



MEASUREMENT REPORT

FCC PART 15.407/ WLAN 802.11a/n/ac

FCC ID: P27OT221
Application: Sercomm Corporation
p
Application Type: Class III Permissive Change
Product: Dual Band ONT
Model No.: AOT-4221SR
Brand Name: Airtel
FCC Classification: Unlicensed National Information Infrastructure (NII)
FCC Rule Part(s): Part15 Subpart E (Section 15.407)
Test Date: August 13 ~ November 27, 2020

Reviewed By:

Oscar Shi

(Oscar Shi)

Approved By:

Robin Wu

(Robin Wu)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 789033 D02v02r01. Test results reported here in relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2008RSU008-U5	Rev. 01	Initial Report	12-01-2020	Valid

Note: This is Class III Permissive Change Report for adding beamforming function, just assessment Output Power, Power Spectral Density, Radiated Emission in this Report.

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2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name:	Dual Band ONT
Model No.:	AOT-4221SR
Wi-Fi Specification:	802.11a/b/g/n/ac
Serial Number:	SROTFA000022
Accessories	
Adapter:	Model No.: MSA-C2000IS12.0-24W-IN Input Power: 90 - 270V ~ 50/60Hz, 0.7A max Output Power: 12Vdc 2.0A

2.2. Product Specification Subjective to this Report

Frequency Range:	For 802.11a/n-HT20/ac-VHT20: 5180~5240MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40: 5190~5230MHz, 5755~5795MHz For 802.11ac-VHT80: 5210MHz, 5775MHz
Type of Modulation:	802.11a/n/ac: OFDM
Data Rate:	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 300Mbps 802.11ac: up to 866.6Mbps
Maximum Average Output Power:	802.11n-HT20: 29.25dBm 802.11n-HT40: 29.59dBm 802.11ac-VHT20: 29.34dBm 802.11ac-VHT40: 29.48dBm 802.11ac-VHT80: 27.38dBm

Note: For other features of this EUT, test report will be issued separately.

2.3. Description of Available Antennas

Antenna Type	Frequency Band (GHz)	Antenna Gain (dBi)		CDD Directional Gain (dBi)		Beamforming Directional Gain (dBi)
		Ant 0	Ant 1	For Power	For PSD	
PIFA Antenna	2.4 ~ 2.5	3.50	3.40	3.50	6.51	N/A
	5.15 ~ 5.25	3.20	3.30	3.30	6.31	6.31
	5.725 ~ 5.85					

Note 1: The EUT supports Cyclic Delay Diversity (CDD) technology for 802.11a/b/g/n/ac mode and beamforming technology for 802.11n/ac.

Note 2: The EUT supports Cyclic Delay Diversity (CDD) mode and beamforming mode, and CDD and beamforming signals are correlated.

If all antennas have the same gain, G_{ANT} , Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows.

- For power spectral density (PSD) measurements on all devices,
Array Gain = $10 \log (N_{ANT} / N_{SS})$ dB = 3.01;
- For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB for $N_{ANT} \leq 4$;

If antenna gains are not equal, Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain.

Note 3: The antenna gain is declared by manufacture.

2.4. Working Frequencies for this Report

802.11n-HT20/ac-VHT20

Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz
48	5240 MHz	149	5745 MHz	153	5765 MHz
157	5785 MHz	161	5805 MHz	165	5825 MHz

802.11n-HT40/ac-VHT40

Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	151	5755 MHz
159	5795 MHz	--	--	--	--

802.11ac-VHT80

Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	155	5775 MHz	--	--

2.5. Test Mode

Test Mode	Mode 1: Transmit by 802.11n-HT20 (MCS0) (Beam-Forming mode)
	Mode 2: Transmit by 802.11n-HT40 (MCS0) (Beam-Forming mode)
	Mode 3: Transmit by 802.11ac-VHT20 (MCS0) (Beam-Forming mode)
	Mode 4: Transmit by 802.11ac-VHT40 (MCS0) (Beam-Forming mode)
	Mode 5: Transmit by 802.11ac-VHT80 (MCS0) (Beam-Forming mode)

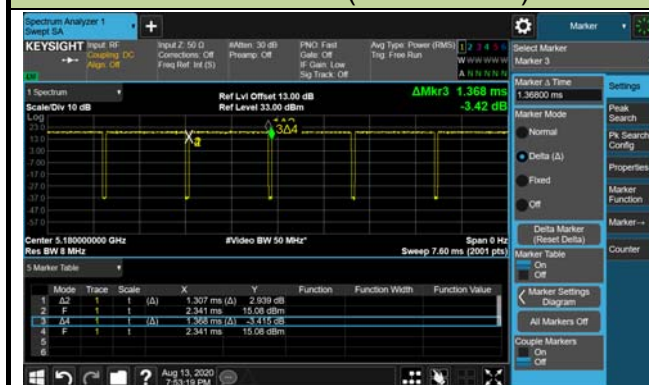
2.6. Duty Cycle

5GHz (NII) operation is possible in 20MHz, 40MHz and 80MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Test Mode	Duty Cycle
802.11n-HT20	95.54%
802.11n-HT40	91.35%
802.11ac-VHT20	91.84%
802.11ac-VHT40	85.45%
802.11ac-VHT80	75.81%

Duty Cycle (T = Transmission Duration)

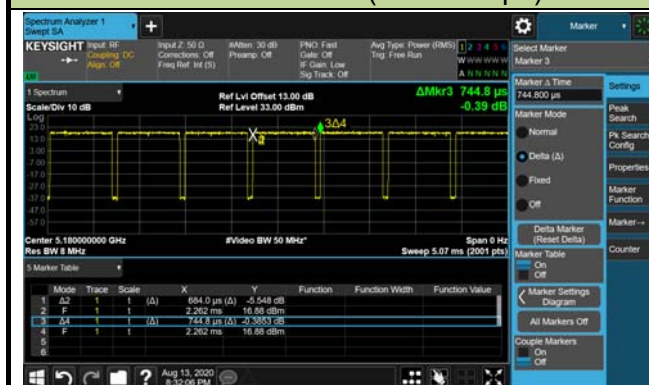
802.11n-HT20 (T = 1.307ms)



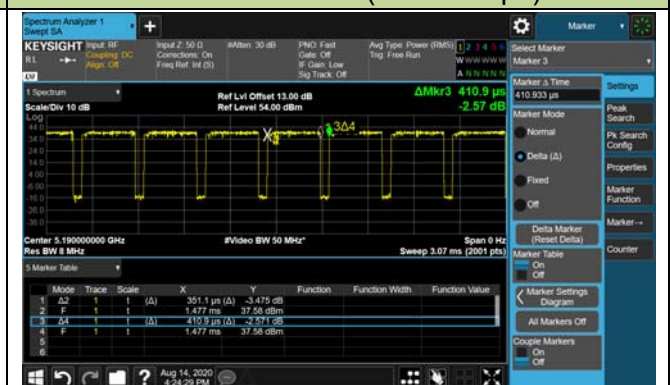
802.11n-HT40 (T = 647.1µs)

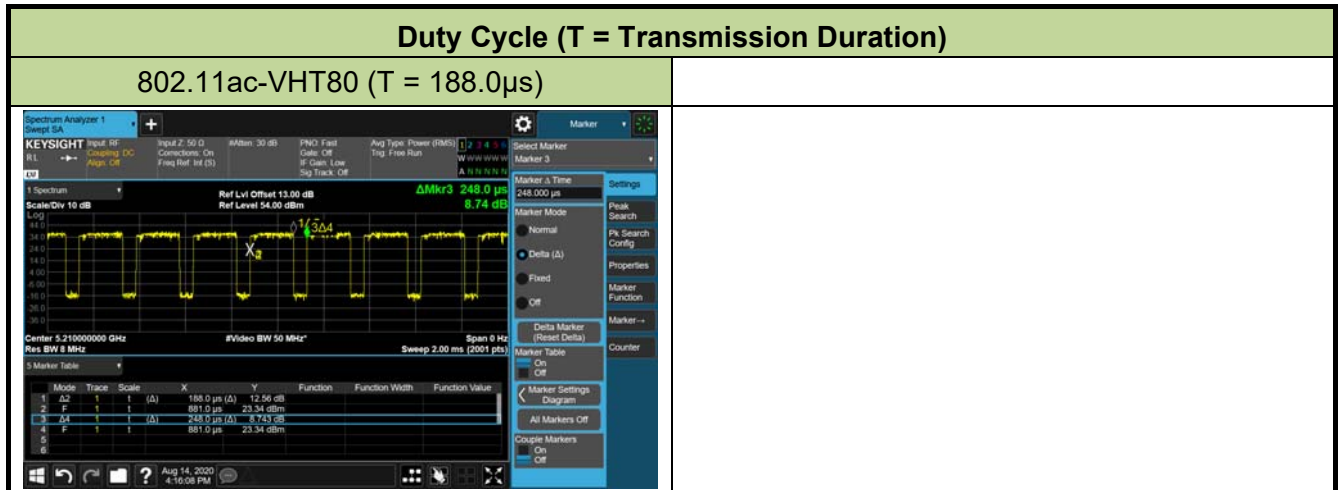


802.11ac-VHT20 (T = 684.0µs)



802.11ac-VHT40 (T = 351.1µs)





2.7. Description of Test Software

The test utility software used during testing was “QATool_Dbg.exe”, and the version was v5.02. Power parameter value refers to operation description.

2.8. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.9. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase.

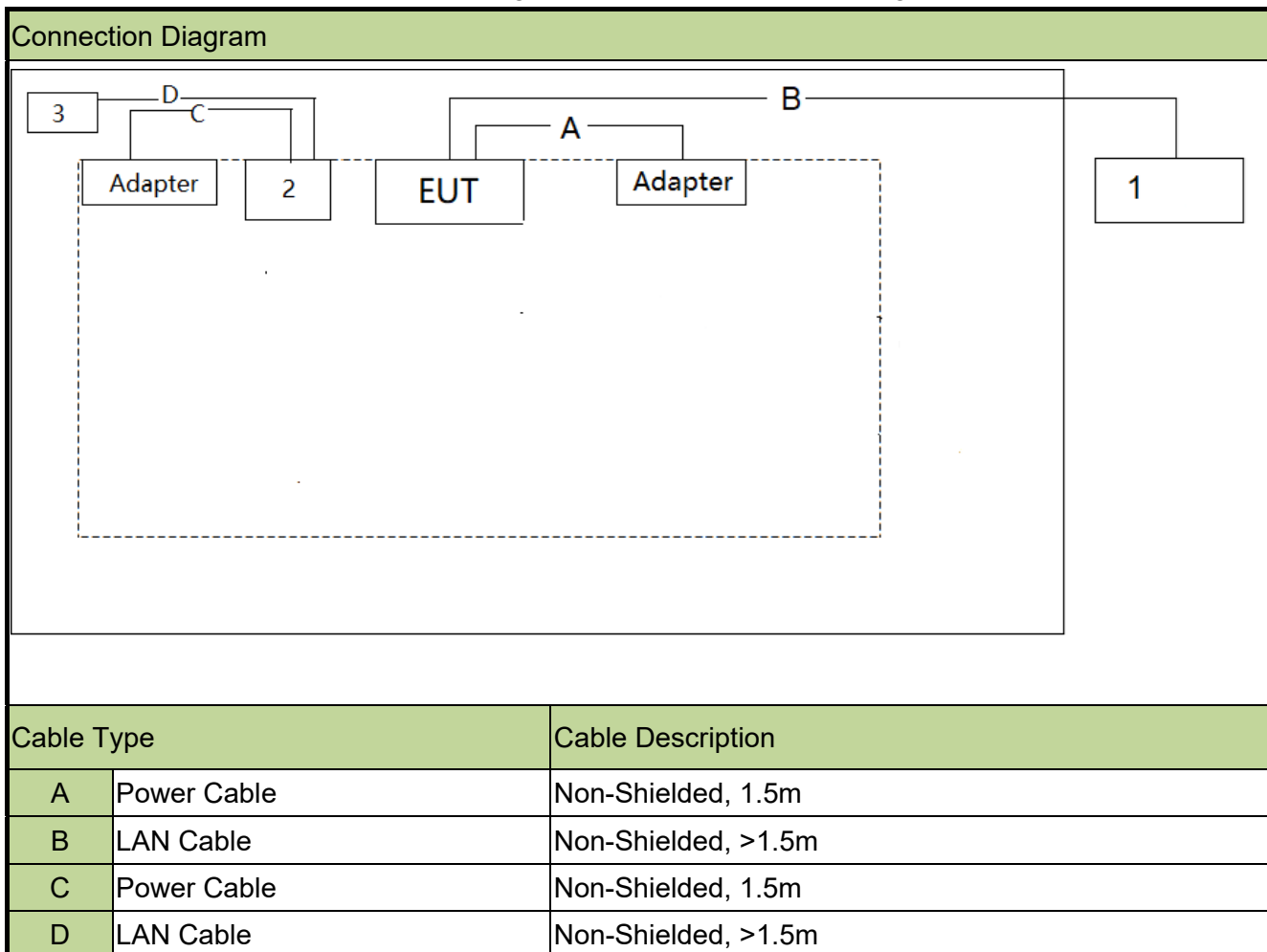
However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

2.10. Test Environment Condition

Ambient Temperature	15°C ~ 35°C
Relative Humidity	20%RH ~75%RH

2.11. Description of Test Configuration

The device was tested per the guidance ANSI C63.10: 2013 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.



2.12. Test System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Product	Manufacturer	Model No.	Serial No.
1	Notebook	Lenovo	E495
2	AP	Sercomm Corporation	AOT-4221SR
3	Notebook	Lenovo	X201

3. ANTENNA REQUIREMENTS

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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 shall be considered sufficient to comply with the provisions of this section.”

- The antenna of the device is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

4. TEST EQUIPMENT CALIBRATION DATE

Conducted Emission - WZ-SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2021/01/18
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2021/09/09
Thermal Hygrometer	testo	608-H1	MRTSUE06404	1 year	2021/07/26
Shielding Room	MIX-BEP	Chamber-SR2	MRTSUE06215	N/A	N/A

Conducted Emission - SIP-SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06613	1 year	2021/07/02
Two-Line V-Network	R&S	ENV216	MRTSUE06003	1 year	2021/09/09
Thermal Hygrometer	testo	608-H1	MRTSUE06621	1 year	2020/12/29

Radiated Emission - WZ-AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2021/01/18
PXA Signal Analyzer	Keysight	N9030B	MRTSUE06395	1 year	2021/08/30
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/10/22
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2021/08/08
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2021/09/27
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06597	1 year	2020/12/17
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2021/10/22
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2021/06/11
Thermal Hygrometer	testo	608-H1	MRTSUE06403	1 year	2021/07/26
Anechoic Chamber	TDK	Chamber-WZ-AC1	MRTSUE06212	1 year	2021/04/30

Radiated Emission -WZ-AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
MXE EMI Receiver	Keysight	N9038A	MRTSUE06125	1 year	2021/07/02
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/10/22
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2021/05/26
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2021/10/22
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06597	1 year	2020/12/17
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2021/11/14
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2021/06/11
Thermal Hygrometer	Minggao	ETH529	MRTSUE06170	1 year	2020/12/15
Anechoic Chamber	RIKEN	Chamber-WZ-AC1	MRTSUE06213	1 year	2021/04/30

Radiated Emission - SIP-AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06612	1 year	2021/07/02
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06559	1 year	2021/07/23
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/10/22
Bilog Period Antenna	Schwarzbeck	VULB9168	MRTSUE06645	1 year	2021/08/30
Double Ridged Horn Antenna	R&S	HF907	MRTSUE06610	1 year	2021/08/30
Preamplifier	EMCI	EMC051845SE	MRTSUE06600	1 year	2021/11/12
Thermal Hygrometer	testo	608-H1	MRTSUE06620	1 year	2020/12/29
Anechoic Chamber	RIKEN	SIP-WZ-AC1	MRTSUE06554	1 year	2020/12/25

Radiated Emission - SIP-AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06613	1 year	2021/07/02
MXA Signal Analyzer	Keysight	N9020B	MRTSUE06604	1 year	2021/09/26
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/10/22
Bilog Period Antenna	Schwarzbeck	VULB9168	MRTSUE06646	1 year	2021/08/30
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06648	1 year	2020/12/17
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06599	1 year	2020/12/17
Preamplifier	EMCI	EMC051845SE	MRTSUE06644	1 year	2021/11/12
Preamplifier	EMCI	EMC184045SE	MRTSUE06602	1 year	2021/10/12
Thermal Hygrometer	testo	608-H1	MRTSUE06624	1 year	2020/12/29
Anechoic Chamber	RIKEN	SIP-WZ-AC1	MRTSUE06781	1 year	2020/12/25

Radiated Emission - SIP-AC3

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06612	1 year	2021/07/02
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06559	1 year	2021/07/23
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2021/10/22
Bilog Period Antenna	Schwarzbeck	VULB9168	MRTSUE06647	1 year	2021/08/08
Double Ridged Horn Antenna	R&S	HF907	MRTSUE06611	1 year	2021/09/13
Horn Antenna	Schwarzbeck	BBHA9170	MRTSUE06598	1 year	2020/12/17
Preamplifier	EMCI	EMC012645SE	MRTSUE06642	1 year	2021/01/16
Preamplifier	EMCI	EMC184045SE	MRTSUE06641	1 year	2021/01/16
Thermal Hygrometer	testo	608-H1	MRTSUE06622	1 year	2020/12/29
Anechoic Chamber	RIKEN	SIP-WZ-AC1	MRTSUE06782	1 year	2020/12/25

Conducted Test Equipment - WZ-TR3

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2021/04/14
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2021/01/08
Signal Analyzer	R&S	FSV40	MRTSUE06218	1 year	2021/04/14
Power Meter	Agilent	U2021XA	MRTSUE06030	1 year	2021/10/22
USB wideband power sensor	Keysight	U2021XA	MRTSUE06446	1 year	2021/08/30
USB wideband power sensor	Keysight	U2021XA	MRTSUE06447	1 year	2021/08/08
Bluetooth Test Set	Anritsu	MT8852B-042	MRTSUE06389	1 year	2021/06/11
Audio Analyzer	Agilent	U8903B	MRTSUE06143	1 year	2021/06/11
Modulation Analyzer	HP	HP8901A	MRTSUE06098	1 year	2021/09/26
Wideband Radio Communication Tester	R&S	CMW 500	MRTSUE06243	1 year	2021/10/20
DC Power Supply	GWINSTEK	DPS-3303C	MRTSUE06064	N/A	N/A
Temperature & Humidity Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2021/10/22
Thermal Hygrometer	testo	608-H1	MRTSUE06401	1 year	2021/07/26
Attenuator	MVE	6dB	MRTSUE06534	1 year	2020/12/12
Attenuator	MVE	10dB	MRTSUE06543	1 year	2020/12/12

Conducted Test Equipment WZ - SR5

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Signal Analyzer	R&S	FSV40	MRTSUE06218	1 year	2021/04/14
PXA Signal Analyzer	Keysight	N9030B	MRTSUE06395	1 year	2021/08/30
USB wideband power sensor	Agilent	U2021XA	MRTSUE06595	1 year	2021/09/26
USB wideband power sensor	Agilent	U2021XA	MRTSUE06596	1 year	2021/09/26
Wideband Radio Communication Tester	R&S	CMW 500	MRTSUE06243	1 year	2021/10/20
Bluetooth Test Set	Anritsu	MT8852B-042	MRTSUE06389	1 year	2021/06/11
Temperature Chamber	BAOYT	BYG-408CS	MRTSUE06847	1 year	2021/03/31
Thermal Hygrometer	testo	622	MRTSUE06629	1 year	2020/12/30
Attenuator	MVE	6dB	MRTSUE06534	1 year	2020/12/12
Attenuator	MVE	10dB	MRTSUE06543	1 year	2020/12/12

Software	Version	Function
EMI Software	V3	EMI Test Software

5. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Radiated Disturbance
Measurement Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): Horizontal: 30MHz~300MHz: 5.04dB 300MHz~1GHz: 4.95dB 1GHz~40GHz: 6.40dB Vertical: 30MHz~300MHz: 5.24dB 300MHz~1GHz: 6.03dB 1GHz~40GHz: 6.40dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.13dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.15dB

6. TEST RESULT

6.1. Summary

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.407(a)(1)(ii), (3)	Maximum Conducted Output Power	U-NII-1: $\leq 1W$ U-NII-3: $\leq 1W$	Conducted	Pass	Section 6.2
15.407(a)(1)(ii), (3)	Power Spectral Density	Refer to Section 6.3		Pass	Section 6.3
15.407(b)(1), (4)(i),(7)(8)(9)	Undesirable Emissions	Refer to Section 6.4&6.5	Radiated	Pass	Section 6.4 Section 6.5
15.205, 15.209 15.407(b)(b)(1), (4)(i)	General Field Strength (Restricted Bands and Radiated Emission)	Emissions in restricted bands must meet the radiated limits detailed in 15.209		Pass	

Note:

The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.

6.2. Output Power Measurement

6.2.1. Test Limit

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

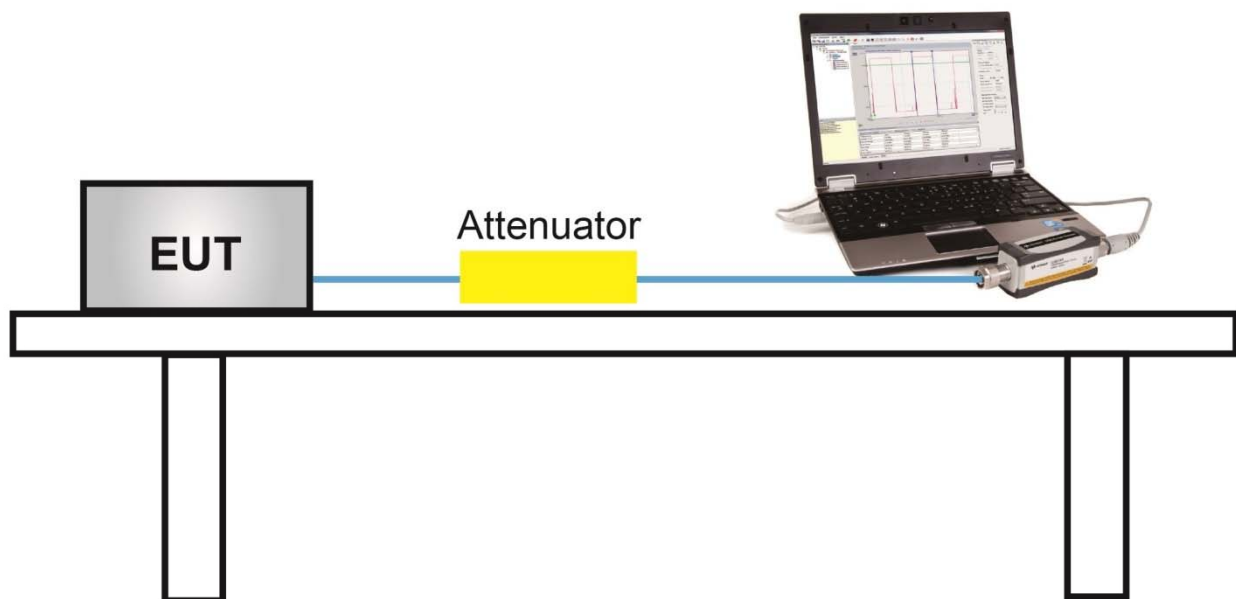
6.2.2. Test Procedure Used

KDB 789033D02v02r01- Section E)3)b) Method PM-G

6.2.3. Test Setting

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

6.2.4. Test Setup



6.2.5. Test Result

Output power test was verified over all data rates of each mode shown as below table, and then choose the maximum output power (gray marker) for final test of each channel.

Output power at various data rates for Ant 0 / Ant 0+1 port:

Test Mode	Bandwidth	Channel No.	Frequency (MHz)	Data Rate/ MCS	Average Power (dBm)
802.11n	20	36	5180	MCS0	21.75
				MCS4	21.66
				MCS8	21.61
802.11n	40	38	5190	MCS0	17.66
				MCS4	17.58
				MCS9	17.52
802.11ac	20	36	5180	MCS0	19.73
				MCS4	19.70
				MCS8	19.66
802.11ac	40	38	5190	MCS0	16.35
				MCS4	16.31
				MCS9	16.27
802.11ac	80	42	5210	MCS0	15.51
				MCS4	15.44
				MCS9	15.39

Product	Dual Band ONT	Test Engineer	Amy Zhang
Test Site	WZ-SR5	Test Date	2020/11/27
Test Mode	Beamforming Mode		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Average Power (dBm)	Limit (dBm)	Result
				Ant 0	Ant 1			
802.11n-HT20	MCS0	36	5180	21.75	21.36	24.57	≤ 29.69	Pass
802.11n-HT20	MCS0	44	5220	24.21	24.81	27.53	≤ 29.69	Pass
802.11n-HT20	MCS0	48	5240	24.36	24.66	27.52	≤ 29.69	Pass
802.11n-HT20	MCS0	149	5745	24.74	25.75	28.28	≤ 29.69	Pass
802.11n-HT20	MCS0	157	5785	26.02	26.44	29.25	≤ 29.69	Pass
802.11n-HT20	MCS0	165	5825	25.51	25.31	28.42	≤ 29.69	Pass
802.11n-HT40	MCS0	38	5190	17.66	19.54	21.71	≤ 29.69	Pass
802.11n-HT40	MCS0	46	5230	26.57	26.58	29.59	≤ 29.69	Pass
802.11n-HT40	MCS0	151	5755	25.43	25.82	28.64	≤ 29.69	Pass
802.11n-HT40	MCS0	159	5795	26.11	26.35	29.24	≤ 29.69	Pass
802.11ac-VHT20	MCS0	36	5180	19.73	19.11	22.44	≤ 29.69	Pass
802.11ac-VHT20	MCS0	44	5220	24.27	24.76	27.53	≤ 29.69	Pass
802.11ac-VHT20	MCS0	48	5240	24.38	24.61	27.51	≤ 29.69	Pass
802.11ac-VHT20	MCS0	149	5745	24.52	24.91	27.73	≤ 29.69	Pass
802.11ac-VHT20	MCS0	157	5785	26.12	26.53	29.34	≤ 29.69	Pass
802.11ac-VHT20	MCS0	165	5825	25.74	24.08	28.00	≤ 29.69	Pass
802.11ac-VHT40	MCS0	38	5190	16.35	16.90	19.64	≤ 29.69	Pass
802.11ac-VHT40	MCS0	46	5230	26.34	26.60	29.48	≤ 29.69	Pass
802.11ac-VHT40	MCS0	151	5755	24.28	24.18	27.24	≤ 29.69	Pass
802.11ac-VHT40	MCS0	159	5795	25.40	26.03	28.74	≤ 29.69	Pass
802.11ac-VHT80	MCS0	42	5210	15.51	15.79	18.66	≤ 29.69	Pass
802.11ac-VHT80	MCS0	155	5775	24.27	24.46	27.38	≤ 29.69	Pass

Note 1: Total Average Power (dBm) = $10 \cdot \log \{10^{(\text{ANT 0 Average Power} / 10)} + 10^{(\text{ANT 1 Average Power} / 10)}\}$ (dBm).

Note 2: Average Power Limit (dBm) = $30 - (6.31 - 6) = 29.69\text{dBm}$.

6.3. Power Spectral Density Measurement

6.3.1. Test Limit

For the band 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

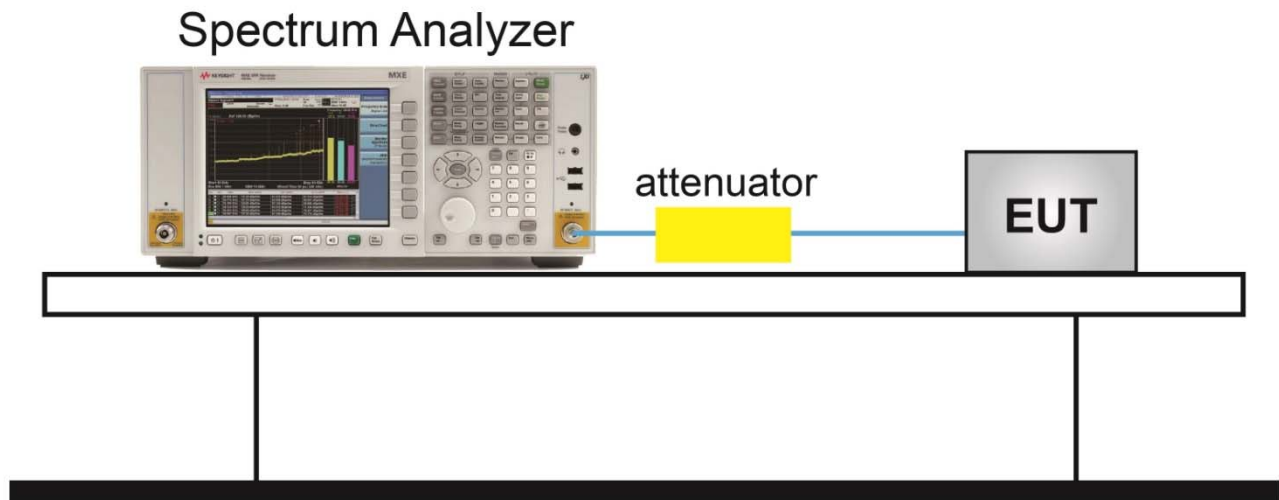
6.3.2. Test Procedure Used

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6.3.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz
If measurement bandwidth of Maximum PSD is specified in 500 kHz, RBW = 510kHz
4. VBW = 3MHz
5. Number of sweep points $\geq 2 \times (\text{span} / \text{RBW})$
6. Detector = Power averaging (Average)
7. Trace average at least 100 traces in power averaging (rms) mode
8. Sweep time = Auto
9. Trigger = Free run
10. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
11. Add $10 \cdot \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add $10 \cdot \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.

6.3.4. Test Setup



6.3.5. Test Result

Product	Dual Band ONT	Test Engineer	Amy Zhang
Test Site	WZ-SR5	Test Date	2020/08/21~2020/11/27
Test Item	Power Spectral Density (UNII-Band 1) Beamforming Mode		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PSD (dBm/ MHz)		Duty Cycle (%)	Final PSD (dBm/MHz)	PSD Limit (dBm/MHz)	Result
				Ant 0	Ant 1				
11n-HT20	MCS0	36	5180	8.30	9.51	95.54	12.16	≤16.69	Pass
11n-HT20	MCS0	44	5220	13.27	13.53	95.54	16.61	≤16.69	Pass
11n-HT20	MCS0	48	5240	13.15	13.41	95.54	16.49	≤16.69	Pass
11n-HT40	MCS0	38	5190	1.50	2.62	91.35	5.50	≤16.69	Pass
11n-HT40	MCS0	46	5230	12.62	12.73	91.35	16.08	≤16.69	Pass
11ac-VHT20	MCS0	36	5180	8.23	8.02	91.84	11.51	≤16.69	Pass
11ac-VHT20	MCS0	44	5220	13.15	13.42	91.84	16.67	≤16.69	Pass
11ac-VHT20	MCS0	48	5240	12.81	13.41	91.84	16.50	≤16.69	Pass
11ac-VHT40	MCS0	38	5190	1.53	1.28	85.45	5.10	≤16.69	Pass
11ac-VHT40	MCS0	46	5230	12.24	12.35	85.45	15.99	≤16.69	Pass
11ac-VHT80	MCS0	42	5210	-2.80	-3.33	75.81	1.16	≤16.69	Pass

Note 1:

When EUT duty cycle > 98%, Final PSD (dBm / MHz) = $10 \cdot \log \{10^{(\text{Ant 0 AVGPSD}/10)} + 10^{(\text{Ant 1 AVGPSD}/10)}\}$.

When EUT duty cycle < 98%, Final PSD (dBm / MHz) = $10 \cdot \log \{10^{(\text{Ant 0 AVGPSD}/10)} + 10^{(\text{Ant 1 AVGPSD}/10)}\} + 10 \cdot \log (1/\text{Duty cycle})$.

Note 2: PSD Limit Calculation as below:

For 5150-5250MHz: PSD Limit = 17 - (6.31 - 6) = 16.69dBm/MHz;

Product	Dual Band ONT	Test Engineer	Amy Zhang
Test Site	WZ-SR5	Test Date	2020/08/21~2020/11/27
Test Item	Power Spectral Density (UNII-Band 3) Beamforming Mode		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PSD (dBm/ 510kHz)		Duty Cycle (%)	Final PSD (dBm/ 510kHz)	Limit (dBm/ 500kHz)	Result
				Ant 0	Ant 1				
11n-HT20	MCS0	149	5745	11.76	12.12	95.54	15.15	≤29.69	Pass
11n-HT20	MCS0	157	5785	12.19	12.70	95.54	15.66	≤29.69	Pass
11n-HT20	MCS0	165	5825	12.31	13.77	95.54	16.31	≤29.69	Pass
11n-HT40	MCS0	151	5755	7.45	8.43	91.35	11.37	≤29.69	Pass
11n-HT40	MCS0	159	5795	8.99	9.73	91.35	12.78	≤29.69	Pass
11ac-VHT20	MCS0	149	5745	11.01	11.68	91.84	14.73	≤29.69	Pass
11ac-VHT20	MCS0	157	5785	11.77	12.71	91.84	15.65	≤29.69	Pass
11ac-VHT20	MCS0	165	5825	12.79	13.92	91.84	16.77	≤29.69	Pass
11ac-VHT40	MCS0	151	5755	7.59	7.51	85.45	11.24	≤29.69	Pass
11ac-VHT40	MCS0	159	5795	8.48	8.96	85.45	12.42	≤29.69	Pass
11ac-VHT80	MCS0	155	5775	2.79	3.18	75.81	7.20	≤29.69	Pass

Note 1:

When EUT duty cycle > 98%, Final PSD (dBm / 510kHz) = $10 \cdot \log \{10^{(\text{Ant 0 AVGPSD}/10)} + 10^{(\text{Ant 1 AVGPSD}/10)}\}$.

When EUT duty cycle < 98%, Final PSD (dBm / 510kHz) = $10 \cdot \log \{10^{(\text{Ant 0 AVGPSD}/10)} + 10^{(\text{Ant 1 AVGPSD}/10)}\} + 10 \cdot \log (1/\text{Duty cycle})$.

Note 2: PSD Limit Calculation as below:

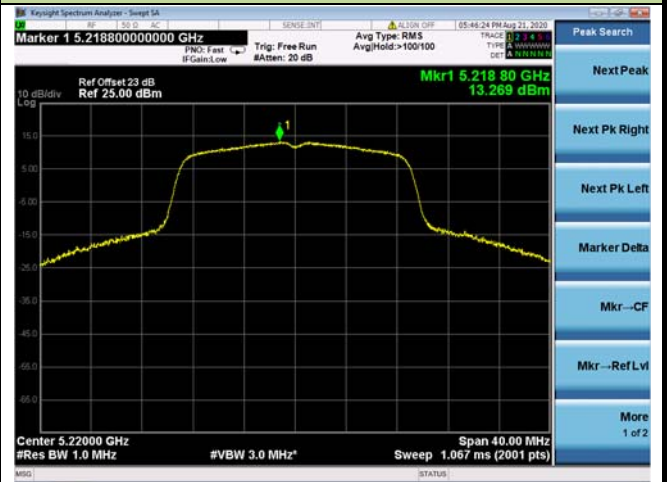
For 5725-5850MHz: PSD Limit = 30 - (6.31 - 6) = 29.69dBm/500KHz;

802.11n-HT20 Power Spectral Density – Ant 0

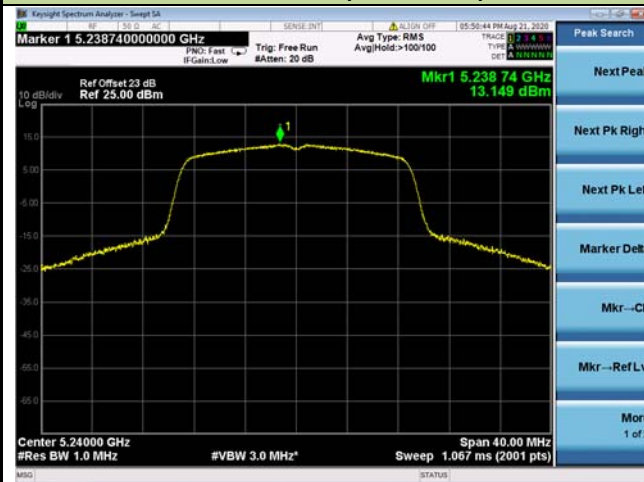
Channel 36 (5180MHz)



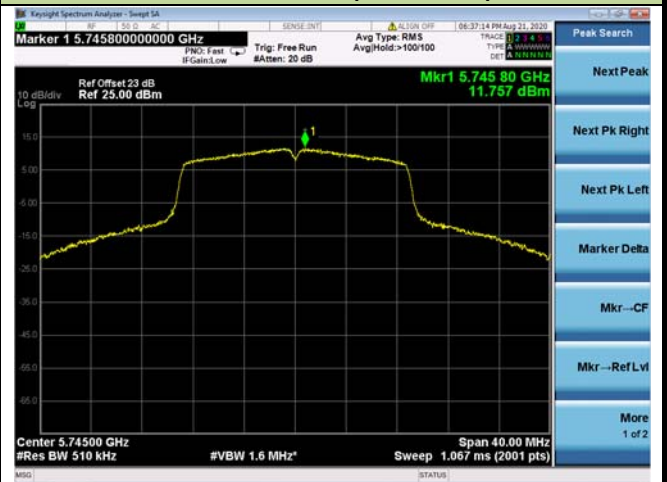
Channel 44 (5220MHz)



Channel 48 (5240MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11n-HT40 Power Spectral Density – Ant 0

Channel 38 (5190MHz)



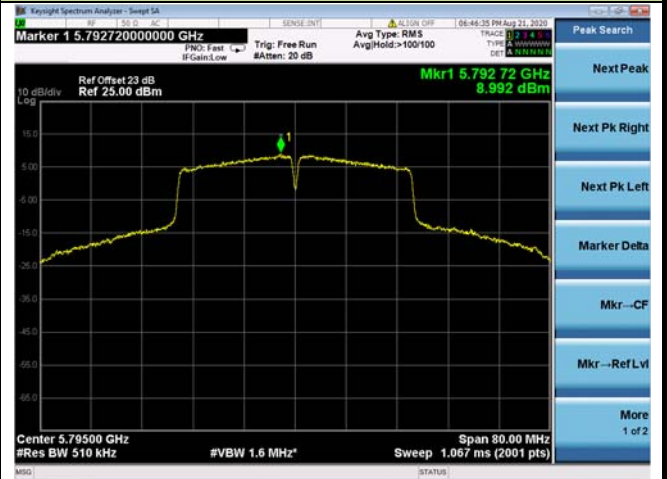
Channel 46 (5230MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)



802.11ac-VHT20 Power Spectral Density – Ant 0

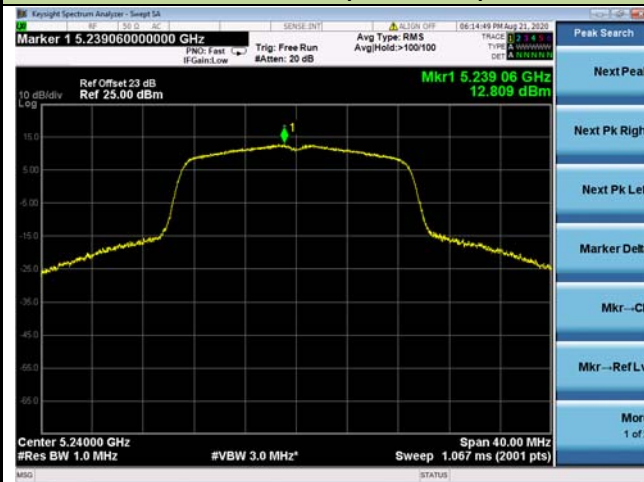
Channel 36 (5180MHz)



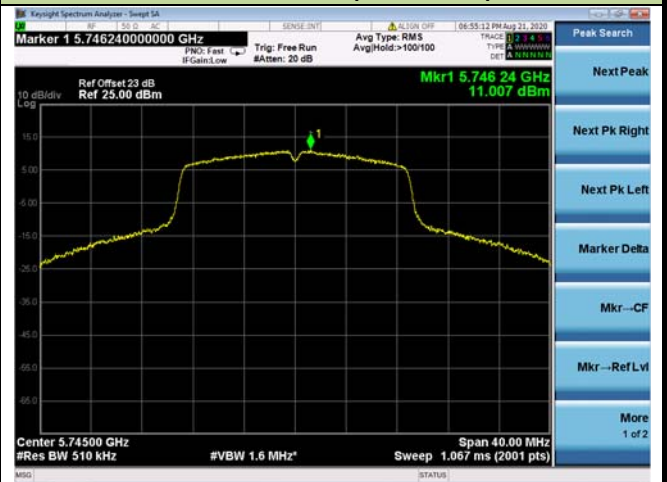
Channel 44 (5220MHz)



Channel 48 (5240MHz)



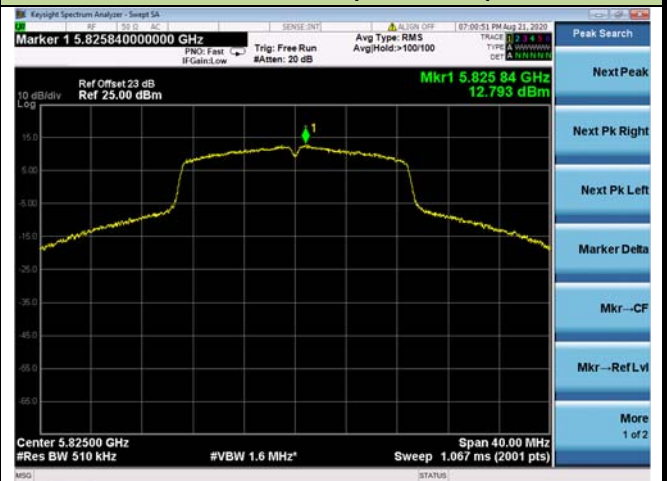
Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11ac-VHT40 Power Spectral Density – Ant 0

Channel 38 (5190MHz)



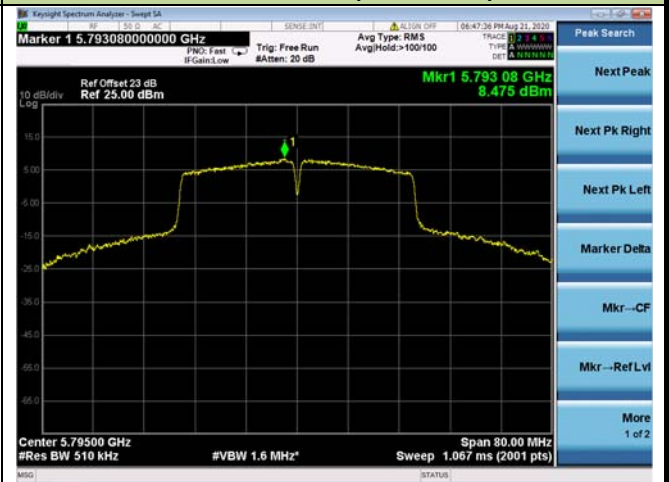
Channel 46 (5230MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)



802.11ac-VHT80 Power Spectral Density – Ant 0

Channel 42 (5210MHz)



Channel 155 (5775MHz)



802.11n-HT20 Power Spectral Density – Ant 1

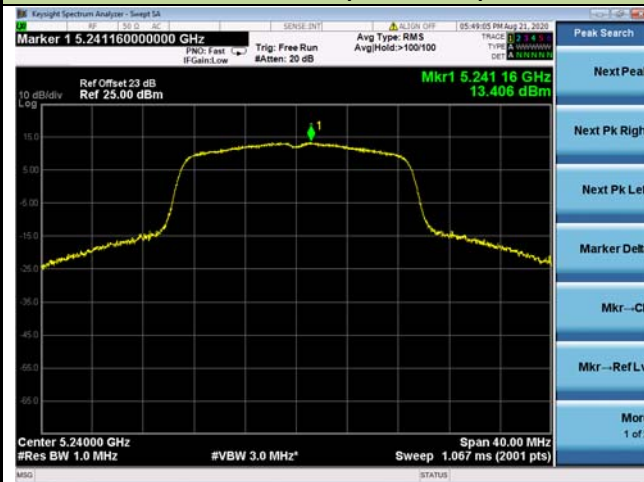
Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11n-HT40 Power Spectral Density – Ant 1

Channel 38 (5190MHz)



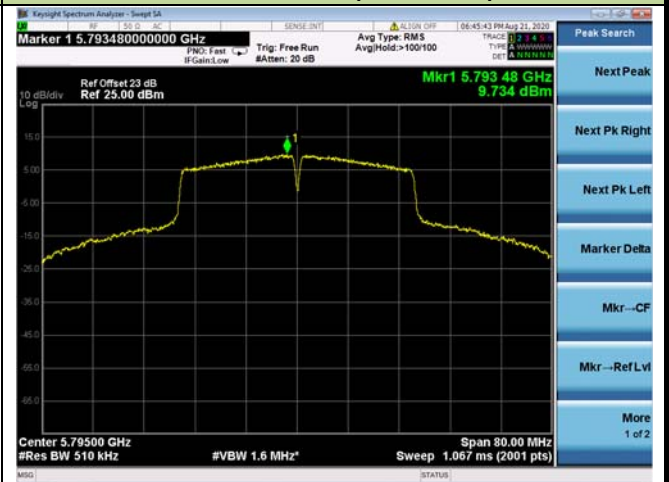
Channel 46 (5230MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)

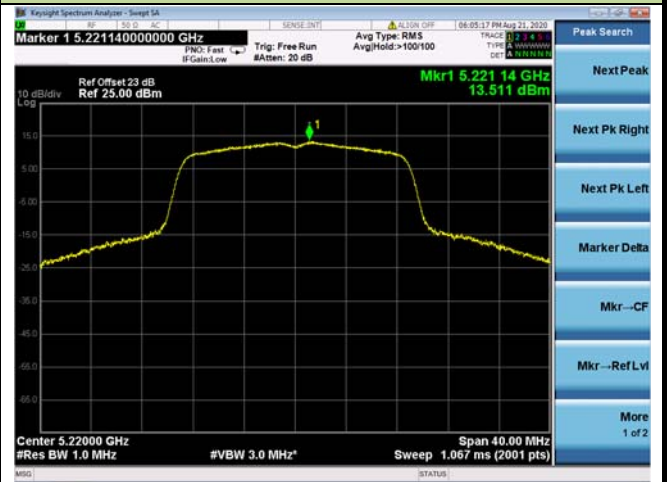


802.11ac-VHT20 Power Spectral Density – Ant 1

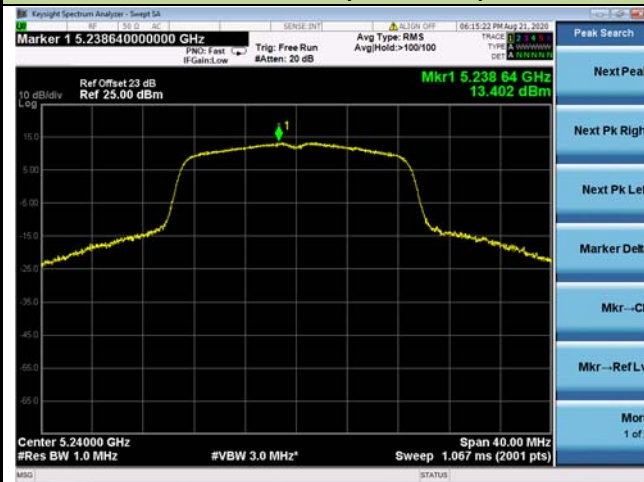
Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11ac-VHT40 Power Spectral Density – Ant 1

Channel 38 (5190MHz)



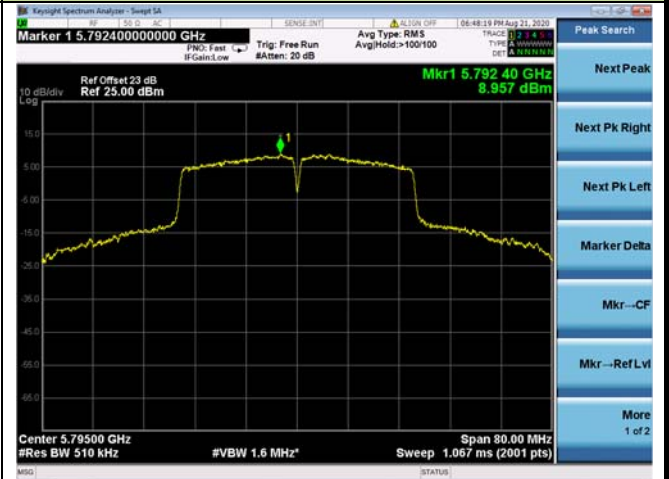
Channel 46 (5230MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)



802.11ac-VHT80 Power Spectral Density – Ant 1

Channel 42 (5210MHz)



Channel 155 (5775MHz)



6.4. Radiated Spurious Emission Measurement

6.4.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Field Strength ($\mu\text{V}/\text{m}$)	Measured Distance (m)
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.4.2. Test Procedure Used

KDB 789033 D02v02r01- Section G

6.4.3. Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1GHz

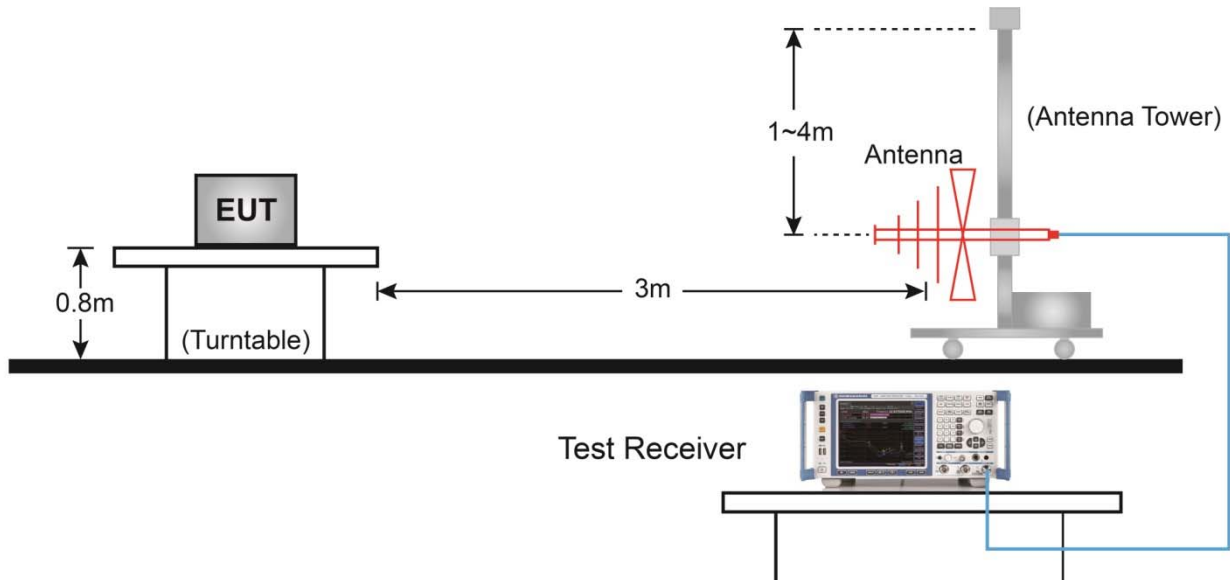
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

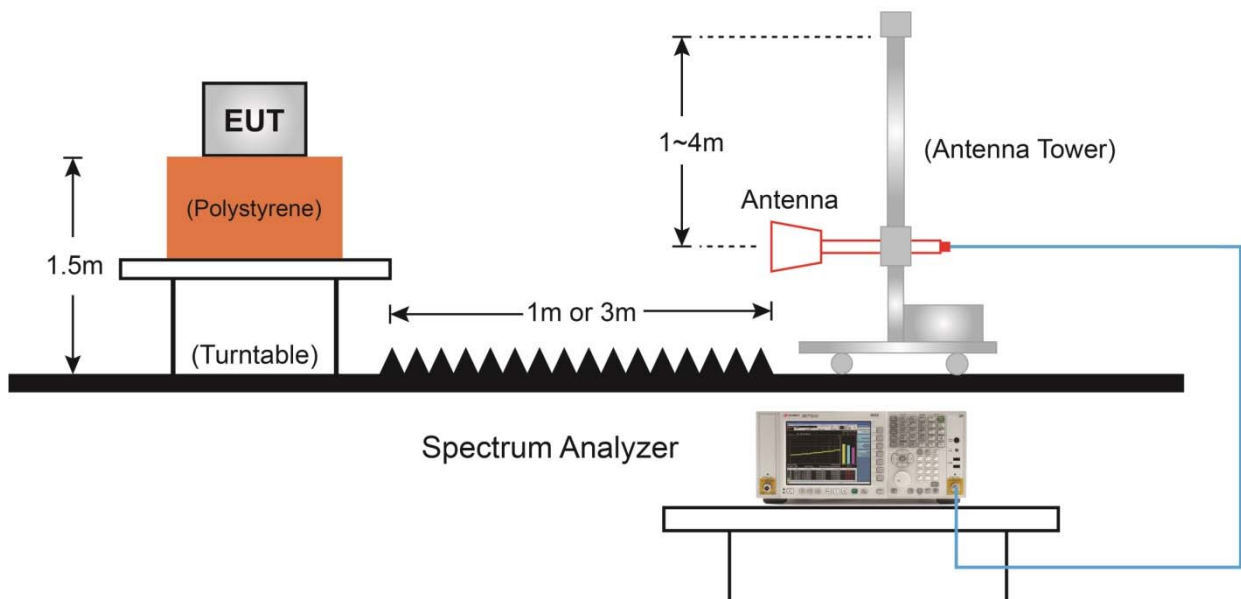
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10Hz
If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration
4. Detector = Peak
5. Sweep time = auto
6. Trace mode = max hold
7. Trace was allowed to stabilize

6.4.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.4.5. Test Result

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11n-HT20(Beamforming Mode)	Test Channel	36
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8760.5	33.9	12.6	46.5	68.2	-21.7	Peak	Horizontal
*	10044.0	36.5	13.9	50.4	68.2	-17.8	Peak	Horizontal
	10775.0	33.4	16.5	49.9	74.0	-24.1	Peak	Horizontal
	11880.0	32.3	18.3	50.6	74.0	-23.4	Peak	Horizontal
*	8786.0	34.0	12.4	46.4	68.2	-21.8	Peak	Vertical
*	10511.5	34.2	15.5	49.7	68.2	-18.5	Peak	Vertical
	11242.5	32.6	16.7	49.3	74.0	-24.7	Peak	Vertical
	12228.5	31.6	19.2	50.8	74.0	-23.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11n-HT20 (Beamforming Mode)	Test Channel	44
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7222.0	34.9	11.2	46.1	68.2	-22.1	Peak	Horizontal
*	7953.0	34.5	11.0	45.5	68.2	-22.7	Peak	Horizontal
	8335.5	37.0	11.0	48.0	74.0	-26.0	Peak	Horizontal
	9049.5	33.1	12.8	45.9	74.0	-28.1	Peak	Horizontal
*	8760.5	33.9	12.6	46.5	68.2	-21.7	Peak	Vertical
*	9814.5	33.1	13.3	46.4	68.2	-21.8	Peak	Vertical
	10800.5	33.5	16.5	50.0	74.0	-24.0	Peak	Vertical
	11752.5	32.1	18.2	50.3	74.0	-23.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11n-HT20 (Beamforming Mode)	Test Channel	48
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7970.0	34.2	11.1	45.3	68.2	-22.9	Peak	Horizontal
	8335.5	35.6	12.4	48.0	74.0	-26.0	Peak	Horizontal
*	10588.0	34.1	15.7	49.8	68.2	-18.4	Peak	Horizontal
	11684.5	32.6	18.3	50.9	74.0	-23.1	Peak	Horizontal
*	7927.5	34.9	10.9	45.8	68.2	-22.4	Peak	Vertical
*	8769.0	34.1	12.5	46.6	68.2	-21.6	Peak	Vertical
	10817.5	33.6	16.3	49.9	74.0	-24.1	Peak	Vertical
	12305.0	32.3	18.3	50.6	74.0	-23.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11n-HT20(Beamforming Mode)	Test Channel	149
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8726.5	33.8	12.0	45.8	68.2	-22.4	Peak	Horizontal
*	10299.0	33.7	15.1	48.8	68.2	-19.4	Peak	Horizontal
	11072.5	32.8	16.2	49.0	74.0	-25.0	Peak	Horizontal
	12271.0	31.7	18.9	50.6	74.0	-23.4	Peak	Horizontal
*	7859.5	33.8	10.6	44.4	68.2	-23.8	Peak	Vertical
*	8811.5	30.8	14.0	44.8	68.2	-23.4	Peak	Vertical
	11310.5	32.2	17.3	49.5	74.0	-24.5	Peak	Vertical
	12670.5	32.0	18.2	50.2	74.0	-23.8	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11n-HT20 (Beamforming Mode)	Test Channel	157
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7995.5	34.1	11.4	45.5	68.2	-22.7	Peak	Horizontal
*	8777.5	31.3	14.0	45.3	68.2	-22.9	Peak	Horizontal
	11336.0	31.5	17.5	49.0	74.0	-25.0	Peak	Horizontal
	12254.0	32.4	18.5	50.9	74.0	-23.1	Peak	Horizontal
*	8012.5	34.4	11.4	45.8	68.2	-22.4	Peak	Vertical
*	9984.5	34.6	13.8	48.4	68.2	-19.8	Peak	Vertical
	10809.0	32.9	16.6	49.5	74.0	-24.5	Peak	Vertical
	11829.0	32.3	18.4	50.7	74.0	-23.3	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11n-HT20 (Beamforming Mode)	Test Channel	165
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7230.5	33.6	11.0	44.6	68.2	-23.6	Peak	Horizontal
*	7842.5	33.6	10.7	44.3	68.2	-23.9	Peak	Horizontal
	8335.5	37.5	11.0	48.5	74.0	-25.5	Peak	Horizontal
	9109.0	32.8	13.2	46.0	74.0	-28.0	Peak	Horizontal
*	7953.0	34.4	11.0	45.4	68.2	-22.8	Peak	Vertical
*	9653.0	34.1	13.0	47.1	68.2	-21.1	Peak	Vertical
	10809.0	33.6	16.6	50.2	74.0	-23.8	Peak	Vertical
	12220.0	31.7	18.8	50.5	74.0	-23.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11n-HT40 (Beamforming Mode)	Test Channel	38
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8012.5	34.9	11.4	46.3	68.2	-21.9	Peak	Horizontal
*	9746.5	34.3	13.3	47.6	68.2	-20.6	Peak	Horizontal
	11718.5	32.4	18.1	50.5	74.0	-23.5	Peak	Horizontal
	12228.5	31.9	19.2	51.1	74.0	-22.9	Peak	Horizontal
*	8641.5	34.6	11.8	46.4	68.2	-21.8	Peak	Vertical
*	9755.0	34.9	13.3	48.2	68.2	-20.0	Peak	Vertical
	10749.5	33.8	15.9	49.7	74.0	-24.3	Peak	Vertical
	12237.0	31.1	19.0	50.1	74.0	-23.9	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11n-HT40 (Beamforming Mode)	Test Channel	46
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8004.0	33.9	11.5	45.4	68.2	-22.8	Peak	Horizontal
*	8743.5	33.6	12.4	46.0	68.2	-22.2	Peak	Horizontal
	10613.5	33.4	16.1	49.5	74.0	-24.5	Peak	Horizontal
	12211.5	32.5	18.6	51.1	74.0	-22.9	Peak	Horizontal
*	7035.0	34.0	10.2	44.2	68.2	-24.0	Peak	Vertical
*	8743.5	33.4	12.4	45.8	68.2	-22.4	Peak	Vertical
	10724.0	33.2	16.4	49.6	74.0	-24.4	Peak	Vertical
	11863.0	32.9	18.1	51.0	74.0	-23.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11n-HT40 (Beamforming Mode)	Test Channel	151
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8743.5	33.5	12.4	45.9	68.2	-22.3	Peak	Horizontal
*	9687.0	34.6	13.1	47.7	68.2	-20.5	Peak	Horizontal
	10809.0	33.2	16.6	49.8	74.0	-24.2	Peak	Horizontal
	11752.5	31.9	18.2	50.1	74.0	-23.9	Peak	Horizontal
*	7077.5	33.8	10.5	44.3	68.2	-23.9	Peak	Vertical
*	8004.0	33.8	11.5	45.3	68.2	-22.9	Peak	Vertical
	10809.0	32.8	16.6	49.4	74.0	-24.6	Peak	Vertical
	12203.0	32.3	18.5	50.8	74.0	-23.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11n-HT40 (Beamforming Mode)	Test Channel	159
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8828.5	34.3	12.1	46.4	68.2	-21.8	Peak	Horizontal
*	9704.0	34.5	13.1	47.6	68.2	-20.6	Peak	Horizontal
	10809.0	33.2	16.6	49.8	74.0	-24.2	Peak	Horizontal
	12262.5	32.3	19.0	51.3	74.0	-22.7	Peak	Horizontal
*	7783.0	35.4	10.7	46.1	68.2	-22.1	Peak	Vertical
*	9687.0	34.6	13.1	47.7	68.2	-20.5	Peak	Vertical
	10792.0	33.2	16.3	49.5	74.0	-24.5	Peak	Vertical
	11854.5	32.4	18.3	50.7	74.0	-23.3	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT20 (Beamforming Mode)	Test Channel	36
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7953.0	32.3	11.0	43.3	68.2	-24.9	Peak	Horizontal
*	9916.5	34.4	13.6	48.0	68.2	-20.2	Peak	Horizontal
	11327.5	32.1	17.7	49.8	74.0	-24.2	Peak	Horizontal
	12228.5	31.3	19.2	50.5	74.0	-23.5	Peak	Horizontal
*	7919.0	34.3	10.9	45.2	68.2	-23.0	Peak	Vertical
*	9610.5	34.8	13.1	47.9	68.2	-20.3	Peak	Vertical
	11038.5	32.3	16.7	49.0	74.0	-25.0	Peak	Vertical
	12279.5	32.0	18.5	50.5	74.0	-23.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT20 (Beamforming Mode)	Test Channel	44
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8012.5	34.3	11.4	45.7	68.2	-22.5	Peak	Horizontal
*	9984.5	34.4	13.8	48.2	68.2	-20.0	Peak	Horizontal
	11642.0	33.4	17.7	51.1	74.0	-22.9	Peak	Horizontal
	12160.5	32.3	18.0	50.3	74.0	-23.7	Peak	Horizontal
*	8845.5	34.8	12.2	47.0	68.2	-21.2	Peak	Vertical
*	9619.0	34.3	13.3	47.6	68.2	-20.6	Peak	Vertical
	11693.0	31.8	18.5	50.3	74.0	-23.7	Peak	Vertical
	12211.5	31.9	18.6	50.5	74.0	-23.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT20 (Beamforming Mode)	Test Channel	48
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8735.0	33.7	12.3	46.0	68.2	-22.2	Peak	Horizontal
*	9950.5	33.5	13.7	47.2	68.2	-21.0	Peak	Horizontal
	10979.0	33.1	16.3	49.4	74.0	-24.6	Peak	Horizontal
	12279.5	32.8	18.5	51.3	74.0	-22.7	Peak	Horizontal
*	7086.0	33.8	10.6	44.4	68.2	-23.8	Peak	Vertical
*	8743.5	34.0	12.4	46.4	68.2	-21.8	Peak	Vertical
	11242.5	33.2	16.7	49.9	74.0	-24.1	Peak	Vertical
	12220.0	31.9	18.8	50.7	74.0	-23.3	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT20 (Beamforming Mode)	Test Channel	149
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8752.0	33.3	12.5	45.8	68.2	-22.4	Peak	Horizontal
*	10120.5	32.3	13.9	46.2	68.2	-22.0	Peak	Horizontal
	11820.5	31.9	18.5	50.4	74.0	-23.6	Peak	Horizontal
	12611.0	32.3	18.2	50.5	74.0	-23.5	Peak	Horizontal
*	7876.5	33.0	10.6	43.6	68.2	-24.6	Peak	Vertical
*	10035.5	32.6	13.7	46.3	68.2	-21.9	Peak	Vertical
	10809.0	33.4	16.6	50.0	74.0	-24.0	Peak	Vertical
	11684.5	32.3	18.3	50.6	74.0	-23.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT20 (Beamforming Mode)	Test Channel	157
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8004.0	34.3	11.5	45.8	68.2	-22.4	Peak	Horizontal
*	9840.0	34.1	13.4	47.5	68.2	-20.7	Peak	Horizontal
	10817.5	33.2	16.3	49.5	74.0	-24.5	Peak	Horizontal
	11693.0	32.2	18.5	50.7	74.0	-23.3	Peak	Horizontal
*	7247.5	34.8	10.8	45.6	68.2	-22.6	Peak	Vertical
*	7995.5	33.8	11.4	45.2	68.2	-23.0	Peak	Vertical
	10860.0	33.3	16.1	49.4	74.0	-24.6	Peak	Vertical
	12228.5	31.4	19.2	50.6	74.0	-23.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT20 (Beamforming Mode)	Test Channel	165
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7230.5	33.8	11.0	44.8	68.2	-23.4	Peak	Horizontal
*	7825.5	34.7	10.6	45.3	68.2	-22.9	Peak	Horizontal
	8335.5	35.8	11.0	46.8	74.0	-27.2	Peak	Horizontal
	11030.0	32.8	16.5	49.3	74.0	-24.7	Peak	Horizontal
*	7188.0	34.7	10.8	45.5	68.2	-22.7	Peak	Vertical
*	8811.5	32.4	12.3	44.7	68.2	-23.5	Peak	Vertical
	10775.0	33.8	16.5	50.3	74.0	-23.7	Peak	Vertical
	12254.0	32.5	18.5	51.0	74.0	-23.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT40 (Beamforming Mode)	Test Channel	38
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8616.0	33.7	12.0	45.7	68.2	-22.5	Peak	Horizontal
*	9627.5	33.3	13.2	46.5	68.2	-21.7	Peak	Horizontal
	10928.0	33.5	16.3	49.8	74.0	-24.2	Peak	Horizontal
	11990.5	32.2	18.0	50.2	74.0	-23.8	Peak	Horizontal
*	8004.0	33.9	11.5	45.4	68.2	-22.8	Peak	Vertical
*	10044.0	34.2	13.9	48.1	68.2	-20.1	Peak	Vertical
	10970.5	32.3	16.5	48.8	74.0	-25.2	Peak	Vertical
	12254.0	31.9	18.5	50.4	74.0	-23.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT40 (Beamforming Mode)	Test Channel	46
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8658.5	32.6	12.0	44.6	68.2	-23.6	Peak	Horizontal
*	10282.0	33.5	15.1	48.6	68.2	-19.6	Peak	Horizontal
	11820.5	31.8	18.5	50.3	74.0	-23.7	Peak	Horizontal
	12135.0	32.6	17.8	50.4	74.0	-23.6	Peak	Horizontal
*	7026.5	35.0	9.8	44.8	68.2	-23.4	Peak	Vertical
*	9270.5	33.7	13.5	47.2	68.2	-21.0	Peak	Vertical
	10758.0	32.4	16.1	48.5	74.0	-25.5	Peak	Vertical
	11948.0	30.1	18.3	48.4	74.0	-25.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT40 (Beamforming Mode)	Test Channel	151
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7978.5	34.1	11.2	45.3	68.2	-22.9	Peak	Horizontal
*	9296.0	32.1	13.2	45.3	68.2	-22.9	Peak	Horizontal
	11310.5	32.1	17.3	49.4	74.0	-24.6	Peak	Horizontal
	12203.0	32.3	18.5	50.8	74.0	-23.2	Peak	Horizontal
*	7154.0	33.5	10.4	43.9	68.2	-24.3	Peak	Vertical
*	8667.0	33.5	12.2	45.7	68.2	-22.5	Peak	Vertical
	10698.5	33.9	16.0	49.9	74.0	-24.1	Peak	Vertical
	11939.5	32.3	18.5	50.8	74.0	-23.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT40 (Beamforming Mode)	Test Channel	159
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7213.5	33.7	11.0	44.7	68.2	-23.5	Peak	Horizontal
*	7876.5	33.0	10.6	43.6	68.2	-24.6	Peak	Horizontal
	8335.5	36.4	11.0	47.4	74.0	-26.6	Peak	Horizontal
	12186.0	32.0	18.0	50.0	74.0	-24.0	Peak	Horizontal
*	7825.5	35.4	10.6	46.0	68.2	-22.2	Peak	Vertical
*	8905.0	34.4	12.1	46.5	68.2	-21.7	Peak	Vertical
	10622.0	33.4	16.2	49.6	74.0	-24.4	Peak	Vertical
	12220.0	31.7	18.8	50.5	74.0	-23.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT80 (Beamforming Mode)	Test Channel	42
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7842.5	33.0	10.7	43.7	68.2	-24.5	Peak	Horizontal
*	9755.0	34.5	13.3	47.8	68.2	-20.4	Peak	Horizontal
	11404.0	32.5	17.0	49.5	74.0	-24.5	Peak	Horizontal
	12271.0	31.1	18.9	50.0	74.0	-24.0	Peak	Horizontal
*	8548.0	34.0	11.5	45.5	68.2	-22.7	Peak	Vertical
*	10146.0	34.4	13.9	48.3	68.2	-19.9	Peak	Vertical
	11310.5	32.0	17.3	49.3	74.0	-24.7	Peak	Vertical
	12262.5	31.9	19.0	50.9	74.0	-23.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	Dual Band ONT	Test Engineer	Jason Gao
Test Site	WZ-AC2	Test Date	2020/11/25
Test Mode	802.11ac-VHT80 (Beamforming Mode)	Test Channel	155
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	8590.5	34.4	11.5	45.9	68.2	-22.3	Peak	Horizontal
*	9967.5	34.2	13.8	48.0	68.2	-20.2	Peak	Horizontal
	11550.1	22.4	17.0	39.4	54.0	-14.6	Average	Horizontal
	11550.1	39.1	16.7	55.8	74.0	-18.2	Peak	Horizontal
	12237.0	31.5	19.0	50.5	74.0	-23.5	Peak	Horizontal
*	8752.0	34.1	12.5	46.6	68.2	-21.6	Peak	Vertical
*	9942.0	33.9	13.7	47.6	68.2	-20.6	Peak	Vertical
	10775.0	33.6	16.5	50.1	74.0	-23.9	Peak	Vertical
	12228.5	32.0	19.2	51.2	74.0	-22.8	Peak	Vertical

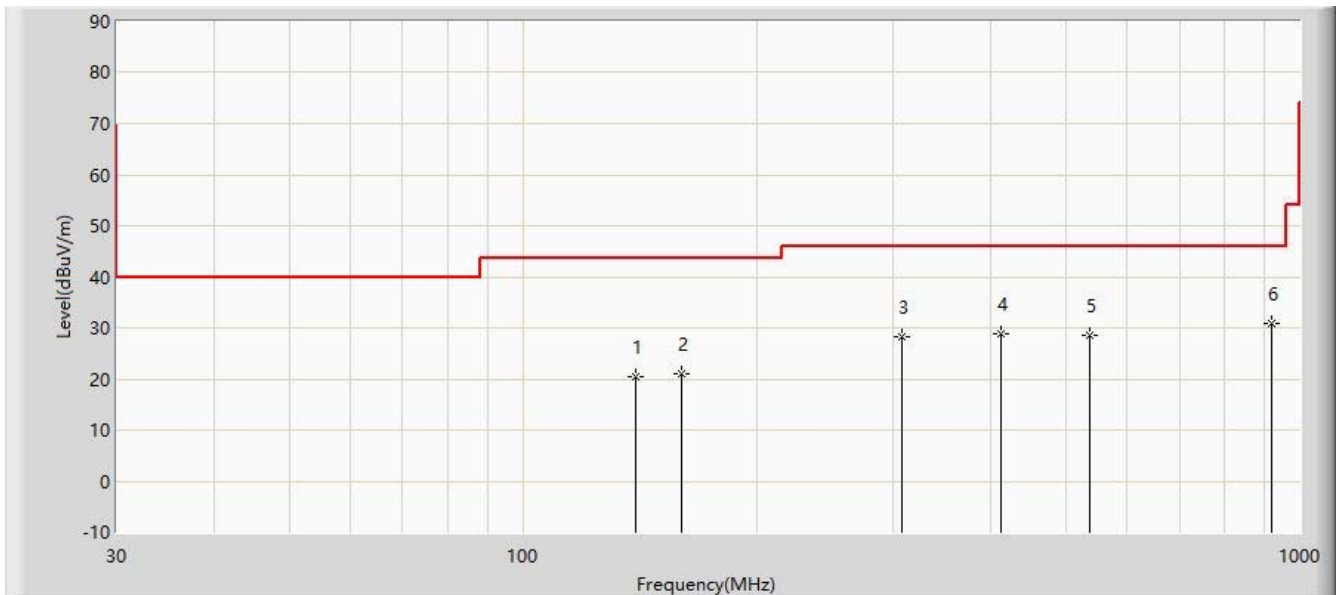
Note 1: “*” is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBμV/m can be determined by adding a “conversion” factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The Worst Case of Radiated Emission below 1GHz:

Site: WZ-AC1	Time: 2020/09/01
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: WZ-AC1_VULB 9168 _30-1000MHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 5180MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			139.610	20.318	6.531	-23.182	43.500	13.787	PK
2			159.980	21.065	6.633	-22.435	43.500	14.432	PK
3			307.905	28.290	13.222	-17.710	46.000	15.068	PK
4			411.695	28.742	11.290	-17.258	46.000	17.451	PK
5			536.340	28.526	8.330	-17.474	46.000	20.196	PK
6		*	920.460	30.943	4.627	-15.057	46.000	26.316	PK

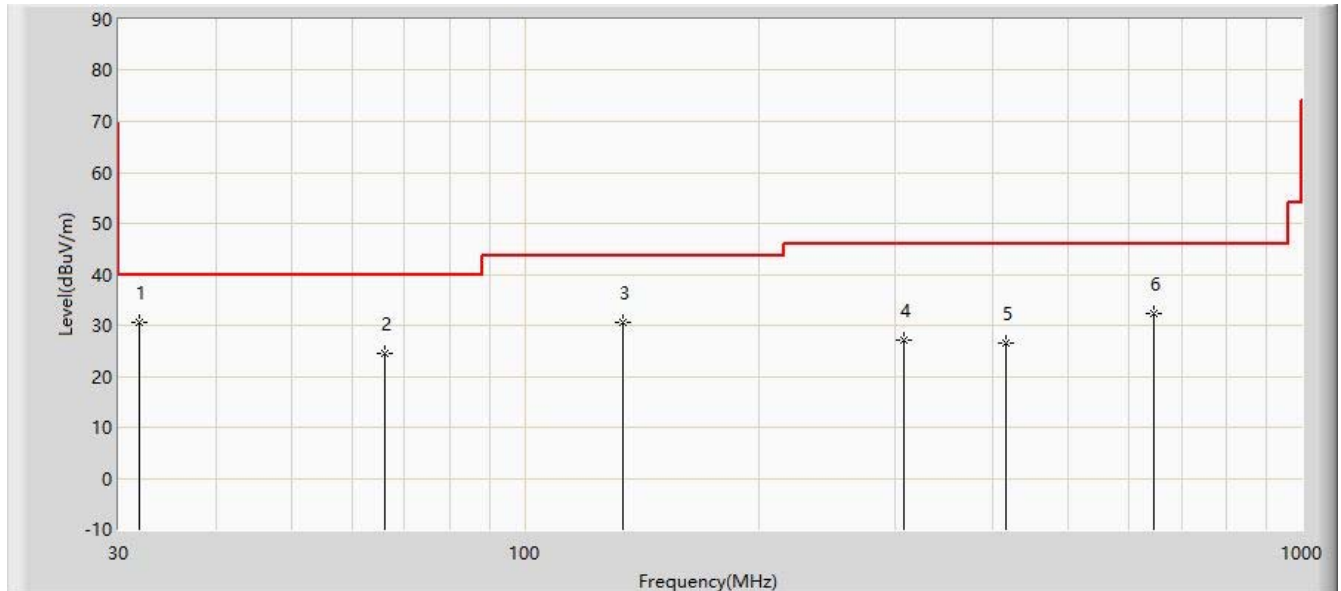
Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 40GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

Site: WZ-AC1	Time: 2020/09/01
Limit: FCC_Part15.209_RE(3m)	Engineer: Dillon Diao
Probe: WZ-AC1_VULB 9168 _30-1000MHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Dual Band ONT	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	31.940	30.623	17.665	-9.377	40.000	12.958	PK
2			65.890	24.540	11.392	-15.460	40.000	13.148	PK
3			133.790	30.583	17.316	-12.917	43.500	13.267	PK
4			307.905	27.238	12.170	-18.762	46.000	15.068	PK
5			416.060	26.403	8.851	-19.597	46.000	17.552	PK
6			644.980	32.458	9.895	-13.542	46.000	22.563	PK

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 40GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value.

Therefore, the data is not presented in the report.

6.5. Radiated Restricted Band Edge Measurement

6.5.1. Test Limit

For 15.205 Requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42-16.423	399.9 - 410	4.5-5.15
¹ 0.495 - 0.505	16.69475-16.69525	608 - 614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960 - 1240	7.25-7.75
4.125-4.128	25.5 -25.67	1300 - 1427	8.025 - 8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660 - 1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123 - 138	2200 - 2300	14.47-14.5
8.291-8.294	149.9-150.05	2310–2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5 - 2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690 - 2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260 - 3267	23.6-24.0
12.29-12.293	167.72-173.2	3332 - 3339	31.2-31.8
12.51975-12.52025	240 - 285	3345.8 - 3358	36.43-36.5
12.57675-12.57725	322-335.4	3600 - 4400	(²)
13.36-13.41	--	--	--

For 15.407(b) Requirement:

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.

For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

Refer to KDB 789033 D02v02r01 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz

that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Field Strength (μ V/m)	Measured Distance (m)
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.5.2.Test Procedure Used

KDB 789033 D02v02r01 - Section G

6.5.3. Test Setting

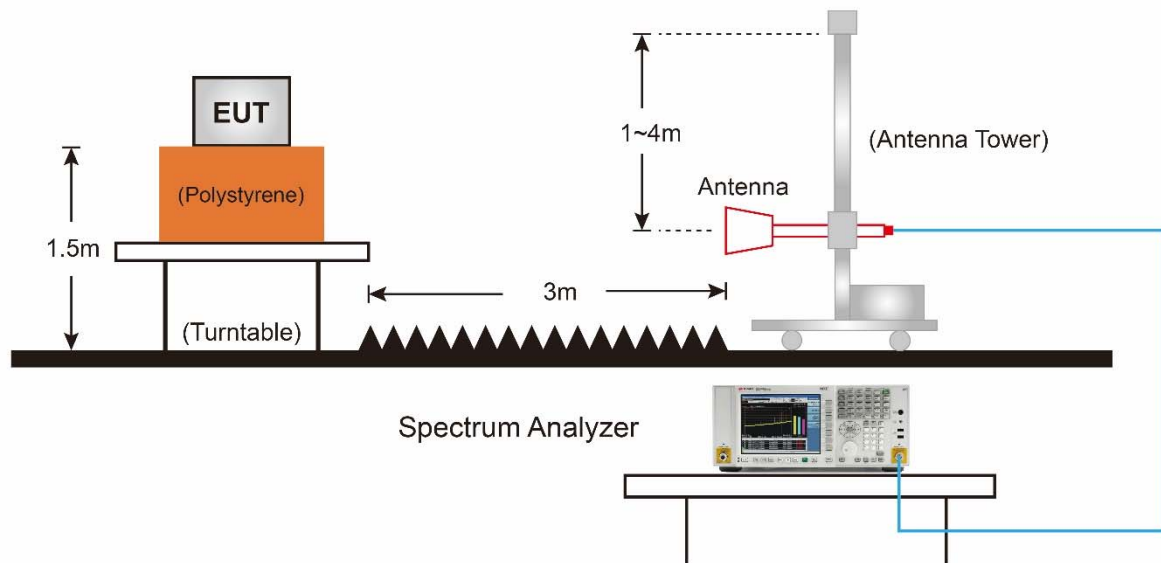
Peak Measurements above 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = Peak
5. Sweep time = Auto couple
6. Trace mode = Max hold
7. Trace was allowed to stabilize

Average Measurements above 1GHz (Method VB)

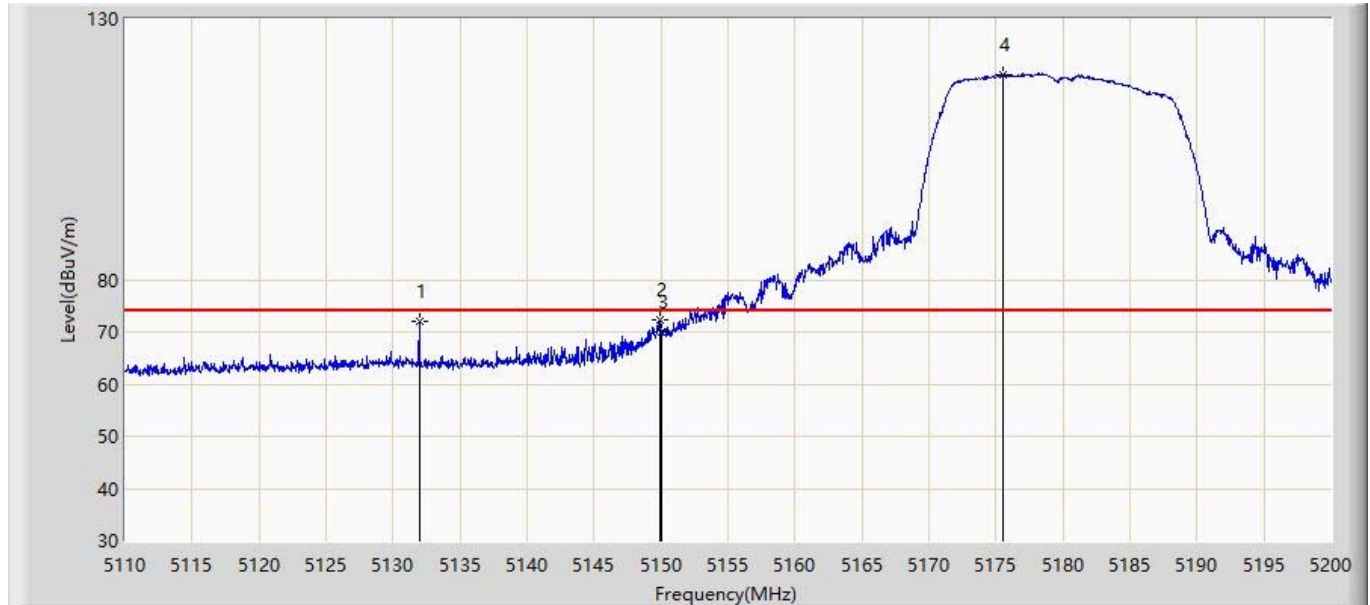
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; if the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10Hz
4. If the EUT duty cycle is $< 98\%$, set VBW $\geq 1/T$. T is the minimum transmission duration
5. Detector = Peak
6. Sweep time = Auto
7. Trace mode = Max hold
8. Trace was allowed to stabilize

6.5.4. Test Setup



6.5.5.Test Result

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz– beamforming mode	

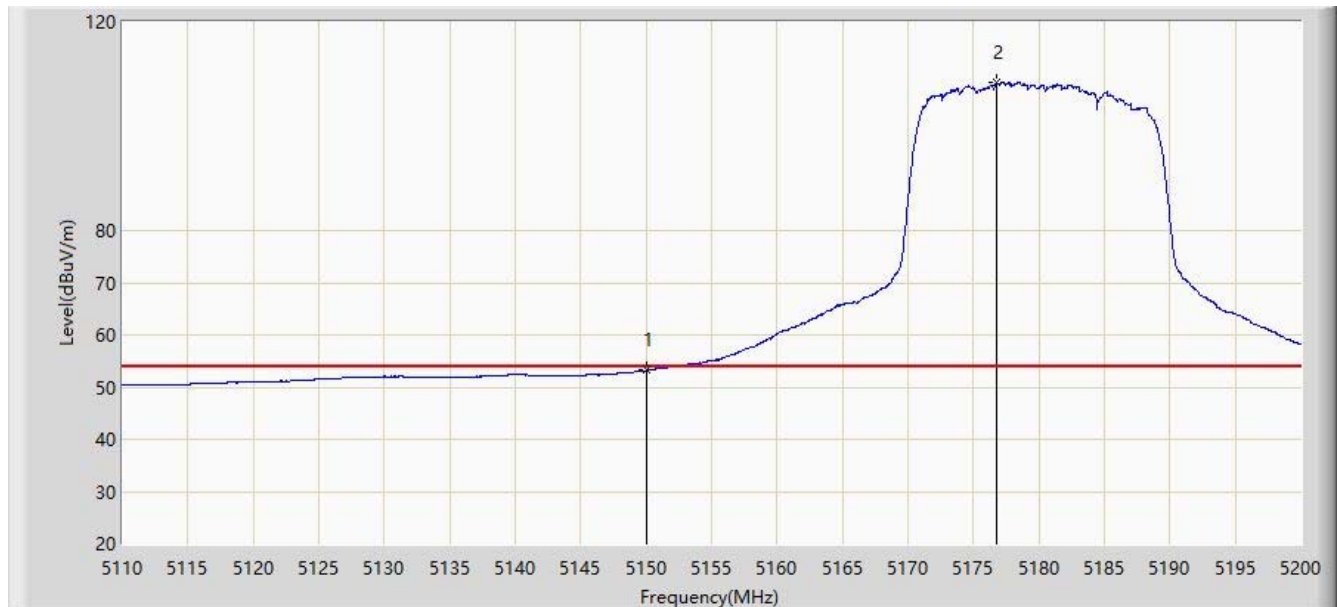


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5131.960	72.157	66.005	-1.843	74.000	6.152	PK
2			5149.870	72.232	66.135	-1.768	74.000	6.097	PK
3			5150.000	70.116	64.019	-3.884	74.000	6.097	PK
4		*	5175.565	119.397	113.376	N/A	N/A	6.022	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz- beamforming mode	

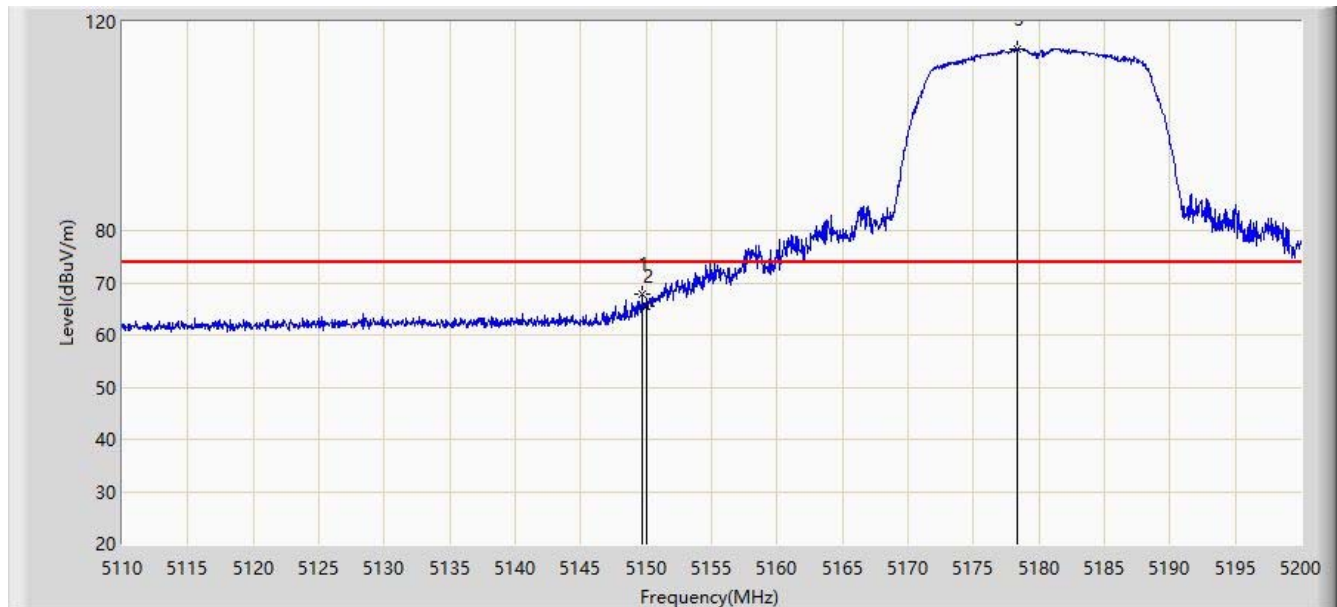


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	53.199	47.102	-0.801	54.000	6.097	AV
2		*	5176.780	108.377	102.355	N/A	N/A	6.023	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz- beamforming mode	

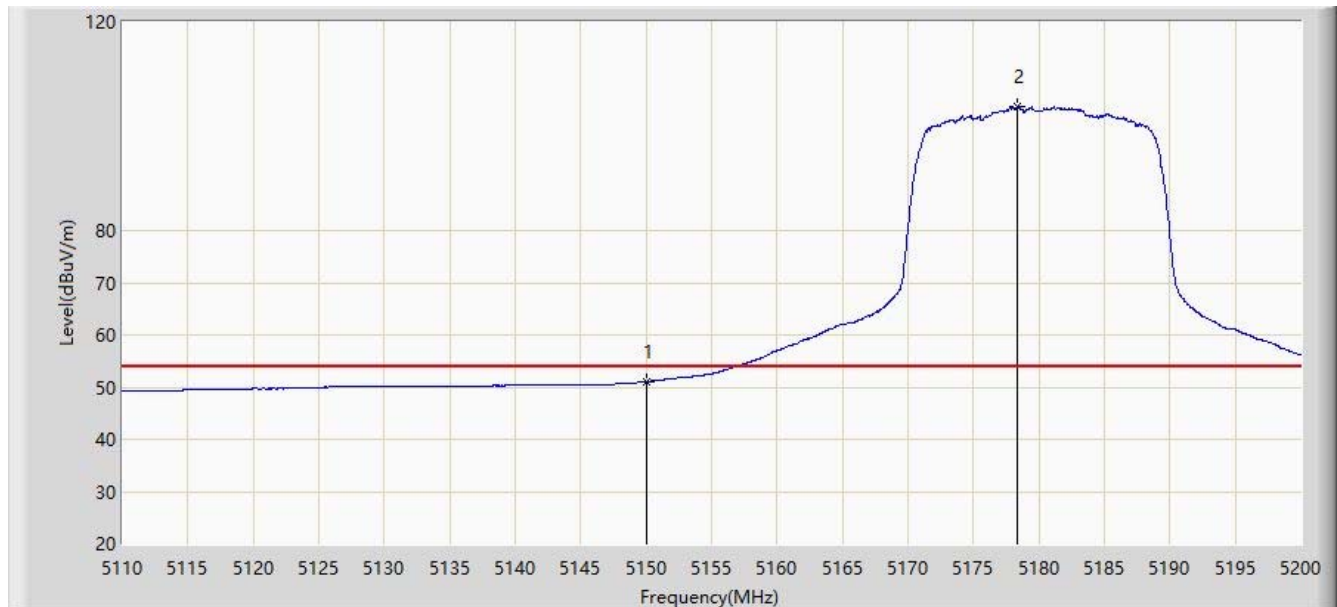


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.690	67.874	61.776	-6.126	74.000	6.098	PK
2			5150.000	65.528	59.431	-8.472	74.000	6.097	PK
3		*	5178.310	114.890	108.867	N/A	N/A	6.023	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz- beamforming mode	

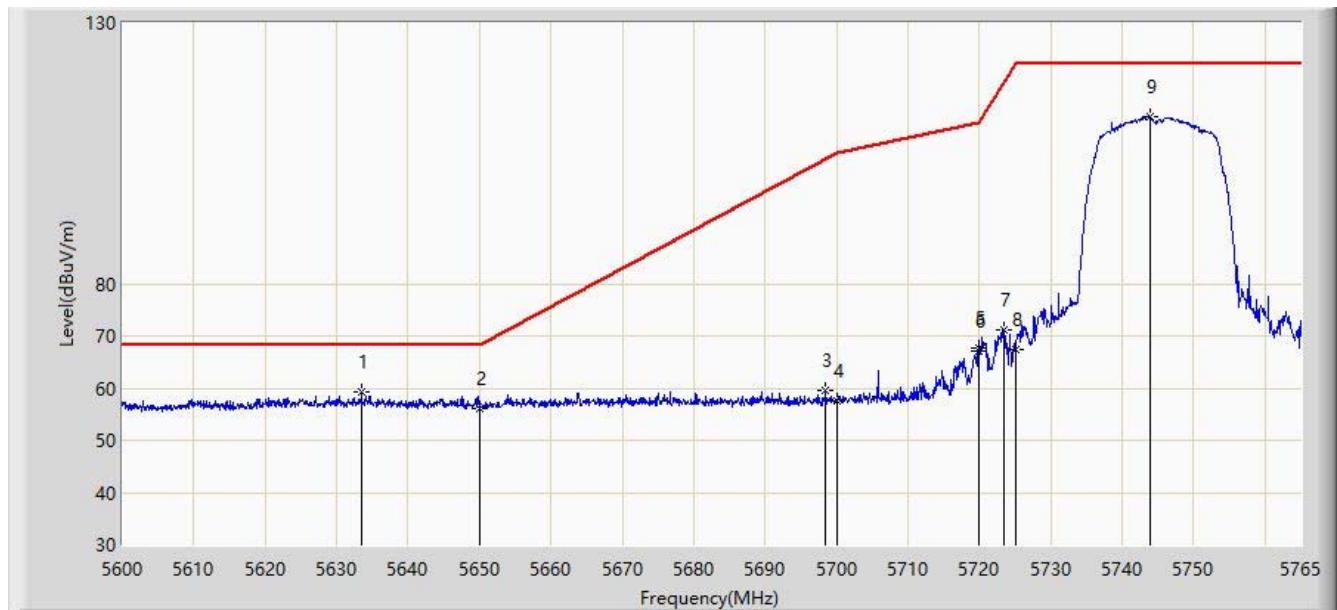


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	51.073	44.976	-2.927	54.000	6.097	AV
2		*	5178.400	103.716	97.693	N/A	N/A	6.022	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 5745MHz- beamforming mode	

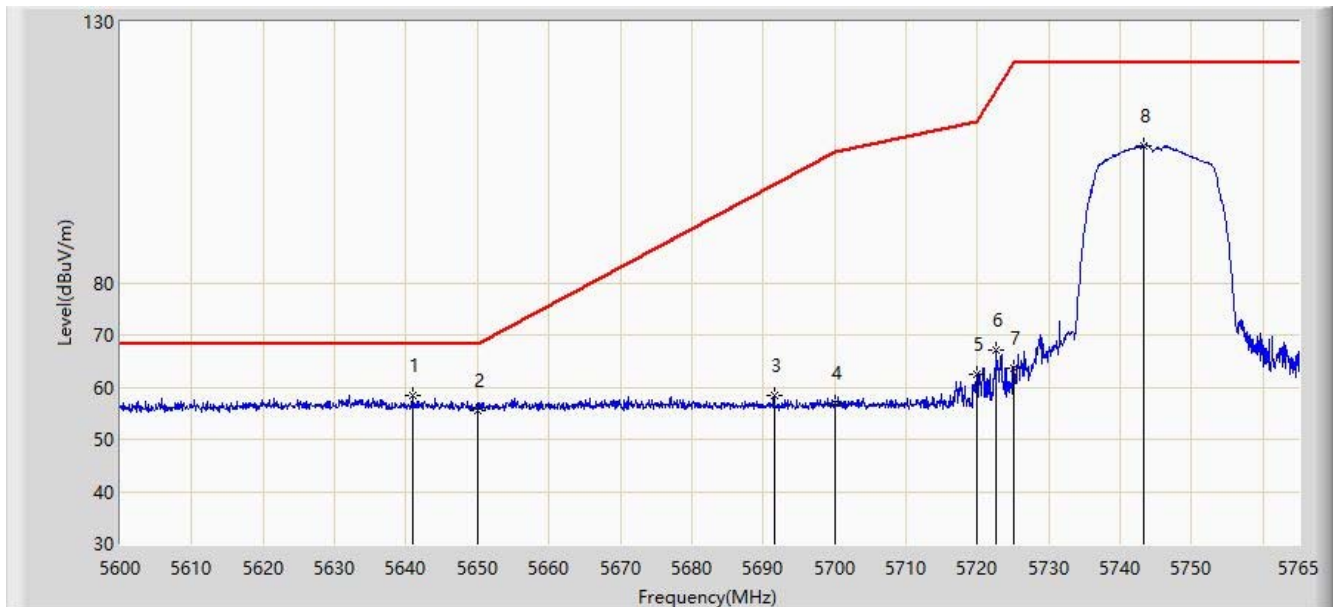


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5633.495	59.261	54.475	-8.939	68.200	4.786	PK
2			5650.000	56.167	51.594	-12.033	68.200	4.573	PK
3			5698.505	59.524	54.970	-44.574	104.098	4.554	PK
4			5700.000	57.539	52.961	-47.661	105.200	4.578	PK
5			5719.873	67.647	63.018	-43.118	110.765	4.629	PK
6			5720.000	67.230	62.602	-43.570	110.800	4.627	PK
7			5723.420	71.251	66.643	-47.348	118.599	4.608	PK
8			5725.000	67.374	62.761	-54.826	122.200	4.613	PK
9			5743.880	111.926	107.151	N/A	N/A	4.775	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 5745MHz- beamforming mode	

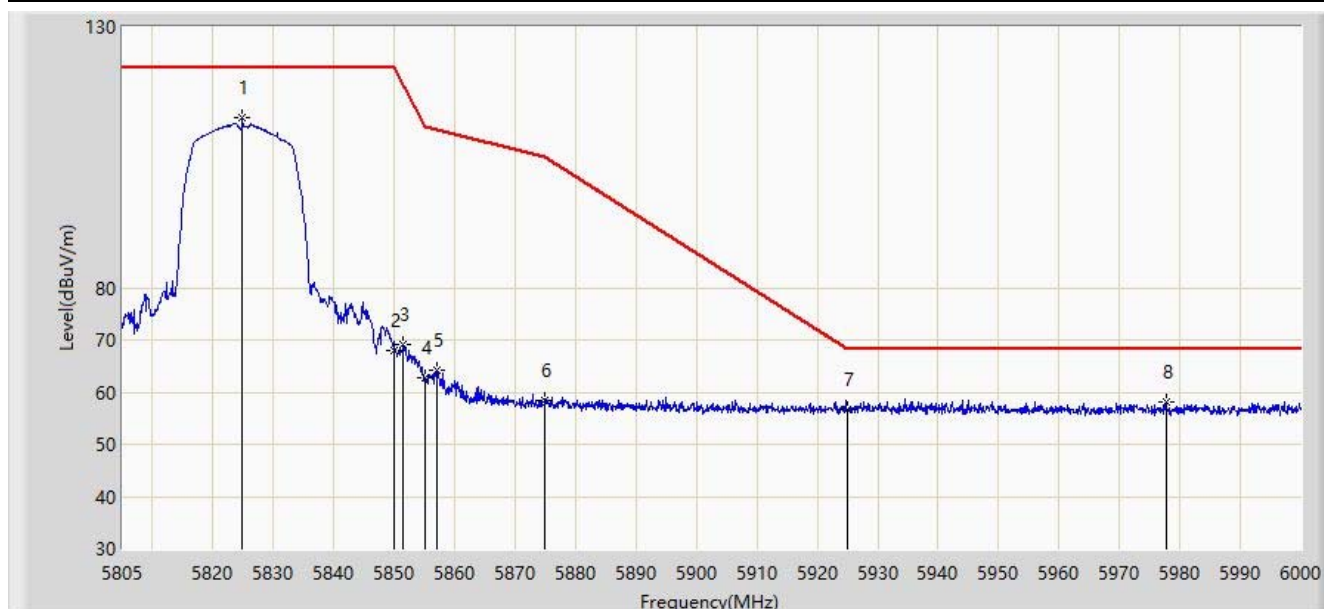


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5641.002	58.412	53.758	-9.788	68.200	4.653	PK
2			5650.000	55.610	51.037	-12.590	68.200	4.573	PK
3			5691.575	58.368	53.913	-40.620	98.988	4.455	PK
4			5700.000	57.059	52.481	-48.141	105.200	4.578	PK
5			5720.000	62.509	57.881	-48.291	110.800	4.627	PK
6			5722.678	67.055	62.446	-49.852	116.907	4.609	PK
7			5725.000	63.542	58.929	-58.658	122.200	4.613	PK
8			5743.385	106.340	101.569	N/A	N/A	4.771	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 5825MHz- beamforming mode	

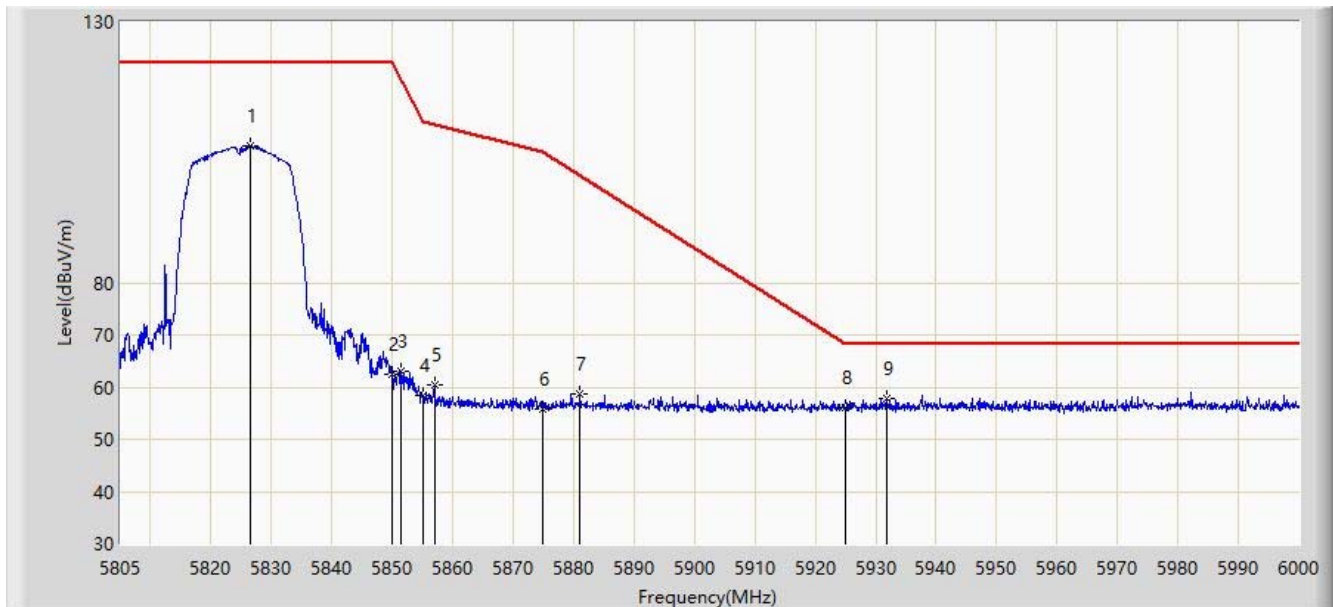


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5824.890	112.704	107.903	N/A	N/A	4.802	PK
2			5850.000	68.087	63.068	-54.113	122.200	5.019	PK
3			5851.507	69.146	64.118	-49.617	118.763	5.028	PK
4			5855.000	62.656	57.608	-48.144	110.800	5.048	PK
5			5857.163	64.251	59.191	-45.942	110.193	5.059	PK
6			5875.000	58.524	53.351	-46.676	105.200	5.173	PK
7			5925.000	56.773	51.412	-11.427	68.200	5.362	PK
8			5977.672	58.206	52.574	-9.994	68.200	5.632	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 5825MHz- beamforming mode	

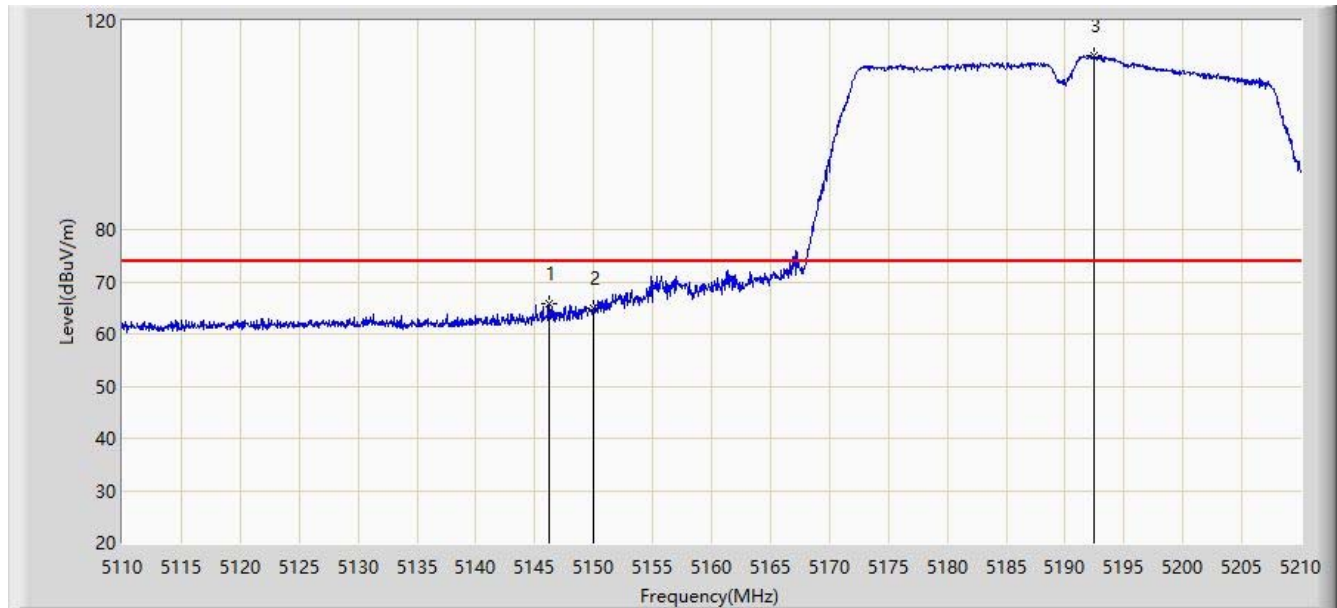


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5826.450	106.260	101.489	N/A	N/A	4.770	PK
2			5850.000	62.393	57.374	-59.807	122.200	5.019	PK
3			5851.312	63.159	58.132	-56.049	119.208	5.028	PK
4			5855.000	58.388	53.340	-52.412	110.800	5.048	PK
5			5856.967	60.398	55.339	-49.850	110.248	5.059	PK
6			5875.000	55.869	50.696	-49.331	105.200	5.173	PK
7			5881.050	58.759	53.563	-41.948	100.706	5.196	PK
8			5925.000	56.143	50.782	-12.057	68.200	5.362	PK
9		*	5931.750	57.700	52.301	-10.500	68.200	5.399	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz- beamforming mode	

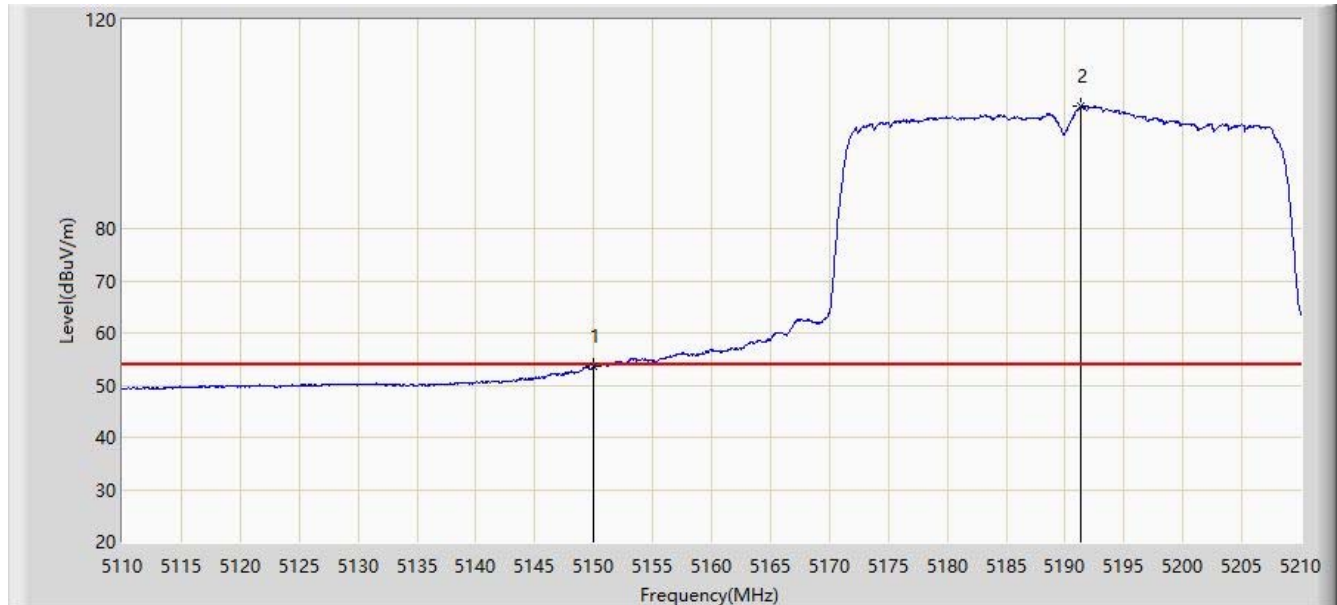


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5146.200	65.751	59.641	-8.249	74.000	6.110	PK
2			5150.000	64.876	58.779	-9.124	74.000	6.097	PK
3		*	5192.400	113.331	107.392	N/A	N/A	5.939	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz- beamforming mode	

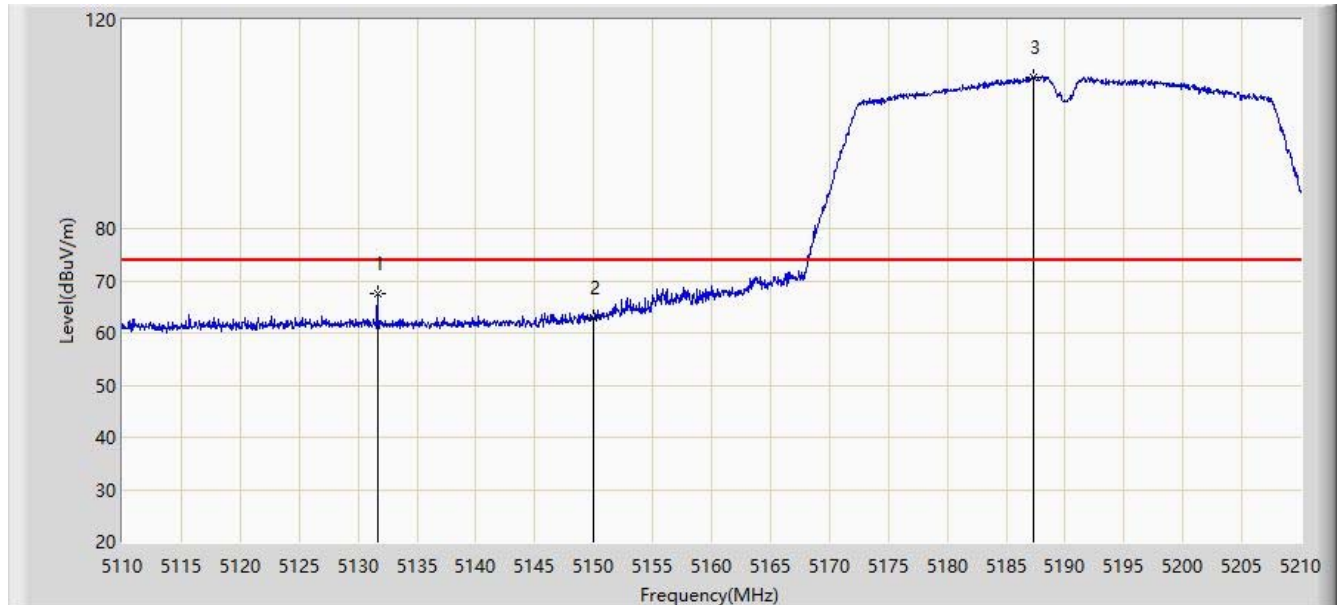


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	53.542	47.445	-0.458	54.000	6.097	AV
2		*	5191.350	103.429	97.479	N/A	N/A	5.950	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz- beamforming mode	

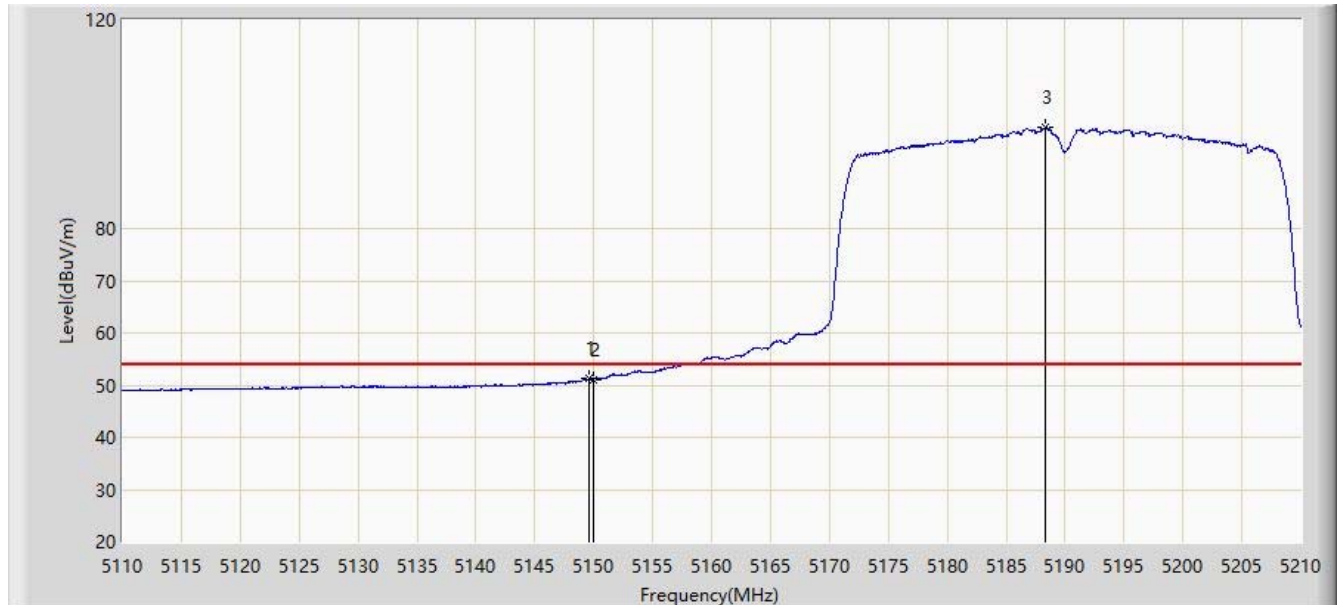


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5131.650	67.633	61.480	-6.367	74.000	6.153	PK
2			5150.000	62.871	56.774	-11.129	74.000	6.097	PK
3		*	5187.300	109.007	103.014	N/A	N/A	5.993	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz- beamforming mode	

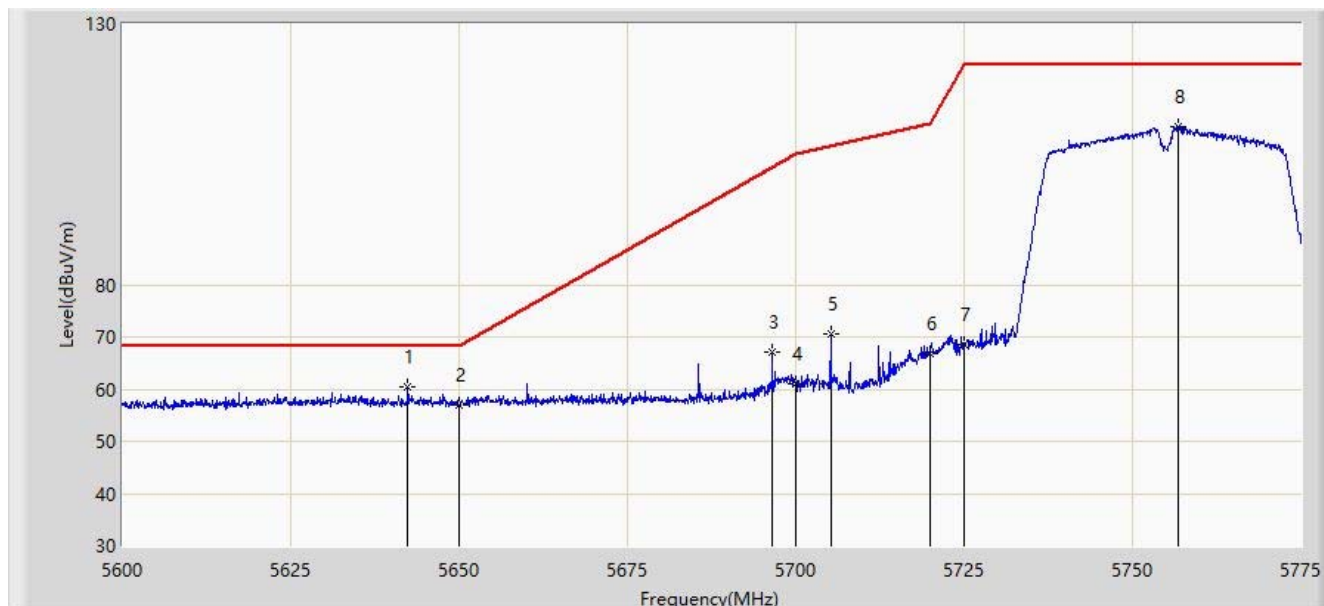


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.650	51.247	45.149	-2.753	54.000	6.098	AV
2			5150.000	51.118	45.021	-2.882	54.000	6.097	AV
3		*	5188.300	99.375	93.393	N/A	N/A	5.982	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz- beamforming mode	

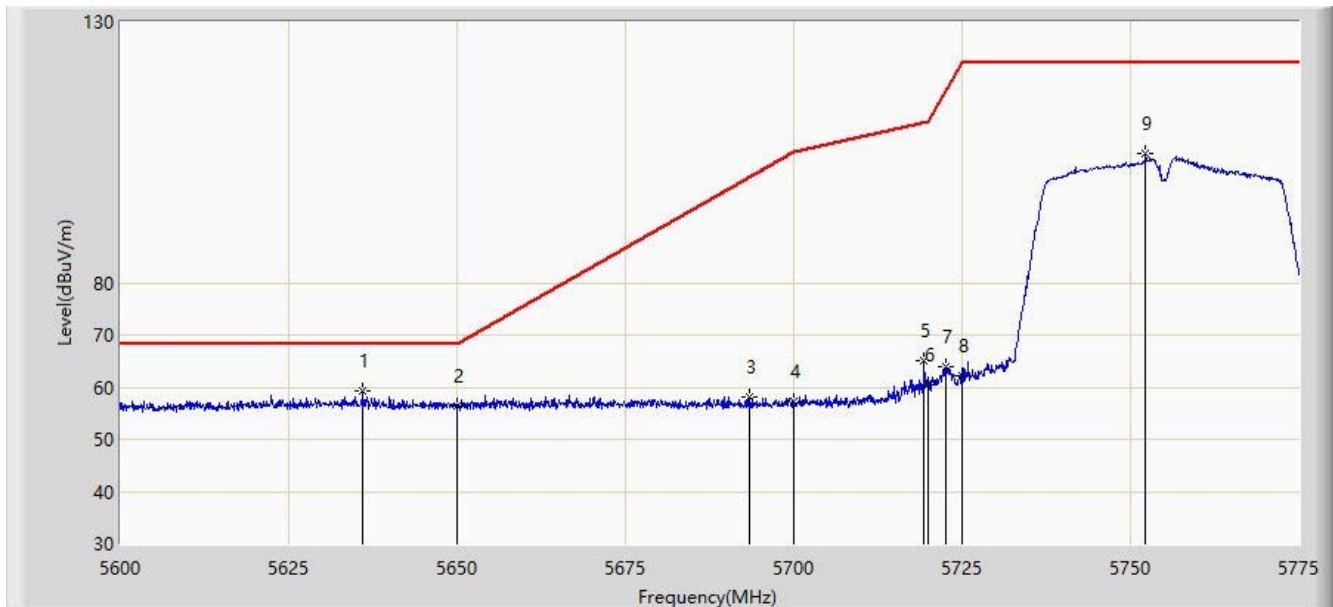


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5642.350	60.453	55.811	-7.747	68.200	4.642	PK
2			5650.000	56.998	52.425	-11.202	68.200	4.573	PK
3			5696.513	67.228	62.706	-35.402	102.630	4.522	PK
4			5700.000	60.963	56.385	-44.237	105.200	4.578	PK
5			5705.175	70.501	65.840	-36.150	106.651	4.661	PK
6			5720.000	66.805	62.177	-43.995	110.800	4.627	PK
7			5725.000	68.419	63.806	-53.781	122.200	4.613	PK
8			5756.712	110.311	105.434	N/A	N/A	4.876	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz- beamforming mode	

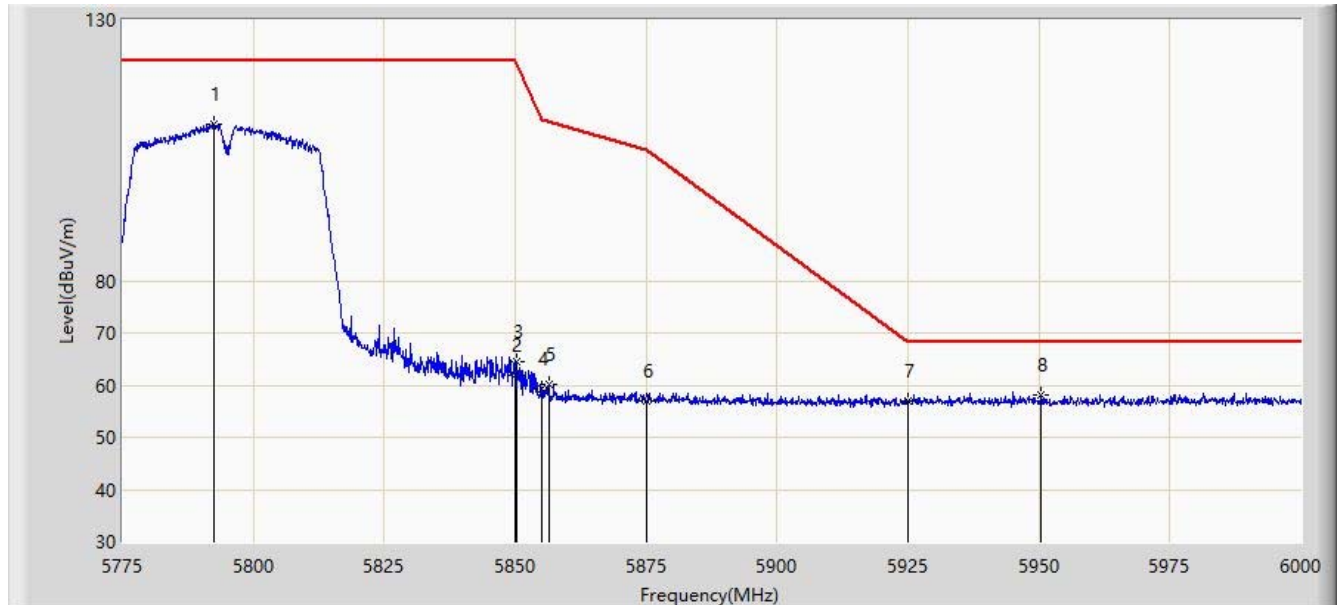


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5636.050	59.173	54.432	-9.027	68.200	4.740	PK
2			5650.000	56.318	51.745	-11.882	68.200	4.573	PK
3			5693.450	58.125	53.652	-42.247	100.372	4.473	PK
4			5700.000	57.125	52.547	-48.075	105.200	4.578	PK
5			5719.350	64.939	60.307	-45.679	110.618	4.632	PK
6			5720.000	60.403	55.775	-50.397	110.800	4.627	PK
7			5722.500	63.840	59.230	-52.661	116.501	4.611	PK
8			5725.000	62.297	57.684	-59.903	122.200	4.613	PK
9			5752.250	104.675	99.834	N/A	N/A	4.841	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 5795MHz- beamforming mode	

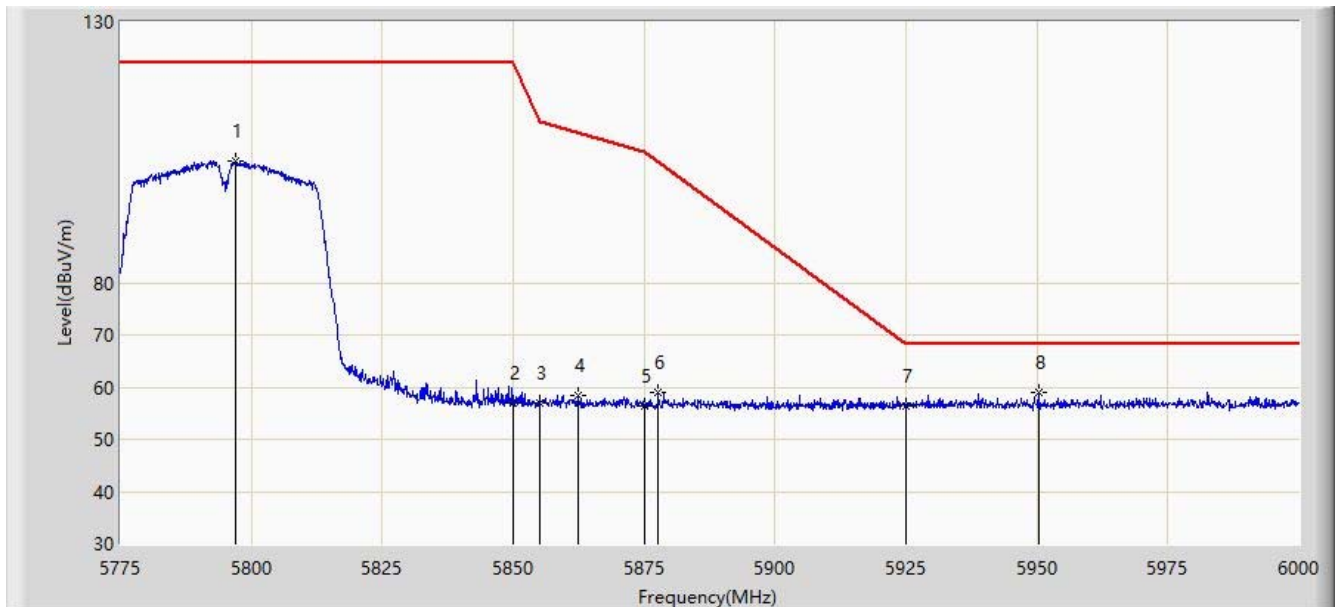


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5792.550	109.981	105.141	N/A	N/A	4.840	PK
2			5850.000	62.018	56.999	-60.182	122.200	5.019	PK
3			5850.263	64.361	59.340	-57.239	121.600	5.021	PK
4			5855.000	59.137	54.089	-51.663	110.800	5.048	PK
5			5856.450	60.134	55.078	-50.259	110.393	5.056	PK
6			5875.000	56.972	51.799	-48.228	105.200	5.173	PK
7			5925.000	56.883	51.522	-11.317	68.200	5.362	PK
8		*	5950.500	58.149	52.759	-10.051	68.200	5.390	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 5795MHz- beamforming mode	

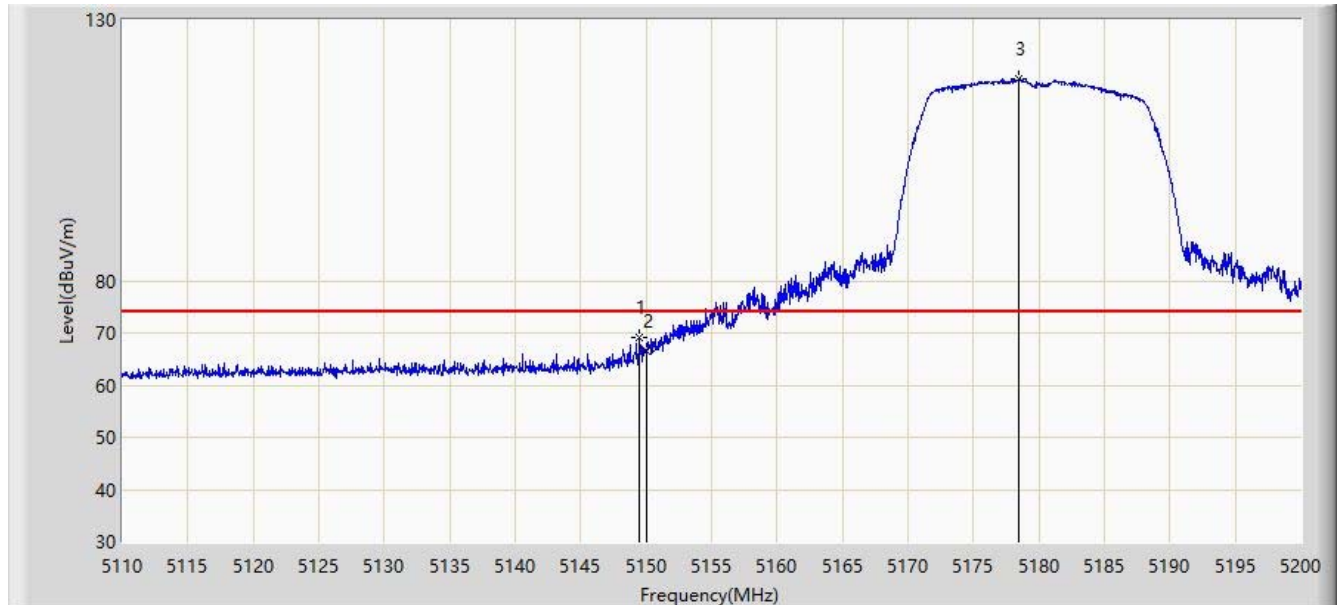


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5797.050	103.312	98.452	N/A	N/A	4.860	PK
2			5850.000	56.865	51.846	-65.335	122.200	5.019	PK
3			5855.000	57.050	52.002	-53.750	110.800	5.048	PK
4			5862.300	58.545	53.455	-50.208	108.754	5.090	PK
5			5875.000	56.489	51.316	-48.711	105.200	5.173	PK
6			5877.712	58.899	53.714	-44.286	103.185	5.185	PK
7			5925.000	56.297	50.936	-11.903	68.200	5.362	PK
8		*	5950.275	59.020	53.629	-9.180	68.200	5.391	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz- beamforming mode	

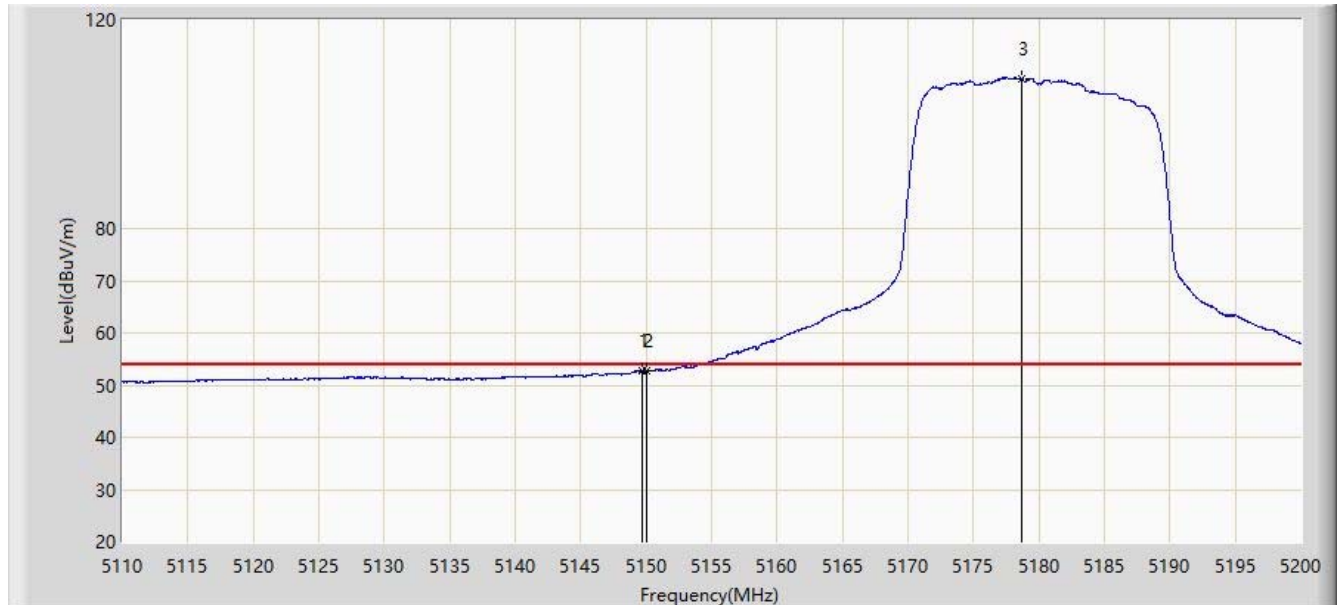


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.510	69.089	62.990	-4.911	74.000	6.098	PK
2			5150.000	66.612	60.515	-7.388	74.000	6.097	PK
3		*	5178.490	118.604	112.581	N/A	N/A	6.023	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz- beamforming mode	

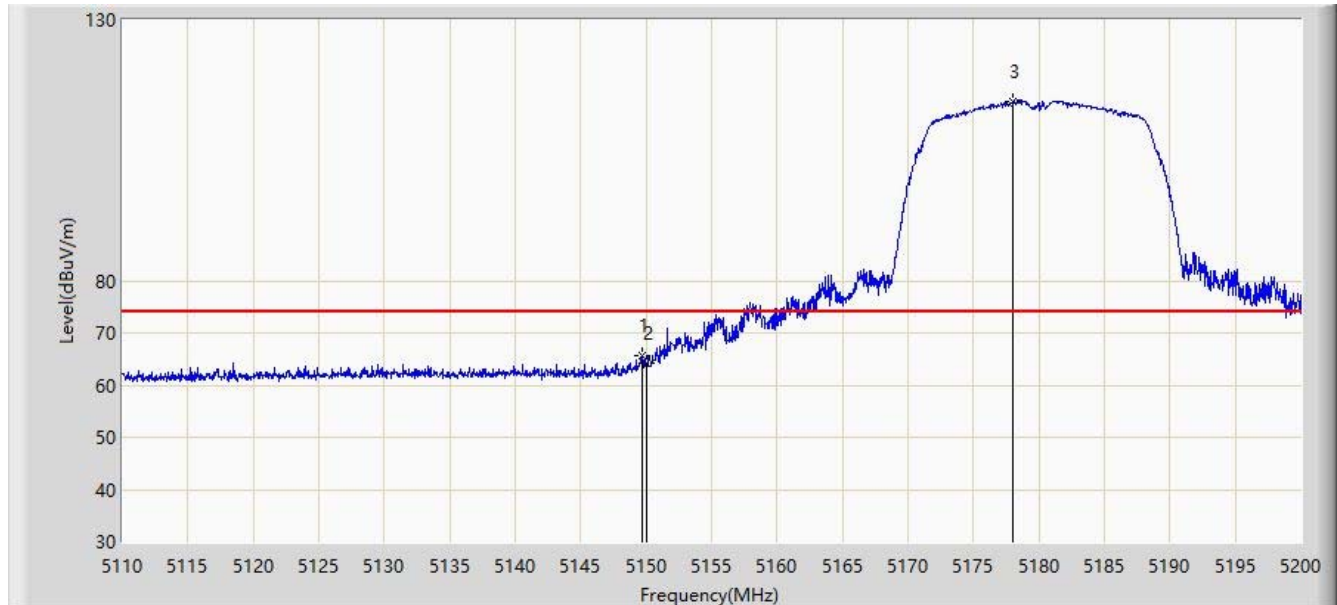


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.735	52.832	46.734	-1.168	54.000	6.098	AV
2			5150.000	52.650	46.553	-1.350	54.000	6.097	AV
3		*	5178.670	108.686	102.663	N/A	N/A	6.023	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz- beamforming mode	

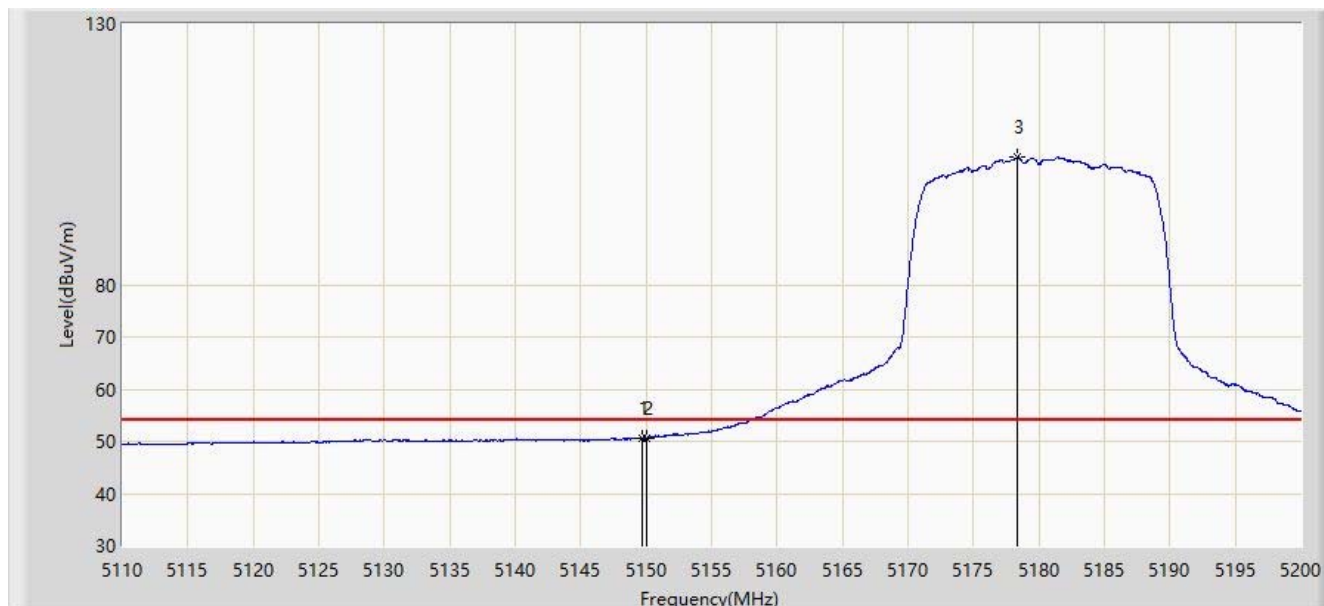


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.735	65.770	59.672	-8.230	74.000	6.098	PK
2			5150.000	64.104	58.007	-9.896	74.000	6.097	PK
3		*	5178.040	114.293	108.270	N/A	N/A	6.023	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz- beamforming mode	

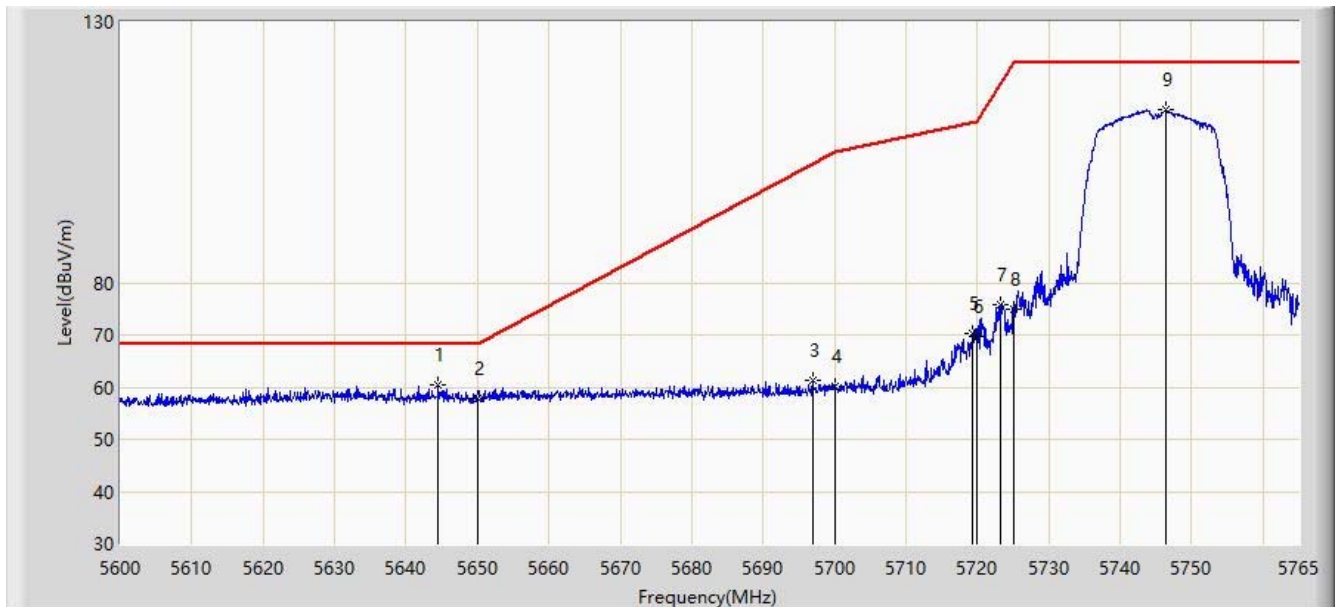


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.690	50.699	44.601	-3.301	54.000	6.098	AV
2			5150.000	50.621	44.524	-3.379	54.000	6.097	AV
3		*	5178.310	104.424	98.401	N/A	N/A	6.023	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5745MHz- beamforming mode	

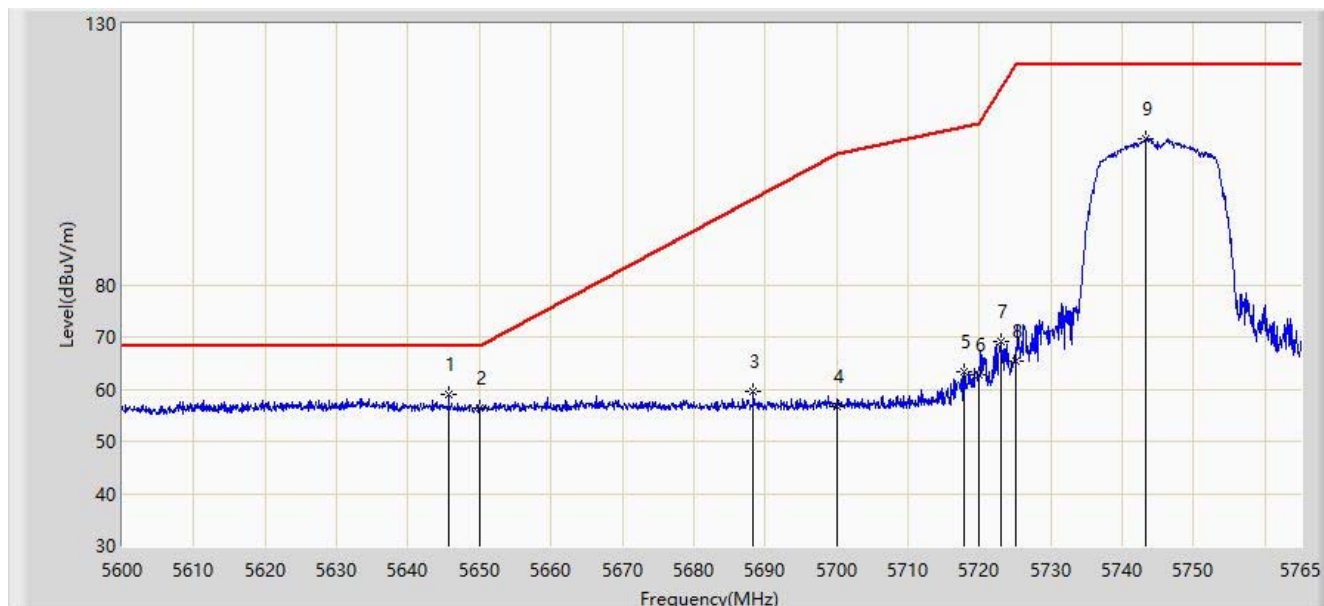


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5644.550	60.410	55.788	-7.790	68.200	4.622	PK
2			5650.000	57.704	53.131	-10.496	68.200	4.573	PK
3			5696.937	61.363	56.834	-41.580	102.943	4.529	PK
4			5700.000	60.173	55.595	-45.027	105.200	4.578	PK
5			5719.377	70.325	65.693	-40.301	110.626	4.632	PK
6			5720.000	69.622	64.994	-41.178	110.800	4.627	PK
7			5723.172	75.883	71.276	-42.150	118.033	4.607	PK
8			5725.000	75.010	70.397	-47.190	122.200	4.613	PK
9			5746.355	113.093	108.299	N/A	N/A	4.795	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5745MHz- beamforming mode	

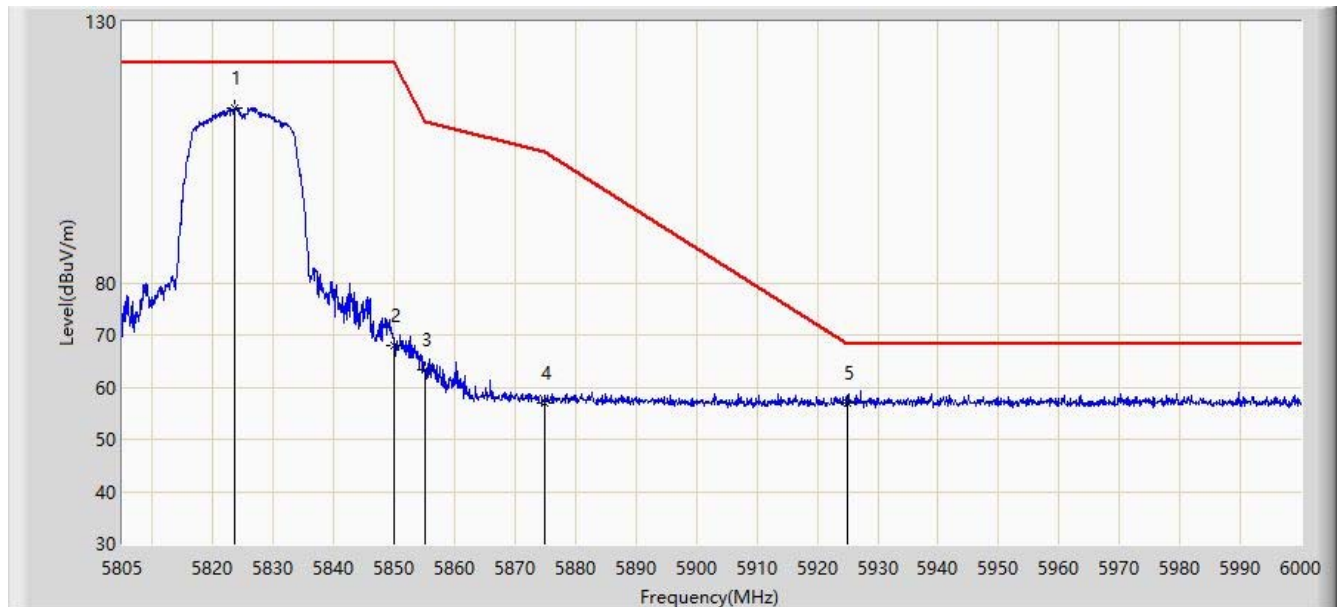


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5645.705	59.017	54.406	-9.183	68.200	4.612	PK
2			5650.000	56.267	51.694	-11.933	68.200	4.573	PK
3			5688.357	59.652	55.153	-36.961	96.613	4.498	PK
4			5700.000	56.701	52.123	-48.499	105.200	4.578	PK
5			5717.893	63.427	58.785	-46.784	110.211	4.642	PK
6			5720.000	62.671	58.043	-48.129	110.800	4.627	PK
7			5723.007	68.993	64.386	-48.664	117.657	4.607	PK
8			5725.000	65.422	60.809	-56.778	122.200	4.613	PK
9			5743.303	107.901	103.131	N/A	N/A	4.771	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5825MHz– beamforming mode	

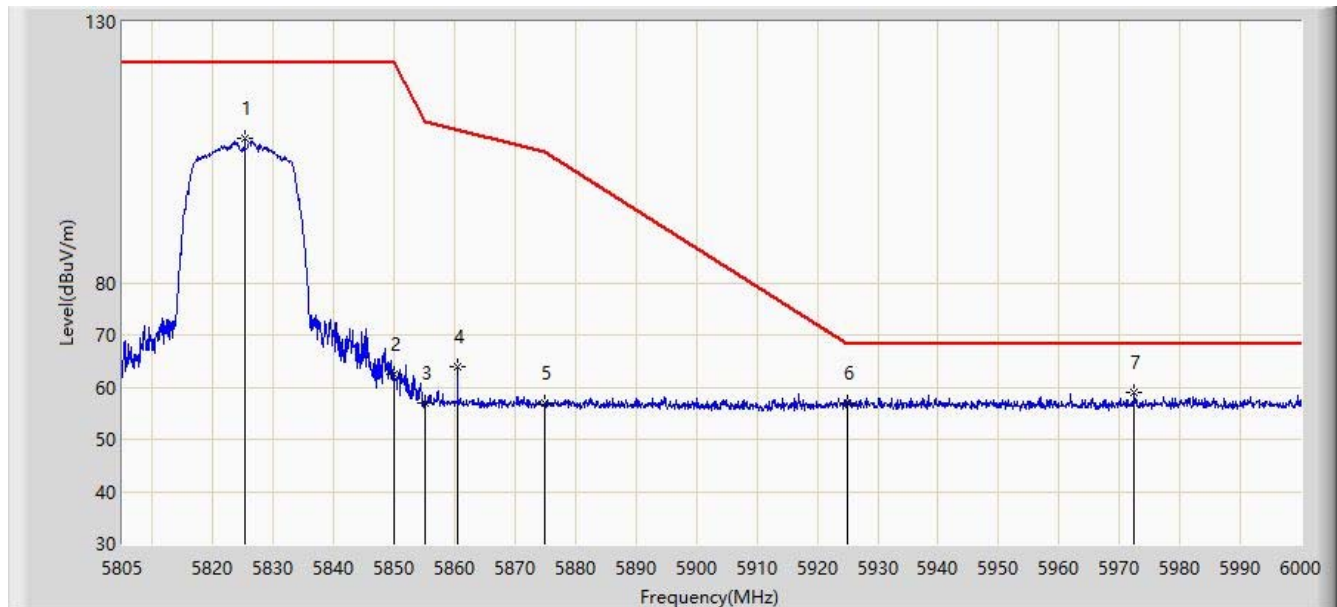


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5823.623	113.551	108.726	N/A	N/A	4.825	PK
2			5850.000	68.087	63.068	-54.113	122.200	5.019	PK
3			5855.000	63.296	58.248	-47.504	110.800	5.048	PK
4			5875.000	56.856	51.683	-48.344	105.200	5.173	PK
5			5925.000	57.067	51.706	-11.133	68.200	5.362	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5825MHz- beamforming mode	

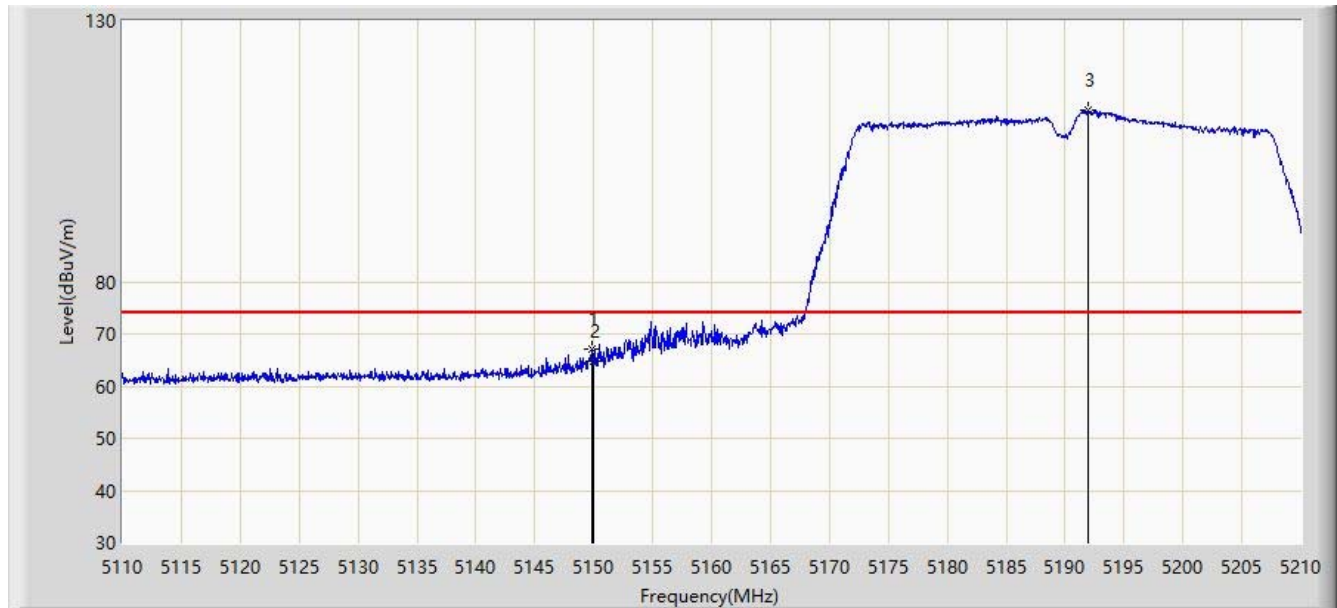


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5825.280	107.610	102.816	N/A	N/A	4.793	PK
2			5850.000	62.472	57.453	-59.728	122.200	5.019	PK
3			5855.000	57.100	52.052	-53.700	110.800	5.048	PK
4			5860.478	63.795	58.716	-45.469	109.264	5.079	PK
5			5875.000	56.876	51.703	-48.324	105.200	5.173	PK
6			5925.000	57.077	51.716	-11.123	68.200	5.362	PK
7		*	5972.505	59.052	53.537	-9.148	68.200	5.515	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz- beamforming mode	

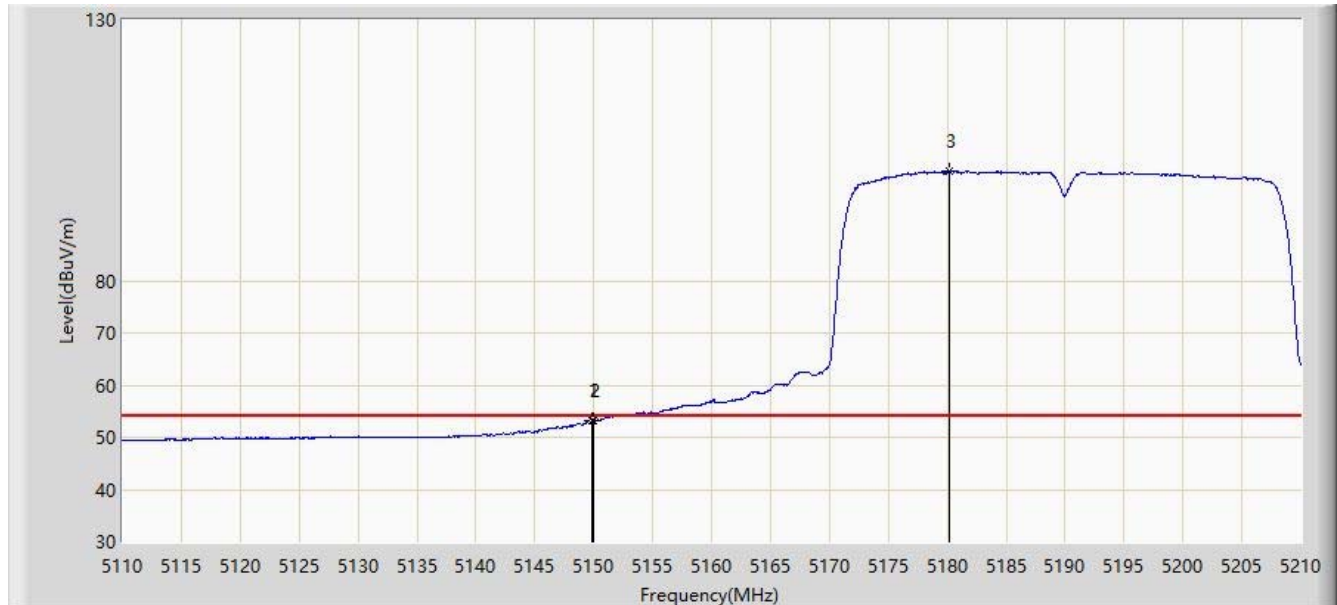


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.850	67.004	60.907	-6.996	74.000	6.097	PK
2			5150.000	64.861	58.764	-9.139	74.000	6.097	PK
3		*	5192.000	112.818	106.875	N/A	N/A	5.943	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz- beamforming mode	

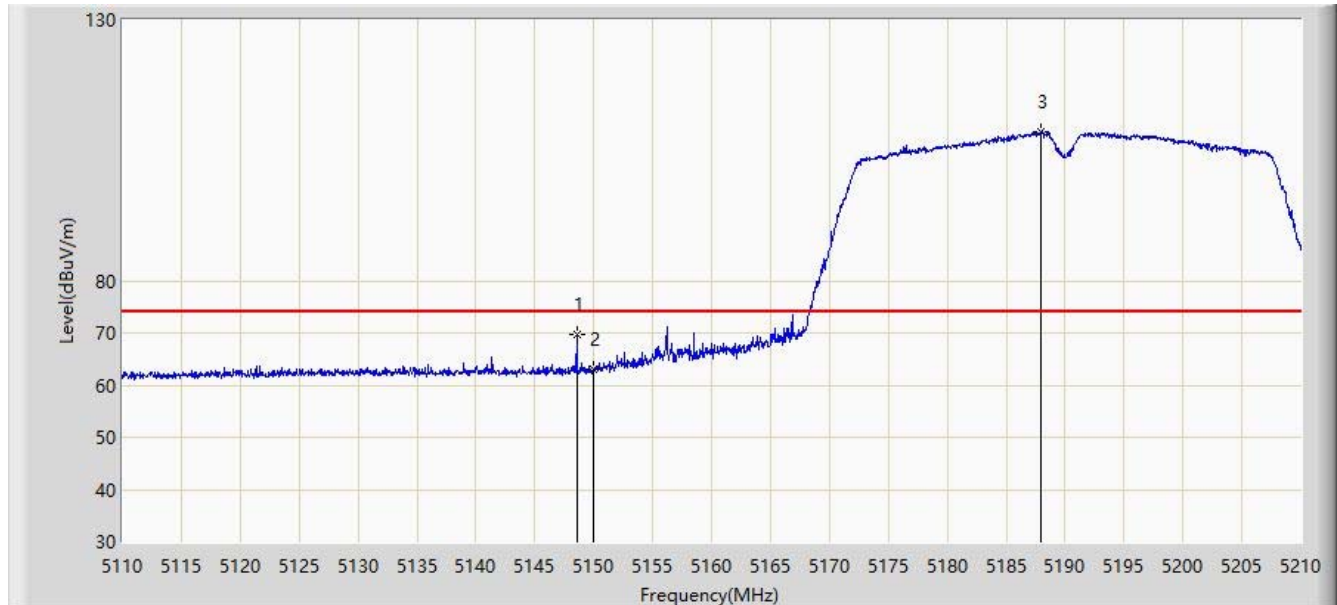


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.850	53.264	47.167	-0.736	54.000	6.097	AV
2			5150.000	53.185	47.088	-0.815	54.000	6.097	AV
3		*	5180.200	101.059	95.035	N/A	N/A	6.024	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz- beamforming mode	

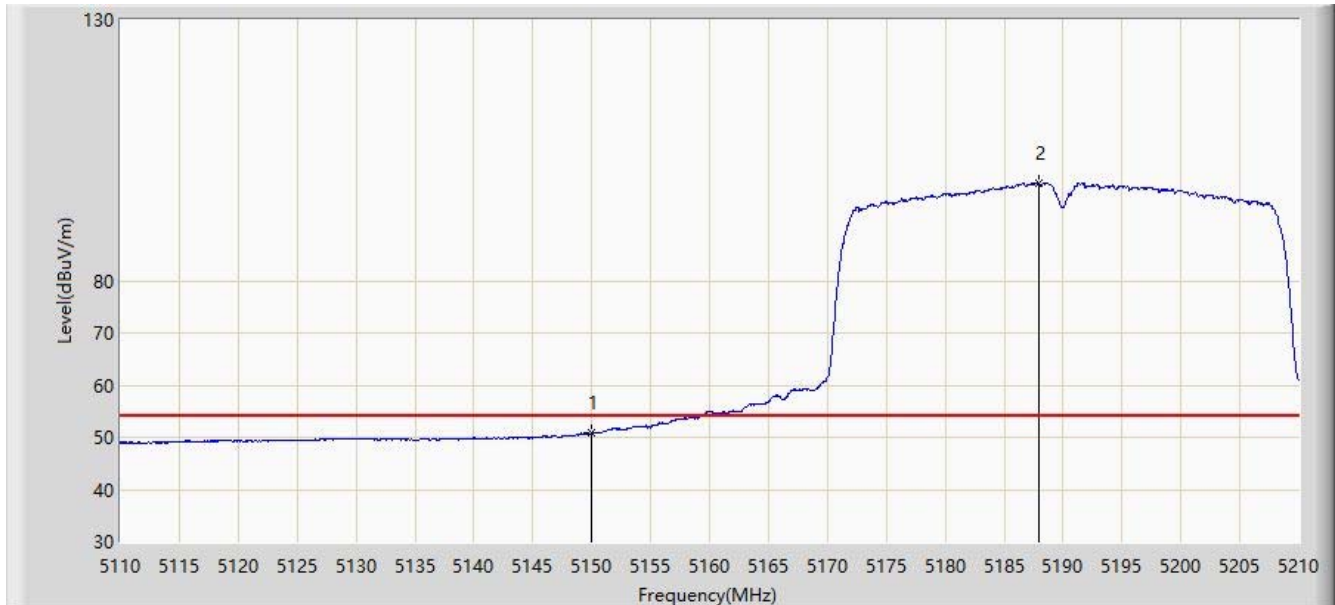


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5148.550	69.806	63.703	-4.194	74.000	6.103	PK
2			5150.000	63.041	56.944	-10.959	74.000	6.097	PK
3		*	5188.000	108.648	102.663	N/A	N/A	5.986	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz- beamforming mode	

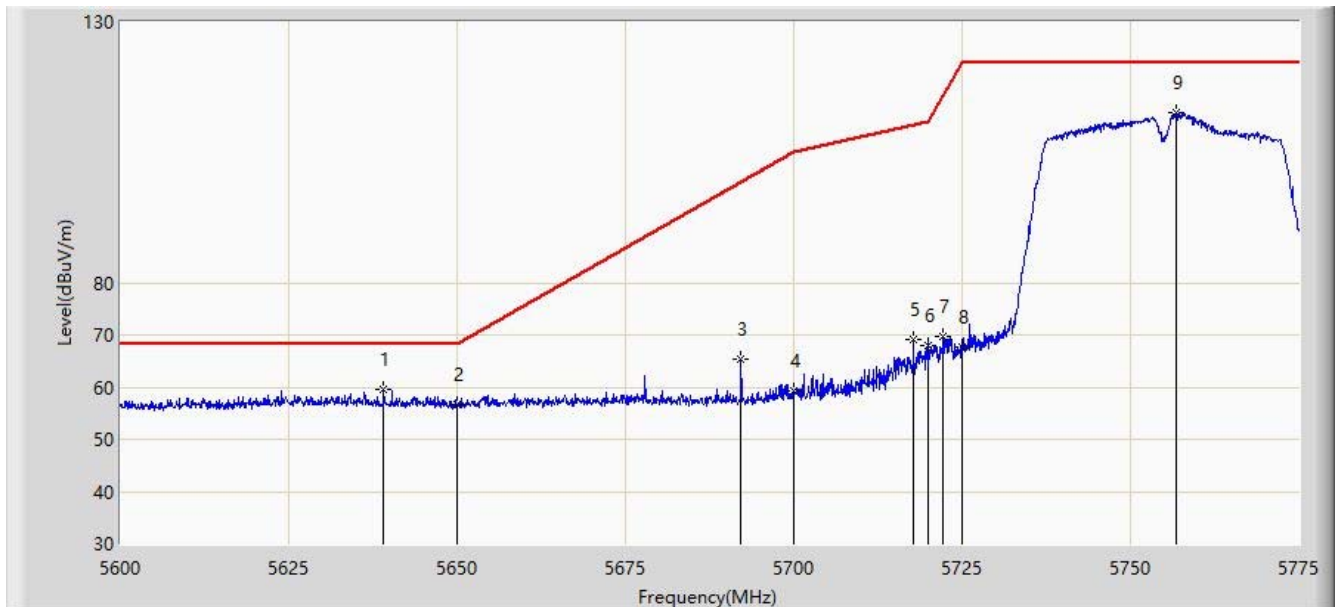


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	50.789	44.692	-3.211	54.000	6.097	AV
2		*	5187.900	98.830	92.844	N/A	N/A	5.986	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5755MHz- beamforming mode	

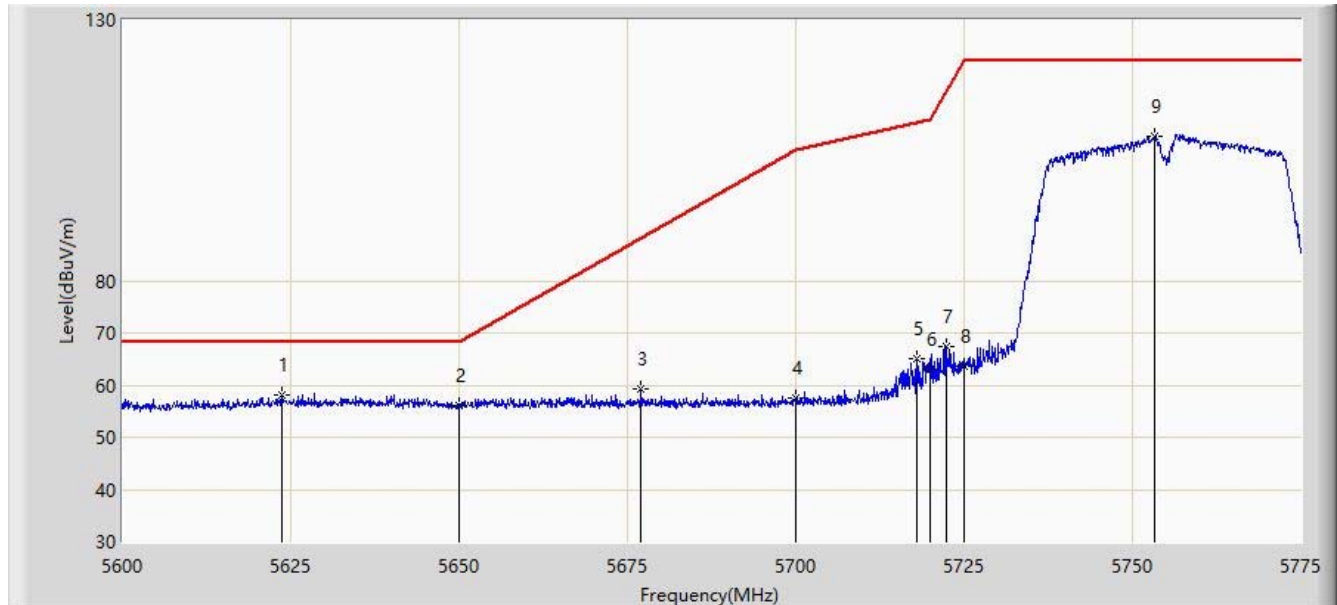


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5639.112	59.701	55.014	-8.499	68.200	4.687	PK
2			5650.000	56.563	51.990	-11.637	68.200	4.573	PK
3			5692.138	65.451	60.999	-33.953	99.404	4.451	PK
4			5700.000	59.322	54.744	-45.878	105.200	4.578	PK
5			5717.775	69.000	64.357	-41.178	110.178	4.643	PK
6			5720.000	67.872	63.244	-42.928	110.800	4.627	PK
7			5722.237	69.603	64.991	-46.298	115.902	4.612	PK
8			5725.000	67.686	63.073	-54.514	122.200	4.613	PK
9			5756.712	112.493	107.616	N/A	N/A	4.876	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5755MHz- beamforming mode	

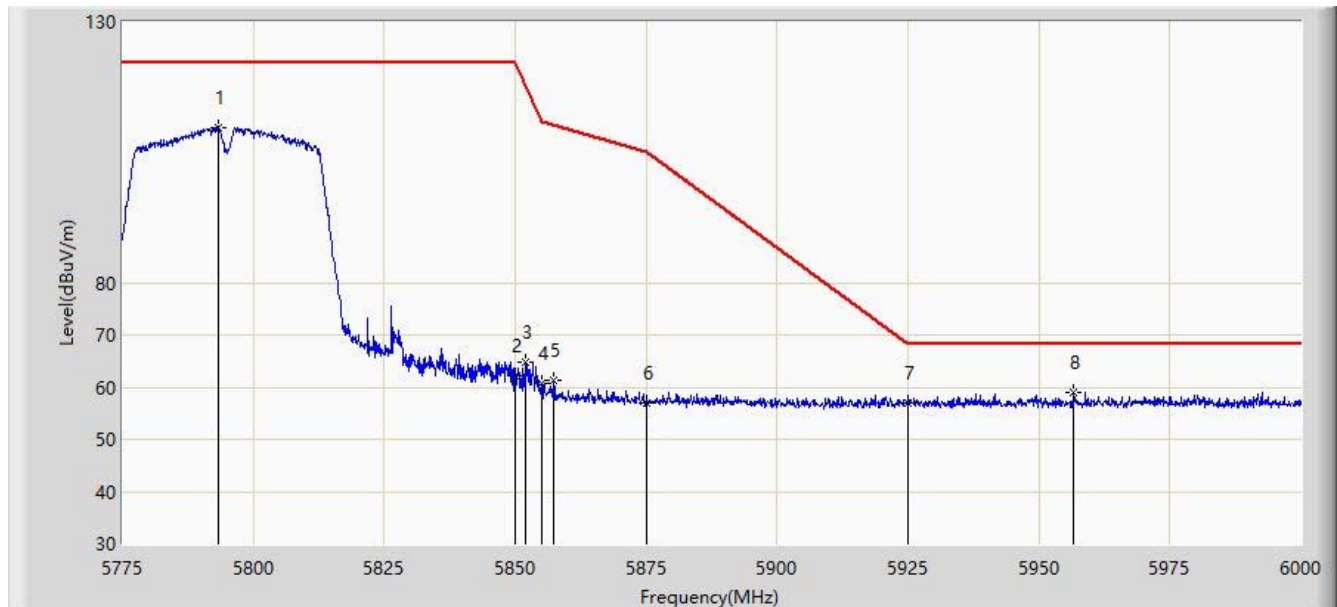


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5623.712	58.104	53.485	-10.096	68.200	4.619	PK
2			5650.000	55.996	51.423	-12.204	68.200	4.573	PK
3			5677.000	59.158	54.575	-29.062	88.220	4.583	PK
4			5700.000	57.523	52.945	-47.677	105.200	4.578	PK
5			5717.950	64.971	60.329	-45.256	110.227	4.642	PK
6			5720.000	63.090	58.462	-47.710	110.800	4.627	PK
7			5722.325	67.348	62.736	-48.755	116.102	4.611	PK
8			5725.000	63.758	59.145	-58.442	122.200	4.613	PK
9			5753.300	107.746	102.897	N/A	N/A	4.850	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5795MHz- beamforming mode	

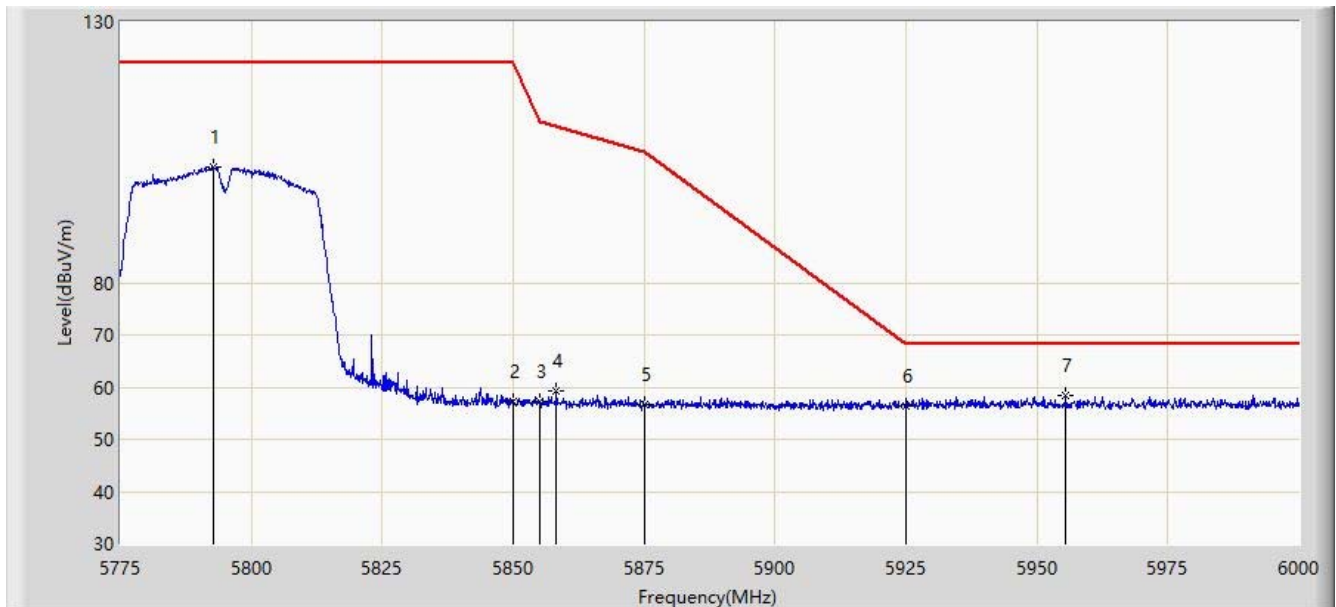


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5793.450	109.705	104.868	N/A	N/A	4.837	PK
2			5850.000	62.154	57.135	-60.046	122.200	5.019	PK
3			5851.950	64.675	59.645	-53.077	117.753	5.030	PK
4			5855.000	60.660	55.612	-50.140	110.800	5.048	PK
5			5857.462	61.270	56.208	-48.840	110.110	5.062	PK
6			5875.000	56.902	51.729	-48.298	105.200	5.173	PK
7			5925.000	57.026	51.665	-11.174	68.200	5.362	PK
8		*	5956.687	59.128	53.785	-9.072	68.200	5.342	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5795MHz- beamforming mode	

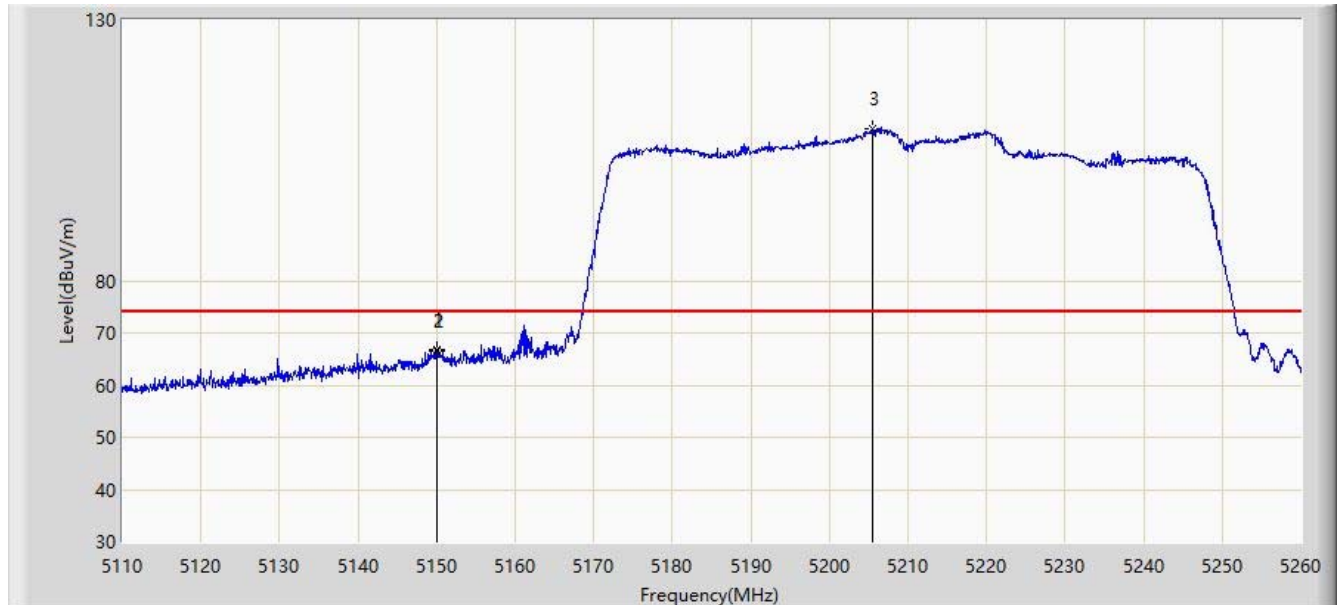


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5792.888	102.245	97.406	N/A	N/A	4.839	PK
2			5850.000	57.189	52.170	-65.011	122.200	5.019	PK
3			5855.000	57.299	52.251	-53.501	110.800	5.048	PK
4			5858.250	59.415	54.349	-50.473	109.889	5.066	PK
5			5875.000	56.691	51.518	-48.509	105.200	5.173	PK
6			5925.000	56.330	50.969	-11.870	68.200	5.362	PK
7		*	5955.562	58.538	53.187	-9.662	68.200	5.351	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz- beamforming mode	

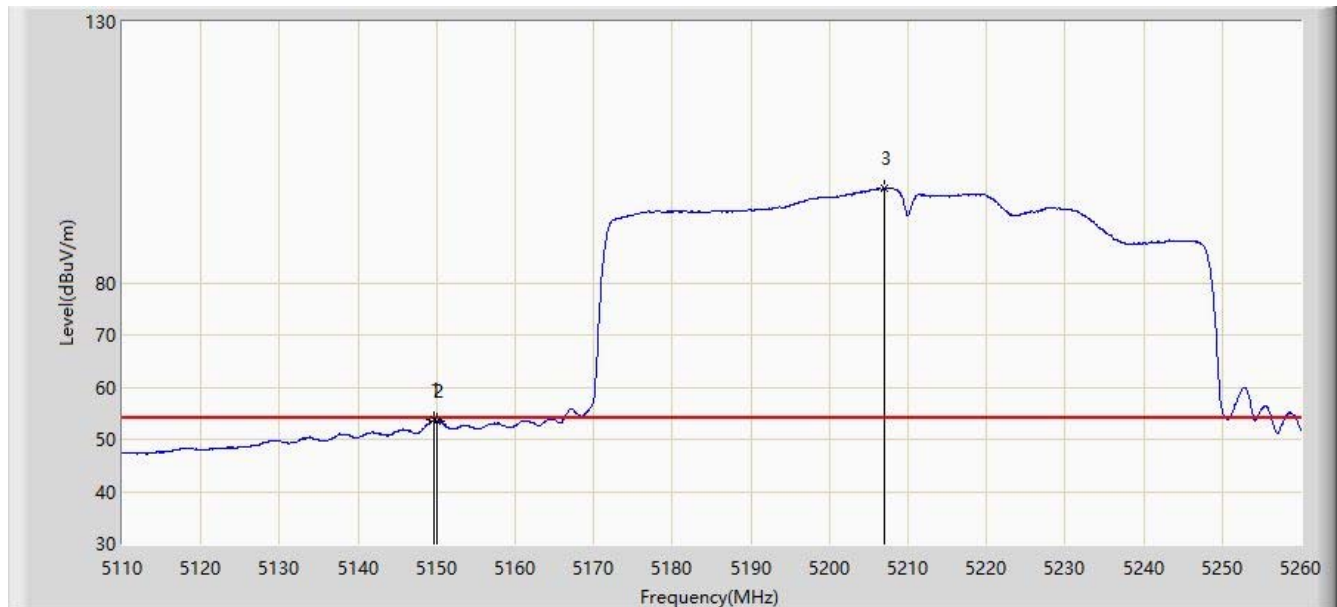


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.975	66.832	60.735	-7.168	74.000	6.097	PK
2			5150.000	66.442	60.345	-7.558	74.000	6.097	PK
3		*	5205.400	109.106	103.271	N/A	N/A	5.835	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz- beamforming mode	

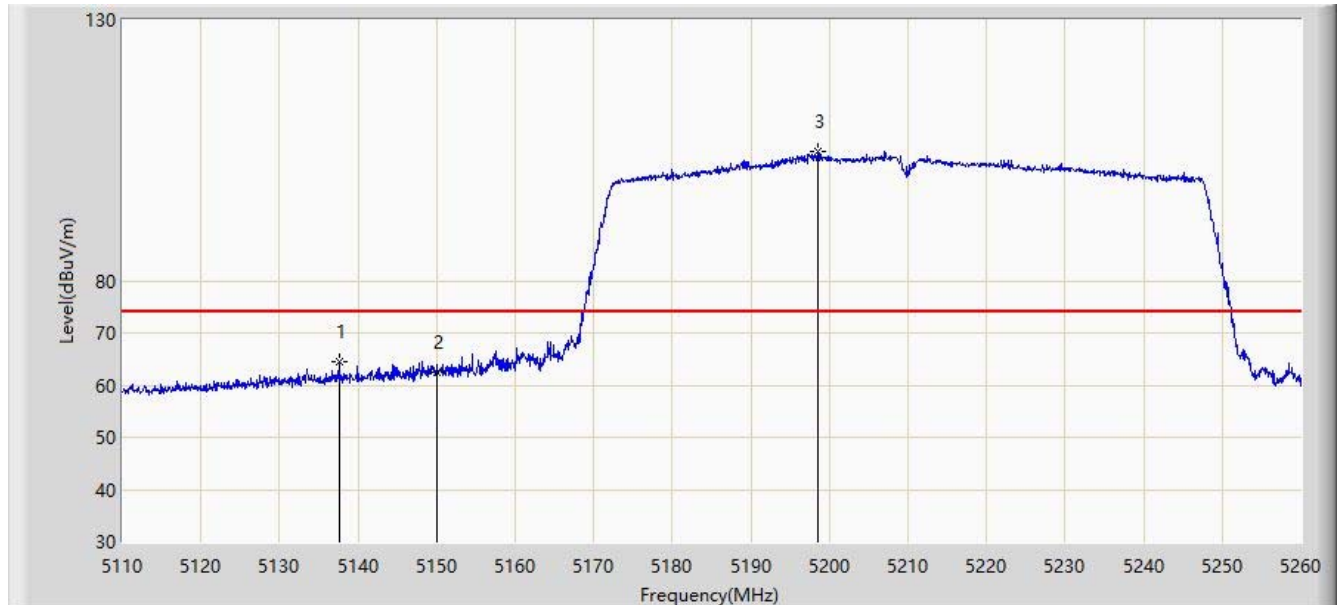


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.750	53.632	47.534	-0.368	54.000	6.099	AV
2			5150.000	53.537	47.440	-0.463	54.000	6.097	AV
3		*	5206.975	98.092	92.273	N/A	N/A	5.819	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz- beamforming mode	

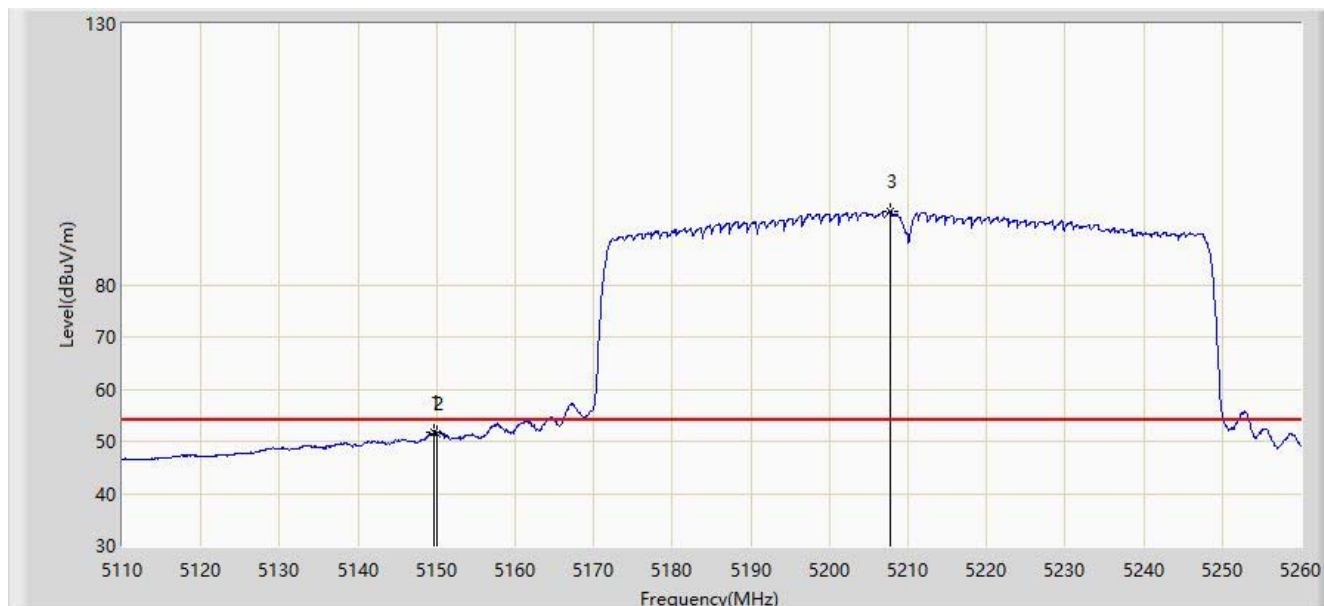


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5137.600	64.505	58.370	-9.495	74.000	6.136	PK
2			5150.000	62.375	56.278	-11.625	74.000	6.097	PK
3		*	5198.575	104.770	98.896	N/A	N/A	5.873	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/18
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Buter Shi
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz– beamforming mode	

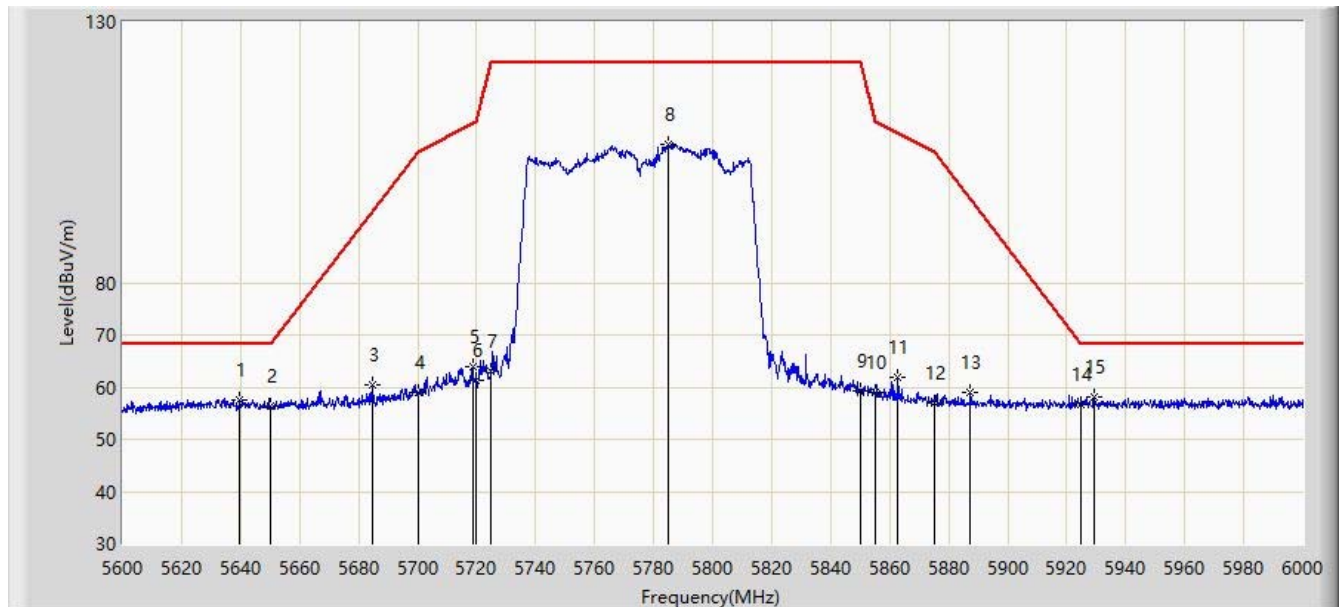


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5149.750	51.672	45.574	-2.328	54.000	6.099	AV
2			5150.000	51.538	45.441	-2.462	54.000	6.097	AV
3		*	5207.800	94.177	88.366	N/A	N/A	5.810	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5775MHz- beamforming mode	

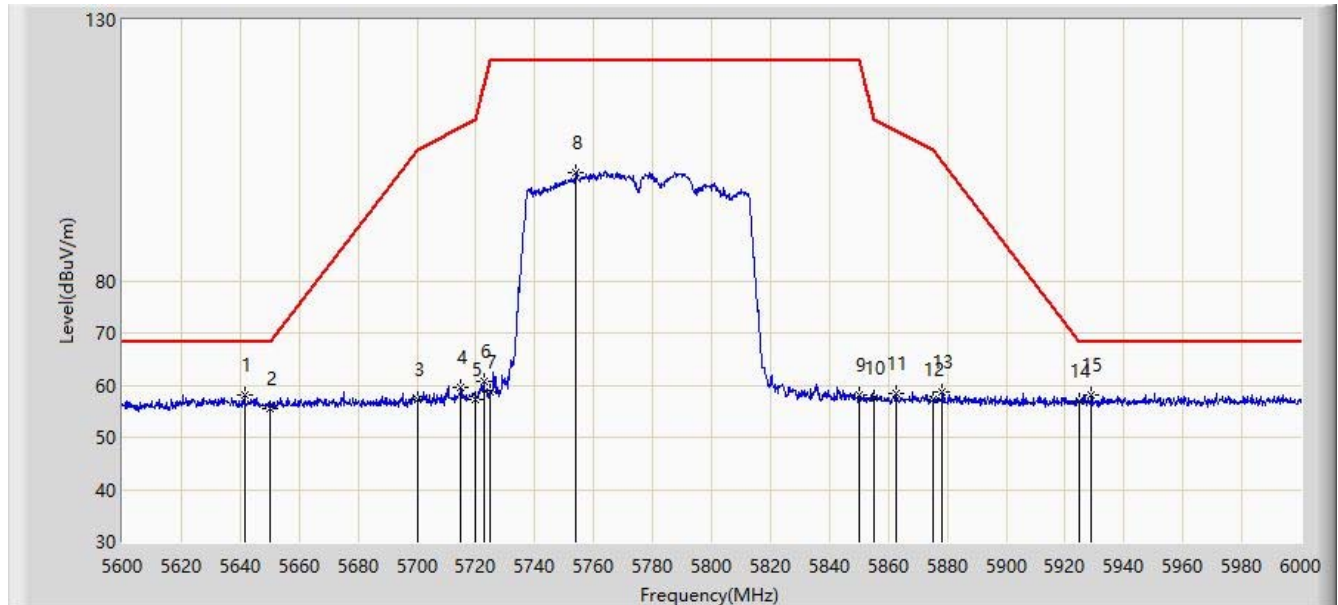


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5639.800	57.498	52.823	-10.702	68.200	4.674	PK
2			5650.000	56.374	51.801	-11.826	68.200	4.573	PK
3			5684.600	60.478	55.945	-33.361	93.839	4.533	PK
4			5700.000	59.071	54.493	-46.129	105.200	4.578	PK
5			5718.600	64.025	59.388	-46.383	110.409	4.638	PK
6			5720.000	61.185	56.557	-49.615	110.800	4.627	PK
7			5725.000	63.128	58.515	-59.072	122.200	4.613	PK
8			5785.200	106.624	101.758	N/A	N/A	4.866	PK
9			5850.000	59.182	54.163	-63.018	122.200	5.019	PK
10			5855.000	58.966	53.918	-51.834	110.800	5.048	PK
11			5862.800	61.777	56.682	-46.837	108.614	5.095	PK
12			5875.000	57.021	51.848	-48.179	105.200	5.173	PK
13			5887.400	58.896	53.707	-37.098	95.995	5.190	PK
14			5925.000	56.736	51.375	-11.464	68.200	5.362	PK
15		*	5929.400	58.008	52.616	-10.192	68.200	5.393	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

Site: WZ-AC1	Time: 2020/11/24
Limit: FCC_Part15_15.209 RE (3m)	Engineer: Jason Gao
Probe: WZ-WZ-AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Dual Band ONT	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5775MHz- beamforming mode	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5641.600	58.119	53.471	-10.081	68.200	4.647	PK
2			5650.000	55.608	51.035	-12.592	68.200	4.573	PK
3			5700.000	57.227	52.649	-47.973	105.200	4.578	PK
4			5715.000	59.672	55.010	-49.730	109.402	4.662	PK
5			5720.000	57.193	52.565	-53.607	110.800	4.627	PK
6			5722.600	60.770	56.160	-55.959	116.729	4.610	PK
7			5725.000	58.752	54.139	-63.448	122.200	4.613	PK
8			5754.000	100.816	95.961	N/A	N/A	4.856	PK
9			5850.000	58.087	53.068	-64.113	122.200	5.019	PK
10			5855.000	57.521	52.473	-53.279	110.800	5.048	PK
11			5862.800	58.531	53.436	-50.083	108.614	5.095	PK
12			5875.000	57.137	51.964	-48.063	105.200	5.173	PK
13			5878.400	58.592	53.403	-44.082	102.674	5.189	PK
14			5925.000	56.925	51.564	-11.275	68.200	5.362	PK
15			5929.000	57.986	52.596	-10.214	68.200	5.390	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB).

7. CONCLUSION

The data collected relate only the item(s) tested and show that the device is in compliance with Part 15E of the FCC rules.

The End

Appendix A - Test Setup Photograph

Refer to "2008RSU008-UT" file.

Appendix B - EUT Photograph

Refer to "2008RSU008-UE" file.