MEASUREMENT REPORT

FCC PART 15 Subpart E- 5.8GHz UNII

FCC ID:	WNQKW50-O8500
APPLICANT:	Formosa Wireless Systems Corp.
Application Type:	Certification
Product:	MIMO WiTDM Series Bridge
Brand Name:	
Model No:	KW50-O8500
Serial Model:	KW50-O7500, KW50-O8300, KW50-O9500
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, KDB 644545 D03v01
Test Date:	August 15 ~ October 16, 2017

Tested By : (Kevin Ker)

Reviewed By : (Paddy Chen)

Approved By : (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
1708TW0502-U1	1.0	Original Report	2017-11-09	

CONTENTS

§2.1033 General Information

Applicant	Formosa Wireless System Corp.
Applicant Address	3F, No. 31, Lane 216, Gongyuan Rd., HsinChu City, Taiwan
Manufacturer	Formosa Wireless System Corp.
Manufacturer Address	3F, No. 31, Lane 216, Gongyuan Rd., HsinChu 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.:	KW50-O8500 / KW50-O7500 / KW50-O8300 / KW50-O9500
Test Device Serial No.	N/A ☐ Production ☒ Pre-Production ☐ Engineering
FCC Classification	Unlicensed National Information Infrastructure (UNII)

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Fuxing Rd., Taoyuan, Taiwan (R.O.C)

- **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 Film.**
- **MRT facility is an IC registered (MRT Reg. No. 21723-1) test laboratory with the site description on file at Industry Canada.**
- **MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC, Industry Taiwan, EU and TELEC Rules.**

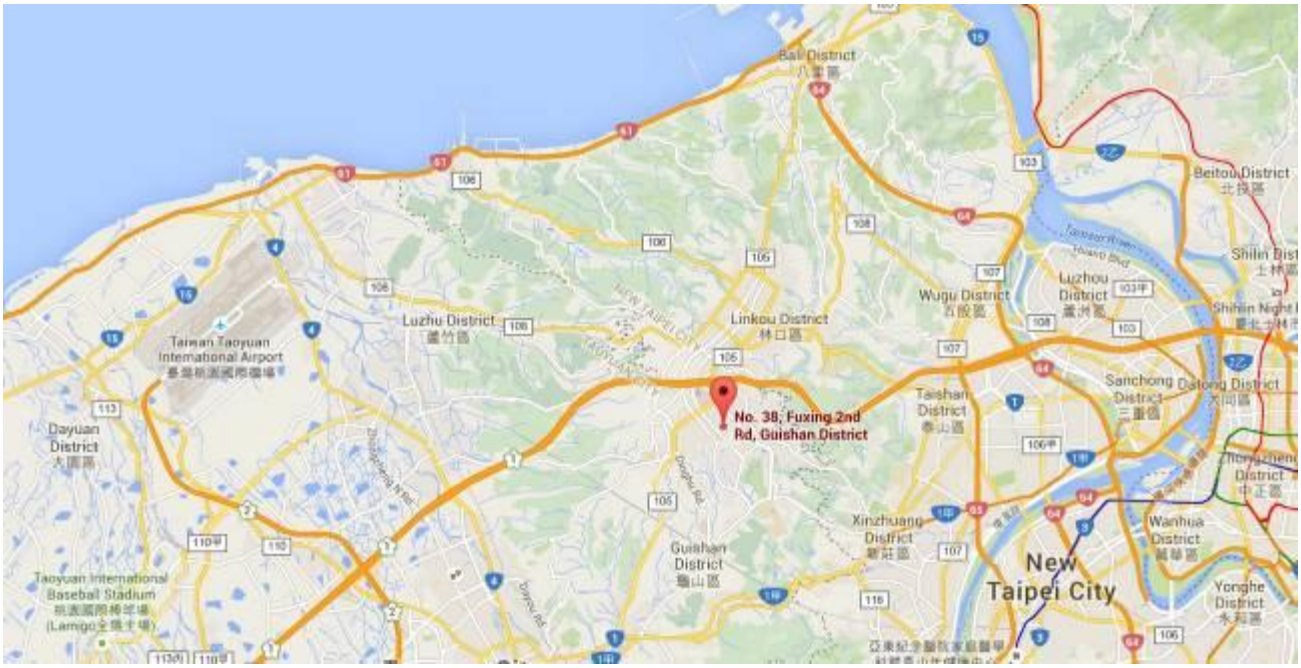
1. INTRODUCTION

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	MIMO WiTDM Series Bridge
Model No.	KW50-O8500
Serial Model	KW50-O7500, KW50-O8300, KW50-O9500
Supports Radios Spec.	5.8G UNII (5725MHz-5850MHz)
5.8G RF Module	AR9220
Frequency Range	5MHz: 5730MHz-5840MHz 10MHz: 5730MHz-5830MHz 20MHz: 5740MHz-5820MHz 40MHz(20MHz+20MHz): 5750MHz-5790MHz
Maximum Output Power (Chain 0 + 1)	5MHz: Wireless1: 23.94dBm, Wireless2: 24.58dBm 10MHz: Wireless1: 23.99dBm, Wireless2: 24.48dBm 20MHz: Wireless1: 23.94dBm, Wireless2: 23.95dBm 40MHz(20MHz+20MHz): Wireless1: 23.67dBm, Wireless2: 23.93dBm
Modulation Type	BPSK 1/2, BPSK 3/4, SS BPSK 1/2, DS BPSK 1/2. QPSK 1/2, QPSK 3/4, SS QPSK 1/2, SS QPSK 3/4, DS QPSK 1/2, DS QPSK 3/4. 16QAM 1/2, 16QAM 3/4, SS 16QAM 1/2, SS 16QAM 3/4, DS 16QAM 1/2, DS 16QAM 1/2, DS 16QAM 3/4. 64QAM 2/3, 64QAM 3/4, SS 64QAM 2/3, SS 64QAM 3/4, SS 64QAM 5/6, DS 64QAM 2/3, DS 64QAM 3/4, DS 64QAM 5/6.
Antenna Delivery	2*TX+2*RX
POE Adapter	Brand Name: Formosa Wireless Systems Model: Injector-GT2 v.2 Input: AC 100-240V, 50-60Hz Output: DC 48V-630mA / 30W Power out pin: Endspan 1,2(+), 3,6(-) / Midspan 4,5(+), 7,8(-)

Note:

1. This product contains two identical RF IC (AR9220) with individual and independent transmission function.
2. Wireless 2 has the worst RF Output Power, so test other conducted items are use Wireless2 RF IC.
3. Considering use cases based on a conservative approach, the simultaneously transmission operation is also evaluated in the report. Only the worst case is recorded in this report.

2.2. Operation Frequencies and Channel List

5MHz

Channel	Frequency	Channel	Frequency	Channel	Frequency
CH1	5730MHz	**CH2**	5735MHz	**CH3**	5740MHz
CH4	5745MHz	**CH5**	5750MHz	**CH6**	5755MHz
CH7	5760MHz	**CH8**	5765MHz	**CH9**	5770MHz
CH10	5775MHz	**CH11**	5780MHz	**CH12**	5785MHz
CH13	5790MHz	**CH14**	5795MHz	**CH15**	5800MHz
CH16	5805MHz	**CH17**	5810MHz	**CH18**	5815MHz
CH19	5820MHz	**CH20**	5825MHz	**CH21**	5830MHz
CH22	5835MHz	**CH23**	5840MHz	N/A	N/A

10MHz

Channel	Frequency	Channel	Frequency	Channel	Frequency
CH1	5730MHz	**CH3**	5740MHz	**CH5**	5750MHz
CH7	5760MHz	**CH9**	5770MHz	**CH11**	5780MHz
CH13	5790MHz	**CH15**	5800MHz	**CH17**	5810MHz
CH19	5820MHz	**CH21**	5830MHz	N/A	N/A

20MHz

Channel	Frequency	Channel	Frequency	Channel	Frequency
CH3	5740MHz	**CH7**	5760MHz	**CH11**	5780MHz
CH15	5800MHz	**CH19**	5820MHz	N/A	N/A

40MHz(20MHz+20MHz)

Channel	Frequency	Channel	Frequency	Channel	Frequency
CH5	5750MHz	**CH9**	5770MHz	**CH13**	5790MHz

2.3. Test Mode

Test Mode	Mode 1: Transmit by 5MHz
	Mode 2: Transmit by 10MHz
	Mode 3: Transmit by 20MHz
	Mode 4: Transmit by 40MHz(20MHz+20MHz)

2.4. Test Software

The test utility software used during testing was “192.168.1.1/.rftest”.

2.5. Device Capabilities

This device contains the following capabilities:

5.8GHz UNII.

Note: 5.8GHz (UNII) operation is possible in 5MHz, 10MHz, 20MHz and 40MHz(20MHz+20MHz) 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
5MHz	100%
10MHz	100%
20MHz	100%
40MHz(20MHz+20MHz)	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 **MIMO WiTDM Series Bridge,** is permanently attached.
- There are no provisions for connection to an external antenna.

Conclusion:

The EUT unit complies with the requirement of §15.203.

P.S , This requirement does not apply to intentional radiators that must be professionally installed.

Antenna List: Omni-Directional Antenna type

No.	Brand	Manufacturer	Part No.	Peak Gain
1	FWS	Formosa Wireless System Corp.	ANT50-D0702AP	7.0dBi

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	2018.03.15
Cable	Rosnol	N1C50-RG400-B 1C50-500CM	MRTTWE00013	1 year	2018.05.19
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2018.03.16

Radiated Emissions – AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00001	1 year	2018.05.14
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2018.03.16
Acitve Loop Antenna	Schwarzbeck	FMZB 1519B	MRTTWA00002	1 year	2018.04.13
Broadband Horn antenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	1 year	2018.04.17
Breitband Hornantenna	Schwarzbeck	BBHA 9170	MRTTWA00004	1 year	2018.04.24
Broadband Amplifier	Schwarzbeck	BBV 9721	MRTTWA00006	1 year	2018.04.24
Broadband Preamplifier	SCHWARZBECK	BBV 9718	MRTTWA00005	1 year	2018.04.19
Cable	HUBERSUHNER	SF106	MRTTWA00010	1 year	2018.05.19
Cable	Rosnol	K1K50-UP0264-K1K50-4M	MRTTWA00012	1 year	2018.05.19

Conducted Test Equipment – SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2018.07.24
USB Wideband Power Sensor	KEYSIGHT	U2021XA	MRTTWA00015	1 year	2018.03.19

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)): 4.22dB

7. TEST RESULT

7.1. Summary

Company Name: **MIMO WiTDM Series Bridge**

Model No.: **KW50-O8500**

Data Rate(s) Tested: **BPSK 1/2, BPSK 3/4, SS BPSK 1/2, DS BPSK 1/2.**
QPSK 1/2, QPSK 3/4, SS QPSK 1/2, SS QPSK 3/4, DS QPSK 1/2, DS QPSK 3/4.
16QAM 1/2, 16QAM 3/4, SS 16QAM 1/2, SS 16QAM 3/4, DS 16QAM 1/2, DS 16QAM 1/2, DS 16QAM 3/4.
64QAM 2/3, 64QAM 3/4, SS 64QAM 2/3, SS 64QAM 3/4, SS 64QAM 5/6, DS 64QAM 2/3, DS 64QAM 3/4, DS 64QAM 5/6.

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.407(a)	26dB Bandwidth	N/A	Conducted	Pass	Section 7.2
15.407(e)	6dB Bandwidth	≥ 500kHz		Pass	Section 7.3
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	Section 7.6
15.407(a)(1)(i), (2), (3), (5)	Power Spectral Density	Refer to Section 7.7		Pass	Section 7.7
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

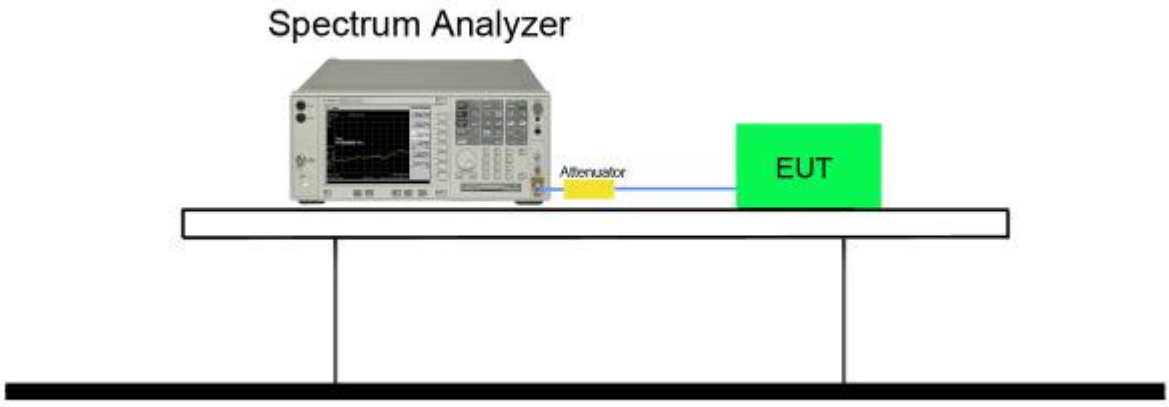
7.2.2. Test Procedure used

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

Product	MIMO WiTDM Series Bridge	Test Engineer	Kevin Ker
Test Site	SR2	Test Date	2017/08/16
Test Item	26dB Bandwidth		

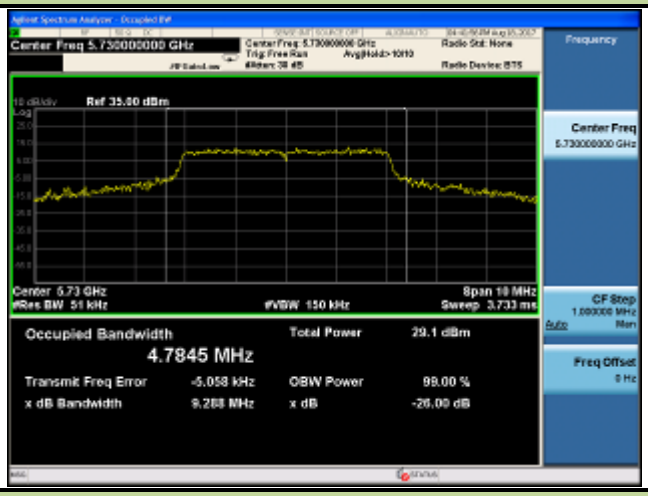
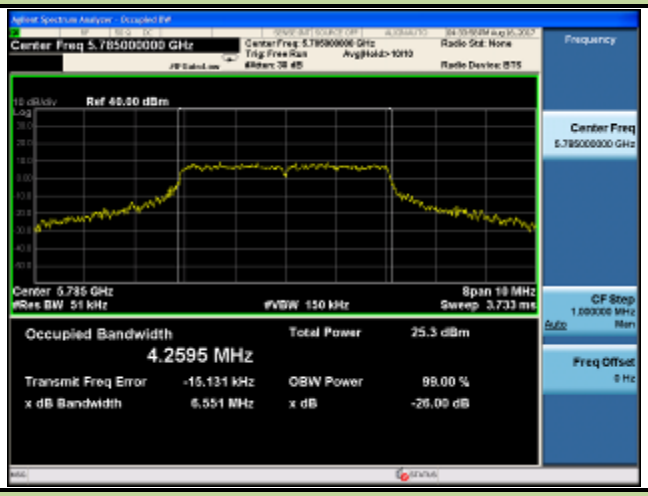
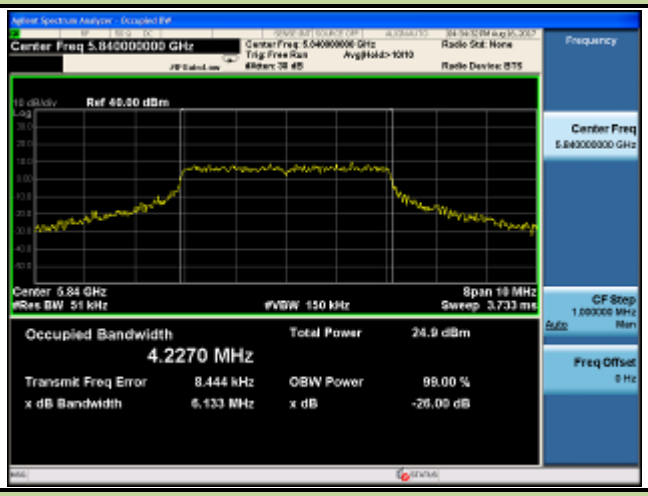
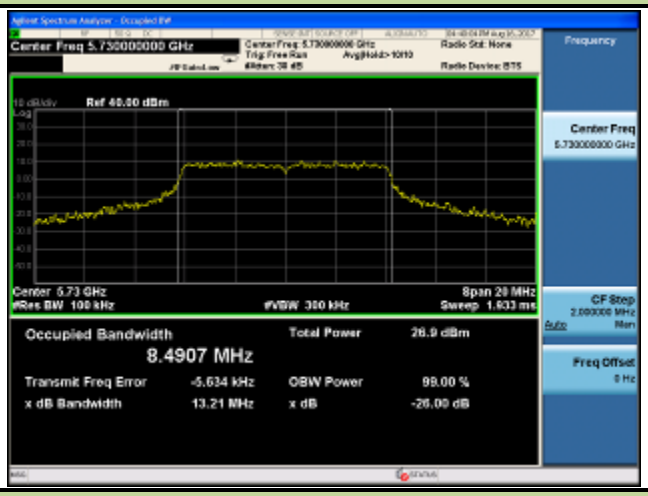
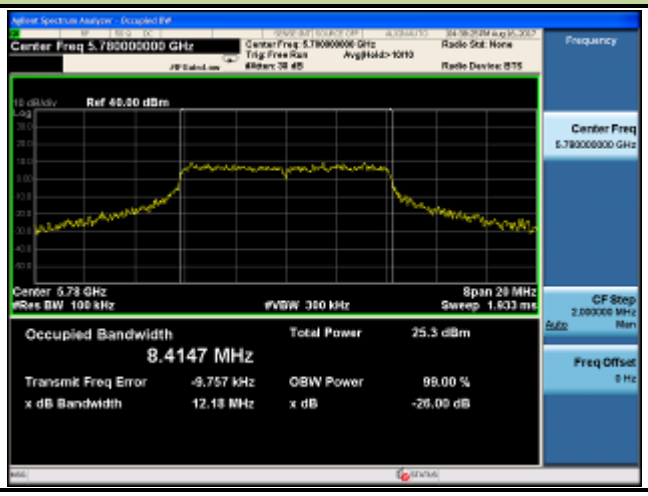
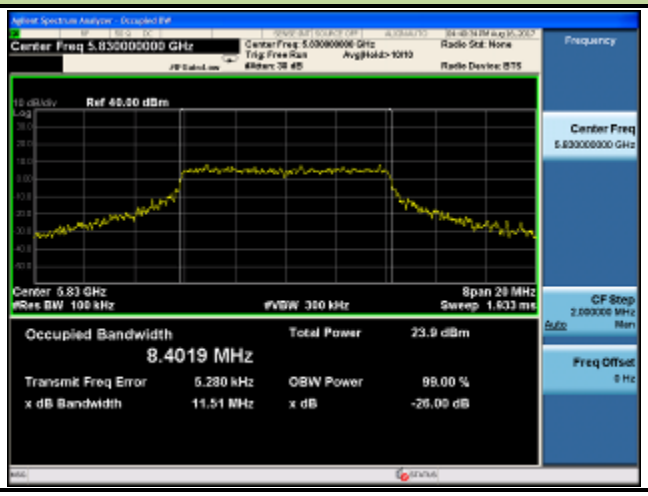
26dB Bandwidth: Wireless2 Chain0

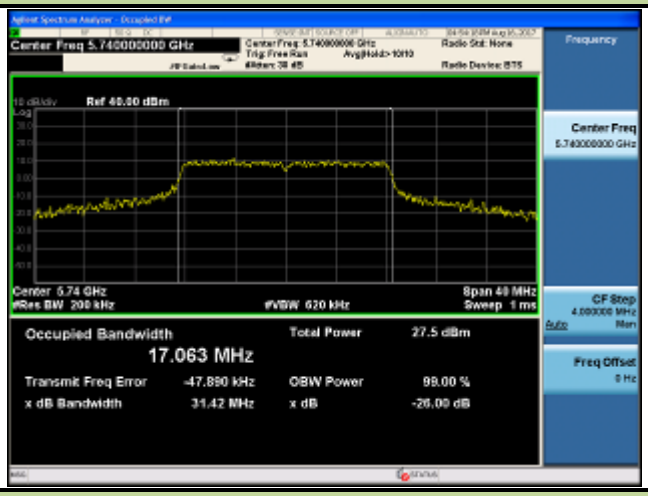
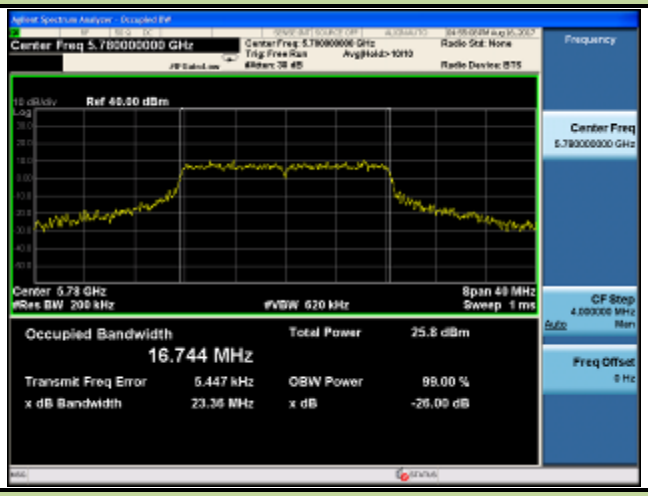
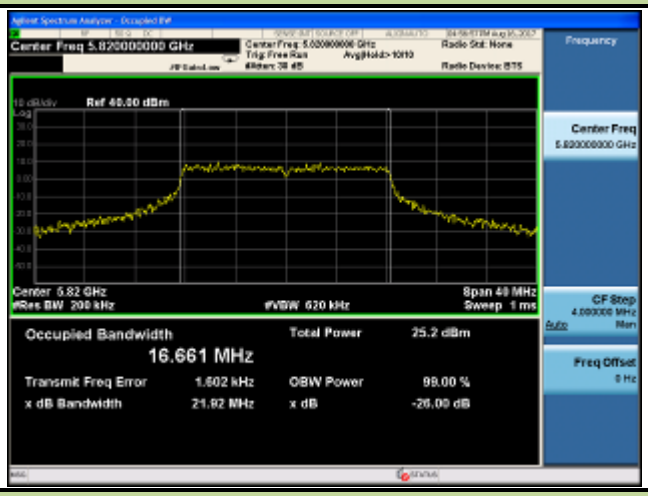
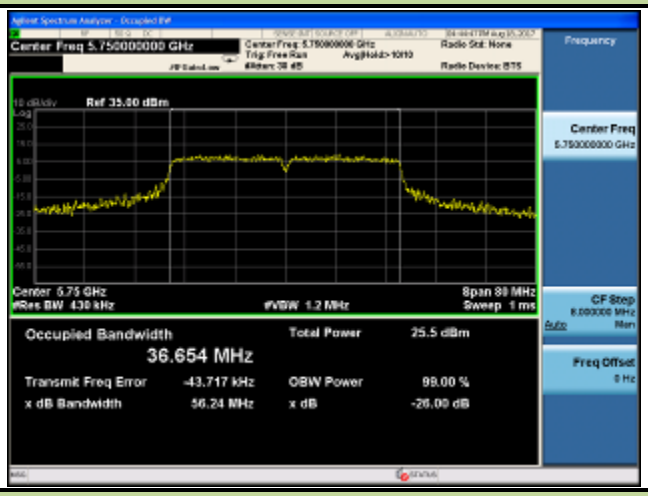
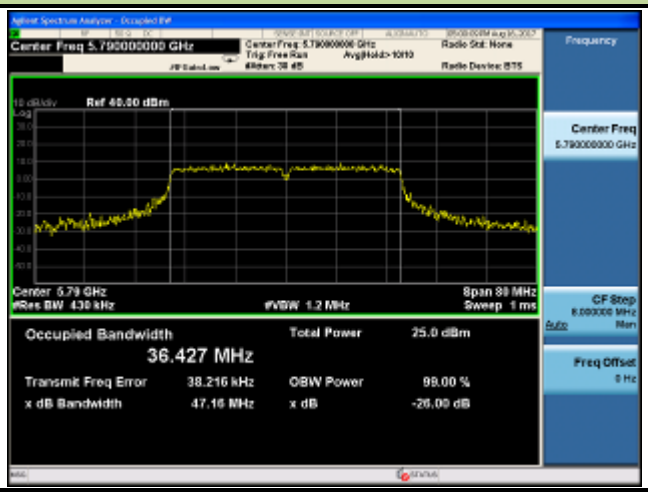
Test Mode	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Result
5MHz	5730	9.2880	4.7845	Pass
	5785	6.5510	4.2595	Pass
	5840	6.1330	4.2270	Pass
10MHz	5730	13.2100	8.4907	Pass
	5780	12.1800	8.4147	Pass
	5830	11.5100	8.4019	Pass
20MHz	5740	31.4200	17.0630	Pass
	5780	23.3600	16.7440	Pass
	5820	21.9200	16.6610	Pass
40MHz (20MHz+20MHz)	5750	56.2400	36.6540	Pass
	5790	47.1600	36.4270	Pass

26dBBandwidth: Wireless2 Chain1

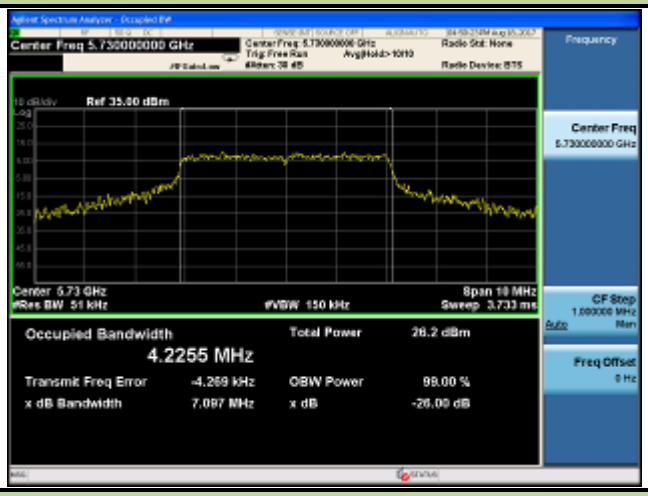
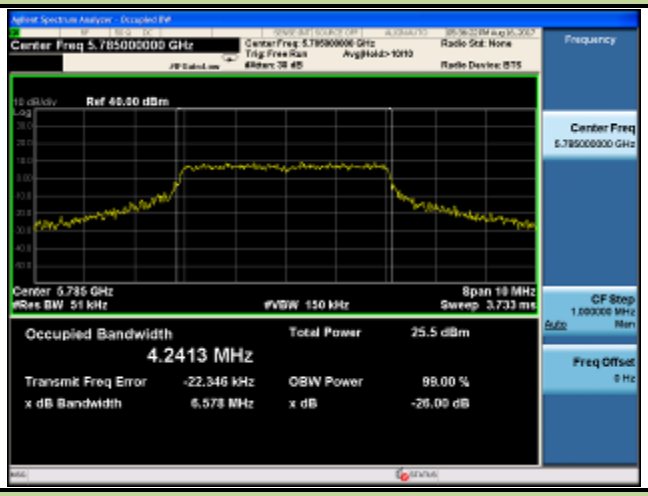
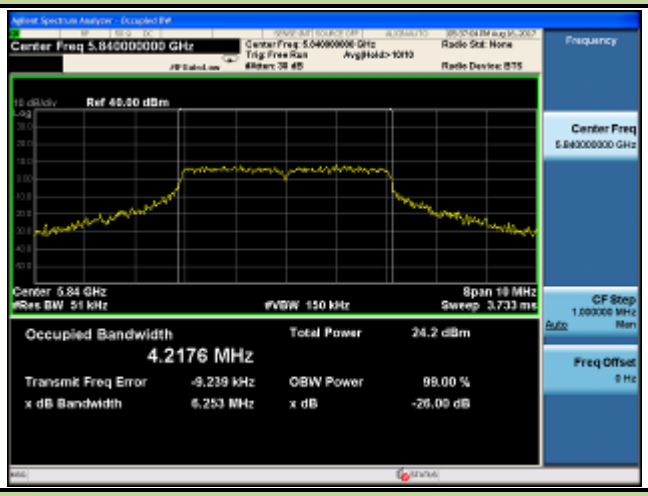
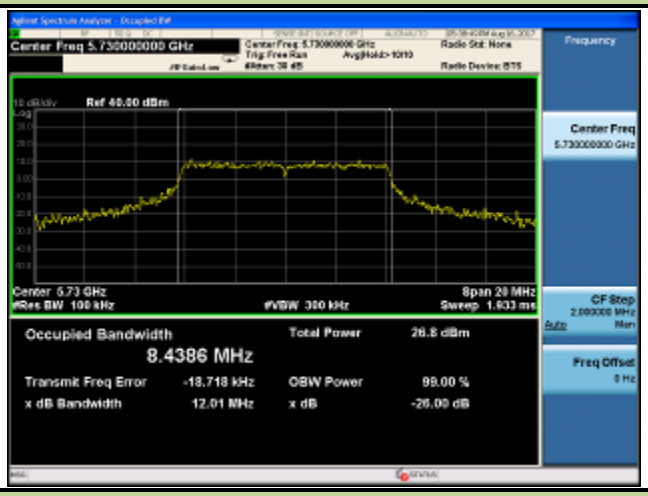
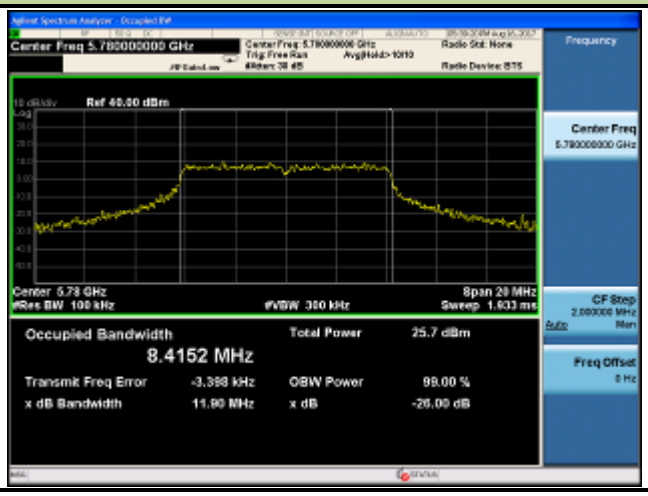
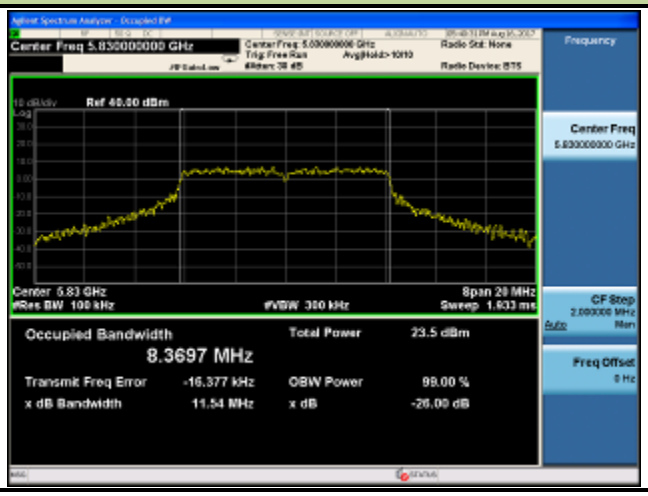
Test Mode	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Result
5MHz	5730	7.0970	4.2255	Pass
	5785	6.5780	4.2413	Pass
	5840	6.2530	4.2176	Pass
10MHz	5730	12.0100	8.4386	Pass
	5780	11.9000	8.4152	Pass
	5830	11.5400	8.3697	Pass
20MHz	5740	25.0700	16.7990	Pass
	5780	24.3400	16.7790	Pass
	5820	21.2000	16.7440	Pass
40MHz (20MHz+20MHz)	5750	61.6000	36.5740	Pass
	5790	44.4700	36.4500	Pass

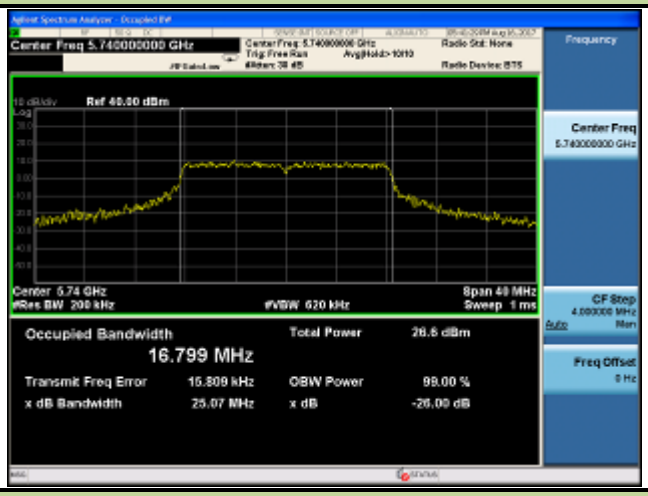
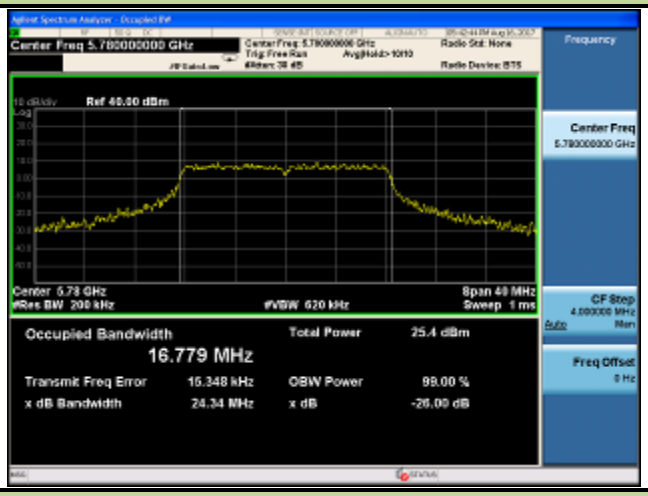
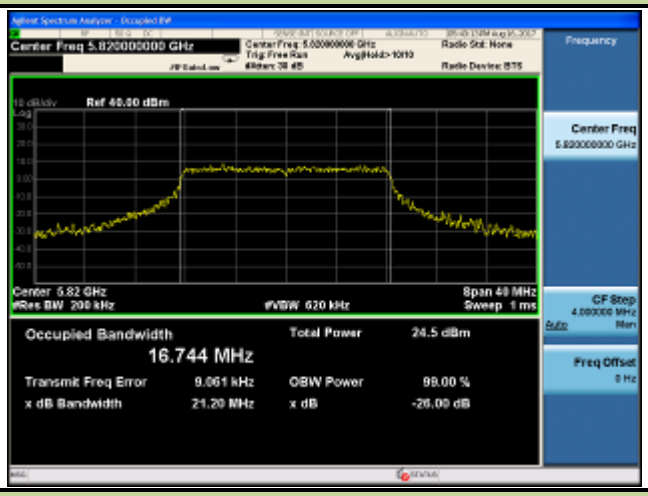
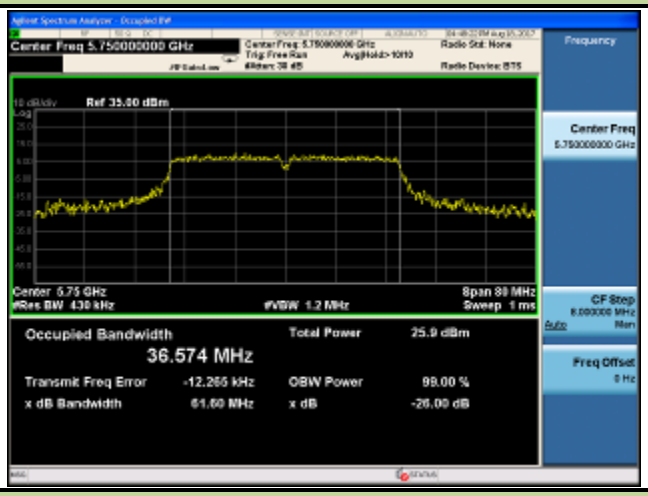
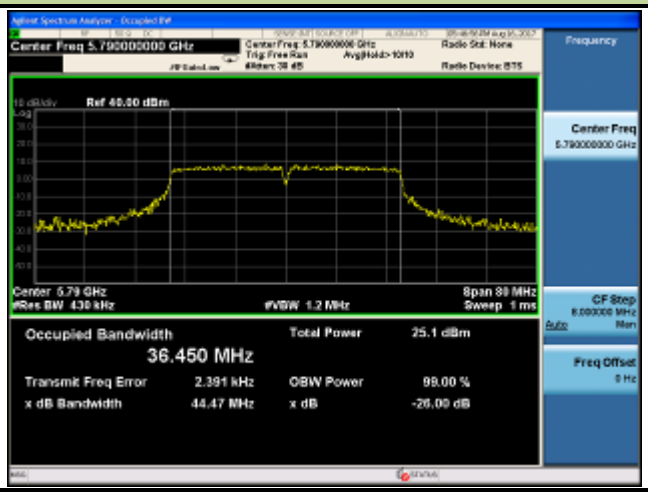
26dB Bandwidth: Wireless2 Chain0

5MHz 5730MHz	5MHz 5785MHz
	
5MHz 5840MHz	**10MHz 5730MHz**
	
10MHz 5780MHz	**10MHz 5830MHz**
	

20MHz 5740MHz	20MHz 5780MHz
	
20MHz 5820MHz	**40MHz(20MHz+20MHz) 5750MHz**
	
40MHz(20MHz+20MHz) 5790MHz	
	

26dB Bandwidth: Wireless2 Chain1

5MHz 5730MHz	5MHz 5785MHz
	
5MHz 5840MHz	**10MHz 5730MHz**
	
10MHz 5780MHz	**10MHz 5830MHz**
	

20MHz 5740MHz	20MHz 5780MHz
	
20MHz 5820MHz	**40MHz(20MHz+20MHz) 5750MHz**
	
40MHz(20MHz+20MHz) 5790MHz	
	

7.3. 6dB Bandwidth Measurement

7.3.1. Test Limit

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

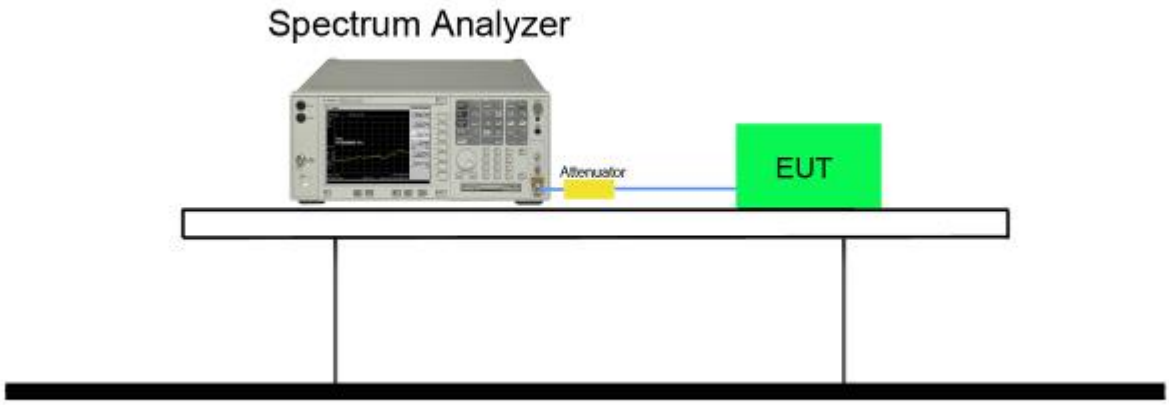
7.3.2. Test Procedure used

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

Product	MIMO WiTDM Series Bridge	Test Engineer	Kevin Ker
Test Site	SR2	Test Date	2017/08/16
Test Item	6dB Bandwidth		

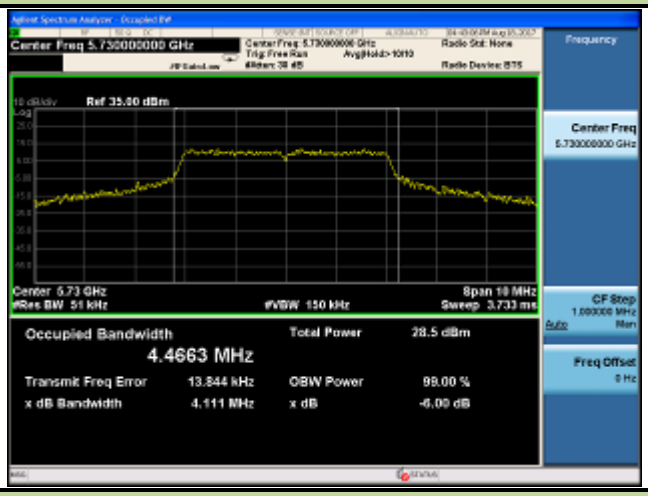
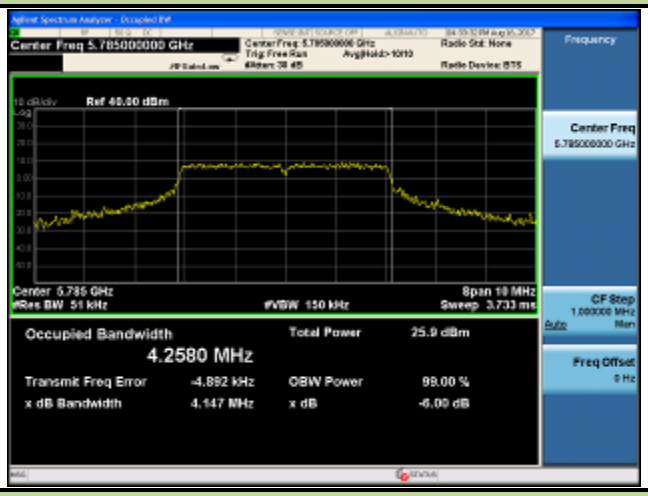
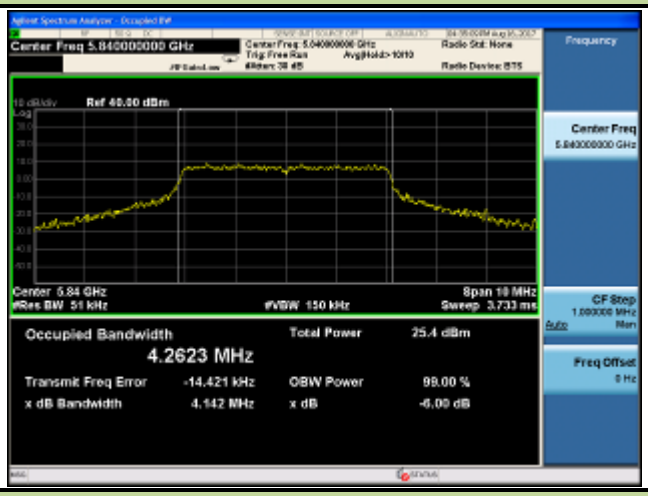
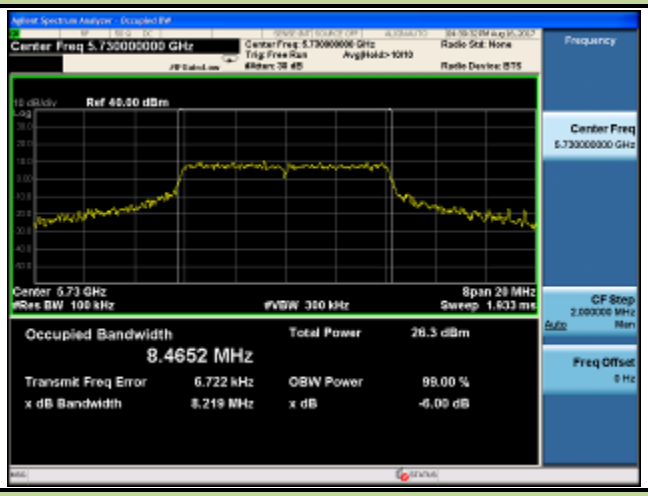
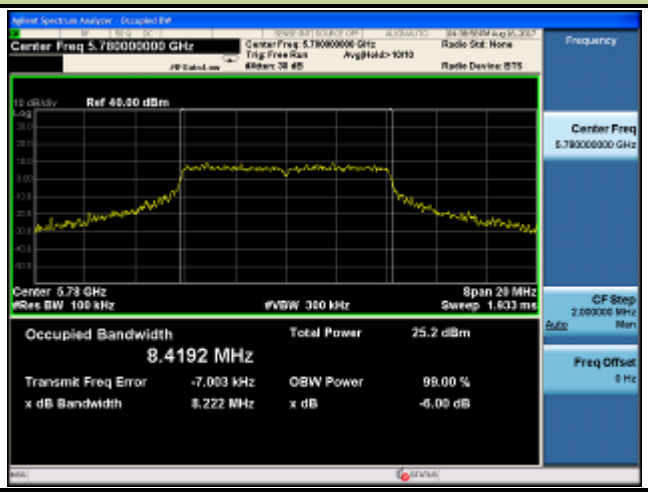
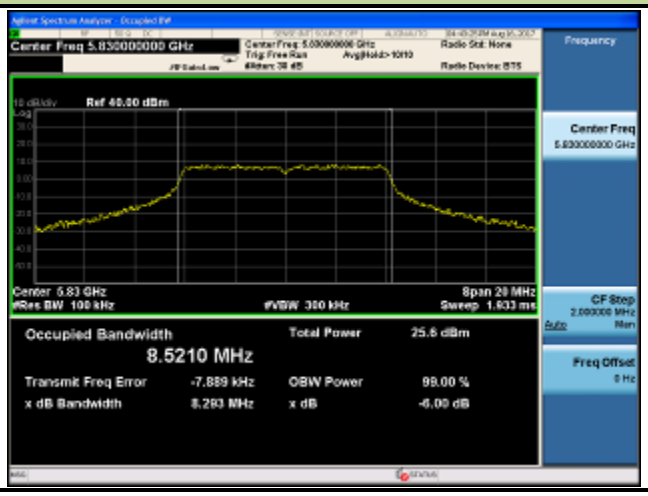
6dB Bandwidth: Wireless2 Chain0

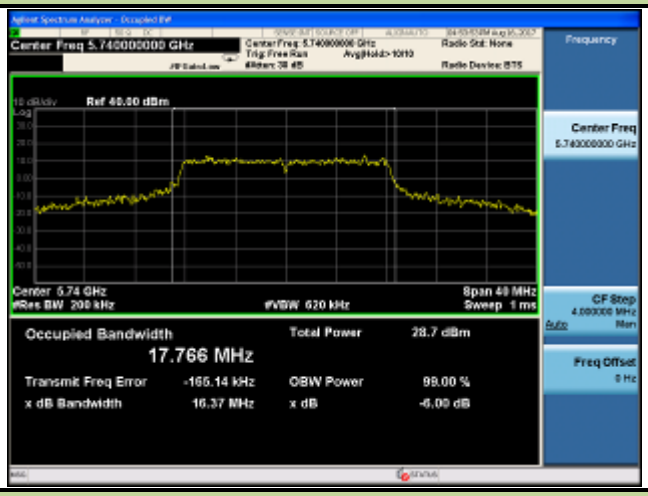
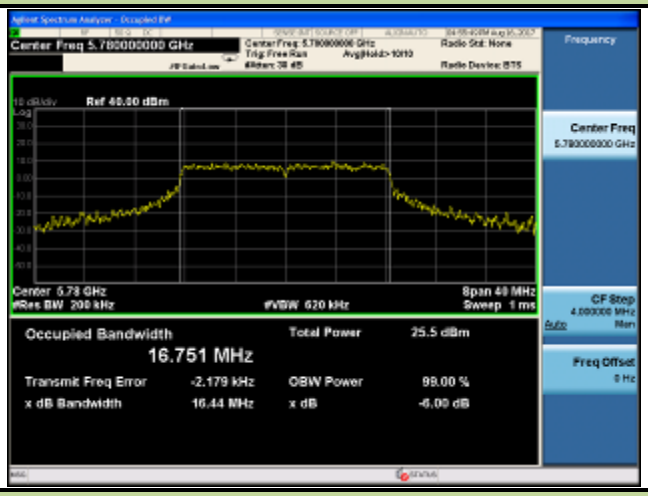
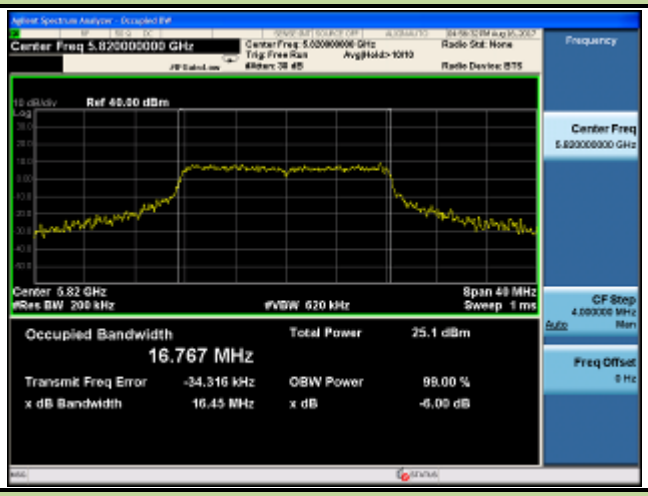
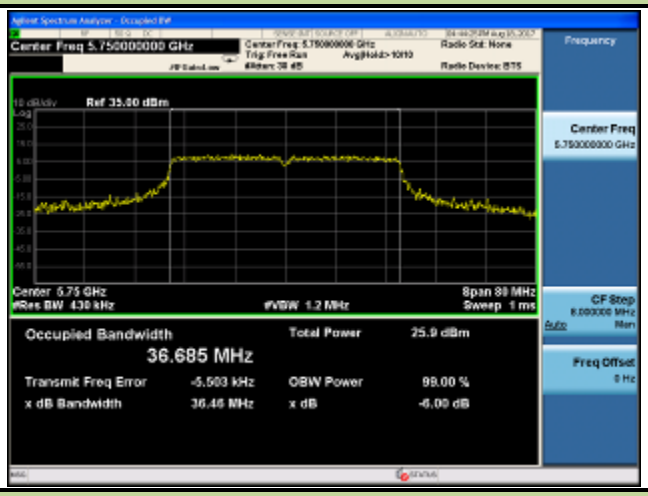
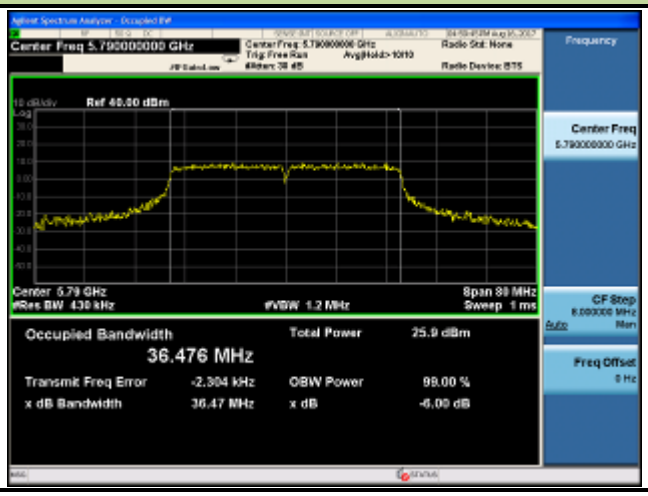
Test Mode	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Result
5MHz	5730	4.1110	4.4663	Pass
	5785	4.1470	4.2580	Pass
	5840	4.1420	4.2623	Pass
10MHz	5730	8.2190	8.4652	Pass
	5780	8.2220	8.4192	Pass
	5830	8.2930	8.5210	Pass
20MHz	5740	16.3700	17.7660	Pass
	5780	16.4400	16.7510	Pass
	5820	16.4500	16.7670	Pass
40MHz (20MHz+20MHz)	5750	36.4600	36.6850	Pass
	5790	36.4700	36.4760	Pass

6dB Bandwidth: Wireless2 Chain1

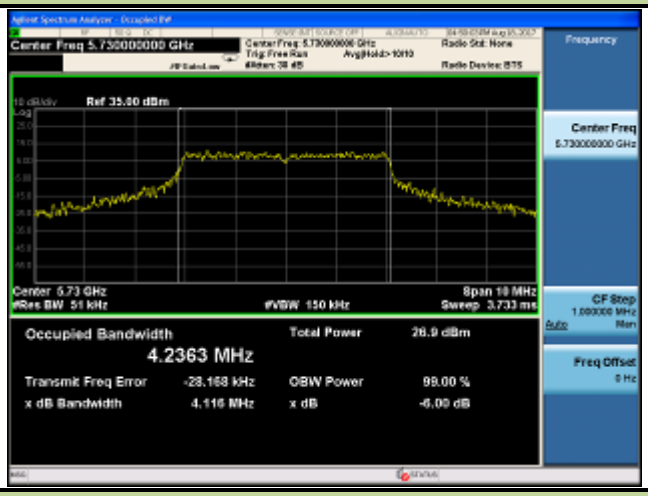
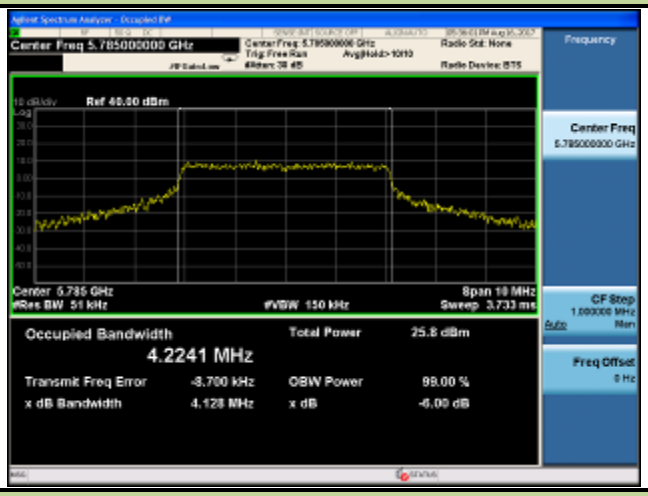
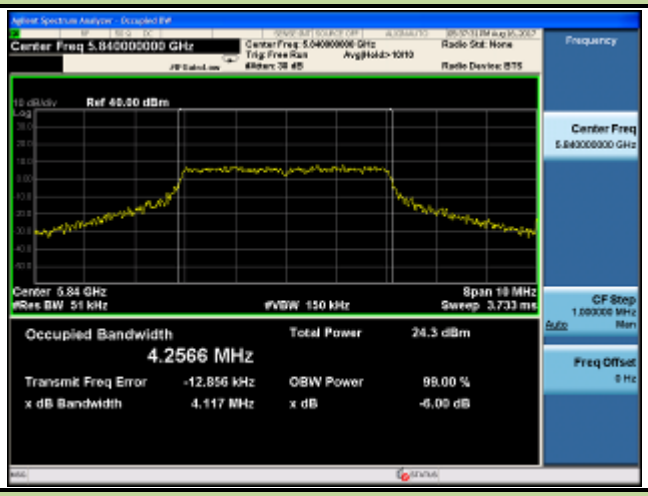
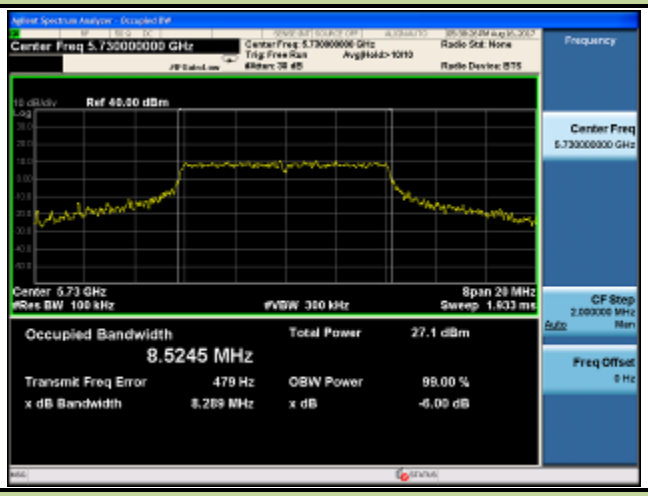
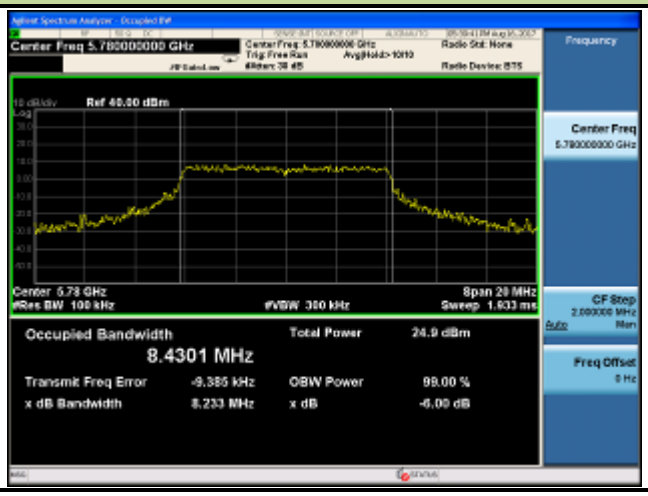
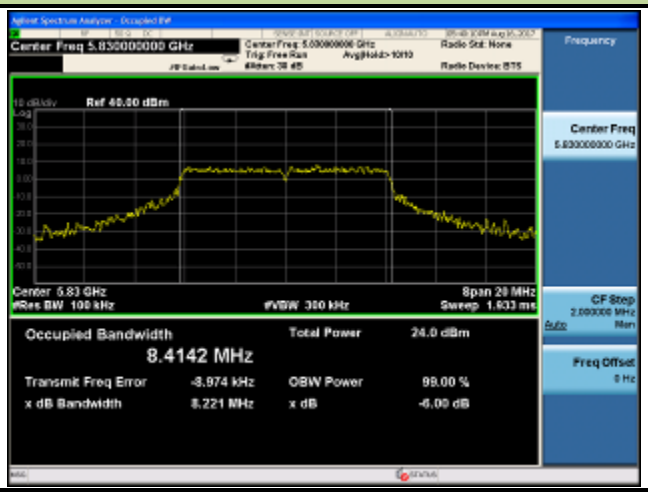
Test Mode	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Result
5MHz	5730	4.1160	4.2363	Pass
	5785	4.2241	4.1280	Pass
	5840	4.1170	4.2566	Pass
10MHz	5730	8.2890	8.5245	Pass
	5780	8.2330	8.4301	Pass
	5830	8.2210	8.4142	Pass
20MHz	5740	16.4000	16.7320	Pass
	5780	16.4400	16.6680	Pass
	5820	16.4200	16.7140	Pass
40MHz (20MHz+20MHz)	5750	36.2800	36.6610	Pass
	5790	36.4200	36.4090	Pass

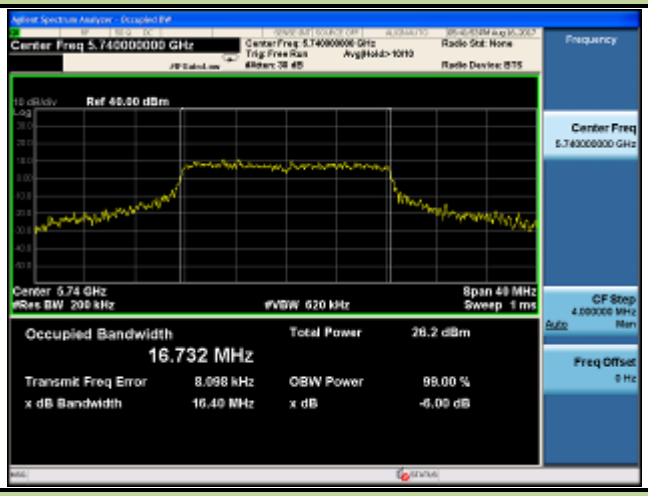
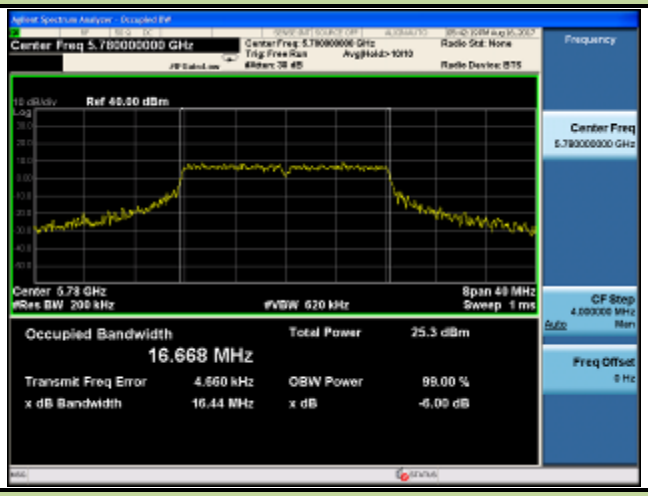
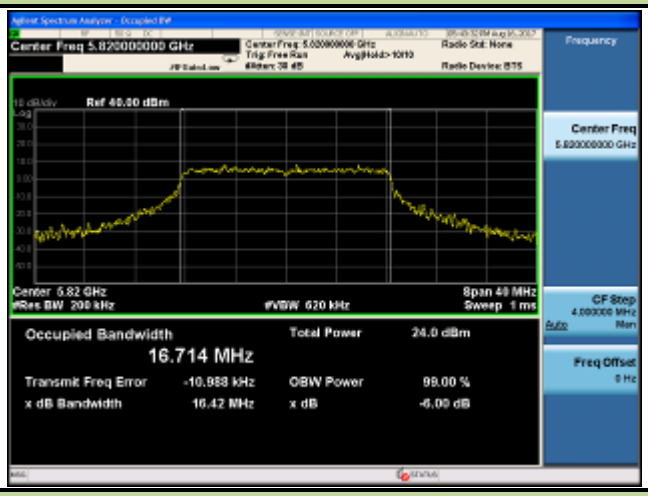
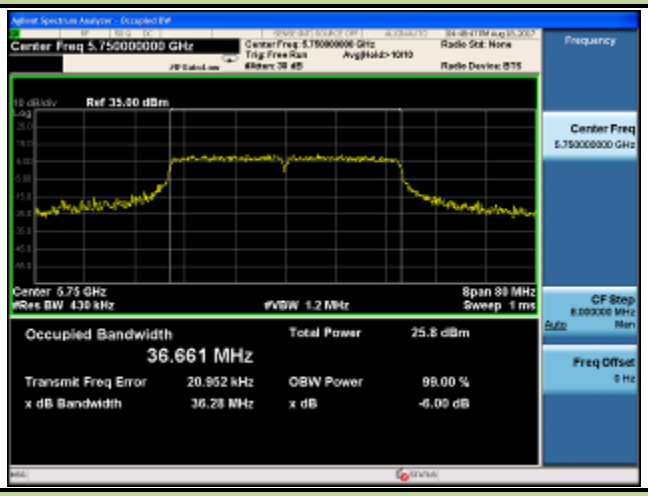
6dB Bandwidth: Wireless2 Chain0

5MHz 5730MHz	5MHz 5785MHz
	
5MHz 5840MHz	**10MHz 5730MHz**
	
10MHz 5780MHz	**10MHz 5830MHz**
	

20MHz 5740MHz	20MHz 5780MHz
	
20MHz 5820MHz	**40MHz(20MHz+20MHz) 5750MHz**
	
40MHz(20MHz+20MHz) 5790MHz	
	

6dB Bandwidth: Wireless2 Chain1

5MHz 5730MHz	5MHz 5785MHz
	
5MHz 5840MHz	**10MHz 5730MHz**
	
10MHz 5780MHz	**10MHz 5830MHz**
	

20MHz 5740MHz	20MHz 5780MHz
	
20MHz 5820MHz	**40MHz(20MHz+20MHz) 5750MHz**
	
40MHz(20MHz+20MHz) 5790MHz	
	

7.4. Operation Frequency Range of 26dBc Bandwidth Measurement

7.4.1.Test Limit

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27dBm/MHz e.i.r.p. However, any unwanted emissions that fall into the band 5250-5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz.

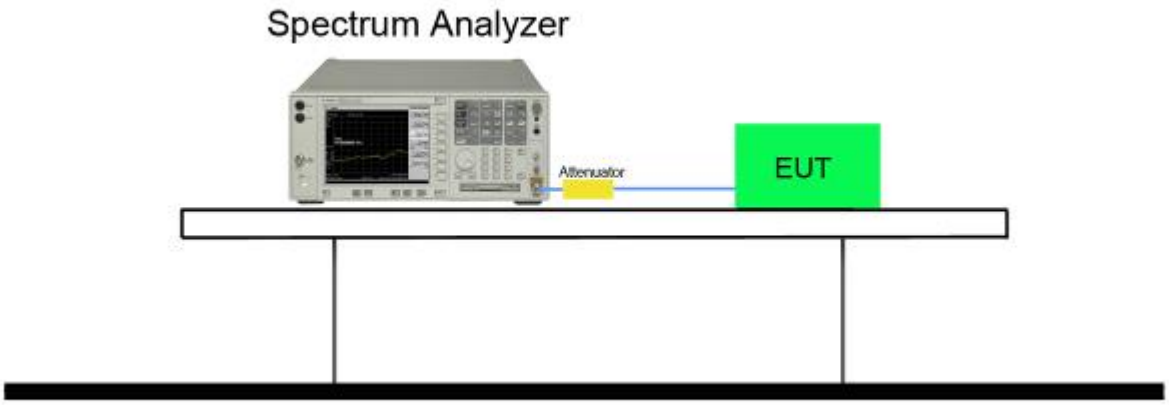
7.4.2.Test Procedure used

N/A

7.4.3.Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. Span = 1.5 times to 5.0 times the OBW.
3. RBW = 1 % to 5 % of the OBW.
4. VBW ≥ 3 × RBW.
5. Detector = Peak.
6. Trace mode = max hold.
7. Allow the trace to stabilize and set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value).
8. Determine the “−26 dB down amplitude” using [(reference value) − 26].
9. Using the marker function of the instrument to show 5250MHz frequency level.

7.4.4. Test Setup



7.4.5. Test Result

The EUT only support 5725MHz-5850MHz, so do not need to test.

7.5. Output Power Measurement

7.5.1. 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.

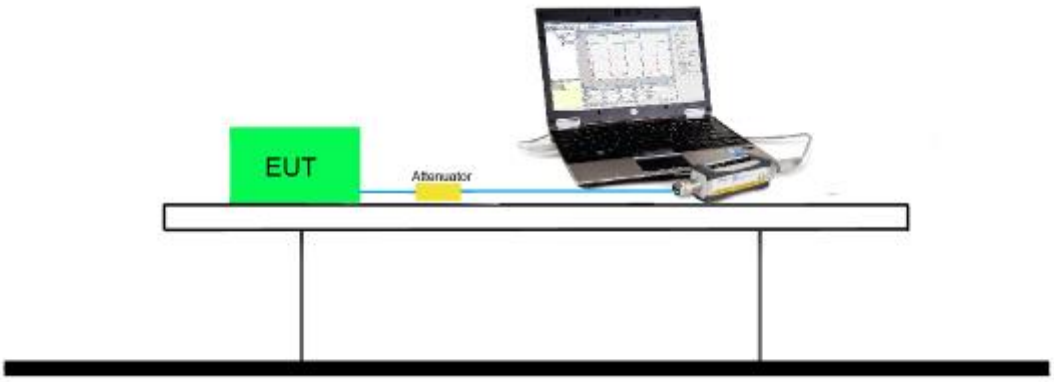
7.5.2. Test Procedure Used

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

Product	MIMO WiTDM Series Bridge	Test Engineer	Kevin Ker
Test Site	SR2	Test Date	2017/08/16
Test Item	Output Power		

Bandwidth (MHz)	Frequency (MHz)	Data Rate	RF Output Power Chain 0	RF Output Power Chain 1
5	5785	BPSK 1/2	21.5	20.08
		SS 16QAM 1/2	21.39	20.26
		DS 64QAM 5/6	17.9	17.74
10	5780	BPSK 1/2	21.51	20.1
		SS 16QAM 1/2	21.45	20.05
		DS 64QAM 5/6	17.69	17.54
20	5780	BPSK 1/2	21.4	20.25
		SS 16QAM 1/2	21.41	20.01
		DS 64QAM 5/6	17.9	17.84
40 (20MHz+20MHz)	5790	BPSK 1/2	19.44	19.12
		SS 16QAM 1/2	20.85	19.77
		DS 64QAM 5/6	18.01	17.57

Note: Pertest RF Output Power Max Data Rate

Wireless 1					
5.8GHz 5MHz RF Output Power (dBm)					
Bandwidth	Frequency (MHz)	Average Power (Max Rate)			Required Limit
		Chain 0	Chain 1	Chain 0 + 1	
5MHz	5730	21.31	20.41	23.89	29 dBm
	5785	21.43	20.36	23.94	29 dBm
	5840	19.44	19.53	22.50	29 dBm
5.8GHz 10MHz RF Output Power (dBm)					
Bandwidth	Frequency (MHz)	Average Power (Max Rate)			Required Limit
		Chain 0	Chain 1	Chain 0 + 1	
10MHz	5730	21.46	20.23	23.90	29 dBm
	5780	21.56	20.31	23.99	29 dBm
	5830	20.05	19.76	22.92	29 dBm
5.8GHz 20MHz RF Output Power (dBm)					
Bandwidth	Frequency (MHz)	Average Power (Max Rate)			Required Limit
		Chain 0	Chain 1	Chain 0 + 1	
20MHz	5740	21.52	20.12	23.89	29 dBm
	5780	21.56	20.2	23.94	29 dBm
	5820	20.44	20	23.24	29 dBm
5.8GHz 40MHz(20MHz+20MHz) RF Output Power (dBm)					
Bandwidth	Frequency (MHz)	Average Power (Max Rate)			Required Limit
		Chain 0	Chain 1	Chain 0 + 1	
40MHz (20MHz+20MHz)	5750	21.37	19.82	23.67	29 dBm
	5790	21.24	19.81	23.59	29 dBm

Note 1: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 1 Average Power }/10)} + 10^{(\text{Ant 2 Average Power }/10)}\}$.

Wireless 2					
5.8GHz 5MHz RF Output Power (dBm)					
Bandwidth	Frequency (MHz)	Average Power (Max Rate)			Required Limit
		Chain 0	Chain 1	Chain 0 + 1	
5MHz	5730	21.77	21.35	24.58	29 dBm
	5785	20.01	19.89	22.96	29 dBm
	5840	19.39	18.68	22.06	29 dBm
5.8GHz 10MHz RF Output Power (dBm)					
Bandwidth	Frequency (MHz)	Average Power (Max Rate)			Required Limit
		Chain 0	Chain 1	Chain 0 + 1	
10MHz	5730	21.62	21.31	24.48	29 dBm
	5780	19.98	19.97	22.99	29 dBm
	5830	19.34	18.79	22.08	29 dBm
5.8GHz 20MHz RF Output Power (dBm)					
Bandwidth	Frequency (MHz)	Average Power (Max Rate)			Required Limit
		Chain 0	Chain 1	Chain 0 + 1	
20MHz	5740	21.04	20.84	23.95	29 dBm
	5780	20	19.93	22.98	29 dBm
	5820	19.43	18.96	22.21	29 dBm
5.8GHz 40MHz(20MHz+20MHz) RF Output Power (dBm)					
Bandwidth	Frequency (MHz)	Average Power (Max Rate)			Required Limit
		Chain 0	Chain 1	Chain 0 + 1	
40MHz (20MHz+20MHz)	5750	20.93	20.91	23.93	29 dBm
	5790	19.86	19.25	22.58	29 dBm

Note 1: The Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 1 Average Power }/10)} + 10^{(\text{Ant 2 Average Power }/10)}\}$.

Note2: Wireless2 is max RF Output Power, so in the conducted of the test items, will be Wireless2 based.

7.6. Transmit Power Control

7.6.1. Test Limit

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

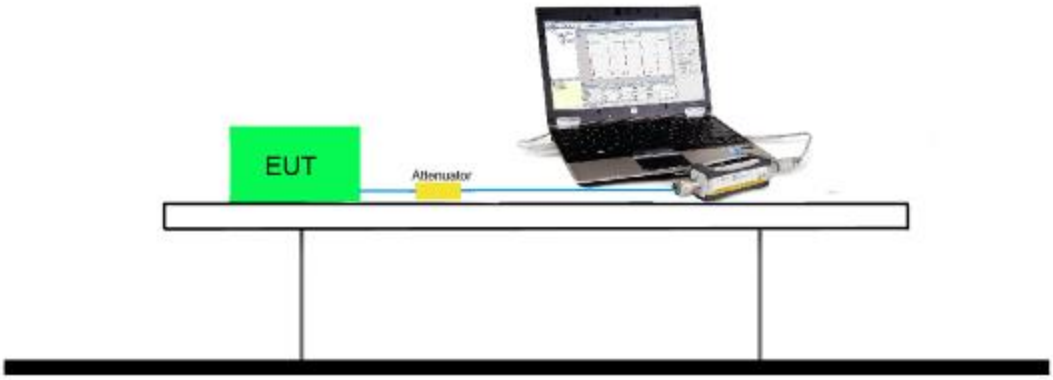
7.6.2. Test Procedure Used

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

7.6.3. 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.

7.6.4. Test Setup



7.6.5. Test Result

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

7.7. Power Spectral Density Measurement

7.7.1. 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.

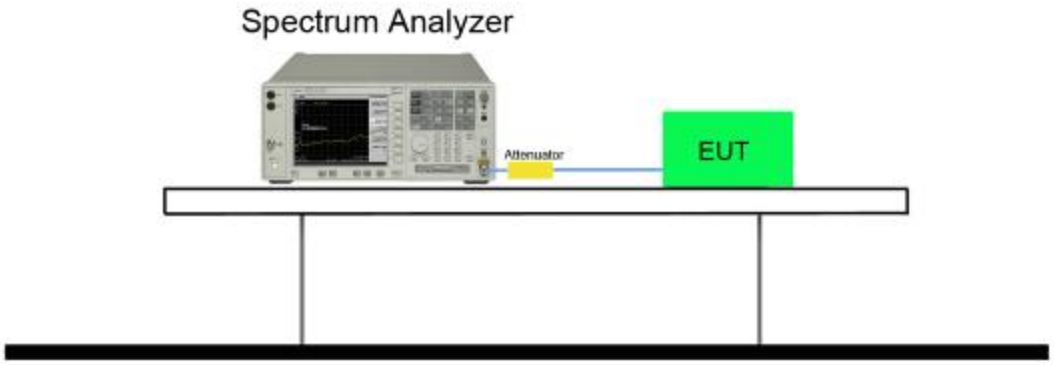
7.7.2. Test Procedure Used

KDB 789033 D02v02r01 - Section F

7.7.3. 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

7.7.4. Test Setup



7.7.5. Test Result

Product	MIMO WiTDM Series Bridge	Test Engineer	Kevin Ker
Test Site	SR2	Test Date	2017/08/16
Test Item	Power Spectral Density		

PSD: Wireless2 Chain0

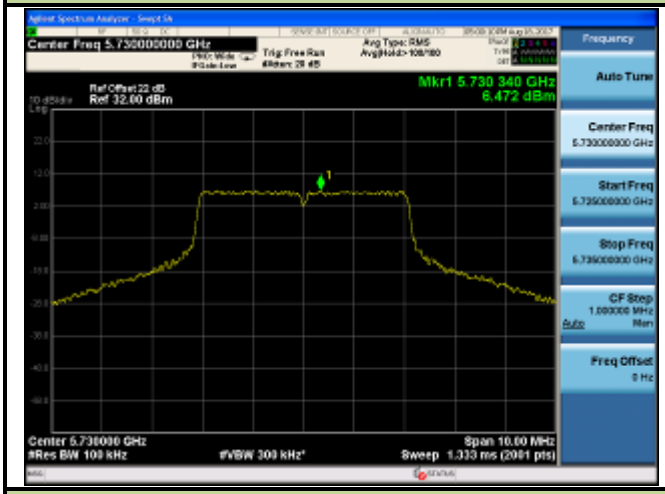
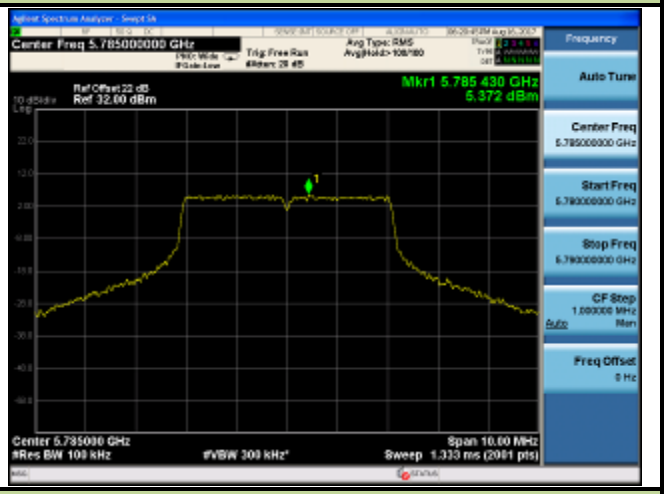
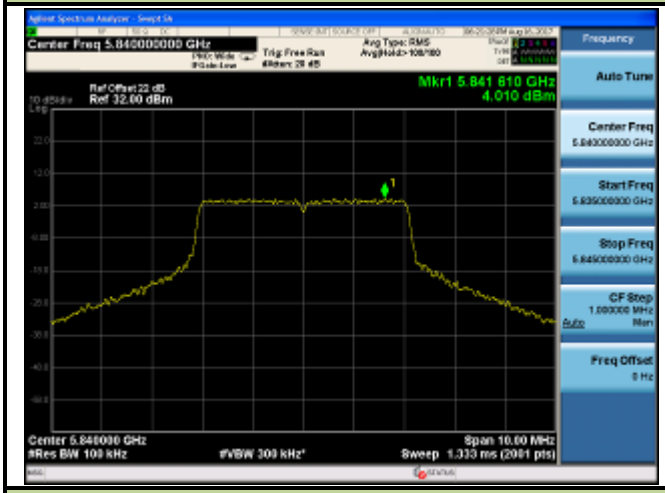
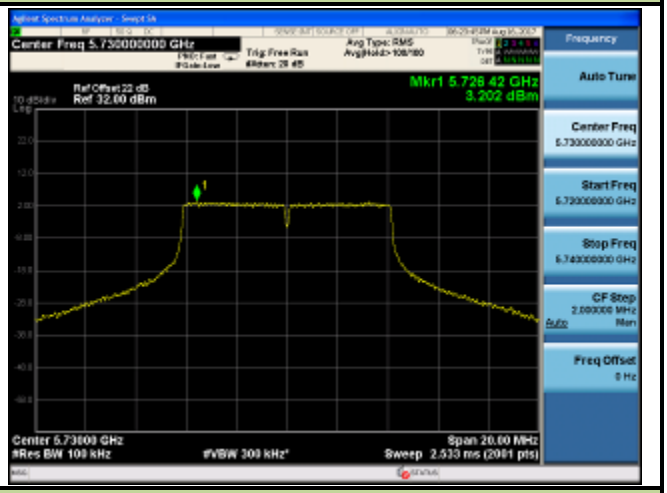
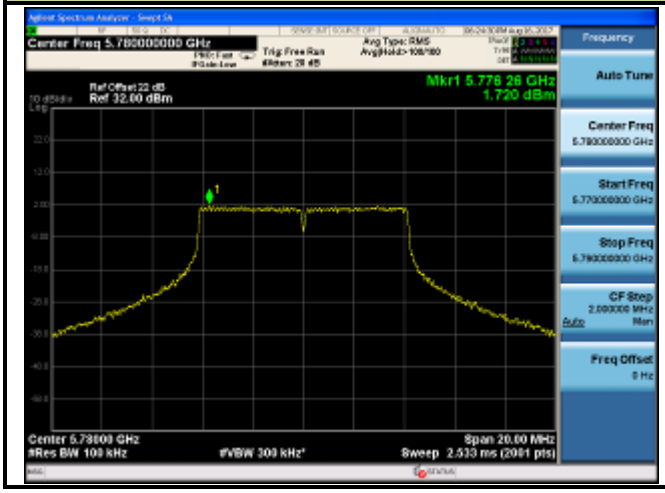
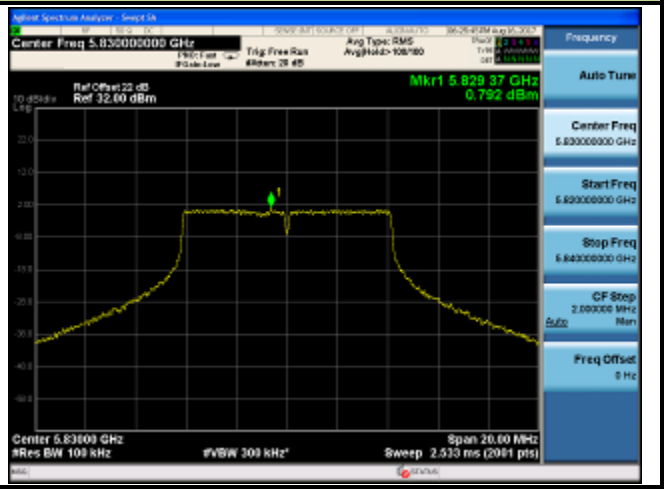
Test Mode	Freq. (MHz)	PSD (dBm)	Factor	Total PSD (dBm)	Limit (dBm/MHz)	Result
5MHz	5730	6.472	7	13.472	≤ 29dBm/500kHz	Pass
	5785	5.372	7	12.372	≤ 29dBm/500kHz	Pass
	5840	4.010	7	11.010	≤ 29dBm/500kHz	Pass
10MHz	5730	3.202	7	10.202	≤ 29dBm/500kHz	Pass
	5780	1.720	7	8.720	≤ 29dBm/500kHz	Pass
	5830	0.792	7	7.792	≤ 29dBm/500kHz	Pass
20MHz	5740	0.802	7	7.802	≤ 29dBm/500kHz	Pass
	5780	-0.799	7	6.201	≤ 29dBm/500kHz	Pass
	5820	-1.610	7	5.390	≤ 29dBm/500kHz	Pass
40MHz (20MHz+20MHz)	5750	-2.670	7	4.330	≤ 29dBm/500kHz	Pass
	5790	-3.668	7	3.332	≤ 29dBm/500kHz	Pass

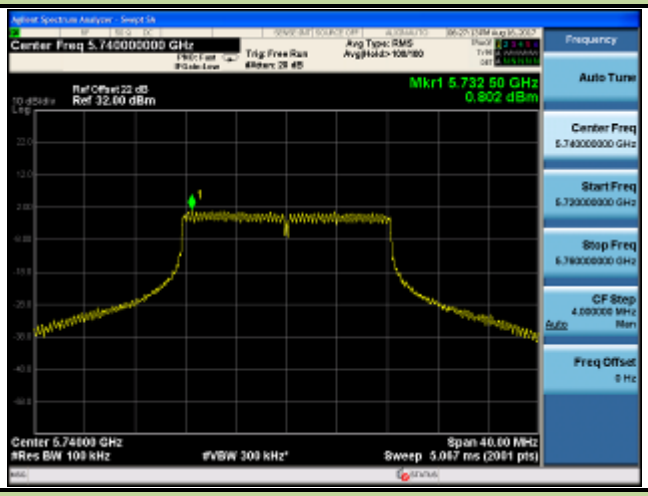
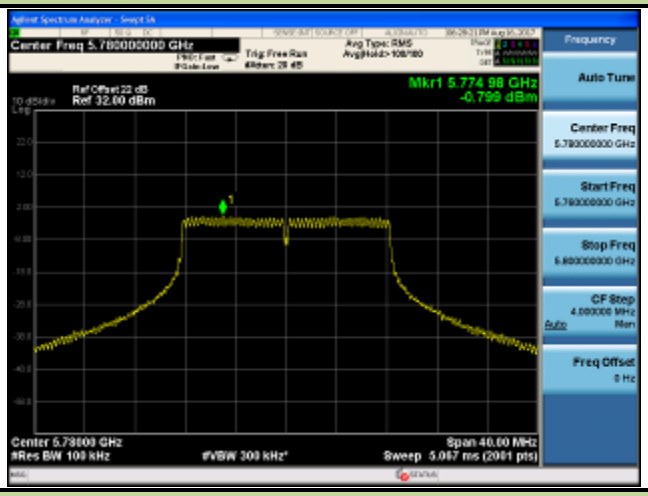
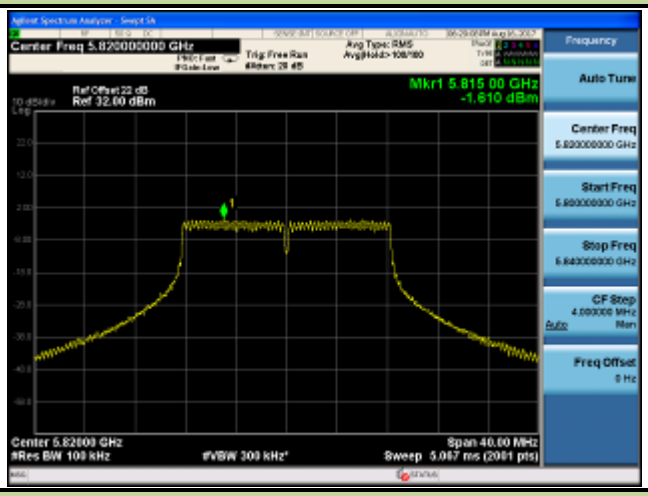
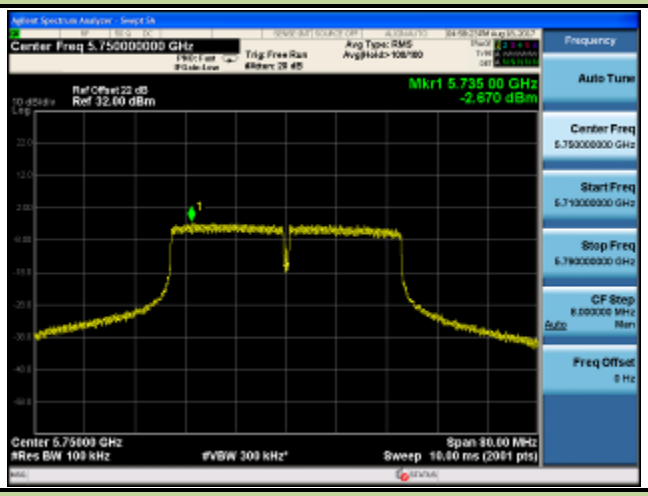
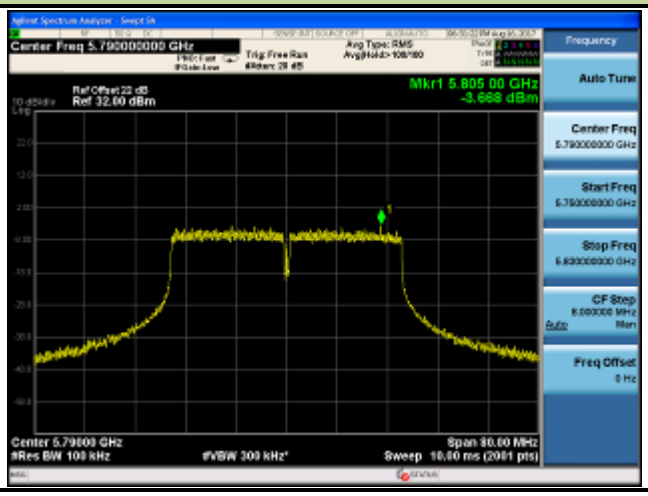
PSD: Wireless2 Chain1

Test Mode	Freq. (MHz)	PSD (dBm)	Factor	Total PSD (dBm)	Limit (dBm/MHz)	Result
5MHz	5730	7.270	7	14.270	≤ 29dBm/500kHz	Pass
	5785	4.020	7	11.020	≤ 29dBm/500kHz	Pass
	5840	2.463	7	9.463	≤ 29dBm/500kHz	Pass
10MHz	5730	2.310	7	9.310	≤ 29dBm/500kHz	Pass
	5780	0.319	7	7.319	≤ 29dBm/500kHz	Pass
	5830	-1.301	7	5.699	≤ 29dBm/500kHz	Pass
20MHz	5740	0.759	7	7.759	≤ 29dBm/500kHz	Pass
	5780	-0.587	7	6.413	≤ 29dBm/500kHz	Pass
	5820	-2.002	7	4.998	≤ 29dBm/500kHz	Pass
40MHz (20MHz+20MHz)	5750	-2.939	7	4.061	≤ 29dBm/500kHz	Pass
	5790	-2.447	7	4.553	≤ 29dBm/500kHz	Pass

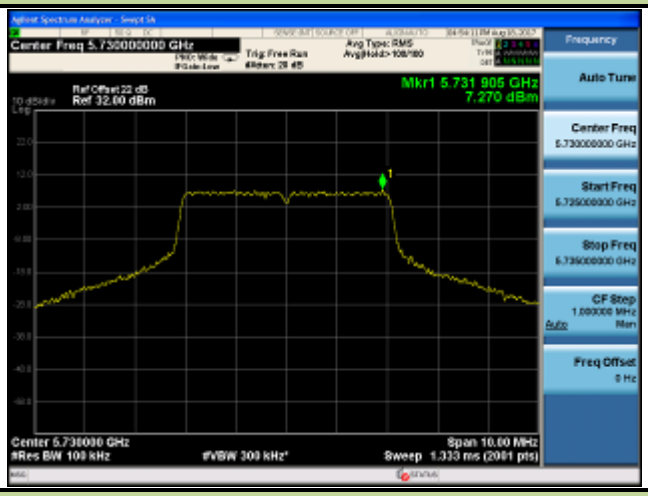
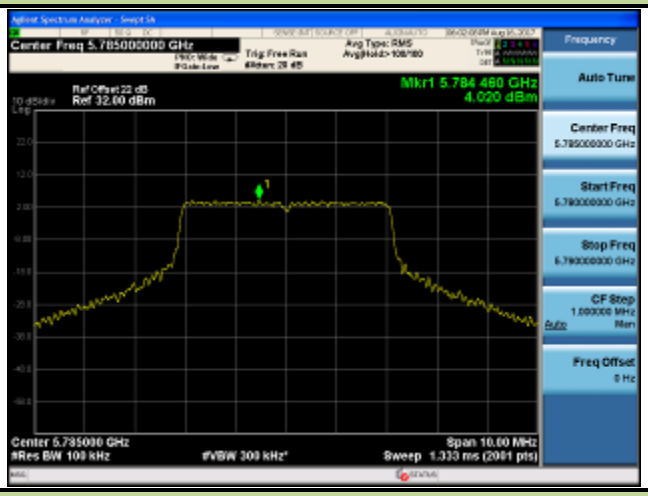
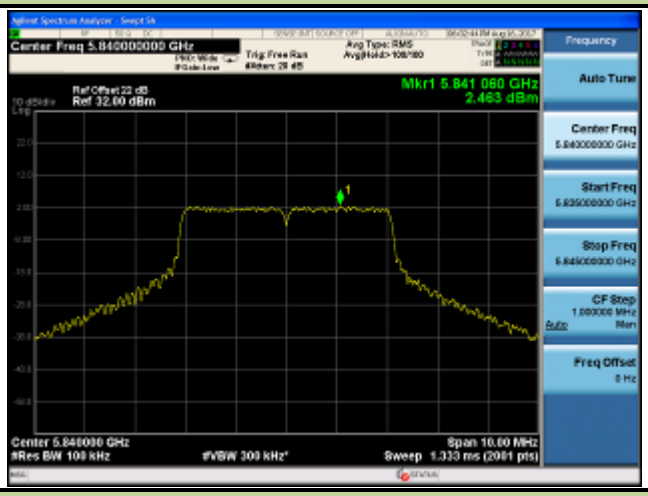
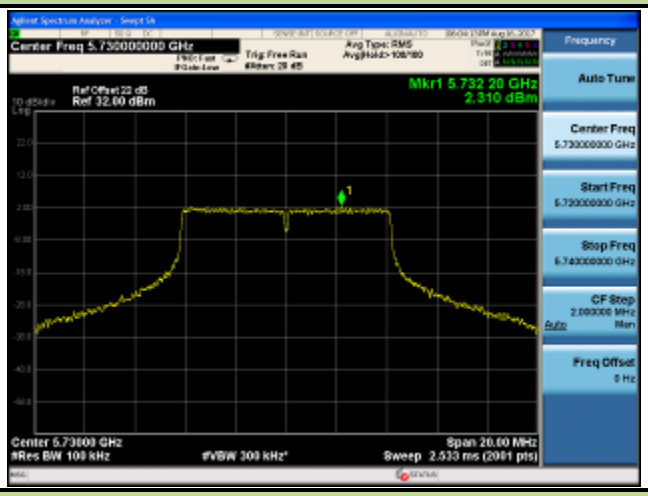
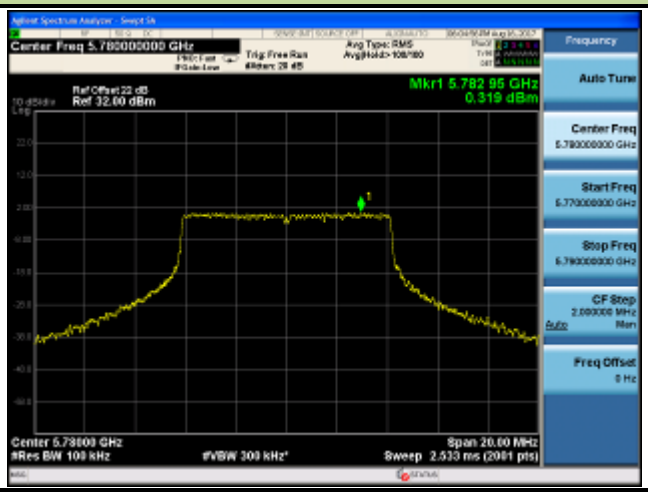
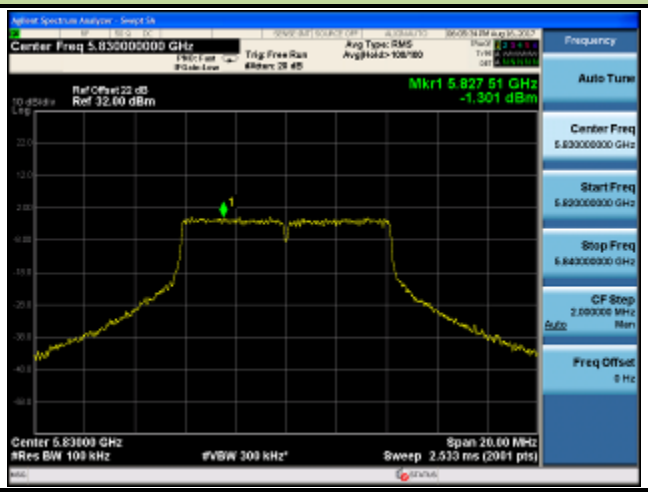
Test Mode	Freq. (MHz)	PSD (dBm)	Factor	Total PSD (dBm)	Limit (dBm/MHz)	Result
5MHz	5730	9.8996	7	16.8996	≤ 29dBm/500kHz	Pass
	5785	7.7587	7	14.7587	≤ 29dBm/500kHz	Pass
	5840	6.3153	7	13.3153	≤ 29dBm/500kHz	Pass
10MHz	5730	5.7892	7	12.7892	≤ 29dBm/500kHz	Pass
	5780	4.0861	7	11.0861	≤ 29dBm/500kHz	Pass
	5830	2.8807	7	9.8807	≤ 29dBm/500kHz	Pass
20MHz	5740	3.7909	7	10.7909	≤ 29dBm/500kHz	Pass
	5780	2.3186	7	9.3186	≤ 29dBm/500kHz	Pass
	5820	1.2087	7	8.2087	≤ 29dBm/500kHz	Pass
40MHz (20MHz+20MHz)	5750	0.2079	7	7.2079	≤ 29dBm/500kHz	Pass
	5790	-0.0044	7	6.9956	≤ 29dBm/500kHz	Pass

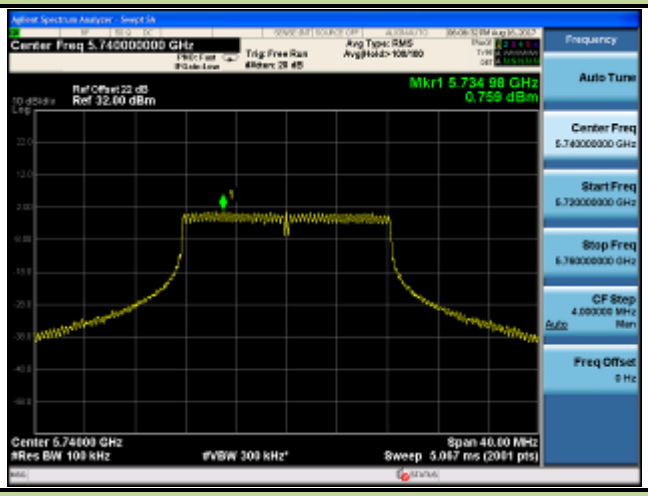
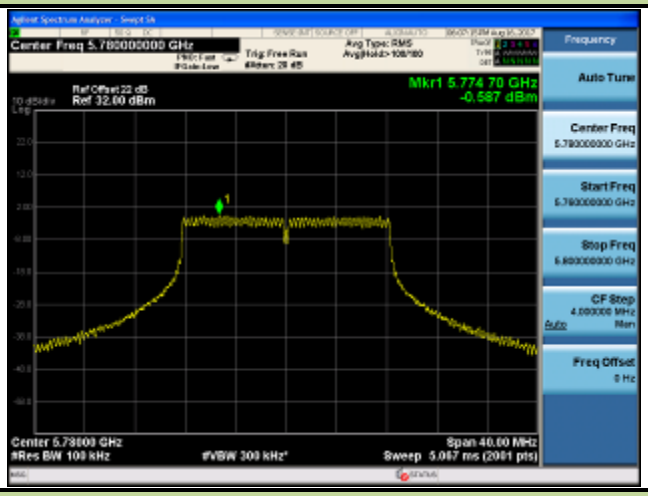
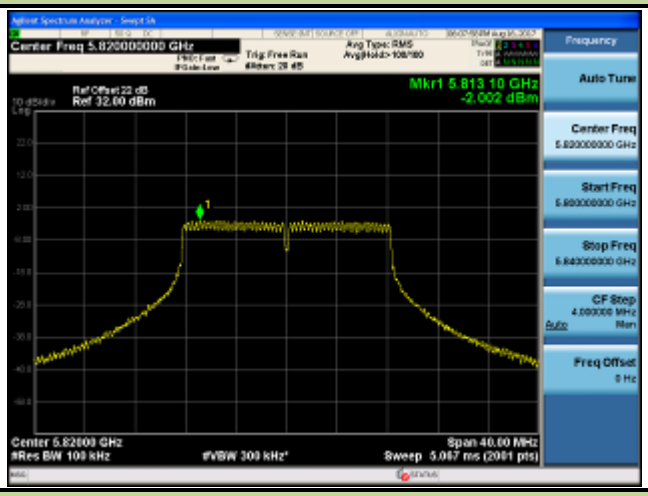
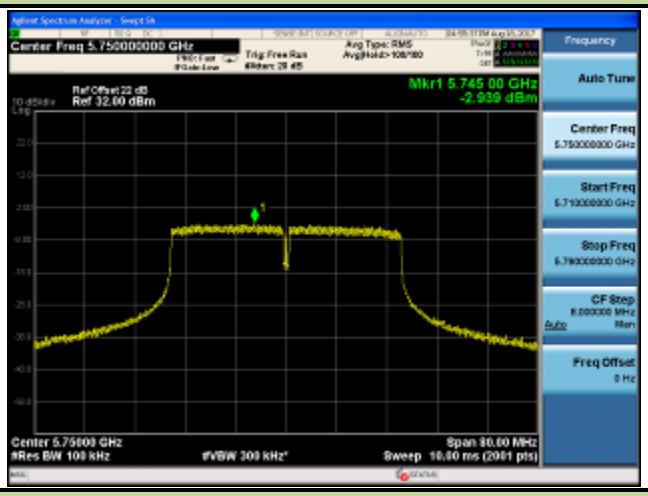
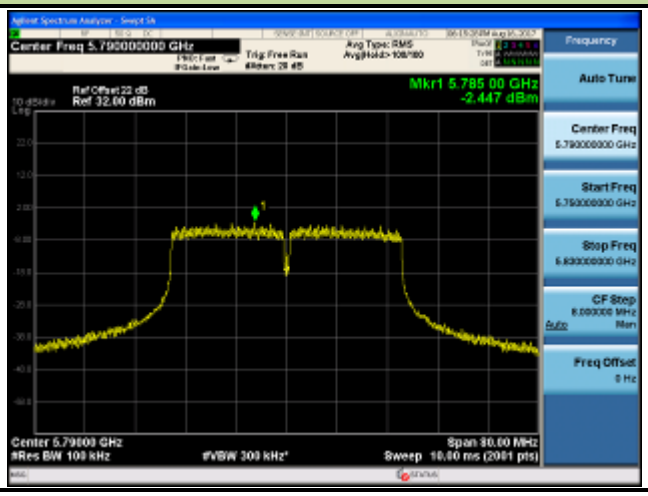
PSD: Wireless2 Chain0

5MHz 5730MHz	5MHz 5785MHz
	
5MHz 5840MHz	**10MHz 5730MHz**
	
10MHz 5780MHz	**10MHz 5830MHz**
	

20MHz 5740MHz	20MHz 5780MHz
	
20MHz 5820MHz	**40MHz(20MHz+20MHz) 5750MHz**
	
40MHz(20MHz+20MHz) 5790MHz	
	

PSD: Wireless2 Chain1

5MHz 5730MHz	5MHz 5785MHz
	
5MHz 5840MHz	**10MHz 5730MHz**
	
10MHz 5780MHz	**10MHz 5830MHz**
	

20MHz 5740MHz	20MHz 5780MHz
	
20MHz 5820MHz	**40MHz(20MHz+20MHz) 5750MHz**
	
40MHz(20MHz+20MHz) 5790MHz	
	

7.8. Radiated Spurious Emission Measurement

7.8.1. 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

7.8.2. Test Procedure Used

KDB 789033 D02v02r01 – Section G

7.8.3. 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)

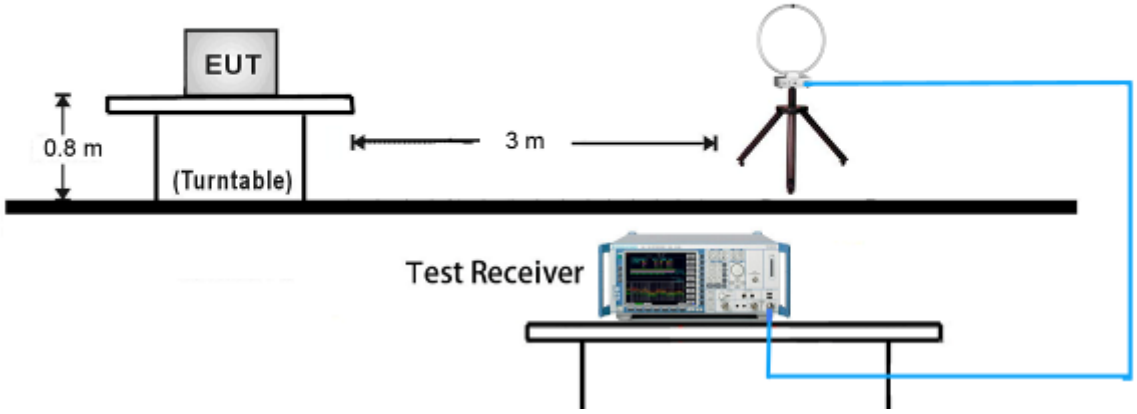
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = power average (Average)
5. Number of measurement points = 1001 (Number of points must be > 2 x span/RBW)
6. Sweep time = auto
7. Trace was averaged over at 100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

Quasi-Peak & Average Measurements below 30MHz

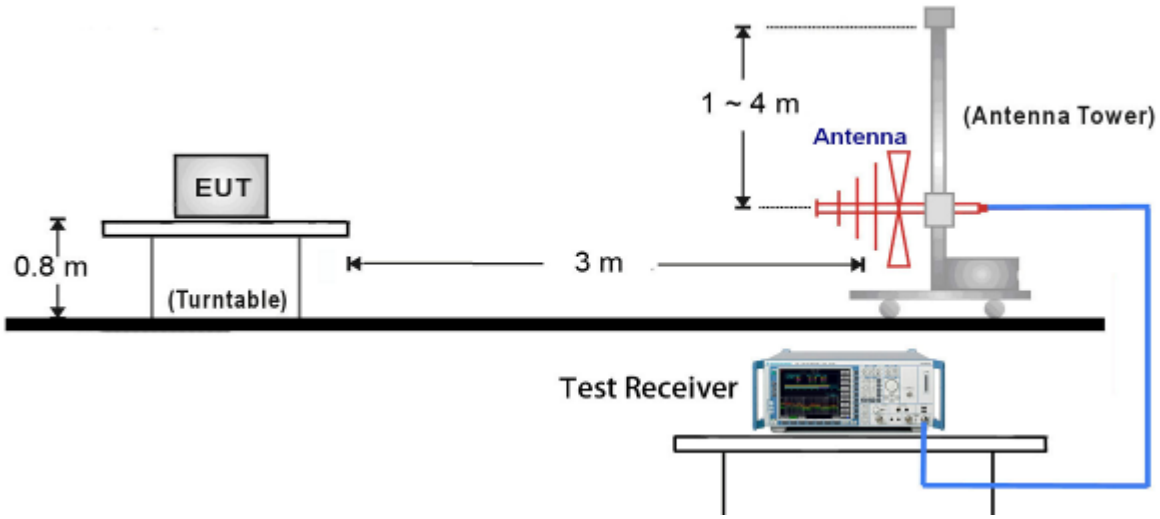
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = 200Hz for 9kHz to 150kHz frequency; RBW = 9kHz for 0.15MHz to 30MHz frequency
4. Detector = CISPR quasi-peak or power average (Average)
5. Sweep time = auto couple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

7.8.4. Test Setup

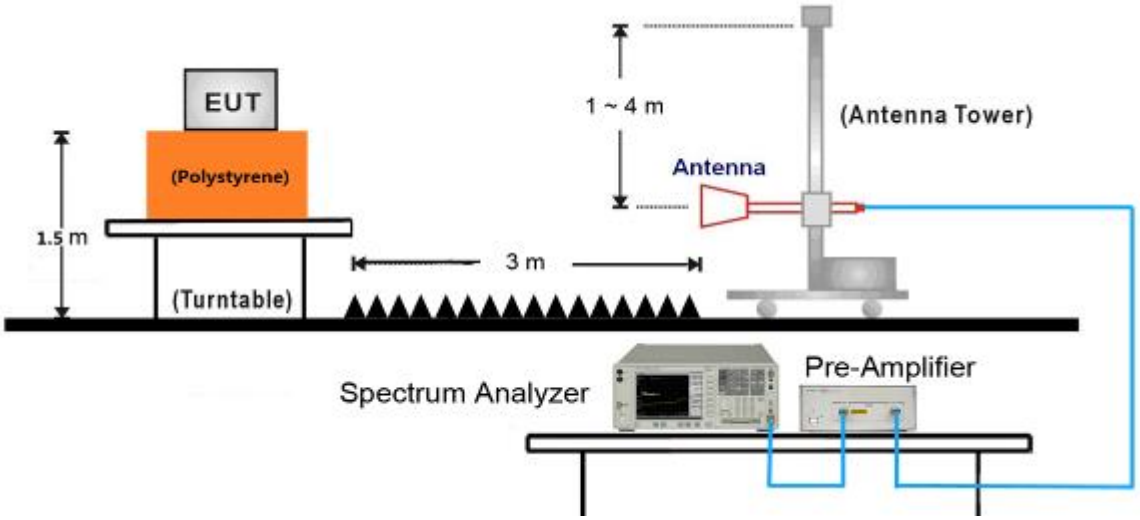
9kHz ~ 30MHz Test Setup:



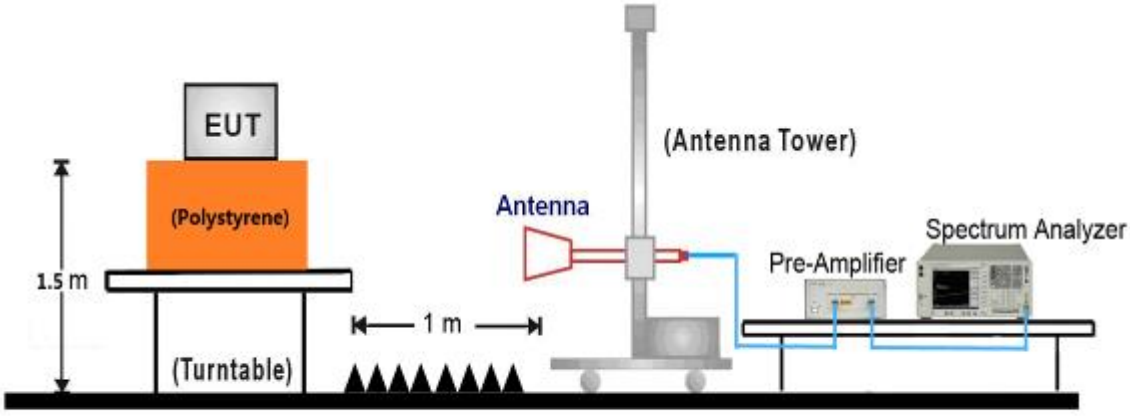
30MHz ~ 1GHz Test Setup:



1GHz ~18GHz Test Setup:

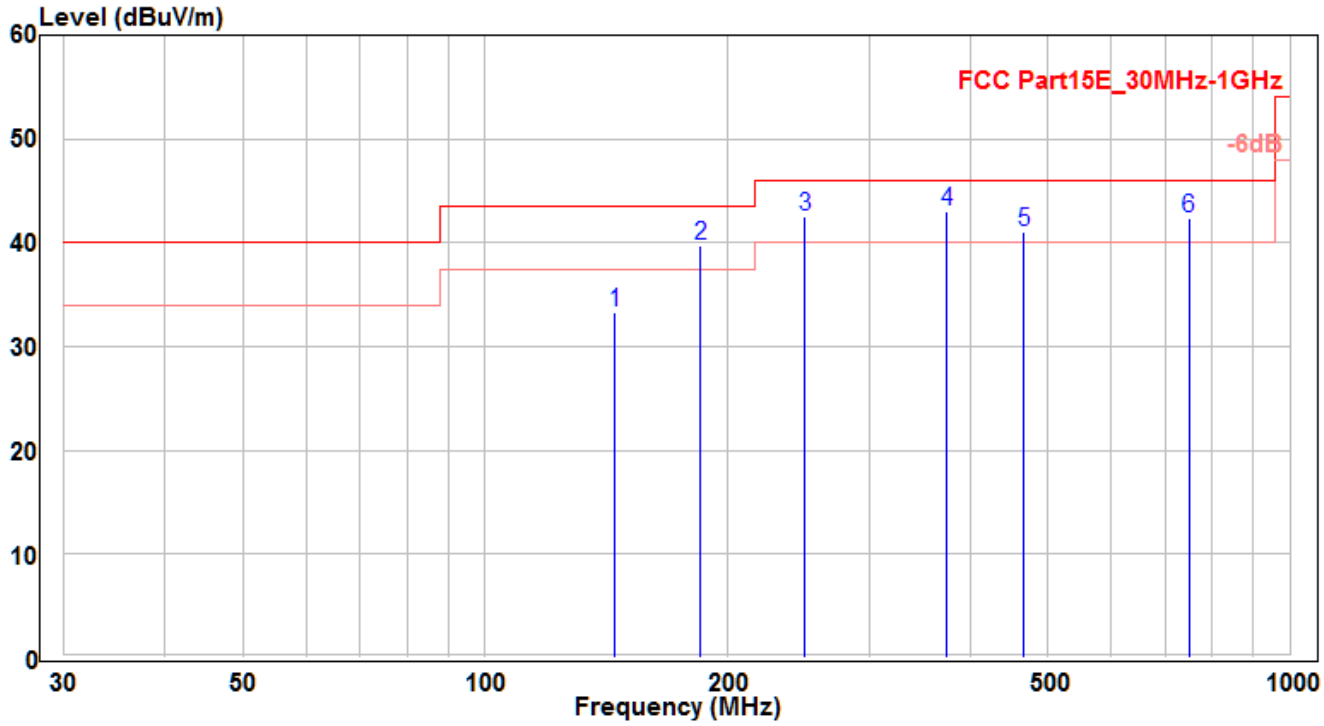


18GHz ~40GHz Test Setup:



7.8.5. Test Result

EUT	MIMO WiTDM Series Bridge	Test Date	2017/10/16
Factor	VULB 9162 (30MHz~8GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5780MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

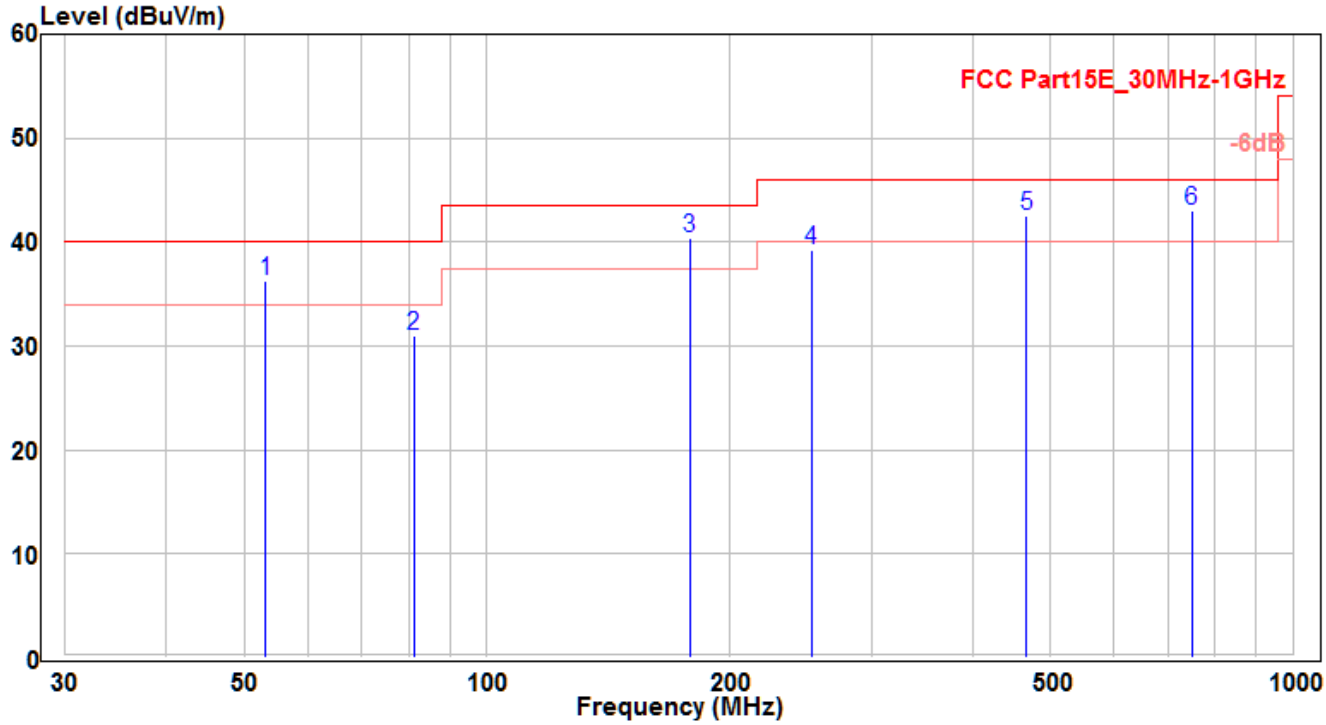


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		145.127	17.3	15.95	33.25	-10.25	43.5	100	285	QP
2		185.2	21.7	18.08	39.78	-3.72	43.5	115	215	QP
3		249.978	21.96	20.54	42.5	-3.5	46	185	200	QP
4	*	374.987	19.2	23.84	43.04	-2.96	46	100	400	QP
5		466.652	15.63	25.46	41.09	-4.91	46	145	100	QP
6		750.013	12.04	30.31	42.35	-3.65	46	130	125	QP

Note :

1. " * ", means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/10/16
Factor	VULB 9162 (30MHz~8GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5780MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

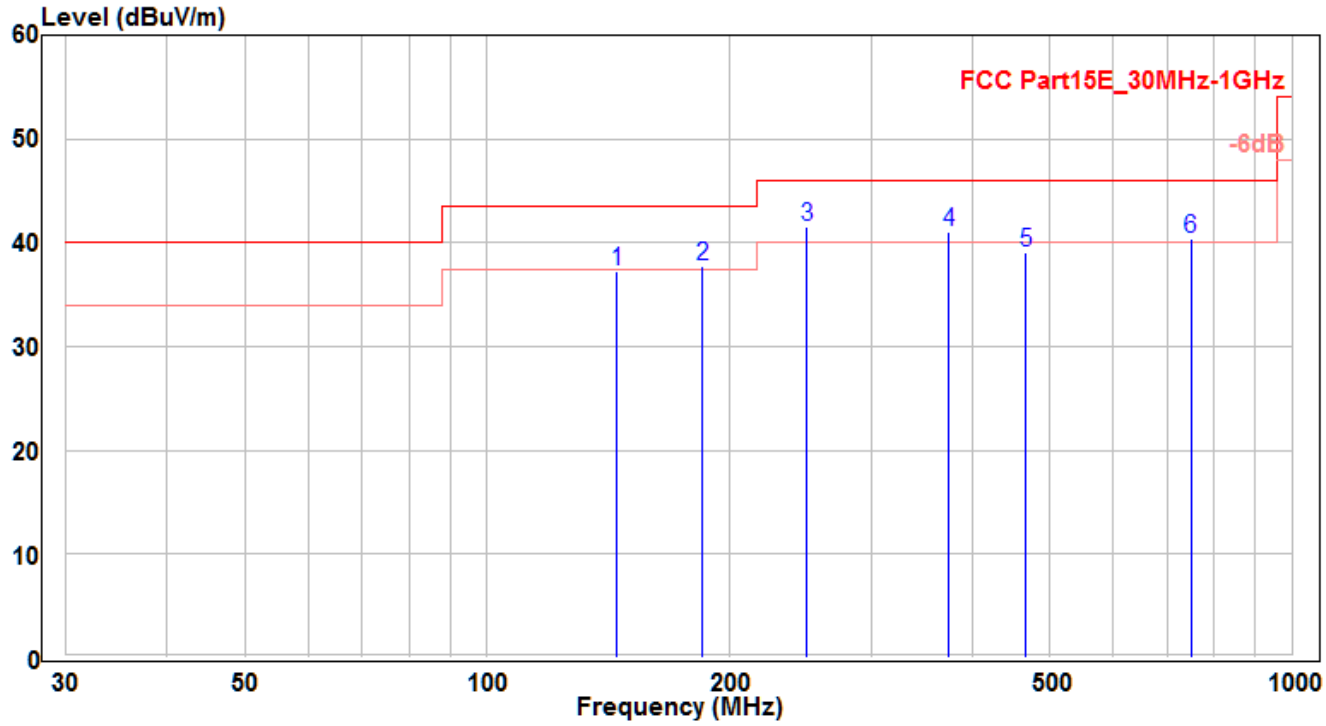


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		53.159	15.23	21	36.23	-3.77	40	190	250	QP
2		81.258	16.39	14.54	30.93	-9.07	40	100	225	QP
3		178.653	23.2	17.2	40.4	-3.1	43.5	165	130	QP
4		252.979	18.76	20.55	39.31	-6.69	46	120	310	QP
5		466.652	17.11	25.46	42.57	-3.43	46	110	90	QP
6	*	750.013	12.69	30.31	43	-3	46	115	120	QP

Note :

1. " * ", means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/10/16
Factor	VULB 9162 (30MHz~8GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5780MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

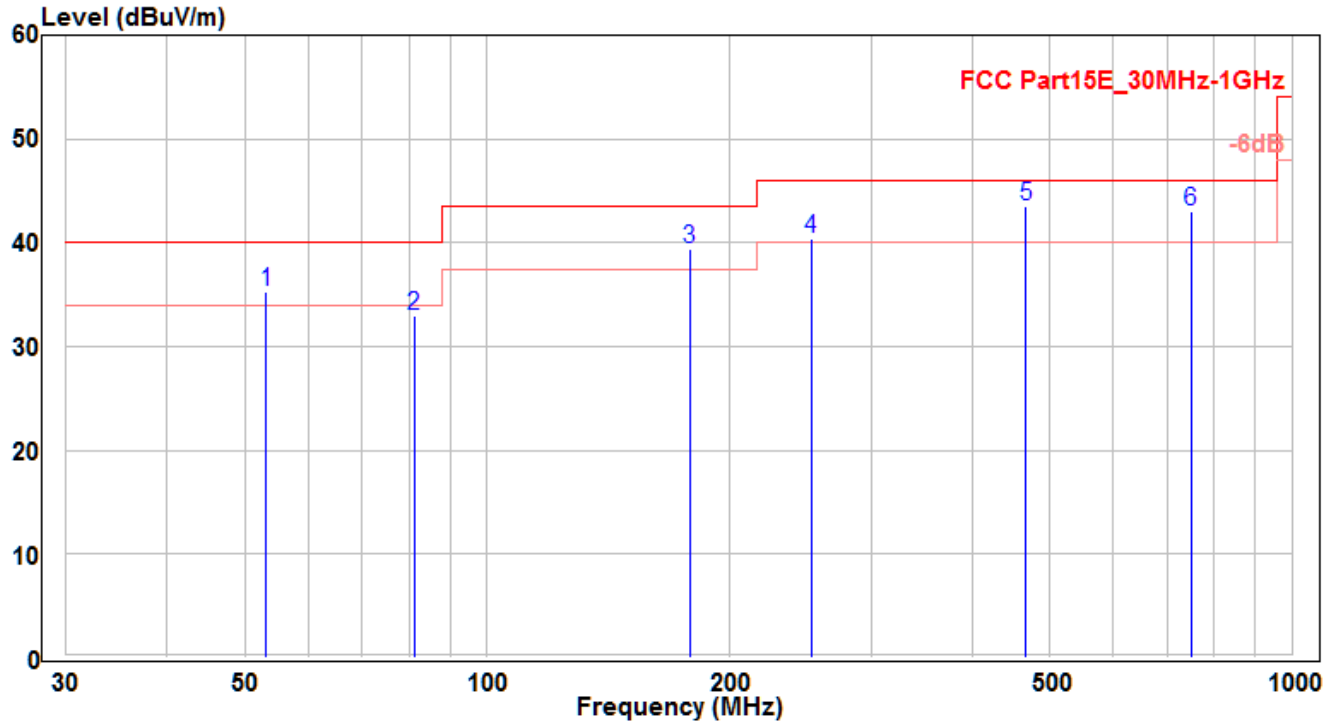


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		145.127	21.3	15.95	37.25	-6.25	43.5	100	285	QP
2		185.2	19.7	18.08	37.78	-5.72	43.5	115	215	QP
3	*	249.978	20.96	20.54	41.5	-4.5	46	185	200	QP
4		374.987	17.2	23.84	41.04	-4.96	46	100	400	QP
5		466.652	13.63	25.46	39.09	-6.91	46	145	100	QP
6		750.013	10.04	30.31	40.35	-5.65	46	130	125	QP

Note :

1. " * ", means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/10/16
Factor	VULB 9162 (30MHz~8GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5780MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

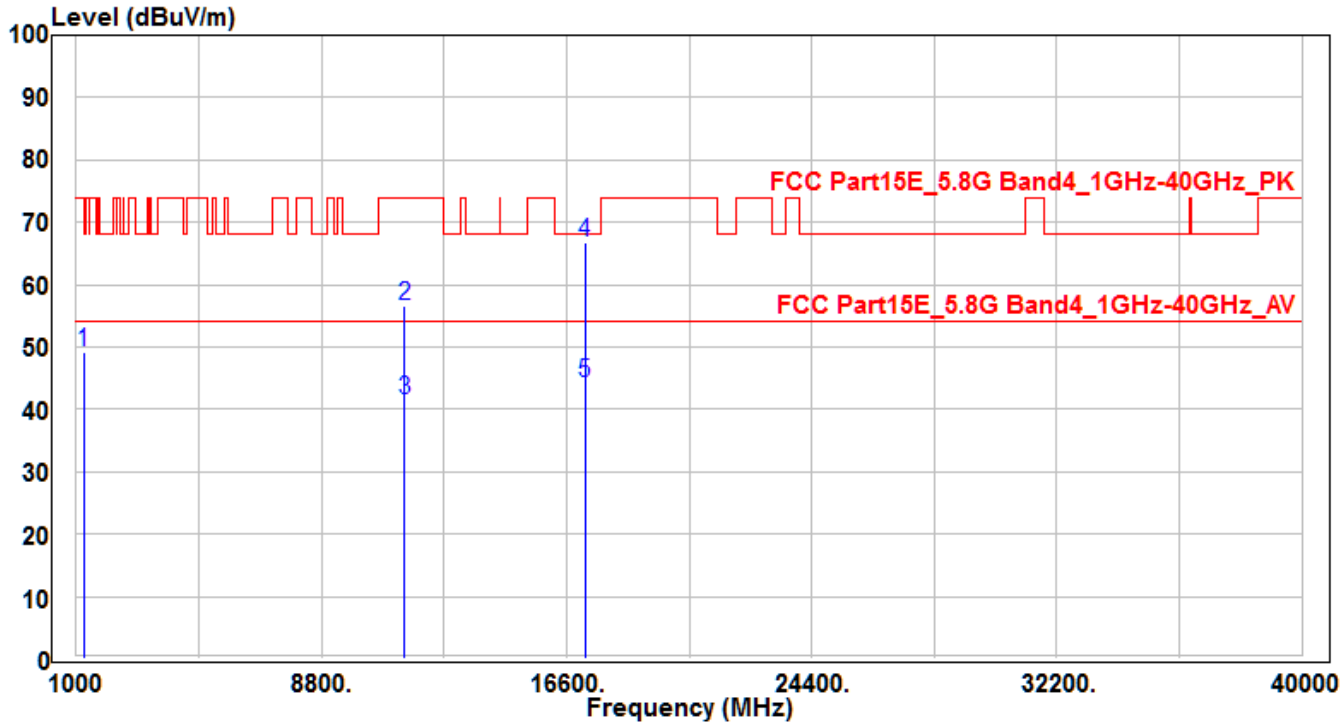


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		53.159	14.23	21	35.23	-4.77	40	190	250	QP
2		81.258	18.39	14.54	32.93	-7.07	40	100	225	QP
3		178.653	22.2	17.2	39.4	-4.1	43.5	165	130	QP
4		252.979	19.76	20.55	40.31	-5.69	46	120	310	QP
5	*	466.652	18.11	25.46	43.57	-2.43	46	110	90	QP
6		750.013	12.69	30.31	43	-3	46	115	120	QP

Note :

1. " * ", means the worst value in this measurement data.
2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)。
3. Measurement (dBuV/m) = Reading(dBuV) + C.F (Correction Factor)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5730MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

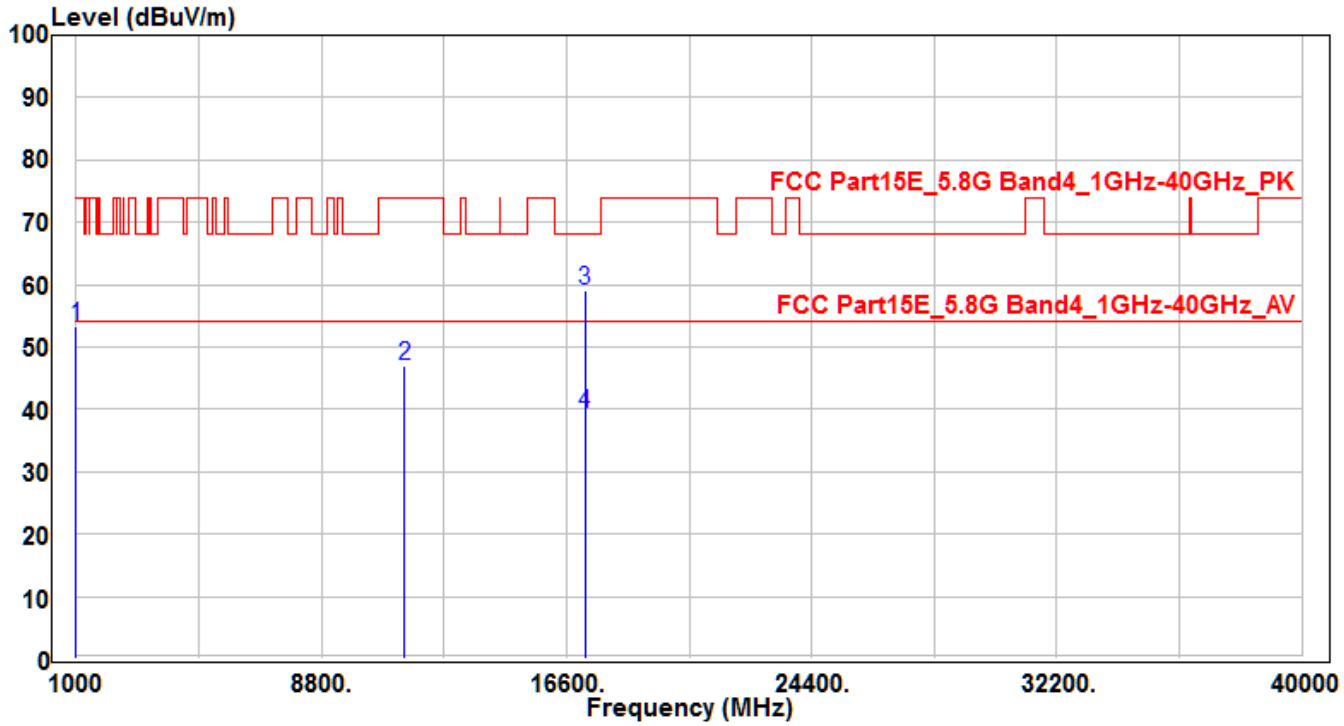


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1249.91	56.18	-6.94	49.24	-18.96	68.2	150	400	Peak
2		11460	38.16	18.37	56.53	-17.47	74	100	-40	Peak
3		11460	23.15	18.37	41.52	-12.48	54	100	-40	Average
4	*	17190	40.12	26.66	66.78	-1.42	68.2	200	180	Peak
5	*	17190	17.6	26.66	44.26	-9.74	54	200	180	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5730MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

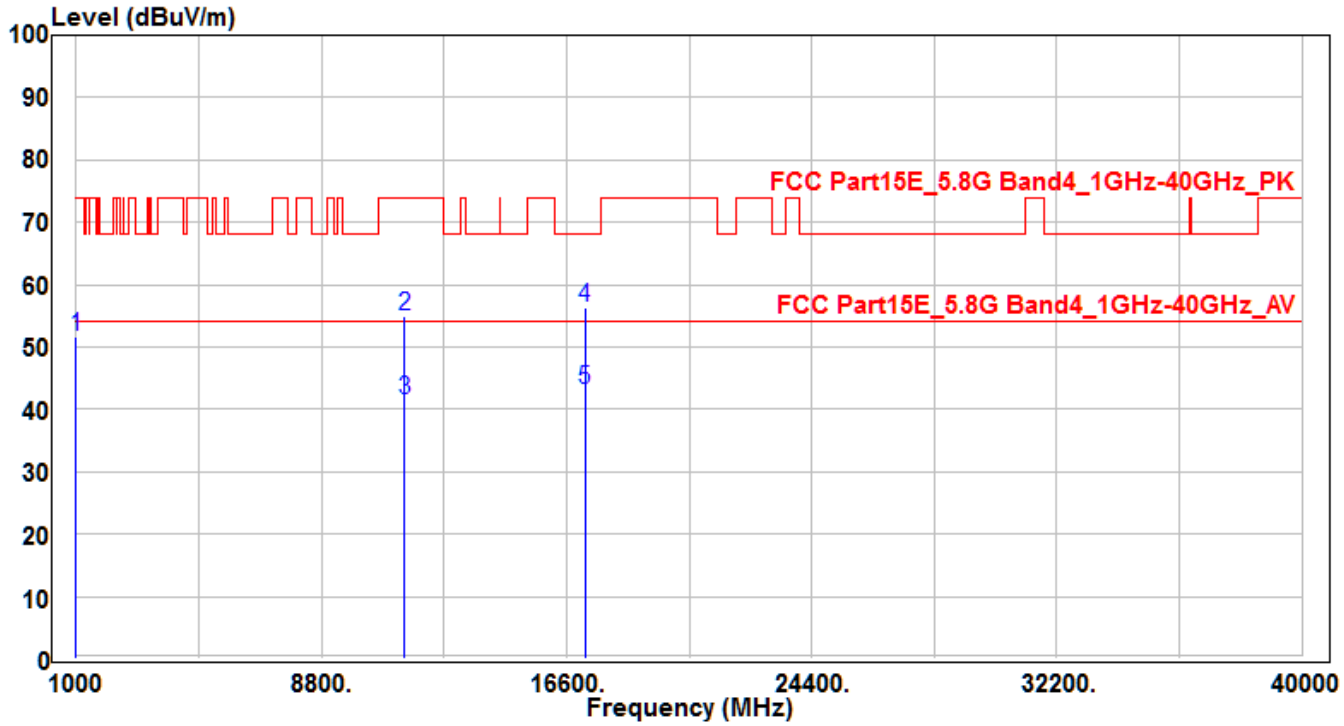


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	60.91	-7.55	53.36	-20.64	74	150	400	Peak
2		11460	28.71	18.37	47.08	-26.92	74	150	400	Peak
3	*	17190	32.43	26.66	59.09	-9.11	68.2	100	350	Peak
4	*	17190	12.74	26.66	39.4	-14.6	54	100	350	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5730MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

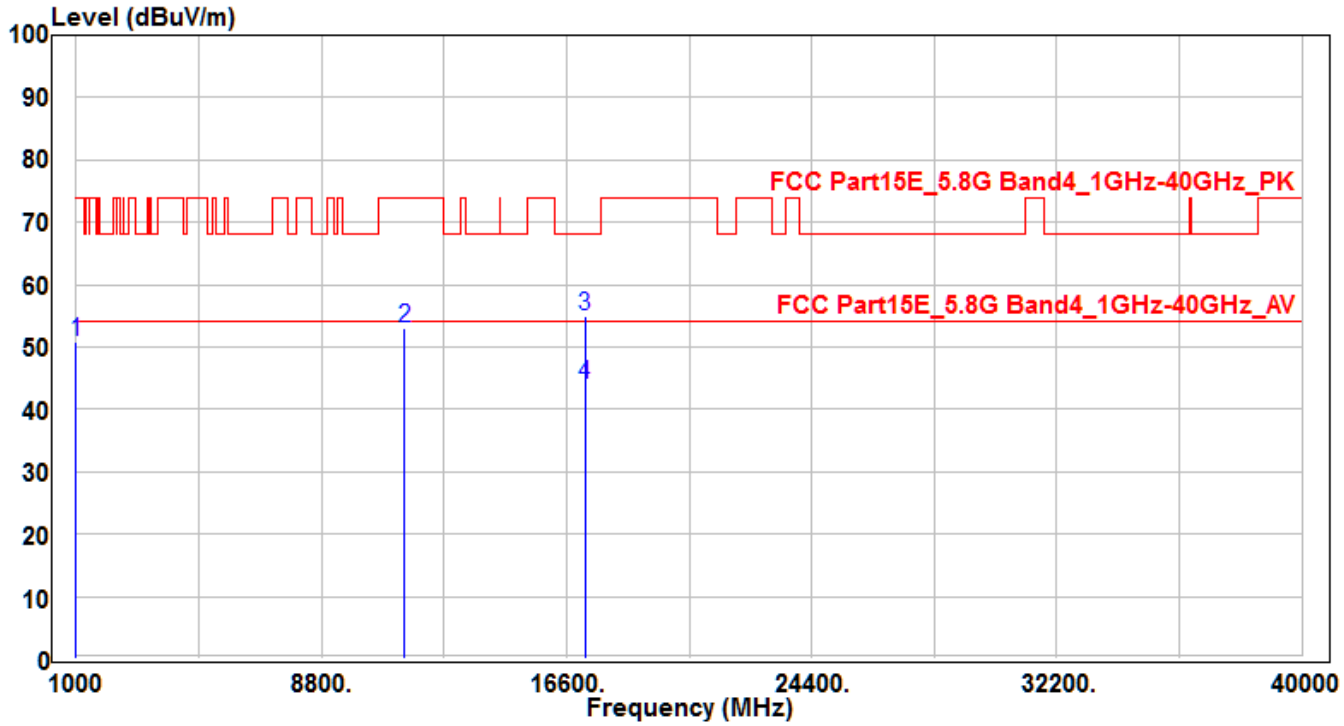


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	59.15	-7.55	51.6	-22.4	74	150	25	Peak
2		11460	36.46	18.37	54.83	-19.17	74	150	25	Peak
3		11460	23.11	18.37	41.48	-12.52	54	150	25	Average
4	*	17190	29.65	26.66	56.31	-11.89	68.2	165	400	Peak
5	*	17190	16.51	26.66	43.17	-10.83	54	165	400	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5730MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

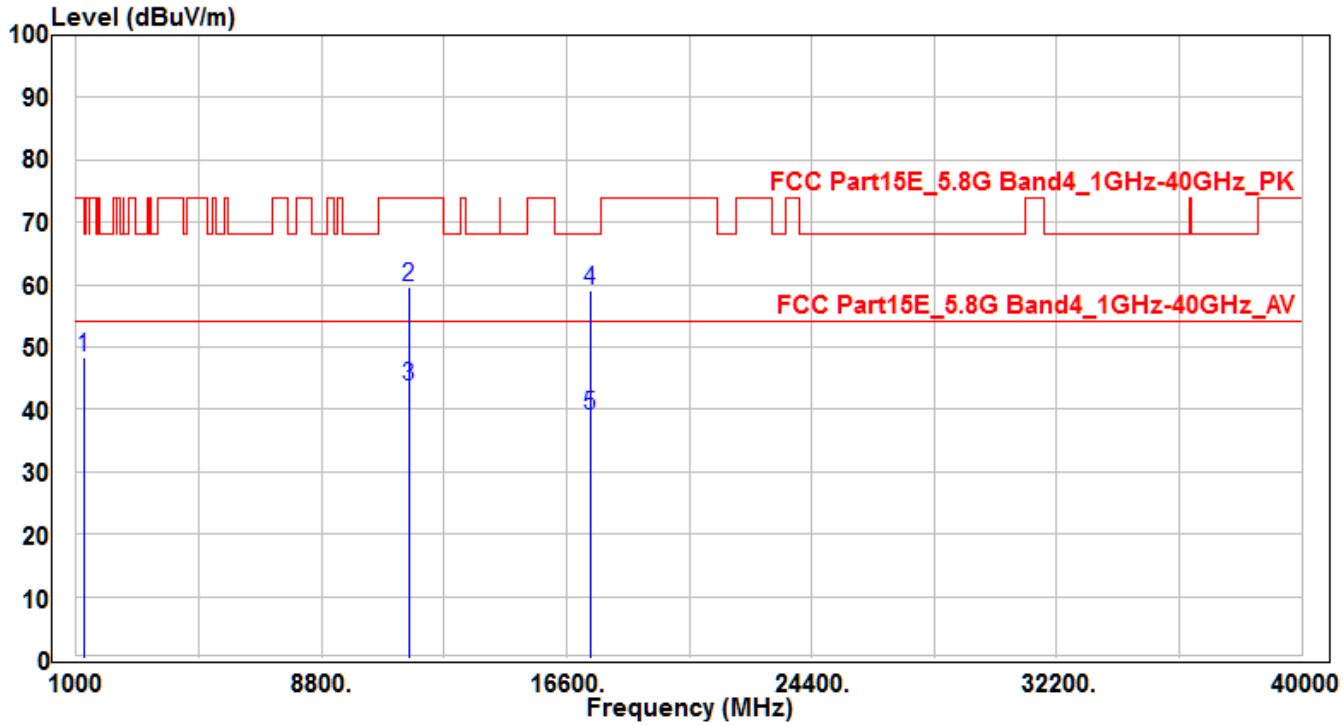


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	58.45	-7.55	50.9	-23.1	74	150	400	Peak
2		11460	34.64	18.37	53.01	-20.99	74	150	400	Peak
3	*	17190	28.24	26.66	54.9	-13.3	68.2	155	200	Peak
4	*	17190	17.31	26.66	43.97	-10.03	54	155	200	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5785MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

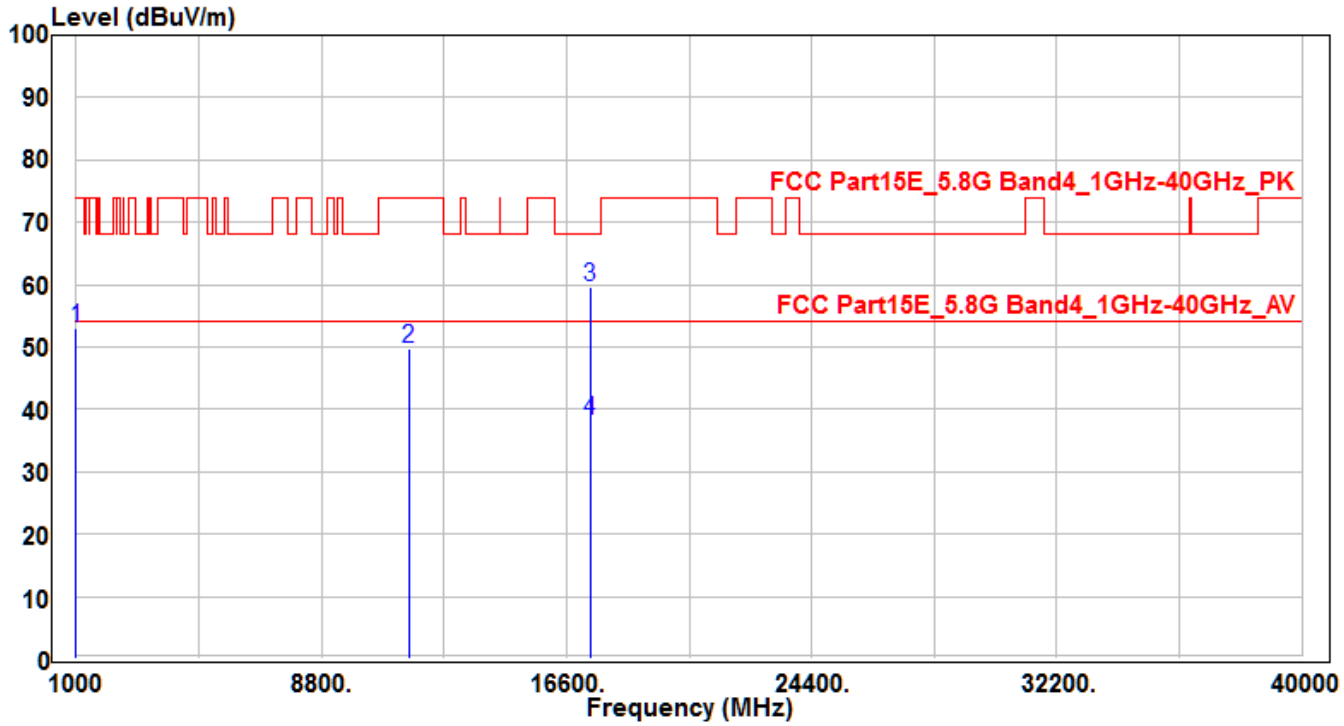


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1250.07	55.41	-6.94	48.47	-19.73	68.2	100	-40	Peak
2		11570	41.39	18.24	59.63	-14.37	74	100	-40	Peak
3	*	11570	25.51	18.24	43.75	-10.25	54	100	-40	Average
4	*	17355	31.29	27.81	59.1	-9.1	68.2	150	310	Peak
5		17355	11.33	27.81	39.14	-14.86	54	150	310	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5785MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

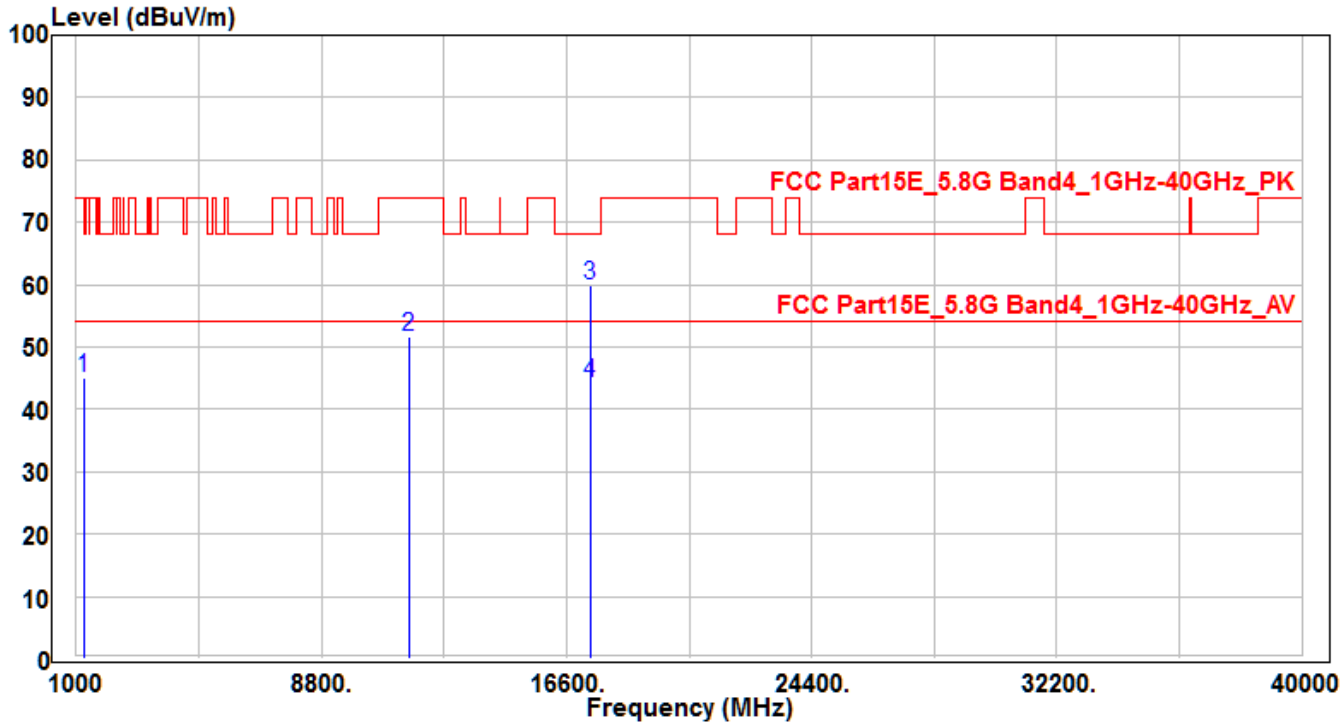


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	60.68	-7.55	53.13	-20.87	74	150	400	Peak
2		11570	31.58	18.24	49.82	-24.18	74	150	400	Peak
3	*	17355	31.89	27.81	59.7	-8.5	68.2	150	400	Peak
4	*	17355	10.5	27.81	38.31	-15.69	54	150	230	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5785MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

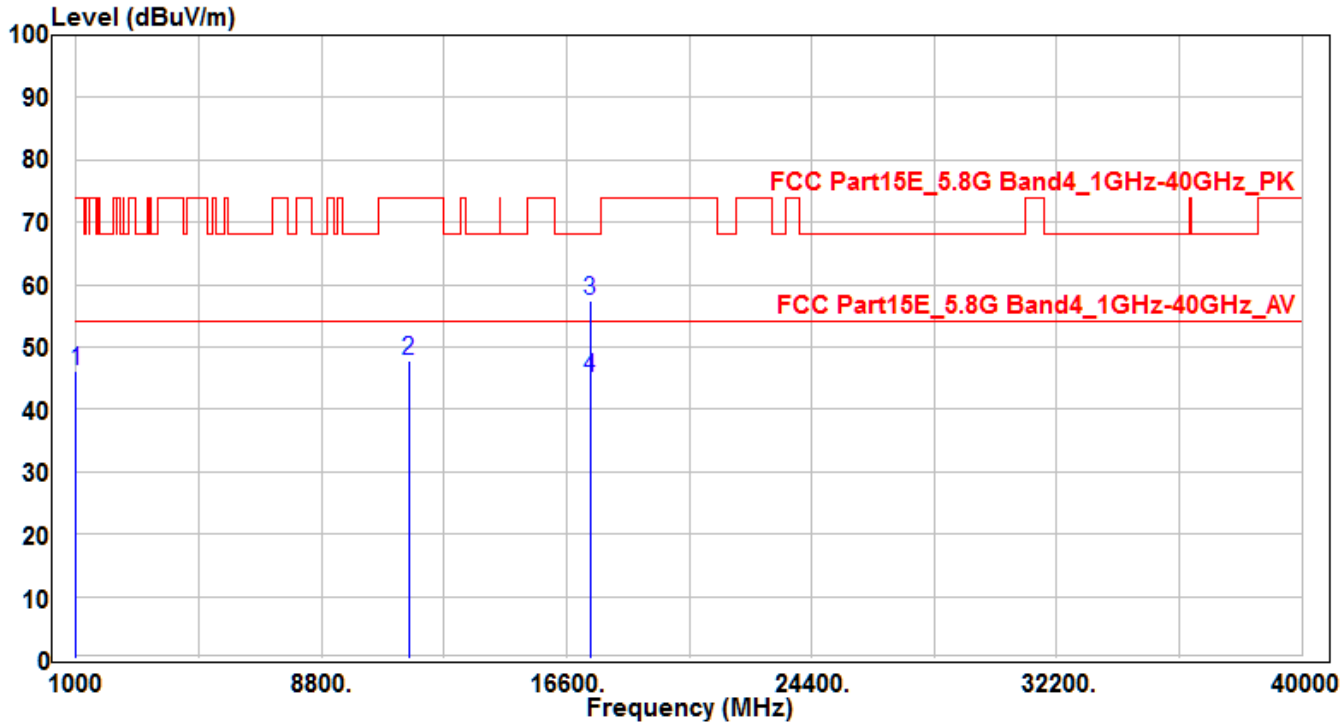


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1249.91	52.12	-6.94	45.18	-23.02	68.2	150	400	Peak
2		11570	33.49	18.24	51.73	-22.27	74	150	400	Peak
3	*	17355	32.02	27.81	59.83	-8.37	68.2	180	320	Peak
4	*	17355	16.41	27.81	44.22	-9.78	54	180	320	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5785MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

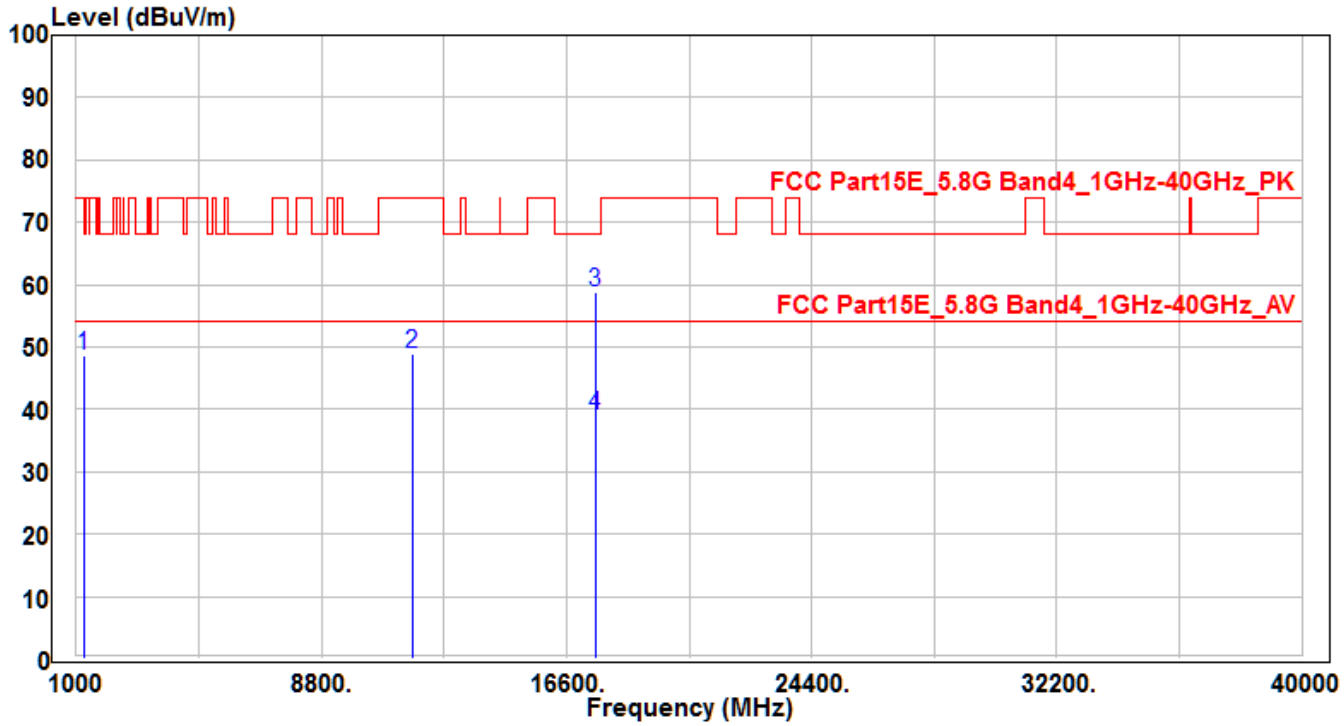


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	53.64	-7.55	46.09	-27.91	74	150	400	Peak
2		11570	29.5	18.24	47.74	-26.26	74	150	400	Peak
3	*	17355	29.74	27.81	57.55	-10.65	68.2	160	225	Peak
4	*	17355	17.21	27.81	45.02	-8.98	54	160	225	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5840MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

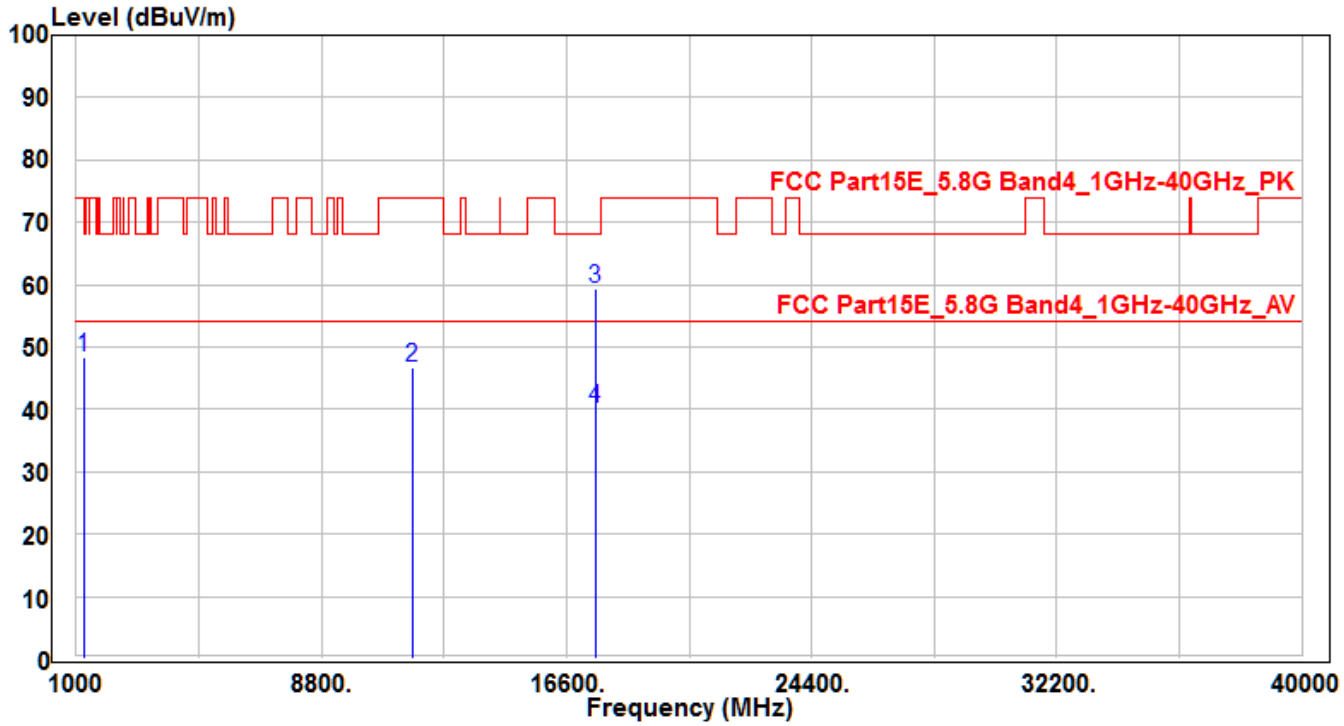


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1249.91	55.56	-6.94	48.62	-19.58	68.2	150	400	Peak
2		11680	30.97	18.05	49.02	-24.98	74	150	400	Peak
3	*	17520	29.66	29.07	58.73	-9.47	68.2	100	140	Peak
4	*	17520	9.84	29.07	38.91	-15.09	54	100	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5840MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

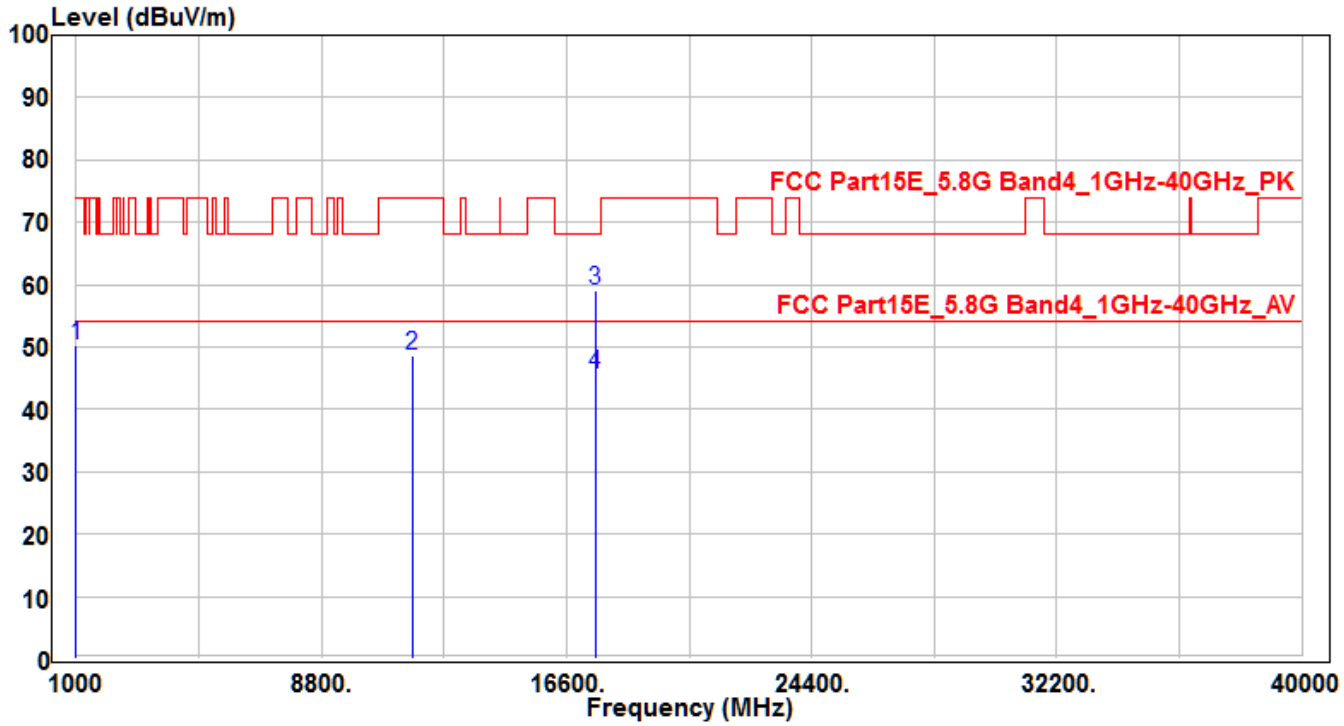


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1249.91	55.25	-6.94	48.31	-19.89	68.2	150	400	Peak
2		11680	28.76	18.05	46.81	-27.19	74	150	400	Peak
3	*	17520	30.18	29.07	59.25	-8.95	68.2	110	320	Peak
4	*	17520	11.15	29.07	40.22	-13.78	54	110	320	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5840MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

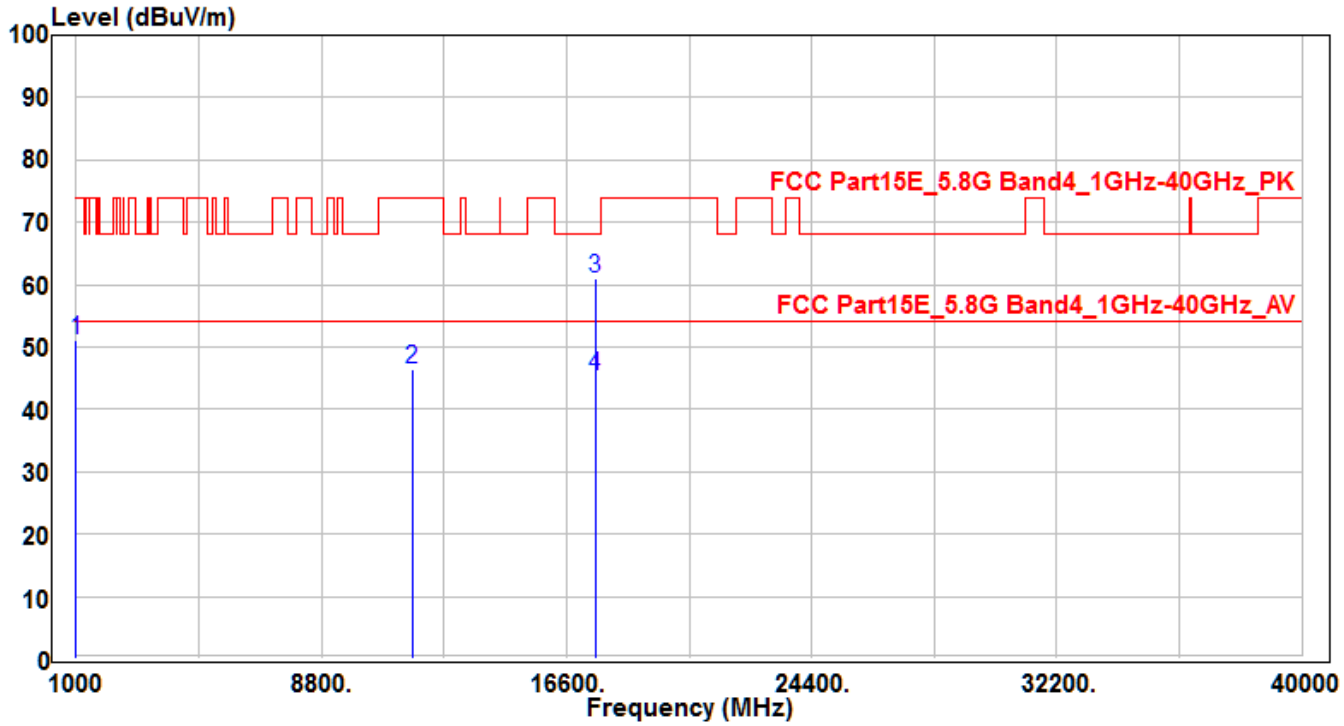


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.23	57.94	-7.55	50.39	-23.61	74	150	400	Peak
2		11680	30.69	18.05	48.74	-25.26	74	150	400	Peak
3	*	17520	30.02	29.07	59.09	-9.11	68.2	155	-40	Peak
4	*	17520	16.49	29.07	45.56	-8.44	54	155	-40	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5840MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

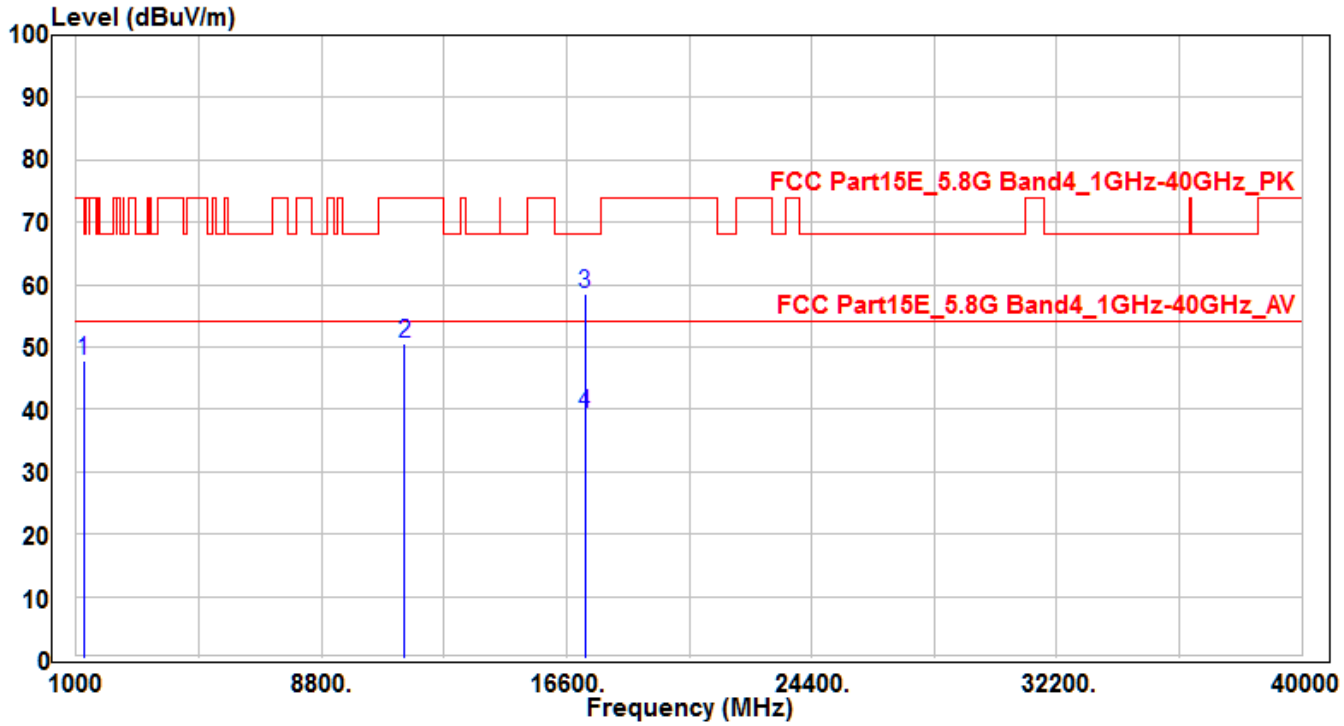


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.23	58.64	-7.55	51.09	-22.91	74	150	400	Peak
2		11680	28.42	18.05	46.47	-27.53	74	150	400	Peak
3	*	17520	31.82	29.07	60.89	-7.31	68.2	180	350	Peak
4	*	17520	16.29	29.07	45.36	-8.64	54	180	350	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5730MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

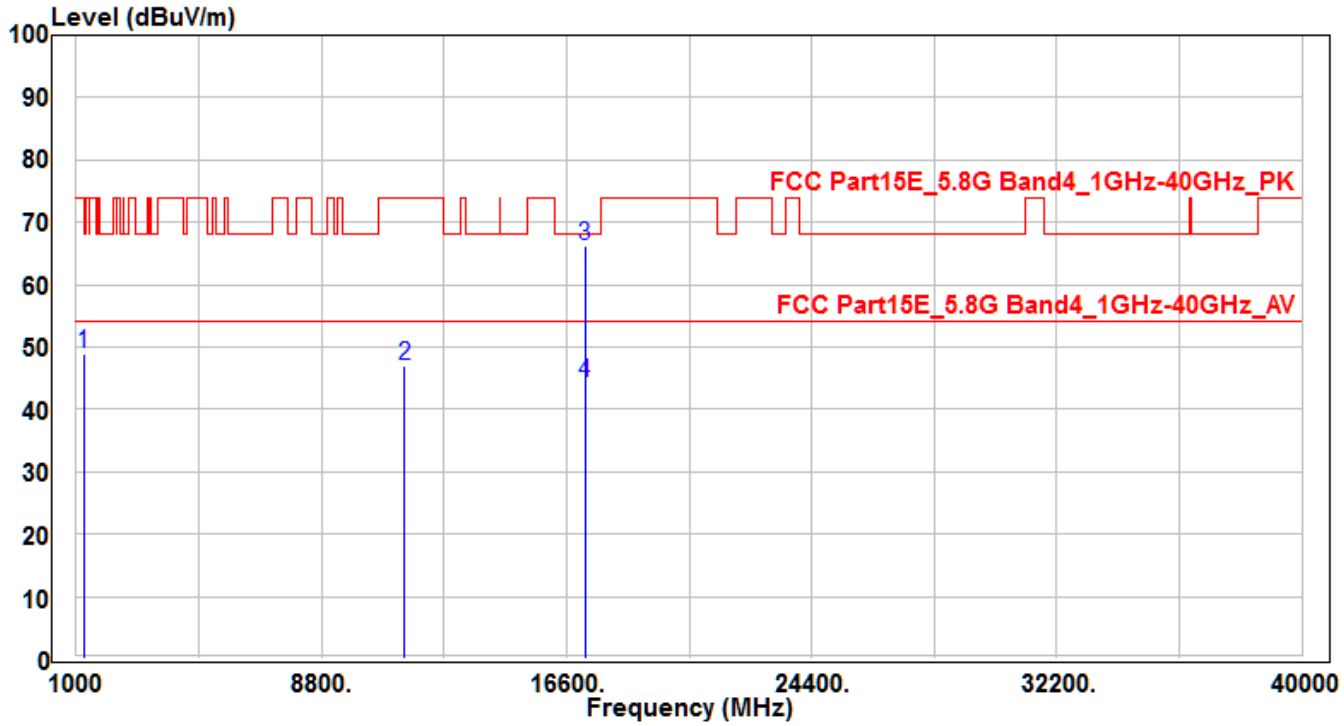


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1250.07	54.83	-6.94	47.89	-20.31	68.2	150	400	Peak
2		11460	32.2	18.37	50.57	-23.43	74	150	400	Peak
3	*	17190	31.81	26.66	58.47	-9.73	68.2	100	-40	Peak
4	*	17190	12.56	26.66	39.22	-14.78	54	100	-40	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5730MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

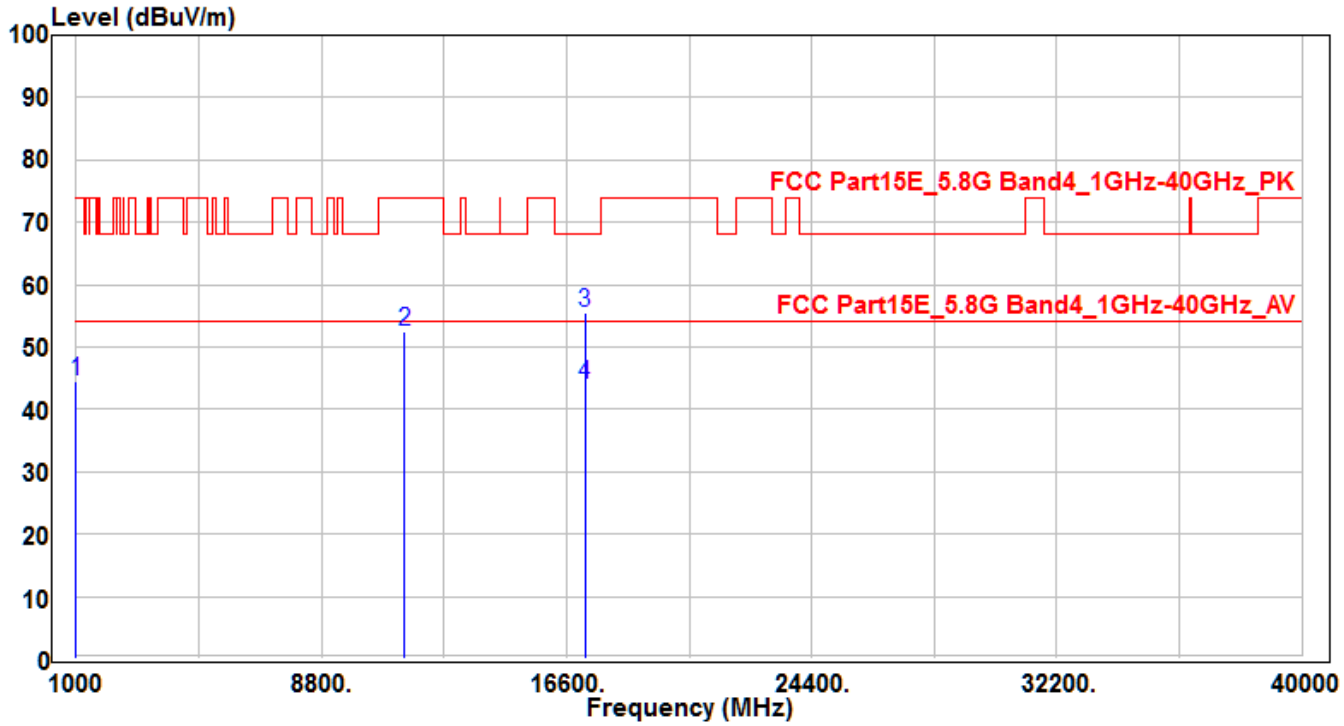


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1250.07	55.95	-6.94	49.01	-19.19	68.2	150	400	Peak
2		11460	28.62	18.37	46.99	-27.01	74	150	400	Peak
3	*	17190	39.46	26.66	66.12	-2.08	68.2	150	305	Peak
4	*	17190	17.54	26.66	44.2	-9.8	54	150	305	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5730MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

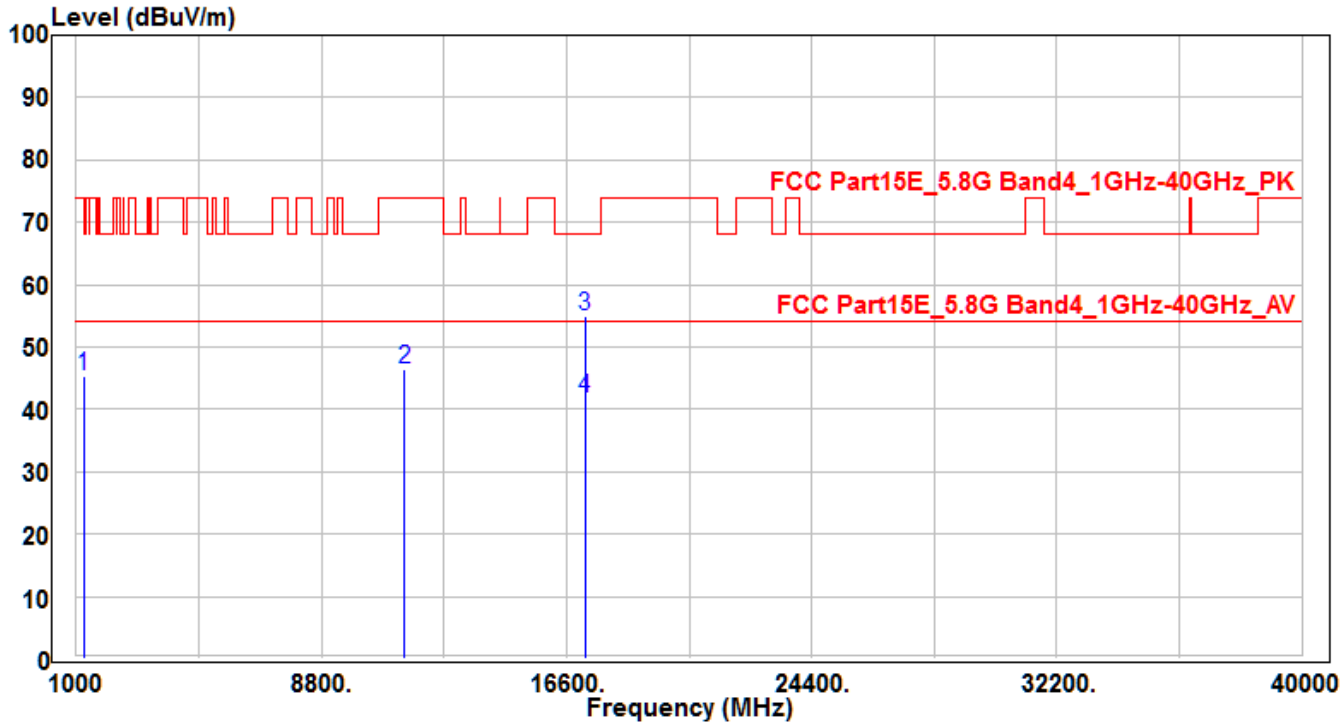


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	52.02	-7.55	44.47	-29.53	74	150	400	Peak
2		11460	34.06	18.37	52.43	-21.57	74	150	400	Peak
3	*	17190	28.79	26.66	55.45	-12.75	68.2	155	320	Peak
4	*	17190	17.27	26.66	43.93	-10.07	54	155	320	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5730MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

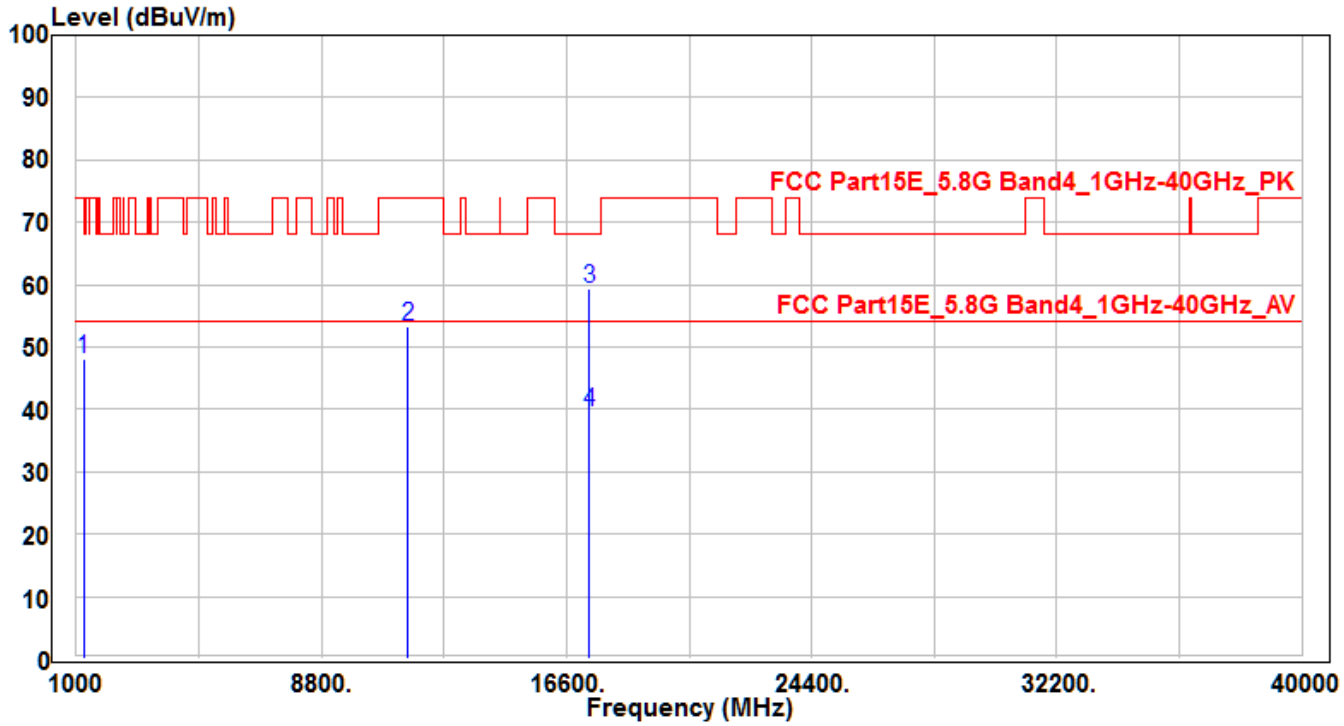


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1250.07	52.22	-6.94	45.28	-22.92	68.2	150	400	Peak
2		11460	27.94	18.37	46.31	-27.69	74	150	400	Peak
3	*	17190	28.22	26.66	54.88	-13.32	68.2	175	175	Peak
4	*	17190	15.19	26.66	41.85	-12.15	54	175	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5780MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

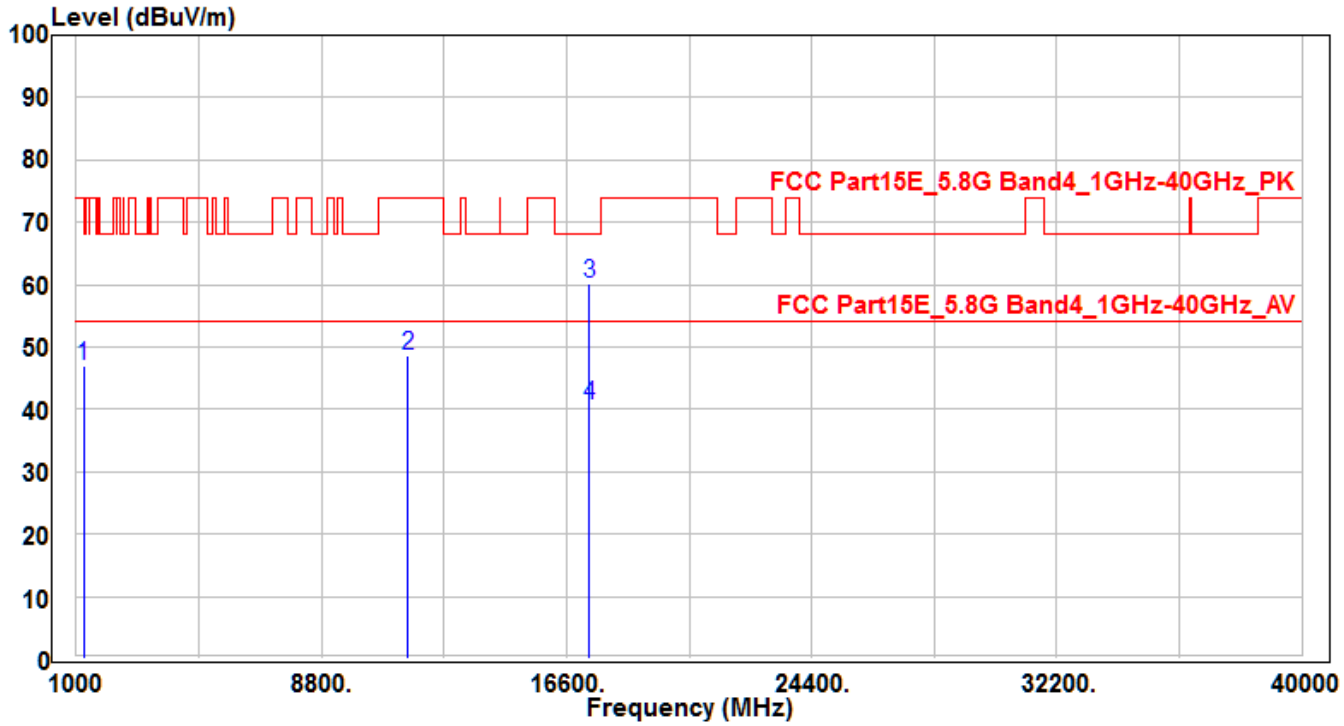


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1249.91	55.1	-6.94	48.16	-20.04	68.2	150	400	Peak
2		11560	35.14	18.25	53.39	-20.61	74	150	400	Peak
3	*	17340	31.55	27.72	59.27	-8.93	68.2	150	120	Peak
4	*	17340	11.92	27.72	39.64	-14.36	54	150	120	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5780MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

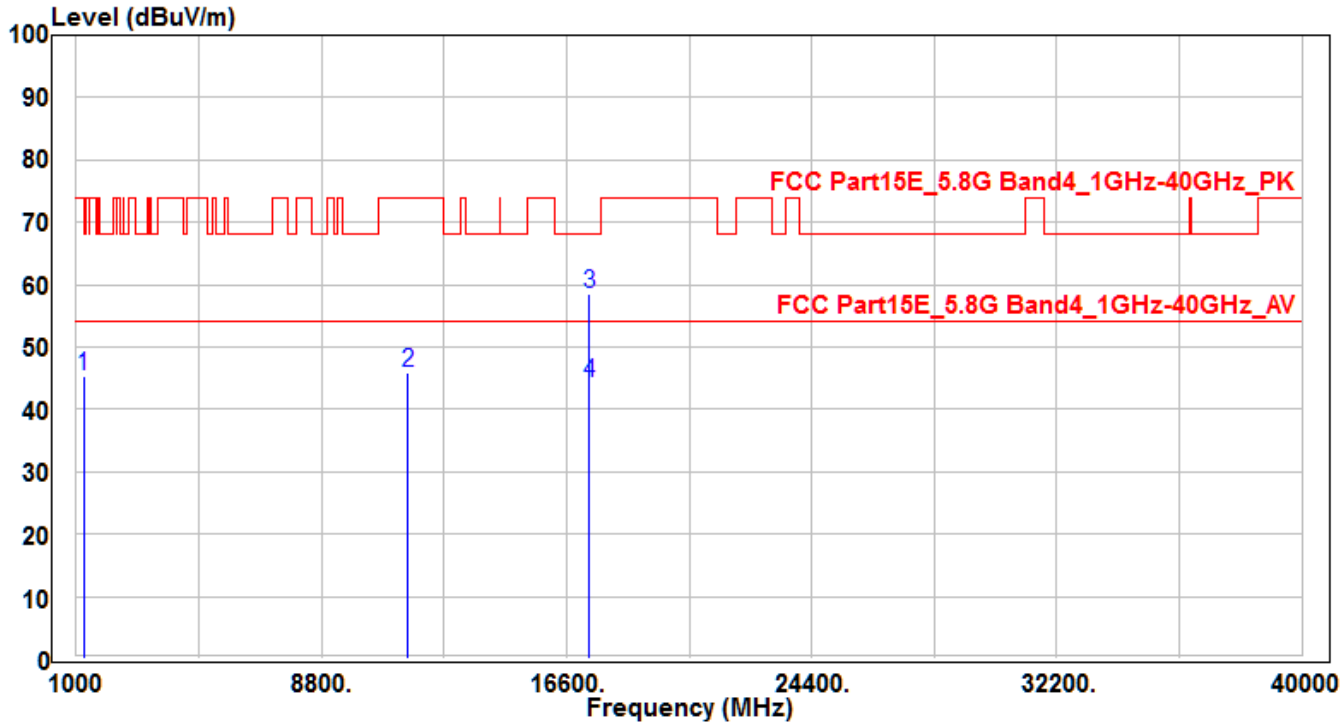


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1250.07	54.03	-6.94	47.09	-21.11	68.2	150	400	Peak
2		11560	30.35	18.25	48.6	-25.4	74	150	400	Peak
3	*	17340	32.53	27.72	60.25	-7.95	68.2	150	295	Peak
4	*	17340	13.07	27.72	40.79	-13.21	54	150	295	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5780MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

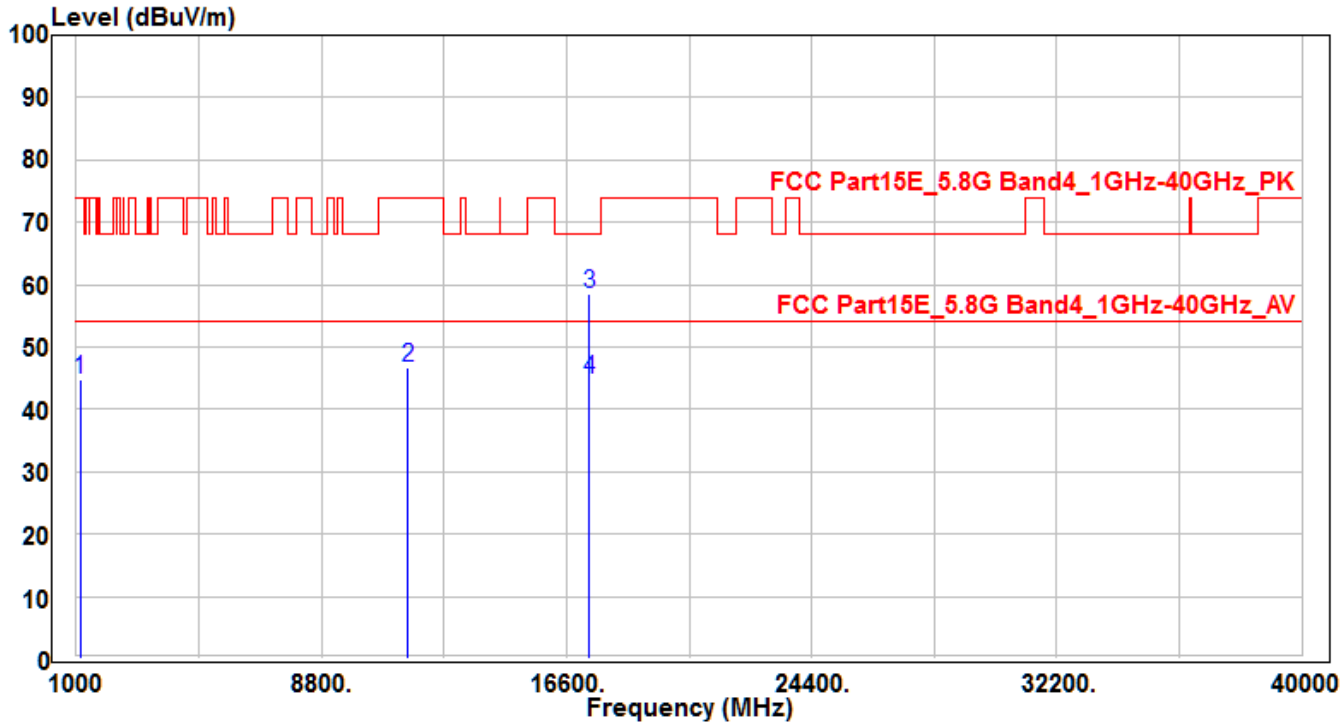


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1249.91	52.36	-6.94	45.42	-22.78	68.2	150	400	Peak
2		11560	27.54	18.25	45.79	-28.21	74	150	400	Peak
3	*	17340	30.89	27.72	58.61	-9.59	68.2	150	-40	Peak
4	*	17340	16.49	27.72	44.21	-9.79	54	150	-40	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5780MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

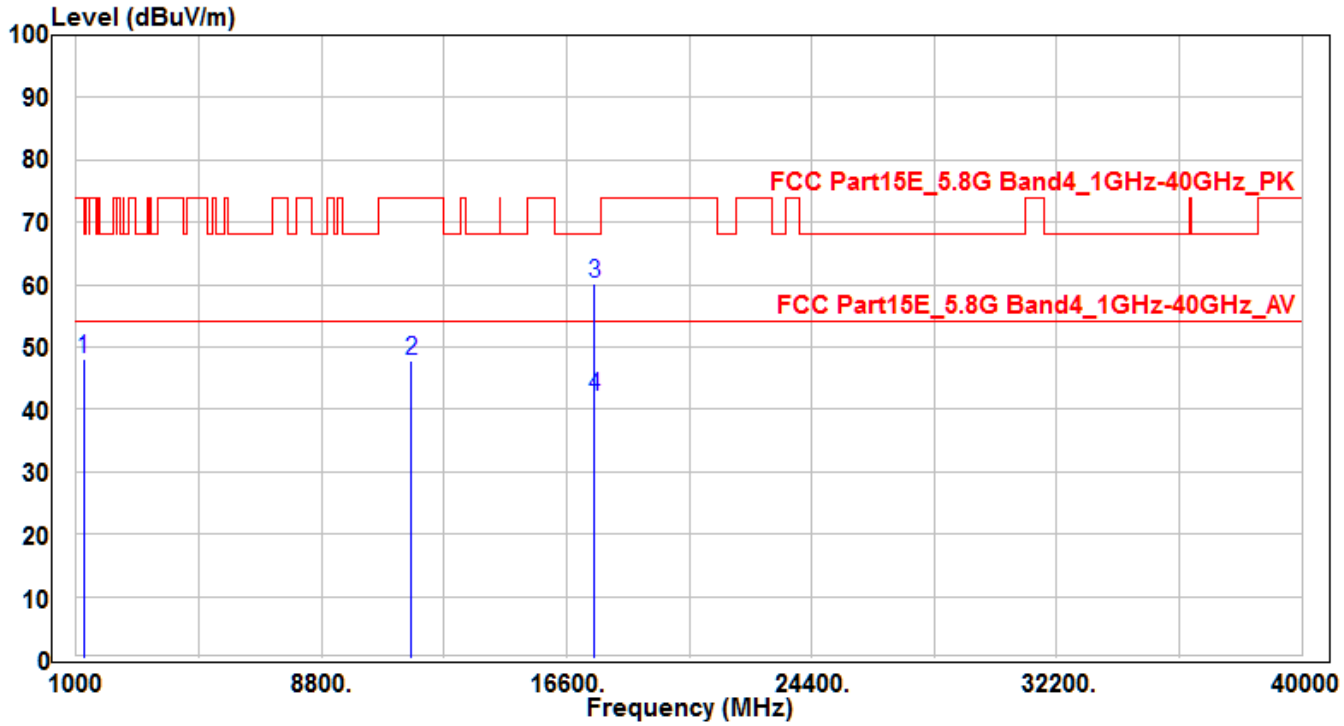


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1125.07	51.95	-7.24	44.71	-29.29	74	150	400	Peak
2		11560	28.53	18.25	46.78	-27.22	74	150	400	Peak
3	*	17340	30.89	27.72	58.61	-9.59	68.2	165	280	Peak
4	*	17340	17.19	27.72	44.91	-9.09	54	165	280	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5830MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

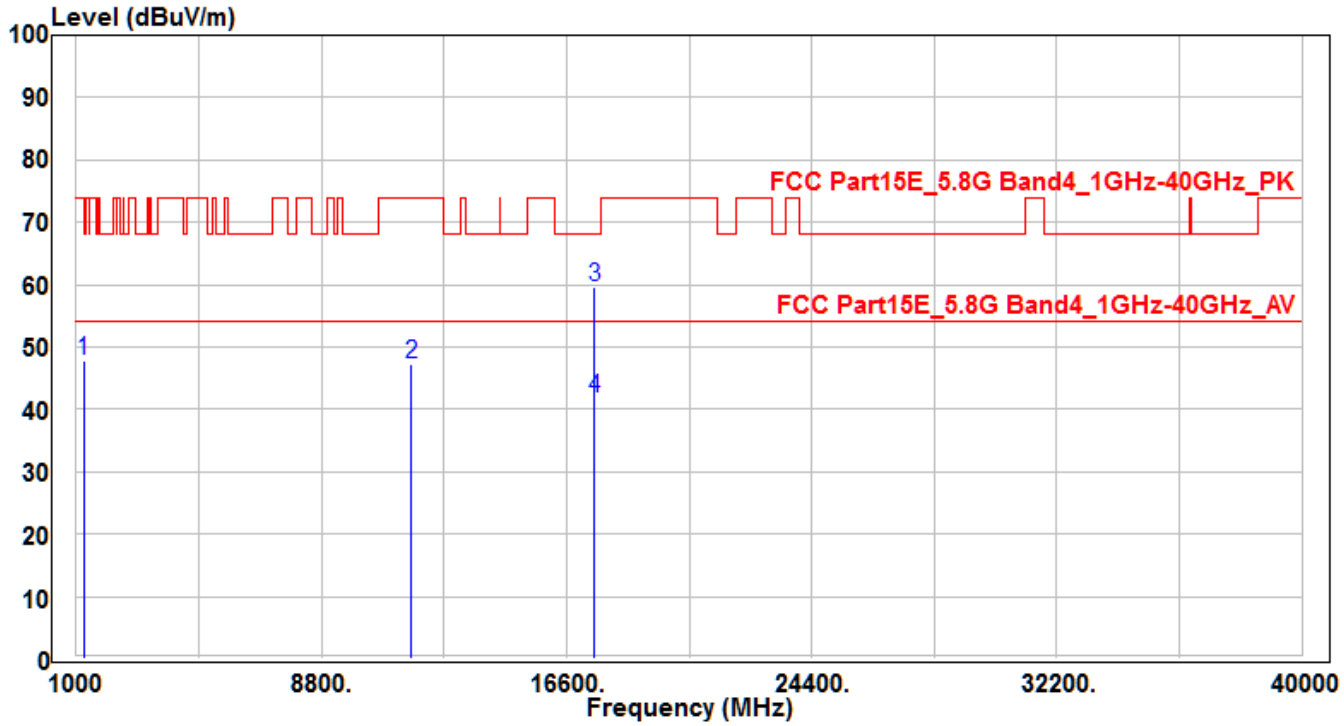


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1250.07	54.96	-6.94	48.02	-20.18	68.2	150	400	Peak
2		11660	29.71	18.09	47.8	-26.2	74	150	400	Peak
3	*	17490	31.3	28.78	60.08	-8.12	68.2	110	160	Peak
4	*	17490	13.16	28.78	41.94	-12.06	54	110	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5830MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

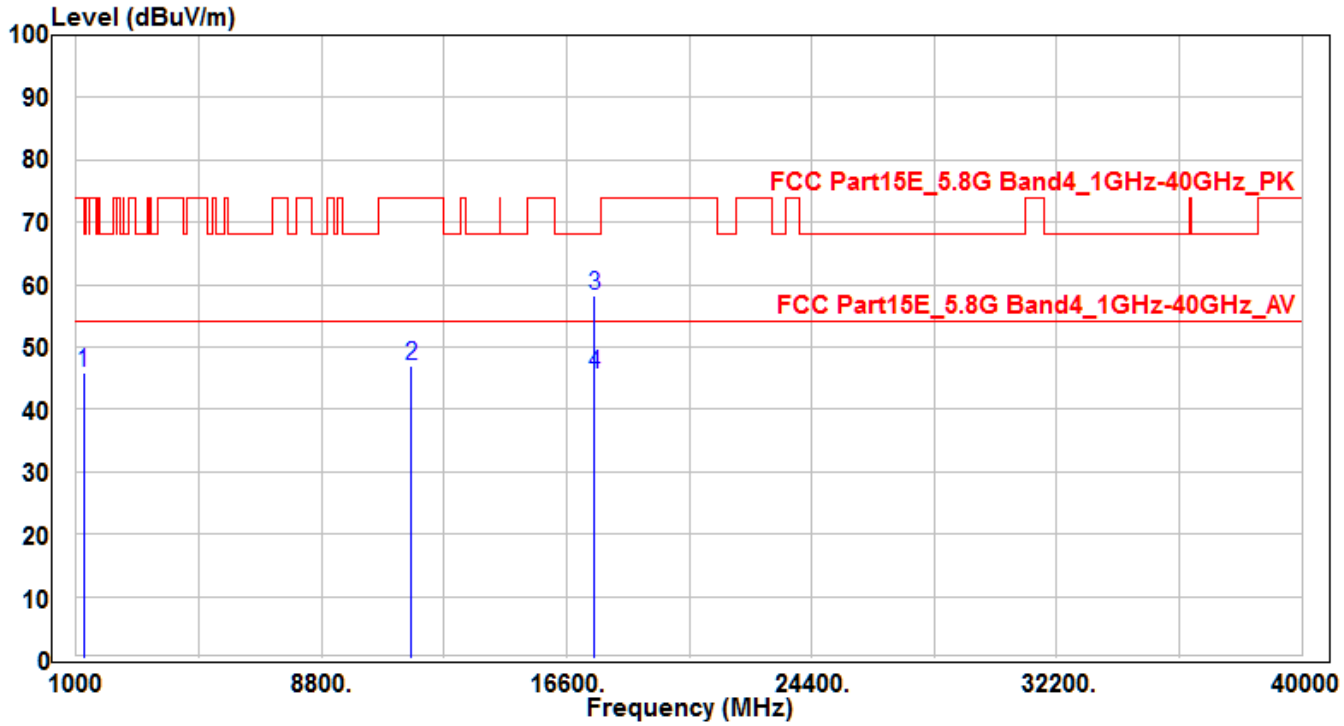


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1250.07	54.89	-6.94	47.95	-20.25	68.2	150	400	Peak
2		11660	29.04	18.09	47.13	-26.87	74	150	400	Peak
3	*	17490	30.74	28.78	59.52	-8.68	68.2	120	230	Peak
4	*	17490	12.87	28.78	41.65	-12.35	54	120	230	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5830MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

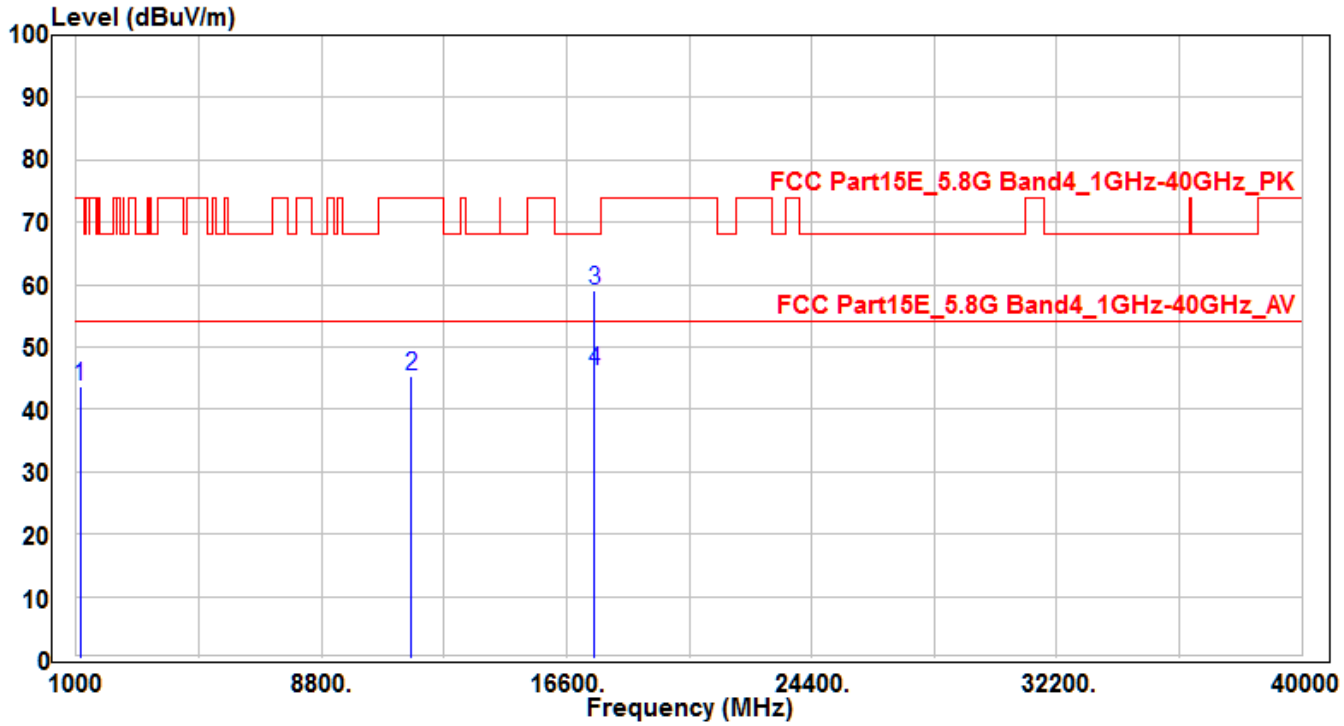


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1250.07	52.85	-6.94	45.91	-22.29	68.2	150	400	Peak
2		11660	28.88	18.09	46.97	-27.03	74	150	400	Peak
3	*	17490	29.44	28.78	58.22	-9.98	68.2	200	330	Peak
4	*	17490	16.79	28.78	45.57	-8.43	54	200	330	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5830MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

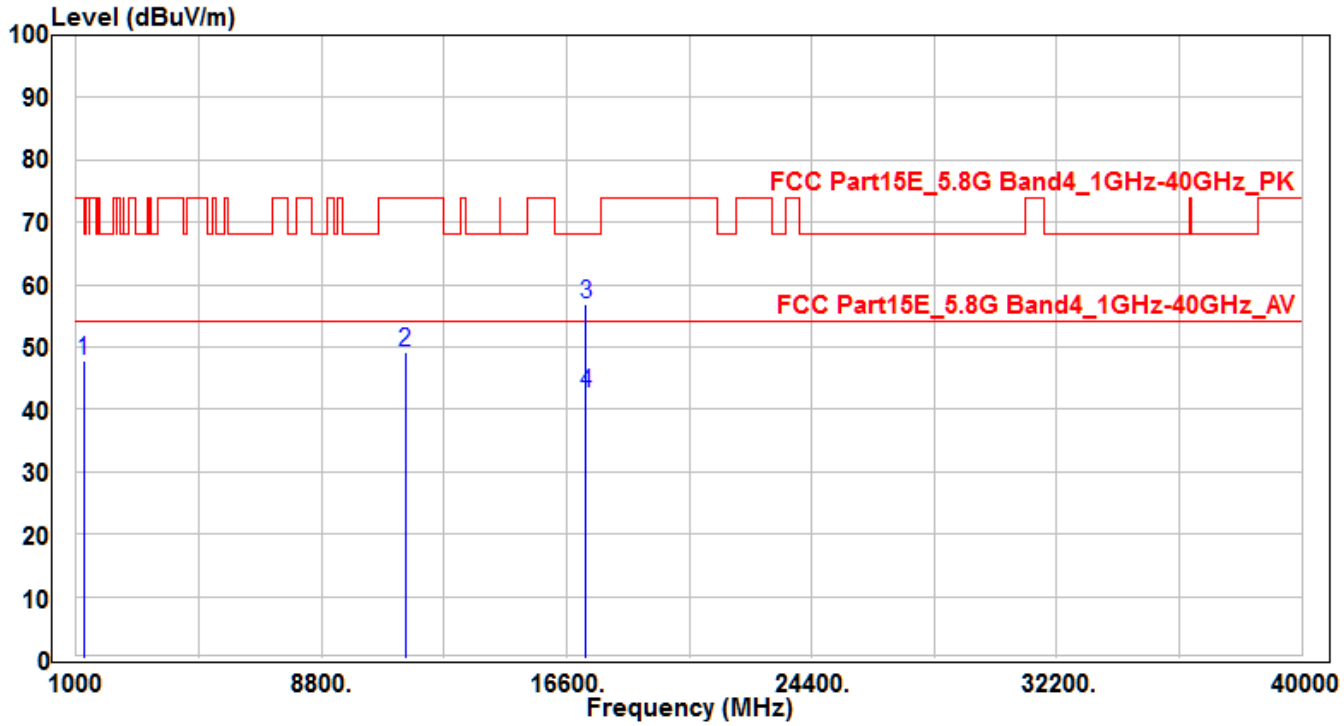


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1125.07	51.05	-7.24	43.81	-30.19	74	150	400	Peak
2		11660	27.35	18.09	45.44	-28.56	74	150	400	Peak
3	*	17490	30.41	28.78	59.19	-9.01	68.2	175	170	Peak
4	*	17490	17.29	28.78	46.07	-7.93	54	175	170	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5740MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

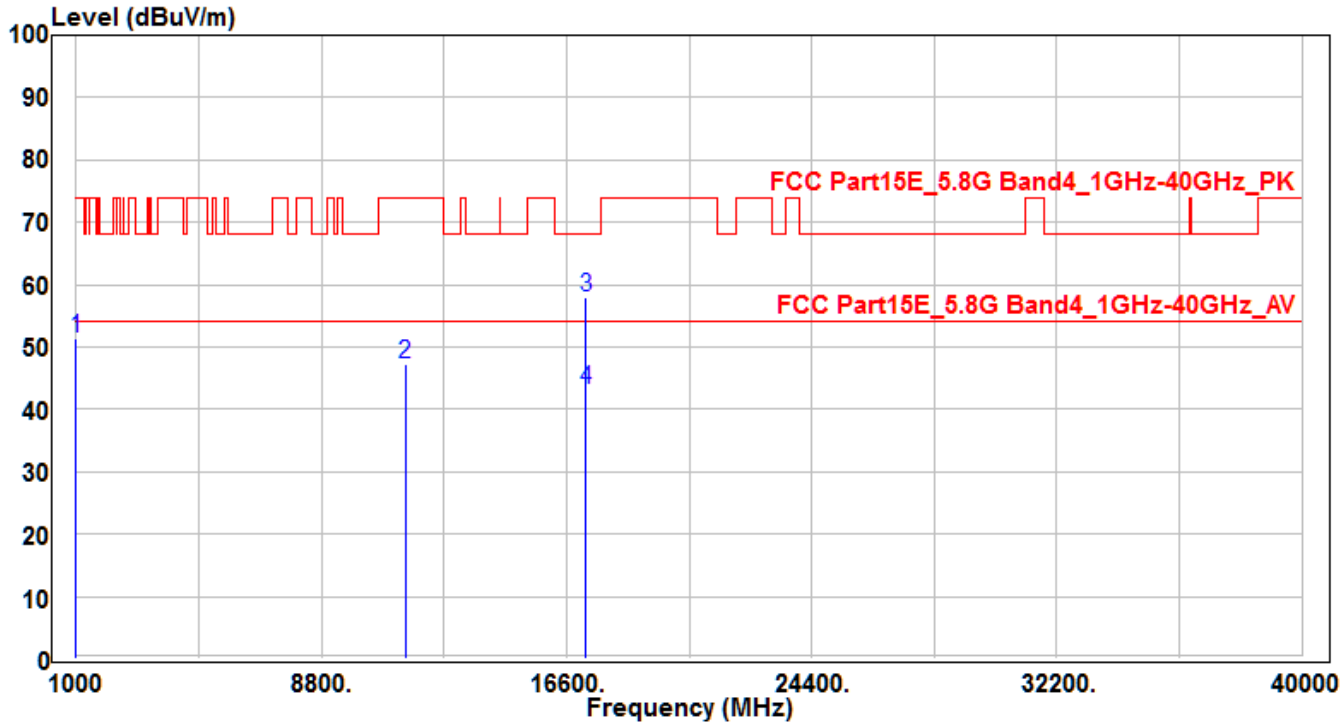


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1250.07	54.73	-6.94	47.79	-20.41	68.2	150	400	Peak
2		11480	30.81	18.36	49.17	-24.83	74	150	400	Peak
3	*	17220	30.14	26.87	57.01	-11.19	68.2	100	380	Peak
4	*	17220	15.61	26.87	42.48	-11.52	54	100	380	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5740MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

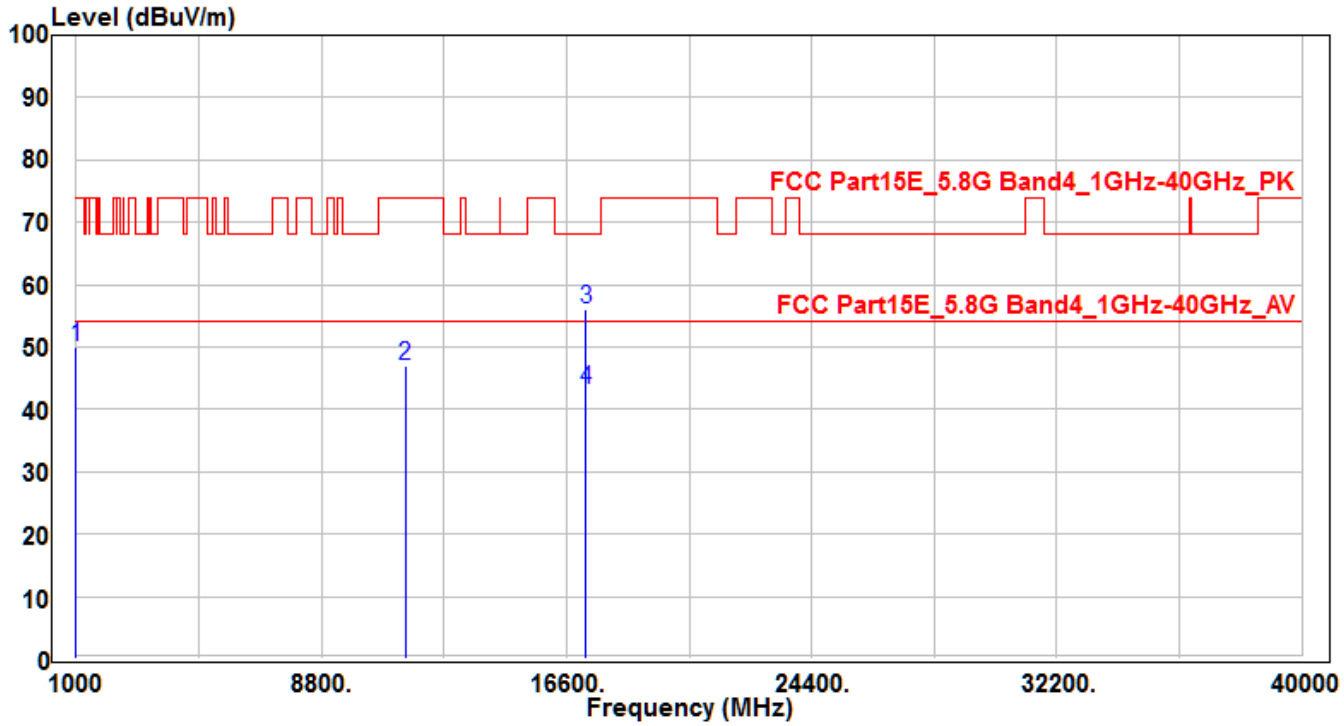


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	58.98	-7.55	51.43	-22.57	74	150	400	Peak
2		11480	29.01	18.36	47.37	-26.63	74	150	400	Peak
3	*	17220	31.01	26.87	57.88	-10.32	68.2	150	400	Peak
4	*	17220	16.29	26.87	43.16	-10.84	54	120	200	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5740MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

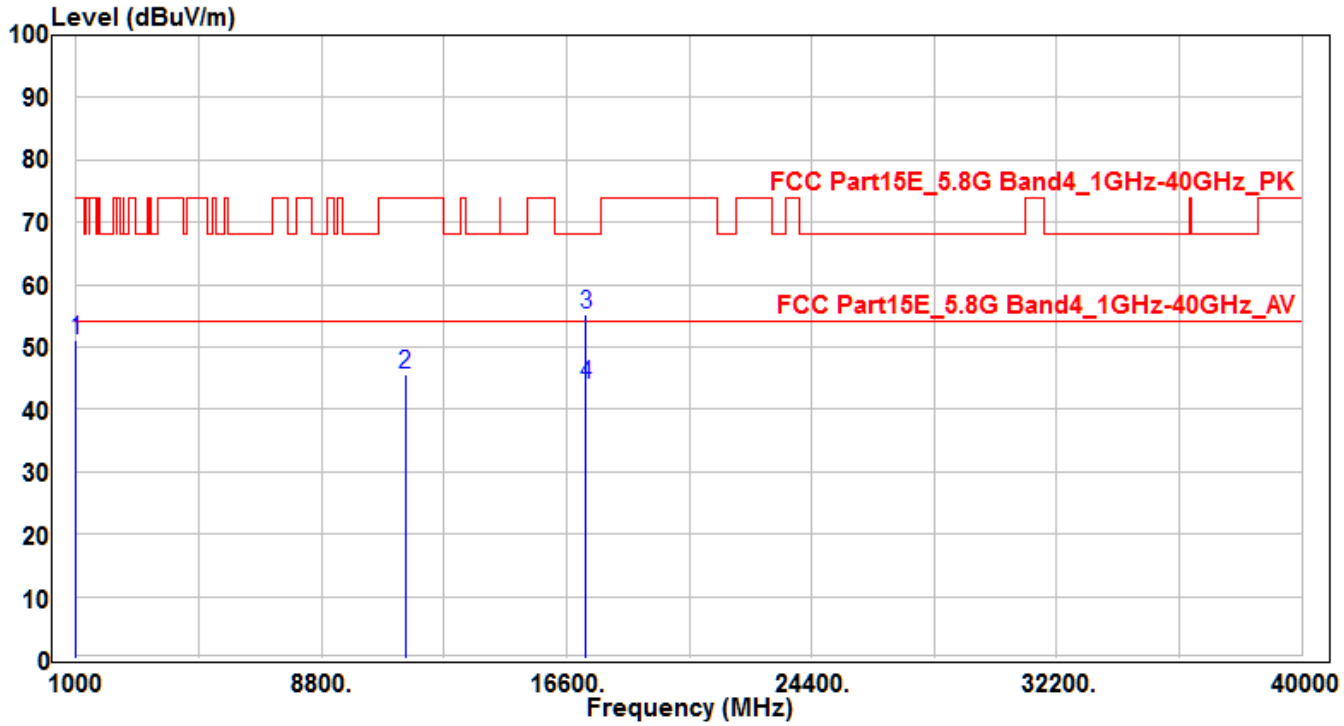


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	57.51	-7.55	49.96	-24.04	74	150	400	Peak
2		11480	28.52	18.36	46.88	-27.12	74	150	400	Peak
3	*	17220	29.19	26.87	56.06	-12.14	68.2	165	180	Peak
4	*	17220	16.39	26.87	43.26	-10.74	54	165	180	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5740MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

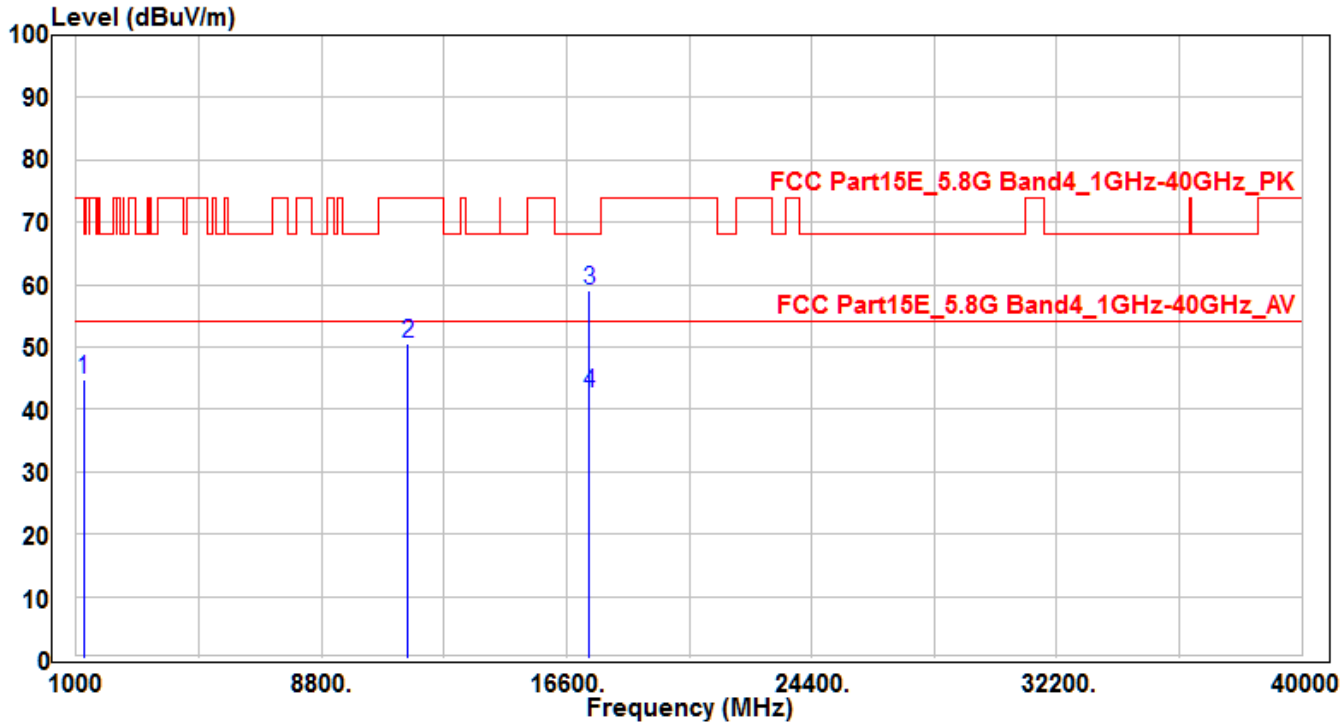


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	58.61	-7.55	51.06	-22.94	74	150	400	Peak
2		11480	27.24	18.36	45.6	-28.4	74	150	400	Peak
3	*	17220	28.41	26.87	55.28	-12.92	68.2	250	220	Peak
4	*	17220	17.22	26.87	44.09	-9.91	54	250	220	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5780MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

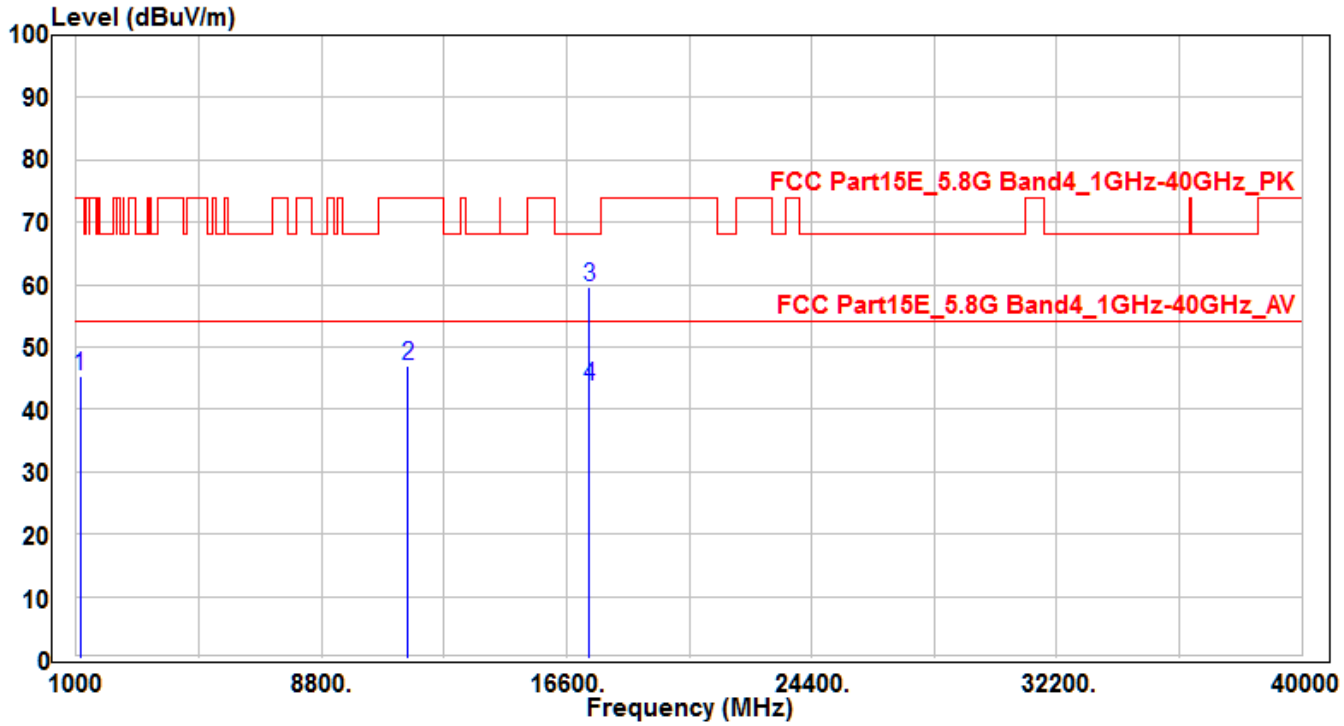


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1249.76	51.74	-6.94	44.8	-23.4	68.2	150	400	Peak
2		11560	32.26	18.25	50.51	-23.49	74	150	400	Peak
3	*	17340	31.3	27.72	59.02	-9.18	68.2	150	20	Peak
4	*	17340	14.83	27.72	42.55	-11.45	54	150	20	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5780MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

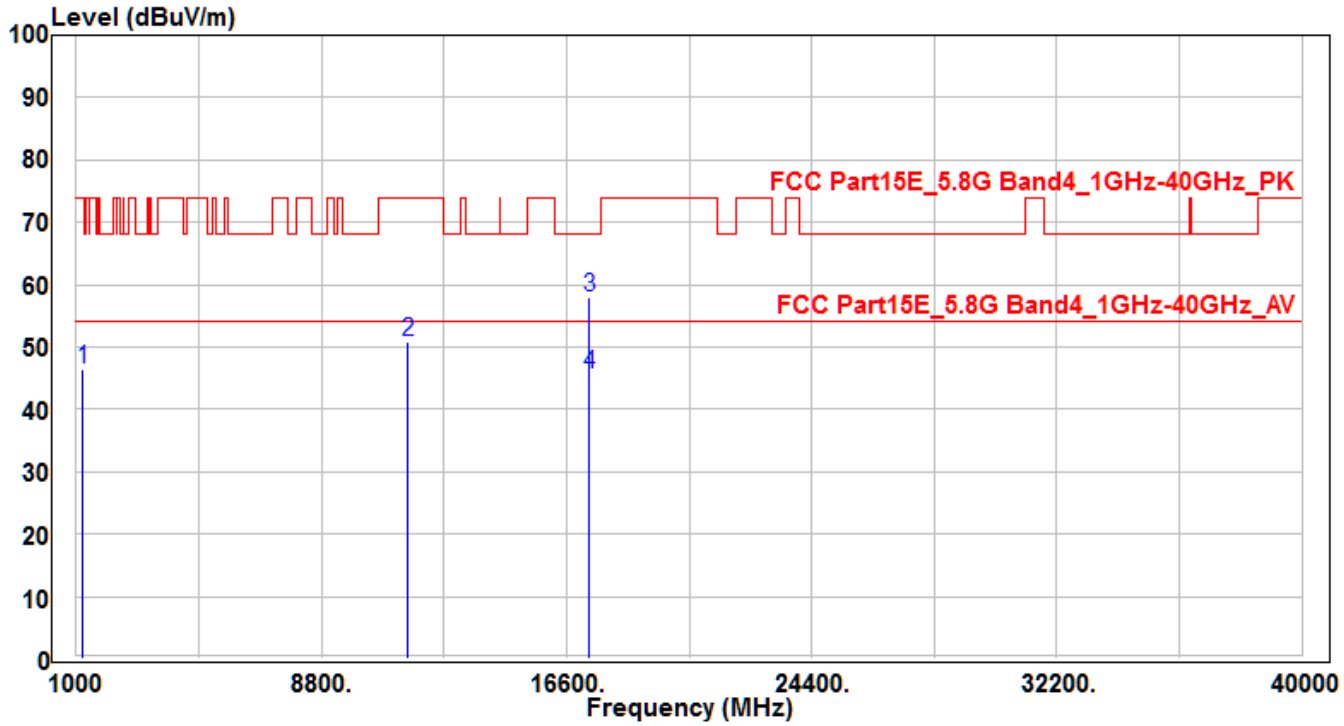


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1125.07	52.56	-7.24	45.32	-28.68	74	150	400	Peak
2		11560	28.67	18.25	46.92	-27.08	74	150	400	Peak
3	*	17340	31.86	27.72	59.58	-8.62	68.2	150	190	Peak
4	*	17340	15.93	27.72	43.65	-10.35	54	150	190	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5780MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

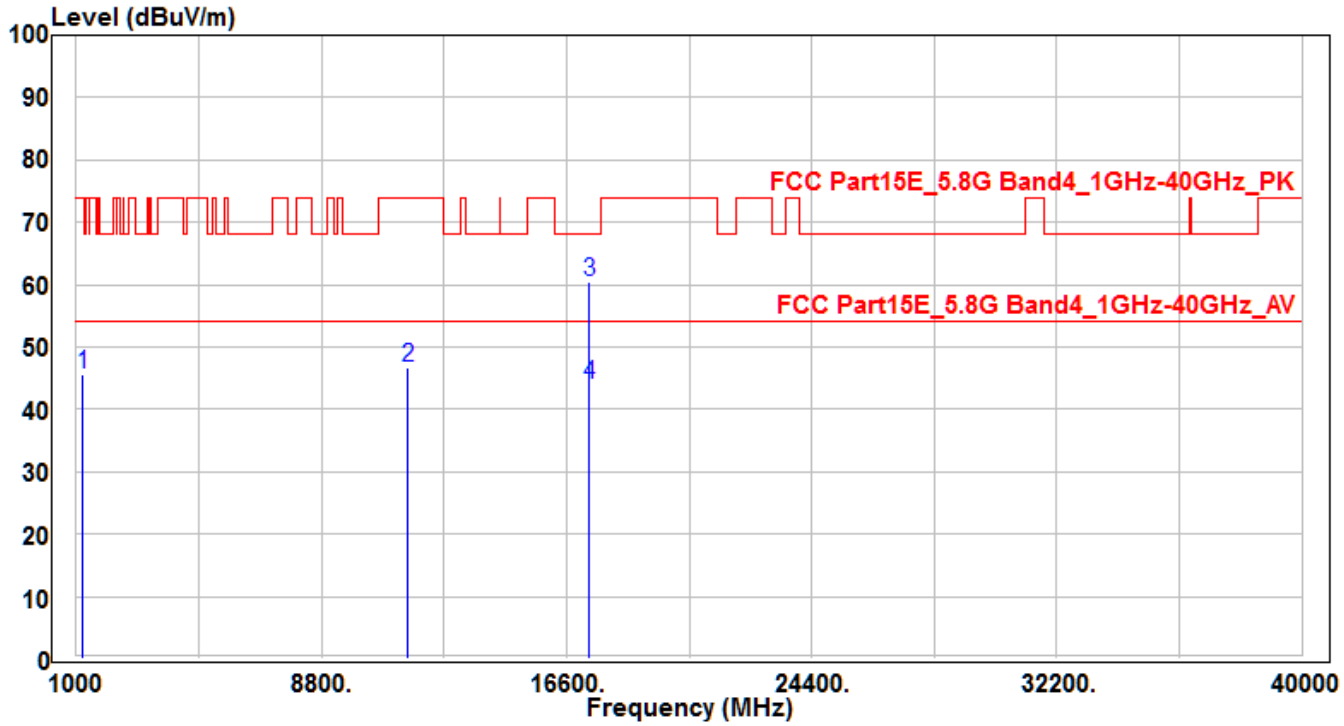


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1199.29	53.39	-7.06	46.33	-27.67	74	150	400	Peak
2		11560	32.71	18.25	50.96	-23.04	74	150	400	Peak
3	*	17340	30.23	27.72	57.95	-10.25	68.2	150	20	Peak
4	*	17340	17.79	27.72	45.51	-8.49	54	150	20	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5780MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

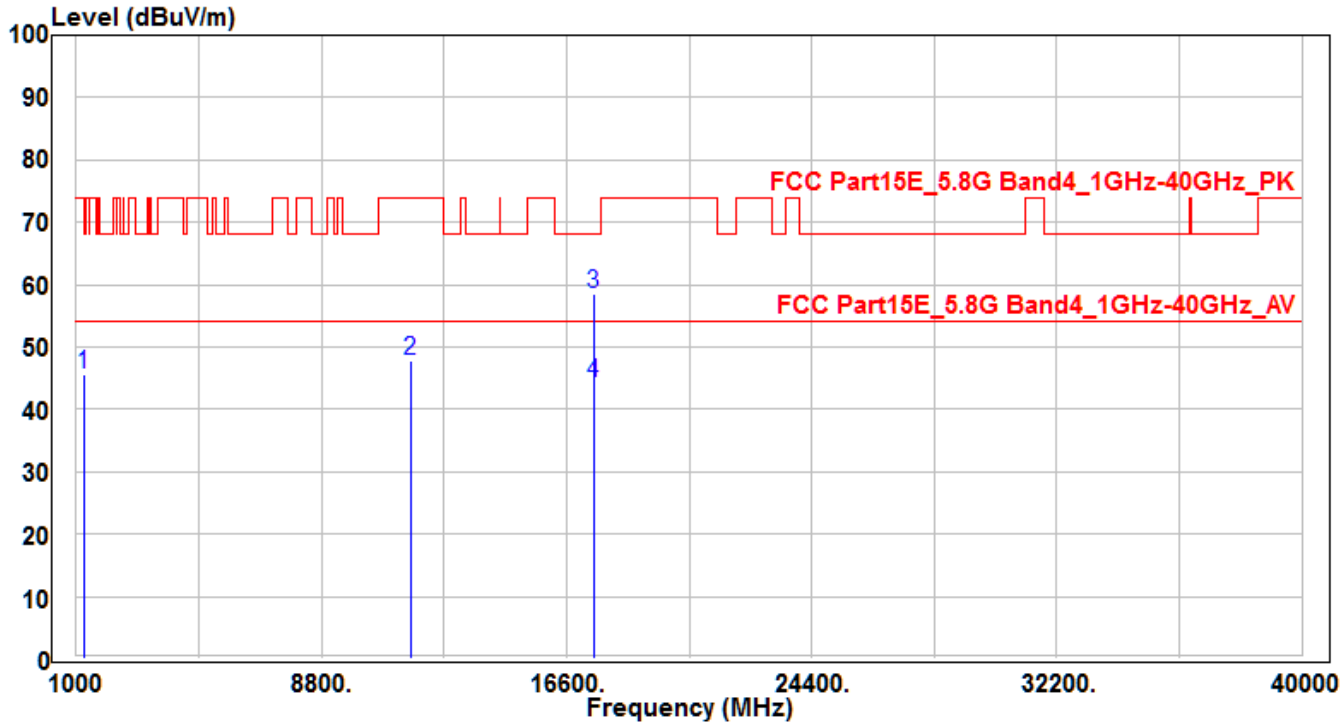


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1198.67	52.62	-7.06	45.56	-28.44	74	150	400	Peak
2		11560	28.5	18.25	46.75	-27.25	74	150	400	Peak
3	*	17340	32.78	27.72	60.5	-7.7	68.2	180	200	Peak
4	*	17340	16.34	27.72	44.06	-9.94	54	180	200	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5820MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

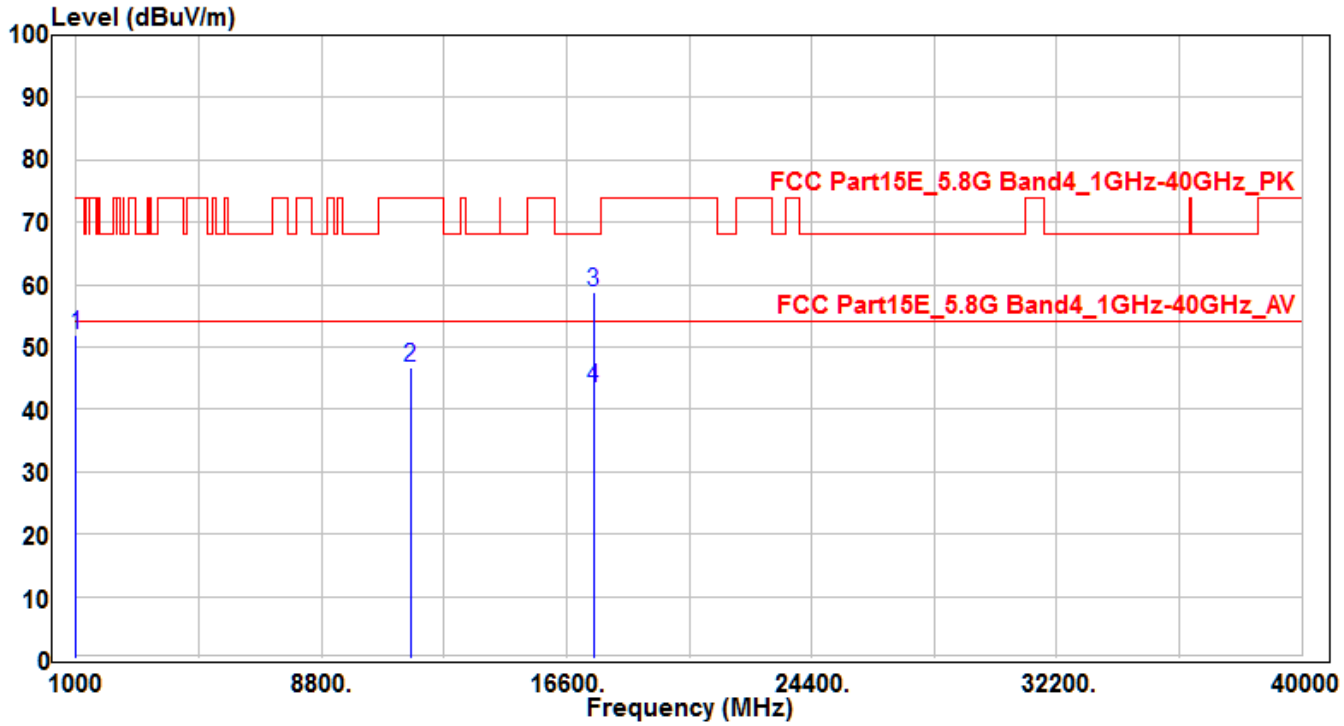


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1250.07	52.6	-6.94	45.66	-8.34	54	155	110	Average
2		11640	29.78	18.12	47.9	-26.1	74	150	400	Peak
3	*	17460	30.06	28.55	58.61	-9.59	68.2	155	110	Peak
4	*	17460	15.63	28.55	44.18	-9.82	54	155	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5820MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

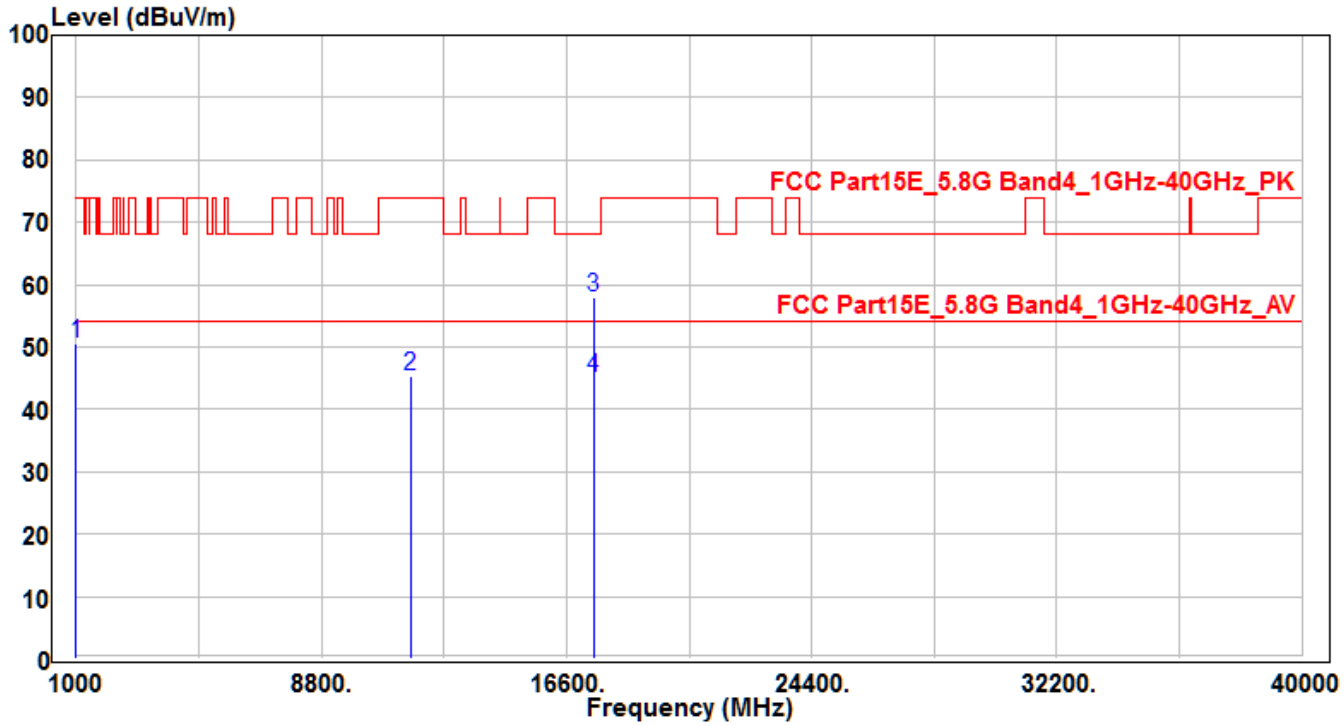


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	59.38	-7.55	51.83	-22.17	74	150	400	Peak
2		11640	28.57	18.12	46.69	-27.31	74	150	400	Peak
3	*	17460	30.25	28.55	58.8	-9.4	68.2	150	-20	Peak
4	*	17460	14.83	28.55	43.38	-10.62	54	150	-20	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5820MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

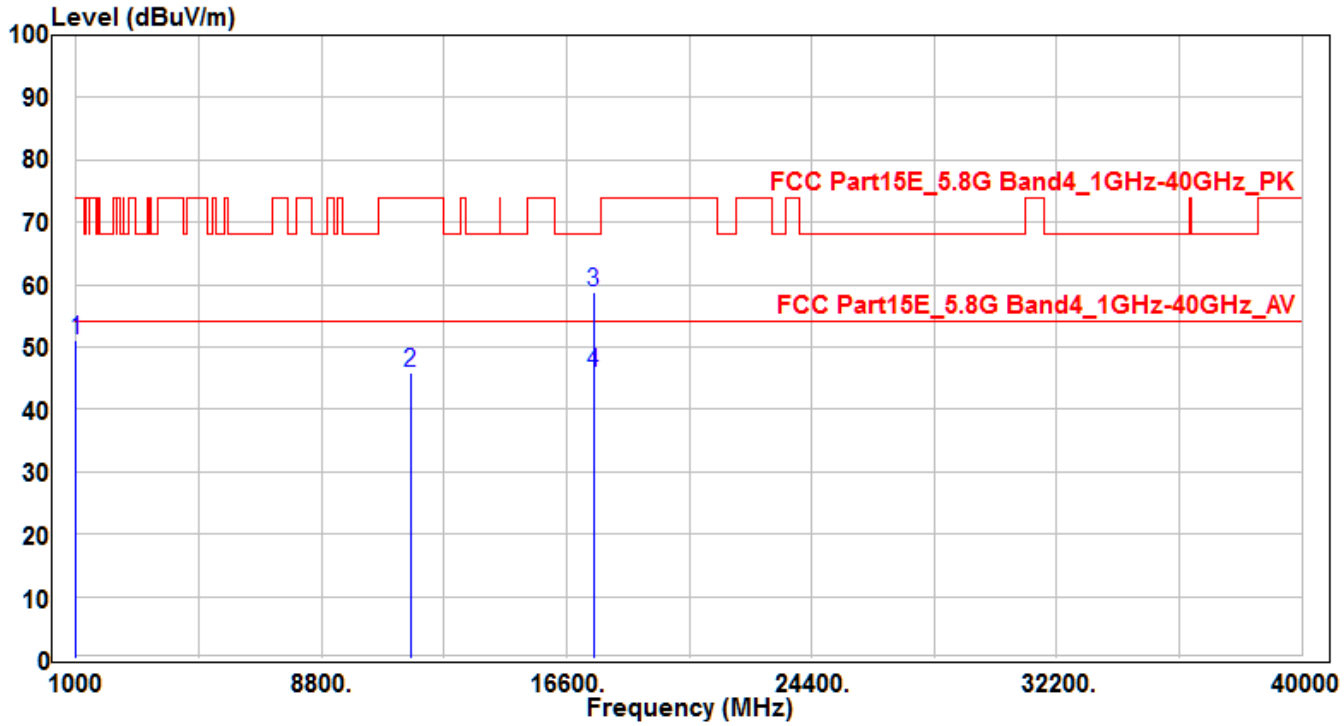


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	57.98	-7.55	50.43	-23.57	74	150	400	Peak
2		11640	27.33	18.12	45.45	-28.55	74	150	400	Peak
3	*	17460	29.54	28.55	58.09	-10.11	68.2	165	320	Peak
4	*	17460	16.53	28.55	45.08	-8.92	54	165	320	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5820MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

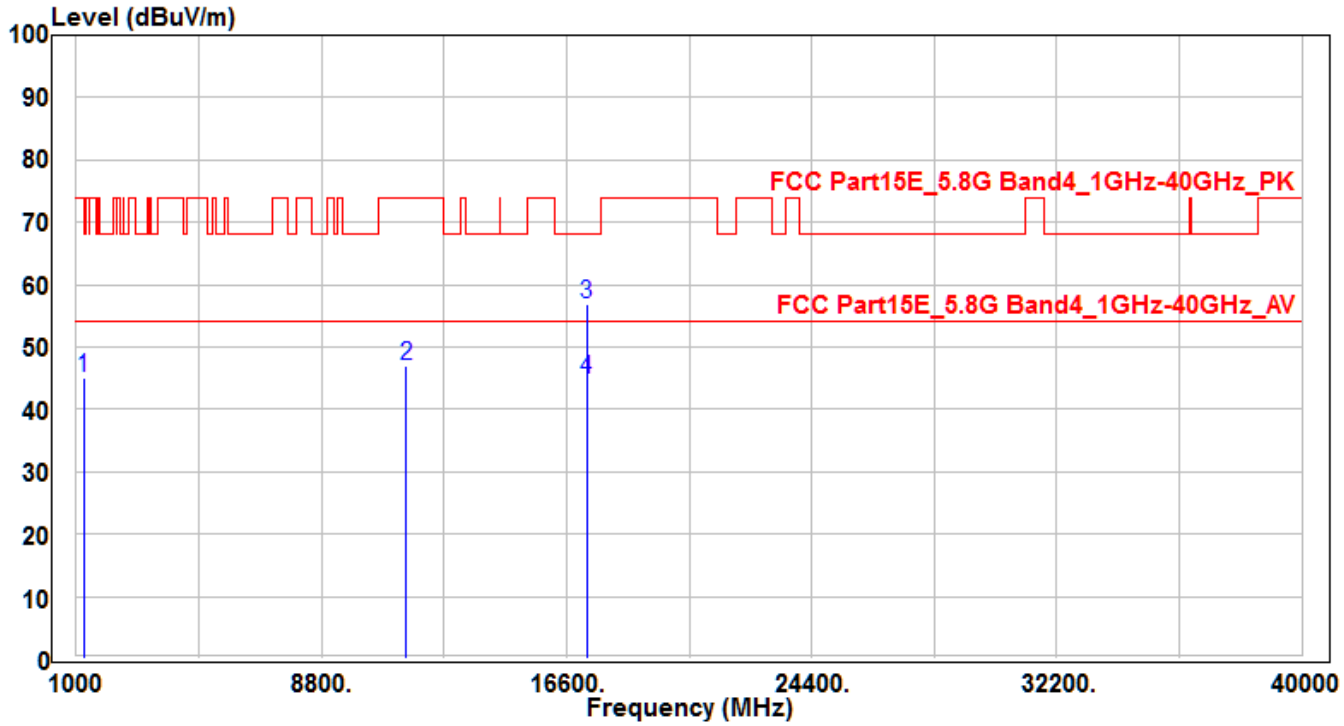


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	58.54	-7.55	50.99	-23.01	74	150	400	Peak
2		11640	27.81	18.12	45.93	-28.07	74	150	400	Peak
3	*	17460	30.27	28.55	58.82	-9.38	68.2	190	270	Peak
4	*	17460	17.22	28.55	45.77	-8.23	54	190	270	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5750MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

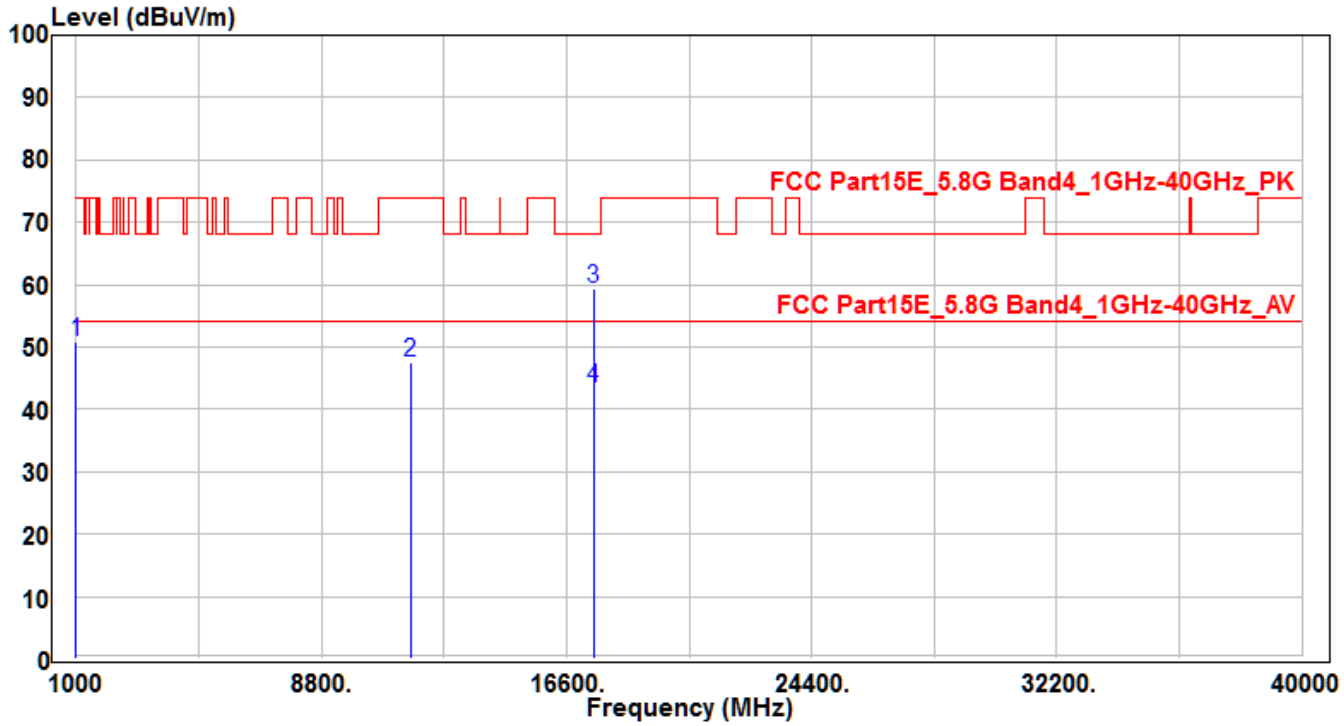


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1250.07	52.02	-6.94	45.08	-23.12	68.2	150	400	Peak
2		11500	28.69	18.35	47.04	-26.96	74	150	400	Peak
3	*	17250	29.73	27.08	56.81	-11.39	68.2	150	145	Peak
4	*	17250	17.79	27.08	44.87	-9.13	54	150	145	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5750MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

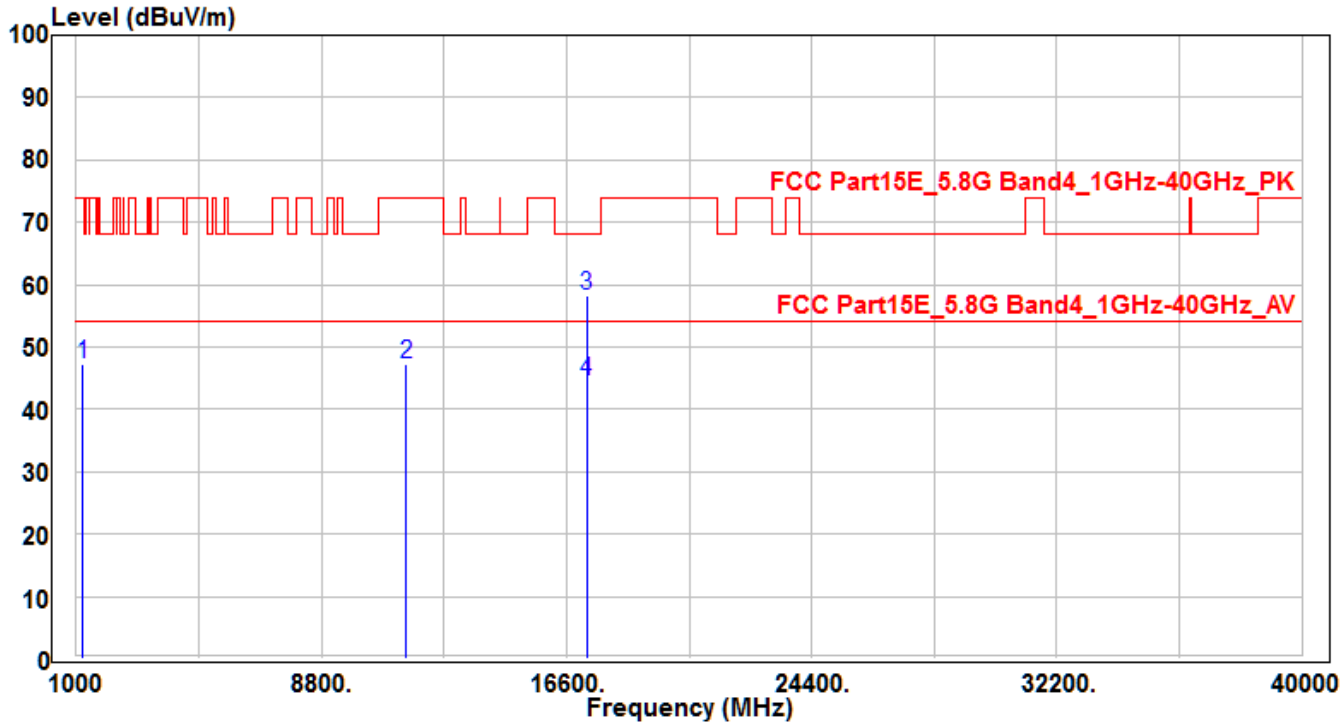


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	58.38	-7.55	50.83	-23.17	74	150	400	Peak
2		11640	29.32	18.12	47.44	-26.56	74	150	400	Peak
3	*	17460	30.8	28.55	59.35	-8.85	68.2	140	290	Peak
4	*	17460	14.99	28.55	43.54	-10.46	54	140	290	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5750MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

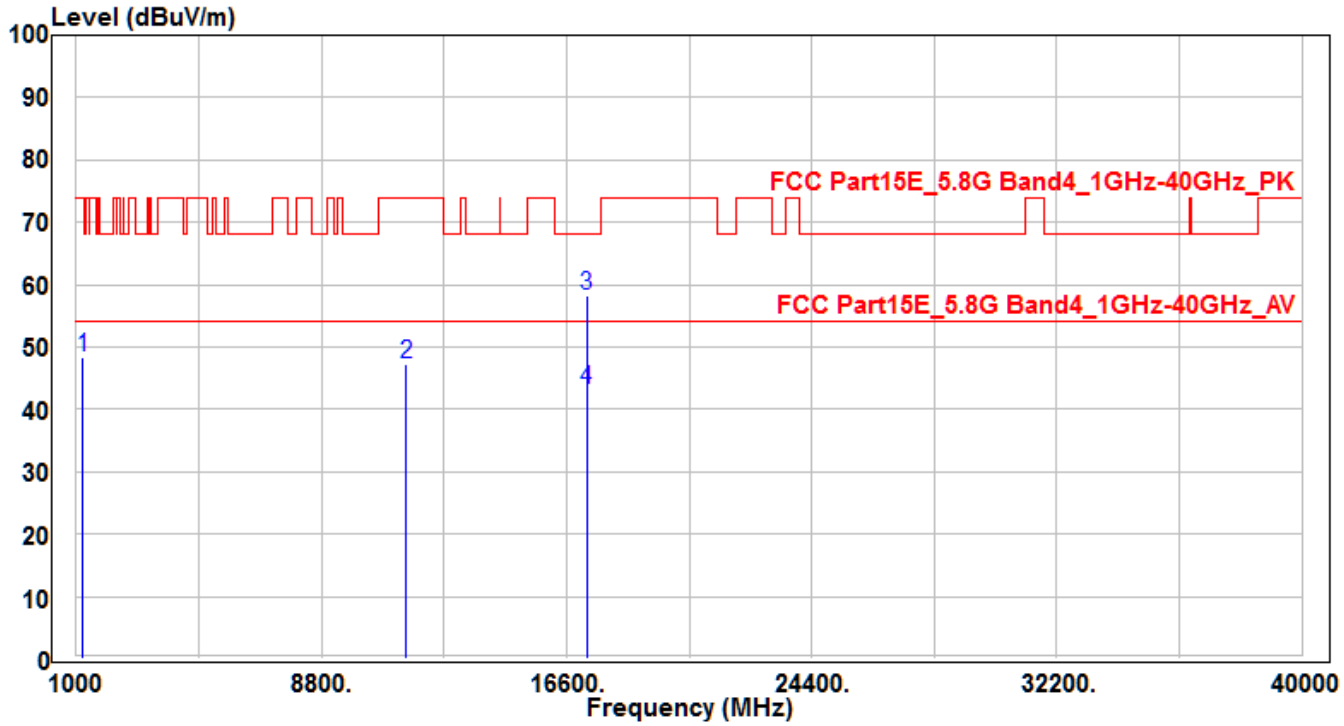


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1199.13	54.22	-7.06	47.16	-26.84	74	200	140	Peak
2		11500	28.99	18.35	47.34	-26.66	74	150	400	Peak
3	*	17250	31.17	27.08	58.25	-9.95	68.2	200	140	Peak
4	*	17250	17.5	27.08	44.58	-9.42	54	200	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5750MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

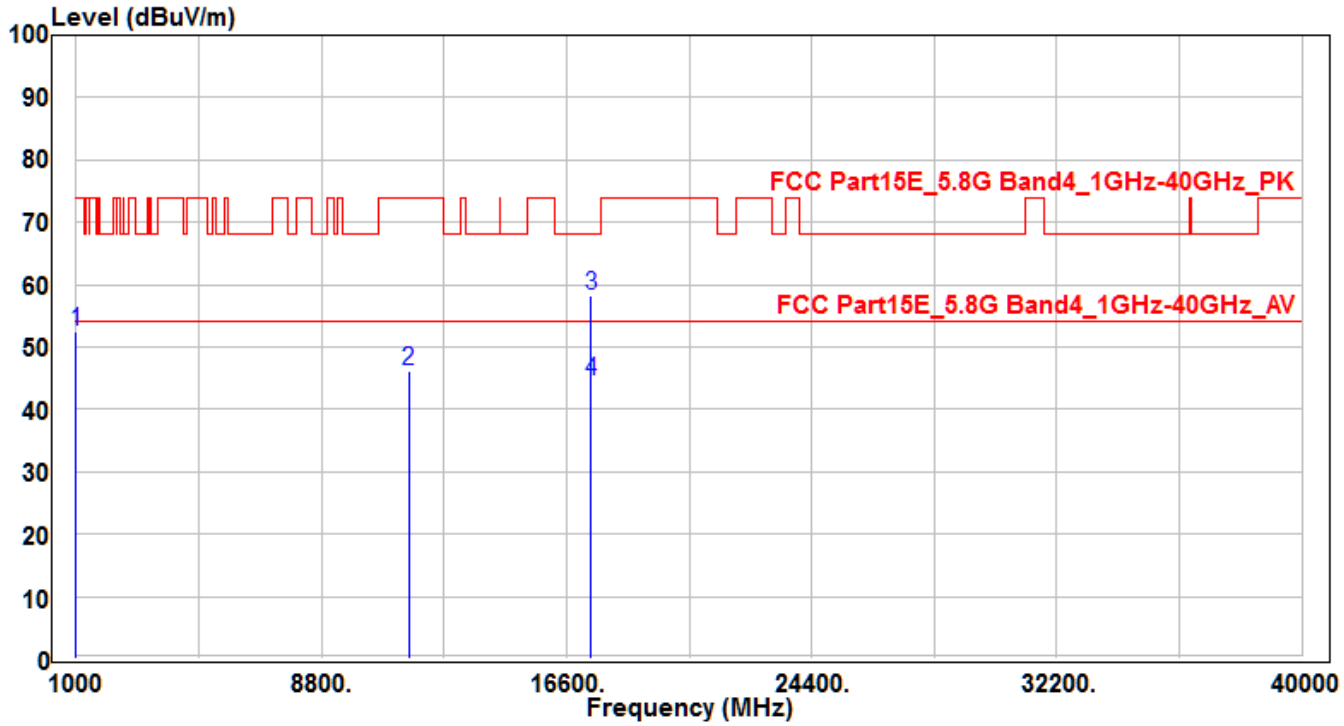


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1199.25	55.37	-7.06	48.31	-25.69	74	150	400	Peak
2		11500	28.83	18.35	47.18	-26.82	74	150	400	Peak
3	*	17250	31.09	27.08	58.17	-10.03	68.2	220	330	Peak
4	*	17250	16	27.08	43.08	-10.92	54	220	330	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5790MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

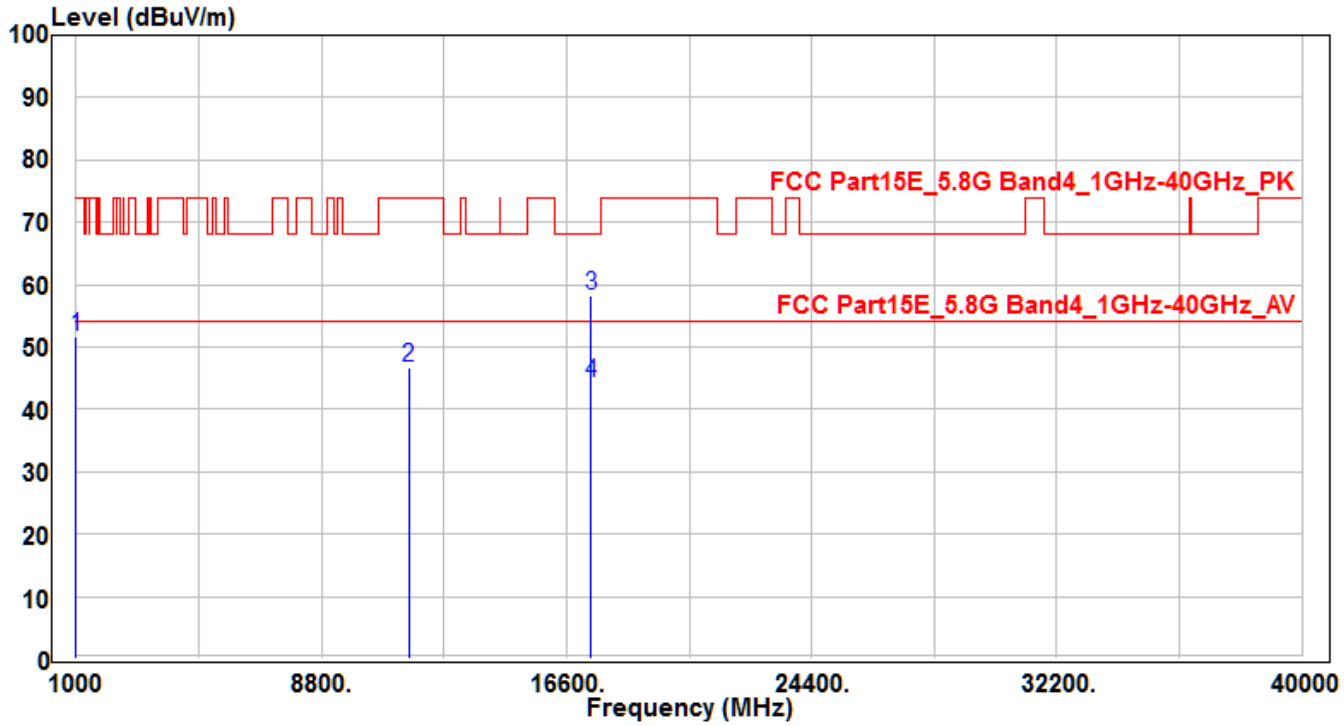


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	60.06	-7.55	52.51	-21.49	74	150	400	Peak
2		11580	27.92	18.21	46.13	-27.87	74	150	400	Peak
3	*	17370	30.26	27.93	58.19	-10.01	68.2	130	290	Peak
4	*	17370	16.58	27.93	44.51	-9.49	54	130	290	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5790MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

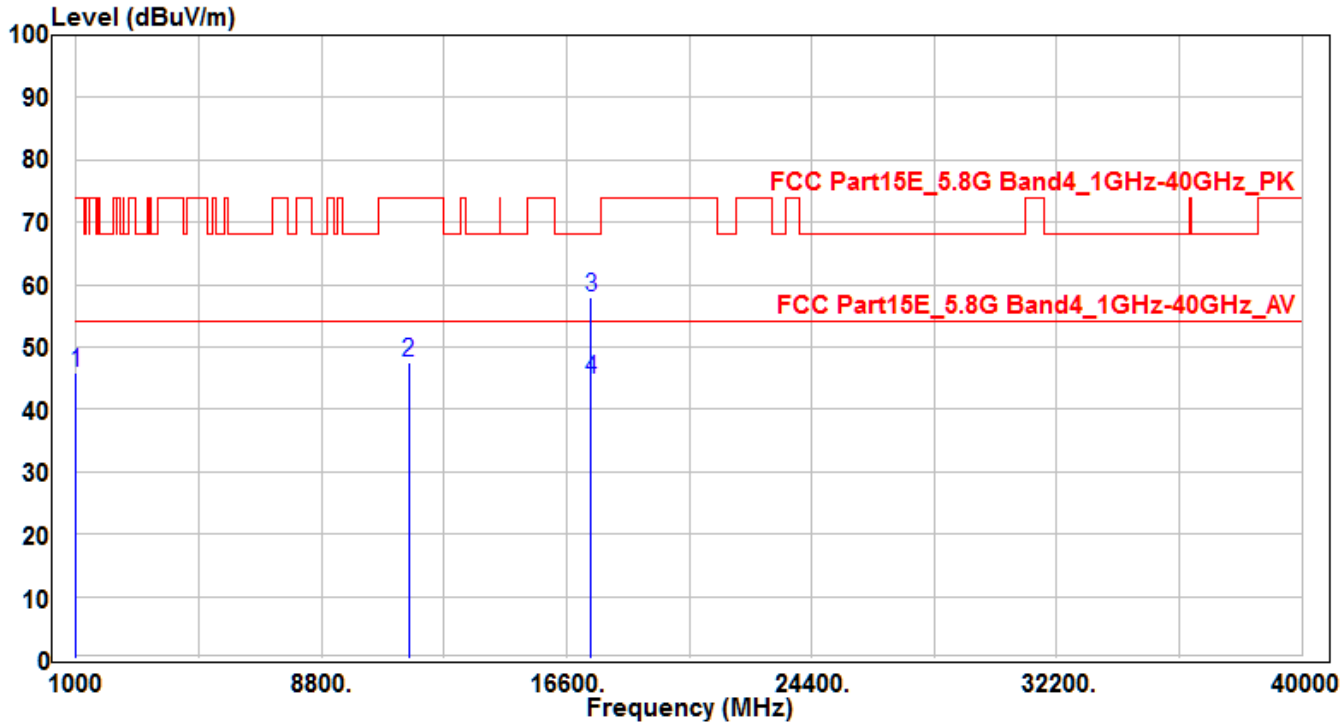


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.08	59.28	-7.55	51.73	-22.27	74	100	165	Peak
2		11580	28.53	18.21	46.74	-27.26	74	100	165	Peak
3	*	17370	30.42	27.93	58.35	-9.85	68.2	100	165	Peak
4	*	17370	16.41	27.93	44.34	-9.66	54	100	165	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5790MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

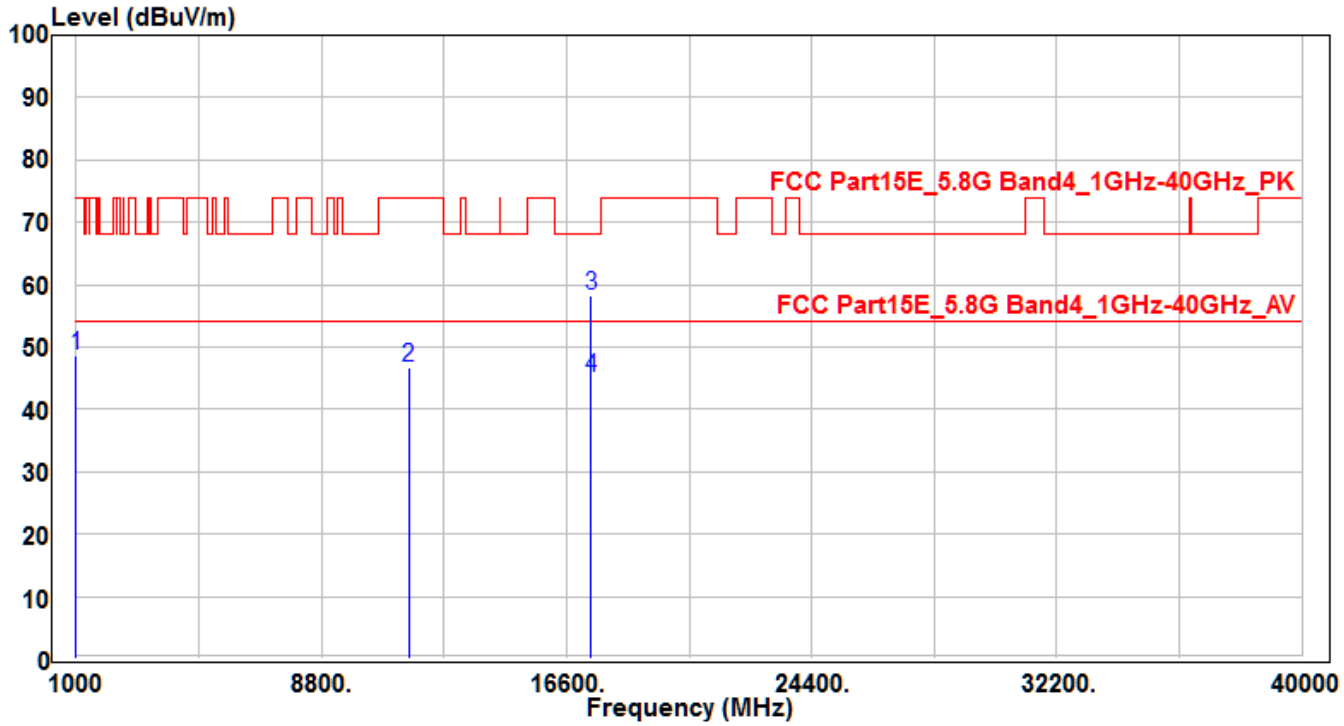


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		1000.23	53.43	-7.55	45.88	-28.12	74	150	400	Peak
2		11580	29.29	18.21	47.5	-26.5	74	150	400	Peak
3	*	17370	30	27.93	57.93	-10.27	68.2	240	60	Peak
4	*	17370	16.79	27.93	44.72	-9.28	54	240	60	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5790MHz Wireless2 Chain0+Chain1	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		1000.08	56.25	-7.55	48.7	-25.3	74	150	400	Peak
2		11580	28.52	18.21	46.73	-27.27	74	150	400	Peak
3	*	17370	30.43	27.93	58.36	-9.84	68.2	180	50	Peak
4	*	17370	17.11	27.93	45.04	-8.96	54	180	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)。
4. The emission levels of other frequencies are very lower than the limit and not show in test report。

7.9. Radiated Restricted Band Edge Measurement

7.9.1.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.

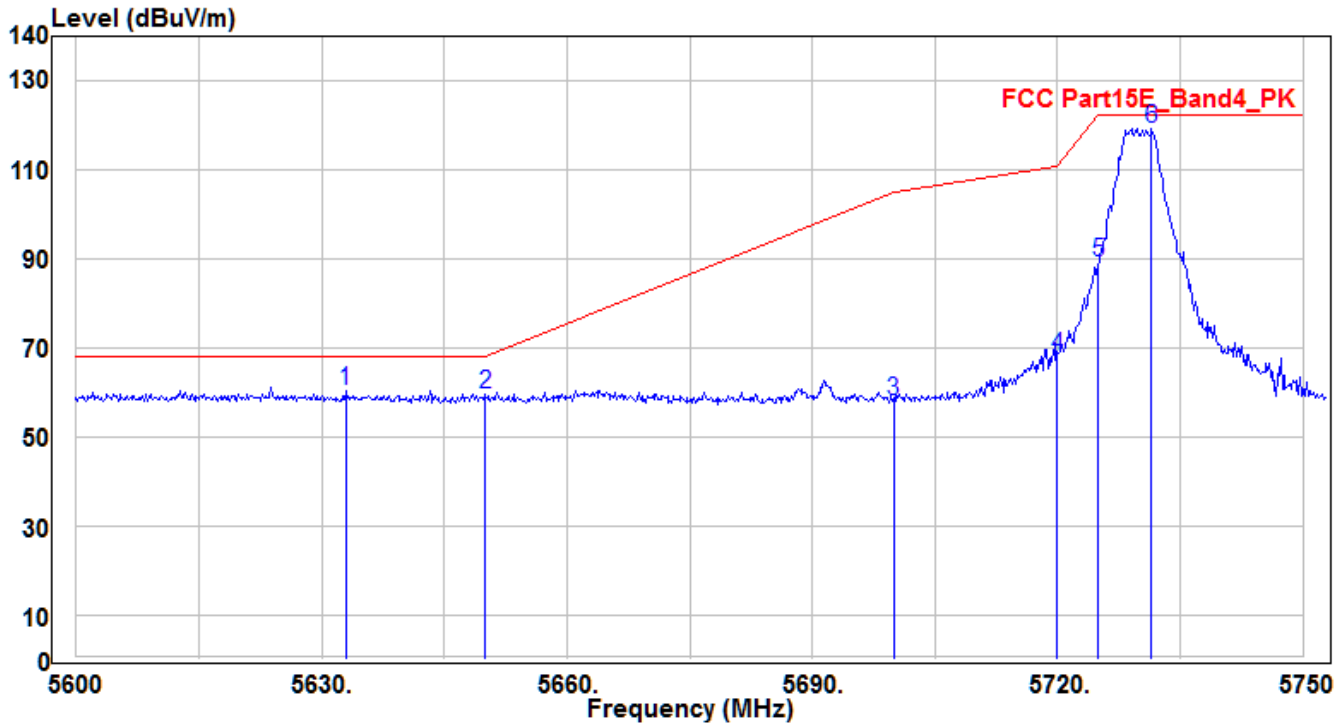
All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

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

7.9.2.Test Result

EUT	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5730MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

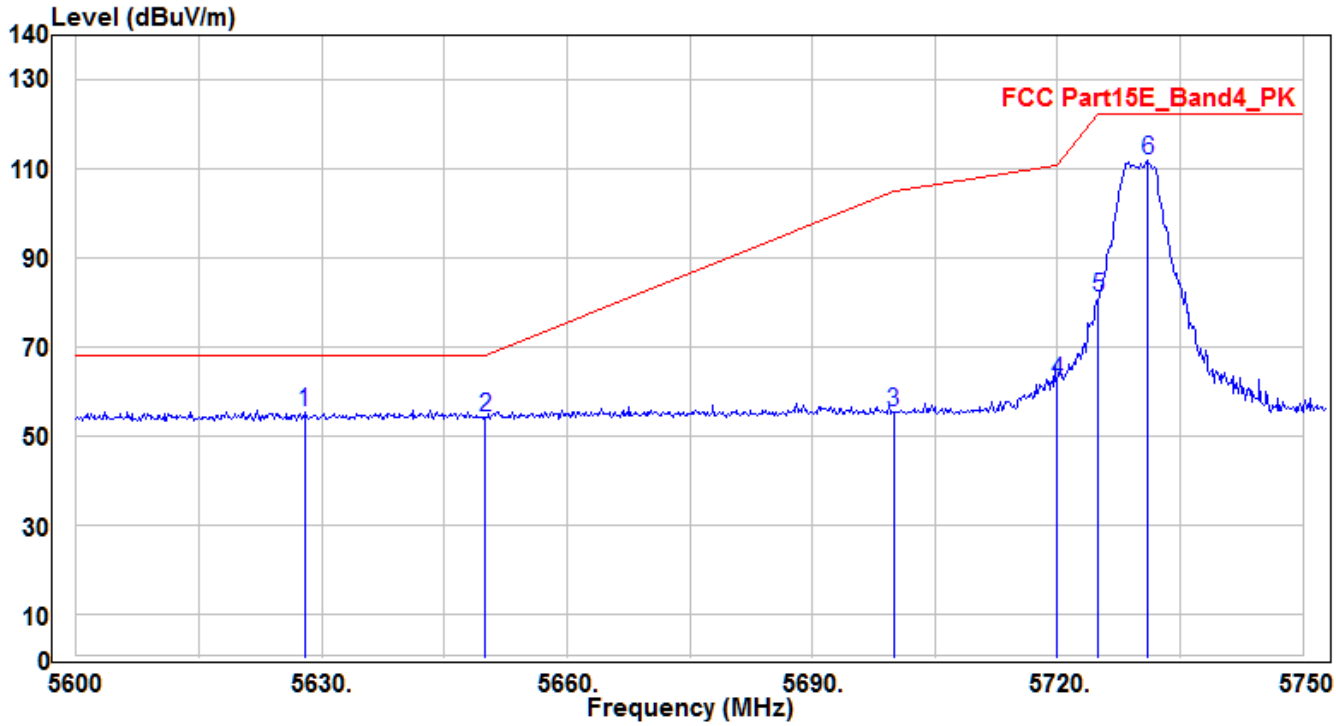


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5633	55.67	4.58	60.25	-7.95	68.2	150	0	Peak
2		5649.995	54.88	4.65	59.53	-8.67	68.2	150	0	Peak
3		5700	53.34	4.84	58.18	-47.02	105.2	150	0	Peak
4		5720	63.11	4.91	68.02	-42.78	110.8	150	0	Peak
5		5725	84.35	4.93	89.28	-32.92	122.2	150	0	Peak
6		5731.505	114.42	4.95	119.37	-2.83	122.2	150	0	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5730MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

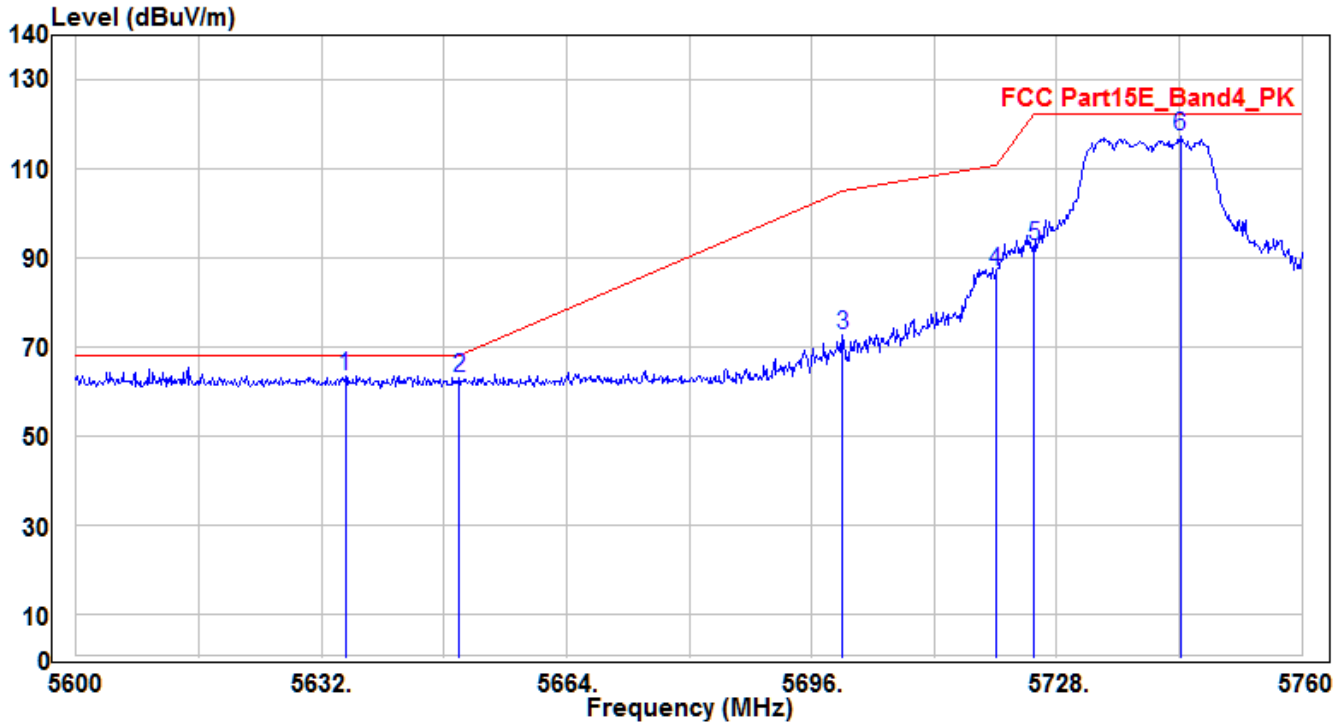


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5627.885	50.7	4.56	55.26	-12.94	68.2	150	280	Peak
2		5650	49.78	4.65	54.43	-13.77	68.2	150	280	Peak
3		5700	50.41	4.84	55.25	-49.95	105.2	150	280	Peak
4		5720	57.53	4.91	62.44	-48.36	110.8	150	280	Peak
5		5725	76.15	4.93	81.08	-41.12	122.2	150	280	Peak
6		5731.01	107.02	4.95	111.97	-10.23	122.2	150	280	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5730MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

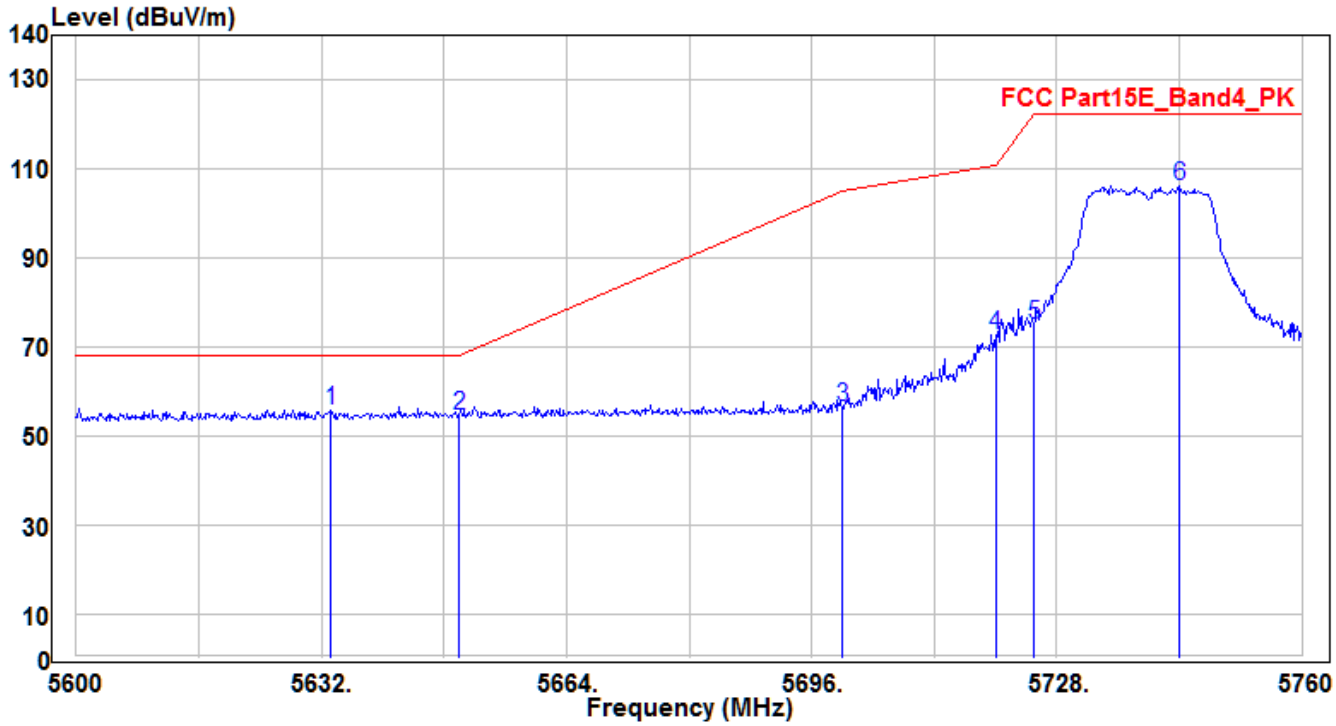


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5635.2	59.05	4.59	63.64	-4.56	68.2	170	175	Peak
2		5650	58.33	4.65	62.98	-5.22	68.2	170	175	Peak
3		5700	67.95	4.84	72.79	-32.41	105.2	170	175	Peak
4		5720	82.11	4.91	87.02	-23.78	110.8	170	175	Peak
5		5725	87.64	4.93	92.57	-29.63	122.2	170	175	Peak
6		5744.16	112.18	5.01	117.19	-5.01	122.2	170	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5730MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

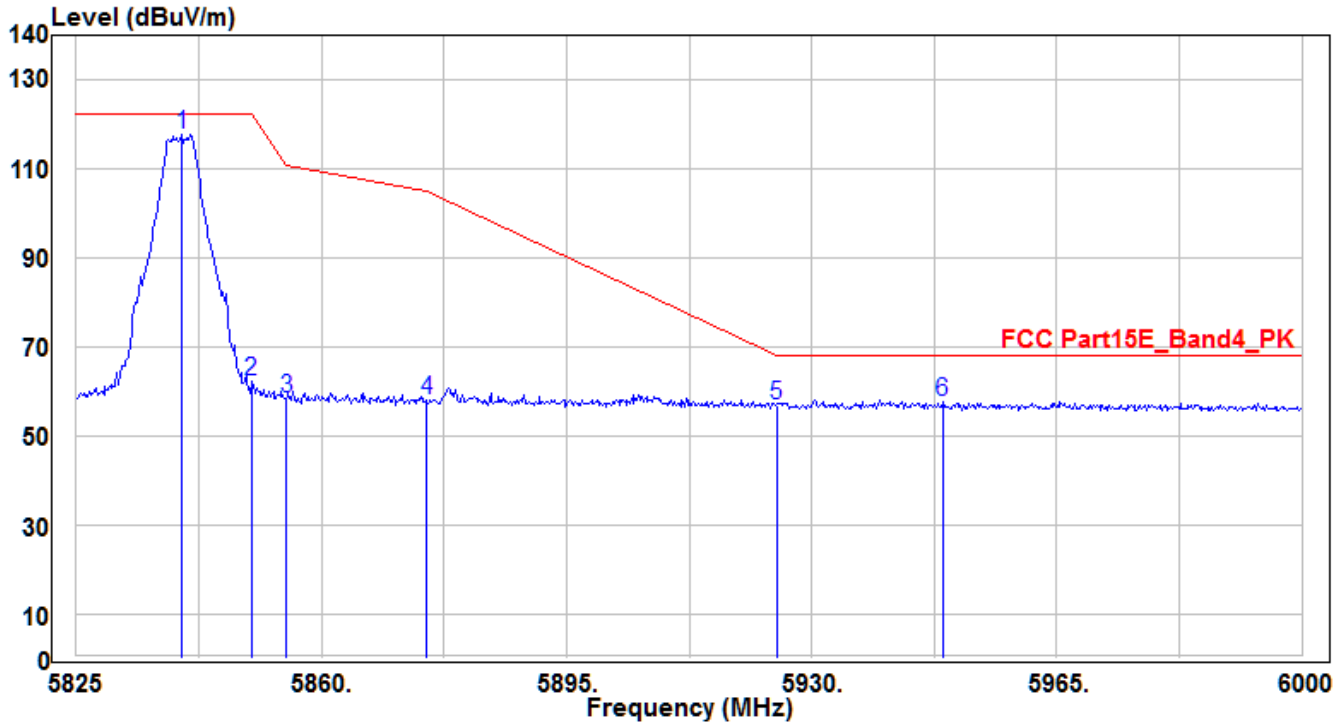


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5633.28	51.05	4.58	55.63	-12.57	68.2	150	100	Peak
2		5650	49.79	4.65	54.44	-13.76	68.2	150	100	Peak
3		5700	51.57	4.84	56.41	-48.79	105.2	150	100	Peak
4		5720	67.64	4.91	72.55	-38.25	110.8	150	100	Peak
5		5725	70.13	4.93	75.06	-47.14	122.2	150	100	Peak
6		5744	101.25	5	106.25	-15.95	122.2	150	100	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5840MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

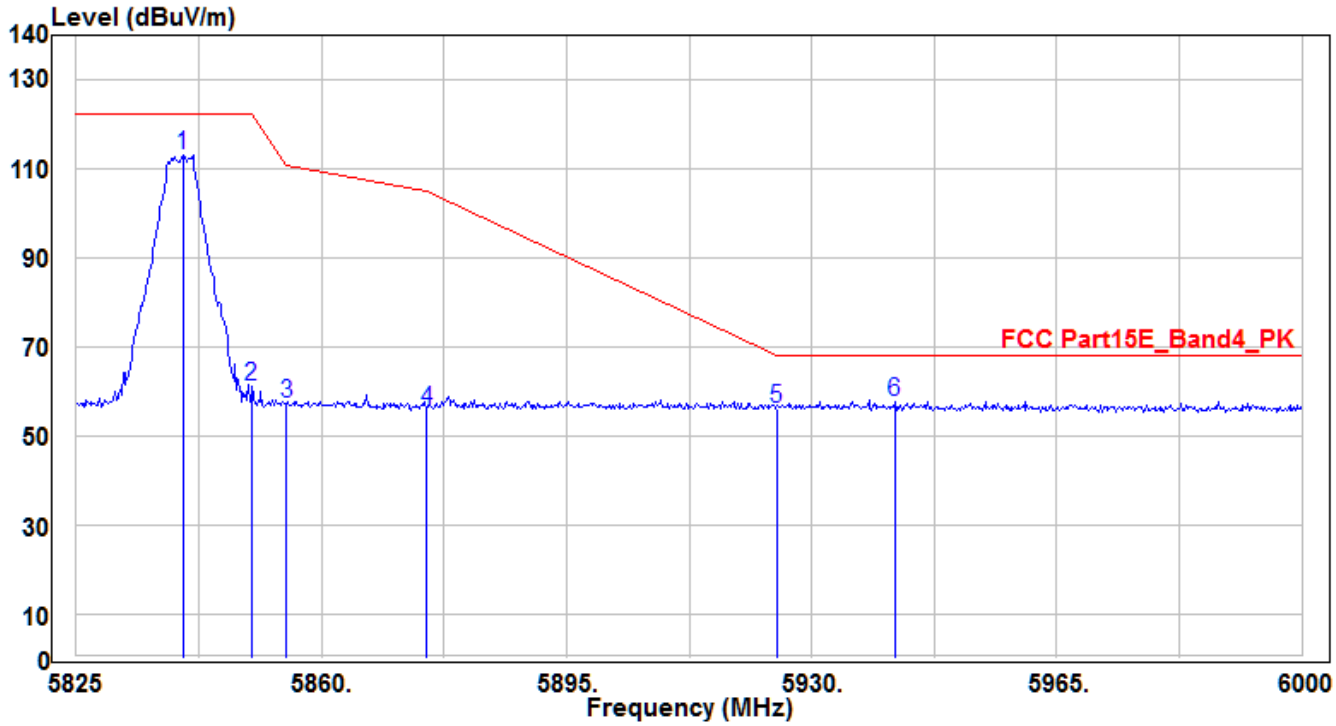


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5840.1	112.45	5.38	117.83	-4.37	122.2	155	195	Peak
2		5850	56.81	5.41	62.22	-59.98	122.2	155	195	Peak
3		5855	52.85	5.44	58.29	-52.51	110.8	155	195	Peak
4		5875	52.53	5.51	58.04	-47.16	105.2	155	195	Peak
5		5925	51.16	5.7	56.86	-11.34	68.2	155	195	Peak
6	*	5948.715	51.75	5.8	57.55	-10.65	68.2	155	195	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5840MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

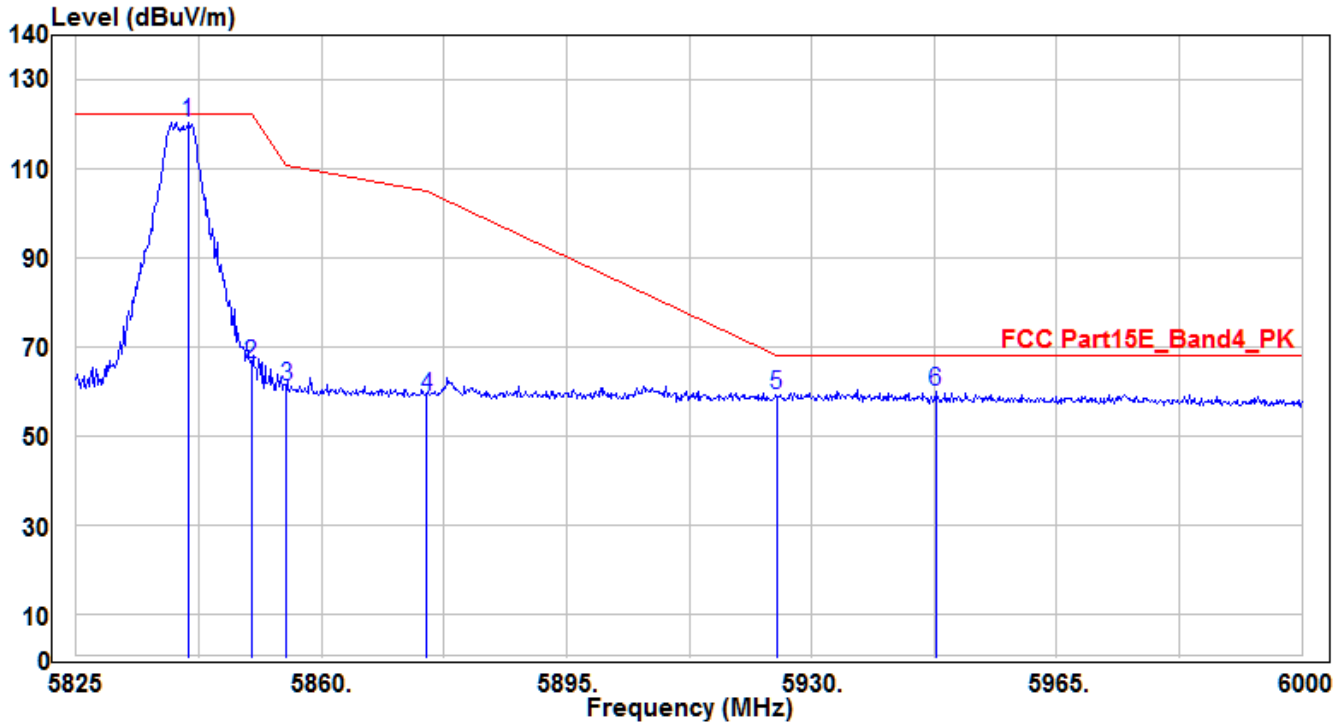


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5840.295	107.69	5.38	113.07	-9.13	122.2	150	285	Peak
2		5850	55.75	5.41	61.16	-61.04	122.2	150	285	Peak
3		5855	51.81	5.44	57.25	-53.55	110.8	150	285	Peak
4		5875	50.34	5.51	55.85	-49.35	105.2	150	285	Peak
5		5925	50.54	5.7	56.24	-11.96	68.2	150	285	Peak
6	*	5941.89	52.03	5.77	57.8	-10.4	68.2	150	285	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5840MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

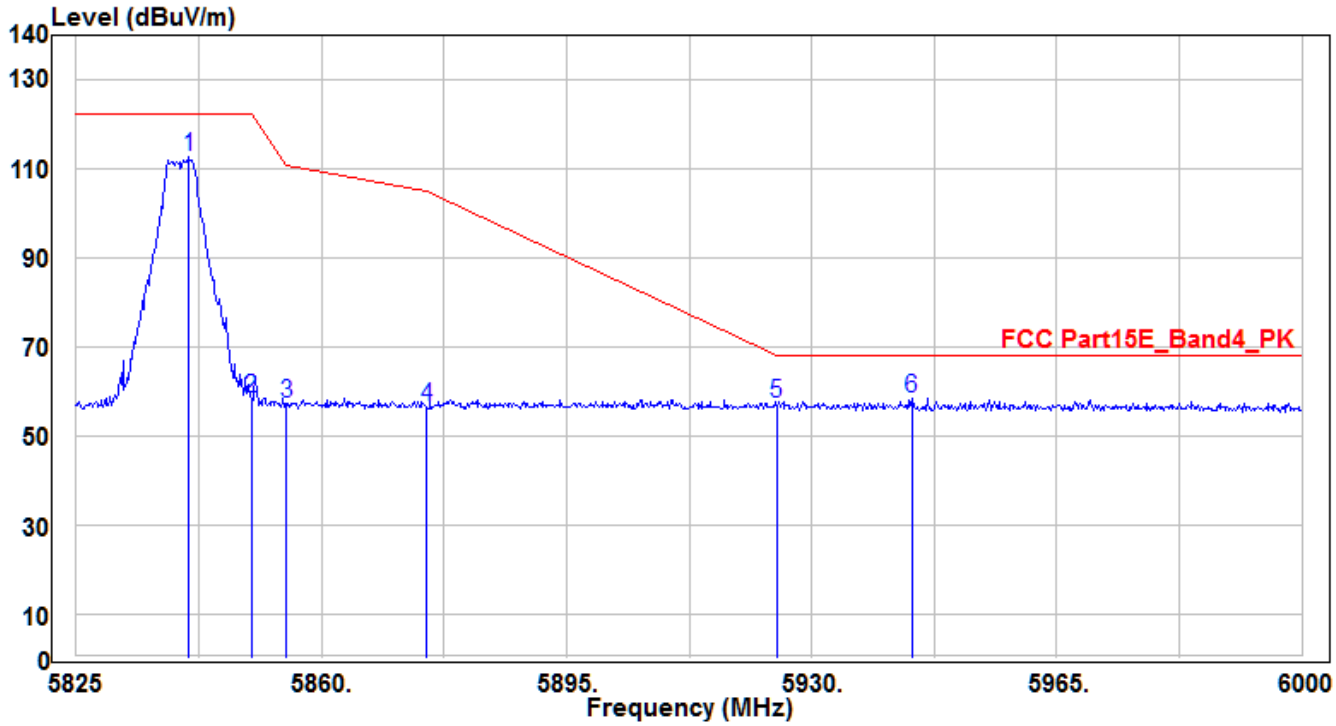


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5840.925	115.14	5.39	120.53	-1.67	122.2	150	170	Peak
2		5850	60.76	5.41	66.17	-56.03	122.2	150	170	Peak
3		5855	55.86	5.44	61.3	-49.5	110.8	150	170	Peak
4		5875	53.38	5.51	58.89	-46.31	105.2	150	170	Peak
5		5925	53.68	5.7	59.38	-8.82	68.2	150	170	Peak
6	*	5947.675	54.1	5.8	59.9	-8.3	68.2	150	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE1-5840MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

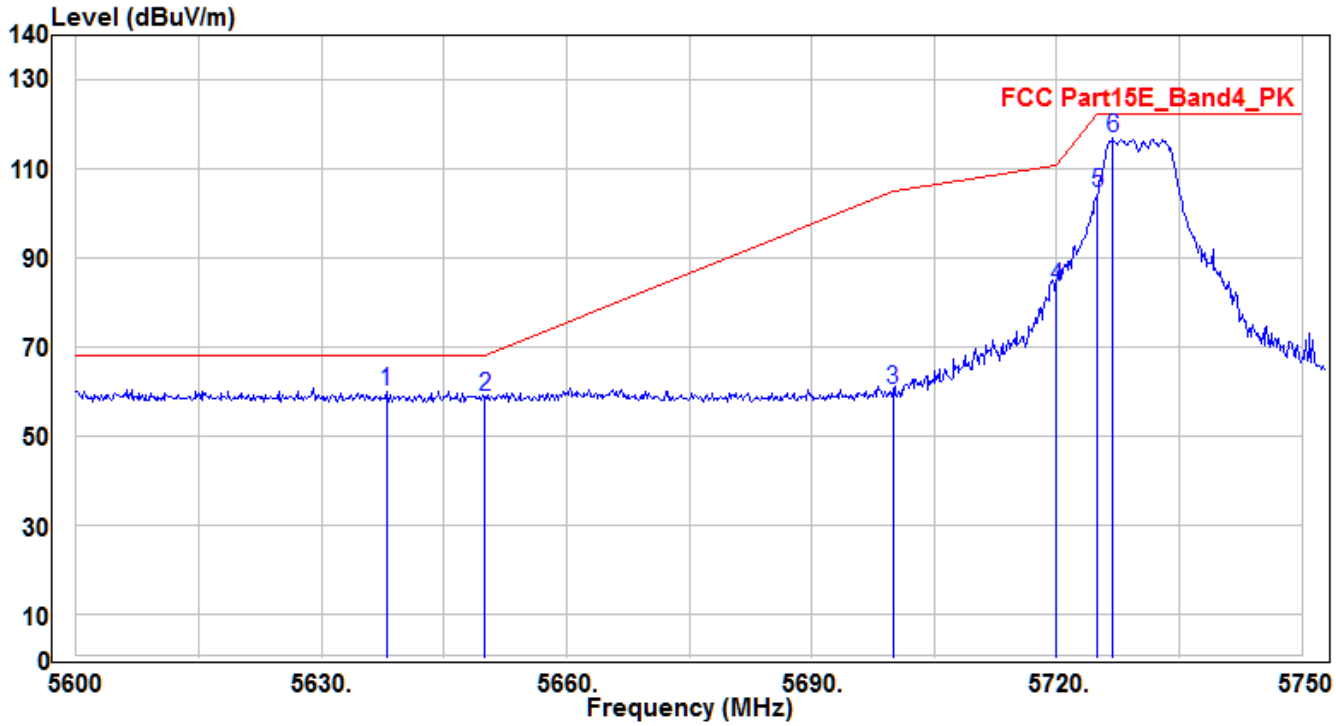


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5841.1	107.37	5.39	112.76	-9.44	122.2	150	100	Peak
2		5850	53.19	5.41	58.6	-63.6	122.2	150	100	Peak
3		5855	51.79	5.44	57.23	-53.57	110.8	150	100	Peak
4		5875	50.93	5.51	56.44	-48.76	105.2	150	100	Peak
5		5925	51.49	5.7	57.19	-11.01	68.2	150	100	Peak
6	*	5944.35	52.84	5.77	58.61	-9.59	68.2	150	100	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5730MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

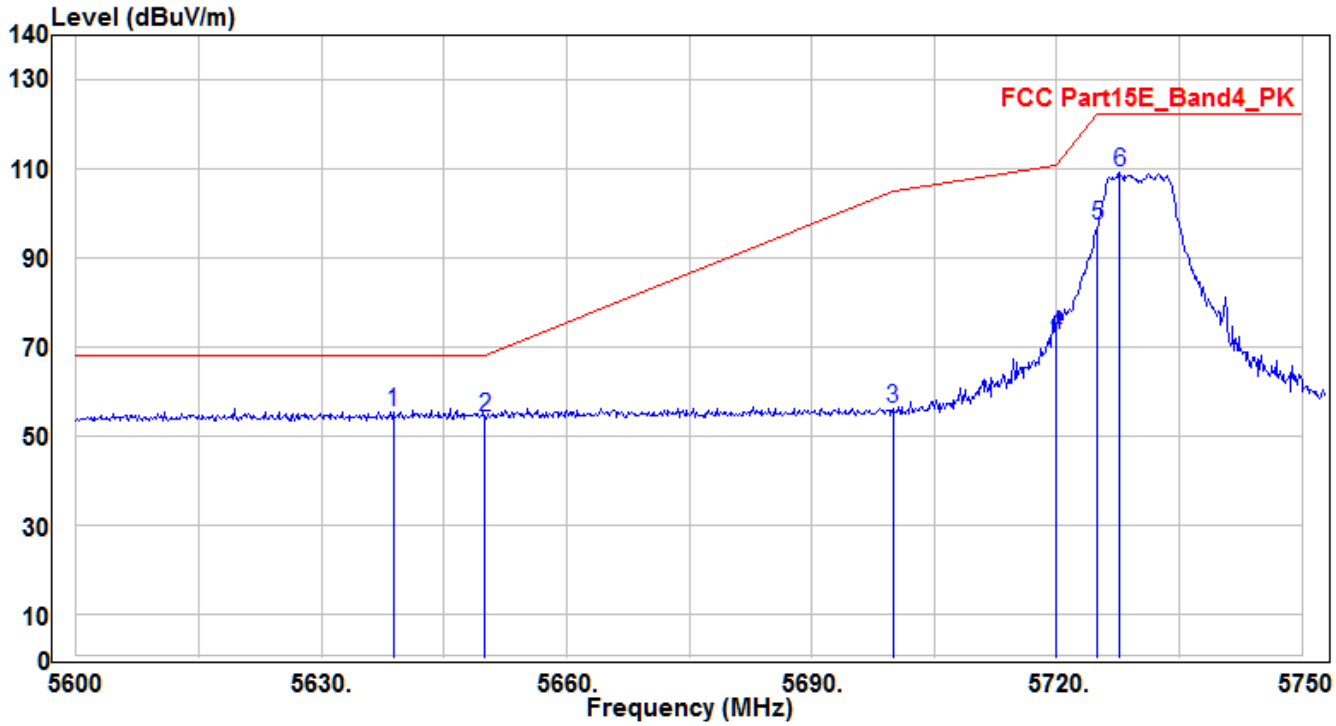


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5637.95	55.51	4.6	60.11	-8.09	68.2	160	355	Peak
2		5650	54.06	4.65	58.71	-9.49	68.2	160	355	Peak
3		5700	55.72	4.84	60.56	-44.64	105.2	160	355	Peak
4		5720	78.52	4.91	83.43	-27.37	110.8	160	355	Peak
5		5725	99.54	4.93	104.47	-17.73	122.2	160	355	Peak
6	*	5726.885	111.89	4.94	116.83	-5.37	122.2	160	355	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5730MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

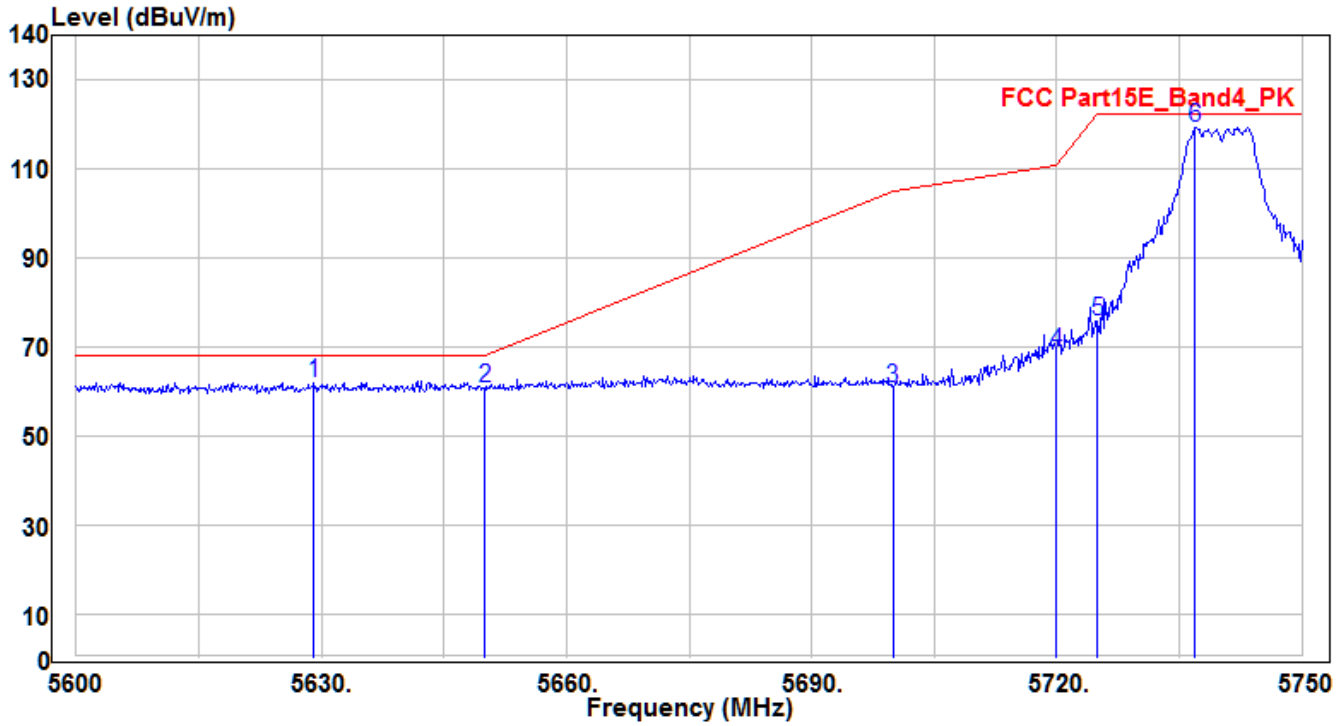


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5638.775	50.92	4.6	55.52	-12.68	68.2	150	285	Peak
2		5650	49.53	4.65	54.18	-14.02	68.2	150	285	Peak
3		5700	51.31	4.84	56.15	-49.05	105.2	150	285	Peak
4		5720	67.81	4.91	72.72	-38.08	110.8	150	285	Peak
5		5725	92.29	4.93	97.22	-24.98	122.2	150	285	Peak
6		5727.71	104.29	4.94	109.23	-12.97	122.2	150	285	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5730MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

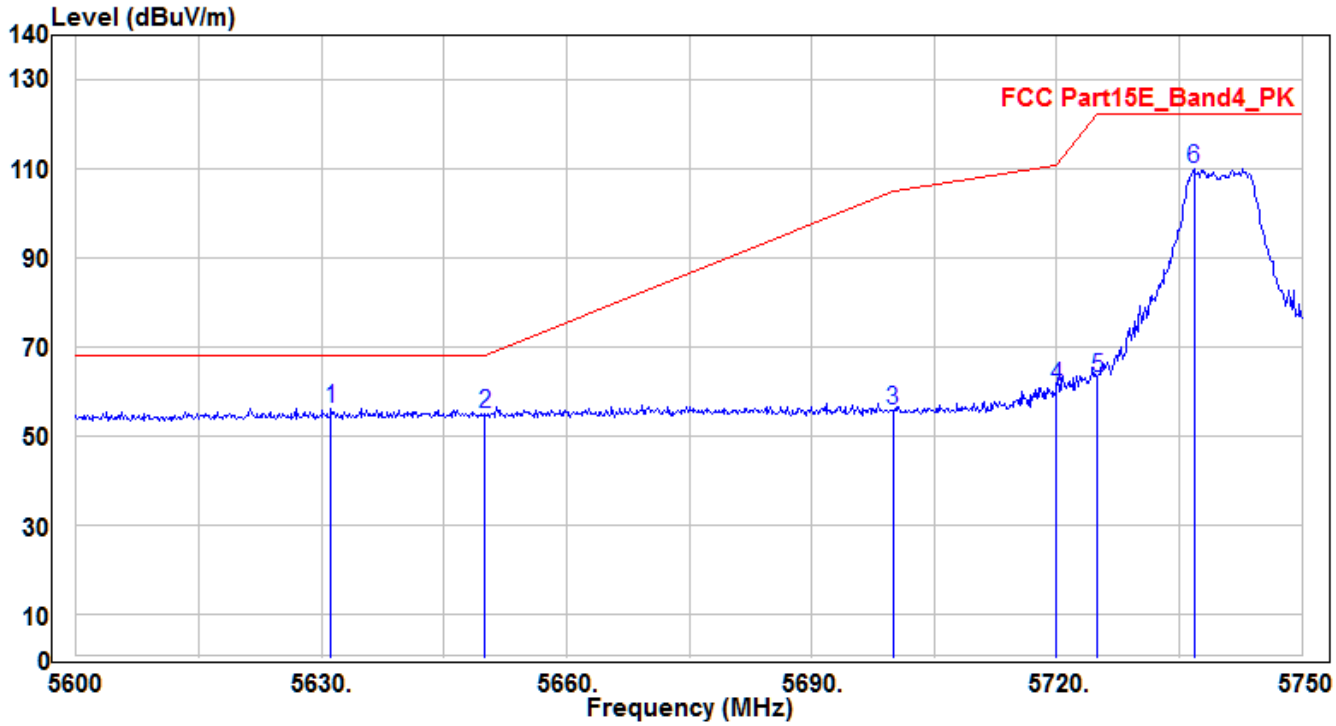


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5629.1	57.39	4.57	61.96	-6.24	68.2	170	175	Peak
2		5650	56.26	4.65	60.91	-7.29	68.2	170	175	Peak
3		5700	56.07	4.84	60.91	-44.29	105.2	170	175	Peak
4		5720	63.85	4.91	68.76	-42.04	110.8	170	175	Peak
5		5725	70.92	4.93	75.85	-46.35	122.2	170	175	Peak
6		5736.95	114.3	4.98	119.28	-2.92	122.2	170	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5730MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

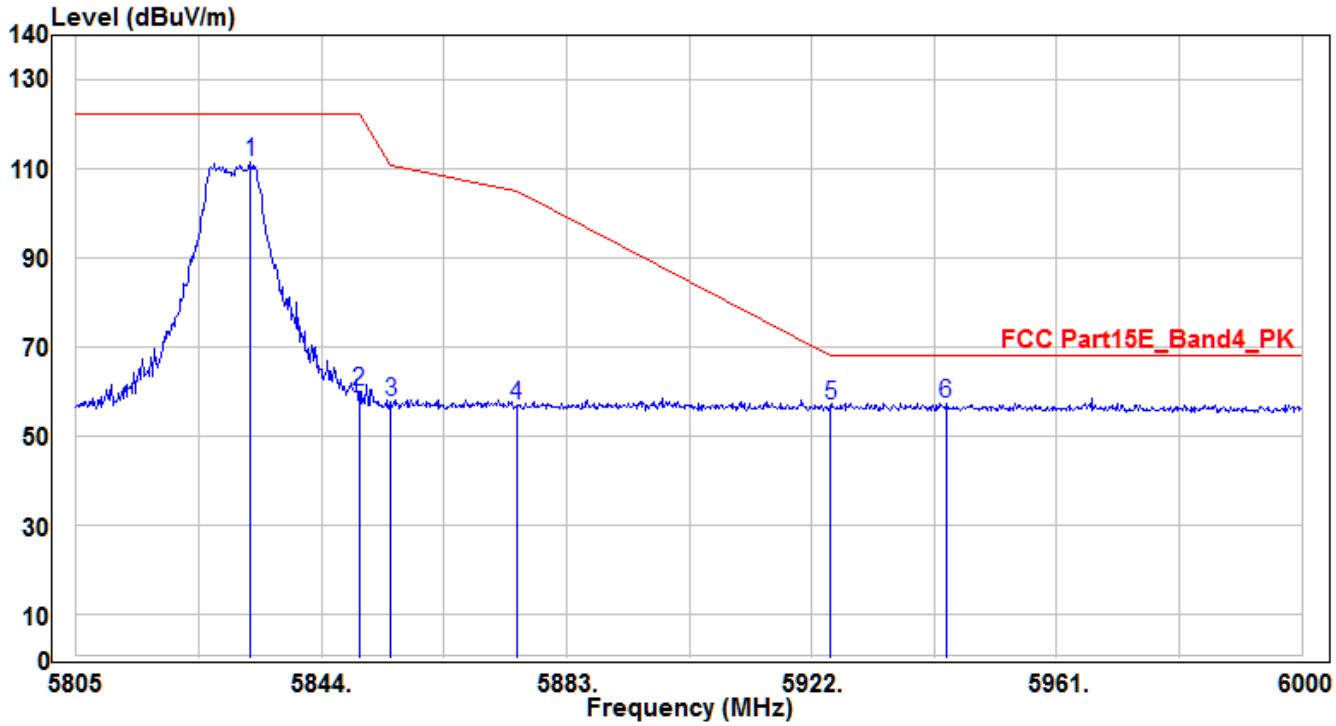


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5631.2	51.47	4.57	56.04	-12.16	68.2	170	100	Peak
2		5650	50.36	4.65	55.01	-13.19	68.2	170	100	Peak
3		5700	50.86	4.84	55.7	-49.5	105.2	170	100	Peak
4		5720	56.25	4.91	61.16	-49.64	110.8	170	100	Peak
5		5725	57.99	4.93	62.92	-59.28	122.2	170	100	Peak
6		5736.8	105.08	4.98	110.06	-12.14	122.2	170	100	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5830MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

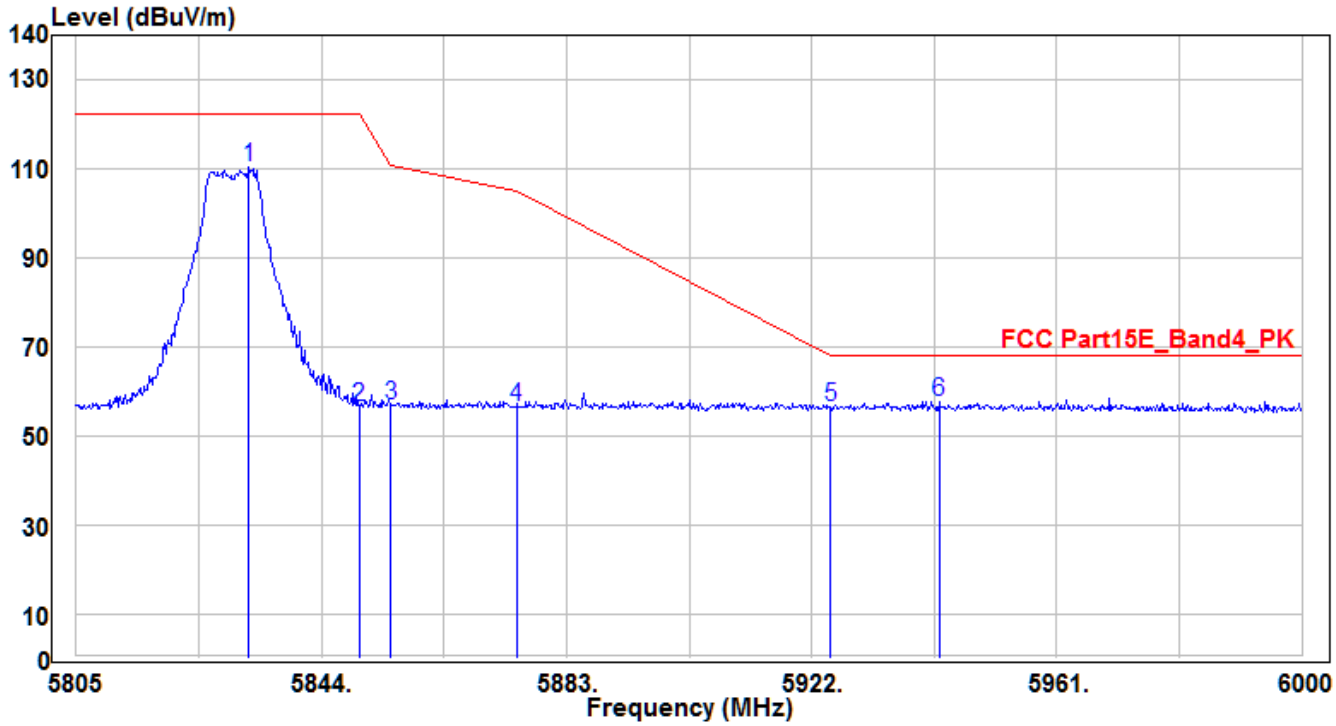


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5832.69	106.27	5.35	111.62	-10.58	122.2	150	245	Peak
2		5850	54.61	5.41	60.02	-62.18	122.2	150	245	Peak
3		5855	52.32	5.44	57.76	-53.04	110.8	150	245	Peak
4		5875	51.37	5.51	56.88	-48.32	105.2	150	245	Peak
5		5925	51.28	5.7	56.98	-11.22	68.2	150	245	Peak
6	*	5943.45	51.72	5.77	57.49	-10.71	68.2	150	245	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5830MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

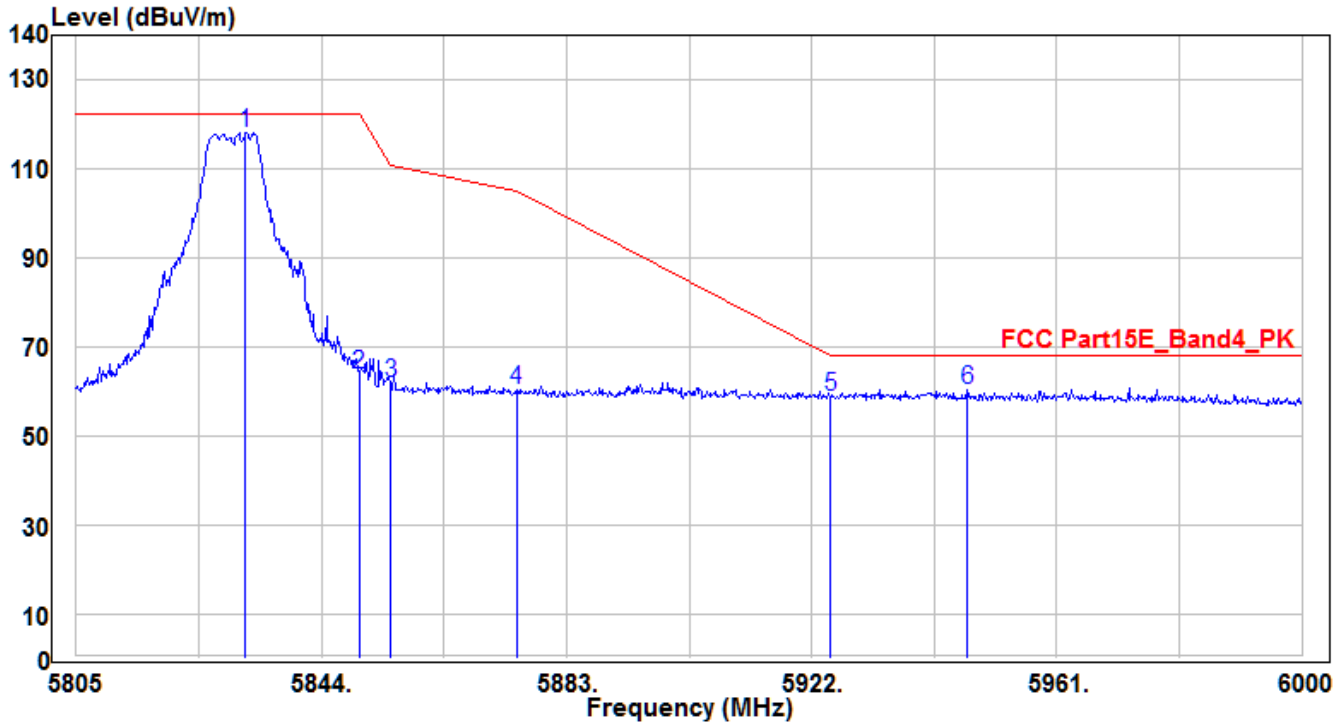


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5832.495	105.11	5.35	110.46	-11.74	122.2	155	245	Peak
2		5850	51.29	5.41	56.7	-65.5	122.2	155	245	Peak
3		5855	51.5	5.44	56.94	-53.86	110.8	155	245	Peak
4		5875	50.93	5.51	56.44	-48.76	105.2	155	245	Peak
5		5925	51.03	5.7	56.73	-11.47	68.2	155	245	Peak
6	*	5942.28	52.1	5.77	57.87	-10.33	68.2	155	245	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5830MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

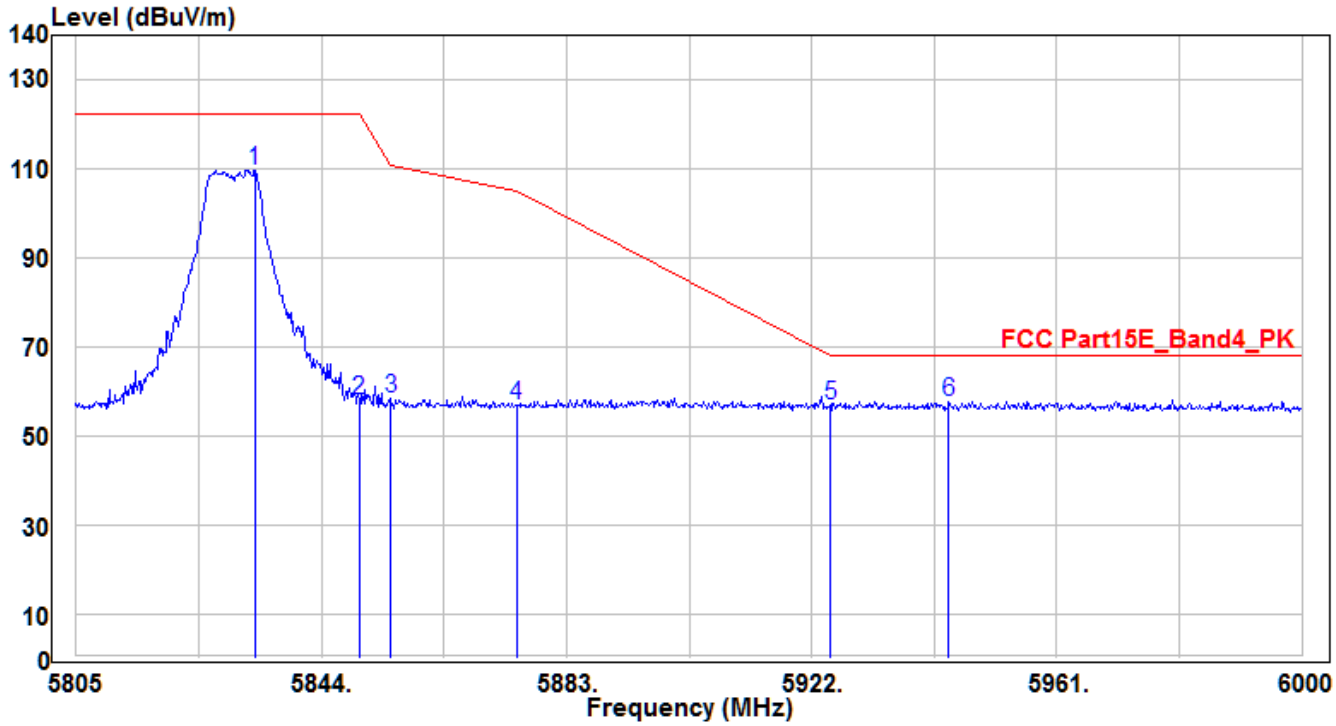


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5831.91	112.9	5.34	118.24	-3.96	122.2	190	170	Peak
2		5850	58.56	5.41	63.97	-58.23	122.2	190	170	Peak
3		5855	56.64	5.44	62.08	-48.72	110.8	190	170	Peak
4		5875	54.85	5.51	60.36	-44.84	105.2	190	170	Peak
5		5925	53.19	5.7	58.89	-9.31	68.2	190	170	Peak
6	*	5946.765	54.77	5.79	60.56	-7.64	68.2	190	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE2-5830MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

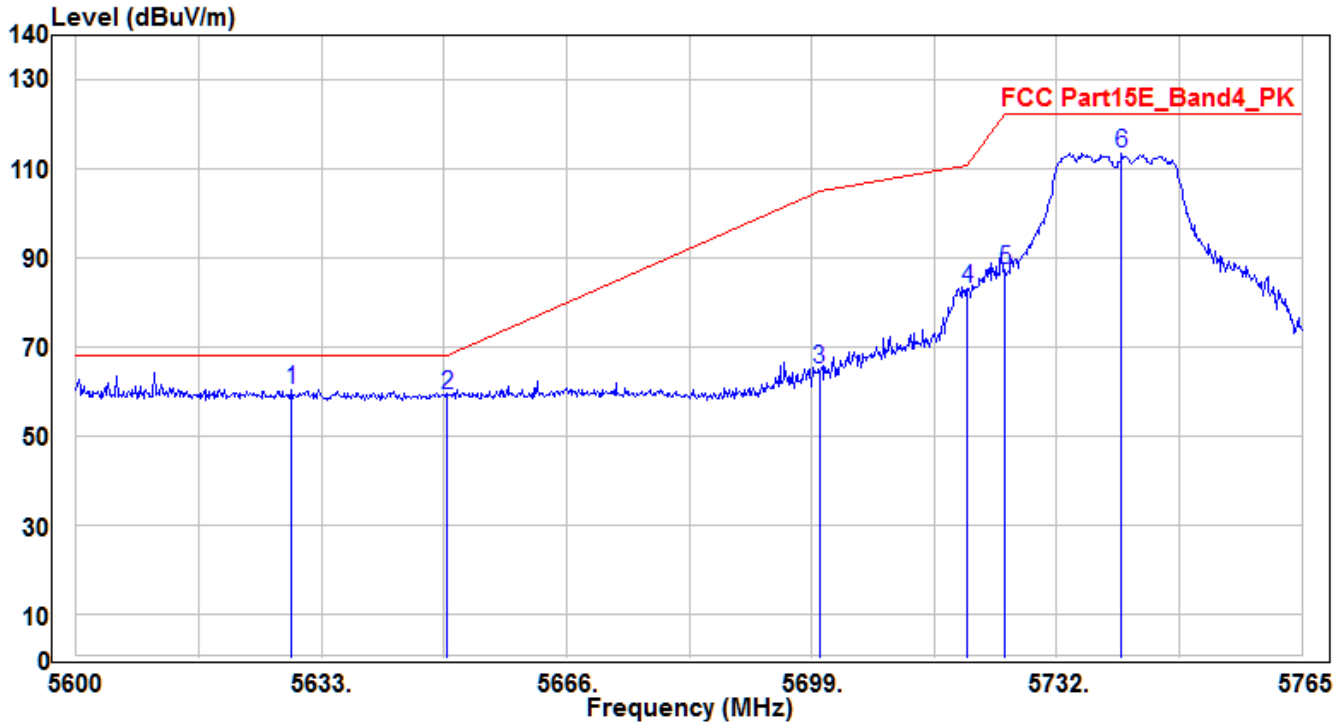


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5833.47	104.45	5.35	109.8	-12.4	122.2	185	105	Peak
2		5850	52.73	5.41	58.14	-64.06	122.2	185	105	Peak
3		5855	52.93	5.44	58.37	-52.43	110.8	185	105	Peak
4		5875	51.26	5.51	56.77	-48.43	105.2	185	105	Peak
5		5925	51.42	5.7	57.12	-11.08	68.2	185	105	Peak
6	*	5943.84	51.75	5.77	57.52	-10.68	68.2	185	105	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5740MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

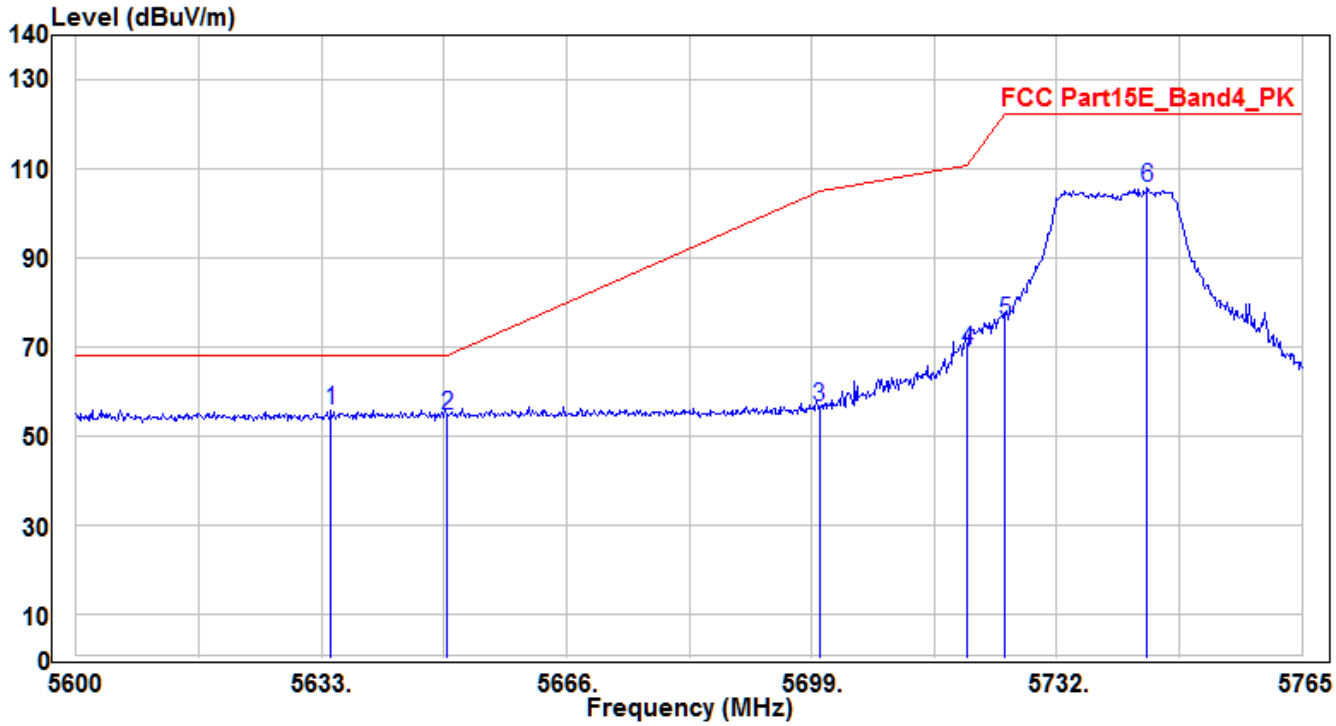


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5629.04	55.7	4.57	60.27	-7.93	68.2	160	355	Peak
2		5649.995	54.57	4.65	59.22	-8.98	68.2	160	355	Peak
3		5700	60.34	4.84	65.18	-40.02	105.2	160	355	Peak
4		5720	78.27	4.91	83.18	-27.62	110.8	160	355	Peak
5		5725	82.38	4.93	87.31	-34.89	122.2	160	355	Peak
6		5740.745	108.66	5	113.66	-8.54	122.2	160	355	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5740MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

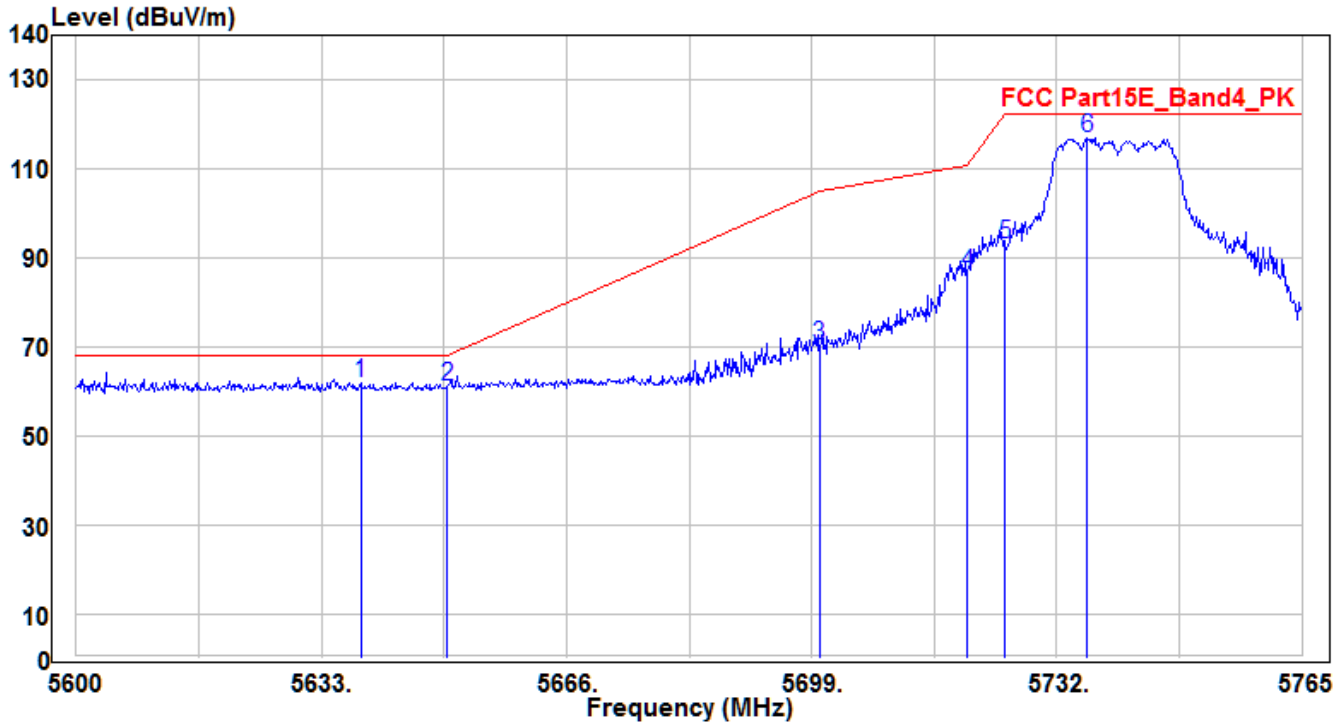


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5634.32	51.16	4.58	55.74	-12.46	68.2	150	285	Peak
2		5650	49.97	4.65	54.62	-13.58	68.2	150	285	Peak
3		5700	51.9	4.84	56.74	-48.46	105.2	150	285	Peak
4		5720	64.24	4.91	69.15	-41.65	110.8	150	285	Peak
5		5725	70.93	4.93	75.86	-46.34	122.2	150	285	Peak
6		5744.21	100.65	5.01	105.66	-16.54	122.2	150	285	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5740MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

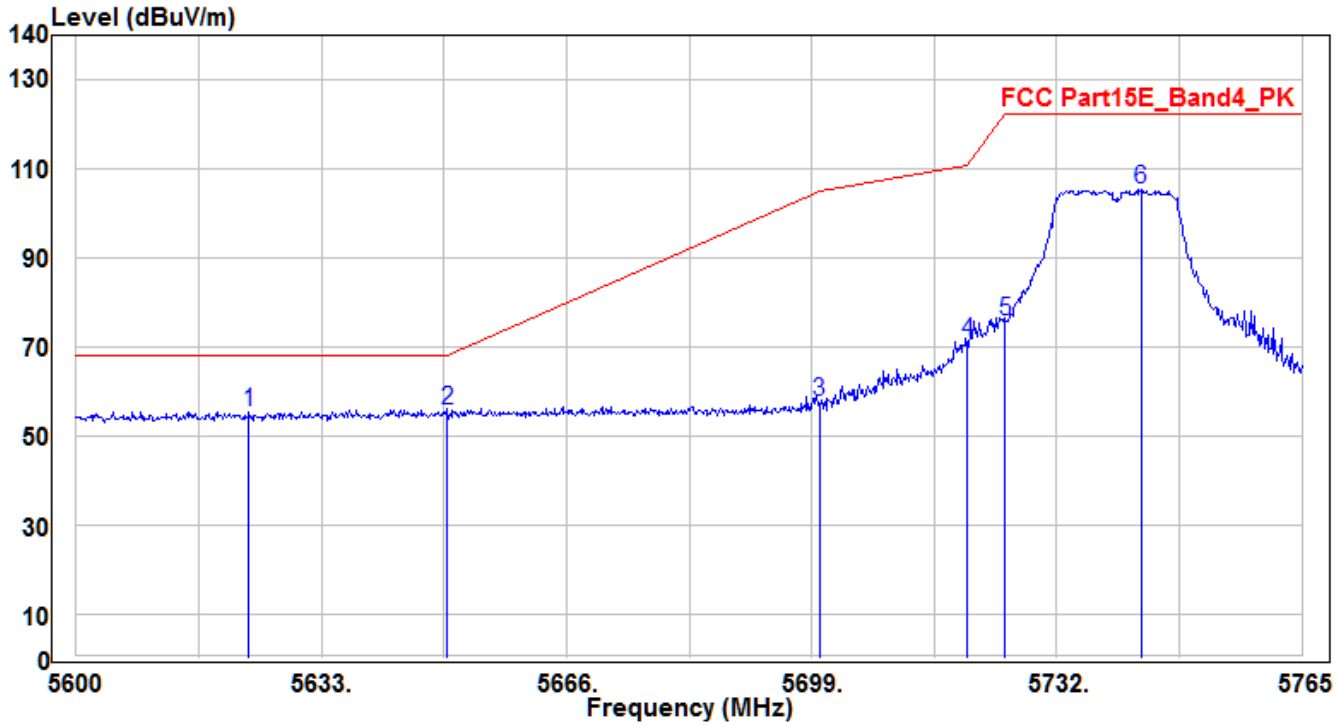


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5638.28	57.4	4.6	62	-6.2	68.2	160	170	Peak
2		5650	56.54	4.65	61.19	-7.01	68.2	160	170	Peak
3		5700	65.43	4.84	70.27	-34.93	105.2	160	170	Peak
4		5720	81.81	4.91	86.72	-24.08	110.8	160	170	Peak
5		5725	88.25	4.93	93.18	-29.02	122.2	160	170	Peak
6		5736.125	111.93	4.98	116.91	-5.29	122.2	160	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5740MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

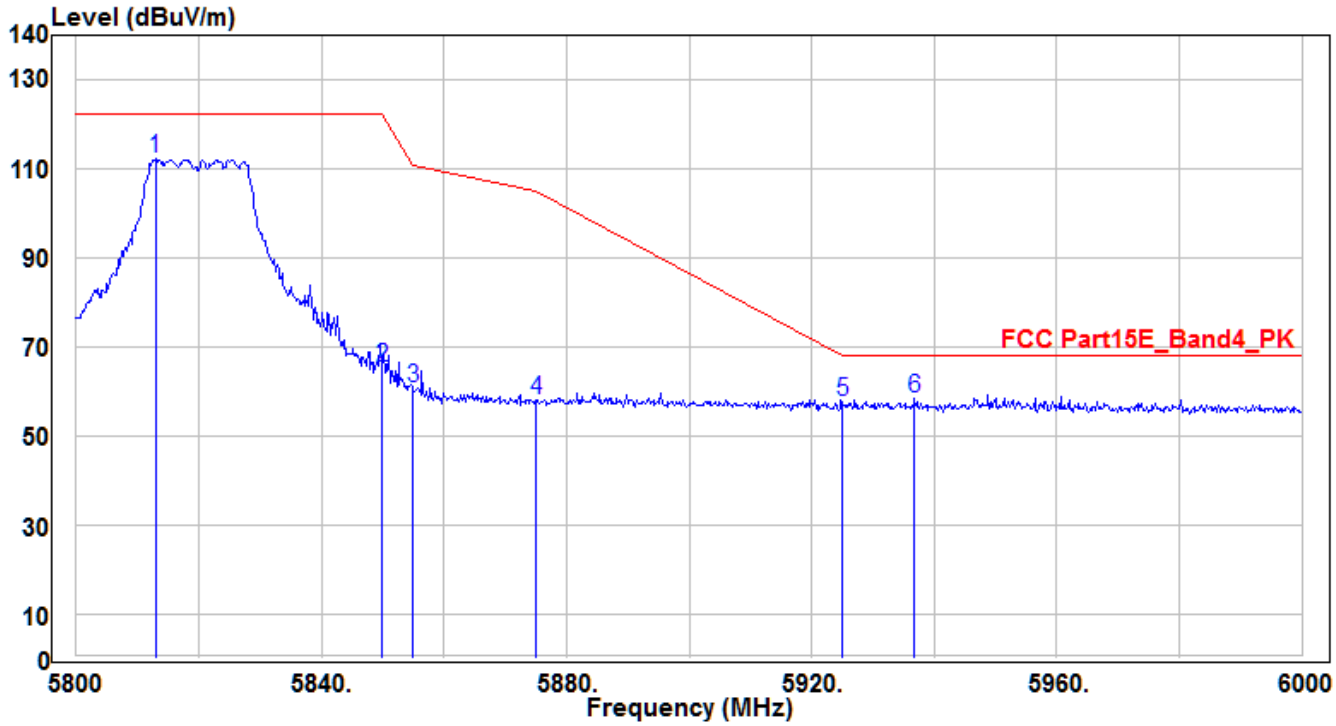


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5623.265	51.03	4.54	55.57	-12.63	68.2	175	170	Peak
2	*	5650	51.1	4.65	55.75	-12.45	68.2	175	170	Peak
3		5700	52.74	4.84	57.58	-47.62	105.2	175	170	Peak
4		5720	66.25	4.91	71.16	-39.64	110.8	175	170	Peak
5		5725	71.01	4.93	75.94	-46.26	122.2	175	170	Peak
6		5743.385	100.4	5	105.4	-16.8	122.2	175	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5820MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

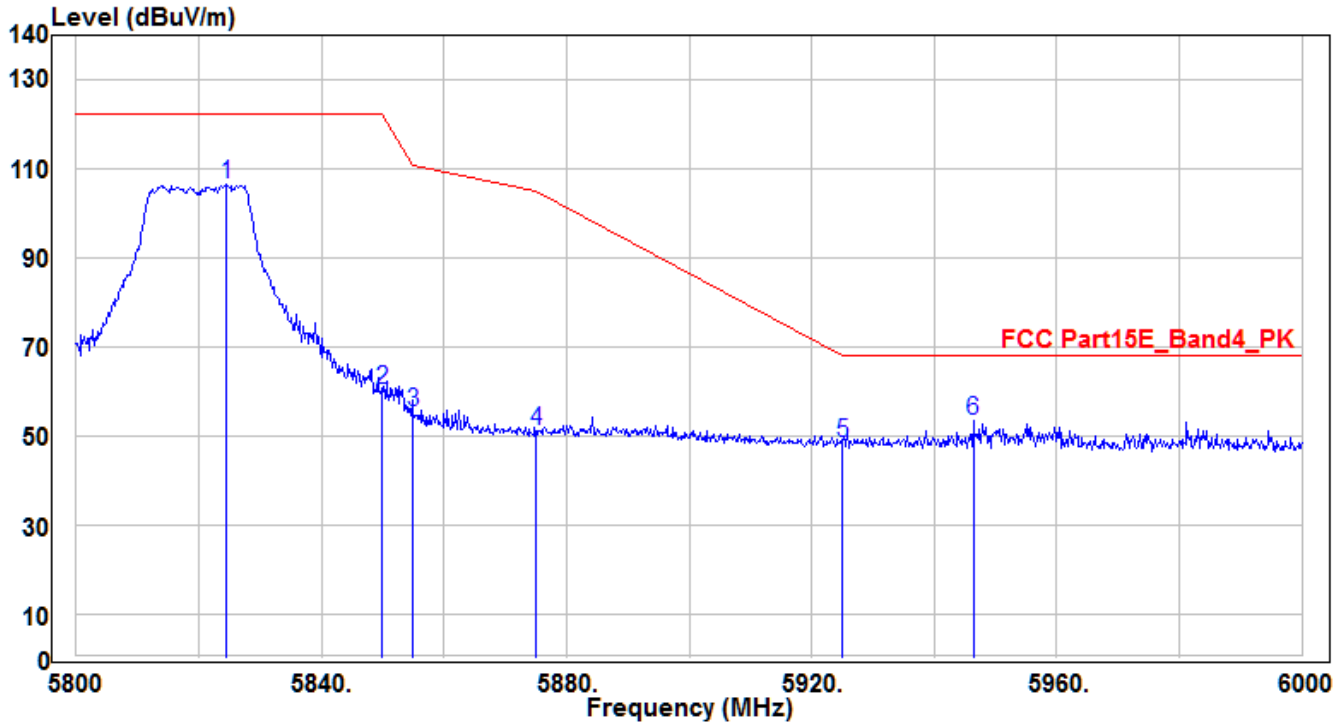


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5813	107.15	5.27	112.42	-9.78	122.2	170	350	Peak
2		5850	60.18	5.41	65.59	-56.61	122.2	170	350	Peak
3		5855	55.18	5.44	60.62	-50.18	110.8	170	350	Peak
4		5875	52.54	5.51	58.05	-47.15	105.2	170	350	Peak
5		5925	51.93	5.7	57.63	-10.57	68.2	170	350	Peak
6	*	5936.8	52.54	5.75	58.29	-9.91	68.2	170	350	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5820MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

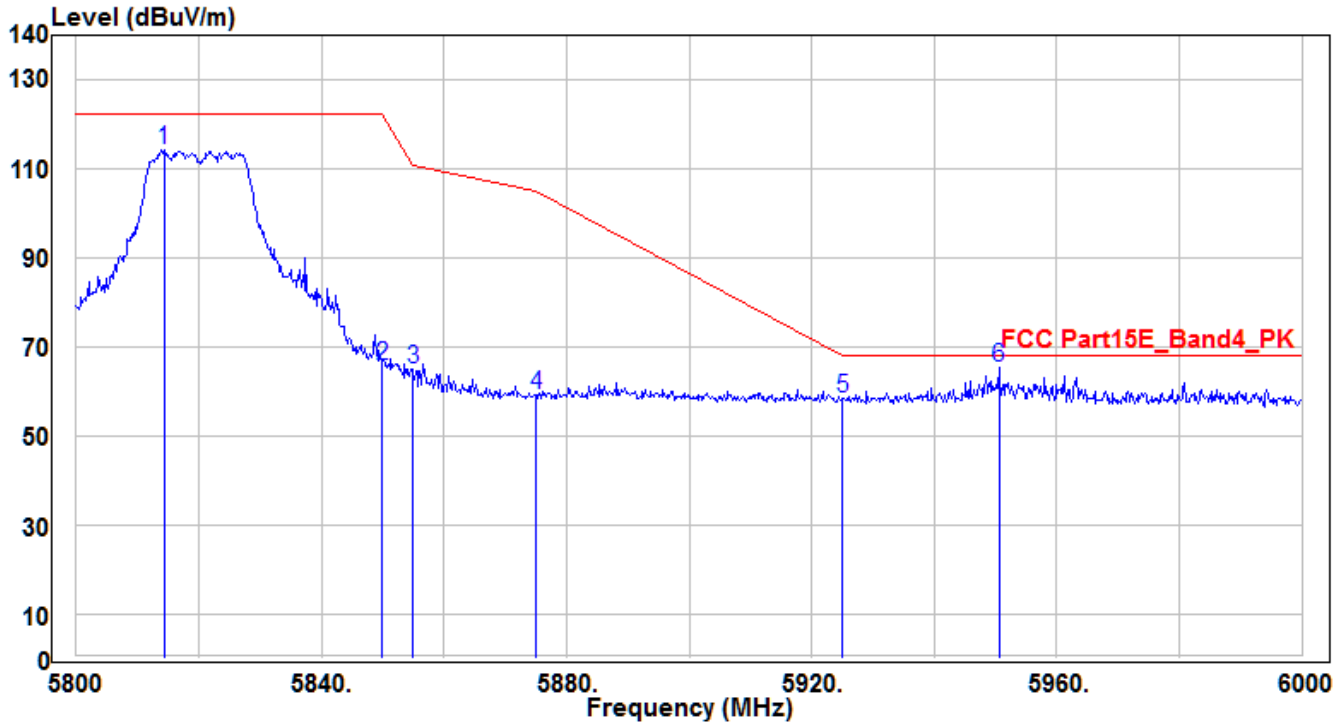


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5824.6	101.19	5.31	106.5	-15.7	122.2	155	285	Peak
2		5850	54.95	5.41	60.36	-61.84	122.2	155	285	Peak
3		5855	50.08	5.44	55.52	-55.28	110.8	155	285	Peak
4		5875	45.73	5.51	51.24	-53.96	105.2	155	285	Peak
5		5925	42.78	5.7	48.48	-19.72	68.2	155	285	Peak
6	*	5946.4	47.8	5.77	53.57	-14.63	68.2	155	285	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5820MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

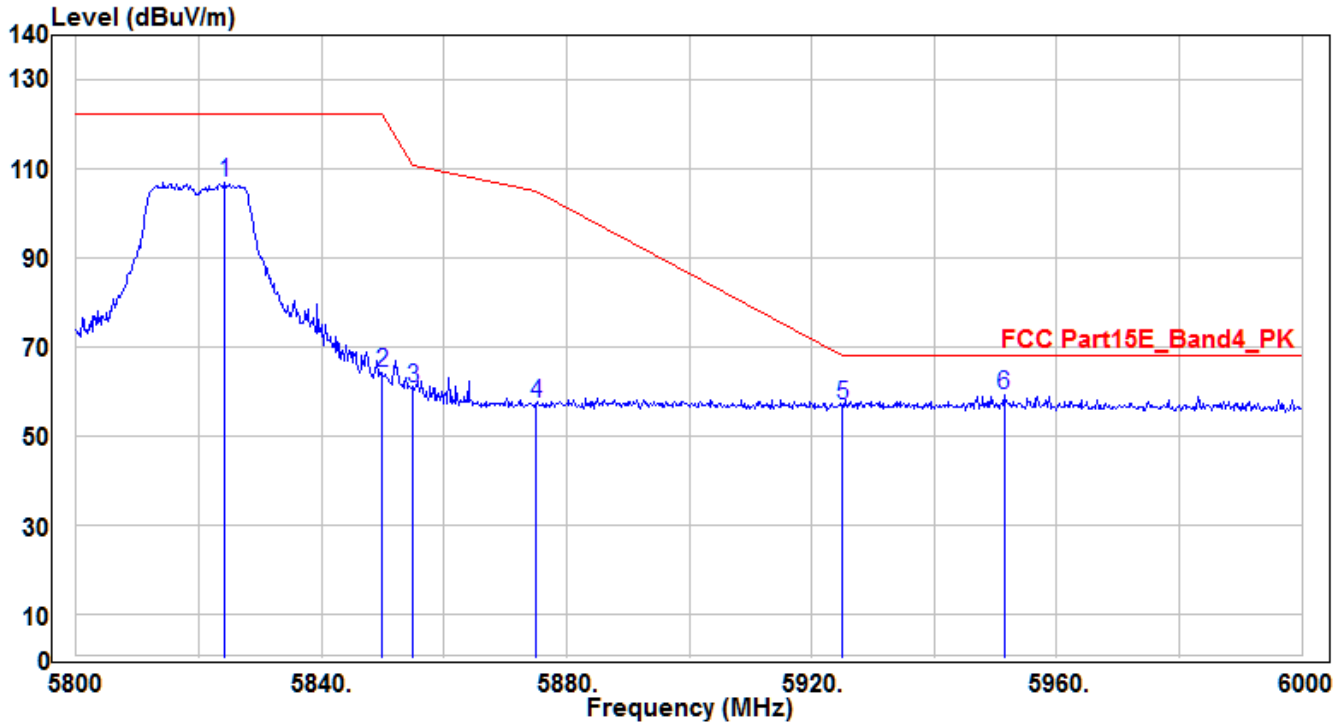


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5814.4	108.9	5.27	114.17	-8.03	122.2	175	365	Peak
2		5850	60.55	5.41	65.96	-56.24	122.2	175	365	Peak
3		5855	59.63	5.44	65.07	-45.73	110.8	175	365	Peak
4		5875	53.59	5.51	59.1	-46.1	105.2	175	365	Peak
5		5925	52.59	5.7	58.29	-9.91	68.2	175	365	Peak
6	*	5950.6	59.45	5.8	65.25	-2.95	68.2	175	365	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE3-5820MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

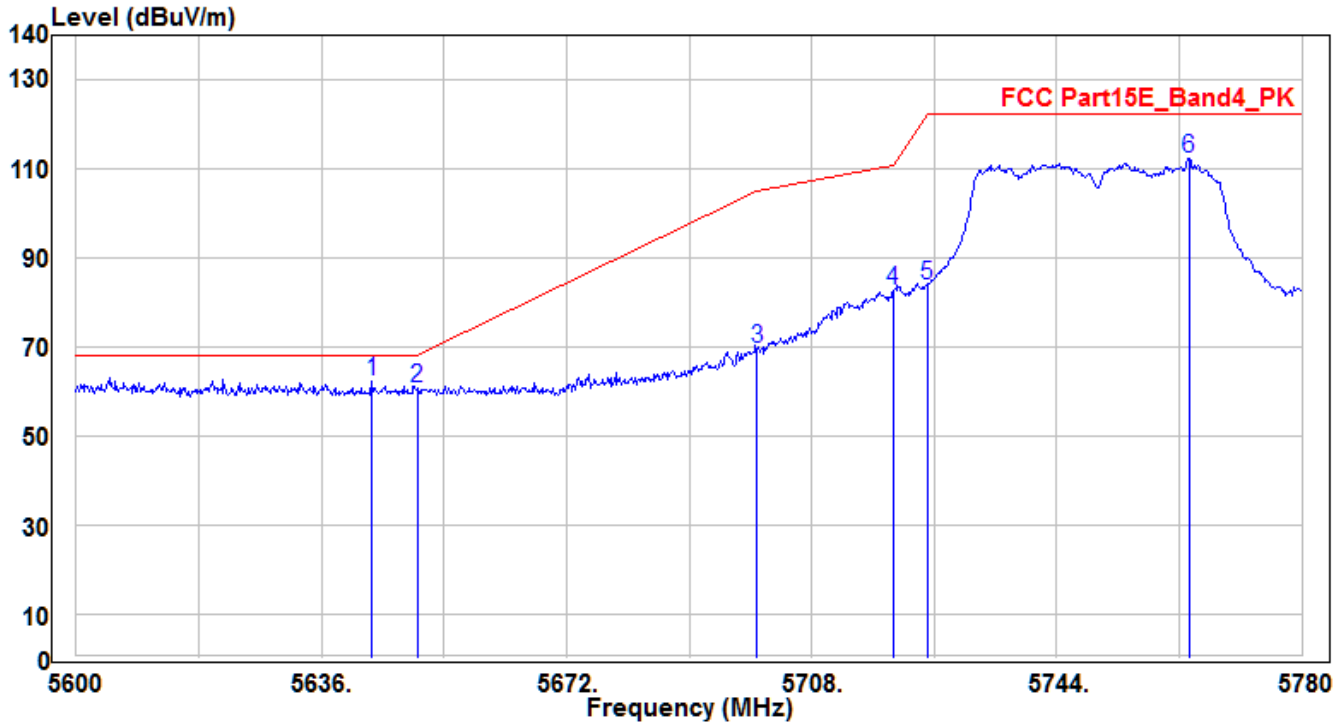


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5824.2	101.54	5.31	106.85	-15.35	122.2	170	105	Peak
2		5850	58.69	5.41	64.1	-58.1	122.2	170	105	Peak
3		5855	55.49	5.44	60.93	-49.87	110.8	170	105	Peak
4		5875	51.86	5.51	57.37	-47.83	105.2	170	105	Peak
5		5925	51.1	5.7	56.8	-11.4	68.2	170	105	Peak
6	*	5951.4	53.55	5.8	59.35	-8.85	68.2	170	105	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5750MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

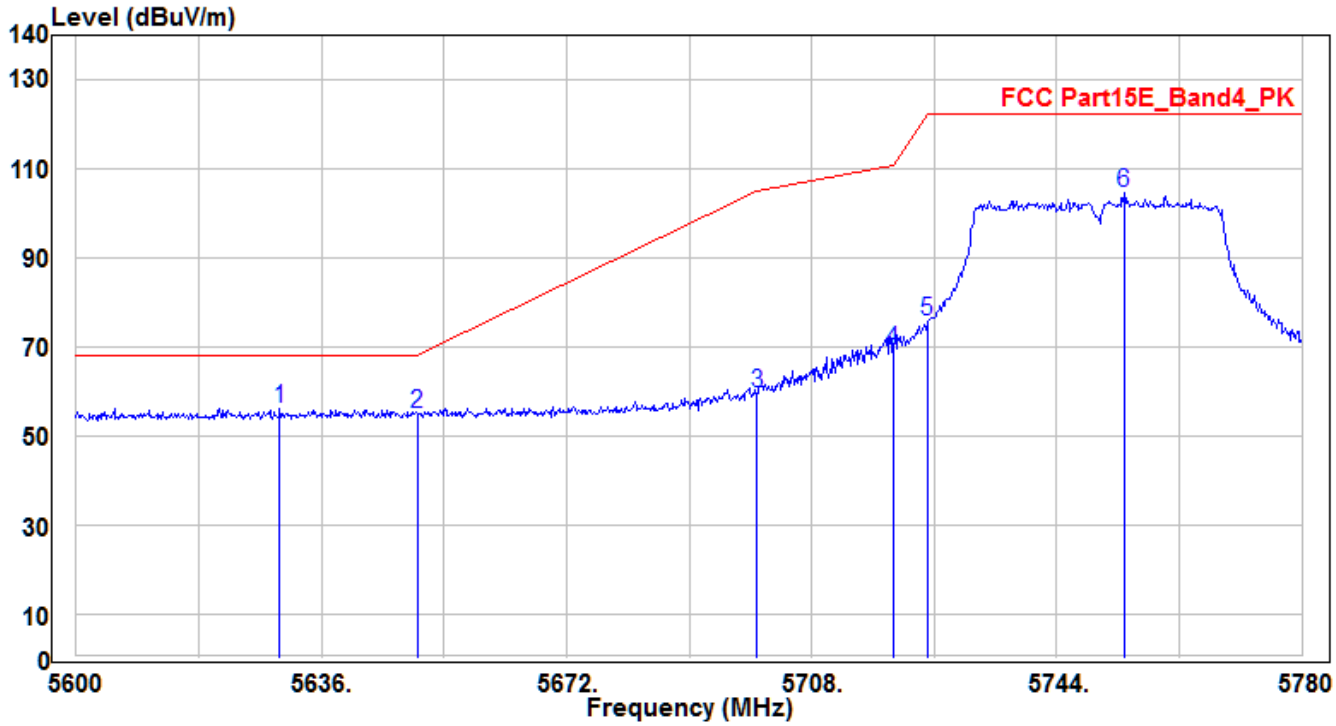


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5643.38	57.63	4.62	62.25	-5.95	68.2	150	350	Peak
2		5650.04	56.2	4.65	60.85	-7.38	68.23	150	350	Peak
3		5700	64.72	4.84	69.56	-35.64	105.2	150	350	Peak
4		5720	77.86	4.91	82.77	-28.03	110.8	150	350	Peak
5		5725	78.94	4.93	83.87	-38.33	122.2	150	350	Peak
6		5763.44	107.12	5.08	112.2	-10	122.2	150	350	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5750MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

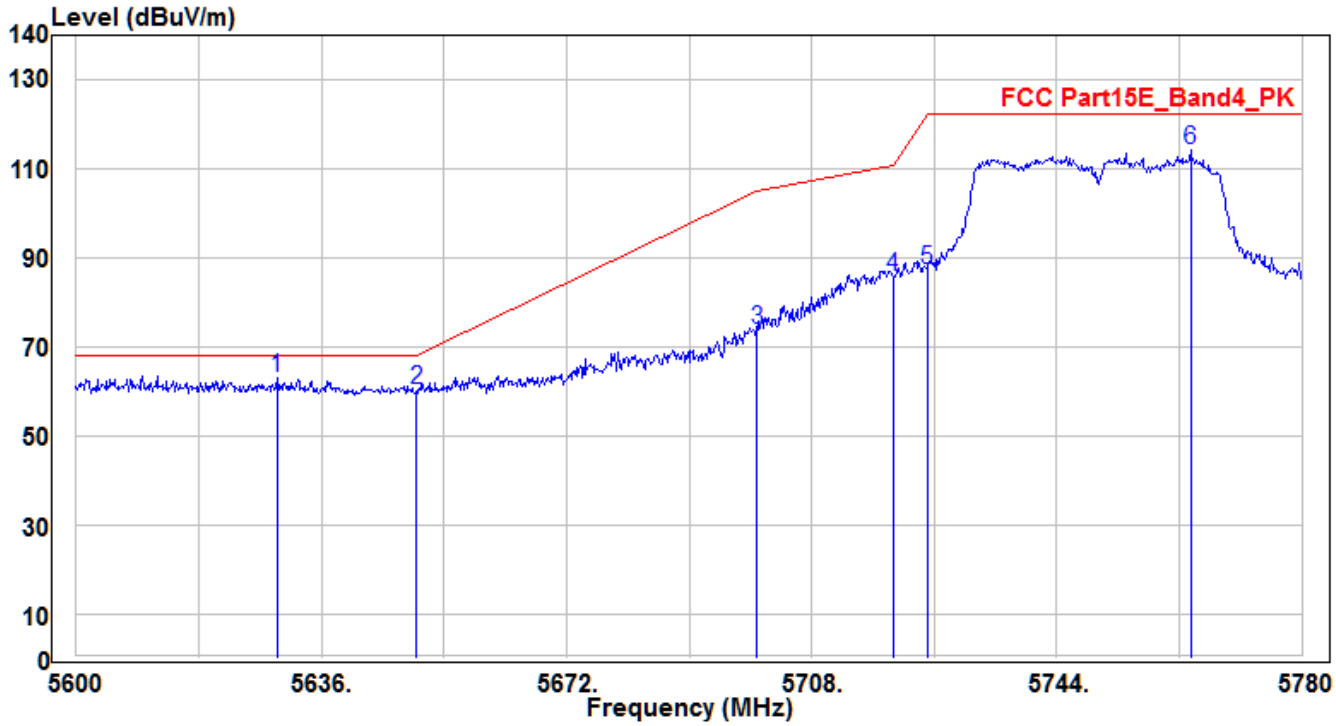


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5629.88	51.45	4.57	56.02	-12.18	68.2	150	280	Peak
2		5650.04	50.41	4.65	55.06	-13.17	68.23	150	280	Peak
3		5700	54.84	4.84	59.68	-45.52	105.2	150	280	Peak
4		5720	64.29	4.91	69.2	-41.6	110.8	150	280	Peak
5		5725	70.67	4.93	75.6	-46.6	122.2	150	280	Peak
6		5753.9	99.41	5.05	104.46	-17.74	122.2	150	280	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5750MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

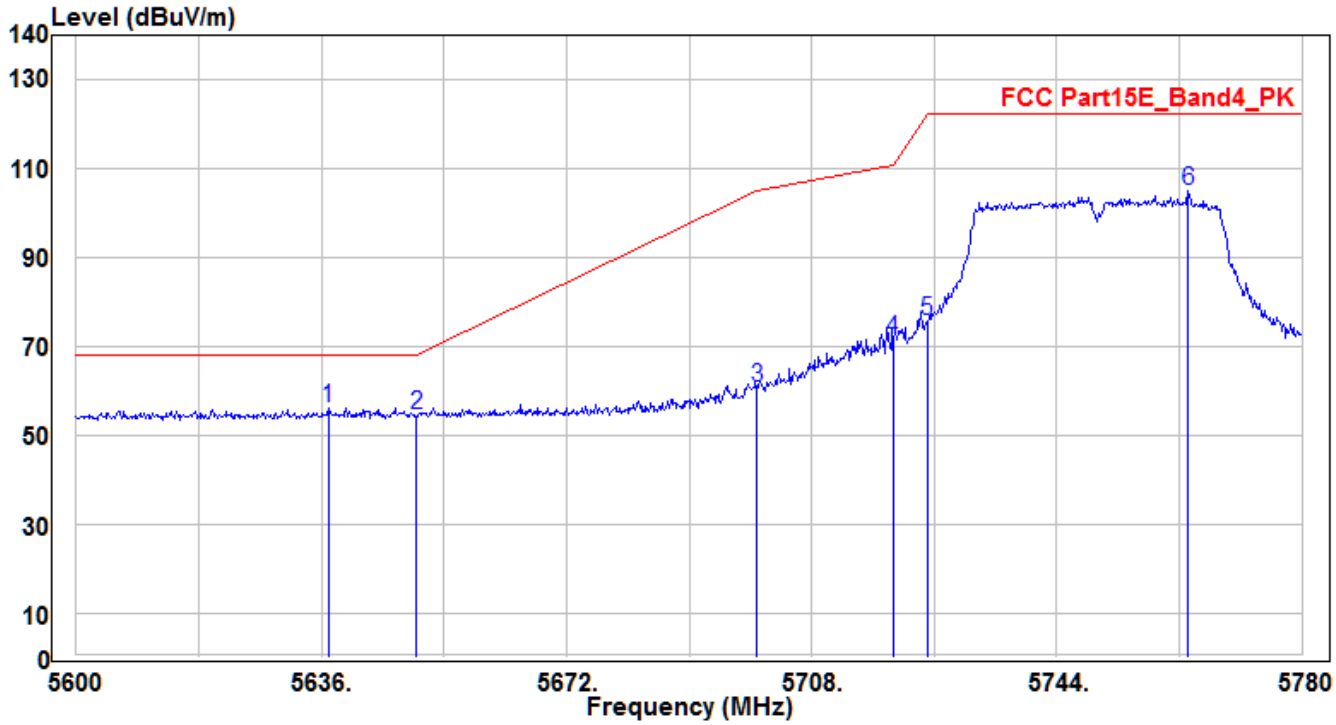


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5629.52	58.58	4.57	63.15	-5.05	68.2	150	360	Peak
2		5650	55.72	4.65	60.37	-7.83	68.2	150	360	Peak
3		5700	68.87	4.84	73.71	-31.49	105.2	150	360	Peak
4		5720	80.97	4.91	85.88	-24.92	110.8	150	360	Peak
5		5725	82.39	4.93	87.32	-34.88	122.2	150	360	Peak
6		5763.62	109.17	5.08	114.25	-7.95	122.2	150	360	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5750MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

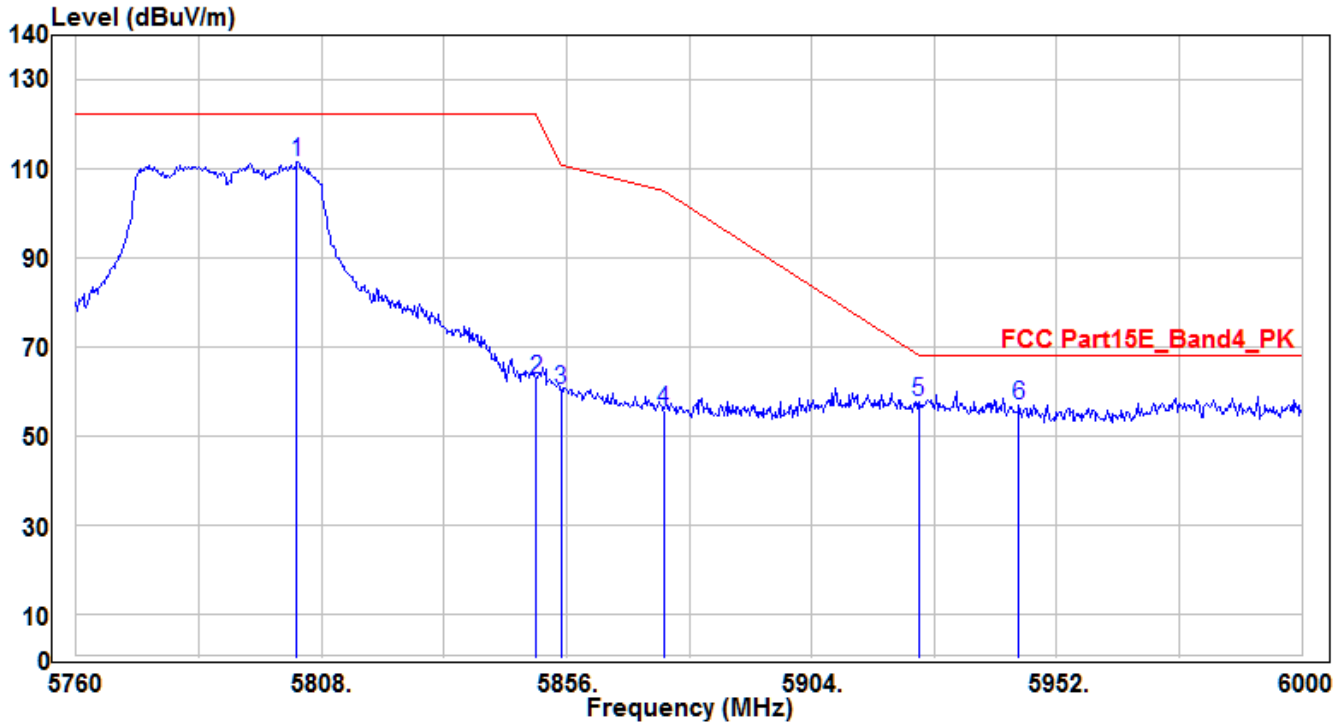


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1	*	5637.08	51.64	4.6	56.24	-11.96	68.2	150	245	Peak
2		5650	50.1	4.65	54.75	-13.45	68.2	150	245	Peak
3		5700	56.13	4.84	60.97	-44.23	105.2	150	245	Peak
4		5720	66.79	4.91	71.7	-39.1	110.8	150	245	Peak
5		5725	70.96	4.93	75.89	-46.31	122.2	150	245	Peak
6		5763.26	99.94	5.08	105.02	-17.18	122.2	150	245	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5790MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

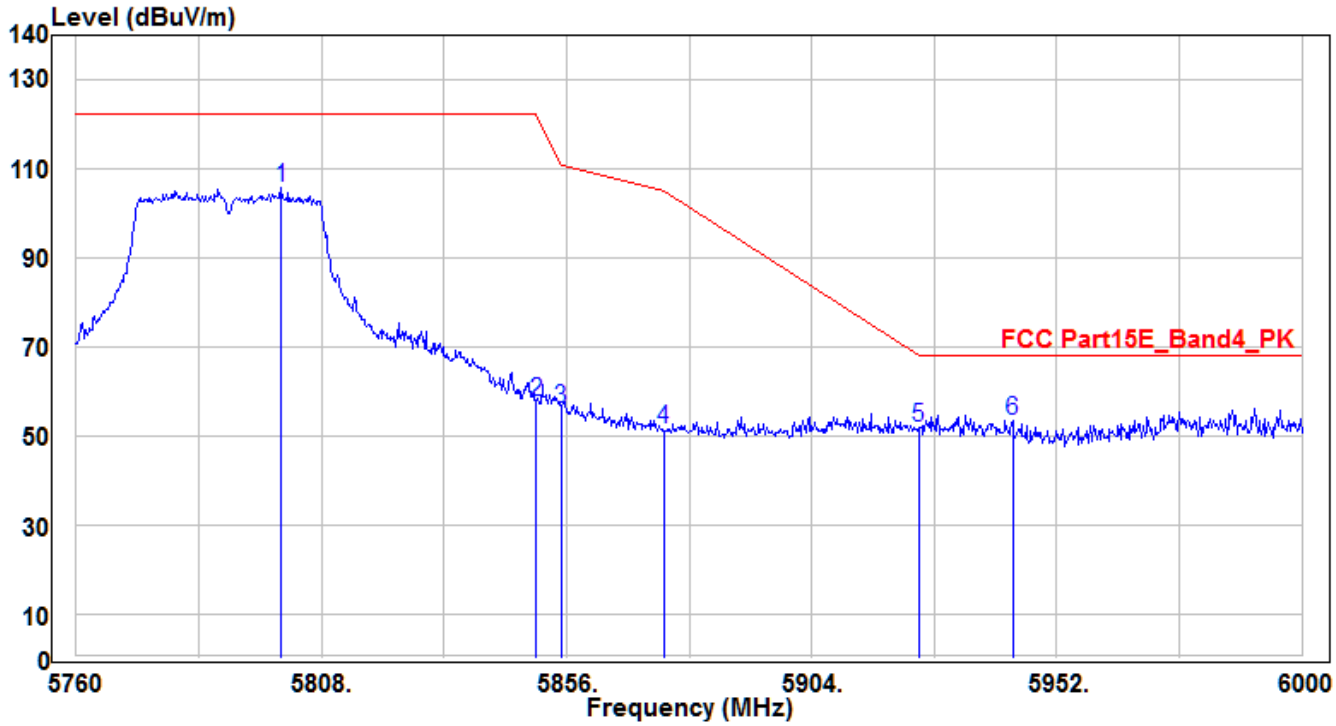


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5803.2	106.49	5.23	111.72	-10.48	122.2	180	350	Peak
2		5850	57.45	5.41	62.86	-59.34	122.2	180	350	Peak
3		5855	55.11	5.44	60.55	-50.25	110.8	180	350	Peak
4		5875	50.35	5.51	55.86	-49.34	105.2	180	350	Peak
5	*	5925	52.03	5.7	57.73	-10.47	68.2	180	350	Peak
6		5944.56	51.16	5.77	56.93	-11.27	68.2	180	350	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5790MHz Wireless1 Chain0+Chain1	Test Voltage	AC 120V/60Hz

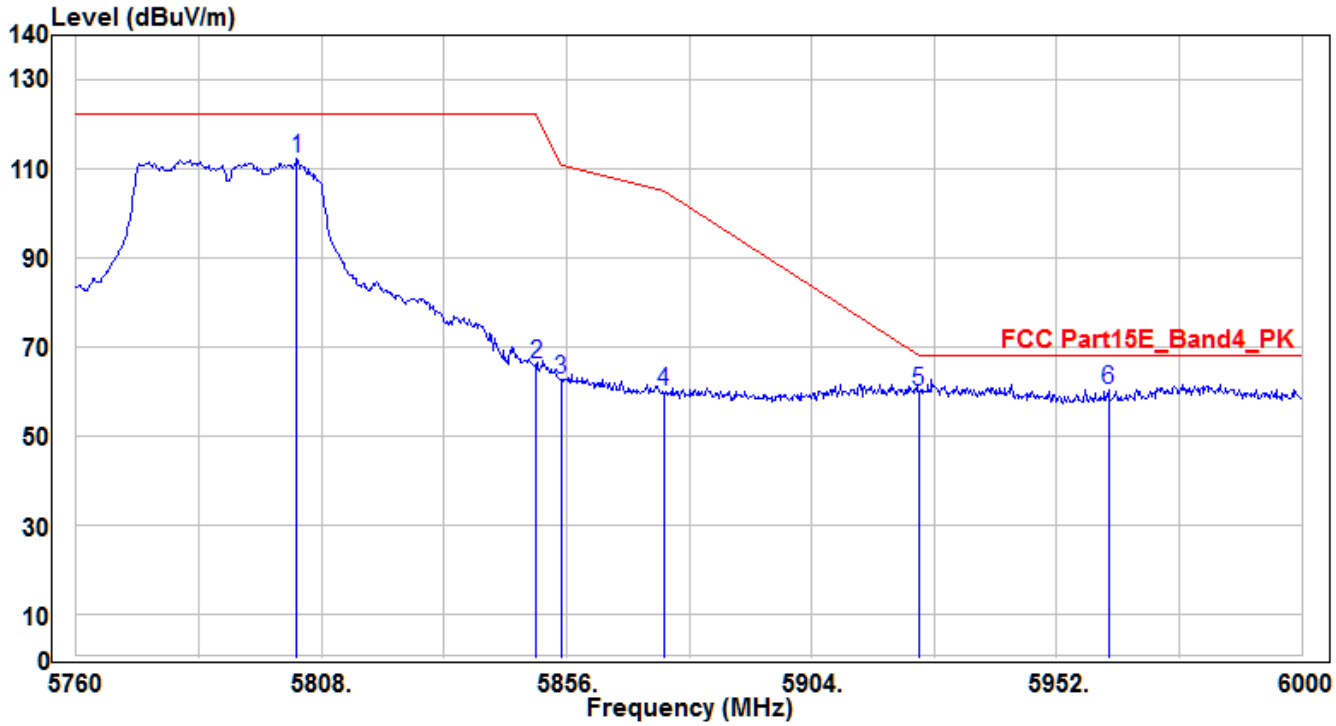


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5800.08	100.42	5.22	105.64	-16.56	122.2	150	280	Peak
2		5850	52.25	5.41	57.66	-64.54	122.2	150	280	Peak
3		5855	50.69	5.44	56.13	-54.67	110.8	150	280	Peak
4		5875	46.07	5.51	51.58	-53.62	105.2	150	280	Peak
5		5925	46.42	5.7	52.12	-16.08	68.2	150	280	Peak
6	*	5943.36	47.77	5.77	53.54	-14.66	68.2	150	280	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Horizontal	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5790MHz Wireless2 Chain0+Chain1	Test Voltage	AC 120V/60Hz

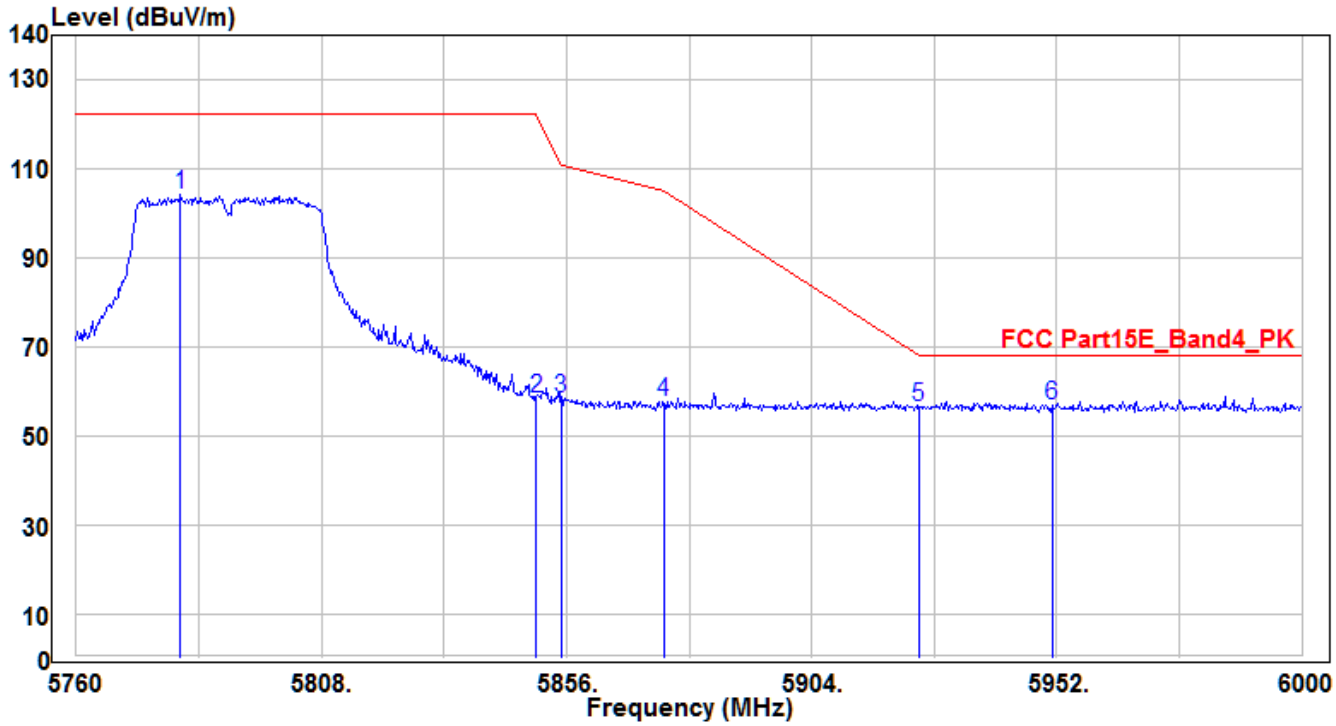


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV/m)	Margin (dB)	Limit (dBuV)	Height (cm)	Angle (deg)	Remark (QP/PK/AV)
1		5803.2	107.1	5.23	112.33	-9.87	122.2	160	355	Peak
2		5850	60.69	5.41	66.1	-56.1	122.2	160	355	Peak
3		5855	57.42	5.44	62.86	-47.94	110.8	160	355	Peak
4		5875	54.32	5.51	59.83	-45.37	105.2	160	355	Peak
5		5925	54.51	5.7	60.21	-7.99	68.2	160	355	Peak
6	*	5962.08	54.48	5.85	60.33	-7.87	68.2	160	355	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	MIMO WiTDM Series Bridge	Test Date	2017/08/17
Factor	BBHA 9120D (1GHz~18GHz)	Temp. / Humidity	24°C / 57%
Polarity	Vertical	Site / Engineer	AC1 / Peter
Test Mode	MODE4-5790MHz Wireless2 Chain0+Chain1	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		5780.4	99.19	5.15	104.34	-17.86	122.2	155	280	Peak
2		5850	52.97	5.41	58.38	-63.82	122.2	155	280	Peak
3		5855	53.21	5.44	58.65	-52.15	110.8	155	280	Peak
4		5875	52.18	5.51	57.69	-47.51	105.2	155	280	Peak
5		5925	50.87	5.7	56.57	-11.63	68.2	155	280	Peak
6	*	5951.04	51.16	5.8	56.96	-11.24	68.2	155	280	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)。

7.10. AC Conducted Emissions Measurement

7.10.1. 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.

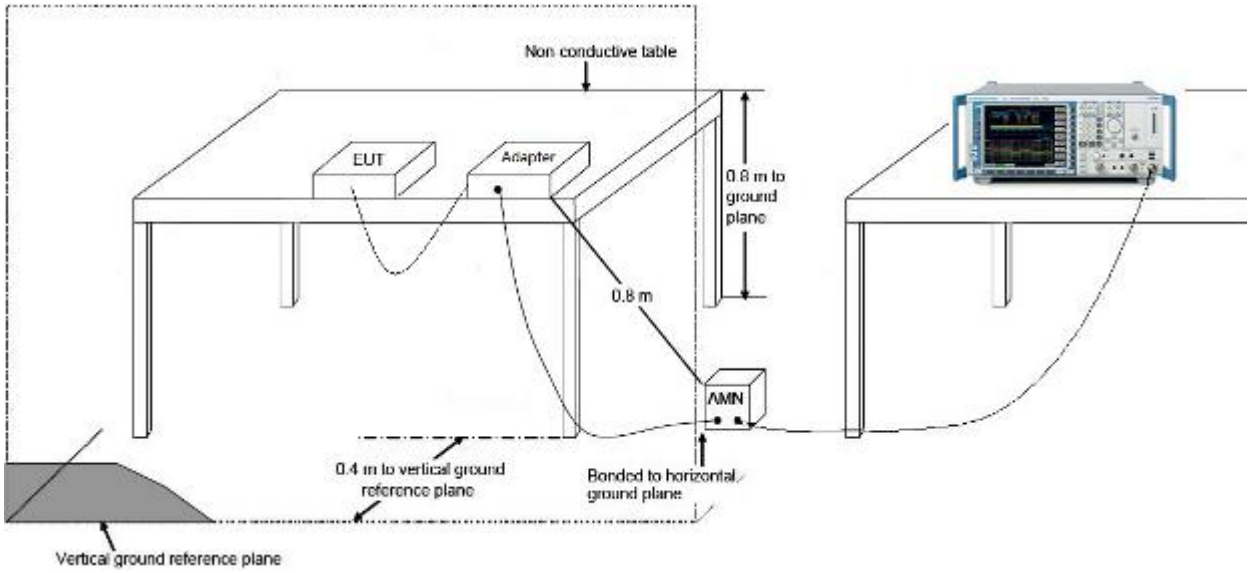
7.10.2. Test Procedure

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.

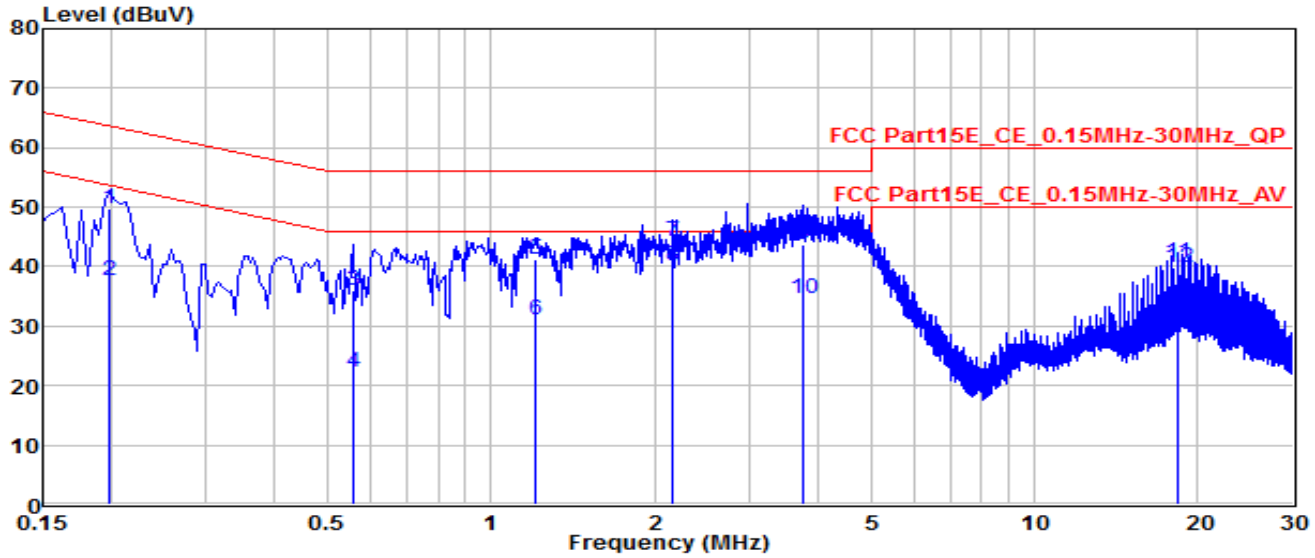
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

7.10.3. Test Setup



7.10.4. Test Result

EUT	MIMO WiTDM Series Bridge	Test Date	2017/10/16
Factor	CE_ENV216-L1 (Filter ON)	Temp. / Humidity	24°C / 55%
Polarity	Line1	Site / Engineer	SR2 / Kevin
Test Mode	MODE3-5780MHz	Test Voltage	AC120V/60Hz

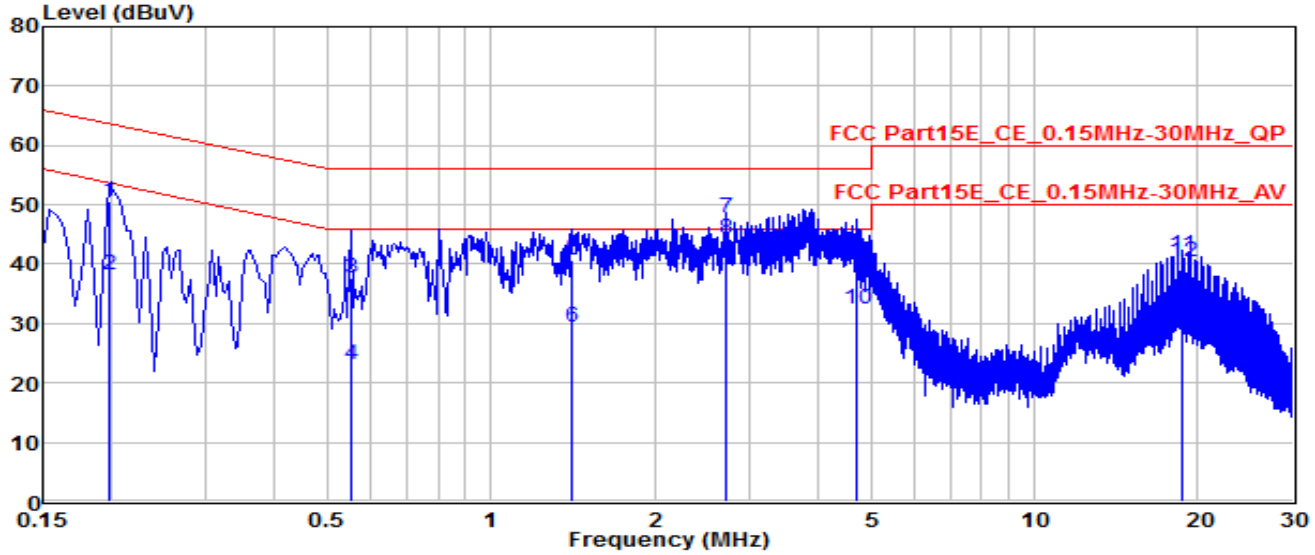


No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.1995	39.78	9.95	49.73	-13.9	63.63	QP
2		0.1995	27.65	9.95	37.6	-16.03	53.63	Average
3		0.55946	25.98	10.06	36.04	-19.96	56	QP
4		0.55946	12.1	10.06	22.16	-23.84	46	Average
5		1.212	31.27	9.88	41.15	-14.85	56	QP
6		1.212	21.32	9.88	31.2	-14.8	46	Average
7	*	2.161	34.54	9.85	44.39	-11.61	56	QP
8	*	2.161	30.29	9.85	40.14	-5.86	46	Average
9		3.75	34.05	9.8	43.85	-12.15	56	QP
10		3.75	24.79	9.8	34.59	-11.41	46	Average
11		18.391	30.67	9.99	40.66	-19.34	60	QP
12		18.391	29.86	9.99	39.85	-10.15	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	MIMO WiTDM Series Bridge	Test Date	2017/10/16
Factor	CE_ENV216-N (Filter ON)	Temp. / Humidity	24°C / 55%
Polarity	Neutral	Site / Engineer	SR2 / Kevin
Test Mode	MODE3-5780MHz	Test Voltage	AC120V/60Hz



No		Frequency (MHz)	Reading (dBuV)	C.F (dB)	Measurement (dBuV)	Margin (dB)	Limit (dBuV)	Remark (QP/PK/AV)
1		0.1995	40.68	9.93	50.61	-13.02	63.63	QP
2		0.1995	28.4	9.93	38.33	-15.3	53.63	Average
3		0.55496	27.61	10.09	37.7	-18.3	56	QP
4		0.55496	12.97	10.09	23.06	-22.94	46	Average
5		1.405	30.91	9.87	40.78	-15.22	56	QP
6		1.405	19.44	9.87	29.31	-16.69	46	Average
7	*	2.706	38.1	9.84	47.94	-8.06	56	QP
8	*	2.706	34.51	9.84	44.35	-1.65	46	Average
9		4.699	31.6	9.78	41.38	-14.62	56	QP
10		4.699	22.72	9.78	32.5	-13.5	46	Average
11		18.661	31.35	10.06	41.41	-18.59	60	QP
12		18.661	30.48	10.06	40.54	-9.46	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 **MIMO WiTDM Series Bridge,**

Model Number: KW50-O8500 is in compliance with Part 15E of the FCC Rules.

The End