TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: **47 CFR FCC Part 15, Subpart E (Section 15.407)**

Report No.: RFBCWK-WTW-P22030671-1

FCC ID: MSQ-USBAXRN00

Model No.: USB-AX55 Nano

Received Date: 2022/7/6

Test Date: 2022/7/28 ~ 2022/8/2

Issued Date: Aug. 31, 2022

Applicant: ASUSTeK COMPUTER INC.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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FCC Registration / Designation Number: 788550 / TW0003

Approved by: Jeremy Lin , **Date:** **Aug. 31, 2022**

Jeremy Lin / Project Engineer

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Prepared by : Gina Liu / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBCWK-WTW-P22030671-1	Original release.	Aug. 31, 2022

1 Certificate

Product:	Dual-band AX1800 USB WiFi Adapter
Brand:	ASUS
Test Model:	USB-AX55 Nano
Sample Status:	Engineering Sample
Applicant:	ASUSTeK COMPUTER INC.
Test Date:	2022/7/28 ~ 2022/8/2
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407)
Measurement procedure:	ANSI C63.10-2013 KDB 789033 D02 General UNII Test Procedure New Rules v02r01 KDB 662911 D01 Multiple Transmitter Output v02r01

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
Clause	Test Item	Result	Remark
15.407(a)(2)	26 dB Bandwidth	Pass	For U-NII-2A U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.
15.407(a)(1/2/3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
---	Occupied Bandwidth	Pass	Reference only.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -19.37 dB at 0.15400 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -14.1 dB at 761.01 MHz
15.407(b) (1/2/3/4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -6.3 dB at 5150.00 MHz
15.203	Antenna Requirement	Pass	No antenna connector is used.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Specification	Expanded Uncertainty (k=2) (±)
Occupied Bandwidth	-	±491.896 Hz
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.79 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3 dB
	30 MHz ~ 1 GHz	2.93 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	1.76 dB
	18 GHz ~ 40 GHz	1.77 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Dual-band AX1800 USB WiFi Adapter
Brand	ASUS
Test Model	USB-AX55 Nano
Status of EUT	Engineering Sample
Power Supply Rating	5Vdc from host equipment
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0 Mbps 802.11n: up to 300.0 Mbps 802.11ac: up to 866.7 Mbps 802.11ax: up to 1201.0 Mbps
Operating Frequency	5180 ~ 5240 MHz 5260 ~ 5320 MHz 5500 ~ 5700 MHz 5745 ~ 5825 MHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 24 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 11 802.11ac (VHT80), 802.11ax (HE80): 5
Output Power	5180 ~ 5240 MHz : 11.08 mW (10.45 dBm) 5260 ~ 5320 MHz : 10.753 mW (10.32 dBm) 5500 ~ 5700 MHz : 11.106 mW (10.46 dBm) 5745 ~ 5825 MHz : 10.858 mW (10.36 dBm)
Category	Client device

Note: The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna NO.	RF Chain NO.	Brand	Model	Antenna Net Gain(dBi)	Frequency range	Antenna Type	Connector Type
1	1	LYNwave	ALX21M-222AA8-00	2.6	5.15~5.85GHz	PIFA	None (like solder)
2	2	LYNwave	ALX21M-222AA8-00	3	5.15~5.85GHz	PIFA	None (like solder)

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	2TX	2RX
802.11n (HT20)	2TX	2RX
802.11n (HT40)	2TX	2RX
802.11ac (VHT20)	2TX	2RX
802.11ac (VHT40)	2TX	2RX
802.11ac (VHT80)	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX

Note:
1. The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), 802.11ac mode for 20 MHz (40 MHz, 80 MHz) and 802.11ax mode for 20 MHz (40 MHz, 80 MHz), therefore the manufacturer will control the power for 802.11n/ac mode is the same as the 802.11ax or more lower than it and investigated worst case to representative mode in test report.

3.3 Channel List

FOR 5180 ~ 5320 MHz

8 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20) and 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
36	5180 MHz	52	5260 MHz
40	5200 MHz	56	5280 MHz
44	5220 MHz	60	5300 MHz
48	5240 MHz	64	5320 MHz

4 channels are provided for 802.11n (HT40), 802.11ac (VHT40) and 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	54	5270 MHz
46	5230 MHz	62	5310 MHz

2 channels are provided for 802.11ac (VHT80) and 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz

FOR 5500 ~ 5700 MHz

11 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20) and 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz		

5 channels are provided for 802.11n (HT40), 802.11ac (VHT40) and 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz		

2 channels are provided for 802.11ac (VHT80) and 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
106	5530 MHz	122	5610 MHz

FOR 5745 ~ 5825 MHz:

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20) and 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
149	5745 MHz	161	5805 MHz
153	5765 MHz	165	5825 MHz
157	5785 MHz		

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40) and 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac (VHT80) and 802.11ax (HE80):

Channel	Frequency
155	5775 MHz

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan in these ways and find the worst case as a representative test condition.
Worst Case:	Worst Condition: Z-axis

Following channel(s) was (were) selected for the final test as listed below:

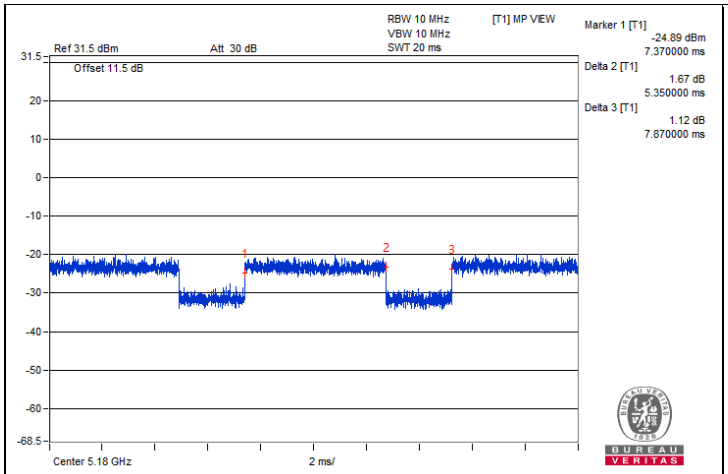
Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
26 dB Bandwidth	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	6Mb/s
	802.11ax (HE20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	MCS0
	802.11ax (HE40)	38, 46, 54, 62, 102, 110, 134, 151, 159	BPSK	MCS0
	802.11ax (HE80)	42, 58, 106, 122, 155	BPSK	MCS0
RF Output Power / Power Spectral Density	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	6Mb/s
	802.11ax (HE20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	MCS0
	802.11ax (HE40)	38, 46, 54, 62, 102, 110, 134, 151, 159	BPSK	MCS0
	802.11ax (HE80)	42, 58, 106, 122, 138, 155	BPSK	MCS0
6 dB Bandwidth	802.11a	149, 157, 165	BPSK	6Mb/s
	802.11ax (HE20)	149, 157, 165	BPSK	MCS0
	802.11ax (HE40)	151, 159	BPSK	MCS0
	802.11ax (HE80)	155	BPSK	MCS0
Occupied Bandwidth	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	6Mb/s
	802.11ax (HE20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	MCS0
	802.11ax (HE40)	38, 46, 54, 62, 102, 110, 134, 151, 159	BPSK	MCS0
	802.11ax (HE80)	42, 58, 106, 122, 155	BPSK	MCS0
Frequency Stability	802.11a	36	un-modulation	-
AC Power Conducted Emissions	802.11ax (HE20)	116	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11ax (HE20)	116	BPSK	MCS0

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
Unwanted Emissions above 1 GHz	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	6Mb/s
	802.11ax (HE20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 149, 157, 165	BPSK	MCS0
	802.11ax (HE40)	38, 46, 54, 62, 102, 110, 134, 151, 159	BPSK	MCS0
	802.11ax (HE80)	42, 58, 106, 122, 155	BPSK	MCS0

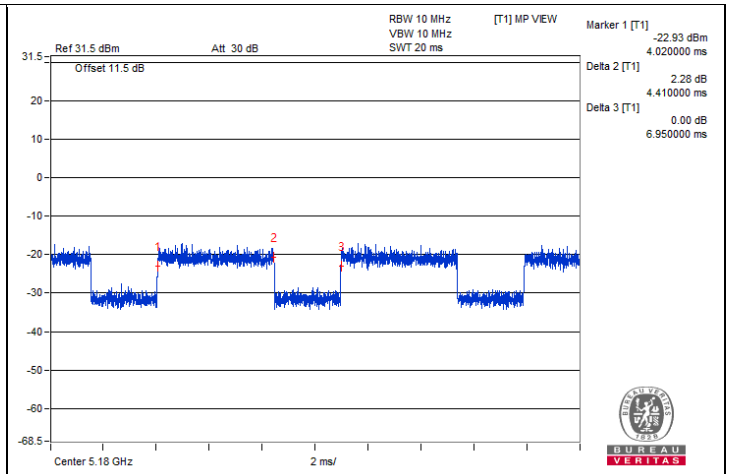
3.5 Duty Cycle of Test Signal

Duty cycle of test signal is < 98 %, duty factor shall be considered.

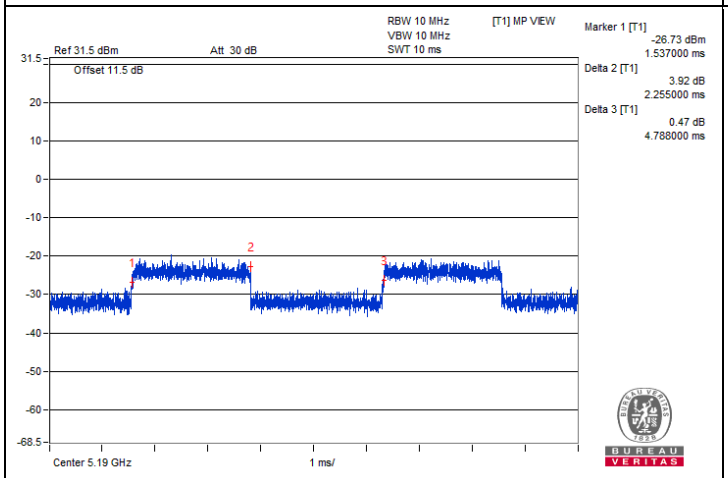
802.11a: Duty cycle = 5.35 ms / 7.87 ms x 100% = 68.0%, duty factor = 10 * log (1/Duty cycle) = 1.68 dB
802.11ax (HE20): Duty cycle = 4.41 ms / 6.95 ms x 100% = 63.5%, duty factor = 10 * log (1/Duty cycle) = 1.98 dB
802.11ax (HE40): Duty cycle = 2.255 ms / 4.788 ms x 100% = 47.1%, duty factor = 10 * log (1/Duty cycle) = 3.27 dB
802.11ax (HE80): Duty cycle = 5.29 ms / 7.81 ms x 100% = 67.7%, duty factor = 10 * log (1/Duty cycle) = 1.69 dB



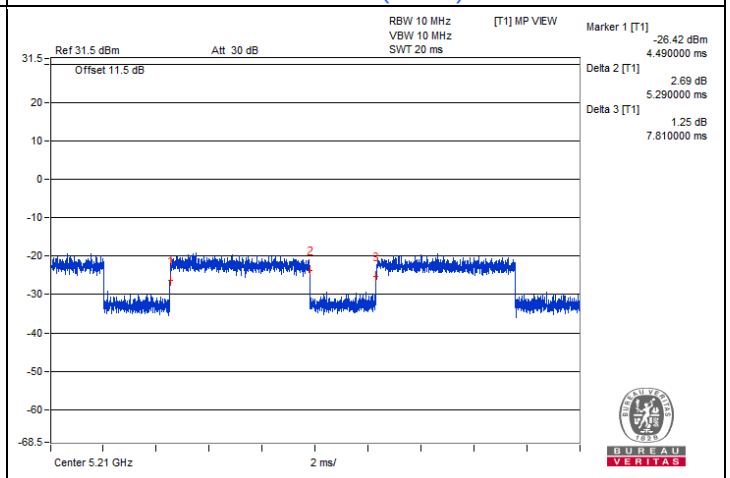
802.11a



802.11ax (HE20)



802.11ax (HE40)

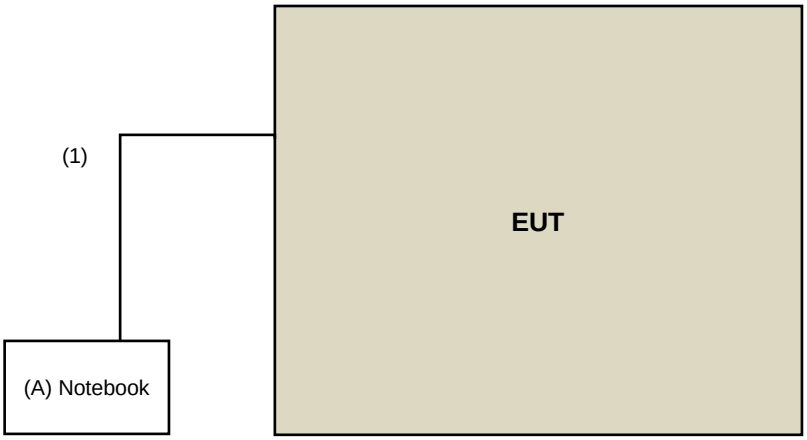


802.11ax (HE80)

3.6 Test Program Used and Operation Descriptions

Controlling software Realtek_1.0.45 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Notebook	Lenovo	X250	PC06887H	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	USB	1	1.5	Y	0	Provided by Lab

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 26 dB Bandwidth

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100979	2022/3/25	2023/3/24

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/8/2

4.2 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Peak Power Analyzer KEYSIGHT	8990B	MY51000485	2022/1/18	2023/1/17
Power sensor Keysight	U2021XA	MY55380009	2022/3/23	2023/3/22
Wideband Power Sensor(N1923A) KEYSIGHT	N1923A	MY58020002	2022/1/17	2023/1/16

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/8/2

4.3 Power Spectral Density

Refer to section 4.1 to get information of the instruments.

4.4 6 dB Bandwidth

Refer to section 4.1 to get information of the instruments.

4.5 Occupied Bandwidth

Refer to section 4.1 to get information of the instruments.

4.6 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
3-channel DC power supply JIN YIH Technology	ODP3033	ODP30332128138	N/A	N/A
AC Power Source ExTech	CFW-105	E000603	N/A	N/A
Digital Multimeter Fluke	87-III	70360742	2022/6/23	2023/6/22
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100979	2022/3/25	2023/3/24
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	2022/1/3	2023/1/2

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/8/2

4.7 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
DC-LISN SCHWARZBECK MESS-ELETRONIK	NNBM 8126G	8126G-069	2021/11/10	2022/11/9
LISN R&S	ESH3-Z5	100311	2021/9/7	2022/9/6
LISN ROHDE & SCHWARZ	ENV216	101826	2022/3/14	2023/3/13
RF Coaxial Cable WOKEN	5D-FB	Cable-cond1-01	2022/1/15	2023/1/14
Software BVADT	BVADT_Cond_ V7.3.7.4	N/A	N/A	N/A
Test Receiver Rohde&Schwarz	ESCI	100613	2021/12/3	2022/12/2
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2021/8/20	2022/8/19

Notes:

1. The test was performed in HY - Conduction 1.
2. Tested Date: 2022/8/2

4.8 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFT-151SS-0.5T	N/A	N/A	N/A
Bi-log Broadband Antenna Schwarzbeck	VULB9168	9168-1213	2021/10/27	2022/10/26
Loop Antenna EMCI	EM-6879	269	2021/9/16	2022/9/15
Loop Antenna TESEQ	HLA 6121	45745	2022/7/27	2023/7/26
Pre-amplifier EMCI	EMC001340	980201	2021/9/15	2022/9/14
Pre_Amplifier EMCI	EMC330N	980782	2022/1/17	2023/1/16
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2022/1/15	2023/1/14
	EMCCFD400-NM-NM-500	201233	2022/1/17	2023/1/16
	EMCCFD400-NM-NM-3000	201235	2022/1/17	2023/1/16
	EMCCFD400-NM-NM-9000	201236	2022/1/17	2023/1/16
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101866	2022/1/14	2023/1/13
Test Receiver R&S	ESR3+	102782	2021/12/10	2022/12/9
Turn Table Max-Full	MF-7802BS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208674	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 8.
2. Tested Date: 2022/7/28

4.9 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFT-151SS-0.5T	N/A	N/A	N/A
Horn Antenna RFSPIN	DRH18-E	210103A18E	2021/11/14	2022/11/13
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2021/11/14	2022/11/13
Pre_Amplifier EMCI	EMC118A45SE	980808	2021/12/30	2022/12/29
	EMC184045SE	980788	2022/1/17	2023/1/16
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2022/1/17	2023/1/16
	EMC101G-KM-KM-3000	201257	2022/1/17	2023/1/16
	EMC101G-KM-KM-5000	201260	2022/1/17	2023/1/16
	EMC104-SM-SM-1000	210102	2022/1/17	2023/1/16
	EMC104-SM-SM-3000	201231	2022/1/17	2023/1/16
	EMC104-SM-SM-9000	201243	2022/1/17	2023/1/16
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101866	2022/1/14	2023/1/13
Test Receiver R&S	ESR3+	102782	2021/12/10	2022/12/9
Turn Table Max-Full	MF-7802BS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208674	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 8.
2. Tested Date: 2022/7/28 ~ 2022/8/1

5 Limits of Test Items

5.1 26 dB Bandwidth

The results are for reference only.

5.2 RF Output Power

Operation Band	EUT Category	Limit
U-NII-1	Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
	Fixed point-to-point Access Point	1 Watt (30 dBm)
	Indoor Access Point	1 Watt (30 dBm)
	Mobile and Portable client device	250mW (24 dBm)

Operation Band	Limit
U-NII-2A	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

5.3 Power Spectral Density

Operation Band	EUT Category	Limit
U-NII-1	Outdoor Access Point	17 dBm/ MHz
	Fixed point-to-point Access Point	
	Indoor Access Point	
	Mobile and Portable client device	11 dBm/ MHz

Operation Band	Limit
U-NII-2A	11 dBm/ MHz
U-NII-2C	11 dBm/ MHz
U-NII-3	30 dBm/ 500 kHz

5.4 6 dB Bandwidth

Within the 5.725-5.850 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.5 Occupied Bandwidth

The results are for reference only.

5.6 Frequency Stability

The frequency of the carrier signal shall be maintained within band of operation.

5.7 AC Power Conducted Emissions

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Notes:

1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

5.8 Unwanted Emissions below 1 GHz

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

5.9 Unwanted Emissions above 1 GHz

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
Above 960	500	3

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20 dB under any condition of modulation.

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3 m	
		PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBµV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK: -27 (dBm/MHz) *1 PK: 10 (dBm/MHz) *2 PK: 15.6 (dBm/MHz) *3 PK: 27 (dBm/MHz) *4	PK: 68.2 (dBµV/m) *1 PK: 105.2 (dBµV/m) *2 PK: 110.8 (dBµV/m) *3 PK: 122.2 (dBµV/m) *4
*1 beyond 75 MHz or more above of the band edge. *3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. *4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

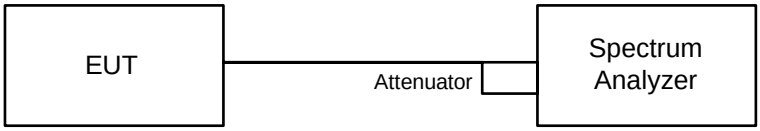
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3}$$ µV/m, where P is the eirp (Watts).

6 Test Arrangements

6.1 26 dB Bandwidth

6.1.1 Test Setup



6.1.2 Test Procedure

a. Set RBW = approximately 1% of the emission bandwidth.
b. Set the VBW > RBW.
c. Detector = Peak.
d. Trace mode = max hold.
e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

6.2 RF Output Power

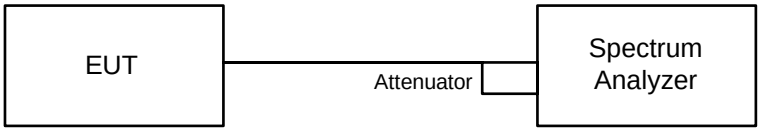
6.2.1 Test Setup

6.2.2 Test Procedure

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst and set the detector to average. Duty factor is not added to measured value.

6.3 Power Spectral Density

6.3.1 Test Setup



6.3.2 Test Procedure

For specified measurement bandwidth 1 MHz:

Method SA-2

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
c. Sweep points ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
d. Sweep time = auto, trigger set to “free run”.
e. Trace average at least 100 traces in power averaging mode.
f. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
g. Record the max value and add 10 log (1/duty cycle).

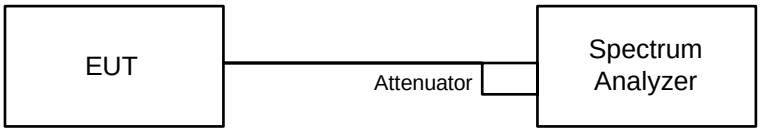
For specified measurement bandwidth 500 kHz:

Method SA-2

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
c. Scale the observed power level to an equivalent value in 500 kHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300 kHz)
d. Sweep points ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
e. Sweep time = auto, trigger set to “free run”.
f. Trace average at least 100 traces in power averaging mode.
g. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
h. Record the max value and add 10 log (1/duty cycle).

6.4 6 dB Bandwidth

6.4.1 Test Setup

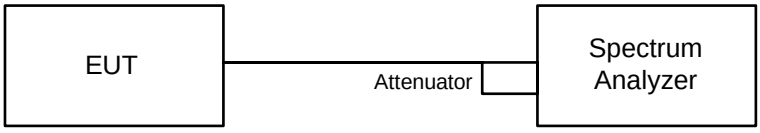


6.4.2 Test Procedure

a. Set resolution bandwidth (RBW) = 100 kHz.
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.5 Occupied Bandwidth

6.5.1 Test Setup

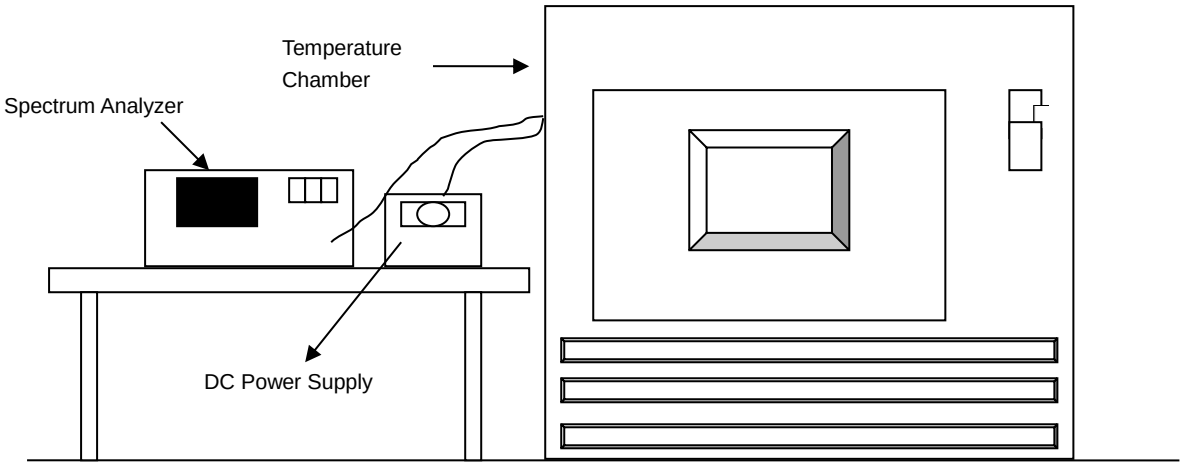


6.5.2 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to Sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean power of a given emission.

6.6 Frequency Stability

6.6.1 Test Setup



6.6.2 Test Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.

b. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.

c. Turn the EUT on and couple its output to a spectrum analyzer.

d. Turn the EUT off and set the chamber to the highest temperature specified.

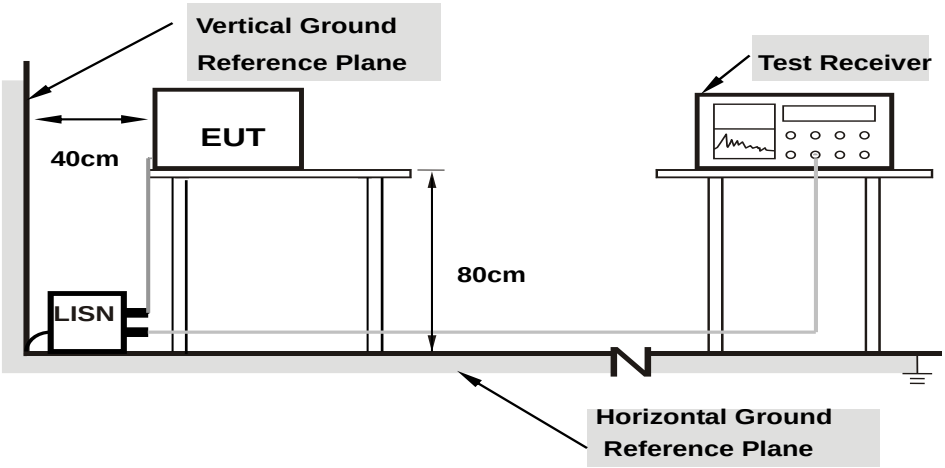
e. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.

f. Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.

g. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

6.7 AC Power Conducted Emissions

6.7.1 Test Setup



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.7.2 Test Procedure

a. The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

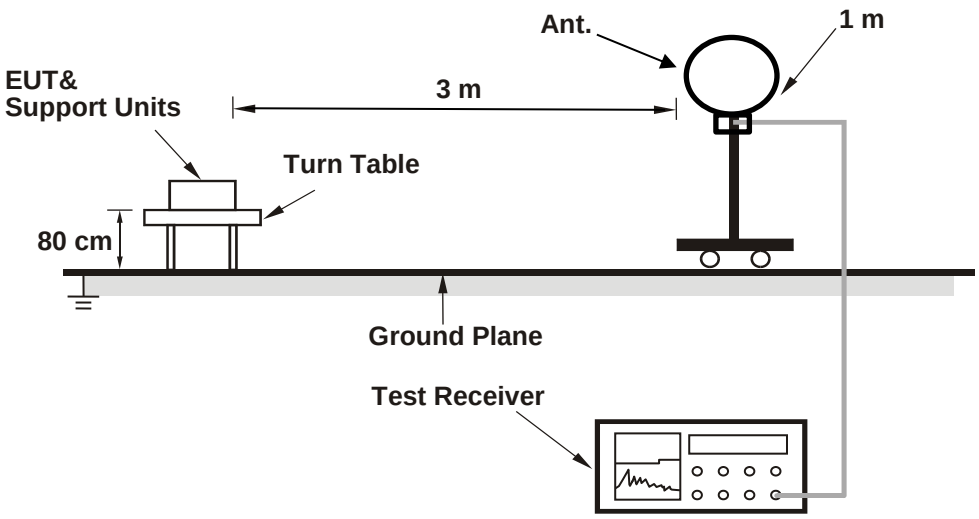
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz-30 MHz.

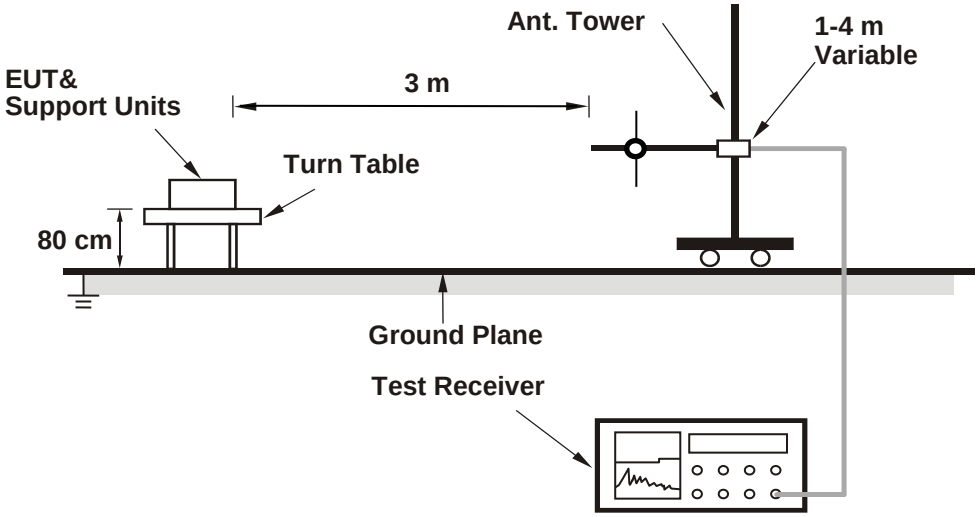
6.8 Unwanted Emissions below 1 GHz

6.8.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.8.2 Test Procedure

For Radiated emission below 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

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

c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission above 30 MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

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

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

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

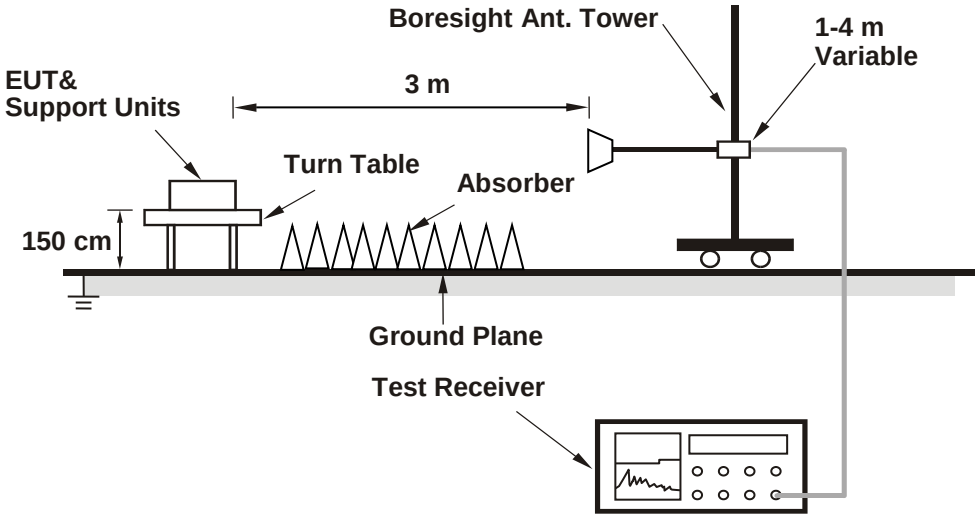
Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

6.9 Unwanted Emissions above 1 GHz

6.9.1 Test Setup

For Radiated emission above 1 GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

6.9.2 Test Procedure

a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

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

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

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Notes:

1. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
2. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10 Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1 GHz.
3. All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

7.1 26 dB Bandwidth

Input Power:	5 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang

802.11a

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	18.91	19.69
60	5300	18.81	18.89
64	5320	18.85	18.88
100	5500	18.88	18.88
116	5580	18.85	18.88
140	5700	18.92	18.86

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
52	5260	18.91	23.76	<	24
60	5300	18.81	23.74	<	24
64	5320	18.85	23.75	<	24
100	5500	18.88	23.76	<	24
116	5580	18.85	23.75	<	24
140	5700	18.86	23.75	<	24

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

802.11ax (HE20)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.85	20.87
60	5300	20.92	20.82
64	5320	20.97	20.78
100	5500	20.75	20.75
116	5580	20.85	20.83
140	5700	20.77	20.74

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
52	5260	20.85	24.19	>	24
60	5300	20.82	24.18	>	24
64	5320	20.78	24.17	>	24
100	5500	20.75	24.17	>	24
116	5580	20.83	24.18	>	24
140	5700	20.74	24.16	>	24

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

802.11ax (HE40)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	41.28	41.33
62	5310	41.24	41.52
102	5510	41.29	41.40
110	5550	41.41	41.43
134	5670	41.54	41.23

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
54	5270	41.28	27.15	>	24
62	5310	41.24	27.15	>	24
102	5510	41.29	27.15	>	24
110	5550	41.41	27.17	>	24
134	5670	41.23	27.15	>	24

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

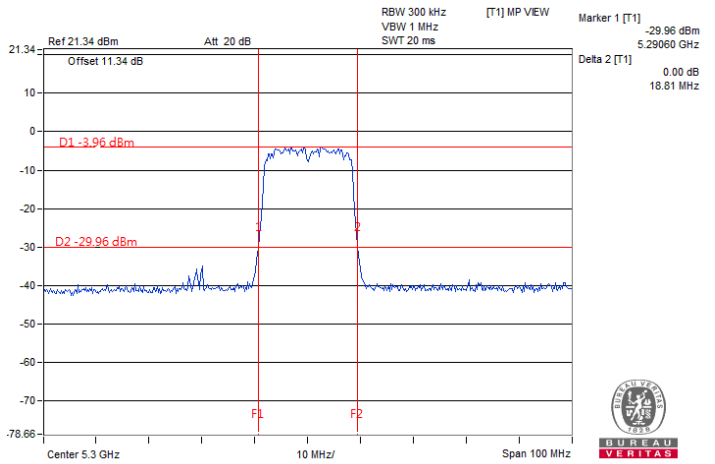
802.11ax (HE80)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	82.04	82.65
106	5530	82.04	82.65
122	5610	82.76	82.38

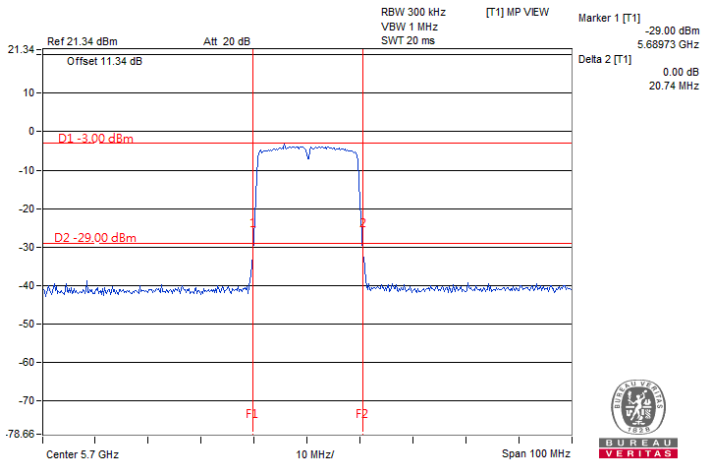
Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	82.04	30.14 > 24
106	5530	82.04	30.14 > 24
122	5610	82.38	30.15 > 24

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

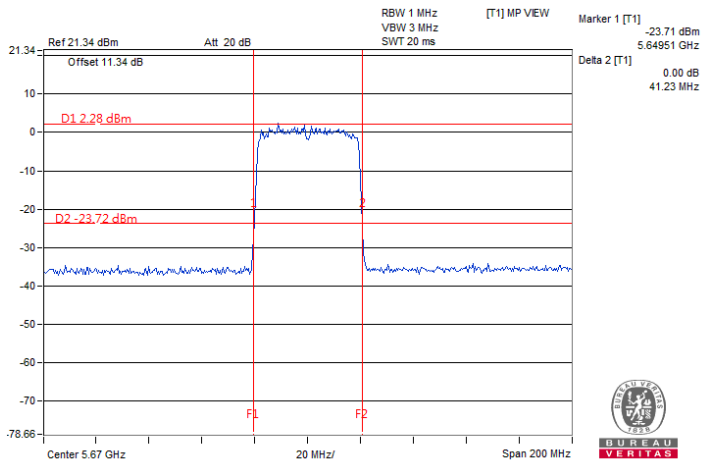
Spectrum Plot of Minimum Value



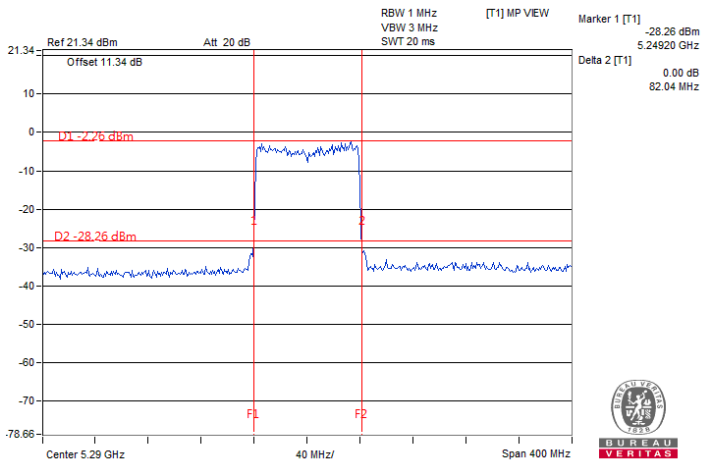
802.11a / Chain0 : CH 60



802.11ax (HE20) / Chain1 : CH 140



802.11ax (HE40) / Chain1 : CH 134



802.11ax (HE80) / Chain0 : CH 58

7.2 RF Output Power

Input Power:	5 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang

802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	7.49	7.03	10.657	10.28	24	Pass
40	5200	7.26	7.31	10.704	10.30	24	Pass
48	5240	7.48	7.35	11.03	10.43	24	Pass
52	5260	7.18	7.39	10.707	10.30	23.76	Pass
60	5300	7.47	7.09	10.702	10.29	23.74	Pass
64	5320	7.34	7.22	10.692	10.29	23.75	Pass
100	5500	7.26	7.17	10.533	10.23	23.76	Pass
116	5580	7.32	7.29	10.753	10.32	23.75	Pass
140	5700	7.45	7.13	10.723	10.30	23.75	Pass
149	5745	7.47	7.16	10.785	10.33	30	Pass
157	5785	7.48	7.21	10.858	10.36	30	Pass
165	5825	7.46	7.12	10.724	10.30	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-1, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
3. For U-NII-2A, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 3 dBi< 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	7.46	7.41	11.08	10.45	24	Pass
40	5200	7.27	7.08	10.438	10.19	24	Pass
48	5240	7.37	7.32	10.853	10.36	24	Pass
52	5260	7.17	7.37	10.67	10.28	24	Pass
60	5300	7.47	7.03	10.631	10.27	24	Pass
64	5320	7.32	7.29	10.753	10.32	24	Pass
100	5500	7.19	7.16	10.436	10.19	24	Pass
116	5580	7.49	7.40	11.106	10.46	24	Pass
140	5700	7.35	7.05	10.502	10.21	24	Pass
149	5745	7.47	7.08	10.69	10.29	30	Pass
157	5785	7.48	7.06	10.679	10.29	30	Pass
165	5825	7.48	7.05	10.667	10.28	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-1, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
3. For U-NII-2A, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 3 dBi< 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
38	5190	7.37	7.34	10.878	10.37	24	Pass
46	5230	7.23	7.14	10.461	10.20	24	Pass
54	5270	7.06	7.34	10.502	10.21	24	Pass
62	5310	7.10	7.17	10.341	10.15	24	Pass
102	5510	7.30	7.23	10.655	10.28	24	Pass
110	5550	7.34	7.05	10.49	10.21	24	Pass
134	5670	7.43	7.05	10.603	10.25	24	Pass
151	5755	7.38	7.03	10.517	10.22	30	Pass
159	5795	7.44	7.02	10.581	10.25	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-1, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
3. For U-NII-2A, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 3 dBi< 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
42	5210	7.23	7.45	10.843	10.35	24	Pass
58	5290	7.17	7.40	10.707	10.30	24	Pass
106	5530	7.47	7.28	10.93	10.39	24	Pass
122	5610	7.43	7.27	10.867	10.36	24	Pass
155	5775	7.43	7.10	10.662	10.28	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-1, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
3. For U-NII-2A, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 3 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 3 dBi< 6 dBi, so the output power limit shall not be reduced.

7.3 Power Spectral Density

Input Power:	5 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
36	5180	-6.43	-6.83	1.68	-1.94	11.00	Pass
40	5200	-6.44	-6.55	1.68	-1.80	11.00	Pass
48	5240	-6.27	-6.83	1.68	-1.85	11.00	Pass
52	5260	-6.85	-6.59	1.68	-2.03	11.00	Pass
60	5300	-6.22	-6.94	1.68	-1.87	11.00	Pass
64	5320	-6.35	-6.76	1.68	-1.86	11.00	Pass
100	5500	-6.66	-5.79	1.68	-1.51	11.00	Pass
116	5580	-6.90	-6.83	1.68	-2.17	11.00	Pass
140	5700	-6.40	-6.75	1.68	-1.88	11.00	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-1, the directional gain is 5.81 dBi < 6dBi, so the power density limit shall not be reduced.
4. For U-NII-2A, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.
5. For U-NII-2C, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
36	5180	-6.76	-6.76	1.98	-1.77	11.00	Pass
40	5200	-6.90	-6.92	1.98	-1.92	11.00	Pass
48	5240	-6.83	-6.99	1.98	-1.92	11.00	Pass
52	5260	-6.85	-6.82	1.98	-1.84	11.00	Pass
60	5300	-6.76	-7.00	1.98	-1.89	11.00	Pass
64	5320	-6.71	-6.87	1.98	-1.80	11.00	Pass
100	5500	-6.80	-6.86	1.98	-1.84	11.00	Pass
116	5580	-6.70	-6.72	1.98	-1.72	11.00	Pass
140	5700	-6.70	-6.85	1.98	-1.78	11.00	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-1, the directional gain is 5.81 dBi < 6dBi, so the power density limit shall not be reduced.
4. For U-NII-2A, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.
5. For U-NII-2C, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
38	5190	-9.58	-9.78	3.27	-3.40	11.00	Pass
46	5230	-9.88	-9.89	3.27	-3.60	11.00	Pass
54	5270	-9.97	-9.72	3.27	-3.56	11.00	Pass
62	5310	-9.91	-9.87	3.27	-3.61	11.00	Pass
102	5510	-9.75	-9.83	3.27	-3.51	11.00	Pass
110	5550	-9.79	-10.06	3.27	-3.64	11.00	Pass
134	5670	-9.64	-10.02	3.27	-3.55	11.00	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-1, the directional gain is 5.81 dBi < 6dBi, so the power density limit shall not be reduced.
4. For U-NII-2A, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.
5. For U-NII-2C, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1				
42	5210	-12.92	-12.69	1.69	-8.10	11.00	Pass
58	5290	-12.78	-12.83	1.69	-8.10	11.00	Pass
106	5530	-12.64	-11.97	1.69	-7.59	11.00	Pass
122	5610	-12.43	-12.82	1.69	-7.92	11.00	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-1, the directional gain is 5.81 dBi < 6dBi, so the power density limit shall not be reduced.
4. For U-NII-2A, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.
5. For U-NII-2C, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
149	5745	-14.77	-15.50	-12.11	1.68	-8.21	30	Pass
157	5785	-14.59	-15.19	-11.87	1.68	-7.97	30	Pass
165	5825	-14.34	-16.04	-12.1	1.68	-8.20	30	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-3, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
149	5745	-18.68	-18.77	-15.71	1.98	-11.51	30	Pass
157	5785	-18.33	-18.14	-15.22	1.98	-11.02	30	Pass
165	5825	-18.55	-18.95	-15.74	1.98	-11.54	30	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-3, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
151	5755	-21.85	-22.43	-19.12	3.27	-13.63	30	Pass
159	5795	-21.31	-21.83	-18.55	3.27	-13.06	30	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-3, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.

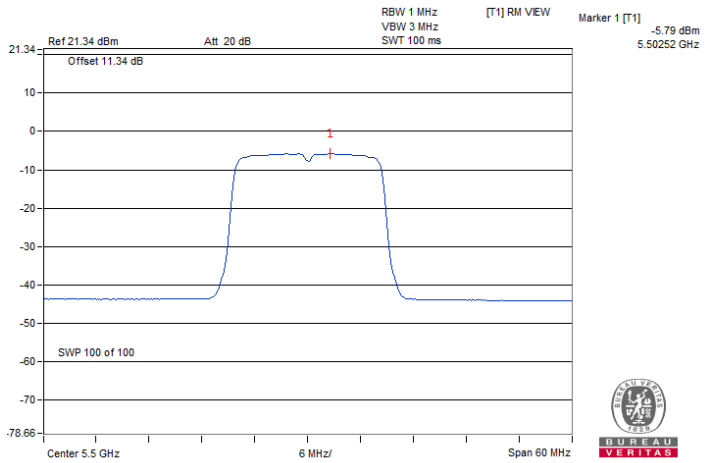
802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)		Total PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1					
155	5775	-25.02	-25.07	-22.03	1.69	-18.12	30	Pass

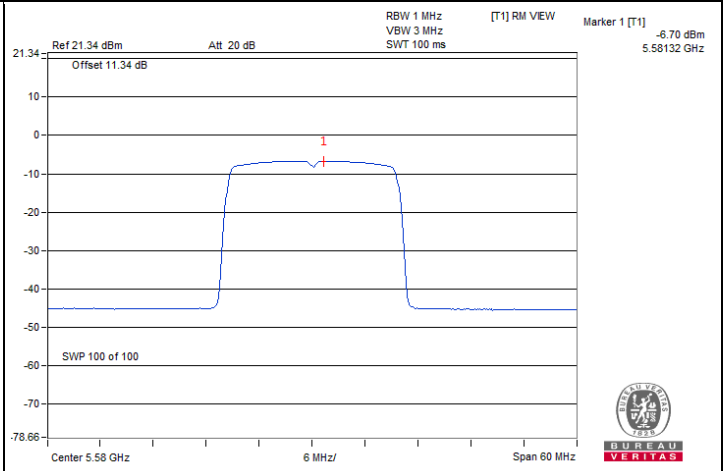
Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-3, the directional gain is 5.81 dBi < 6 dBi, so the power density limit shall not be reduced.

Spectrum Plot of Maximum Value

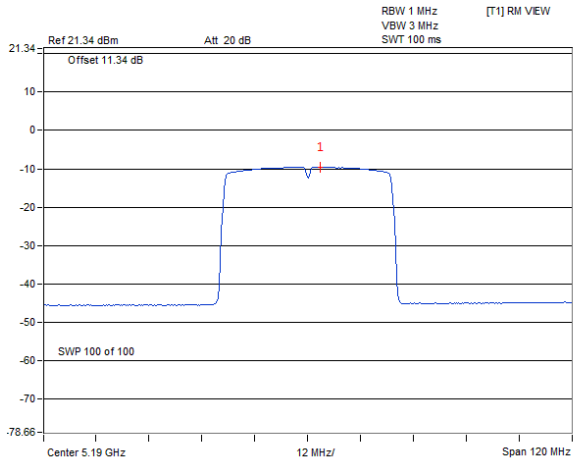


802.11a / Chain1 : CH 100

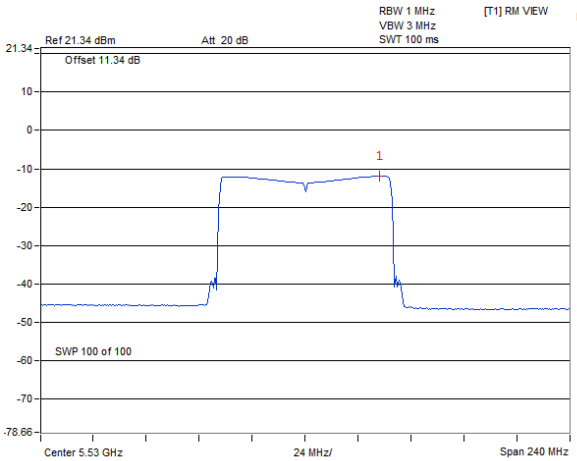


802.11ax (HE20) / Chain0 : CH 116

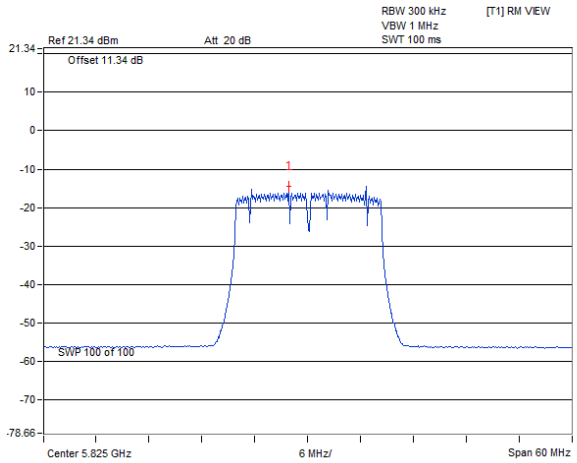
Spectrum Plot of Maximum Value



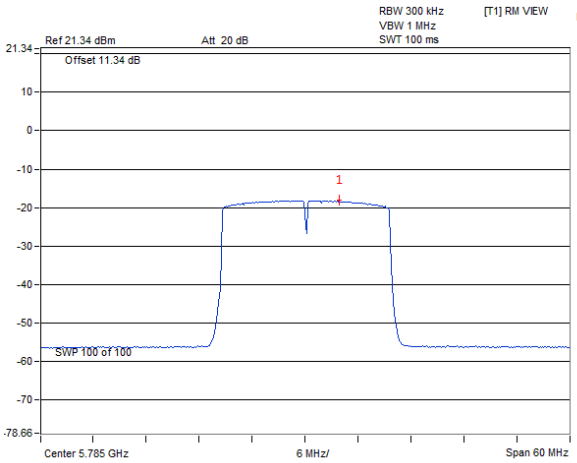
802.11ax (HE40) / Chain0 : CH 38



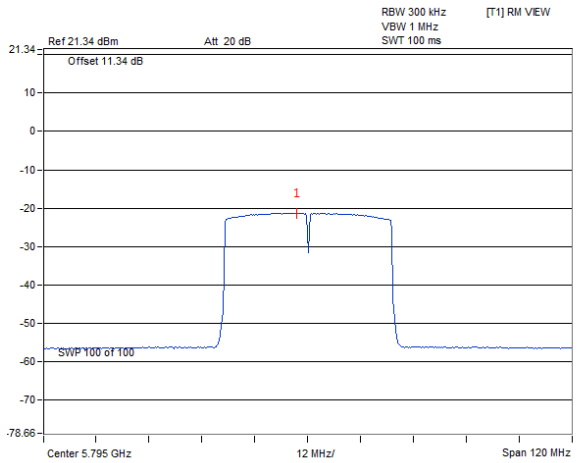
802.11ax (HE80) / Chain1 : CH 106



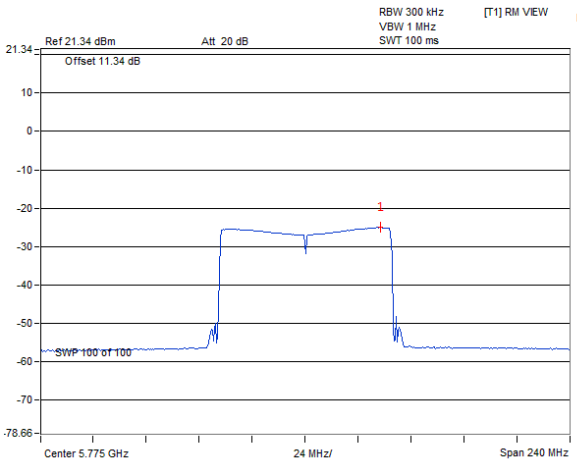
802.11a / Chain0 : CH 165



802.11ax (HE20) / Chain1 : CH 157



802.11ax (HE40) / Chain0 : CH 159



802.11ax (HE80) / Chain0 : CH 155

7.4 6 dB Bandwidth

Input Power:	5 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang

802.11a

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
149	5745	16.45	16.45	0.5	Pass
157	5785	16.48	16.48	0.5	Pass
165	5825	16.47	16.47	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
149	5745	19.10	19.09	0.5	Pass
157	5785	19.11	19.13	0.5	Pass
165	5825	19.13	19.13	0.5	Pass

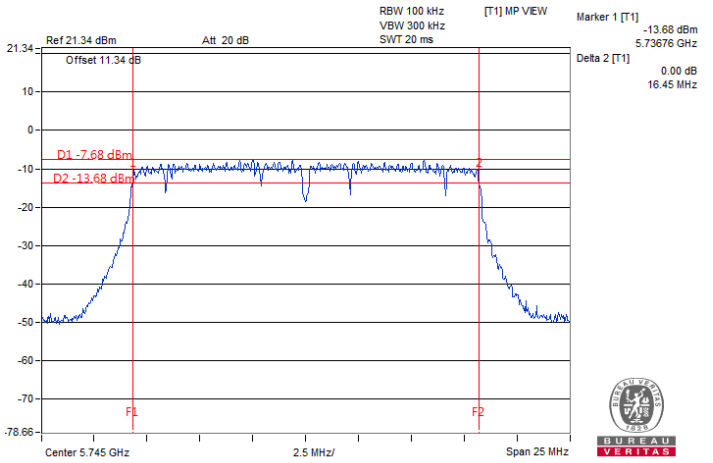
802.11ax (HE40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
151	5755	38.17	38.18	0.5	Pass
159	5795	38.24	38.26	0.5	Pass

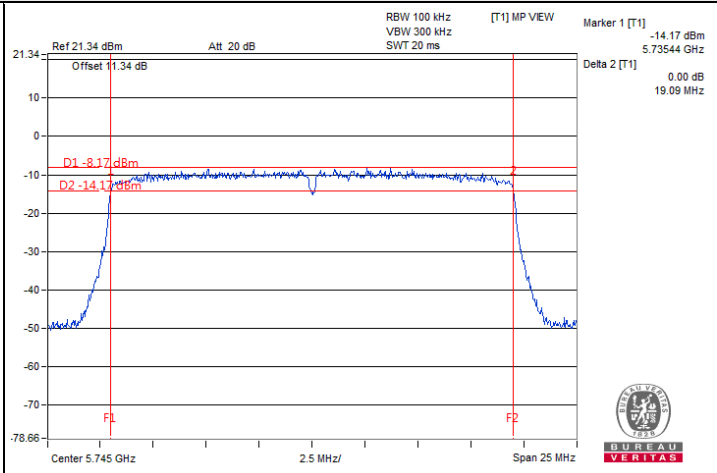
802.11ax (HE80)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
155	5775	78.37	78.30	0.5	Pass

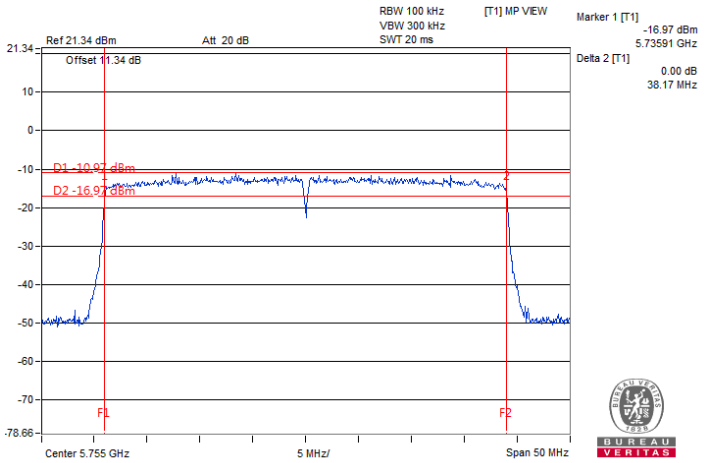
Spectrum Plot of Minimum Value



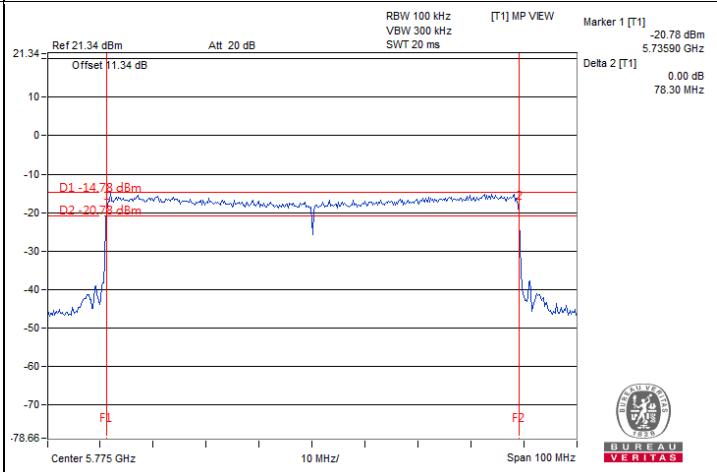
802.11a / Chain0 : CH 149



802.11ax (HE20) / Chain1 : CH 149



802.11ax (HE40) / Chain0 : CH 151



802.11ax (HE80) / Chain1 : CH 155

7.5 Occupied Bandwidth

Input Power:	5 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	16.32	16.44
40	5200	16.44	16.44
48	5240	16.44	16.44
52	5260	16.44	16.44
60	5300	16.44	16.44
64	5320	16.44	16.32
100	5500	16.32	16.32
116	5580	16.32	16.32
140	5700	16.44	16.44
149	5745	16.34	16.34
157	5785	16.32	16.44
165	5825	16.32	16.32

802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	18.96	18.84
40	5200	18.96	18.96
48	5240	18.84	18.84
52	5260	18.84	18.96
60	5300	18.84	18.84
64	5320	18.96	18.84
100	5500	18.96	18.84
116	5580	18.84	18.84
140	5700	18.84	18.84
149	5745	18.87	18.96
157	5785	18.96	18.96
165	5825	18.96	18.96

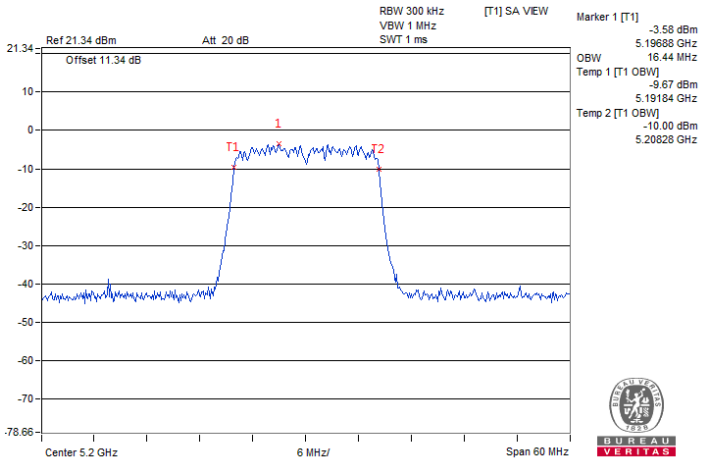
802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	38.04	37.80
46	5230	37.92	37.92
54	5270	38.04	38.04
62	5310	38.04	38.04
102	5510	37.92	38.04
110	5550	37.92	37.92
134	5670	37.92	37.92
151	5755	37.92	38.09
159	5795	37.92	38.04

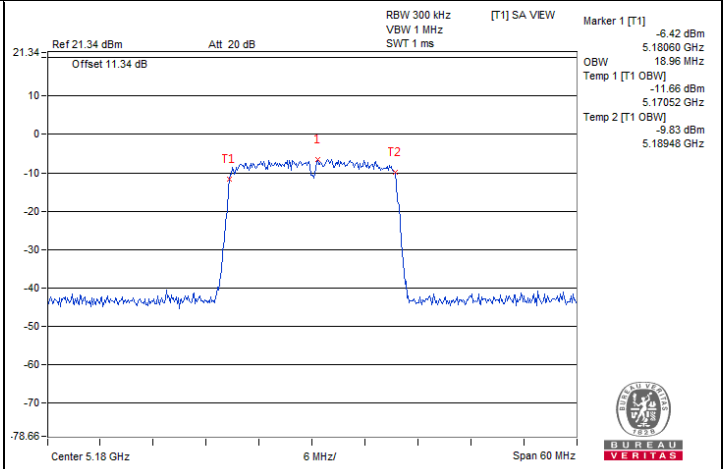
802.11ax (HE80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	78.72	79.20
58	5290	77.52	77.52
106	5530	77.57	77.22
122	5610	77.76	77.52
155	5775	77.76	77.76

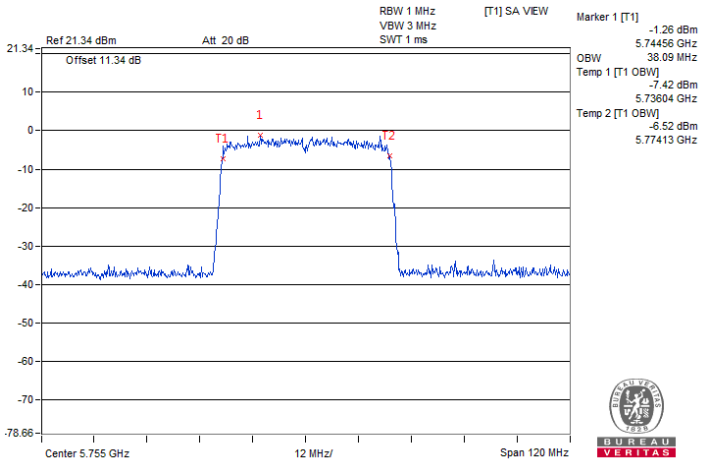
Spectrum Plot of Maximum Value



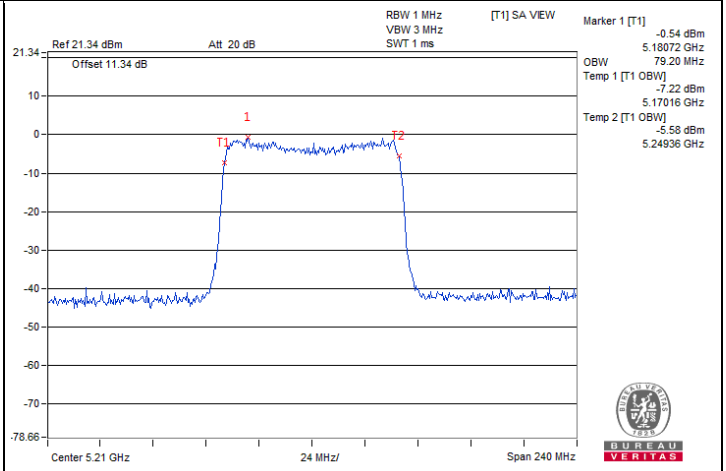
802.11a / Chain0 : CH 40



802.11ax (HE20) / Chain0 : CH 36

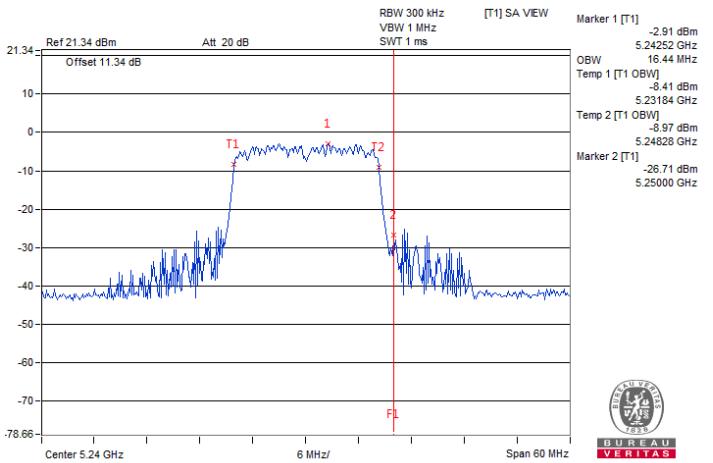


802.11ax (HE40) / Chain1 : CH 151

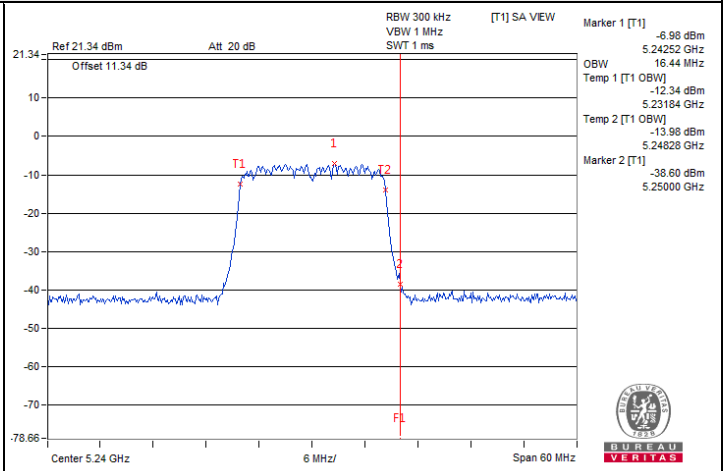


802.11ax (HE80) / Chain1 : CH 42

Spectrum Plot for nearby DFS band

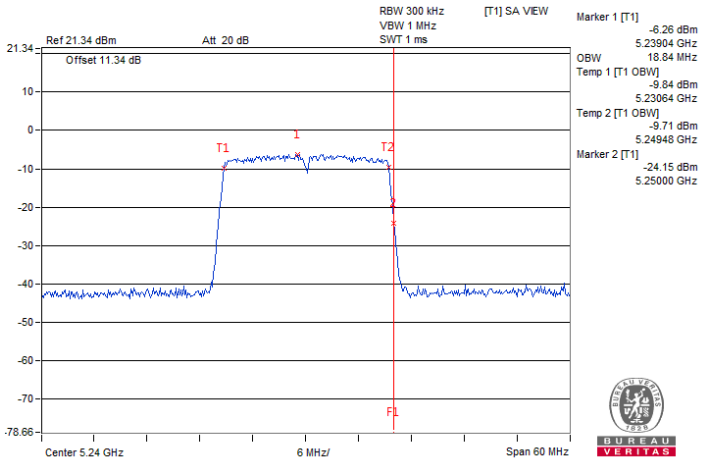


802.11a / Chain 0 : CH 48

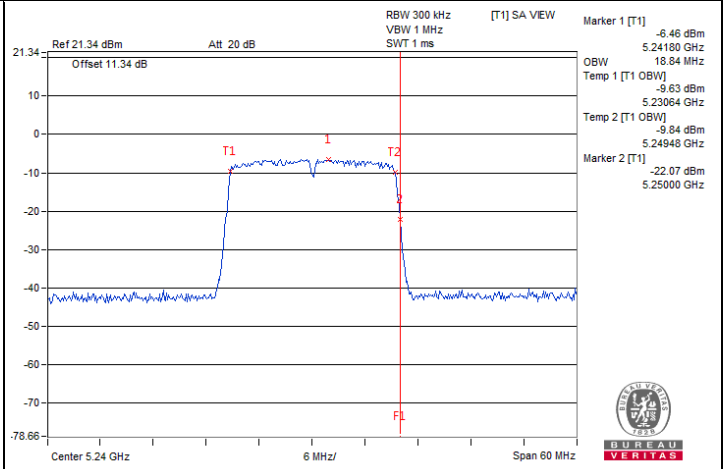


802.11a / Chain 1 : CH 48

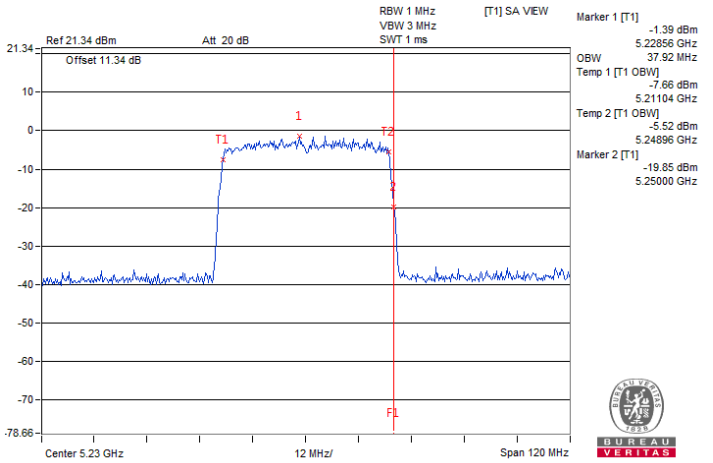
Spectrum Plot for nearby DFS band



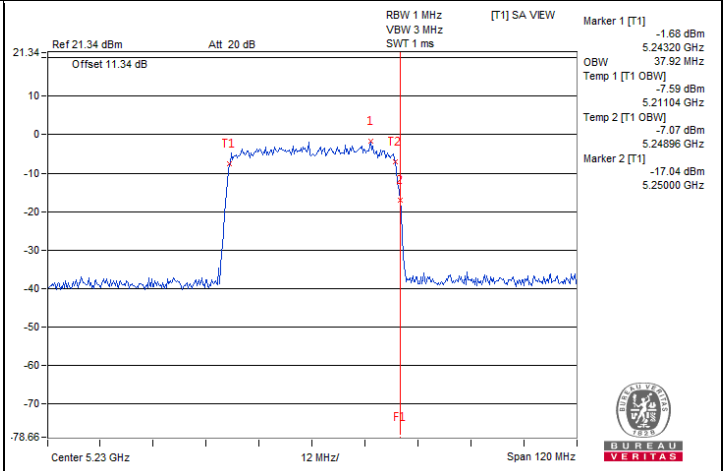
802.11ax (HE20) / Chain 0 : CH 48



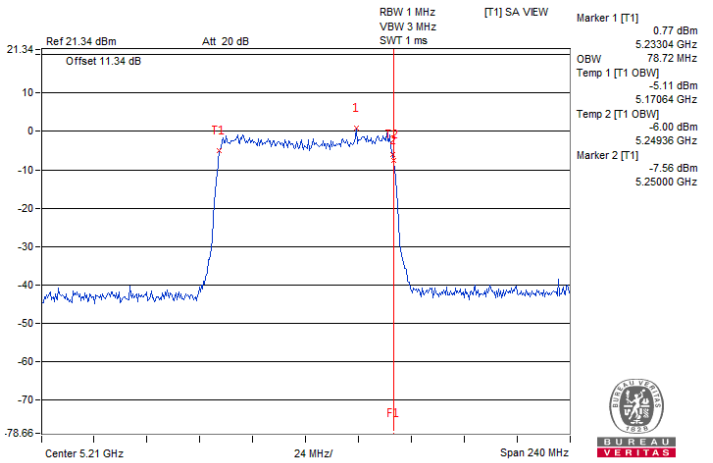
802.11ax (HE20) / Chain 1 : CH 48



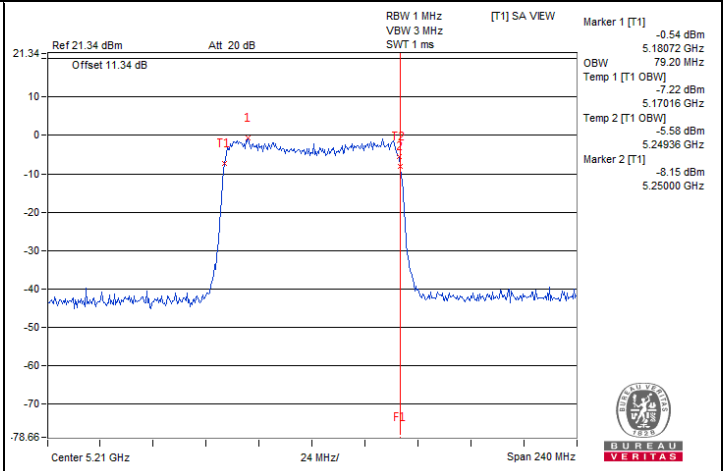
802.11ax (HE40) / Chain 0 : CH 46



802.11ax (HE40) / Chain 1 : CH 46

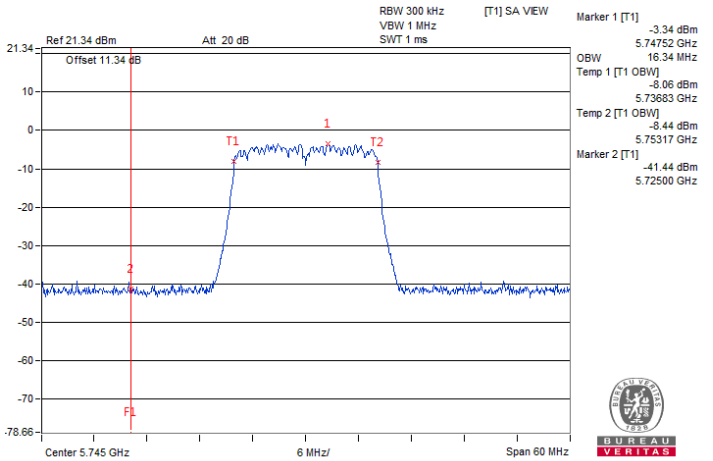


802.11ax (HE80) / Chain 0 : CH 42

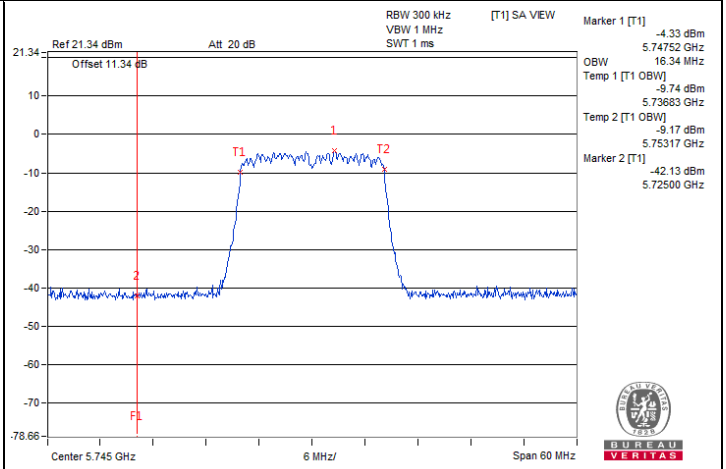


802.11ax (HE80) / Chain 1 : CH 42

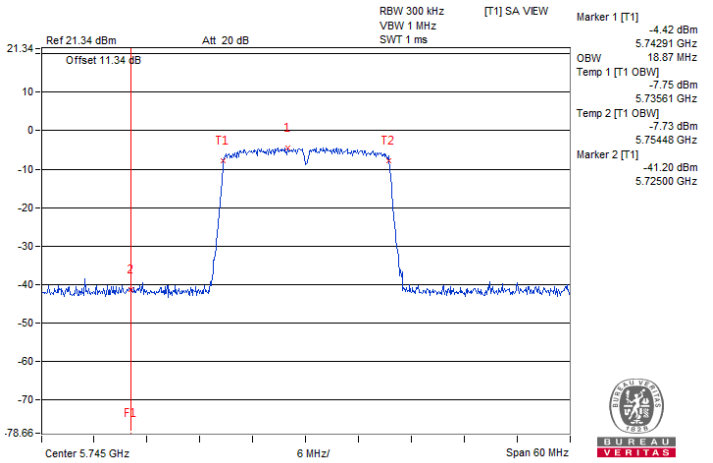
Spectrum Plot for nearby DFS band



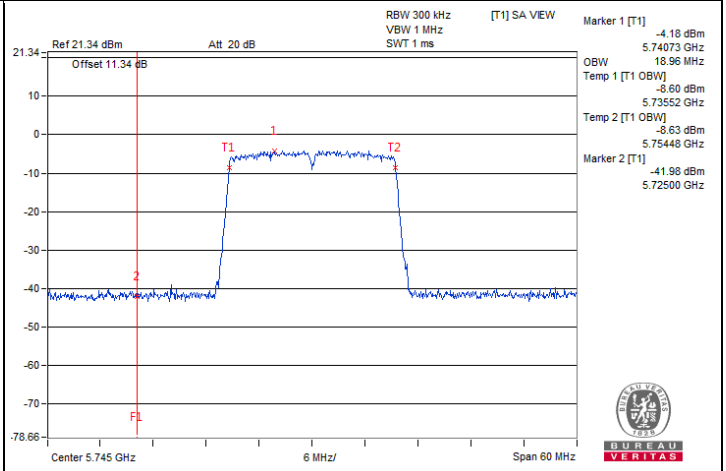
802.11a / Chain 0 : CH 149



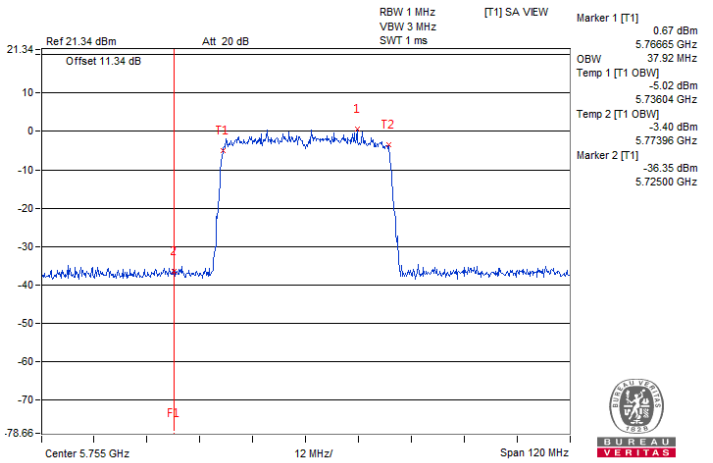
802.11a / Chain 1 : CH 149



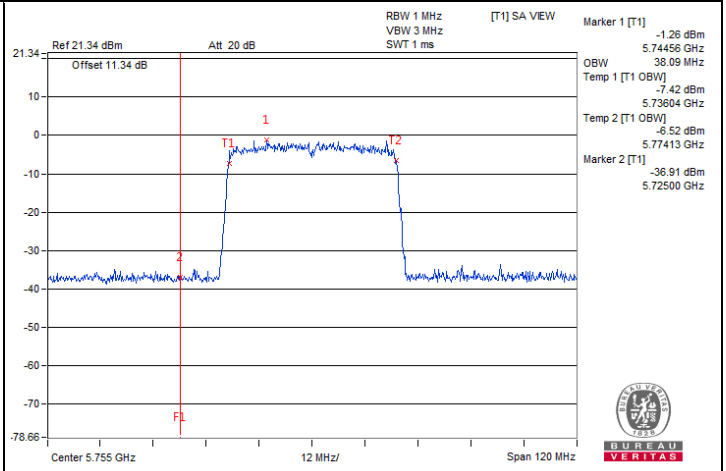
802.11ax (HE20) / Chain 0 : CH 149



802.11ax (HE20) / Chain 1 : CH 149

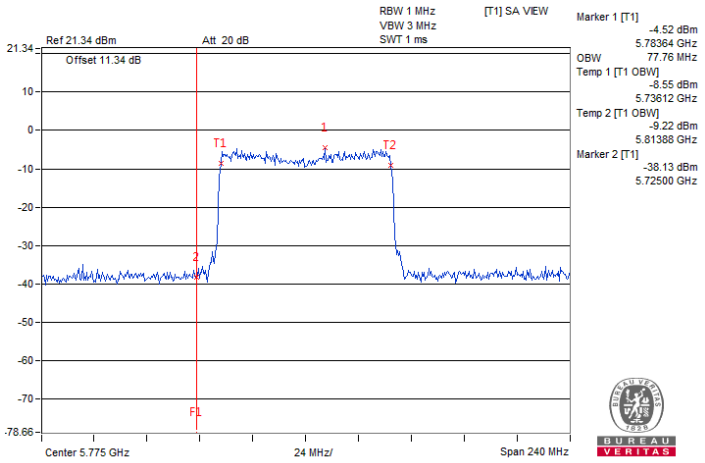


802.11ax (HE40) / Chain 0 : CH 151

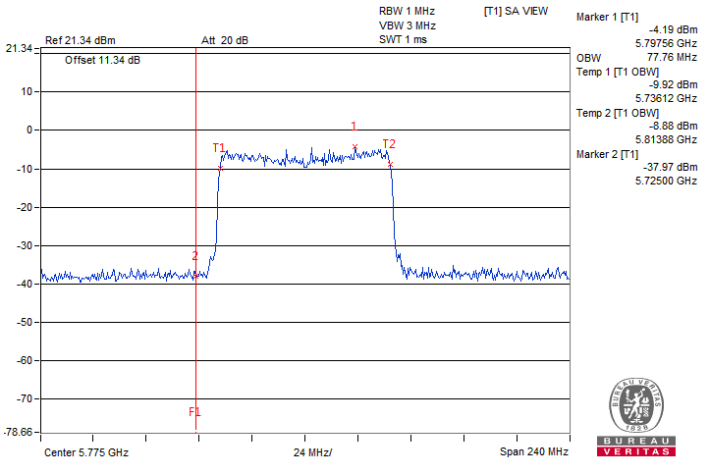


802.11ax (HE40) / Chain 1 : CH 151

Spectrum Plot for nearby DFS band



802.11ax (HE80) / Chain 0 : CH 155



802.11ax (HE80) / Chain 1 : CH 155

7.6 Frequency Stability

Input Power:	5 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang

802.11a

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (℃)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
40	5	5180.0009	Pass	5179.9998	Pass	5180.0018	Pass	5180.0008	Pass
30	5	5179.9873	Pass	5179.9883	Pass	5179.9866	Pass	5179.9866	Pass
20	5	5179.983	Pass	5179.9806	Pass	5179.9828	Pass	5179.9789	Pass
10	5	5179.9943	Pass	5179.9909	Pass	5179.9895	Pass	5179.9899	Pass
0	5	5180.0061	Pass	5180.0058	Pass	5180.0052	Pass	5180.007	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (℃)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
20	5.75	5179.986	Pass	5179.983	Pass	5179.9855	Pass	5179.986	Pass
	5	5179.983	Pass	5179.9806	Pass	5179.9828	Pass	5179.9789	Pass
	4.25	5179.9892	Pass	5179.9896	Pass	5179.991	Pass	5179.9932	Pass

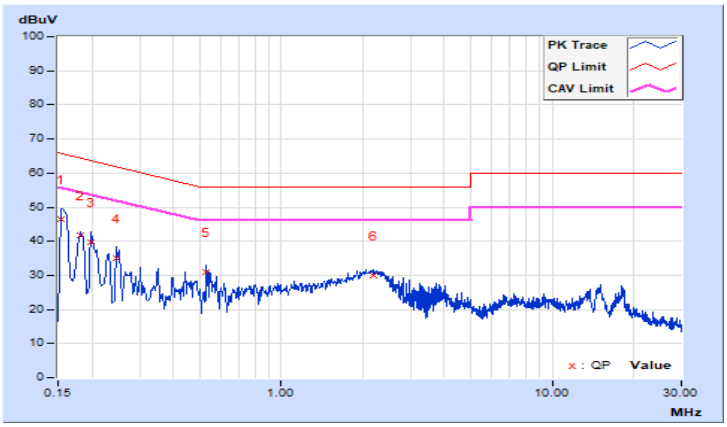
7.7 AC Power Conducted Emissions

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 116：5580 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHSU		

Phase Of Power : Line (L)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	**0.15400**	**9.62**	**36.79**	**19.40**	**46.41**	**29.02**	**65.78**	**55.78**	**-19.37**	**-26.76**
2	0.18133	9.63	32.13	20.46	41.76	30.09	64.42	54.42	-22.66	-24.33
3	0.19800	9.64	30.06	14.31	39.70	23.95	63.69	53.69	-23.99	-29.74
4	0.24600	9.65	25.35	18.49	35.00	28.14	61.89	51.89	-26.89	-23.75
5	0.53000	9.69	21.20	12.60	30.89	22.29	56.00	46.00	-25.11	-23.71
6	2.18057	9.72	20.12	15.12	29.84	24.84	56.00	46.00	-26.16	-21.16

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

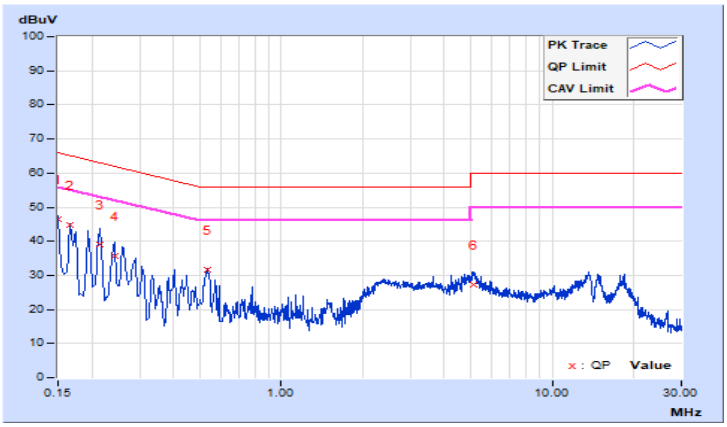


RF Mode	TX 802.11ax (HE20)	**Channel**	CH 116：5580 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHSU		

Phase Of Power : Neutral (N)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.15000	9.62	36.89	20.66	46.51	30.28	66.00	56.00	-19.49	-25.72
2	0.16600	9.63	35.29	18.01	44.92	27.64	65.16	55.16	-20.24	-27.52
3	0.21400	9.64	29.57	15.98	39.21	25.62	63.05	53.05	-23.84	-27.43
4	0.24200	9.65	25.98	13.15	35.63	22.80	62.03	52.03	-26.40	-29.23
5	0.53400	9.69	21.92	13.29	31.61	22.98	56.00	46.00	-24.39	-23.02
6	5.15400	9.76	17.45	10.03	27.21	19.79	60.00	50.00	-32.79	-30.21

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



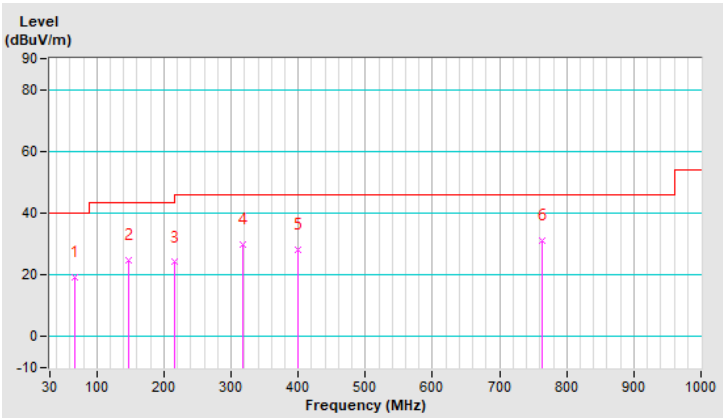
7.8 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 116：5580 MHz
Frequency Range	9 kHz ~ 1 GHz	**Detector Function & Bandwidth**	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	66.55	19.2 QP	40.0	-20.8	1.00 H	78	34.1	-14.9
2	148.09	24.8 QP	43.5	-18.7	1.00 H	228	38.0	-13.2
3	215.57	24.1 QP	43.5	-19.4	1.49 H	256	40.8	-16.7
4	318.19	29.9 QP	46.0	-16.1	1.00 H	259	42.0	-12.1
5	399.72	28.0 QP	46.0	-18.0	1.00 H	301	38.1	-10.1
6	762.42	31.1 QP	46.0	-14.9	1.49 H	14	34.0	-2.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

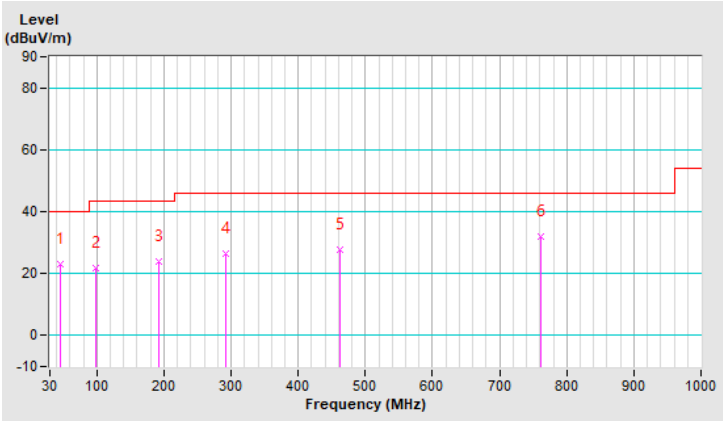


RF Mode	TX 802.11ax (HE20)	**Channel**	CH 116：5580 MHz
Frequency Range	9 kHz ~ 1 GHz	**Detector Function & Bandwidth**	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	45.46	23.0 QP	40.0	-17.0	1.01 V	155	36.1	-13.1
2	97.48	21.7 QP	43.5	-21.8	1.01 V	250	39.8	-18.1
3	191.67	23.8 QP	43.5	-19.7	1.01 V	343	40.0	-16.2
4	292.88	26.3 QP	46.0	-19.7	1.50 V	297	39.2	-12.9
5	461.58	27.9 QP	46.0	-18.1	1.50 V	337	36.3	-8.4
6	**761.01**	**31.9 QP**	**46.0**	**-14.1**	**1.01 V**	**285**	**34.9**	**-3.0**

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



7.9 Unwanted Emissions above 1 GHz

RF Mode	TX 802.11a	**Channel**	CH 36：5180 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	57.7 PK	74.0	-16.3	1.39 H	174	55.2	2.5
2	5150.00	45.1 AV	54.0	-8.9	1.39 H	174	42.6	2.5
3	*5180.00	94.2 PK			1.39 H	174	53.9	40.3
4	*5180.00	83.7 AV			1.39 H	174	43.4	40.3
5	#10360.00	56.0 PK	68.2	-12.2	1.55 H	192	47.5	8.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.1 PK	74.0	-15.9	1.25 V	182	55.6	2.5
2	5150.00	45.3 AV	54.0	-8.7	1.25 V	182	42.8	2.5
3	*5180.00	96.2 PK			1.25 V	182	55.9	40.3
4	*5180.00	86.3 AV			1.25 V	182	46.0	40.3
5	#10360.00	56.7 PK	68.2	-11.5	2.25 V	163	48.2	8.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	**Channel**	CH 40：5200 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5200.00	93.6 PK			1.29 H	173	53.4	40.2
2	*5200.00	83.3 AV			1.29 H	173	43.1	40.2
3	#10400.00	56.0 PK	68.2	-12.2	1.52 H	189	47.6	8.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5200.00	95.9 PK			1.22 V	181	55.7	40.2
2	*5200.00	85.8 AV			1.22 V	181	45.6	40.2
3	#10400.00	56.5 PK	68.2	-11.7	2.27 V	169	48.1	8.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	**Channel**	CH 48：5240 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.1 PK	74.0	-15.9	1.36 H	174	55.6	2.5
2	5150.00	44.7 AV	54.0	-9.3	1.36 H	174	42.2	2.5
3	*5240.00	93.2 PK			1.36 H	174	53.1	40.1
4	*5240.00	82.6 AV			1.36 H	174	42.5	40.1
5	#10480.00	55.7 PK	68.2	-12.5	1.57 H	188	47.2	8.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.6 PK	74.0	-15.4	1.15 V	153	56.1	2.5
2	5150.00	45.1 AV	54.0	-8.9	1.15 V	153	42.6	2.5
3	*5240.00	96.1 PK			1.15 V	153	56.0	40.1
4	*5240.00	86.2 AV			1.15 V	153	46.1	40.1
5	#10480.00	57.0 PK	68.2	-11.2	2.22 V	168	48.5	8.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 36：5180 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.0 PK	74.0	-16.0	1.38 H	175	55.5	2.5
2	5150.00	44.7 AV	54.0	-9.3	1.38 H	175	42.2	2.5
3	*5180.00	95.5 PK			1.38 H	175	55.2	40.3
4	*5180.00	83.0 AV			1.38 H	175	42.7	40.3
5	#10360.00	55.5 PK	68.2	-12.7	1.58 H	195	47.0	8.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.7 PK	74.0	-15.3	1.03 V	155	56.2	2.5
2	5150.00	45.1 AV	54.0	-8.9	1.03 V	155	42.6	2.5
3	*5180.00	98.6 PK			1.03 V	155	58.3	40.3
4	*5180.00	86.0 AV			1.03 V	155	45.7	40.3
5	#10360.00	56.7 PK	68.2	-11.5	2.21 V	164	48.2	8.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 40：5200 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5200.00	95.2 PK			1.50 H	174	55.0	40.2
2	*5200.00	83.1 AV			1.50 H	174	42.9	40.2
3	#10400.00	56.1 PK	68.2	-12.1	2.23 H	162	47.7	8.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5200.00	98.1 PK			1.06 V	158	57.9	40.2
2	*5200.00	85.3 AV			1.06 V	158	45.1	40.2
3	#10400.00	56.6 PK	68.2	-11.6	2.26 V	165	48.2	8.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 48：5240 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	57.7 PK	74.0	-16.3	1.53 H	174	55.2	2.5
2	5150.00	44.6 AV	54.0	-9.4	1.53 H	174	42.1	2.5
3	*5240.00	95.1 PK			1.53 H	174	55.0	40.1
4	*5240.00	82.5 AV			1.53 H	174	42.4	40.1
5	#10480.00	56.0 PK	68.2	-12.2	2.19 H	169	47.5	8.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.2 PK	74.0	-15.8	1.05 V	158	55.7	2.5
2	5150.00	45.1 AV	54.0	-8.9	1.05 V	158	42.6	2.5
3	*5240.00	98.8 PK			1.05 V	158	58.7	40.1
4	*5240.00	85.9 AV			1.05 V	158	45.8	40.1
5	#10480.00	56.7 PK	68.2	-11.5	2.23 V	165	48.2	8.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	**Channel**	CH 38：5190 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	57.5 PK	74.0	-16.5	1.49 H	174	55.0	2.5
2	**5150.00**	**47.7 AV**	**54.0**	**-6.3**	**1.49 H**	**174**	**45.2**	**2.5**
3	*5190.00	93.0 PK			1.49 H	174	52.7	40.3
4	*5190.00	80.0 AV			1.49 H	174	39.7	40.3
5	#10380.00	55.7 PK	68.2	-12.5	2.21 H	165	47.2	8.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	57.9 PK	74.0	-16.1	1.09 V	158	55.4	2.5
2	5150.00	45.1 AV	54.0	-8.9	1.09 V	158	42.6	2.5
3	*5190.00	96.2 PK			1.09 V	158	55.9	40.3
4	*5190.00	82.9 AV			1.09 V	158	42.6	40.3
5	#10380.00	56.1 PK	68.2	-12.1	2.25 V	168	47.6	8.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	**Channel**	CH 46：5230 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	57.6 PK	74.0	-16.4	1.50 H	174	55.1	2.5
2	5150.00	44.6 AV	54.0	-9.4	1.50 H	174	42.1	2.5
3	*5230.00	92.1 PK			1.50 H	174	52.0	40.1
4	*5230.00	79.1 AV			1.50 H	174	39.0	40.1
5	#10460.00	55.7 PK	68.2	-12.5	1.57 H	195	47.2	8.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.2 PK	74.0	-15.8	1.00 V	160	55.7	2.5
2	5150.00	45.0 AV	54.0	-9.0	1.00 V	160	42.5	2.5
3	*5230.00	95.0 PK			1.00 V	160	54.9	40.1
4	*5230.00	81.8 AV			1.00 V	160	41.7	40.1
5	#10460.00	56.0 PK	68.2	-12.2	2.23 V	169	47.5	8.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	**Channel**	CH 42：5210 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.1 PK	74.0	-15.9	1.33 H	174	55.6	2.5
2	5150.00	44.7 AV	54.0	-9.3	1.33 H	174	42.2	2.5
3	*5210.00	90.2 PK			1.33 H	174	50.0	40.2
4	*5210.00	78.2 AV			1.33 H	174	38.0	40.2
5	5350.00	57.9 PK	74.0	-16.1	1.33 H	174	55.8	2.1
6	5350.00	44.3 AV	54.0	-9.7	1.33 H	174	42.2	2.1
7	#10420.00	55.4 PK	68.2	-12.8	1.52 H	199	47.0	8.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.8 PK	74.0	-15.2	1.07 V	159	56.3	2.5
2	5150.00	45.0 AV	54.0	-9.0	1.07 V	159	42.5	2.5
3	*5210.00	93.8 PK			1.07 V	159	53.6	40.2
4	*5210.00	80.8 AV			1.07 V	159	40.6	40.2
5	5350.00	58.3 PK	74.0	-15.7	1.07 V	159	56.2	2.1
6	5350.00	44.6 AV	54.0	-9.4	1.07 V	159	42.5	2.1
7	#10420.00	55.6 PK	68.2	-12.6	2.22 V	165	47.2	8.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	**Channel**	CH 52：5260 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.1 PK	74.0	-15.9	1.43 H	192	55.6	2.5
2	5150.00	44.7 AV	54.0	-9.3	1.43 H	192	42.2	2.5
3	*5260.00	94.3 PK			1.43 H	192	54.2	40.1
4	*5260.00	84.7 AV			1.43 H	192	44.6	40.1
5	#10520.00	56.3 PK	68.2	-11.9	1.59 H	188	47.8	8.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.8 PK	74.0	-15.2	1.27 V	177	56.3	2.5
2	5150.00	45.1 AV	54.0	-8.9	1.27 V	177	42.6	2.5
3	*5260.00	95.7 PK			1.27 V	177	55.6	40.1
4	*5260.00	86.2 AV			1.27 V	177	46.1	40.1
5	#10520.00	57.0 PK	68.2	-11.2	2.27 V	169	48.5	8.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	**Channel**	CH 60：5300 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5300.00	92.9 PK			1.39 H	192	52.9	40.0
2	*5300.00	83.2 AV			1.39 H	192	43.2	40.0
3	10600.00	56.3 PK	74.0	-17.7	1.53 H	189	47.5	8.8
4	10600.00	43.0 AV	54.0	-11.0	1.53 H	189	34.2	8.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5300.00	95.1 PK			1.24 V	174	55.1	40.0
2	*5300.00	85.7 AV			1.24 V	174	45.7	40.0
3	10600.00	57.1 PK	74.0	-16.9	2.21 V	172	48.3	8.8
4	10600.00	44.1 AV	54.0	-9.9	2.21 V	172	35.3	8.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11a	**Channel**	CH 64：5320 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5320.00	92.6 PK			1.30 H	204	52.6	40.0
2	*5320.00	83.0 AV			1.30 H	204	43.0	40.0
3	5350.00	57.9 PK	74.0	-16.1	1.30 H	204	55.8	2.1
4	5350.00	44.3 AV	54.0	-9.7	1.30 H	204	42.2	2.1
5	10640.00	56.3 PK	74.0	-17.7	1.57 H	195	47.7	8.6
6	10640.00	43.3 AV	54.0	-10.7	1.57 H	195	34.7	8.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5320.00	97.1 PK			1.10 V	154	57.1	40.0
2	*5320.00	87.2 AV			1.10 V	154	47.2	40.0
3	5350.00	58.9 PK	74.0	-15.1	1.10 V	154	56.8	2.1
4	5350.00	44.8 AV	54.0	-9.2	1.10 V	154	42.7	2.1
5	10640.00	57.0 PK	74.0	-17.0	2.25 V	175	48.4	8.6
6	10640.00	44.1 AV	54.0	-9.9	2.25 V	175	35.5	8.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 52：5260 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.0 PK	74.0	-16.0	1.43 H	193	55.5	2.5
2	5150.00	44.8 AV	54.0	-9.2	1.43 H	193	42.3	2.5
3	*5260.00	96.9 PK			1.43 H	193	56.8	40.1
4	*5260.00	84.1 AV			1.43 H	193	44.0	40.1
5	#10520.00	56.2 PK	68.2	-12.0	1.62 H	195	47.7	8.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.4 PK	74.0	-15.6	1.25 V	176	55.9	2.5
2	5150.00	45.1 AV	54.0	-8.9	1.25 V	176	42.6	2.5
3	*5260.00	99.5 PK			1.25 V	176	59.4	40.1
4	*5260.00	86.9 AV			1.25 V	176	46.8	40.1
5	#10520.00	57.0 PK	68.2	-11.2	2.21 V	178	48.5	8.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 60：5300 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5300.00	96.0 PK			1.38 H	192	56.0	40.0
2	*5300.00	83.2 AV			1.38 H	192	43.2	40.0
3	10600.00	56.3 PK	74.0	-17.7	1.53 H	186	47.5	8.8
4	10600.00	43.3 AV	54.0	-10.7	1.53 H	186	34.5	8.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5300.00	98.8 PK			1.19 V	175	58.8	40.0
2	*5300.00	86.0 AV			1.19 V	175	46.0	40.0
3	10600.00	57.0 PK	74.0	-17.0	2.27 V	172	48.2	8.8
4	10600.00	44.2 AV	54.0	-9.8	2.27 V	172	35.4	8.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 64：5320 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5320.00	95.8 PK			1.38 H	192	55.8	40.0
2	*5320.00	82.9 AV			1.38 H	192	42.9	40.0
3	5350.00	57.9 PK	74.0	-16.1	1.38 H	192	55.8	2.1
4	5350.00	44.4 AV	54.0	-9.6	1.38 H	192	42.3	2.1
5	10640.00	56.2 PK	74.0	-17.8	1.59 H	187	47.6	8.6
6	10640.00	43.2 AV	54.0	-10.8	1.59 H	187	34.6	8.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5320.00	99.5 PK			1.20 V	175	59.5	40.0
2	*5320.00	86.9 AV			1.20 V	175	46.9	40.0
3	5350.00	58.2 PK	74.0	-15.8	1.20 V	175	56.1	2.1
4	5350.00	44.8 AV	54.0	-9.2	1.20 V	175	42.7	2.1
5	10640.00	56.9 PK	74.0	-17.1	2.18 V	176	48.3	8.6
6	10640.00	44.0 AV	54.0	-10.0	2.18 V	176	35.4	8.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11ax (HE40)	**Channel**	CH 54：5270 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	57.5 PK	74.0	-16.5	1.39 H	191	55.0	2.5
2	5150.00	44.7 AV	54.0	-9.3	1.39 H	191	42.2	2.5
3	*5270.00	94.2 PK			1.39 H	191	54.1	40.1
4	*5270.00	81.0 AV			1.39 H	191	40.9	40.1
5	#10540.00	56.1 PK	68.2	-12.1	1.58 H	189	47.5	8.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.2 PK	74.0	-15.8	1.48 V	183	55.7	2.5
2	5150.00	45.2 AV	54.0	-8.8	1.48 V	183	42.7	2.5
3	*5270.00	97.8 PK			1.48 V	183	57.7	40.1
4	*5270.00	84.7 AV			1.48 V	183	44.6	40.1
5	#10540.00	56.4 PK	68.2	-11.8	2.28 V	179	47.8	8.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	**Channel**	CH 62：5310 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5310.00	93.3 PK			1.38 H	192	53.3	40.0
2	*5310.00	80.1 AV			1.38 H	192	40.1	40.0
3	5350.00	58.1 PK	74.0	-15.9	1.38 H	192	56.0	2.1
4	5350.00	45.1 AV	54.0	-8.9	1.38 H	192	43.0	2.1
5	10620.00	55.9 PK	74.0	-18.1	1.59 H	189	47.2	8.7
6	10620.00	42.8 AV	54.0	-11.2	1.59 H	189	34.1	8.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5310.00	96.6 PK			1.16 V	158	56.6	40.0
2	*5310.00	83.4 AV			1.16 V	158	43.4	40.0
3	5350.00	58.4 PK	74.0	-15.6	1.16 V	158	56.3	2.1
4	5350.00	44.8 AV	54.0	-9.2	1.16 V	158	42.7	2.1
5	10620.00	56.3 PK	74.0	-17.7	2.27 V	177	47.6	8.7
6	10620.00	43.3 AV	54.0	-10.7	2.27 V	177	34.6	8.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11ax (HE80)	**Channel**	CH 58：5290 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	58.5 PK	74.0	-15.5	1.38 H	192	56.0	2.5
2	5150.00	44.7 AV	54.0	-9.3	1.38 H	192	42.2	2.5
3	*5290.00	92.4 PK			1.38 H	192	52.4	40.0
4	*5290.00	79.6 AV			1.38 H	192	39.6	40.0
5	5350.00	57.1 PK	74.0	-16.9	1.38 H	192	55.0	2.1
6	5350.00	44.2 AV	54.0	-9.8	1.38 H	192	42.1	2.1
7	#10580.00	55.7 PK	68.2	-12.5	1.61 H	198	47.0	8.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5150.00	59.1 PK	74.0	-14.9	1.01 V	162	56.6	2.5
2	5150.00	45.2 AV	54.0	-8.8	1.01 V	162	42.7	2.5
3	*5290.00	95.0 PK			1.01 V	162	55.0	40.0
4	*5290.00	82.6 AV			1.01 V	162	42.6	40.0
5	5350.00	57.7 PK	74.0	-16.3	1.01 V	162	55.6	2.1
6	5350.00	44.6 AV	54.0	-9.4	1.01 V	162	42.5	2.1
7	#10580.00	55.9 PK	68.2	-12.3	2.21 V	171	47.2	8.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	**Channel**	CH 100：5500 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	57.1 PK	74.0	-16.9	1.09 H	193	55.0	2.1
2	5460.00	44.3 AV	54.0	-9.7	1.09 H	193	42.2	2.1
3	#5470.00	57.1 PK	68.2	-11.1	1.09 H	193	55.0	2.1
4	*5500.00	96.5 PK			1.09 H	193	56.4	40.1
5	*5500.00	86.4 AV			1.09 H	193	46.3	40.1
6	11000.00	56.9 PK	74.0	-17.1	1.42 H	191	48.2	8.7
7	11000.00	43.7 AV	54.0	-10.3	1.42 H	191	35.0	8.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	57.5 PK	74.0	-16.5	1.08 V	177	55.4	2.1
2	5460.00	44.7 AV	54.0	-9.3	1.08 V	177	42.6	2.1
3	#5470.00	57.4 PK	68.2	-10.8	1.08 V	177	55.3	2.1
4	*5500.00	100.1 PK			1.08 V	177	60.0	40.1
5	*5500.00	90.3 AV			1.08 V	177	50.2	40.1
6	11000.00	57.2 PK	74.0	-16.8	1.95 V	155	48.5	8.7
7	11000.00	44.1 AV	54.0	-9.9	1.95 V	155	35.4	8.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	**Channel**	CH 116：5580 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5580.00	97.1 PK			1.20 H	191	56.2	40.9
2	*5580.00	87.0 AV			1.20 H	191	46.1	40.9
3	11160.00	57.0 PK	74.0	-17.0	1.49 H	192	48.2	8.8
4	11160.00	44.1 AV	54.0	-9.9	1.49 H	192	35.3	8.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5580.00	101.6 PK			1.19 V	176	60.7	40.9
2	*5580.00	91.7 AV			1.19 V	176	50.8	40.9
3	11160.00	57.5 PK	74.0	-16.5	1.99 V	158	48.7	8.8
4	11160.00	44.3 AV	54.0	-9.7	1.99 V	158	35.5	8.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11a	**Channel**	CH 140：5700 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5700.00	99.6 PK			1.07 H	192	58.2	41.4
2	*5700.00	89.8 AV			1.07 H	192	48.4	41.4
3	#5725.00	59.2 PK	68.2	-9.0	1.48 H	189	55.5	3.7
4	11140.00	57.0 PK	74.0	-17.0	1.48 H	189	48.2	8.8
5	11140.00	43.8 AV	54.0	-10.2	1.48 H	189	35.0	8.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5700.00	104.1 PK			1.05 V	164	62.7	41.4
2	*5700.00	94.0 AV			1.05 V	164	52.6	41.4
3	#5725.00	59.4 PK	68.2	-8.8	1.05 V	164	55.7	3.7
4	11140.00	57.4 PK	74.0	-16.6	1.92 V	154	48.6	8.8
5	11140.00	44.4 AV	54.0	-9.6	1.92 V	154	35.6	8.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 100：5500 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	57.8 PK	74.0	-16.2	1.07 H	192	55.7	2.1
2	5460.00	44.3 AV	54.0	-9.7	1.07 H	192	42.2	2.1
3	#5470.00	57.8 PK	68.2	-10.4	1.07 H	192	55.7	2.1
4	*5500.00	98.4 PK			1.07 H	192	58.3	40.1
5	*5500.00	86.1 AV			1.07 H	192	46.0	40.1
6	11000.00	56.8 PK	74.0	-17.2	1.49 H	185	48.1	8.7
7	11000.00	43.8 AV	54.0	-10.2	1.49 H	185	35.1	8.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	58.0 PK	74.0	-16.0	1.07 V	175	55.9	2.1
2	5460.00	44.5 AV	54.0	-9.5	1.07 V	175	42.4	2.1
3	#5470.00	58.1 PK	68.2	-10.1	1.07 V	175	56.0	2.1
4	*5500.00	102.1 PK			1.07 V	175	62.0	40.1
5	*5500.00	90.3 AV			1.07 V	175	50.2	40.1
6	11000.00	57.3 PK	74.0	-16.7	1.92 V	157	48.6	8.7
7	11000.00	44.2 AV	54.0	-9.8	1.92 V	157	35.5	8.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 116：5580 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5580.00	99.7 PK			1.08 H	191	58.8	40.9
2	*5580.00	86.8 AV			1.08 H	191	45.9	40.9
3	11160.00	57.0 PK	74.0	-17.0	1.42 H	189	48.2	8.8
4	11160.00	43.8 AV	54.0	-10.2	1.42 H	189	35.0	8.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5580.00	104.7 PK			1.08 V	166	63.8	40.9
2	*5580.00	92.1 AV			1.08 V	166	51.2	40.9
3	11160.00	57.4 PK	74.0	-16.6	2.01 V	157	48.6	8.8
4	11160.00	44.4 AV	54.0	-9.6	2.01 V	157	35.6	8.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 140：5700 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5700.00	102.9 PK			1.10 H	191	61.5	41.4
2	*5700.00	90.2 AV			1.10 H	191	48.8	41.4
3	#5725.00	59.5 PK	68.2	-8.7	1.10 H	191	55.8	3.7
4	11400.00	57.6 PK	74.0	-16.4	1.47 H	188	48.1	9.5
5	11400.00	44.5 AV	54.0	-9.5	1.47 H	188	35.0	9.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5700.00	107.3 PK			1.02 V	168	65.9	41.4
2	*5700.00	94.7 AV			1.02 V	168	53.3	41.4
3	#5725.00	59.8 PK	68.2	-8.4	1.02 V	168	56.1	3.7
4	11400.00	58.0 PK	74.0	-16.0	1.99 V	153	48.5	9.5
5	11400.00	44.9 AV	54.0	-9.1	1.99 V	153	35.4	9.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	**Channel**	CH 102：5510 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	57.1 PK	74.0	-16.9	1.07 H	192	55.0	2.1
2	5460.00	44.3 AV	54.0	-9.7	1.07 H	192	42.2	2.1
3	#5470.00	57.9 PK	68.2	-10.3	1.07 H	192	55.8	2.1
4	*5510.00	96.3 PK			1.07 H	192	56.0	40.3
5	*5510.00	83.2 AV			1.07 H	192	42.9	40.3
6	11020.00	56.7 PK	74.0	-17.3	1.47 H	187	48.0	8.7
7	11020.00	42.9 AV	54.0	-11.1	1.47 H	187	34.2	8.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	57.3 PK	74.0	-16.7	1.00 V	170	55.2	2.1
2	5460.00	44.7 AV	54.0	-9.3	1.00 V	170	42.6	2.1
3	#5470.00	58.2 PK	68.2	-10.0	1.00 V	170	56.1	2.1
4	*5510.00	101.3 PK			1.00 V	170	61.0	40.3
5	*5510.00	88.0 AV			1.00 V	170	47.7	40.3
6	11020.00	56.9 PK	74.0	-17.1	1.95 V	158	48.2	8.7
7	11020.00	43.3 AV	54.0	-10.7	1.95 V	158	34.6	8.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	**Channel**	CH 110：5550 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5550.00	97.6 PK			1.08 H	190	57.0	40.6
2	*5550.00	84.0 AV			1.08 H	190	43.4	40.6
3	11100.00	56.9 PK	74.0	-17.1	1.48 H	192	48.0	8.9
4	11100.00	42.9 AV	54.0	-11.1	1.48 H	192	34.0	8.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5550.00	102.0 PK			1.00 V	171	61.4	40.6
2	*5550.00	88.8 AV			1.00 V	171	48.2	40.6
3	11100.00	57.2 PK	74.0	-16.8	1.99 V	162	48.3	8.9
4	11100.00	43.4 AV	54.0	-10.6	1.99 V	162	34.5	8.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11ax (HE40)	**Channel**	CH 134：5670 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5670.00	99.7 PK			1.11 H	192	58.3	41.4
2	*5670.00	86.8 AV			1.11 H	192	45.4	41.4
3	#5725.00	59.1 PK	68.2	-9.1	1.11 H	192	55.4	3.7
4	11340.00	57.5 PK	74.0	-16.5	1.47 H	188	48.0	9.5
5	11340.00	43.3 AV	54.0	-10.7	1.47 H	188	33.8	9.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	*5670.00	104.1 PK			1.04 V	166	62.7	41.4
2	*5670.00	91.0 AV			1.04 V	166	49.6	41.4
3	#5725.00	59.3 PK	68.2	-8.9	1.04 V	166	55.6	3.7
4	11340.00	57.8 PK	74.0	-16.2	2.02 V	161	48.3	9.5
5	11340.00	44.0 AV	54.0	-10.0	2.02 V	161	34.5	9.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	**Channel**	CH 106：5530 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	57.3 PK	74.0	-16.7	1.11 H	191	55.2	2.1
2	5460.00	44.3 AV	54.0	-9.7	1.11 H	191	42.2	2.1
3	#5470.00	57.8 PK	68.2	-10.4	1.11 H	191	55.7	2.1
4	*5530.00	94.9 PK			1.11 H	191	54.5	40.4
5	*5530.00	82.2 AV			1.11 H	191	41.8	40.4
6	#5725.00	59.4 PK	68.2	-8.8	1.11 H	191	55.7	3.7
7	11060.00	56.5 PK	74.0	-17.5	1.47 H	188	47.7	8.8
8	11060.00	42.3 AV	54.0	-11.7	1.47 H	188	33.5	8.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	57.6 PK	74.0	-16.4	1.01 V	160	55.5	2.1
2	5460.00	44.7 AV	54.0	-9.3	1.01 V	160	42.6	2.1
3	#5470.00	58.9 PK	68.2	-9.3	1.01 V	160	56.8	2.1
4	*5530.00	98.4 PK			1.01 V	160	58.0	40.4
5	*5530.00	86.1 AV			1.01 V	160	45.7	40.4
6	#5725.00	59.7 PK	68.2	-8.5	1.01 V	160	56.0	3.7
7	11060.00	56.8 PK	74.0	-17.2	1.92 V	165	48.0	8.8
8	11060.00	42.6 AV	54.0	-11.4	1.92 V	165	33.8	8.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	**Channel**	CH 122：5610 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	56.9 PK	74.0	-17.1	1.13 H	192	54.8	2.1
2	5460.00	44.2 AV	54.0	-9.8	1.13 H	192	42.1	2.1
3	#5470.00	57.7 PK	68.2	-10.5	1.13 H	192	55.6	2.1
4	*5610.00	95.6 PK			1.13 H	192	54.5	41.1
5	*5610.00	83.1 AV			1.13 H	192	42.0	41.1
6	#5725.00	59.0 PK	68.2	-9.2	1.13 H	192	55.3	3.7
7	11220.00	56.4 PK	74.0	-17.6	1.45 H	185	47.5	8.9
8	11220.00	42.1 AV	54.0	-11.9	1.45 H	185	33.2	8.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	5460.00	57.1 PK	74.0	-16.9	1.08 V	164	55.0	2.1
2	5460.00	44.4 AV	54.0	-9.6	1.08 V	164	42.3	2.1
3	#5470.00	57.9 PK	68.2	-10.3	1.08 V	164	55.8	2.1
4	*5610.00	99.9 PK			1.08 V	164	58.8	41.1
5	*5610.00	87.1 AV			1.08 V	164	46.0	41.1
6	#5725.00	59.4 PK	68.2	-8.8	1.08 V	164	55.7	3.7
7	11220.00	57.0 PK	74.0	-17.0	1.94 V	167	48.1	8.9
8	11220.00	42.5 AV	54.0	-11.5	1.94 V	167	33.6	8.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	**Channel**	CH 149：5745 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5617.60	58.5 PK	68.2	-9.7	1.20 H	192	55.2	3.3
2	*5745.00	99.6 PK			1.20 H	192	57.9	41.7
3	*5745.00	89.5 AV			1.20 H	192	47.8	41.7
4	#5976.40	58.7 PK	68.2	-9.5	1.20 H	192	54.7	4.0
5	11490.00	57.8 PK	74.0	-16.2	1.48 H	189	48.2	9.6
6	11490.00	44.6 AV	54.0	-9.4	1.48 H	189	35.0	9.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5642.80	59.0 PK	68.2	-9.2	1.09 V	162	55.6	3.4
2	*5745.00	103.3 PK			1.09 V	162	61.6	41.7
3	*5745.00	93.7 AV			1.09 V	162	52.0	41.7
4	#5973.20	59.2 PK	68.2	-9.0	1.09 V	162	55.2	4.0
5	11490.00	58.1 PK	74.0	-15.9	1.88 V	163	48.5	9.6
6	11490.00	44.9 AV	54.0	-9.1	1.88 V	163	35.3	9.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.

RF Mode	TX 802.11a	**Channel**	CH 157：5785 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5629.20	59.4 PK	68.2	-8.8	1.20 H	191	56.1	3.3
2	*5785.00	100.6 PK			1.20 H	191	58.8	41.8
3	*5785.00	90.6 AV			1.20 H	191	48.8	41.8
4	#5988.00	59.3 PK	68.2	-8.9	1.20 H	191	55.3	4.0
5	11570.00	57.8 PK	74.0	-16.2	1.59 H	191	48.2	9.6
6	11570.00	44.6 AV	54.0	-9.4	1.59 H	191	35.0	9.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5628.00	58.6 PK	68.2	-9.6	1.05 V	163	55.3	3.3
2	*5785.00	104.2 PK			1.05 V	163	62.4	41.8
3	*5785.00	94.5 AV			1.05 V	163	52.7	41.8
4	#5952.80	58.6 PK	68.2	-9.6	1.05 V	163	54.8	3.8
5	11570.00	58.2 PK	74.0	-15.8	1.85 V	165	48.6	9.6
6	11570.00	45.0 AV	54.0	-9.0	1.85 V	165	35.4	9.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11a	**Channel**	CH 165：5825 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5634.00	58.7 PK	68.2	-9.5	1.22 H	202	55.4	3.3
2	*5825.00	100.0 PK			1.22 H	202	58.2	41.8
3	*5825.00	90.3 AV			1.22 H	202	48.5	41.8
4	#5992.00	58.4 PK	68.2	-9.8	1.22 H	202	54.3	4.1
5	11650.00	57.5 PK	74.0	-16.5	1.55 H	184	48.0	9.5
6	11650.00	44.2 AV	54.0	-9.8	1.55 H	184	34.7	9.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5639.20	59.2 PK	68.2	-9.0	1.04 V	164	55.8	3.4
2	*5825.00	103.9 PK			1.04 V	164	62.1	41.8
3	*5825.00	94.5 AV			1.04 V	164	52.7	41.8
4	#5969.20	59.5 PK	68.2	-8.7	1.04 V	164	55.6	3.9
5	11650.00	57.9 PK	74.0	-16.1	1.85 V	168	48.4	9.5
6	11650.00	44.7 AV	54.0	-9.3	1.85 V	168	35.2	9.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 149：5745 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5642.80	58.6 PK	68.2	-9.6	1.11 H	190	55.2	3.4
2	*5745.00	103.2 PK			1.11 H	190	61.5	41.7
3	*5745.00	90.5 AV			1.11 H	190	48.8	41.7
4	#5951.20	58.6 PK	68.2	-9.6	1.11 H	190	54.8	3.8
5	11490.00	57.6 PK	74.0	-16.4	1.56 H	187	48.0	9.6
6	11490.00	44.2 AV	54.0	-9.8	1.56 H	187	34.6	9.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5642.80	58.6 PK	68.2	-9.6	1.02 V	165	55.2	3.4
2	*5745.00	107.0 PK			1.02 V	165	65.3	41.7
3	*5745.00	94.2 AV			1.02 V	165	52.5	41.7
4	#5998.80	59.3 PK	68.2	-8.9	1.02 V	165	55.1	4.2
5	11490.00	58.1 PK	74.0	-15.9	1.85 V	166	48.5	9.6
6	11490.00	45.0 AV	54.0	-9.0	1.85 V	166	35.4	9.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 157：5785 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5630.80	58.2 PK	68.2	-10.0	1.21 H	191	54.9	3.3
2	*5785.00	103.9 PK			1.21 H	191	62.1	41.8
3	*5785.00	91.3 AV			1.21 H	191	49.5	41.8
4	#5992.80	58.5 PK	68.2	-9.7	1.21 H	191	54.4	4.1
5	11570.00	57.6 PK	74.0	-16.4	1.59 H	192	48.0	9.6
6	11570.00	44.3 AV	54.0	-9.7	1.59 H	192	34.7	9.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5629.20	57.7 PK	68.2	-10.5	1.00 V	173	54.4	3.3
2	*5785.00	106.6 PK			1.00 V	173	64.8	41.8
3	*5785.00	94.7 AV			1.00 V	173	52.9	41.8
4	#5991.20	58.7 PK	68.2	-9.5	1.00 V	173	54.6	4.1
5	11570.00	58.0 PK	74.0	-16.0	1.82 V	167	48.4	9.6
6	11570.00	44.8 AV	54.0	-9.2	1.82 V	167	35.2	9.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE20)	**Channel**	CH 165：5825 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5622.40	58.2 PK	68.2	-10.0	1.19 H	202	54.9	3.3
2	*5825.00	103.2 PK			1.19 H	202	61.4	41.8
3	*5825.00	90.7 AV			1.19 H	202	48.9	41.8
4	#5996.00	58.6 PK	68.2	-9.6	1.19 H	202	54.4	4.2
5	11650.00	57.7 PK	74.0	-16.3	1.59 H	187	48.2	9.5
6	11650.00	44.3 AV	54.0	-9.7	1.59 H	187	34.8	9.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5641.60	57.7 PK	68.2	-10.5	1.08 V	164	54.3	3.4
2	*5825.00	106.7 PK			1.08 V	164	64.9	41.8
3	*5825.00	94.4 AV			1.08 V	164	52.6	41.8
4	#5990.80	57.8 PK	68.2	-10.4	1.08 V	164	53.7	4.1
5	11650.00	58.1 PK	74.0	-15.9	1.88 V	169	48.6	9.5
6	11650.00	45.0 AV	54.0	-9.0	1.88 V	169	35.5	9.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	**Channel**	CH 151：5755 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5626.00	58.2 PK	68.2	-10.0	1.08 H	190	54.9	3.3
2	*5755.00	99.2 PK			1.08 H	190	57.4	41.8
3	*5755.00	87.6 AV			1.08 H	190	45.8	41.8
4	#5994.00	59.2 PK	68.2	-9.0	1.08 H	190	55.0	4.2
5	11510.00	57.2 PK	74.0	-16.8	1.56 H	195	47.6	9.6
6	11510.00	43.2 AV	54.0	-10.8	1.56 H	195	33.6	9.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5626.40	58.8 PK	68.2	-9.4	1.11 V	173	55.5	3.3
2	*5755.00	104.8 PK			1.11 V	173	63.0	41.8
3	*5755.00	92.0 AV			1.11 V	173	50.2	41.8
4	#5979.20	58.6 PK	68.2	-9.6	1.11 V	173	54.6	4.0
5	11510.00	57.6 PK	74.0	-16.4	1.89 V	162	48.0	9.6
6	11510.00	43.8 AV	54.0	-10.2	1.89 V	162	34.2	9.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE40)	**Channel**	CH 159：5795 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5646.00	58.2 PK	68.2	-10.0	1.08 H	190	54.8	3.4
2	*5795.00	101.1 PK			1.08 H	190	59.3	41.8
3	*5795.00	88.0 AV			1.08 H	190	46.2	41.8
4	#5990.80	58.9 PK	68.2	-9.3	1.08 H	190	54.8	4.1
5	11590.00	57.3 PK	74.0	-16.7	1.55 H	188	47.8	9.5
6	11590.00	43.3 AV	54.0	-10.7	1.55 H	188	33.8	9.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5603.20	58.1 PK	68.2	-10.1	1.11 V	169	54.9	3.2
2	*5795.00	105.2 PK			1.11 V	169	63.4	41.8
3	*5795.00	92.6 AV			1.11 V	169	50.8	41.8
4	#5932.80	58.5 PK	68.2	-9.7	1.11 V	169	54.8	3.7
5	11590.00	57.6 PK	74.0	-16.4	1.82 V	169	48.1	9.5
6	11590.00	43.8 AV	54.0	-10.2	1.82 V	169	34.3	9.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

RF Mode	TX 802.11ax (HE80)	**Channel**	CH 155：5775 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 66% RH
Tested By	TitanHsu		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5623.20	58.2 PK	68.2	-10.0	1.08 H	191	54.9	3.3
2	*5775.00	97.0 PK			1.08 H	191	55.3	41.7
3	*5775.00	84.7 AV			1.08 H	191	43.0	41.7
4	#5971.60	59.2 PK	68.2	-9.0	1.08 H	191	55.2	4.0
5	11550.00	56.8 PK	74.0	-17.2	1.53 H	192	47.2	9.6
6	11550.00	42.8 AV	54.0	-11.2	1.53 H	192	33.2	9.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	#5649.20	58.5 PK	68.2	-9.7	1.09 V	171	55.1	3.4
2	*5775.00	102.2 PK			1.09 V	171	60.5	41.7
3	*5775.00	89.4 AV			1.09 V	171	47.7	41.7
4	#5987.20	59.1 PK	68.2	-9.1	1.09 V	171	55.1	4.0
5	11550.00	57.1 PK	74.0	-16.9	1.92 V	165	47.5	9.6
6	11550.00	43.1 AV	54.0	-10.9	1.92 V	165	33.5	9.6

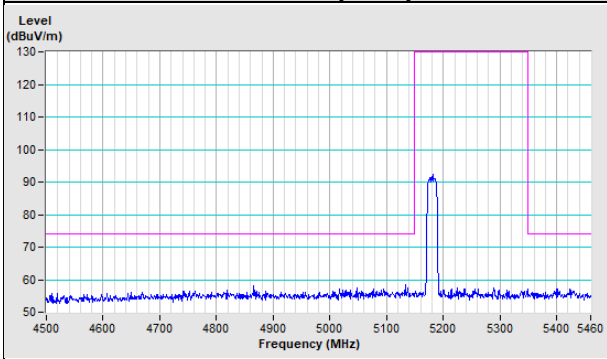
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

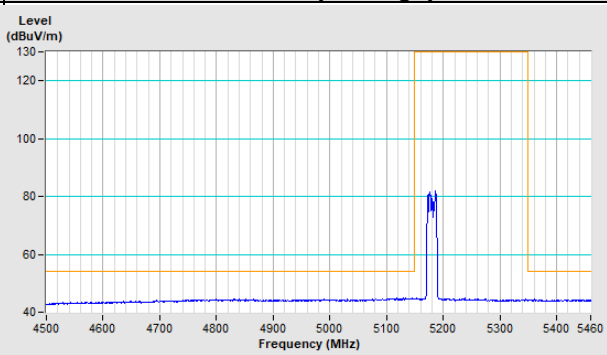
Plot of Band Edge

802.11a Channel 36

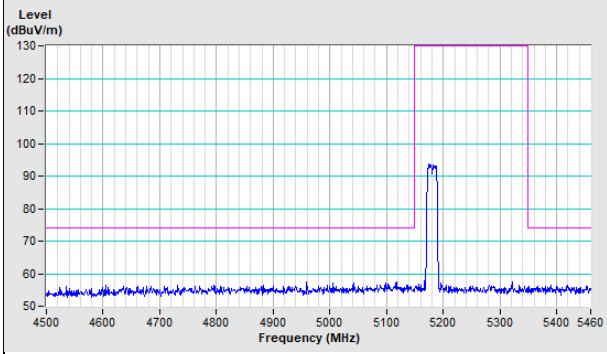
Horizontal (Peak)



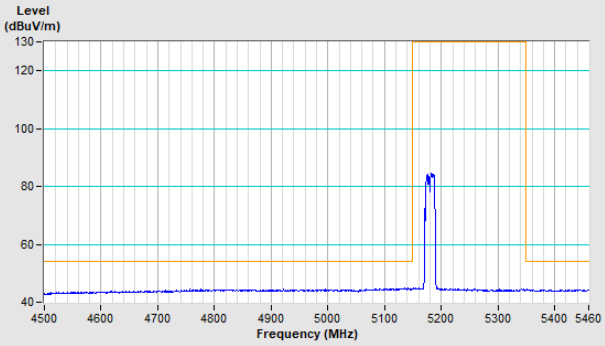
Horizontal (Average)



Vertical (Peak)

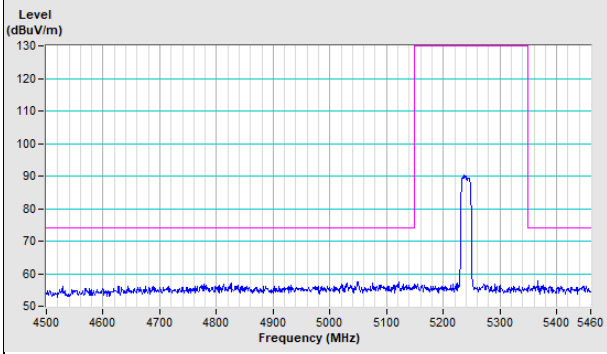


Vertical (Average)

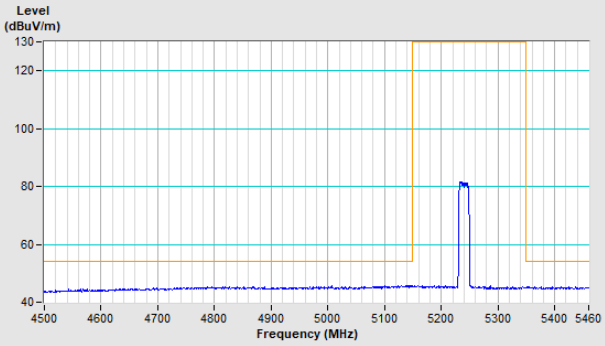


802.11a Channel 48

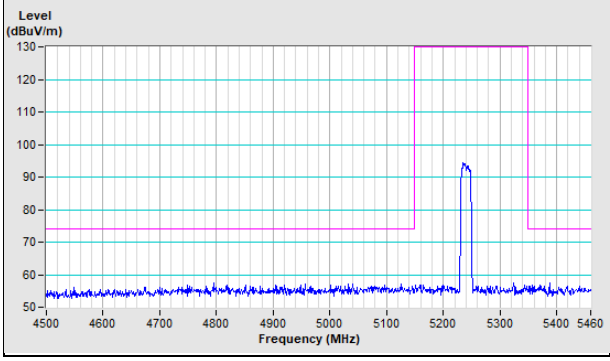
Horizontal (Peak)



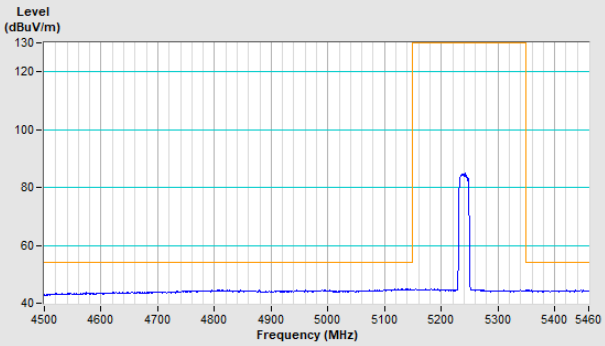
Horizontal (Average)



Vertical (Peak)

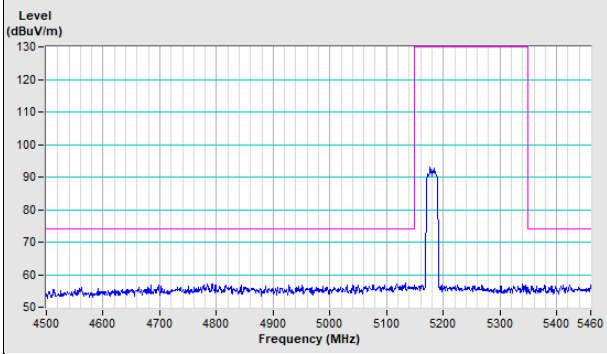


Vertical (Average)

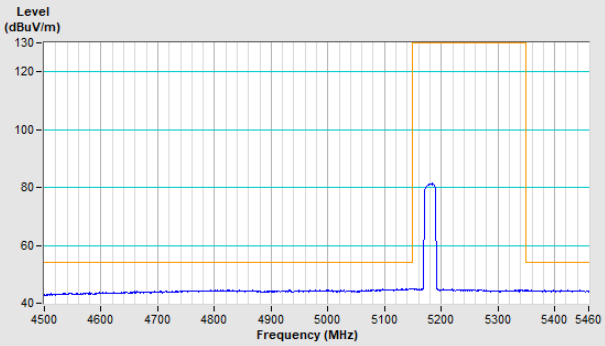


802.11ax (HE20) Channel 36

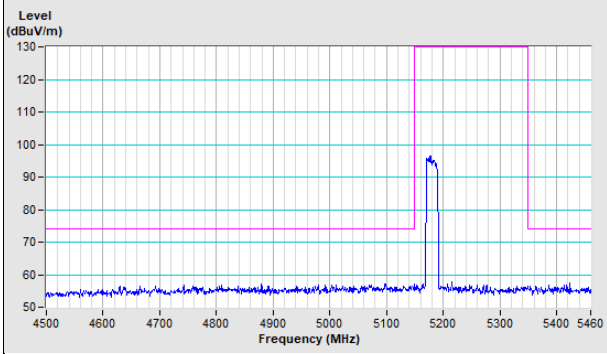
Horizontal (Peak)



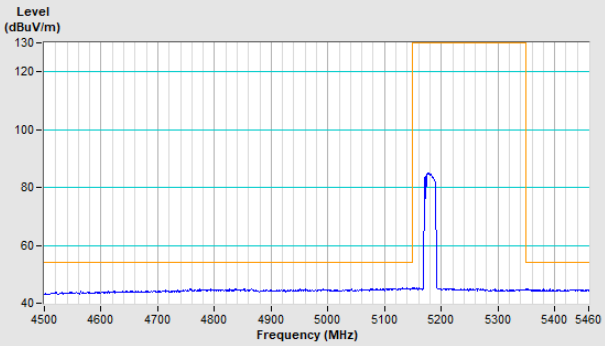
Horizontal (Average)



Vertical (Peak)

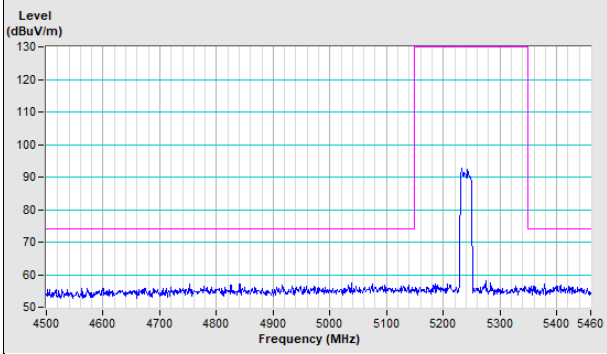


Vertical (Average)

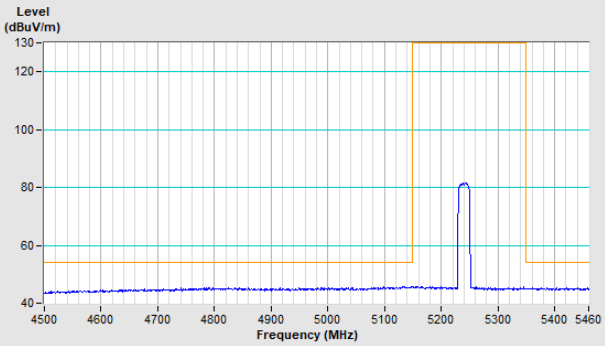


802.11ax (HE20) Channel 48

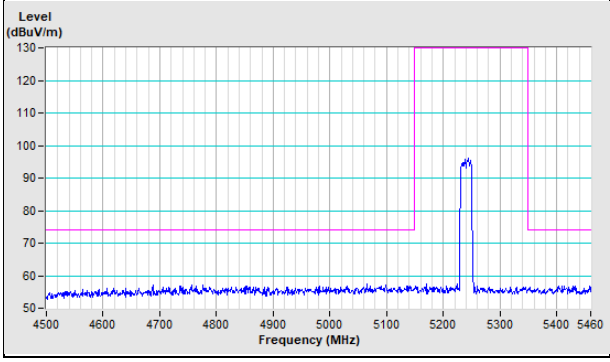
Horizontal (Peak)



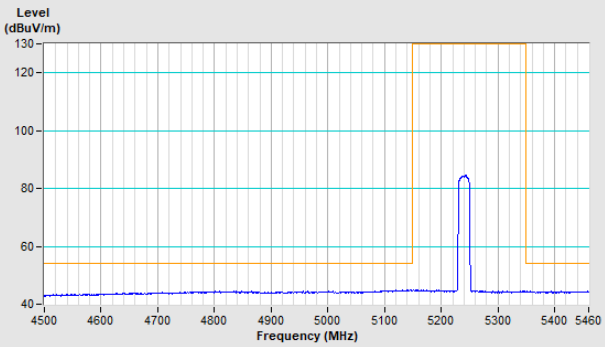
Horizontal (Average)



Vertical (Peak)

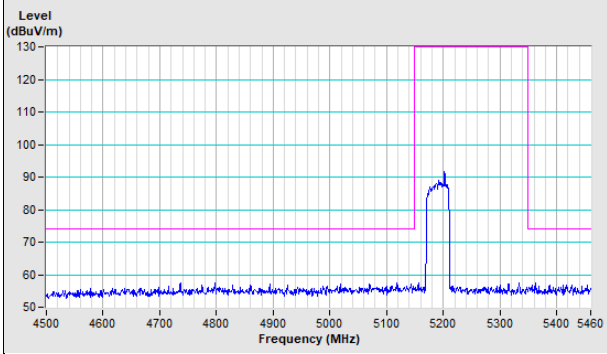


Vertical (Average)

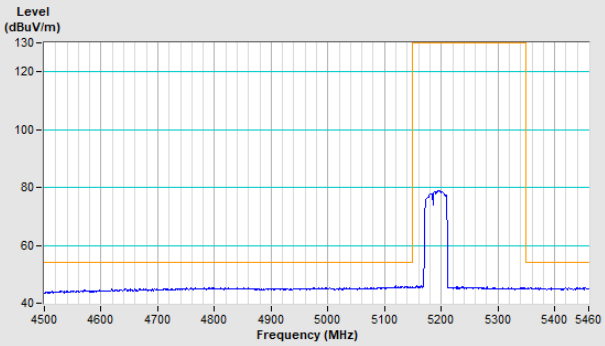


802.11ax (HE40) Channel 38

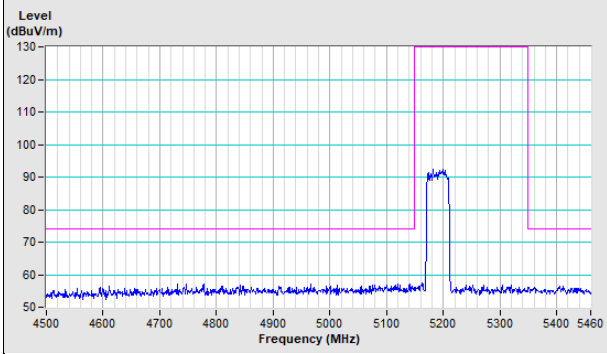
Horizontal (Peak)



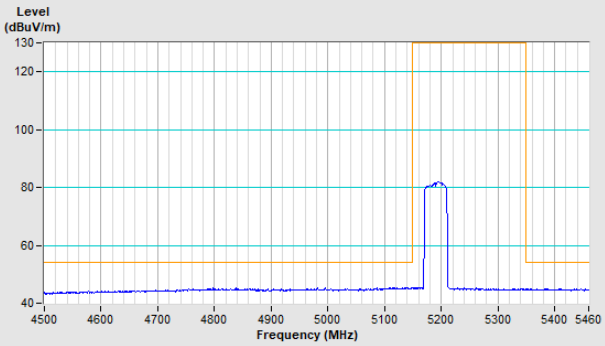
Horizontal (Average)



Vertical (Peak)

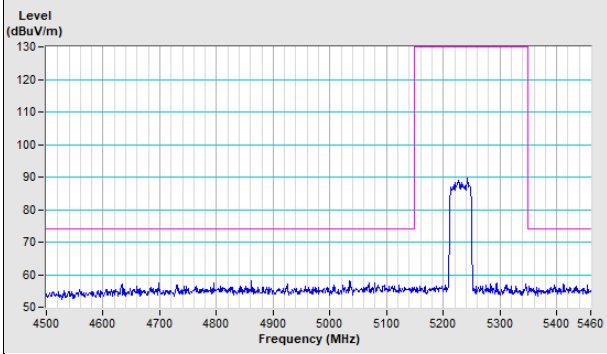


Vertical (Average)

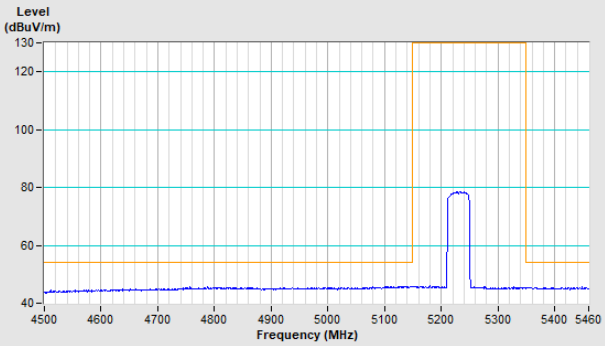


802.11ax (HE40) Channel 46

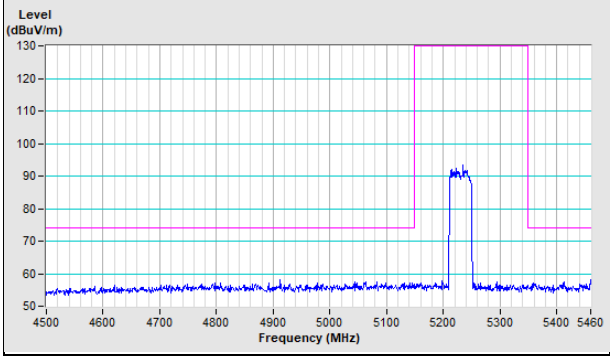
Horizontal (Peak)



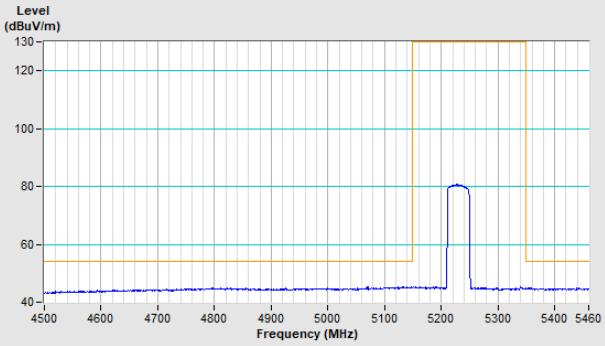
Horizontal (Average)

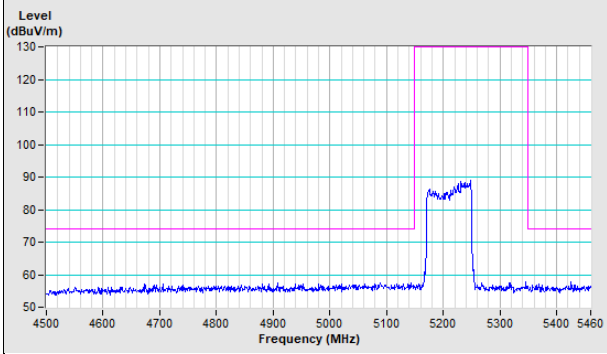
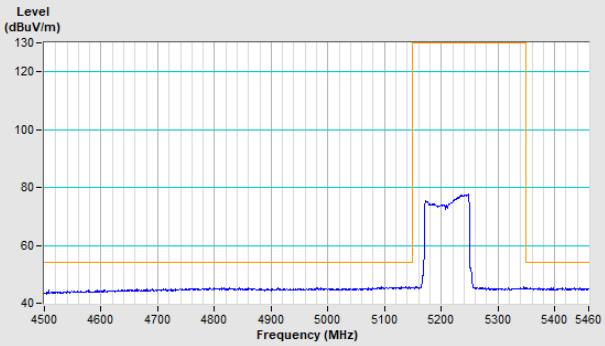
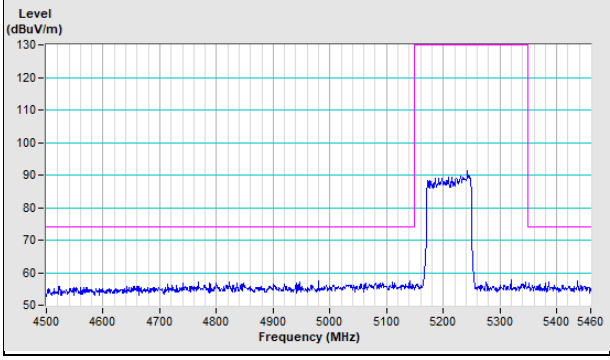
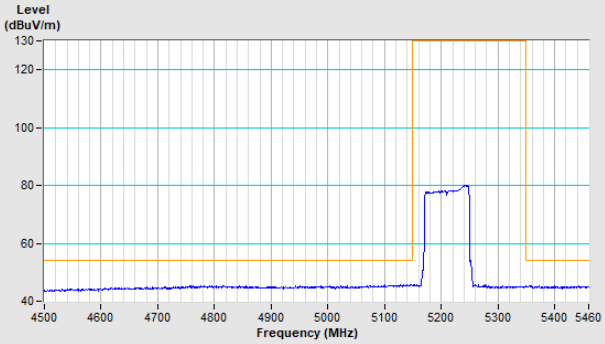


Vertical (Peak)



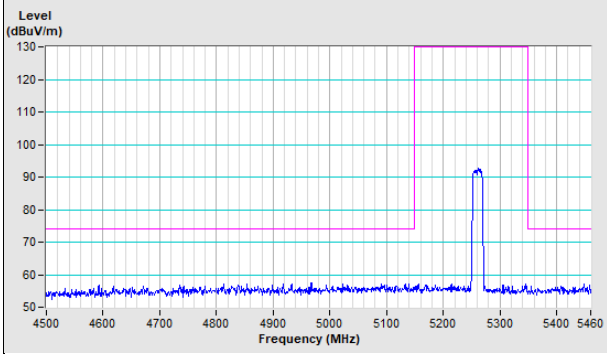
Vertical (Average)



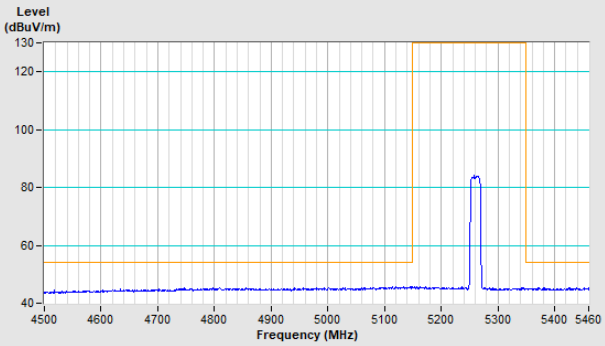
802.11ax (HE80) Channel 42	
Horizontal (Peak)	**Horizontal (Average)**
	
Vertical (Peak)	**Vertical (Average)**
	

802.11a Channel 52

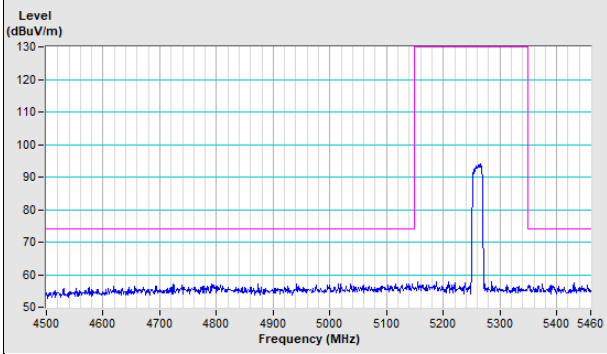
Horizontal (Peak)



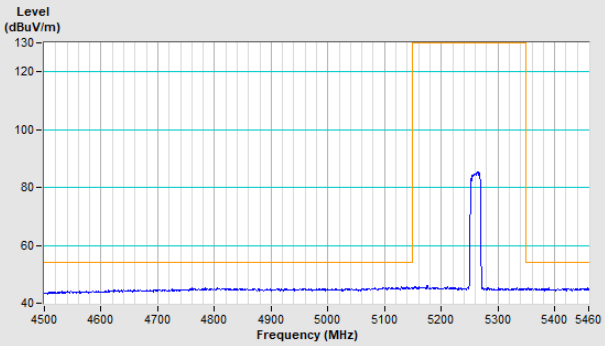
Horizontal (Average)



Vertical (Peak)

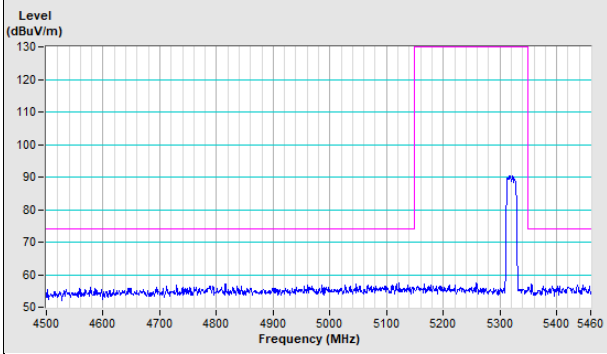


Vertical (Average)

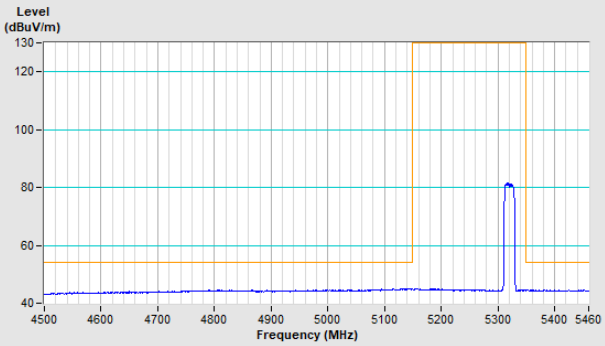


802.11a Channel 64

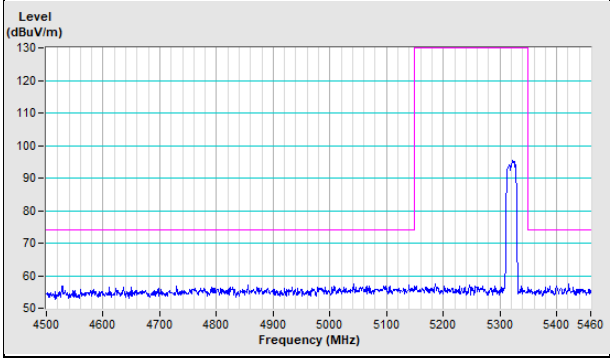
Horizontal (Peak)



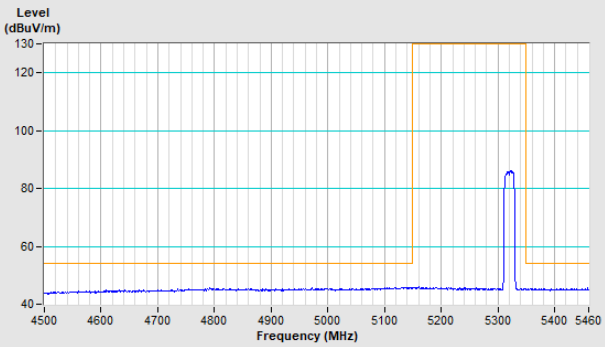
Horizontal (Average)



Vertical (Peak)

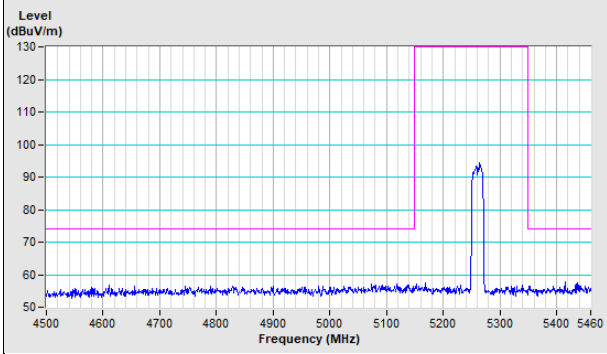


Vertical (Average)

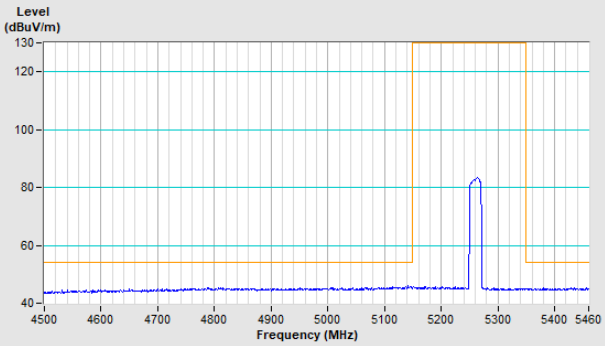


802.11ax (HE20) Channel 52

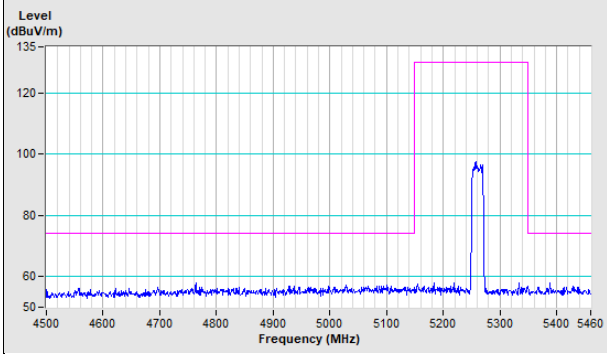
Horizontal (Peak)



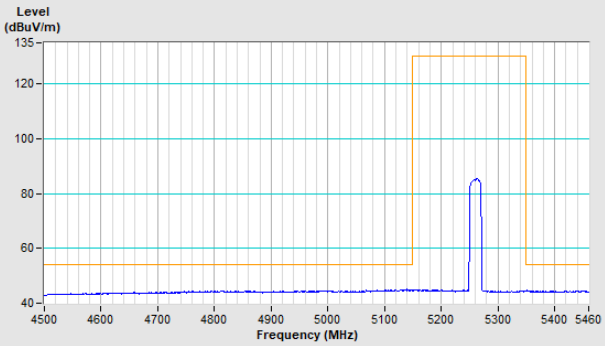
Horizontal (Average)



Vertical (Peak)

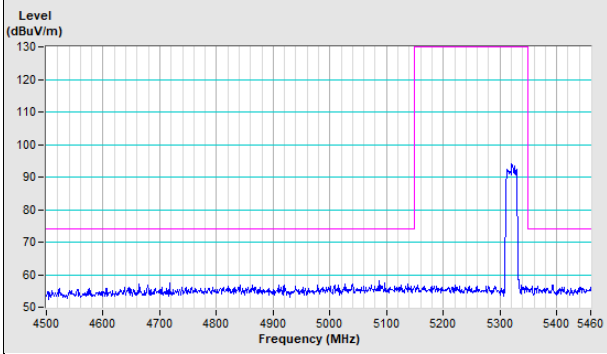


Vertical (Average)

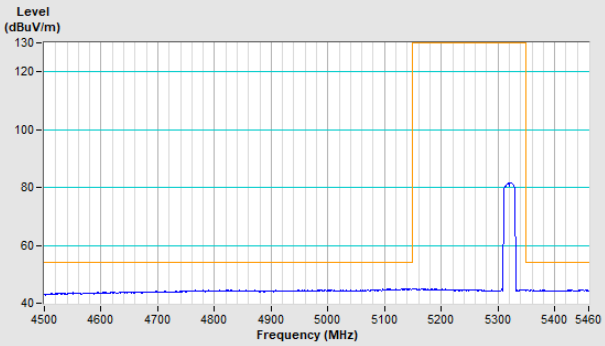


802.11ax (HE20) Channel 64

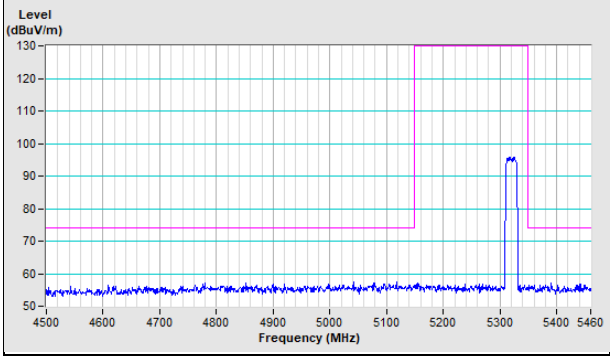
Horizontal (Peak)



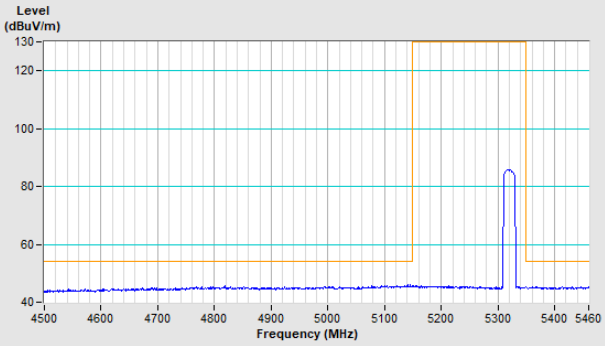
Horizontal (Average)



Vertical (Peak)

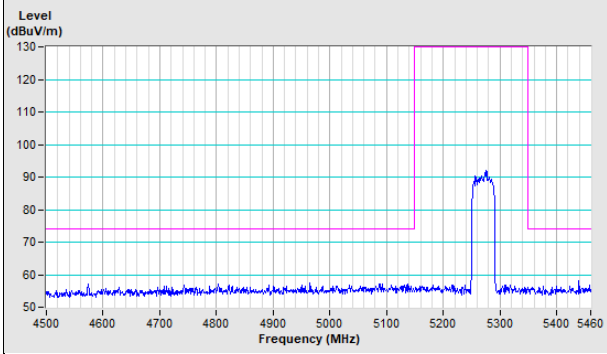


Vertical (Average)

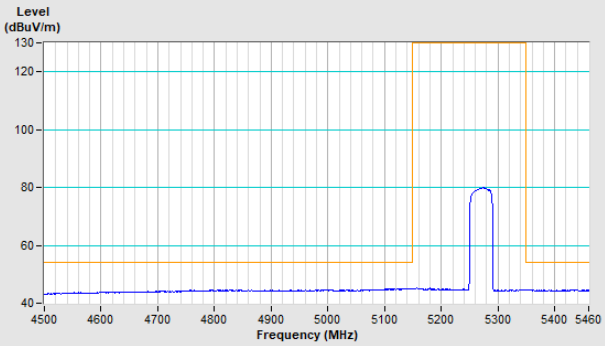


802.11ax (HE40) Channel 54

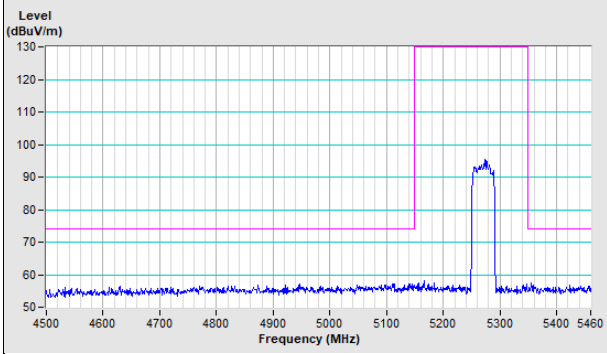
Horizontal (Peak)



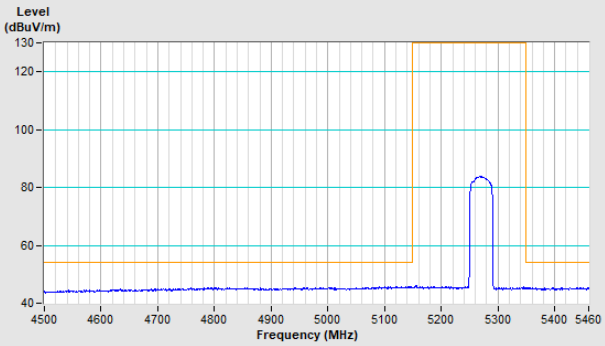
Horizontal (Average)



Vertical (Peak)

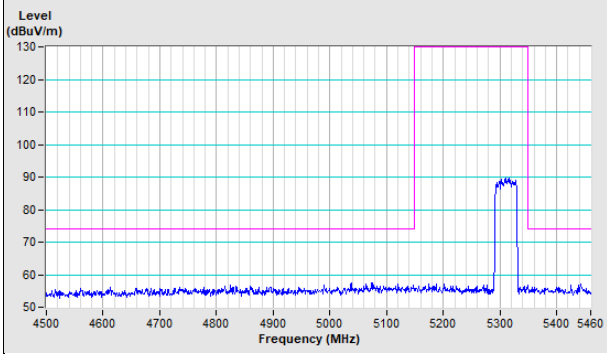


Vertical (Average)

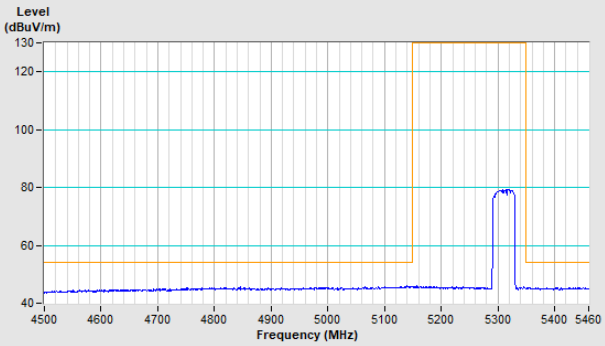


802.11ax (HE40) Channel 62

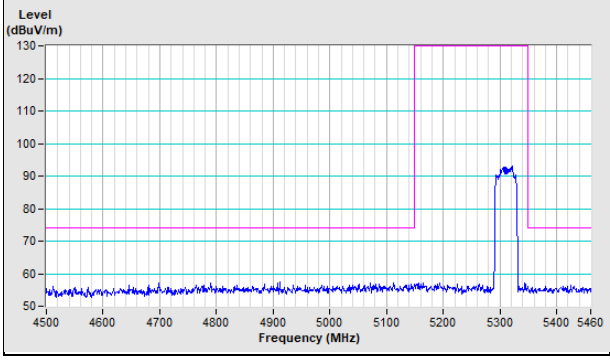
Horizontal (Peak)



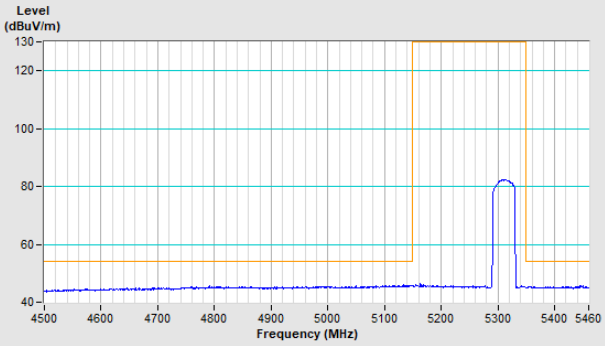
Horizontal (Average)



Vertical (Peak)

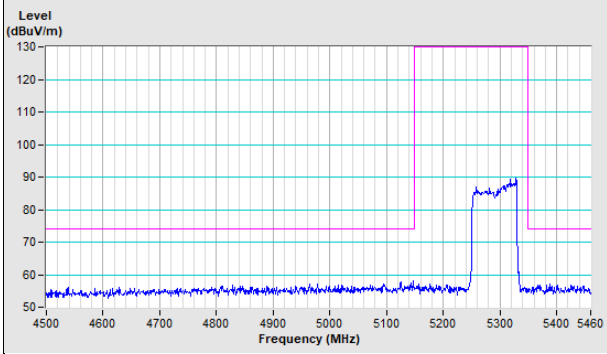


Vertical (Average)

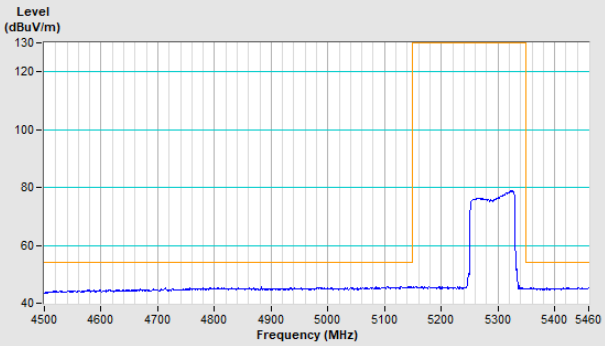


802.11ax (HE80) Channel 58

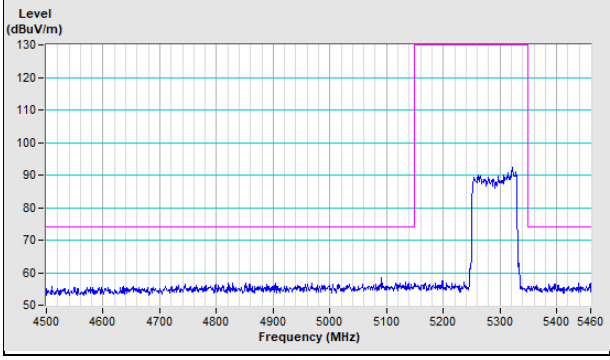
Horizontal (Peak)



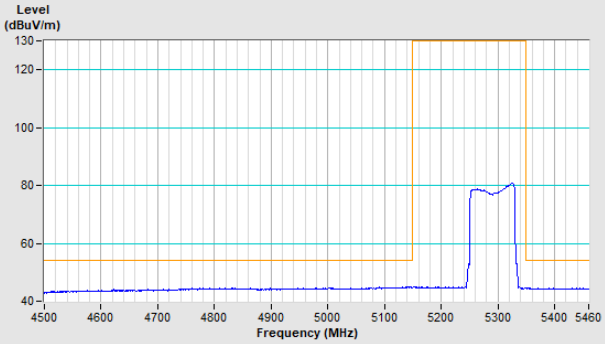
Horizontal (Average)



Vertical (Peak)

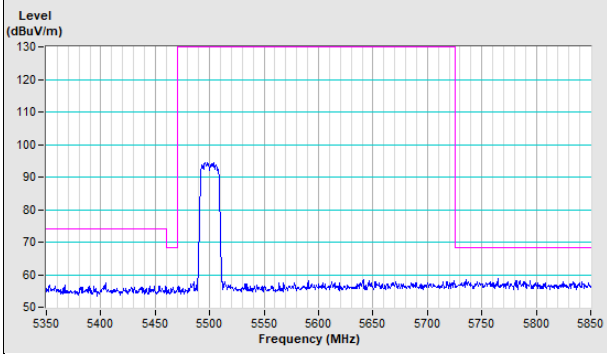


Vertical (Average)

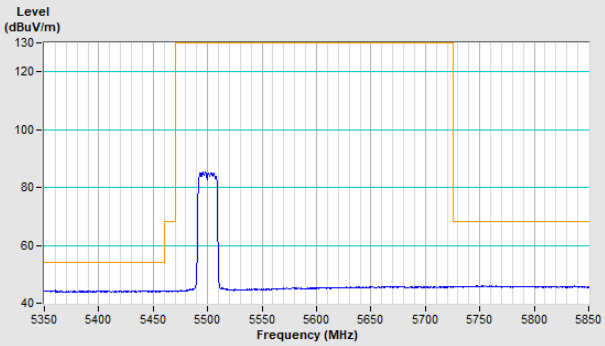


802.11a Channel 100

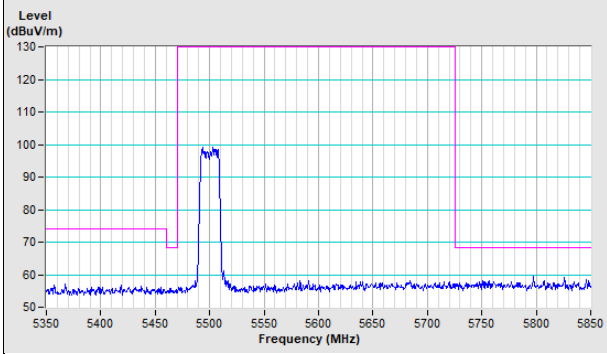
Horizontal (Peak)



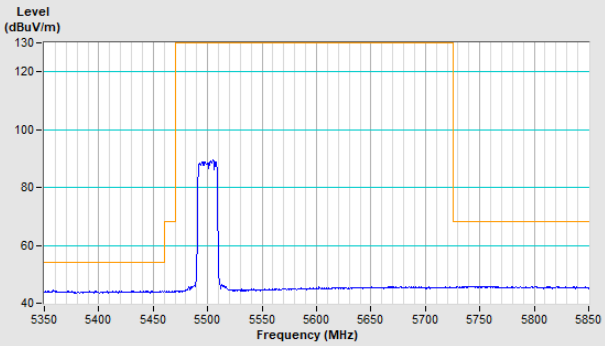
Horizontal (Average)



Vertical (Peak)

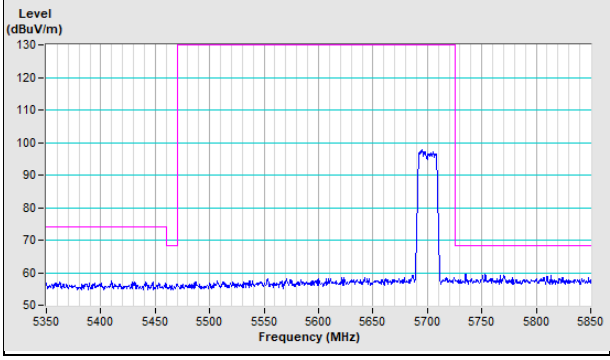


Vertical (Average)

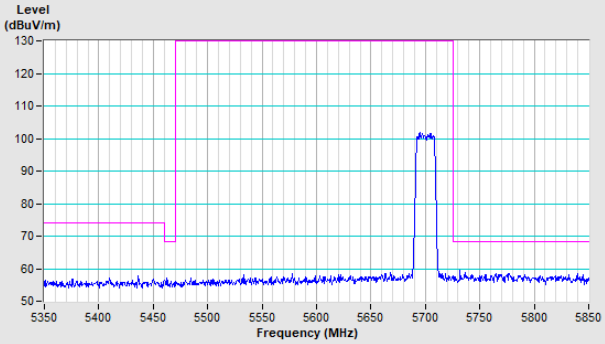


802.11a Channel 140

Horizontal (Peak)

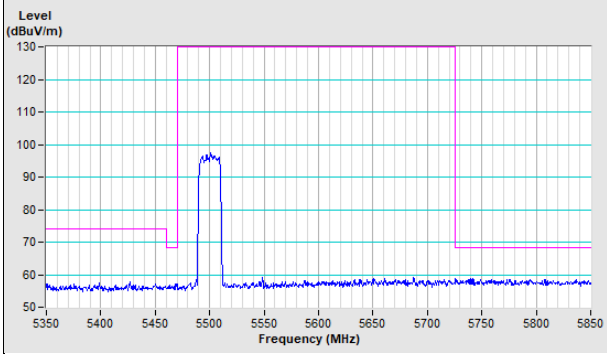


Vertical (Peak)

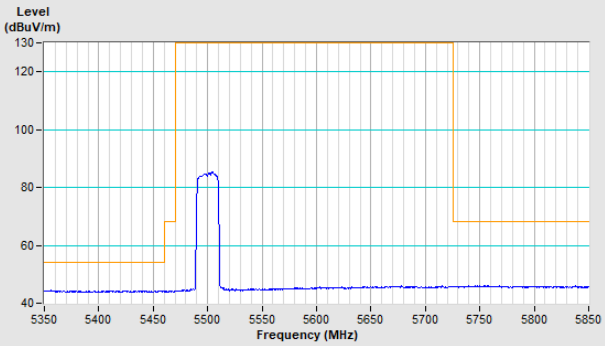


802.11ax (HE20) Channel 100

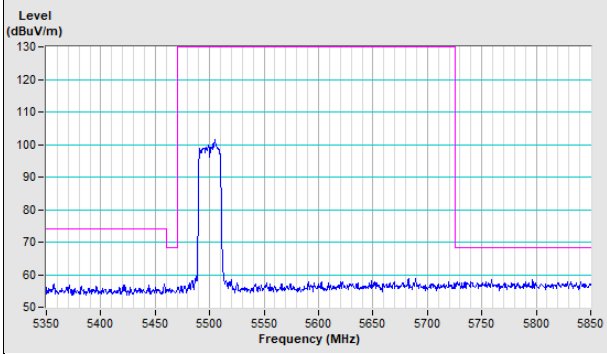
Horizontal (Peak)



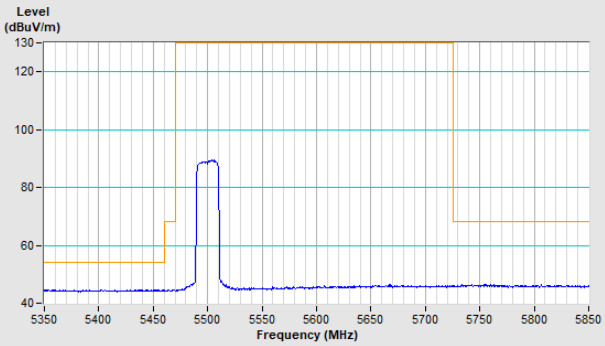
Horizontal (Average)



Vertical (Peak)

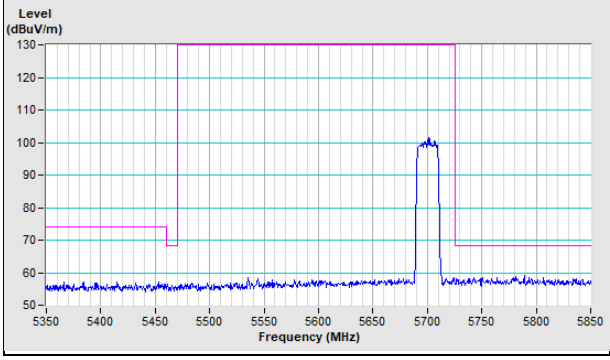


Vertical (Average)

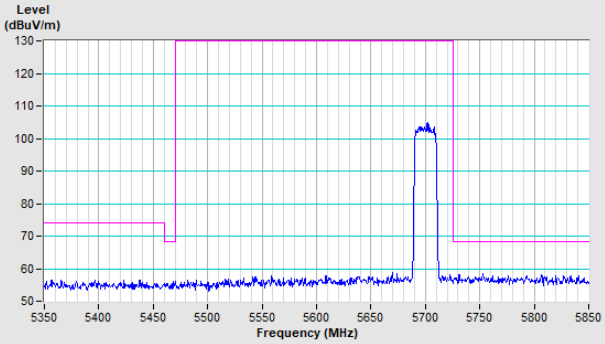


802.11ax (HE20) Channel 140

Horizontal (Peak)

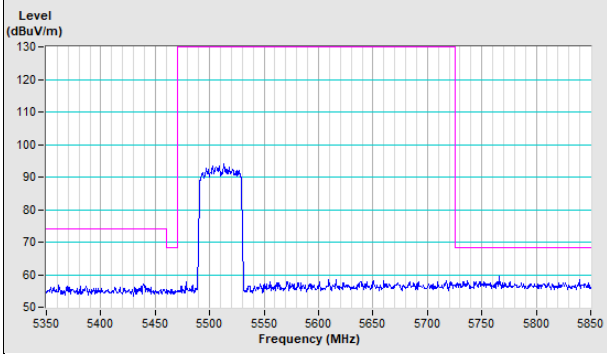


Vertical (Peak)

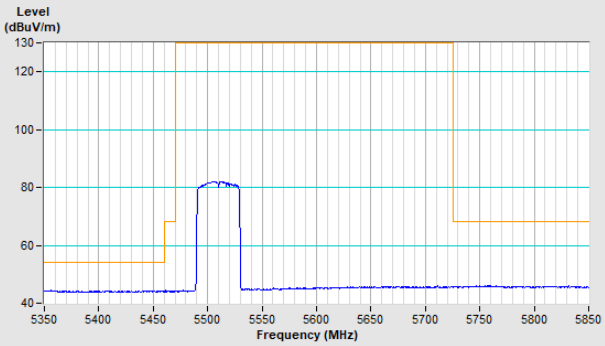


802.11ax (HE40) Channel 102

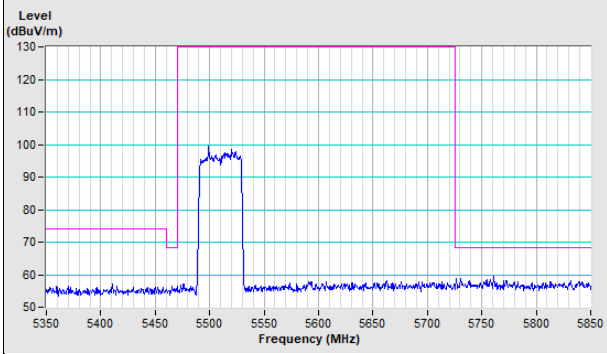
Horizontal (Peak)



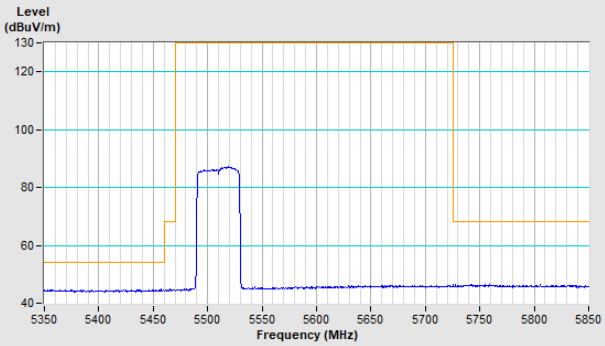
Horizontal (Average)



Vertical (Peak)

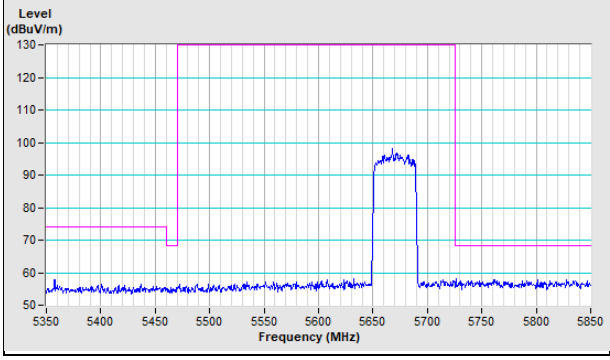


Vertical (Average)

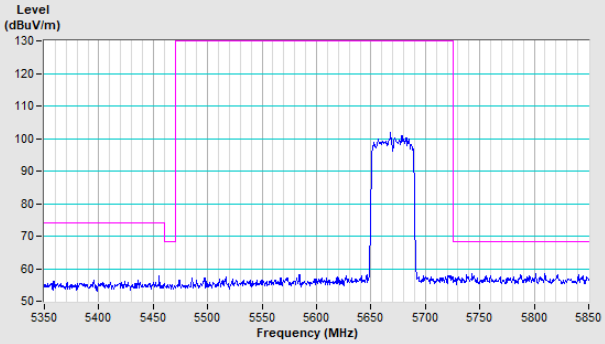


802.11ax (HE40) Channel 134

Horizontal (Peak)

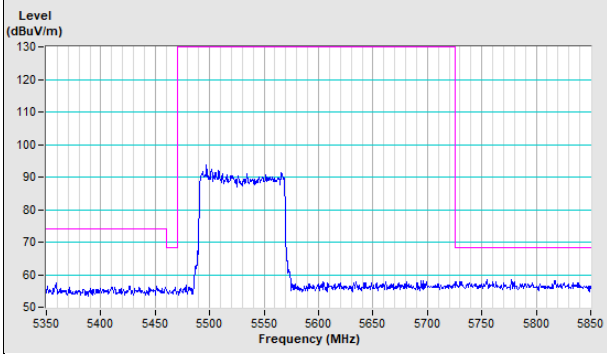


Vertical (Peak)

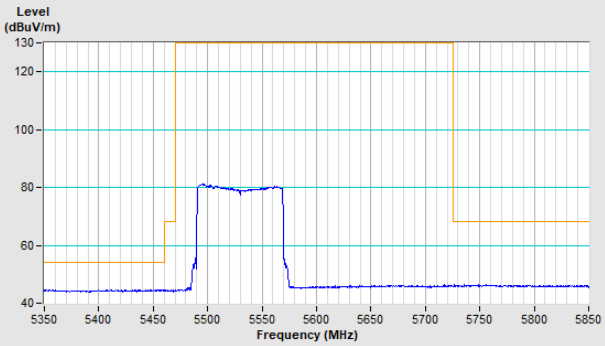


802.11ax (HE80) Channel 106

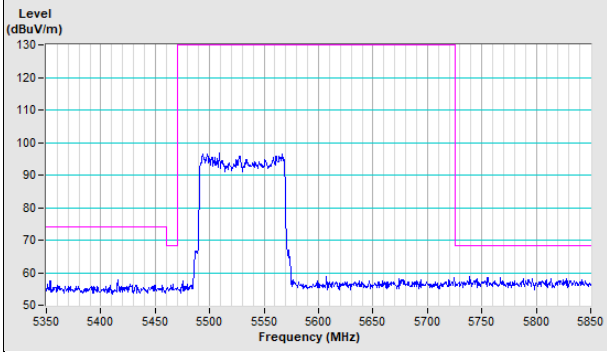
Horizontal (Peak)



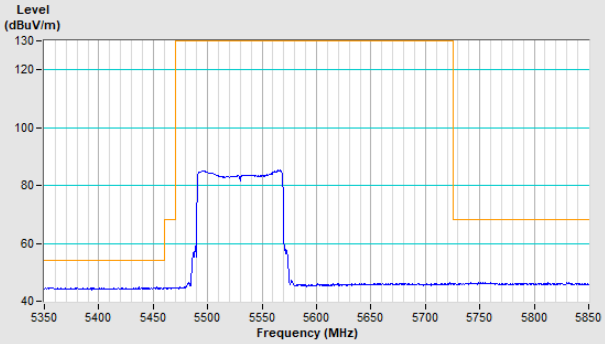
Horizontal (Average)



Vertical (Peak)

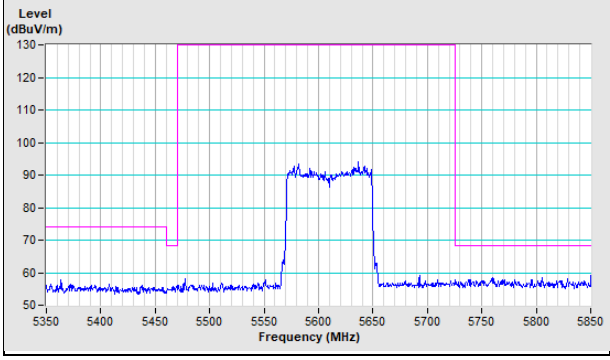


Vertical (Average)

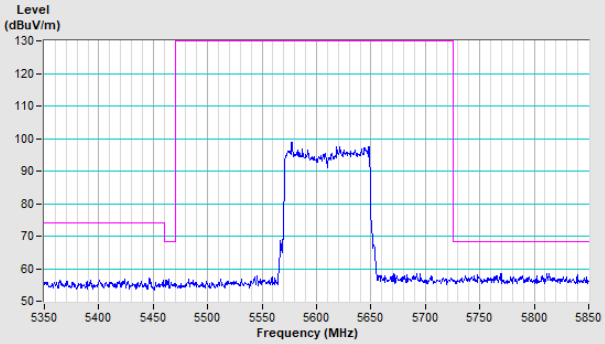


802.11ax (HE80) Channel 122

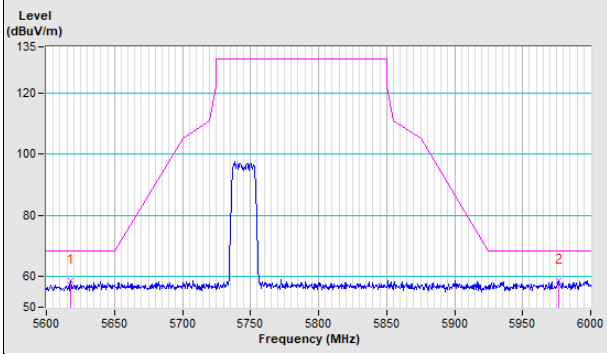
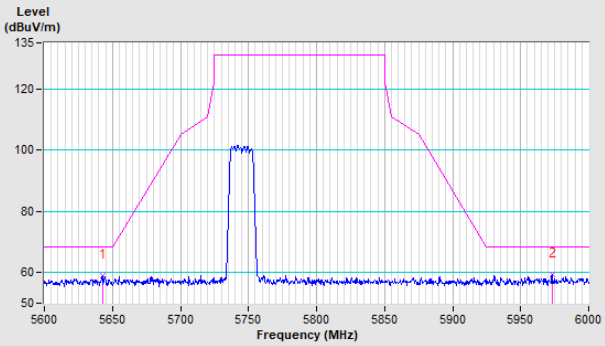
Horizontal (Peak)



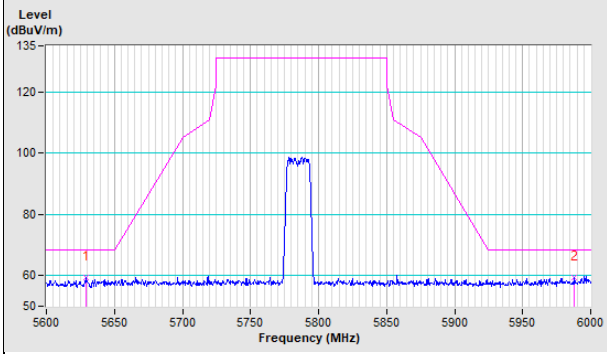
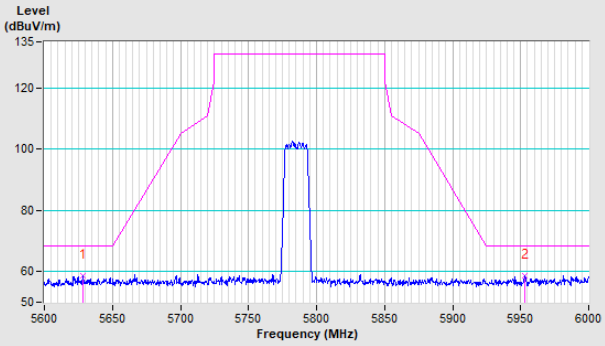
Vertical (Peak)



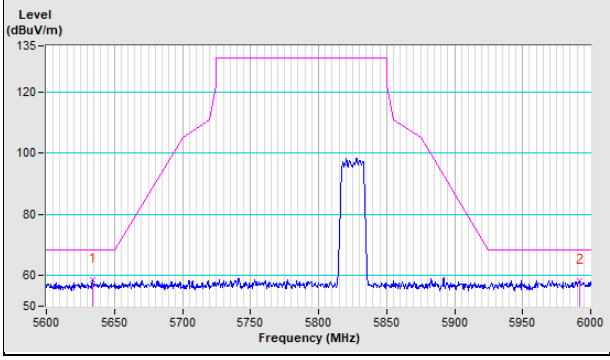
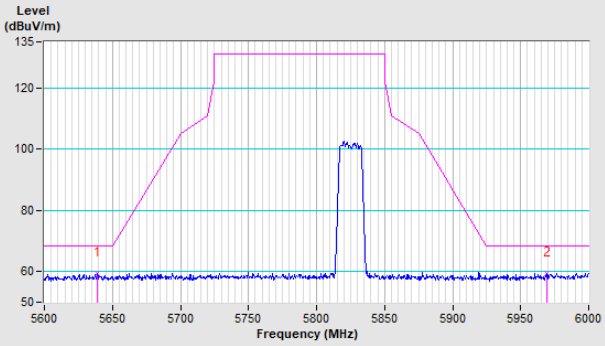
802.11a Channel 149

Horizontal (Peak)	Vertical (Peak)
	

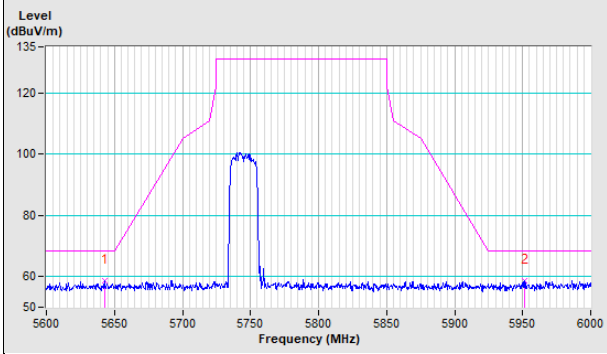
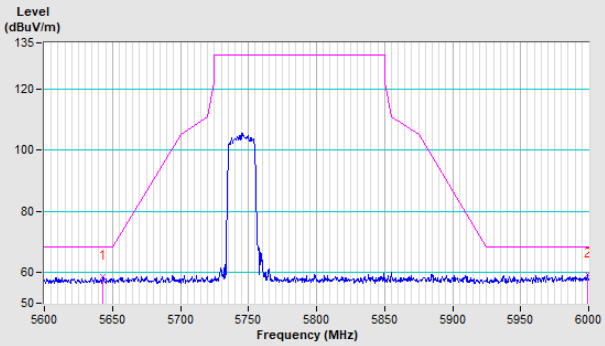
802.11a Channel 157

Horizontal (Peak)	Vertical (Peak)
	

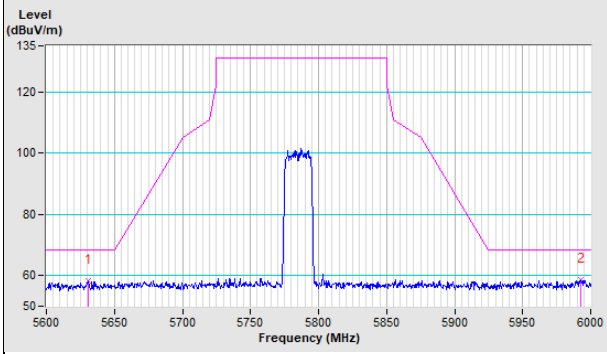
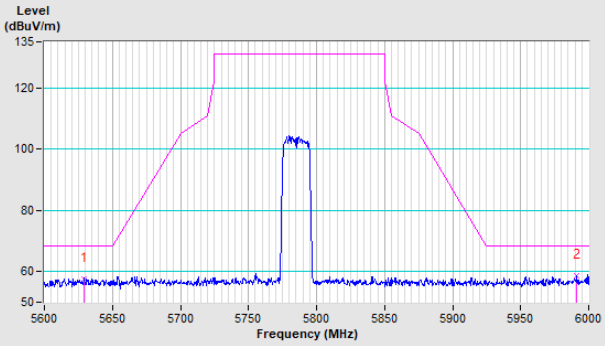
802.11a Channel 165

Horizontal (Peak)	Vertical (Peak)
	

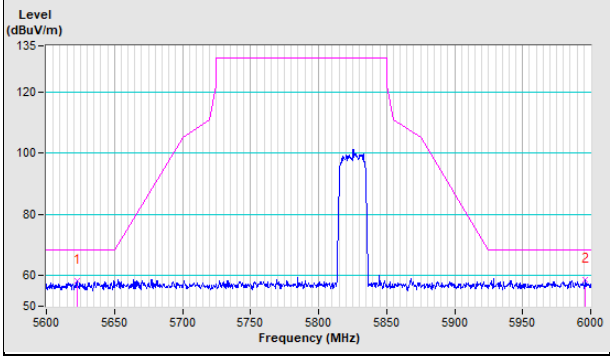
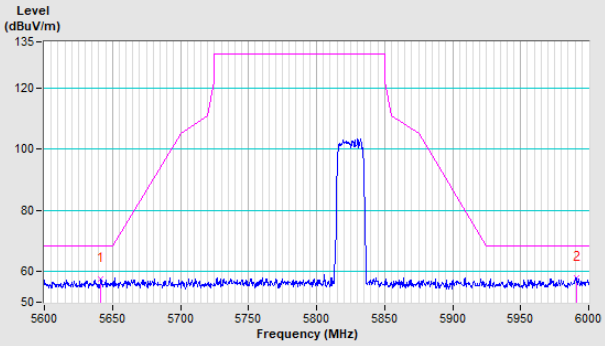
802.11ax (HE20) Channel 149

Horizontal (Peak)	Vertical (Peak)
	

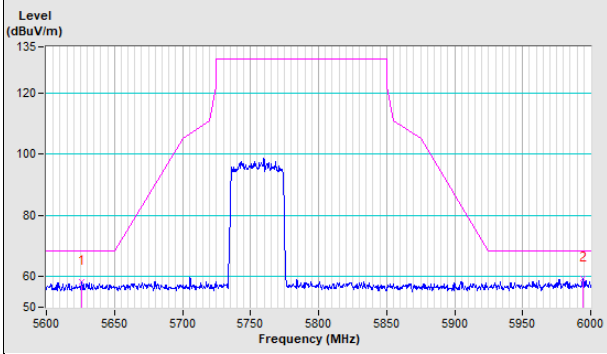
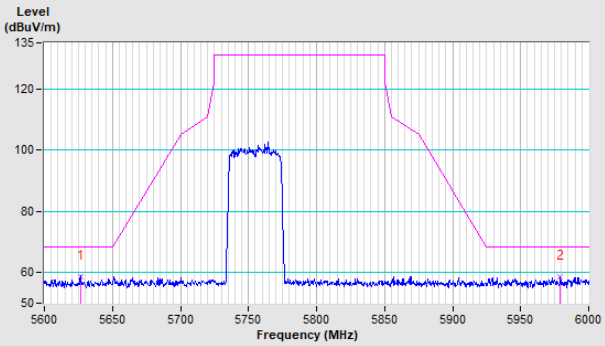
802.11ax (HE20) Channel 157

Horizontal (Peak)	Vertical (Peak)
	

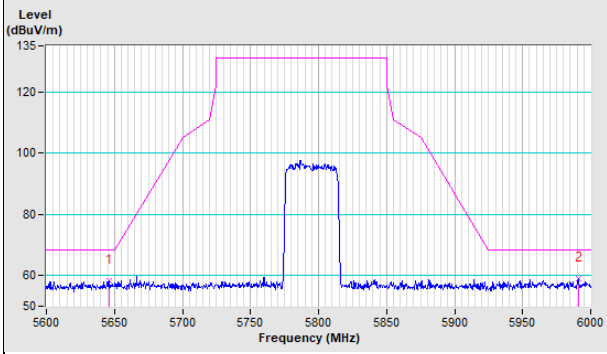
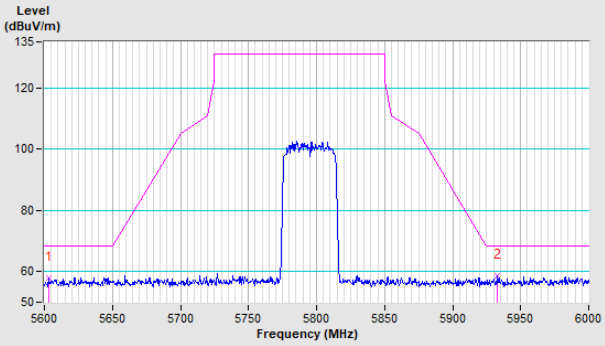
802.11ax (HE20) Channel 165

Horizontal (Peak)	Vertical (Peak)
	

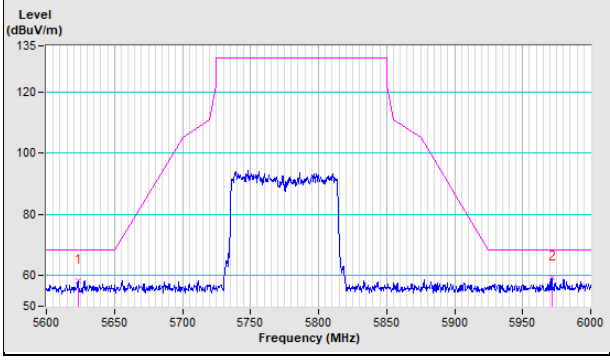
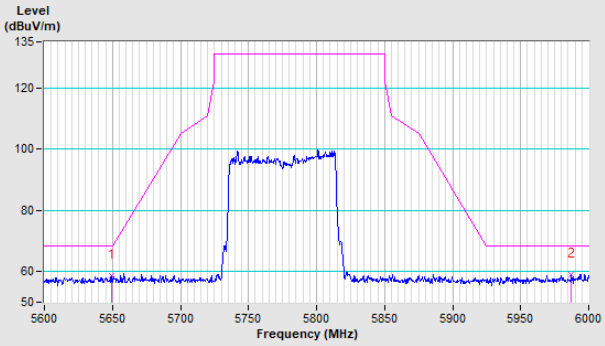
802.11ax (HE40) Channel 151

Horizontal (Peak)	Vertical (Peak)
	

802.11ax (HE40) Channel 159

Horizontal (Peak)	Vertical (Peak)
	

802.11ax (HE80) Channel 155

Horizontal (Peak)	Vertical (Peak)
	

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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The address and road map of all our labs can be found in our web site also.

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