TEST REPORT

Application No.:	SZCR2407002905AT
Applicant:	Wyze Labs, Inc.
Address of Applicant:	5808 Lake Washington Blvd NE Ste 300, Kirkland, Washington, 98033, United States
Manufacturer:	Wyze Labs, Inc.
Address of Manufacturer:	5808 Lake Washington Blvd NE Ste 300, Kirkland, Washington, 98033, United States
Equipment Under Test (EUT):	
EUT Name:	Wyze Duo Cam Doorbell
Model No.:	GW_DBD
Trade Mark:	WYZE
FCC ID:	2AUIUGWDBD
Standard(s) :	47 CFR Part 15, Subpart E 15.407
Date of Receipt:	2024-07-25
Date of Test:	2024-08-05 to 2024-08-24
Date of Issue:	2024-09-02
Test Result:	**Pass***

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

Keny Xu
EMC Laboratory Manager

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编:518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2024-09-02		Original

Authorized for issue by:				
		Charlie Dai		
		Charlie Dai/Project Engineer		
		Eric Fu		
		Eric Fu/Reviewer		

2 Test Summary

Radio Spectrum Technical Requirement				
Item	**Standard**	**Method**	**Requirement**	**Result**
Antenna Requirement	47 CFR Part 15, Subpart E 15.407	N/A	47 CFR Part 15, Subpart C 15.203	Pass
Transmission in the Absence of Data		N/A	47 CFR Part 15, Subpart E 15.407 (c)	Pass

Radio Spectrum Matter Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)	Pass
Maximum Conducted output power		KDB 789033 D02 II E	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Radiated Emissions (Below 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions (Above 1GHz)		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Radiated Emissions which fall in the restricted bands		KDB 789033 D02 II G	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	Pass
Duty Cycle		KDB 789033 II B 1	KDB 789033 D02 II B 1	Pass
99% Bandwidth		KDB 789033 II D	N/A	Pass
26dB Emission bandwidth		KDB 789033 D02 II C 1	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Minimum 6 dB bandwidth (5.725-5.85 GHz band)		KDB 789033 D02 II C 2	47 CFR Part 15, Subpart E 15.407 (e)	Pass
Peak Power spectrum density		KDB 789033 D02 II F	47 CFR Part 15, Subpart E 15.407 (a)	Pass
Frequency Stability		ANSI C63.10 (2013) Section 6.8	47 CFR Part 15, Subpart E 15.407 (g)	Pass

3 Contents

4 General Information

4.1 Details of E.U.T.

Power supply:	Input: AC 10-24V, 10W 50/60Hz Lithium-ion rechargeable battery (3.6V, 6200mAh)
Cable(s):	N/A
Operation Frequency/Number of channels (20MHz):	5180-5240MHz (4 Channels); U-NII-3: 5745-5825MHz (5 Channels)
Modulation Type:	802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM)
Channel Spacing:	802.11a/n/ac 20: 20MHz
TPC Function:	Support TPC function
Antenna Type:	FPC Antenna
Antenna Gain:	1.64dBi
Cable Loss (for RF conducted test):	1.2dB

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

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Transformer	Provided by the customer	N/A	N/A

4.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Power Line (150kHz-30MHz)	± 3.1dB
Maximum Conducted output power	± 0.75dB
Radiated Emissions (Below 1GHz)	± 6.0dB for 3m; ± 5.0dB for 10m
Radiated Emissions (Above 1GHz)	± 4.6dB (1-18GHz);± 4.8dB (18-40GHz)
Radiated Emissions which fall in the restricted bands	± 6.0dB (below 1GHz); ± 4.6dB (above 1GHz);
Duty Cycle	± 0.37%
99% Bandwidth	± 3%
26dB Emission bandwidth	± 3%
Minimum 6 dB bandwidth (5.725-5.85 GHz band)	± 3%
Peak Power spectrum density	± 2.84dB
Frequency Stability	± 7.25 x 10-8

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

4.4 Test Location

All tests were performed at:

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

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

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

No tests were sub-contracted.

4.5 Test Facility

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

• A2LA (Certificate No. 3816.01)

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

• VCCI (Member No. 1937)

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

• FCC –Designation Number: CN1336

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

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

• Innovation, Science and Economic Development Canada

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

CAB identifier: CN0006.

IC#: 4620C.

4.6 Deviation from Standards

None

4.7 Abnormalities from Standard Conditions

None

5 Equipment List

Conducted Emissions at AC Power Line (150kHz-30MHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2022-05-14	2025-05-13
EMI Test Receiver	Rohde&Schwarz	ESCI	SEM004-02	2024-03-14	2025-03-13
Matching Pad	N/A	N/A	SEM021-23	2024-03-20	2025-03-19
Matching Pad	N/A	N/A	SEM021-24	2024-03-20	2025-03-19
Measurement Software	AUDIX	e3 V8.2014-6-27a	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM024-01	2024-07-06	2025-07-05
LISN	Rohde&Schwarz	ENV216	SEM007-01	2024-08-15	2025-08-14
LISN	ETS-LINDGREN	3816/2	SEM007-02	2024-03-14	2025-03-13

Maximum Conducted output power					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Power Sensor	TST PASS	TSPS2023R	SEM009-26	2024-03-27	2025-03-26
Power Sensor	KEYSIGHT	U2021XA	SEM009-16	2024-03-14	2025-03-13
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2024-08-14	2025-08-13
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2024-03-14	2025-03-13
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2023-09-19	2024-09-18
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2024-07-06	2025-07-05
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2024-03-27	2025-03-26
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2024-03-19	2025-03-18

Radiated Emissions (Below 1GHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
Loop Antenna	ETS-Lindgren	6502	SEM003-08	2023-11-20	2025-11-19
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2023-06-19	2026-06-18
MXE EMI Receiver	Agilent Technologies	N9038A	SEM004-15	2024-08-14	2025-08-13
BiConiLog Antenna	ETS-LINDGREN	3142C	SEM003-01	2023-09-16	2025-09-15
Pre-Amplifier	Agilent Technologies	8447D	SEM005-01	2024-03-14	2025-03-13
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM025-01	2024-07-06	2025-07-05

Radiated Emissions (Above 1GHz)					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2024-05-11	2027-05-10
Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2024-03-15	2025-03-14
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2023-07-23	2025-07-22
Microwave system amplifier	Agilent	83017A	SEM005-25	2023-09-19	2024-09-18
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2024-07-06	2025-07-05
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	SEM003-15	2024-08-10	2025-08-09
Pre-Amplifier	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2024-03-15	2025-03-14

Radiated Emissions which fall in the restricted bands					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2024-05-11	2027-05-10
Signal Analyzer	Rohde & Schwarz	FSV40	SEM008-04	2024-03-15	2025-03-14
Horn Antenna	Rohde&Schwarz	HF907	SEM003-07	2023-07-23	2025-07-22
Microwave system amplifier	Agilent	83017A	SEM005-25	2023-09-19	2024-09-18
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2024-07-06	2025-07-05

RF Conducted Test					
Equipment	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal Date**	**Cal Due Date**
DC Power Supply	Chroma	62012P-80-60	SEM011-11	2024-08-14	2025-08-13
MXA Signal Analyzer	KEYSIGHT	N9020A	SEM004-19	2024-03-14	2025-03-13
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2023-09-19	2024-09-18
Measurement Software	TST PASS	TST PASS V2.0	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM031-01	2024-07-06	2025-07-05
Attenuator	Huber+Suhner	6620_SMA-50-1	SEM021-09	2024-03-27	2025-03-26
Programmable Temperature & Humidity Chamber	Votsch Industrietechnik GmbH	VT 4002	SEM002-15	2024-03-19	2025-03-18

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

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

15.203 requirement:

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

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 1.64dBi.

Antenna location: Refer to internal photos

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

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.		

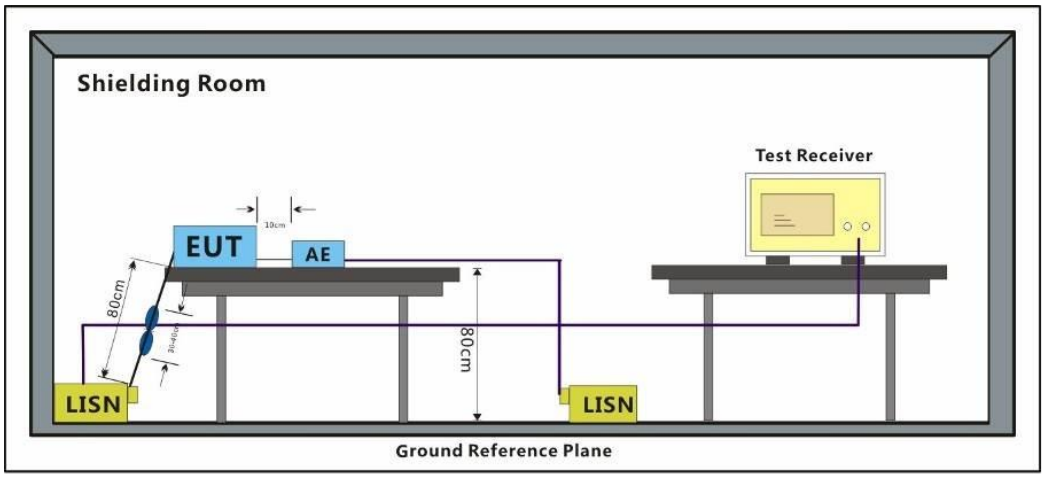
7.1.1 E.U.T. Operation

Operating Environment:
Temperature: 23.5 °C Humidity: 45.5 % RH Atmospheric Pressure: 1020 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	08	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. 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 20, Only the data of worst case is recorded in the report.
Final test	09	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. 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 20, 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.

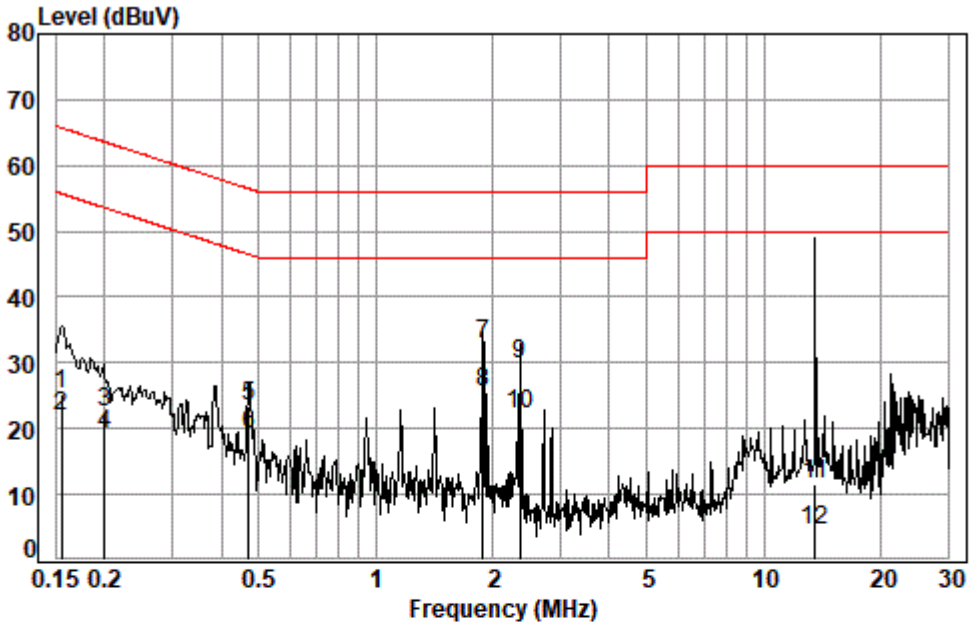
3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

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

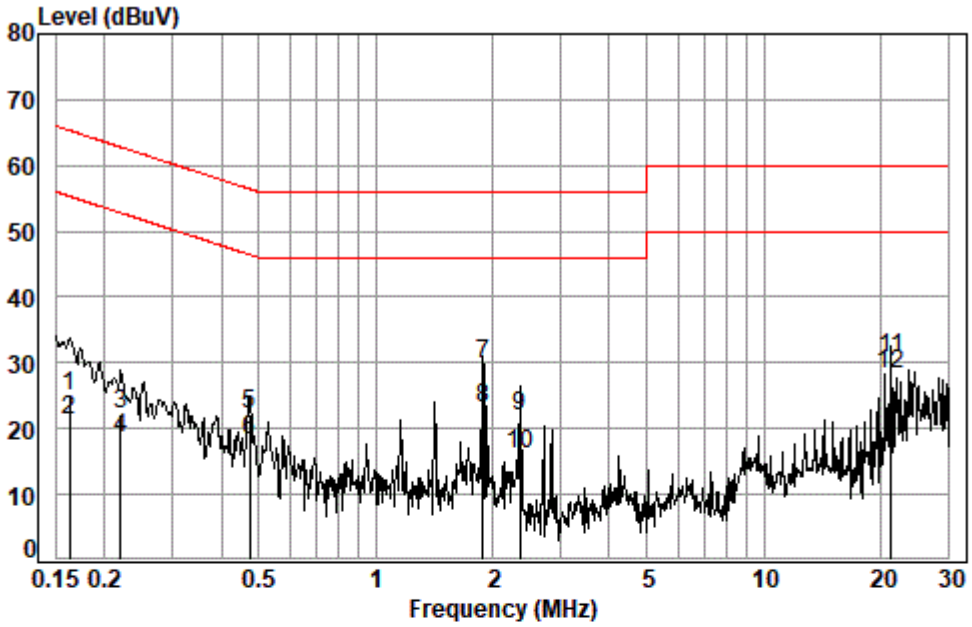
Test Mode: 09; Line: Live line



Site : Shielding Room
Condition: Line
Job No. : 02905AT/02906AT
Test mode:

		Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
		MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1		0.1548	0.02	9.89	15.26	25.17	65.74	-40.57	QP
2		0.1548	0.02	9.89	12.11	22.02	55.74	-33.72	Average
3		0.2007	0.02	9.93	12.66	22.61	63.58	-40.97	QP
4		0.2007	0.02	9.93	9.13	19.08	53.58	-34.50	Average
5		0.4711	0.04	10.00	13.23	23.27	56.49	-33.22	QP
6		0.4711	0.04	10.00	9.11	19.15	46.49	-27.34	Average
7	*	1.8879	0.07	10.01	22.91	32.99	56.00	-23.01	QP
8	*	1.8879	0.07	10.01	15.56	25.64	46.00	-20.36	Average
9		2.3585	0.07	10.02	19.81	29.90	56.00	-26.10	QP
10		2.3585	0.07	10.02	12.25	22.34	46.00	-23.66	Average
11		13.5509	0.21	10.23	1.19	11.63	60.00	-48.37	QP
12		13.5509	0.21	10.23	-5.75	4.69	50.00	-45.31	Average

Test Mode: 09; Line: Neutral Line



Site : Shielding Room
Condition: Neutral
Job No. : 02905AT/02906AT
Test mode:

		Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
		MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1		0.1624	0.02	9.89	14.92	24.83	65.34	-40.51	QP
2		0.1624	0.02	9.89	11.36	21.27	55.34	-34.07	Average
3		0.2197	0.03	9.92	12.19	22.14	62.83	-40.69	QP
4		0.2197	0.03	9.92	8.52	18.47	52.83	-34.36	Average
5		0.4736	0.04	9.92	12.26	22.22	56.45	-34.23	QP
6		0.4736	0.04	9.92	8.27	18.23	46.45	-28.22	Average
7	*	1.8879	0.07	9.96	19.82	29.85	56.00	-26.15	QP
8		1.8879	0.07	9.96	13.06	23.09	46.00	-22.91	Average
9		2.3585	0.07	9.96	11.90	21.93	56.00	-34.07	QP
10		2.3585	0.07	9.96	6.06	16.09	46.00	-29.91	Average
11		21.2596	0.28	10.30	20.29	30.87	60.00	-29.13	QP
12	*	21.2596	0.28	10.30	17.84	28.42	50.00	-21.58	Average

7.2 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.

7.2.1 E.U.T. Operation

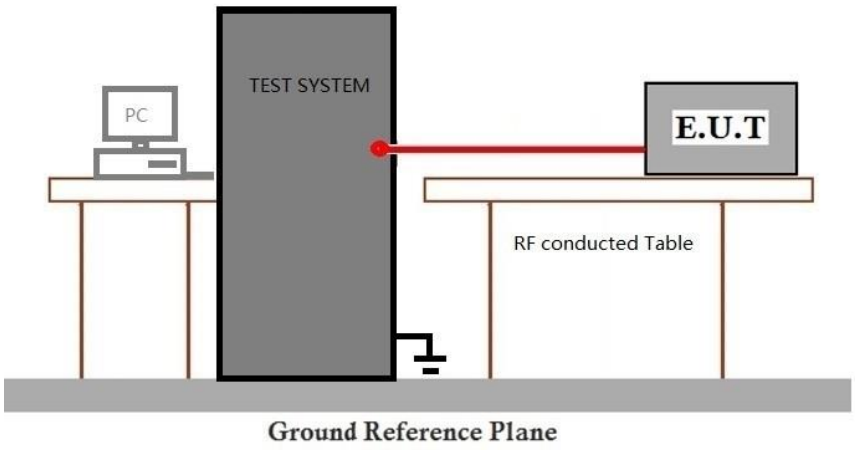
Operating Environment:

Temperature: 24.0 °C Humidity: 46.0 % RH Atmospheric Pressure: 1020 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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 20, Only the data of worst case is recorded in the report.
Final test	07	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 20, Only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



7.2.4 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

7.3 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
Measurement Distance: 3m

Limit:

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

7.3.1 E.U.T. Operation

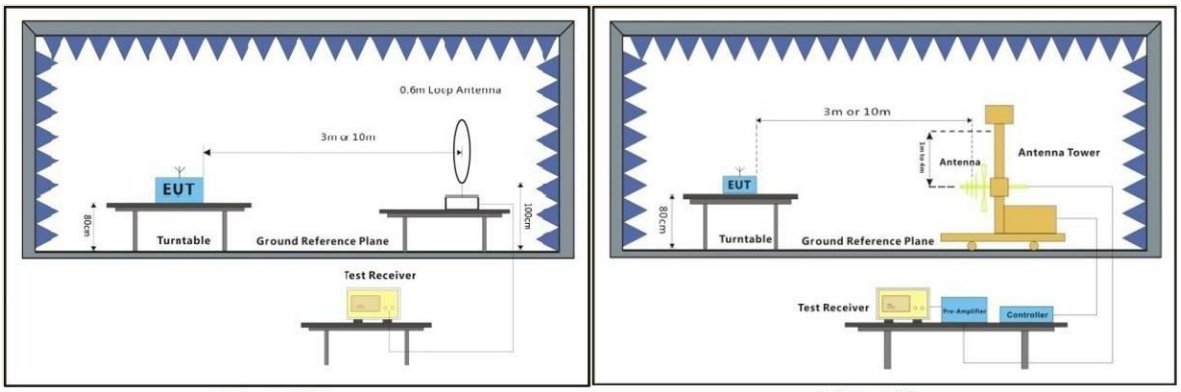
Operating Environment:
Temperature: 20.2 °C Humidity: 45.2 % RH Atmospheric Pressure: 1020 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	06	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 20, Only the data of worst case is recorded in the report.
Pre-scan	07	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 20, Only the data of worst case is recorded in the report.
Pre-scan	08	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. 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 20, Only the data of worst case is recorded in the report.
Final test	09	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. 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 20, Only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



Below 30MHz

30MHz-1GHz

7.3.4 Measurement Procedure and Data

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

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

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

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

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

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

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

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

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

Remark:

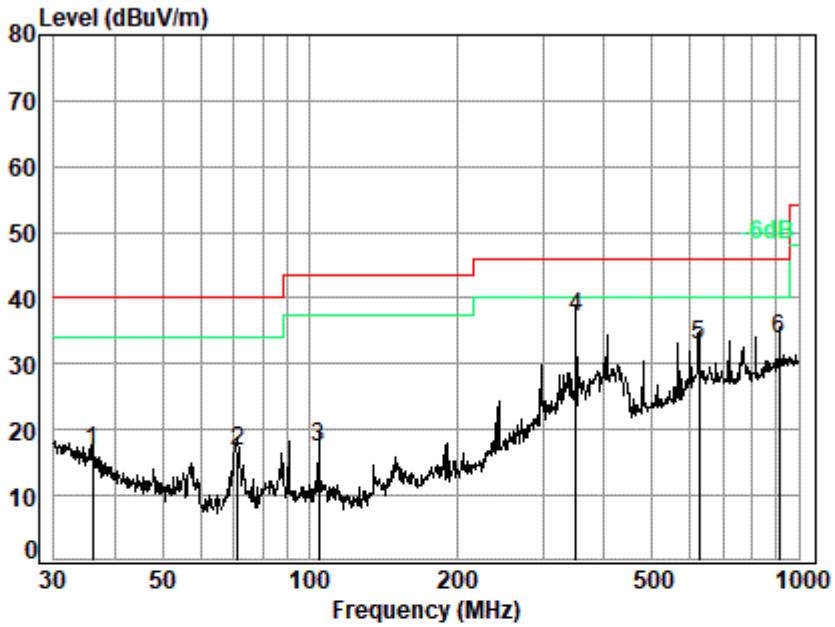
1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.

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

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.

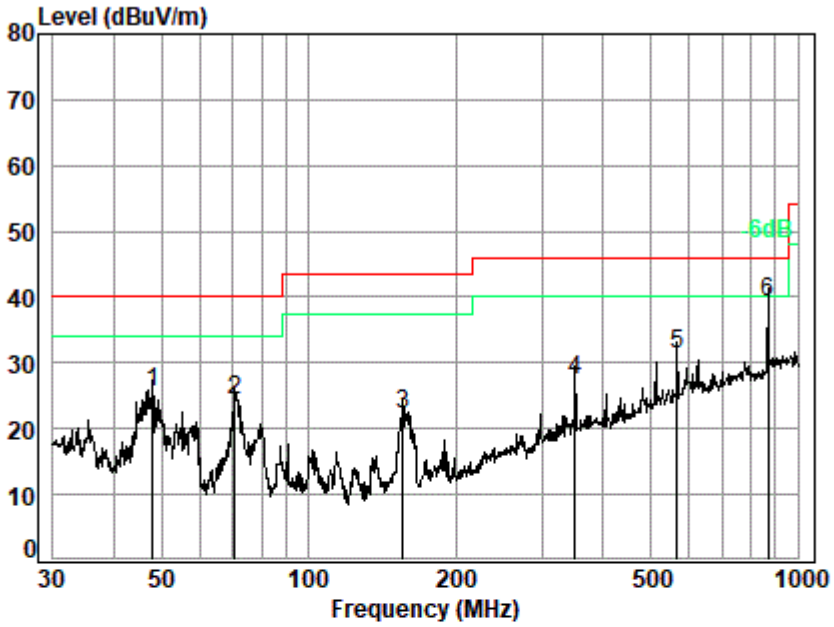
Test Mode: 09; Polarity: Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : 02906AT
Test Mode:

	Freq	Ant Factor	Cable Loss	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	36.00	18.31	0.71	27.77	25.44	16.69	40.00	-23.31	QP
2	71.33	10.53	1.00	27.67	32.88	16.74	40.00	-23.26	QP
3	104.17	12.23	1.21	27.57	31.59	17.46	43.50	-26.04	QP
4 q	350.48	19.94	2.36	26.96	41.68	37.02	46.00	-8.98	QP
5	625.08	25.07	3.29	27.91	32.43	32.88	46.00	-13.12	QP
6	912.86	28.00	4.12	26.67	28.22	33.67	46.00	-12.33	QP

Test Mode: 09; Polarity: Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : 02906AT
Test Mode:

	Freq	Ant Factor	Cable Loss	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dB	dB	dBuV	dBuV/m	dBuV/m	dB	
1	47.99	13.30	0.81	27.74	39.12	25.49	40.00	-14.51	QP
2	70.58	10.57	0.99	27.67	40.41	24.30	40.00	-15.70	QP
3	155.91	13.57	1.49	27.36	34.65	22.35	43.50	-21.15	QP
4	350.48	19.94	2.36	26.96	32.09	27.43	46.00	-18.57	QP
5	566.62	23.48	3.10	27.83	32.52	31.27	46.00	-14.73	QP
6 q	869.13	27.65	4.01	26.99	34.56	39.23	46.00	-6.77	QP

7.4 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
Measurement Distance: 3m

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.

7.4.1 E.U.T. Operation

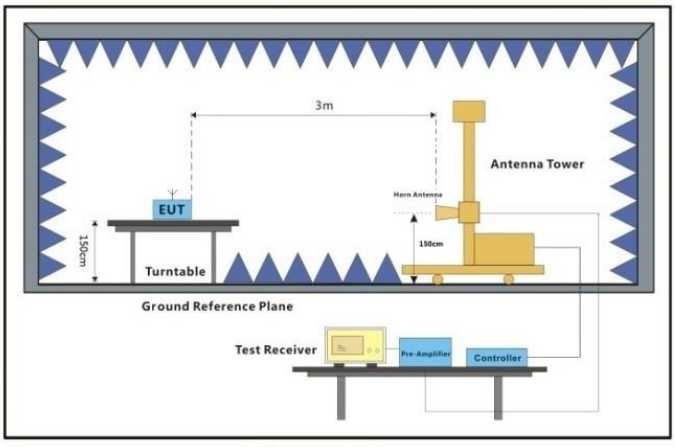
Operating Environment:

Temperature: 24.5 °C Humidity: 69.1 % RH Atmospheric Pressure: 1020 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	06	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 20, Only the data of worst case is recorded in the report.
Pre-scan	07	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 20, Only the data of worst case is recorded in the report.
Final test	08	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. 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 20, Only the data of worst case is recorded in the report.
Final test	09	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. 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 20, Only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram



Above 1GHz

7.4.4 Measurement Procedure and Data

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

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

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

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

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

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

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

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

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

Remark:

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

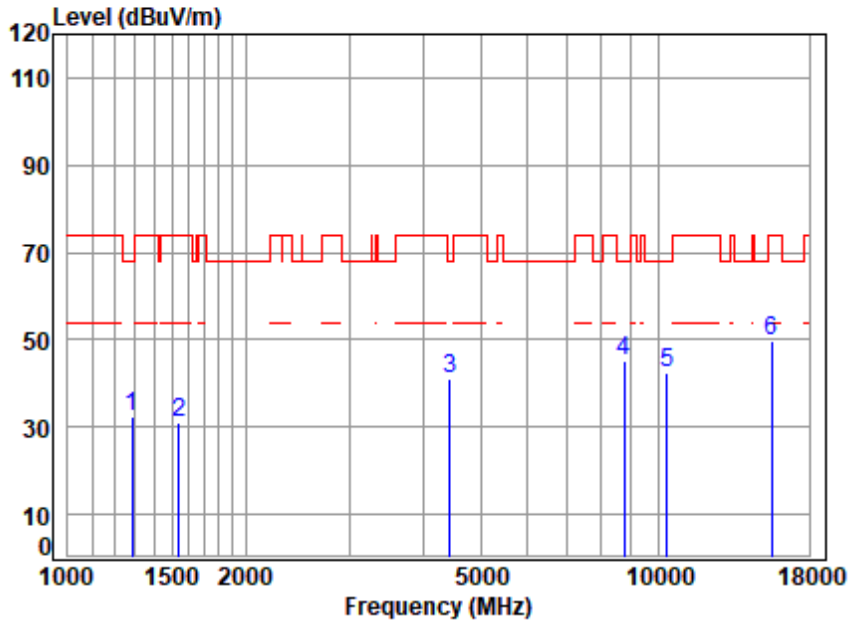
2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit 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.

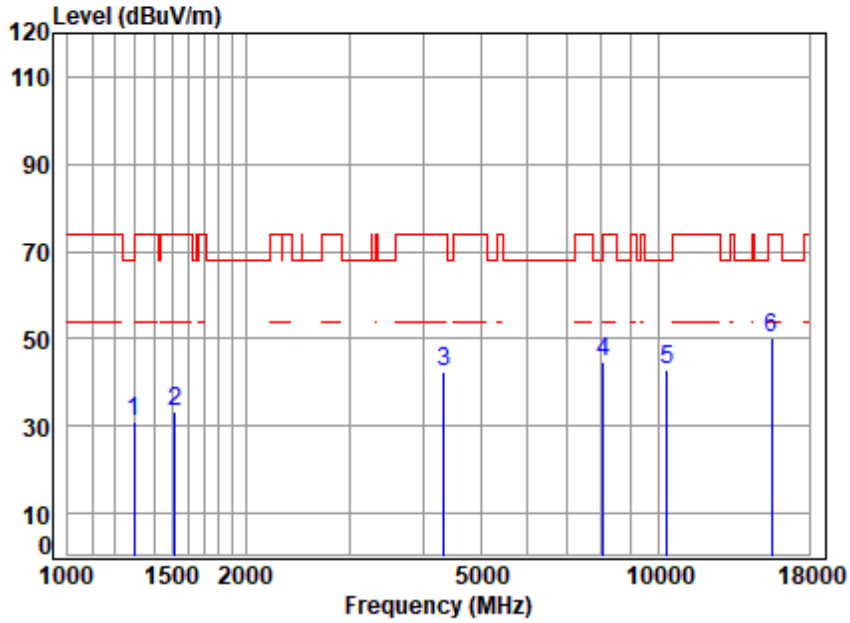
Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5180 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1285.904	3.79	24.88	61.59	65.26	32.34	68.20	-35.86	peak
2	1542.733	4.10	26.97	61.67	61.76	31.16	74.00	-42.84	peak
3	4443.453	7.19	34.28	61.58	61.33	41.22	68.20	-26.98	peak
4	p 8764.146	9.74	36.96	61.89	60.41	45.22	68.20	-22.98	peak
5	10360.000	11.14	37.10	62.35	56.69	42.58	68.20	-25.62	peak
6	15540.000	13.79	41.10	62.88	57.55	49.56	74.00	-24.44	peak

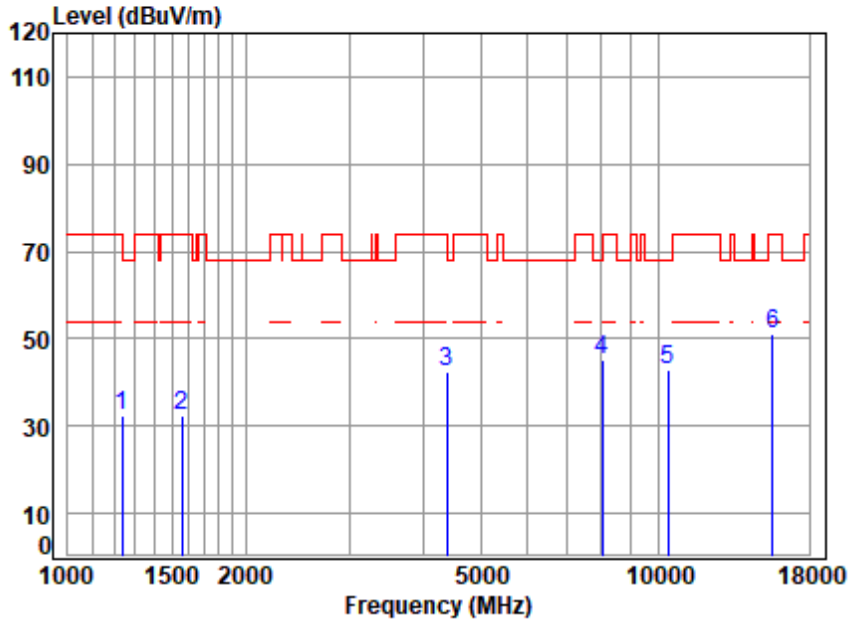
Test Mode: 08; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5180 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1293.359	3.80	24.84	61.59	63.95	31.00	68.20	-37.20	peak
2	1520.598	4.07	26.88	61.66	63.99	33.28	74.00	-40.72	peak
3	4329.354	7.05	34.23	61.48	62.68	42.48	74.00	-31.52	peak
4	8082.804	9.11	36.47	61.67	60.87	44.78	74.00	-29.22	peak
5	10360.000	11.14	37.10	62.35	57.08	42.97	68.20	-25.23	peak
6	p15540.000	13.79	41.10	62.88	58.29	50.30	74.00	-23.70	peak

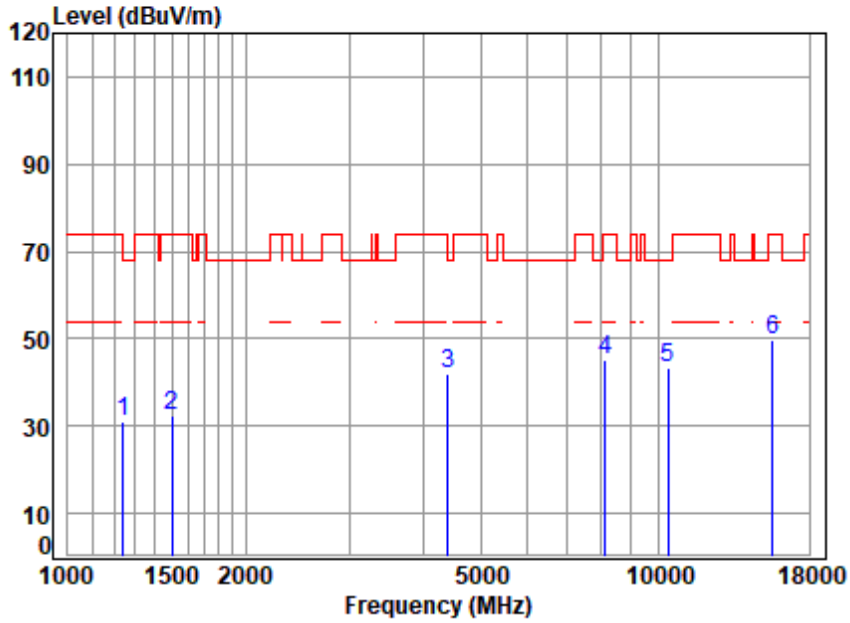
Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5200 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1234.909	3.73	24.89	61.57	65.15	32.20	74.00	-41.80	peak
2	1560.673	4.13	26.96	61.68	63.16	32.57	74.00	-41.43	peak
3	4379.699	7.11	34.64	61.52	62.10	42.33	74.00	-31.67	peak
4	8036.214	9.07	36.40	61.65	61.55	45.37	74.00	-28.63	peak
5	10400.000	11.20	37.10	62.36	57.10	43.04	68.20	-25.16	peak
6	p15600.000	13.86	41.10	62.89	59.10	51.17	74.00	-22.83	peak

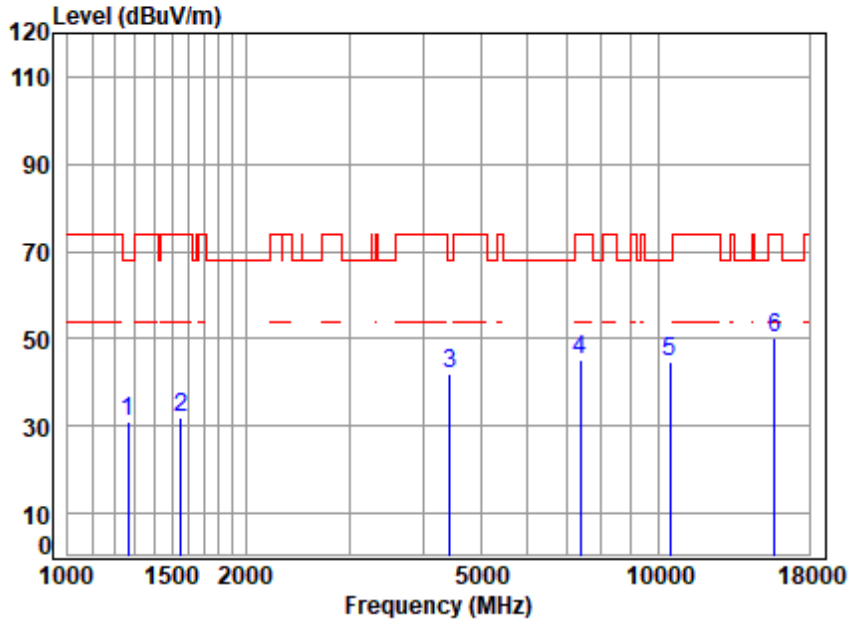
Test Mode: 08; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5200 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1242.068	3.74	24.99	61.57	63.77	30.93	68.20	-37.27	peak
2	1503.119	4.04	26.81	61.66	63.01	32.20	74.00	-41.80	peak
3	4405.090	7.14	34.74	61.55	61.67	42.00	68.20	-26.20	peak
4	8129.664	9.16	36.50	61.68	61.19	45.17	74.00	-28.83	peak
5	10400.000	11.20	37.10	62.36	57.32	43.26	68.20	-24.94	peak
6	p15600.000	13.86	41.10	62.89	57.76	49.83	74.00	-24.17	peak

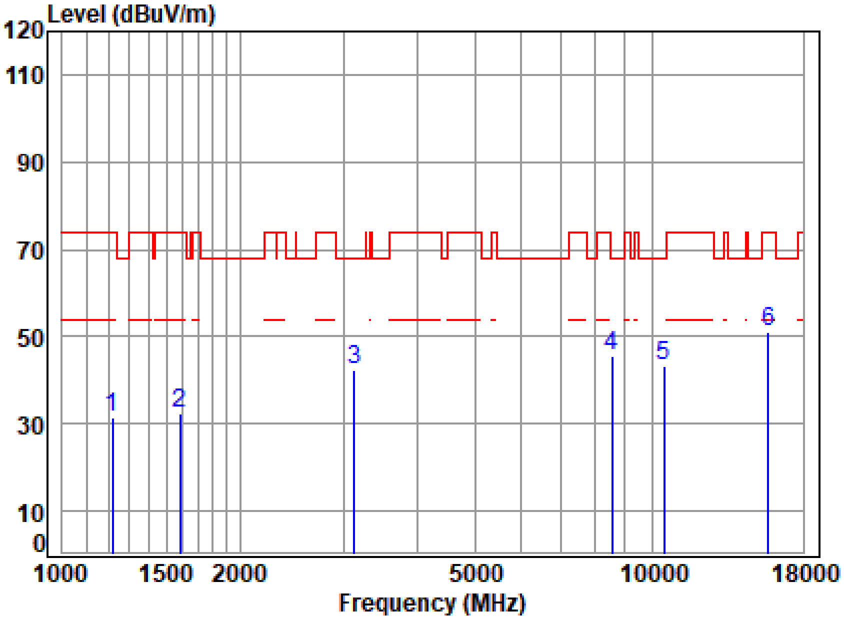
Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5240 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1267.454	3.77	25.00	61.58	64.05	31.24	68.20	-36.96	peak
2	1556.169	4.12	26.98	61.67	62.73	32.16	74.00	-41.84	peak
3	4443.453	7.19	34.28	61.58	62.08	41.97	68.20	-26.23	peak
4	7390.070	8.48	35.78	61.95	62.78	45.09	74.00	-28.91	peak
5	p10480.000	11.33	37.26	62.38	58.70	44.91	68.20	-23.29	peak
6	15720.000	14.01	41.22	62.91	57.99	50.31	74.00	-23.69	peak

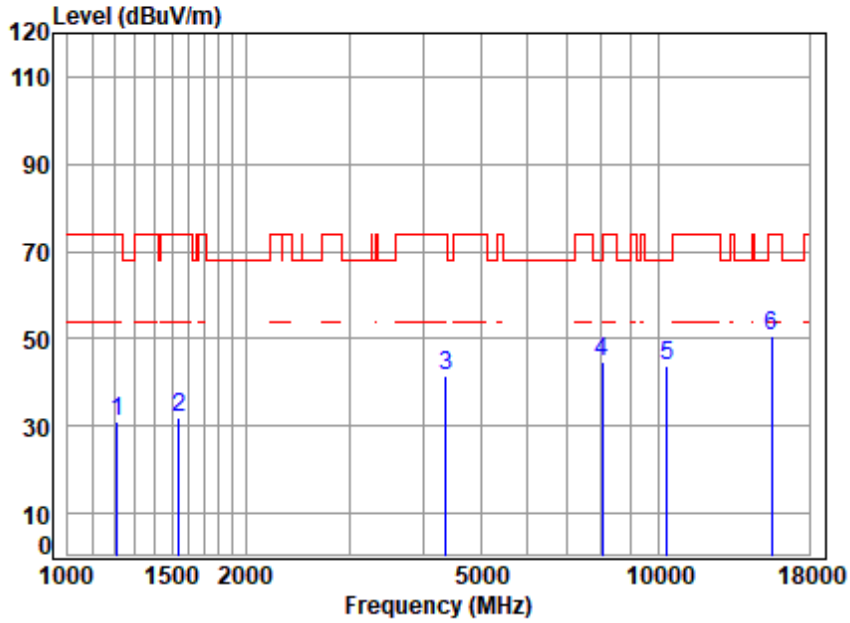
Test Mode: 08; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High




```
Site       : chamber
Condition: 3m VERTICAL
Job No     : 02905AT\02906AT
Mode       : 5240 TX RSE
Note       : 5G WIFI 11A
```

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1217.190	3.71	24.64	61.56	64.54	31.33	74.00	-42.67	peak
2	1583.392	4.16	26.87	61.68	62.89	32.24	74.00	-41.76	peak
3	3132.079	6.20	32.18	61.38	65.27	42.27	68.20	-25.93	peak
4 p	8563.818	9.58	36.83	61.83	60.87	45.45	68.20	-22.75	peak
5	10480.000	11.33	37.26	62.38	57.03	43.24	68.20	-24.96	peak
6	15720.000	14.01	41.22	62.91	58.63	50.95	74.00	-23.05	peak

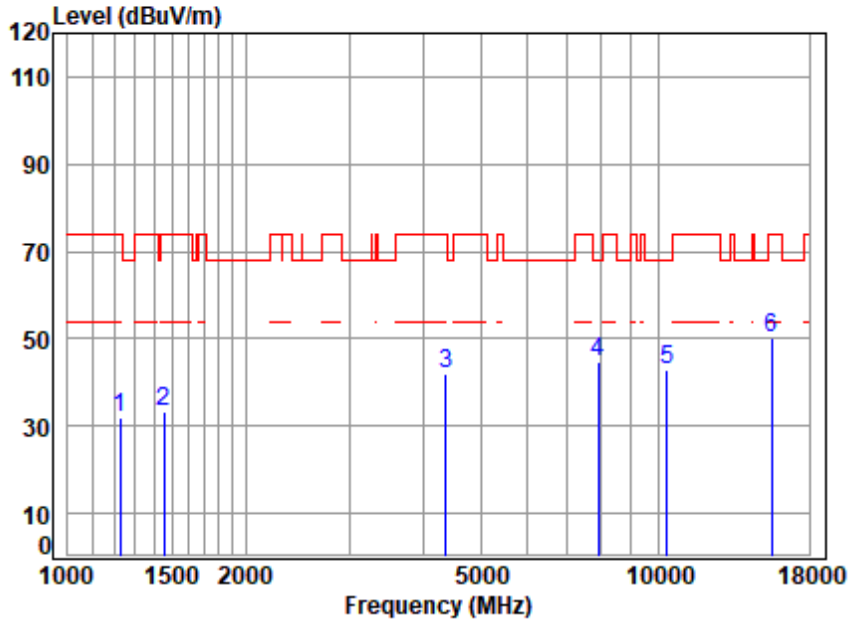
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5180 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1210.174	3.70	24.54	61.56	64.43	31.11	74.00	-42.89	peak
2	1542.733	4.10	26.97	61.67	62.64	32.04	74.00	-41.96	peak
3	4367.058	7.10	34.54	61.51	61.38	41.51	74.00	-32.49	peak
4	8036.214	9.07	36.40	61.65	60.74	44.56	74.00	-29.44	peak
5	10360.000	11.14	37.10	62.35	57.78	43.67	68.20	-24.53	peak
6	p15540.000	13.79	41.10	62.88	58.57	50.58	74.00	-23.42	peak

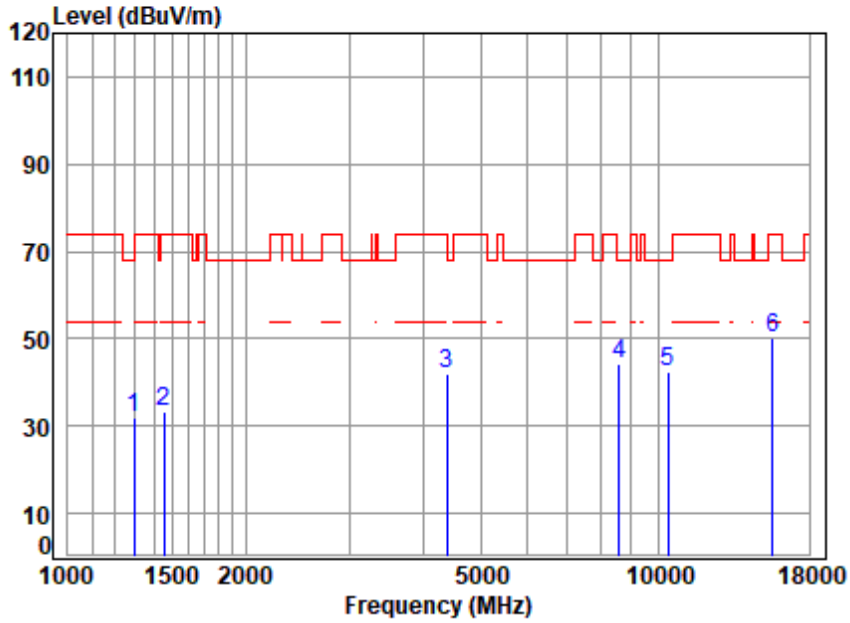
Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5180 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1227.791	3.72	24.79	61.56	65.14	32.09	74.00	-41.91	peak
2	1456.081	3.99	25.57	61.64	65.18	33.10	74.00	-40.90	peak
3	4367.058	7.10	34.54	61.51	61.64	41.77	74.00	-32.23	peak
4 p	7898.049	8.90	36.50	61.69	61.03	44.74	68.20	-23.46	peak
5	10360.000	11.14	37.10	62.35	57.12	43.01	68.20	-25.19	peak
6	15540.000	13.79	41.10	62.88	58.27	50.28	74.00	-23.72	peak

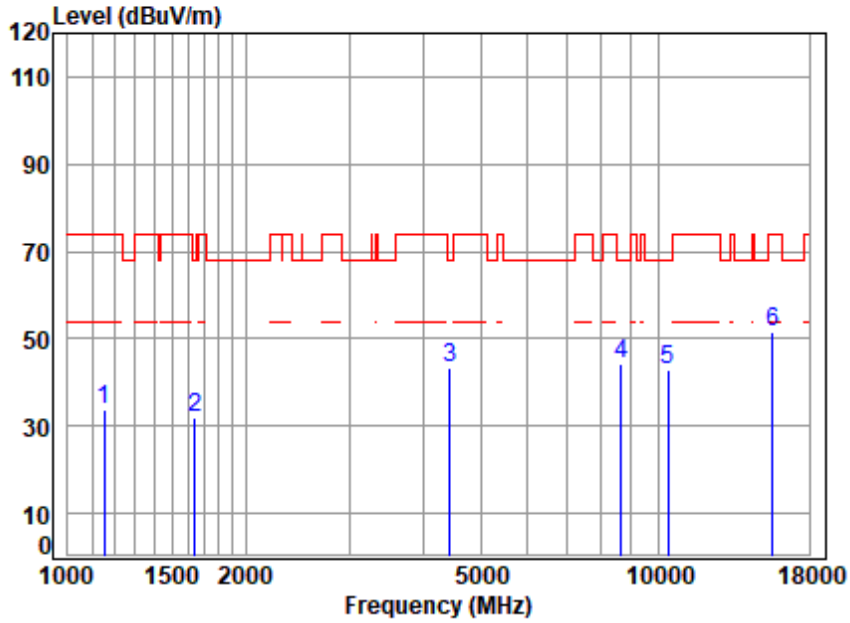
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5200 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1293.359	3.80	24.84	61.59	64.91	31.96	68.20	-36.24	peak
2	1456.081	3.99	25.57	61.64	65.20	33.12	74.00	-40.88	peak
3	4392.376	7.13	34.74	61.53	61.67	42.01	74.00	-31.99	peak
4 p	8588.607	9.60	36.88	61.84	59.77	44.41	68.20	-23.79	peak
5	10400.000	11.20	37.10	62.36	56.60	42.54	68.20	-25.66	peak
6	15600.000	13.86	41.10	62.89	58.11	50.18	74.00	-23.82	peak

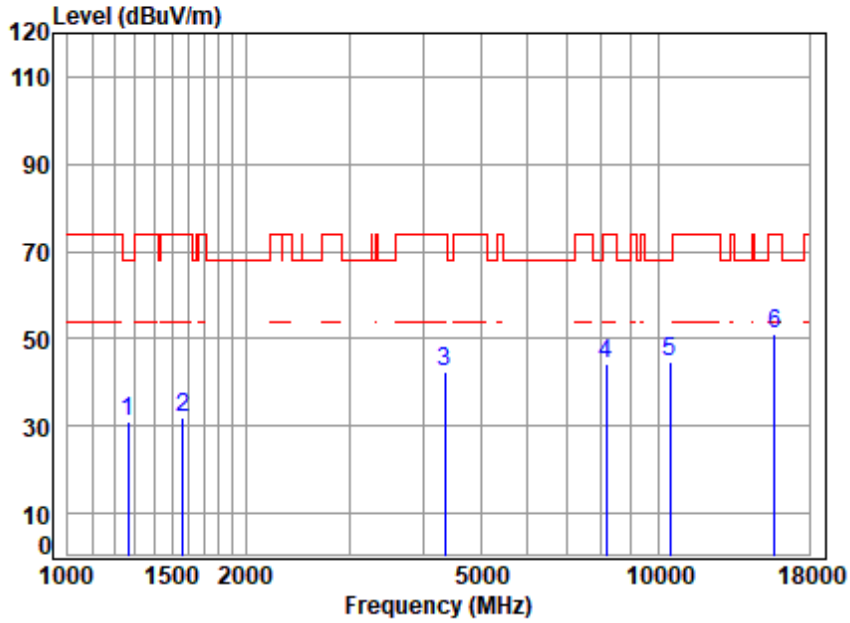
Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5200 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1152.148	3.62	23.92	61.54	67.83	33.83	74.00	-40.17	peak
2	1639.274	4.24	26.41	61.70	62.99	31.94	68.20	-36.26	peak
3	4443.453	7.19	34.28	61.58	63.31	43.20	68.20	-25.00	peak
4	8663.404	9.66	36.90	61.86	59.42	44.12	68.20	-24.08	peak
5	10400.000	11.20	37.10	62.36	56.94	42.88	68.20	-25.32	peak
6	p15600.000	13.86	41.10	62.89	59.44	51.51	74.00	-22.49	peak

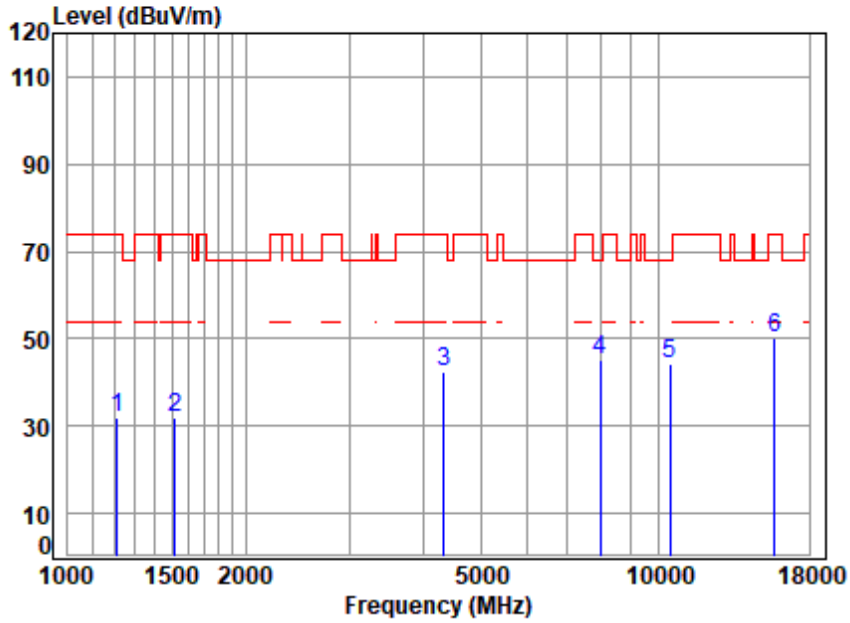
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5240 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1267.454	3.77	25.00	61.58	64.02	31.21	68.20	-36.99	peak
2	1569.721	4.14	26.92	61.68	62.79	32.17	74.00	-41.83	peak
3	4354.454	7.08	34.44	61.50	62.62	42.64	74.00	-31.36	peak
4	8153.195	9.19	36.51	61.69	60.19	44.20	74.00	-29.80	peak
5	10480.000	11.33	37.26	62.38	58.41	44.62	68.20	-23.58	peak
6	p15720.000	14.01	41.22	62.91	58.66	50.98	74.00	-23.02	peak

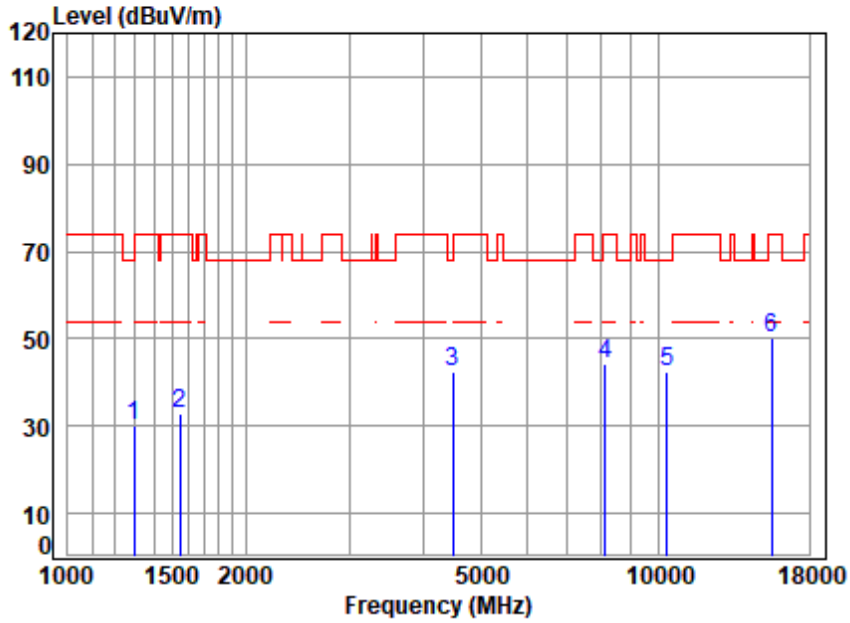
Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5240 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1213.677	3.70	24.59	61.56	65.20	31.93	74.00	-42.07	peak
2	1516.210	4.06	26.86	61.66	62.66	31.92	74.00	-42.08	peak
3	4329.354	7.05	34.23	61.48	62.62	42.42	74.00	-31.58	peak
4 p	7989.893	9.02	36.40	61.64	61.40	45.18	68.20	-23.02	peak
5	10480.000	11.33	37.26	62.38	57.99	44.20	68.20	-24.00	peak
6	15720.000	14.01	41.22	62.91	58.07	50.39	74.00	-23.61	peak

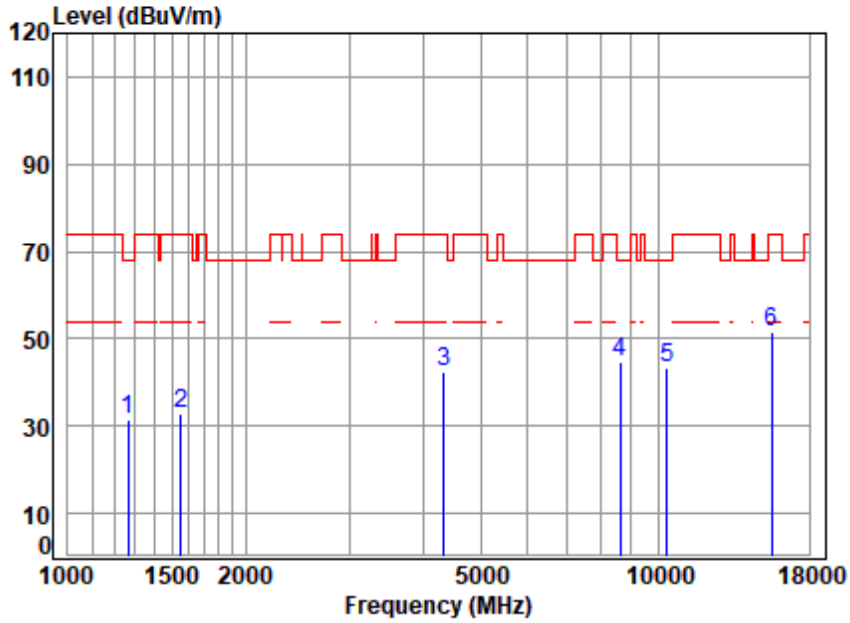
Test Mode: 08; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5180 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1297.103	3.81	24.82	61.59	63.12	30.16	68.20	-38.04	peak
2	1547.199	4.11	26.99	61.67	63.40	32.83	74.00	-41.17	peak
3	4482.150	7.23	33.81	61.61	63.00	42.43	68.20	-25.77	peak
4	8129.664	9.16	36.50	61.68	60.37	44.35	74.00	-29.65	peak
5	10360.000	11.14	37.10	62.35	56.47	42.36	68.20	-25.84	peak
6	p15540.000	13.79	41.10	62.88	58.32	50.33	74.00	-23.67	peak

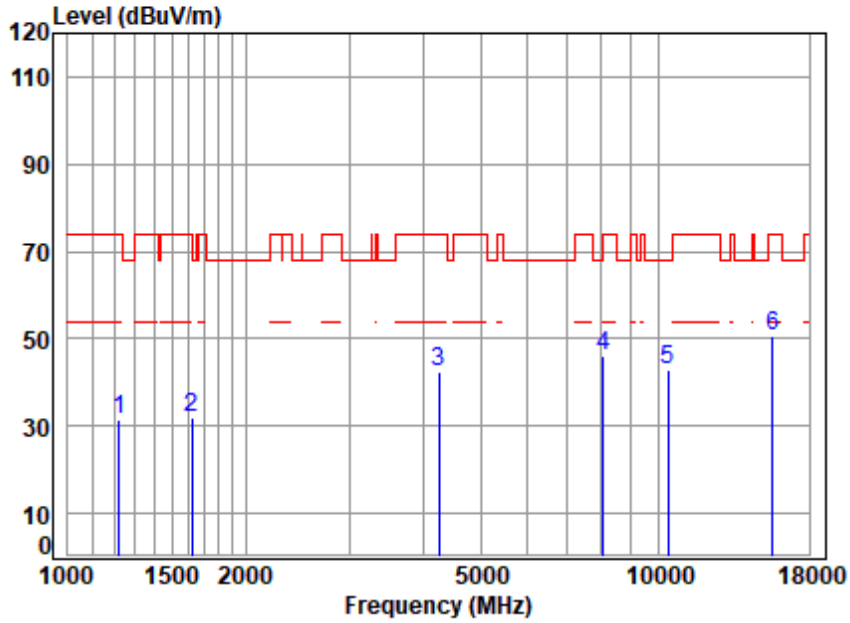
Test Mode: 08; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5180 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1267.454	3.77	25.00	61.58	64.28	31.47	68.20	-36.73	peak
2	1551.677	4.12	26.99	61.67	63.24	32.68	74.00	-41.32	peak
3	4341.886	7.07	34.34	61.49	62.58	42.50	74.00	-31.50	peak
4	8613.468	9.62	36.90	61.85	59.83	44.50	68.20	-23.70	peak
5	10360.000	11.14	37.10	62.35	57.61	43.50	68.20	-24.70	peak
6	p15540.000	13.79	41.10	62.88	59.42	51.43	74.00	-22.57	peak

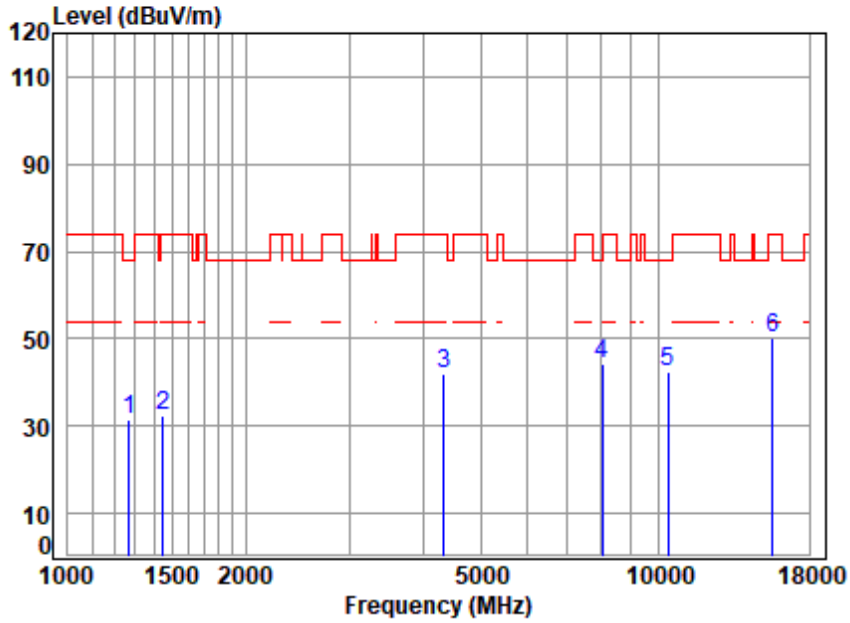
Test Mode: 08; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5200 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1224.247	3.71	24.74	61.56	64.50	31.39	74.00	-42.61	peak
2	1625.121	4.22	26.55	61.69	62.75	31.83	74.00	-42.17	peak
3	4242.641	6.95	33.80	61.40	62.92	42.27	74.00	-31.73	peak
4	8082.804	9.11	36.47	61.67	61.99	45.90	74.00	-28.10	peak
5	10400.000	11.20	37.10	62.36	57.02	42.96	68.20	-25.24	peak
6	p15600.000	13.86	41.10	62.89	58.39	50.46	74.00	-23.54	peak

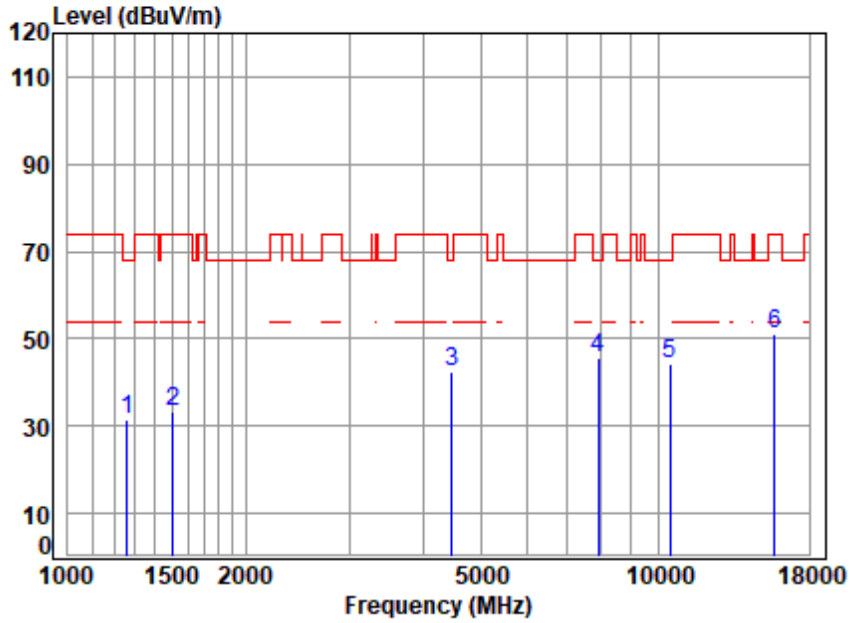
Test Mode: 08; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5200 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1271.123	3.77	24.97	61.58	64.34	31.50	68.20	-36.70	peak
2	1451.878	3.99	25.45	61.64	64.73	32.53	74.00	-41.47	peak
3	4329.354	7.05	34.23	61.48	62.14	41.94	74.00	-32.06	peak
4	8036.214	9.07	36.40	61.65	60.57	44.39	74.00	-29.61	peak
5	10400.000	11.20	37.10	62.36	56.38	42.32	68.20	-25.88	peak
6	p15600.000	13.86	41.10	62.89	58.25	50.32	74.00	-23.68	peak

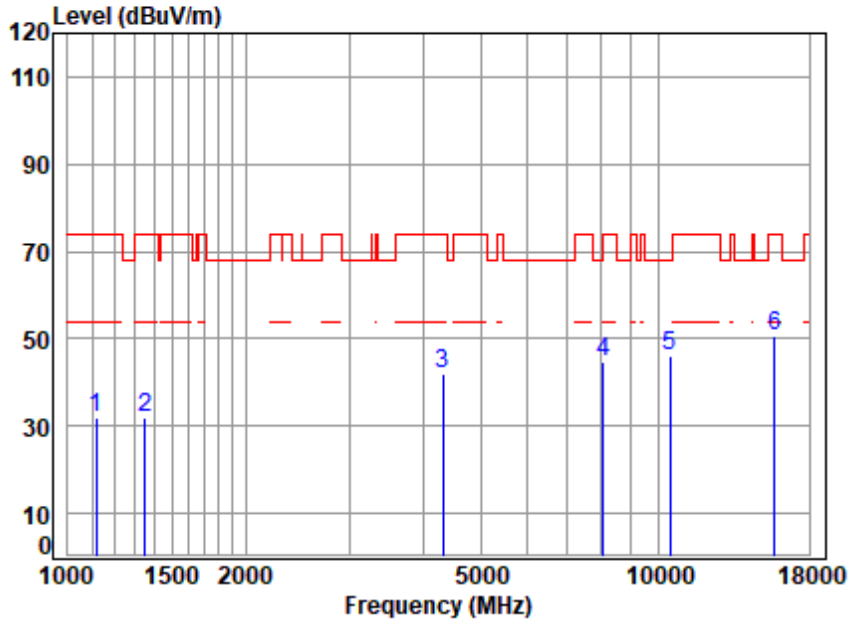
Test Mode: 08; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5240 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1260.149	3.76	25.04	61.58	64.14	31.36	68.20	-36.84	peak
2	1507.470	4.05	26.83	61.66	63.98	33.20	74.00	-40.80	peak
3	4469.214	7.22	33.97	61.60	62.63	42.22	68.20	-25.98	peak
4	p 7920.911	8.93	36.46	61.68	61.86	45.57	68.20	-22.63	peak
5	10480.000	11.33	37.26	62.38	58.15	44.36	68.20	-23.84	peak
6	15720.000	14.01	41.22	62.91	58.76	51.08	74.00	-22.92	peak

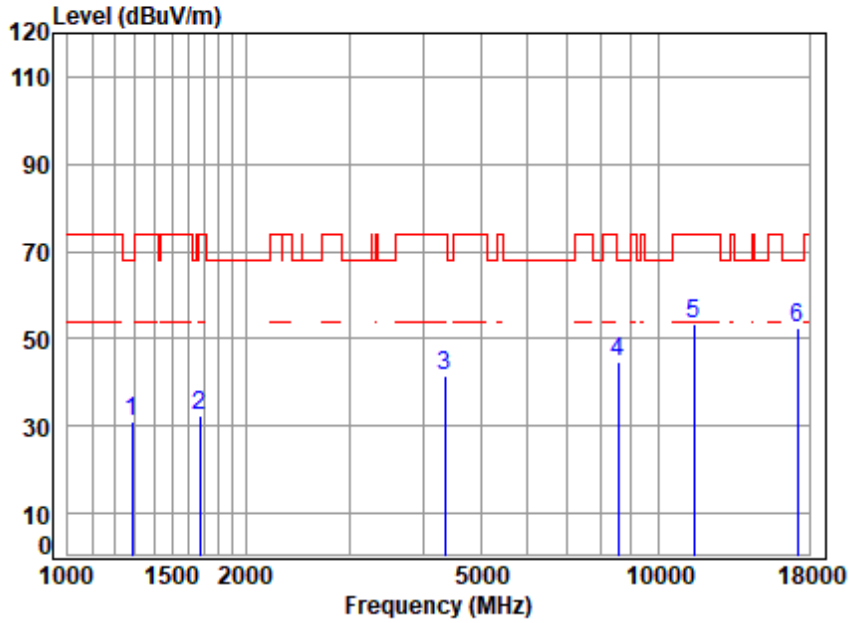
Test Mode: 08; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5240 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1116.093	3.57	23.76	61.52	65.96	31.77	74.00	-42.23	peak
2	1350.667	3.87	24.50	61.61	65.27	32.03	74.00	-41.97	peak
3	4316.859	7.04	34.13	61.47	62.46	42.16	74.00	-31.84	peak
4	8059.475	9.09	36.42	61.66	60.78	44.63	74.00	-29.37	peak
5	p10480.000	11.33	37.26	62.38	60.04	46.25	68.20	-21.95	peak
6	15720.000	14.01	41.22	62.91	58.32	50.64	74.00	-23.36	peak

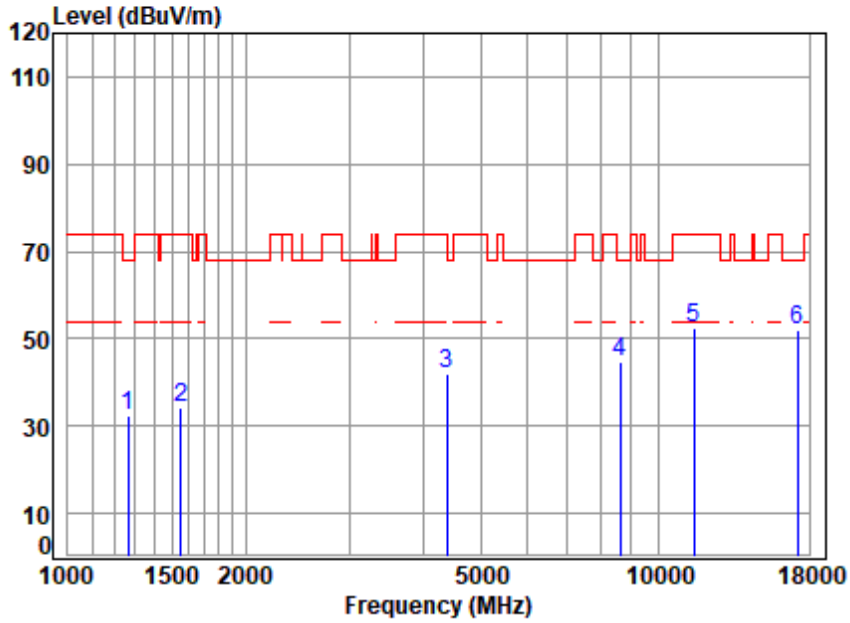
Test Mode: 09; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5745 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1285.904	3.79	24.88	61.59	64.12	31.20	68.20	-37.00	peak
2	1672.779	4.29	26.25	61.71	63.64	32.47	74.00	-41.53	peak
3	4354.454	7.08	34.44	61.50	61.69	41.71	74.00	-32.29	peak
4	8563.818	9.58	36.83	61.83	59.99	44.57	68.20	-23.63	peak
5	11490.000	11.94	37.79	62.62	66.07	53.18	74.00	-20.82	peak
6	p17235.000	14.59	43.03	61.65	56.60	52.57	68.20	-15.63	peak

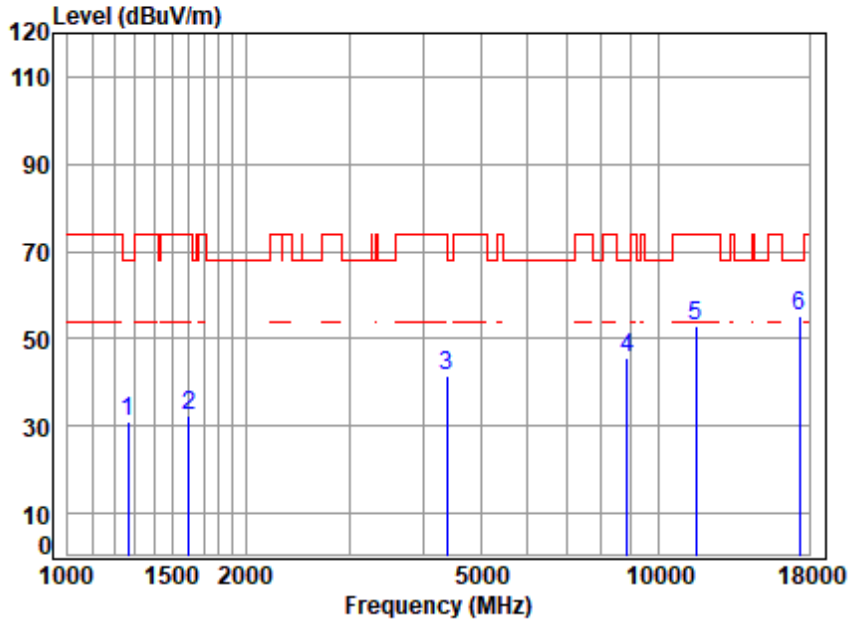
Test Mode: 09; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5745 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1263.796	3.77	25.02	61.58	65.22	32.43	68.20	-35.77	peak
2	1556.169	4.12	26.98	61.67	64.78	34.21	74.00	-39.79	peak
3	4392.376	7.13	34.74	61.53	61.85	42.19	74.00	-31.81	peak
4	8613.468	9.62	36.90	61.85	59.87	44.54	68.20	-23.66	peak
5	11490.000	11.94	37.79	62.62	65.26	52.37	74.00	-21.63	peak
6	p17235.000	14.59	43.03	61.65	55.90	51.87	68.20	-16.33	peak

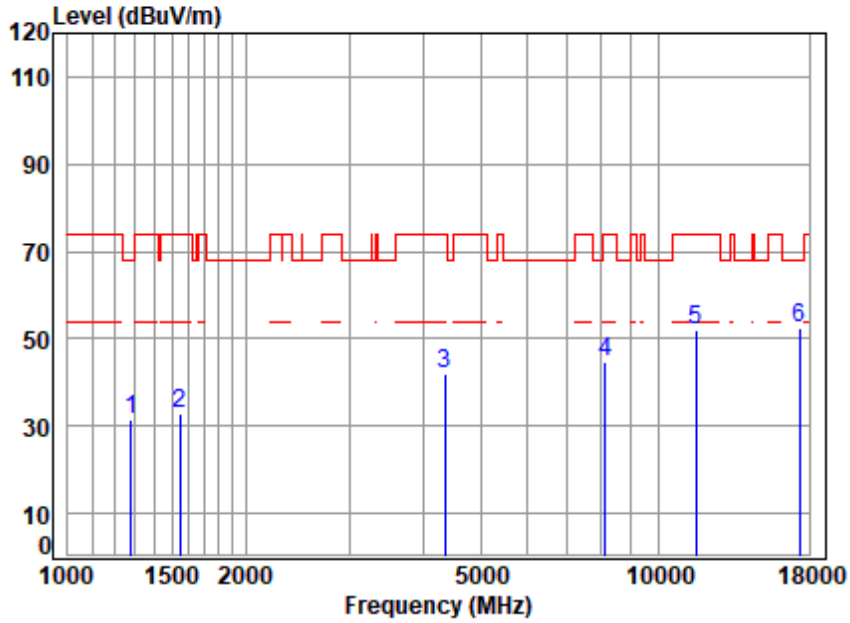
Test Mode: 09; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5785 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1267.454	3.77	25.00	61.58	63.65	30.84	68.20	-37.36	peak
2	1606.441	4.19	26.74	61.69	63.10	32.34	74.00	-41.66	peak
3	4392.376	7.13	34.74	61.53	61.32	41.66	74.00	-32.34	peak
4	8866.062	9.82	37.20	61.93	60.51	45.60	68.20	-22.60	peak
5	11570.000	11.95	37.73	62.64	66.09	53.13	74.00	-20.87	peak
6	p17355.000	14.73	43.26	61.53	58.65	55.11	68.20	-13.09	peak

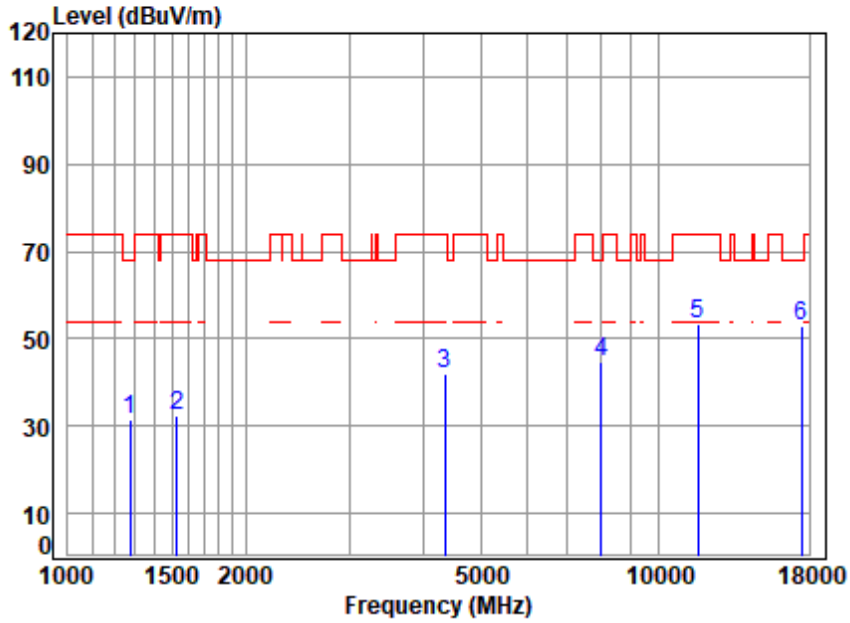
Test Mode: 09; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5785 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1278.492	3.78	24.93	61.58	64.18	31.31	68.20	-36.89	peak
2	1547.199	4.11	26.99	61.67	63.29	32.72	74.00	-41.28	peak
3	4354.454	7.08	34.44	61.50	62.14	42.16	74.00	-31.84	peak
4	8129.664	9.16	36.50	61.68	60.60	44.58	74.00	-29.42	peak
5	11570.000	11.95	37.73	62.64	65.09	52.13	74.00	-21.87	peak
6	p17355.000	14.73	43.26	61.53	56.03	52.49	68.20	-15.71	peak

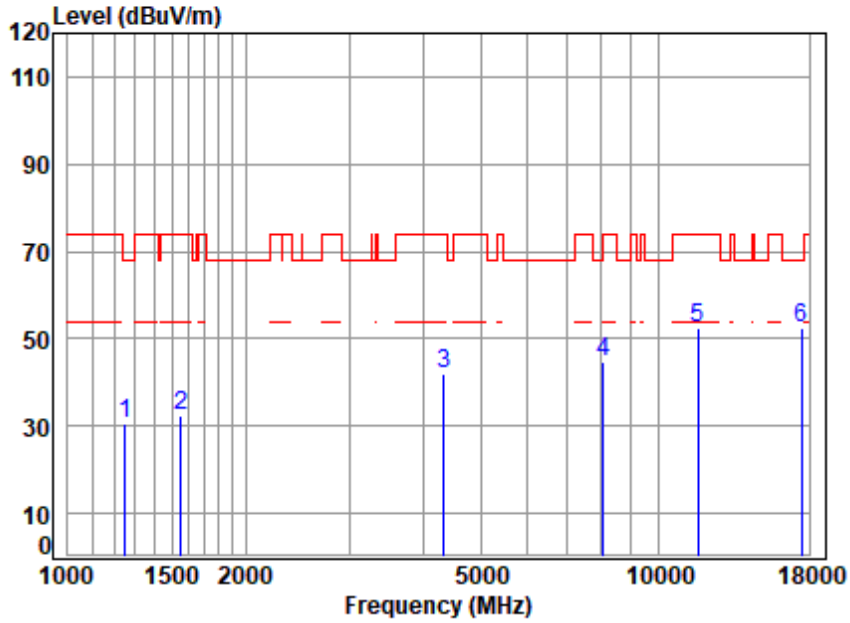
Test Mode: 09; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5825 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1274.802	3.78	24.95	61.58	64.26	31.41	68.20	-36.79	peak
2	1529.414	4.08	26.92	61.67	62.94	32.27	74.00	-41.73	peak
3	4354.454	7.08	34.44	61.50	62.01	42.03	74.00	-31.97	peak
4	8013.020	9.04	36.40	61.64	61.14	44.94	68.20	-23.26	peak
5	11650.000	11.95	37.80	62.65	66.29	53.39	74.00	-20.61	peak
6	p17475.000	14.86	43.40	61.41	55.88	52.73	68.20	-15.47	peak

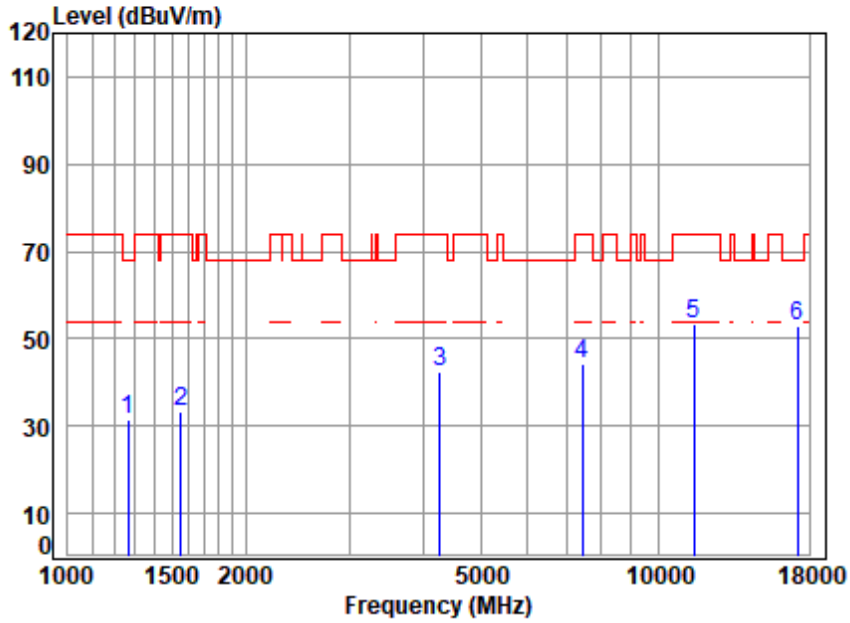
Test Mode: 09; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5825 TX RSE
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1249.269	3.75	25.09	61.57	63.46	30.73	68.20	-37.47	peak
2	1551.677	4.12	26.99	61.67	63.14	32.58	74.00	-41.42	peak
3	4329.354	7.05	34.23	61.48	62.10	41.90	74.00	-32.10	peak
4	8082.804	9.11	36.47	61.67	60.86	44.77	74.00	-29.23	peak
5	11650.000	11.95	37.80	62.65	65.24	52.34	74.00	-21.66	peak
6	p17475.000	14.86	43.40	61.41	55.65	52.50	68.20	-15.70	peak

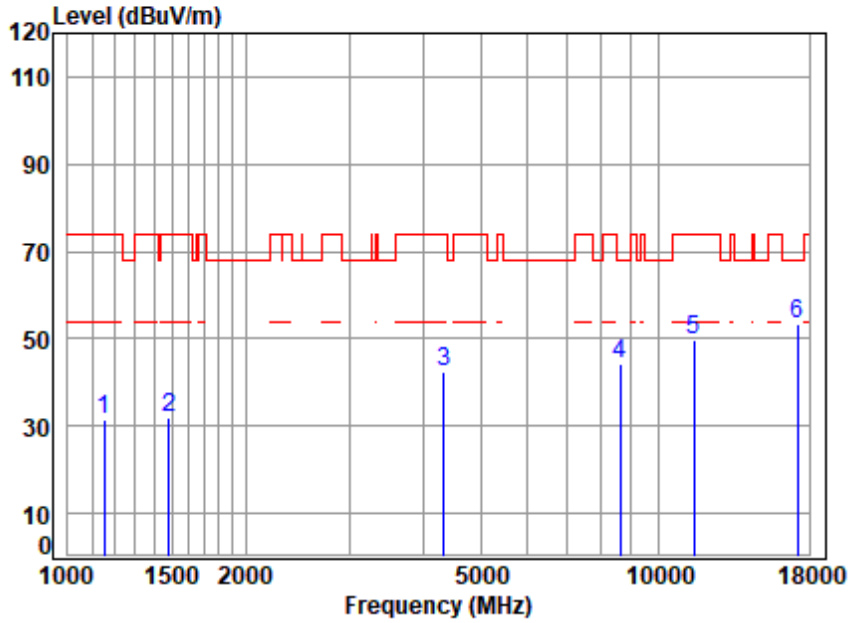
Test Mode: 09; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5745 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1267.454	3.77	25.00	61.58	64.42	31.61	68.20	-36.59	peak
2	1551.677	4.12	26.99	61.67	63.94	33.38	74.00	-40.62	peak
3	4267.237	6.98	33.87	61.42	62.82	42.25	74.00	-31.75	peak
4	7432.914	8.45	35.93	61.92	61.98	44.44	74.00	-29.56	peak
5	11490.000	11.94	37.79	62.62	66.45	53.56	74.00	-20.44	peak
6	p17235.000	14.59	43.03	61.65	56.80	52.77	68.20	-15.43	peak

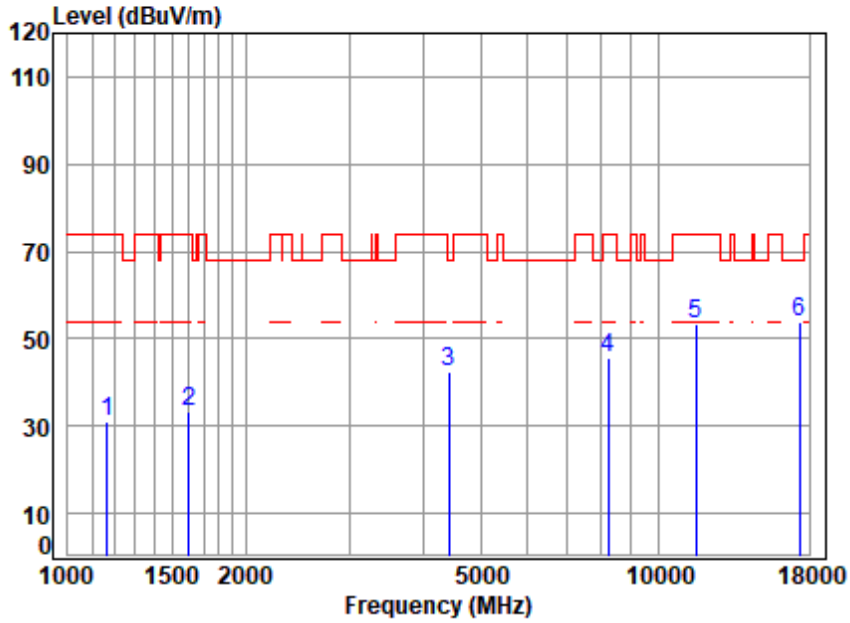
Test Mode: 09; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5745 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1152.148	3.62	23.92	61.54	65.31	31.31	74.00	-42.69	peak
2	1485.841	4.02	26.40	61.65	63.22	31.99	74.00	-42.01	peak
3	4341.886	7.07	34.34	61.49	62.32	42.24	74.00	-31.76	peak
4	8613.468	9.62	36.90	61.85	59.65	44.32	68.20	-23.88	peak
5	11490.000	11.94	37.79	62.62	62.62	49.73	74.00	-24.27	peak
6	p17235.000	14.59	43.03	61.65	57.35	53.32	68.20	-14.88	peak

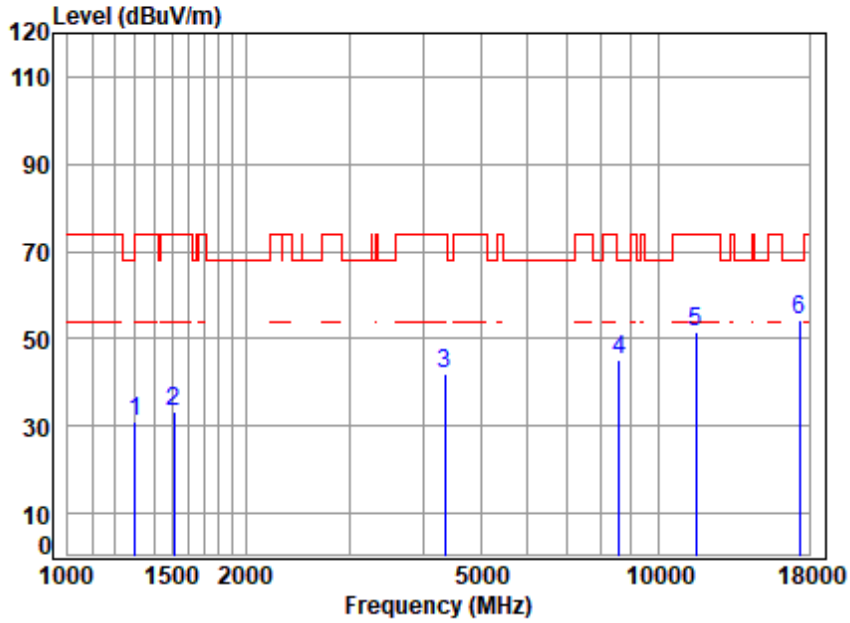
Test Mode: 09; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5785 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1165.546	3.64	24.06	61.54	64.94	31.10	74.00	-42.90	peak
2	1606.441	4.19	26.74	61.69	64.29	33.53	74.00	-40.47	peak
3	4417.841	7.16	34.59	61.56	62.28	42.47	68.20	-25.73	peak
4	8224.200	9.26	36.65	61.72	61.35	45.54	74.00	-28.46	peak
5	11570.000	11.95	37.73	62.64	66.48	53.52	74.00	-20.48	peak
6	p17355.000	14.73	43.26	61.53	57.25	53.71	68.20	-14.49	peak

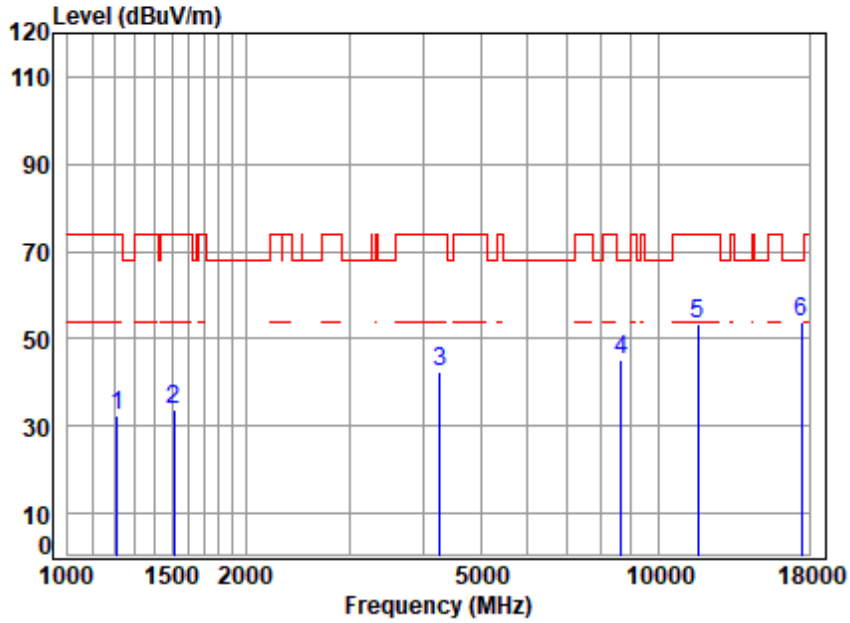
Test Mode: 09; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5785 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1300.858	3.81	24.79	61.59	64.21	31.22	74.00	-42.78	peak
2	1511.833	4.06	26.85	61.66	63.88	33.13	74.00	-40.87	peak
3	4354.454	7.08	34.44	61.50	61.94	41.96	74.00	-32.04	peak
4	8588.607	9.60	36.88	61.84	60.51	45.15	68.20	-23.05	peak
5	11570.000	11.95	37.73	62.64	64.71	51.75	74.00	-22.25	peak
6	p17355.000	14.73	43.26	61.53	57.68	54.14	68.20	-14.06	peak

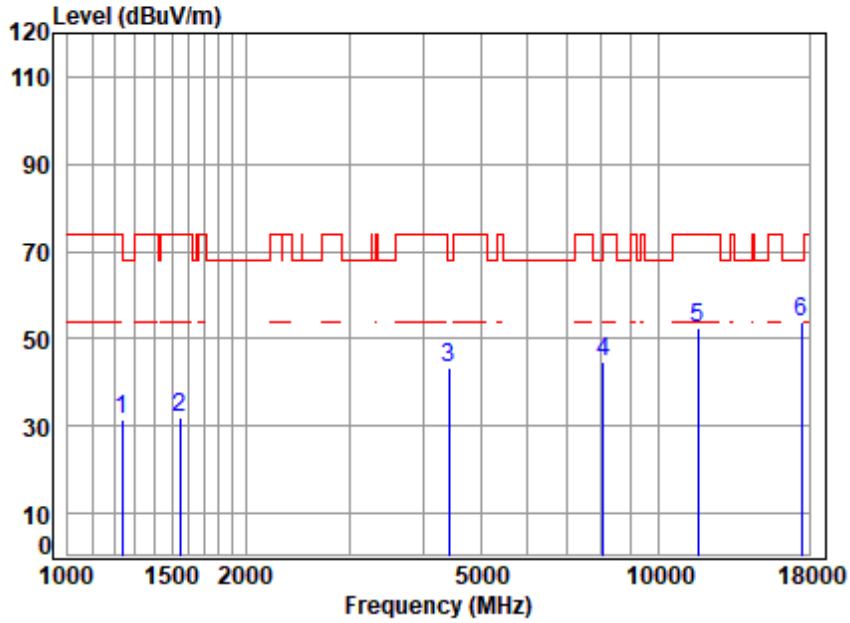
Test Mode: 09; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5825 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1210.174	3.70	24.54	61.56	65.64	32.32	74.00	-41.68	peak
2	1511.833	4.06	26.85	61.66	64.37	33.62	74.00	-40.38	peak
3	4267.237	6.98	33.87	61.42	62.98	42.41	74.00	-31.59	peak
4	8663.404	9.66	36.90	61.86	60.67	45.37	68.20	-22.83	peak
5	11650.000	11.95	37.80	62.65	66.28	53.38	74.00	-20.62	peak
6	p17475.000	14.86	43.40	61.41	57.10	53.95	68.20	-14.25	peak

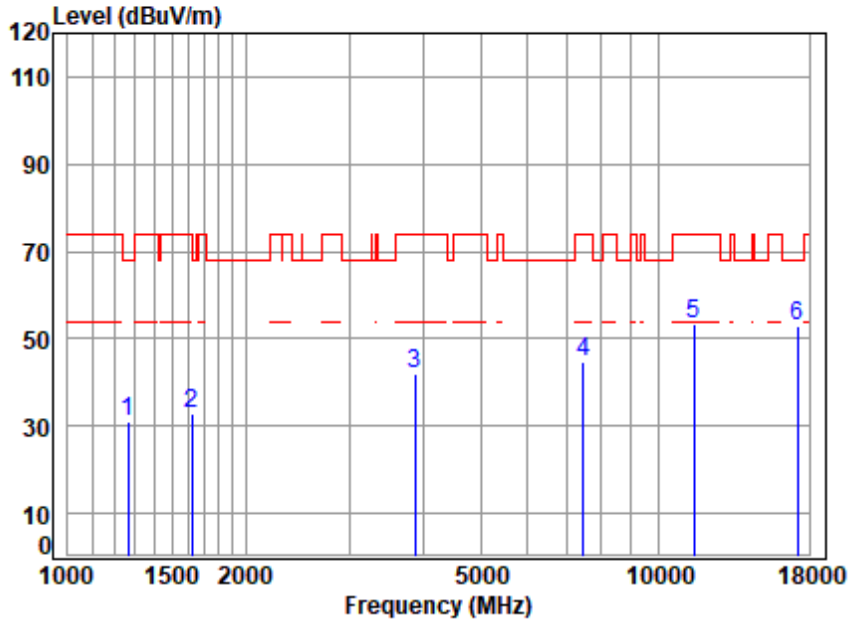
Test Mode: 09; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5825 TX RSE
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1234.909	3.73	24.89	61.57	64.45	31.50	74.00	-42.50	peak
2	1547.199	4.11	26.99	61.67	62.63	32.06	74.00	-41.94	peak
3	4417.841	7.16	34.59	61.56	62.96	43.15	68.20	-25.05	peak
4	8082.804	9.11	36.47	61.67	60.82	44.73	74.00	-29.27	peak
5	11650.000	11.95	37.80	62.65	65.36	52.46	74.00	-21.54	peak
6	p17475.000	14.86	43.40	61.41	56.82	53.67	68.20	-14.53	peak

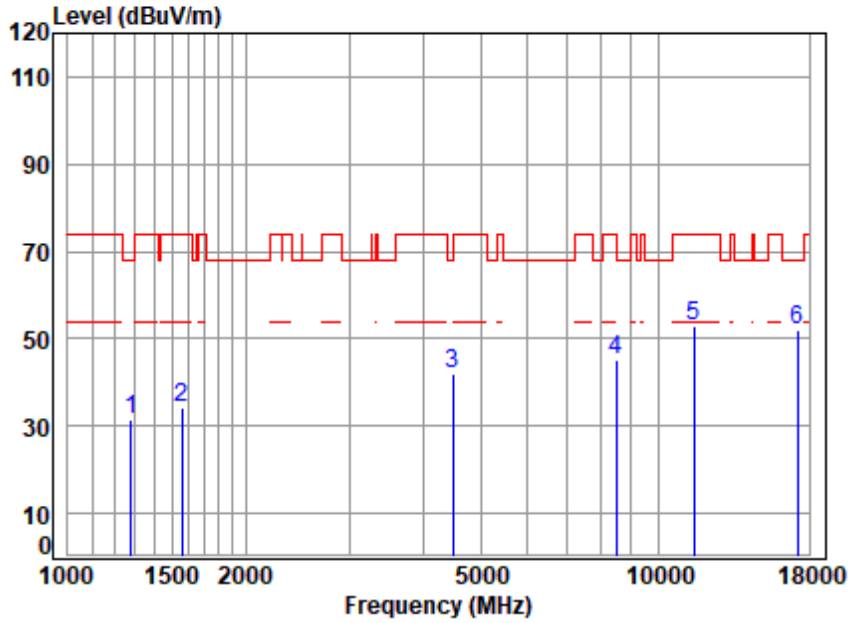
Test Mode: 09; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5745 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1263.796	3.77	25.02	61.58	64.00	31.21	68.20	-36.99	peak
2	1620.431	4.21	26.60	61.69	63.83	32.95	74.00	-41.05	peak
3	3879.027	6.62	33.51	61.20	63.25	42.18	74.00	-31.82	peak
4	7454.429	8.43	36.01	61.91	62.21	44.74	74.00	-29.26	peak
5	11490.000	11.94	37.79	62.62	66.17	53.28	74.00	-20.72	peak
6	p17235.000	14.59	43.03	61.65	56.94	52.91	68.20	-15.29	peak

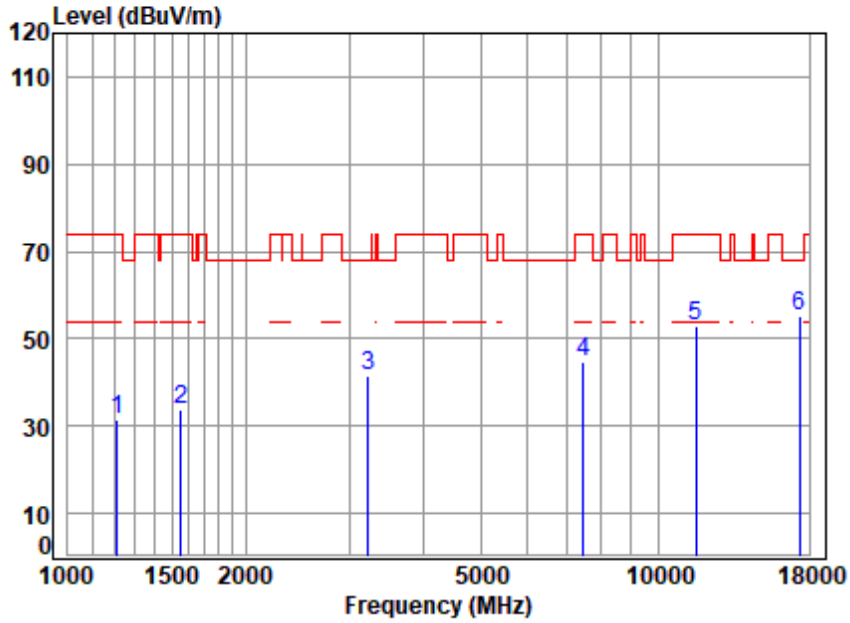
Test Mode: 09; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5745 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1278.492	3.78	24.93	61.58	64.46	31.59	68.20	-36.61	peak
2	1560.673	4.13	26.96	61.68	64.63	34.04	74.00	-39.96	peak
3	4482.150	7.23	33.81	61.61	62.64	42.07	68.20	-26.13	peak
4	8489.882	9.52	36.68	61.81	60.86	45.25	74.00	-28.75	peak
5	11490.000	11.94	37.79	62.62	65.66	52.77	74.00	-21.23	peak
6	p17235.000	14.59	43.03	61.65	56.13	52.10	68.20	-16.10	peak

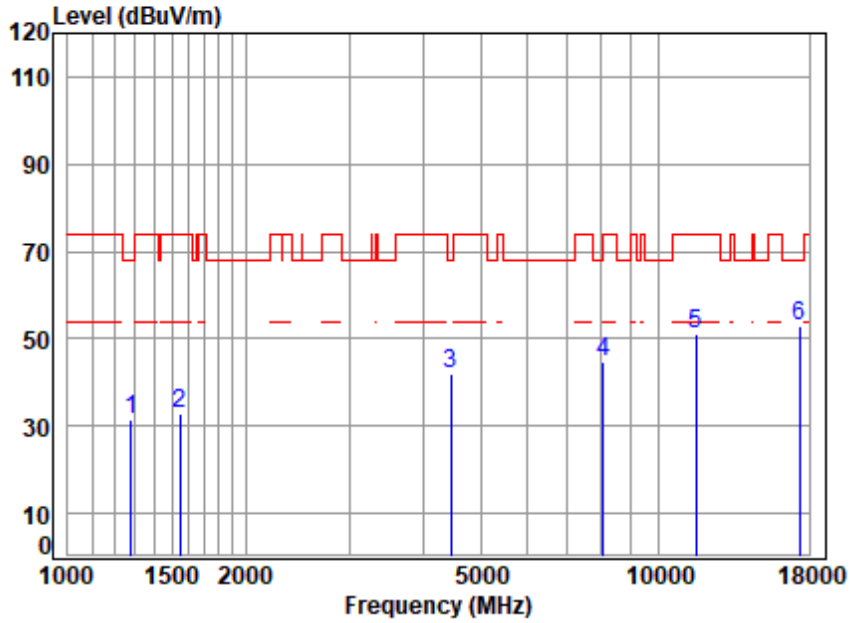
Test Mode: 09; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5785 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1213.677	3.70	24.59	61.56	64.82	31.55	74.00	-42.45	peak
2	1551.677	4.12	26.99	61.67	64.12	33.56	74.00	-40.44	peak
3	3223.928	6.28	32.52	61.36	64.06	41.50	68.20	-26.70	peak
4	7476.006	8.42	36.05	61.90	62.16	44.73	74.00	-29.27	peak
5	11570.000	11.95	37.73	62.64	65.89	52.93	74.00	-21.07	peak
6	p17355.000	14.73	43.26	61.53	58.66	55.12	68.20	-13.08	peak

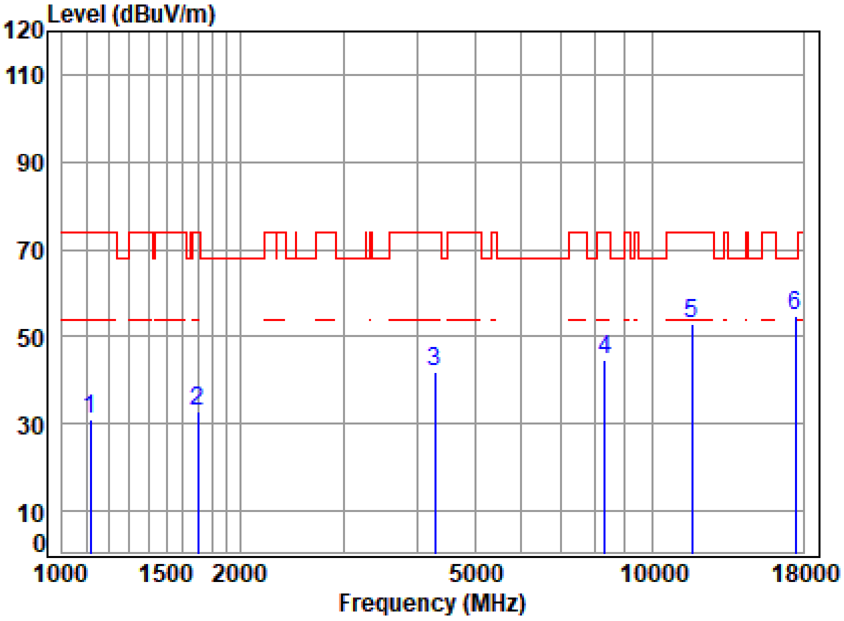
Test Mode: 09; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5785 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1282.193	3.79	24.91	61.58	64.15	31.27	68.20	-36.93	peak
2	1547.199	4.11	26.99	61.67	63.40	32.83	74.00	-41.17	peak
3	4456.315	7.20	34.12	61.59	62.14	41.87	68.20	-26.33	peak
4	8059.475	9.09	36.42	61.66	60.79	44.64	74.00	-29.36	peak
5	11570.000	11.95	37.73	62.64	63.97	51.01	74.00	-22.99	peak
6	p17355.000	14.73	43.26	61.53	56.44	52.90	68.20	-15.30	peak

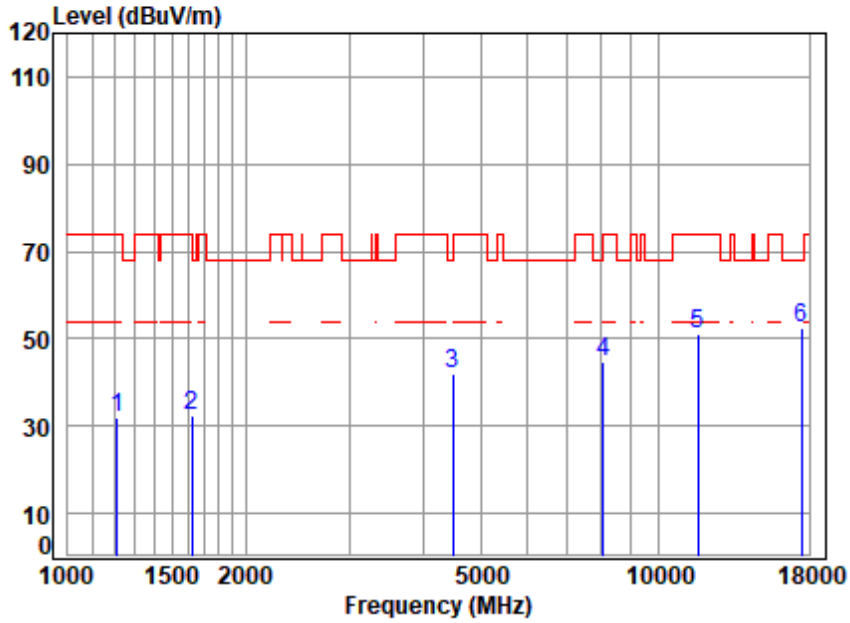
Test Mode: 09; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5825 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1116.093	3.57	23.76	61.52	65.29	31.10	74.00	-42.90	peak
2	1702.042	4.33	26.22	61.72	64.06	32.89	74.00	-41.11	peak
3	4291.977	7.01	33.97	61.44	62.48	42.02	74.00	-31.98	peak
4	8319.836	9.35	36.70	61.75	60.37	44.67	74.00	-29.33	peak
5	11650.000	11.95	37.80	62.65	65.88	52.98	74.00	-21.02	peak
6	p17475.000	14.86	43.40	61.41	57.86	54.71	68.20	-13.49	peak

Test Mode: 09; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5825 TX RSE
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	1210.174	3.70	24.54	61.56	65.19	31.87	74.00	-42.13	peak
2	1625.121	4.22	26.55	61.69	63.41	32.49	74.00	-41.51	peak
3	4495.125	7.24	33.66	61.62	62.57	41.85	68.20	-26.35	peak
4	8082.804	9.11	36.47	61.67	60.67	44.58	74.00	-29.42	peak
5	11650.000	11.95	37.80	62.65	64.14	51.24	74.00	-22.76	peak
6	p17475.000	14.86	43.40	61.41	55.77	52.62	68.20	-15.58	peak

7.5 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)
Test Method: KDB 789033 D02 II G
Measurement Distance: 3m

Limit:

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

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

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

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

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

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

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

7.5.1 E.U.T. Operation

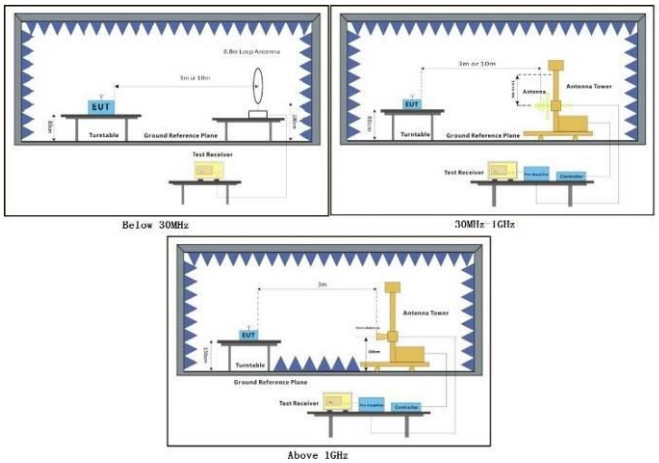
Operating Environment:

Temperature: 24.5 °C Humidity: 69.1 % RH Atmospheric Pressure: 1020 mbar

7.5.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan	06	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 20, Only the data of worst case is recorded in the report.
Pre-scan	07	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 20, Only the data of worst case is recorded in the report.
Final test	08	Charge + TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. 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 20, Only the data of worst case is recorded in the report.
Final test	09	Charge + TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types and being charged. 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 20, Only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 Measurement Procedure and Data

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

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

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

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

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

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

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

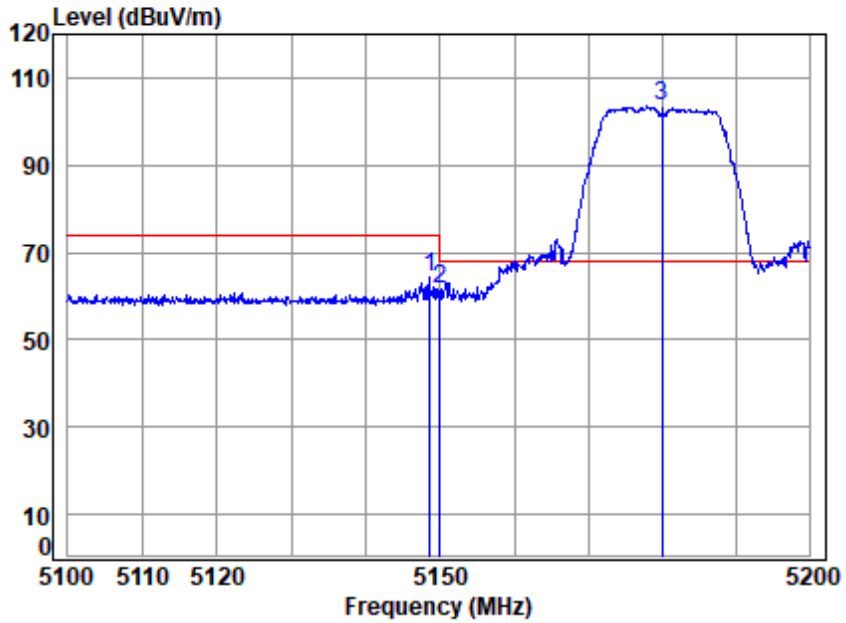
h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

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

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

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

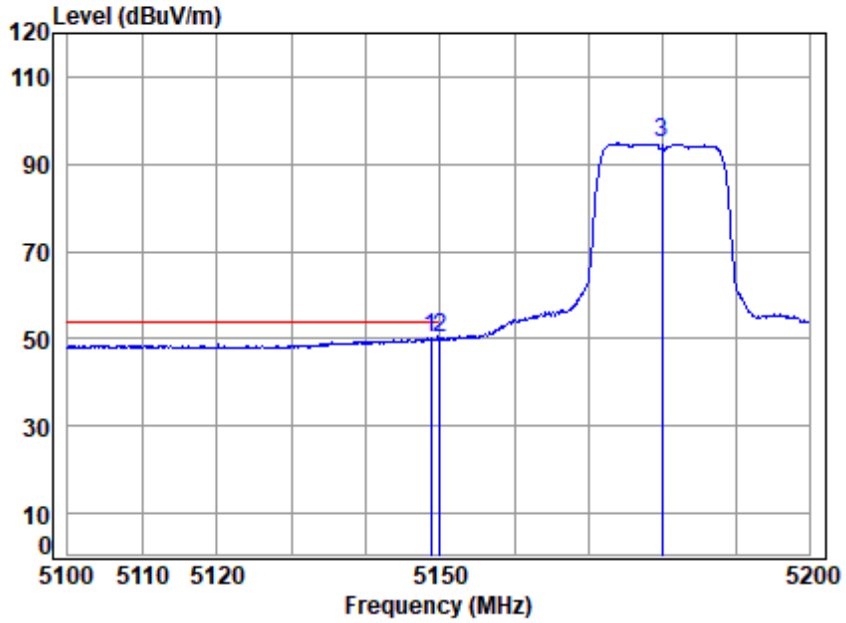
Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5148.558	18.83	33.90	35.31	46.74	64.16	74.00	-9.84	peak
2	5149.980	18.83	33.90	35.31	44.37	61.79	74.00	-12.21	peak
3 p	5180.000	18.88	33.96	35.29	85.89	103.44	68.20	35.24	peak

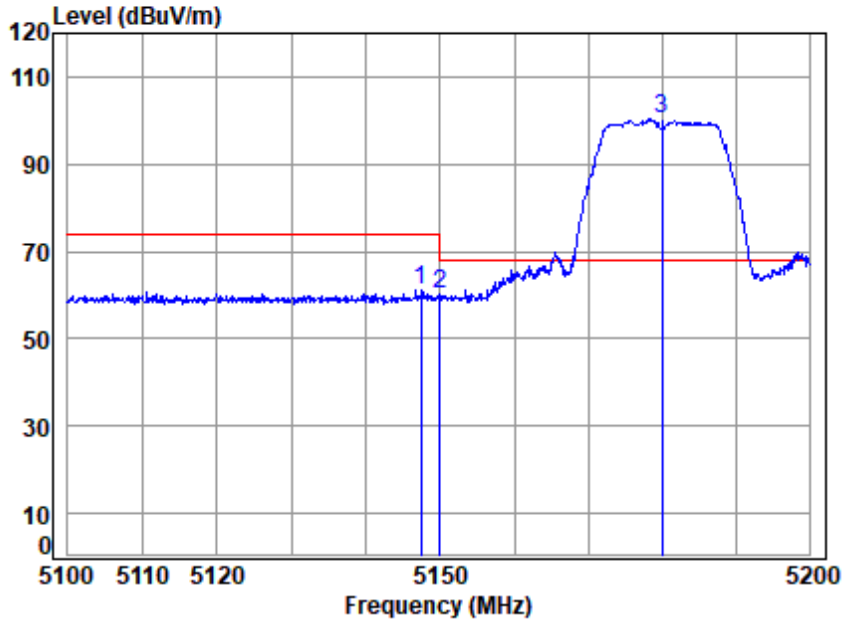
Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5148.757	18.83	33.90	35.31	32.71	50.13	54.00	-3.87	Average
2 q	5149.980	18.83	33.90	35.31	32.94	50.36	54.00	-3.64	Average
3	5180.000	18.88	33.96	35.29	77.21	94.76	------	------	Average

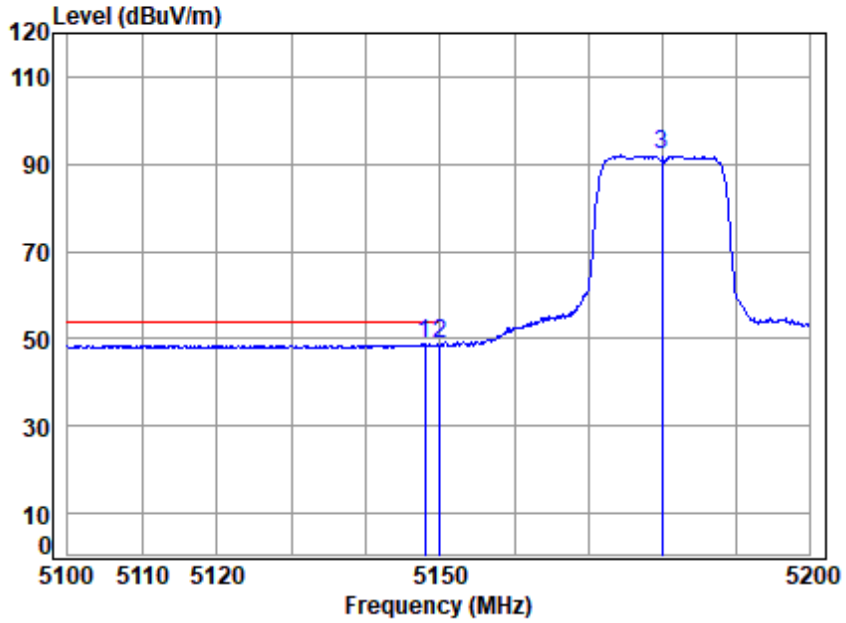
Test Mode: 08; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5147.458	18.83	33.91	35.31	43.61	61.04	74.00	-12.96	Peak
2	5149.980	18.83	33.90	35.31	42.97	60.39	74.00	-13.61	Peak
3 p	5180.000	18.88	33.96	35.29	82.83	100.38	68.20	32.18	Peak

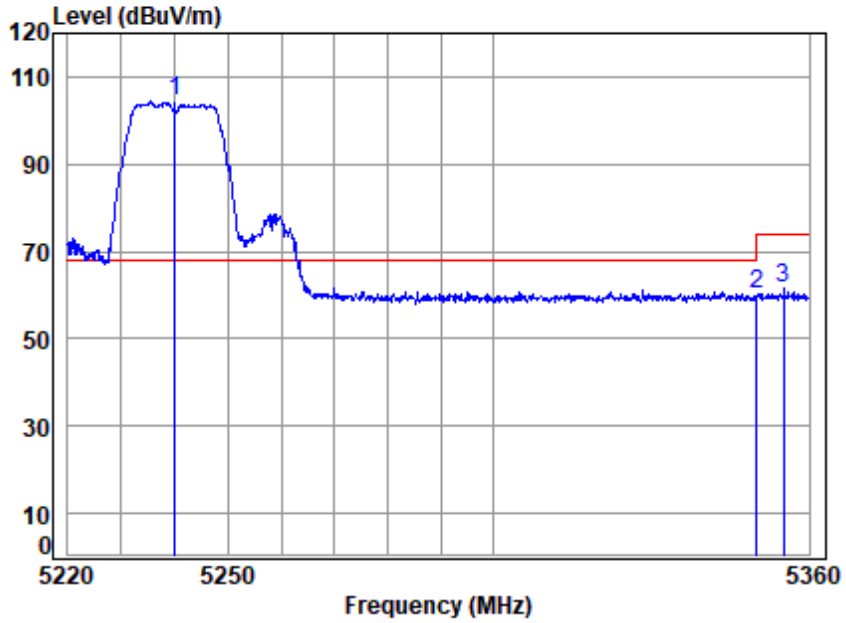
Test Mode: 08; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5147.958	18.83	33.90	35.31	31.61	49.03	54.00	-4.97	Average
2	5149.980	18.83	33.90	35.31	31.30	48.72	54.00	-5.28	Average
3	5180.000	18.88	33.96	35.29	74.47	92.02	------	------	Average

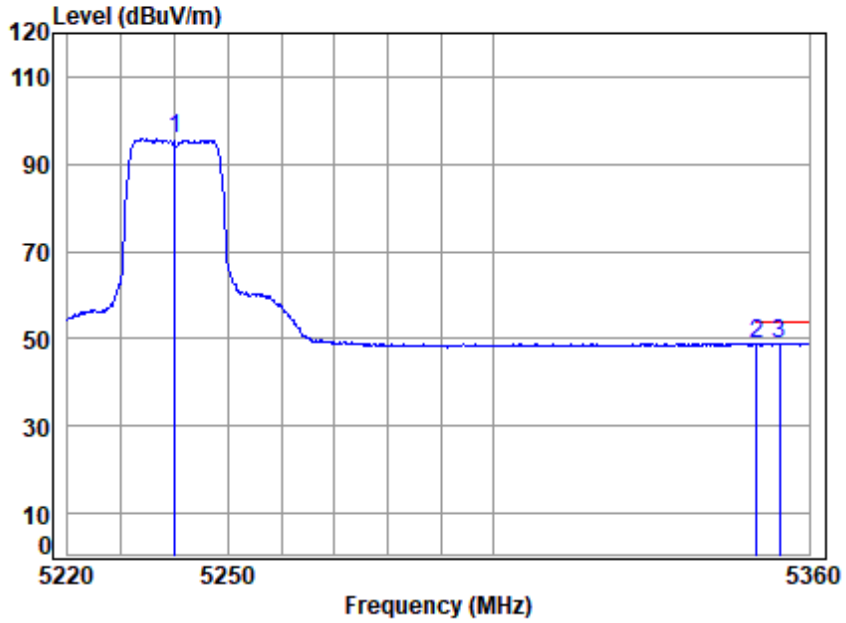
Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5240.000	18.96	34.08	35.26	86.48	104.26	68.20	36.06	peak
2	5350.020	19.11	34.40	35.21	41.83	60.13	74.00	-13.87	peak
3	5355.179	19.12	34.42	35.21	43.06	61.39	74.00	-12.61	peak

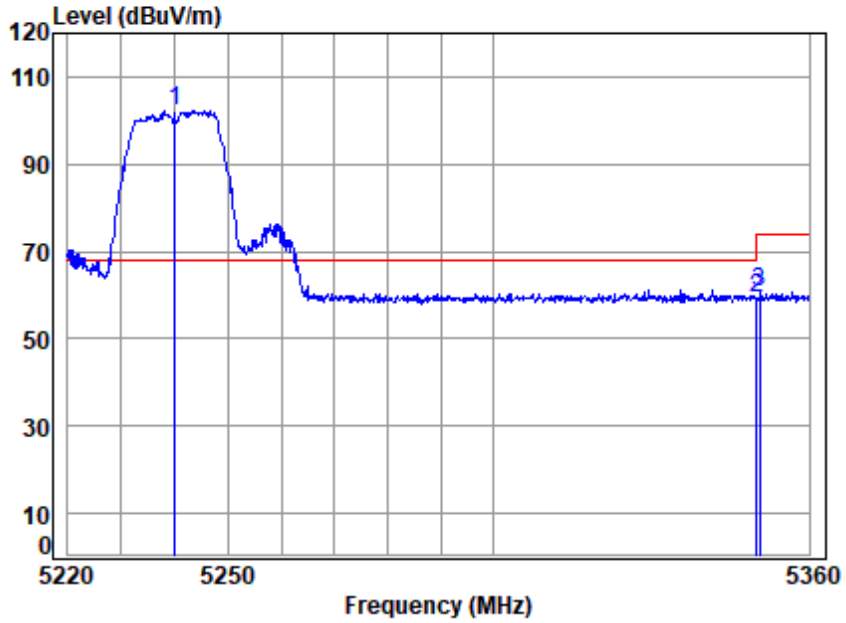
Test Mode: 08; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5240.000	18.96	34.08	35.26	78.03	95.81	------	------	Average
2	5350.020	19.11	34.40	35.21	30.46	48.76	54.00	-5.24	Average
3 q	5354.329	19.12	34.42	35.21	30.71	49.04	54.00	-4.96	Average

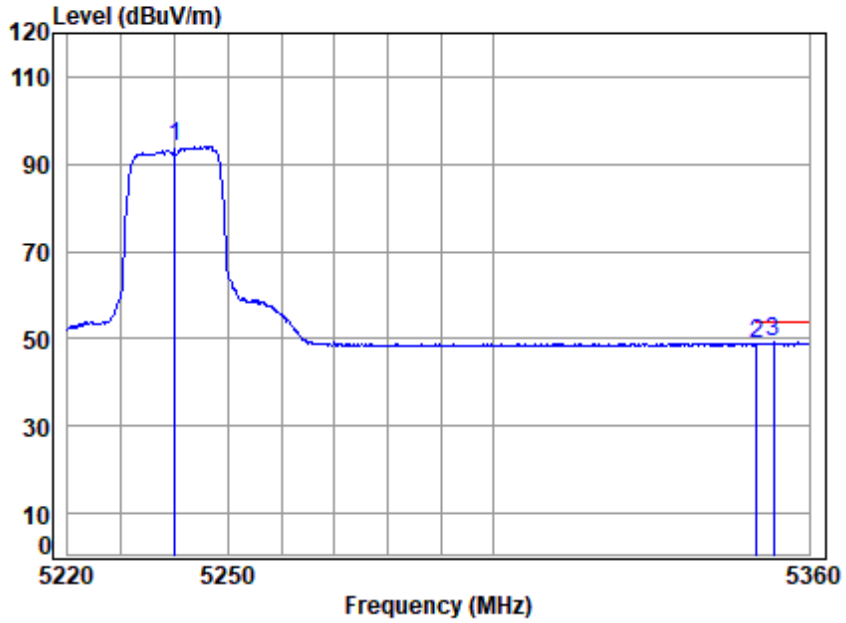
Test Mode: 08; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5240.000	18.96	34.08	35.26	84.34	102.12	68.20	33.92	Peak
2	5350.020	19.11	34.40	35.21	40.81	59.11	74.00	-14.89	Peak
3	5350.646	19.11	34.40	35.21	42.55	60.85	74.00	-13.15	Peak

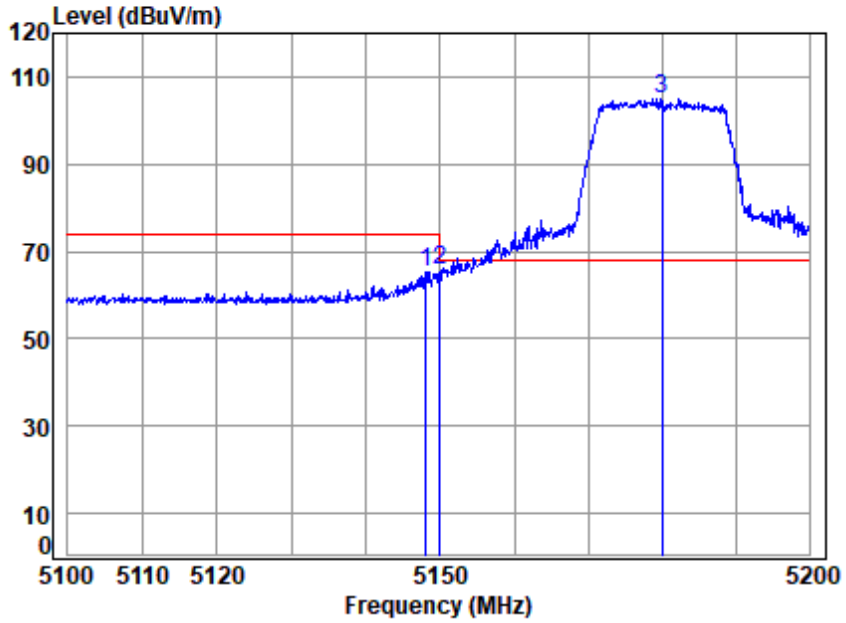
Test Mode: 08; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5240.000	18.96	34.08	35.26	76.41	94.19	------	------	Average
2	5350.020	19.11	34.40	35.21	30.43	48.73	54.00	-5.27	Average
3 q	5353.195	19.11	34.41	35.21	30.79	49.10	54.00	-4.90	Average

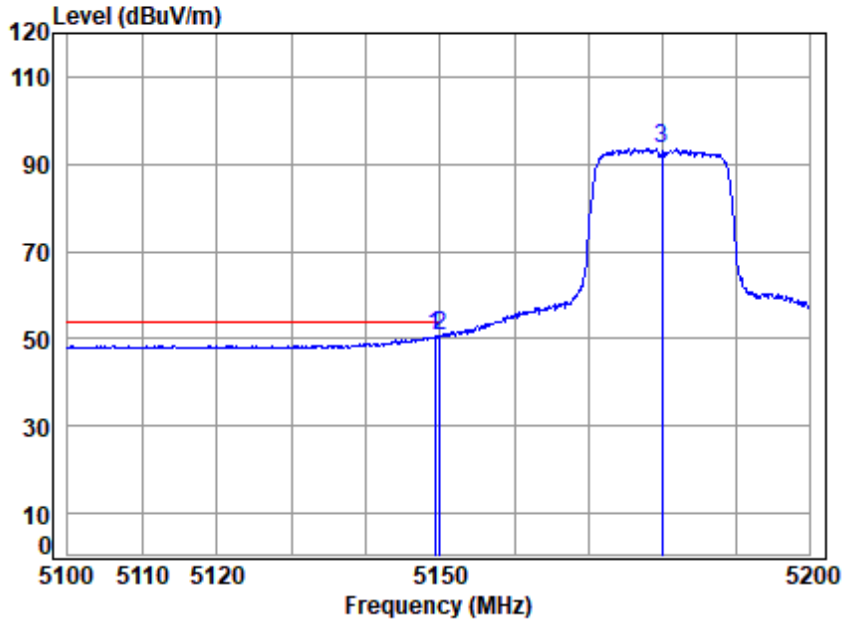
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5148.058	18.83	33.90	35.31	48.00	65.42	74.00	-8.58	peak
2	5149.980	18.83	33.90	35.31	48.23	65.65	74.00	-8.35	peak
3 p	5180.000	18.88	33.96	35.29	87.58	105.13	68.20	36.93	peak

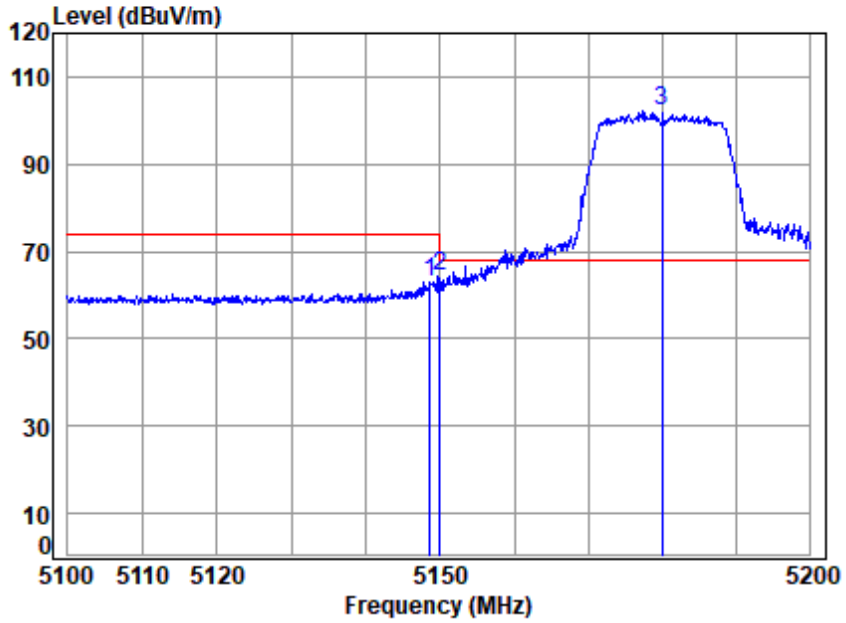
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5149.257	18.83	33.90	35.31	33.22	50.64	54.00	-3.36	Average
2 q	5149.980	18.83	33.90	35.31	33.38	50.80	54.00	-3.20	Average
3	5180.000	18.88	33.96	35.29	76.07	93.62	------	------	Average

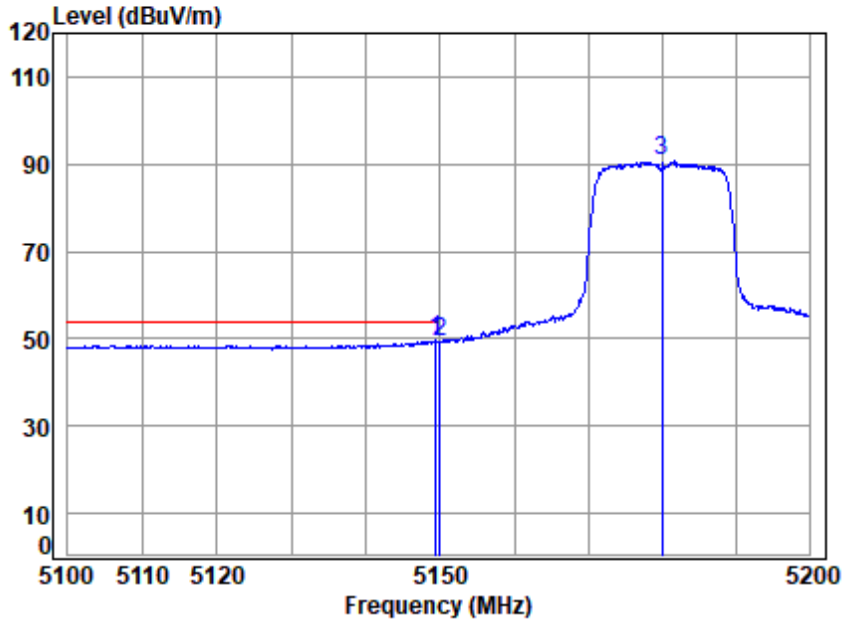
Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5148.657	18.83	33.90	35.31	45.52	62.94	74.00	-11.06	Peak
2	5149.980	18.83	33.90	35.31	46.99	64.41	74.00	-9.59	Peak
3 p	5180.000	18.88	33.96	35.29	84.49	102.04	68.20	33.84	Peak

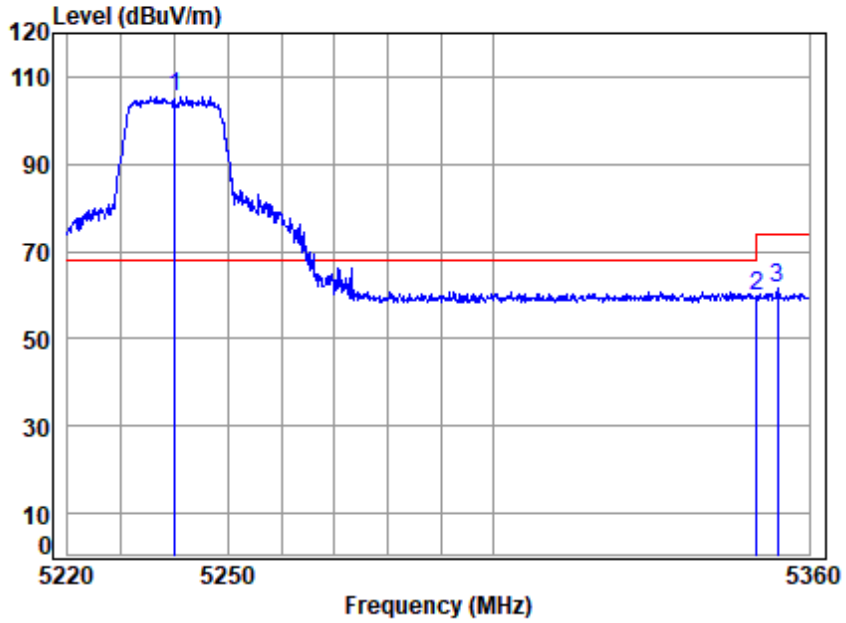
Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 q	5149.458	18.83	33.90	35.31	32.10	49.52	54.00	-4.48	Average
2	5149.980	18.83	33.90	35.31	32.03	49.45	54.00	-4.55	Average
3	5180.000	18.88	33.96	35.29	73.06	90.61	------	------	Average

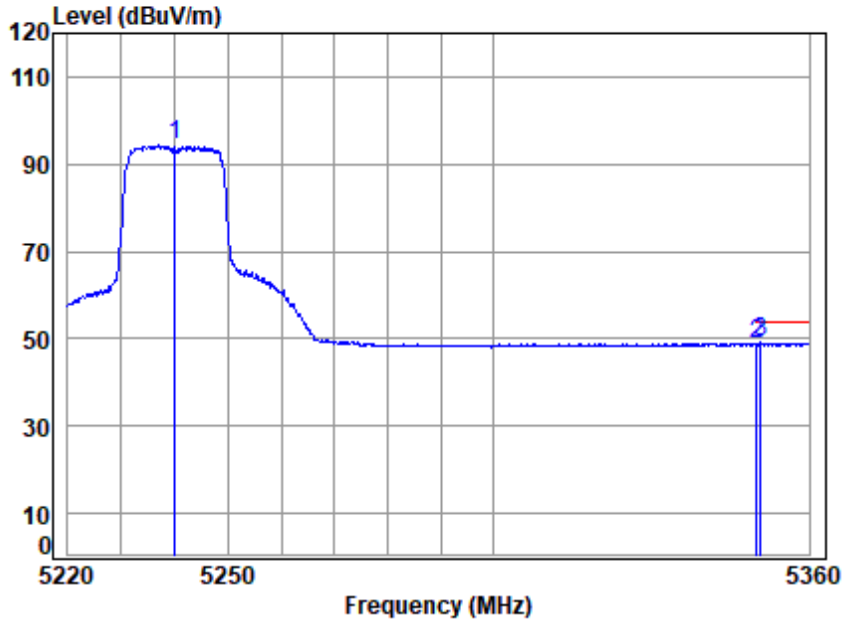
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5240.000	18.96	34.08	35.26	87.78	105.56	68.20	37.36	peak
2	5350.020	19.11	34.40	35.21	41.51	59.81	74.00	-14.19	peak
3	5353.903	19.12	34.42	35.21	43.12	61.45	74.00	-12.55	peak

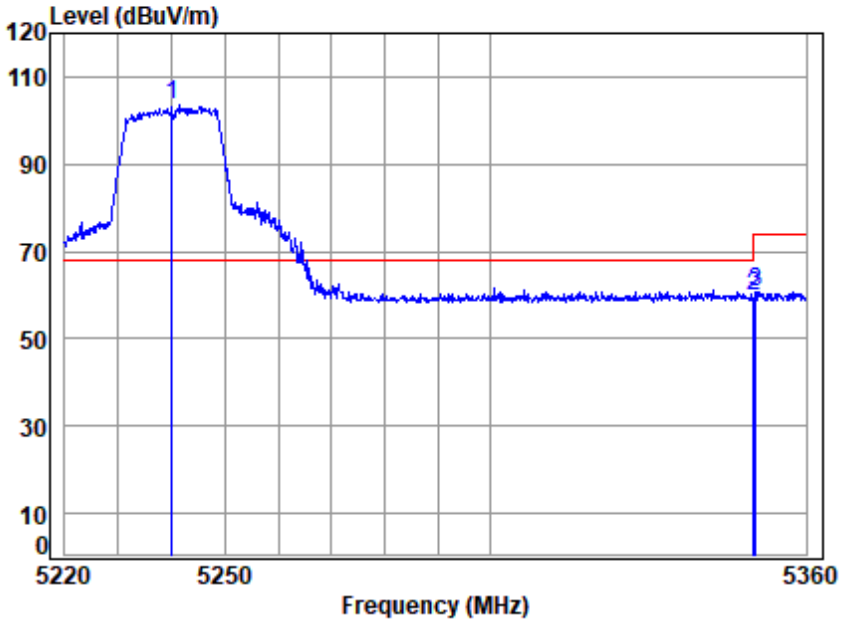
Test Mode: 08; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5240.000	18.96	34.08	35.26	76.51	94.29	------	------	Average
2	5350.020	19.11	34.40	35.21	30.41	48.71	54.00	-5.29	Average
3 q	5350.787	19.11	34.40	35.21	30.83	49.13	54.00	-4.87	Average

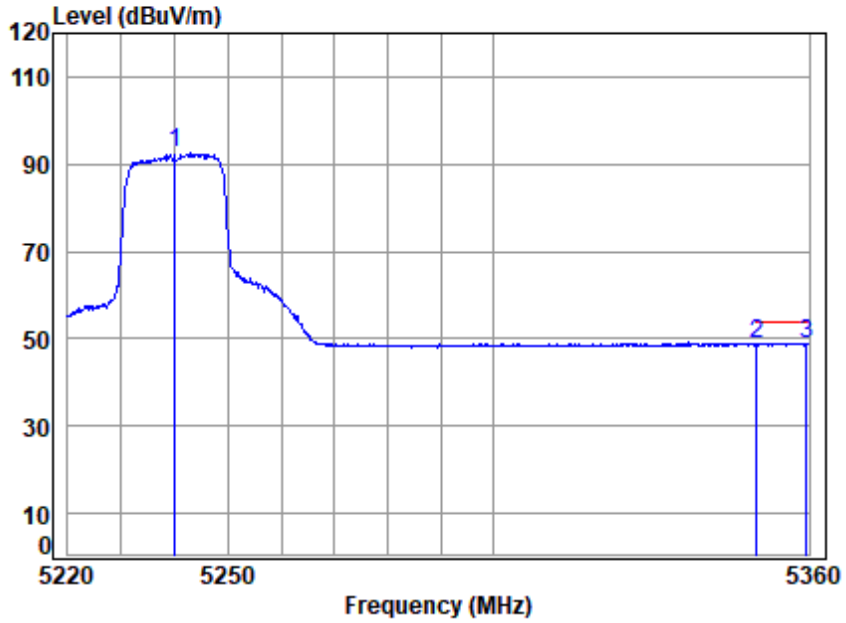
Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5240.000	18.96	34.08	35.26	85.58	103.36	68.20	35.16	Peak
2	5350.020	19.11	34.40	35.21	41.31	59.61	74.00	-14.39	Peak
3	5350.362	19.11	34.40	35.21	42.46	60.76	74.00	-13.24	Peak

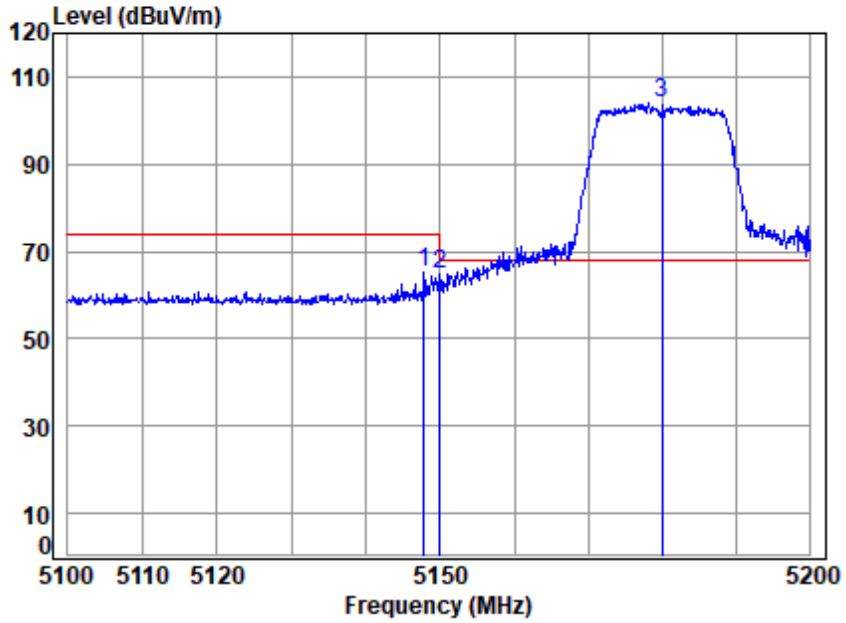
Test Mode: 08; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5240.000	18.96	34.08	35.26	74.74	92.52	------	------	Average
2	5350.020	19.11	34.40	35.21	30.46	48.76	54.00	-5.24	Average
3 q	5359.433	19.12	34.44	35.20	30.63	48.99	54.00	-5.01	Average

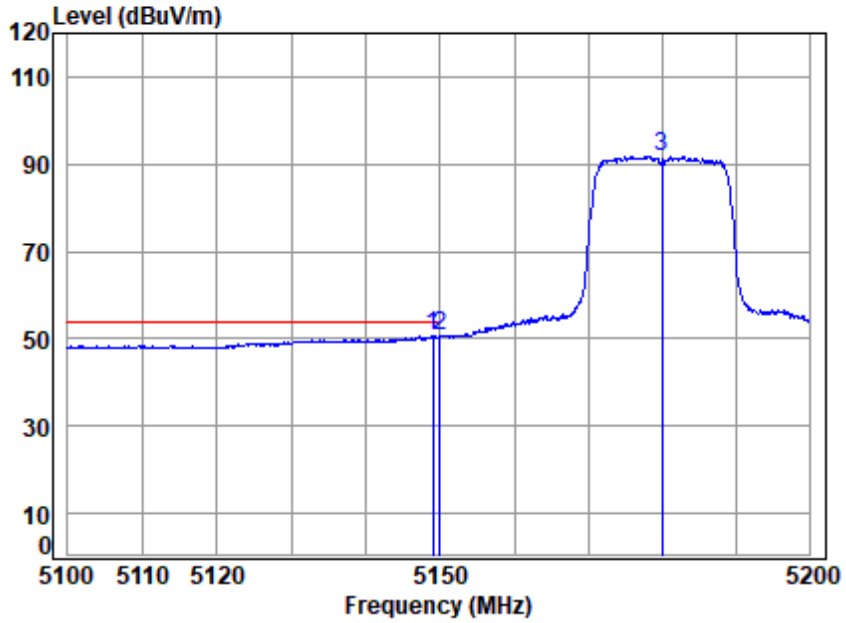
Test Mode: 08; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5147.857	18.83	33.90	35.31	47.77	65.19	74.00	-8.81	peak
2	5149.980	18.83	33.90	35.31	47.36	64.78	74.00	-9.22	peak
3 p	5180.000	18.88	33.96	35.29	86.40	103.95	68.20	35.75	peak

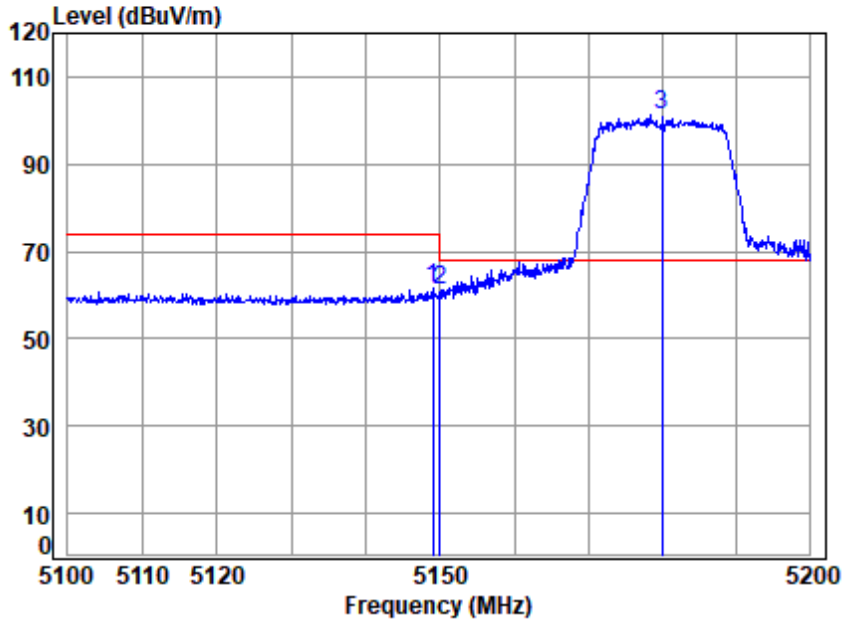
Test Mode: 08; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5148.958	18.83	33.90	35.31	33.07	50.49	54.00	-3.51	Average
2 q	5149.980	18.83	33.90	35.31	33.11	50.53	54.00	-3.47	Average
3	5180.000	18.88	33.96	35.29	74.30	91.85	------	------	Average

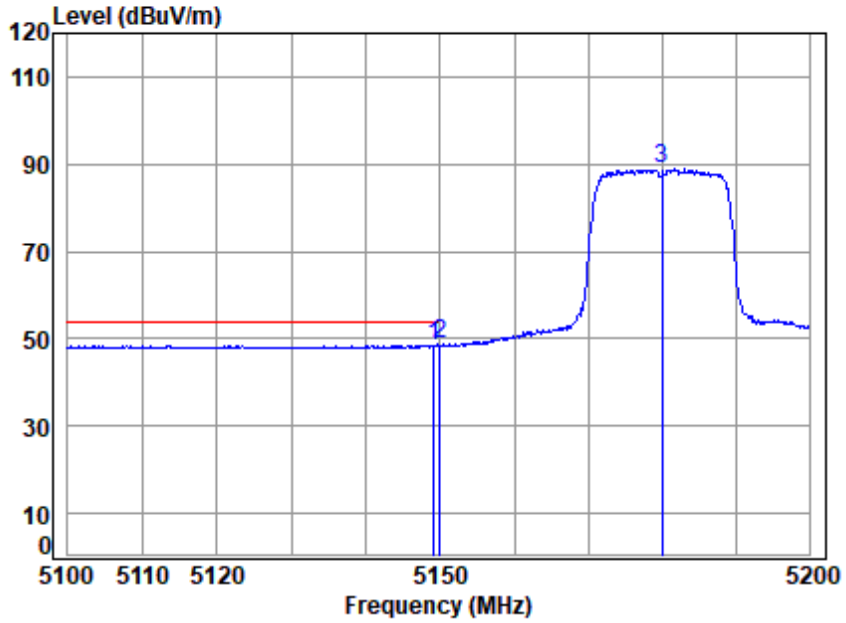
Test Mode: 08; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5148.958	18.83	33.90	35.31	44.00	61.42	74.00	-12.58	Peak
2	5149.980	18.83	33.90	35.31	43.82	61.24	74.00	-12.76	Peak
3 p	5180.000	18.88	33.96	35.29	83.88	101.43	68.20	33.23	Peak

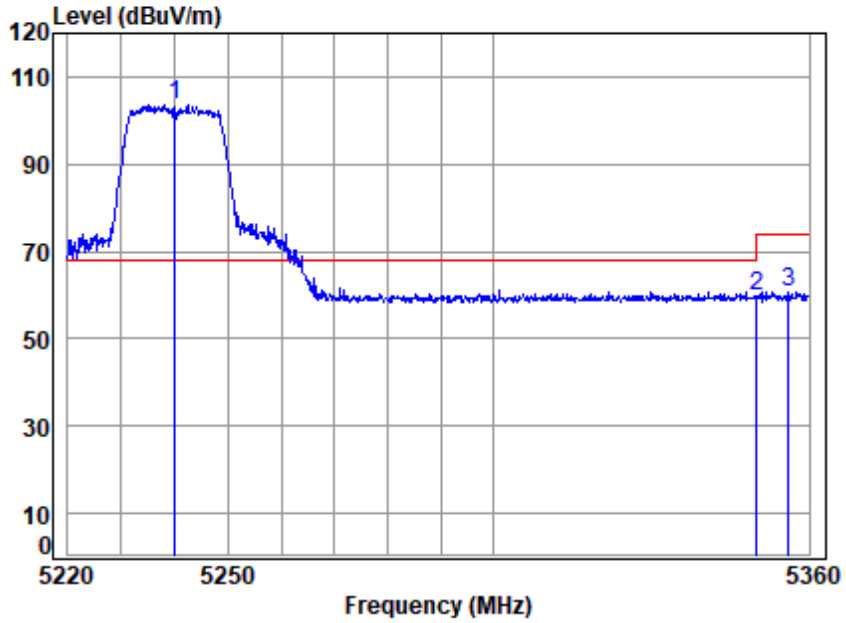
Test Mode: 08; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5180 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5149.157	18.83	33.90	35.31	31.15	48.57	54.00	-5.43	Average
2 q	5149.980	18.83	33.90	35.31	31.21	48.63	54.00	-5.37	Average
3	5180.000	18.88	33.96	35.29	71.25	88.80	------	------	Average

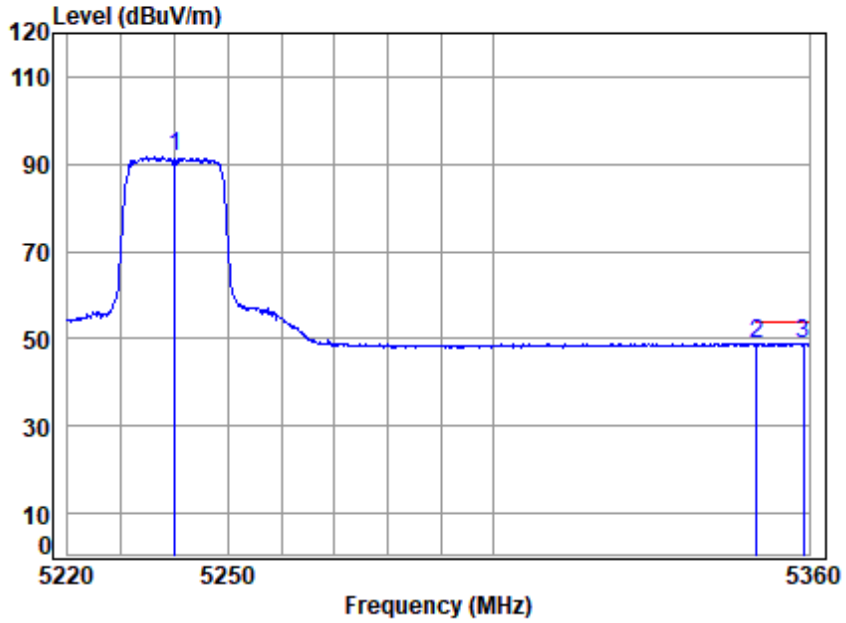
Test Mode: 08; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5240.000	18.96	34.08	35.26	85.82	103.60	68.20	35.40	peak
2	5350.020	19.11	34.40	35.21	41.52	59.82	74.00	-14.18	peak
3	5356.029	19.12	34.42	35.21	42.46	60.79	74.00	-13.21	peak

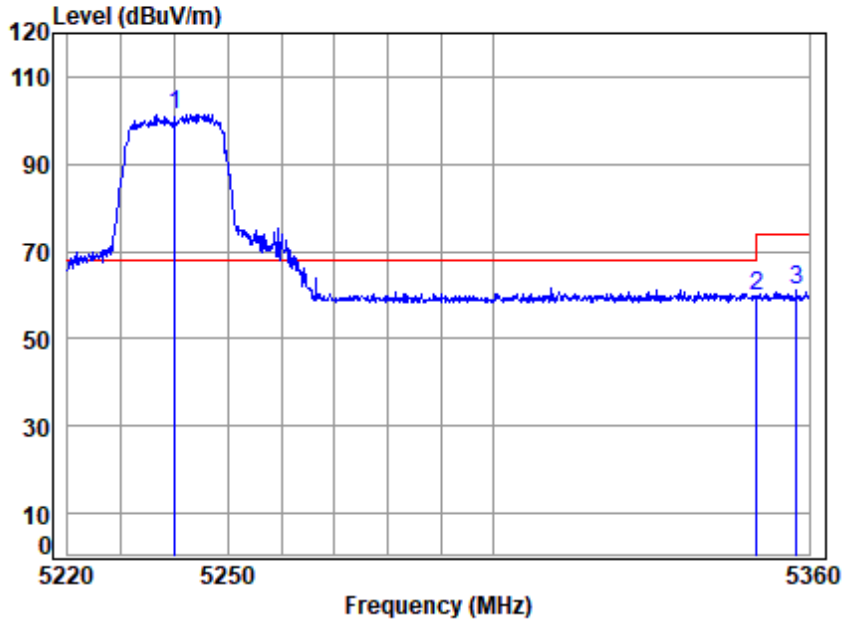
Test Mode: 08; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5240.000	18.96	34.08	35.26	73.81	91.59	------	------	Average
2	5350.020	19.11	34.40	35.21	30.54	48.84	54.00	-5.16	Average
3 q	5358.865	19.12	34.44	35.20	30.59	48.95	54.00	-5.05	Average

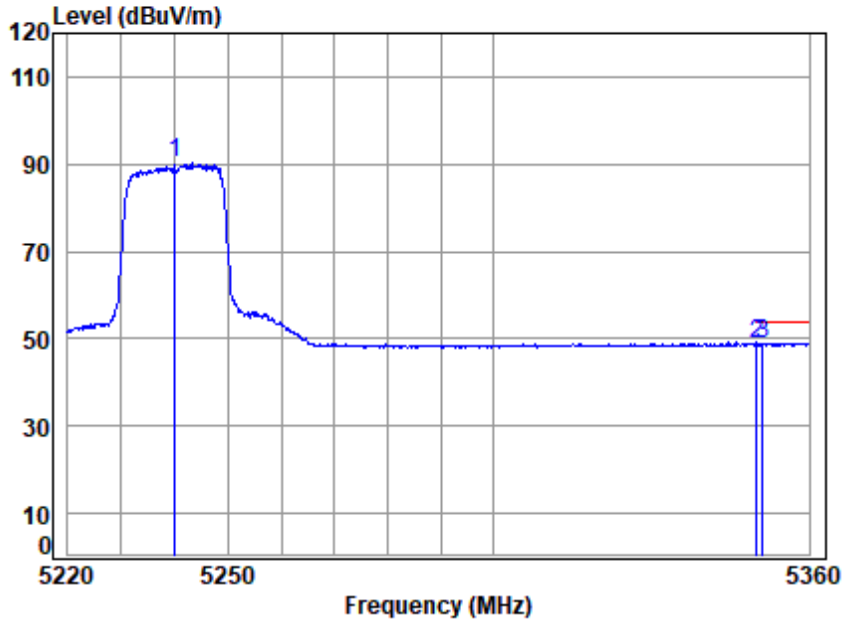
Test Mode: 08; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5240.000	18.96	34.08	35.26	83.65	101.43	68.20	33.23	Peak
2	5350.020	19.11	34.40	35.21	41.30	59.60	74.00	-14.40	Peak
3	5357.589	19.12	34.43	35.20	42.70	61.05	74.00	-12.95	Peak

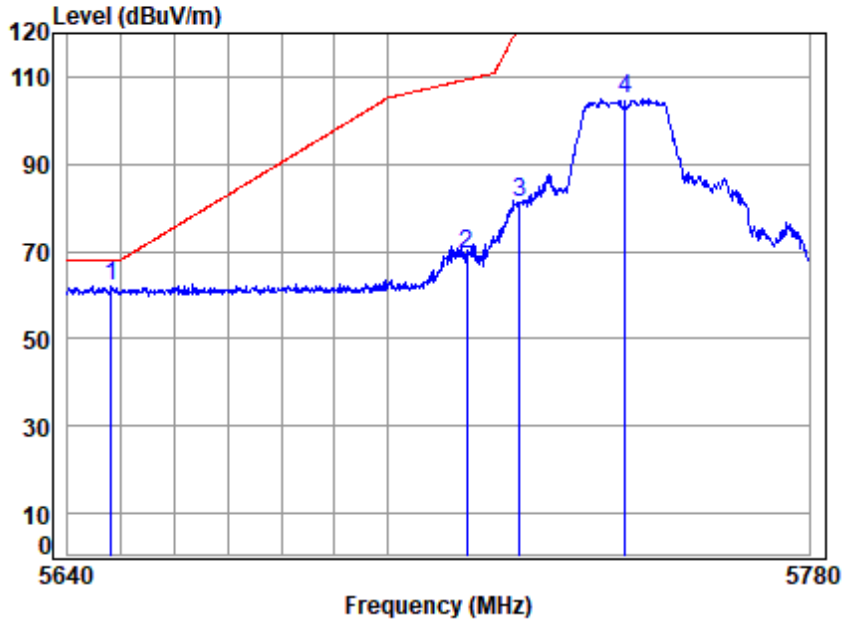
Test Mode: 08; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5240 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5240.000	18.96	34.08	35.26	72.52	90.30	------	------	Average
2 q	5350.020	19.11	34.40	35.21	30.66	48.96	54.00	-5.04	Average
3	5351.070	19.11	34.40	35.21	30.65	48.95	54.00	-5.05	Average

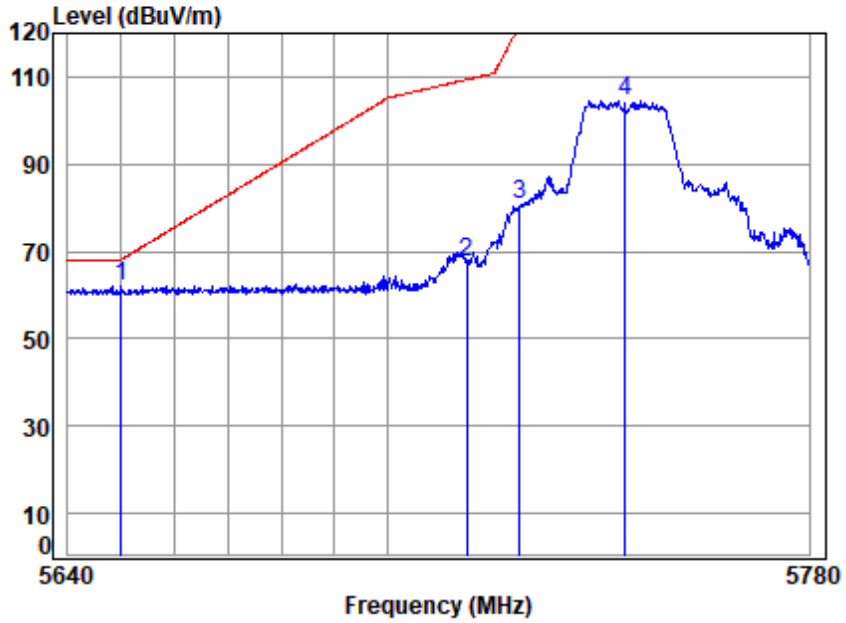
Test Mode: 09; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5745 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5648.165	19.41	34.41	35.06	43.46	62.22	68.20	-5.98	peak
2	5715.000	19.45	34.27	35.03	50.55	69.24	109.40	-40.16	peak
3	5725.000	19.46	34.25	35.03	62.72	81.40	122.20	-40.80	peak
4	5745.000	19.47	34.21	35.02	86.27	104.93	------	------	peak

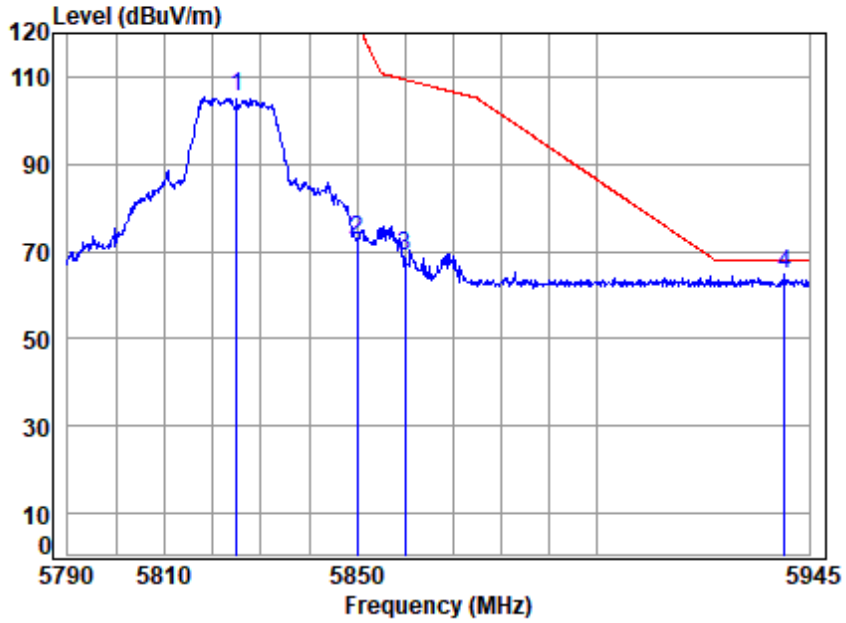
Test Mode: 09; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5745 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5649.966	19.41	34.40	35.06	43.32	62.07	68.20	-6.13	peak
2	5715.000	19.45	34.27	35.03	48.98	67.67	109.40	-41.73	peak
3	5725.000	19.46	34.25	35.03	61.98	80.66	122.20	-41.54	peak
4	5745.000	19.47	34.21	35.02	85.80	104.46	------	------	peak

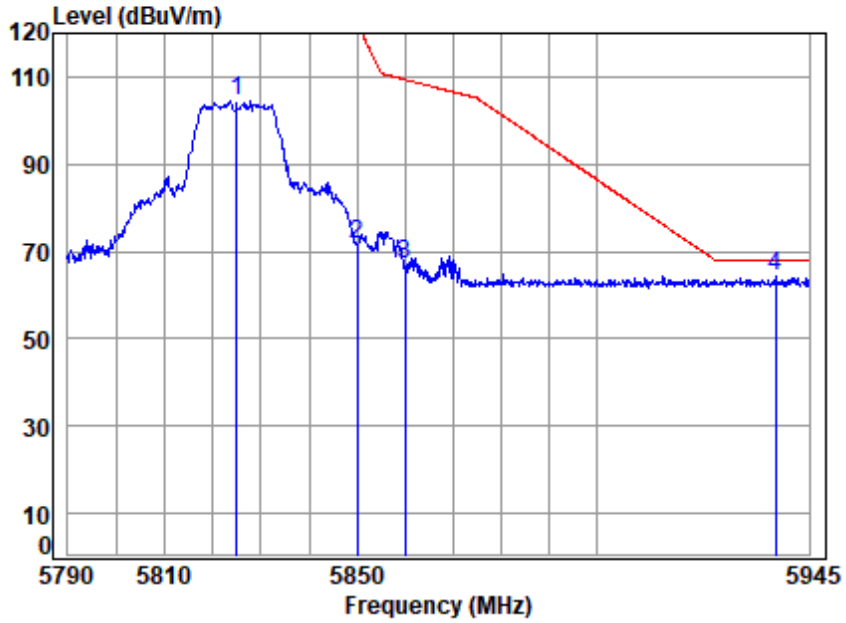
Test Mode: 09; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5825 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5825.000	19.52	34.35	34.98	86.38	105.27	------	------	peak
2	5850.000	19.54	34.40	34.97	53.56	72.53	122.20	-49.67	peak
3	5860.000	19.54	34.44	34.96	49.96	68.98	109.40	-40.42	peak
4 p	5939.819	19.59	34.68	34.93	45.53	64.87	68.20	-3.33	peak

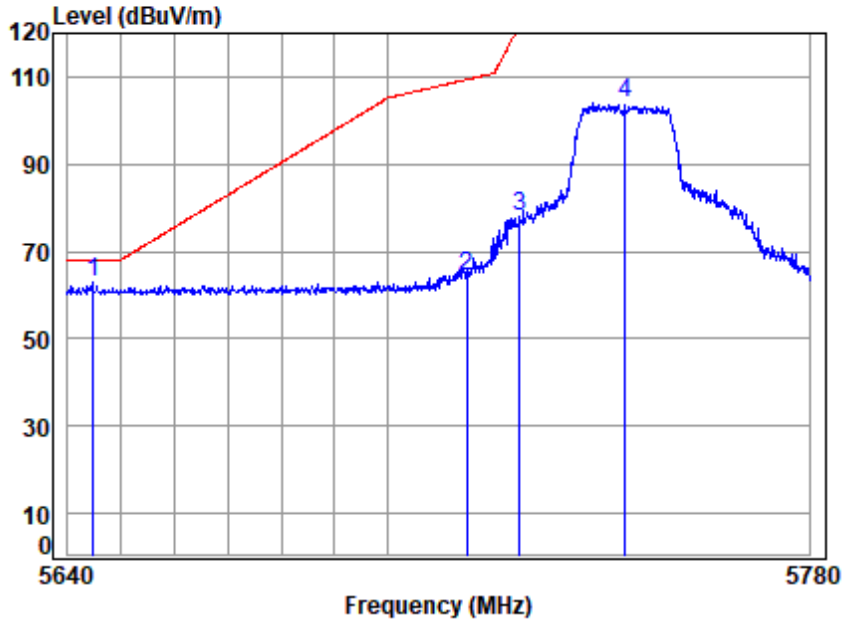
Test Mode: 09; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5825 Band edge
Note : 5G WIFI 11A

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5825.000	19.52	34.35	34.98	85.56	104.45	------	------	peak
2	5850.000	19.54	34.40	34.97	52.54	71.51	122.20	-50.69	peak
3	5860.000	19.54	34.44	34.96	47.91	66.93	109.40	-42.47	peak
4 p	5937.937	19.59	34.68	34.93	44.80	64.14	68.20	-4.06	peak

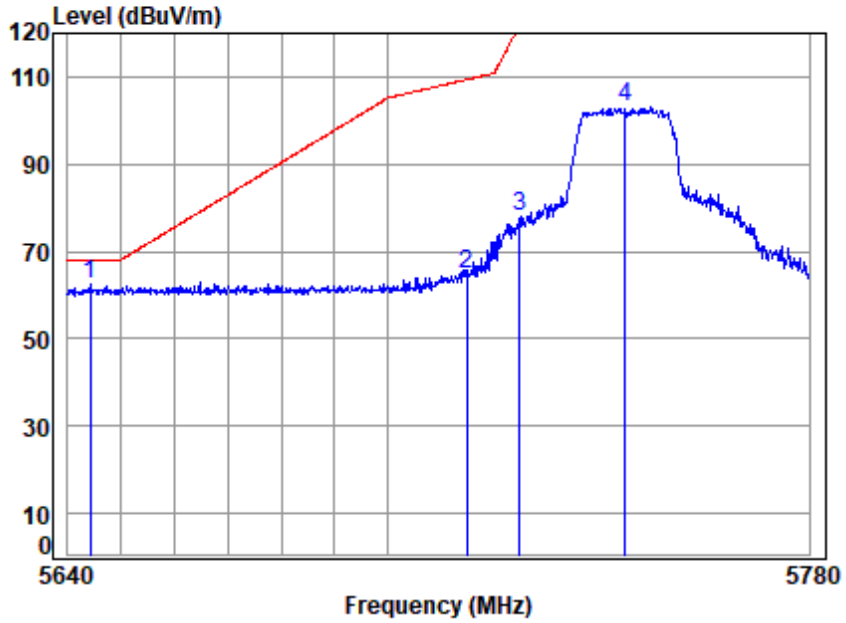
Test Mode: 09; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5745 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5644.704	19.41	34.43	35.06	43.97	62.75	68.20	-5.45	peak
2	5715.000	19.45	34.27	35.03	45.73	64.42	109.40	-44.98	peak
3	5725.000	19.46	34.25	35.03	59.23	77.91	122.20	-44.29	peak
4	5745.000	19.47	34.21	35.02	85.49	104.15	------	------	peak

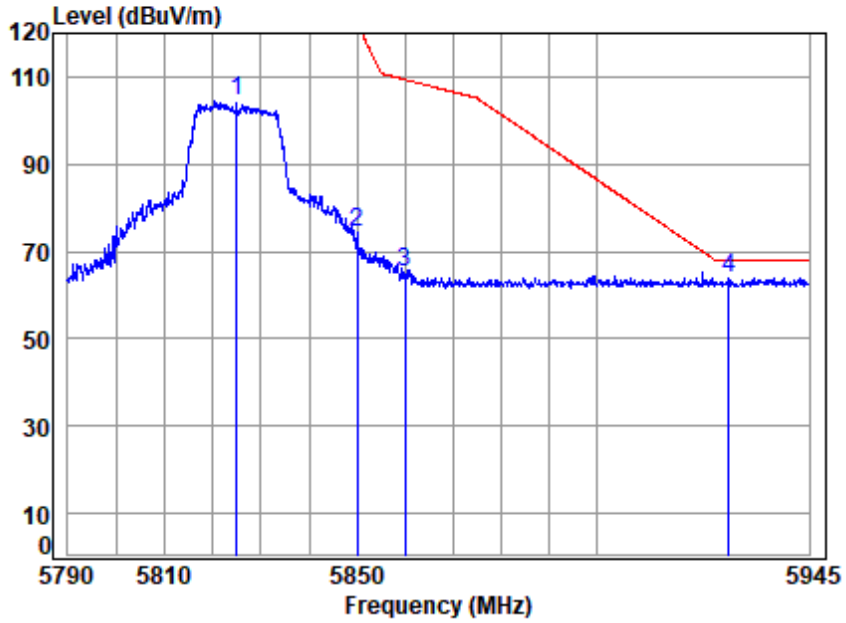
Test Mode: 09; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5745 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5644.150	19.41	34.44	35.06	43.52	62.31	68.20	-5.89	peak
2	5715.000	19.45	34.27	35.03	45.98	64.67	109.40	-44.73	peak
3	5725.000	19.46	34.25	35.03	59.26	77.94	122.20	-44.26	peak
4	5745.000	19.47	34.21	35.02	84.37	103.03	------	------	peak

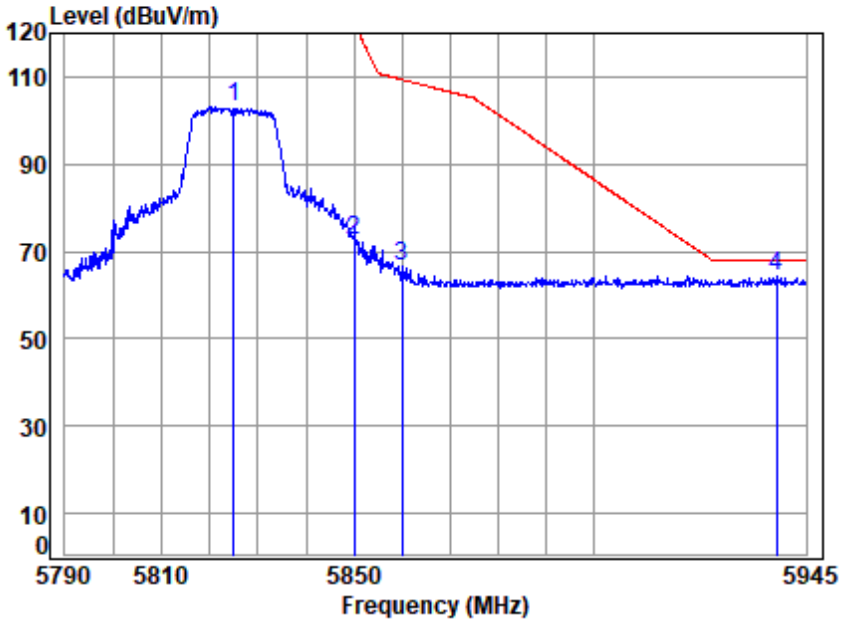
Test Mode: 09; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5825 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5825.000	19.52	34.35	34.98	85.42	104.31	------	------	peak
2	5850.000	19.54	34.40	34.97	55.21	74.18	122.20	-48.02	peak
3	5860.000	19.54	34.44	34.96	46.41	65.43	109.40	-43.97	peak
4 p	5928.062	19.59	34.66	34.93	44.76	64.08	68.20	-4.12	peak

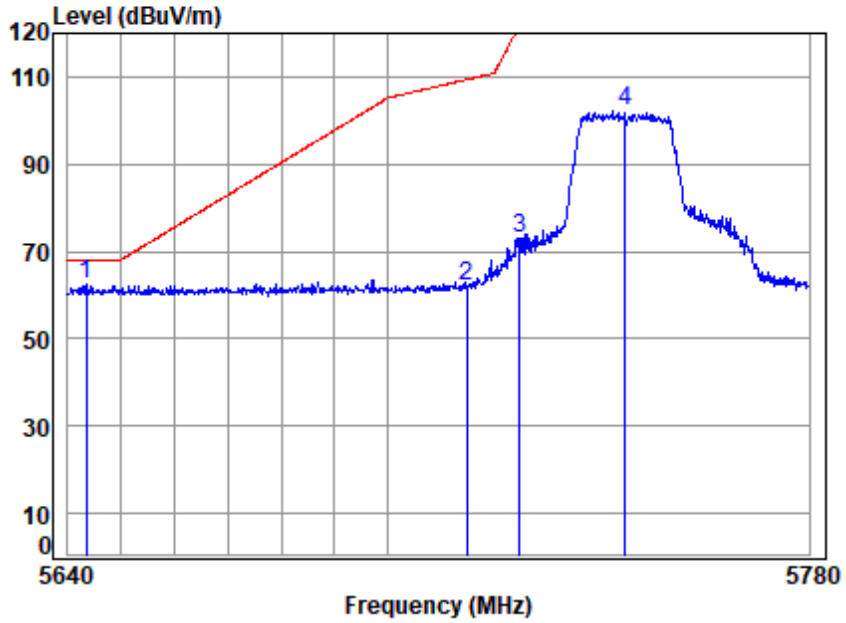
Test Mode: 09; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5825 Band edge
Note : 5G WIFI 11N20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5825.000	19.52	34.35	34.98	84.24	103.13	------	------	peak
2	5850.000	19.54	34.40	34.97	53.37	72.34	122.20	-49.86	peak
3	5860.000	19.54	34.44	34.96	47.38	66.40	109.40	-43.00	peak
4 p	5938.721	19.59	34.68	34.93	44.86	64.20	68.20	-4.00	peak

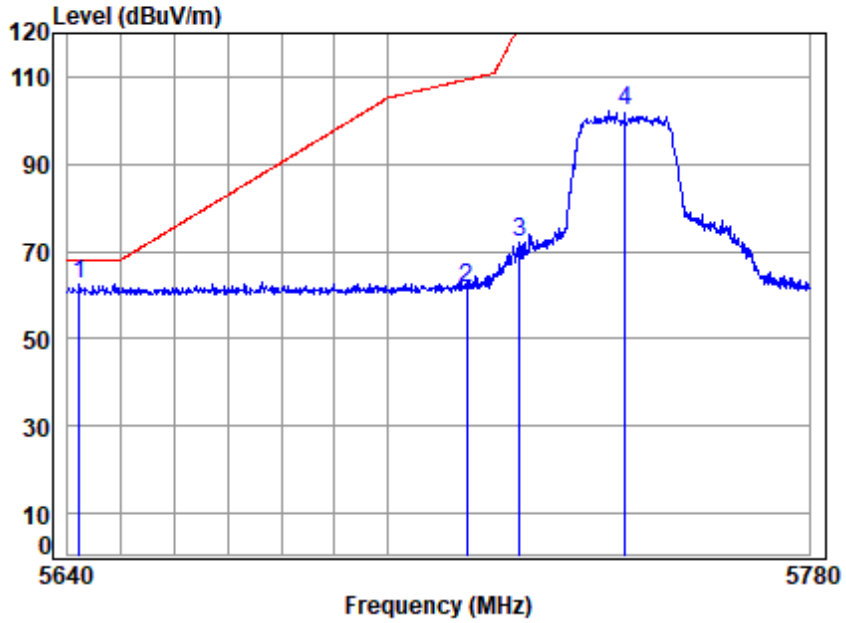
Test Mode: 09; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5745 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5643.458	19.40	34.44	35.06	43.68	62.46	68.20	-5.74	peak
2	5715.000	19.45	34.27	35.03	43.37	62.06	109.40	-47.34	peak
3	5725.000	19.46	34.25	35.03	54.15	72.83	122.20	-49.37	peak
4	5745.000	19.47	34.21	35.02	83.59	102.25	------	------	peak

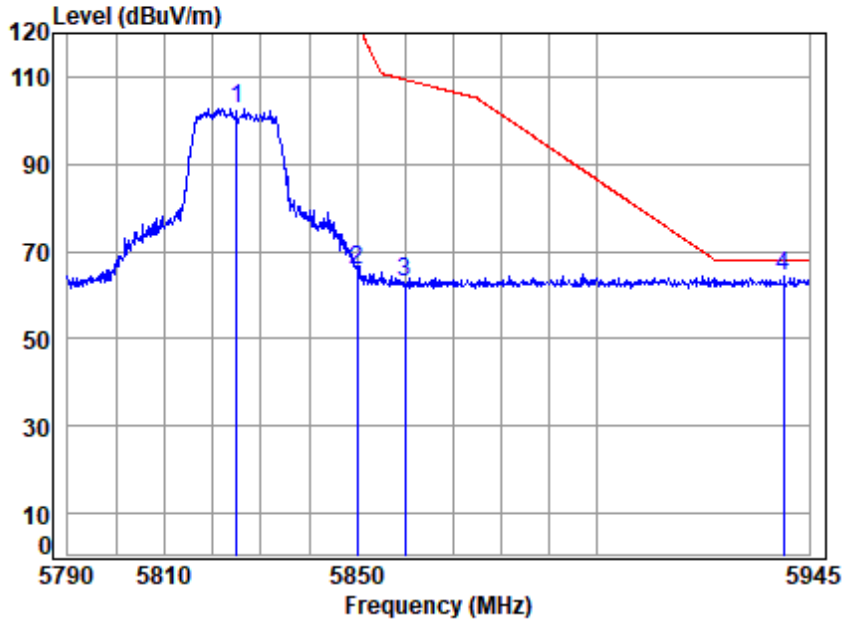
Test Mode: 09; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5745 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 p	5642.213	19.40	34.45	35.07	43.65	62.43	68.20	-5.77	peak
2	5715.000	19.45	34.27	35.03	43.05	61.74	109.40	-47.66	peak
3	5725.000	19.46	34.25	35.03	53.26	71.94	122.20	-50.26	peak
4	5745.000	19.47	34.21	35.02	83.36	102.02	------	------	peak

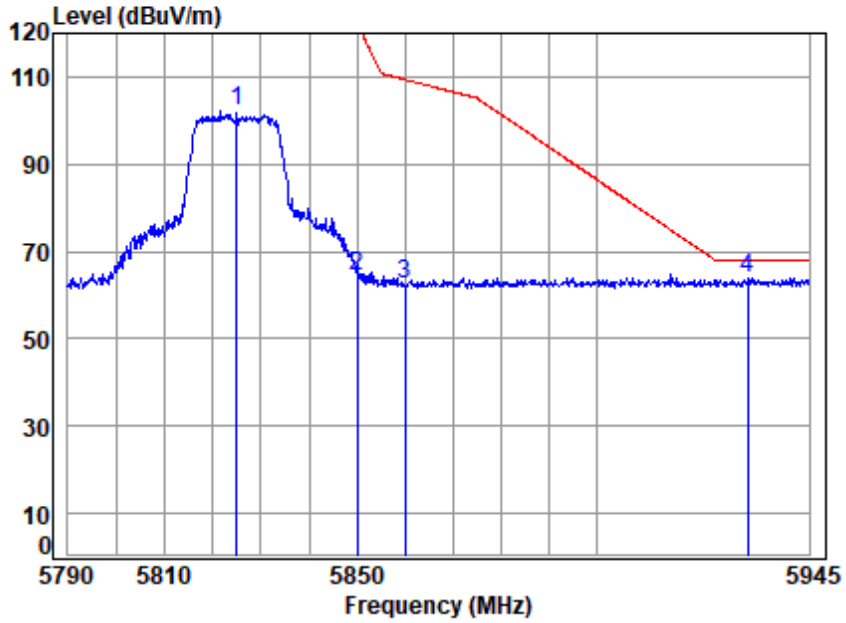
Test Mode: 09; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m HORIZONTAL
Job No : 02905AT\02906AT
Mode : 5825 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5825.000	19.52	34.35	34.98	83.85	102.74	------	------	peak
2	5850.000	19.54	34.40	34.97	46.72	65.69	122.20	-56.51	peak
3	5860.000	19.54	34.44	34.96	43.79	62.81	109.40	-46.59	peak
4 p	5939.663	19.59	34.68	34.93	44.99	64.33	68.20	-3.87	peak

Test Mode: 09; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Site : chamber
Condition: 3m VERTICAL
Job No : 02905AT\02906AT
Mode : 5825 Band edge
Note : 5G WIFI 11AC20

	Freq	Cable Loss	Ant Factor	Preamp Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	5825.000	19.52	34.35	34.98	83.21	102.10	------	------	peak
2	5850.000	19.54	34.40	34.97	45.53	64.50	122.20	-57.70	peak
3	5860.000	19.54	34.44	34.96	43.45	62.47	109.40	-46.93	peak
4 p	5931.979	19.59	34.66	34.93	44.75	64.07	68.20	-4.13	peak

7.6 Duty Cycle

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

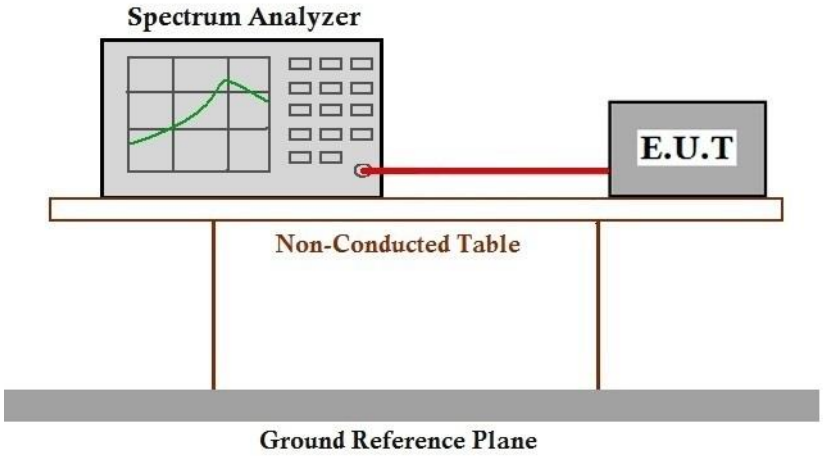
7.6.1 E.U.T. Operation

Operating Environment:
Temperature: 24.0 °C Humidity: 46.0 % RH Atmospheric Pressure: 1020 mbar

7.6.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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 20, Only the data of worst case is recorded in the report.
Final test	07	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 20, Only the data of worst case is recorded in the report.

7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.7 99% Bandwidth

Test Requirement N/A

Test Method: KDB 789033 II D

7.7.1 E.U.T. Operation

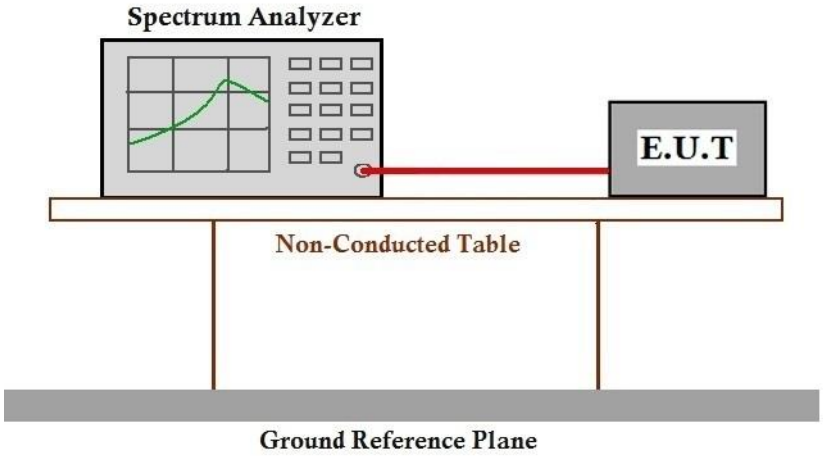
Operating Environment:

Temperature: 24.0 °C Humidity: 46.0 % RH Atmospheric Pressure: 1020 mbar

7.7.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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 20, Only the data of worst case is recorded in the report.
Final test	07	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 20, 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 26dB Emission bandwidth

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

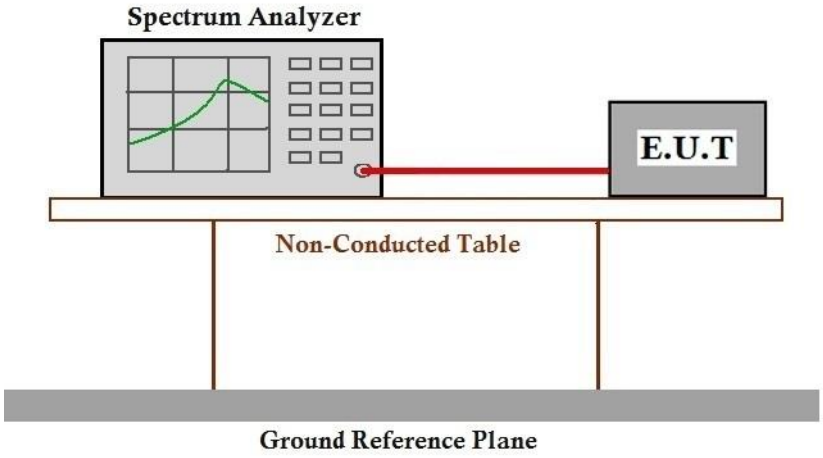
7.8.1 E.U.T. Operation

Operating Environment:
Temperature: 24.0 °C Humidity: 46.0 % RH Atmospheric Pressure: 1020 mbar

7.8.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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 20, Only the data of worst case is recorded in the report.

7.8.3 Test Setup Diagram



7.8.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.9 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

7.9.1 E.U.T. Operation

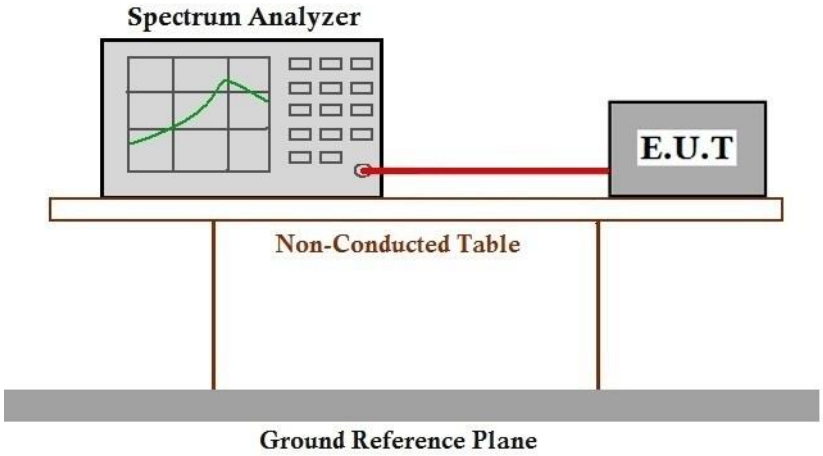
Operating Environment:

Temperature: 24.0 °C Humidity: 46.0 % RH Atmospheric Pressure: 1020 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	07	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 20, Only the data of worst case is recorded in the report.

7.9.3 Test Setup Diagram



7.9.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.10 Peak Power spectrum density

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

Test Method: 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.

7.10.1 E.U.T. Operation

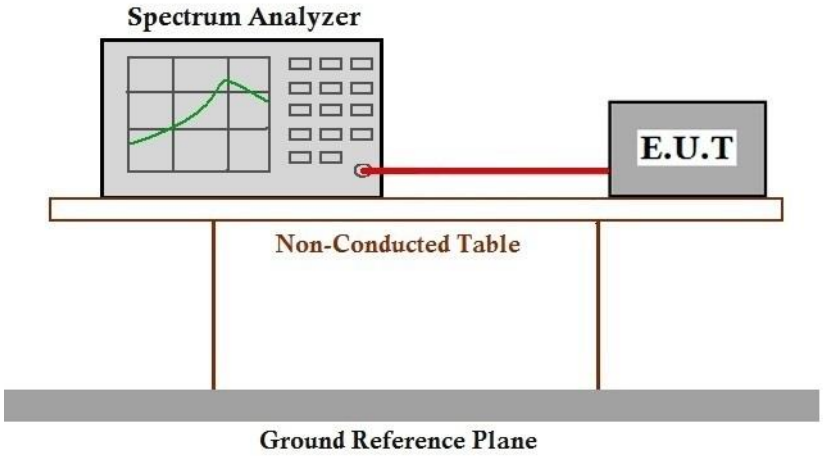
Operating Environment:

Temperature: 24.0 °C Humidity: 46.0 % RH Atmospheric Pressure: 1020 mbar

7.10.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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 20, Only the data of worst case is recorded in the report.
Final test	07	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 20, 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 Frequency Stability

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

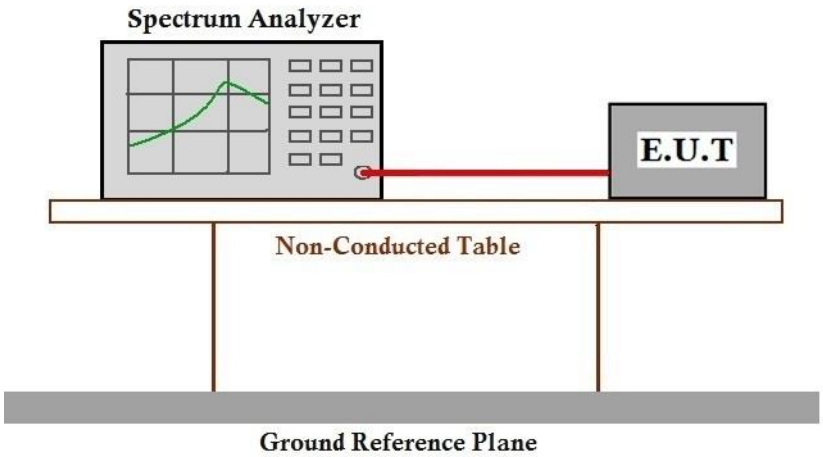
7.11.1 E.U.T. Operation

Operating Environment:
Temperature: 24.0 °C Humidity: 46.0 % RH Atmospheric Pressure: 1020 mbar

7.11.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	06	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 20, Only the data of worst case is recorded in the report.
Final test	07	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 20, Only the data of worst case is recorded in the report.

7.11.3 Test Setup Diagram



7.11.4 Measurement Procedure and Data

Please Refer to Appendix for Details

8 Test Setup Photo

Refer to Appendix - Test Setup Photo for SZCR2407002905AT

9 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for SZCR2407002905AT

10 Appendix

1. Duty Cycle

1.1 Test Result

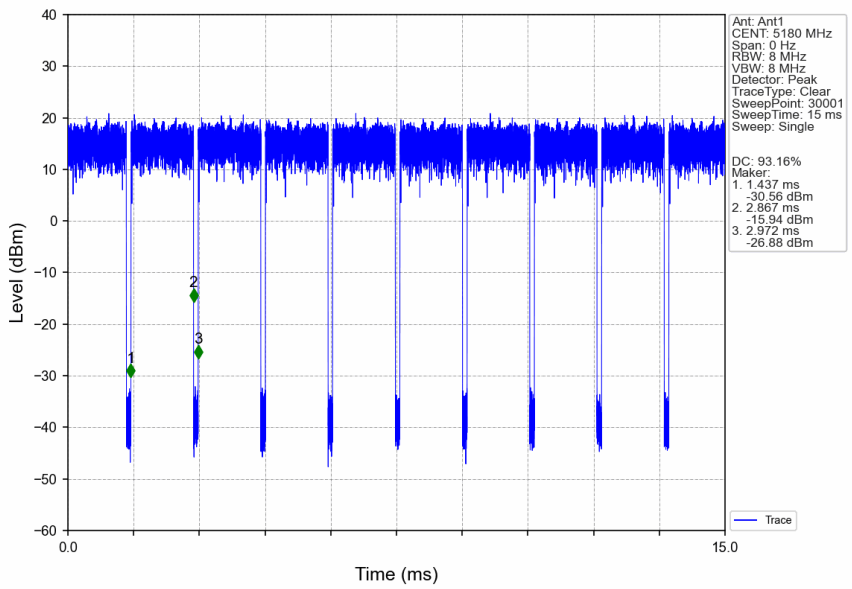
1.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	1.430	1.535	93.16	0.31	0.00
		5200	1.430	1.535	93.16	0.31	0.03
		5240	1.429	1.535	93.09	0.31	0.06
		5745	1.429	1.535	93.09	0.31	0.03
		5785	1.430	1.535	93.16	0.31	0.03
		5825	1.430	1.535	93.16	0.31	0.03
802.11n (HT20)	SISO	5180	1.342	1.448	92.68	0.33	0.03
		5200	1.342	1.448	92.68	0.33	0.03
		5240	1.341	1.447	92.67	0.33	0.03
		5745	1.342	1.448	92.68	0.33	0.03
		5785	1.342	1.448	92.68	0.33	0.00
		5825	1.342	1.448	92.68	0.33	0.03
802.11ac (VHT20)	SISO	5180	1.347	1.453	92.70	0.33	0.03
		5200	1.346	1.452	92.70	0.33	0.03
		5240	1.344	1.451	92.63	0.33	0.04
		5745	1.347	1.453	92.70	0.33	0.03
		5785	1.345	1.452	92.63	0.33	0.03
		5825	1.346	1.452	92.70	0.33	0.04

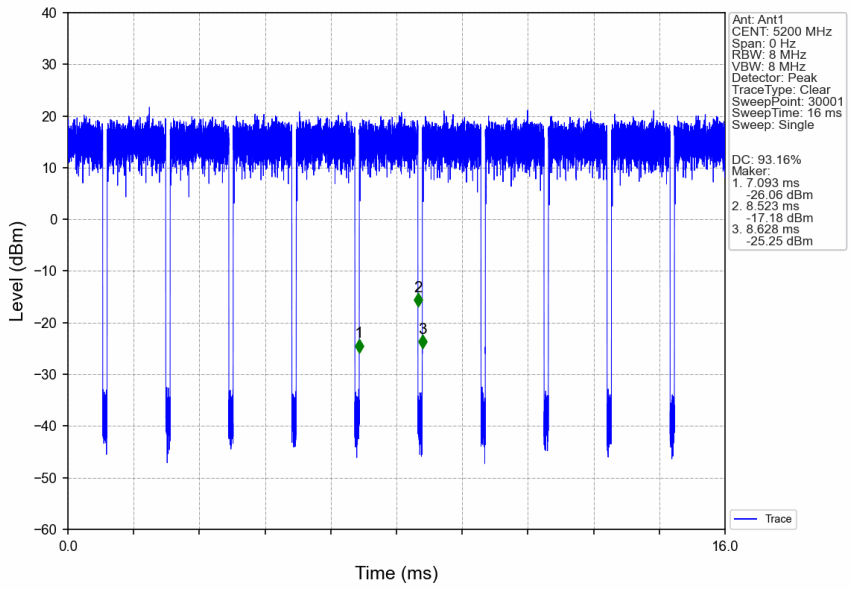
1.2 Test Graph

1.2.1 Ant1

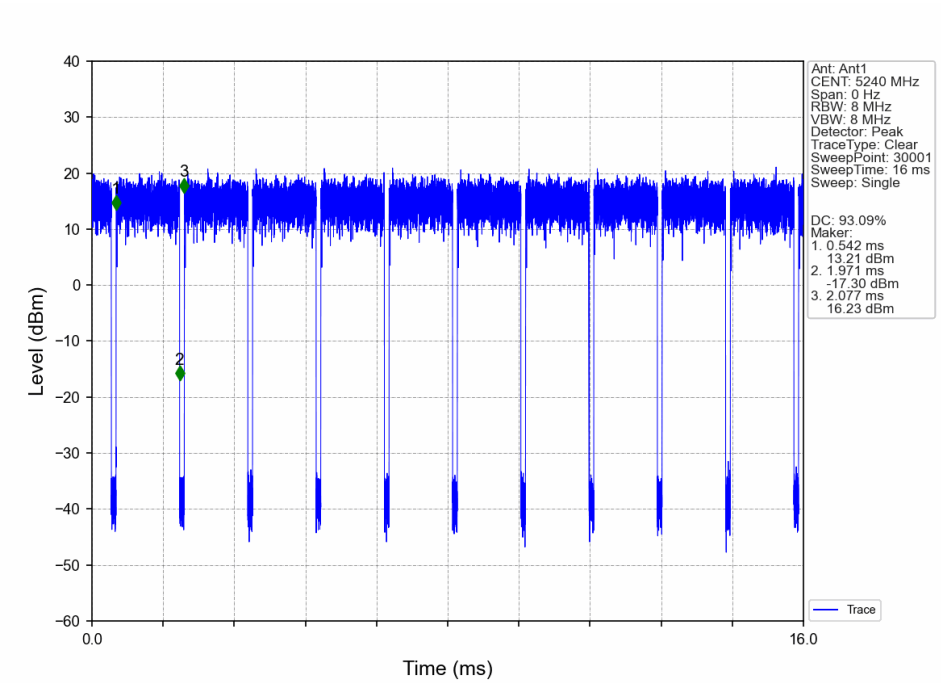
802.11a_LCH_5180MHz_Ant1_NTNV



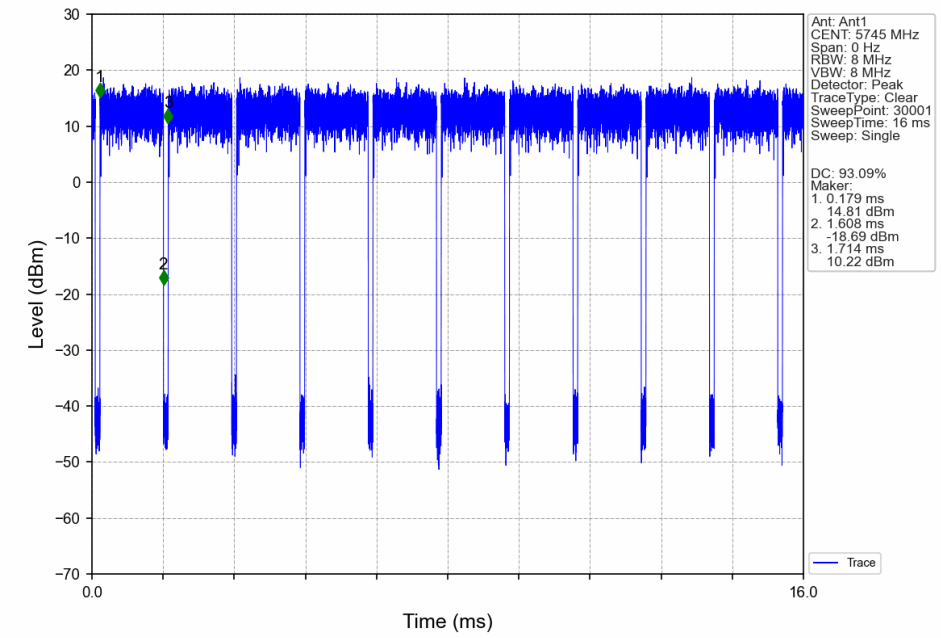
802.11a_MCH_5200MHz_Ant1_NTNV



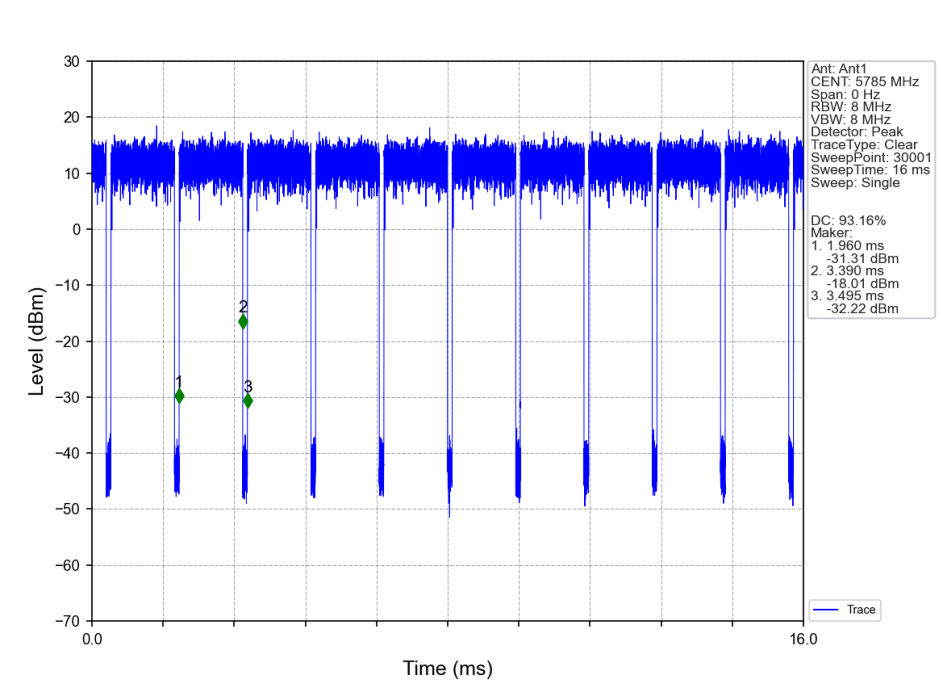
802.11a_HCH_5240MHz_Ant1_NTNV



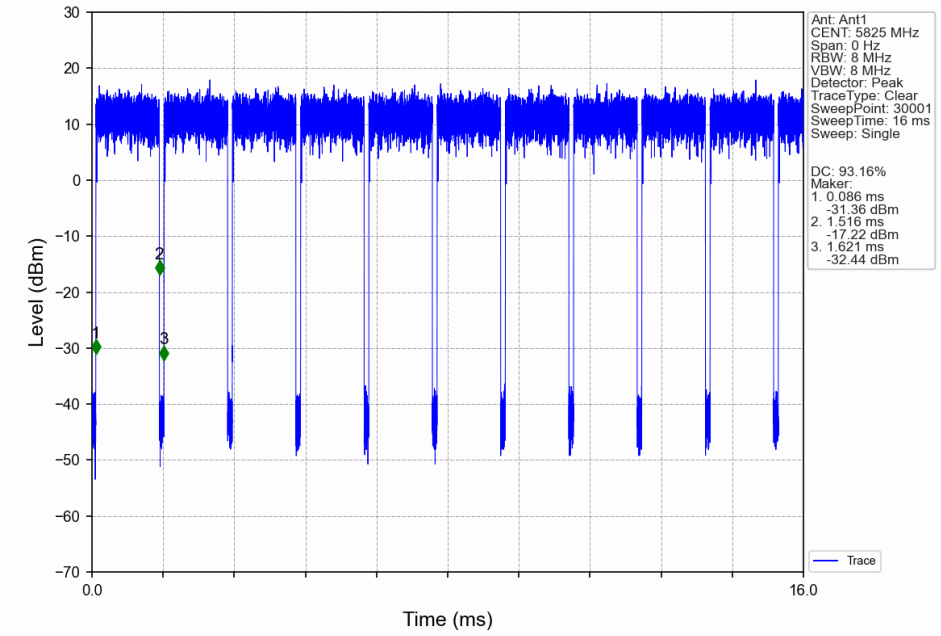
802.11a_LCH_5745MHz_Ant1_NTNV



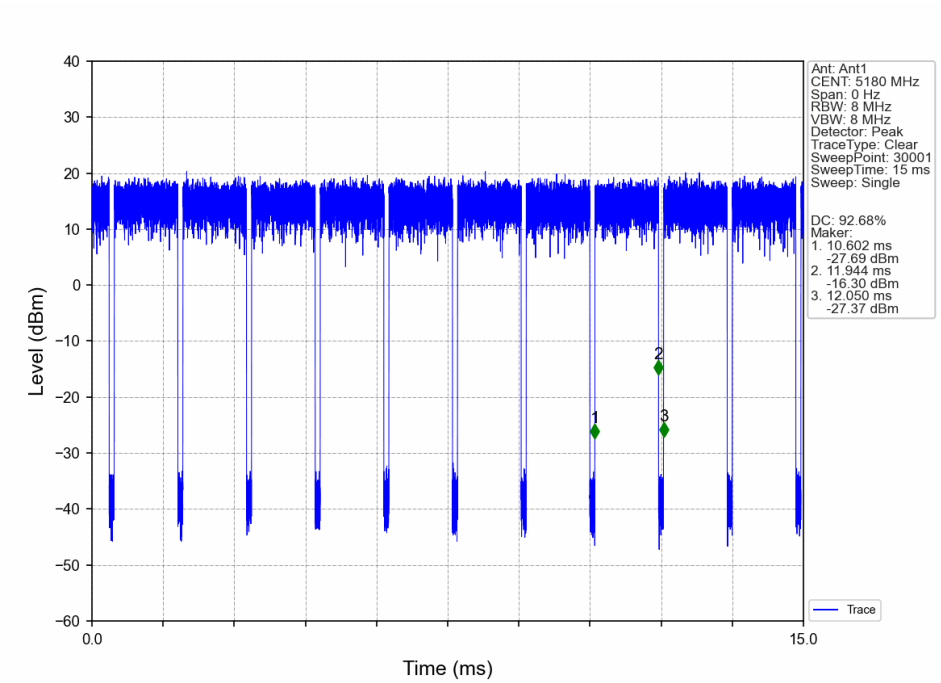
802.11a_MCH_5785MHz_Ant1_NTNV



802.11a_HCH_5825MHz_Ant1_NTNV



802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



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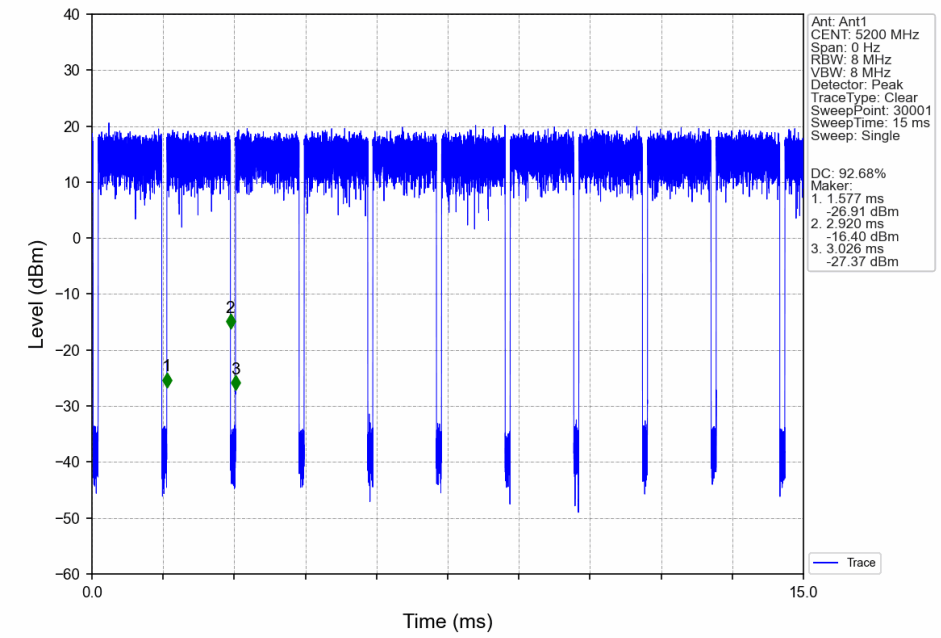
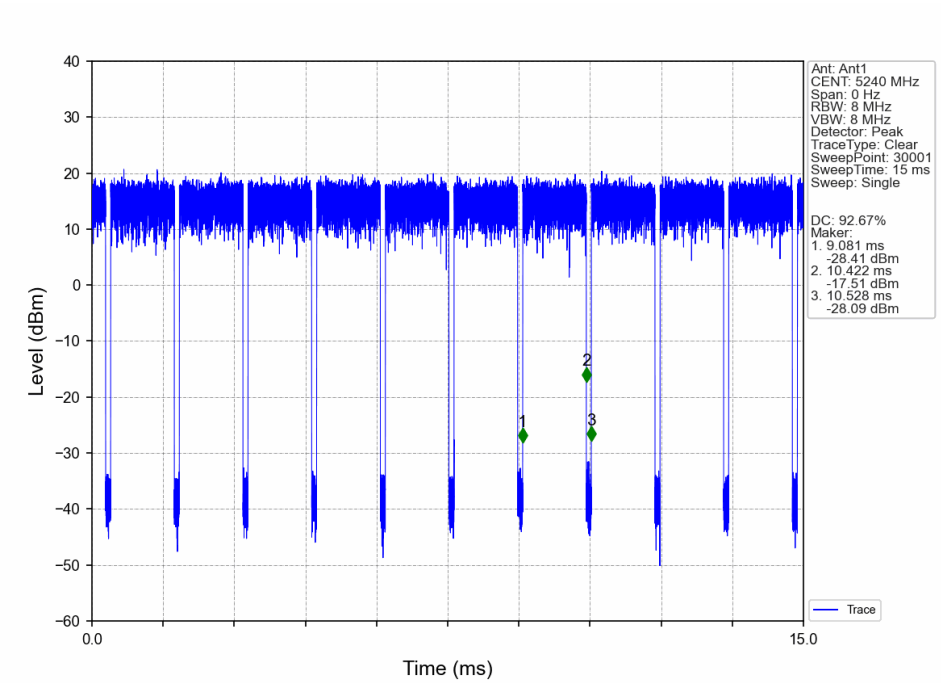
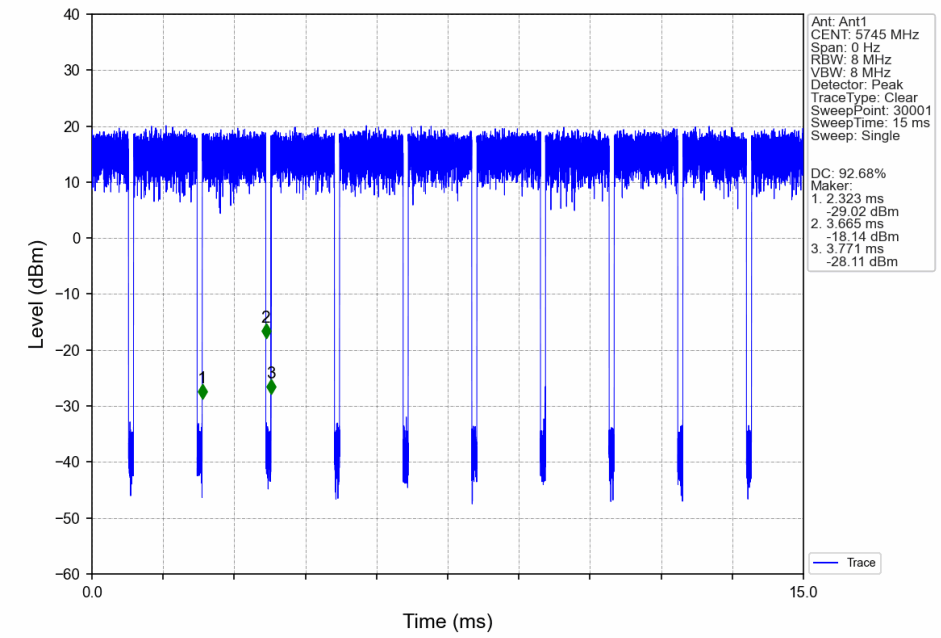


802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



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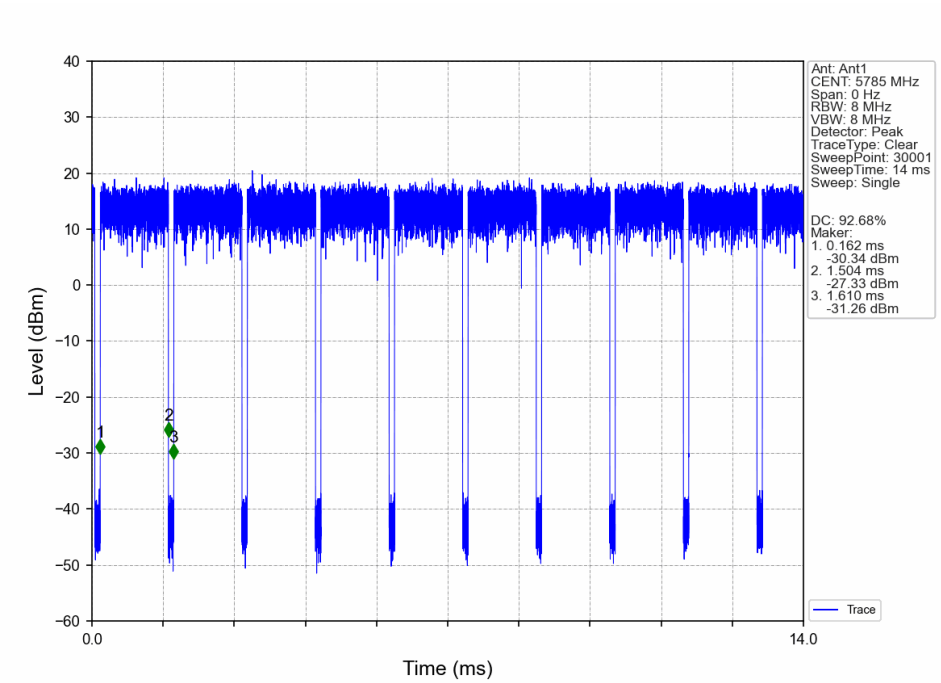
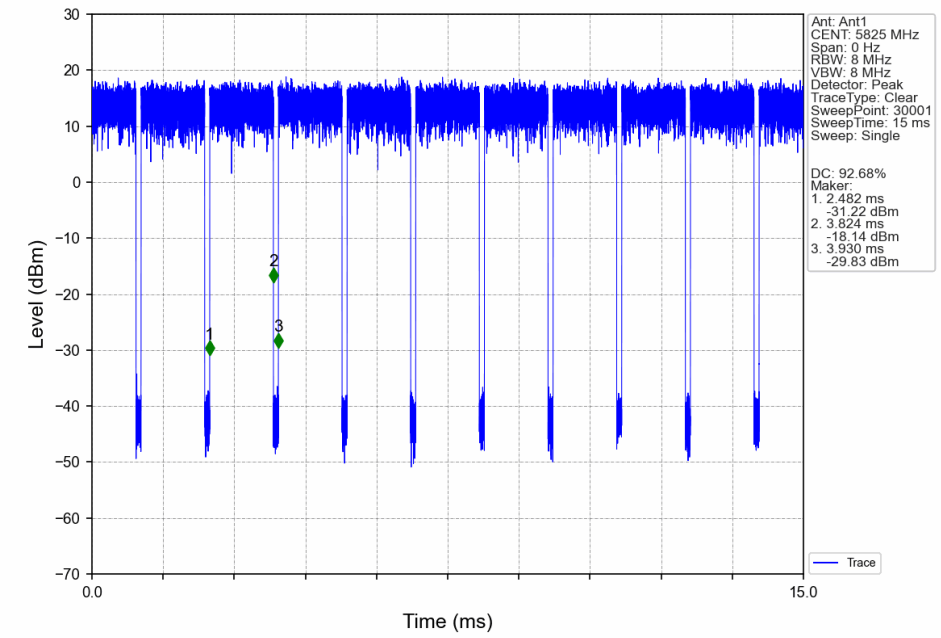
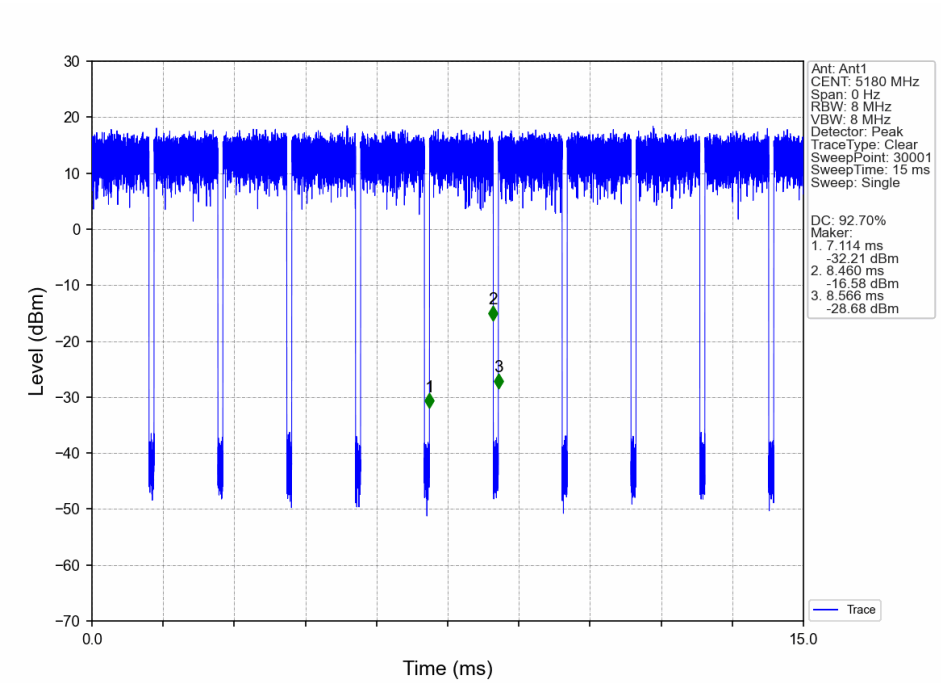


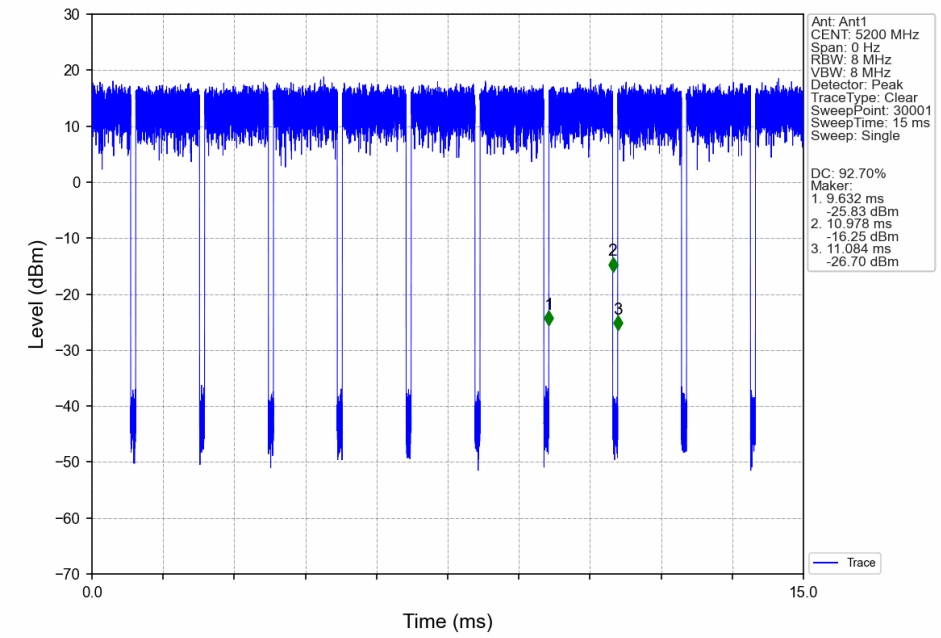
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



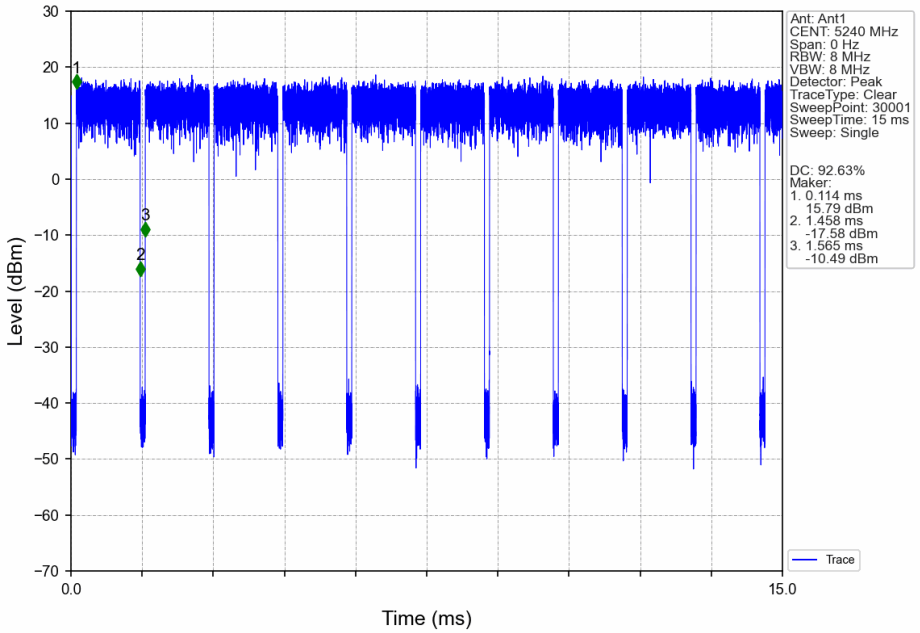
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



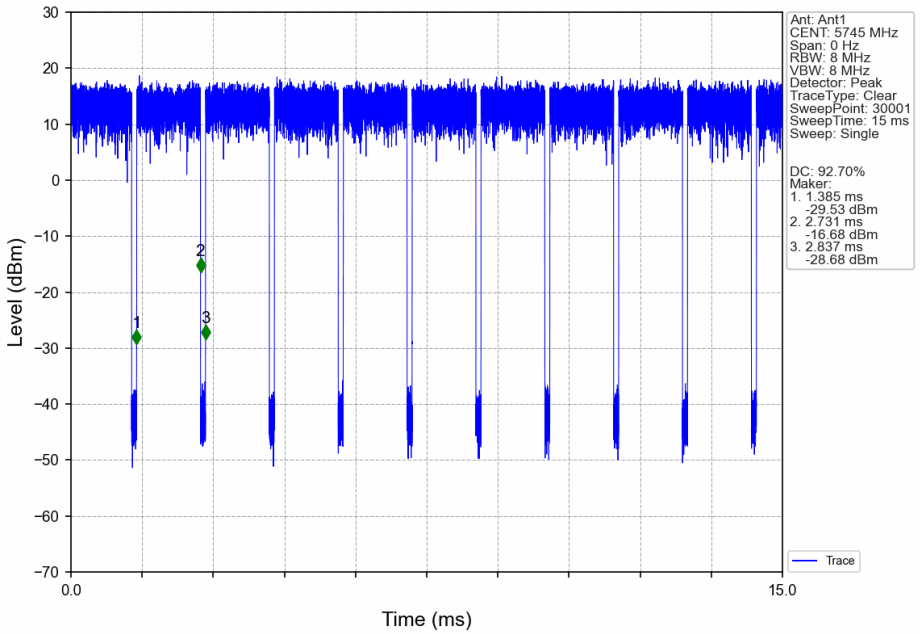
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



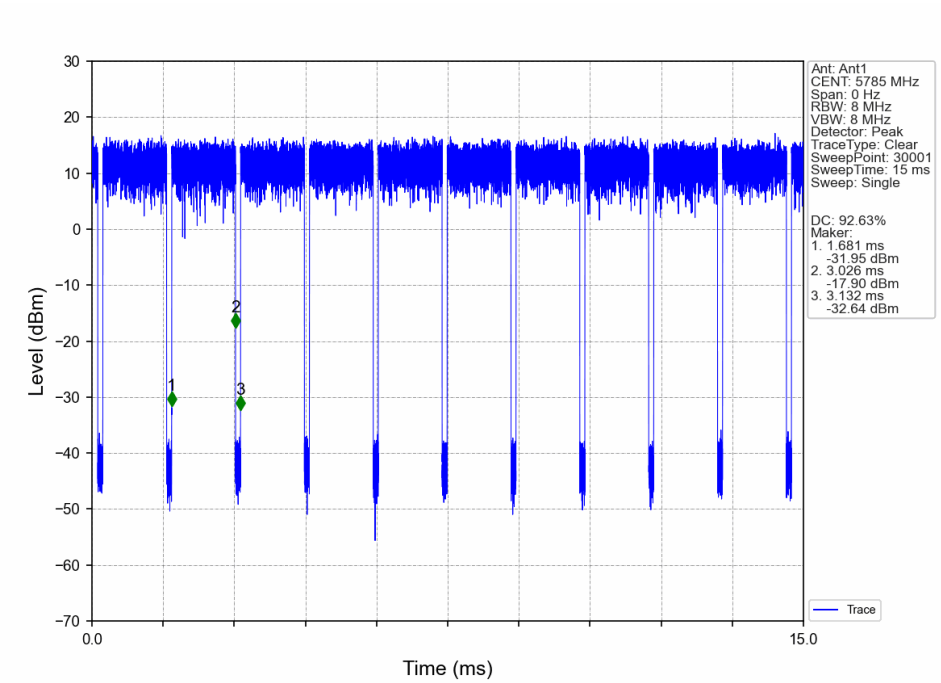
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



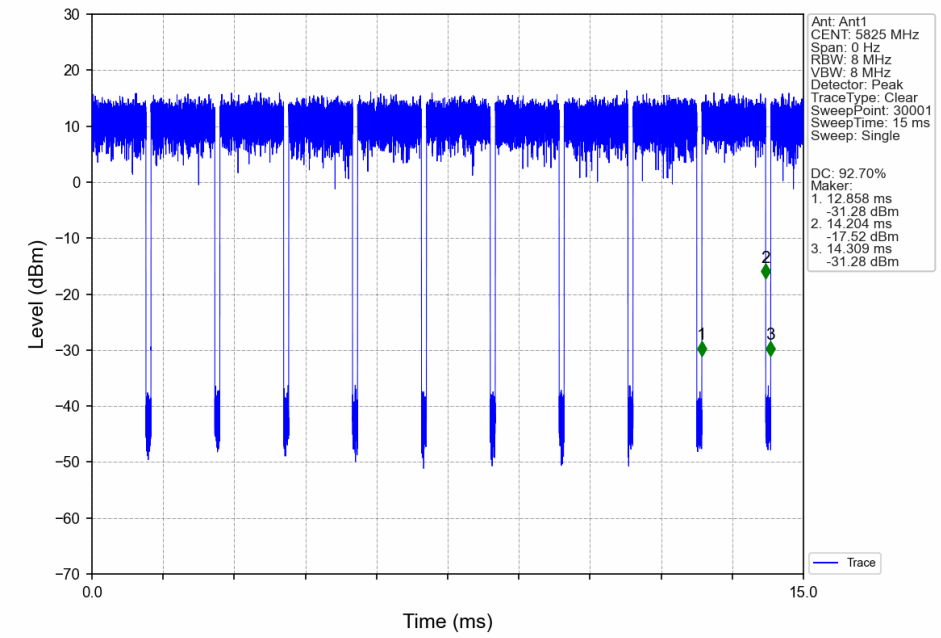
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	18.033	/	Pass
		5200	1	18.103	/	Pass
		5240	1	18.283	/	Pass
		5745	1	18.167	/	Pass
		5785	1	18.204	/	Pass
		5825	1	18.155	/	Pass
802.11n (HT20)	SISO	5180	1	18.974	/	Pass
		5200	1	19.096	/	Pass
		5240	1	19.014	/	Pass
		5745	1	22.763	/	Pass
		5785	1	22.655	/	Pass
		5825	1	20.249	/	Pass
802.11ac (VHT20)	SISO	5180	1	18.864	/	Pass
		5200	1	18.865	/	Pass
		5240	1	18.915	/	Pass
		5745	1	19.221	/	Pass
		5785	1	19.067	/	Pass
		5825	1	18.992	/	Pass

2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	16.390	>=0.5	Pass
		5785	1	16.344	>=0.5	Pass
		5825	1	16.380	>=0.5	Pass
802.11n (HT20)	SISO	5745	1	17.573	>=0.5	Pass
		5785	1	17.591	>=0.5	Pass
		5825	1	17.622	>=0.5	Pass
802.11ac (VHT20)	SISO	5745	1	17.610	>=0.5	Pass
		5785	1	17.614	>=0.5	Pass
		5825	1	17.597	>=0.5	Pass

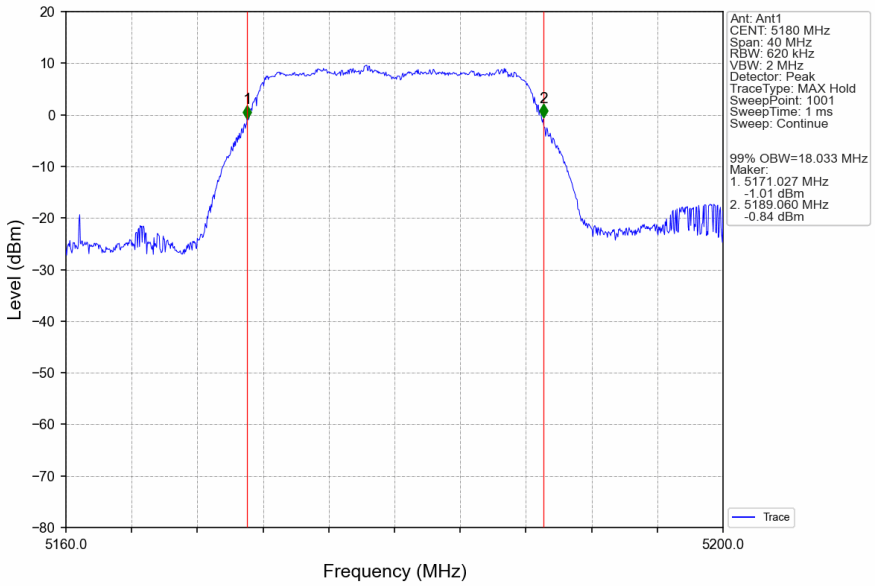
2.1.3 26dB BW

Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	21.261	/	Pass
		5200	1	21.288	/	Pass
		5240	1	21.557	/	Pass
802.11n (HT20)	SISO	5180	1	21.566	/	Pass
		5200	1	21.683	/	Pass
		5240	1	21.678	/	Pass
802.11ac (VHT20)	SISO	5180	1	21.475	/	Pass
		5200	1	21.624	/	Pass
		5240	1	21.563	/	Pass

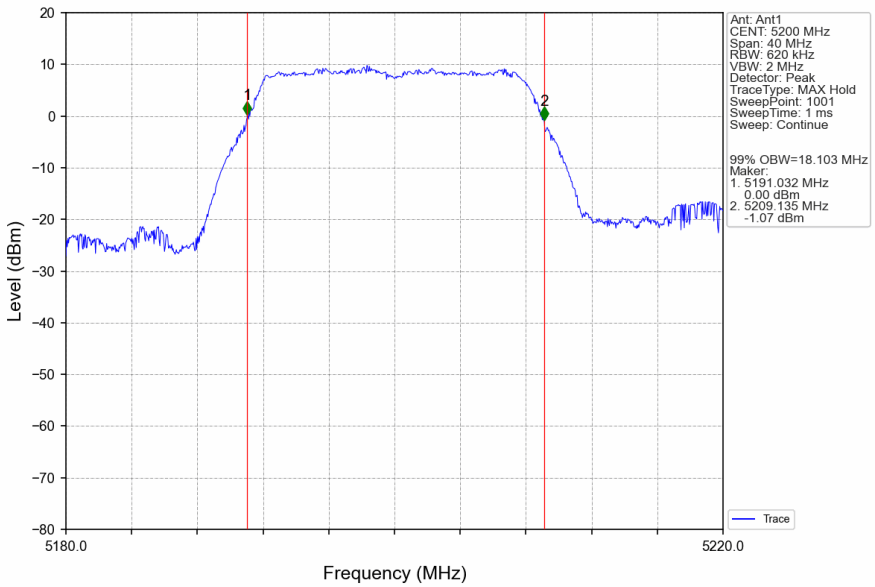
2.2 Test Graph

2.2.1 OBW

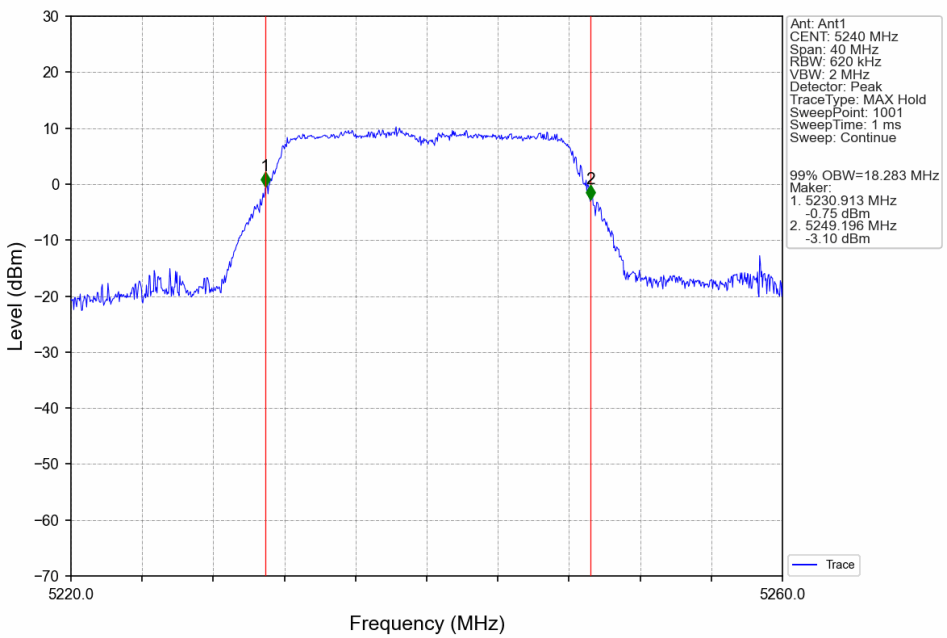
802.11a_LCH_5180MHz_Ant1_NTNV



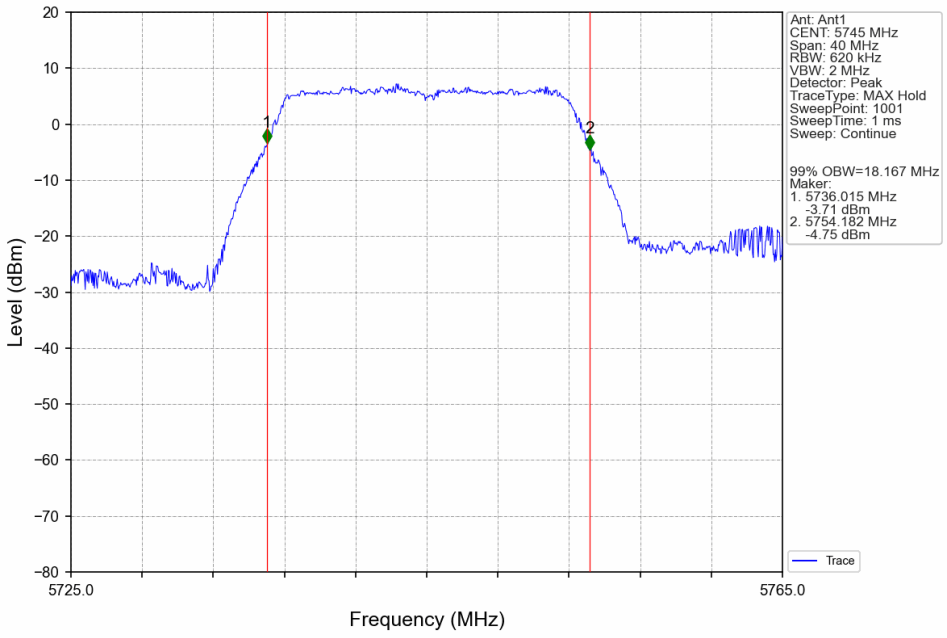
802.11a_MCH_5200MHz_Ant1_NTNV



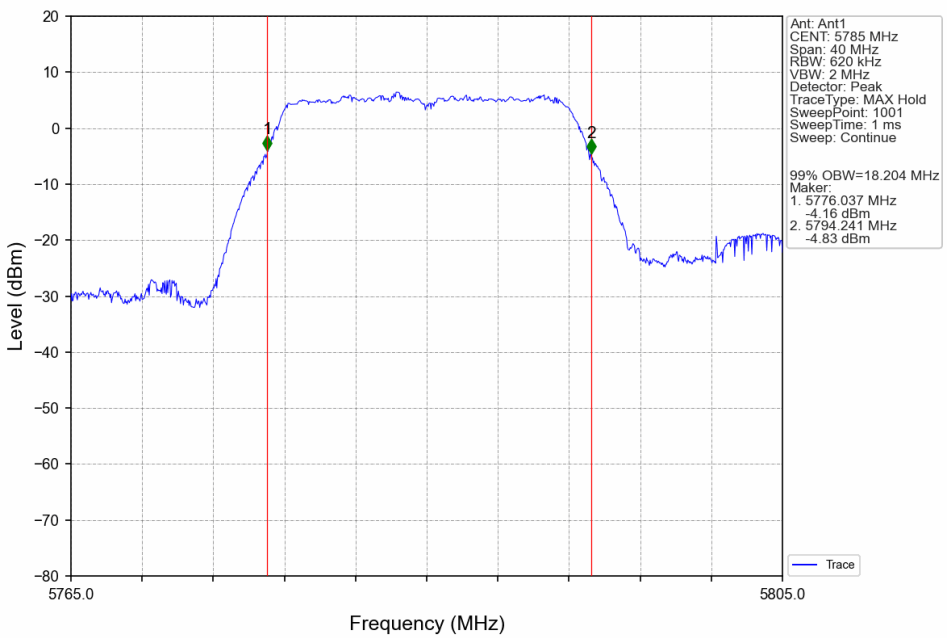
802.11a_HCH_5240MHz_Ant1_NTNV



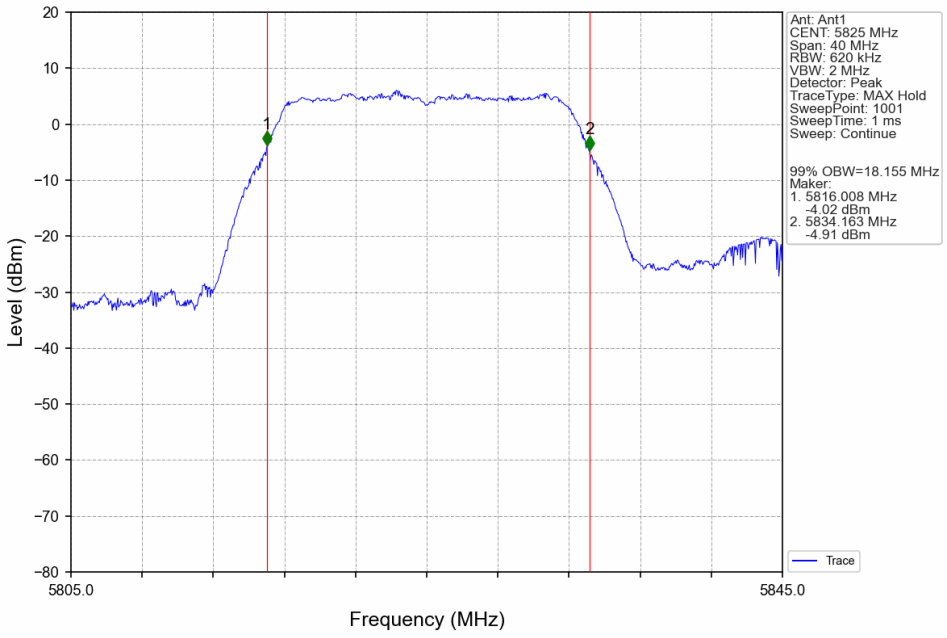
802.11a_LCH_5745MHz_Ant1_NTNV



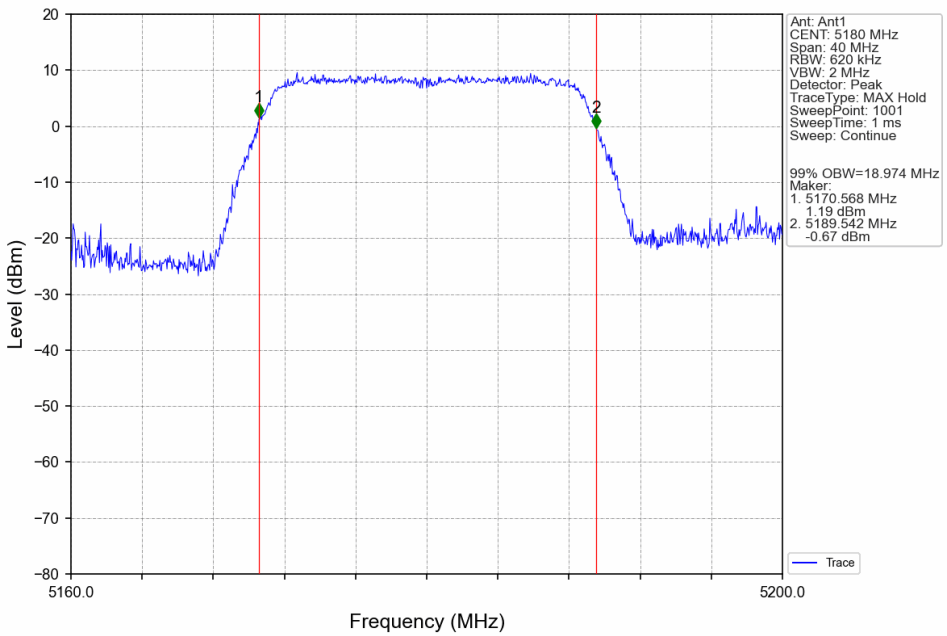
802.11a_MCH_5785MHz_Ant1_NTNV



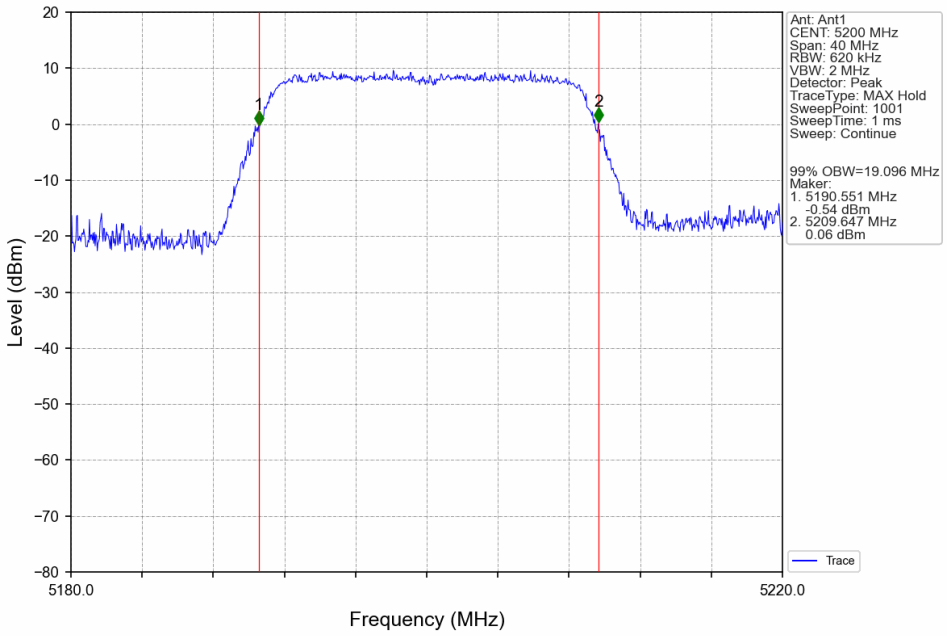
802.11a_HCH_5825MHz_Ant1_NTNV



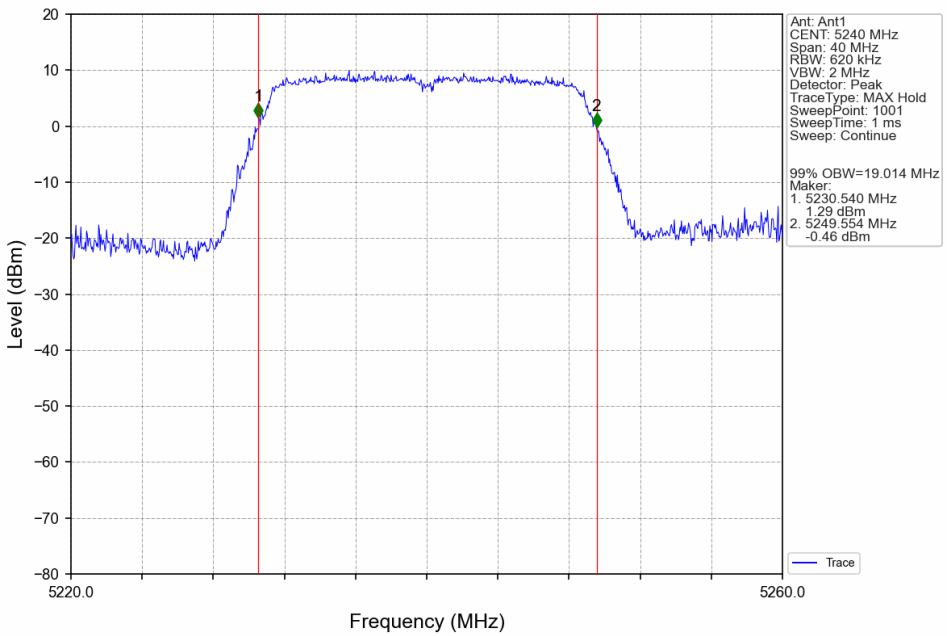
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



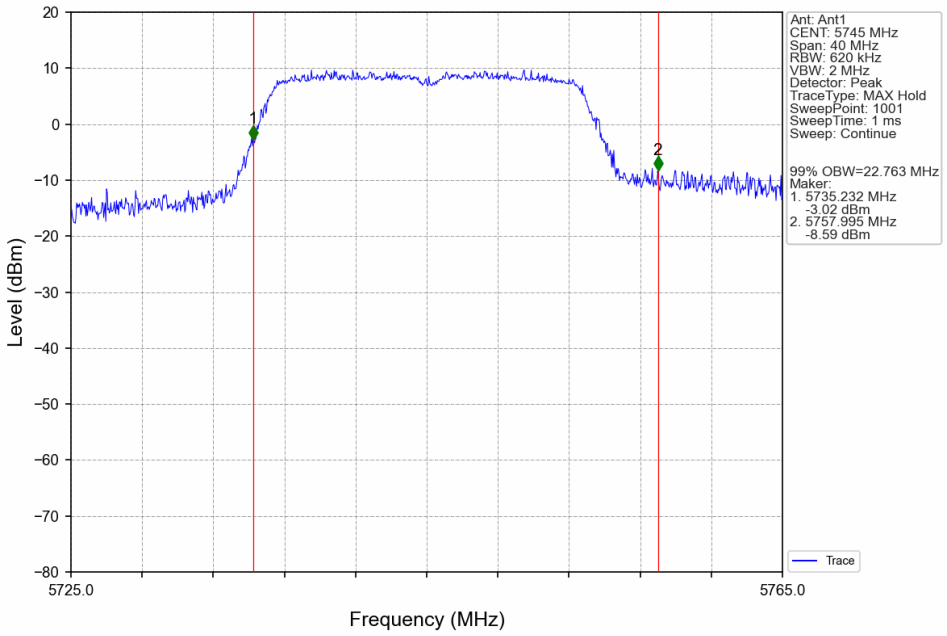
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



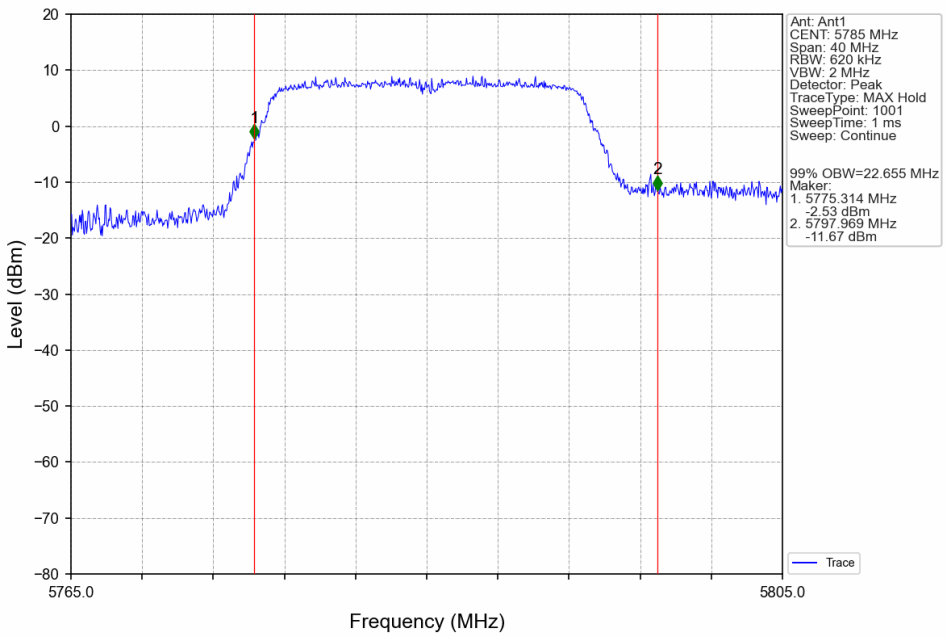
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



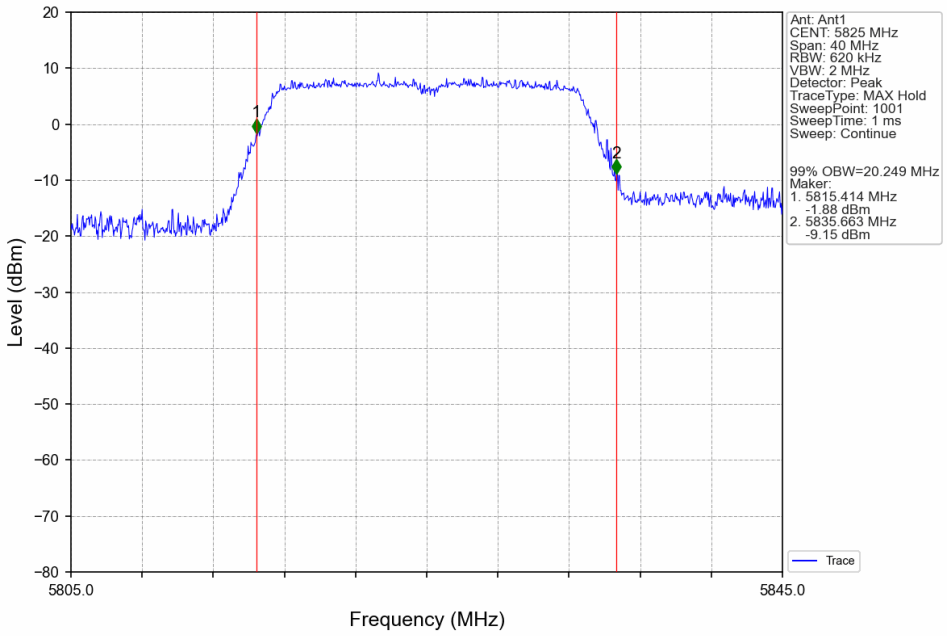
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



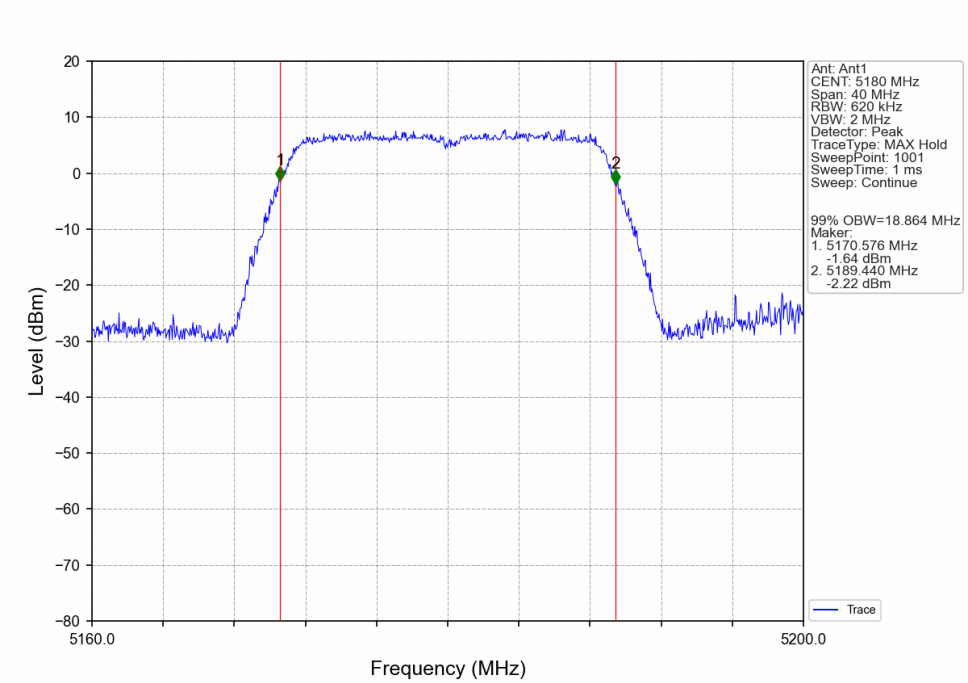
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



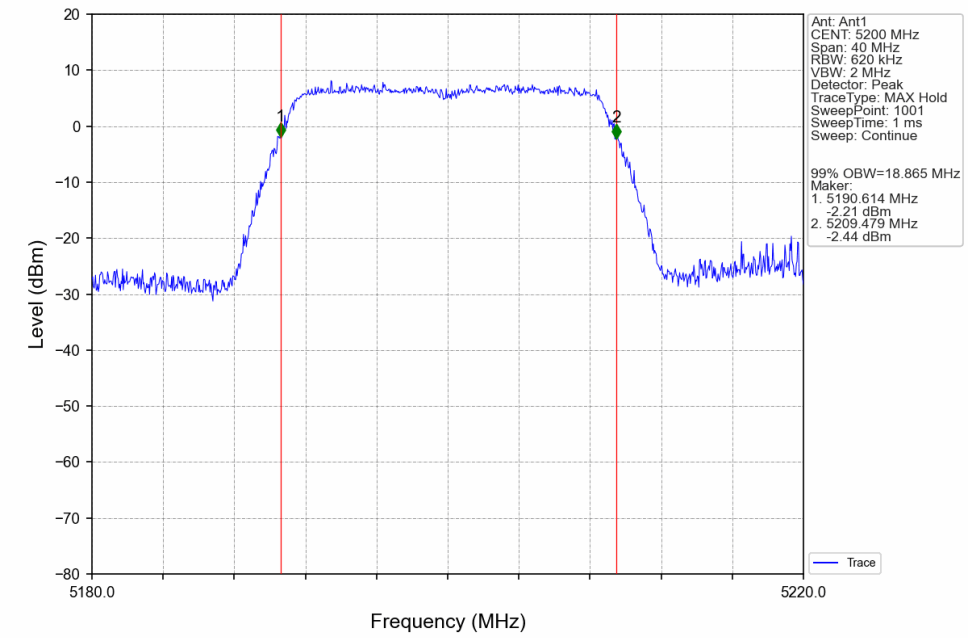
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



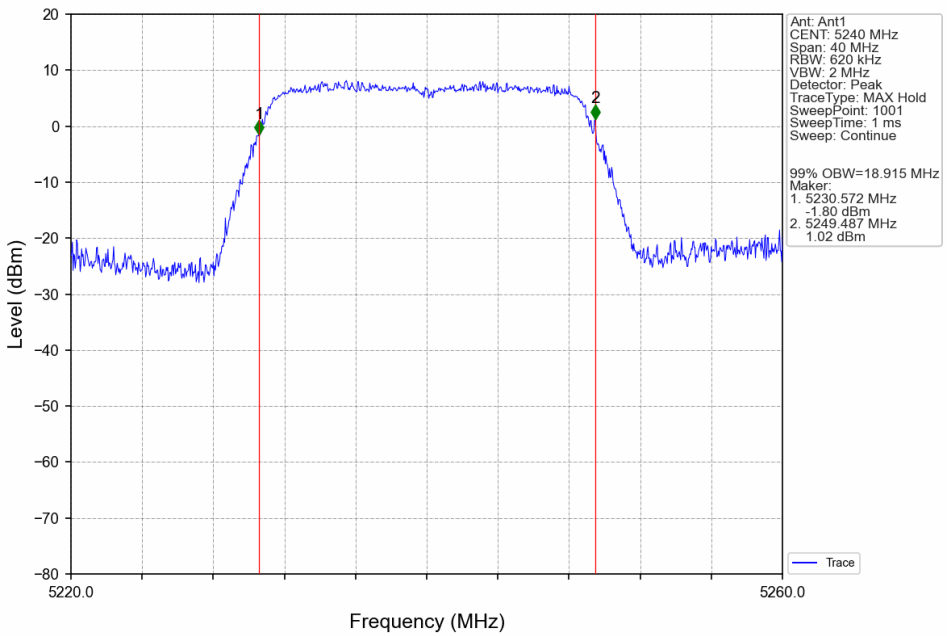
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



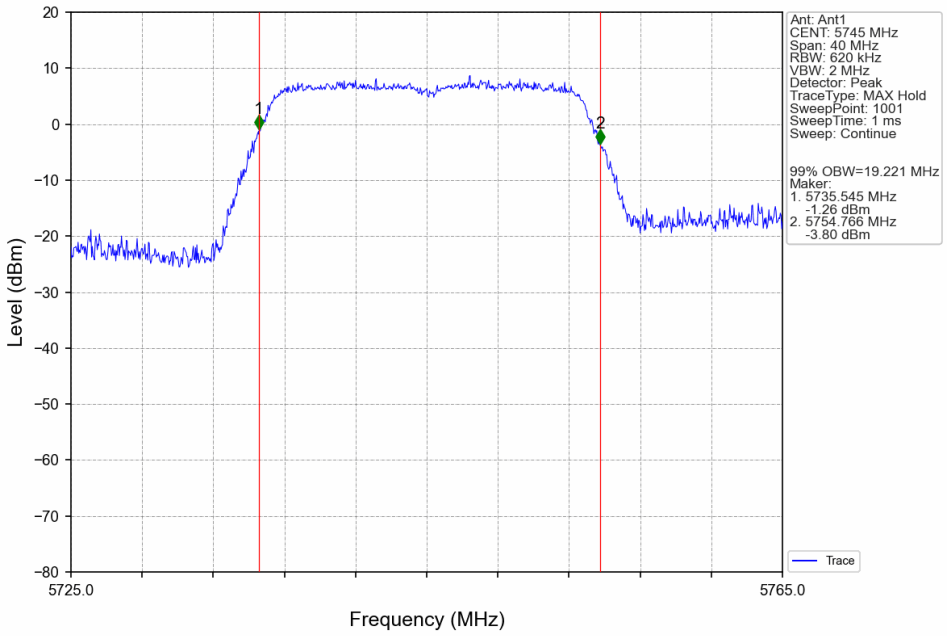
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



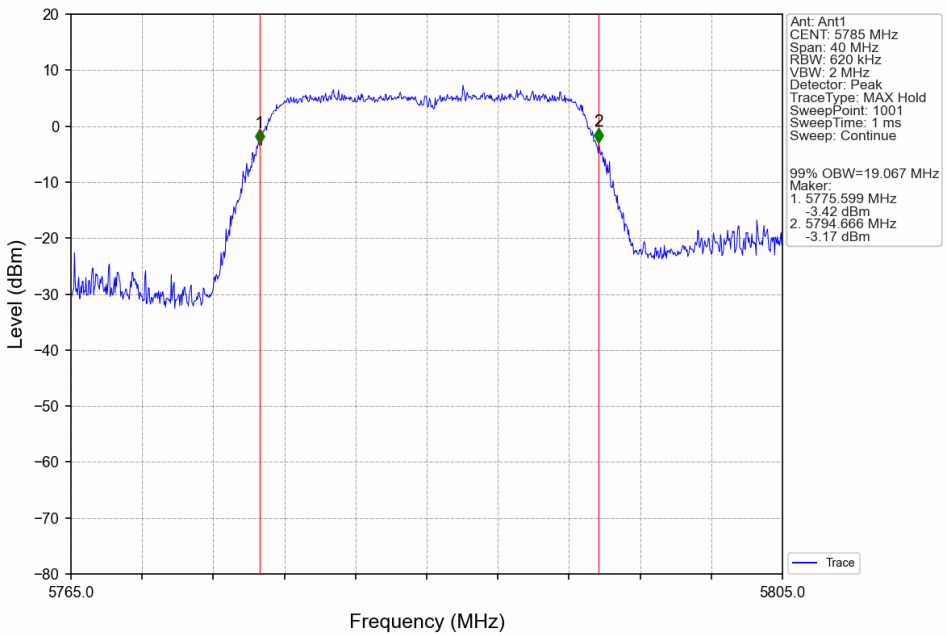
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



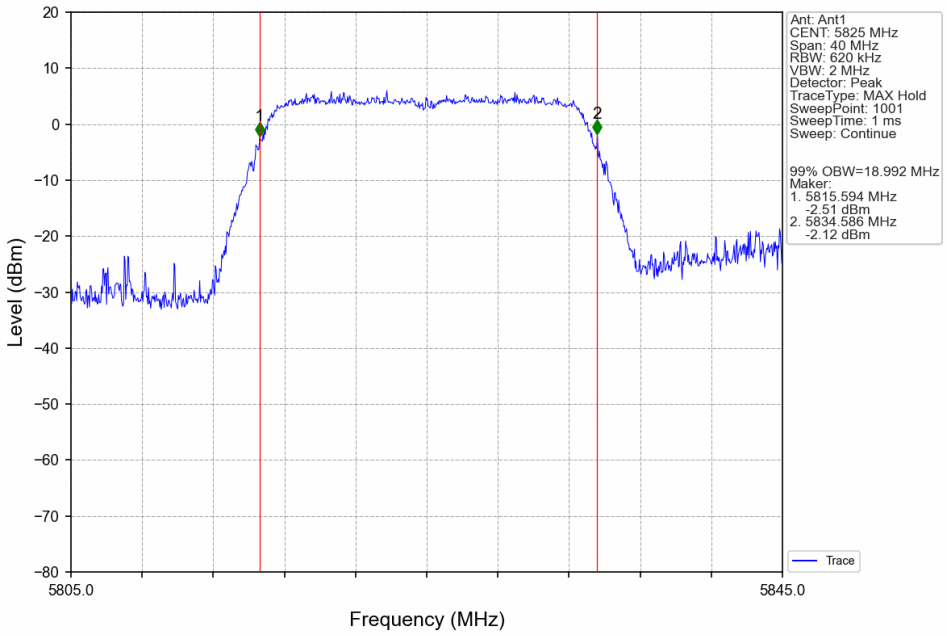
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV

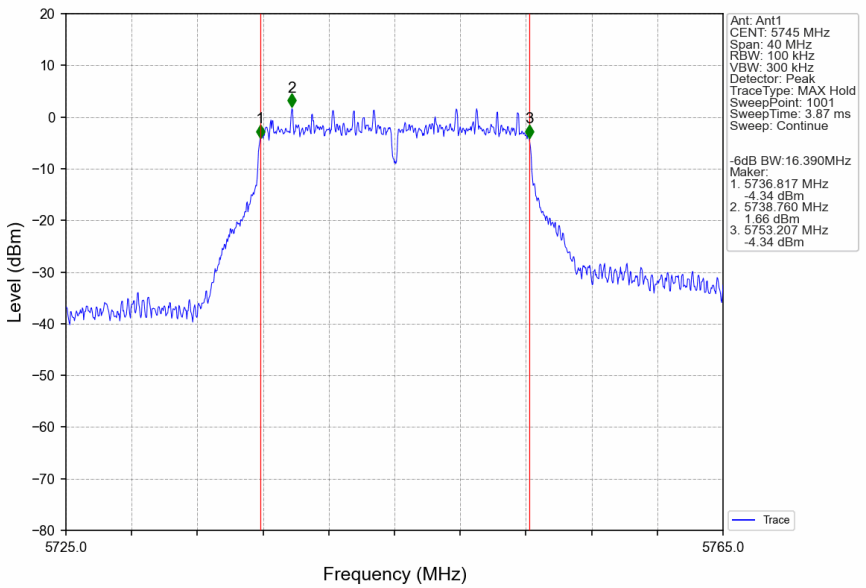


802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV

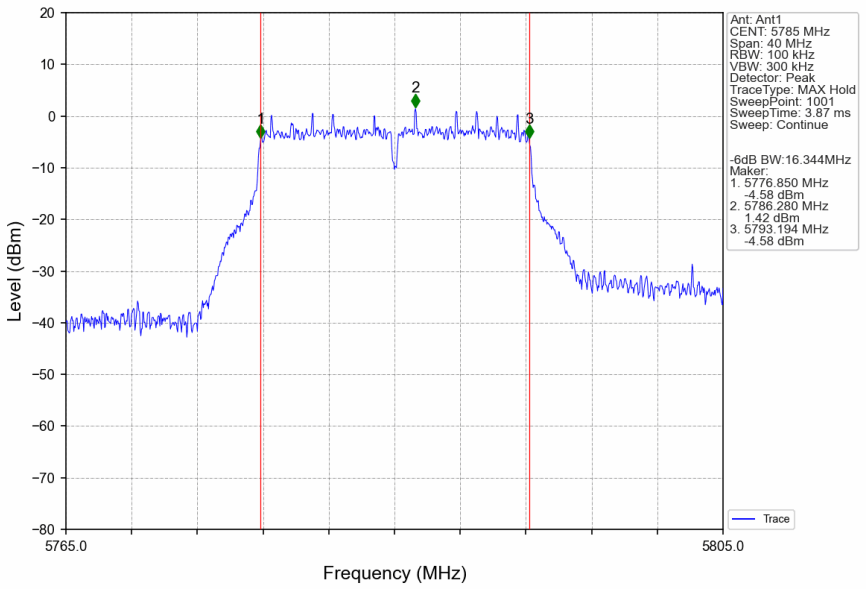


2.2.2 6dB BW

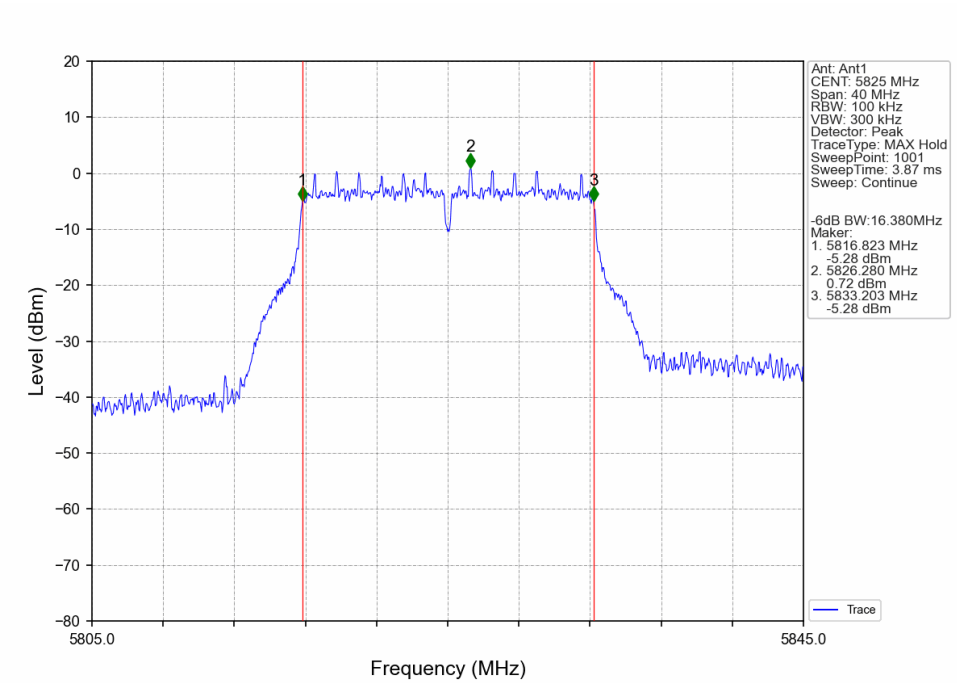
802.11a_LCH_5745MHz_Ant1_NTNV



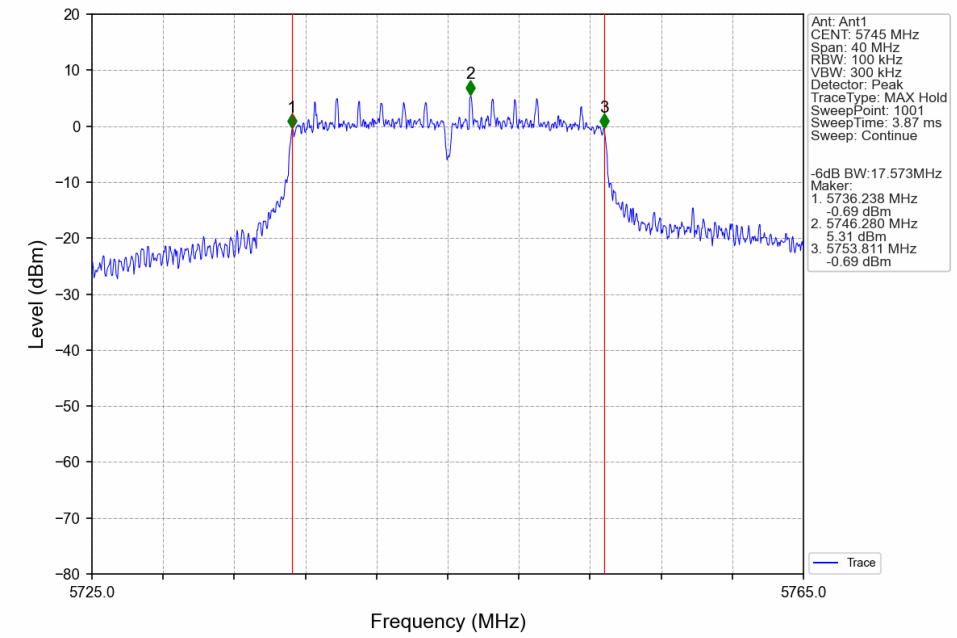
802.11a_MCH_5785MHz_Ant1_NTNV



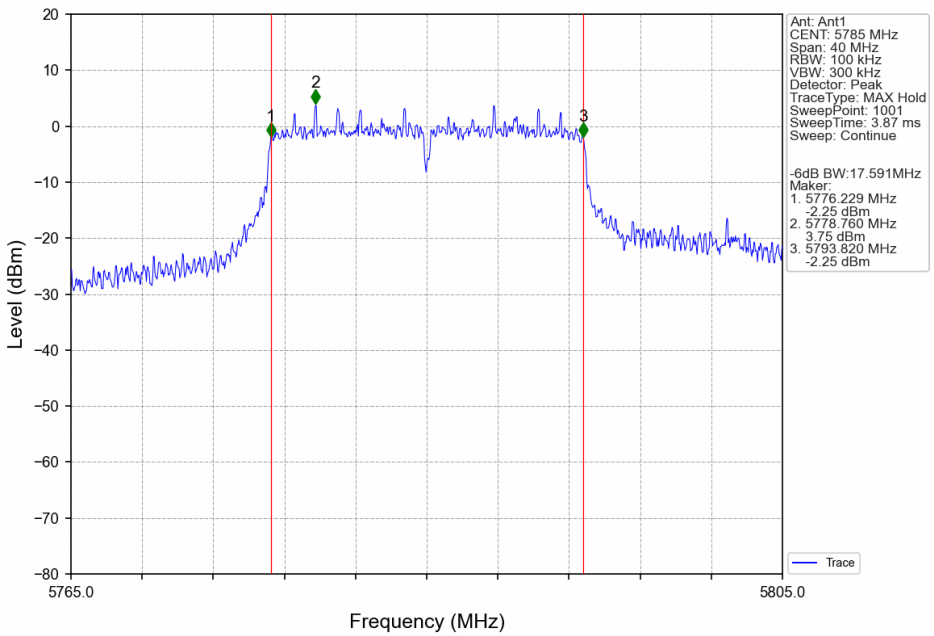
802.11a_HCH_5825MHz_Ant1_NTNV



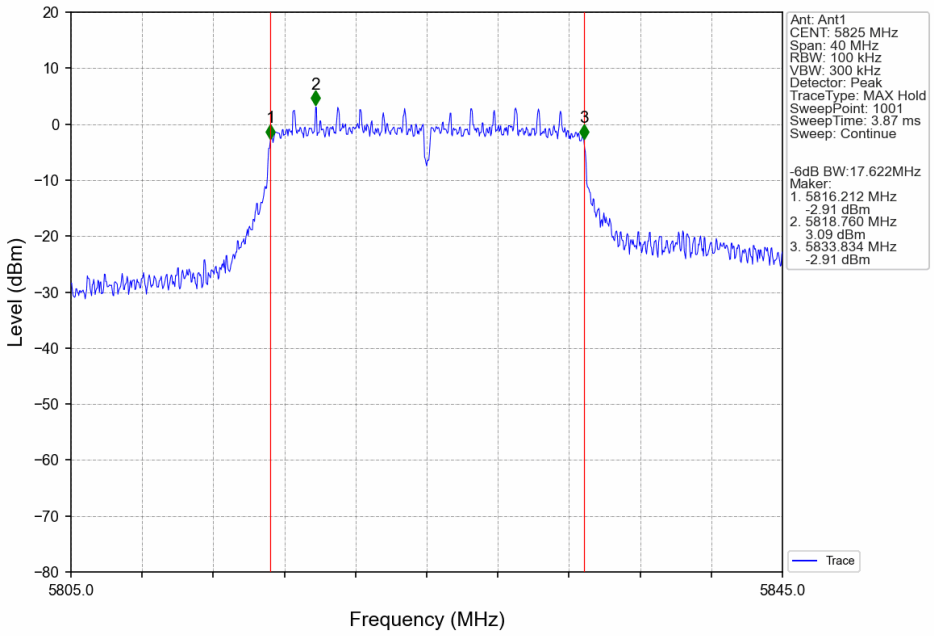
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



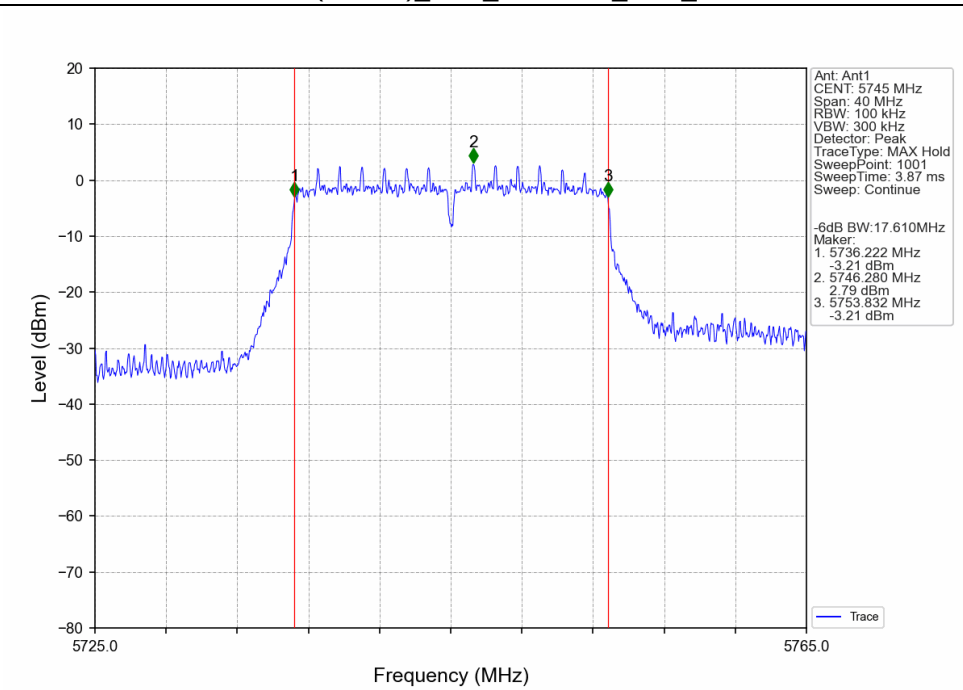
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



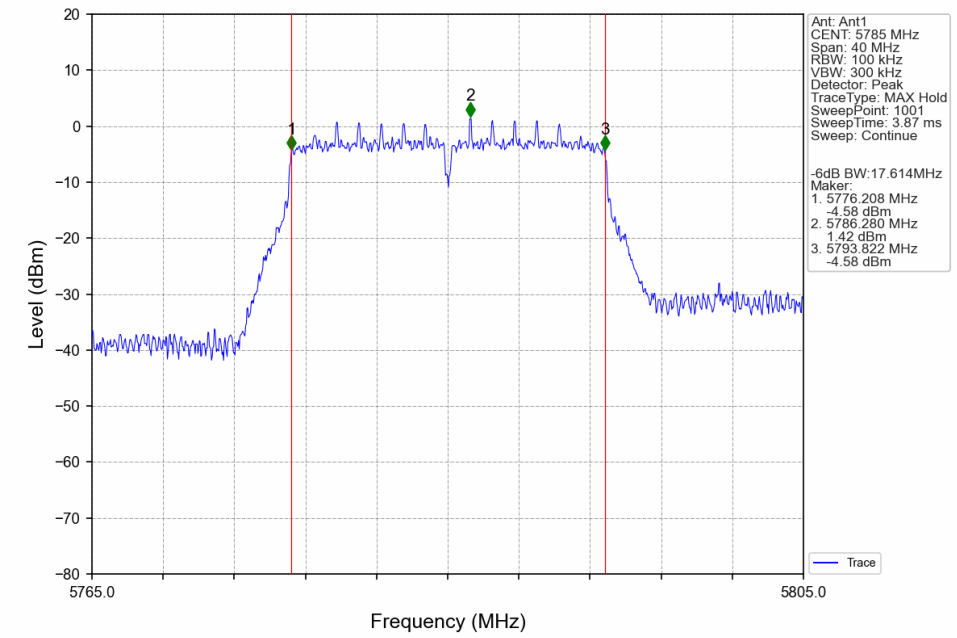
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



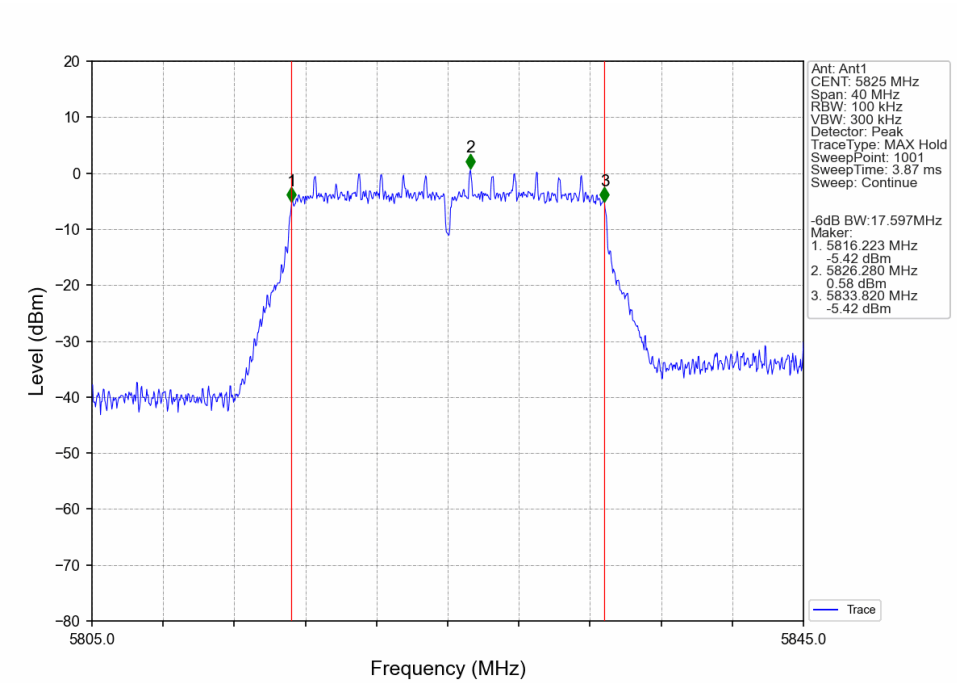
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV

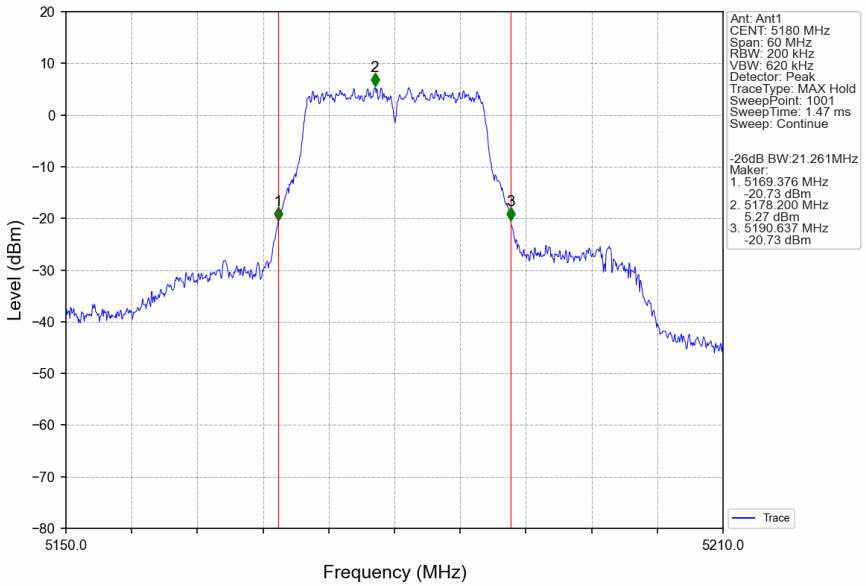


802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV

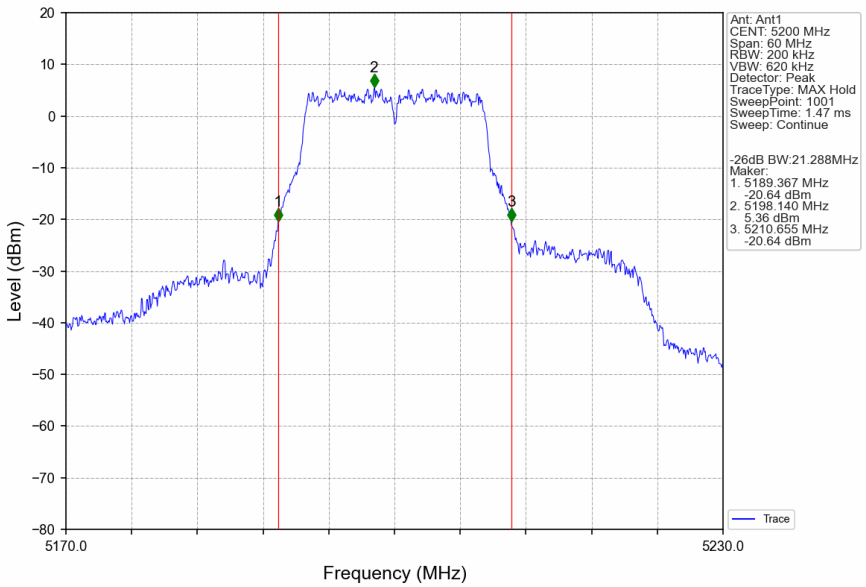


2.2.3 26dB BW

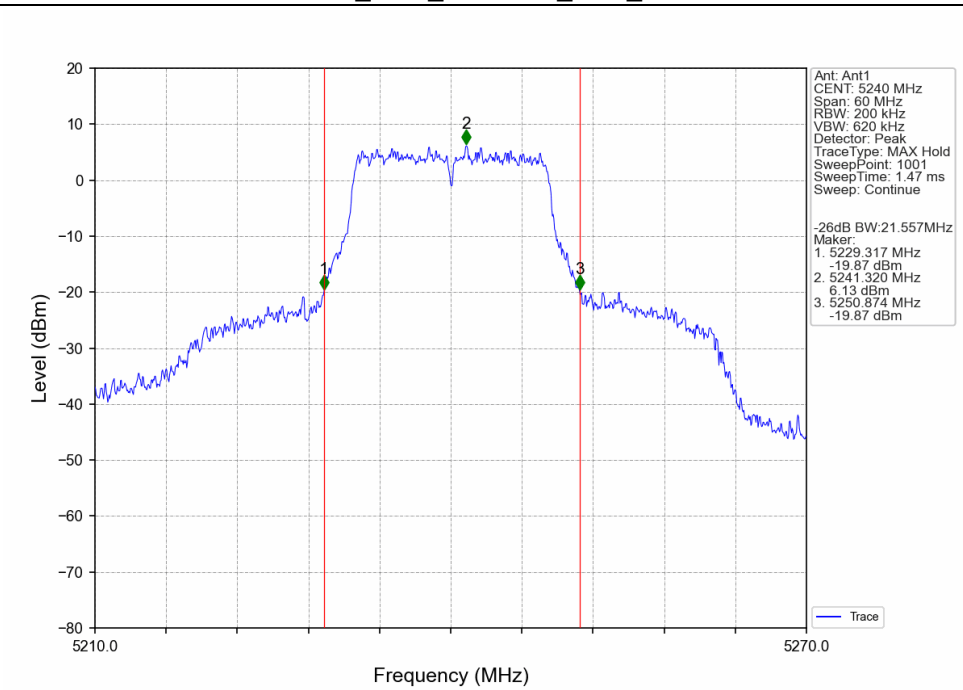
802.11a_LCH_5180MHz_Ant1_NTNV



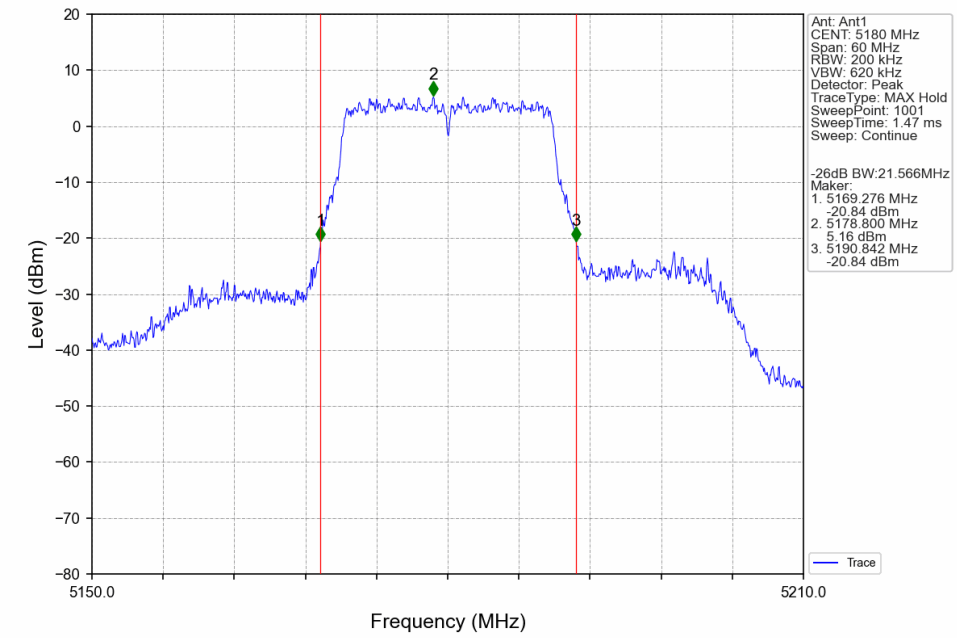
802.11a_MCH_5200MHz_Ant1_NTNV



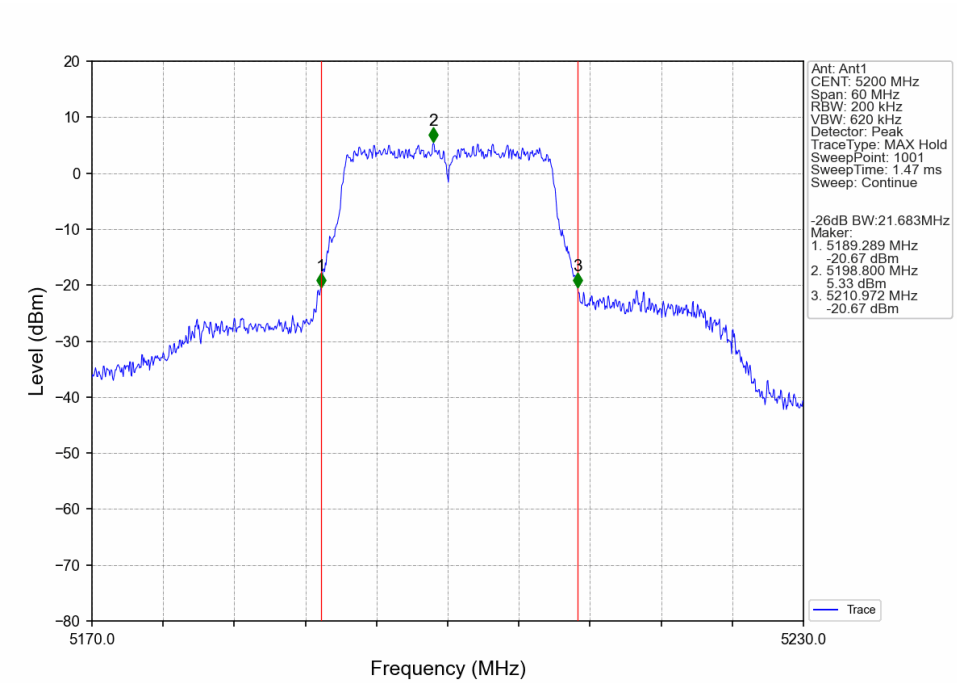
802.11a_HCH_5240MHz_Ant1_NTNV



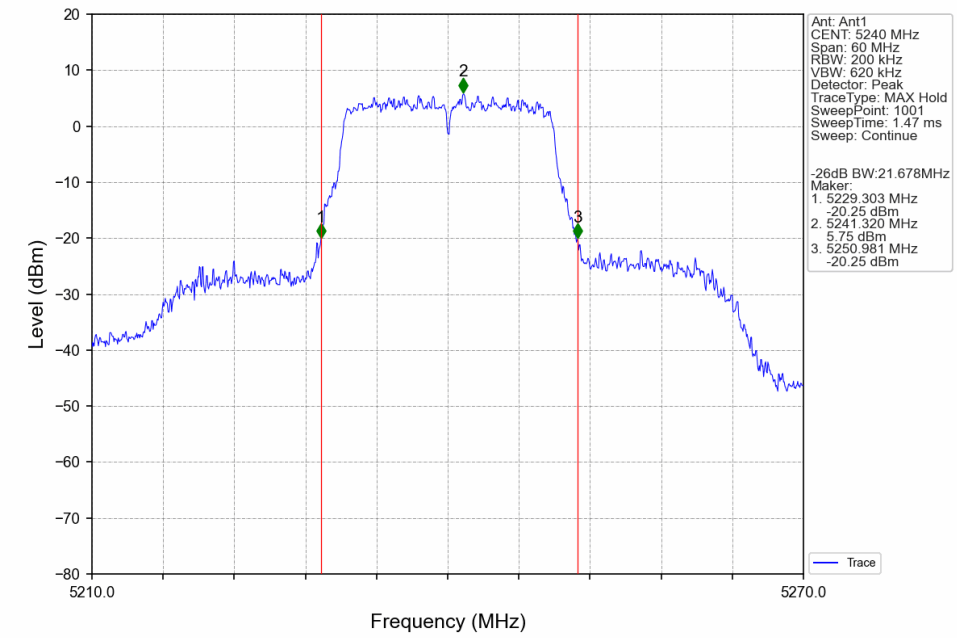
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



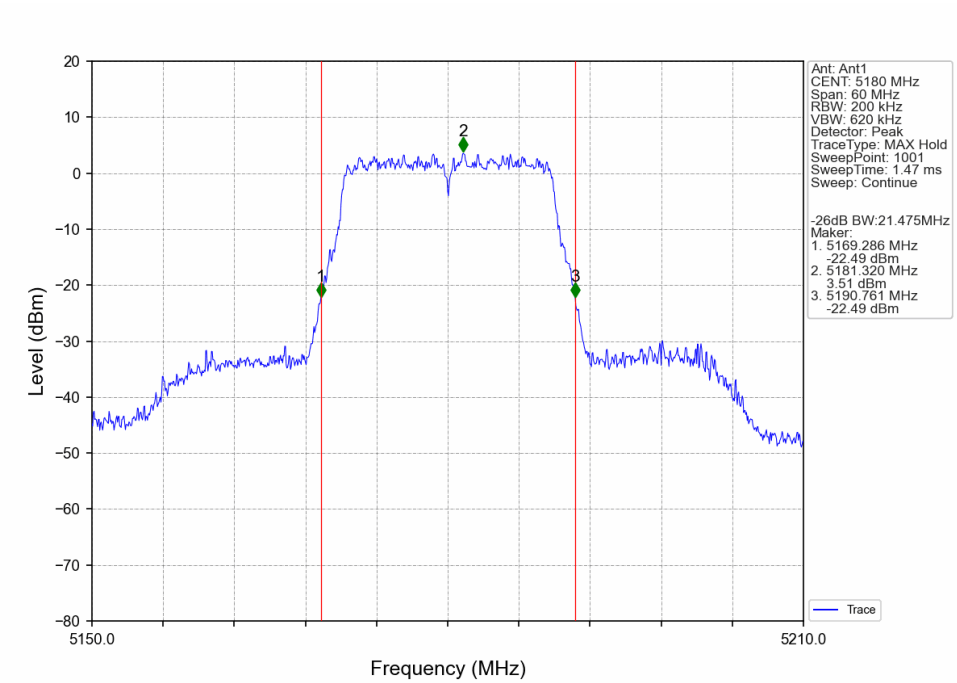
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



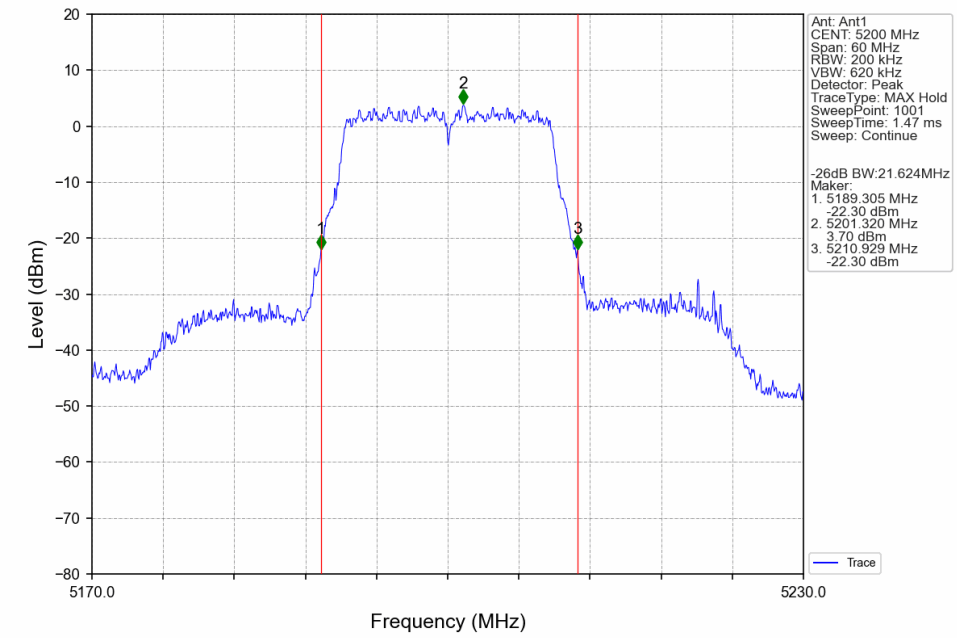
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



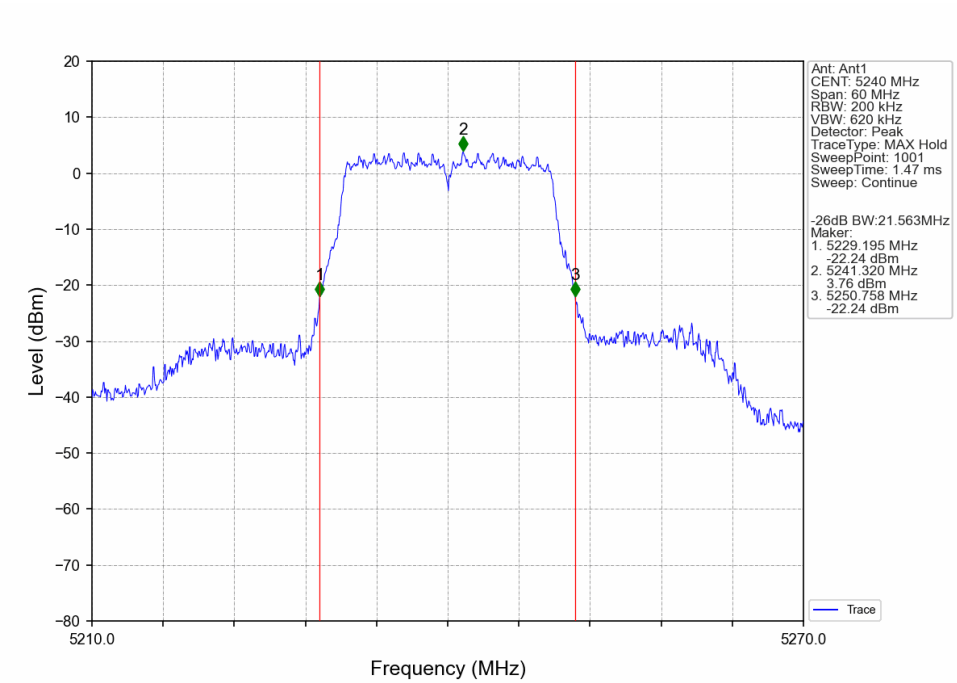
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	15.34	<=23.98	Pass
		5200	15.31	<=23.98	Pass
		5240	15.71	<=23.98	Pass
		5745	15.26	<=30	Pass
		5785	14.59	<=30	Pass
		5825	14.14	<=30	Pass
802.11n (HT20)	SISO	5180	15.10	<=23.98	Pass
		5200	15.17	<=23.98	Pass
		5240	15.35	<=23.98	Pass
		5745	15.47	<=30	Pass
		5785	14.50	<=30	Pass
		5825	14.10	<=30	Pass
802.11ac (VHT20)	SISO	5180	13.43	<=23.98	Pass
		5200	13.57	<=23.98	Pass
		5240	13.75	<=23.98	Pass
		5745	13.55	<=30	Pass
		5785	12.55	<=30	Pass
		5825	12.12	<=30	Pass
Note1: Antenna Gain: Ant1: 1.64dBi;					

4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/MHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	3.96	<=11	Pass
		5200	3.99	<=11	Pass
		5240	4.50	<=11	Pass
802.11n (HT20)	SISO	5180	3.49	<=11	Pass
		5200	3.72	<=11	Pass
		5240	3.87	<=11	Pass
802.11ac (VHT20)	SISO	5180	1.73	<=11	Pass
		5200	2.02	<=11	Pass
		5240	2.19	<=11	Pass
Note1: Antenna Gain: Ant1: 1.64dBi;					

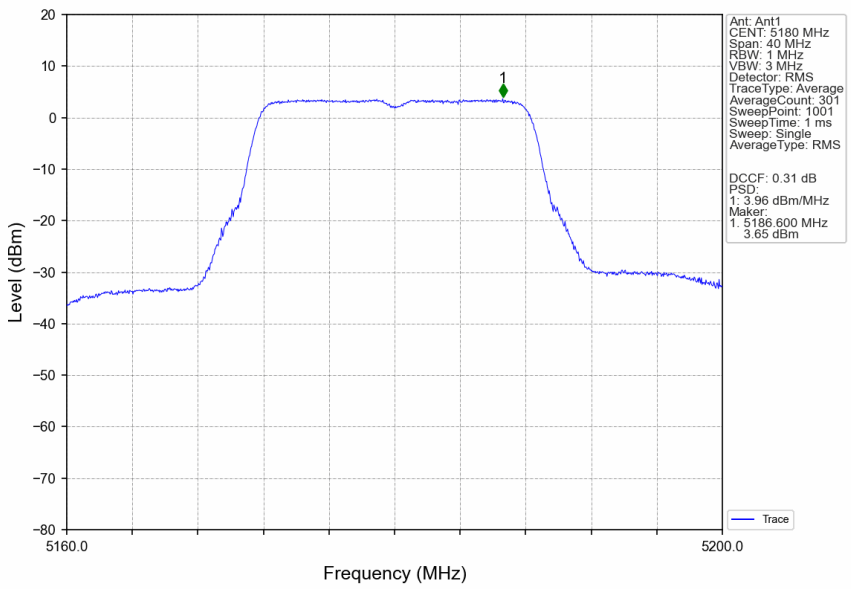
4.1.2 PSD-Band3

Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/500kHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5745	1.29	<=30	Pass
		5785	0.38	<=30	Pass
		5825	0.01	<=30	Pass
802.11n (HT20)	SISO	5745	1.06	<=30	Pass
		5785	-0.01	<=30	Pass
		5825	-0.19	<=30	Pass
802.11ac (VHT20)	SISO	5745	-0.94	<=30	Pass
		5785	-1.92	<=30	Pass
		5825	-2.26	<=30	Pass
Note1: Antenna Gain: Ant1: 1.64dBi;					

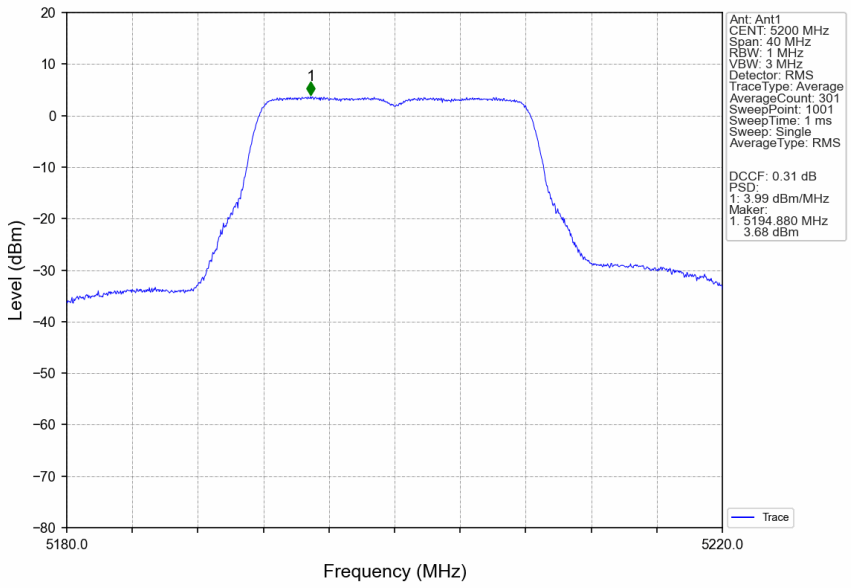
4.2 Test Graph

4.2.1 PSD

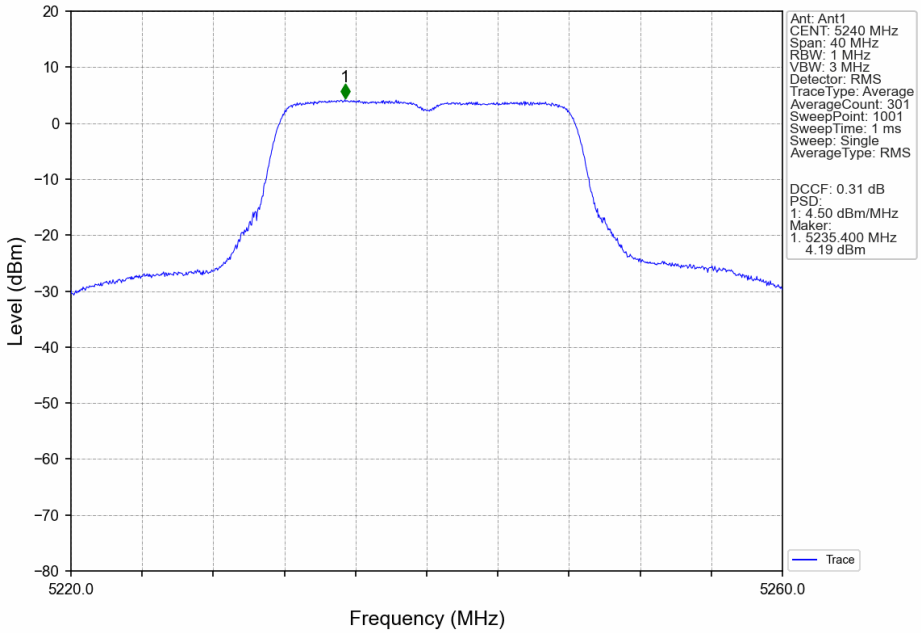
802.11a_LCH_5180MHz_Ant1_NTNV



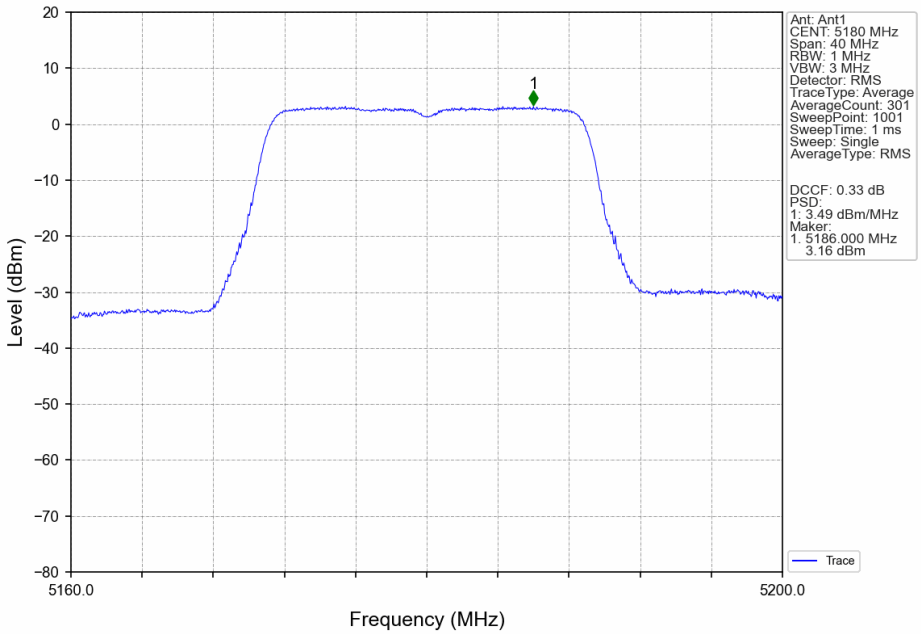
802.11a_MCH_5200MHz_Ant1_NTNV



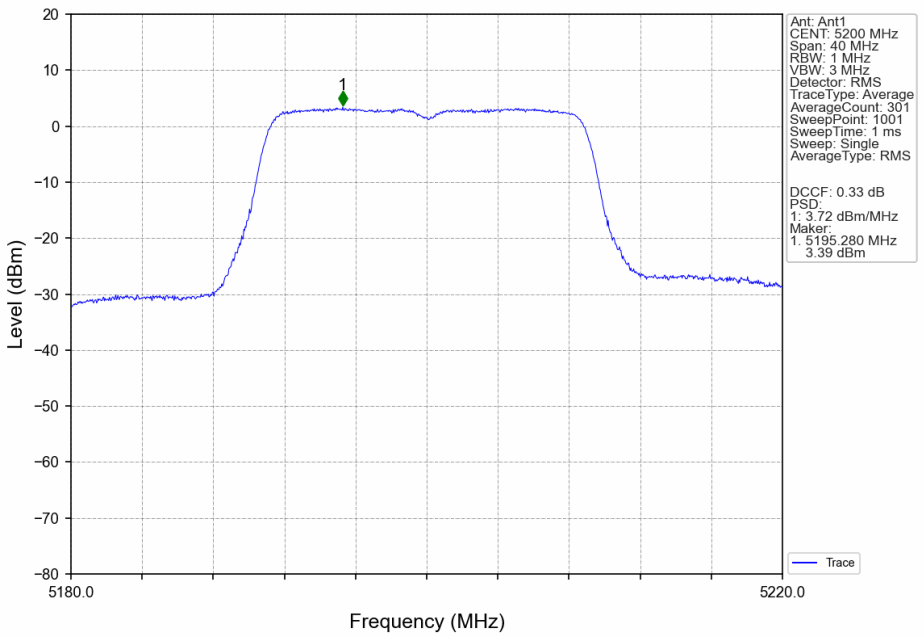
802.11a_HCH_5240MHz_Ant1_NTNV



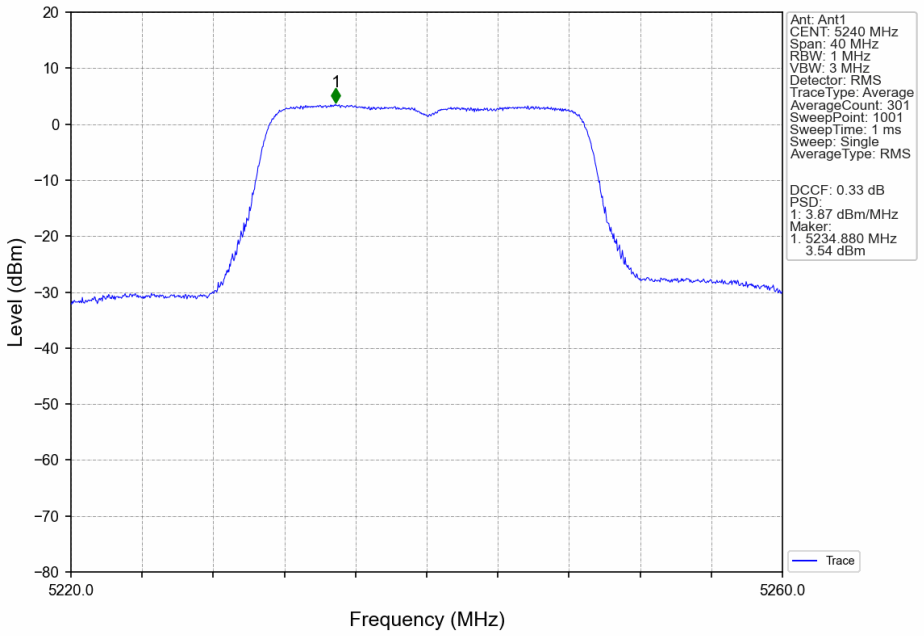
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



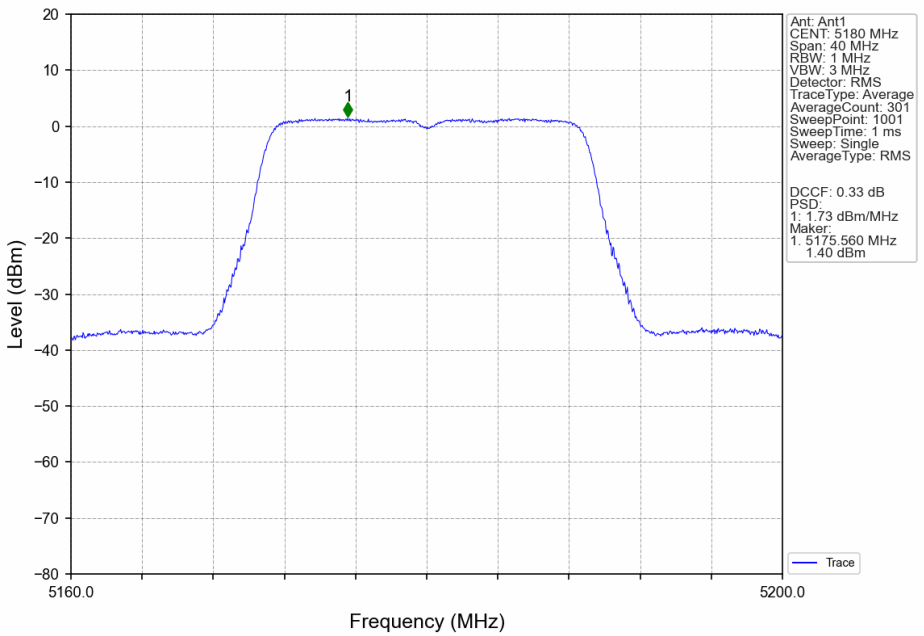
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



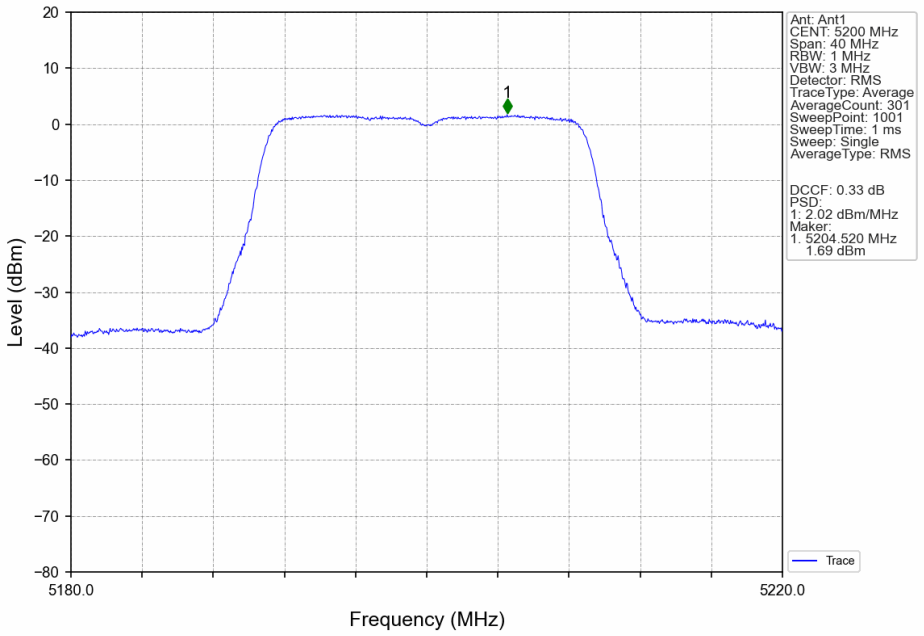
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



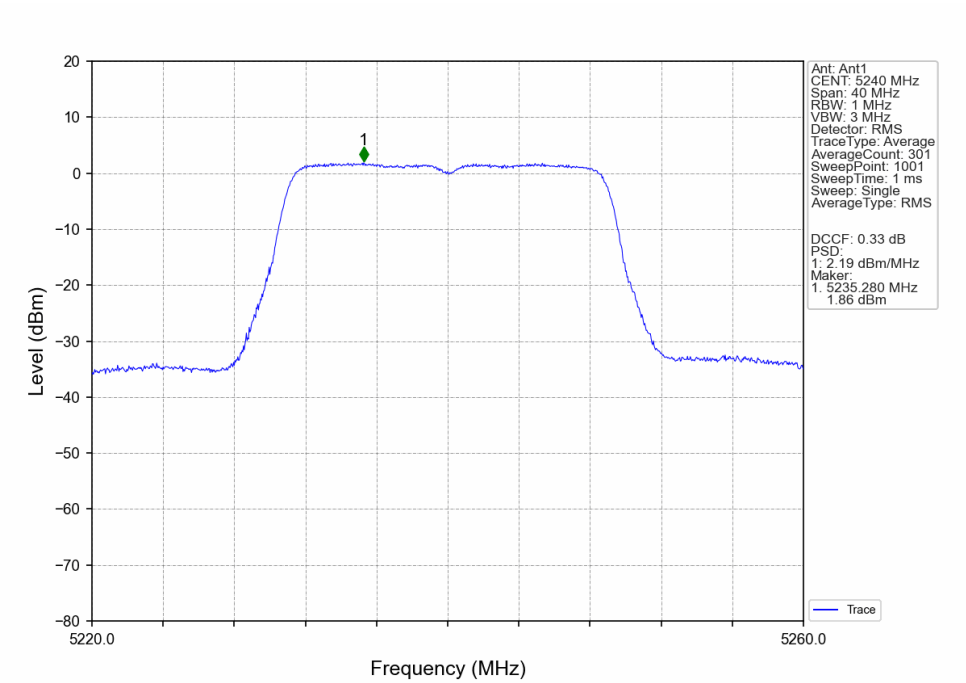
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV

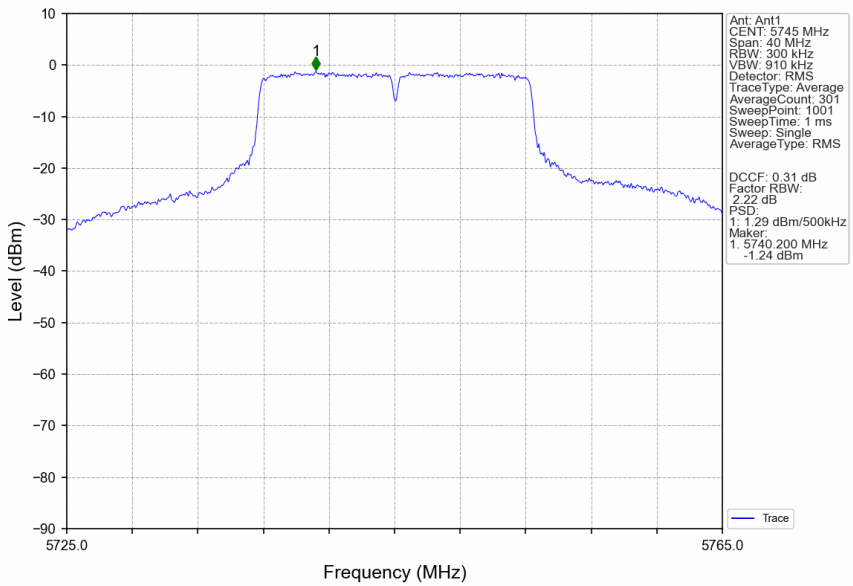


802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV

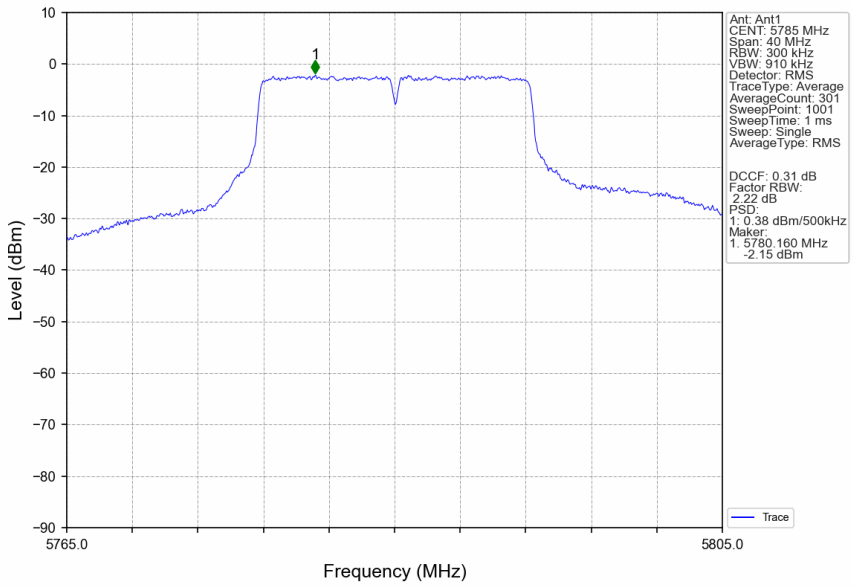


4.2.2 PSD-Band3

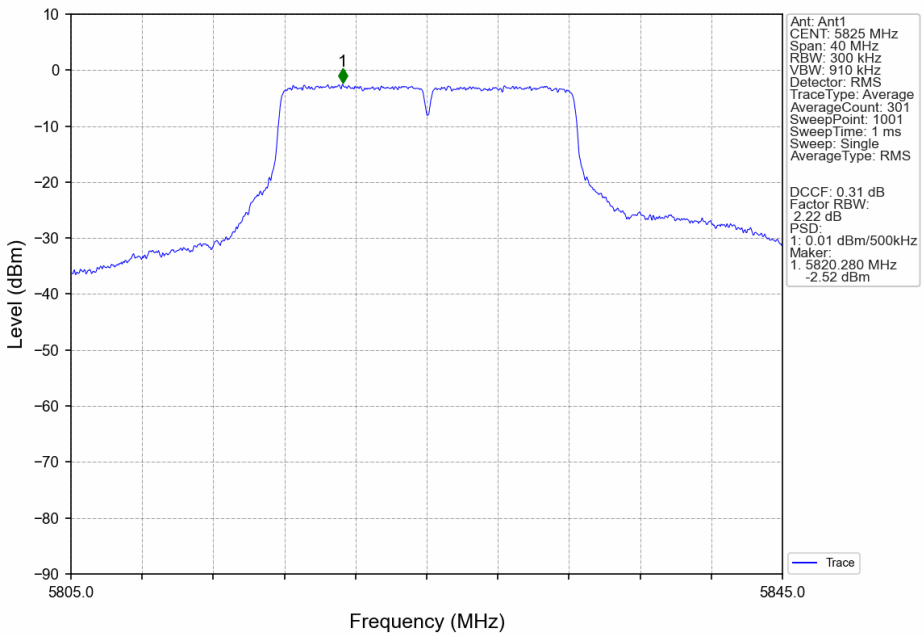
802.11a_LCH_5745MHz_Ant1_NTNV



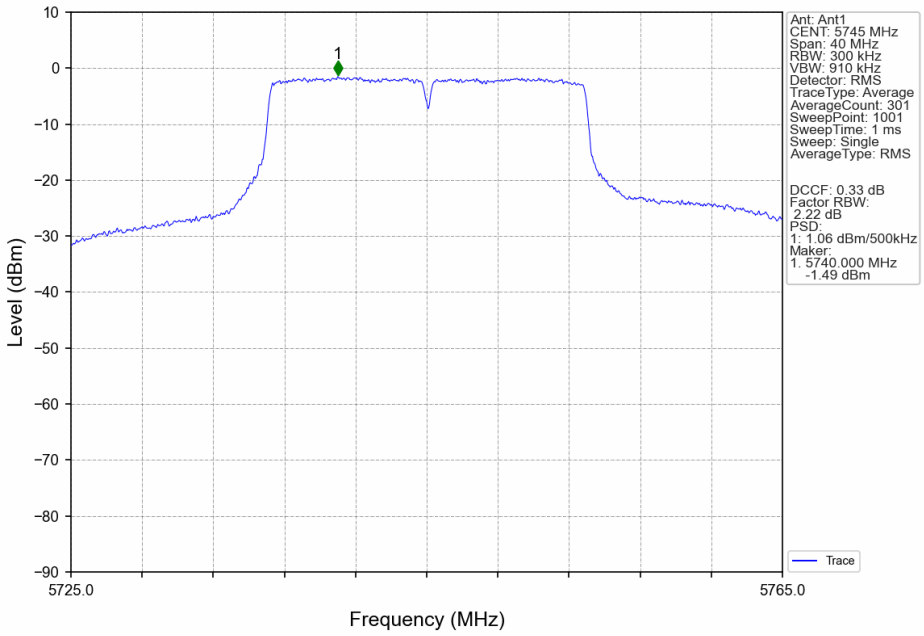
802.11a_MCH_5785MHz_Ant1_NTNV



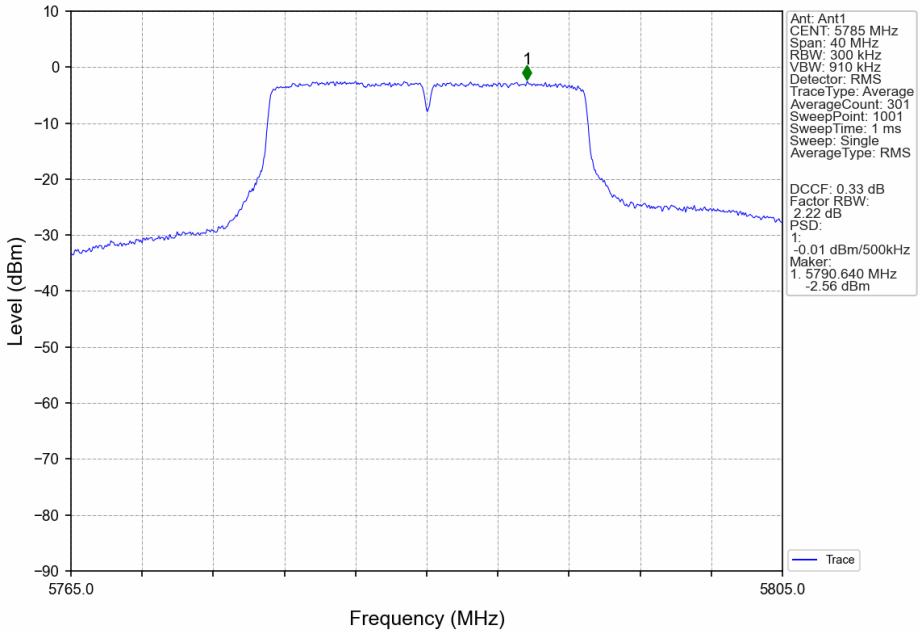
802.11a_HCH_5825MHz_Ant1_NTNV



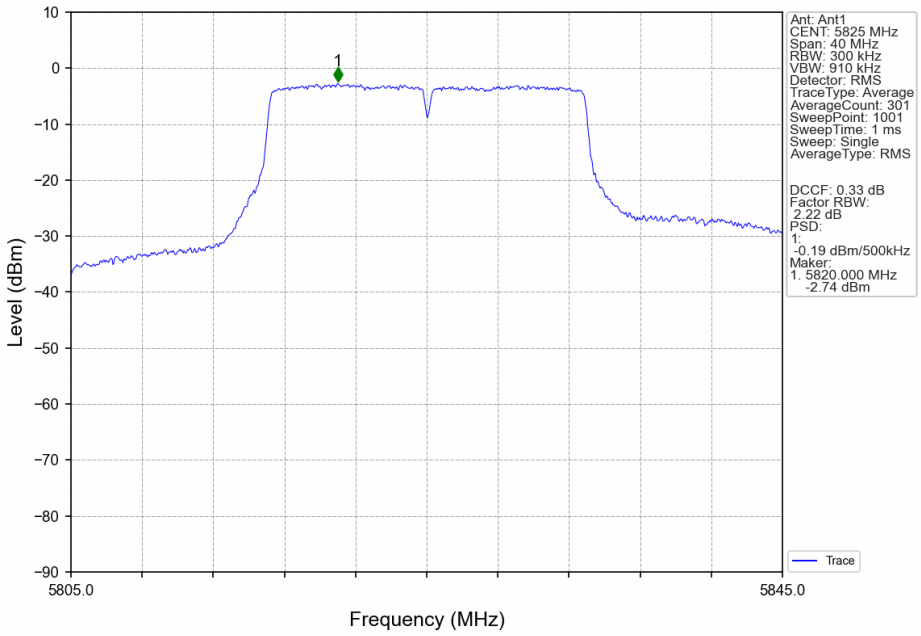
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



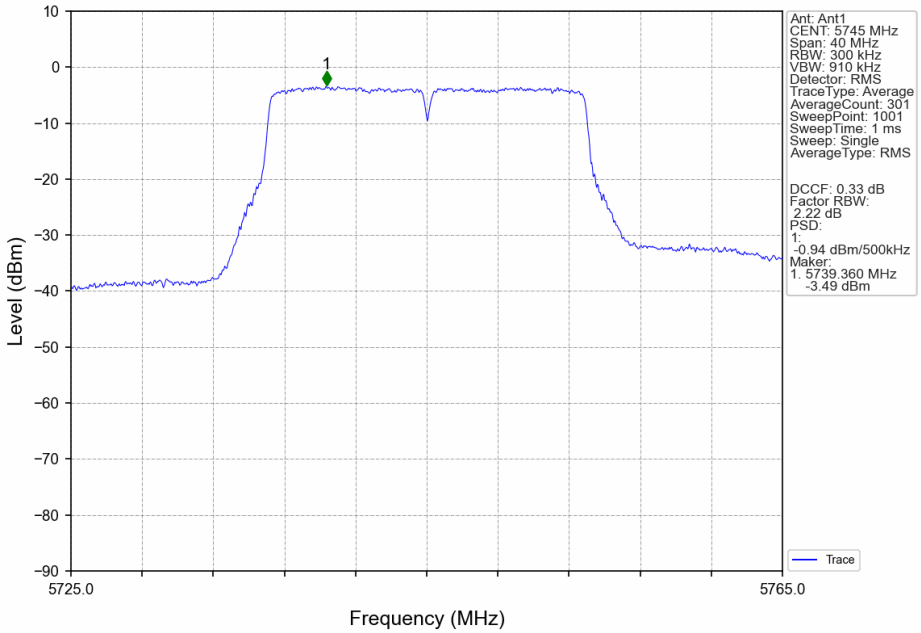
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



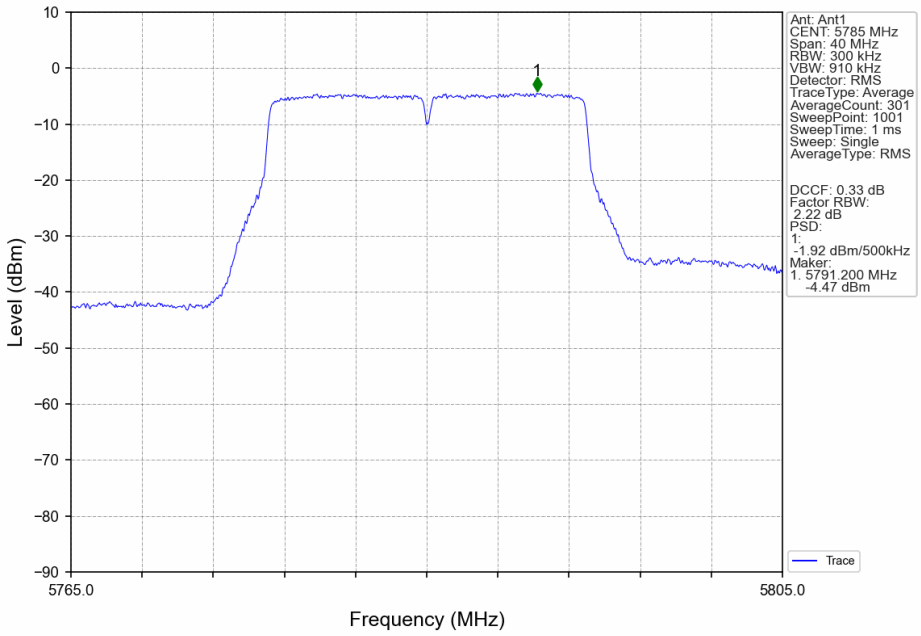
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



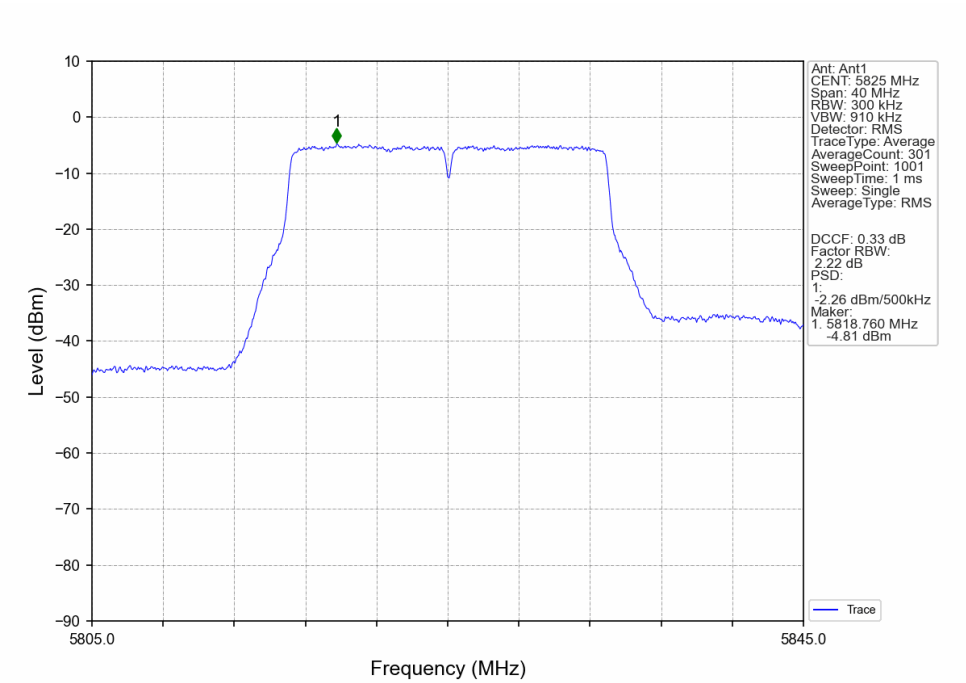
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



5. Frequency Stability

5.1 Test Result

5.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
802.11a	SISO	5180	20	102	5180.000	5150 to 5250	Pass
				120	5180.020	5150 to 5250	Pass
				138	5179.960	5150 to 5250	Pass
			-30	120	5180.060	5150 to 5250	Pass
			-20	120	5180.080	5150 to 5250	Pass
			-10	120	5180.000	5150 to 5250	Pass
			0	120	5180.040	5150 to 5250	Pass
			10	120	5180.080	5150 to 5250	Pass
			30	120	5180.100	5150 to 5250	Pass
			40	120	5180.060	5150 to 5250	Pass
			50	120	5180.020	5150 to 5250	Pass
		5200	20	102	5200.080	5150 to 5250	Pass
				120	5200.000	5150 to 5250	Pass
				138	5200.020	5150 to 5250	Pass
			-30	120	5200.060	5150 to 5250	Pass
			-20	120	5200.020	5150 to 5250	Pass
			-10	120	5200.040	5150 to 5250	Pass
			0	120	5200.040	5150 to 5250	Pass
			10	120	5200.040	5150 to 5250	Pass
			30	120	5200.020	5150 to 5250	Pass
			40	120	5200.080	5150 to 5250	Pass
			50	120	5200.020	5150 to 5250	Pass
		5240	20	102	5240.060	5150 to 5250	Pass
				120	5240.080	5150 to 5250	Pass
				138	5240.060	5150 to 5250	Pass
			-30	120	5240.040	5150 to 5250	Pass
			-20	120	5240.040	5150 to 5250	Pass
			-10	120	5240.040	5150 to 5250	Pass
			0	120	5240.040	5150 to 5250	Pass
			10	120	5240.020	5150 to 5250	Pass

			30	120	5240.040	5150 to 5250	Pass
			40	120	5240.040	5150 to 5250	Pass
			50	120	5240.020	5150 to 5250	Pass
		5745	20	102	5745.040	5725 to 5850	Pass
				120	5745.060	5725 to 5850	Pass
				138	5745.040	5725 to 5850	Pass
			-30	120	5745.020	5725 to 5850	Pass
			-20	120	5745.080	5725 to 5850	Pass
			-10	120	5745.040	5725 to 5850	Pass
			0	120	5745.060	5725 to 5850	Pass
			10	120	5745.020	5725 to 5850	Pass
			30	120	5745.000	5725 to 5850	Pass
			40	120	5745.000	5725 to 5850	Pass
			50	120	5745.040	5725 to 5850	Pass
		5785	20	102	5785.040	5725 to 5850	Pass
				120	5785.060	5725 to 5850	Pass
				138	5785.020	5725 to 5850	Pass
			-30	120	5785.080	5725 to 5850	Pass
			-20	120	5785.080	5725 to 5850	Pass
			-10	120	5785.080	5725 to 5850	Pass
			0	120	5785.060	5725 to 5850	Pass
			10	120	5785.040	5725 to 5850	Pass
			30	120	5785.080	5725 to 5850	Pass
			40	120	5785.040	5725 to 5850	Pass
			50	120	5785.000	5725 to 5850	Pass
		5825	20	102	5825.060	5725 to 5850	Pass
				120	5825.040	5725 to 5850	Pass
				138	5825.100	5725 to 5850	Pass
			-30	120	5825.020	5725 to 5850	Pass
			-20	120	5825.040	5725 to 5850	Pass
			-10	120	5825.040	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	5825.060	5725 to 5850	Pass
802.11n (HT20)	SISO	5180	20	102	5180.060	5150 to 5250	Pass
				120	5180.020	5150 to 5250	Pass
				138	5180.020	5150 to 5250	Pass
			-30	120	5179.980	5150 to 5250	Pass

			-20	120	5180.040	5150 to 5250	Pass
			-10	120	5180.040	5150 to 5250	Pass
			0	120	5180.040	5150 to 5250	Pass
			10	120	5180.040	5150 to 5250	Pass
			30	120	5180.060	5150 to 5250	Pass
			40	120	5180.040	5150 to 5250	Pass
			50	120	5180.120	5150 to 5250	Pass
		5200	20	102	5200.060	5150 to 5250	Pass
				120	5200.080	5150 to 5250	Pass
				138	5200.060	5150 to 5250	Pass
			-30	120	5199.980	5150 to 5250	Pass
			-20	120	5199.980	5150 to 5250	Pass
			-10	120	5199.980	5150 to 5250	Pass
			0	120	5200.020	5150 to 5250	Pass
			10	120	5199.980	5150 to 5250	Pass
			30	120	5200.060	5150 to 5250	Pass
			40	120	5200.100	5150 to 5250	Pass
			50	120	5200.020	5150 to 5250	Pass
		5240	20	102	5240.000	5150 to 5250	Pass
				120	5240.080	5150 to 5250	Pass
				138	5240.080	5150 to 5250	Pass
			-30	120	5240.000	5150 to 5250	Pass
			-20	120	5240.040	5150 to 5250	Pass
			-10	120	5240.000	5150 to 5250	Pass
			0	120	5240.040	5150 to 5250	Pass
			10	120	5240.040	5150 to 5250	Pass
			30	120	5240.040	5150 to 5250	Pass
			40	120	5240.020	5150 to 5250	Pass
			50	120	5240.020	5150 to 5250	Pass
		5745	20	102	5745.160	5725 to 5850	Pass
				120	5745.040	5725 to 5850	Pass
				138	5745.020	5725 to 5850	Pass
			-30	120	5745.060	5725 to 5850	Pass
			-20	120	5744.980	5725 to 5850	Pass
			-10	120	5745.020	5725 to 5850	Pass
			0	120	5745.060	5725 to 5850	Pass
			10	120	5745.060	5725 to 5850	Pass
			30	120	5745.040	5725 to 5850	Pass
			40	120	5745.060	5725 to 5850	Pass
			50	120	5745.060	5725 to 5850	Pass

		5785	20	102	5784.960	5725 to 5850	Pass
				120	5785.120	5725 to 5850	Pass
				138	5785.020	5725 to 5850	Pass
			-30	120	5785.080	5725 to 5850	Pass
			-20	120	5785.100	5725 to 5850	Pass
			-10	120	5785.120	5725 to 5850	Pass
			0	120	5785.100	5725 to 5850	Pass
			10	120	5785.040	5725 to 5850	Pass
			30	120	5785.000	5725 to 5850	Pass
			40	120	5785.060	5725 to 5850	Pass
			50	120	5785.080	5725 to 5850	Pass
		5825	20	102	5825.060	5725 to 5850	Pass
				120	5825.120	5725 to 5850	Pass
				138	5825.040	5725 to 5850	Pass
			-30	120	5825.100	5725 to 5850	Pass
			-20	120	5825.040	5725 to 5850	Pass
			-10	120	5825.060	5725 to 5850	Pass
			0	120	5824.980	5725 to 5850	Pass
			10	120	5825.140	5725 to 5850	Pass
			30	120	5825.040	5725 to 5850	Pass
			40	120	5825.080	5725 to 5850	Pass
			50	120	5825.020	5725 to 5850	Pass
802.11ac (VHT20)	SISO	5180	20	102	5180.020	5150 to 5250	Pass
				120	5180.020	5150 to 5250	Pass
				138	5180.020	5150 to 5250	Pass
			-30	120	5180.080	5150 to 5250	Pass
			-20	120	5180.060	5150 to 5250	Pass
			-10	120	5180.020	5150 to 5250	Pass
			0	120	5180.060	5150 to 5250	Pass
			10	120	5179.980	5150 to 5250	Pass
			30	120	5180.020	5150 to 5250	Pass
			40	120	5180.020	5150 to 5250	Pass
			50	120	5180.060	5150 to 5250	Pass
		5200	20	102	5200.020	5150 to 5250	Pass
				120	5200.020	5150 to 5250	Pass
				138	5200.000	5150 to 5250	Pass
			-30	120	5200.020	5150 to 5250	Pass
			-20	120	5200.040	5150 to 5250	Pass
			-10	120	5200.040	5150 to 5250	Pass
			0	120	5200.080	5150 to 5250	Pass

			10	120	5200.000	5150 to 5250	Pass
			30	120	5200.020	5150 to 5250	Pass
			40	120	5200.080	5150 to 5250	Pass
			50	120	5200.040	5150 to 5250	Pass
		5240	20	102	5240.040	5150 to 5250	Pass
				120	5240.020	5150 to 5250	Pass
				138	5240.040	5150 to 5250	Pass
			-30	120	5240.060	5150 to 5250	Pass
			-20	120	5240.080	5150 to 5250	Pass
			-10	120	5240.060	5150 to 5250	Pass
			0	120	5240.000	5150 to 5250	Pass
			10	120	5240.080	5150 to 5250	Pass
			30	120	5240.040	5150 to 5250	Pass
			40	120	5239.980	5150 to 5250	Pass
			50	120	5240.060	5150 to 5250	Pass
		5745	20	102	5745.040	5725 to 5850	Pass
				120	5745.040	5725 to 5850	Pass
				138	5745.100	5725 to 5850	Pass
			-30	120	5745.100	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	5745.080	5725 to 5850	Pass
			30	120	5745.040	5725 to 5850	Pass
			40	120	5745.040	5725 to 5850	Pass
			50	120	5745.040	5725 to 5850	Pass
		5785	20	102	5785.080	5725 to 5850	Pass
				120	5785.040	5725 to 5850	Pass
				138	5785.060	5725 to 5850	Pass
			-30	120	5785.040	5725 to 5850	Pass
			-20	120	5785.080	5725 to 5850	Pass
			-10	120	5784.980	5725 to 5850	Pass
			0	120	5785.060	5725 to 5850	Pass
			10	120	5785.020	5725 to 5850	Pass
			30	120	5785.040	5725 to 5850	Pass
			40	120	5785.100	5725 to 5850	Pass
			50	120	5785.060	5725 to 5850	Pass
		5825	20	102	5824.980	5725 to 5850	Pass
				120	5825.100	5725 to 5850	Pass
				138	5825.020	5725 to 5850	Pass

			-30	120	5825.040	5725 to 5850	Pass
			-20	120	5825.040	5725 to 5850	Pass
			-10	120	5825.060	5725 to 5850	Pass
			0	120	5825.020	5725 to 5850	Pass
			10	120	5825.040	5725 to 5850	Pass
			30	120	5825.100	5725 to 5850	Pass
			40	120	5825.060	5725 to 5850	Pass
			50	120	5825.000	5725 to 5850	Pass

- End of the Report -