FCC Test Report

Product Name	Wireless Outdoor Router
Model No	BEC 4700A,BiPAC 4700A
FCC ID	QI3BEC-4700A

Applicant	Billion Electric Co., Ltd.
Address	8F., No.192, Sec. 2, Zhongxing Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)

Date of Receipt	Jul. 16, 2020
Issued Date	Nov. 06, 2020
Report No.	2070587R-E3032110125
Report Version	V1.0

Test Report

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Applicant	Billion Electric Co., Ltd.
Address	8F., No.192, Sec. 2, Zhongxing Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)
Manufacturer	Billion Electric Co., Ltd.
Model No.	BEC 4700A,BiPAC 4700A
FCC ID.	QI3BEC-4700A
EUT Rated Voltage	AC 100-240V, 50/60Hz
EUT Test Voltage	AC 120V / 60Hz
Trade Name	BEC, Billion
Applicable Standard	FCC CFR Title 47 Part 15 Subpart E ANSI C63.4: 2014, ANSI C63.10: 2013 KDB Publication 789033
Test Result	Complied

Documented By : Joanne Lin
(Senior Adm. Specialist / Joanne Lin)

Tested By : Ivan Chuang
(Senior Engineer / Ivan Chuang)

Approved By :
(Director / Vincent Lin)

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Revision History

Report No.	Version	Description	Issued Date
2070587R-E3032110125	V1.0	Initial issue of report.	2020-11-05

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Wireless Outdoor Router
Trade Name	BEC, Billion
Model No.	BEC 4700A,BiPAC 4700A
FCC ID.	QI3BEC-4700A
Frequency Range	802.11a/n/ac-20MHz: 5180-5240MHz, 5745-5825MHz 802.11n/ac-40MHz: 5190-5230MHz, 5755-5795MHz 802.11ac-80MHz: 5210MHz
Number of Channels	802.11a/n/ac-20MHz: 9, 802.11n/ac-40MHz: 4, 802.11ac-80MHz: 1
Data Rate	802.11a: 6 - 54Mbps 802.11n: up to 600Mbps 802.11ac-80MHz: up to 1733.3MHz
Type of Modulation	802.11a/n/ac: OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna Type	Omni Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto
Power Adapter	MFR: Billion, M/N: BP035-560063PAX Input: AC 100-240V~50/60Hz, 0.8A Output: 56V⎓0.625A Power Cord: Non-shielded, 1.8m

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Grand-Tek	OA-58-06-01-WI	Omni Antenna	6.0dBi for 5.150-5.250 GHz 6.0dBi for 5.725-5.850 GHz

Note: The antenna of EUT is conforming to FCC 15.203.

802.11a/n/ac-20MHz Center Working Frequency of Each Channel:

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

802.11n/ac-40MHz Center Working Frequency of Each Channel:

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

802.11ac-80MHz Center Working Frequency of Each Channel:

Channel	Frequency
Channel 42:	5210 MHz

Note:

1. This EUT is a Wireless Outdoor Router with a built-in 2.4GHz & 5GHz WLAN transceiver, this report for 5GHz WLAN.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report.
4. It's declared by manufacture about all models are electrically identical, different model names for marketing purpose. The identification of test sample is BEC 4700A.
5. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance of 802.11a/n/ac transmitter with Part 15 Subpart E for Unlicensed National Information Infrastructure devices.

Test Mode	Mode 1: Transmit (802.11a)
	Mode 2: Transmit (802.11n-20BW)
	Mode 3: Transmit (802.11n-40BW)
	Mode 4: Transmit (802.11ac-80BW)

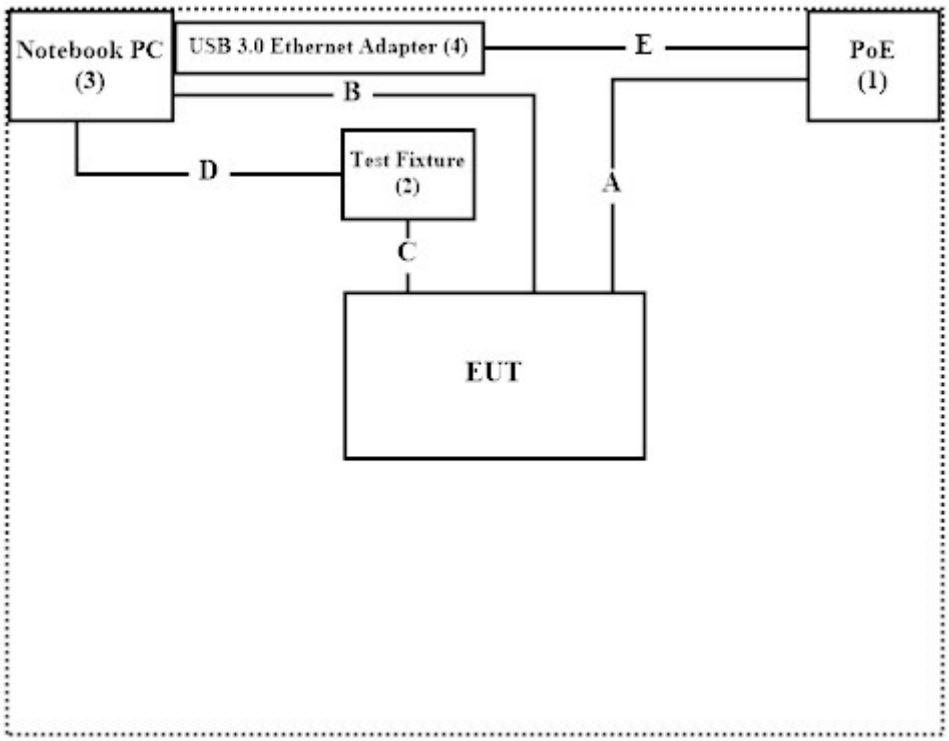
1.2. Tested System Datails

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

Product		Manufacturer	Model No.	Serial No.	Power Cord
1	PoE	Billion	BP035-560063PAX	N/A	N/A
2	Test Fixture	Billion	N/A	N/A	N/A
3	Notebook PC	DELL	Inspiron 15 3000	GT5JPJ2	N/A
4	USB 3.0 Ethernet Adapter	LGREEN	CR110	N/A	N/A

Signal Cable Type		Signal cable Description
A	LAN Cable	Non-shielded, 2m
B	LAN Cable	Non-shielded, 3m
C	Signal Cable	Non-shielded, 0.2m
D	USB to RS232 Cable	Non-shielded, 1m
E	LAN Cable	Non-shielded, 2m
F	Power Cable	Non-shielded, 1.8m

1.3. Configuration of tested System



1.4. EUT Exercise Software

1. Setup the EUT as shown in Section 1.3.
2. Execute software “Putty / 0.74” on the Notebook PC.
3. Configure the test mode, the test channel, and the data rate.
4. Press “OK” to start the continuous Transmit.
5. Verify that the EUT works properly.

1.5. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual
Conducted Emission	Temperature (°C)	10~40 °C	24.5°C
	Humidity (%RH)	10~90 %	62.3%
Radiated Emission	Temperature (°C)	10~40 °C	24.9°C
	Humidity (%RH)	10~90 %	57.6%
Conductive	Temperature (°C)	10~40 °C	22°C
	Humidity (%RH)	10~90 %	55%

USA : FCC Registration Number: TW0023

Canada : IC Registration Number: 25880

Site Description : Accredited by TAF
Accredited Number: 3023

Test Laboratory : DEKRA Testing and Certification Co., Ltd
Address : No.159, Sec. 2, Wenhua 1st Rd., Linkou Dist.,
New Taipei City 24457, Taiwan, R.O.C.
Phone number : 886-2-2602-7968
Fax number : 866-2-2602-3286
Email address : info.tw@dekra.com
Website : http://www.dekra.com.tw

1.6. List of Test Equipment

For Conduction measurements /ASR1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	EMI Test Receiver	R&S	ESR7	101601	2020.05.28	2021.05.27
X	Two-Line V-Network	R&S	ENV216	101306	2020.03.25	2021.03.24
X	Two-Line V-Network	R&S	ENV216	101307	2020.04.17	2021.04.16
X	Coaxial Cable	Quietek	RG400_BNC	RF001	2020.05.24	2021.05.23

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : DEKRA Testing System V1.2

For Conducted measurements /ASR4

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Spectrum Analyzer	R&S	FSV30	103464	2020.02.11	2021.02.10
X	Power Meter	Anritsu	ML2496A	1548003	2019.12.17	2020.12.16
X	Power Sensor	Anritsu	MA2411B	1531024	2019.12.17	2020.12.16
X	Power Sensor	Anritsu	MA2411B	1531025	2019.12.17	2020.12.16
	Bluetooth Tester	R&S	CBT	101238	2017.01.03	2018.01.02

Note:
1. All equipments are calibrated every one year.
2. The test instruments marked with "X" are used to measure the final test results.
3. Test Software version : DEKRA Conduction Test System V9.0.5

For Radiated measurements /ACB1

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Loop Antenna	TESEQ	HLA6121	37133	2020.03.16	2021.03.15
	Bi-Log Antenna	SCHWARZBECK	VULB9168	9168-674	2020.01.03	2021.01.02
X	Horn Antenna	ETS-Lindgren	3117	00203800	2019.12.12	2020.12.11
X	Horn Antenna	Com-Power	AH-840	101087	2020.06.08	2021.06.07
	Pre-Amplifier	EMCI	EMC001330	980316	2020.06.23	2021.06.22
	Pre-Amplifier	EMCI	EMC051835SE	980311	2020.06.23	2021.06.22
X	Pre-Amplifier	EMCI	EMC05820SE	980310	2020.06.24	2021.06.23
X	Pre-Amplifier	EMCI	EMC184045SE	980314	2020.06.10	2021.06.09
X	Filter	MICRO TRONICS	BRM50702	G251	2020.09.17	2021.09.16
	Filter	MICRO TRONICS	BRM50716	G188	2020.09.17	2021.09.16
X	EMI Test Receiver	R&S	ESR7	101602	2019.12.16	2020.12.15
X	Spectrum Analyzer	R&S	FSV40	101148	2020.03.16	2021.03.15
X	Coaxial Cable	SUHNER	SUCOFLEX 106	RF002	2020.07.03	2021.07.02
X	Mircoflex Cable	HUBER SUHNER	SUCOFLEX 102	MY3381/2	2020.06.10	2021.06.09

For Radiated measurements /Site5

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Data	Due. Data
X	Broadband Antenna	Schwarzbeck	VULB 9168	0851	2020/02/18	2021/02/17
X	EMI Test Receiver	R&S	ESR3	102186	2020/05/04	2021/05/03
X	Coaxial Cable	DEKRA	RG 214	LC005-RG	2020/06/14	2021/06/13
X	Pre-Amplifier	Jet-Power	JPA-10M1G33	170101000330012	2020/06/14	2021/06/13
X	Site5 NSA	DEKRA	N/A	N/A	2020/06/14	2021/06/13

Note:

1. Loop Antenna is calibrated every two year, the other equipments are calibrated every one year.
2. The test instruments marked with “X” are used to measure the final test results.
3. Test Software version : DEKRA Testing System V1.2

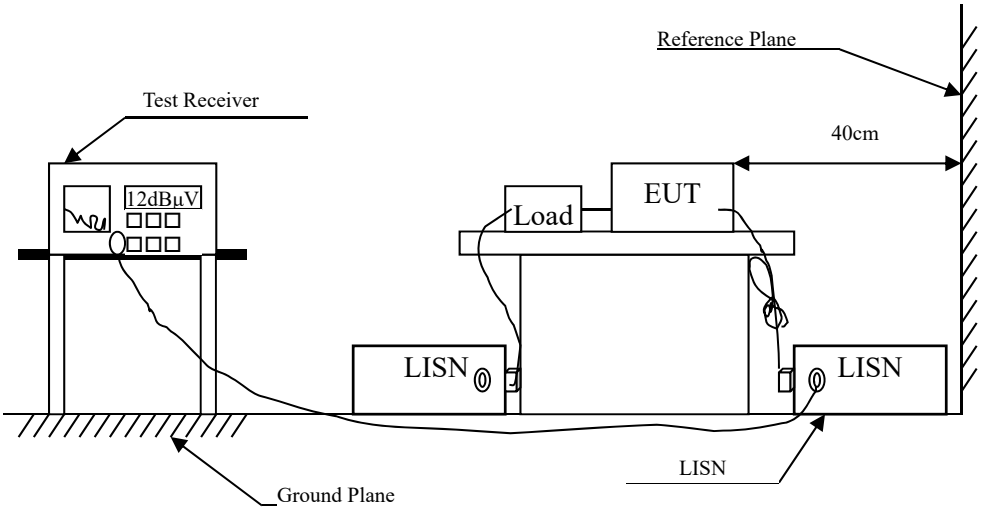
1.7. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document, and is described in each test chapter of this report.
The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.
Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Test item	Uncertainty	
Conducted Emission	±3.42 dB	
Maximum Conducted Power	Power Meter ±0.91 dB	
Radiated Emission	Under 1GHz ±4.06 dB	Above 1GHz ±3.73 dB
RF Antenna Conducted Test	±2.53 dB	
Band Edge	Under 1GHz ±4.06 dB	Above 1GHz ±3.73 dB
Occupied Bandwidth	±682.83 Hz	
Power Density	±2.53 dB	
Duty Cycle	±2.31 ms	

2. Conducted Emission

2.1. Test Setup



2.2. Limits

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

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

2.3. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.

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

2.4. Test Result of Conducted Emission

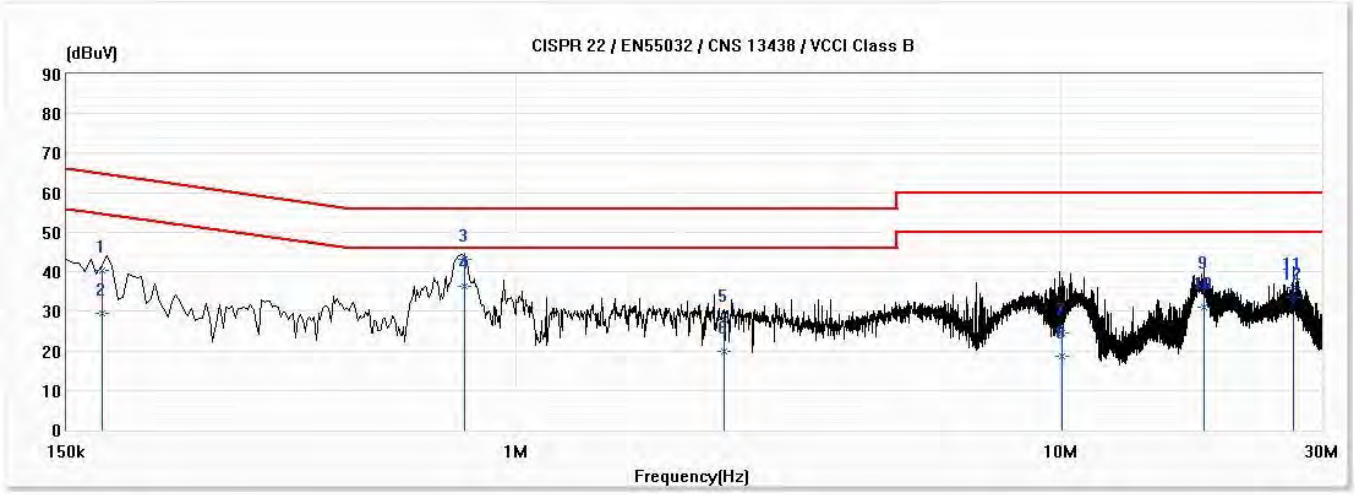
Product : Wireless Outdoor Router

Test Item : Conducted Emission Test

Power Line : L1

Test Mode : Mode 4: Transmit (802.11ac-80BW) (5210MHz)

Test Date : 2020/10/27

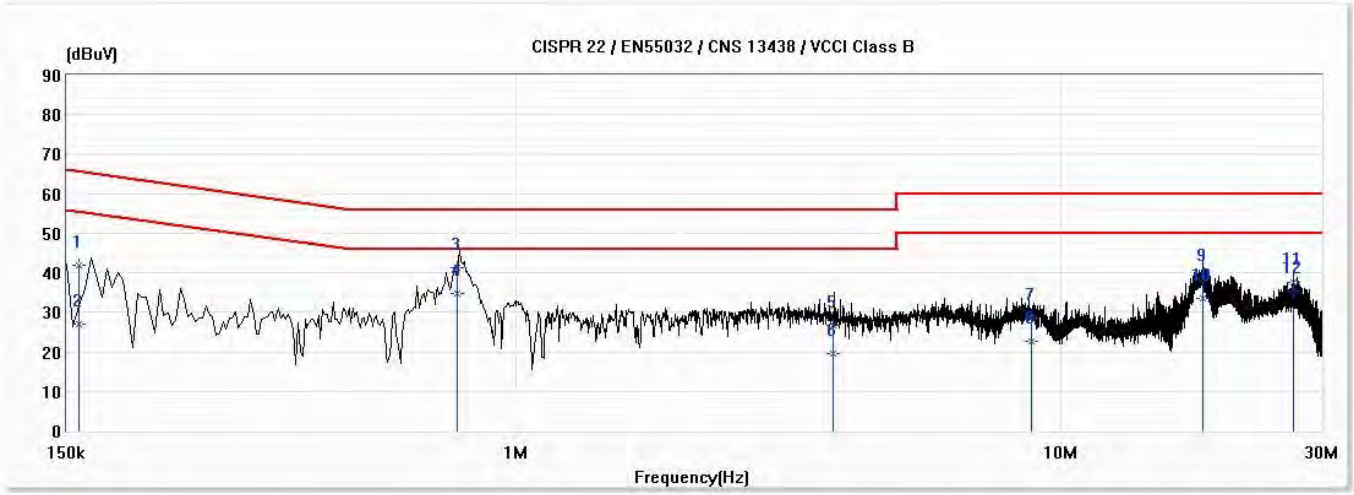


No	Frequency (MHz)	Emission Level (dBµV)	Limit (dBµV)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB)	Detector Type
1	0.174	40.36	64.76	-24.40	30.70	9.66	QP
2	0.174	29.50	54.76	-25.26	19.84	9.66	AV
3	0.806	43.12	56.00	-12.88	33.44	9.68	QP
*4	0.806	36.44	46.00	-9.56	26.76	9.68	AV
5	2.402	27.81	56.00	-28.19	18.08	9.73	QP
6	2.402	19.93	46.00	-26.07	10.20	9.73	AV
7	10.004	24.67	60.00	-35.33	14.78	9.89	QP
8	10.004	18.50	50.00	-31.50	8.61	9.89	AV
9	18.243	36.33	60.00	-23.67	26.36	9.96	QP
10	18.243	31.15	50.00	-18.85	21.19	9.96	AV
11	26.624	36.04	60.00	-23.96	26.08	9.96	QP
12	26.624	33.43	50.00	-16.57	23.48	9.96	AV

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "*" means the worst emission level.
3. Emission Level = Reading Level + Correct Factor

Product : Wireless Outdoor Router
Test Item : Conducted Emission Test
Power Line : N
Test Mode : Mode 4: Transmit (802.11ac-80BW) (5210MHz)
Test Date : 2020/10/27



No	Frequency (MHz)	Emission Level (dBµV)	Limit (dBµV)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB)	Detector Type
1	0.158	41.86	65.58	-23.72	32.19	9.67	QP
2	0.158	27.12	55.58	-28.47	17.45	9.67	AV
3	0.779	41.28	56.00	-14.72	31.60	9.68	QP
*4	0.779	34.68	46.00	-11.32	25.00	9.68	AV
5	3.823	26.84	56.00	-29.16	17.07	9.78	QP
6	3.823	19.50	46.00	-26.50	9.72	9.78	AV
7	8.796	28.52	60.00	-31.48	18.64	9.89	QP
8	8.796	22.63	50.00	-27.37	12.75	9.89	AV
9	18.200	38.53	60.00	-21.47	28.50	10.03	QP
10	18.200	33.44	50.00	-16.56	23.41	10.03	AV
11	26.624	37.59	60.00	-22.41	27.50	10.08	QP
12	26.624	35.24	50.00	-14.76	25.16	10.08	AV

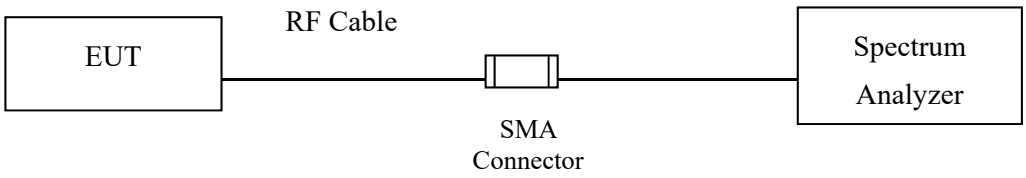
Note:

1. All Reading Levels are Quasi-Peak and average value.
2. "*" means the worst emission level.
3. Emission Level = Reading Level + Correct Factor

3. Maximun conducted output power

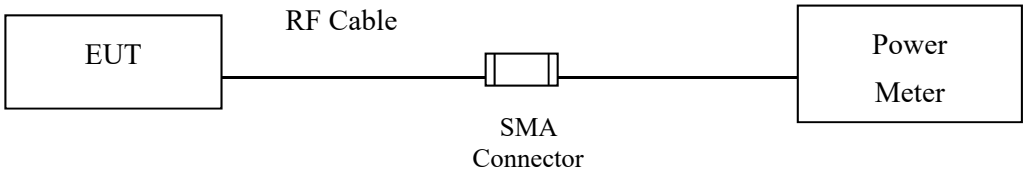
3.1. Test Setup

26dB Occupied Bandwidth

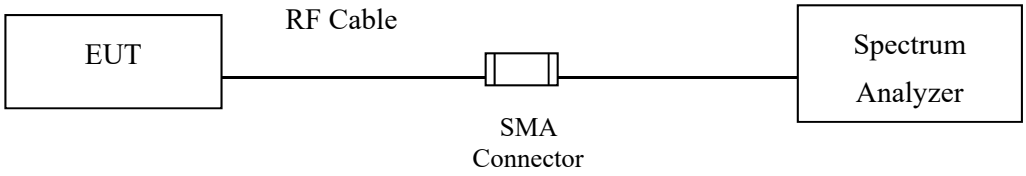


Conduction Power Measurement

Conduction Power Measurement (for 802.11an)



Conduction Power Measurement (for 802.11ac)



3.2. Limits

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. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power 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. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power 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. Fixed point-topoint U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power. 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 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 mobile and portable 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. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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 99% emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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

3.3. Test Procedure

As an alternative to FCC KDB-789033, the EUT maximum conducted output power was measured with an average power meter employing a video bandwidth greater the 6dB BW of the emission under test. Maximum conducted output power was read directly from the meter across all data rates, and across three channels within each sub-band. Special care was used to make sure that the EUT was transmitting in continuous mode. This method exceeds the limitations of FCC KDB-789033, and provides more accurate measurements.

802.11an (BW≦40MHz) Maximum conducted output power using KDB 789033 section E)3)b) Method PM-G (Measurement using a gated RF average power meter)
Note: the power meter have a video bandwidth that is greater than or equal to the measurement bandwidth, (Anritsu/ MA2411B video bandwidth: 65MHz)

802.11ac (BW=80MHz) Maximum conducted output power using KDB 789033 section E)2)b) Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep).

When transmitted signals consist of two or more non-contiguous spectrum segments (e.g., 80+80 MHz mode) or when a single spectrum segment of a transmission crosses the boundary between two adjacent U-NII bands, KDB 644545 D03 section D) procedure is used for measurements.

3.4. Test Result of Maximum conducted output power

Product : Wireless Outdoor Router
Test Item : Maximum conducted output power
Test Mode : Mode 1: Transmit (802.11a)
Test Date : 2020/10/14

Cable loss=1.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	For different Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
		Measurement Level (dBm)							
36	5180	14.78	--	--	--	--	--	--	--
44	5220	14.68	14.61	14.55	14.48	14.44	14.38	14.33	14.27
48	5240	14.85	--	--	--	--	--	--	--
149	5745	14.97	--	--	--	--	--	--	--
157	5785	14.84	14.80	14.73	14.67	14.63	14.57	14.50	14.45
165	5825	14.72	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on average power meter + cable loss

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Output Power Limit		Result
				(dBm)	dBm+10log(BW)	
36	5180	--	14.78	30	--	Pass
44	5220	--	14.68	30	--	Pass
48	5240	--	14.85	30	--	Pass
149	5745	--	14.97	30	--	Pass
157	5785	--	14.84	30	--	Pass
165	5825	--	14.72	30	--	Pass

Product : Wireless Outdoor Router
Test Item : Maximum conducted output power
Test Mode : Mode 2: Transmit (802.11n-20BW)
Test Date : 2020/10/14

Chain A

Cable loss=1.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	For different Data Rate (HT index)							
		HT24	HT25	HT26	HT27	HT28	HT29	HT30	HT31
		Measurement Level (dBm)							
36	5180	8.53	--	--	--	--	--	--	--
44	5220	8.49	8.46	8.40	8.33	8.29	8.24	8.21	8.16
48	5240	8.56	--	--	--	--	--	--	--
149	5745	8.57	--	--	--	--	--	--	--
157	5785	8.67	8.64	8.57	8.51	8.46	8.40	8.33	8.28
165	5825	8.51	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss.

Chain B

Cable loss=1.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	For different Data Rate (HT index)							
		HT24	HT25	HT26	HT27	HT28	HT29	HT30	HT31
		Measurement Level (dBm)							
36	5180	8.54	--	--	--	--	--	--	--
44	5220	8.49	8.45	8.39	8.32	8.27	8.24	8.17	8.13
48	5240	8.56	--	--	--	--	--	--	--
149	5745	8.71	--	--	--	--	--	--	--
157	5785	8.69	8.62	8.58	8.55	8.50	8.47	8.41	8.37
165	5825	8.52	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss.

Chain C

Cable loss=1.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	For different Data Rate (HT index)							
		HT24	HT25	HT26	HT27	HT28	HT29	HT30	HT31
		Measurement Level (dBm)							
36	5180	8.58	--	--	--	--	--	--	--
44	5220	8.57	8.52	8.48	8.45	8.39	8.34	8.27	8.22
48	5240	8.63	--	--	--	--	--	--	--
149	5745	8.81	--	--	--	--	--	--	--
157	5785	8.69	8.63	8.58	8.52	8.45	8.41	8.36	8.30
165	5825	8.81	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss.

Chain D

Cable loss=1.5dB		Maximum conducted output power							
Channel No.	Frequency (MHz)	For different Data Rate (HT index)							
		HT24	HT25	HT26	HT27	HT28	HT29	HT30	HT31
		Measurement Level (dBm)							
36	5180	8.59	--	--	--	--	--	--	--
44	5220	8.56	8.51	8.46	8.41	8.36	8.30	8.23	8.19
48	5240	8.61	--	--	--	--	--	--	--
149	5745	8.74	--	--	--	--	--	--	--
157	5785	8.69	8.64	8.59	8.53	8.49	8.42	8.36	8.30
165	5825	8.85	--	--	--	--	--	--	--

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss.

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain D Power (dBm)	Output Power (dBm)	Output Power Limit		Result
								(dBm)	dBm+10log(BW)	
36	5180	--	8.53	8.54	8.58	8.59	14.58	30	--	Pass
44	5220	--	8.49	8.49	8.57	8.56	14.55	30	--	Pass
48	5240	--	8.56	8.56	8.63	8.61	14.61	30	--	Pass
149	5745	--	8.57	8.71	8.81	8.74	14.73	30	--	Pass
157	5785	--	8.67	8.69	8.69	8.69	14.71	30	--	Pass
165	5825	--	8.51	8.52	8.81	8.85	14.70	30	--	Pass

Note: Output Power Value (dBm) = 10*LOG (Chain A(mW)+ Chain B(mW)+ Chain C(mW)+ Chain D(mW))

Product : Wireless Outdoor Router
Test Item : Maximum conducted output power
Test Mode : Mode 3: Transmit (802.11n-40BW)
Test Date : 2020/10/14

Chain A

Cable loss=1.5dB		Maximum conducted output power							
Channel No	Frequency (MHz)	For different Data Rate (HT index)							
		HT24	HT25	HT26	HT27	HT28	HT29	HT30	HT31
38	5190	8.54	--	--	--	--	--	--	--
46	5230	8.59	8.53	8.48	8.43	8.39	8.32	8.28	8.23
151	5755	8.64	--	--	--	--	--	--	--
159	5795	8.55	8.50	8.46	8.42	8.38	8.33	8.29	8.23

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Chain B

Cable loss=1.5dB		Maximum conducted output power							
Channel No	Frequency (MHz)	For different Data Rate (HT index)							
		HT24	HT25	HT26	HT27	HT28	HT29	HT30	HT31
38	5190	8.64	--	--	--	--	--	--	--
46	5230	8.63	8.58	8.55	8.49	8.43	8.40	8.35	8.31
151	5755	8.52	--	--	--	--	--	--	--
159	5795	8.58	8.55	8.48	8.44	8.41	8.34	8.30	8.25

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Chain C

Cable loss=1.5dB		Maximum conducted output power							
Channel No	Frequency (MHz)	For different Data Rate (HT index)							
		HT24	HT25	HT26	HT27	HT28	HT29	HT30	HT31
38	5190	8.53	--	--	--	--	--	--	--
46	5230	8.64	8.58	8.51	8.46	8.40	8.34	8.27	8.23
151	5755	8.61	--	--	--	--	--	--	--
159	5795	8.56	8.52	8.47	8.43	8.36	8.31	8.28	8.23

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Chain D

Cable loss=1.5dB		Maximum conducted output power							
Channel No	Frequency (MHz)	For different Data Rate (HT index)							
		HT24	HT25	HT26	HT27	HT28	HT29	HT30	HT31
38	5190	8.59	--	--	--	--	--	--	--
46	5230	8.53	8.49	8.43	8.38	8.32	8.26	8.21	8.17
151	5755	8.71	--	--	--	--	--	--	--
159	5795	8.65	8.62	8.55	8.51	8.47	8.44	8.39	8.32

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Maximum conducted output power Measurement:

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain D Power (dBm)	Output Power (dBm)	Output Power Limit		Result
								(dBm)	dBm+10log(BW)	
38	5190	--	8.54	8.64	8.53	8.59	14.60	30	--	Pass
46	5230	--	8.59	8.63	8.64	8.53	14.62	30	--	Pass
151	5755	--	8.64	8.52	8.61	8.71	14.64	30	--	Pass
159	5795	--	8.55	8.58	8.56	8.65	14.61	30	--	Pass

Note: Output Power Value (dBm) = 10*LOG (Chain A(mW)+ Chain B(mW)+ Chain C(mW)+ Chain D(mW))

Product : Wireless Outdoor Router
Test Item : Maximum conducted output power
Test Mode : Mode 4: Transmit (802.11ac-80BW)
Test Date : 2020/10/14

Chain A

Cable loss=1.5dB		Maximum conducted output power									
Channel No	Frequency (MHz)	For different Data Rate (VHT index)									
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9
42	5210	8.39	8.34	8.29	8.24	8.21	8.19	8.17	8.15	8.13	8.11

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Chain B

Cable loss=1.5dB		Maximum conducted output power									
Channel No	Frequency (MHz)	For different Data Rate (VHT index)									
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9
42	5210	8.42	8.38	8.36	8.31	8.26	8.21	8.16	8.11	8.07	8.01

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Chain C

Cable loss=1.5dB		Maximum conducted output power									
Channel No	Frequency (MHz)	For different Data Rate (VHT index)									
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9
42	5210	8.24	8.21	8.18	8.15	8.12	8.09	8.06	8.03	8.01	7.97

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

Chain D

Cable loss=1.5dB		Maximum conducted output power									
Channel No	Frequency (MHz)	For different Data Rate (VHT index)									
		VTH0	VTH1	VTH2	VTH3	VTH4	VTH5	VTH6	VTH7	VTH8	VTH9
42	5210	8.25	8.22	8.19	8.16	8.13	8.10	8.07	8.04	8.01	7.98

Note: Maximum conducted output power Value =Reading value on Spectrum Analyzer + cable loss

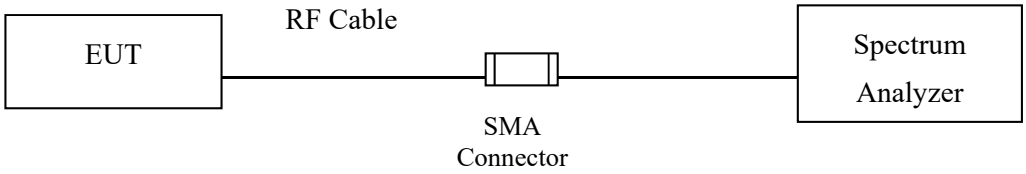
Maximum conducted output power Measurement

Channel No	Frequency Range (MHz)	26dB Bandwidth (MHz)	Chain A Power (dBm)	Chain B Power (dBm)	Chain C Power (dBm)	Chain D Power (dBm)	Output Power (dBm)	Output Power Limit		Result
								(dBm)	dBm+10log(BW)	
42	5210	--	8.390	8.420	8.240	8.250	14.35	30	--	Pass

Note: Output Power Value (dBm) = 10*LOG (Chain A(mW)+ Chain B(mW)+ Chain C(mW)+ Chain D(mW))

4. Peak Power Spectral Density

4.1. Test Setup



4.2. 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 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, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

☐ **(ii)** For an indoor access point operating in the band 5.15-5.25 GHz, 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, 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. Fixed point-topoint 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 mobile and portable 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, 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 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, 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 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, 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 UNII 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.

4.3. Test Procedure

The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

The Peak Power Spectral Density using KDB 789033 section F) procedure, Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer.

SA-1 method is selected to run the test.

For the band 5.725-5.85 GHz, Scale the observed power level to an equivalent value in 500 kHz by adjusting (increase) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log (500 kHz/100 kHz) = 6.98 dB.

4.4. Test Result of Peak Power Spectral Density

Product : Wireless Outdoor Router
Test Item : Peak Power Spectral Density
Test Mode : Mode 1: Transmit (802.11a)
Test Date : 2020/10/08

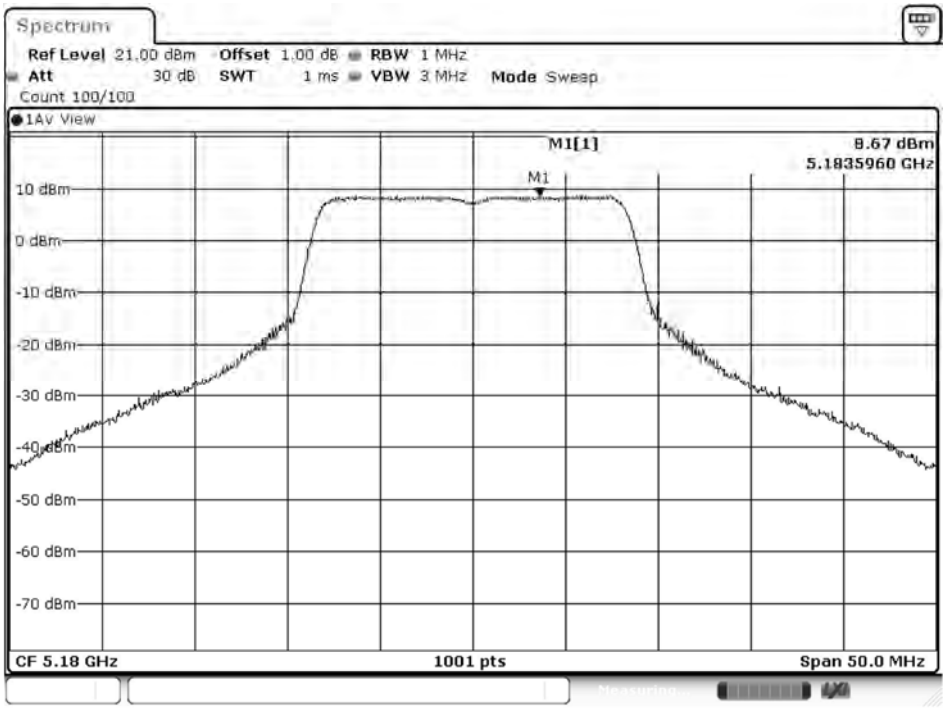
Channel Number	Frequency (MHz)	PPSD (dBm)	Duty Factor (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
36	5180	8.67	0.18	8.85	17	Pass
44	5220	8.65	0.18	8.83	17	Pass
48	5240	8.61	0.18	8.79	17	Pass

Note: The quantity 10*log 4 (four antennas) is added to the spectrum peak value according to document 662911 D01.

Channel Number	Frequency (MHz)	PPSD (dBm)	Duty Factor (dB)	BWCF (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	-4.44	0.18	6.98	2.54	30	Pass
157	5785	-5.51	0.18	6.98	1.47	30	Pass
165	5825	-6.44	0.18	6.98	0.54	30	Pass

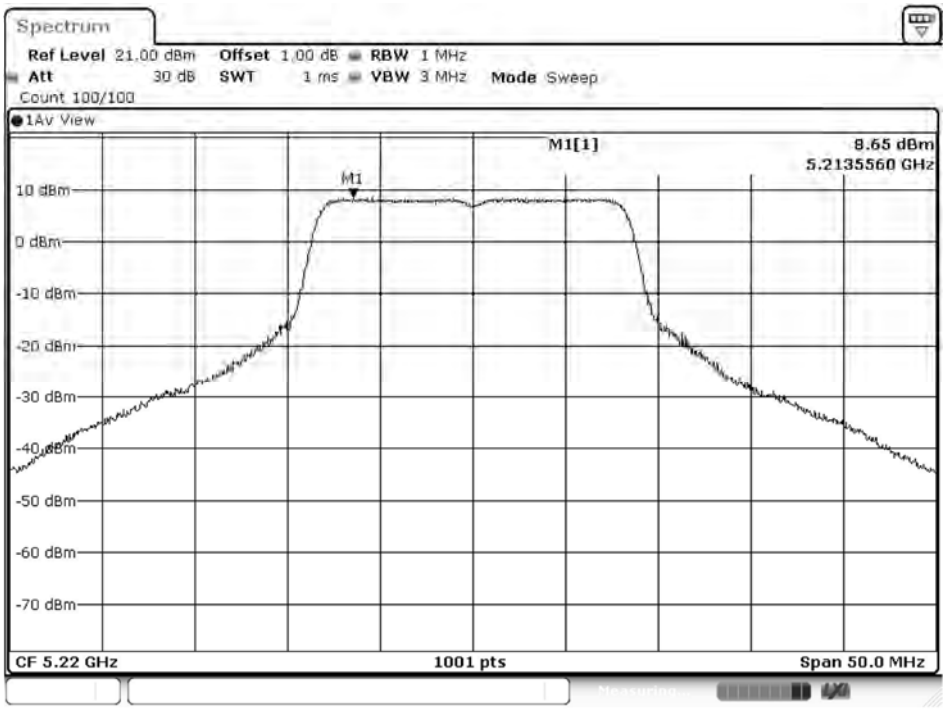
Note: The quantity 10*log 4 (four antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 36:



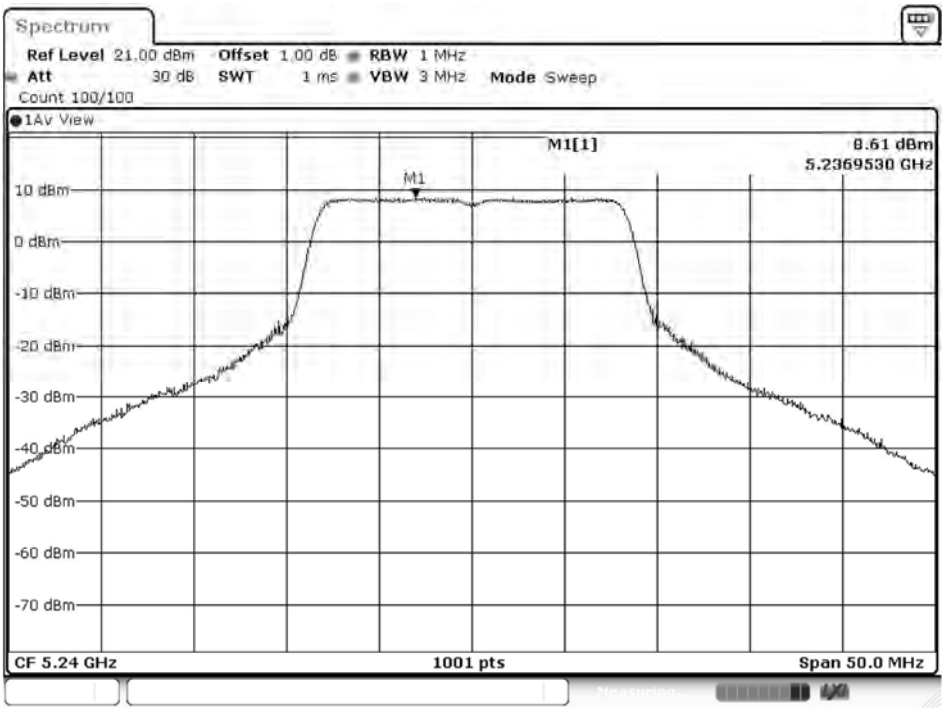
Date: 8.OCT.2020 04:13:55

Channel 44:



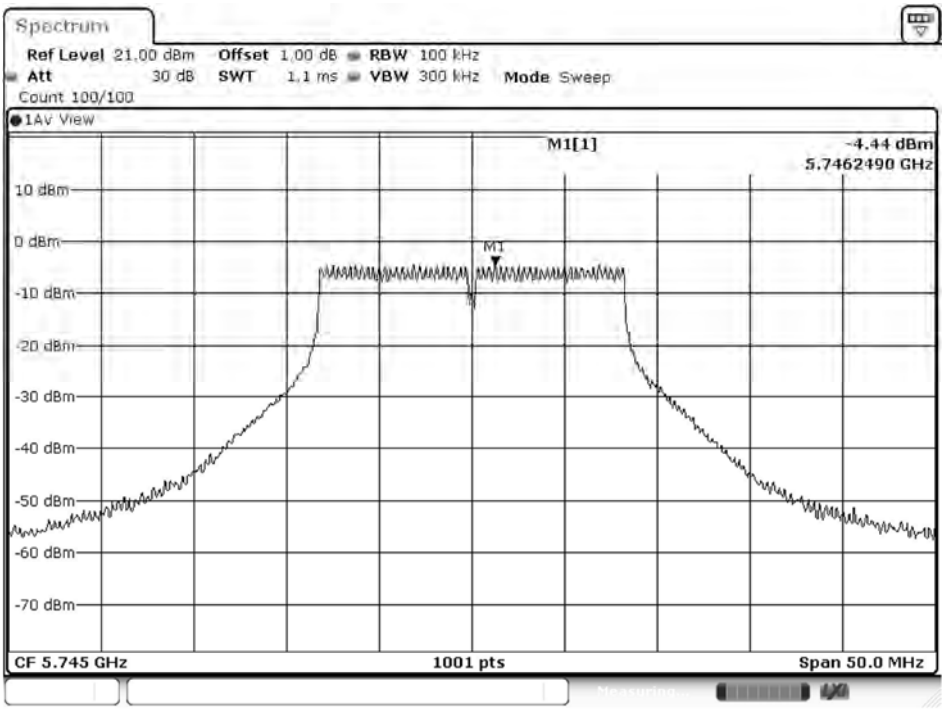
Date: 8.OCT.2020 04:57:14

Channel 48:



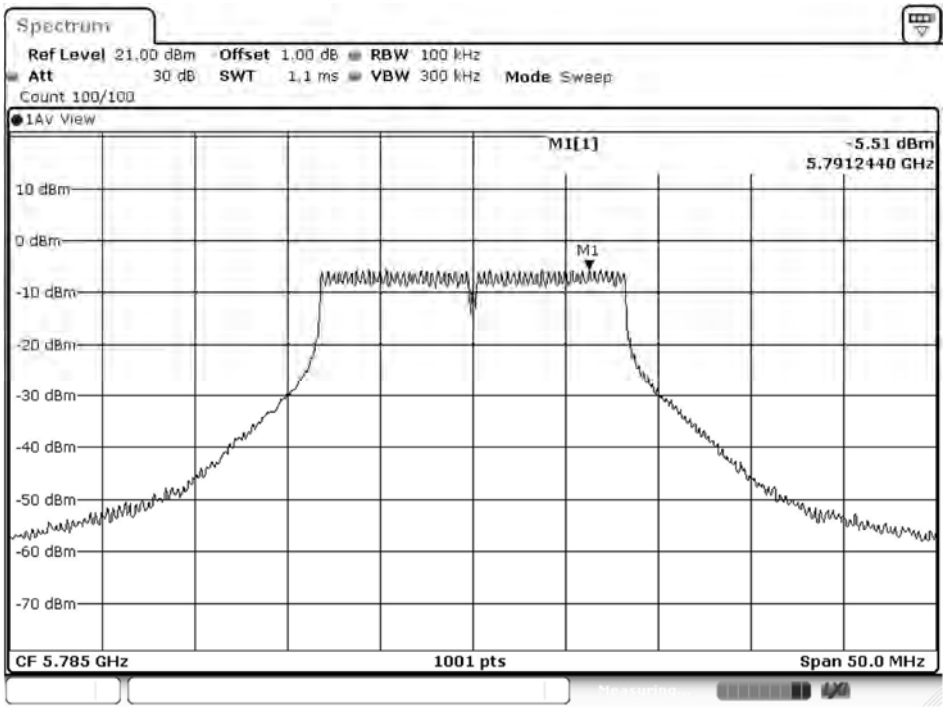
Date: 8.OCT.2020 04:58:35

Channel 149:



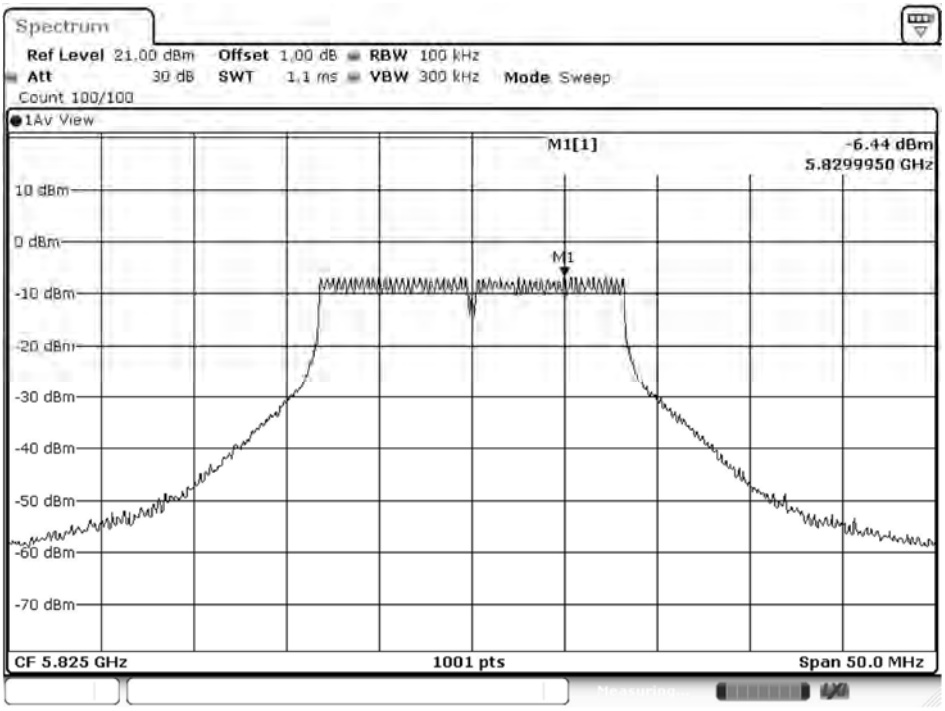
Date: 8.OCT.2020 05:07:51

Channel 157:



Date: 8.OCT.2020 05:09:17

Channel 165:



Date: 8.OCT.2020 05:10:55

Product : Wireless Outdoor Router
Test Item : Peak Power Spectral Density
Test Mode : Mode 2: Transmit (802.11n-20BW)
Test Date : 2020/10/08

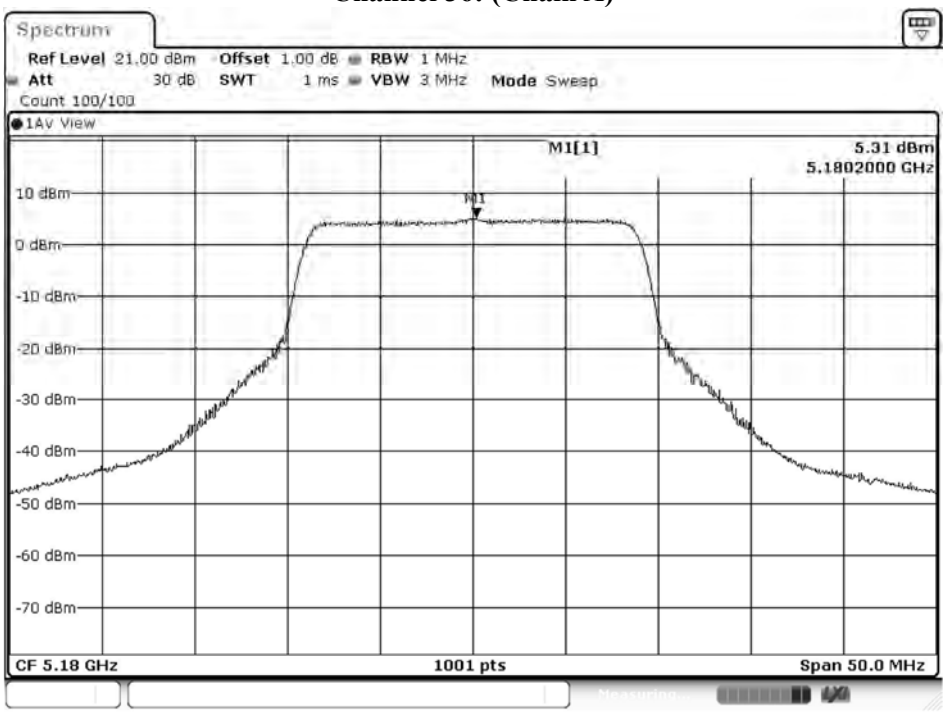
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Duty Factor (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
36	5180	A	5.31	0.03	11.36	17	Pass
		B	4.95	0.03	11.00		Pass
		C	4.86	0.03	10.91		Pass
		D	3.63	0.03	9.68		Pass
44	5220	A	5.52	0.03	11.57	17	Pass
		B	4.78	0.03	10.83		Pass
		C	4.53	0.03	10.58		Pass
		D	3.58	0.03	9.63		Pass
48	5240	A	6.02	0.03	12.07	17	Pass
		B	4.71	0.03	10.76		Pass
		C	4.66	0.03	10.71		Pass
		D	3.24	0.03	9.29		Pass

Note: The quantity 10*log 4 (four antennas) is added to the spectrum peak value according to document 662911 D01.

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Duty Factor (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
149	5745	A	-3.55	6.98	0.03	9.48	30	Pass
		B	-8.54	6.98	0.03	4.49		Pass
		C	-8.13	6.98	0.03	4.90		Pass
		D	-8.69	6.98	0.03	4.34		Pass
157	5785	A	-4.67	6.98	0.03	8.36	30	Pass
		B	-8.81	6.98	0.03	4.22		Pass
		C	-8.39	6.98	0.03	4.64		Pass
		D	-9.04	6.98	0.03	3.99		Pass
165	5825	A	-4.86	6.98	0.03	8.17	30	Pass
		B	-8.50	6.98	0.03	4.53		Pass
		C	-8.69	6.98	0.03	4.34		Pass
		D	-8.92	6.98	0.03	4.11		Pass

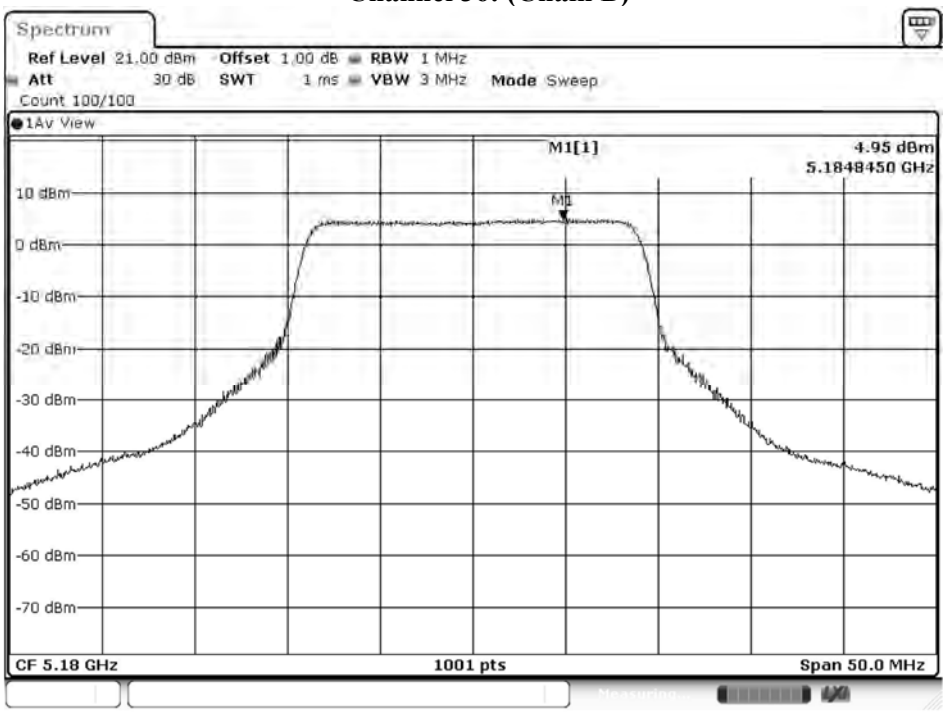
Note: The quantity 10*log 4 (four antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 36: (Chain A)



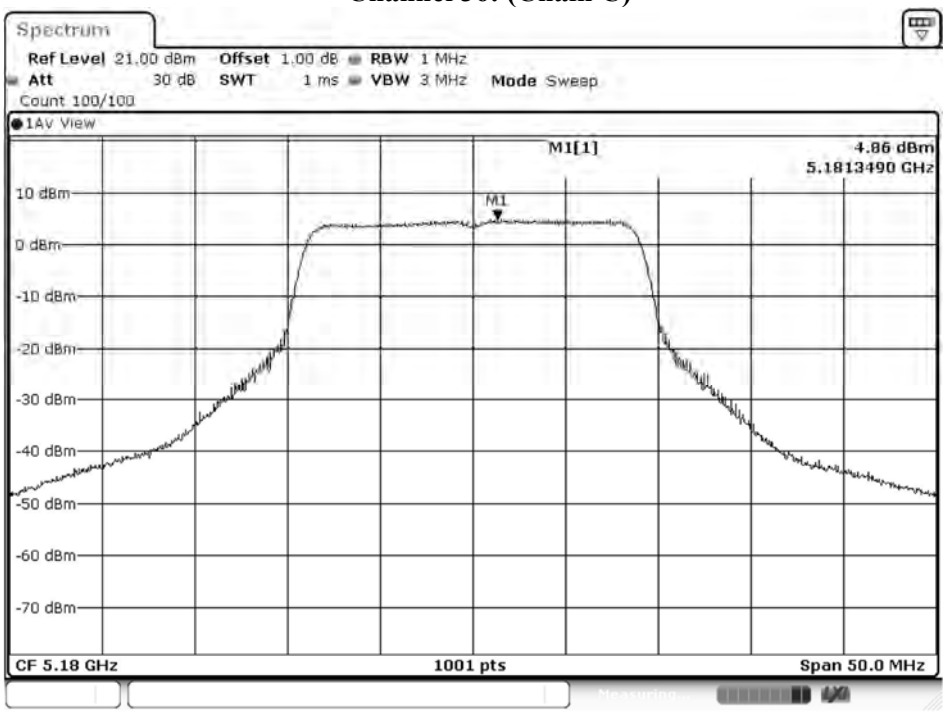
Date: 8.OCT.2020 08:42:29

Channel 36: (Chain B)



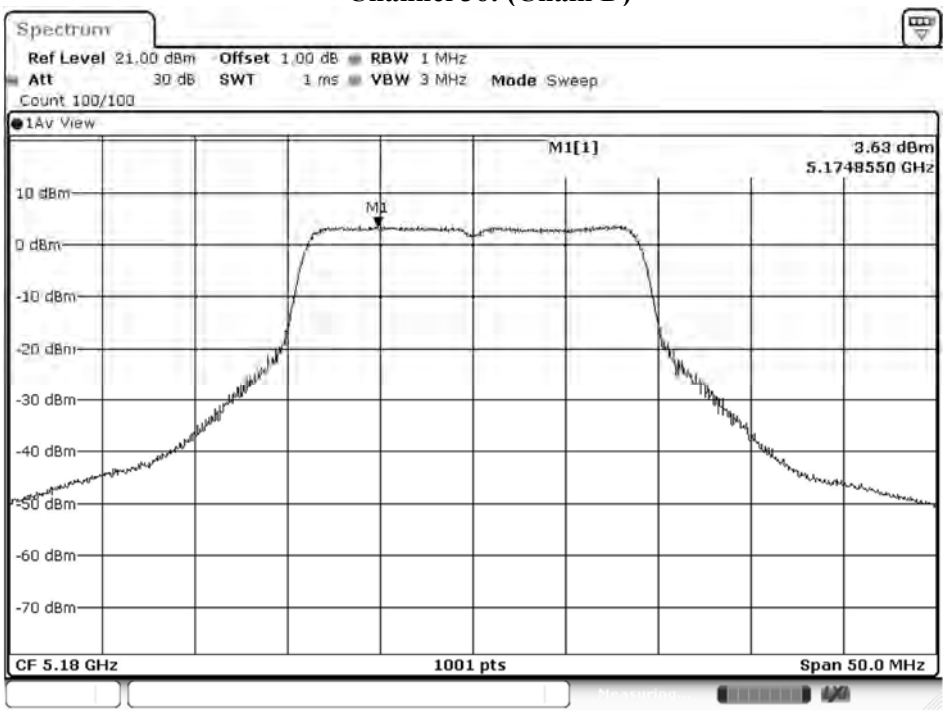
Date: 8.OCT.2020 05:23:42

Channel 36: (Chain C)



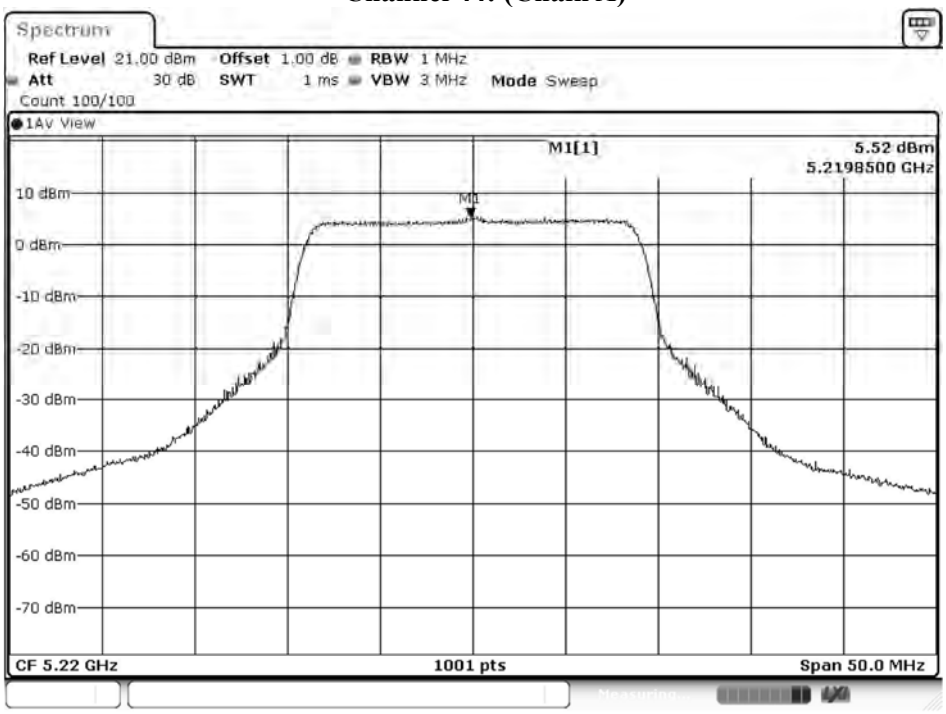
Date: 8.OCT.2020 09:45:23

Channel 36: (Chain D)



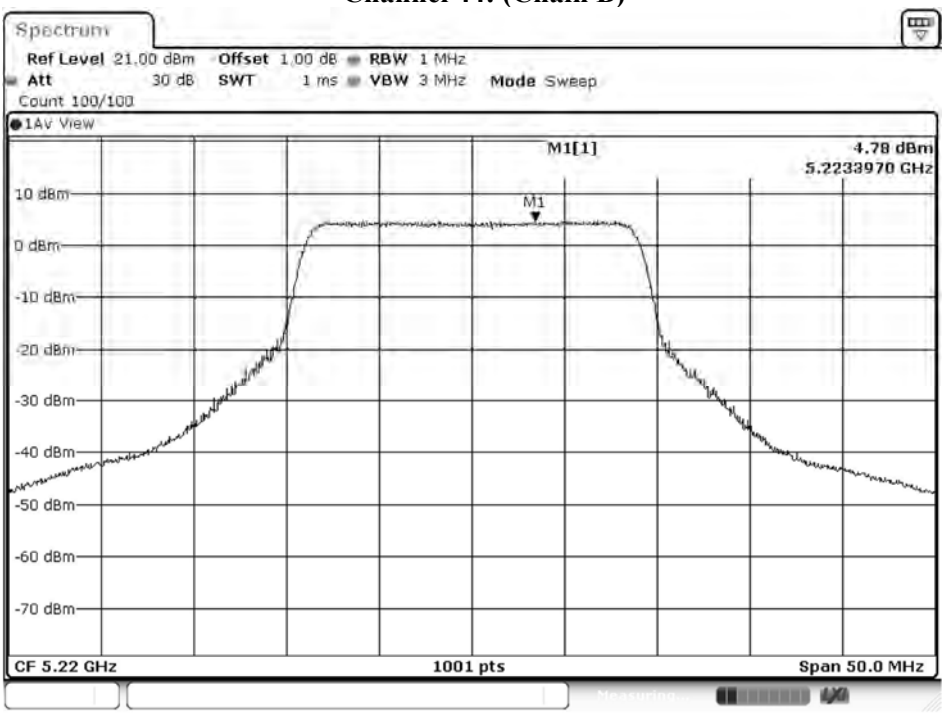
Date: 8.OCT.2020 10:34:43

Channel 44: (Chain A)



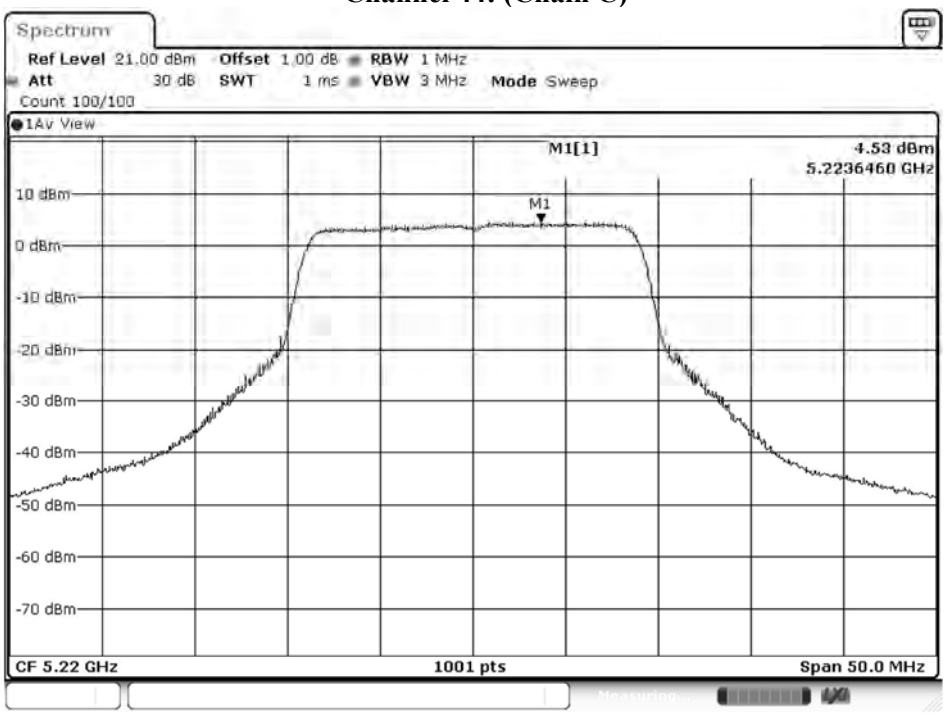
Date: 8.OCT.2020 08:45:53

Channel 44: (Chain B)



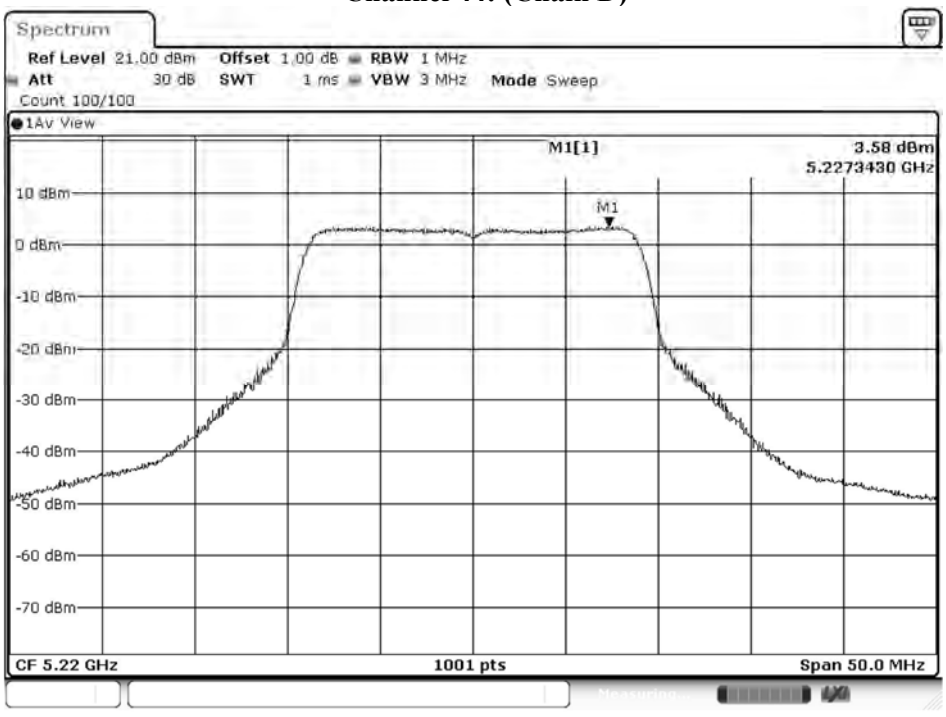
Date: 8.OCT.2020 05:24:45

Channel 44: (Chain C)



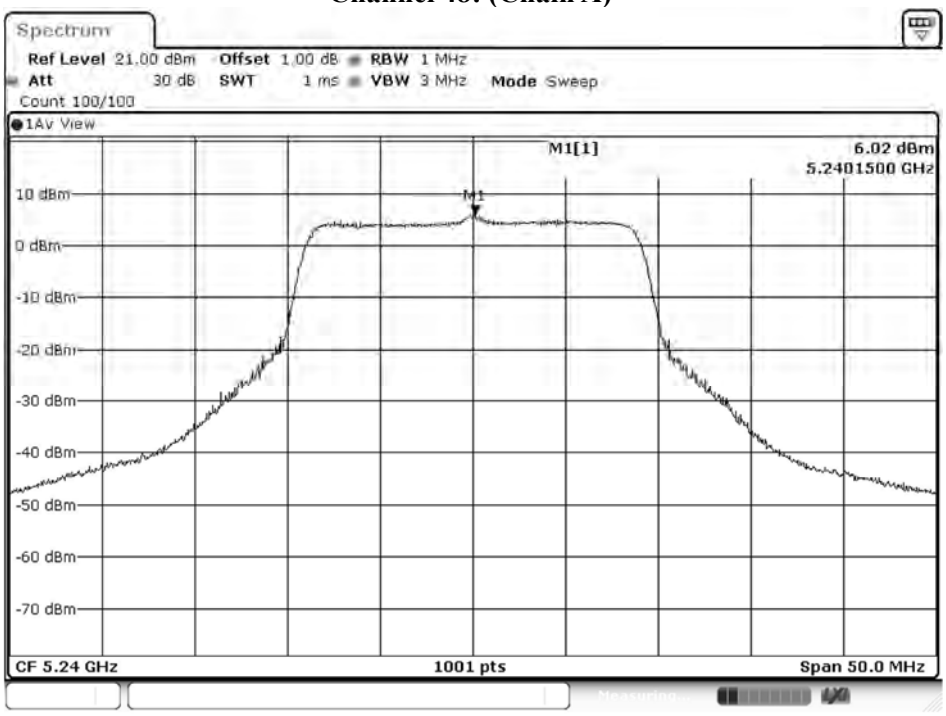
Date: 8.OCT.2020 09:47:55

Channel 44: (Chain D)



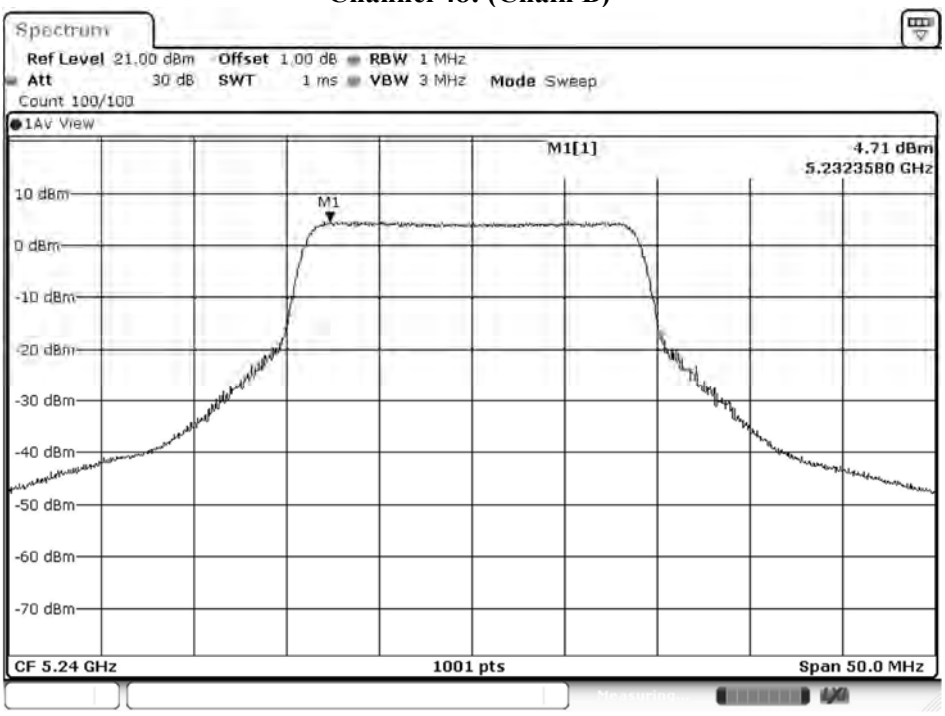
Date: 8.OCT.2020 10:40:38

Channel 48: (Chain A)



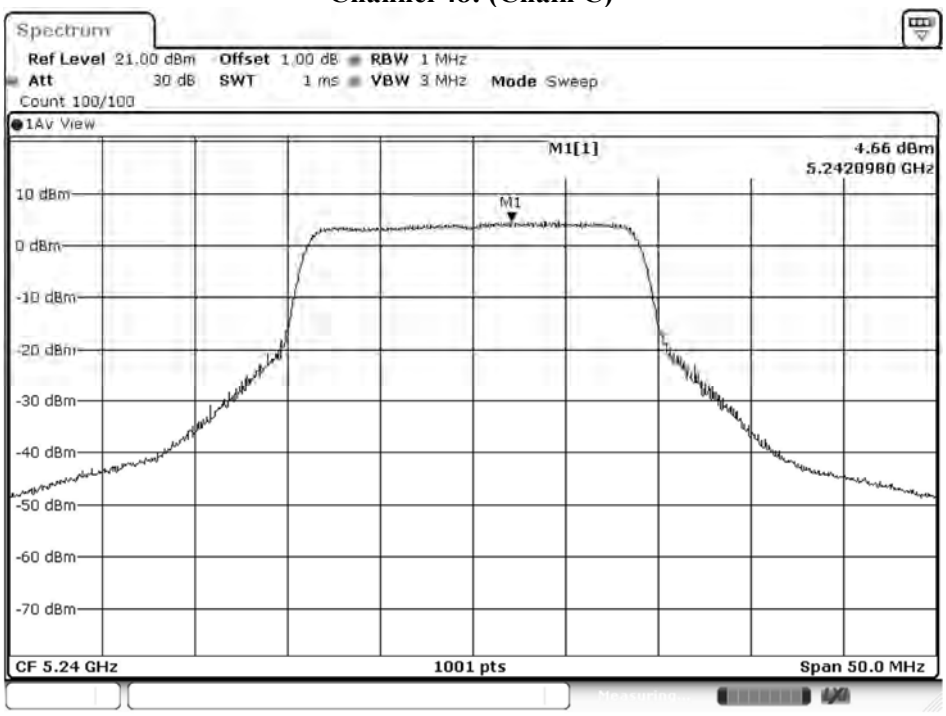
Date: 8.OCT.2020 08:49:12

Channel 48: (Chain B)



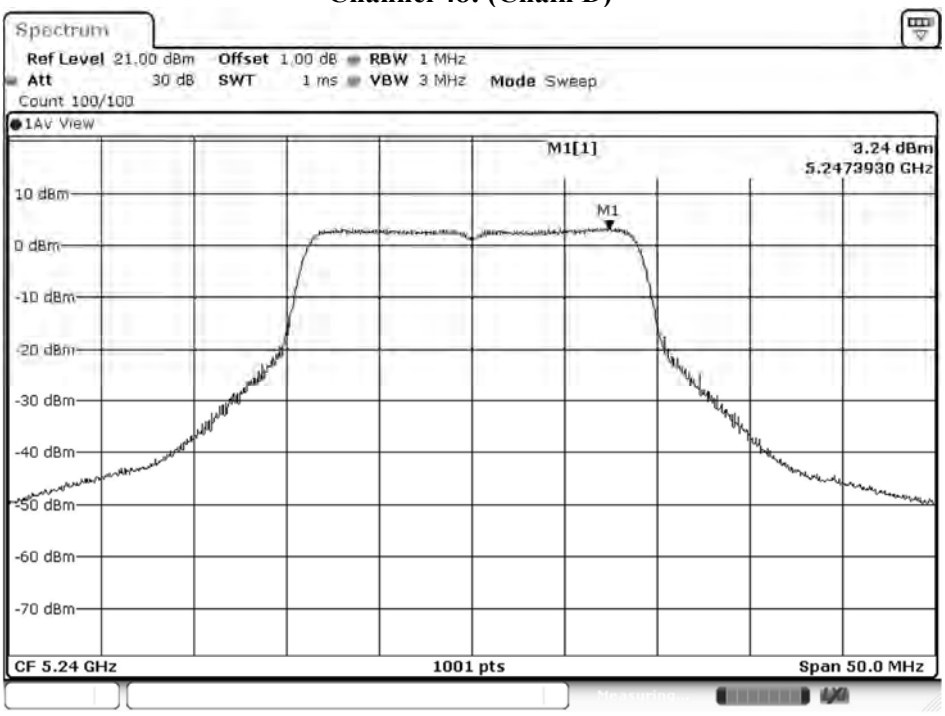
Date: 8.OCT.2020 05:29:02

Channel 48: (Chain C)



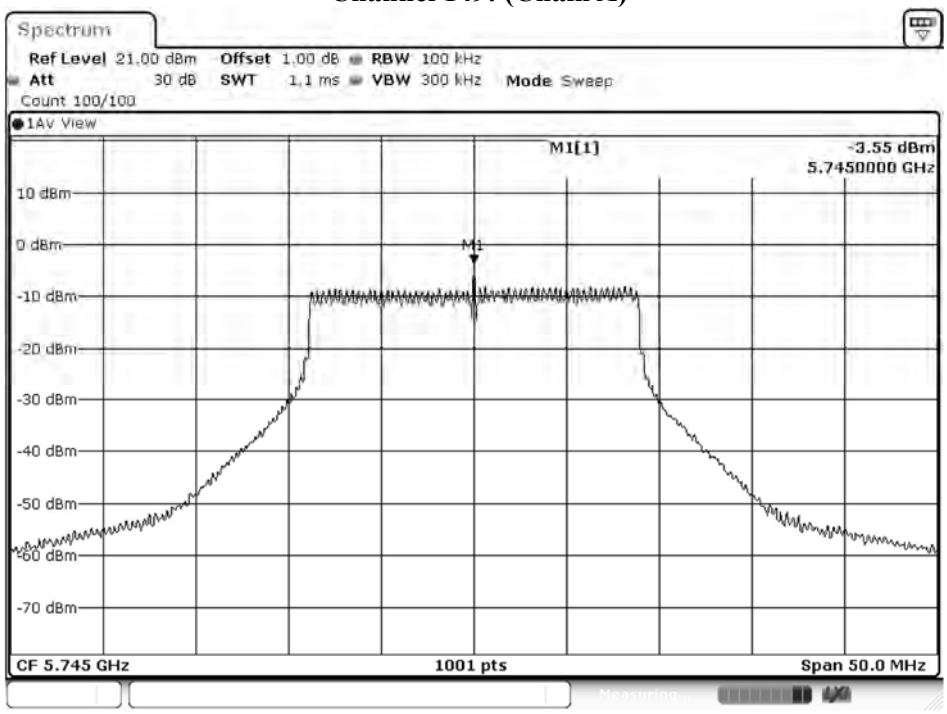
Date: 8.OCT.2020 09:49:22

Channel 48: (Chain D)



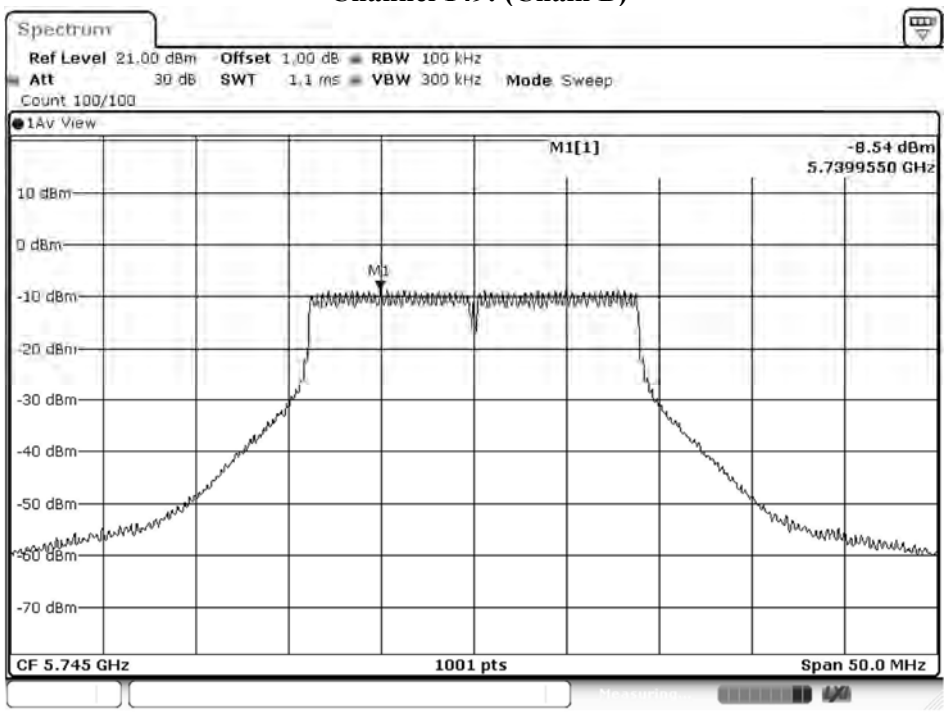
Date: 8.OCT.2020 11:15:56

Channel 149: (Chain A)



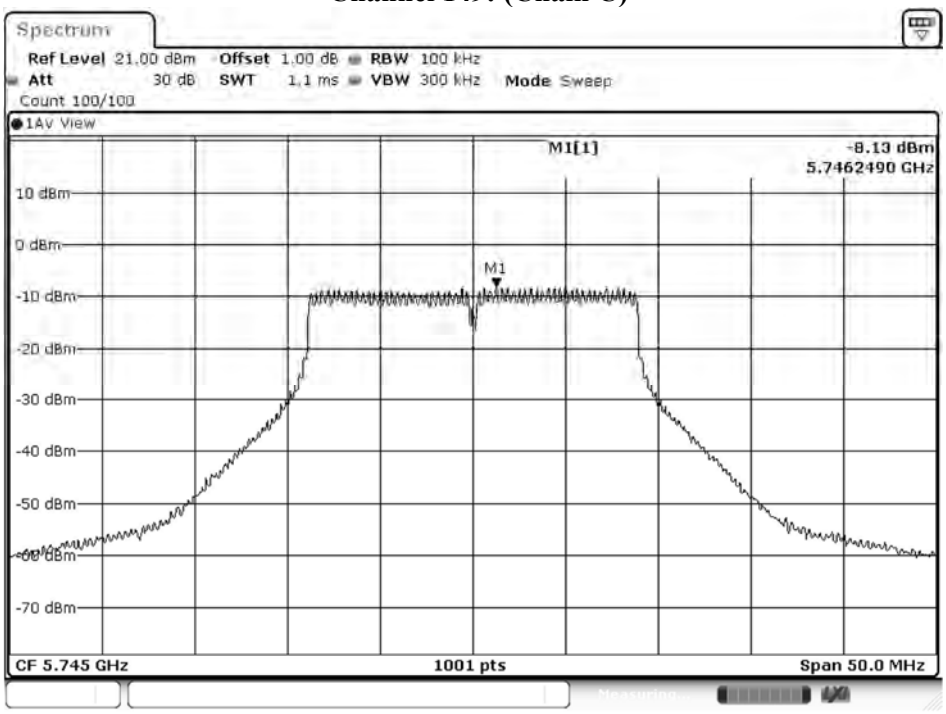
Date: 8.OCT.2020 08:57:47

Channel 149: (Chain B)



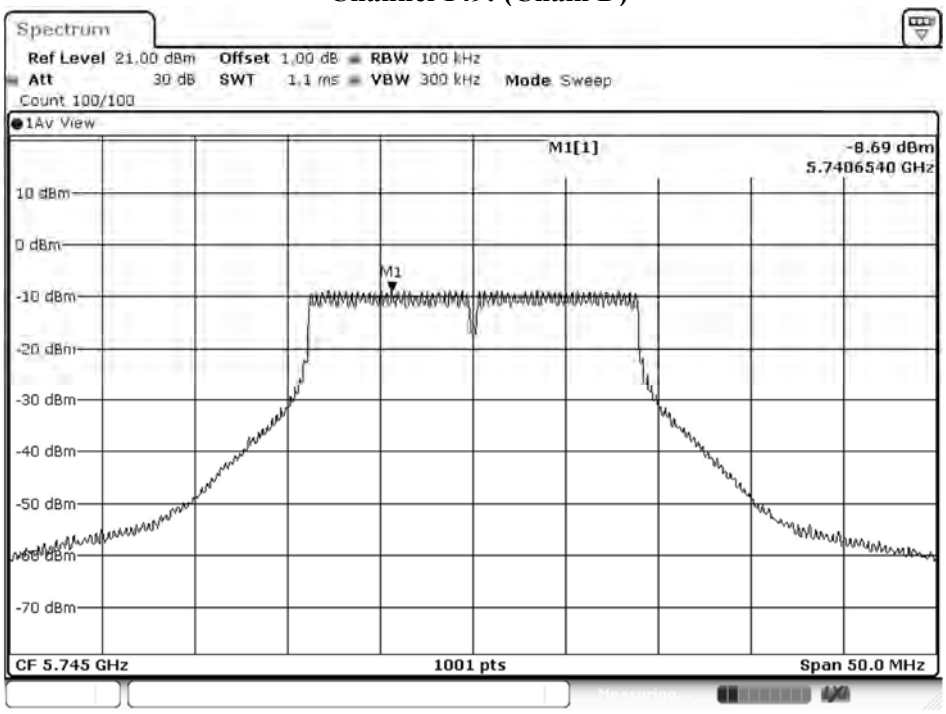
Date: 8.OCT.2020 08:20:17

Channel 149: (Chain C)



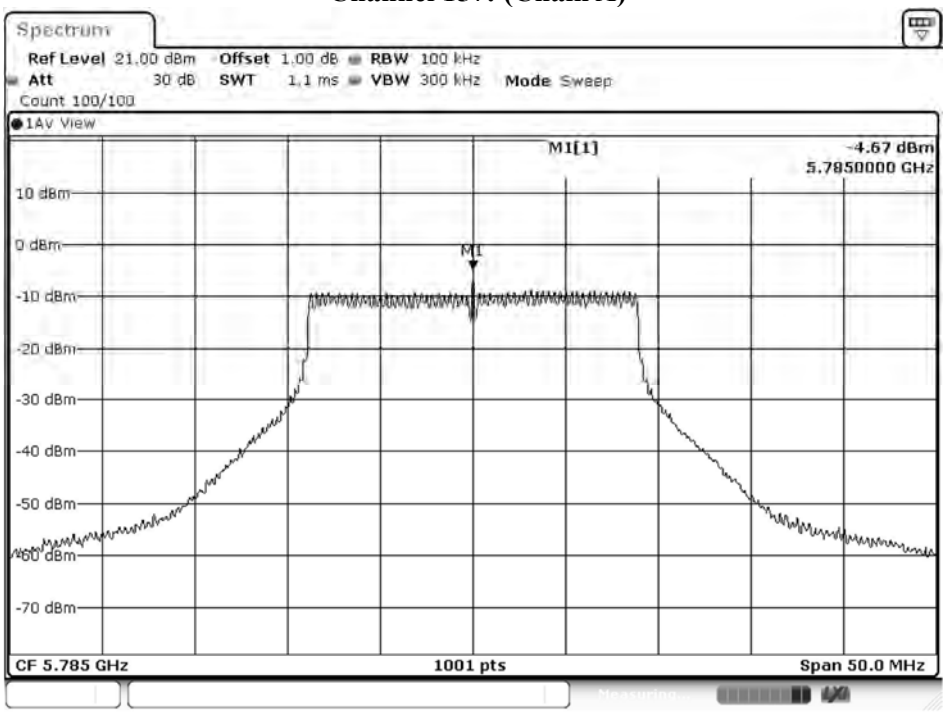
Date: 8.OCT.2020 09:56:54

Channel 149: (Chain D)



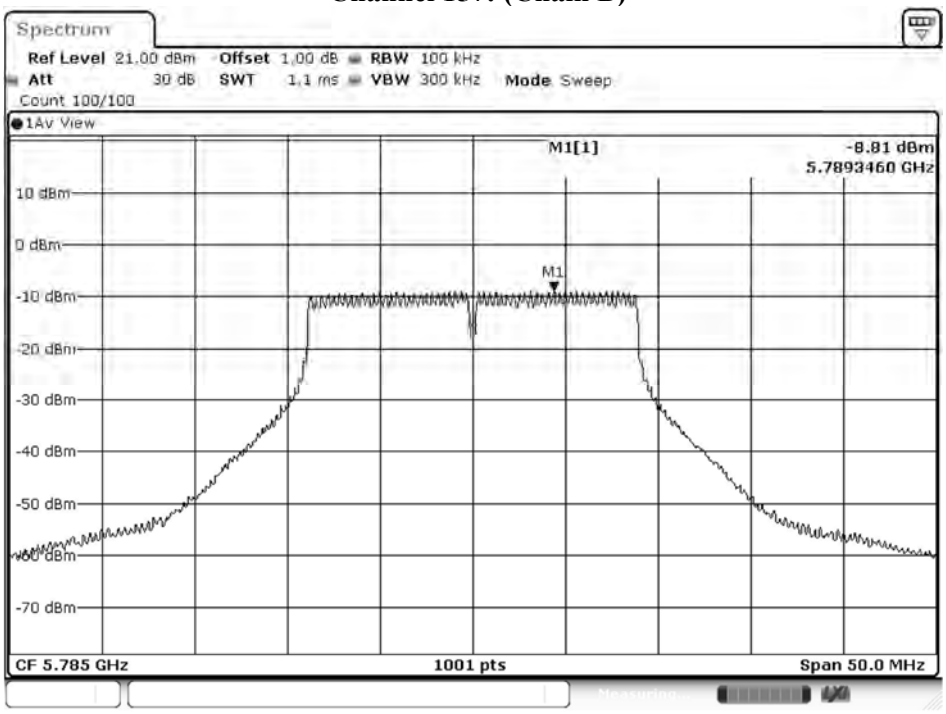
Date: 8.OCT.2020 11:20:47

Channel 157: (Chain A)



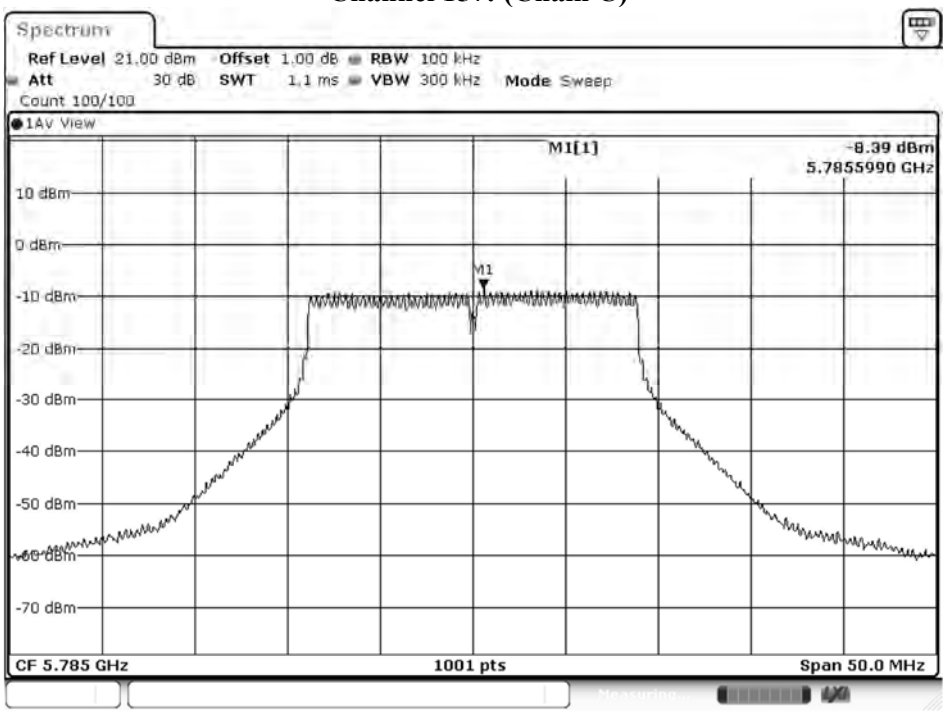
Date: 8.OCT.2020 09:02:06

Channel 157: (Chain B)



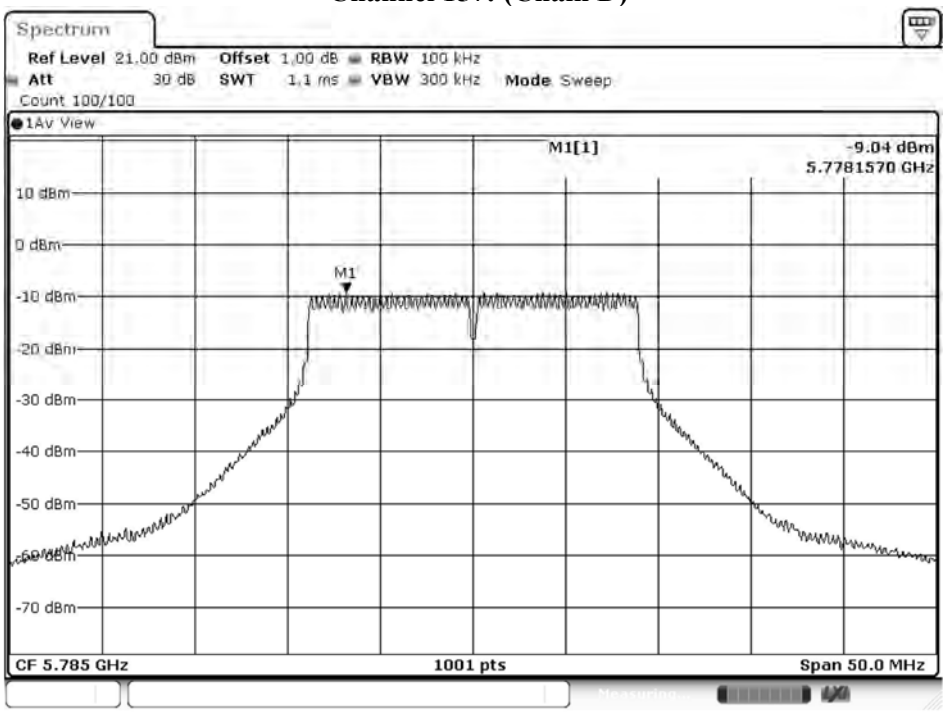
Date: 8.OCT.2020 08:21:47

Channel 157: (Chain C)



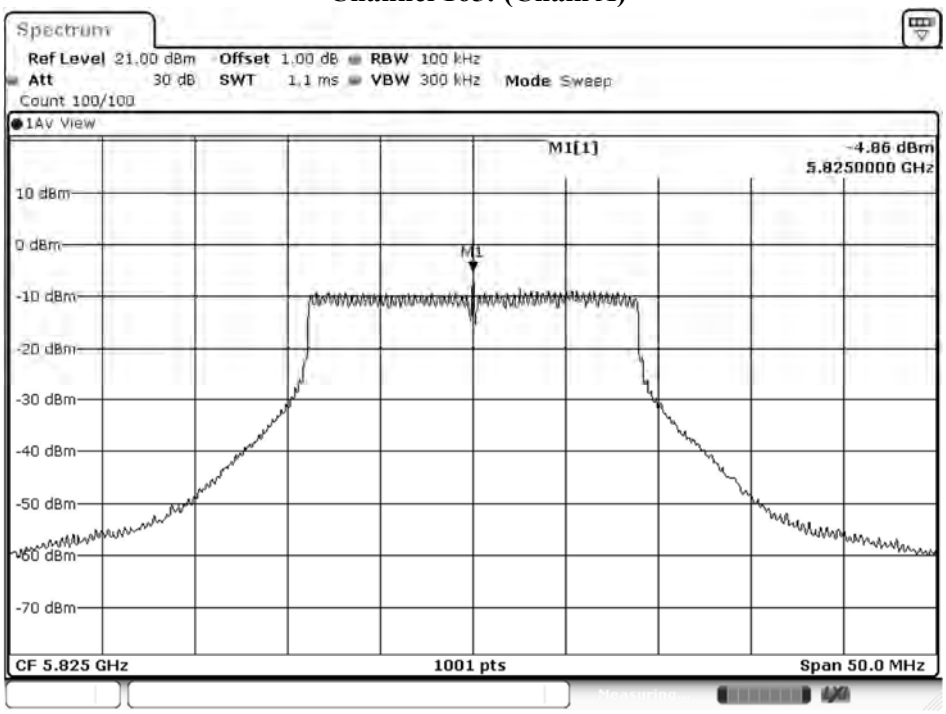
Date: 8.OCT.2020 09:58:18

Channel 157: (Chain D)



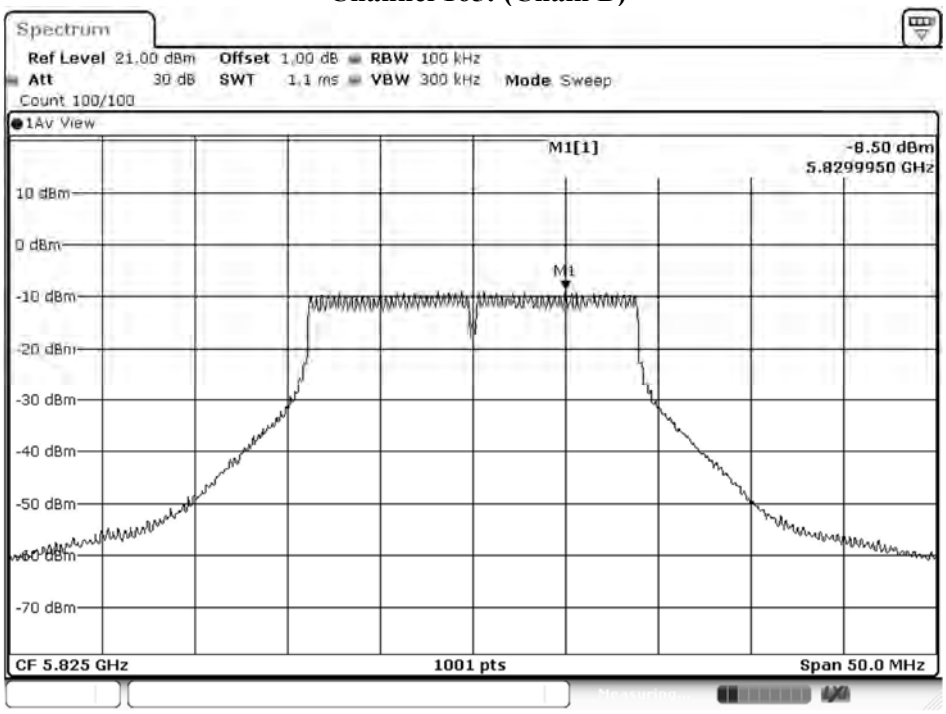
Date: 8.OCT.2020 11:23:10

Channel 165: (Chain A)



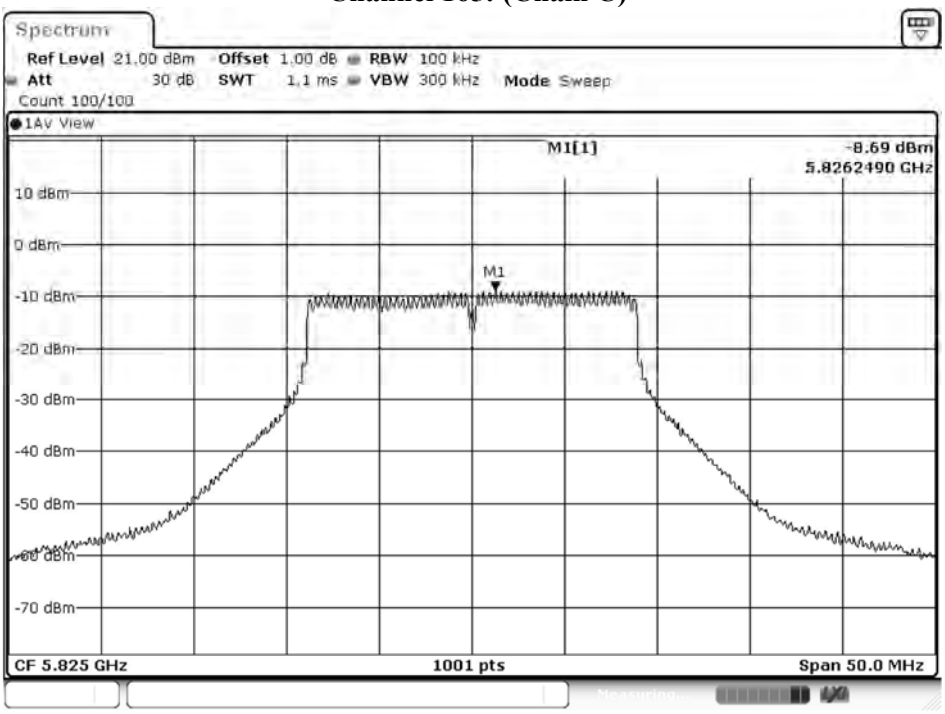
Date: 8.OCT.2020 09:04:41

Channel 165: (Chain B)



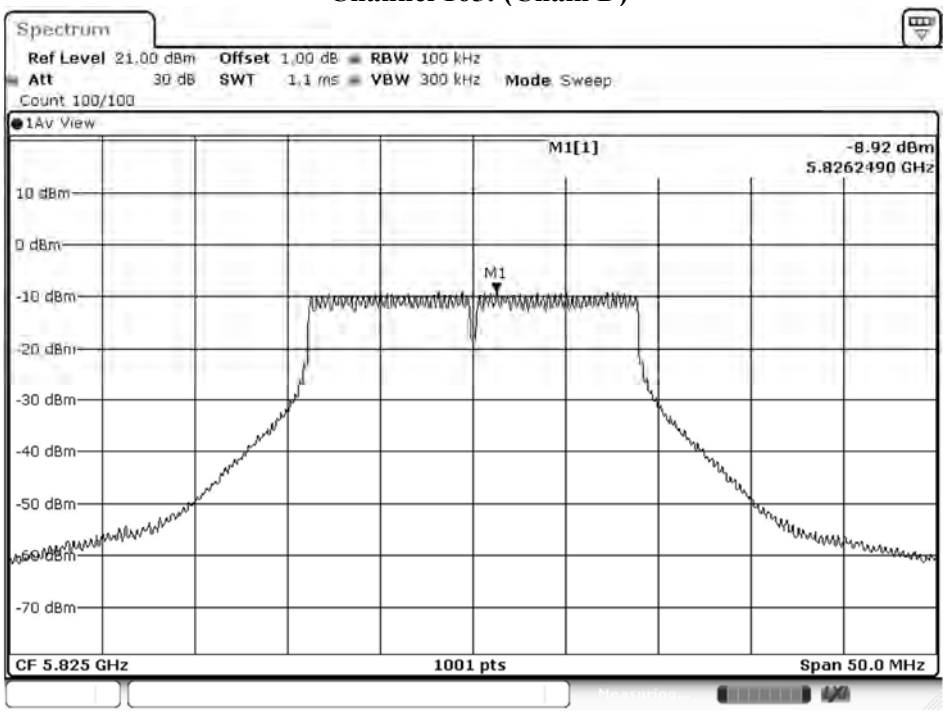
Date: 8.OCT.2020 08:23:39

Channel 165: (Chain C)



Date: 8.OCT.2020 10:00:21

Channel 165: (Chain D)



Date: 8.OCT.2020 11:24:30

Product : Wireless Outdoor Router
Test Item : Peak Power Spectral Density
Test Mode : Mode 3: Transmit (802.11n-40BW)
Test Date : 2020/10/08

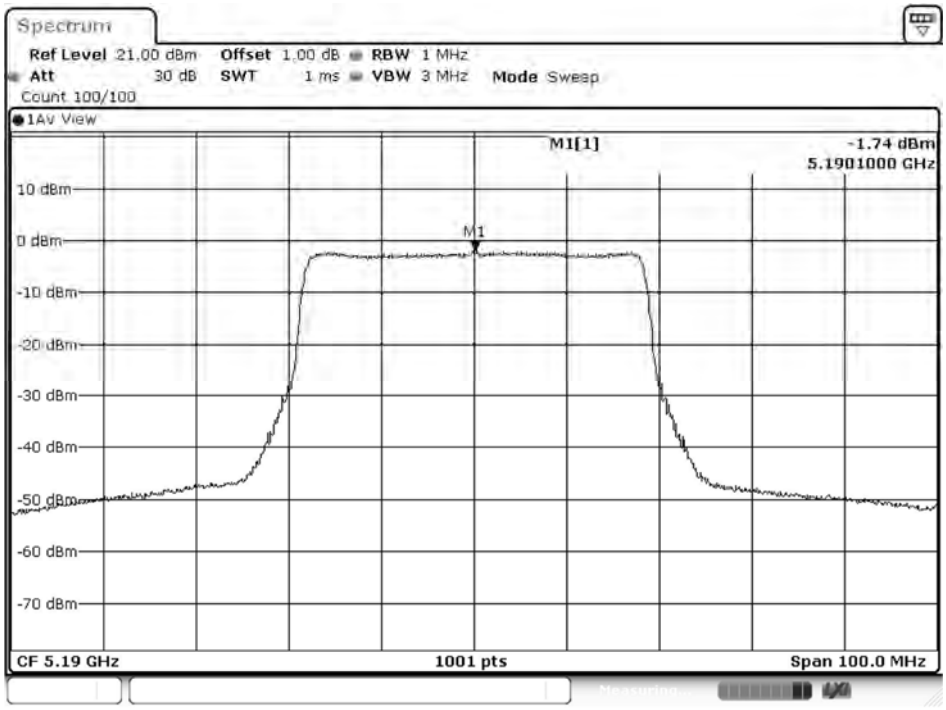
Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Duty Factor (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
38	5190	A	-1.74	0.08	4.36	17	Pass
		B	-1.16	0.08	4.94		Pass
		C	-2.26	0.08	3.84		Pass
		D	-3.18	0.08	2.92		Pass
46	5230	A	-1.14	0.08	4.96	17	Pass
		B	-1.95	0.08	4.15		Pass
		C	-2.19	0.08	3.91		Pass
		D	-3.31	0.08	2.79		Pass

Note: The quantity 10*log 4 (four antennas) is added to the spectrum peak value according to document 662911 D01.

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	BWCF (dB)	Duty Factor (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
151	5755	A	-3.83	6.98	0.08	9.25	30	Pass
		B	-8.75	6.98	0.08	4.33		Pass
		C	-9.72	6.98	0.08	3.36		Pass
		D	-10.31	6.98	0.08	2.77		Pass
159	5795	A	-4.40	6.98	0.08	8.68	30	Pass
		B	-9.11	6.98	0.08	3.97		Pass
		C	-10.00	6.98	0.08	3.08		Pass
		D	-10.74	6.98	0.08	2.34		Pass

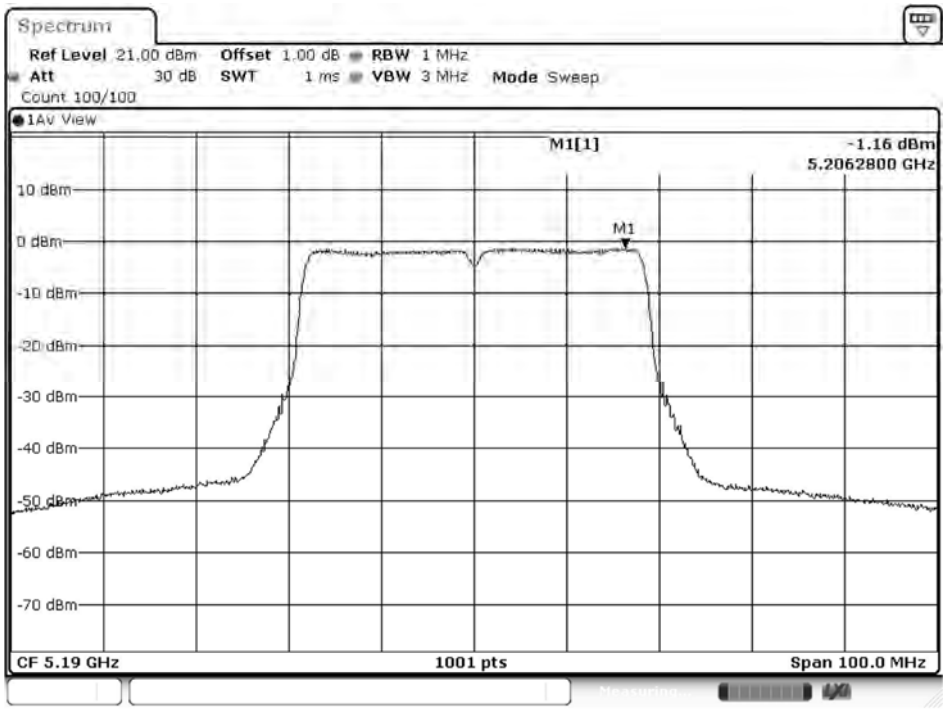
Note: The quantity 10*log 4 (four antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 38: (Chain A)



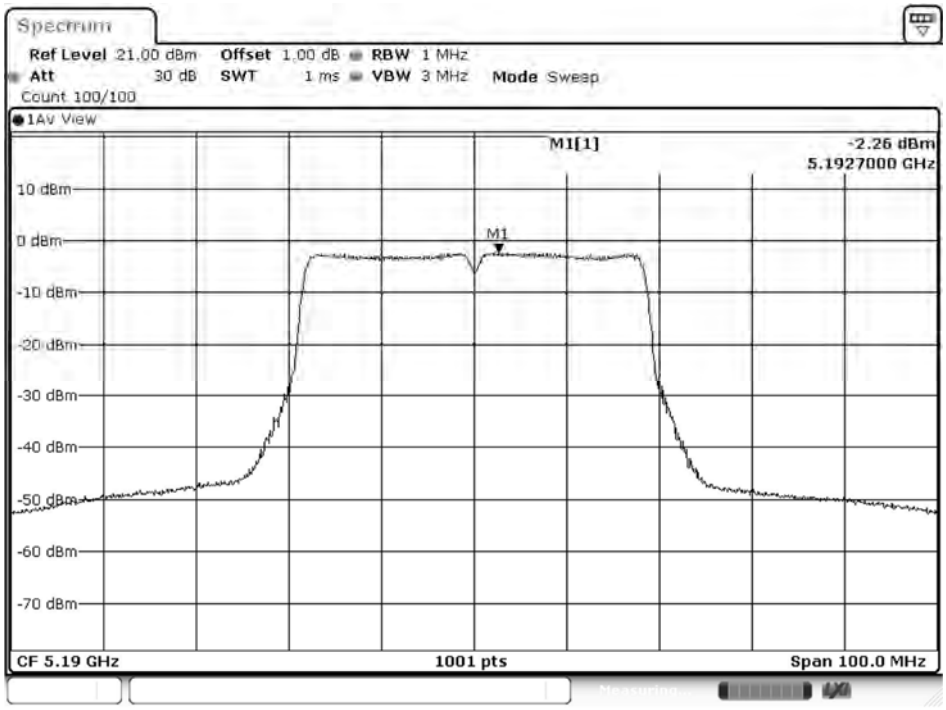
Date: 8.OCT.2020 08:50:34

Channel 38: (Chain B)



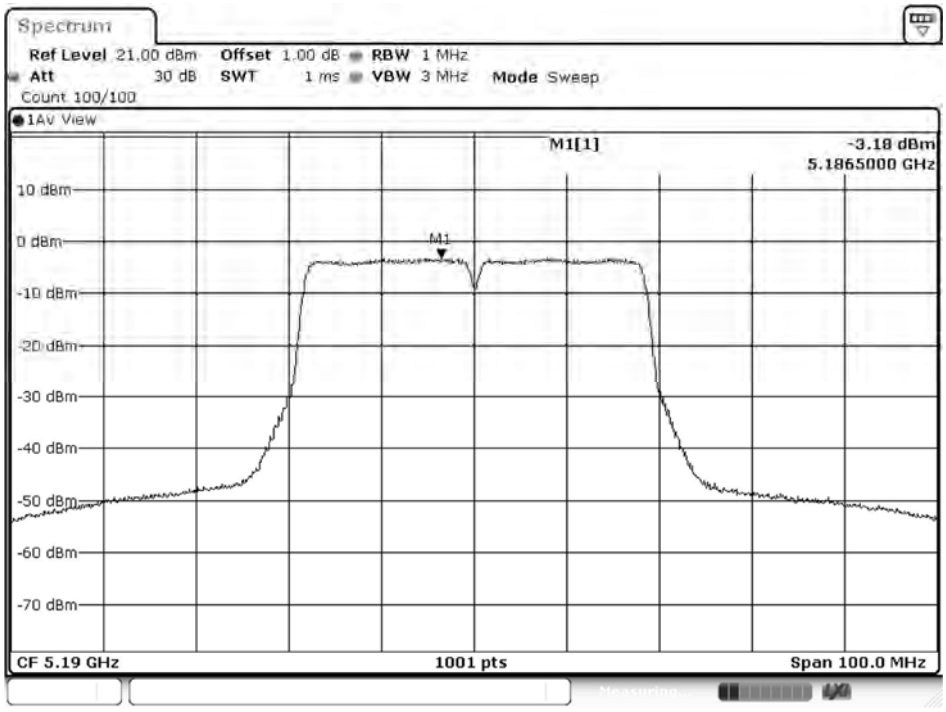
Date: 8.OCT.2020 08:17:01

Channel 38: (Chain C)



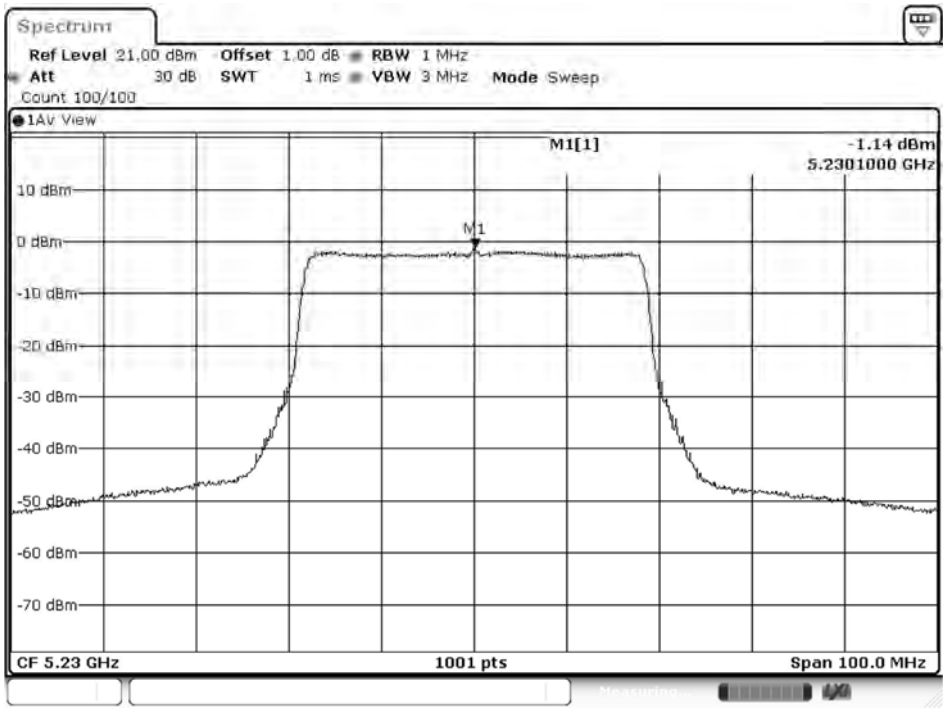
Date: 8.OCT.2020 09:50:59

Channel 38: (Chain D)

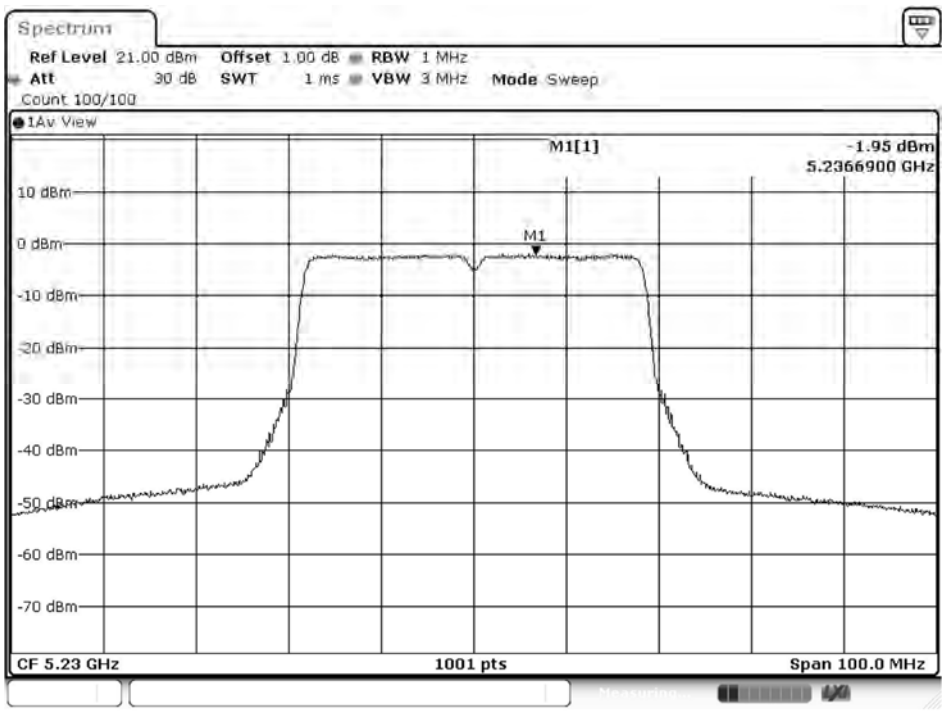


Date: 8.OCT.2020 11:17:40

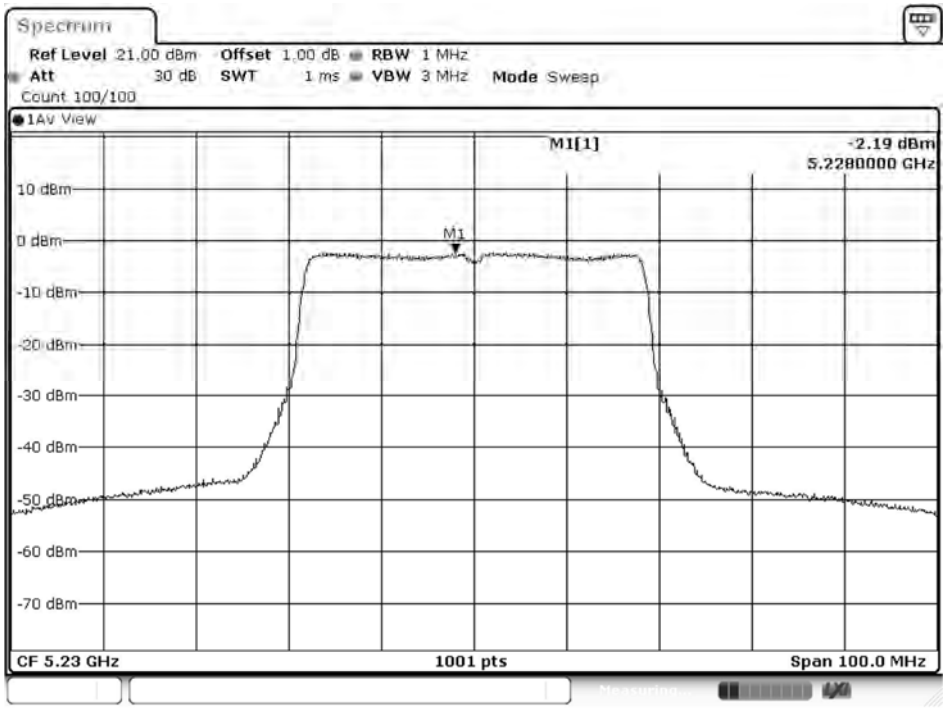
Channel 46: (Chain A)



Channel 46: (Chain B)

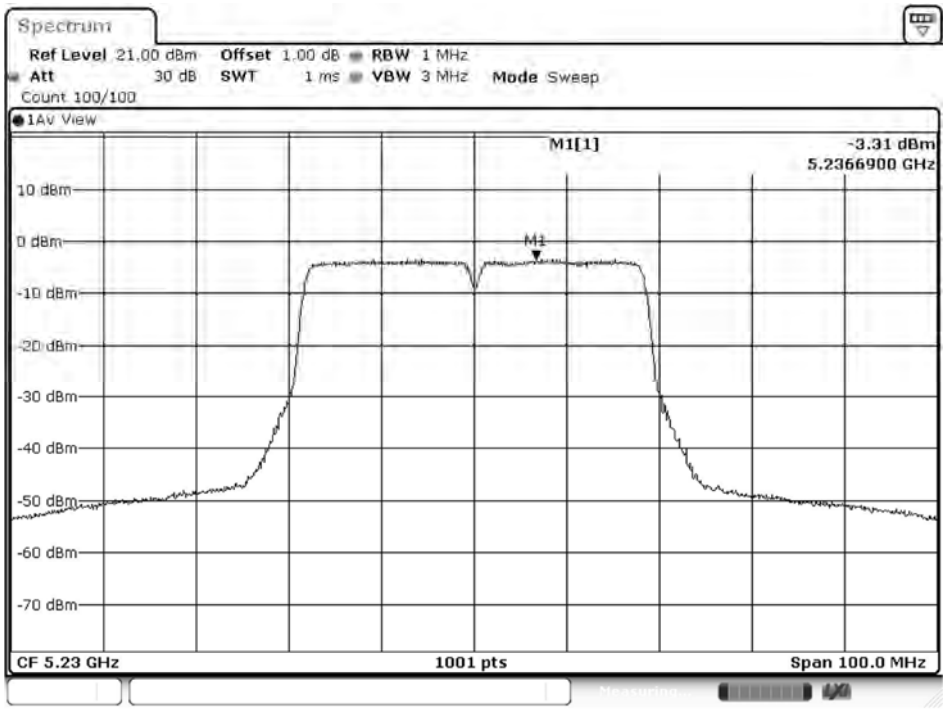


Channel 46: (Chain C)



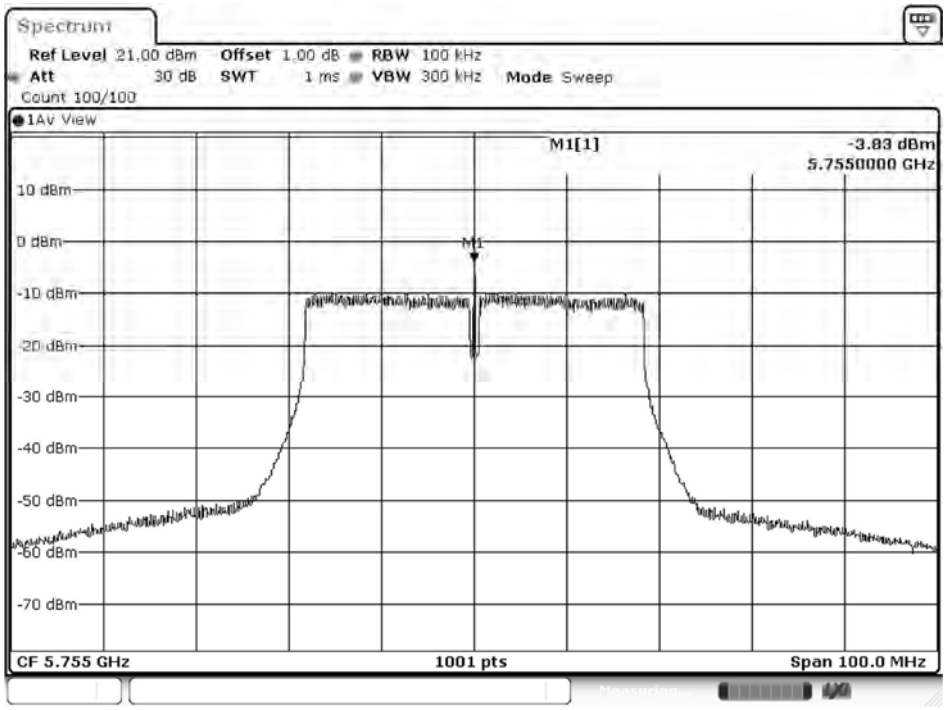
Date: 8.OCT.2020 09:53:00

Channel 46: (Chain D)

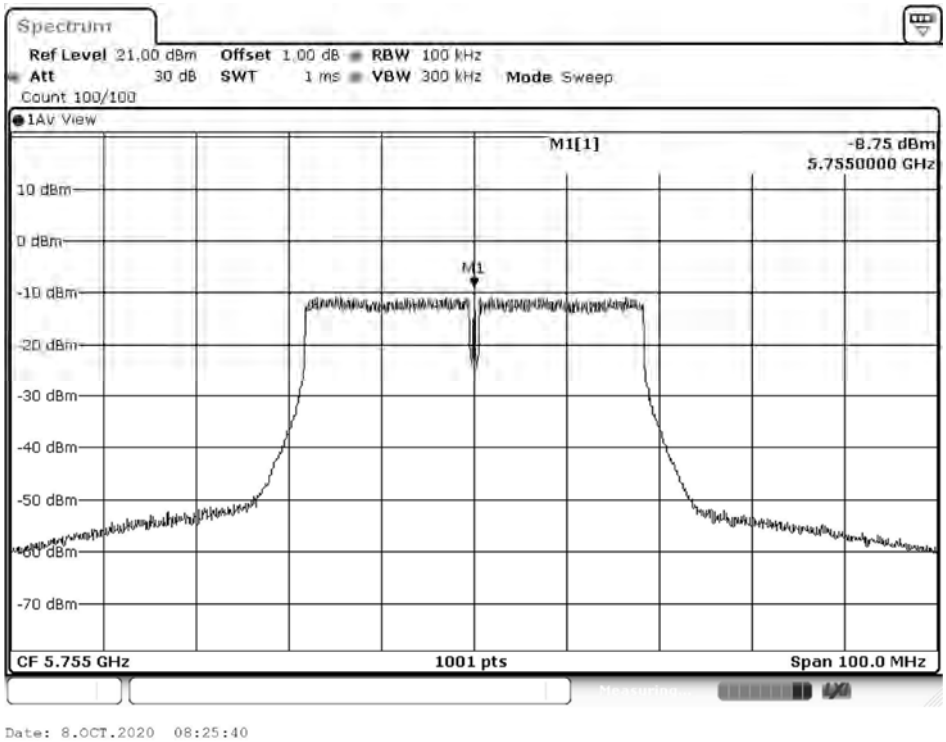


Date: 8.OCT.2020 11:18:49

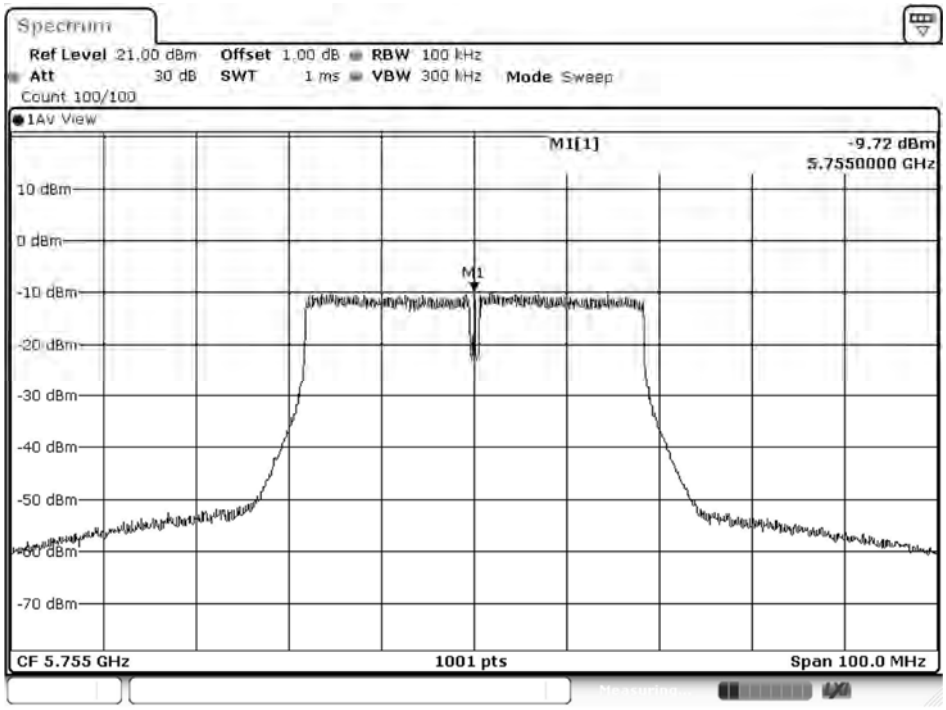
Channel 151: (Chain A)



Channel 151: (Chain B)

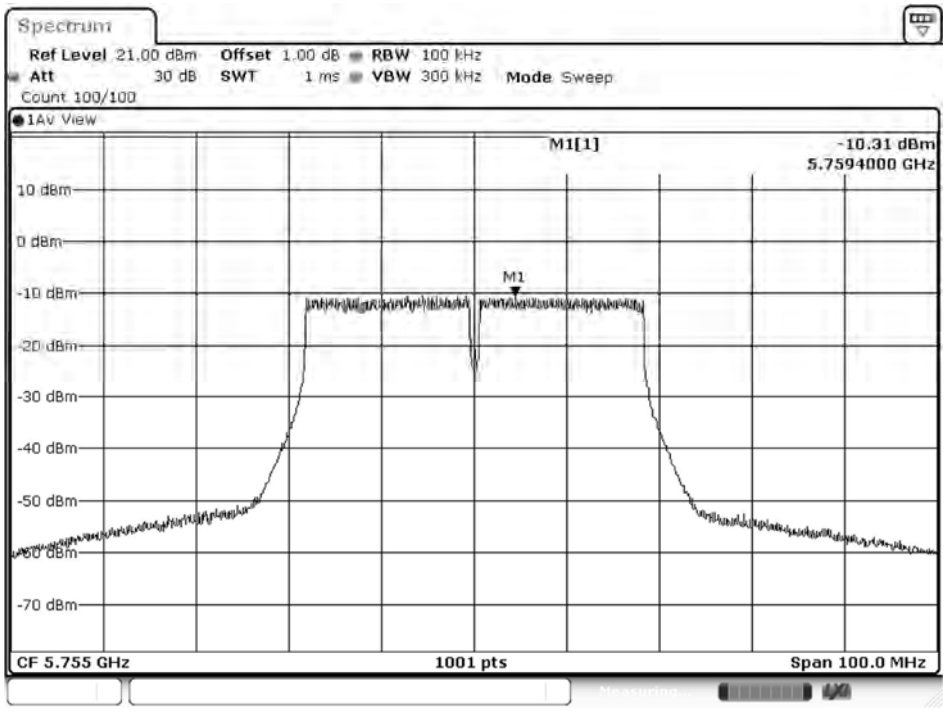


Channel 151: (Chain C)



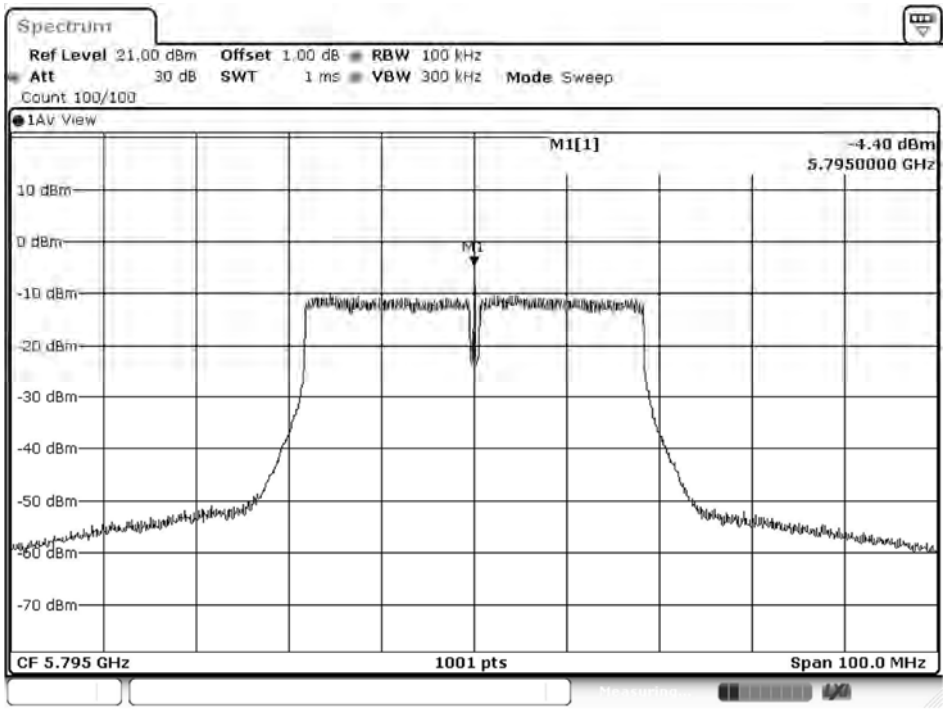
Date: 8.OCT.2020 10:15:01

Channel 151: (Chain D)



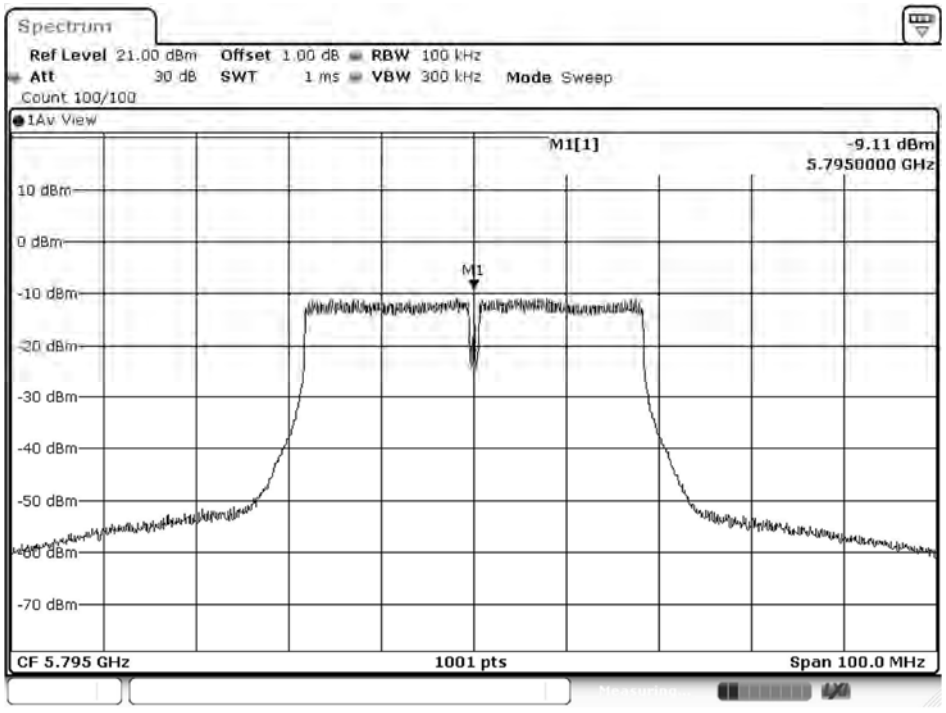
Date: 8.OCT.2020 11:26:10

Channel 159: (Chain A)



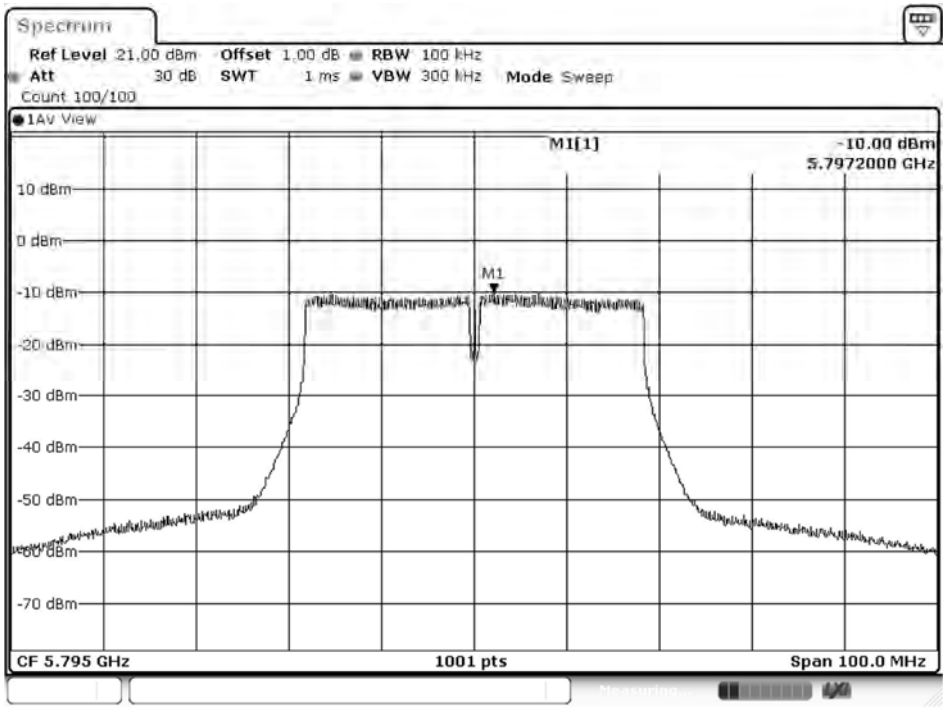
Date: 8.OCT.2020 09:09:27

Channel 159: (Chain B)



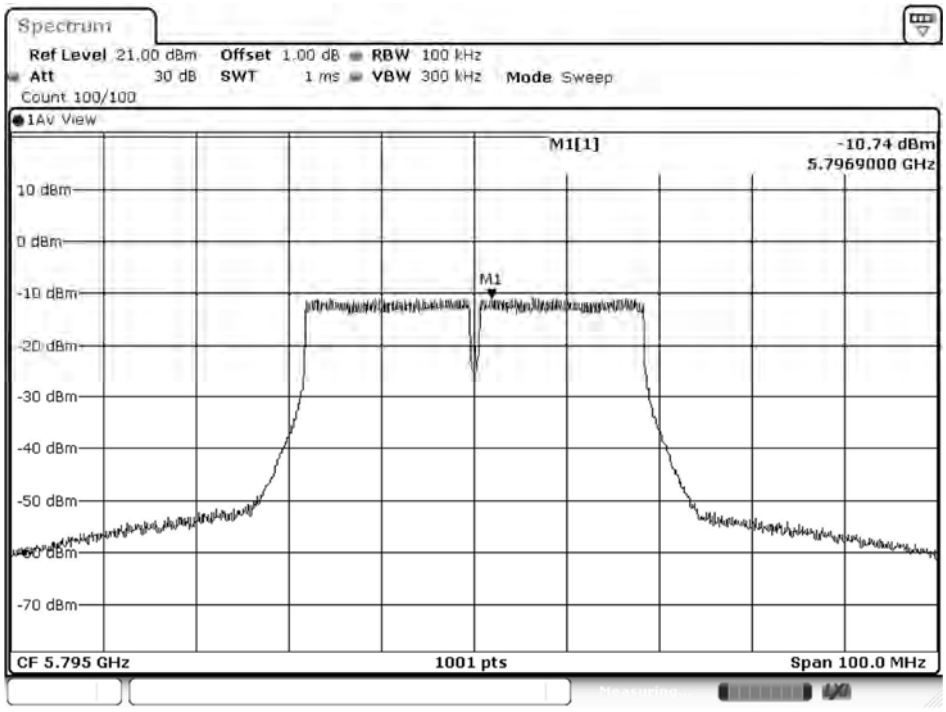
Date: 8.OCT.2020 08:27:05

Channel 159: (Chain C)



Date: 8.OCT.2020 10:18:25

Channel 159: (Chain D)



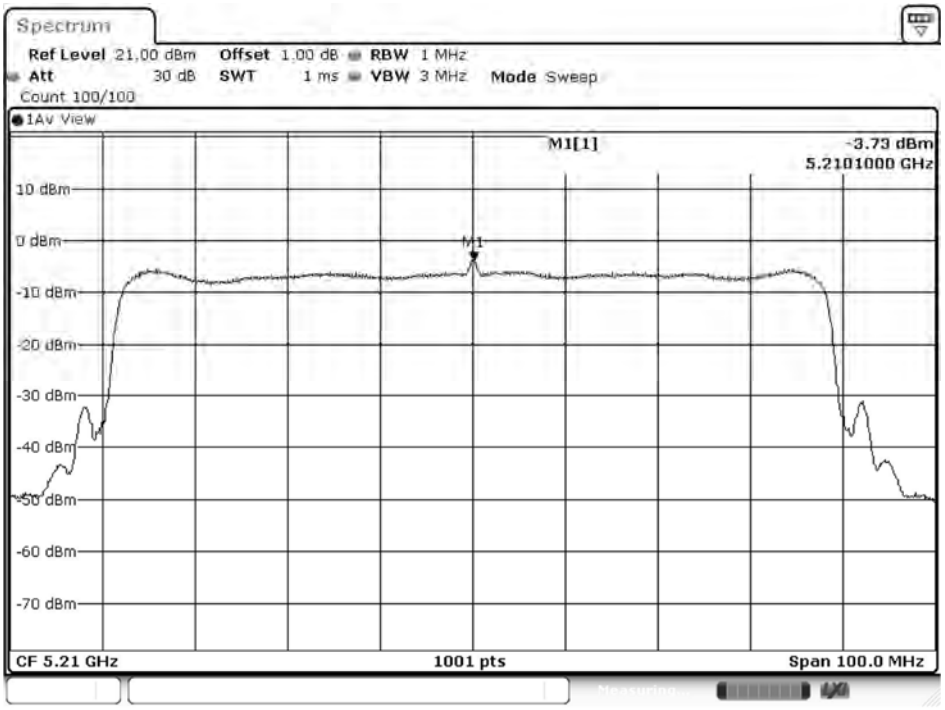
Date: 8.OCT.2020 11:28:31

Product : Wireless Outdoor Router
Test Item : Peak Power Spectral Density
Test Mode : Mode 4: Transmit (802.11ac-80BW)
Test Date : 2020/10/08

Channel Number	Frequency (MHz)	Chain	PPSD (dBm)	Duty Factor (dB)	Total PPSD (dBm)	Required Limit (dBm)	Result
42	5210	A	-3.730	0.09	2.380	17	Pass
		B	-5.650	0.09	0.460		Pass
		C	-5.840	0.09	0.270		Pass
		D	-7.030	0.09	-0.920		Pass

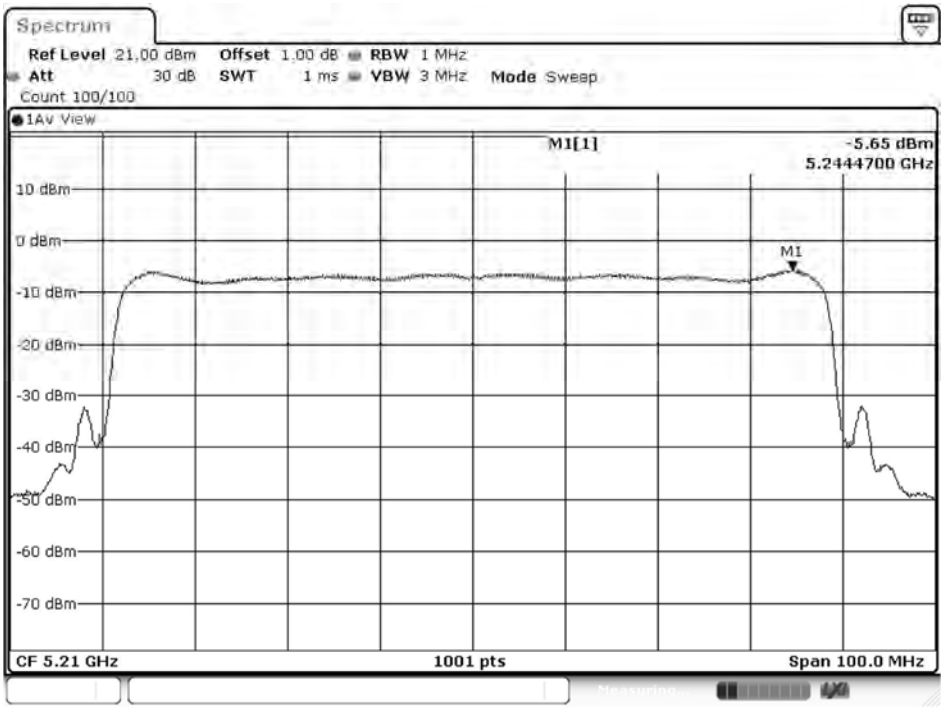
Note: The quantity 10*log 4 (four antennas) is added to the spectrum peak value according to document 662911 D01.

Channel 42: (Chain A)



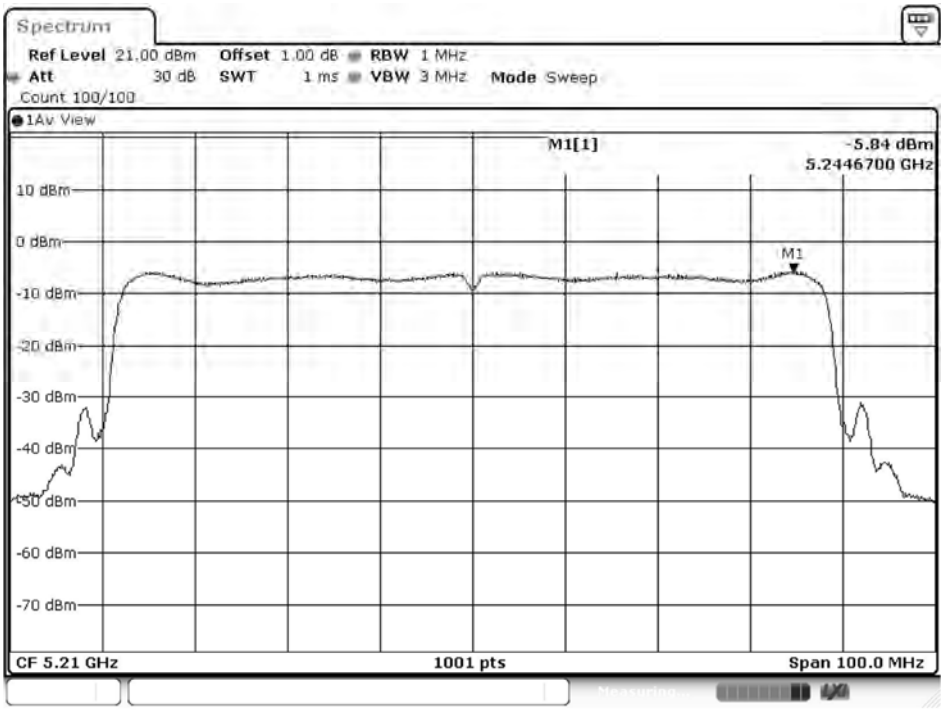
Date: 8.OCT.2020 08:41:11

Channel 42: (Chain B)



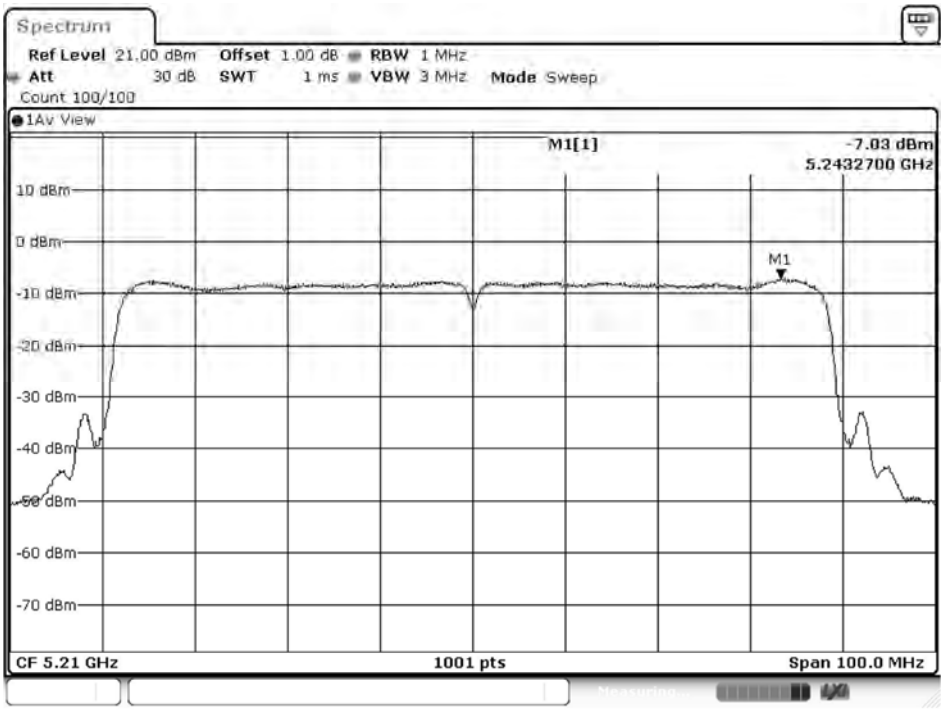
Date: 8.OCT.2020 05:22:26

Channel 42: (Chain C)



Date: 8.OCT.2020 09:43:13

Channel 42: (Chain D)

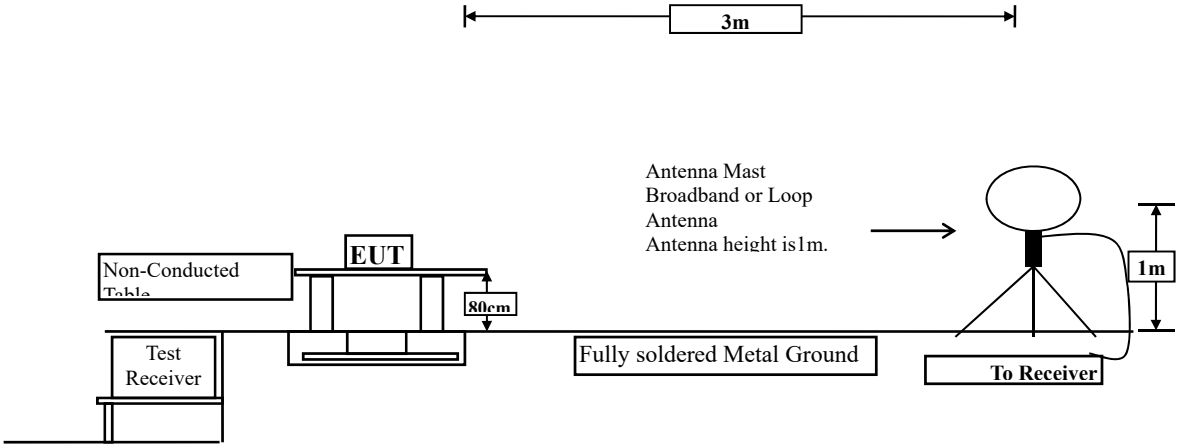


Date: 8.OCT.2020 10:33:21

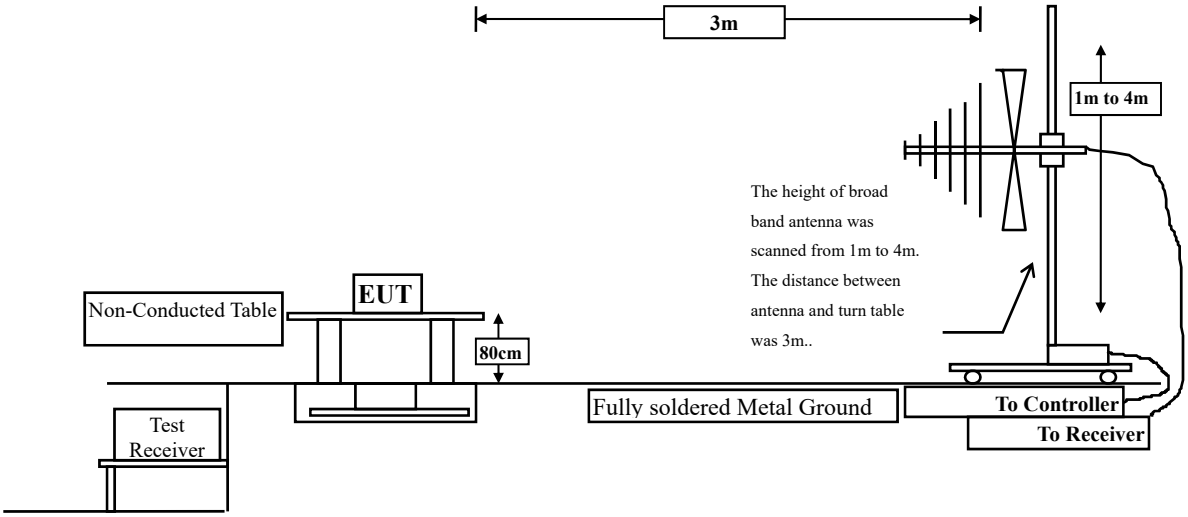
5. Radiated Emission

5.1. Test Setup

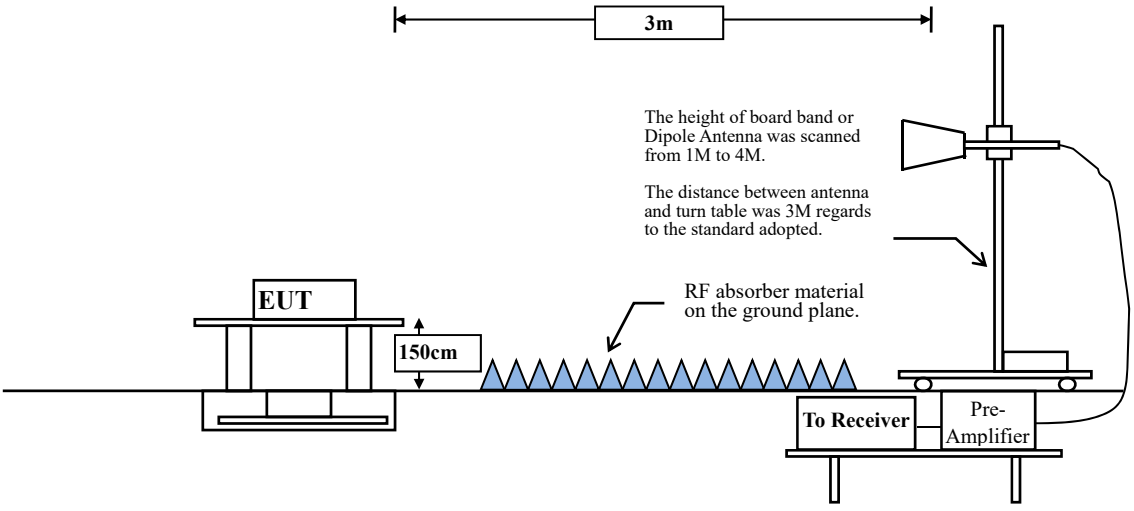
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



5.2. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209(a) Limits		
Frequency MHz	Field strength (microvolts/meter)	Measurement distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remarks: E field strength (dBμV/m) = 20 log E field strength (uV/m)

5.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to FCC KDB-789033 test procedure for compliance to FCC 47CFR 15. 407 requirements.

Measuring the frequency range below 1GHz, the EUT is placed on a turn table which is 0.8 meter above ground,when measuring the frequency range above 1GHz, the EUT is placed on a turn table which is 1.5 meter above ground.

The turn table is rotated 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 is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10: 2013 on radiated measurement.

The resolution bandwidth below 30MHz setting on the field strength meter is 9kHz and 30MHz~1GHz is 120kHz and above 1GHz is 1MHz.

Radiated emission measurements below 30MHz are made using Loop Antenna and 30MHz~1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB bandwidth of the antenna.

The measurement frequency range form 9kHz - 10th Harmonic of fundamental was investigated.

RBW and VBW Parameter setting:

According to KDB 789033 section II.G.5 Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW ≥ 3MHz.

According to KDB 789033 section II.G.6 Procedures for Average Unwanted Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW = 10Hz, when duty cycle ≥ 98 %

VBW ≥ 1/T, when duty cycle < 98 %

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

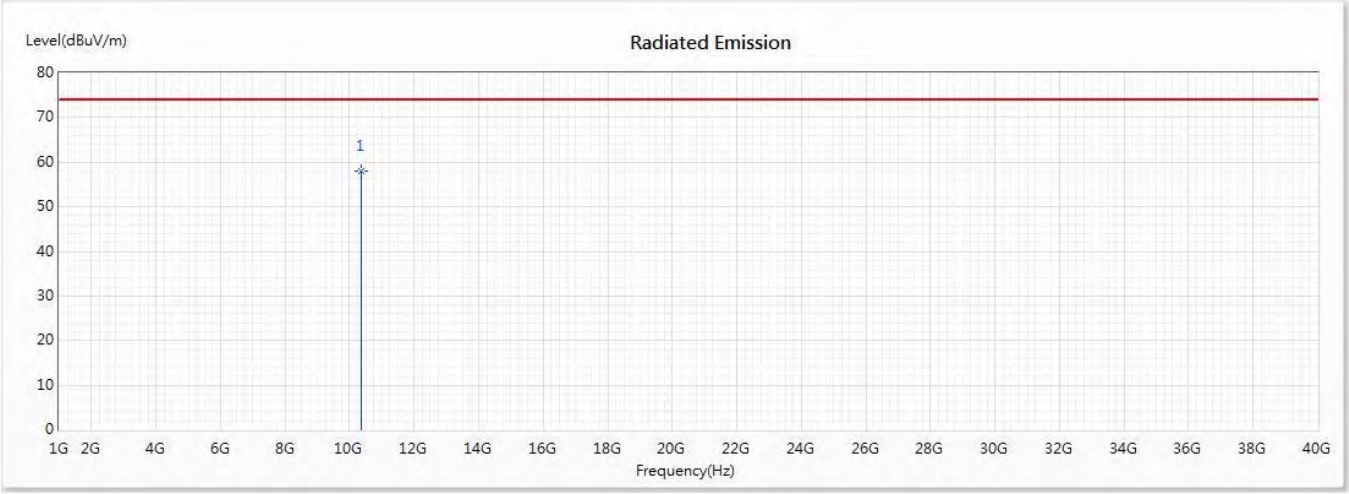
5GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11a	95.90	1.3550	738	1k
802.11n/ac20	99.30	12.3478	81	10
802.11n/ac40	98.09	5.9420	168	10
802.11ac80	97.96	2.7826	359	500

Note: Duty Cycle Refer to Section 8

5.4. Test Result of Radiated Emission

Product : Wireless Outdoor Router
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11a) (5180MHz)
Test Date : 2020/09/17

Horizontal



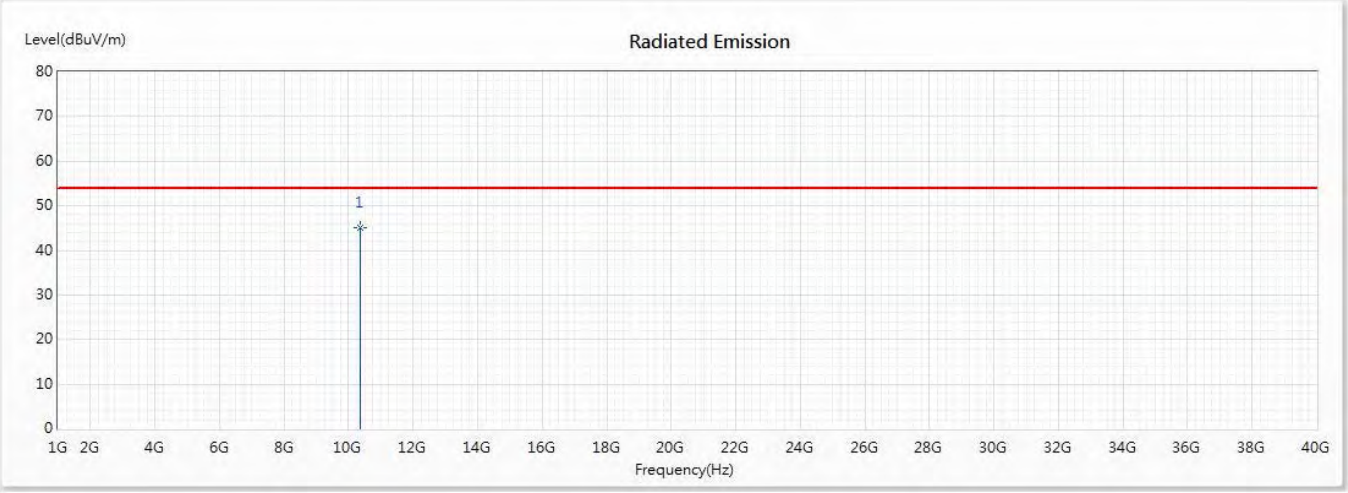
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10360	58.06	74.00	-15.94	52.74	5.32	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5180MHz)
Test Date	:	2020/09/17

Horizontal



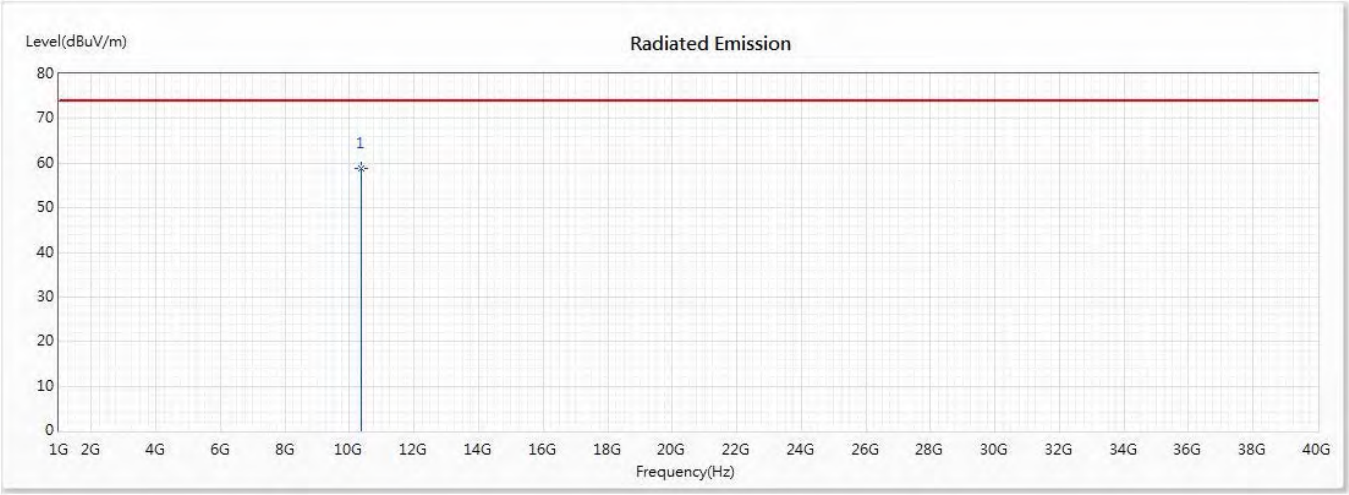
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
* 1	10360	45.01	54.00	-8.99	39.69	5.32	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5180MHz)
Test Date	:	2020/09/17

Vertical



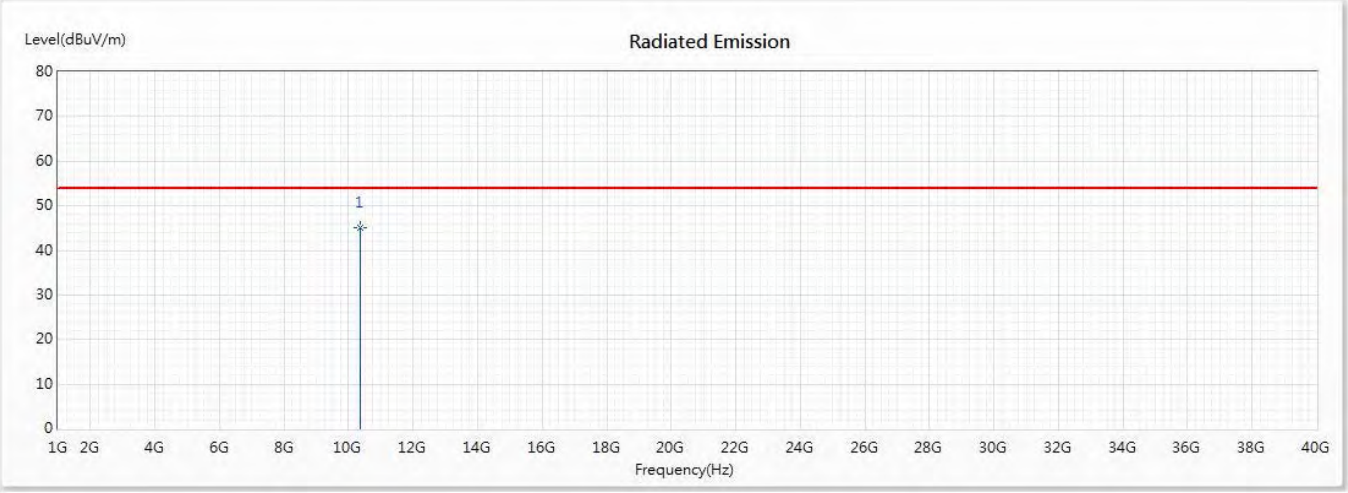
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10360	58.73	74.00	-15.27	53.41	5.32	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5180MHz)
Test Date	:	2020/09/17

Vertical



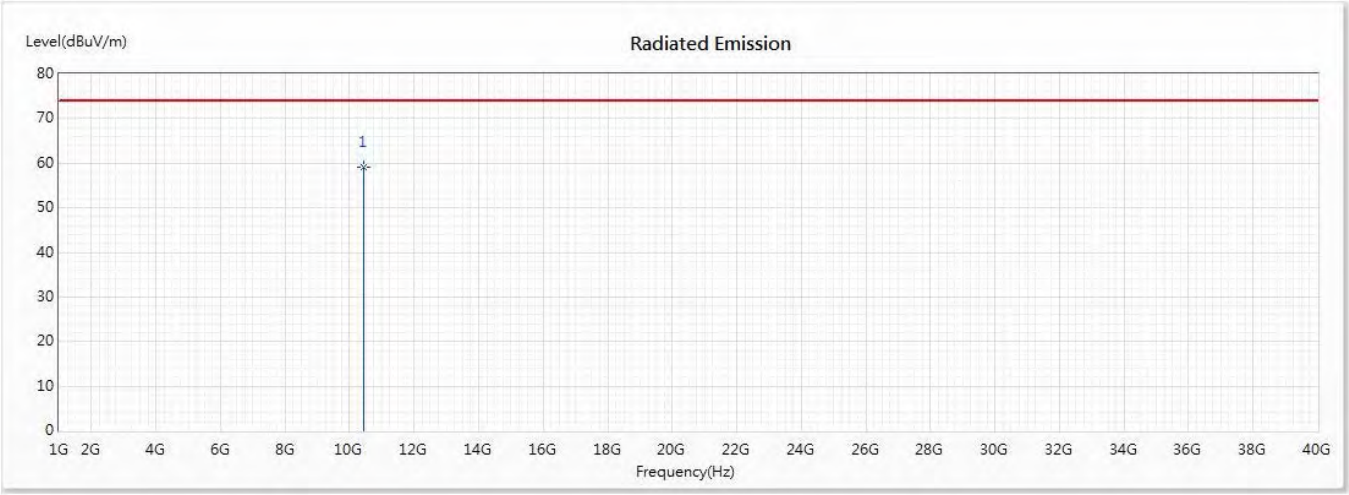
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10360	45.05	54.00	-8.95	39.73	5.32	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5220MHz)
Test Date	:	2020/09/17

Horizontal



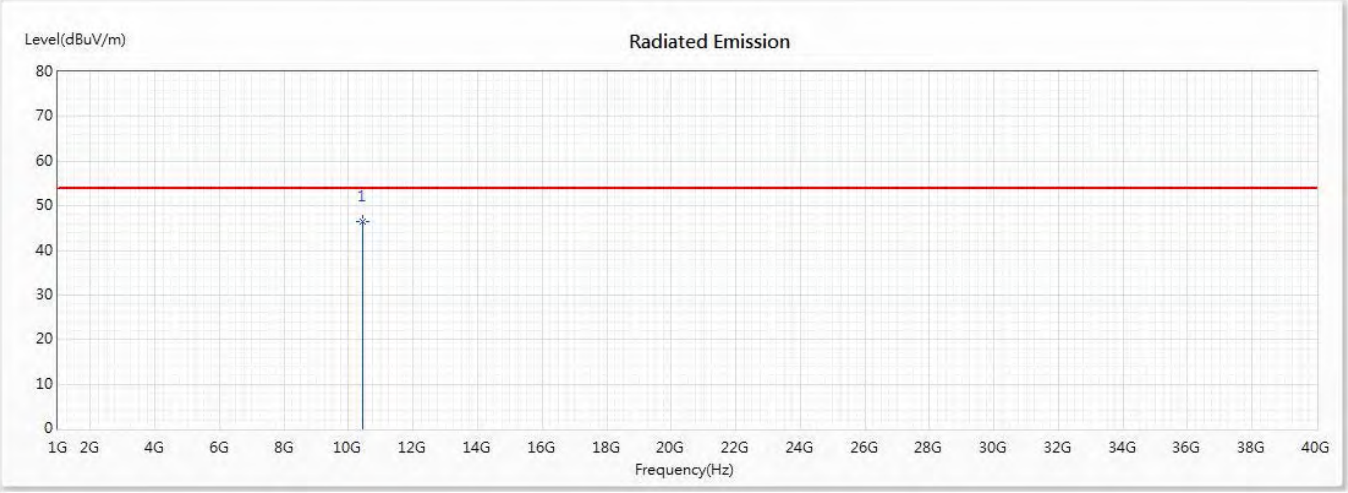
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10440	59.02	74.00	-14.98	53.50	5.52	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5220MHz)
Test Date	:	2020/09/17

Horizontal



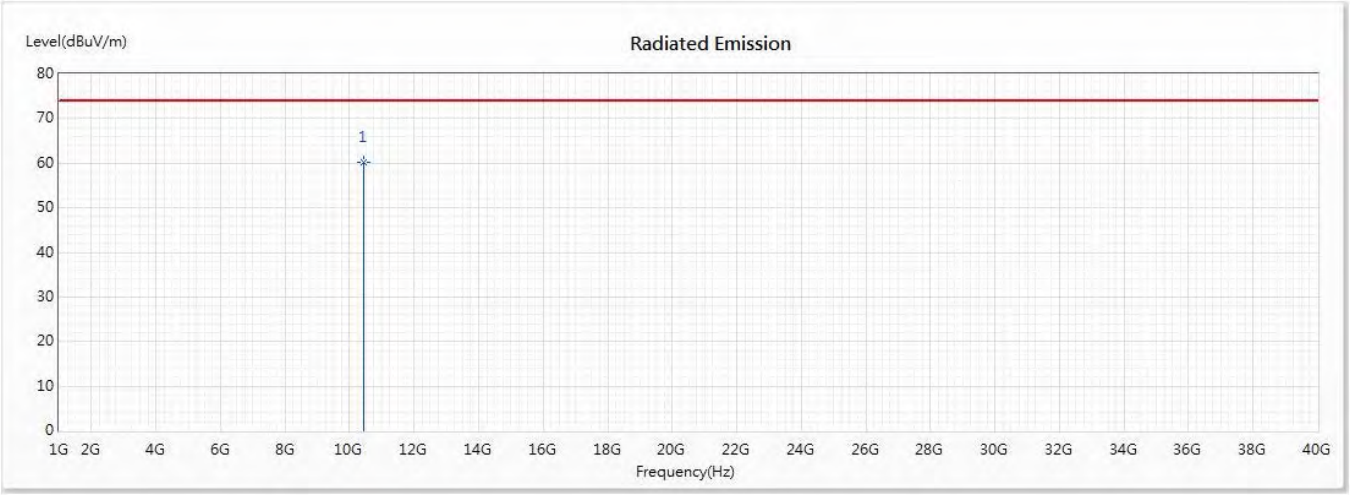
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10440	46.33	54.00	-7.67	40.81	5.52	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5220MHz)
Test Date	:	2020/09/17

Vertical



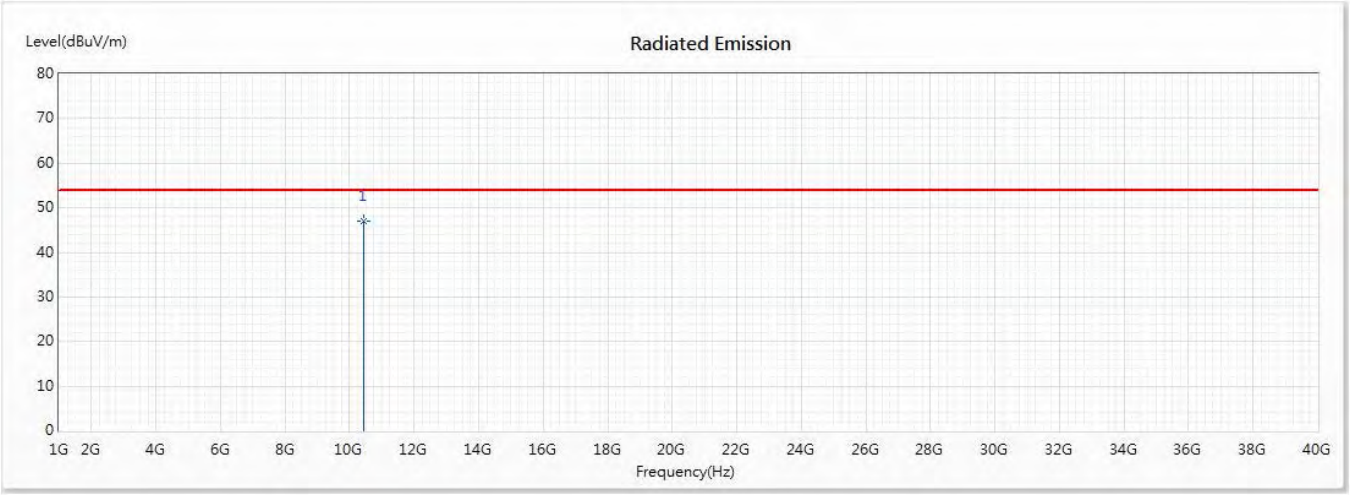
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10440	60.34	74.00	-13.66	54.82	5.52	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5220MHz)
Test Date	:	2020/09/17

Vertical



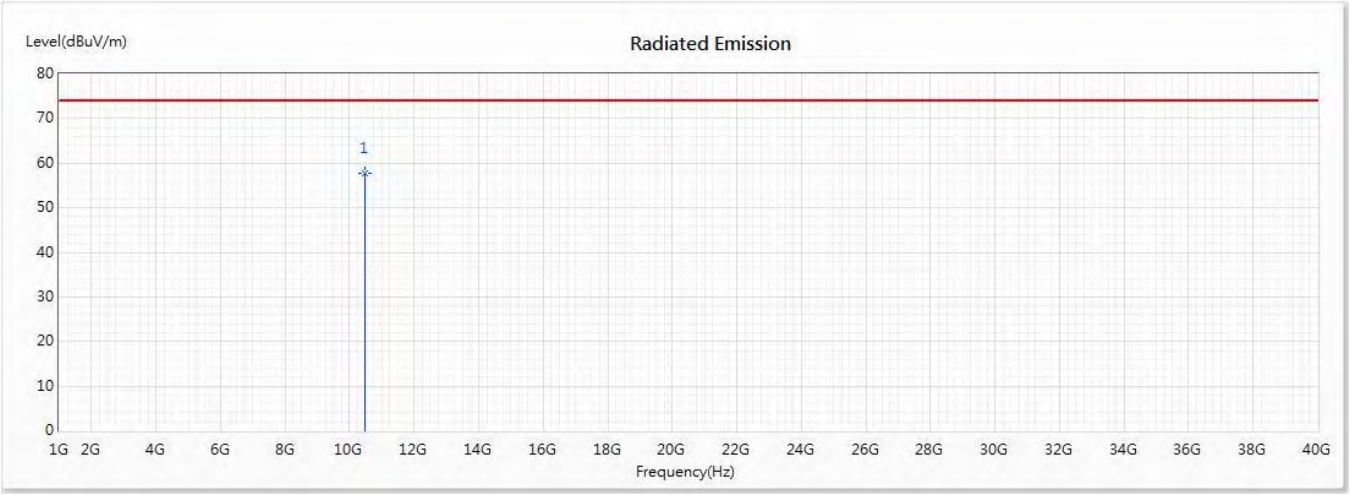
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10440	47.11	54.00	-6.89	41.59	5.52	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5240MHz)
Test Date	:	2020/09/17

Horizontal



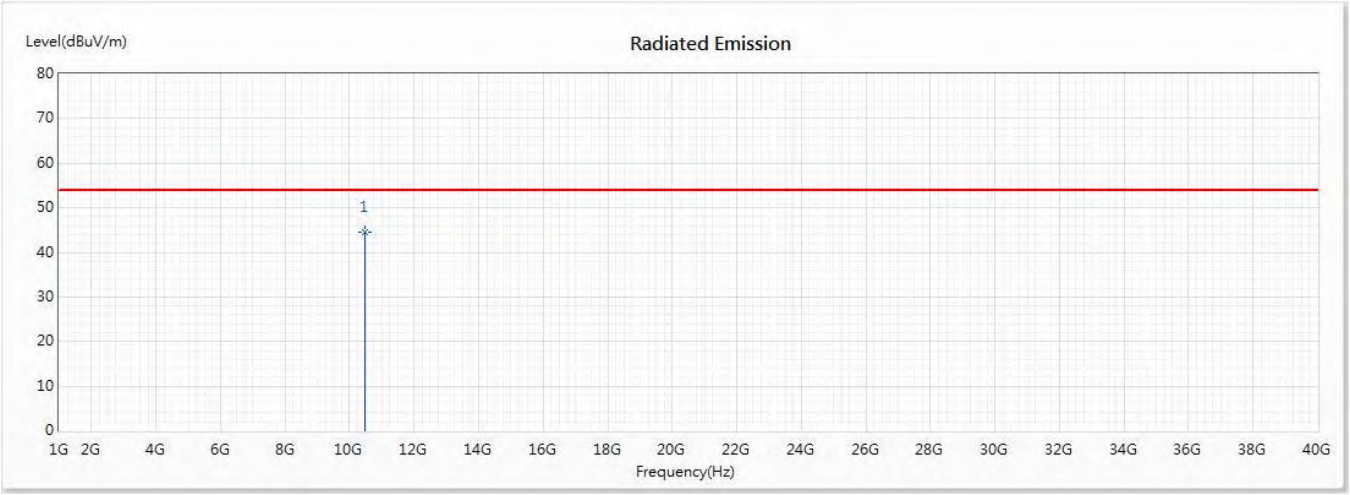
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10480	57.86	74.00	-16.14	52.22	5.64	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5240MHz)
Test Date	:	2020/09/17

Horizontal



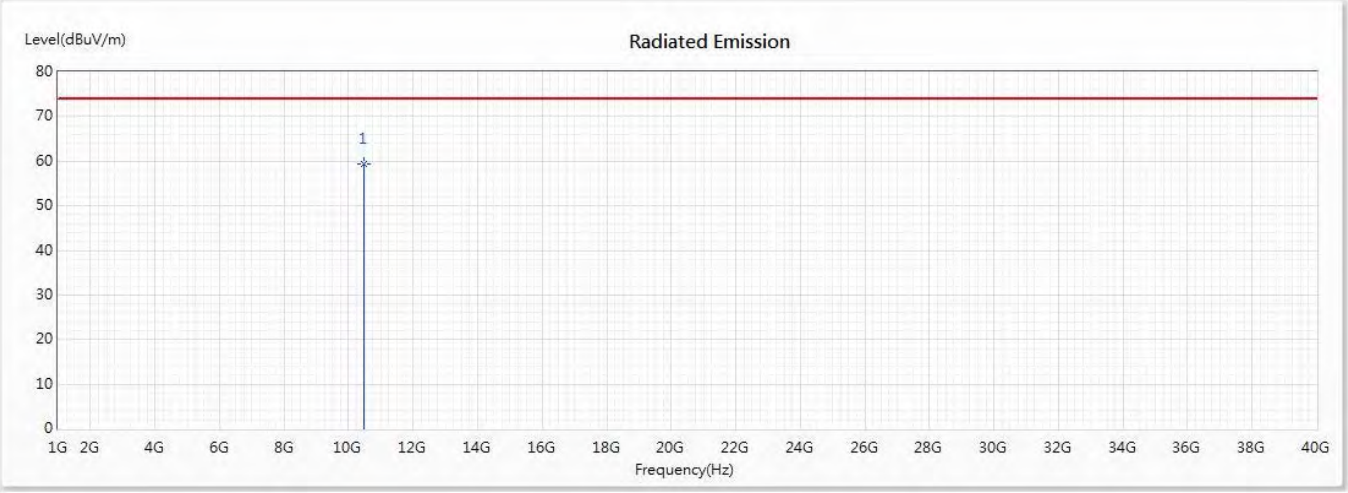
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10480	44.52	54.00	-9.48	38.88	5.64	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5240MHz)
Test Date	:	2020/09/17

Vertical



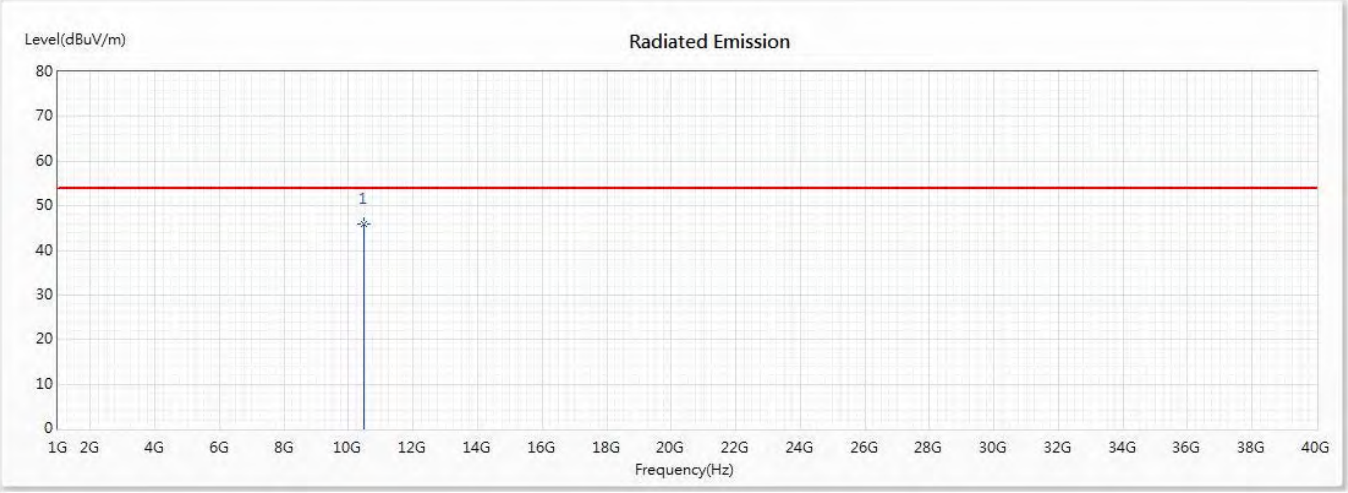
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10480	59.33	74.00	-14.67	53.69	5.64	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5240MHz)
Test Date	:	2020/09/17

Vertical



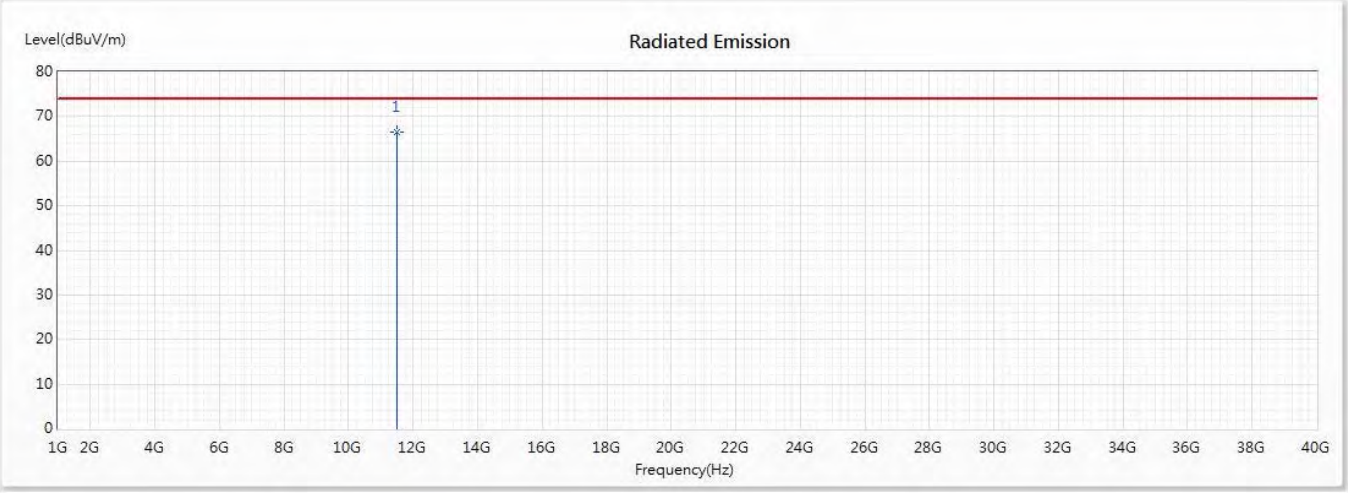
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10480	45.82	54.00	-8.18	40.18	5.64	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5745MHz)
Test Date	:	2020/09/17

Horizontal



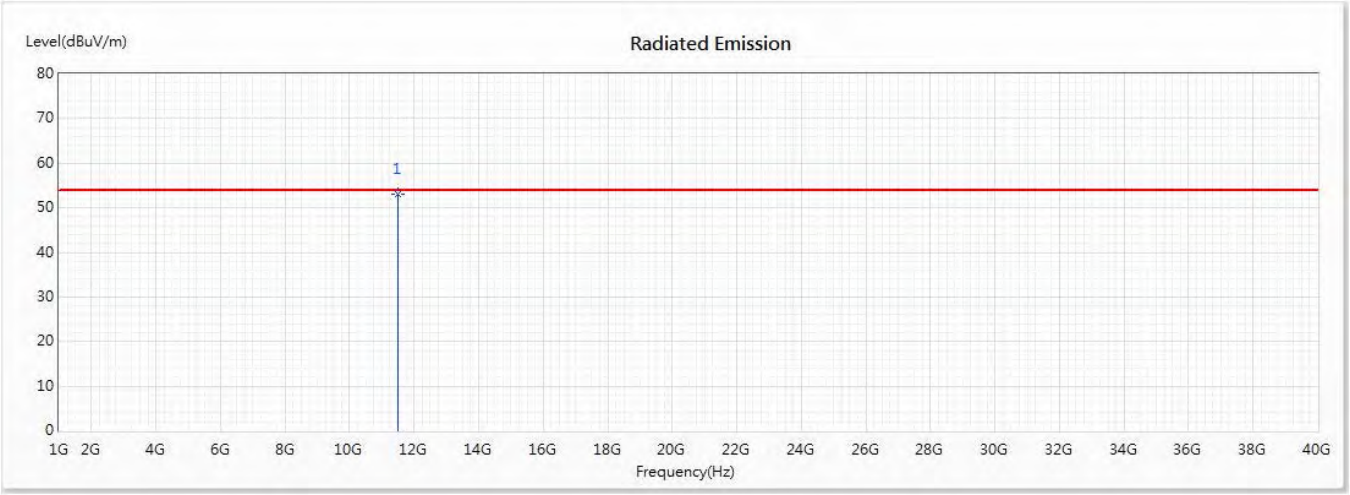
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
* 1	11490	66.61	74.00	-7.39	59.08	7.53	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5745MHz)
Test Date	:	2020/09/17

Horizontal



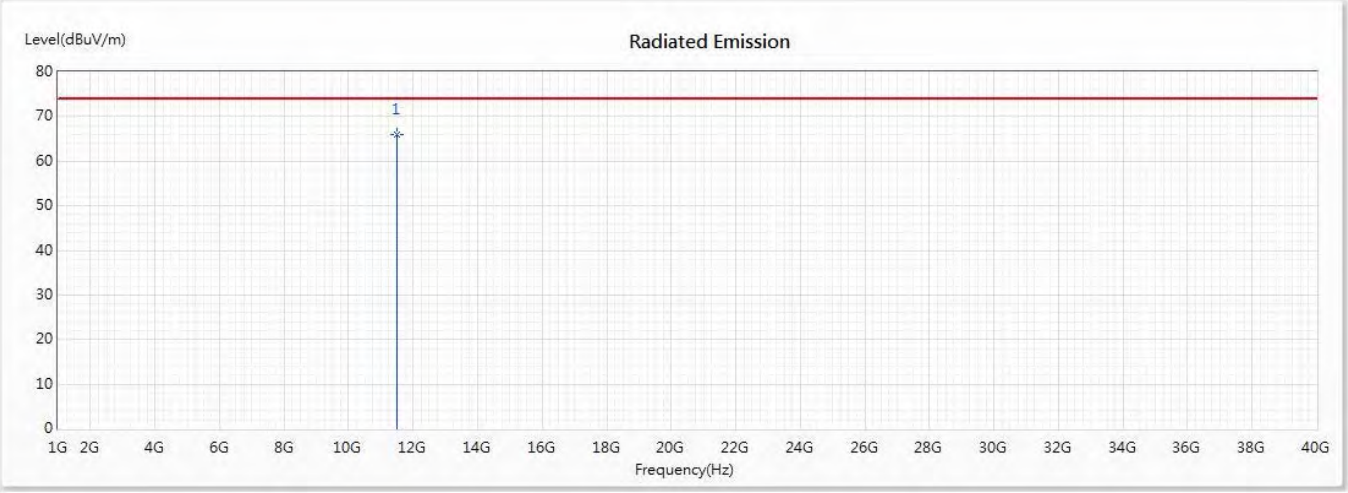
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11490	53.06	54.00	-0.94	45.53	7.53	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5745MHz)
Test Date	:	2020/09/17

Vertical



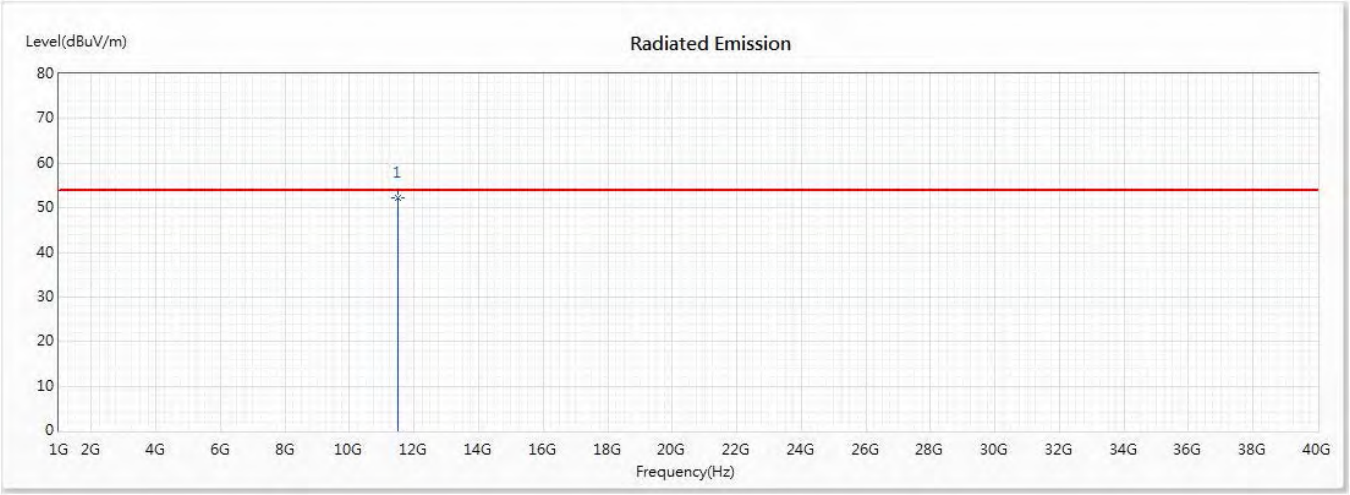
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11490	66.06	74.00	-7.94	58.53	7.53	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5745MHz)
Test Date	:	2020/09/17

Vertical



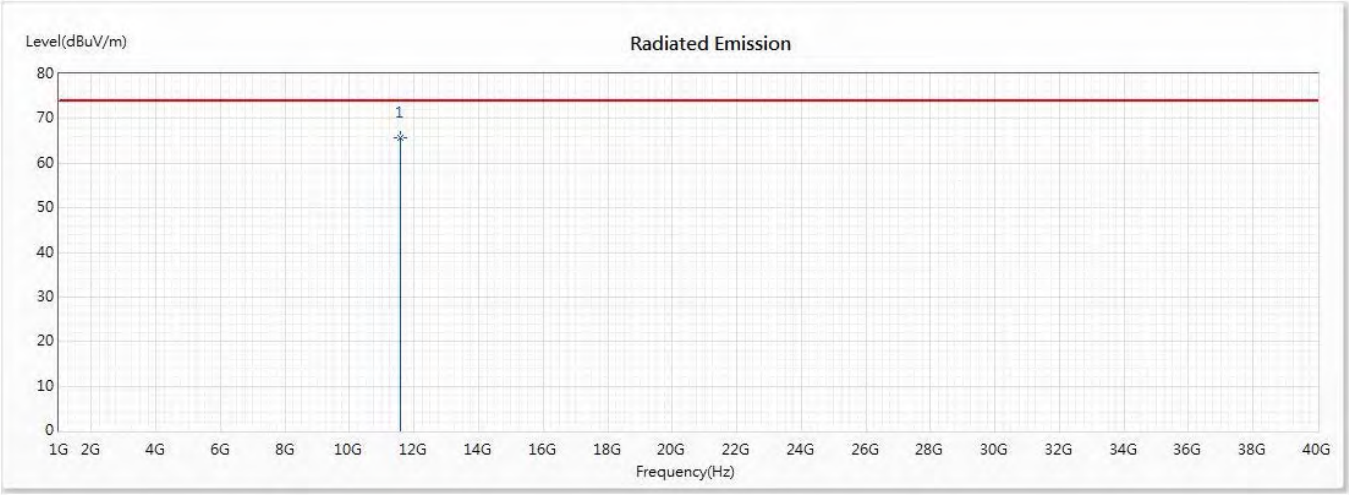
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11490	52.37	54.00	-1.63	44.84	7.53	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5785MHz)
Test Date	:	2020/09/17

Horizontal



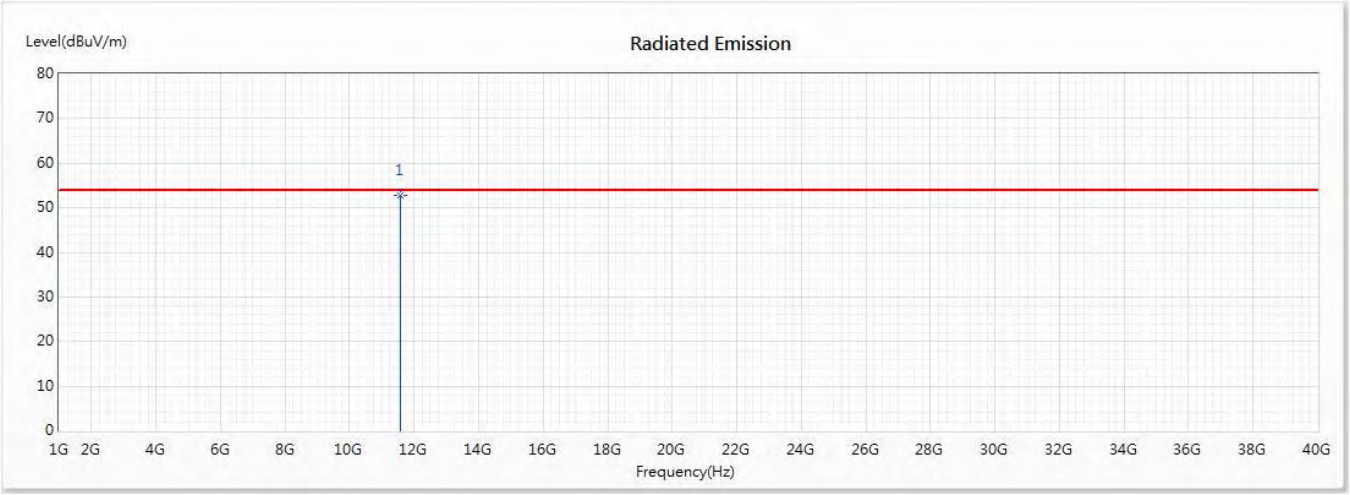
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
* 1	11570	65.84	74.00	-8.16	58.14	7.70	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5785MHz)
Test Date	:	2020/09/17

Horizontal



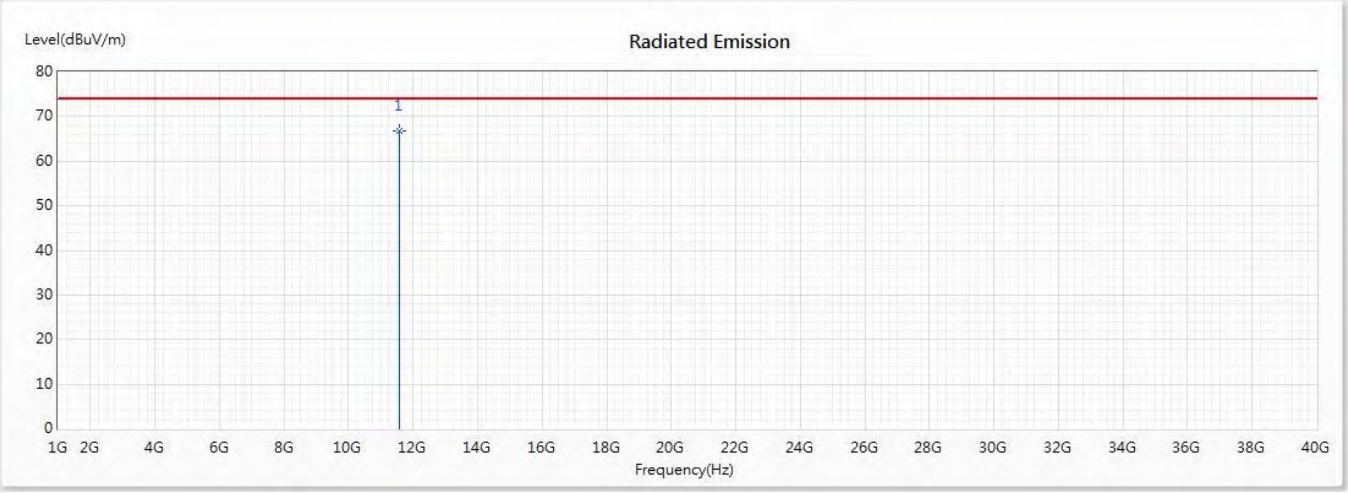
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11570	52.71	54.00	-1.29	45.01	7.70	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5785MHz)
Test Date	:	2020/09/17

Vertical



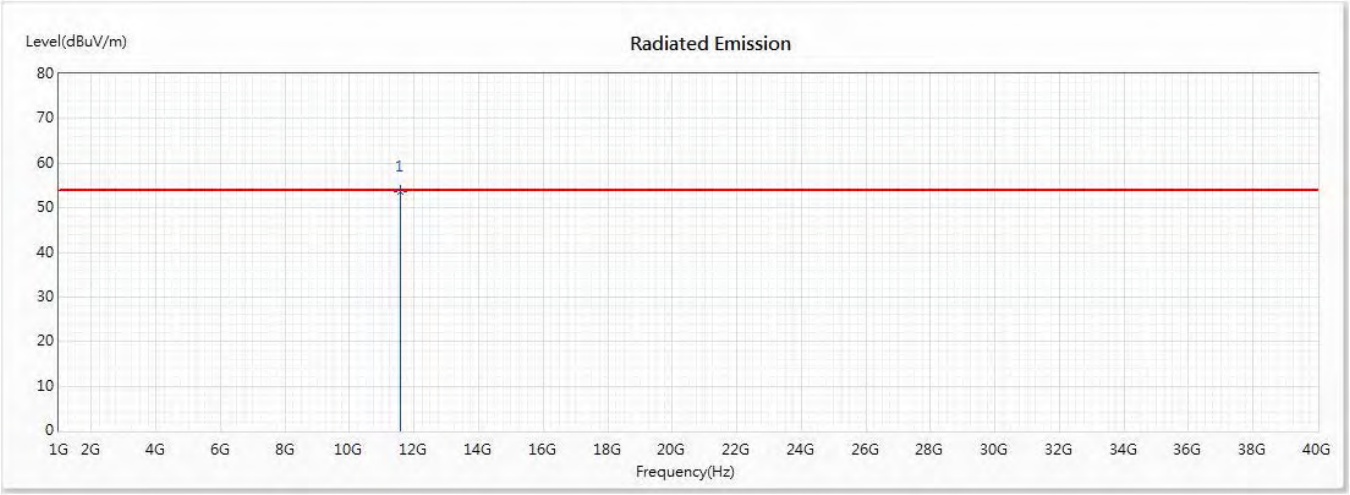
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11570	66.72	74.00	-7.28	59.02	7.70	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5785MHz)
Test Date	:	2020/09/17

Vertical



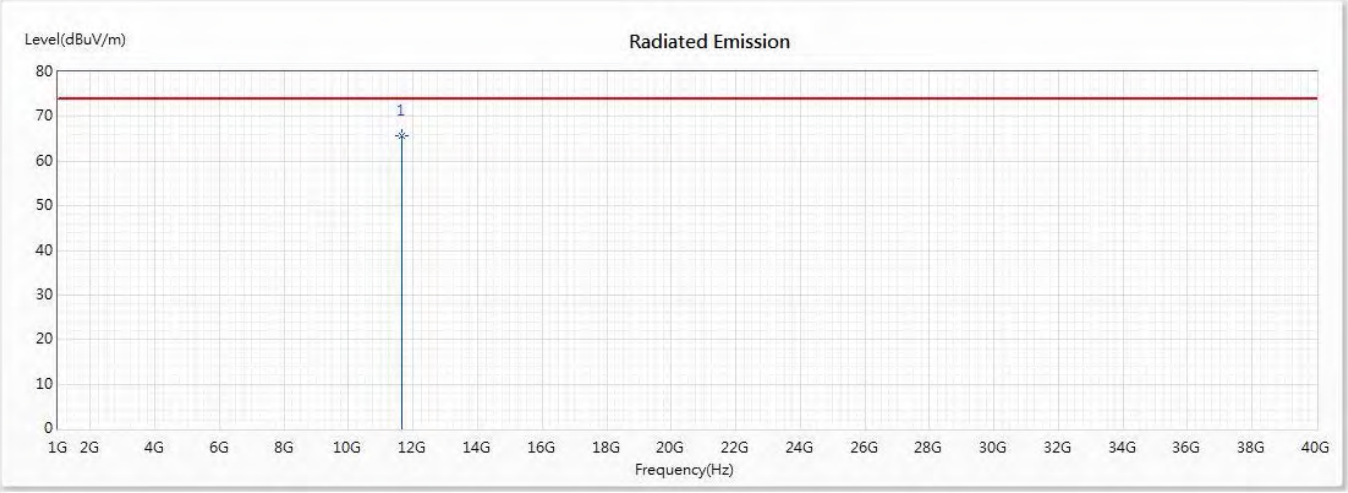
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11570	53.53	54.00	-0.47	45.83	7.70	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5825MHz)
Test Date	:	2020/09/17

Horizontal



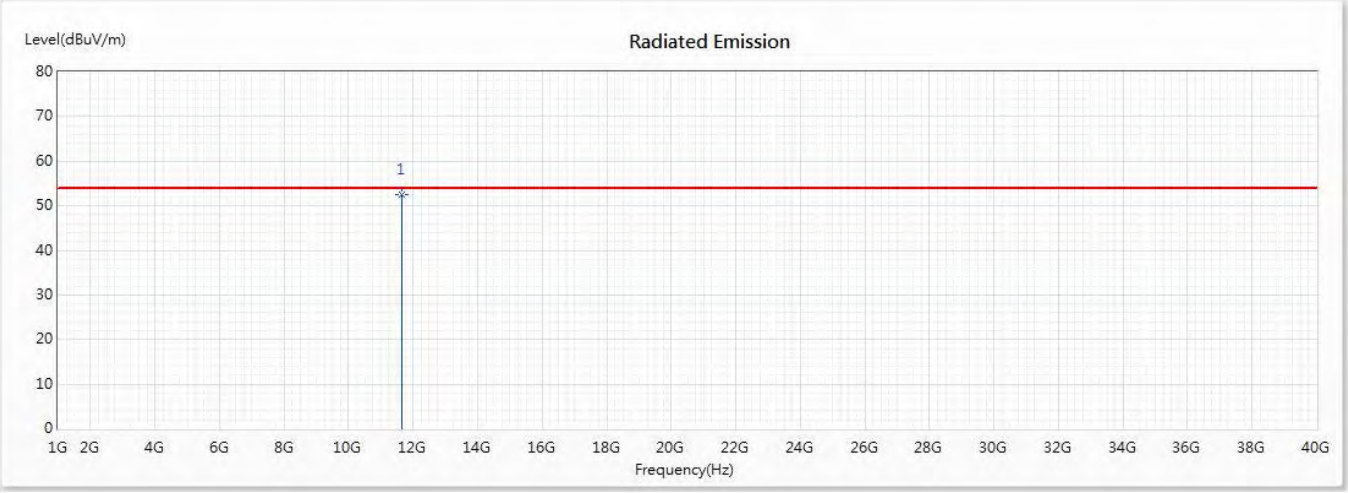
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11650	65.71	74.00	-8.29	57.81	7.90	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5825MHz)
Test Date	:	2020/09/17

Horizontal



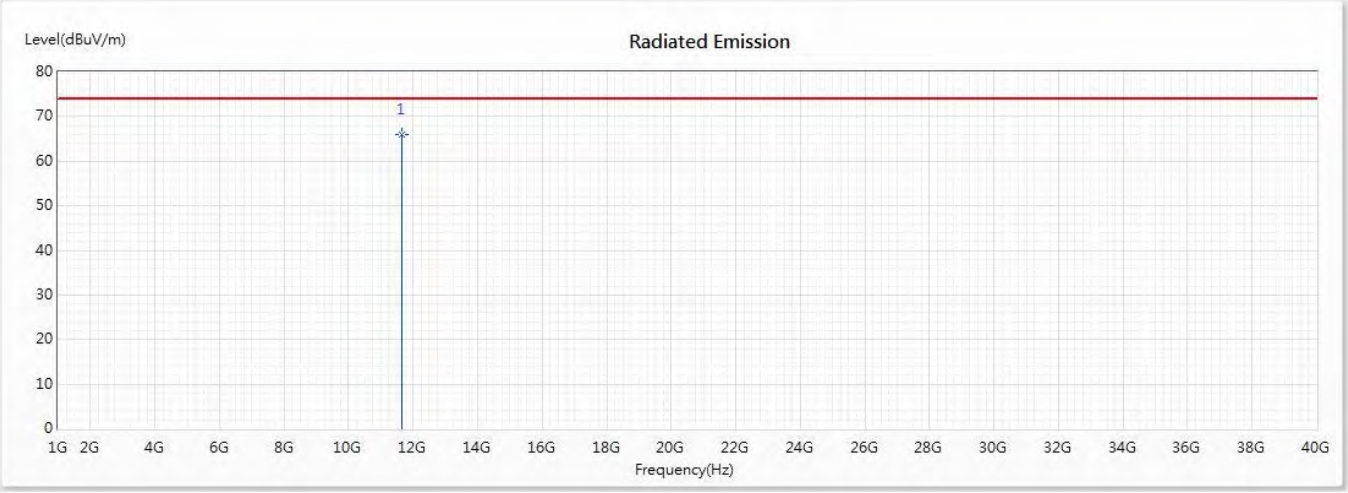
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11650	52.58	54.00	-1.42	44.68	7.90	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5825MHz)
Test Date	:	2020/09/17

Vertical



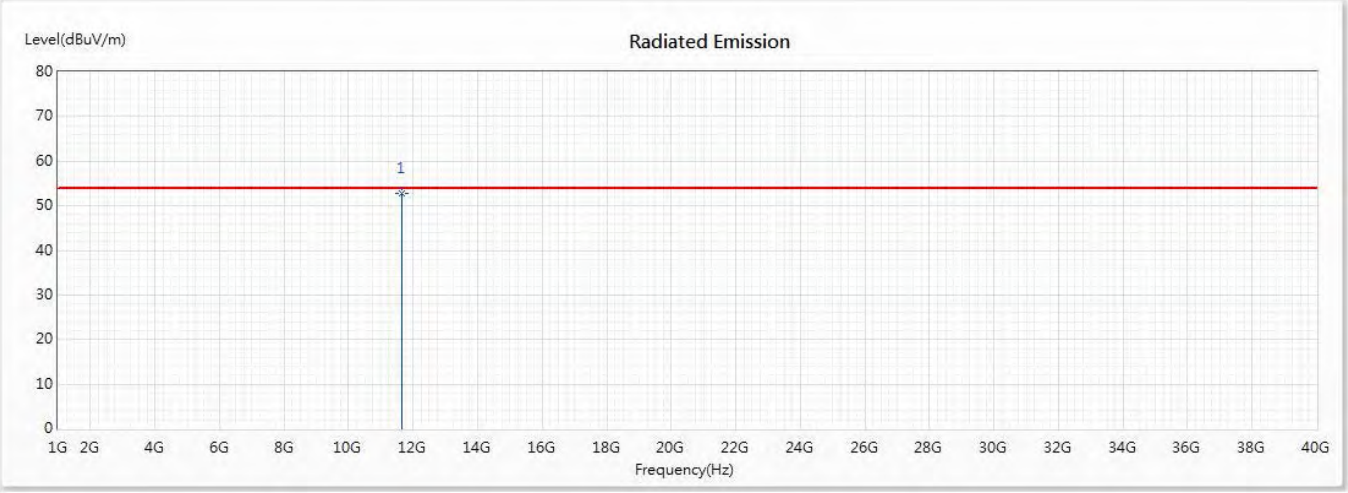
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11650	65.95	74.00	-8.05	58.05	7.90	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 1: Transmit (802.11a) (5825MHz)
Test Date	:	2020/09/17

Vertical



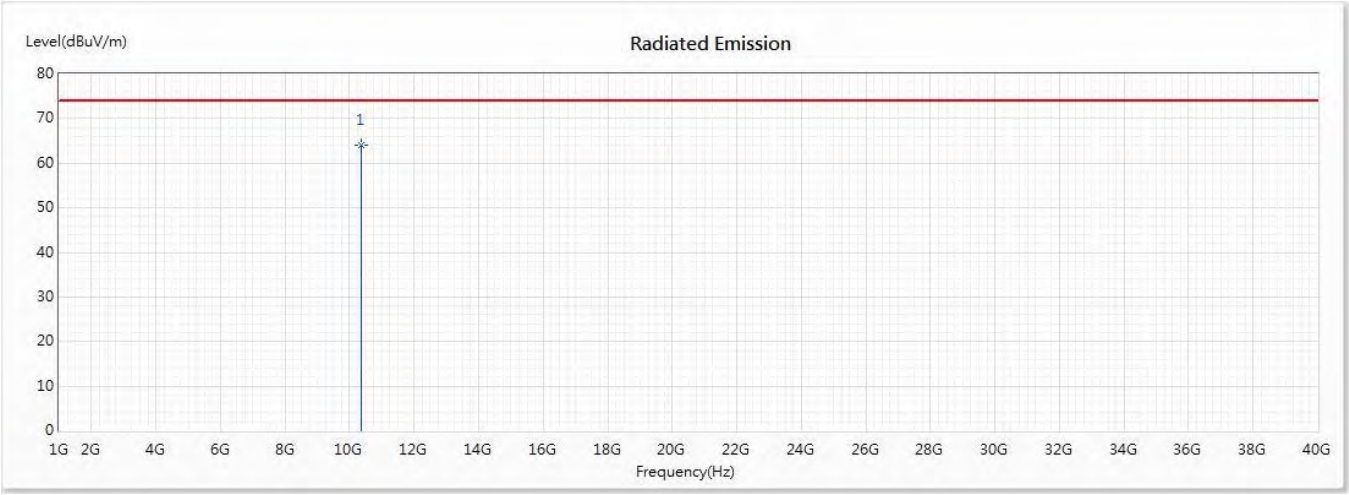
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11650	52.72	54.00	-1.28	44.82	7.90	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5180MHz)
Test Date	:	2020/09/17

Horizontal



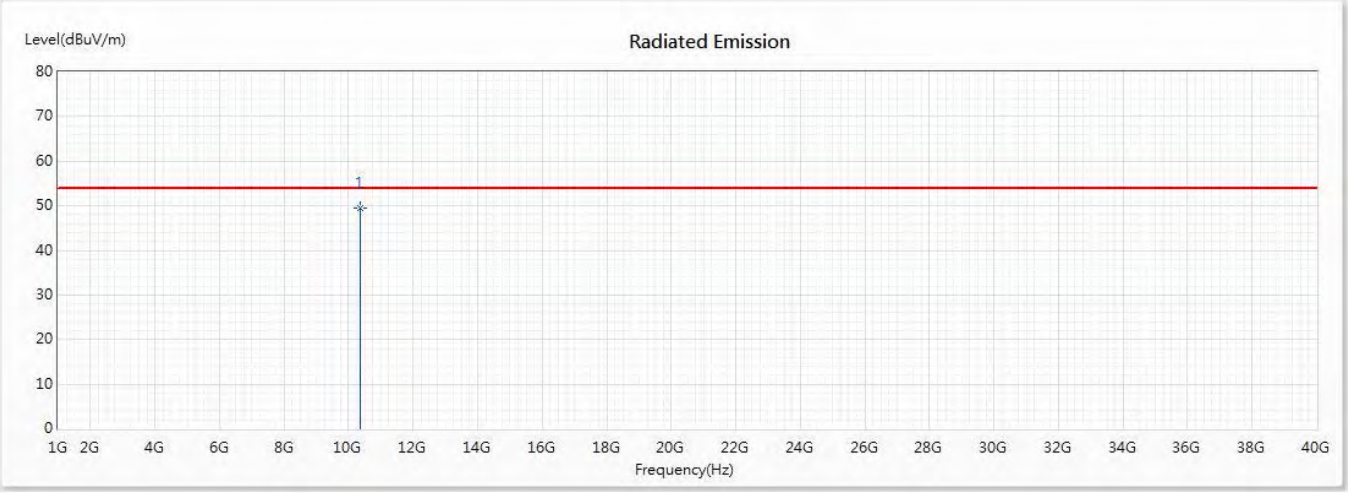
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
* 1	10360	64.01	74.00	-9.99	58.69	5.32	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5180MHz)
Test Date	:	2020/09/17

Horizontal



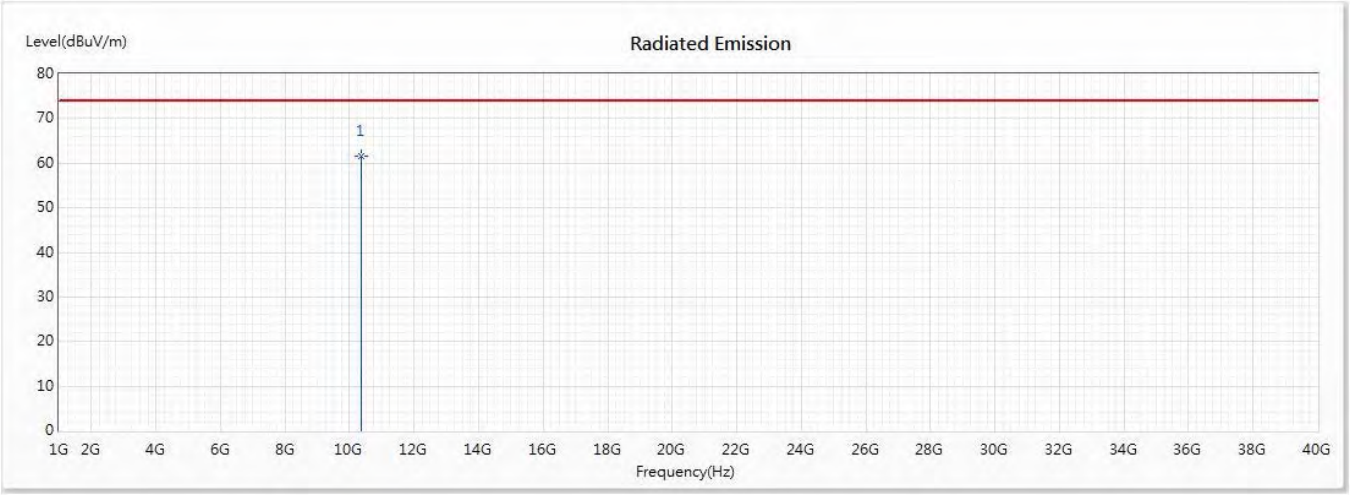
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10360	49.56	54.00	-4.44	44.24	5.32	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5180MHz)
Test Date	:	2020/09/17

Vertical



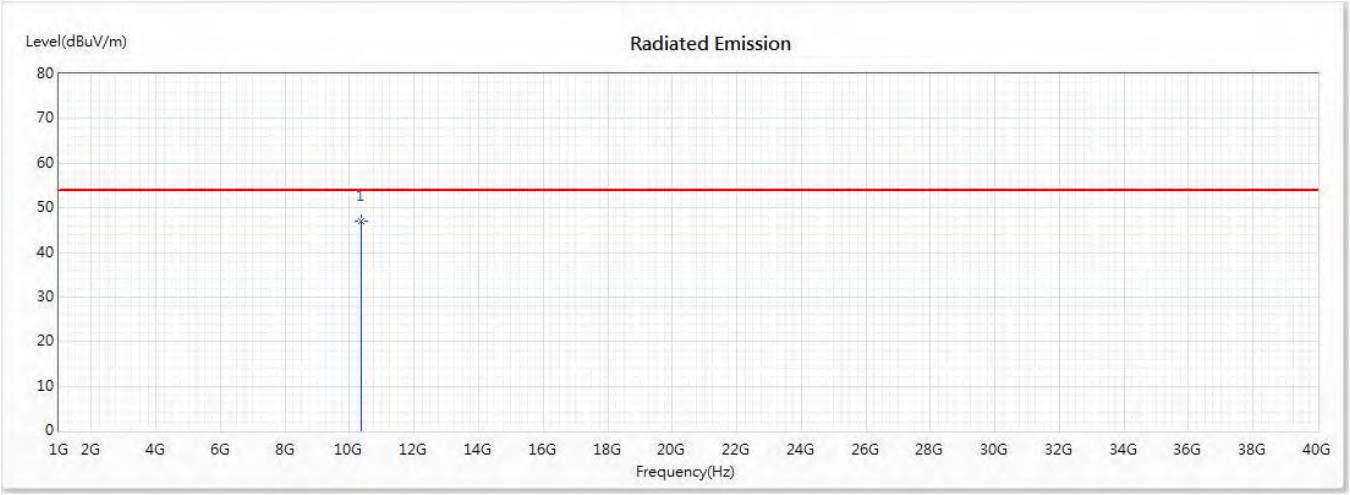
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10360	61.48	74.00	-12.52	56.16	5.32	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5180MHz)
Test Date	:	2020/09/17

Vertical



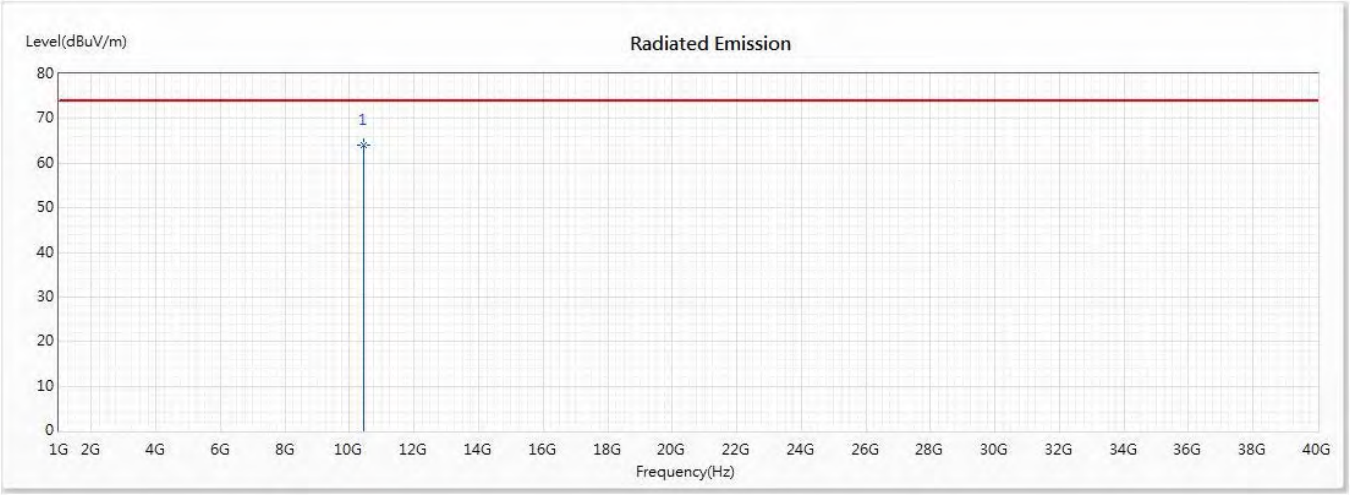
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10360	46.89	54.00	-7.11	41.57	5.32	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5220MHz)
Test Date	:	2020/09/17

Horizontal



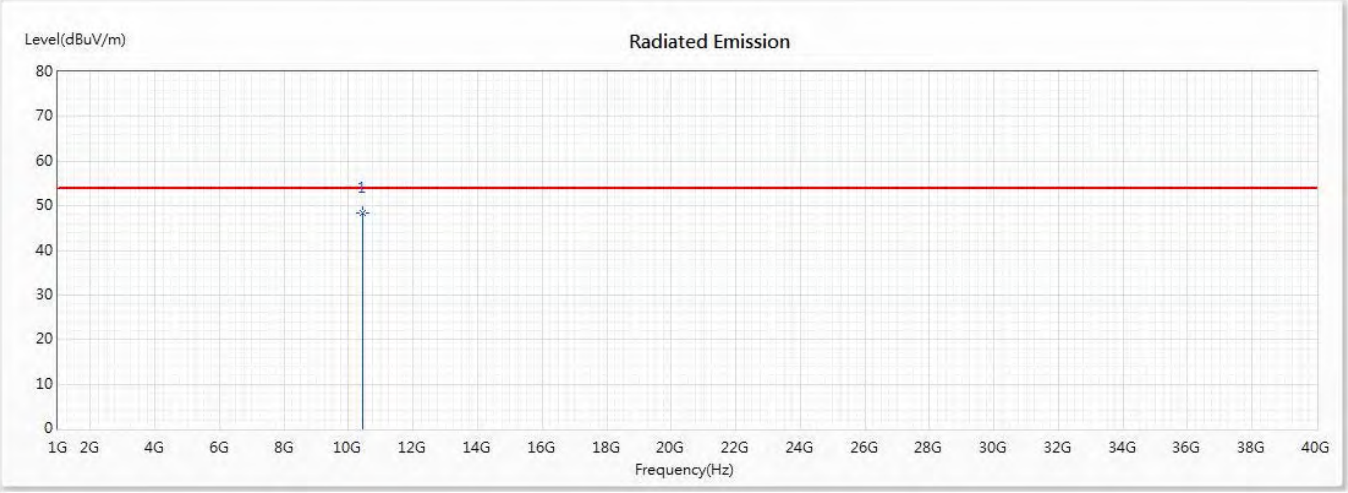
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10440	64.15	74.00	-9.85	58.63	5.52	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5220MHz)
Test Date	:	2020/09/17

Horizontal



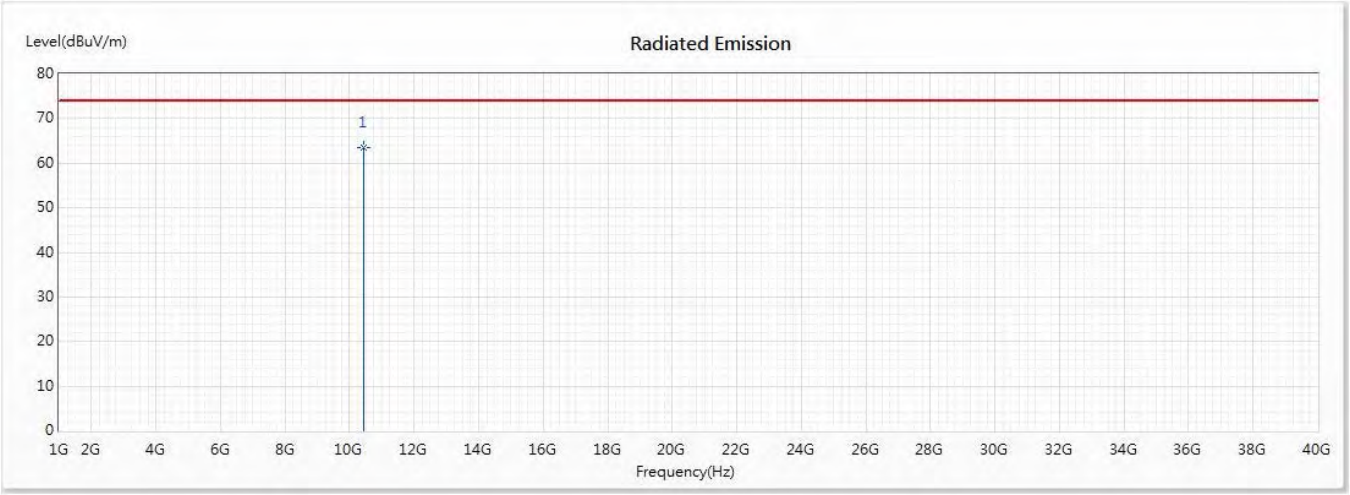
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10440	48.44	54.00	-5.56	42.92	5.52	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5220MHz)
Test Date	:	2020/09/17

Vertical



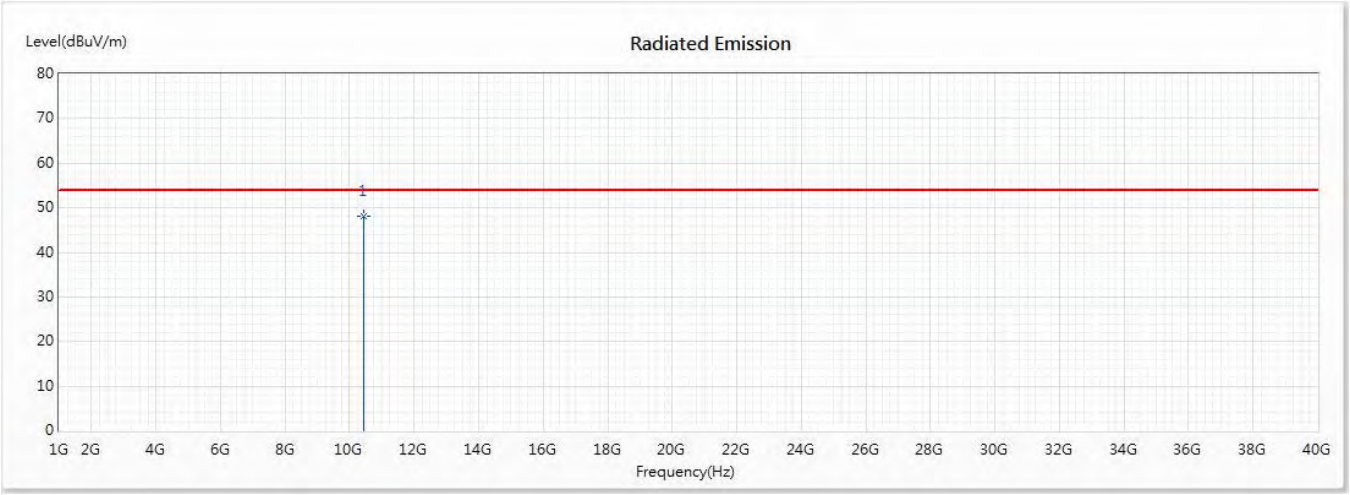
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10440	63.60	74.00	-10.40	58.08	5.52	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5220MHz)
Test Date	:	2020/09/17

Vertical



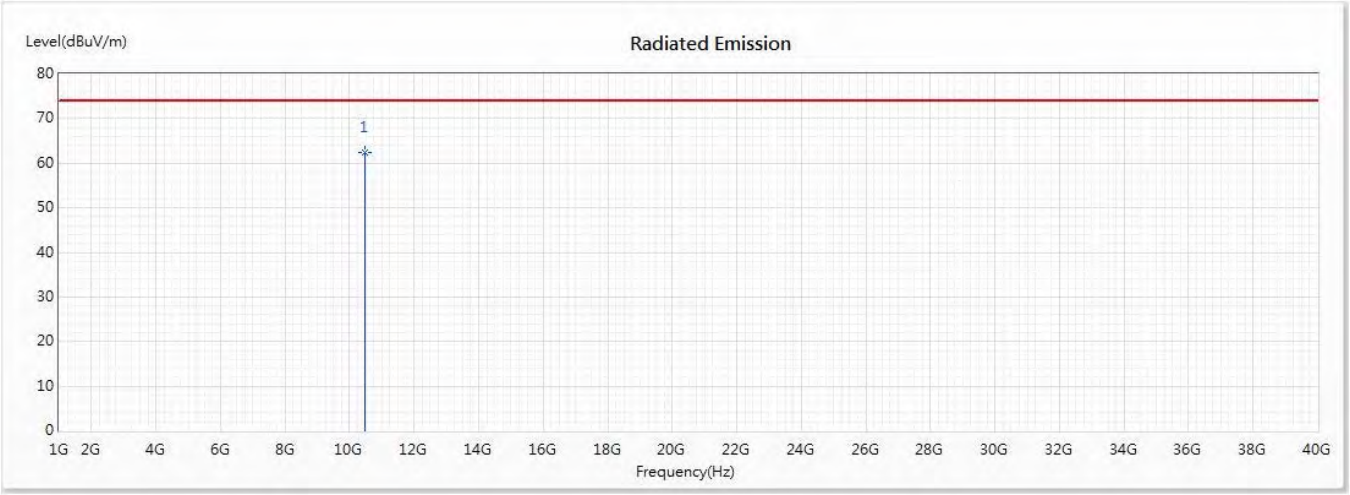
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10440	48.09	54.00	-5.91	42.57	5.52	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5240MHz)
Test Date	:	2020/09/17

Horizontal



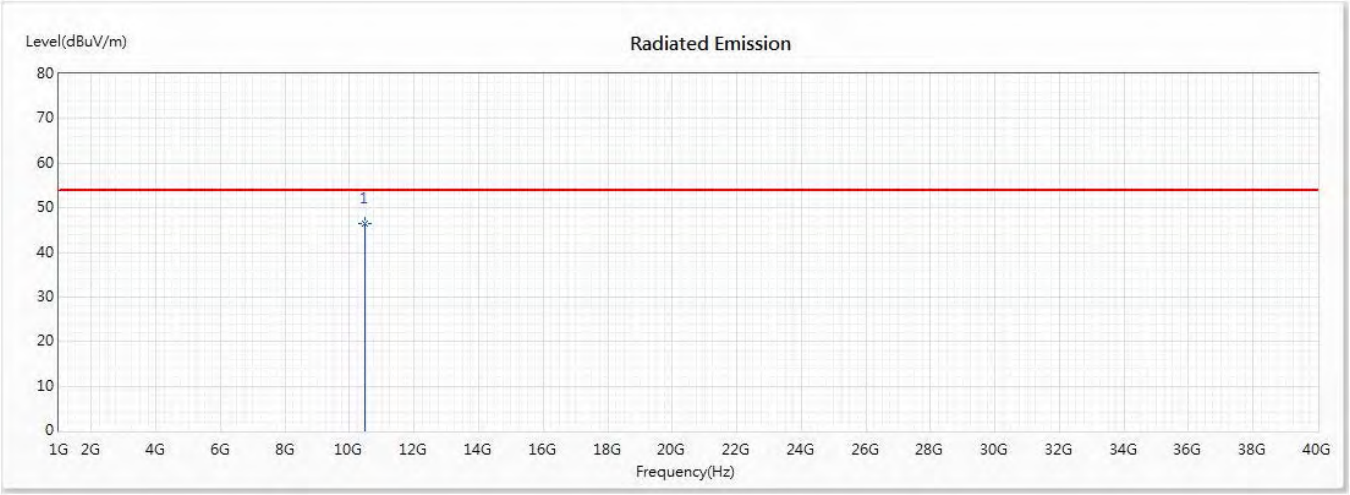
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
* 1	10480	62.31	74.00	-11.69	56.67	5.64	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5240MHz)
Test Date	:	2020/09/17

Horizontal



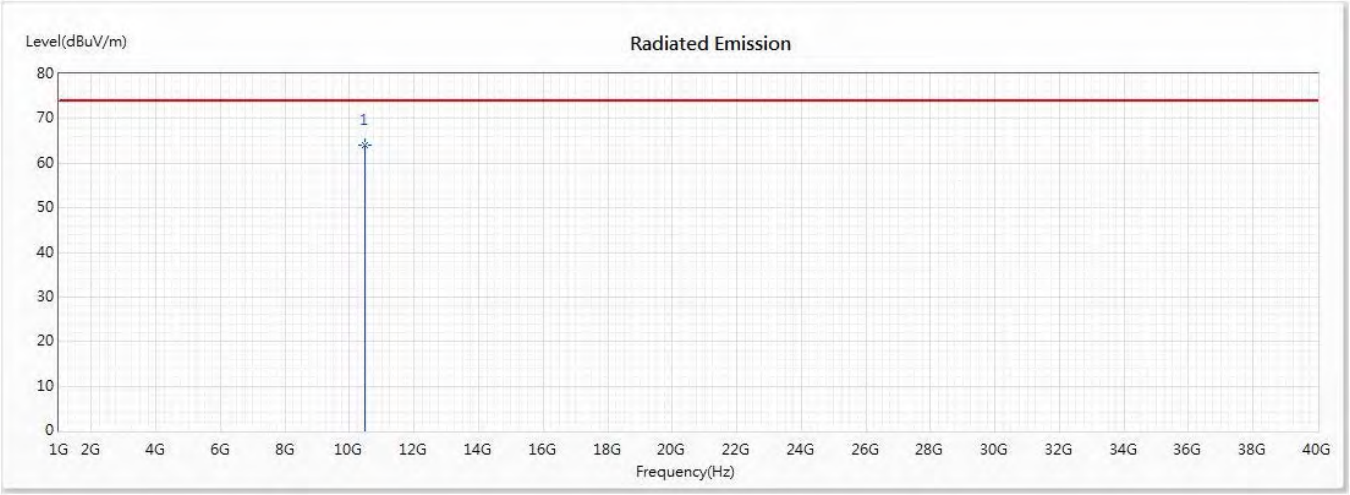
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10480	46.46	54.00	-7.54	40.82	5.64	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5240MHz)
Test Date	:	2020/09/17

Vertical



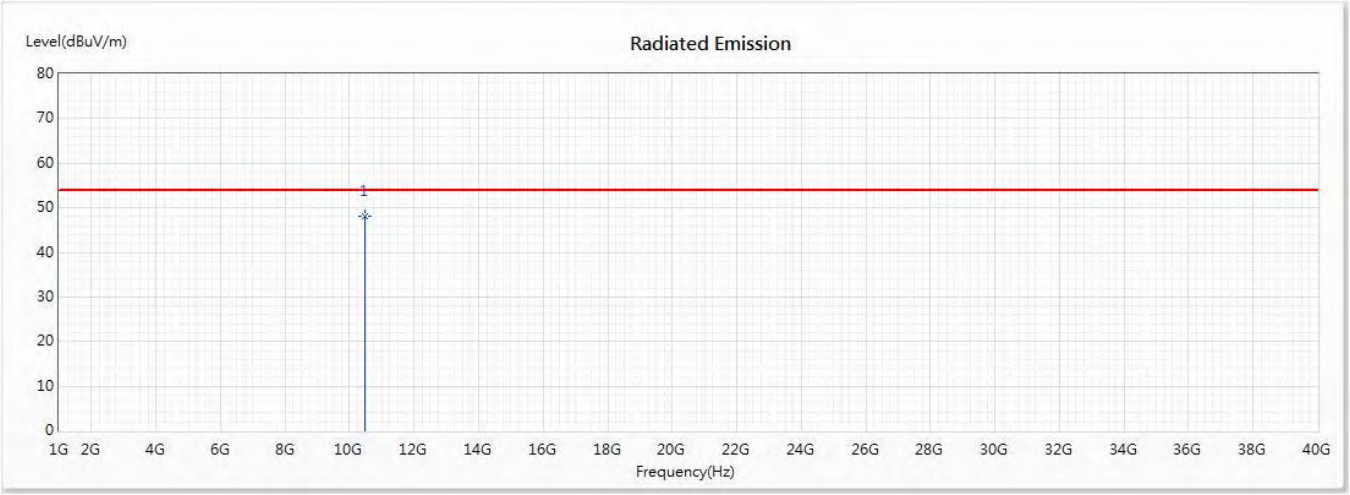
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10480	63.96	74.00	-10.04	58.32	5.64	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5240MHz)
Test Date	:	2020/09/17

Vertical



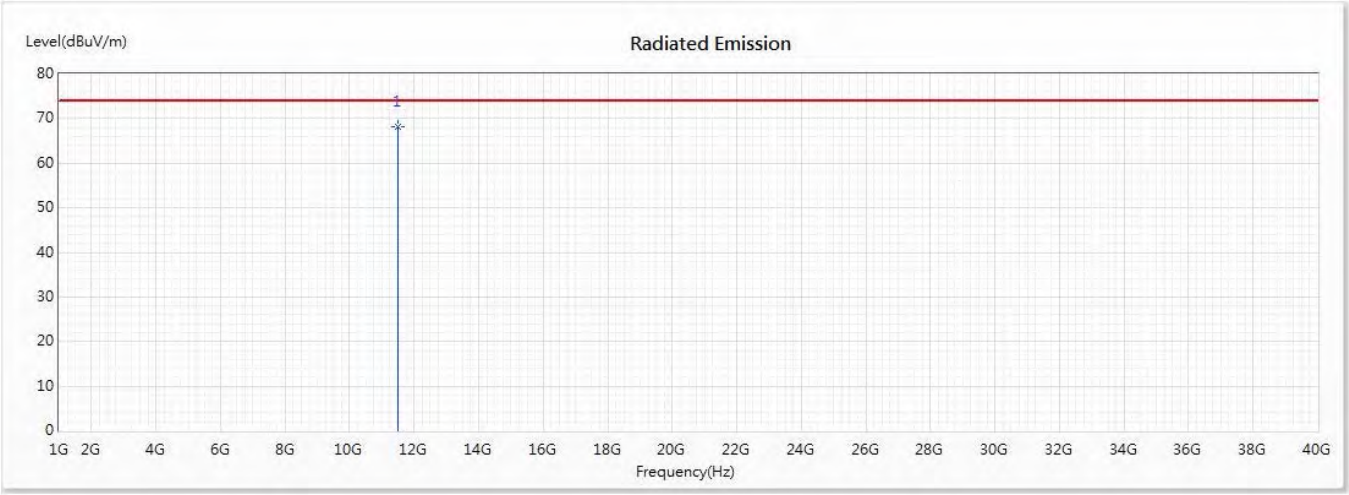
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10480	48.16	54.00	-5.84	42.52	5.64	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wireless Outdoor Router
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 2: Transmit (802.11n-20BW) (5745MHz)
Test Date : 2020/09/17

Horizontal



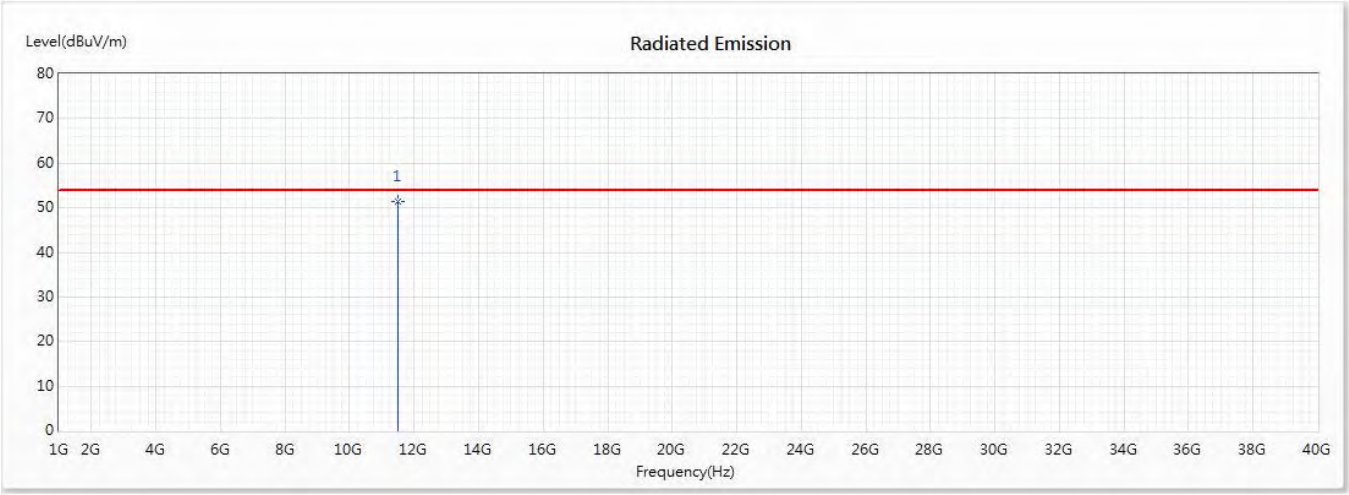
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
* 1	11490	68.11	74.00	-5.89	60.58	7.53	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5745MHz)
Test Date	:	2020/09/17

Horizontal



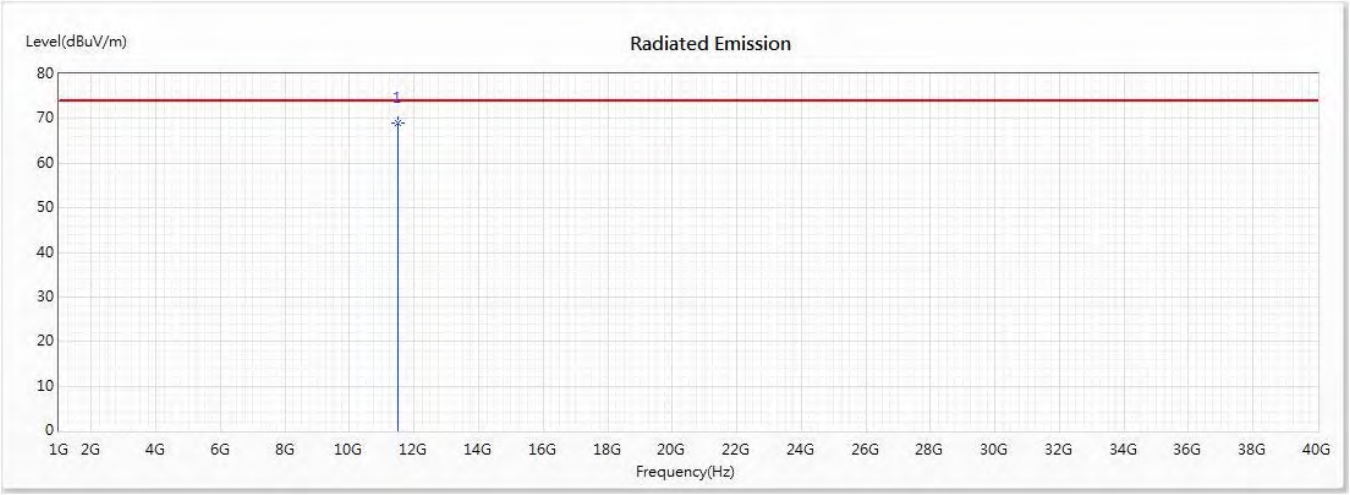
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
* 1	11490	51.50	54.00	-2.50	43.97	7.53	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5745MHz)
Test Date	:	2020/09/17

Vertical



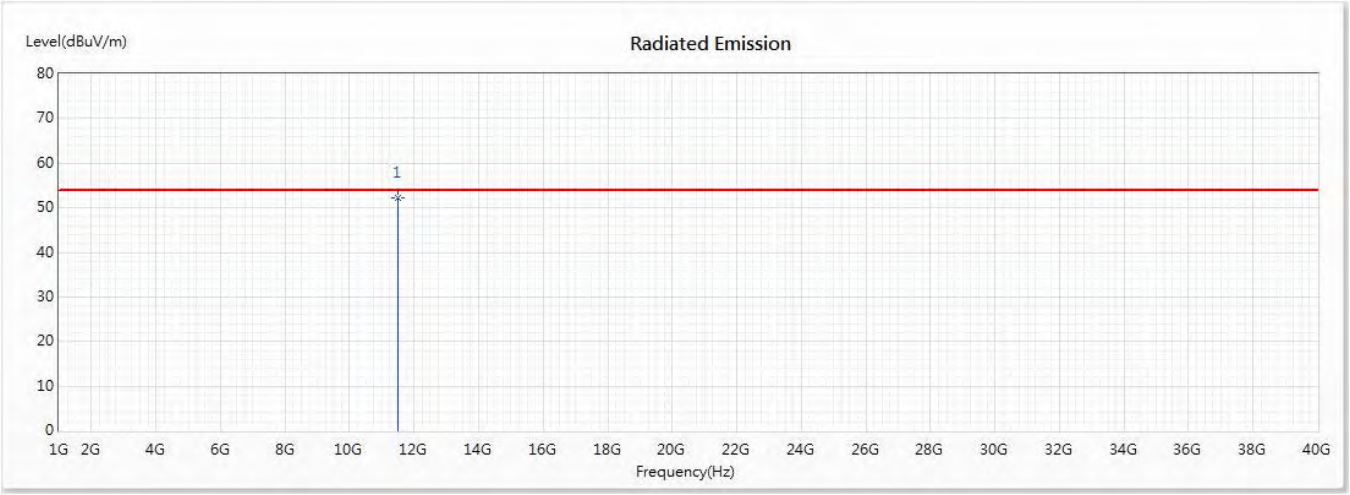
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11490	69.00	74.00	-5.00	61.47	7.53	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5745MHz)
Test Date	:	2020/09/17

Vertical



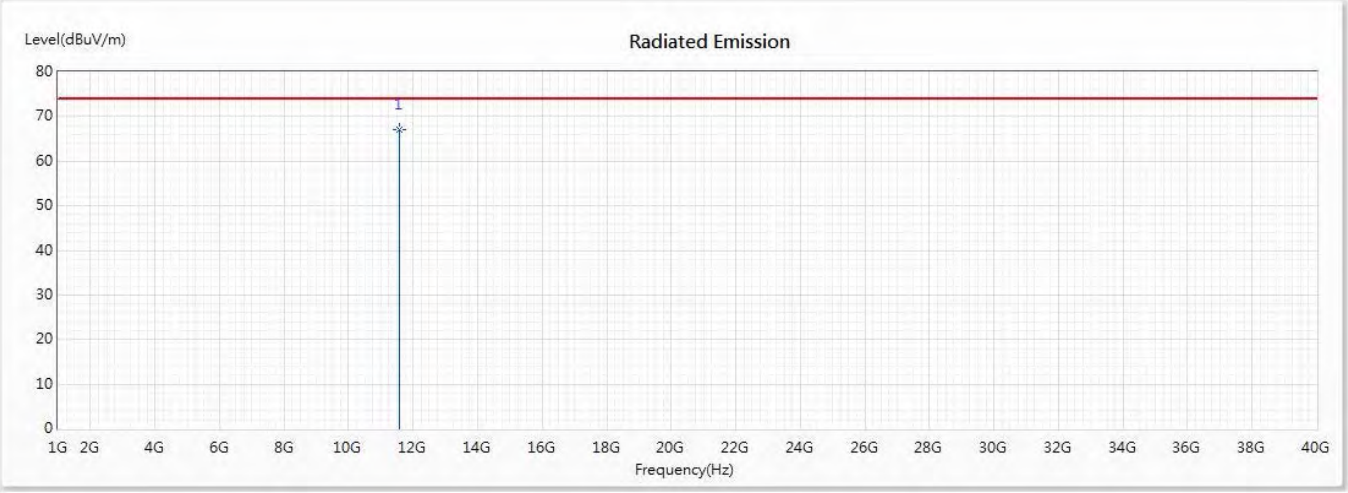
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11490	52.36	54.00	-1.64	44.83	7.53	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5785MHz)
Test Date	:	2020/09/17

Horizontal



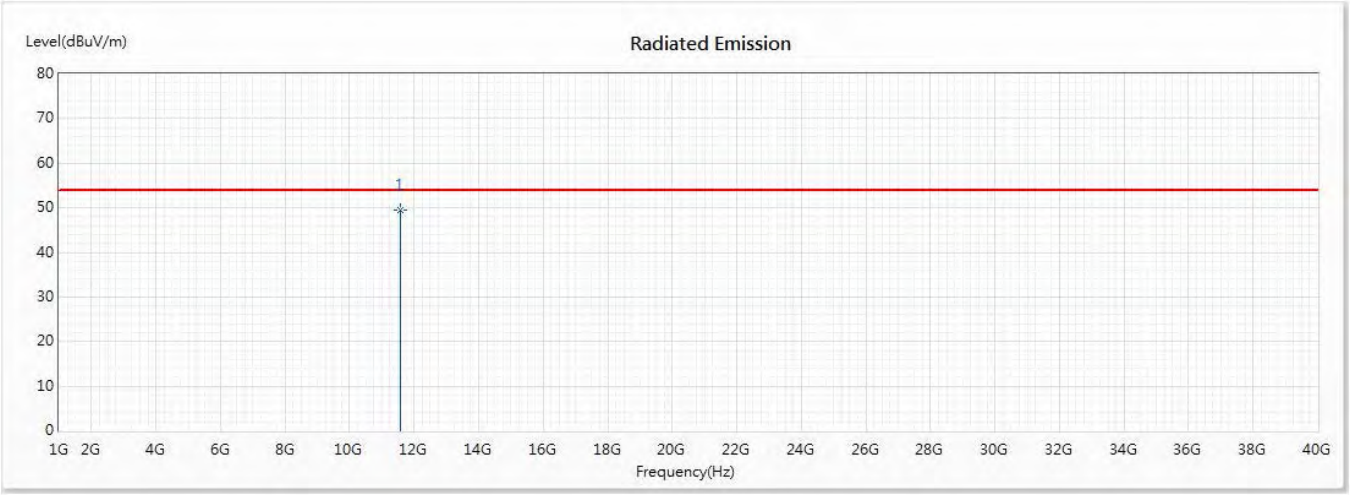
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11570	67.02	74.00	-6.98	59.32	7.70	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5785MHz)
Test Date	:	2020/09/17

Horizontal



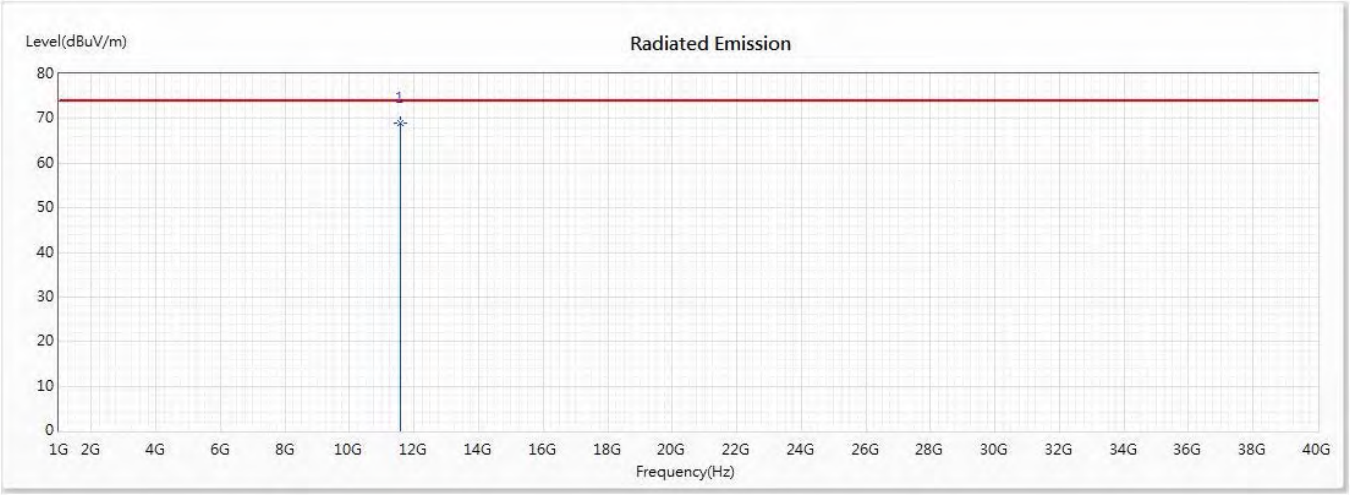
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11570	49.43	54.00	-4.57	41.73	7.70	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5785MHz)
Test Date	:	2020/09/17

Vertical



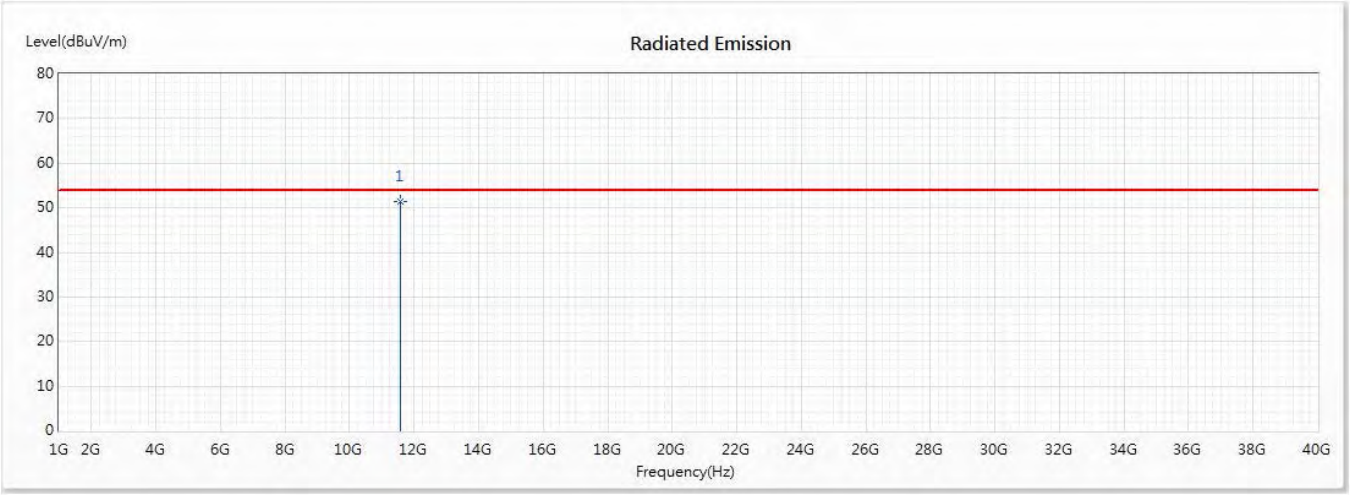
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11570	68.98	74.00	-5.02	61.28	7.70	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5785MHz)
Test Date	:	2020/09/17

Vertical



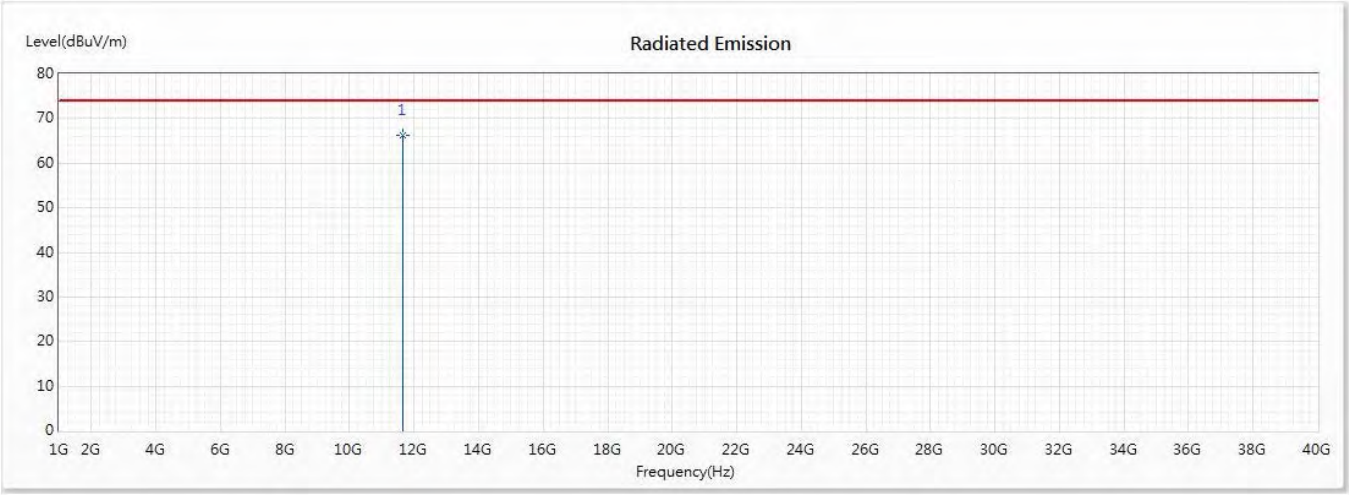
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11570	51.36	54.00	-2.64	43.66	7.70	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wireless Outdoor Router
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 2: Transmit (802.11n-20BW) (5825MHz)
Test Date : 2020/09/17

Horizontal



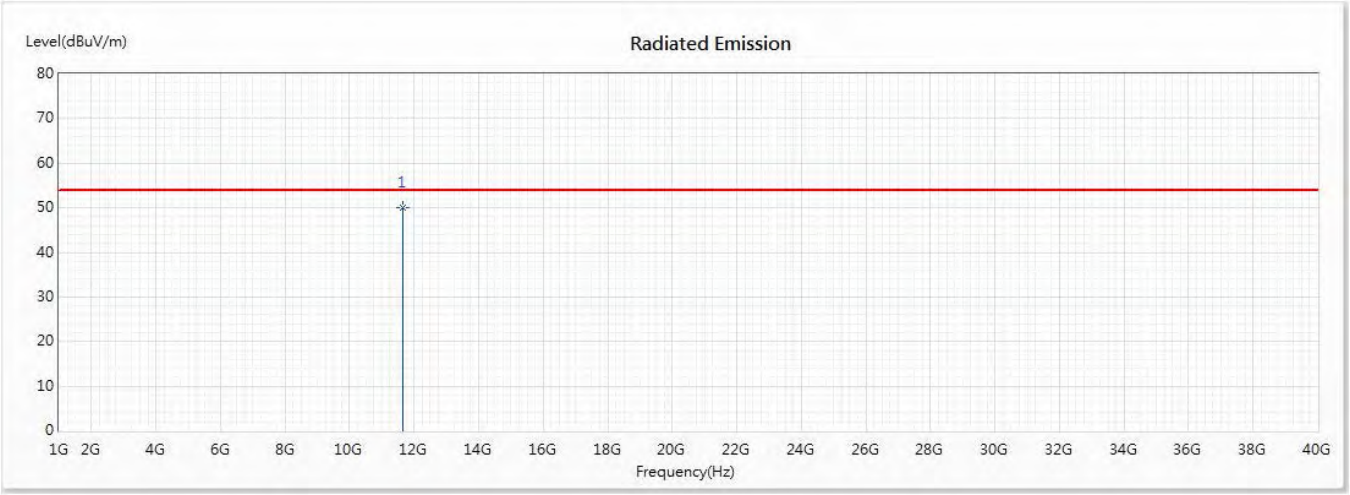
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
* 1	11650	66.29	74.00	-7.71	58.39	7.90	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5825MHz)
Test Date	:	2020/09/17

Horizontal



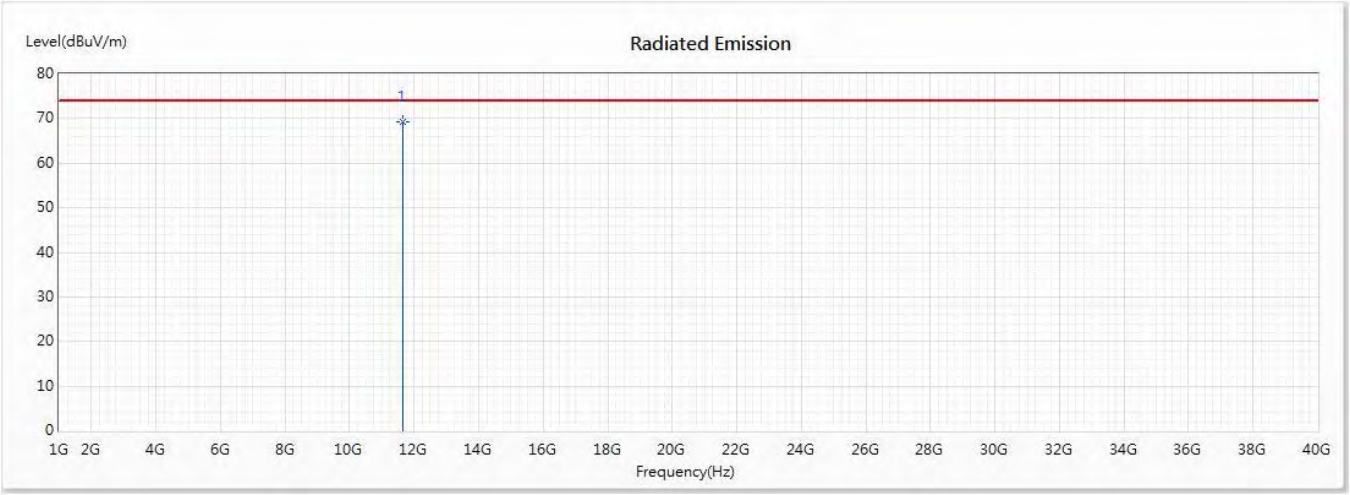
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11650	49.92	54.00	-4.08	42.02	7.90	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5825MHz)
Test Date	:	2020/09/17

Vertical



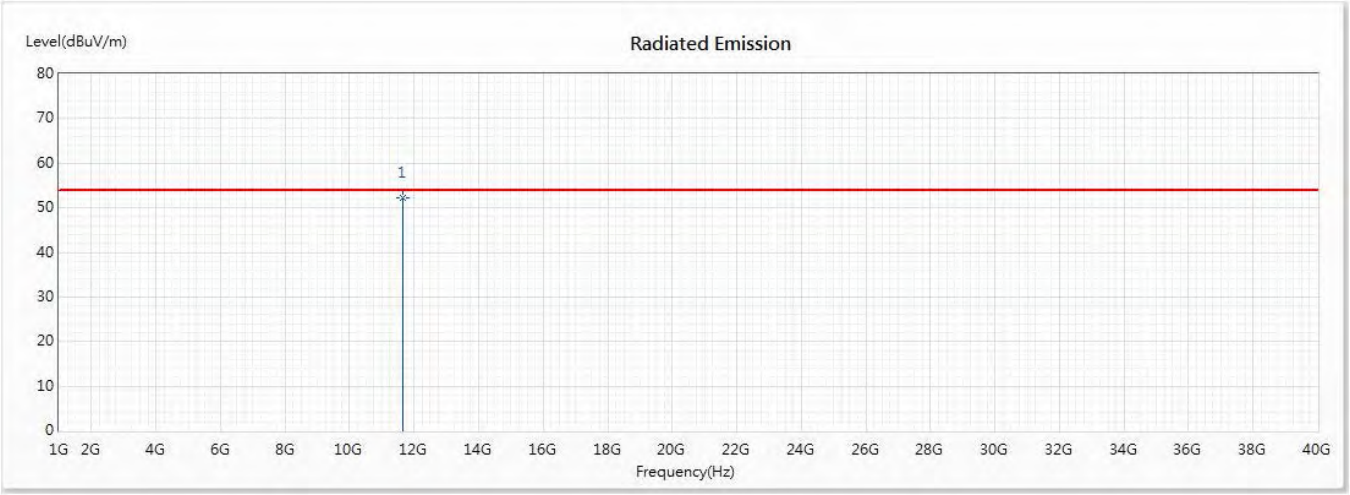
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11650	69.40	74.00	-4.60	61.50	7.90	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 2: Transmit (802.11n-20BW) (5825MHz)
Test Date	:	2020/09/17

Vertical



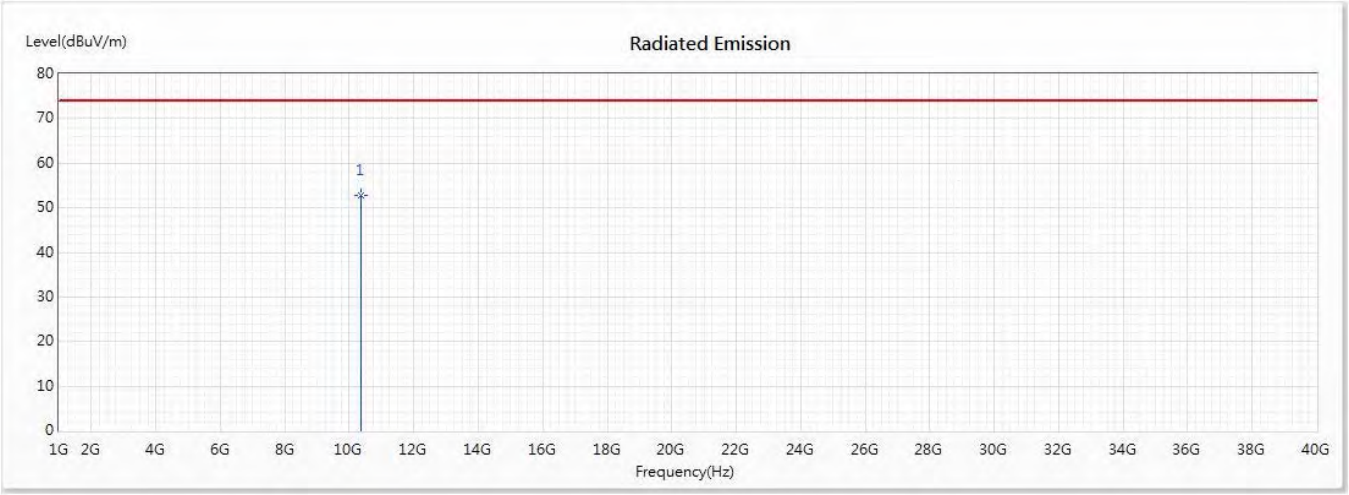
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11650	52.17	54.00	-1.83	44.27	7.90	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Wireless Outdoor Router
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 3: Transmit (802.11n-40BW) (5190MHz)
Test Date : 2020/09/17

Horizontal



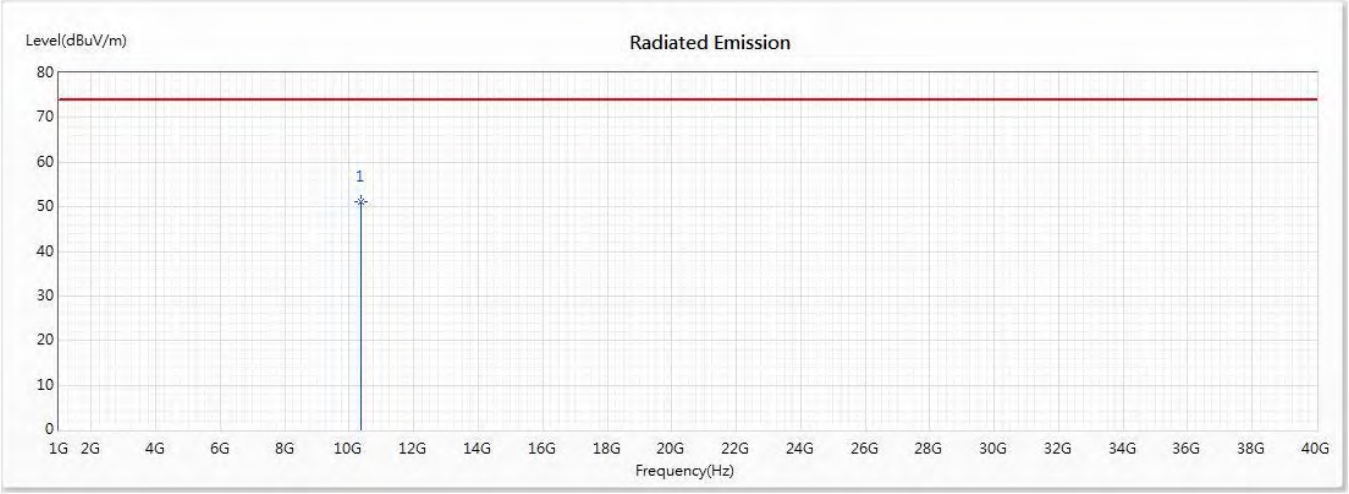
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
* 1	10380	52.89	74.00	-21.11	47.53	5.36	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5190MHz)
Test Date	:	2020/09/17

Vertical



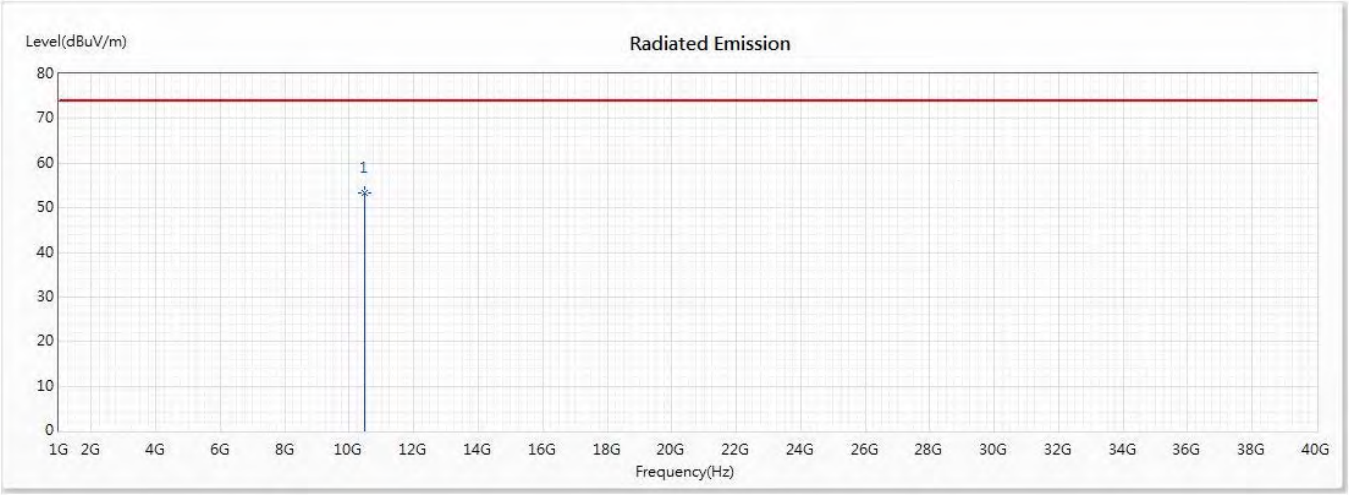
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10380	51.12	74.00	-22.88	45.76	5.36	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5230MHz)
Test Date	:	2020/09/17

Horizontal



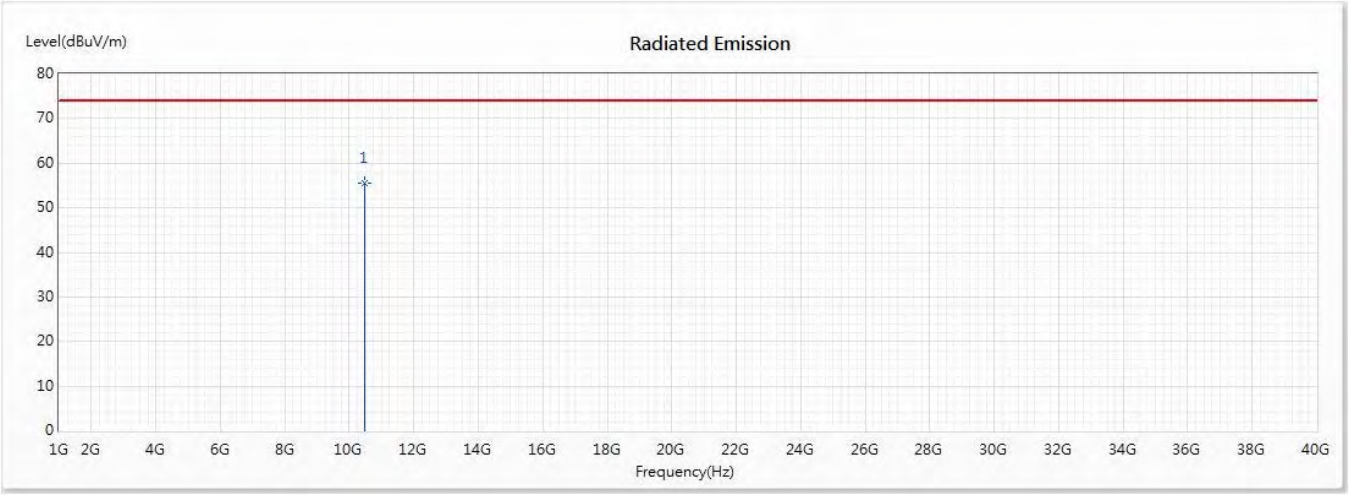
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10460	53.41	74.00	-20.59	47.84	5.57	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5230MHz)
Test Date	:	2020/09/17

Vertical



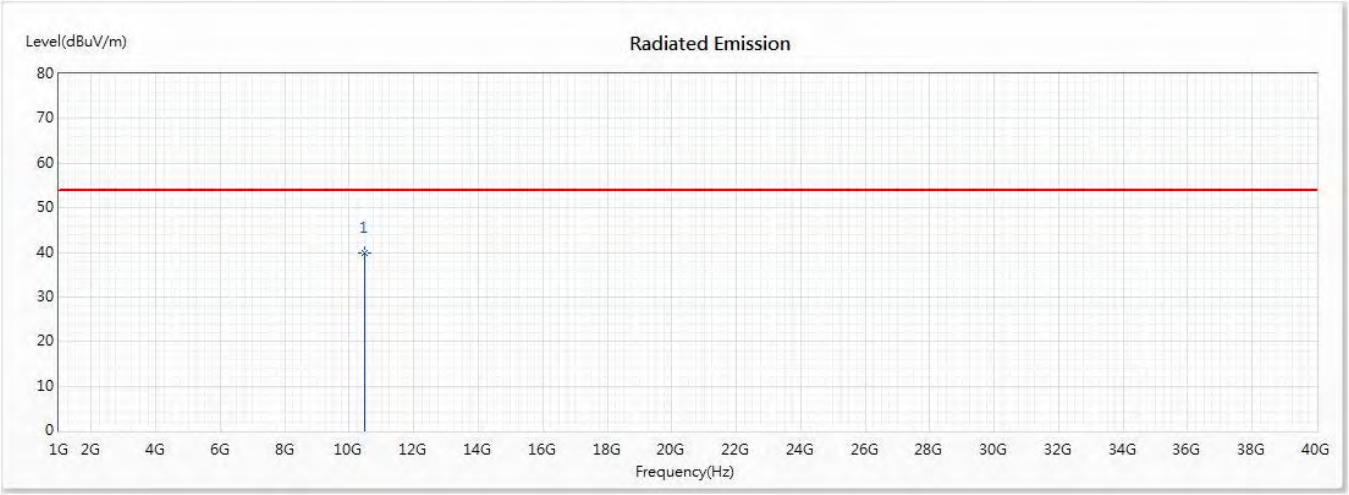
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10460	55.47	74.00	-18.53	49.90	5.57	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5230MHz)
Test Date	:	2020/09/17

Vertical



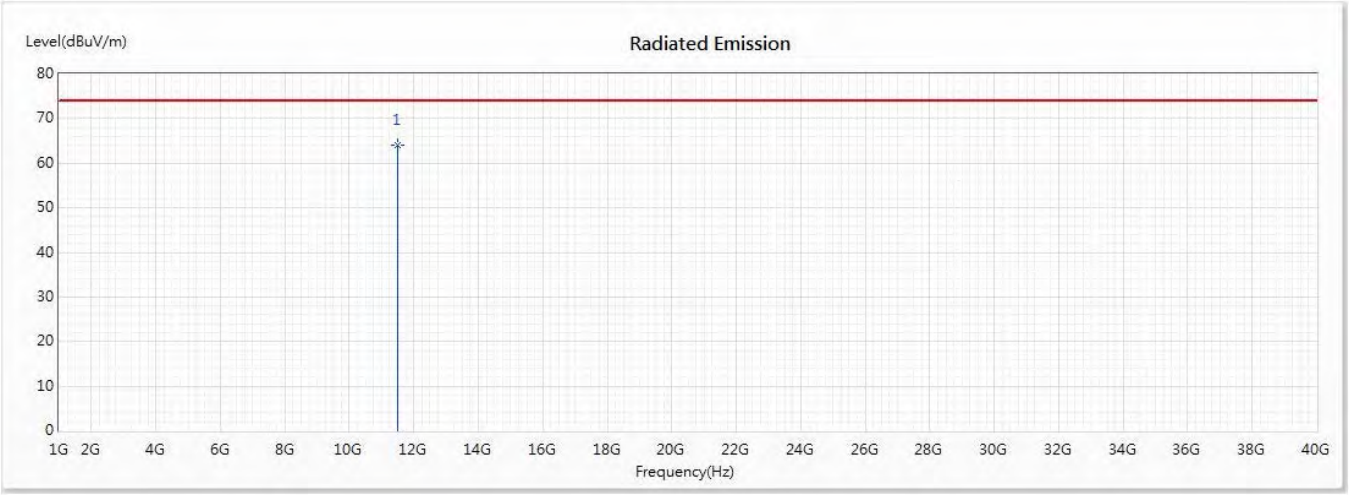
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10460	39.84	54.00	-14.16	34.27	5.57	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5755MHz)
Test Date	:	2020/09/17

Horizontal



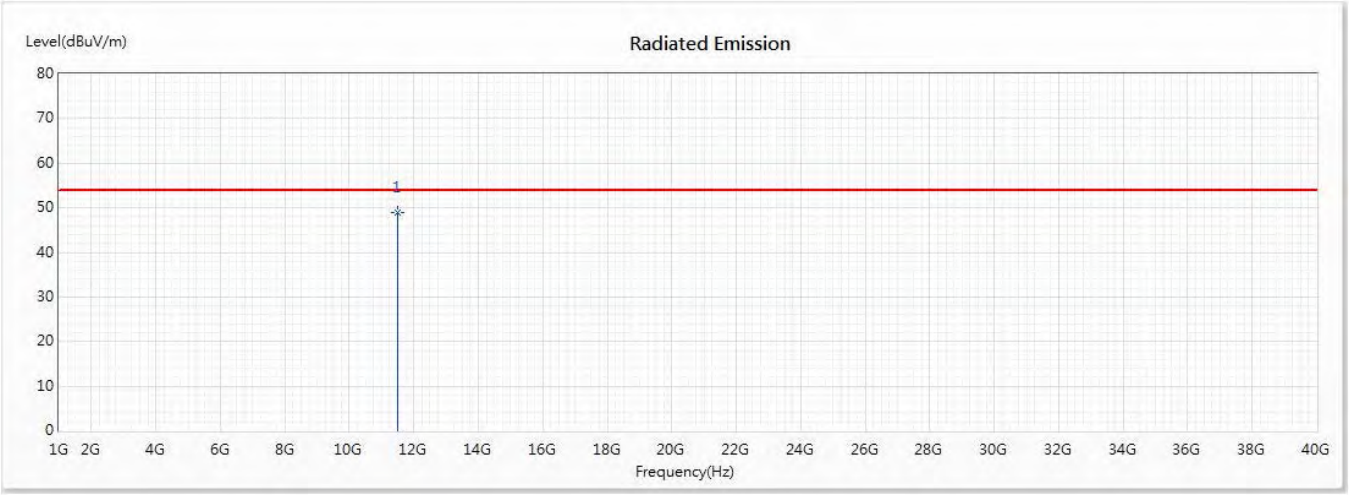
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11510	63.93	74.00	-10.07	56.35	7.58	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5755MHz)
Test Date	:	2020/09/17

Horizontal



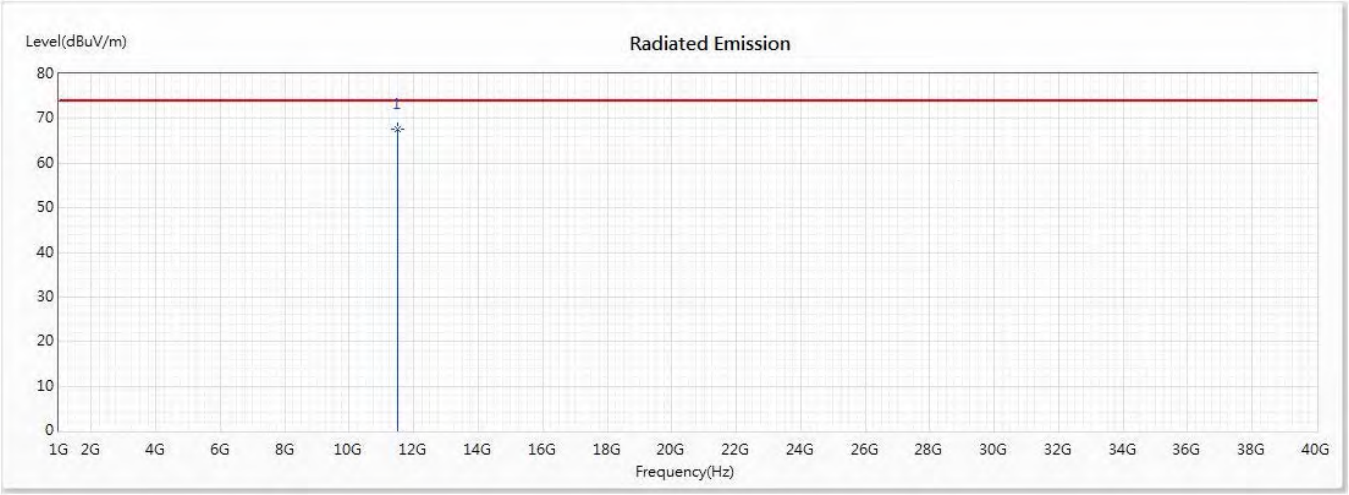
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11510	48.88	54.00	-5.12	41.30	7.58	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5755MHz)
Test Date	:	2020/09/17

Vertical



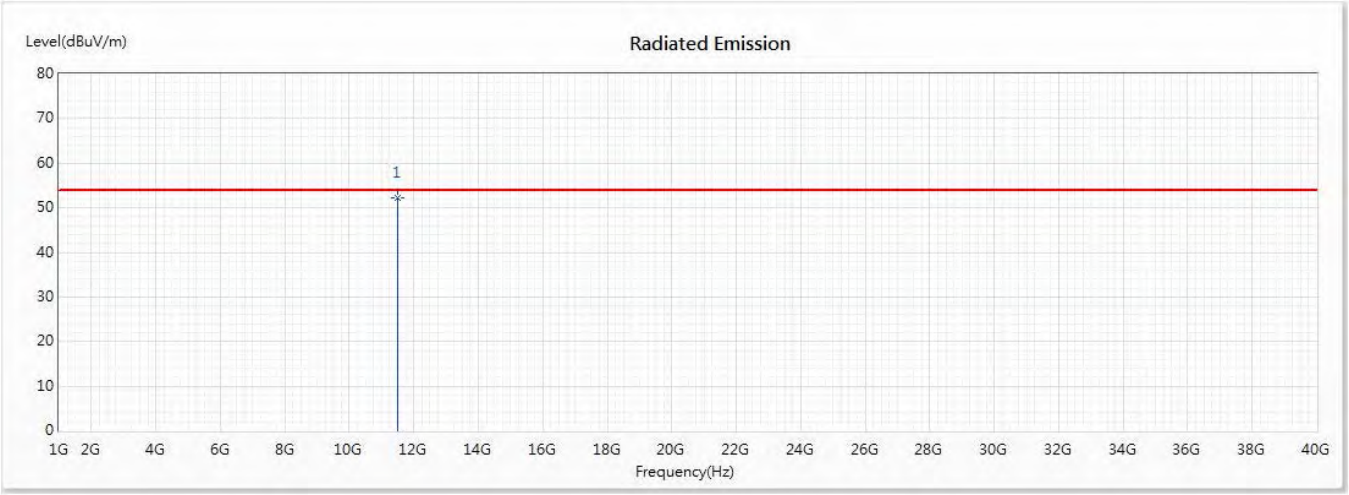
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11510	67.60	74.00	-6.40	60.02	7.58	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5755MHz)
Test Date	:	2020/09/17

Vertical



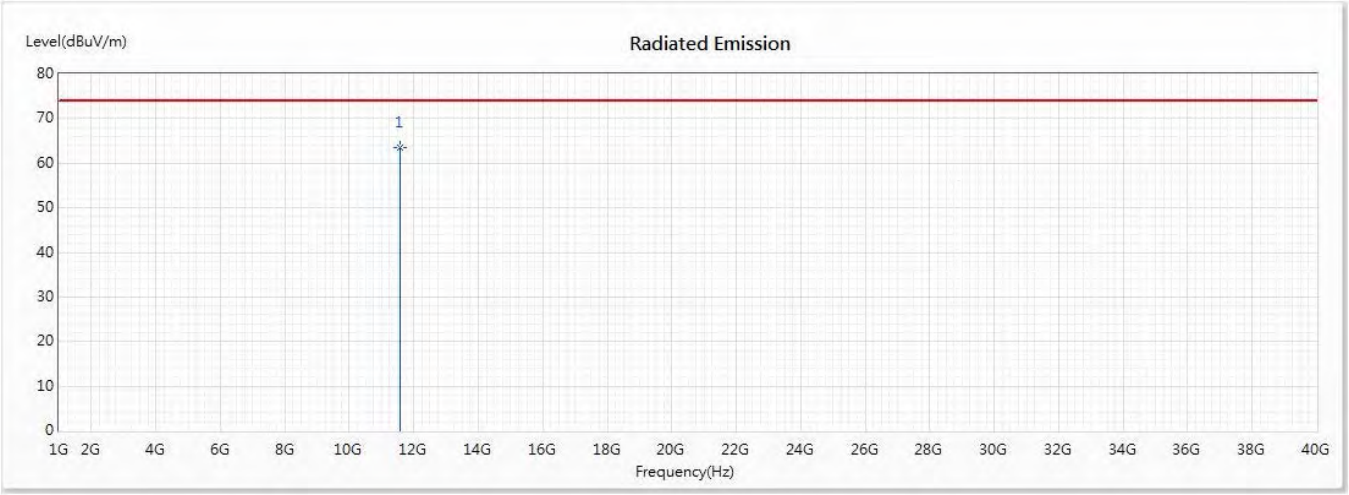
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11510	52.13	54.00	-1.87	44.55	7.58	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5795MHz)
Test Date	:	2020/09/17

Horizontal



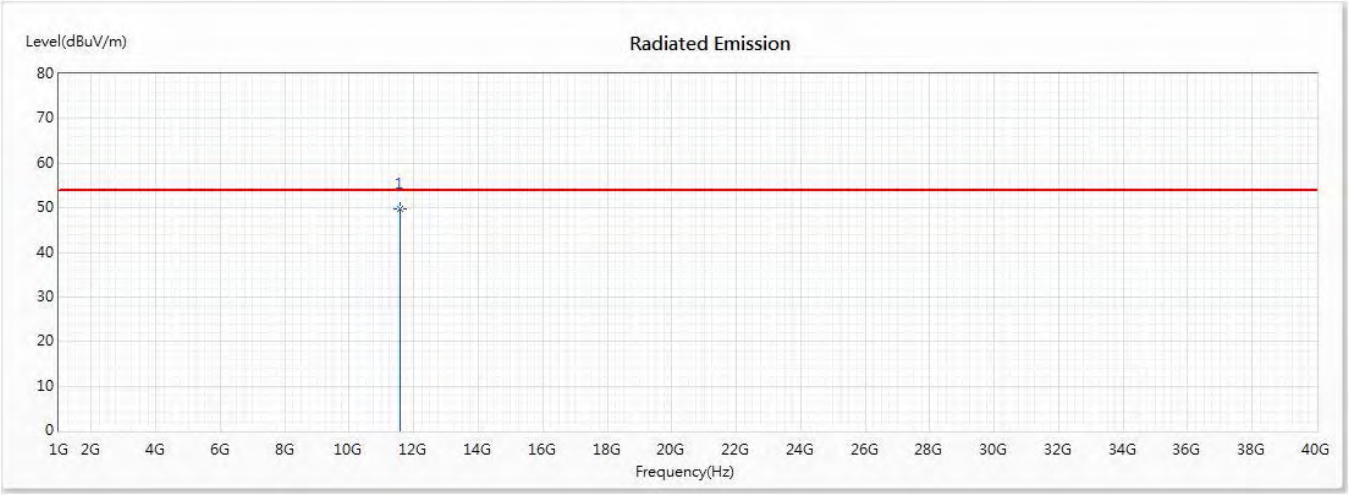
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11590	63.48	74.00	-10.52	55.75	7.73	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5795MHz)
Test Date	:	2020/09/17

Horizontal



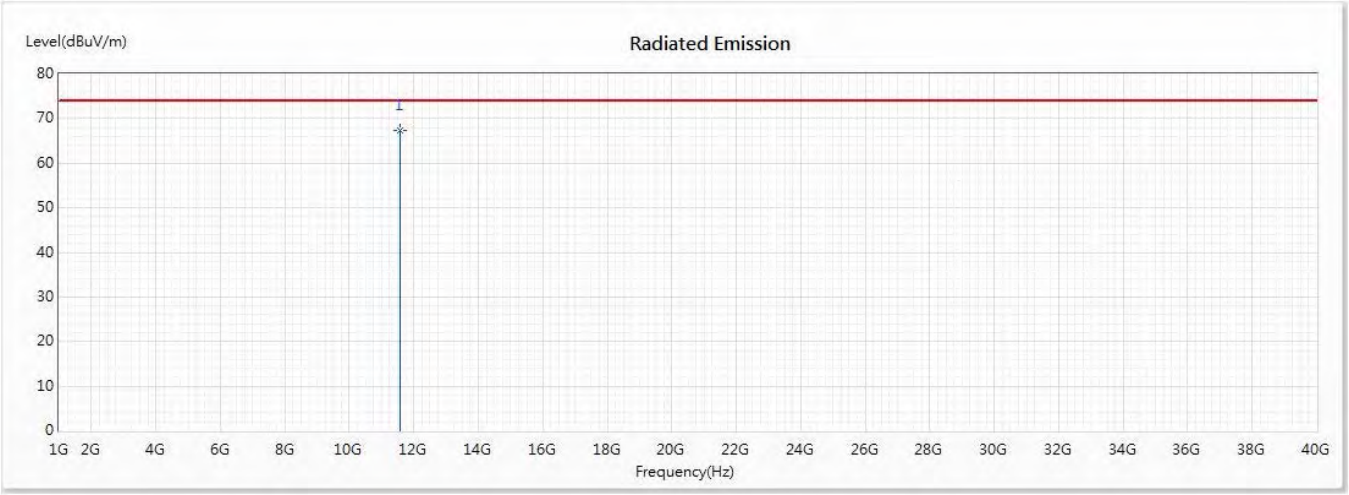
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11590	49.71	54.00	-4.29	41.98	7.73	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5795MHz)
Test Date	:	2020/09/17

Vertical



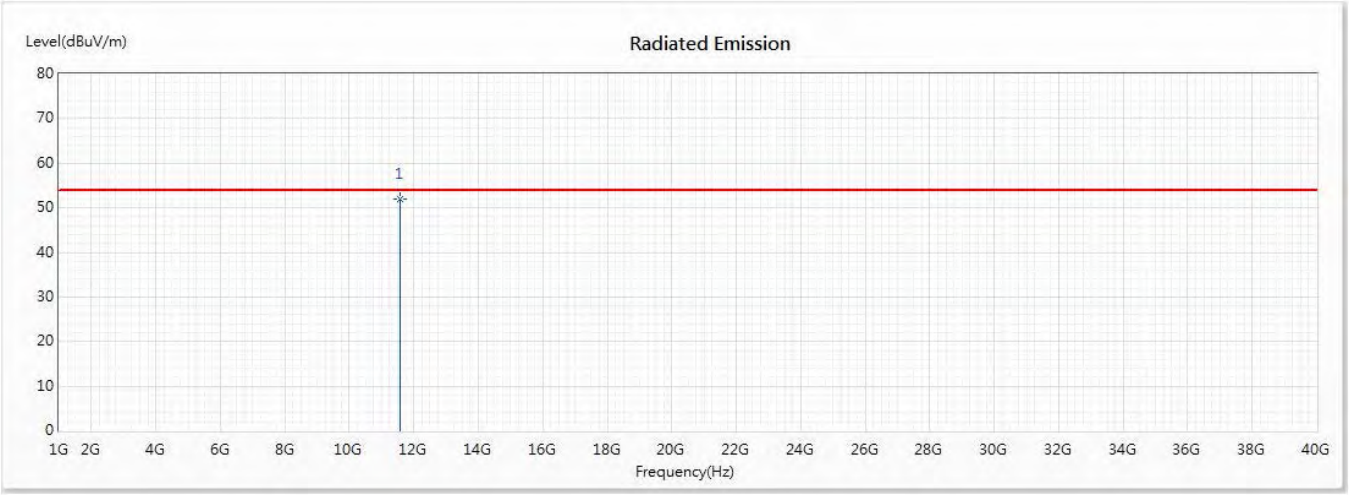
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11590	67.38	74.00	-6.62	59.65	7.73	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5795MHz)
Test Date	:	2020/09/17

Vertical



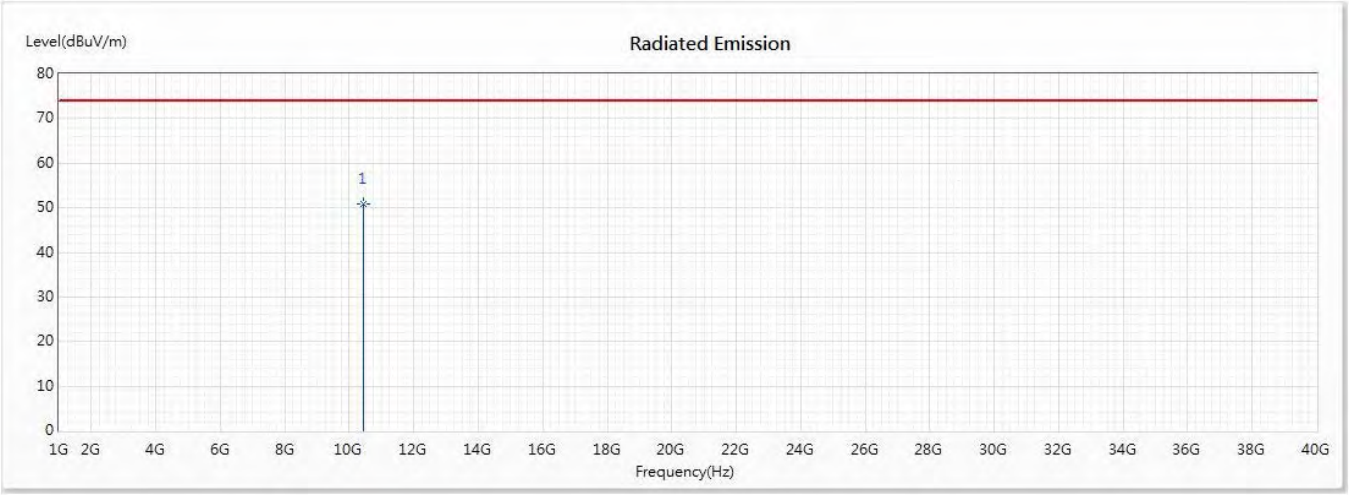
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	11590	52.01	54.00	-1.99	44.28	7.73	AV

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW) (5210MHz)
Test Date	:	2020/09/17

Horizontal



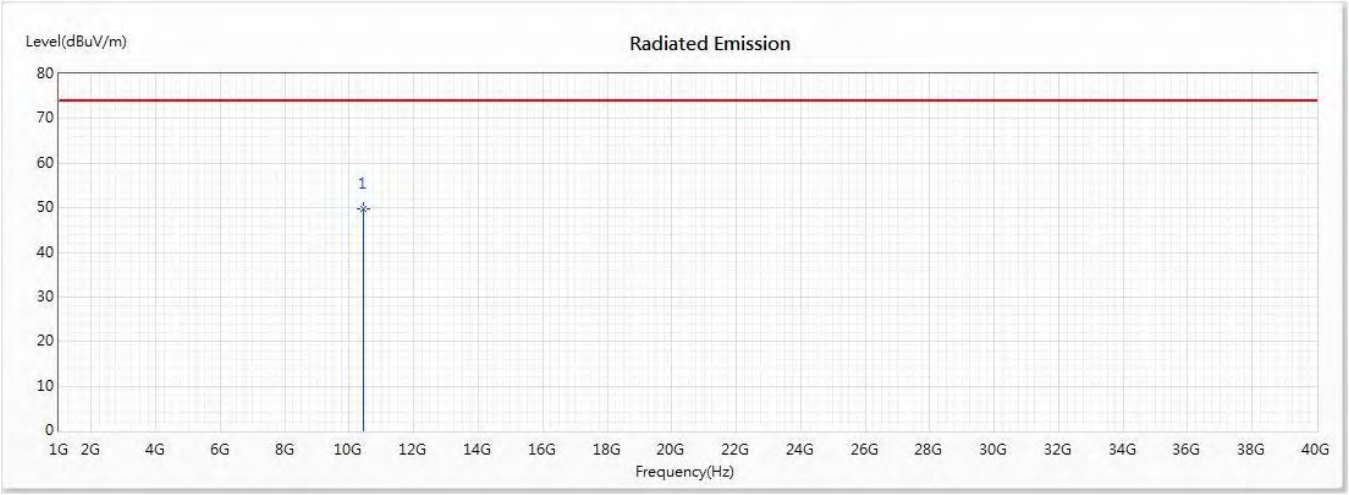
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10420	50.96	74.00	-23.04	45.51	5.45	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	Harmonic Radiated Emission Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW) (5210MHz)
Test Date	:	2020/09/17

Vertical



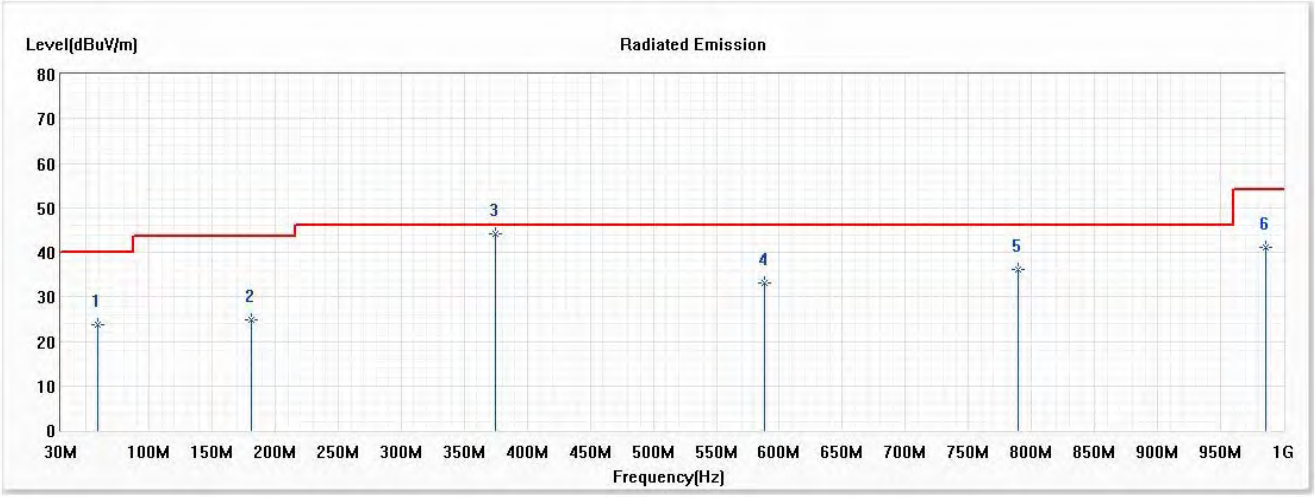
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	10420	49.88	74.00	-24.12	44.43	5.45	PK

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The average measurement was not performed when the peak measured data under the limit of average detection.
5. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product	:	Wireless Outdoor Router
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a) (5220MHz)
Test Date	:	2020/10/29

Horizontal



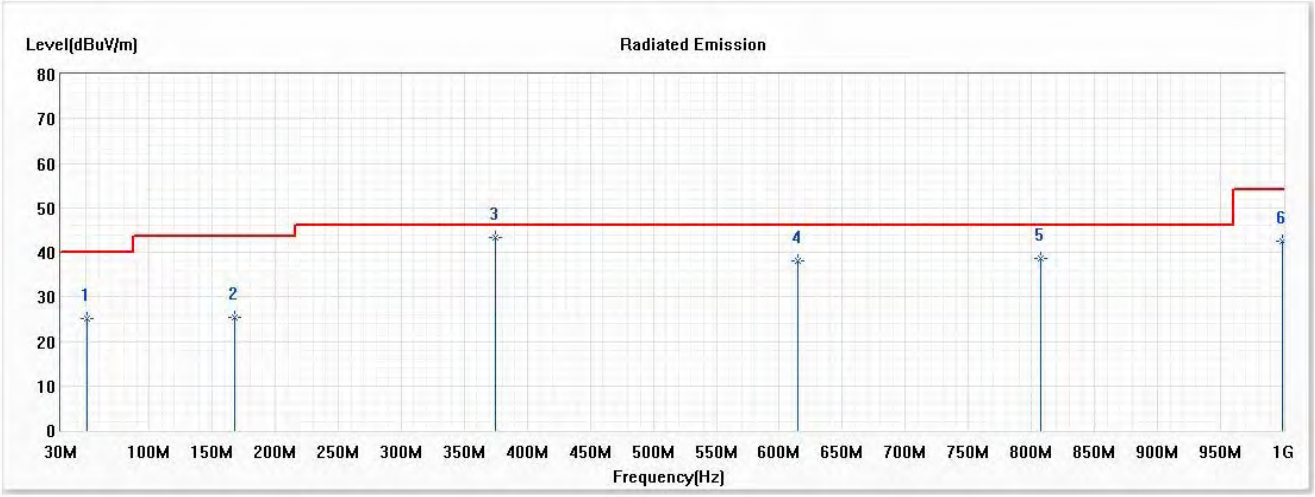
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB)	Detector Type
1	59.100	23.74	40.00	-16.26	34.63	-10.89	QP
2	181.320	24.78	43.50	-18.72	36.17	-11.39	QP
* 3	375.000	44.23	46.00	-1.77	50.06	-5.83	QP
4	587.750	33.18	46.00	-12.82	33.30	-0.12	QP
5	789.510	36.27	46.00	-9.73	31.54	4.73	QP
6	985.450	41.05	54.00	-12.95	32.59	8.46	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	Wireless Outdoor Router
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a) (5220MHz)
Test Date	:	2020/10/29

Vertical



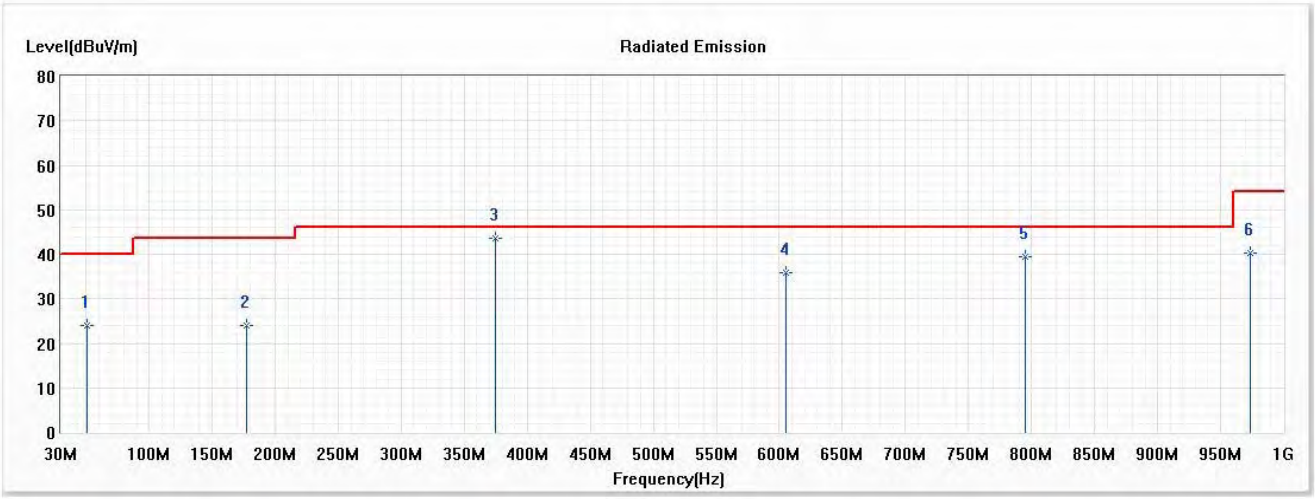
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB)	Detector Type
1	50.370	24.98	40.00	-15.02	35.20	-10.22	QP
2	167.740	25.41	43.50	-18.09	35.29	-9.88	QP
* 3	375.000	43.41	46.00	-2.59	49.24	-5.83	QP
4	614.910	37.96	46.00	-8.04	37.22	0.74	QP
5	806.970	38.70	46.00	-7.30	33.78	4.92	QP
6	999.030	42.48	54.00	-11.52	33.69	8.79	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	Wireless Outdoor Router
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a) (5785MHz)
Test Date	:	2020/10/29

Horizontal



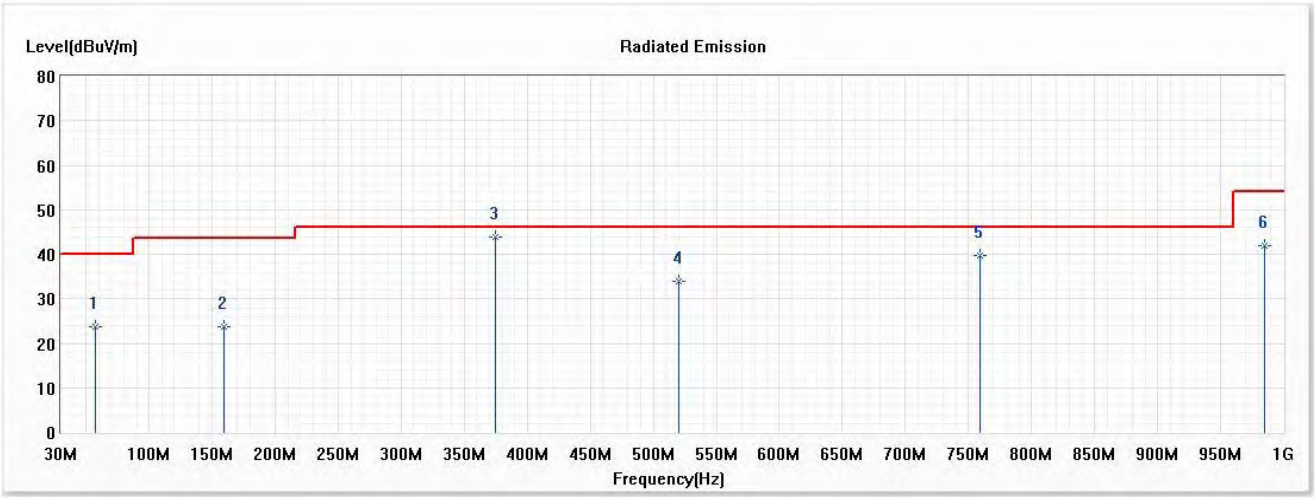
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB)	Detector Type
1	50.370	24.06	40.00	-15.94	34.28	-10.22	QP
2	177.440	23.87	43.50	-19.63	34.81	-10.94	QP
* 3	375.000	43.51	46.00	-2.49	49.34	-5.83	QP
4	605.210	35.75	46.00	-10.25	35.22	0.53	QP
5	795.330	39.41	46.00	-6.59	34.64	4.77	QP
6	973.810	40.35	54.00	-13.65	31.96	8.39	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product	:	Wireless Outdoor Router
Test Item	:	General Radiated Emission
Test Mode	:	Mode 1: Transmit (802.11a) (5785MHz)
Test Date	:	2020/10/29

Vertical



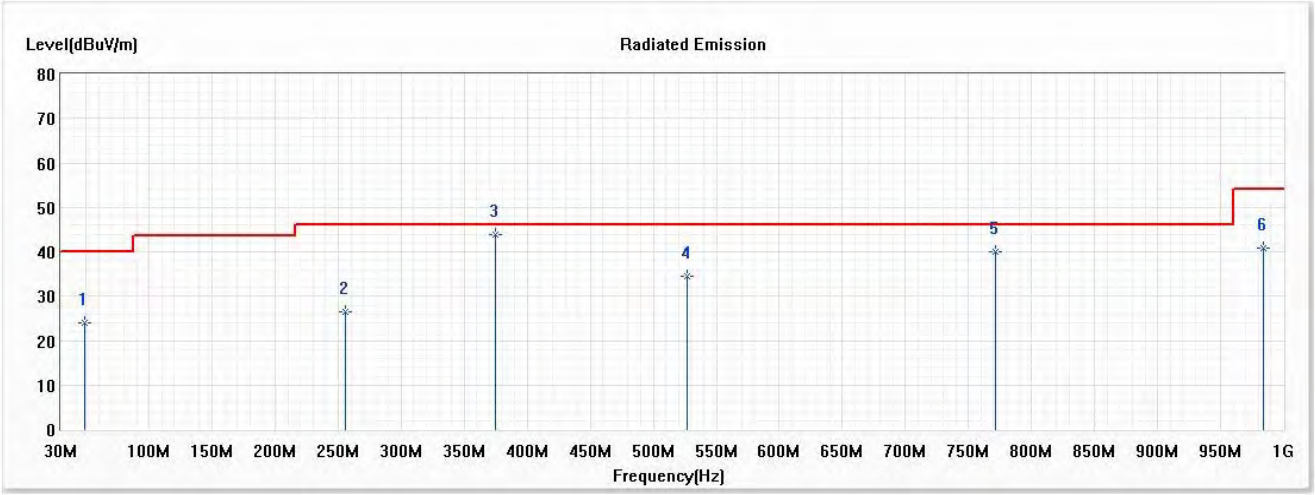
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB)	Detector Type
1	57.160	23.80	40.00	-16.20	34.42	-10.62	QP
2	159.010	23.74	43.50	-19.76	33.46	-9.72	QP
* 3	375.000	43.85	46.00	-2.15	49.68	-5.83	QP
4	519.850	34.02	46.00	-11.98	35.96	-1.94	QP
5	759.440	39.85	46.00	-6.15	35.70	4.15	QP
6	984.480	41.80	54.00	-12.20	33.36	8.44	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Outdoor Router
Test Item : General Radiated Emission
Test Mode : Mode 2: Transmit (802.11n-20BW) (5220MHz)
Test Date : 2020/10/29

Horizontal



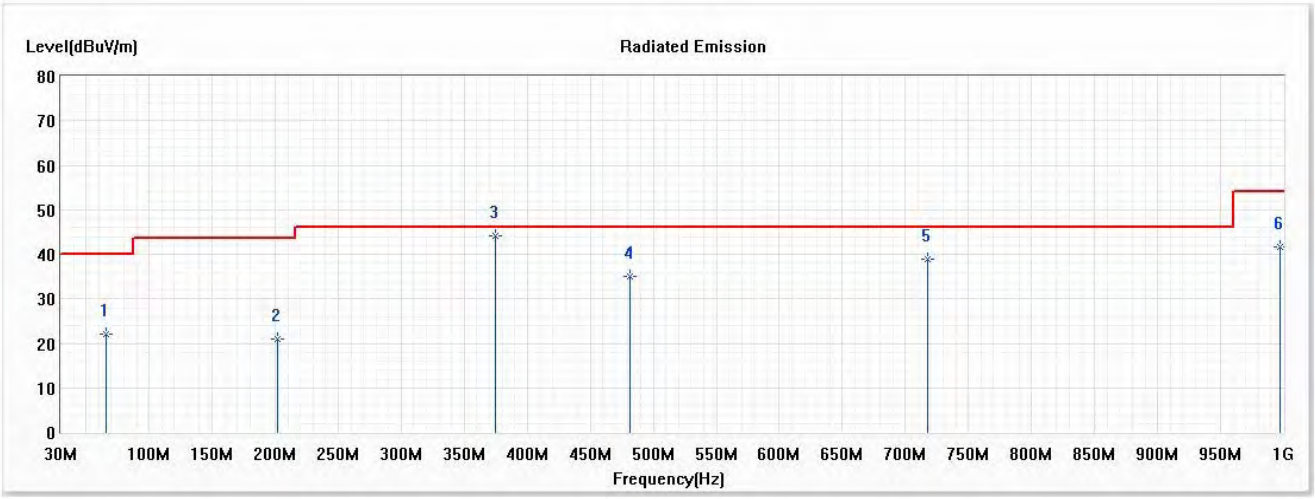
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB)	Detector Type
1	48.430	24.11	40.00	-15.89	34.31	-10.20	QP
2	256.010	26.50	46.00	-19.50	36.26	-9.76	QP
* 3	375.000	43.79	46.00	-2.21	49.62	-5.83	QP
4	526.640	34.42	46.00	-11.58	36.22	-1.80	QP
5	771.080	40.05	46.00	-5.95	35.66	4.39	QP
6	983.510	40.90	54.00	-13.10	32.45	8.45	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Outdoor Router
Test Item : General Radiated Emission
Test Mode : Mode 2: Transmit (802.11n-20BW) (5220MHz)
Test Date : 2020/10/29

Vertical



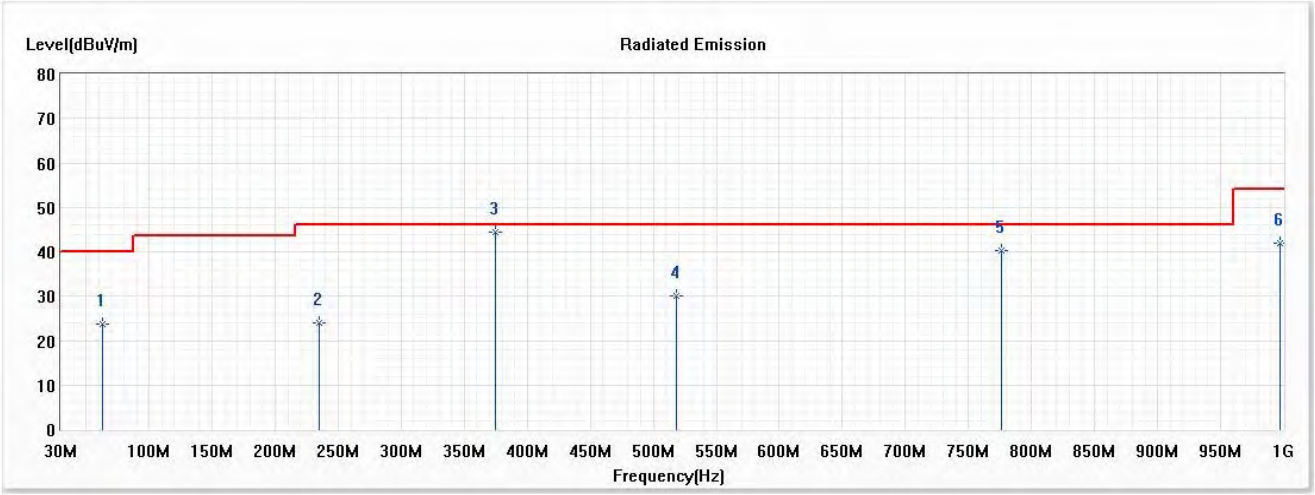
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB)	Detector Type
1	65.890	22.14	40.00	-17.86	34.24	-12.10	QP
2	201.690	21.04	43.50	-22.46	33.72	-12.68	QP
* 3	375.000	44.27	46.00	-1.73	50.10	-5.83	QP
4	481.050	34.91	46.00	-11.09	38.02	-3.11	QP
5	717.730	38.97	46.00	-7.03	35.99	2.98	QP
6	997.090	41.71	54.00	-12.29	32.94	8.77	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Outdoor Router
Test Item : General Radiated Emission
Test Mode : Mode 2: Transmit (802.11n-20BW) (5785MHz)
Test Date : 2020/10/29

Horizontal



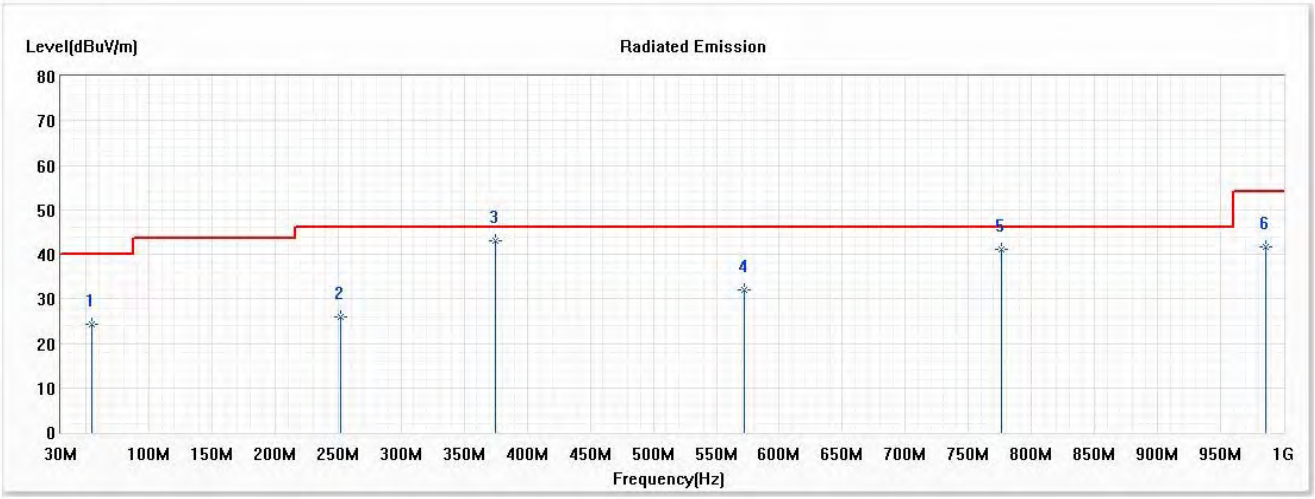
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB)	Detector Type
1	62.980	23.80	40.00	-16.20	35.26	-11.46	QP
2	234.670	24.08	46.00	-21.92	34.64	-10.56	QP
* 3	375.000	44.32	46.00	-1.68	50.15	-5.83	QP
4	517.910	30.13	46.00	-15.87	32.16	-2.03	QP
5	775.930	40.21	46.00	-5.79	35.70	4.51	QP
6	997.090	42.05	54.00	-11.95	33.28	8.77	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Outdoor Router
Test Item : General Radiated Emission
Test Mode : Mode 2: Transmit (802.11n-20BW) (5785MHz)
Test Date : 2020/10/29

Vertical



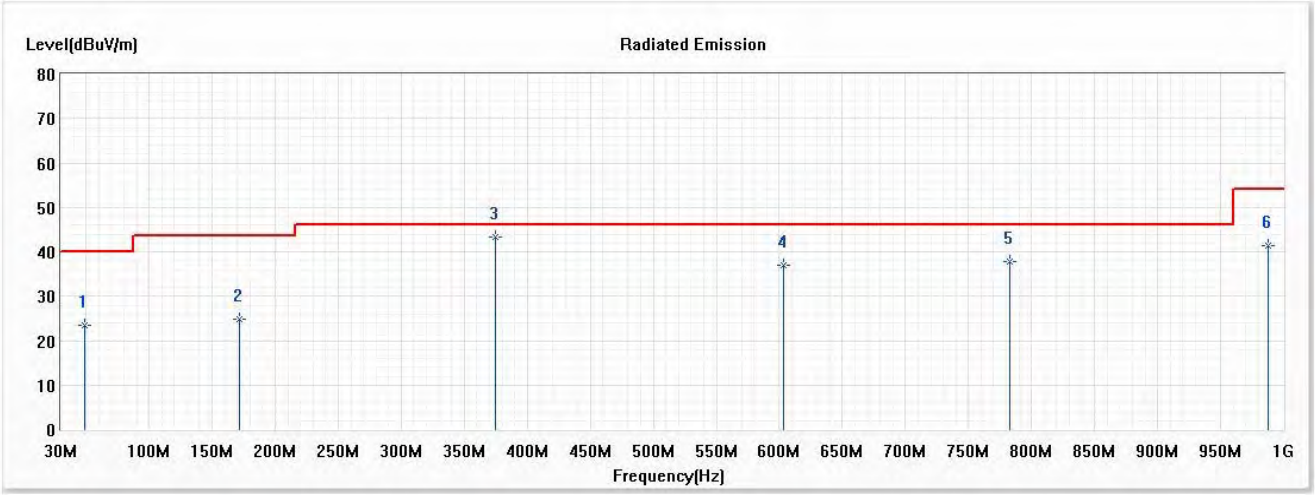
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB)	Detector Type
1	54.250	24.17	40.00	-15.83	34.53	-10.36	QP
2	252.130	25.92	46.00	-20.08	35.79	-9.87	QP
* 3	375.000	43.13	46.00	-2.87	48.96	-5.83	QP
4	572.230	32.06	46.00	-13.94	32.53	-0.47	QP
5	775.930	41.07	46.00	-4.93	36.56	4.51	QP
6	985.450	41.54	54.00	-12.46	33.08	8.46	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Outdoor Router
Test Item : General Radiated Emission
Test Mode : Mode 3: Transmit (802.11n-40BW) (5230MHz)
Test Date : 2020/10/29

Horizontal



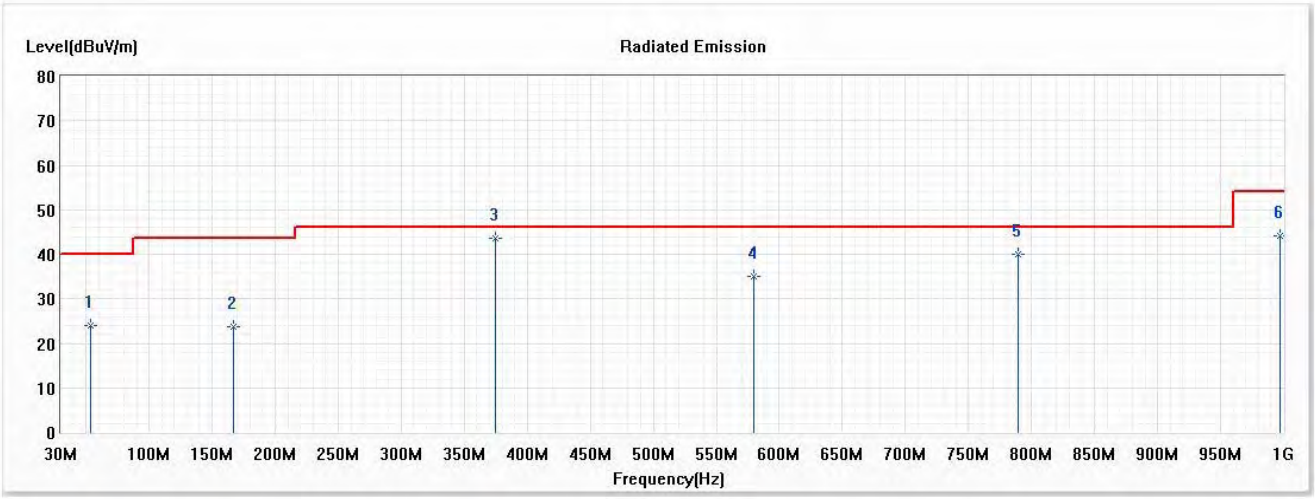
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB)	Detector Type
1	48.430	23.44	40.00	-16.56	33.64	-10.20	QP
2	171.620	24.84	43.50	-18.66	34.97	-10.13	QP
* 3	375.000	43.37	46.00	-2.63	49.20	-5.83	QP
4	603.270	36.87	46.00	-9.13	36.39	0.48	QP
5	782.720	37.69	46.00	-8.31	33.07	4.62	QP
6	987.390	41.33	54.00	-12.67	32.76	8.57	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Outdoor Router
Test Item : General Radiated Emission
Test Mode : Mode 3: Transmit (802.11n-40BW) (5230MHz)
Test Date : 2020/10/29

Vertical



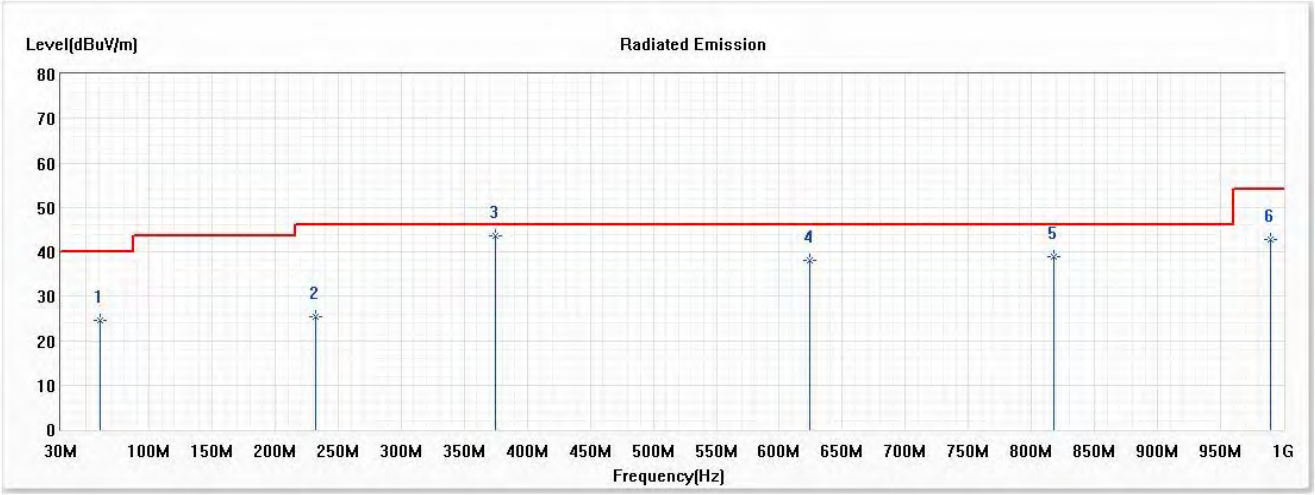
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB)	Detector Type
1	53.280	24.00	40.00	-16.00	34.31	-10.31	QP
2	166.770	23.85	43.50	-19.65	33.68	-9.83	QP
* 3	375.000	43.56	46.00	-2.44	49.39	-5.83	QP
4	579.990	34.94	46.00	-11.06	35.24	-0.30	QP
5	789.510	40.13	46.00	-5.87	35.40	4.73	QP
6	997.090	44.18	54.00	-9.82	35.41	8.77	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Outdoor Router
Test Item : General Radiated Emission
Test Mode : Mode 3: Transmit (802.11n-40BW) (5795MHz)
Test Date : 2020/10/29

Horizontal



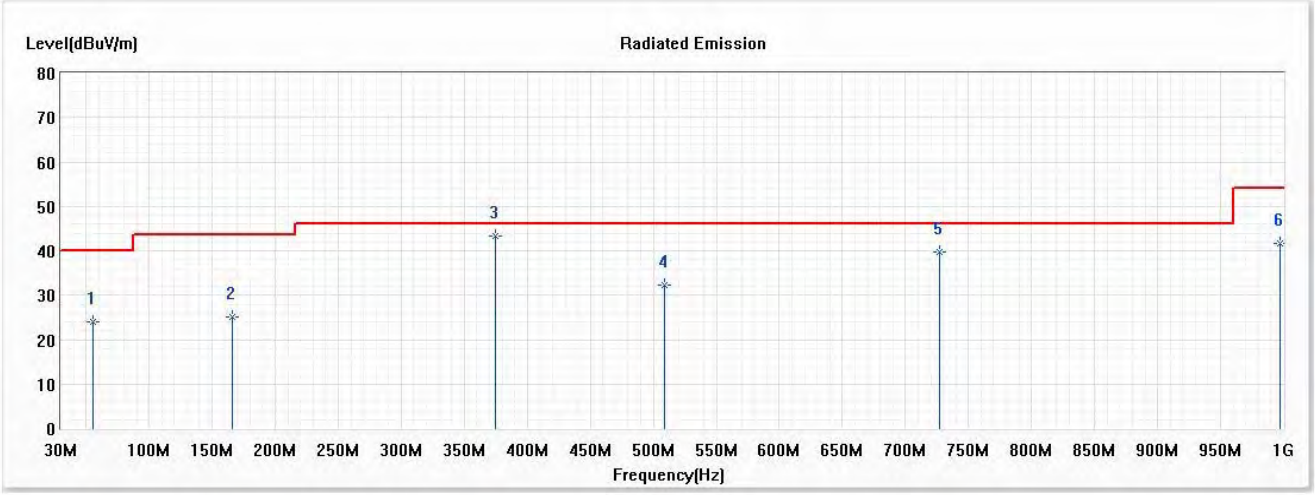
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB)	Detector Type
1	61.040	24.54	40.00	-15.46	35.62	-11.08	QP
2	231.760	25.31	46.00	-20.69	36.06	-10.75	QP
* 3	375.000	43.61	46.00	-2.39	49.44	-5.83	QP
4	623.640	38.00	46.00	-8.00	37.18	0.82	QP
5	817.640	38.79	46.00	-7.21	33.58	5.21	QP
6	989.330	42.88	54.00	-11.12	34.22	8.66	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Outdoor Router
Test Item : General Radiated Emission
Test Mode : Mode 3: Transmit (802.11n-40BW) (5795MHz)
Test Date : 2020/10/29

Vertical



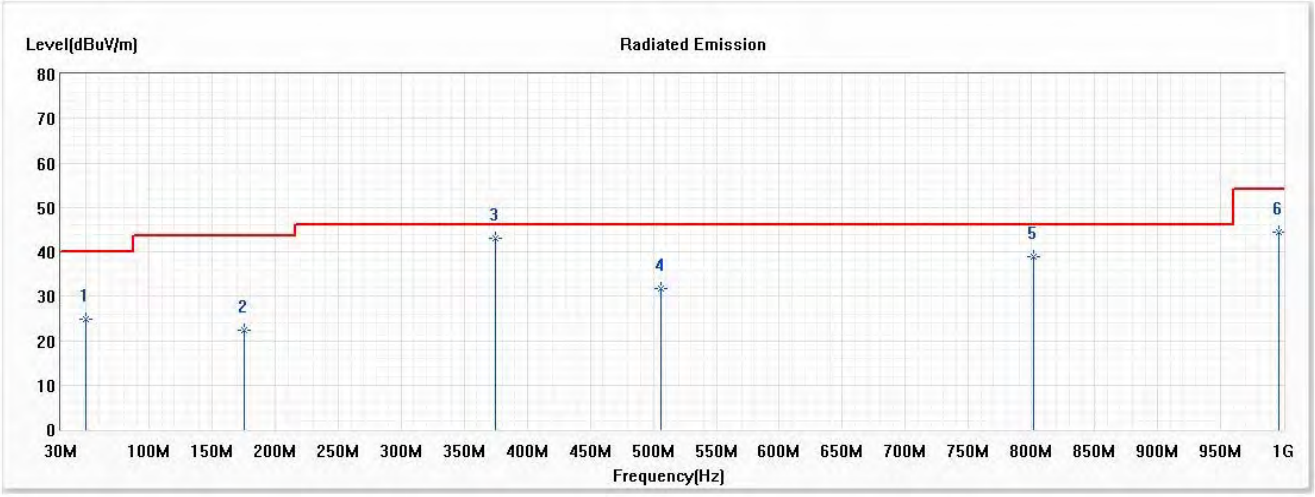
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB)	Detector Type
1	55.220	23.89	40.00	-16.11	34.40	-10.51	QP
2	165.800	24.99	43.50	-18.51	34.81	-9.82	QP
* 3	375.000	43.39	46.00	-2.61	49.22	-5.83	QP
4	509.180	32.26	46.00	-13.74	34.44	-2.18	QP
5	727.430	39.66	46.00	-6.34	36.35	3.31	QP
6	997.090	41.64	54.00	-12.36	32.87	8.77	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Outdoor Router
Test Item : General Radiated Emission
Test Mode : Mode 4: Transmit (802.11ac-80BW) (5210MHz)
Test Date : 2020/10/29

Horizontal



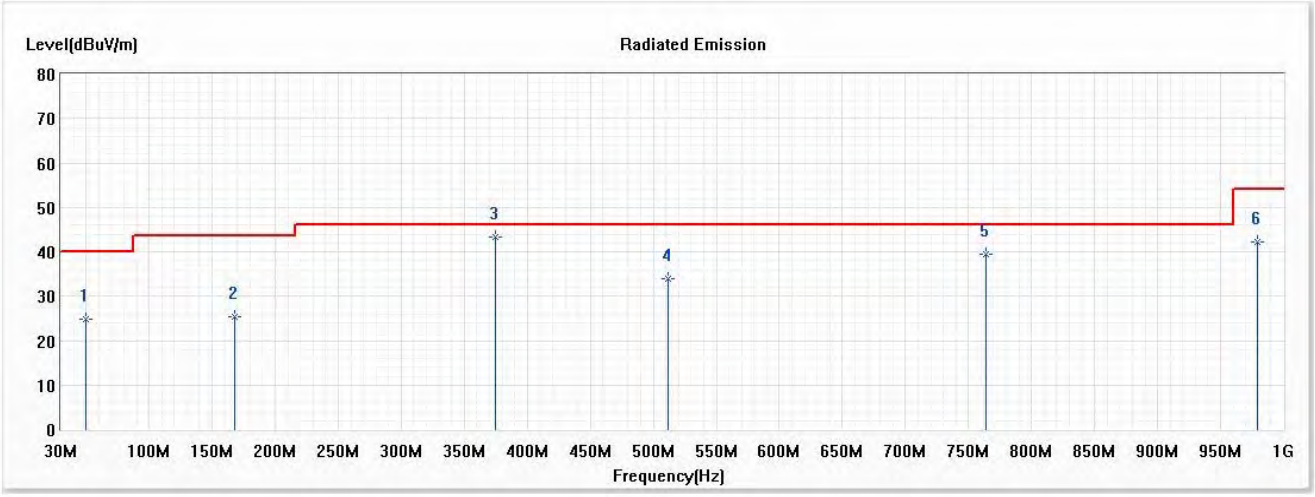
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB)	Detector Type
1	49.400	24.74	40.00	-15.26	34.91	-10.17	QP
2	175.500	22.22	43.50	-21.28	32.89	-10.67	QP
* 3	375.000	42.97	46.00	-3.03	48.80	-5.83	QP
4	506.270	31.77	46.00	-14.23	34.15	-2.38	QP
5	802.120	38.86	46.00	-7.14	34.08	4.78	QP
6	996.120	44.50	54.00	-9.50	35.73	8.77	QP

Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

Product : Wireless Outdoor Router
Test Item : General Radiated Emission
Test Mode : Mode 4: Transmit (802.11ac-80BW) (5210MHz)
Test Date : 2020/10/29

Vertical



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB)	Detector Type
1	49.400	24.69	40.00	-15.31	34.86	-10.17	QP
2	167.740	25.38	43.50	-18.12	35.26	-9.88	QP
* 3	375.000	43.37	46.00	-2.63	49.20	-5.83	QP
4	512.090	33.82	46.00	-12.18	35.96	-2.14	QP
5	764.290	39.35	46.00	-6.65	35.06	4.29	QP
6	979.630	42.14	54.00	-11.86	33.66	8.48	QP

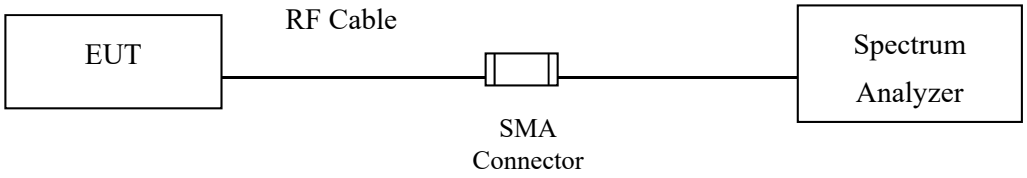
Note:

1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. Correct Factor = Antenna factor + Cable loss –Amplifier gain.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.
5. No emission found between lowest internal used/generated frequency to 30MHz.

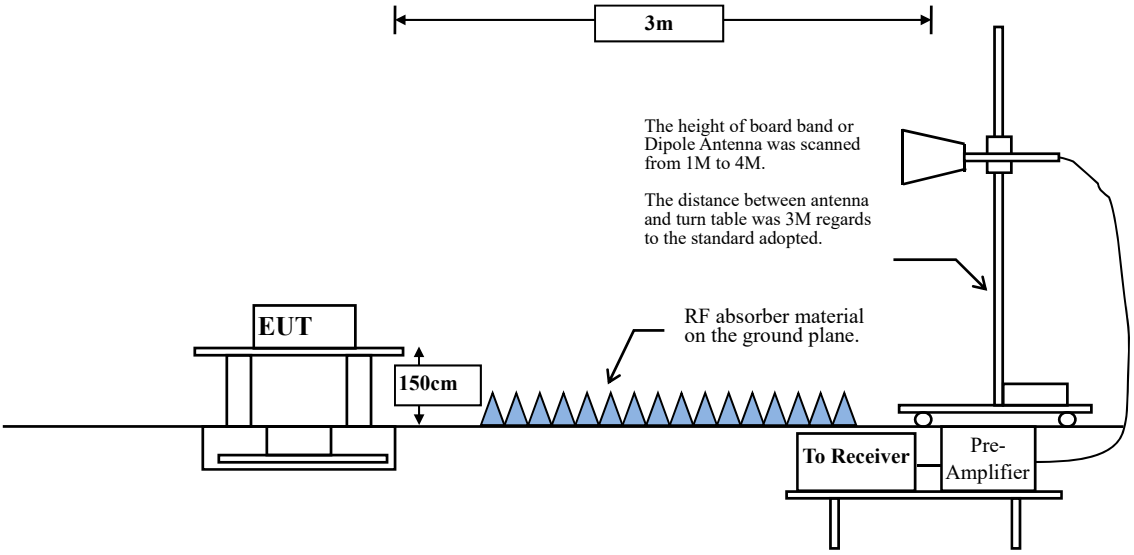
6. Band Edge

6.1. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



6.2. 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 @3m	dBμV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remarks : 1. RF Voltage (dBμV) = 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.

6.3. Test Procedure

The EUT is placed on a turn table which is 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 bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.

The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

RBW and VBW Parameter setting:

According to KDB 789033 section II.G.5 Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW ≥ 3MHz.

According to KDB 789033 section II.G.6 Procedures for Average Unwanted Emissions Measurements above 1000 MHz.

RBW = 1MHz.

VBW = 10Hz, when duty cycle ≥ 98 %

VBW ≥ 1/T, when duty cycle < 98 %

(T refers to the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.)

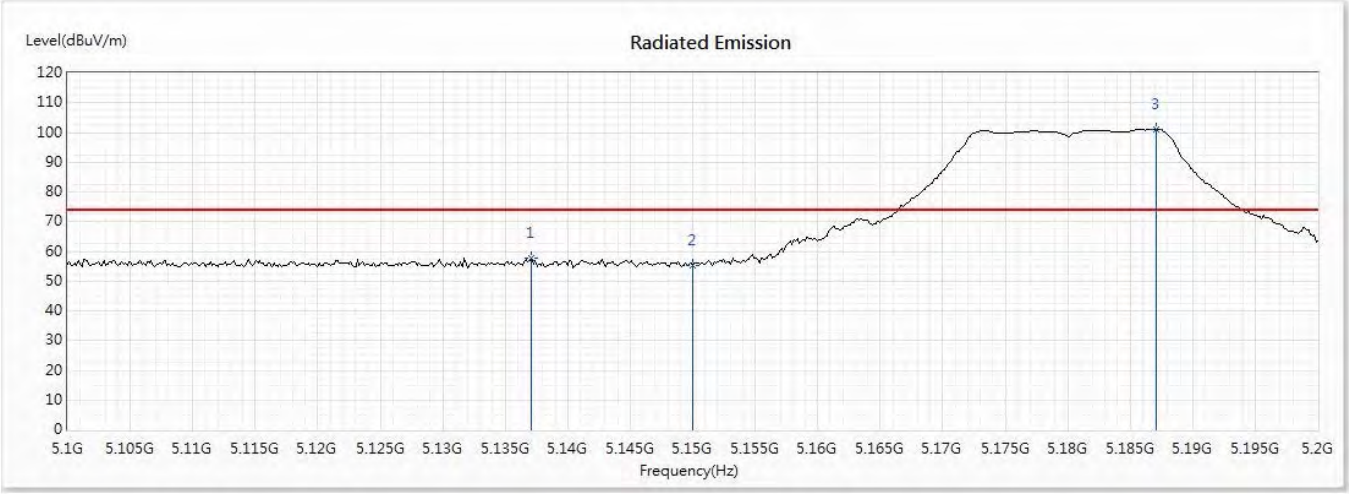
5GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11a	95.90	1.3550	738	1k
802.11n/ac20	99.30	12.3478	81	10
802.11n/ac40	98.09	5.9420	168	10
802.11ac80	97.96	2.7826	359	500

Note: Duty Cycle Refer to Section 8

6.4. Test Result of Band Edge

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a) (5180MHz)
Test Date : 2020/09/16

Horizontal



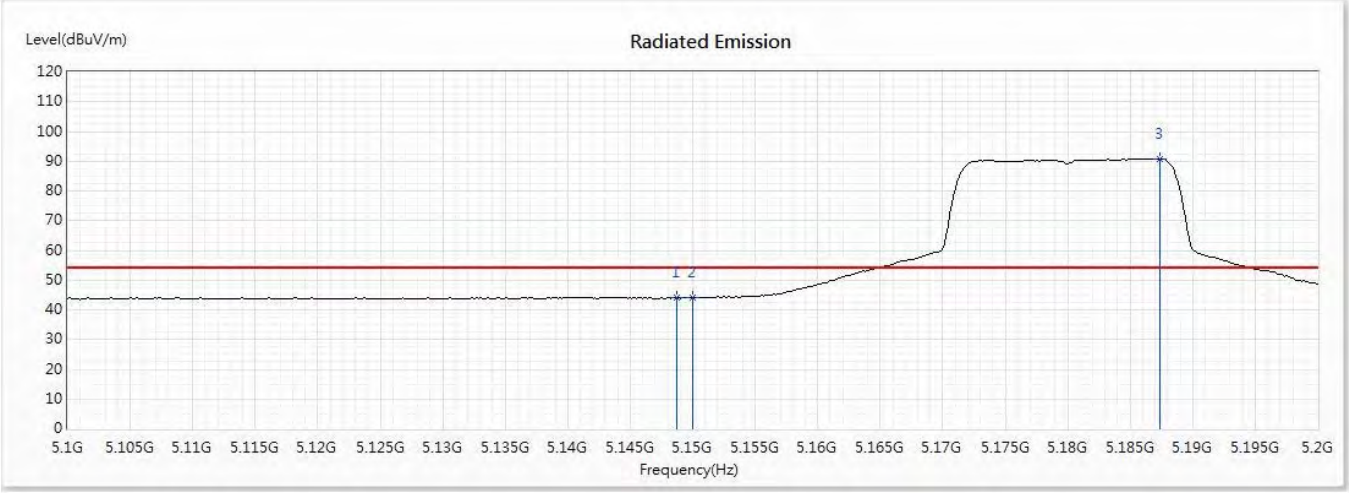
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5137.101	57.86	74.00	-16.14	37.97	19.89	PK
2	5150	55.22	74.00	-18.78	35.33	19.89	PK
3	5187.101	101.09	--	--	81.15	19.94	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a) (5180MHz)
Test Date : 2020/09/17

Horizontal



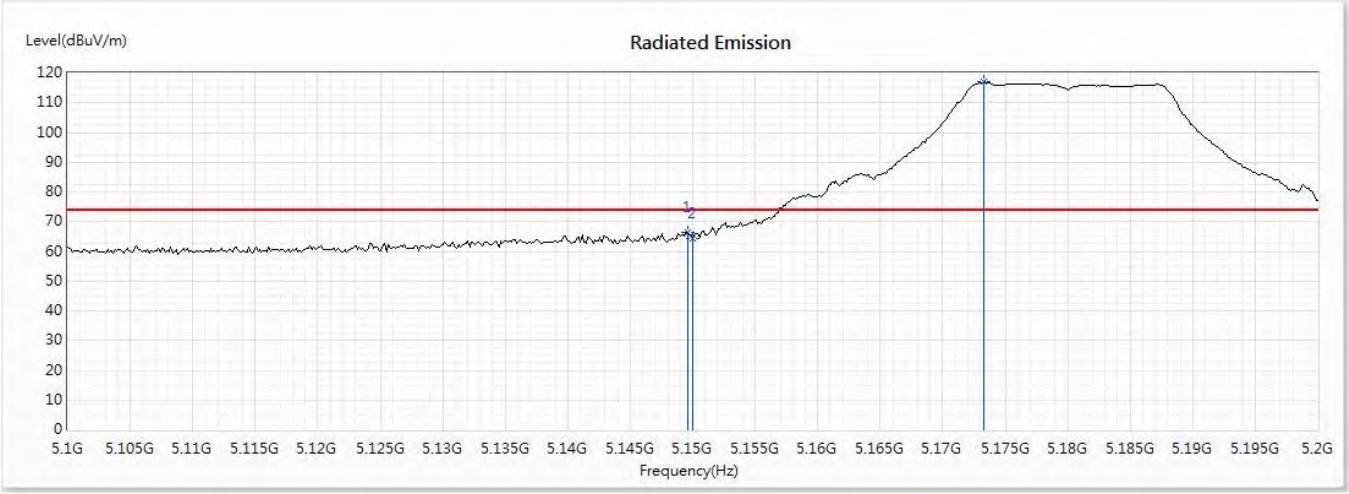
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
1	5148.696	44.29	54.00	-9.71	24.40	19.89	AV
2	5150	44.03	54.00	-9.97	24.14	19.89	AV
3	5187.391	90.88	--	--	70.94	19.94	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	Wireless Outdoor Router
Test Item	:	Band Edge Data
Test Mode	:	Mode 1: Transmit (802.11a) (5180MHz)
Test Date	:	2020/09/17

Vertical



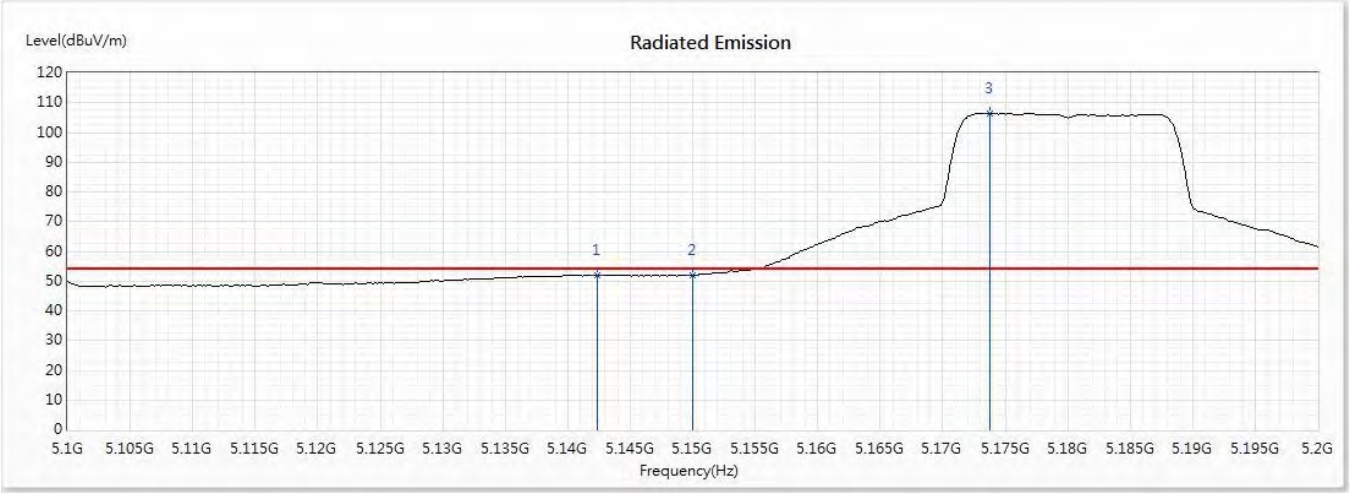
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5149.565	66.53	74.00	-7.47	46.64	19.89	PK
2	5150	64.45	74.00	-9.55	44.56	19.89	PK
3	5173.333	116.93	--	--	97.01	19.92	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a) (5180MHz)
Test Date : 2020/09/17

Vertical



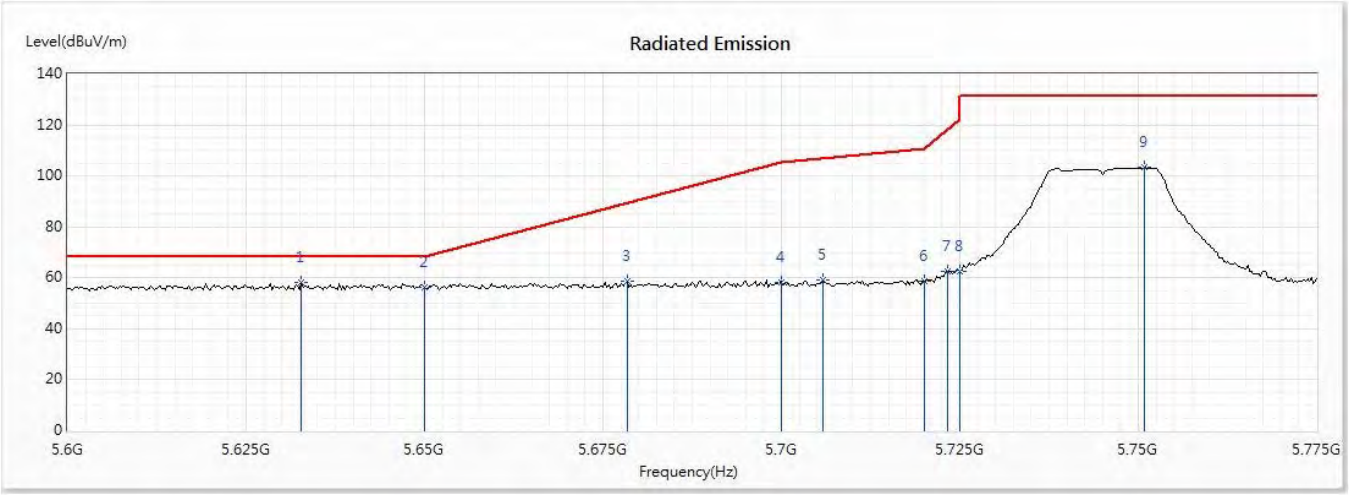
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
1	5142.319	52.15	54.00	-1.85	32.27	19.88	AV
2	5150	52.06	54.00	-1.94	32.17	19.89	AV
3	5173.768	106.55	--	--	86.63	19.92	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a) (5745MHz)
Test Date : 2020/09/17

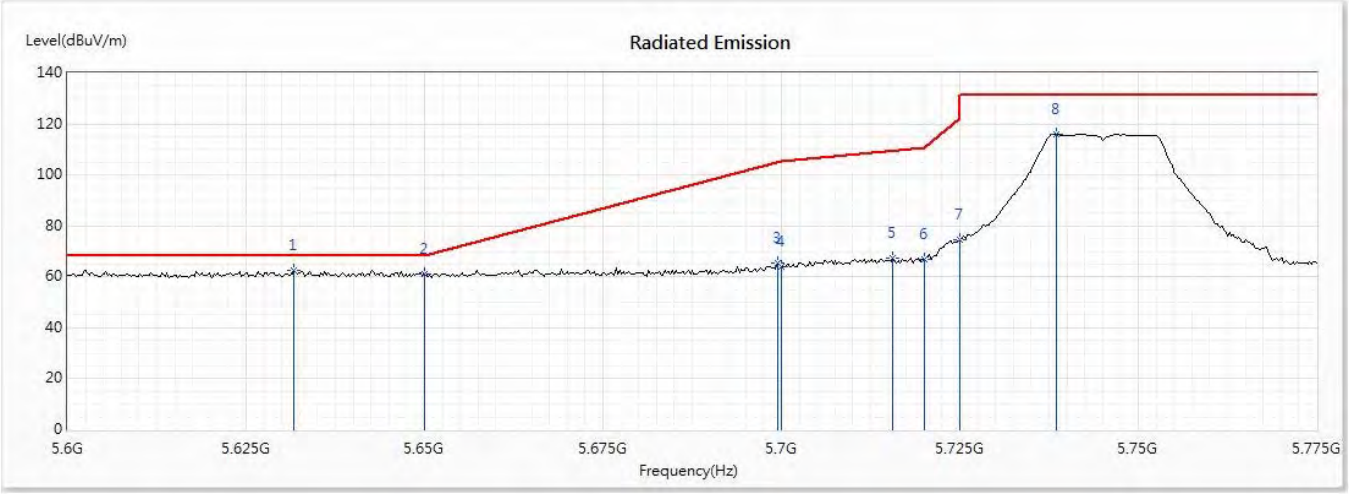
Horizontal



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	5632.717	58.33	68.22	-9.89	37.63	20.70	PK
2	5650	56.14	68.22	-12.08	35.39	20.75	PK
3	5678.37	58.79	89.24	-30.46	37.95	20.84	PK
4	5700	58.36	105.20	-46.84	37.45	20.91	PK
5	5705.761	59.19	106.82	-47.62	38.26	20.93	PK
6	5720	58.67	110.80	-52.13	37.67	21.00	PK
7	5723.261	62.61	118.24	-55.63	41.59	21.02	PK
8	5725	62.44	122.20	-59.76	41.40	21.04	PK
9	5750.906	103.20	--	--	82.03	21.17	PK

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a) (5745MHz)
Test Date : 2020/09/17

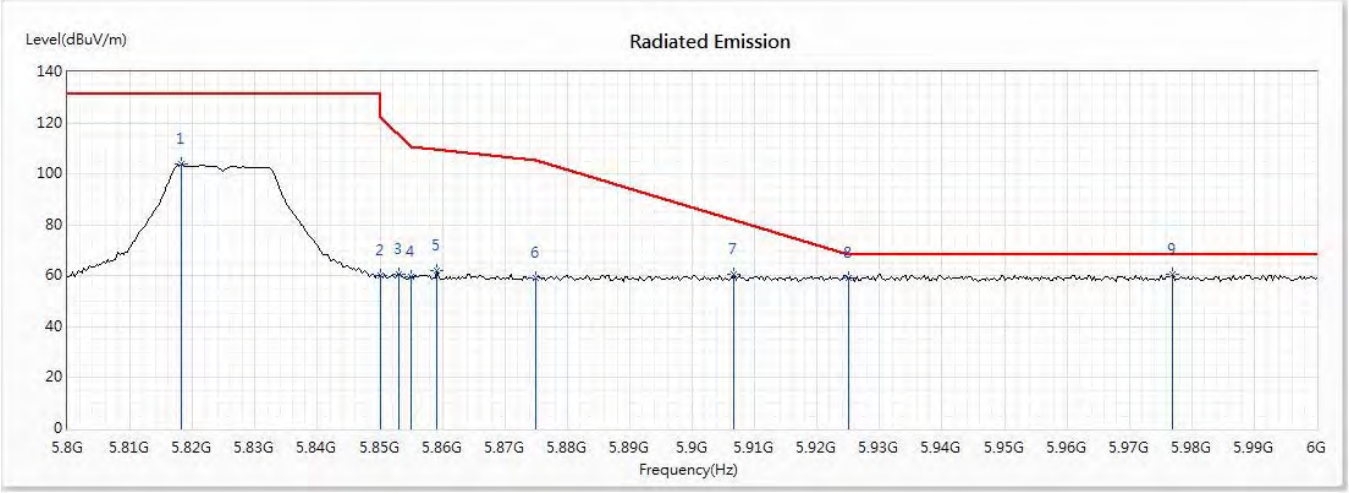
Vertical



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	5631.703	62.46	68.22	-5.76	41.77	20.69	PK
2	5650	61.05	68.22	-7.17	40.30	20.75	PK
3	5699.42	65.20	104.77	-39.58	44.29	20.91	PK
4	5700	63.99	105.20	-41.21	43.08	20.91	PK
5	5715.652	67.33	109.58	-42.25	46.35	20.98	PK
6	5720	66.87	110.80	-43.93	45.87	21.00	PK
7	5725	74.68	122.20	-47.52	53.64	21.04	PK
8	5738.478	116.08	--	--	94.98	21.10	PK

Product	:	Wireless Outdoor Router
Test Item	:	Band Edge Data
Test Mode	:	Mode 1: Transmit (802.11a) (5825MHz)
Test Date	:	2020/09/17

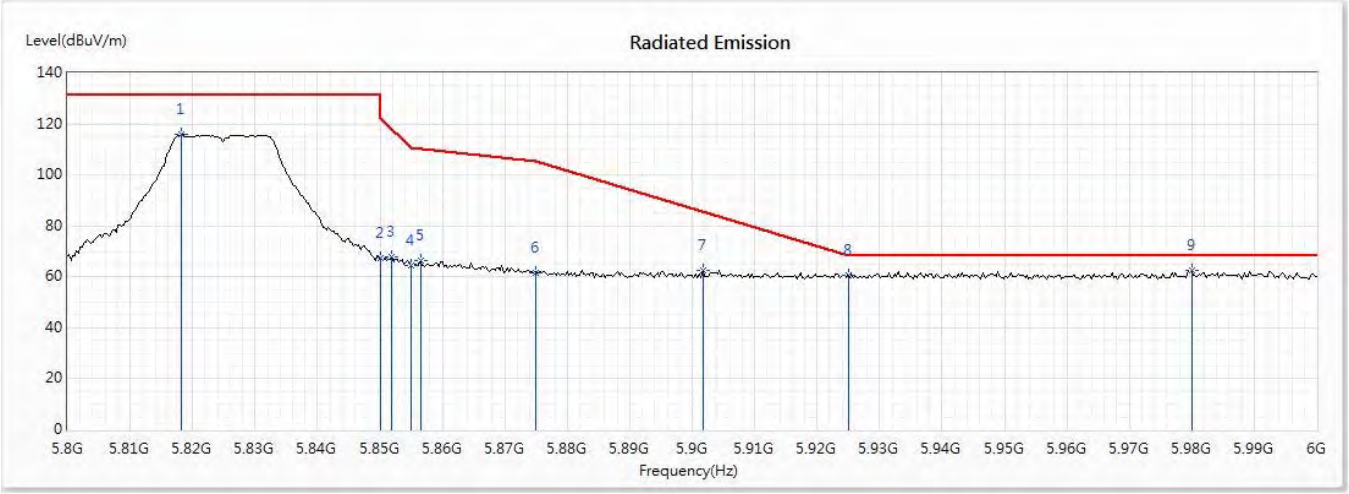
Horizontal



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5818.261	103.68	--	--	82.37	21.31	PK
2	5850	60.02	122.20	-62.18	38.55	21.47	PK
3	5853.043	60.58	115.26	-54.68	39.11	21.47	PK
4	5855	59.51	110.80	-51.29	38.04	21.47	PK
5	5859.13	61.88	109.64	-47.77	40.39	21.49	PK
6	5875	59.32	105.20	-45.88	37.82	21.50	PK
7	5906.667	60.65	81.74	-21.10	39.12	21.53	PK
8	5925	59.01	68.22	-9.21	37.46	21.55	PK
* 9	5976.812	60.77	68.22	-7.45	39.11	21.66	PK

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a) (5825MHz)
Test Date : 2020/09/17

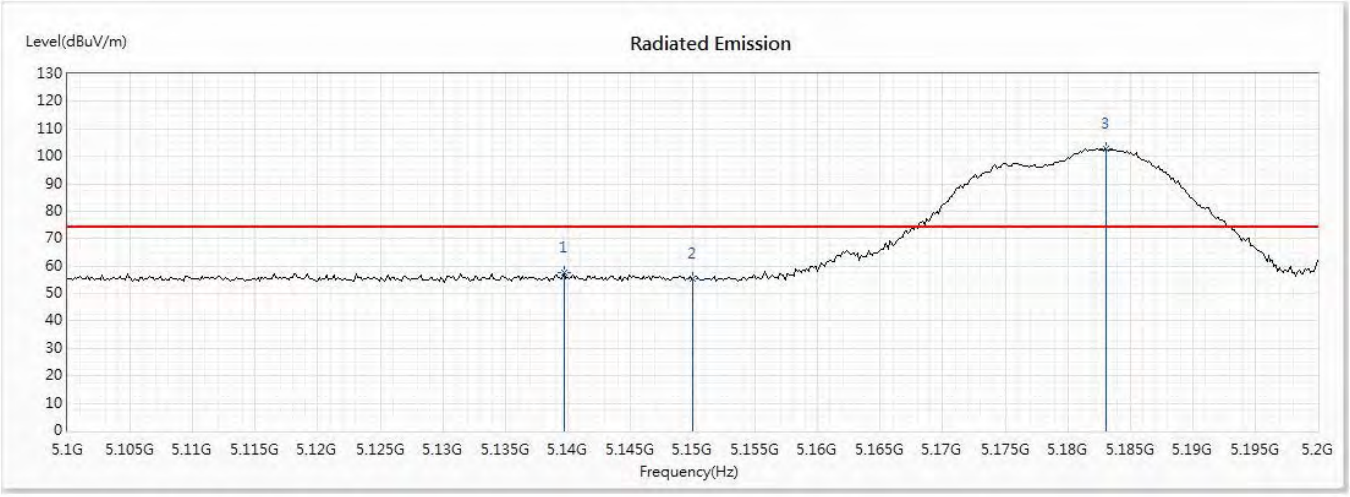
Vertical



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5818.261	115.83	--	--	94.52	21.31	PK
2	5850	67.43	122.20	-54.77	45.96	21.47	PK
3	5851.884	68.03	117.90	-49.88	46.56	21.47	PK
4	5855	64.69	110.80	-46.11	43.22	21.47	PK
5	5856.522	66.19	110.37	-44.19	44.71	21.48	PK
6	5875	61.68	105.20	-43.52	40.18	21.50	PK
7	5901.739	62.64	85.38	-22.74	41.11	21.53	PK
8	5925	60.43	68.22	-7.79	38.88	21.55	PK
* 9	5980	62.63	68.22	-5.59	40.95	21.68	PK

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW) (5180MHz)
Test Date : 2020/09/17

Horizontal



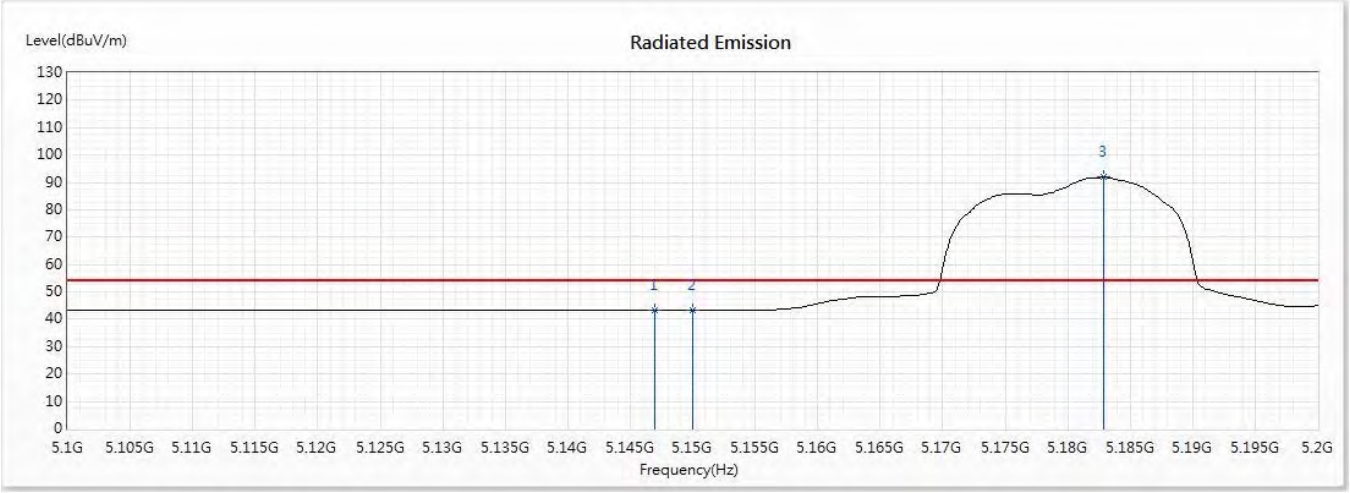
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
1	5139.71	57.82	74.00	-16.18	37.94	19.88	PK
2	5150	55.25	74.00	-18.75	35.36	19.89	PK
3	5183.043	102.82	--	--	82.89	19.93	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW) (5180MHz)
Test Date : 2020/09/17

Horizontal



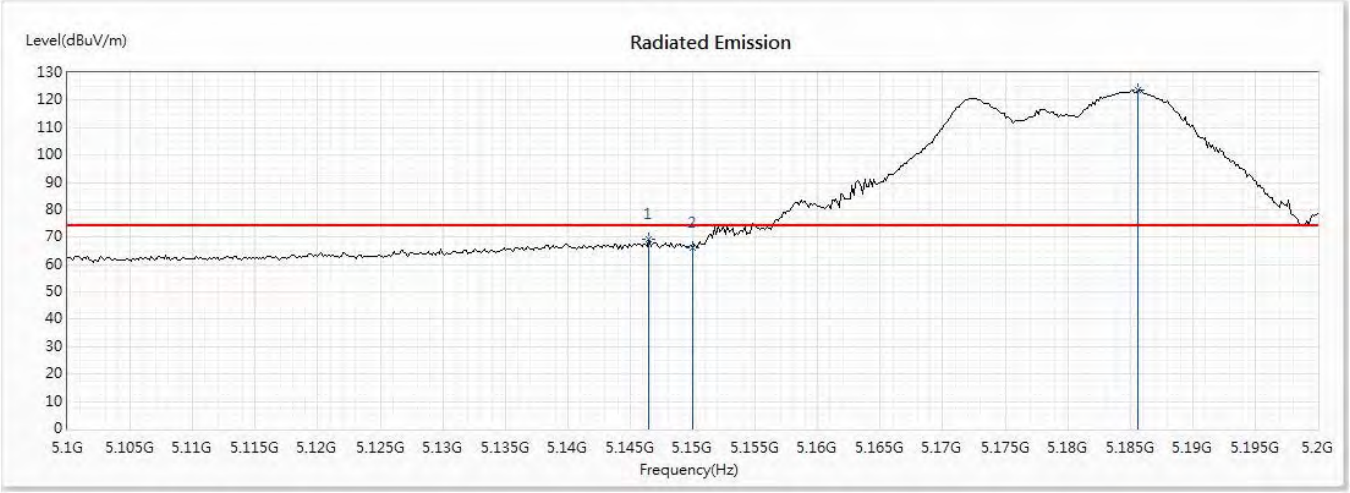
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
1	5146.957	43.32	54.00	-10.68	23.43	19.89	AV
2	5150	43.25	54.00	-10.75	23.36	19.89	AV
3	5182.899	91.83	--	--	71.90	19.93	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW) (5180MHz)
Test Date : 2020/09/17

Vertical



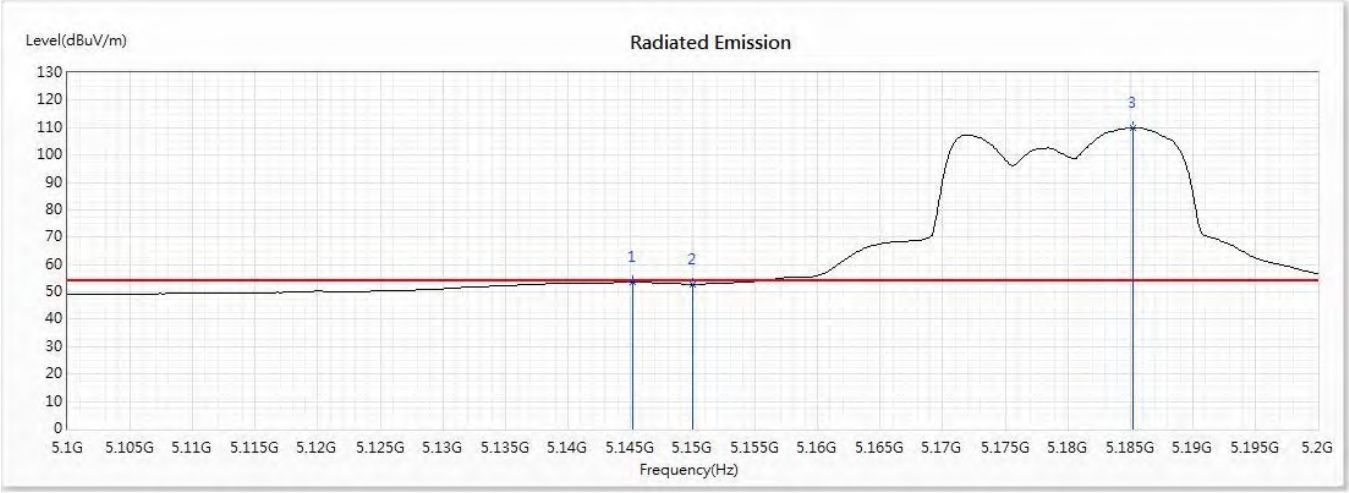
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5146.522	69.22	74.00	-4.78	49.33	19.89	PK
2	5150	66.30	74.00	-7.70	46.41	19.89	PK
3	5185.652	123.95	--	--	104.01	19.94	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW) (5180MHz)
Test Date : 2020/09/17

Vertical



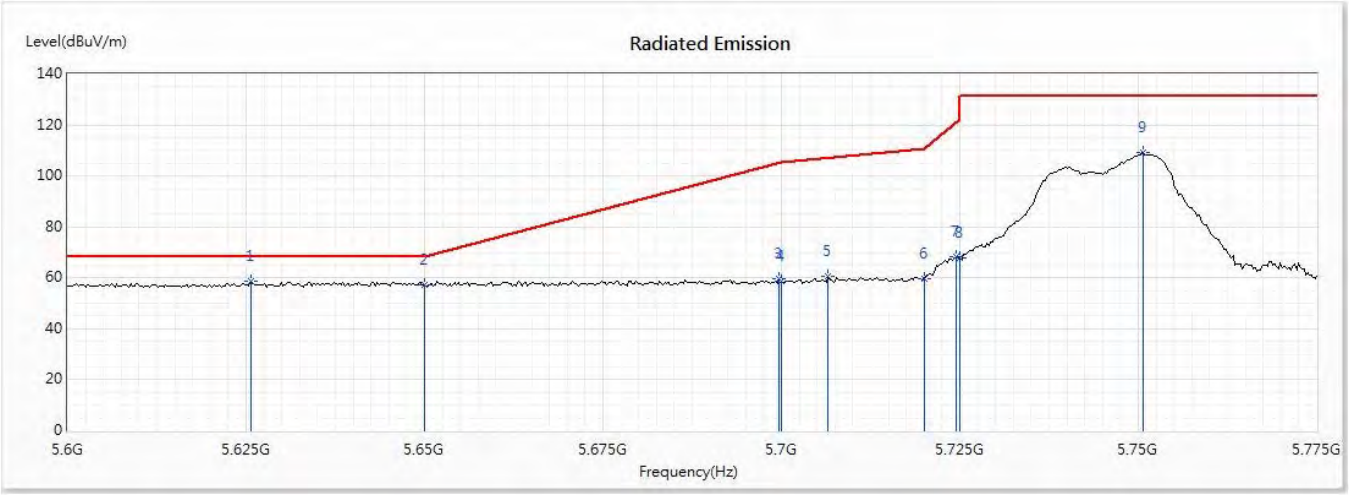
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5145.217	53.55	54.00	-0.45	33.66	19.89	AV
2	5150	52.87	54.00	-1.13	32.98	19.89	AV
3	5185.217	110.10	--	--	90.16	19.94	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW) (5745MHz)
Test Date : 2020/09/17

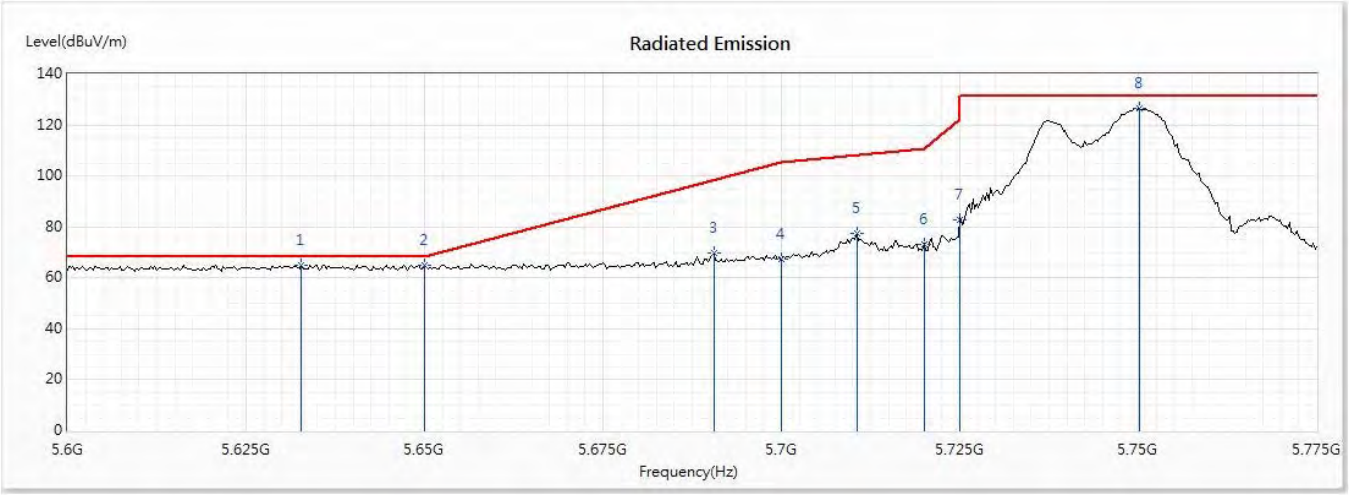
Horizontal



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	5625.616	58.49	68.22	-9.73	37.82	20.67	PK
2	5650	57.29	68.22	-10.93	36.54	20.75	PK
3	5699.674	59.67	104.96	-45.29	38.76	20.91	PK
4	5700	58.73	105.20	-46.47	37.82	20.91	PK
5	5706.522	60.38	107.03	-46.65	39.44	20.94	PK
6	5720	59.62	110.80	-51.18	38.62	21.00	PK
7	5724.529	68.32	121.13	-52.81	47.28	21.04	PK
8	5725	67.67	122.20	-54.53	46.63	21.04	PK
9	5750.652	109.13	--	--	87.96	21.17	PK

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW) (5745MHz)
Test Date : 2020/09/17

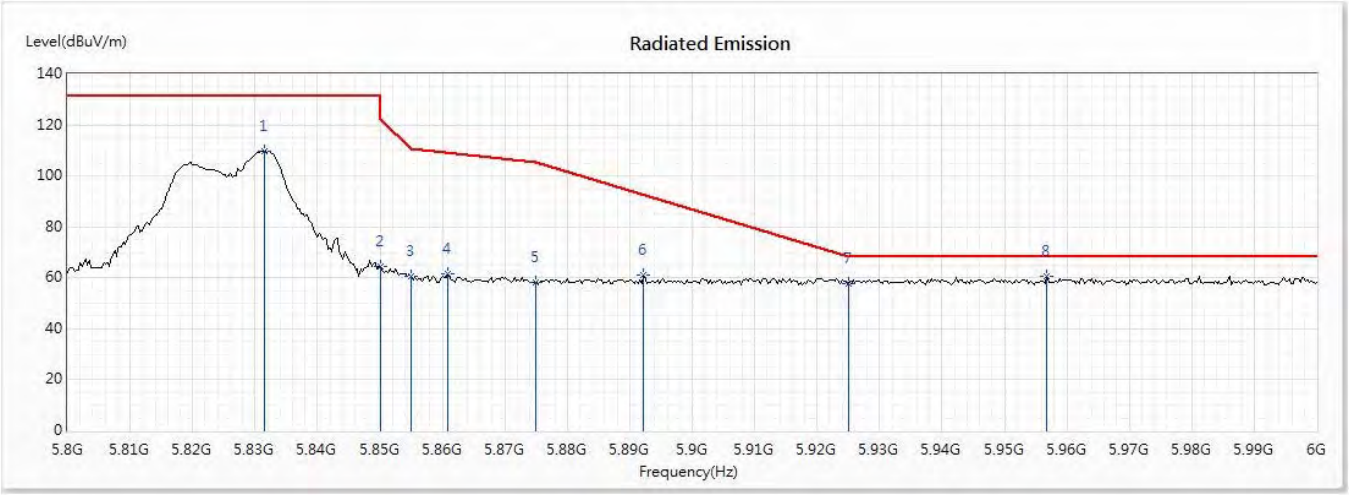
Vertical



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	5632.717	65.15	68.22	-3.07	44.45	20.70	PK
2	5650	64.74	68.22	-3.48	43.99	20.75	PK
3	5690.543	69.82	98.23	-28.42	48.95	20.87	PK
4	5700	67.36	105.20	-37.84	46.45	20.91	PK
5	5710.58	77.27	108.16	-30.89	56.31	20.96	PK
6	5720	73.23	110.80	-37.57	52.23	21.00	PK
7	5725	82.58	122.20	-39.62	61.54	21.04	PK
8	5750.145	126.68	--	--	105.51	21.17	PK

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW) (5825MHz)
Test Date : 2020/09/17

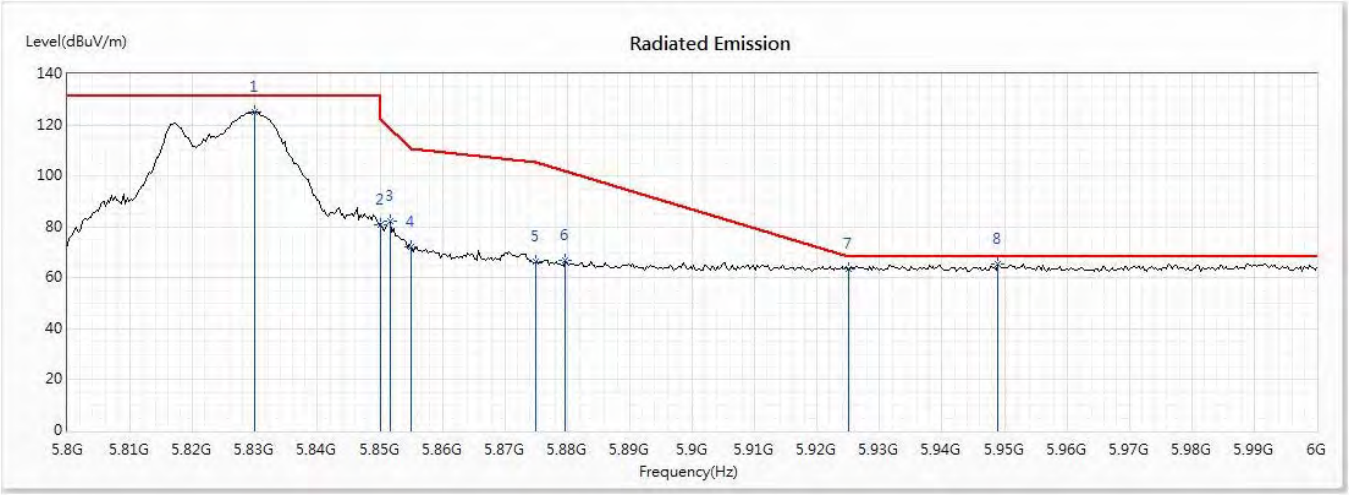
Horizontal



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5831.594	109.76	--	--	88.37	21.39	PK
2	5850	64.46	122.20	-57.74	42.99	21.47	PK
3	5855	60.64	110.80	-50.16	39.17	21.47	PK
4	5860.87	61.56	109.15	-47.59	40.07	21.49	PK
5	5875	58.29	105.20	-46.91	36.79	21.50	PK
6	5892.174	60.89	92.46	-31.57	39.37	21.52	PK
7	5925	57.68	68.22	-10.54	36.13	21.55	PK
* 8	5956.812	60.69	68.22	-7.53	39.09	21.60	PK

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW) (5825MHz)
Test Date : 2020/09/17

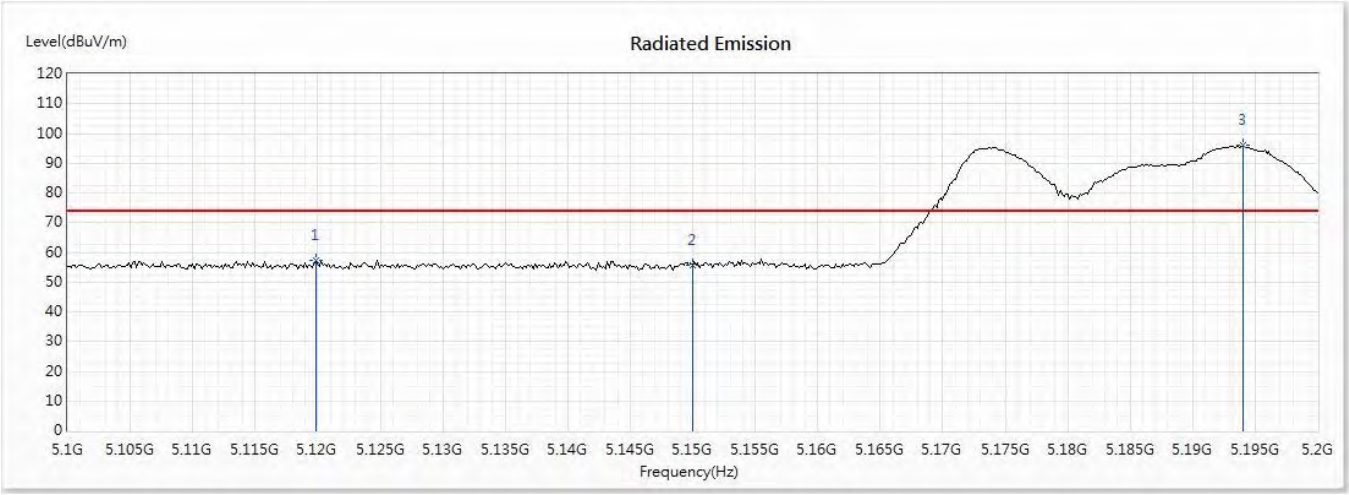
Vertical



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5829.855	125.30	--	--	103.93	21.37	PK
2	5850	80.77	122.20	-41.43	59.30	21.47	PK
3	5851.594	82.43	118.56	-36.13	60.96	21.47	PK
4	5855	72.05	110.80	-38.75	50.58	21.47	PK
5	5875	66.21	105.20	-38.99	44.71	21.50	PK
6	5879.71	67.10	101.70	-34.60	45.60	21.50	PK
7	5925	63.65	68.22	-4.57	42.10	21.55	PK
* 8	5948.986	65.65	68.22	-2.57	44.07	21.58	PK

Product	:	Wireless Outdoor Router
Test Item	:	Band Edge Data
Test Mode	:	Mode 3: Transmit (802.11n-40BW) (5190MHz)
Test Date	:	2020/09/17

Horizontal



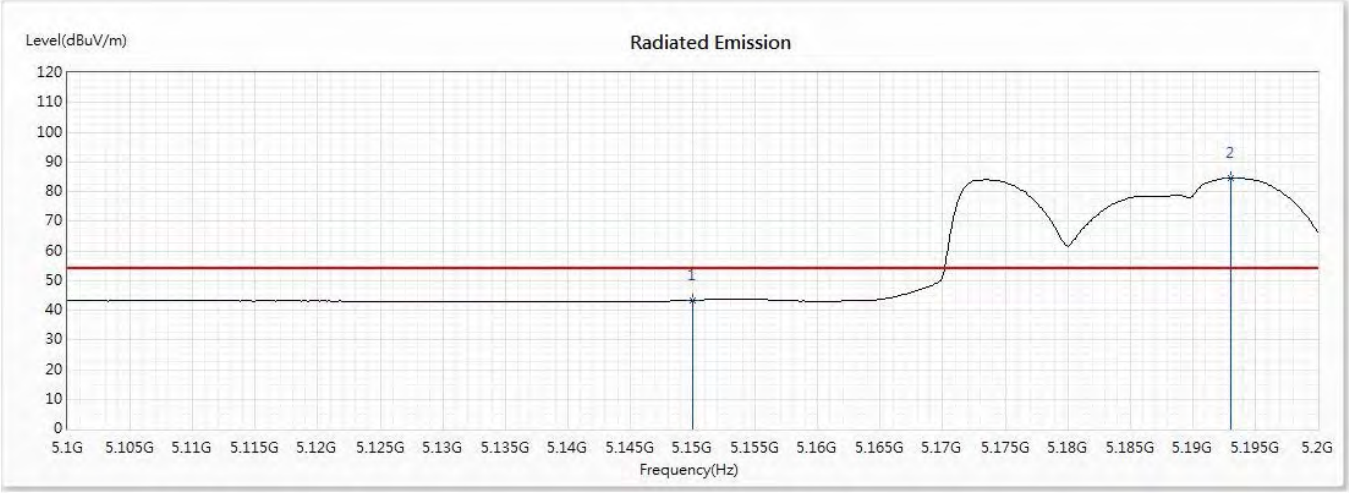
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5119.855	57.38	74.00	-16.62	37.52	19.86	PK
2	5150	55.57	74.00	-18.43	35.68	19.89	PK
3	5194.058	95.96	--	--	76.01	19.95	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW) (5190MHz)
Test Date : 2020/09/17

Horizontal



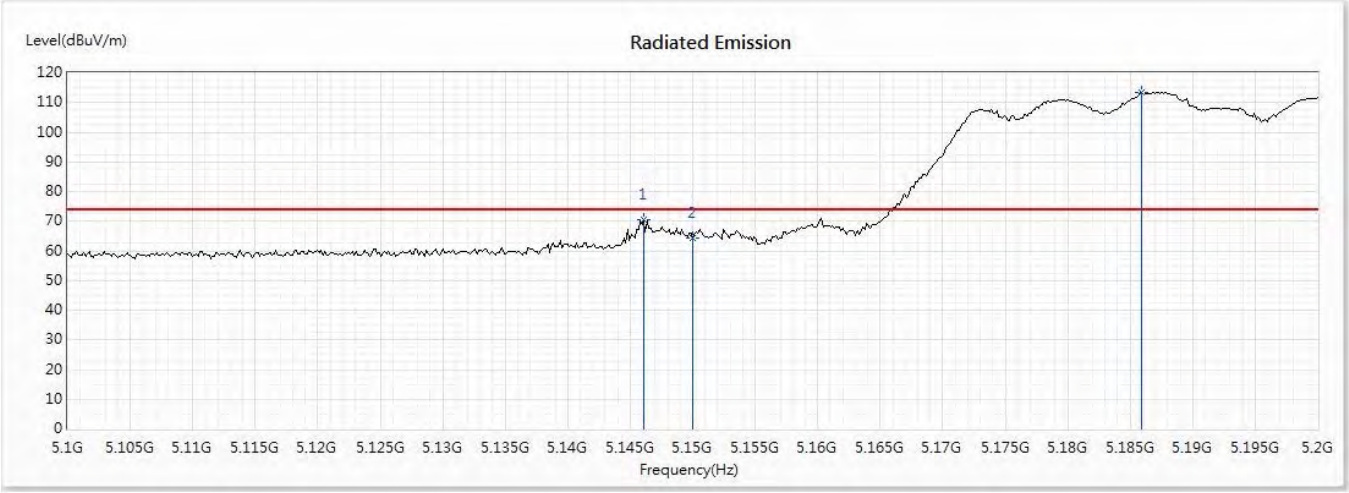
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
1	5150	43.30	54.00	-10.70	23.41	19.89	AV
2	5193.043	84.63	--	--	64.68	19.95	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW) (5190MHz)
Test Date : 2020/09/17

Vertical



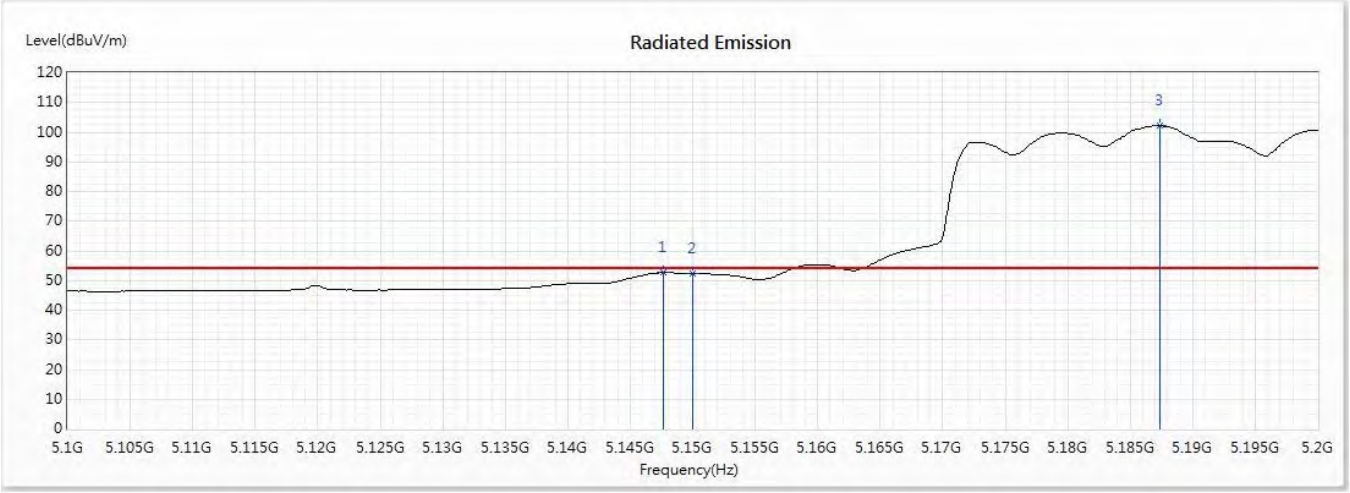
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
1	5146.087	70.61	74.00	-3.39	50.72	19.89	PK
2	5150	64.17	74.00	-9.83	44.28	19.89	PK
3	5185.942	113.33	--	--	93.39	19.94	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW) (5190MHz)
Test Date : 2020/09/17

Vertical



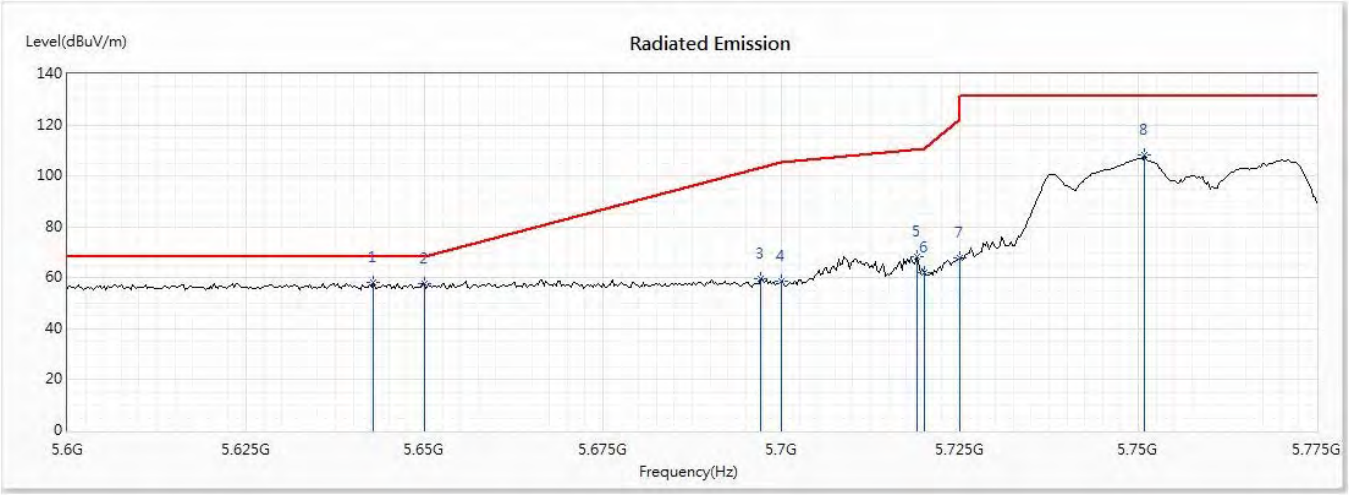
No	Frequency (MHz)	Emission Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Reading Level (dBμV)	Correct Factor (dB/m)	Detector Type
1	5147.681	52.67	54.00	-1.33	32.78	19.89	AV
2	5150	52.38	54.00	-1.62	32.49	19.89	AV
3	5187.391	102.18	--	--	82.24	19.94	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW) (5755MHz)
Test Date : 2020/09/17

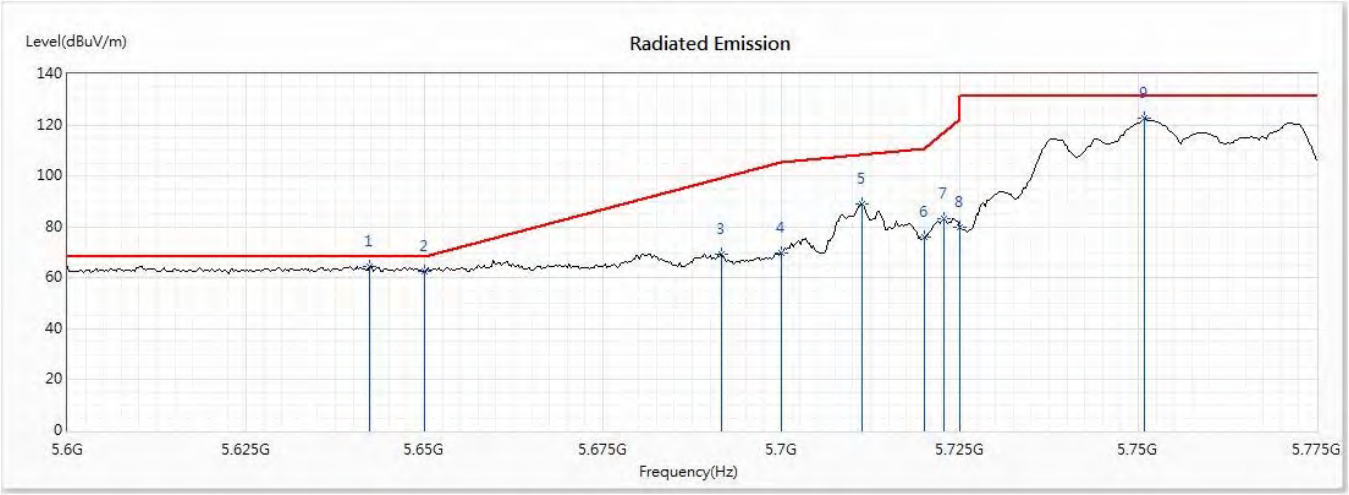
Horizontal



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	5642.862	58.22	68.22	-10.00	37.49	20.73	PK
2	5650	57.50	68.22	-10.72	36.75	20.75	PK
3	5697.138	59.60	103.09	-43.49	38.71	20.89	PK
4	5700	58.77	105.20	-46.43	37.86	20.91	PK
5	5718.949	68.42	110.51	-42.09	47.42	21.00	PK
6	5720	62.22	110.80	-48.58	41.22	21.00	PK
7	5725	67.61	122.20	-54.59	46.57	21.04	PK
8	5750.906	108.07	--	--	86.90	21.17	PK

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW) (5755MHz)
Test Date : 2020/09/17

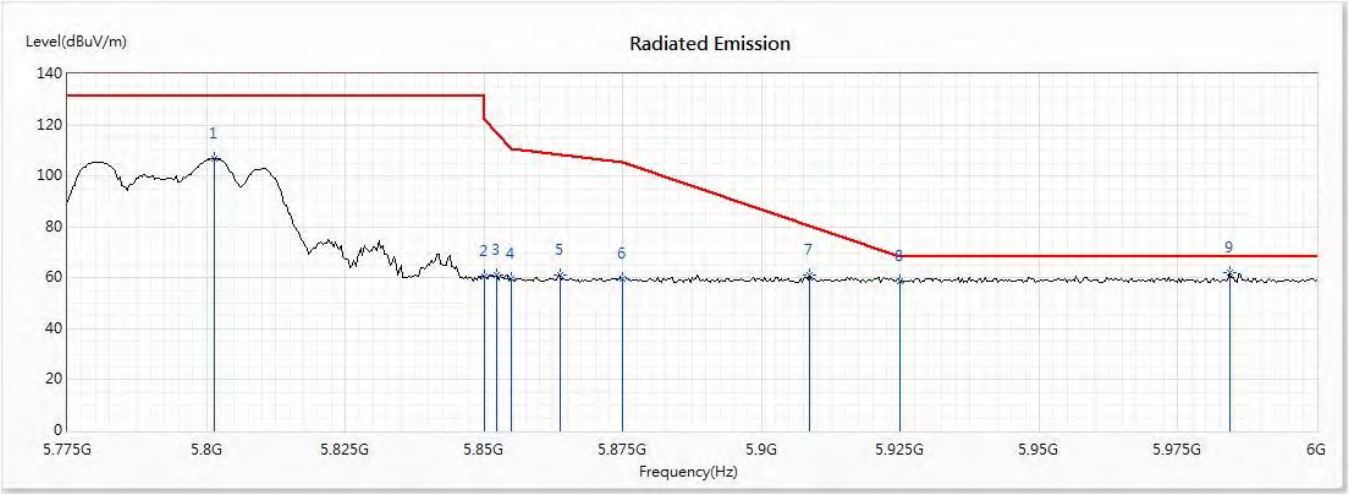
Vertical



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
* 1	5642.355	64.65	68.22	-3.57	43.93	20.72	PK
2	5650	62.60	68.22	-5.62	41.85	20.75	PK
3	5691.558	69.43	98.98	-29.55	48.56	20.87	PK
4	5700	69.95	105.20	-35.25	49.04	20.91	PK
5	5711.341	89.15	108.38	-19.23	68.18	20.97	PK
6	5720	76.02	110.80	-34.78	55.02	21.00	PK
7	5722.754	83.07	117.08	-34.01	62.06	21.01	PK
8	5725	79.91	122.20	-42.29	58.87	21.04	PK
9	5750.906	122.45	--	--	101.28	21.17	PK

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW) (5795MHz)
Test Date : 2020/09/17

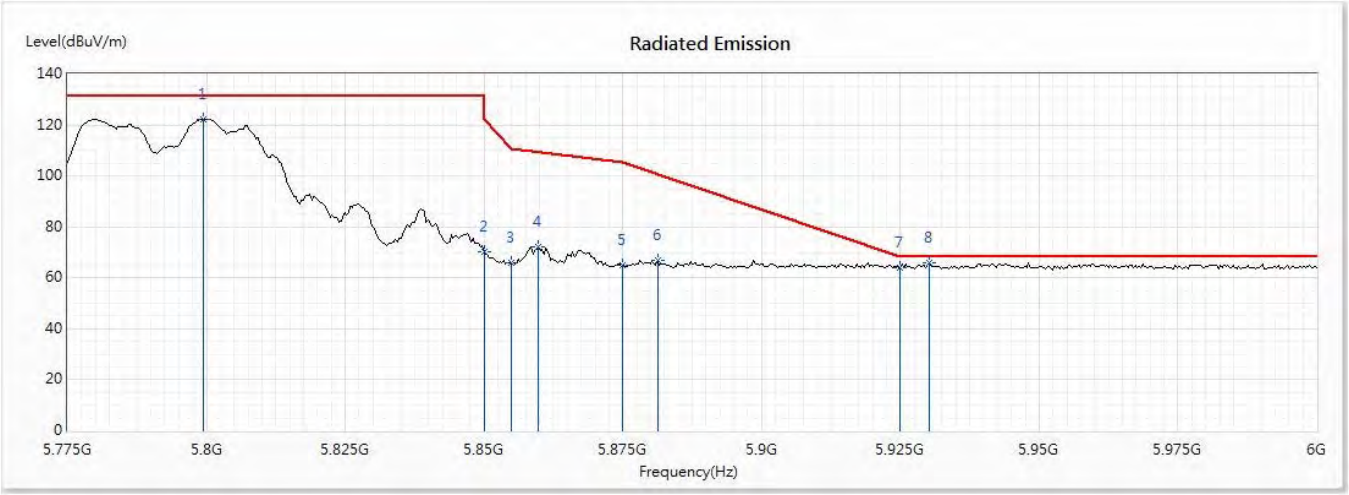
Horizontal



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5801.413	106.86	--	--	85.64	21.22	PK
2	5850	60.42	122.20	-61.78	38.95	21.47	PK
3	5852.283	60.99	116.99	-56.01	39.52	21.47	PK
4	5855	59.59	110.80	-51.21	38.12	21.47	PK
5	5863.696	60.93	108.36	-47.43	39.44	21.49	PK
6	5875	59.76	105.20	-45.44	38.26	21.50	PK
7	5908.696	61.17	80.24	-19.07	39.63	21.54	PK
8	5925	58.52	68.22	-9.70	36.97	21.55	PK
* 9	5984.348	61.84	68.22	-6.38	40.15	21.69	PK

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW) (5795MHz)
Test Date : 2020/09/17

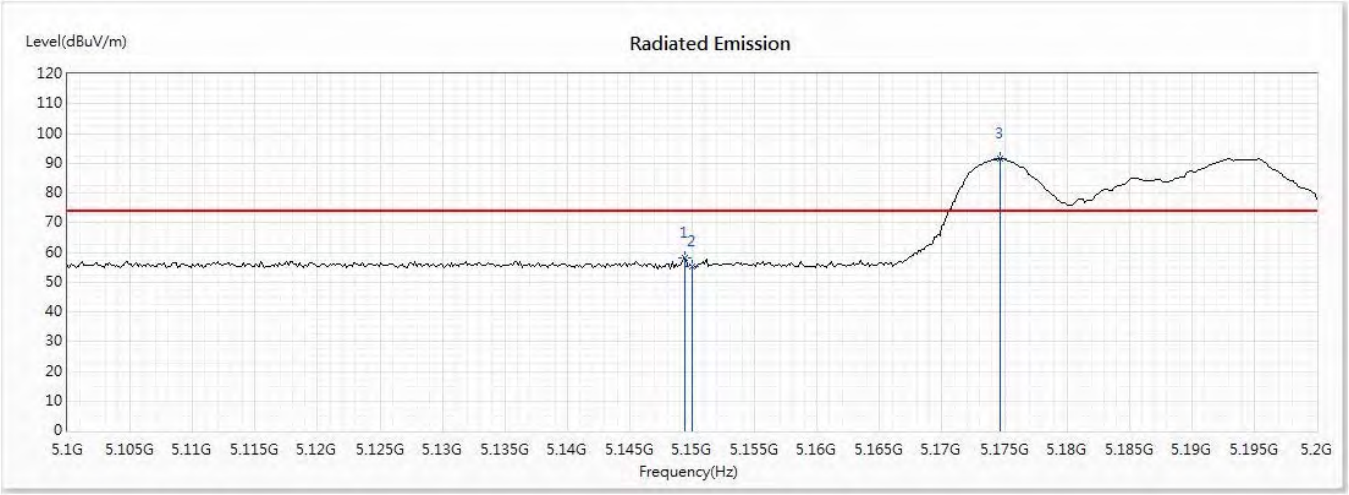
Vertical



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5799.457	122.40	--	--	101.19	21.21	PK
2	5850	70.03	122.20	-52.17	48.56	21.47	PK
3	5855	65.74	110.80	-45.06	44.27	21.47	PK
4	5859.783	72.22	109.46	-37.24	50.73	21.49	PK
5	5875	64.75	105.20	-40.45	43.25	21.50	PK
6	5881.304	67.10	100.52	-33.42	45.60	21.50	PK
7	5925	64.14	68.22	-4.08	42.59	21.55	PK
* 8	5930.217	65.80	68.22	-2.42	44.24	21.56	PK

Product	:	Wireless Outdoor Router
Test Item	:	Band Edge Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW) (5210MHz)
Test Date	:	2020/09/17

Horizontal



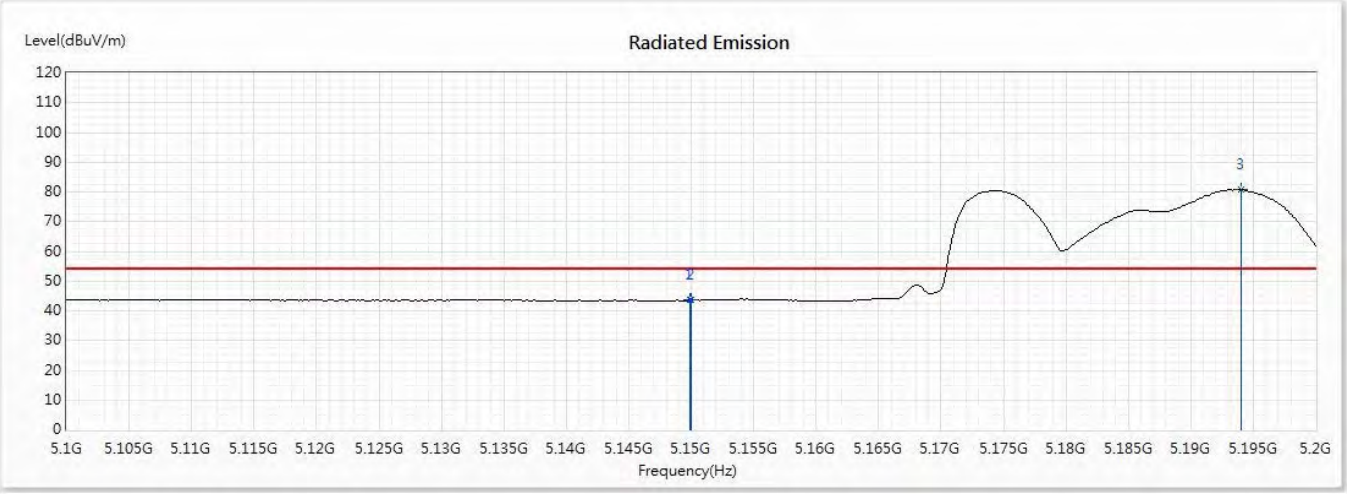
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5149.42	58.00	74.00	-16.00	38.11	19.89	PK
2	5150	55.21	74.00	-18.79	35.32	19.89	PK
3	5174.638	91.64	--	--	71.72	19.92	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	Wireless Outdoor Router
Test Item	:	Band Edge Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW) (5210MHz)
Test Date	:	2020/09/17

Horizontal



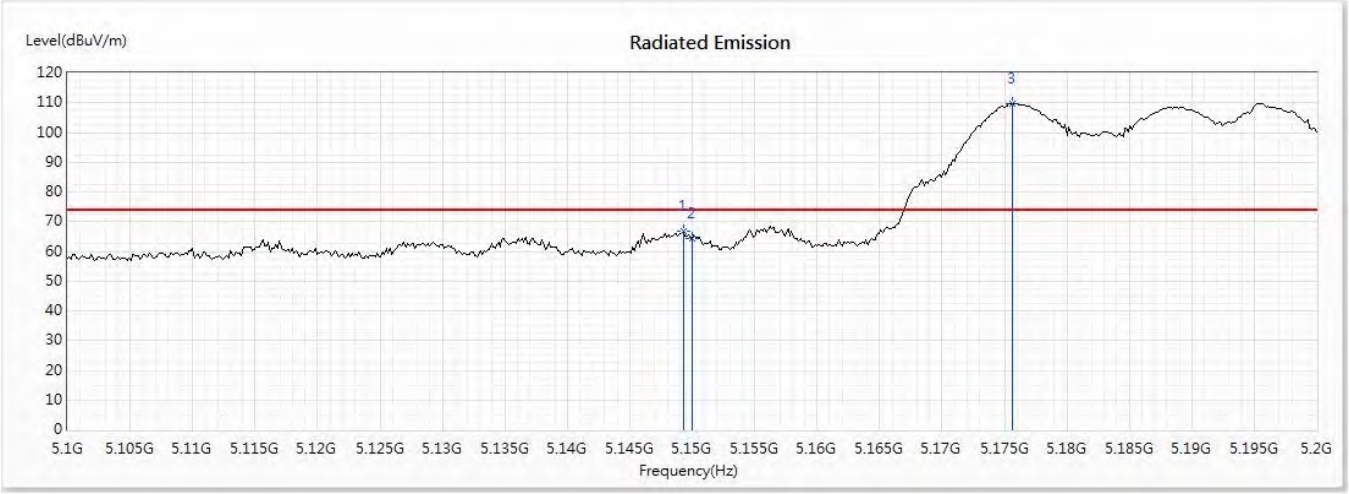
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5149.855	43.62	54.00	-10.38	23.73	19.89	AV
2	5150	43.52	54.00	-10.48	23.63	19.89	AV
3	5194.058	80.70	--	--	60.75	19.95	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW) (5210MHz)
Test Date : 2020/09/17

Vertical



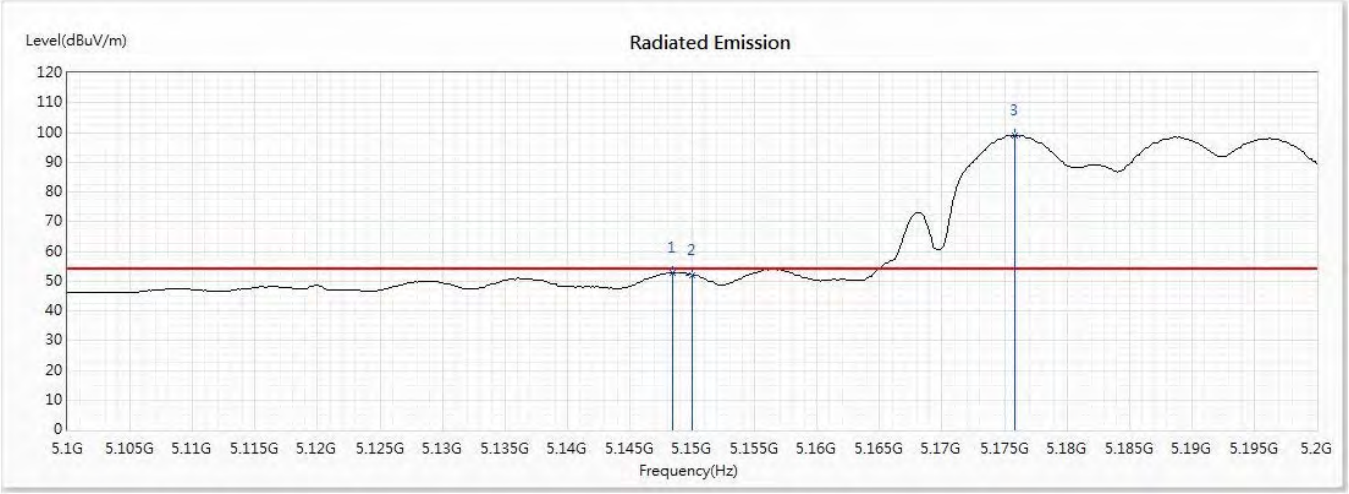
No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5149.275	66.65	74.00	-7.35	46.76	19.89	PK
2	5150	64.50	74.00	-9.50	44.61	19.89	PK
3	5175.652	109.89	--	--	89.97	19.92	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	Wireless Outdoor Router
Test Item	:	Band Edge Data
Test Mode	:	Mode 4: Transmit (802.11ac-80BW) (5210MHz)
Test Date	:	2020/09/17

Vertical



No	Frequency (MHz)	Emission Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Reading Level (dBµV)	Correct Factor (dB/m)	Detector Type
1	5148.406	52.97	54.00	-1.03	33.08	19.89	AV
2	5150	52.10	54.00	-1.90	32.21	19.89	AV
3	5175.797	99.12	--	--	79.19	19.93	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

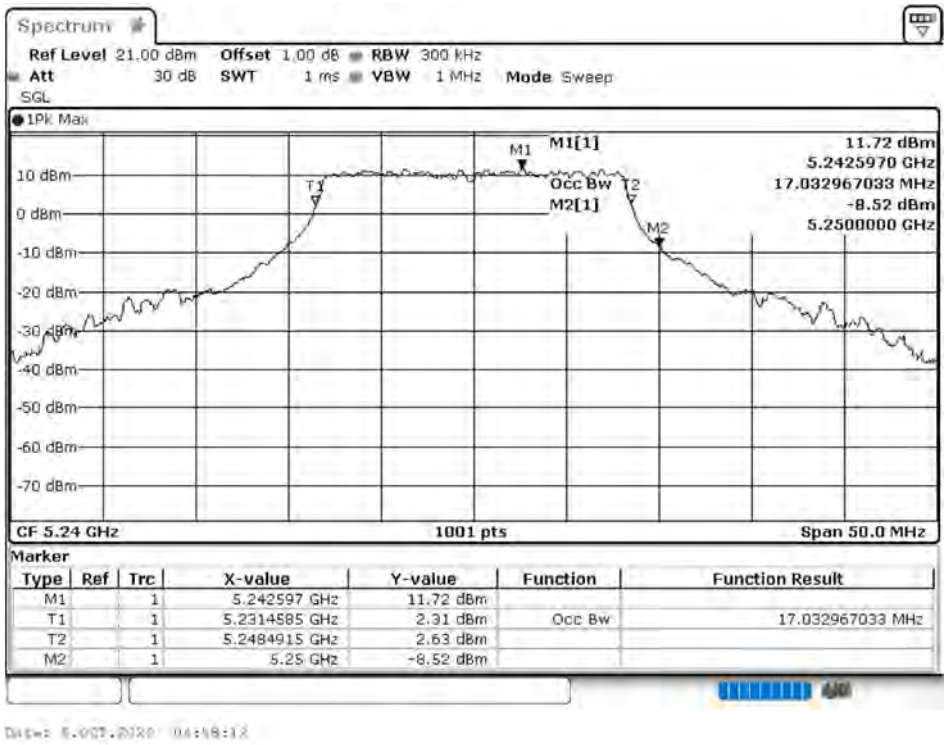
Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11a)

Chain A

Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5240	5248.49	<5250	PASS

Note: The test item setting is 99% BW.

Chain A



Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 2: Transmit (802.11n-20BW)

Chain A

Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5240	5249.14	<5250	PASS

Chain B

Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5240	5249.19	<5250	PASS

Chain C

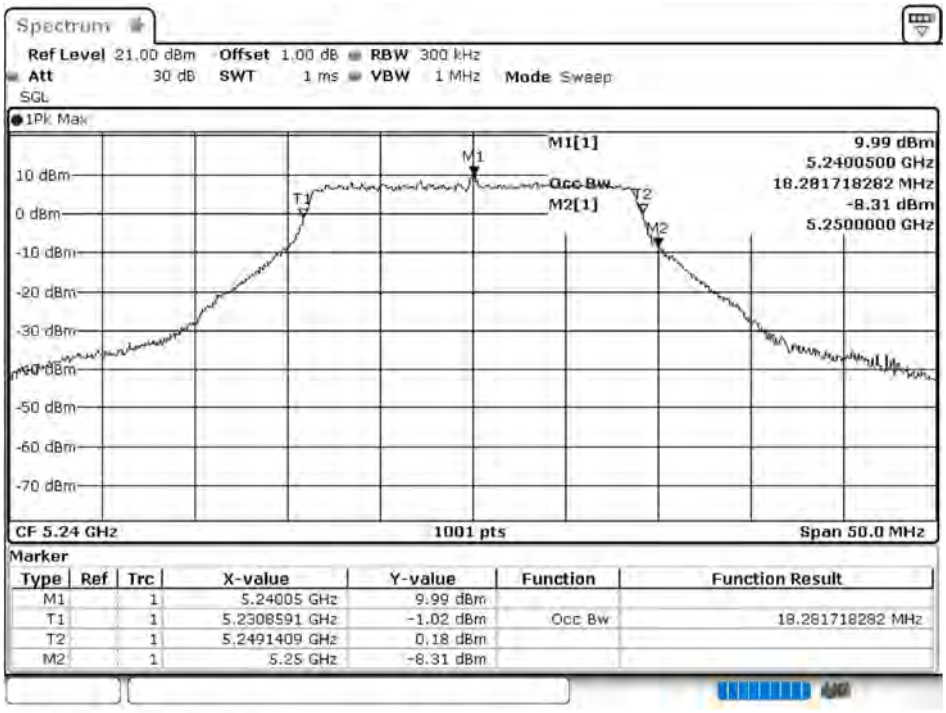
Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5240	5249.09	<5250	PASS

Chain D

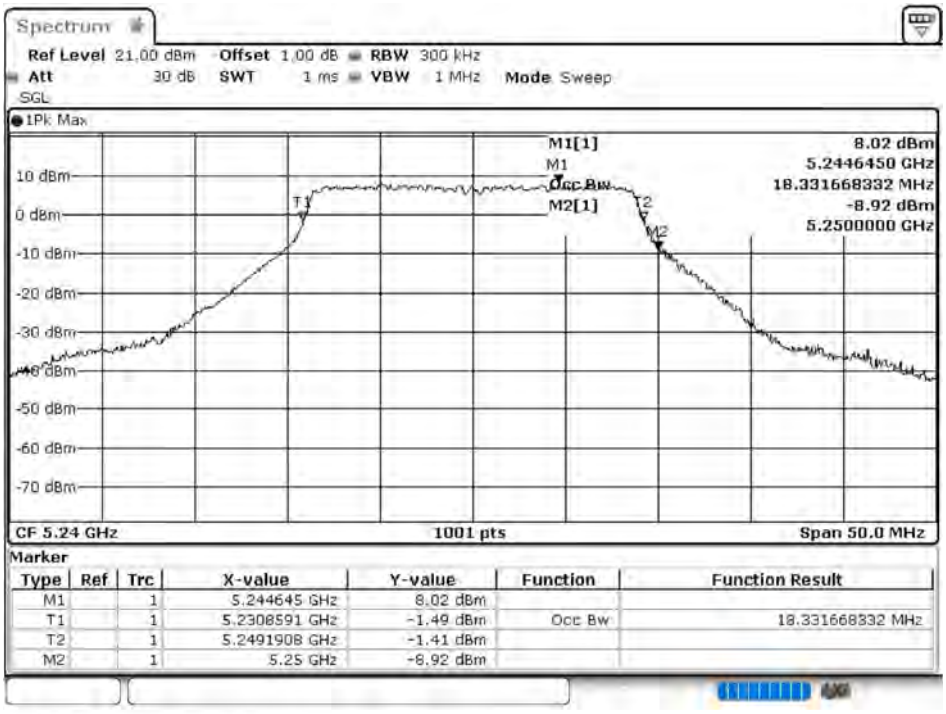
Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5240	5249.19	<5250	PASS

Note: The test item setting is 99% BW.

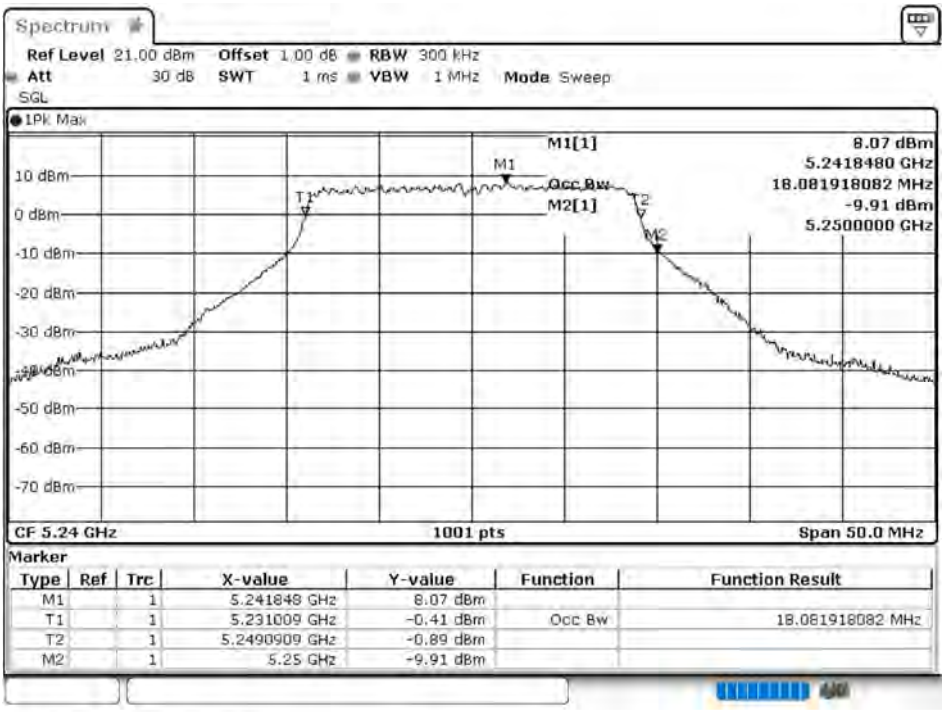
Chain A



Chain B

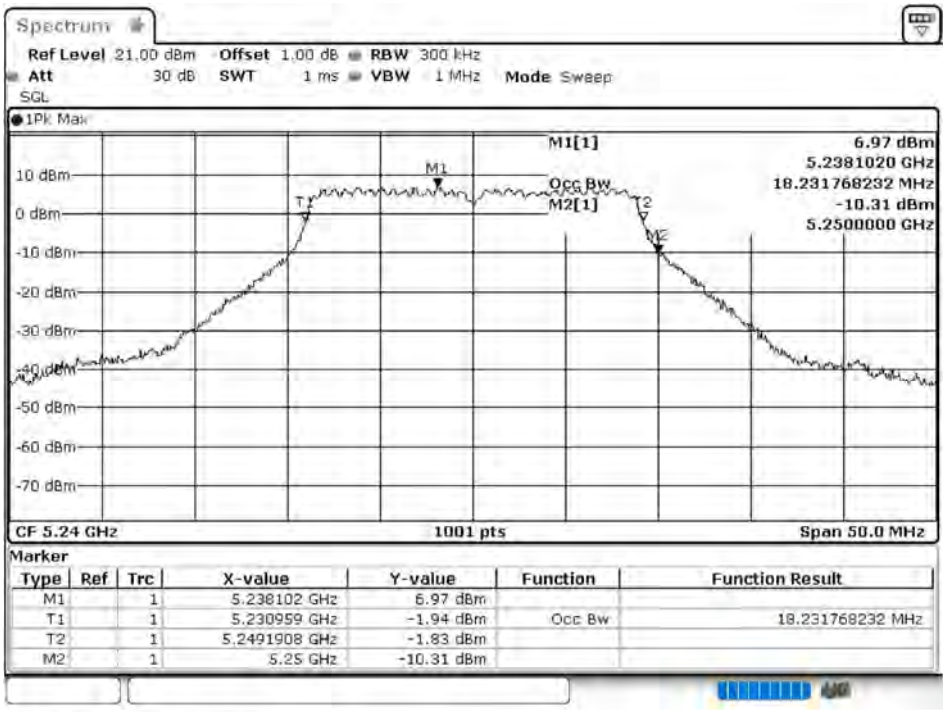


Chain C



Date: 6.OCT.2020 09:48:50

Chain D



Date: 6.OCT.2020 11:16:34

Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 3: Transmit (802.11n-40BW)

Chain A

Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5230	5248.68	<5250	PASS

Chain B

Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5230	5248.58	<5250	PASS

Chain C

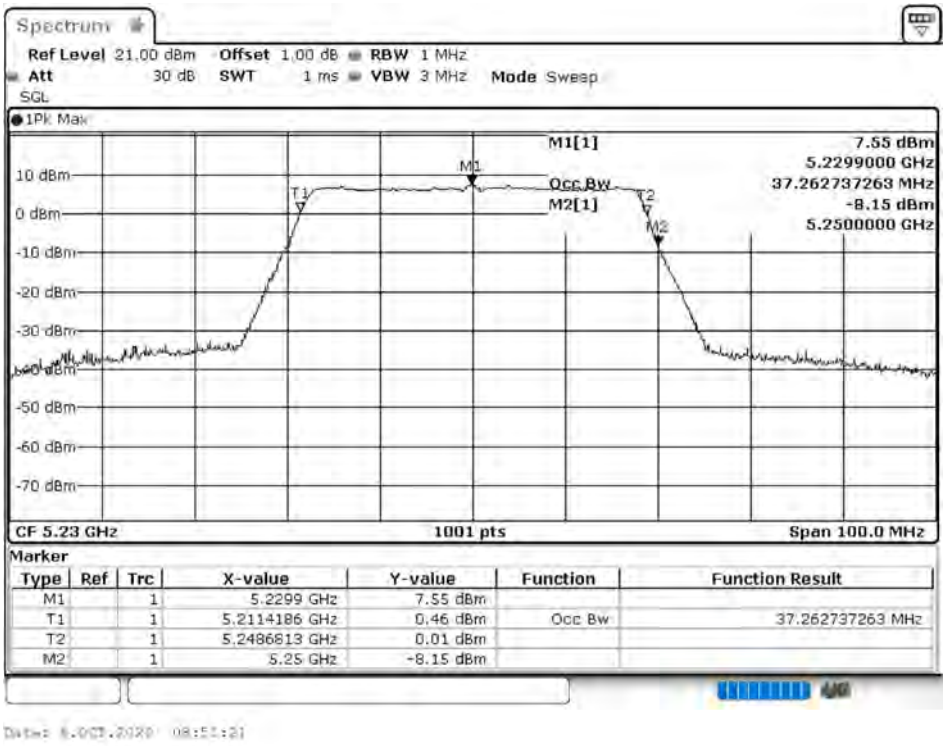
Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5230	5248.68	<5250	PASS

Chain D

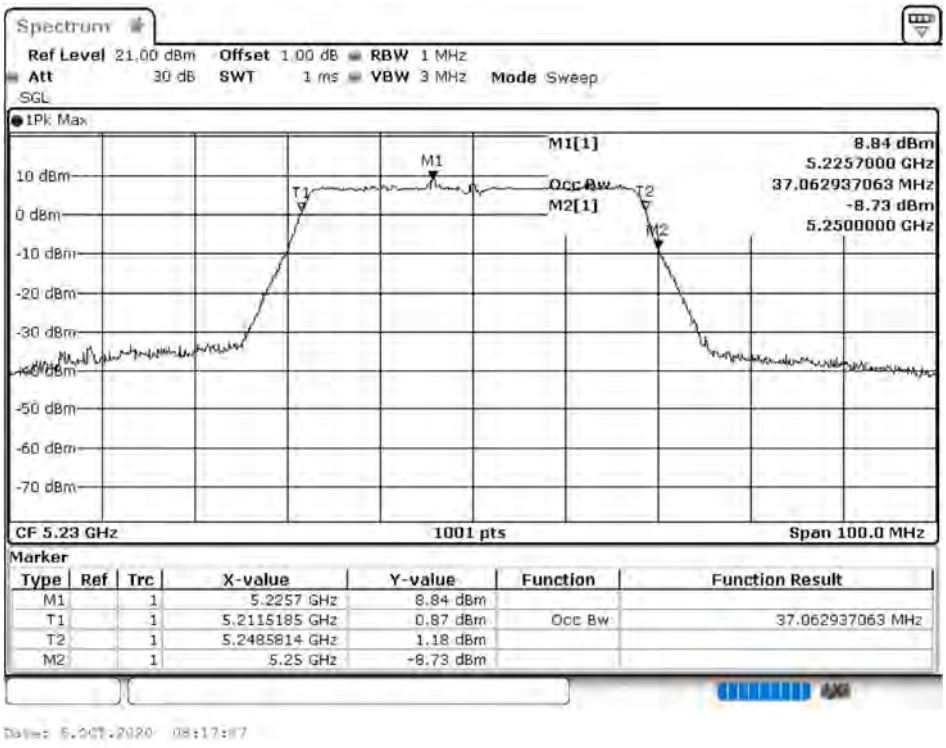
Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5230	5248.68	<5250	PASS

Note: The test item setting is 99% BW.

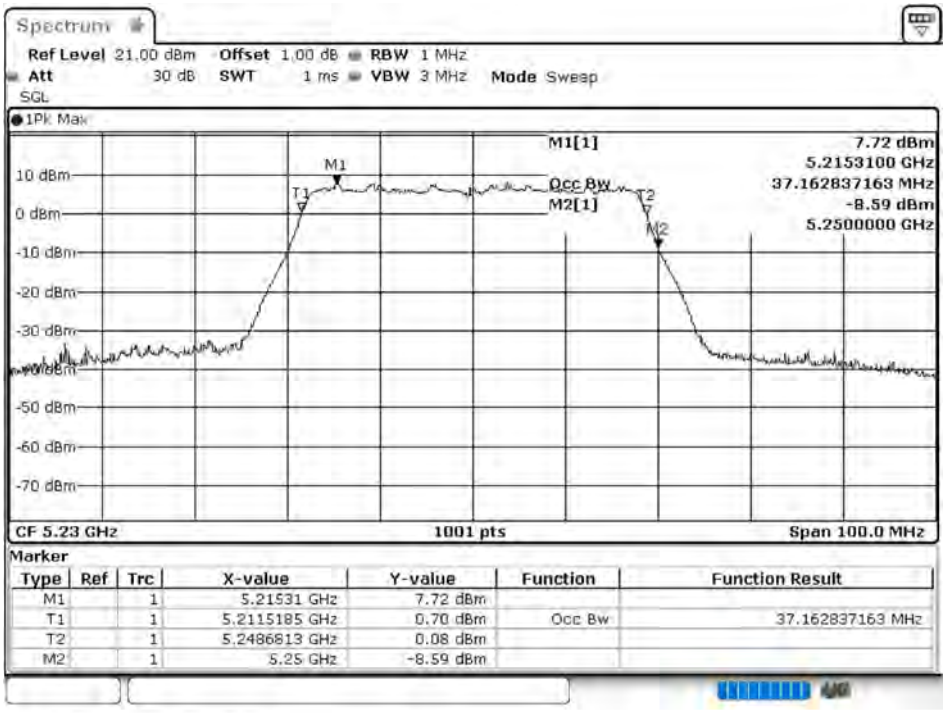
Chain A



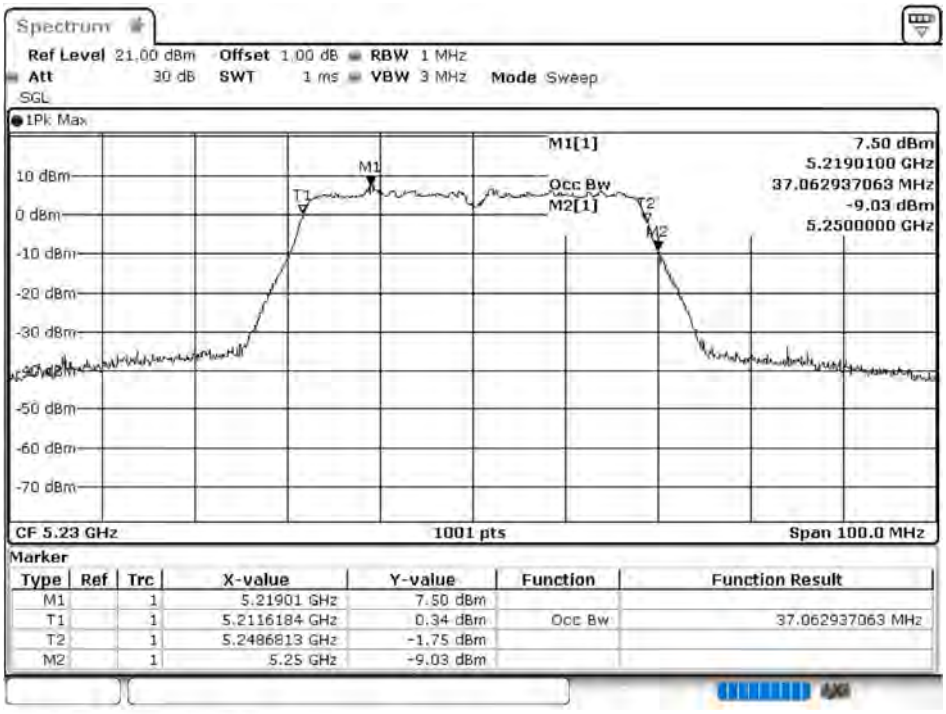
Chain B



Chain C



Chain D



Product : Wireless Outdoor Router
Test Item : Band Edge Data
Test Mode : Mode 4: Transmit (802.11ac-80BW)

Chain A

Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5210	5247.76	<5250	PASS

Chain B

Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5210	5247.76	<5250	PASS

Chain C

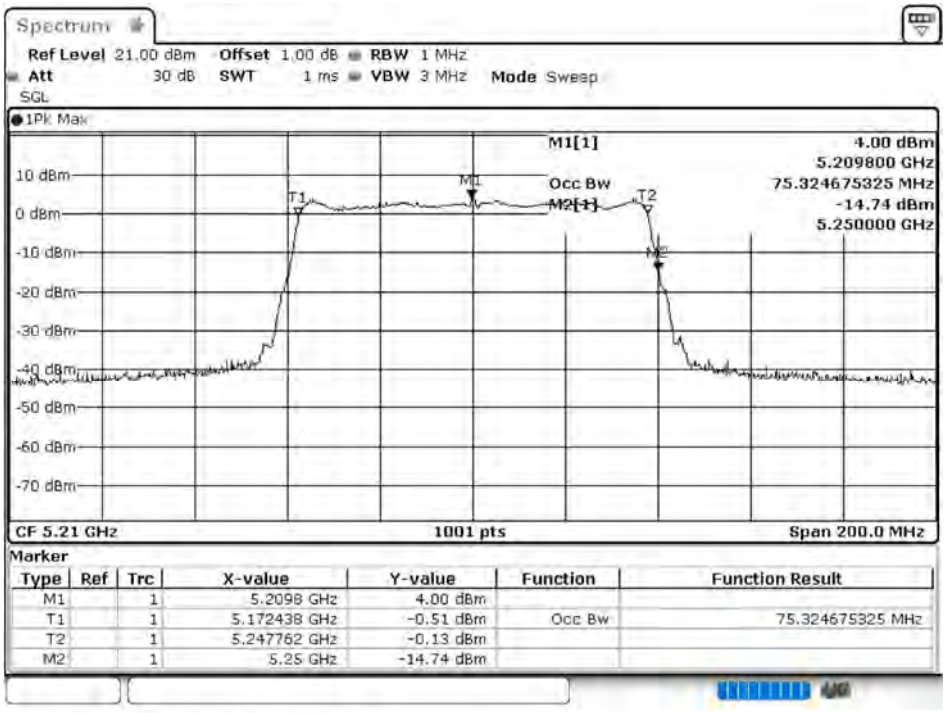
Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5210	5247.76	<5250	PASS

Chain D

Test Frequency (MHz)	Measurement Level (MHz)	Limit (MHz)	Result
5210	5247.76	<5250	PASS

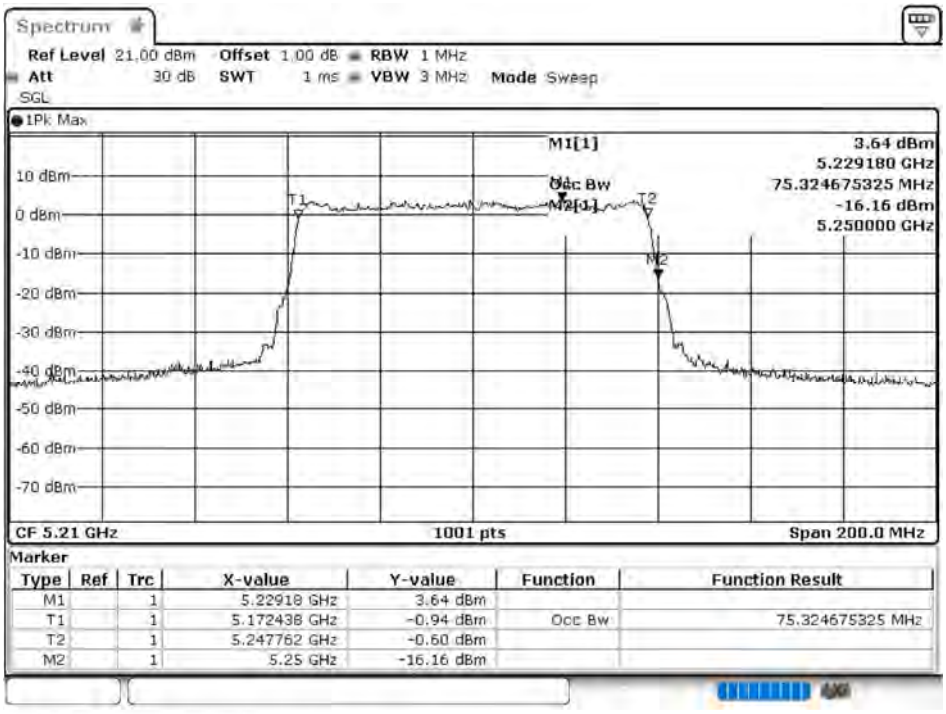
Note: The test item setting is 99% BW.

Chain A



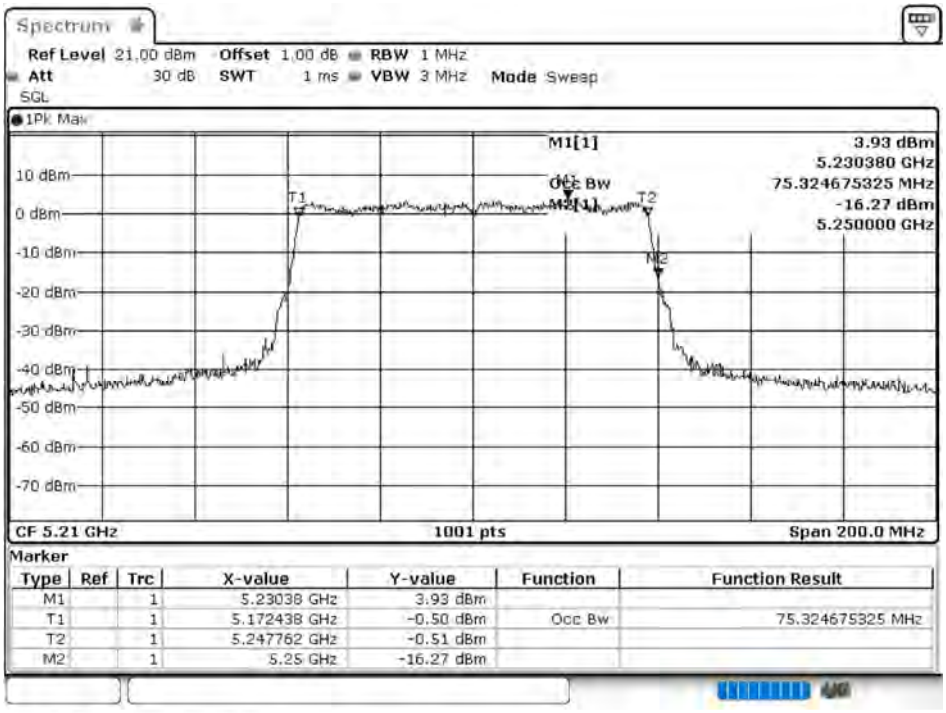
Date: 6.OCT.2020 08:40:48

Chain B



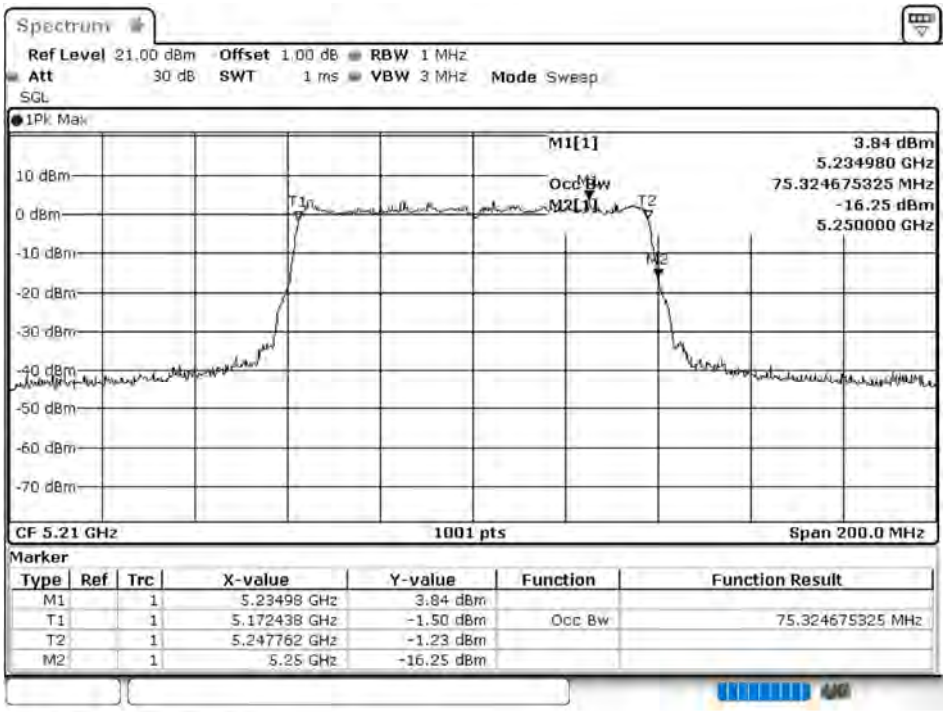
Date: 6.OCT.2020 08:22:04

Chain C



Date: 6.OCT.2020 09:02:50

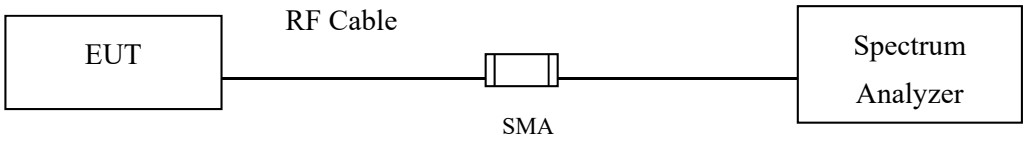
Chain D



Date: 6.OCT.2020 10:32:58

7. Occupied Bandwidth

7.1. Test Setup



7.2. Limits

For the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz

7.3. Test Procedure

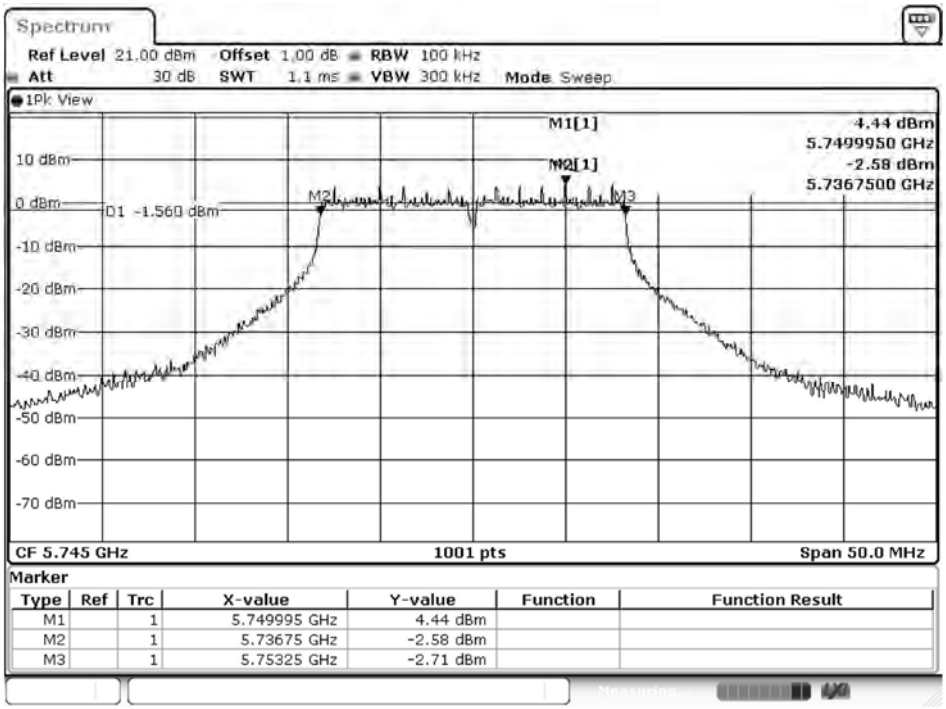
The EUT was setup to ANSI C63.10, 2013; tested to UNII test procedure of FCC KDB-789033 for compliance to FCC 47CFR Subpart E requirements.

7.4. Test Result of Occupied Bandwidth

Product : Wireless Outdoor Router
Test Item : Occupied Bandwidth Data
Test Mode : Mode 1: Transmit (802.11a)

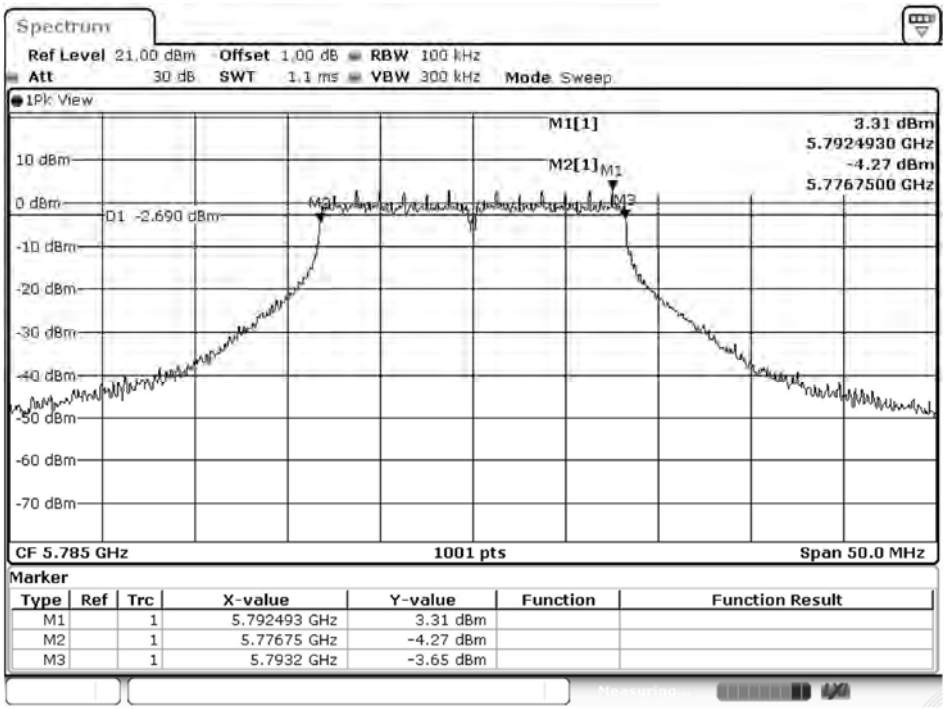
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
149	5745	16500	>500	Pass
157	5785	16450	>500	Pass
165	5825	16450	>500	Pass

Figure Channel 149:



Date: 8.OCT.2020 05:07:27

Figure Channel 157:



Date: 8.OCT.2020 05:08:54