TEST REPORT

CERTIFICATE OF CONFORMITY

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

Report No.: RFBDKG-WTW-P22040722-1

FCC ID: JNZGR0006

Model No.: GR0006

Received Date: 2022/6/7

Test Date: 2022/6/22 ~ 2022/7/14

Issued Date: 2022/08/10

Applicant: Logitech Far East Ltd

Address: 7700 Gateway Boulevard Newark California United States

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

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FCC Registration / Designation Number: 788550 / TW0003

Approved by: Jeremy Lin , **Date:** 2022/08/10

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
RFBDKG-WTW-P22040722-1	Original release.	2022/08/10

1 Certificate

Product:	Logitech G CLOUD Gaming Handheld
Brand:	logitech G
Test Model:	GR0006
Sample Status:	Engineering sample
Applicant:	Logitech Far East Ltd
Test Date:	2022/6/22 ~ 2022/7/14
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 -16.84 dB at 0.66600 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -10.7 dB at 58.92 MHz
15.407(b) (1/2/3/4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -4.0 dB at 5150.00, 5350.00, 5460.00, 5725.00 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	2.44 dB
	30 MHz ~ 1 GHz	2.02 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	1.01 dB
	18 GHz ~ 40 GHz	1.15 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	Logitech G CLOUD Gaming Handheld
Brand	logitech G
Test Model	GR0006
Status of EUT	Engineering sample
Power Supply Rating	Refer to Note as below
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode
Modulation Technology	OFDM
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
Operating Frequency	5180 ~ 5240 MHz 5260 ~ 5320 MHz 5500 ~ 5720 MHz 5745 ~ 5825 MHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20): 25 802.11n (HT40), 802.11ac (VHT40): 12 802.11ac (VHT80): 6
Output Power	5180 ~ 5240 MHz : 120.387 mW (20.81 dBm) 5260 ~ 5320 MHz : 121.635 mW (20.85 dBm) 5500 ~ 5720 MHz : 121.497 mW (20.85 dBm) 5745 ~ 5825 MHz : 123.044 mW (20.9 dBm)

Note:

1. The EUT uses following accessories.

Battery 1			
Brand	Model	Part Number	Specification
Highpower	633296	533-000213	Power Rating : 3.85Vdc, 6000mAh
AC Adapter 1			
Brand	Model	Part Number	Specification
EPS	A138A-120150U-US3	534-000938	AC Input : 100-240V~50/60Hz, 0.5A DC Output : 5VDC/3A, 9VDC/2A, 12VDC/1.5A DC Output Cable : Non-shielded, without core,

USB Cable 1		
Brand	Model	Specification
Logitech	502-001469	Signal Line : 1M, USB-A to Type C cable

2. There are Bluetooth and WLAN (2.4 GHz & 5 GHz) technology used for the EUT.
3. Simultaneously transmission condition.

Condition	Technology	
1	WLAN (2.4 GHz & 5 GHz)	Bluetooth
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.		

4. The EUT may have a lot of colors for marketing requirement.
5. 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.	Gain (dBi)				Antenna Type	Connector Type
	5.15~5.25GHz	5.25~5.35GHz	5.47~5.725GHz	5.725~5.85GHz		
1	2.99	3.11	3.34	3.16	IFA	ipex(MHF)
2	2.61	3.09	2.94	3.14	IFA	ipex(MHF)

* 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
Note: The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.4)		

3.3 Channel List

FOR 5180 ~ 5320 MHz

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

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):

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

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz

FOR 5500 ~ 5720 MHz

12 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

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	144	5720 MHz

6 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

3 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530 MHz	138	5690 MHz
122	5610 MHz		

FOR 5745 ~ 5825 MHz:

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

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):

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775 MHz

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. For Unwanted Emission below 1GHz items: Battery/ AC Adapter. Pre-scan these modes and find the worst case as a representative test condition. 2. For AC Power Conducted Emission items: Battery/ AC Adapter/ Laptop. Only these modes as a representative test condition. 3. 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:	1. Unwanted Emission below 1GHz Worst mode: AC Adapter 2. AC Power Conducted Emission Worst mode: AC Adapter 3. X-axis/ Y-axis/ Z-axis Worst Condition: Y-axis 4. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

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

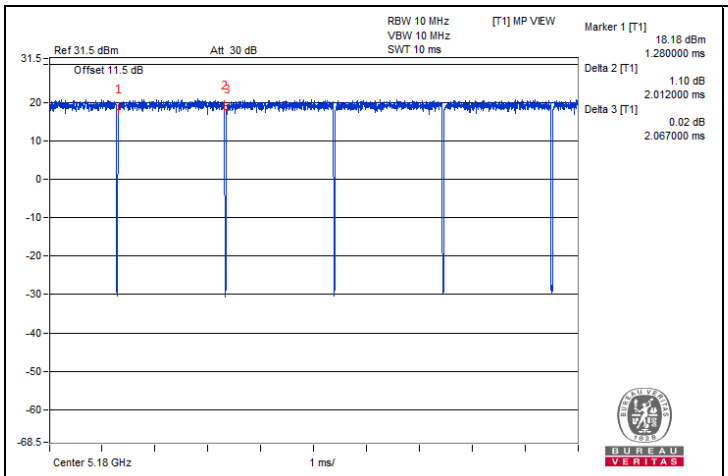
Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
AC Power Conducted Emissions	802.11a	149	BPSK	6Mb/s
Unwanted Emissions below 1 GHz	802.11a	149	BPSK	6Mb/s
Unwanted Emissions above 1 GHz	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0
RF Output Power / Power Spectral Density	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0
Occupied Bandwidth	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
26 dB Bandwidth	802.11a	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	36, 40, 48, 52, 60, 64, 100, 116, 140, 144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	38, 46, 54, 62, 102, 110, 134, 142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	42, 58, 106, 122, 138, 155	BPSK	MCS0
6 dB Bandwidth	802.11a	144, 149, 157, 165	BPSK	6Mb/s
	802.11ac (VHT20)	144, 149, 157, 165	BPSK	MCS0
	802.11ac (VHT40)	142, 151, 159	BPSK	MCS0
	802.11ac (VHT80)	138, 155	BPSK	MCS0
Frequency Stability	802.11a	36	un-modulation	-

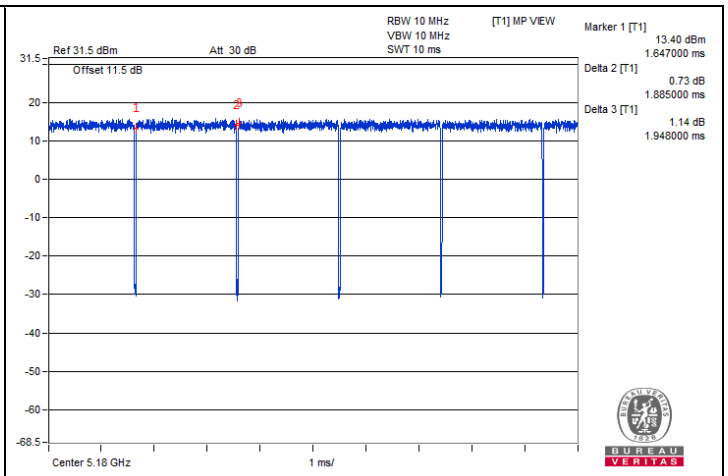
3.5 Duty Cycle of Test Signal

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

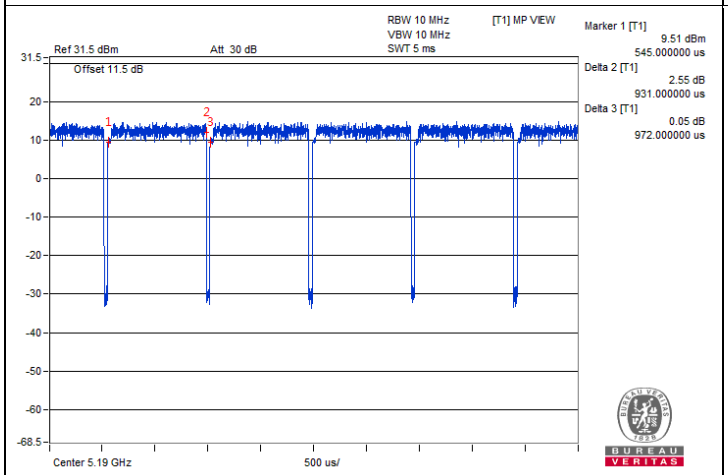
802.11a: Duty cycle = 2.012 ms / 2.067 ms x 100% = 97.3%, duty factor = 10 * log (1/Duty cycle) = 0.12 dB
802.11ac (VHT20): Duty cycle = 1.885 ms / 1.948 ms x 100% = 96.8%, duty factor = 10 * log (1/Duty cycle) = 0.14 dB
802.11ac (VHT40): Duty cycle = 0.931 ms / 0.972 ms x 100% = 95.8%, duty factor = 10 * log (1/Duty cycle) = 0.19 dB
802.11ac (VHT80): Duty cycle = 0.453 ms / 0.494 ms x 100% = 91.7%, duty factor = 10 * log (1/Duty cycle) = 0.38 dB



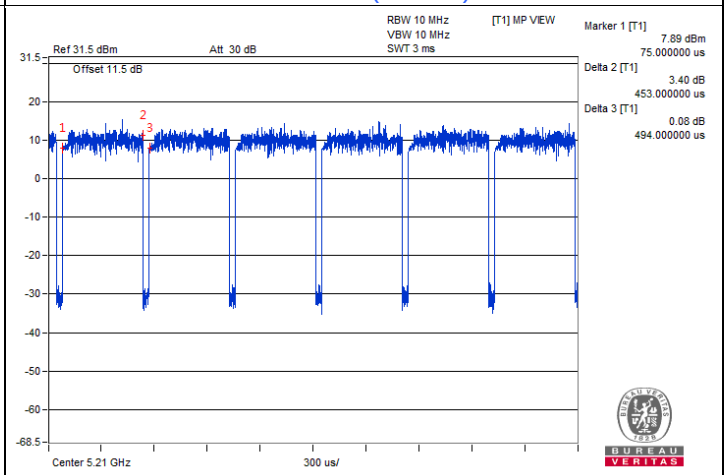
802.11a



802.11ac (VHT20)



802.11ac (VHT40)

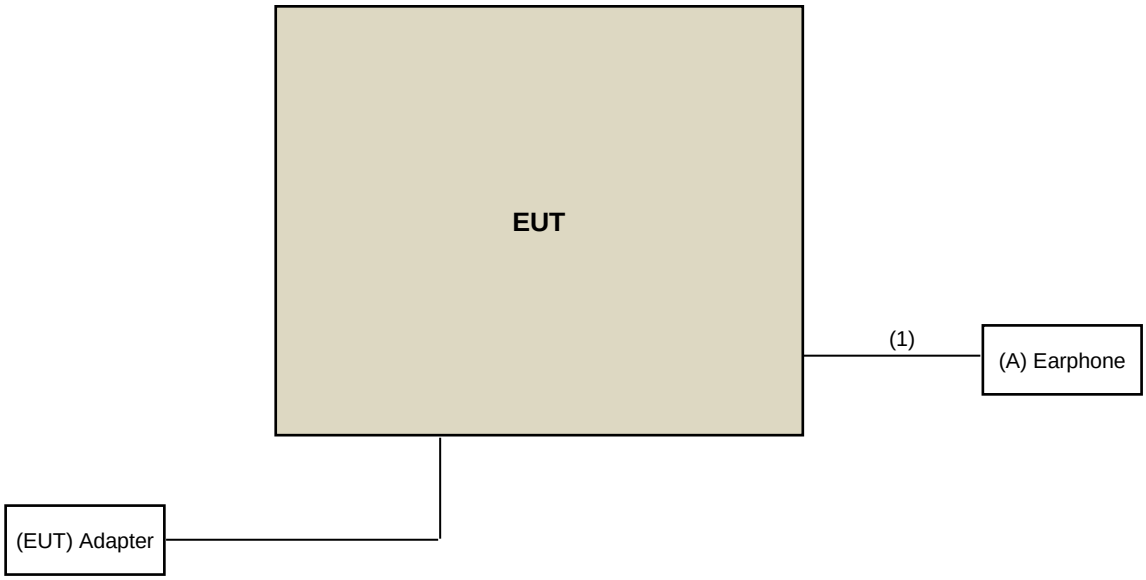


802.11ac (VHT80)

3.6 Test Program Used and Operation Descriptions

Controlling software QRCT4 version 4.0.00067 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	Earphone	FUNKEY	FK-130102	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	Earphone Cable	1	1	N	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: 2022/6/27

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
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
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: 2022/6/27

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
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: 2022/6/27

4.7 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
DC LISN R&S	ESH3-Z6	100219	2021/7/25	2022/7/24
		844950/018	2021/7/25	2022/7/24
DC-LISN SCHWARZBECK MESS-ELETRONIK	NNBM 8126G	8126G-069	2021/11/10	2022/11/9
LISN R&S	ESH2-Z5	100100	2022/2/17	2023/2/16
	ESH3-Z5	100312	2021/9/17	2022/9/16
RF Coaxial Cable WORKEN	5D-FB	Cable-cond2-01	2021/9/4	2022/9/3
Software BVADT	BVADT_Cond_ V7.3.7.4	N/A	N/A	N/A
Test Receiver R&S	ESR3	102783	2021/12/20	2022/12/19
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2021/8/20	2022/8/19

Notes:

1. The test was performed in HY - Conduction 2.
2. Tested Date: 2022/6/24

4.8 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	UNAT_5+	PAD-CH6-01	N/A	N/A
Antenna Tower Controller Max-Full	MF-7802	N/A	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB9168	9168-616	2021/10/27	2022/10/26
Loop Antenna TESEQ	HLA 6121	45745	2021/7/21	2022/7/20
Loop Antenna EMCI	EM-6879	269	2021/9/16	2022/9/15
Preamplifier Agilent	310N	187226	2022/6/14	2023/6/13
Pre-amplifier EMCI	EMC001340	980201	2021/9/15	2022/9/14
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2022/1/15	2023/1/14
RF Coaxial Cable ETS-Lindgren	EMC104-SM-SM-10000	Cable-CH1-01(RFC-SMS-100-SMS-120+RFC-SMS-100-SMS-4	2022/6/14	2023/6/13
	RFC-SMS-100-SMS-24-IN	Cable-CH1-02(RFC-SMS-100-SMS-24)	2022/6/14	2023/6/13
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Test Receiver Agilent	N9038A	MY52260177	2021/9/1	2022/8/31
Turn Table Max-Full	TT-1510	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802	N/A	N/A	N/A

Notes:

1. The test was performed in XD - 966 chamber 6.
2. Tested Date: 2022/6/22

4.9 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	UNAT_5+	PAD-CH6-01	N/A	N/A
Antenna Tower Controller Max-Full	MF-7802	N/A	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	8	N/A	N/A
Horn Antenna ETS-Lindgren	3117	00143293	2021/11/14	2022/11/13
Horn Antenna Schwarzbeck	BBHA 9170	BBHA9170241	2021/10/26	2022/10/25
Pre-Ammlifier EMCI	EMC 184045	980116	2021/10/5	2022/10/4
Preamplifier Agilent	83017A	MY39501373	2022/6/14	2023/6/13
RF Coaxial Cable ETS-Lindgren	EMC104-SM-SM-10000	Cable-CH1-01(RFC-SMS-100-SMS-120+RFC-SMS-100-SMS-4	2022/6/14	2023/6/13
	RFC-SMS-100-SMS-24-IN	Cable-CH1-02(RFC-SMS-100-SMS-24)	2022/6/14	2023/6/13
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104& EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	2022/1/15	2023/1/14
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	2022/1/15	2023/1/14
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Test Receiver Agilent	N9038A	MY52260177	2021/9/1	2022/8/31
Turn Table Max-Full	TT-1510	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802	N/A	N/A	N/A

Notes:

1. The test was performed in XD - 966 chamber 6.
2. Tested Date: 2022/7/13 ~ 2022/7/14

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.	

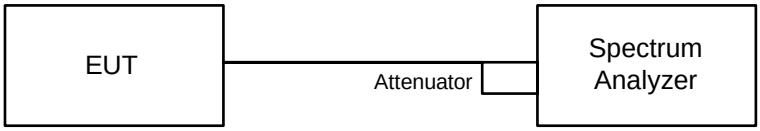
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 26 dB Bandwidth

6.1.1 Test Setup

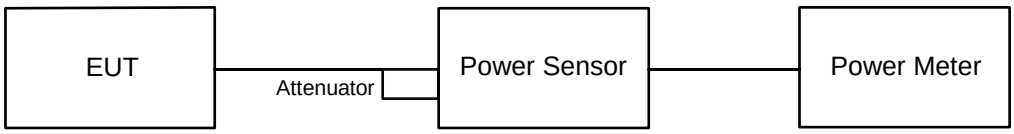


6.1.2 Test Procedure

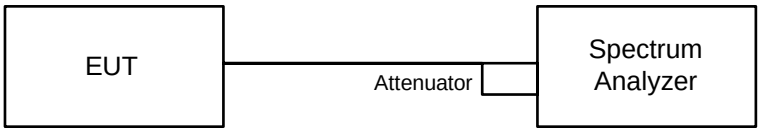
a. Set RBW = approximately 1% of the emission bandwidth.
b. Set the VBW > RBW.
c. Detector = Peak.
d. Trace mode = max hold.
e. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement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

6.2 RF Output Power

6.2.1 Test Setup



For channel straddling:



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.

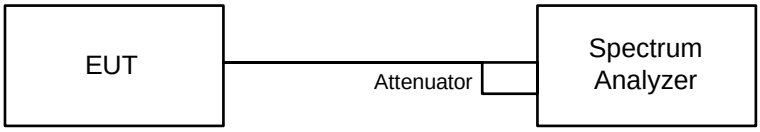
For channel straddling:

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.)Sweep time = auto, trigger set to “free run”.
d. Trace average at least 100 traces in power averaging mode.
e. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
f. Record the max value and add 10 log (1/duty cycle).

Note: When measuring straddle channel power, use compute power by integrating the spectrum across the 26 dB EBW or 99% OBW of the signal using the instrument’s band power measurement function, with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW or 99% OBW of the spectrum.

6.3 Power Spectral Density

6.3.1 Test Setup



6.3.2 Test Procedure

For specified measurement bandwidth 1 MHz:
Method SA-2

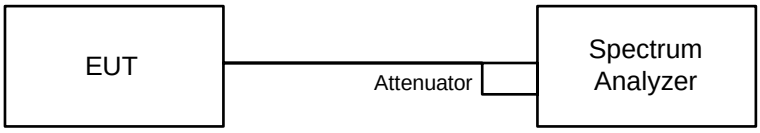
a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
c. Sweep points ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
d. Sweep time = auto, trigger 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

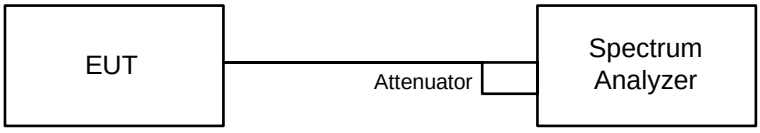


6.4.2 Test Procedure

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

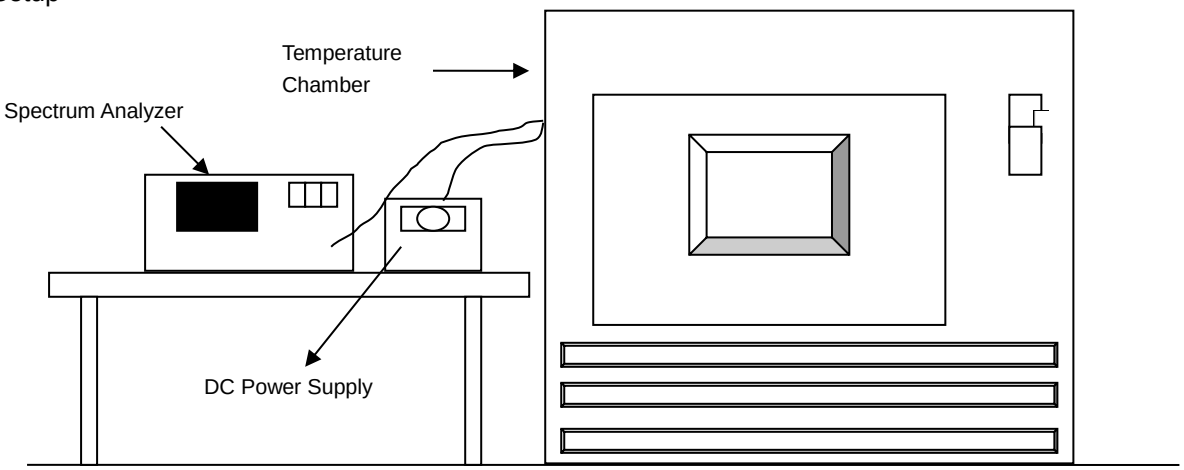


6.5.2 Test Procedure

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

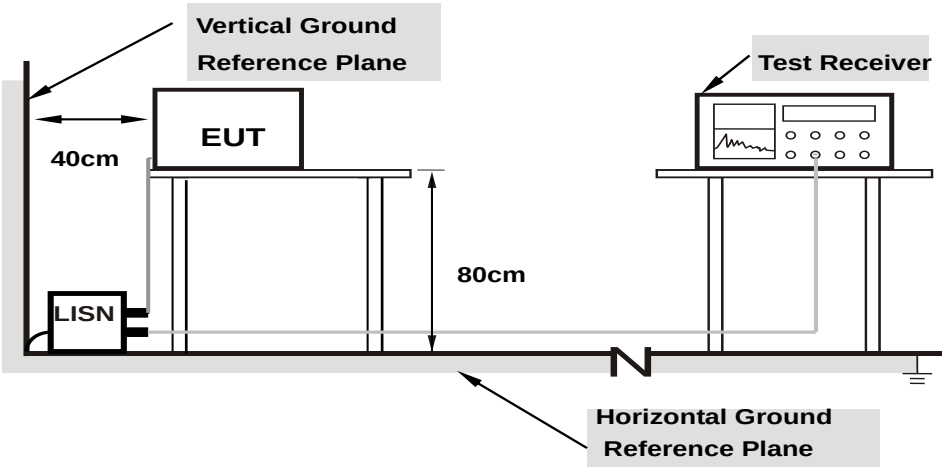


6.6.2 Test Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
b. Turn the EUT on and couple its output to a spectrum analyzer.
c. Turn the EUT off and set the chamber to the highest temperature specified.
d. 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.
e. Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
f. 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.

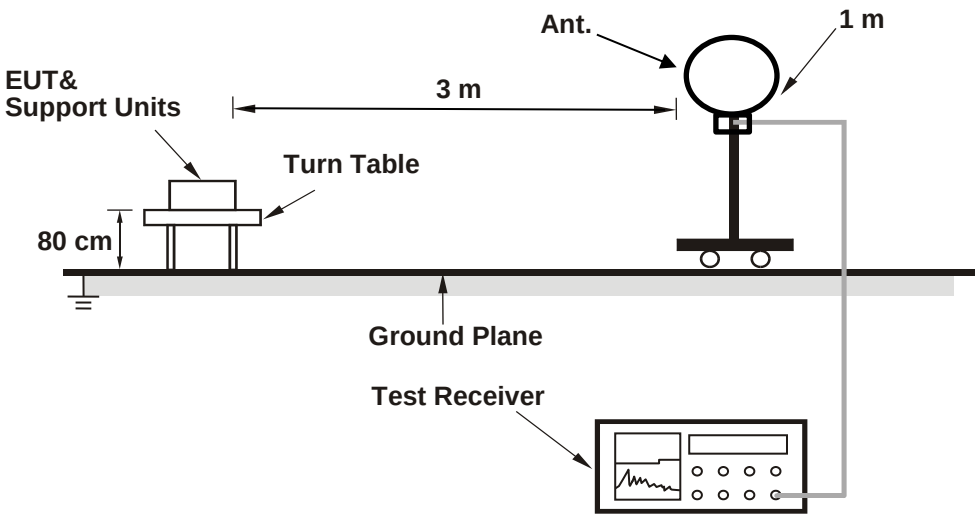
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

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.

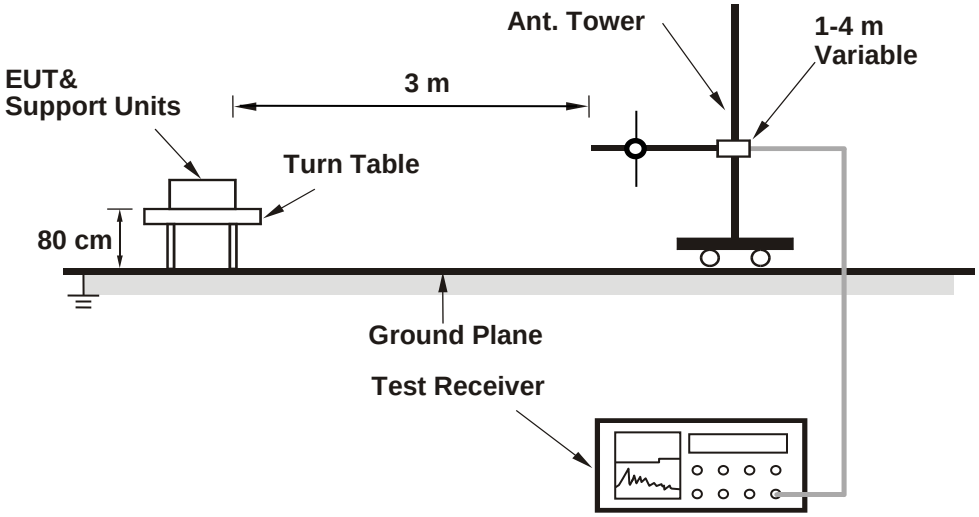
6.8 Unwanted Emissions below 1 GHz

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.

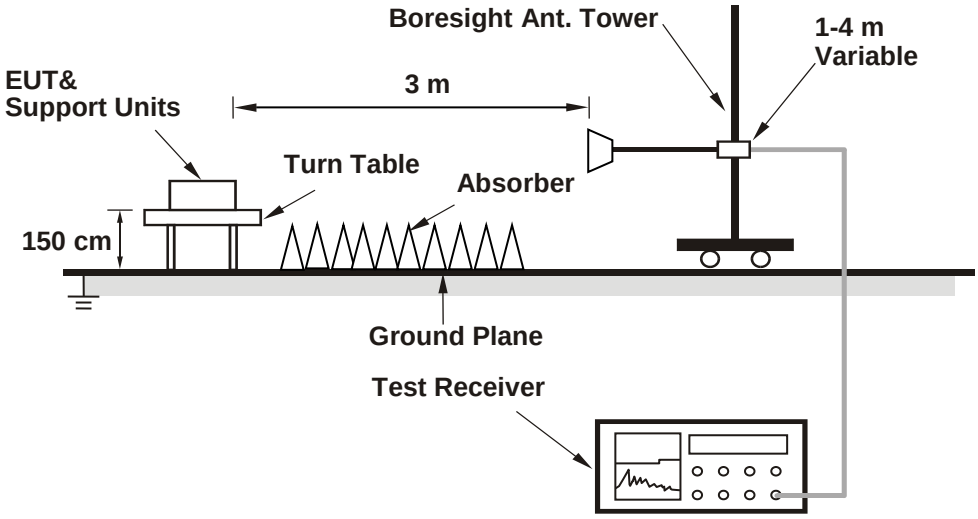
Notes:

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:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Vincent Huang

802.11a

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	23.19	23.43
60	5300	23.73	23.37
64	5320	23.58	23.65
100	5500	23.36	23.24
116	5580	23.67	22.42
140	5700	23.68	23.10
144 (U-NII-2C)	5720	16.81	16.79

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
52	5260	23.19	24.65	>	24
60	5300	23.37	24.68	>	24
64	5320	23.58	24.72	>	24
100	5500	23.24	24.66	>	24
116	5580	22.42	24.5	>	24
140	5700	23.10	24.63	>	24
144 (U-NII-2C)	5720	16.79	23.25	<	24

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

802.11ac (VHT20)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	23.48	24.82
60	5300	23.83	24.32
64	5320	25.26	23.67
100	5500	24.91	24.92
116	5580	25.21	24.67
140	5700	24.88	24.57
144 (U-NII-2C)	5720	17.04	17.23

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
52	5260	23.48	24.7	>	24
60	5300	23.83	24.77	>	24
64	5320	23.67	24.74	>	24
100	5500	24.91	24.96	>	24
116	5580	24.67	24.92	>	24
140	5700	24.57	24.9	>	24
144 (U-NII-2C)	5720	17.04	23.31	<	24

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

802.11ac (VHT40)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	43.15	42.30
62	5310	42.72	42.54
102	5510	42.62	42.68
110	5550	42.65	42.57
134	5670	42.83	42.79
142 (U-NII-2C)	5710	36.61	36.26

Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
54	5270	42.30	27.26	>	24
62	5310	42.54	27.28	>	24
102	5510	42.62	27.29	>	24
110	5550	42.57	27.29	>	24
134	5670	42.79	27.31	>	24
142 (U-NII-2C)	5710	36.26	26.59	>	24

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

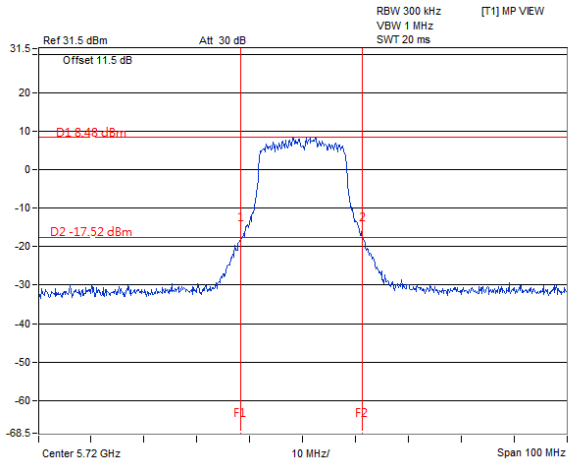
802.11ac (VHT80)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	84.73	84.60
106	5530	85.24	85.03
122	5610	85.44	85.31
138 (U-NII-2C)	5690	77.13	77.51

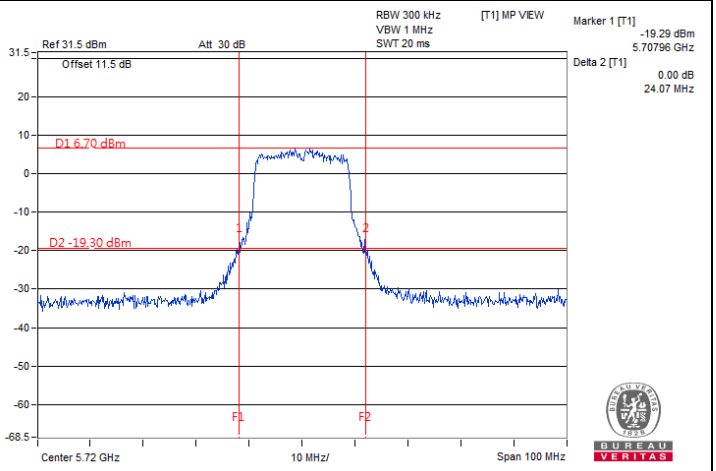
Determined Output Power Limit					
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)		
58	5290	84.60	30.27	>	24
106	5530	85.03	30.29	>	24
122	5610	85.31	30.3	>	24
138 (U-NII-2C)	5690	77.13	29.87	>	24

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

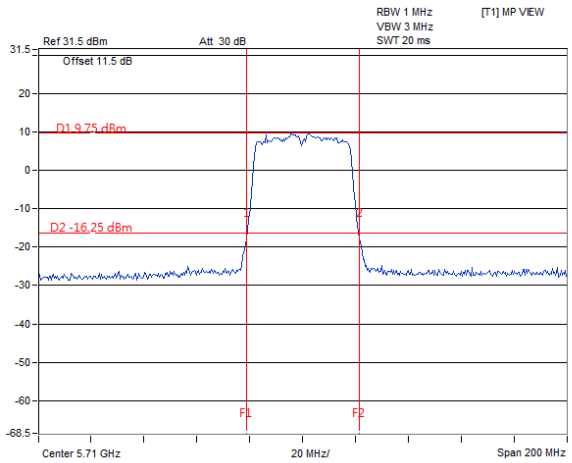
Spectrum Plot of Minimum Value



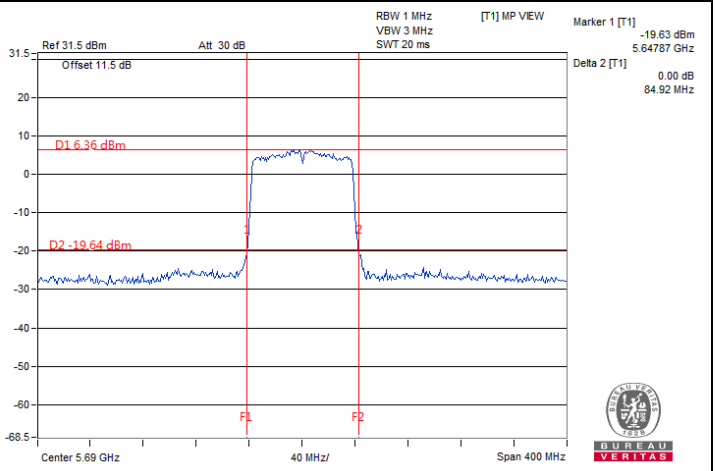
802.11a / Chain1 : CH 144 (U-NII-2C)



802.11ac (VHT20) / Chain0 : CH 144 (U-NII-2C)



802.11ac (VHT40) / Chain1 : CH 142 (U-NII-2C)



802.11ac (VHT80) / Chain0 : CH 138 (U-NII-2C)

Notes: For U-NII-2C straddle channel = 5725 MHz - Marker 1

7.2 RF Output Power

Input Power:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Vincent Huang

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	14.42	14.38	55.085	17.41	24	Pass
40	5200	14.89	14.81	61.101	17.86	24	Pass
48	5240	17.86	17.73	120.387	20.81	24	Pass
52	5260	17.89	17.79	121.635	20.85	24	Pass
60	5300	17.70	17.55	115.77	20.64	24	Pass
64	5320	14.89	14.73	60.549	17.82	24	Pass
100	5500	14.84	14.76	60.402	17.81	24	Pass
116	5580	17.89	17.78	121.497	20.85	24	Pass
140	5700	14.96	14.79	61.463	17.89	24	Pass
*144 (U-NII-2C)	5720	16.78	16.15	91.282	19.60	23.25	Pass
*144 (U-NII-3)	5720	9.96	9.27	18.863	12.76	30	Pass
149	5745	17.94	17.84	123.044	20.90	30	Pass
157	5785	17.77	17.65	118.051	20.72	30	Pass
165	5825	17.86	17.78	121.073	20.83	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 2.99 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2A, the maximum gain is 3.11 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-2C, the maximum gain is 3.34 dBi < 6 dBi, so the output power limit shall not be reduced.
6. For U-NII-3, the maximum gain is 3.16 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
36	5180	14.42	14.28	54.461	17.36	24	Pass
40	5200	14.82	14.71	59.919	17.78	24	Pass
48	5240	15.83	15.71	75.522	18.78	24	Pass
52	5260	15.75	15.61	73.975	18.69	24	Pass
60	5300	15.86	15.71	75.787	18.80	24	Pass
64	5320	14.89	14.81	61.101	17.86	24	Pass
100	5500	14.90	14.77	60.895	17.85	24	Pass
116	5580	15.91	15.82	77.189	18.88	24	Pass
140	5700	11.49	11.31	27.614	14.41	24	Pass
*144 (U-NII-2C)	5720	14.80	14.46	60.068	17.79	23.31	Pass
*144 (U-NII-3)	5720	8.44	8.13	13.934	11.44	30	Pass
149	5745	15.74	15.65	74.226	18.71	30	Pass
157	5785	15.93	15.88	77.9	18.92	30	Pass
165	5825	15.91	15.80	77.013	18.87	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 2.99 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2A, the maximum gain is 3.11 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-2C, the maximum gain is 3.34 dBi < 6 dBi, so the output power limit shall not be reduced.
6. For U-NII-3, the maximum gain is 3.16 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
38	5190	11.21	11.02	25.86	14.13	24	Pass
46	5230	13.41	13.32	43.406	16.38	24	Pass
54	5270	16.37	16.29	85.911	19.34	24	Pass
62	5310	14.24	14.19	52.788	17.23	24	Pass
102	5510	14.39	14.32	54.519	17.37	24	Pass
110	5550	16.20	16.05	81.959	19.14	24	Pass
134	5670	16.23	16.12	82.902	19.19	24	Pass
*142 (U-NII-2C)	5710	15.81	15.85	79.938	19.03	24	Pass
*142 (U-NII-3)	5710	5.02	4.69	6.391	8.06	30	Pass
151	5755	16.33	16.26	85.221	19.31	30	Pass
159	5795	16.44	16.31	86.812	19.39	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2A and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 2.99 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2A, the maximum gain is 3.11 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-2C, the maximum gain is 3.34 dBi < 6 dBi, so the output power limit shall not be reduced.
6. For U-NII-3, the maximum gain is 3.16 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1				
42	5210	12.19	12.14	32.926	15.18	24	Pass
58	5290	12.34	12.25	33.928	15.31	24	Pass
106	5530	11.71	11.63	29.38	14.68	24	Pass
122	5610	16.42	16.35	87.005	19.40	24	Pass
*138 (U-NII-2C)	5690	15.77	15.71	81.784	19.13	24	Pass
*138 (U-NII-3)	5690	1.43	1.47	3.046	4.84	30	Pass
155	5775	16.44	16.37	87.407	19.42	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test , the duty factor was included in the total power.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-1, the maximum gain is 2.99 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2A, the maximum gain is 3.11 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-2C, the maximum gain is 3.34 dBi < 6 dBi, so the output power limit shall not be reduced.
6. For U-NII-3, the maximum gain is 3.16 dBi < 6 dBi, so the output power limit shall not be reduced.

7.3 Power Spectral Density

Input Power:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Vincent Huang

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	2.39	1.27	0.12	5.00	11.00	Pass
40	5200	1.86	1.87	0.12	5.00	11.00	Pass
48	5240	4.74	4.16	0.12	7.59	11.00	Pass
52	5260	4.66	4.47	0.12	7.70	10.89	Pass
60	5300	4.63	4.18	0.12	7.54	10.89	Pass
64	5320	1.84	1.74	0.12	4.92	10.89	Pass
100	5500	1.93	1.87	0.12	5.03	10.74	Pass
116	5580	4.64	4.45	0.12	7.68	10.74	Pass
140	5700	2.04	1.78	0.12	5.04	10.74	Pass
144 (U-NII-2C)	5720	4.39	4.40	0.12	7.53	10.74	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 6.11 dBi > 6 dBi, so the power density limit shall be reduced to 11-(6.11-6) = 10.89 dBm/MHz.
5. For U-NII-2C, the directional gain is 6.26 dBi > 6 dBi, so the power density limit shall be reduced to 11-(6.26-6) = 10.74 dBm/MHz.

802.11ac (VHT20)

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	1.45	1.23	0.14	4.49	11.00	Pass
40	5200	1.89	1.70	0.14	4.95	11.00	Pass
48	5240	2.22	1.82	0.14	5.17	11.00	Pass
52	5260	2.09	1.67	0.14	5.04	10.89	Pass
60	5300	2.19	1.79	0.14	5.14	10.89	Pass
64	5320	1.86	1.78	0.14	4.97	10.89	Pass
100	5500	1.98	1.71	0.14	5.00	10.74	Pass
116	5580	2.00	1.85	0.14	5.08	10.74	Pass
140	5700	-1.40	-1.60	0.14	1.65	10.74	Pass
144 (U-NII-2C)	5720	1.83	1.84	0.14	4.99	10.74	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 6.11 dBi > 6 dBi, so the power density limit shall be reduced to 11-(6.11-6) = 10.89 dBm/MHz.
5. For U-NII-2C, the directional gain is 6.26 dBi > 6 dBi, so the power density limit shall be reduced to 11-(6.26-6) = 10.74 dBm/MHz.

802.11ac (VHT40)

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	-4.71	-4.49	0.19	-1.40	11.00	Pass
46	5230	-2.61	-2.53	0.19	0.63	11.00	Pass
54	5270	-1.15	-1.44	0.19	1.91	10.89	Pass
62	5310	-2.48	-1.82	0.19	1.06	10.89	Pass
102	5510	-1.54	-1.61	0.19	1.63	10.74	Pass
110	5550	-0.78	-0.99	0.19	2.32	10.74	Pass
134	5670	-0.78	-0.61	0.19	2.51	10.74	Pass
142 (U-NII-2C)	5710	-0.54	-0.79	0.19	2.54	10.74	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 6.11 dBi > 6 dBi, so the power density limit shall be reduced to 11-(6.11-6) = 10.89 dBm/MHz.
5. For U-NII-2C, the directional gain is 6.26 dBi > 6 dBi, so the power density limit shall be reduced to 11-(6.26-6) = 10.74 dBm/MHz.

802.11ac (VHT80)

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	-6.93	-6.97	0.38	-3.56	11.00	Pass
58	5290	-6.59	-6.70	0.38	-3.25	10.89	Pass
106	5530	-7.14	-7.27	0.38	-3.81	10.74	Pass
122	5610	-3.54	-3.98	0.38	-0.36	10.74	Pass
138 (U-NII-2C)	5690	-4.18	-4.18	0.38	-0.79	10.74	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 6.11 dBi > 6 dBi, so the power density limit shall be reduced to 11-(6.11-6) = 10.89 dBm/MHz.
5. For U-NII-2C, the directional gain is 6.26 dBi > 6 dBi, so the power density limit shall be reduced to 11-(6.26-6) = 10.74 dBm/MHz.

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					
144 (U-NII-3)	5720	-5.63	-5.55	-2.58	0.12	-0.24	29.84	Pass
149	5745	-3.61	-3.55	-0.57	0.12	1.77	29.84	Pass
157	5785	-3.47	-3.42	-0.43	0.12	1.91	29.84	Pass
165	5825	-3.65	-3.63	-0.63	0.12	1.71	29.84	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 6.16 dBi > 6 dBi, so the power density limit shall be reduced to 30-(6.16-6) = 29.84 dBm/500kHz.

802.11ac (VHT20)

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					
144 (U-NII-3)	5720	-7.51	-7.96	-4.72	0.14	-2.36	29.84	Pass
149	5745	-5.63	-6.21	-2.9	0.14	-0.54	29.84	Pass
157	5785	-5.25	-6.05	-2.62	0.14	-0.26	29.84	Pass
165	5825	-5.73	-6.29	-2.99	0.14	-0.63	29.84	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 6.16 dBi > 6 dBi, so the power density limit shall be reduced to 30-(6.16-6) = 29.84 dBm/500kHz.

802.11ac (VHT40)

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					
142 (U-NII-3)	5710	-11.24	-11.66	-8.43	0.19	-6.02	29.84	Pass
151	5755	-9.45	-9.58	-6.5	0.19	-4.09	29.84	Pass
159	5795	-9.47	-9.36	-6.4	0.19	-3.99	29.84	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 6.16 dBi > 6 dBi, so the power density limit shall be reduced to 30-(6.16-6) = 29.84 dBm/500kHz.

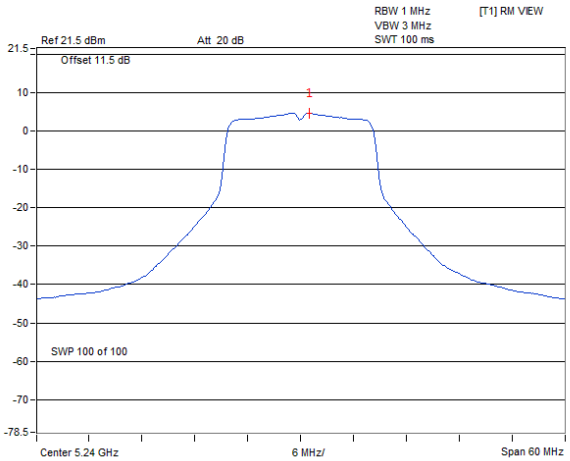
802.11ac (VHT80)

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					
138 (U-NII-3)	5690	-15.33	-15.09	-12.2	0.38	-9.60	29.84	Pass
155	5775	-13.02	-13.00	-10	0.38	-7.40	29.84	Pass

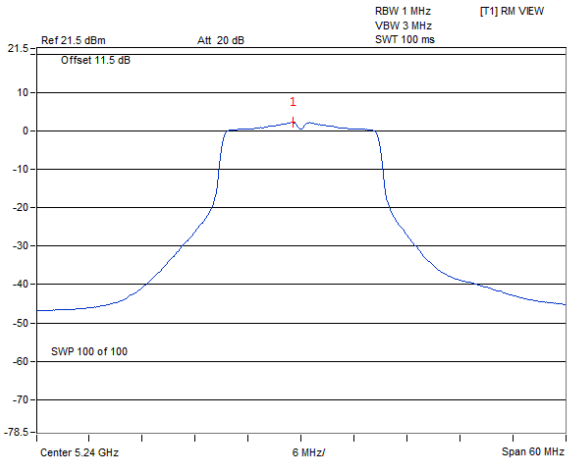
Notes:

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 6.16 dBi > 6 dBi, so the power density limit shall be reduced to 30-(6.16-6) = 29.84 dBm/500kHz.

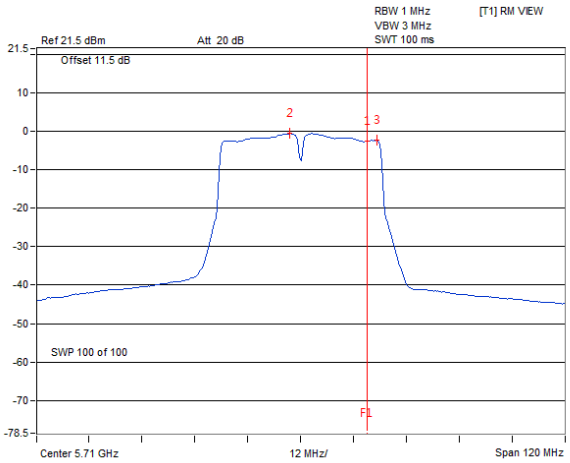
Spectrum Plot of Maximum Value



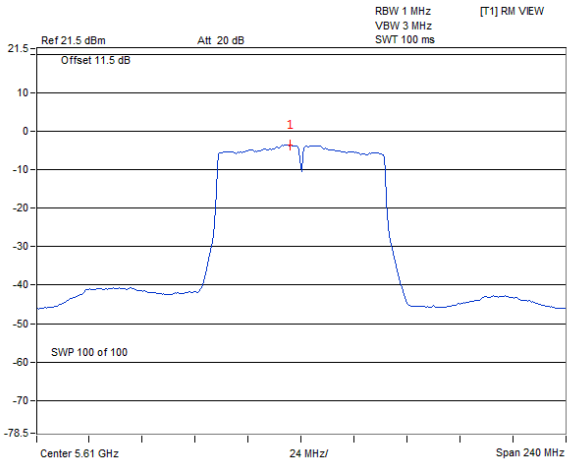
802.11a / Chain0 : CH 48



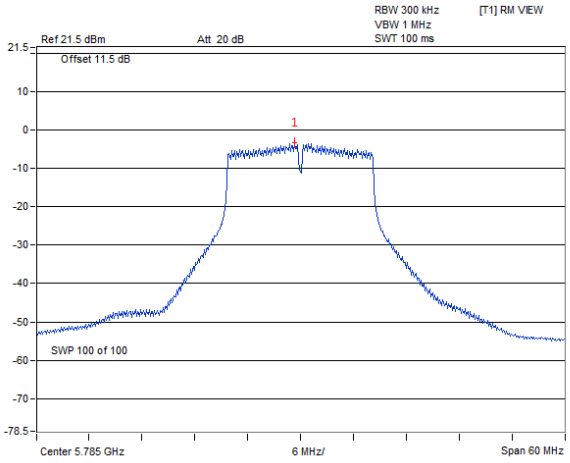
802.11ac (VHT20) / Chain0 : CH 48



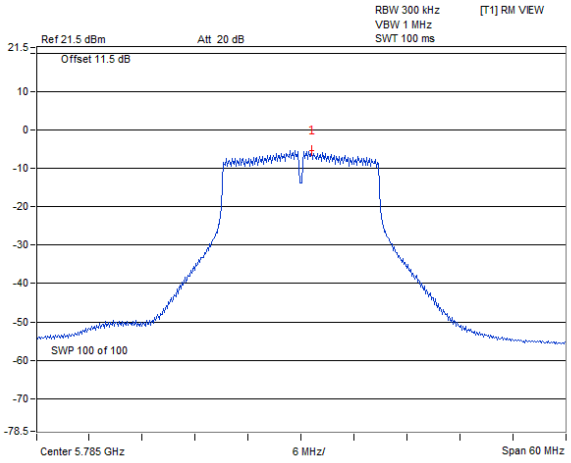
802.11ac (VHT40) / Chain0 : CH 142 (U-NII-2C)



802.11ac (VHT80) / Chain0 : CH 122

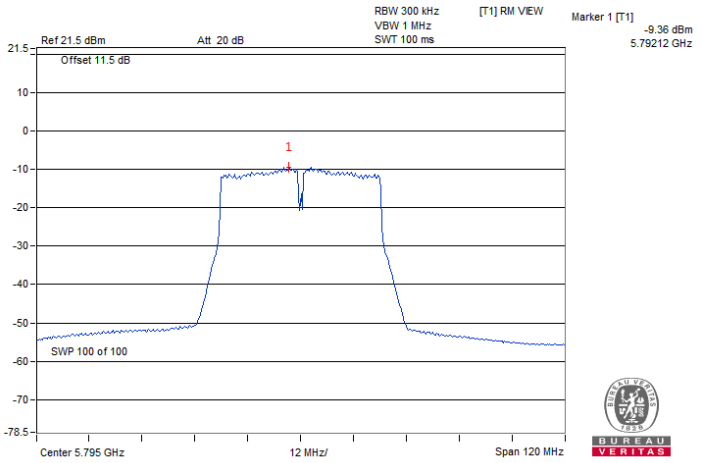


802.11a / Chain1 : CH 157

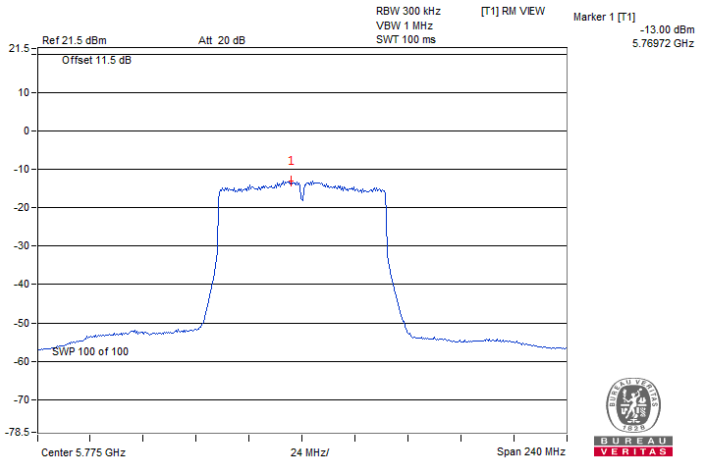


802.11ac (VHT20) / Chain0 : CH 157

Spectrum Plot of Maximum Value



802.11ac (VHT40) / Chain1 : CH 159



802.11ac (VHT80) / Chain1 : CH 155

7.4 6 dB Bandwidth

Input Power:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Vincent Huang

802.11a

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
144 (U-NII-3)	5720	2.73	3.07	0.5	Pass
149	5745	15.56	16.32	0.5	Pass
157	5785	15.73	16.31	0.5	Pass
165	5825	15.72	16.33	0.5	Pass

802.11ac (VHT20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
144 (U-NII-3)	5720	2.82	3.45	0.5	Pass
149	5745	15.50	16.92	0.5	Pass
157	5785	16.14	16.71	0.5	Pass
165	5825	15.54	16.77	0.5	Pass

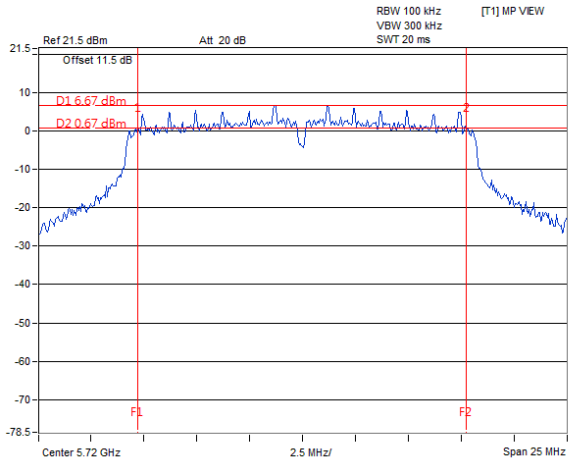
802.11ac (VHT40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
142 (U-NII-3)	5710	3.10	2.56	0.5	Pass
151	5755	35.87	35.49	0.5	Pass
159	5795	35.99	36.12	0.5	Pass

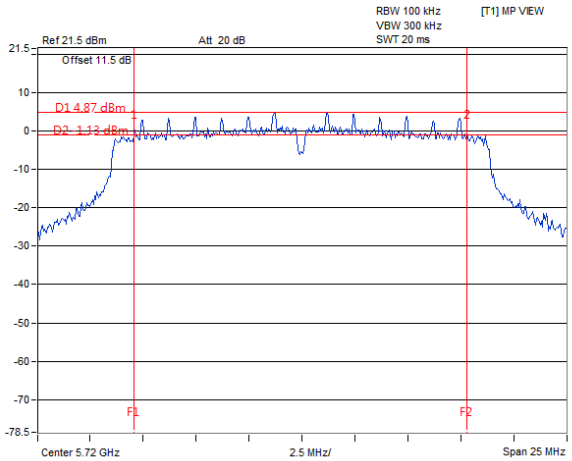
802.11ac (VHT80)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1		
138 (U-NII-3)	5690	2.72	2.71	0.5	Pass
155	5775	75.43	75.41	0.5	Pass

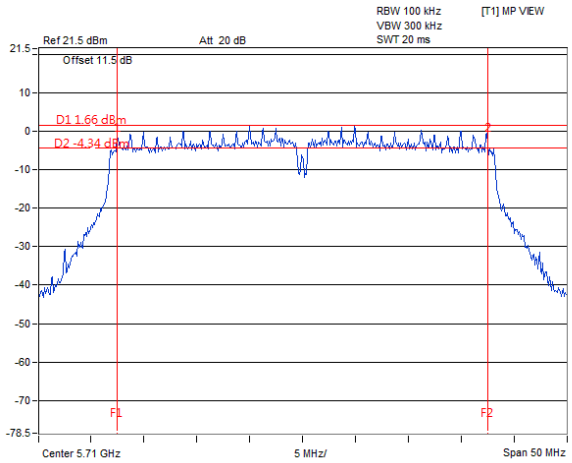
Spectrum Plot of Minimum Value



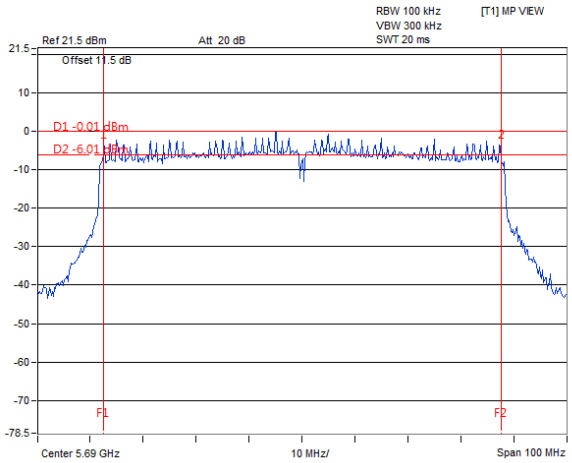
802.11a / Chain0 : CH 144 (U-NII-3)



802.11ac (VHT20) / Chain0 : CH 144 (U-NII-3)



802.11ac (VHT40) / Chain1 : CH 142 (U-NII-3)



802.11ac (VHT80) / Chain1 : CH 138 (U-NII-3)

Notes:

1. For U-NII-3 straddle channel = Marker 1 + Delta 2 - 5725 MHz

7.5 Occupied Bandwidth

Input Power:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Vincent Huang

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	16.92	16.68
40	5200	16.80	16.68
48	5240	16.80	16.80
52	5260	16.68	16.68
60	5300	16.80	16.68
64	5320	16.80	16.80
100	5500	16.80	16.80
116	5580	16.80	16.68
140	5700	16.80	16.68
144 (U-NII-2C)	5720	13.52	13.52
144 (U-NII-3)	5720	3.28	3.28
149	5745	16.68	16.69
157	5785	16.80	16.68
165	5825	16.80	16.68

802.11ac (VHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	17.88	17.88
40	5200	17.88	17.88
48	5240	17.88	18.00
52	5260	17.88	17.88
60	5300	17.88	17.88
64	5320	18.00	18.00
100	5500	18.00	18.00
116	5580	18.00	18.00
140	5700	18.00	17.88
144 (U-NII-2C)	5720	14.00	14.00
144 (U-NII-3)	5720	3.88	3.88
149	5745	17.88	18.00
157	5785	17.88	18.00
165	5825	17.88	17.76

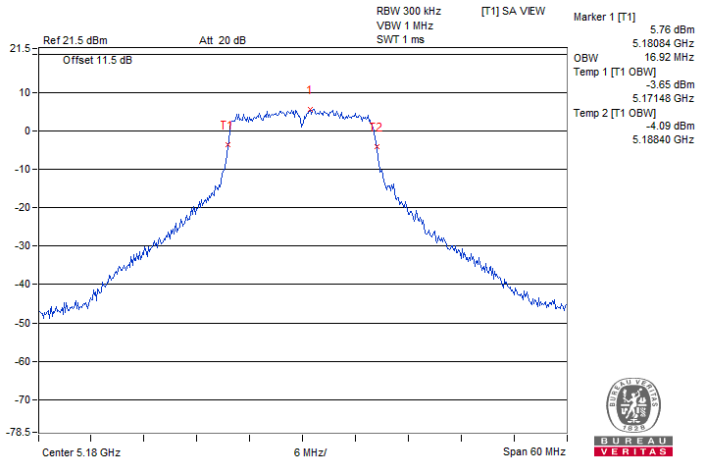
802.11ac (VHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	36.72	36.48
46	5230	36.72	36.72
54	5270	36.60	36.72
62	5310	36.72	36.72
102	5510	36.48	36.48
110	5550	36.72	36.72
134	5670	36.72	36.72
142 (U-NII-2C)	5710	33.48	33.48
142 (U-NII-3)	5710	3.24	3.24
151	5755	36.72	36.72
159	5795	36.60	36.72

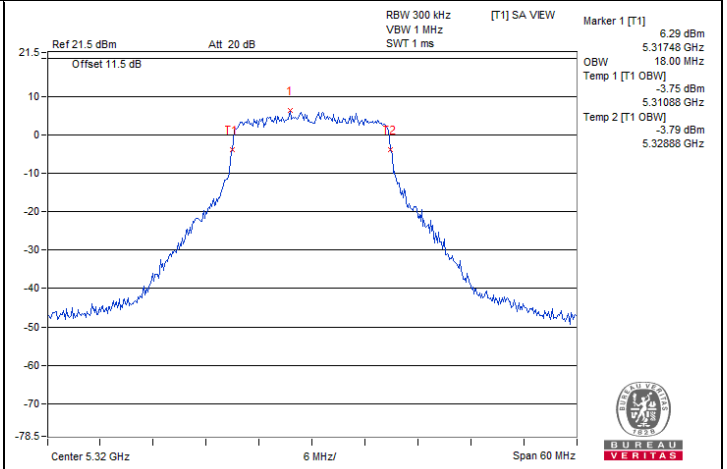
802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	75.36	75.36
58	5290	75.84	75.36
106	5530	75.36	75.36
122	5610	75.60	75.60
138 (U-NII-2C)	5690	72.91	73.26
138 (U-NII-3)	5690	2.57	2.91
155	5775	75.84	75.84

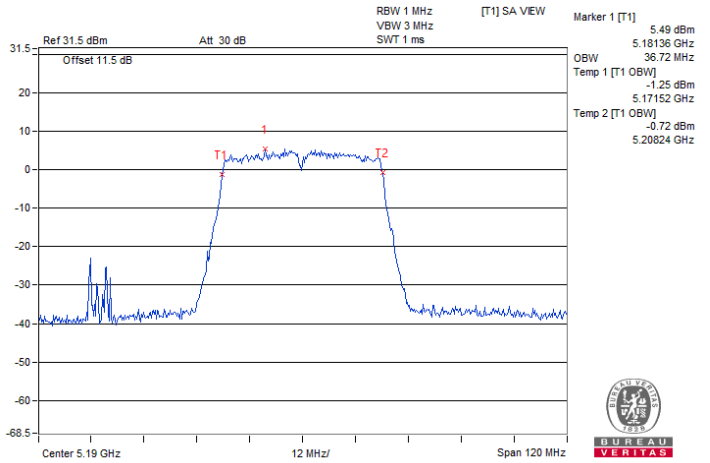
Spectrum Plot of Maximum Value



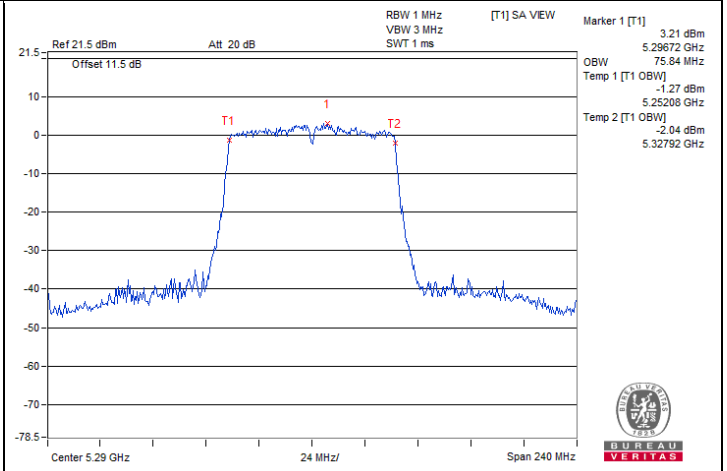
802.11a / Chain0 : CH 36



802.11ac (VHT20) / Chain0 : CH 64

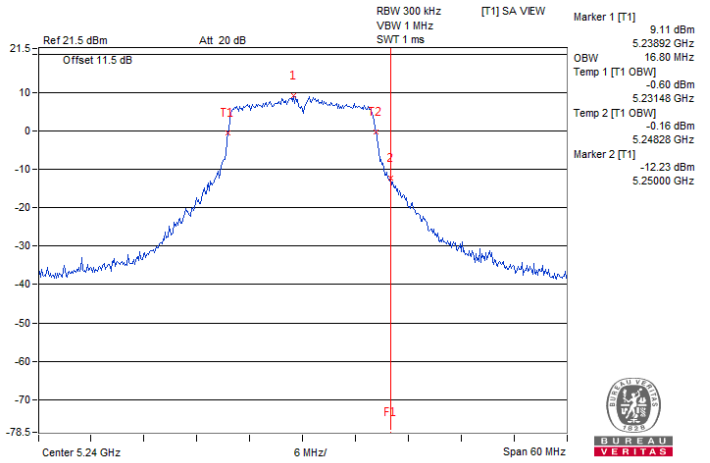


802.11ac (VHT40) / Chain0 : CH 38

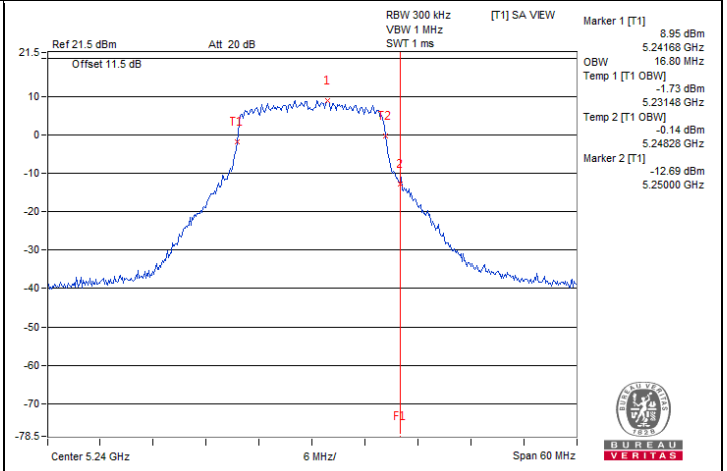


802.11ac (VHT80) / Chain0 : CH 58

Spectrum Plot for nearby DFS band
(DFS is required, if 99% OCP straddle into U-NII-2A band)

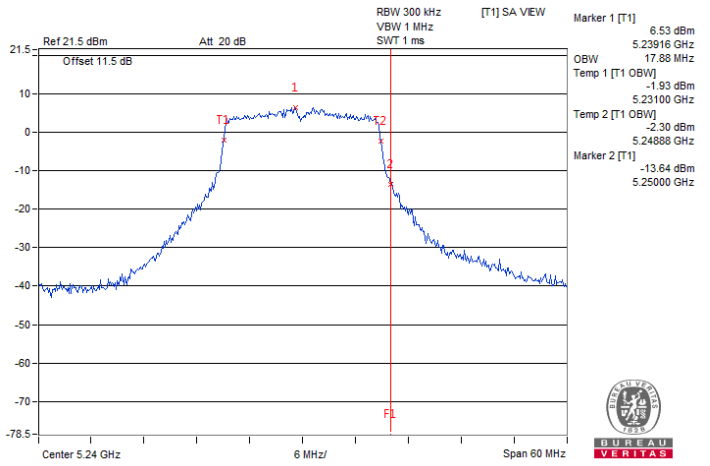


802.11a / Chain 0 : CH 48

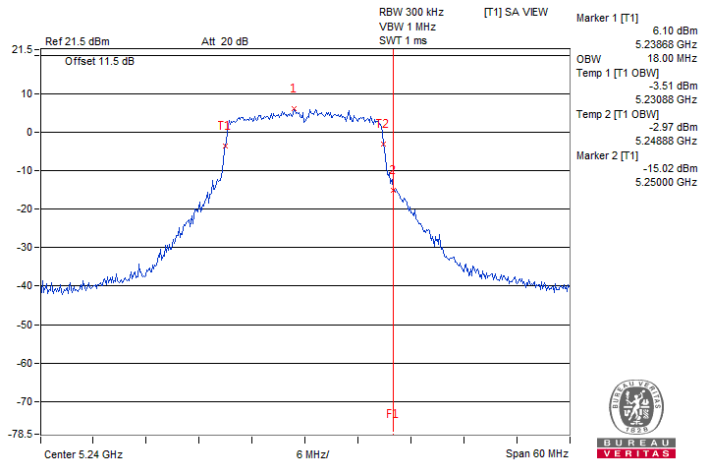


802.11a / Chain 1 : CH 48

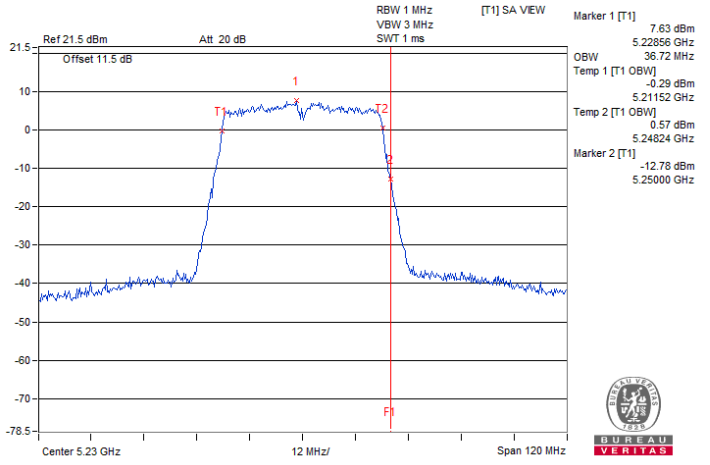
Spectrum Plot for nearby DFS band
(DFS is required, if 99% OCP straddle into U-NII-2A band)



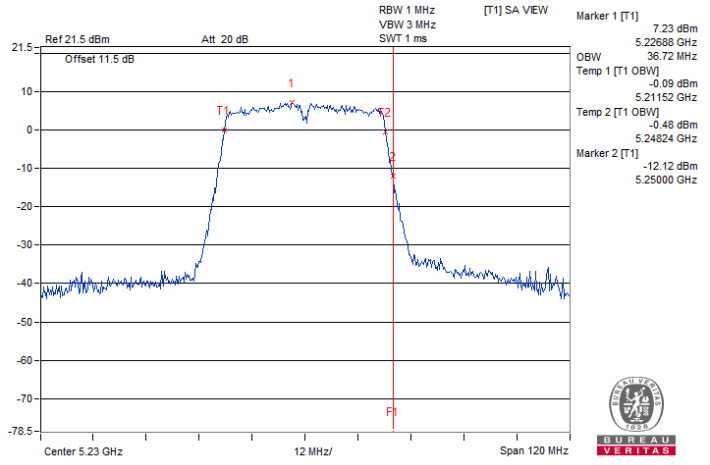
802.11ac (VHT20) / Chain 0 : CH 48



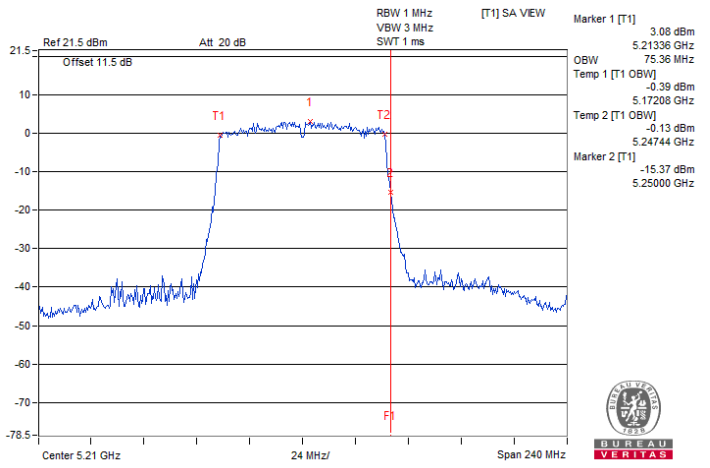
802.11ac (VHT20) / Chain 1 : CH 48



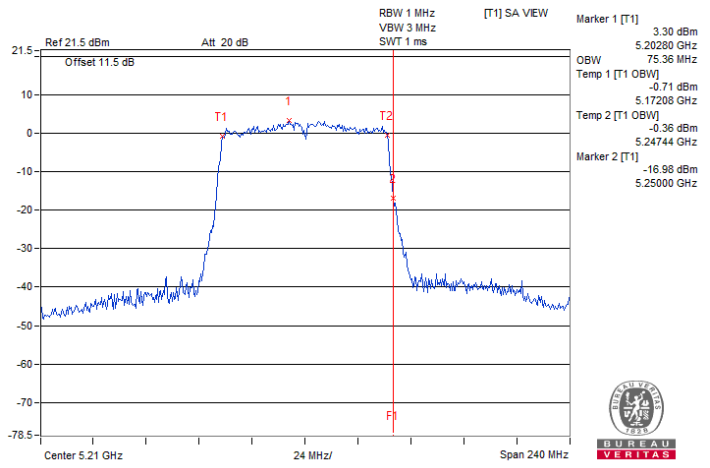
802.11ac (VHT40) / Chain 0 : CH 46



802.11ac (VHT40) / Chain 1 : CH 46



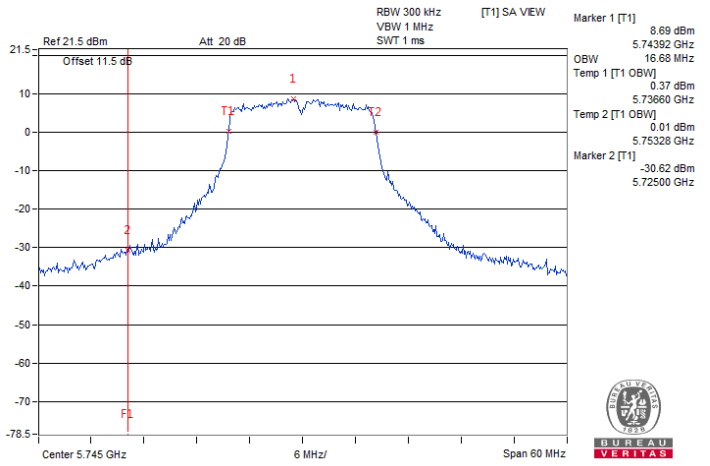
802.11ac (VHT80) / Chain 0 : CH 42



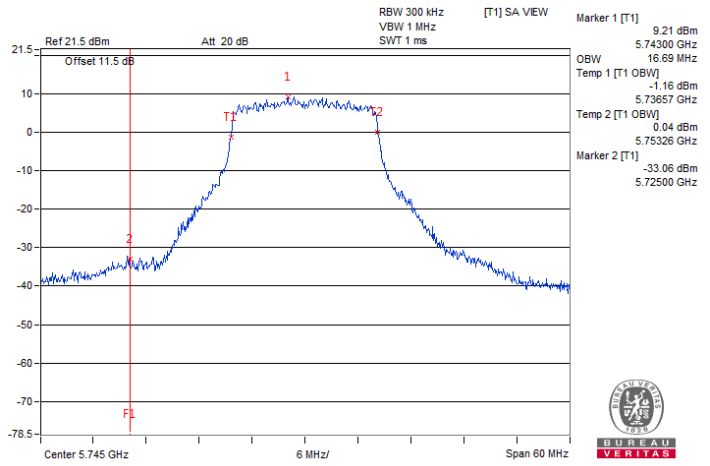
802.11ac (VHT80) / Chain 1 : CH 42

Spectrum Plot for nearby DFS band

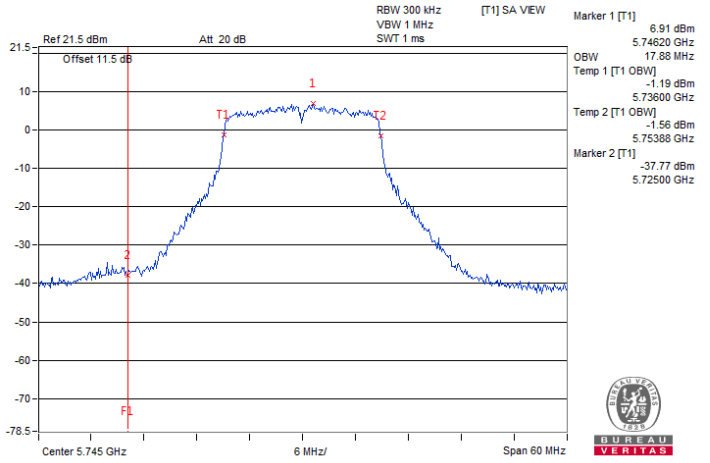
(DFS is required, if 99% OCP straddle into U-NII-2C band)



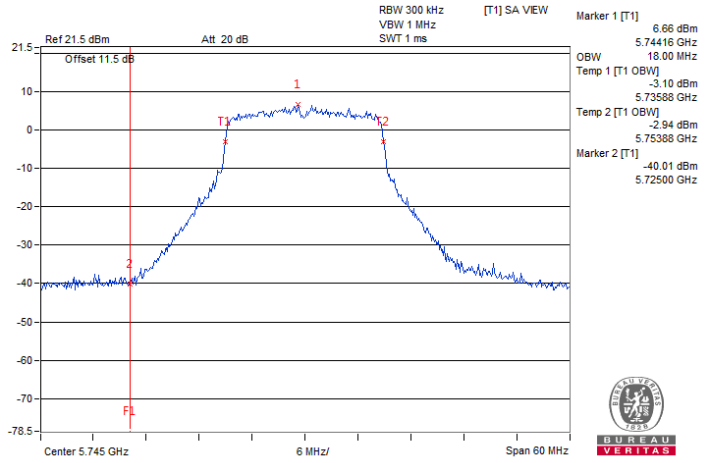
802.11a / Chain 0 : CH 149



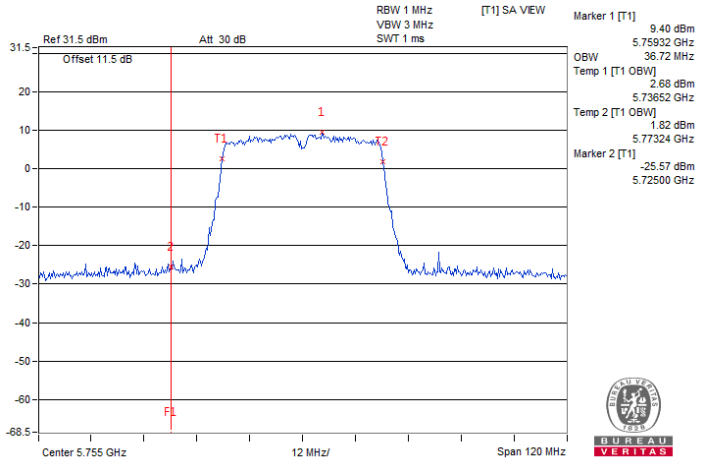
802.11a / Chain 1 : CH 149



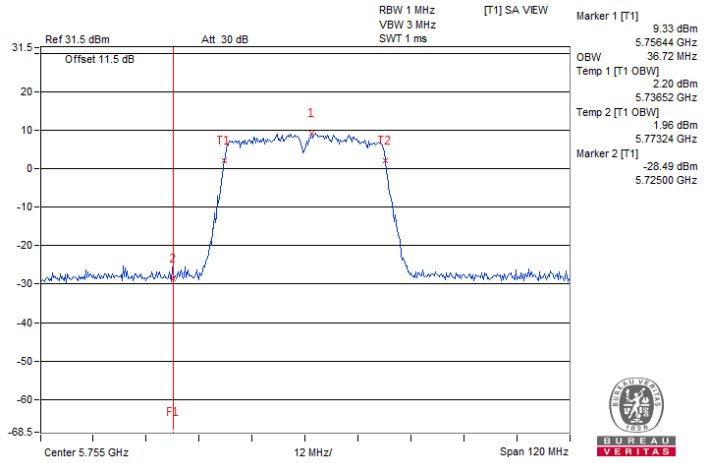
802.11ac (VHT20) / Chain 0 : CH 149



802.11ac (VHT20) / Chain 1 : CH 149



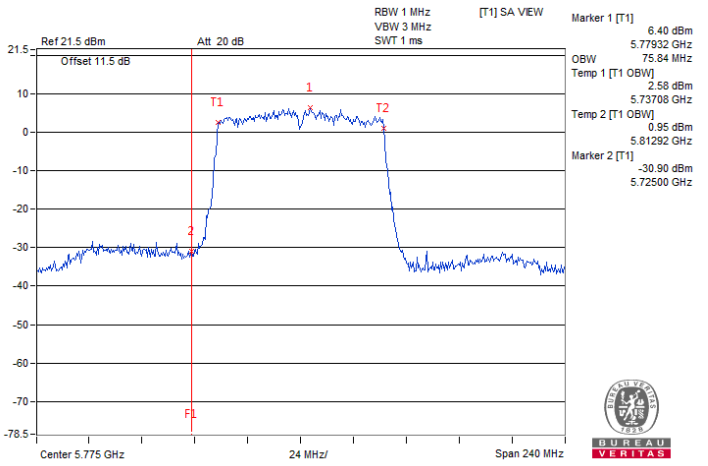
802.11ac (VHT40) / Chain 0 : CH 151



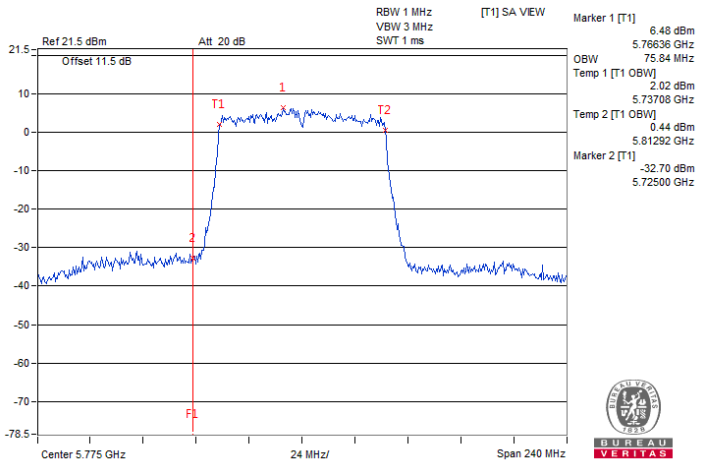
802.11ac (VHT40) / Chain 1 : CH 151

Spectrum Plot for nearby DFS band

(DFS is required, if 99% OCP straddle into U-NII-2C band)



802.11ac (VHT80) / Chain 0 : CH 155



802.11ac (VHT80) / Chain 1 : CH 155

7.6 Frequency Stability

Input Power:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Vincent Huang

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	3.85	5179.9819	Pass	5179.9852	Pass	5179.9817	Pass	5179.982	Pass
30	3.85	5180.0162	Pass	5180.0197	Pass	5180.0152	Pass	5180.0153	Pass
20	3.85	5180.0201	Pass	5180.021	Pass	5180.0217	Pass	5180.0211	Pass
10	3.85	5179.9883	Pass	5179.9892	Pass	5179.9881	Pass	5179.9887	Pass
0	3.85	5180.0101	Pass	5180.0055	Pass	5180.0078	Pass	5180.0082	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	4.4	5180.01	Pass	5180.013	Pass	5180.0121	Pass	5180.0107	Pass
	3.85	5180.0201	Pass	5180.021	Pass	5180.0217	Pass	5180.0211	Pass
	3.5	5180.0205	Pass	5180.021	Pass	5180.0199	Pass	5180.0179	Pass

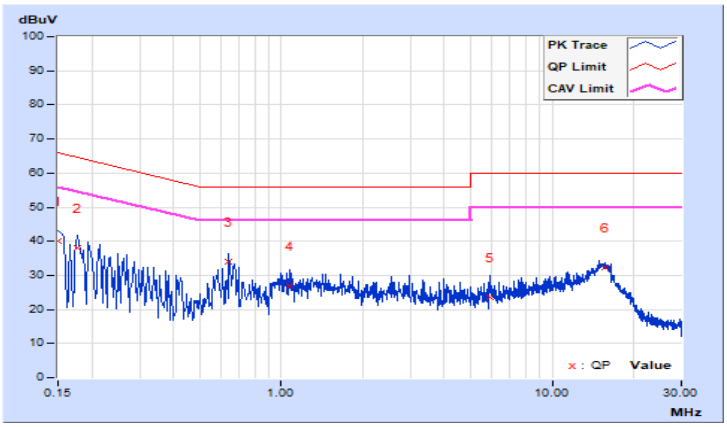
7.7 AC Power Conducted Emissions

RF Mode	TX 802.11a	**Channel**	CH 149：5745 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**	21°C, 68% RH
Tested By	Thomas Cheng		

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	0.15000	10.13	29.82	15.88	39.95	26.01	66.00	56.00	-26.05	-29.99
2	0.17800	10.15	28.01	10.76	38.16	20.91	64.58	54.58	-26.42	-33.67
3	0.64200	10.26	23.67	8.67	33.93	18.93	56.00	46.00	-22.07	-27.07
4	1.07800	10.31	16.62	5.31	26.93	15.62	56.00	46.00	-29.07	-30.38
5	5.90200	10.42	13.12	4.63	23.54	15.05	60.00	50.00	-36.46	-34.95
6	15.59400	10.53	21.68	8.95	32.21	19.48	60.00	50.00	-27.79	-30.52

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

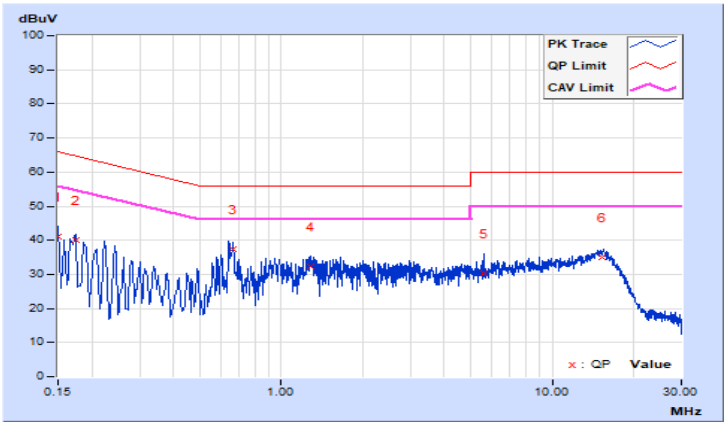


RF Mode	TX 802.11a	**Channel**	CH 149：5745 MHz
Frequency Range	150 kHz ~ 30 MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	21°C, 68% RH
Tested By	Thomas Cheng		

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	10.14	30.92	17.45	41.06	27.59	66.00	56.00	-24.94	-28.41
2	0.17384	10.16	29.89	16.55	40.05	26.71	64.77	54.77	-24.72	-28.06
3	**0.66600**	**10.28**	**27.11**	**18.88**	**37.39**	**29.16**	**56.00**	**46.00**	**-18.61**	**-16.84**
4	1.28200	10.32	21.96	11.31	32.28	21.63	56.00	46.00	-23.72	-24.37
5	5.58200	10.43	19.98	8.68	30.41	19.11	60.00	50.00	-29.59	-30.89
6	15.23400	10.62	24.42	13.39	35.04	24.01	60.00	50.00	-24.96	-25.99

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



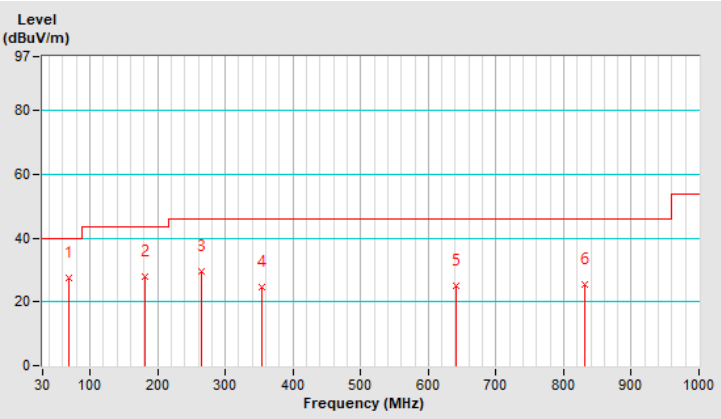
7.8 Unwanted Emissions below 1 GHz

RF Mode	TX 802.11a	**Channel**	CH 149：5745 MHz
Frequency Range	9 kHz ~ 1 GHz	**Detector Function & Bandwidth**	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	68.15	27.5 QP	40.0	-12.5	2.41 H	271	46.6	-19.1
2	181.26	28.1 QP	43.5	-15.4	2.54 H	29	46.4	-18.3
3	263.80	29.7 QP	46.0	-16.3	1.54 H	61	46.9	-17.2
4	353.32	24.5 QP	46.0	-21.5	2.46 H	89	39.2	-14.7
5	641.54	25.0 QP	46.0	-21.0	1.79 H	49	33.5	-8.5
6	831.46	25.4 QP	46.0	-20.6	2.78 H	180	31.1	-5.7

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 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.

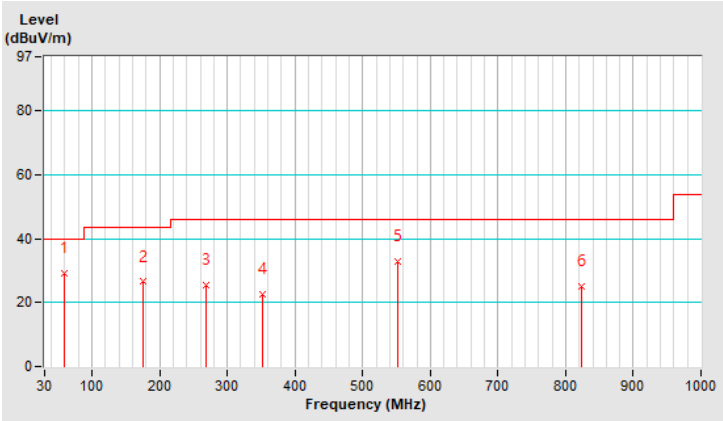


RF Mode	TX 802.11a	**Channel**	CH 149：5745 MHz
Frequency Range	9 kHz ~ 1 GHz	**Detector Function & Bandwidth**	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	**58.92**	**29.3 QP**	**40.0**	**-10.7**	**1.07 V**	**262**	**46.9**	**-17.6**
2	175.49	26.5 QP	43.5	-17.0	2.35 V	151	44.1	-17.6
3	269.24	25.5 QP	46.0	-20.5	1.53 V	184	42.4	-16.9
4	352.28	22.5 QP	46.0	-23.5	1.06 V	184	37.4	-14.9
5	551.08	32.9 QP	46.0	-13.1	1.57 V	224	43.6	-10.7
6	823.55	25.2 QP	46.0	-20.8	1.14 V	283	31.1	-5.9

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.



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**	25°C, 60% RH
Tested By	Karl Lee		

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	59.7 PK	74.0	-14.3	2.00 H	240	47.6	12.1
2	5150.00	49.5 AV	54.0	-4.5	2.00 H	240	37.4	12.1
3	*5180.00	105.9 PK			2.00 H	240	63.1	42.8
4	*5180.00	98.5 AV			2.00 H	240	55.7	42.8
5	#10360.00	55.6 PK	68.2	-12.6	1.35 H	6	37.9	17.7
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	60.3 PK	74.0	-13.7	1.82 V	243	48.2	12.1
2	5150.00	49.8 AV	54.0	-4.2	1.82 V	243	37.7	12.1
3	*5180.00	109.4 PK			1.82 V	242	66.6	42.8
4	*5180.00	102.3 AV			1.82 V	242	59.5	42.8
5	#10360.00	55.9 PK	68.2	-12.3	1.15 V	174	38.2	17.7

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 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**	25°C, 60% RH
Tested By	Karl Lee		

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	59.8 PK	74.0	-14.2	2.00 H	240	47.7	12.1
2	5150.00	49.5 AV	54.0	-4.5	2.00 H	240	37.4	12.1
3	*5200.00	106.8 PK			2.00 H	240	64.0	42.8
4	*5200.00	99.7 AV			2.00 H	240	56.9	42.8
5	5350.00	59.7 PK	74.0	-14.3	2.00 H	240	47.4	12.3
6	5350.00	49.4 AV	54.0	-4.6	2.00 H	240	37.1	12.3
7	#10400.00	55.6 PK	68.2	-12.6	1.17 H	47	38.1	17.5
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	60.2 PK	74.0	-13.8	1.82 V	242	48.1	12.1
2	**5150.00**	**50.0 AV**	**54.0**	**-4.0**	**1.82 V**	**242**	**37.9**	**12.1**
3	*5200.00	108.9 PK			1.85 V	245	66.1	42.8
4	*5200.00	101.2 AV			1.85 V	245	58.4	42.8
5	5350.00	59.7 PK	74.0	-14.3	1.85 V	245	47.4	12.3
6	5350.00	49.6 AV	54.0	-4.4	1.85 V	245	37.3	12.3
7	#10400.00	55.7 PK	68.2	-12.5	1.17 V	7	38.2	17.5

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 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**	25°C, 60% RH
Tested By	Karl Lee		

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	*5240.00	107.1 PK			2.00 H	240	64.1	43.0
2	*5240.00	100.2 AV			2.00 H	240	57.2	43.0
3	5350.00	59.6 PK	74.0	-14.4	2.00 H	240	47.3	12.3
4	5350.00	49.5 AV	54.0	-4.5	2.00 H	240	37.2	12.3
5	#10480.00	55.5 PK	68.2	-12.7	1.35 H	119	37.8	17.7
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	*5240.00	110.6 PK			1.82 V	242	67.6	43.0
2	*5240.00	103.6 AV			1.82 V	242	60.6	43.0
3	5350.00	59.8 PK	74.0	-14.2	1.82 V	242	47.5	12.3
4	5350.00	49.7 AV	54.0	-4.3	1.82 V	242	37.4	12.3
5	#10480.00	55.6 PK	68.2	-12.6	1.13 V	32	37.9	17.7

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	59.8 PK	74.0	-14.2	2.00 H	240	47.7	12.1
2	5150.00	49.6 AV	54.0	-4.4	2.00 H	240	37.5	12.1
3	*5180.00	104.1 PK			2.00 H	240	61.3	42.8
4	*5180.00	97.6 AV			2.00 H	240	54.8	42.8
5	#10360.00	55.6 PK	68.2	-12.6	1.67 H	277	37.9	17.7
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	60.7 PK	74.0	-13.3	1.82 V	242	48.6	12.1
2	5150.00	49.9 AV	54.0	-4.1	1.82 V	242	37.8	12.1
3	*5180.00	106.8 PK			1.80 V	240	64.0	42.8
4	*5180.00	99.4 AV			1.80 V	240	56.6	42.8
5	#10360.00	55.7 PK	68.2	-12.5	1.17 V	45	38.0	17.7

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	59.6 PK	74.0	-14.4	2.00 H	240	47.5	12.1
2	5150.00	49.5 AV	54.0	-4.5	2.00 H	240	37.4	12.1
3	*5200.00	105.9 PK			2.00 H	240	63.1	42.8
4	*5200.00	98.5 AV			2.00 H	240	55.7	42.8
5	#10400.00	55.5 PK	68.2	-12.7	1.19 H	329	38.0	17.5
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	59.8 PK	74.0	-14.2	1.82 V	243	47.7	12.1
2	5150.00	49.8 AV	54.0	-4.2	1.82 V	243	37.7	12.1
3	*5200.00	107.3 PK			1.80 V	242	64.5	42.8
4	*5200.00	100.2 AV			1.80 V	242	57.4	42.8
5	5350.00	59.6 PK	74.0	-14.4	1.80 V	242	47.3	12.3
6	5350.00	49.5 AV	54.0	-4.5	1.80 V	242	37.2	12.3
7	#10400.00	55.7 PK	68.2	-12.5	1.78 V	119	38.2	17.5

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	*5240.00	104.8 PK			2.00 H	240	61.8	43.0
2	*5240.00	97.4 AV			2.00 H	240	54.4	43.0
3	5350.00	59.8 PK	74.0	-14.2	2.00 H	240	47.5	12.3
4	5350.00	49.4 AV	54.0	-4.6	2.00 H	240	37.1	12.3
5	#10480.00	55.4 PK	68.2	-12.8	1.35 H	195	37.7	17.7
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	*5240.00	107.2 PK			1.82 V	242	64.2	43.0
2	*5240.00	100.1 AV			1.82 V	242	57.1	43.0
3	5350.00	60.0 PK	74.0	-14.0	1.82 V	242	47.7	12.3
4	5350.00	49.6 AV	54.0	-4.4	1.82 V	242	37.3	12.3
5	#10480.00	55.6 PK	68.2	-12.6	1.11 V	24	37.9	17.7

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 802.11ac (VHT40)	**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 = 2 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	59.5 PK	74.0	-14.5	2.00 H	240	47.4	12.1
2	5150.00	49.4 AV	54.0	-4.6	2.00 H	240	37.3	12.1
3	*5190.00	99.8 PK			2.00 H	240	57.0	42.8
4	*5190.00	92.6 AV			2.00 H	240	49.8	42.8
5	5350.00	59.6 PK	74.0	-14.4	2.00 H	240	47.3	12.3
6	5350.00	49.6 AV	54.0	-4.4	2.00 H	240	37.3	12.3
7	#10380.00	55.5 PK	68.2	-12.7	1.85 H	119	37.9	17.6
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	59.5 PK	74.0	-14.5	1.82 V	236	47.4	12.1
2	**5150.00**	**50.0 AV**	**54.0**	**-4.0**	**1.82 V**	**236**	**37.9**	**12.1**
3	*5190.00	102.4 PK			1.82 V	242	59.6	42.8
4	*5190.00	95.5 AV			1.82 V	242	52.7	42.8
5	5350.00	59.6 PK	74.0	-14.4	1.82 V	242	47.3	12.3
6	5350.00	49.4 AV	54.0	-4.6	1.82 V	242	37.1	12.3
7	#10380.00	55.8 PK	68.2	-12.4	1.18 V	241	38.2	17.6

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 802.11ac (VHT40)	**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 = 2 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	59.7 PK	74.0	-14.3	2.00 H	240	47.6	12.1
2	5150.00	49.6 AV	54.0	-4.4	2.00 H	240	37.5	12.1
3	*5230.00	100.6 PK			2.00 H	240	57.7	42.9
4	*5230.00	93.3 AV			2.00 H	240	50.4	42.9
5	5350.00	59.6 PK	74.0	-14.4	2.00 H	240	47.3	12.3
6	5350.00	49.7 AV	54.0	-4.3	2.00 H	240	37.4	12.3
7	#10460.00	55.4 PK	68.2	-12.8	1.78 H	199	37.7	17.7
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	60.4 PK	74.0	-13.6	1.81 V	237	48.3	12.1
2	5150.00	49.8 AV	54.0	-4.2	1.81 V	237	37.7	12.1
3	*5230.00	103.7 PK			1.82 V	242	60.8	42.9
4	*5230.00	96.5 AV			1.82 V	242	53.6	42.9
5	5350.00	59.5 PK	74.0	-14.5	1.82 V	242	47.2	12.3
6	5350.00	49.5 AV	54.0	-4.5	1.82 V	242	37.2	12.3
7	#10460.00	55.6 PK	68.2	-12.6	1.37 V	77	37.9	17.7

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 802.11ac (VHT80)	**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 = 3 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	59.7 PK	74.0	-14.3	2.00 H	240	47.6	12.1
2	5150.00	49.6 AV	54.0	-4.4	2.00 H	240	37.5	12.1
3	*5210.00	97.8 PK			2.00 H	240	54.9	42.9
4	*5210.00	90.2 AV			2.00 H	240	47.3	42.9
5	5350.00	59.9 PK	74.0	-14.1	2.00 H	240	47.6	12.3
6	5350.00	49.5 AV	54.0	-4.5	2.00 H	240	37.2	12.3
7	#10420.00	55.7 PK	68.2	-12.5	1.78 H	19	38.1	17.6
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	61.0 PK	74.0	-13.0	1.82 V	234	48.9	12.1
2	5150.00	49.9 AV	54.0	-4.1	1.82 V	234	37.8	12.1
3	*5210.00	101.4 PK			1.82 V	242	58.5	42.9
4	*5210.00	94.4 AV			1.82 V	242	51.5	42.9
5	5350.00	59.9 PK	74.0	-14.1	1.82 V	242	47.6	12.3
6	5350.00	49.7 AV	54.0	-4.3	1.82 V	242	37.4	12.3
7	#10420.00	55.8 PK	68.2	-12.4	1.96 V	176	38.2	17.6

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 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**	25°C, 60% RH
Tested By	Karl Lee		

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	59.7 PK	74.0	-14.3	2.00 H	240	47.6	12.1
2	5150.00	49.6 AV	54.0	-4.4	2.00 H	240	37.5	12.1
3	*5260.00	107.3 PK			2.00 H	240	64.4	42.9
4	*5260.00	100.8 AV			2.00 H	240	57.9	42.9
5	#10520.00	55.6 PK	68.2	-12.6	1.39 H	1	37.8	17.8
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	5150.00	59.6 PK	74.0	-14.4	1.82 V	242	47.5	12.1
2	5150.00	49.6 AV	54.0	-4.4	1.82 V	242	37.5	12.1
3	*5260.00	110.1 PK			1.82 V	242	67.2	42.9
4	*5260.00	103.6 AV			1.82 V	242	60.7	42.9
5	#10520.00	55.6 PK	68.2	-12.6	1.35 V	111	37.8	17.8

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 802.11a	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	107.7 PK			2.00 H	240	64.7	43.0
2	*5300.00	100.2 AV			2.00 H	240	57.2	43.0
3	10600.00	55.6 PK	74.0	-18.4	1.39 H	9	37.9	17.7
4	10600.00	47.3 AV	54.0	-6.7	1.39 H	9	29.6	17.7
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	*5300.00	110.2 PK			1.82 V	244	67.2	43.0
2	*5300.00	103.6 AV			1.82 V	244	60.6	43.0
3	10600.00	55.9 PK	74.0	-18.1	1.24 V	117	38.2	17.7
4	10600.00	47.4 AV	54.0	-6.6	1.24 V	117	29.7	17.7

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 802.11a	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	104.1 PK			2.00 H	240	61.1	43.0
2	*5320.00	97.4 AV			2.00 H	240	54.4	43.0
3	5350.00	59.9 PK	74.0	-14.1	2.00 H	240	47.6	12.3
4	5350.00	49.5 AV	54.0	-4.5	2.00 H	240	37.2	12.3
5	10640.00	55.8 PK	74.0	-18.2	1.63 H	333	38.0	17.8
6	10640.00	47.3 AV	54.0	-6.7	1.63 H	333	29.5	17.8
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	*5320.00	107.1 PK			1.82 V	242	64.1	43.0
2	*5320.00	100.4 AV			1.82 V	242	57.4	43.0
3	5350.00	60.3 PK	74.0	-13.7	1.82 V	119	48.0	12.3
4	**5350.00**	**50.0 AV**	**54.0**	**-4.0**	**1.82 V**	**119**	**37.7**	**12.3**
5	10640.00	56.0 PK	74.0	-18.0	1.17 V	150	38.2	17.8
6	10640.00	47.4 AV	54.0	-6.6	1.17 V	150	29.6	17.8

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	59.5 PK	74.0	-14.5	1.76 H	282	47.4	12.1
2	5150.00	49.8 AV	54.0	-4.2	1.76 H	282	37.7	12.1
3	*5260.00	109.8 PK			1.24 H	233	66.9	42.9
4	*5260.00	103.2 AV			1.24 H	233	60.3	42.9
5	#10520.00	56.1 PK	68.2	-12.1	1.73 H	61	38.3	17.8
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	5150.00	59.8 PK	74.0	-14.2	1.45 V	194	47.7	12.1
2	5150.00	49.7 AV	54.0	-4.3	1.45 V	194	37.6	12.1
3	*5260.00	111.7 PK			1.41 V	191	68.8	42.9
4	*5260.00	105.0 AV			1.41 V	191	62.1	42.9
5	#10520.00	56.2 PK	68.2	-12.0	1.58 V	173	38.4	17.8

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	109.7 PK			1.25 H	231	66.7	43.0
2	*5300.00	109.2 AV			1.25 H	231	66.2	43.0
3	10600.00	56.1 PK	74.0	-17.9	1.37 H	351	38.4	17.7
4	10600.00	46.4 AV	54.0	-7.6	1.37 H	351	28.7	17.7
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	*5300.00	111.7 PK			1.63 V	207	68.7	43.0
2	*5300.00	104.9 AV			1.63 V	207	61.9	43.0
3	10600.00	55.9 PK	74.0	-18.1	1.31 V	275	38.2	17.7
4	10600.00	46.2 AV	54.0	-7.8	1.31 V	275	28.5	17.7

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	107.7 PK			1.22 H	234	64.7	43.0
2	*5320.00	100.2 AV			1.22 H	234	57.2	43.0
3	5350.00	59.7 PK	74.0	-14.3	1.20 H	209	47.4	12.3
4	5350.00	49.7 AV	54.0	-4.3	1.20 H	209	37.4	12.3
5	10620.00	56.2 PK	74.0	-17.8	1.70 H	29	38.5	17.7
6	10620.00	46.4 AV	54.0	-7.6	1.70 H	29	28.7	17.7
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	*5320.00	110.8 PK			1.59 V	231	67.8	43.0
2	*5320.00	102.9 AV			1.59 V	231	59.9	43.0
3	5350.00	59.2 PK	74.0	-14.8	1.61 V	227	46.9	12.3
4	5350.00	49.9 AV	54.0	-4.1	1.61 V	227	37.6	12.3
5	10640.00	56.3 PK	74.0	-17.7	1.15 V	149	38.5	17.8
6	10640.00	46.6 AV	54.0	-7.4	1.15 V	149	28.8	17.8

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 802.11ac (VHT40)	**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 = 2 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	59.7 PK	74.0	-14.3	1.18 H	221	47.6	12.1
2	5150.00	49.8 AV	54.0	-4.2	1.18 H	221	37.7	12.1
3	*5270.00	107.5 PK			1.24 H	233	64.6	42.9
4	*5270.00	100.7 AV			1.24 H	233	57.8	42.9
5	5350.00	59.6 PK	74.0	-14.4	1.52 H	233	47.3	12.3
6	5350.00	49.5 AV	54.0	-4.5	1.52 H	233	37.2	12.3
7	#10540.00	56.2 PK	68.2	-12.0	1.33 H	104	38.4	17.8
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	5150.00	59.6 PK	74.0	-14.4	1.53 V	209	47.5	12.1
2	5150.00	49.6 AV	54.0	-4.4	1.53 V	209	37.5	12.1
3	*5270.00	109.3 PK			1.40 V	193	66.4	42.9
4	*5270.00	102.4 AV			1.40 V	193	59.5	42.9
5	5350.00	59.7 PK	74.0	-14.3	1.42 V	193	47.4	12.3
6	5350.00	49.6 AV	54.0	-4.4	1.42 V	193	37.3	12.3
7	#10540.00	56.4 PK	68.2	-11.8	1.20 V	234	38.6	17.8

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 802.11ac (VHT40)	**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 = 2 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	59.3 PK	74.0	-14.7	1.12 H	245	47.2	12.1
2	5150.00	49.2 AV	54.0	-4.8	1.12 H	245	37.1	12.1
3	*5310.00	103.7 PK			1.22 H	234	60.7	43.0
4	*5310.00	96.6 AV			1.22 H	234	53.6	43.0
5	5350.00	59.5 PK	74.0	-14.5	1.25 H	226	47.2	12.3
6	5350.00	49.7 AV	54.0	-4.3	1.25 H	226	37.4	12.3
7	10620.00	56.0 PK	74.0	-18.0	1.71 H	152	38.3	17.7
8	10620.00	46.3 AV	54.0	-7.7	1.71 H	152	28.6	17.7
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	59.4 PK	74.0	-14.6	1.61 V	230	47.3	12.1
2	5150.00	49.4 AV	54.0	-4.6	1.61 V	230	37.3	12.1
3	*5310.00	106.0 PK			1.60 V	230	63.0	43.0
4	*5310.00	98.9 AV			1.60 V	230	55.9	43.0
5	5350.00	59.8 PK	74.0	-14.2	1.57 V	204	47.5	12.3
6	5350.00	49.9 AV	54.0	-4.1	1.57 V	204	37.6	12.3
7	10620.00	55.9 PK	74.0	-18.1	2.06 V	118	38.2	17.7
8	10620.00	46.1 AV	54.0	-7.9	2.06 V	118	28.4	17.7

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 802.11ac (VHT80)	**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 = 3 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	59.3 PK	74.0	-14.7	1.16 H	236	47.2	12.1
2	5150.00	49.4 AV	54.0	-4.6	1.16 H	236	37.3	12.1
3	*5290.00	101.0 PK			1.22 H	234	58.0	43.0
4	*5290.00	93.7 AV			1.22 H	234	50.7	43.0
5	5350.00	59.7 PK	74.0	-14.3	1.05 H	217	47.4	12.3
6	5350.00	49.7 AV	54.0	-4.3	1.05 H	217	37.4	12.3
7	#10580.00	56.0 PK	68.2	-12.2	1.88 H	16	38.3	17.7
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	59.5 PK	74.0	-14.5	1.52 V	232	47.4	12.1
2	5150.00	49.4 AV	54.0	-4.6	1.52 V	232	37.3	12.1
3	*5290.00	103.4 PK			1.59 V	230	60.4	43.0
4	*5290.00	96.0 AV			1.59 V	230	53.0	43.0
5	5350.00	60.2 PK	74.0	-13.8	1.59 V	240	47.9	12.3
6	5350.00	49.7 AV	54.0	-4.3	1.59 V	240	37.4	12.3
7	#10580.00	56.2 PK	68.2	-12.0	1.32 V	207	38.5	17.7

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**	25°C, 60% RH
Tested By	Karl Lee		

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	59.6 PK	74.0	-14.4	1.04 H	239	46.9	12.7
2	5460.00	49.8 AV	54.0	-4.2	1.04 H	239	37.1	12.7
3	#5470.00	60.2 PK	68.2	-8.0	1.16 H	234	47.5	12.7
4	*5500.00	109.5 PK			1.62 H	234	66.3	43.2
5	*5500.00	102.8 AV			1.62 H	234	59.6	43.2
6	11000.00	56.5 PK	74.0	-17.5	1.56 H	275	38.4	18.1
7	11000.00	46.8 AV	54.0	-7.2	1.56 H	275	28.7	18.1
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	60.2 PK	74.0	-13.8	1.51 V	232	47.5	12.7
2	**5460.00**	**50.0 AV**	**54.0**	**-4.0**	**1.51 V**	**232**	**37.3**	**12.7**
3	#5470.00	62.4 PK	68.2	-5.8	1.54 V	219	49.7	12.7
4	*5500.00	112.4 PK			1.52 V	222	69.2	43.2
5	*5500.00	105.8 AV			1.52 V	222	62.6	43.2
6	11000.00	56.8 PK	74.0	-17.2	2.14 V	183	38.7	18.1
7	11000.00	47.0 AV	54.0	-7.0	2.14 V	183	28.9	18.1

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**	25°C, 60% RH
Tested By	Karl Lee		

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	113.5 PK			1.64 H	237	70.1	43.4
2	*5580.00	106.2 AV			1.64 H	237	62.8	43.4
3	11160.00	56.6 PK	74.0	-17.4	2.52 H	140	38.5	18.1
4	11160.00	46.7 AV	54.0	-7.3	2.52 H	140	28.6	18.1
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	115.8 PK			1.37 V	225	72.4	43.4
2	*5580.00	107.6 AV			1.37 V	225	64.2	43.4
3	11160.00	56.6 PK	74.0	-17.4	1.41 V	206	38.5	18.1
4	11160.00	46.8 AV	54.0	-7.2	1.41 V	206	28.7	18.1

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**	25°C, 60% RH
Tested By	Karl Lee		

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	112.8 PK			1.68 H	239	69.4	43.4
2	*5700.00	105.3 AV			1.68 H	239	61.9	43.4
3	#5725.00	60.1 PK	68.2	-8.1	1.54 H	239	47.3	12.8
4	11400.00	56.8 PK	74.0	-17.2	1.42 H	196	38.2	18.6
5	11400.00	47.0 AV	54.0	-7.0	1.42 H	196	28.4	18.6
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	*5700.00	114.3 PK			1.59 V	234	70.9	43.4
2	*5700.00	106.4 AV			1.59 V	234	63.0	43.4
3	**#5725.00**	**64.2 PK**	**68.2**	**-4.0**	**1.59 V**	**231**	**51.4**	**12.8**
4	11400.00	56.7 PK	74.0	-17.3	1.39 V	281	38.1	18.6
5	11400.00	47.0 AV	54.0	-7.0	1.39 V	281	28.4	18.6

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 144：5720 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**	25°C, 60% RH
Tested By	Karl Lee		

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	59.7 PK	74.0	-14.3	1.76 H	238	47.0	12.7
2	5460.00	49.4 AV	54.0	-4.6	1.76 H	238	36.7	12.7
3	#5470.00	60.1 PK	68.2	-8.1	1.76 H	238	47.4	12.7
4	*5720.00	109.4 PK			1.76 H	238	65.8	43.6
5	*5720.00	102.6 AV			1.76 H	238	59.0	43.6
6	11440.00	56.1 PK	74.0	-17.9	1.05 H	241	37.5	18.6
7	11440.00	47.4 AV	54.0	-6.6	1.05 H	241	28.8	18.6
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	5460.00	59.9 PK	74.0	-14.1	1.59 V	214	47.2	12.7
2	5460.00	49.7 AV	54.0	-4.3	1.59 V	214	37.0	12.7
3	#5470.00	60.0 PK	68.2	-8.2	1.59 V	214	47.3	12.7
4	*5720.00	113.3 PK			1.59 V	214	69.7	43.6
5	*5720.00	106.9 AV			1.59 V	214	63.3	43.6
6	11440.00	56.3 PK	74.0	-17.7	1.97 V	115	37.7	18.6
7	11440.00	47.5 AV	54.0	-6.5	1.97 V	115	28.9	18.6

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	58.9 PK	74.0	-15.1	1.69 H	238	46.2	12.7
2	5460.00	49.6 AV	54.0	-4.4	1.69 H	238	36.9	12.7
3	#5470.00	60.2 PK	68.2	-8.0	1.85 H	206	47.5	12.7
4	*5500.00	108.8 PK			1.76 H	238	65.6	43.2
5	*5500.00	101.2 AV			1.76 H	238	58.0	43.2
6	11000.00	56.6 PK	74.0	-17.4	2.16 H	27	38.5	18.1
7	11000.00	46.9 AV	54.0	-7.1	2.16 H	27	28.8	18.1
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	59.2 PK	74.0	-14.8	1.47 V	226	46.5	12.7
2	**5460.00**	**50.0 AV**	**54.0**	**-4.0**	**1.47 V**	**226**	**37.3**	**12.7**
3	#5470.00	60.8 PK	68.2	-7.4	1.44 V	226	48.1	12.7
4	*5500.00	111.4 PK			1.52 V	222	68.2	43.2
5	*5500.00	103.0 AV			1.52 V	222	59.8	43.2
6	11000.00	56.2 PK	74.0	-17.8	1.34 V	102	38.1	18.1
7	11000.00	46.4 AV	54.0	-7.6	1.34 V	102	28.3	18.1

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	110.2 PK			1.64 H	237	66.8	43.4
2	*5580.00	102.6 AV			1.64 H	237	59.2	43.4
3	11160.00	56.0 PK	74.0	-18.0	2.03 H	71	37.9	18.1
4	11160.00	46.3 AV	54.0	-7.7	2.03 H	71	28.2	18.1
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	112.7 PK			1.37 V	225	69.3	43.4
2	*5580.00	103.9 AV			1.37 V	225	60.5	43.4
3	11160.00	56.2 PK	74.0	-17.8	1.88 V	131	38.1	18.1
4	11160.00	46.5 AV	54.0	-7.5	1.88 V	131	28.4	18.1

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	108.5 PK			1.68 H	239	65.1	43.4
2	*5700.00	101.3 AV			1.68 H	239	57.9	43.4
3	#5725.00	60.0 PK	68.2	-8.2	1.62 H	251	47.2	12.8
4	11400.00	38.0 PK	74.0	-36.0	1.53 H	79	19.4	18.6
5	11400.00	28.2 AV	54.0	-25.8	1.53 H	79	9.6	18.6
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	*5700.00	111.1 PK			1.59 V	234	67.7	43.4
2	*5700.00	104.0 AV			1.59 V	234	60.6	43.4
3	#5725.00	61.4 PK	68.2	-6.8	1.58 V	219	48.6	12.8
4	11400.00	56.9 PK	74.0	-17.1	1.61 V	312	38.3	18.6
5	11400.00	47.1 AV	54.0	-6.9	1.61 V	312	28.5	18.6

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 802.11ac (VHT20)	**Channel**	CH 144：5720 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**	25°C, 60% RH
Tested By	Karl Lee		

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	59.6 PK	74.0	-14.4	1.76 H	238	46.9	12.7
2	5460.00	49.5 AV	54.0	-4.5	1.76 H	238	36.8	12.7
3	#5470.00	60.0 PK	68.2	-8.2	1.76 H	238	47.3	12.7
4	*5720.00	107.2 PK			1.76 H	238	63.6	43.6
5	*5720.00	100.4 AV			1.76 H	238	56.8	43.6
6	11440.00	56.3 PK	74.0	-17.7	1.97 H	115	37.7	18.6
7	11440.00	47.4 AV	54.0	-6.6	1.97 H	115	28.8	18.6
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	5460.00	59.6 PK	74.0	-14.4	1.59 V	214	46.9	12.7
2	5460.00	49.7 AV	54.0	-4.3	1.59 V	214	37.0	12.7
3	#5470.00	60.2 PK	68.2	-8.0	1.59 V	214	47.5	12.7
4	*5720.00	109.2 PK			1.59 V	214	65.6	43.6
5	*5720.00	102.4 AV			1.59 V	214	58.8	43.6
6	11440.00	56.4 PK	74.0	-17.6	1.11 V	124	37.8	18.6
7	11440.00	47.5 AV	54.0	-6.5	1.11 V	124	28.9	18.6

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 802.11ac (VHT40)	**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 = 2 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	60.2 PK	74.0	-13.8	1.76 H	238	47.5	12.7
2	5460.00	49.5 AV	54.0	-4.5	1.76 H	238	36.8	12.7
3	#5470.00	60.5 PK	68.2	-7.7	1.76 H	238	47.8	12.7
4	*5510.00	102.9 PK			1.76 H	238	59.5	43.4
5	*5510.00	95.4 AV			1.76 H	238	52.0	43.4
6	#5725.00	60.3 PK	68.2	-7.9	1.76 H	238	47.5	12.8
7	11020.00	56.1 PK	74.0	-17.9	1.17 H	349	38.0	18.1
8	11020.00	47.5 AV	54.0	-6.5	1.17 H	349	29.4	18.1
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	60.6 PK	74.0	-13.4	1.66 V	232	47.9	12.7
2	5460.00	49.7 AV	54.0	-4.3	1.66 V	232	37.0	12.7
3	#5470.00	61.1 PK	68.2	-7.1	1.66 V	232	48.4	12.7
4	*5510.00	104.3 PK			1.70 V	235	60.9	43.4
5	*5510.00	97.7 AV			1.70 V	235	54.3	43.4
6	#5725.00	61.0 PK	68.2	-7.2	1.70 V	235	48.2	12.8
7	11020.00	56.2 PK	74.0	-17.8	1.17 V	45	38.1	18.1
8	11020.00	47.6 AV	54.0	-6.4	1.17 V	45	29.5	18.1

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 802.11ac (VHT40)	**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 = 2 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	104.4 PK			1.75 H	238	61.0	43.4
2	*5550.00	97.6 AV			1.75 H	238	54.2	43.4
3	11100.00	56.3 PK	74.0	-17.7	1.64 H	250	37.7	18.6
4	11100.00	47.6 AV	54.0	-6.4	1.64 H	250	29.0	18.6
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	*5550.00	106.7 PK			1.59 V	214	63.3	43.4
2	*5550.00	99.6 AV			1.59 V	214	56.2	43.4
3	11100.00	56.4 PK	74.0	-17.6	1.34 V	186	37.8	18.6
4	11100.00	47.7 AV	54.0	-6.3	1.34 V	186	29.1	18.6

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 802.11ac (VHT40)	**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 = 2 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	60.2 PK	74.0	-13.8	1.76 H	238	47.5	12.7
2	5460.00	49.6 AV	54.0	-4.4	1.76 H	238	36.9	12.7
3	#5470.00	60.3 PK	68.2	-7.9	1.76 H	238	47.6	12.7
4	*5670.00	106.1 PK			1.76 H	238	62.6	43.5
5	*5670.00	99.4 AV			1.76 H	238	55.9	43.5
6	#5725.00	61.4 PK	68.2	-6.8	1.76 H	238	48.6	12.8
7	11340.00	56.4 PK	74.0	-17.6	1.17 H	7	38.0	18.4
8	11340.00	47.7 AV	54.0	-6.3	1.17 H	7	29.3	18.4
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	5460.00	60.1 PK	74.0	-13.9	1.59 V	214	47.4	12.7
2	5460.00	49.6 AV	54.0	-4.4	1.59 V	214	36.9	12.7
3	#5470.00	60.2 PK	68.2	-8.0	1.59 V	214	47.5	12.7
4	*5670.00	108.7 PK			1.59 V	214	65.2	43.5
5	*5670.00	101.3 AV			1.59 V	214	57.8	43.5
6	#5725.00	63.3 PK	68.2	-4.9	1.60 V	229	50.5	12.8
7	11340.00	56.5 PK	74.0	-17.5	1.78 V	199	38.1	18.4
8	11340.00	47.8 AV	54.0	-6.2	1.78 V	199	29.4	18.4

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 802.11ac (VHT40)	**Channel**	CH 142：5710 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 2 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	59.6 PK	74.0	-14.4	1.76 H	238	46.9	12.7
2	5460.00	49.5 AV	54.0	-4.5	1.76 H	238	36.8	12.7
3	#5470.00	60.0 PK	68.2	-8.2	1.76 H	238	47.3	12.7
4	*5710.00	105.2 PK			1.76 H	238	61.8	43.4
5	*5710.00	98.6 AV			1.76 H	238	55.2	43.4
6	11420.00	56.0 PK	74.0	-18.0	1.15 H	274	37.4	18.6
7	11420.00	47.6 AV	54.0	-6.4	1.15 H	274	29.0	18.6
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	5460.00	60.0 PK	74.0	-14.0	1.59 V	214	47.3	12.7
2	5460.00	49.6 AV	54.0	-4.4	1.59 V	214	36.9	12.7
3	#5470.00	60.2 PK	68.2	-8.0	1.59 V	214	47.5	12.7
4	*5710.00	107.8 PK			1.59 V	214	64.4	43.4
5	*5710.00	100.7 AV			1.59 V	214	57.3	43.4
6	11420.00	56.1 PK	74.0	-17.9	1.36 V	66	37.5	18.6
7	11420.00	47.6 AV	54.0	-6.4	1.36 V	66	29.0	18.6

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 802.11ac (VHT80)	**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 = 3 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	60.0 PK	74.0	-14.0	1.76 H	238	47.3	12.7
2	5460.00	49.6 AV	54.0	-4.4	1.76 H	238	36.9	12.7
3	#5470.00	60.3 PK	68.2	-7.9	1.76 H	238	47.6	12.7
4	*5530.00	98.1 PK			1.76 H	238	54.7	43.4
5	*5530.00	91.7 AV			1.76 H	238	48.3	43.4
6	#5725.00	60.2 PK	68.2	-8.0	1.76 H	238	47.4	12.8
7	11060.00	56.3 PK	74.0	-17.7	1.97 H	350	38.0	18.3
8	11060.00	47.7 AV	54.0	-6.3	1.97 H	350	29.4	18.3
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	61.3 PK	74.0	-12.7	1.50 V	232	48.6	12.7
2	5460.00	49.8 AV	54.0	-4.2	1.50 V	232	37.1	12.7
3	#5470.00	61.4 PK	68.2	-6.8	1.50 V	232	48.7	12.7
4	*5530.00	100.4 PK			1.59 V	214	57.0	43.4
5	*5530.00	93.5 AV			1.59 V	214	50.1	43.4
6	#5725.00	60.3 PK	68.2	-7.9	1.50 V	232	47.5	12.8
7	11060.00	56.4 PK	74.0	-17.6	1.14 V	145	38.1	18.3
8	11060.00	47.8 AV	54.0	-6.2	1.14 V	145	29.5	18.3

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 802.11ac (VHT80)	**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 = 3 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	60.1 PK	74.0	-13.9	1.76 H	238	47.4	12.7
2	5460.00	49.5 AV	54.0	-4.5	1.76 H	238	36.8	12.7
3	#5470.00	60.3 PK	68.2	-7.9	1.76 H	238	47.6	12.7
4	*5610.00	104.0 PK			1.76 H	238	60.6	43.4
5	*5610.00	97.3 AV			1.76 H	238	53.9	43.4
6	#5725.00	60.4 PK	68.2	-7.8	1.76 H	238	47.6	12.8
7	11220.00	56.4 PK	74.0	-17.6	1.97 H	344	38.5	17.9
8	11220.00	47.8 AV	54.0	-6.2	1.97 H	344	29.9	17.9
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	60.2 PK	74.0	-13.8	1.59 V	214	47.5	12.7
2	5460.00	49.6 AV	54.0	-4.4	1.59 V	214	36.9	12.7
3	#5470.00	60.4 PK	68.2	-7.8	1.59 V	214	47.7	12.7
4	*5610.00	105.5 PK			1.59 V	214	62.1	43.4
5	*5610.00	98.7 AV			1.59 V	214	55.3	43.4
6	#5725.00	60.6 PK	68.2	-7.6	1.59 V	214	47.8	12.8
7	11220.00	56.6 PK	74.0	-17.4	1.17 V	315	38.7	17.9
8	11220.00	48.0 AV	54.0	-6.0	1.17 V	315	30.1	17.9

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 802.11ac (VHT80)	**Channel**	CH 138：5690 MHz
Frequency Range	1 GHz ~ 40 GHz	**Detector Function & Bandwidth**	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 3 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	60.0 PK	74.0	-14.0	1.76 H	238	47.3	12.7
2	5460.00	49.8 AV	54.0	-4.2	1.76 H	238	37.1	12.7
3	#5470.00	60.3 PK	68.2	-7.9	1.76 H	238	47.6	12.7
4	*5690.00	104.1 PK			1.76 H	238	60.7	43.4
5	*5690.00	97.4 AV			1.76 H	238	54.0	43.4
6	11380.00	56.2 PK	74.0	-17.8	1.17 H	48	37.7	18.5
7	11380.00	47.8 AV	54.0	-6.2	1.17 H	48	29.3	18.5
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	5460.00	60.1 PK	74.0	-13.9	1.59 V	217	47.4	12.7
2	5460.00	49.8 AV	54.0	-4.2	1.59 V	217	37.1	12.7
3	#5470.00	60.5 PK	68.2	-7.7	1.59 V	217	47.8	12.7
4	*5690.00	106.2 PK			1.59 V	217	62.8	43.4
5	*5690.00	99.6 AV			1.59 V	217	56.2	43.4
6	11380.00	55.9 PK	74.0	-18.1	1.55 V	213	37.4	18.5
7	11380.00	47.9 AV	54.0	-6.1	1.55 V	213	29.4	18.5

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 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**	25°C, 60% RH
Tested By	Karl Lee		

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	#5613.21	62.0 PK	68.2	-6.2	1.76 H	238	49.3	12.7
2	*5745.00	110.1 PK			1.76 H	238	66.4	43.7
3	*5745.00	103.6 AV			1.76 H	238	59.9	43.7
4	#5925.53	61.9 PK	68.2	-6.3	1.76 H	238	48.7	13.2
5	11490.00	56.1 PK	74.0	-17.9	1.67 H	77	37.3	18.8
6	11490.00	47.4 AV	54.0	-6.6	1.67 H	77	28.6	18.8
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	#5610.81	61.9 PK	68.2	-6.3	1.59 V	217	49.2	12.7
2	*5745.00	113.8 PK			1.59 V	217	70.1	43.7
3	*5745.00	106.6 AV			1.59 V	217	62.9	43.7
4	#5969.97	62.3 PK	68.2	-5.9	1.59 V	217	49.0	13.3
5	11490.00	56.4 PK	74.0	-17.6	1.34 V	229	37.6	18.8
6	11490.00	47.5 AV	54.0	-6.5	1.34 V	229	28.7	18.8

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 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**	25°C, 60% RH
Tested By	Karl Lee		

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	#5607.61	61.8 PK	68.2	-6.4	1.76 H	238	49.1	12.7
2	*5785.00	110.3 PK			1.76 H	238	66.5	43.8
3	*5785.00	103.5 AV			1.76 H	238	59.7	43.8
4	#5963.96	62.5 PK	68.2	-5.7	1.76 H	238	49.3	13.2
5	11570.00	56.2 PK	74.0	-17.8	1.35 H	113	37.6	18.6
6	11570.00	47.6 AV	54.0	-6.4	1.35 H	113	29.0	18.6
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	#5646.05	61.9 PK	68.2	-6.3	1.58 V	217	49.1	12.8
2	*5785.00	113.4 PK			1.58 V	217	69.6	43.8
3	*5785.00	106.2 AV			1.58 V	217	62.4	43.8
4	#5933.53	62.3 PK	68.2	-5.9	1.58 V	217	49.1	13.2
5	11570.00	56.4 PK	74.0	-17.6	1.12 V	319	37.8	18.6
6	11570.00	47.5 AV	54.0	-6.5	1.12 V	319	28.9	18.6

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**	25°C, 60% RH
Tested By	Karl Lee		

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	#5648.85	61.1 PK	68.2	-7.1	1.76 H	238	48.3	12.8
2	*5825.00	109.4 PK			1.76 H	238	65.5	43.9
3	*5825.00	102.9 AV			1.76 H	238	59.0	43.9
4	#5971.17	62.2 PK	68.2	-6.0	1.76 H	238	48.9	13.3
5	11650.00	56.3 PK	74.0	-17.7	1.78 H	8	37.4	18.9
6	11650.00	47.5 AV	54.0	-6.5	1.78 H	8	28.6	18.9
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	#5651.25	62.2 PK	69.1	-6.9	1.58 V	217	49.5	12.7
2	*5825.00	113.2 PK			1.58 V	217	69.3	43.9
3	*5825.00	106.5 AV			1.58 V	217	62.6	43.9
4	#5969.97	62.4 PK	68.2	-5.8	1.58 V	217	49.1	13.3
5	11650.00	56.3 PK	74.0	-17.7	1.78 V	16	37.4	18.9
6	11650.00	47.6 AV	54.0	-6.4	1.78 V	16	28.7	18.9

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	#5649.25	61.7 PK	68.2	-6.5	1.76 H	238	48.9	12.8
2	*5745.00	108.5 PK			1.76 H	238	64.8	43.7
3	*5745.00	101.4 AV			1.76 H	238	57.7	43.7
4	#5997.60	62.4 PK	68.2	-5.8	1.76 H	238	49.1	13.3
5	11490.00	56.3 PK	74.0	-17.7	1.67 H	188	37.5	18.8
6	11490.00	47.5 AV	54.0	-6.5	1.67 H	188	28.7	18.8
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	#5601.60	62.0 PK	68.2	-6.2	1.58 V	217	49.3	12.7
2	*5745.00	111.2 PK			1.58 V	217	67.5	43.7
3	*5745.00	104.6 AV			1.58 V	217	60.9	43.7
4	#5989.99	62.7 PK	68.2	-5.5	1.58 V	217	49.4	13.3
5	11490.00	56.5 PK	74.0	-17.5	1.37 V	7	37.7	18.8
6	11490.00	47.6 AV	54.0	-6.4	1.37 V	7	28.8	18.8

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	#5638.04	61.5 PK	68.2	-6.7	1.76 H	238	48.8	12.7
2	*5785.00	108.1 PK			1.76 H	238	64.3	43.8
3	*5785.00	101.3 AV			1.76 H	238	57.5	43.8
4	#5928.33	62.1 PK	68.2	-6.1	1.76 H	238	48.9	13.2
5	11570.00	56.4 PK	74.0	-17.6	1.18 H	255	37.8	18.6
6	11570.00	47.5 AV	54.0	-6.5	1.18 H	255	28.9	18.6
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	#5617.22	61.4 PK	68.2	-6.8	1.58 V	217	48.7	12.7
2	*5785.00	110.4 PK			1.58 V	217	66.6	43.8
3	*5785.00	103.6 AV			1.58 V	217	59.8	43.8
4	#5996.40	61.5 PK	68.2	-6.7	1.58 V	217	48.2	13.3
5	11570.00	56.3 PK	74.0	-17.7	1.18 V	186	37.7	18.6
6	11570.00	47.4 AV	54.0	-6.6	1.18 V	186	28.8	18.6

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 802.11ac (VHT20)	**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**	25°C, 60% RH
Tested By	Karl Lee		

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	#5647.65	61.0 PK	68.2	-7.2	1.76 H	248	48.2	12.8
2	*5825.00	108.2 PK			1.76 H	248	64.3	43.9
3	*5825.00	101.4 AV			1.76 H	248	57.5	43.9
4	#5966.77	61.7 PK	68.2	-6.5	1.76 H	248	48.4	13.3
5	11650.00	56.5 PK	74.0	-17.5	1.19 H	345	37.6	18.9
6	11650.00	47.6 AV	54.0	-6.4	1.19 H	345	28.7	18.9
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	#5608.41	61.7 PK	68.2	-6.5	1.58 V	208	49.0	12.7
2	*5825.00	110.3 PK			1.58 V	208	66.4	43.9
3	*5825.00	103.5 AV			1.58 V	208	59.6	43.9
4	#5958.76	61.2 PK	68.2	-7.0	1.58 V	208	48.0	13.2
5	11650.00	56.5 PK	74.0	-17.5	1.16 V	32	37.6	18.9
6	11650.00	47.6 AV	54.0	-6.4	1.16 V	32	28.7	18.9

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 802.11ac (VHT40)	**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 = 2 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	#5632.03	62.0 PK	68.2	-6.2	1.76 H	238	49.3	12.7
2	*5755.00	106.0 PK			1.76 H	238	62.3	43.7
3	*5755.00	99.3 AV			1.76 H	238	55.6	43.7
4	#5974.77	62.2 PK	68.2	-6.0	1.76 H	238	48.9	13.3
5	11510.00	56.4 PK	74.0	-17.6	1.11 H	174	37.7	18.7
6	11510.00	47.5 AV	54.0	-6.5	1.11 H	174	28.8	18.7
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	#5631.63	62.1 PK	68.2	-6.1	1.58 V	217	49.4	12.7
2	*5755.00	108.2 PK			1.58 V	217	64.5	43.7
3	*5755.00	101.7 AV			1.58 V	217	58.0	43.7
4	#5991.59	62.4 PK	68.2	-5.8	1.58 V	217	49.1	13.3
5	11510.00	56.4 PK	74.0	-17.6	1.15 V	24	37.7	18.7
6	11510.00	47.7 AV	54.0	-6.3	1.15 V	24	29.0	18.7

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 802.11ac (VHT40)	**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 = 2 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	#5647.65	61.0 PK	68.2	-7.2	1.76 H	240	48.2	12.8
2	*5795.00	107.1 PK			1.76 H	240	63.3	43.8
3	*5795.00	100.5 AV			1.76 H	240	56.7	43.8
4	#5926.73	61.3 PK	68.2	-6.9	1.76 H	240	48.1	13.2
5	11590.00	56.4 PK	74.0	-17.6	1.29 H	7	37.8	18.6
6	11590.00	47.8 AV	54.0	-6.2	1.29 H	7	29.2	18.6
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	#5608.01	61.8 PK	68.2	-6.4	1.58 V	217	49.1	12.7
2	*5795.00	108.6 PK			1.58 V	217	64.8	43.8
3	*5795.00	101.4 AV			1.58 V	217	57.6	43.8
4	#5964.36	62.2 PK	68.2	-6.0	1.58 V	217	49.0	13.2
5	11590.00	56.5 PK	74.0	-17.5	1.15 V	322	37.9	18.6
6	11590.00	47.9 AV	54.0	-6.1	1.15 V	322	29.3	18.6

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 802.11ac (VHT80)	**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 = 3 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	25°C, 60% RH
Tested By	Karl Lee		

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	#5644.04	62.5 PK	68.2	-5.7	1.76 H	239	49.8	12.7
2	*5775.00	104.4 PK			1.76 H	239	60.6	43.8
3	*5775.00	97.5 AV			1.76 H	239	53.7	43.8
4	#5992.79	61.5 PK	68.2	-6.7	1.76 H	239	48.2	13.3
5	11550.00	56.5 PK	74.0	-17.5	1.97 H	7	37.9	18.6
6	11550.00	48.0 AV	54.0	-6.0	1.97 H	7	29.4	18.6
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	#5646.45	62.0 PK	68.2	-6.2	1.58 V	226	49.2	12.8
2	*5775.00	106.2 PK			1.58 V	226	62.4	43.8
3	*5775.00	99.7 AV			1.58 V	226	55.9	43.8
4	#5992.39	61.9 PK	68.2	-6.3	1.58 V	226	48.6	13.3
5	11550.00	56.6 PK	74.0	-17.4	1.13 V	289	38.0	18.6
6	11550.00	48.1 AV	54.0	-5.9	1.13 V	289	29.5	18.6

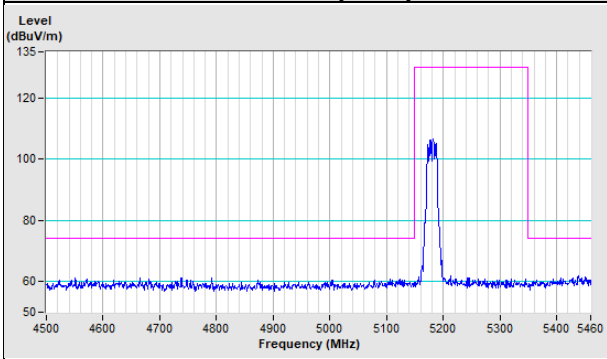
Remarks:

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.

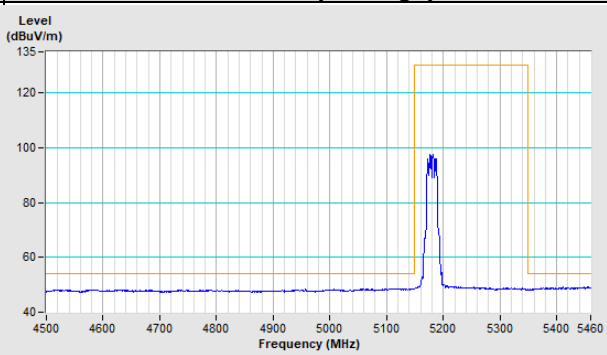
Plot of Band Edge

802.11a Channel 36

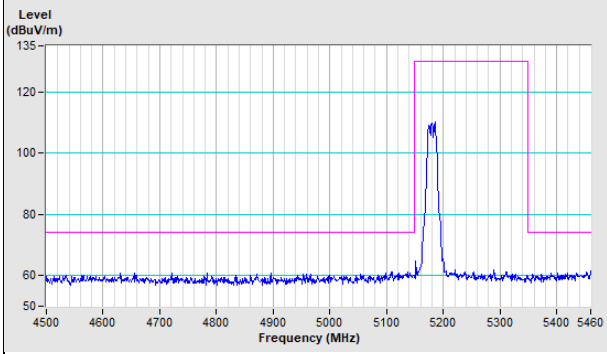
Horizontal (Peak)



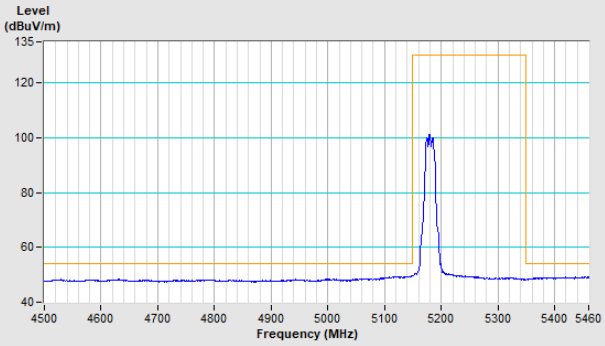
Horizontal (Average)



Vertical (Peak)

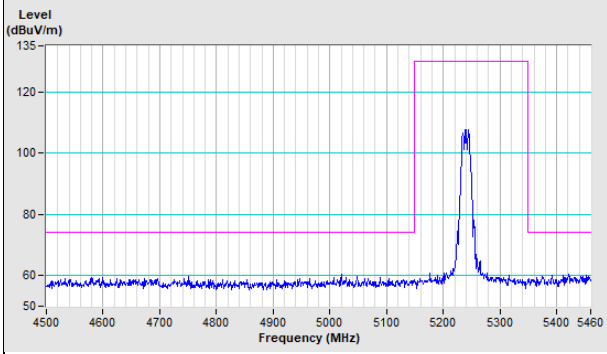


Vertical (Average)

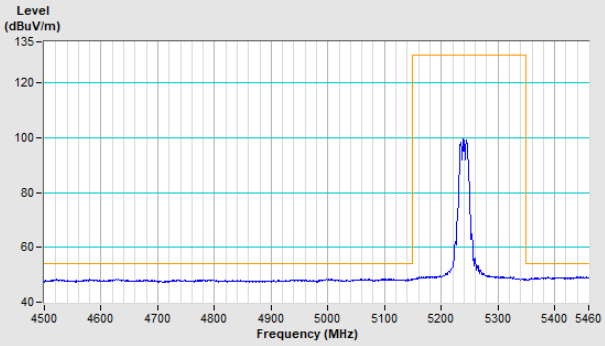


802.11a Channel 48

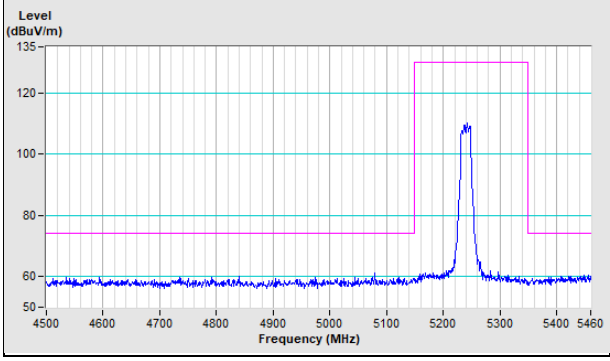
Horizontal (Peak)



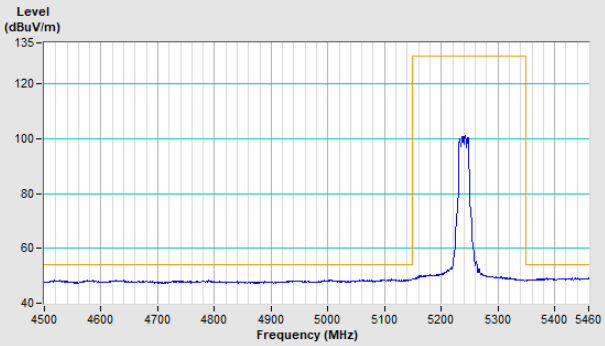
Horizontal (Average)



Vertical (Peak)

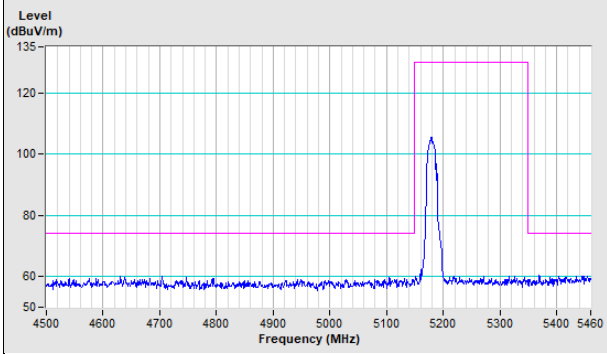


Vertical (Average)

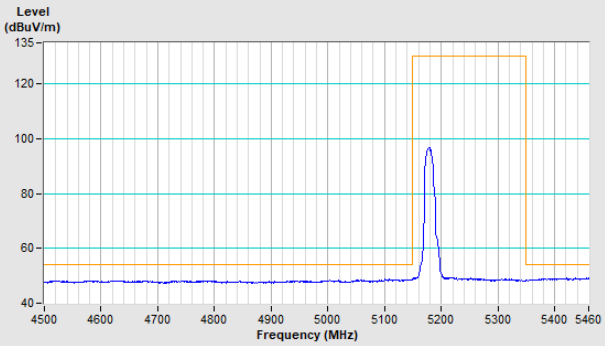


802.11ac (VHT20) Channel 36

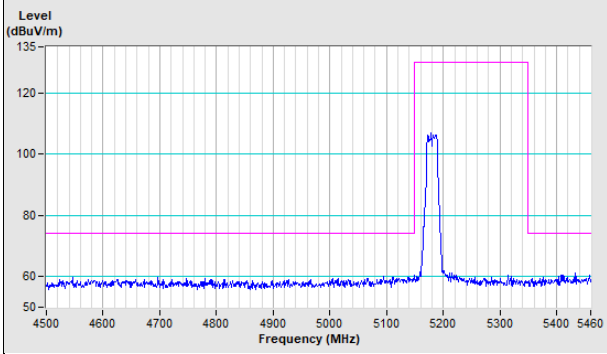
Horizontal (Peak)



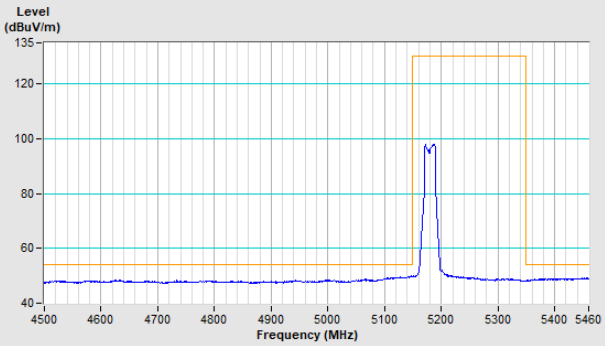
Horizontal (Average)



Vertical (Peak)

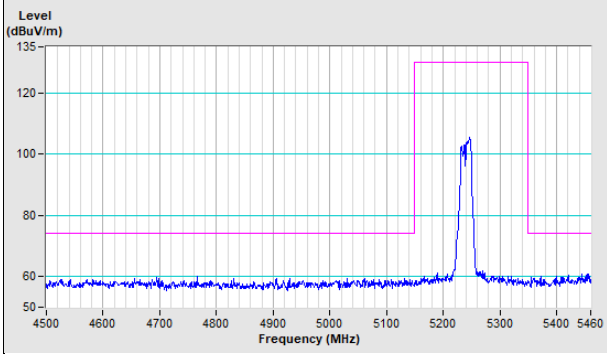


Vertical (Average)

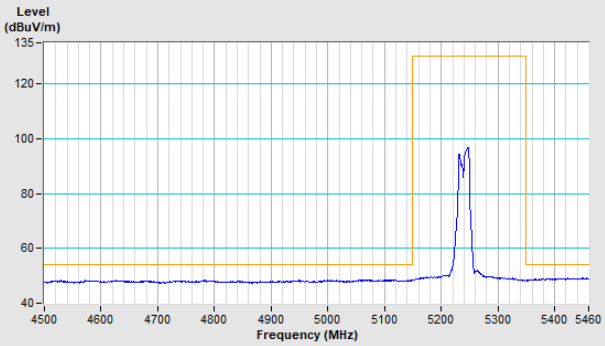


802.11ac (VHT20) Channel 48

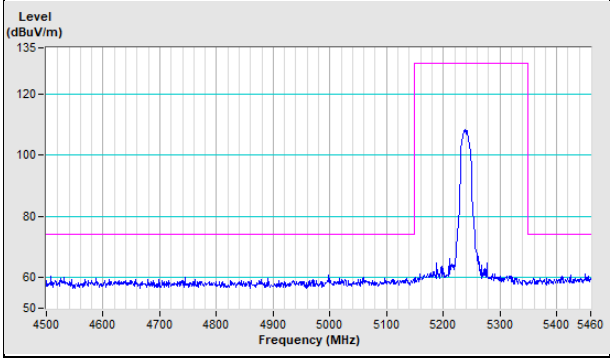
Horizontal (Peak)



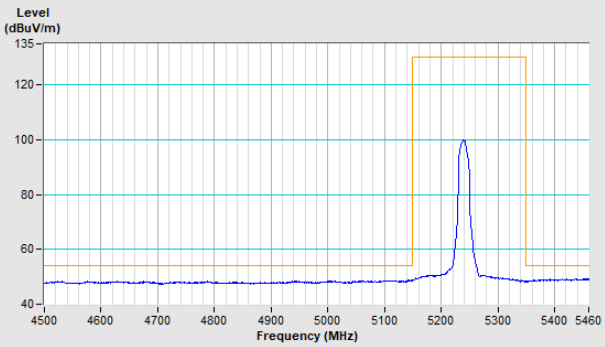
Horizontal (Average)



Vertical (Peak)

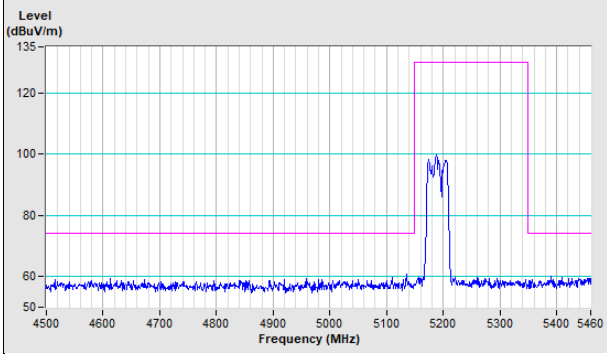


Vertical (Average)

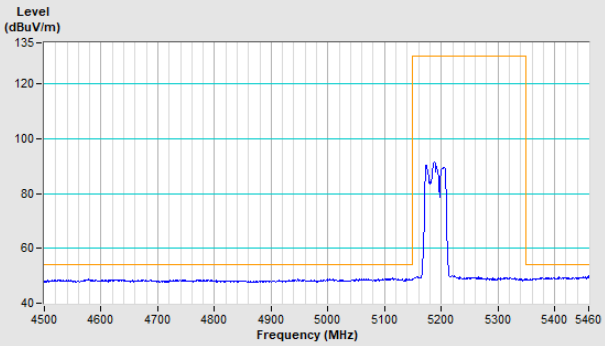


802.11ac (VHT40) Channel 38

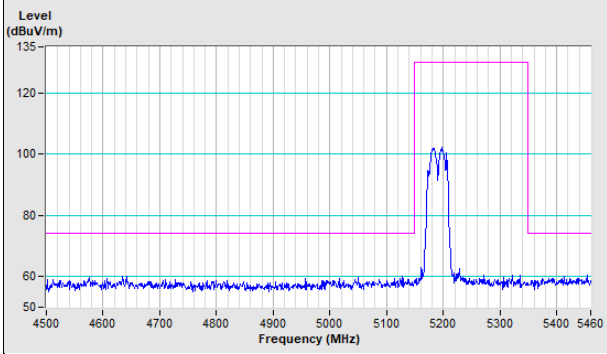
Horizontal (Peak)



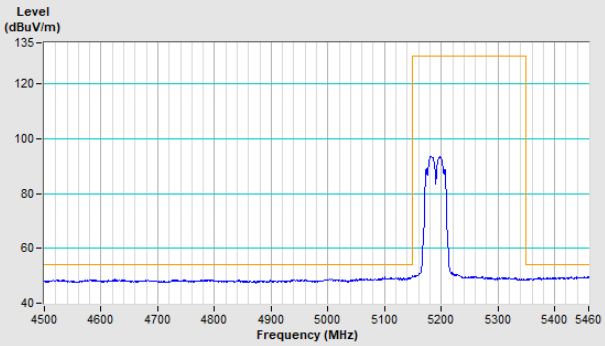
Horizontal (Average)



Vertical (Peak)

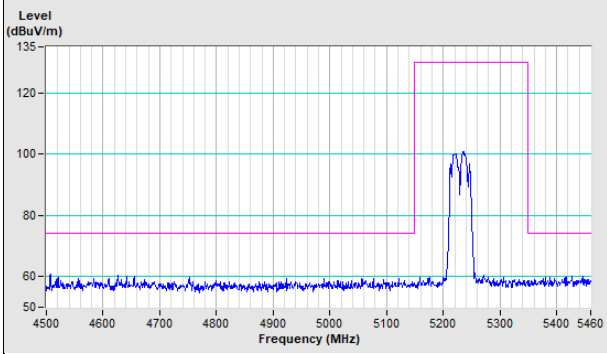


Vertical (Average)

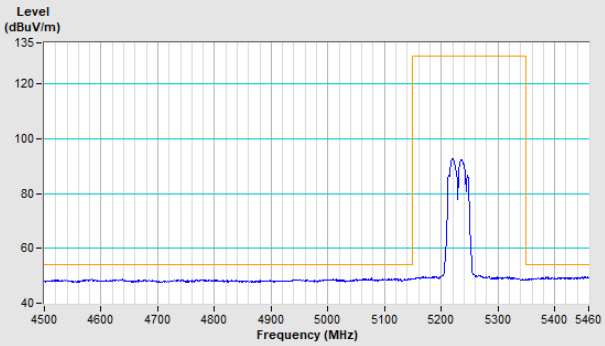


802.11ac (VHT40) Channel 46

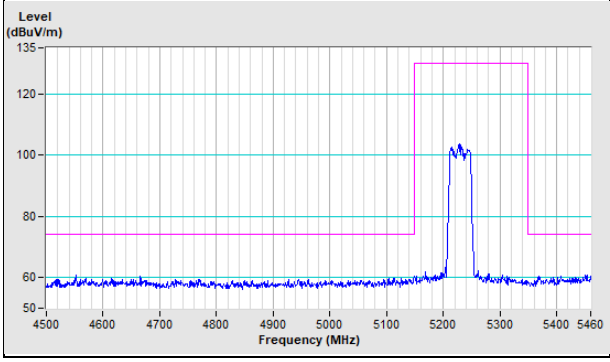
Horizontal (Peak)



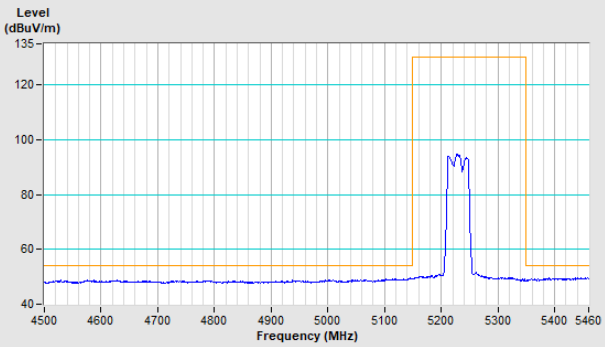
Horizontal (Average)



Vertical (Peak)

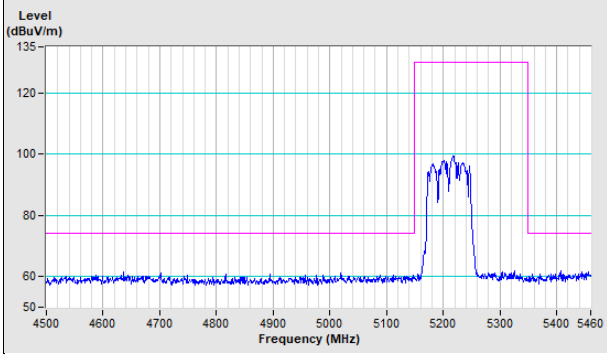


Vertical (Average)

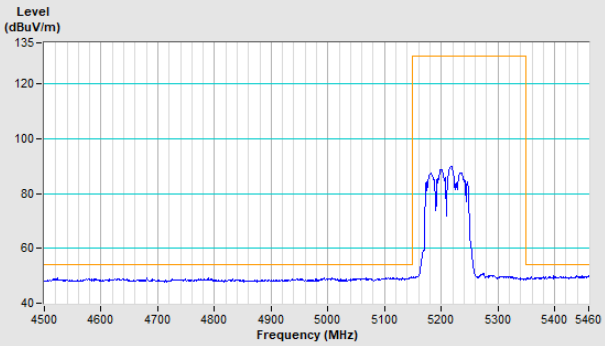


802.11ac (VHT80) Channel 42

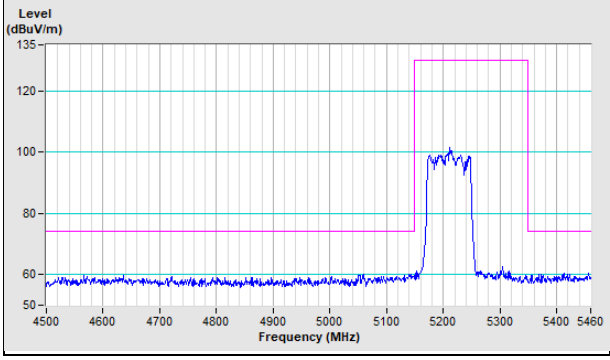
Horizontal (Peak)



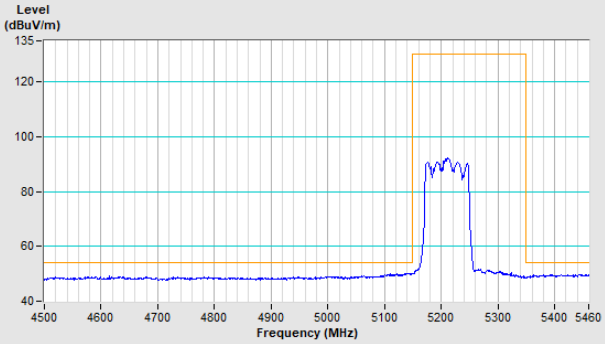
Horizontal (Average)



Vertical (Peak)

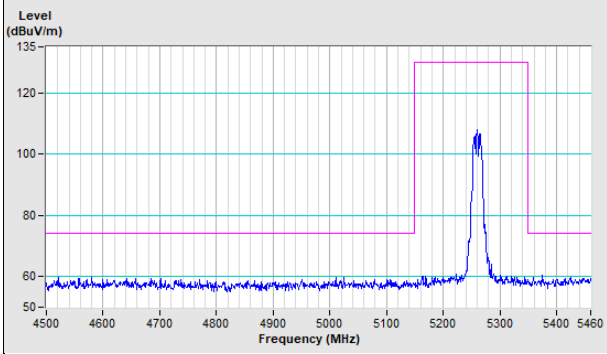


Vertical (Average)

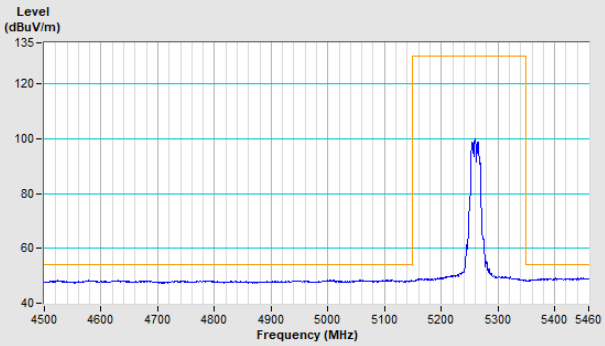


802.11a Channel 52

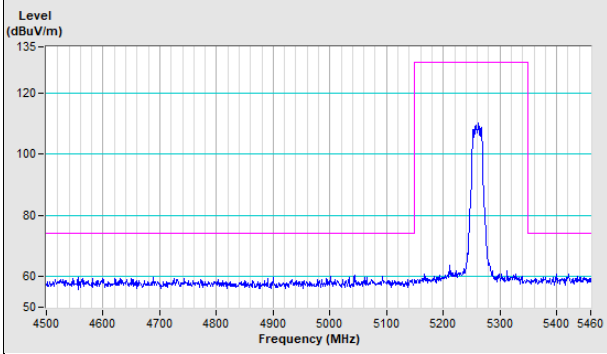
Horizontal (Peak)



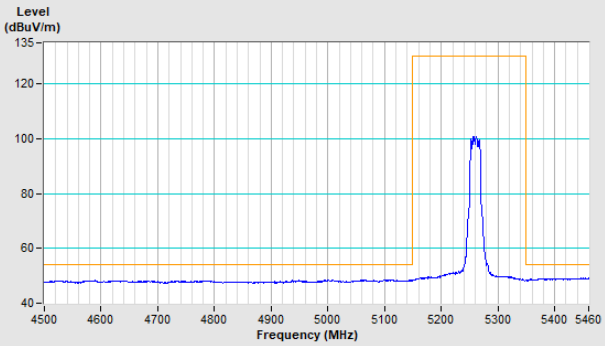
Horizontal (Average)



Vertical (Peak)

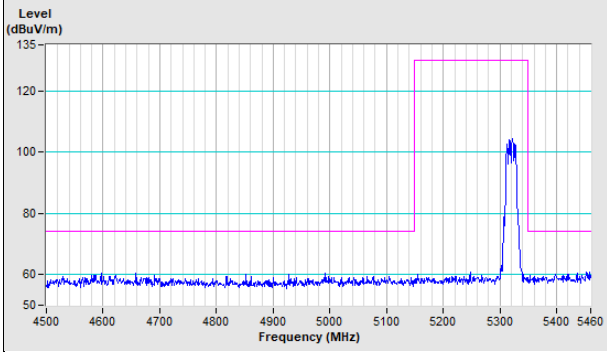


Vertical (Average)

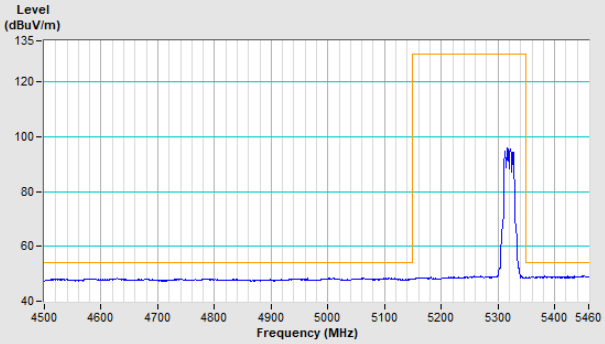


802.11a Channel 64

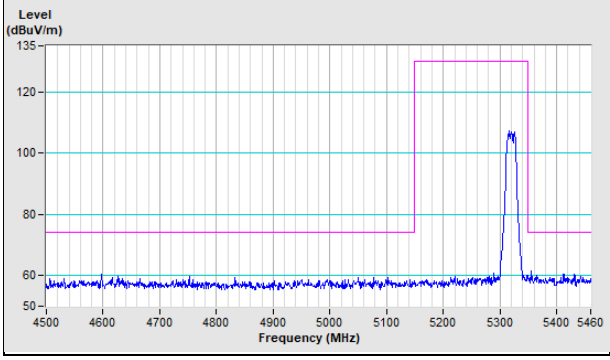
Horizontal (Peak)



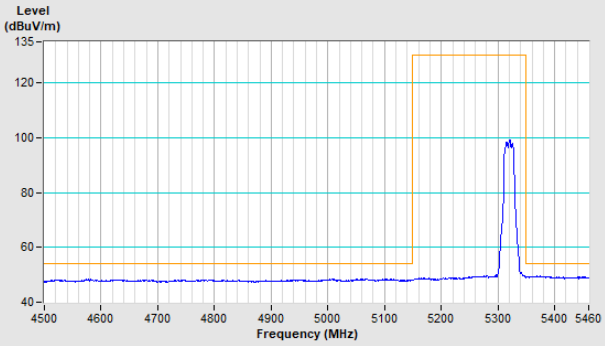
Horizontal (Average)



Vertical (Peak)

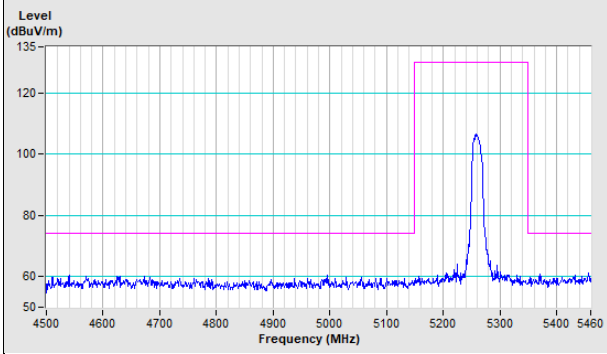


Vertical (Average)

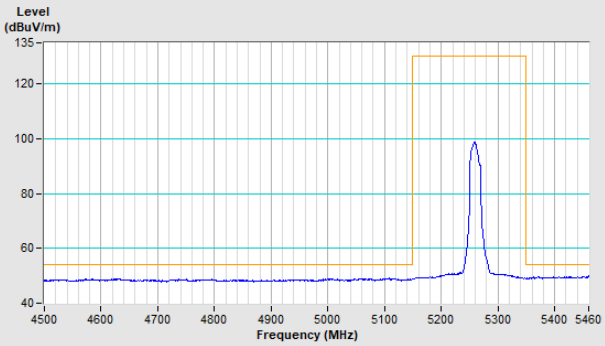


802.11ac (VHT20) Channel 52

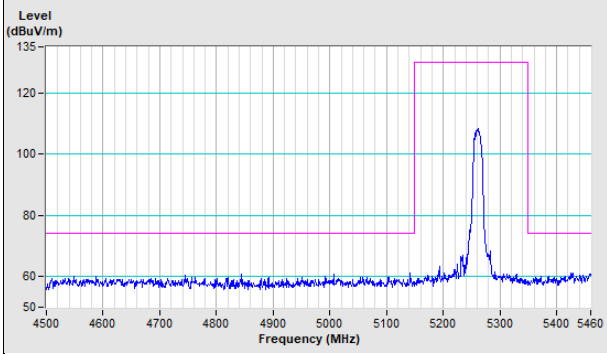
Horizontal (Peak)



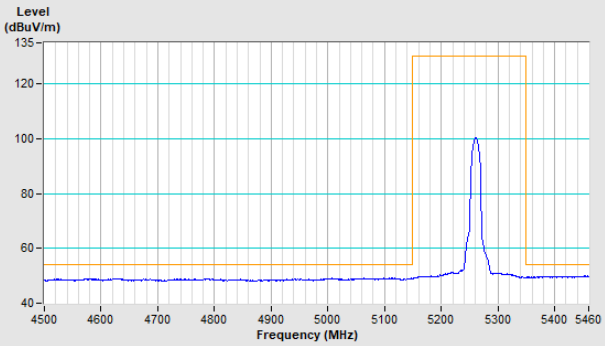
Horizontal (Average)



Vertical (Peak)

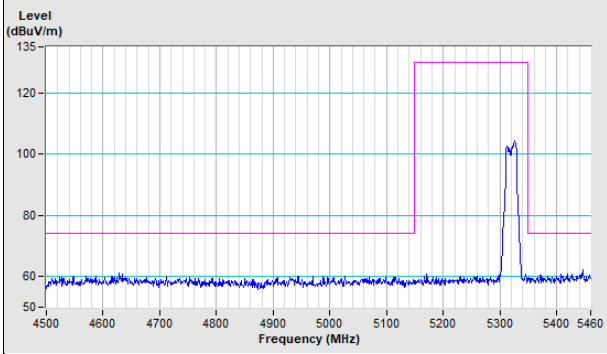


Vertical (Average)

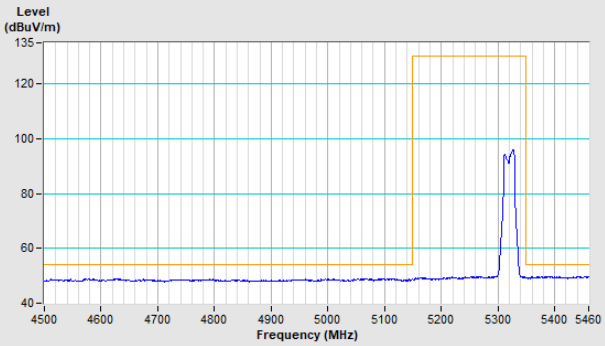


802.11ac (VHT20) Channel 64

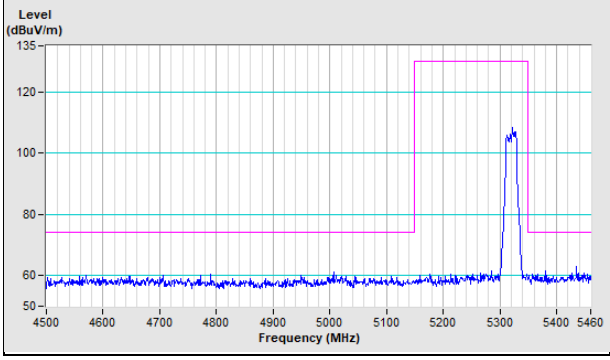
Horizontal (Peak)



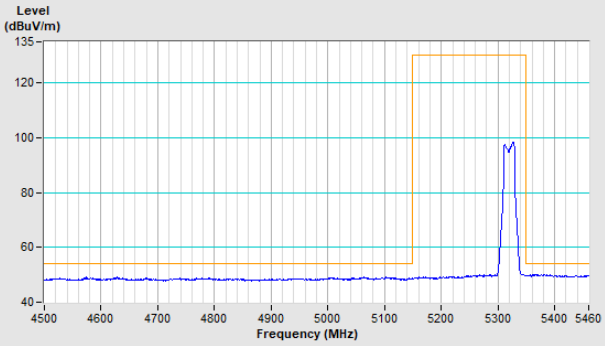
Horizontal (Average)



Vertical (Peak)

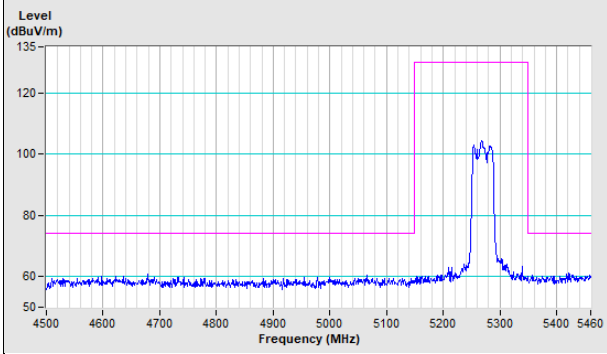


Vertical (Average)

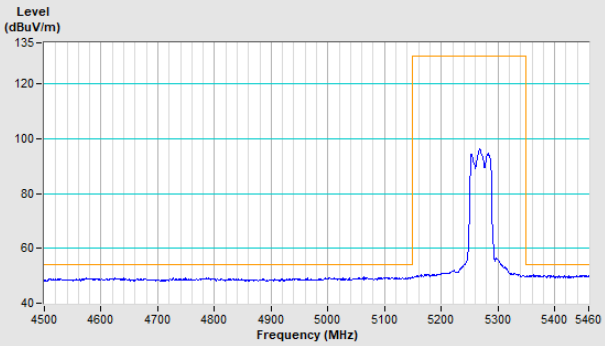


802.11ac (VHT40) Channel 54

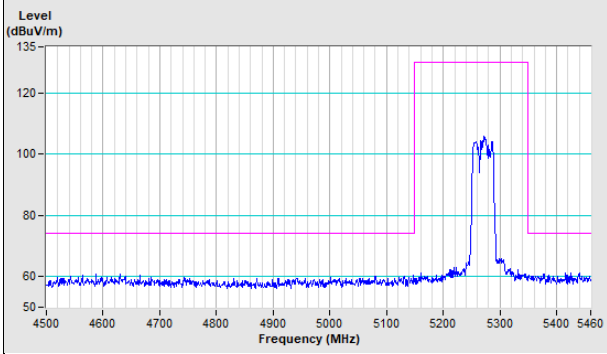
Horizontal (Peak)



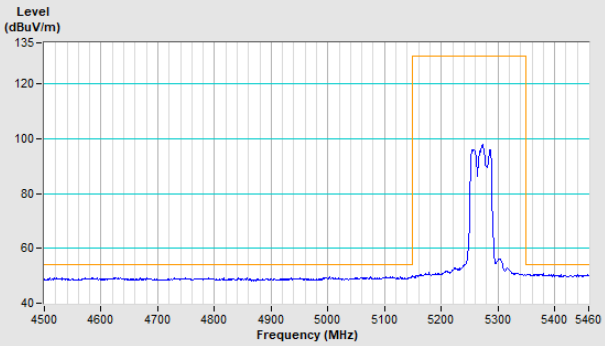
Horizontal (Average)



Vertical (Peak)

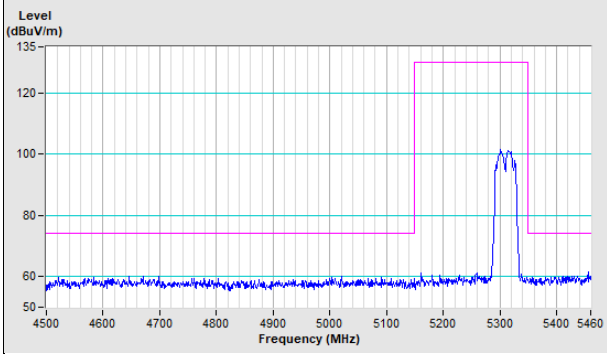


Vertical (Average)

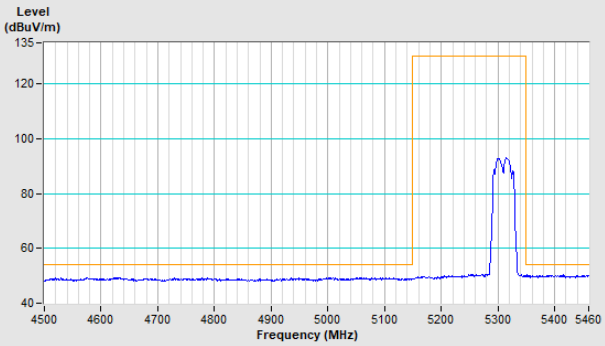


802.11ac (VHT40) Channel 62

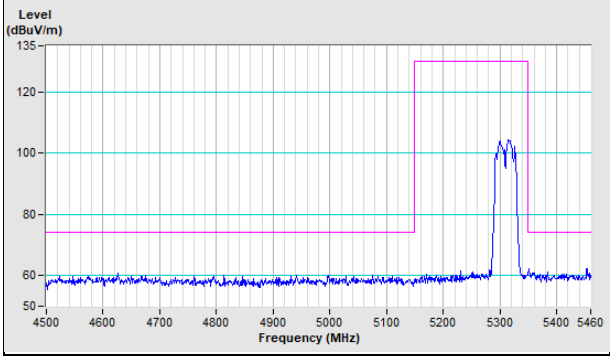
Horizontal (Peak)



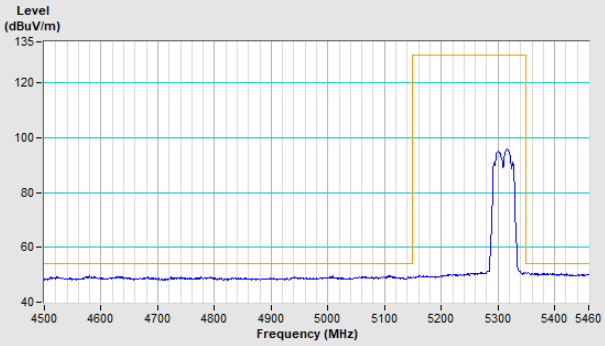
Horizontal (Average)



Vertical (Peak)

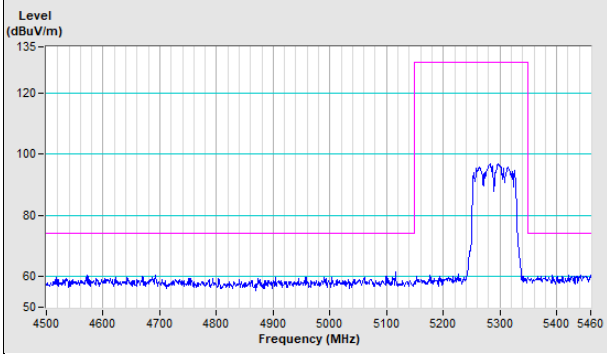


Vertical (Average)

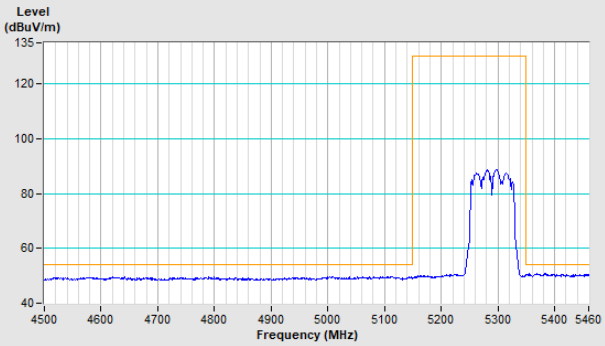


802.11ac (VHT80) Channel 58

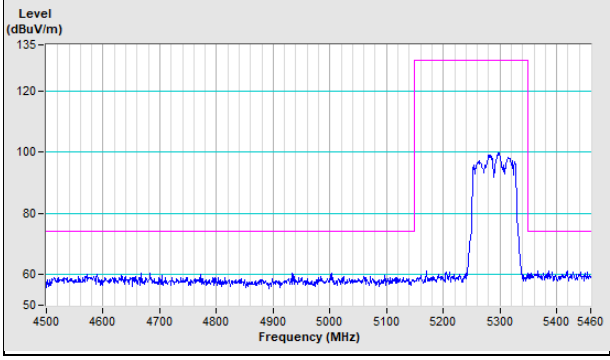
Horizontal (Peak)



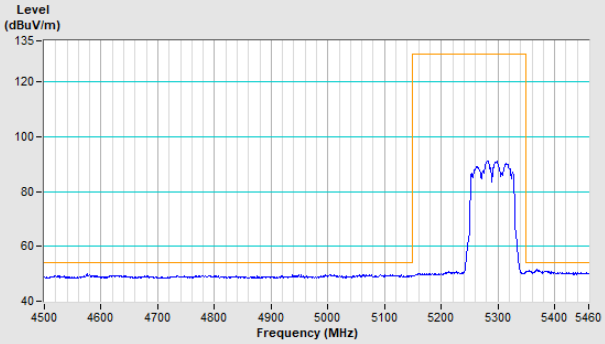
Horizontal (Average)



Vertical (Peak)

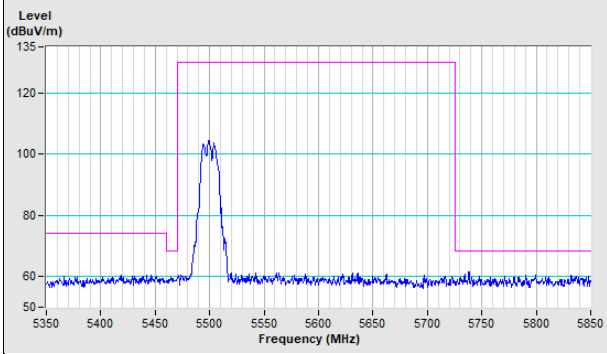


Vertical (Average)

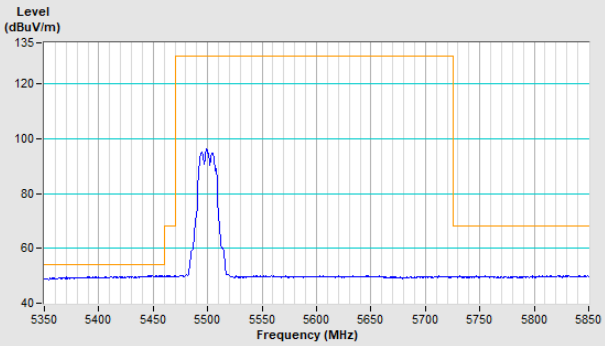


802.11a Channel 100

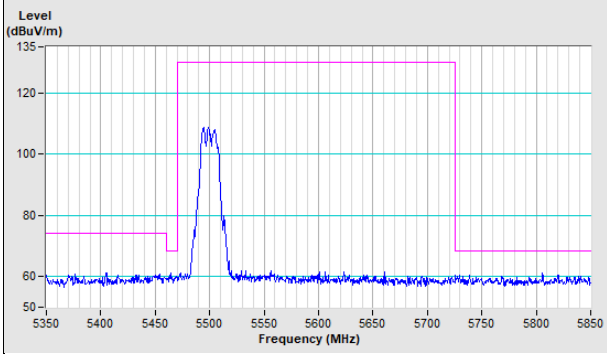
Horizontal (Peak)



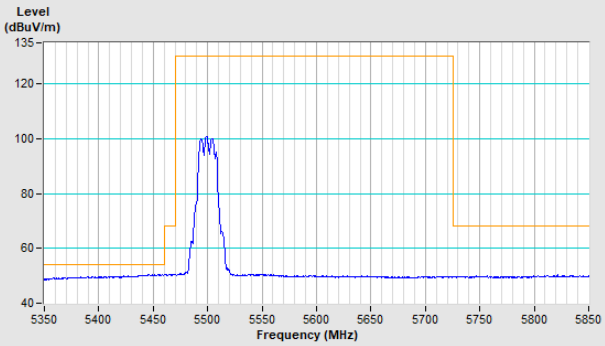
Horizontal (Average)



Vertical (Peak)

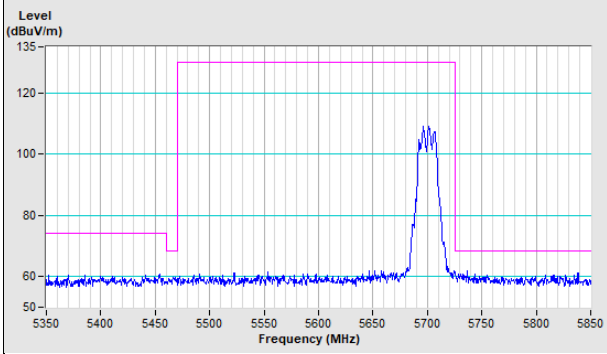


Vertical (Average)

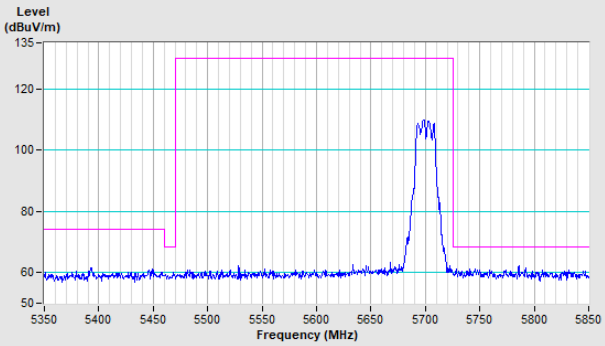


802.11a Channel 140

Horizontal (Peak)

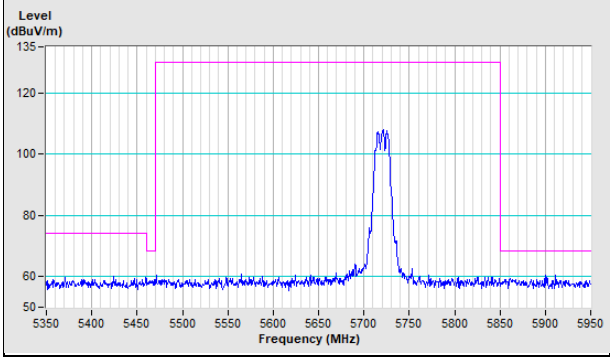


Vertical (Peak)

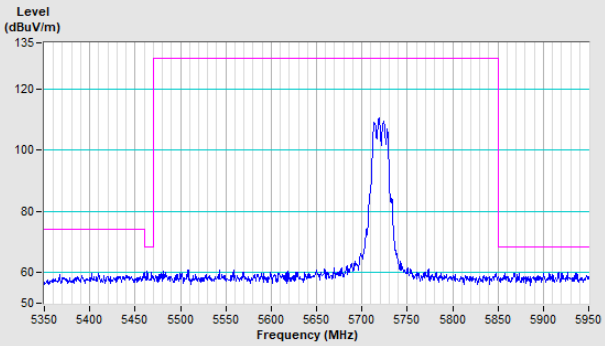


802.11a Channel 144

Horizontal (Peak)

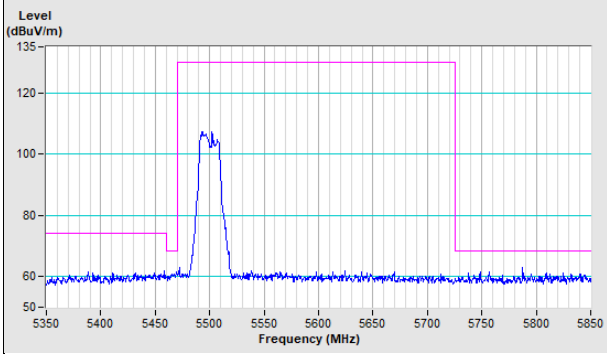


Vertical (Peak)

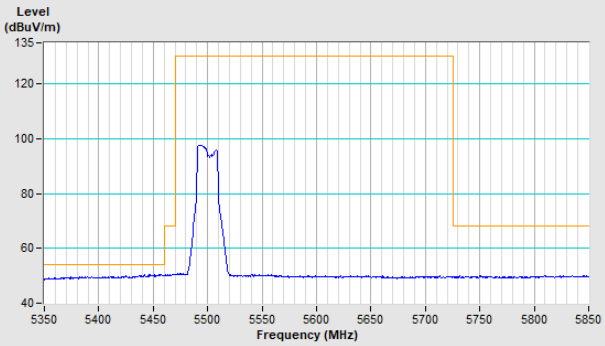


802.11ac (VHT20) Channel 100

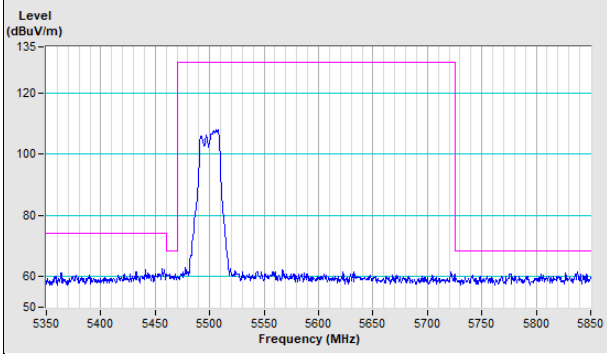
Horizontal (Peak)



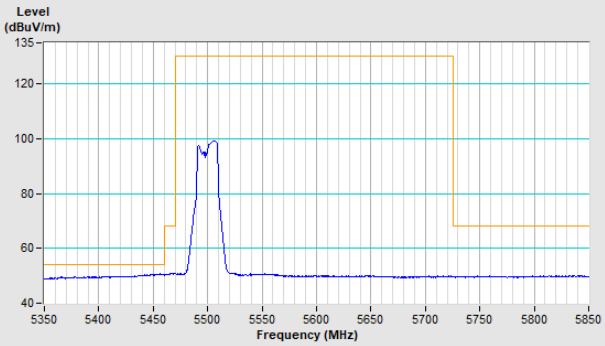
Horizontal (Average)



Vertical (Peak)

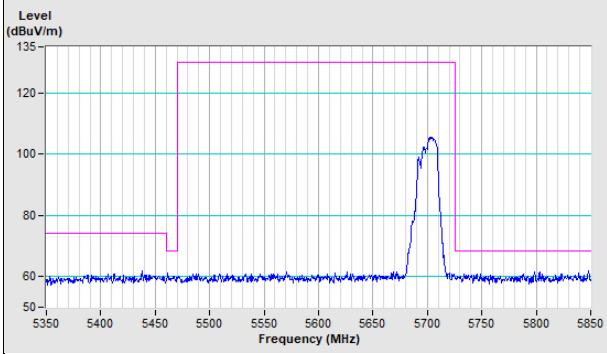


Vertical (Average)

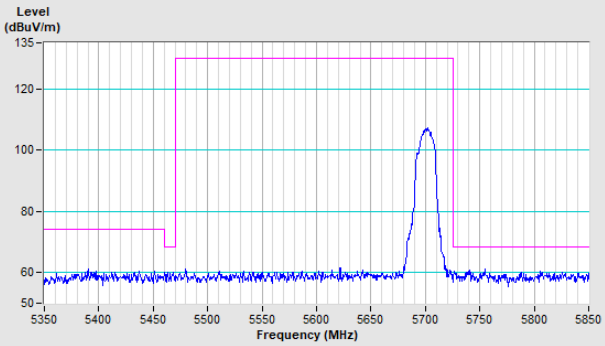


802.11ac (VHT20) Channel 140

Horizontal (Peak)

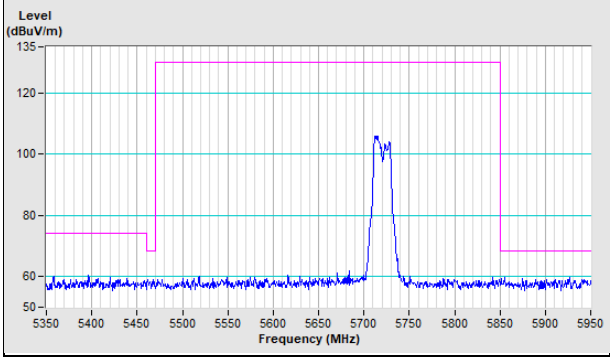


Vertical (Peak)

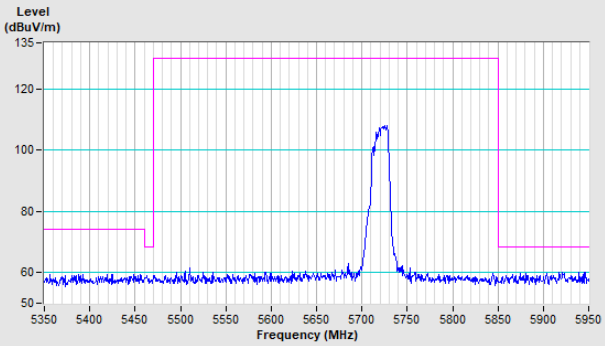


802.11ac (VHT20) Channel 144

Horizontal (Peak)

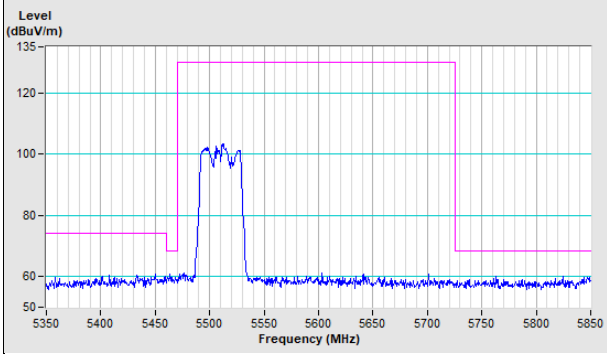


Vertical (Peak)

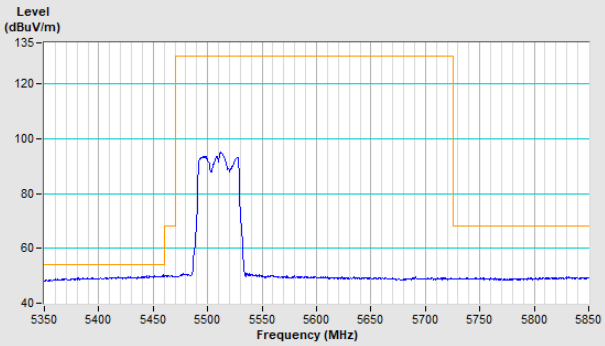


802.11ac (VHT40) Channel 102

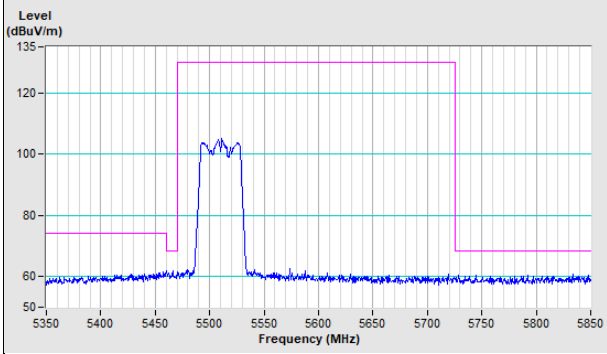
Horizontal (Peak)



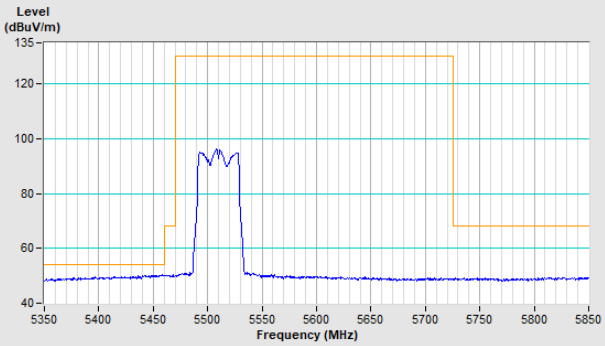
Horizontal (Average)



Vertical (Peak)

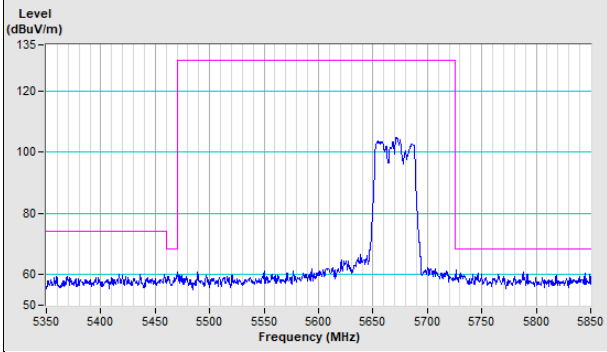


Vertical (Average)

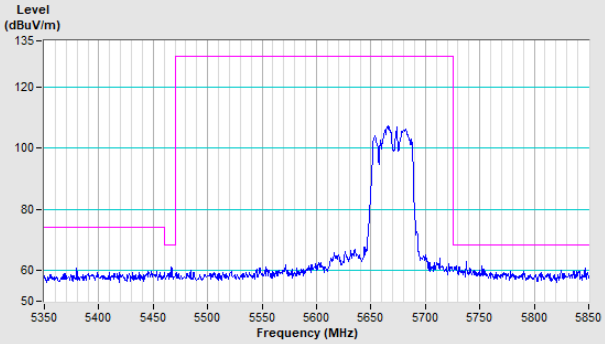


802.11ac (VHT40) Channel 134

Horizontal (Peak)

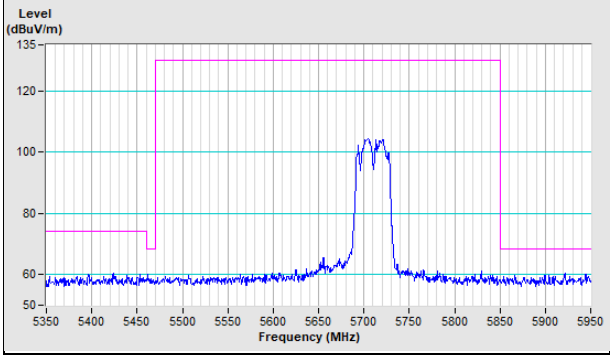


Vertical (Peak)

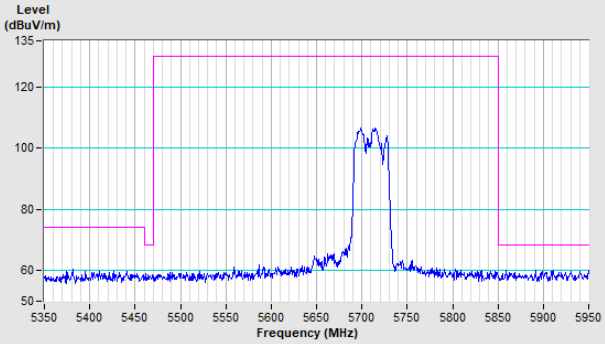


802.11ac (VHT40) Channel 142

Horizontal (Peak)

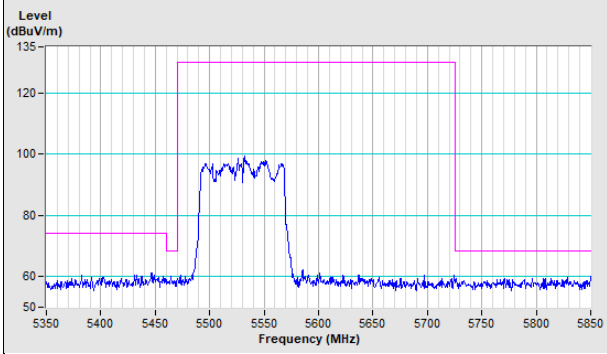


Vertical (Peak)

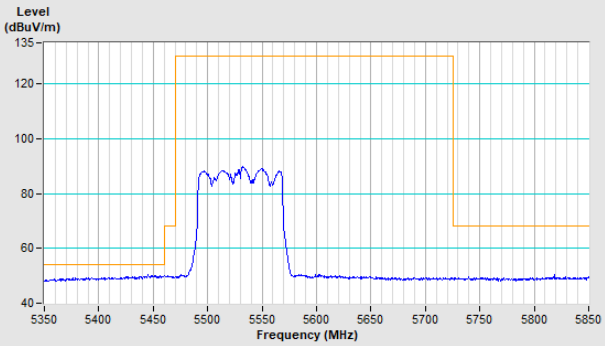


802.11ac (VHT80) Channel 106

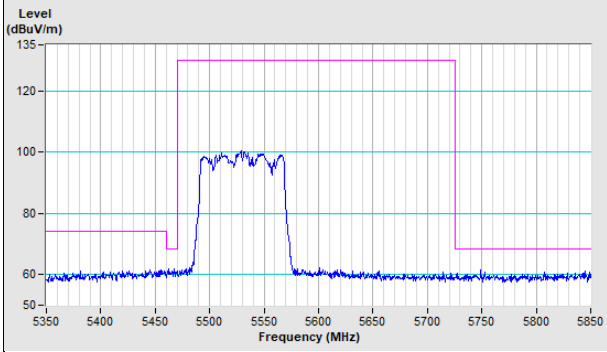
Horizontal (Peak)



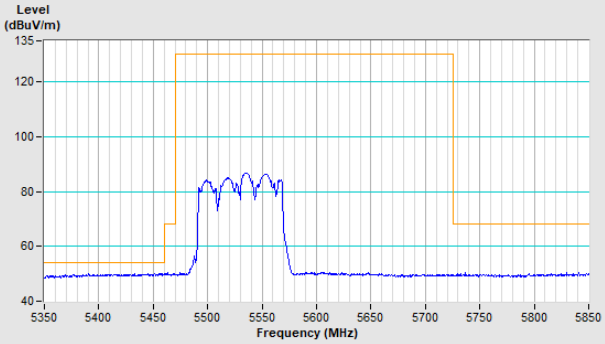
Horizontal (Average)



Vertical (Peak)

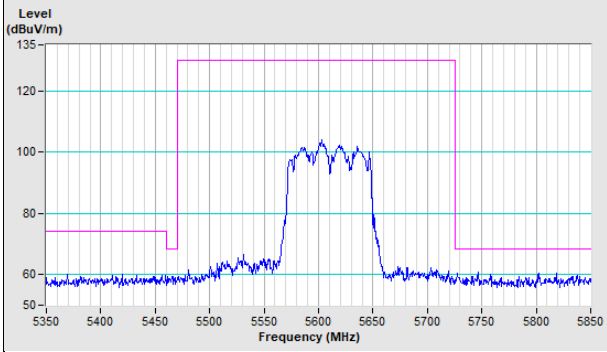


Vertical (Average)

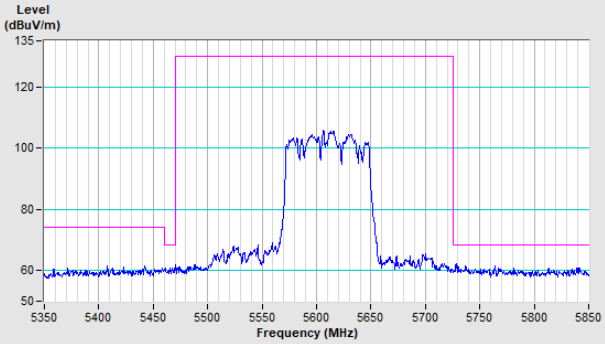


802.11ac (VHT80) Channel 122

Horizontal (Peak)

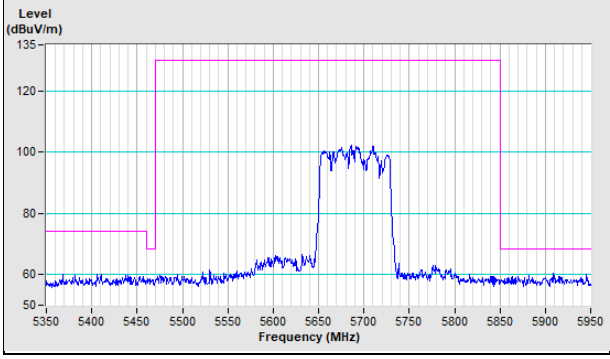


Vertical (Peak)

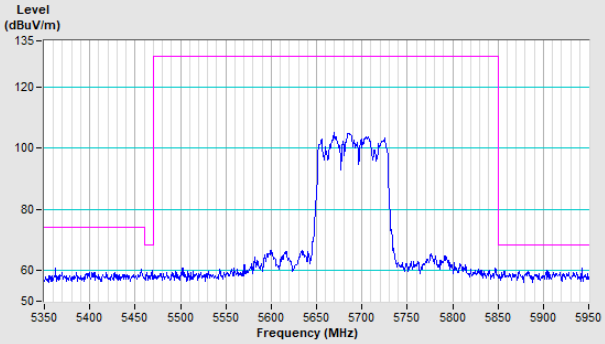


802.11ac (VHT80) Channel 138

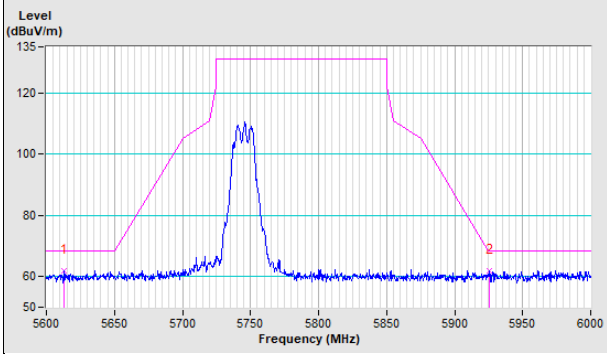
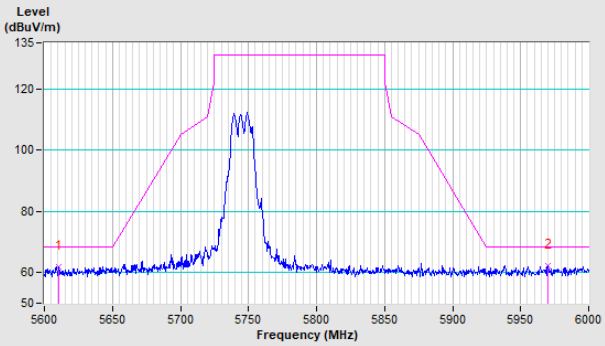
Horizontal (Peak)



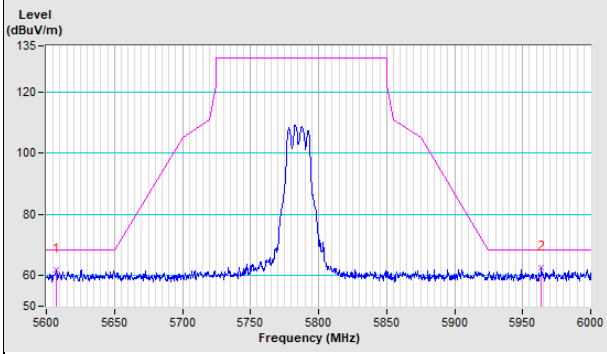
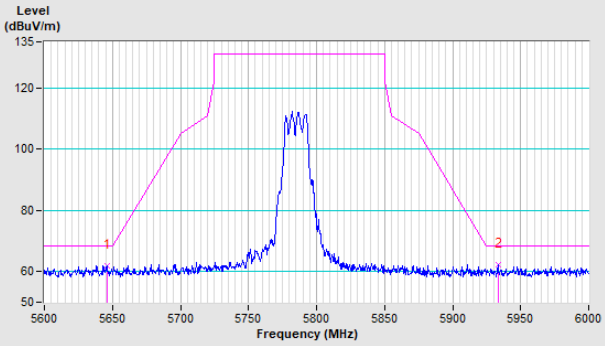
Vertical (Peak)



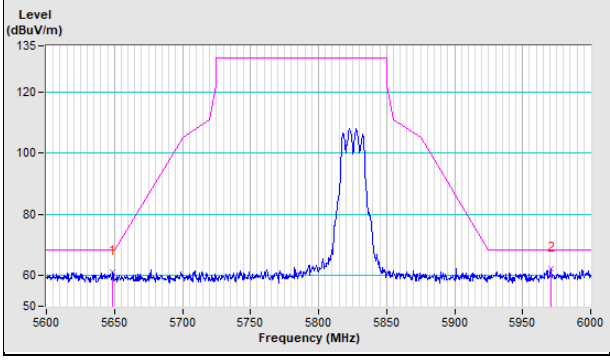
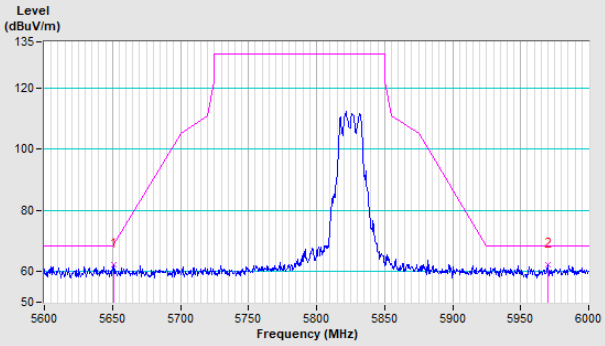
802.11a Channel 149

Horizontal (Peak)	Vertical (Peak)
	

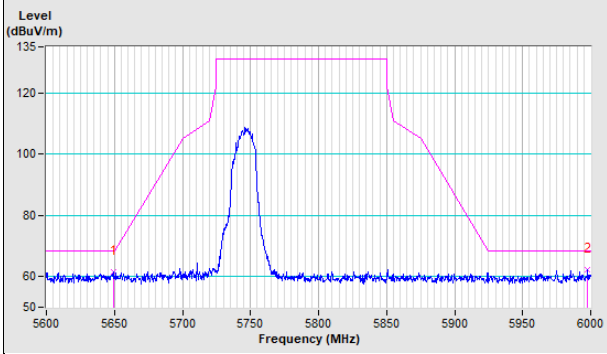
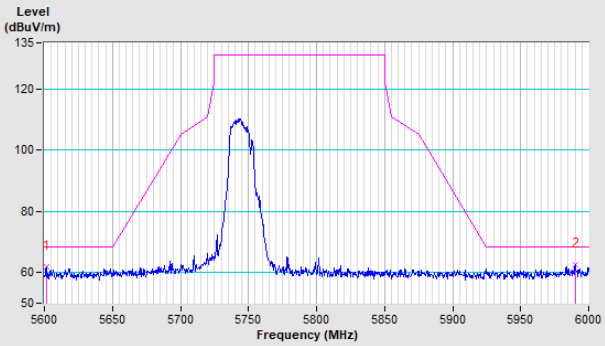
802.11a Channel 157

Horizontal (Peak)	Vertical (Peak)
	

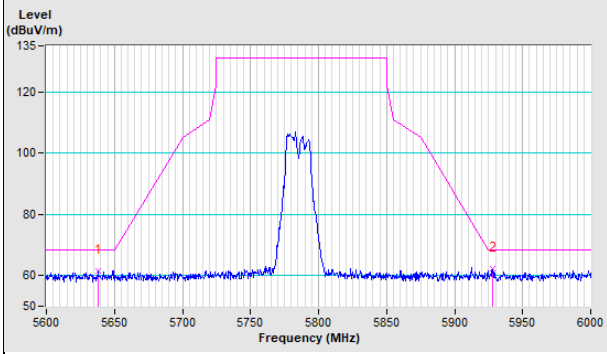
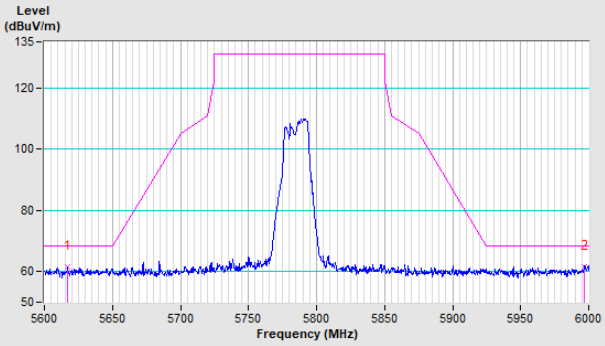
802.11a Channel 165

Horizontal (Peak)	Vertical (Peak)
	

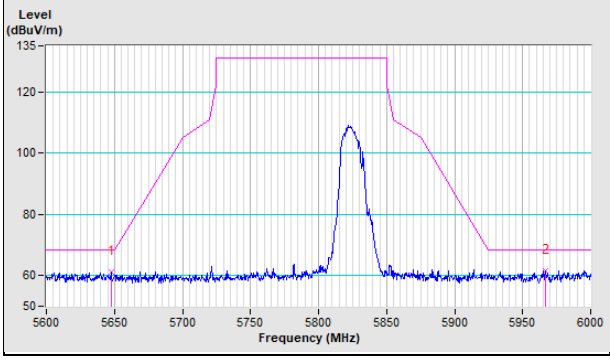
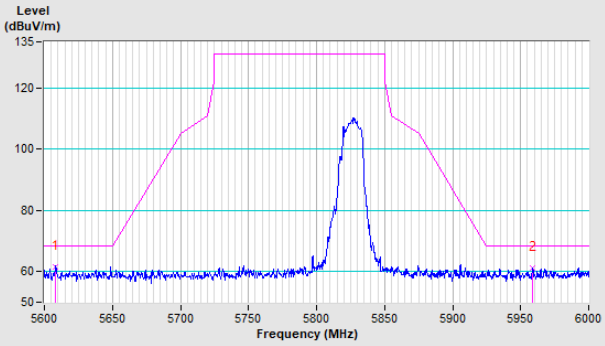
802.11ac (VHT20) Channel 149

Horizontal (Peak)	Vertical (Peak)
	

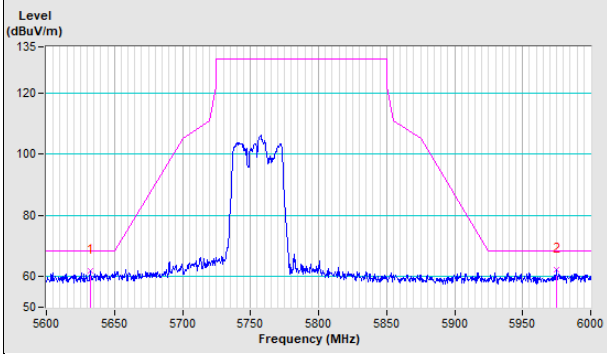
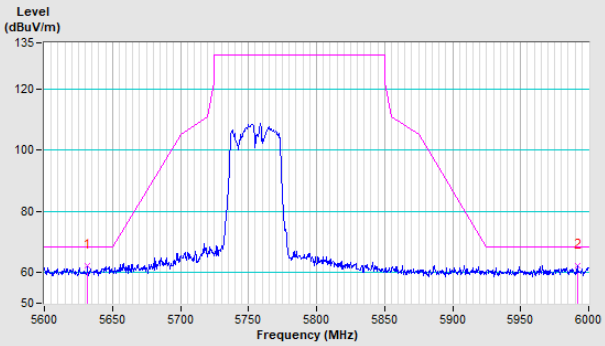
802.11ac (VHT20) Channel 157

Horizontal (Peak)	Vertical (Peak)
	

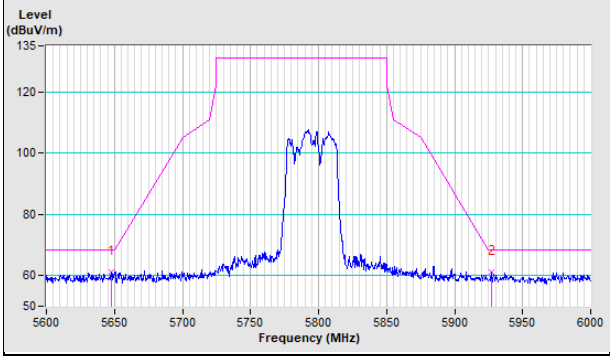
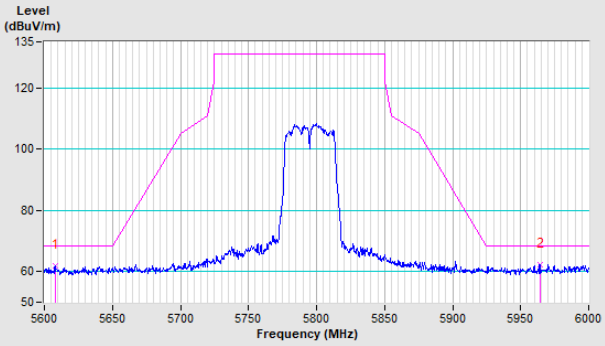
802.11ac (VHT20) Channel 165

Horizontal (Peak)	Vertical (Peak)
	

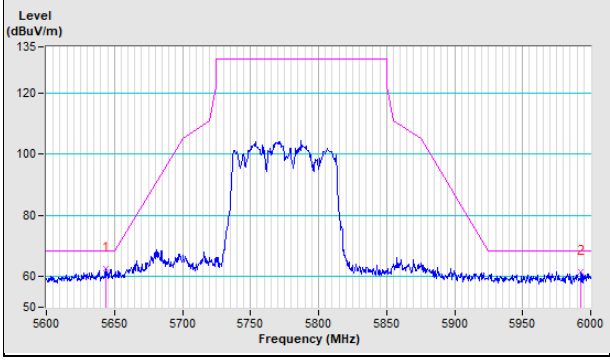
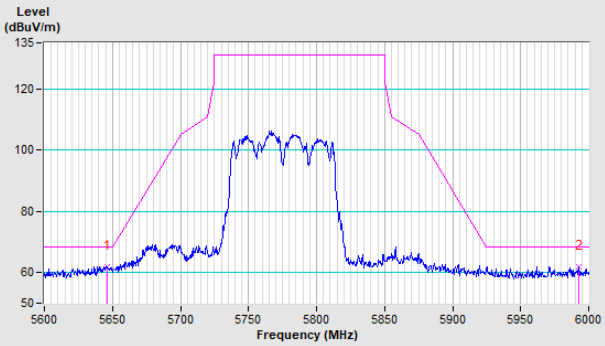
802.11ac (VHT40) Channel 151

Horizontal (Peak)	Vertical (Peak)
	

802.11ac (VHT40) Channel 159

Horizontal (Peak)	Vertical (Peak)
	

802.11ac (VHT80) 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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