

MEASUREMENT REPORT

FCC PART 15.247 Bluetooth-LE

FCC ID: 2A38RDAP64X

APPLICANT: Belden Hirschmann Industries (Suzhou) Ltd.

Application Type: Certification

Product: HIT Dragonfly Access Point

Model No.: DAP645-RW, DAP645-ME, DAP645-US, DAP645-JP
DAP646-RW, DAP646-ME, DAP646-US, DAP646-JP
DAP647-RW, DAP647-ME, DAP647-US, DAP647-JP

Brand Name: HIRSCHMANN IT

FCC Classification: Digital Transmission System (DTS)

FCC Rule Part(s): Part 15 Subpart C (Section 15.247)

Test Procedure(s): ANSI C63.10-2013, KDB 558074 D01v05r02;

Test Date: November 05, 2019 ~ March 01, 2020

Reviewed By:

Sunny Sun

Approved By:

Robin Wu



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
2201RSU009-U1	Rev. 01	Initial Report	03-23-2022	Valid

Note: This is a copy report based on MRT original report (report No.: 1911RSU003-U1). It changed the information of the applicant and the product. The hardware and software of the product are the same.

DAP645-RW/DAP646-RW/DAP647-RW corresponds to the three models in the original report respectively. Only a slight change in appearance, which has no impact on the test results.

CONTENTS

Description	Page
1. INTRODUCTION	6
1.1. Scope	6
1.2. MRT Test Location	6
2. PRODUCT INFORMATION.....	7
2.1. Feature of Equipment under Test	7
2.2. Product Specification Subjective to this Report	7
2.3. Working Frequencies for this report	8
2.4. Description of Available Antennas	9
2.5. Description of Antenna RF Port.....	11
2.6. Duty Cycle.....	12
2.7. EMI Suppression Device(s)/Modifications.....	12
2.8. Labeling Requirements	13
2.9. Test Software	13
3. DESCRIPTION OF TEST	14
3.1. Evaluation Procedure.....	14
3.2. AC Line Conducted Emissions.....	14
3.3. Radiated Emissions	15
4. ANTENNA REQUIREMENTS	16
5. TEST EQUIPMENT CALIBRATION DATE	17
6. MEASUREMENT UNCERTAINTY	19
7. TEST RESULT	20
7.1. Summary.....	20
7.2. 6dB Bandwidth Measurement.....	21
7.2.1. Test Limit	21
7.2.2. Test Procedure used	21
7.2.3. Test Setting	21
7.2.4. Test Setup	21
7.2.5. Test Result	22
7.3. Output Power Measurement	24
7.3.1. Test Limit	24
7.3.2. Test Procedure Used.....	24
7.3.3. Test Setting	24
7.3.4. Test Setup	24

7.3.5.	Test Result of Output Power	25
7.4.	Power Spectral Density Measurement.....	26
7.4.1.	Test Limit	26
7.4.2.	Test Procedure Used.....	26
7.4.3.	Test Setting	26
7.4.4.	Test Setup	26
7.4.5.	Test Result	27
7.5.	Conducted Band Edge and Out-of-Band Emissions	30
7.5.1.	Test Limit	30
7.5.2.	Test Procedure Used.....	30
7.5.3.	Test Settintg	30
7.5.4.	Test Setup	31
7.5.5.	Test Result	32
7.6.	Radiated Spurious Emission Measurement.....	37
7.6.1.	Test Limit	37
7.6.2.	Test Procedure Used.....	37
7.6.3.	Test Setting	37
7.6.4.	Test Setup	39
7.6.5.	Test Result	40
7.7.	Radiated Restricted Band Edge Measurement.....	60
7.7.1.	Test Limit	60
7.7.2.	Test Procedure Used.....	61
7.7.3.	Test Setting	61
7.7.4.	Test Setup	62
7.7.5.	Test Result	63
7.8.	AC Conducted Emissions Measurement	111
7.8.1.	Test Limit	111
7.8.2.	Test Setup	111
7.8.3.	Test Result	112
8.	CONCLUSION	114
	Appendix A - Test Setup Photograph.....	115
	Appendix B - EUT Photograph	116

General Information

Applicant:	Belden Hirschmann Industries (Suzhou) Ltd.
Applicant Address:	333 Yanhu Road, Huaqiao Town, Kunshan City, Jiangsu Province, P. R. China
Manufacturer:	Belden Hirschmann Industries (Suzhou) Ltd.
Manufacturer Address:	333 Yanhu Road, Huaqiao Town, Kunshan City, Jiangsu Province, P. R. China
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
Test Device Serial No.:	N/A ☐ Production ☒ Pre-Production ☐ Engineering

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC accredited (MRT Designation No. CN1166) test facility with the site description report on file and has met all the requirements specified in ANSI C63.4-2014.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-20025, G-20034, C-20020, T-20020) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications, Radio and SAR testing.



1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The measurement facility compliant with the test site requirements specified in ANSI C63.4-2014.



2. PRODUCT INFORMATION

2.1. Feature of Equipment under Test

Product Name:	HIT Dragonfly Access Point
Model No.:	DAP645-RW, DAP645-ME, DAP645-US, DAP645-JP DAP646-RW, DAP646-ME, DAP646-US, DAP646-JP DAP647-RW, DAP647-ME, DAP647-US, DAP647-JP
Brand Name:	HIRSCHMANN IT
Wi-Fi Specification:	802.11a/b/g/n/ac/ax
Bluetooth Specification:	v5.1 single mode
Operating Temperature:	-40 ~ 65 °C
Power Type:	PoE input
Operating Environment:	Outdoor Use
Accessories	
PoE Injector	Model No.: PD-9501GC/AC Input Power: 100 - 240V ~ 50/60Hz, 1.5A Output Power: 55VDC/1.1A
Remark:	
- PoE Injector is not sold with the product. - The difference between DAP645, DAP646 and DAP647 is that EUT use different antennas. The -RW, -ME, -US and -JP are only market requirements, all hardware and software are consistent. - The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

2.2. Product Specification Subjective to this Report

Frequency Range:	2400MHz ~ 2483.5MHz
Number of Channels:	40
Data Rate:	1MHz & 2MHz
Type of Modulation:	GFSK

Note: For other features of this EUT, test report will be issued separately.

2.3. Working Frequencies for this report

Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz
03	2408 MHz	04	2410 MHz	05	2412 MHz
06	2414 MHz	07	2416 MHz	08	2418 MHz
09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz
15	2432 MHz	16	2434 MHz	17	2436 MHz
18	2438 MHz	19	2440 MHz	20	2442 MHz
21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz
27	2456 MHz	28	2458 MHz	29	2460 MHz
30	2462 MHz	31	2464 MHz	32	2466 MHz
33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz
39	2480 MHz	--	--	--	--

2.4. Description of Available Antennas

Model No.: DAP645-RW

Antenna Type	Frequency Band (GHz)	T _x Paths	Bandwidth (MHz)	Max Peak Gain (dBi)				Directional Gain (dBi)	
				Ant 0	Ant 1	Ant 2	Ant 3	CDD	Beamforming
Wi-Fi Internal Antenna List (2.4GHz 2*2 MIMO, 5GHz 4*4 MIMO)									
Omni Antenna	2400 ~ 2483.5	2	20, 40	4.72	4.85	--	--	4.85	7.86
	5150 ~ 5850	4	20, 40, 80	6.48	6.31	6.26	6.12	6.48	12.50
	5150 ~ 5250 30° elevation angle	4	20, 40, 80	-5.46	-4.22	-2.90	-3.84	--	
Bluetooth Internal Antenna									
Antenna Type		Frequency Band (GHz)				Max Peak Gain (dBi)			
Omni Antenna		2400 ~ 2483.5				4.64			
Scan Antenna									
Antenna Type		Frequency Band (GHz)				Max Peak Gain (dBi)			
Omni Antenna		2400 ~ 2483.5				4.58			
		5150 ~ 5850				6.00			
		5150 ~ 5250 30° elevation angle				-5.83			

Model No.: DAP646-RW

Antenna Type	Frequency Band (GHz)	Tx Paths	Bandwidth (MHz)	Max Peak Gain (dBi)				Directional Gain (dBi)	
				Ant 0	Ant 1	Ant 2	Ant 3	CDD	Beamforming
Wi-Fi Internal Antenna List (2.4GHz 2*2 MIMO, 5GHz 4*4 MIMO)									
Directional Antenna	2400 ~ 2483.5	2	20, 40	7.5	7.0	--	--	7.5	10.51
	5150 ~ 5850	4	20, 40, 80	7.4	7.0	6.9	7.2	7.4	13.42
	5150 ~ 5250 30° elevation angle	4	20, 40, 80	3.12	2.98	3.24	3.65	--	
Bluetooth Internal Antenna									
Antenna Type		Frequency Band (GHz)				Max Peak Gain (dBi)			
Omni Antenna		2400 ~ 2483.5				3.30			
Scan Antenna									
Antenna Type		Frequency Band (GHz)				Max Peak Gain (dBi)			
Omni Antenna		2400 ~ 2483.5				7.20			
		5150 ~ 5850				9.40			
		5150 ~ 5250 30° elevation angle				2.88			

Model No.: DAP647-RW

Antenna Type	Frequency Band (GHz)	T _x Paths	Bandwidth (MHz)	Max Peak Gain (dBi)	Directional Gain (dBi)	
					CDD	Beamforming
Wi-Fi Internal Antenna List (2.4GHz 2*2 MIMO, 5GHz 4*4 MIMO)						
Omni Antenna	2400 ~ 2483.5	2	20, 40	5	5	8.01
	5150 ~ 5850	4	20, 40, 80	7	7	13.02
	5150 ~ 5250 30° elevation angle	4	20, 40, 80	-0.3	--	
Bluetooth Internal Antenna						
Antenna Type		Frequency Band (GHz)		Max Peak Gain (dBi)		
Omni Antenna		2400 ~ 2483.5		4.06		
Scan Antenna						
Antenna Type		Frequency Band (GHz)		Max Peak Gain (dBi)		
Omni Antenna		2400 ~ 2483.5		4.58		
		5150 ~ 5850		6.00		
		5150 ~ 5250 30° elevation angle		2.88		

Note 1: The EUT supports Cyclic Delay Diversity (CDD) technology for 802.11a/b/g/n/ac/ax and Beam Forming technology for 802.11n/ac/ax.

Note 2: When the EUT supports Cyclic Delay Diversity (CDD) and it is correlated.

If all antennas have the same gain, G_{ANT} , Directional gain = $G_{ANT} + \text{Array Gain}$, where Array Gain is as follows.

- For power spectral density (PSD) measurements on all devices,
Array Gain = $10 \log (N_{ANT} / N_{SS})$ dB = 3.01;
- For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB for $N_{ANT} \leq 4$;

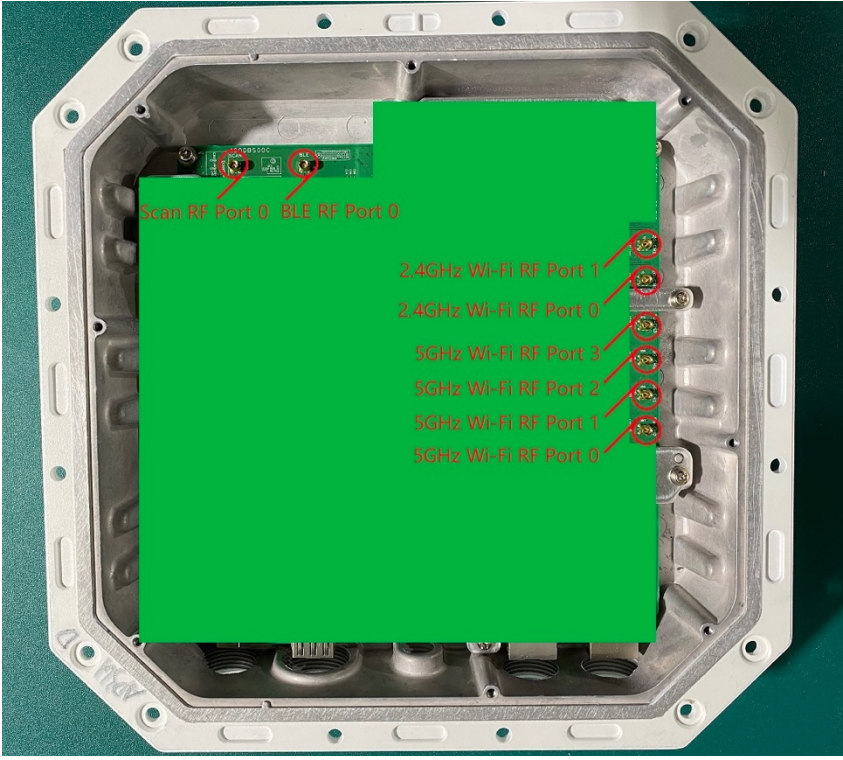
If antenna gains are not equal, Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain.

Note 3: The EUT also supports Beam Forming mode, Directional gain = $G_{ANT} + 10 \log(N_{ANT}/N_{SS})$ dBi,

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain.

2.5. Description of Antenna RF Port

Antenna RF Port								
--	2.4GHz RF Port		5GHz RF Port				Scan RF Port	BLE RF Port
Software Control Port	Ant 0	Ant 1	Ant 0	Ant 1	Ant 2	Ant 3	Ant 0	Ant 0



Scan RF Port 0 BLE RF Port 0

2.4GHz Wi-Fi RF Port 1

2.4GHz Wi-Fi RF Port 0

5GHz Wi-Fi RF Port 3

5GHz Wi-Fi RF Port 2

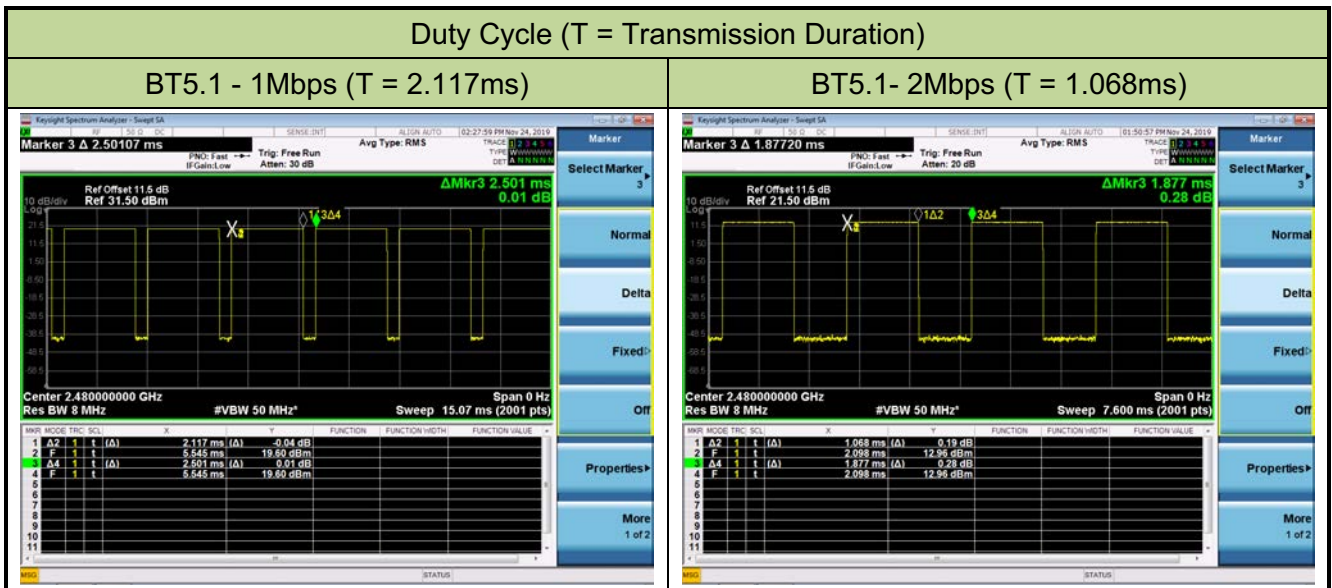
5GHz Wi-Fi RF Port 1

5GHz Wi-Fi RF Port 0

2.6. Duty Cycle

The maximum achievable duty cycle was determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Test Mode	Duty Cycle
BT5.1 - 1Mbps	84.65%
BT5.1 - 2Mbps	56.90%



2.7. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.8. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase.

However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

2.9. Test Software

The test utility software used during testing was "Console".

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Testing Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance provided in ANSI C63.10-2013 were used in the measurement.

Deviation from measurement procedure.....None

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50 Ω /50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions were used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2013.

3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the Antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable. For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive Antenna height using a broadband Antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn Antennas were used. For frequencies below 30MHz, a calibrated loop Antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband Antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive Antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn Antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive Antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive Antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn Antenna, the horn Antenna should be always directed to the EUT when rising height.

4. ANTENNA REQUIREMENTS

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

Conclusion:

The product is defined as the professional installation of equipment by the manufacturer, there is no necessary to comply with the requirement of §15.203.

5. TEST EQUIPMENT CALIBRATION DATE

Conducted Emissions - SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2020/04/15
Two-Line V-Network	R&S	ENV 216	MRTSUE06002	1 year	2020/06/13
Two-Line V-Network	R&S	ENV 216	MRTSUE06003	1 year	2020/06/13
Thermohygrometer	Testo	608-H1	MRTSUE06404	1 year	2020/08/08
Shielding Room	MIX-BEP	Chamber-SR2	MRTSUE06215	N/A	N/A

Radiated Emissions - AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2020/08/01
PXA Signal Analyzer	Keysight	9030B	MRTSUE06395	1 year	2020/09/03
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2020/11/10
Bilog Period Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2020/03/31
Broad Band Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2020/10/13
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06024	1 year	2020/12/17
Microwave System Amplifier	Agilent	83017A	MRTSUE06076	1 year	2020/11/15
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2020/06/11
Thermohygrometer	Testo	608-H1	MRTSUE06403	1 year	2020/08/08
Anechoic Chamber	TDK	Chamber-AC1	MRTSUE06212	1 year	2020/04/30

Radiated Emission - AC2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Keysight	N9038A	MRTSUE06125	1 year	2020/08/01
Loop Antenna	Schwarzbeck	FMZB 1519	MRTSUE06025	1 year	2020/11/10
Bilog Period Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2020/10/13
Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06171	1 year	2020/10/27
Broad Band Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06024	1 year	2020/12/17
Broadband Coaxial Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2020/11/15
Preamplifier	Schwarzbeck	BBV 9721	MRTSUE06121	1 year	2020/06/11
Temperature/Humidity Meter	Minggao	ETH529	MRTSUE06170	1 year	2020/12/13
Anechoic Chamber	RIKEN	Chamber-AC2	MRTSUE06213	1 year	2020/04/30

Conducted Test Equipment - TR3

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2020/04/15
EXA Signal Analyzer	Keysight	N9010B	MRTSUE06452	1 year	2020/07/11
Signal Analyzer	R&S	FSV40	MRTSUE06218	1 year	2020/04/15
Power Meter	Agilent	U2021XA	MRTSUE06030	1 year	2020/11/18
USB wideband power sensor	Keysight	U2021XA	MRTSUE06446	1 year	2020/06/30
USB wideband power sensor	Keysight	U2021XA	MRTSUE06447	1 year	2020/06/30
Bluetooth Test Set	Anritsu	MT8852B-042	MRTSUE06389	1 year	2020/06/13
Audio Analyzer	Agilent	U8903B	MRTSUE06143	1 year	2020/06/13
Modulation Analyzer	HP	8901A	MRTSUE06098	1 year	2020/10/10
Wideband Radio Communication Tester	R&S	CMW 500	MRTSUE06243	1 year	2020/11/07
DC Power Supply	GWINSTEK	DPS-3303C	MRTSUE06064	N/A	N/A
Temperature & Humidity Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2020/11/07
Thermohygrometer	testo	608-H1	MRTSUE06401	1 year	2020/08/08

Software	Version	Function
EMI Software	V3	EMI Test Software

6. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Conducted Emission Measurement - SR2

The maximum measurement uncertainty is evaluated as:

9kHz~150kHz: 3.84dB

150kHz~30MHz: 3.46dB

Radiated Emission Measurement - AC1

The maximum measurement uncertainty is evaluated as:

Horizontal: 30MHz~300MHz: 4.07dB

300MHz~1GHz: 3.63dB

1GHz~18GHz: 4.16dB

Vertical: 30MHz~300MHz: 4.18dB

300MHz~1GHz: 3.60dB

1GHz~18GHz: 4.76dB

Radiated Emission Measurement - AC2

The maximum measurement uncertainty is evaluated as:

Horizontal: 30MHz~300MHz: 3.75dB

300MHz~1GHz: 3.53dB

1GHz~18GHz: 4.28dB

Vertical: 30MHz~300MHz: 3.86dB

300MHz~1GHz: 3.53dB

1GHz~18GHz: 4.33dB

7. TEST RESULT

7.1. Summary

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.247(a)(2)	6dB Bandwidth	$\geq 500\text{kHz}$	Conducted	Pass	Section 7.2
15.247(b)(3)	Output Power	$\leq 30\text{dBm}$		Pass	Section 7.3
15.247(e)	Power Spectral Density	$\leq 8\text{dBm}/3\text{kHz}$		Pass	Section 7.4
15.247(d)	Band Edge / Out-of-Band Emissions	$\leq 20\text{dBc}$ (Peak)		Pass	Section 7.5
15.205 15.209	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209	Radiated	Pass	Section 7.6 & 7.7
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 7.8

Notes:

- The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
- All modes of operation and data rates were investigated. For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst case emissions.
- The difference between models is that EUT use different antennas and appearances, other hardware and software are the same, so we only use the DAP646-RW to perform all conducted tests.

7.2. 6dB Bandwidth Measurement

7.2.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

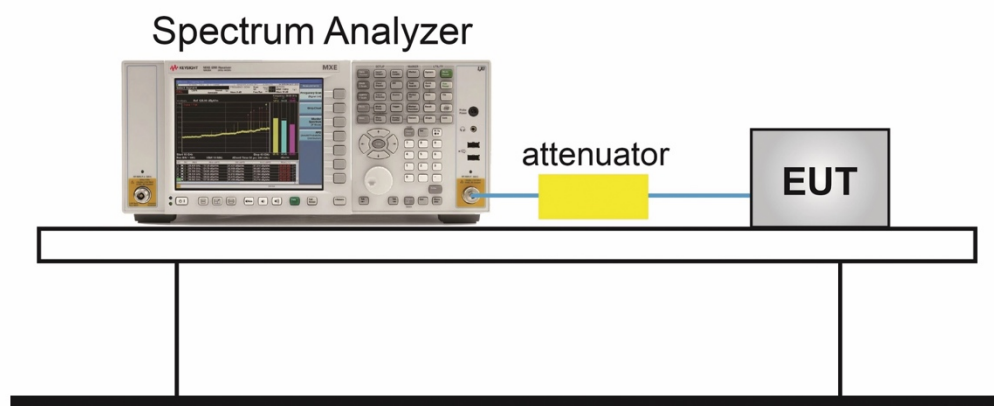
7.2.2. Test Procedure used

ANSI C63.10-2013 - Section 11.8.2 Option 2

7.2.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to $X = 6$. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set RBW = 100 kHz
3. $VBW \geq 3 \times RBW$
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace was allowed to stabilize

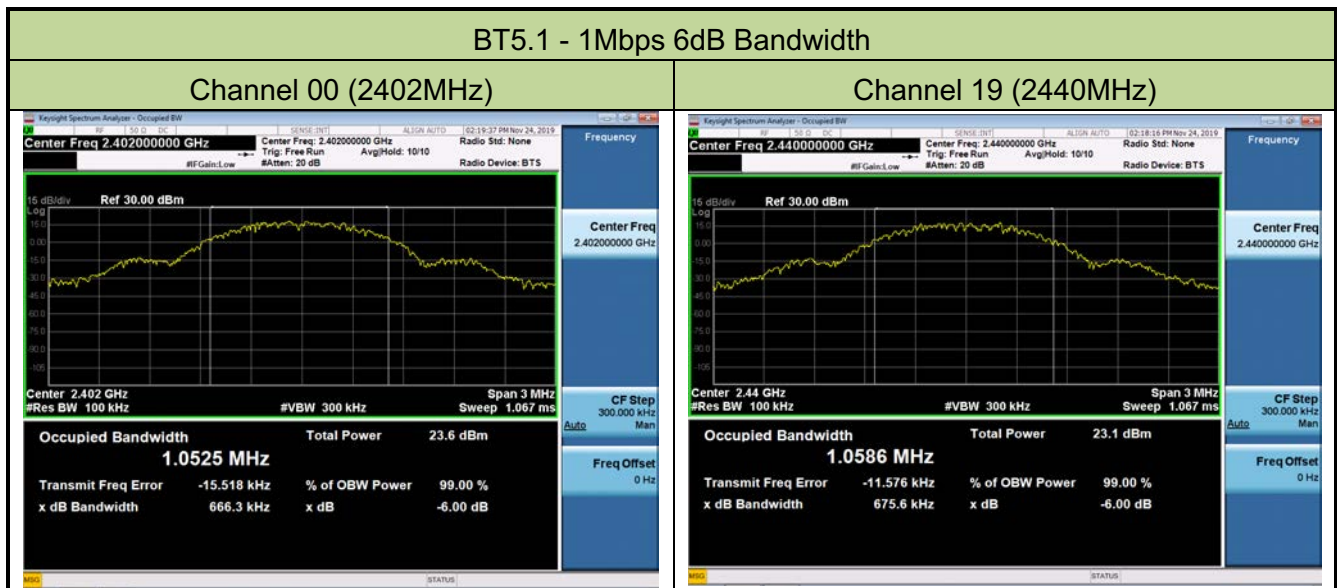
7.2.4. Test Setup



7.2.5. Test Result

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Eric Xu	Relative Humidity	52%
Test Site	TR3	Test Date	2019/11/24
Model No.	DAP646-RW		

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Result
BT5.1	1	00	2402	0.67	≥ 0.5	Pass
		19	2440	0.68	≥ 0.5	Pass
		39	2480	0.67	≥ 0.5	Pass
	2	00	2402	1.33	≥ 0.5	Pass
		19	2440	1.35	≥ 0.5	Pass
		39	2480	1.27	≥ 0.5	Pass



Channel 39 (2480MHz)



BT5.1 - 2Mbps 6dB Bandwidth

Channel 00 (2402MHz)



Channel 19 (2440MHz)



Channel 39 (2480MHz)



7.3. Output Power Measurement

7.3.1. Test Limit

The maximum out power shall be less 1 Watt (30dBm).

7.3.2. Test Procedure Used

ANSI C63.10-2013 - Section 11.9.2.3

7.3.3. Test Setting

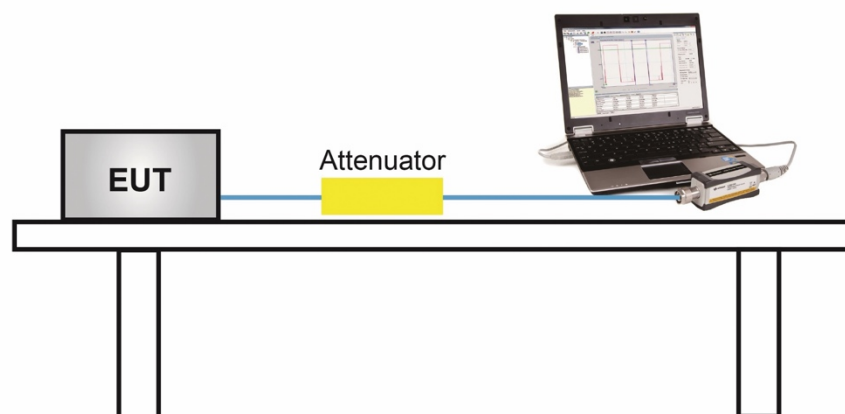
Method PKPM1 (Peak Power Measurement of Signals with DTS BW $\leq$ 50MHz)

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

Method AVGPM-G (Measurement using a gated RF average-reading power meter)

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required.

7.3.4. Test Setup



7.3.5. Test Result of Output Power

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Eric Xu	Relative Humidity	56%
Test Site	TR3	Test Date	2019/11/20
Model No.	DAP646-RW		

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Average Power (dBm)	Limit (dBm)	Result
BT5.1	1	00	2402	19.25	≤ 30.00	Pass
		19	2440	18.72	≤ 30.00	Pass
		39	2480	19.47	≤ 30.00	Pass
	2	00	2402	19.26	≤ 30.00	Pass
		19	2440	18.72	≤ 30.00	Pass
		39	2480	13.19	≤ 30.00	Pass

7.4. Power Spectral Density Measurement

7.4.1. Test Limit

The maximum permissible power spectral density is 8dBm in any 3 kHz band.

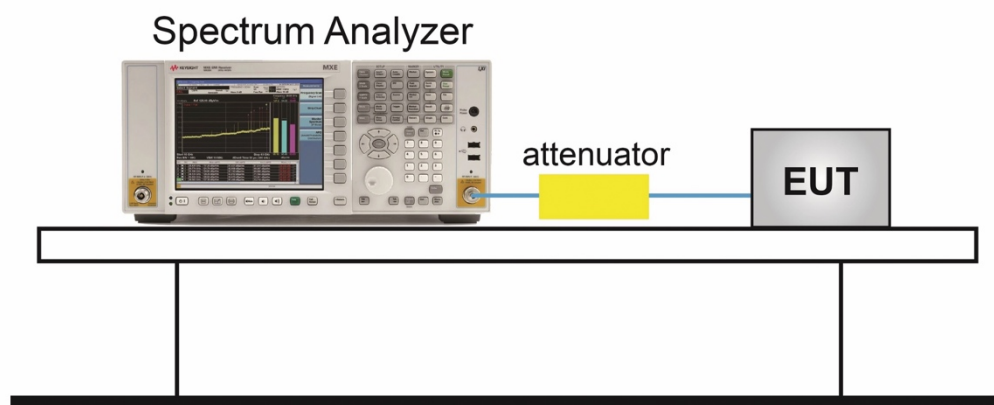
7.4.2. Test Procedure Used

ANSI C63.10 Section 11.10.2

7.4.3. Test Setting

1. Analyzer was set to the center frequency of the DTS channel under investigation
2. Span = 1.5 times the DTS channel bandwidth
3. RBW = 3kHz
4. VBW = 10kHz
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Trace was allowed to stabilize

7.4.4. Test Setup



7.4.5. Test Result

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Eric Xu	Relative Humidity	52%
Test Site	TR3	Test Date	2019/11/24
Model No.	DAP646-RW		

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	PSD Result (dBm / 10kHz)	Duty Cycle (%)	Constant Factor (dB)	PSD Result (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
BT5.1	1	00	2402	2.75	84.65	-5.23	-1.76	≤ 8.00	Pass
		19	2440	3.01	84.65	-5.23	-1.50	≤ 8.00	Pass
		39	2480	3.08	84.65	-5.23	-1.43	≤ 8.00	Pass
	2	00	2402	-1.41	56.90	-5.23	-4.19	≤ 8.00	Pass
		19	2440	-1.63	56.90	-5.23	-4.41	≤ 8.00	Pass
		39	2480	-6.90	56.90	-5.23	-9.68	≤ 8.00	Pass

BT5.1 - 1Mbps PSD

Channel 00 (2402MHz)



Channel 19 (2440MHz)

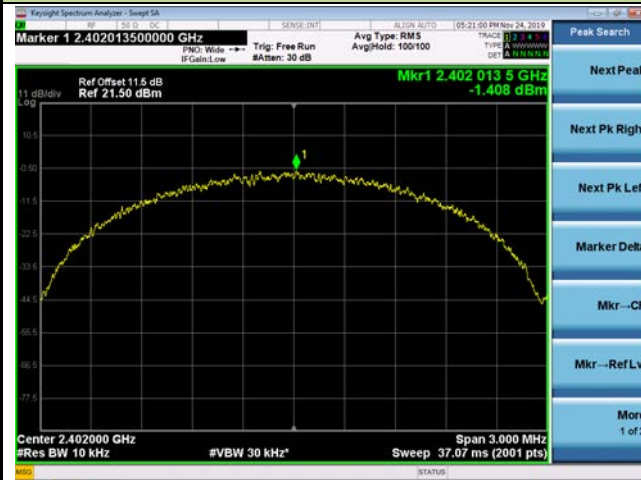


Channel 39 (2480MHz)



BT5.1 - 2Mbps PSD

Channel 00 (2402MHz)



Channel 19 (2440MHz)



Channel 39 (2480MHz)



7.5. Conducted Band Edge and Out-of-Band Emissions

7.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure.

7.5.2. Test Procedure Used

ANSI C63.10 Section 11.11

7.5.3. Test Setting

Reference level measurement

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to ≥ 1.5 times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW $\geq 3 \times$ RBW
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow trace to fully stabilize

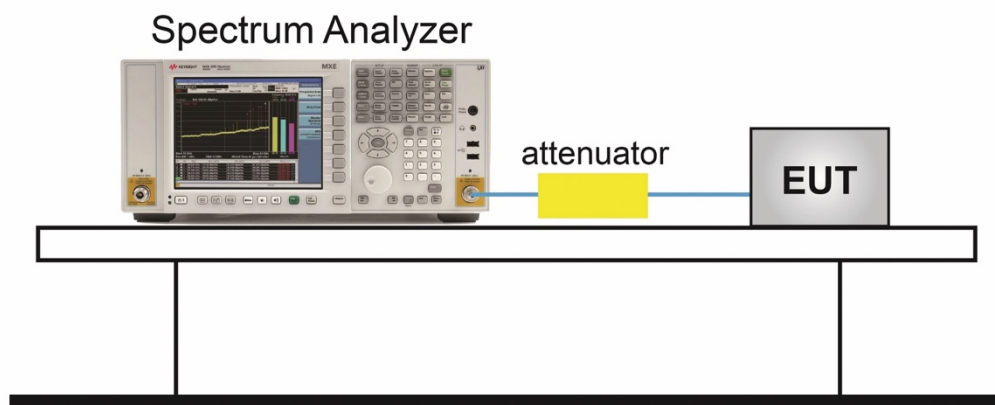
Emission level measurement

1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 100kHz
3. VBW = 300kHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

Test Notes

1. RBW was set to 1.3MHz rather than 100KHz in order to increase the measurement speed.
2. The display line shown in the following plots denotes the limit at 20dB below the fundamental emission level measured in a 100KHz bandwidth. However, since the traces in the following plots are measured with a 1.3MHz RBW, the display line may not necessarily appear to be 20dB below the level of the fundamental in a 1.3MHz bandwidth.
3. For plots showing conducted spurious emissions near the limit, the frequencies were investigated with a reduced RBW to ensure that no emissions were present.

7.5.4.Test Setup



7.5.5. Test Result

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Eric Xu	Relative Humidity	52%
Test Site	TR3	Test Date	2019/11/24
Model No.	DAP646-RW		

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
BT5.1	1	00	2402	30dBc	Pass
		19	2440	30dBc	Pass
		39	2480	30dBc	Pass
	2	00	2402	30dBc	Pass
		19	2440	30dBc	Pass
		39	2480	30dBc	Pass

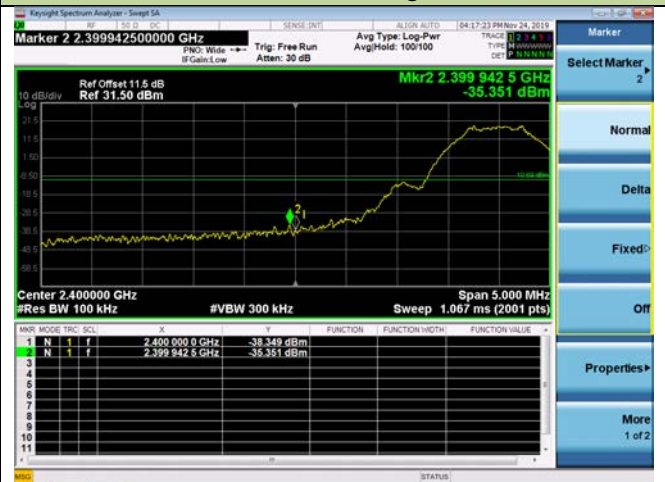
BT5.1 - 1Mbps Out-of-Band Emissions

Channel 00 (2402MHz)

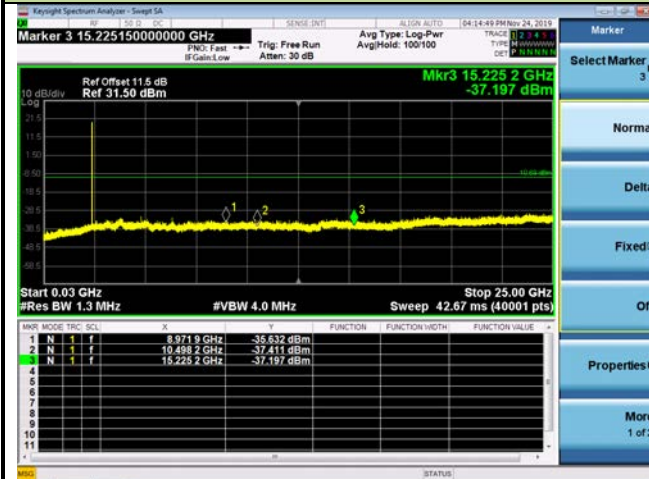
100kHz PSD reference Level



Low Band Edge



Spurious Emission 30MHz ~ 25GHz

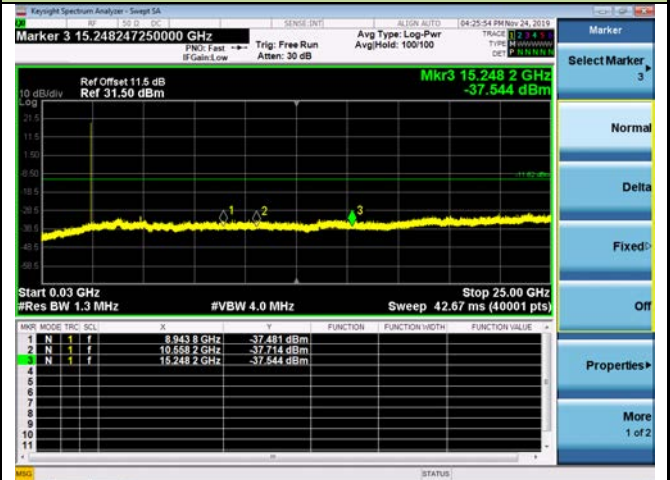


Channel 19 (2440MHz)

100kHz PSD reference Level



Spurious Emission 30MHz ~ 25GHz



Channel 39 (2480MHz)

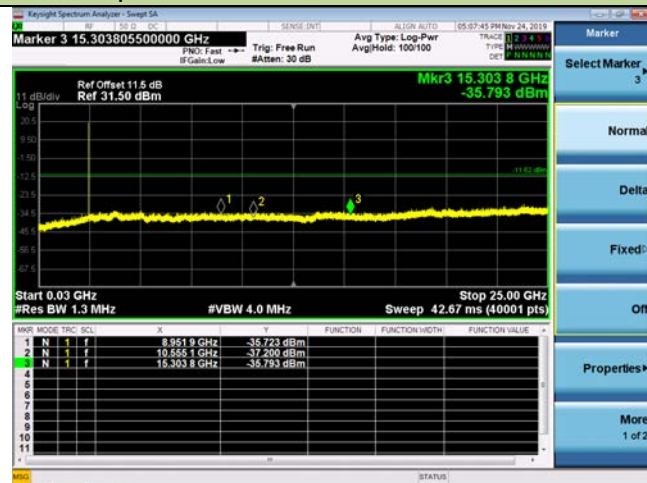
100kHz PSD reference Level



High Band Edge



Spurious Emission 30MHz ~ 25GHz



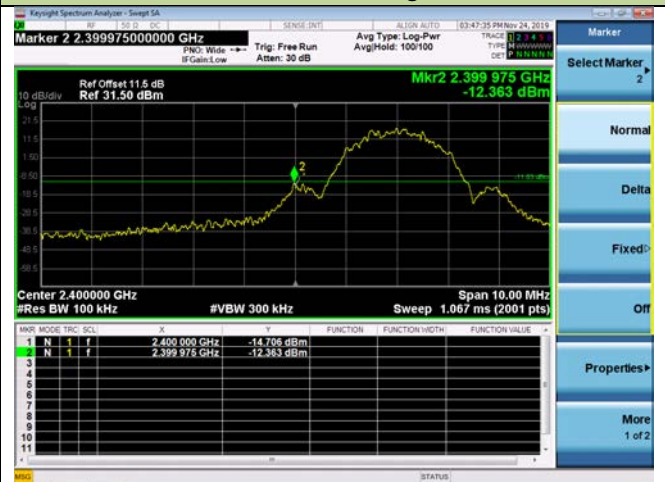
BT5.1 - 2Mbps Out-of-Band Emissions

Channel 00 (2402MHz)

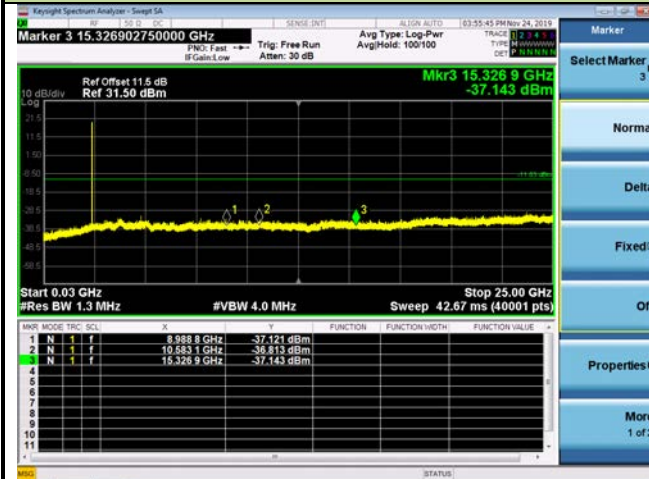
100kHz PSD reference Level



Low Band Edge



Spurious Emission 30MHz ~ 25GHz

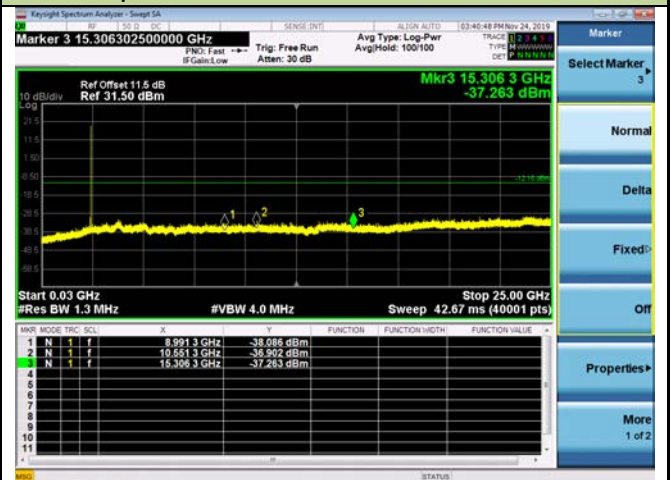


Channel 19 (2440MHz)

100kHz PSD reference Level



Spurious Emission 30MHz ~ 25GHz



Channel 39 (2480MHz)

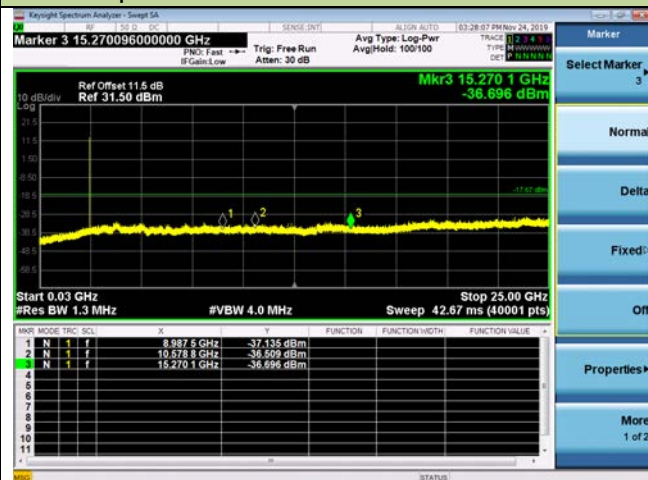
100kHz PSD reference Level



High Band Edge



Spurious Emission 30MHz ~ 25GHz



7.6. Radiated Spurious Emission Measurement

7.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Field Strength (uV/m)	Measured Distance (Meters)
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

7.6.2. Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.6.3. Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

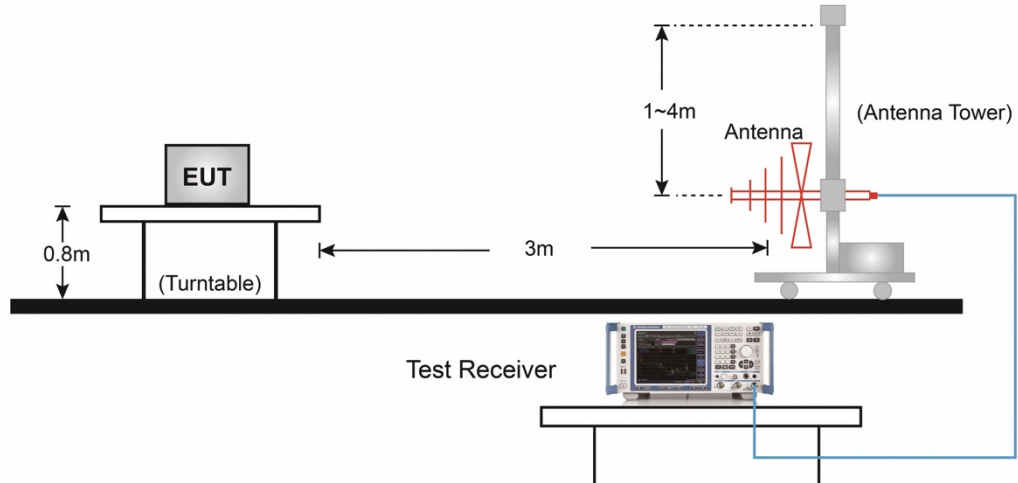
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

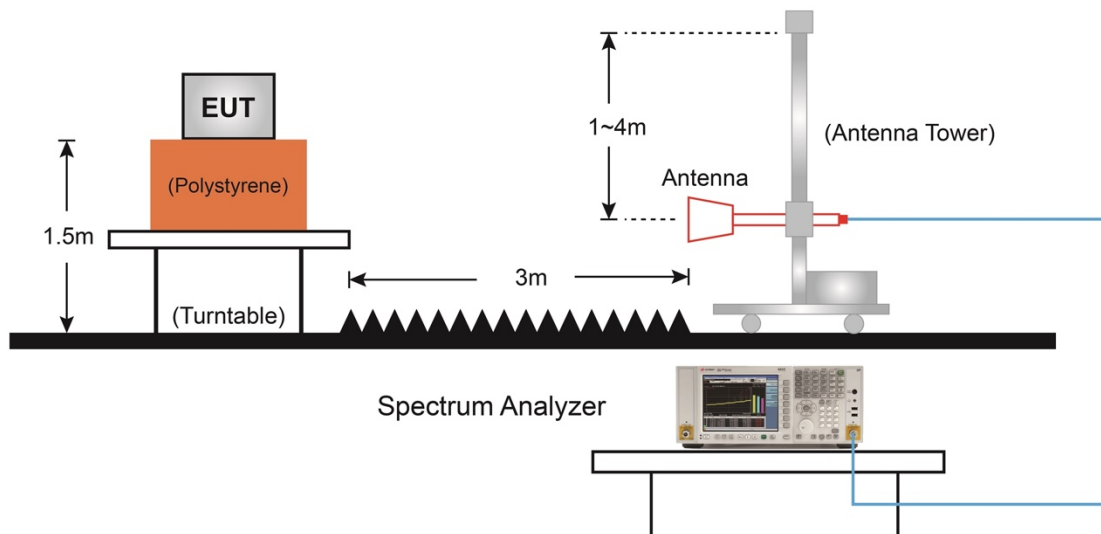
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW $\geq 1/T$
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

7.6.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



7.6.5. Test Result

Product	HIT Dragonfly Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 1Mbps	Test Channel	00
Model No.	DAP645-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4366.0	36.5	2.5	39.0	74.0	-35.0	Peak	Horizontal
	4799.5	38.8	4.3	43.1	74.0	-30.9	Peak	Horizontal
*	5751.5	35.6	5.7	41.3	81.2	-39.9	Peak	Horizontal
*	7137.0	32.5	11.7	44.2	81.2	-37.0	Peak	Horizontal
	4272.5	36.5	2.2	38.7	74.0	-35.3	Peak	Vertical
	4808.0	44.2	4.2	48.4	74.0	-25.6	Peak	Vertical
*	6533.5	33.2	8.7	41.9	81.2	-39.3	Peak	Vertical
*	6958.5	32.5	10.6	43.1	81.2	-38.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (111.2dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 1Mbps	Test Channel	19
Model No.	DAP645-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4009.0	35.4	1.3	36.7	74.0	-37.3	Peak	Horizontal
	4876.0	39.2	3.7	42.9	74.0	-31.1	Peak	Horizontal
*	5879.0	34.5	6.0	40.5	82.5	-42.0	Peak	Horizontal
*	7137.0	33.0	11.7	44.7	82.5	-37.8	Peak	Horizontal
	3788.0	37.4	0.9	38.3	74.0	-35.7	Peak	Vertical
	4876.0	42.2	3.7	45.9	74.0	-28.1	Peak	Vertical
*	6270.0	34.6	7.2	41.8	82.5	-40.7	Peak	Vertical
*	7188.0	32.2	11.9	44.1	82.5	-38.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (112.5dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 1Mbps	Test Channel	39
Model No.	DAP645-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4638.0	36.1	3.6	39.7	74.0	-34.3	Peak	Horizontal
	4961.0	36.4	3.9	40.3	74.0	-33.7	Peak	Horizontal
*	6508.0	34.5	8.6	43.1	77.9	-34.8	Peak	Horizontal
*	7035.0	33.1	11.1	44.2	77.9	-33.7	Peak	Horizontal
	4604.0	34.0	3.4	37.4	74.0	-36.6	Peak	Vertical
	4961.0	39.1	3.9	43.0	74.0	-31.0	Peak	Vertical
*	6083.0	33.8	7.0	40.8	77.9	-37.1	Peak	Vertical
*	6406.0	34.3	7.9	42.2	77.9	-35.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (107.9dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 2Mbps	Test Channel	00
Model No.	DAP645-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3856.0	38.3	0.4	38.7	74.0	-35.3	Peak	Horizontal
	4808.0	39.3	4.2	43.5	74.0	-30.5	Peak	Horizontal
*	5845.0	35.3	6.0	41.3	81.3	-40.0	Peak	Horizontal
*	7086.0	32.1	11.9	44.0	81.3	-37.3	Peak	Horizontal
	4111.0	36.5	1.7	38.2	74.0	-35.8	Peak	Vertical
	4808.0	43.6	4.2	47.8	74.0	-26.2	Peak	Vertical
*	6202.0	34.1	7.1	41.2	81.3	-40.1	Peak	Vertical
*	7086.0	32.0	11.9	43.9	81.3	-37.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (111.3dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 2Mbps	Test Channel	19
Model No.	DAP645-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4196.0	36.5	2.1	38.6	74.0	-35.4	Peak	Horizontal
	4876.0	37.8	3.7	41.5	74.0	-32.5	Peak	Horizontal
*	6185.0	34.7	6.9	41.6	82.4	-40.8	Peak	Horizontal
*	6984.0	33.2	10.8	44.0	82.4	-38.4	Peak	Horizontal
	4638.0	35.6	3.6	39.2	74.0	-34.8	Peak	Vertical
	4876.0	41.6	3.7	45.3	74.0	-28.7	Peak	Vertical
*	5471.0	34.9	4.5	39.4	82.4	-43.0	Peak	Vertical
*	7137.0	31.8	11.7	43.5	82.4	-38.9	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (112.4dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	26°C
Test Engineer	Cloud Guo	Relative Humidity	56%
Test Site	AC1	Test Date	2020/01/16
Test Mode	BT5.1 - 2Mbps	Test Channel	39
Model No.	DAP645-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
*	7137.0	31.3	11.7	43.0	74.0	-31.0	Peak	Horizontal
*	7851.0	31.8	12.0	43.8	74.0	-30.2	Peak	Horizontal
	8395.0	31.2	12.4	43.6	74.0	-30.4	Peak	Horizontal
	9143.0	29.9	14.7	44.6	74.0	-29.4	Peak	Horizontal
*	7120.0	32.3	11.6	43.9	74.0	-30.1	Peak	Vertical
*	7868.0	31.5	12.1	43.6	74.0	-30.4	Peak	Vertical
	8395.0	32.0	12.4	44.4	74.0	-29.6	Peak	Vertical
	9092.0	31.1	14.5	45.6	74.0	-28.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (99.9dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	00
Model No.	DAP646-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3924.0	38.0	3.6	41.6	74.0	-32.4	Peak	Horizontal
	4808.0	38.6	6.2	44.8	74.0	-29.2	Peak	Horizontal
*	5513.5	37.3	7.4	44.7	83.0	-38.3	Peak	Horizontal
*	7179.5	34.4	12.3	46.7	83.0	-36.3	Peak	Horizontal
	3915.5	37.6	3.6	41.2	74.0	-32.8	Peak	Vertical
	4808.0	42.0	6.2	48.2	74.0	-25.8	Peak	Vertical
*	5981.0	35.4	8.2	43.6	83.0	-39.4	Peak	Vertical
*	6967.0	34.7	11.2	45.9	83.0	-37.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (113.0dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	19
Model No.	DAP646-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4876.0	40.1	6.3	46.4	74.0	-27.6	Peak	Horizontal
	7553.5	33.9	12.3	46.2	74.0	-27.8	Peak	Horizontal
*	8701.0	33.3	14.4	47.7	83.7	-36.0	Peak	Horizontal
*	10078.0	30.8	16.6	47.4	83.7	-36.3	Peak	Horizontal
	4884.5	44.5	6.4	50.9	74.0	-23.1	Peak	Vertical
	7519.5	33.6	12.5	46.1	74.0	-27.9	Peak	Vertical
*	9721.0	34.6	16.5	51.1	83.7	-32.6	Peak	Vertical
*	10537.0	31.3	17.6	48.9	83.7	-34.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (113.7dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	39
Model No.	DAP646-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4332.0	37.9	4.7	42.6	74.0	-31.4	Peak	Horizontal
	5080.0	36.6	7.0	43.6	74.0	-30.4	Peak	Horizontal
*	6083.0	34.2	8.6	42.8	83.0	-40.2	Peak	Horizontal
*	7009.5	34.6	11.6	46.2	83.0	-36.8	Peak	Horizontal
	4961.0	41.0	6.6	47.6	74.0	-26.4	Peak	Vertical
	8208.0	34.4	12.9	47.3	74.0	-26.7	Peak	Vertical
*	9619.0	34.3	16.1	50.4	83.0	-32.6	Peak	Vertical
*	10409.5	30.5	17.5	48.0	83.0	-35.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (113.0dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	00
Model No.	DAP646-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4136.5	36.9	4.2	41.1	74.0	-32.9	Peak	Horizontal
	5063.0	36.4	7.2	43.6	74.0	-30.4	Peak	Horizontal
*	6346.5	35.3	9.5	44.8	83.1	-38.3	Peak	Horizontal
*	7953.0	31.8	13.1	44.9	83.1	-38.2	Peak	Horizontal
	4119.5	36.4	4.2	40.6	74.0	-33.4	Peak	Vertical
	4808.0	41.6	6.2	47.8	74.0	-26.2	Peak	Vertical
*	6355.0	34.3	9.5	43.8	83.1	-39.3	Peak	Vertical
*	7222.0	34.3	12.1	46.4	83.1	-36.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (113.1dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	19
Model No.	DAP646-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3983.5	37.7	3.8	41.5	74.0	-32.5	Peak	Horizontal
	4876.0	39.6	6.3	45.9	74.0	-28.1	Peak	Horizontal
*	6652.5	32.7	10.3	43.0	84.3	-41.3	Peak	Horizontal
*	8565.0	34.3	13.4	47.7	84.3	-36.6	Peak	Horizontal
	4043.0	36.5	3.7	40.2	74.0	-33.8	Peak	Vertical
	4884.5	44.9	6.4	51.3	74.0	-22.7	Peak	Vertical
*	7842.5	34.2	12.6	46.8	84.3	-37.5	Peak	Vertical
*	9712.5	34.1	16.5	50.6	84.3	-33.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (114.3dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	39
Model No.	DAP646-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4323.5	36.9	4.7	41.6	74.0	-32.4	Peak	Horizontal
	4961.0	36.1	6.6	42.7	74.0	-31.3	Peak	Horizontal
*	5658.0	35.0	7.7	42.7	74.0	-31.3	Peak	Horizontal
*	6576.0	34.6	10.5	45.1	74.0	-28.9	Peak	Horizontal
	4272.5	39.8	2.2	42.0	74.0	-32.0	Peak	Vertical
	4961.0	42.0	3.9	45.9	74.0	-28.1	Peak	Vertical
*	7111.5	34.1	12.1	46.2	74.0	-27.8	Peak	Vertical
*	8743.5	34.2	14.1	48.3	74.0	-25.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (102.9dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	00
Model No.	DAP647-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3788.0	36.7	0.9	37.6	74.0	-36.4	Peak	Horizontal
	4808.0	47.1	4.2	51.3	74.0	-22.7	Peak	Horizontal
*	6278.5	34.4	7.0	41.4	79.2	-37.8	Peak	Horizontal
*	7069.0	33.1	11.5	44.6	79.2	-34.6	Peak	Horizontal
	3873.0	37.4	0.8	38.2	74.0	-35.8	Peak	Vertical
	4799.5	51.3	4.3	55.6	74.0	-18.4	Peak	Vertical
	4799.5	46.4	4.3	50.7	54.0	-3.3	Average	Vertical
*	6185.0	33.9	6.9	40.8	79.2	-38.4	Peak	Vertical
*	7145.5	35.0	11.6	46.6	79.2	-32.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (109.2dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	19
Model No.	DAP647-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3975.0	36.4	0.7	37.1	74.0	-36.9	Peak	Horizontal
	4876.0	37.4	3.7	41.1	74.0	-32.9	Peak	Horizontal
*	6185.0	35.0	6.9	41.9	80.4	-38.5	Peak	Horizontal
*	7188.0	32.4	11.9	44.3	80.4	-36.1	Peak	Horizontal
	4340.5	36.0	2.4	38.4	74.0	-35.6	Peak	Vertical
	4884.5	41.7	3.9	45.6	74.0	-28.4	Peak	Vertical
*	6406.0	34.0	7.9	41.9	80.4	-38.5	Peak	Vertical
*	6958.5	33.4	10.6	44.0	80.4	-36.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (110.4dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 1Mbps	Test Channel	39
Model No.	DAP647-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4867.5	35.6	3.7	39.3	74.0	-34.7	Peak	Horizontal
	5071.5	35.2	4.5	39.7	74.0	-34.3	Peak	Horizontal
*	6712.0	32.7	9.5	42.2	78.1	-35.9	Peak	Horizontal
*	7060.5	32.4	11.4	43.8	78.1	-34.3	Peak	Horizontal
	4638.0	36.2	3.6	39.8	74.0	-34.2	Peak	Vertical
	4961.0	39.2	3.9	43.1	74.0	-30.9	Peak	Vertical
*	6329.5	34.4	7.4	41.8	78.1	-36.3	Peak	Vertical
*	7043.5	32.8	11.2	44.0	78.1	-34.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (108.1dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	00
Model No.	DAP647-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4136.5	35.2	1.9	37.1	74.0	-36.9	Peak	Horizontal
	4808.0	47.4	4.2	51.6	74.0	-22.4	Peak	Horizontal
*	6397.5	33.6	7.8	41.4	80.0	-38.6	Peak	Horizontal
*	7069.0	32.0	11.5	43.5	80.0	-36.5	Peak	Horizontal
	4230.0	36.1	1.9	38.0	74.0	-36.0	Peak	Vertical
	4799.5	52.3	4.3	56.6	74.0	-17.4	Peak	Vertical
	4799.5	47.5	4.3	51.8	54.0	-2.2	Average	Vertical
*	6304.0	34.9	7.1	42.0	80.0	-38.0	Peak	Vertical
*	6601.5	33.3	9.2	42.5	80.0	-37.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (110.0dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	19
Model No.	DAP647-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3983.5	36.4	0.8	37.2	74.0	-36.8	Peak	Horizontal
	4876.0	37.9	3.7	41.6	74.0	-32.4	Peak	Horizontal
*	6431.5	34.0	8.1	42.1	82.4	-40.3	Peak	Horizontal
*	7043.5	32.3	11.2	43.5	82.4	-38.9	Peak	Horizontal
	4306.5	35.9	2.5	38.4	74.0	-35.6	Peak	Vertical
	4876.0	41.5	3.7	45.2	74.0	-28.8	Peak	Vertical
*	6227.5	34.4	7.2	41.6	82.4	-40.8	Peak	Vertical
*	7035.0	32.9	11.1	44.0	82.4	-38.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (112.4dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Product	HIT Dragonfly Access Point	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2020/01/17
Test Mode	BT5.1 - 2Mbps	Test Channel	39
Model No.	DAP647-RW		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	3890.0	37.7	0.8	38.5	74.0	-35.5	Peak	Horizontal
	4842.0	34.7	4.0	38.7	74.0	-35.3	Peak	Horizontal
*	6185.0	34.3	6.9	41.2	74.0	-32.8	Peak	Horizontal
*	7086.0	32.7	11.9	44.6	74.0	-29.4	Peak	Horizontal
	4315.0	35.8	2.4	38.2	74.0	-35.8	Peak	Vertical
	4612.5	35.0	3.4	38.4	74.0	-35.6	Peak	Vertical
*	6431.5	34.0	8.1	42.1	74.0	-31.9	Peak	Vertical
*	7196.5	32.0	12.1	44.1	74.0	-29.9	Peak	Vertical

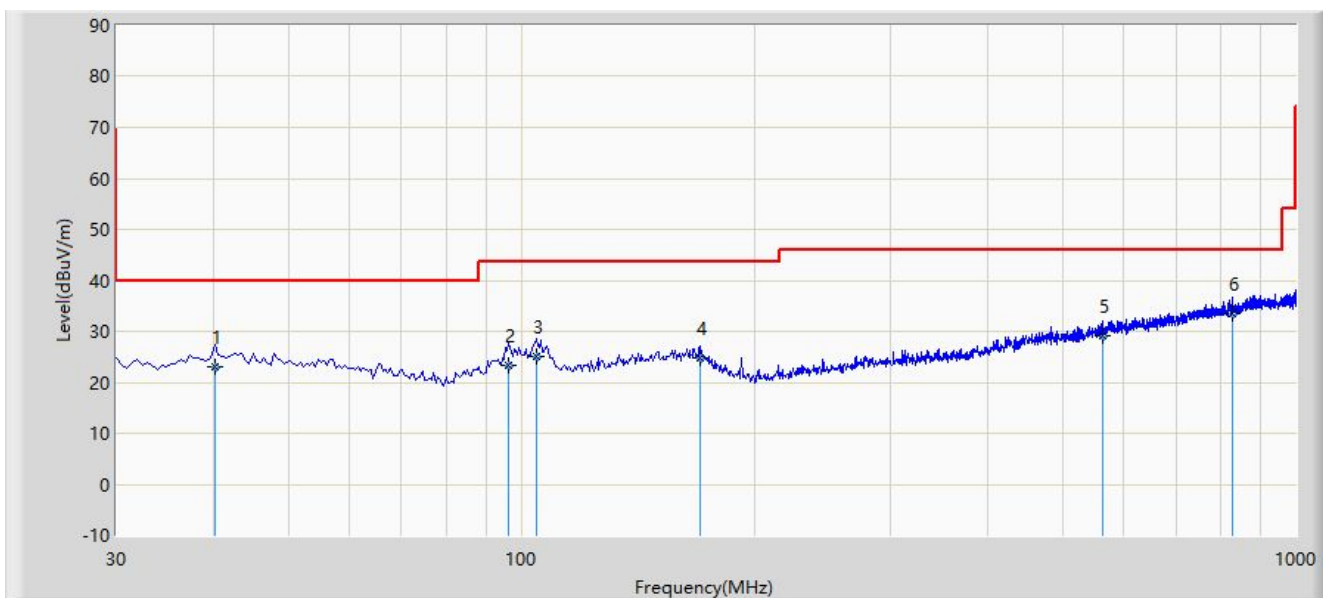
Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (96.9dBμV/m) or 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The worst case of Radiated Emission below 1GHz:

Site: AC2	Time: 2020/01/17 - 10:45
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: AC2_VULB9162_0.03-7GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Worse Case Mode: Transmit by BT5.1 - 1Mbps at channel 2402MHz with DAP647-RW	



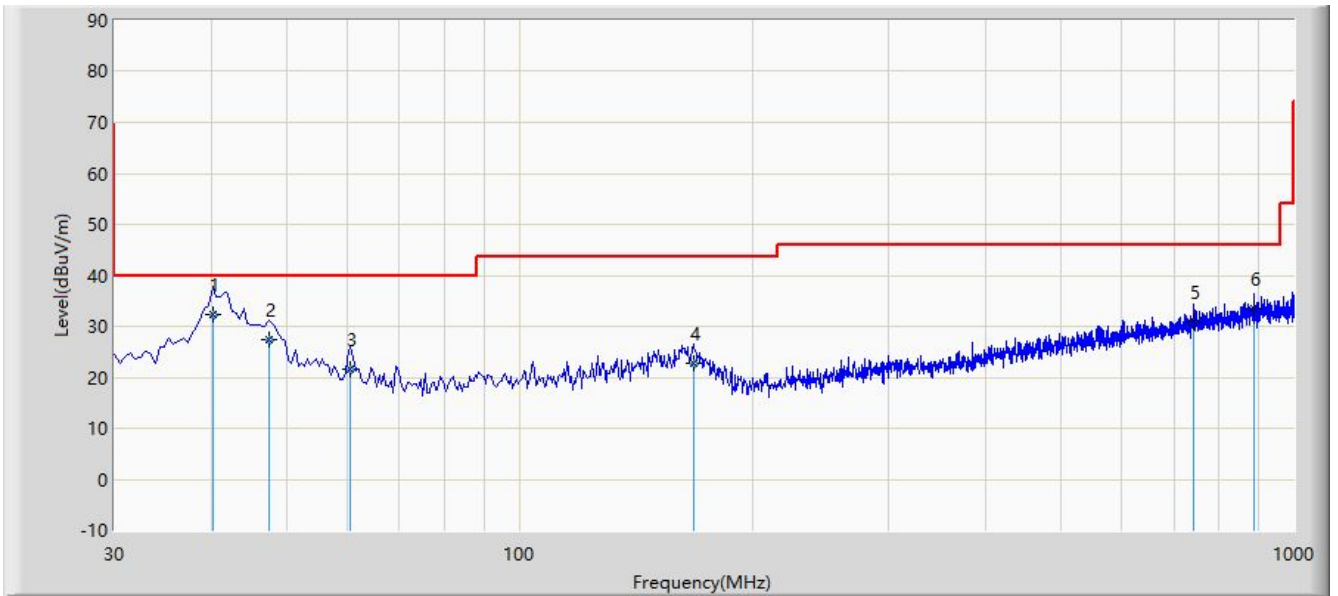
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			40.180	22.903	9.580	-17.097	40.000	13.323	QP
2			96.450	23.422	11.470	-20.078	43.500	11.952	QP
3			104.680	24.931	12.480	-18.569	43.500	12.451	QP
4			170.150	24.828	14.710	-18.672	43.500	10.118	QP
5			563.080	29.220	9.040	-16.780	46.000	20.181	QP
6		*	829.750	33.578	9.300	-12.422	46.000	24.278	QP

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

Site: AC2	Time: 2020/01/17 - 10:46
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: AC2_VULB9162_0.03-7GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Worse Case Mode: Transmit by BT5.1 - 1Mbps at channel 2402MHz with DAP647-RW	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	40.190	32.356	19.030	-7.644	40.000	13.326	QP
2			47.450	27.478	12.970	-12.522	40.000	14.508	QP
3			60.560	21.693	8.490	-18.307	40.000	13.203	QP
4			167.740	22.620	12.590	-20.880	43.500	10.030	QP
5			743.450	30.829	7.390	-15.171	46.000	23.438	QP
6			887.950	33.387	8.300	-12.613	46.000	25.086	QP

Note 1: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

7.7. Radiated Restricted Band Edge Measurement

7.7.1. Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41	--	--	--

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz]	Field Strength (uV/m]	Measured Distance (Meters)
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

7.7.2.Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

ANSI C63.10 Section 6.6 (Standard test method above 1GHz)

7.7.3.Test Setting

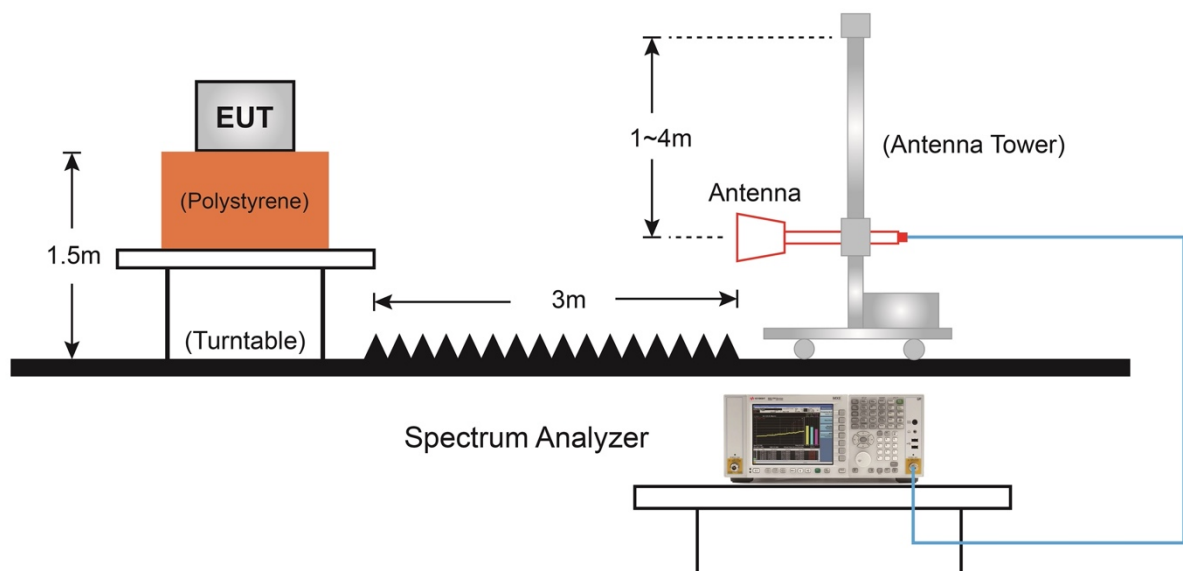
Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements

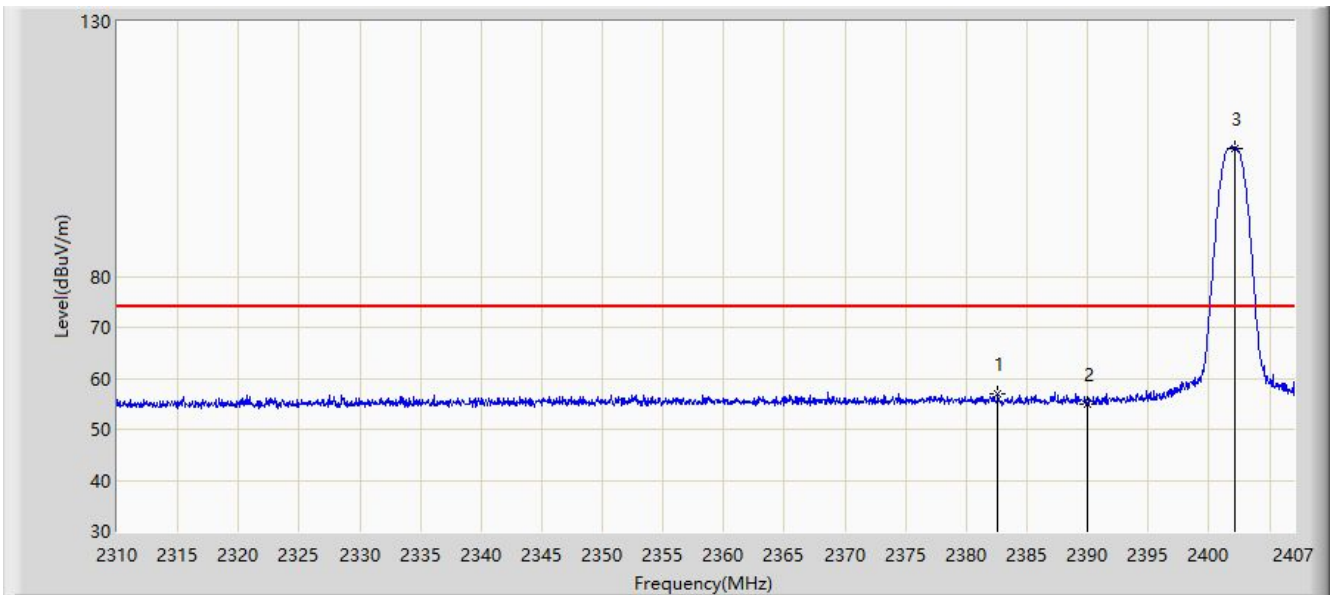
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW $\geq 1/T$
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

7.7.4.Test Setup



7.7.5.Test Result

Site: AC2	Time: 2020/01/16 - 12:46
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP645-RW	

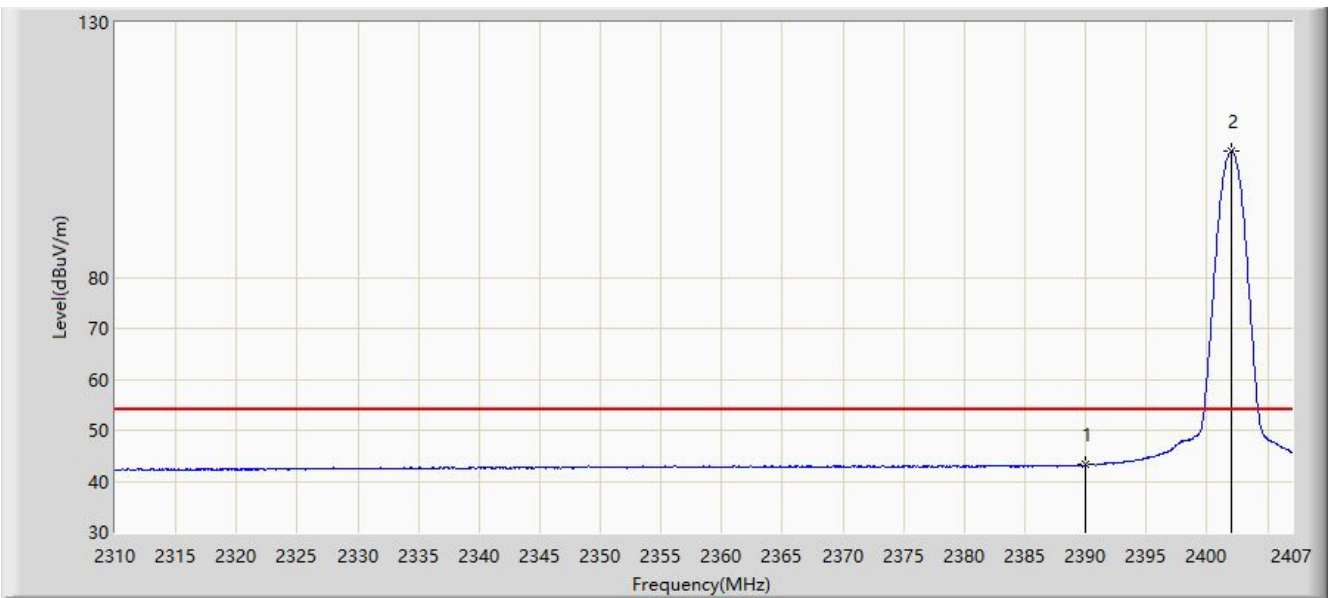


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2382.556	57.079	24.601	-16.921	74.000	32.477	PK
2			2390.000	55.047	22.562	-18.953	74.000	32.485	PK
3		*	2402.102	105.208	72.694	N/A	N/A	32.514	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:09
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP645-RW	

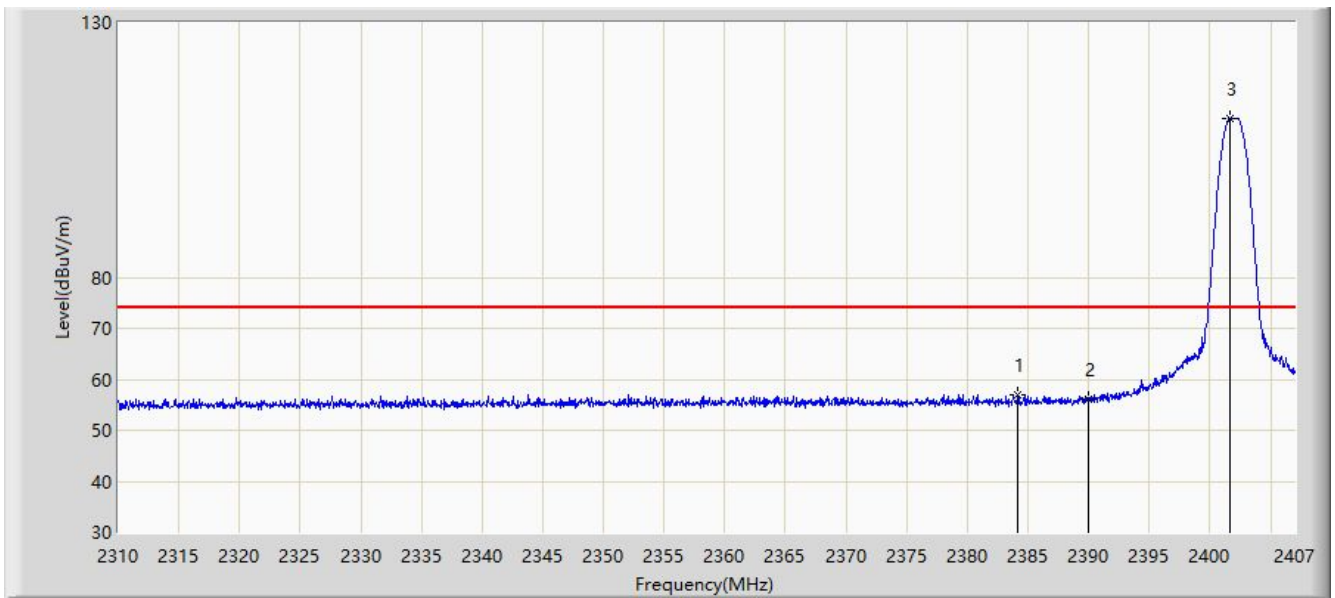


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	43.218	10.733	-10.782	54.000	32.485	AV
2		*	2401.956	104.702	72.189	N/A	N/A	32.513	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:09
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP645-RW	

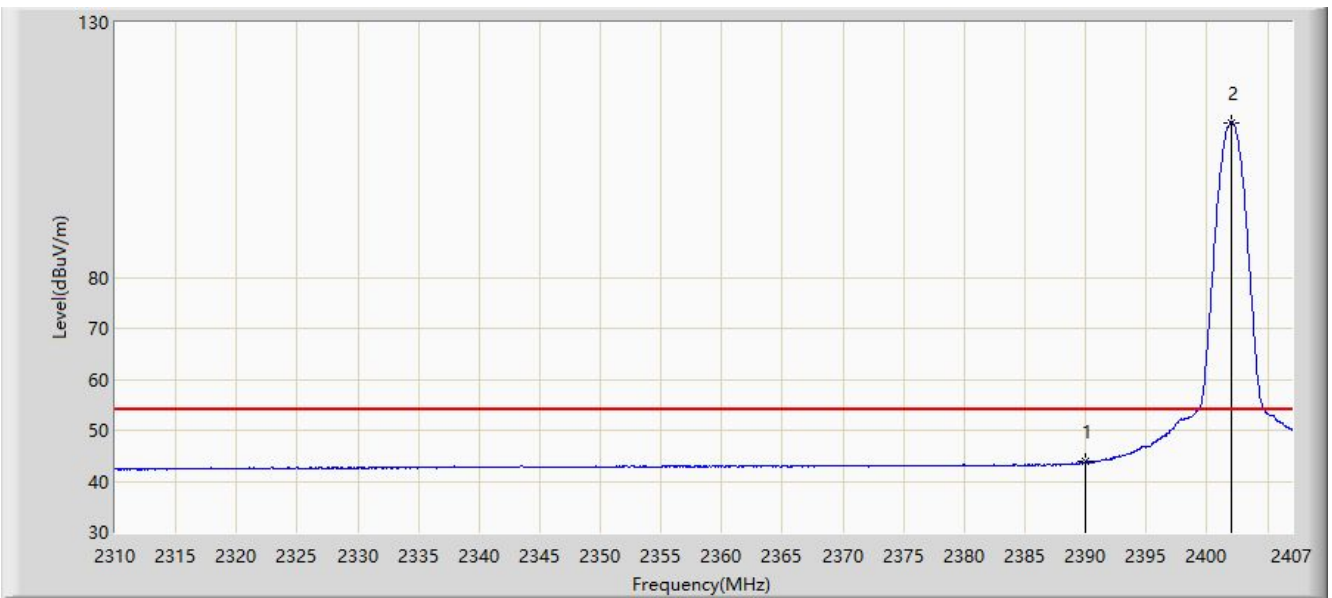


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2384.205	56.917	24.438	-17.083	74.000	32.480	PK
2			2390.000	56.058	23.573	-17.942	74.000	32.485	PK
3		*	2401.665	111.224	78.712	N/A	N/A	32.512	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:12
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP645-RW	

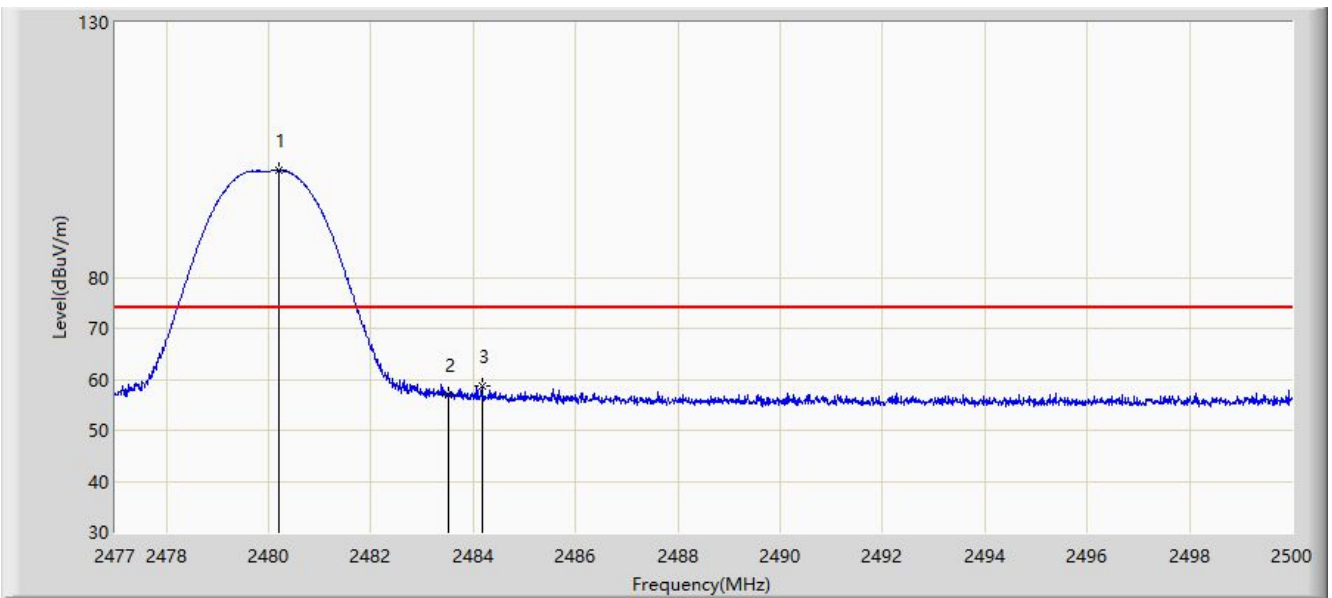


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	43.774	11.289	-10.226	54.000	32.485	AV
2	X	*	2401.956	110.400	77.887	N/A	N/A	32.513	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:36
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP645-RW	

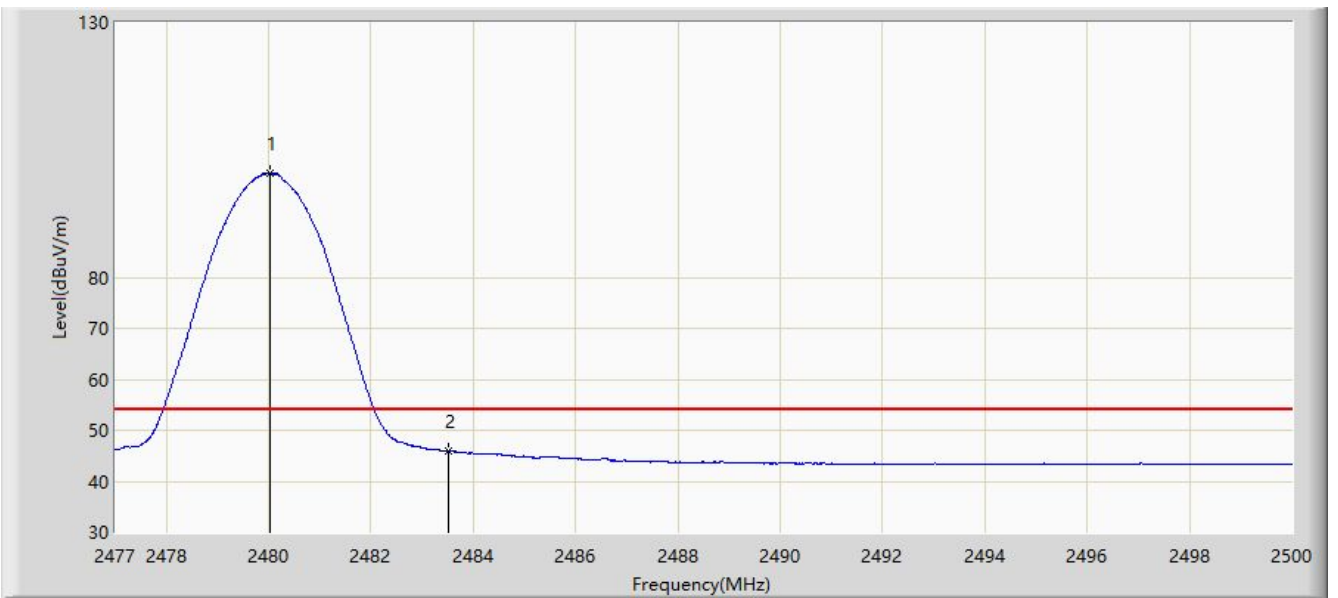


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.208	100.966	68.584	N/A	N/A	32.382	PK
2			2483.500	56.860	24.485	-17.140	74.000	32.375	PK
3			2484.165	58.599	26.226	-15.401	74.000	32.373	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:38
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP645-RW	

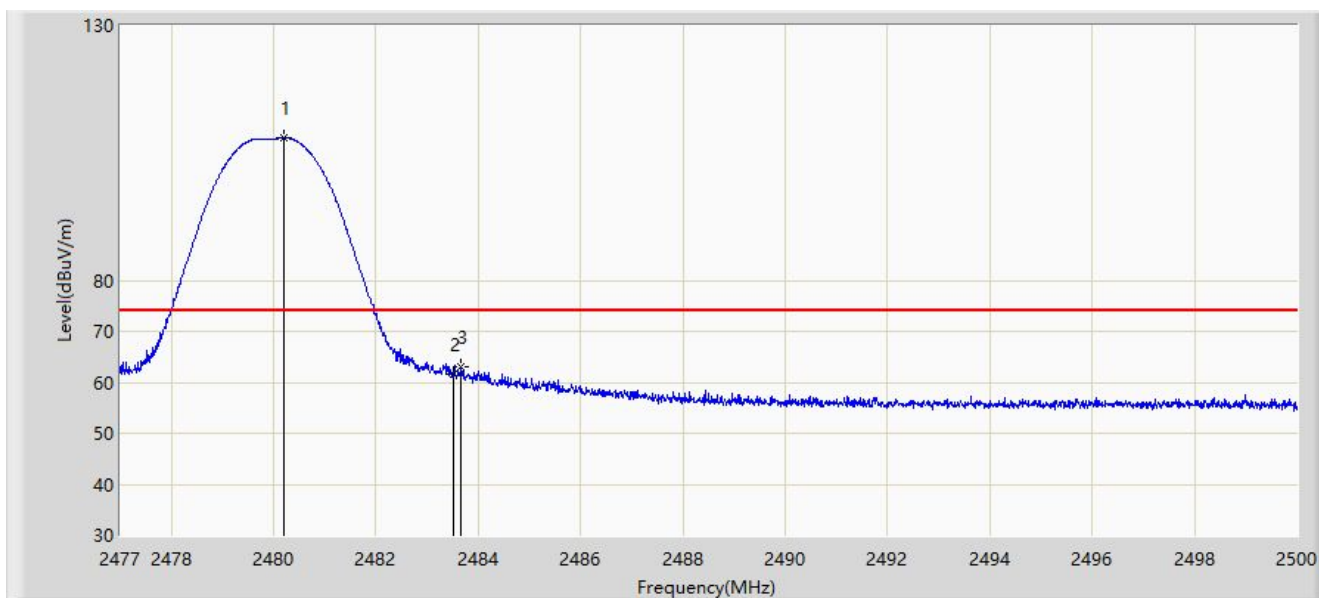


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.036	100.353	67.970	N/A	N/A	32.383	AV
2			2483.500	45.994	13.619	-8.006	54.000	32.375	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:35
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP645-RW	

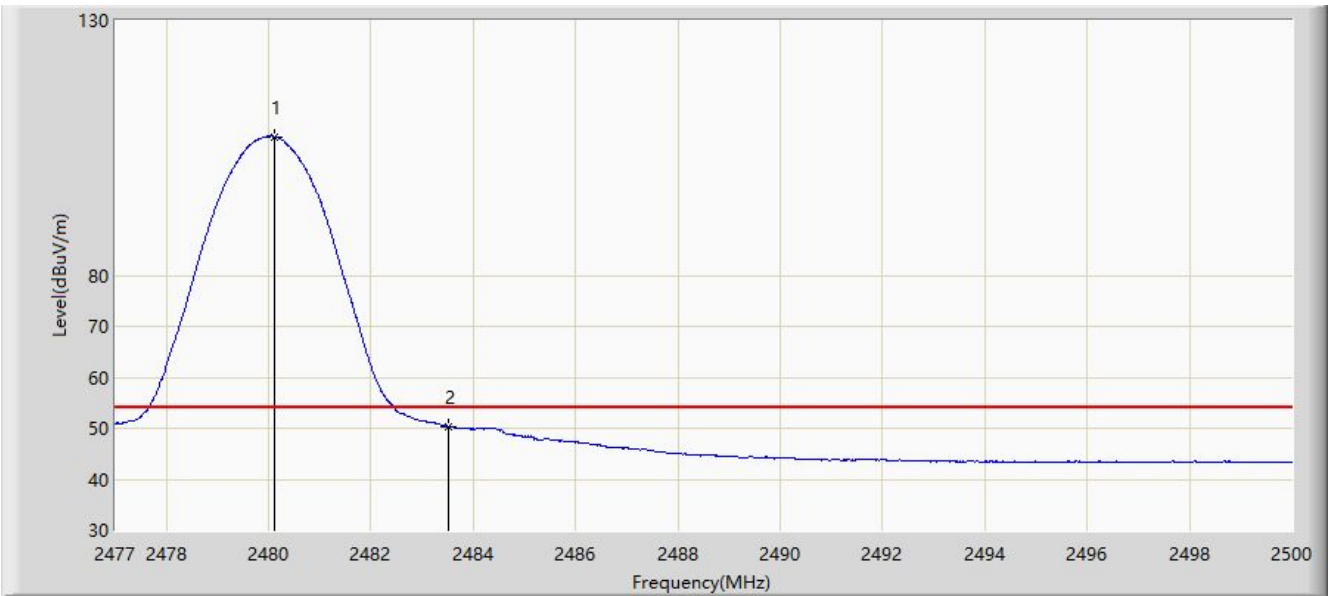


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.208	107.902	75.520	N/A	N/A	32.382	PK
2			2483.500	61.509	29.134	-12.491	74.000	32.375	PK
3			2483.670	62.918	30.544	-11.082	74.000	32.374	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:33
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP645-RW	

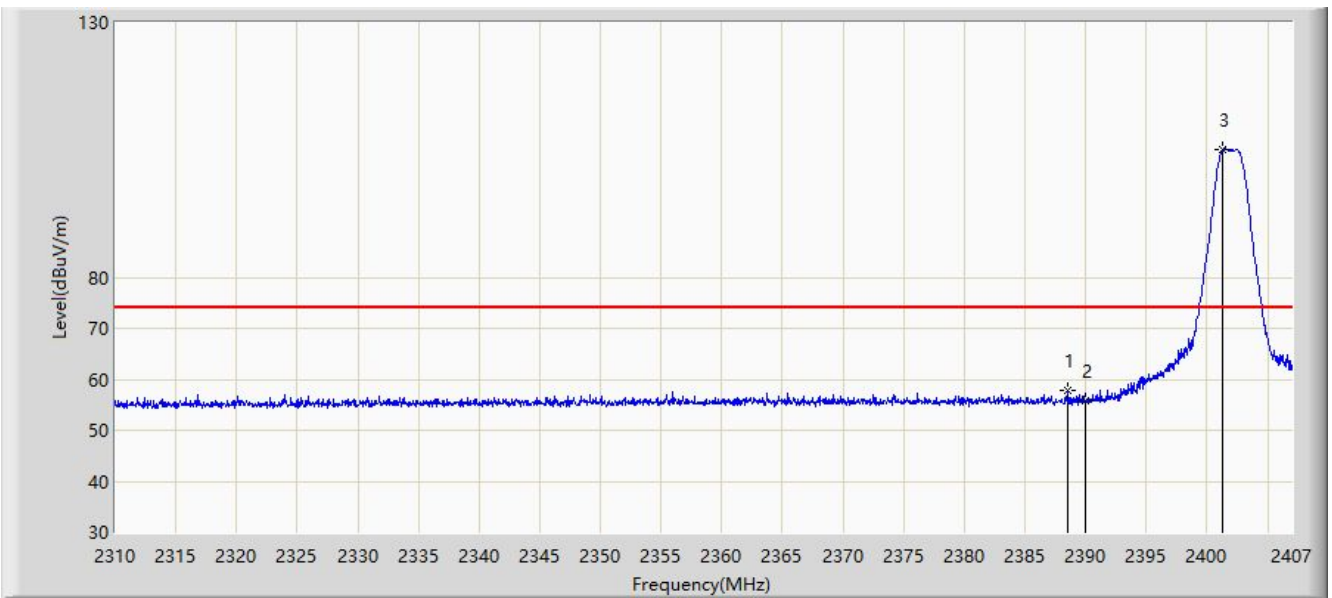


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.105	107.176	74.794	N/A	N/A	32.382	AV
2			2483.500	50.419	18.044	-3.581	54.000	32.375	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:38
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP645-RW	

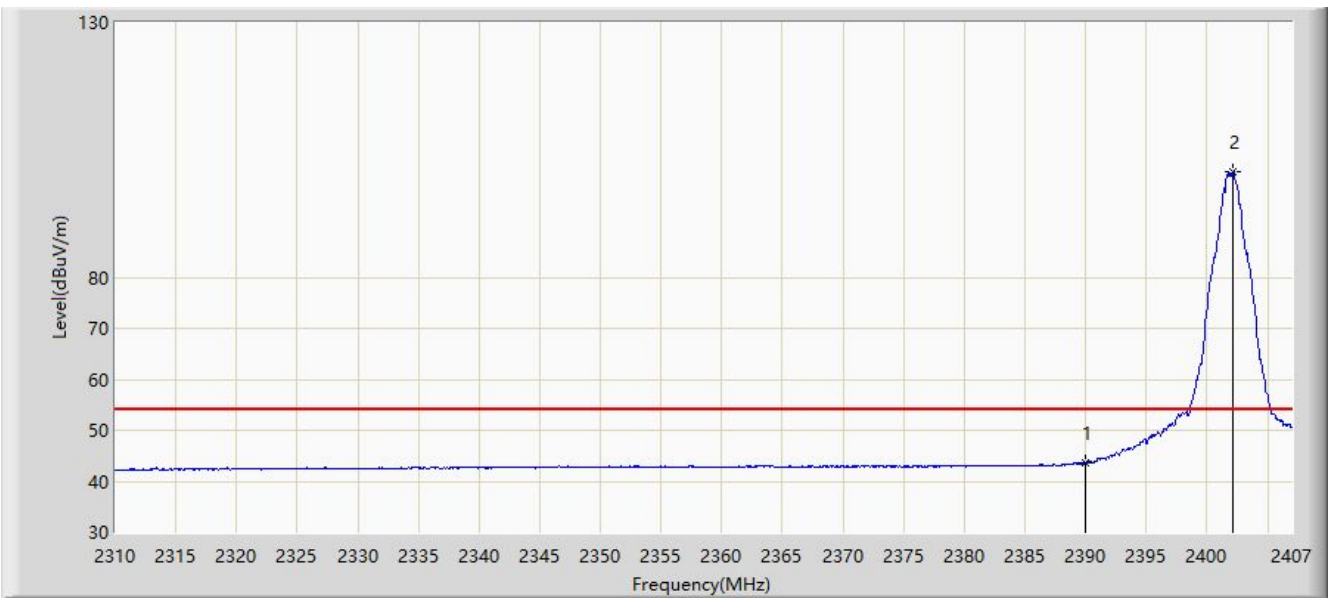


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.473	57.700	25.217	-16.300	74.000	32.484	PK
2			2390.000	55.704	23.219	-18.296	74.000	32.485	PK
3		*	2401.325	105.053	72.542	N/A	N/A	32.511	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:43
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP645-RW	

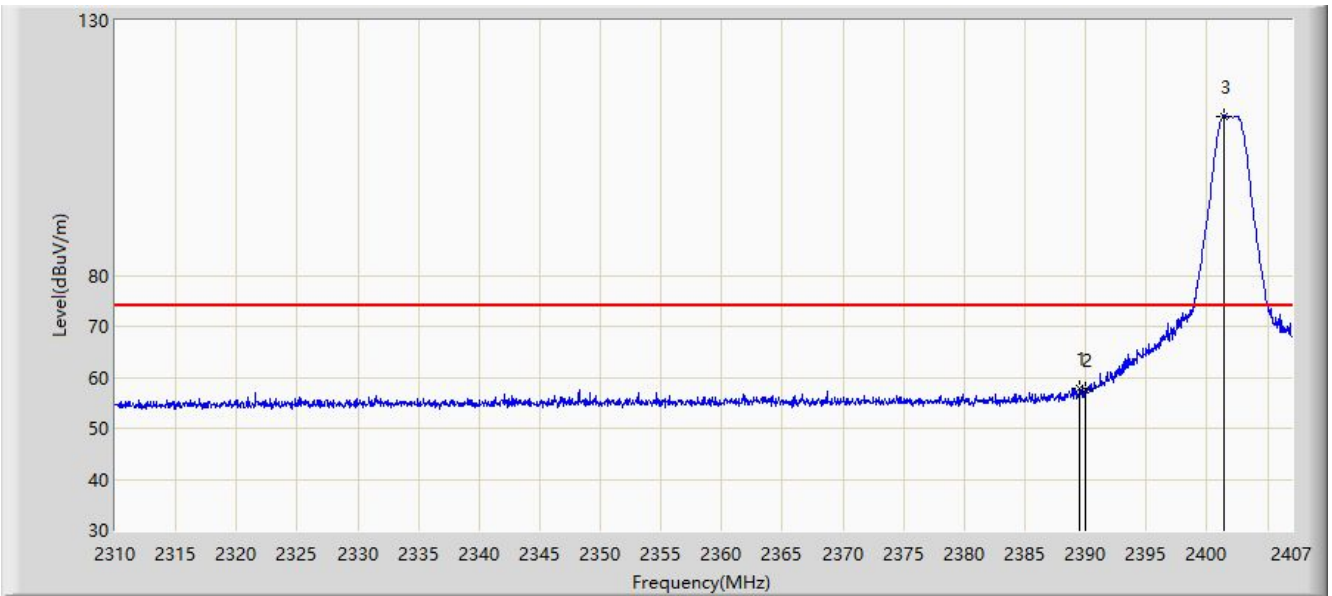


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	43.706	11.221	-10.294	54.000	32.485	AV
2		*	2402.198	100.714	68.200	N/A	N/A	32.514	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:44
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP645-RW	

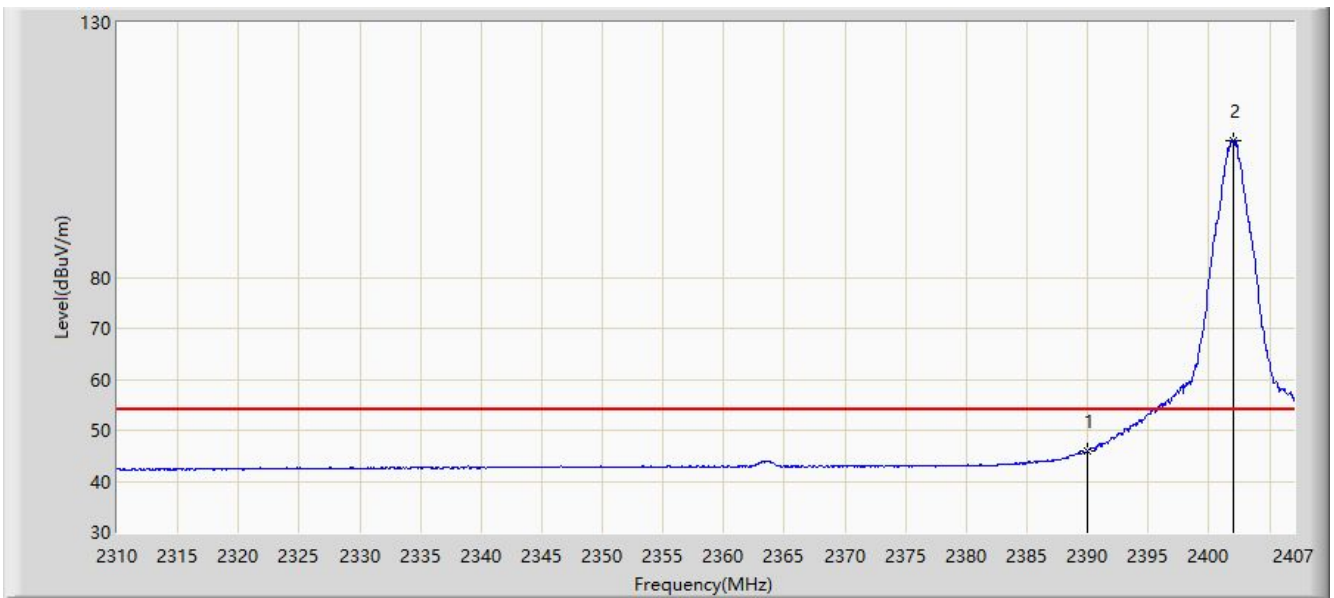


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.540	57.950	25.465	-16.050	74.000	32.485	PK
2			2390.000	57.431	24.946	-16.569	74.000	32.485	PK
3		*	2401.374	111.259	78.747	N/A	N/A	32.511	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:45
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP645-RW	

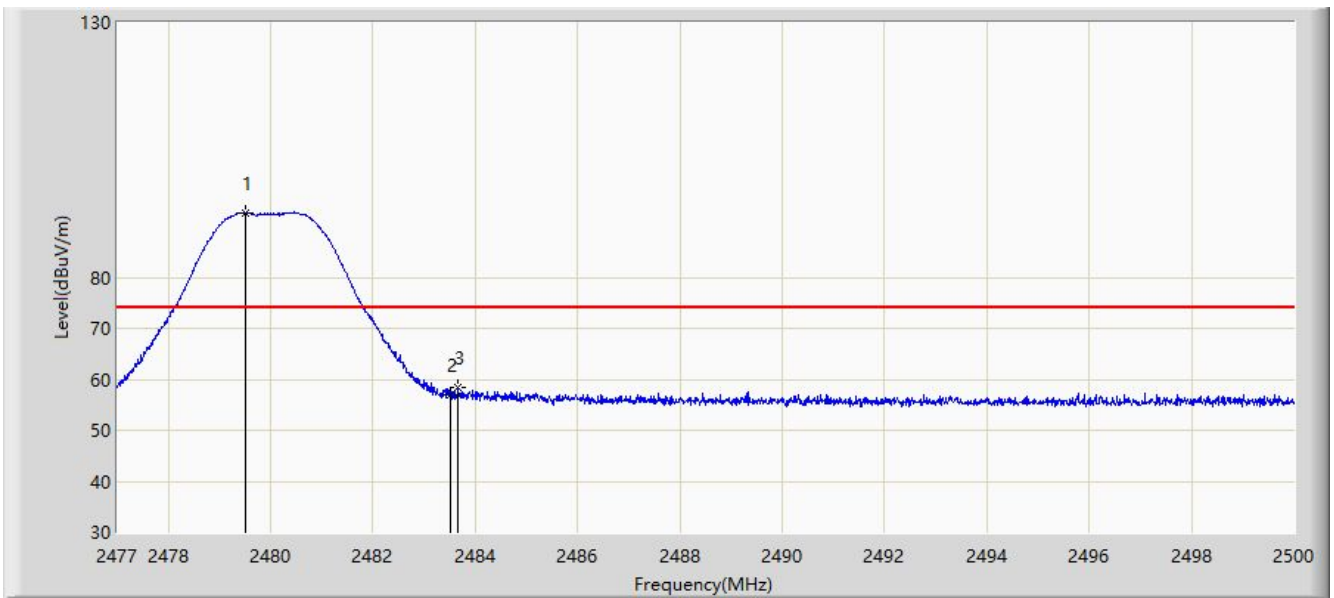


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.850	13.365	-8.150	54.000	32.485	AV
2		*	2401.956	106.917	74.404	N/A	N/A	32.513	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:55
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP645-RW	

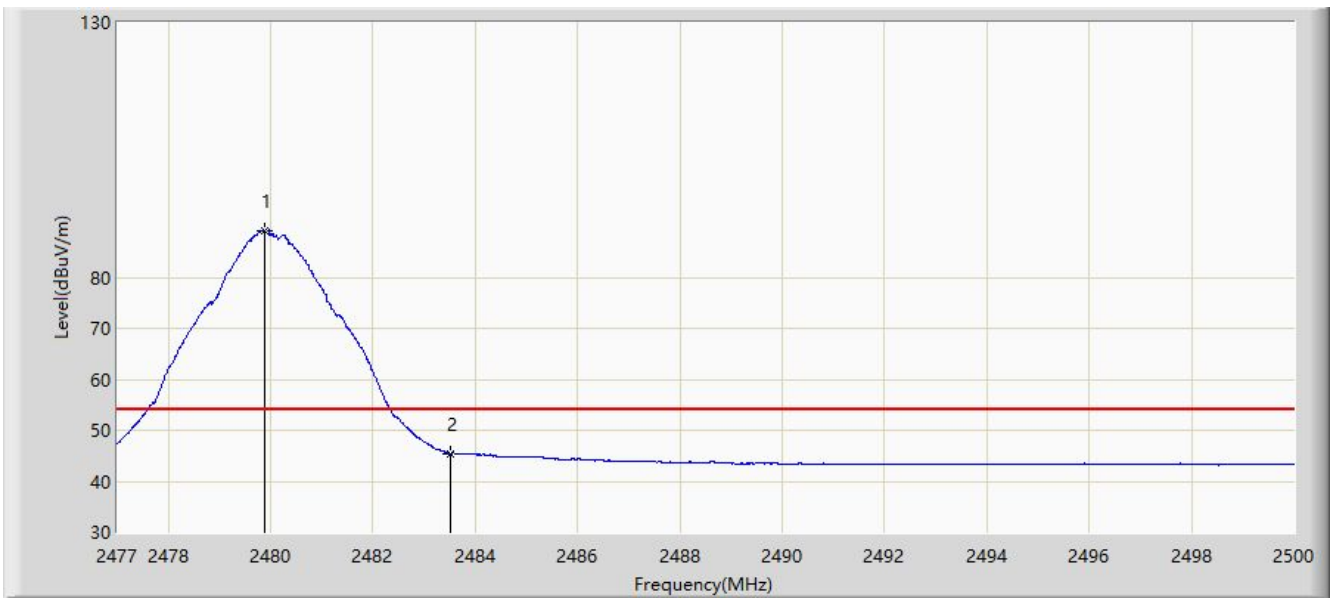


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.496	92.696	60.312	N/A	N/A	32.384	PK
2			2483.500	56.990	24.615	-17.010	74.000	32.375	PK
3			2483.658	58.537	26.163	-15.463	74.000	32.374	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:58
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP645-RW	

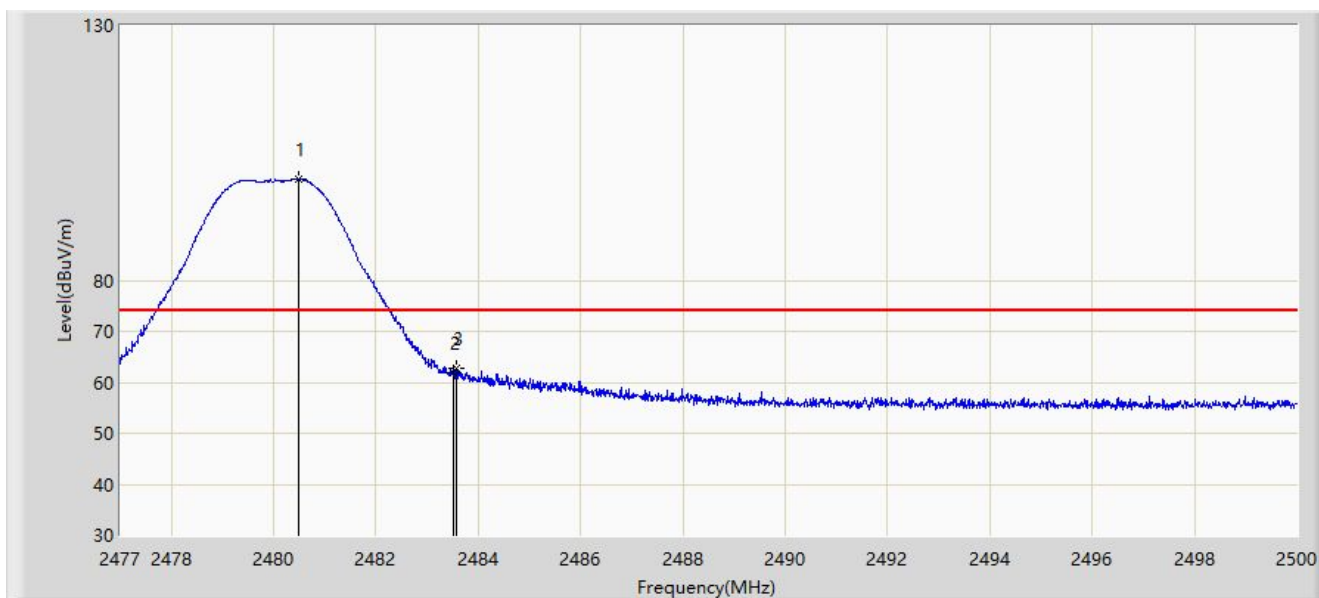


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.886	89.263	56.880	N/A	N/A	32.383	AV
2			2483.500	45.463	13.088	-8.537	54.000	32.375	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:58
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP645-RW	

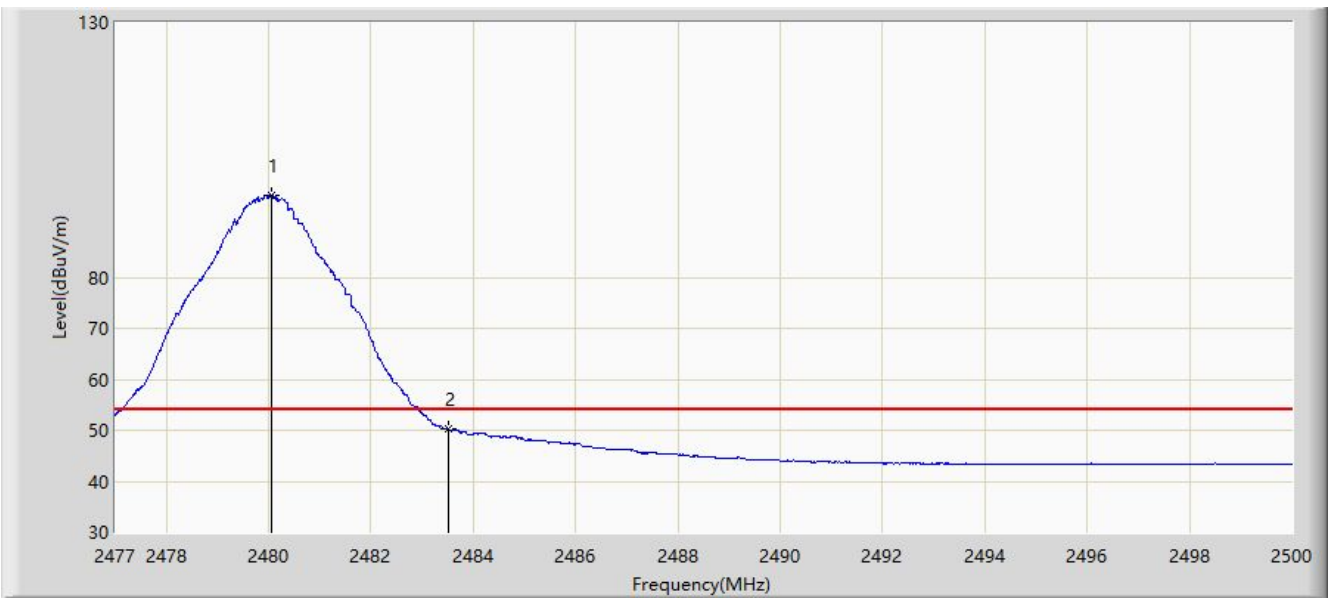


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.496	99.862	67.480	N/A	N/A	32.382	PK
2			2483.500	61.929	29.554	-12.071	74.000	32.375	PK
3			2483.578	62.609	30.235	-11.391	74.000	32.374	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 13:59
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP645-RW	

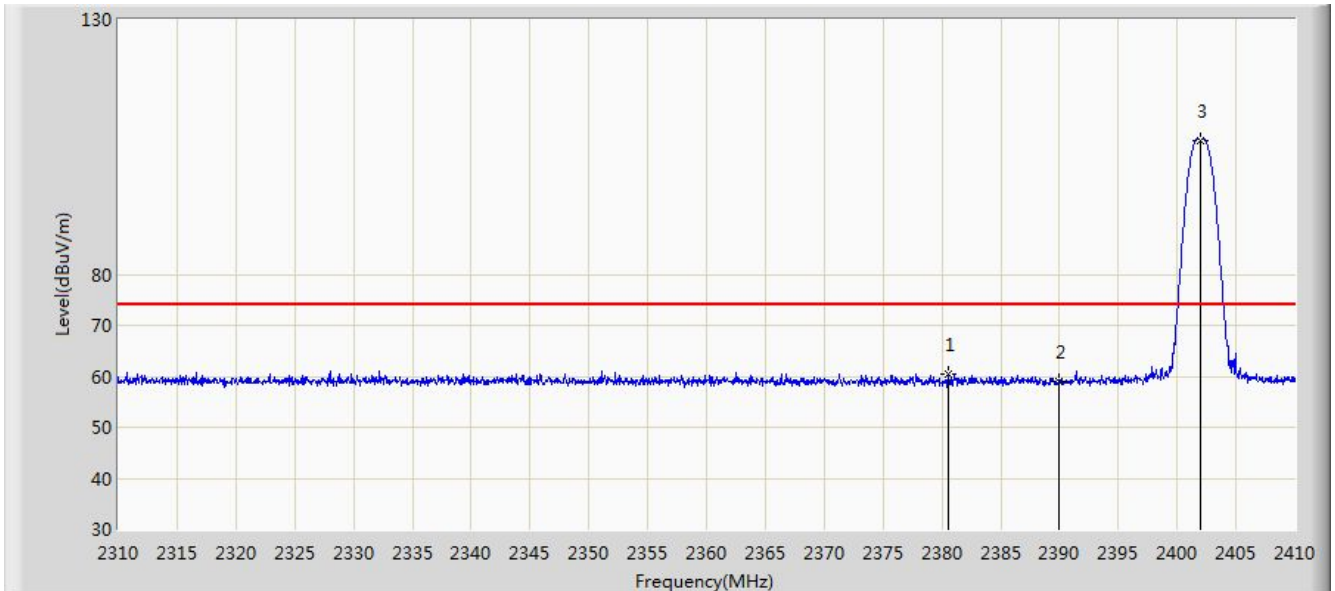


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.059	96.053	63.670	N/A	N/A	32.383	AV
2			2483.500	50.294	17.919	-3.706	54.000	32.375	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 10:48
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP646-RW	

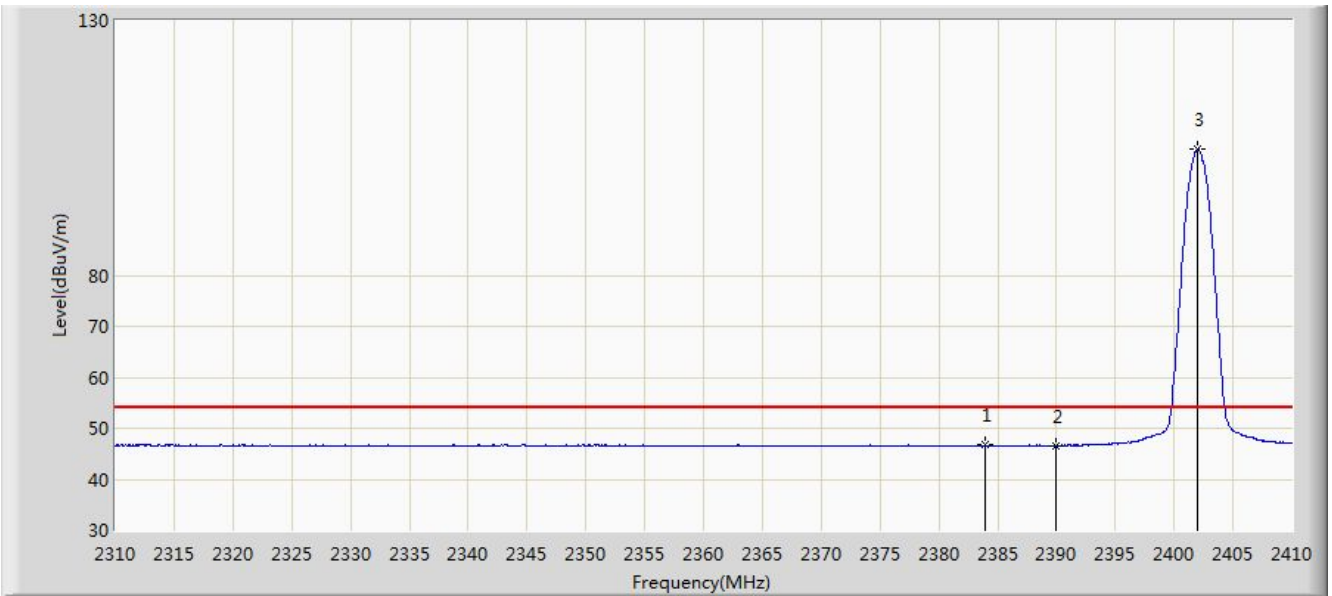


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2380.500	60.361	27.885	-13.639	74.000	32.476	PK
2			2390.000	58.869	26.384	-15.131	74.000	32.485	PK
3		*	2402.000	106.351	73.838	N/A	N/A	32.513	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:12
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP646-RW	

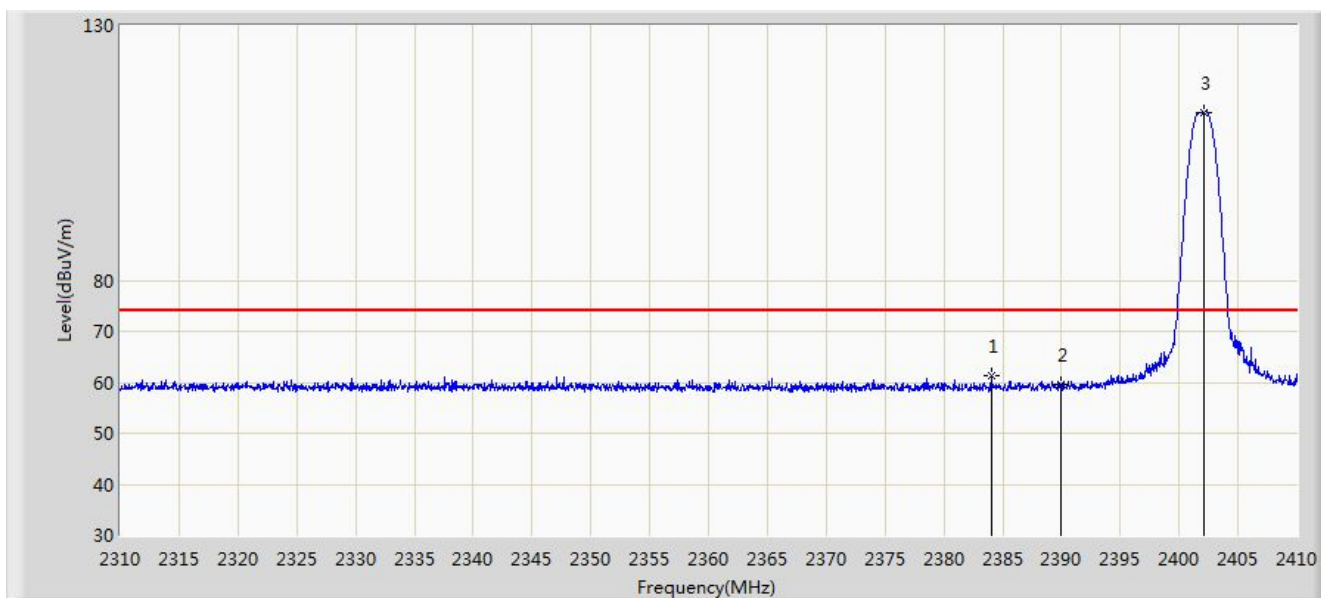


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2383.900	46.704	14.225	-7.296	54.000	32.479	AV
2			2390.000	46.599	14.114	-7.401	54.000	32.485	AV
3		*	2402.000	104.689	72.176	N/A	N/A	32.513	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:12
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP646-RW	

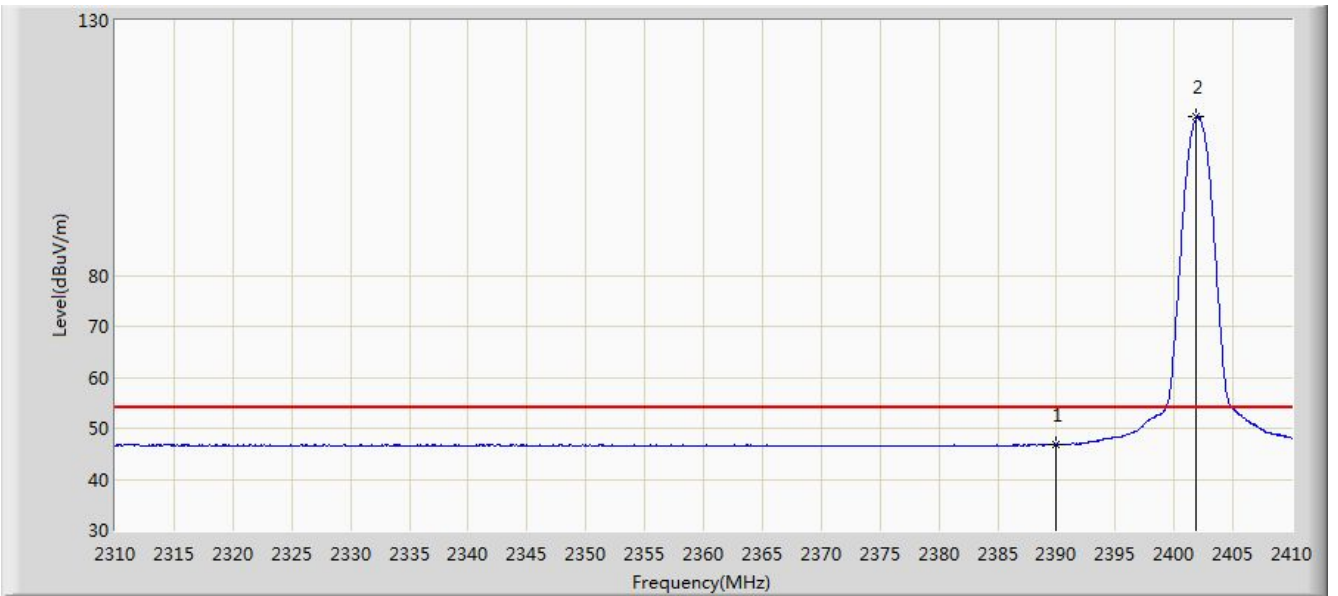


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2384.000	61.344	28.865	-12.656	74.000	32.479	PK
2			2390.000	59.572	27.087	-14.428	74.000	32.485	PK
3		*	2402.150	113.036	80.522	N/A	N/A	32.514	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:15
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP646-RW	

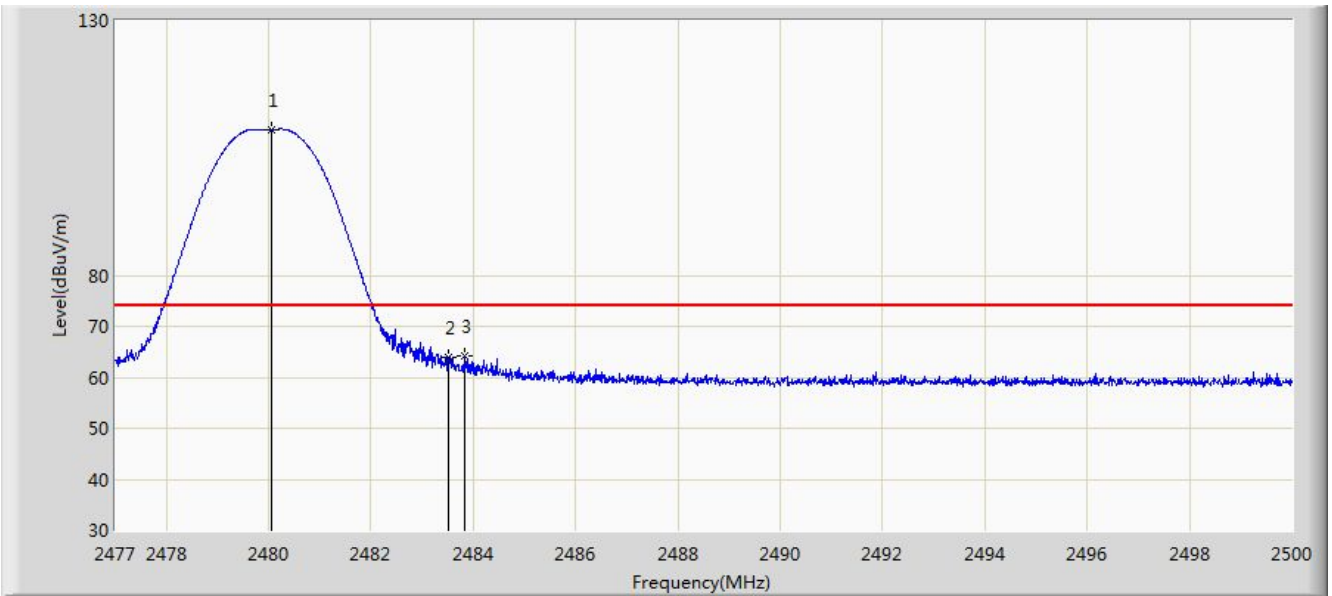


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	46.793	14.308	-7.207	54.000	32.485	AV
2	X	*	2401.900	111.043	78.530	N/A	N/A	32.513	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:18
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP646-RW	

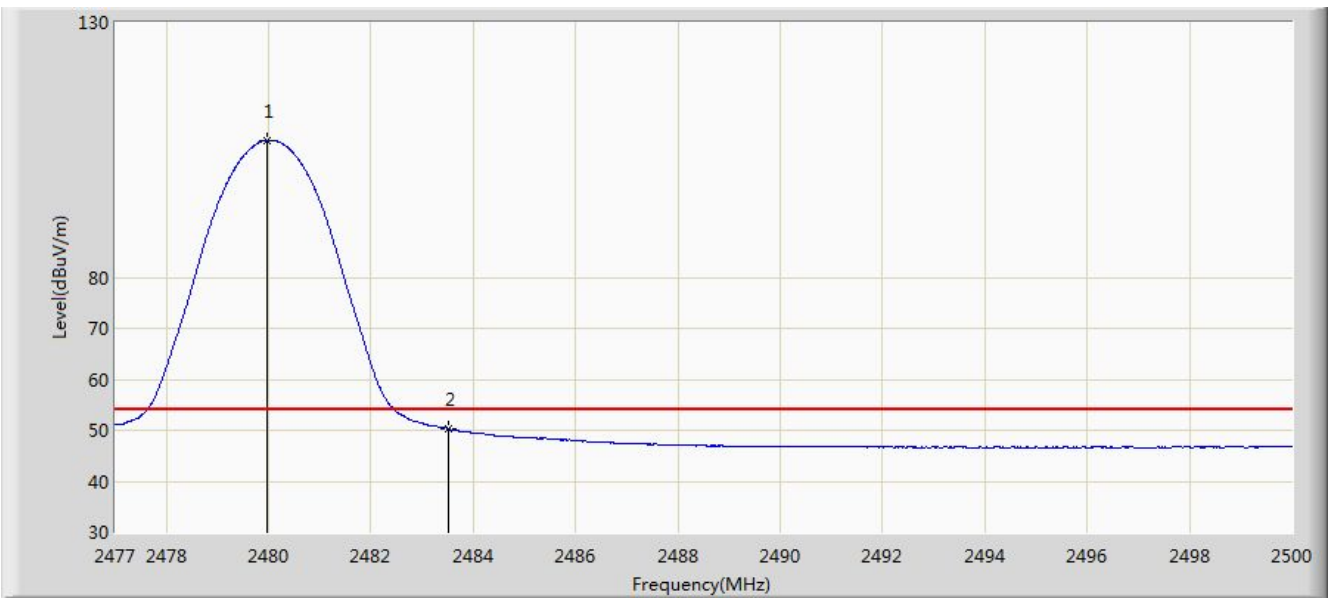


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.059	108.627	76.244	N/A	N/A	32.383	PK
2			2483.500	63.924	31.549	-10.076	74.000	32.375	PK
3			2483.820	64.312	31.938	-9.688	74.000	32.374	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:23
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP646-RW	

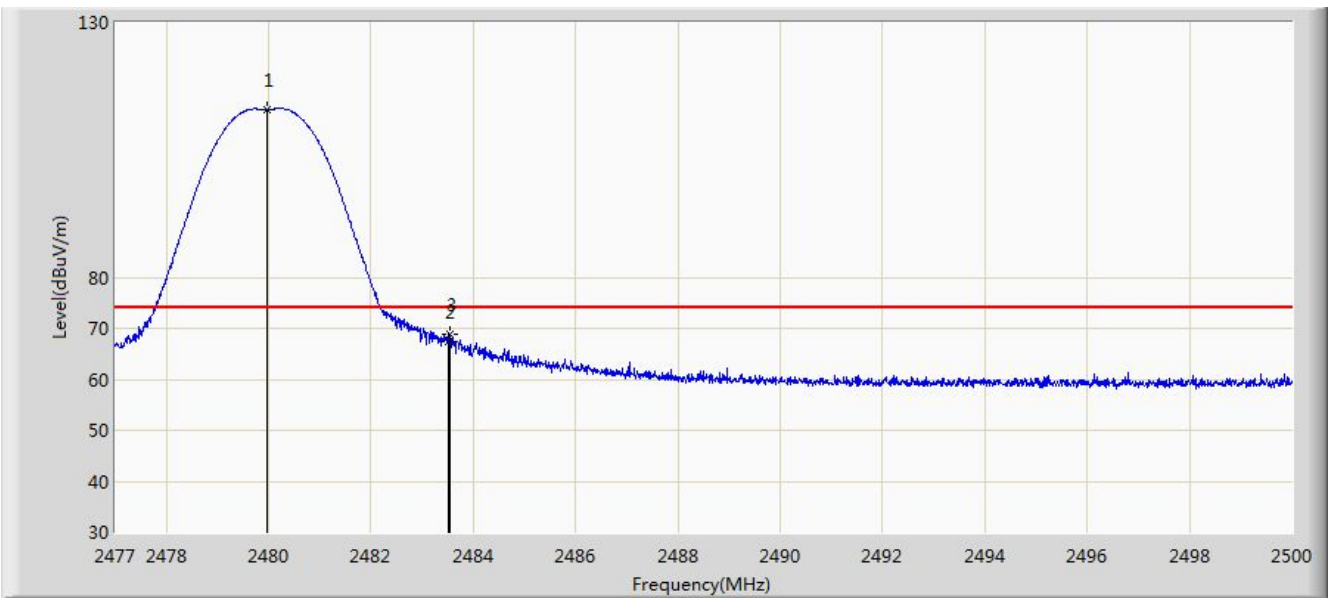


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.979	106.889	74.506	N/A	N/A	32.383	AV
2			2483.500	50.376	18.001	-3.624	54.000	32.375	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:25
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP646-RW	

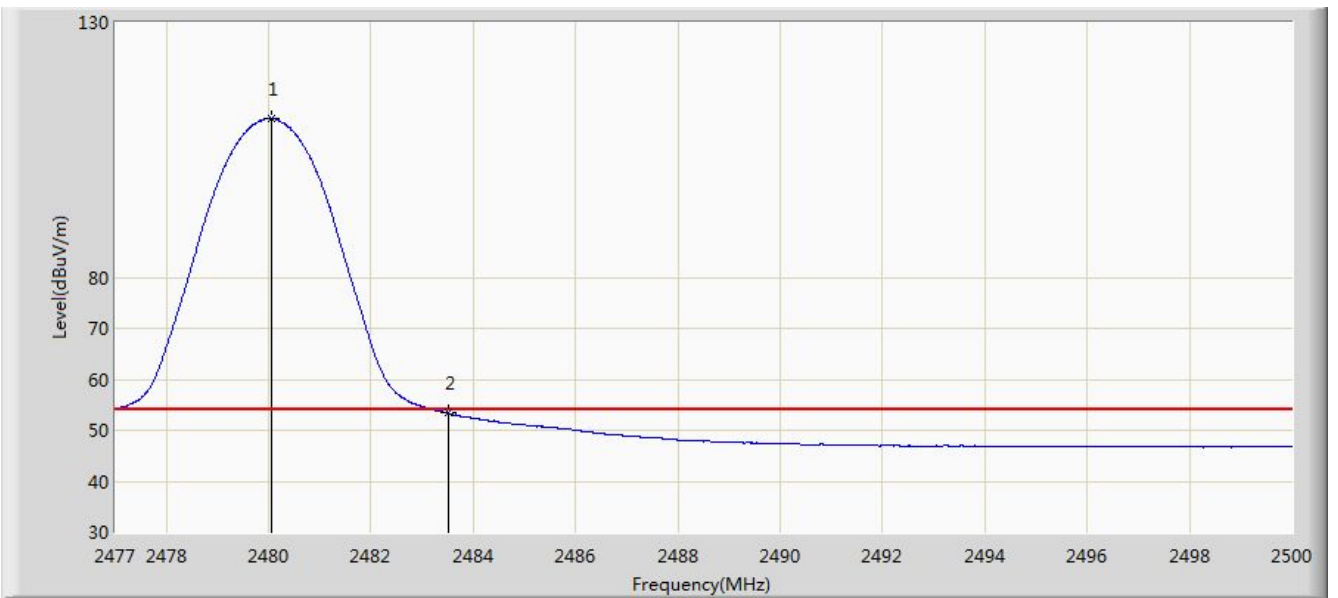


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.956	113.010	80.627	N/A	N/A	32.383	PK
2			2483.500	67.420	35.045	-6.580	74.000	32.375	PK
3			2483.532	68.945	36.570	-5.055	74.000	32.375	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:27
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP646-RW	

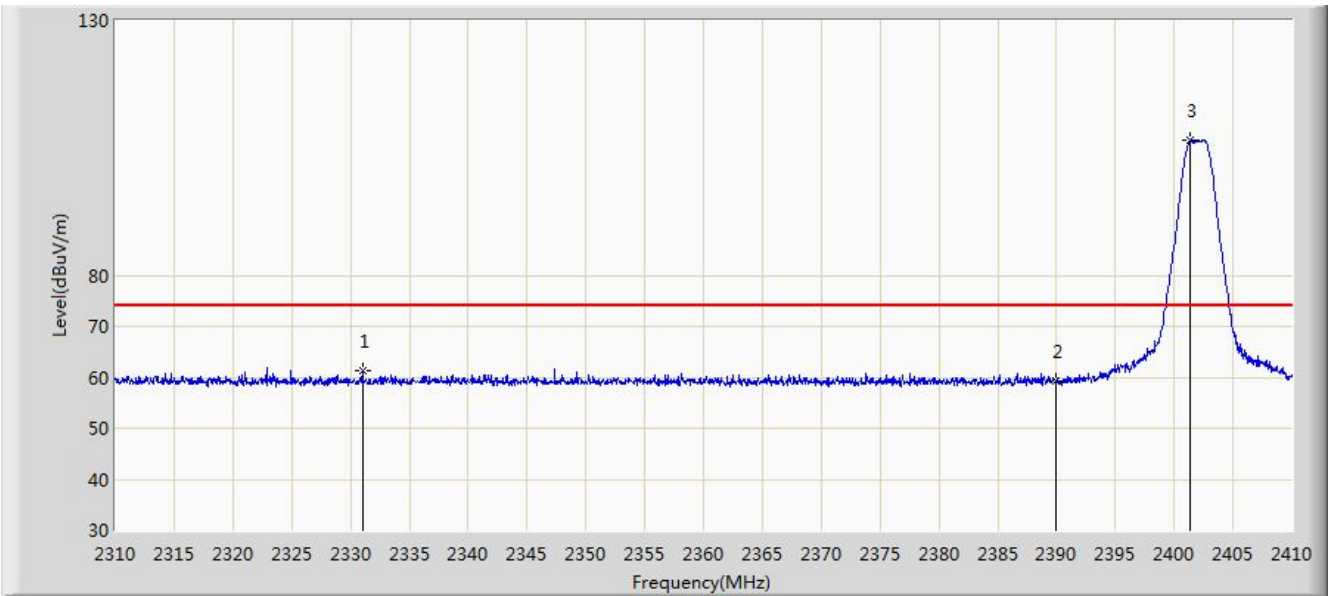


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	X	*	2480.059	111.146	78.763	N/A	N/A	32.383	AV
2			2483.500	53.364	20.989	-0.636	54.000	32.375	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:31
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP646-RW	

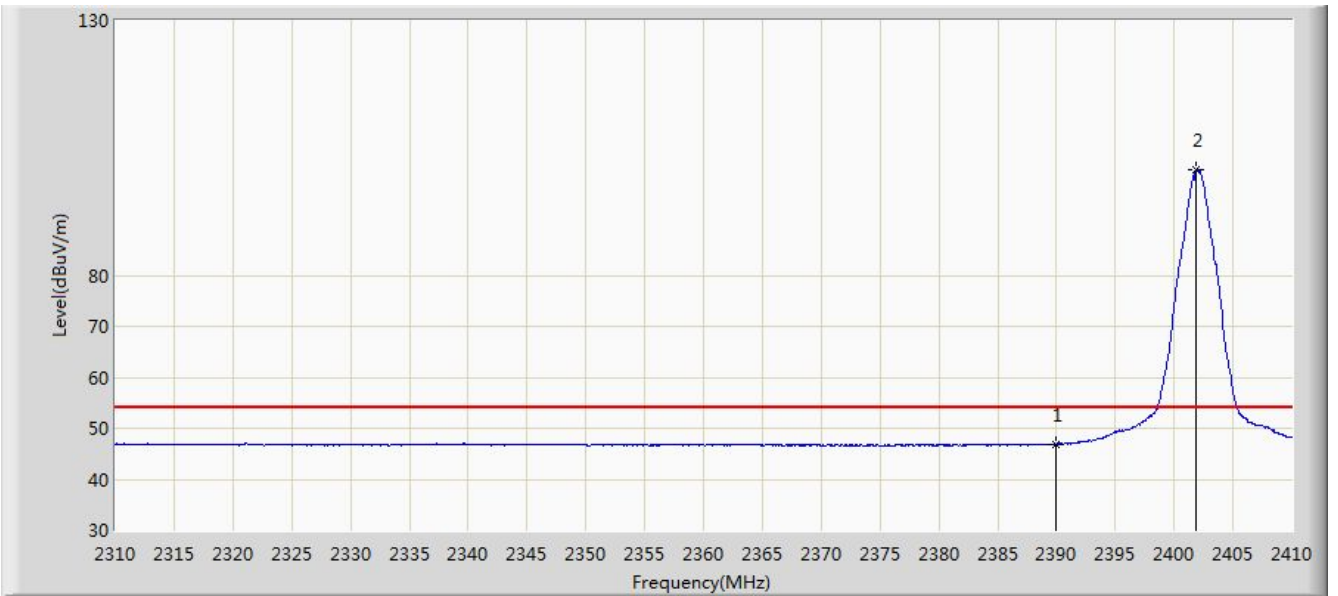


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2331.000	61.258	28.662	-12.742	74.000	32.596	PK
2			2390.000	59.134	26.649	-14.866	74.000	32.485	PK
3		*	2401.400	106.413	73.901	N/A	N/A	32.512	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:34
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP646-RW	

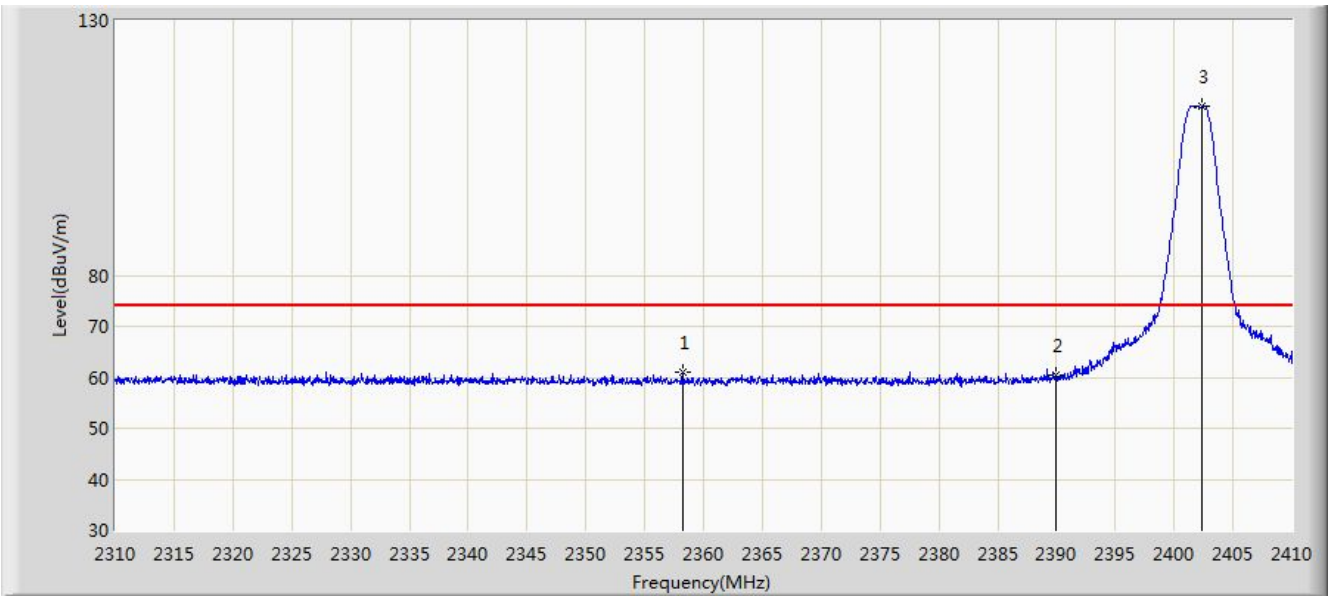


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	46.804	14.319	-7.196	54.000	32.485	AV
2		*	2401.900	100.701	68.188	N/A	N/A	32.513	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:41
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP646-RW	

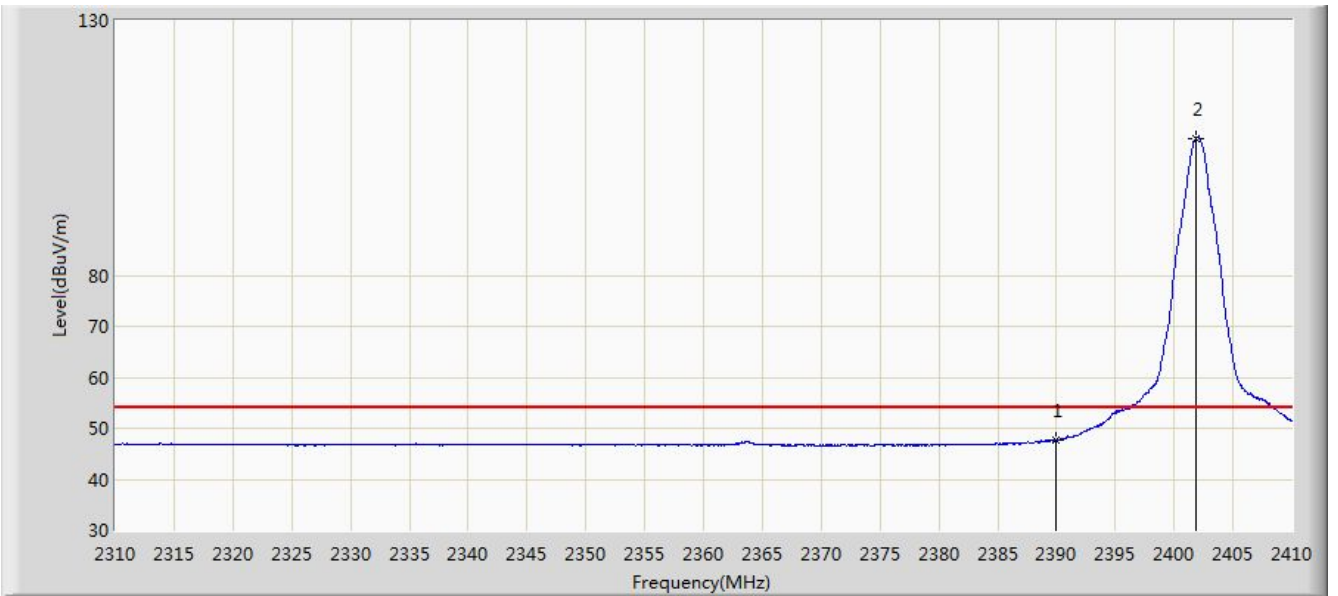


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2358.200	61.009	28.423	-12.991	74.000	32.586	PK
2			2390.000	60.303	27.818	-13.697	74.000	32.485	PK
3		*	2402.300	113.084	80.570	N/A	N/A	32.514	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:44
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP646-RW	

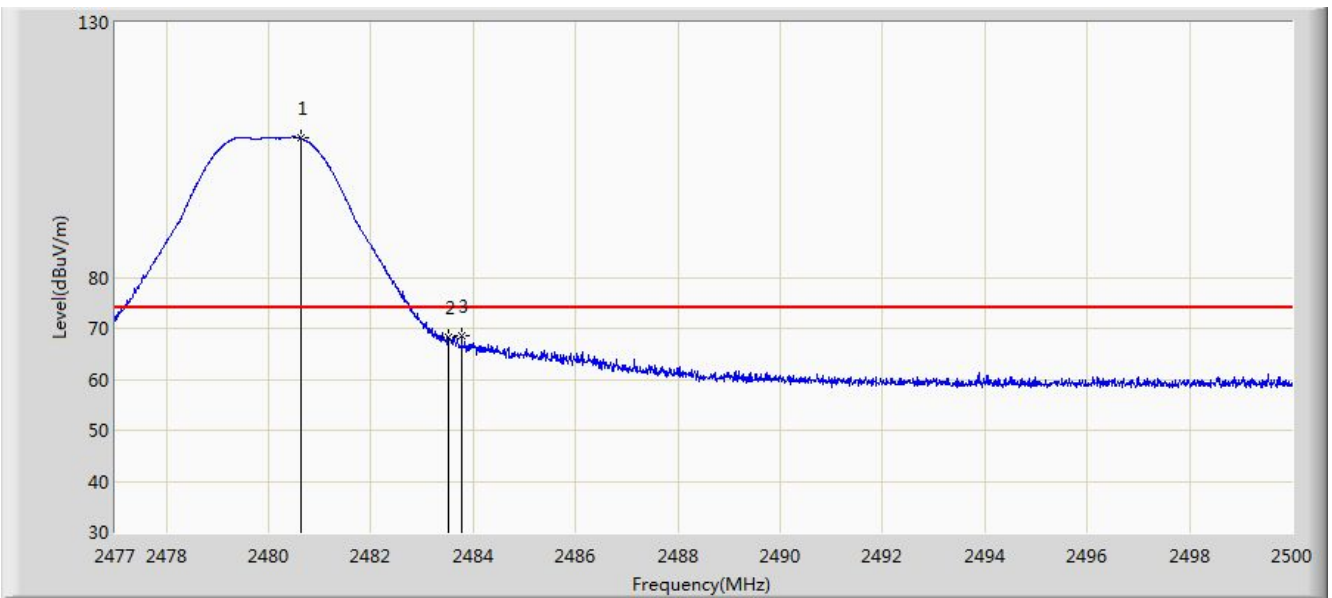


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	47.639	15.154	-6.361	54.000	32.485	AV
2		*	2401.850	106.921	74.408	N/A	N/A	32.513	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:57
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP646-RW	

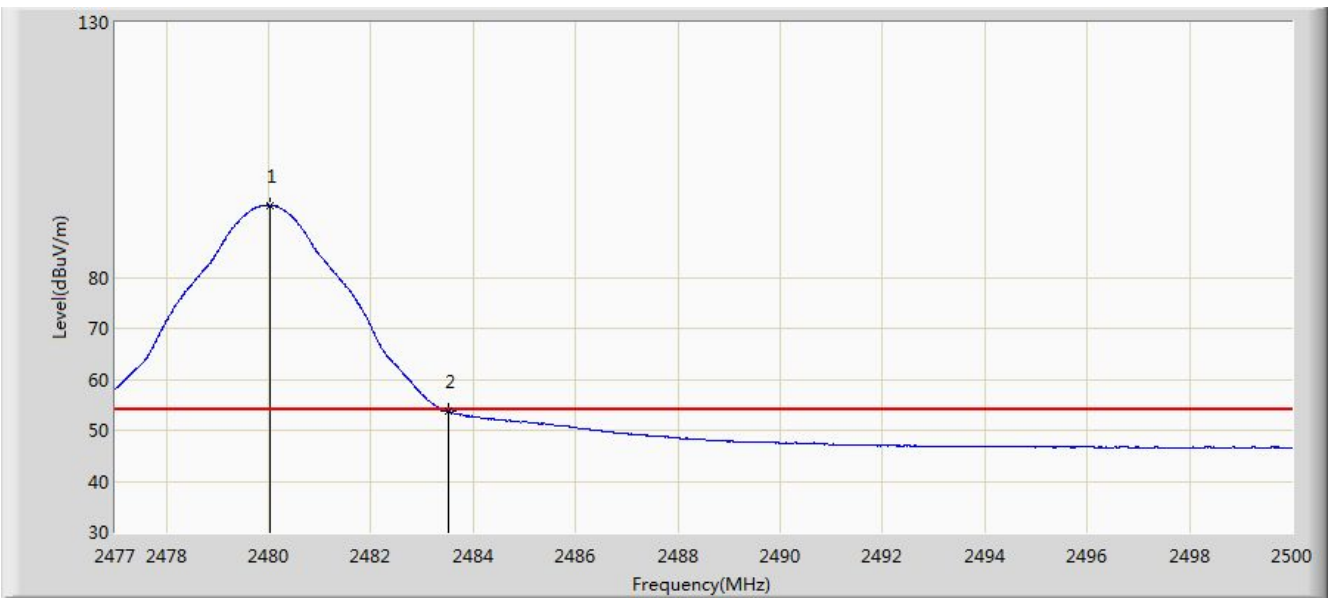


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.634	107.248	74.867	N/A	N/A	32.381	PK
2			2483.500	68.324	35.949	-5.676	74.000	32.375	PK
3			2483.773	68.553	36.179	-5.447	74.000	32.374	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 13:59
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP646-RW	

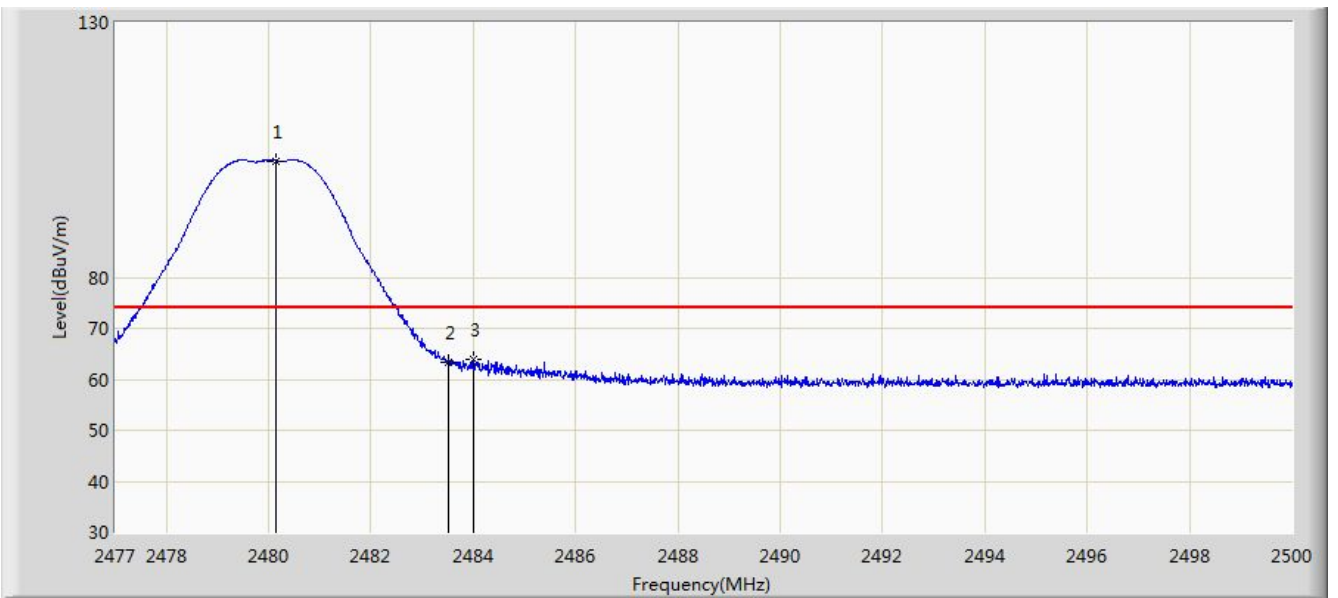


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.024	94.150	61.767	N/A	N/A	32.383	AV
2			2483.500	53.771	21.396	-0.229	54.000	32.375	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 14:02
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP646-RW	

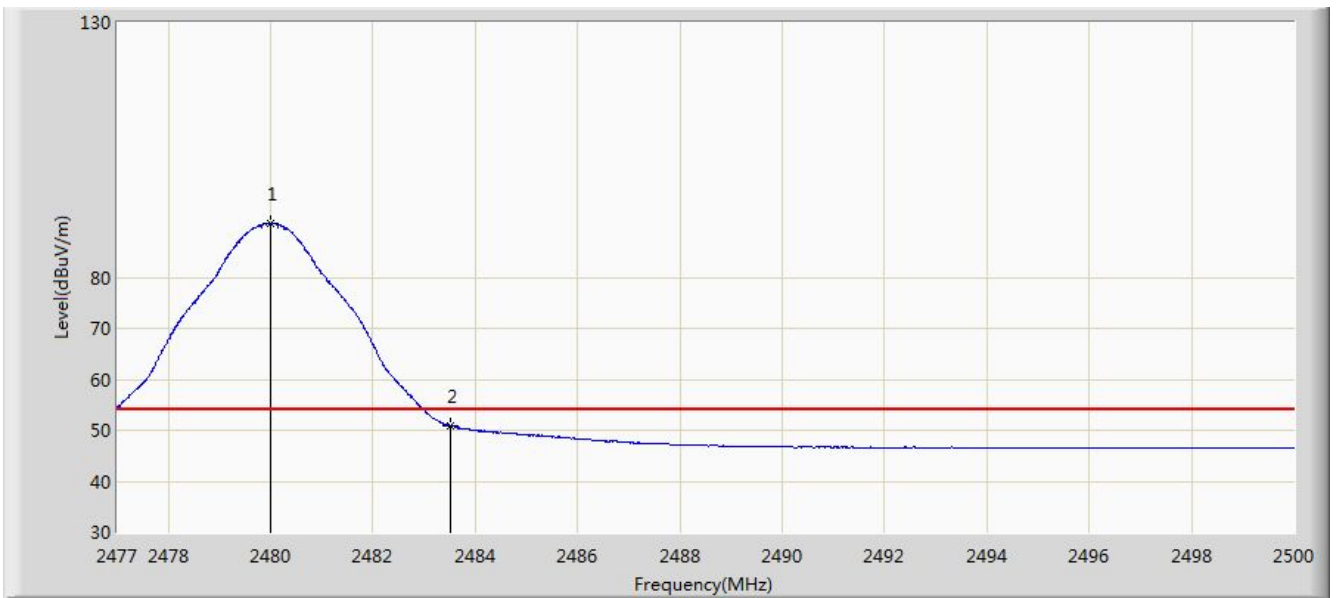


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.151	102.887	70.505	N/A	N/A	32.382	PK
2			2483.500	63.365	30.990	-10.635	74.000	32.375	PK
3			2483.992	63.815	31.441	-10.185	74.000	32.374	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2019/11/17 - 14:04
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP646-RW	

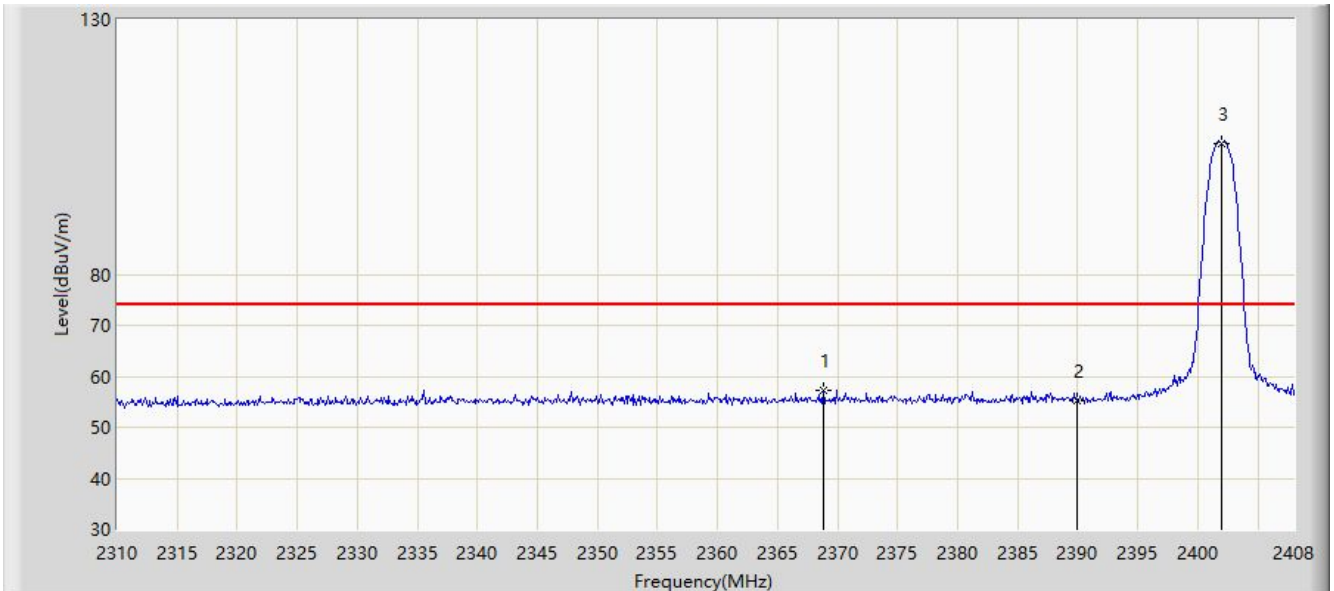


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.990	90.572	58.189	N/A	N/A	32.383	AV
2			2483.500	50.995	18.620	-3.005	54.000	32.375	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:14
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP647-RW	

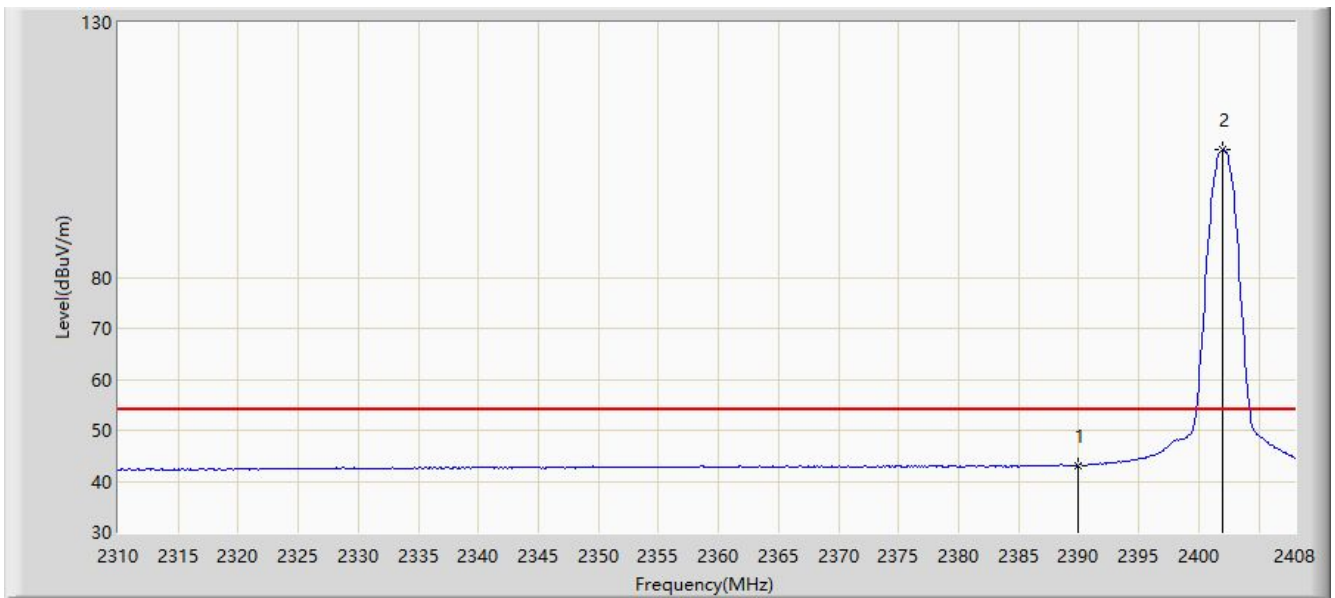


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2368.800	57.222	24.697	-16.778	74.000	32.525	PK
2			2390.000	55.348	22.863	-18.652	74.000	32.485	PK
3		*	2401.924	105.743	73.230	31.743	74.000	32.513	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:30
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP647-RW	

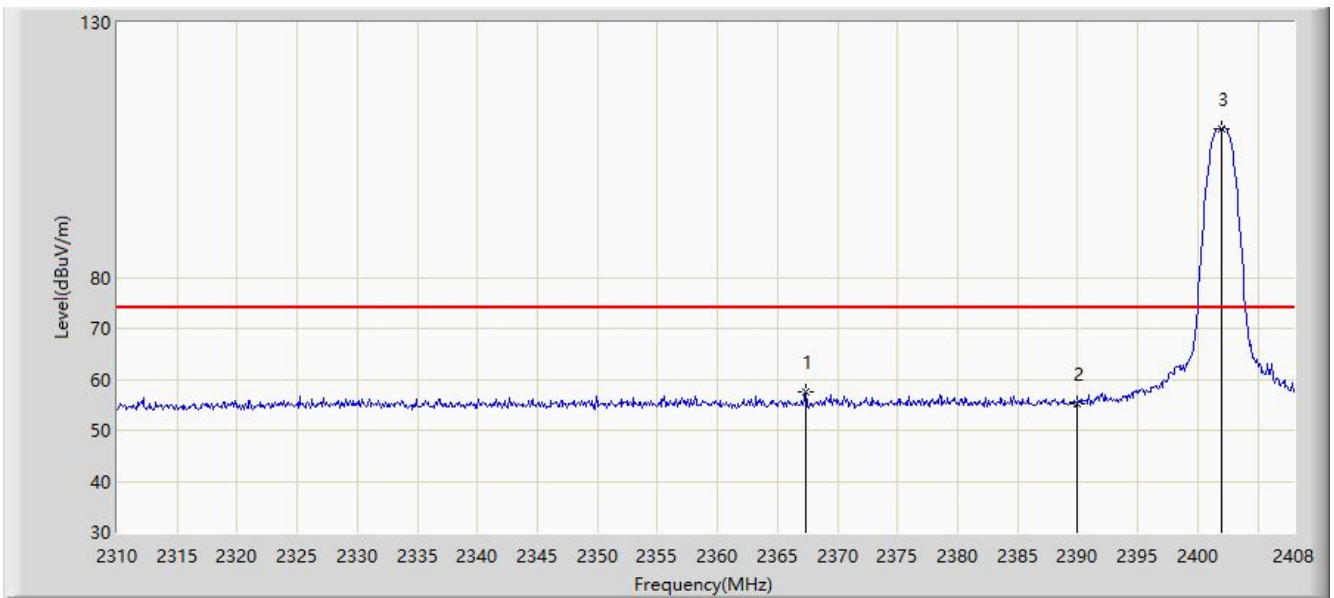


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	43.120	10.635	-10.880	54.000	32.485	AV
2		*	2401.924	105.118	72.605	51.118	54.000	32.513	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:30
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP647-RW	

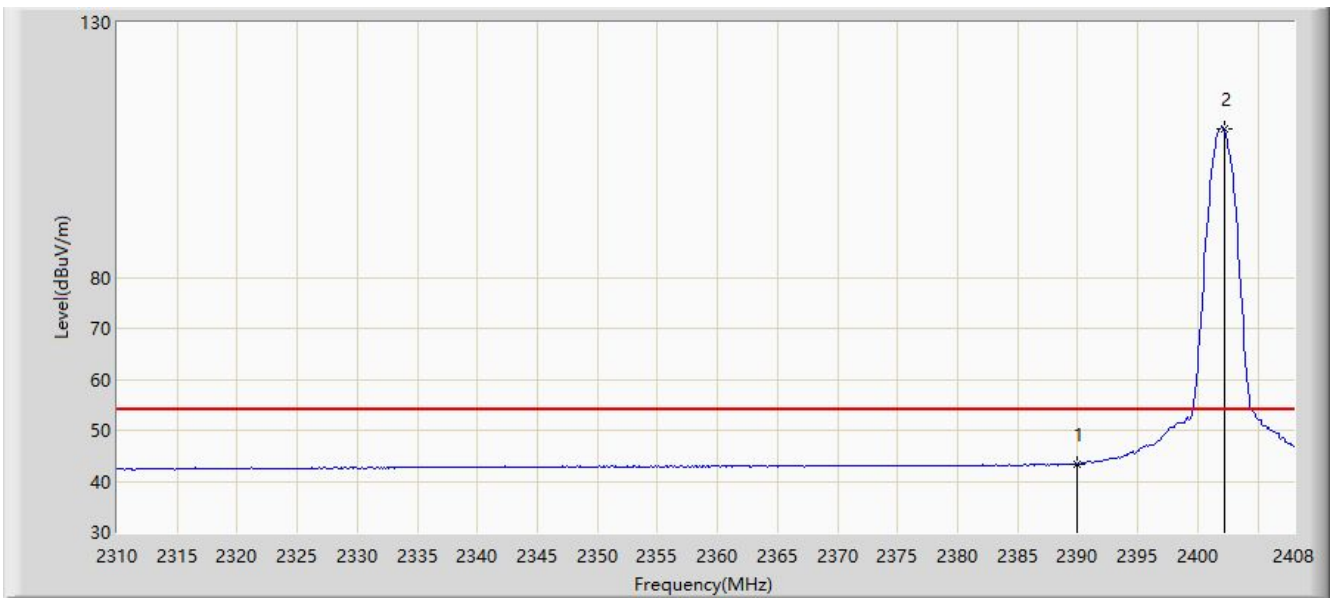


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2367.330	57.667	25.133	-16.333	74.000	32.534	PK
2			2390.000	55.304	22.819	-18.696	74.000	32.485	PK
3		*	2402.022	109.197	76.683	35.197	74.000	32.513	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:32
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2402MHz with DAP647-RW	

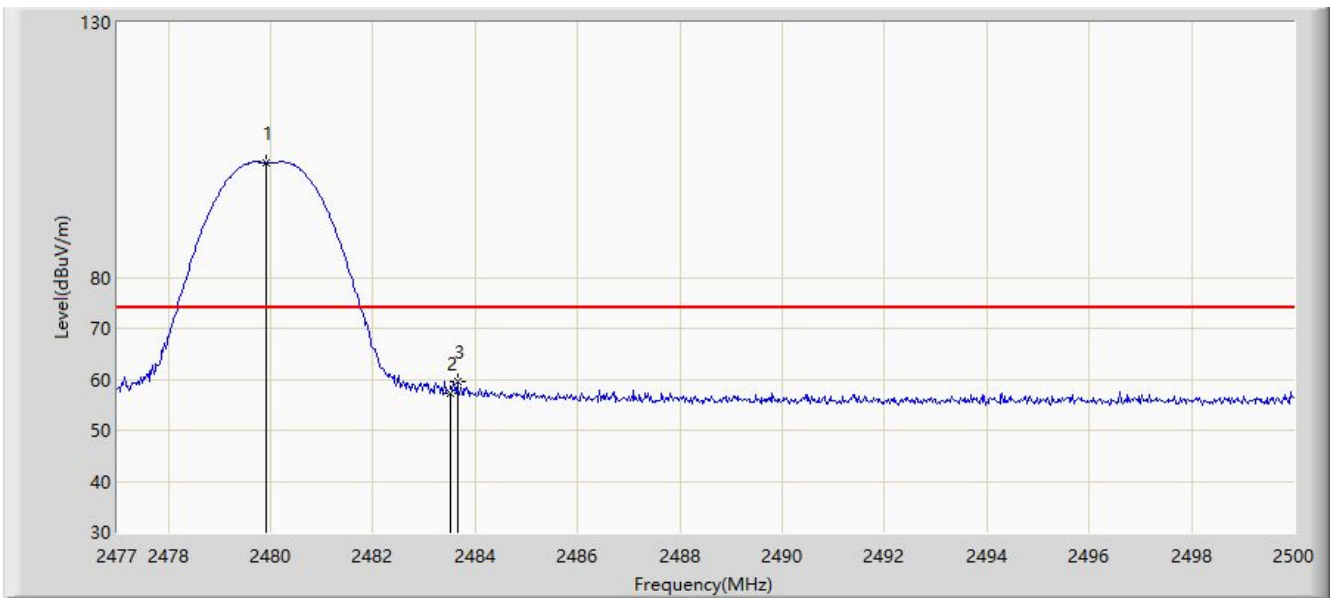


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	43.406	10.921	-10.594	54.000	32.485	AV
2	X	*	2402.218	109.069	76.555	55.069	54.000	32.514	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:33
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP647-RW	

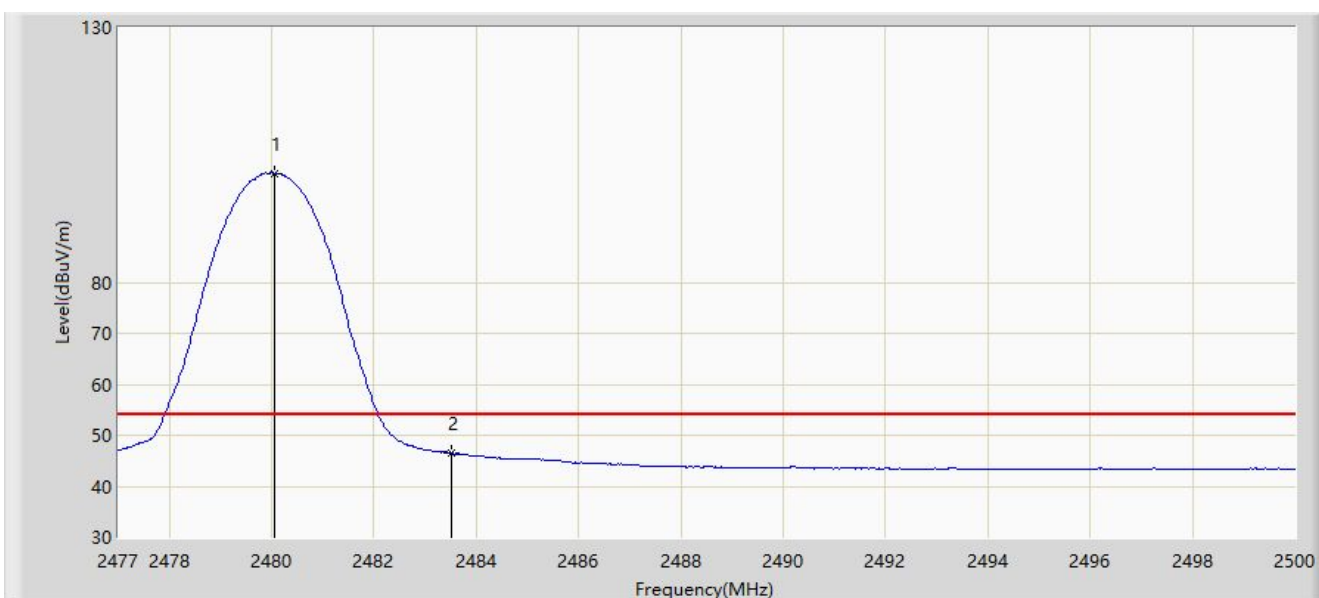


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.921	102.540	70.157	28.540	74.000	32.383	PK
2			2483.500	57.330	24.955	-16.670	74.000	32.375	PK
3			2483.647	59.447	27.073	-14.553	74.000	32.374	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:36
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP647-RW	

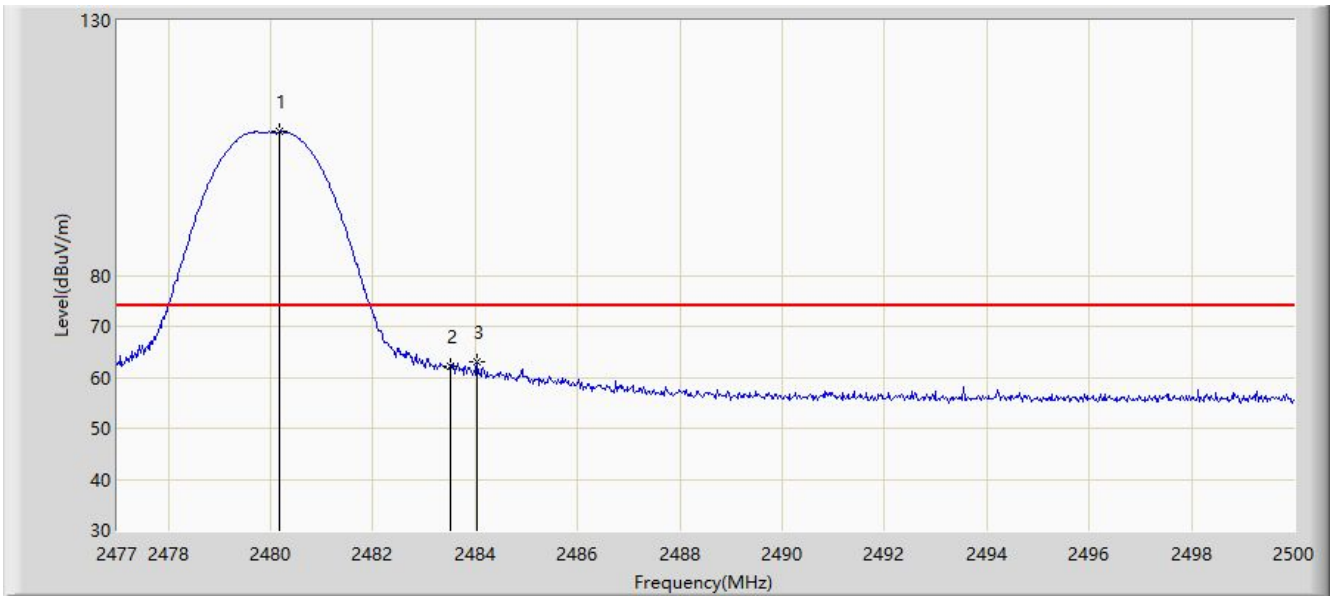


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.059	101.409	69.026	47.409	54.000	32.383	AV
2			2483.500	46.607	14.232	-7.393	54.000	32.375	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:36
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP647-RW	

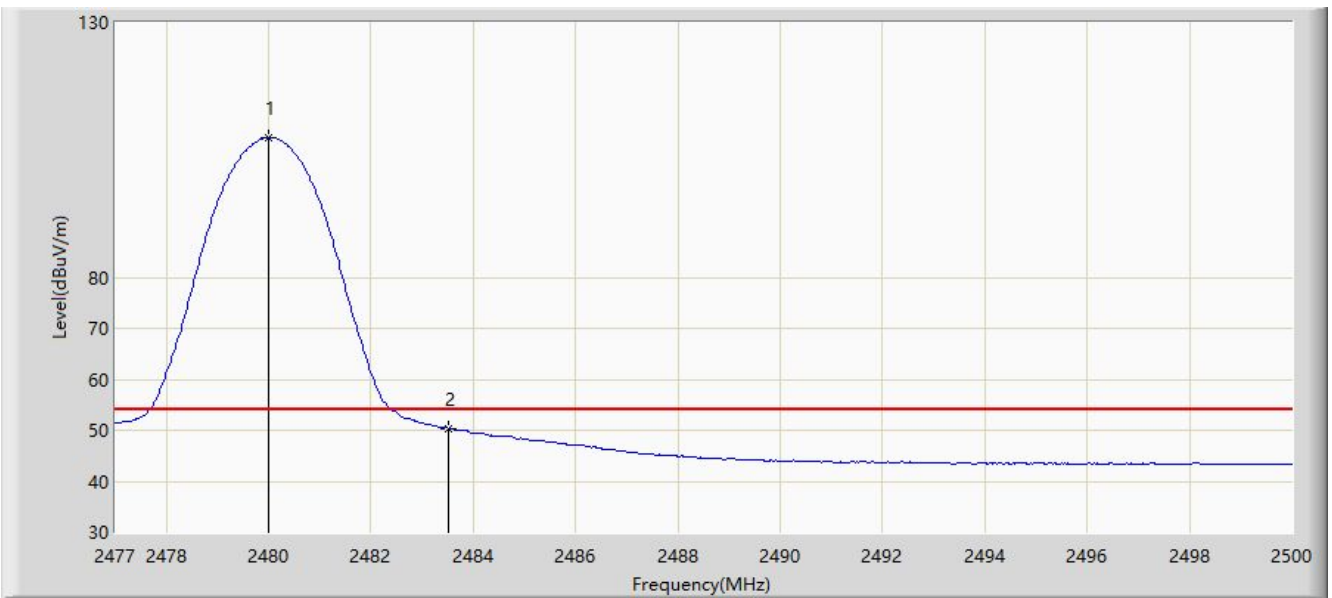


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.174	108.121	75.739	34.121	74.000	32.382	PK
2			2483.500	62.064	29.689	-11.936	74.000	32.375	PK
3			2484.038	62.961	30.588	-11.039	74.000	32.373	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:37
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 1Mbps at Channel 2480MHz with DAP647-RW	

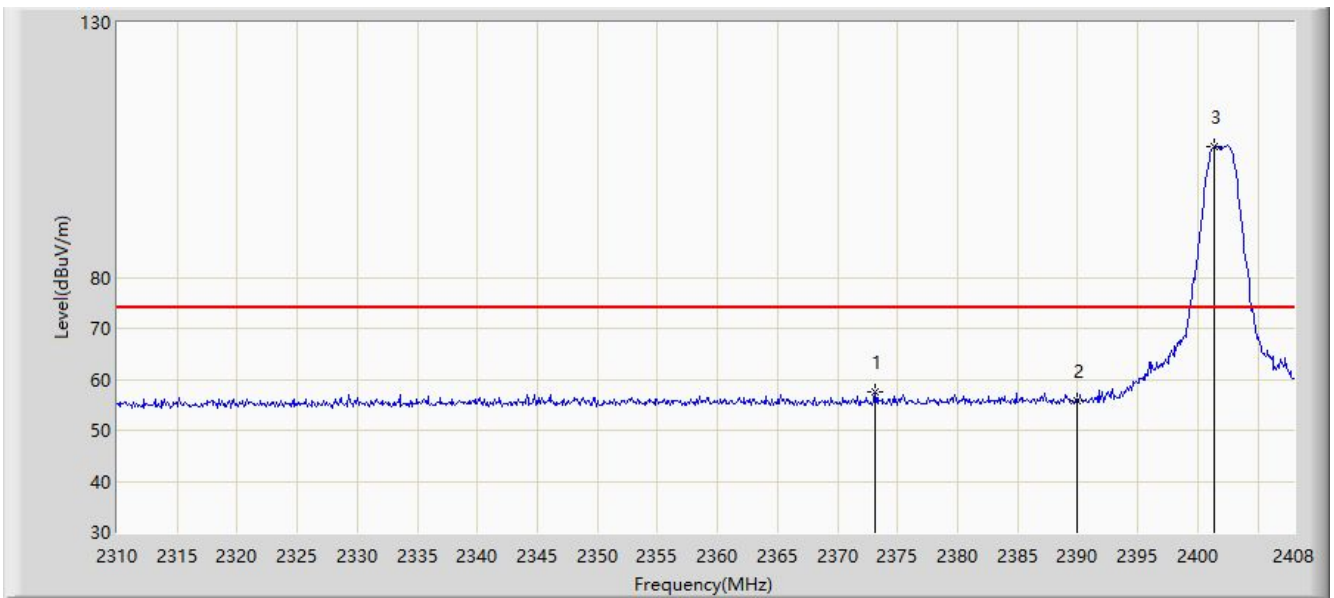


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.990	107.420	75.037	53.420	54.000	32.383	AV
2			2483.500	50.319	17.944	-3.681	54.000	32.375	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:38
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP647-RW	

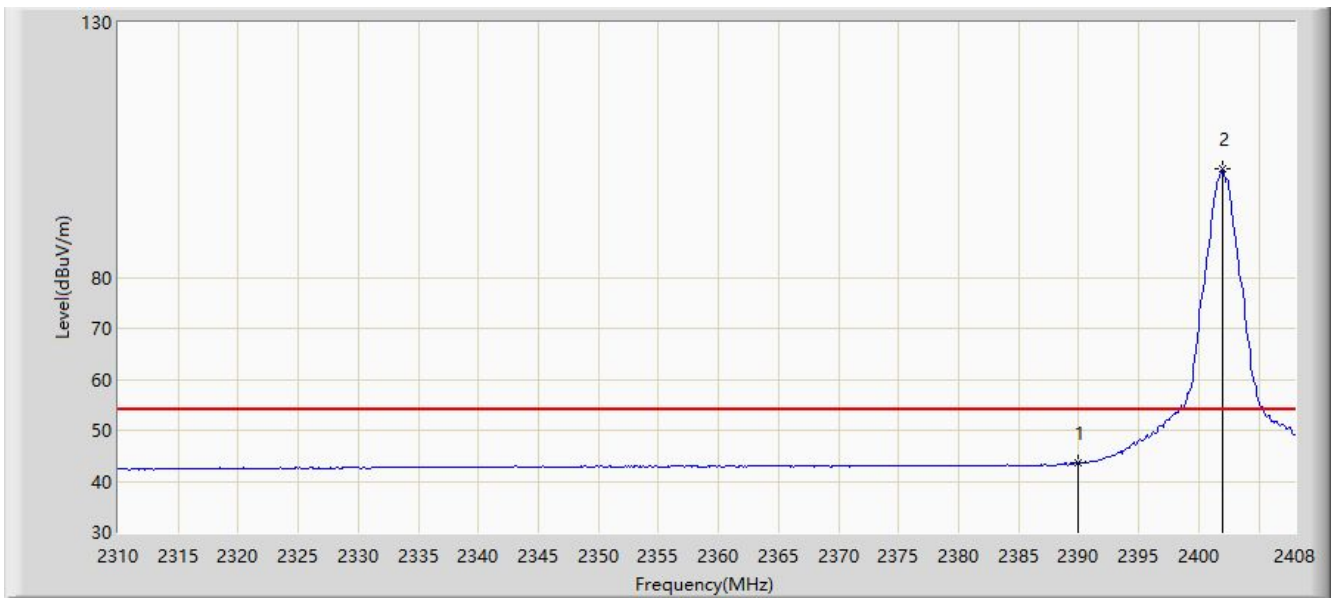


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2373.112	57.416	24.919	-16.584	74.000	32.496	PK
2			2390.000	55.902	23.417	-18.098	74.000	32.485	PK
3		*	2401.336	105.680	73.169	31.680	74.000	32.511	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:42
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP647-RW	

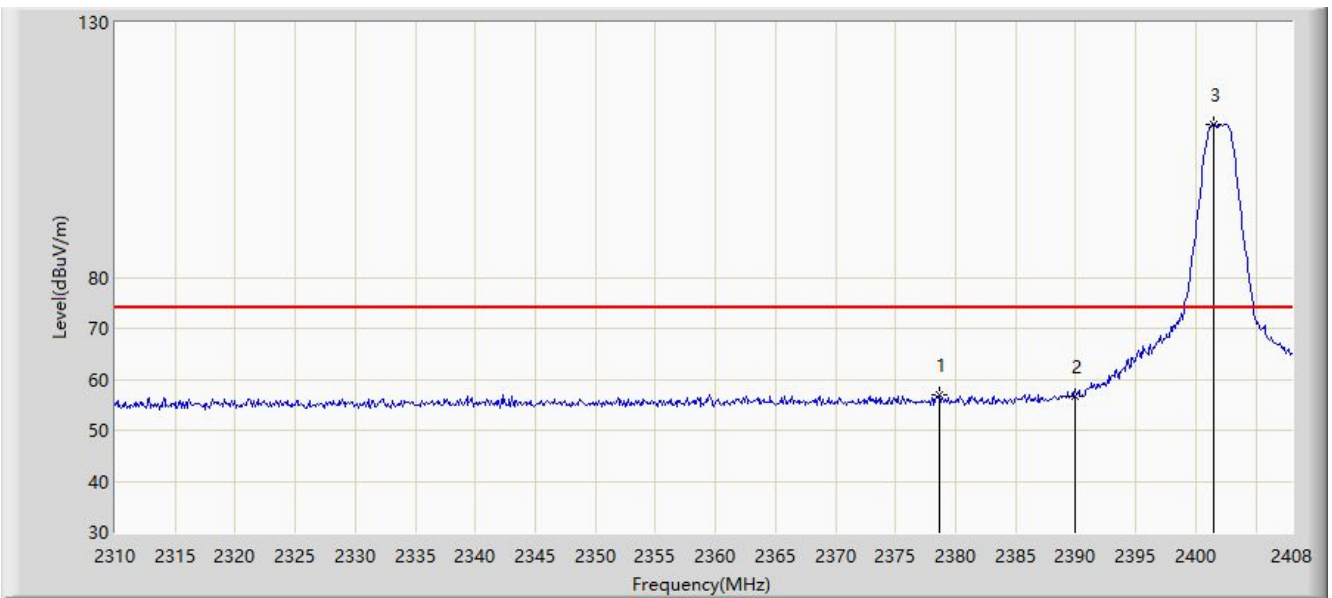


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	43.616	11.131	-10.384	54.000	32.485	AV
2		*	2401.924	101.381	68.868	47.381	54.000	32.513	AV

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:43
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP647-RW	

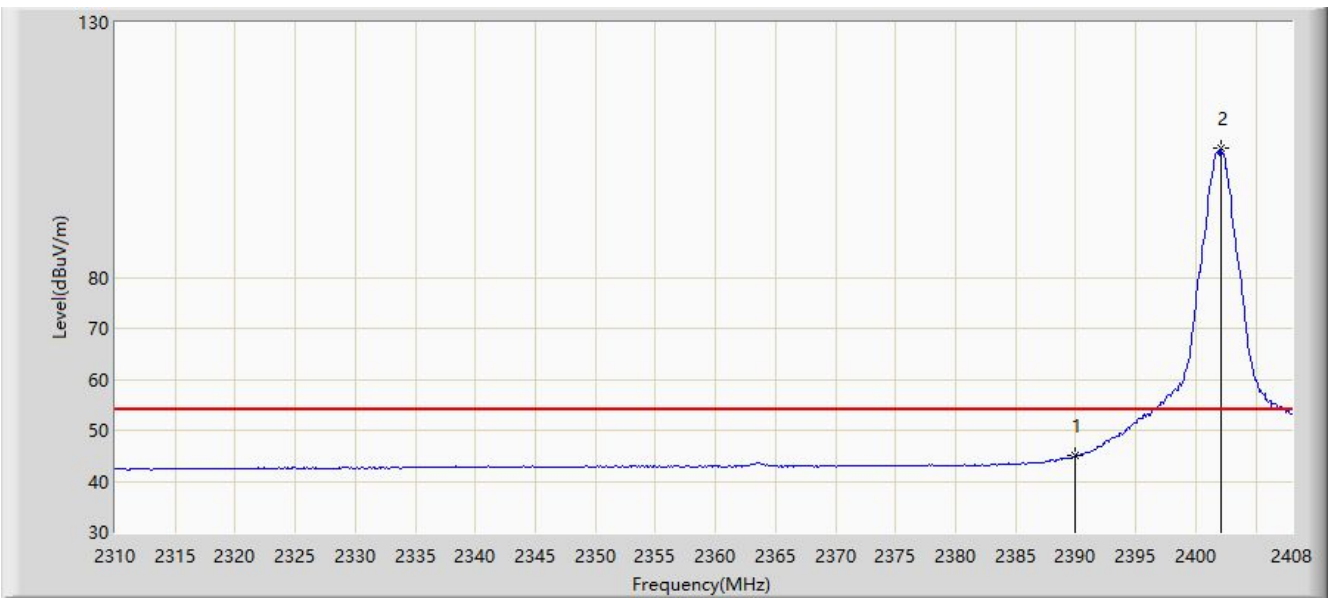


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2378.698	56.924	24.450	-17.076	74.000	32.474	PK
2			2390.000	56.632	24.147	-17.368	74.000	32.485	PK
3		*	2401.434	110.048	77.536	36.048	74.000	32.512	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:46
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2402MHz with DAP647-RW	

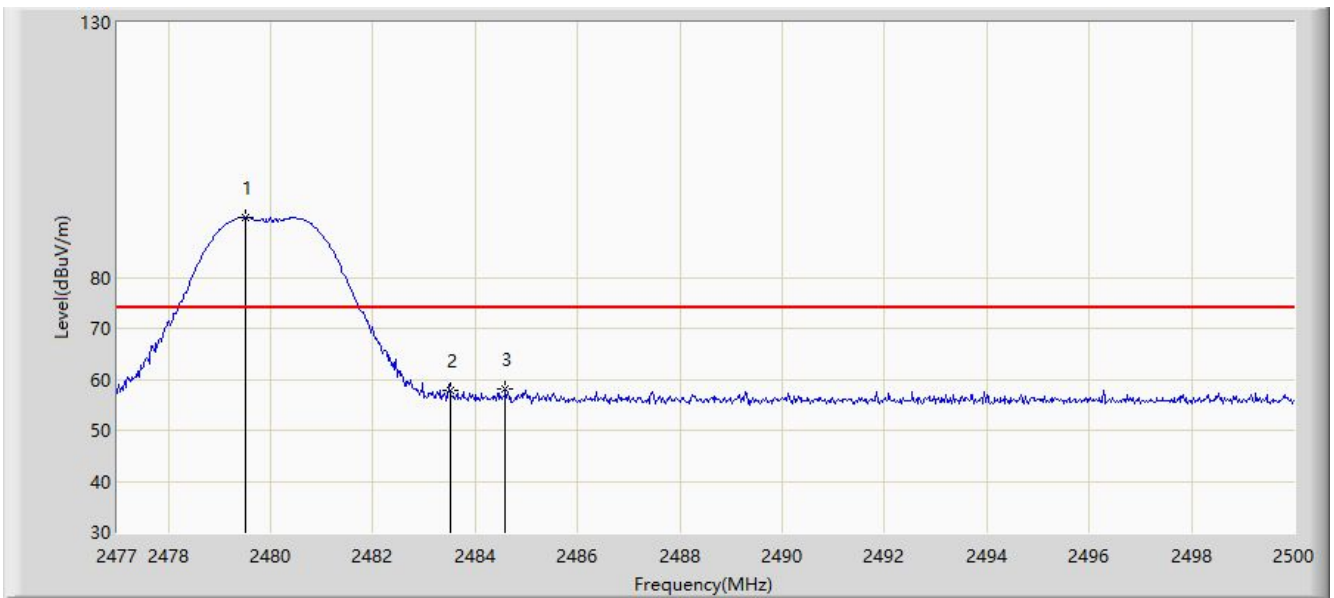


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.006	12.521	-8.994	54.000	32.485	AV
2		*	2402.120	105.405	72.891	51.405	54.000	32.514	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:46
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP647-RW	

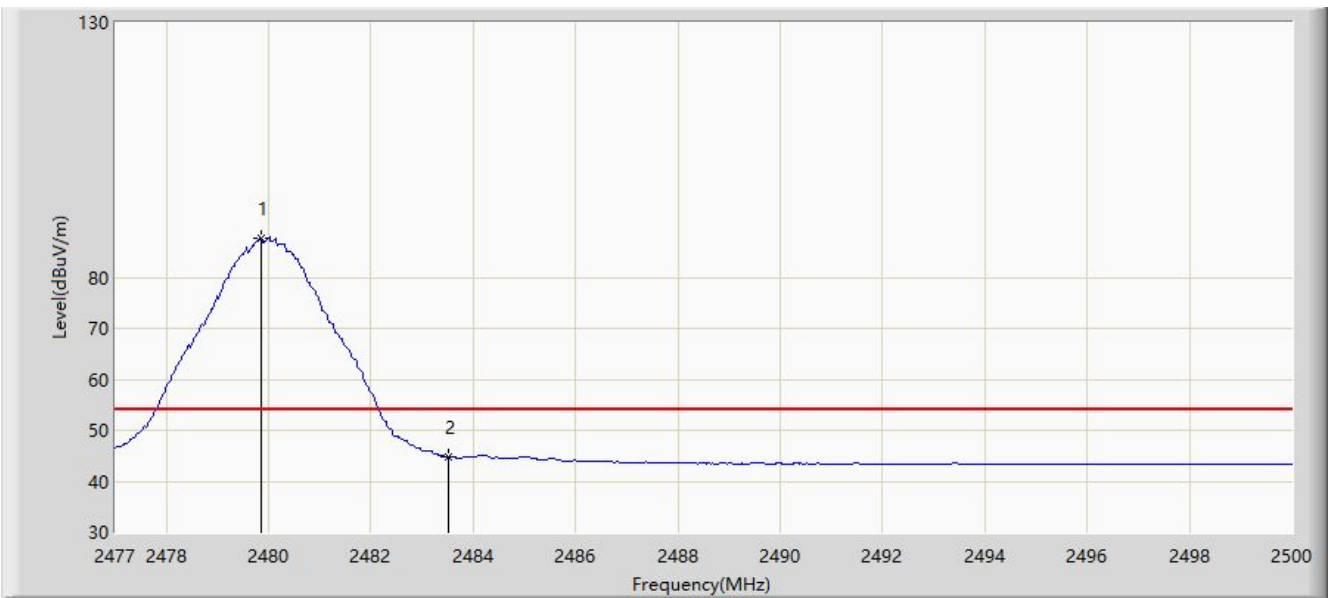


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.507	91.768	59.384	17.768	74.000	32.384	PK
2			2483.500	57.753	25.378	-16.247	74.000	32.375	PK
3			2484.590	58.103	25.731	-15.897	74.000	32.372	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:50
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP647-RW	

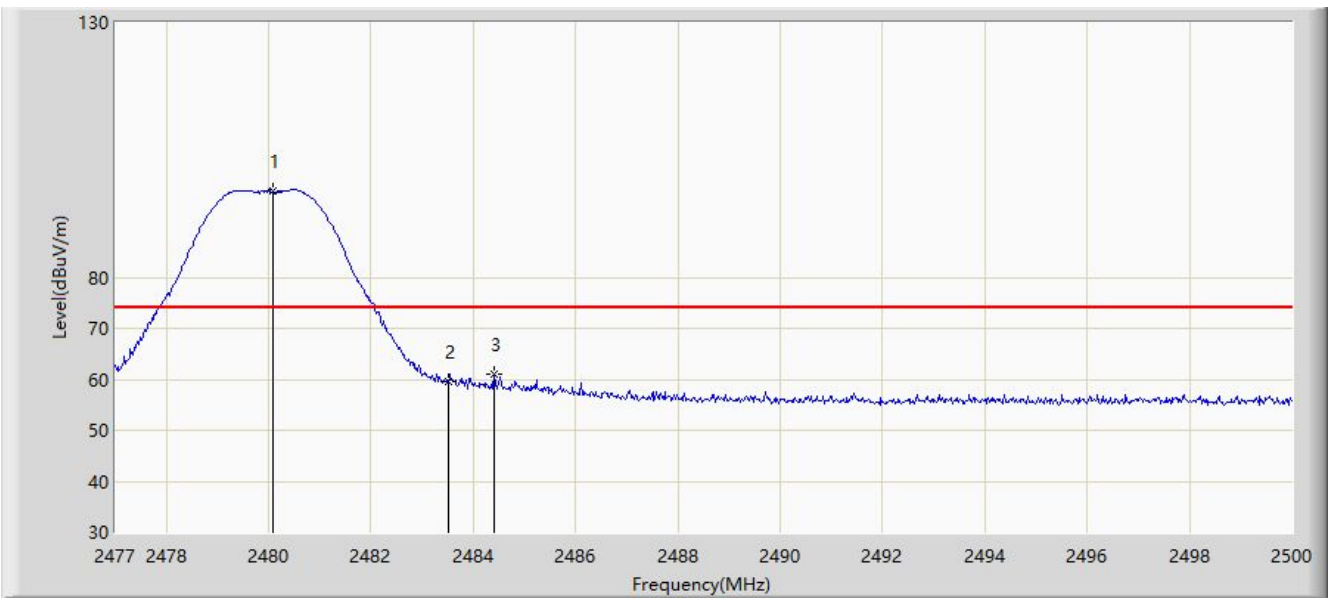


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.852	87.678	55.295	33.678	54.000	32.383	AV
2			2483.500	44.775	12.400	-9.225	54.000	32.375	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:50
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP647-RW	

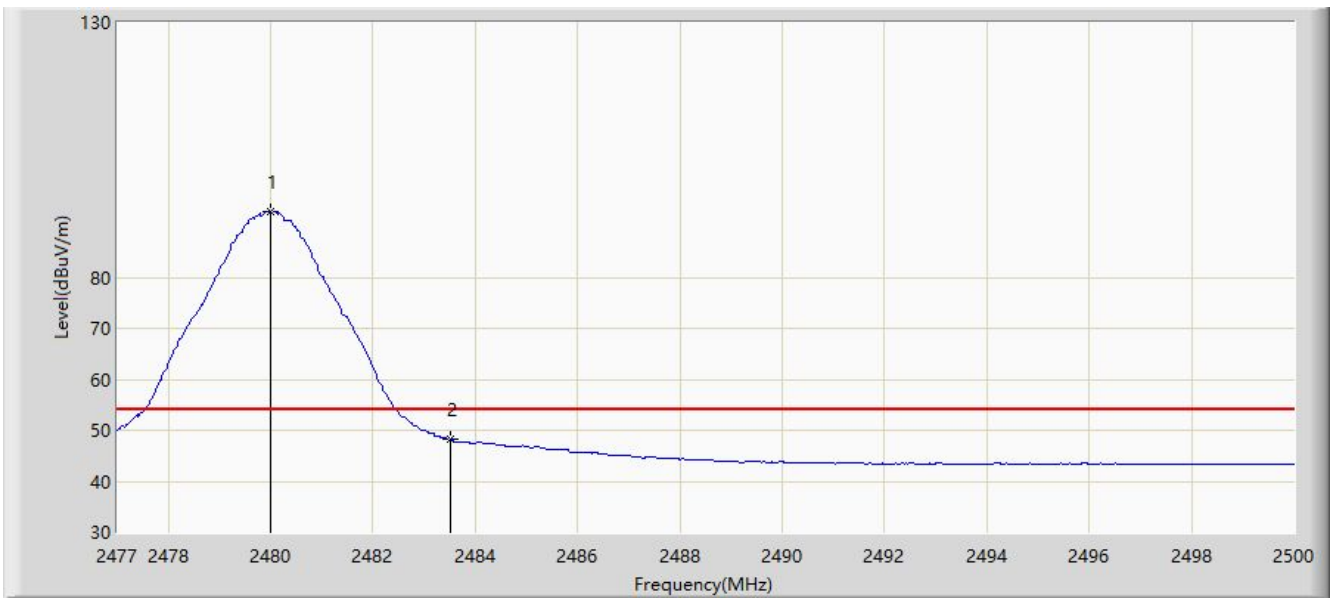


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2480.082	96.945	64.562	22.945	74.000	32.383	PK
2			2483.500	59.502	27.127	-14.498	74.000	32.375	PK
3			2484.406	60.948	28.575	-13.052	74.000	32.373	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: AC2	Time: 2020/01/16 - 17:52
Limit: FCC_Part15.209_RSE(3m)	Engineer: Tyler Yuan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: HIT Dragonfly Access Point	Power: By PoE
Test Mode: Transmit by BT5.1 - 2Mbps at Channel 2480MHz with DAP647-RW	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2479.990	93.000	60.617	39.000	54.000	32.383	AV
2			2483.500	48.343	15.968	-5.657	54.000	32.375	AV

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

7.8. AC Conducted Emissions Measurement

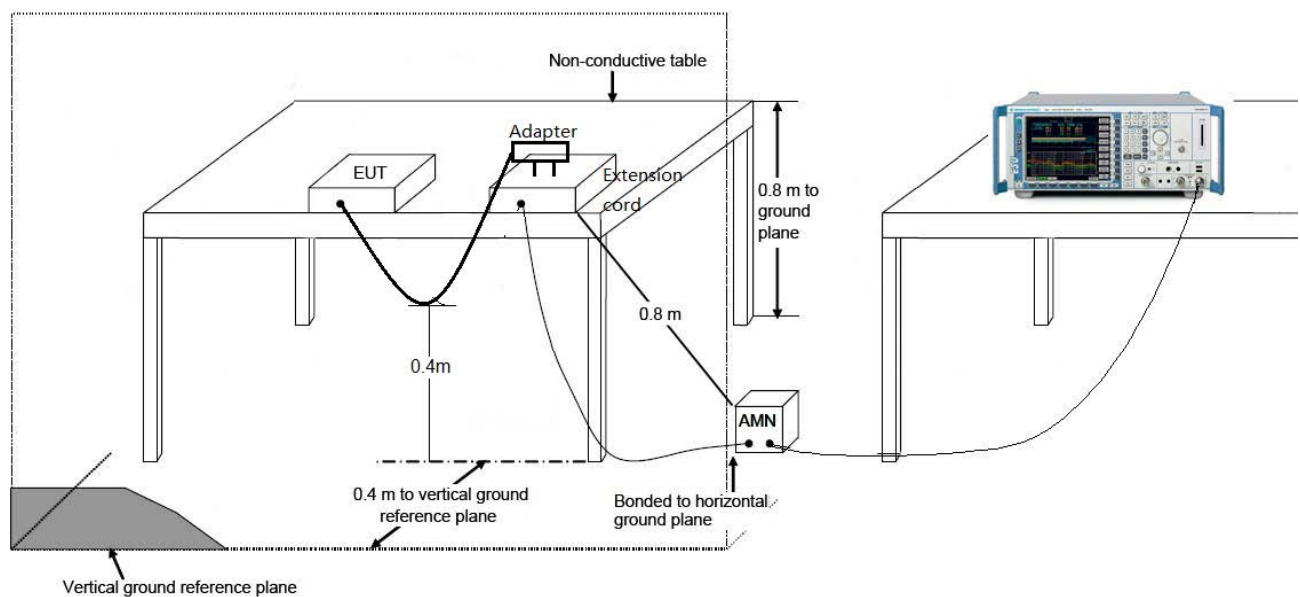
7.8.1. Test Limit

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

Note 1: The lower limit shall apply at the transition frequencies.

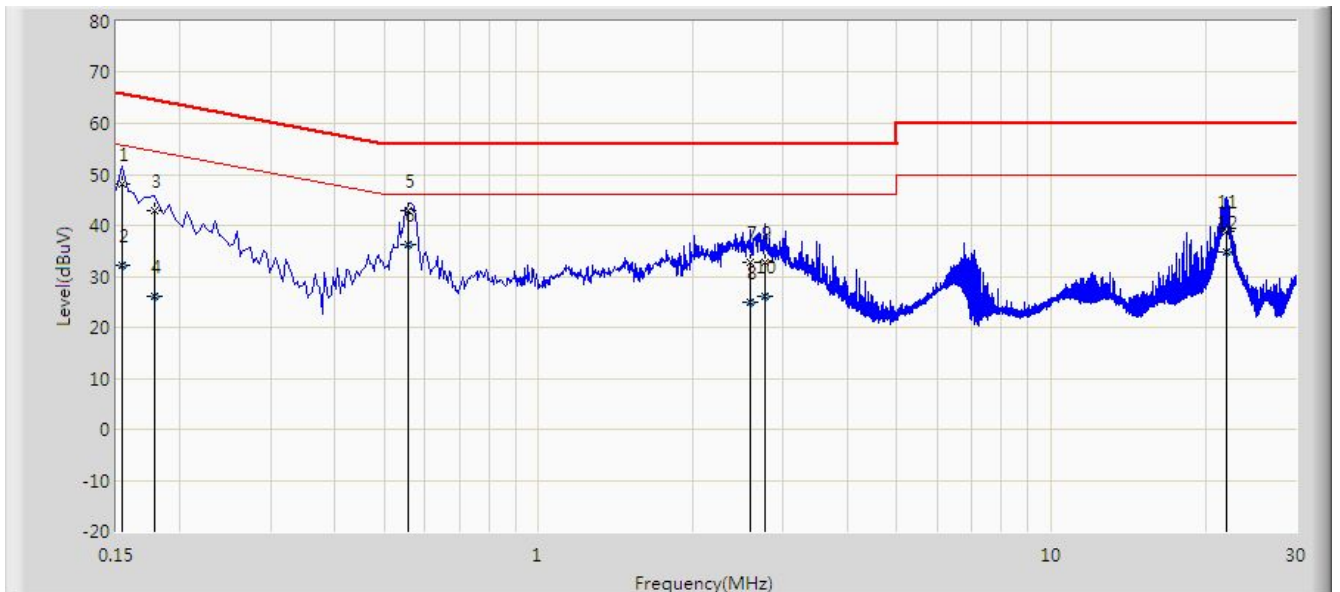
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.8.2. Test Setup



7.8.3.Test Result

Site: SR2	Time: 2020/03/01 - 14:10
Limit: FCC_Part15.207_CE_AC Power	Engineer: Liz Yuan
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: HIT Dragonfly Access Pointe	Power: AC 120V/60Hz
Test Mode: Transmit by BT5.1 at channel 2402MHz with DAP647-RW	

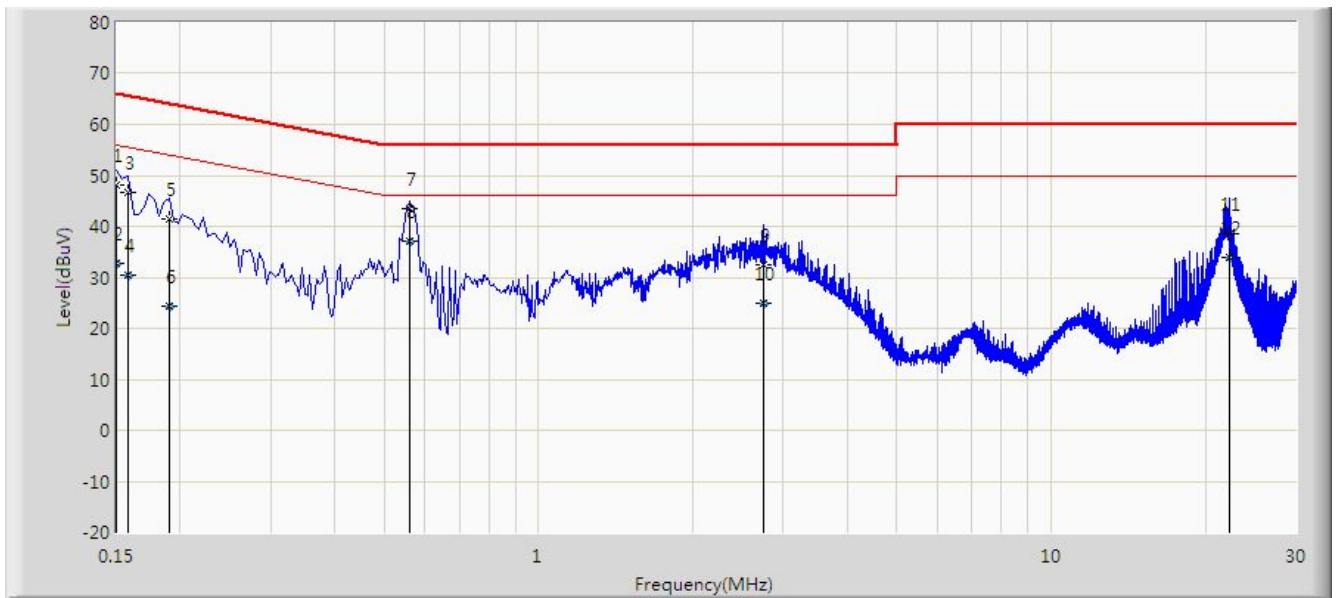


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.154	47.993	37.254	-17.788	65.781	10.740	QP
2			0.154	32.198	21.459	-23.583	55.781	10.740	AV
3			0.178	42.993	32.935	-21.586	64.578	10.058	QP
4			0.178	26.077	16.019	-28.501	54.578	10.058	AV
5			0.558	42.944	32.808	-13.056	56.000	10.137	QP
6		*	0.558	36.357	26.220	-9.643	46.000	10.137	AV
7			2.586	32.654	22.801	-23.346	56.000	9.853	QP
8			2.586	24.946	15.093	-21.054	46.000	9.853	AV
9			2.762	32.619	22.770	-23.381	56.000	9.848	QP
10			2.762	25.998	16.149	-20.002	46.000	9.848	AV
11			21.954	38.941	28.769	-21.059	60.000	10.173	QP
12			21.954	34.687	24.514	-15.313	50.000	10.173	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SR2	Time: 2020/03/01 - 14:15
Limit: FCC_Part15.207_CE_AC Power	Engineer: Liz Yuan
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: HIT Dragonfly Access Pointe	Power: AC 120V/60Hz
Test Mode: Transmit by BT5.1 at channel 2402MHz with DAP647-RW	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.150	48.026	36.884	-17.974	66.000	11.142	QP
2			0.150	32.744	21.602	-23.256	56.000	11.142	AV
3			0.158	46.592	36.303	-18.976	65.568	10.290	QP
4			0.158	30.366	20.076	-25.202	55.568	10.290	AV
5			0.190	41.374	31.346	-22.663	64.037	10.028	QP
6			0.190	24.338	14.310	-29.699	54.037	10.028	AV
7			0.562	43.553	33.401	-12.447	56.000	10.152	QP
8		*	0.562	36.980	26.828	-9.020	46.000	10.152	AV
9			2.738	32.418	22.565	-23.582	56.000	9.853	QP
10			2.738	25.060	15.207	-20.940	46.000	9.853	AV
11			22.242	38.576	28.357	-21.424	60.000	10.218	QP
12			22.242	33.896	23.677	-16.104	50.000	10.218	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

8. CONCLUSION

The data collected relate only the item(s) tested and show that the unit is compliance with Part 15C of the FCC rules.

The End

Appendix A - Test Setup Photograph

Refer to “2201RSU009-UT” file.

Appendix B - EUT Photograph

Refer to “2201RSU009-UE” file.