FCC Test Report

Product Name	：	Active Mobile Gateway-with Comm
Trade Name	：	Omnitracs
Model No.	：	CV90-JE103
FCC ID.	：	2AE8ZAMGC

Applicant	：	Omnitracs, LLC
Address	：	9276 Scranton Road, Suite 200 San Diego California 92121 USA

Date of Receipt	：	Mar 15, 2019
Issued Date	：	May 10, 2019
Report No.	：	1930232R-RFUSP29V00
Report Version	：	V1.0

Testing Laboratory
3024

Test Report Certification

Issued Date : May 10, 2019
Report No. : 1930232R-RFUSP29V00

Product Name	:	Active Mobile Gateway-with Comm
Applicant	:	Omnitracs, LLC
Address	:	9276 Scranton Road, Suite 200 San Diego California 92121 USA
Manufacturer	:	PCI Private Limited
Model No.	:	CV90-JE103
FCC ID.	:	2AE8ZAMGC
EUT Voltage	:	DC 12V
Testing Voltage	:	DC 12V
Trade Name	:	Omnitracs
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart E Section 15.407: 2018 ANSI C63.10: 2013 KDB 789033 D02 v02r01 KDB 662911 D01 v02r01
Laboratory Name	:	Hsin Chu Laboratory
Address	:	No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 310, Taiwan, R.O.C. TEL: +886-3-582-8001 / FAX: +886-3-582-8958
Test Result	:	Complied

Documented By : Fonbo Fang

(Fonbo Fang / Engineering Adm. Specialist)

Tested By : Scott Chang

(Scott Chang / Engineer)

Approved By : Louis Hsu

(Louis Hsu / Deputy Manager)

Revision History

Report No.	Version	Description	Issued Date
1930232R-RFUSP29V00	V1.0	Initial issue of report	May 10, 2019

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1. General Information

1.1. EUT Description

Product Name	Active Mobile Gateway-with Comm	
Trade Name	Omnitracs	
Model No.	CV90-JE103	
Frequency Range/ Channel Number	IEEE 802.11a/ IEEE 802.11n (20MHz) /	5180~5240MHz / 4 Channels 5260~5320MHz / 4 Channels 5500~5700MHz / 11 Channels 5745~5825MHz / 5 Channels
	IEEE 802.11n (40MHz) / IEEE 802.11ac (40MHz)	5190~5230MHz / 2 Channels 5270~5310MHz / 2 Channels 5510~5670MHz / 5 Channels 5755~5795MHz / 2 Channels
	IEEE 802.11ac (80MHz)	5210~5210MHz / 1 Channel 5290~5290MHz / 1 Channel 5530~5610MHz / 2 Channel 5775~5775MHz / 1 Channel
Type of Modulation	IEEE 802.11a/n/ac	Orthogonal Frequency Division Multiplexing (OFDM)
Data Speed	IEEE 802.11a	6, 12, 18, 24, 36, 48, 54Mbps
	IEEE 802.11n	Support a subset of the combination of GI, MCS 0~MCS7 and bandwidth defined in 802.11n
	IEEE 802.11ac	Support a subset of the combination of GI, MCS 0~MCS 9 and bandwidth defined in 802.11ac

Antenna Information	
Antenna Type	inverted F antenna
Effective Antenna Gain	3.81 dBi

ANT-TX / RX & Bandwidth

ANT-TX / RX	TX			RX		
Mode/ Channel Bandwidth	20MHz	40MHz	80MHz	20MHz	40MHz	80MHz
IEEE802.11a	✓			✓		
IEEE802.11n	✓	✓		✓	✓	
IEEE802.11ac	✓	✓	✓	✓	✓	✓

IEEE 802.11n

MCS Index	Modulation	R	N_{BPSCS}	N_{CBPS}		N_{DBPS}		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI	
								20MHz	40MHz	20MHz	40MHz
0	BPSK	1/2	1	52	108	26	54	6.5	13.5	7.2	15.0
1	QPSK	1/2	2	104	216	52	108	13.0	27.0	14.4	30.0
2	QPSK	3/4	2	104	216	78	162	19.5	40.5	21.7	45.0
3	16-QAM	1/2	4	208	432	104	216	26.0	54.0	28.9	60.0
4	16-QAM	3/4	4	208	432	156	324	39.0	81.0	43.3	90.0
5	64-QAM	2/3	6	312	648	208	432	52.0	108.0	57.8	120.0
6	64-QAM	3/4	6	312	648	234	486	58.5	121.5	65.0	135.0
7	64-QAM	5/6	6	312	648	260	540	65.0	135.0	72.2	150.0
Note 1: Support of 400ns GI is optional on transmit and receive.											

Table 1 – MCS parameters for TX Antenna number = 1

Symbol	Explanation
R	Code rate
N_{BPSC}	Number of coded bits per single carrier
N_{CBPS}	Number of coded bits per symbol
N_{DBPS}	Number of data bits per symbol
GI	guard interval

IEEE 802.11ac Data Rate

Spatial Streams (Note1)	MCS Index	Modulation type	Coding rate	Data Rate(Mb/s)					
				20 MHz		40 MHz		80 MHz	
				Guard Interval		Guard Interval		Guard Interval	
				800ns	400ns	800ns	400ns	800ns	400ns
1	0	BPSK	1/2	6.5	7.2	13.5	15	29.3	32.5
	1	QPSK	1/2	13	14.4	27	30	58.5	65
	2	QPSK	3/4	19.5	21.7	40.5	45	87.8	97.5
	3	16-QAM	1/2	26	28.9	54	60	117	130
	4	16-QAM	3/4	39	43.3	81	90	175.5	195
	5	64-QAM	2/3	52	57.8	108	120	234	260
	6	64-QAM	3/4	58.5	65	121.5	135	263.3	292.5
	7	64-QAM	5/6	65	72.2	135	150	292.5	325
	8	256-QAM	3/4	78	86.7	162	180	351	390
	9	256-QAM	5/6	N/A	N/A	180	200	390	433.3

IEEE 802.11a & IEEE 802.11n (20MHz) & IEEE 802.11ac (20MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz	48	5240 MHz
52	5260 MHz	56	5280 MHz	60	5300 MHz	64	5320 MHz
100	5500 MHz	104	5520 MHz	108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz	128	5640 MHz
132	5660 MHz	136	5680 MHz	140	5700 MHz	149	5745 MHz
153	5765 MHz	157	5785 MHz	161	5805 MHz	165	5825 MHz

IEEE 802.11n (40MHz) & IEEE 802.11ac (40MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	54	5270MHz	62	5310 MHz
102	5510 MHz	110	5550 MHz	118	5590MHz	126	5630 MHz
134	5670 MHz	151	5755 MHz	159	5795 MHz		

IEEE 802.11ac (80MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz	106	5530 MHz	122	5610 MHz
155	5775 MHz						

Note:

1. This device is a Active Mobile Gateway-with Comm including 2.4GHz b/g/n, 5GHz a/n/ac, BT2.0/BT 4.0 and WWAN 3G/4G transmitting and receiving functions.
2. This device contain module that FCC ID: 2AE8ZIVG02.
3. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.

4. The laptop was used to configure the EUT to continuously transmit at a specified output power in all channels with different modes and modulations schemes, testing software power setting as below.

Mode	Power setting parameter			
	Band	Low Channel	Middle Channel	High Channel
802.11a	B1	27.0	27.0	14.5
	B2A	27.0	27.0	13.5
	B2C	12.5	27.0	10.0
	B3	27.0	27.0	27.0
802.11ac (20MHz)	B1	20.0	27.0	15.0
	B2A	27.0	27.0	13.5
	B2C	12.0	27.0	11.5
	B3	27.0	27.0	27.0
802.11ac (40MHz)	B1	12.0	-	14.5
	B2A	27.0	-	10.5
	B2C	10.0	27.0	14.0
	B3	27.0	-	27.0
802.11ac (80MHz)	B1	11.5	-	-
	B2A	10.0	-	-
	B2C	10.0	-	20.0
	B3	27.0	-	-

1.2. Test Mode

DEKRA has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

Test Mode	Mode 1: Transmit Mode

Test Items	Modulation	Channel	Antenna	Result
Conducted Emission	11ac (80MHz)	42/58/106/155	0	N/A
26dB& 99% & DTS Bandwidth	a	36/44/48/52/60/64/100/ 116/140/149/157/165	0	Complies
	11n/ac (20MHz)	36/44/48/52/60/64/100/ 116/140/149/157/165	0	Complies
	11n/ac (40MHz)	38/46/54/62/ 102/110/134/151/159	0	Complies
	11ac (80MHz)	42/58/106/122/155	0	Complies
Maximum conducted output power	a	36/44/48/52/60/64/100/ 116/140/149/157/165	0	Complies
	11n/ac (20MHz)	36/44/48/52/60/64/100/ 116/140/149/157/165	0	Complies
	11n/ac (40MHz)	38/46/54/62/ 102/110/134/151/159	0	Complies
	11ac (80MHz)	42/58/106/122/155	0	Complies
Maximum power spectral density	a	36/44/48/52/60/64/100/ 116/140/149/157/165	0	Complies
	11n/ac (20MHz)	36/44/48/52/60/64/100/ 116/140/149/157/165	0	Complies
	11n/ac (40MHz)	38/46/54/62/ 102/110/134/151/159	0	Complies
	11ac (80MHz)	42/58/106/122/155	0	Complies
Radiated Emission	a	36/44/48/52/60/64/100/ 116/140/149/157/165	0	Complies
	11n/ac (20MHz)	36/44/48/52/60/64/100/ 116/140/149/157/165	0	Complies
	11n/ac (40MHz)	38/46/54/62/ 102/110/134/151/159	0	Complies
	11ac (80MHz)	42/58/106/122/155	0	Complies
Band Edge	a	36/44/48/52/60/64/100/ 116/140/149/157/165	0	Complies
	11n/ac (20MHz)	36/44/48/52/60/64/100/ 116/140/149/157/165	0	Complies
	11n/ac (40MHz)	38/46/54/62/ 102/110/134/151/159	0	Complies
	11ac (80MHz)	42/58/106/122/155	0	Complies

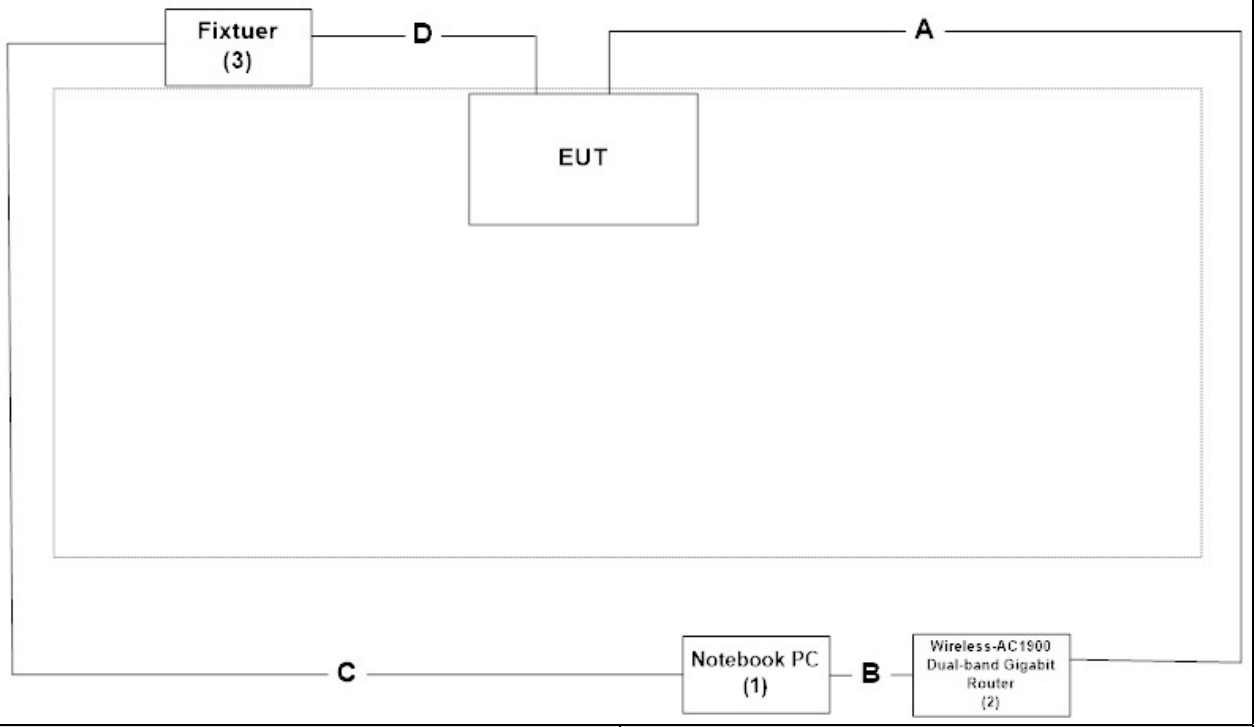
1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	HP Compaq	NX6320FF	CNU7020 BXT	DoC	Non-Shielded, 1.8m
2	Wireless-AC1900 Dual-band Gigabit Router	ASUS	RT-AC68R	E31BG000 017	DoC	Non-Shielded, 1.8m
3	Fixtuer	PCI	--	--	DoC	--

1.4. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	RJ45 Cable	Non-Shielded, 10m
B	RJ45 Cable	Non-Shielded, 1m
C	USB	Shielded, 10m
D	Signal	Non-Shielded, 0.15

1.5. EUT Exercise Software

1	Set the EUT as shown in Section 1.4.
2	Execute the "Tera Term" and keyin command on the laptop.
3	Execute QCA software.
4	Configure test mode, test channel and data rate.
5	EUT start transmitting or receiving continuously.
6	Verify that the device is working properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual	Test Site
Temperature (°C)	FCC PART 15 E 15.407 Conducted Emission	15 - 35	20°C	--
Humidity (%RH)		25 - 75	50%RH	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 E 15.407 26dB& 99% & DTS Bandwidth	15 - 35	25°C	3
Humidity (%RH)		25 - 75	45%RH	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 E 15.407 Maximum conducted output power	15 - 35	25°C	3
Humidity (%RH)		25 - 75	65%RH	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 E 15.407 Maximum power spectral density	15 - 35	25°C	3
Humidity (%RH)		25 - 75	45%RH	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 E 15.407 Radiated Emission	15 - 35	25°C	2
Humidity (%RH)		25 - 75	45%RH	
Barometric pressure (mbar)		860 - 1060	950-1000	
Temperature (°C)	FCC PART 15 E 15.407 Band Edge	15 - 35	25°C	2
Humidity (%RH)		25 - 75	45%RH	
Barometric pressure (mbar)		860 - 1060	950-1000	

Note: Test Site information refers to Laboratory Information.

Laboratory Information

USA	**:**	**FCC Registration Number: TW3024**
Canada		**IC Registration Number: 22397-1 / 22397-2 / 22397-3**

The related certificate for our laboratories about the test site and management system can be downloaded from DEKRA Testing and Certification Co., Ltd. Web Site:
http://www.dekra.com.tw/english/about/certificates.aspx?bval=5
The address and introduction of DEKRA Testing and Certification Co., Ltd. laboratories can be founded in our Web site: http://www.dekra.com.tw/index_en.aspx

If you have any comments, Please don't hesitate to contact us. Our test sites as below:

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1.7. List of Test Equipment

26dB& 99% & DTS Bandwidth / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2018/06/26	2019/06/25
Spectrum Analyzer	Keysight	N9010B	MY57110159	2018/05/25	2019/05/24
Spectrum Analyzer	Agilent	N9010A	US47140172	2018/07/18	2019/07/17
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/12/21	2019/12/20

Maximum conducted output power / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
High Speed Peak Power Meter Dual Input	Anritsu	ML2496A	1602004	2018/12/17	2019/12/16
Pulse Power Sensor	Anritsu	MA2411B	1531043	2018/12/17	2019/12/16
Pulse Power Sensor	Anritsu	MA2411B	1531044	2018/12/17	2019/12/16
Power Meter	Keysight	8990B	MY51000248	2018/06/07	2019/06/06
Power Sensor	Keysight	N1923A	MY57240005	2018/06/07	2019/06/06

Maximum power spectral density / SR10-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Spectrum Analyzer	Keysight	N9030B	MY57140404	2018/06/26	2019/06/25
Spectrum Analyzer	Keysight	N9010B	MY57110159	2018/05/25	2019/05/24
Spectrum Analyzer	Agilent	N9010A	US47140172	2018/07/18	2019/07/17
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/12/21	2019/12/20

Radiated Emission / CB2-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2018/11/05	2019/11/04
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/12/21	2019/12/20
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2019/03/15	2020/03/14
Bilog Antenna	Teseq	CBL6112D	23191	2018/06/26	2019/06/25
Horn Antenna	Schwarzbeck	BBHA 9120D	639	2018/06/01	2019/05/31
Horn Antenna	Schwarzbeck	BBHA 9170	202	2019/01/16	2020/01/15
Pre-Amplifier	Dekra	AP-025C	201801236	2019/02/18	2020/02/17
Pre-Amplifier	EMCI	EMC11830I	980366	2018/12/21	2019/12/20
Pre-Amplifier	Dekra	AP-400C	201801231	2018/12/05	2019/12/04
Horn Antenna	Schwarzbeck	BBHA 9120D	01656	2018/10/17	2019/10/16
Band Reject Filter	Micro-Tronics	BRM50702	G192	2019/03/27	2020/03/26
Signal Analyzer	R&S	FSV40	101435	2018/07/19	2019/07/18
Coaxial Cable	Huber+Suhner	SF104_SF104_ SF104_SF104(16.0m)	CB2-H	2018/08/21	2019/08/20
Signal Analyzer	R&S	FSVA40	101455	2018/11/05	2019/11/04

Band Edge / CB2-H

Instrument	Manufacturer	Model No.	Serial No.	Cal. Date	Next Cal. Date
Signal Analyzer	R&S	FSVA40	101455	2018/11/05	2019/11/04
Signal & Spectrum Analyzer	R&S	FSV40	101049	2018/12/21	2019/12/20
EXA Signal Analyzer	Keysight	N9010A	MY51440132	2019/03/15	2020/03/14
Bilog Antenna	Teseq	CBL6112D	23191	2018/06/26	2019/06/25
Horn Antenna	Schwarzbeck	BBHA 9120D	639	2018/06/01	2019/05/31
Horn Antenna	Schwarzbeck	BBHA 9170	202	2019/01/16	2020/01/15
Pre-Amplifier	Dekra	AP-025C	201801236	2019/02/18	2020/02/17
Pre-Amplifier	EMCI	EMC11830I	980366	2018/12/21	2019/12/20
Pre-Amplifier	Dekra	AP-400C	201801231	2018/12/05	2019/12/04
Horn Antenna	Schwarzbeck	BBHA 9120D	01656	2018/10/17	2019/10/16
Band Reject Filter	Micro-Tronics	BRM50702	G192	2019/03/27	2020/03/26
Signal Analyzer	R&S	FSV40	101435	2018/07/19	2019/07/18
Coaxial Cable	Huber+Suhner	SF104_SF104_ SF104_SF104(16.0m)	CB2-H	2018/08/21	2019/08/20

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

1.8. Duty Cycle

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor(dB) linear voltage	Duty Factor(dB) Power	1/T Minimum VBW (kHz)
802.11a	19.960	20.220	98.71%	0.112412	0.06	0.010
802.11ac VHT20	18.510	18.620	99.41%	0.051465	0.03	0.010
802.11ac VHT40	8.861	9.003	98.42%	0.138090	0.07	0.010
802.11ac VHT80	4.099	4.247	96.52%	0.308087	0.15	0.244

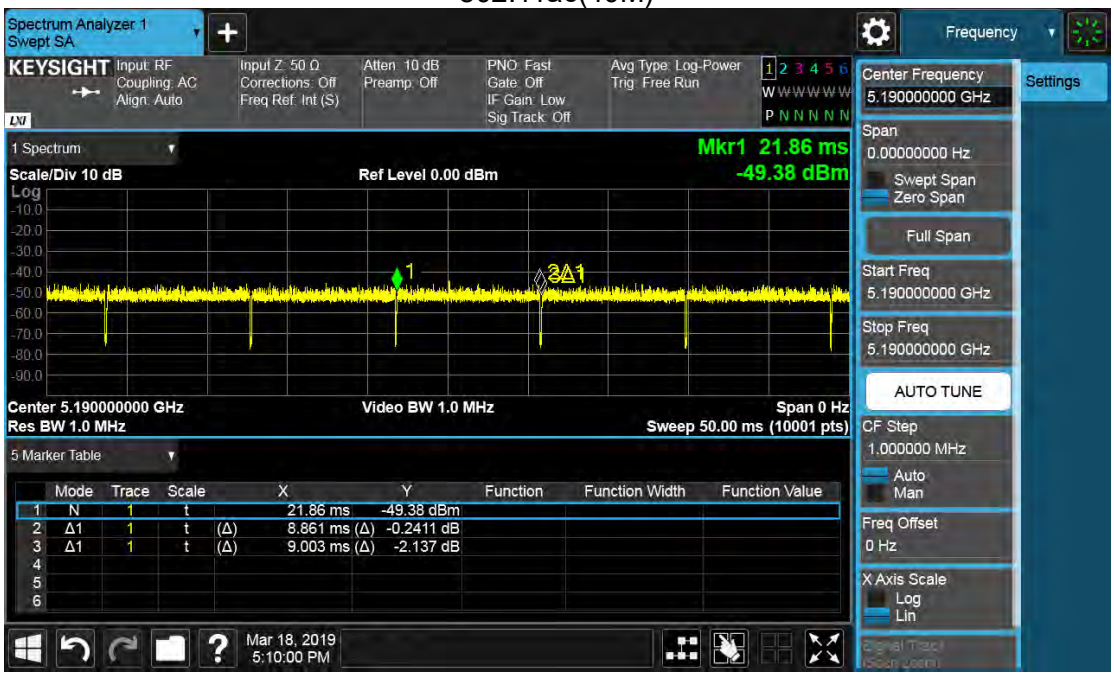
Note:
Offset = 20 log(1/duty cycle)
Accotding to KDB 789033
If power averaging (rms) mode was used in step (iv) above, the correction factor is 10 log (1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50%, then 3 dB must be added to the measured emission levels.

If linear voltage averaging mode was used in step (iv) above, the correction factor is 20 log (1/x), where x is the duty cycle. For example, if the transmit duty cycle was 50%, then 6 dB must be added to the measured emission levels.

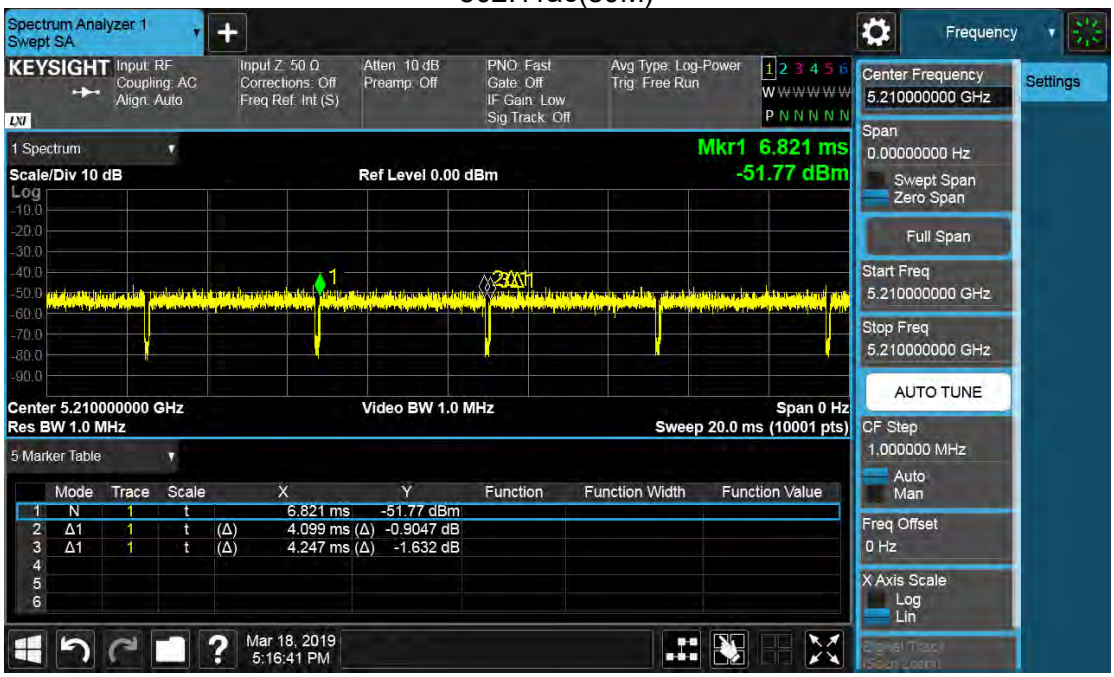
802.11a

802.11ac(20M)

802.11ac(40M)



802.11ac(80M)



1.9. Uncertainty

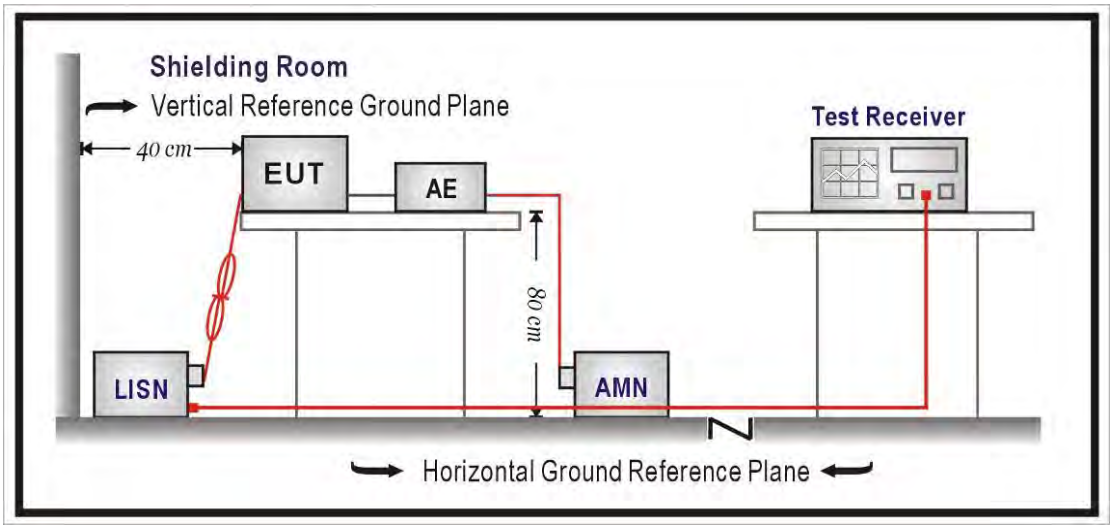
Test item	Uncertainty
Conducted Emission	± 2.26 dB
26dB& 26dB& 99% & DTS Bandwidth	± 50Hz
Maximum conducted output power	± 1.27 dB
Maximum power spectral density	± 1.27 dB
Radiated Emission	30MHz～1GHz as ±3.43dB 1GHz～26.5Ghz as ±3.65dB
Band Edge	± 3.65dB

2. Aetenna Requirements

According to FCC 47CFR 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

3. Conducted Emission

3.1. Test Setup



3.2. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remark: In the above table, the tighter limit applies at the band edges.

3.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

3.4. Test Specification

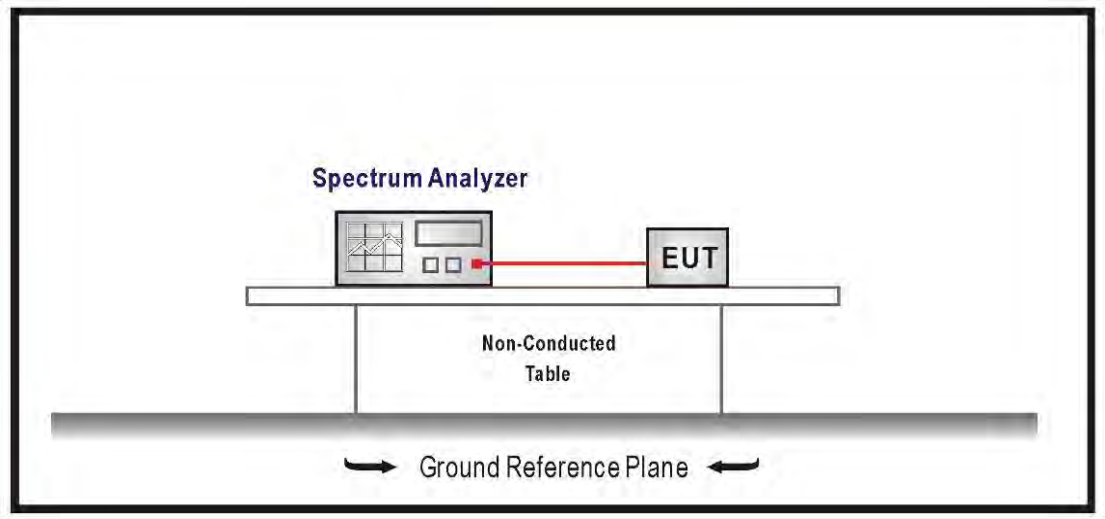
According to FCC Part 15 Subpart C Paragraph 15.407: 2017

3.5. Test Result

Owing to the DC operation of EUT, this test item is not performed.

4. 26dB & 99% & DTS Bandwidth

4.1. Test Setup



4.2. Limits

99% & 26dB Bandwidth : No Required
6dB Bandwidth ≧ 500KHz

4.3. Test Procedure

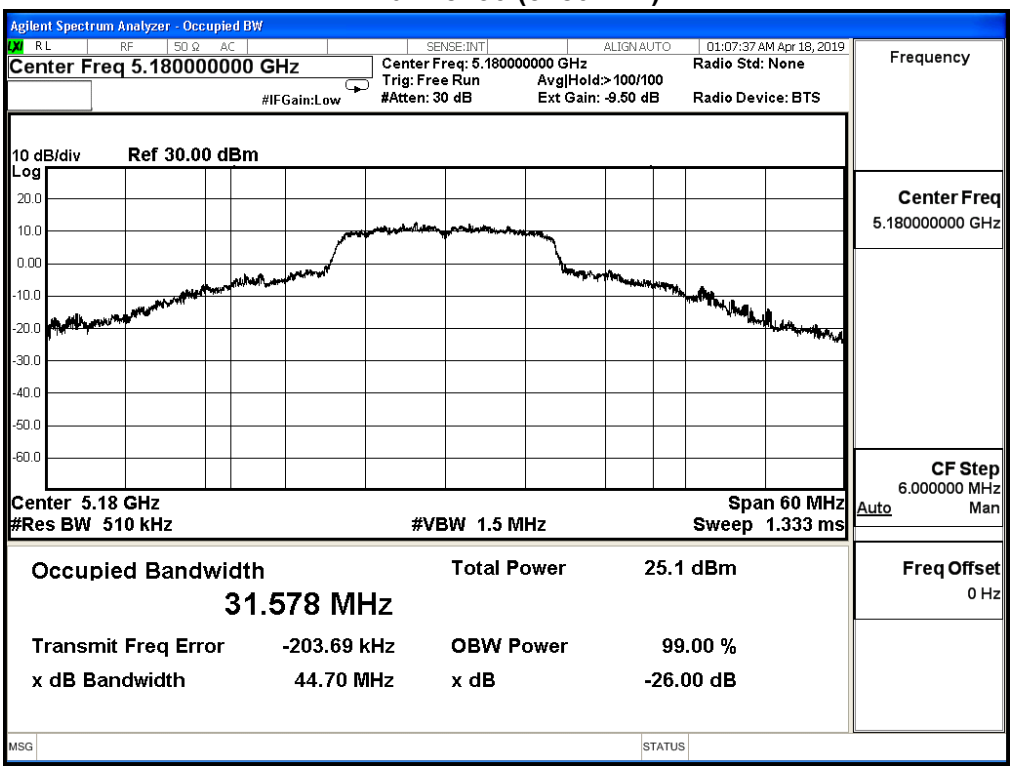
99% & 26dB Bandwidth :
The EUT was tested according to U-NII test procedure of KDB 789033.D02 v02r01
Set RBW 1% of the emission bandwidth, VBW equal to 3 times the RBW.
DTS Bandwidth :
Set RBW = 100KHz, VBW≧3xRBW, Sweep time=Auto, Set Peak detector.

4.4. Test Result

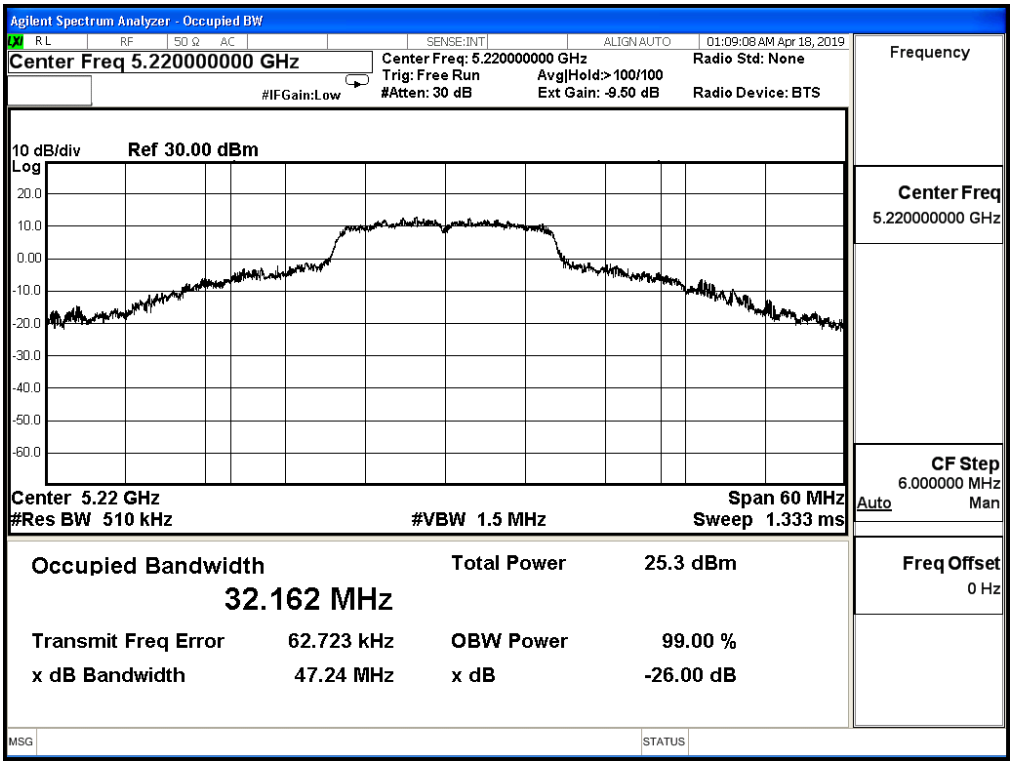
Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11a (ANT 0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
36	5180	44.700	31.578	--	Pass
44	5220	47.240	32.162	--	Pass
48	5240	34.030	18.268	--	Pass

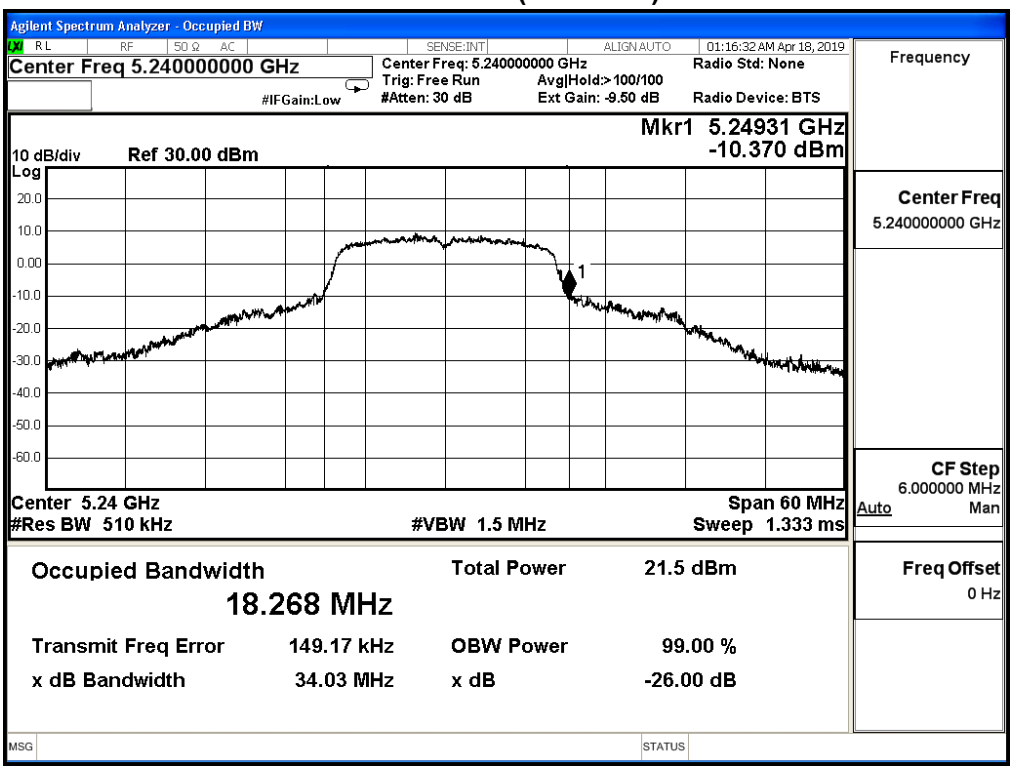
Channel 36 (5180MHz)



Channel 44 (5220MHz)



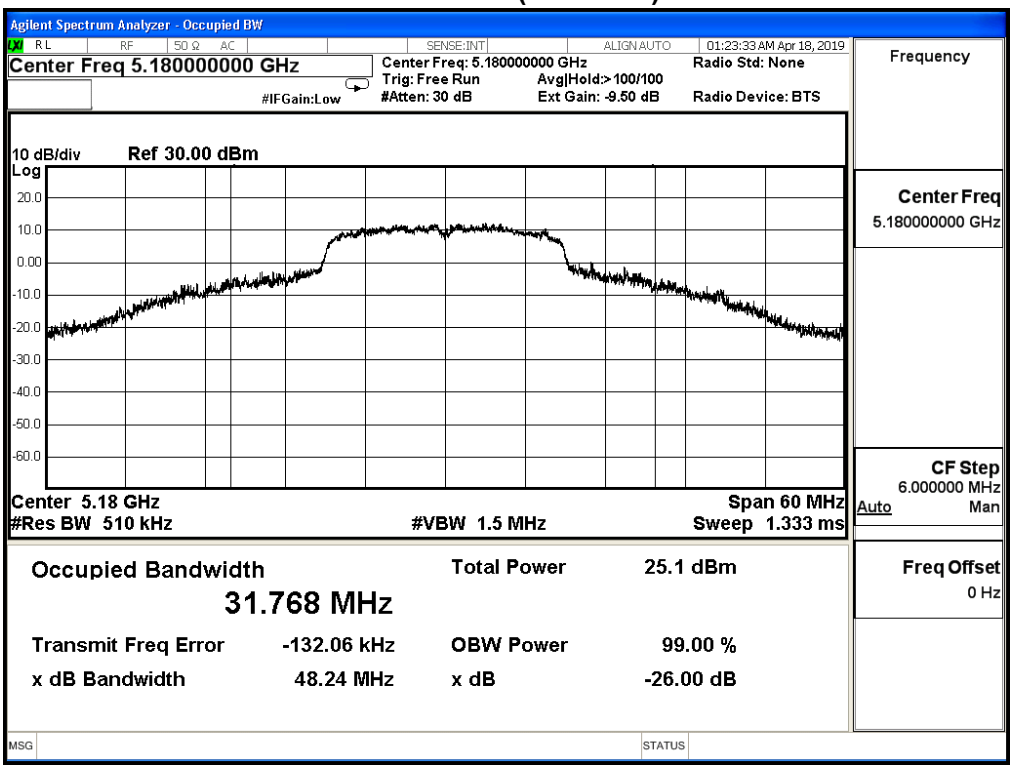
Channel 48 (5240MHz)



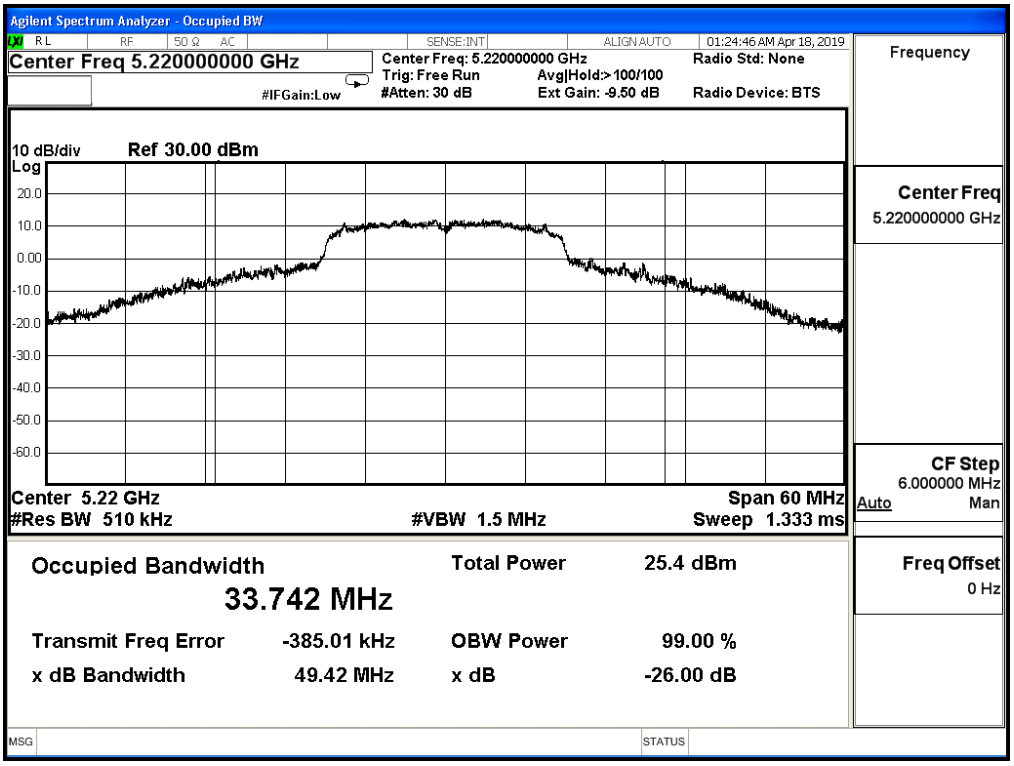
Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac_20M(ANT 0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
36	5180	41.240	31.768	--	Pass
44	5220	49.420	33.742	--	Pass
48	5240	32.590	19.083	--	Pass

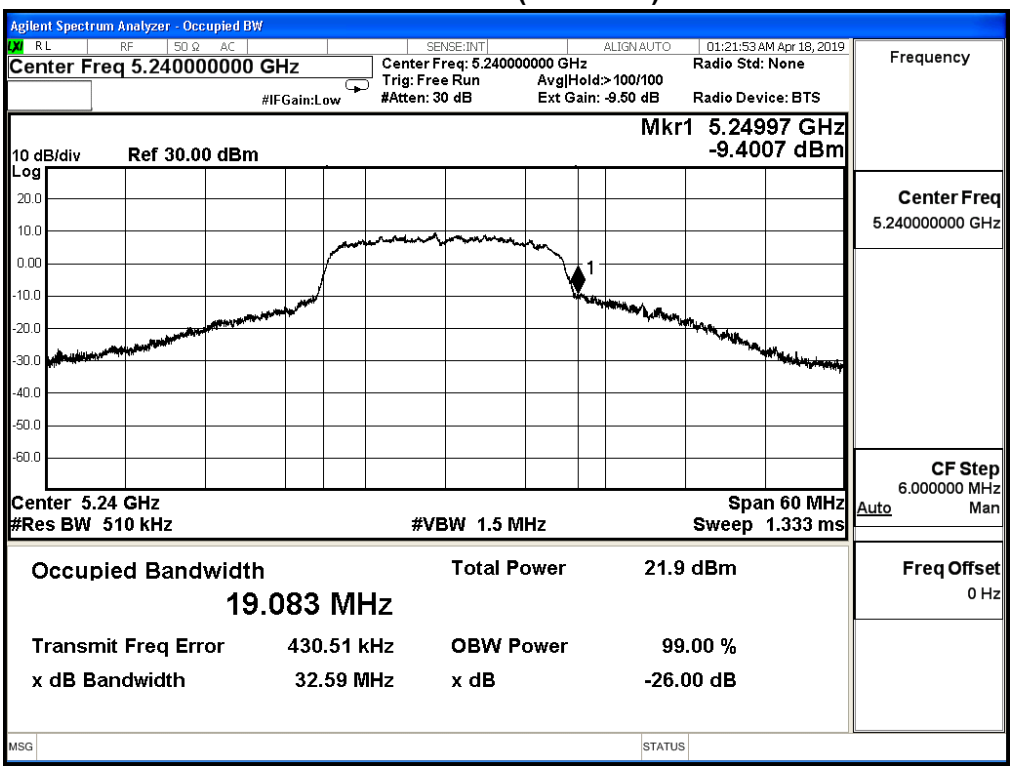
Channel 36 (5180MHz)



Channel 44 (5220MHz)



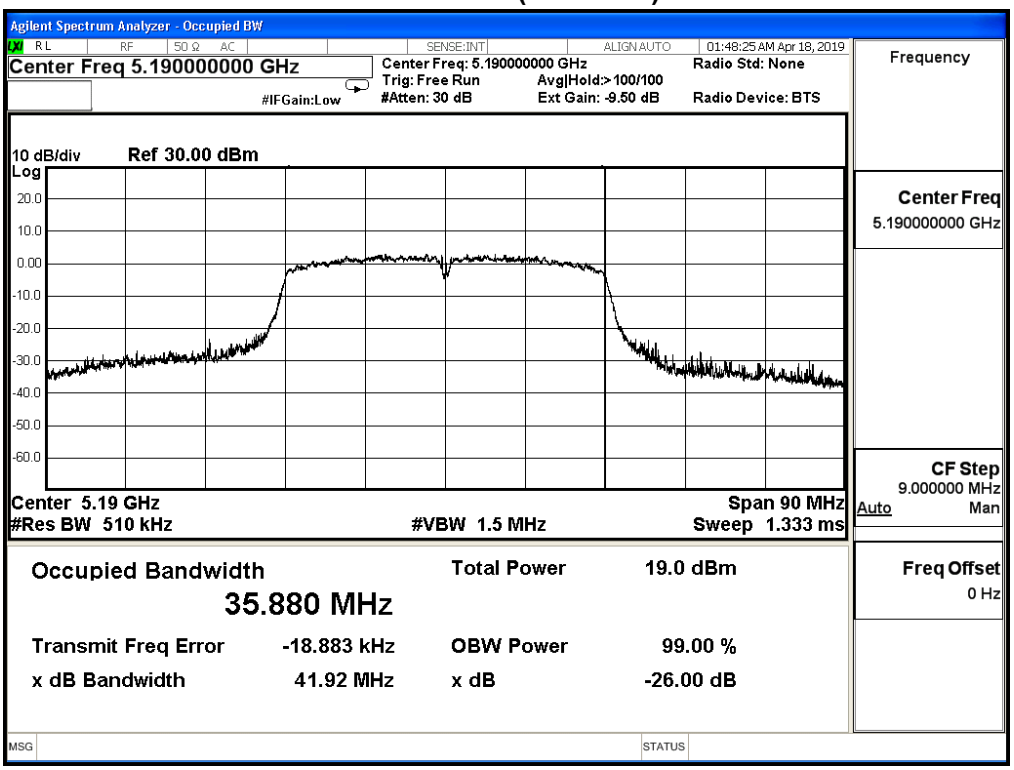
Channel 48 (5240MHz)



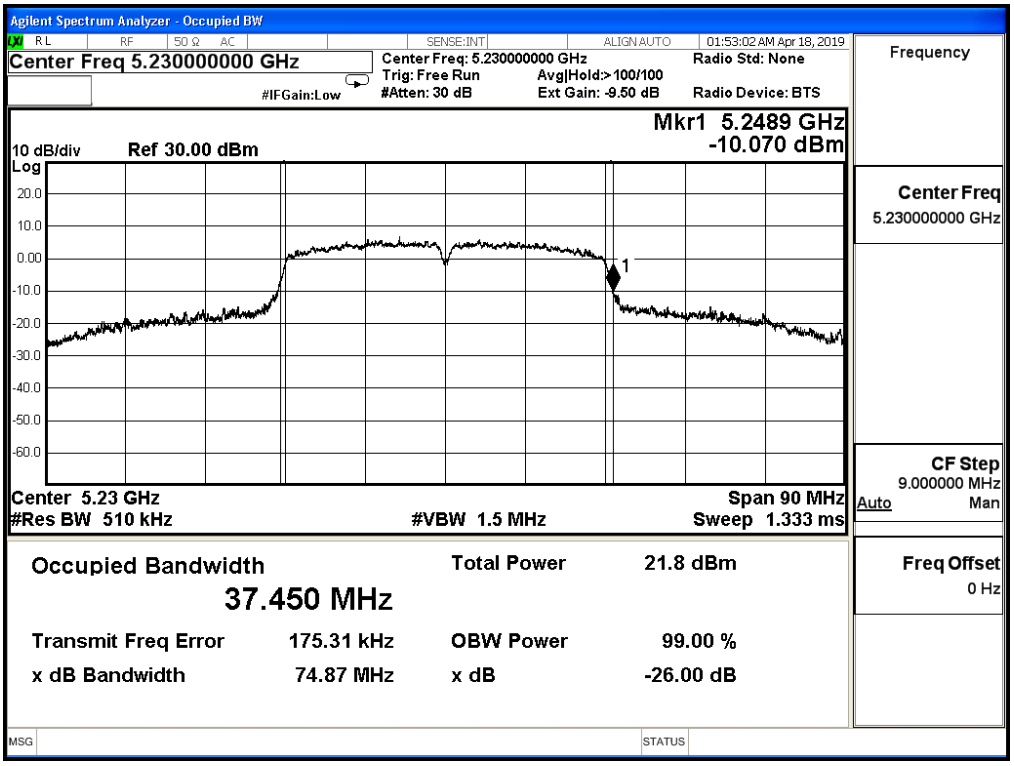
Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac_40M(ANT 0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
38	5190	41.920	35.880	--	Pass
46	5230	74.870	37.450	--	Pass

Channel 38 (5190MHz)



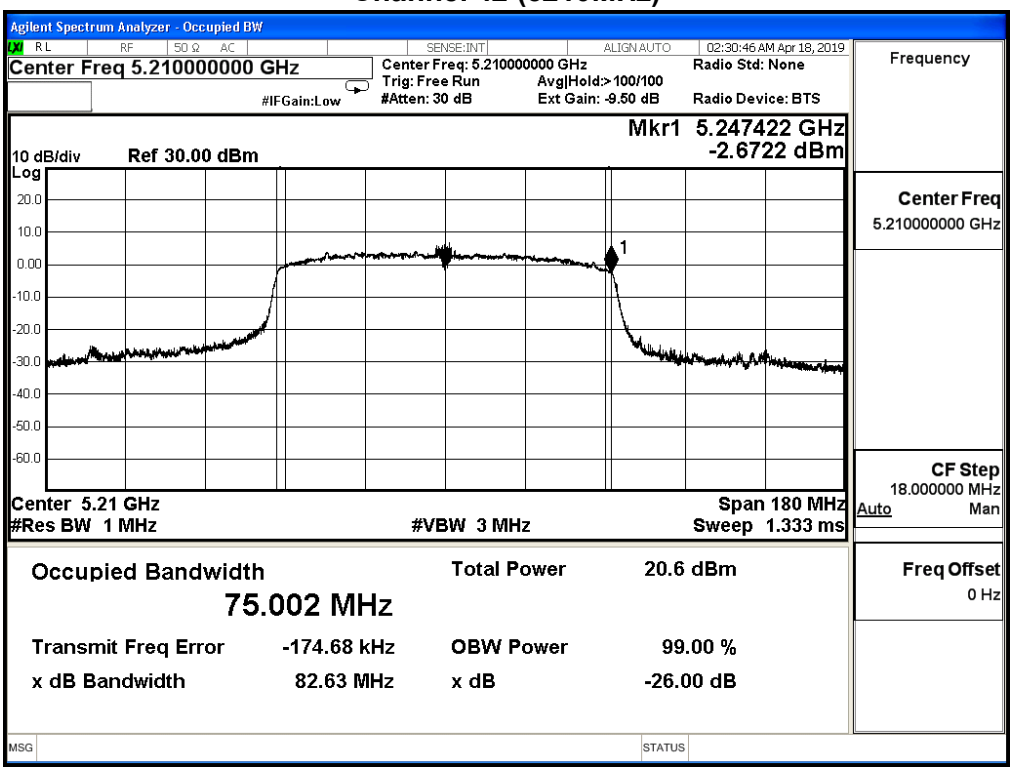
Channel 46 (5230MHz)



Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac_80M(ANT 0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
42	5210	82.630	75.002	--	Pass

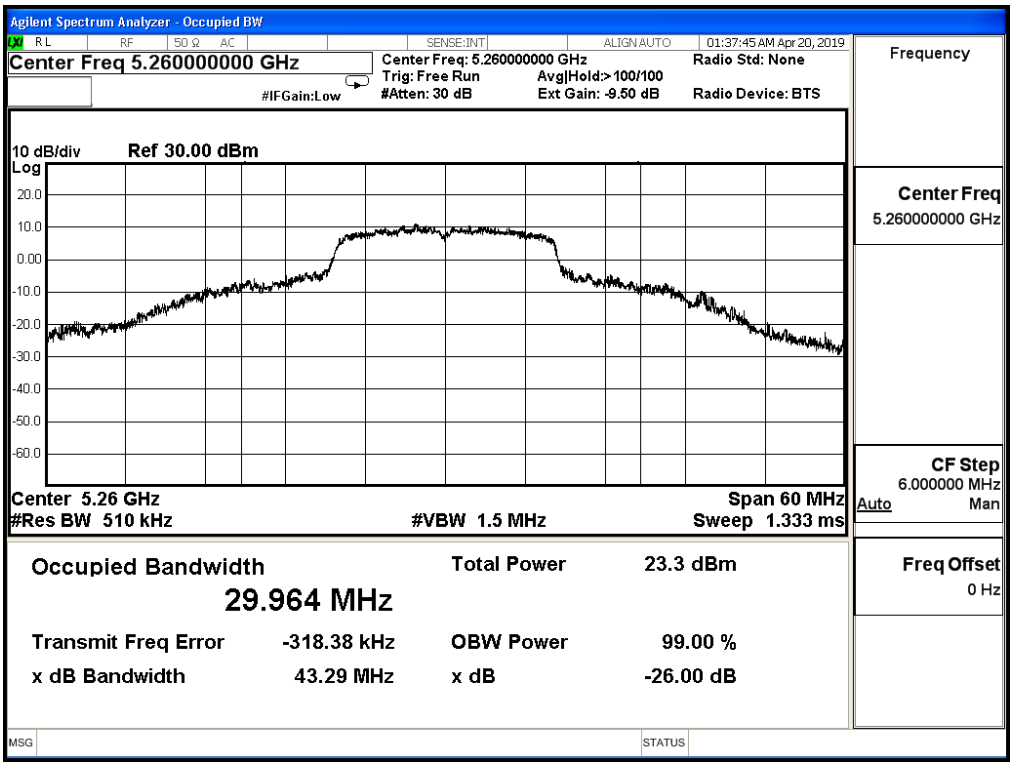
Channel 42 (5210MHz)



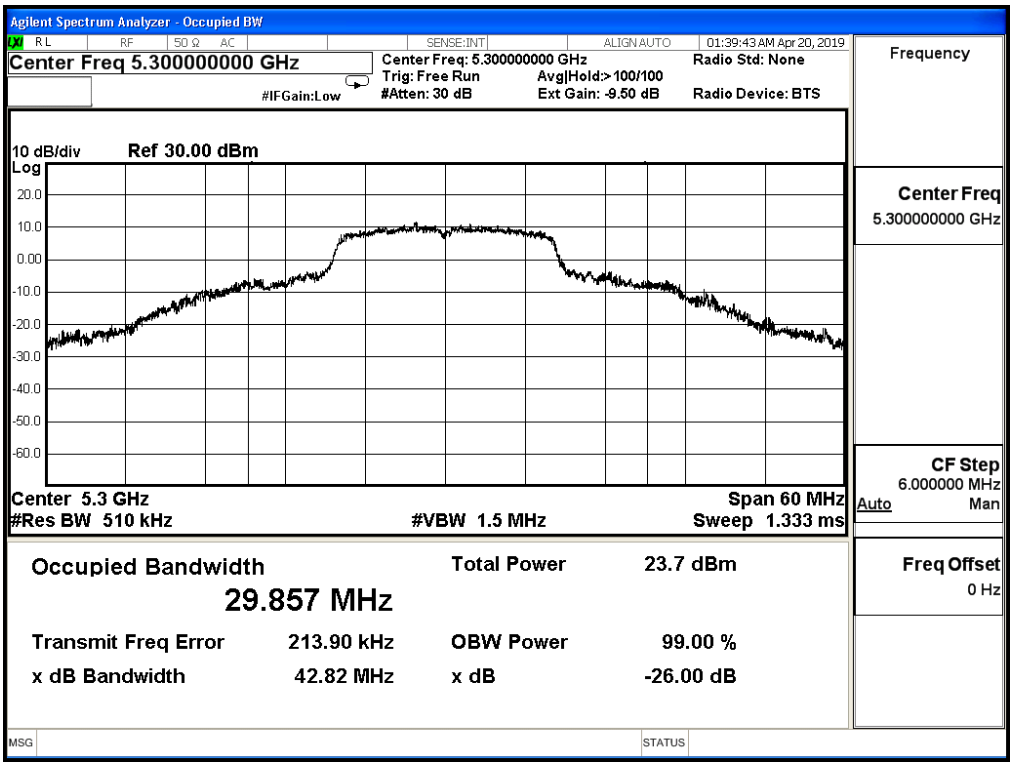
Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11a (ANT0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
52	5260	43.290	29.964	--	Pass
60	5300	42.820	29.857	--	Pass
64	5320	21.390	16.600	--	Pass

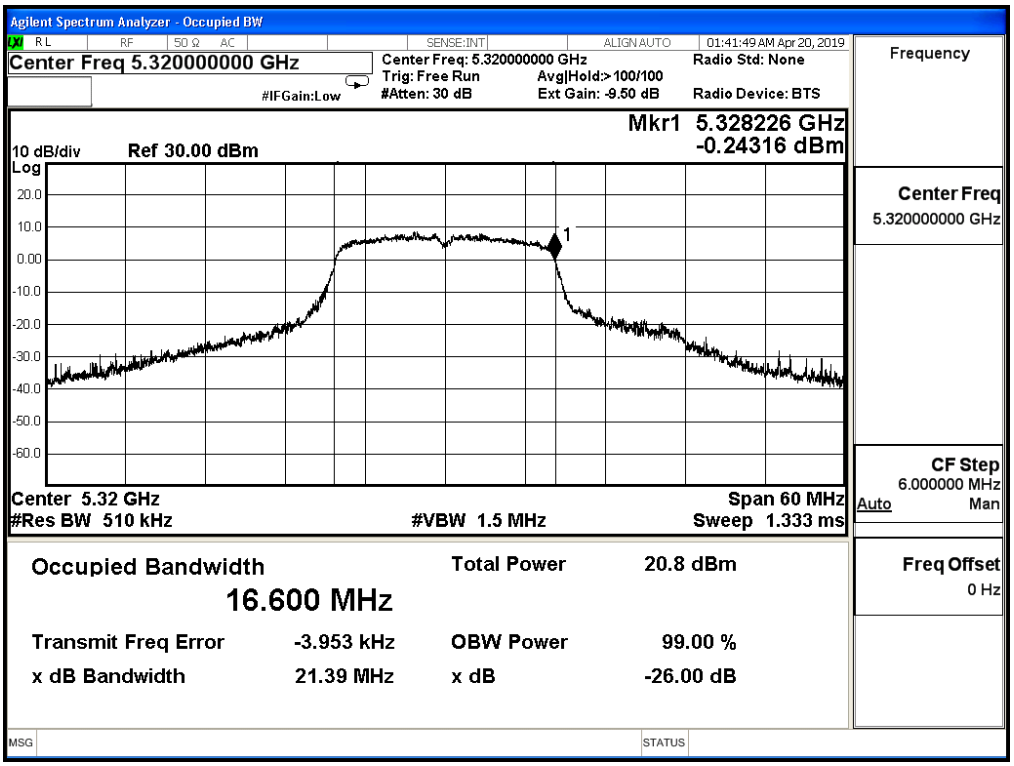
Channel 52 (5260MHz)



Channel 60 (5300MHz)



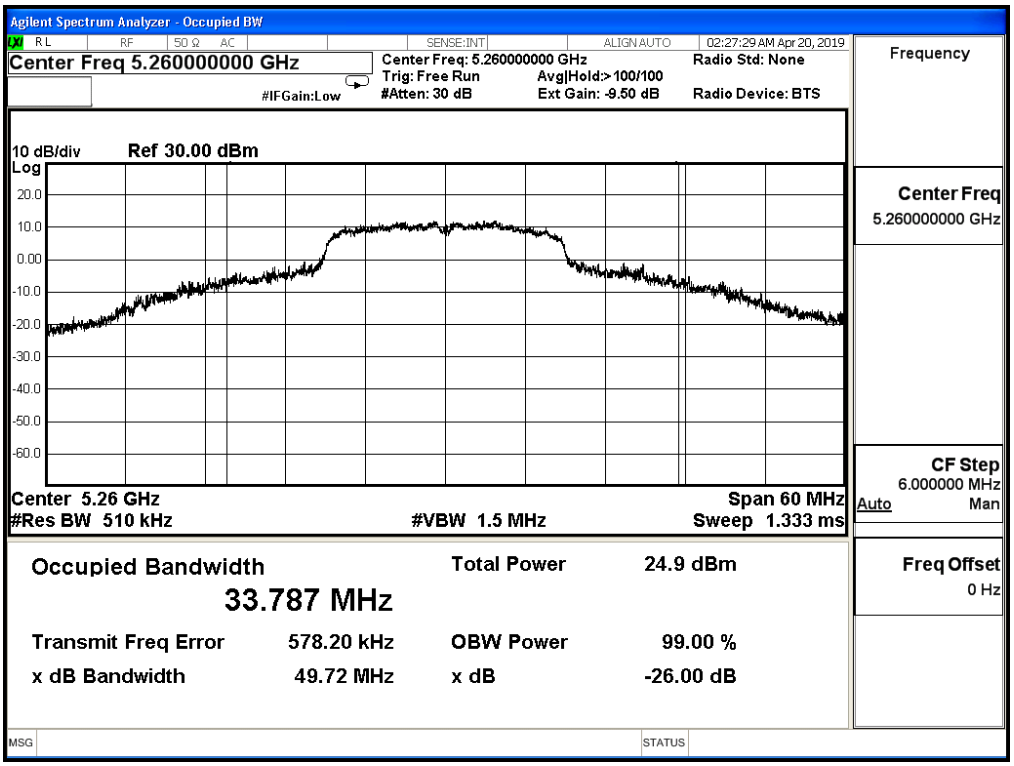
Channel 64 (5320MHz)



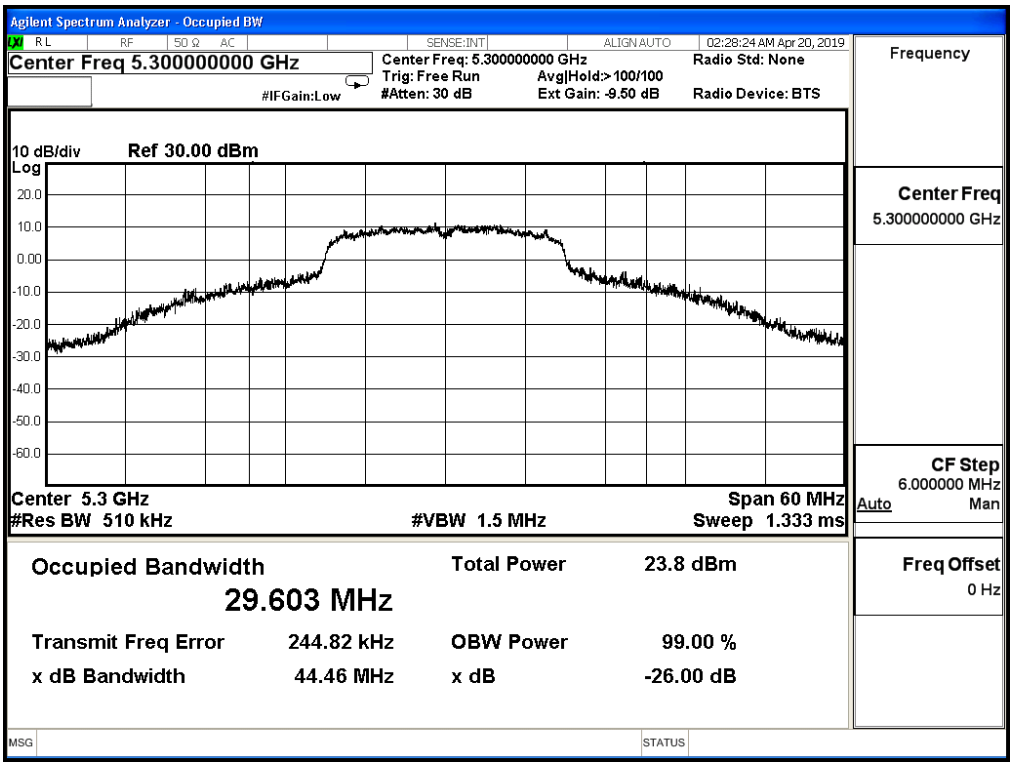
Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac_20M (ANT0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
52	5260	49.720	33.787	--	Pass
60	5300	44.460	29.603	--	Pass
64	5320	23.380	17.666	--	Pass

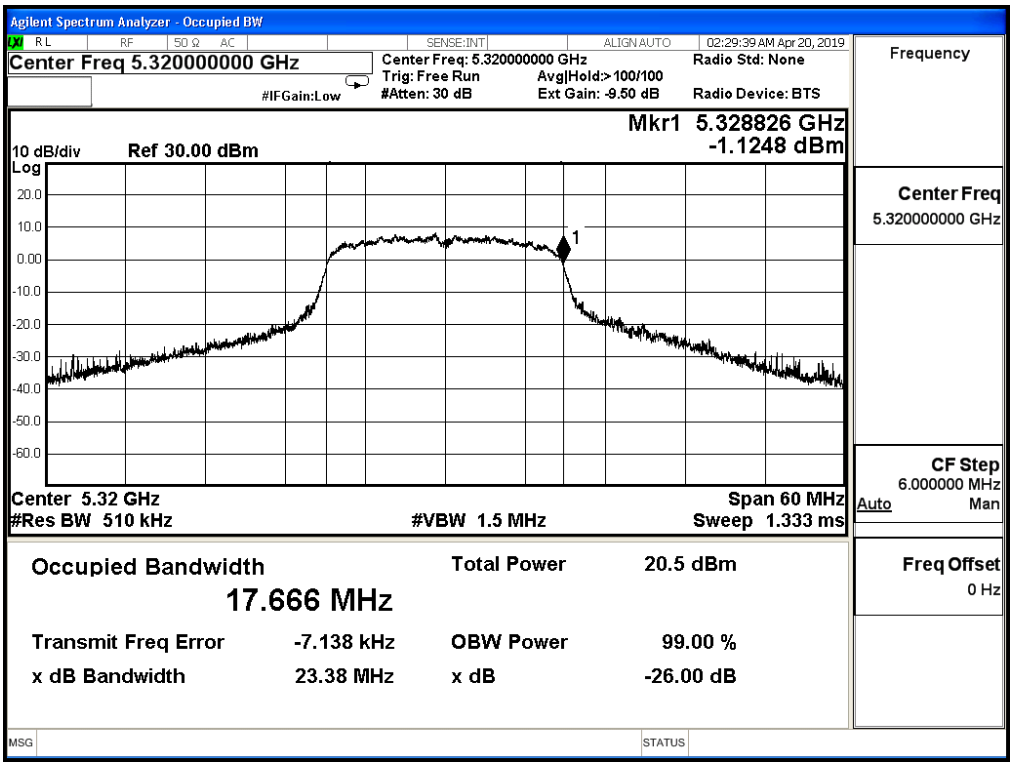
Channel 52 (5260MHz)



Channel 60 (5300MHz)



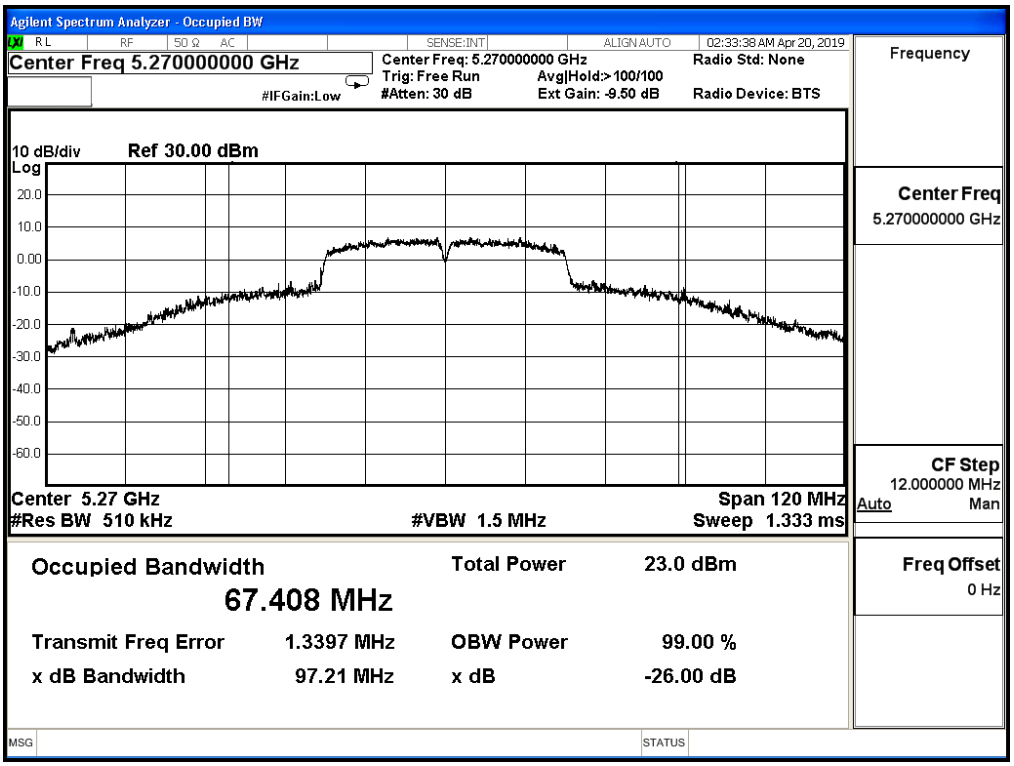
Channel 64 (5320MHz)



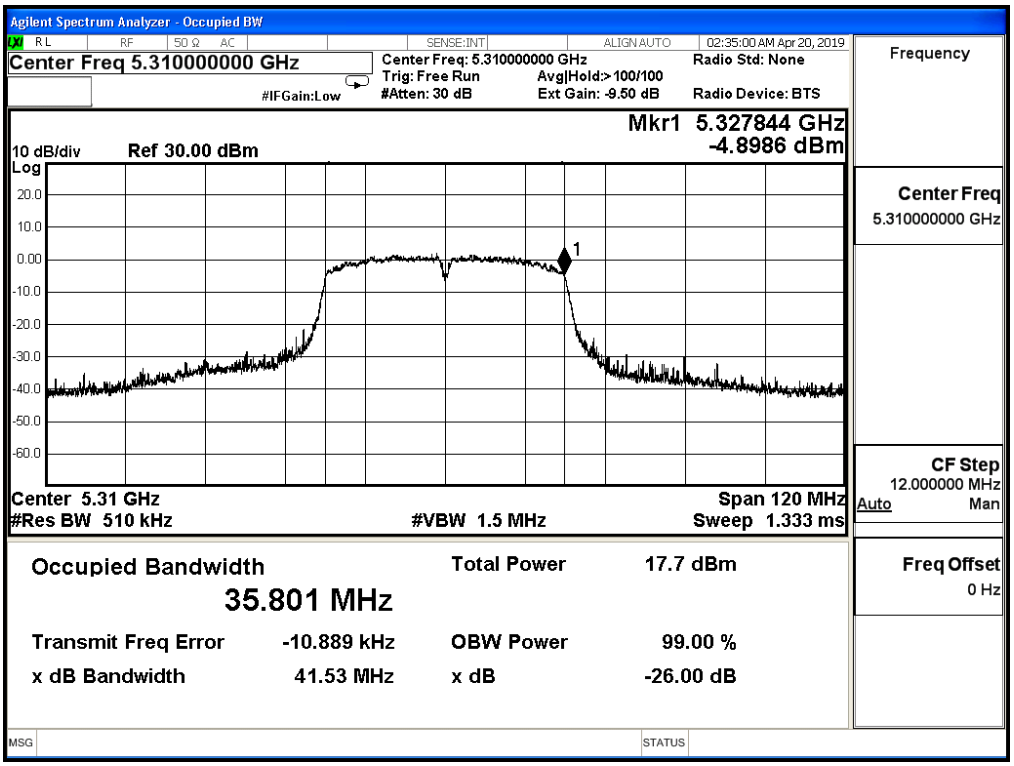
Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac_40M (ANT0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
54	5270	97.210	67.408	--	Pass
62	5310	41.530	35.801	--	Pass

Channel 54 (5270MHz)



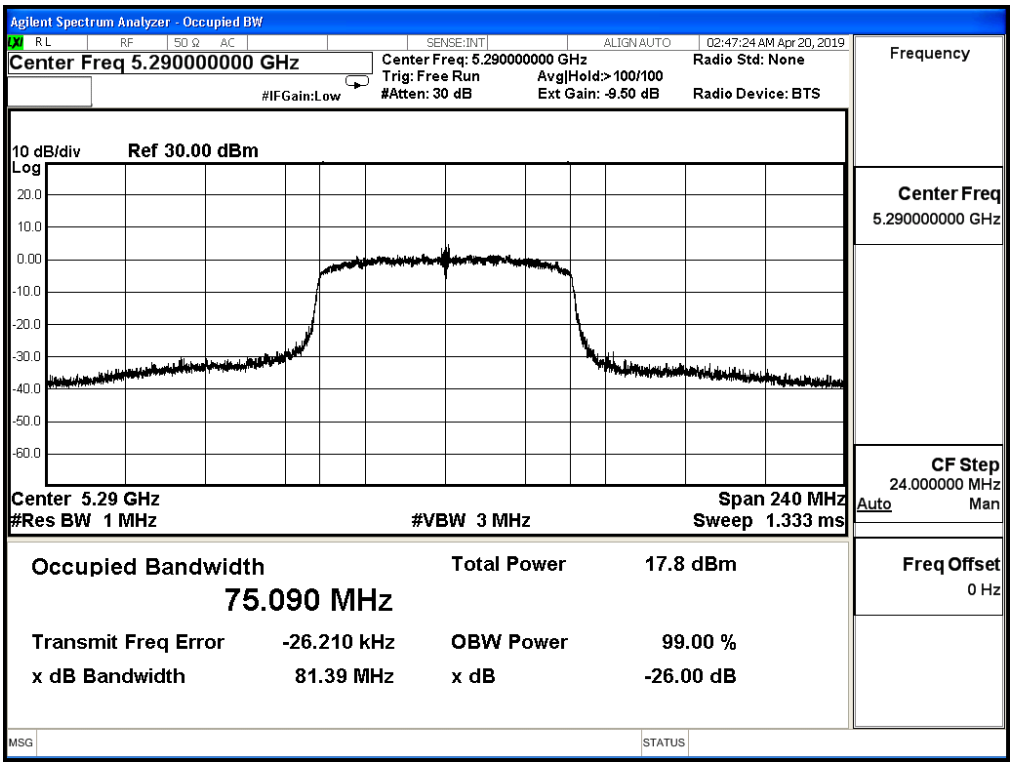
Channel 62 (5310MHz)



Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac_80M (ANT0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
58	5290	81.390	75.090	--	Pass

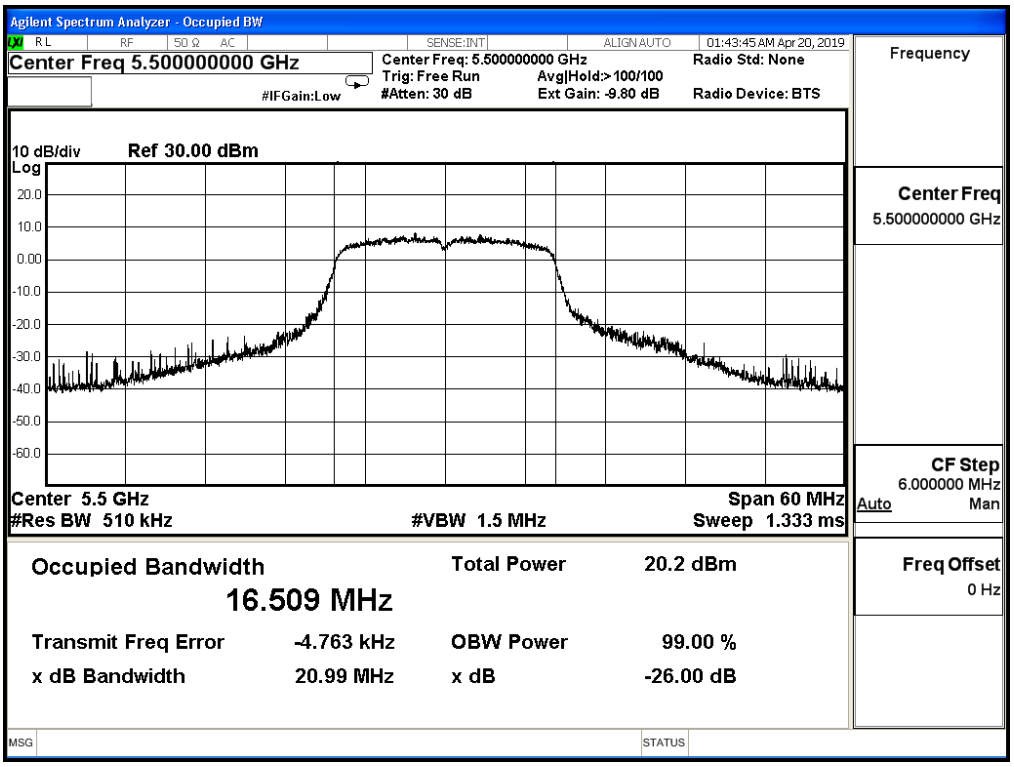
Channel 58 (5290MHz)



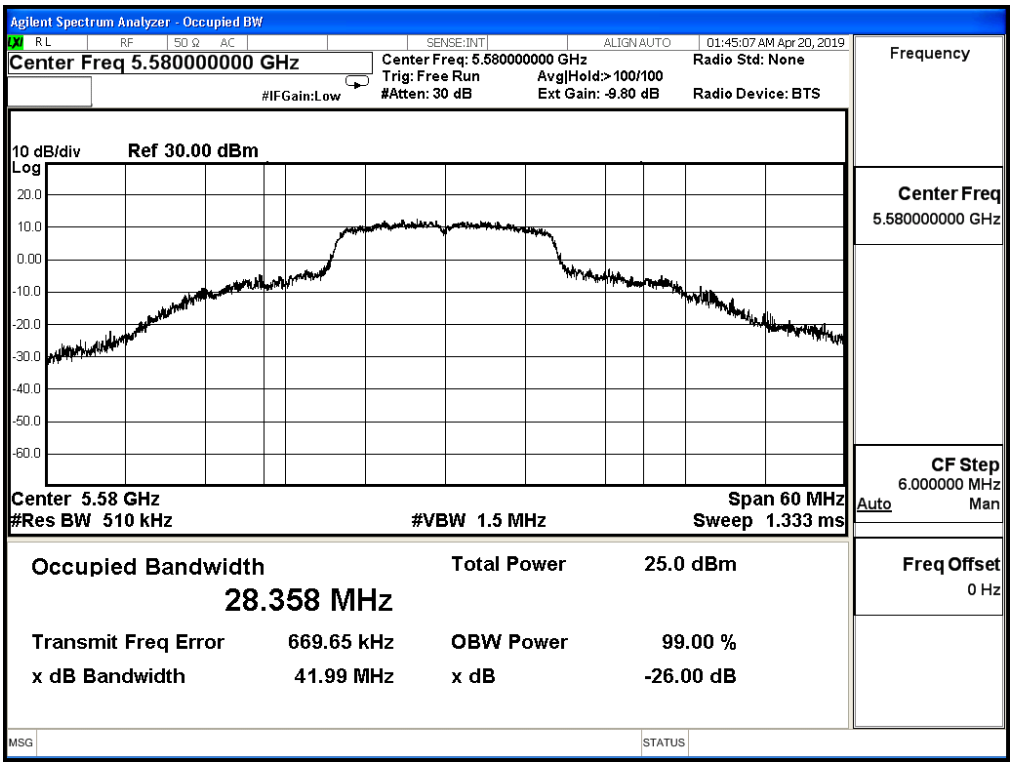
Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11a (ANT0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
100	5500	20.990	16.509	--	Pass
116	5580	41.990	28.358	--	Pass
140	5700	20.650	16.510	--	Pass

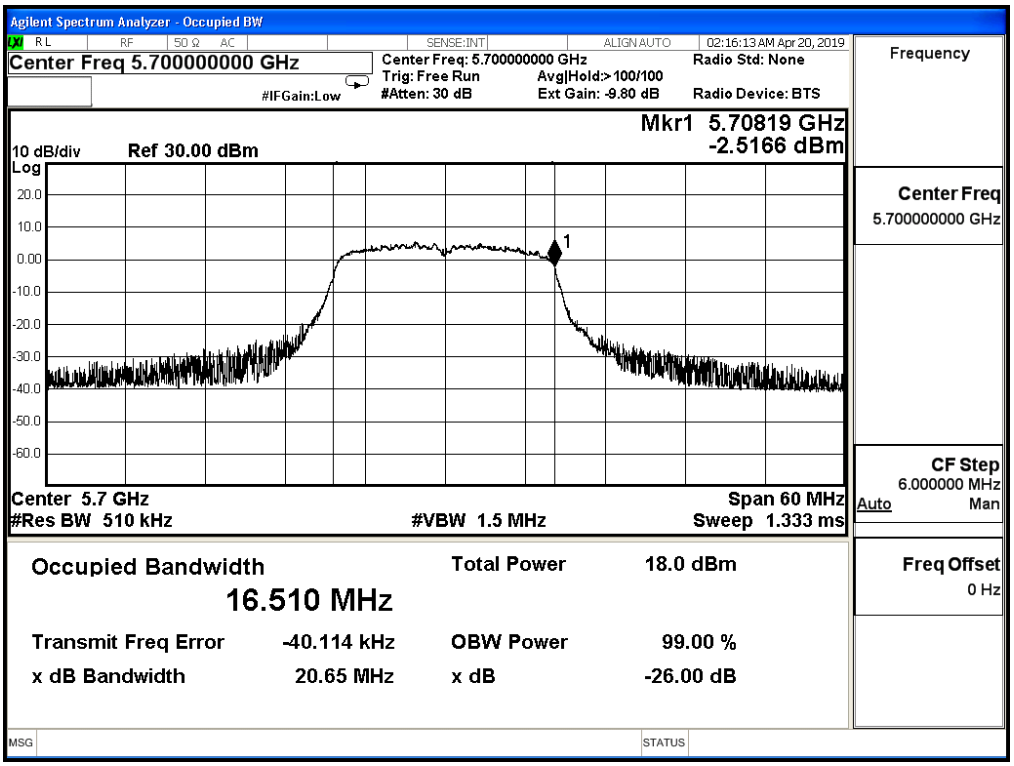
Channel 100 (5500MHz)



Channel 116 (5580MHz)



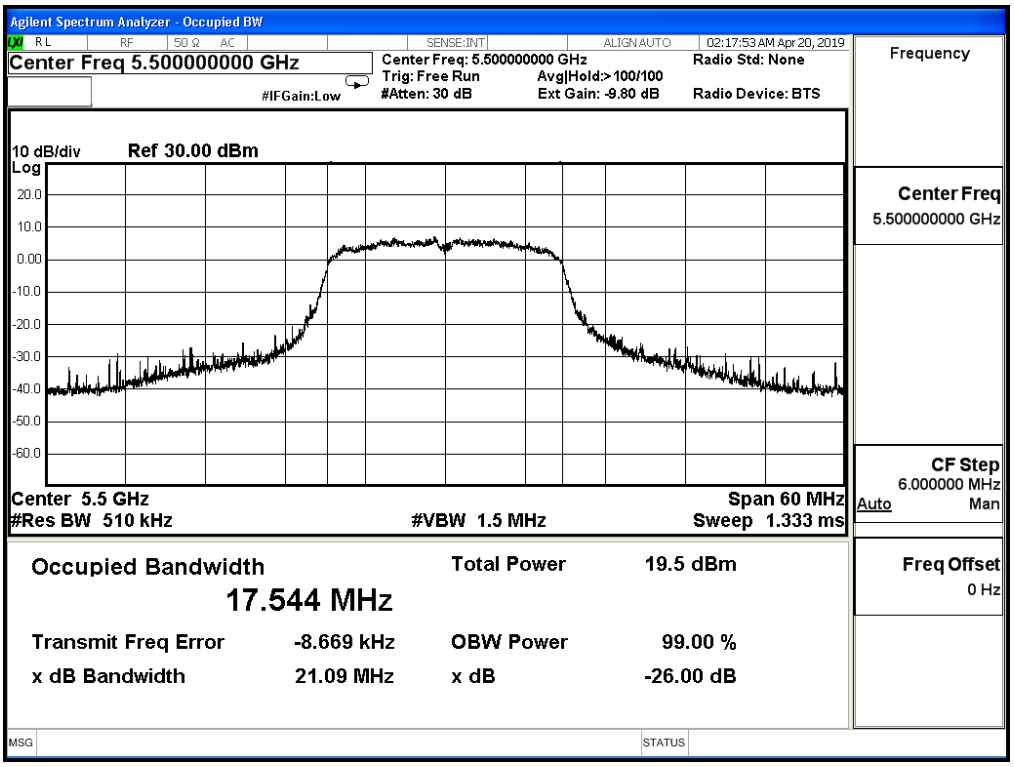
Channel 140 (5700MHz)



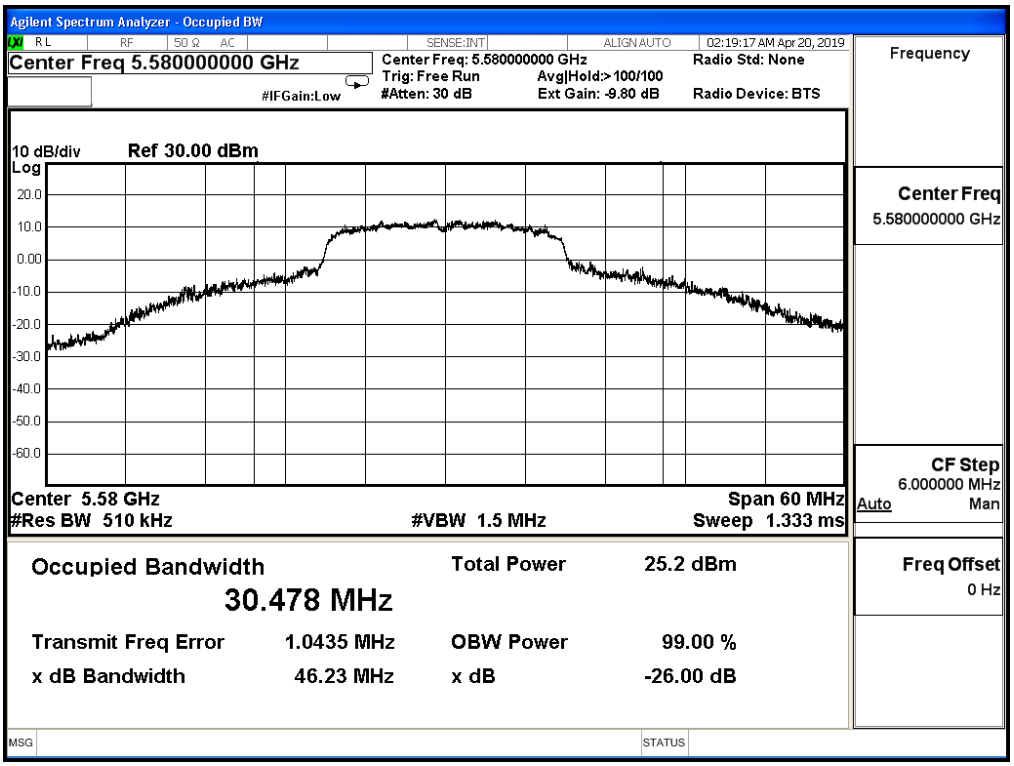
Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac_20M (ANT0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
100	5500	21.090	17.544	--	Pass
116	5580	46.230	30.478	--	Pass
140	5700	21.000	17.548	--	Pass

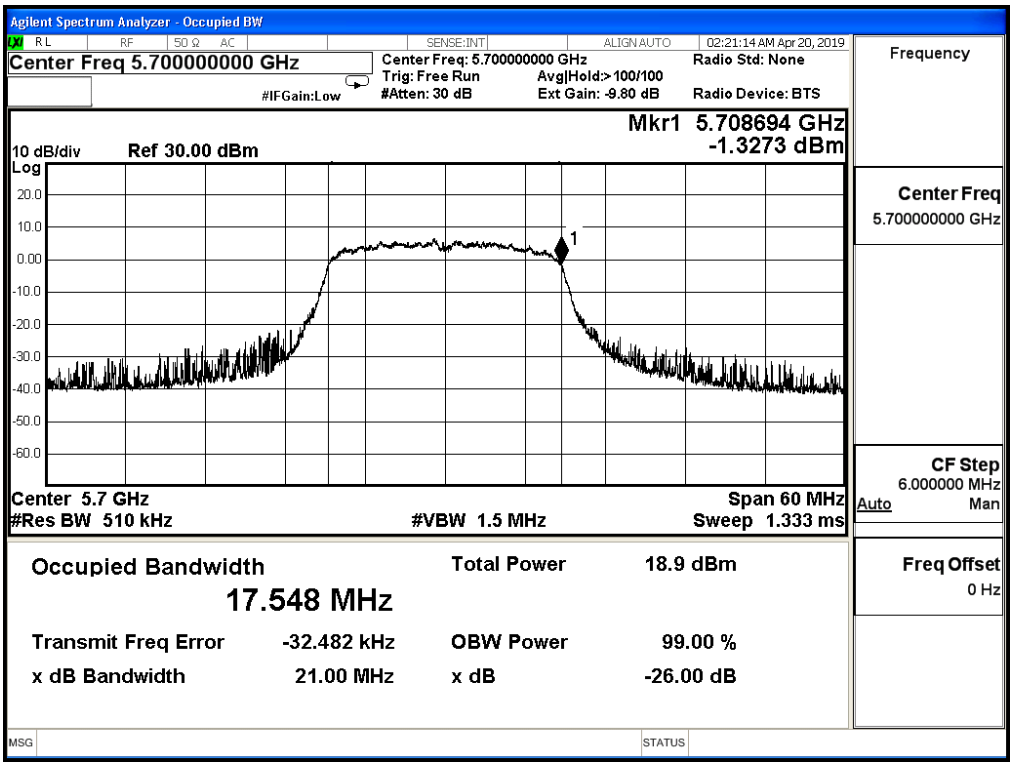
Channel 100 (5500MHz)



Channel 116 (5580MHz)



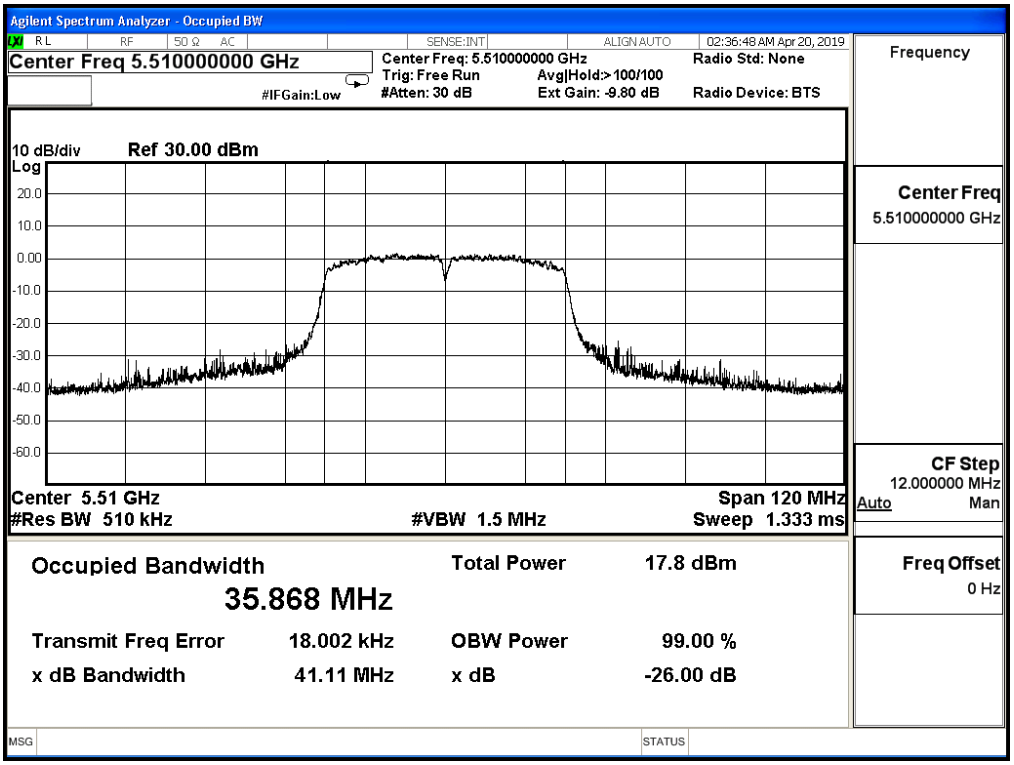
Channel 140 (5700MHz)



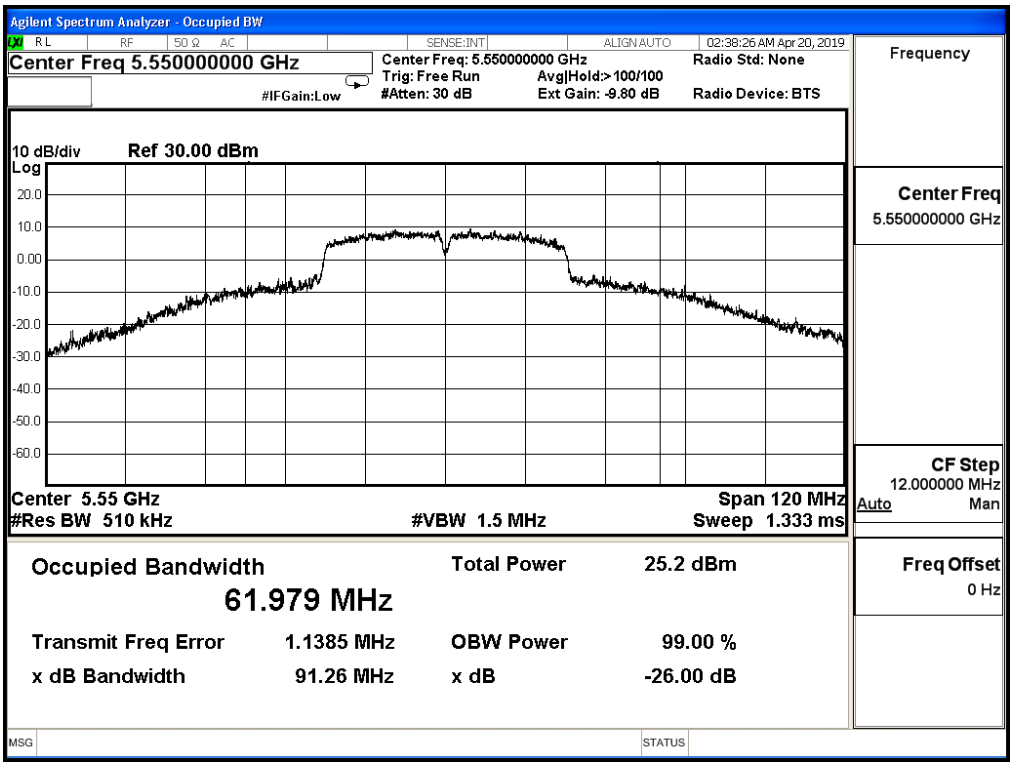
Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac_40M (ANT0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
102	5510	41.110	35.868	--	Pass
110	5550	91.260	61.979	--	Pass
134	5670	53.470	36.170	--	Pass

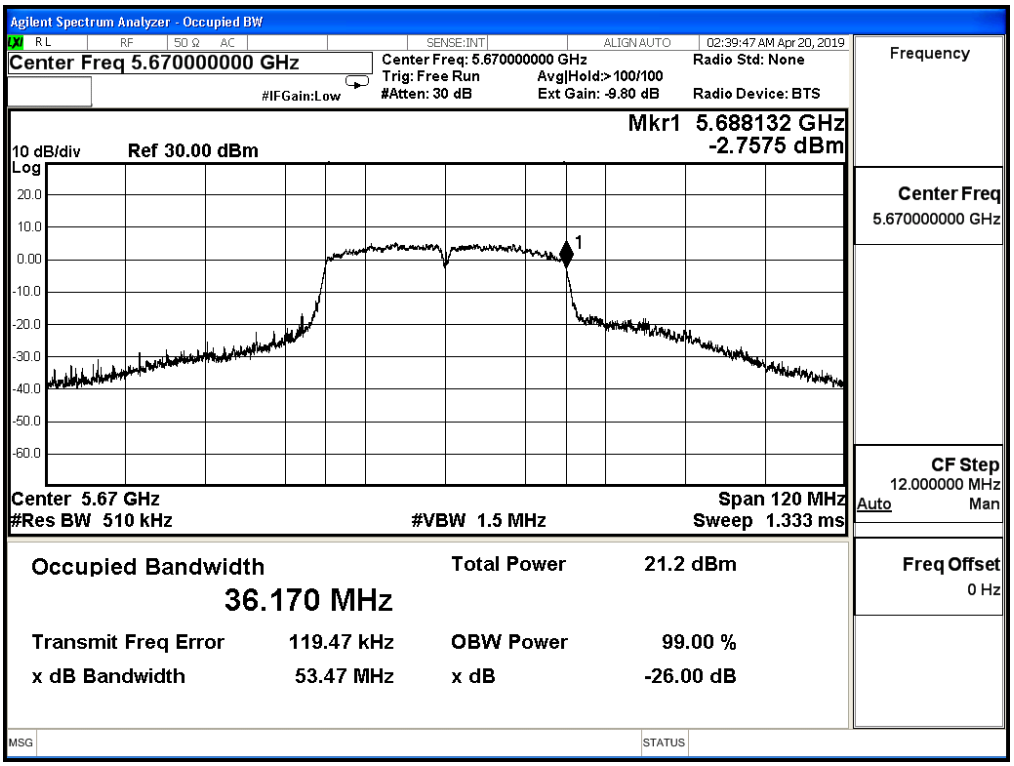
Channel 102 (5510MHz)



Channel 110 (5550MHz)



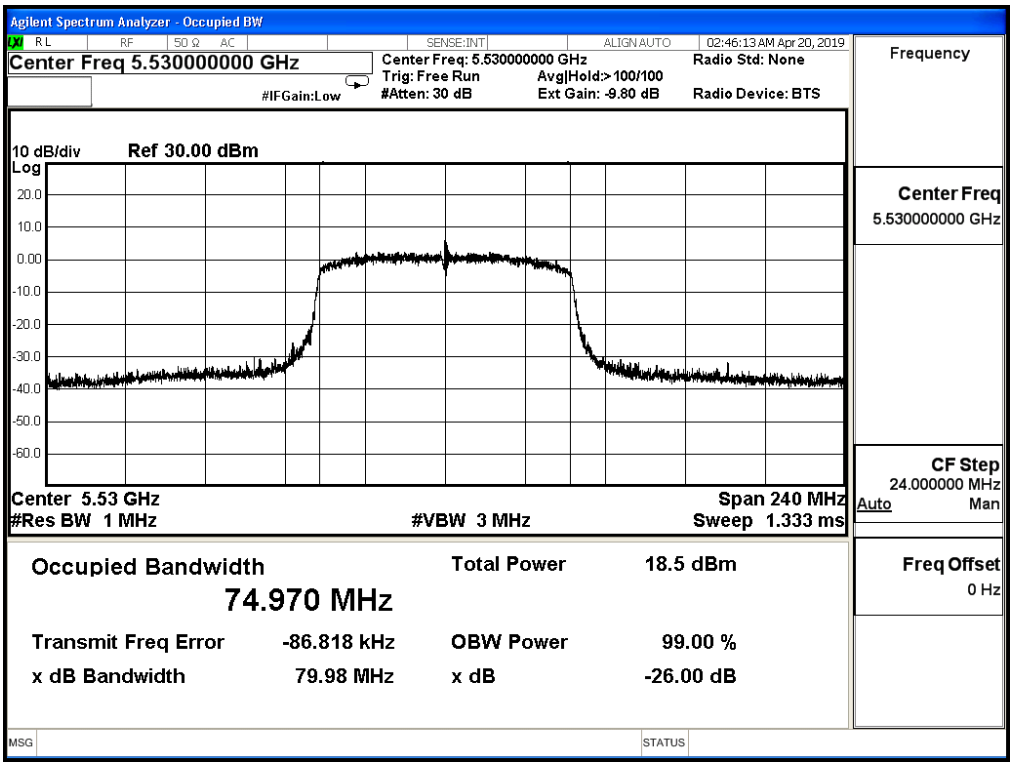
Channel 134 (5670MHz)



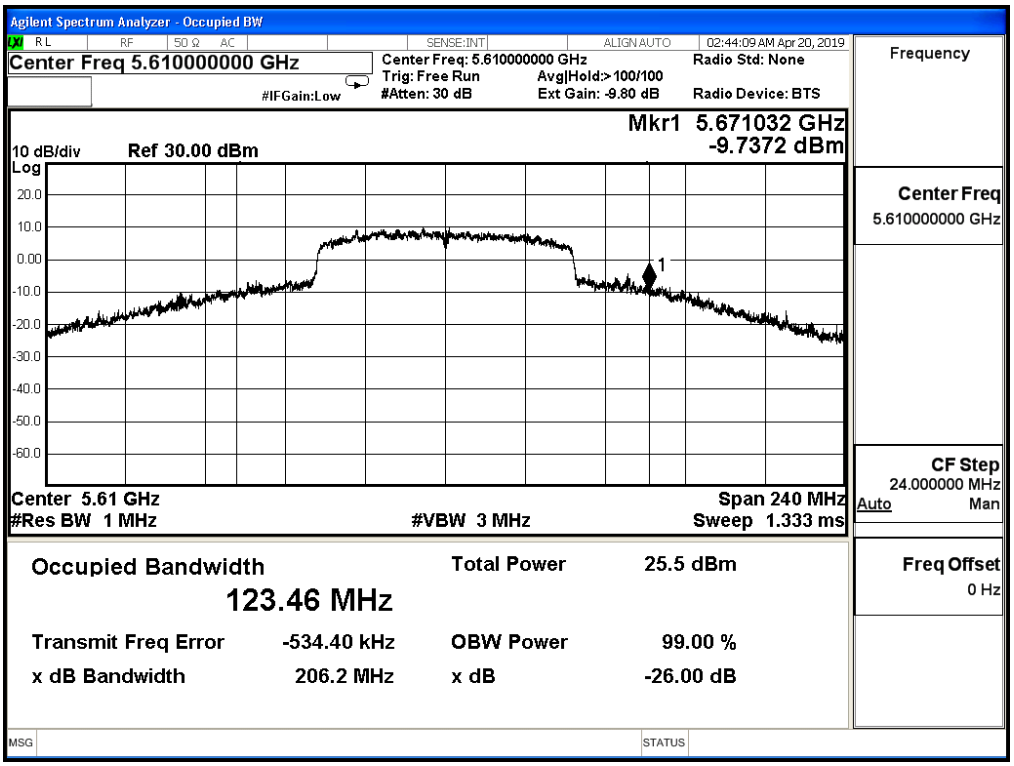
Product	Active Mobile Gateway-with Comm		
Test Item	26dB Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac_80M (ANT0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
106	5530	79.980	74.970	--	Pass
122	5610	206.200	123.460	--	Pass

Channel 106 (5530MHz)



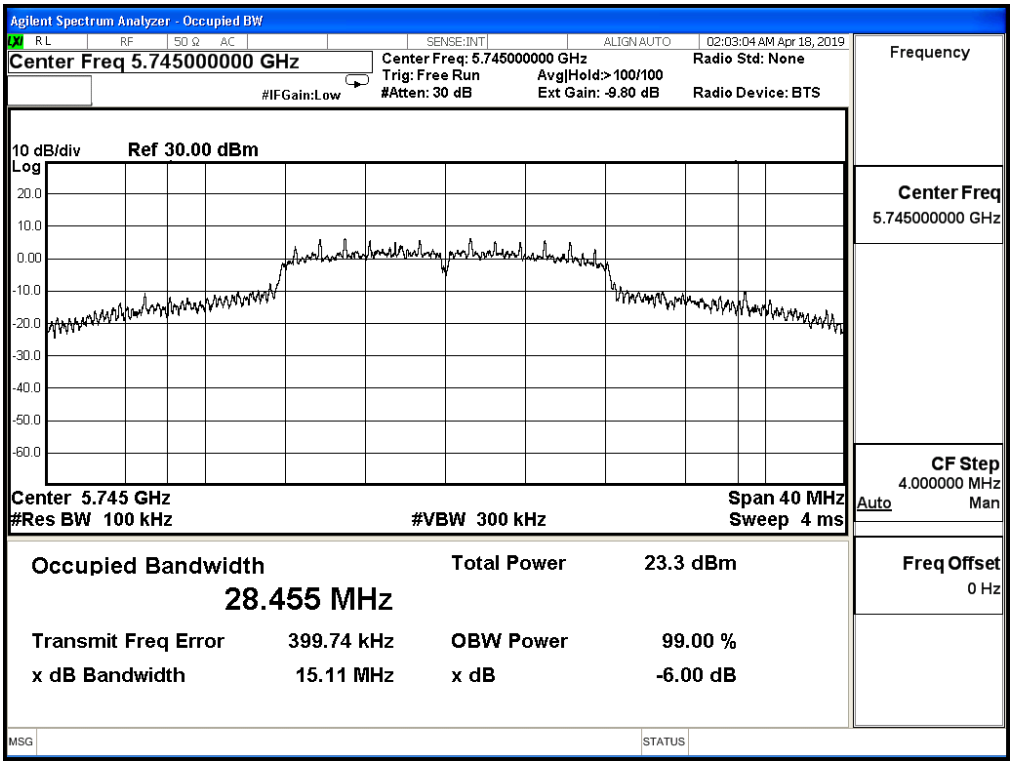
Channel 122 (5610MHz)



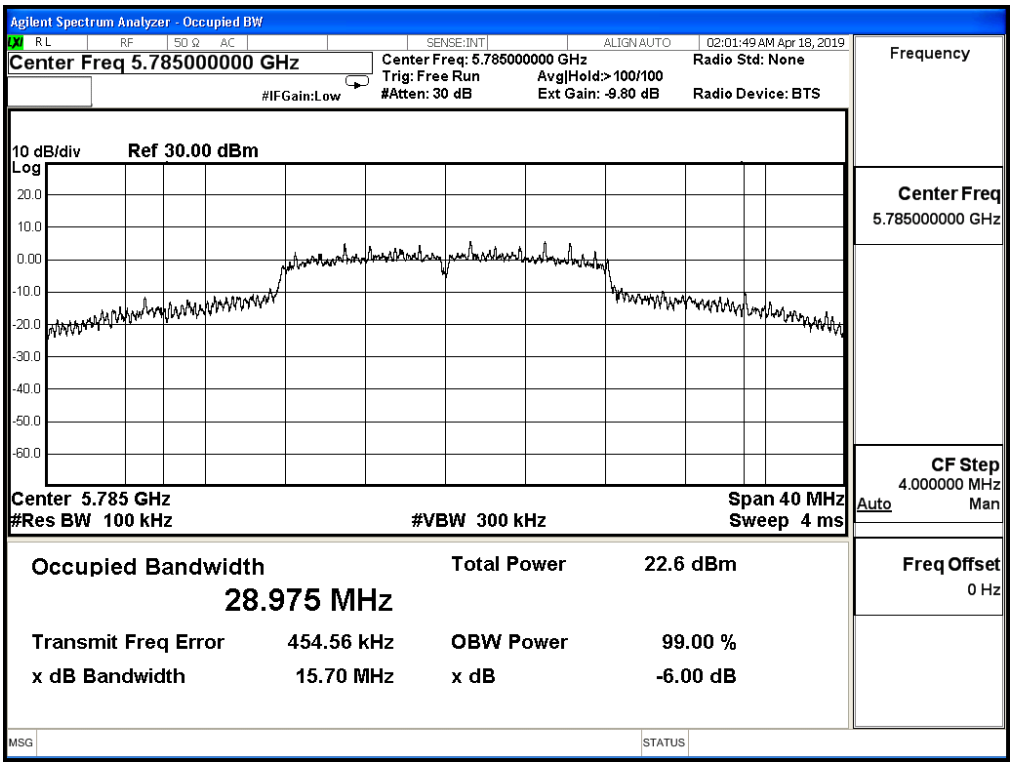
Product	Active Mobile Gateway-with Comm		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11a (ANT0)				
Channel No.	Frequency (MHz)	Measure Value (MHz)	Limit (MHz)	Result
149	5745	15.110	>0.5	Pass
157	5785	15.700	>0.5	Pass
165	5825	15.130	>0.5	Pass

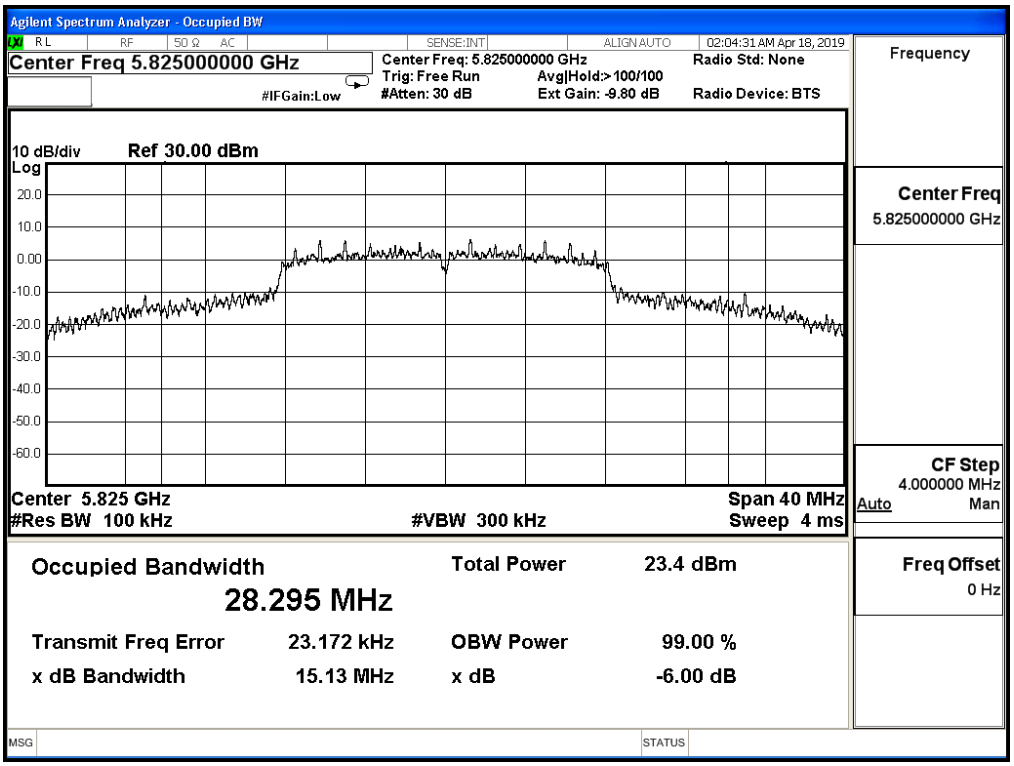
Channel 149 (5745MHz)



Channel 157 (5785MHz)



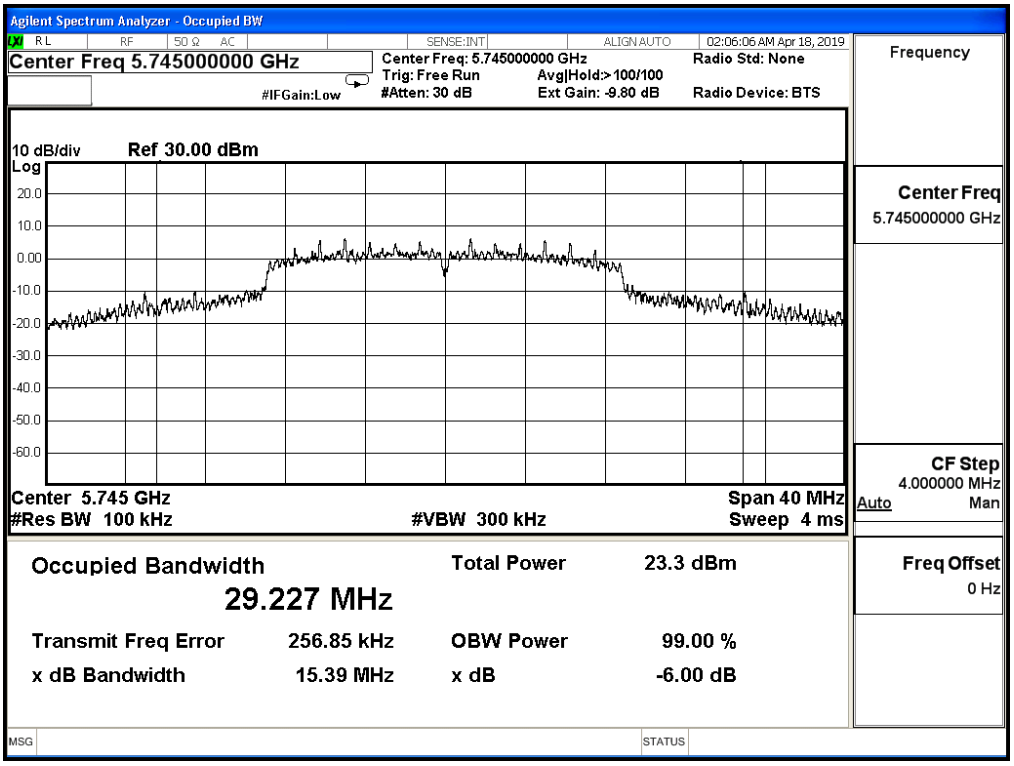
Channel165 (5825MHz)



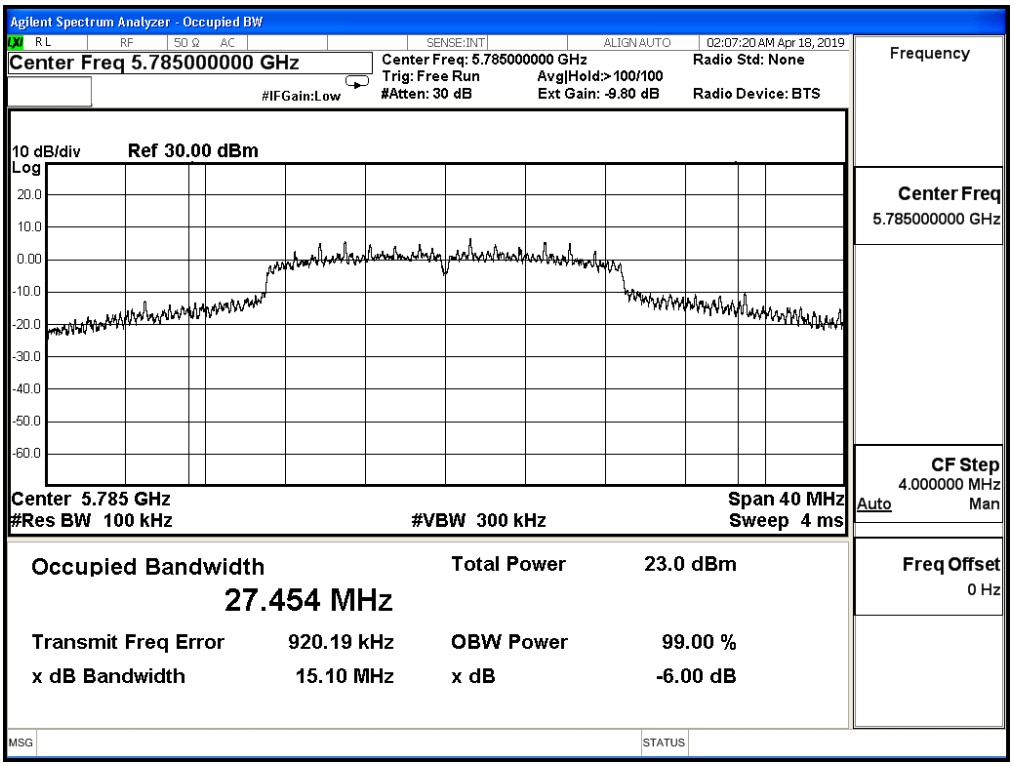
Product	Active Mobile Gateway-with Comm		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac_20M (ANT0)			
Channel No.	Frequency (MHz)	Measure Value (MHz)	Limit (MHz)
149	5745	15.390	≧0.5
157	5785	15.100	≧0.5
165	5825	15.130	≧0.5

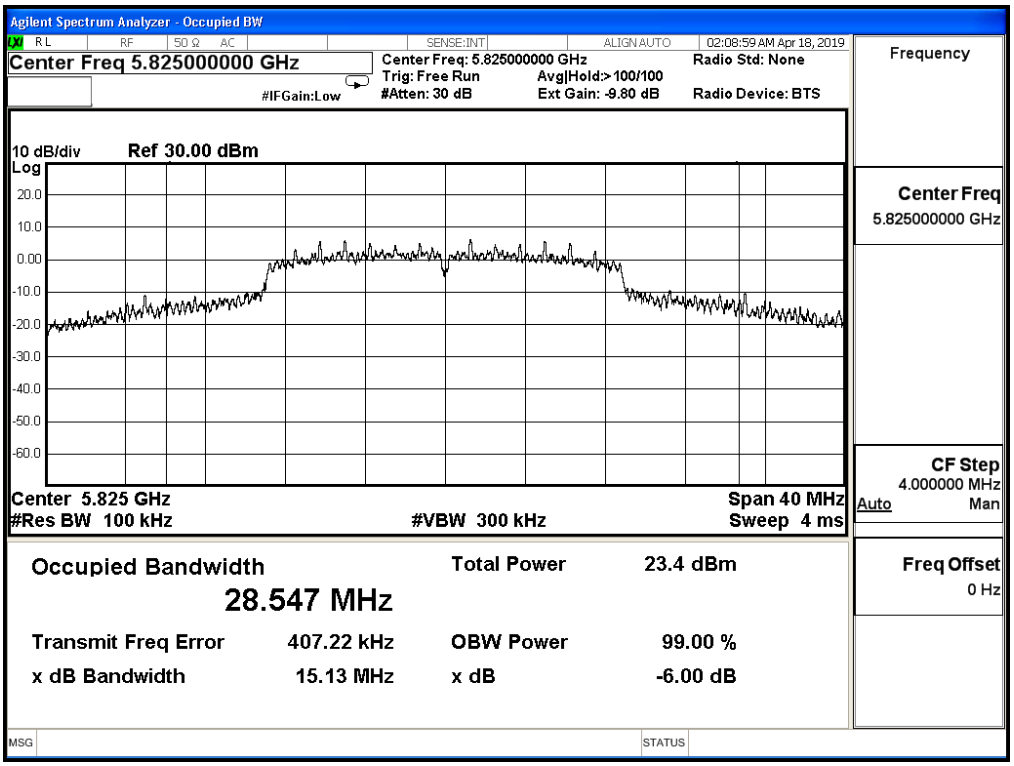
Channel 149 (5745MHz)



Channel 157 (5785MHz)



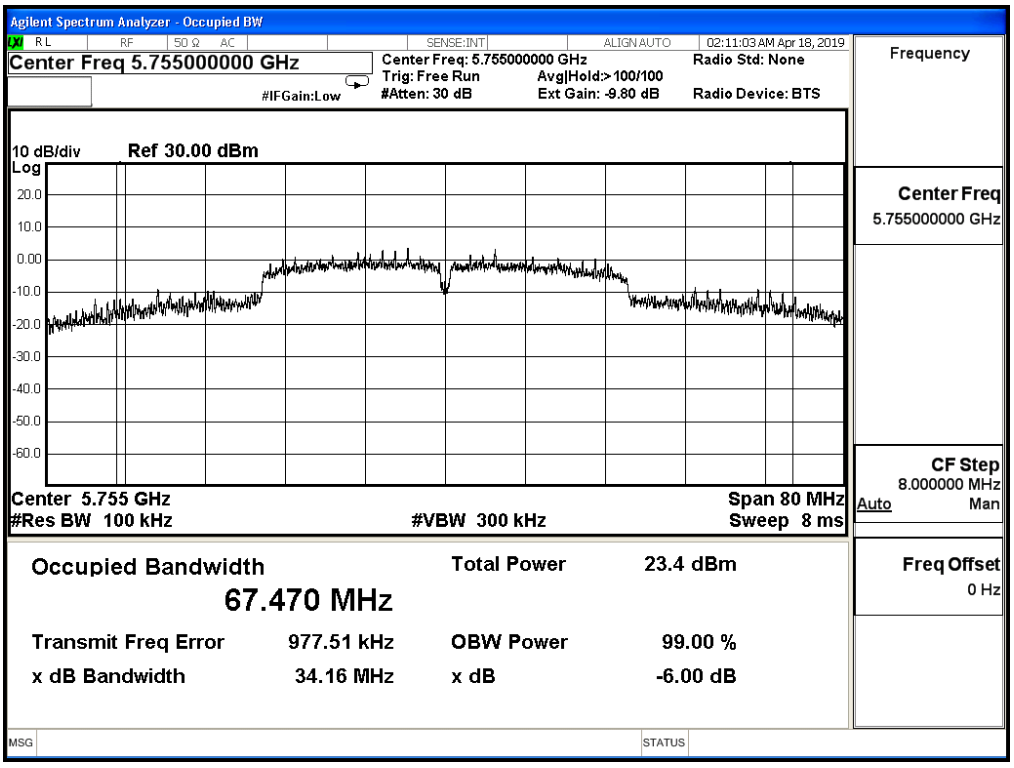
Channel 165 (5825MHz)



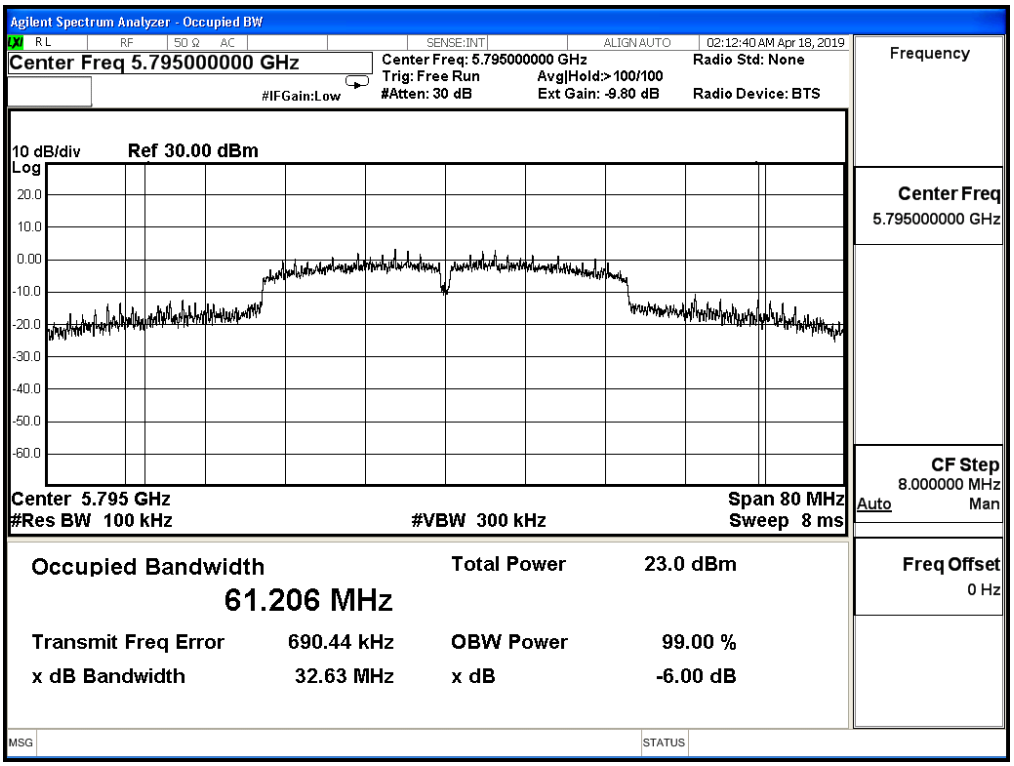
Product	Active Mobile Gateway-with Comm		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac_40M (ANT0)			
Channel No.	Frequency (MHz)	Measure Value (MHz)	Limit (MHz)
151	5755	34.160	≧0.5
159	5795	32.630	≧0.5

Channel 151 (5755MHz)



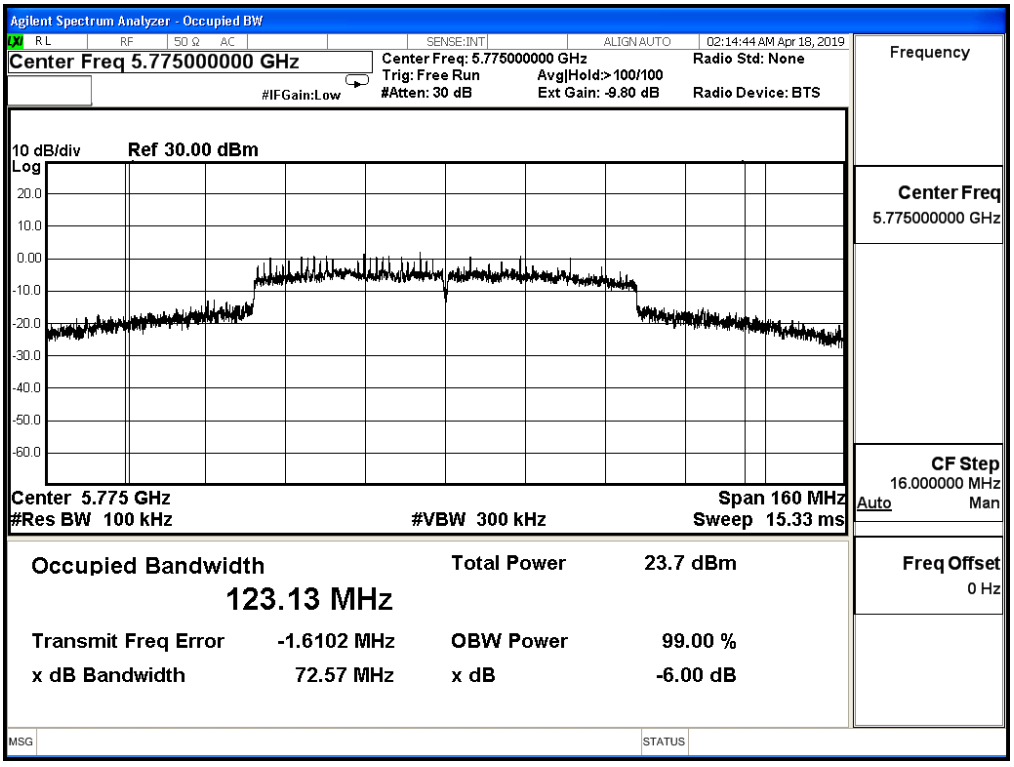
Channel 159 (5795MHz)



Product	Active Mobile Gateway-with Comm		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac_80M (ANT0)			
Channel No.	Frequency (MHz)	Measure Value (MHz)	Limit (MHz)
155	5775	72.570	≧0.5

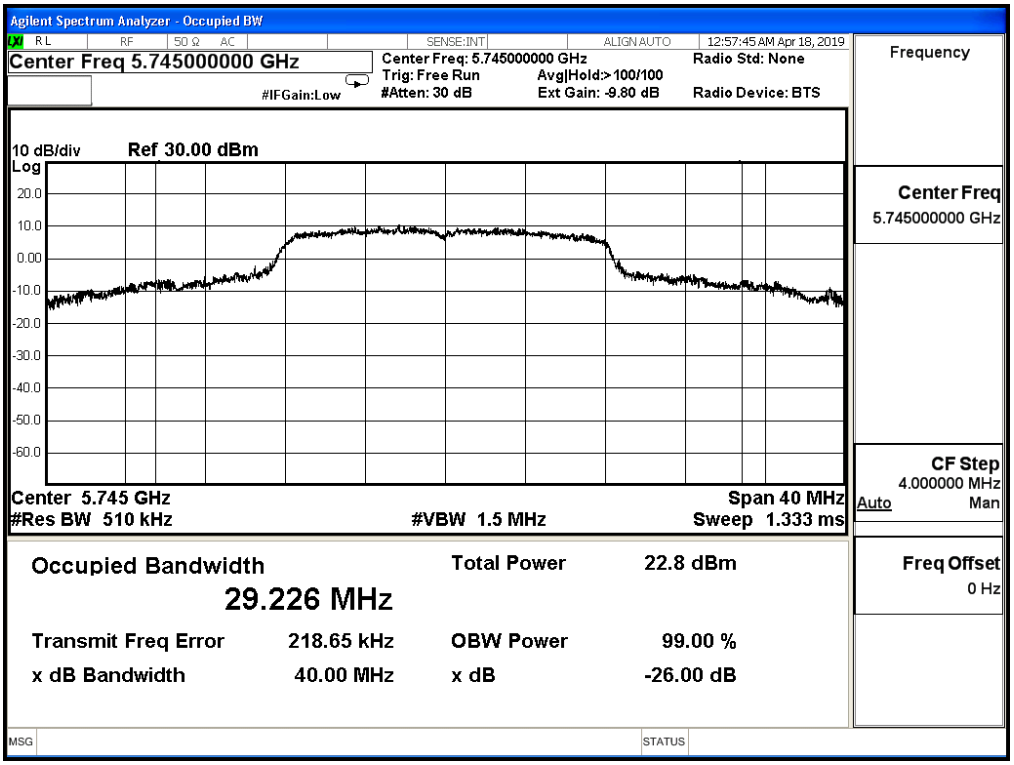
Channel 155 (5775MHz)



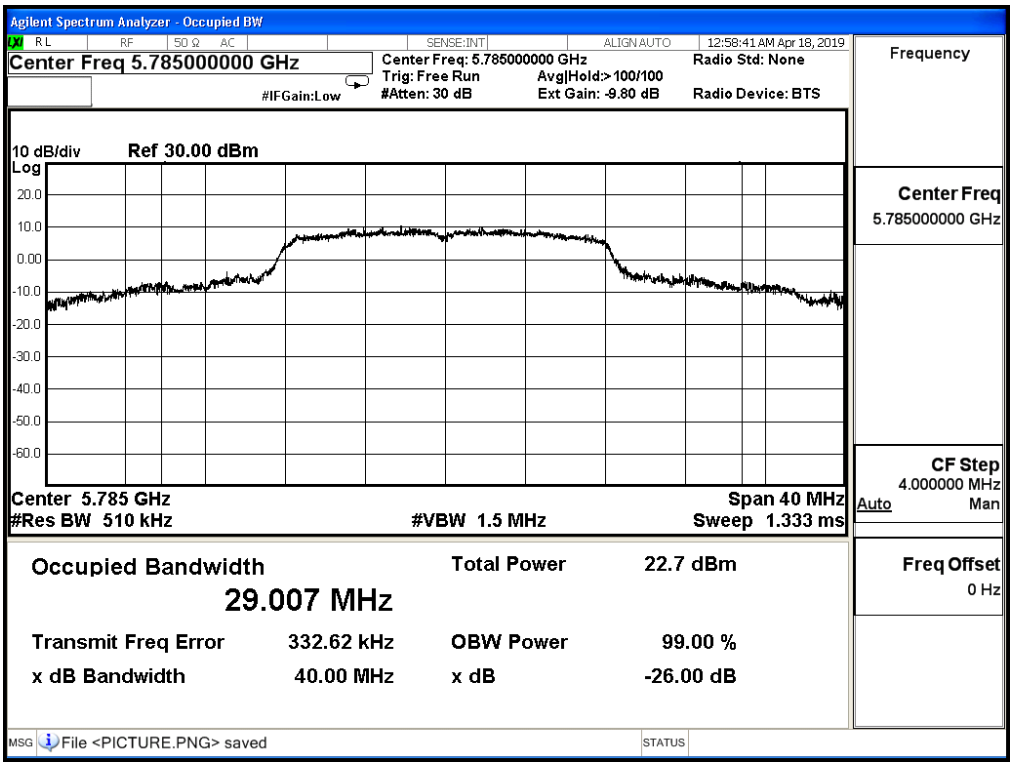
Product	Active Mobile Gateway-with Comm		
Test Item	99% Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11a (ANT0)			
Channel No.	Frequency (MHz)	Measure Value (MHz)	Limit (MHz)
149	5745	29.226	--
157	5785	29.007.	--
165	5825	29.008	--

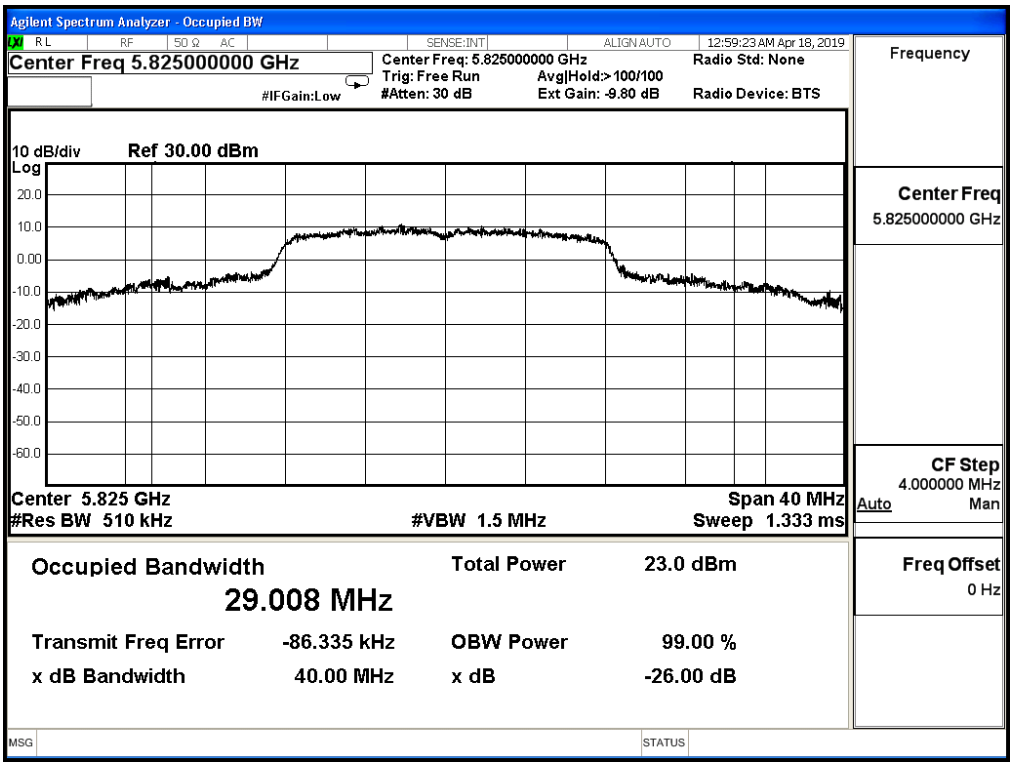
Channel 149 (5745MHz)



Channel 157 (5785MHz)



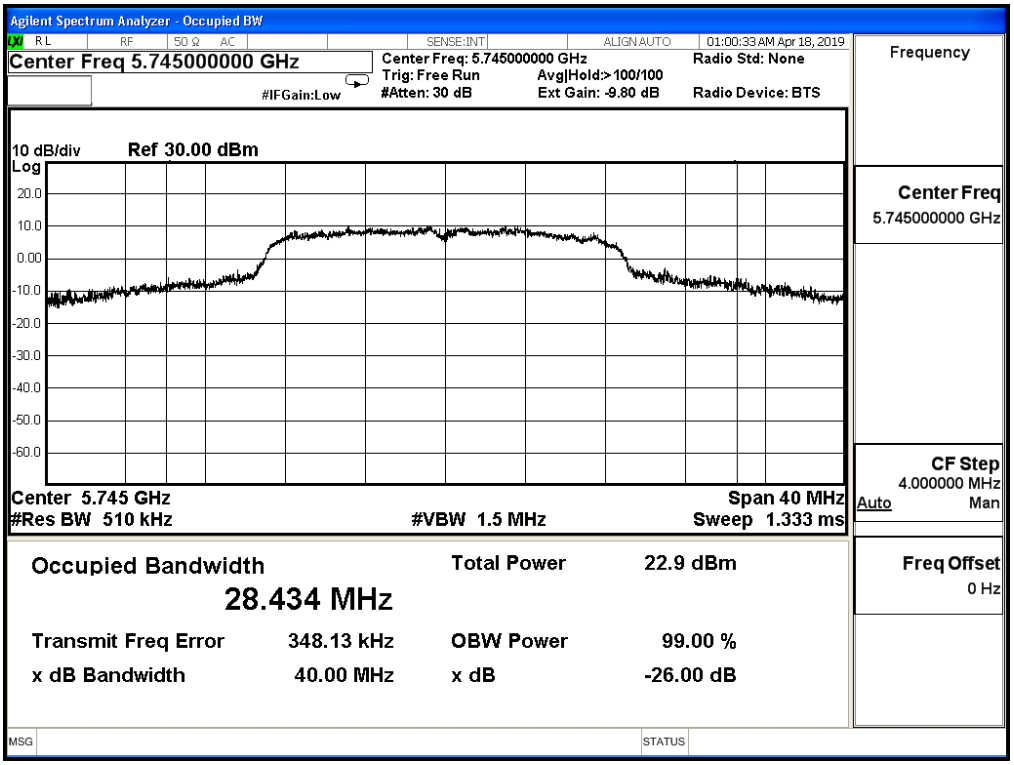
Channel 165 (5825MHz)



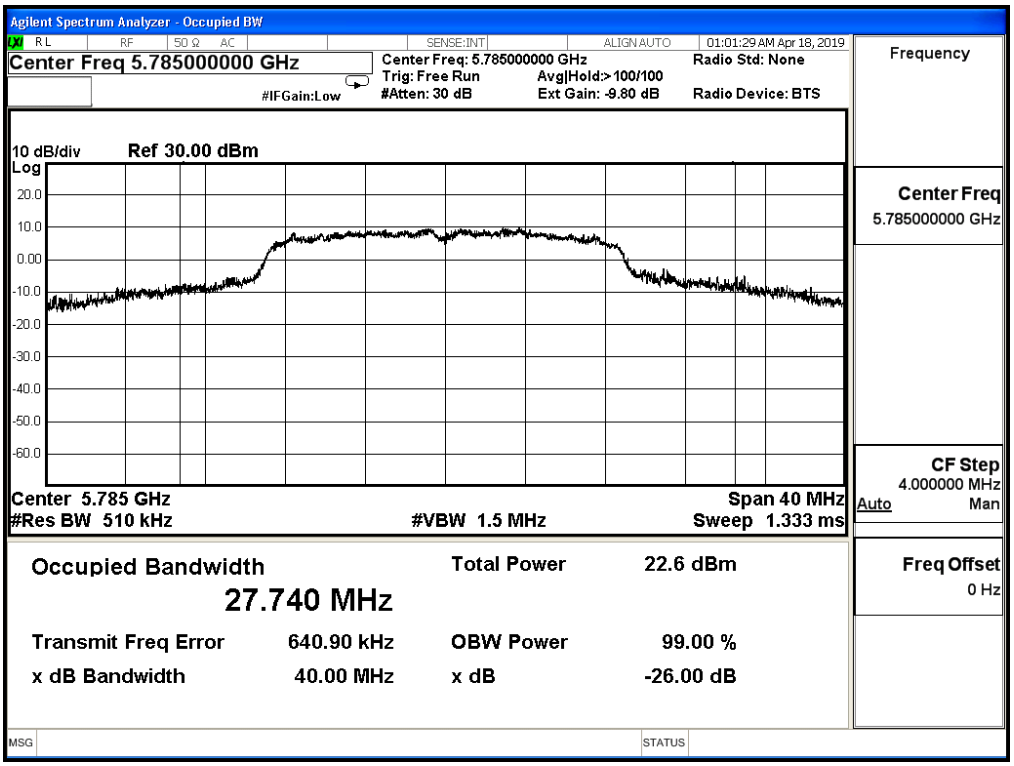
Product	Active Mobile Gateway-with Comm		
Test Item	99% Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac_20M (ANT0)			
Channel No.	Frequency (MHz)	Measure Value (MHz)	Limit (MHz)
149	5745	28.434	--
157	5785	27.740	--
165	5825	28.763	--

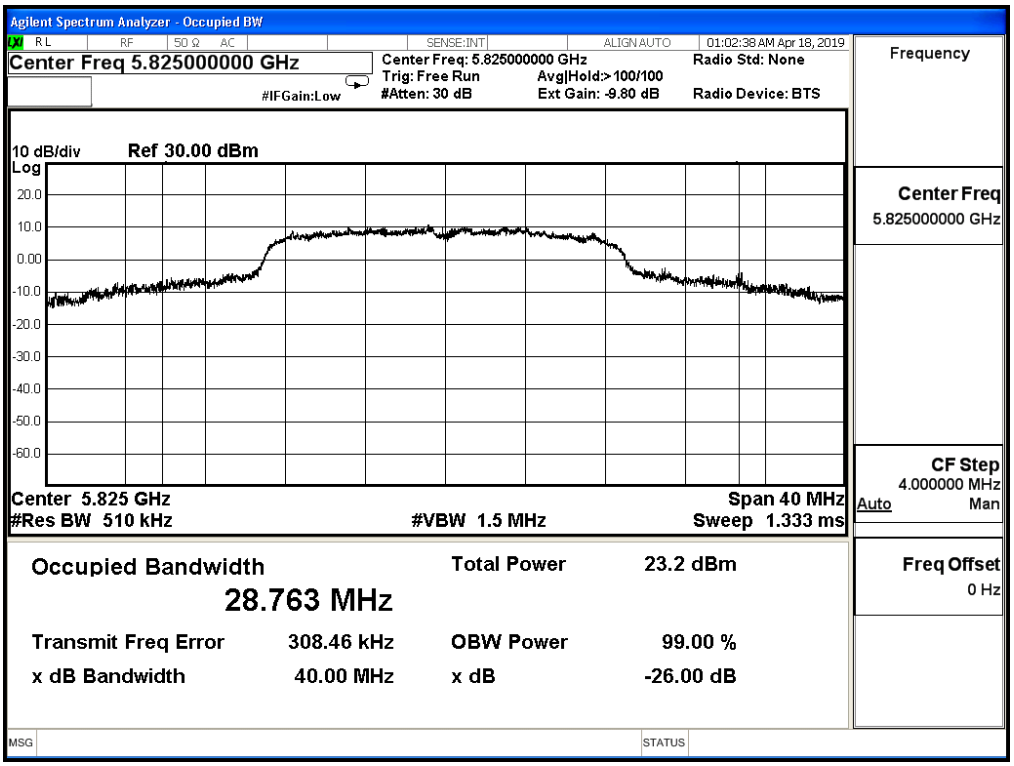
Channel 149 (5745MHz)



Channel 157 (5785MHz)



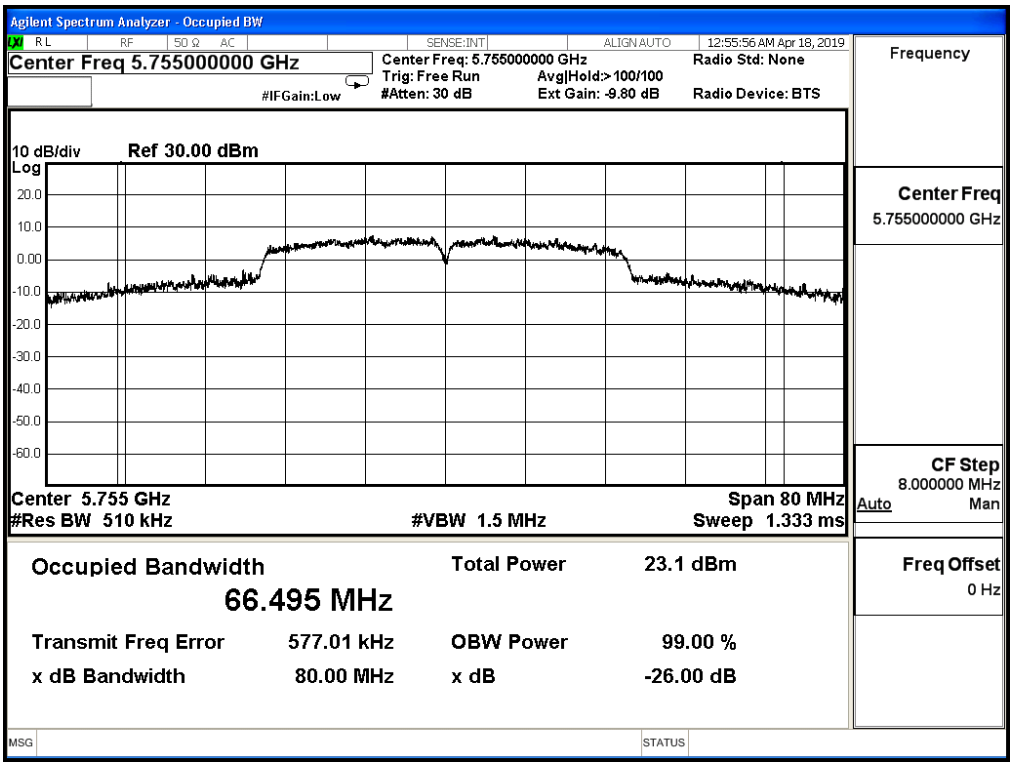
Channel 165 (5825MHz)



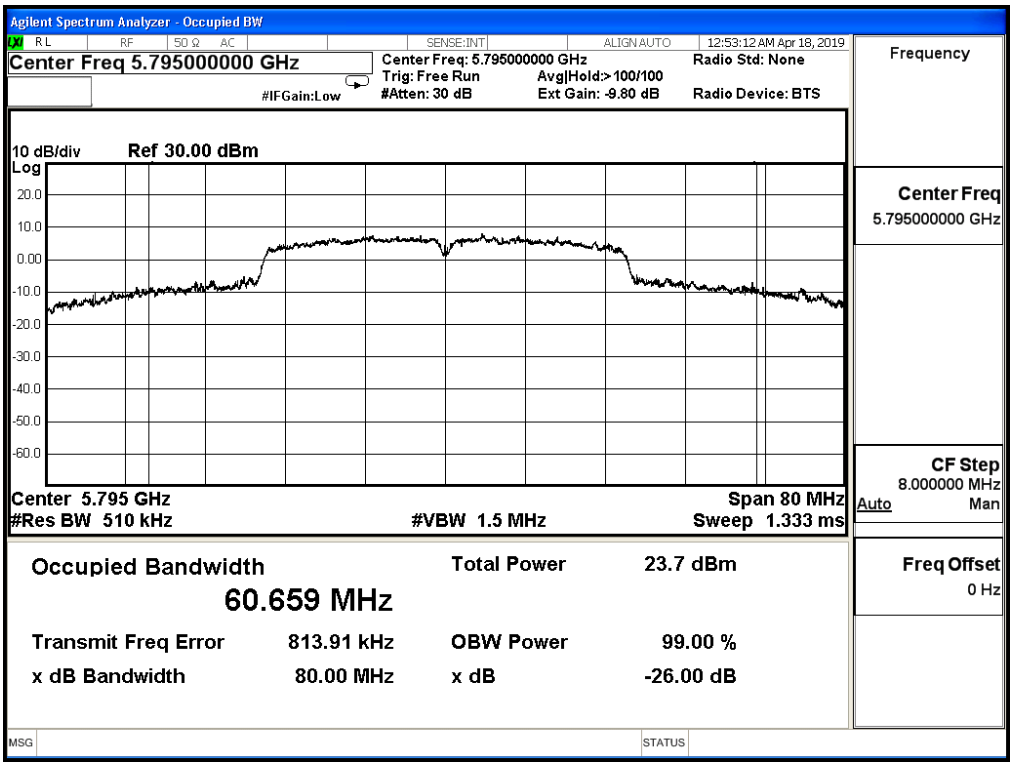
Product	Active Mobile Gateway-with Comm		
Test Item	99% Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	2019/04/19

IEEE 802.11ac_40M (ANT0)			
Channel No.	Frequency (MHz)	Measure Value (MHz)	Limit (MHz)
151	5755	66.495	--
159	5795	60.659	--

Channel 151 (5755MHz)



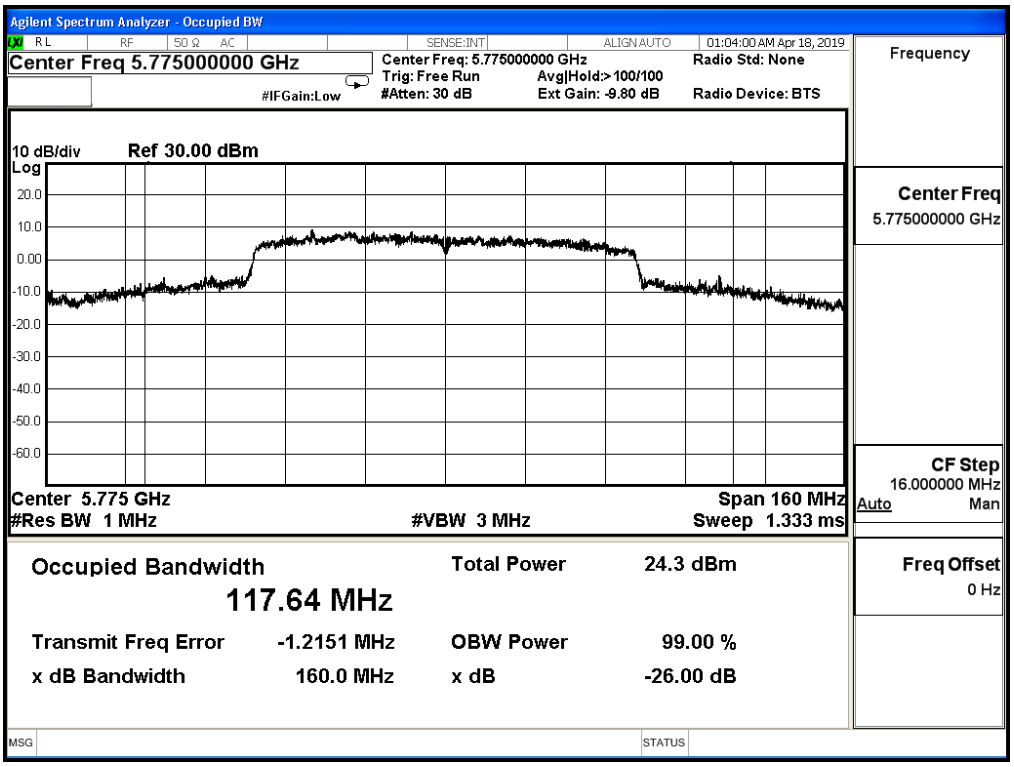
Channel 159 (5795MHz)



Product	Active Mobile Gateway-with Comm		
Test Item	99% Bandwidth		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

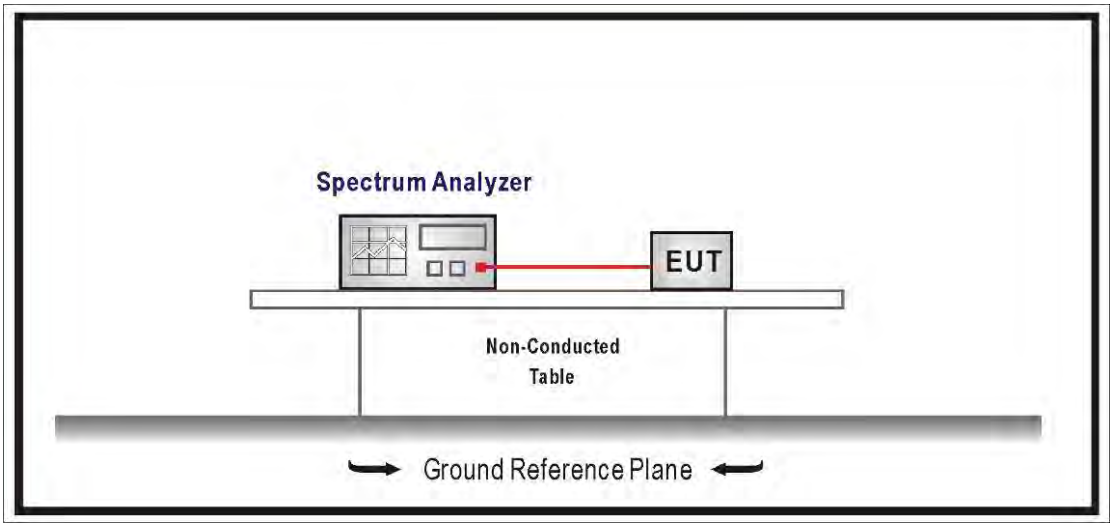
IEEE 802.11ac_80M (ANT0)			
Channel No.	Frequency (MHz)	Measure Value (MHz)	Limit (MHz)
155	5775	117.640	--

Channel 155 (5775MHz)



5. Maximum conducted output power

5.1. Test Setup



5.2. Limits

(1) For the band 5.15-5.25 GHz.

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a

directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

5.3. Test Procedure

The EUT was setup to ANSI C63.10: 2013; tested to U-NII test procedure of 789033 D02 v02r01 for compliance to FCC 47CFR Subpart E requirements. The Method SA-1 of the Maximum conducted output power was used.

Set RBW=1MHz, VBW=3MHz with RMS detector and trace average 100 traces in power averaging mode. Set span to encompass the entire emission bandwidth (EBW) of the signal. Compute power by integrating the spectrum across the 26 dB EBW of the signal.

5.4. Test Result

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11a (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	EIRP (dBm)	Required Limit (dBm)
36	5180	17.040	20.850	≦24.000
44	5220	17.110	20.920	≦24.000
48	5240	15.630	19.440	≦24.000

The worst emission of data rate is 6 Mbps.

Channel No	Frequency (MHz)	Data Rate						
		6	12	18	24	36	48	54
36	5180	17.040	--	--	--	--	--	--
44	5220	17.110	16.970	16.830	16.690	16.540	16.390	16.260
48	5240	15.630	--	--	--	--	--	--

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac(20MHz)(ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	EIRP (dBm)	Required Limit (dBm)
36	5180	17.010	20.820	≦24.000
44	5220	17.090	20.900	≦24.000
48	5240	15.730	19.540	≦24.000

The worst emission of data rate is MCS0

Channel	Frequency	MCS Index									
No	(MHz)	0	1	2	3	4	5	6	7	8	9
36	5180	17.010	--	--	--	--	--	--	--	--	--
44	5220	17.090	16.950	16.810	16.680	16.550	16.400	16.250	16.120	15.980	17.090
48	5240	15.730	--	--	--	--	--	--	--	--	--

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac(40MHz)(ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	EIRP (dBm)	Required Limit (dBm)
38	5190	12.920	16.730	≦24.000
46	5230	15.530	19.340	≦24.000

The worst emission of data rate is MCS0

Channel	Frequency	MCS Index									
No	(MHz)	0	1	2	3	4	5	6	7	8	9
38	5190	12.920	--	--	--	--	--	--	--	--	--
46	5230	15.530	15.390	15.260	15.110	14.980	14.840	14.700	14.570	14.420	14.270

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac(80MHz) (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	EIRP (dBm)	Required Limit (dBm)
42	5210	12.520	16.330	≦24.000

The worst emission of data rate is MCS0

Channel No	Frequency (MHz)	MCS Index									
		0	1	2	3	4	5	6	7	8	9
42	5210	12.520	12.390	12.250	12.110	11.960	11.830	11.690	11.550	11.420	11.280

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11a (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
52	5260	17.220	≦24.000
60	5300	17.750	≦24.000
64	5320	15.110	≦24.000

The worst emission of data rate is 6 Mbps.

Channel No	Frequency (MHz)	Data Rate							Required Limit (dBm)
		6	12	18	24	36	48	54	
52	5260	17.220	--	--	--	--	--	--	≦24.000
60	5300	17.750	17.610	17.460	17.320	17.170	17.030	16.890	≦24.000
64	5320	15.110	--	--	--	--	--	--	≦24.000

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac(20MHz)(ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
52	5260	18.850	≦24.000
60	5300	17.890	≦24.000
64	5320	14.720	≦24.000

The worst emission of data rate is MCS0

Channel No	Frequency (MHz)	MCS Index										Required Limit (dBm)
		0	1	2	3	4	5	6	7	8	9	
52	5260	18.850	--	--	--	--	--	--	--	--	--	≦24.000
60	5300	17.890	17.740	17.610	17.470	17.330	17.190	17.060	16.920	16.790	16.650	≦24.000
64	5320	14.720	--	--	--	--	--	--	--	--	--	≦24.000

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac(40MHz)(ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
54	5270	17.190	≦24.000
62	5310	12.070	≦24.000

The worst emission of data rate is MCS0

Channel No	Frequency (MHz)	MCS Index										Required Limit (dBm)
		0	1	2	3	4	5	6	7	8	9	
54	5270	17.190	--	--	--	--	--	--	--	--	--	≦24.000
62	5310	12.070	11.930	11.780	11.650	11.510	11.370	11.240	11.100	10.970	10.830	≦24.000

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac(80MHz) (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
58	5290	11.630	≦24.000

The worst emission of data rate is MCS0

Channel No	Frequency (MHz)	MCS Index										Required Limit (dBm)
		0	1	2	3	4	5	6	7	8	9	
58	5290	11.630	11.490	11.350	11.220	11.090	10.960	10.810	10.680	10.540	10.400	≦24.000

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11a (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
100	5500	14.360	≦24.000
116	5580	18.920	≦24.000
140	5700	12.170	≦24.000

The worst emission of data rate is 6 Mbps.

Channel No	Frequency (MHz)	Data Rate							Required Limit (dBm)
		6	12	18	24	36	48	54	
100	5500	14.360	--	--	--	--	--	--	≦24.000
116	5580	18.920	18.780	18.650	18.510	18.370	18.230	18.090	≦24.000
140	5700	12.170	--	--	--	--	--	--	≦24.000

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac 20MHz (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
100	5500	13.620	≦24.000
116	5580	18.660	≦24.000
140	5700	13.330	≦24.000

The worst emission of data rate is MCS0

Channel No	Frequency (MHz)	MCS Index										Required Limit (dBm)
		0	1	2	3	4	5	6	7	8	9	
100	5500	13.620	--	--	--	--	--	--	--	--	--	≦24.000
116	5580	18.660	18.510	18.370	18.230	18.090	17.950	17.820	17.690	17.560	17.420	≦24.000
140	5700	13.330	--	--	--	--	--	--	--	--	--	≦24.000

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE802.11ac 40MHz(ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
102	5510	11.630	≦24.000
110	5550	18.710	≦24.000
134	5670	15.600	≦24.000

The worst emission of data rate is MCS 0

Channel No	Frequency (MHz)	MCS Index										Required Limit (dBm)
		0	1	2	3	4	5	6	7	8	9	
102	5510	11.630	--	--	--	--	--	--	--	--	--	≦24.000
110	5550	18.710	18.580	18.430	18.300	18.150	18.010	17.880	17.730	17.580	17.430	≦24.000
134	5670	15.600	--	--	--	--	--	--	--	--	--	≦24.000

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE802.11ac 80MHz (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
106	5530	12.250	≦24.000
122	5610	18.260	≦24.000

The worst emission of data rate is MCS0

Channel No	Frequency (MHz)	MCS Index										Required Limit (dBm)
		0	1	2	3	4	5	6	7	8	9	
106	5530	12.250	--	--	--	--	--	--	--	--	--	≦24.000
122	5610	18.260	18.120	17.990	17.850	17.700	17.550	17.420	17.280	17.150	17.010	≦24.000

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11a (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	17.670	≦30.000
157	5785	17.250	≦30.000
165	5825	17.380	≦30.000

The worst emission of data rate is 6 Mbps.

Channel No	Frequency (MHz)	Data Rate							Required Limit (dBm)
		6	12	18	24	36	48	54	
149	5745	17.670	--	--	--	--	--	--	≦30.000
157	5785	17.250	17.110	16.970	16.830	16.690	16.550	16.410	≦30.000
165	5825	17.380	--	--	--	--	--	--	≦30.000

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE802.11ac 20MHz(ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	17.440	≦30.000
157	5785	17.310	≦30.000
165	5825	17.360	≦30.000

The worst emission of data rate is MCS0

Channel No	Frequency (MHz)	MCS Index										Required Limit (dBm)
		0	1	2	3	4	5	6	7	8	9	
149	5745	17.440	--	--	--	--	--	--	--	--	--	≦30.000
157	5785	17.310	17.180	17.050	16.920	16.770	16.630	16.490	16.350	16.220	16.090	≦30.000
165	5825	17.360	--	--	--	--	--	--	--	--	--	≦30.000

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE802.11ac 40MHz(ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	17.950	≦30.000
159	5795	17.560	≦30.000

The worst emission of data rate is MCS0

Channel No	Frequency (MHz)	MCS Index										Required Limit (dBm)
		0	1	2	3	4	5	6	7	8	9	
151	5755	17.950	--	--	--	--	--	--	--	--	--	≦30.000
159	5795	17.560	17.420	17.280	17.140	17.000	16.860	16.720	16.580	16.440	16.290	≦30.000

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum conducted output power		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE802.11ac 80MHz (ANT 0)

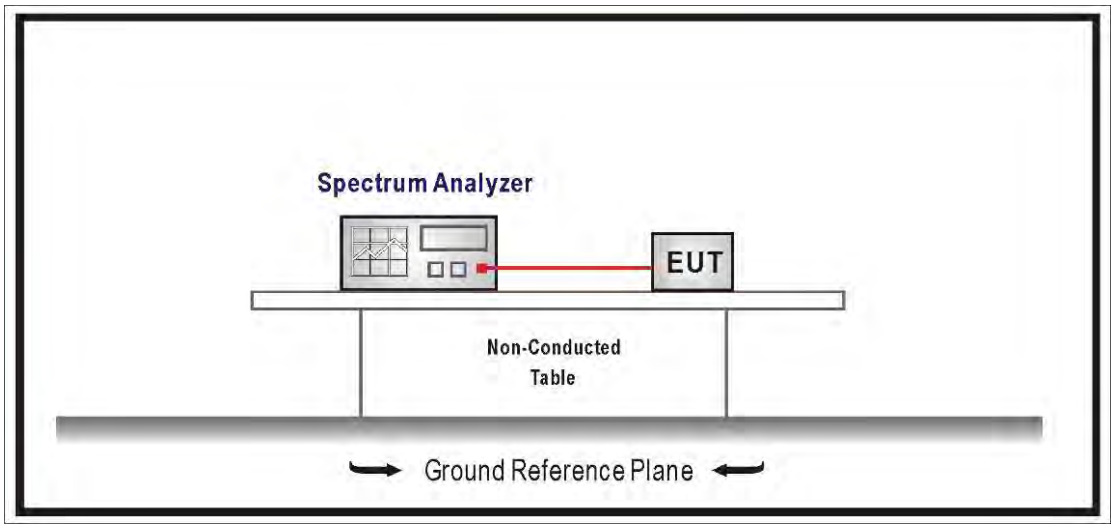
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	17.810	≦30.000

The worst emission of data rate is MCS0

Channel No	Frequency (MHz)	MCS Index										Required Limit (dBm)
		0	1	2	3	4	5	6	7	8	9	
155	5775	17.810	17.670	17.540	17.400	17.250	17.110	16.970	16.820	16.680	16.530	≦30.000

6. Maximum power spectral density

6.1. Test Setup



6.2. Limits

1. For the band 5.15-5.25 GHz, the Maximum power spectral density shall not exceed 17 dBm in any 1MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
2. For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi
3. For the band 5.25-5.35 GHz, the Maximum power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
4. For the band 5.725-5.850 GHz, the Maximum power spectral density shall not exceed 30 dBm in any 500KHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi..

6.3. Test Procedure

The EUT was setup to ANSI C63.10: 2013; tested to U-NII test procedure of KDB 789033.D02 v02r01 for compliance to FCC 47CFR Subpart E requirements.

For Band1 : Set RBW=1MHz, VBW=3MHz with RMS detector. The PPSD is the highest level found across the emission in any 1-MHz band after 100 sweeps of averaging.

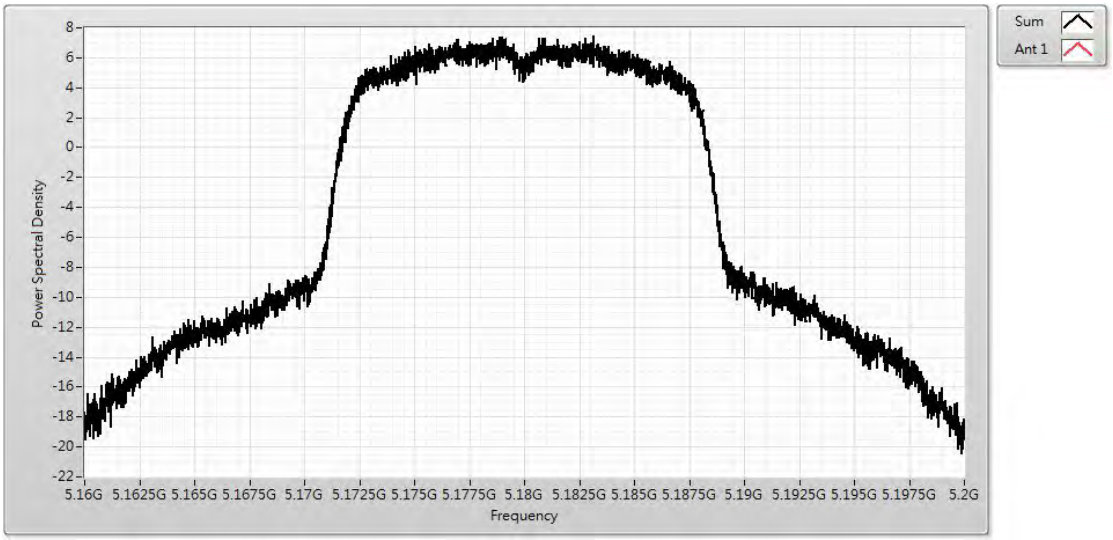
For Band4 : Set RBW=500KHz, VBW=1.5MHz with RMS detector. The PPSD is the highest level found across the emission in any 500KHz band after 100 sweeps of averaging.

6.4. Test Result

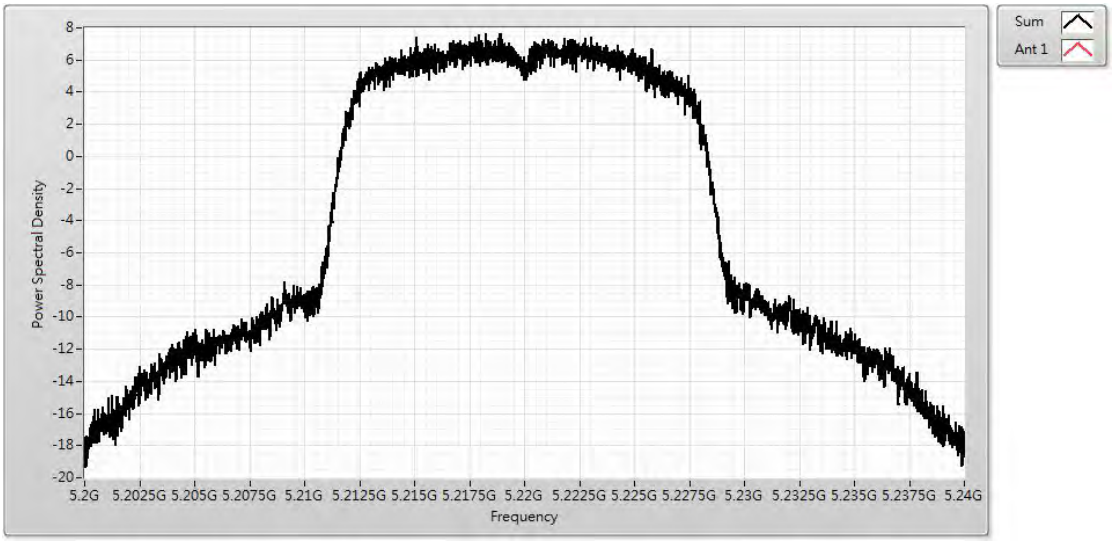
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11a (ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
36	5180	7.430	11.000	Pass
44	5220	7.670	11.000	Pass
48	5240	4.570	11.000	Pass

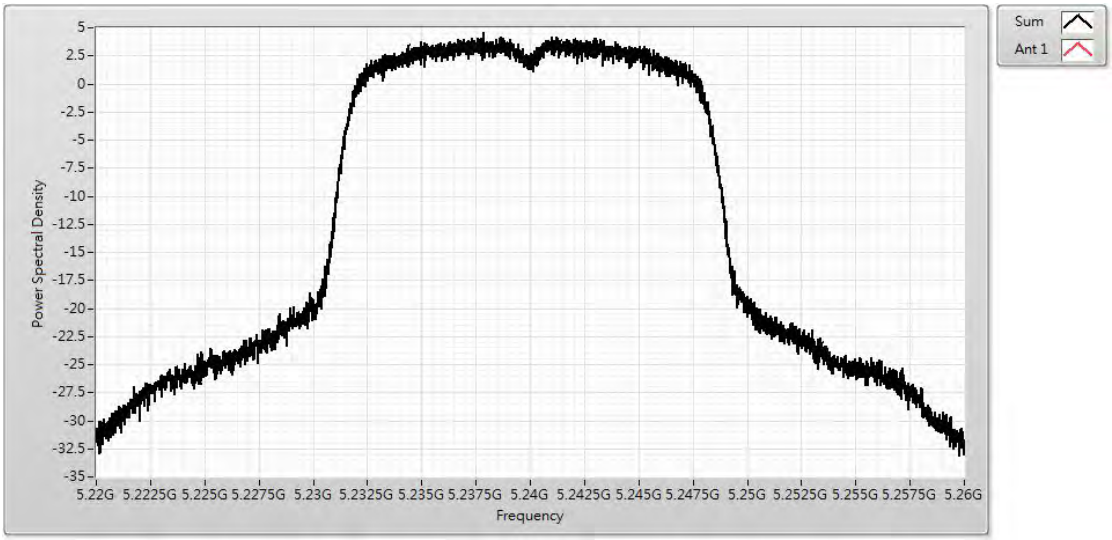
Channel 36



Channel 44



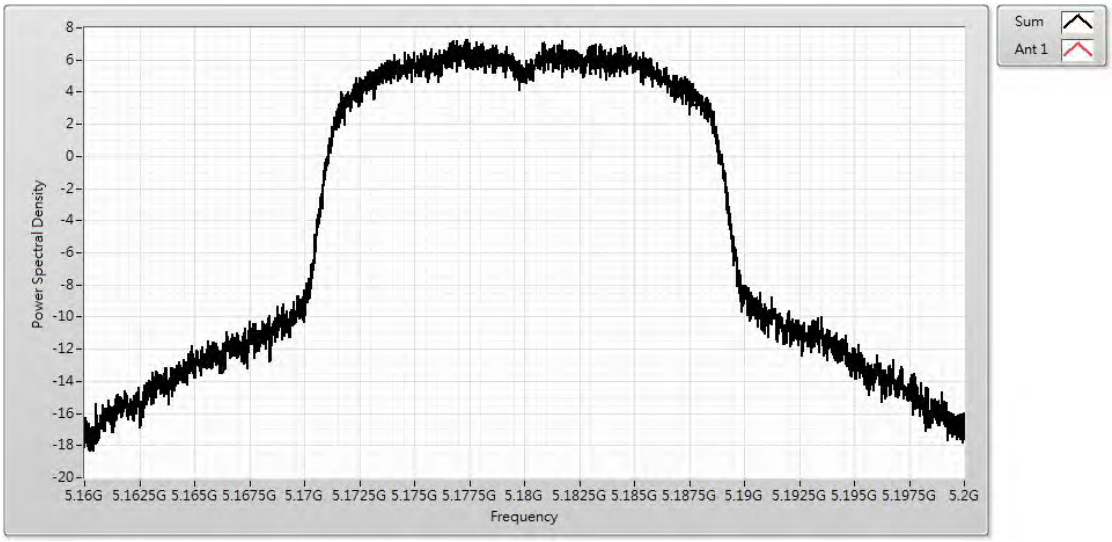
Channel 48



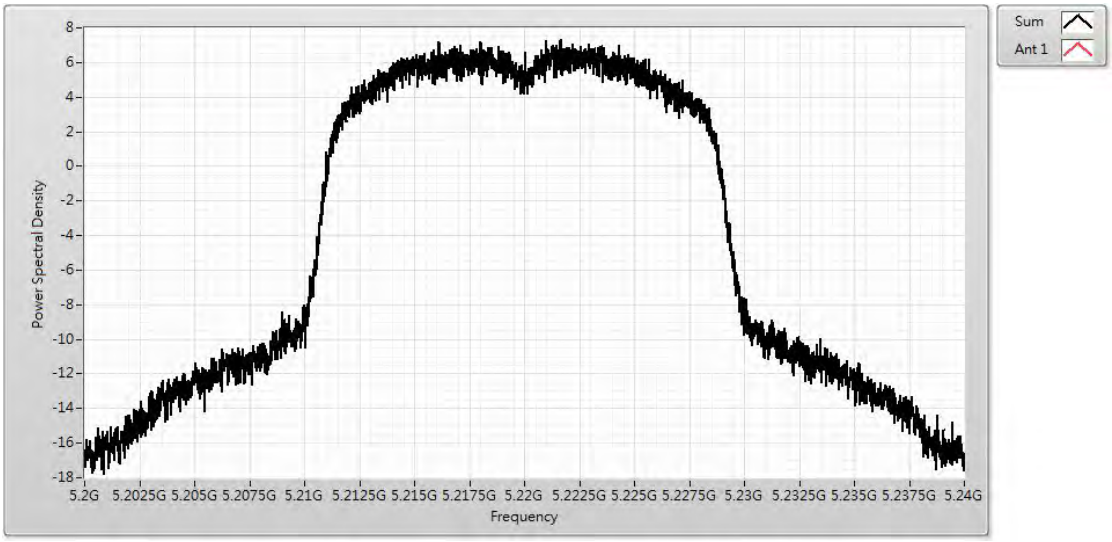
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac(20MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
36	5180	7.120	11.000	Pass
44	5220	7.310	11.000	Pass
48	5240	4.190	11.000	Pass

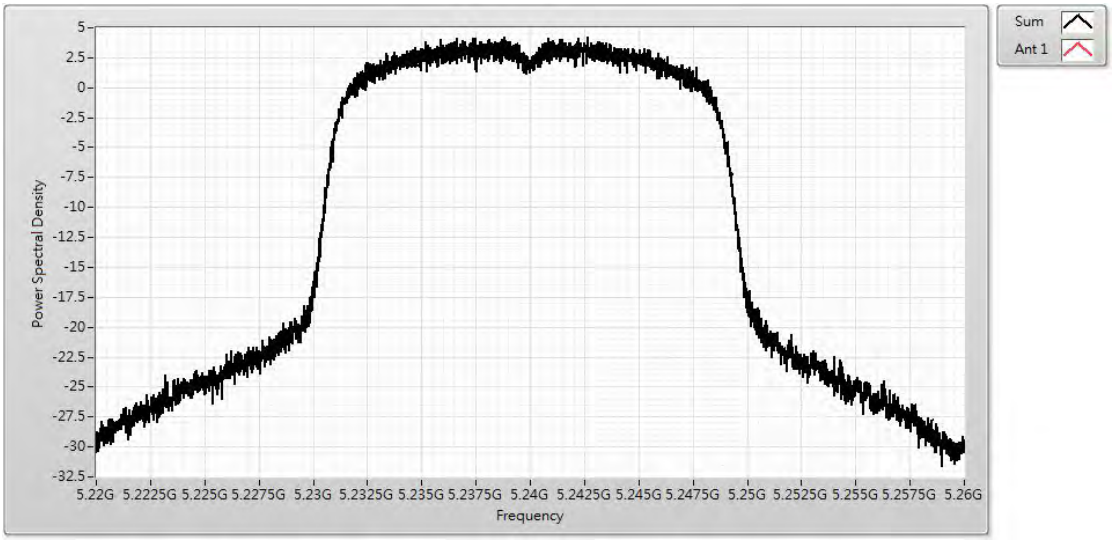
Channel 36



Channel 44



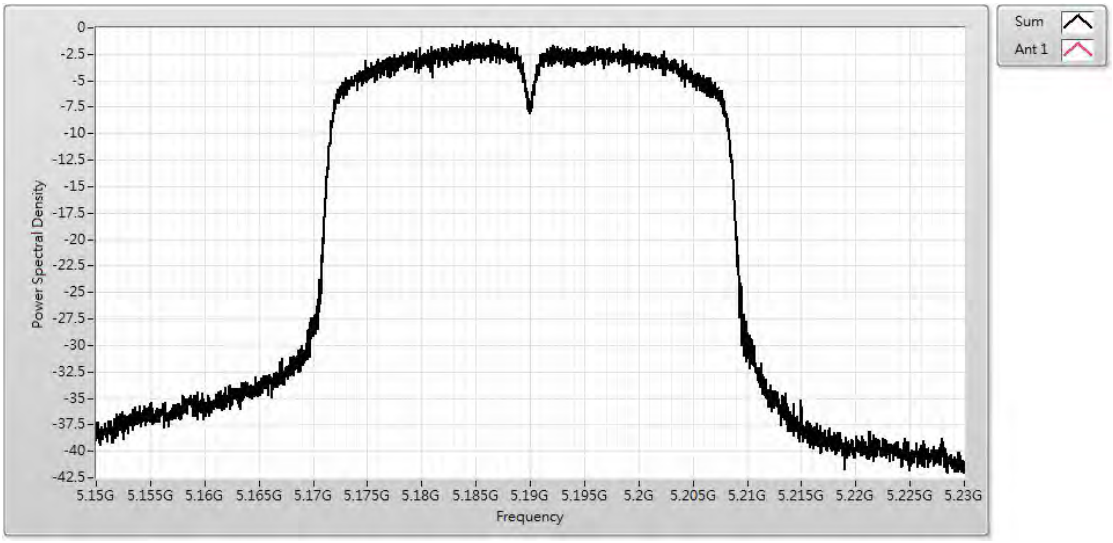
Channel 48



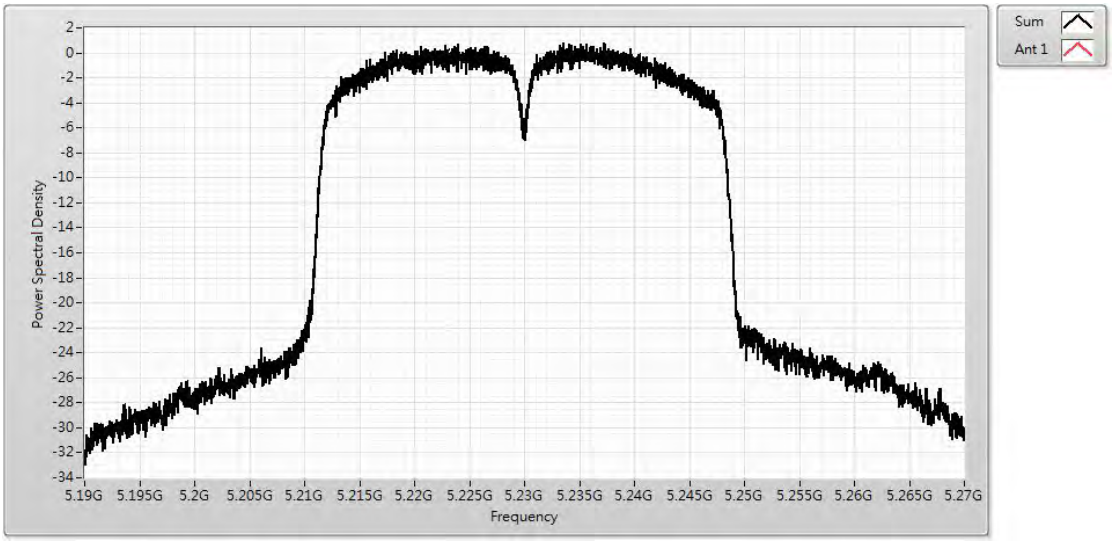
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac(40MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
38	5190	-1.070	11.000	Pass
46	5230	0.78	11.000	Pass

Channel 38



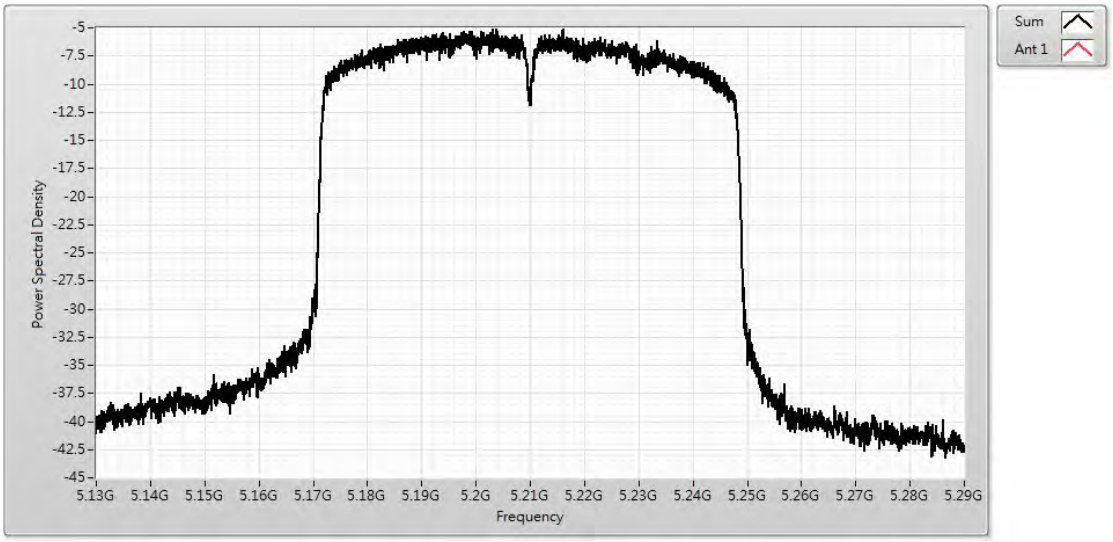
Channel 46


Sum
Ant 1
Power Spectral Density
2
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24
-26
-28
-30
-32
-34
5.19G
5.195G
5.2G
5.205G
5.21G
5.215G
5.22G
5.225G
5.23G
5.235G
5.24G
5.245G
5.25G
5.255G
5.26G
5.265G
5.27G
Frequency

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac(80MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
42	5210	-5.110	11.000	Pass

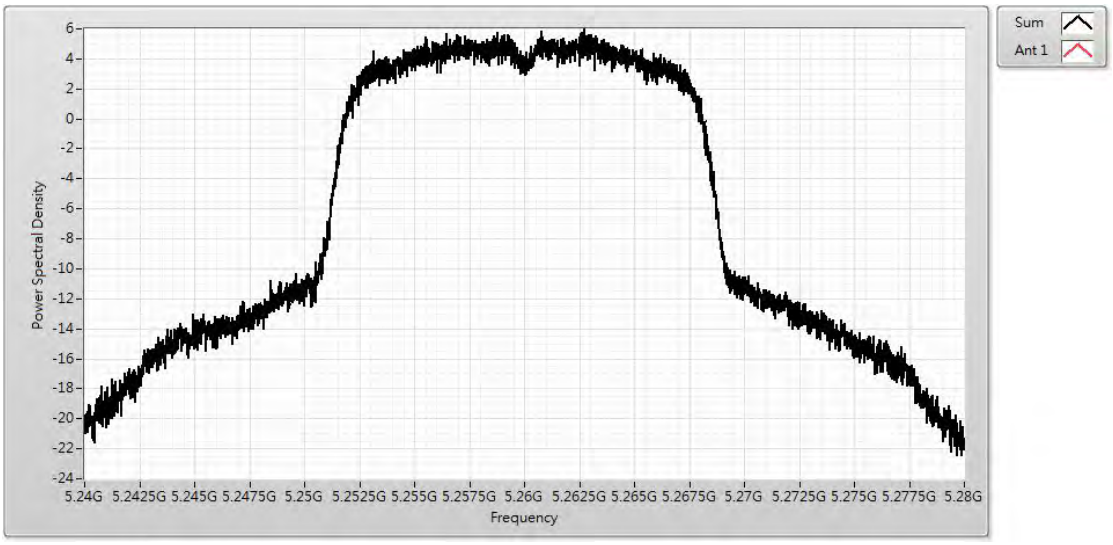
Channel 42



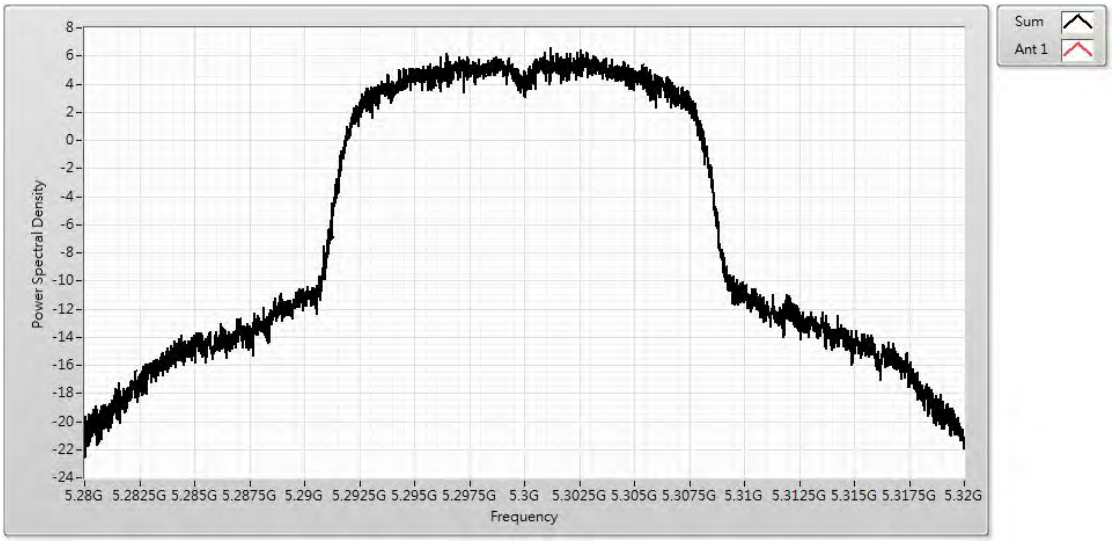
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11a (ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
52	5260	6.000	11.000	Pass
60	5300	6.570	11.000	Pass
64	5320	3.520	11.000	Pass

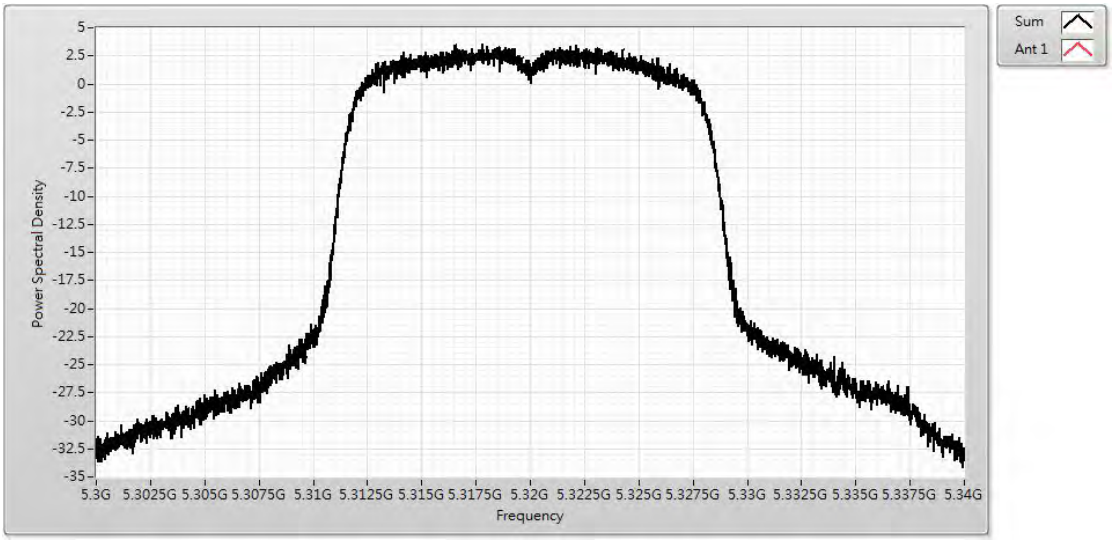
Channel 52



Channel 60



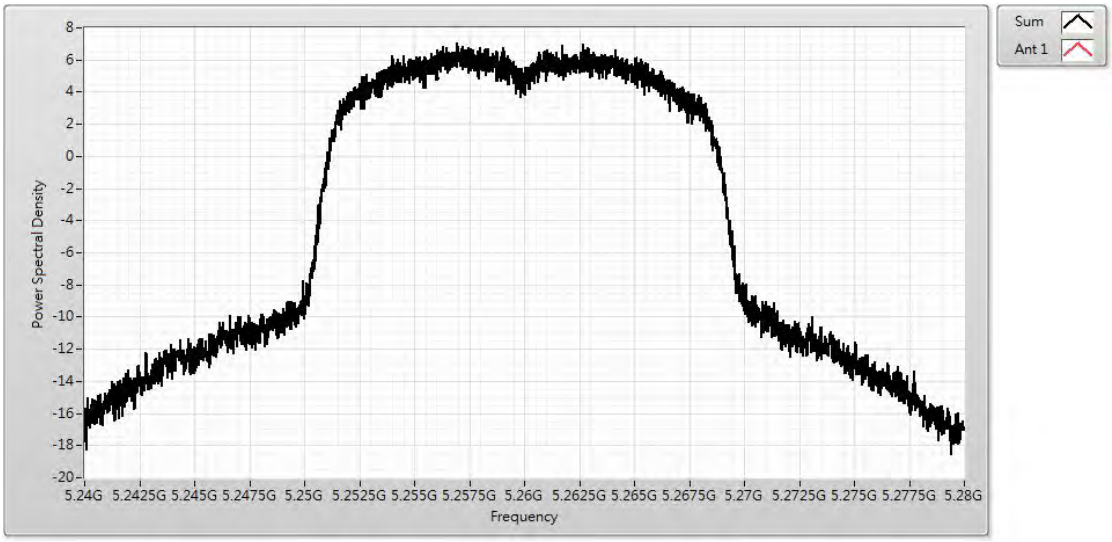
Channel 64



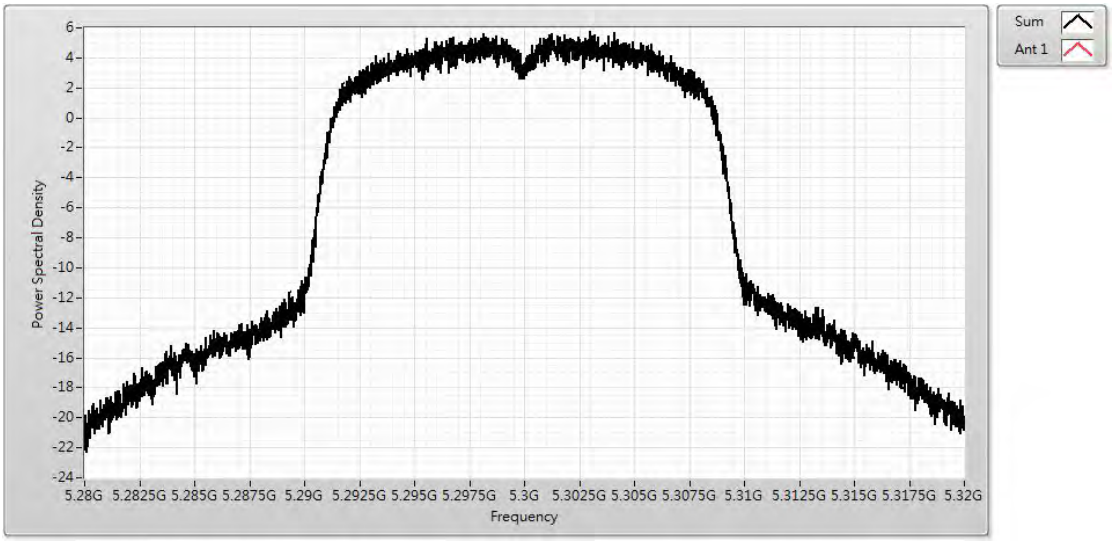
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac(20MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
52	5260	7.060	11.000	Pass
60	5300	5.760	11.000	Pass
64	5320	2.680	11.000	Pass

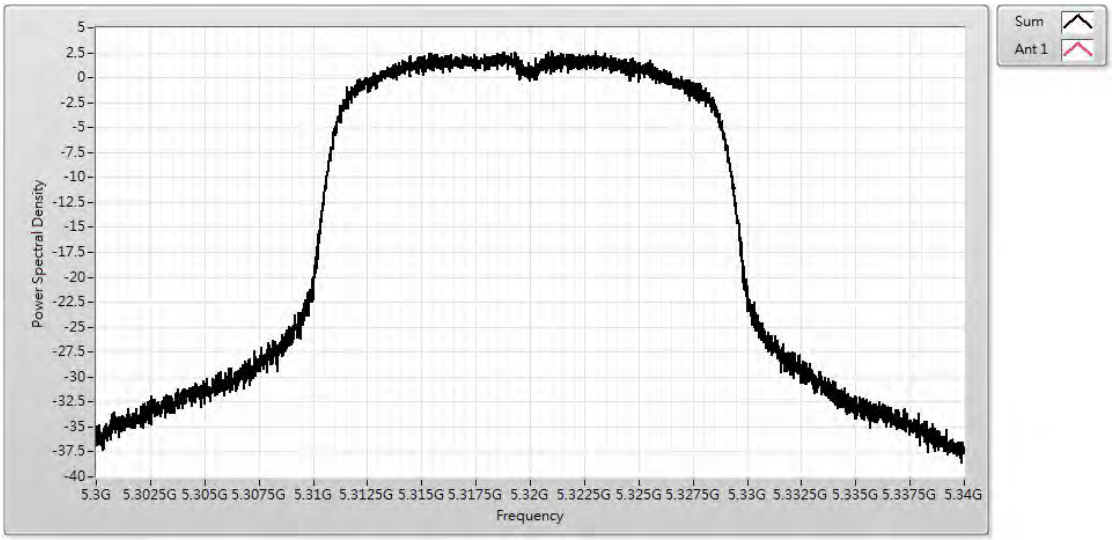
Channel 52



Channel 60



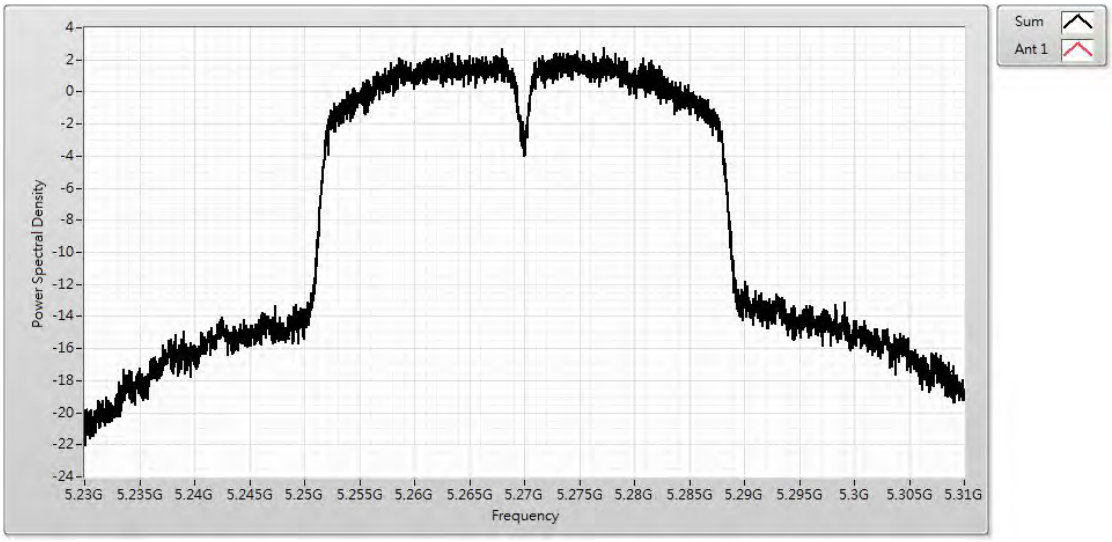
Channel 64



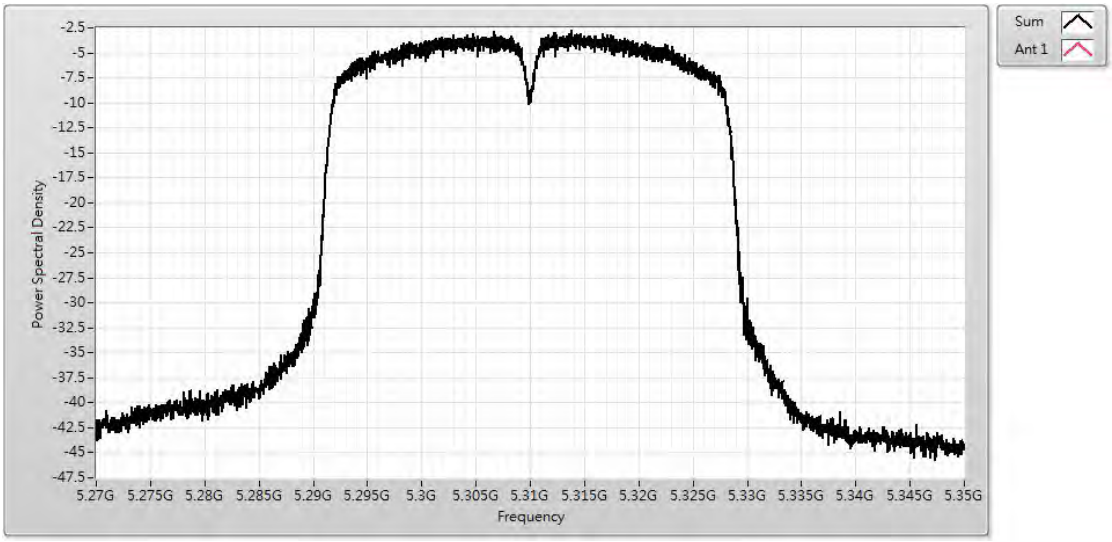
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac(40MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
54	5270	2.760	11.000	Pass
62	5310	-2.730	11.000	Pass

Channel 54



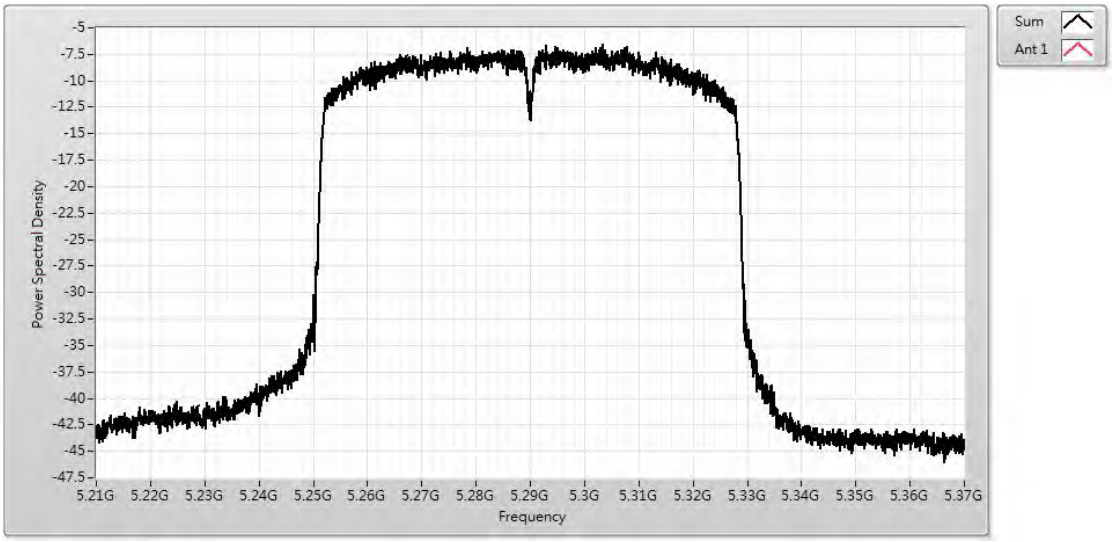
Channel 62


Sum
Ant 1
Power Spectral Density
-2.5
-5
-7.5
-10
-12.5
-15
-17.5
-20
-22.5
-25
-27.5
-30
-32.5
-35
-37.5
-40
-42.5
-45
-47.5
5.27G 5.275G 5.28G 5.285G 5.29G 5.295G 5.3G 5.305G 5.31G 5.315G 5.32G 5.325G 5.33G 5.335G 5.34G 5.345G 5.35G
Frequency

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac(80MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
58	5290	-6.500	11.000	Pass

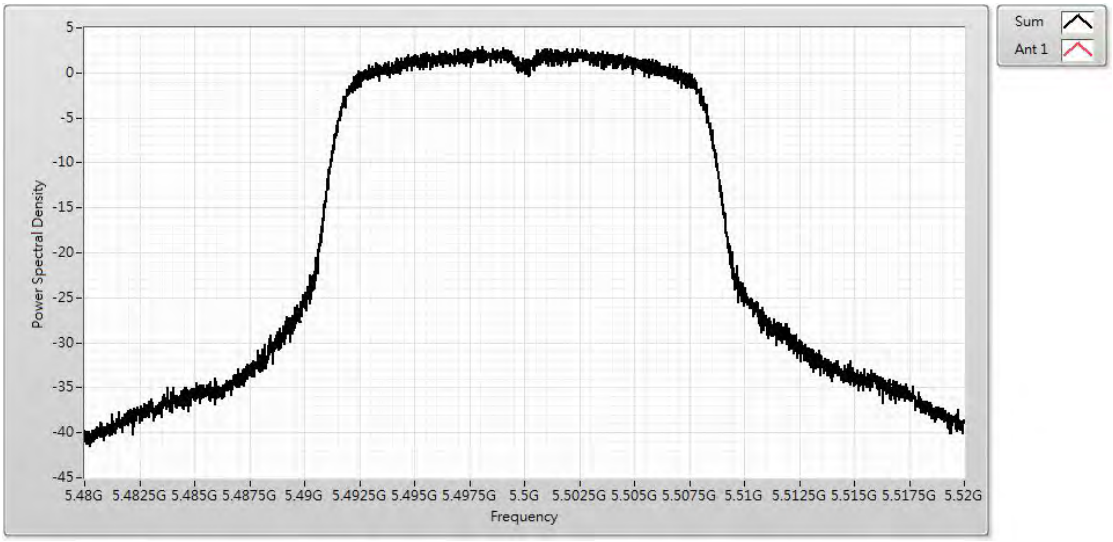
Channel 58



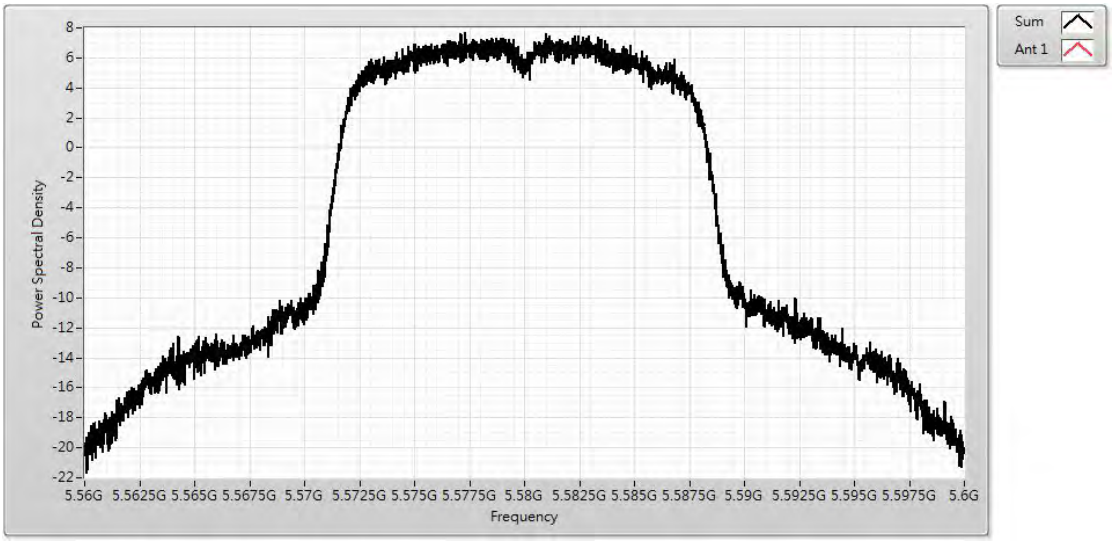
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11a (ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
100	5500	2.990	11.000	Pass
116	5580	7.670	11.000	Pass
140	5700	0.600	11.000	Pass

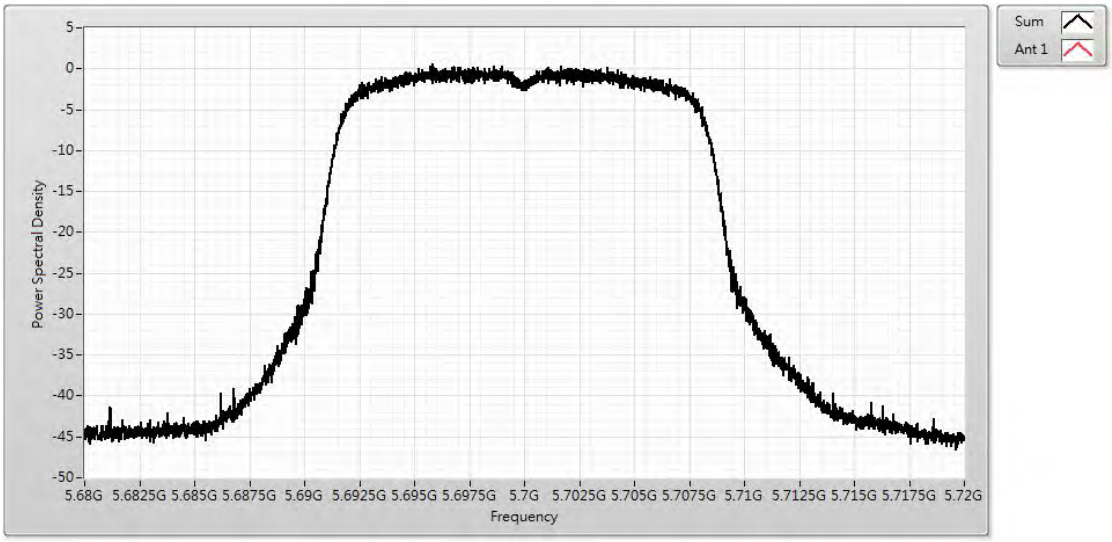
Channel 100



Channel 116



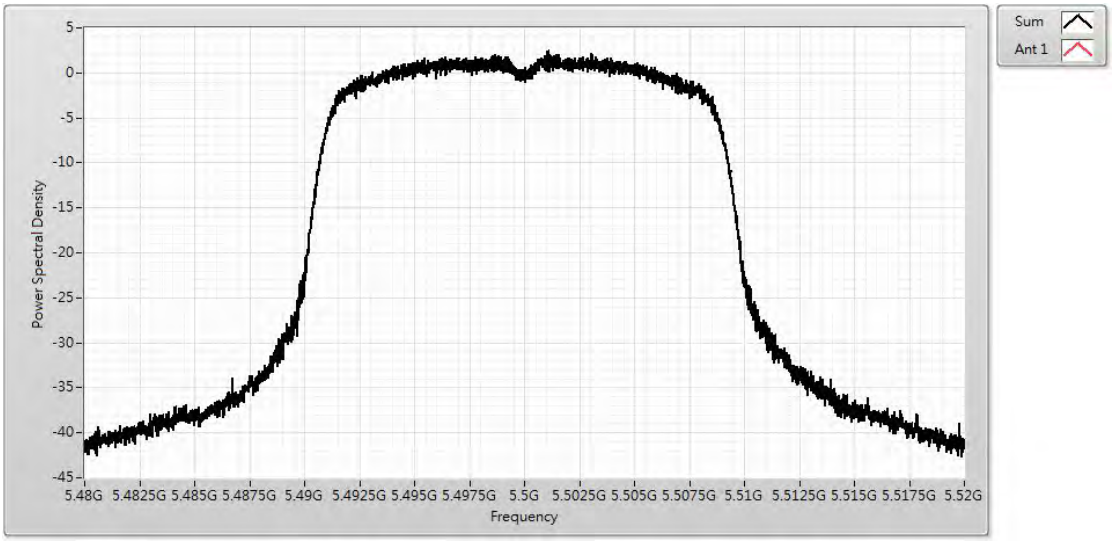
Channel 140



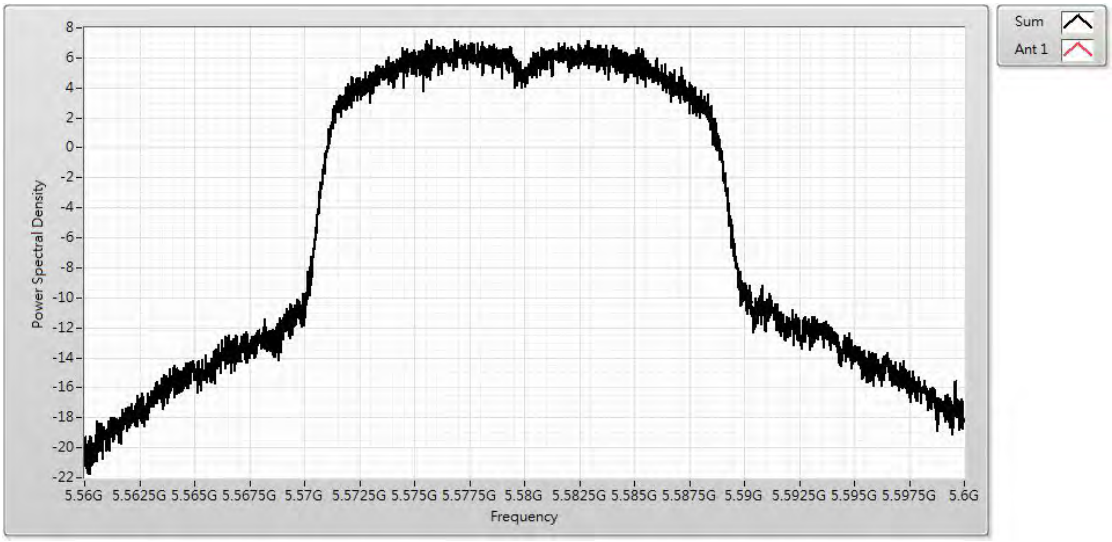
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac(20MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
100	5500	2.430	11.000	Pass
116	5580	6.880	11.000	Pass
140	5700	1.690	11.000	Pass

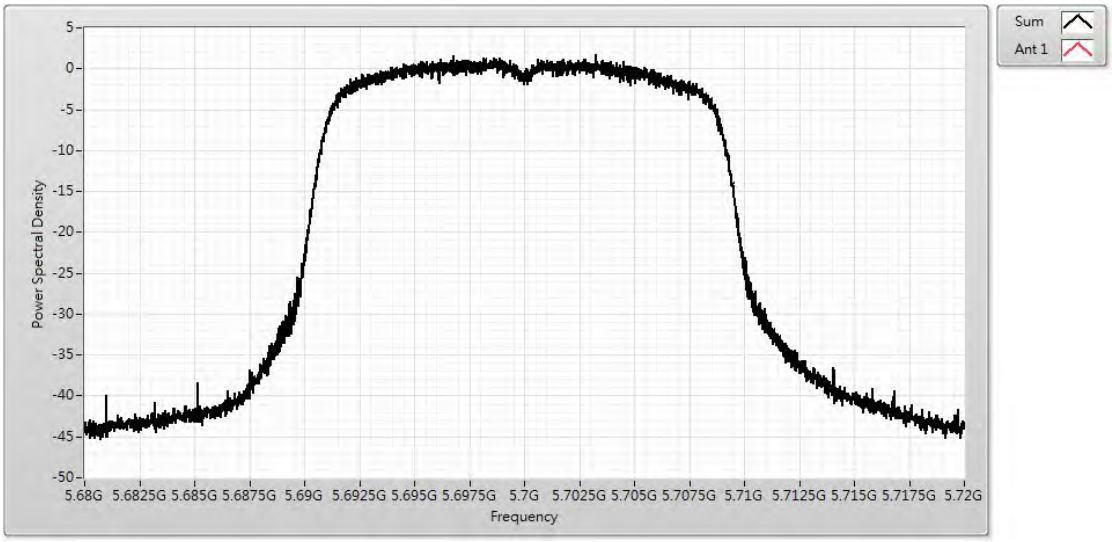
Channel 100



Channel 116



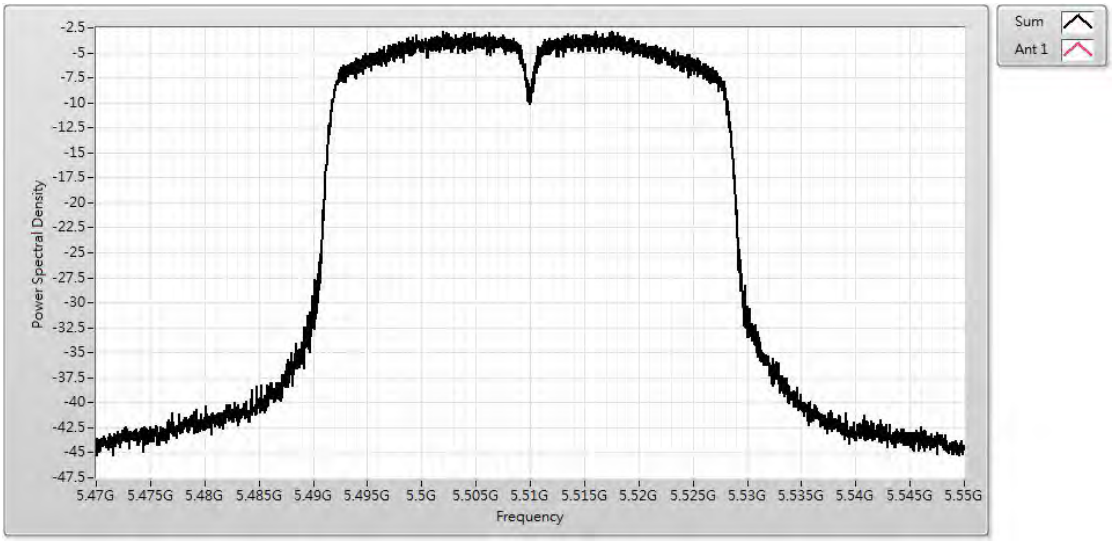
Channel 140



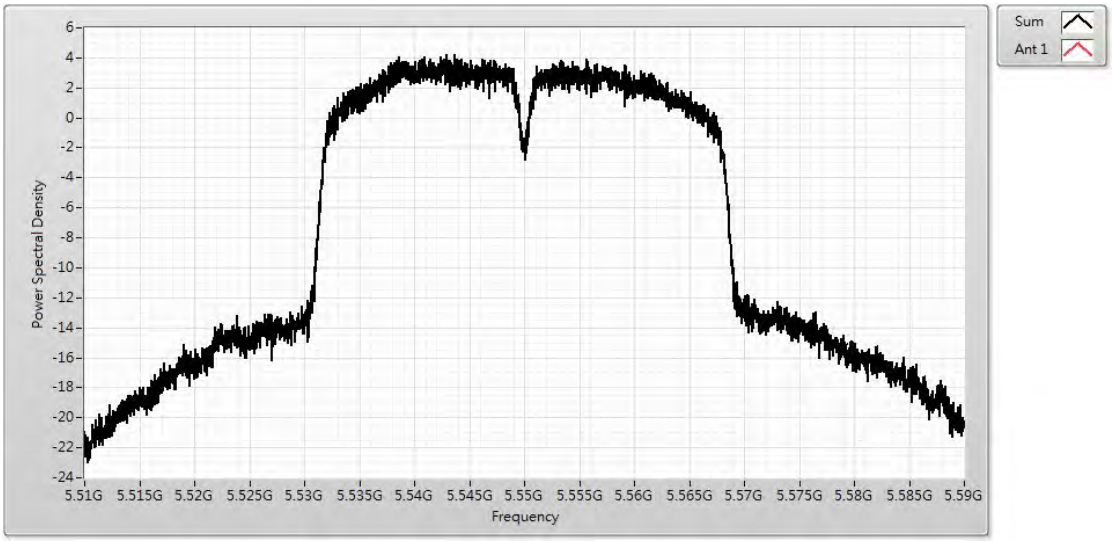
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac(40MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
102	5510	-2.850	11.000	Pass
110	5550	4.210	11.000	Pass
134	5670	1.240	11.000	Pass

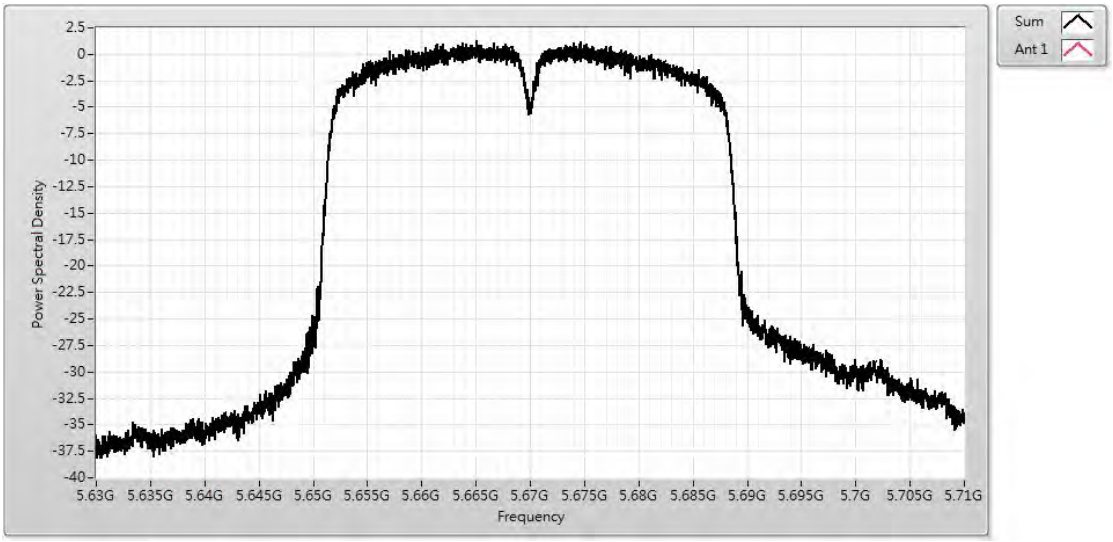
Channel 102



Channel 110



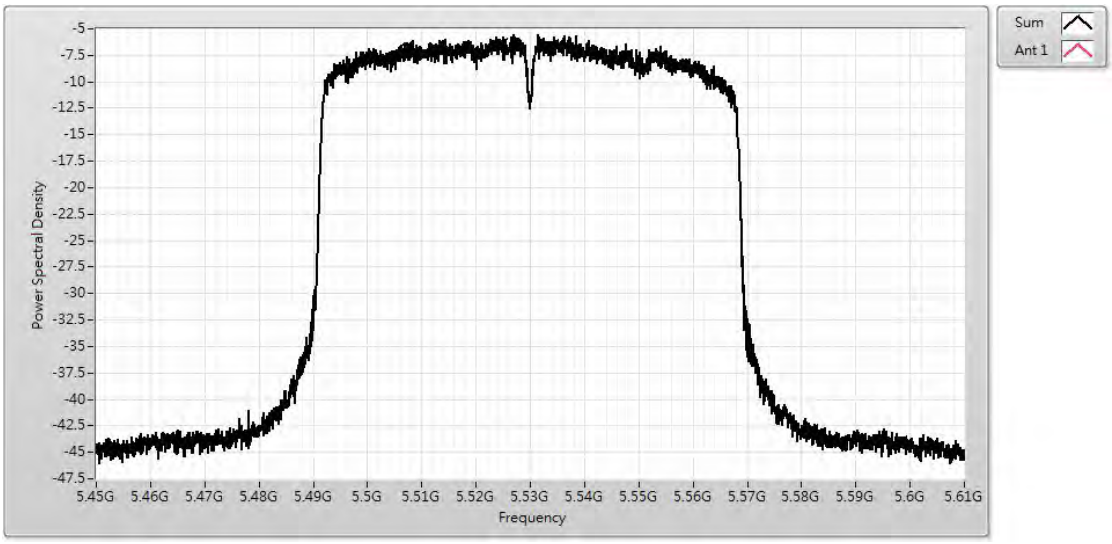
Channel 134



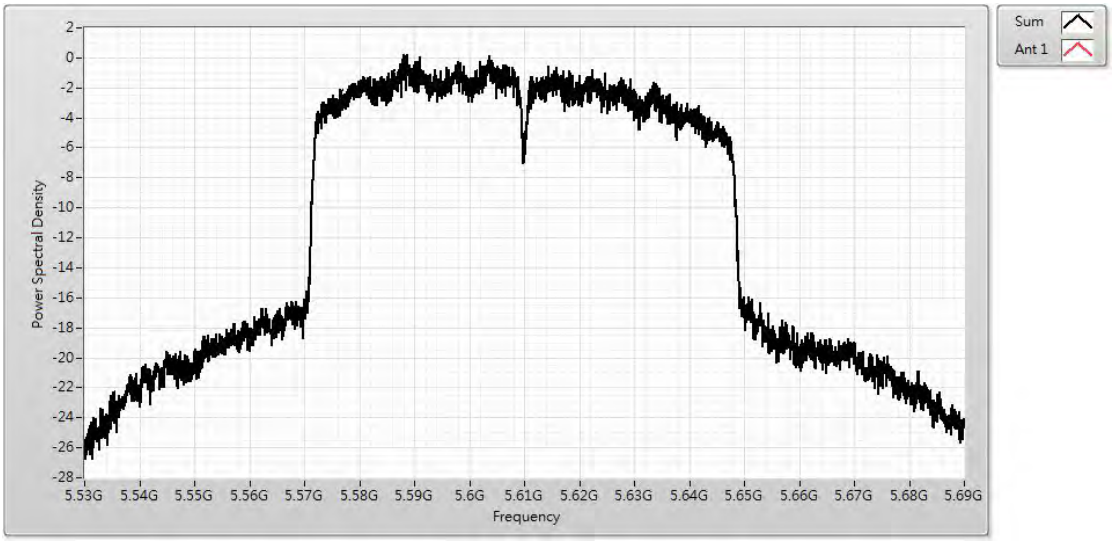
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/22	Test Site	SR10-H

IEEE 802.11ac(80MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
106	5530	-5.590	11.000	Pass
122	5610	0.250	11.000	Pass

Channel 106



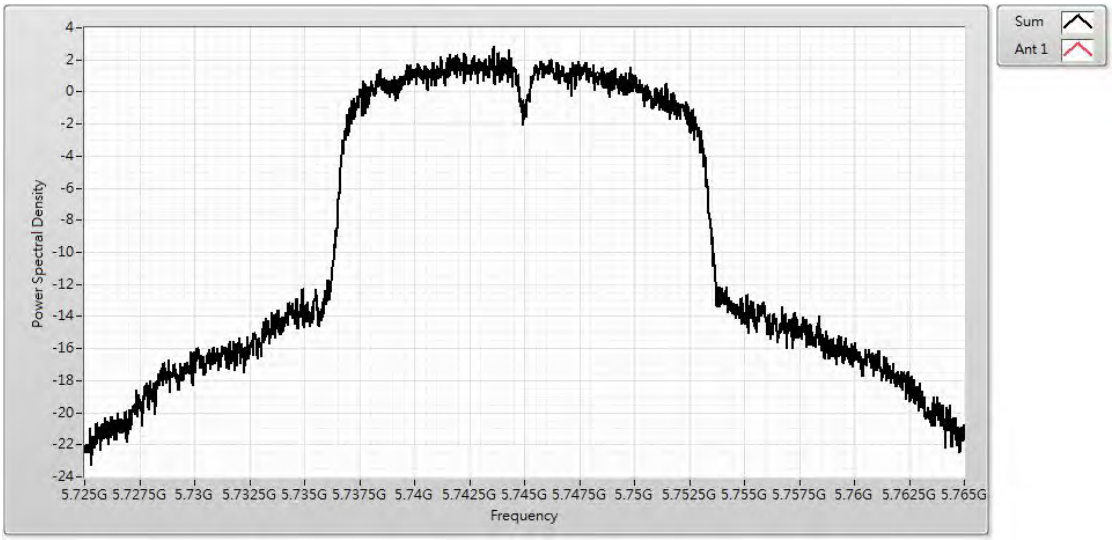
Channel 122


Sum
Ant 1
Power Spectral Density
2
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24
-26
-28
5.53G
5.54G
5.55G
5.56G
5.57G
5.58G
5.59G
5.6G
5.61G
5.62G
5.63G
5.64G
5.65G
5.66G
5.67G
5.68G
5.69G
Frequency

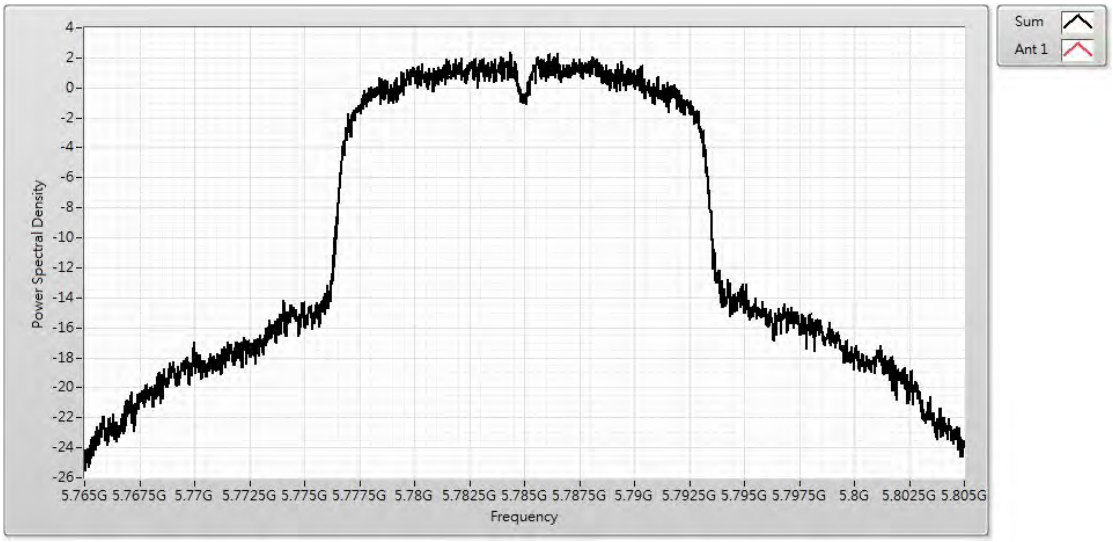
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11a (ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	2.850	30.000	Pass
157	5785	2.410	30.000	Pass
165	5825	2.690	30.000	Pass

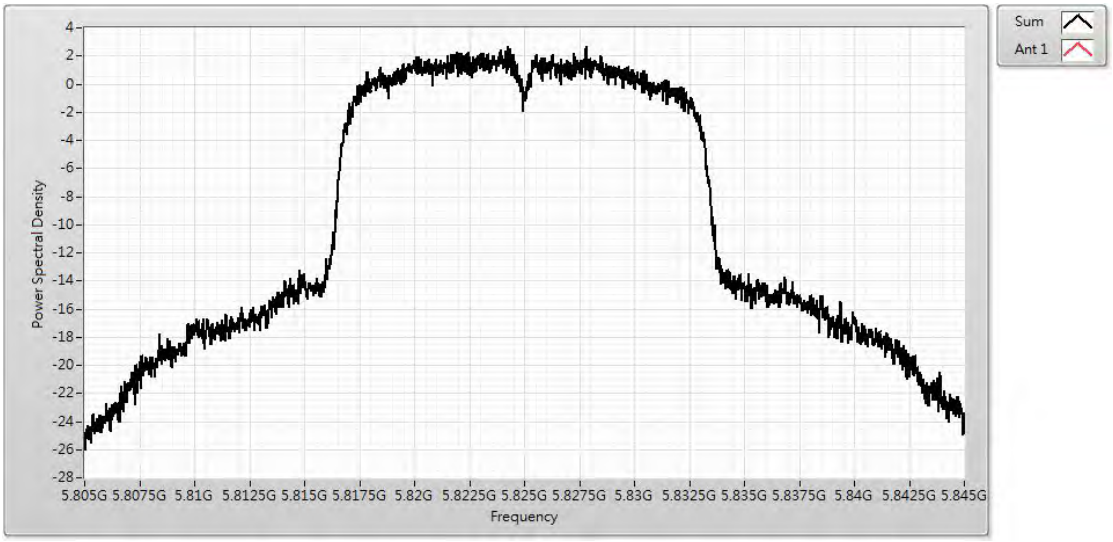
Channel 149



Channel 157



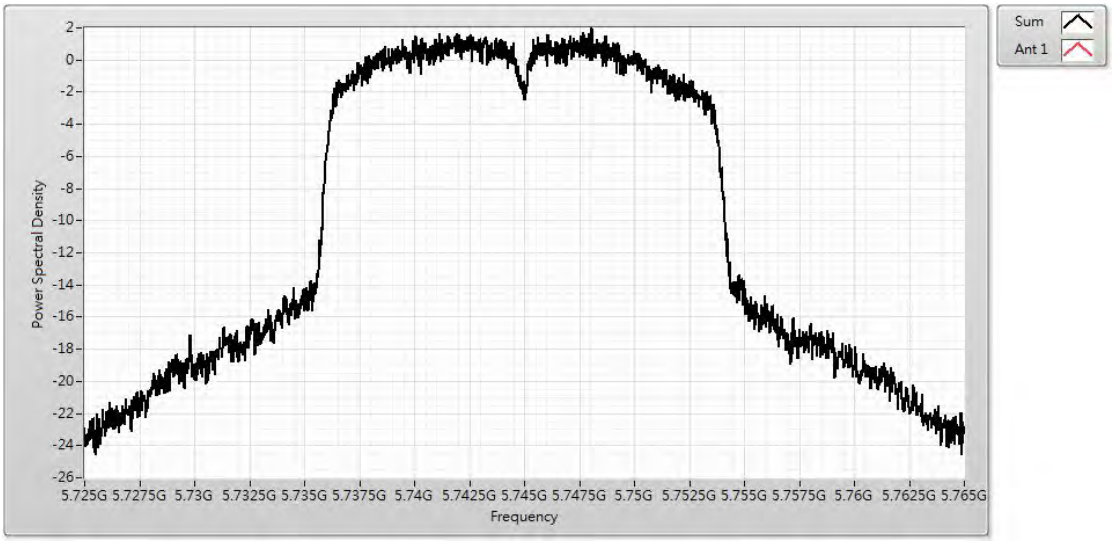
Channel 165



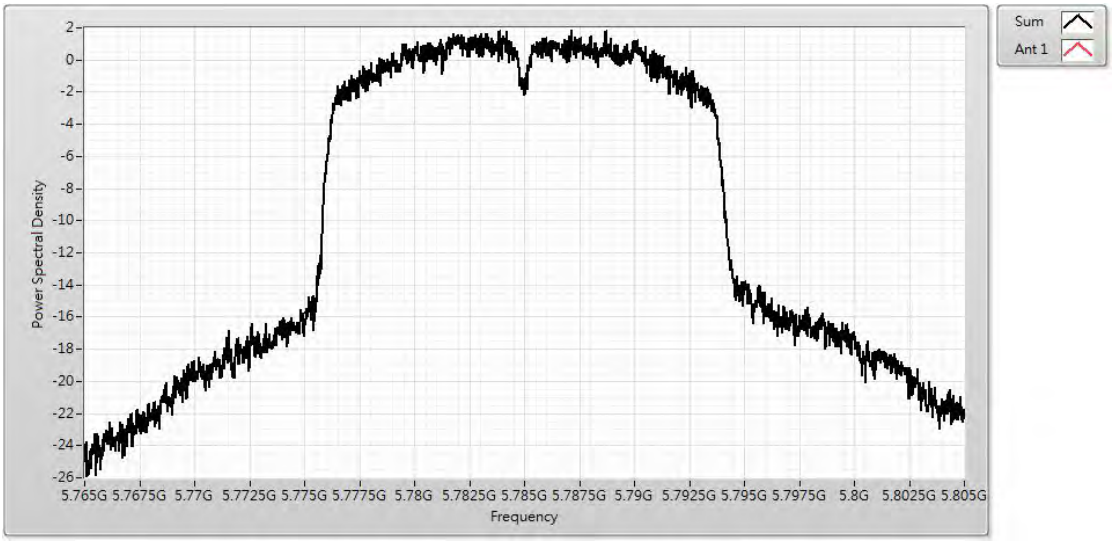
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac(20MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	2.000	30.000	Pass
157	5785	1.840	30.000	Pass
165	5825	1.970	30.000	Pass

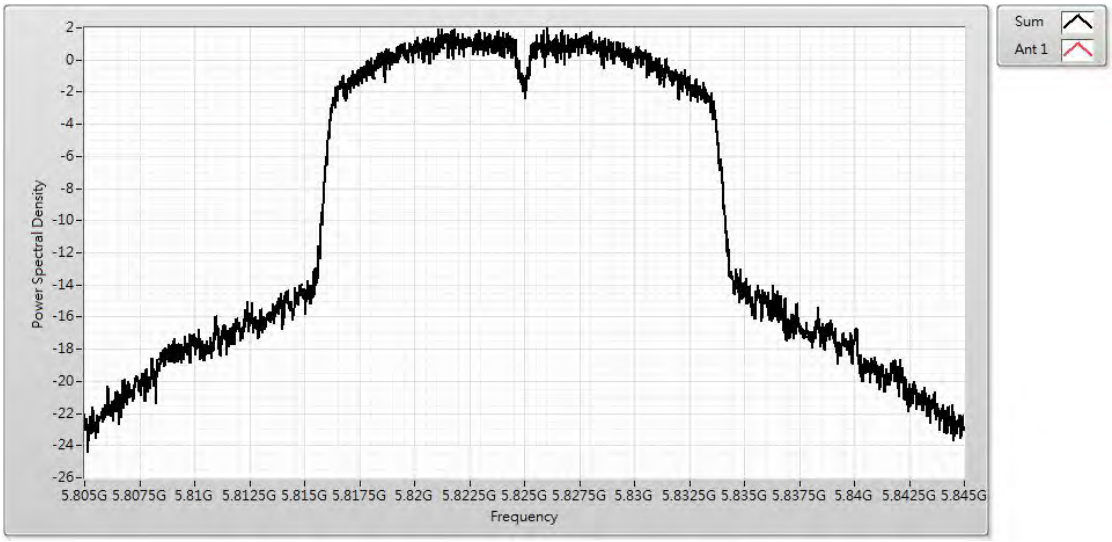
Channel 149



Channel 157



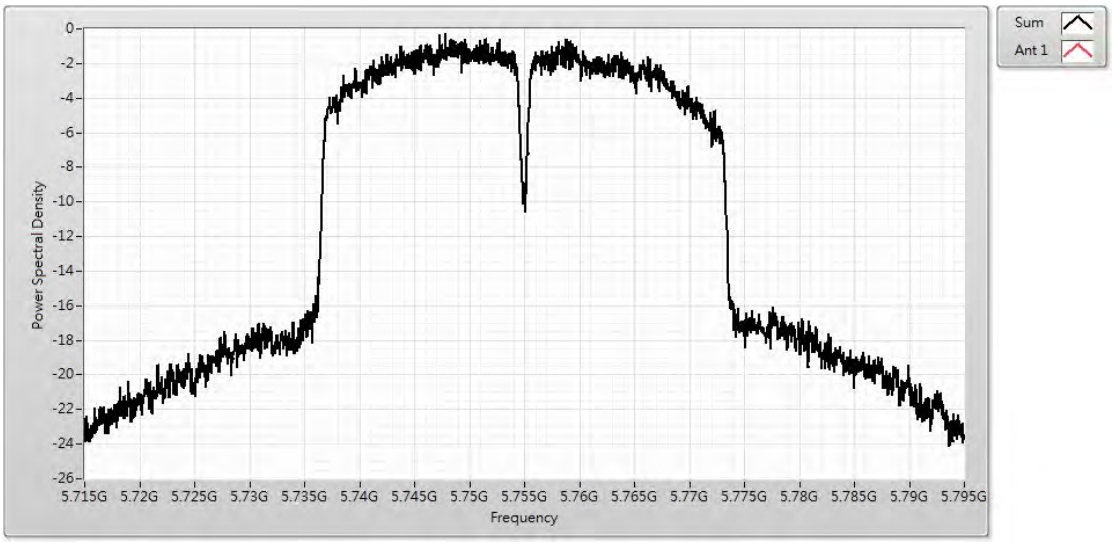
Channel 165



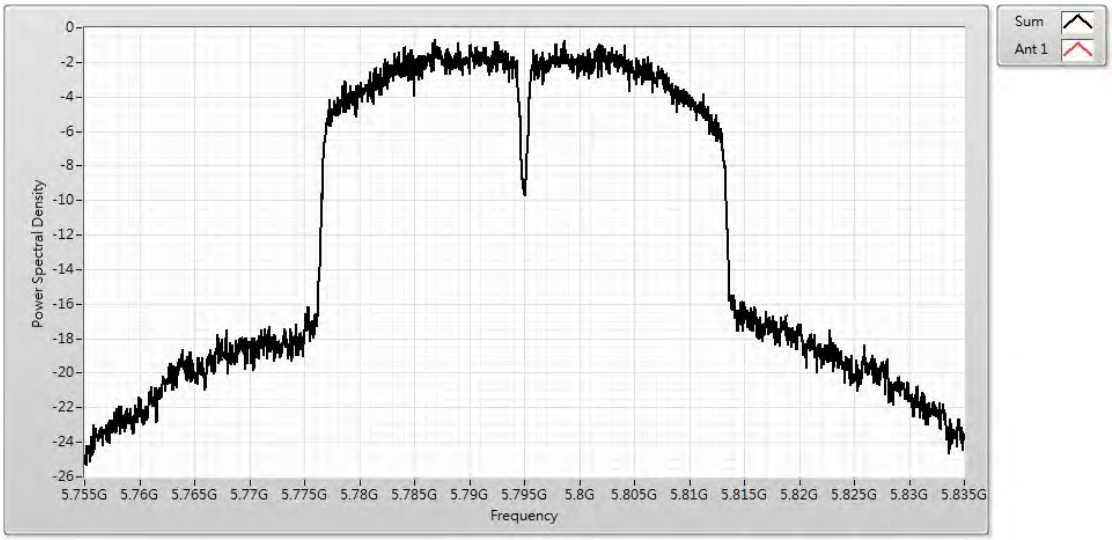
Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac(40MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-0.280	30.000	Pass
159	5795	-0.650	30.000	Pass

Channel 151



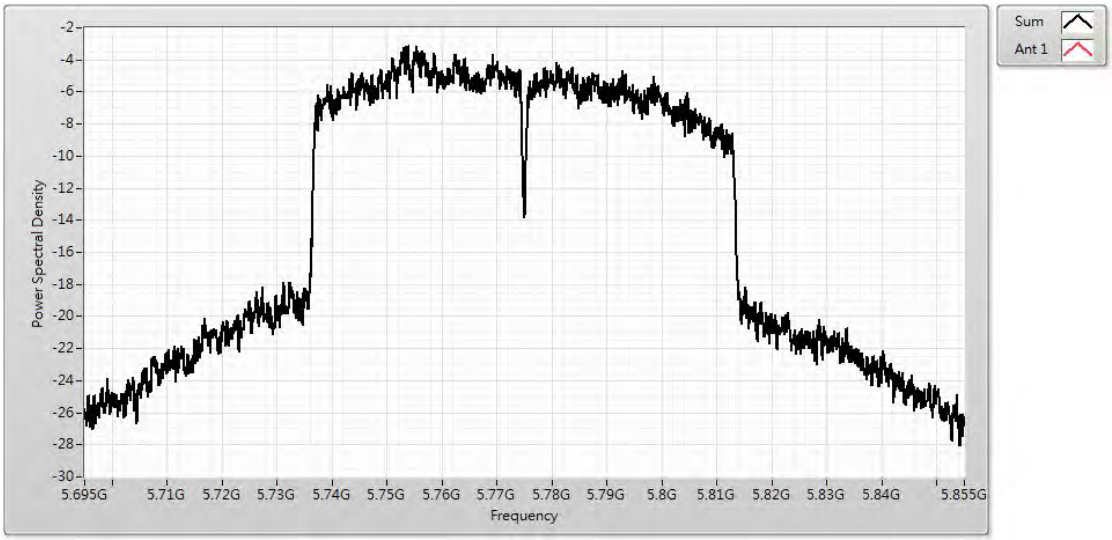
Channel 159


Sum
Ant 1
Power Spectral Density
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
-22
-24
-26
5.755G
5.76G
5.765G
5.77G
5.775G
5.78G
5.785G
5.79G
5.795G
5.8G
5.805G
5.81G
5.815G
5.82G
5.825G
5.83G
5.835G
Frequency

Product	Active Mobile Gateway-with Comm		
Test Item	Maximum power spectral density		
Test Mode	Mode 1: Transmit Mode		
Date of Test	2019/04/19	Test Site	SR10-H

IEEE 802.11ac(80MHz)(ANT0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-3.120	30.000	Pass

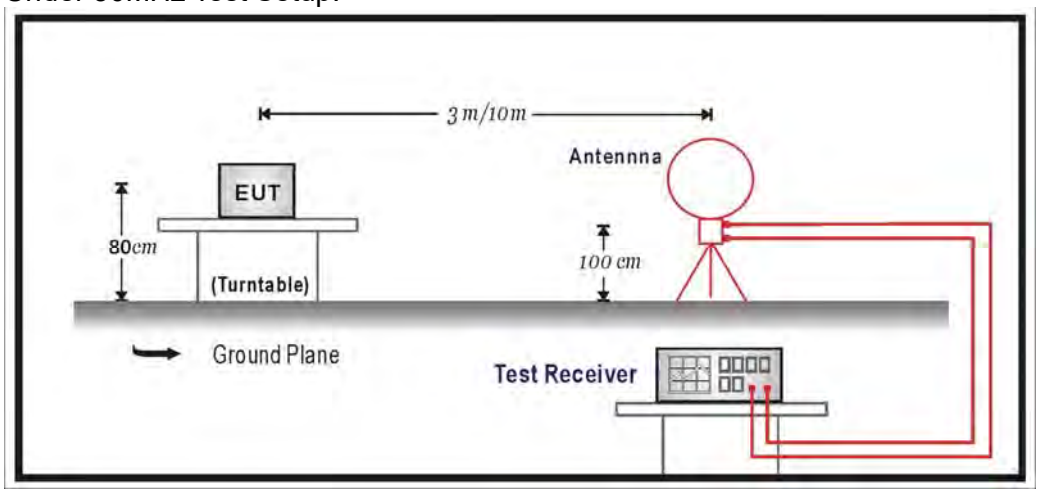
Channel 155



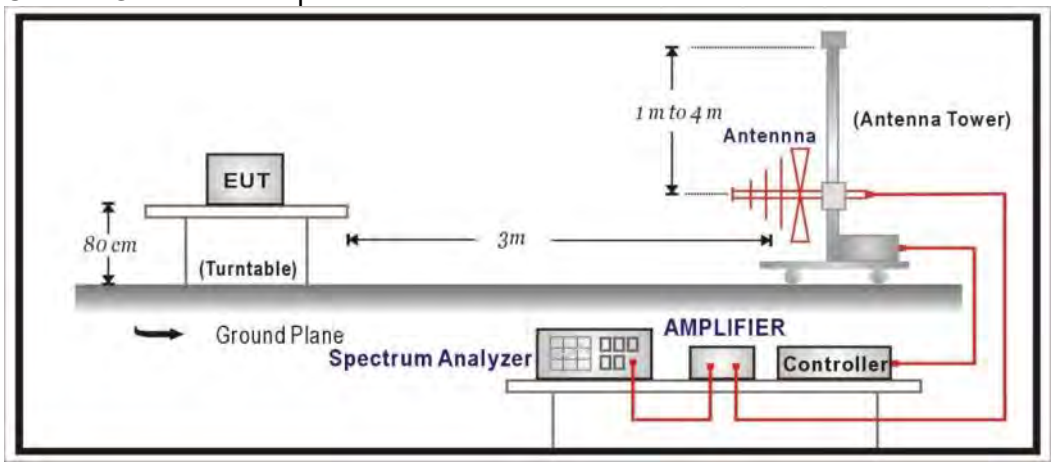
7. Radiated Emission

7.1. Test Setup

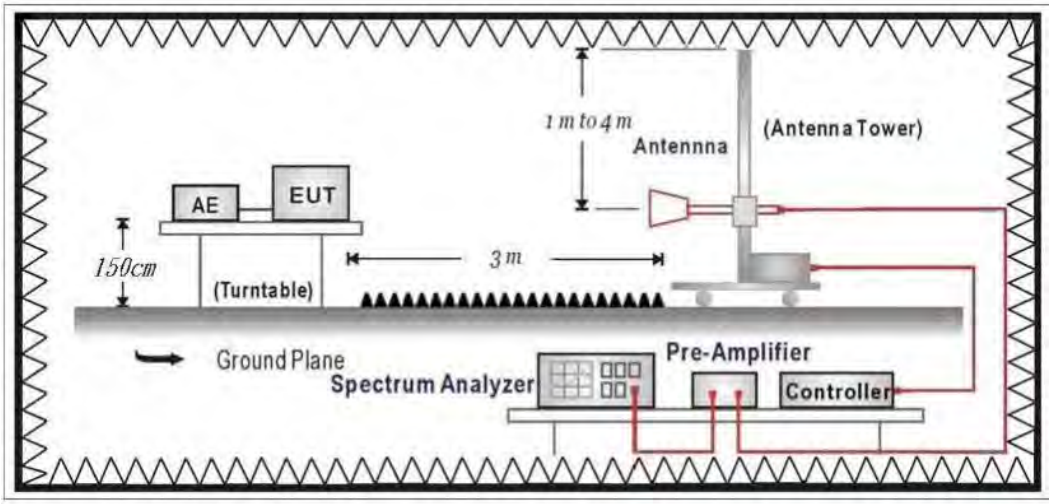
Under 30MHz Test Setup:



Under 1GHz Test Setup:



Above 1GHz Test Setup:



7.2. Limits

➢ **General Radiated Emission Limits**

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency (MHz)	uV/m	dBuV/m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remark:

1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
2. In the Above Table, the tighter limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

➢ **Unwanted Emission out of the restricted bands Limits**

FCC Part 15 Subpart E Paragraph 15.407(b) Limits		
Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength (dBuV/m)
5150 - 5250	-27	68.3
5250 - 5350	-27	68.3
5470 - 5725	-27	68.3
5725 - 5850	-27 (Note1)	68.3
	-17 (Note2)	78.3

Remark:

1. For frequencies more than 10 MHz above or below the band edges.
2. For frequency range from the band edges to 10 MHz above or below the band edges.
3. uV/m = $\frac{1000000\sqrt{30\times EIRP}}{3}$, RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)

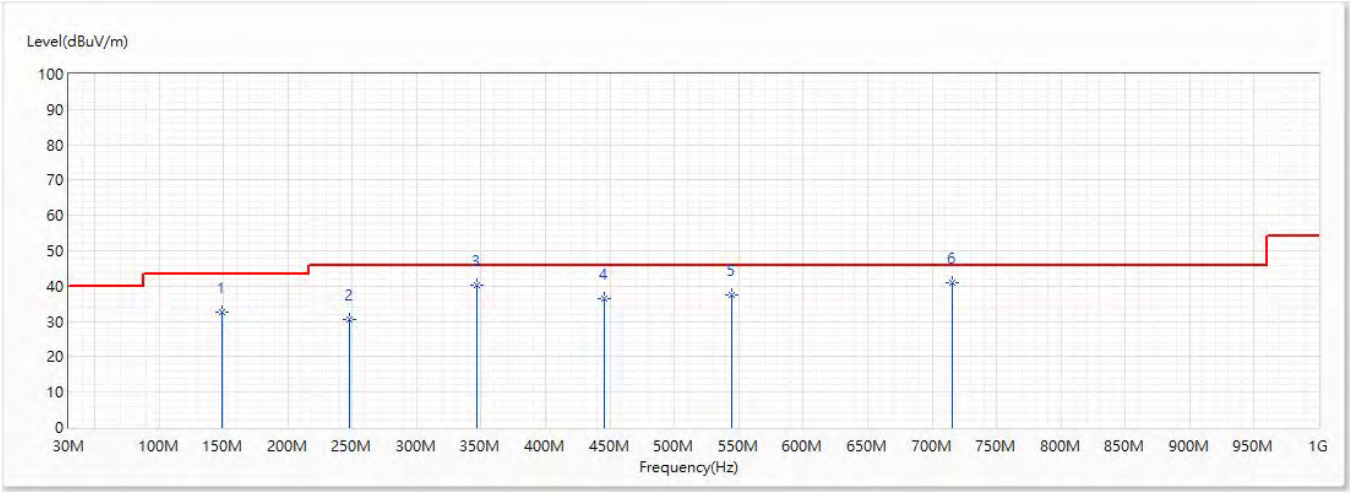
7.3. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 or 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2013 on radiated measurement.
The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field dtrength of harmonics measurement.
The bandwidth below 1GHz setting on the field strength meter is 120 KHz, above 1GHz are 1 MHz.
The frequency range from 30MHz to 10th harminics is checked.

7.4. Test Result

30MHz-1GHz Spurious

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5220MHz		

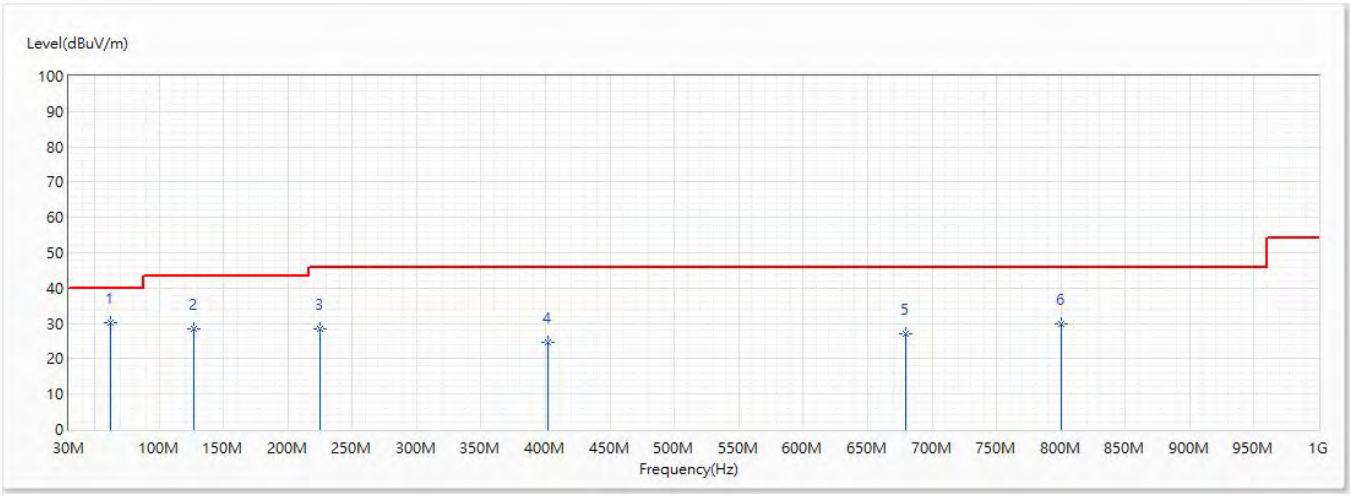


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	148.534	32.47	43.50	-11.03	55.11	-22.64	QP
2	247.474	30.56	46.00	-15.44	51.73	-21.17	QP
3	346.511	40.44	46.00	-5.56	58.96	-18.52	QP
4	445.548	36.40	46.00	-9.60	52.17	-15.77	QP
5	544.488	37.38	46.00	-8.62	51.75	-14.37	QP
* 6	715.305	41.01	46.00	-4.99	53.40	-12.39	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5220MHz		

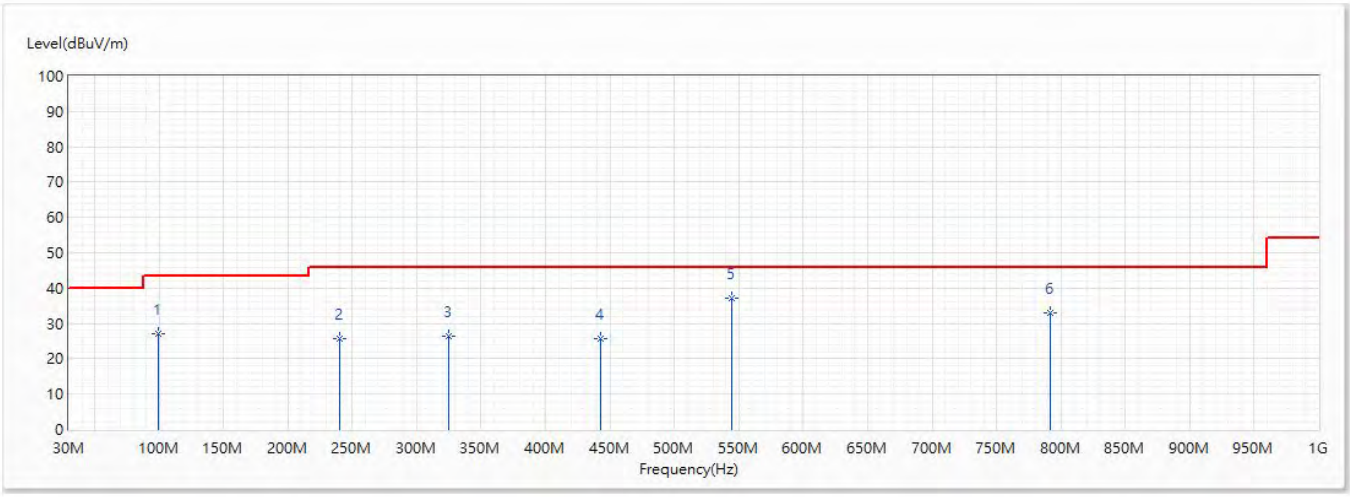


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	61.913	30.29	40.00	-9.71	58.49	-28.20	QP
2	127.097	28.39	43.50	-15.11	50.21	-21.82	QP
3	224.97	28.55	46.00	-17.45	51.02	-22.47	QP
4	401.704	24.66	46.00	-21.34	41.28	-16.62	QP
5	679.512	26.96	46.00	-19.04	39.78	-12.82	QP
6	800.083	29.99	46.00	-16.01	41.45	-11.46	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5220MHz		

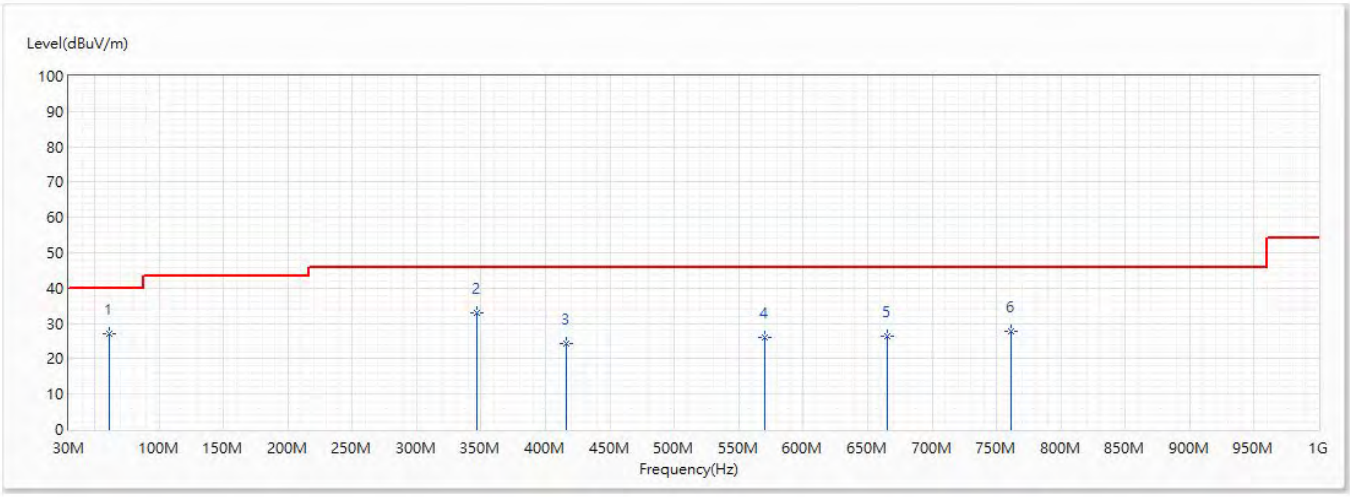


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	99.452	27.18	43.50	-16.32	51.09	-23.91	QP
2	240.102	25.74	46.00	-20.26	47.33	-21.59	QP
3	324.977	26.46	46.00	-19.54	45.68	-19.22	QP
4	443.026	25.56	46.00	-20.44	41.39	-15.83	QP
* 5	544.488	37.25	46.00	-8.75	51.62	-14.37	QP
6	792.032	33.07	46.00	-12.93	44.61	-11.54	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5220MHz		

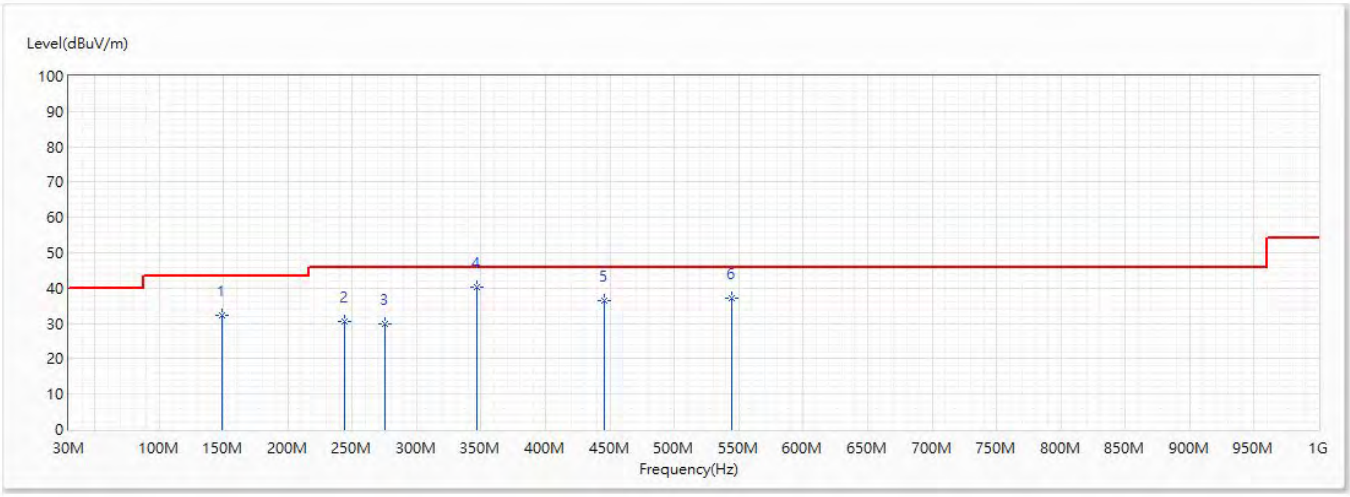


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	61.04	27.14	40.00	-12.86	55.28	-28.14	QP
2	346.414	32.83	46.00	-13.17	51.35	-18.52	QP
3	415.963	24.21	46.00	-21.79	40.56	-16.35	QP
4	569.902	25.96	46.00	-20.04	39.95	-13.99	QP
5	665.156	26.33	46.00	-19.67	39.33	-13.00	QP
6	760.895	27.62	46.00	-18.38	39.50	-11.88	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5190MHz		

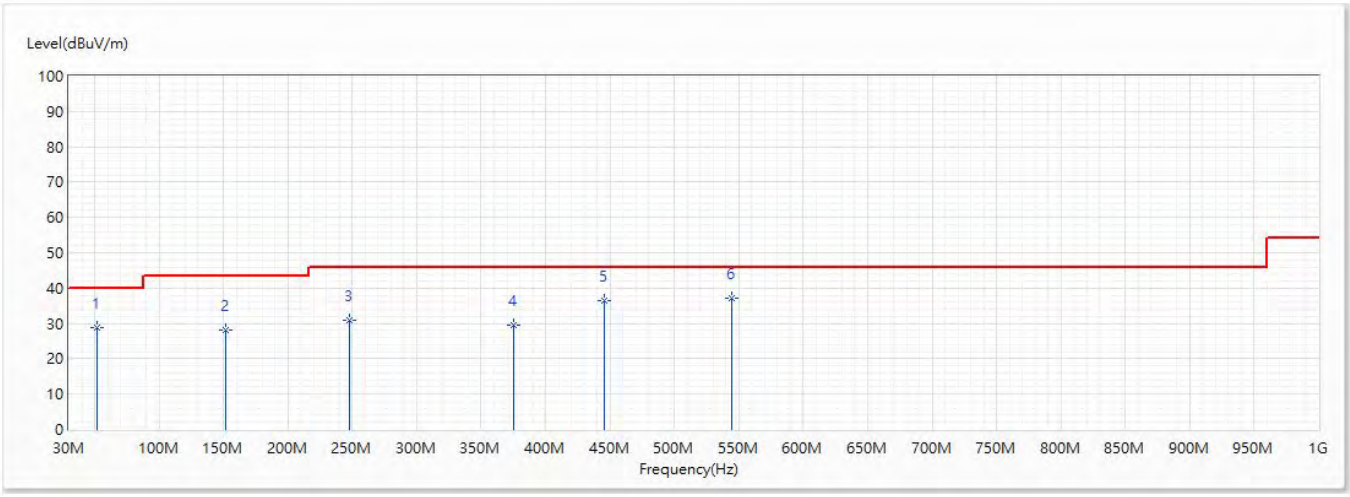


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	148.437	32.34	43.50	-11.16	54.98	-22.64	QP
2	243.788	30.64	46.00	-15.36	52.03	-21.39	QP
3	275.022	29.87	46.00	-16.13	50.40	-20.53	QP
* 4	346.511	40.11	46.00	-5.89	58.63	-18.52	QP
5	445.548	36.57	46.00	-9.43	52.34	-15.77	QP
6	544.488	37.13	46.00	-8.87	51.50	-14.37	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5190MHz		

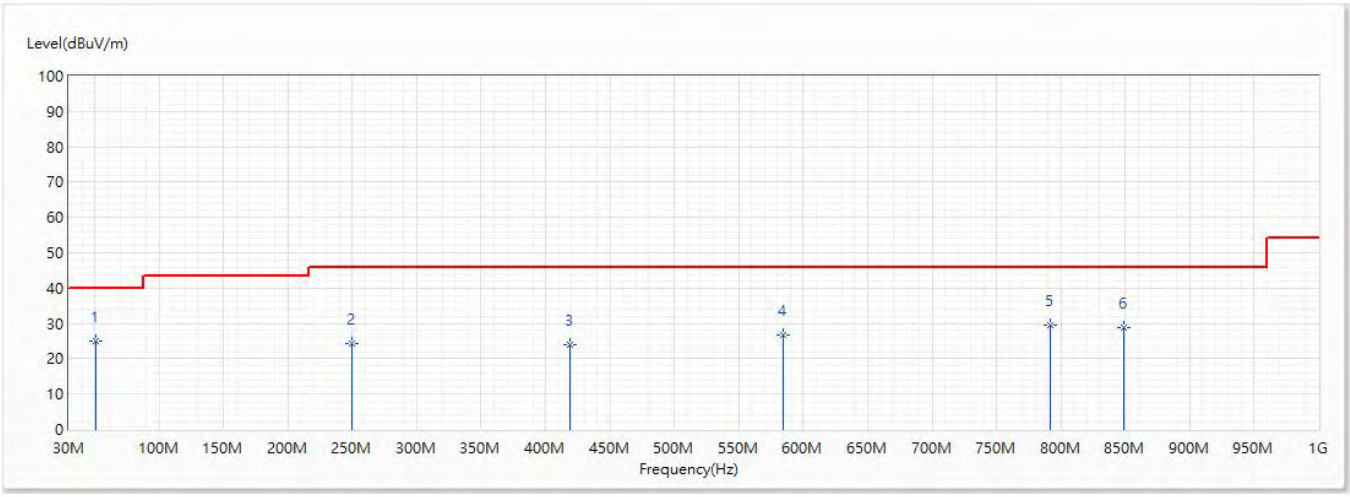


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	52.019	28.70	40.00	-11.30	54.84	-26.14	QP
2	151.541	28.26	43.50	-15.24	51.08	-22.82	QP
3	247.474	30.92	46.00	-15.08	52.09	-21.17	QP
4	375.029	29.63	46.00	-16.37	47.15	-17.52	QP
5	445.548	36.57	46.00	-9.43	52.34	-15.77	QP
* 6	544.488	37.13	46.00	-8.87	51.50	-14.37	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(80M)_5210MHz		

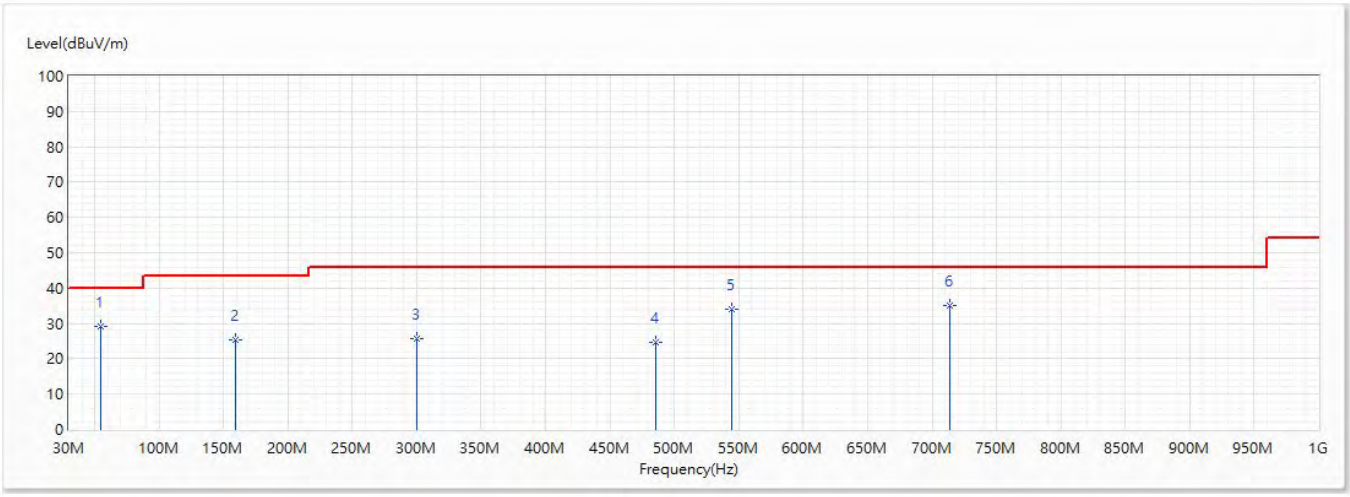


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	50.661	24.96	40.00	-15.04	50.70	-25.74	QP
2	250.093	24.40	46.00	-21.60	45.47	-21.07	QP
3	418.485	24.00	46.00	-22.00	40.29	-16.29	QP
4	584.646	26.90	46.00	-19.10	40.67	-13.77	QP
5	792.032	29.55	46.00	-16.45	41.09	-11.54	QP
6	848.583	28.72	46.00	-17.28	39.58	-10.86	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(80M)_5210MHz		

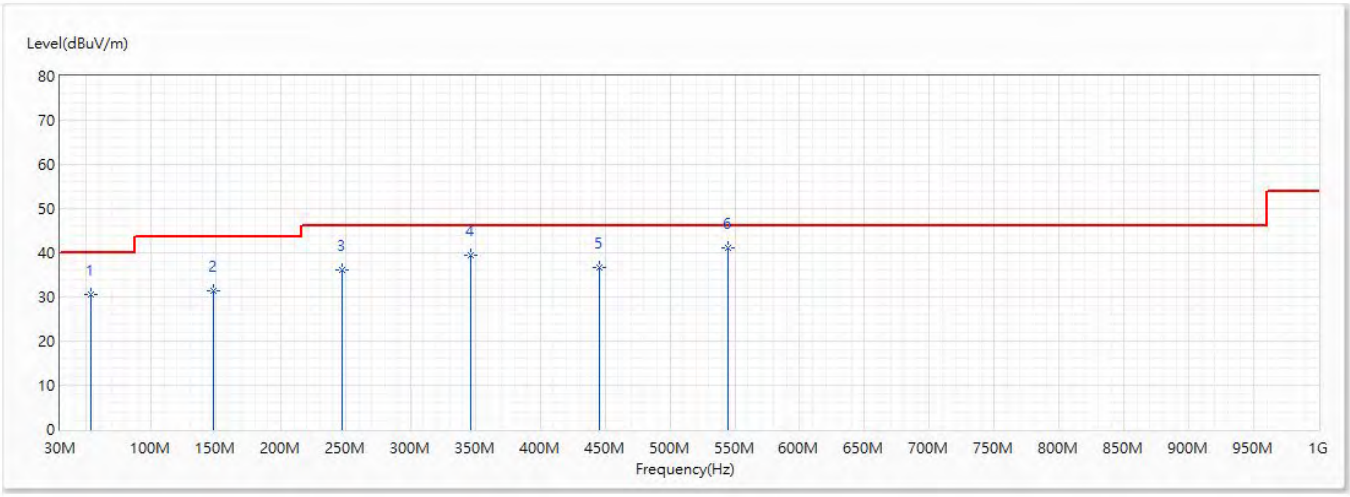


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	54.25	29.12	40.00	-10.88	55.93	-26.81	QP
2	159.689	25.22	43.50	-18.28	48.50	-23.28	QP
3	300.048	25.67	46.00	-20.33	45.69	-20.02	QP
4	485.706	24.80	46.00	-21.20	39.89	-15.09	QP
5	544.488	34.18	46.00	-11.82	48.55	-14.37	QP
6	714.044	35.10	46.00	-10.90	47.50	-12.40	QP

Note:

1. All reading levels is Quasi-Peak value.
2. " * ", means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5300MHz		

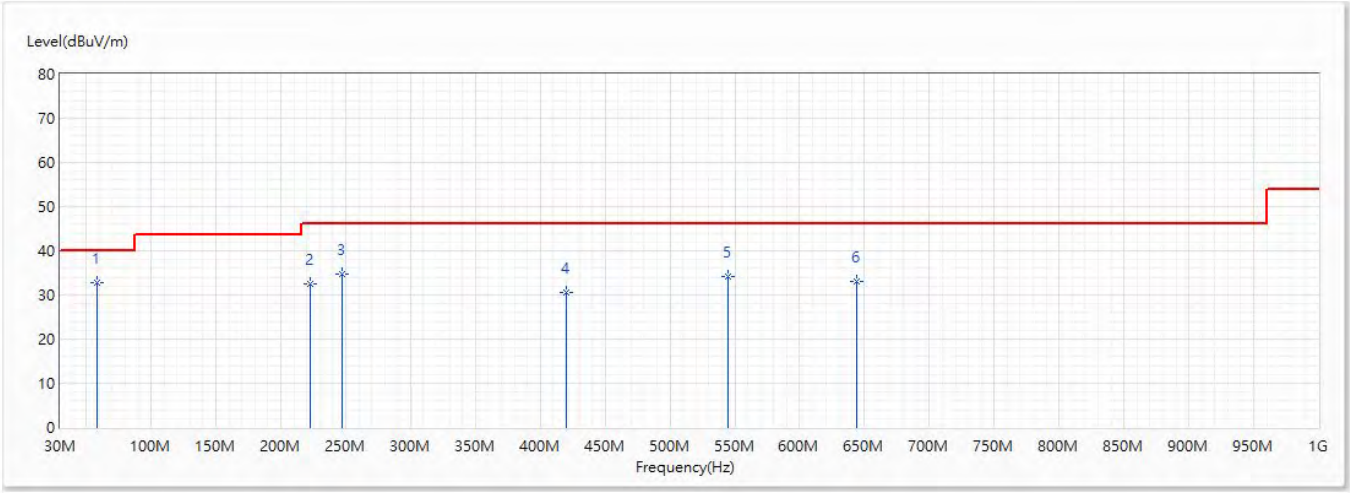


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	53.765	30.43	40.00	-9.57	57.10	-26.67	QP
2	148.34	31.27	43.50	-12.23	53.90	-22.63	QP
3	247.523	36.06	46.00	-9.94	57.23	-21.17	QP
4	346.463	39.37	46.00	-6.63	57.89	-18.52	QP
5	445.403	36.75	46.00	-9.25	52.53	-15.78	QP
* 6	544.585	41.11	46.00	-4.89	55.48	-14.37	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5300MHz		

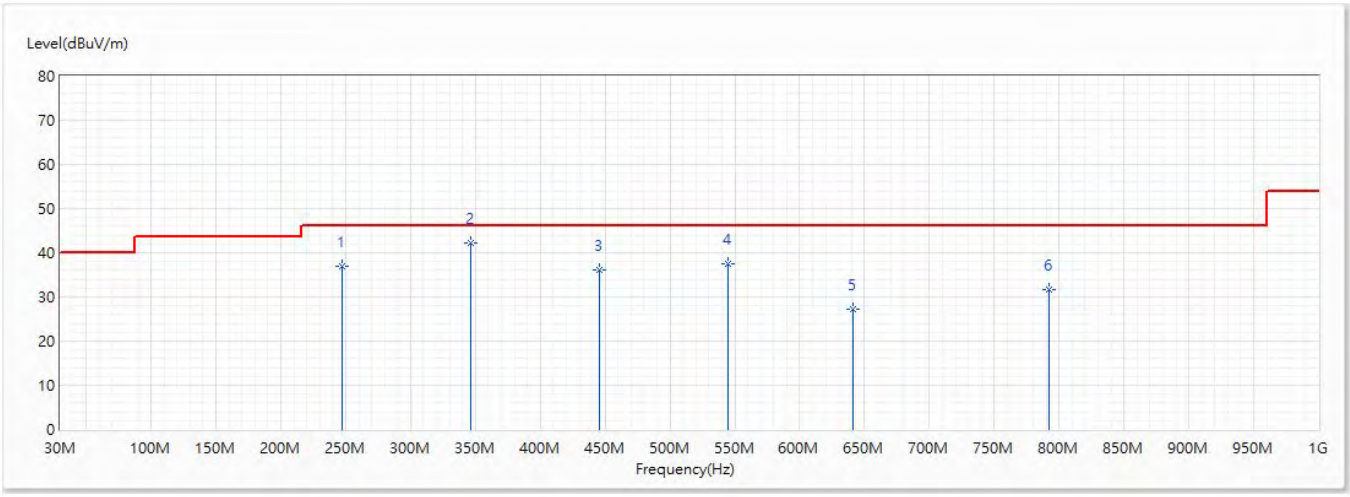


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	58.615	32.65	40.00	-7.35	60.59	-27.94	QP
2	222.545	32.44	46.00	-13.56	55.05	-22.61	QP
3	247.523	34.69	46.00	-11.31	55.86	-21.17	QP
4	420.183	30.47	46.00	-15.53	46.74	-16.27	QP
5	544.343	34.13	46.00	-11.87	48.50	-14.37	QP
6	643.525	33.02	46.00	-12.98	46.26	-13.24	QP

Note:

1. All reading levels is Quasi-Peak value.
2. " * ", means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5300MHz		

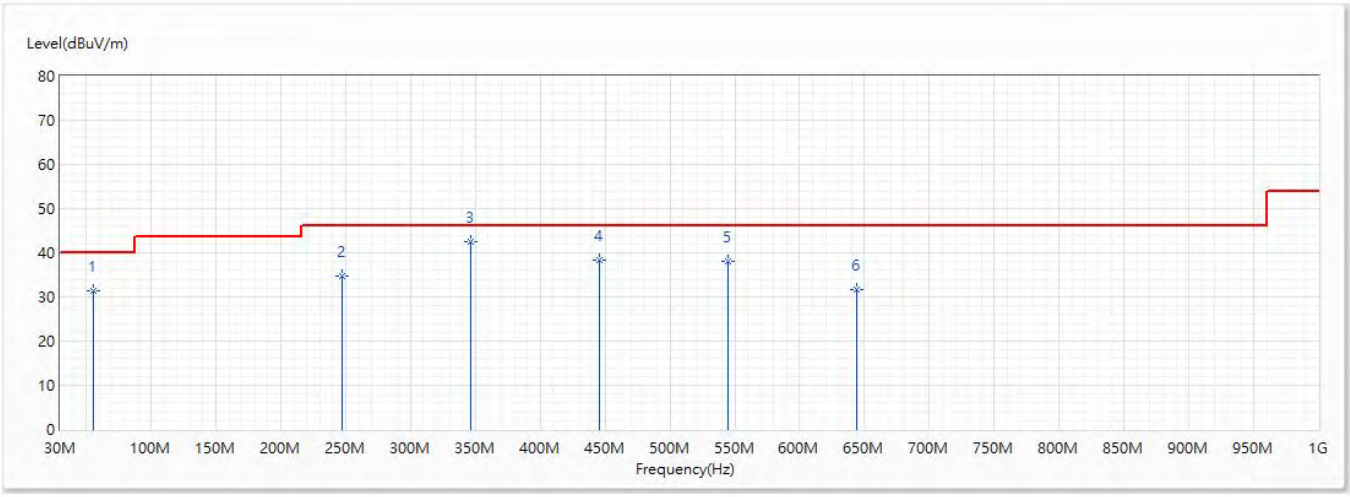


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	247.523	37.08	46.00	-8.92	58.25	-21.17	QP
* 2	346.463	42.20	46.00	-3.80	60.72	-18.52	QP
3	445.403	36.02	46.00	-9.98	51.80	-15.78	QP
4	544.585	37.60	46.00	-8.40	51.97	-14.37	QP
5	640.858	27.20	46.00	-18.80	40.45	-13.25	QP
6	792.178	31.60	46.00	-14.40	43.14	-11.54	QP

Note:

1. All reading levels is Quasi-Peak value.
2. " * ", means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5300MHz		

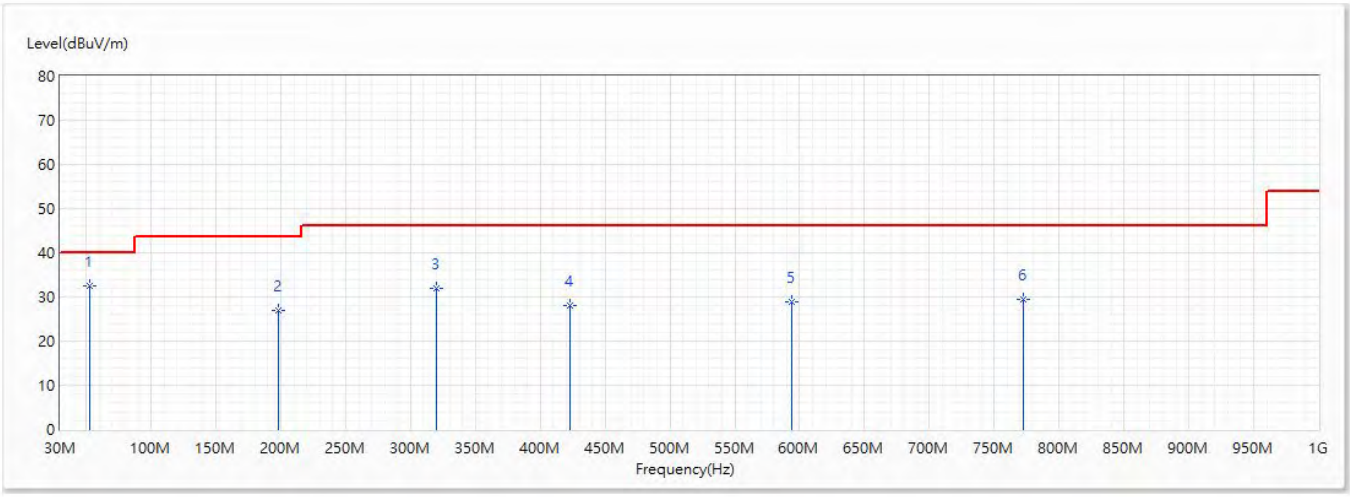


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	55.948	31.48	40.00	-8.52	58.73	-27.25	QP
2	247.523	34.84	46.00	-11.16	56.01	-21.17	QP
* 3	346.463	42.37	46.00	-3.63	60.89	-18.52	QP
4	445.645	38.42	46.00	-7.58	54.19	-15.77	QP
5	544.585	38.05	46.00	-7.95	52.42	-14.37	QP
6	643.525	31.55	46.00	-14.45	44.79	-13.24	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5270MHz		

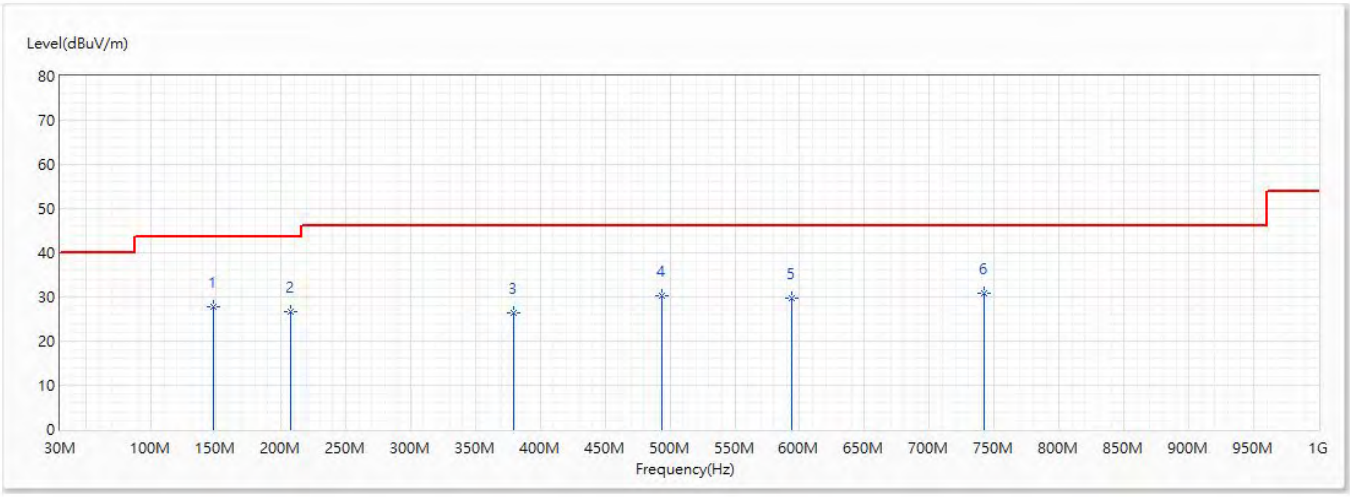


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	53.038	32.53	40.00	-7.47	58.98	-26.45	QP
2	198.053	27.08	43.50	-16.42	51.04	-23.96	QP
3	320.03	31.86	46.00	-14.14	51.24	-19.38	QP
4	422.85	28.19	46.00	-17.81	44.40	-16.21	QP
5	594.055	28.76	46.00	-17.24	42.37	-13.61	QP
6	772.778	29.38	46.00	-16.62	41.13	-11.75	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5270MHz		

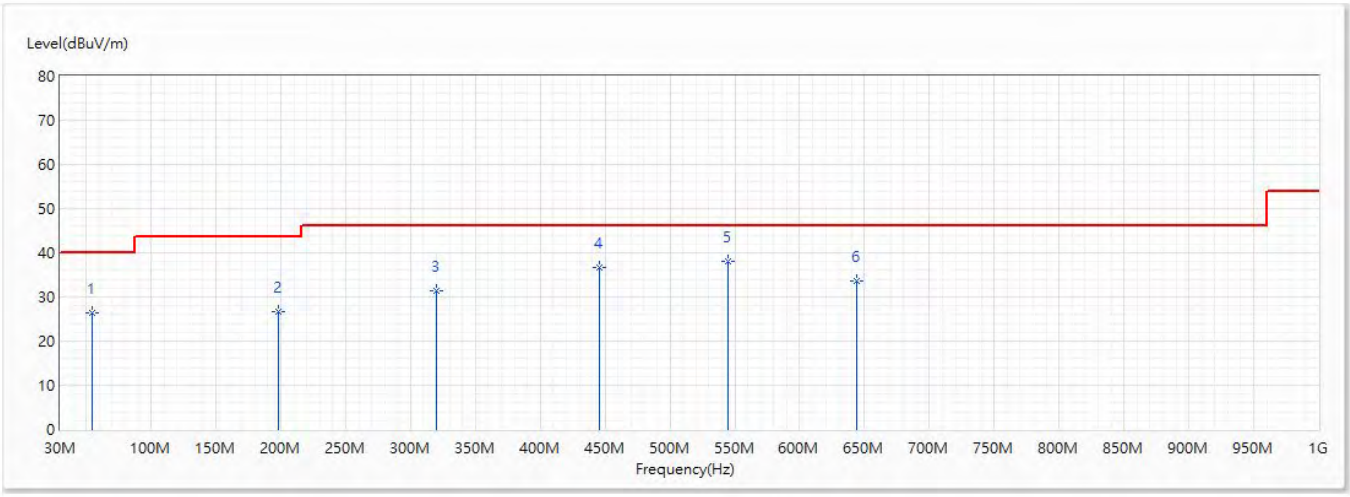


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	148.34	27.65	43.50	-15.85	50.28	-22.63	QP
2	207.753	26.56	43.50	-16.94	50.01	-23.45	QP
3	379.2	26.46	46.00	-19.54	43.83	-17.37	QP
4	493.66	30.18	46.00	-15.82	45.13	-14.95	QP
5	594.055	29.80	46.00	-16.20	43.41	-13.61	QP
* 6	742.465	30.87	46.00	-15.13	42.96	-12.09	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(80M)_5290MHz		

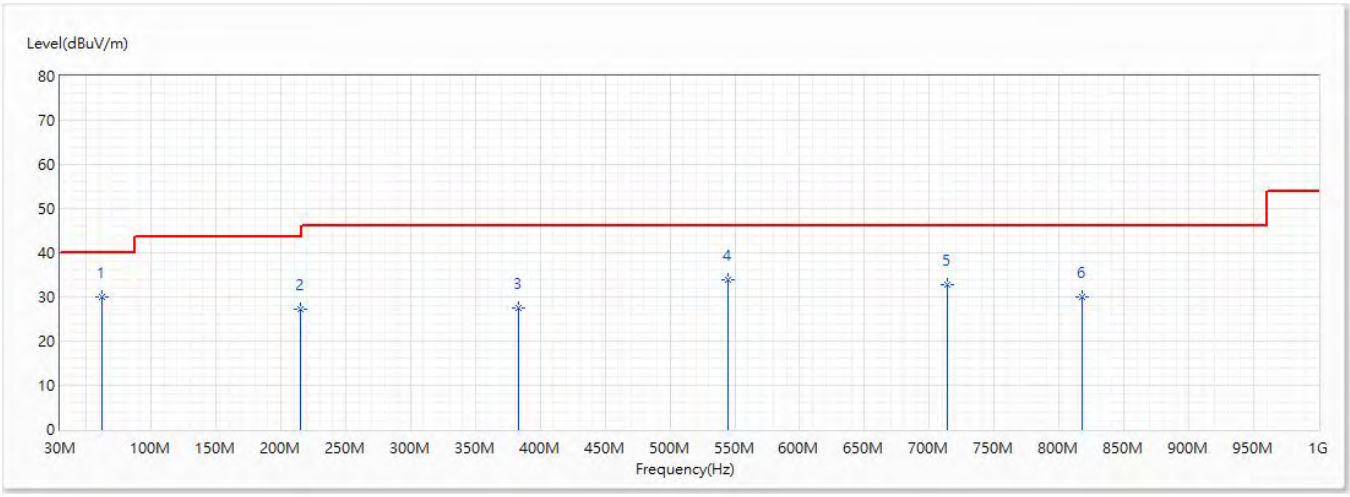


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	54.978	26.37	40.00	-13.63	53.36	-26.99	QP
2	198.053	26.72	43.50	-16.78	50.68	-23.96	QP
3	320.03	31.46	46.00	-14.54	50.84	-19.38	QP
4	445.403	36.59	46.00	-9.41	52.37	-15.78	QP
* 5	544.585	38.00	46.00	-8.00	52.37	-14.37	QP
6	643.525	33.53	46.00	-12.47	46.77	-13.24	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(80M)_5290MHz		

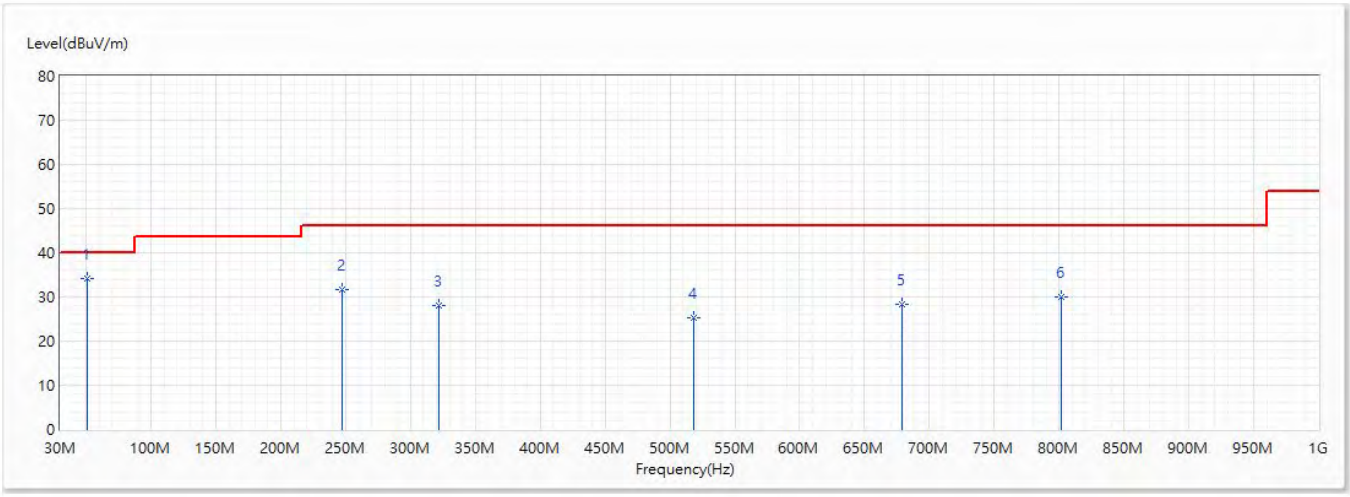


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	62.01	29.96	40.00	-10.04	58.16	-28.20	QP
2	215.028	27.34	43.50	-16.16	50.37	-23.03	QP
3	383.08	27.46	46.00	-18.54	44.69	-17.23	QP
4	544.343	33.96	46.00	-12.04	48.33	-14.37	QP
5	713.608	32.81	46.00	-13.19	45.22	-12.41	QP
6	817.883	30.02	46.00	-15.98	41.26	-11.24	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5580MHz		

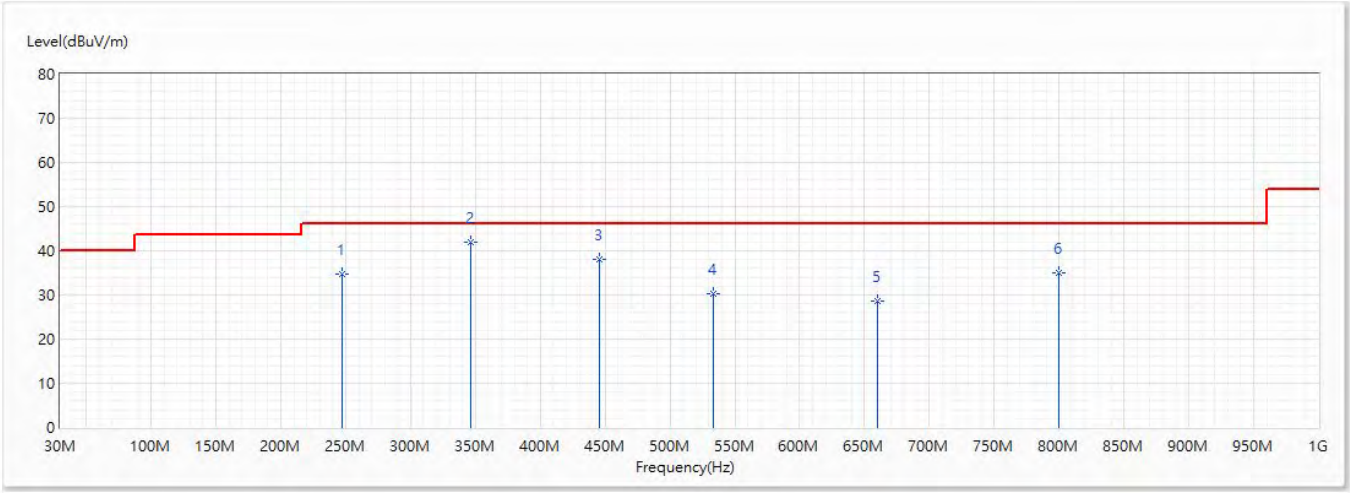


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	50.855	34.20	40.00	-5.80	59.99	-25.79	QP
2	247.28	31.75	46.00	-14.25	52.93	-21.18	QP
3	321.485	28.00	46.00	-18.00	47.34	-19.34	QP
4	518.395	25.17	46.00	-20.83	39.81	-14.64	QP
5	678.445	28.41	46.00	-17.59	41.24	-12.83	QP
6	802.12	30.09	46.00	-15.91	41.52	-11.43	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5580MHz		

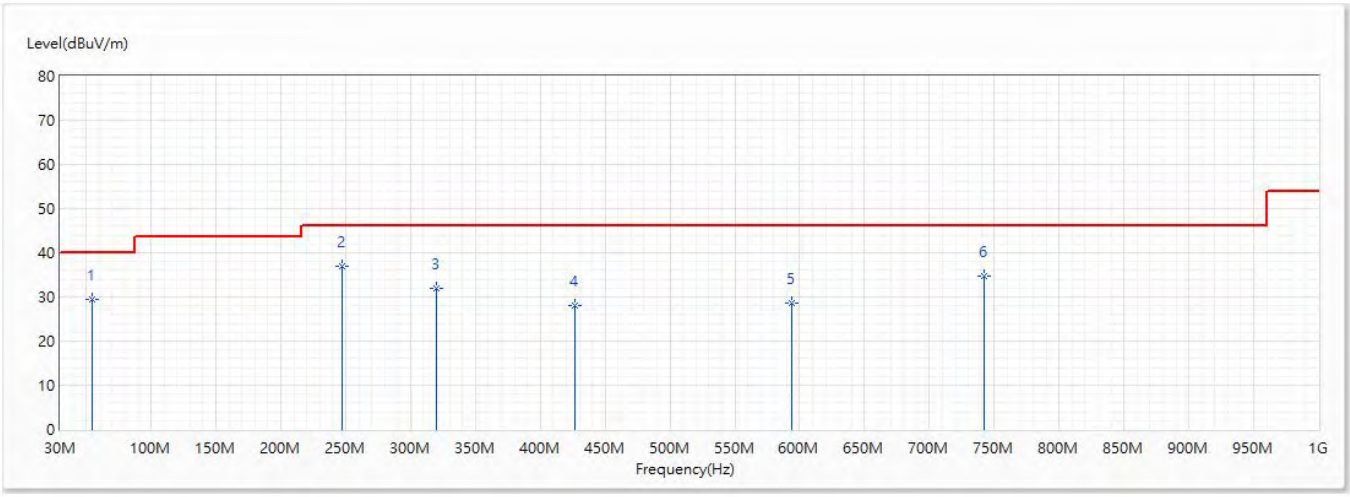


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	247.523	34.81	46.00	-11.19	55.98	-21.17	QP
* 2	346.463	42.08	46.00	-3.92	60.60	-18.52	QP
3	445.645	37.95	46.00	-8.05	53.72	-15.77	QP
4	533.43	30.24	46.00	-15.76	44.73	-14.49	QP
5	660.015	28.62	46.00	-17.38	41.69	-13.07	QP
6	800.18	34.98	46.00	-11.02	46.44	-11.46	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5580MHz		

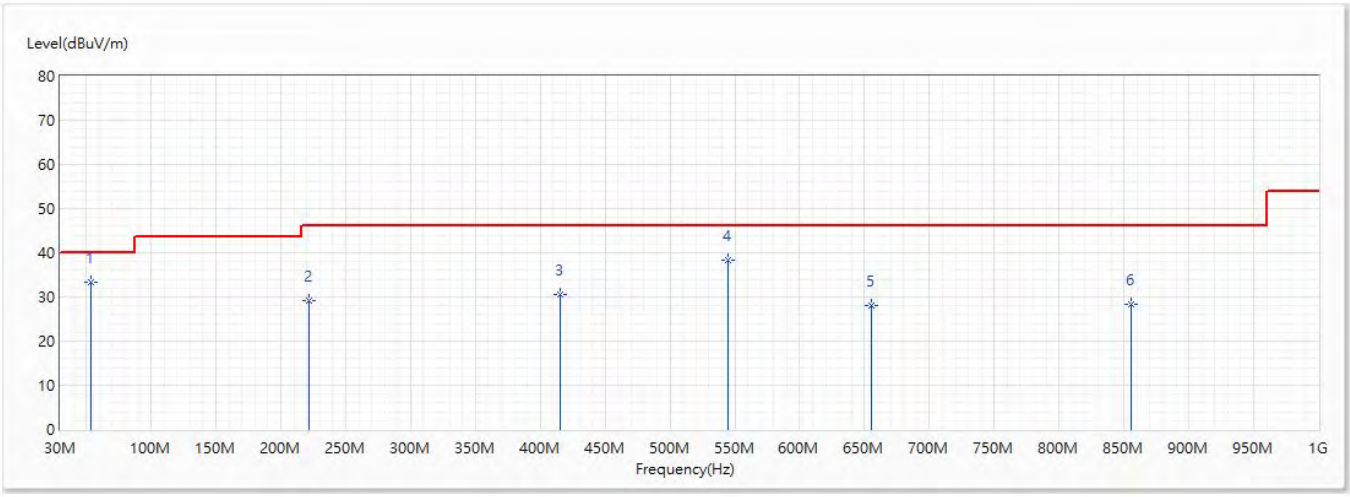


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	54.25	29.54	40.00	-10.46	56.35	-26.81	QP
* 2	247.523	36.88	46.00	-9.12	58.05	-21.17	QP
3	320.03	31.92	46.00	-14.08	51.30	-19.38	QP
4	426.488	28.12	46.00	-17.88	44.26	-16.14	QP
5	594.055	28.63	46.00	-17.37	42.24	-13.61	QP
6	742.465	34.77	46.00	-11.23	46.86	-12.09	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5580MHz		

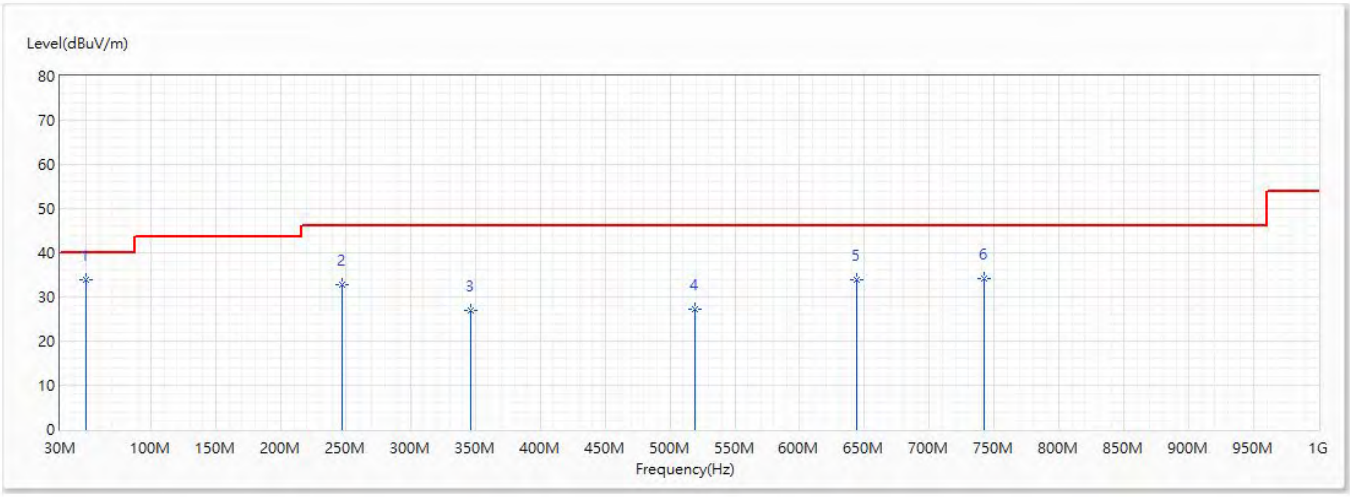


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	53.28	33.38	40.00	-6.62	59.90	-26.52	QP
2	221.818	29.27	46.00	-16.73	51.92	-22.65	QP
3	415.818	30.67	46.00	-15.33	47.02	-16.35	QP
4	544.585	38.25	46.00	-7.75	52.62	-14.37	QP
5	655.408	28.07	46.00	-17.93	41.19	-13.12	QP
6	855.228	28.22	46.00	-17.78	38.99	-10.77	QP

Note:

1. All reading levels is Quasi-Peak value.
2. " * ", means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5550MHz		

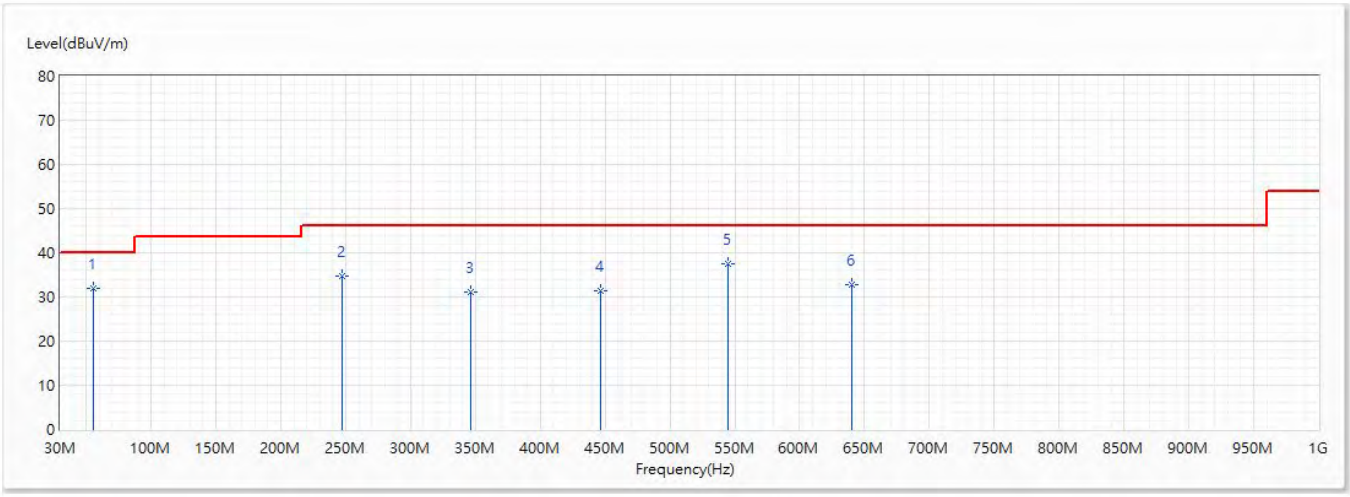


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	50.128	33.77	40.00	-6.23	59.35	-25.58	QP
2	247.523	32.70	46.00	-13.30	53.87	-21.17	QP
3	346.705	26.96	46.00	-19.04	45.47	-18.51	QP
4	519.608	27.22	46.00	-18.78	41.85	-14.63	QP
5	643.525	33.95	46.00	-12.05	47.19	-13.24	QP
6	742.465	34.10	46.00	-11.90	46.19	-12.09	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5550MHz		

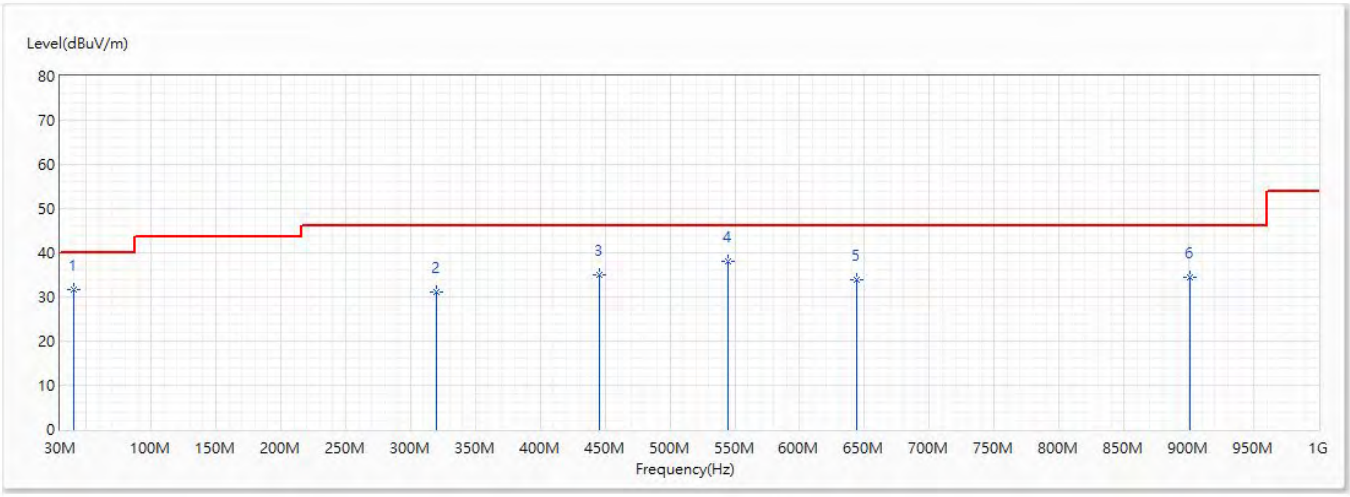


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	55.22	32.01	40.00	-7.99	59.07	-27.06	QP
2	247.523	34.85	46.00	-11.15	56.02	-21.17	QP
3	346.705	31.09	46.00	-14.91	49.60	-18.51	QP
4	446.858	31.43	46.00	-14.57	47.18	-15.75	QP
5	544.585	37.41	46.00	-8.59	51.78	-14.37	QP
6	640.13	32.80	46.00	-13.20	46.06	-13.26	QP

Note:

1. All reading levels is Quasi-Peak value.
2. " * ", means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(80M)_5530MHz		

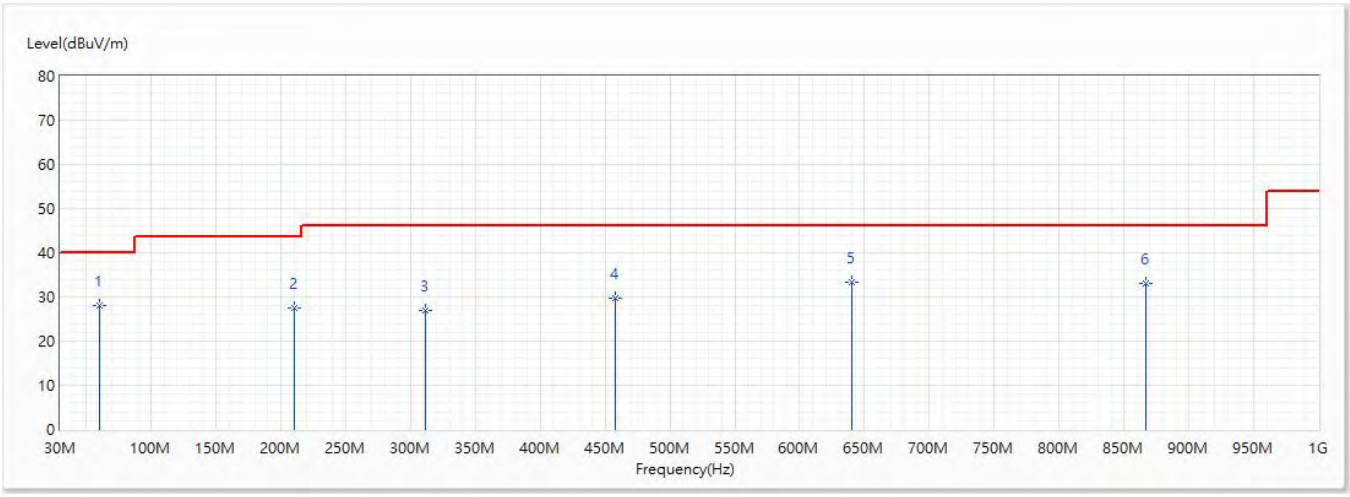


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	40.428	31.63	40.00	-8.37	48.98	-17.35	QP
2	320.03	31.25	46.00	-14.75	50.63	-19.38	QP
3	445.645	34.90	46.00	-11.10	50.67	-15.77	QP
* 4	544.585	38.08	46.00	-7.92	52.45	-14.37	QP
5	643.525	34.01	46.00	-11.99	47.25	-13.24	QP
6	901.06	34.33	46.00	-11.67	44.52	-10.19	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/15
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(80M)_5530MHz		

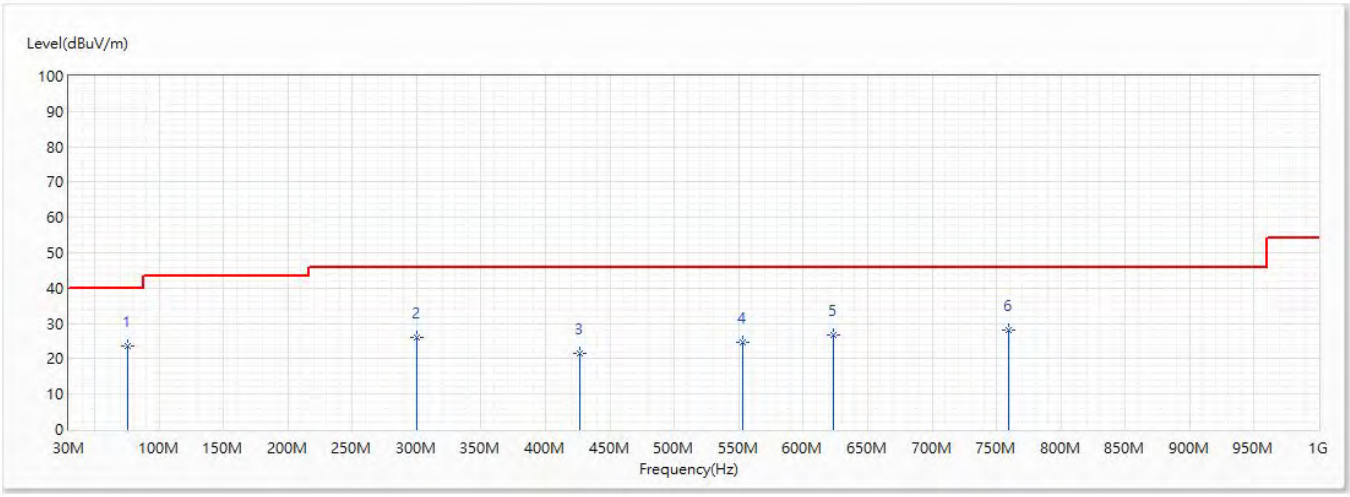


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	59.828	28.13	40.00	-11.87	56.21	-28.08	QP
2	209.935	27.48	43.50	-16.02	50.80	-23.32	QP
3	311.058	26.85	46.00	-19.15	46.53	-19.68	QP
4	457.528	29.84	46.00	-16.16	45.40	-15.56	QP
5	640.13	33.34	46.00	-12.66	46.60	-13.26	QP
6	866.868	33.14	46.00	-12.86	43.77	-10.63	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5785MHz		

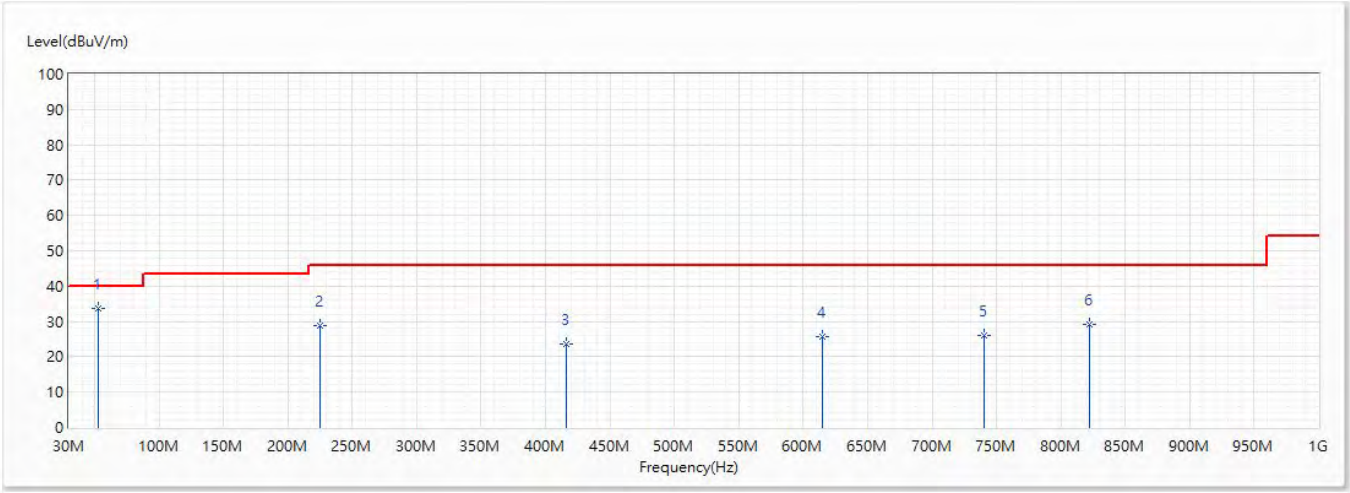


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	75.202	23.47	40.00	-16.53	51.25	-27.78	QP
2	300.048	26.12	46.00	-19.88	46.14	-20.02	QP
3	426.245	21.58	46.00	-24.42	37.72	-16.14	QP
4	553.509	24.51	46.00	-21.49	38.77	-14.26	QP
5	623.349	26.77	46.00	-19.23	40.14	-13.37	QP
6	759.052	28.02	46.00	-17.98	39.93	-11.91	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5785MHz		

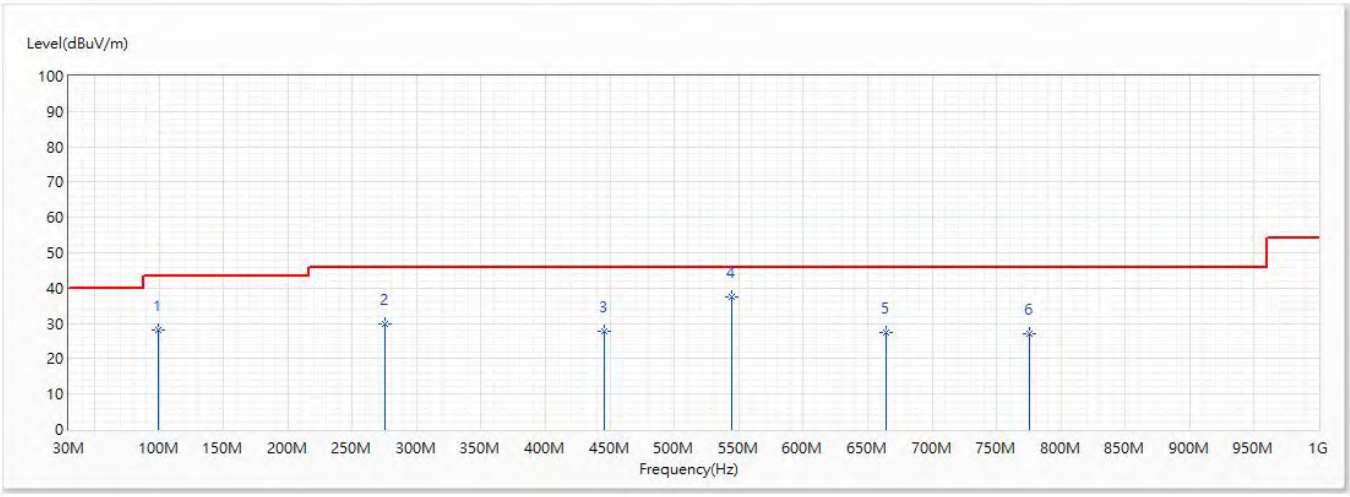


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	52.504	33.68	40.00	-6.32	59.97	-26.29	QP
2	224.97	28.97	46.00	-17.03	51.44	-22.47	QP
3	415.672	23.68	46.00	-22.32	40.03	-16.35	QP
4	615.201	25.59	46.00	-20.41	39.00	-13.41	QP
5	740.525	26.17	46.00	-19.83	38.29	-12.12	QP
6	822.296	29.33	46.00	-16.67	40.52	-11.19	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5785MHz		

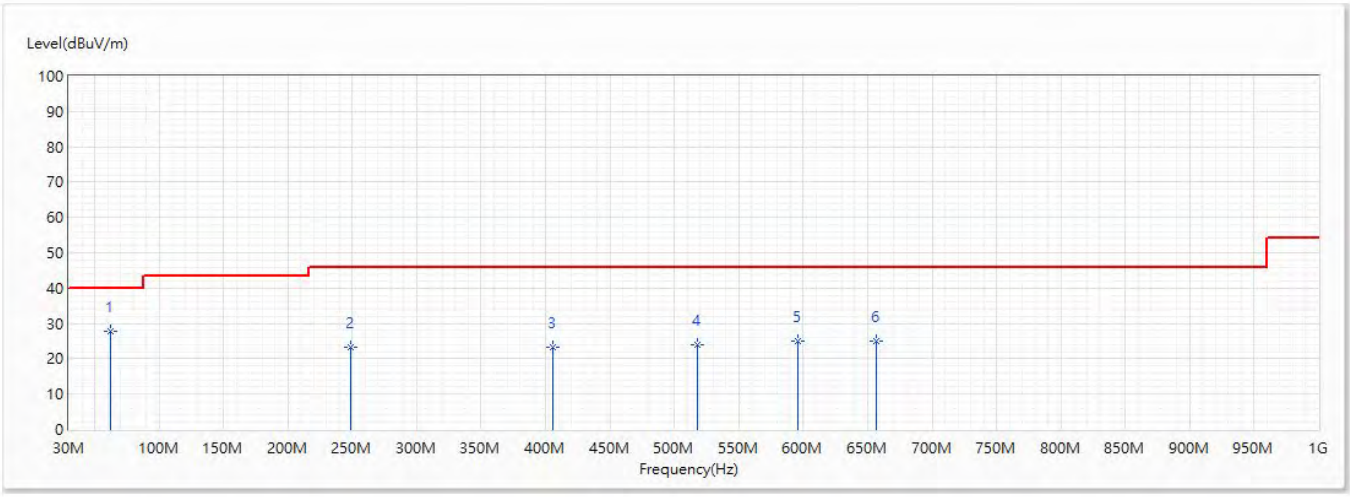


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	99.258	28.02	43.50	-15.48	51.96	-23.94	QP
2	275.022	29.97	46.00	-16.03	50.50	-20.53	QP
3	445.645	27.91	46.00	-18.09	43.68	-15.77	QP
* 4	544.488	37.65	46.00	-8.35	52.02	-14.37	QP
5	664.089	27.58	46.00	-18.42	40.61	-13.03	QP
6	775.445	27.16	46.00	-18.84	38.89	-11.73	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5785MHz		

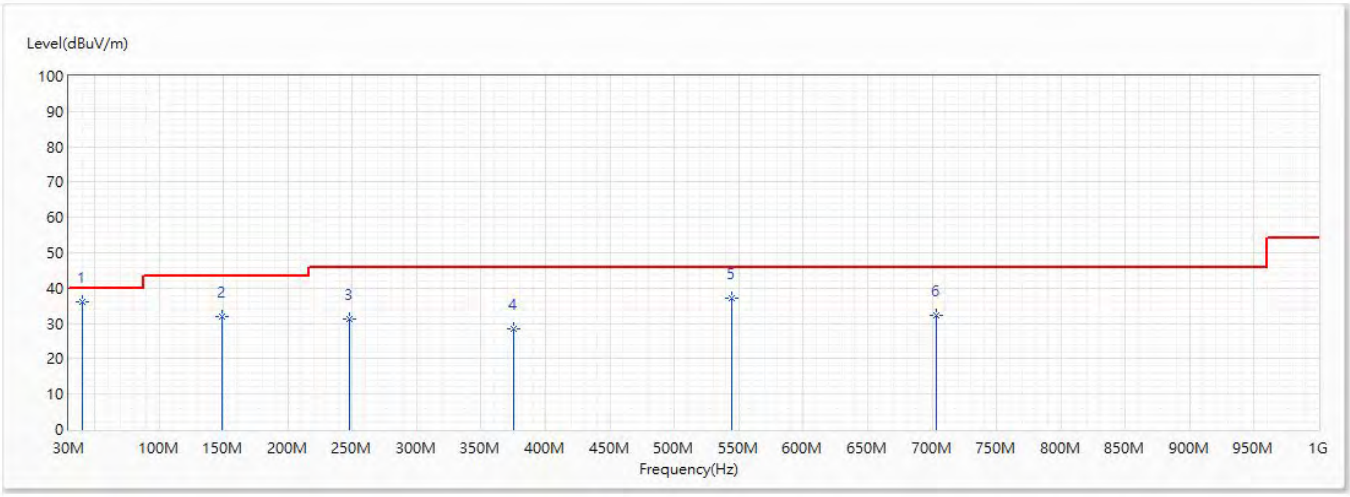


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	62.495	27.90	40.00	-12.10	56.13	-28.23	QP
2	248.347	23.41	46.00	-22.59	44.54	-21.13	QP
3	405.681	23.42	46.00	-22.58	39.96	-16.54	QP
4	517.425	23.92	46.00	-22.08	38.57	-14.65	QP
5	596.189	25.04	46.00	-20.96	38.61	-13.57	QP
6	656.329	25.04	46.00	-20.96	38.15	-13.11	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5755MHz		

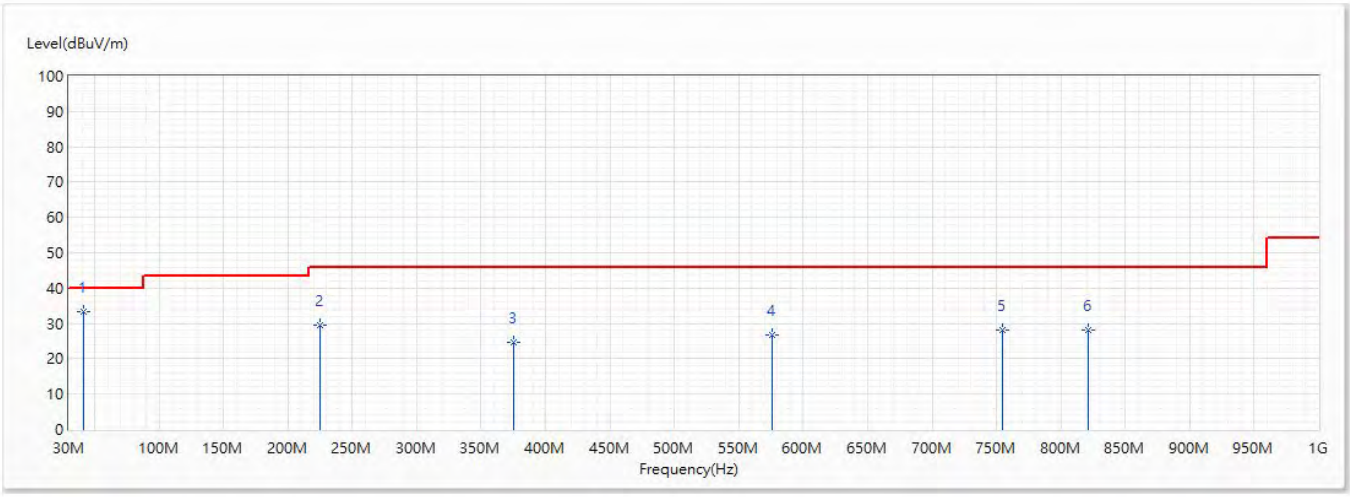


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	40.185	36.15	40.00	-3.85	53.22	-17.07	QP
2	148.437	32.06	43.50	-11.44	54.70	-22.64	QP
3	247.474	31.23	46.00	-14.77	52.40	-21.17	QP
4	375.029	28.48	46.00	-17.52	46.00	-17.52	QP
5	544.488	37.08	46.00	-8.92	51.45	-14.37	QP
6	703.665	32.19	46.00	-13.81	44.71	-12.52	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5755MHz		

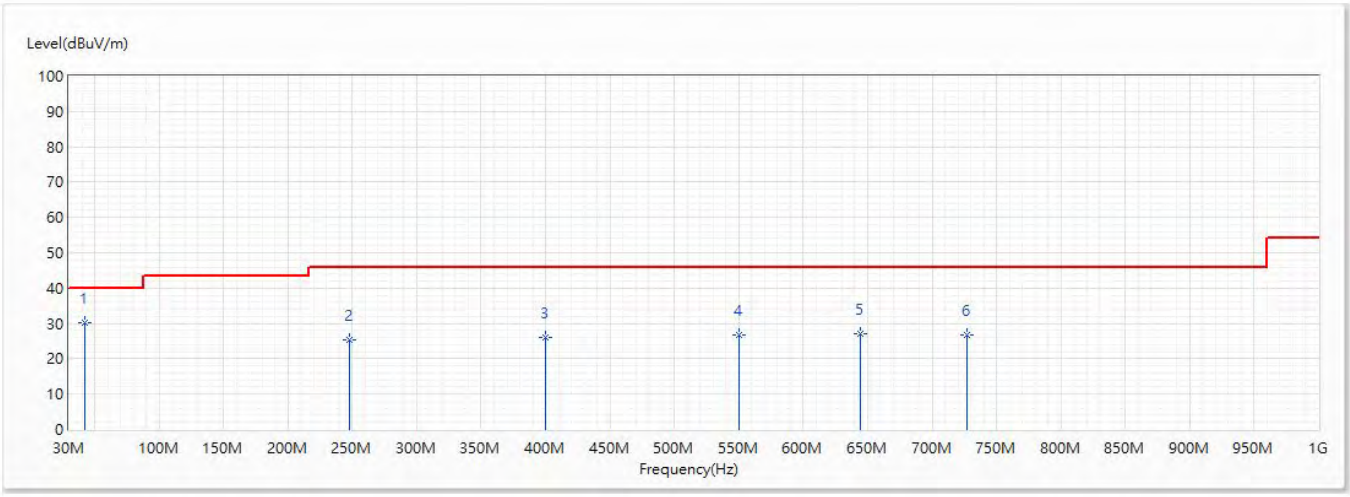


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	41.349	33.30	40.00	-6.70	51.71	-18.41	QP
2	224.97	29.45	46.00	-16.55	51.92	-22.47	QP
3	375.029	24.77	46.00	-21.23	42.29	-17.52	QP
4	576.207	26.76	46.00	-19.24	40.65	-13.89	QP
5	755.075	28.05	46.00	-17.95	40.00	-11.95	QP
6	821.52	28.02	46.00	-17.98	39.22	-11.20	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(80M)_5775MHz		

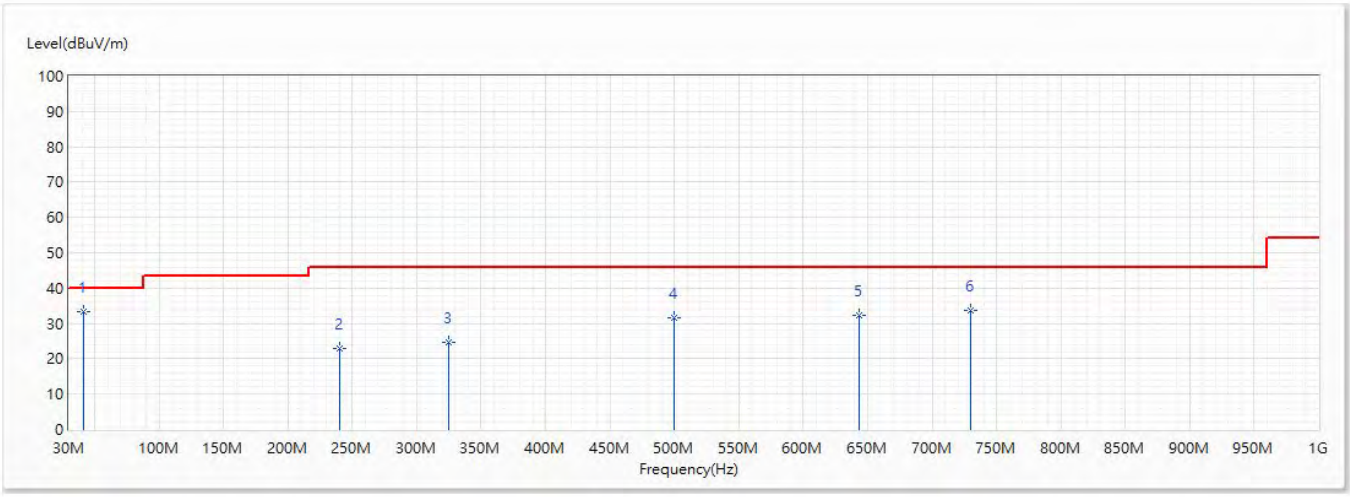


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	42.319	30.30	40.00	-9.70	49.84	-19.54	QP
2	247.474	25.44	46.00	-20.56	46.61	-21.17	QP
3	399.958	25.98	46.00	-20.02	42.64	-16.66	QP
4	550.017	26.69	46.00	-19.31	41.00	-14.31	QP
5	644.786	26.93	46.00	-19.07	40.16	-13.23	QP
6	726.848	26.77	46.00	-19.23	39.03	-12.26	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/3/28
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(80M)_5775MHz		



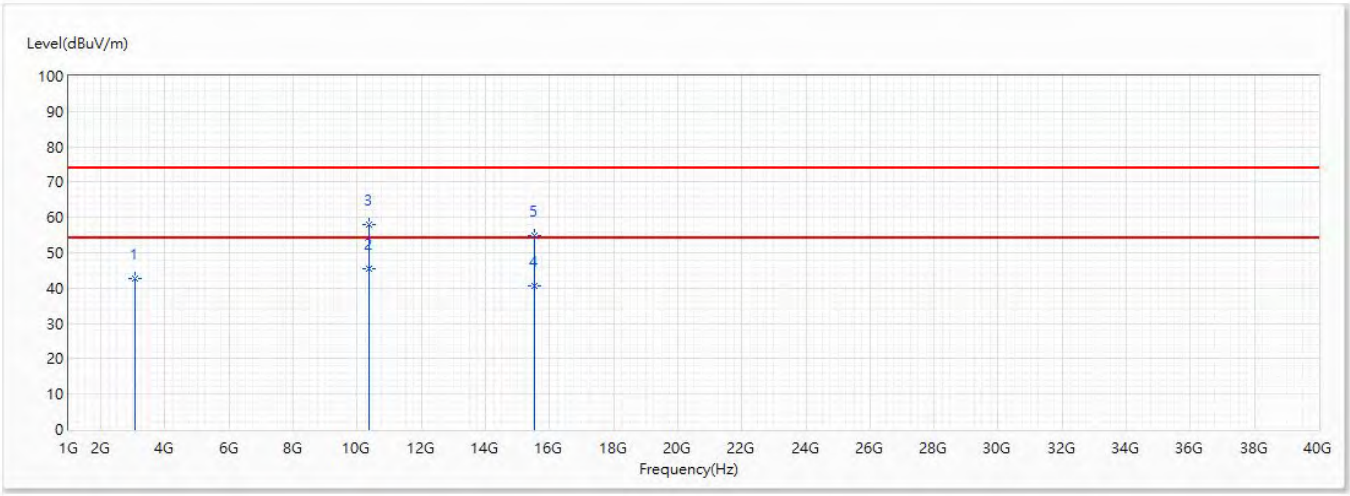
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
* 1	41.349	33.30	40.00	-6.70	51.71	-18.41	QP
2	240.199	22.86	46.00	-23.14	44.45	-21.59	QP
3	324.977	24.53	46.00	-21.47	43.75	-19.22	QP
4	500.062	31.76	46.00	-14.24	46.60	-14.84	QP
5	643.525	32.28	46.00	-13.72	45.52	-13.24	QP
6	730.146	33.70	46.00	-12.30	45.93	-12.23	QP

Note:

1. All reading levels is Quasi-Peak value.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor
4. The emission under 30MHz were not included is because their levels are lower than 20dB from limit.

Harmonic & Spurious:

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5180MHz		

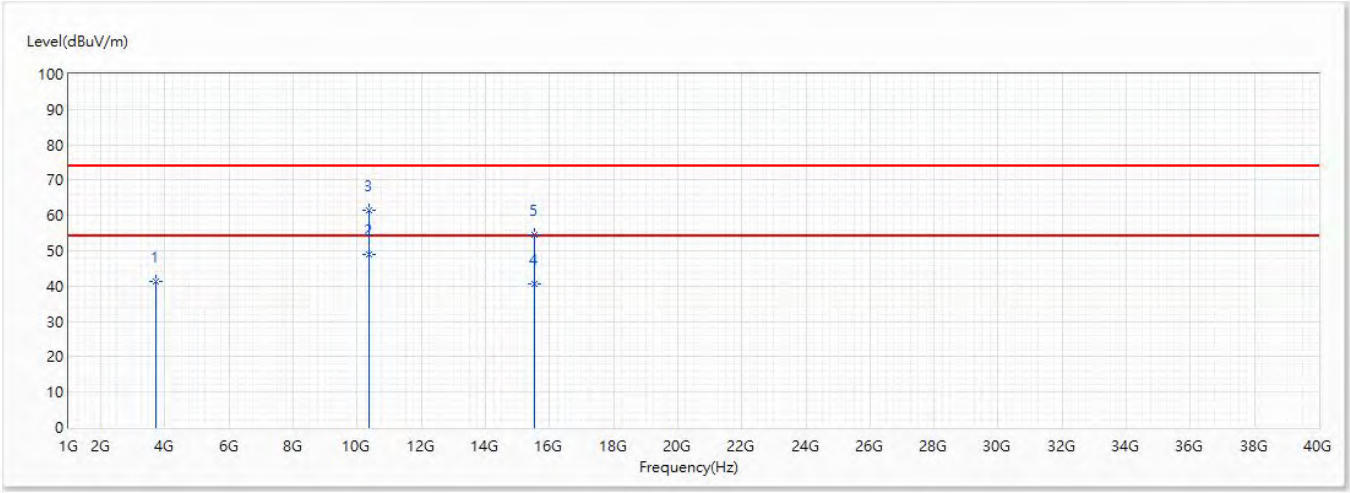


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	42.65	74.00	-31.35	47.54	-4.89	PK
* 2	10360	45.42	54.00	-8.58	28.56	16.86	AV
3	10360	57.89	74.00	-16.11	41.03	16.86	PK
4	15540	40.61	54.00	-13.39	21.62	18.99	AV
5	15540	54.87	74.00	-19.13	35.88	18.99	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5180MHz		

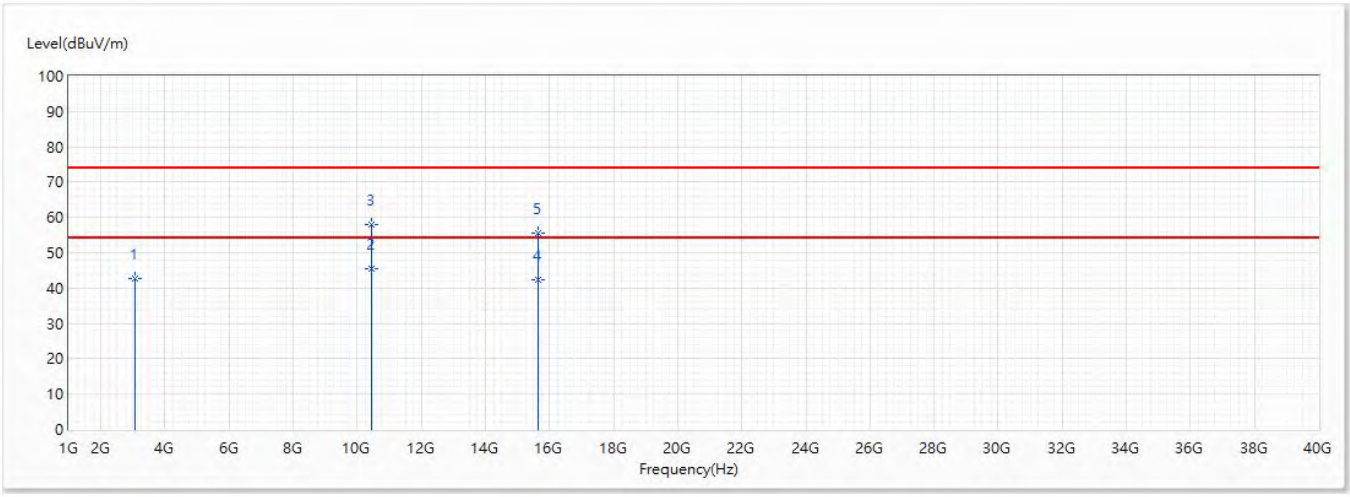


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3720	41.15	74.00	-32.85	44.48	-3.33	PK
* 2	10360	48.85	54.00	-5.15	31.99	16.86	AV
3	10360	61.59	74.00	-12.41	44.73	16.86	PK
4	15540	40.67	54.00	-13.33	21.68	18.99	AV
5	15540	54.55	74.00	-19.45	35.56	18.99	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5220MHz		

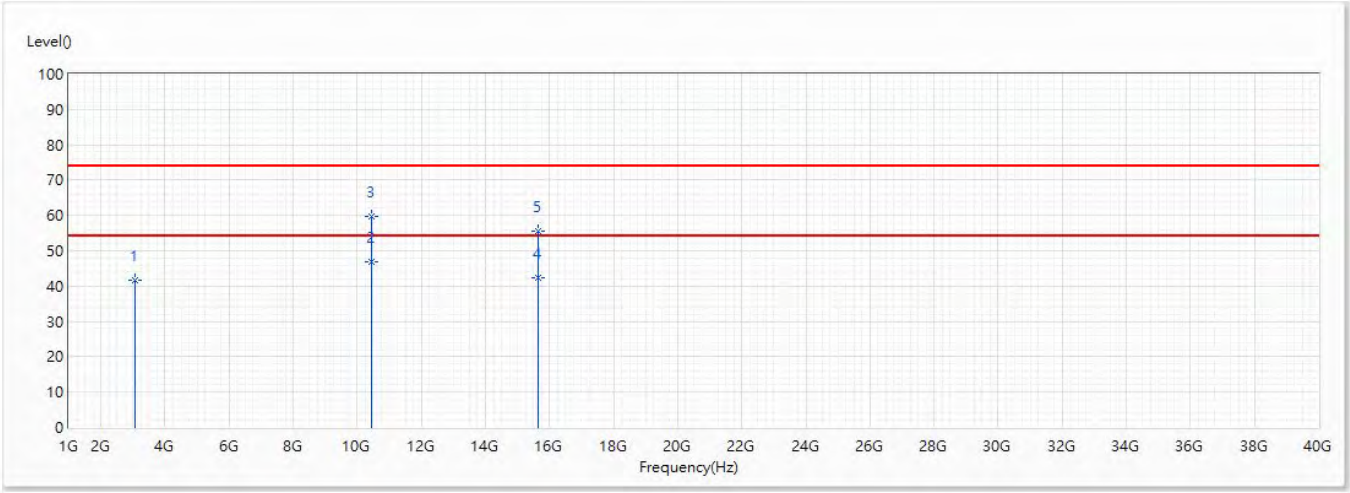


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	42.58	74.00	-31.42	47.47	-4.89	PK
* 2	10440	45.56	54.00	-8.44	28.48	17.08	AV
3	10440	58.15	74.00	-15.85	41.07	17.08	PK
4	15660	42.24	54.00	-11.76	23.80	18.44	AV
5	15660	55.55	74.00	-18.45	37.11	18.44	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5220MHz		

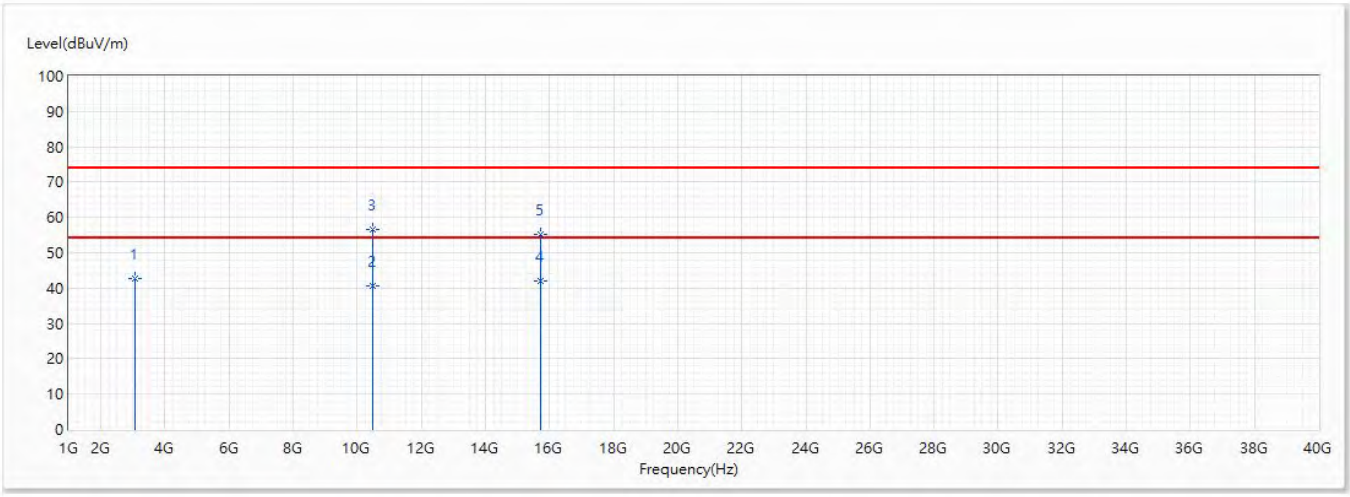


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	41.61	74.00	-32.39	46.50	-4.89	PK
* 2	10440	47.04	54.00	-6.96	29.96	17.08	AV
3	10440	59.65	74.00	-14.35	42.57	17.08	PK
4	15660	42.31	54.00	-11.69	23.87	18.44	AV
5	15660	55.68	74.00	-18.32	37.24	18.44	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5240MHz		

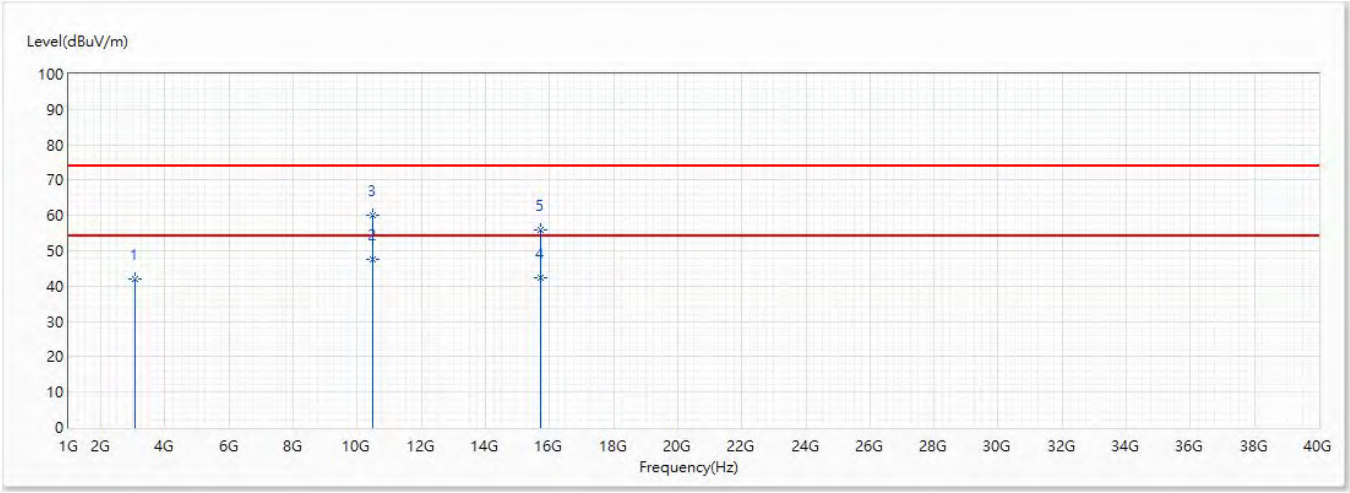


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	42.86	74.00	-31.14	47.75	-4.89	PK
2	10480	40.55	54.00	-13.45	23.42	17.13	AV
3	10480	56.74	74.00	-17.26	39.61	17.13	PK
* 4	15720	42.01	54.00	-11.99	23.99	18.02	AV
5	15720	55.15	74.00	-18.85	37.13	18.02	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5240MHz		

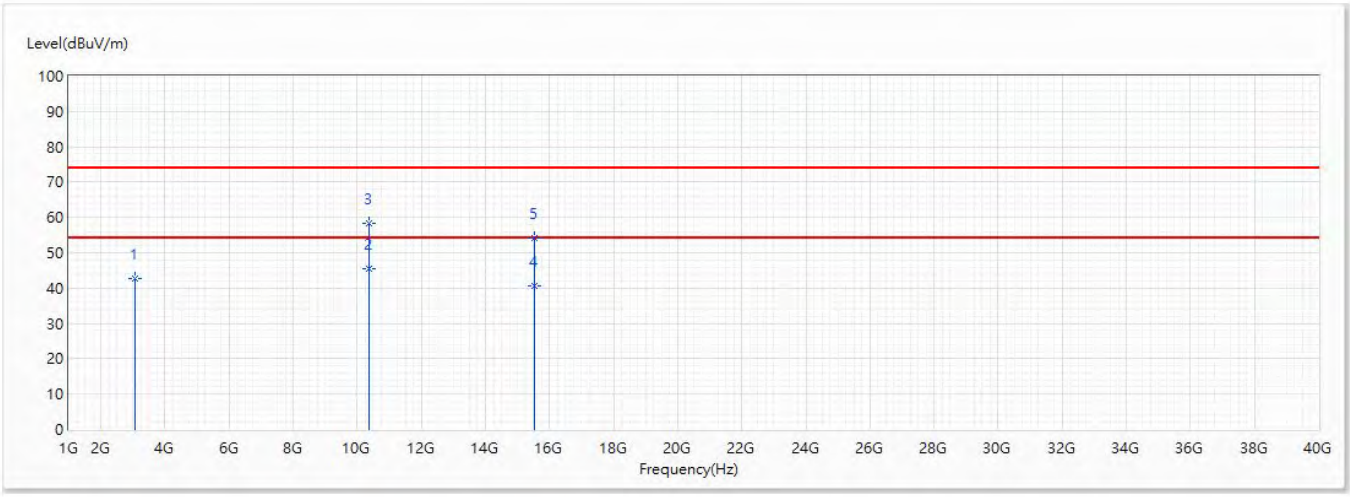


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	41.86	74.00	-32.14	46.75	-4.89	PK
* 2	10480	47.65	54.00	-6.35	30.52	17.13	AV
3	10480	60.01	74.00	-13.99	42.88	17.13	PK
4	15720	42.52	54.00	-11.48	24.50	18.02	AV
5	15720	55.80	74.00	-18.20	37.78	18.02	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5180MHz		

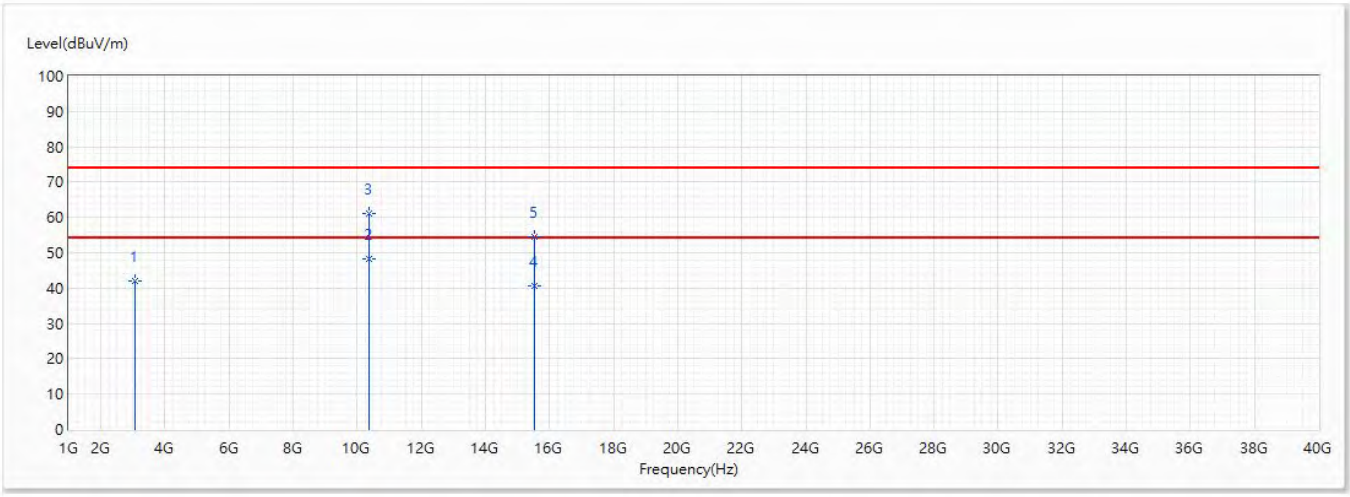


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	42.80	74.00	-31.20	47.69	-4.89	PK
* 2	10360	45.40	54.00	-8.60	28.54	16.86	AV
3	10360	58.21	74.00	-15.79	41.35	16.86	PK
4	15540	40.64	54.00	-13.36	21.65	18.99	AV
5	15540	54.27	74.00	-19.73	35.28	18.99	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5180MHz		

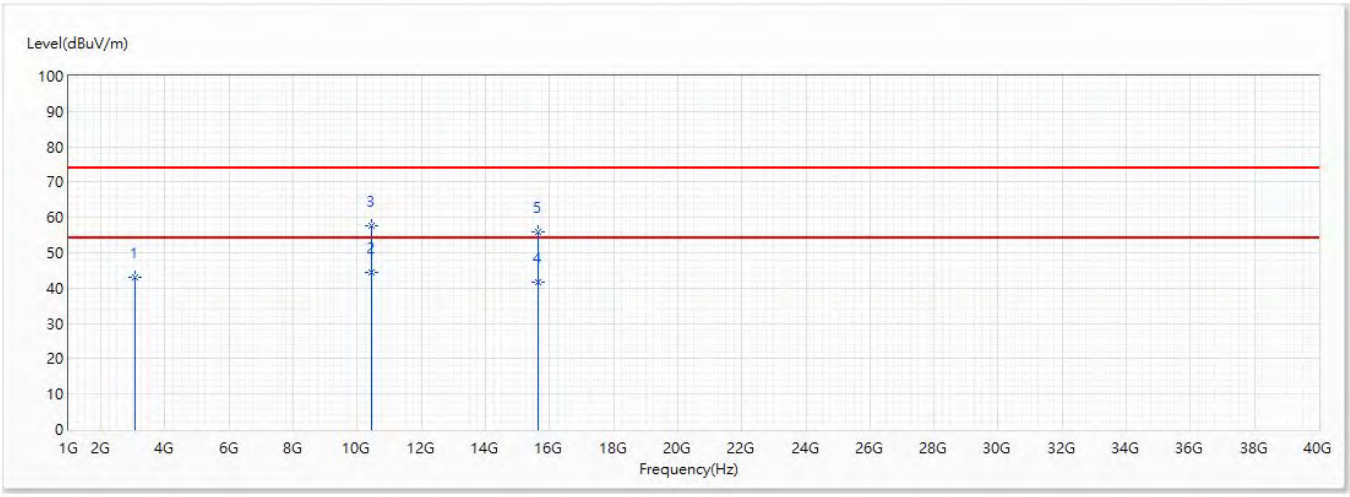


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	42.06	74.00	-31.94	46.95	-4.89	PK
* 2	10360	48.42	54.00	-5.58	31.56	16.86	AV
3	10360	61.04	74.00	-12.96	44.18	16.86	PK
4	15540	40.63	74.00	-33.37	21.64	18.99	PK
5	15540	54.63	74.00	-19.37	35.64	18.99	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5220MHz		

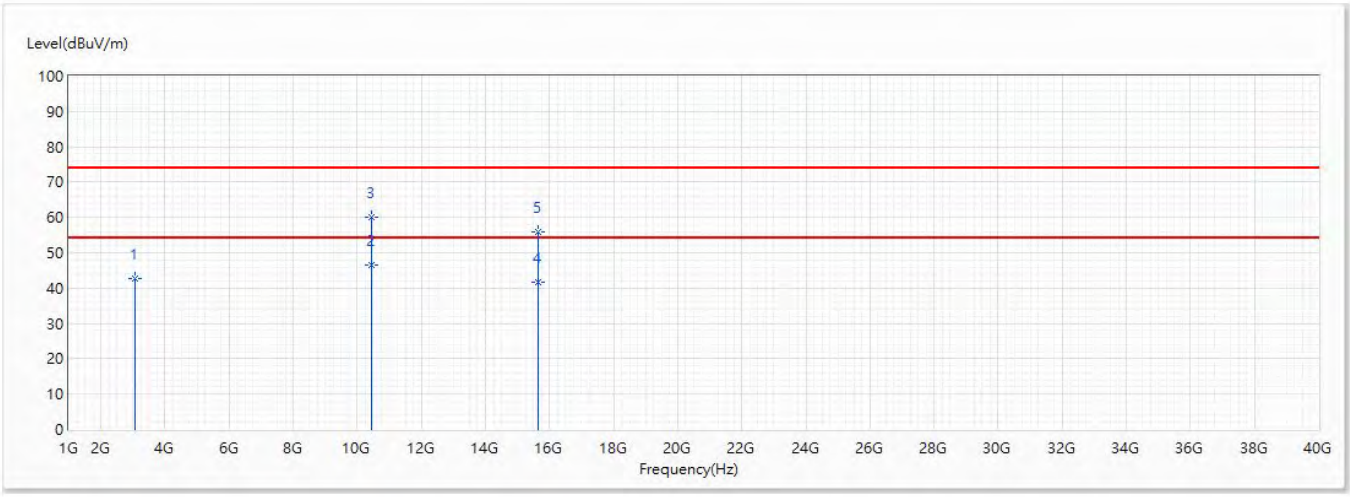


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	43.07	74.00	-30.93	47.96	-4.89	PK
* 2	10440	44.48	54.00	-9.52	27.40	17.08	AV
3	10440	57.68	74.00	-16.32	40.60	17.08	PK
4	15660	41.68	74.00	-32.32	23.24	18.44	PK
5	15660	55.76	74.00	-18.24	37.32	18.44	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5220MHz		

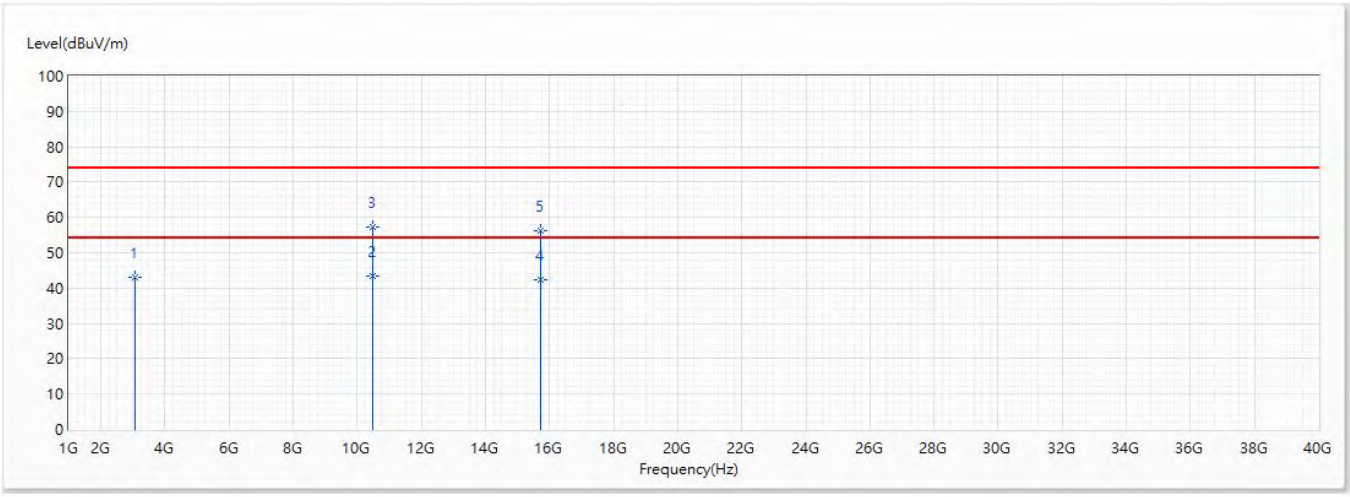


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	42.63	74.00	-31.37	47.52	-4.89	PK
* 2	10440	46.64	54.00	-7.36	29.56	17.08	AV
3	10440	60.06	74.00	-13.94	42.98	17.08	PK
4	15660	41.70	54.00	-12.30	23.26	18.44	AV
5	15660	55.94	74.00	-18.06	37.50	18.44	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5240MHz		

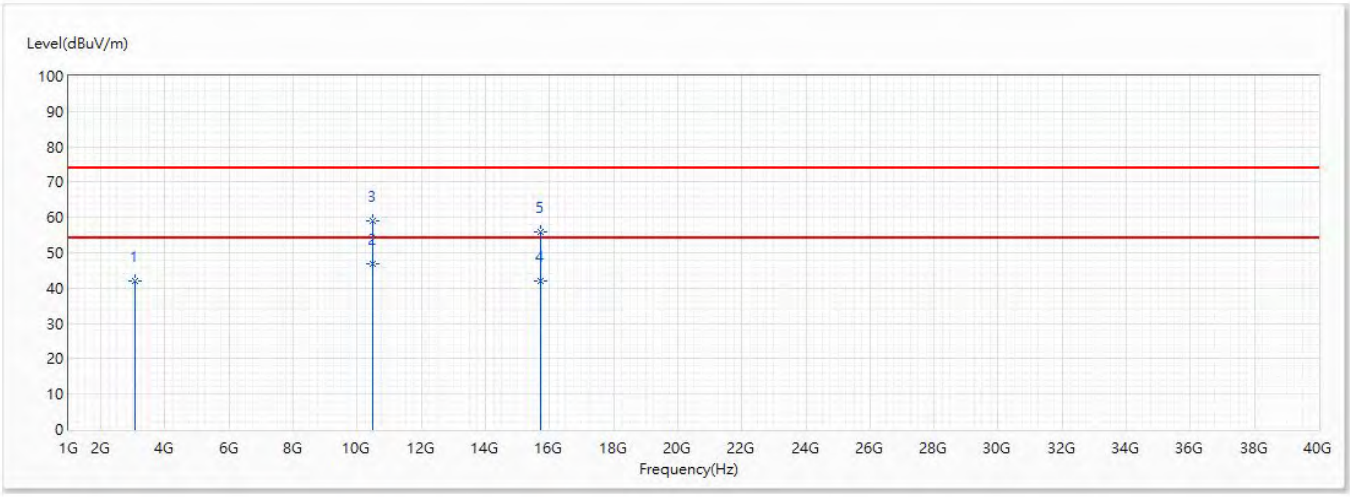


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	43.06	74.00	-30.94	47.95	-4.89	PK
* 2	10480	43.33	54.00	-10.67	26.20	17.13	AV
3	10480	57.45	74.00	-16.55	40.32	17.13	PK
4	15720	42.49	54.00	-11.51	24.47	18.02	AV
5	15720	56.36	74.00	-17.64	38.34	18.02	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5240MHz		

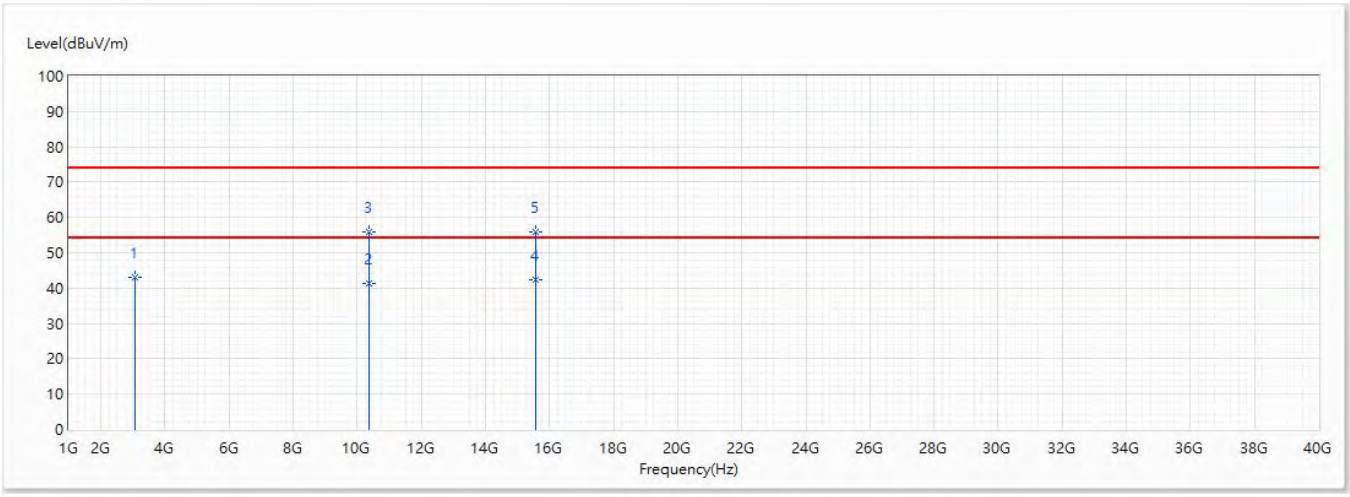


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	41.93	74.00	-32.07	46.82	-4.89	PK
* 2	10480	46.95	54.00	-7.05	29.82	17.13	AV
3	10480	58.94	74.00	-15.06	41.81	17.13	PK
4	15720	42.13	54.00	-11.87	24.11	18.02	AV
5	15720	55.82	74.00	-18.18	37.80	18.02	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5190MHz		

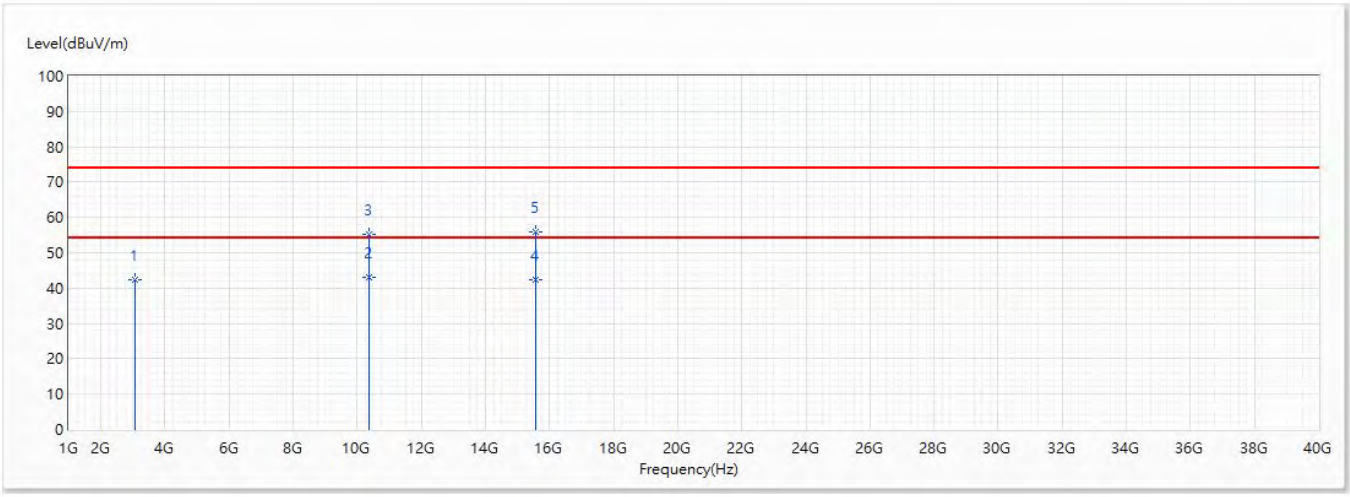


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	43.11	74.00	-30.89	48.00	-4.89	PK
2	10380	41.33	54.00	-12.67	24.41	16.92	AV
3	10380	55.83	74.00	-18.17	38.91	16.92	PK
* 4	15570	42.40	54.00	-11.60	23.49	18.91	AV
5	15570	56.06	74.00	-17.94	37.15	18.91	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5190MHz		

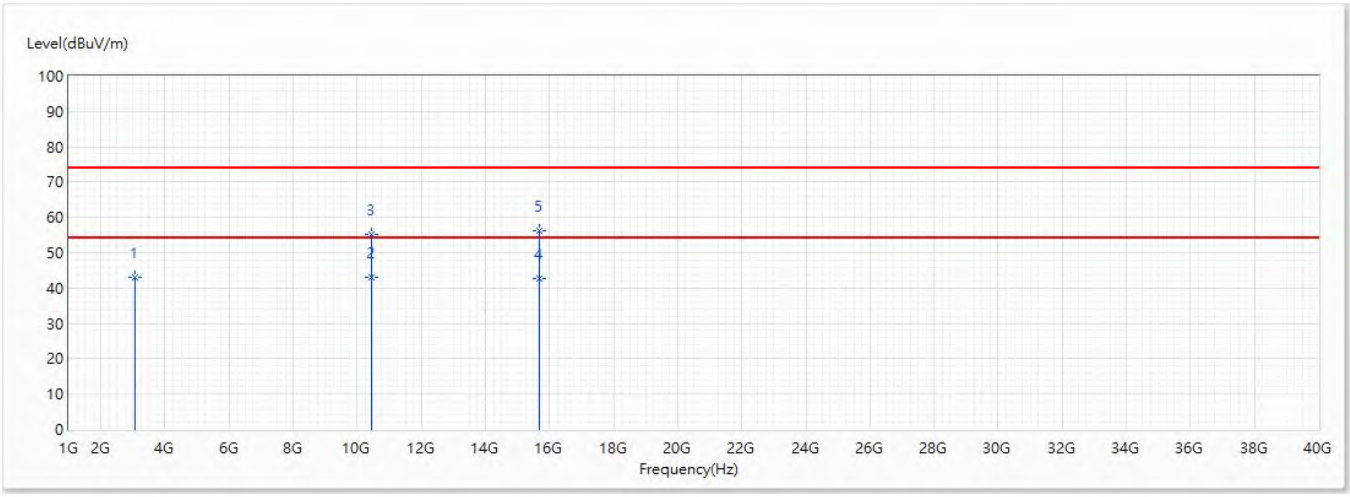


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	42.38	74.00	-31.62	47.27	-4.89	PK
* 2	10380	43.13	54.00	-10.87	26.21	16.92	AV
3	10380	55.24	74.00	-18.76	38.32	16.92	PK
4	15570	42.35	54.00	-11.65	23.44	18.91	AV
5	15570	55.78	74.00	-18.22	36.87	18.91	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5230MHz		

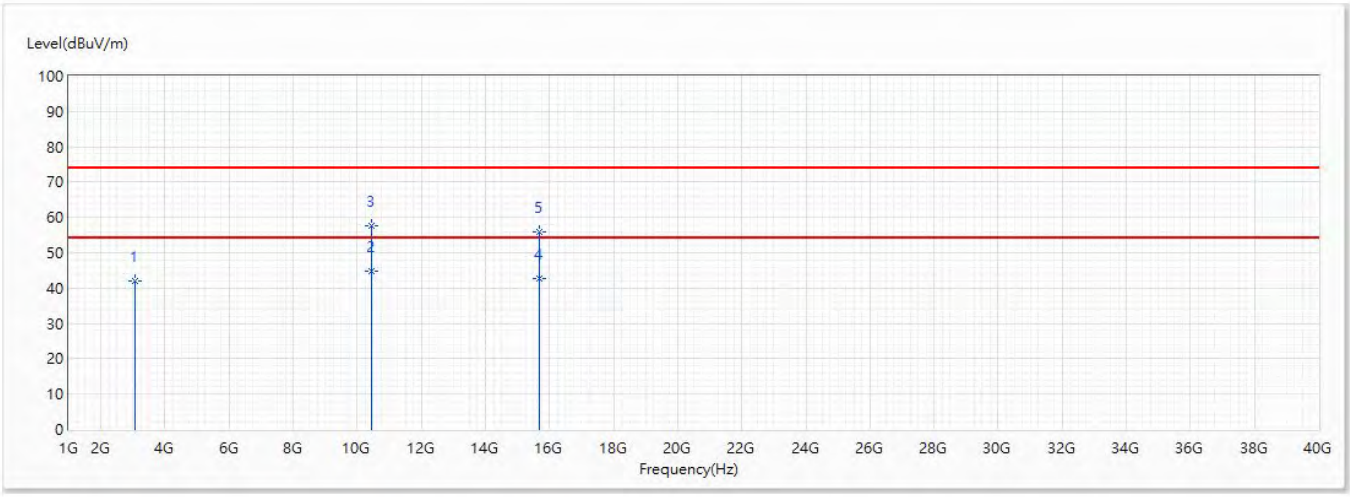


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	43.16	74.00	-30.84	48.05	-4.89	PK
* 2	10460	43.22	54.00	-10.78	26.11	17.11	AV
3	10460	55.36	74.00	-18.64	38.25	17.11	PK
4	15690	42.55	54.00	-11.45	24.36	18.19	AV
5	15690	56.15	74.00	-17.85	37.96	18.19	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5230MHz		

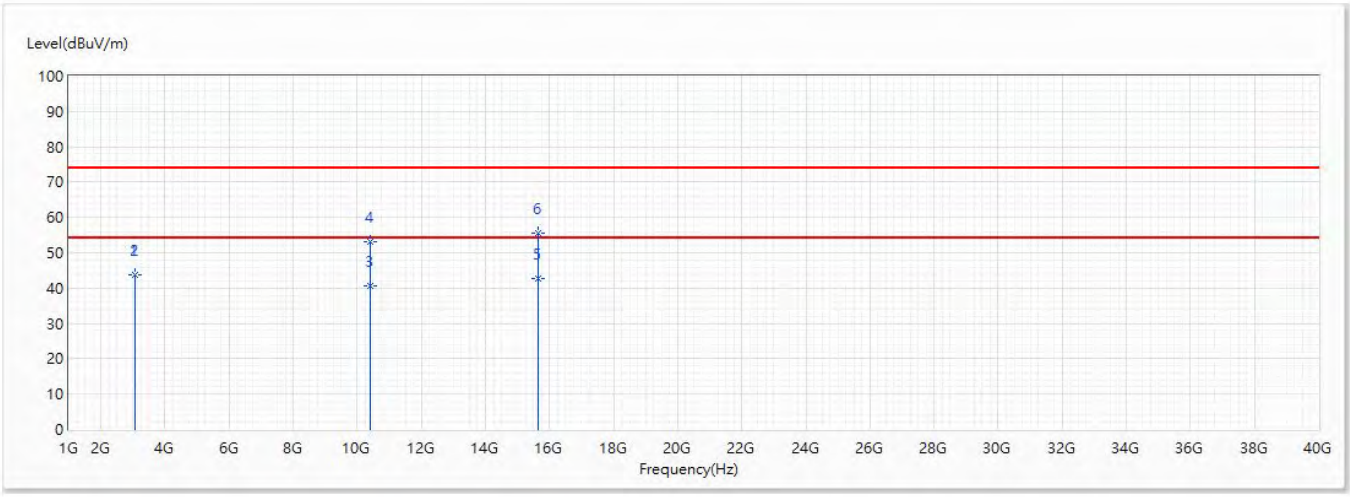


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	42.01	74.00	-31.99	46.90	-4.89	PK
* 2	10460	44.77	54.00	-9.23	27.66	17.11	AV
3	10460	57.53	74.00	-16.47	40.42	17.11	PK
4	15690	42.59	54.00	-11.41	24.40	18.19	AV
5	15690	55.77	74.00	-18.23	37.58	18.19	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(80M)_5210MHz		

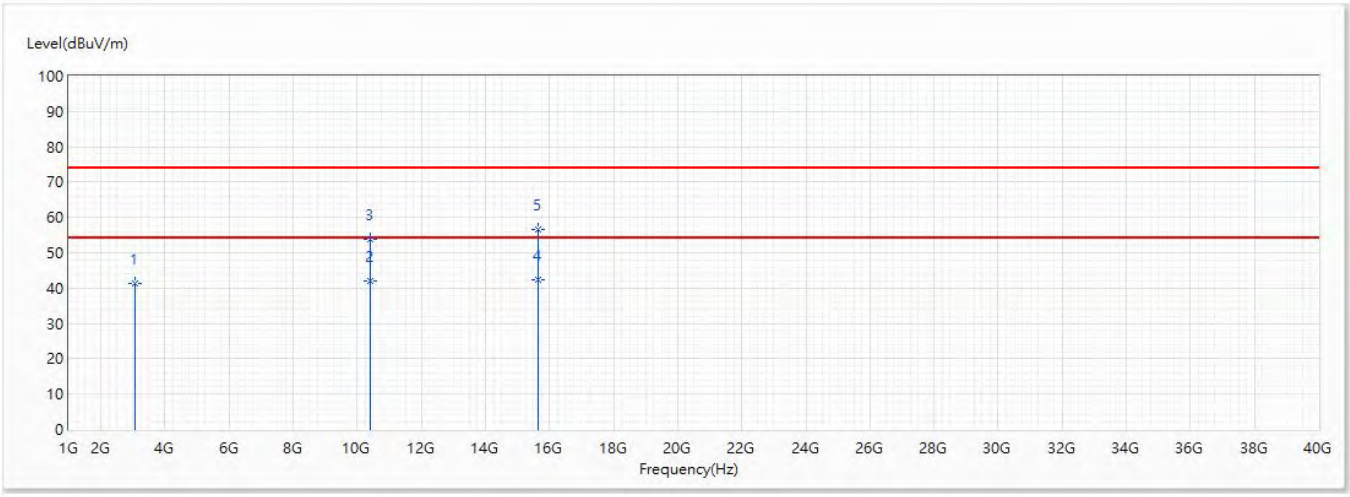


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	43.63	74.00	-30.37	48.52	-4.89	PK
2	3072	43.63	74.00	-30.37	48.52	-4.89	PK
3	10420	40.67	54.00	-13.33	23.63	17.04	AV
4	10420	53.06	74.00	-20.94	36.02	17.04	PK
* 5	15630	42.57	54.00	-11.43	23.90	18.67	AV
6	15630	55.62	74.00	-18.38	36.95	18.67	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. " * ", means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/9
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(80M)_5210MHz		

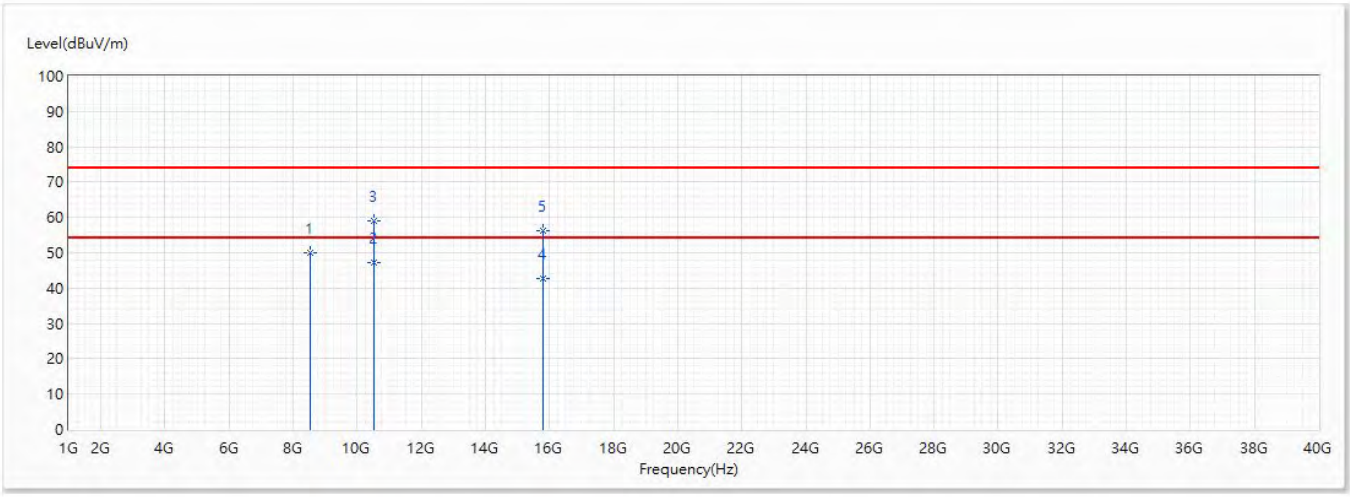


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	41.42	74.00	-32.58	46.31	-4.89	PK
2	10420	42.17	54.00	-11.83	25.13	17.04	AV
3	10420	53.89	74.00	-20.11	36.85	17.04	PK
* 4	15630	42.52	54.00	-11.48	23.85	18.67	AV
5	15630	56.53	74.00	-17.47	37.86	18.67	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/18
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5260MHz		

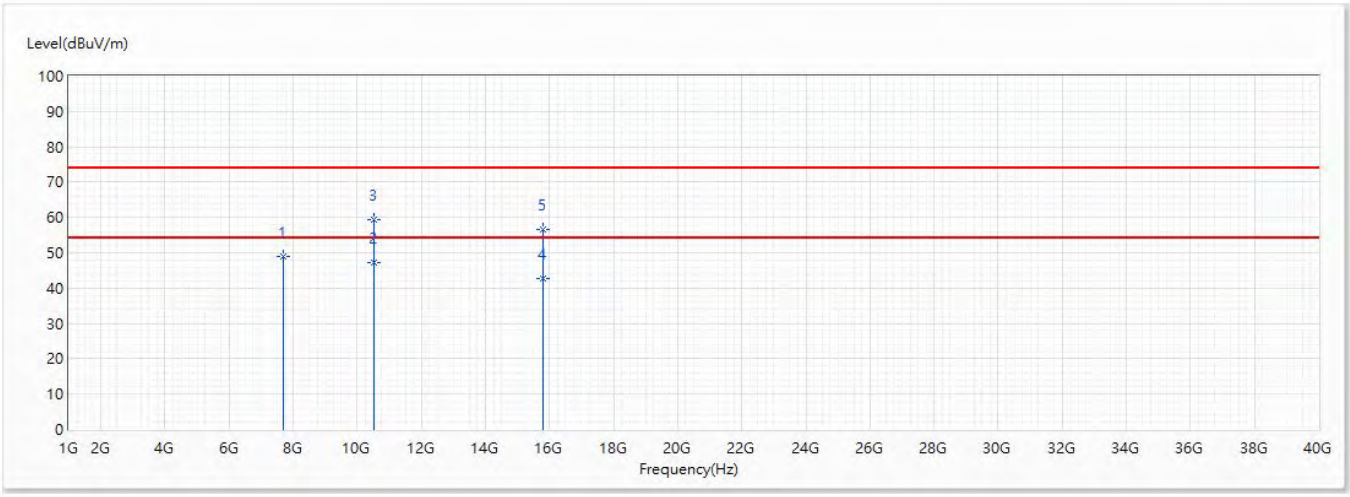


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	8534.9	49.94	74.00	-24.06	36.47	13.47	PK
* 2	10520	47.10	54.00	-6.90	29.62	17.48	AV
3	10520	59.17	74.00	-14.83	41.69	17.48	PK
4	15780	42.77	54.00	-11.23	24.67	18.10	AV
5	15780	56.13	74.00	-17.87	38.03	18.10	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5260MHz		

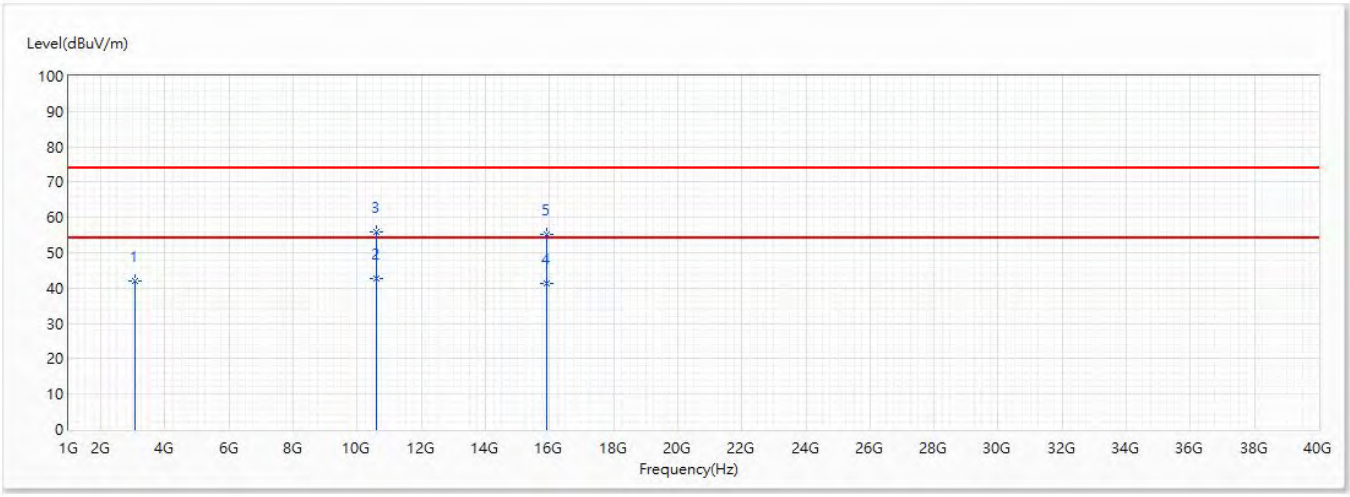


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	7705.8	48.80	74.00	-25.20	36.52	12.28	PK
* 2	10520	47.33	54.00	-6.67	29.85	17.48	AV
3	10520	59.21	74.00	-14.79	41.73	17.48	PK
4	15780	42.76	54.00	-11.24	24.66	18.10	AV
5	15780	56.69	74.00	-17.31	38.59	18.10	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5300MHz		

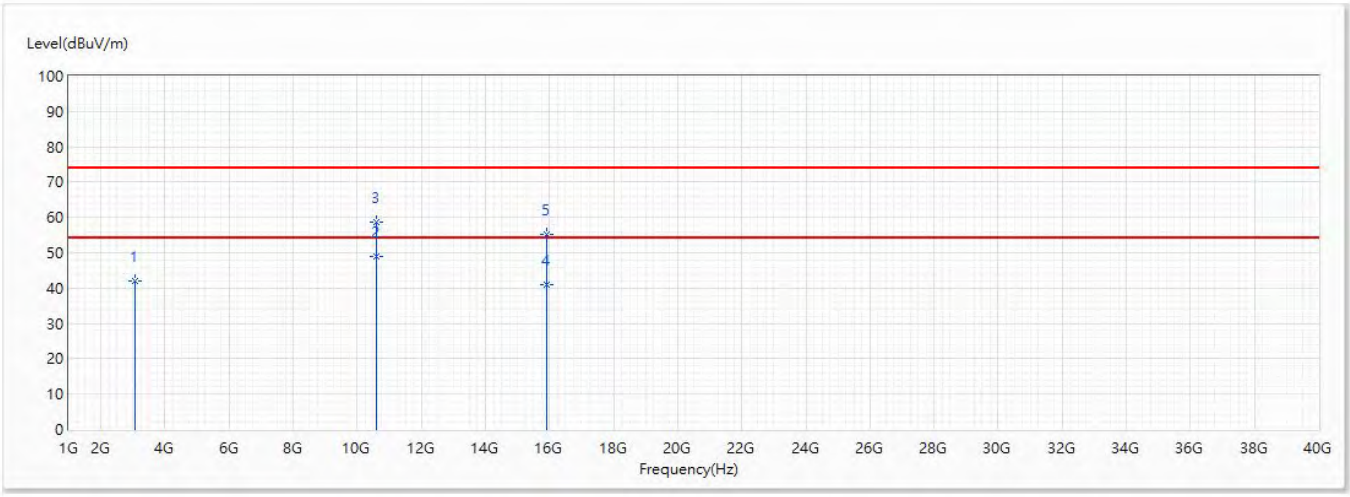


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072.6	42.09	74.00	-31.91	46.14	-4.05	PK
* 2	10600	42.70	54.00	-11.30	25.07	17.63	AV
3	10600	55.94	74.00	-18.06	38.31	17.63	PK
4	15900	41.18	54.00	-12.82	23.36	17.82	AV
5	15900	55.35	74.00	-18.65	37.53	17.82	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5300MHz		

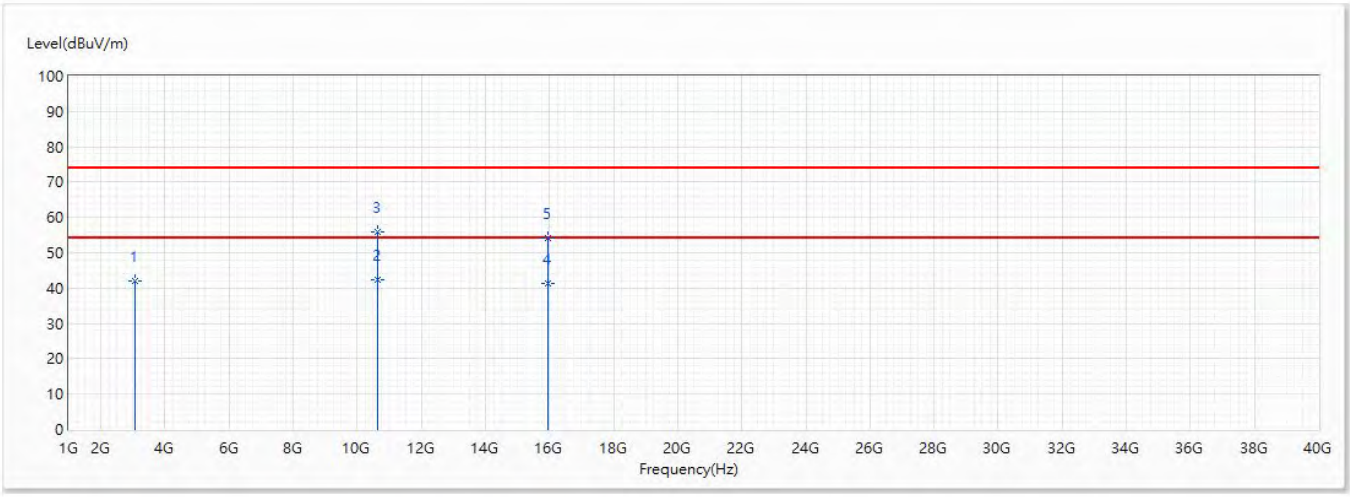


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072.6	41.85	74.00	-32.15	45.90	-4.05	PK
* 2	10600	48.95	54.00	-5.05	31.32	17.63	AV
3	10600	58.66	74.00	-15.34	41.03	17.63	PK
4	15900	41.01	54.00	-12.99	23.19	17.82	AV
5	15900	55.16	74.00	-18.84	37.34	17.82	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5320MHz		

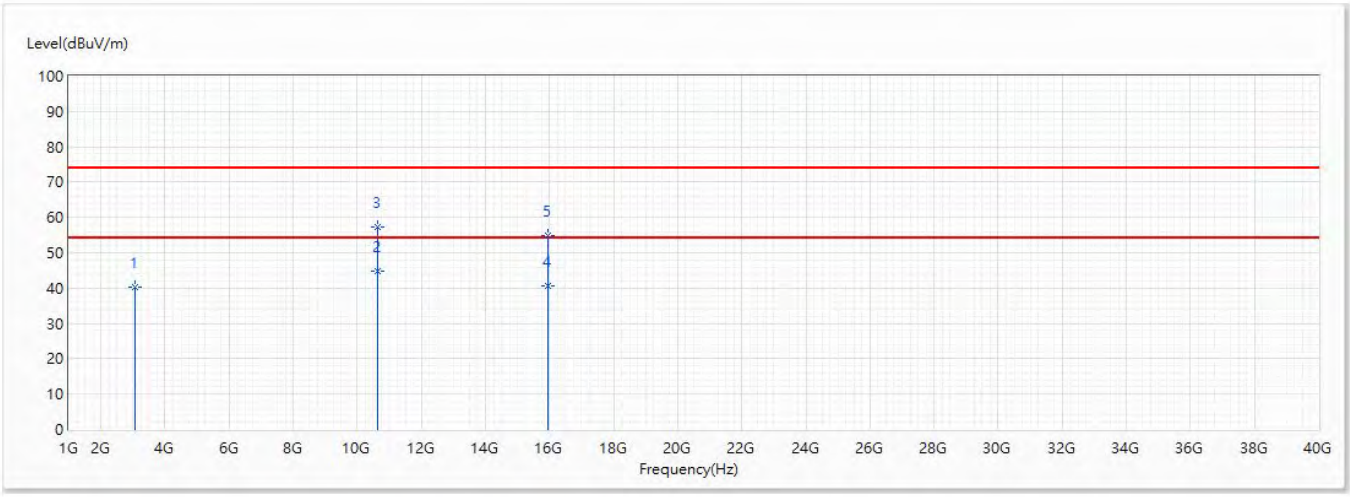


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	41.89	74.00	-32.11	45.94	-4.05	PK
* 2	10640	42.34	54.00	-11.66	24.64	17.70	AV
3	10640	55.84	74.00	-18.16	38.14	17.70	PK
4	15960	41.44	54.00	-12.56	23.75	17.69	AV
5	15960	54.33	74.00	-19.67	36.64	17.69	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11a_5320MHz		

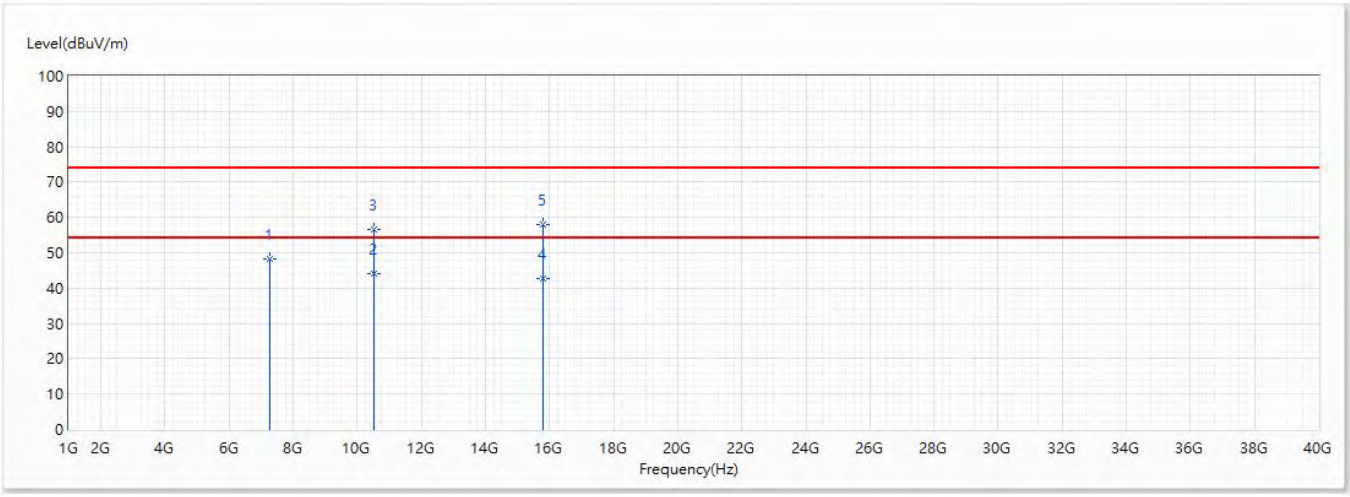


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	40.44	74.00	-33.56	44.49	-4.05	PK
* 2	10640	44.69	54.00	-9.31	26.99	17.70	AV
3	10640	57.27	74.00	-16.73	39.57	17.70	PK
4	15960	40.55	54.00	-13.45	22.86	17.69	AV
5	15960	54.70	74.00	-19.30	37.01	17.69	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5260MHz		

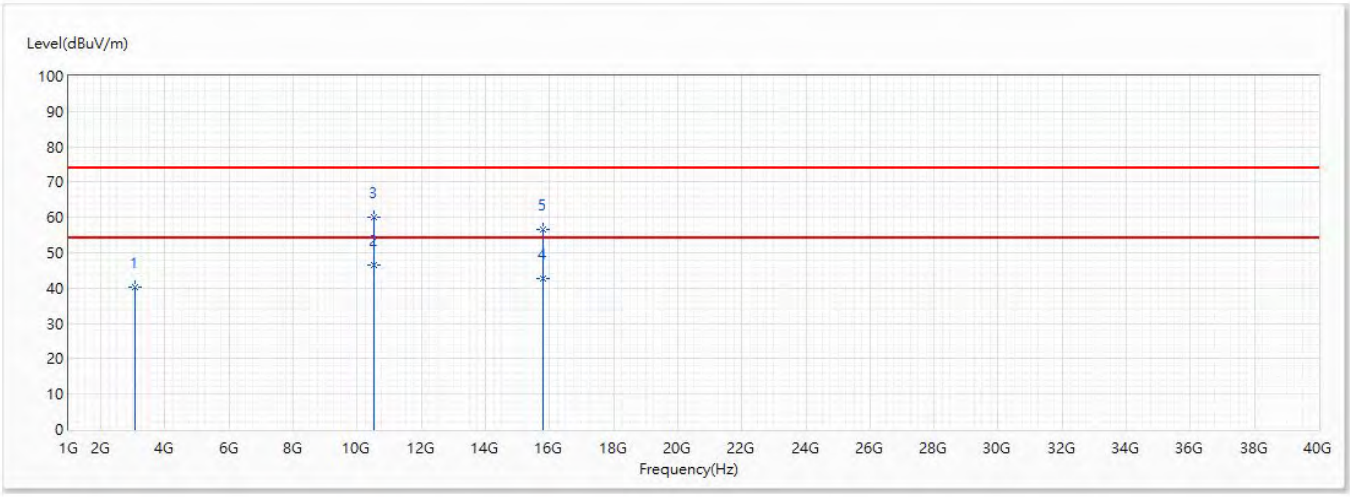


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	7271	48.33	74.00	-25.67	37.68	10.65	PK
* 2	10520	44.25	54.00	-9.75	26.77	17.48	AV
3	10520	56.53	74.00	-17.47	39.05	17.48	PK
4	15780	42.73	54.00	-11.27	24.63	18.10	AV
5	15780	57.85	74.00	-16.15	39.75	18.10	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5260MHz		

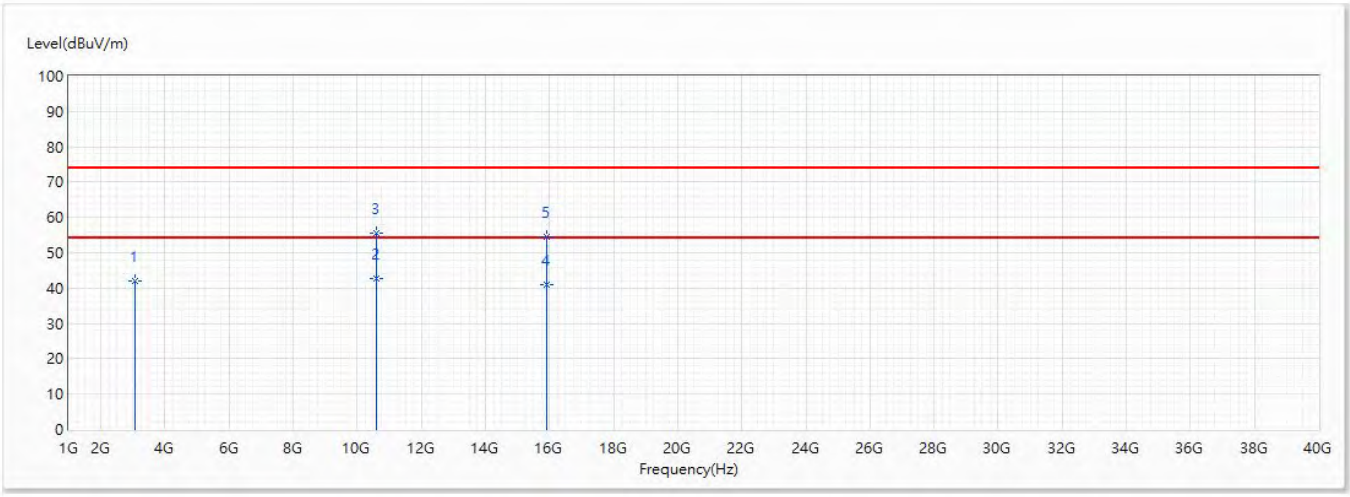


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072.6	40.11	74.00	-33.89	44.16	-4.05	PK
* 2	10520	46.67	54.00	-7.33	29.19	17.48	AV
3	10520	60.11	74.00	-13.89	42.63	17.48	PK
4	15780	42.77	54.00	-11.23	24.67	18.10	AV
5	15780	56.55	74.00	-17.45	38.45	18.10	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5300MHz		

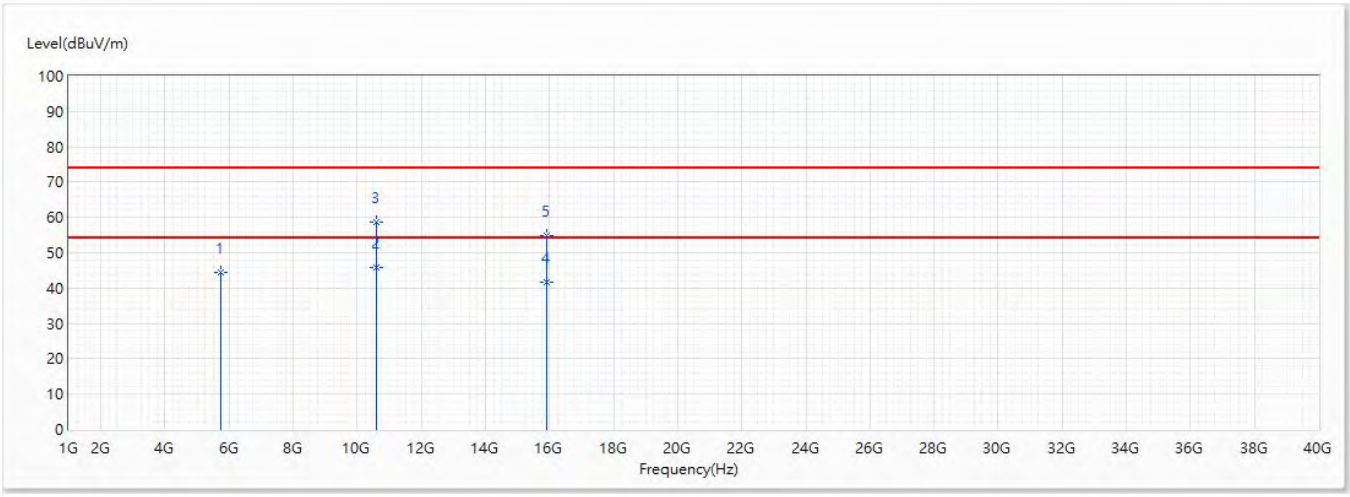


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	41.89	74.00	-32.11	45.94	-4.05	PK
* 2	10600	42.60	54.00	-11.40	24.97	17.63	AV
3	10600	55.65	74.00	-18.35	38.02	17.63	PK
4	15900	41.11	54.00	-12.89	23.29	17.82	AV
5	15900	54.67	74.00	-19.33	36.85	17.82	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5300MHz		

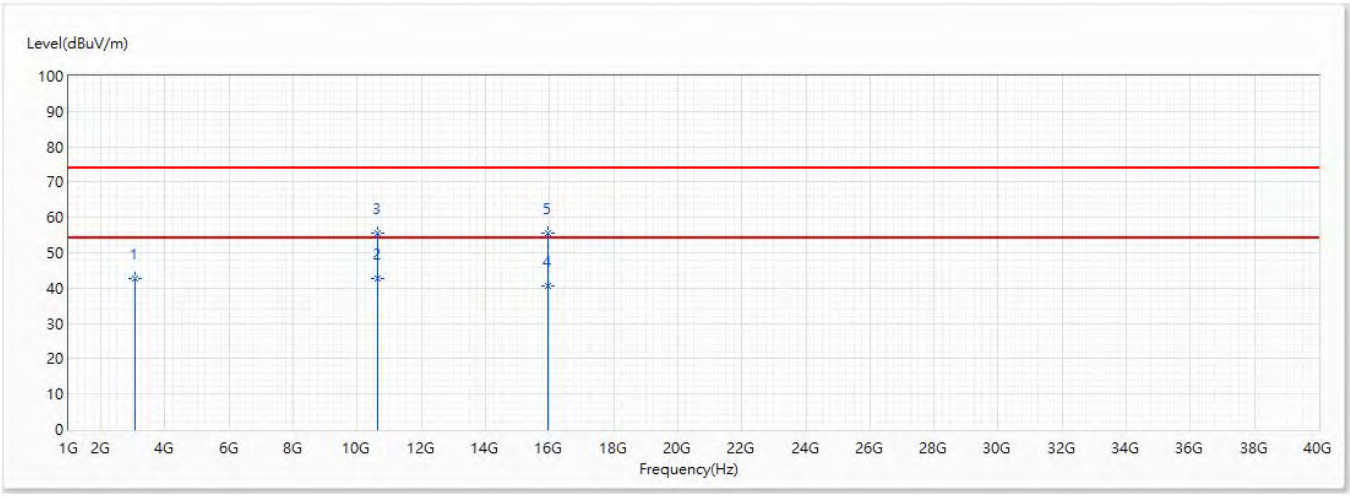


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	5753	44.28	74.00	-29.72	40.03	4.25	PK
* 2	10600	45.92	54.00	-8.08	28.29	17.63	AV
3	10600	58.57	74.00	-15.43	40.94	17.63	PK
4	15900	41.75	54.00	-12.25	23.93	17.82	AV
5	15900	54.80	74.00	-19.20	36.98	17.82	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5320MHz		

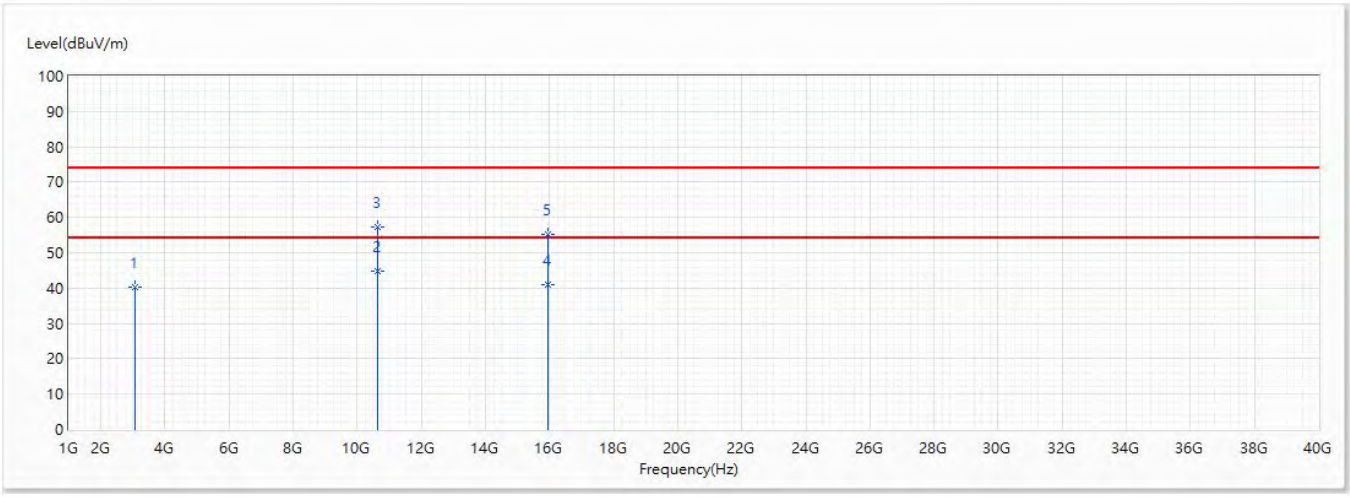


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	42.85	74.00	-31.15	46.90	-4.05	PK
* 2	10640	42.54	54.00	-11.46	24.84	17.70	AV
3	10640	55.50	74.00	-18.50	37.80	17.70	PK
4	15940	40.53	54.00	-13.47	22.80	17.73	AV
5	15940	55.50	74.00	-18.50	37.77	17.73	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(20M)_5320MHz		

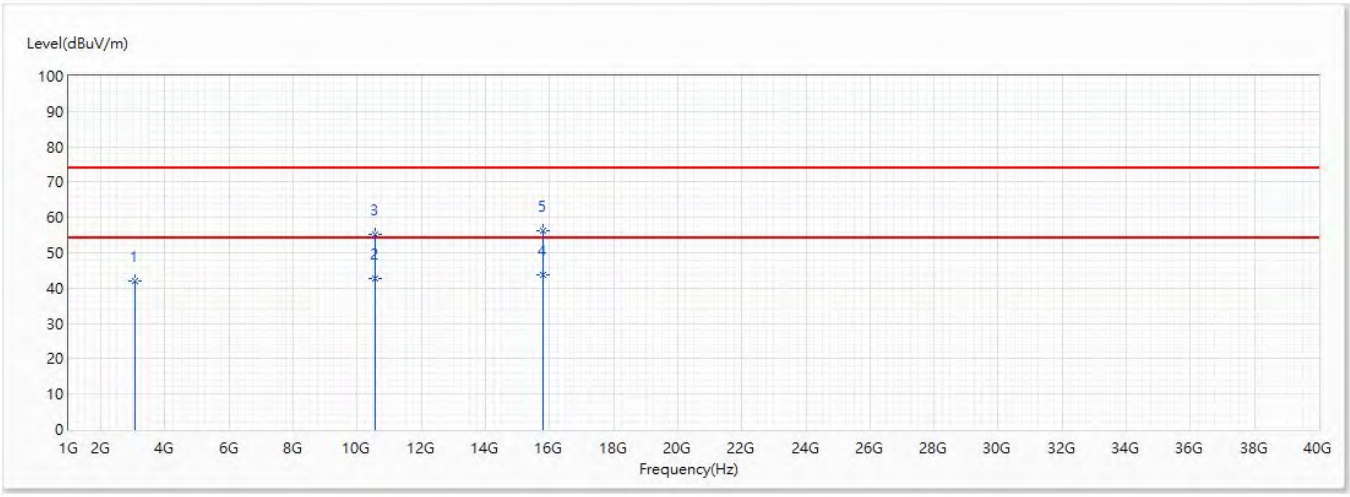


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3071.4	40.44	74.00	-33.56	44.49	-4.05	PK
* 2	10640	44.73	54.00	-9.27	27.03	17.70	AV
3	10640	57.25	74.00	-16.75	39.55	17.70	PK
4	15960	40.86	74.00	-33.14	23.17	17.69	PK
5	15960	55.15	74.00	-18.85	37.46	17.69	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5270MHz		

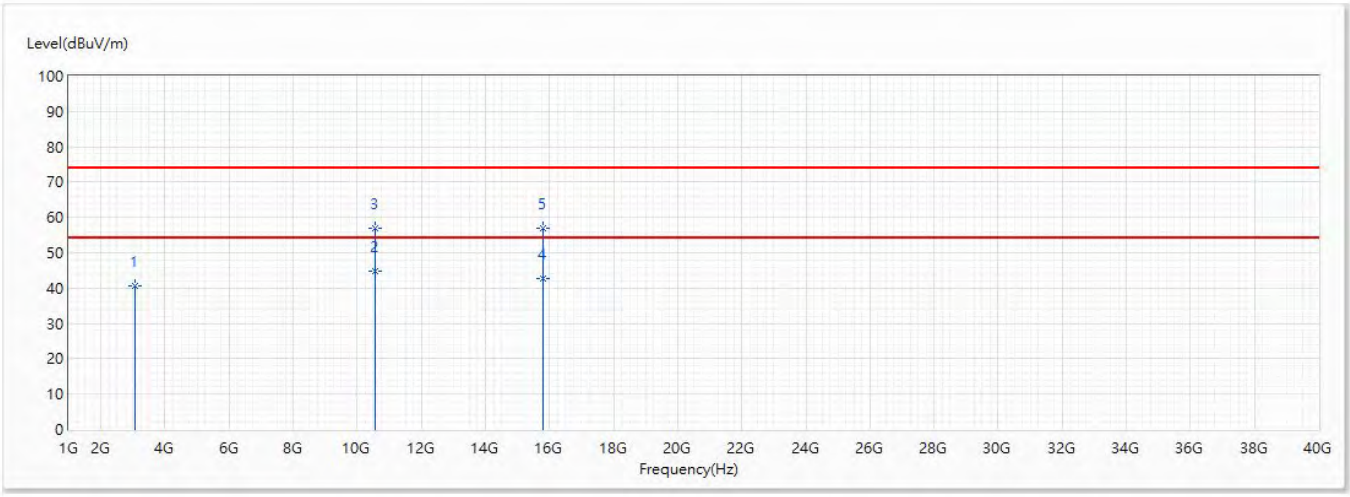


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	42.11	74.00	-31.89	46.16	-4.05	PK
* 2	10540	42.55	54.00	-11.45	25.04	17.51	AV
3	10540	55.19	74.00	-18.81	37.68	17.51	PK
4	15810	43.77	74.00	-30.23	25.74	18.03	PK
5	15810	56.20	74.00	-17.80	38.17	18.03	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5270MHz		

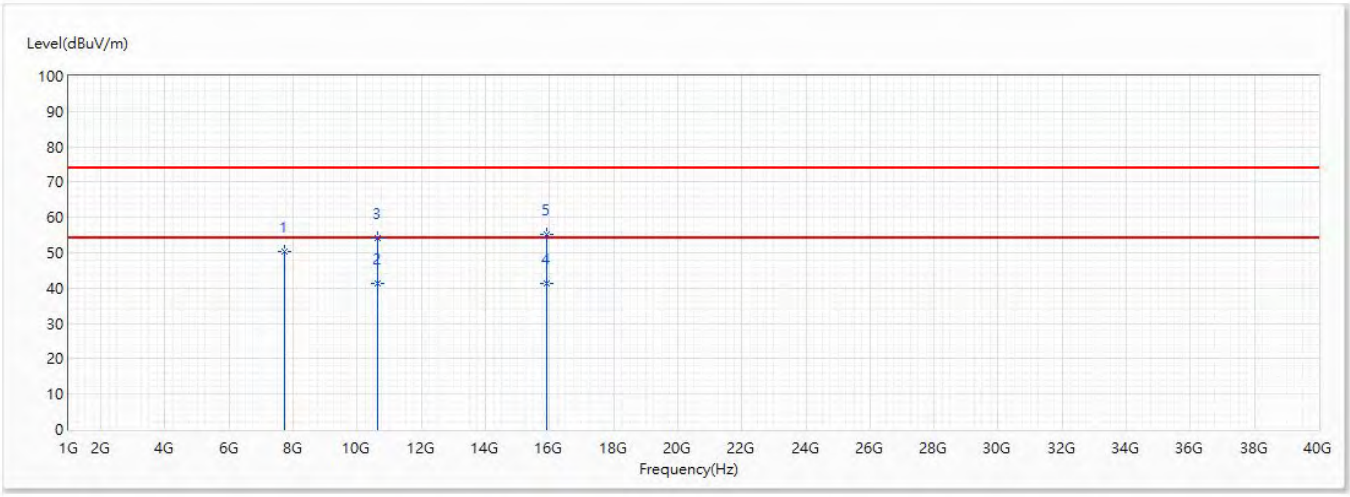


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3071	40.68	74.00	-33.32	44.73	-4.05	PK
* 2	10540	44.64	54.00	-9.36	27.13	17.51	AV
3	10540	56.79	74.00	-17.21	39.28	17.51	PK
4	15810	42.73	54.00	-11.27	24.70	18.03	AV
5	15810	56.78	74.00	-17.22	38.75	18.03	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Horizontal
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5310MHz		

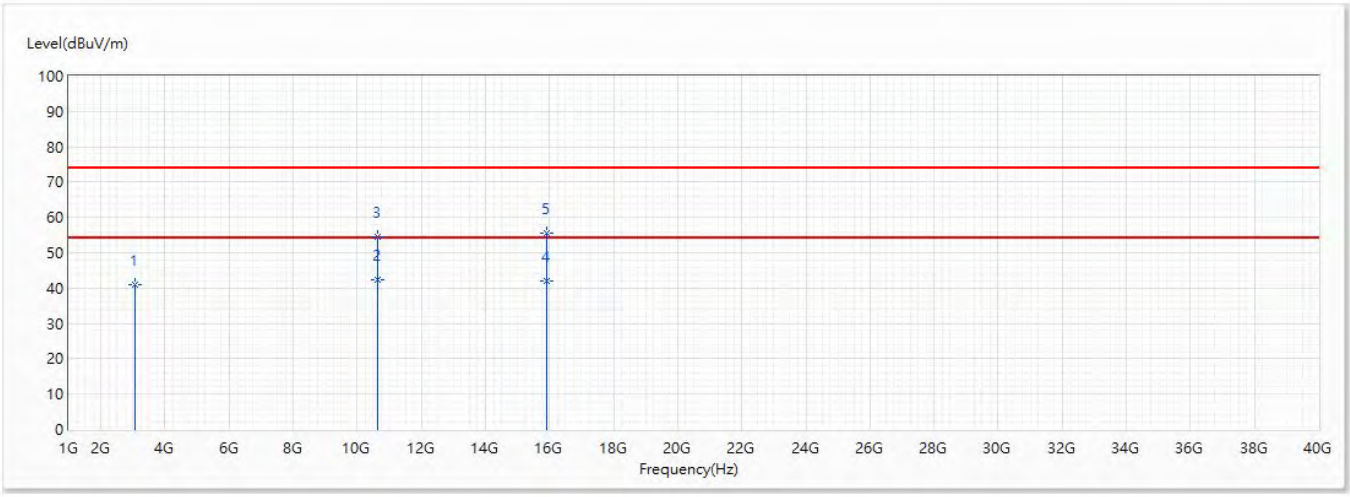


No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	7743	50.21	74.00	-23.79	37.85	12.36	PK
* 2	10620	41.35	54.00	-12.65	23.69	17.66	AV
3	10620	54.33	74.00	-19.67	36.67	17.66	PK
4	15930	41.38	74.00	-32.62	23.62	17.76	PK
5	15930	55.16	74.00	-18.84	37.40	17.76	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.

Site :	CB2-H	Engineer :	Scott
Model No :	CV90-JE103	Test Date :	2019/4/19
Test Voltage :	DC 12V	Polarity :	Vertical
Test Mode :	Mode 1: Transmit Mode		
Note :	802.11ac(40M)_5310MHz		



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	3072	41.09	74.00	-32.91	45.14	-4.05	PK
* 2	10620	42.52	54.00	-11.48	24.86	17.66	AV
3	10620	54.46	74.00	-19.54	36.80	17.66	PK
4	15930	41.94	74.00	-32.06	24.18	17.76	PK
5	15930	55.69	74.00	-18.31	37.93	17.76	PK

Note:

1. All reading above 1GHz is performed with peak and/or average measurements as necessary.
2. “ * ”, means this data is the worst value.
3. Emission Level = Reading Level + Correct Factor.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission above 18GHz were not included is because their levels are lower than 20dB from limit.