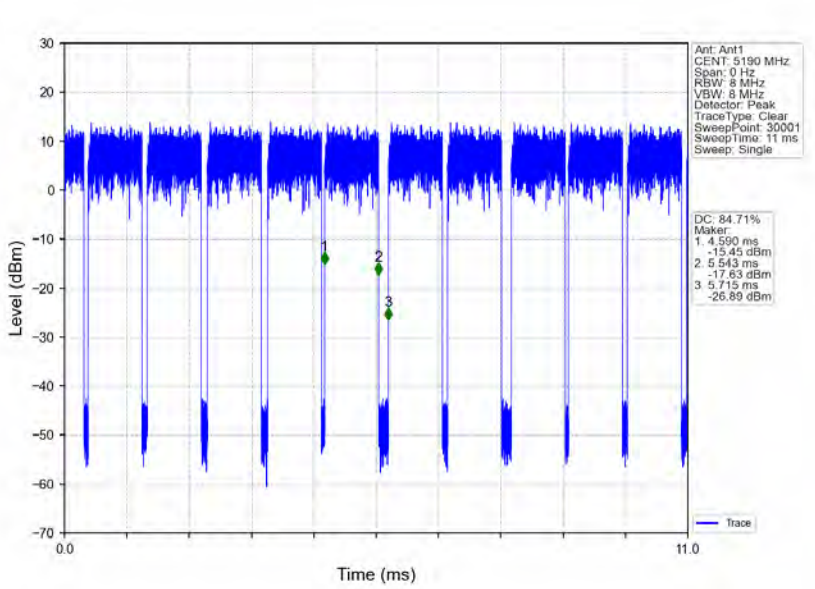
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



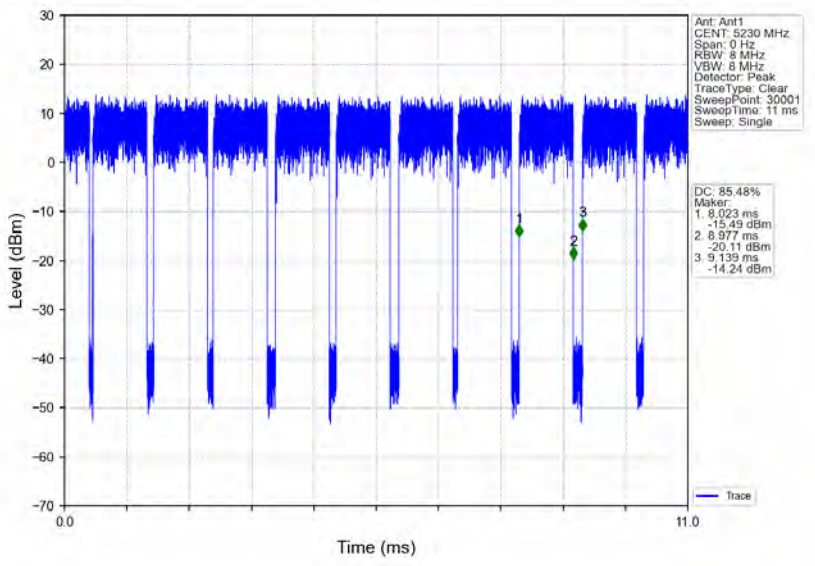
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



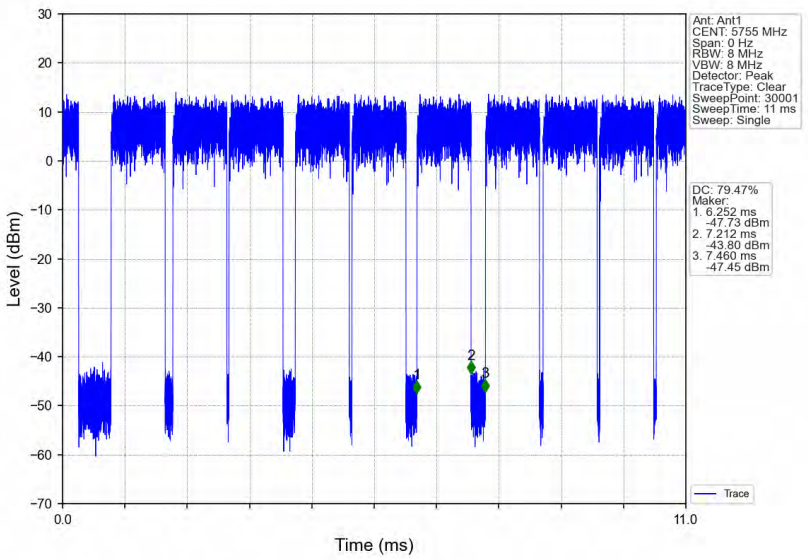
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



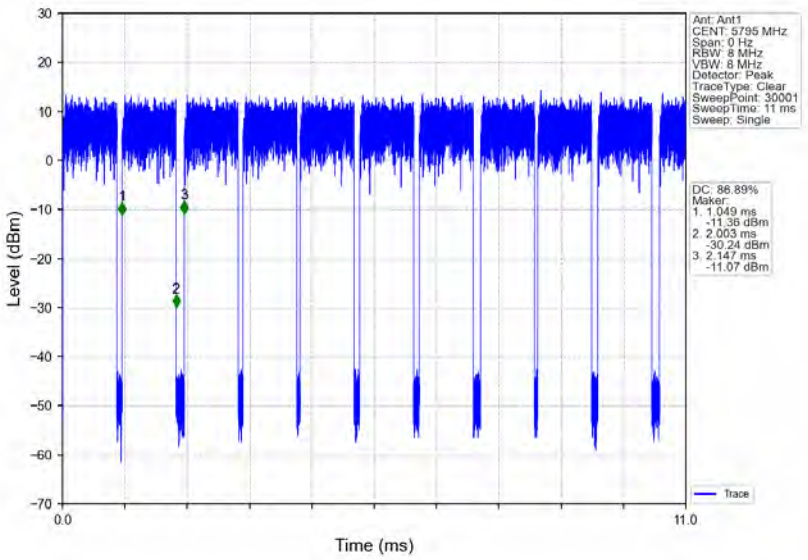
802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



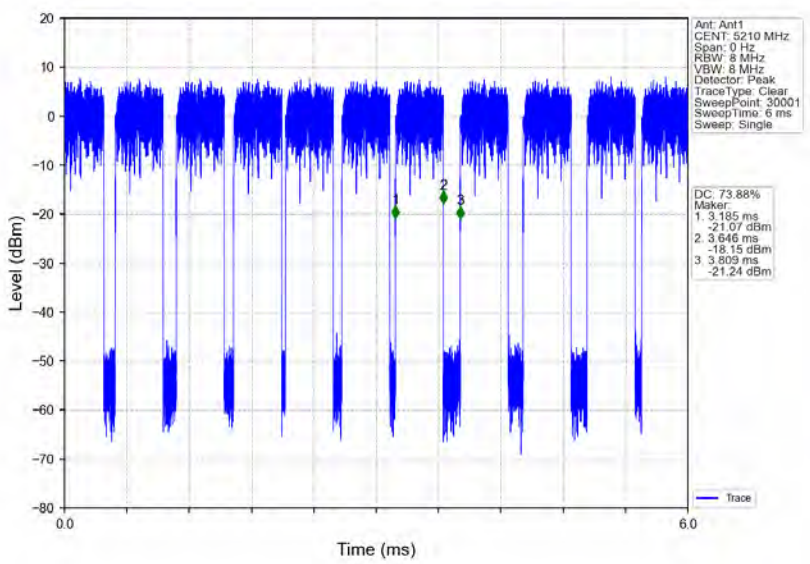
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



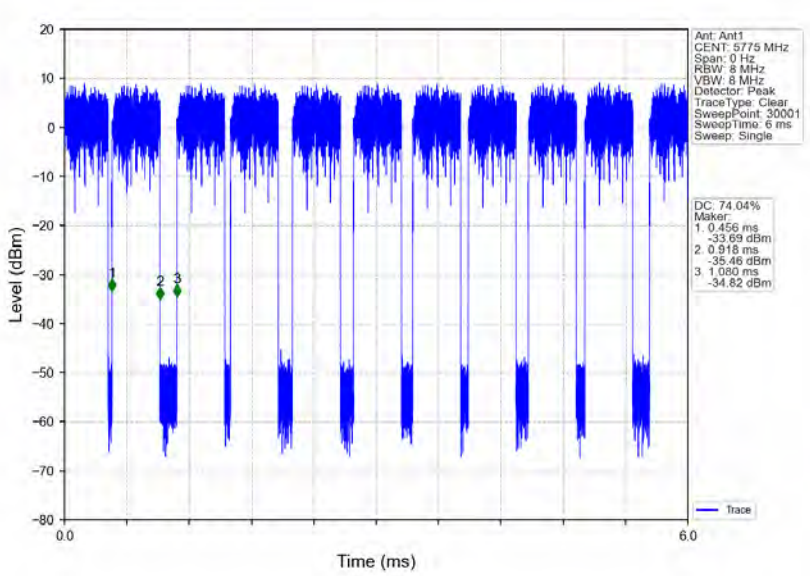
802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



2. Bandwidth

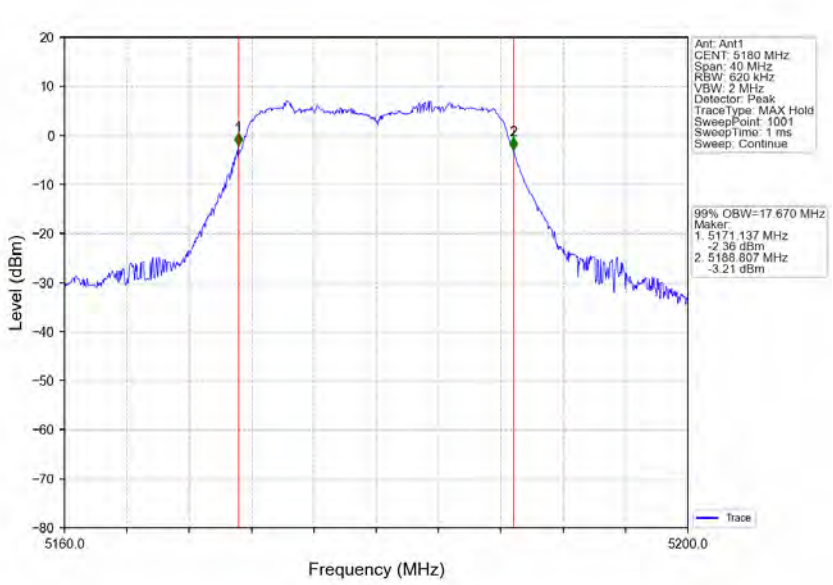
2.1 OBW

2.1.1 Test Result

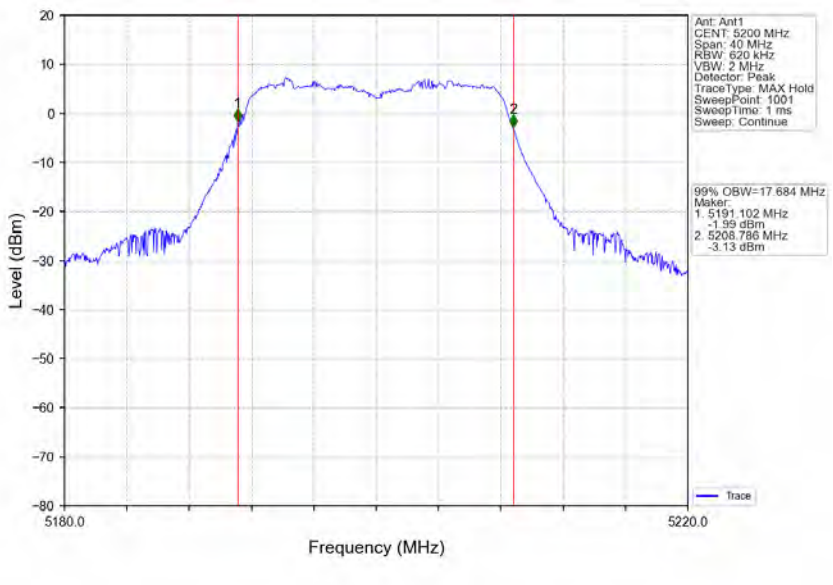
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	17.670	Pass
		5200	1	17.684	Pass
		5240	1	17.729	Pass
		5745	1	17.736	Pass
		5785	1	17.740	Pass
		5825	1	17.680	Pass
802.11n (HT20)	SISO	5180	1	17.610	Pass
		5200	1	17.656	Pass
		5240	1	17.684	Pass
		5745	1	17.743	Pass
		5785	1	17.702	Pass
		5825	1	17.718	Pass
802.11n (HT40)	SISO	5190	1	37.026	Pass
		5230	1	37.077	Pass
		5755	1	37.162	Pass
		5795	1	37.047	Pass
802.11ac (VHT20)	SISO	5180	1	18.438	Pass
		5200	1	18.450	Pass
		5240	1	18.459	Pass
		5745	1	18.473	Pass
		5785	1	18.461	Pass
		5825	1	18.481	Pass
802.11ac (VHT40)	SISO	5190	1	36.877	Pass
		5230	1	36.968	Pass
		5755	1	36.973	Pass
		5795	1	36.967	Pass
802.11ac (VHT80)	SISO	5210	1	76.715	Pass
		5775	1	76.681	Pass

2.1.2 Test Graph

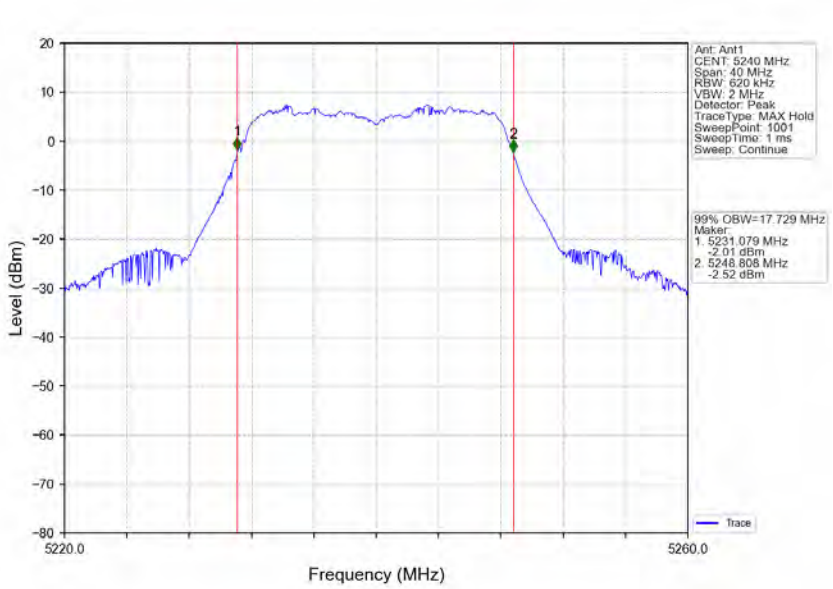
802.11a_LCH_5180MHz_Ant1_NTNV



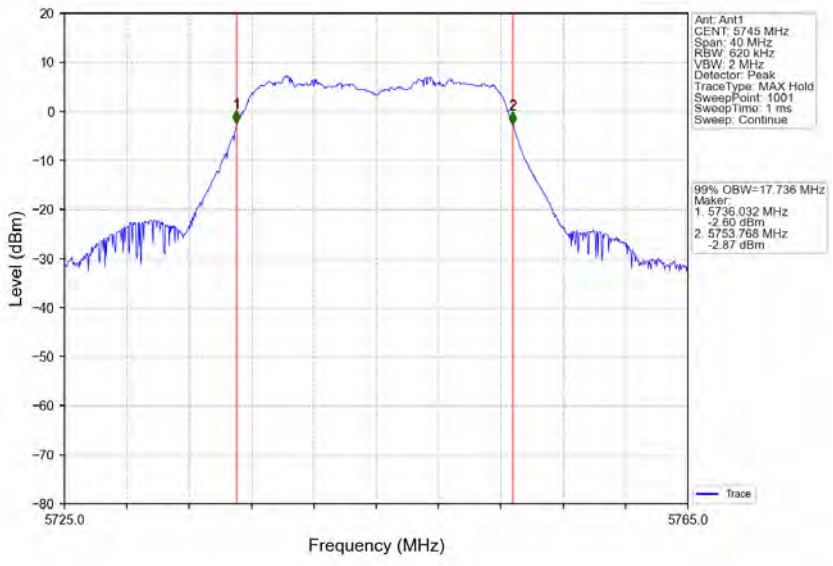
802.11a_MCH_5200MHz_Ant1_NTNV



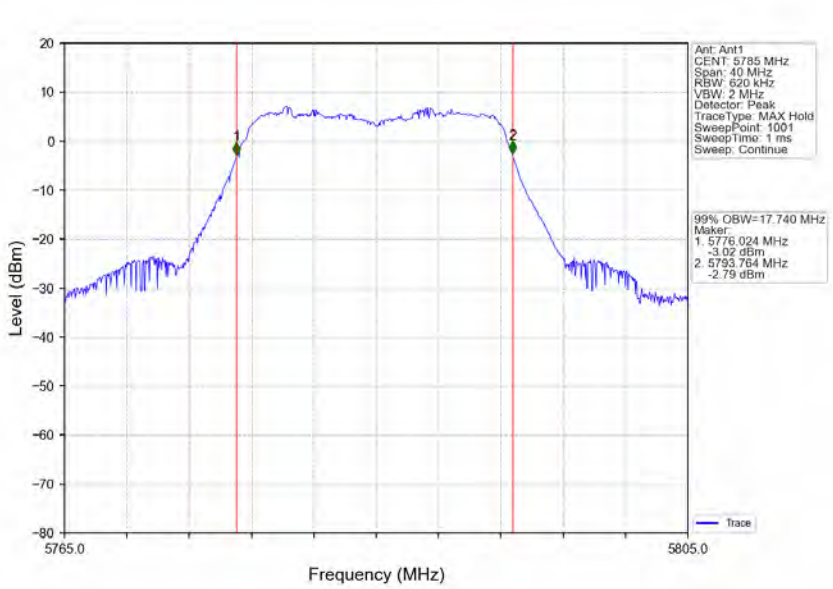
802.11a_HCH_5240MHz_Ant1_NTNV



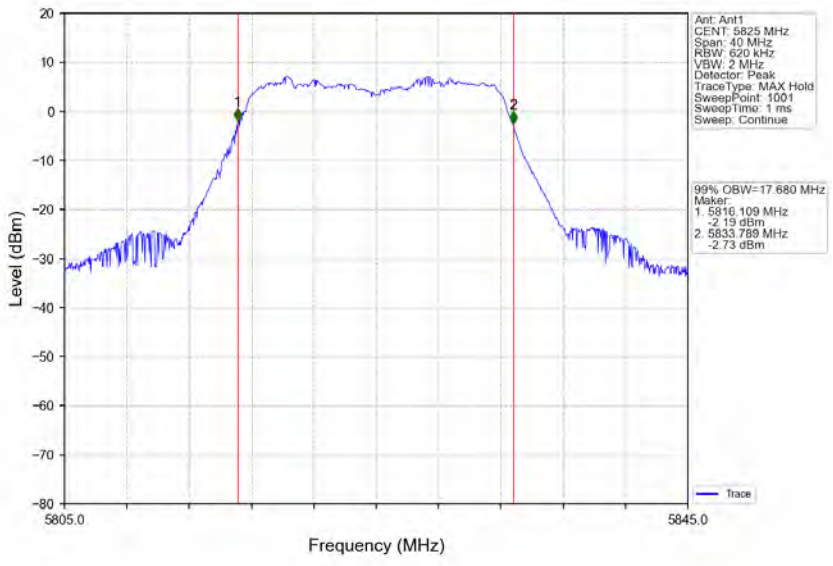
802.11a_LCH_5745MHz_Ant1_NTNV



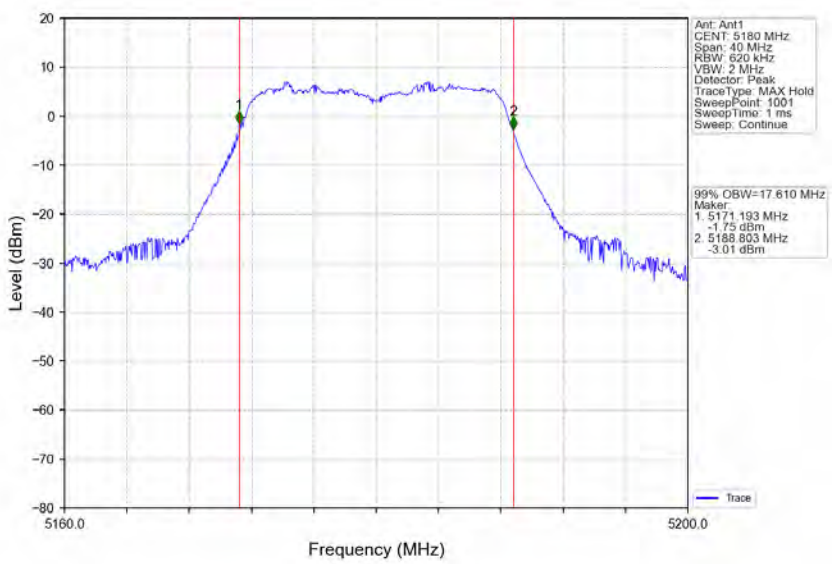
802.11a_MCH_5785MHz_Ant1_NTNV



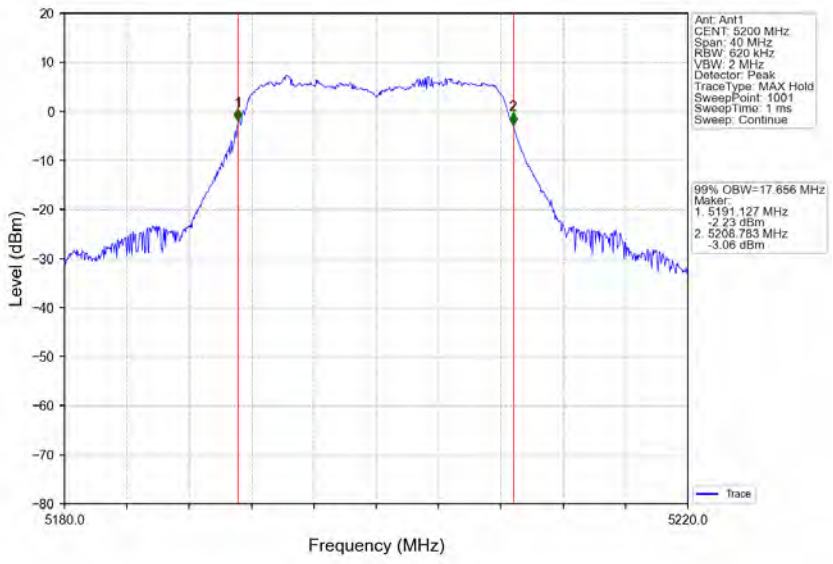
802.11a_HCH_5825MHz_Ant1_NTNV



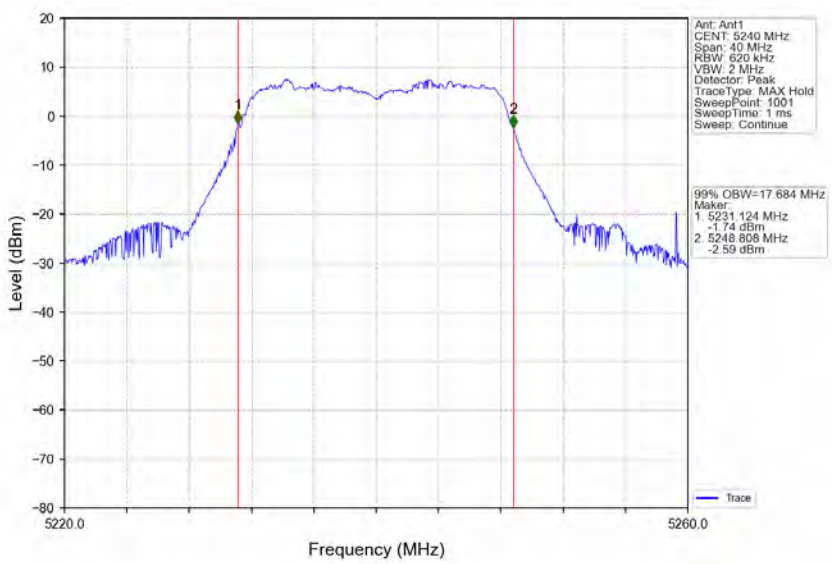
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



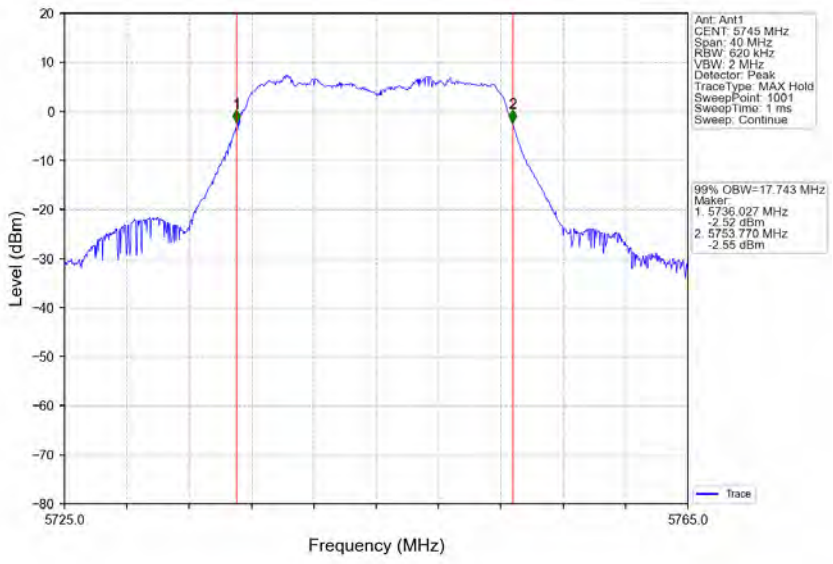
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



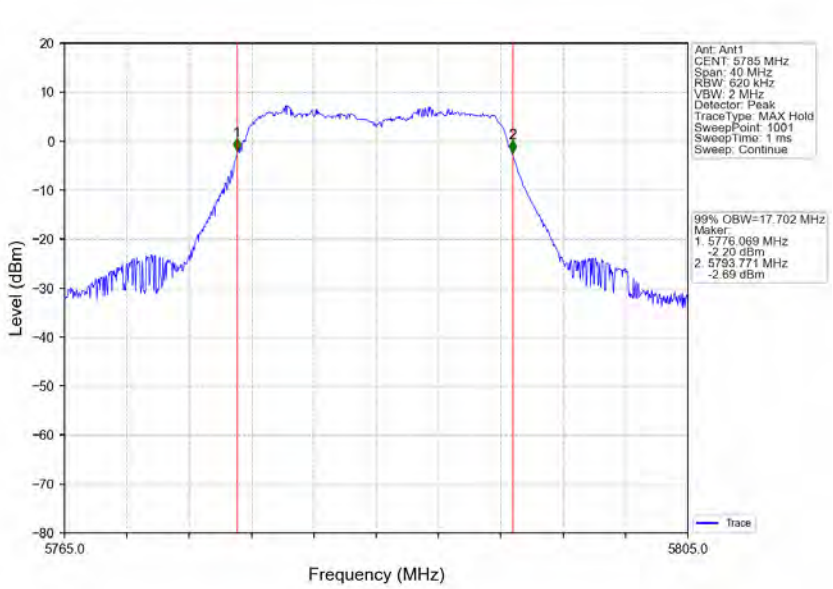
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



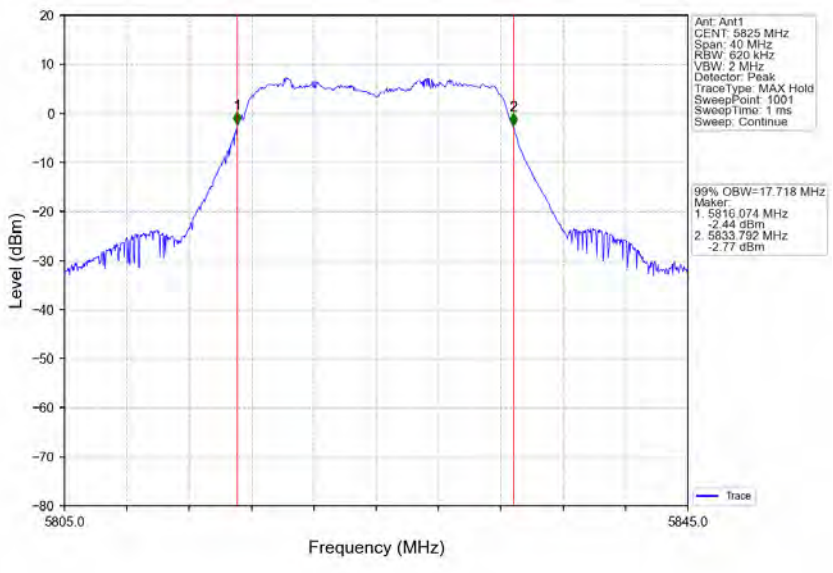
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



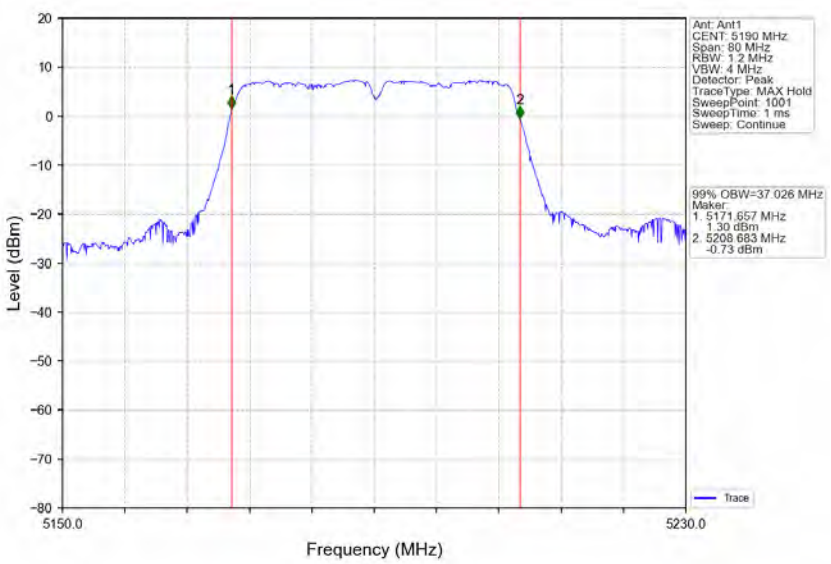
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



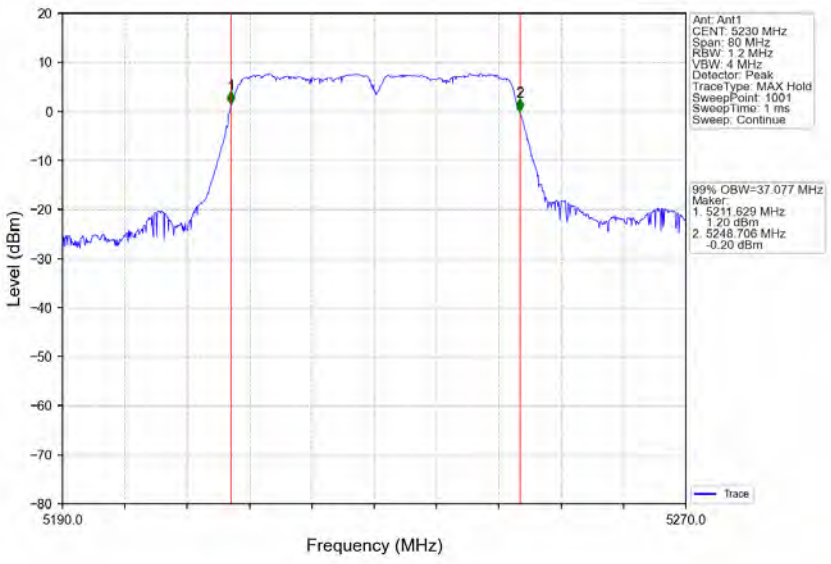
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



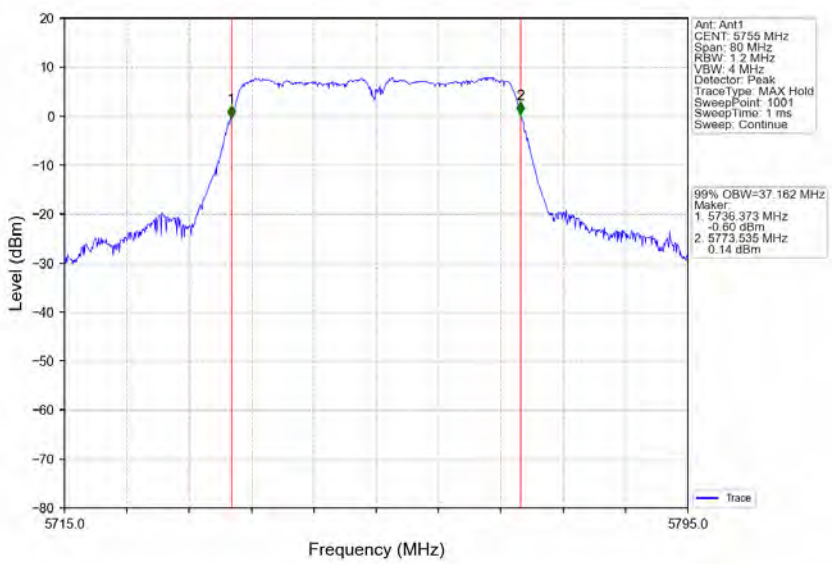
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



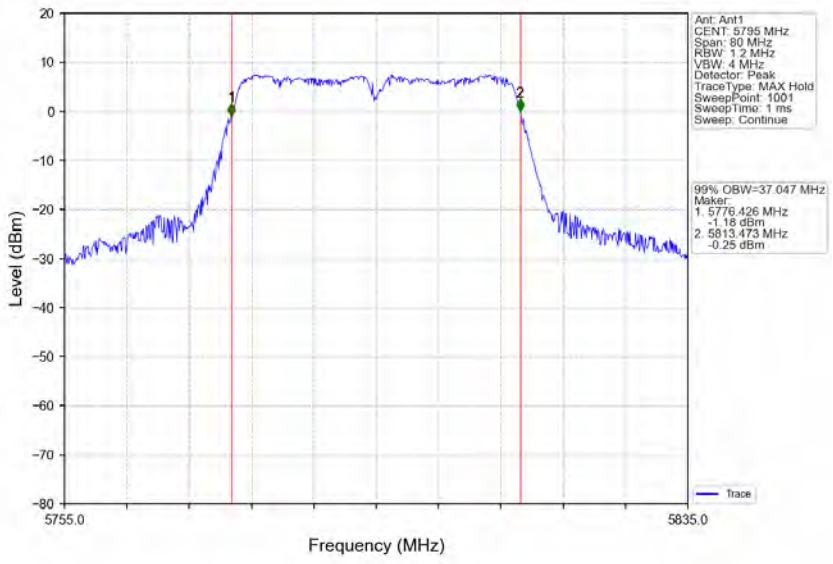
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



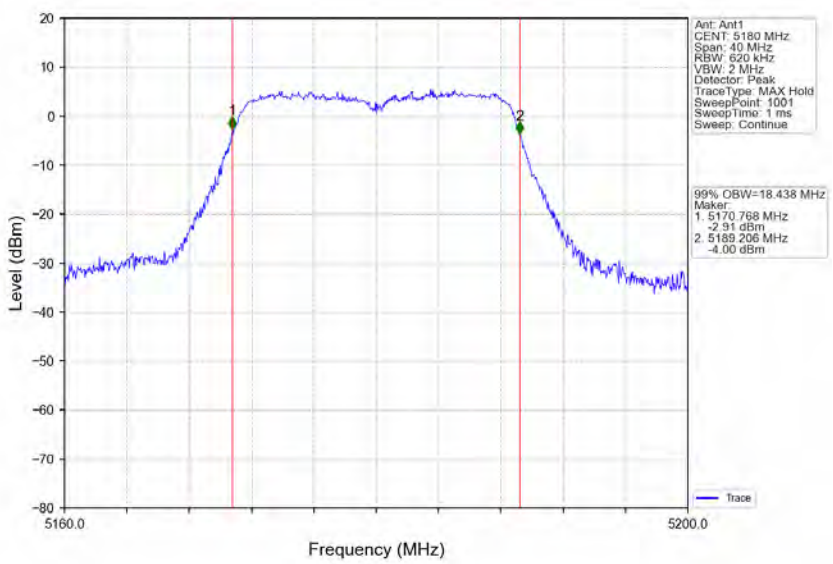
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



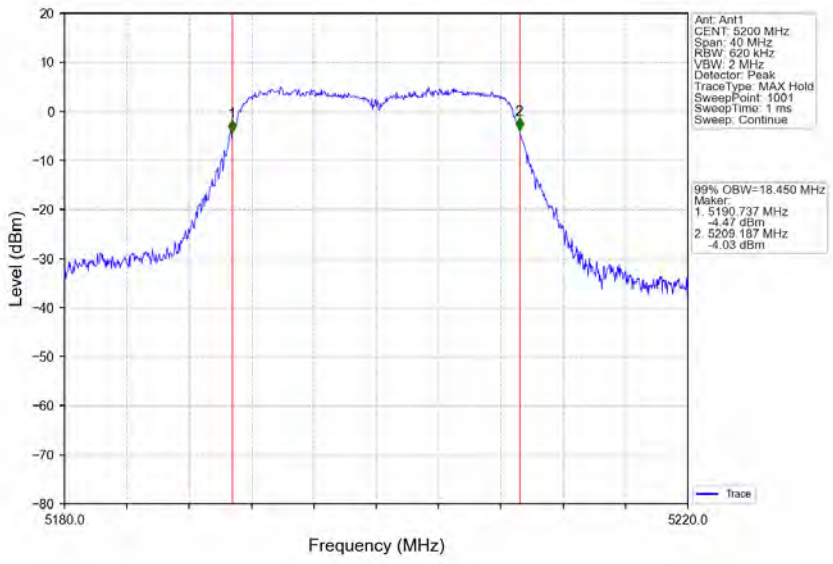
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



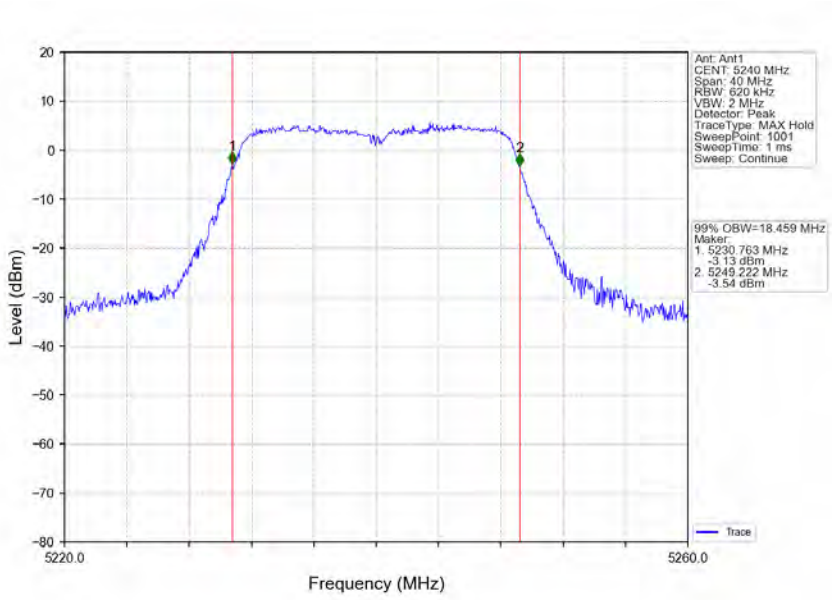
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



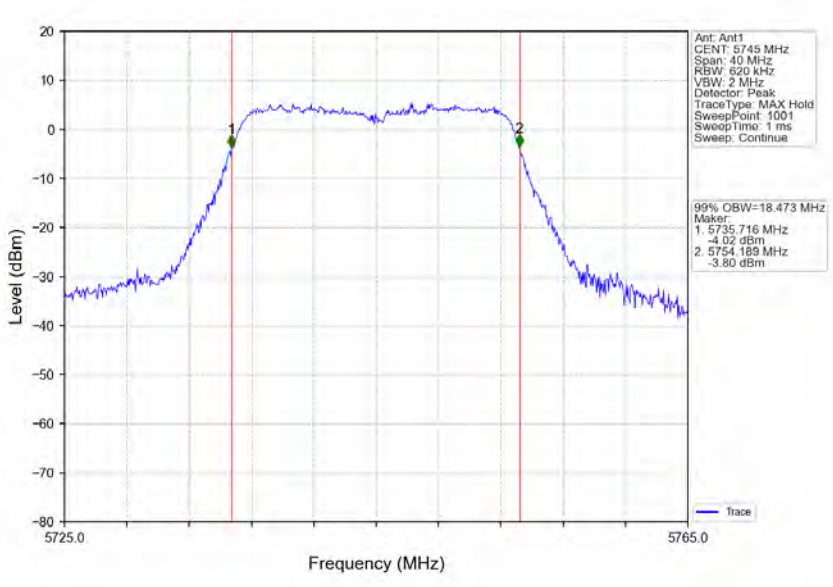
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



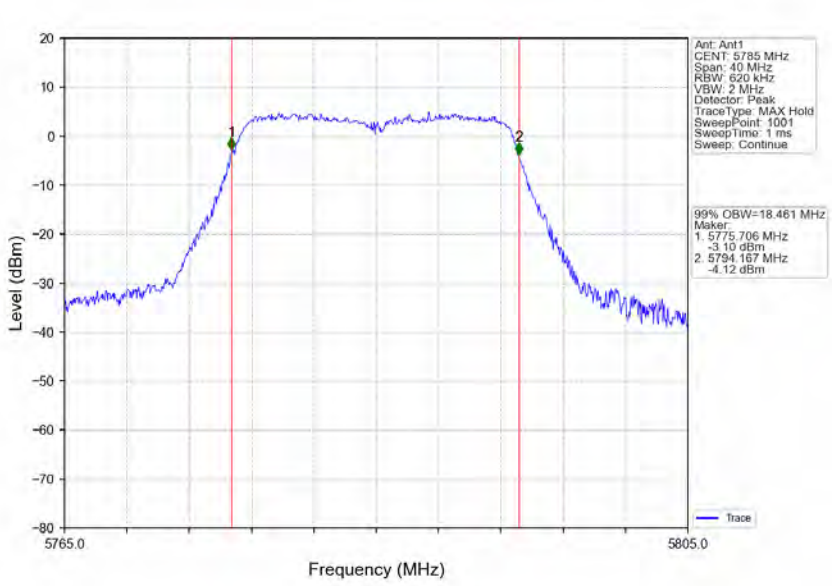
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



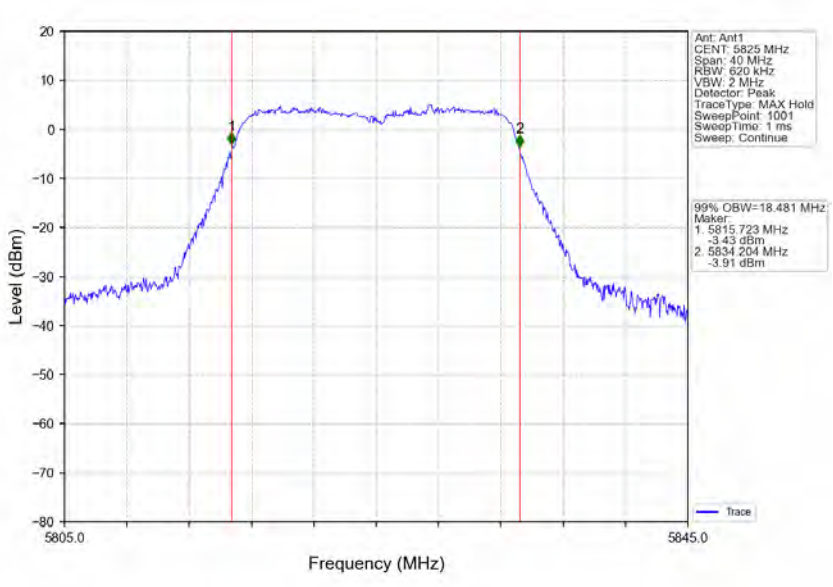
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



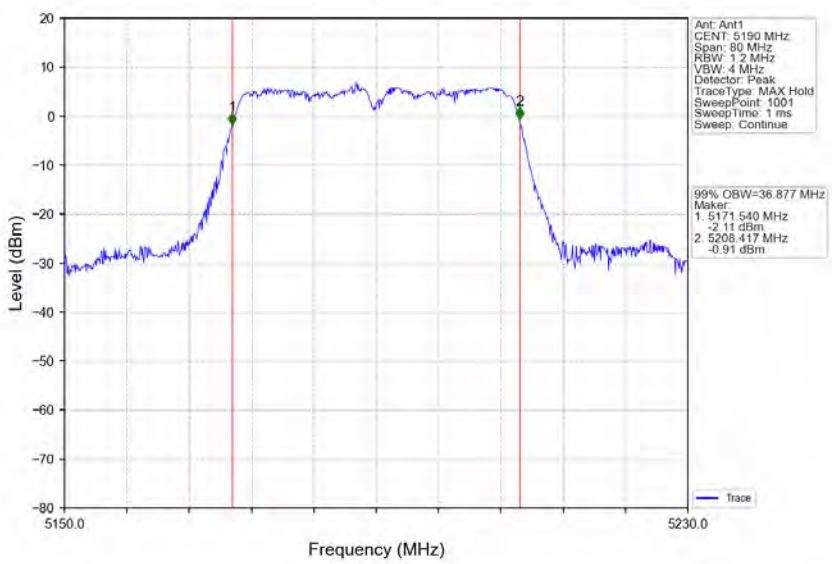
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



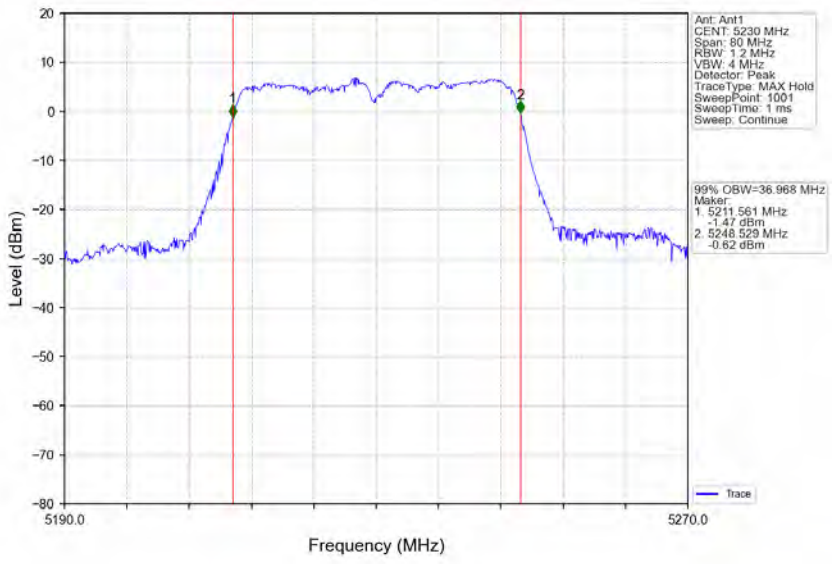
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



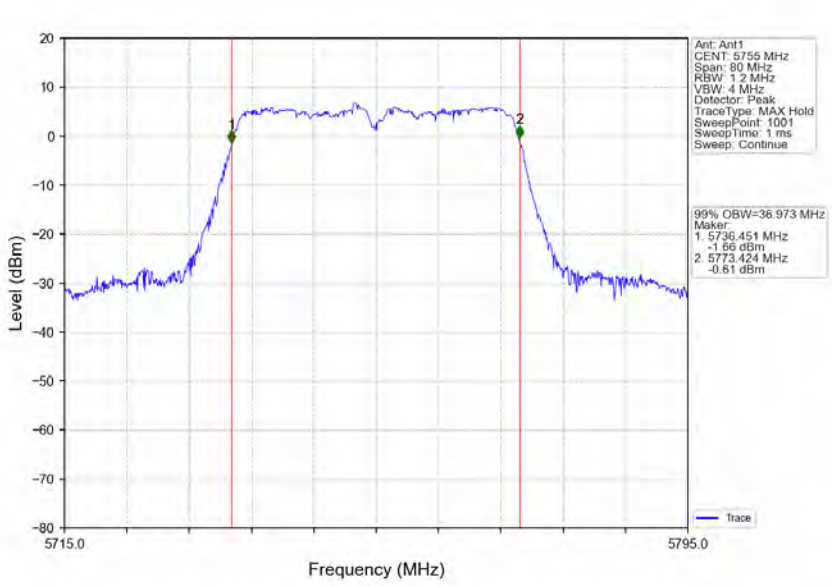
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



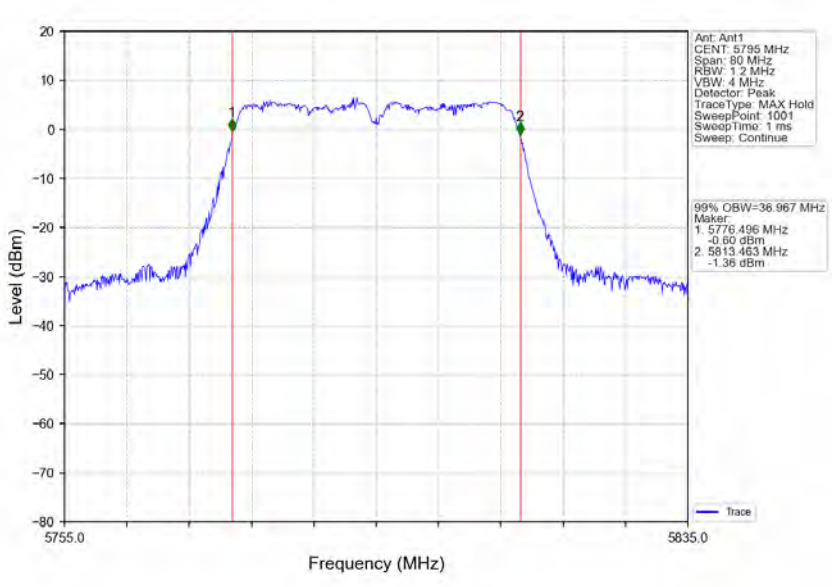
802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



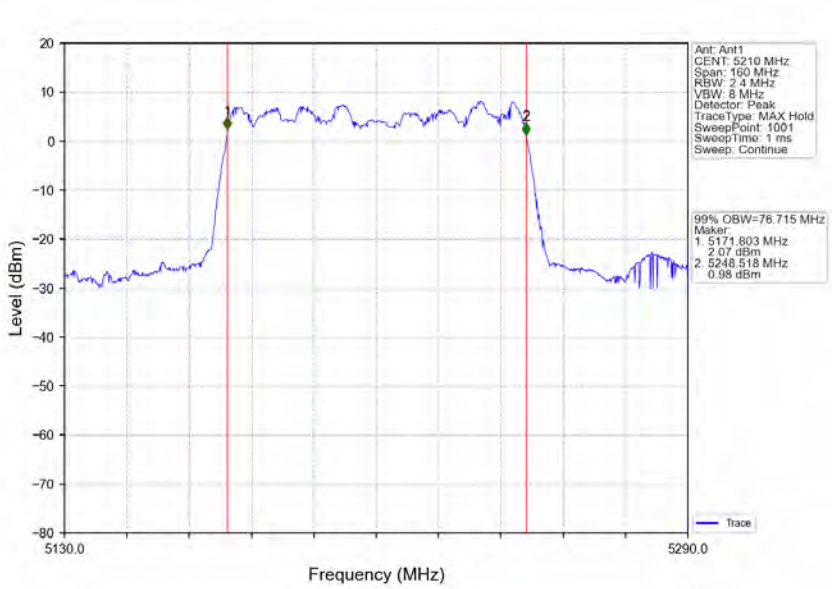
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



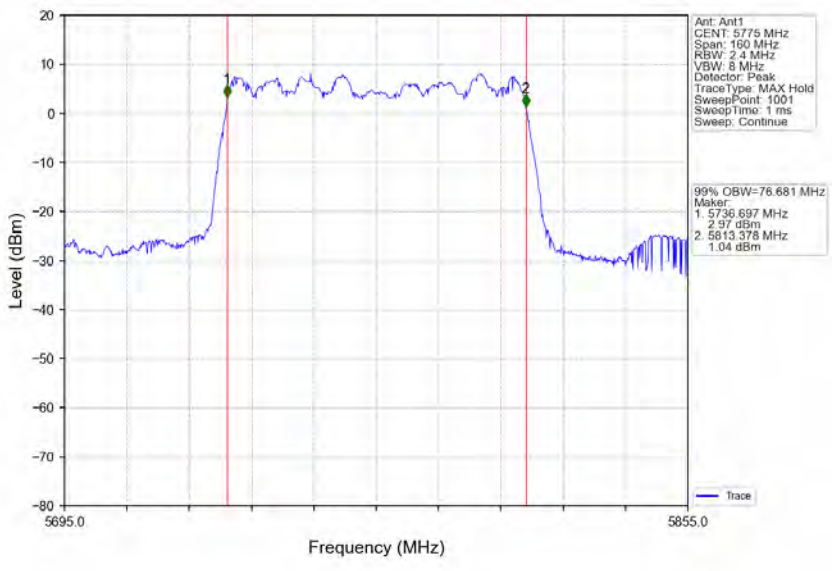
802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



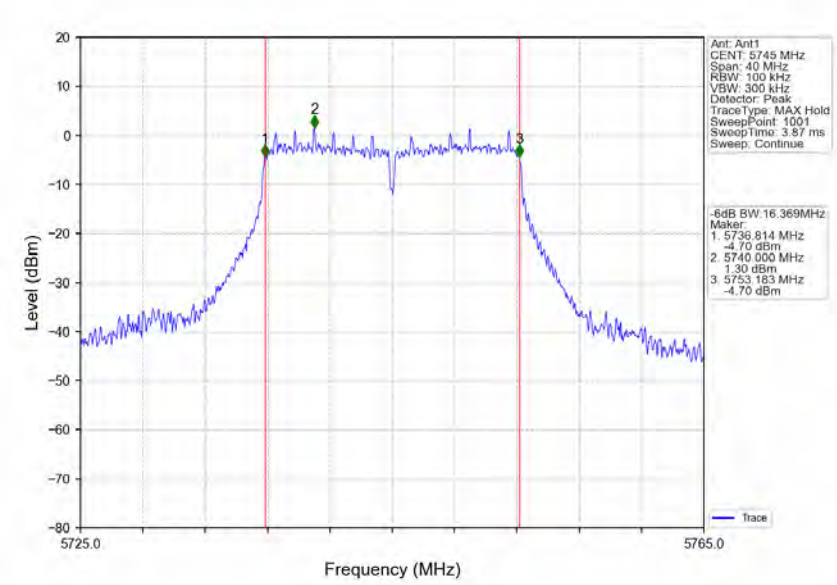
2.2 6dB BW

2.2.1 Test Result

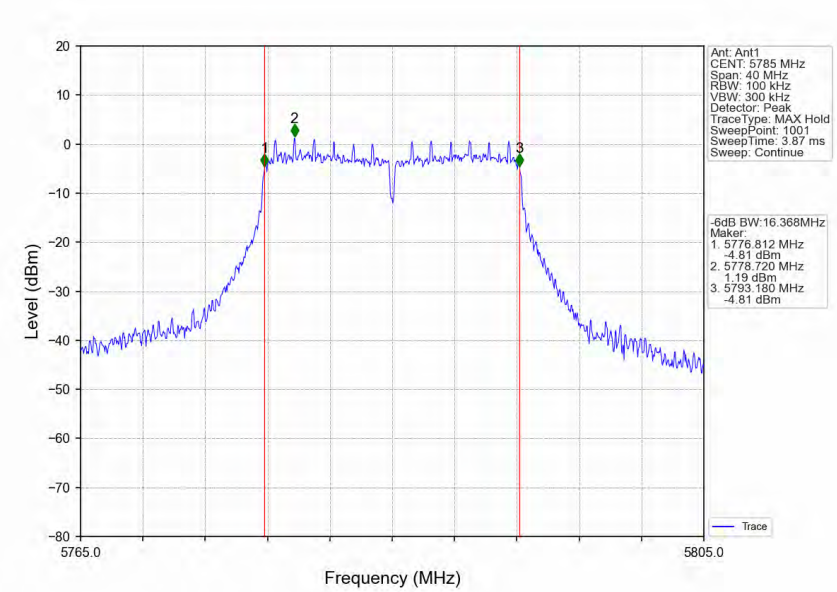
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	16.369	>=0.5	Pass
		5785	1	16.368	>=0.5	Pass
		5825	1	16.376	>=0.5	Pass
802.11n (HT20)	SISO	5745	1	16.368	>=0.5	Pass
		5785	1	16.368	>=0.5	Pass
		5825	1	16.370	>=0.5	Pass
802.11n (HT40)	SISO	5755	1	35.729	>=0.5	Pass
		5795	1	35.732	>=0.5	Pass
802.11ac (VHT20)	SISO	5745	1	17.533	>=0.5	Pass
		5785	1	17.546	>=0.5	Pass
		5825	1	17.381	>=0.5	Pass
802.11ac (VHT40)	SISO	5755	1	35.685	>=0.5	Pass
		5795	1	35.806	>=0.5	Pass
802.11ac (VHT80)	SISO	5775	1	75.214	>=0.5	Pass

2.2.2 Test Graph

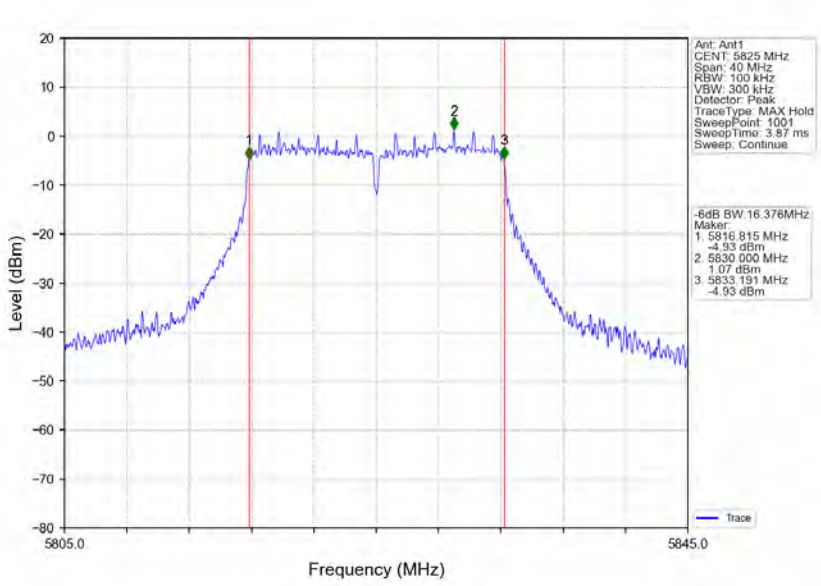
802.11a_LCH_5745MHz_Ant1_NTNV



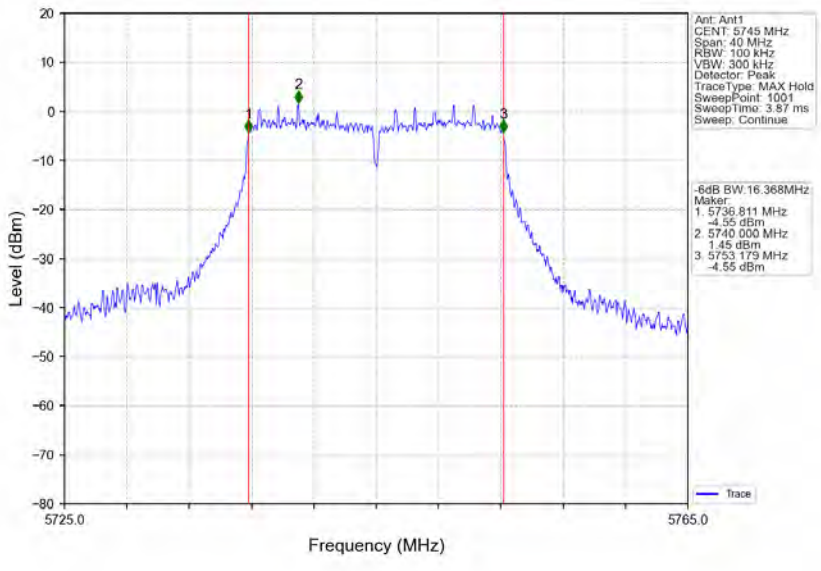
802.11a_MCH_5785MHz_Ant1_NTNV



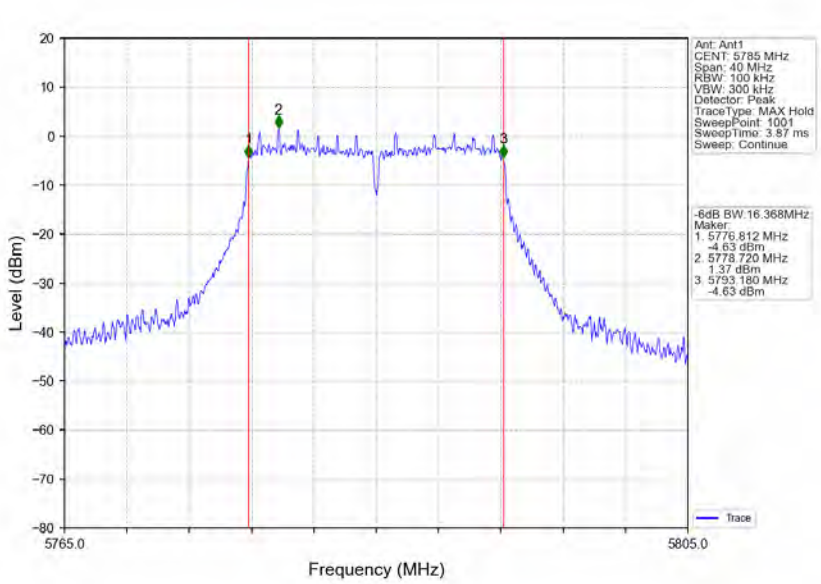
802.11a_HCH_5825MHz_Ant1_NTNV



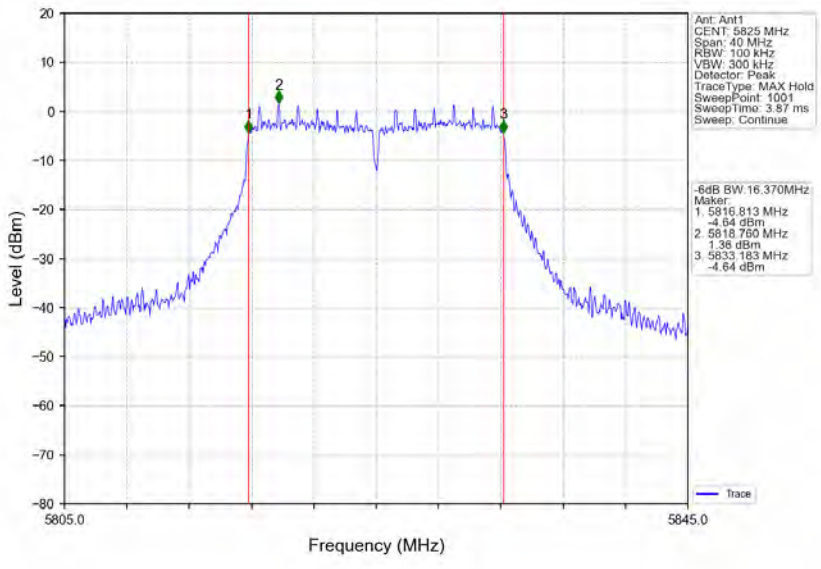
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



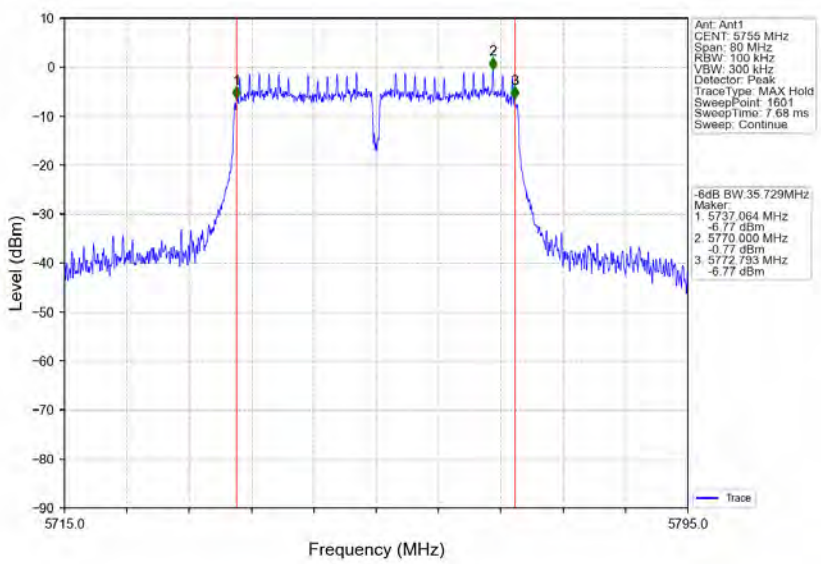
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



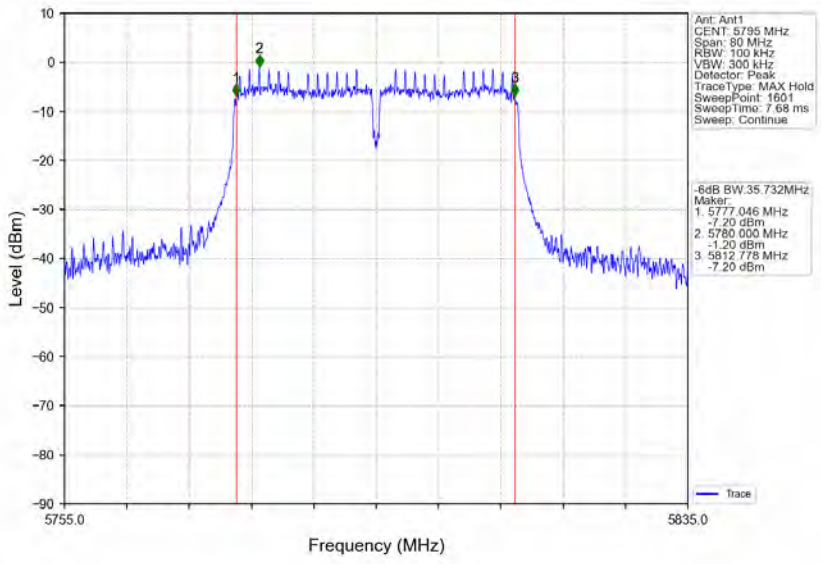
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



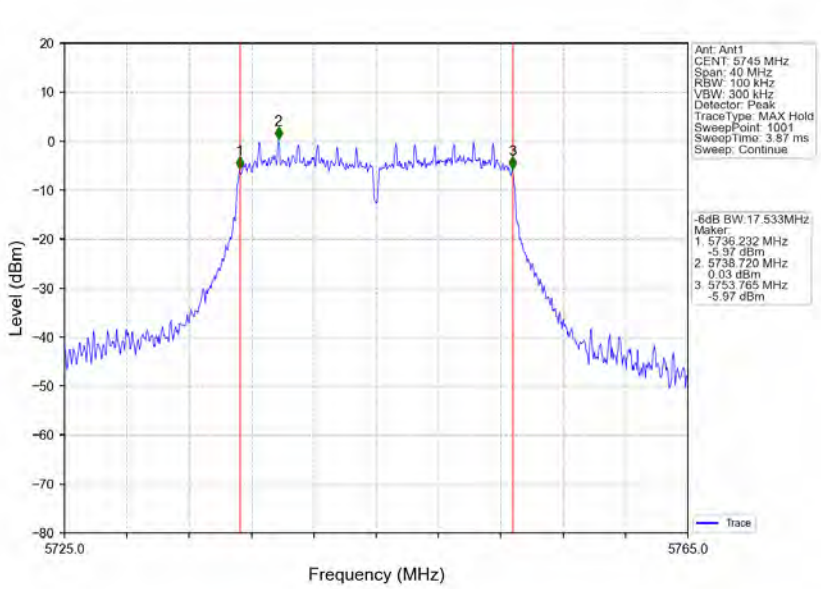
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



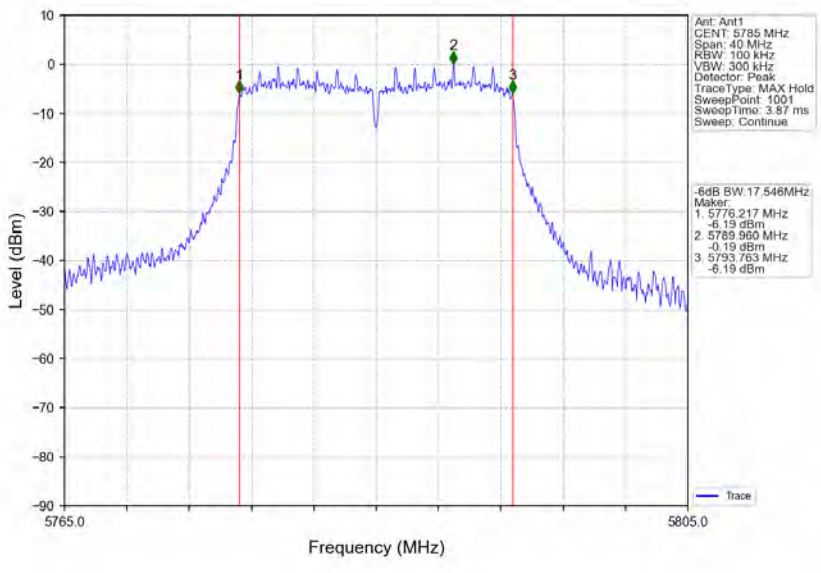
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



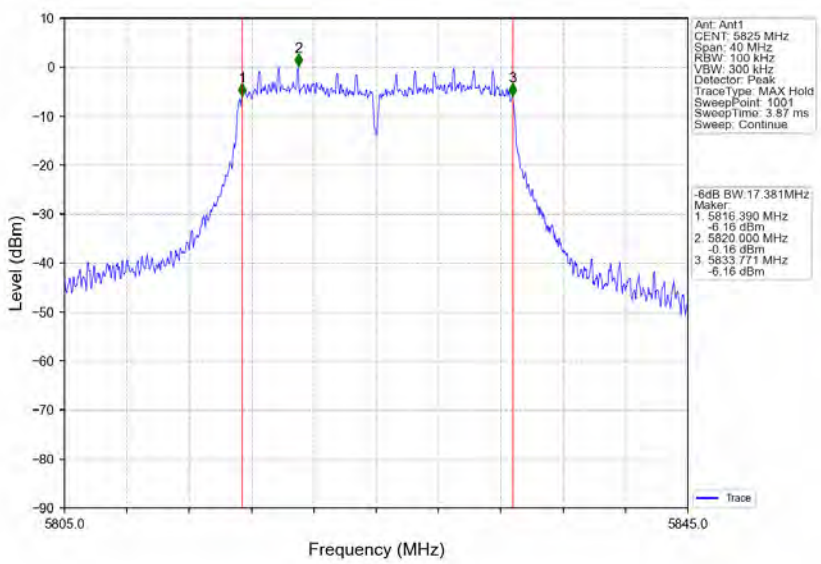
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



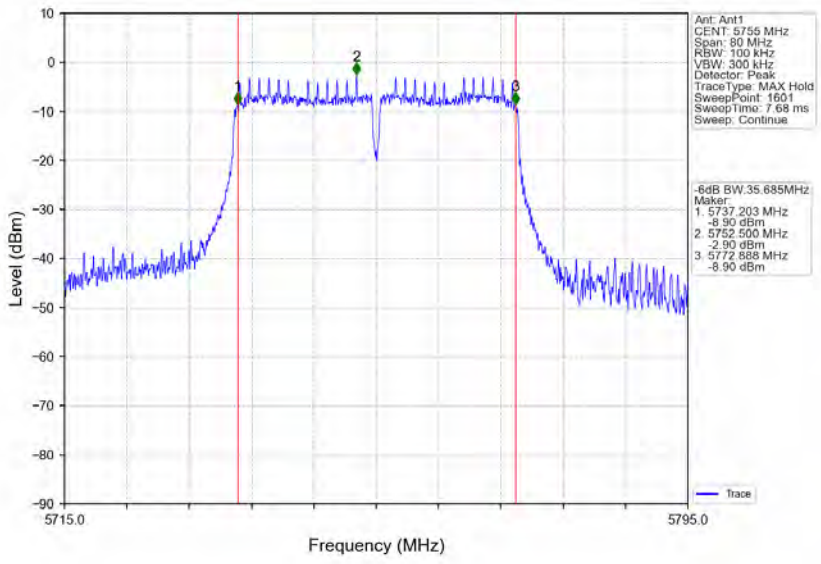
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



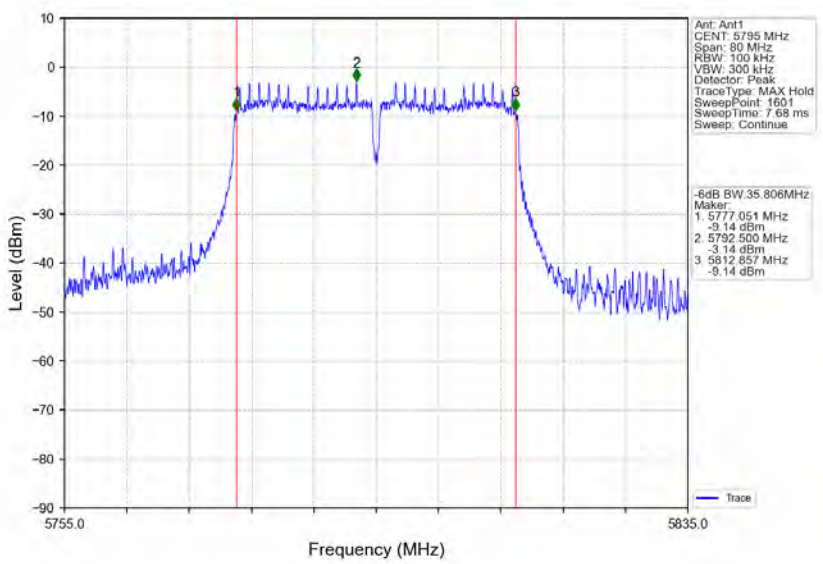
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



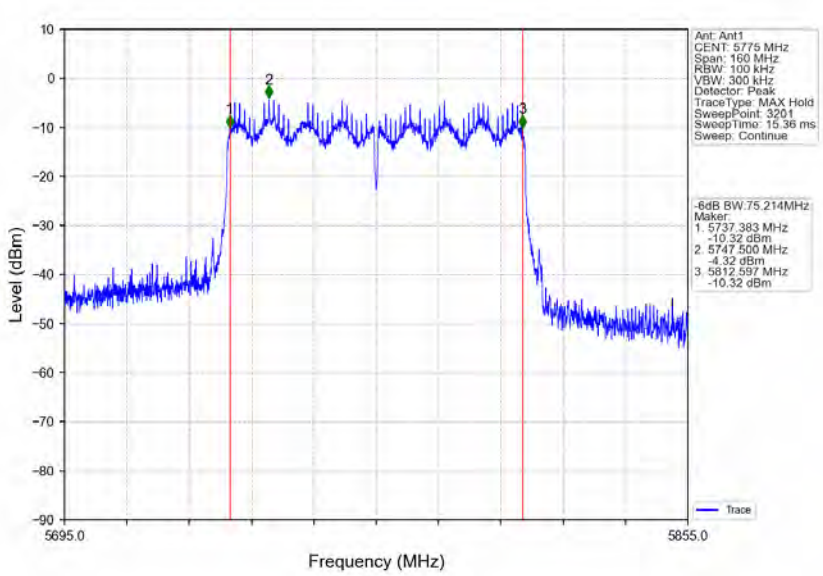
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV

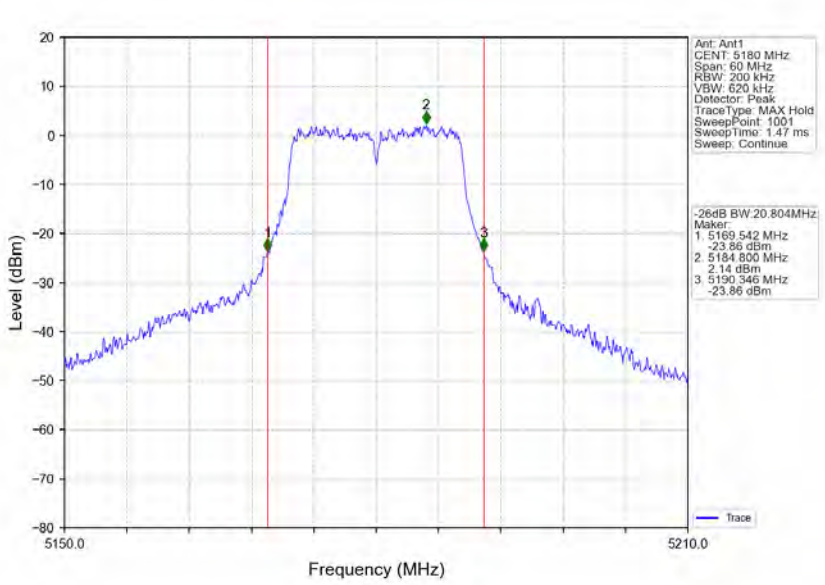
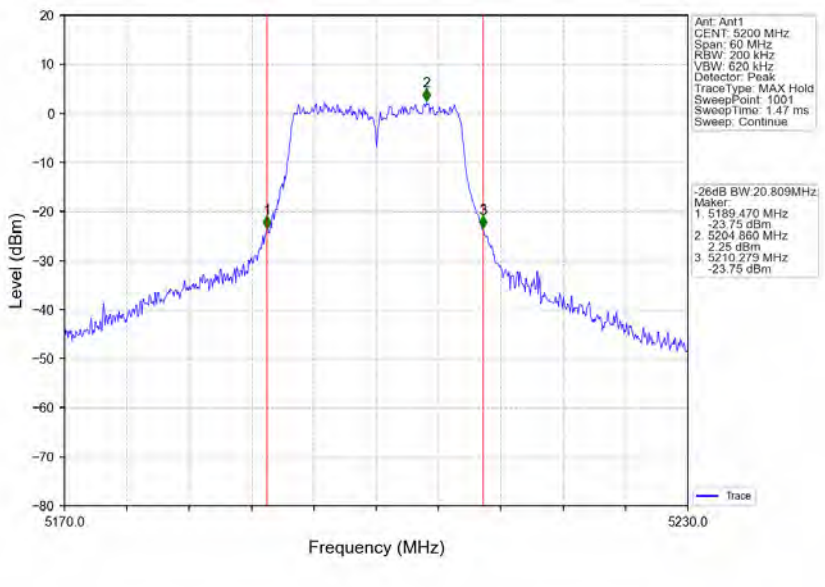


2.3 26dB BW

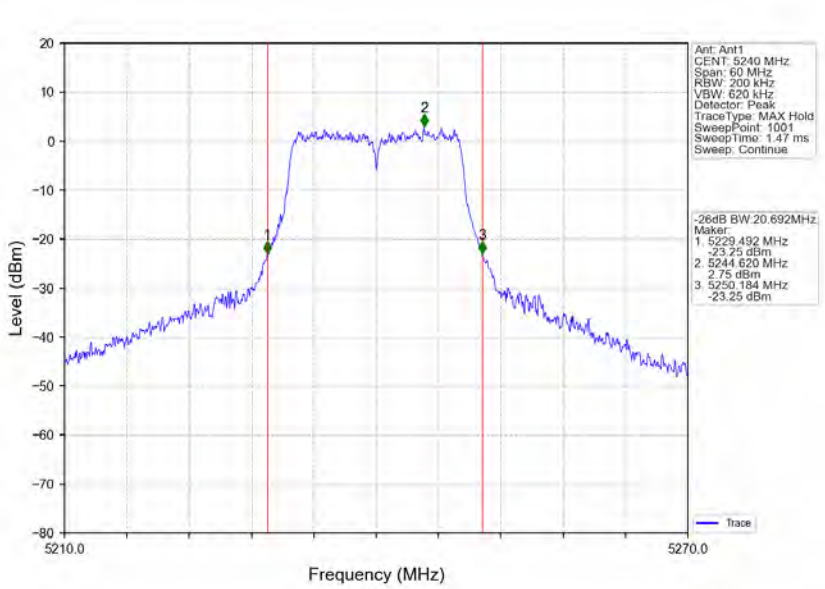
2.3.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	20.804	Pass
		5200	1	20.809	Pass
		5240	1	20.692	Pass
802.11n (HT20)	SISO	5180	1	20.415	Pass
		5200	1	20.801	Pass
		5240	1	20.593	Pass
802.11n (HT40)	SISO	5190	1	41.906	Pass
		5230	1	41.755	Pass
802.11ac (VHT20)	SISO	5180	1	21.336	Pass
		5200	1	21.219	Pass
		5240	1	21.449	Pass
802.11ac (VHT40)	SISO	5190	1	42.039	Pass
		5230	1	41.887	Pass
802.11ac (VHT80)	SISO	5210	1	81.965	Pass

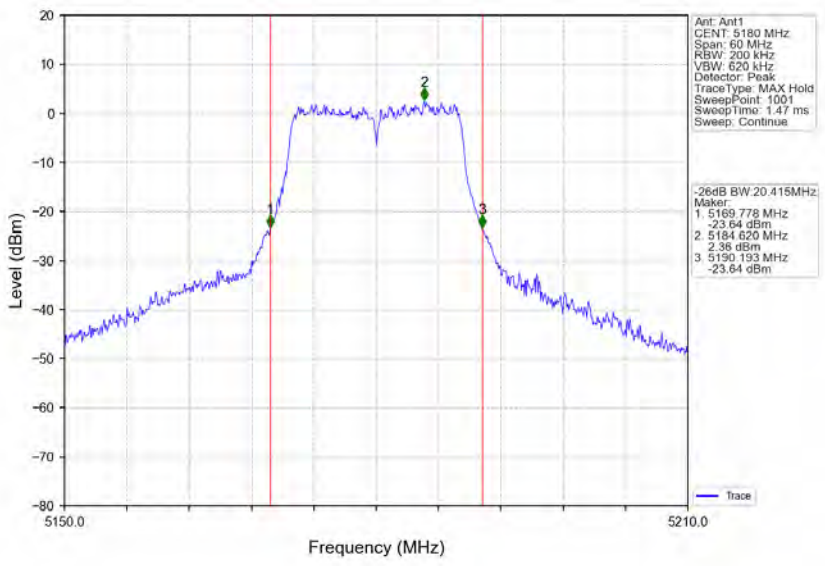
2.3.2 Test Graph

802.11a_LCH_5180MHz_Ant1_NTNV

802.11a_MCH_5200MHz_Ant1_NTNV


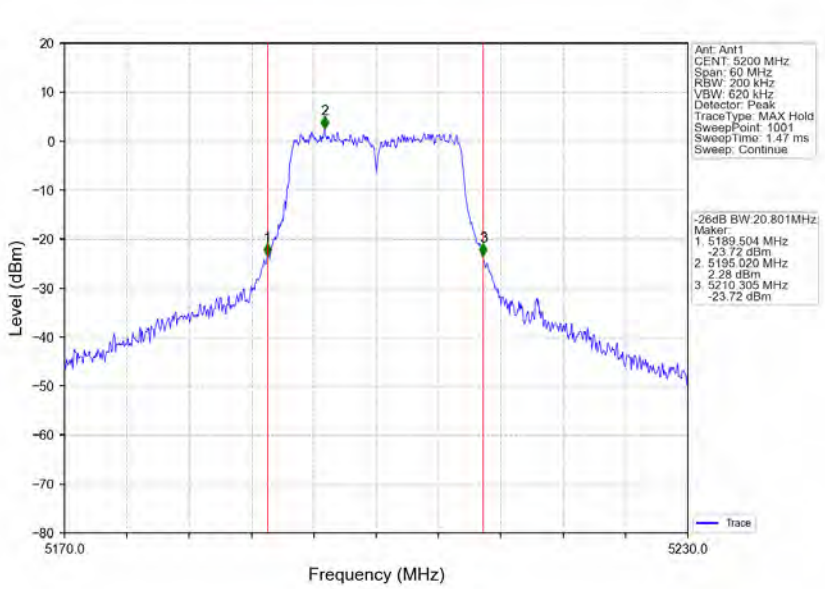
802.11a_HCH_5240MHz_Ant1_NTNV



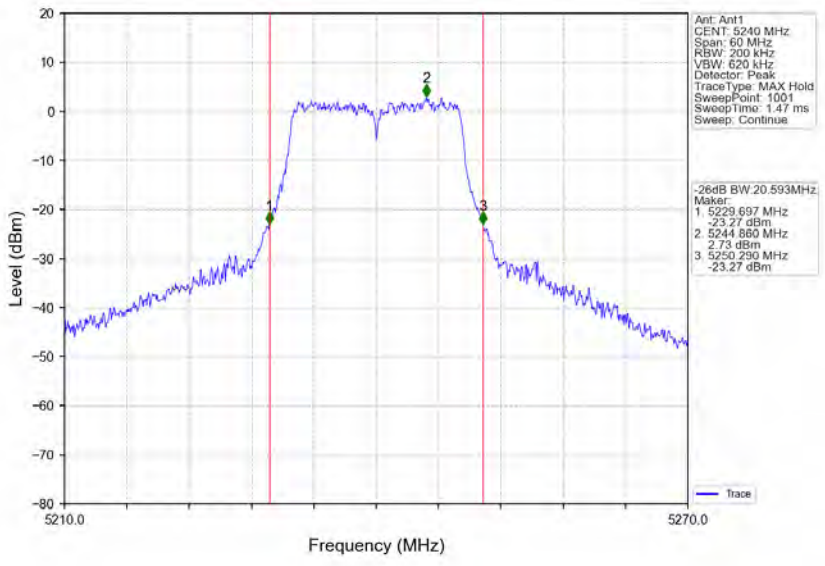
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



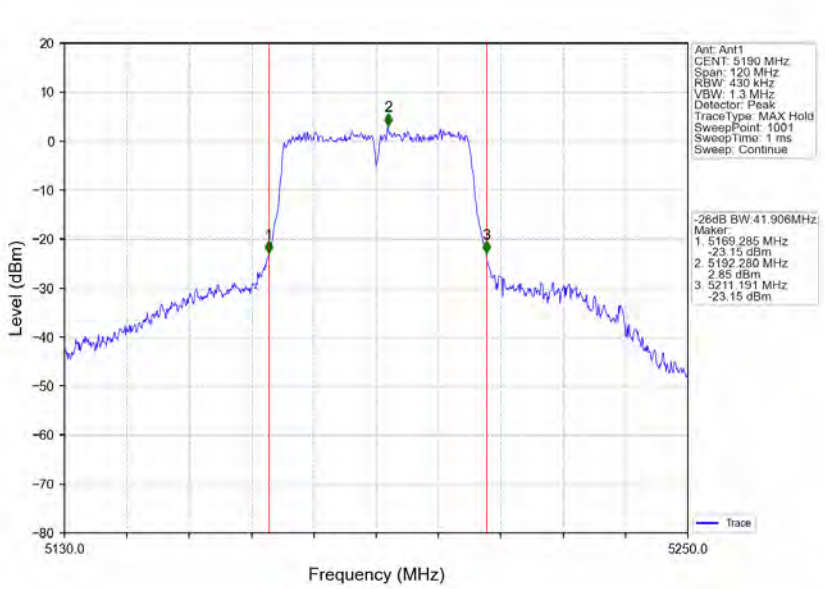
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



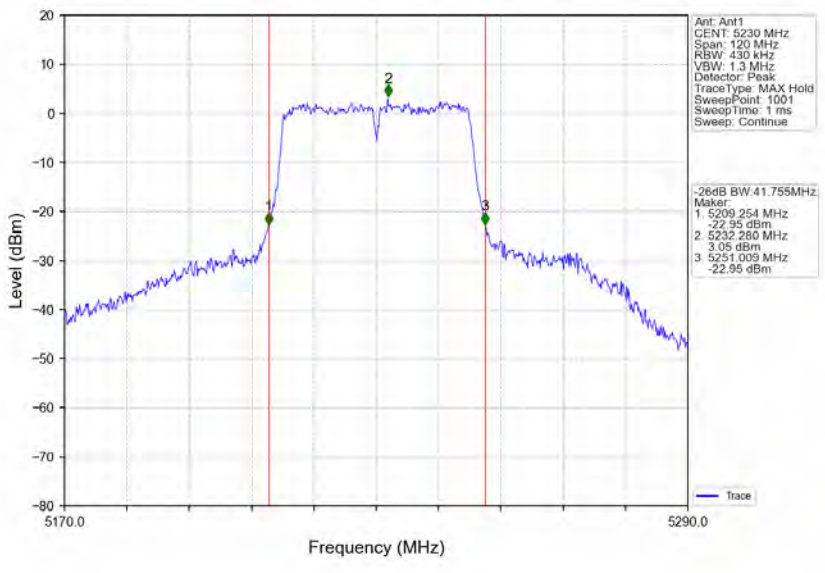
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



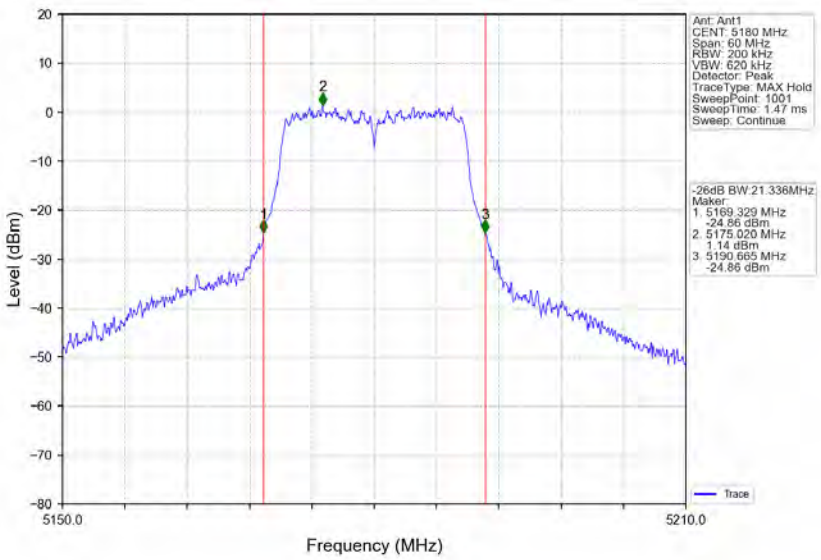
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



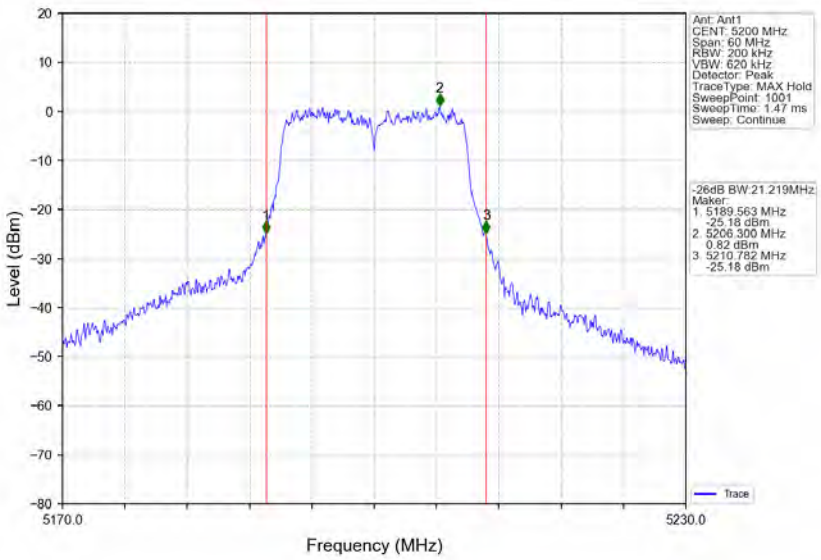
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



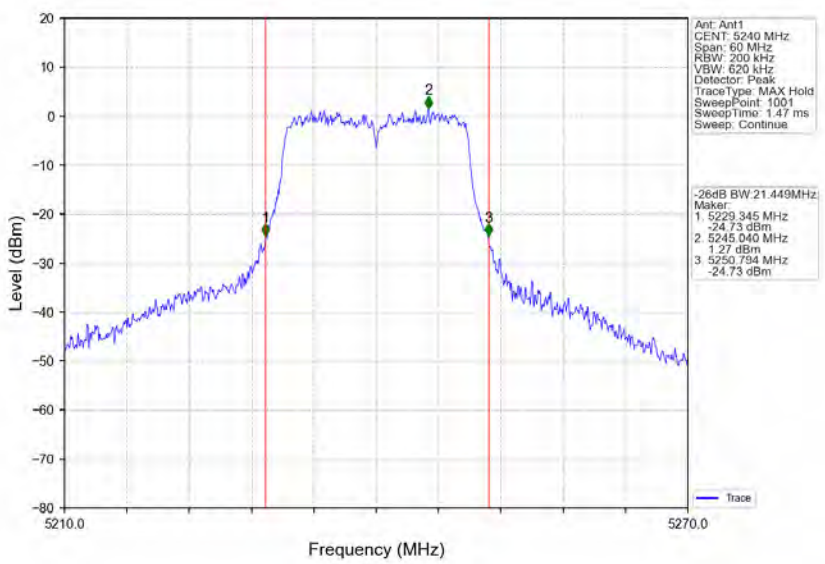
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



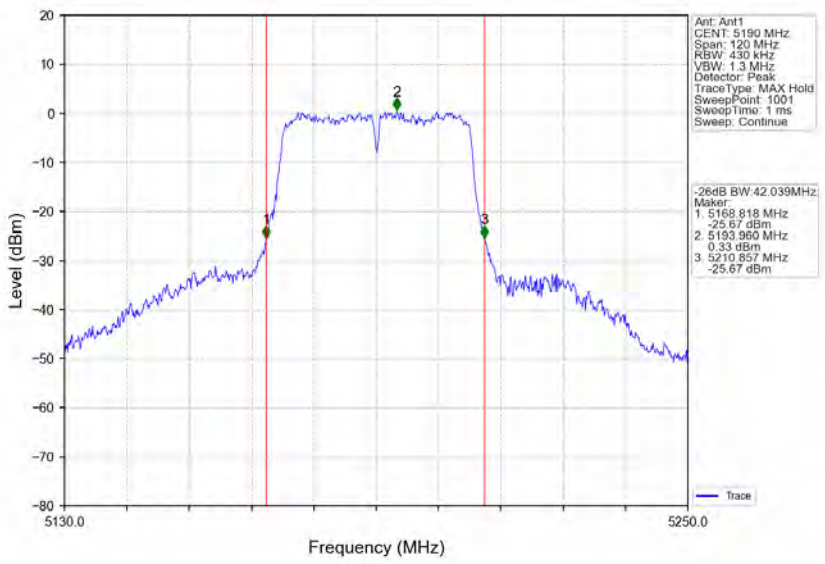
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



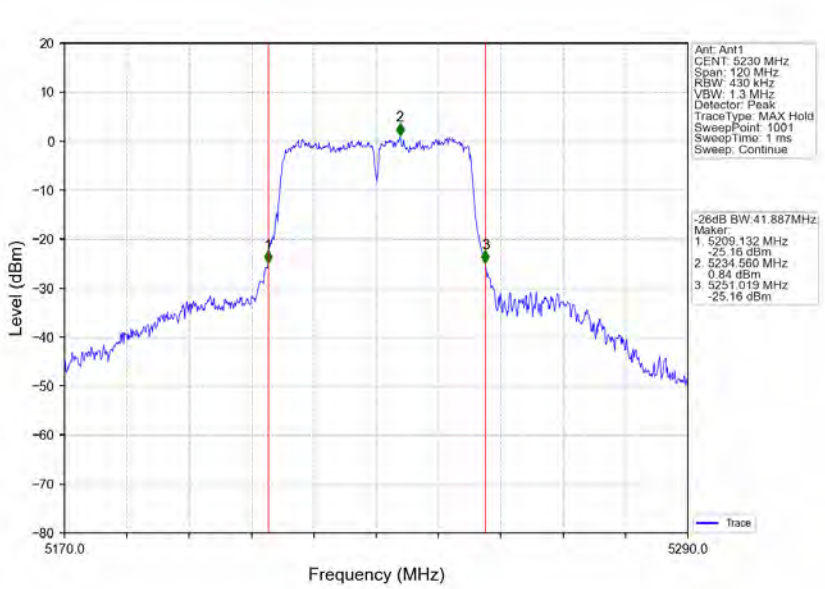
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



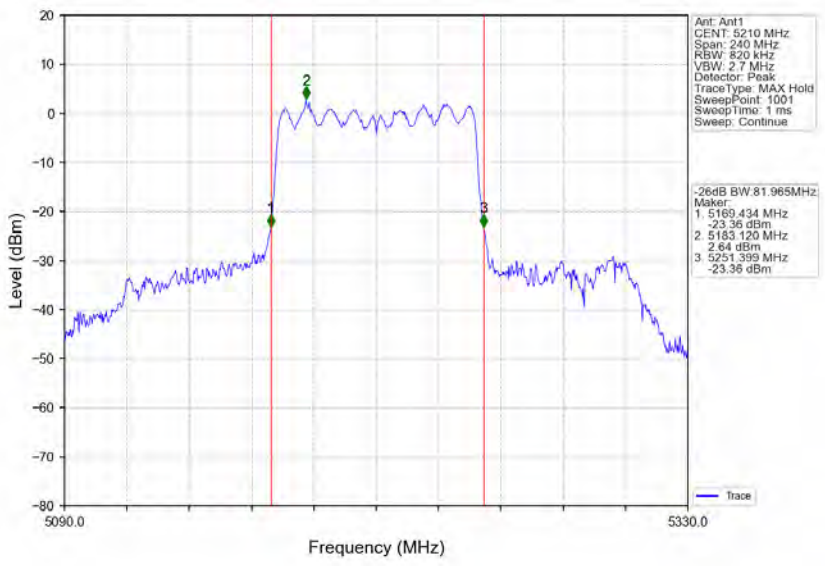
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



3. Maximum Conducted Output Power

3.1 Power

3.1.1 Test Result for FCC

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	10.88	<=23.98	Pass
		5200	10.78	<=23.98	Pass
		5240	10.81	<=23.98	Pass
		5745	10.93	<=30	Pass
		5785	10.78	<=30	Pass
		5825	10.79	<=30	Pass
802.11n (HT20)	SISO	5180	10.77	<=23.98	Pass
		5200	10.77	<=23.98	Pass
		5240	10.73	<=23.98	Pass
		5745	10.71	<=30	Pass
		5785	10.56	<=30	Pass
		5825	10.63	<=30	Pass
802.11n (HT40)	SISO	5190	10.81	<=23.98	Pass
		5230	10.44	<=23.98	Pass
		5755	10.61	<=30	Pass
		5795	10.45	<=30	Pass
802.11ac (VHT20)	SISO	5180	10.72	<=23.98	Pass
		5200	10.77	<=23.98	Pass
		5240	10.88	<=23.98	Pass
		5745	10.87	<=30	Pass
		5785	10.69	<=30	Pass
		5825	10.76	<=30	Pass
802.11ac (VHT40)	SISO	5190	10.76	<=23.98	Pass
		5230	10.99	<=23.98	Pass
		5755	10.88	<=30	Pass
		5795	10.67	<=30	Pass
802.11ac (VHT80)	SISO	5210	10.59	<=23.98	Pass
		5775	10.23	<=30	Pass
Note1: Antenna Gain: U-NII-1: 2.07dBi,U-NII-3: 0.89dBi.					

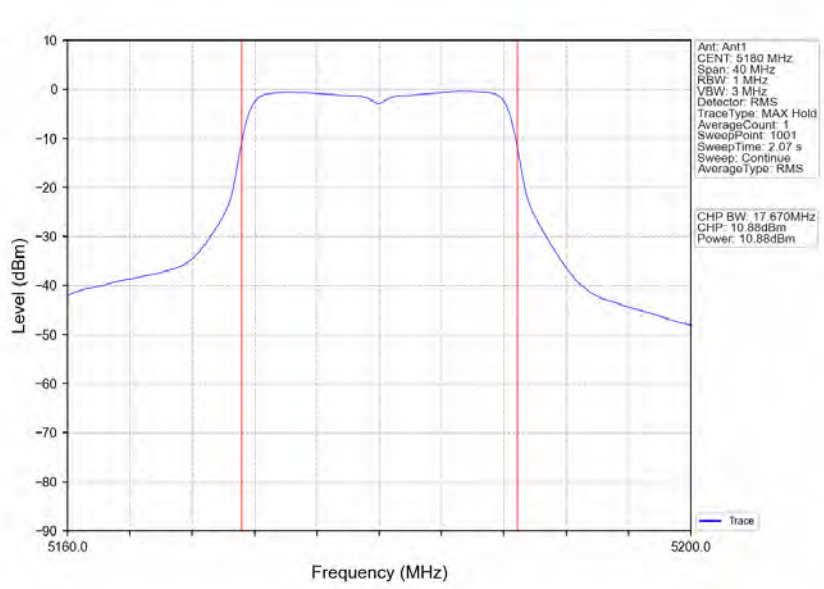
3.2.1 Test Result for IC

Mode	TX Type	Frequency (MHz)	E.I.R.P (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	12.95	<=22.47	Pass
		5200	12.85	<=22.48	Pass
		5240	12.88	<=22.49	Pass
		5745	11.82	/	Pass
		5785	11.67	/	Pass
		5825	11.68	/	Pass
802.11n (HT20)	SISO	5180	12.84	<=22.46	Pass
		5200	12.84	<=22.47	Pass
		5240	12.80	<=22.48	Pass
		5745	11.60	/	Pass
		5785	11.45	/	Pass
		5825	11.52	/	Pass
802.11n (HT40)	SISO	5190	12.88	<=23.01	Pass
		5230	12.51	<=23.01	Pass
		5755	11.50	/	Pass
		5795	11.34	/	Pass
802.11ac (VHT20)	SISO	5180	12.79	<=22.66	Pass
		5200	12.84	<=22.66	Pass
		5240	12.95	<=22.66	Pass
		5745	11.76	/	Pass
		5785	11.58	/	Pass
		5825	11.65	/	Pass
802.11ac (VHT40)	SISO	5190	12.83	<=23.01	Pass
		5230	13.06	<=23.01	Pass
		5755	11.77	/	Pass
		5795	11.56	/	Pass
802.11ac (VHT80)	SISO	5210	12.66	<=23.01	Pass
		5775	11.12	/	Pass

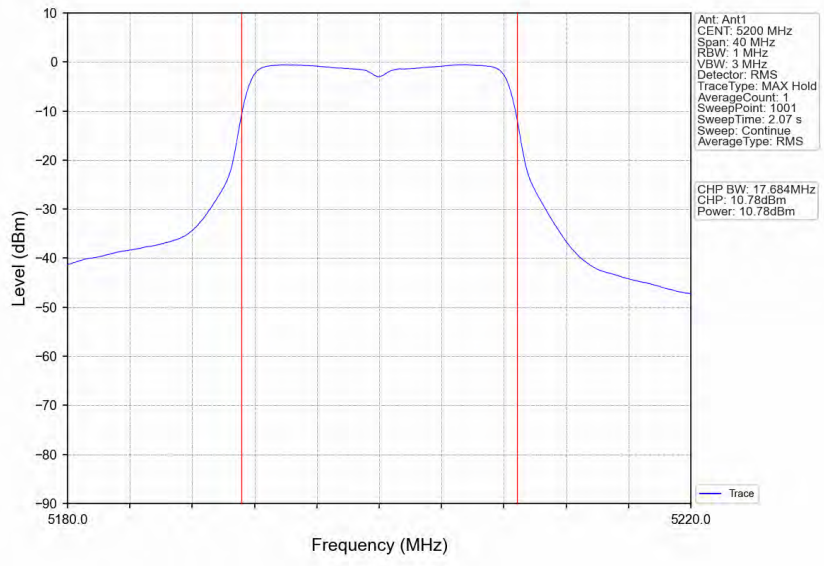
Note1: Antenna Gain: U-NII-1: 2.07dBi,U-NII-3: 0.89dBi.
Note2: E.I.R.P = Measured Power + Antenna Gain

3.1.2 Test Graph

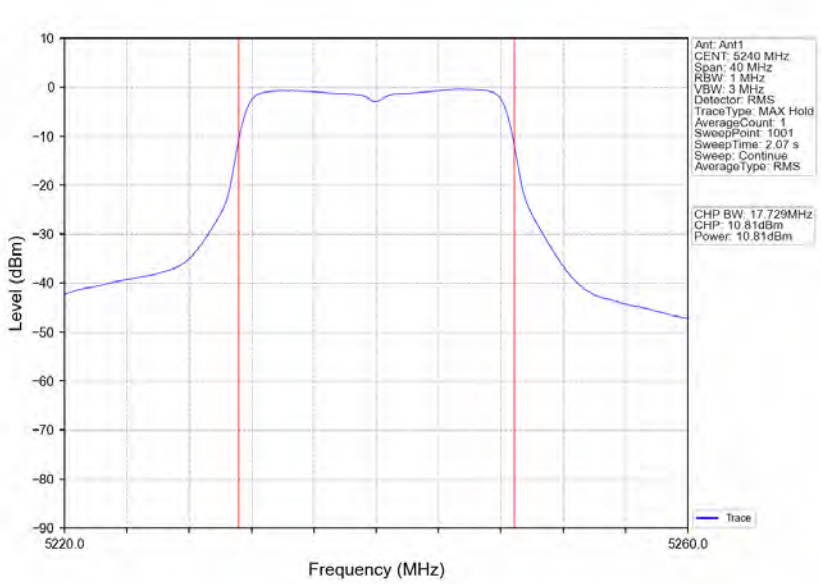
802.11a_LCH_5180MHz_Ant1_NTNV



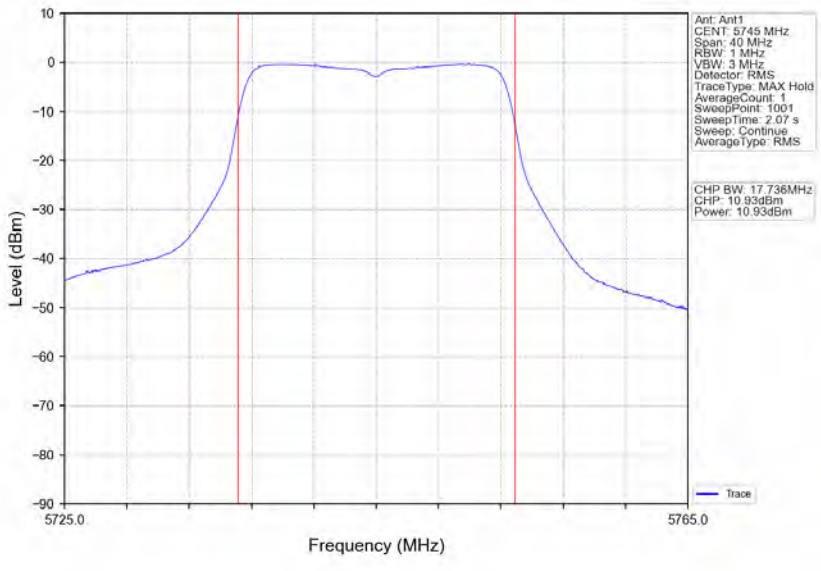
802.11a_MCH_5200MHz_Ant1_NTNV



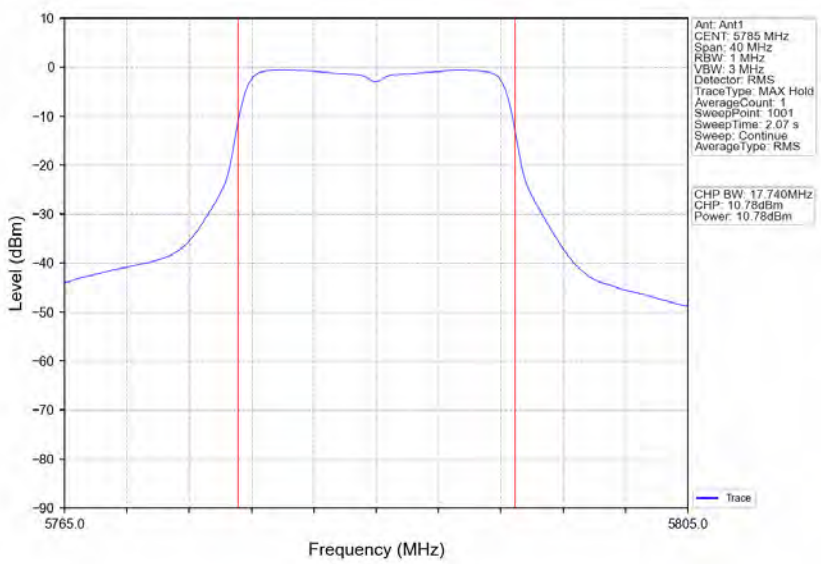
802.11a_HCH_5240MHz_Ant1_NTNV



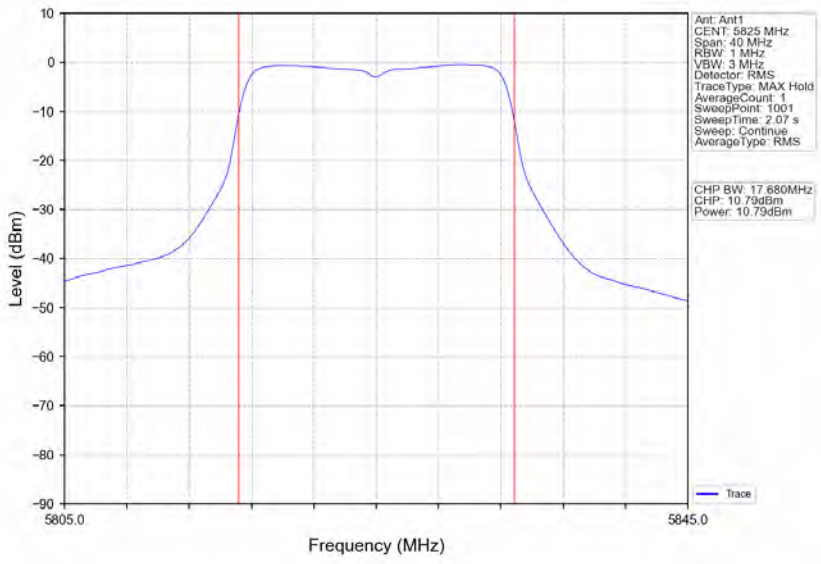
802.11a_LCH_5745MHz_Ant1_NTNV



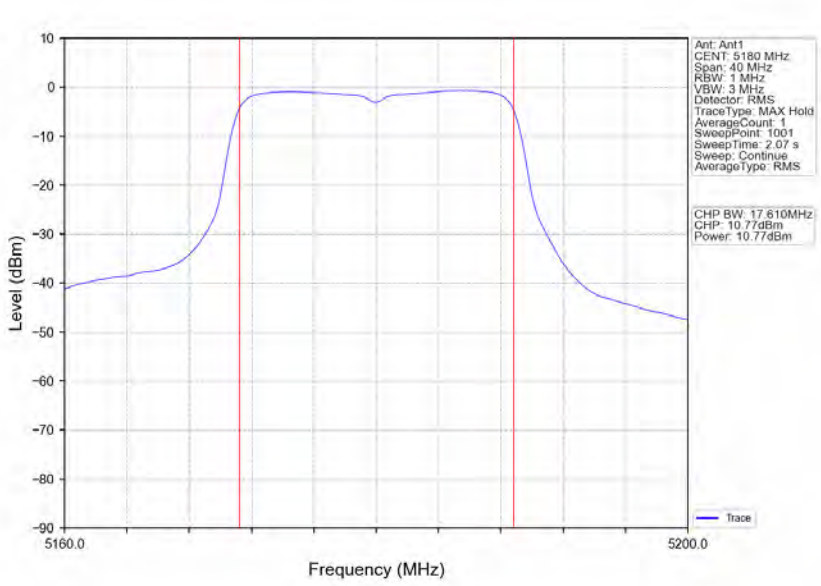
802.11a_MCH_5785MHz_Ant1_NTNV



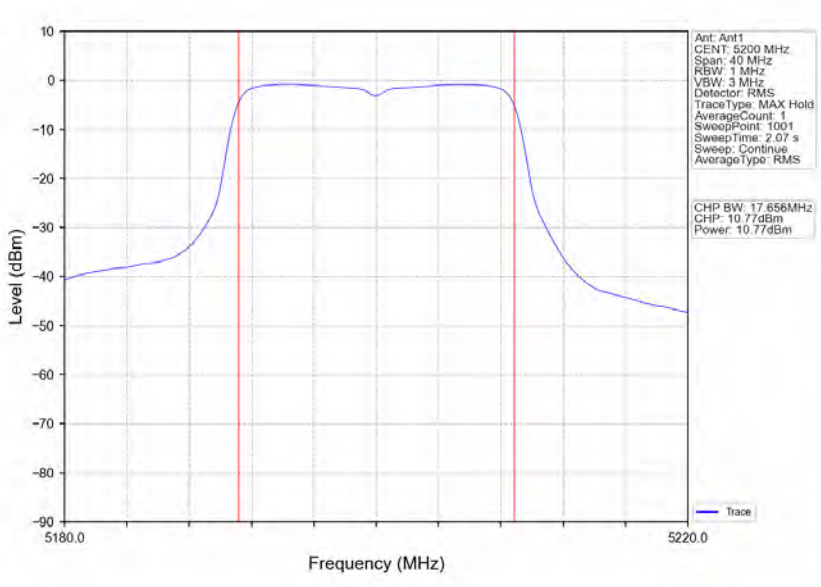
802.11a_HCH_5825MHz_Ant1_NTNV



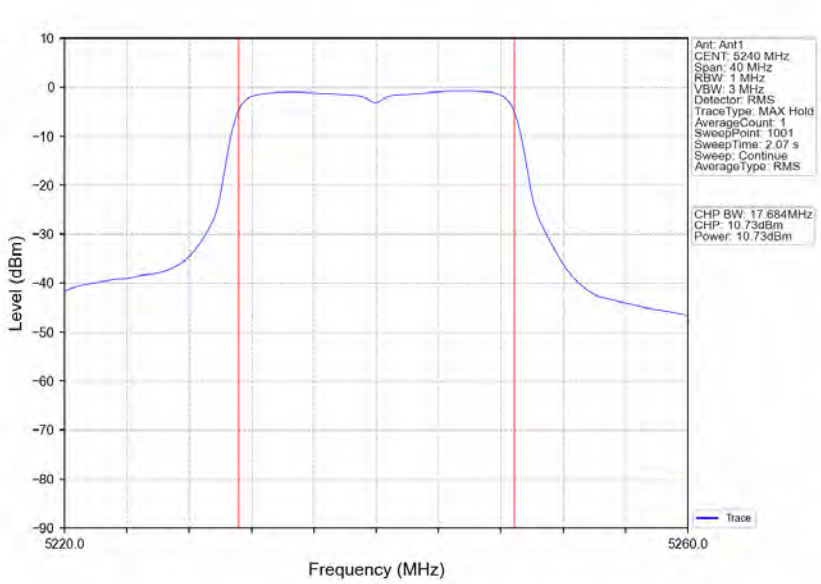
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



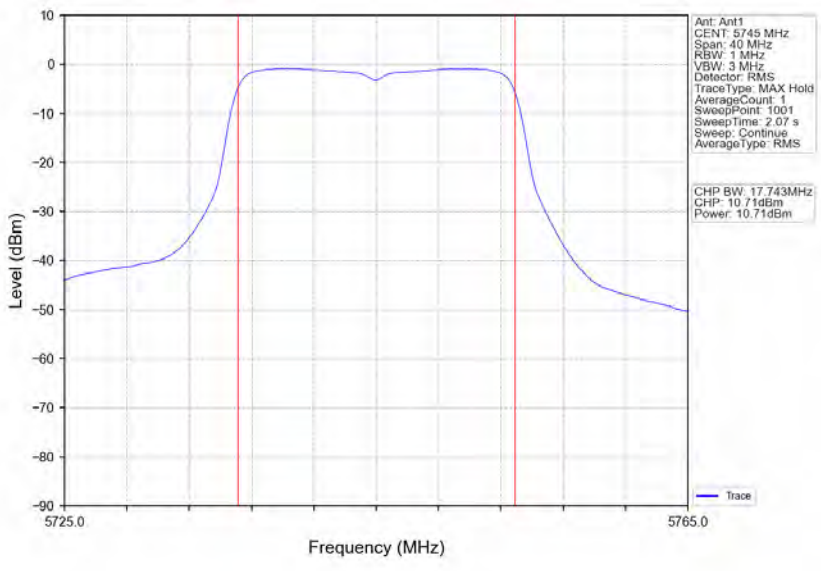
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



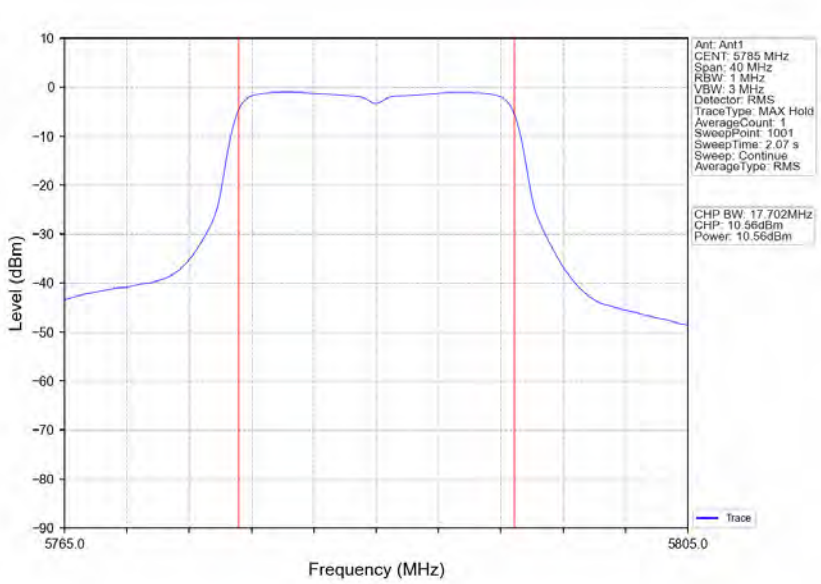
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



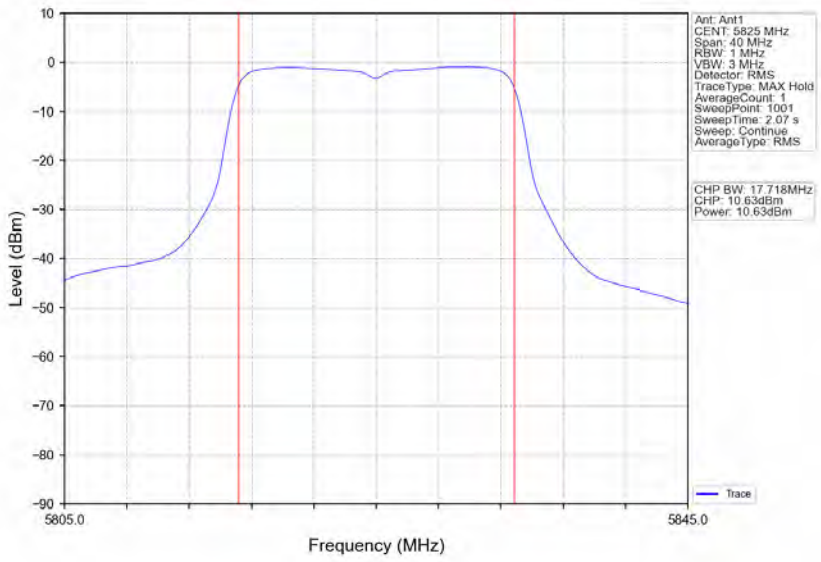
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



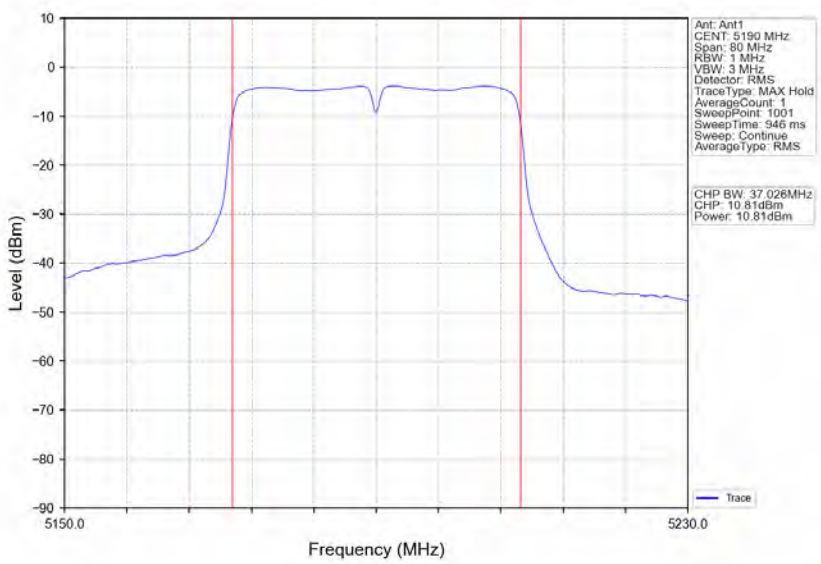
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



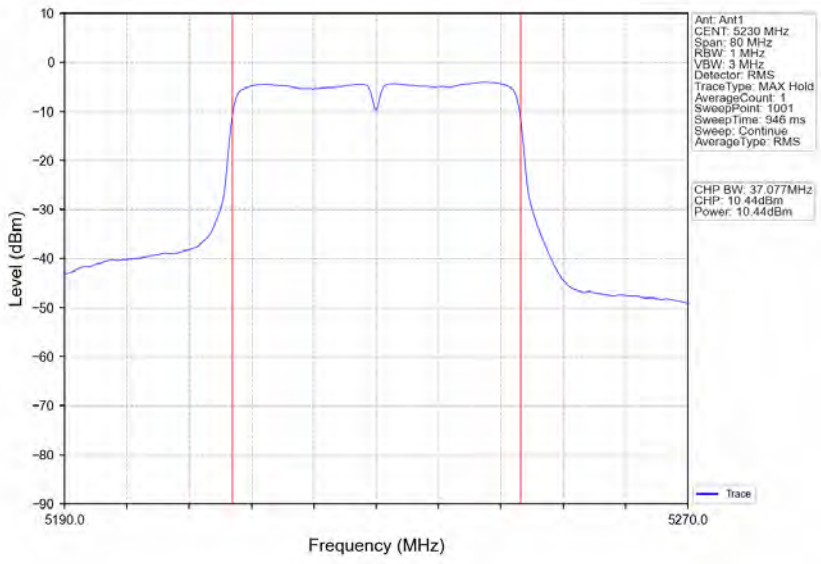
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



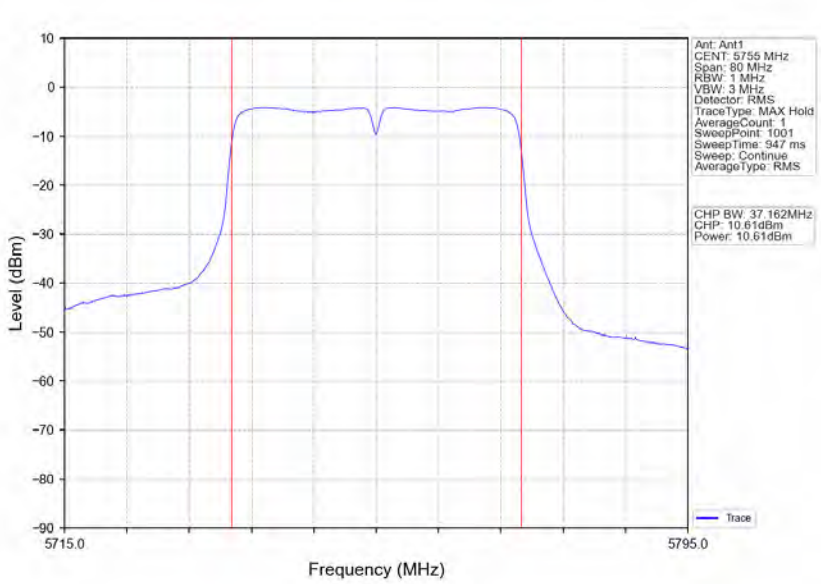
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



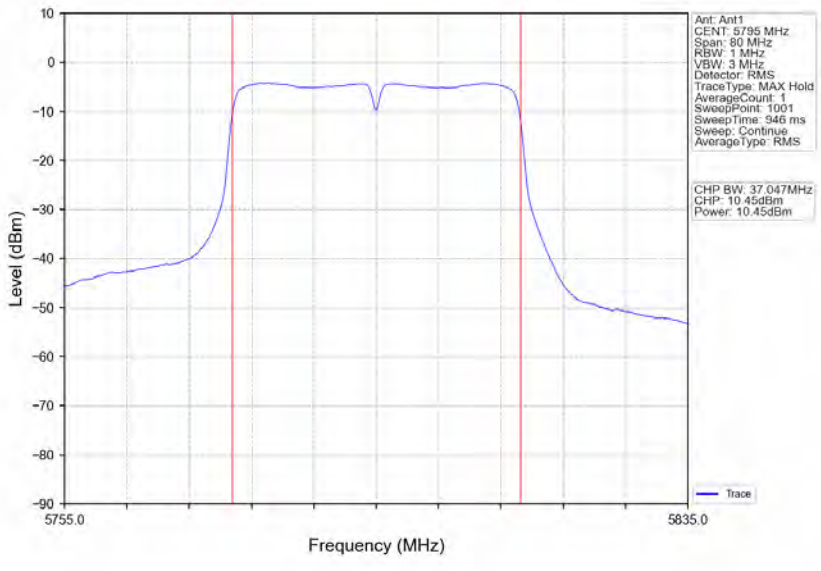
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



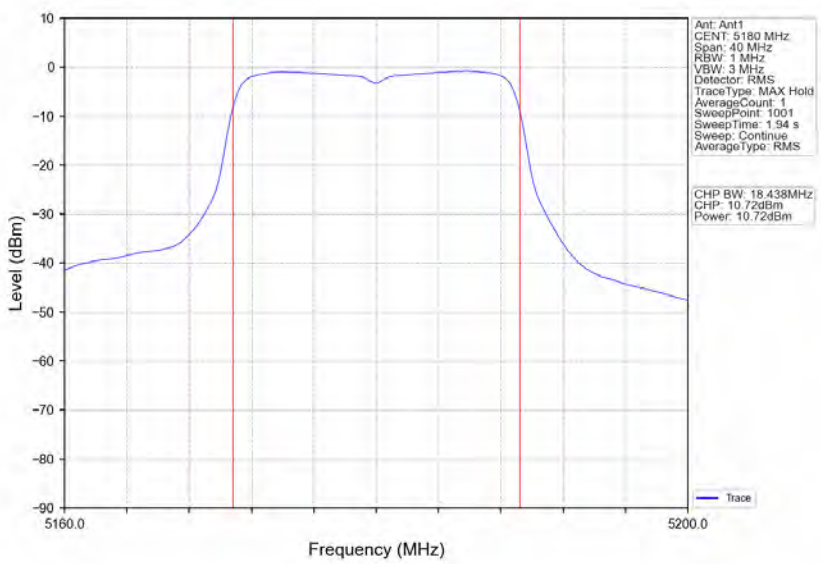
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



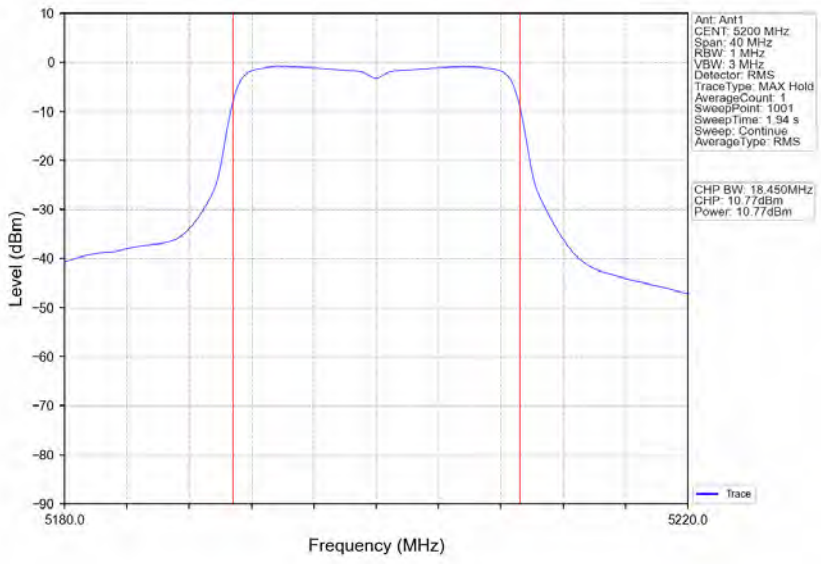
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



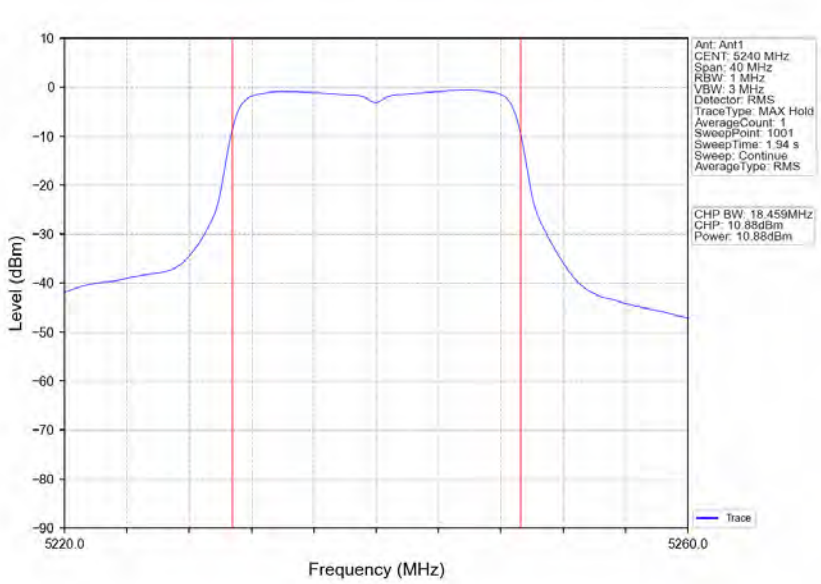
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



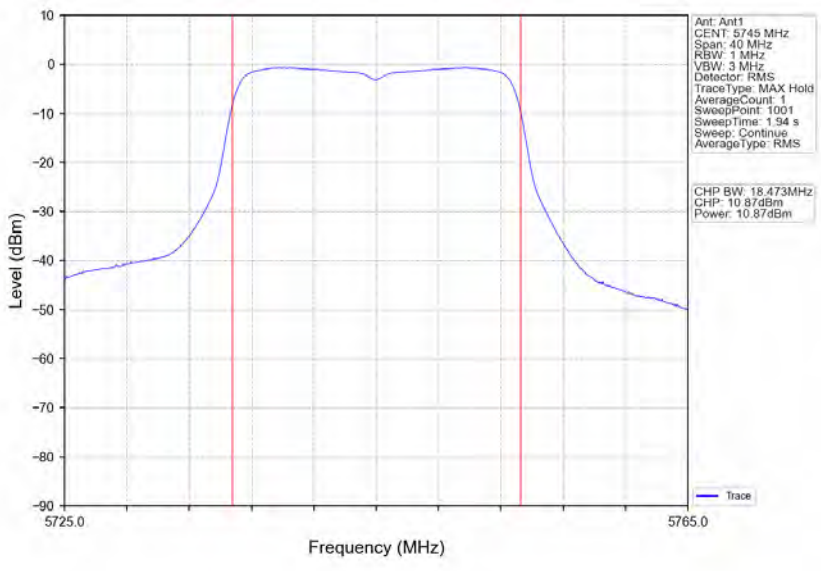
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



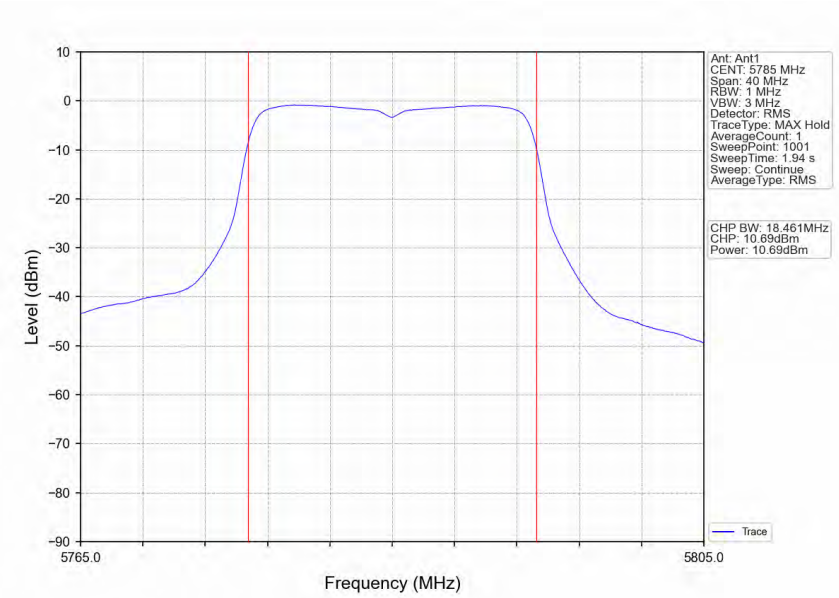
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



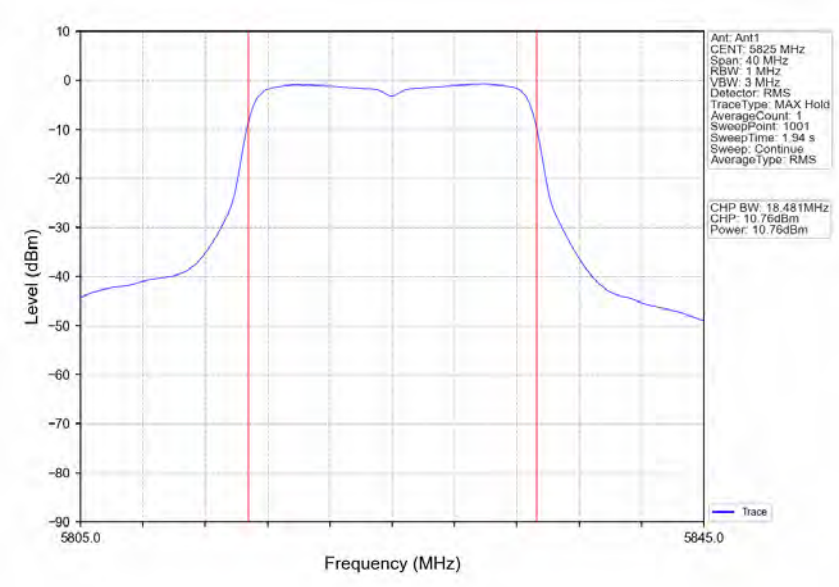
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



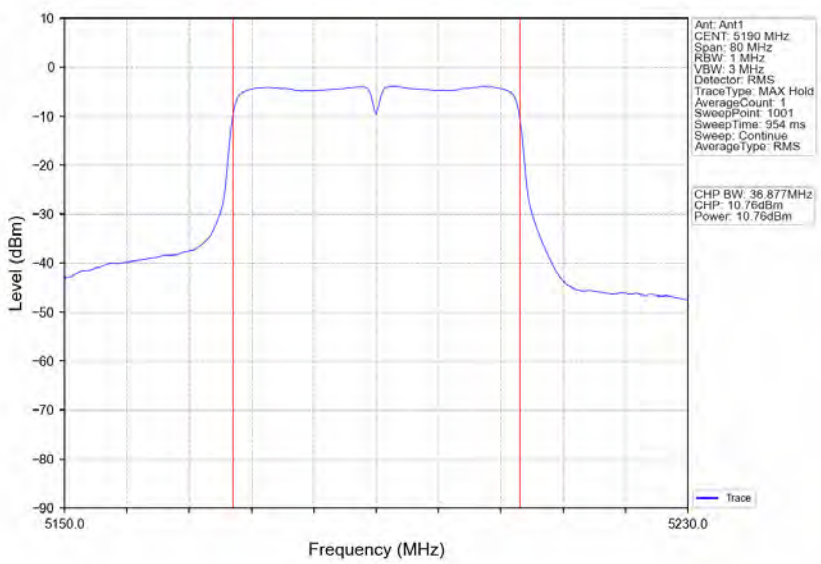
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



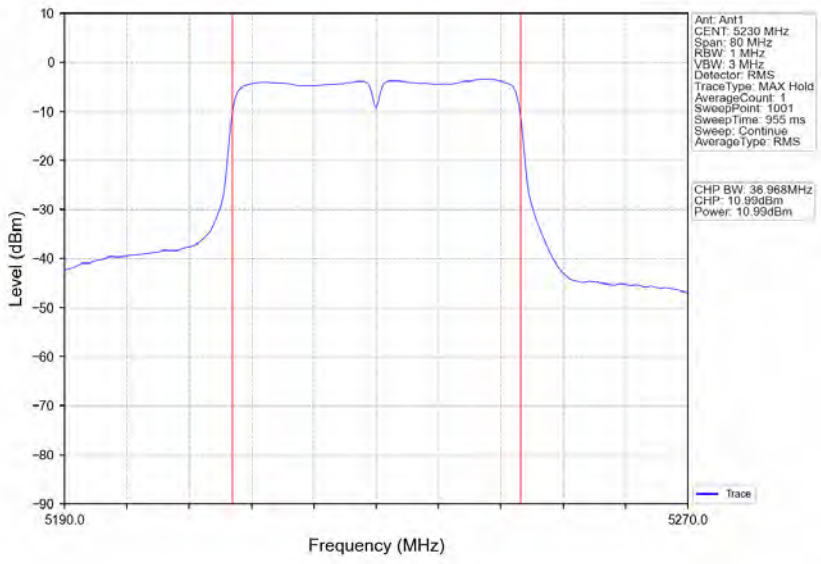
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



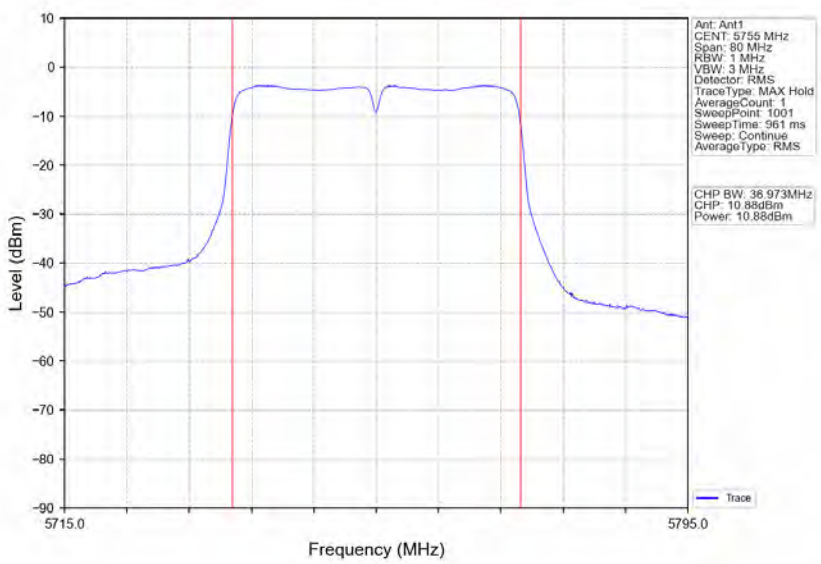
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



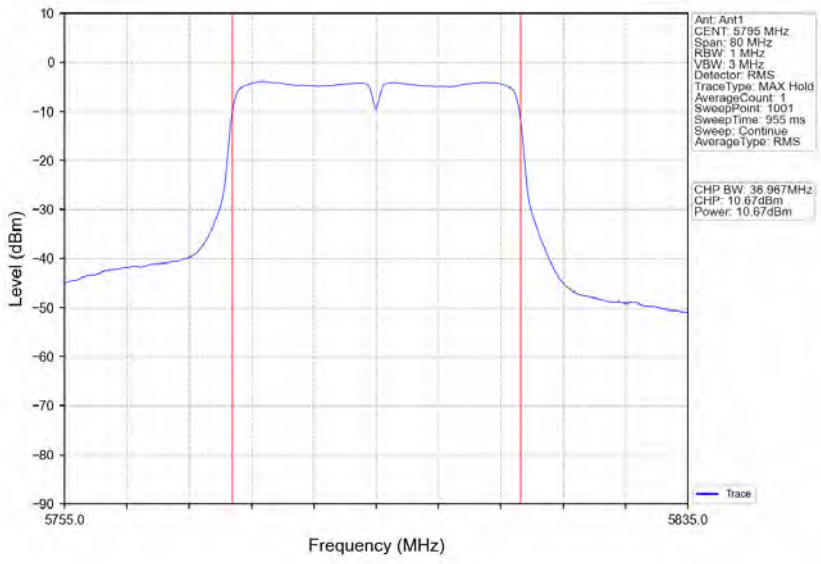
802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



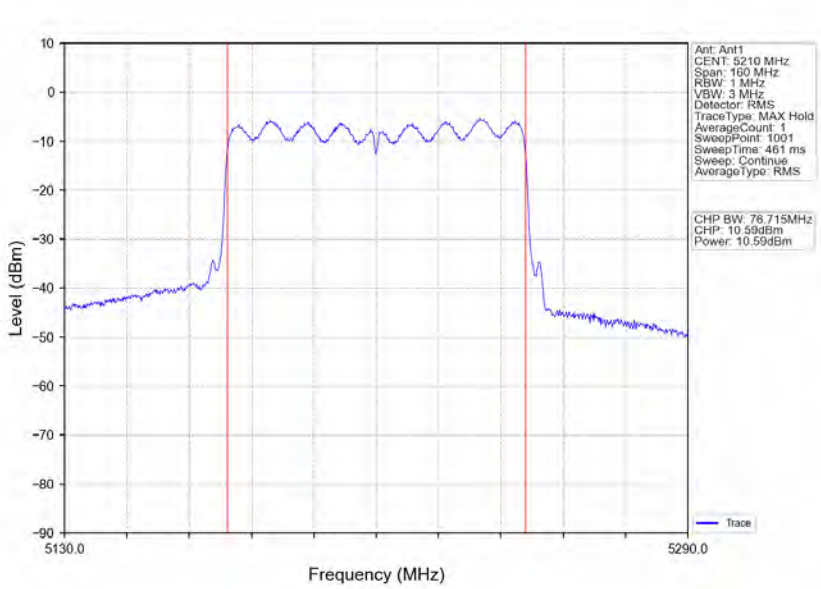
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



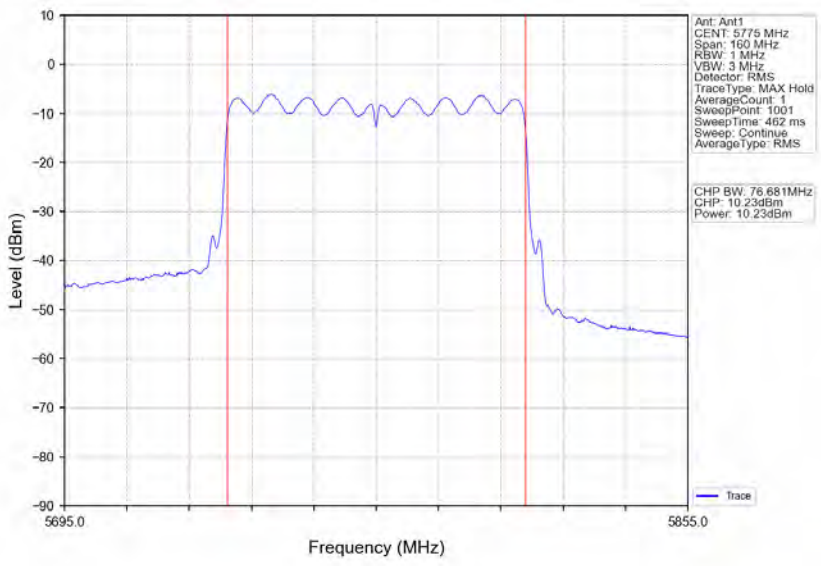
802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



4. Maximum Power Spectral Density

4.1 PSD

4.1.1 Test Result for FCC

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/MHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	-0.38	<=11	Pass
		5200	-0.51	<=11	Pass
		5240	-0.36	<=11	Pass
802.11n (HT20)	SISO	5180	-0.75	<=11	Pass
		5200	-0.78	<=11	Pass
		5240	-0.73	<=11	Pass
802.11n (HT40)	SISO	5190	-3.83	<=11	Pass
		5230	-3.96	<=11	Pass
802.11ac (VHT20)	SISO	5180	-0.77	<=11	Pass
		5200	-0.78	<=11	Pass
		5240	-0.56	<=11	Pass
802.11ac (VHT40)	SISO	5190	-3.92	<=11	Pass
		5230	-3.41	<=11	Pass
802.11ac (VHT80)	SISO	5210	-5.20	<=11	Pass
Note1: Antenna Gain: U-NII-1: 2.07dBi.					

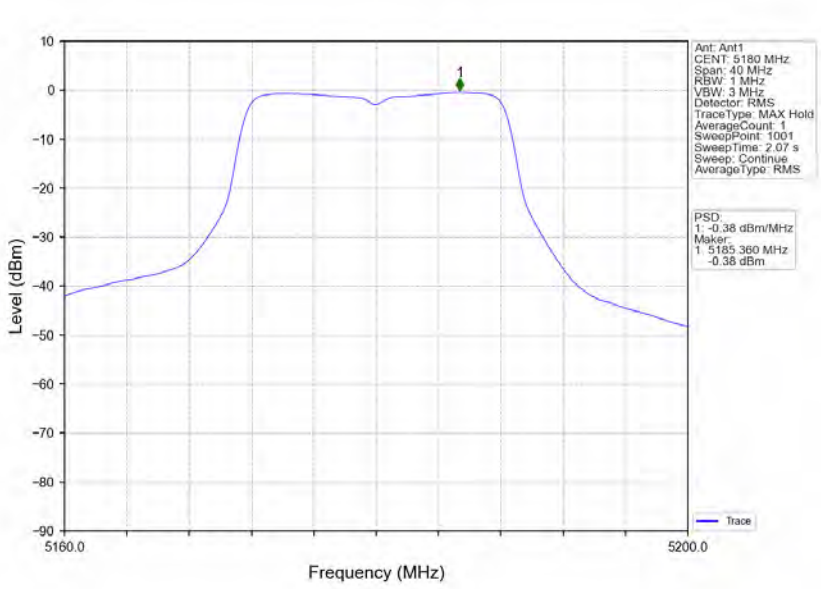
4.2.1 Test Result for IC

Mode	TX Type	Frequency (MHz)	Maximum E.I.R.PSD (dBm/MHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	1.69	<=10	Pass
		5200	1.56	<=10	Pass
		5240	1.71	<=10	Pass
802.11n (HT20)	SISO	5180	1.32	<=10	Pass
		5200	1.29	<=10	Pass
		5240	1.34	<=10	Pass
802.11n (HT40)	SISO	5190	-1.76	<=10	Pass
		5230	-1.89	<=10	Pass
802.11ac (VHT20)	SISO	5180	1.30	<=10	Pass
		5200	1.29	<=10	Pass
		5240	1.51	<=10	Pass
802.11ac (VHT40)	SISO	5190	-1.85	<=10	Pass
		5230	-1.34	<=10	Pass
802.11ac (VHT80)	SISO	5210	-3.13	<=10	Pass

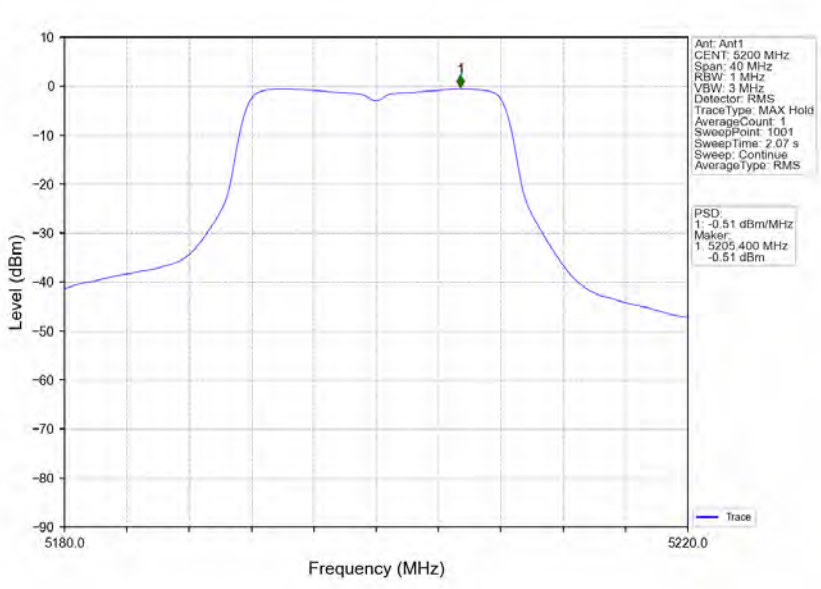
Note1: Antenna Gain: U-NII-1: 2.07dBi. Note2: E.I.R.PSD = Measured PSD + Antenna Gain

4.1.2 Test Graph

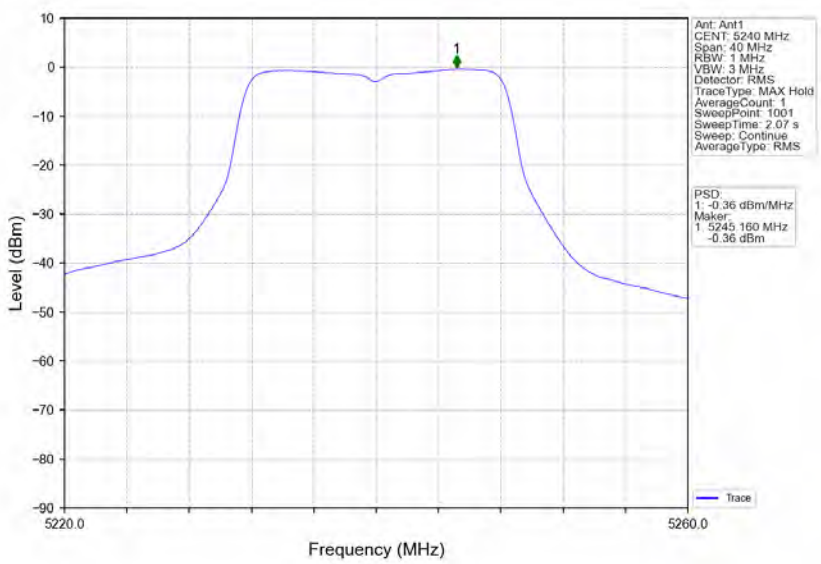
802.11a_LCH_5180MHz_Ant1_NTNV



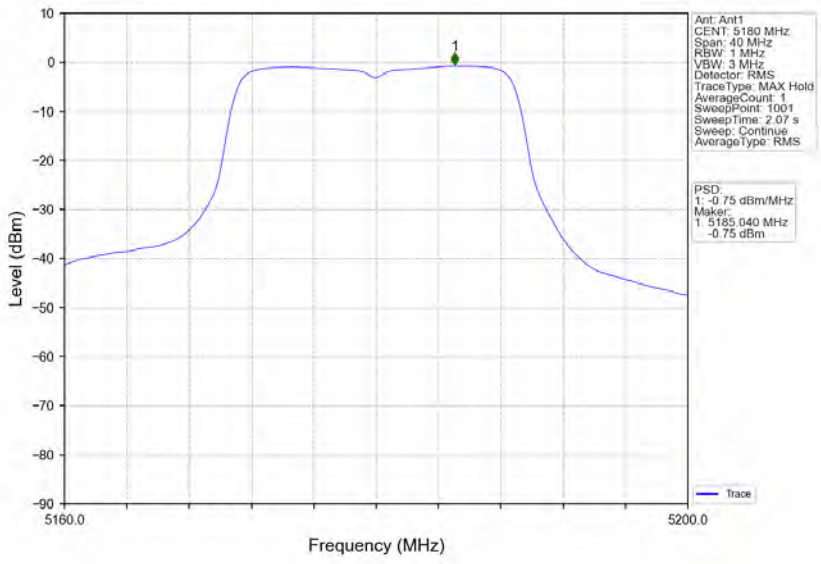
802.11a_MCH_5200MHz_Ant1_NTNV



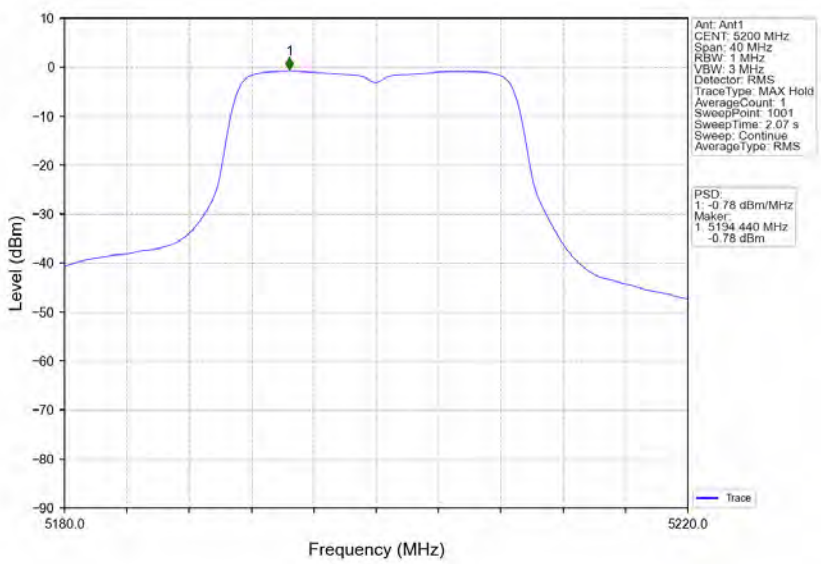
802.11a_HCH_5240MHz_Ant1_NTNV



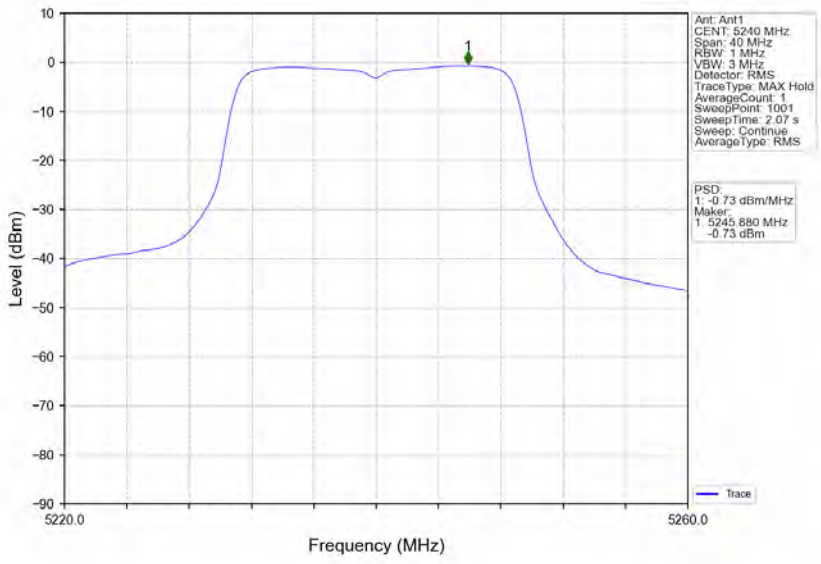
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



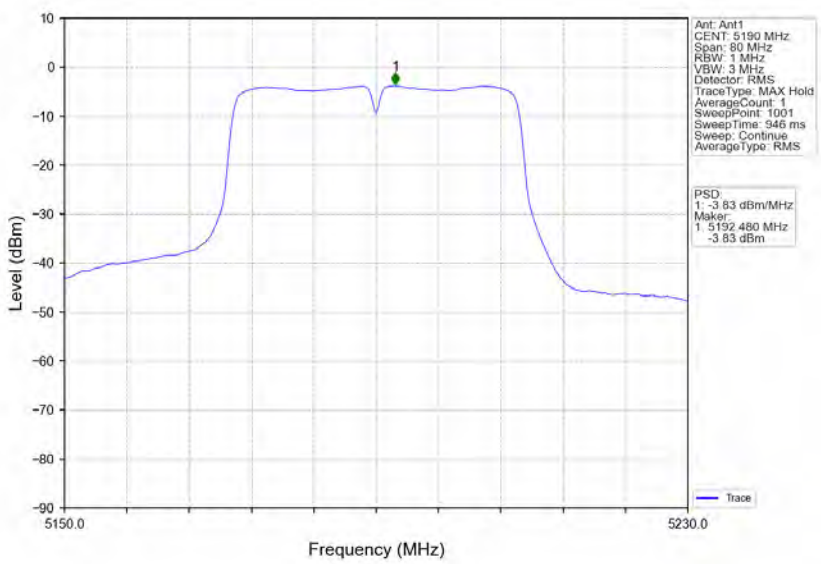
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



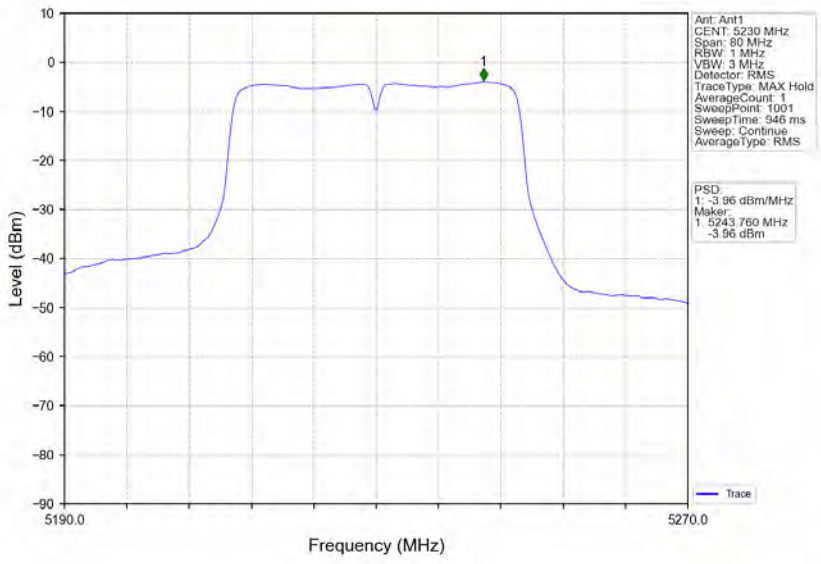
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



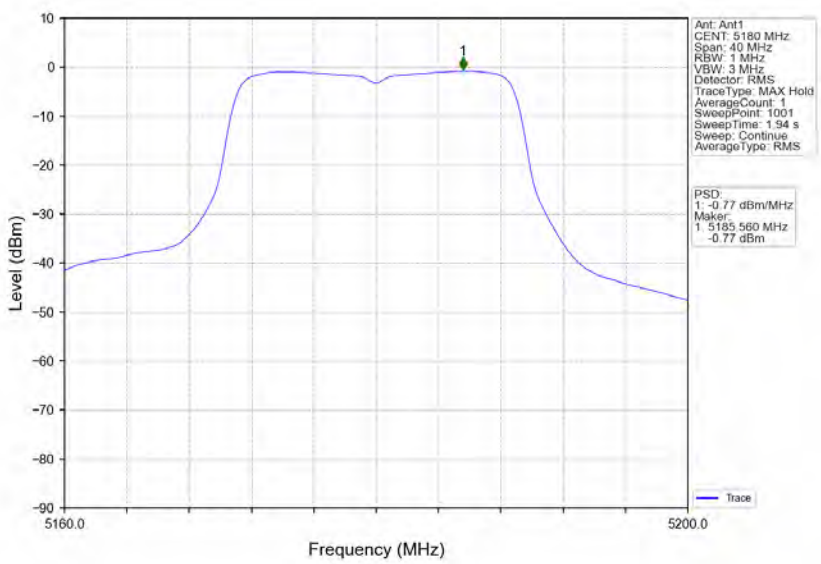
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



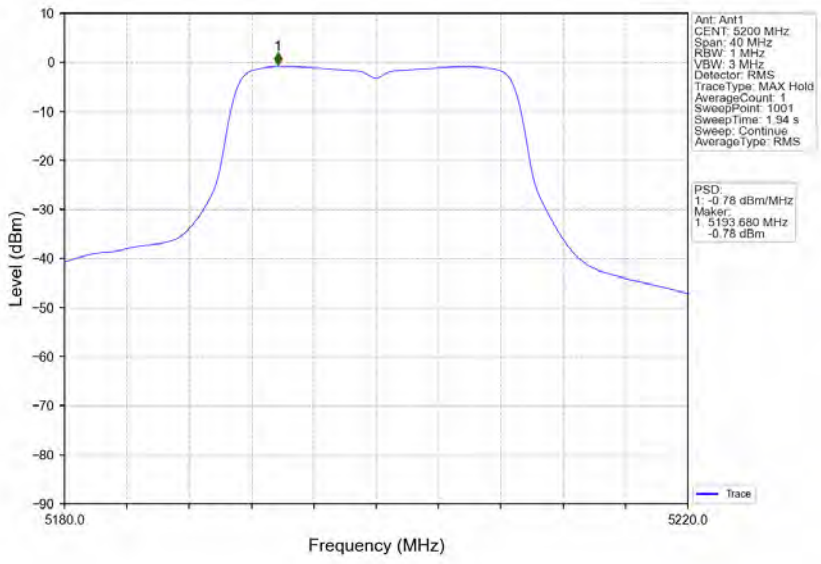
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



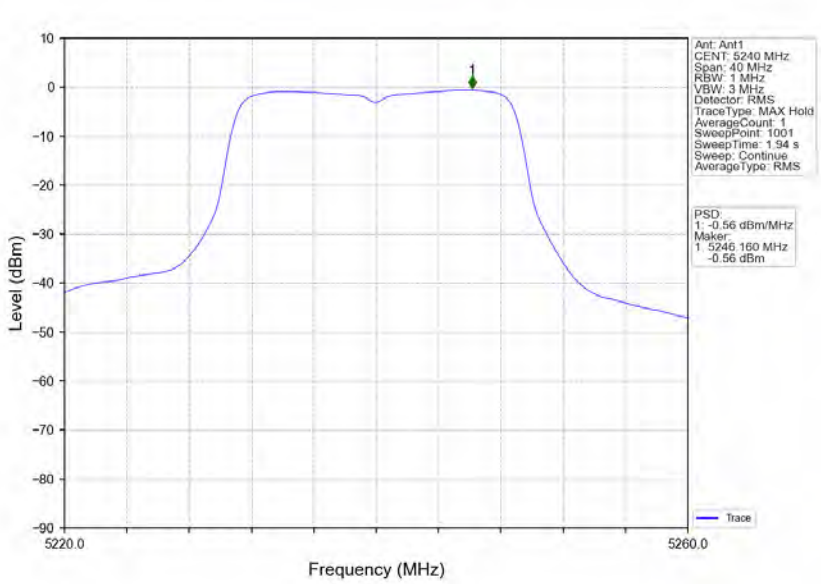
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



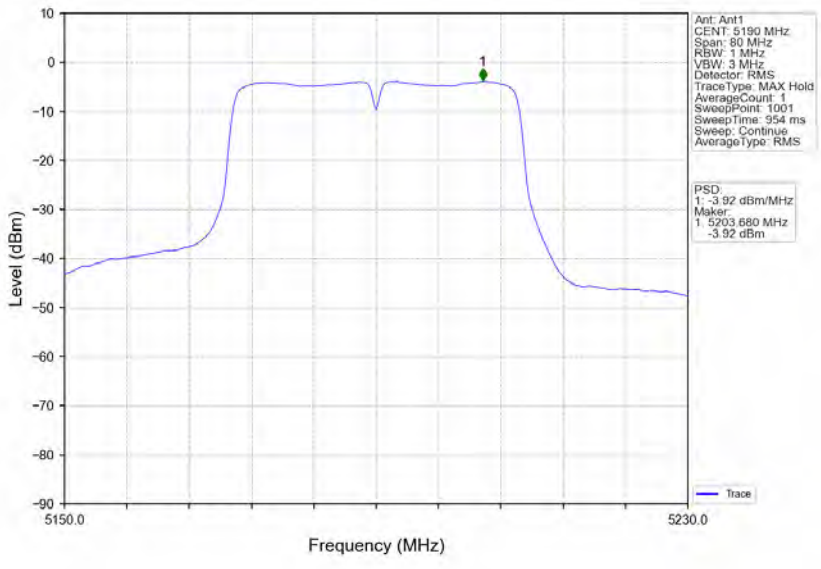
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



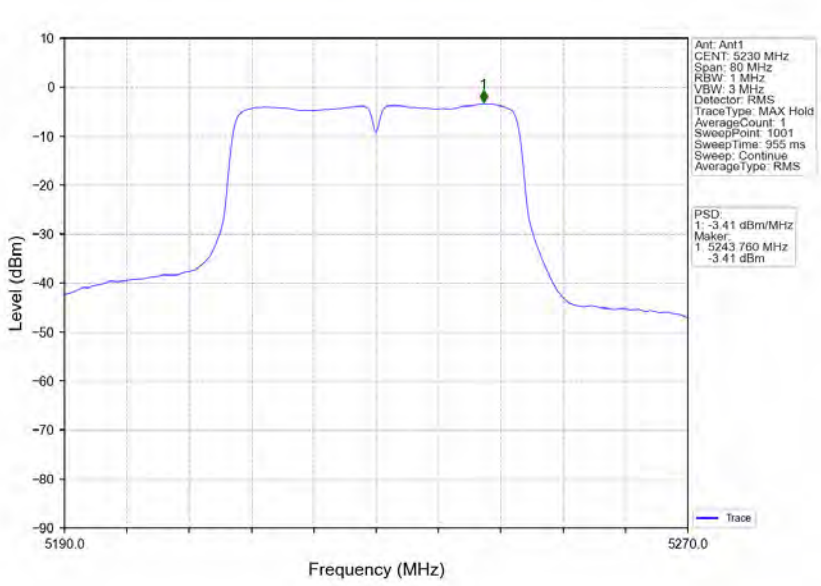
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



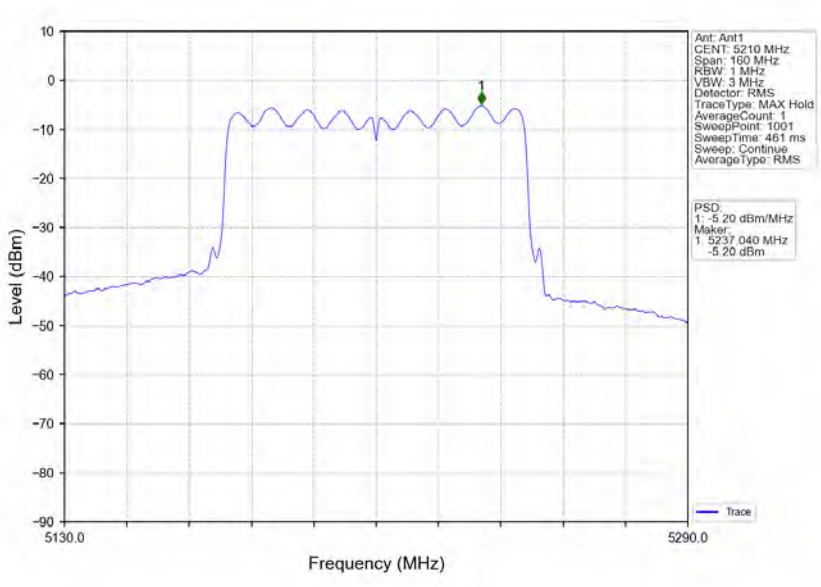
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5210MHz_Ant1_NTNV

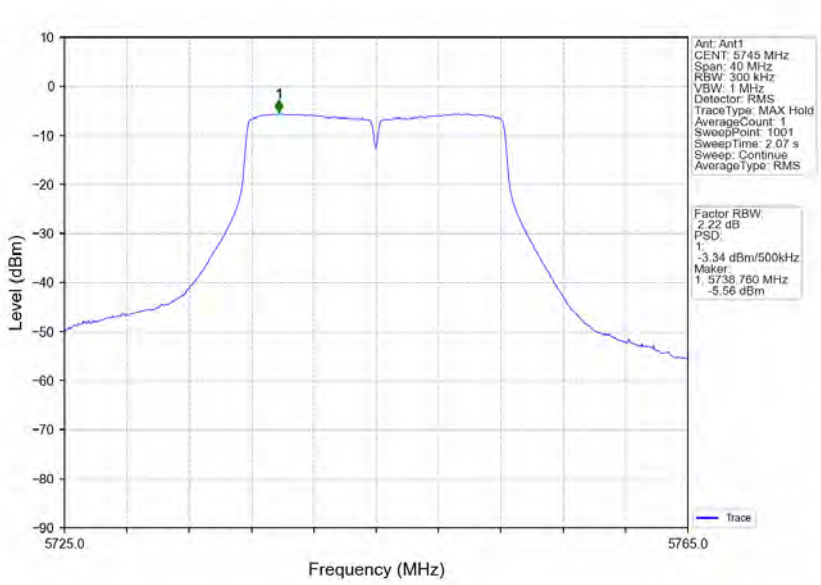
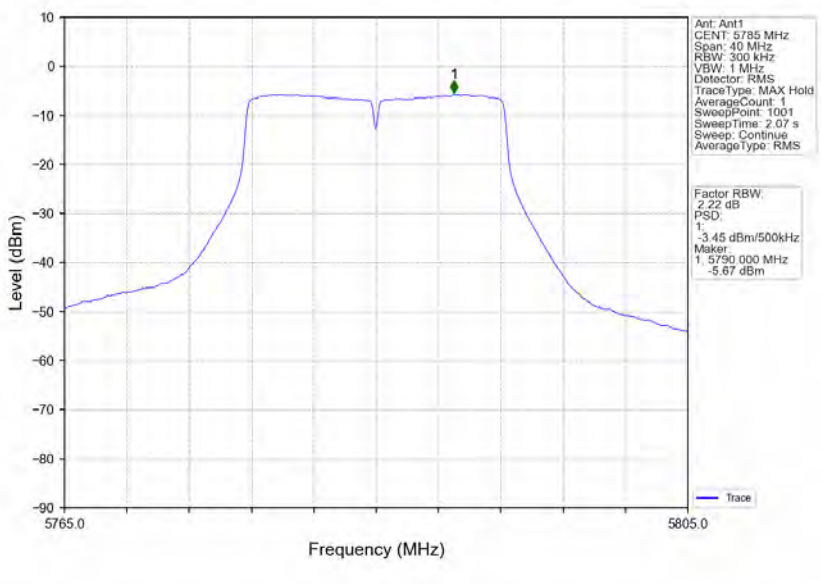


4.2 PSD-Band3

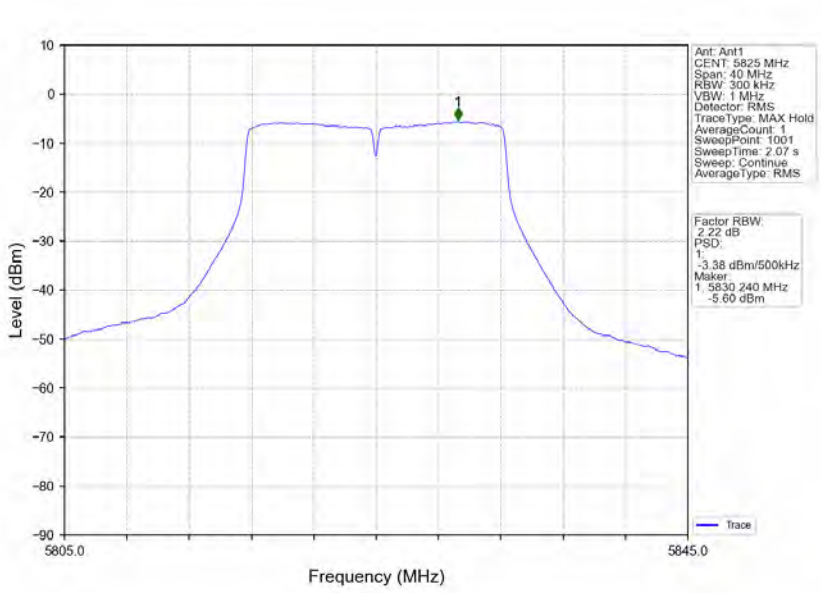
4.2.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/500kHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5745	-3.34	<=30	Pass
		5785	-3.45	<=30	Pass
		5825	-3.38	<=30	Pass
802.11n (HT20)	SISO	5745	-3.77	<=30	Pass
		5785	-3.93	<=30	Pass
		5825	-3.82	<=30	Pass
802.11n (HT40)	SISO	5755	-6.87	<=30	Pass
		5795	-7.07	<=30	Pass
802.11ac (VHT20)	SISO	5745	-3.50	<=30	Pass
		5785	-3.59	<=30	Pass
		5825	-3.66	<=30	Pass
802.11ac (VHT40)	SISO	5755	-6.63	<=30	Pass
		5795	-6.78	<=30	Pass
802.11ac (VHT80)	SISO	5775	-8.82	<=30	Pass
Note1: Antenna Gain: U-NII-3: 0.89dBi.					

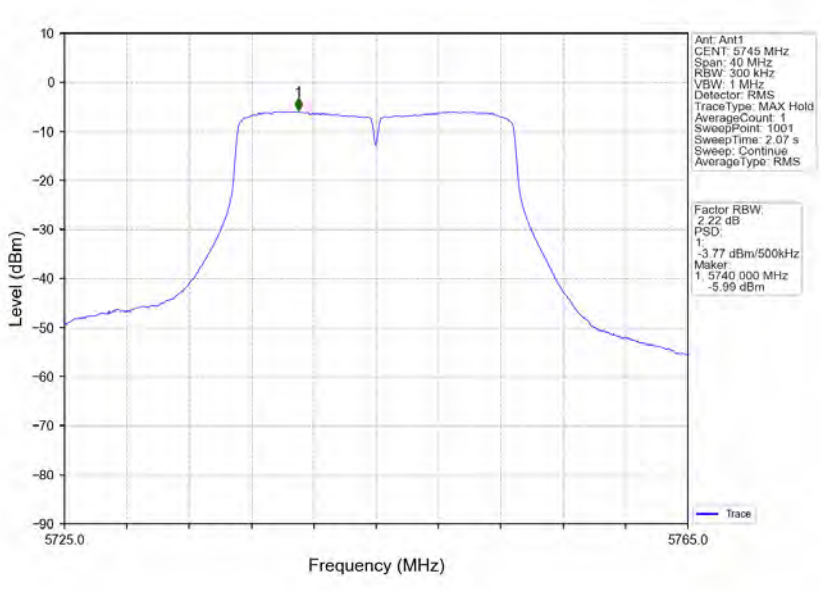
4.2.2 Test Graph

802.11a_LCH_5745MHz_Ant1_NTNV

802.11a_MCH_5785MHz_Ant1_NTNV


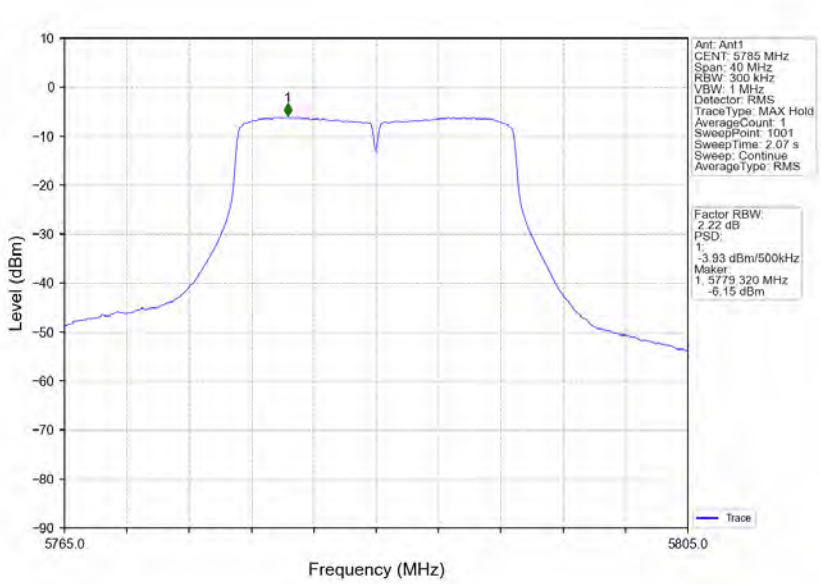
802.11a_HCH_5825MHz_Ant1_NTNV



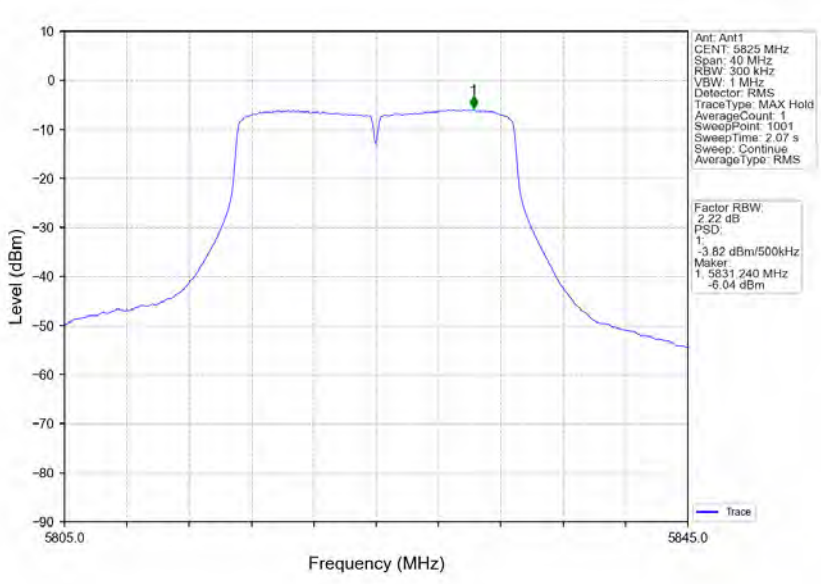
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



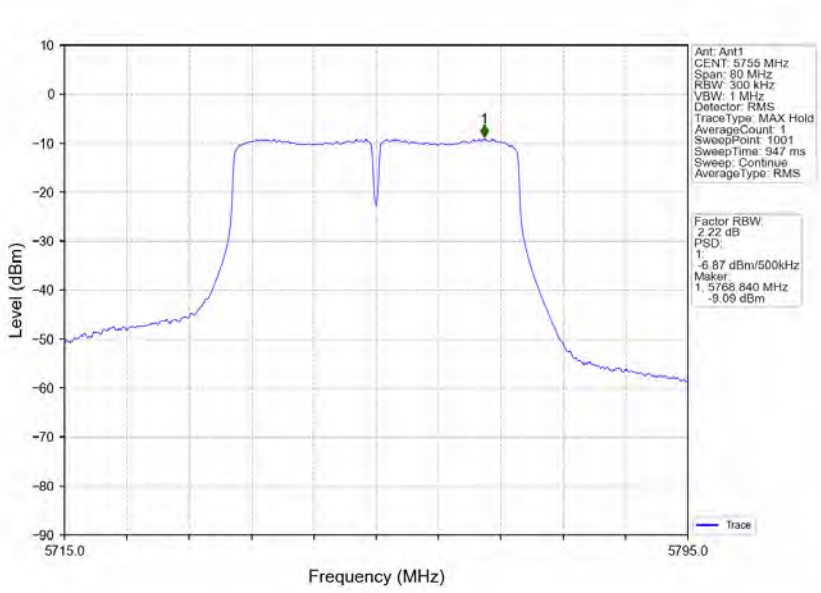
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



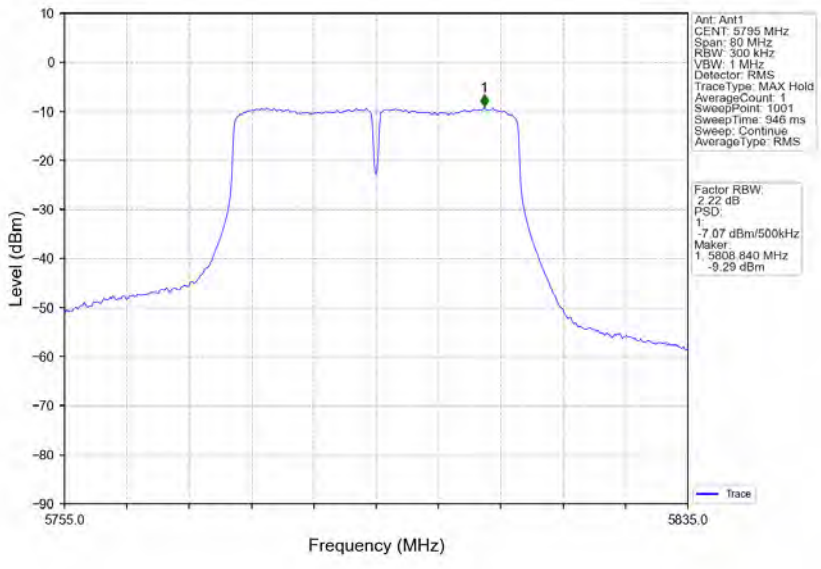
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



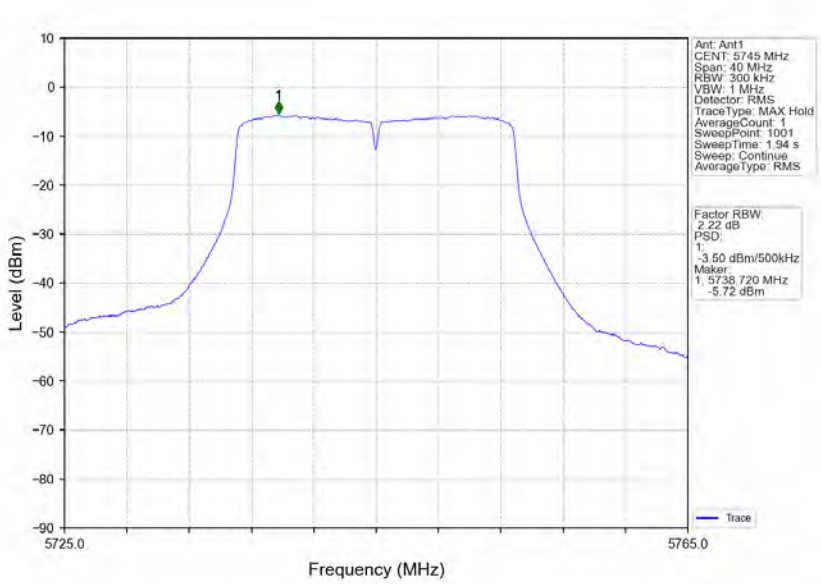
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



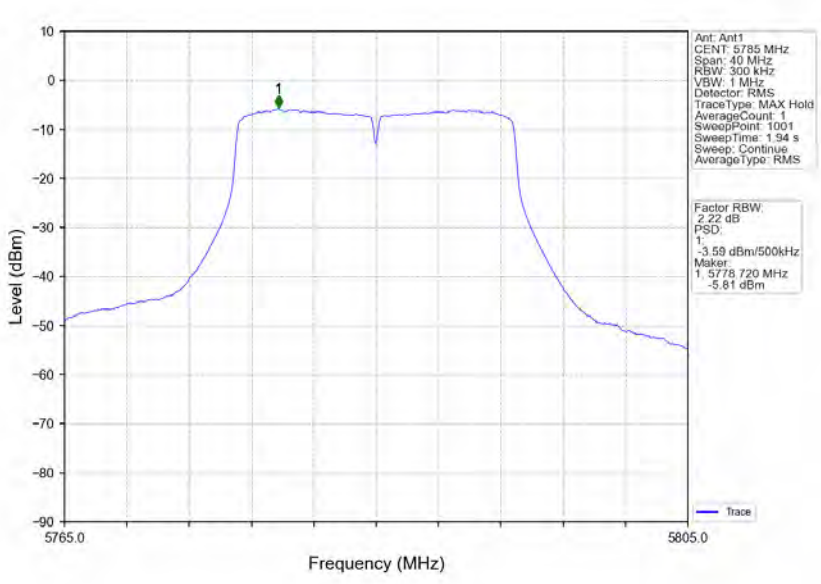
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



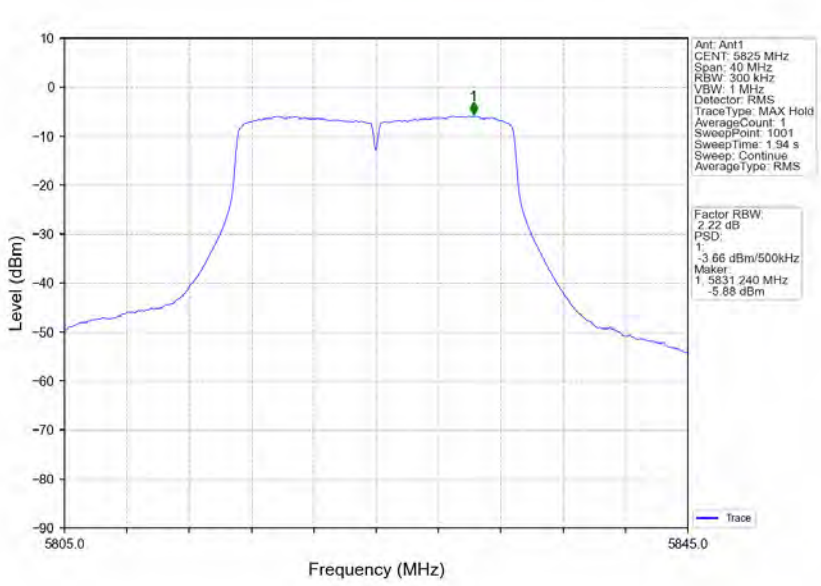
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



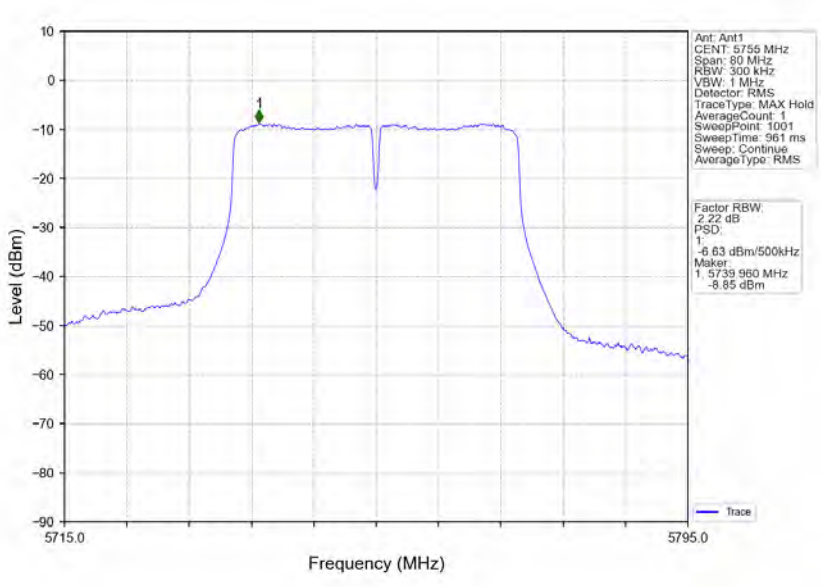
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



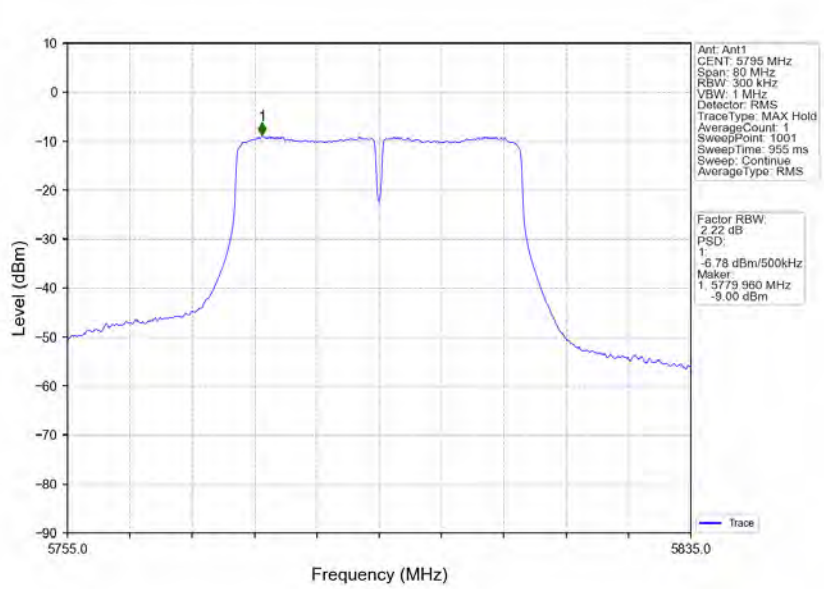
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



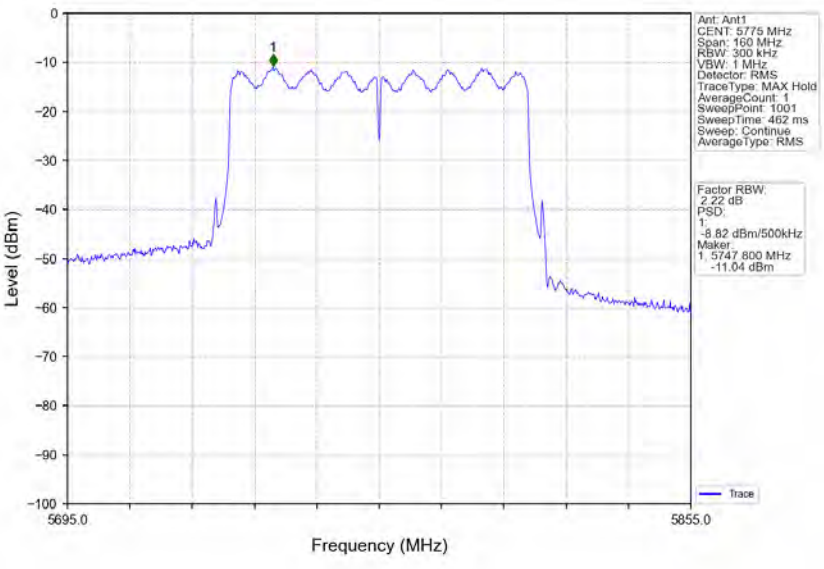
802.11ac(VHT40)_LCH_5755MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5795MHz_Ant1_NTNV



802.11ac(VHT80)_MCH_5775MHz_Ant1_NTNV



5. Frequency Stability

5.1 Ant1

5.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
802.11a	SISO	5180	20	102	5179.980	5150 to 5250	Pass
				120	5180.040	5150 to 5250	Pass
				138	5180.040	5150 to 5250	Pass
			-30	120	5179.980	5150 to 5250	Pass
			-20	120	5180.020	5150 to 5250	Pass
			-10	120	5180.060	5150 to 5250	Pass
			0	120	5180.000	5150 to 5250	Pass
			10	120	5180.000	5150 to 5250	Pass
			30	120	5180.000	5150 to 5250	Pass
			40	120	5180.000	5150 to 5250	Pass
			50	120	5180.040	5150 to 5250	Pass
		5200	20	102	5200.040	5150 to 5250	Pass
				120	5200.000	5150 to 5250	Pass
				138	5200.020	5150 to 5250	Pass
			-30	120	5199.940	5150 to 5250	Pass
			-20	120	5200.020	5150 to 5250	Pass
			-10	120	5200.020	5150 to 5250	Pass
			0	120	5200.020	5150 to 5250	Pass
			10	120	5200.000	5150 to 5250	Pass
			30	120	5200.040	5150 to 5250	Pass
			40	120	5200.000	5150 to 5250	Pass
			50	120	5199.960	5150 to 5250	Pass
		5240	20	102	5240.080	5150 to 5250	Pass
				120	5240.040	5150 to 5250	Pass
				138	5240.060	5150 to 5250	Pass
			-30	120	5240.040	5150 to 5250	Pass
			-20	120	5240.020	5150 to 5250	Pass
			-10	120	5240.020	5150 to 5250	Pass
			0	120	5239.980	5150 to 5250	Pass
			10	120	5240.020	5150 to 5250	Pass
			30	120	5240.000	5150 to 5250	Pass
			40	120	5240.020	5150 to 5250	Pass
			50	120	5240.000	5150 to 5250	Pass
		5745	20	102	5745.000	5725 to 5850	Pass
				120	5745.020	5725 to 5850	Pass

				138	5745.020	5725 to 5850	Pass
			-30	120	5745.020	5725 to 5850	Pass
			-20	120	5745.020	5725 to 5850	Pass
			-10	120	5745.040	5725 to 5850	Pass
			0	120	5745.000	5725 to 5850	Pass
			10	120	5744.960	5725 to 5850	Pass
			30	120	5745.000	5725 to 5850	Pass
			40	120	5745.000	5725 to 5850	Pass
			50	120	5745.020	5725 to 5850	Pass
		5785	20	102	5785.000	5725 to 5850	Pass
				120	5785.000	5725 to 5850	Pass
				138	5785.020	5725 to 5850	Pass
			-30	120	5785.020	5725 to 5850	Pass
			-20	120	5785.020	5725 to 5850	Pass
			-10	120	5784.980	5725 to 5850	Pass
			0	120	5785.020	5725 to 5850	Pass
			10	120	5784.980	5725 to 5850	Pass
			30	120	5785.000	5725 to 5850	Pass
			40	120	5785.020	5725 to 5850	Pass
			50	120	5785.000	5725 to 5850	Pass
		5825	20	102	5824.980	5725 to 5850	Pass
				120	5825.040	5725 to 5850	Pass
				138	5824.980	5725 to 5850	Pass
			-30	120	5824.980	5725 to 5850	Pass
			-20	120	5825.040	5725 to 5850	Pass
			-10	120	5824.960	5725 to 5850	Pass
			0	120	5825.020	5725 to 5850	Pass
			10	120	5824.980	5725 to 5850	Pass
			30	120	5825.020	5725 to 5850	Pass
			40	120	5825.040	5725 to 5850	Pass
			50	120	5825.040	5725 to 5850	Pass
802.11n (HT20)	SISO	5180	20	102	5180.080	5150 to 5250	Pass
				120	5179.980	5150 to 5250	Pass
				138	5180.040	5150 to 5250	Pass
			-30	120	5180.000	5150 to 5250	Pass
			-20	120	5180.040	5150 to 5250	Pass
			-10	120	5180.060	5150 to 5250	Pass
			0	120	5180.060	5150 to 5250	Pass
			10	120	5180.080	5150 to 5250	Pass
			30	120	5180.060	5150 to 5250	Pass
			40	120	5180.020	5150 to 5250	Pass
			50	120	5180.060	5150 to 5250	Pass
		5200	20	102	5200.040	5150 to 5250	Pass
				120	5199.980	5150 to 5250	Pass

				138	5200.040	5150 to 5250	Pass
			-30	120	5200.000	5150 to 5250	Pass
			-20	120	5200.000	5150 to 5250	Pass
			-10	120	5200.020	5150 to 5250	Pass
			0	120	5200.020	5150 to 5250	Pass
			10	120	5200.000	5150 to 5250	Pass
			30	120	5200.020	5150 to 5250	Pass
			40	120	5199.980	5150 to 5250	Pass
			50	120	5200.020	5150 to 5250	Pass
		5240	20	102	5240.020	5150 to 5250	Pass
				120	5239.980	5150 to 5250	Pass
				138	5239.980	5150 to 5250	Pass
			-30	120	5240.060	5150 to 5250	Pass
			-20	120	5239.980	5150 to 5250	Pass
			-10	120	5240.040	5150 to 5250	Pass
			0	120	5240.040	5150 to 5250	Pass
			10	120	5239.980	5150 to 5250	Pass
			30	120	5240.000	5150 to 5250	Pass
			40	120	5240.020	5150 to 5250	Pass
			50	120	5240.040	5150 to 5250	Pass
		5745	20	102	5745.020	5725 to 5850	Pass
				120	5745.040	5725 to 5850	Pass
				138	5744.980	5725 to 5850	Pass
			-30	120	5745.020	5725 to 5850	Pass
			-20	120	5745.040	5725 to 5850	Pass
			-10	120	5745.000	5725 to 5850	Pass
			0	120	5745.020	5725 to 5850	Pass
			10	120	5745.020	5725 to 5850	Pass
			30	120	5745.000	5725 to 5850	Pass
			40	120	5744.980	5725 to 5850	Pass
			50	120	5745.040	5725 to 5850	Pass
		5785	20	102	5785.040	5725 to 5850	Pass
				120	5784.980	5725 to 5850	Pass
				138	5785.040	5725 to 5850	Pass
			-30	120	5785.020	5725 to 5850	Pass
			-20	120	5785.060	5725 to 5850	Pass
			-10	120	5785.000	5725 to 5850	Pass
			0	120	5785.000	5725 to 5850	Pass
			10	120	5784.980	5725 to 5850	Pass
			30	120	5785.020	5725 to 5850	Pass
			40	120	5785.000	5725 to 5850	Pass
			50	120	5785.020	5725 to 5850	Pass
		5825	20	102	5825.020	5725 to 5850	Pass
				120	5825.040	5725 to 5850	Pass

				138	5825.040	5725 to 5850	Pass
			-30	120	5825.060	5725 to 5850	Pass
			-20	120	5825.020	5725 to 5850	Pass
			-10	120	5825.060	5725 to 5850	Pass
			0	120	5825.040	5725 to 5850	Pass
			10	120	5825.040	5725 to 5850	Pass
			30	120	5825.060	5725 to 5850	Pass
			40	120	5825.040	5725 to 5850	Pass
			50	120	5825.020	5725 to 5850	Pass
802.11n (HT40)	SISO	5190	20	102	5190.080	5150 to 5250	Pass
				120	5190.120	5150 to 5250	Pass
				138	5190.080	5150 to 5250	Pass
			-30	120	5190.160	5150 to 5250	Pass
			-20	120	5190.160	5150 to 5250	Pass
			-10	120	5190.120	5150 to 5250	Pass
			0	120	5190.200	5150 to 5250	Pass
			10	120	5190.120	5150 to 5250	Pass
			30	120	5190.120	5150 to 5250	Pass
			40	120	5190.120	5150 to 5250	Pass
			50	120	5190.120	5150 to 5250	Pass
		5230	20	102	5230.160	5150 to 5250	Pass
				120	5230.160	5150 to 5250	Pass
				138	5230.080	5150 to 5250	Pass
			-30	120	5230.120	5150 to 5250	Pass
			-20	120	5230.160	5150 to 5250	Pass
			-10	120	5230.080	5150 to 5250	Pass
			0	120	5230.080	5150 to 5250	Pass
			10	120	5230.120	5150 to 5250	Pass
			30	120	5230.120	5150 to 5250	Pass
			40	120	5230.080	5150 to 5250	Pass
			50	120	5230.080	5150 to 5250	Pass
		5755	20	102	5755.040	5725 to 5850	Pass
				120	5755.120	5725 to 5850	Pass
				138	5755.080	5725 to 5850	Pass
			-30	120	5755.080	5725 to 5850	Pass
			-20	120	5755.080	5725 to 5850	Pass
			-10	120	5755.040	5725 to 5850	Pass
			0	120	5755.160	5725 to 5850	Pass
			10	120	5755.120	5725 to 5850	Pass
			30	120	5755.040	5725 to 5850	Pass
			40	120	5755.040	5725 to 5850	Pass
			50	120	5755.080	5725 to 5850	Pass
		5795	20	102	5795.000	5725 to 5850	Pass
				120	5795.040	5725 to 5850	Pass

				138	5795.040	5725 to 5850	Pass
			-30	120	5795.000	5725 to 5850	Pass
			-20	120	5795.040	5725 to 5850	Pass
			-10	120	5795.000	5725 to 5850	Pass
			0	120	5795.080	5725 to 5850	Pass
			10	120	5795.040	5725 to 5850	Pass
			30	120	5795.080	5725 to 5850	Pass
			40	120	5795.080	5725 to 5850	Pass
			50	120	5795.080	5725 to 5850	Pass
802.11ac (VHT20)	SISO	5180	20	102	5180.000	5150 to 5250	Pass
				120	5180.020	5150 to 5250	Pass
				138	5180.020	5150 to 5250	Pass
			-30	120	5180.000	5150 to 5250	Pass
			-20	120	5180.020	5150 to 5250	Pass
			-10	120	5180.020	5150 to 5250	Pass
			0	120	5179.980	5150 to 5250	Pass
			10	120	5180.020	5150 to 5250	Pass
			30	120	5180.040	5150 to 5250	Pass
			40	120	5180.000	5150 to 5250	Pass
			50	120	5180.000	5150 to 5250	Pass
		5200	20	102	5200.000	5150 to 5250	Pass
				120	5200.020	5150 to 5250	Pass
				138	5199.980	5150 to 5250	Pass
			-30	120	5199.980	5150 to 5250	Pass
			-20	120	5200.020	5150 to 5250	Pass
			-10	120	5200.000	5150 to 5250	Pass
			0	120	5200.060	5150 to 5250	Pass
			10	120	5200.000	5150 to 5250	Pass
			30	120	5200.000	5150 to 5250	Pass
			40	120	5200.000	5150 to 5250	Pass
			50	120	5200.000	5150 to 5250	Pass
		5240	20	102	5239.980	5150 to 5250	Pass
				120	5240.020	5150 to 5250	Pass
				138	5239.960	5150 to 5250	Pass
			-30	120	5240.040	5150 to 5250	Pass
			-20	120	5240.060	5150 to 5250	Pass
			-10	120	5240.020	5150 to 5250	Pass
			0	120	5239.960	5150 to 5250	Pass
			10	120	5240.040	5150 to 5250	Pass
			30	120	5239.980	5150 to 5250	Pass
			40	120	5240.040	5150 to 5250	Pass
			50	120	5239.960	5150 to 5250	Pass
		5745	20	102	5745.000	5725 to 5850	Pass
				120	5745.020	5725 to 5850	Pass

				138	5745.000	5725 to 5850	Pass
			-30	120	5745.000	5725 to 5850	Pass
			-20	120	5744.960	5725 to 5850	Pass
			-10	120	5745.020	5725 to 5850	Pass
			0	120	5744.980	5725 to 5850	Pass
			10	120	5744.980	5725 to 5850	Pass
			30	120	5744.980	5725 to 5850	Pass
			40	120	5744.960	5725 to 5850	Pass
			50	120	5745.040	5725 to 5850	Pass
		5785	20	102	5785.020	5725 to 5850	Pass
				120	5784.960	5725 to 5850	Pass
				138	5784.980	5725 to 5850	Pass
			-30	120	5785.000	5725 to 5850	Pass
			-20	120	5784.940	5725 to 5850	Pass
			-10	120	5784.980	5725 to 5850	Pass
			0	120	5784.980	5725 to 5850	Pass
			10	120	5785.000	5725 to 5850	Pass
			30	120	5784.980	5725 to 5850	Pass
			40	120	5784.980	5725 to 5850	Pass
			50	120	5785.020	5725 to 5850	Pass
		5825	20	102	5825.060	5725 to 5850	Pass
				120	5825.000	5725 to 5850	Pass
				138	5824.980	5725 to 5850	Pass
			-30	120	5824.960	5725 to 5850	Pass
			-20	120	5824.980	5725 to 5850	Pass
			-10	120	5825.020	5725 to 5850	Pass
			0	120	5824.960	5725 to 5850	Pass
			10	120	5825.020	5725 to 5850	Pass
			30	120	5825.000	5725 to 5850	Pass
			40	120	5824.960	5725 to 5850	Pass
			50	120	5824.980	5725 to 5850	Pass
802.11ac (VHT40)	SISO	5190	20	102	5190.000	5150 to 5250	Pass
				120	5190.040	5150 to 5250	Pass
				138	5190.040	5150 to 5250	Pass
			-30	120	5190.080	5150 to 5250	Pass
			-20	120	5190.000	5150 to 5250	Pass
			-10	120	5190.000	5150 to 5250	Pass
			0	120	5190.000	5150 to 5250	Pass
			10	120	5190.040	5150 to 5250	Pass
			30	120	5190.040	5150 to 5250	Pass
			40	120	5190.040	5150 to 5250	Pass
			50	120	5190.080	5150 to 5250	Pass
		5230	20	102	5230.000	5150 to 5250	Pass
				120	5230.080	5150 to 5250	Pass

				138	5230.040	5150 to 5250	Pass
			-30	120	5230.120	5150 to 5250	Pass
			-20	120	5230.080	5150 to 5250	Pass
			-10	120	5230.040	5150 to 5250	Pass
			0	120	5230.040	5150 to 5250	Pass
			10	120	5230.080	5150 to 5250	Pass
			30	120	5230.000	5150 to 5250	Pass
			40	120	5230.080	5150 to 5250	Pass
			50	120	5230.000	5150 to 5250	Pass
		5755	20	102	5755.040	5725 to 5850	Pass
				120	5755.040	5725 to 5850	Pass
				138	5755.080	5725 to 5850	Pass
			-30	120	5755.000	5725 to 5850	Pass
			-20	120	5755.040	5725 to 5850	Pass
			-10	120	5755.000	5725 to 5850	Pass
			0	120	5755.000	5725 to 5850	Pass
			10	120	5755.040	5725 to 5850	Pass
			30	120	5755.080	5725 to 5850	Pass
			40	120	5755.000	5725 to 5850	Pass
			50	120	5755.000	5725 to 5850	Pass
		5795	20	102	5795.000	5725 to 5850	Pass
				120	5795.040	5725 to 5850	Pass
				138	5795.000	5725 to 5850	Pass
			-30	120	5795.000	5725 to 5850	Pass
			-20	120	5795.000	5725 to 5850	Pass
			-10	120	5795.000	5725 to 5850	Pass
			0	120	5795.000	5725 to 5850	Pass
			10	120	5795.040	5725 to 5850	Pass
			30	120	5795.000	5725 to 5850	Pass
			40	120	5795.040	5725 to 5850	Pass
			50	120	5795.000	5725 to 5850	Pass
802.11ac (VHT80)	SISO	5210	20	102	5210.000	5150 to 5250	Pass
				120	5210.075	5150 to 5250	Pass
				138	5210.075	5150 to 5250	Pass
			-30	120	5210.000	5150 to 5250	Pass
			-20	120	5210.000	5150 to 5250	Pass
			-10	120	5210.075	5150 to 5250	Pass
			0	120	5210.075	5150 to 5250	Pass
			10	120	5210.075	5150 to 5250	Pass
			30	120	5210.150	5150 to 5250	Pass
			40	120	5210.000	5150 to 5250	Pass
			50	120	5210.000	5150 to 5250	Pass
		5775	20	102	5775.000	5725 to 5850	Pass
				120	5775.000	5725 to 5850	Pass

				138	5775.000	5725 to 5850	Pass
			-30	120	5775.000	5725 to 5850	Pass
			-20	120	5775.000	5725 to 5850	Pass
			-10	120	5775.000	5725 to 5850	Pass
			0	120	5775.000	5725 to 5850	Pass
			10	120	5775.000	5725 to 5850	Pass
			30	120	5775.000	5725 to 5850	Pass
			40	120	5775.000	5725 to 5850	Pass
			50	120	5775.000	5725 to 5850	Pass

- End of the Report -