

FCC Test Report

Product Name	Thermal Imager
Model No	PTI-NKH1-01
FCC ID.	2AWI4-PTI-NKH1

Applicant	GOLDEN ROOT CO.,LTD.
Address	NO. 10.,LANE 304, SEC. 1., CHIEN KUO S.RD., TAIPEI, TAIWAN

Date of Receipt	May 26, 2020
Issue Date	Sep. 18, 2020
Report No.	2050666R-E3032110113
Report Version	V1.0



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF or any agency of the government.

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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 Report

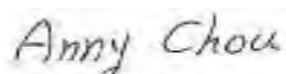
Issue Date: Sep. 18, 2020

Report No.: 2050666R-E3032110113



Product Name	Thermal Imager
Applicant	GOLDEN ROOT CO.,LTD.
Address	NO. 10.,LANE 304, SEC. 1., CHIEN KUO S.RD., TAIPEI, TAIWAN
Manufacturer	NEW KEN TECHNOLOGIES CO., LTD.
Model No.	PTI-NKH1-01
FCC ID.	2AWI4-PTI-NKH1
EUT Rated Voltage	DC 3.6V by battery
EUT Test Voltage	DC 3.6V by battery
Trade Name	 百利世貿易有限公司 Golden Root Co., Ltd.
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C ANSI C63.4: 2014, ANSI C63.10: 2013
Test Result	Complied

Documented By :



(Senior Adm. Specialist / Anny Chou)

Tested By :



(Engineer / Yunche Chen)

Approved By :



(Director / Vincent Lin)

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Revision History

Report No.	Version	Description	Issued Date
2050666R-E3032110113	V1.0	Initial issue of report.	2020-09-18

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Thermal Imager
Trade Name	 百利世貿易有限公司 Golden Root Co., Ltd.
Model No.	PTI-NKH1-01
FCC ID.	2AWI4-PTI-NKH1
Frequency Range	2412-2462MHz for 802.11b/g/n-20BW
Number of Channels	802.11b/g/n-20MHz: 11
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 72.2Mbps
Channel separation	802.11b/g/n: 5 MHz
Type of Modulation	802.11b:DSSS (DBPSK, DQPSK, CCK) 802.11g/n:OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	Dipole Antenna
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto
USB Cable	Shielded, 1.8m

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	LONG CHENG ELECTRONICS CO.LTD	F1B_12213G-13X	Dipole Antenna	2.0dBi for 2.4GHz

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

802.11b/g/n-20MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

Note:

1. The EUT is a Thermal Imager with a built-in 2.4 GHz transceiver.
2. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.
3. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
4. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report.
(802.11b is 1Mbps 、 802.11g is 6Mbps and 802.11n(20M-BW) is 7.2Mbps)
5. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.

Test Mode:	Mode 1: Transmit (802.11b 1Mbps)
	Mode 2: Transmit (802.11g 6Mbps)
	Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

1.2. Operational Description

The EUT is a Thermal Imager, This device provided four kinds of transmitting speed 1, 2, 5.5 and 11Mbps and the device of RF carrier is DBPSK, DQPSK and CCK (IEEE 802.11b). The device provided of eight kinds of transmitting speed 6, 9, 12, 18, 24, 36, 48 and 54Mbps the device of RF carrier is BPSK, QPSK, 16QAM and 64QAM (IEEE 802.11g).

The device provided of eight kinds of transmitting speed 7.2,14.4,21.7,28.9,43.3,57.8,65 and 72.2Mbps in 802.11n(20M-BW) mode the device of RF carrier is BPSK, QPSK, 16QAM and 64QAM (IEEE 802.11n), The IEEE 802.11n is Single In, Single Out" (SISO) technology and one antennas to support 1(Transmit) * 1(Receive) SISO technology.

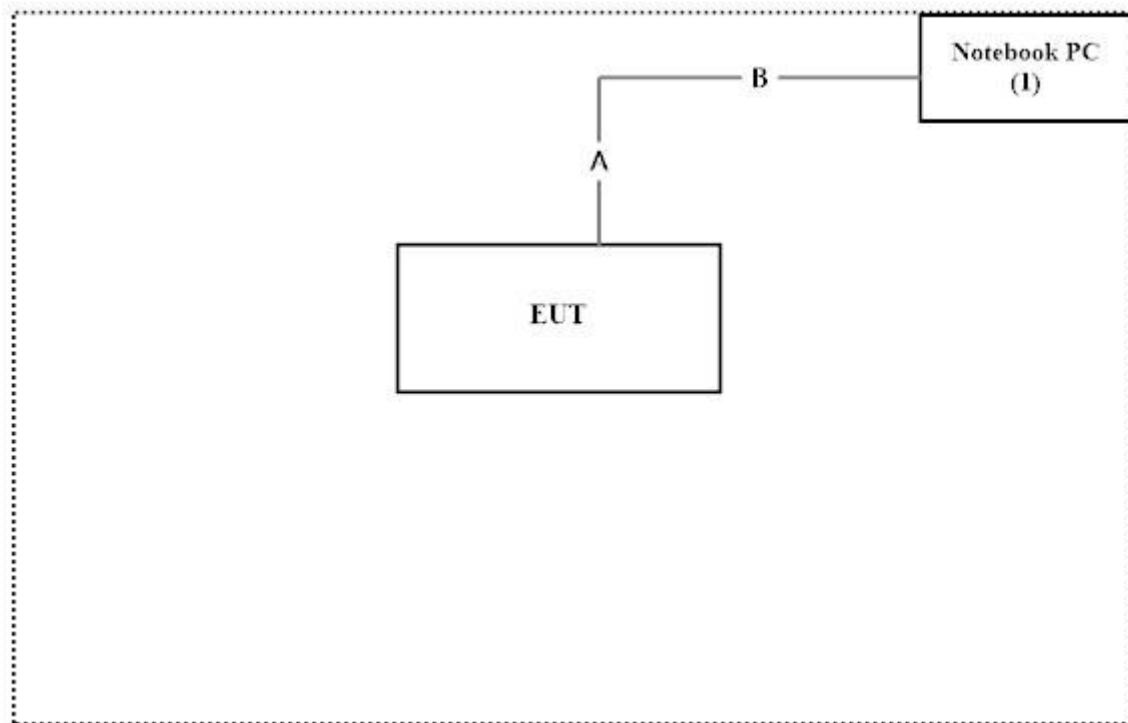
1.3. Tested System Details

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	Notebook PC	DELL	Latitude 5580	GDZN7H2	Non-shielded, 0.8m

Signal Cable Type		Signal cable Description
A	Signal Cable	Non-Shielded, 0.5m
B	USB Cable	Shielded, 1.8m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

1. Setup the EUT as shown in Section 1.4.
2. Execute software “cmd.exe” on the EUT.
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.

1.6. Test Facility

Ambient conditions in the laboratory:

Performed Item	Items	Required	Actual
Conducted Emission	Temperature (°C)	10~40 °C	24.6 °C
	Humidity (%RH)	10~90 %	48.0 %
Radiated Emission	Temperature (°C)	10~40 °C	24.8 °C
	Humidity (%RH)	10~90 %	70.0 %
Conductive	Temperature (°C)	10~40 °C	24.2 °C
	Humidity (%RH)	10~90 %	74.3 %

USA : FCC Registration Number: TW3023

Canada : IC Registration Number: 4075A

Site Description: Accredited by TAF
Accredited Number: 3023

Test Laboratory: DEKRA Testing and Certification Co., Ltd

Address: No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451,
Taiwan, R.O.C.

Phone number: 886-2-8601-3788

Fax number: 886-2-8601-3789

Email address: info.tw@dekra.com

Website: <http://www.dekra.com.tw>

1.7. List of Test Item and Equipment

For Conducted measurements /CB3/SR8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
	Temperature Chamber	WIT GROUP	TH-1S-B	EQ-201-00146	2020/04/06	2021/04/05
X	Spectrum Analyzer	Agilent	N9010A	MY53470892	2019/09/25	2020/09/24
X	Peak Power Analyzer	Keysight	8990B	MY51000410	2019/07/30	2020/07/29
X	Wideband Power Sensor	Keysight	N1923A	MY56080003	2019/07/30	2020/07/29
X	Wideband Power Sensor	Keysight	N1923A	MY56080004	2019/07/30	2020/07/29
X	EMI Test Receiver	R&S	ESCS 30	100369	2019/11/27	2020/11/26
X	LISN	R&S	ENV216	101105	2020/04/27	2021/04/26
X	LISN	R&S	ESH3-Z5	836679/014	2020/04/26	2021/04/25
X	Coaxial Cable	DEKRA	RG 400	LC018-RG	2019/06/21	2020/06/20

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 SystemV9.0.5.

For Radiated measurements /Site3/CB8

	Equipment	Manufacturer	Model No.	Serial No.	Cali. Date	Due. Date
X	Test Receiver	R&S	ESR7	101602	2019/12/16	2020/12/15
X	Spectrum Analyzer	R&S	FSV40	101149	2019/12/16	2020/12/15
X	Loop Antenna	Teseq	HLA6121	37133	2019/10/15	2021/10/14
X	Bilog Antenna	Schaffner Chase	CBL6112B	2916	2020/01/20	2021/01/19
X	Coaxial Cable	DEKRA	L1907-003C	00100A1B3A120M	2020/07/09	2021/07/08
X	Amplifier	EMCI	EMC001330	980255	2020/03/17	2021/03/16
X	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-305	2020/04/21	2021/04/20
X	Amplifier	EMCI	EMC012630SE	980210	2020/04/22	2021/04/21
X	Filter	MICRO-TRONICS	BRM50702	G270	2019/08/08	2020/08/07
	Filter	MICRO-TRONICS	BRM50716	G196	2019/08/08	2020/08/07

Note:

1. Loop Antenna is calibrated every two years, 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 Test SystemV1.1.

1.8. Uncertainty

Uncertainties have been calculated according to the DEKRA internal document, and is described in each test chapter of this report.

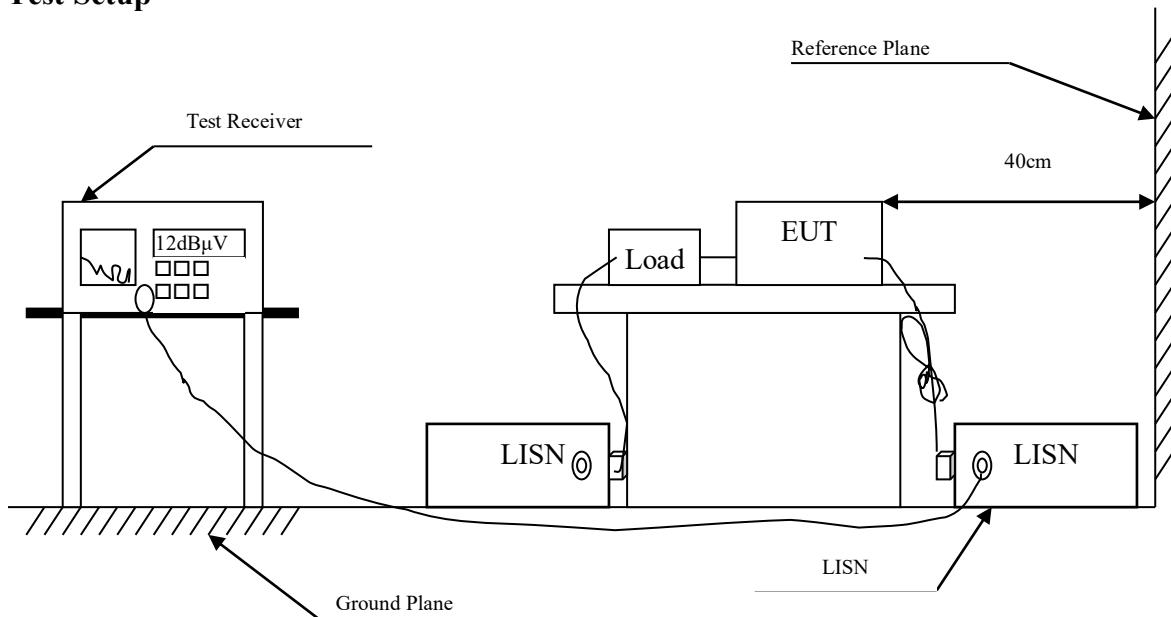
The reported expanded uncertainties are based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

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	$\pm 3.42\text{dB}$	
Peak Power Output	Power Meter $\pm 0.89\text{dB}$	Spectrum Analyzer $\pm 2.06\text{dB}$
Radiated Emission	9kHz~30MHz: $\pm 3.88\text{dB}$ 30MHz~1GHz: $\pm 4.06\text{dB}$ 1GHz~18GHz: $\pm 3.71\text{dB}$ 18GHz~40GHz: $\pm 3.73\text{dB}$ 40GHz~50GHz: $\pm 3.75\text{dB}$ 50GHz~325GHz: $\pm 4.39\text{dB}$	
RF antenna conducted test	$\pm 2.06\text{dB}$	
Band Edge	9kHz~30MHz: $\pm 3.88\text{dB}$ 30MHz~1GHz: $\pm 4.06\text{dB}$ 1GHz~18GHz: $\pm 3.71\text{dB}$ 18GHz~40GHz: $\pm 3.73\text{dB}$ 40GHz~50GHz: $\pm 3.75\text{dB}$ 50GHz~325GHz: $\pm 4.39\text{dB}$	
6dB Bandwidth	$\pm 1544.74\text{Hz}$	
Power Density	$\pm 2.06\text{dB}$	
Duty Cycle (2.4GHz)	$\pm 2.31\text{msec}$	

2. Conducted Emission

2.1. Test Setup



2.2. Limits

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

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.)

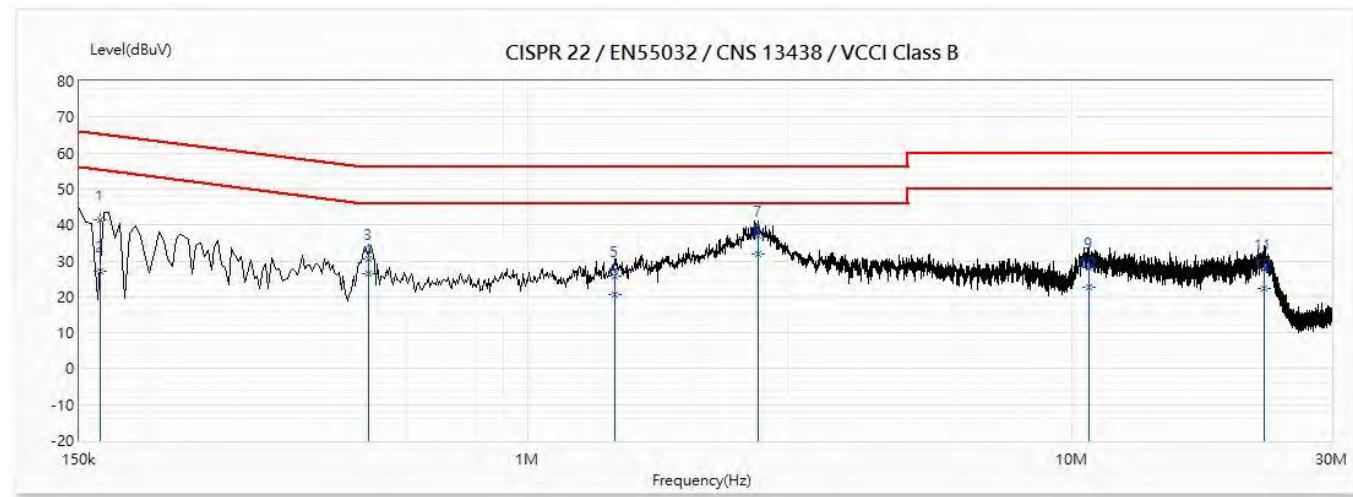
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement.

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 : Thermal Imager
 Test Item : Conducted Emission Test
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
 Test Date : 2020/05/28

Line1



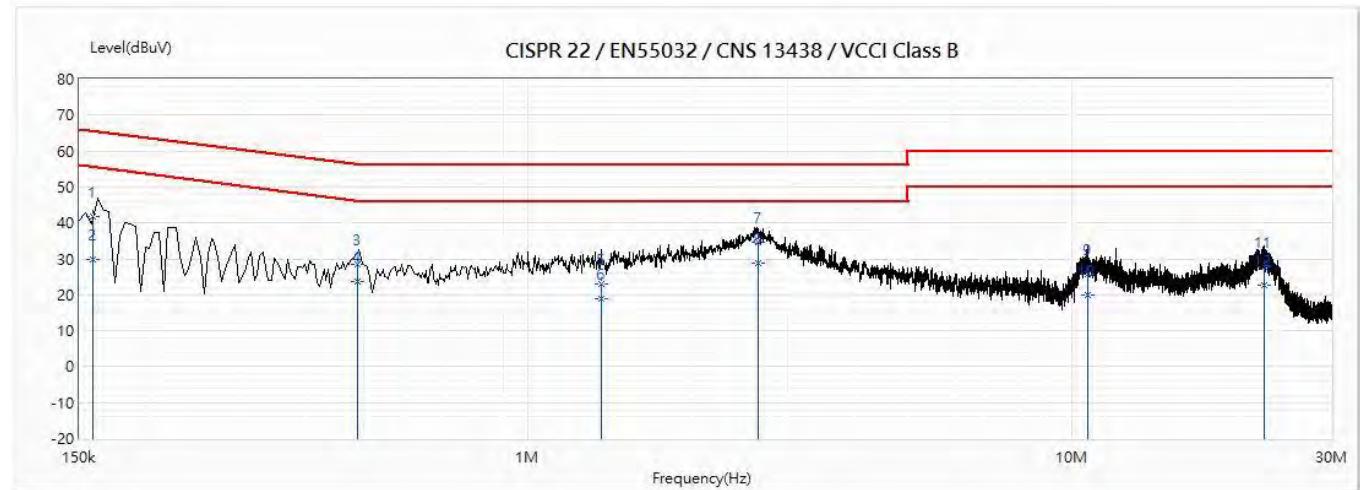
No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.164	41.51	65.27	-23.77	31.70	9.81	QP
2	0.164	27.00	55.27	-28.28	17.19	9.81	AV
3	0.509	30.53	56.00	-25.47	20.73	9.80	QP
4	0.509	26.25	46.00	-19.75	16.45	9.80	AV
5	1.445	25.61	56.00	-30.39	15.79	9.82	QP
6	1.445	20.72	46.00	-25.28	10.90	9.82	AV
7	2.657	36.93	56.00	-19.07	27.06	9.88	QP
*8	2.657	31.95	46.00	-14.05	22.08	9.88	AV
9	10.76	28.17	60.00	-31.83	18.09	10.08	QP
10	10.76	22.71	50.00	-27.29	12.63	10.08	AV
11	22.521	27.64	60.00	-32.36	17.42	10.22	QP
12	22.521	22.47	50.00	-27.53	12.25	10.22	AV

Remark:

- "" means this data is the worst emission level; "!" means this data is over limit.
- Emission Level=Reading Level + Correct Factor (Correct Factor=LISN Factor+Cable Loss).
- Margin=Emission Level-Limit

Product : Thermal Imager
 Test Item : Conducted Emission Test
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
 Test Date : 2020/05/28

N



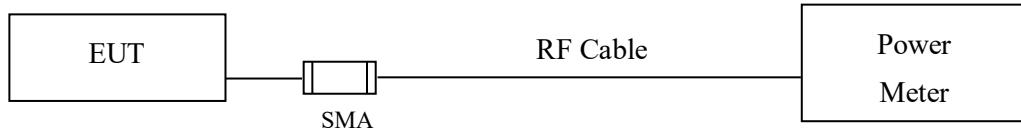
No	Frequency (MHz)	Emission Level (dBuV)	Limit (dBuV)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB)	Detector Type
1	0.159	41.75	65.53	-23.78	31.96	9.79	QP
2	0.159	29.75	55.53	-25.78	19.96	9.79	AV
3	0.488	28.38	56.21	-27.83	18.59	9.79	QP
4	0.488	23.64	46.21	-22.57	13.85	9.79	AV
5	1.368	22.99	56.00	-33.01	13.18	9.80	QP
6	1.368	18.75	46.00	-27.25	8.94	9.80	AV
7	2.647	34.69	56.00	-21.31	24.83	9.86	QP
*8	2.647	28.87	46.00	-17.13	19.01	9.86	AV
9	10.682	25.74	60.00	-34.26	15.64	10.11	QP
10	10.682	19.94	50.00	-30.06	9.83	10.11	AV
11	22.581	27.64	60.00	-32.36	17.26	10.39	QP
12	22.581	22.78	50.00	-27.22	12.39	10.39	AV

Remark:

- "" means this data is the worst emission level; "!" means this data is over limit.
- Emission Level=Reading Level + Correct Factor (Correct Factor=LISN Factor+Cable Loss).
- Margin=Emission Level-Limit

3. Peak Power Output

3.1. Test Setup



3.2. Limits

The maximum peak power shall be less 1 Watt.

3.3. Test Procedure

The EUT was tested according to C63.10:2013 for compliance to FCC 47CFR 15.247 requirements. The maximum peak conducted output power using C63.10:2013 Section 11.9.1.3 PKPM1 Peak power meter method. The maximum average conducted output power using C63.10:2013 Section 11.9.2.3 Measurement using a power meter (PM). (Measurement using a gated RF average-reading power meter).

3.4. Test Result of Peak Power Output

Product : Thermal Imager
 Test Item : Peak Power Output Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)
 Test Date : 2020/06/08

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Peak Power	Required Limit	Result
		1	2	5.5	11			
		Measurement Level (dBm)						
01	2412	16.61	--	--	--	19.1	<30dBm	Pass
06	2437	16.61	16.59	16.55	16.52	18.97	<30dBm	Pass
11	2462	16.37	--	--	--	18.83	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : Thermal Imager
 Test Item : Peak Power Output Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)
 Test Date : 2020/06/08

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		6	9	12	18	24	36	48	54			
		Measurement Level (dBm)										
01	2412	17.22	--	--	--	--	--	--	--	25.34	<30dBm	Pass
06	2437	17.19	17.17	17.16	17.14	17.12	17.11	17.09	17.06	24.92	<30dBm	Pass
11	2462	17.26	--	--	--	--	--	--	--	25.15	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

Product : Thermal Imager
 Test Item : Peak Power Output Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)
 Test Date : 2020/06/08

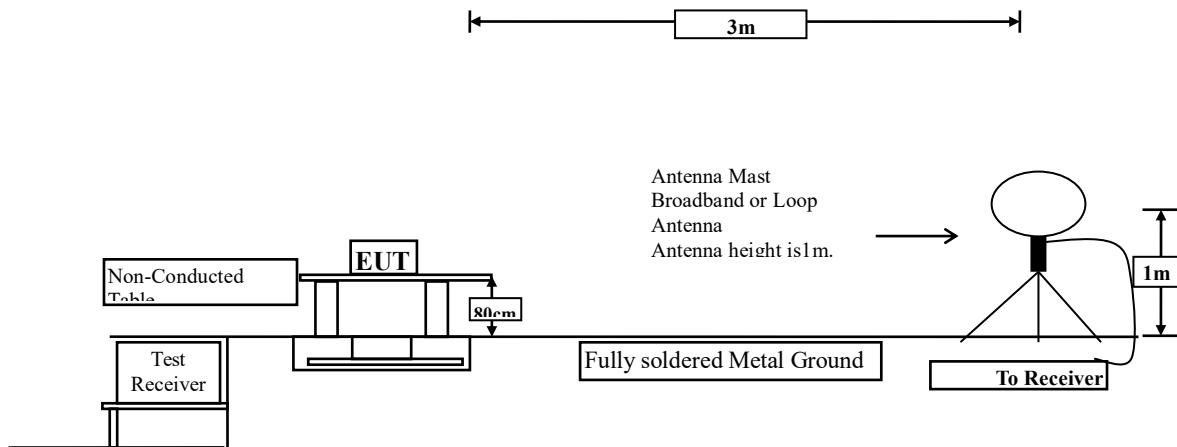
Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2			
		Measurement Level (dBm)										
01	2412	17.36	--	--	--	--	--	--	--	25.5	<30dBm	Pass
06	2437	17.13	17.11	17.09	17.08	17.06	17.05	17.02	17.01	25.46	<30dBm	Pass
11	2462	16.18	--	--	--	--	--	--	--	25.22	<30dBm	Pass

Note: Peak Power Output Value =Reading value on power meter + cable loss

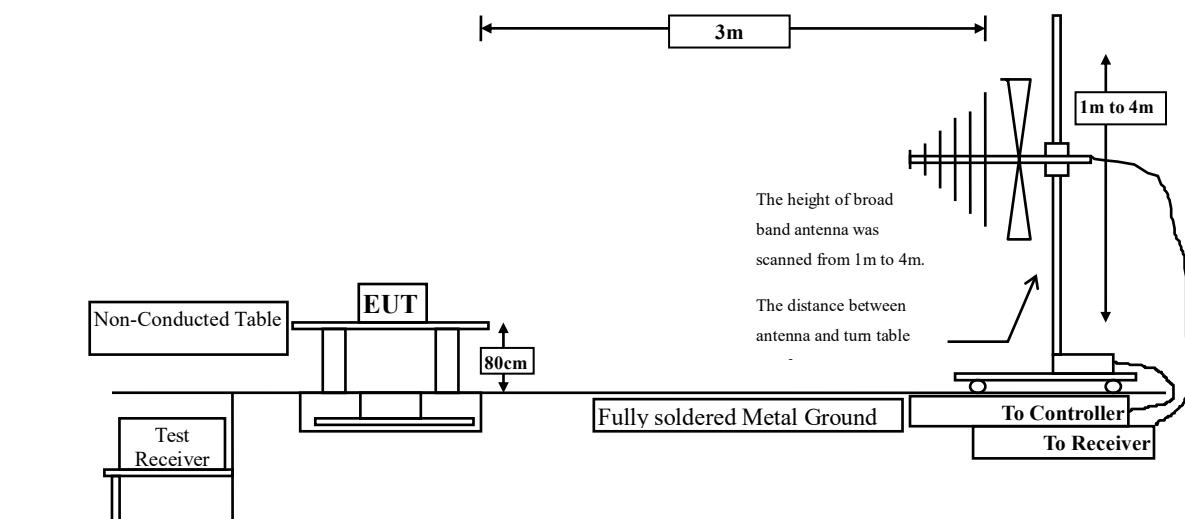
4. Radiated Emission

4.1. Test Setup

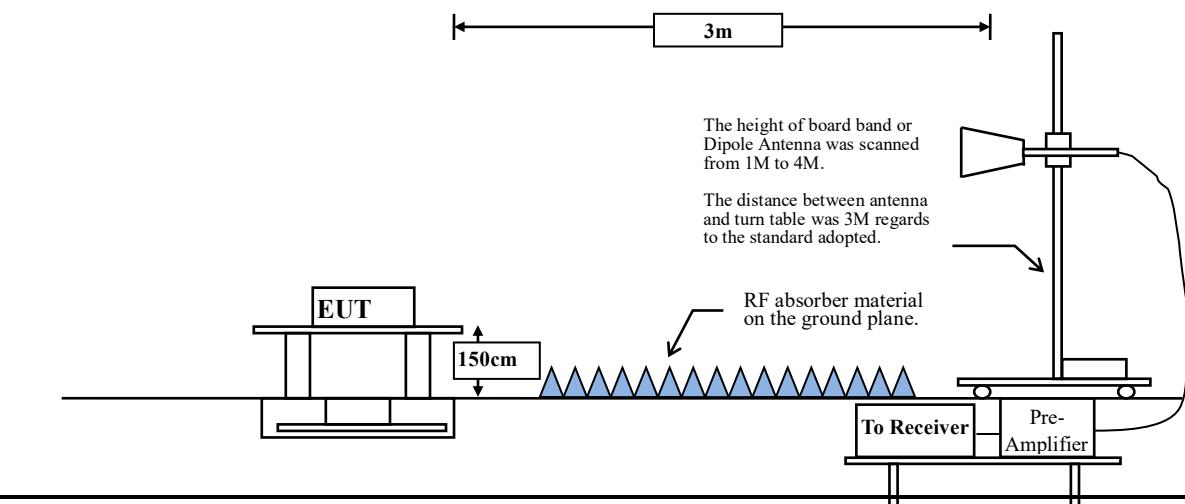
Radiated Emission Under 30MHz



Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.2. Limits

➤ General Radiated Emission 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 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:

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

4.3. Test Procedure

The EUT was setup according to ANSI C63.10: 2013 and tested according to C63.10:2013 Section 11.12.1 for compliance to FCC 47CFR 15.247 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 from 9kHz - 10th Harmonic of fundamental was investigated.

RBW and VBW Parameter setting:

According to C63.10 Section 11.12.2.4 Peak measurement procedure.

RBW = as specified in Table 1.

VBW $\geq 3 \times$ RBW.

Table 1 —RBW as a function of frequency

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

According to C63.10 Section 11.12.2.5 Average measurement procedure.

RBW = 1MHz.

VBW = 10Hz, when duty cycle $\geq 98\%$

VBW $\geq 1/T$, 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.)

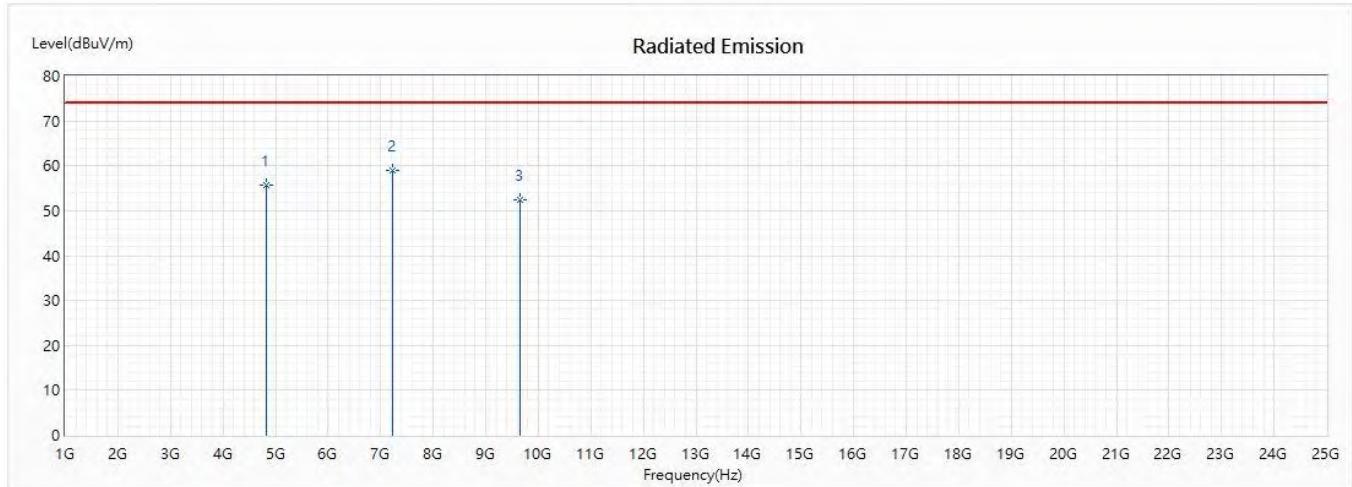
2.4GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11b	12.4348	12.5797	98.85	0.05
802.11g	2.0652	2.1522	95.96	0.18
802.11n20	1.9203	2.0725	92.66	0.33

Note: Duty Cycle Refer to Section 9

4.4. Test Result of Radiated Emission

Product : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
 Test Date : 2020/05/29

Horizontal



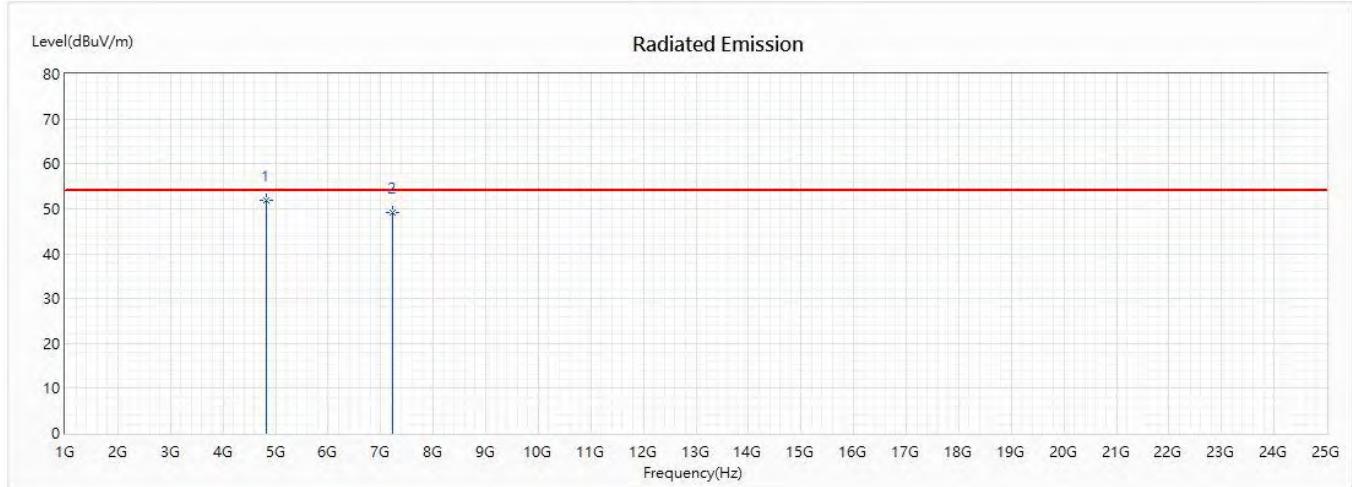
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4824	55.63	74.00	-18.37	50.85	4.78	PK
* 2	7236	58.86	74.00	-15.14	46.79	12.07	PK
3	9648	52.50	74.00	-21.50	40.60	11.90	PK

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 : Thermal Imager
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
Test Date : 2020/05/29

Horizontal



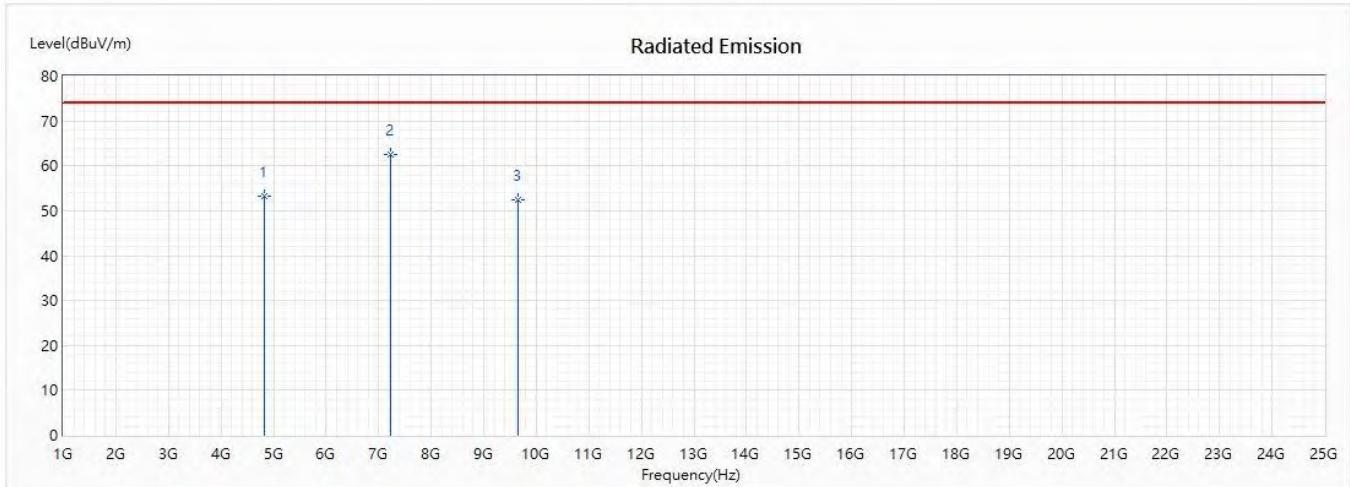
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
* 1	4824	51.75	54.00	-2.25	46.97	4.78	AV
2	7236	49.23	54.00	-4.77	37.16	12.07	AV

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
 Test Date : 2020/05/29

Vertical



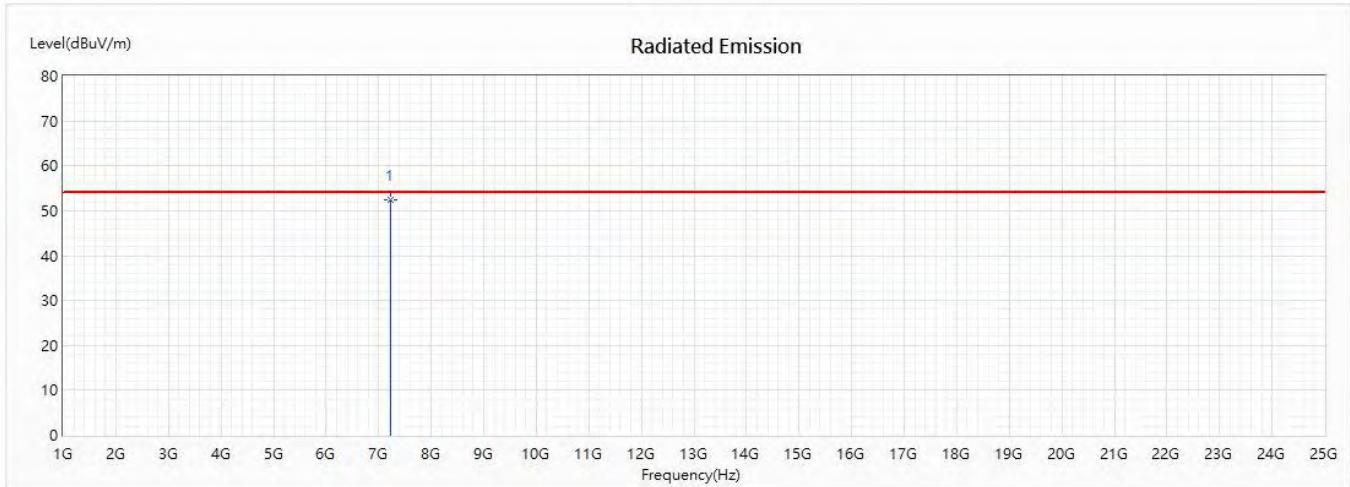
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4824	53.22	74.00	-20.78	48.44	4.78	PK
* 2	7236	62.41	74.00	-11.59	50.34	12.07	PK
3	9648	52.37	74.00	-21.63	40.47	11.90	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
 Test Date : 2020/05/29

Vertical



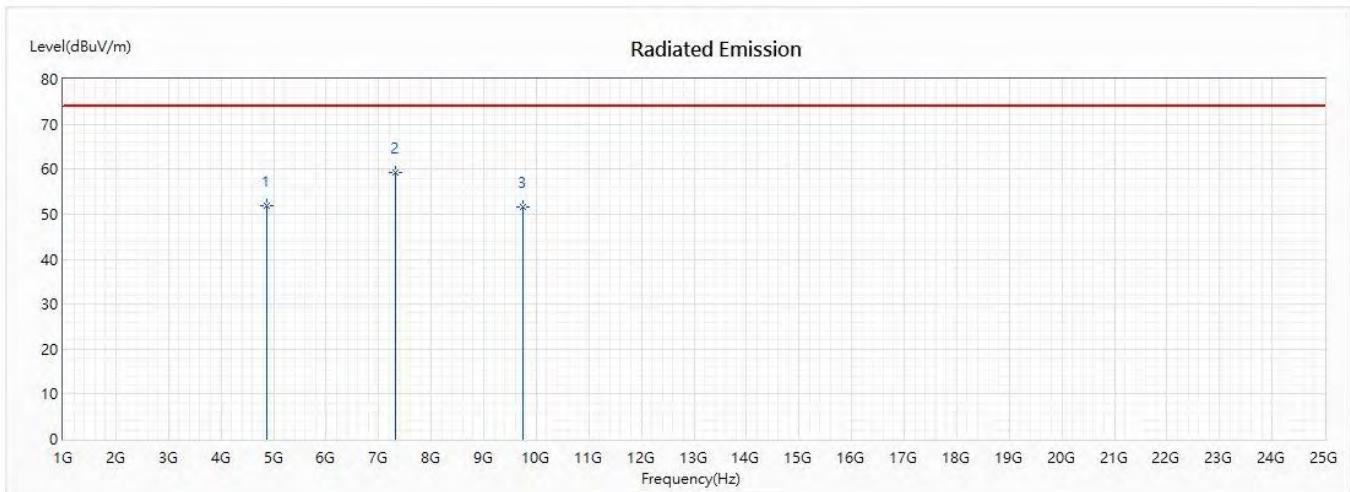
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
* 1	7236	52.34	54.00	-1.66	40.27	12.07	AV

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 : Thermal Imager
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)
Test Date : 2020/05/29

Horizontal



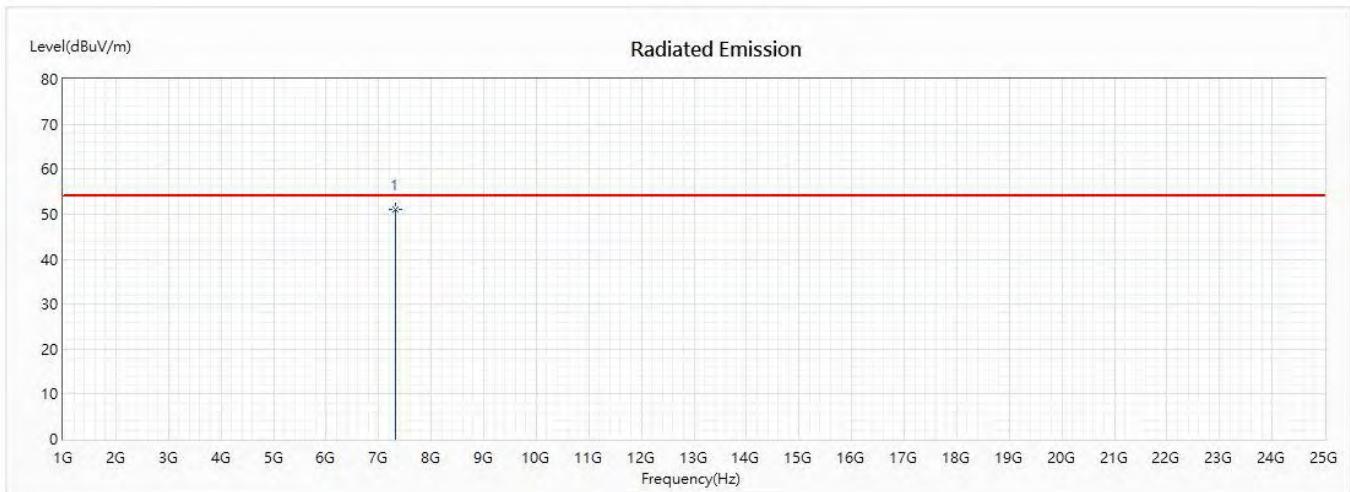
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4874	51.77	74.00	-22.23	46.53	5.24	PK
* 2	7311	59.21	74.00	-14.79	47.37	11.84	PK
3	9748	51.69	74.00	-22.31	39.82	11.87	PK

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 : Thermal Imager
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)
Test Date : 2020/05/29

Horizontal



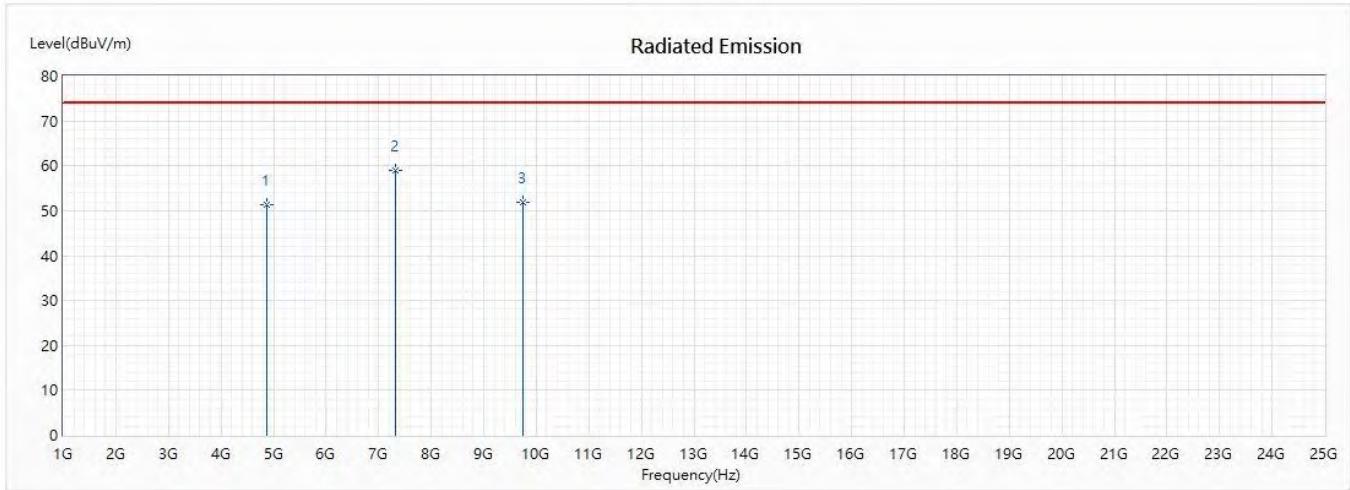
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
* 1	7311	51.10	54.00	-2.90	39.26	11.84	AV

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 : Thermal Imager
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)
Test Date : 2020/05/29

Vertical



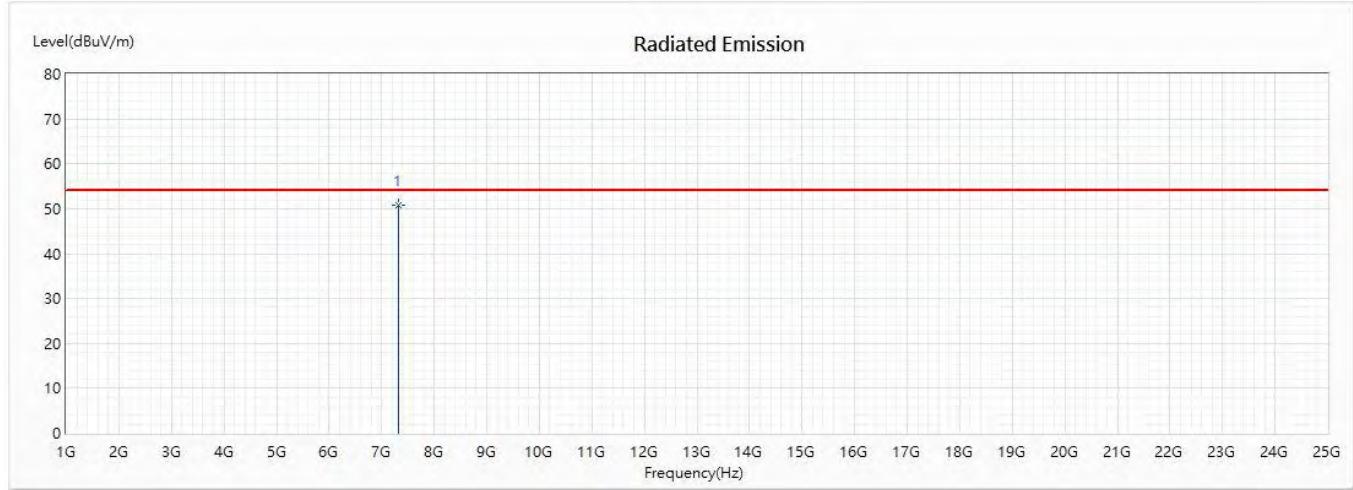
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4874	51.44	74.00	-22.56	46.20	5.24	PK
* 2	7311	58.98	74.00	-15.02	47.14	11.84	PK
3	9748	51.90	74.00	-22.10	40.03	11.87	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2437 MHz)
 Test Date : 2020/05/29

Vertical



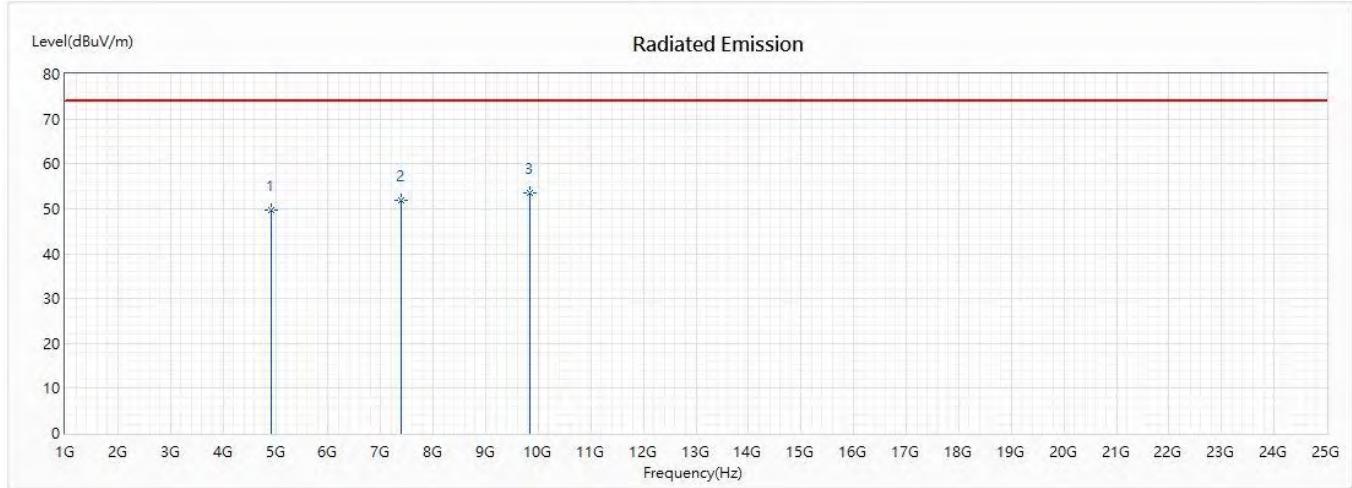
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
* 1	7311	50.84	54.00	-3.16	39.00	11.84	AV

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)
 Test Date : 2020/05/29

Horizontal



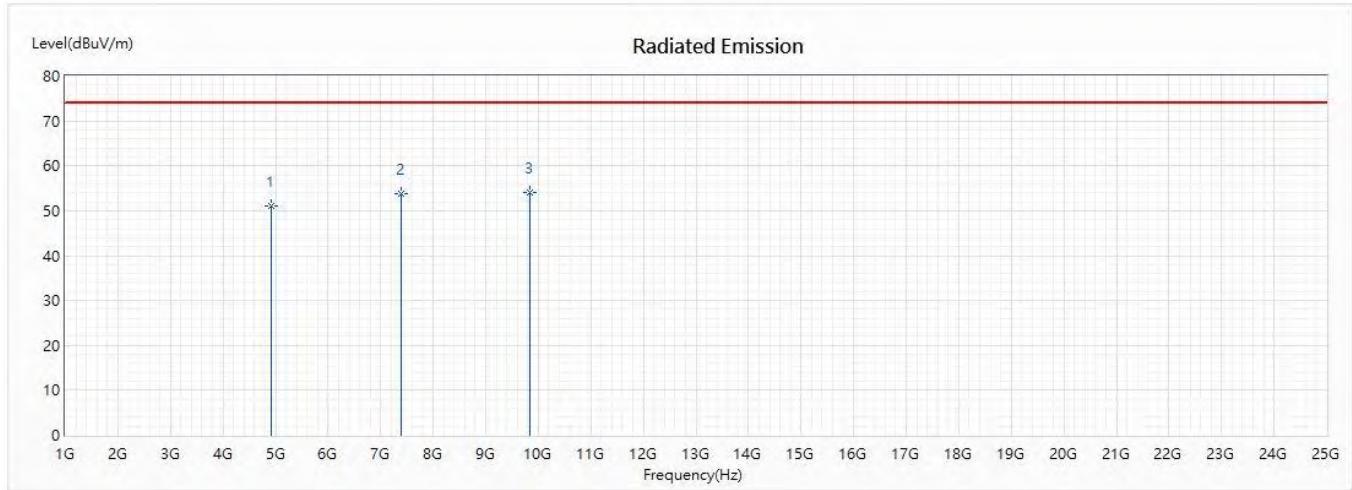
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4924	49.68	74.00	-24.32	43.98	5.70	PK
2	7386	51.88	74.00	-22.12	40.54	11.34	PK
* 3	9848	53.58	74.00	-20.42	41.20	12.38	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)
 Test Date : 2020/05/29

Vertical



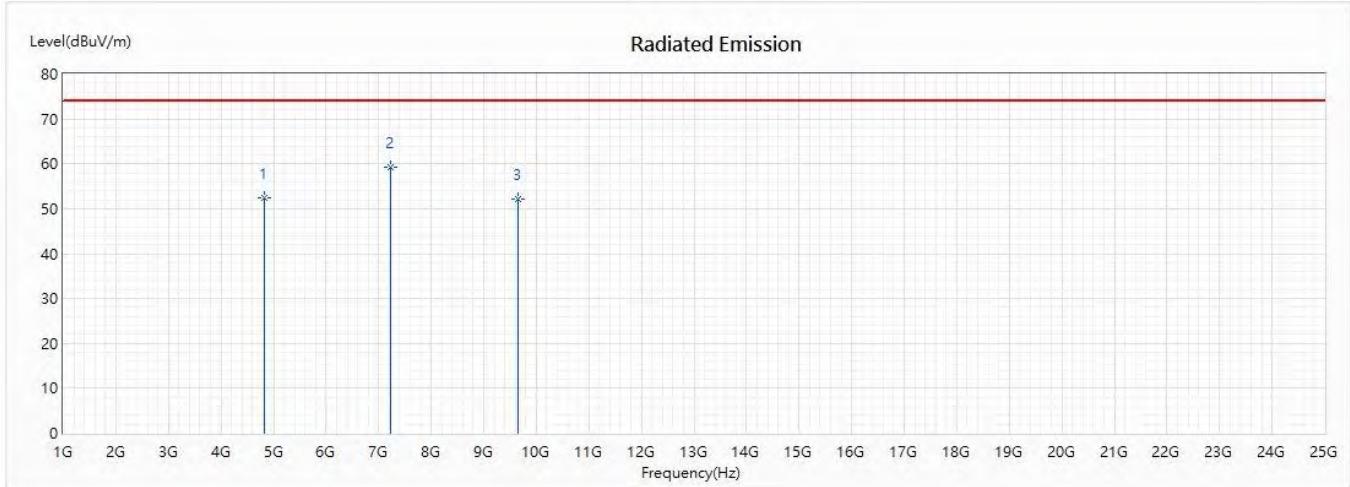
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4924	50.99	74.00	-23.01	45.29	5.70	PK
2	7386	53.86	74.00	-20.14	42.52	11.34	PK
* 3	9848	53.94	74.00	-20.06	41.56	12.38	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
 Test Date : 2020/05/29

Horizontal



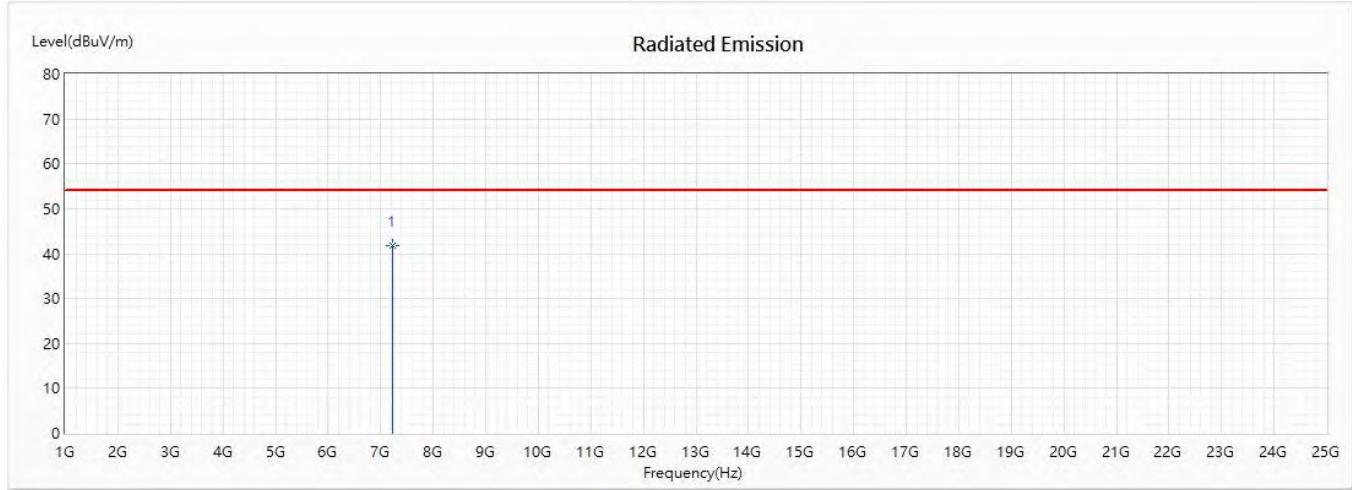
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4824	52.50	74.00	-21.50	47.72	4.78	PK
* 2	7236	59.27	74.00	-14.73	47.20	12.07	PK
3	9648	52.13	74.00	-21.87	40.23	11.90	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
 Test Date : 2020/05/29

Horizontal



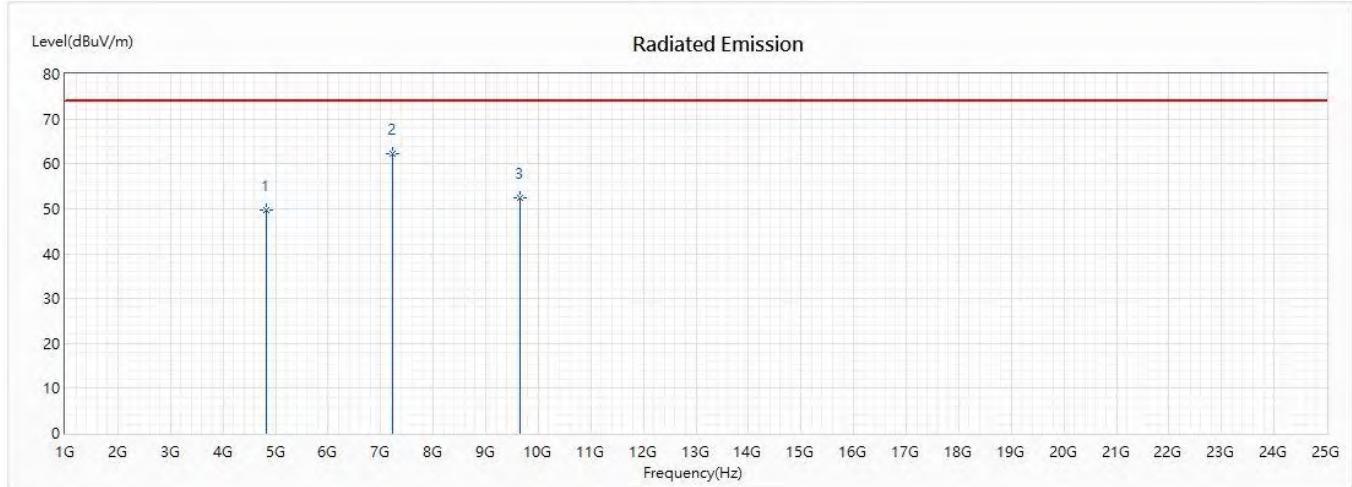
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
* 1	7236	41.86	54.00	-12.14	29.79	12.07	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
 Test Date : 2020/05/29

Vertical



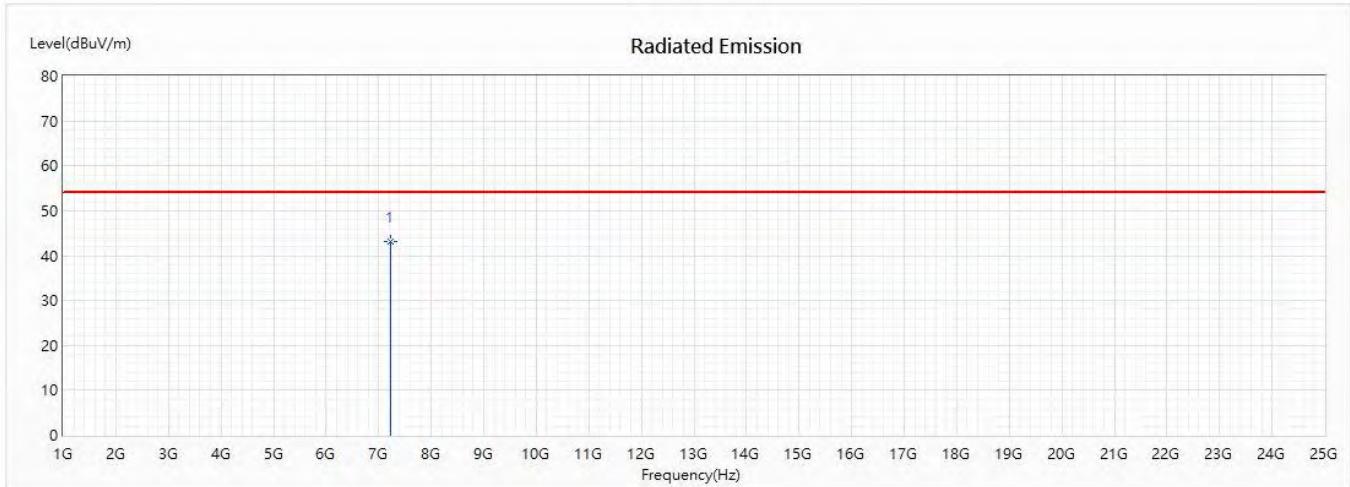
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4824	49.78	74.00	-24.22	45.00	4.78	PK
* 2	7236	62.25	74.00	-11.75	50.18	12.07	PK
3	9648	52.29	74.00	-21.71	40.39	11.90	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
 Test Date : 2020/05/29

Vertical



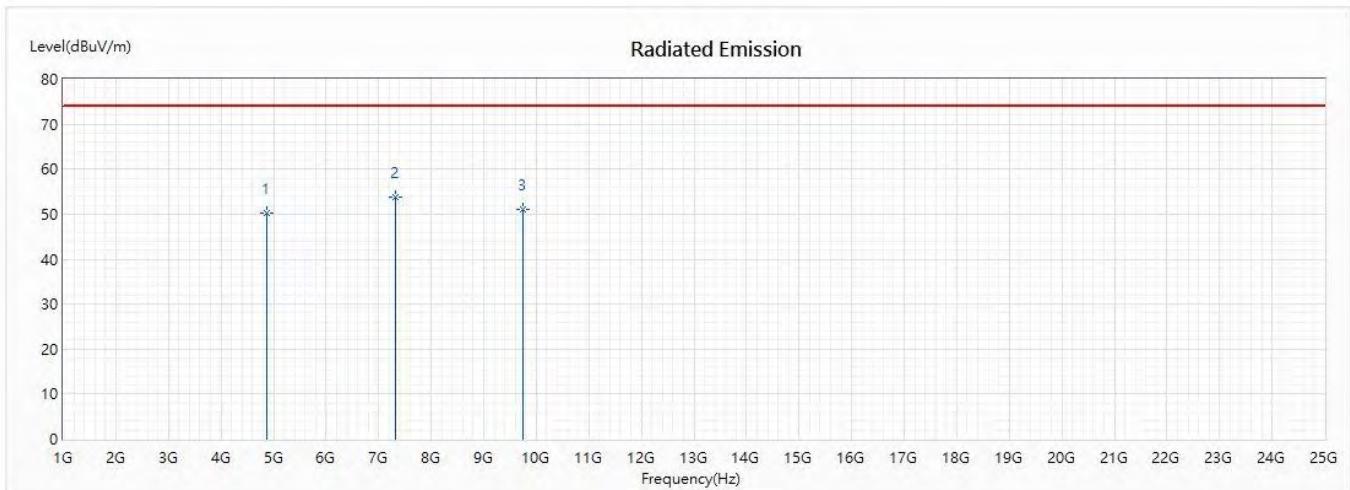
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
* 1	7236	43.20	54.00	-10.80	31.13	12.07	AV

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 : Thermal Imager
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)
Test Date : 2020/05/29

Horizontal



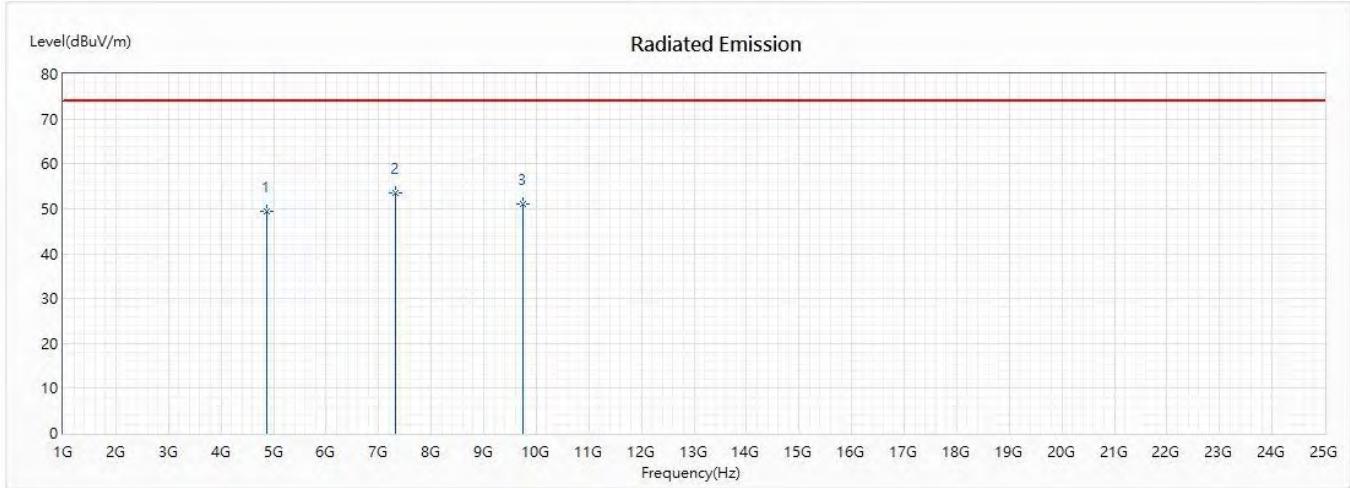
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4874	50.30	74.00	-23.70	45.06	5.24	PK
* 2	7311	53.67	74.00	-20.33	41.83	11.84	PK
3	9748	51.06	74.00	-22.94	39.19	11.87	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)
 Test Date : 2020/05/29

Vertical



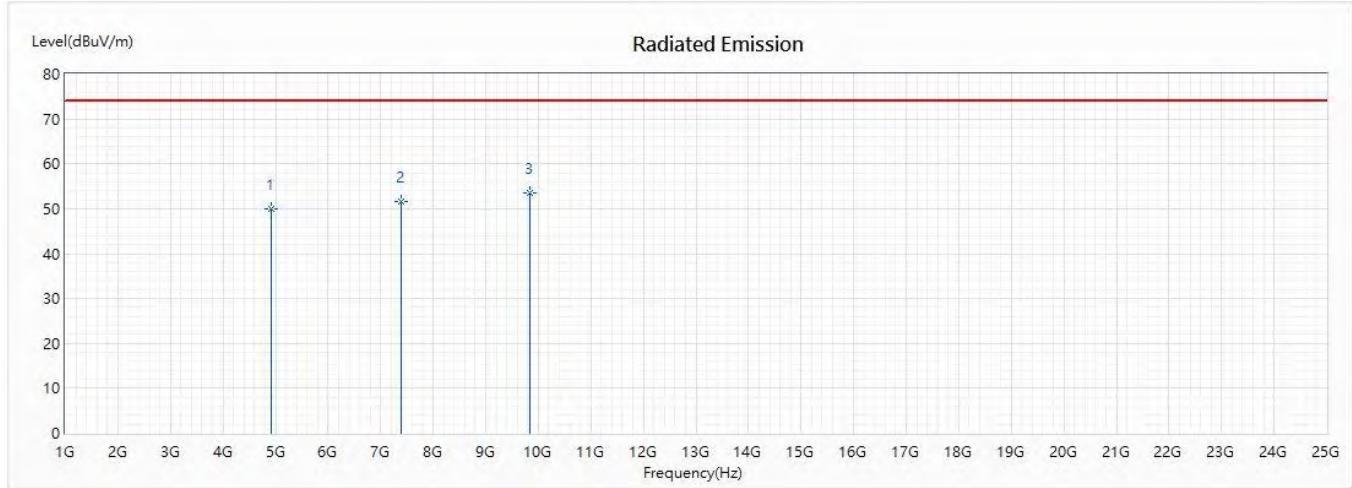
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4874	49.30	74.00	-24.70	44.06	5.24	PK
* 2	7311	53.52	74.00	-20.48	41.68	11.84	PK
3	9748	51.19	74.00	-22.81	39.32	11.87	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)
 Test Date : 2020/05/29

Horizontal



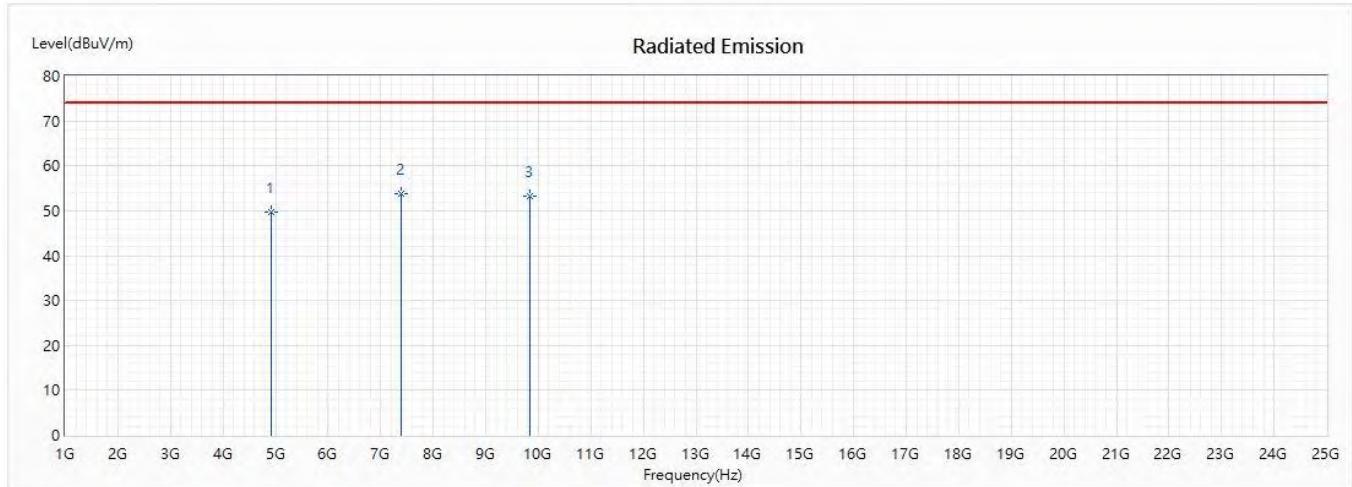
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4924	50.03	74.00	-23.97	44.33	5.70	PK
2	7386	51.64	74.00	-22.36	40.30	11.34	PK
* 3	9848	53.61	74.00	-20.39	41.23	12.38	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)
 Test Date : 2020/05/29

Vertical



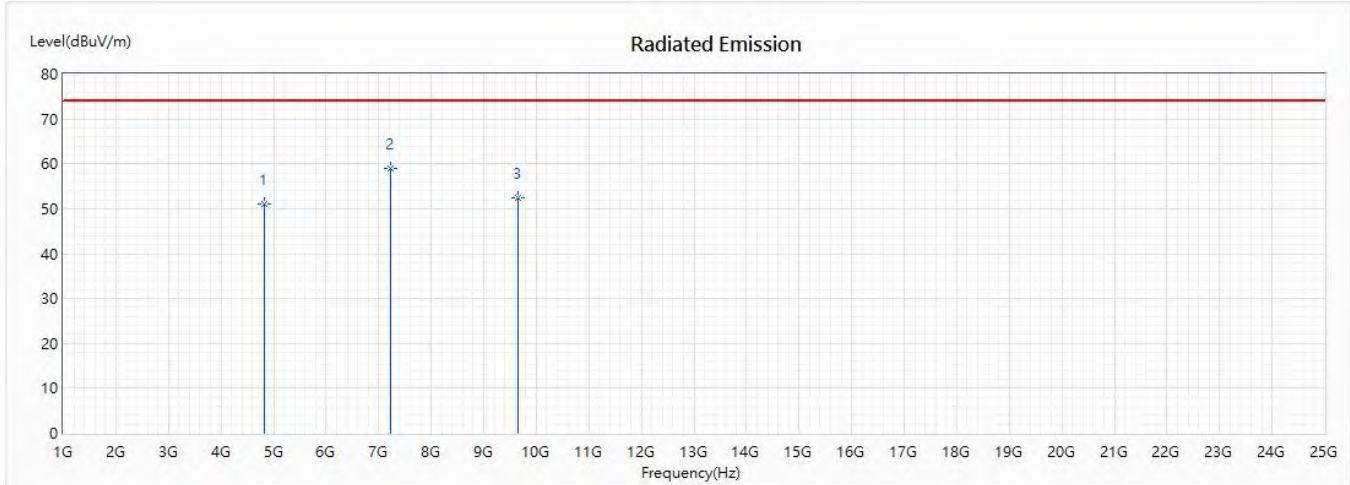
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4924	49.78	74.00	-24.22	44.08	5.70	PK
* 2	7386	53.85	74.00	-20.15	42.51	11.34	PK
3	9848	53.11	74.00	-20.89	40.73	12.38	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
 Test Date : 2020/05/29

Horizontal



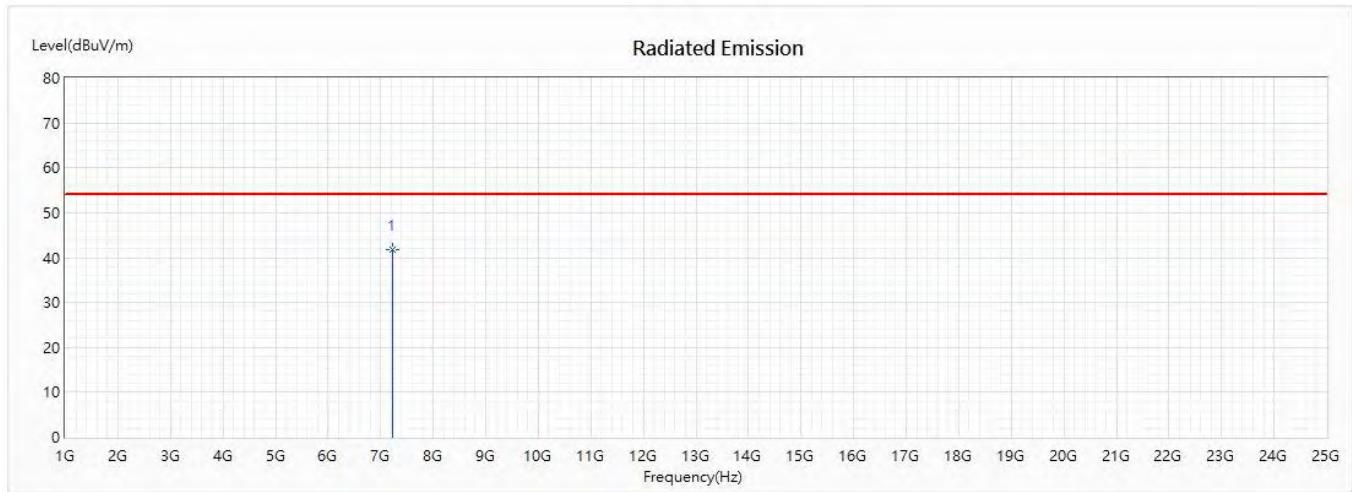
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4824	51.18	74.00	-22.82	46.40	4.78	PK
* 2	7236	58.94	74.00	-15.06	46.87	12.07	PK
3	9648	52.39	74.00	-21.61	40.49	11.90	PK

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 : Thermal Imager
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
Test Date : 2020/05/29

Horizontal



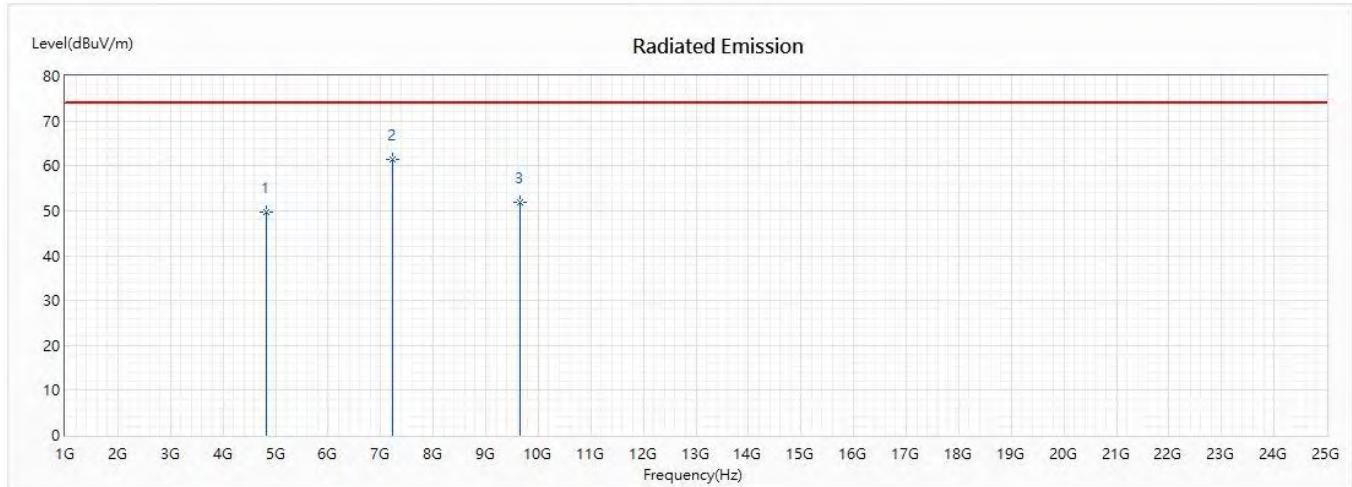
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
* 1	7236	41.80	54.00	-12.20	29.73	12.07	AV

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
 Test Date : 2020/05/29

Vertical



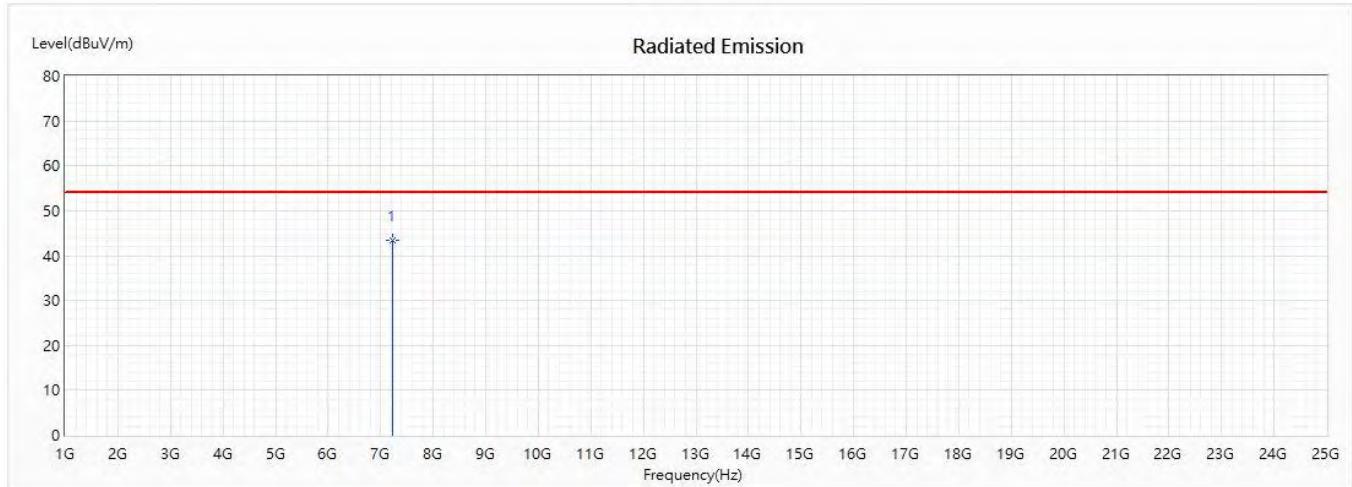
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4824	49.66	74.00	-24.34	44.88	4.78	PK
* 2	7236	61.55	74.00	-12.45	49.48	12.07	PK
3	9648	51.98	74.00	-22.02	40.08	11.90	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
 Test Date : 2020/05/29

Vertical



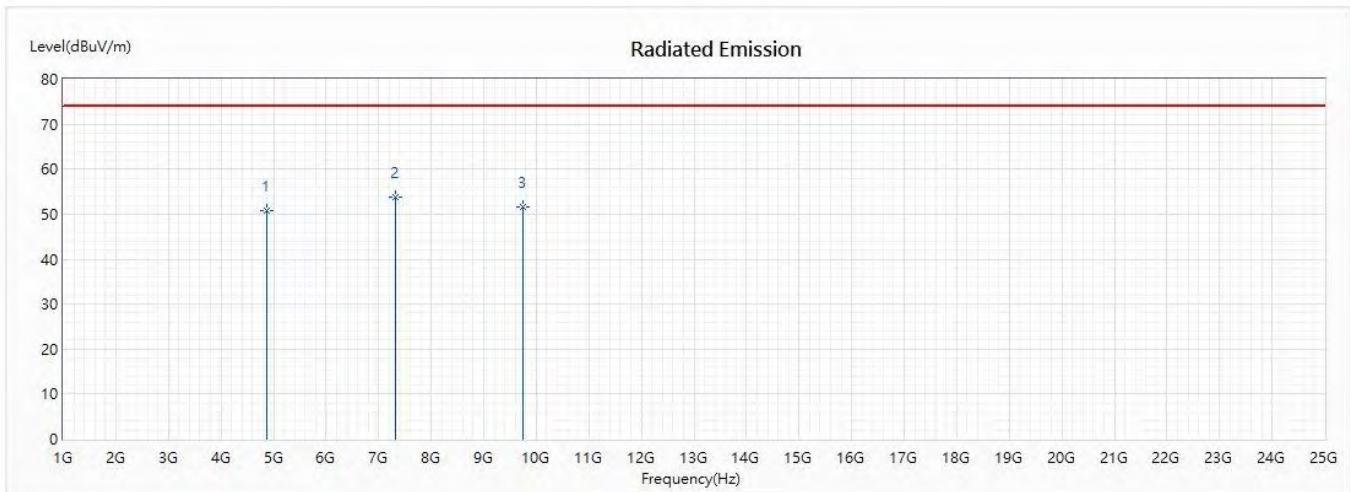
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
* 1	7236	43.45	54.00	-10.55	31.38	12.07	AV

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 : Thermal Imager
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437 MHz)
Test Date : 2020/05/29

Horizontal



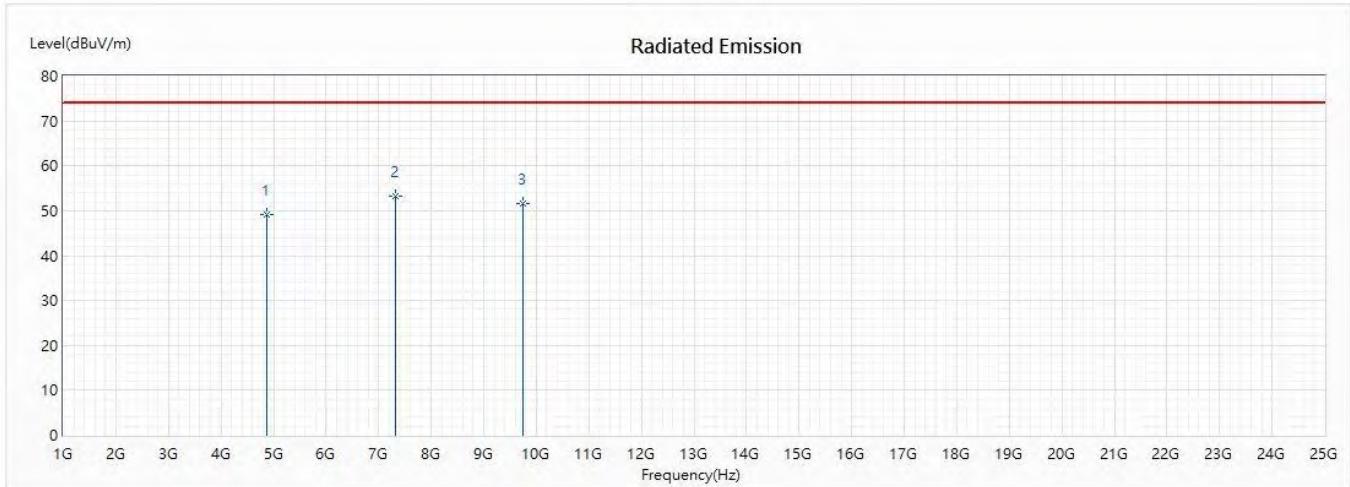
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4874	50.70	74.00	-23.30	45.46	5.24	PK
* 2	7311	53.81	74.00	-20.19	41.97	11.84	PK
3	9748	51.55	74.00	-22.45	39.68	11.87	PK

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 : Thermal Imager
Test Item : Harmonic Radiated Emission Data
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437 MHz)
Test Date : 2020/05/29

Vertical



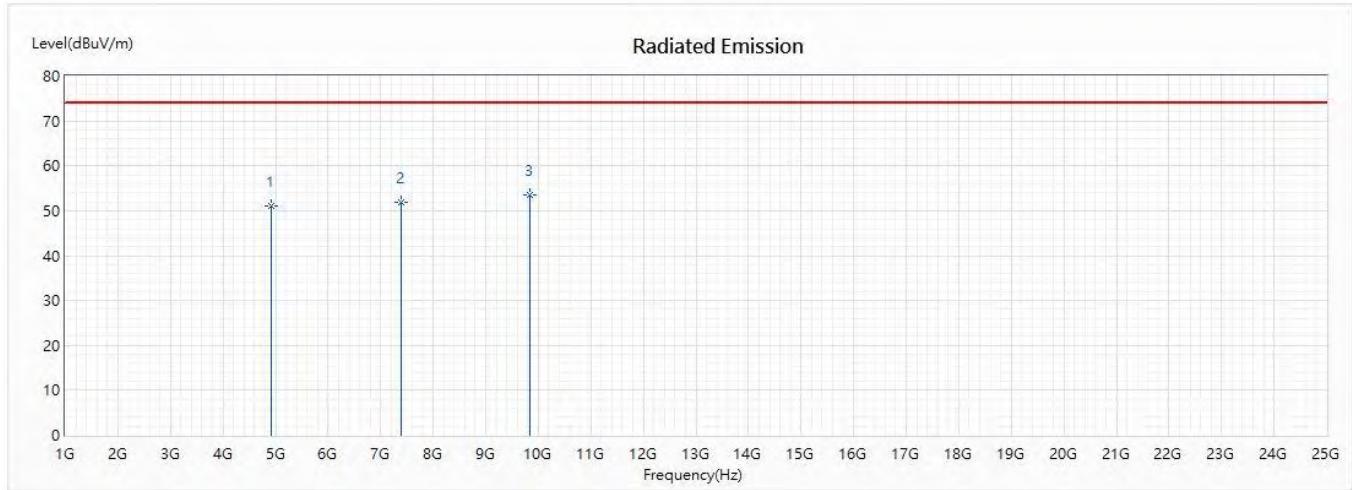
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4874	49.04	74.00	-24.96	43.80	5.24	PK
* 2	7311	53.33	74.00	-20.67	41.49	11.84	PK
3	9748	51.51	74.00	-22.49	39.64	11.87	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462 MHz)
 Test Date : 2020/05/29

Horizontal



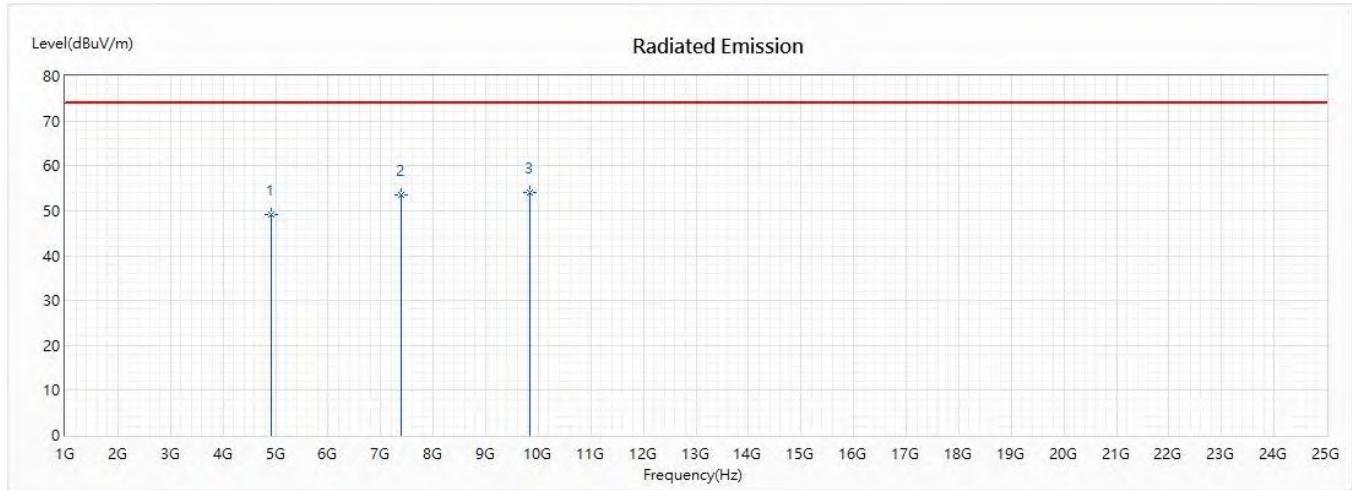
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4924	51.10	74.00	-22.90	45.40	5.70	PK
2	7386	51.95	74.00	-22.05	40.61	11.34	PK
* 3	9848	53.40	74.00	-20.60	41.02	12.38	PK

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 : Thermal Imager
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462 MHz)
 Test Date : 2020/05/29

Vertical



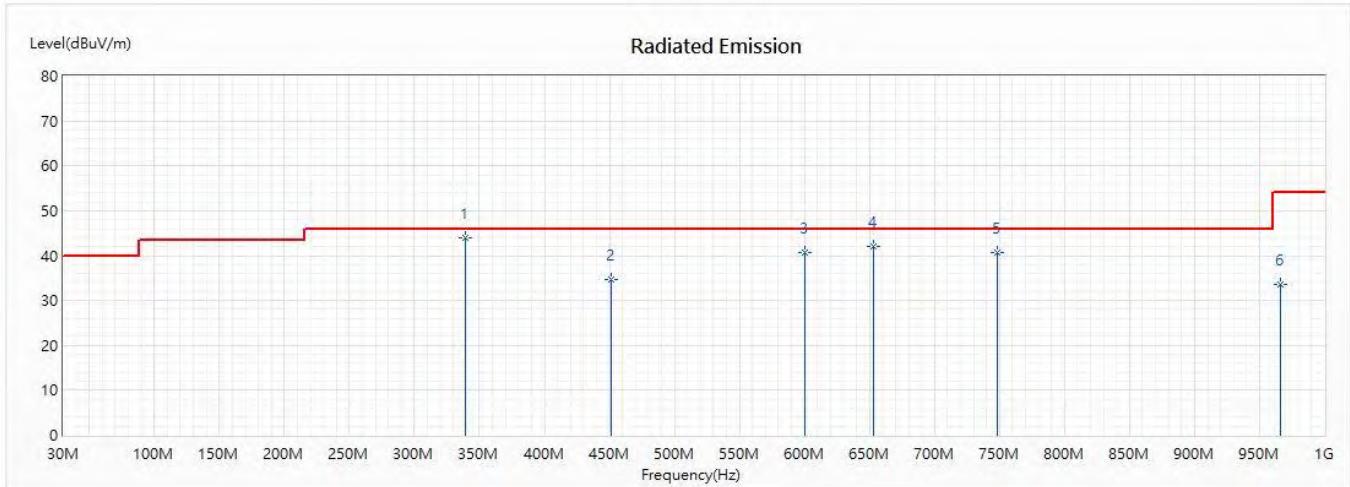
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	4924	49.21	74.00	-24.79	43.51	5.70	PK
2	7386	53.43	74.00	-20.57	42.09	11.34	PK
* 3	9848	53.93	74.00	-20.07	41.55	12.38	PK

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 : Thermal Imager
 Test Item : General Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)(2437 MHz)
 Test Date : 2020/09/11

Horizontal



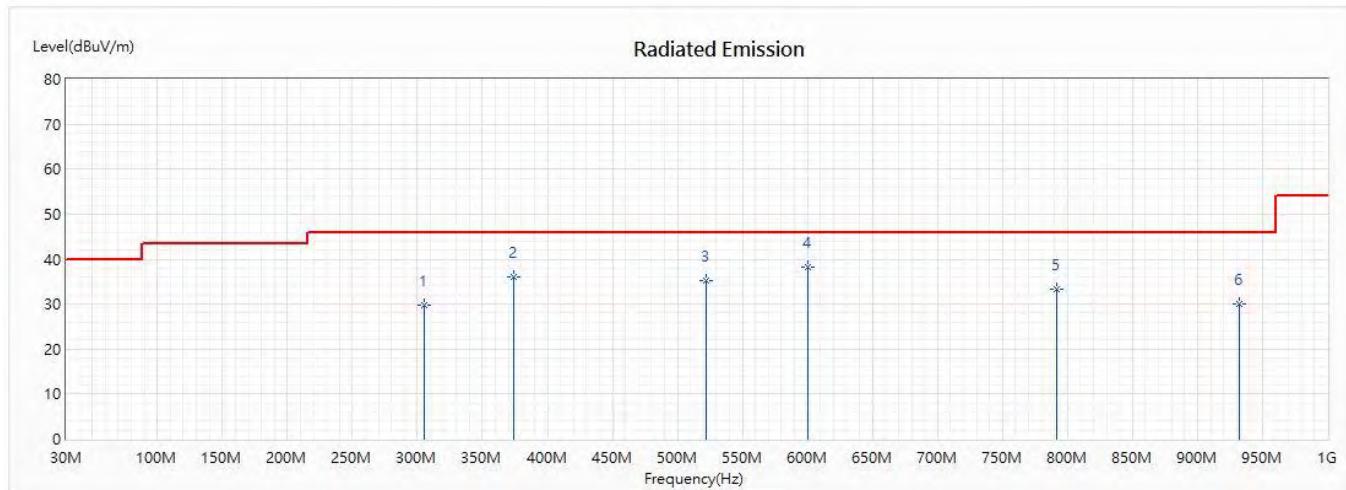
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
* 1	339.275	43.83	46.00	-2.17	49.76	-5.93	QP
2	451.739	34.60	46.00	-11.40	38.47	-3.87	QP
3	600.754	40.71	46.00	-5.29	42.34	-1.63	QP
4	652.768	42.08	46.00	-3.92	43.41	-1.33	QP
5	748.362	40.75	46.00	-5.25	41.76	-1.01	QP
6	966.261	33.62	54.00	-20.38	34.69	-1.07	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 : Thermal Imager
 Test Item : General Radiated Emission Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)(2437 MHz)
 Test Date : 2020/09/11

Vertical



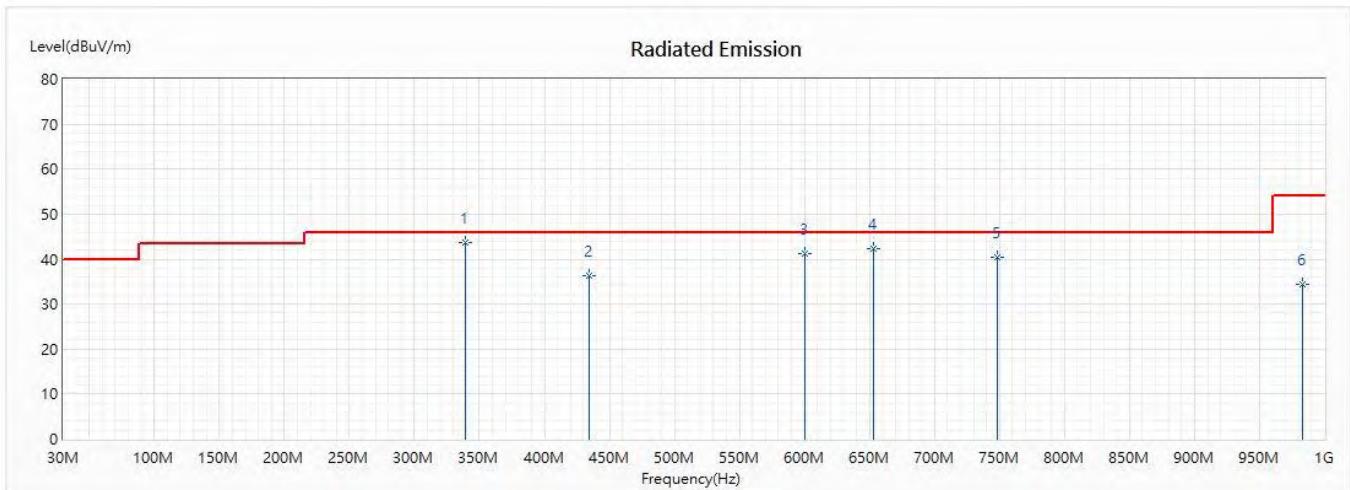
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	305.536	29.87	46.00	-16.13	37.07	-7.20	QP
2	374.42	35.93	46.00	-10.07	40.33	-4.40	QP
3	522.029	35.20	46.00	-10.80	38.03	-2.83	QP
* 4	600.754	38.30	46.00	-7.70	39.93	-1.63	QP
5	791.942	33.41	46.00	-12.59	34.50	-1.09	QP
6	932.522	30.08	46.00	-15.92	31.26	-1.18	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 : Thermal Imager
 Test Item : General Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz)
 Test Date : 2020/09/11

Horizontal



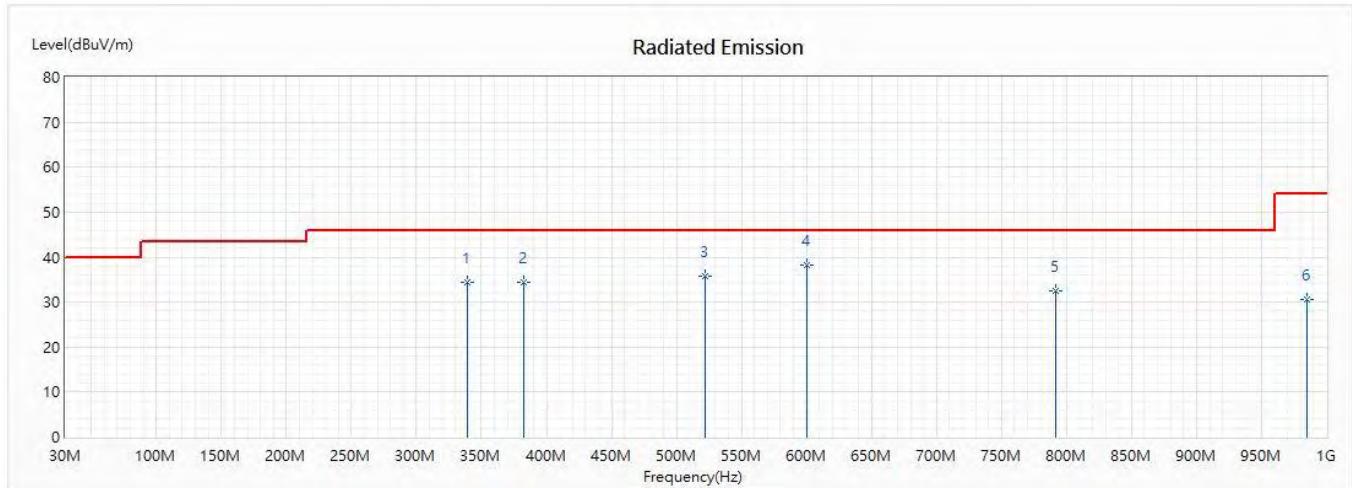
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
* 1	339.275	43.77	46.00	-2.23	49.70	-5.93	QP
2	434.87	36.18	46.00	-9.82	39.90	-3.72	QP
3	600.754	41.32	46.00	-4.68	42.95	-1.63	QP
4	652.768	42.30	46.00	-3.70	43.63	-1.33	QP
5	748.362	40.43	46.00	-5.57	41.44	-1.01	QP
6	983.13	34.41	54.00	-19.59	34.94	-0.53	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 : Thermal Imager
 Test Item : General Radiated Emission Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz)
 Test Date : 2020/09/11

Vertical



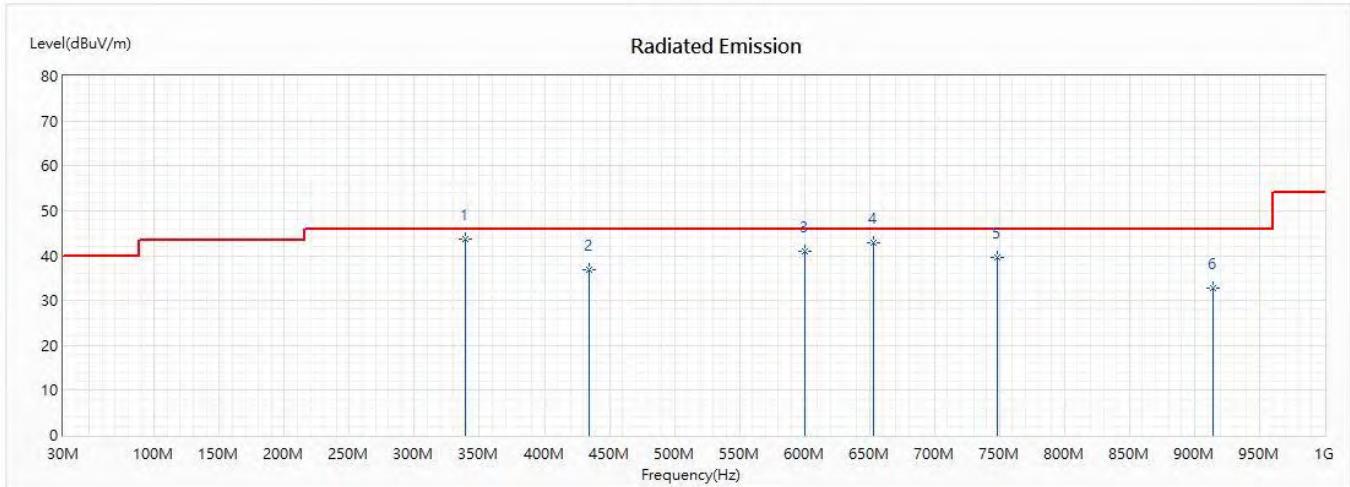
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	339.275	34.50	46.00	-11.50	40.43	-5.93	QP
2	382.855	34.52	46.00	-11.48	38.80	-4.28	QP
3	522.029	35.85	46.00	-10.15	38.68	-2.83	QP
* 4	600.754	38.32	46.00	-7.68	39.95	-1.63	QP
5	791.942	32.48	46.00	-13.52	33.57	-1.09	QP
6	984.536	30.65	54.00	-23.35	31.22	-0.57	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 : Thermal Imager
 Test Item : General Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2437 MHz)
 Test Date : 2020/09/11

Horizontal



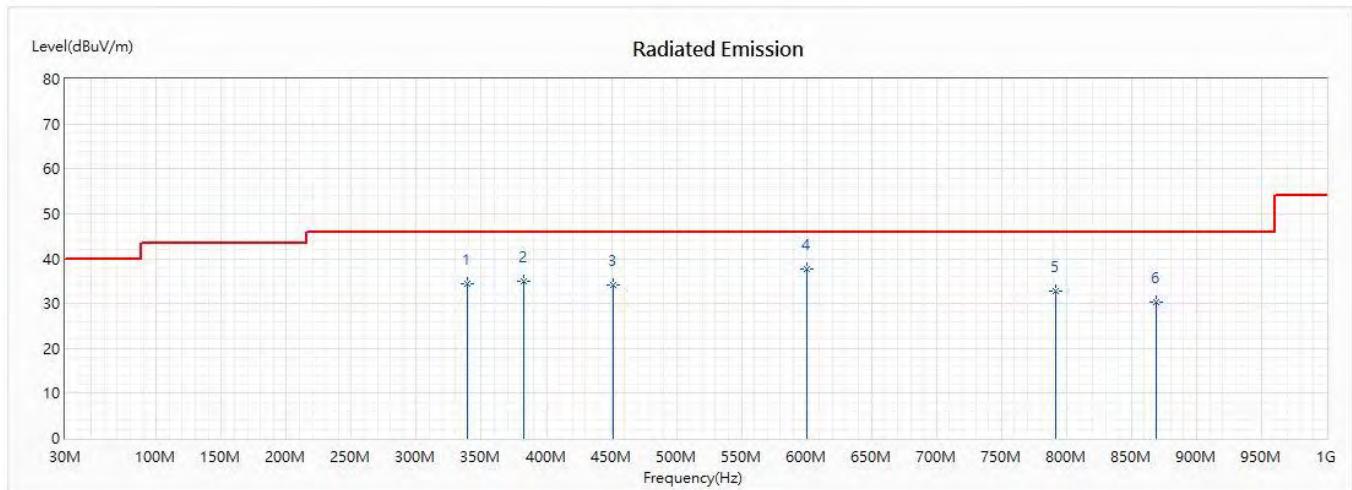
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
* 1	339.275	43.57	46.00	-2.43	49.50	-5.93	QP
2	434.87	36.79	46.00	-9.21	40.51	-3.72	QP
3	600.754	40.94	46.00	-5.06	42.57	-1.63	QP
4	652.768	42.77	46.00	-3.23	44.10	-1.33	QP
5	748.362	39.72	46.00	-6.28	40.73	-1.01	QP
6	914.246	32.71	46.00	-13.29	34.87	-2.16	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 : Thermal Imager
 Test Item : General Radiated Emission Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2437 MHz)
 Test Date : 2020/09/11

Vertical



No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	339.275	34.49	46.00	-11.51	40.42	-5.93	QP
2	382.855	34.96	46.00	-11.04	39.24	-4.28	QP
3	451.739	34.13	46.00	-11.87	38.00	-3.87	QP
* 4	600.754	37.71	46.00	-8.29	39.34	-1.63	QP
5	791.942	32.70	46.00	-13.30	33.79	-1.09	QP
6	869.261	30.36	46.00	-15.64	32.27	-1.91	QP

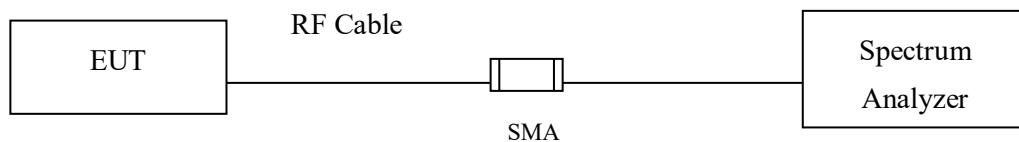
Note:

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.

5. RF antenna conducted test

5.1. Test Setup

RF antenna Conducted Measurement:



5.2. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.3. Test Procedure

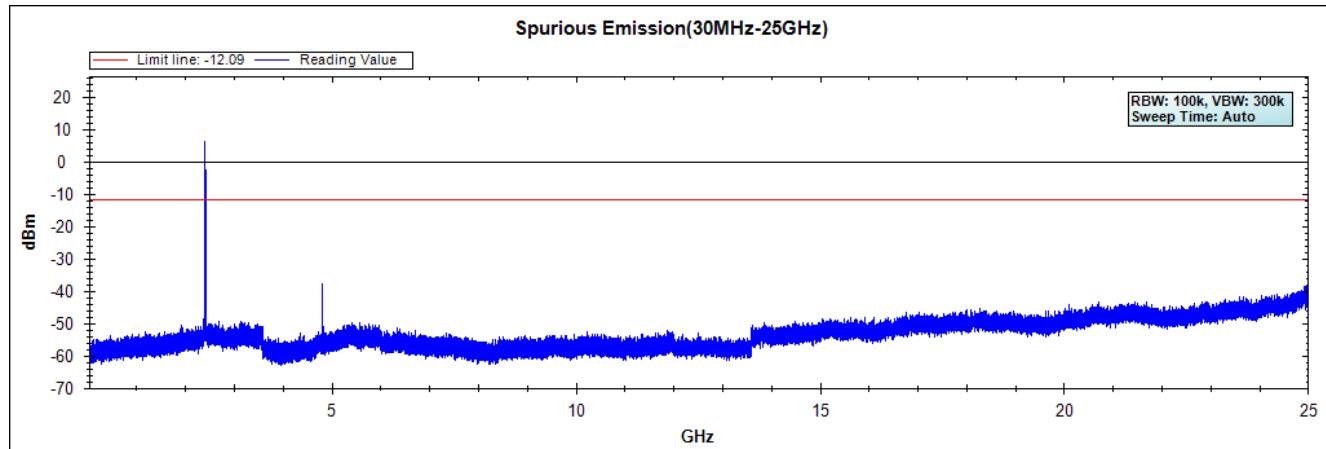
The EUT was tested according to C63.10:2013 Section 11.11 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

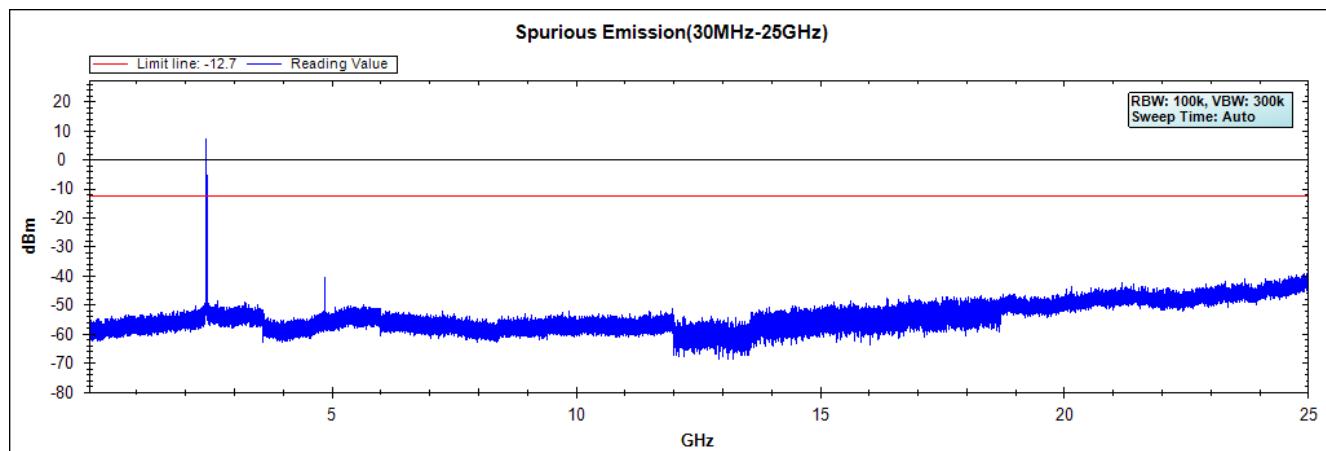
5.4. Test Result of RF antenna conducted test

Product : Thermal Imager
 Test Item : RF antenna conducted test
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)
 Test Date : 2020/06/08

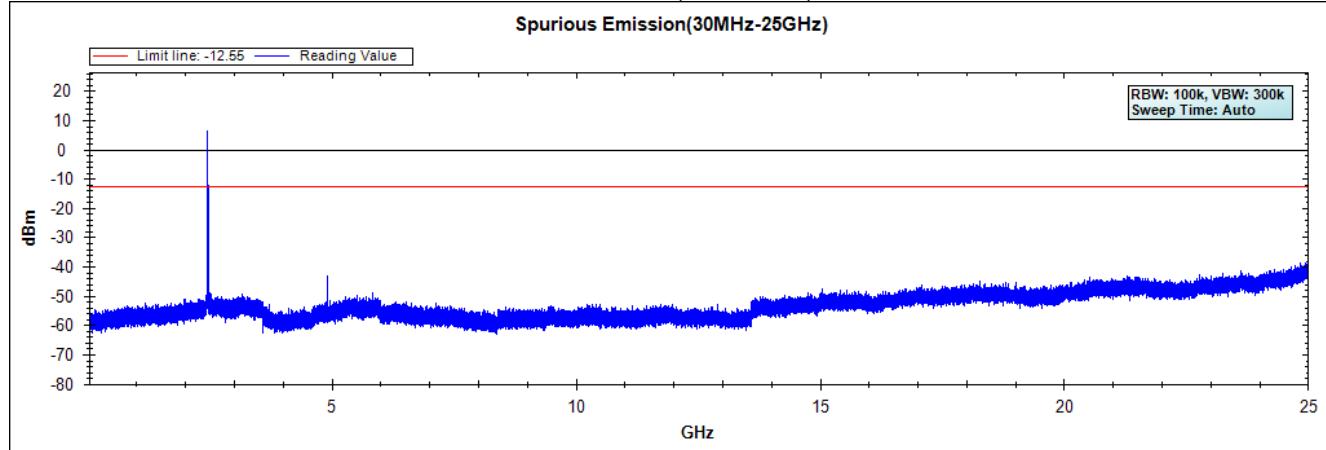
Channel 01 (2412MHz)



Channel 06 (2437MHz)



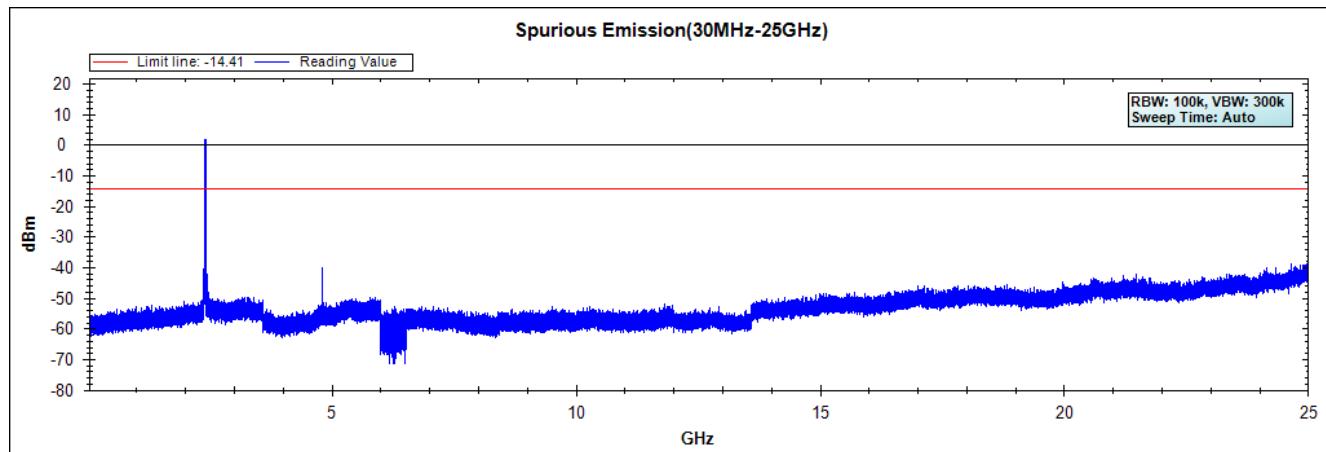
Channel 11 (2462MHz)



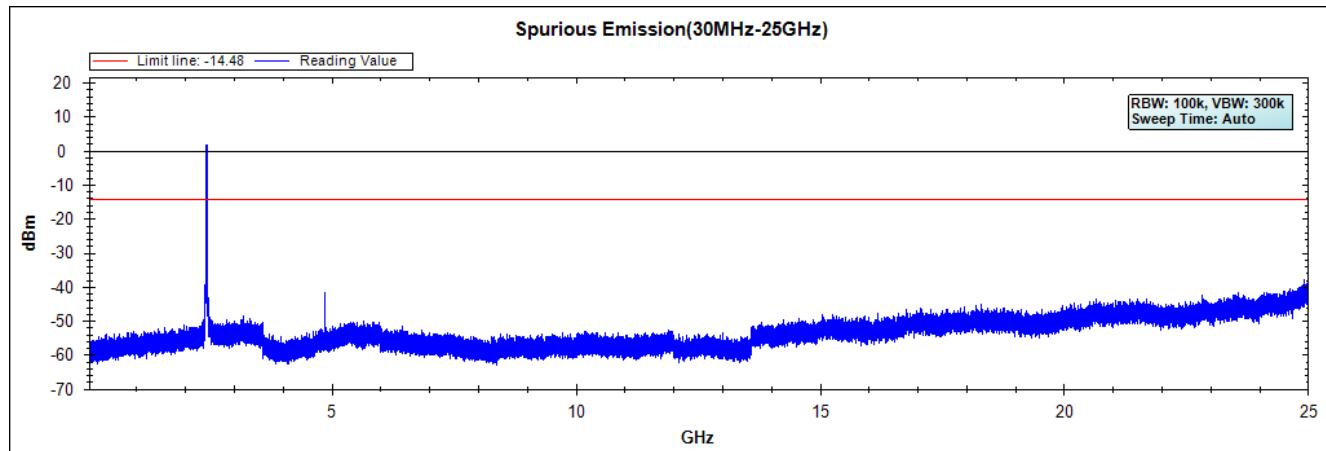
Note: The above test pattern is synthesized by multiple of the frequency range.

Product : Thermal Imager
Test Item : RF Antenna Conducted Spurious
Test Mode : Mode 2: Transmit (802.11g 6Mbps)
Test Date : 2020/06/08

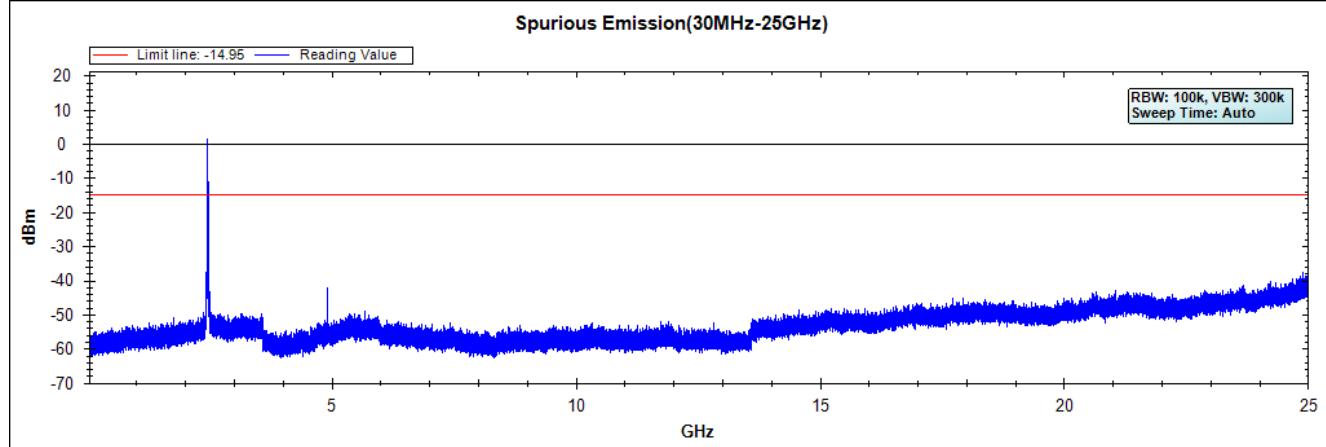
Channel 01 (2412MHz)



Channel 06 (2437MHz)



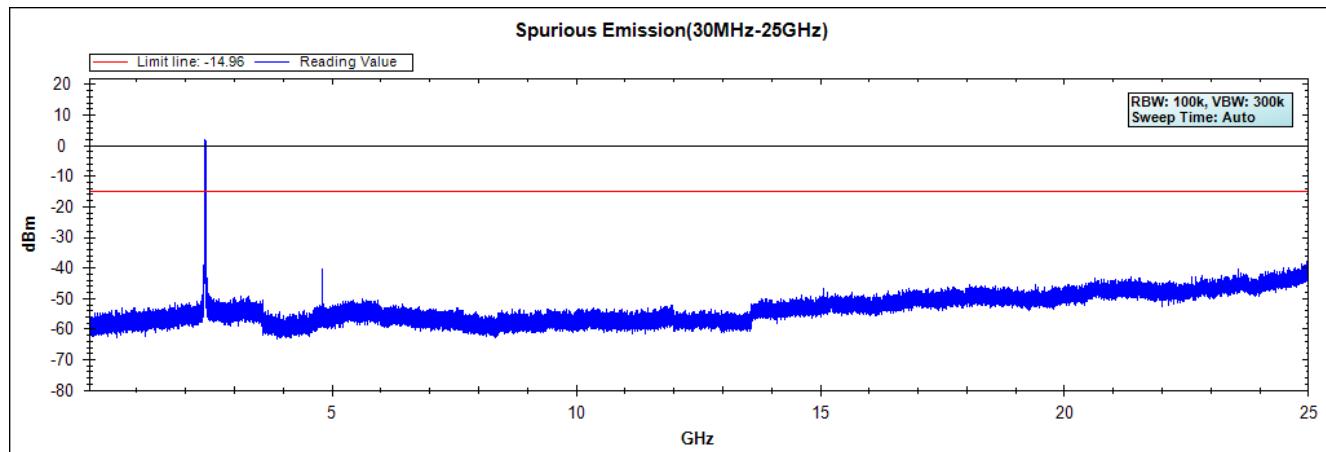
Channel 11 (2462MHz)



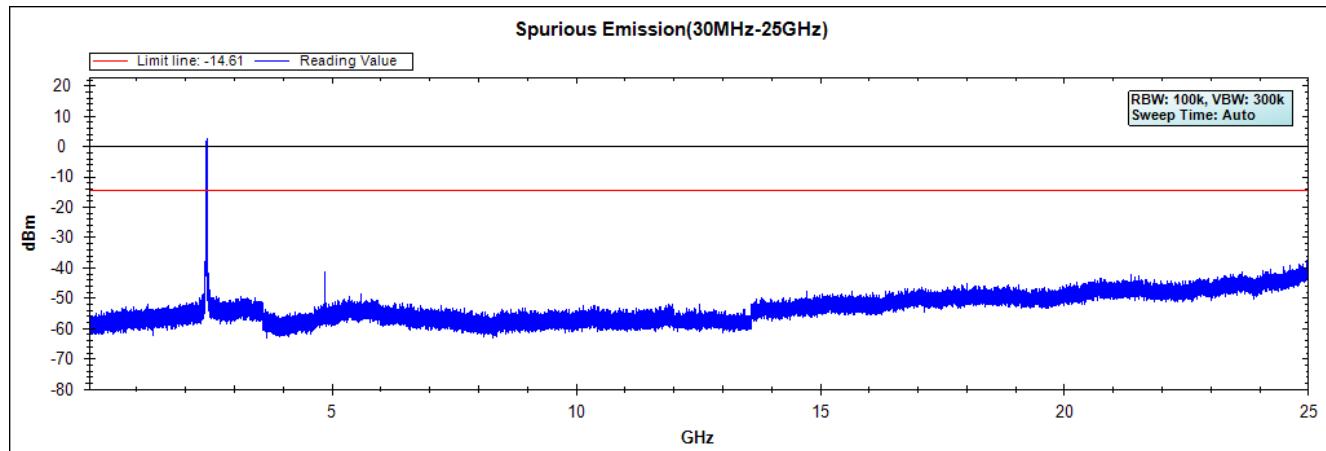
Note: The above test pattern is synthesized by multiple of the frequency range.

Product : Thermal Imager
Test Item : RF Antenna Conducted Spurious
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)
Test Date : 2020/06/08

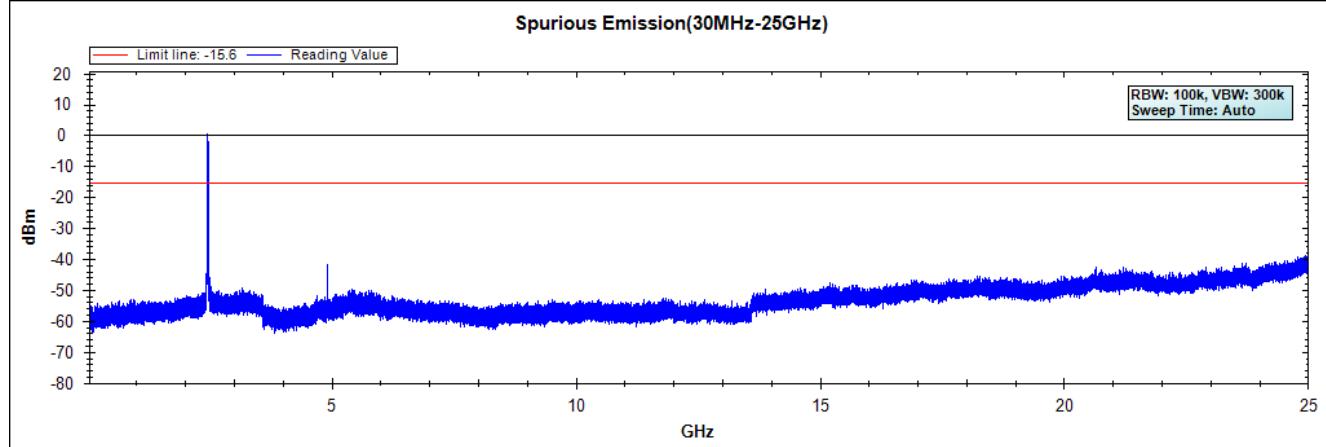
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)

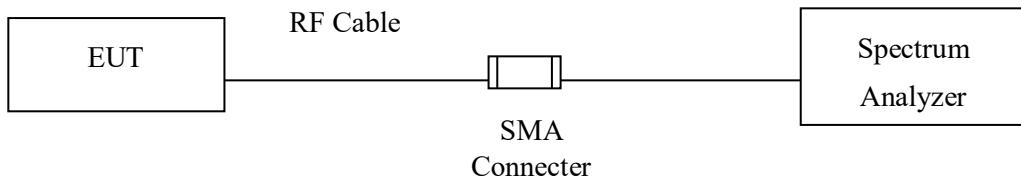


Note: The above test pattern is synthesized by multiple of the frequency range.

6. Band Edge

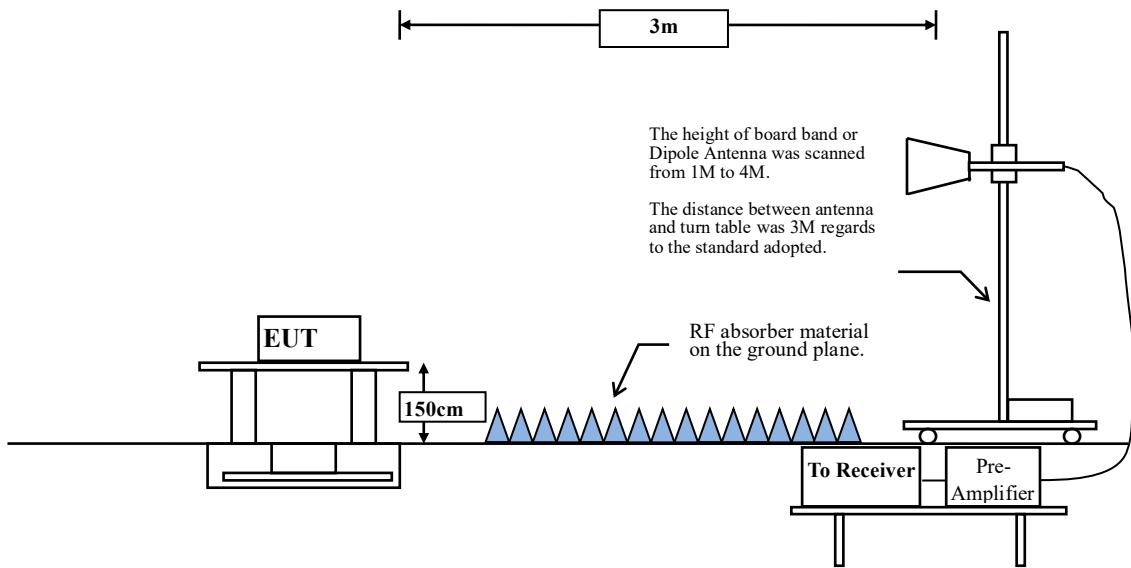
6.1. Test Setup

RF Conducted Measurement



RF Radiated Measurement:

Above 1GHz



6.2. Limits

According to FCC Section 15.247(d). In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

6.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013 and tested according to C63.10:2013 Section 11.12.1 for compliance to FCC 47CFR 15.247 requirements.

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 from 1 meter to 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.

RBW and VBW Parameter setting:

According to C63.10 Section 11.12.2.4 Peak measurement procedure.

RBW = as specified in Table 1.

VBW $\geq 3 \times$ RBW.

Table 1 —RBW as a function of frequency

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

According to C63.10 Section 11.12.2.5 Average measurement procedure.

RBW = 1MHz.

VBW = 10Hz, when duty cycle $\geq 98\%$

VBW $\geq 1/T$, 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.)

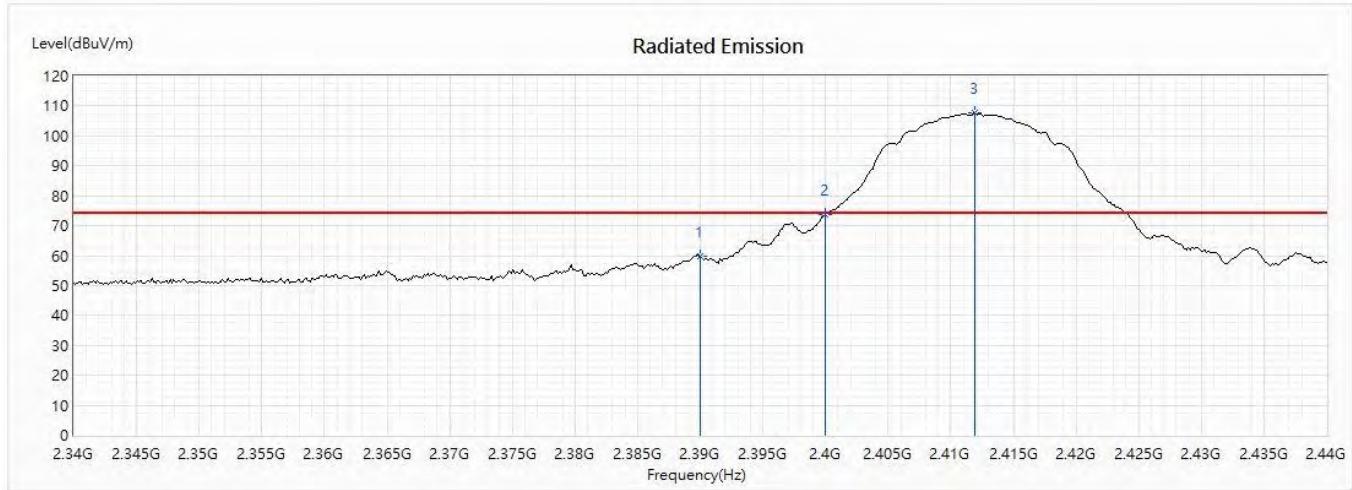
2.4GHz band	Duty Cycle (%)	T (ms)	1/T (Hz)	VBW (Hz)
802.11b	12.4348	12.5797	98.85	0.05
802.11g	2.0652	2.1522	95.96	0.18
802.11n20	1.9203	2.0725	92.66	0.33

Note: Duty Cycle Refer to Section 9

6.4. Test Result of Band Edge

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
 Test Date : 2020/05/28

Horizontal



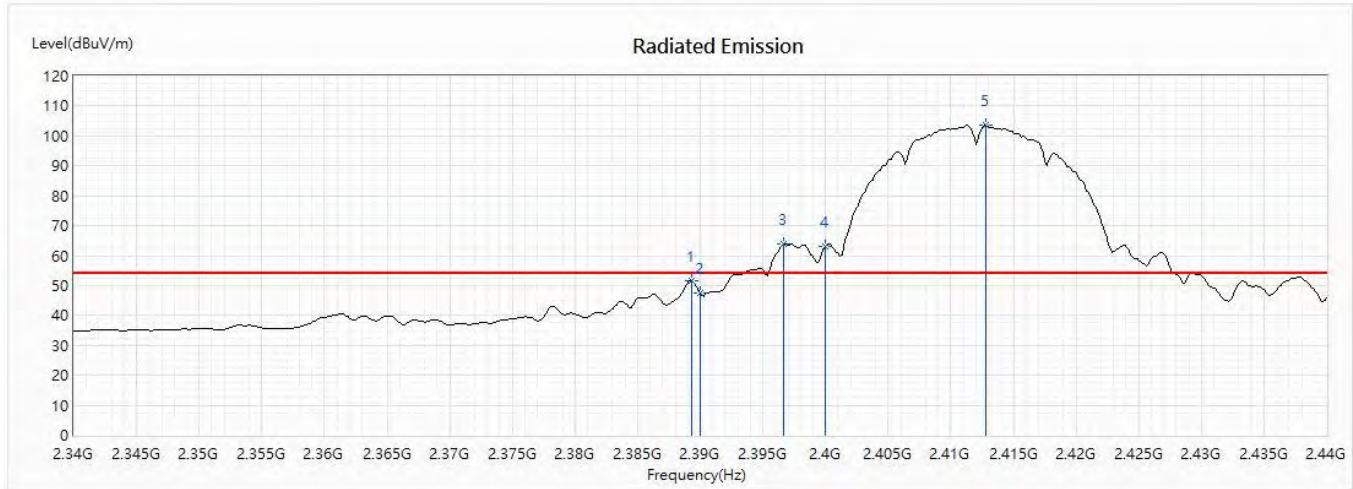
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2390	59.92	74.00	-14.08	61.47	-1.55	PK
2	2400	73.88	--	--	75.49	-1.61	PK
! 3	2411.884	107.52	--	--	109.20	-1.68	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
 Test Date : 2020/05/28

Horizontal



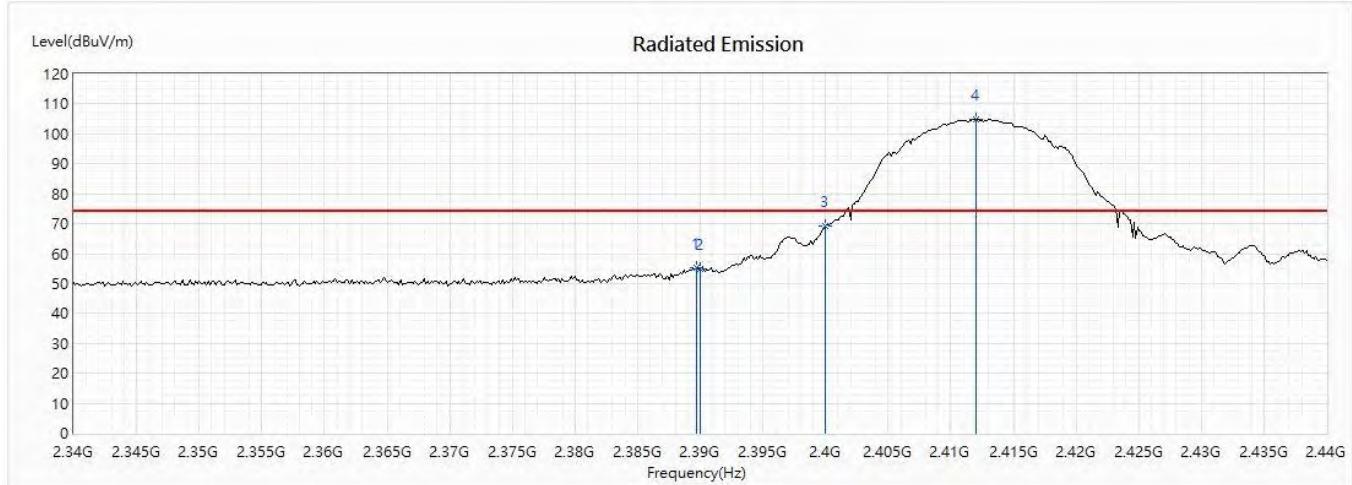
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2389.275	51.49	54.00	-2.51	53.03	-1.54	AV
2	2390	47.42	54.00	-6.58	48.97	-1.55	AV
! 3	2396.667	63.98	--	--	65.57	-1.59	AV
! 4	2400	63.14	--	--	64.75	-1.61	AV
! 5	2412.754	103.50	--	--	105.19	-1.69	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
 Test Date : 2020/05/28

Vertical



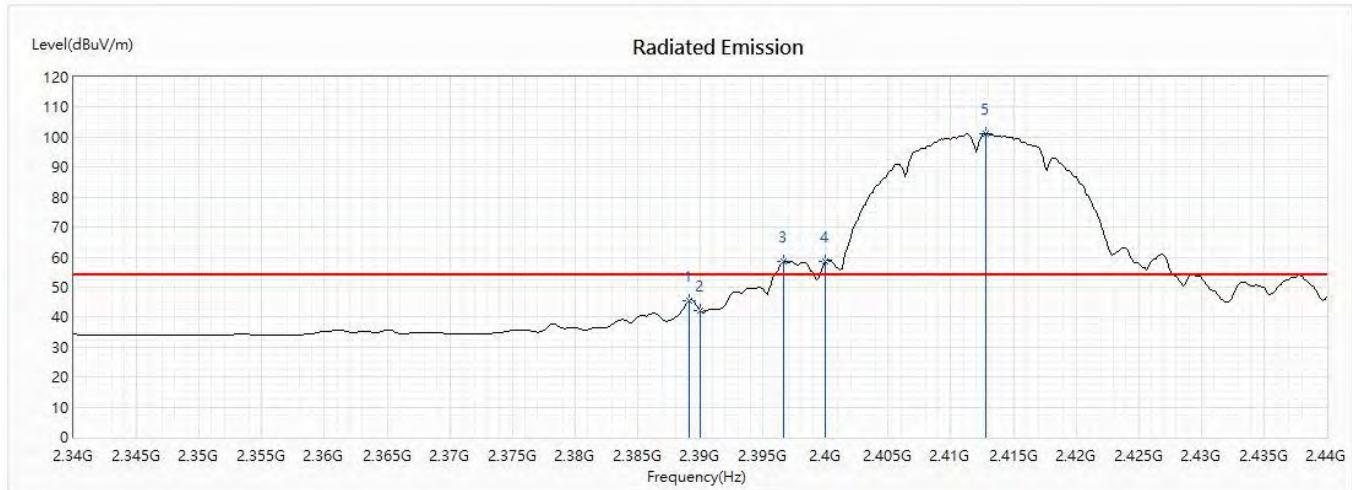
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2389.71	55.41	74.00	-18.59	56.96	-1.55	PK
2	2390	54.76	74.00	-19.24	56.31	-1.55	PK
3	2400	69.14	--	--	70.75	-1.61	PK
! 4	2412.029	104.91	--	--	106.59	-1.68	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2412MHz)
 Test Date : 2020/05/28

Vertical



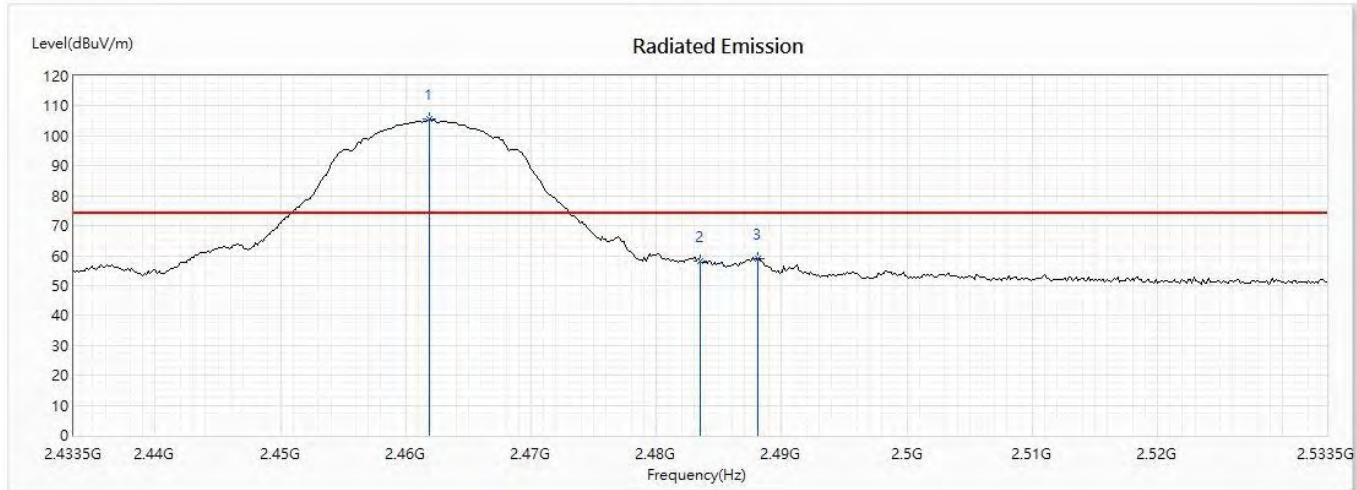
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2389.13	45.61	54.00	-8.39	47.15	-1.54	AV
2	2390	42.24	54.00	-11.76	43.79	-1.55	AV
! 3	2396.667	58.63	--	--	60.22	-1.59	AV
! 4	2400	58.55	--	--	60.16	-1.61	AV
! 5	2412.754	101.28	--	--	102.97	-1.69	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)
 Test Date : 2020/05/28

Horizontal



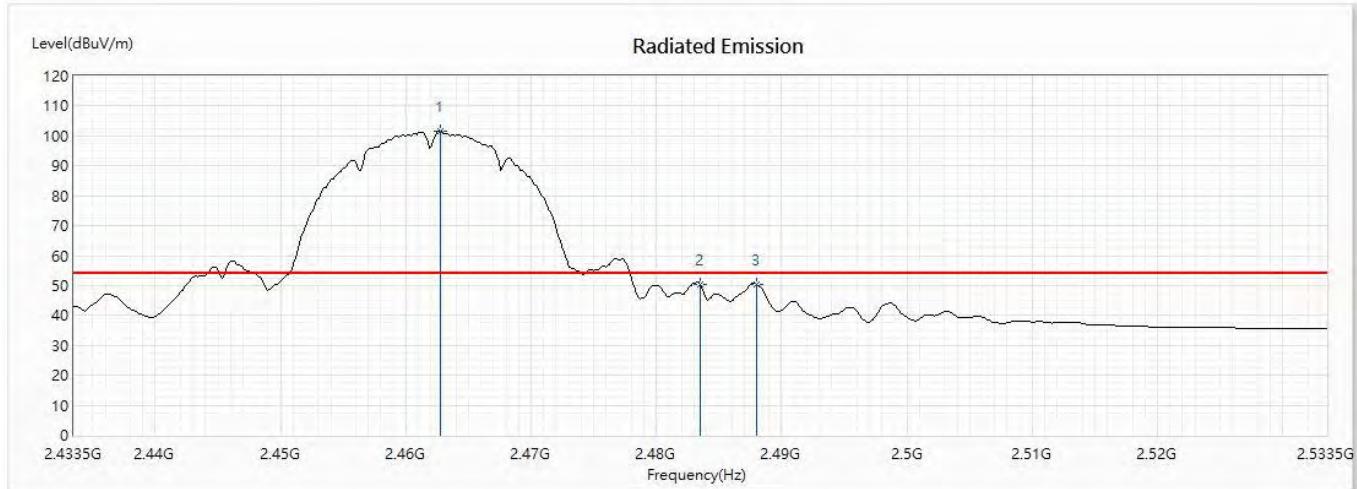
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
! 1	2461.906	105.48	--	--	107.46	-1.98	PK
2	2483.5	58.18	74.00	-15.82	60.30	-2.12	PK
3	2488.138	59.08	74.00	-14.92	61.23	-2.15	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)
 Test Date : 2020/05/28

Horizontal



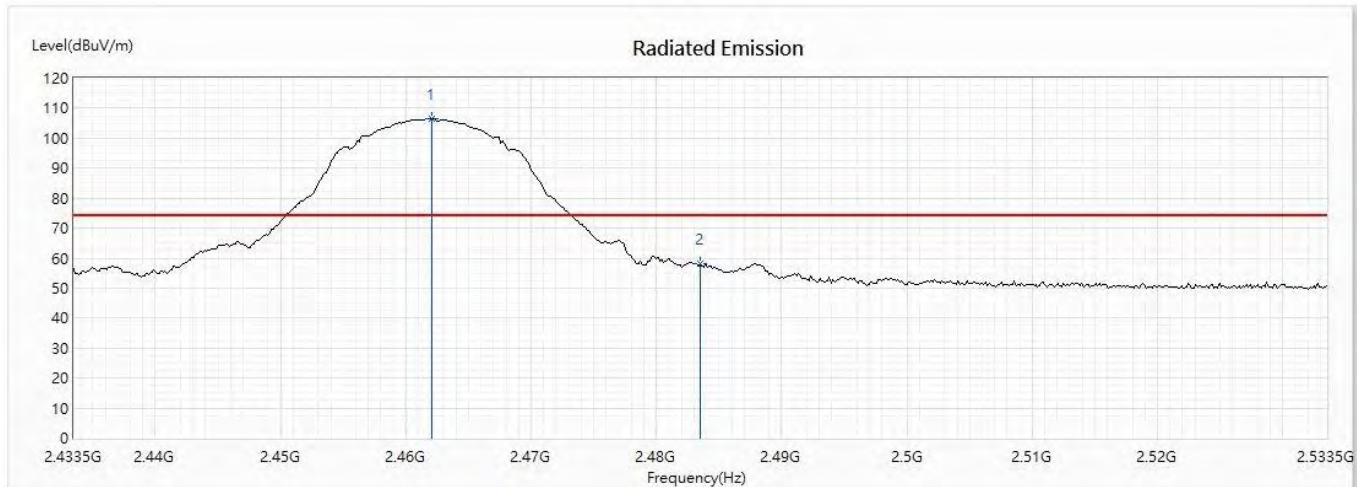
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2462.775	101.43	--	--	103.42	-1.99	AV
2	2483.5	50.43	54.00	-3.57	52.55	-2.12	AV
3	2487.993	50.56	54.00	-3.44	52.71	-2.15	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)
 Test Date : 2020/05/28

Vertical



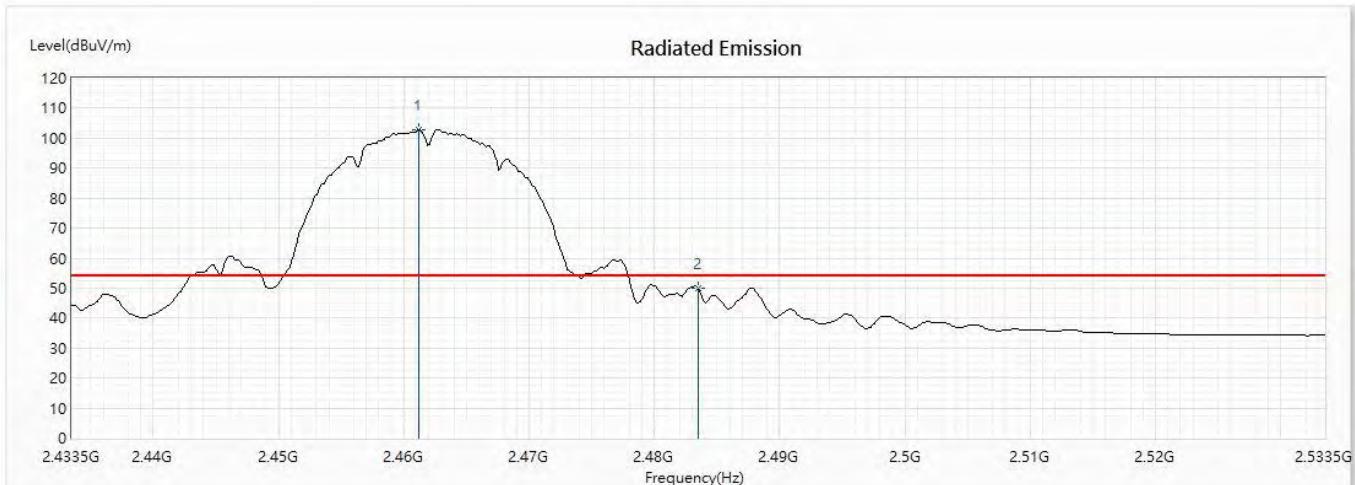
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2462.051	106.66	--	--	108.65	-1.99	PK
2	2483.5	58.02	74.00	-15.98	60.14	-2.12	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
Test Item : Band Edge Data
Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462MHz)
Test Date : 2020/05/28

Vertical



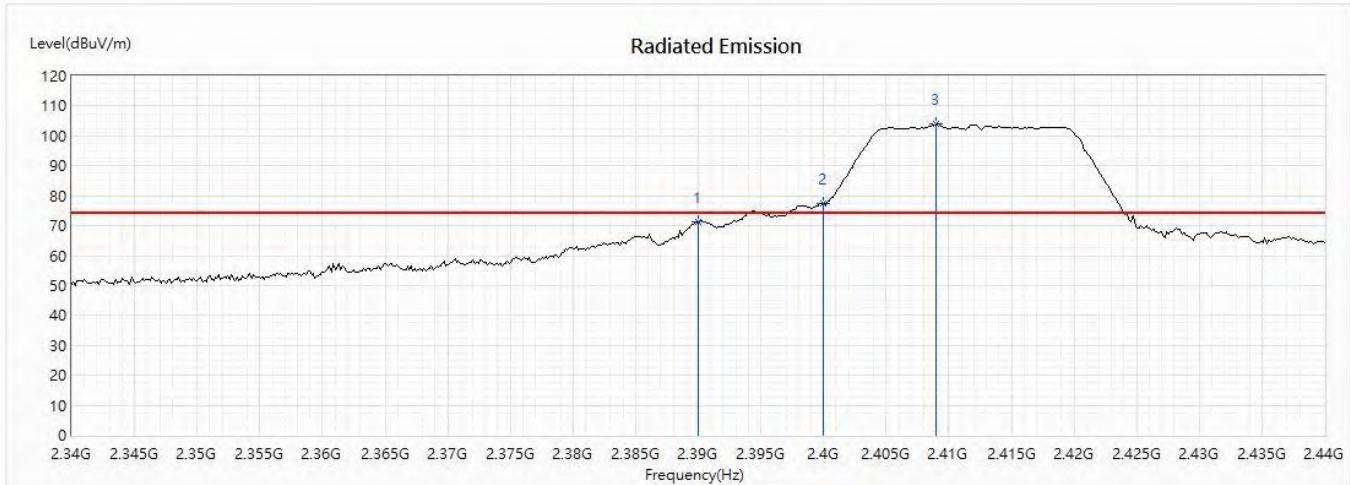
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2461.181	102.68	--	--	104.67	-1.99	AV
2	2483.5	49.99	54.00	-4.01	52.11	-2.12	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
 Test Date : 2020/05/28

Horizontal



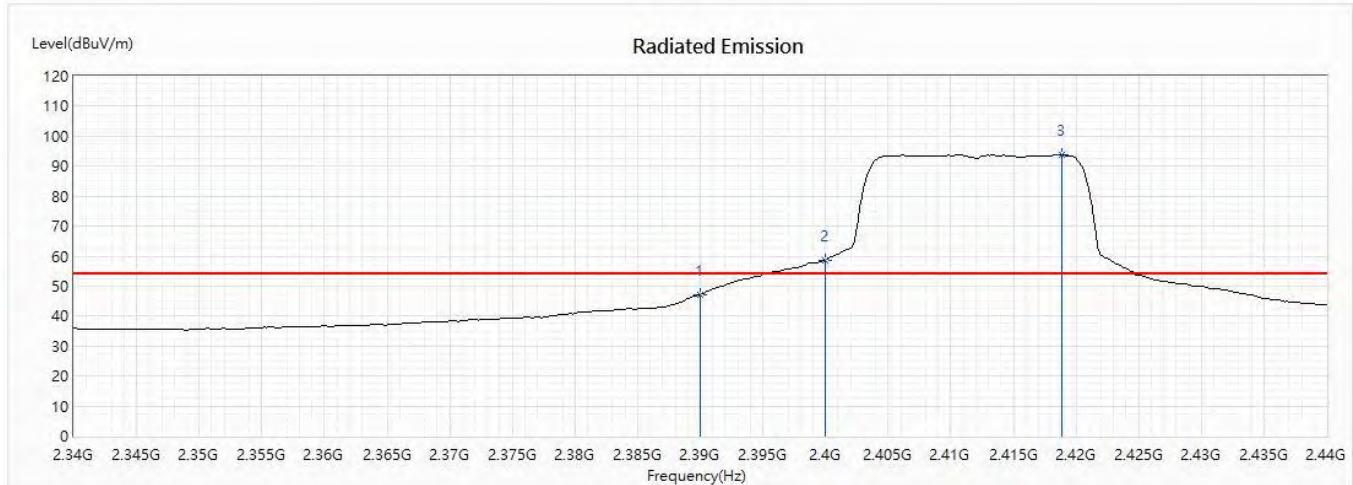
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2390	71.29	74.00	-2.71	72.84	-1.55	PK
! 2	2400	77.21	--	--	78.82	-1.61	PK
! 3	2408.986	104.02	--	--	105.68	-1.66	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
 Test Date : 2020/05/28

Horizontal



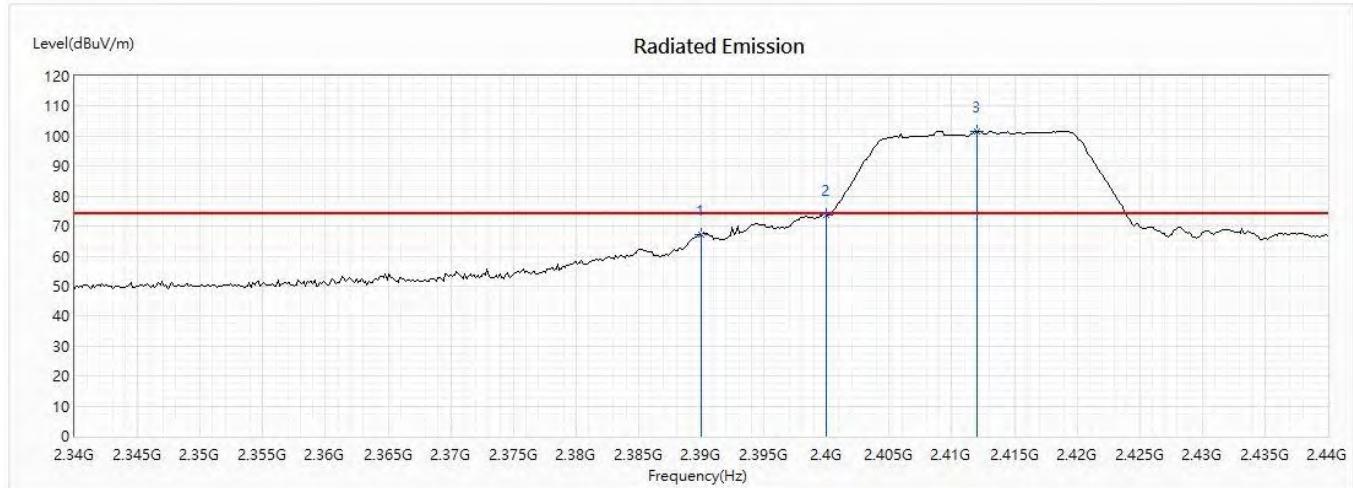
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2390	47.28	54.00	-6.72	48.83	-1.55	AV
! 2	2400	58.68	--	--	60.29	-1.61	AV
! 3	2418.841	93.77	--	--	95.49	-1.72	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
 Test Date : 2020/05/28

Vertical



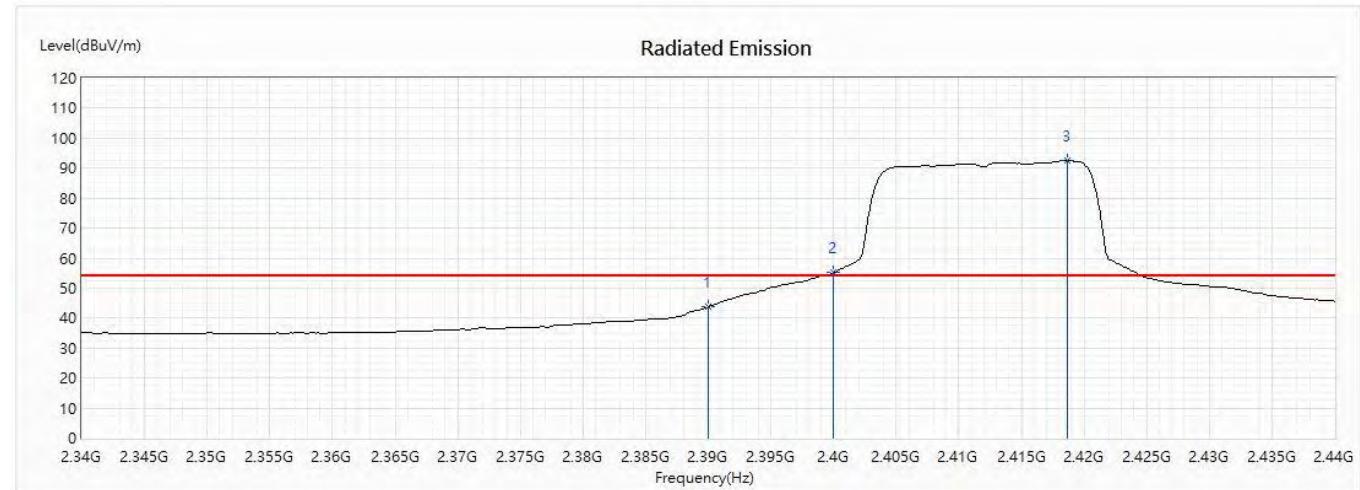
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2390	67.15	74.00	-6.85	68.70	-1.55	PK
2	2400	73.75	--	--	75.36	-1.61	PK
! 3	2412.029	101.70	--	--	103.38	-1.68	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)
 Test Date : 2020/05/28

Vertical



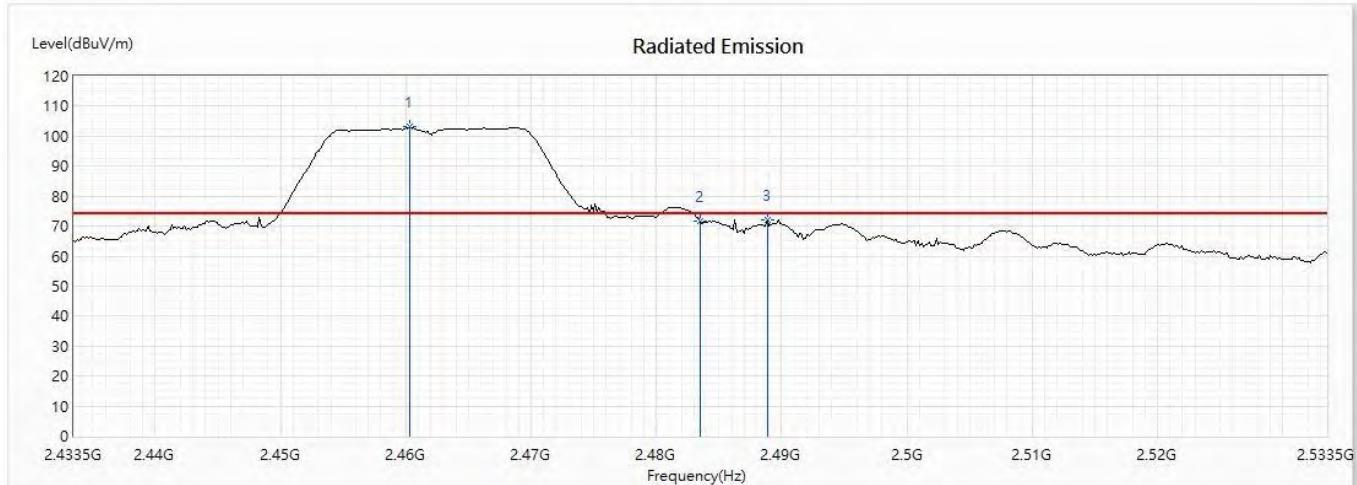
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2390	43.65	54.00	-10.35	45.20	-1.55	AV
! 2	2400	55.18	--	--	56.79	-1.61	AV
! 3	2418.696	92.55	--	--	94.27	-1.72	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)
 Test Date : 2020/05/28

Horizontal



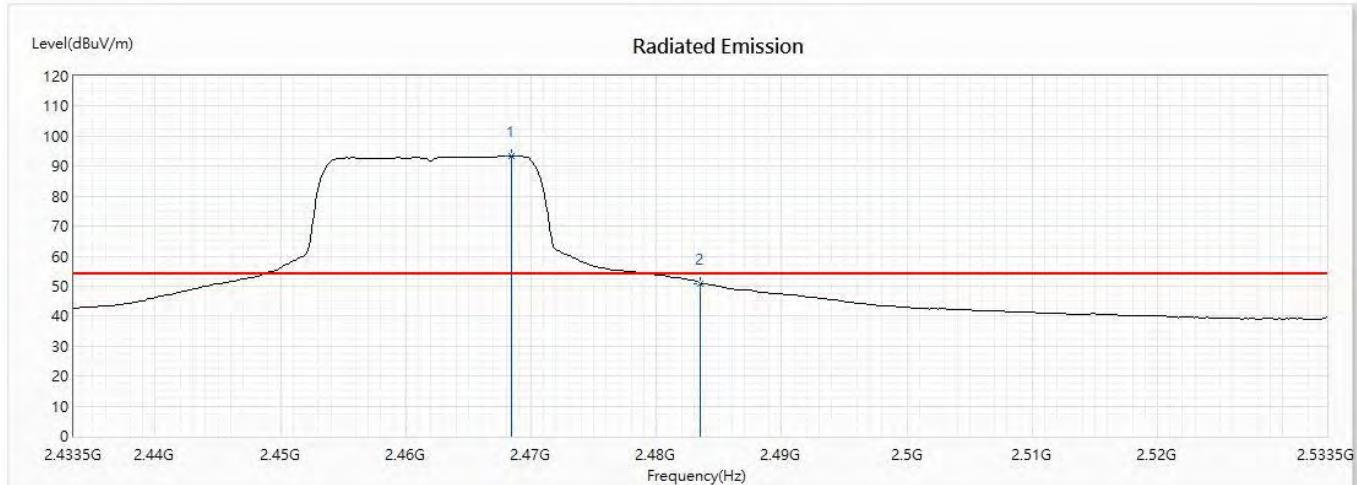
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2460.312	103.08	--	--	105.06	-1.98	PK
2	2483.5	71.50	74.00	-2.50	73.62	-2.12	PK
3	2488.862	72.18	74.00	-1.82	74.33	-2.15	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)
 Test Date : 2020/05/28

Horizontal



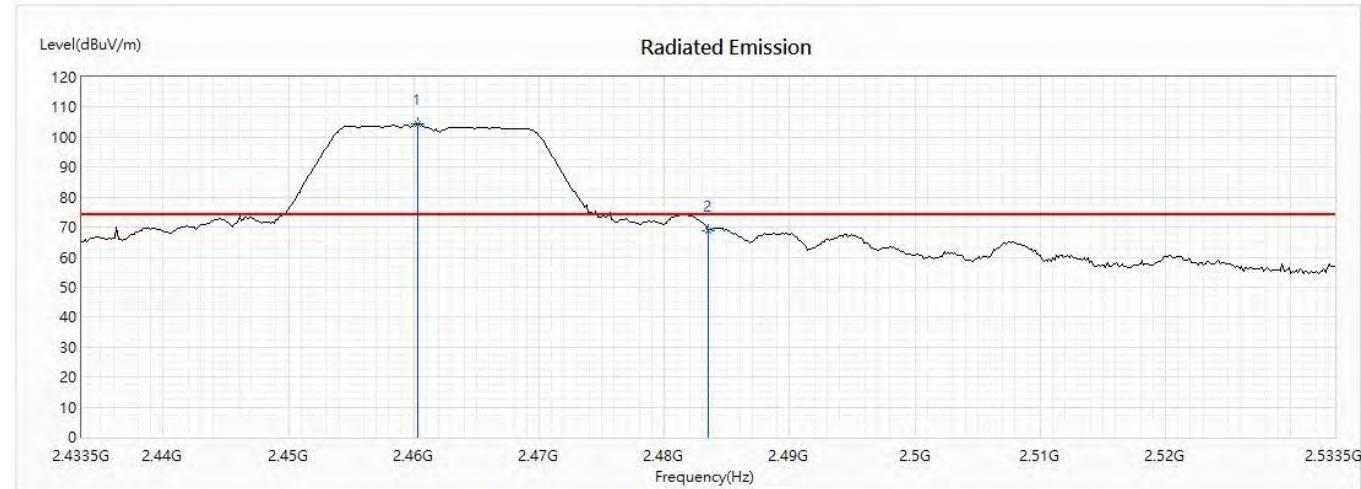
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
! 1	2468.428	93.53	--	--	95.55	-2.02	AV
2	2483.5	50.97	54.00	-3.03	53.09	-2.12	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)
 Test Date : 2020/05/28

Vertical



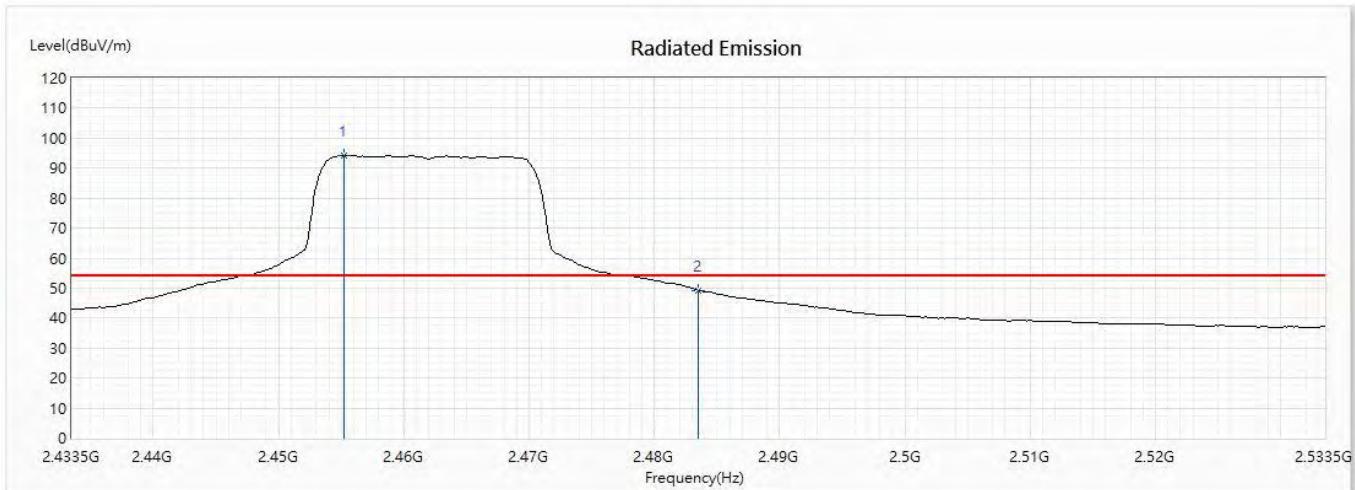
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
! 1	2460.312	104.33	--	--	106.31	-1.98	PK
2	2483.5	68.91	74.00	-5.09	71.03	-2.12	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462MHz)
 Test Date : 2020/05/28

Vertical



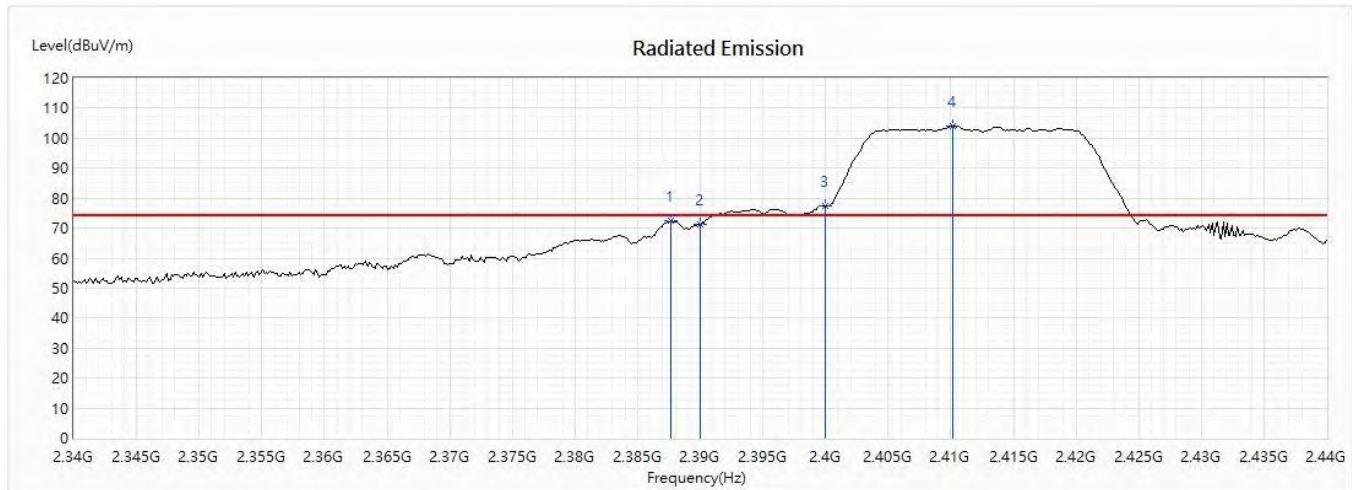
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
! 1	2455.239	94.35	--	--	96.29	-1.94	AV
2	2483.5	49.21	54.00	-4.79	51.33	-2.12	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
 Test Date : 2020/05/28

Horizontal



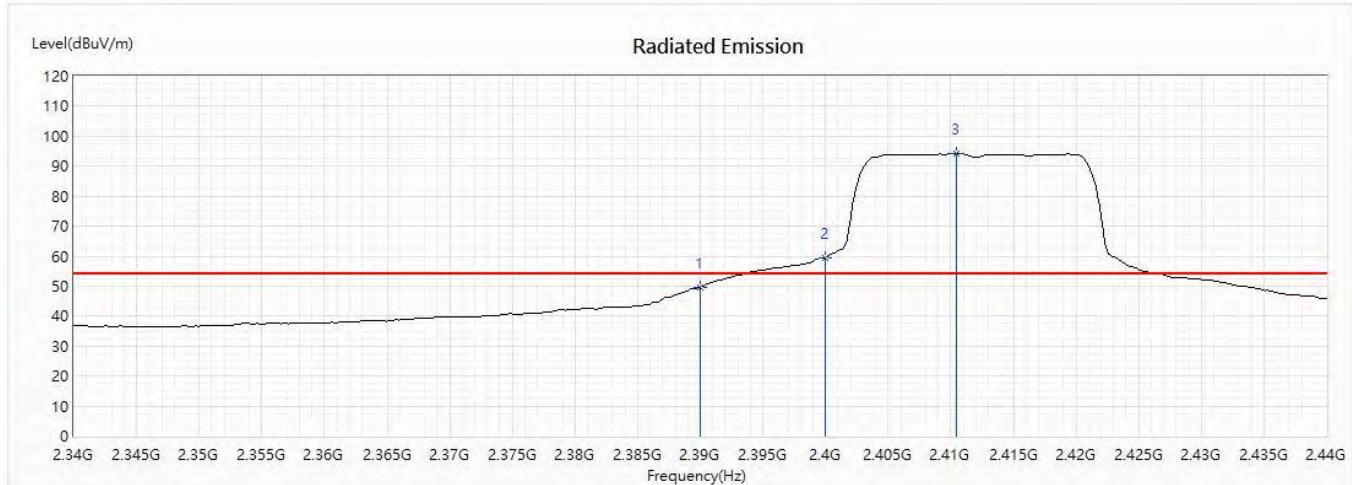
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2387.681	72.61	74.00	-1.39	74.15	-1.54	PK
2	2390	71.37	74.00	-2.63	72.92	-1.55	PK
! 3	2400	77.53	--	--	79.14	-1.61	PK
! 4	2410.145	103.96	--	--	105.63	-1.67	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
 Test Date : 2020/05/28

Horizontal



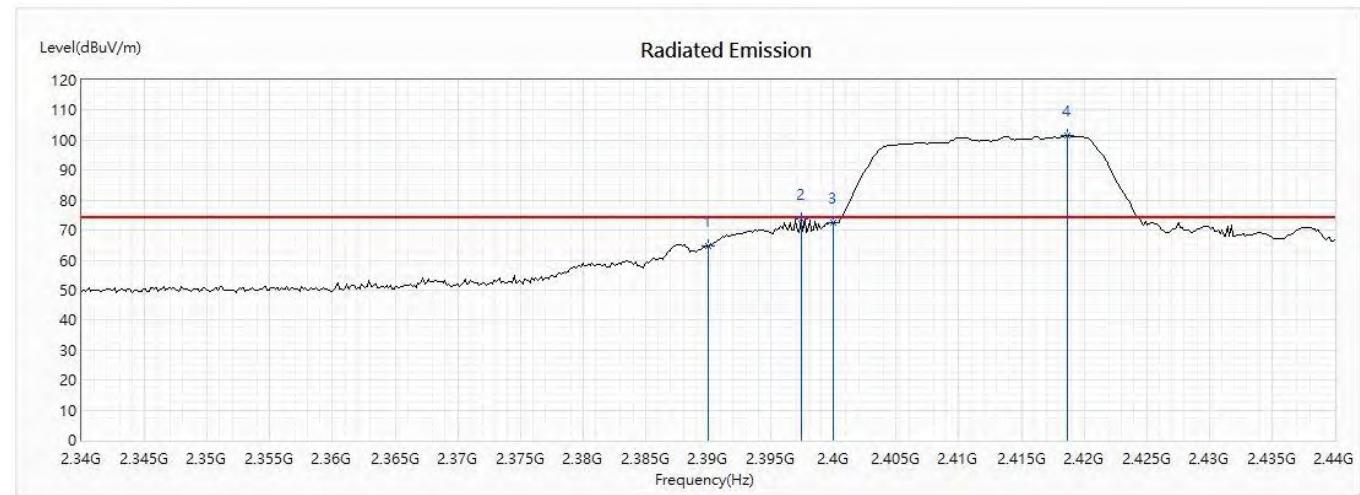
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2390	49.55	54.00	-4.45	51.10	-1.55	AV
! 2	2400	59.51	--	--	61.12	-1.61	AV
! 3	2410.435	94.29	--	--	95.96	-1.67	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
 Test Date : 2020/05/28

Vertical



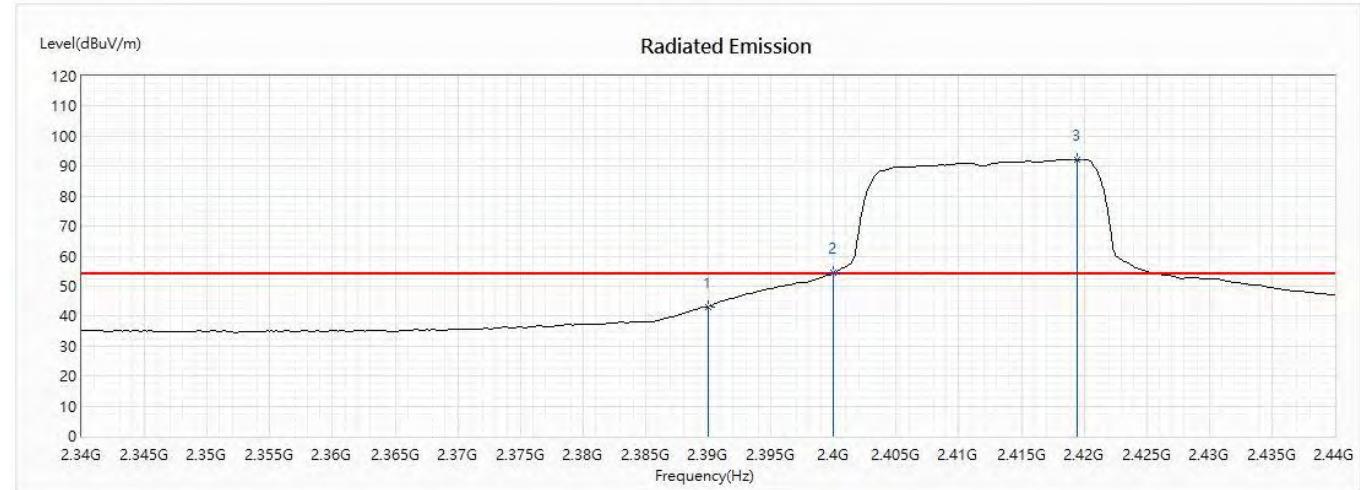
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2390	64.73	74.00	-9.27	66.28	-1.55	PK
2	2397.391	73.70	--	--	75.30	-1.60	PK
3	2400	72.51	--	--	74.12	-1.61	PK
! 4	2418.696	101.48	--	--	103.20	-1.72	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2412MHz)
 Test Date : 2020/05/28

Vertical



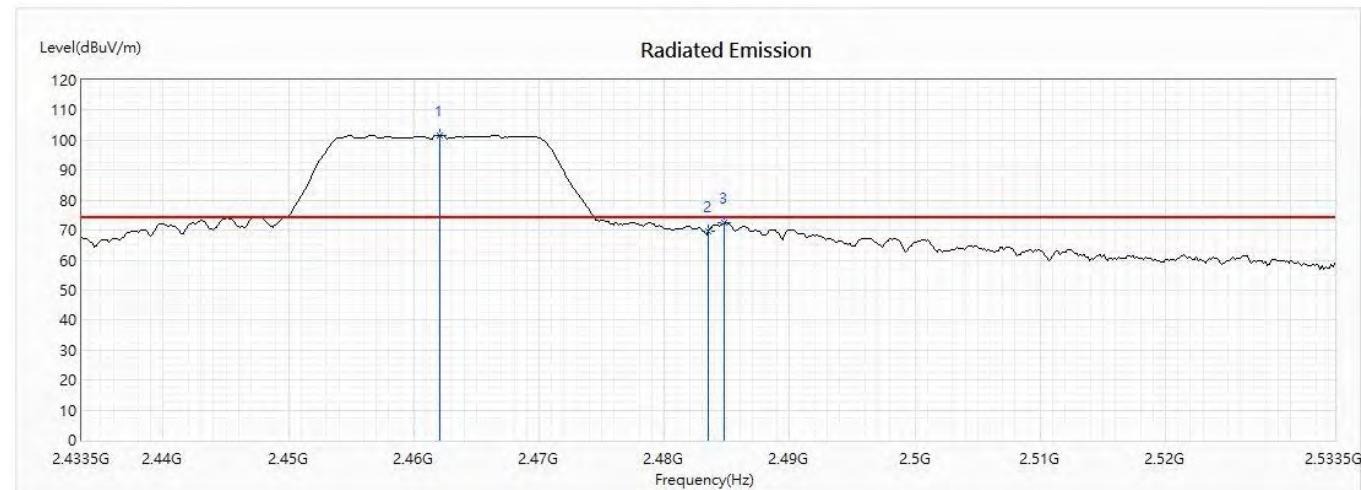
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2390	43.19	54.00	-10.81	44.74	-1.55	AV
! 2	2400	54.30	--	--	55.91	-1.61	AV
! 3	2419.42	92.35	--	--	94.08	-1.73	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)
 Test Date : 2020/05/28

Horizontal



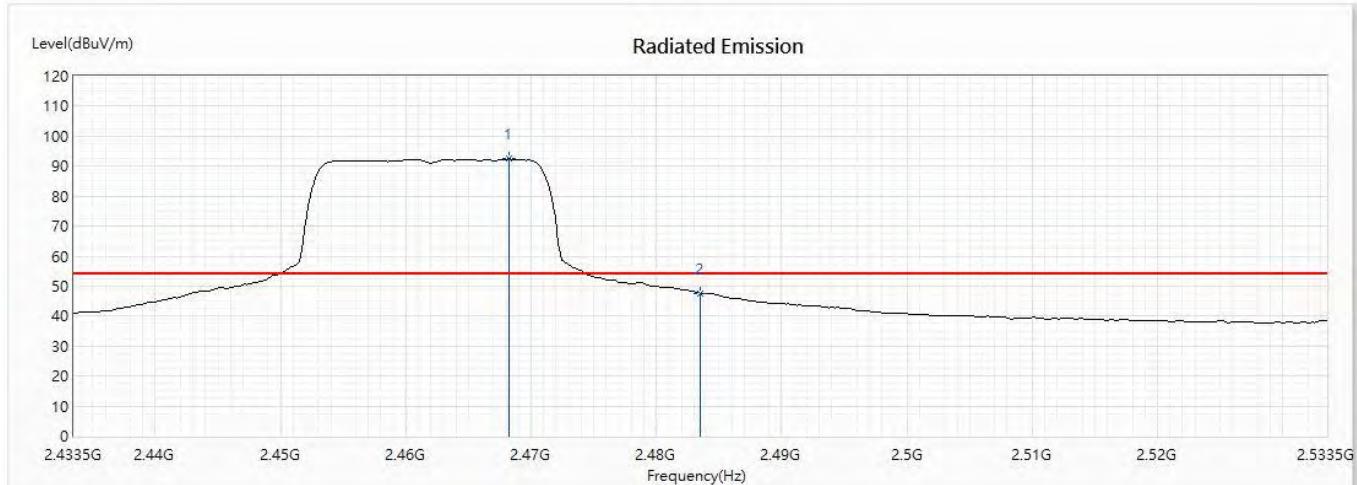
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
! 1	2462.051	101.76	--	--	103.75	-1.99	PK
2	2483.5	69.58	74.00	-4.42	71.70	-2.12	PK
3	2484.804	72.40	74.00	-1.60	74.53	-2.13	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)
 Test Date : 2020/05/28

Horizontal



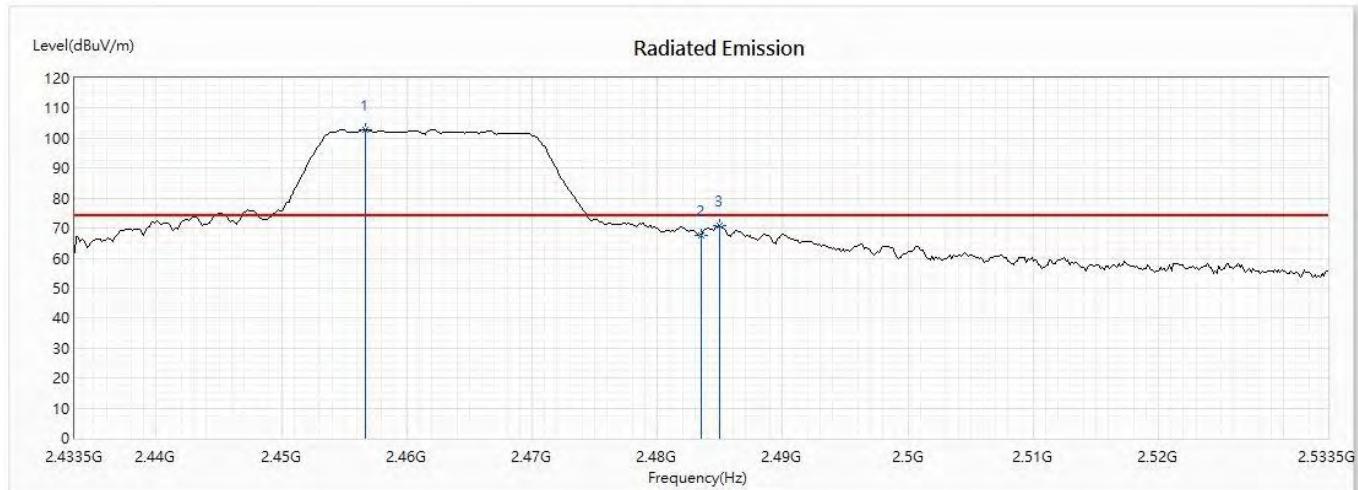
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
! 1	2468.283	92.39	--	--	94.42	-2.03	AV
2	2483.5	47.58	54.00	-6.42	49.70	-2.12	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)
 Test Date : 2020/05/28

Vertical



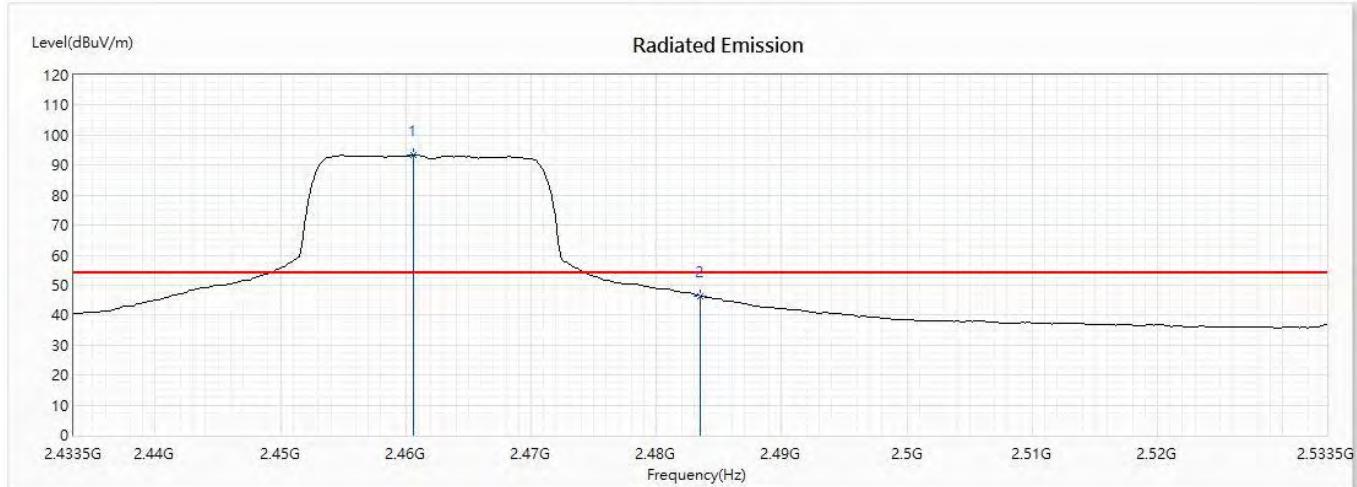
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
1	2456.688	102.94	--	--	104.90	-1.96	PK
2	2483.5	67.69	74.00	-6.31	69.81	-2.12	PK
3	2484.949	70.77	74.00	-3.23	72.91	-2.14	PK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

Product : Thermal Imager
 Test Item : Band Edge Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462MHz)
 Test Date : 2020/05/28

Vertical



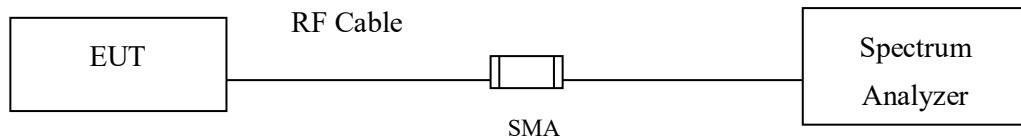
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Reading Level (dBuV)	Correct Factor (dB/m)	Detector Type
! 1	2460.601	93.37	--	--	95.35	-1.98	AV
2	2483.5	46.32	54.00	-7.68	48.44	-2.12	AV

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Emission Level = Reading Level + Correct Factor.

7. 6dB Bandwidth

7.1. Test Setup



7.2. Limits

The minimum bandwidth shall be at least 500 kHz.

7.3. Test Procedure

The EUT was setup according to ANSI C63.4, 2014; tested according to ANSI C63.10 Section 11.8 for compliance to FCC 47CFR 15.247 requirements.

7.4. Test Result of 6dB Bandwidth

Product : Thermal Imager
 Test Item : 6dB Bandwidth Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	10150	>500	Pass
06	2437	10200	>500	Pass
11	2462	10150	>500	Pass

Figure Channel 01:

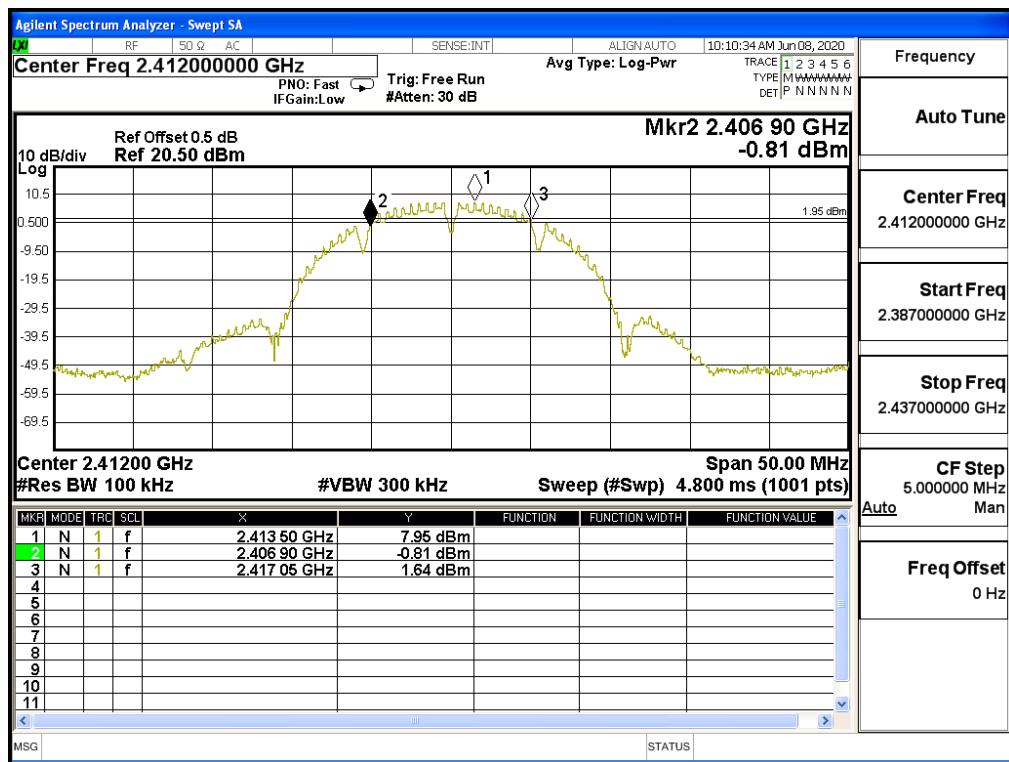


Figure Channel 06:

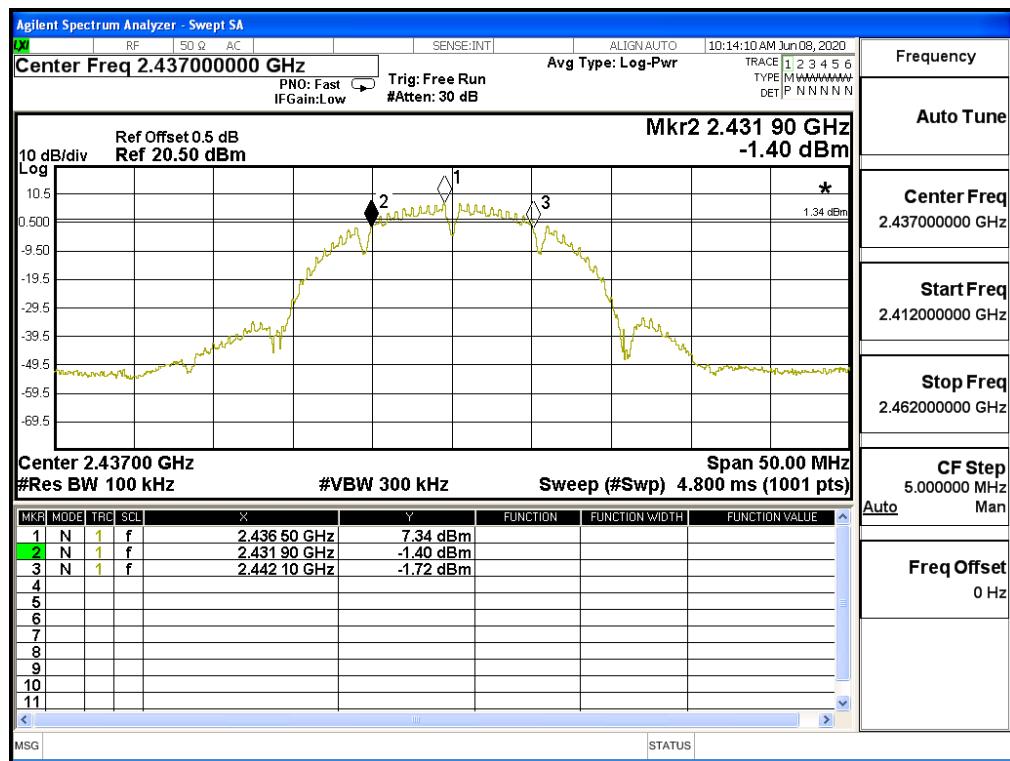
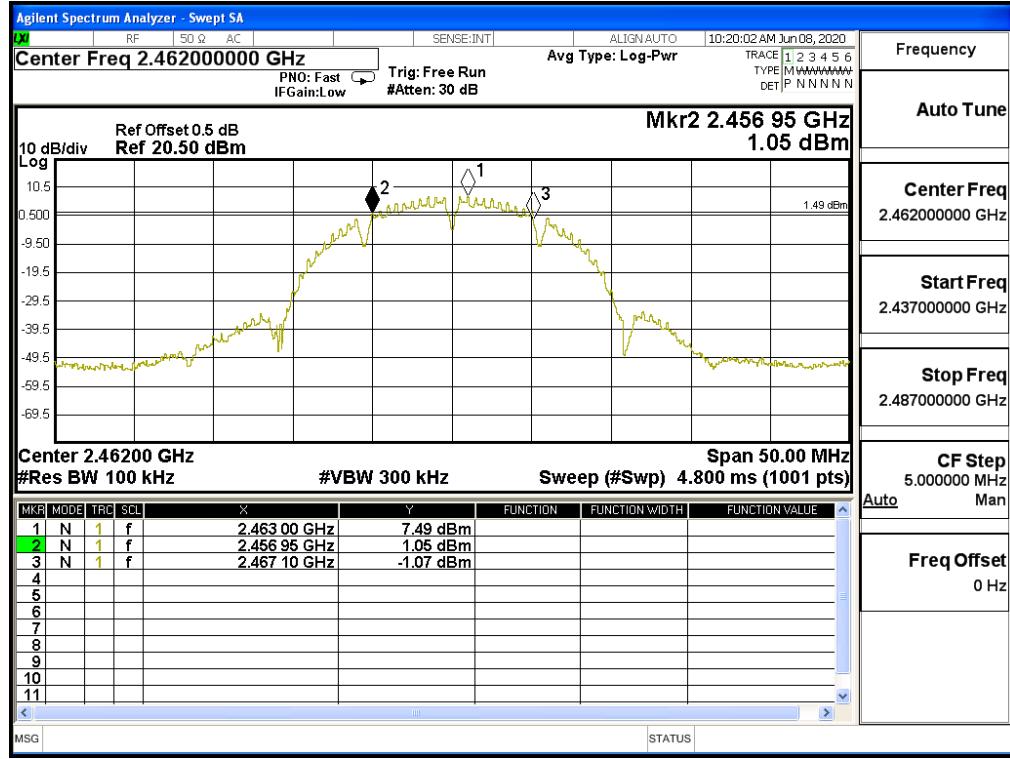


Figure Channel 11:



Product : Thermal Imager
 Test Item : 6dB Bandwidth Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	16400	>500	Pass
06	2437	16400	>500	Pass
11	2462	16400	>500	Pass

Figure Channel 01:

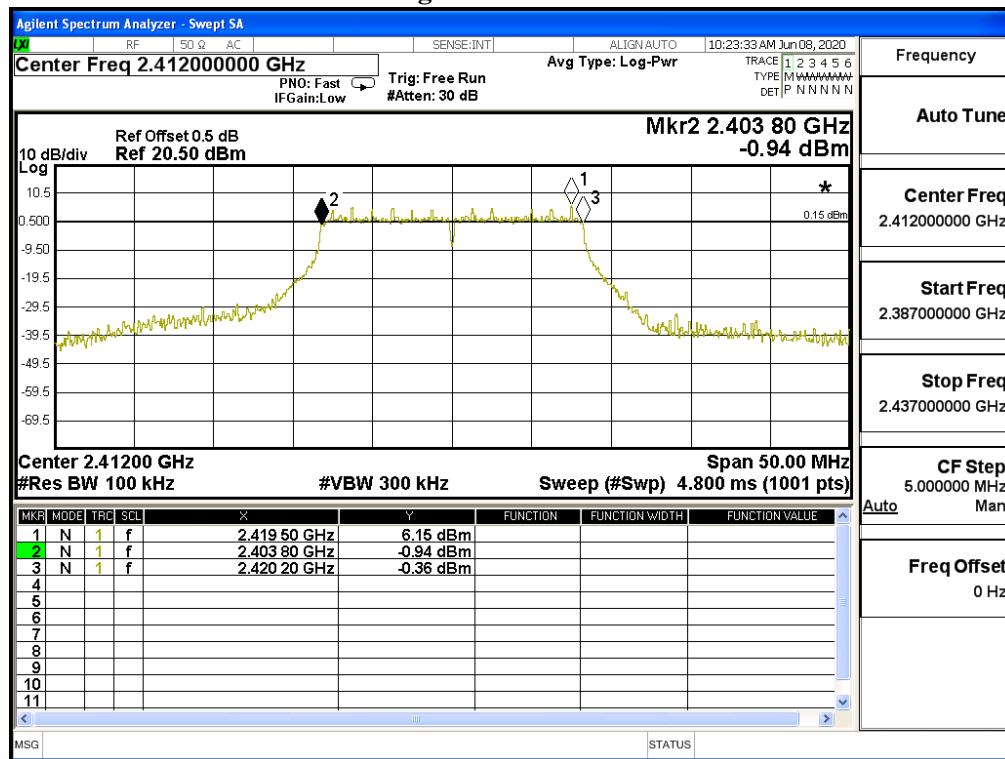


Figure Channel 06:

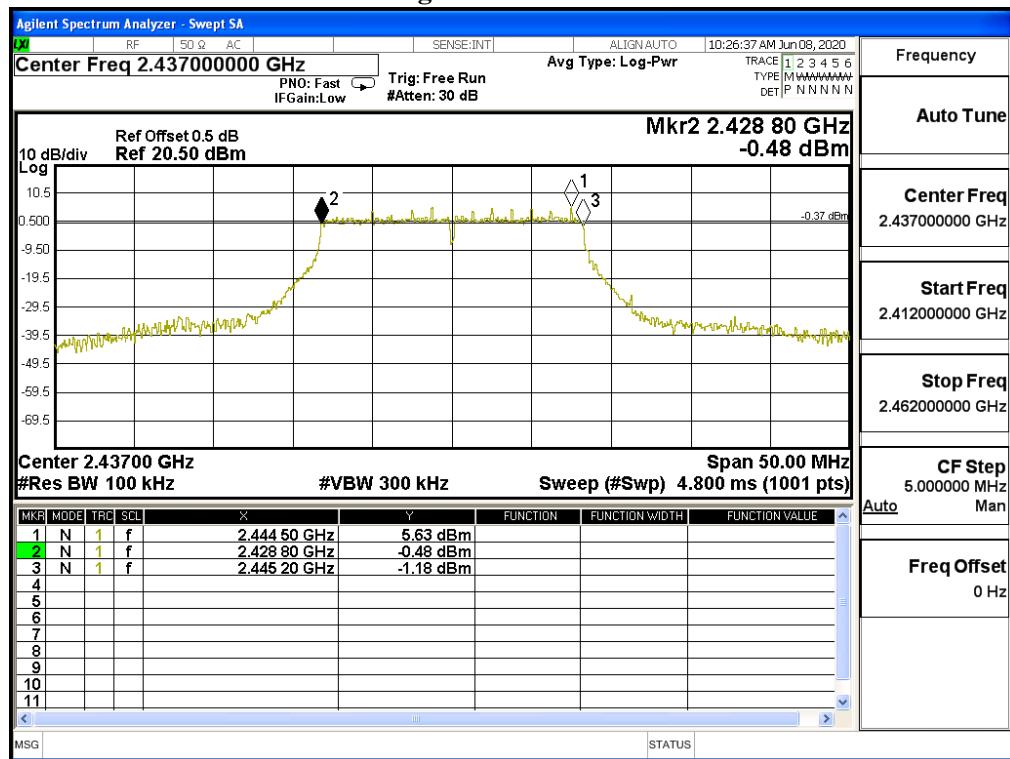
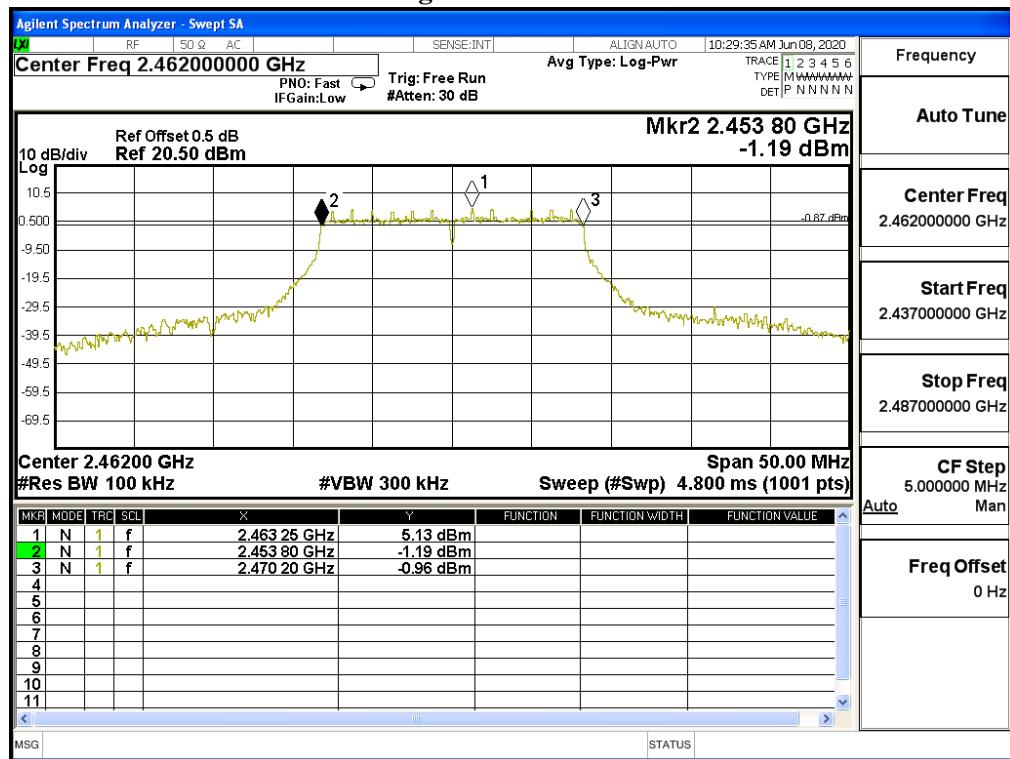


Figure Channel 11:



Product : Thermal Imager
 Test Item : 6dB Bandwidth Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
01	2412	17100	>500	Pass
06	2437	17650	>500	Pass
11	2462	17350	>500	Pass

Figure Channel 01:

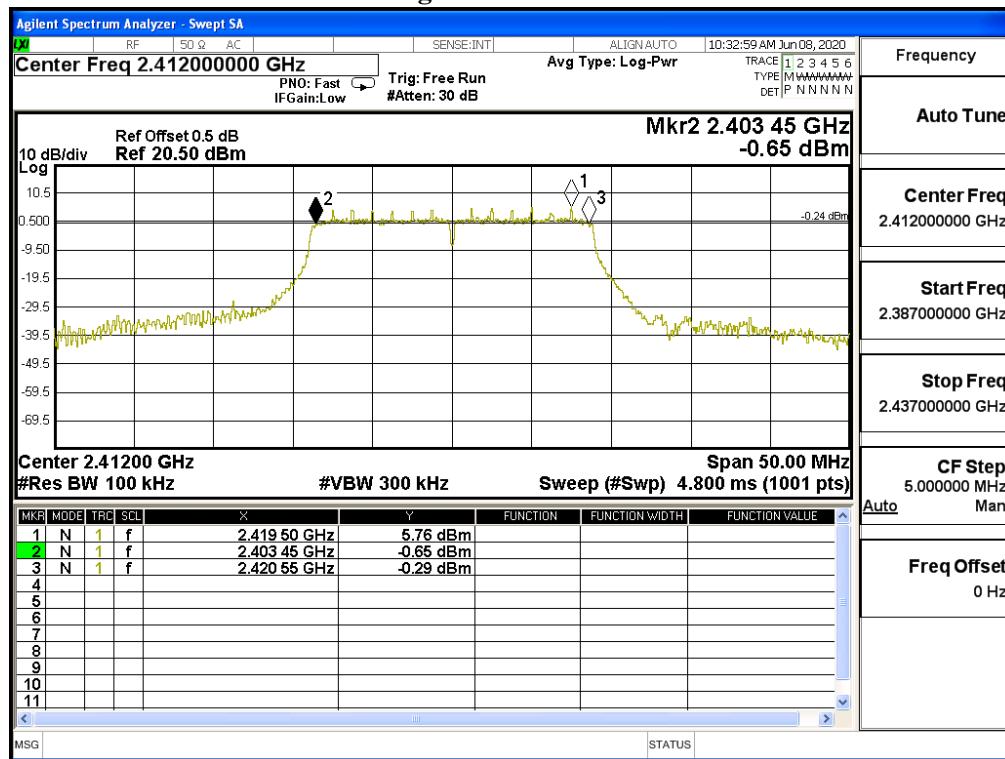


Figure Channel 06:

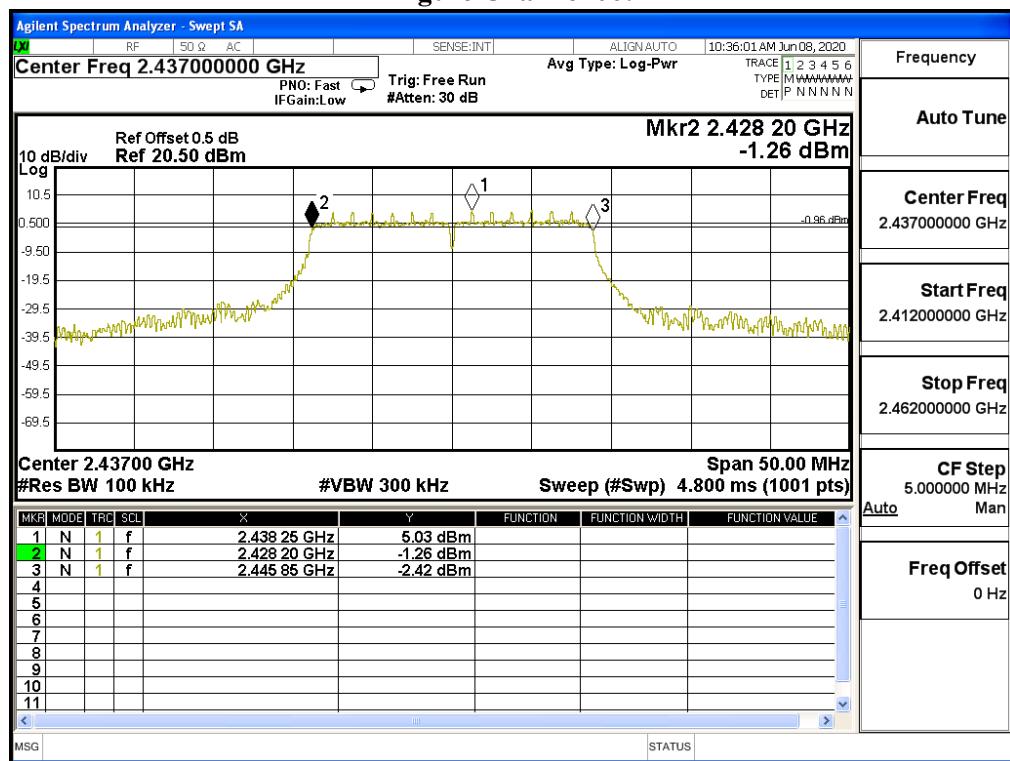
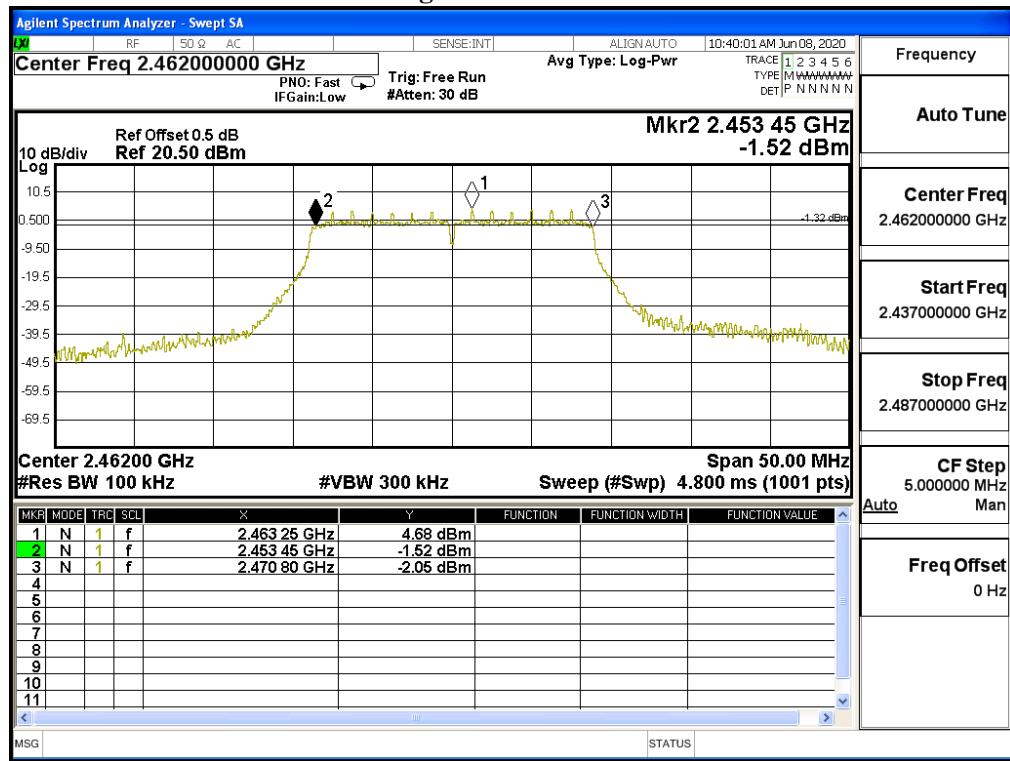
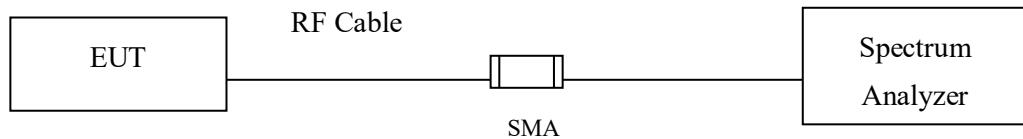


Figure Channel 11:



8. Power Density

8.1. Test Setup



8.2. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

8.3. Test Procedure

The EUT was setup according to ANSI C63.10, 2013; tested according to DTS test procedure of KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

The maximum power spectral density using C63.10 Section 11.10.2 Method PKPSD (peak PSD)

8.4. Test Result of Power Density

Product : Thermal Imager
 Test Item : Power Density Data
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Channel No.	Frequency (MHz)	Duty Factor (dB)	Reading Level (dBm)	Measurement Level (dBm)	Limit (dBm)	Result
01	2412	0.05	7.91	7.96	≤8dBm	Pass
06	2437	0.05	7.30	7.35	≤8dBm	Pass
11	2462	0.05	7.45	7.50	≤8dBm	Pass

Note: Measurement Level = Reading Level + Duty Factor

Figure Channel 01:

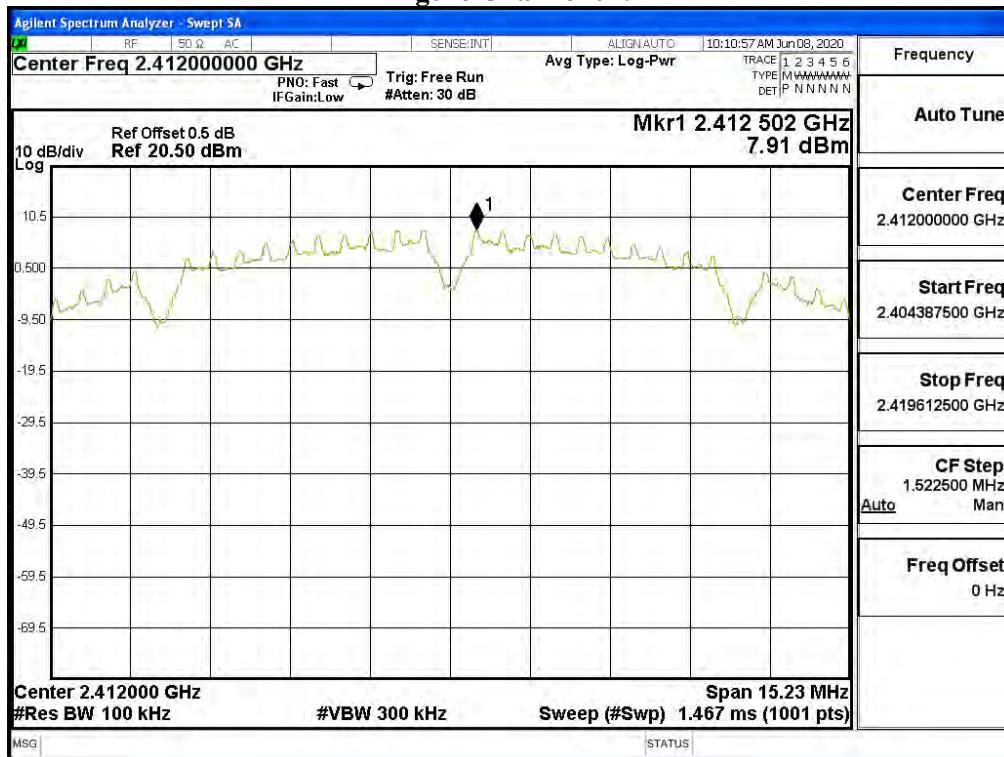


Figure Channel 06:

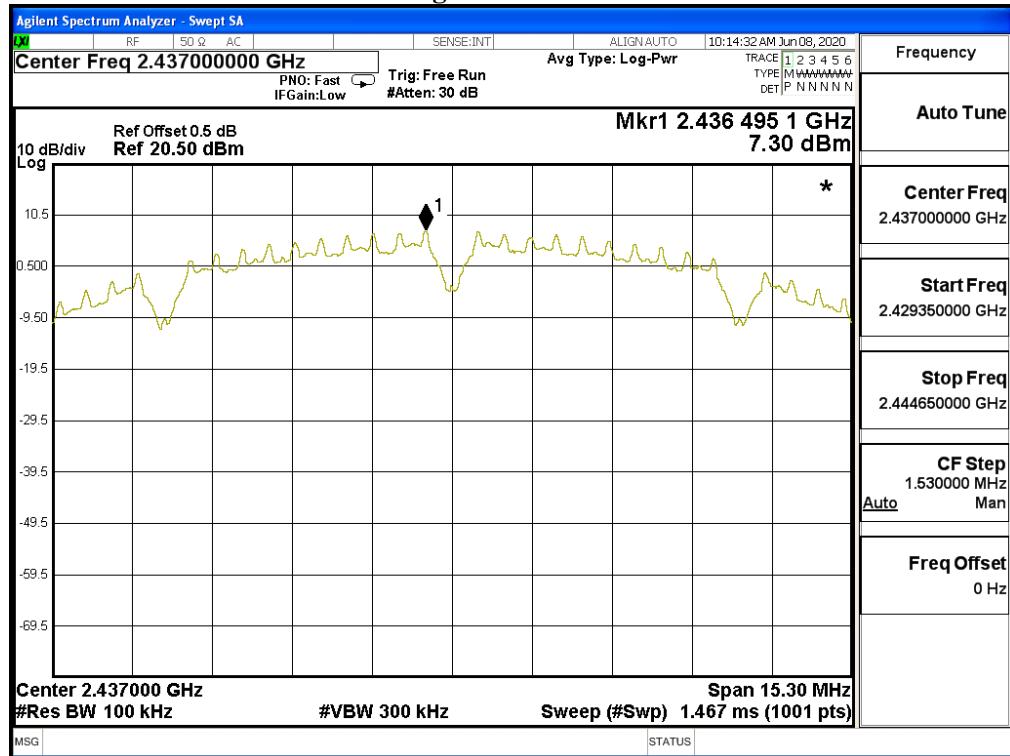
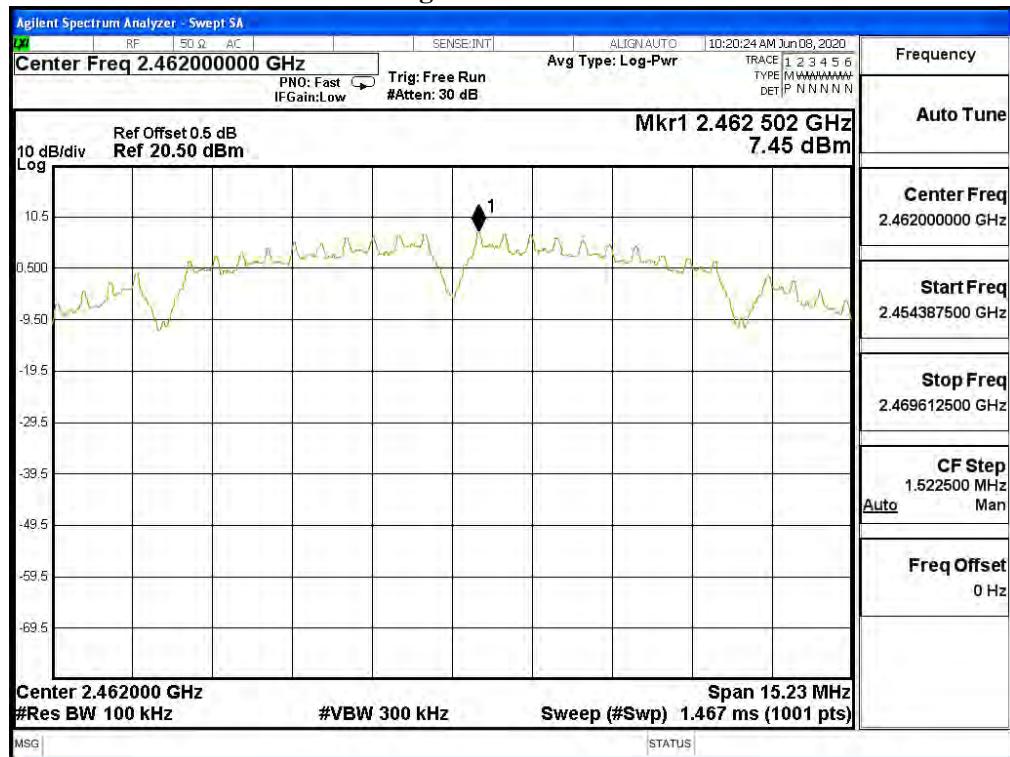


Figure Channel 11:



Product : Thermal Imager
 Test Item : Power Density Data
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Channel No.	Frequency (MHz)	Duty Factor (dB)	Reading Level (dBm)	Measurement Level (dBm)	Limit (dBm)	Result
01	2412	0.18	5.59	5.77	≤8dBm	Pass
06	2437	0.18	5.52	5.70	≤8dBm	Pass
11	2462	0.18	5.05	5.23	≤8dBm	Pass

Note: Measurement Level = Reading Level + Duty Factor

Figure Channel 01:

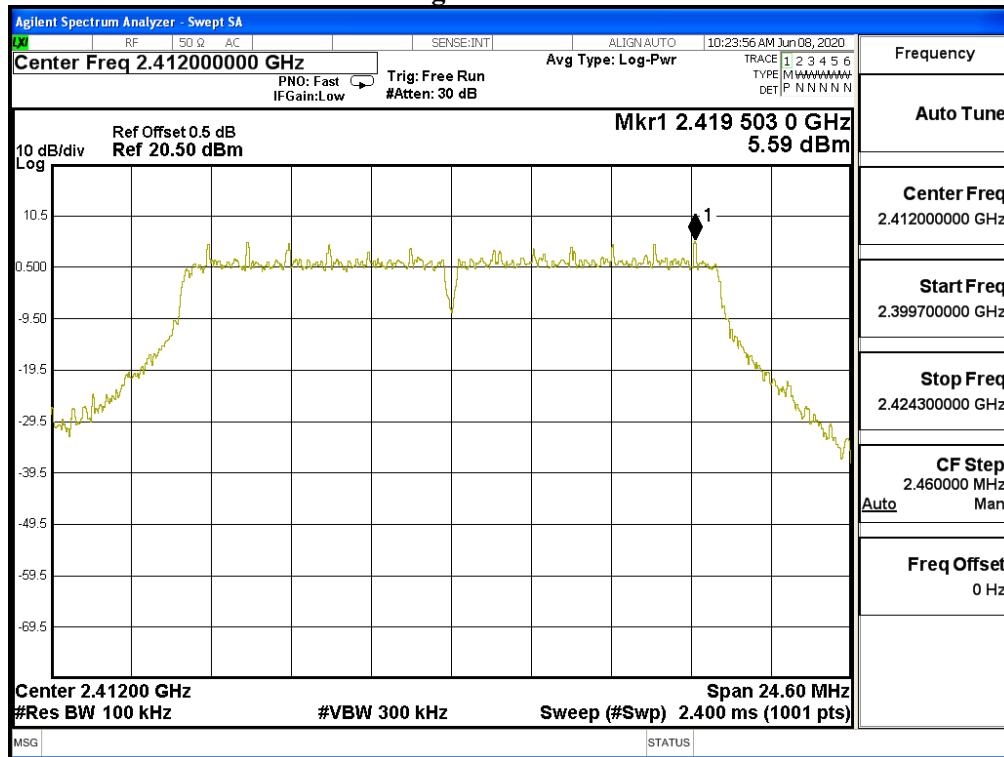


Figure Channel 06:

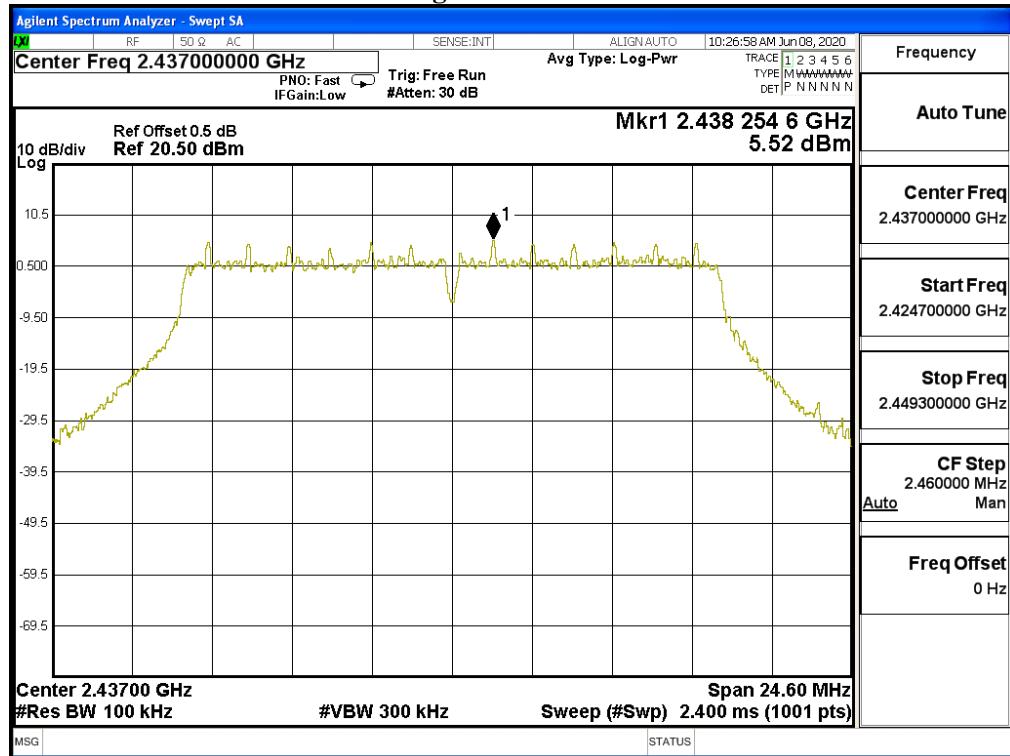
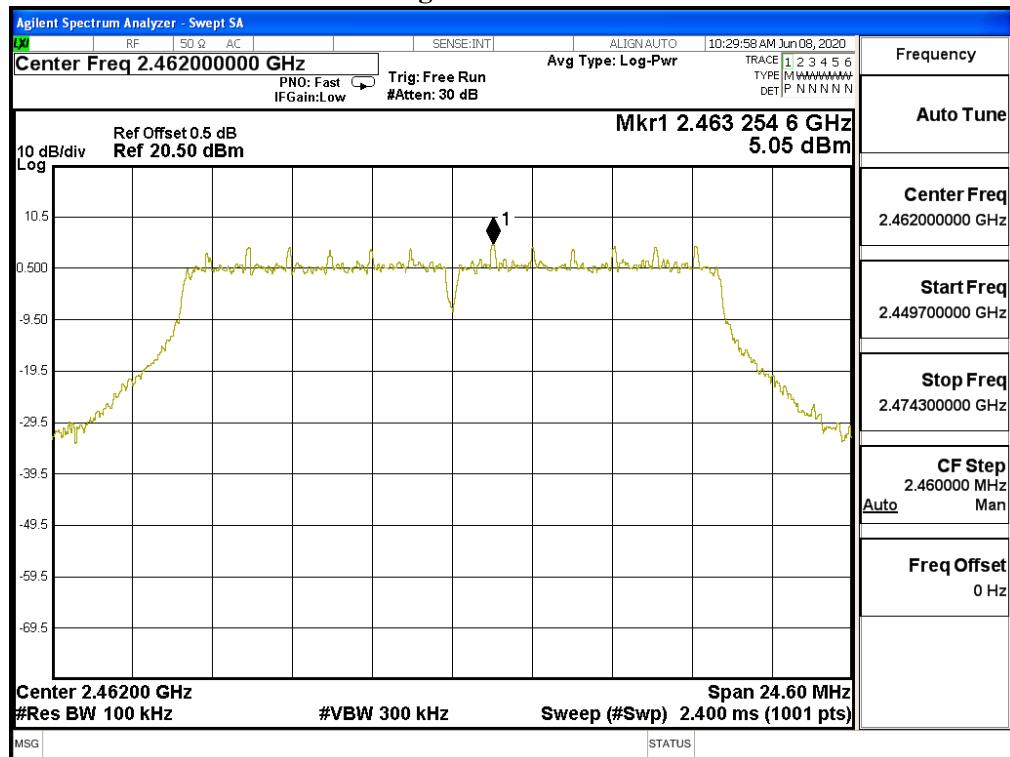


Figure Channel 11:



Product : Thermal Imager
 Test Item : Power Density Data
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Channel No.	Frequency (MHz)	Duty Factor (dB)	Reading Level (dBm)	Measurement Level (dBm)	Limit (dBm)	Result
01	2412	0.33	5.04	5.37	≤8dBm	Pass
06	2437	0.33	5.39	5.72	≤8dBm	Pass
11	2462	0.33	4.40	4.73	≤8dBm	Pass

Note: Measurement Level = Reading Level + Duty Factor

Figure Channel 01:

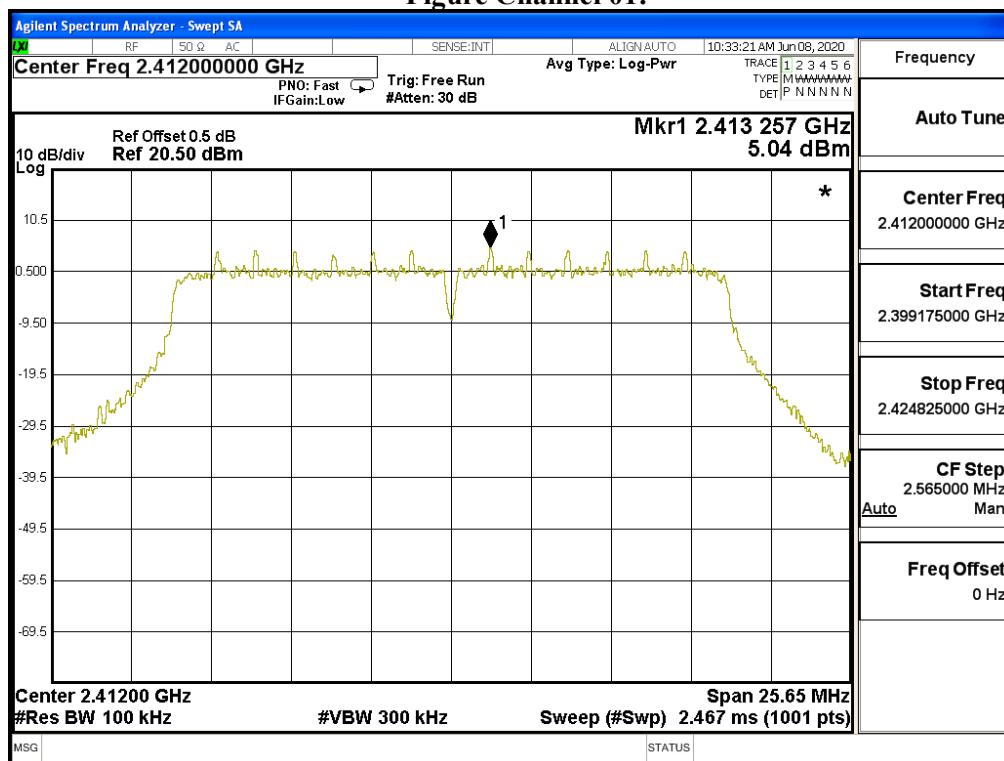


Figure Channel 06:

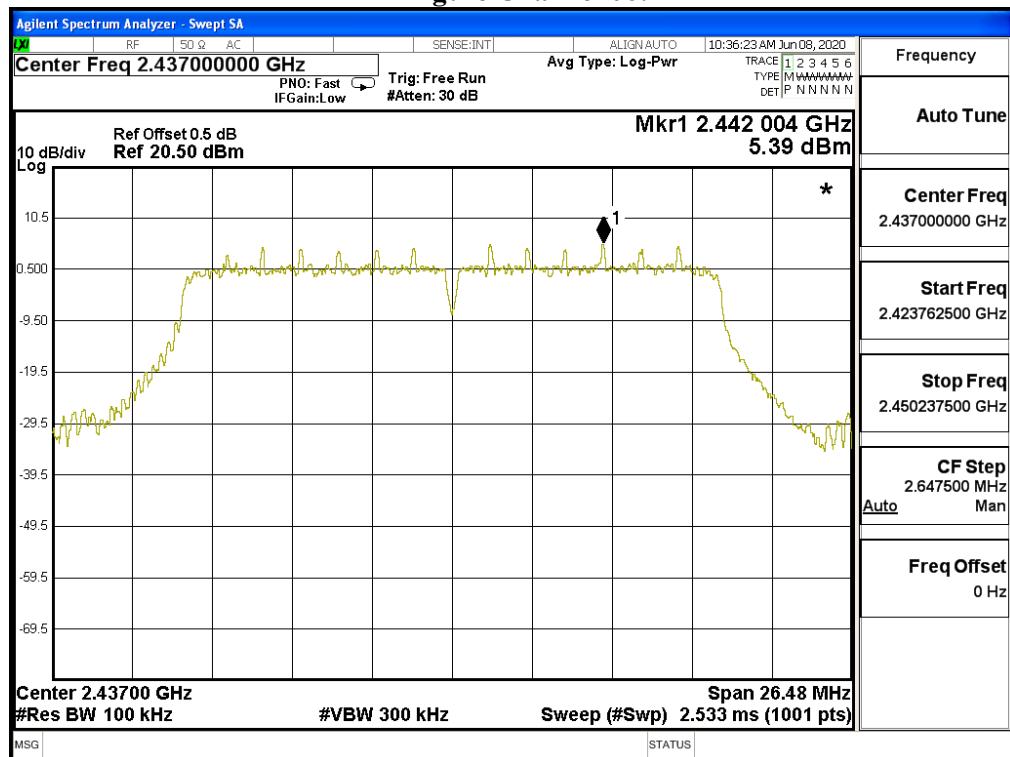
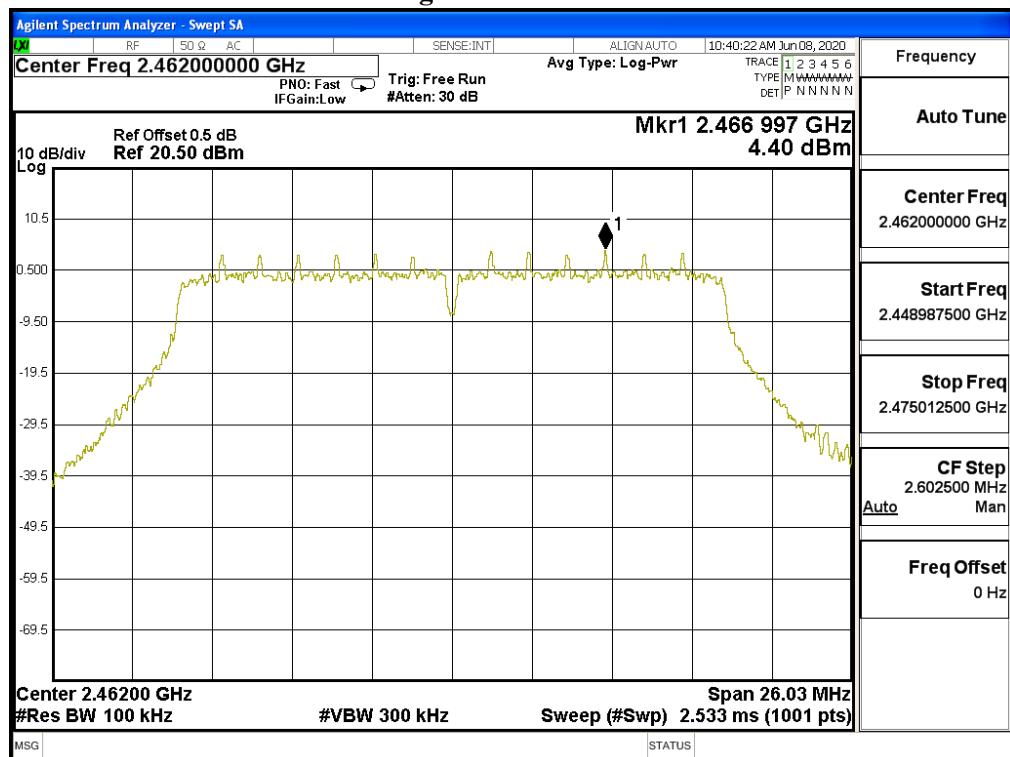
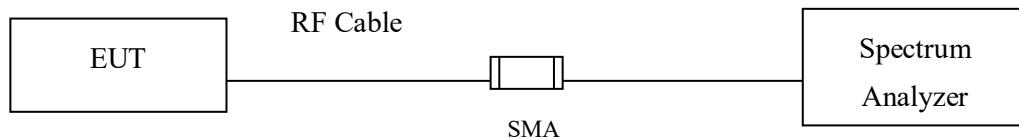


Figure Channel 11:



9. Duty Cycle

9.1. Test Setup



9.2. Test Procedure

The EUT was setup according to ANSI C63.10 2013; tested according to ANSI C63.10 2013 for compliance to FCC 47CFR 15.247 requirements.

9.3. Test Result of Duty Cycle

Product : Thermal Imager
 Test Item : Duty Cycle
 Test Mode : Transmit

Duty Cycle Formula:

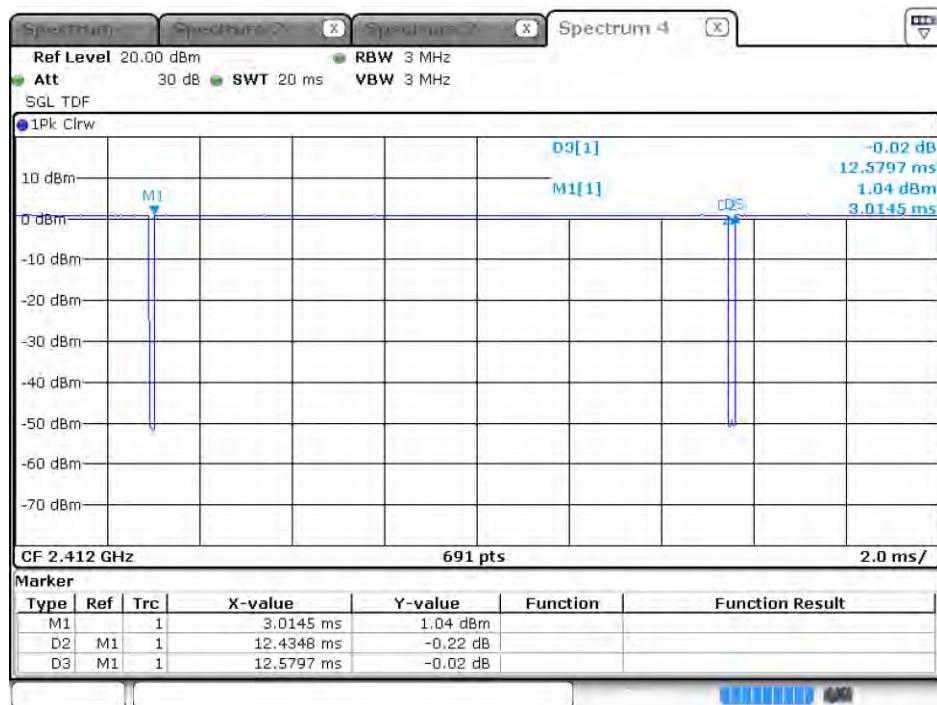
$$\text{Duty Cycle} = \text{Ton} / (\text{Ton} + \text{Toff})$$

$$\text{Duty Factor} = 10 \log (1/\text{Duty Cycle})$$

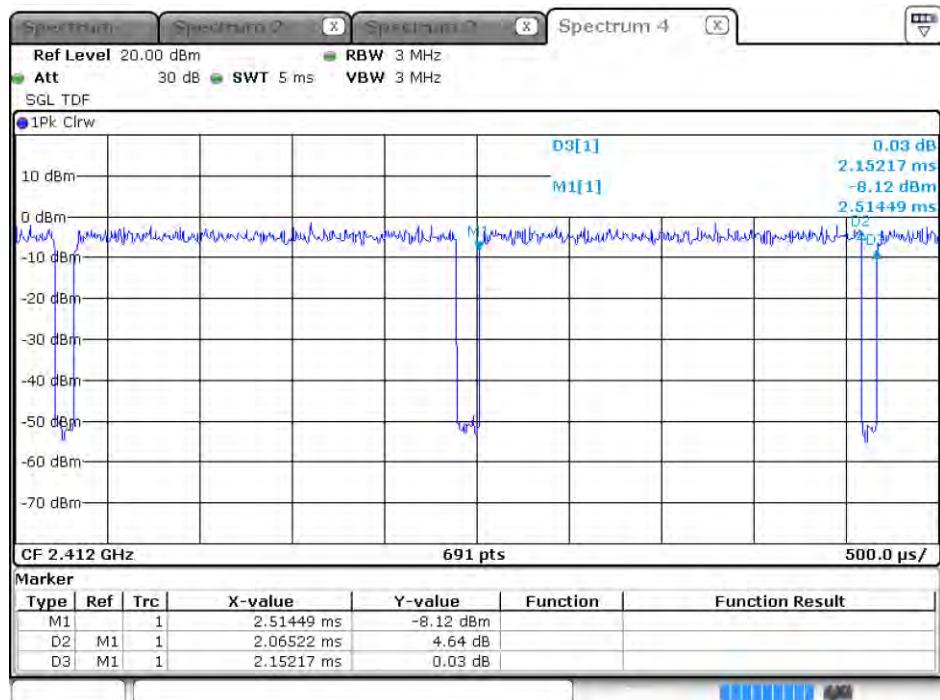
Results:

2.4GHz band	Ton (ms)	Ton + Toff (ms)	Duty Cycle (%)	Duty Factor (dB)
802.11b	12.4348	12.5797	98.85	0.05
802.11g	2.0652	2.1522	95.96	0.18
802.11n20	1.9203	2.0725	92.66	0.33

802.11b

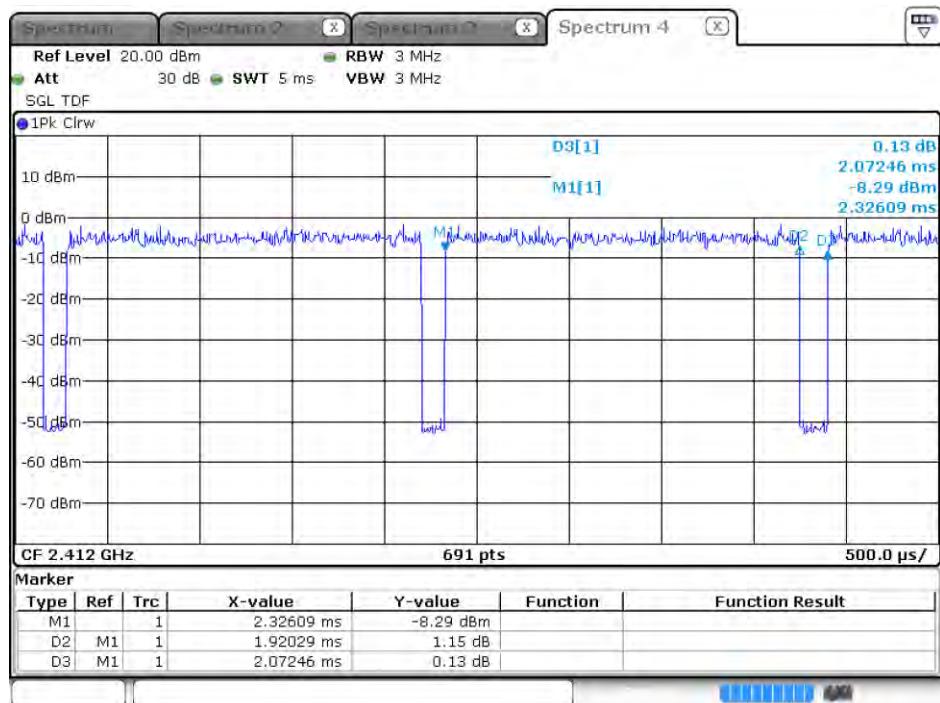


802.11g



Date: 1.JAN.2007 02:44:54

802.11n20



Date: 1.JAN.2007 02:47:07

10. EMI Reduction Method During Compliance Testing

No modification was made during testing.