MEASUREMENT REPORT
(Class II Change)

FCC PART 15 Subpart E- WLAN 802.11a/n

FCC ID:	2ARBSEL300530S
APPLICANT:	Hewlett Packard Enterprise
Application Type:	Certification
Product:	Wifi/BT Module
Model No.:	EL300_ARTIK-530
FCC Classification:	Unlicensed National Information Infrastructure (UNII)
FCC Rule Part(s):	Part 15 Subpart E (Section 15.407)
Test Procedure(s):	ANSI C63.10-2013, KDB 789033 D02v02r01, KDB 662911 D01v02r01
Received Date:	August 21, 2018
Test Date:	November 7 ~ December 18, 2018

Tested By : Fran Chen
(Fran Chen)

Reviewed By : Paddy Chen
(Paddy Chen)

Approved By : Chenz Ker
(Chenz Ker)

Testing Laboratory
3261

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 KDB 789033 D02v02r01. 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 (Taiwan) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
1808TW5101-U5	1.0	Original Report	2019-01-14	

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§2.1033 General Information

Applicant	Hewlett Packard Enterprise
Applicant Address	11445 Compaq Center Dr W Houston 77070 United States
Manufacturer	Inventec Corporation
Manufacturer Address	No.88, Dazhi Rd. Taoyuan Dist. 33068 Taoyuan City, Taiwan
Test Site	MRT Technology (Taiwan) Co., Ltd
Test Site Address	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
MRT FCC Registration No.	291082
FCC Rule Part(s)	Part 15 Subpart E (Section 15.407)
Model No.	EL300_ARTIK-530
Test Device Serial No.	N/A ☐ Production ☒ Pre-Production ☐ Engineering
FCC Classification	Unlicensed National Information Infrastructure (UNII)

Test Facility / Accreditations

1. MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
2. MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.
3. MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Taiwan, EU and TELEC Rules.

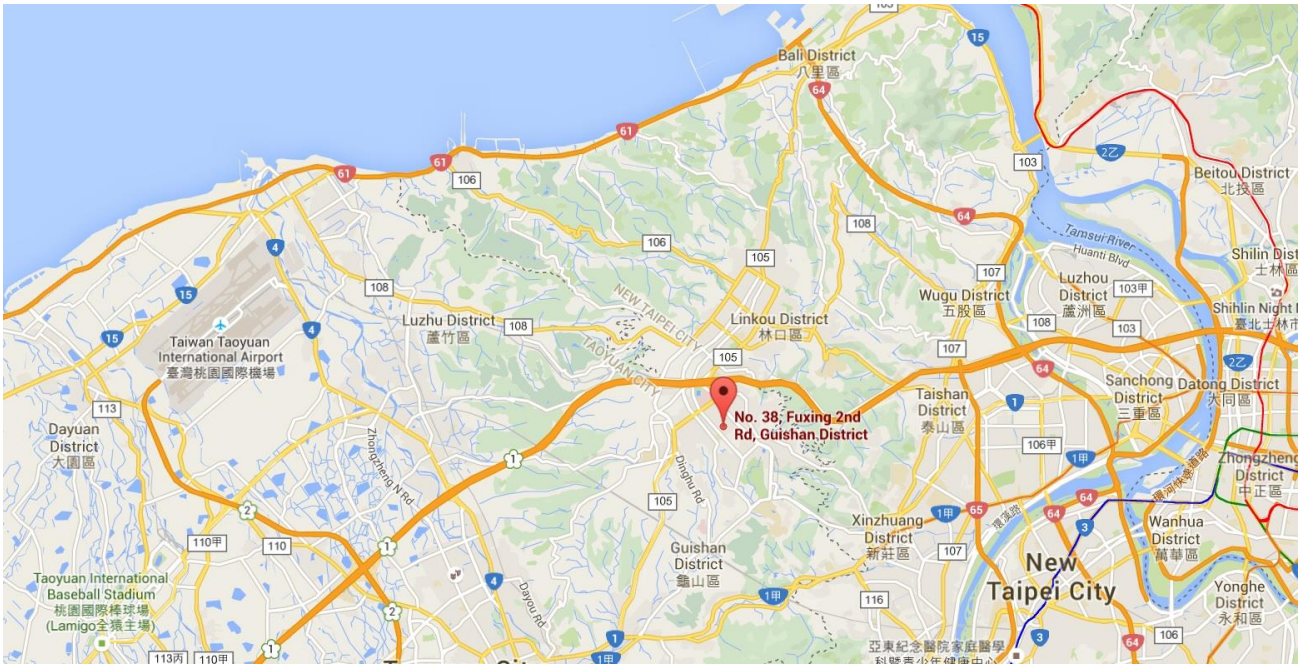
1. INTRODUCTION

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 Industry Canada Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name	Wifi/BT Module
Model No.	EL300_ARTIK-530
Trademark	Hewlett Packard Enterprise
Hardware Version Identification Number (HVIN)	1.04
Firmware Version Identification Number (FVIN)	v1.1
Emission Designator	D1D
Host Supports Radios Spec.	**WLAN (Contains FCC ID : 2ARBSEL3009260):** 2.4G: 802.11b/g/n-20/n-40 5G: 802.11a/n-20/ac-20/n-40/ac-40/ac-80/ac-160, Band 1,2,3,4 Bluetooth Dual Mode: V2.1+EDR/ V5.0 LE **WLAN (Contains FCC ID : 2ARBSEL300530S):** 2.4G: 802.11b/g/n-20 5G: 802.11a/n-20/n-40, Band 1,2,3,4 Bluetooth Dual Mode: V2.1+EDR/ V4.2 LE **WWAN (Contains FCC ID : 2ARBSEL3007565):** 3G: WCDMA Band 2,4,5 4G: FDD Band 2,4,5,7,12,13,26,30,66; TDD Band 41 4G: CA Band 7,41 **GNSS**
Wi-Fi Specification	802.11a/n
Frequency Range	**5GHz:** For 802.11a/n-HT20: 5180~5320MHz, 5500~5700MHz, 5745~5825MHz For 802.11n-HT40: 5190~5310MHz, 5510~5670MHz, 5755~5795MHz

Maximum Output Power	802.11a: 12.65 dBm 802.11n-HT20: 12.81 dBm 802.11n-HT40: 12.92 dBm
Modulation Type	802.11a/n-20/n-40: OFDM (BPSK, QPSK, 16QAM, 64QAM,256QAM)
Power Adapter	MFR: FSP GROUP INC. Model No: FSP096-AHAN3 Input: AC 100-240V~1.8A, 50-60Hz Output: DC 12V, 8A Cable Out: Non-shielding, 1.8m with Core*1

Note: This case is change the following points from the original model, so the C2PC (Radiated Spurious Emission, Conducted Output Power, AC Conducted Emissions) is executed. (Original Report Grant Date: 12/27/2018, FCC ID: 2ARBSEL300530S)

1. Add a host : **HPE EL300 Converged Edge System** Brand : **HPE**, Product : **HSTNS-2162**

2. Change the type and higher gain of antenna

	Frequency		Antenna Type	Gain(dBi)
Original	2.4G	2402M~2480M	Dipole	1.43
	5G	5.2G(5150M~5350M)		0.91
		5.6G(5470M~5725M)		0.69
		5.8G(5725M~5850M)		-1.52
New	2.4G	2402M~2480M	PIFA	2
	5G	5.2G(5150M~5350M) 5.6G(5470M~5725M) 5.8G(5725M~5850M)		2

3. Remove the Zigbee (2405 ~2480MHz) by software from DTS grant , No hardware changes have been made.

2.2. Operation Frequencies and Channel List

802.11 n-HT20

Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz
48	5240 MHz	52	5260 MHz	56	5280 MHz
60	5300 MHz	64	5320 MHz	100	5500 MHz
104	5520 MHz	108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz
128	5640 MHz	132	5660 MHz	136	5680 MHz
140	5700 MHz	144	5720 MHz	149	5745 MHz
153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz	--	--	--	--

802.11 n-HT40

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

2.3. Test Mode

Test Mode	Mode 1: Transmit by 802.11a
	Mode 2: Transmit by 802.11n-HT20
	Mode 3: Transmit by 802.11n-HT40

2.4. Test Software

The test utility software used during testing was “adb”.

2.5. Device Capabilities

This device contains the following capabilities:

2.4GHz WLAN (DTS) and 5GHz WLAN (NII).

Note: 5GHz (NII) operation is possible in 20MHz, 40MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = average per the guidance of Section B)2)b) of KDB 789033 D02v02r01. 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
802.11a	100%
802.11n-HT20	100%
802.11n-HT40	100%

2.6. Test Configuration

This device was tested per the guidance of KDB 789033 D02v02r01. ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

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.

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 KDB 789033 were used in the measurement of the device.

Deviation from measurement procedure…….....None

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 9'x4'x3' 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, 50Ω/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 are 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.

Line conducted emissions test results are shown in Section 7.10.

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 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."

- The antenna of the **Wifi/BT Module,** is permanently attached.
- There are no provisions for connection to an external antenna.

Conclusion:

The EUT unit complies with the requirement of §15.203.

Antenna List

No.	Manufacturer	Part No.	Antenna Type	Peak Gain
1	LUXSHARE-ICT	L01RF031-DT-R	PIFA	2dBi

5. TEST EQUIPMENT CALIBRATION DATE

Conducted Emissions – SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Two-Line V-Network	R&S	ENV216	MRTTWA00019	1 year	2019/3/20
Cable	Rosnol	N1C50-RG400-B 1C50-500CM	MRTTWE00013	1 year	2019/5/18
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2019/3/19

Radiated Emissions – AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00001	1 year	2019/5/22
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2019/3/19
Acitve Loop Antenna	Schwarzbeck	FMZB 1519B	MRTTWA00002	1 year	2019/4/24
Broadband Horn antenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	1 year	2019/4/24
Breitband Hornantenna	Schwarzbeck	BBHA 9170	MRTTWA00004	1 year	2019/4/23
Broadband Amplifier	Schwarzbeck	BBV 9721	MRTTWA00006	1 year	2019/4/23
Broadband Preamplifier	SCHWARZBECK	BBV 9718	MRTTWA00005	1 year	2019/4/23
Cable	HUBERSUHNER	SF106	MRTTWA00010	1 year	2019/5/18
Cable	Rosnol	K1K50-UP0264-K1K50-4M	MRTTWA00012	1 year	2019/7/30

Conducted Test Equipment – SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2019/7/30
USB Wideband Power Sensor	KEYSIGHT	U2021XA	MRTTWA00015	1 year	2019/3/20

Test Software

Software	Version	Function
e3	9.160520a	EMI Test Software
EMI	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.

AC Conducted Emission Measurement – SR2
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 150kHz~30MHz: 2.42dB
Conducted Measurement– SR1
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.3dB
Radiated Emission Measurement – AC1
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): Horizontal: 9K~30MHz: 4.14dB 30MHz~1GHz: 4.22dB 1GHz~40GHz: 4.05dB Vertical: 9K~30MHz: 4.14dB 30MHz~1GHz: 3.37dB 1GHz~40GHz: 4.08dB

7. TEST RESULT

7.1. Summary

Company Name: **Wifi/BT Module**

Data Rate(s) Tested: **6Mbps ~ 54Mbps (a);**
6.5/7.2Mbps ~ 65/72.2Mbps (n-HT20);
13.5/15.0Mbps ~ 135/15-Mbps (n-HT40);

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.407(a)	26dB Bandwidth	N/A	Conducted	N/A	Original Report
15.407(e)	6dB Bandwidth	≥ 500kHz		N/A	Original Report
15.407(a)(1)(i), (2), (3)	Maximum Conducted Output Power	Refer to Section 7.5		Pass	Section 7.5
15.407(h)(1)	Transmit Power Control	≤ 24 dBm		N/A	Original Report
15.407(a)(1)(i), (2), (3), (5)	Power Spectral Density	Refer to Section 7.7		N/A	Original Report
15.407(b)(1), (4)	Undesirable Emissions	≤ -27dBm/MHz EIRP ≤ -17dBm/MHz EIRP	Radiated	Pass	Section 7.8 & 7.9
15.205, 15.209 15.407(b)(5), (6), (7)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209		Pass	
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 7.10

Notes:

1) All channels, modes, and modulations/data rates were investigated among all UNII bands. The test results shown in the following sections represent the worst case emissions.
2) 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.

7.2. 26dB Bandwidth Measurement

7.2.1. Test Limit

N/A

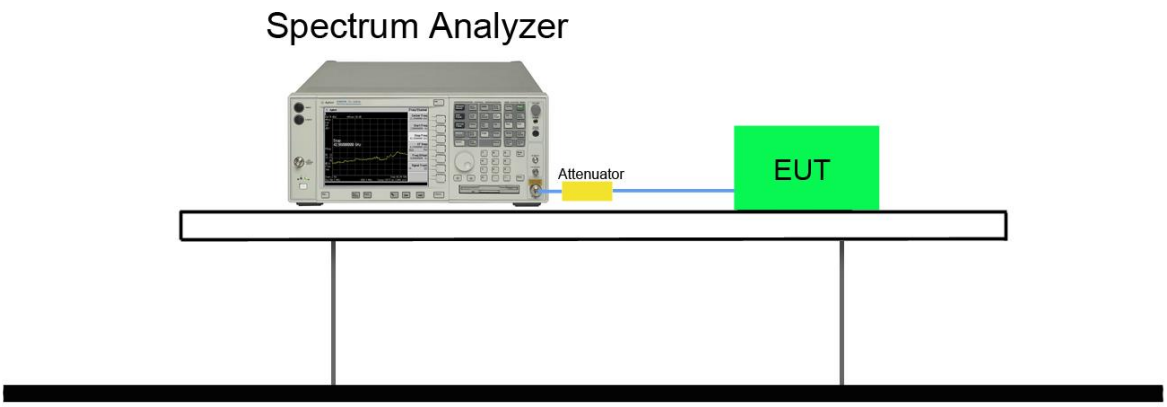
7.2.2. Test Procedure used

KDB 789033 D02v02r01 - Section C.1

7.2.3. Test Setting

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to X = 26. The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediated power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth.
3. VBW ≥ 3 × RBW.
4. Detector = Peak.
5. Trace mode = max hold.

7.2.4. Test Setup



7.2.5. Test Result

Note: Reference Original Report Grant Date: 12/27/2018, FCC ID: 2ARBSEL300530S.

7.3. 6dB Bandwidth Measurement

7.3.1. Test Limit

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

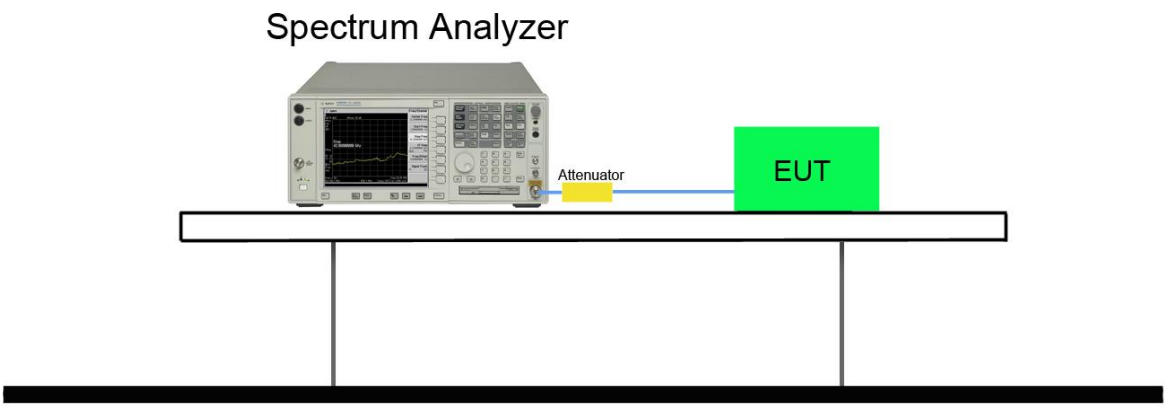
7.3.2. Test Procedure used

KDB 789033 D02v02r01 - Section C.2

7.3.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW ≧ 3 × RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.3.4. Test Setup



7.3.5. Test Result

Note: Reference Original Report Grant Date: 12/27/2018, FCC ID: 2ARBSEL300530S.

7.4. Output Power Measurement

7.4.1. Test Limit

For FCC Power Measurement Limit

For client operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 250mW.
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (23.98dBm) or 11dBm +10 log (26dB BW).
For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

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

For IC Power Measurement Limit

For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW (23.01dBm) or 10 + 10*log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power shall not exceed 250 mW (23.98dBm) or 11 + 10 log10 B, dBm, whichever power is less. The maximum e.i.r.p. shall not exceed 1.0 W (30dBm) or 17 + 10 log10 B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
For the 5.725-5.85 GHz band, the maximum conducted output power shall not exceed 1 W.
If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Max Conducted Output Power Limit Calculation as below:

For U-NII-1 (5150-5250MHz)

24bBm for Client Device

For U-NII-2A (5250-5350MHz), U-NII-2C (5470-5725MHz)

802.11a: 11 + 10 log10 (19.88MHz) = 24dBm = 24dBm;

802.11n-HT20: 11 + 10 log10 (19.90MHz) = 24dBm = 24dBm;

802.11n-HT40: 11 + 10 log10 (40.81MHz) = 27dBm > 24dBm;

For U-NII-3 (5725-5850MHz)

30bBm for Client Device

EIRP Limit Calculation as below:

For U-NII-1 (5150-5250MHz)

36dBm with 6dBi Antenna Gain

For U-NII-2A (5250-5350MHz), U-NII-2C (5470-5725MHz)

30dBm with 6dBi Antenna Gain

For U-NII-3 (5725-5850MHz)

36dBm with 6dBi Antenna Gain

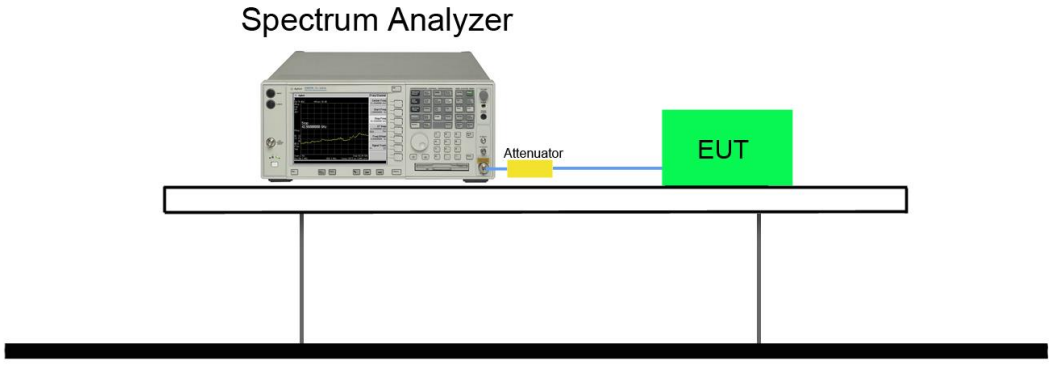
7.4.2. Test Procedure Used

KDB 789033 D02v02r01 - Section E) 3) b) Method PM-G

7.4.3. Test Setting

Average power measurements were perform only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

7.4.4. Test Setup



7.4.5. Test Result

Product	Wifi/BT Module	Test Engineer	Fran
Test Site	SR2	Test Date	2018/11/7
Test Item	Output Power		

Max Conducted Output Power

802.11a

Channel No.	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Required Limit (dBm)
		6	9	12	18	24	36	48	54	
36	5180	11.67	--	--	--	--	--	--	--	≤ 24
40	5200	12.02	12.00	11.97	11.96	11.94	11.93	11.92	11.90	≤ 24
48	5240	12.65	--	--	--	--	--	--	--	≤ 24
52	5260	12.42	--	--	--	--	--	--	--	≤ 24
60	5300	12.44	12.42	12.39	12.38	12.36	12.31	12.27	12.26	≤ 24
64	5320	12.56	--	--	--	--	--	--	--	≤ 24
100	5500	11.83	--	--	--	--	--	--	--	≤ 24
116	5580	11.74	11.73	11.72	11.70	11.69	11.69	11.68	11.68	≤ 24
140	5700	12.48	--	--	--	--	--	--	--	≤ 24
144	5720	11.42	--	--	--	--	--	--	--	≤ 24
149	5745	9.36	--	--	--	--	--	--	--	≤ 30
157	5785	9.21	9.19	9.18	9.15	9.15	9.13	9.12	9.09	≤ 30
165	5825	9.39	--	--	--	--	--	--	--	≤ 30

Note: Output power =Reading value on Spectrum Analyzer + duty cycle factor + cable loss.

802.11n-20M										
Channel No.	**Frequency (MHz)**	**Average Power For different Data Rate (Mbps)**								**Required Limit (dBm)**
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	
36	5180	12.02	--	--	--	--	--	--	--	≤ 24
40	5200	12.41	12.40	12.38	12.37	12.36	12.35	12.35	12.34	≤ 24
48	5240	12.49	--	--	--	--	--	--	--	≤ 24
52	5260	12.67	--	--	--	--	--	--	--	≤ 24
60	5300	12.70	12.70	12.70	12.70	12.70	12.68	12.67	12.64	≤ 24
64	5320	12.81	--	--	--	--	--	--	--	≤ 24
100	5500	11.70	--	--	--	--	--	--	--	≤ 24
116	5580	11.78	11.77	11.77	11.73	11.72	11.69	11.66	11.61	≤ 24
140	5700	12.68	--	--	--	--	--	--	--	≤ 24
144	5720	11.46	--	--	--	--	--	--	--	≤ 24
149	5745	9.43	--	--	--	--	--	--	--	≤ 30
157	5785	9.17	9.17	9.16	9.16	9.16	9.15	9.13	9.12	≤ 30
165	5825	9.20	--	--	--	--	--	--	--	≤ 30

Note: Output power =Reading value on Spectrum Analyzer + duty cycle factor + cable loss.

802.11n-40M										
Channel No.	**Frequency (MHz)**	**Average Power For different Data Rate (Mbps)**								**Required Limit (dBm)**
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	
38	5190	11.37	--	--	--	--	--	--	--	≤ 24
46	5230	12.46	12.45	12.42	12.39	12.38	12.38	12.37	12.37	≤ 24
54	5270	12.52	--	--	--	--	--	--	--	≤ 24
62	5310	12.92	12.90	12.89	12.87	12.86	12.85	12.84	12.84	≤ 24
102	5510	12.70	--	--	--	--	--	--	--	≤ 24
110	5550	12.59	12.59	12.57	12.55	12.54	12.52	12.52	12.50	≤ 24
134	5670	12.65	--	--	--	--	--	--	--	≤ 24
142	5710	11.95	--	--	--	--	--	--	--	≤ 24
151	5755	9.31	--	--	--	--	--	--	--	≤ 30
159	5795	9.39	9.39	9.38	9.35	9.33	9.31	9.30	9.29	≤ 30

Note: Output power =Reading value on Spectrum Analyzer + duty cycle factor + cable loss.

EIRP Power

Test Mode	Channel No.	Freq. (MHz)	EIRP (dBm)	EIRP Limit (dBm)	Result
11a	36	5180	13.67	≤ 36	Pass
11a	40	5200	14.02	≤ 36	Pass
11a	48	5240	14.65	≤ 36	Pass
11a	52	5260	14.42	≤ 30	Pass
11a	60	5300	14.44	≤ 30	Pass
11a	64	5320	14.56	≤ 30	Pass
11a	100	5500	13.83	≤ 30	Pass
11a	116	5580	13.74	≤ 30	Pass
11a	140	5700	14.48	≤ 30	Pass
11a	144	5720	13.42	≤ 30	Pass
11a	149	5745	11.36	≤ 36	Pass
11a	157	5785	11.21	≤ 36	Pass
11a	165	5825	11.39	≤ 36	Pass
11n-HT20	36	5180	14.02	≤ 36	Pass
11n-HT20	40	5200	14.41	≤ 36	Pass
11n-HT20	48	5240	14.49	≤ 36	Pass
11n-HT20	52	5260	14.67	≤ 30	Pass
11n-HT20	60	5300	14.70	≤ 30	Pass
11n-HT20	64	5320	14.81	≤ 30	Pass
11n-HT20	100	5500	13.70	≤ 30	Pass
11n-HT20	116	5580	13.78	≤ 30	Pass
11n-HT20	140	5700	14.68	≤ 30	Pass
11n-HT20	144	5720	13.46	≤ 30	Pass
11n-HT20	149	5745	11.43	≤ 36	Pass
11n-HT20	157	5785	11.17	≤ 36	Pass
11n-HT20	165	5825	11.20	≤ 36	Pass

Test Mode	Channel No.	Freq. (MHz)	EIRP (dBm)	EIRP Limit (dBm)	Result
11n-HT40	38	5190	13.37	≤ 36	Pass
11n-HT40	46	5230	14.46	≤ 36	Pass
11n-HT40	54	5270	14.52	≤ 30	Pass
11n-HT40	62	5310	14.92	≤ 30	Pass
11n-HT40	102	5510	14.70	≤ 30	Pass
11n-HT40	110	5550	14.59	≤ 30	Pass
11n-HT40	134	5670	14.65	≤ 30	Pass
11n-HT40	142	5710	13.95	≤ 30	Pass
11n-HT40	151	5755	11.31	≤ 36	Pass
11n-HT40	159	5795	11.39	≤ 36	Pass

7.5. Transmit Power Control

7.5.1. Test Limit

The U-NII-2A & U-NII-2C device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

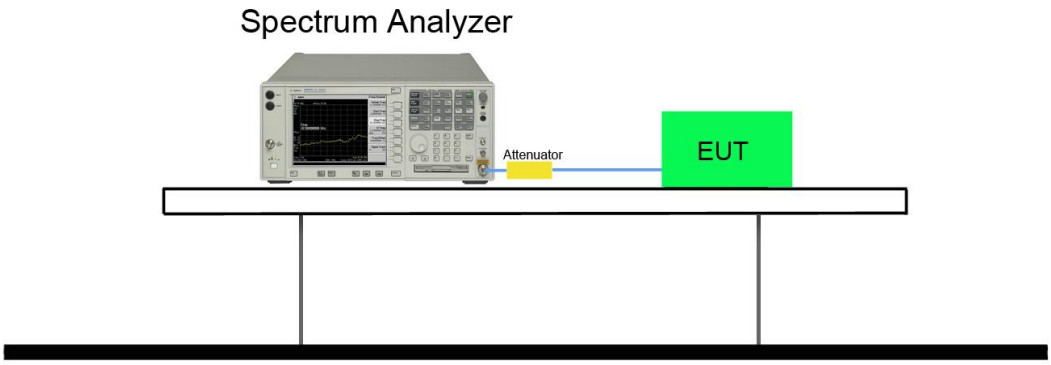
7.5.2. Test Procedure Used

KDB 789033 D02v02r01 - Section E) 3) b) Method PM-G

7.5.3. Test Setting

Average power measurements were perform only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

7.5.4. Test Setup



7.5.5. Test Result

Note: TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

7.6. Power Spectral Density Measurement

7.6.1. Test Limit

For FCC Power Spectral Density Limit

For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

For IC Power Spectral Density Limit

For the band 5.15-5.25 GHz, the e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

For the 5.725-5.85 GHz band, the power spectral density shall not exceed 30 dBm in any 500 kHz band.

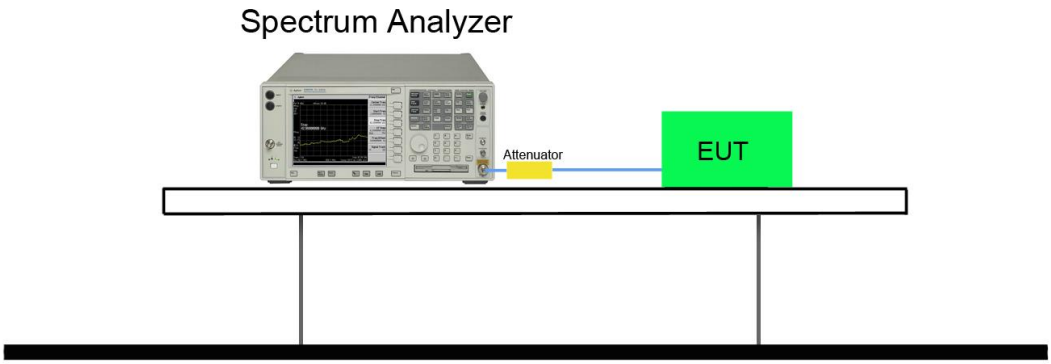
7.6.2. Test Procedure Used

KDB 789033 D02v02r01 - Section F

7.6.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz,
4. RBW = 100 kHz
5. VBW = 3MHz
6. Number of sweep points ≥ 2 × (span / RBW)
7. Detector = power averaging (Average)
8. Sweep time = auto
9. Trigger = free run
10. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
11. Add 10*log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add 10*log(1/0.25) = 6 dB if the duty cycle is 25 percent.
12. When the measurement bandwidth of Maximum PSD is specified in 500 kHz, add a constant factor 10*log(500kHz/100kHz) = 7 dB to the measured result

7.6.4. Test Setup



7.6.5. Test Result

Note: Reference Original Report Grant Date: 12/27/2018, FCC ID: 2ARBSEL300530S.

7.7. Radiated Spurious Emission Measurement

7.7.1. 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 [V/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

KDB 789033 D02v02r01 – Section G

7.7.3. Test Setting

Peak Measurements above 1GHz

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

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 120 kHz
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Average Measurements above 1GHz (Method AD)

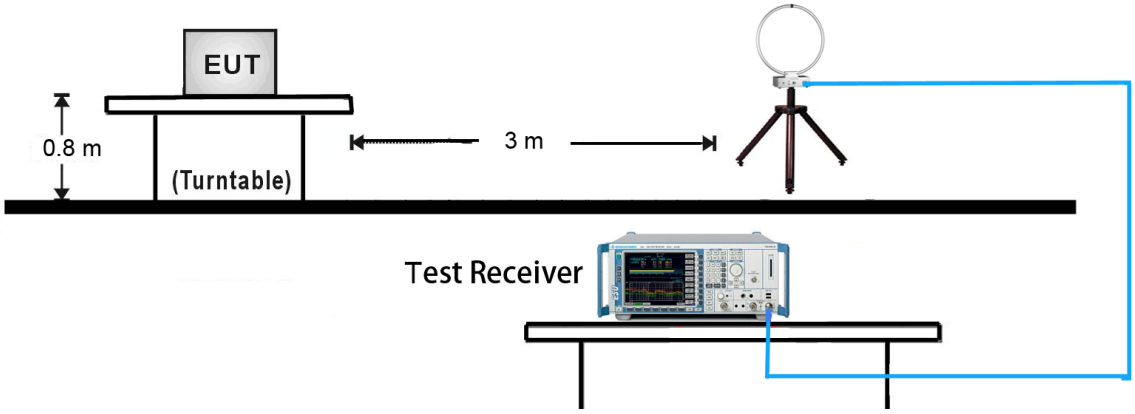
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (Average)
5. Number of measurement points = 1001 (Number of points must be > 2 x span/RBW)
6. Sweep time = auto
7. Trace was averaged over at 100 sweeps

Quasi-Peak & Average Measurements below 30MHz

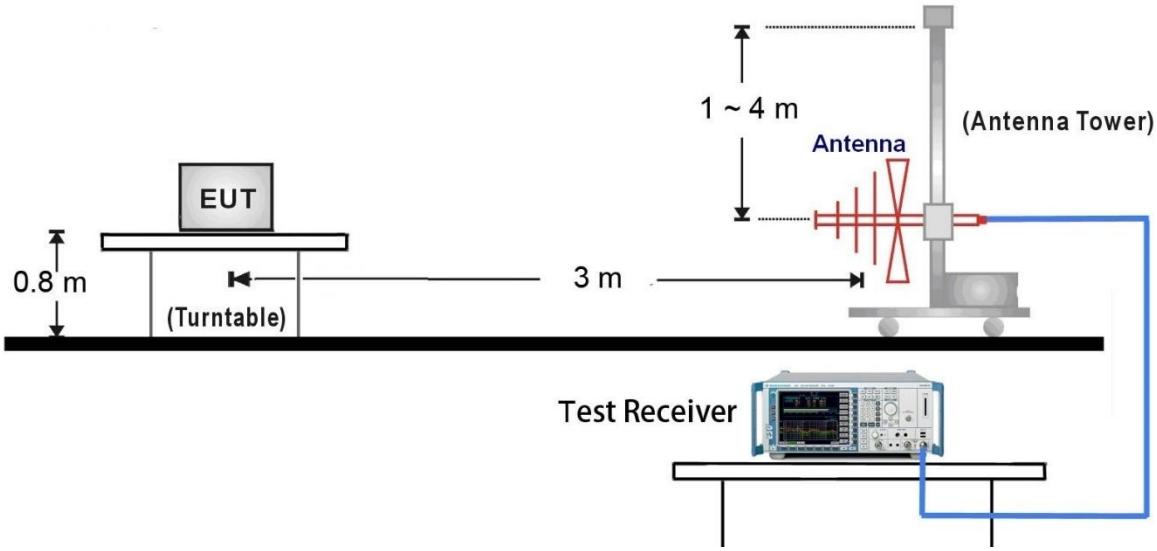
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 200Hz for 9kHz to 150kHz frequency; RBW = 9kHz for 0.15MHz to 30MHz frequency
4. Detector = CISPR quasi-peak or power average (Average)
5. Sweep time = auto couple
6. Trace was allowed to stabilize

7.7.4. Test Setup

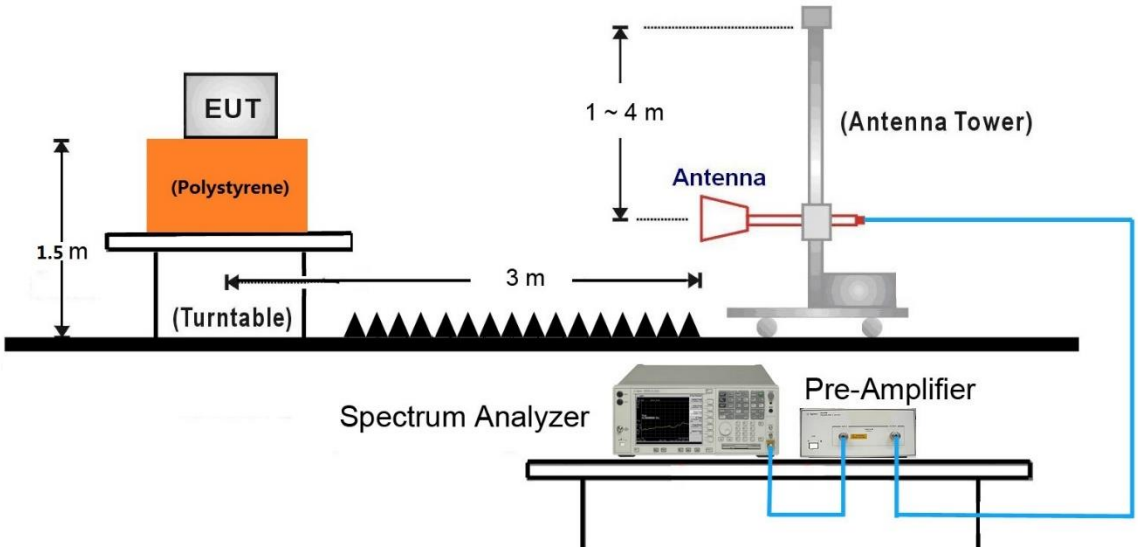
9kHz ~ 30MHz Test Setup:



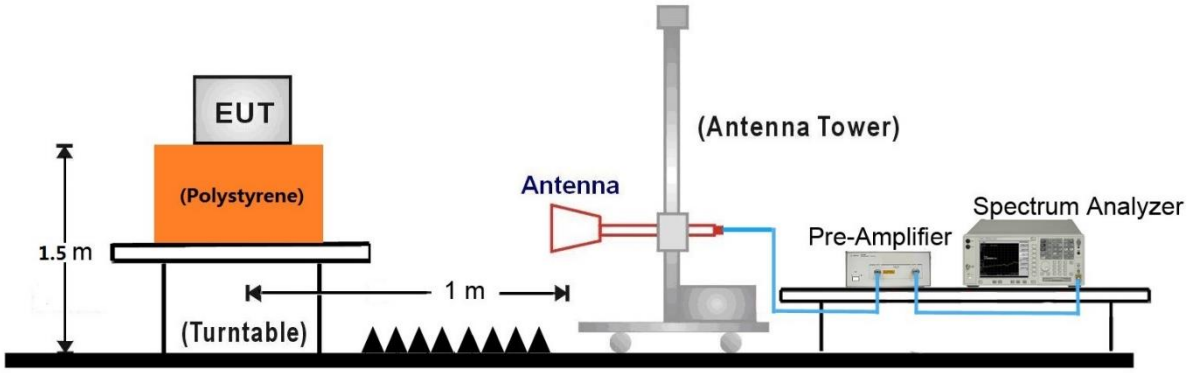
30MHz ~ 1GHz Test Setup:



1GHz ~18GHz Test Setup:

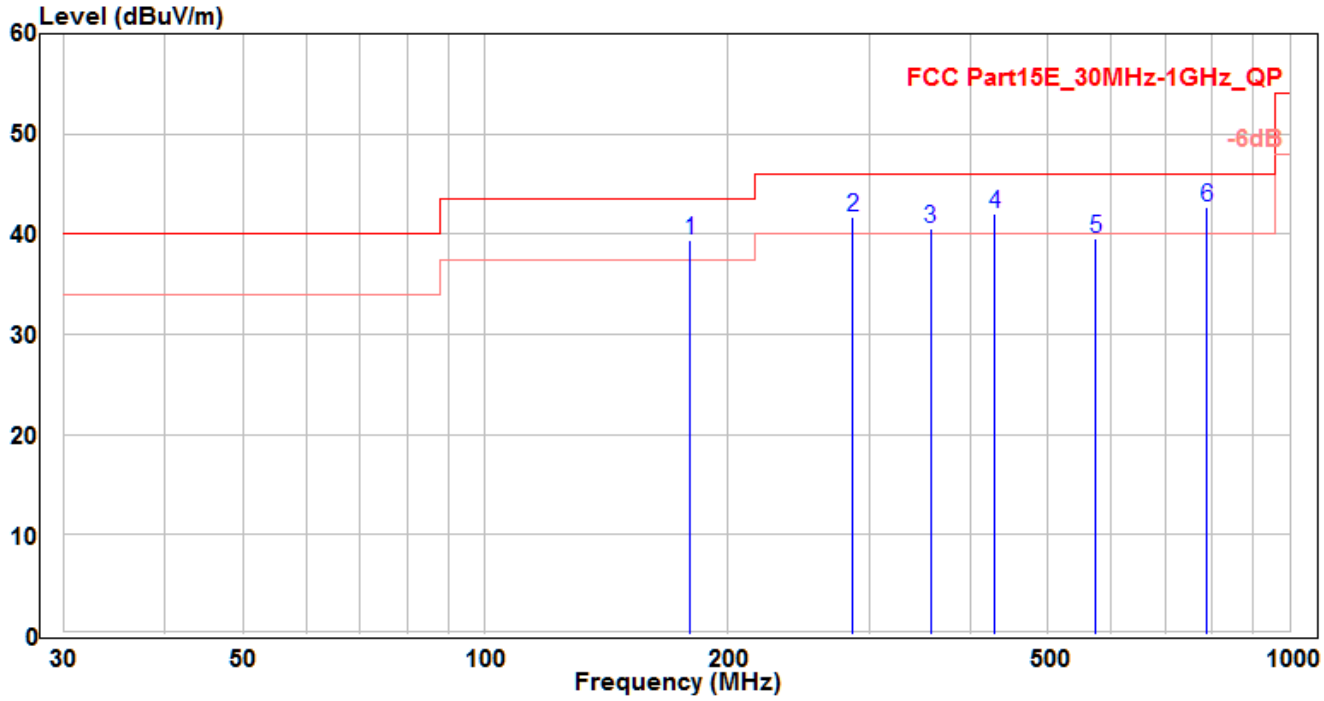


18GHz ~40GHz Test Setup:



7.7.5. Test Result

EUT	Wifi/BT Module	Test Date	2018/11/27
Factor	VULB 9162 (30MHz~8GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2_CH40	Test Voltage	AC 120V/60Hz

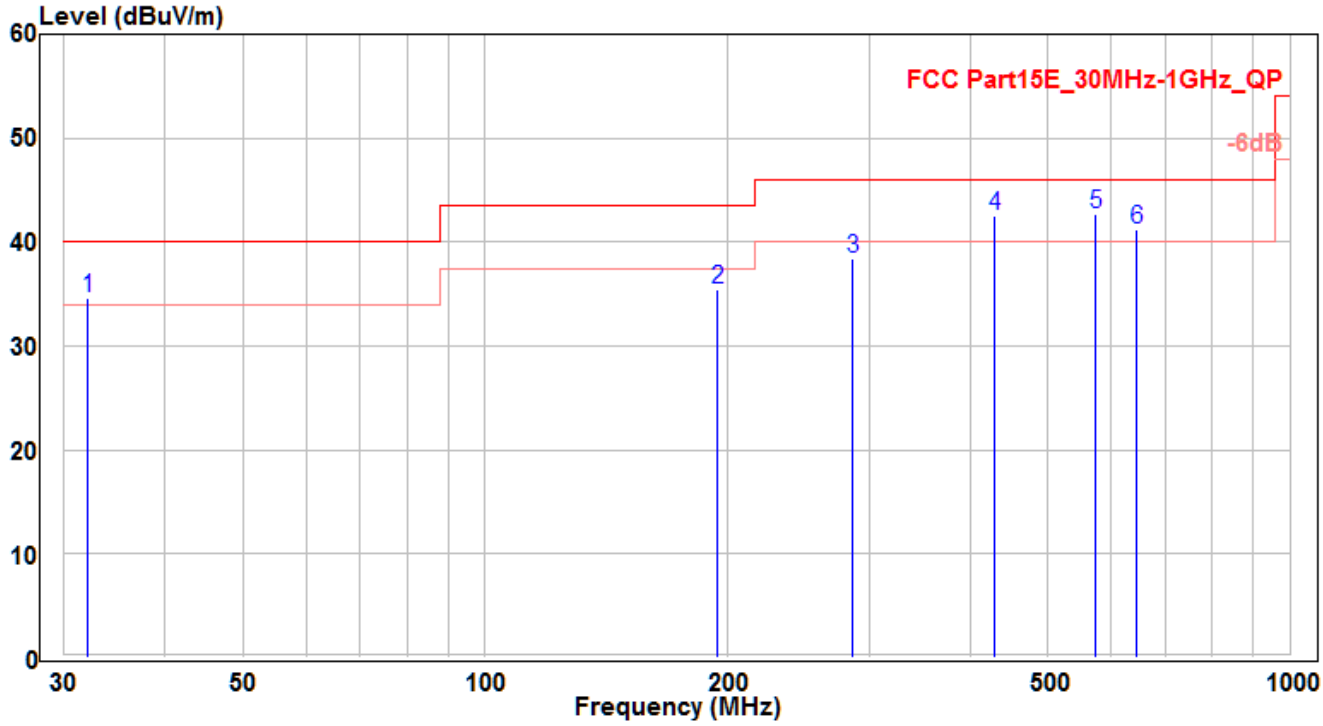


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		179.713	22.44	16.97	39.41	-4.09	43.5	165	30	QP
2		286.656	20.7	21.09	41.79	-4.21	46	120	255	QP
3		358.103	17.12	23.43	40.55	-5.45	46	160	15	QP
4		430.034	17.72	24.28	42	-4	46	135	170	QP
5		573.079	12.58	27.01	39.59	-6.41	46	100	95	QP
6	*	787.934	12.49	30.21	42.7	-3.3	46	180	245	QP

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The emission levels of other frequencies are very lower than the limit and not show in test report。
5. Other channel/mode was also verified. The test results shown represent the worst case emissions。
6. No emission found between lowest internal used/generated frequency to 30MHz。

EUT	Wifi/BT Module	Test Date	2018/11/27
Factor	VULB 9162 (30MHz~8GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2_CH40	Test Voltage	AC 120V/60Hz

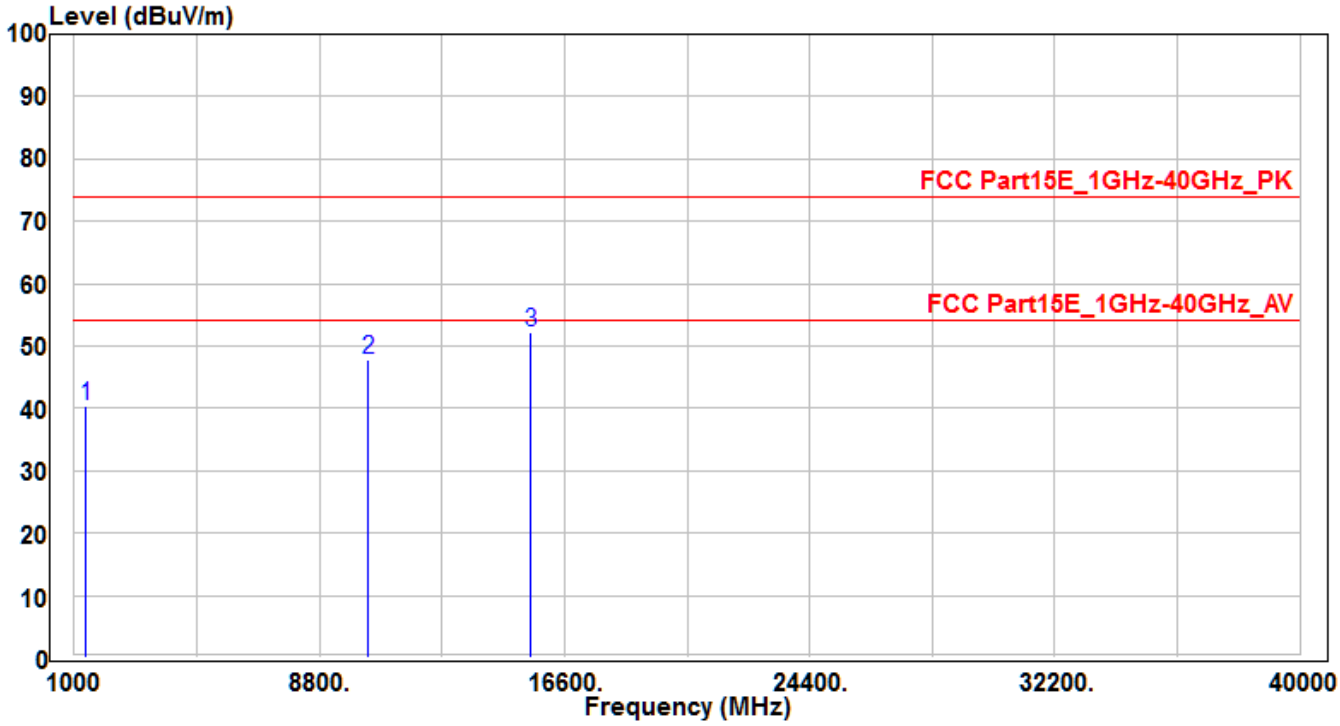


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		32.092	16.41	18.27	34.68	-5.32	40	100	145	QP
2		194.476	16.61	18.85	35.46	-8.04	43.5	115	295	QP
3		286.595	17.34	21.09	38.43	-7.57	46	145	260	QP
4		429.973	18.2	24.28	42.48	-3.52	46	100	390	QP
5	*	573.291	15.64	27.02	42.66	-3.34	46	170	70	QP
6		645.586	12.85	28.34	41.19	-4.81	46	100	315	QP

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The emission levels of other frequencies are very lower than the limit and not show in test report。
5. Other channel/mode was also verified. The test results shown represent the worst case emissions。
6. No emission found between lowest internal used/generated frequency to 30MHz。

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH36	Test Voltage	AC 120V/60Hz

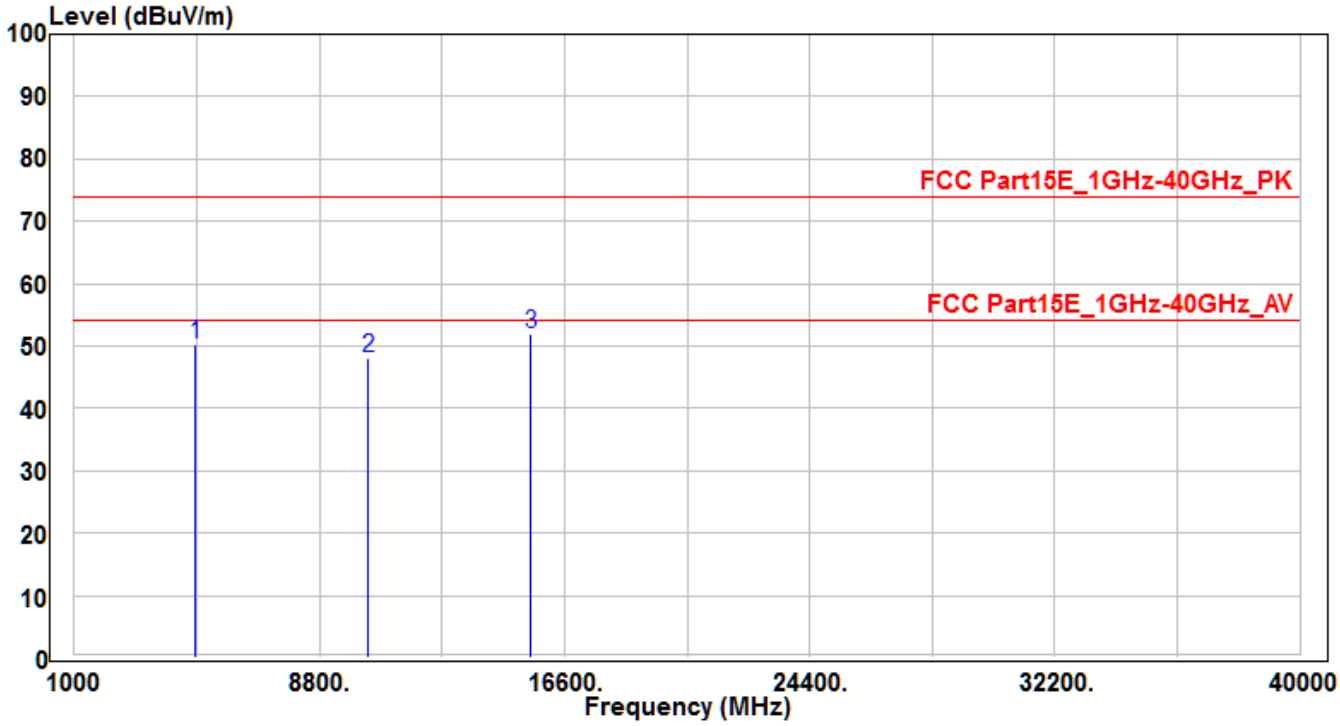


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1374.71	46.37	-6.04	40.33	-33.67	74	150	400	Peak
2		10360	30.42	17.34	47.76	-26.24	74	150	400	Peak
3	*	15540	30.3	21.82	52.12	-21.88	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH36	Test Voltage	AC 120V/60Hz

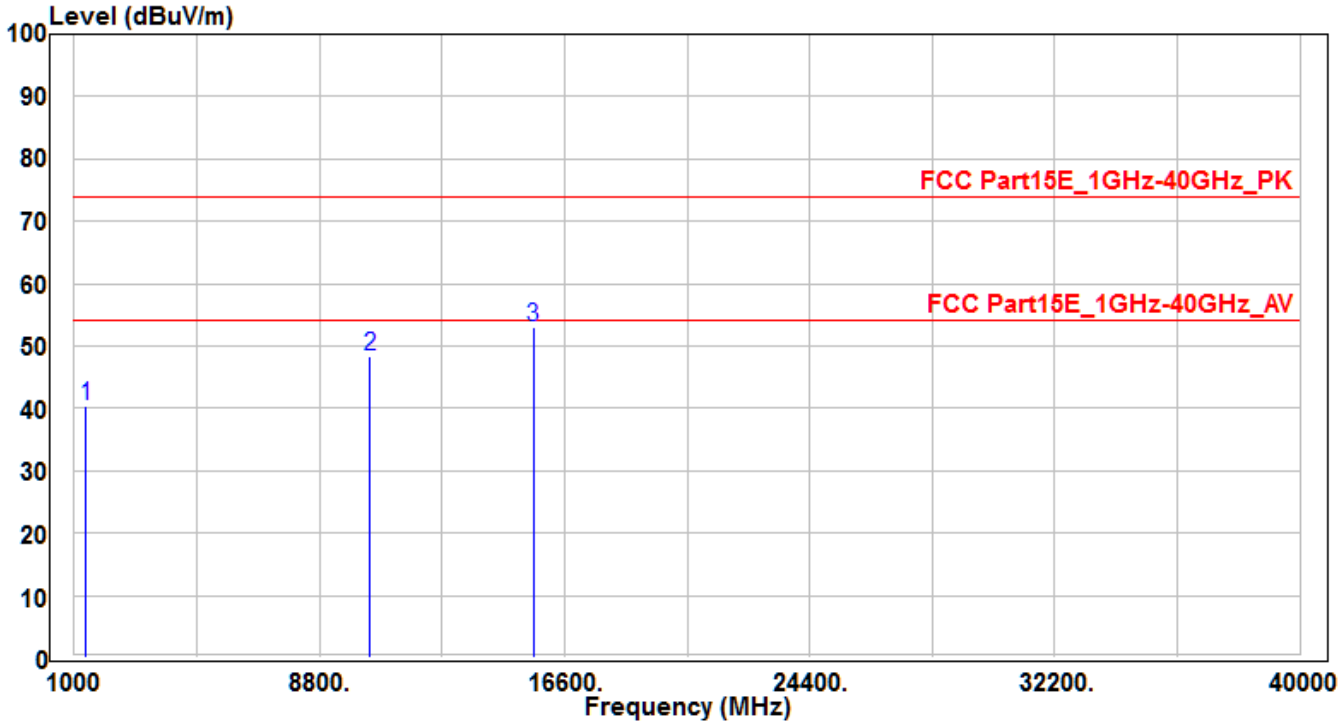


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4867.35	46.7	3.46	50.16	-23.84	74	150	400	Peak
2		10360	30.88	17.34	48.22	-25.78	74	150	400	Peak
3	*	15540	29.98	21.82	51.8	-22.2	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH40	Test Voltage	AC 120V/60Hz

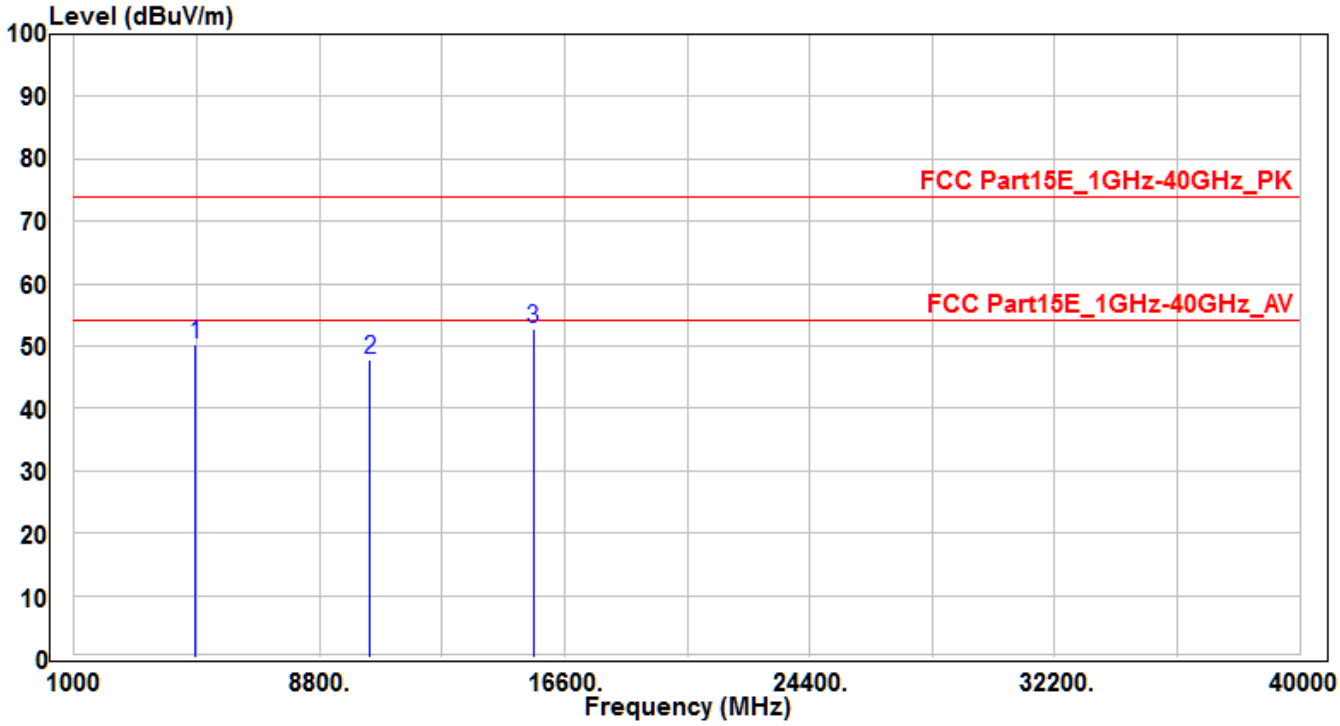


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1378.85	46.29	-6.01	40.28	-33.72	74	150	400	Peak
2		10400	30.73	17.53	48.26	-25.74	74	150	400	Peak
3	*	15600	31.54	21.6	53.14	-20.86	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH40	Test Voltage	AC 120V/60Hz

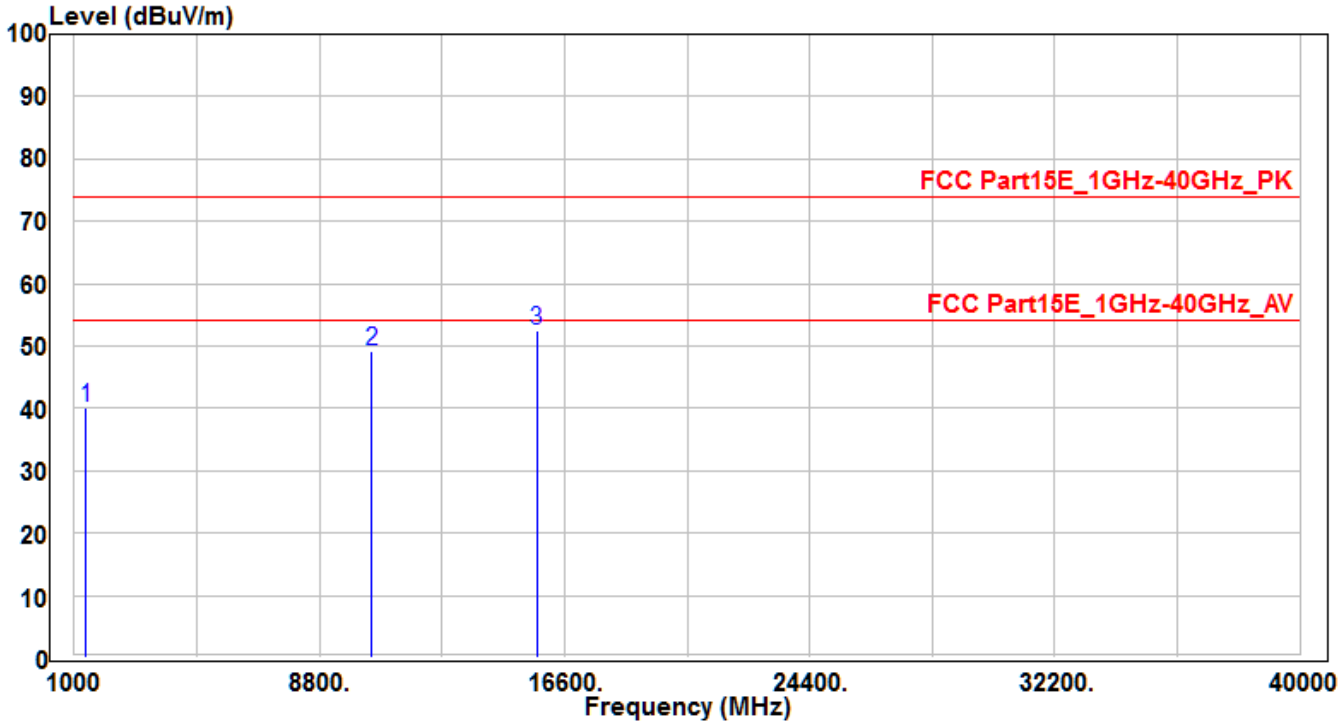


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4865.75	46.82	3.46	50.28	-23.72	74	150	400	Peak
2		10400	30.21	17.53	47.74	-26.26	74	150	400	Peak
3	*	15600	31.21	21.6	52.81	-21.19	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH48	Test Voltage	AC 120V/60Hz

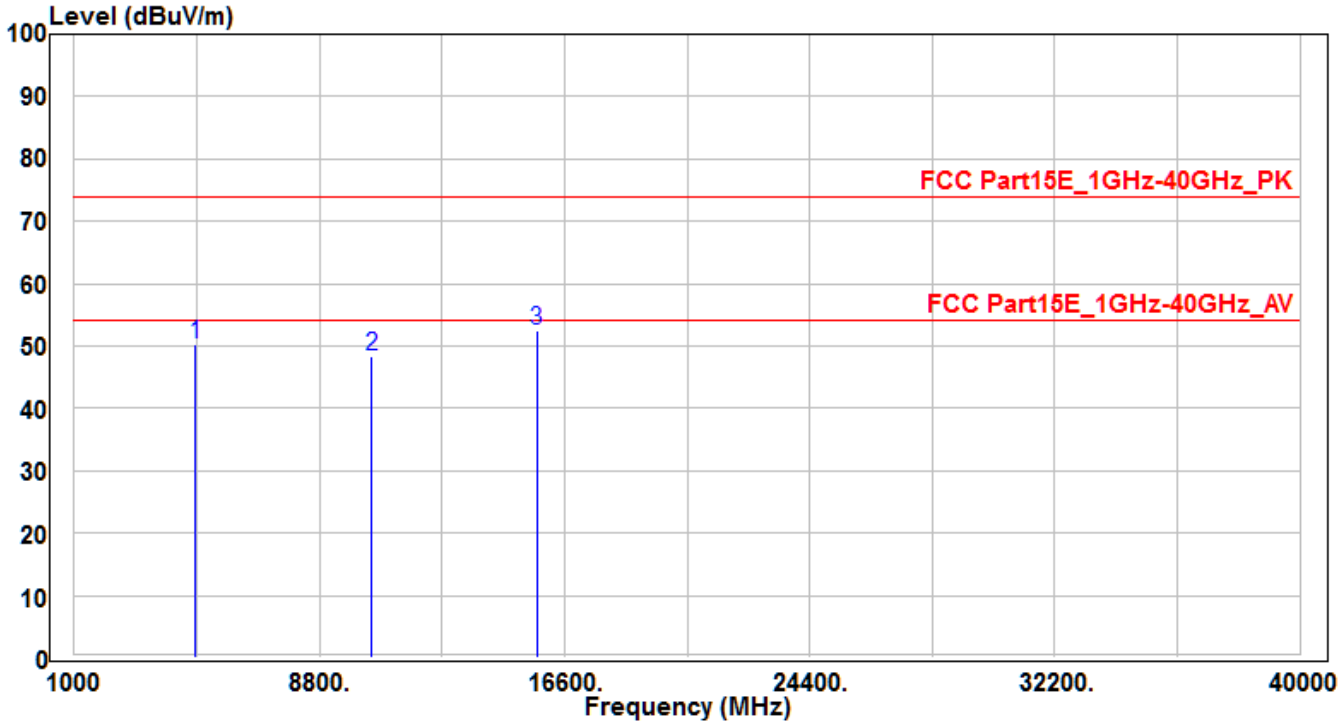


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1370.86	46.25	-6.06	40.19	-33.81	74	150	400	Peak
2		10480	31.37	17.88	49.25	-24.75	74	150	400	Peak
3	*	15720	31.42	21.18	52.6	-21.4	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH48	Test Voltage	AC 120V/60Hz

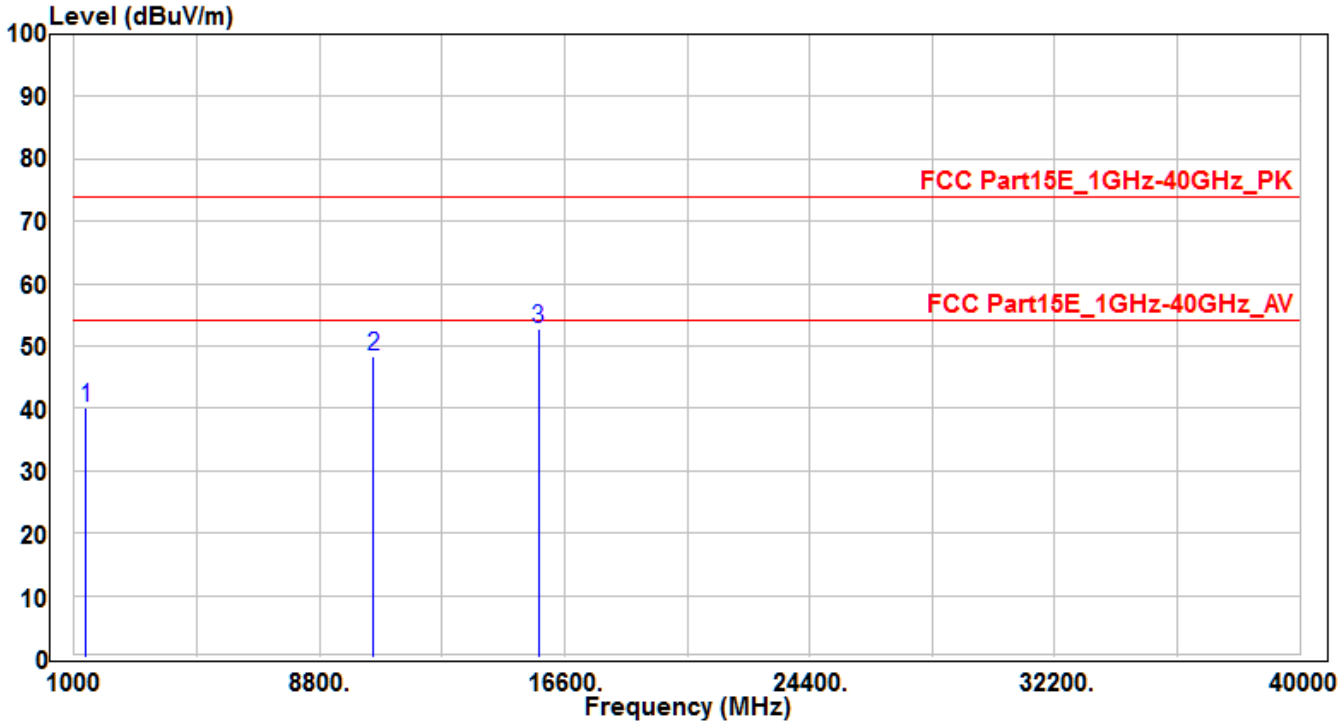


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4870.29	46.84	3.46	50.3	-23.7	74	150	400	Peak
2		10480	30.39	17.88	48.27	-25.73	74	150	400	Peak
3	*	15720	31.31	21.18	52.49	-21.51	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH52	Test Voltage	AC 120V/60Hz

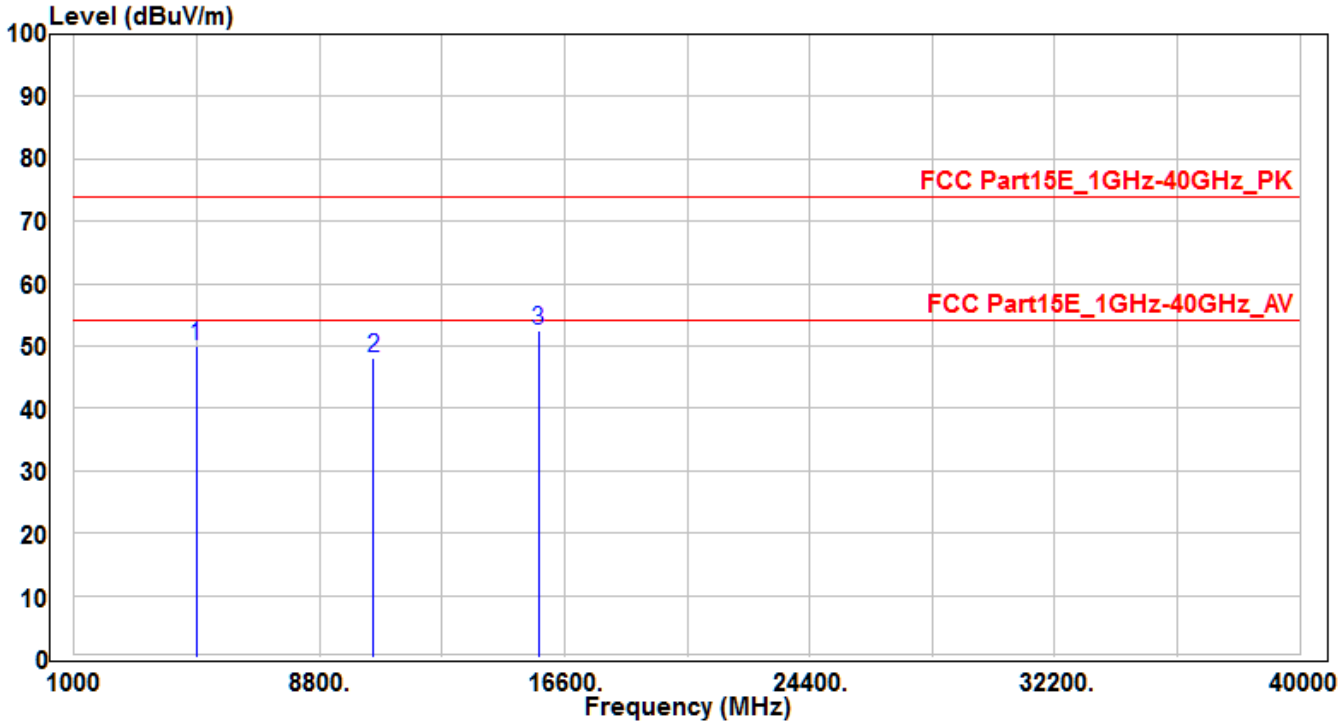


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1372.86	46.2	-6.05	40.15	-33.85	74	150	400	Peak
2		10520	30.45	18.02	48.47	-25.53	74	150	400	Peak
3	*	15780	31.66	20.98	52.64	-21.36	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH52	Test Voltage	AC 120V/60Hz

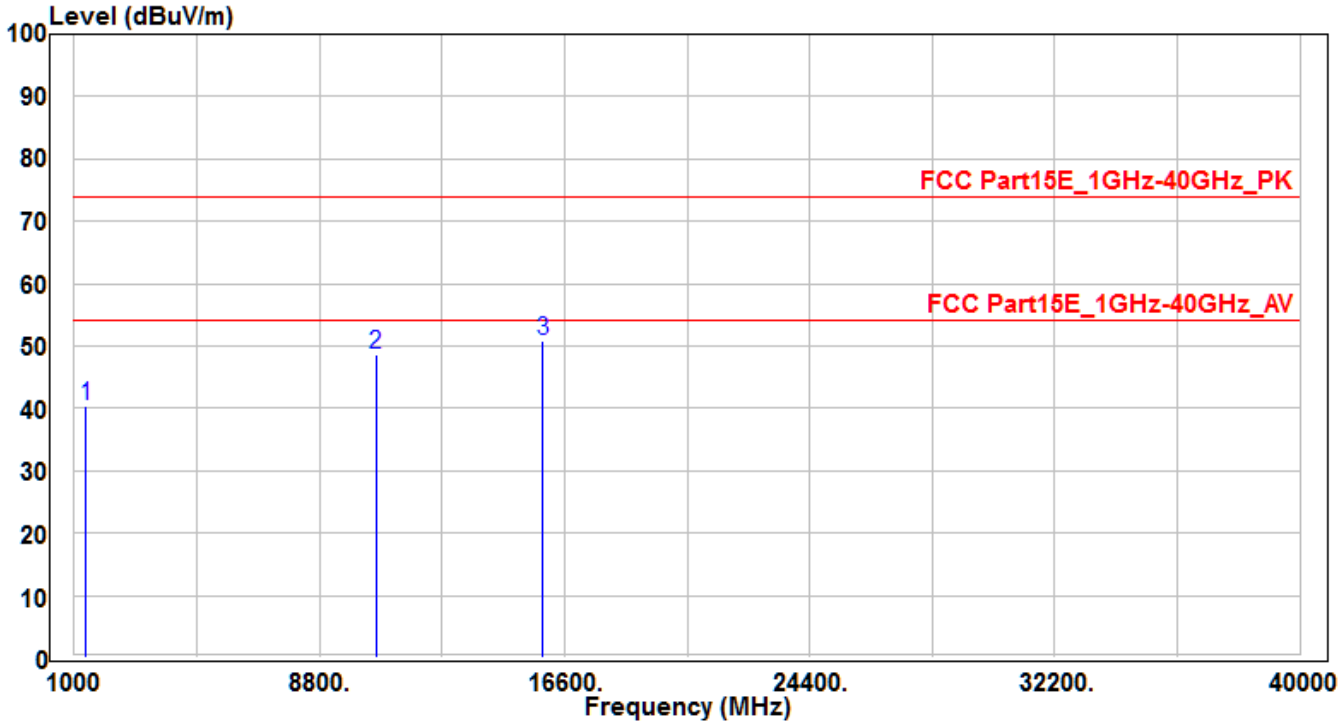


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4881.46	46.65	3.49	50.14	-23.86	74	150	400	Peak
2		10520	29.93	18.02	47.95	-26.05	74	150	400	Peak
3	*	15780	31.47	20.98	52.45	-21.55	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH60	Test Voltage	AC 120V/60Hz

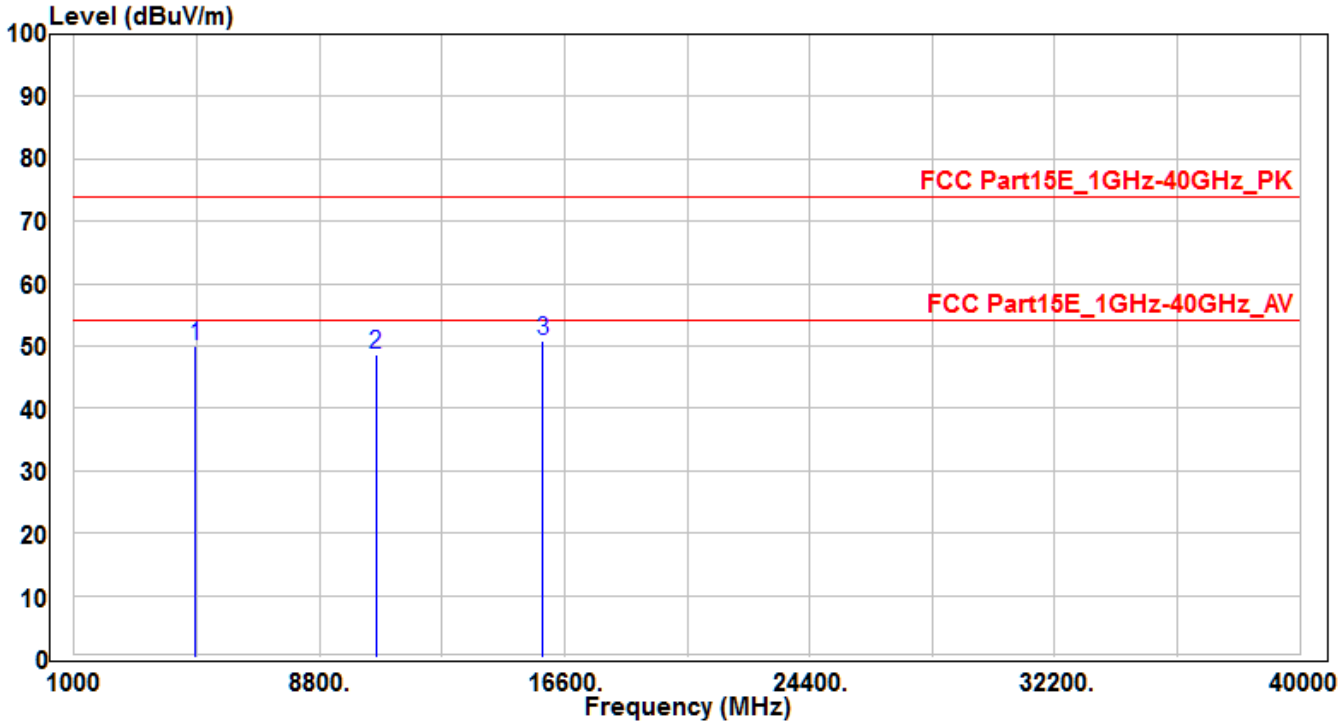


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1373.88	46.42	-6.04	40.38	-33.62	74	150	400	Peak
2		10600	30.5	18.19	48.69	-25.31	74	150	400	Peak
3	*	15900	30.18	20.56	50.74	-23.26	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH60	Test Voltage	AC 120V/60Hz

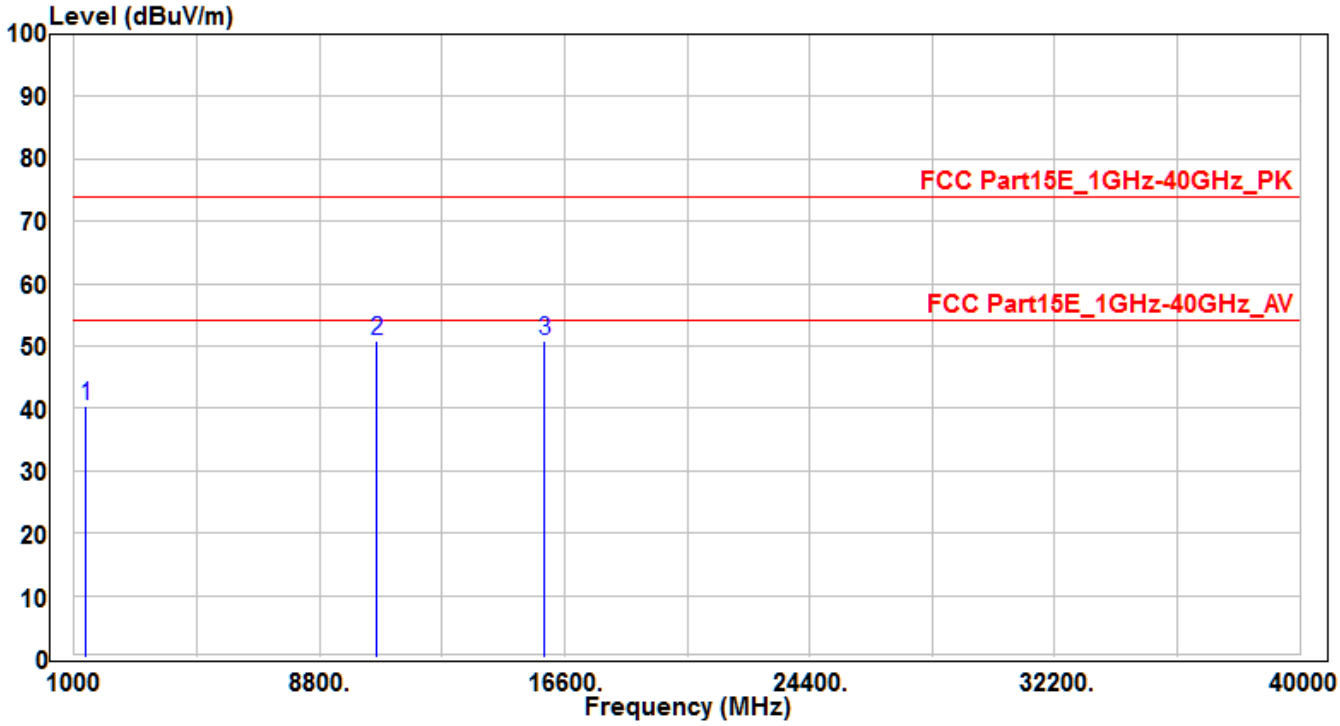


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4860.74	46.52	3.45	49.97	-24.03	74	150	400	Peak
2		10600	30.32	18.19	48.51	-25.49	74	150	400	Peak
3	*	15900	30.36	20.56	50.92	-23.08	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH64	Test Voltage	AC 120V/60Hz

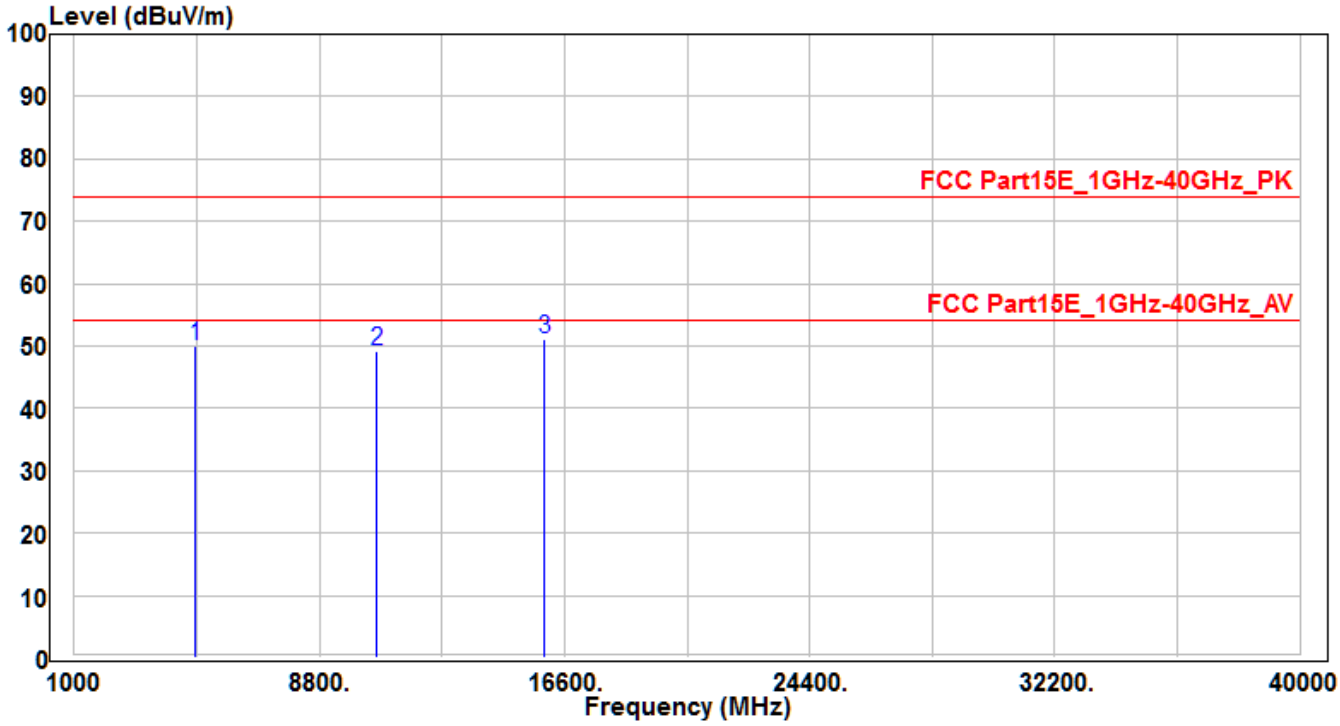


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1382.26	46.4	-6	40.4	-33.6	74	150	400	Peak
2		10640	32.49	18.28	50.77	-23.23	74	150	400	Peak
3	*	15960	30.54	20.34	50.88	-23.12	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH64	Test Voltage	AC 120V/60Hz

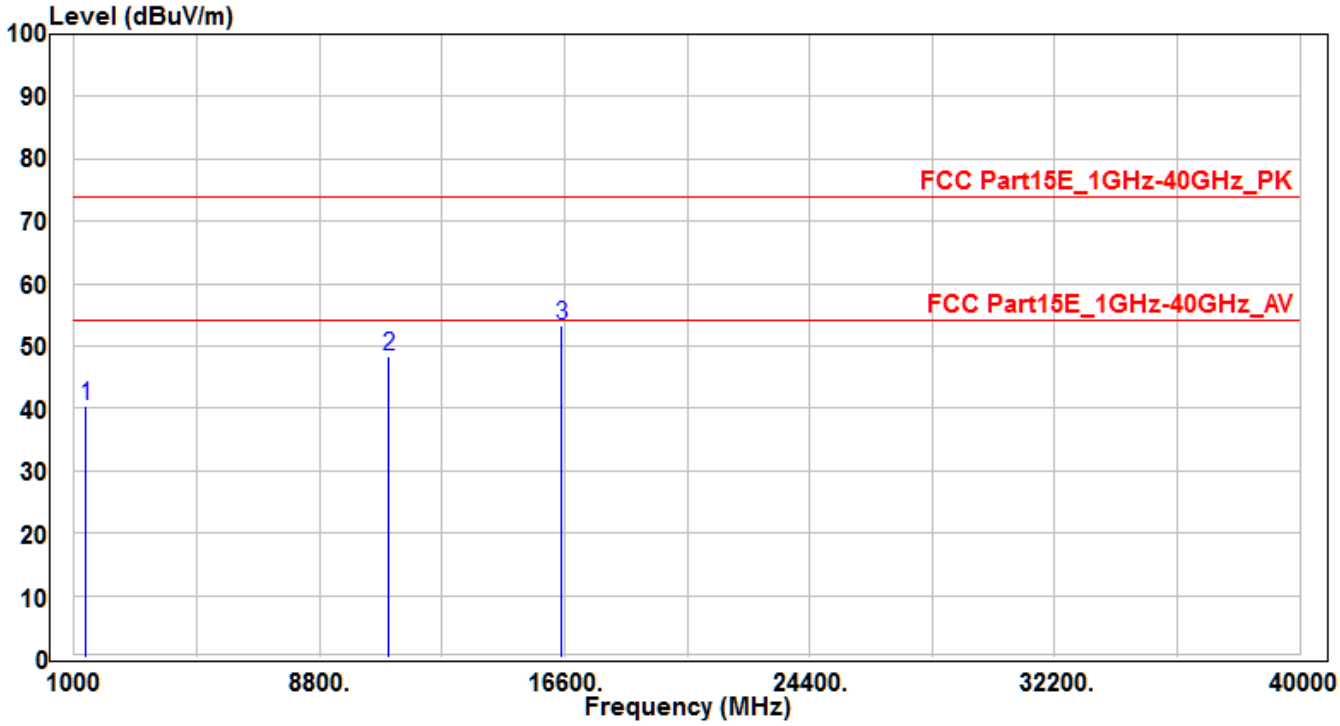


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4866.42	46.63	3.46	50.09	-23.91	74	150	400	Peak
2		10640	30.81	18.28	49.09	-24.91	74	150	400	Peak
3	*	15960	30.76	20.34	51.1	-22.9	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH100	Test Voltage	AC 120V/60Hz

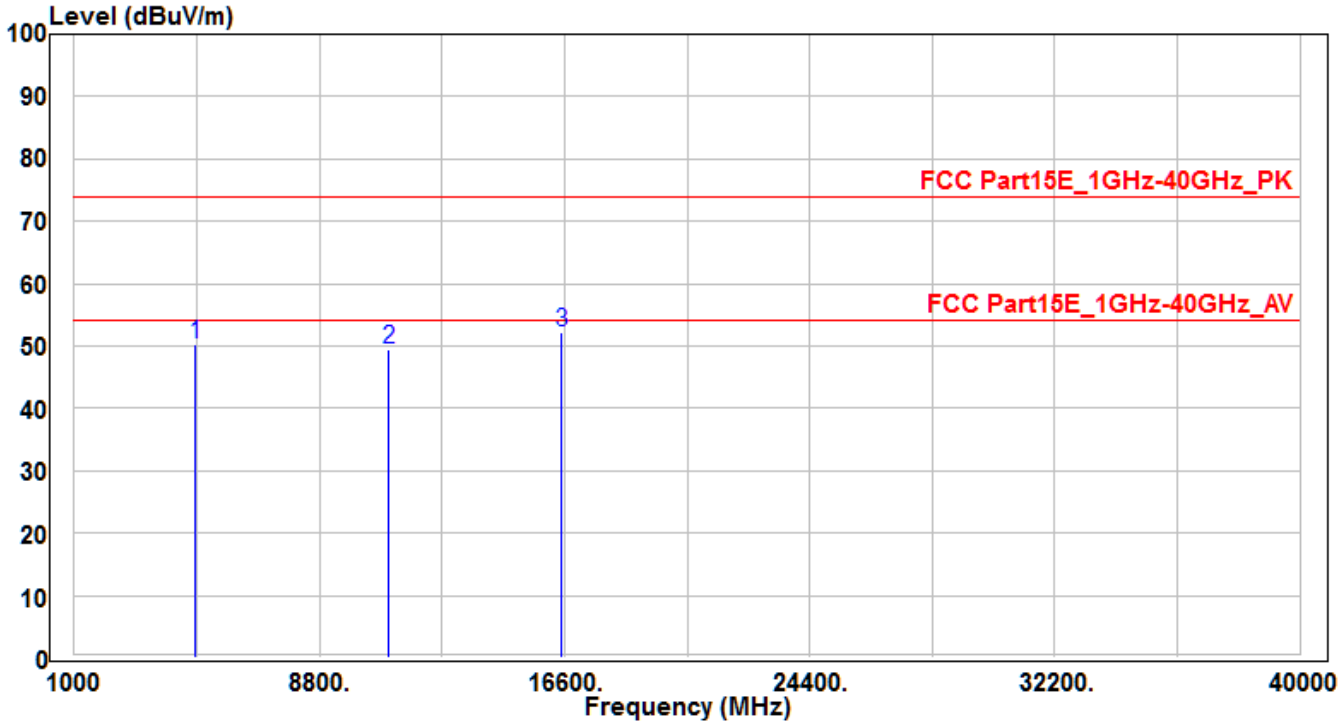


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1375.88	46.48	-6.03	40.45	-33.55	74	150	400	Peak
2		11000	29.23	19.08	48.31	-25.69	74	150	400	Peak
3	*	16500	31.32	22.06	53.38	-20.62	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH100	Test Voltage	AC 120V/60Hz

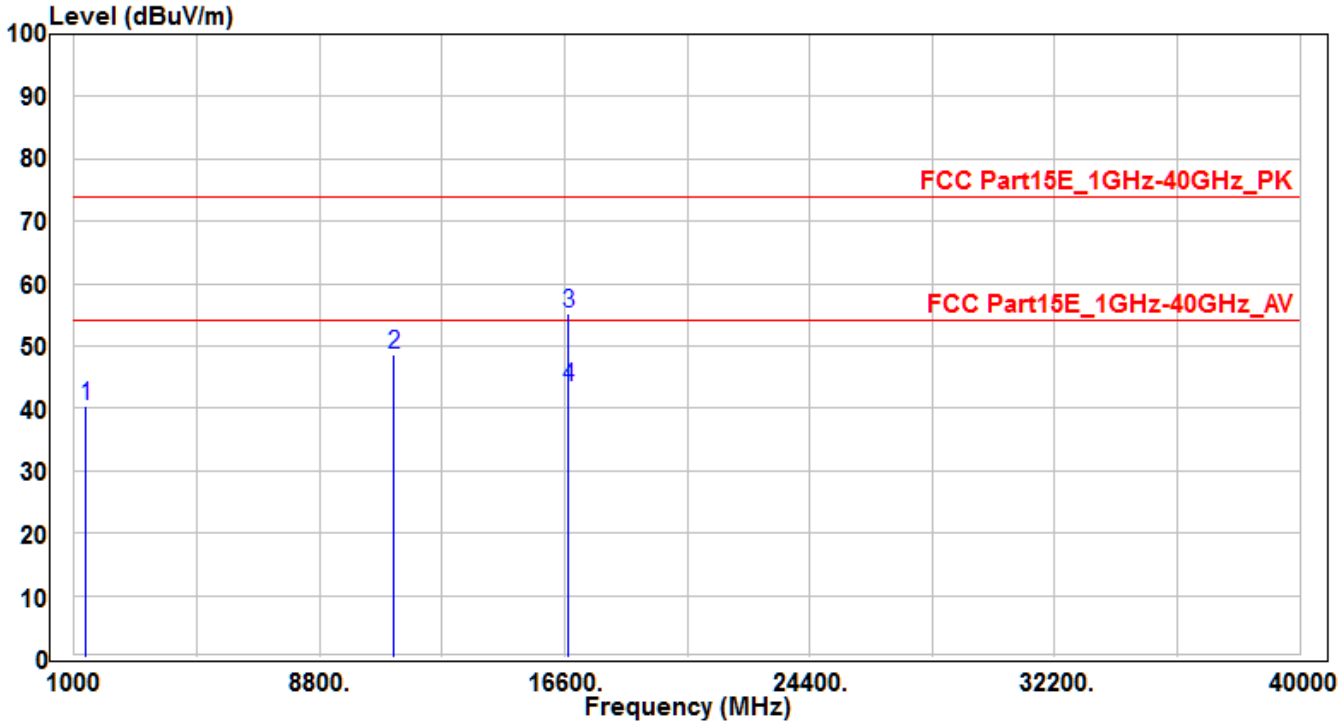


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4865.54	46.75	3.45	50.2	-23.8	74	150	400	Peak
2		11000	30.39	19.08	49.47	-24.53	74	150	400	Peak
3	*	16500	30.21	22.06	52.27	-21.73	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH116	Test Voltage	AC 120V/60Hz

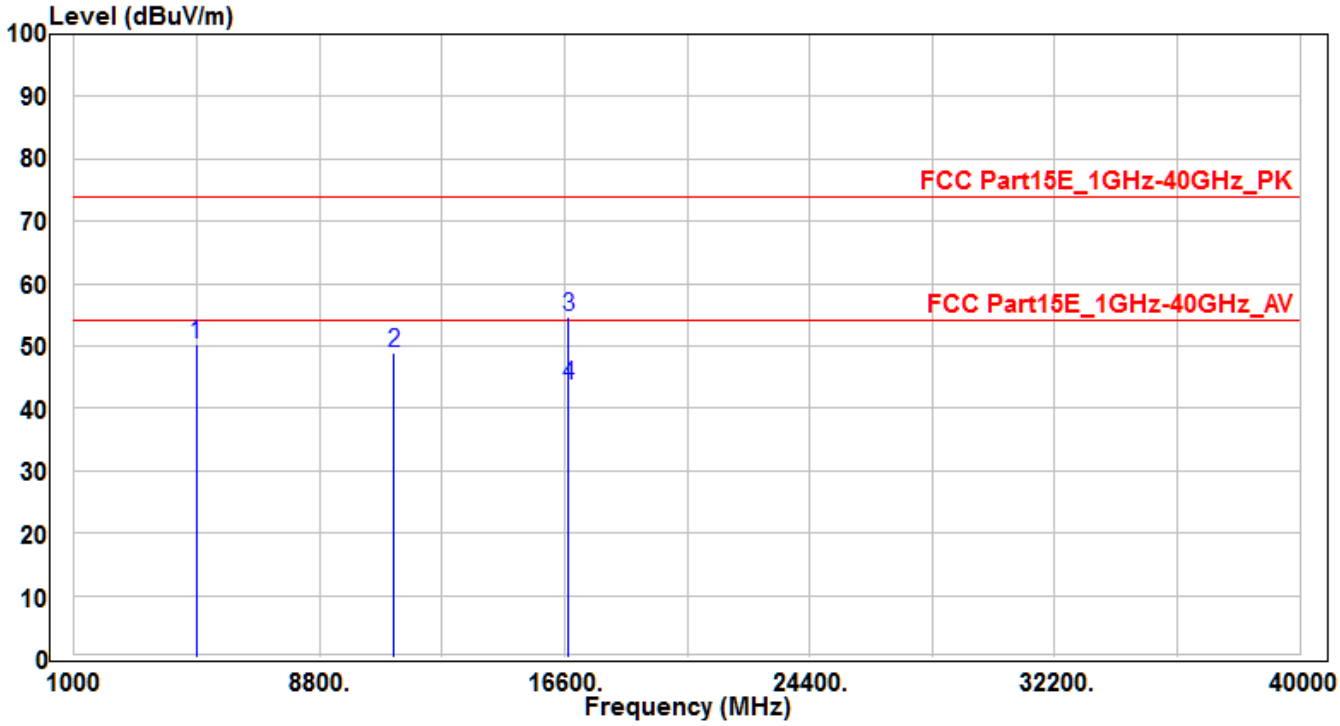


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1381.25	46.34	-6	40.34	-33.66	74	150	400	Peak
2		11160	29.43	19.14	48.57	-25.43	74	150	400	Peak
3	*	16740	31.38	23.85	55.23	-18.77	74	190	255	Peak
4	*	16740	19.46	23.85	43.31	-10.69	54	190	255	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH116	Test Voltage	AC 120V/60Hz

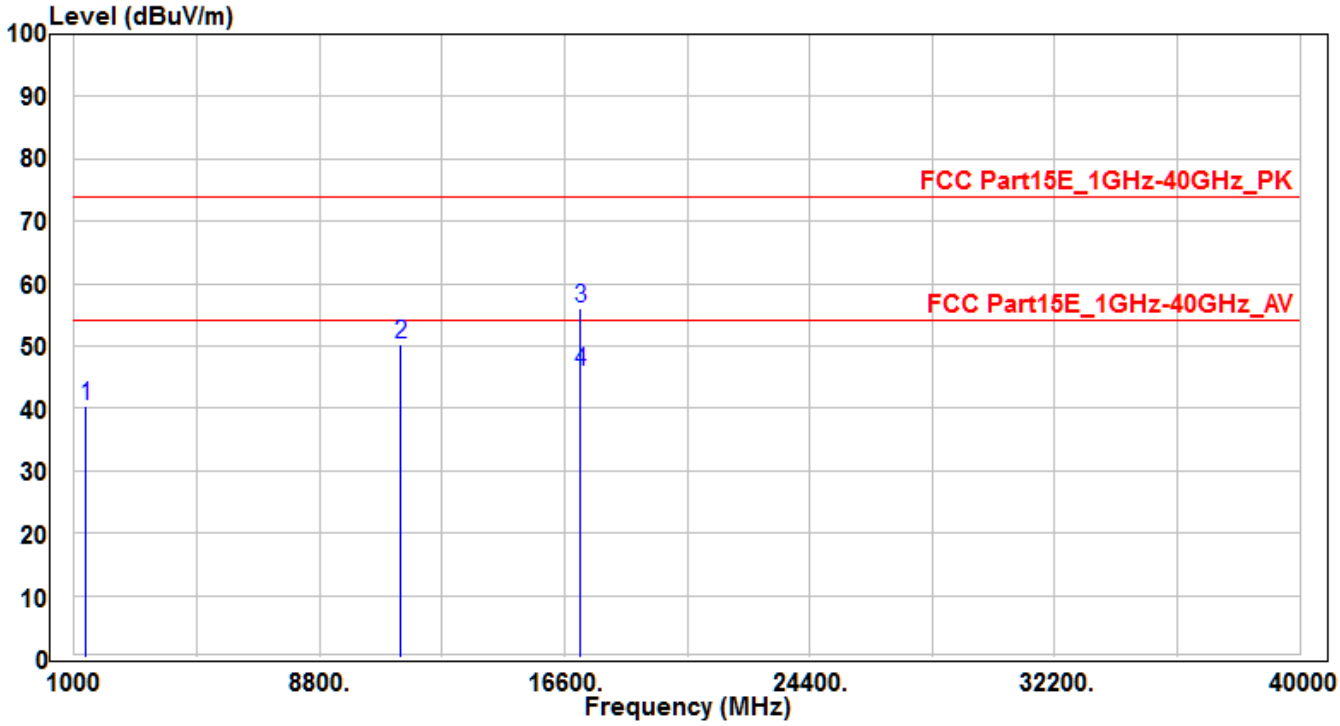


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4883.2	46.69	3.49	50.18	-23.82	74	150	400	Peak
2		11160	29.9	19.14	49.04	-24.96	74	150	400	Peak
3	*	16740	30.92	23.85	54.77	-19.23	74	200	140	Peak
4	*	16740	19.84	23.85	43.69	-10.31	54	200	140	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH140	Test Voltage	AC 120V/60Hz

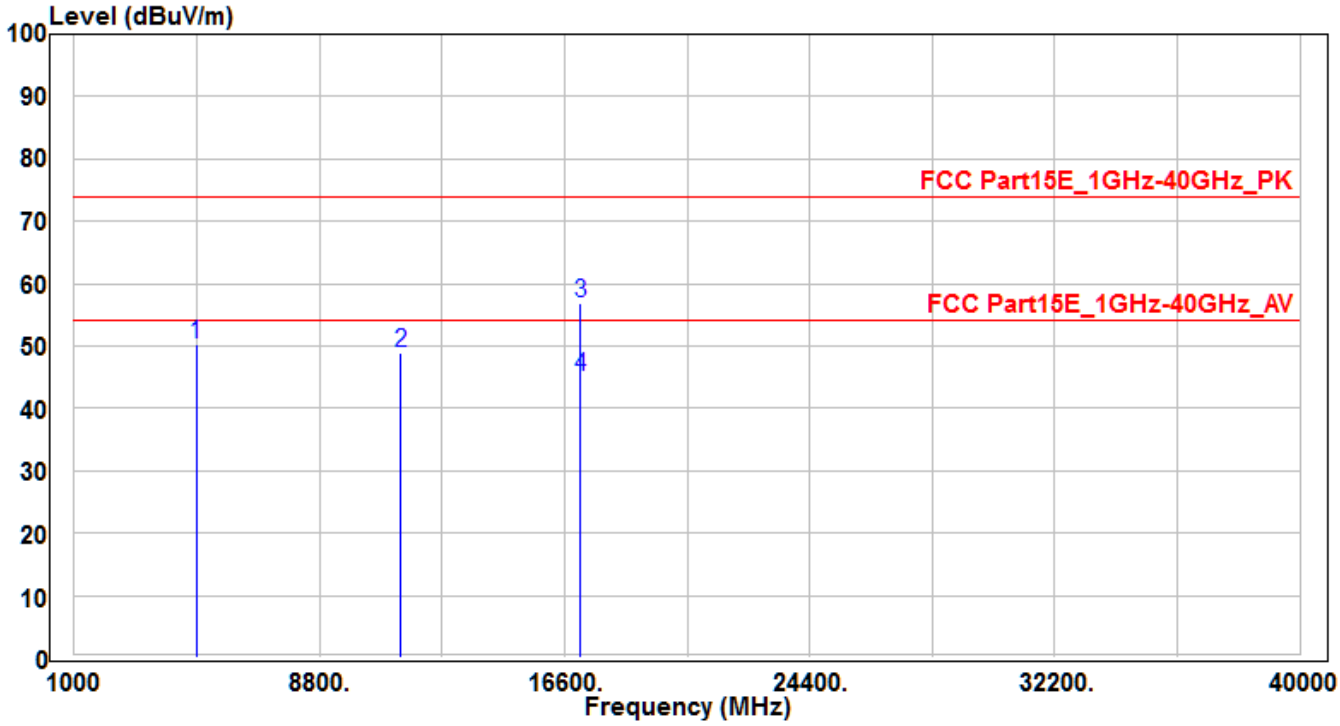


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1364.96	46.42	-6.08	40.34	-33.66	74	150	400	Peak
2		11400	31.02	19.22	50.24	-23.76	74	150	400	Peak
3	*	17100	29.46	26.64	56.1	-17.9	74	140	145	Peak
4	*	17100	19.2	26.64	45.84	-8.16	54	140	145	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH140	Test Voltage	AC 120V/60Hz

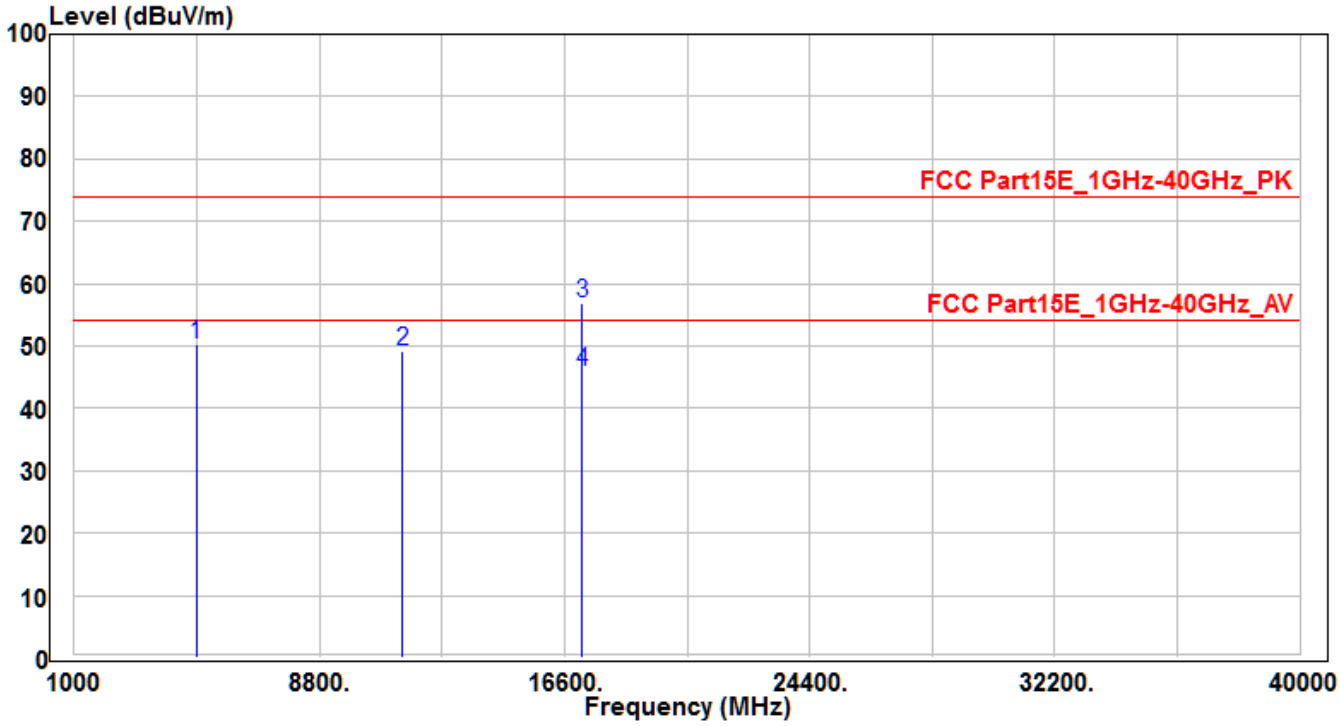


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4880.4	46.75	3.49	50.24	-23.76	74	150	400	Peak
2		11400	29.59	19.22	48.81	-25.19	74	150	400	Peak
3	*	17100	30.21	26.64	56.85	-17.15	74	215	180	Peak
4	*	17100	18.48	26.64	45.12	-8.88	54	215	180	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH144	Test Voltage	AC 120V/60Hz

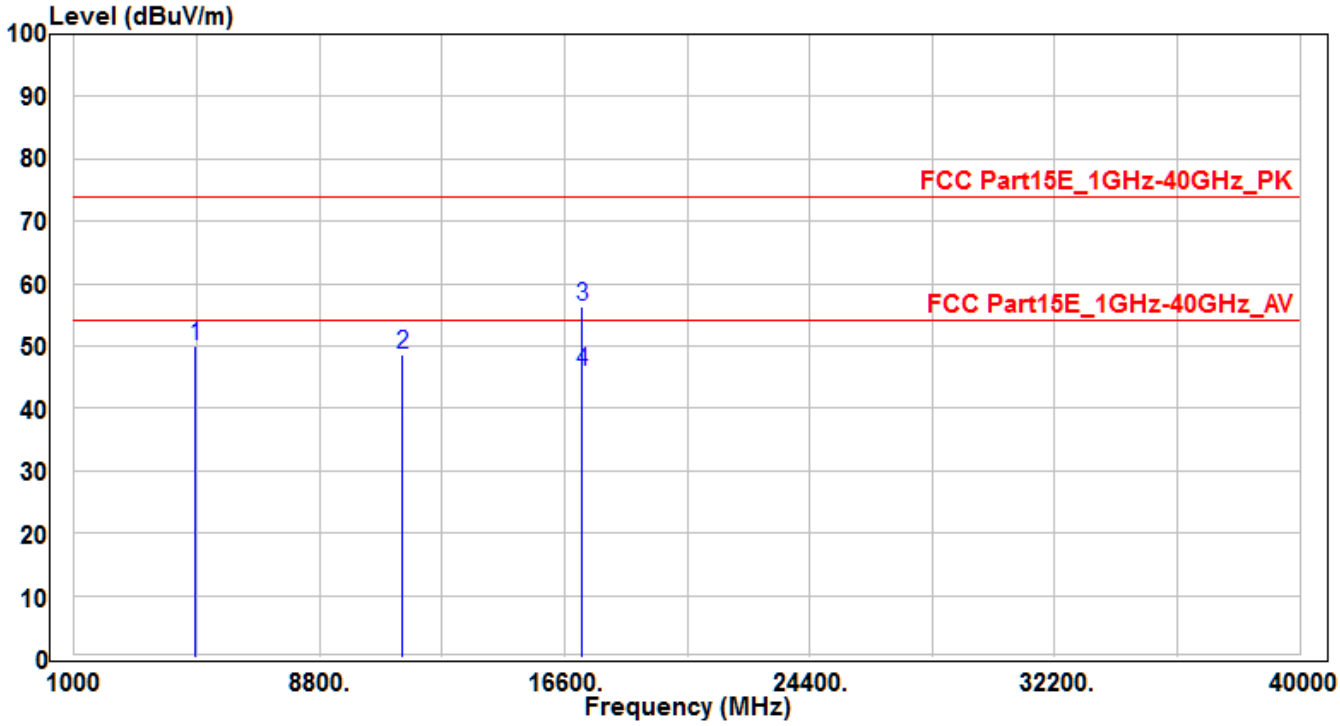


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4875.42	46.72	3.48	50.2	-23.8	74	150	400	Peak
2		11440	29.95	19.23	49.18	-24.82	74	150	400	Peak
3	*	17160	29.88	27.13	57.01	-16.99	74	175	165	Peak
4	*	17160	18.89	27.13	46.02	-7.98	54	175	165	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH144	Test Voltage	AC 120V/60Hz

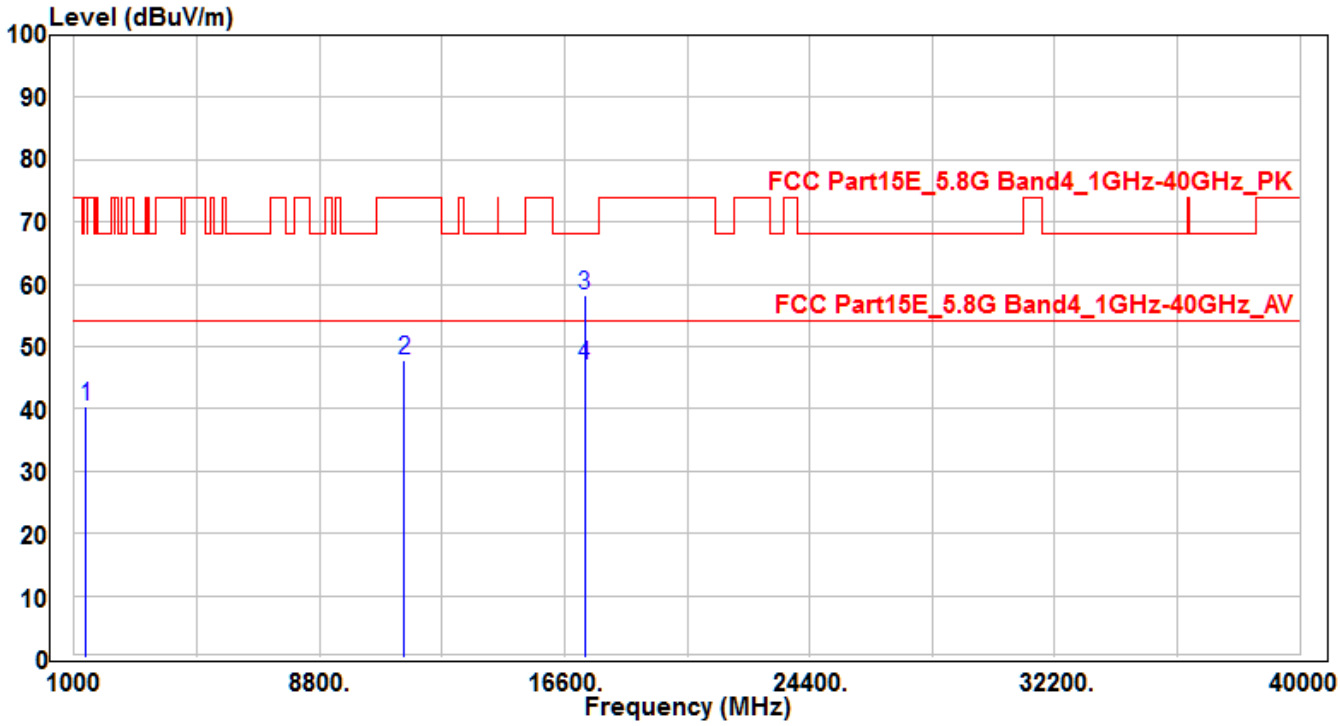


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4864.79	46.63	3.45	50.08	-23.92	74	150	400	Peak
2		11440	29.49	19.23	48.72	-25.28	74	150	400	Peak
3	*	17160	29.15	27.13	56.28	-17.72	74	165	190	Peak
4	*	17160	18.75	27.13	45.88	-8.12	54	165	190	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH149	Test Voltage	AC 120V/60Hz

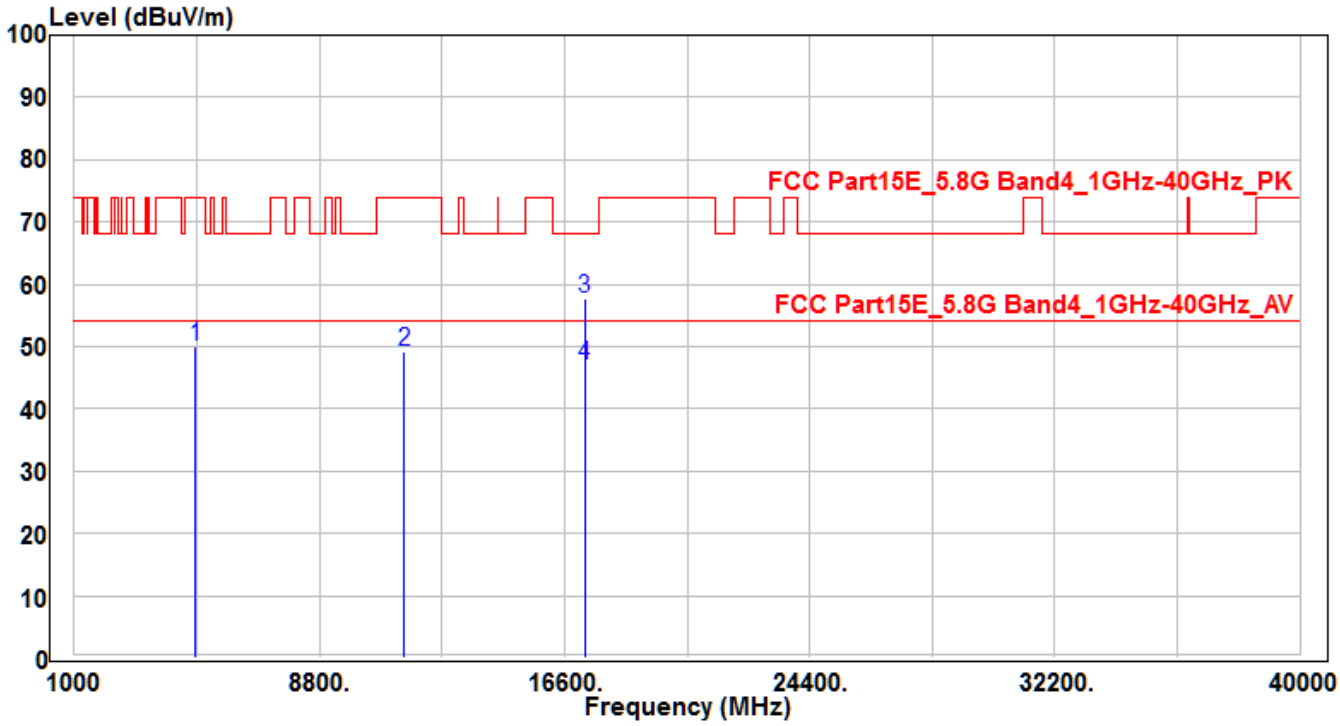


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1376.48	46.35	-6.03	40.32	-33.68	74	150	400	Peak
2		11490	28.48	19.24	47.72	-26.28	74	150	400	Peak
3	*	17235	30.59	27.74	58.33	-9.87	68.2	170	160	Peak
4	*	17235	19.14	27.74	46.88	-7.12	54	170	160	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH149	Test Voltage	AC 120V/60Hz

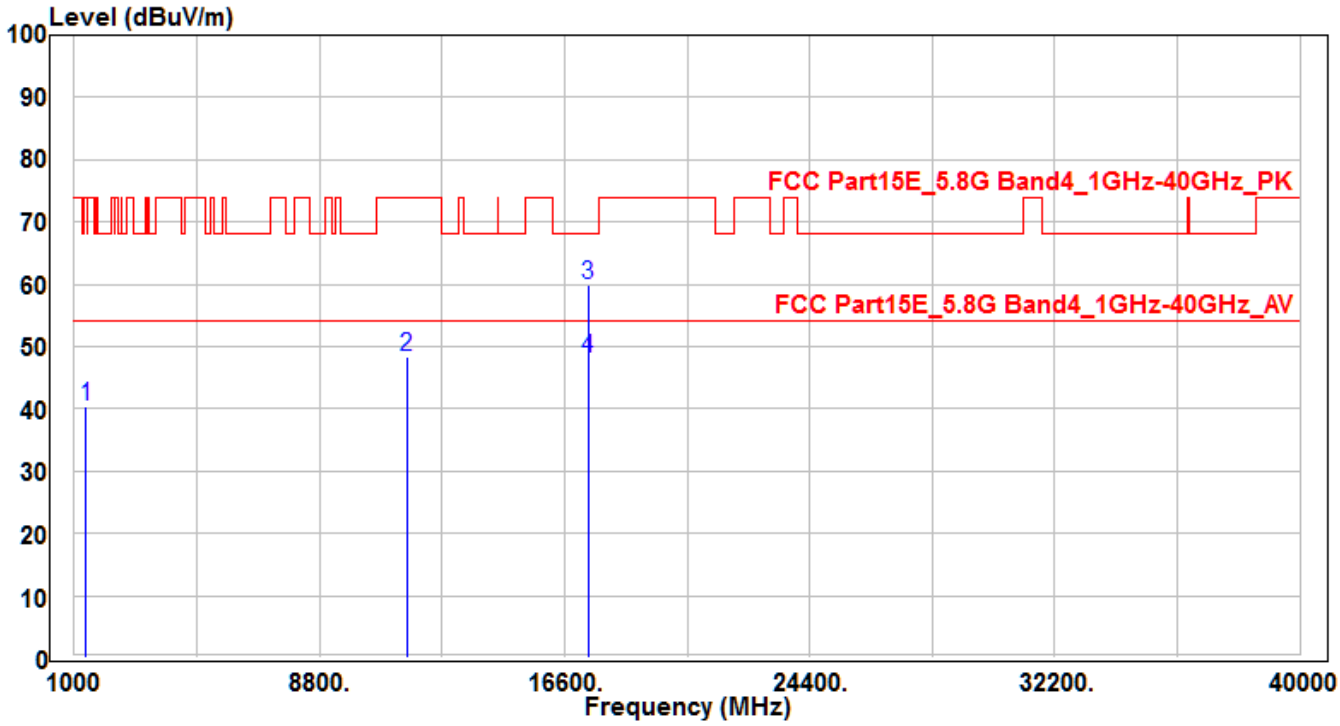


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4864.17	46.68	3.45	50.13	-23.87	74	150	400	Peak
2		11490	29.92	19.24	49.16	-24.84	74	150	400	Peak
3	*	17235	30.04	27.74	57.78	-10.42	68.2	165	195	Peak
4	*	17235	19.21	27.74	46.95	-7.05	54	165	195	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH157	Test Voltage	AC 120V/60Hz

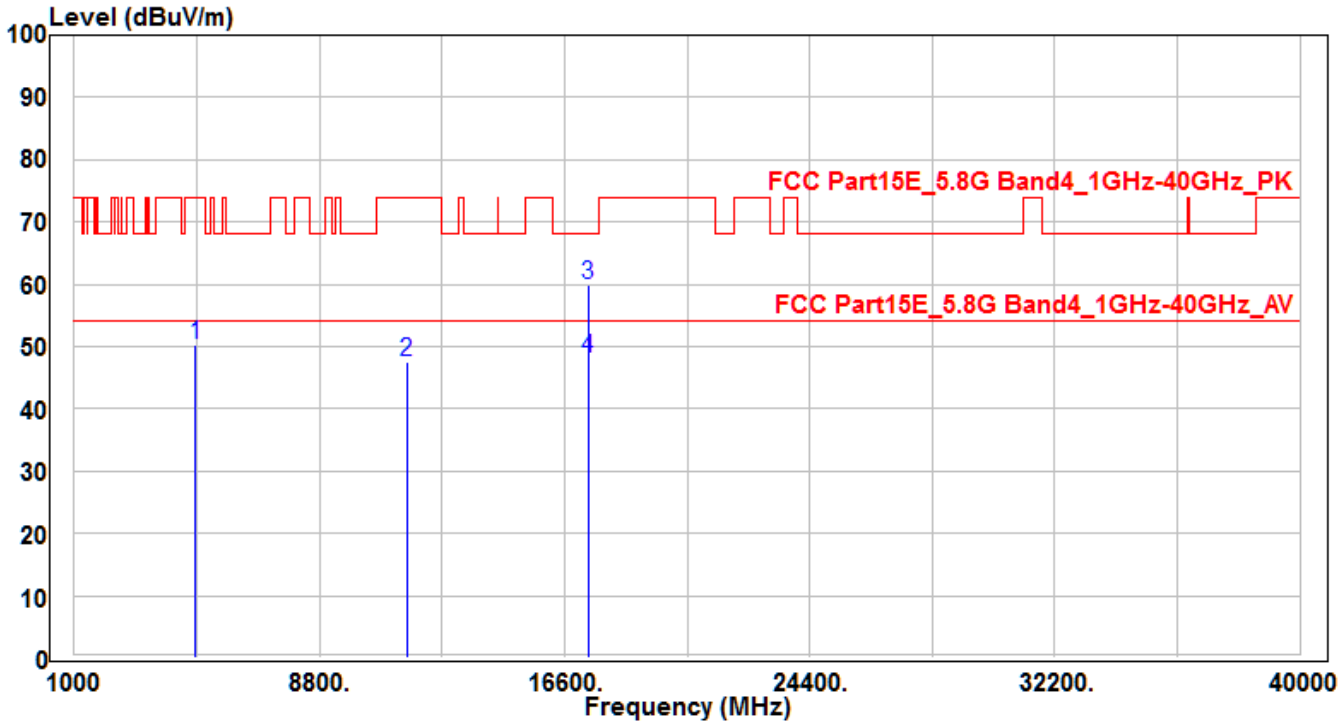


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1378.52	46.41	-6.01	40.4	-33.6	74	150	400	Peak
2		11570	29.28	19.19	48.47	-25.53	74	150	400	Peak
3	*	17355	31.04	28.73	59.77	-8.43	68.2	160	160	Peak
4	*	17355	19.43	28.73	48.16	-5.84	54	160	160	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH157	Test Voltage	AC 120V/60Hz

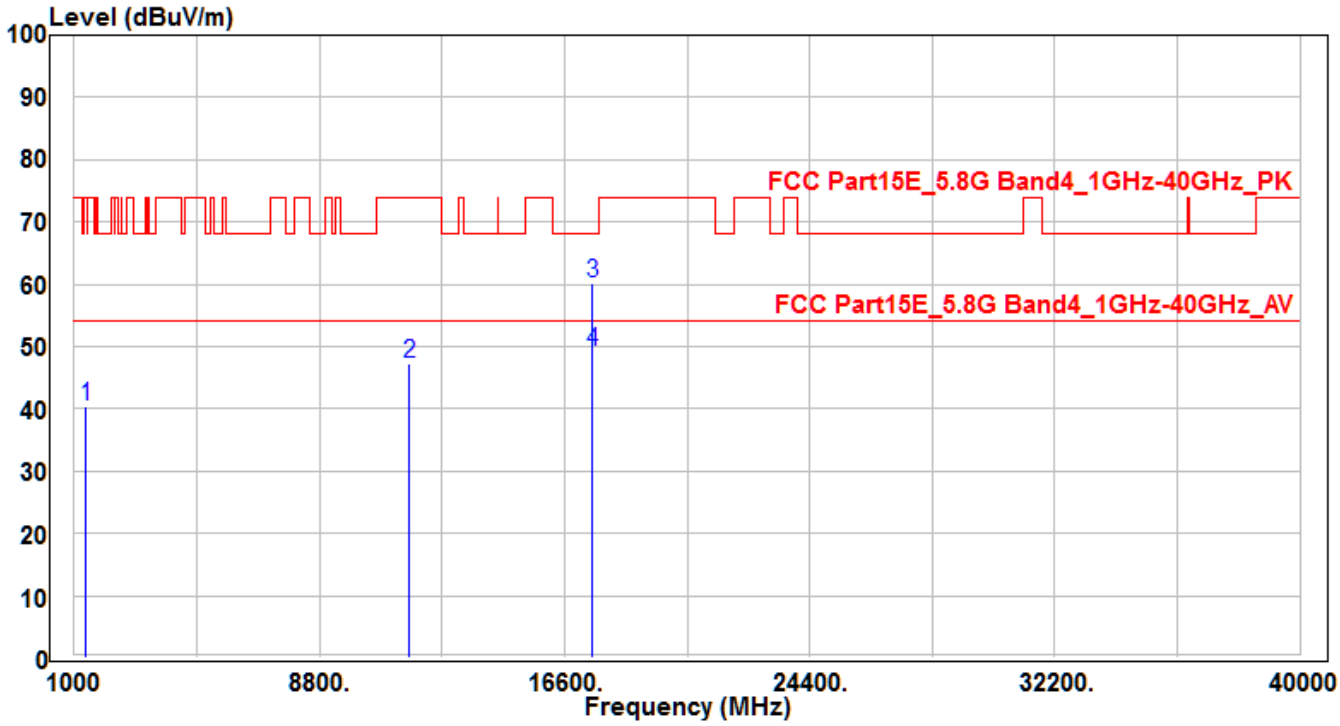


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4849.95	46.81	3.42	50.23	-23.77	74	150	400	Peak
2		11570	28.39	19.19	47.58	-26.42	74	150	400	Peak
3	*	17355	31.27	28.73	60	-8.2	68.2	170	190	Peak
4	*	17355	19.33	28.73	48.06	-5.94	54	170	190	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH165	Test Voltage	AC 120V/60Hz

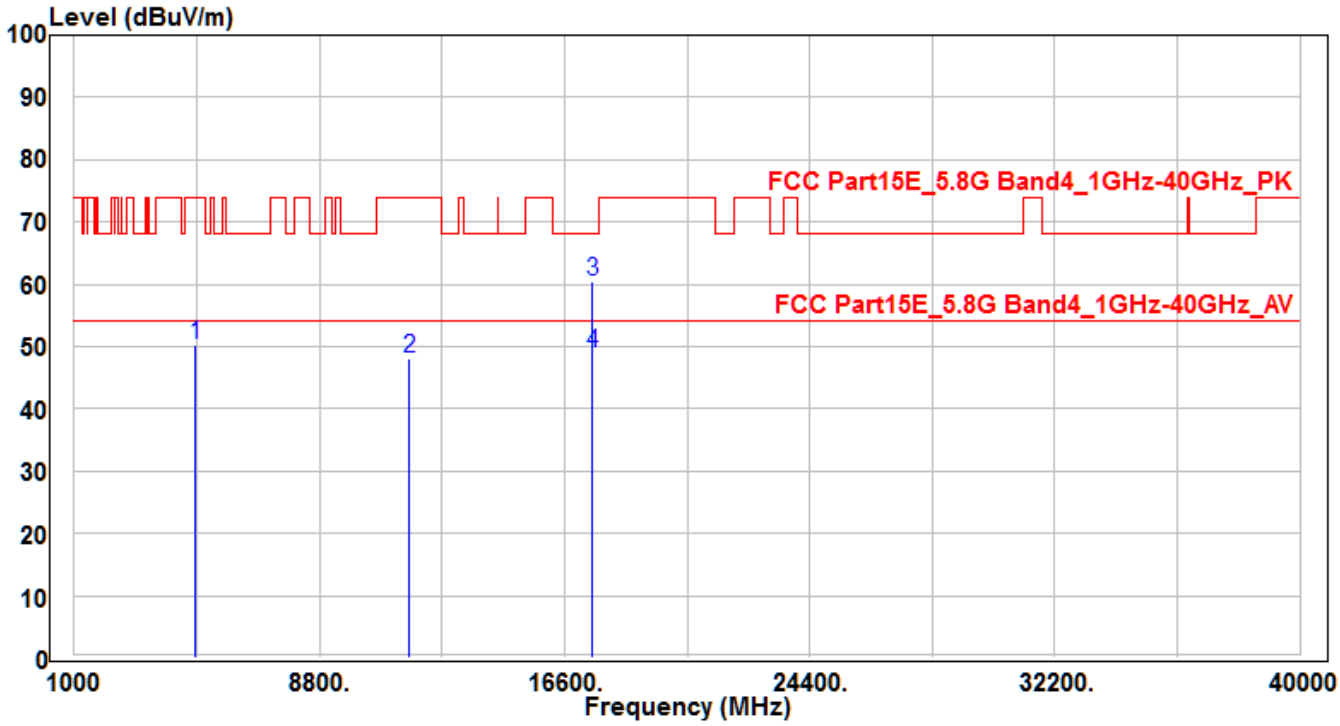


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1375.82	46.48	-6.03	40.45	-33.55	74	150	400	Peak
2		11650	28.24	19.12	47.36	-26.64	74	150	400	Peak
3	*	17475	30.51	29.72	60.23	-7.97	68.2	170	150	Peak
4	*	17475	19.35	29.72	49.07	-4.93	54	170	150	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1 -CH165	Test Voltage	AC 120V/60Hz

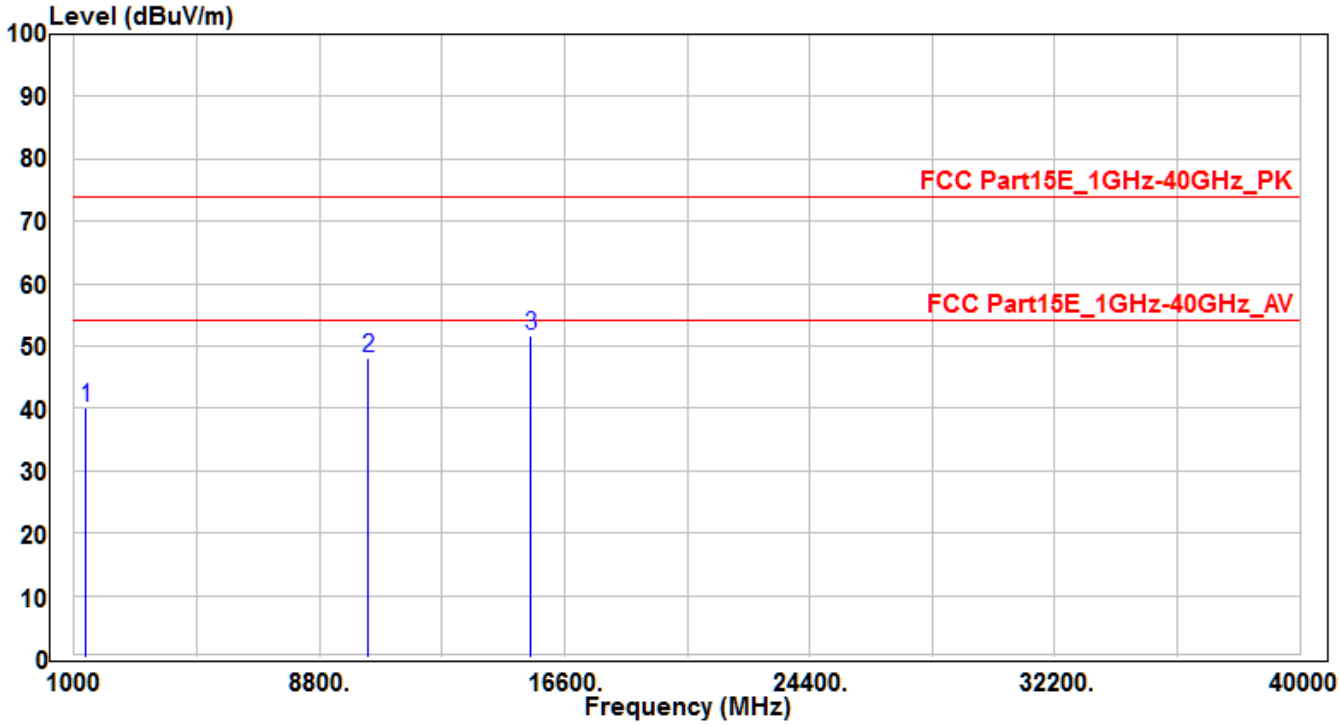


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4845.75	46.76	3.41	50.17	-23.83	74	150	400	Peak
2		11650	29.1	19.12	48.22	-25.78	74	150	400	Peak
3	*	17475	30.67	29.72	60.39	-7.81	68.2	165	200	Peak
4	*	17475	19.09	29.72	48.81	-5.19	54	165	200	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH36	Test Voltage	AC 120V/60Hz

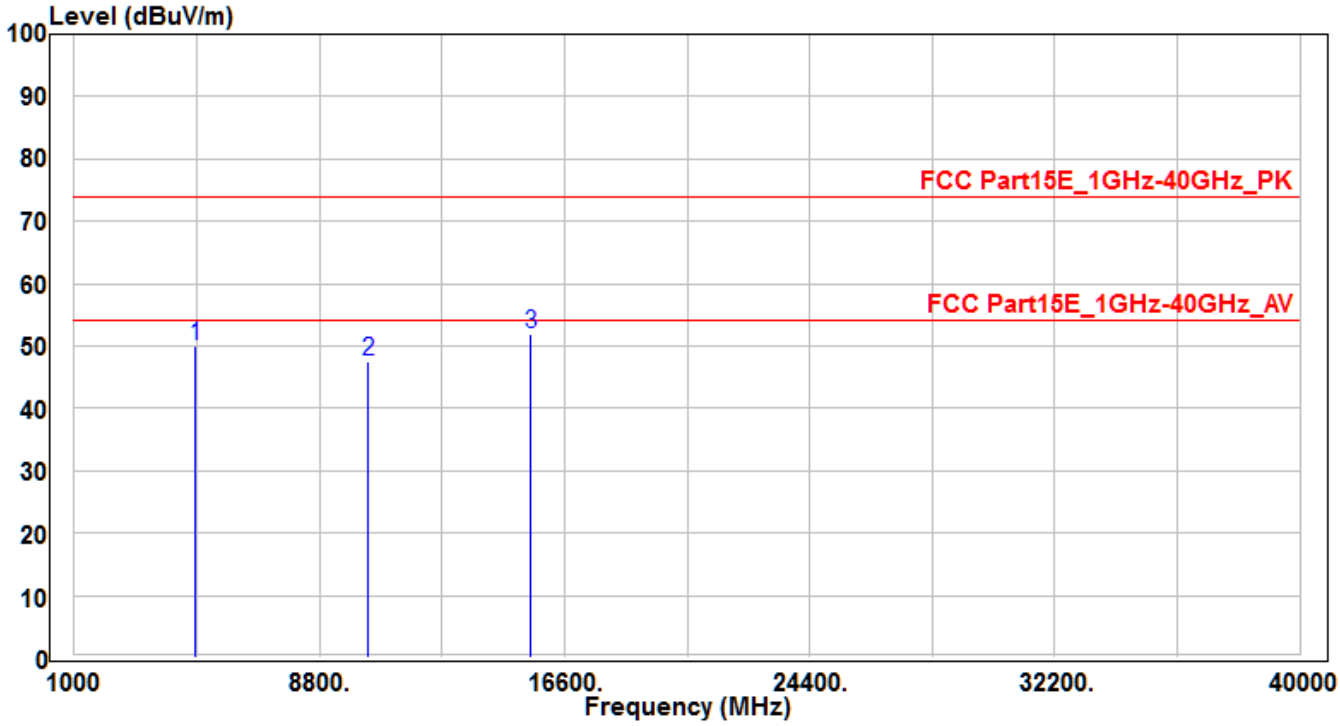


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1362.86	46.32	-6.09	40.23	-33.77	74	150	400	Peak
2		10360	30.72	17.34	48.06	-25.94	74	150	400	Peak
3	*	15540	29.94	21.82	51.76	-22.24	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH36	Test Voltage	AC 120V/60Hz

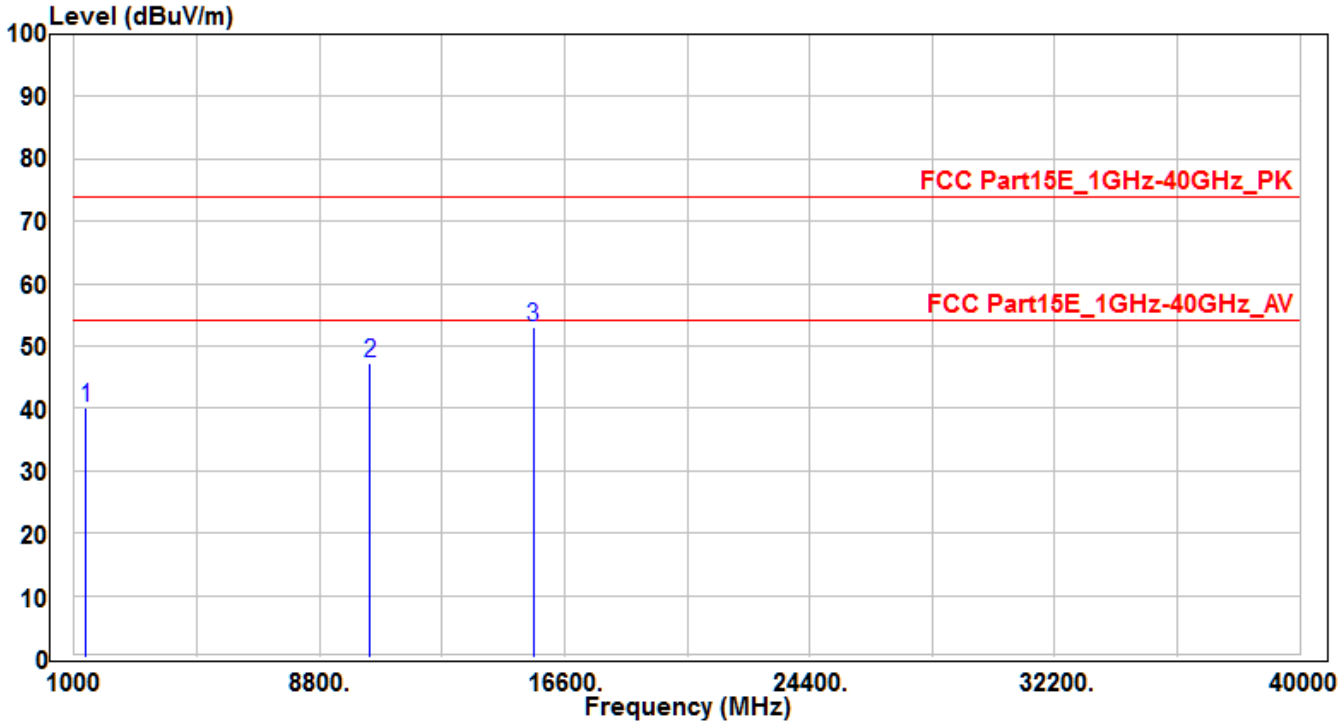


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4872.35	46.67	3.47	50.14	-23.86	74	150	400	Peak
2		10360	30.28	17.34	47.62	-26.38	74	150	400	Peak
3	*	15540	30	21.82	51.82	-22.18	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH40	Test Voltage	AC 120V/60Hz

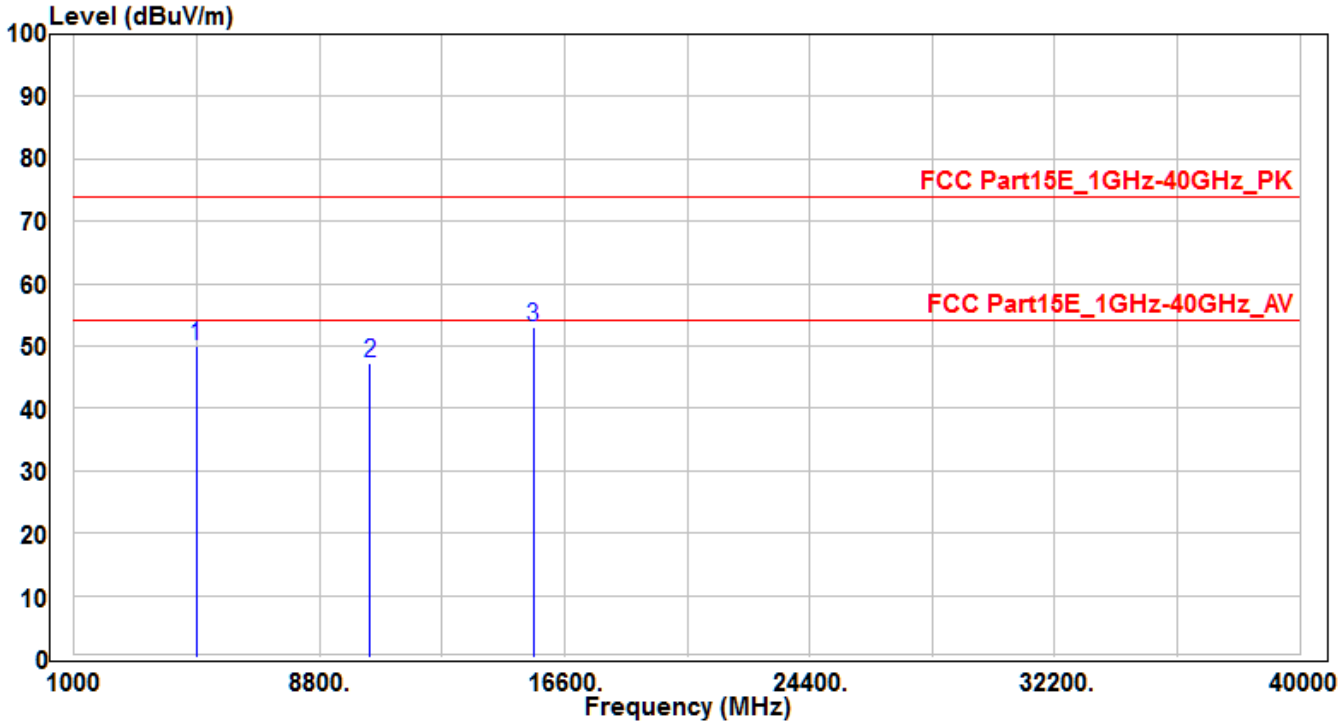


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1373.49	46.24	-6.04	40.2	-33.8	74	150	400	Peak
2		10400	29.68	17.53	47.21	-26.79	74	150	400	Peak
3	*	15600	31.4	21.6	53	-21	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH40	Test Voltage	AC 120V/60Hz

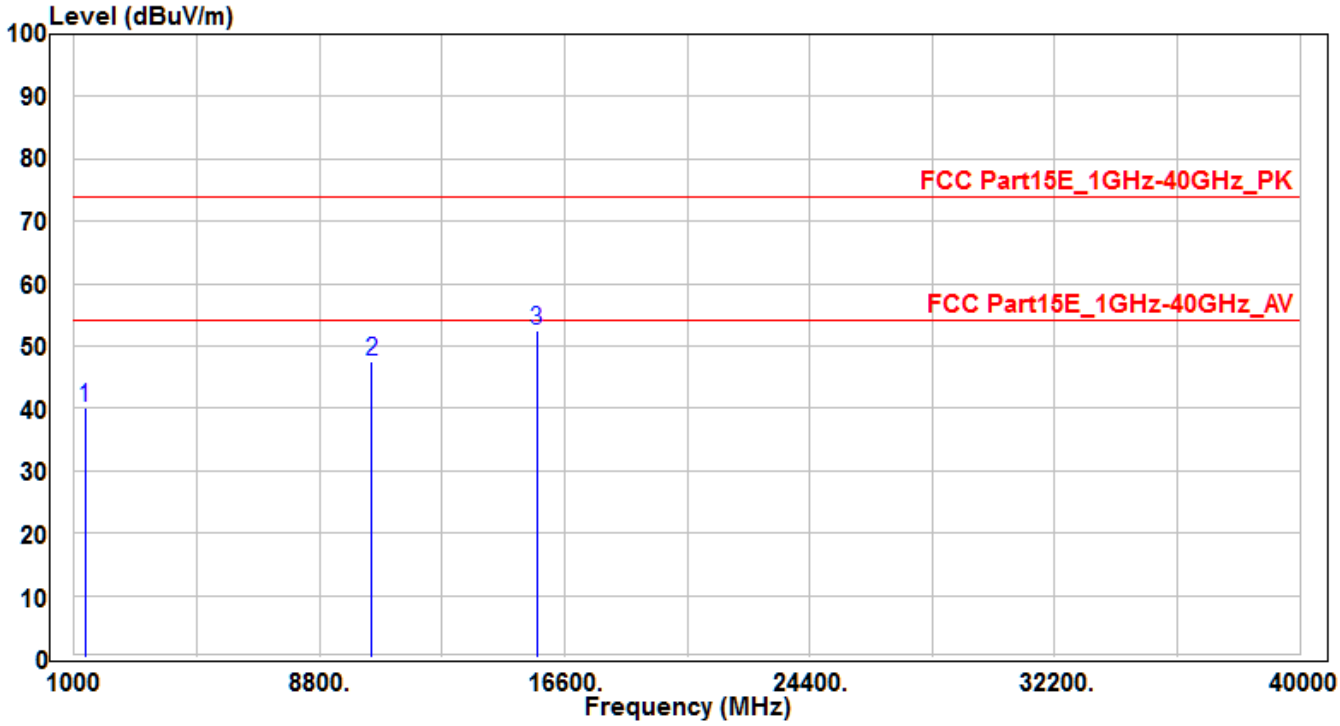


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4873.89	46.53	3.47	50	-24	74	150	400	Peak
2		10400	29.63	17.53	47.16	-26.84	74	150	400	Peak
3	*	15600	31.43	21.6	53.03	-20.97	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH48	Test Voltage	AC 120V/60Hz

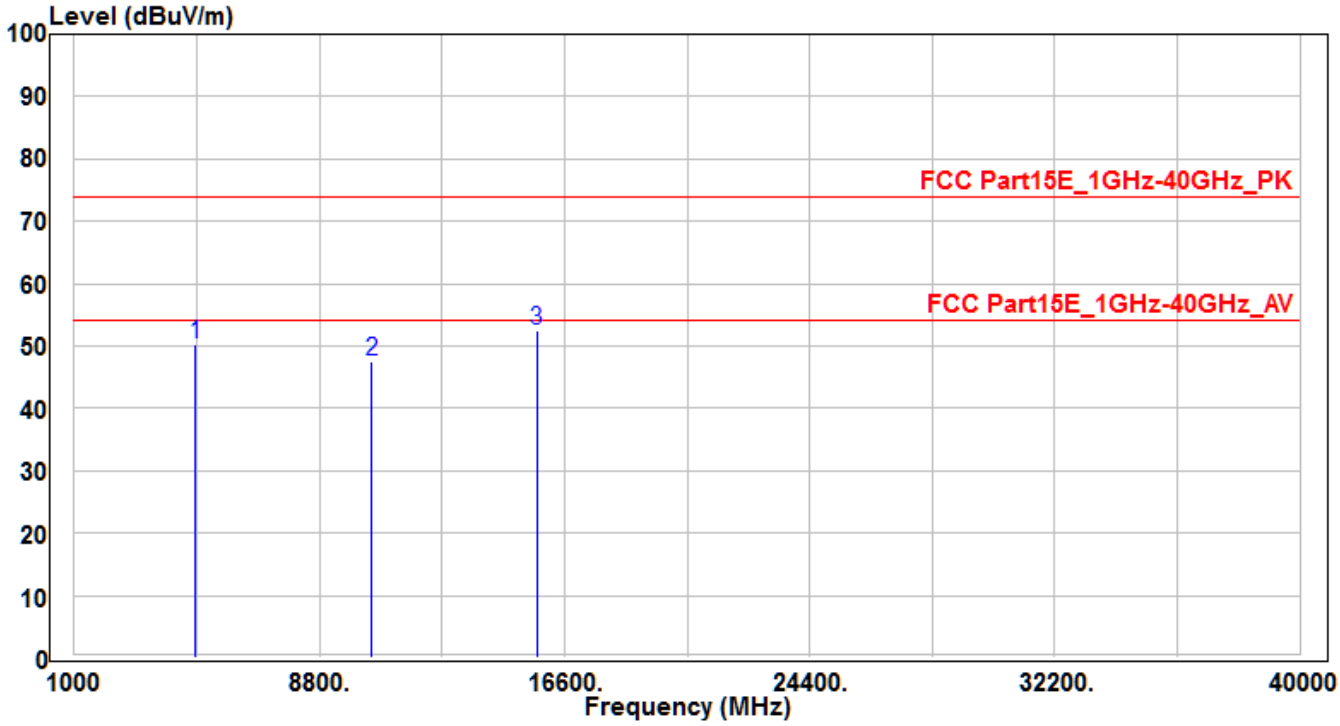


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1358.41	46.27	-6.11	40.16	-33.84	74	150	400	Peak
2		10480	29.65	17.88	47.53	-26.47	74	150	400	Peak
3	*	15720	31.35	21.18	52.53	-21.47	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH48	Test Voltage	AC 120V/60Hz

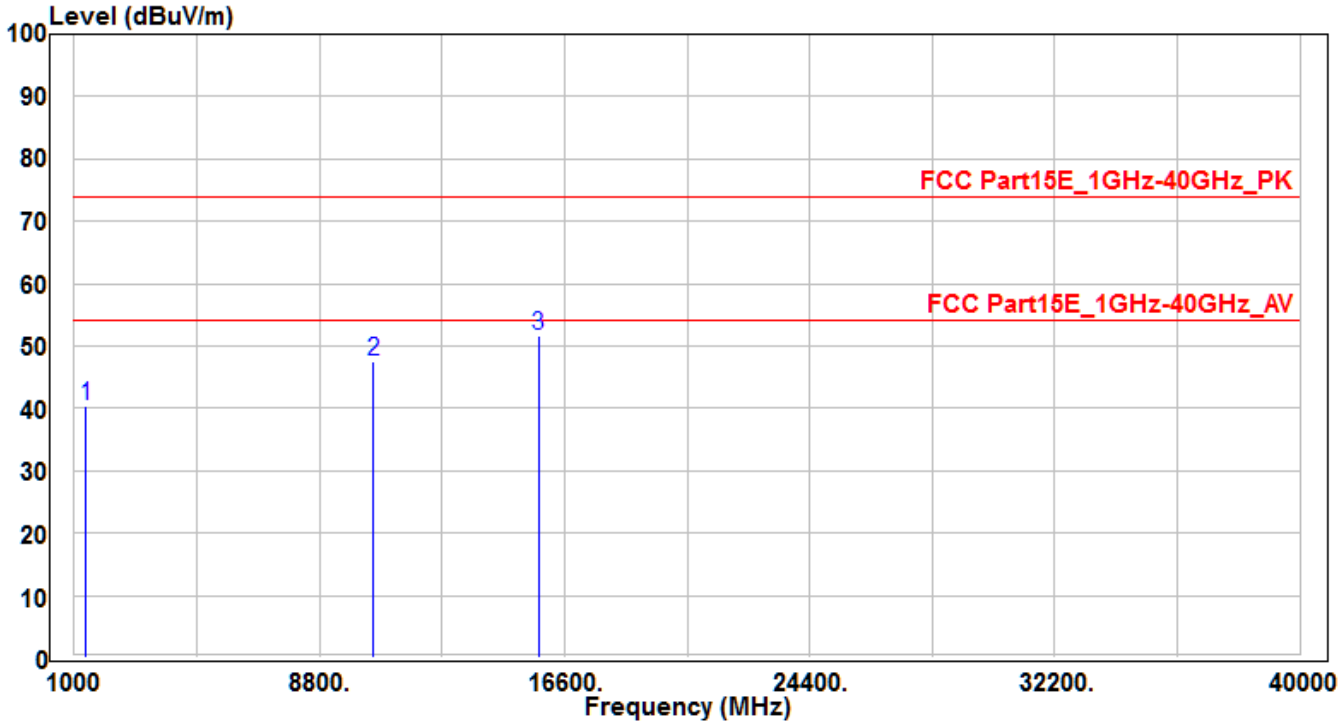


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4870.15	46.86	3.46	50.32	-23.68	74	150	400	Peak
2		10480	29.79	17.88	47.67	-26.33	74	150	400	Peak
3	*	15720	31.36	21.18	52.54	-21.46	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH52	Test Voltage	AC 120V/60Hz

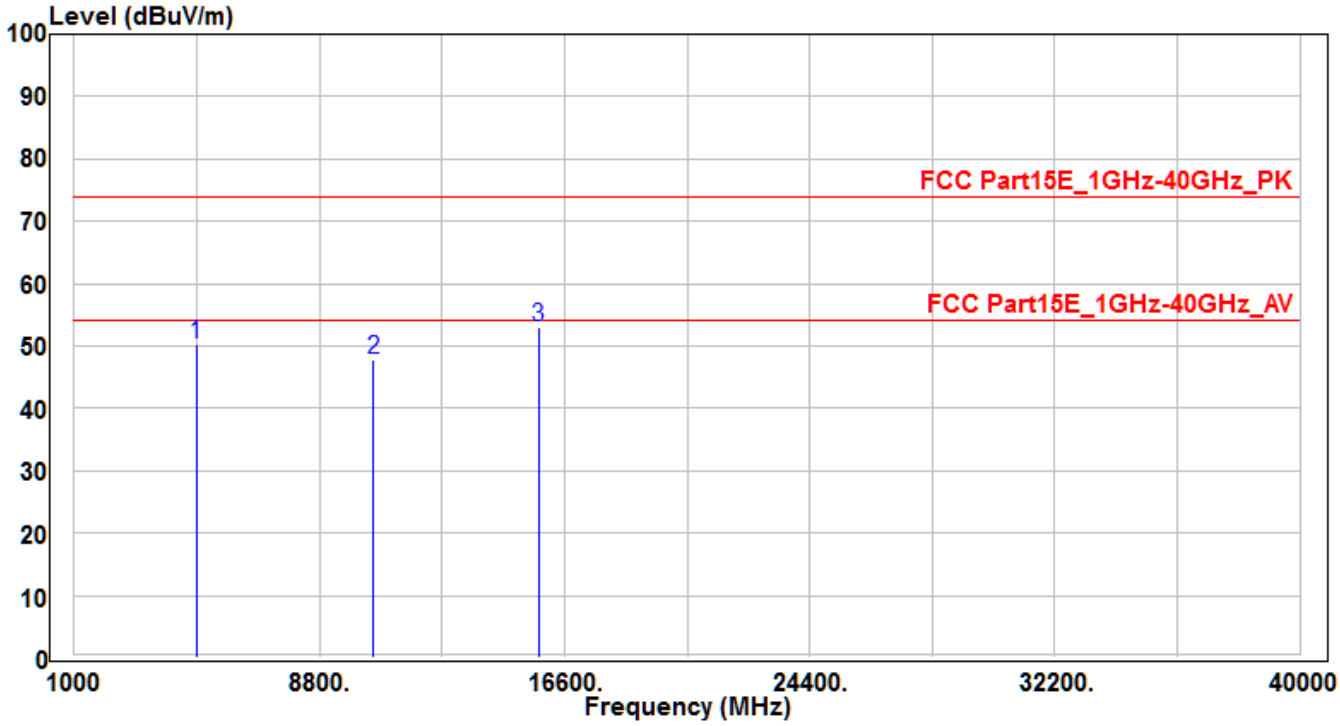


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1372.82	46.32	-6.05	40.27	-33.73	74	150	400	Peak
2		10520	29.5	18.02	47.52	-26.48	74	150	400	Peak
3	*	15780	30.61	20.98	51.59	-22.41	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH52	Test Voltage	AC 120V/60Hz

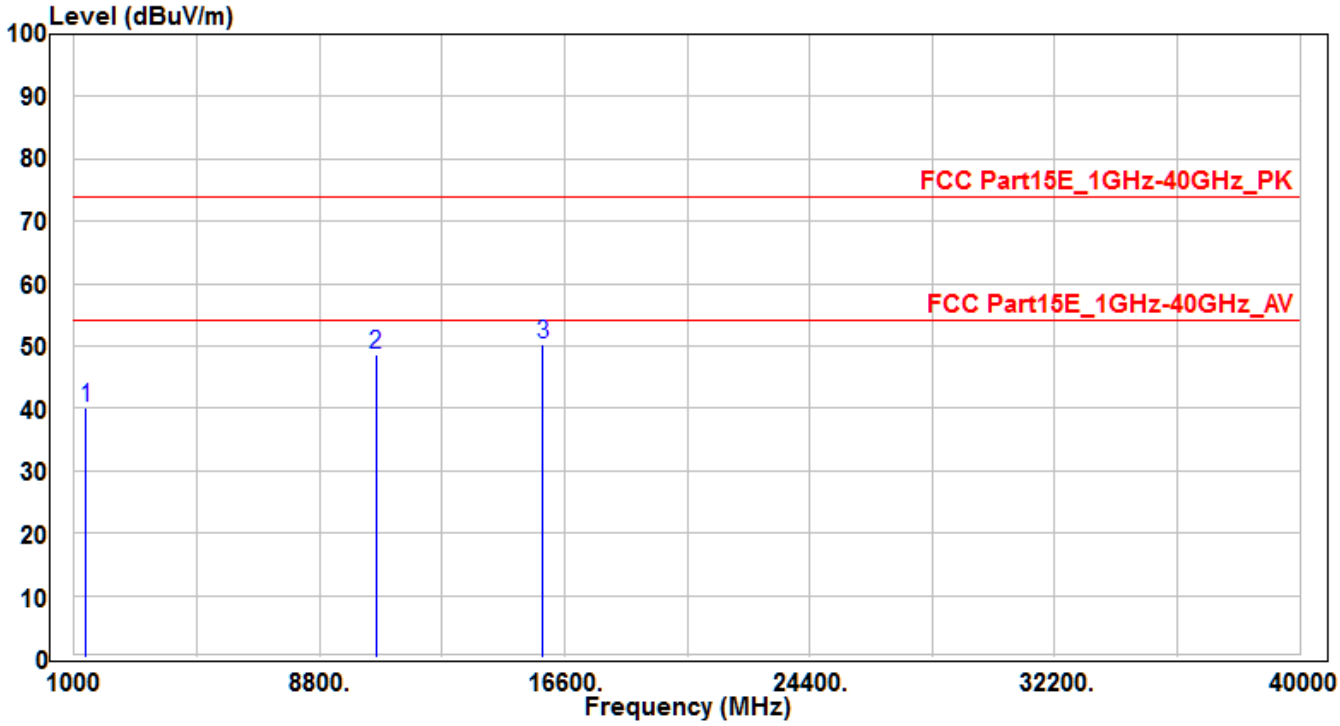


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4884.39	46.86	3.5	50.36	-23.64	74	150	400	Peak
2		10520	29.88	18.02	47.9	-26.1	74	150	400	Peak
3	*	15780	32.14	20.98	53.12	-20.88	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH60	Test Voltage	AC 120V/60Hz

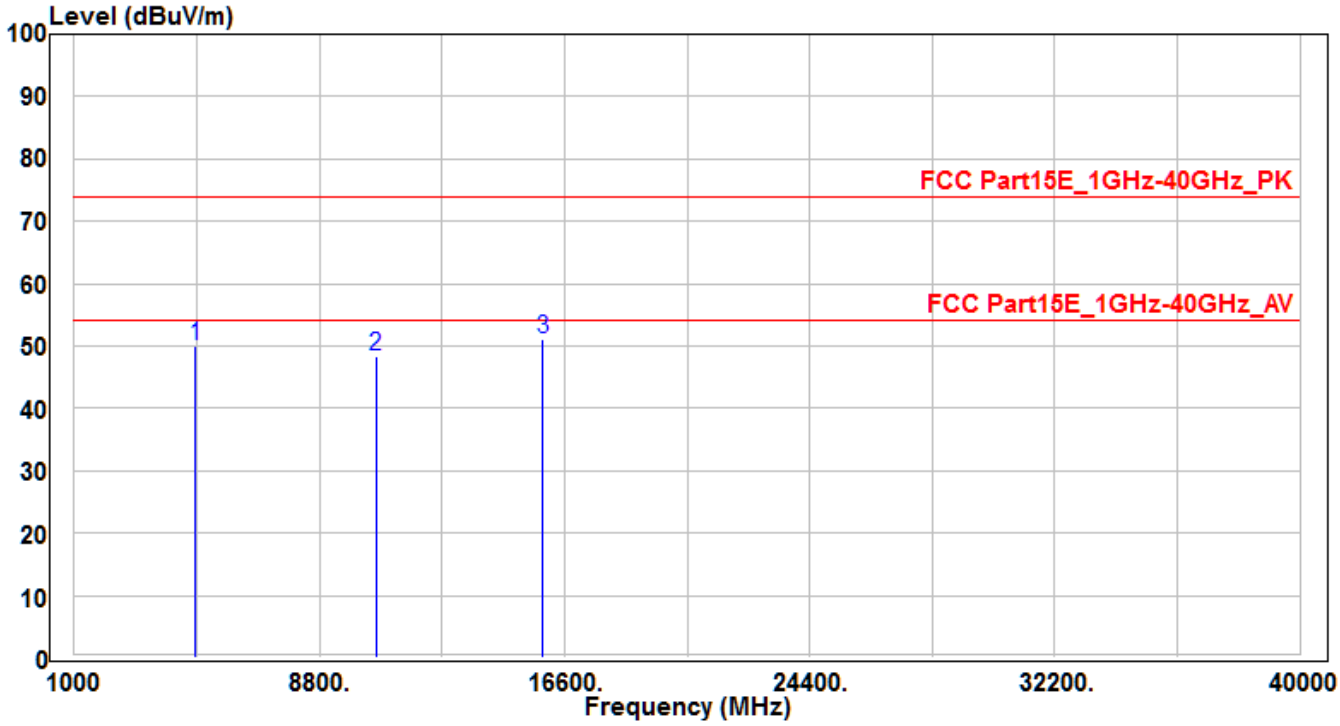


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1362.78	46.15	-6.09	40.06	-33.94	74	150	400	Peak
2		10600	30.41	18.19	48.6	-25.4	74	150	400	Peak
3	*	15900	29.62	20.56	50.18	-23.82	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH60	Test Voltage	AC 120V/60Hz

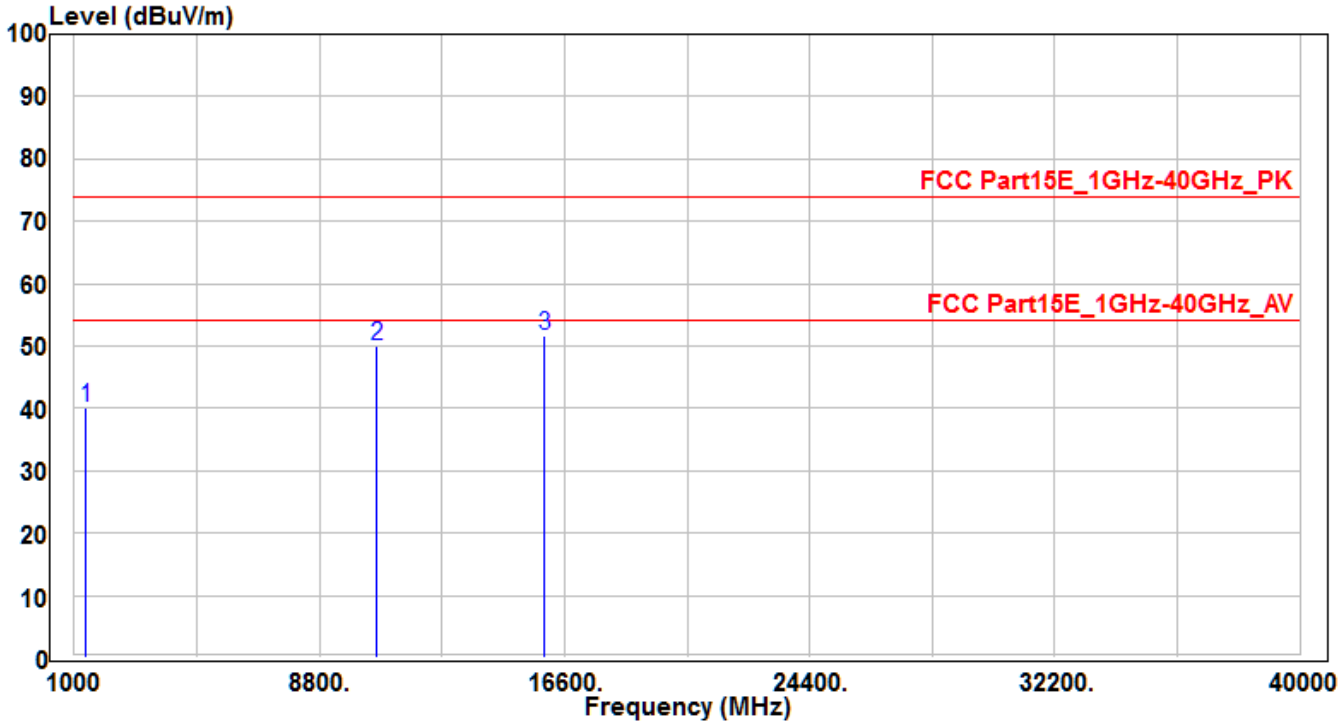


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4860.48	46.59	3.45	50.04	-23.96	74	150	400	Peak
2		10600	30.06	18.19	48.25	-25.75	74	150	400	Peak
3	*	15900	30.67	20.56	51.23	-22.77	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH64	Test Voltage	AC 120V/60Hz

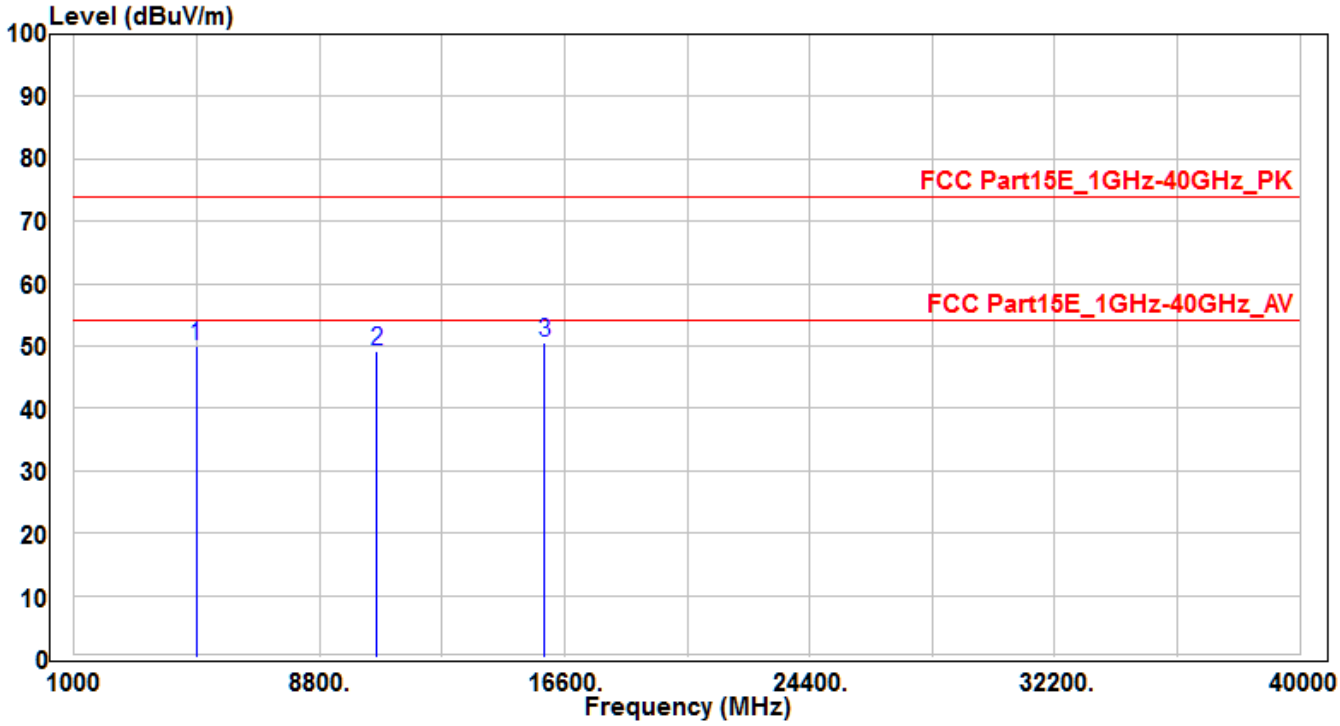


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1385.01	46.2	-5.99	40.21	-33.79	74	150	400	Peak
2		10640	31.72	18.28	50	-24	74	150	400	Peak
3	*	15960	31.19	20.34	51.53	-22.47	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH64	Test Voltage	AC 120V/60Hz

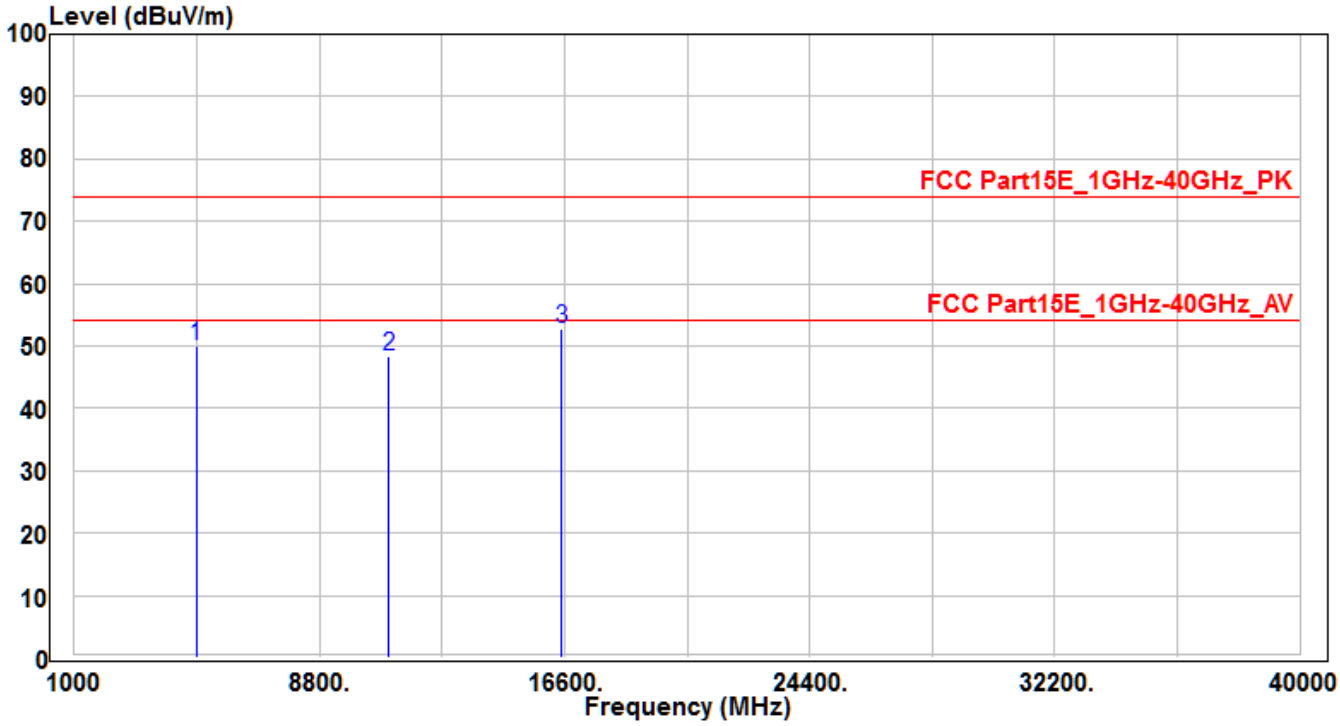


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4890.42	46.62	3.5	50.12	-23.88	74	150	400	Peak
2		10640	30.87	18.28	49.15	-24.85	74	150	400	Peak
3	*	15960	30.12	20.34	50.46	-23.54	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH100	Test Voltage	AC 120V/60Hz

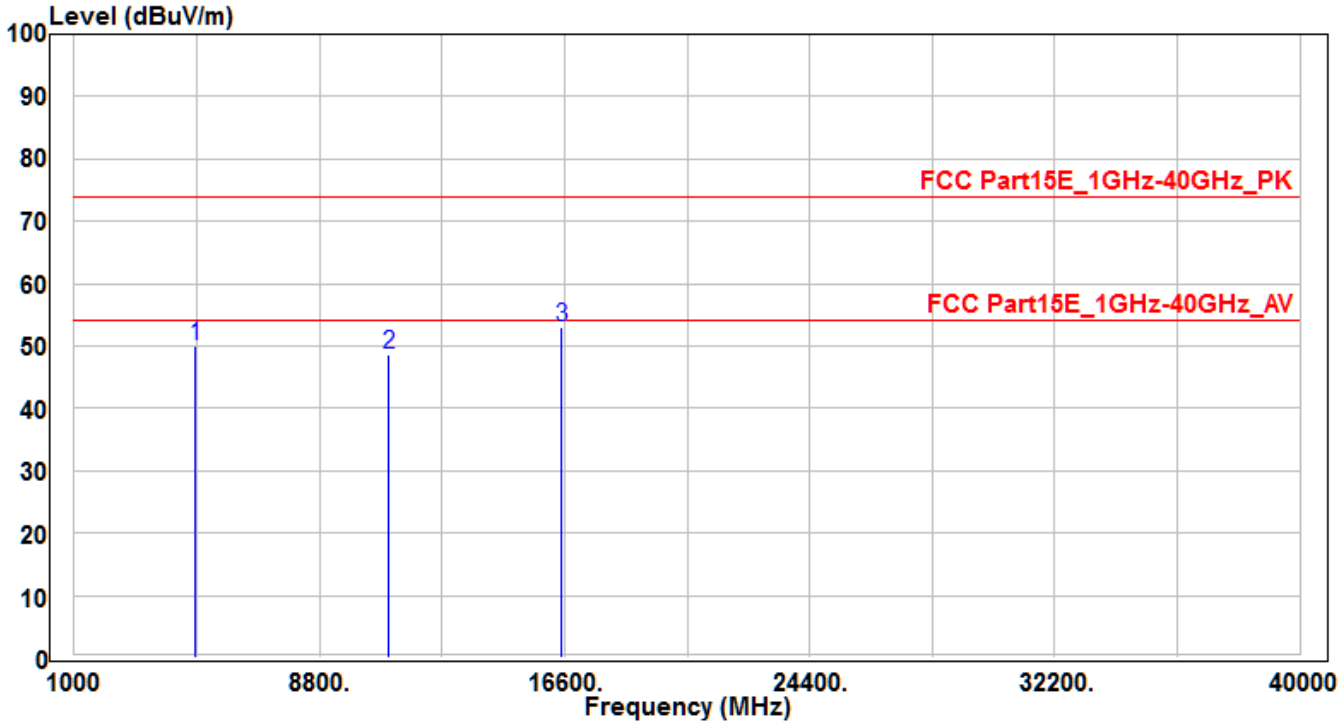


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4886.34	46.57	3.5	50.07	-23.93	74	150	400	Peak
2		11000	29.39	19.08	48.47	-25.53	74	150	400	Peak
3	*	16500	30.69	22.06	52.75	-21.25	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH100	Test Voltage	AC 120V/60Hz

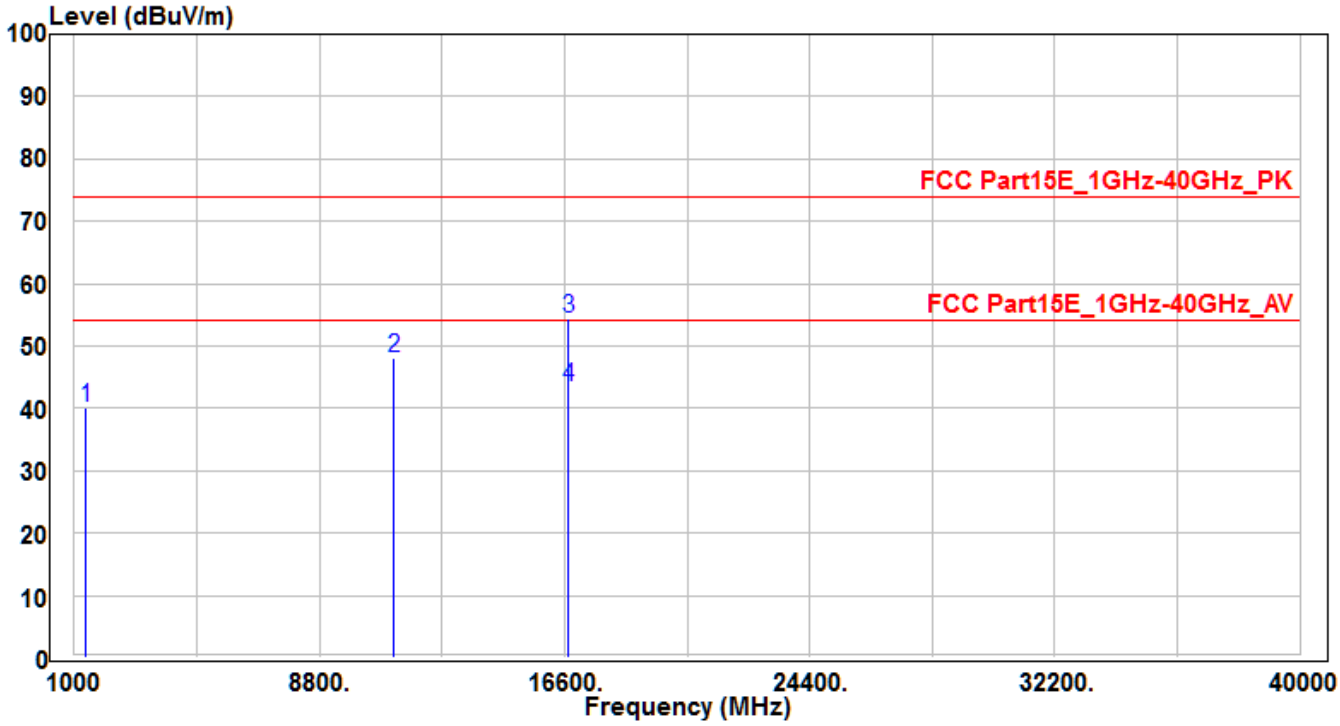


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4865.72	46.42	3.46	49.88	-24.12	74	150	400	Peak
2		11000	29.5	19.08	48.58	-25.42	74	150	400	Peak
3	*	16500	30.92	22.06	52.98	-21.02	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH116	Test Voltage	AC 120V/60Hz

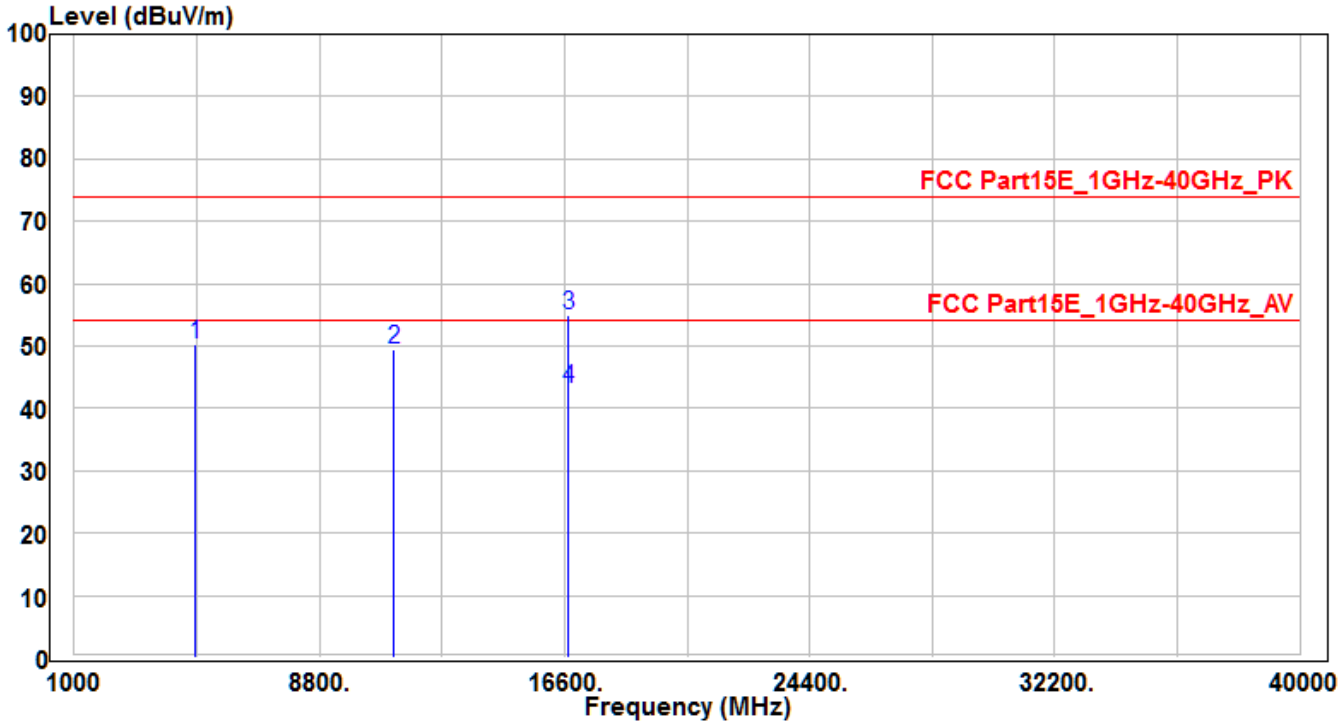


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1369.53	46.19	-6.07	40.12	-33.88	74	150	400	Peak
2		11160	28.92	19.14	48.06	-25.94	74	150	400	Peak
3	*	16740	30.65	23.85	54.5	-19.5	74	160	210	Peak
4	*	16740	19.66	23.85	43.51	-10.49	54	160	210	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH116	Test Voltage	AC 120V/60Hz

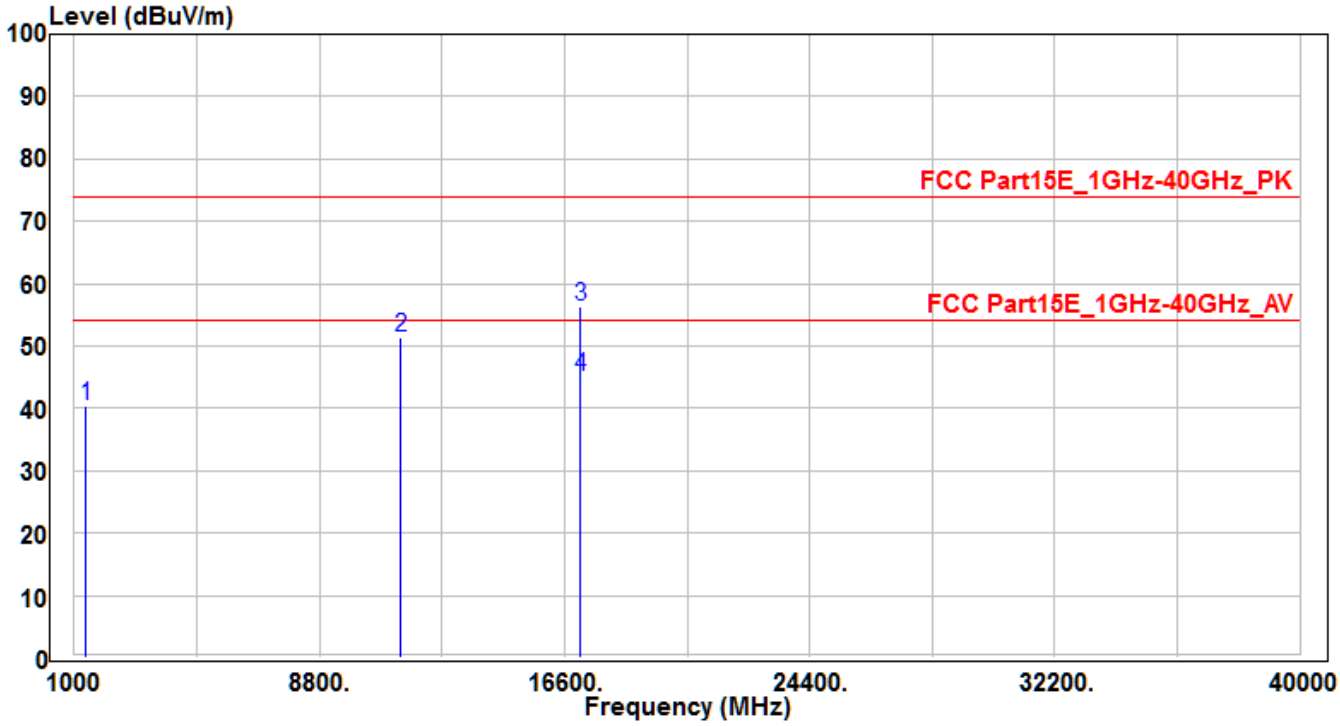


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4860.72	46.71	3.45	50.16	-23.84	74	150	400	Peak
2		11160	30.33	19.14	49.47	-24.53	74	150	400	Peak
3	*	16740	31.1	23.85	54.95	-19.05	74	145	300	Peak
4	*	16740	19.24	23.85	43.09	-10.91	54	145	300	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH140	Test Voltage	AC 120V/60Hz

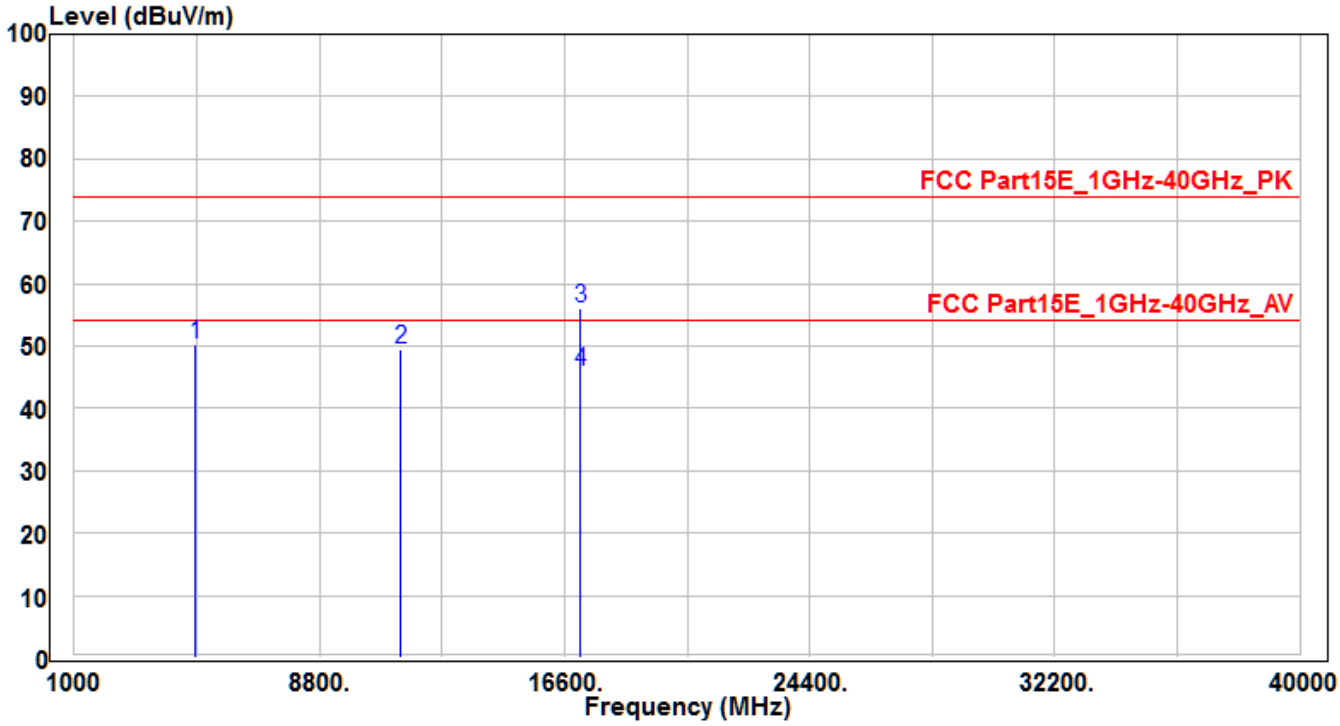


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1384.48	46.3	-5.99	40.31	-33.69	74	150	400	Peak
2		11400	32.06	19.22	51.28	-22.72	74	150	400	Peak
3	*	17100	29.59	26.64	56.23	-17.77	74	155	240	Peak
4	*	17100	18.42	26.64	45.06	-8.94	54	155	240	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH140	Test Voltage	AC 120V/60Hz

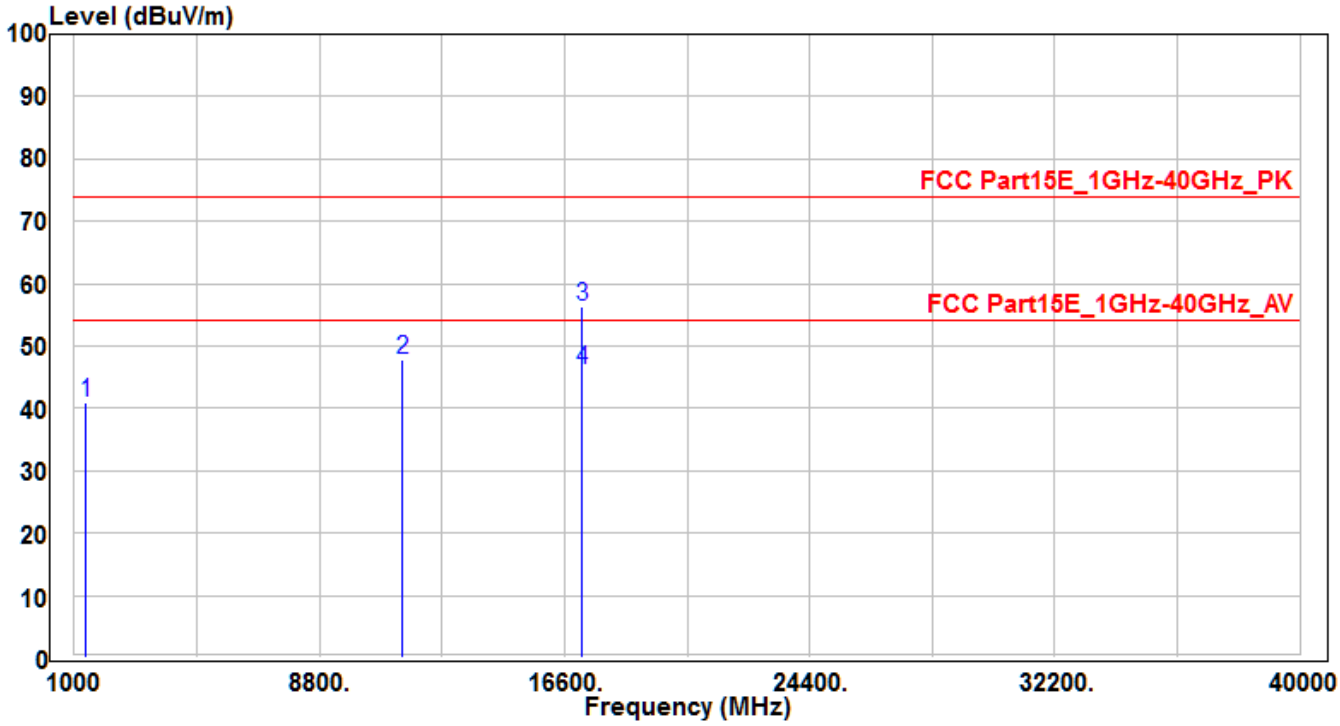


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4869.75	46.83	3.46	50.29	-23.71	74	150	400	Peak
2		11400	30.14	19.22	49.36	-24.64	74	150	400	Peak
3	*	17100	29.31	26.64	55.95	-18.05	74	120	295	Peak
4	*	17100	19.14	26.64	45.78	-8.22	54	120	295	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH144	Test Voltage	AC 120V/60Hz

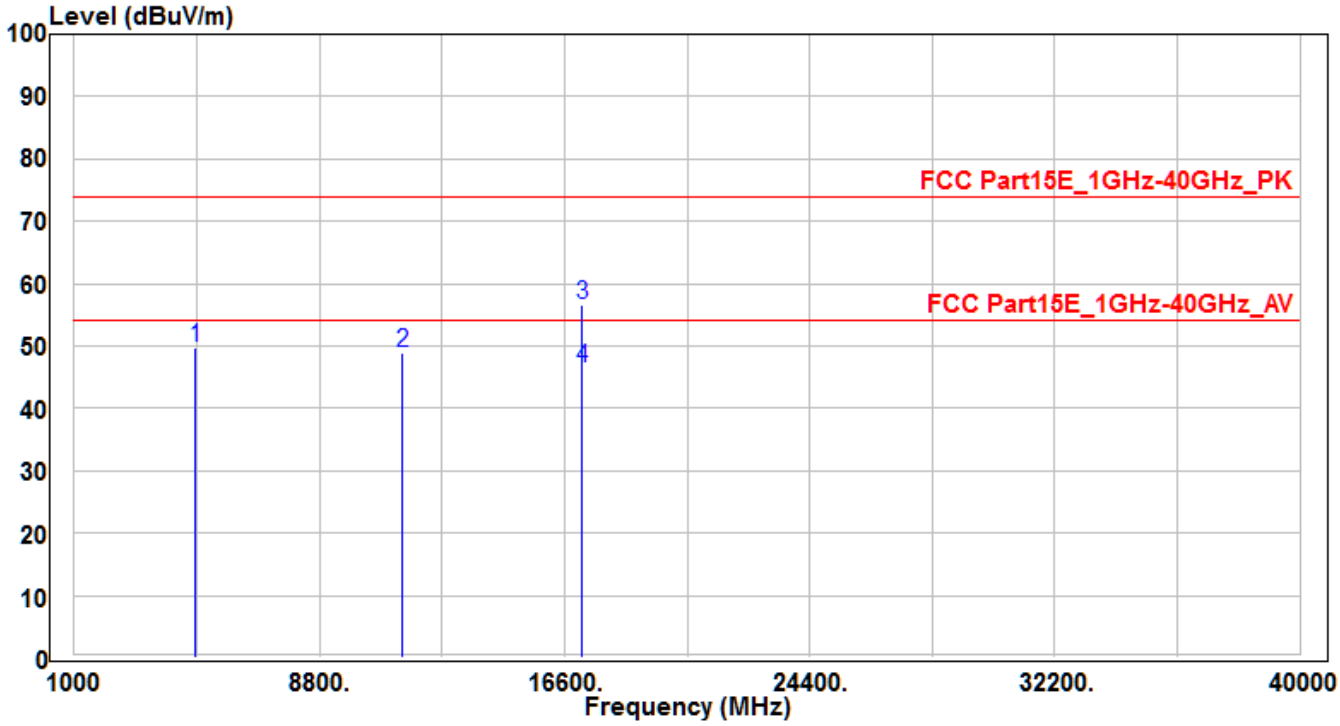


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1368.51	46.89	-6.07	40.82	-33.18	74	150	400	Peak
2		11440	28.65	19.23	47.88	-26.12	74	150	400	Peak
3	*	17160	29.15	27.13	56.28	-17.72	74	180	235	Peak
4	*	17160	19.04	27.13	46.17	-7.83	54	180	235	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH144	Test Voltage	AC 120V/60Hz

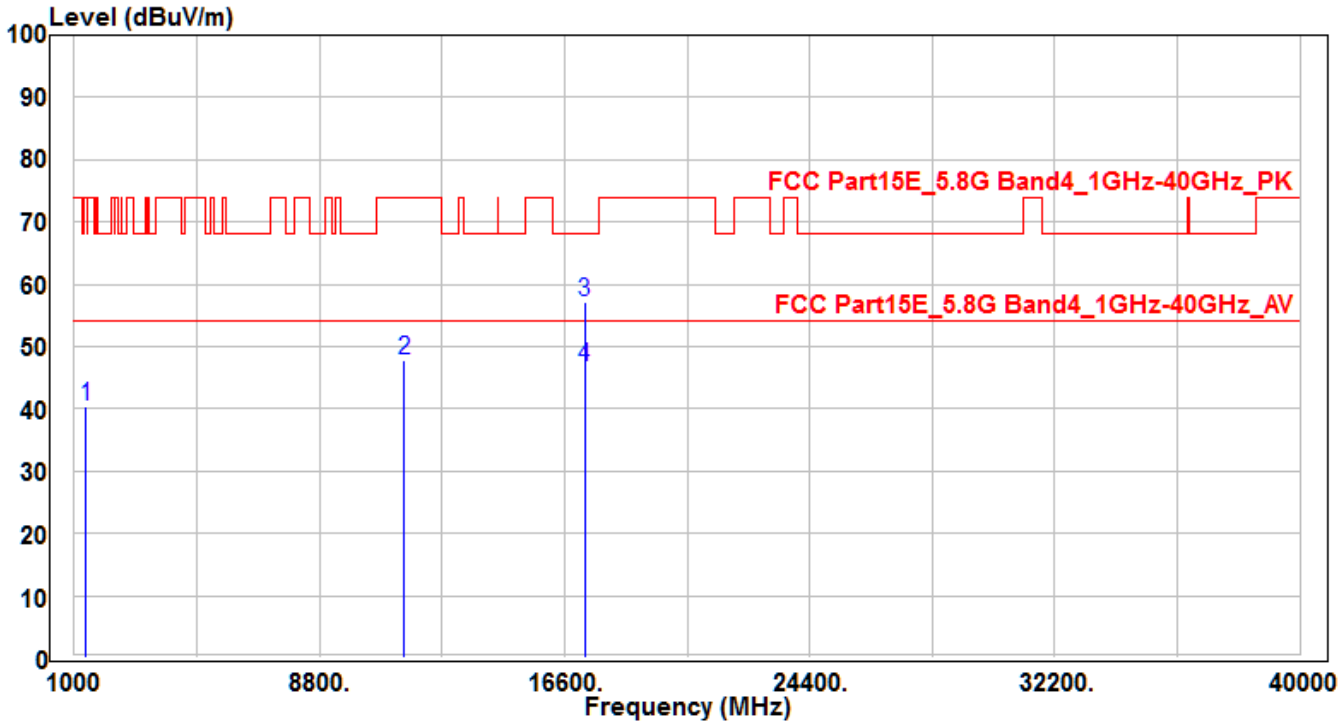


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4852.54	46.34	3.42	49.76	-24.24	74	150	400	Peak
2		11440	29.64	19.23	48.87	-25.13	74	150	400	Peak
3	*	17160	29.49	27.13	56.62	-17.38	74	165	115	Peak
4	*	17160	19.42	27.13	46.55	-7.45	54	165	115	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH149	Test Voltage	AC 120V/60Hz

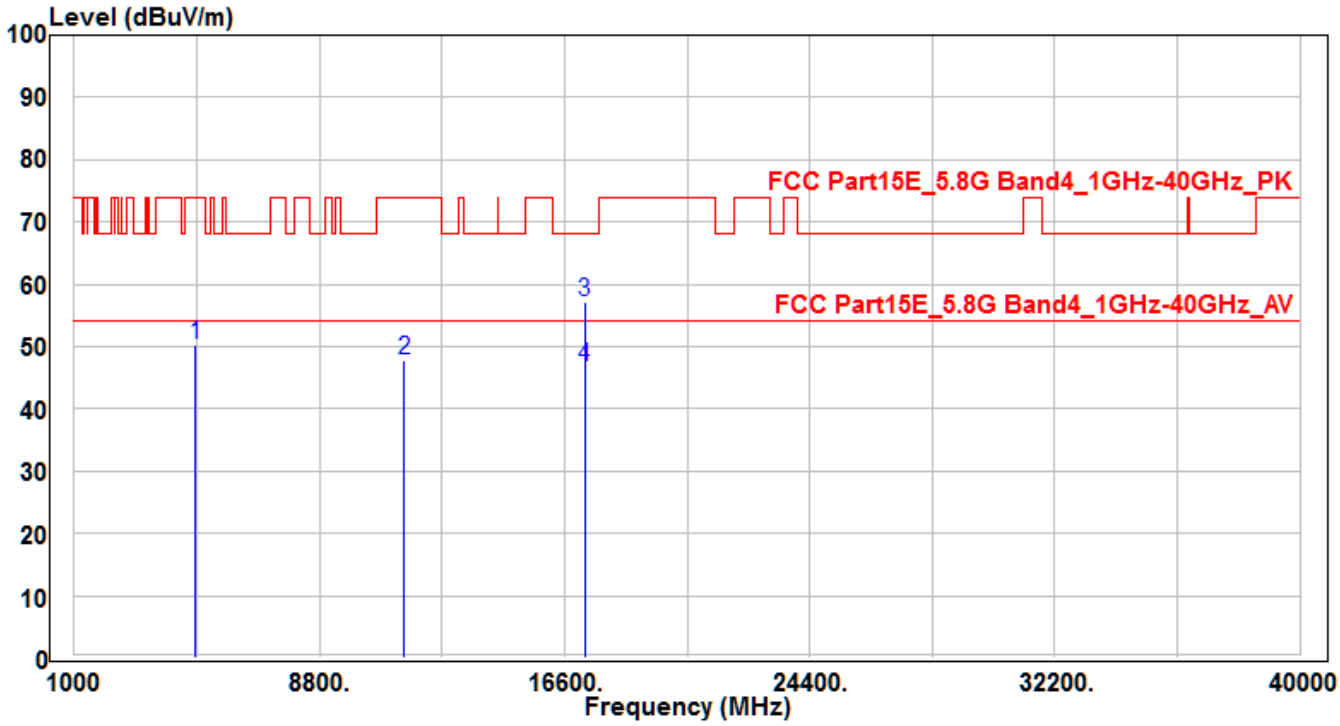


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1375.42	46.48	-6.03	40.45	-33.55	74	150	400	Peak
2		11490	28.68	19.24	47.92	-26.08	74	150	400	Peak
3	*	17235	29.46	27.74	57.2	-11	68.2	170	180	Peak
4	*	17235	18.97	27.74	46.71	-7.29	54	170	180	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH149	Test Voltage	AC 120V/60Hz

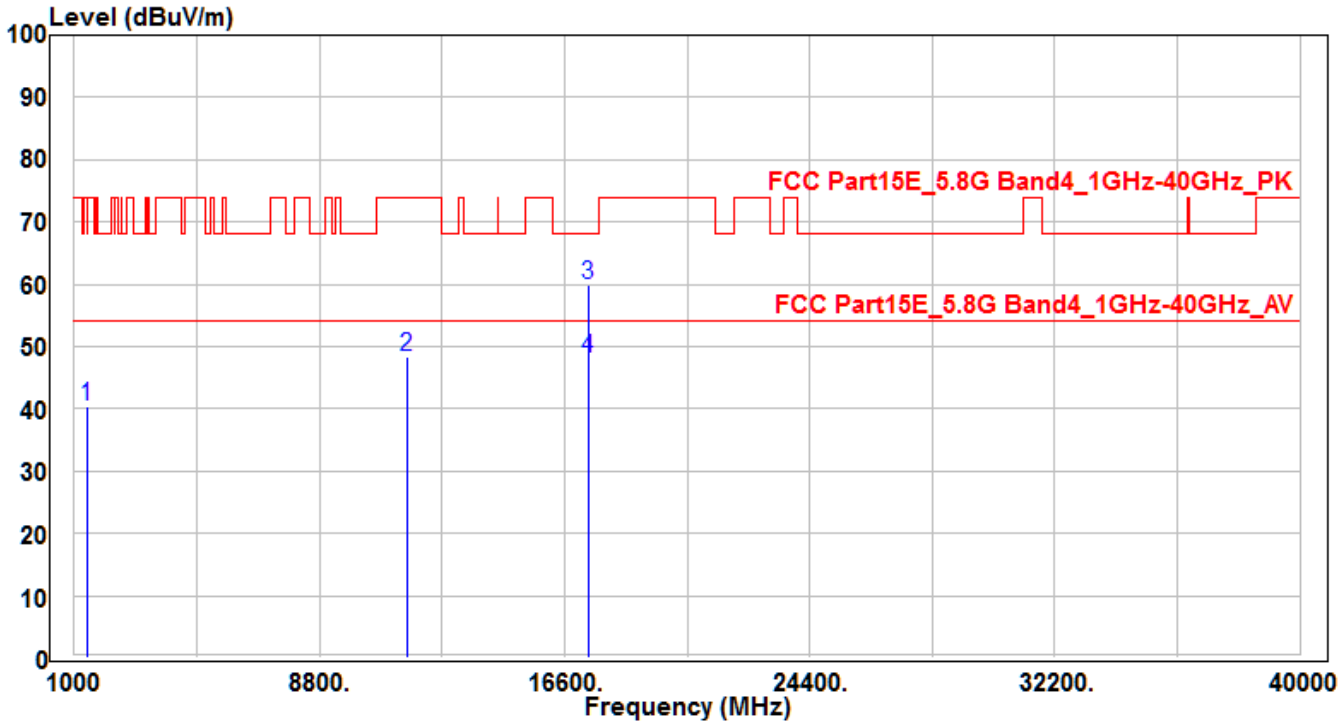


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4865.72	46.84	3.46	50.3	-23.7	74	150	400	Peak
2		11490	28.48	19.24	47.72	-26.28	74	150	400	Peak
3	*	17235	29.34	27.74	57.08	-11.12	68.2	155	210	Peak
4	*	17235	18.87	27.74	46.61	-7.39	54	155	210	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH157	Test Voltage	AC 120V/60Hz

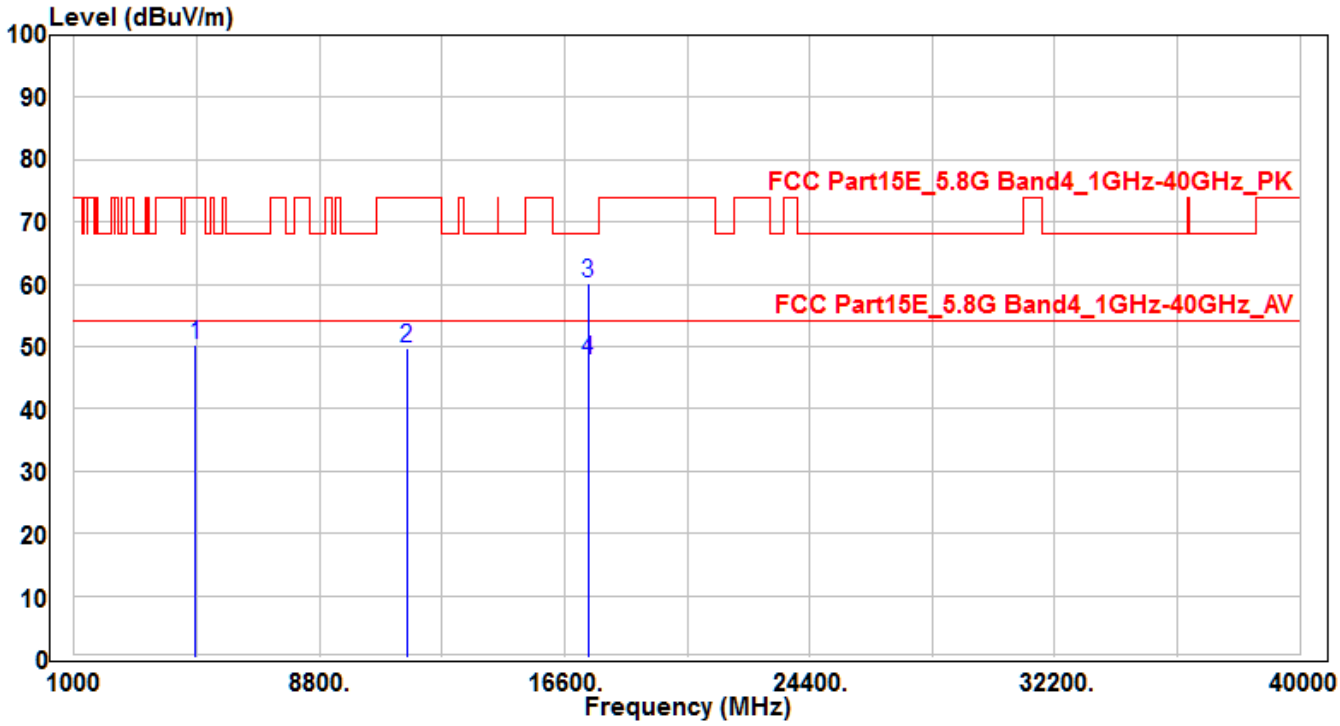


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1391.72	46.37	-5.95	40.42	-33.58	74	150	400	Peak
2		11570	29.08	19.19	48.27	-25.73	74	150	400	Peak
3	*	17355	31.14	28.73	59.87	-8.33	68.2	165	185	Peak
4	*	17355	19.47	28.73	48.2	-5.8	54	165	185	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH157	Test Voltage	AC 120V/60Hz

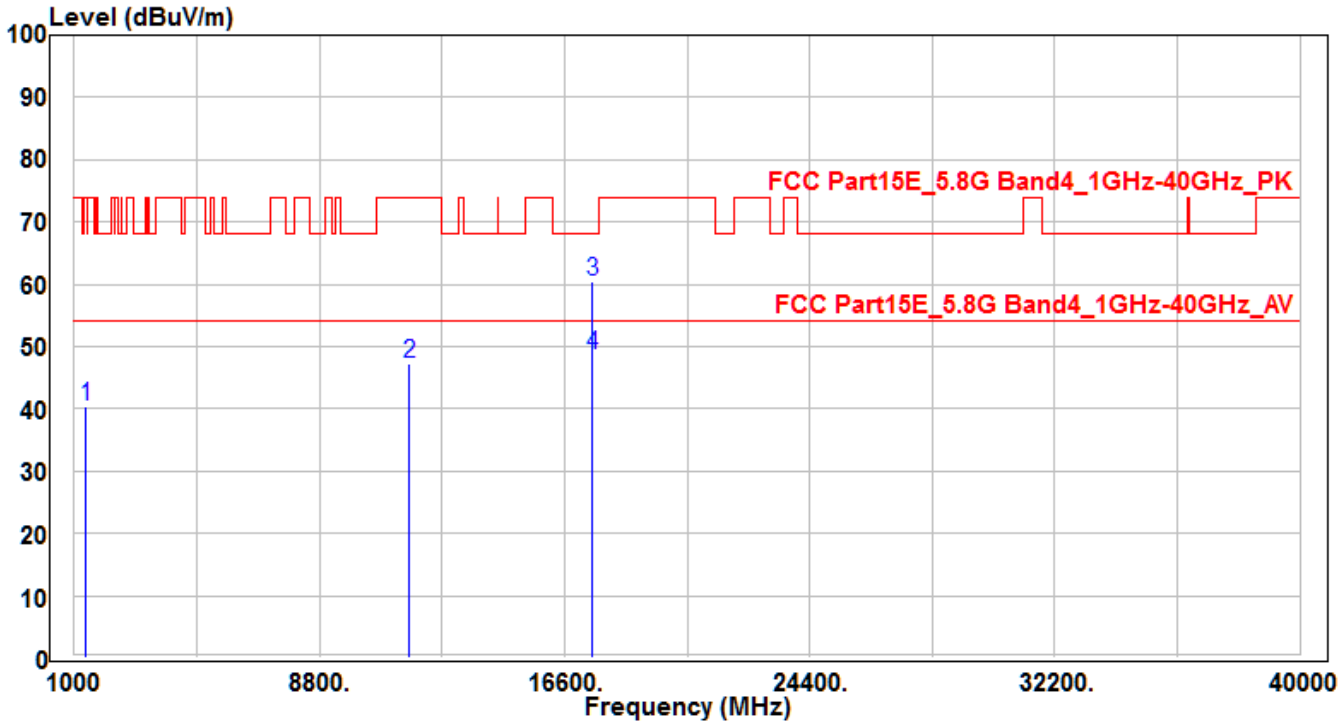


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4861.23	46.71	3.45	50.16	-23.84	74	150	400	Peak
2		11570	30.42	19.19	49.61	-24.39	74	150	400	Peak
3	*	17355	31.5	28.73	60.23	-7.97	68.2	160	180	Peak
4	*	17355	19.12	28.73	47.85	-6.15	54	160	180	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH165	Test Voltage	AC 120V/60Hz

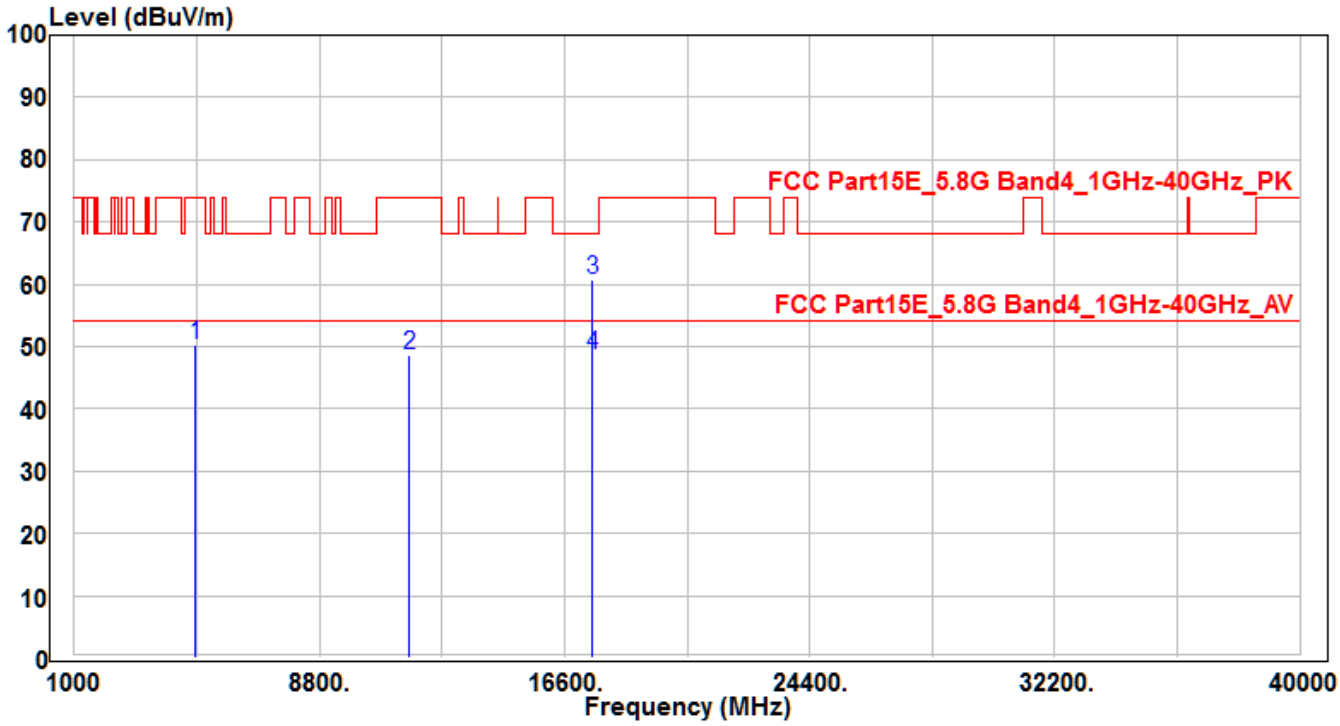


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1368.74	46.34	-6.07	40.27	-33.73	74	150	400	Peak
2		11650	28.22	19.12	47.34	-26.66	74	150	400	Peak
3	*	17475	30.8	29.72	60.52	-7.68	68.2	170	150	Peak
4	*	17475	19.05	29.72	48.77	-5.23	54	170	150	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2 -CH165	Test Voltage	AC 120V/60Hz

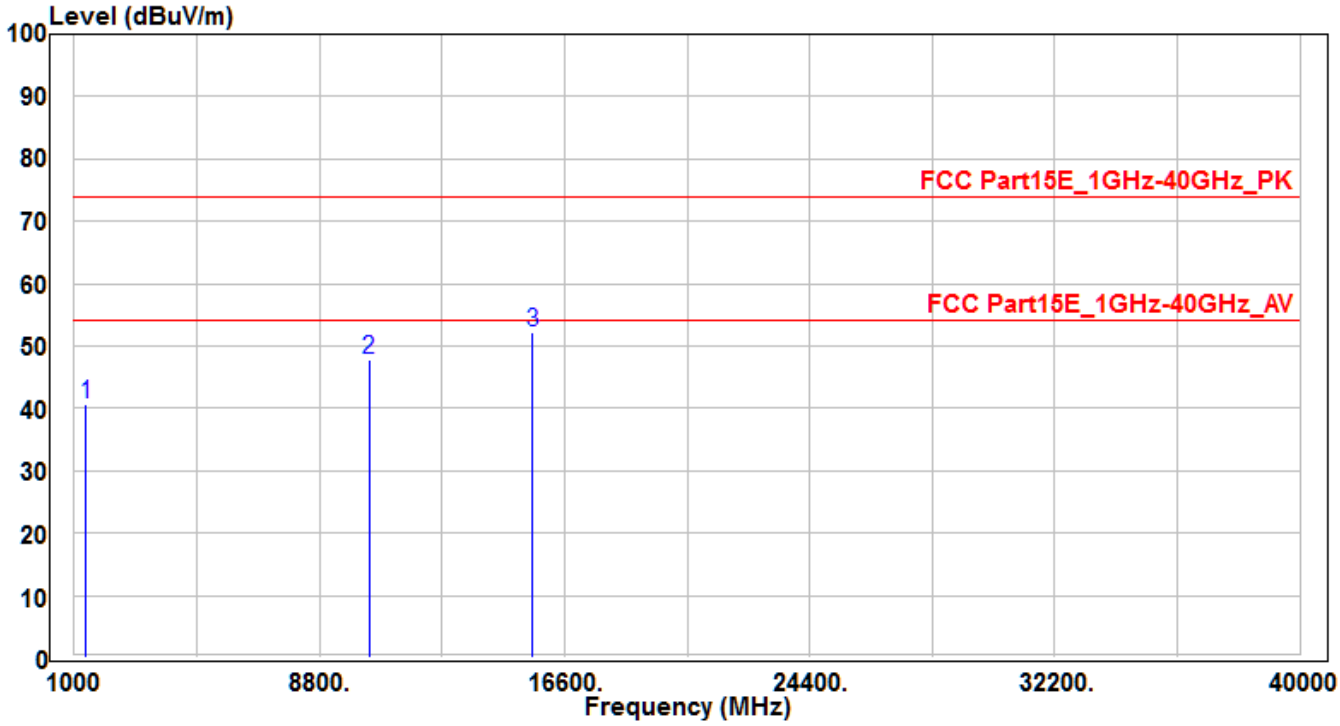


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4866.83	46.74	3.46	50.2	-23.8	74	150	400	Peak
2		11650	29.58	19.12	48.7	-25.3	74	150	400	Peak
3	*	17475	30.91	29.72	60.63	-7.57	68.2	170	180	Peak
4	*	17475	18.93	29.72	48.65	-5.35	54	170	180	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH38	Test Voltage	AC 120V/60Hz

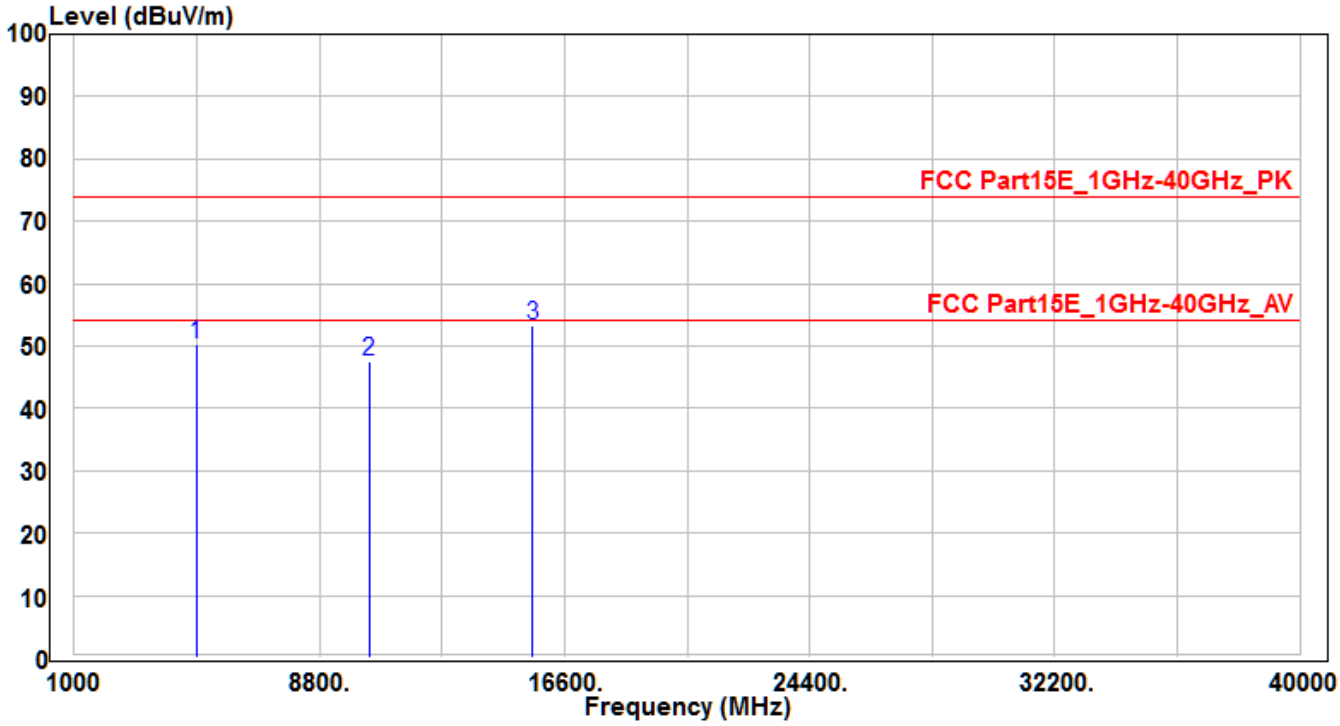


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1375.93	46.7	-6.03	40.67	-33.33	74	150	400	Peak
2		10380	30.39	17.44	47.83	-26.17	74	150	400	Peak
3	*	15570	30.52	21.7	52.22	-21.78	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH38	Test Voltage	AC 120V/60Hz

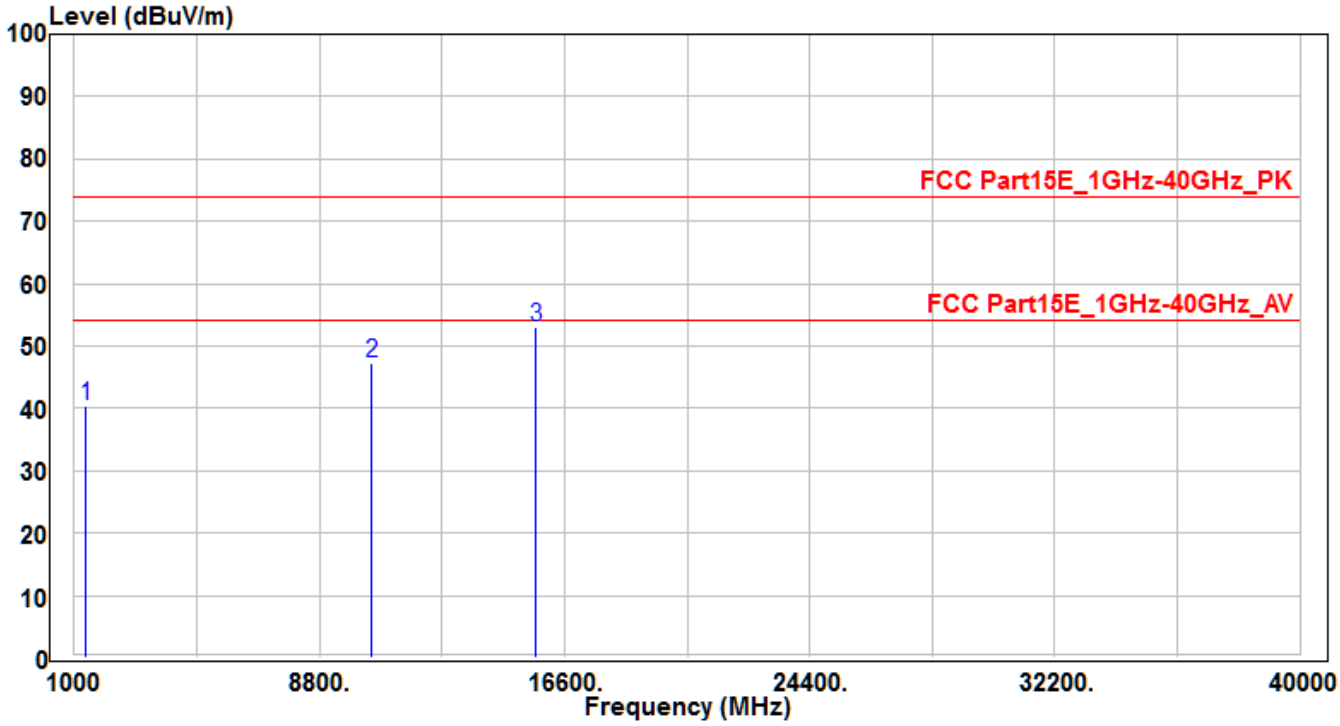


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4885.74	46.83	3.5	50.33	-23.67	74	150	400	Peak
2		10380	30.14	17.44	47.58	-26.42	74	150	400	Peak
3	*	15570	31.55	21.7	53.25	-20.75	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH46	Test Voltage	AC 120V/60Hz

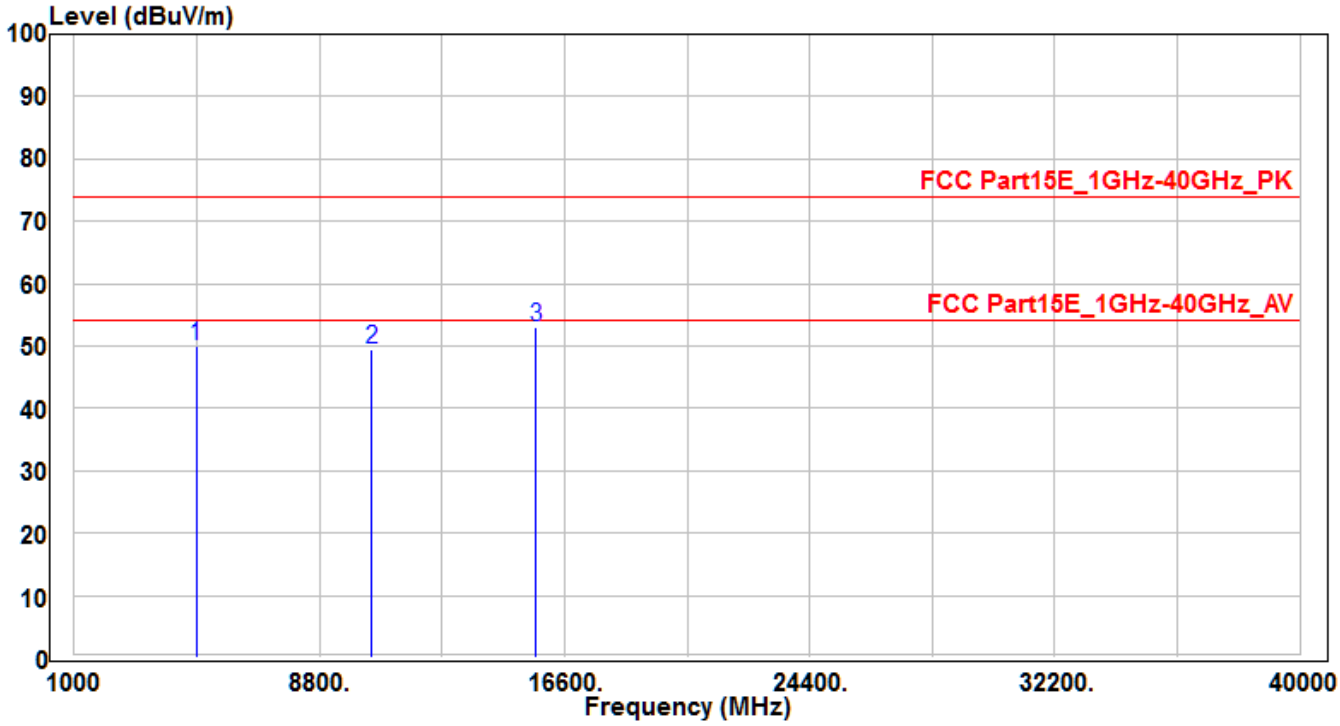


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1379.55	46.44	-6.01	40.43	-33.57	74	150	400	Peak
2		10460	29.57	17.79	47.36	-26.64	74	150	400	Peak
3	*	15690	31.73	21.29	53.02	-20.98	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH46	Test Voltage	AC 120V/60Hz

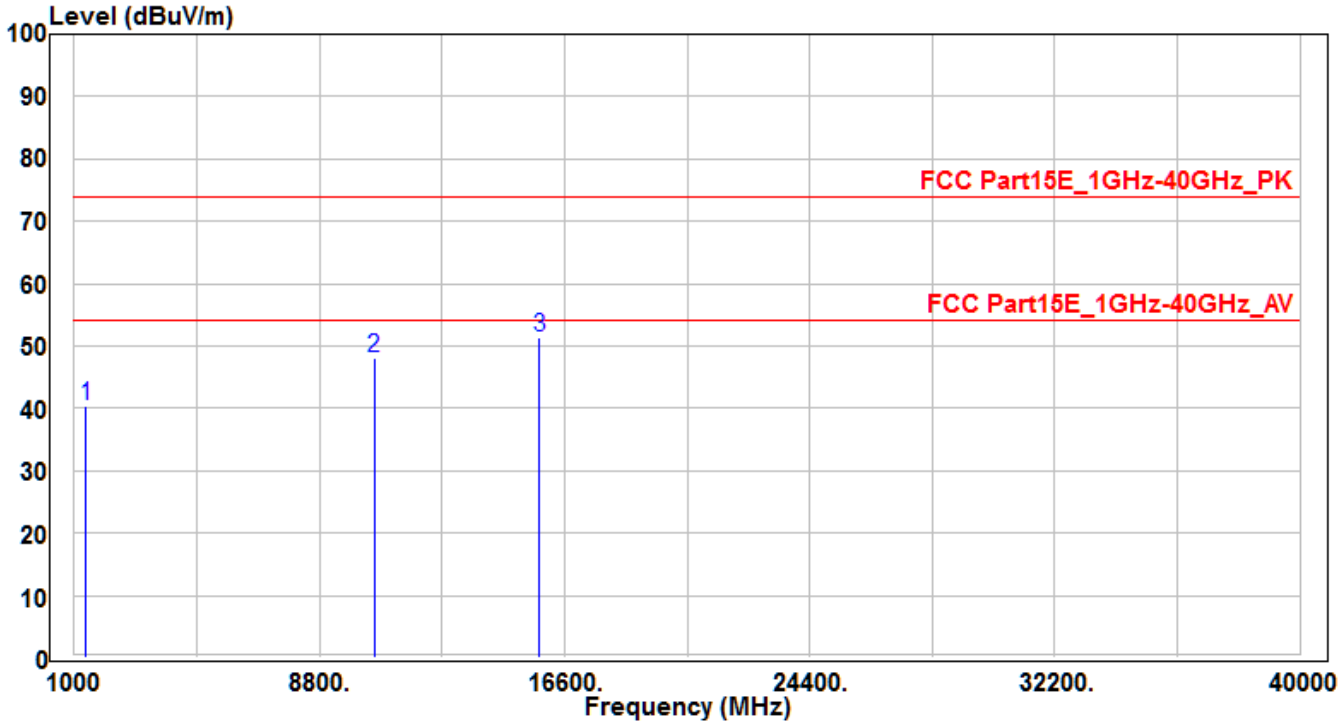


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4888.23	46.62	3.5	50.12	-23.88	74	150	400	Peak
2		10460	31.58	17.79	49.37	-24.63	74	150	400	Peak
3	*	15690	31.69	21.29	52.98	-21.02	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH54	Test Voltage	AC 120V/60Hz

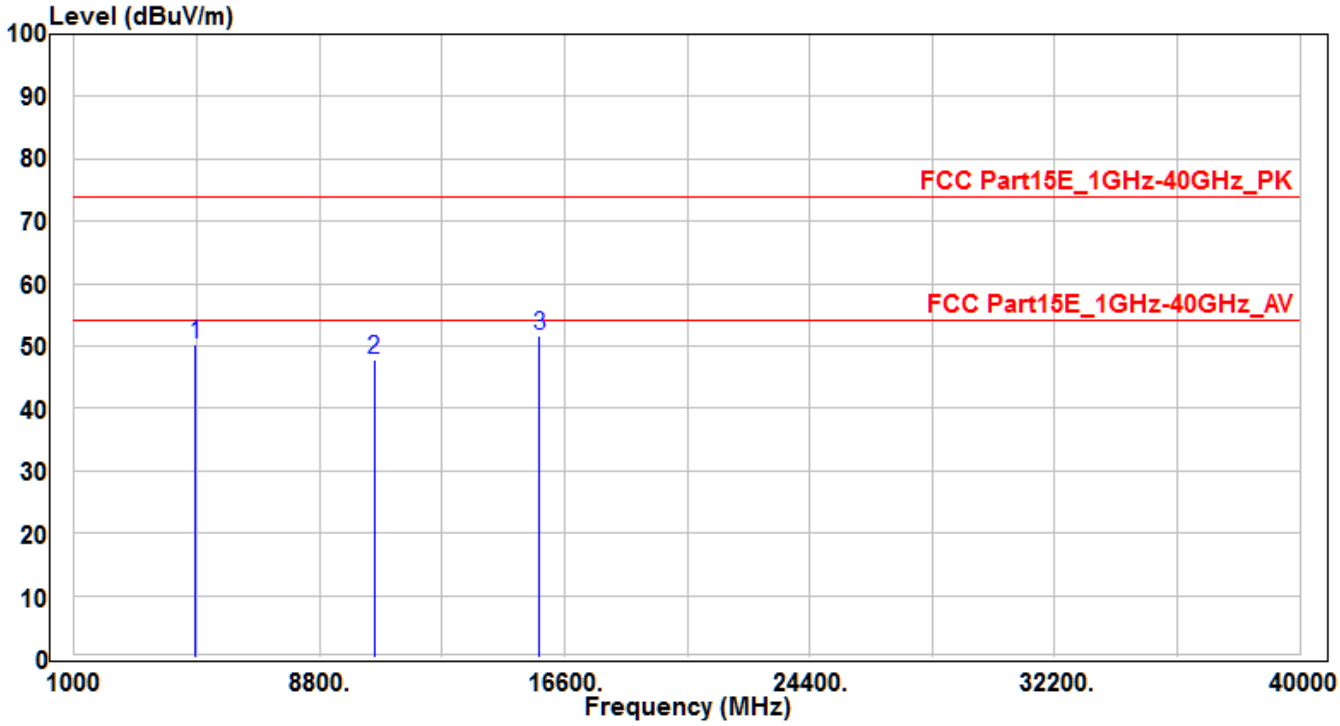


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1376.52	46.32	-6.03	40.29	-33.71	74	150	400	Peak
2		10540	30.01	18.05	48.06	-25.94	74	150	400	Peak
3	*	15810	30.54	20.87	51.41	-22.59	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH54	Test Voltage	AC 120V/60Hz

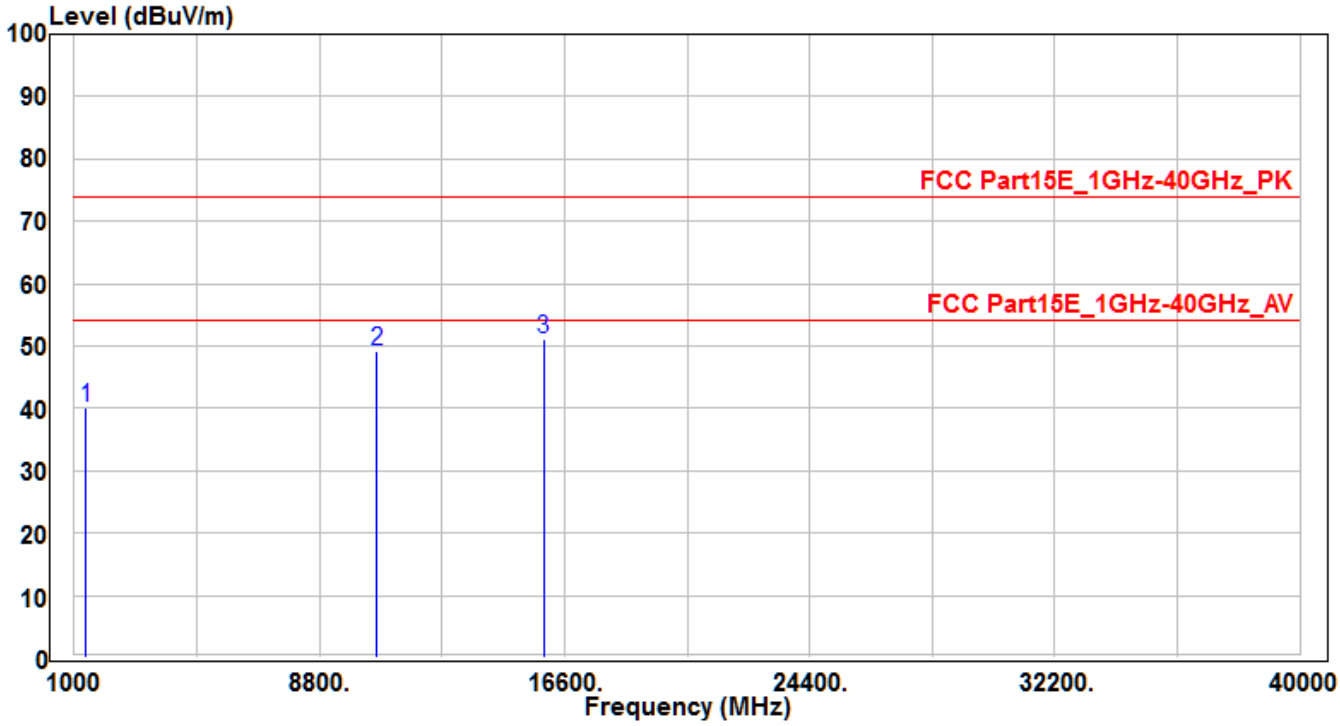


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4863.71	46.84	3.45	50.29	-23.71	74	150	400	Peak
2		10540	29.75	18.05	47.8	-26.2	74	150	400	Peak
3	*	15810	30.68	20.87	51.55	-22.45	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH62	Test Voltage	AC 120V/60Hz

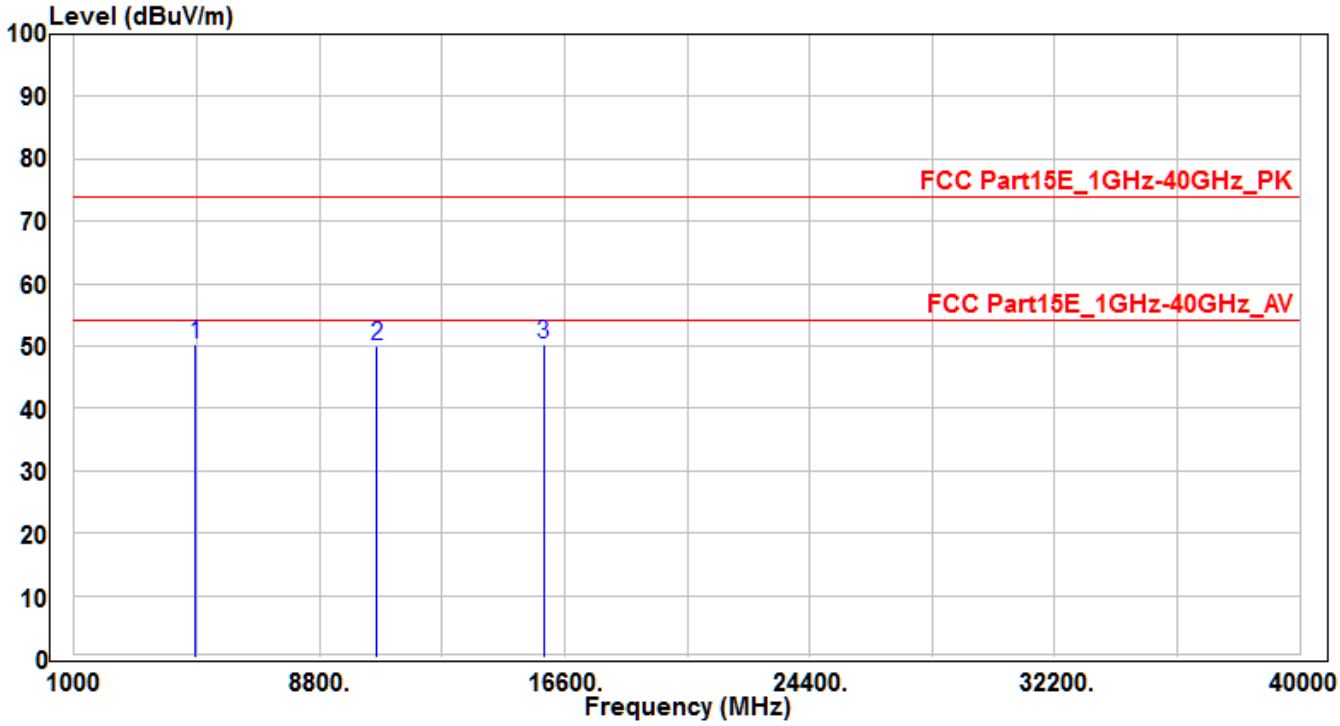


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1361.84	46.22	-6.1	40.12	-33.88	74	150	400	Peak
2		10620	30.93	18.24	49.17	-24.83	74	150	400	Peak
3	*	15930	30.69	20.46	51.15	-22.85	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH62	Test Voltage	AC 120V/60Hz

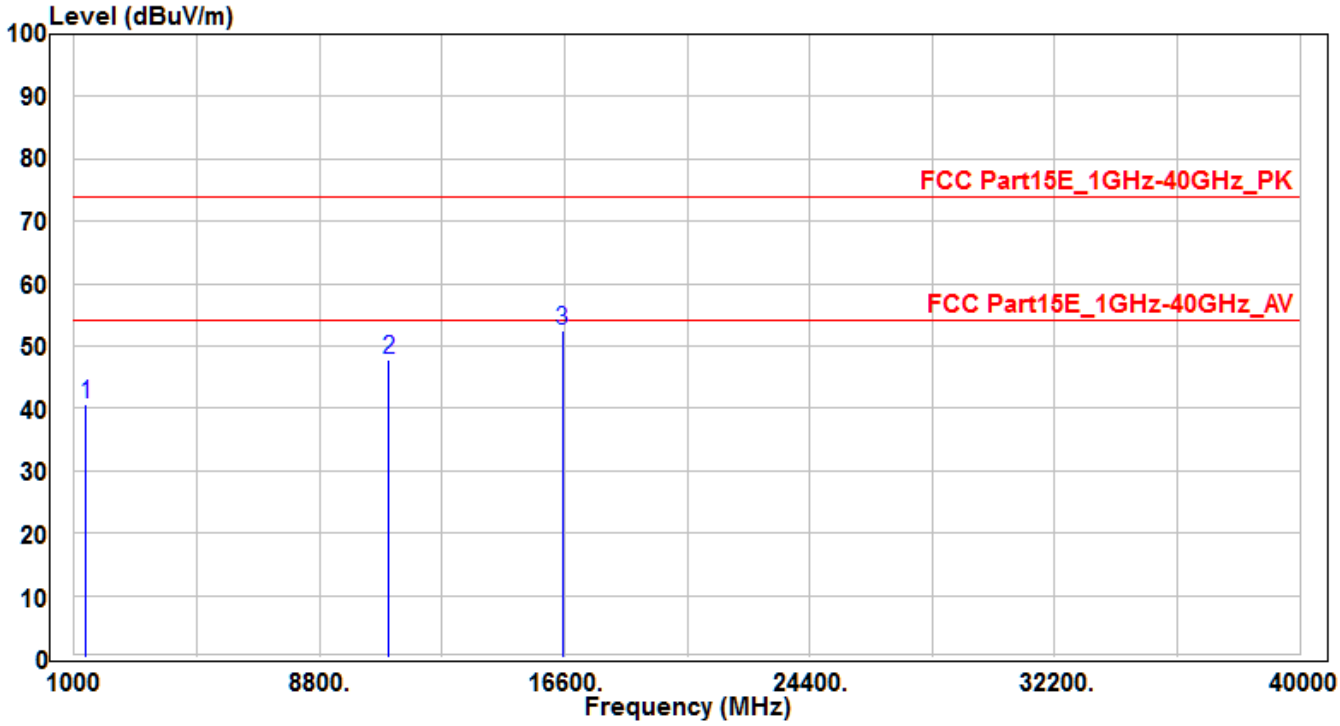


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4864.82	46.7	3.45	50.15	-23.85	74	150	400	Peak
2		10620	31.7	18.24	49.94	-24.06	74	150	400	Peak
3	*	15930	29.95	20.46	50.41	-23.59	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH102	Test Voltage	AC 120V/60Hz

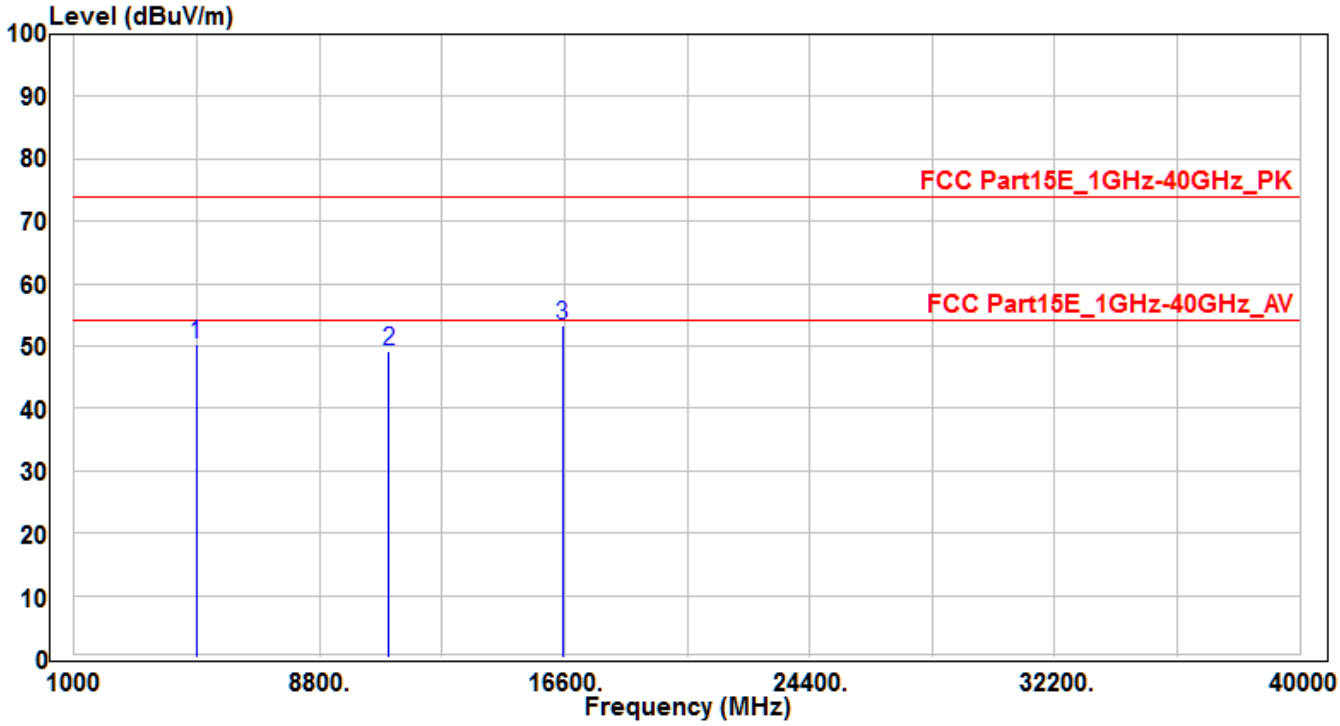


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1371.48	46.63	-6.06	40.57	-33.43	74	150	400	Peak
2		11020	28.68	19.08	47.76	-26.24	74	150	400	Peak
3	*	16530	30.14	22.28	52.42	-21.58	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH102	Test Voltage	AC 120V/60Hz

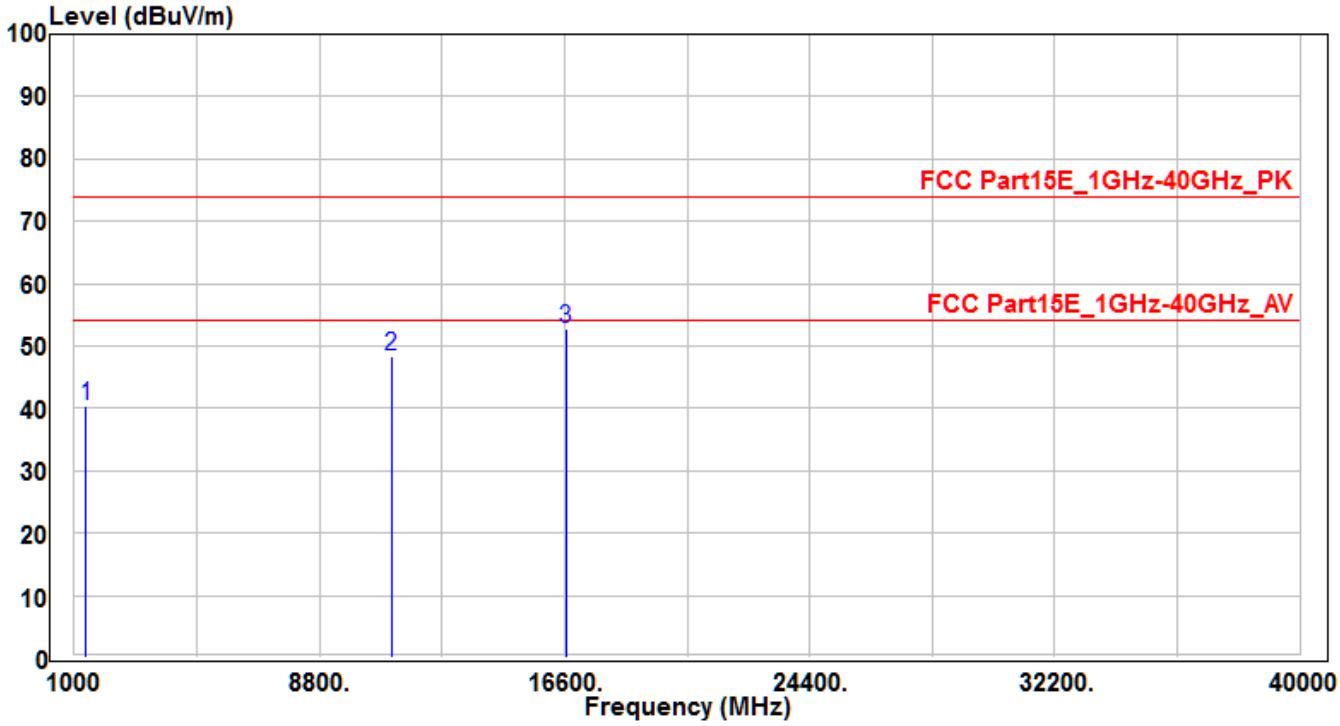


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4884.47	46.75	3.5	50.25	-23.75	74	150	400	Peak
2		11020	30.17	19.08	49.25	-24.75	74	150	400	Peak
3	*	16530	31.14	22.28	53.42	-20.58	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH110	Test Voltage	AC 120V/60Hz

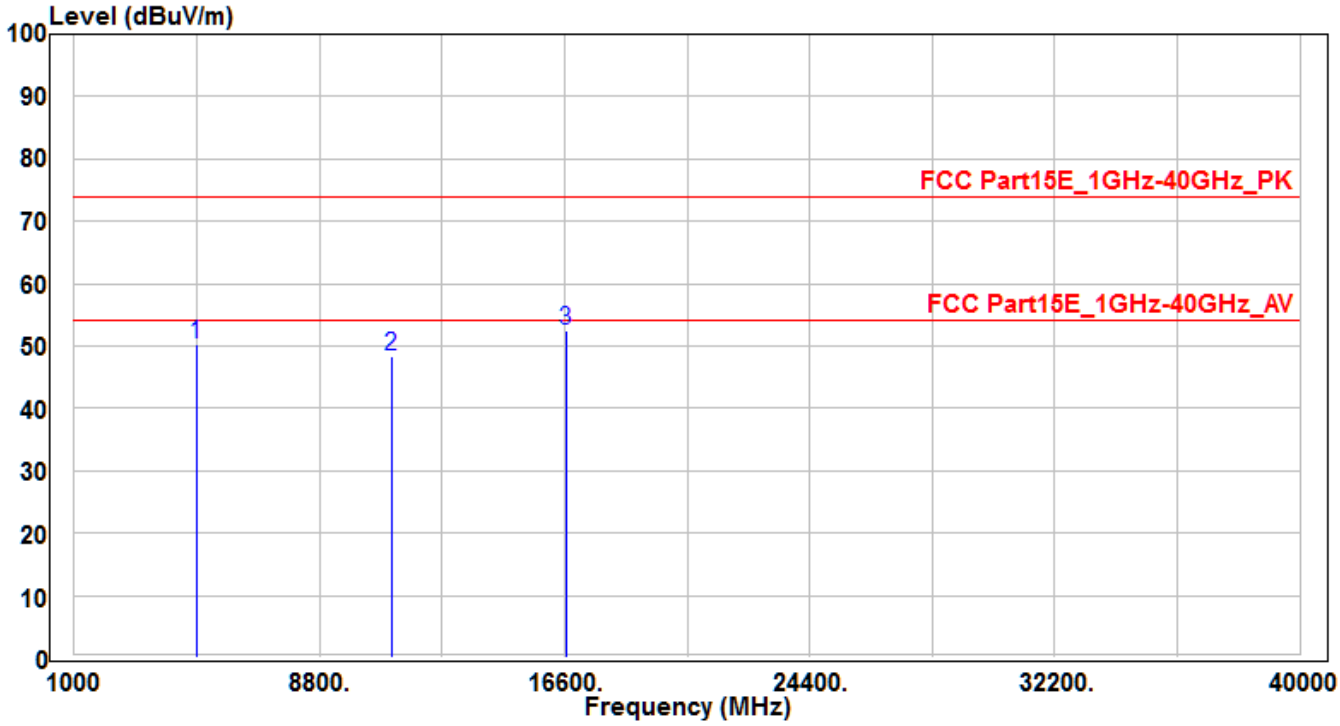


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1379.63	46.48	-6.01	40.47	-33.53	74	150	400	Peak
2		11100	29.37	19.11	48.48	-25.52	74	150	400	Peak
3	*	16650	29.53	23.19	52.72	-21.28	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH110	Test Voltage	AC 120V/60Hz

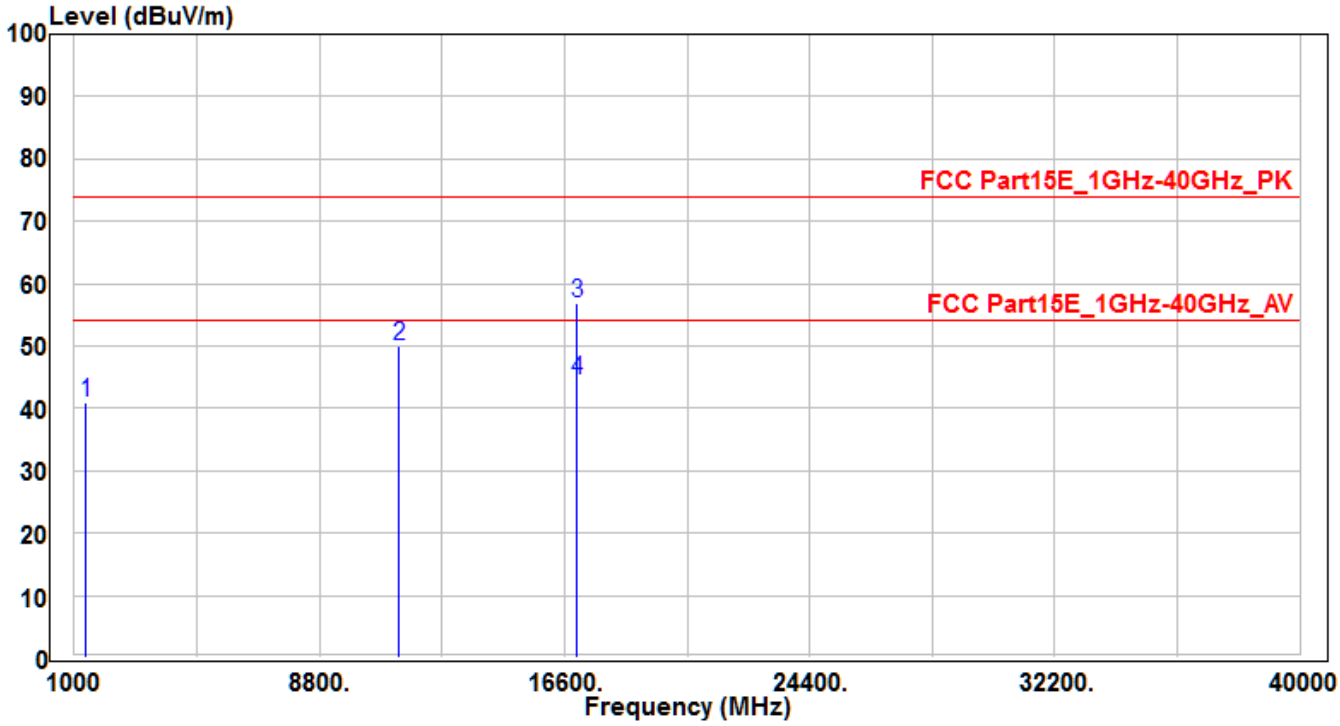


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4883.63	46.79	3.49	50.28	-23.72	74	150	400	Peak
2		11100	29.19	19.11	48.3	-25.7	74	150	400	Peak
3	*	16650	29.39	23.19	52.58	-21.42	74	150	400	Peak

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH134	Test Voltage	AC 120V/60Hz

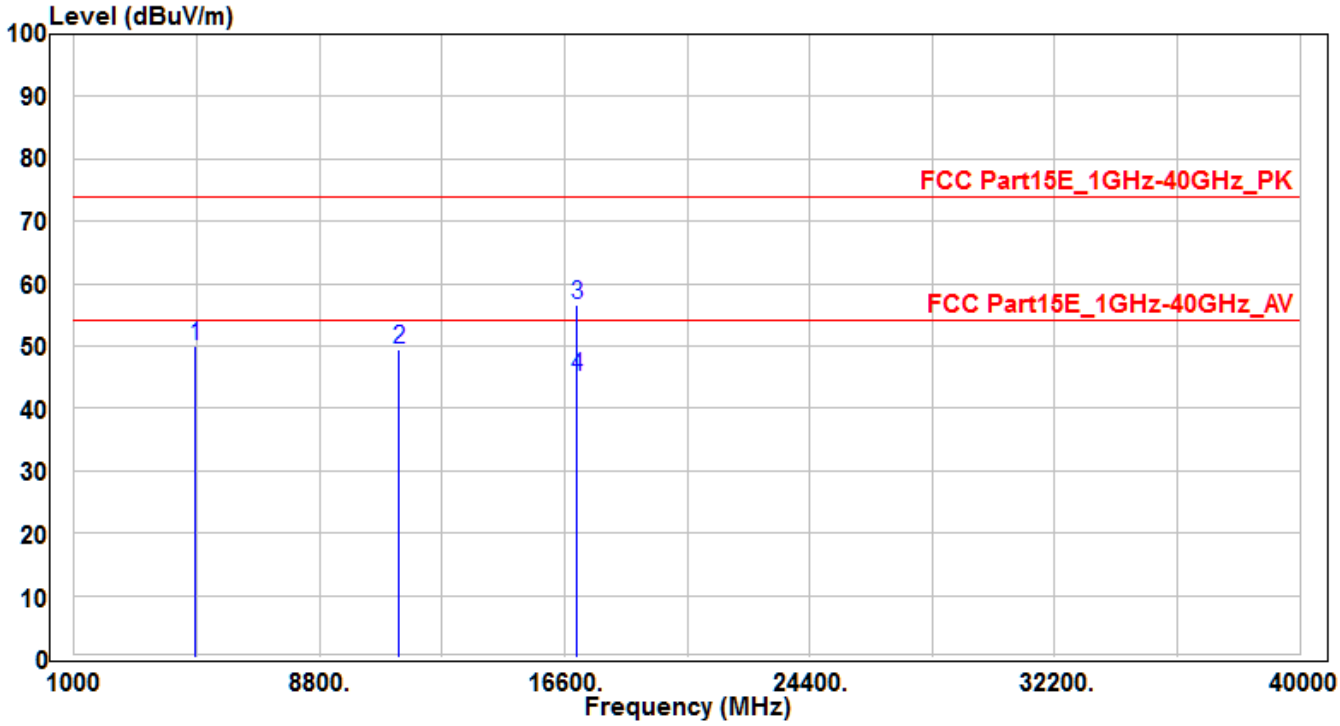


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1374.82	46.89	-6.04	40.85	-33.15	74	150	400	Peak
2		11340	30.89	19.19	50.08	-23.92	74	150	400	Peak
3	*	17010	30.96	25.89	56.85	-17.15	74	185	355	Peak
4	*	17010	18.76	25.89	44.65	-9.35	54	185	355	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH134	Test Voltage	AC 120V/60Hz

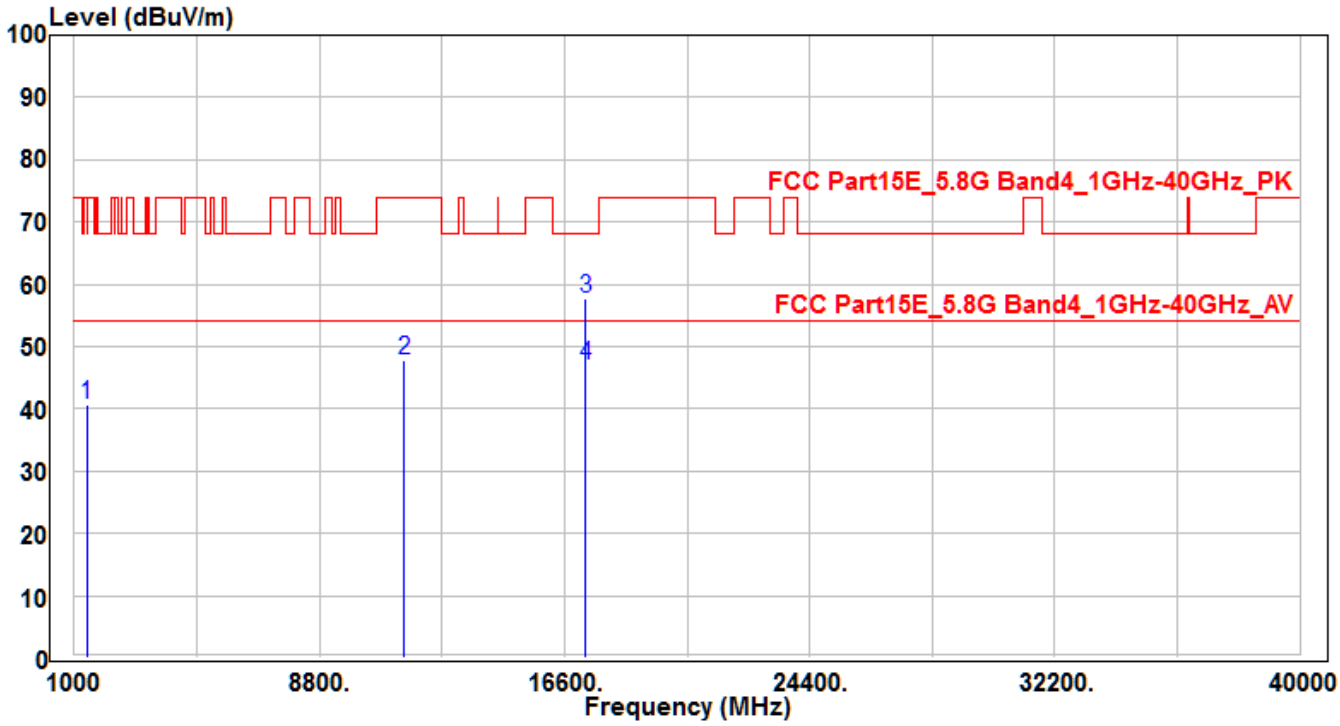


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4860.79	46.54	3.45	49.99	-24.01	74	150	400	Peak
2		11340	30.32	19.19	49.51	-24.49	74	150	400	Peak
3	*	17010	30.74	25.89	56.63	-17.37	74	150	80	Peak
4	*	17010	19.26	25.89	45.15	-8.85	54	150	80	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH151	Test Voltage	AC 120V/60Hz

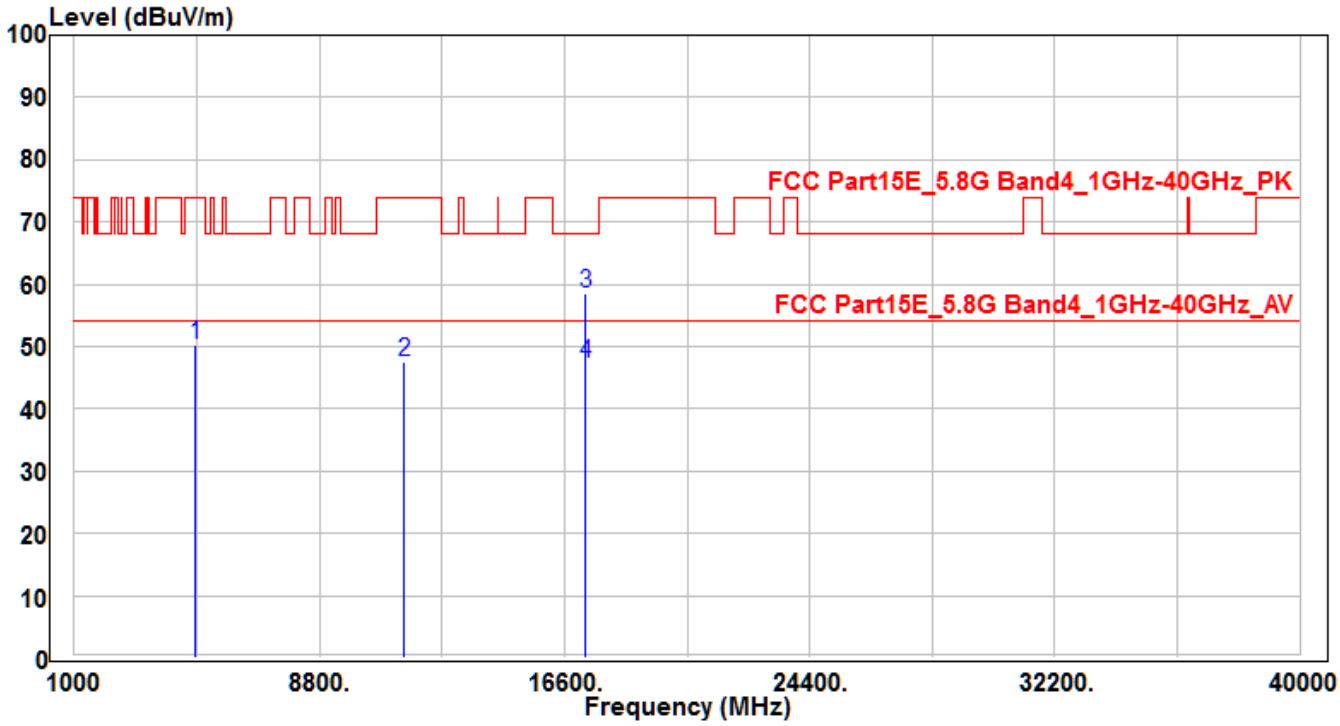


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1389.75	46.71	-5.97	40.74	-33.26	74	150	400	Peak
2		11510	28.52	19.25	47.77	-26.23	74	150	400	Peak
3	*	17265	29.85	27.99	57.84	-10.36	68.2	165	145	Peak
4	*	17265	18.87	27.99	46.86	-7.14	54	165	145	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH151	Test Voltage	AC 120V/60Hz

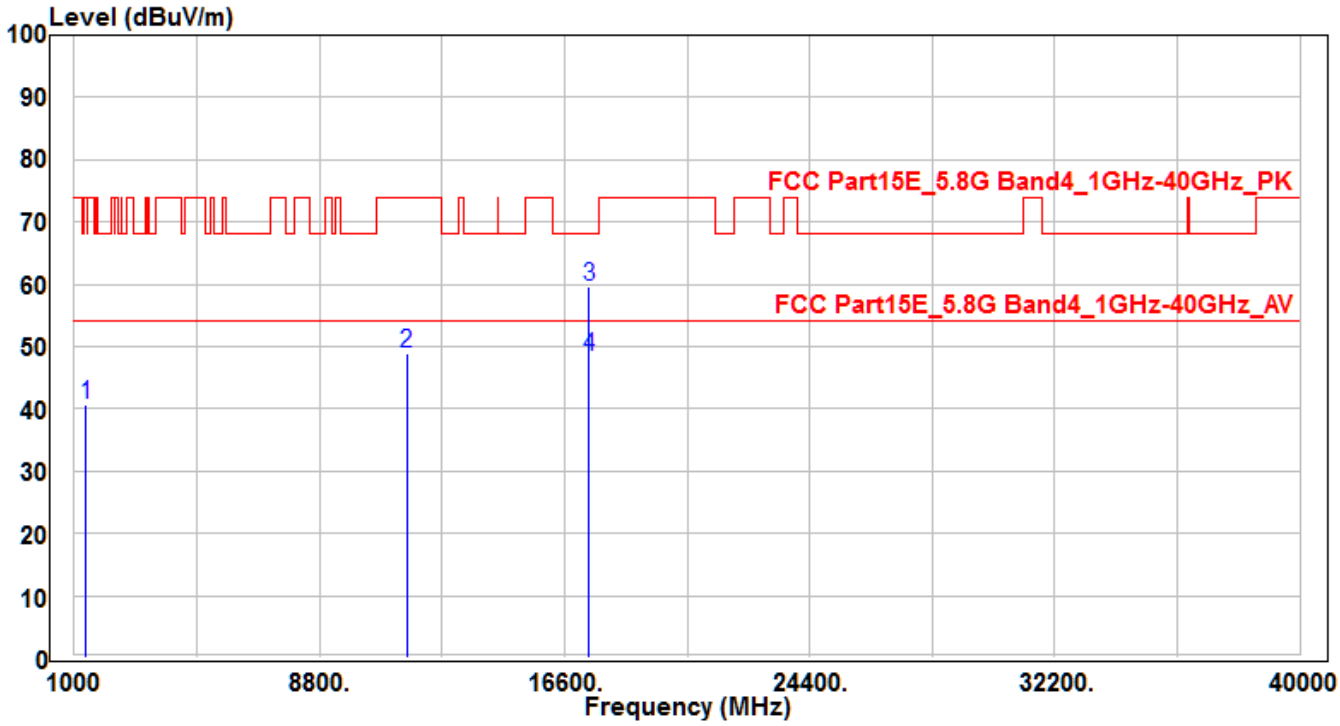


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4864.75	46.75	3.45	50.2	-23.8	74	150	400	Peak
2		11510	28.25	19.25	47.5	-26.5	74	150	400	Peak
3	*	17265	30.45	27.99	58.44	-9.76	68.2	160	170	Peak
4	*	17265	19.18	27.99	47.17	-6.83	54	160	170	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH159	Test Voltage	AC 120V/60Hz

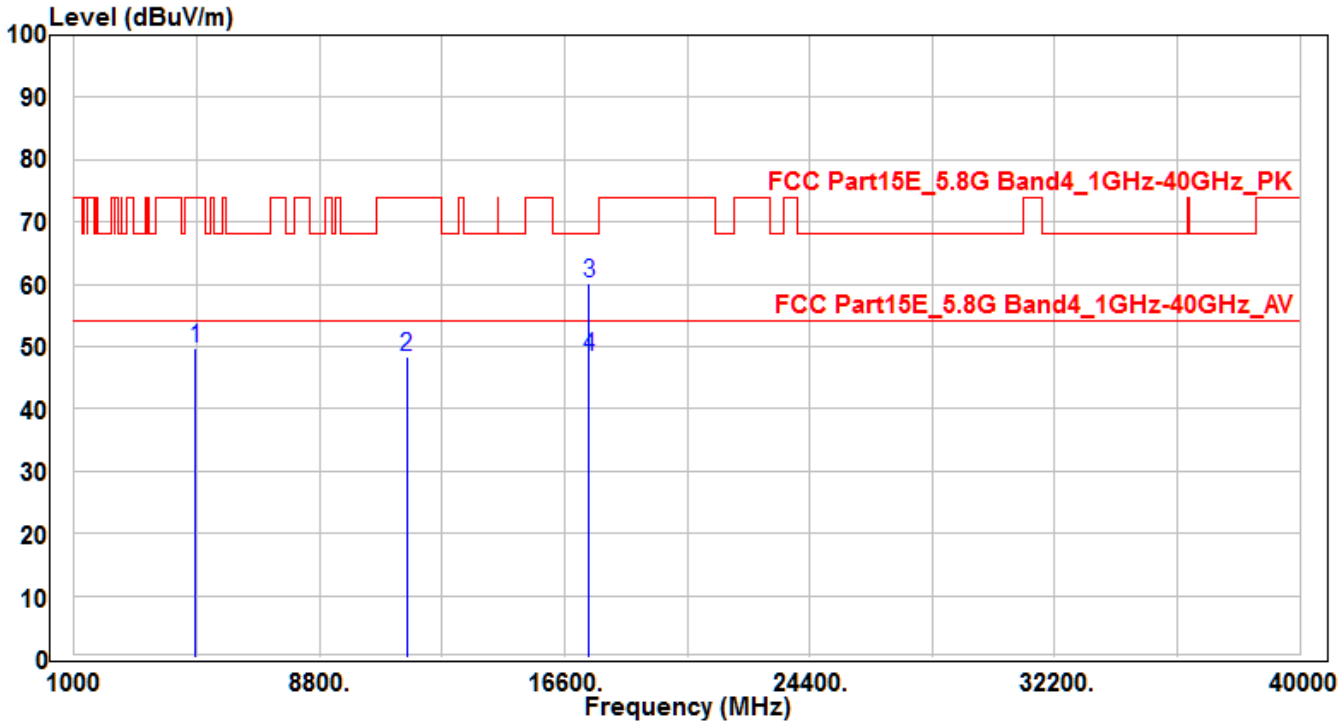


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1380.72	46.58	-6	40.58	-33.42	74	150	400	Peak
2		11590	29.61	19.17	48.78	-25.22	74	150	400	Peak
3	*	17385	30.73	28.98	59.71	-8.49	68.2	155	140	Peak
4	*	17385	19.36	28.98	48.34	-5.66	54	155	140	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	25°C / 60%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3 -CH159	Test Voltage	AC 120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		4866.83	46.25	3.46	49.71	-24.29	74	150	400	Peak
2		11590	29.19	19.17	48.36	-25.64	74	150	400	Peak
3	*	17385	31.18	28.98	60.16	-8.04	68.2	150	220	Peak
4	*	17385	19.31	28.98	48.29	-5.71	54	150	220	Average

Note:

1. " * " means the worst value in this measurement data.
2. Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB) – Preamplifier(dB)
3. Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)
4. The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible, therefore no data appear in the report.

7.8. Radiated Restricted Band Edge Measurement

7.8.1.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	8.25 - 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	--	--	--

For 15.407(b) requirement:

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

For FCC transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

For IC transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of −17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of −27 dBm/MHz.

Refer to KDB 789033 D02v02r01 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

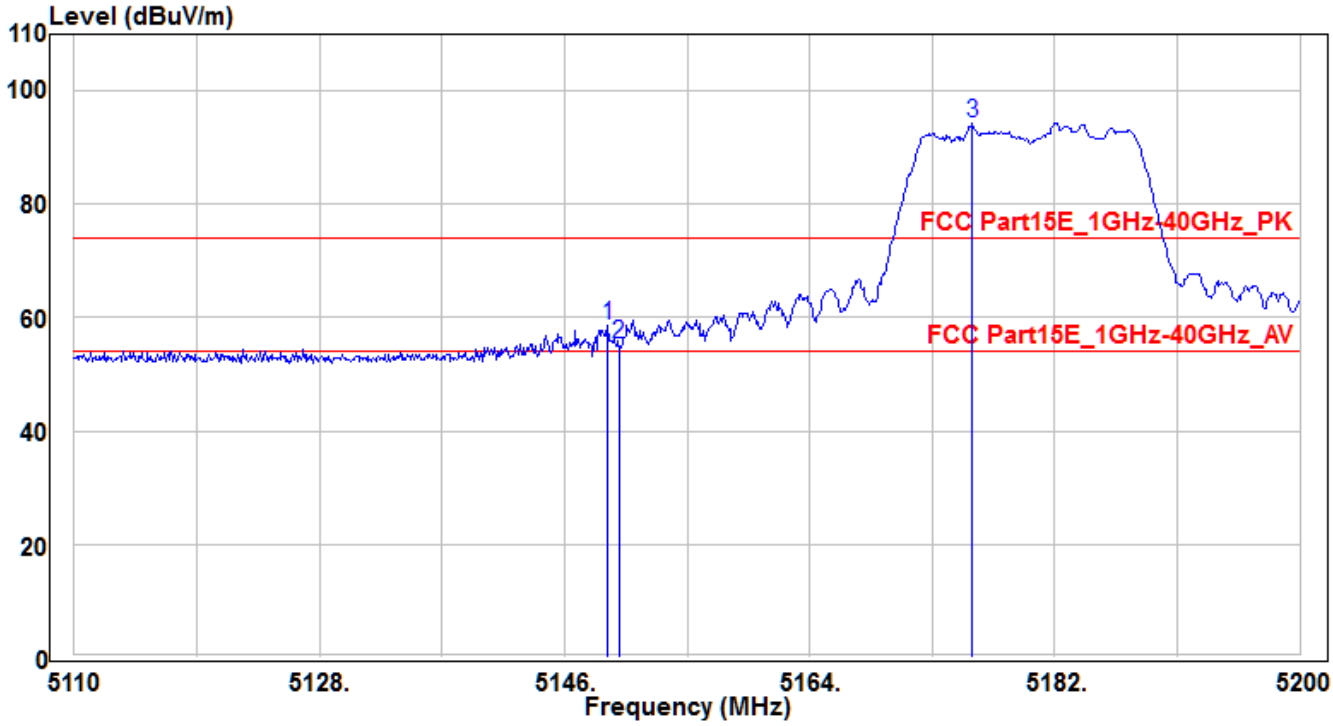
All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC-Radiated emission limits; general requirements.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [V/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

7.8.2.Test Result

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH36	Test Voltage	AC 120V/60Hz

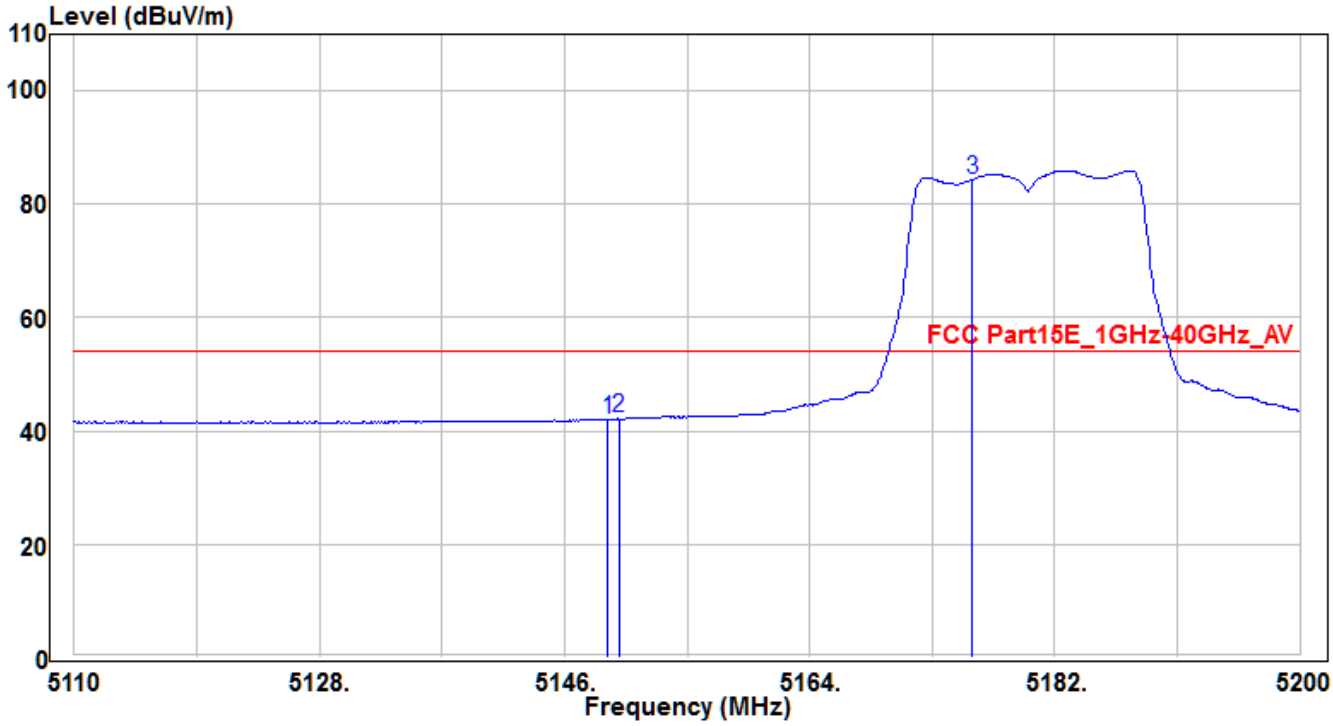


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5149.15	54.61	3.88	58.49	-15.51	74	145	110	Peak
2		5150	51.35	3.88	55.23	-18.77	74	145	110	Peak
3		5175.97	90.42	3.9	94.32	20.32	74	145	110	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH36	Test Voltage	AC 120V/60Hz

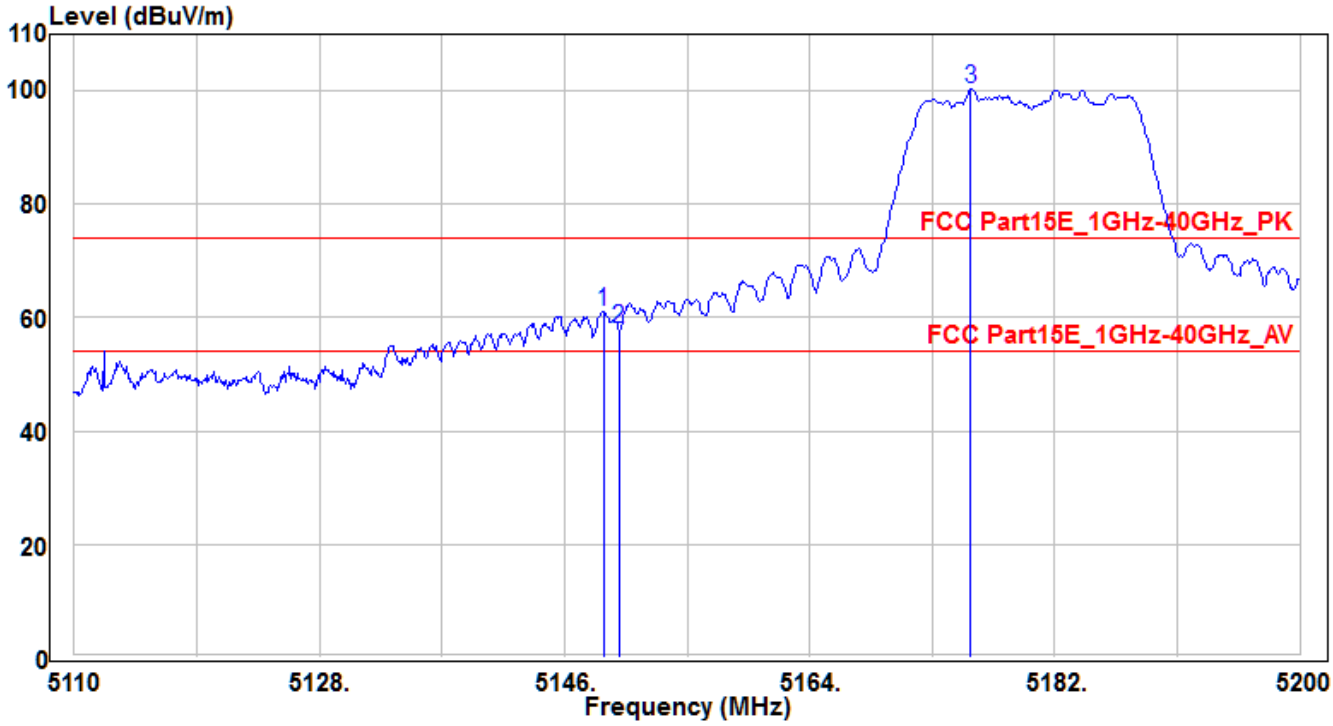


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5149.15	38.19	3.88	42.07	-11.93	54	145	110	Average
2	*	5150	38.31	3.88	42.19	-11.81	54	145	110	Average
3		5175.97	80.48	3.9	84.38	30.38	54	145	110	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH36	Test Voltage	AC 120V/60Hz

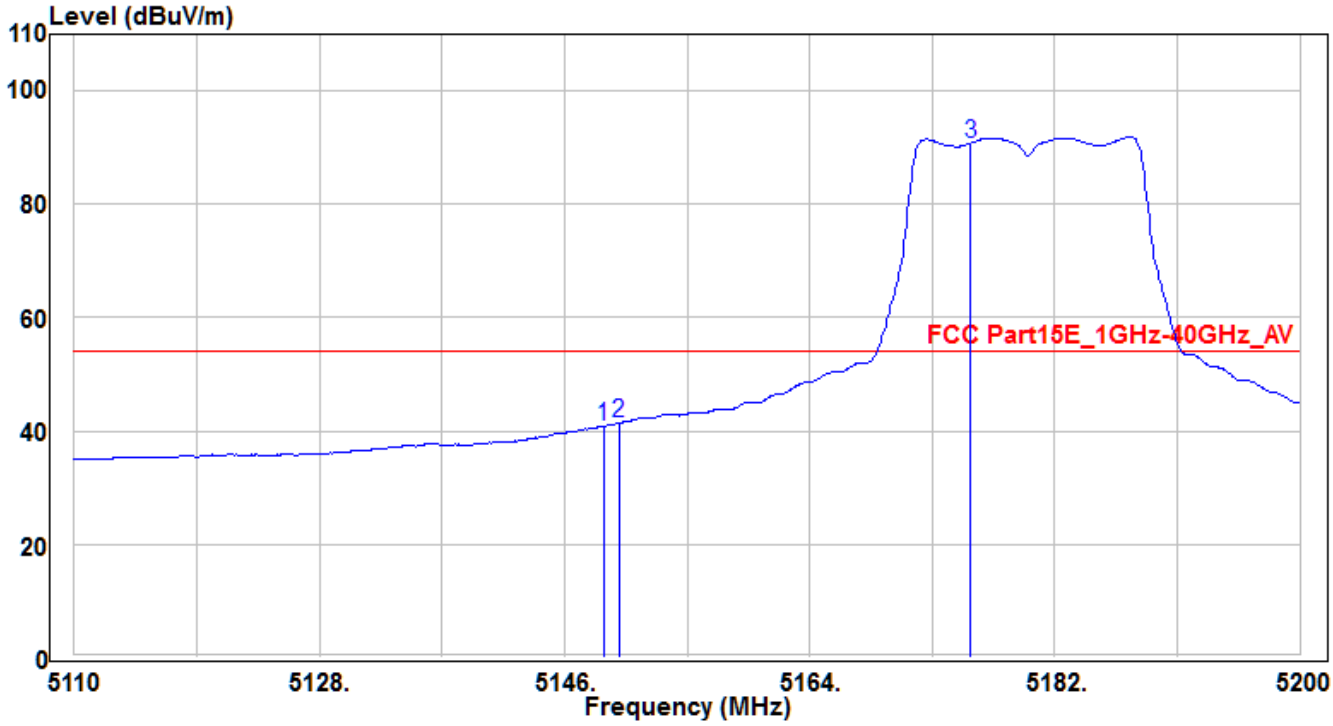


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5148.88	57.22	3.88	61.1	-12.9	74	150	135	Peak
2		5150	54.25	3.88	58.13	-15.87	74	150	135	Peak
3		5175.79	96.37	3.9	100.27	26.27	74	150	135	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH36	Test Voltage	AC 120V/60Hz

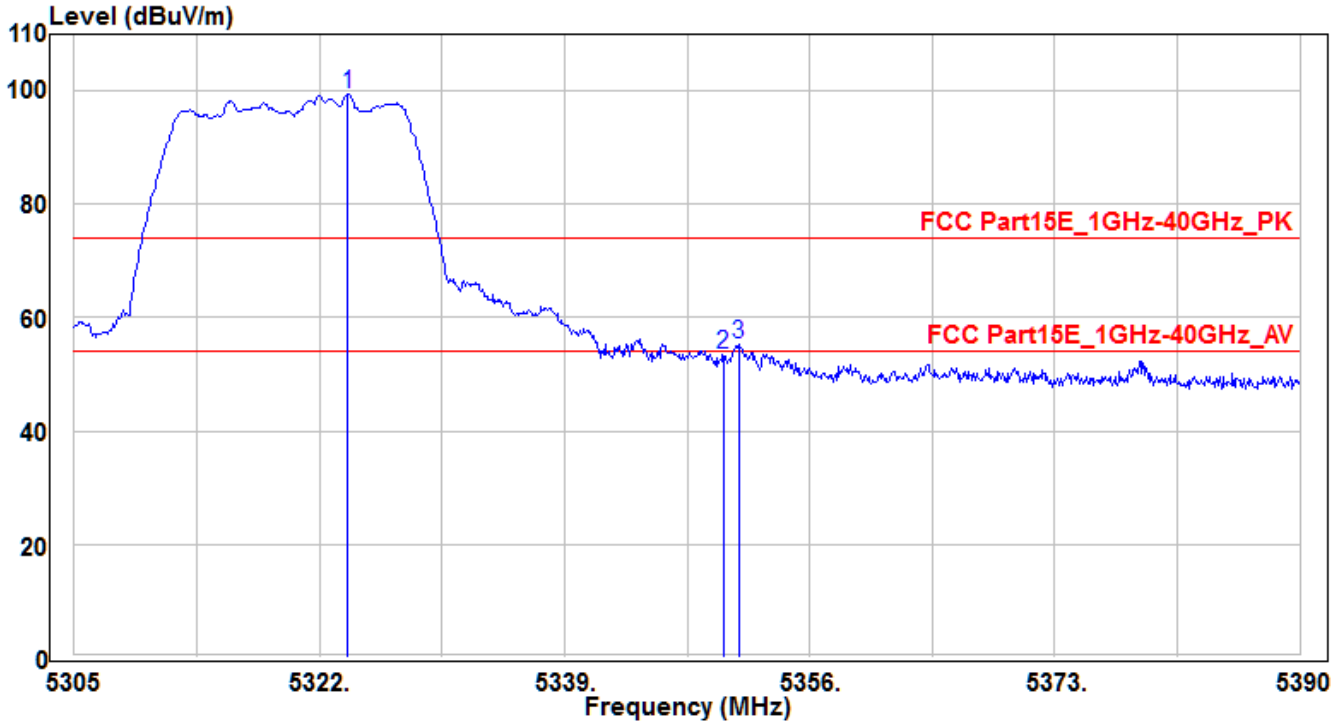


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5148.88	37.01	3.88	40.89	-13.11	54	150	135	Average
2	*	5150	37.53	3.88	41.41	-12.59	54	150	135	Average
3		5175.79	86.86	3.9	90.76	36.76	54	150	135	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH64	Test Voltage	AC 120V/60Hz

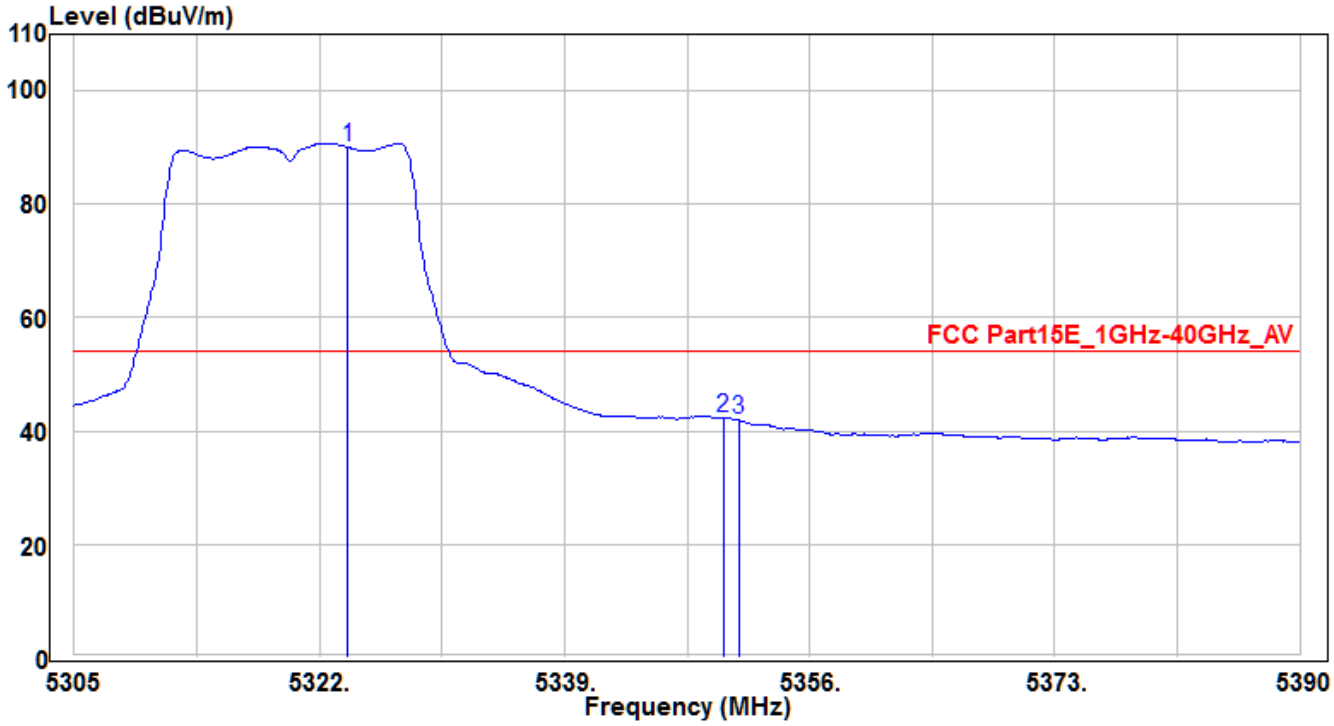


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5323.955	95.32	4.02	99.34	25.34	74	150	130	Peak
2		5350	49.42	4.04	53.46	-20.54	74	150	130	Peak
3	*	5351.07	51.31	4.04	55.35	-18.65	74	150	130	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH64	Test Voltage	AC 120V/60Hz

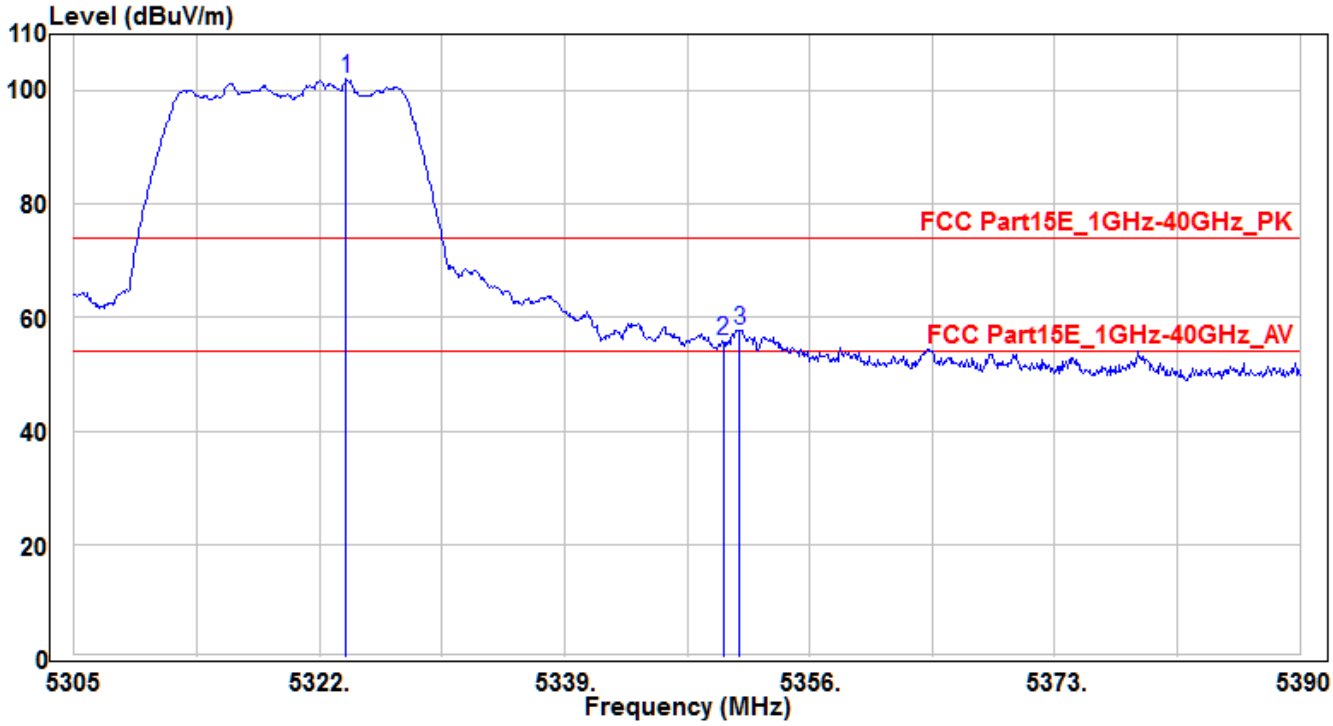


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5323.955	86.06	4.02	90.08	36.08	54	150	130	Average
2	*	5350	38.34	4.04	42.38	-11.62	54	150	130	Average
3		5351.07	37.92	4.04	41.96	-12.04	54	150	130	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH64	Test Voltage	AC 120V/60Hz

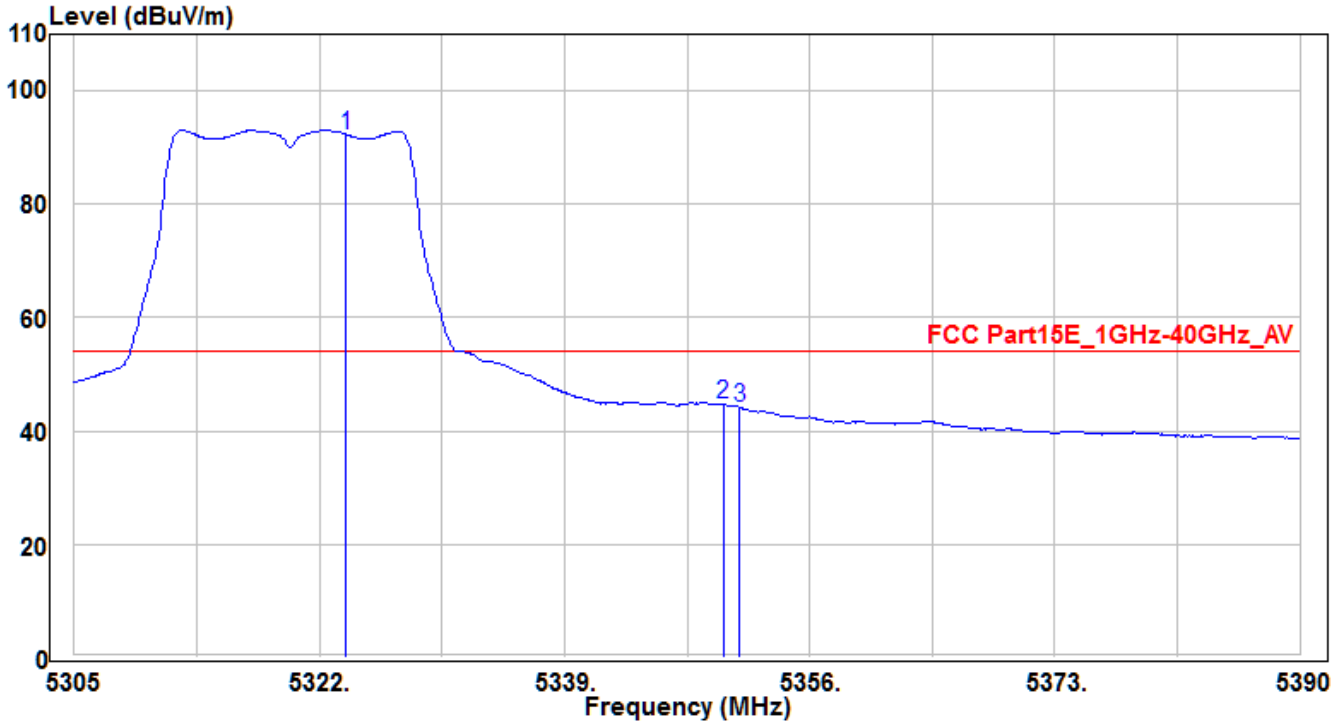


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5323.87	98	4.02	102.02	28.02	74	110	140	Peak
2		5350	51.98	4.04	56.02	-17.98	74	110	140	Peak
3	*	5351.155	53.84	4.04	57.88	-16.12	74	110	140	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH64	Test Voltage	AC 120V/60Hz

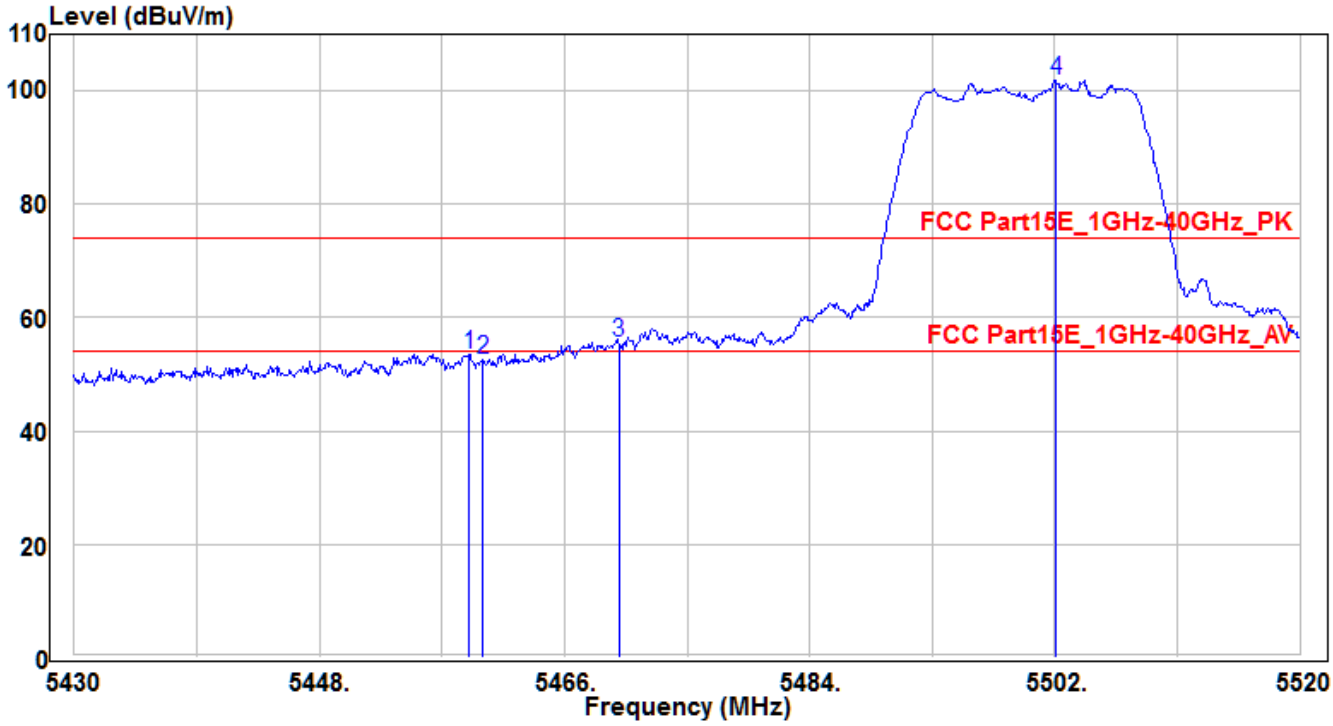


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5323.87	88.28	4.02	92.3	38.3	54	110	140	Average
2	*	5350	40.63	4.04	44.67	-9.33	54	110	140	Average
3		5351.155	40.18	4.04	44.22	-9.78	54	110	140	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH100	Test Voltage	AC 120V/60Hz

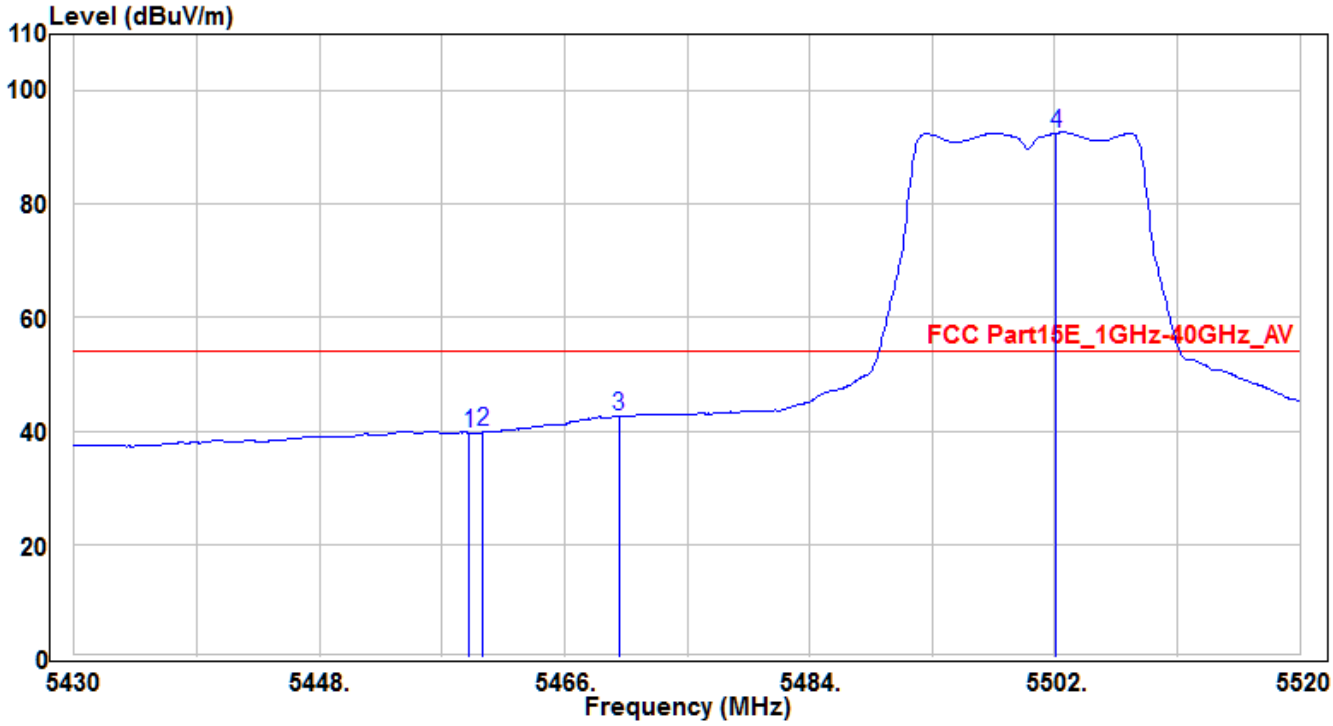


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5458.98	49.46	4.14	53.6	-20.4	74	255	175	Peak
2		5460	48.43	4.14	52.57	-21.43	74	255	175	Peak
3	*	5470	51.41	4.14	55.55	-18.45	74	255	175	Peak
4		5502.09	97.79	4.17	101.96	27.96	74	255	175	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH100	Test Voltage	AC 120V/60Hz

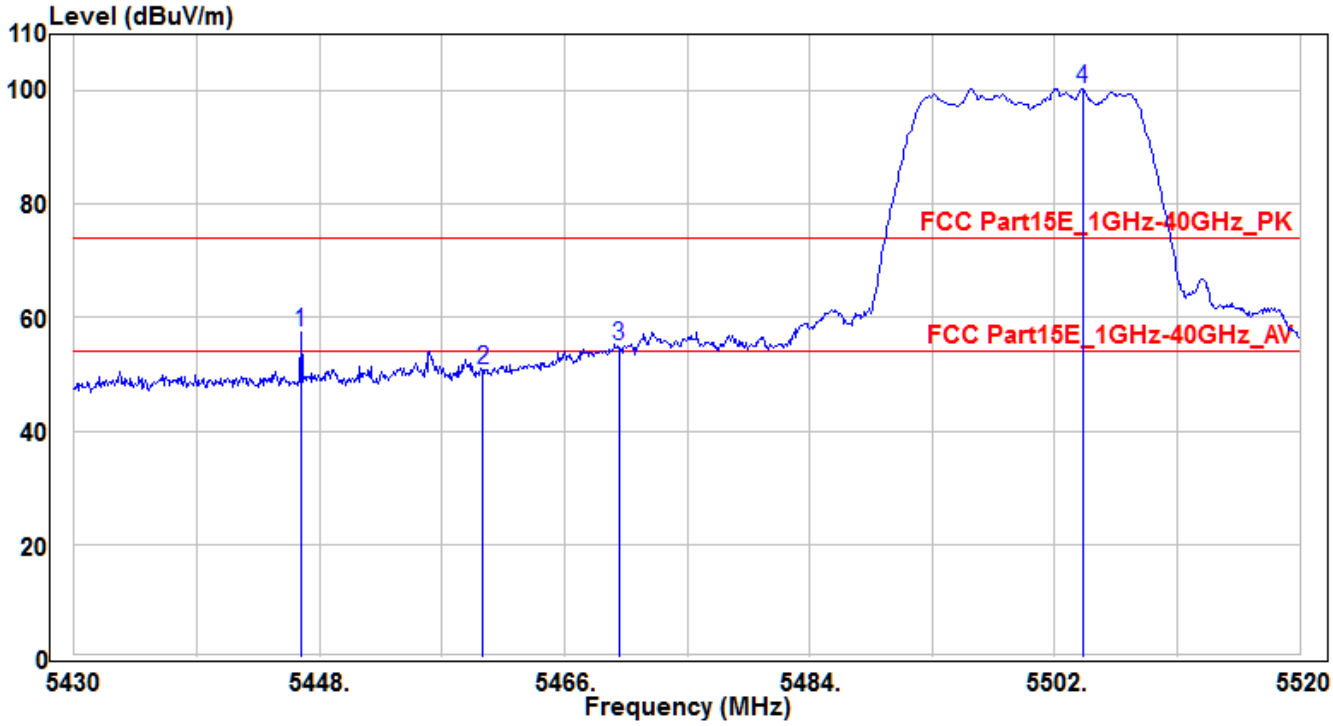


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5458.98	35.57	4.14	39.71	-14.29	54	255	175	Average
2		5460	35.64	4.14	39.78	-14.22	54	255	175	Average
3	*	5470	38.51	4.14	42.65	-11.35	54	255	175	Average
4		5502.09	88.39	4.17	92.56	38.56	54	255	175	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH100	Test Voltage	AC 120V/60Hz

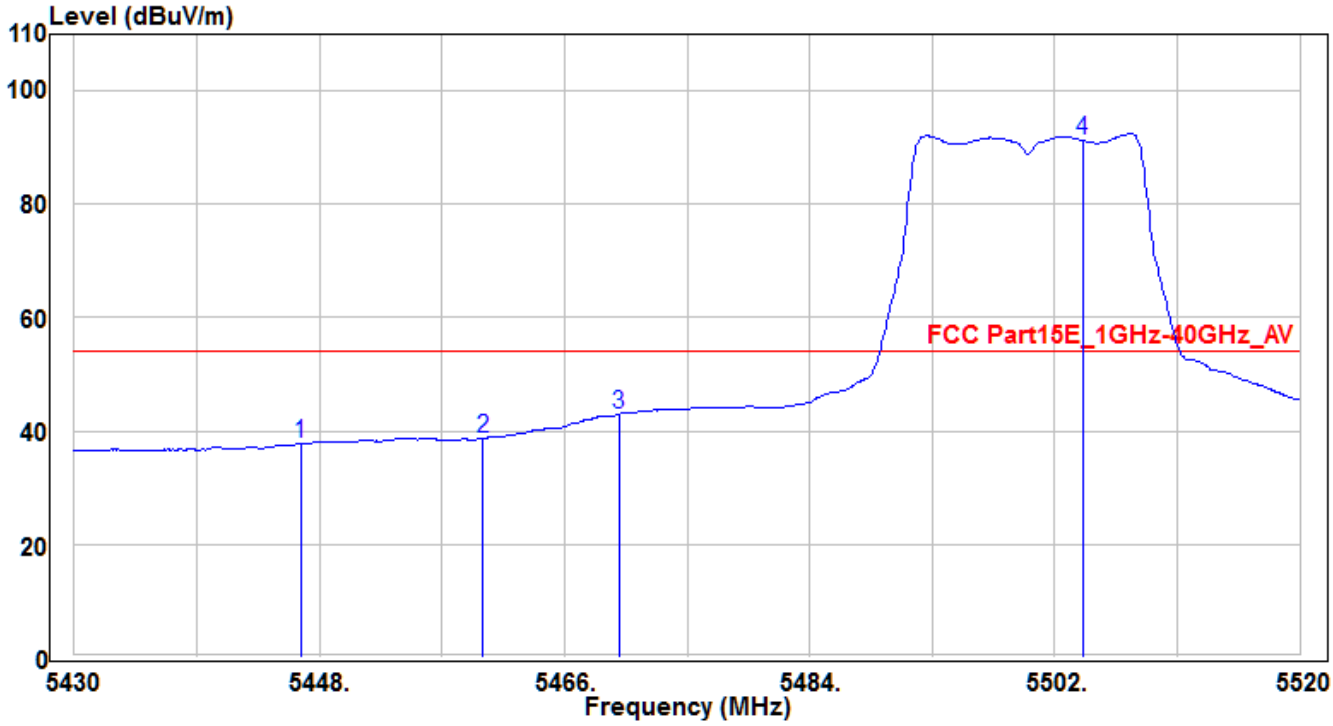


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5446.65	53.44	4.13	57.57	-16.43	74	115	135	Peak
2		5460	46.5	4.14	50.64	-23.36	74	115	135	Peak
3		5470	50.93	4.14	55.07	-18.93	74	115	135	Peak
4		5504.07	96.18	4.18	100.36	26.36	74	115	135	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH100	Test Voltage	AC 120V/60Hz

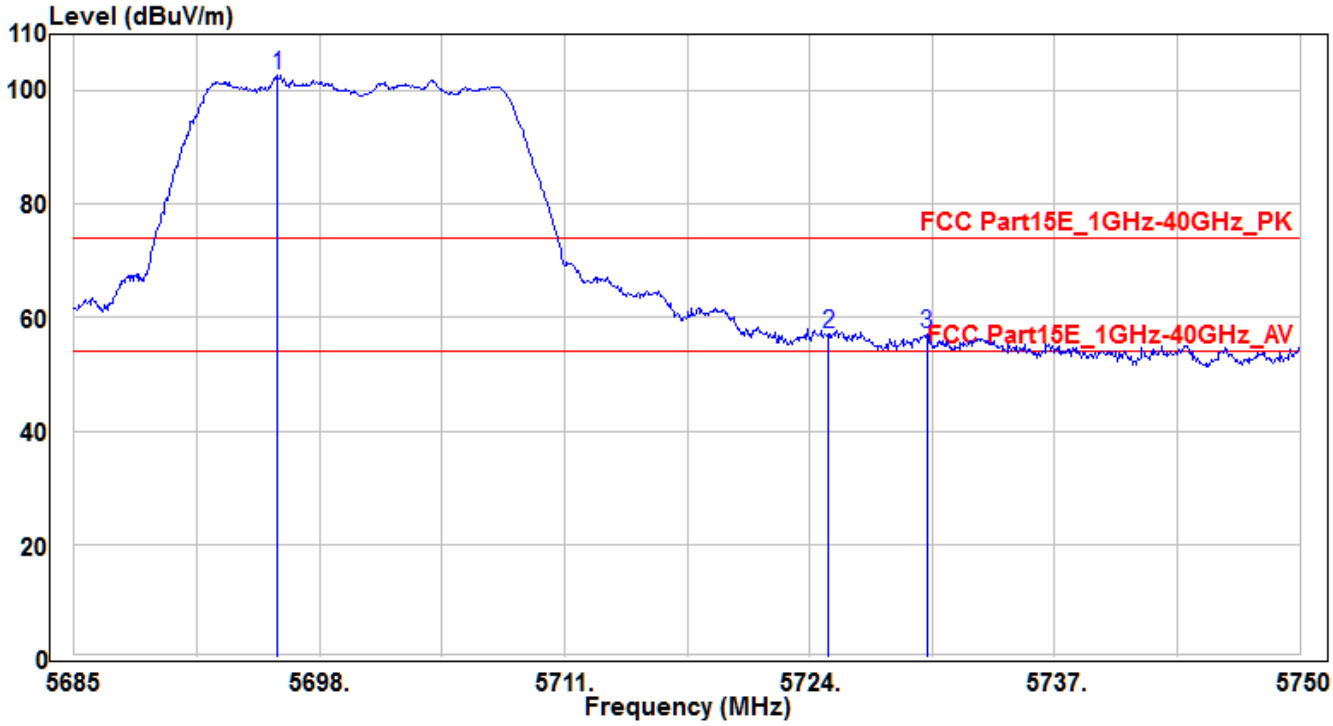


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5446.65	33.75	4.13	37.88	-16.12	54	115	135	Average
2		5460	34.56	4.14	38.7	-15.3	54	115	135	Average
3	*	5470	38.87	4.14	43.01	-10.99	54	115	135	Average
4		5504.07	87.06	4.18	91.24	37.24	54	115	135	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH140	Test Voltage	AC 120V/60Hz

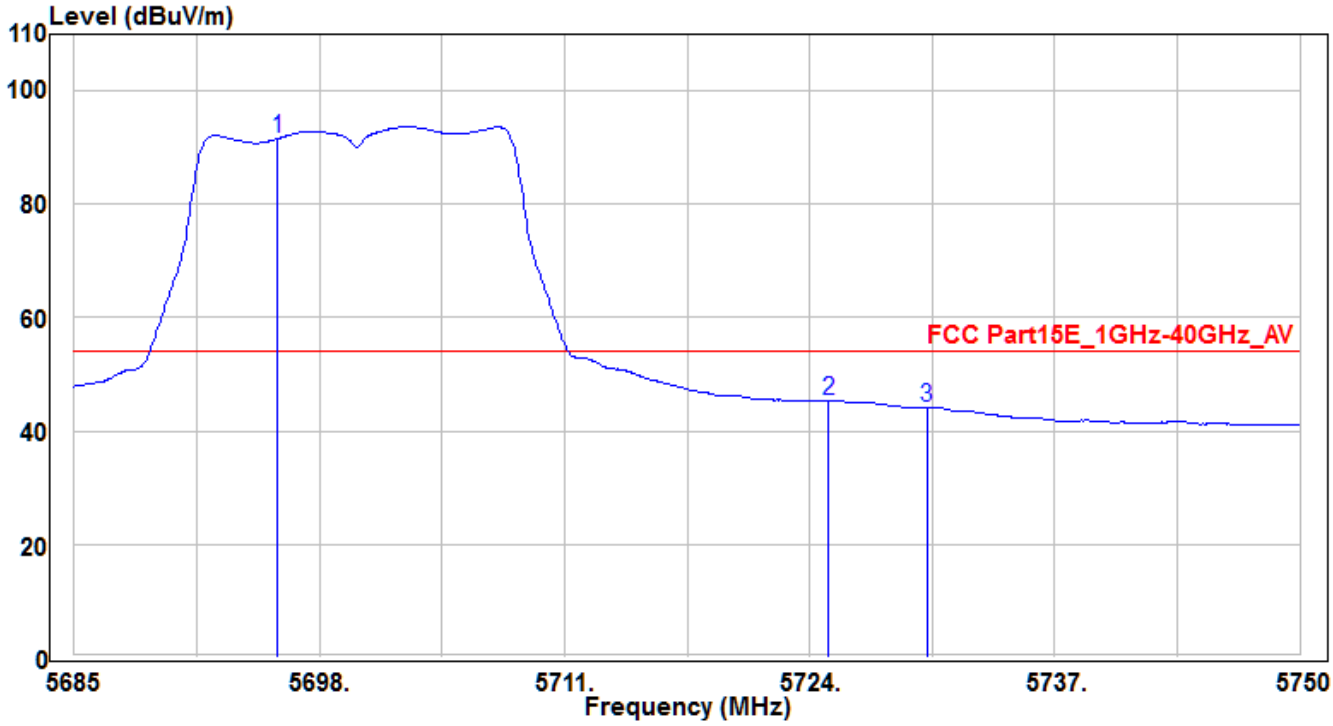


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5695.79	97.84	4.91	102.75	28.75	74	250	160	Peak
2	*	5725	52.08	5.03	57.11	-16.89	74	250	160	Peak
3	*	5730.24	52.06	5.05	57.11	-16.89	74	250	160	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH140	Test Voltage	AC 120V/60Hz

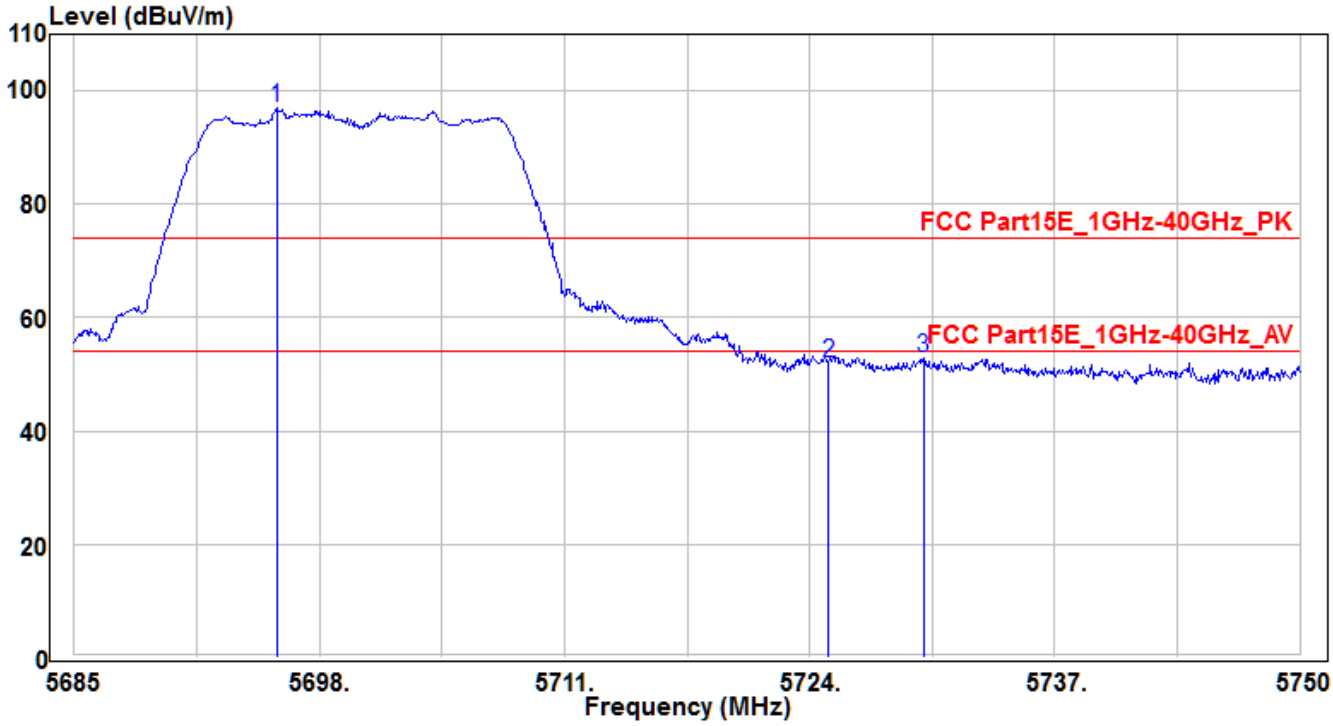


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5695.79	86.67	4.91	91.58	37.58	54	250	160	Average
2	*	5725	40.41	5.03	45.44	-8.56	54	250	160	Average
3		5730.24	39	5.05	44.05	-9.95	54	250	160	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH140	Test Voltage	AC 120V/60Hz

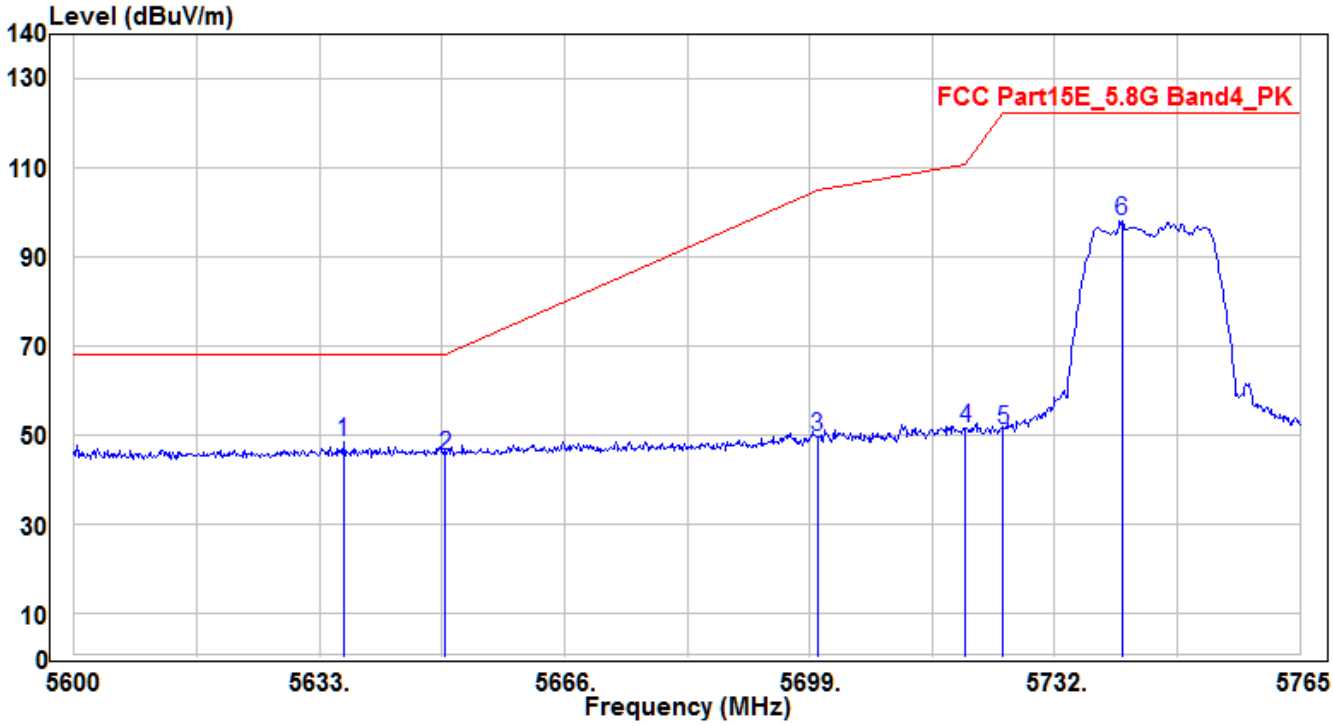


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5695.725	92.17	4.91	97.08	23.08	74	150	160	Peak
2		5725	46.92	5.03	51.95	-22.05	74	150	160	Peak
3	*	5730.045	47.7	5.05	52.75	-21.25	74	150	160	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH149	Test Voltage	AC 120V/60Hz

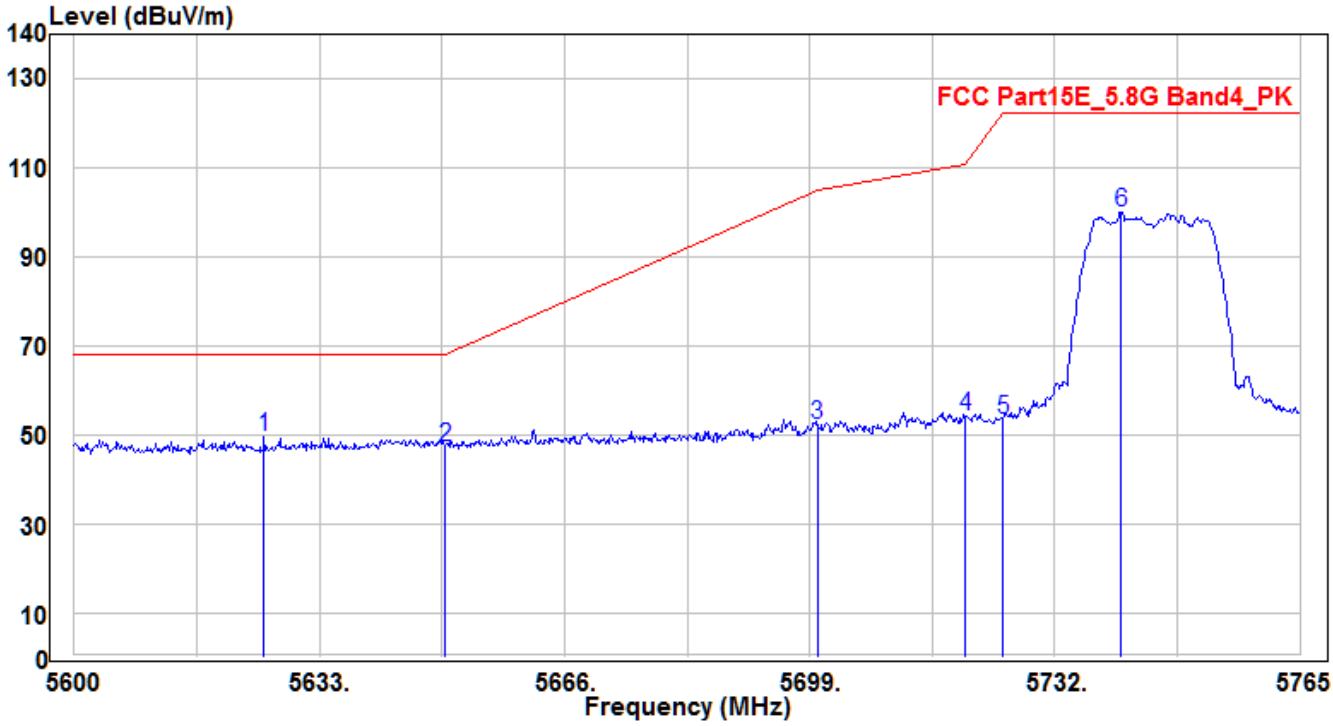


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5636.3	43.75	4.69	48.44	-19.76	68.2	150	125	Peak
2		5649.995	40.54	4.75	45.29	-22.91	68.2	150	125	Peak
3		5700	44.62	4.94	49.56	-55.64	105.2	150	125	Peak
4		5720	46.64	5.01	51.65	-59.15	110.8	150	125	Peak
5		5725	46.13	5.03	51.16	-71.04	122.2	150	125	Peak
6		5741.075	92.84	5.09	97.93	-24.27	122.2	150	125	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH149	Test Voltage	AC 120V/60Hz

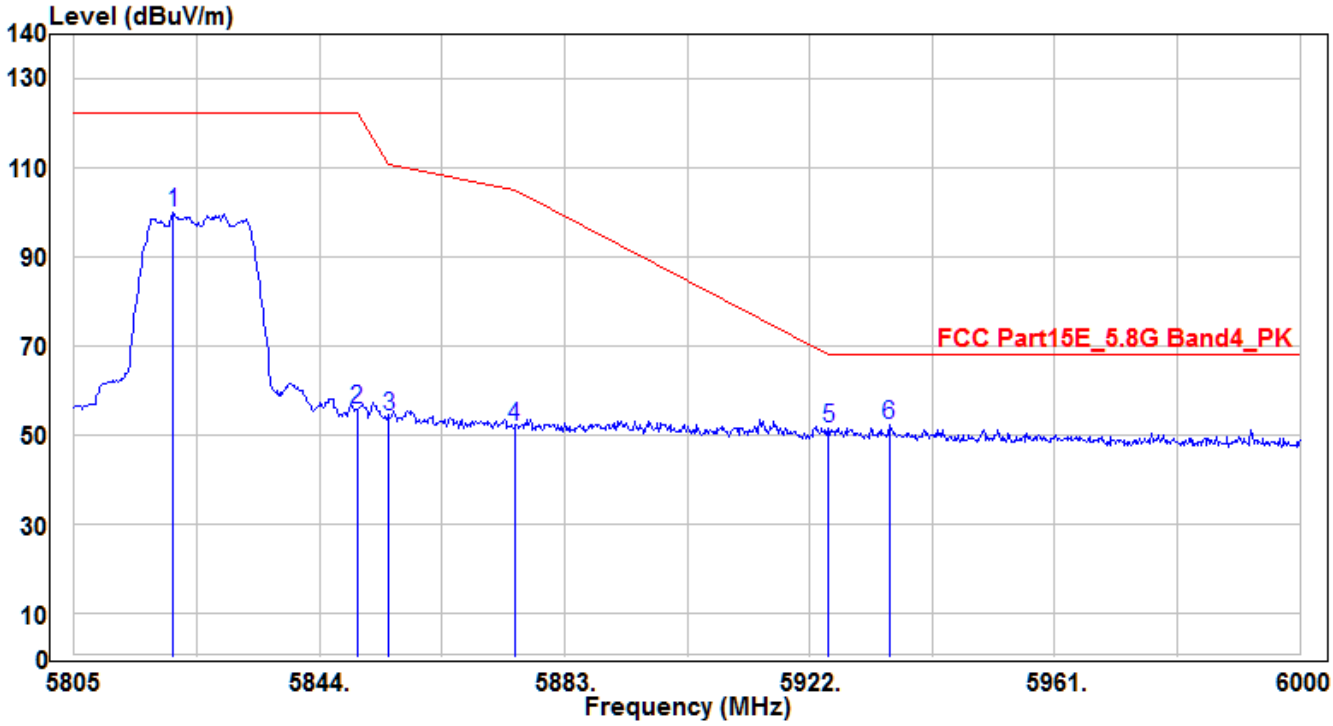


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5625.575	44.96	4.66	49.62	-18.58	68.2	385	160	Peak
2		5650	42.56	4.75	47.31	-20.89	68.2	385	160	Peak
3		5700	47.46	4.94	52.4	-52.8	105.2	385	160	Peak
4		5720	49.13	5.01	54.14	-56.66	110.8	385	160	Peak
5		5725	48.28	5.03	53.31	-68.89	122.2	385	160	Peak
6		5740.91	95.03	5.09	100.12	-22.08	122.2	385	160	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH165	Test Voltage	AC 120V/60Hz

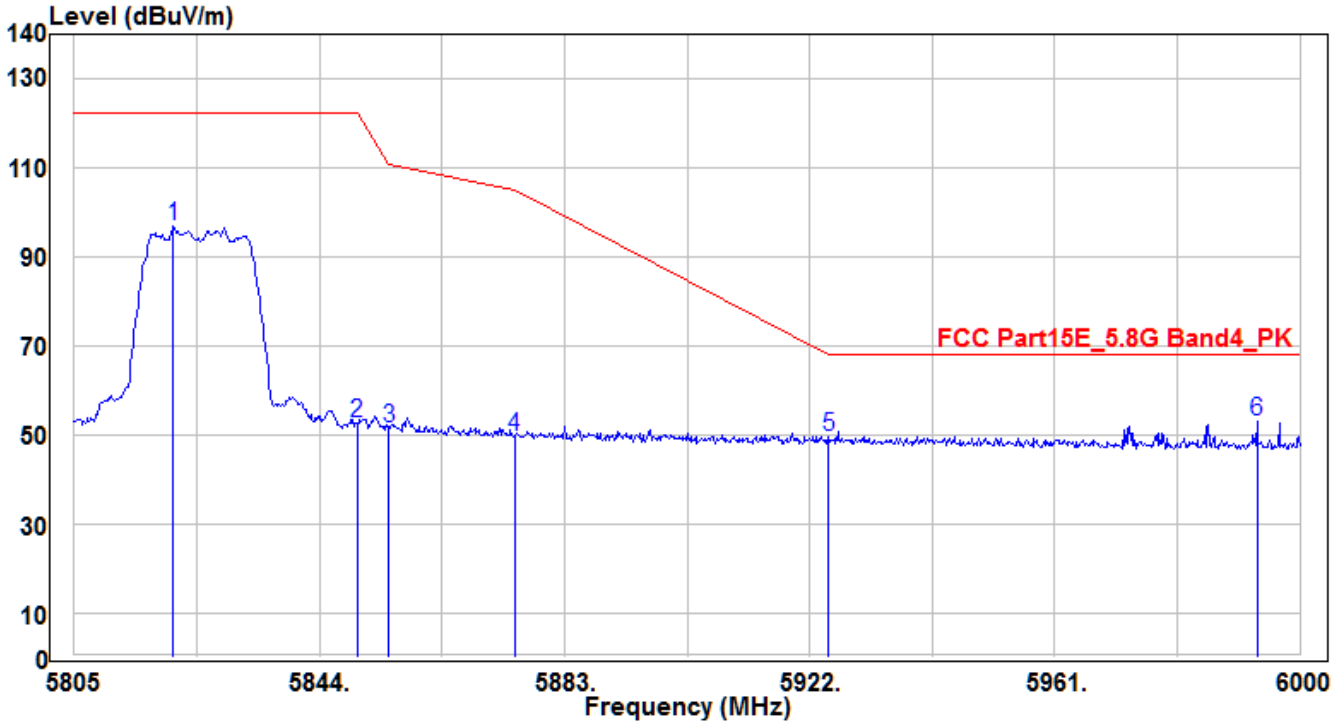


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5820.795	94.53	5.4	99.93	-22.27	122.2	200	170	Peak
2		5850	50.2	5.51	55.71	-66.49	122.2	200	170	Peak
3		5855	48.59	5.54	54.13	-56.67	110.8	200	170	Peak
4		5875	46.21	5.62	51.83	-53.37	105.2	200	170	Peak
5		5925	45.9	5.8	51.7	-16.5	68.2	200	170	Peak
6	*	5934.675	46.53	5.84	52.37	-15.83	68.2	200	170	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE1-CH165	Test Voltage	AC 120V/60Hz

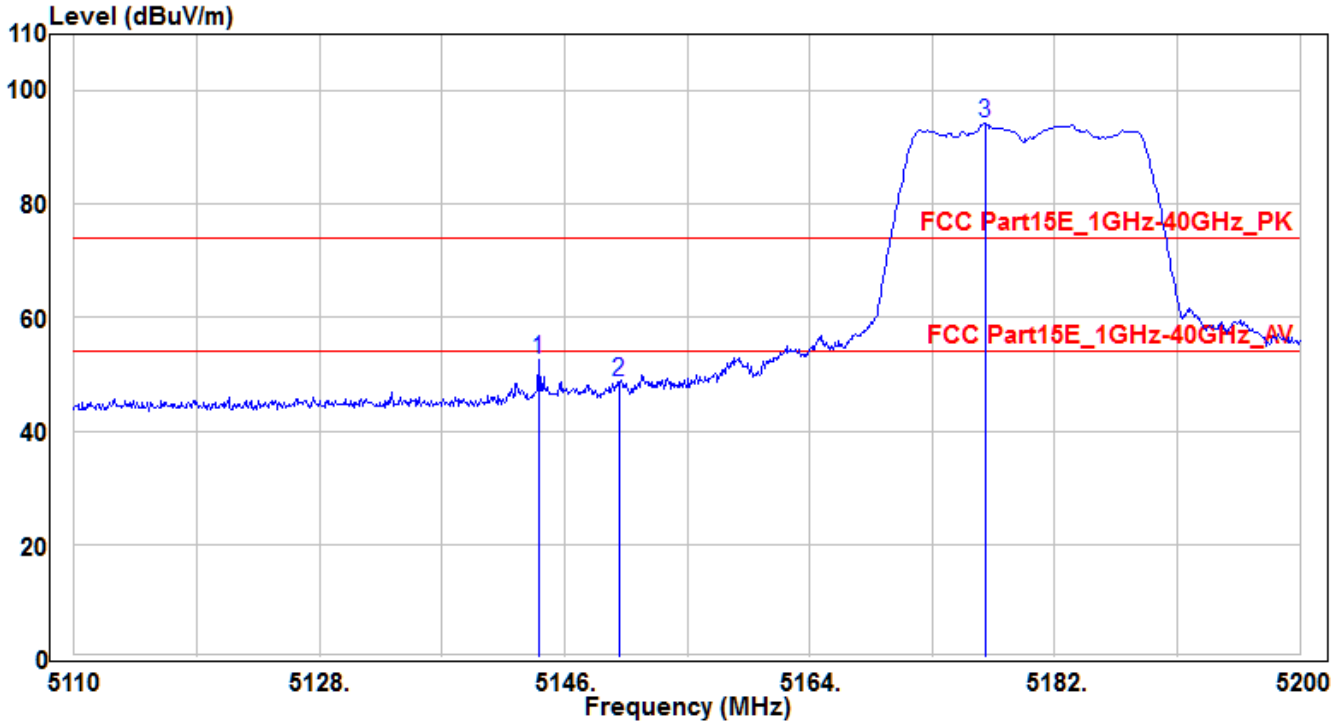


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5820.795	91.39	5.4	96.79	-25.41	122.2	190	165	Peak
2		5850	47.26	5.51	52.77	-69.43	122.2	190	165	Peak
3		5855	46.14	5.54	51.68	-59.12	110.8	190	165	Peak
4		5875	43.99	5.62	49.61	-55.59	105.2	190	165	Peak
5		5925	43.7	5.8	49.5	-18.7	68.2	190	165	Peak
6	*	5993.175	47.18	6.06	53.24	-14.96	68.2	190	165	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH36	Test Voltage	AC 120V/60Hz

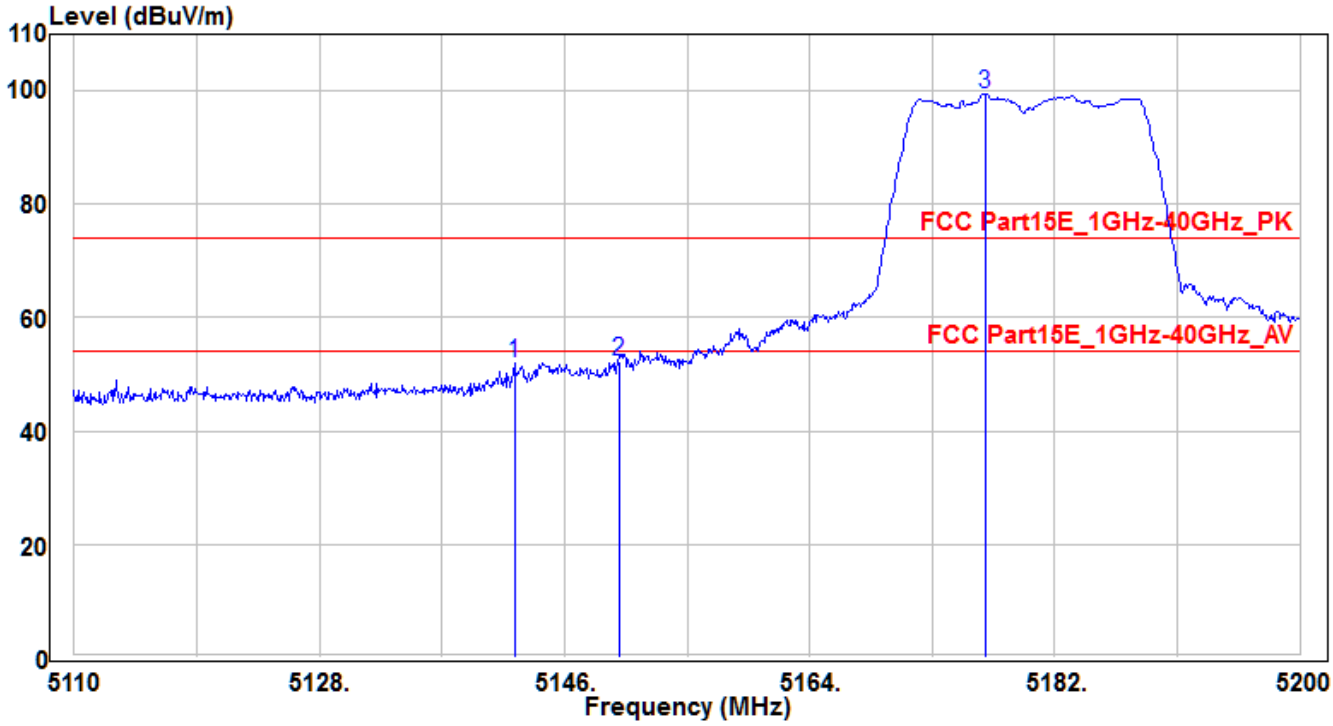


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5144.11	48.67	3.87	52.54	-21.46	74	160	115	Peak
2		5150	44.78	3.88	48.66	-25.34	74	160	115	Peak
3		5176.87	90.44	3.9	94.34	20.34	74	160	115	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH36	Test Voltage	AC 120V/60Hz

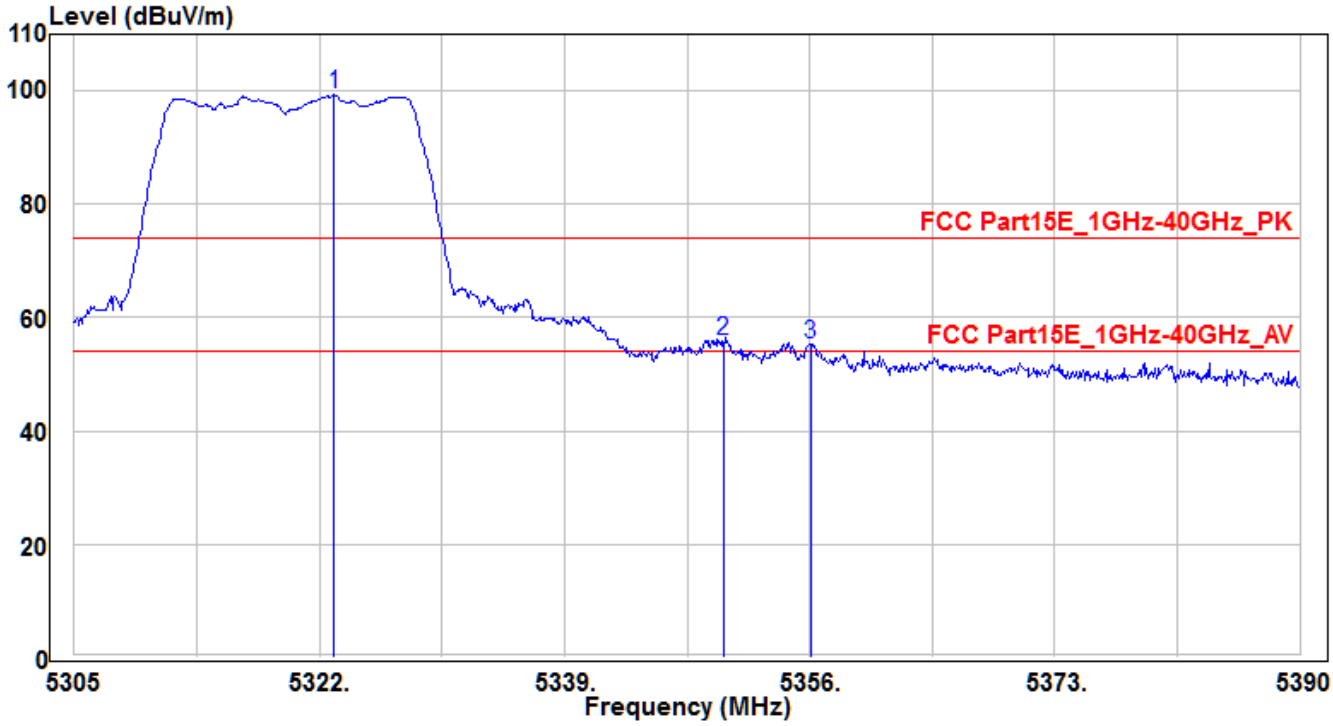


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5142.31	48.11	3.87	51.98	-22.02	74	150	130	Peak
2	*	5150	48.35	3.88	52.23	-21.77	74	150	130	Peak
3		5176.87	95.67	3.9	99.57	25.57	74	150	130	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH64	Test Voltage	AC 120V/60Hz

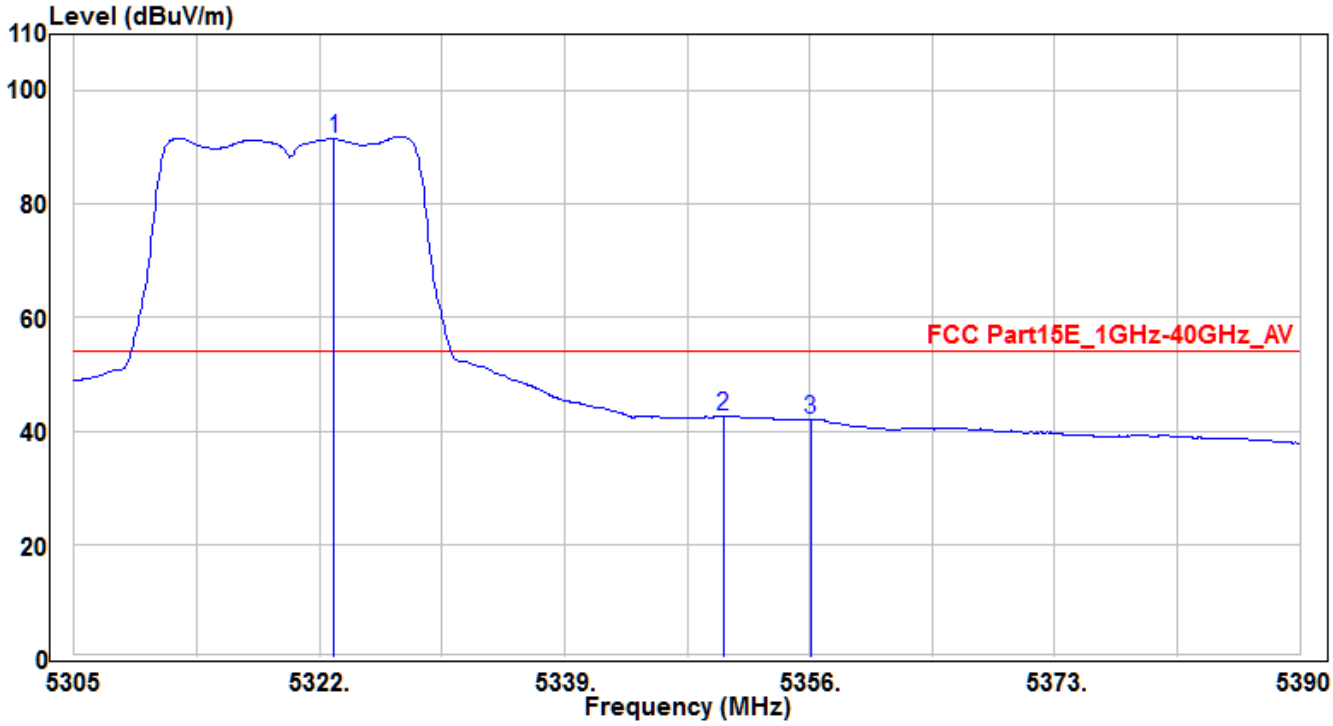


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5323.02	95.28	4.02	99.3	25.3	74	175	50	Peak
2	*	5350	51.8	4.04	55.84	-18.16	74	175	50	Peak
3		5356.085	51.34	4.05	55.39	-18.61	74	175	50	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH64	Test Voltage	AC 120V/60Hz

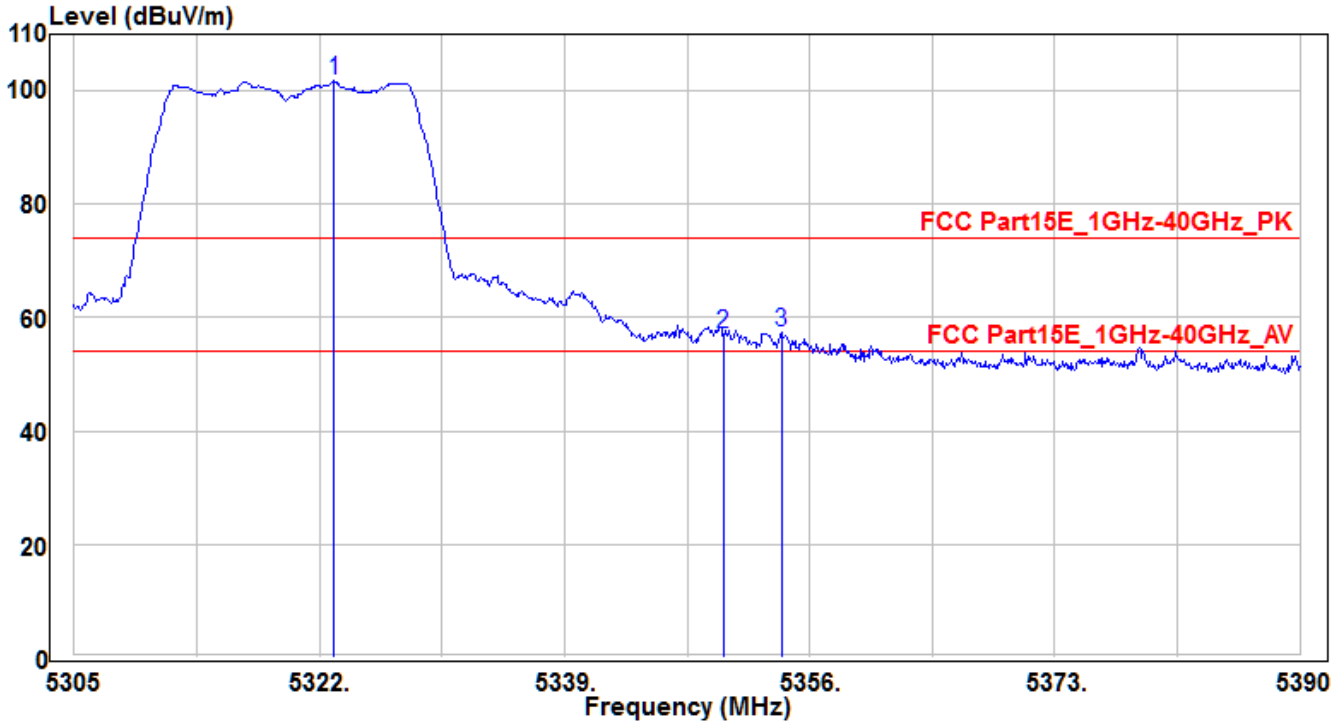


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5323.02	87.53	4.02	91.55	37.55	54	175	50	Average
2	*	5350	38.67	4.04	42.71	-11.29	54	175	50	Average
3		5356.085	37.98	4.05	42.03	-11.97	54	175	50	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH64	Test Voltage	AC 120V/60Hz

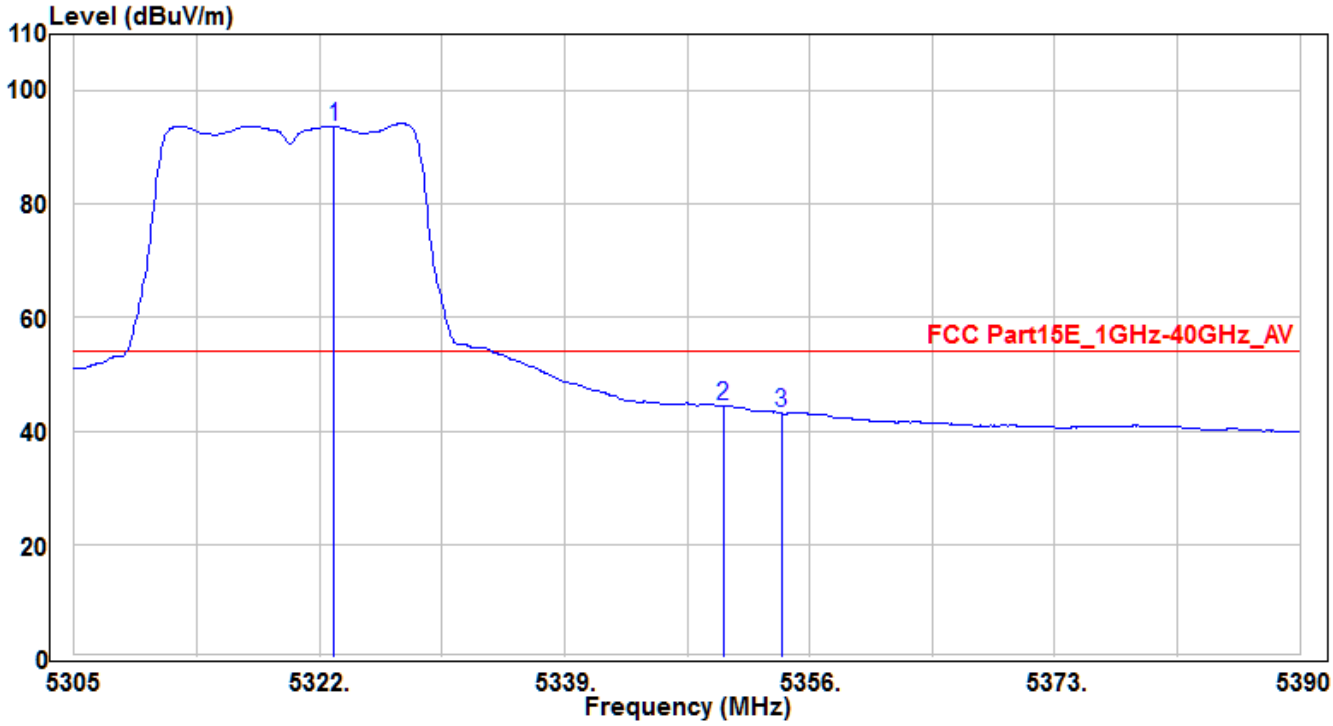


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5323.02	97.84	4.02	101.86	27.86	74	110	135	Peak
2		5350	53.22	4.04	57.26	-16.74	74	110	135	Peak
3	*	5354.045	53.39	4.05	57.44	-16.56	74	110	135	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH64	Test Voltage	AC 120V/60Hz

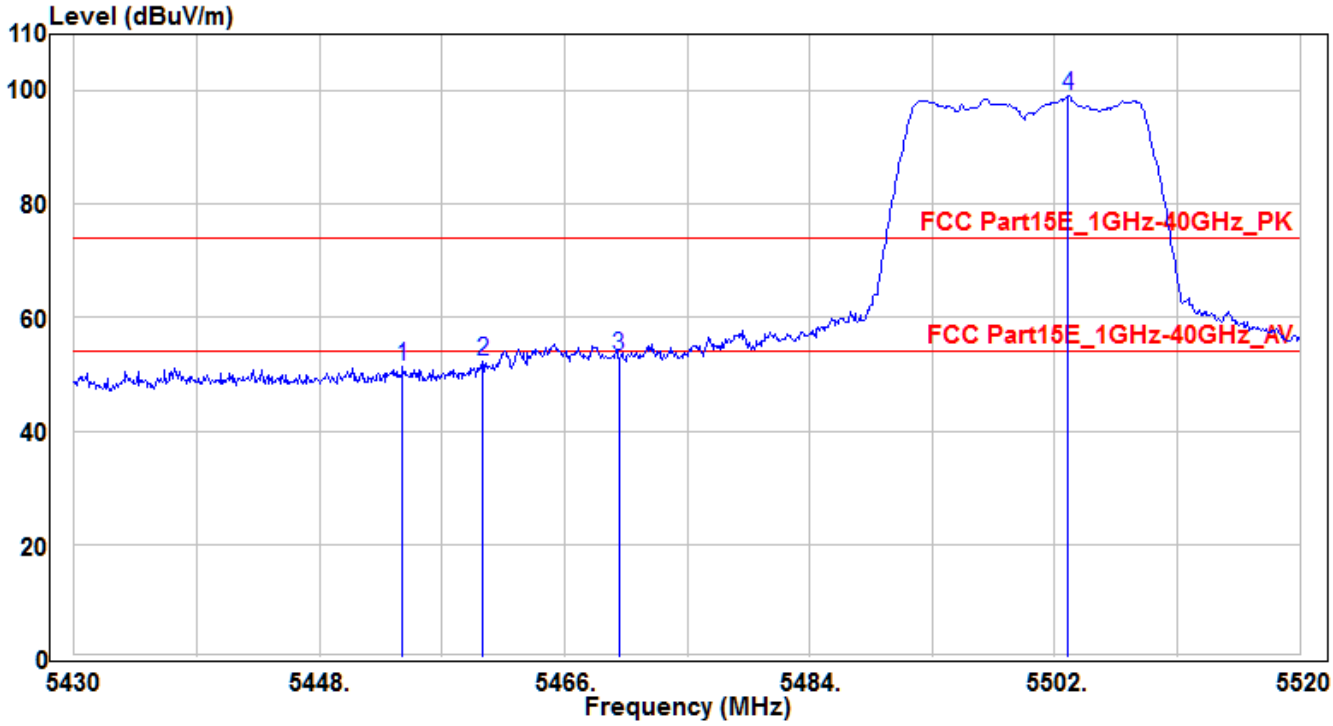


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5323.02	89.76	4.02	93.78	39.78	54	110	135	Average
2	*	5350	40.42	4.04	44.46	-9.54	54	110	135	Average
3		5354.045	39.03	4.05	43.08	-10.92	54	110	135	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH100	Test Voltage	AC 120V/60Hz

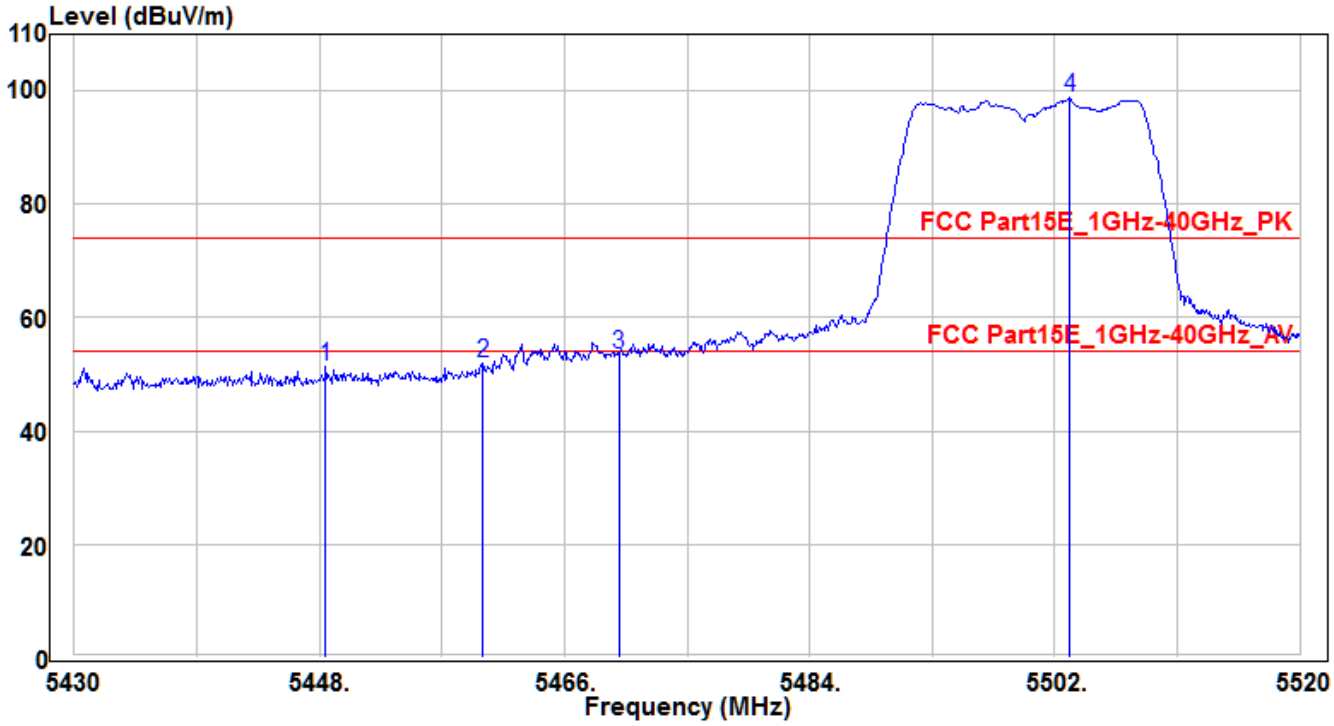


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5454.12	47.26	4.13	51.39	-22.61	74	200	130	Peak
2		5460	48.23	4.14	52.37	-21.63	74	200	130	Peak
3	*	5470	49.07	4.14	53.21	-20.79	74	200	130	Peak
4		5502.99	94.9	4.18	99.08	25.08	74	200	130	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH100	Test Voltage	AC 120V/60Hz

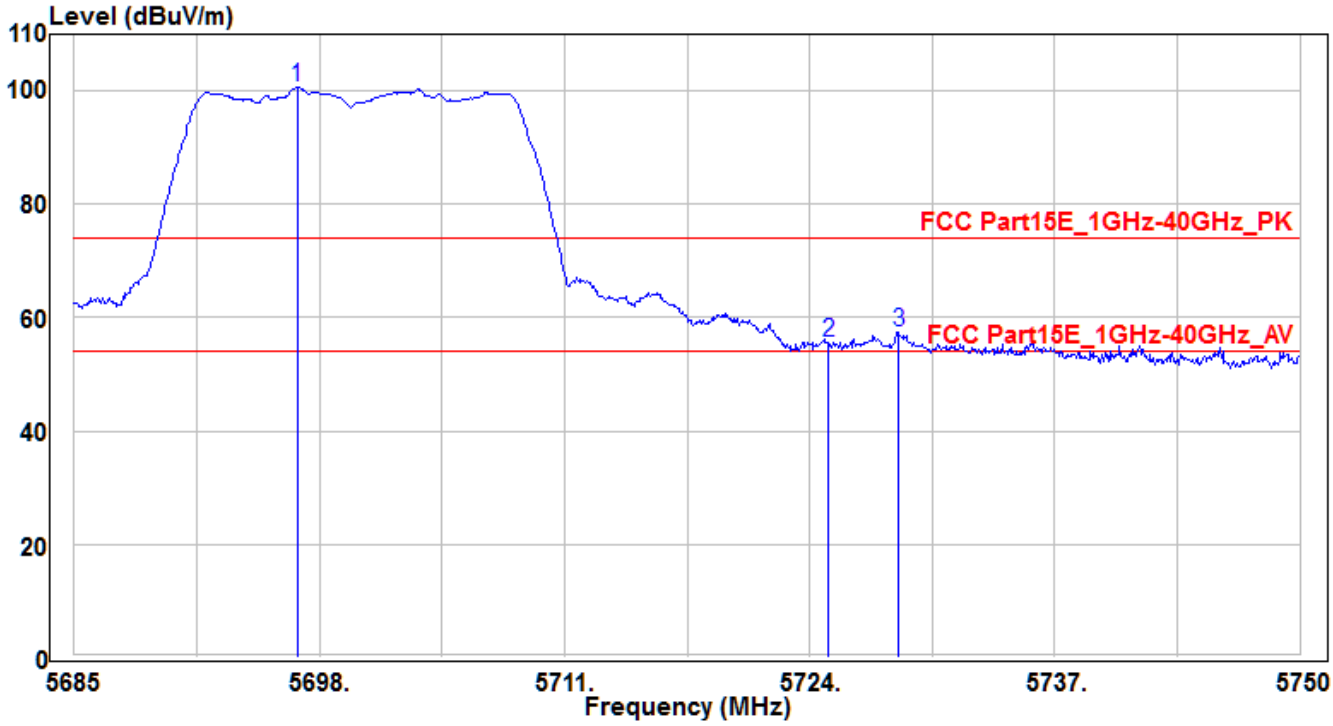


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5448.45	47.13	4.13	51.26	-22.74	74	115	135	Peak
2		5460	47.8	4.14	51.94	-22.06	74	115	135	Peak
3	*	5470	49.37	4.14	53.51	-20.49	74	115	135	Peak
4		5503.08	94.57	4.18	98.75	24.75	74	115	135	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH140	Test Voltage	AC 120V/60Hz

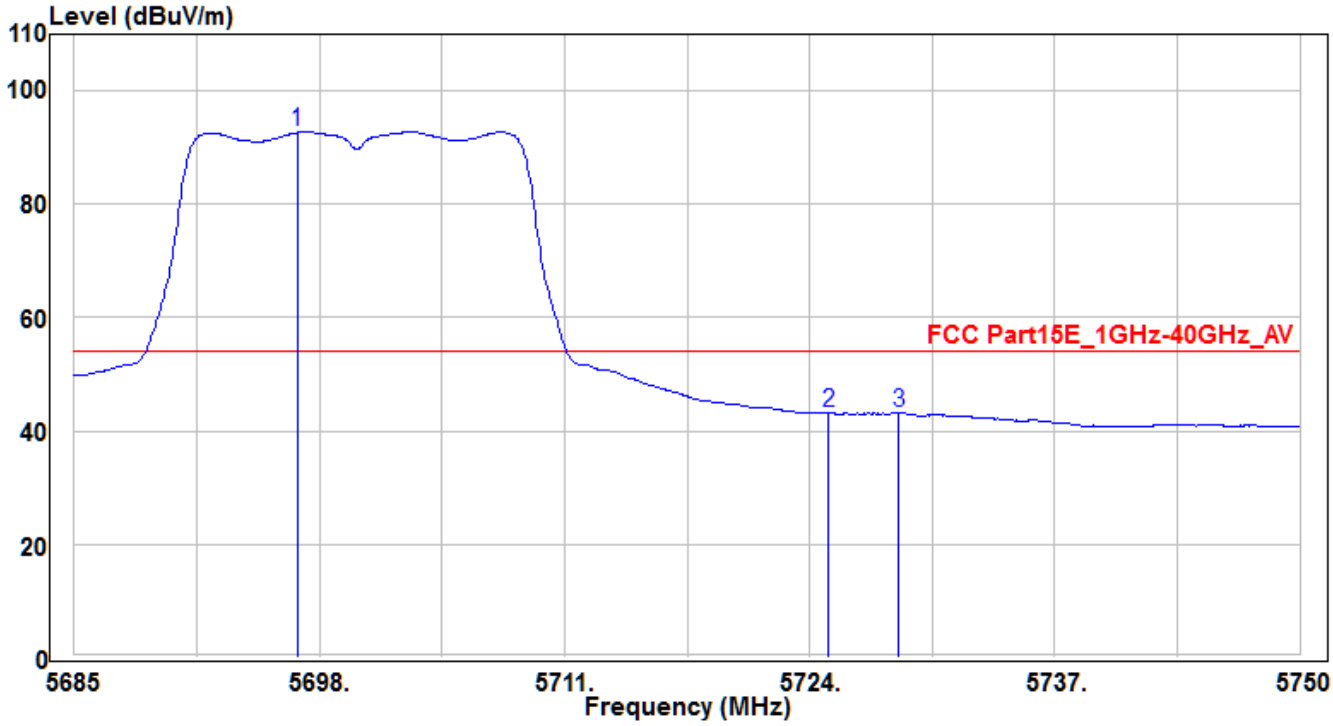


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5696.83	95.64	4.93	100.57	26.57	74	220	175	Peak
2		5725	50.63	5.03	55.66	-18.34	74	220	175	Peak
3	*	5728.745	52.51	5.04	57.55	-16.45	74	220	175	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH140	Test Voltage	AC 120V/60Hz

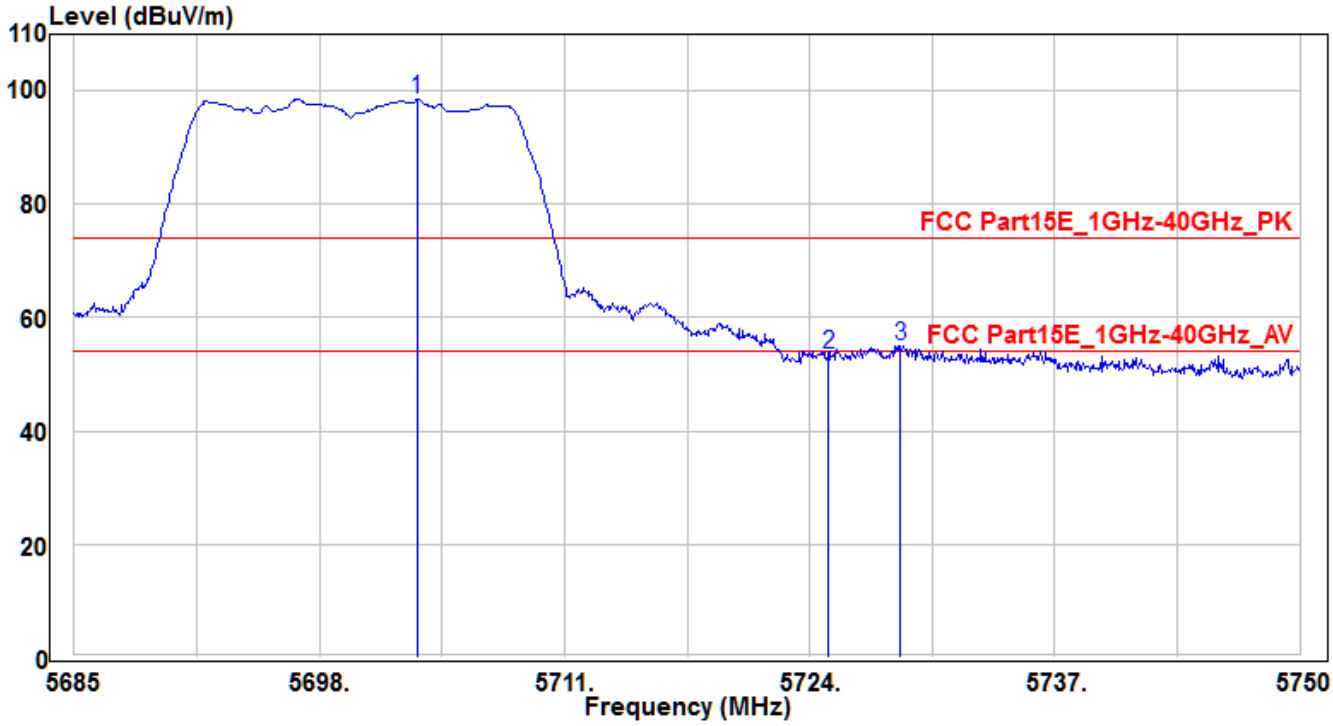


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5696.83	87.73	4.93	92.66	38.66	54	220	175	Average
2		5725	38.22	5.03	43.25	-10.75	54	220	175	Average
3	*	5728.745	38.06	5.04	43.1	-10.9	54	220	175	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH140	Test Voltage	AC 120V/60Hz

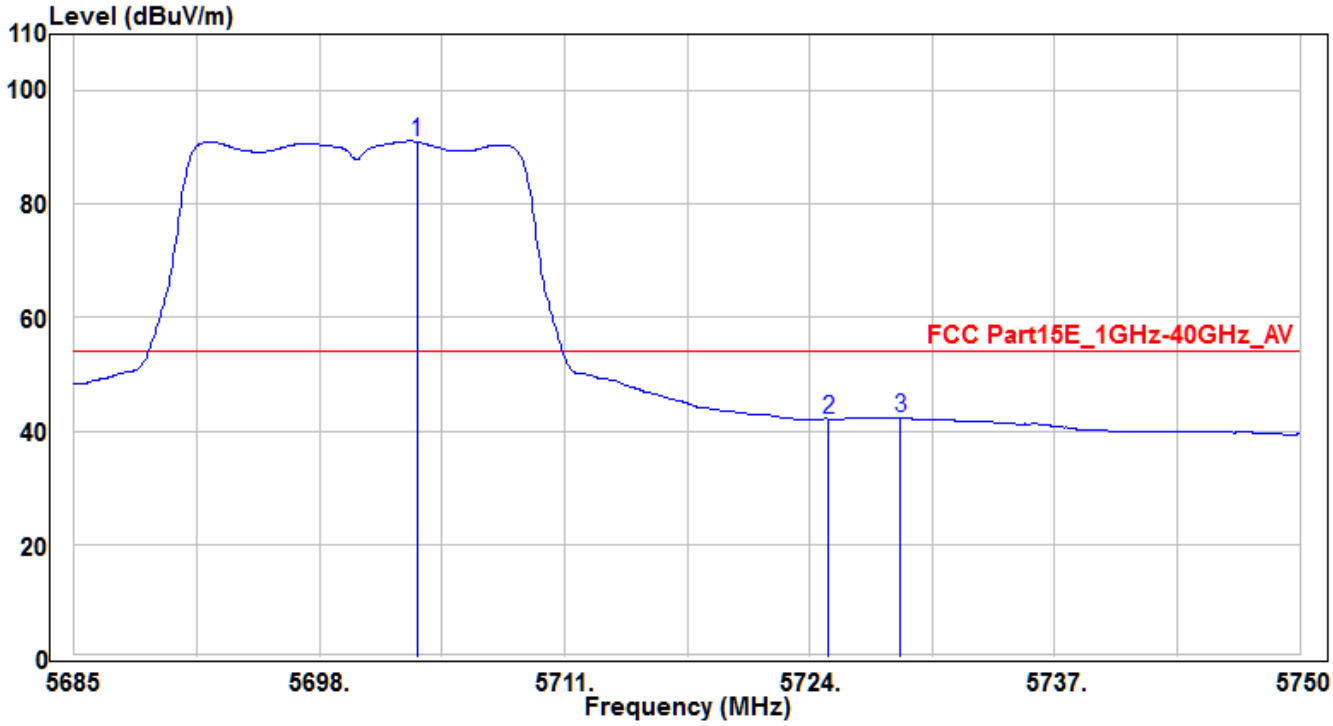


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5703.2	93.62	4.95	98.57	24.57	74	130	130	Peak
2		5725	48.33	5.03	53.36	-20.64	74	130	130	Peak
3	*	5728.81	50.12	5.04	55.16	-18.84	74	130	130	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH140	Test Voltage	AC 120V/60Hz

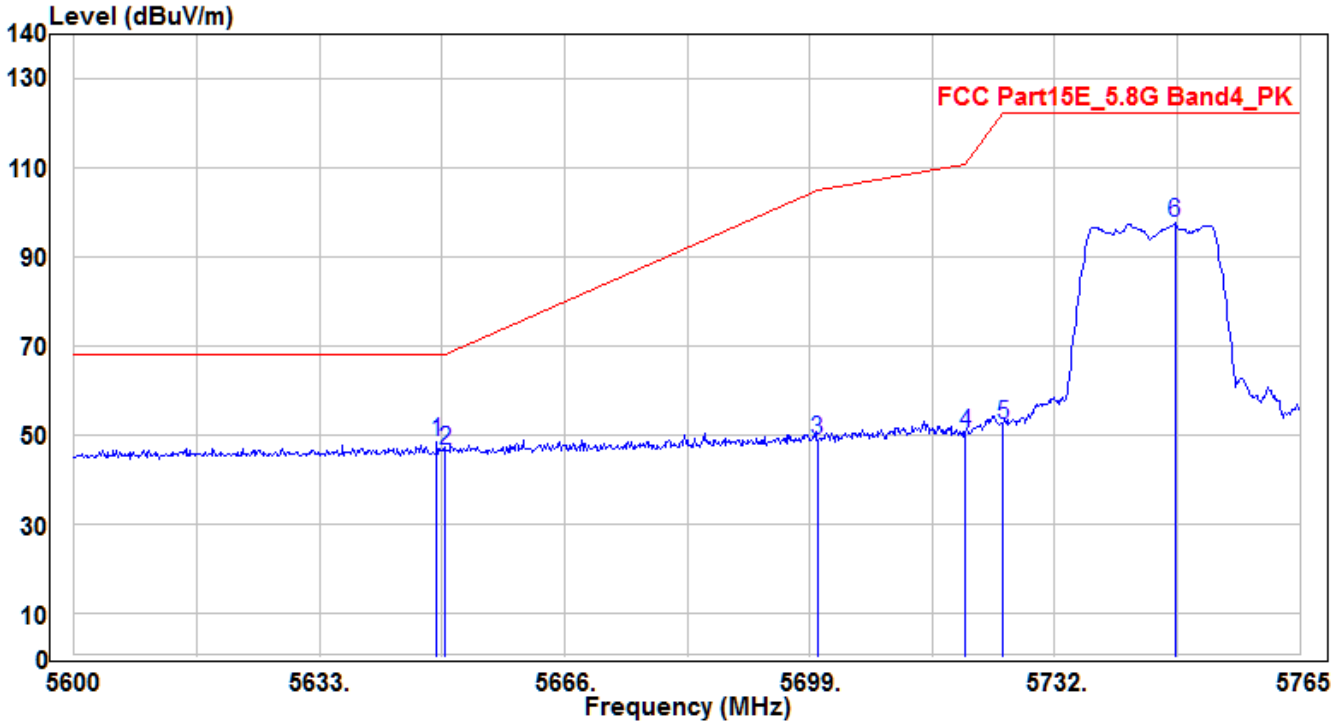


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5703.2	86.05	4.95	91	37	54	130	130	Average
2		5725	37.12	5.03	42.15	-11.85	54	130	130	Average
3	*	5728.81	37.33	5.04	42.37	-11.63	54	130	130	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH149	Test Voltage	AC 120V/60Hz

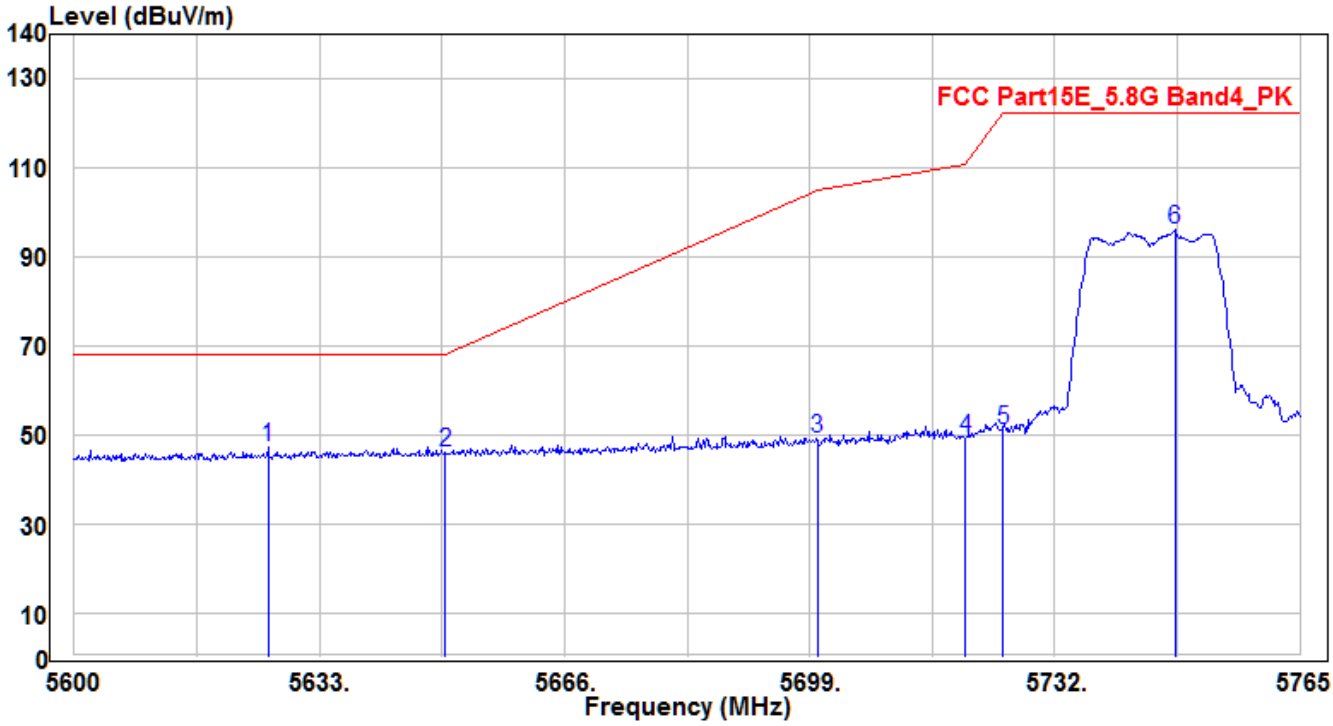


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5648.84	43.77	4.75	48.52	-19.68	68.2	140	125	Peak
2		5650	41.82	4.75	46.57	-21.63	68.2	140	125	Peak
3		5700	43.89	4.94	48.83	-56.37	105.2	140	125	Peak
4		5720	45.53	5.01	50.54	-60.26	110.8	140	125	Peak
5		5725	47.26	5.03	52.29	-69.91	122.2	140	125	Peak
6		5748.17	92.56	5.13	97.69	-24.51	122.2	140	125	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH149	Test Voltage	AC 120V/60Hz

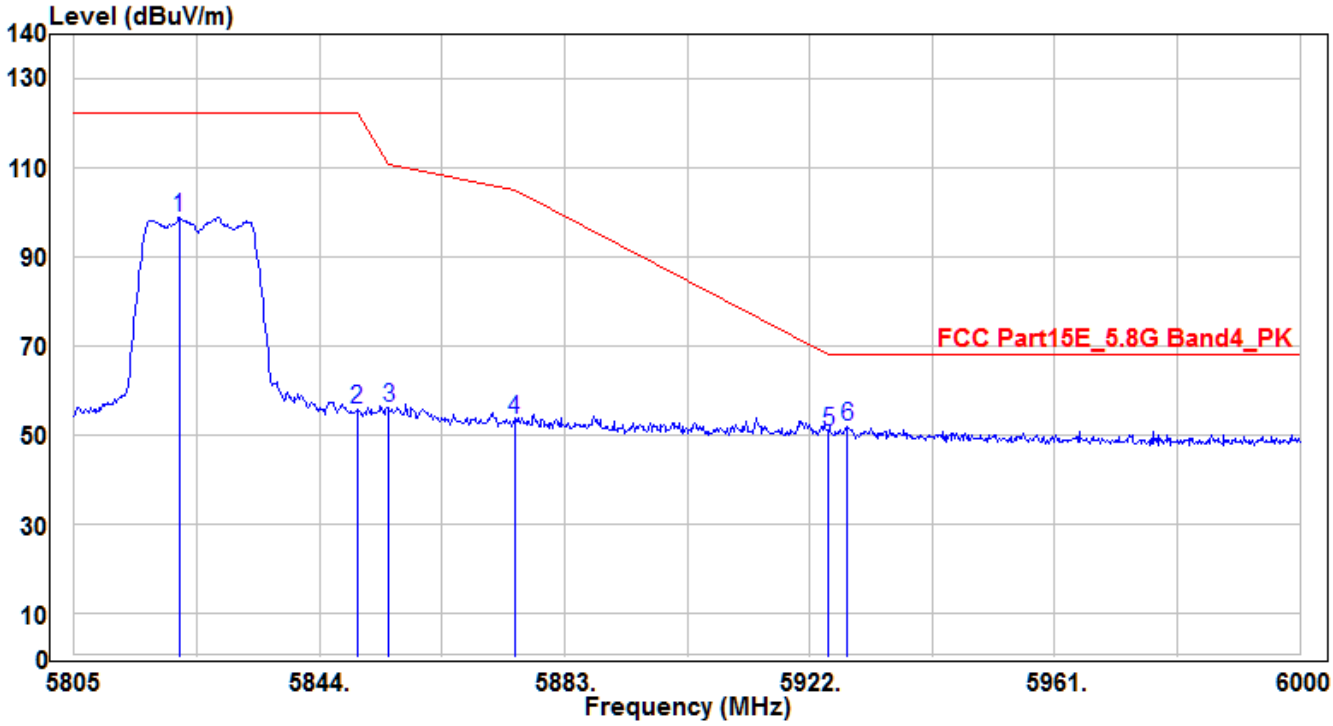


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5626.07	42.7	4.66	47.36	-20.84	68.2	170	160	Peak
2		5650	41.37	4.75	46.12	-22.08	68.2	170	160	Peak
3		5700	44.26	4.94	49.2	-56	105.2	170	160	Peak
4		5720	44.42	5.01	49.43	-61.37	110.8	170	160	Peak
5		5725	46.16	5.03	51.19	-71.01	122.2	170	160	Peak
6		5748.17	90.85	5.13	95.98	-26.22	122.2	170	160	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH165	Test Voltage	AC 120V/60Hz

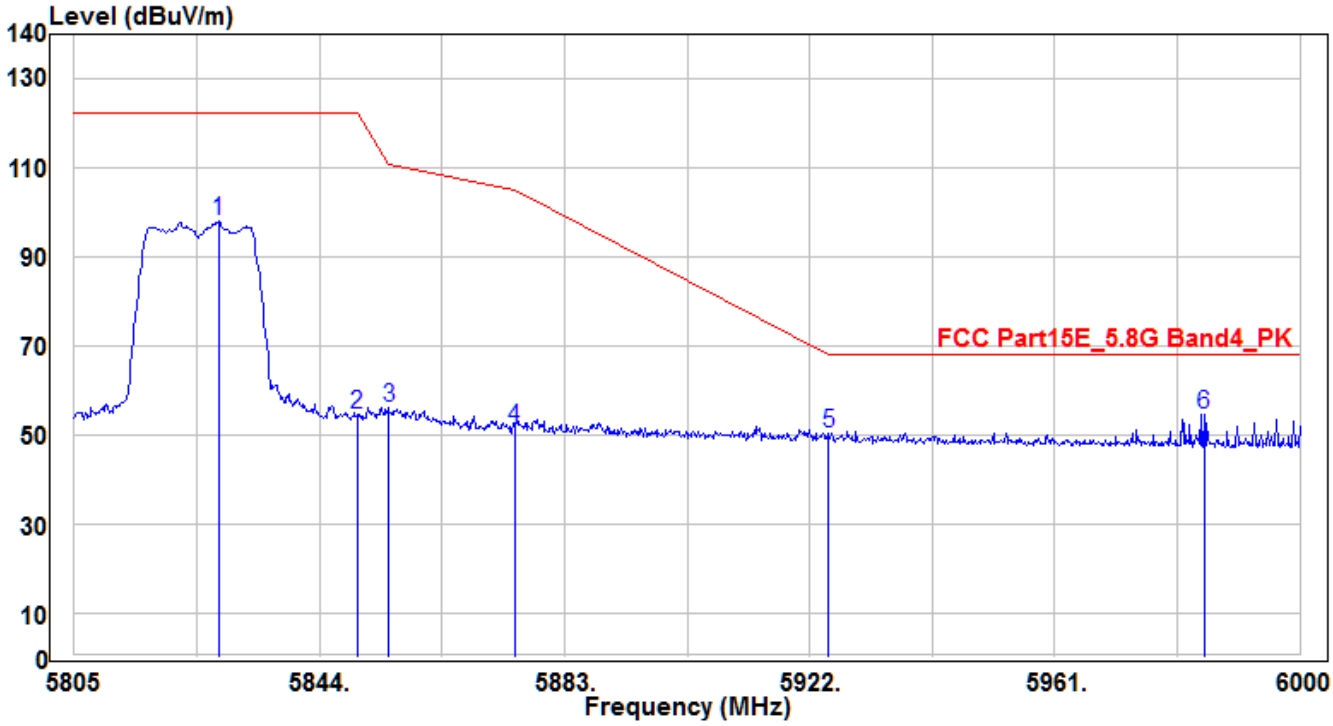


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5821.77	93.46	5.41	98.87	-23.33	122.2	210	165	Peak
2		5850	50.11	5.51	55.62	-66.58	122.2	210	165	Peak
3		5855	50.58	5.54	56.12	-54.68	110.8	210	165	Peak
4		5875	47.9	5.62	53.52	-51.68	105.2	210	165	Peak
5		5925	45	5.8	50.8	-17.4	68.2	210	165	Peak
6	*	5928.045	46.2	5.81	52.01	-16.19	68.2	210	165	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE2-CH165	Test Voltage	AC 120V/60Hz

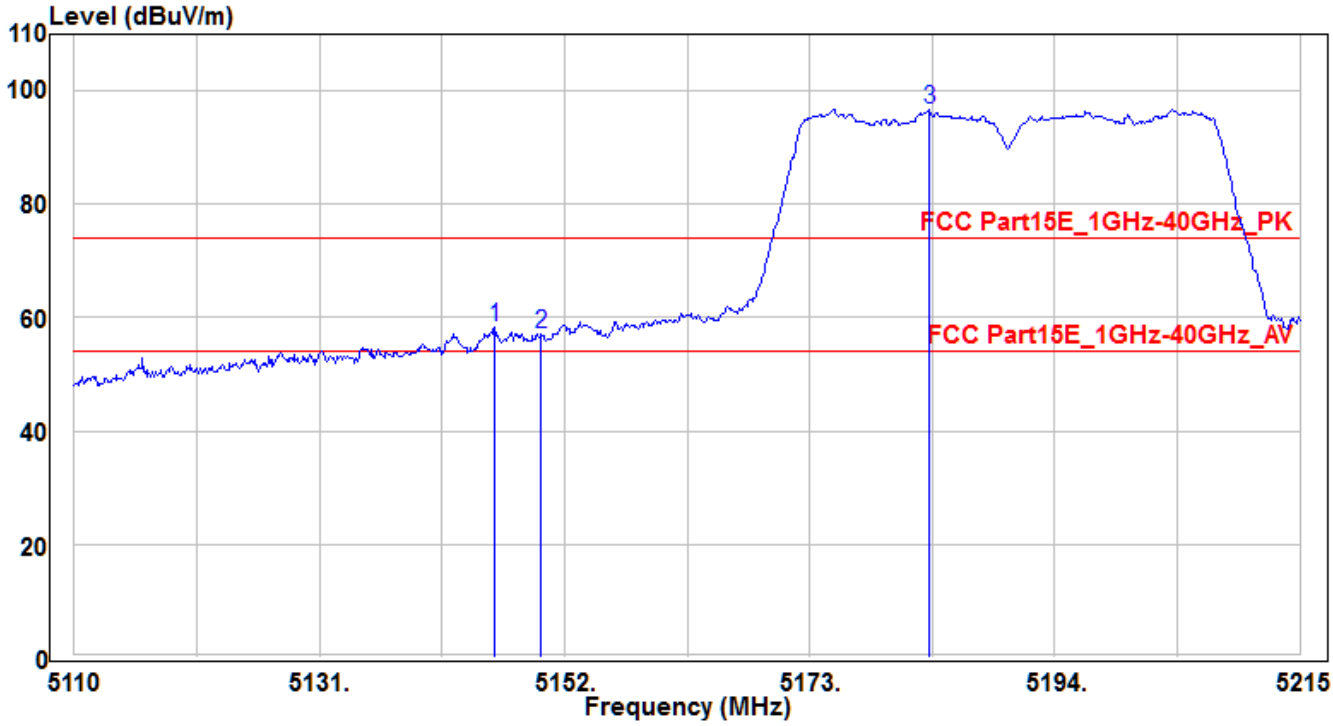


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5828.01	92.51	5.43	97.94	-24.26	122.2	385	165	Peak
2		5850	49.08	5.51	54.59	-67.61	122.2	385	165	Peak
3		5855	50.54	5.54	56.08	-54.72	110.8	385	165	Peak
4		5875	45.99	5.62	51.61	-53.59	105.2	385	165	Peak
5		5925	44.45	5.8	50.25	-17.95	68.2	385	165	Peak
6	*	5984.79	48.69	6.03	54.72	-13.48	68.2	385	165	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH38	Test Voltage	AC 120V/60Hz

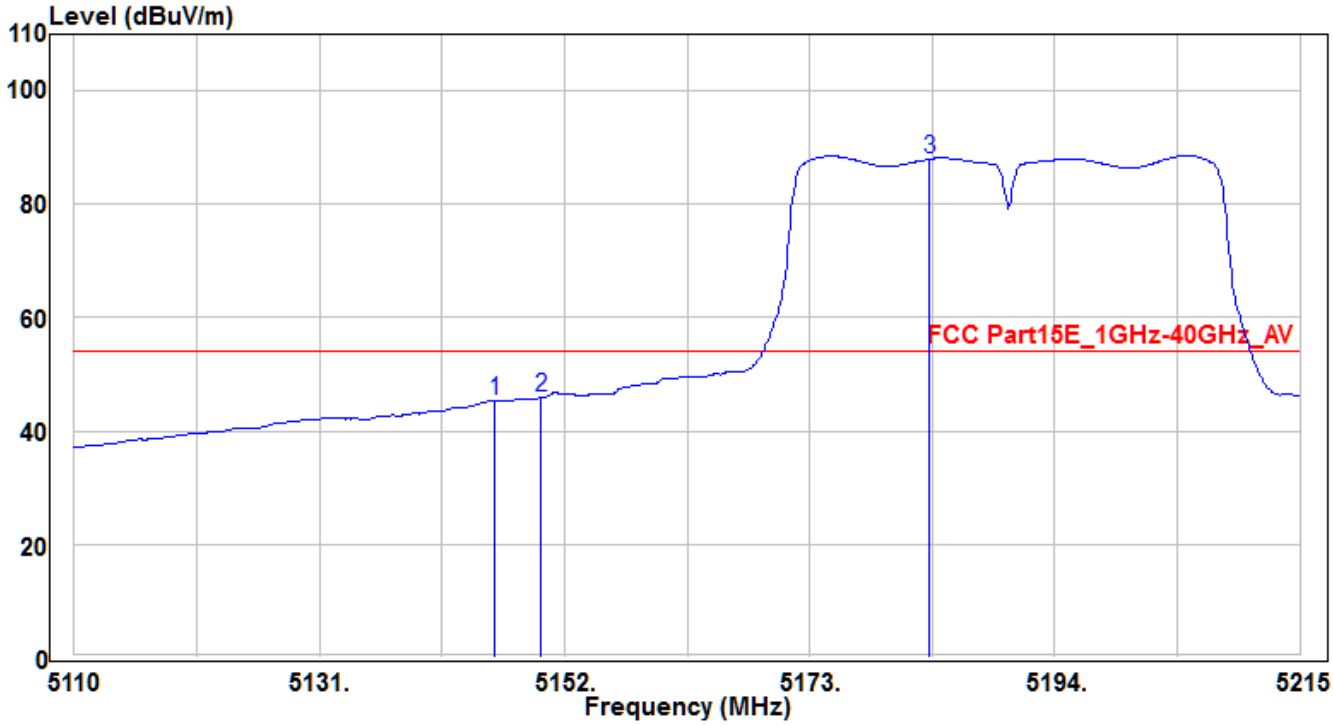


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5146.015	54.47	3.87	58.34	-15.66	74	165	130	Peak
2		5150	53.27	3.88	57.15	-16.85	74	165	130	Peak
3		5183.29	92.82	3.9	96.72	22.72	74	165	130	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH38	Test Voltage	AC 120V/60Hz

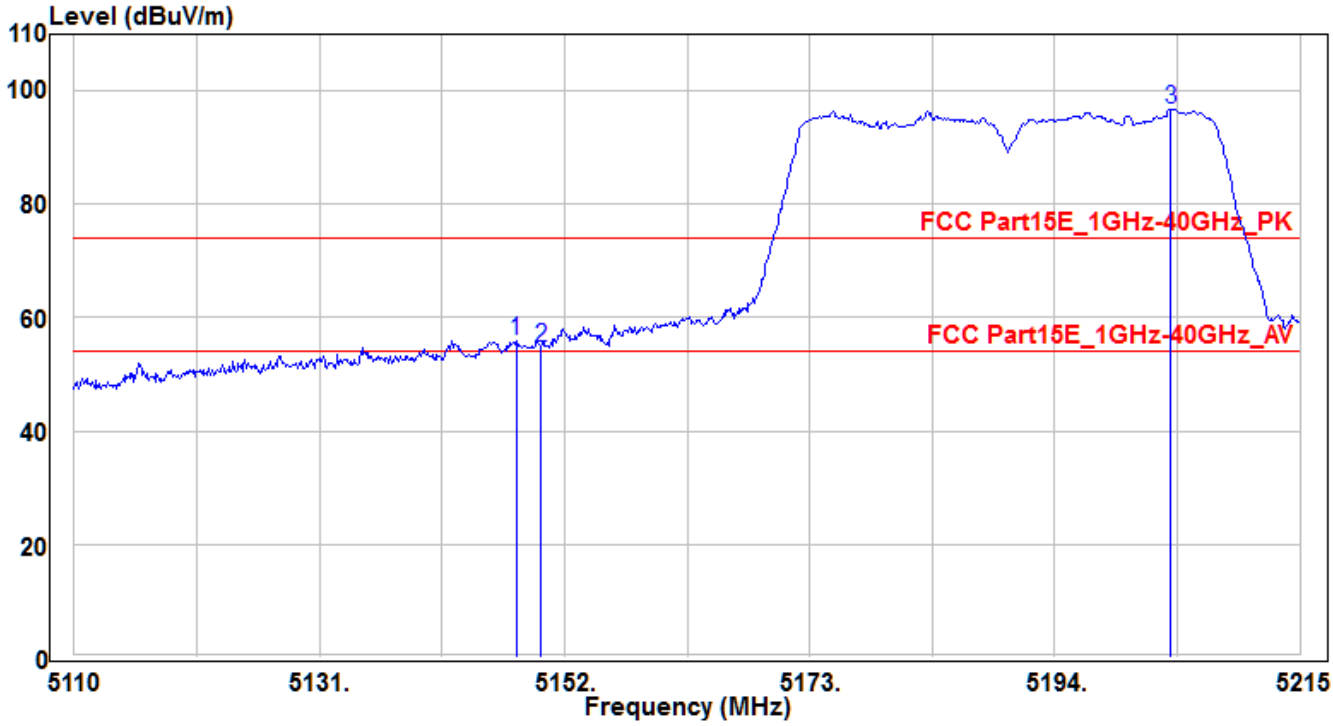


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5146.015	41.43	3.87	45.3	-8.7	54	165	130	Average
2	*	5150	42.07	3.88	45.95	-8.05	54	165	130	Average
3		5183.26	84.11	3.9	88.01	34.01	54	165	130	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH38	Test Voltage	AC 120V/60Hz

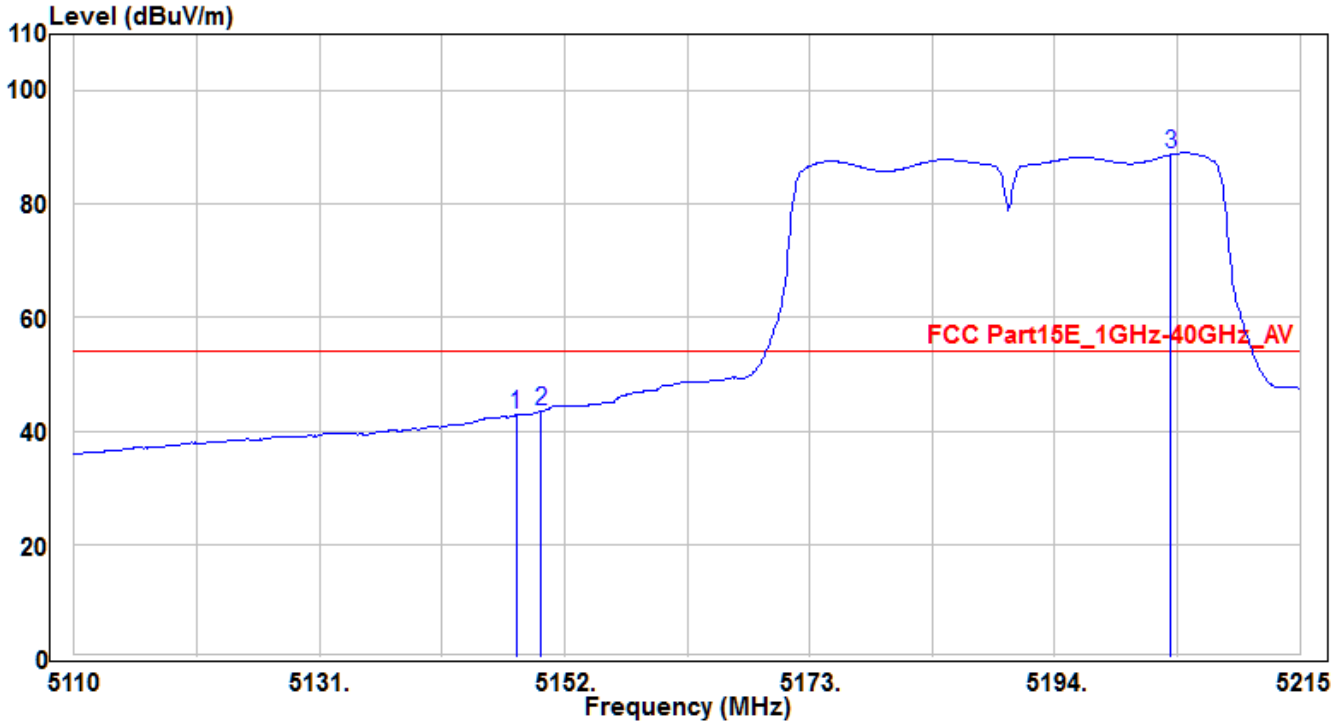


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5147.905	52.16	3.87	56.03	-17.97	74	110	135	Peak
2		5150	50.74	3.88	54.62	-19.38	74	110	135	Peak
3		5203.975	92.86	3.92	96.78	22.78	74	110	135	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH38	Test Voltage	AC 120V/60Hz

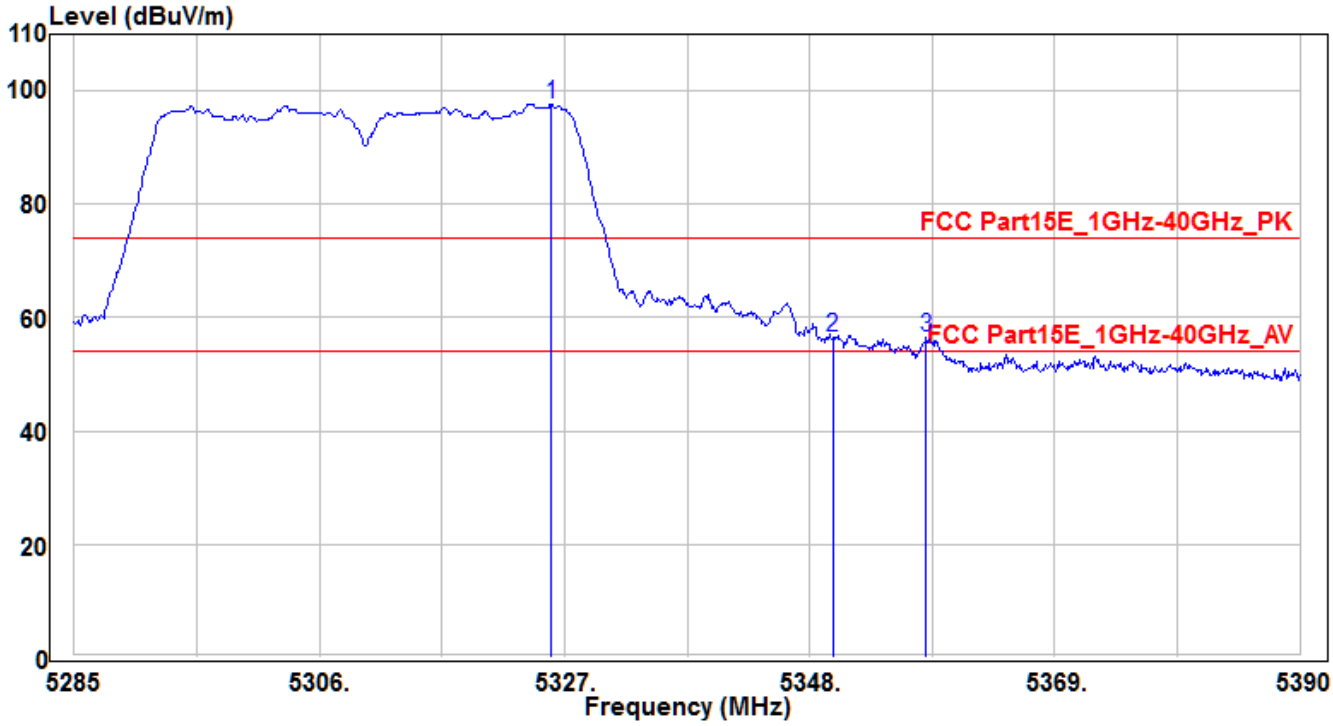


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5147.905	39	3.87	42.87	-11.13	54	110	135	Average
2	*	5150	39.7	3.88	43.58	-10.42	54	110	135	Average
3		5203.975	84.87	3.92	88.79	34.79	54	110	135	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH62	Test Voltage	AC 120V/60Hz

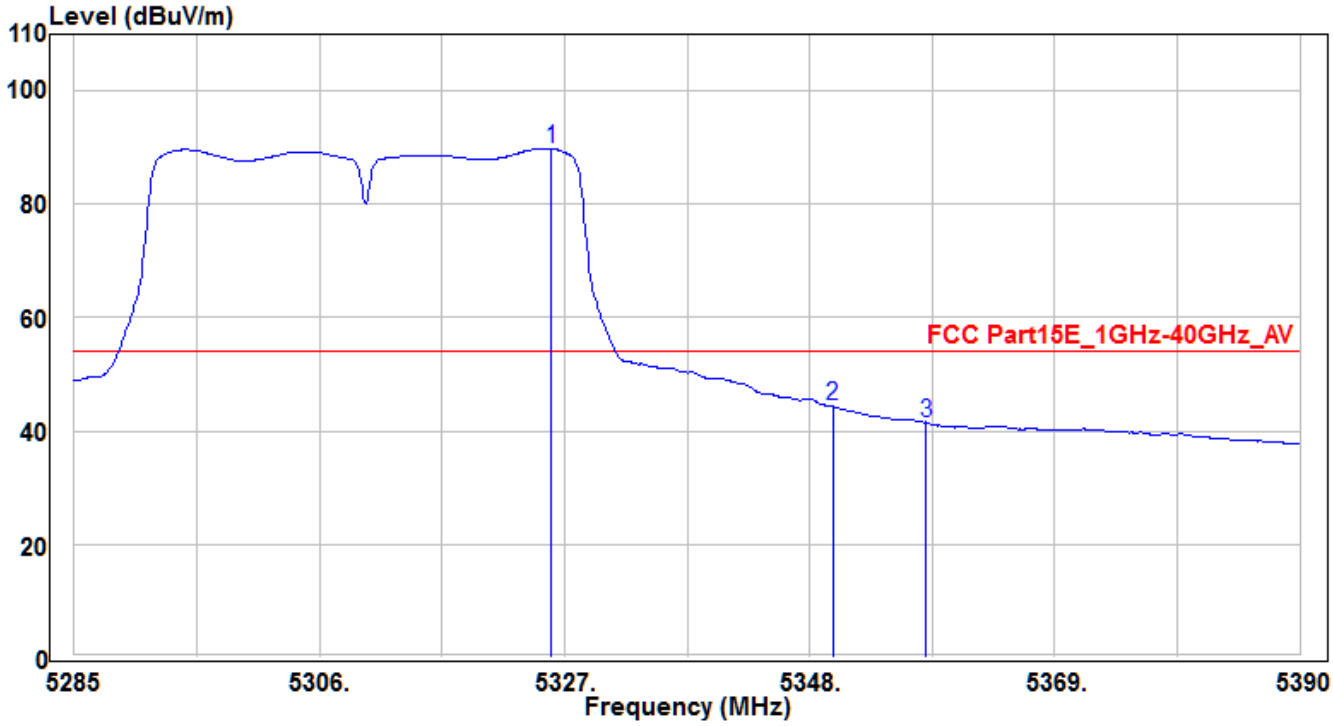


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5325.845	93.72	4.02	97.74	23.74	74	195	55	Peak
2		5350	52.44	4.04	56.48	-17.52	74	195	55	Peak
3	*	5357.975	52.49	4.05	56.54	-17.46	74	195	55	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH62	Test Voltage	AC 120V/60Hz

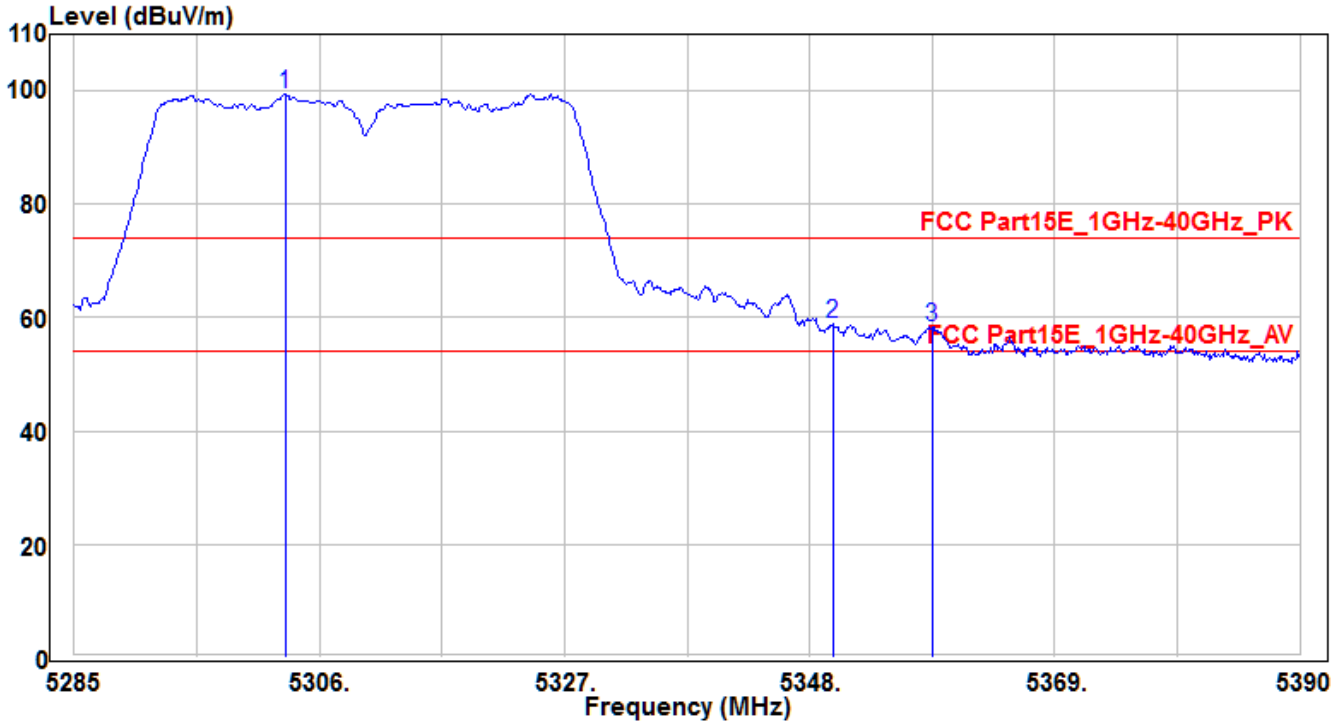


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5325.845	85.8	4.02	89.82	35.82	54	195	55	Average
2	*	5350	40.33	4.04	44.37	-9.63	54	195	55	Average
3		5357.975	37.47	4.05	41.52	-12.48	54	195	55	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH62	Test Voltage	AC 120V/60Hz

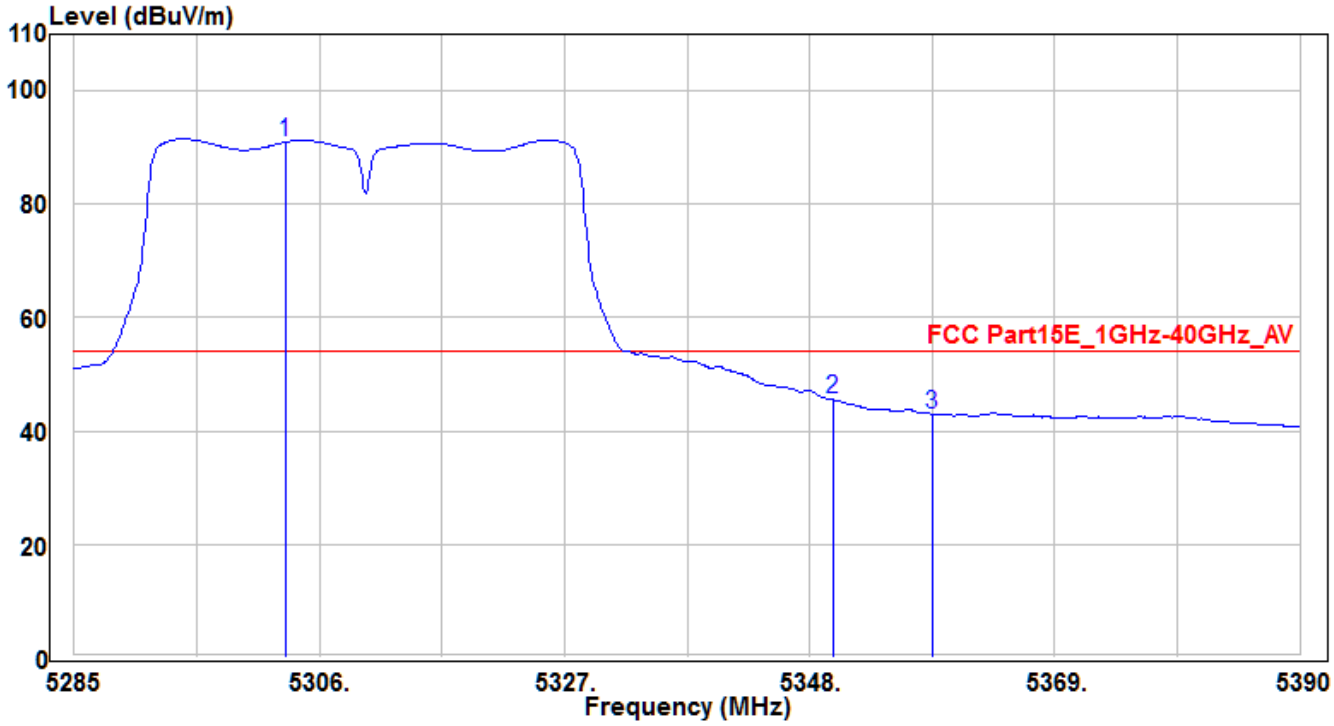


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5303.06	95.48	4	99.48	25.48	74	110	135	Peak
2	*	5350	54.91	4.04	58.95	-15.05	74	110	135	Peak
3		5358.5	54.37	4.05	58.42	-15.58	74	110	135	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH62	Test Voltage	AC 120V/60Hz

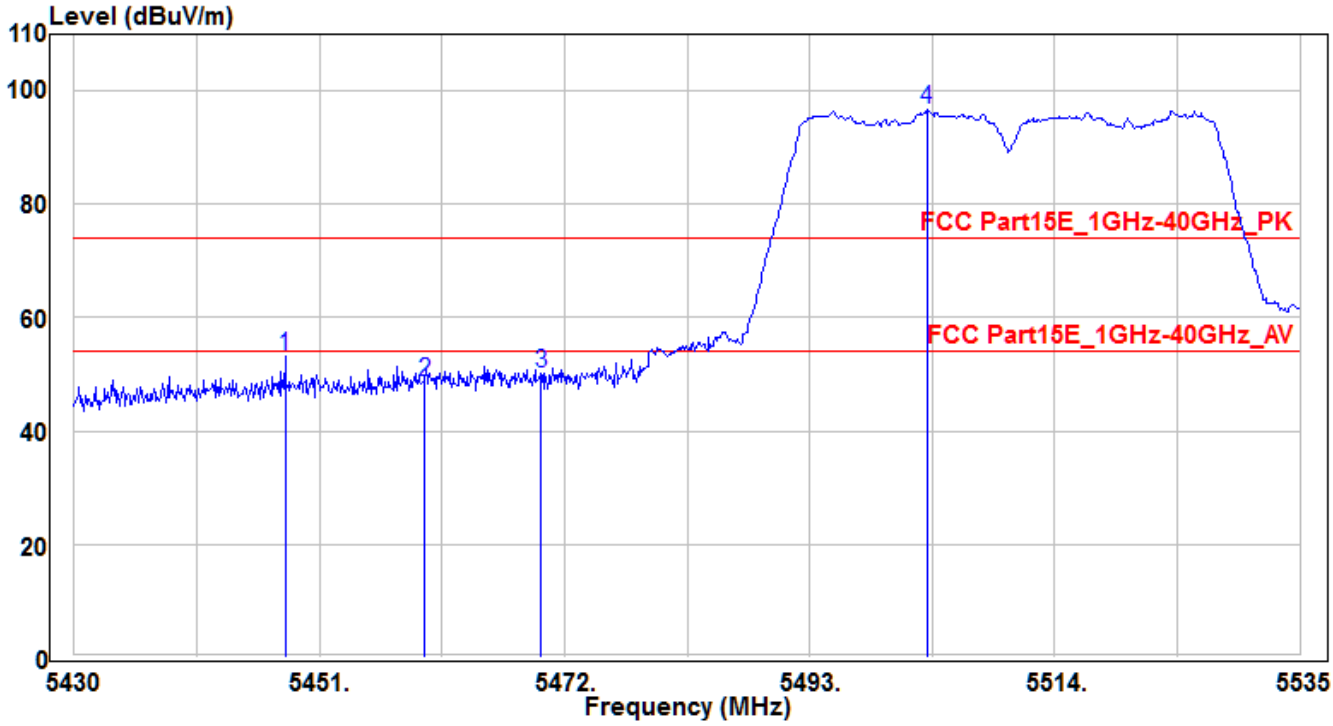


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5303.06	86.95	4	90.95	36.95	54	110	135	Average
2	*	5350	41.54	4.04	45.58	-8.42	54	110	135	Average
3		5358.5	38.99	4.05	43.04	-10.96	54	110	135	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH102	Test Voltage	AC 120V/60Hz

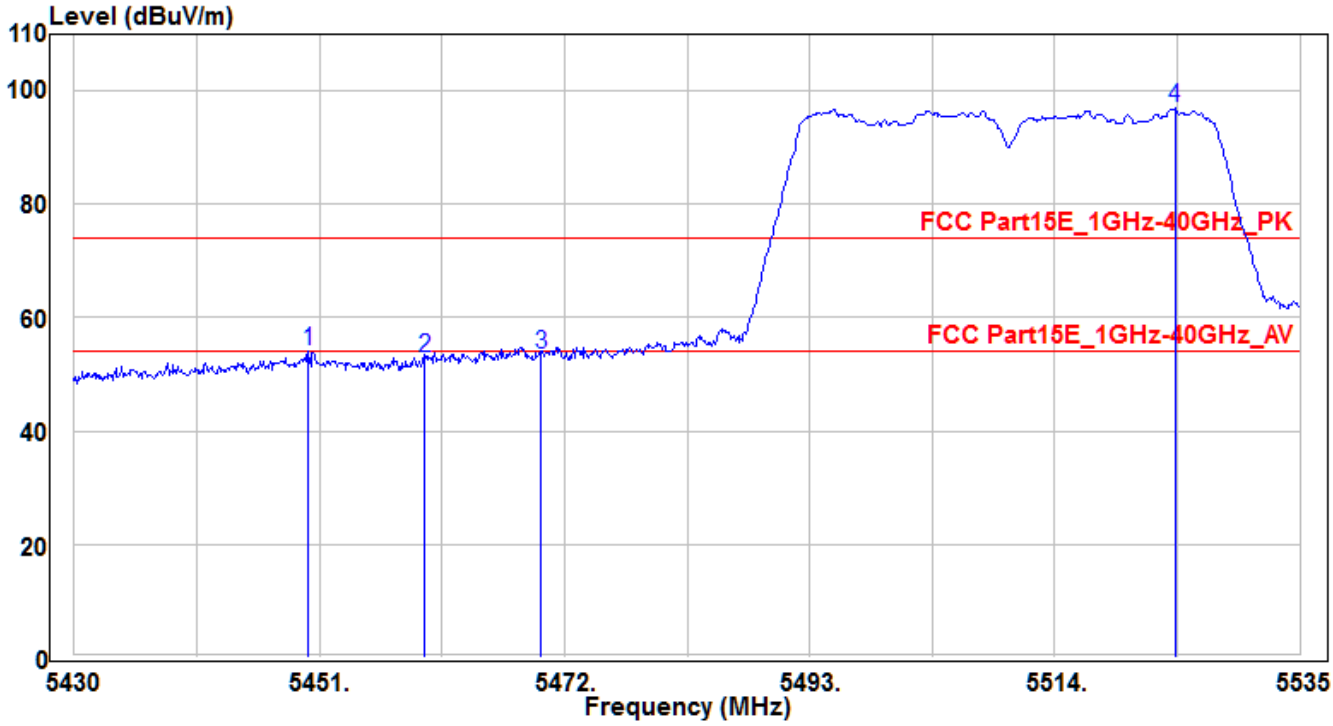


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5448.06	48.99	4.13	53.12	-20.88	74	200	125	Peak
2		5460	44.39	4.14	48.53	-25.47	74	200	125	Peak
3		5470	46	4.14	50.14	-23.86	74	200	125	Peak
4		5503.08	92.39	4.18	96.57	22.57	74	200	125	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH102	Test Voltage	AC 120V/60Hz

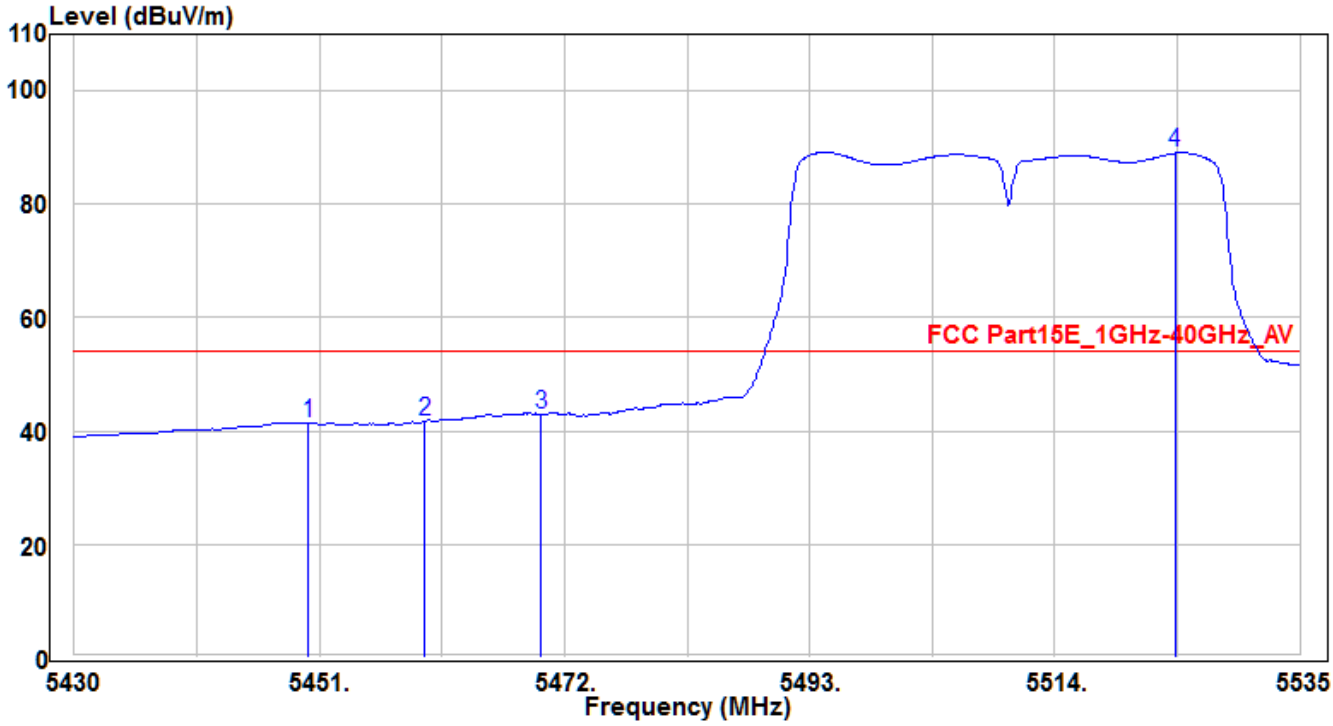


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5450.055	49.88	4.13	54.01	-19.99	74	115	130	Peak
2		5460	48.86	4.14	53	-21	74	115	130	Peak
3		5470	49.23	4.14	53.37	-20.63	74	115	130	Peak
4		5524.29	92.65	4.26	96.91	22.91	74	115	130	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH102	Test Voltage	AC 120V/60Hz

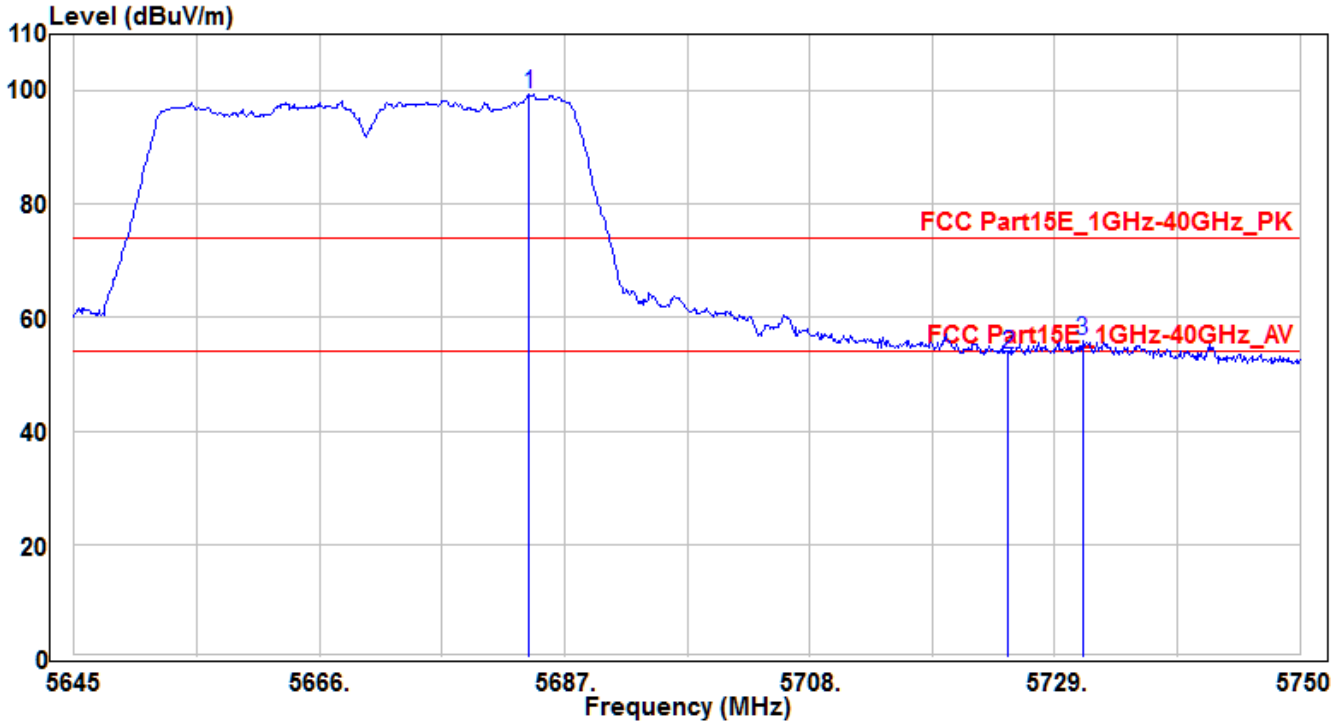


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5450.055	37.18	4.13	41.31	-12.69	54	115	130	Average
2		5460	37.63	4.14	41.77	-12.23	54	115	130	Average
3	*	5470	38.88	4.14	43.02	-10.98	54	115	130	Average
4		5524.29	84.76	4.26	89.02	35.02	54	115	130	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH134	Test Voltage	AC 120V/60Hz

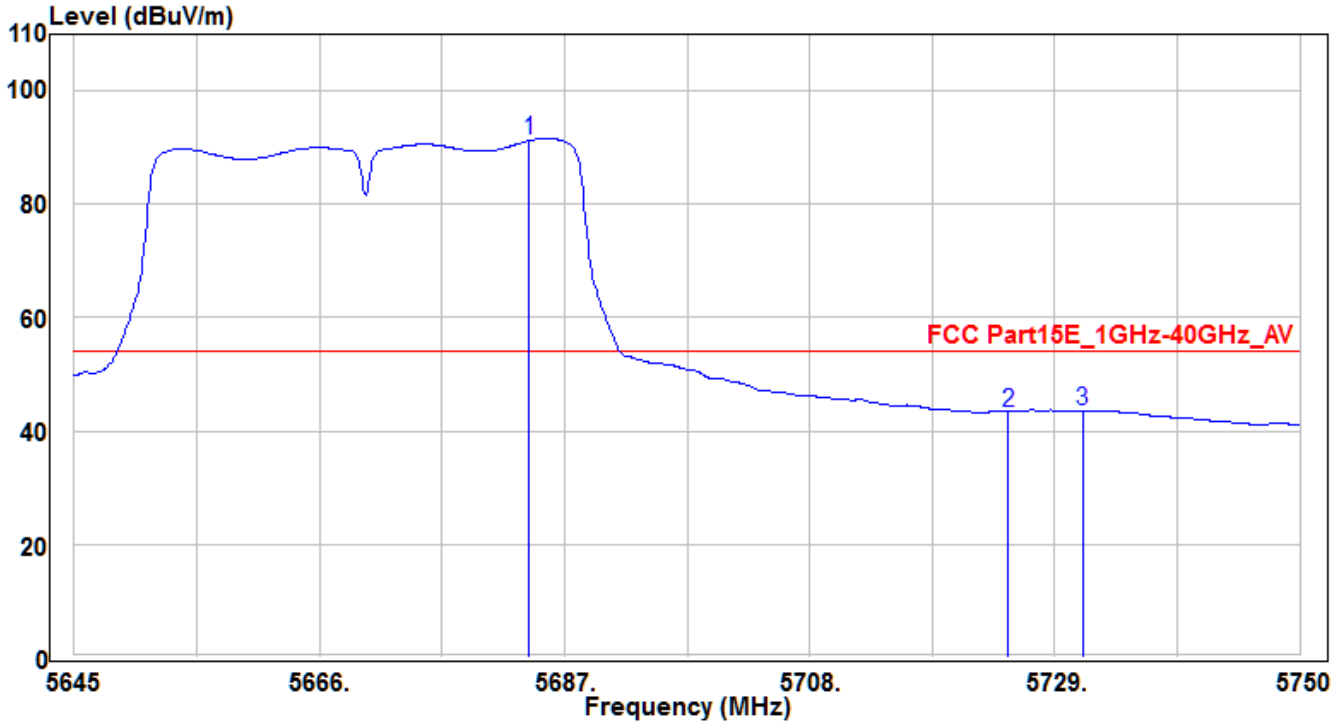


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5683.955	94.46	4.87	99.33	25.33	74	230	160	Peak
2		5725	48.54	5.03	53.57	-20.43	74	230	160	Peak
3	*	5731.415	50.72	5.06	55.78	-18.22	74	230	160	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH134	Test Voltage	AC 120V/60Hz

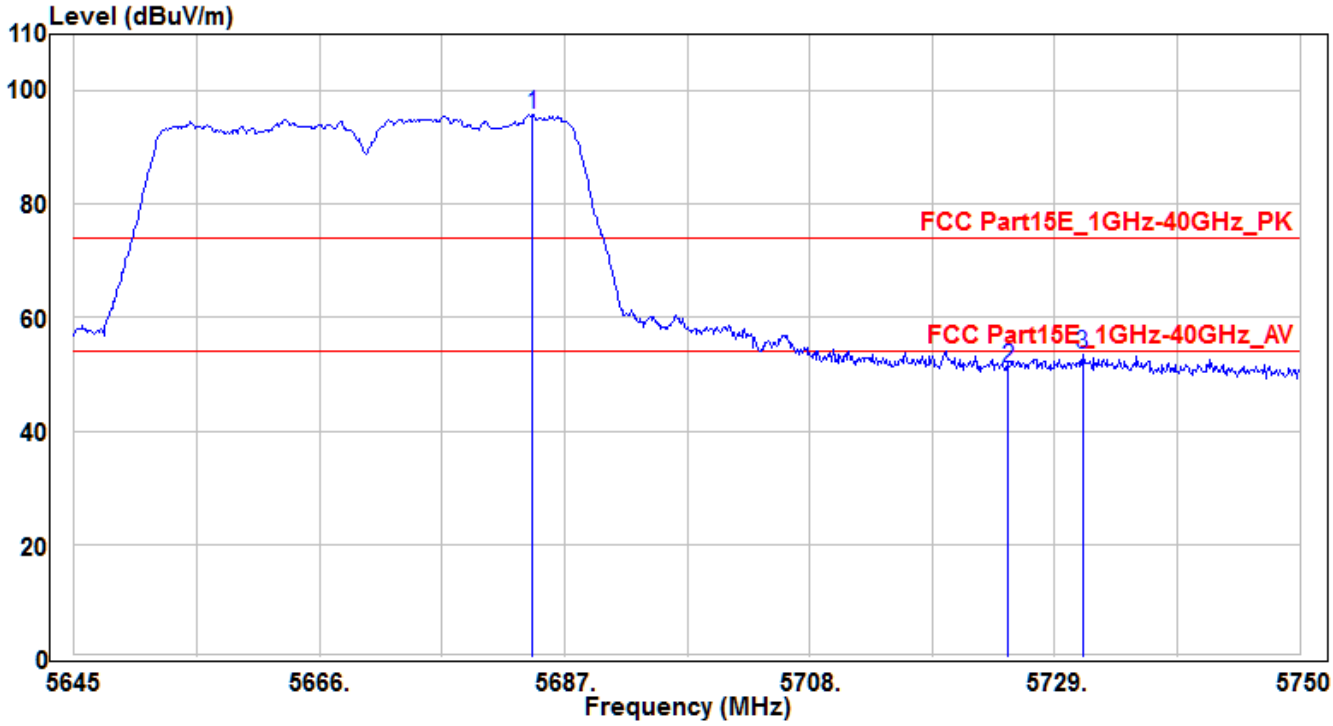


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5683.955	86.38	4.87	91.25	37.25	54	230	160	Average
2		5725	38.33	5.03	43.36	-10.64	54	230	160	Average
3	*	5731.415	38.51	5.06	43.57	-10.43	54	230	160	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH134	Test Voltage	AC 120V/60Hz

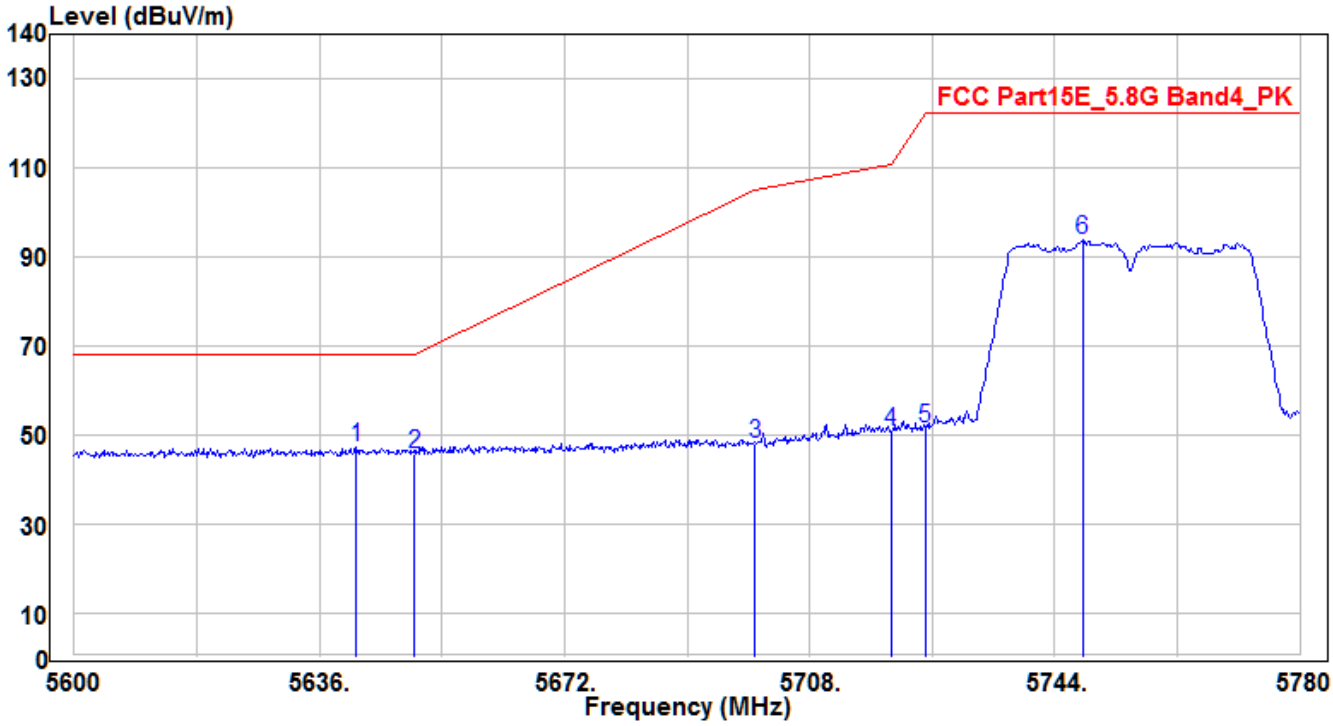


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5684.27	90.85	4.87	95.72	21.72	74	130	125	Peak
2		5725	46.19	5.03	51.22	-22.78	74	130	125	Peak
3	*	5731.415	48.44	5.06	53.5	-20.5	74	130	125	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH151	Test Voltage	AC 120V/60Hz

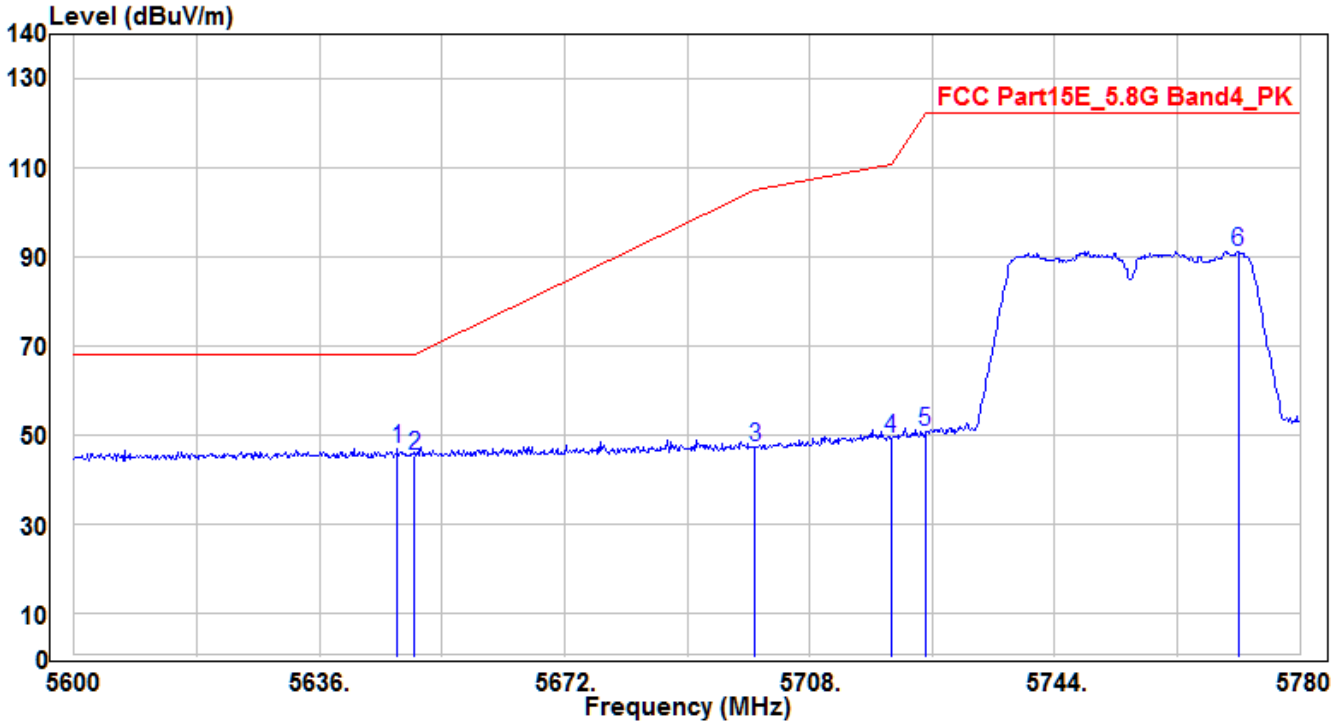


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5641.4	42.6	4.71	47.31	-20.89	68.2	150	125	Peak
2		5650	41.13	4.75	45.88	-22.32	68.2	150	125	Peak
3		5700	43.17	4.94	48.11	-57.09	105.2	150	125	Peak
4		5720	45.83	5.01	50.84	-59.96	110.8	150	125	Peak
5		5725	46.44	5.03	51.47	-70.73	122.2	150	125	Peak
6		5748.14	88.62	5.13	93.75	-28.45	122.2	150	125	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH151	Test Voltage	AC 120V/60Hz

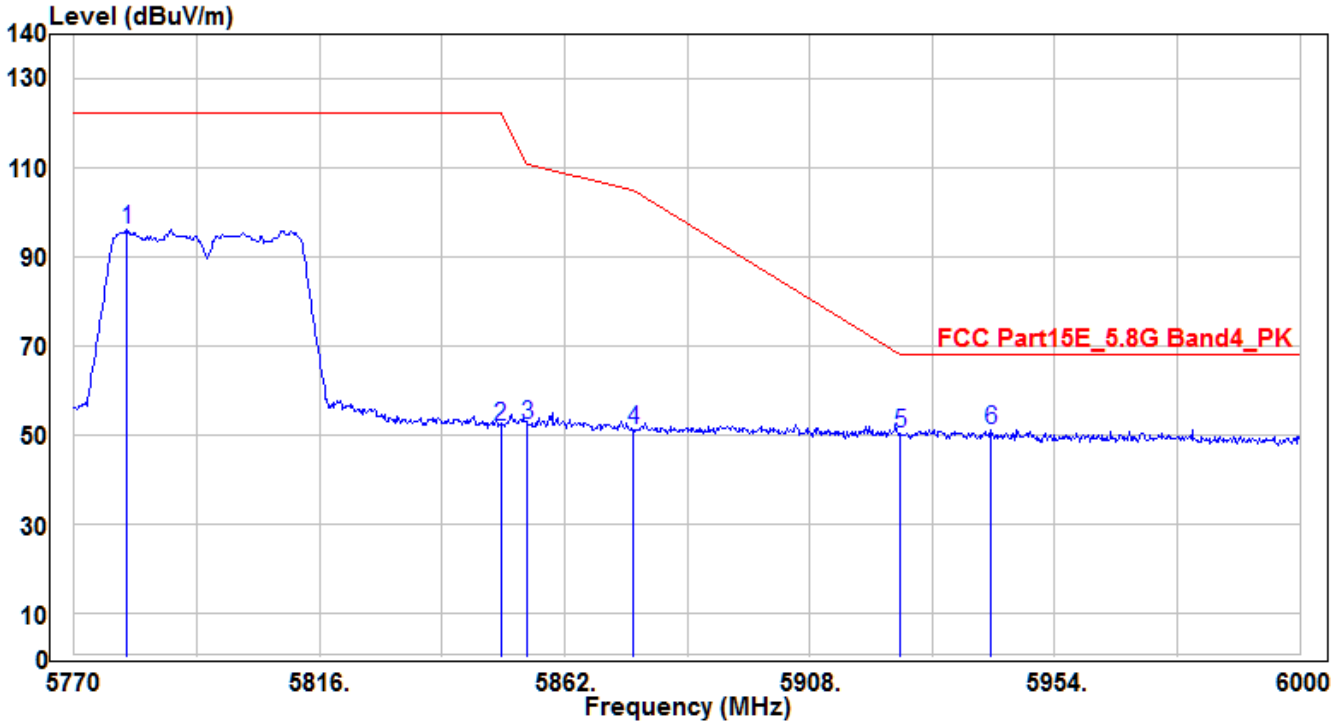


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5647.52	42.25	4.74	46.99	-21.21	68.2	150	160	Peak
2		5650	40.64	4.75	45.39	-22.81	68.2	150	160	Peak
3		5700	42.37	4.94	47.31	-57.89	105.2	150	160	Peak
4		5720	44.11	5.01	49.12	-61.68	110.8	150	160	Peak
5		5725	45.69	5.03	50.72	-71.48	122.2	150	160	Peak
6		5771	86.1	5.22	91.32	-30.88	122.2	150	160	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH159	Test Voltage	AC 120V/60Hz

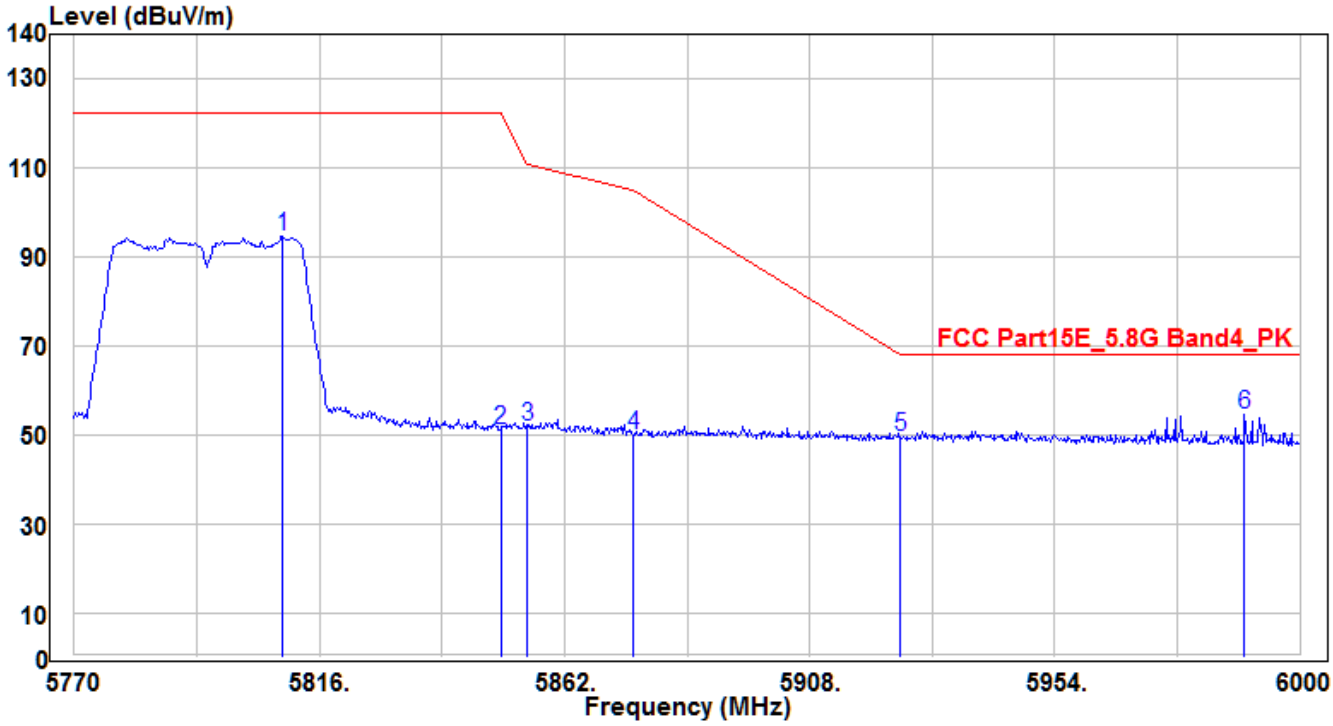


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5779.89	90.91	5.25	96.16	-26.04	122.2	225	170	Peak
2		5850	46.62	5.51	52.13	-70.07	122.2	225	170	Peak
3		5855	46.93	5.54	52.47	-58.33	110.8	225	170	Peak
4		5875	45.55	5.62	51.17	-54.03	105.2	225	170	Peak
5		5925	44.73	5.8	50.53	-17.67	68.2	225	170	Peak
6	*	5942.04	45.37	5.87	51.24	-16.96	68.2	225	170	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

EUT	Wifi/BT Module	Test Date	2018/12/18
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	21°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Fran
Test Mode	MODE3-CH159	Test Voltage	AC 120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5809.1	89.4	5.36	94.76	-27.44	122.2	270	160	Peak
2		5850	45.75	5.51	51.26	-70.94	122.2	270	160	Peak
3		5855	46.34	5.54	51.88	-58.92	110.8	270	160	Peak
4		5875	44.52	5.62	50.14	-55.06	105.2	270	160	Peak
5		5925	44	5.8	49.8	-18.4	68.2	270	160	Peak
6	*	5989.65	48.4	6.05	54.45	-13.75	68.2	270	160	Peak

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB) – Preamplifier(dB)
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)

7.9. AC Conducted Emissions Measurement

7.9.1. Test Limit

FCC Part 15.207 Limits		
Frequency (MHz)	QP (dBμV)	AV (dBμV)
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.

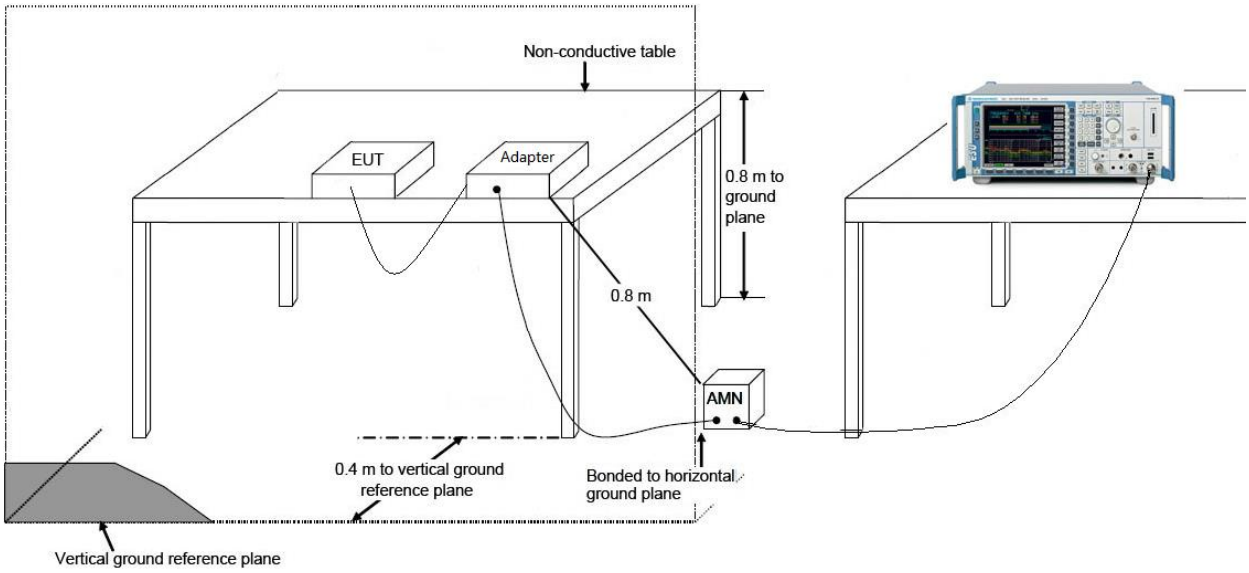
7.9.2. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to KDB 789033 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

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

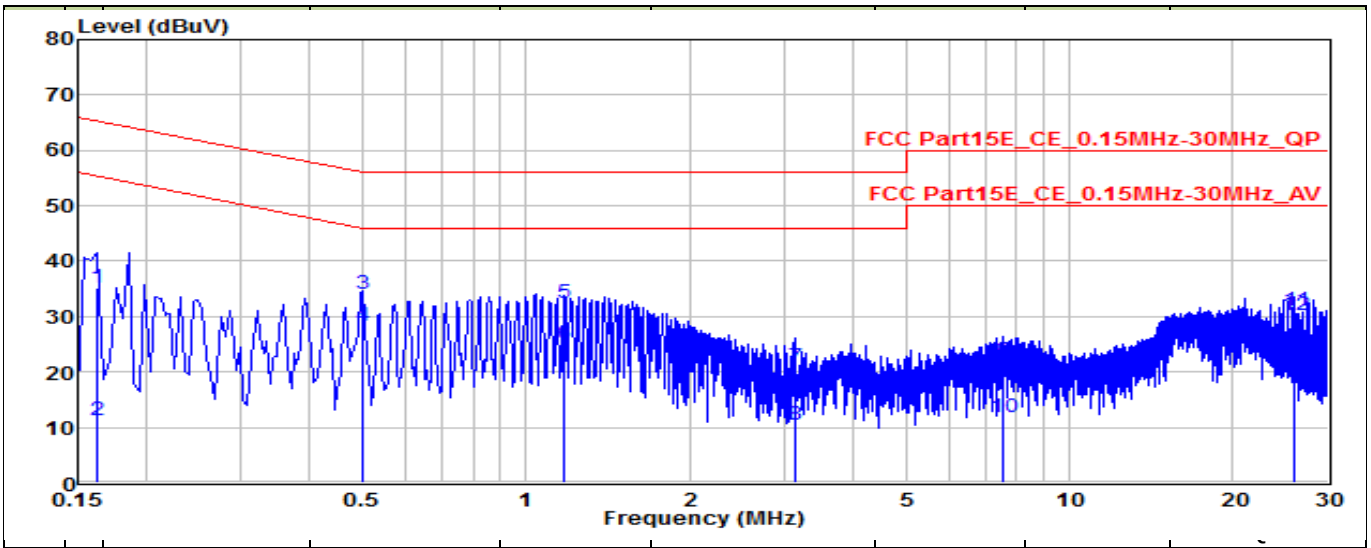
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

7.9.3. Test Setup



7.9.4. Test Result

EUT	Wifi/BT Module	Test Date	2018/11/16
Factor	CE_ENV216-L1 (Filter ON)	Temp. / Humidity	24°C / 55%
Polarity	Line1	Site / Engineer	SR2 / Fran
Test Mode	MODE2	Test Voltage	AC120V/60Hz

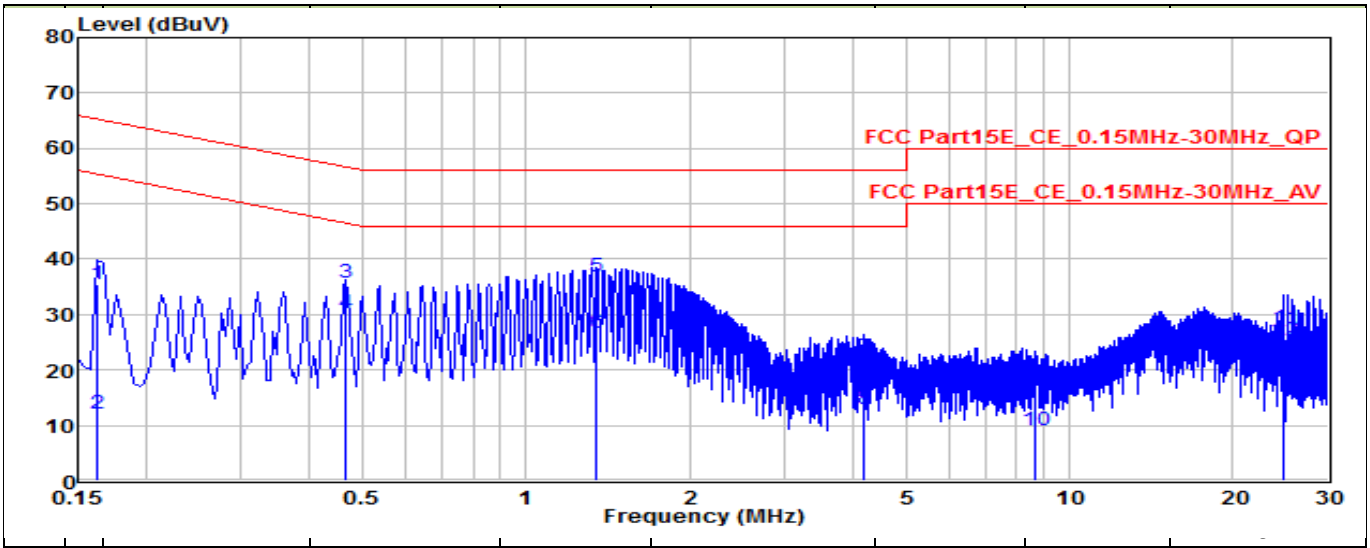


10		7.588	2.11	9.81	11.92	-38.08	50	Average
11		26.031	21.07	10.04	31.11	-28.89	60	QP
12		26.031	20.3	10.04	30.34	-19.66	50	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Factor (dB)+ Cable Loss (dB)
3. Measurement (dBuV) = Reading(dBuV)+ C.F (Correction Factor)
4. Other mode was also verified. The test results shown represent the worst case emissions.

EUT	Wifi/BT Module	Test Date	2018/11/16
Factor	CE_ENV216-N (Filter ON)	Temp. / Humidity	24°C / 55%
Polarity	Neutral	Site / Engineer	SR2 / Fran
Test Mode	MODE2	Test Voltage	AC120V/60Hz



10		8.627	-0.62	9.82	9.2	-40.8	50	Average
11		24.88	17.26	10.11	27.37	-32.63	60	QP
12		24.88	15.3	10.11	25.41	-24.59	50	Average

Note:

1. " * " means the worst value in this measurement data.
2. C.F (Correction Factor) = Factor (dB)+ Cable Loss (dB)
3. Measurement (dBuV) = Reading(dBuV)+ C.F (Correction Factor)
4. Other channel was also verified. The test results shown represent the worst case emissions.

8. CONCLUSION

The data collected relate only the item(s) tested and show that the **WiFi/BT Module FCC ID: 2ARBSEL300530S**, is in compliance with Part 15E of the FCC Rules.

The End