FCC Test Report

Product Name ： Dual Band 3x3 802.11ac PCI-E Adapter

Trade Name ： ASUS

Model No. ： PCE-AC68

FCC ID. ： MSQ-PCEAC68

Applicant ： ASUSTeK COMPUTER INC.

Address ： 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt ： Jan. 30, 2016

Issued Date ： May 12, 2016

Report No. ： 1620097R-RFUSP56V00-A

Report Version ： V1.0

Testing Laboratory
3024

Test Report Certification

Issued Date: May 12, 2016
Report No. : 1620097R-RFUSP56V00-A

Product Name	:	Dual Band 3x3 802.11ac PCI-E Adapter
Applicant	:	ASUSTeK COMPUTER INC.
Address	:	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
Manufacturer	:	Arcadyan Technology Corporation
Model No.	:	PCE-AC68
FCC ID.	:	MSQ-PCEAC68
EUT Voltage	:	DC 3.3V (Power by PC)
Testing Voltage	:	DC 3.3V (Power by PC)
Trade Name	:	ASUS
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart E Section 15.407: 2015 ANSI C63.10: 2009
Test Lab	:	QuieTek Hsin Chu Laboratory
Test Result	:	Complied

The test results relate only to the samples tested.
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

Documented By : 

(Carol Tsai / Senior Engineering Adm. Specialist)

Tested By : 

(Bruno Tsai / Senior Engineer)

Approved By : 

(Roy Wang / Director)

Revision History

Report No.	Version	Description	Issued Date
137132R-RFUSP42V01	V7.0	Initial issue of report	Aug. 29, 2009
1620097R-RFUSP56V00-A	V1.0	Update WLAN 5G band 4 standard to FCC 15.407. The 2.4G test data, please refer to the 137132R-RFUSP42V01. For market purpose, customer adjust reduced the peak power, so verified the 99%, 26dB, 6dB BW, peak transmit output power, power density, radiation(above 1GHz), bandedge and frequency stability by customer requirements.	May 12, 2016

Laboratory Information

We, **QuieTek Corporation**, are an independent RF consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025 specified testing scopes:

Taiwan R.O.C.	**:**	**TAF, Accreditation Number: 3024**
USA	**:**	**FCC, Registration Number: 365520**
Canada	**:**	**IC, Submission No: 181665 / IC Registration Number: 4075C-4**

The related certificate for our laboratories about the test site and management system can be downloaded from QuieTek Corporation's Web Site:http://www.quietek.com/english/about/certificates.aspx?bval=5
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/index_en.aspx
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory:
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No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.
TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

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1. General Information

1.1. EUT Description

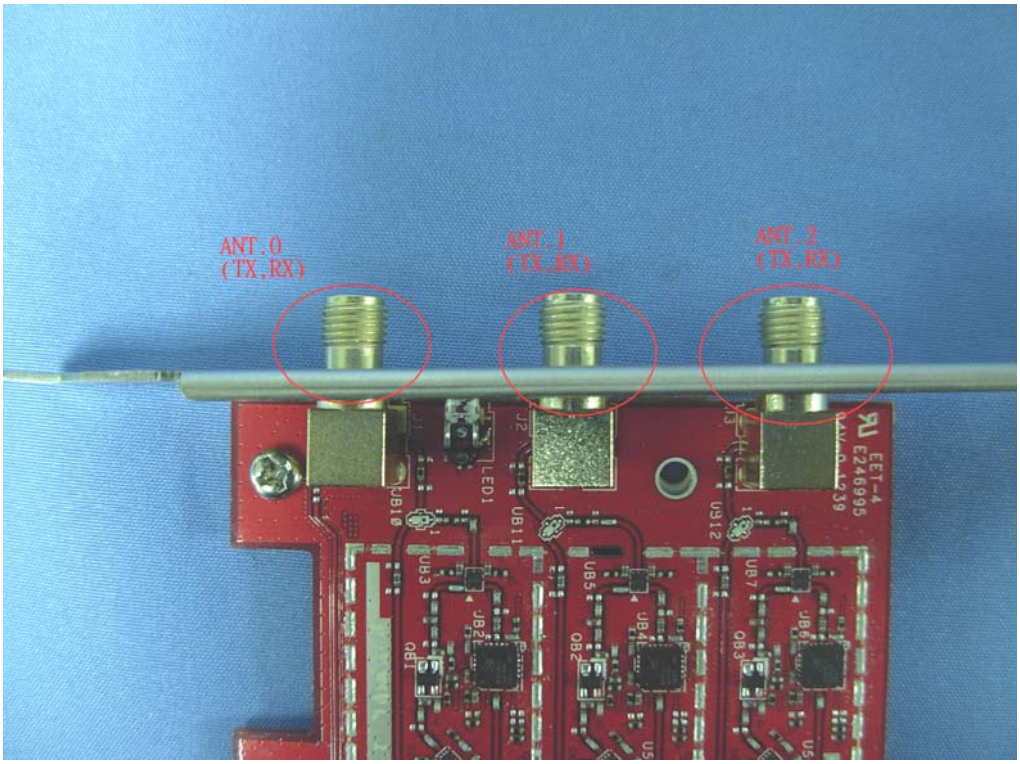
Product Name	Dual Band 3x3 802.11ac PCI-E Adapter	
Trade Name	ASUS	
Model No.	PCE-AC68	
Product Type	WLAN(3TX,3RX)	
Frequency Range/ Channel Number	IEEE 802.11a IEEE 802.11n (20MHz) IEEE 802.11ac (20MHz)	5745~5825MHz / 5 Channels
	IEEE 802.11n (40MHz) IEEE 802.11ac (40MHz)	5755~5795MHz / 2 Channels
	IEEE 802.11ac (80MHz)	5775~5775MHz / 1 Channel
Type of Modulation	IEEE 802.11a/n/ac	Orthogonal Frequency Division Multiplexing
Data Speed	IEEE 802.11a	6, 9, 18, 24, 36, 48,54Mbps
	IEEE 802.11n	Support a subset of the combination of GI, MCS 0~MCS 7 and bandwidth defined in 802.11n
	IEEE 802.11ac	Support a subset of the combination of GI, MCS 0~MCS 9 and bandwidth defined in 802.11ac

Antenna Information	
Antenna Type	Dipole Antenna
Antenna Gain	Ant0:3dBi, Ant1:3dBi, Ant2:3dBi
Beamforming Gain	5G:4.77dB

ANT-TX / RX & Bandwidth

ANT-TX / RX	TX			RX		
Mode/ Channel Bandwidth	20MHz	40MHz	80MHz	20MHz	40MHz	80MHz
IEEE802.11a	✓			✓		
IEEE802.11n	✓	✓		✓	✓	
IEEE802.11ac	✓	✓	✓	✓	✓	✓

3TX / 3RX



IEEE 802.11n

MCS Index	Modulation	R	N_{BPSCS}	N_{CBPS}		N_{DBPS}		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI	
								20MHz	40MHz	20MHz	40MHz
0	BPSK	1/2	1	52	108	26	54	6.5	13.5	7.2	15.0
1	QPSK	1/2	2	104	216	52	108	13.0	27.0	14.4	30.0
2	QPSK	3/4	2	104	216	78	162	19.5	40.5	21.7	45.0
3	16-QAM	1/2	4	208	432	104	216	26.0	54.0	28.9	60.0
4	16-QAM	3/4	4	208	432	156	324	39.0	81.0	43.3	90.0
5	64-QAM	2/3	6	312	648	208	432	52.0	108.0	57.8	120.0
6	64-QAM	3/4	6	312	648	234	486	58.5	121.5	65.0	135.0
7	64-QAM	5/6	6	312	648	260	540	65.0	135.0	72.2	150.0
Note 1: Support of 400ns GI is optional on transmit and receive.											

Table 1 – MCS parameters for TX Antenna number = 1

MCS Index	Modulation	R	N_{BPSCS}	N_{CBPS}		N_{DBPS}		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI	
								20MHz	40MHz	20MHz	40MHz
8	BPSK	1/2	1	104	216	52	108	13.0	27.0	14.4	30.0
9	QPSK	1/2	2	208	432	104	216	26.0	54.0	28.9	60.0
10	QPSK	3/4	2	208	432	156	324	39.0	81.0	43.3	90.0
11	16-QAM	1/2	4	416	864	208	432	52.0	108.0	57.8	120.0
12	16-QAM	3/4	4	416	864	312	648	78.0	162.0	86.7	180.0
13	64-QAM	2/3	6	624	1296	416	864	104.0	216.0	115.6	240.0
14	64-QAM	3/4	6	624	1296	468	972	117.0	243.0	130.0	270.0
15	64-QAM	5/6	6	624	1296	520	1080	130.0	270.0	144.4	300.0
Note 1: Support of 400ns GI is optional on transmit and receive.											

Table 2 – MCS parameters for TX Antenna number = 2

MCS Index	Modulation	R	N_{BPSCS}	N_{CBPS}		N_{DBPS}		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI	
								20MHz	40MHz	20MHz	40MHz
16	BPSK	1/2	1	156	324	78	162	19.5	40.5	21.7	45.0
17	QPSK	1/2	2	312	648	156	324	39.0	81.0	43.3	90.0
18	QPSK	3/4	2	312	648	234	486	58.5	121.5	65.0	135.0
19	16-QAM	1/2	4	624	1296	312	648	78.0	162.0	86.7	180.0
20	16-QAM	3/4	4	624	1296	468	972	117.0	243.0	130.0	270.0
21	64-QAM	2/3	6	936	1944	624	1296	156.0	324.0	173.3	360.0
22	64-QAM	3/4	6	936	1944	702	1458	175.5	364.5	195.0	405.0
23	64-QAM	5/6	6	936	1944	780	1620	195.0	405.0	216.7	450.0
Note 1: Support of 400ns GI is optional on transmit and receive.											

Table 3 – MCS parameters for TX Antenna number = 3

Symbol	Explanation
R	Code rate
N_{BPSC}	Number of coded bits per single carrier
N_{CBPS}	Number of coded bits per symbol
N_{DBPS}	Number of data bits per symbol
GI	guard interval

IEEE 802.11ac Data Rate

Spatial Streams (Note1)	MCS Index	Modulation type	Coding rate	Data Rate(Mb/s)							
				20 MHz		40 MHz		80 MHz		160 MHz	
				Guard Interval		Guard Interval		Guard Interval		Guard Interval	
				800ns	400ns	800ns	400ns	800ns	400ns	800ns	400ns
1	0	BPSK	1/2	6.5	7.2	13.5	15	29.3	32.5	58.5	65
	1	QPSK	1/2	13	14.4	27	30	58.5	65	117	130
	2	QPSK	3/4	19.5	21.7	40.5	45	87.8	97.5	175.5	195
	3	16-QAM	1/2	26	28.9	54	60	117	130	234	260
	4	16-QAM	3/4	39	43.3	81	90	175.5	195	351	390
	5	64-QAM	2/3	52	57.8	108	120	234	260	468	520
	6	64-QAM	3/4	58.5	65	121.5	135	263.3	292.5	526.5	585
	7	64-QAM	5/6	65	72.2	135	150	292.5	325	585	650
	8	256-QAM	3/4	78	86.7	162	180	351	390	702	780
	9	256-QAM	5/6	N/A	N/A	180	200	390	433.3	780	866.7
2	0	BPSK	1/2	13	14.4	27	30	58.6	65	117	130
	1	QPSK	1/2	26	28.8	54	60	117	130	234	260
	2	QPSK	3/4	39	43.4	81	90	175.6	195	351	390
	3	16-QAM	1/2	52	57.8	108	120	234	260	468	520
	4	16-QAM	3/4	78	86.6	162	180	351	390	702	780
	5	64-QAM	2/3	104	115.6	216	240	468	520	936	1040
	6	64-QAM	3/4	117	130	243	270	526.6	585	1053	1170
	7	64-QAM	5/6	130	144.4	270	300	585	650	1170	1300
	8	256-QAM	3/4	156	173.4	324	360	702	780	1404	1560
	9	256-QAM	5/6	N/A	N/A	360	400	780	866.6	1560	1733.4
3	0	BPSK	1/2	13	14.4	27	30	58.6	65	117	130
	1	QPSK	1/2	26	28.8	54	60	117	130	234	260
	2	QPSK	3/4	39	43.4	81	90	175.6	195	351	390
	3	16-QAM	1/2	52	57.8	108	120	234	260	468	520
	4	16-QAM	3/4	78	86.6	162	180	351	390	702	780
	5	64-QAM	2/3	104	115.6	216	240	468	520	936	1040
	6	64-QAM	3/4	117	130	243	270	526.6	585	1053	1170
	7	64-QAM	5/6	130	144.4	270	300	585	650	1170	1300
	8	256-QAM	3/4	156	173.4	324	360	702	780	1404	1560
	9	256-QAM	5/6	N/A	N/A	360	400	780	866.6	1560	1733.4

IEEE 802.11a & IEEE 802.11n (20MHz) & IEEE 802.11ac (20MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745 MHz	153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz						

IEEE 802.11n (40MHz) & IEEE 802.11ac (40MHz)

Working Frequency of Each Channel			
Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

IEEE 802.11ac (80MHz)

Working Frequency of Each Channel	
Channel	Frequency
155	5775 MHz

Note:

1. This device is a Dual Band 3x3 802.11ac PCI-E Adapter including 2.4GHz b/g/n (3x3) and 5GHz a/n/ac (3x3) transmitting and receiving function.
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart E Paragraph 15.407.
3. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
4. The function of the 5.2GHz transmitting is measured and makes a test report of the report number: 1620268R-RFUSP56V00.
5. This device is a composite device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 137132R-RFUSP37V02.

1.2. Test Mode

QuieTek has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

TX	Mode 1: Transmit_CDD Mode

Test Items	Modulation	Channel	Antenna	Result
Conducted Emission	11ac(80MHz)	155	0+1+2	Complies
99 % & 26dB Bandwidth	11a	149/ 157/ 165	0/1/2	Complies
	11n(20MHz)	149/ 157/ 165	0/1/2	Complies
	11n(40MHz)	151/ 159	0/1/2	Complies
	11ac(80MHz)	155	0/1/2	Complies
Peak Transmit Output	11a	149/157/165	0+1+2	Complies
	11n(20MHz)	149/157/165	0+1+2	Complies
	11n(40MHz)	151/159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies
Peak Power Spectrum Density	11a	149/ 157/ 165	0+1+2	Complies
	11n(20MHz)	149/ 157/ 165	0+1+2	Complies
	11n(40MHz)	151/ 159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies
Radiated Emission	11a	149/ 157/ 165	0+1+2	Complies
	11n(20MHz)	149/ 157/ 165	0+1+2	Complies
	11n(40MHz)	151/ 159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies
Band Edge	11a	149/157/165	0+1+2	Complies
	11n(20MHz)	149/157/165	0+1+2	Complies
	11n(40MHz)	151/159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies
Frequency Stability	11a	149/ 157/ 165	0/1/2	Complies
	11n(20MHz)	149/ 157/ 165	0/1/2	Complies
	11n(40MHz)	151/ 159	0/1/2	Complies
	11ac(80MHz)	155	0/1/2	Complies

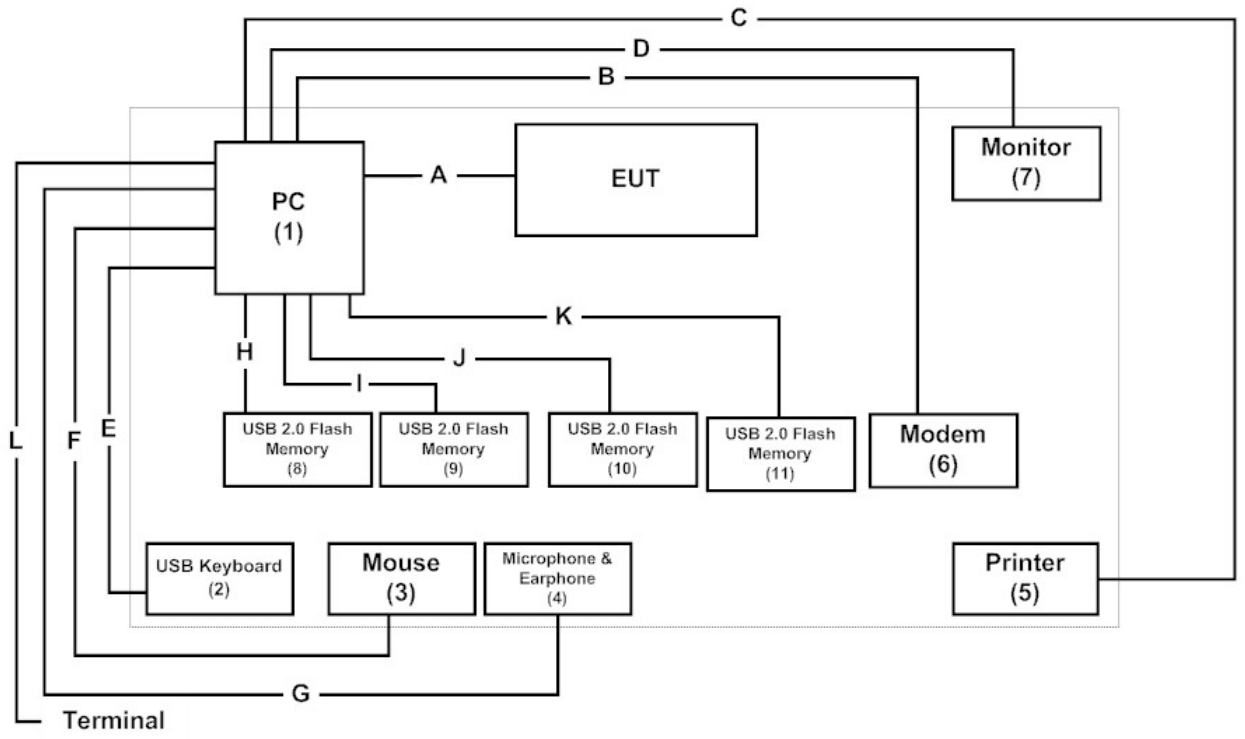
1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	PC	DELL	DCSM	00144-531-356-513	DoC	Non-Shielded, 1.8m
2	USB Keyboard	DELL	SK-8115	1437	DoC	--
3	Mouse	Logitech	M-SBF83	HCA52200315	DoC	--
4	Microphone & Earphone	Fujiei	SBZ-38	N/A	DoC	--
5	Printer	HP	C2642A	MY75N1D2Y1	DoC	Non-Shielded, 0.7m
6	Modem	ACEEX	DM-1414	980033034	DoC	Non-Shielded, 1.6m
7	Monitor	DELL	U2410f	082WXD-72872-16R-0W2L	DoC	Non-Shielded, 1.8m
8	USB 2.0 Flash Memory	Apacer	AH223	N/A	DoC	--
9	USB 2.0 Flash Memory	Apacer	AH223	N/A	DoC	--
10	USB 2.0 Flash Memory	Apacer	AH223	N/A	DoC	--
11	USB 2.0 Flash Memory	Apacer	AH223	N/A	DoC	--

1.4. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	RF Cable	Non-Shielded, 0.8m
B	Modem Cable	Shielded, 1.5m
C	Printer Cable	Shielded, 1.2m
D	VGA Cable	Shielded, 1.8m, two ferrite cores bonded.
E	USB Keyboard Cable	Shielded, 1.5m
F	USB Mouse Cable	Shielded, 1.5m
G	Microphone & Earphone Cable	Non-Shielded, 1.2m
H	USB 2.0 Flash Memory Cable	Non-Shielded, 0.5m
I	USB 2.0 Flash Memory Cable	Non-Shielded, 0.5m
J	USB 2.0 Flash Memory Cable	Non-Shielded, 0.5m
K	USB 2.0 Flash Memory Cable	Non-Shielded, 0.5m
L	LAN Cable	Non-Shielded, 10m

1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.5.
2	Execute the control program “Mtool Ver 1.0.0.9” on the EUT.
3	Configure the test mode, the test channel, and the data rate.
4	Press “Start TX” to start the continuous transmitting.
5	Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 E 15.407 99% & 26dB & 6dB Bandwidth	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Peak Transmit Power	15 - 35	25°C
Humidity (%RH)		25 - 75	65%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Peak Power Spectrum Density	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Radiated Emission	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Band Edge	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 RF antenna conducted test	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Frequency Stability	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000

2. 99% & 26dB & 6dB Bandwidth

2.1. Test Equipment

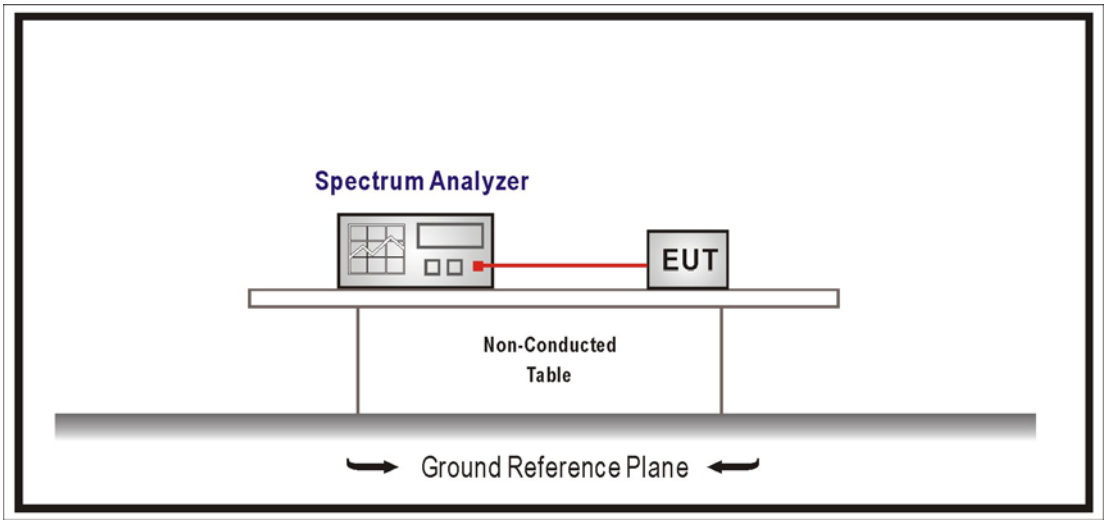
The following test equipments are used during the radiated emission tests:

99% & 26dB &6dB Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/07/13

Note: All equipments that need to calibrate are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

99% & 26dB Bandwidth : No Required
6dB Bandwidth ≧ 500KHz

2.4. Test Procedure

99% & 26dB & 6 Bandwidth :
The EUT was tested according to U-NII test procedure of 789033 D02 V01R01
Set RBW 1% of the emission bandwidth, VBW equal to 3 times the RBW.

2.5. Uncertainty

The measurement uncertainty is defined as ±150Hz

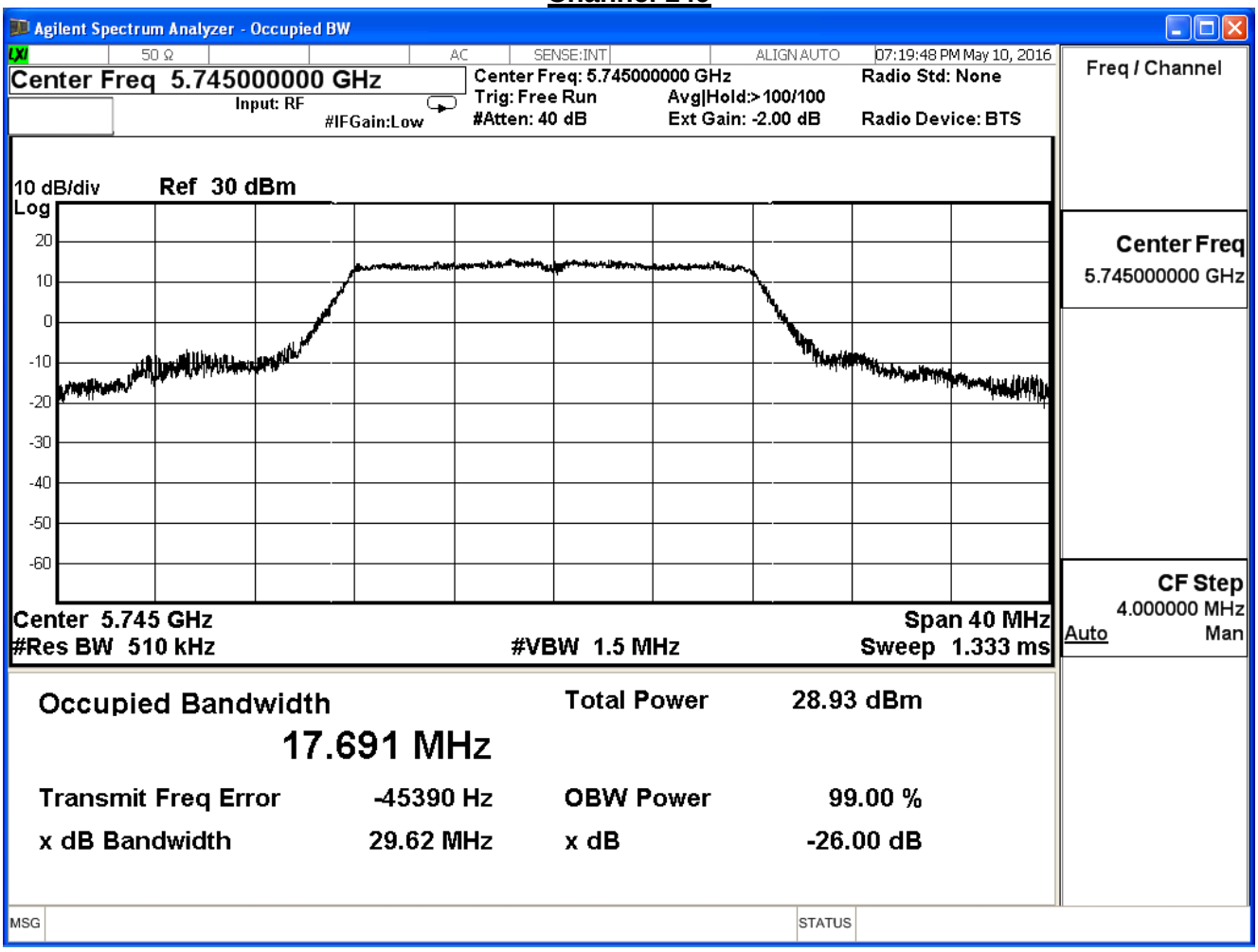
2.6. Test Result

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

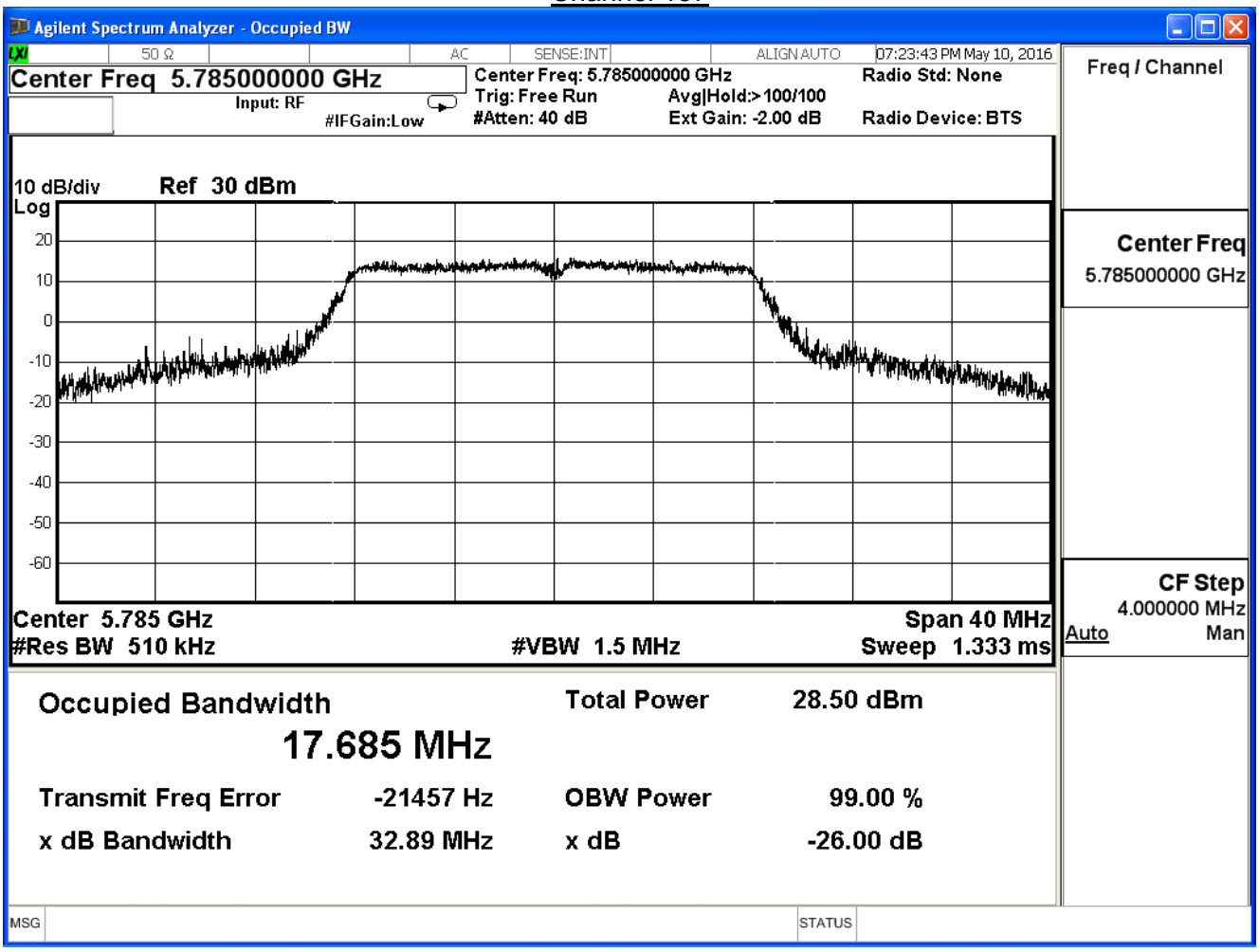
802.11 a (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
149	5745	29.62	17.691	--
157	5785	32.89	17.685	--
165	5825	33.23	17.944	--

Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
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Input: RF
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Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.685 MHz
Total Power
28.50 dBm
Transmit Freq Error
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OBW Power
99.00 %
x dB Bandwidth
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x dB
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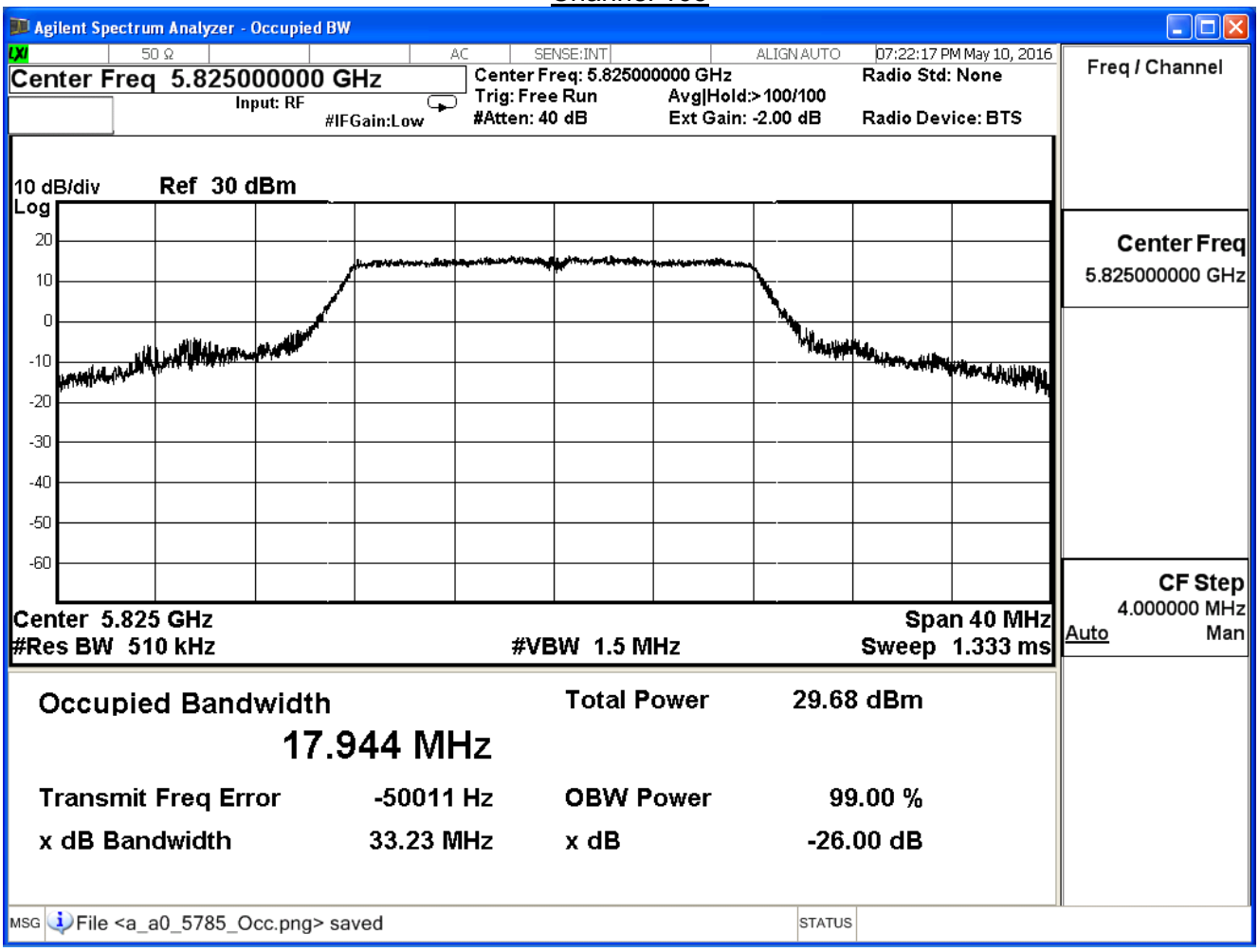
MSG
STATUS

Channel 165

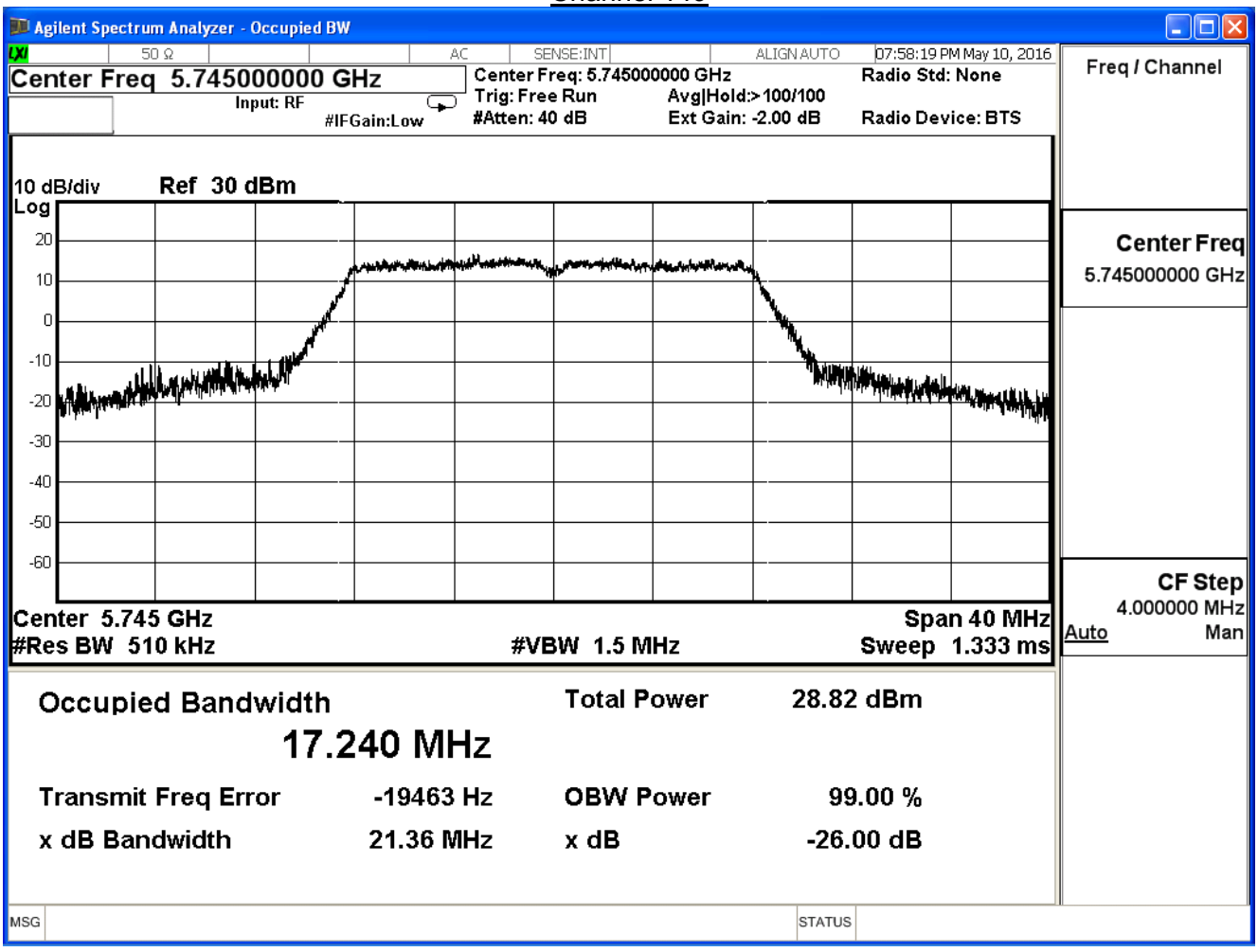

Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:22:17 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.944 MHz
Total Power
29.68 dBm
Transmit Freq Error
-50011 Hz
OBW Power
99.00 %
x dB Bandwidth
33.23 MHz
x dB
-26.00 dB
MSG
File <a_a0_5785_Occ.png> saved
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

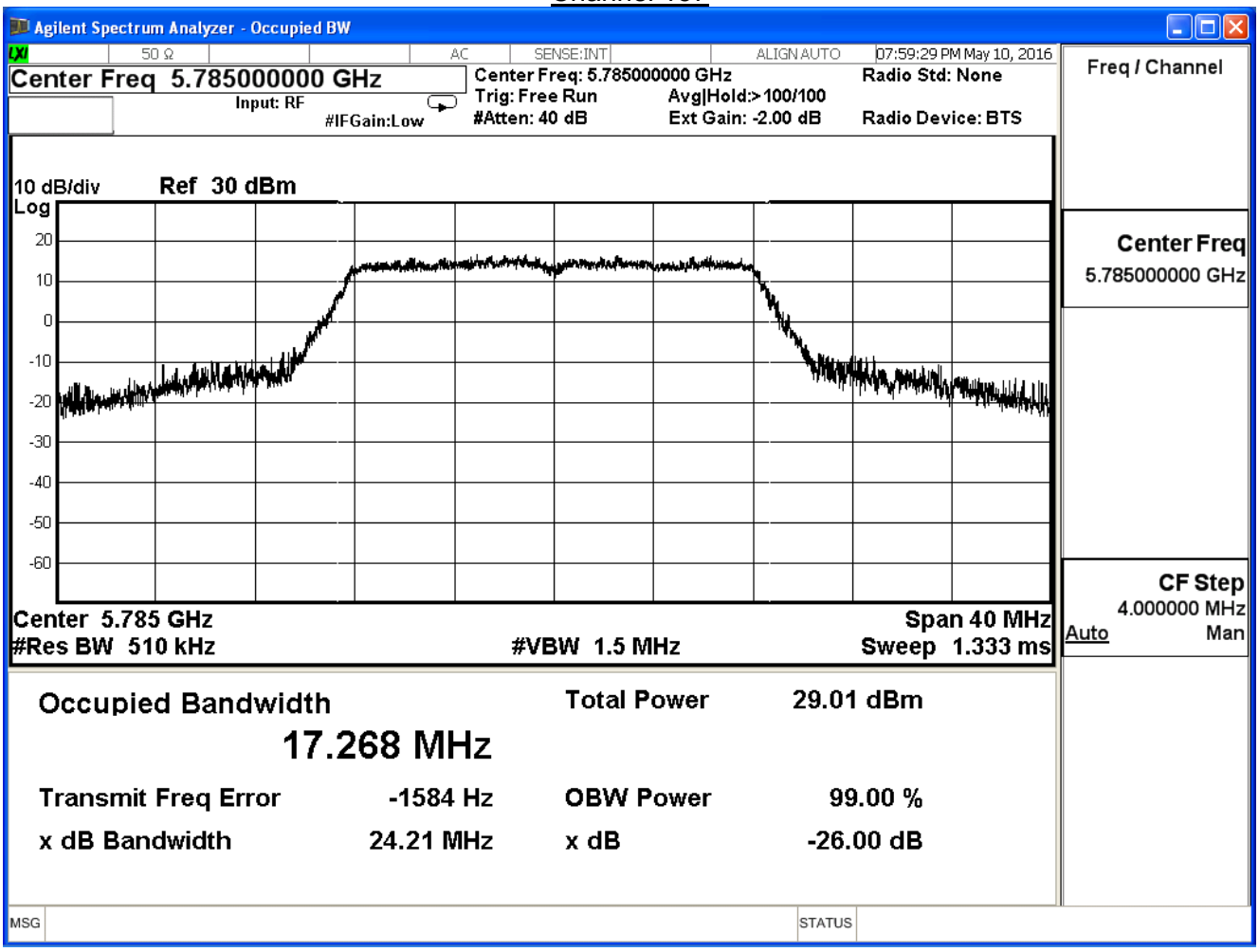
802.11 a (ANT 1)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
149	5745	21.36	17.240	--
157	5785	24.21	17.268	--
165	5825	29.19	17.235	--

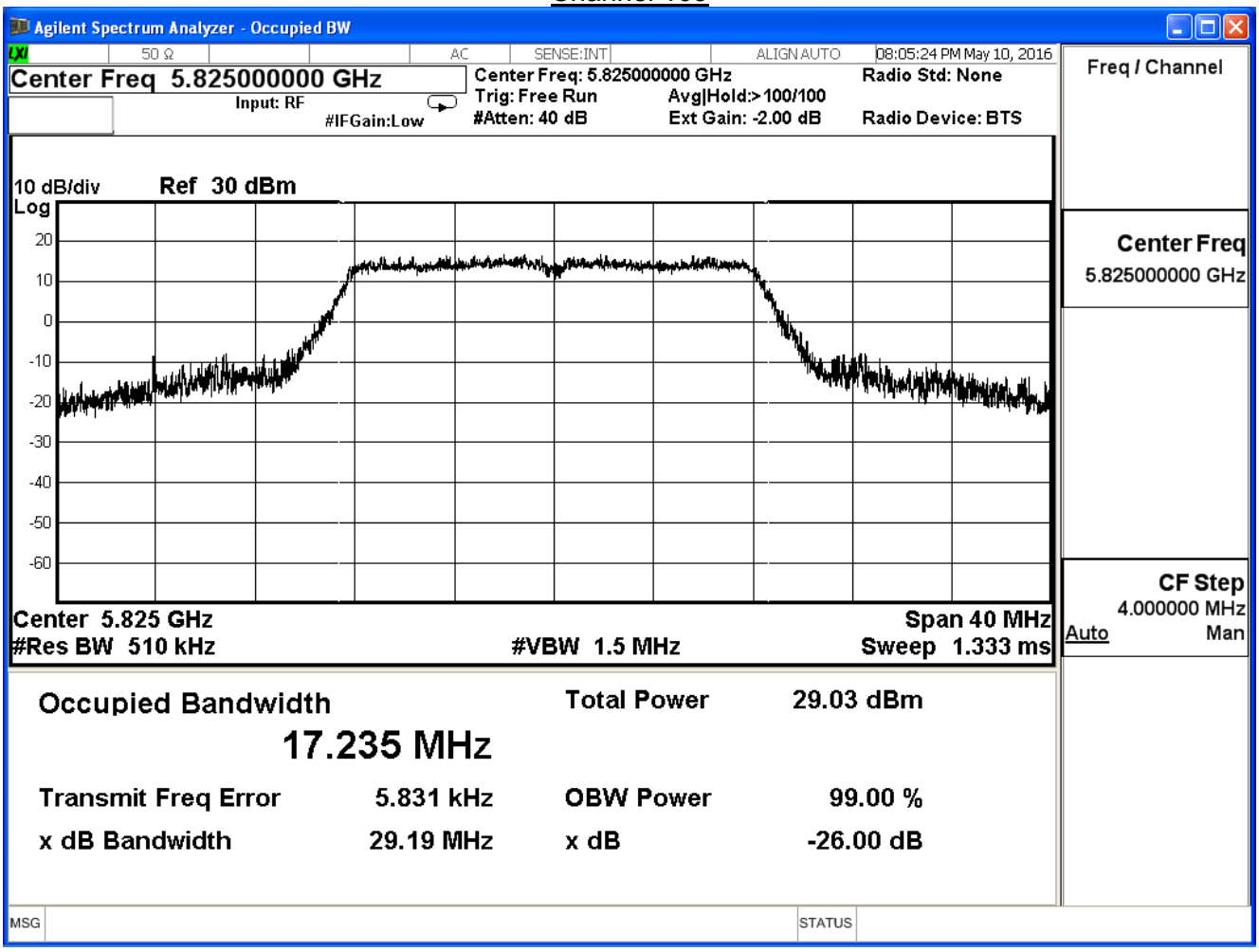
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:59:29 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.268 MHz
Total Power 29.01 dBm
Transmit Freq Error -1584 Hz
OBW Power 99.00 %
x dB Bandwidth 24.21 MHz
x dB -26.00 dB
MSG
STATUS

Channel 165

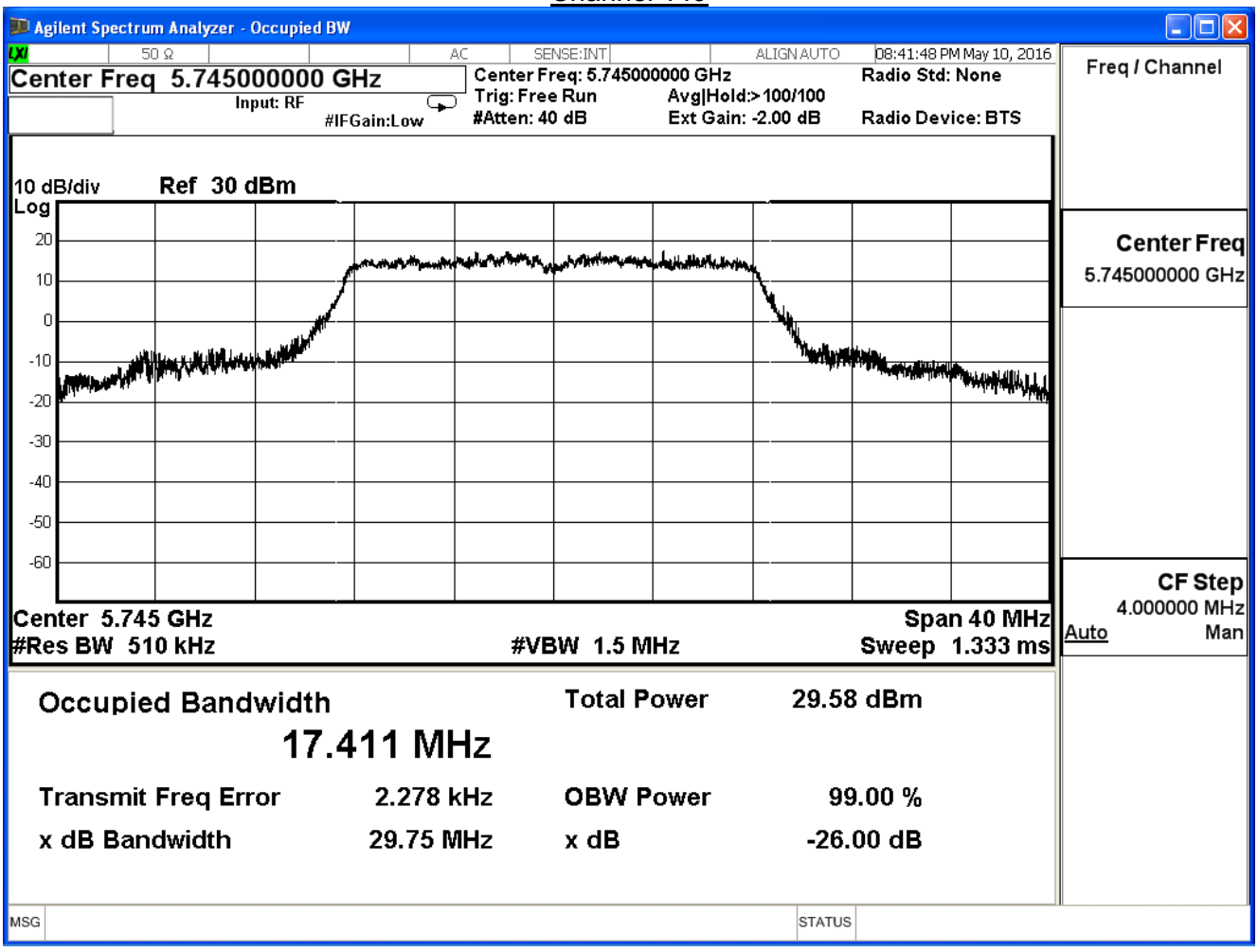

Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:05:24 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.235 MHz
Total Power
29.03 dBm
Transmit Freq Error
5.831 kHz
OBW Power
99.00 %
x dB Bandwidth
29.19 MHz
x dB
-26.00 dB
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

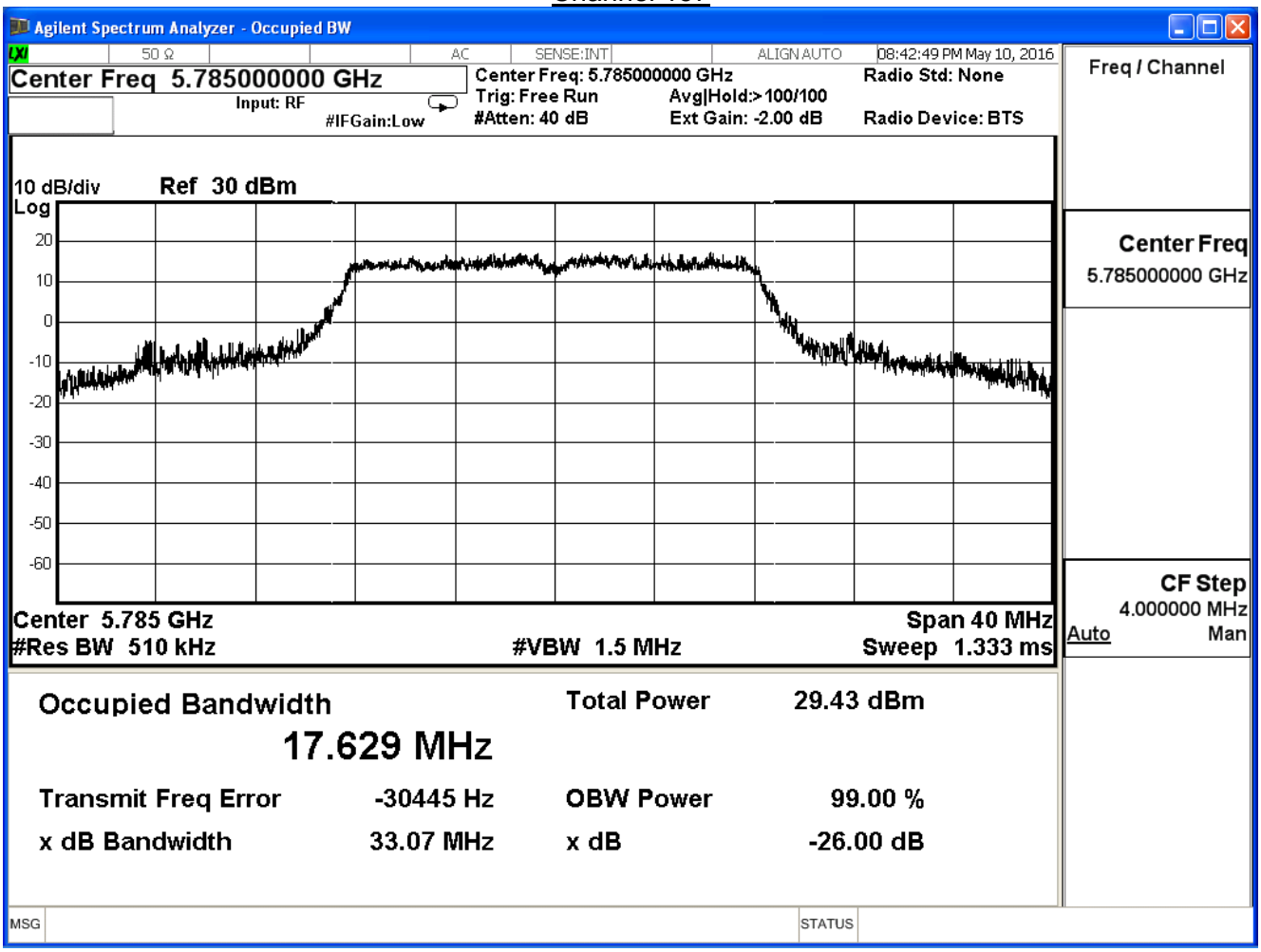
802.11 a (ANT 2)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
149	5745	29.75	17.411	--
157	5785	33.07	17.629	--
165	5825	35.22	17.381	--

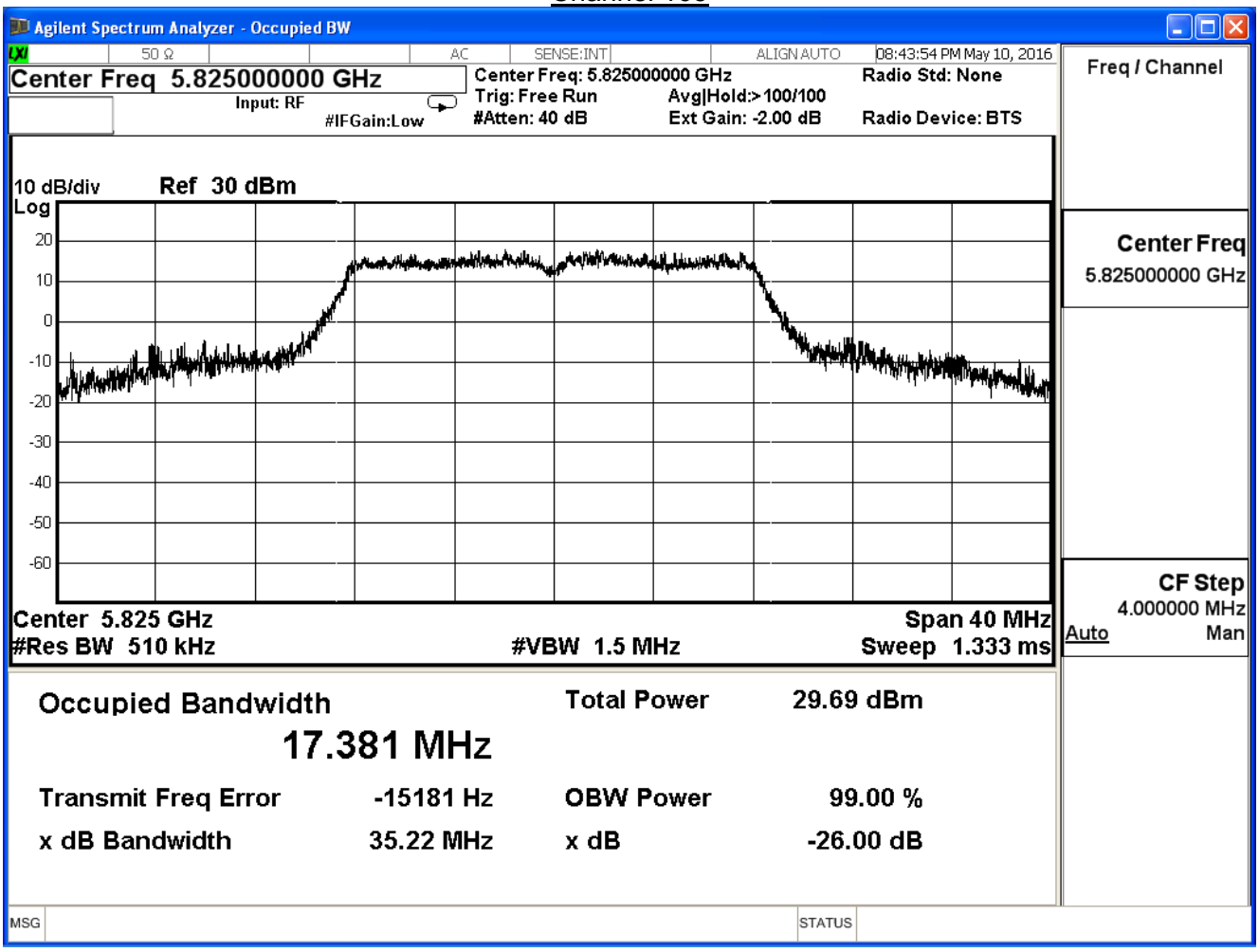
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:42:49 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.629 MHz
Total Power
29.43 dBm
Transmit Freq Error
-30445 Hz
OBW Power
99.00 %
x dB Bandwidth
33.07 MHz
x dB
-26.00 dB
MSG
STATUS

Channel 165

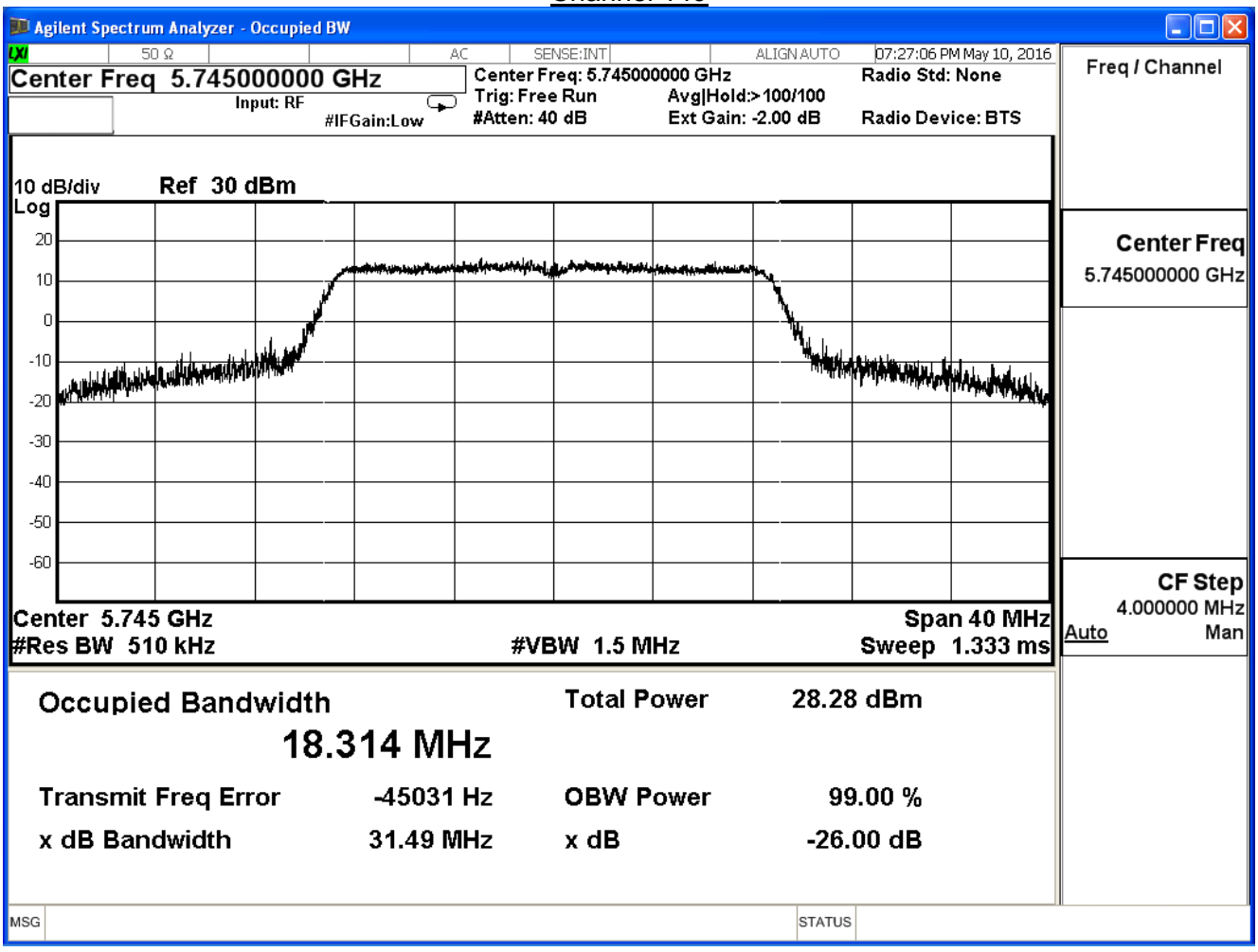

Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:43:54 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.381 MHz
Total Power
29.69 dBm
Transmit Freq Error
-15181 Hz
OBW Power
99.00 %
x dB Bandwidth
35.22 MHz
x dB
-26.00 dB
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

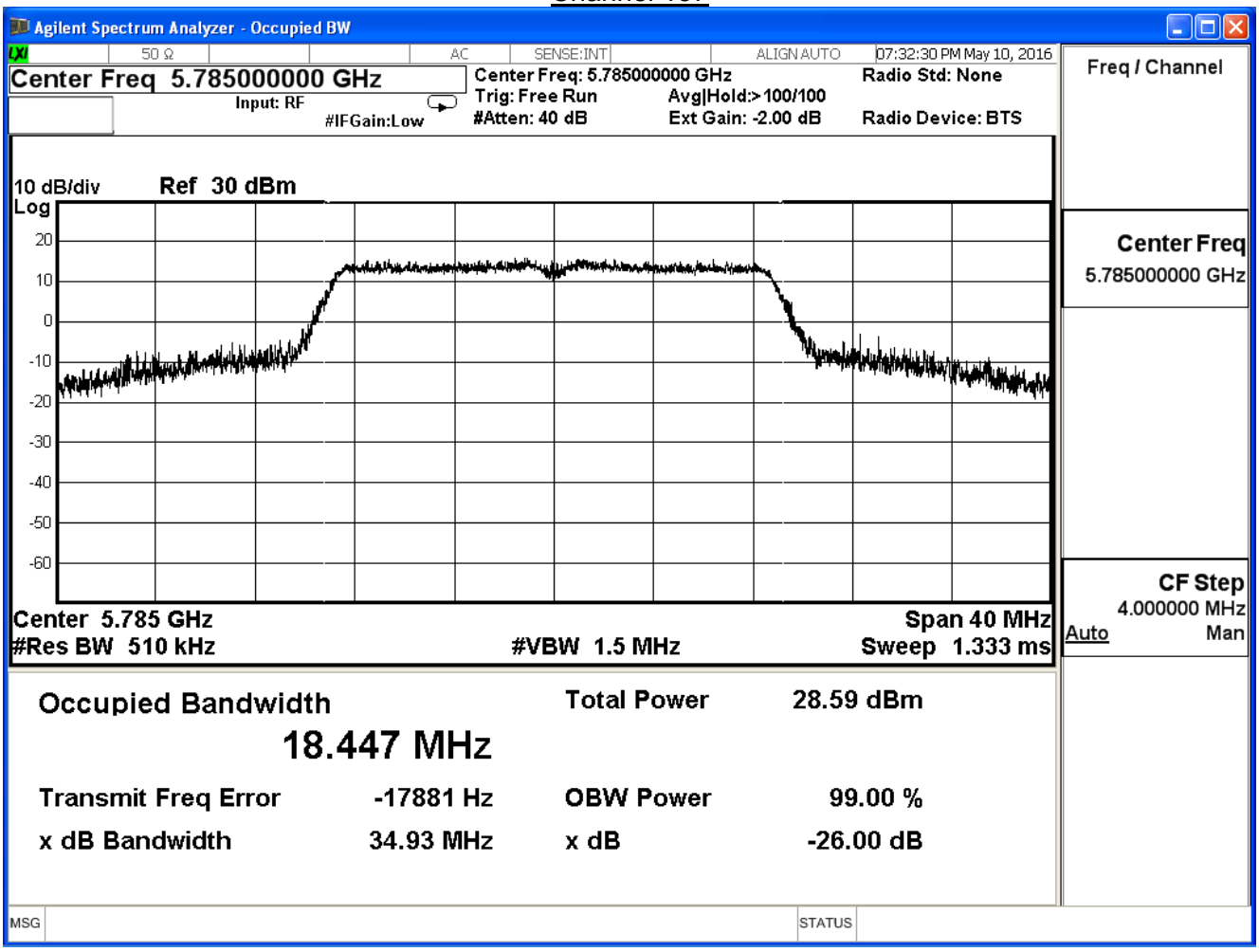
IEEE 802.11n (20MHz)(ANT 0)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
149	5745	31.49	18.314	--
157	5785	34.93	18.447	--
165	5825	33.77	18.329	--

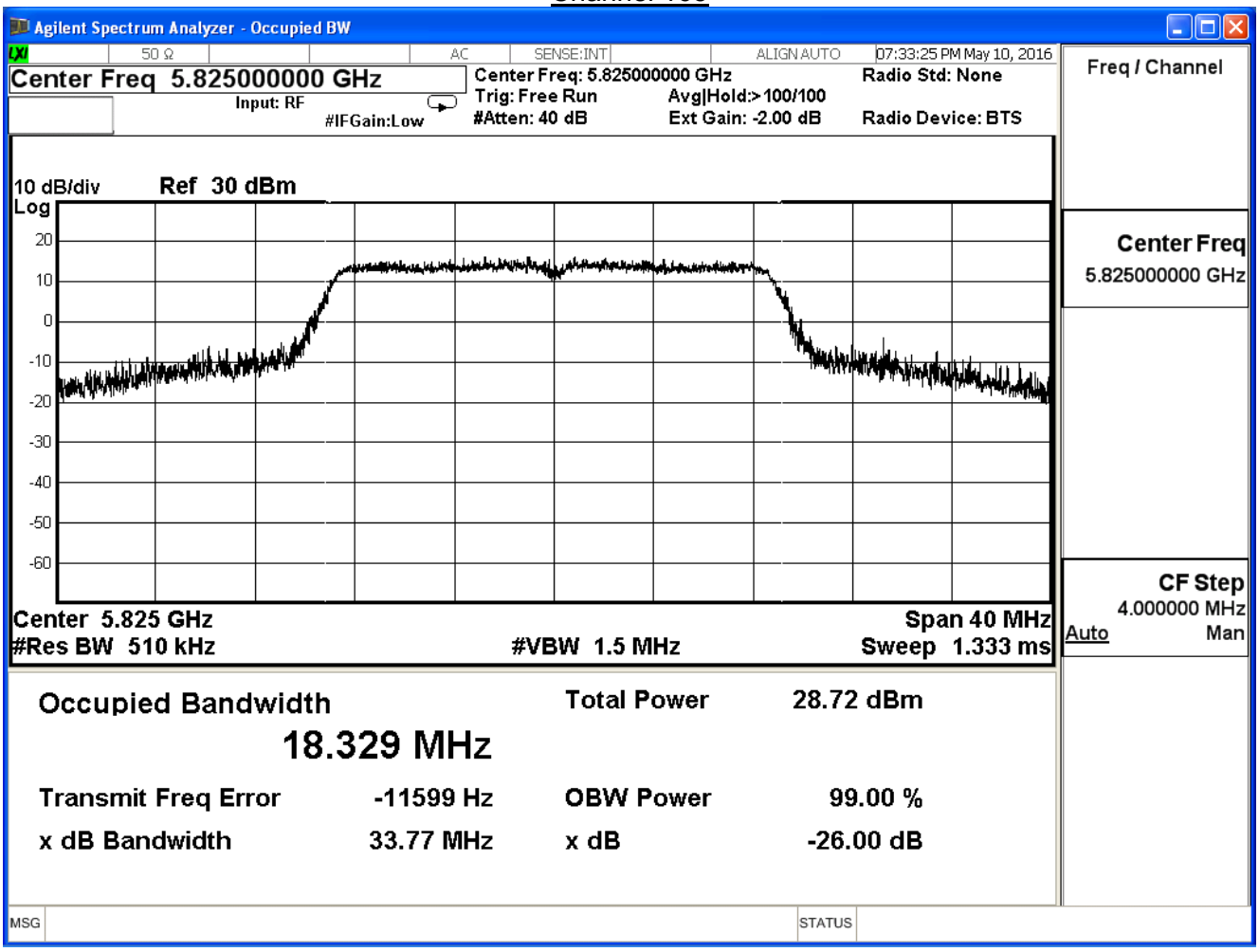
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:32:30 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
18.447 MHz
Total Power
28.59 dBm
Transmit Freq Error
-17881 Hz
OBW Power
99.00 %
x dB Bandwidth
34.93 MHz
x dB
-26.00 dB
MSG
STATUS

Channel 165

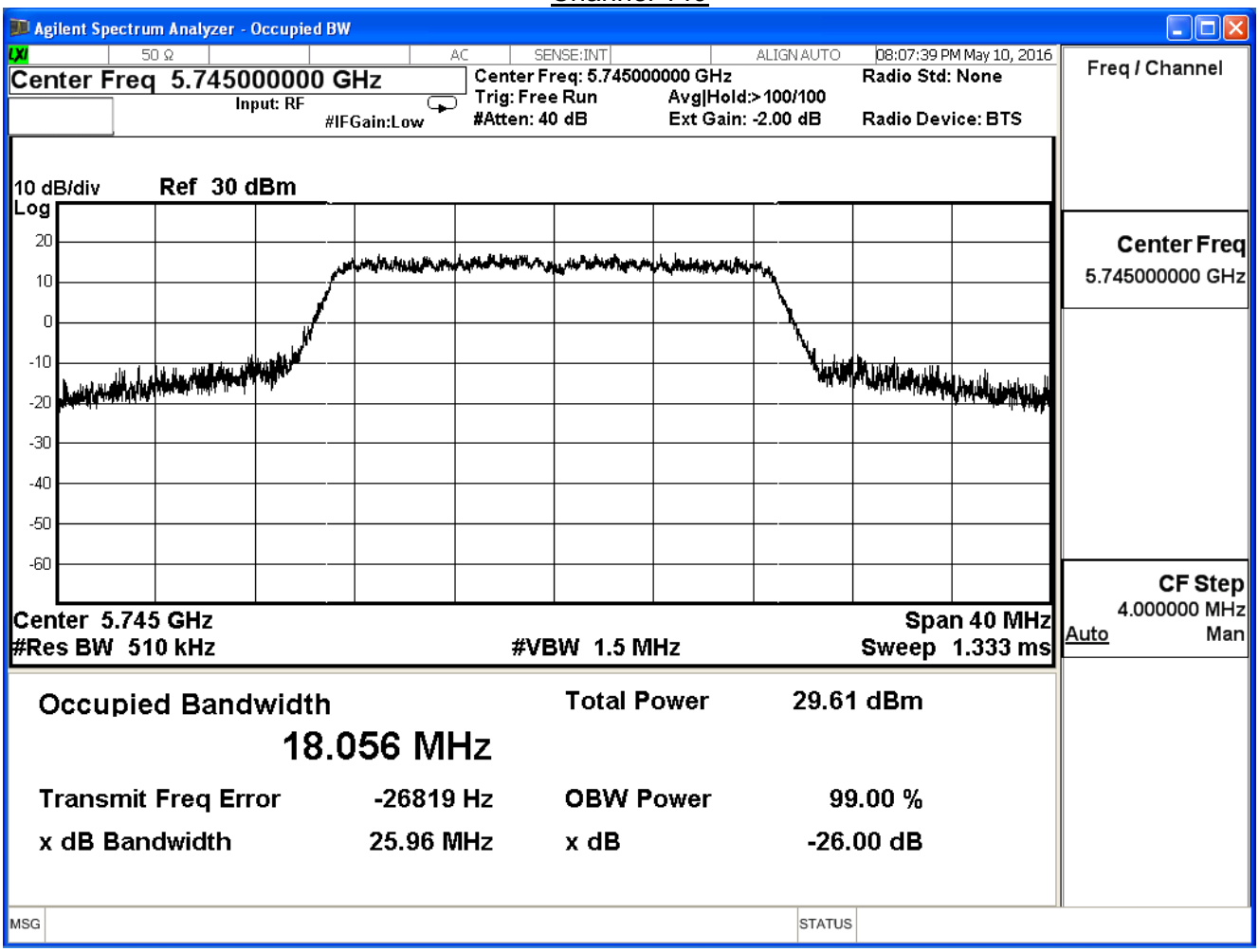

Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:33:25 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
18.329 MHz
Total Power
28.72 dBm
Transmit Freq Error
-11599 Hz
OBW Power
99.00 %
x dB Bandwidth
33.77 MHz
x dB
-26.00 dB
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

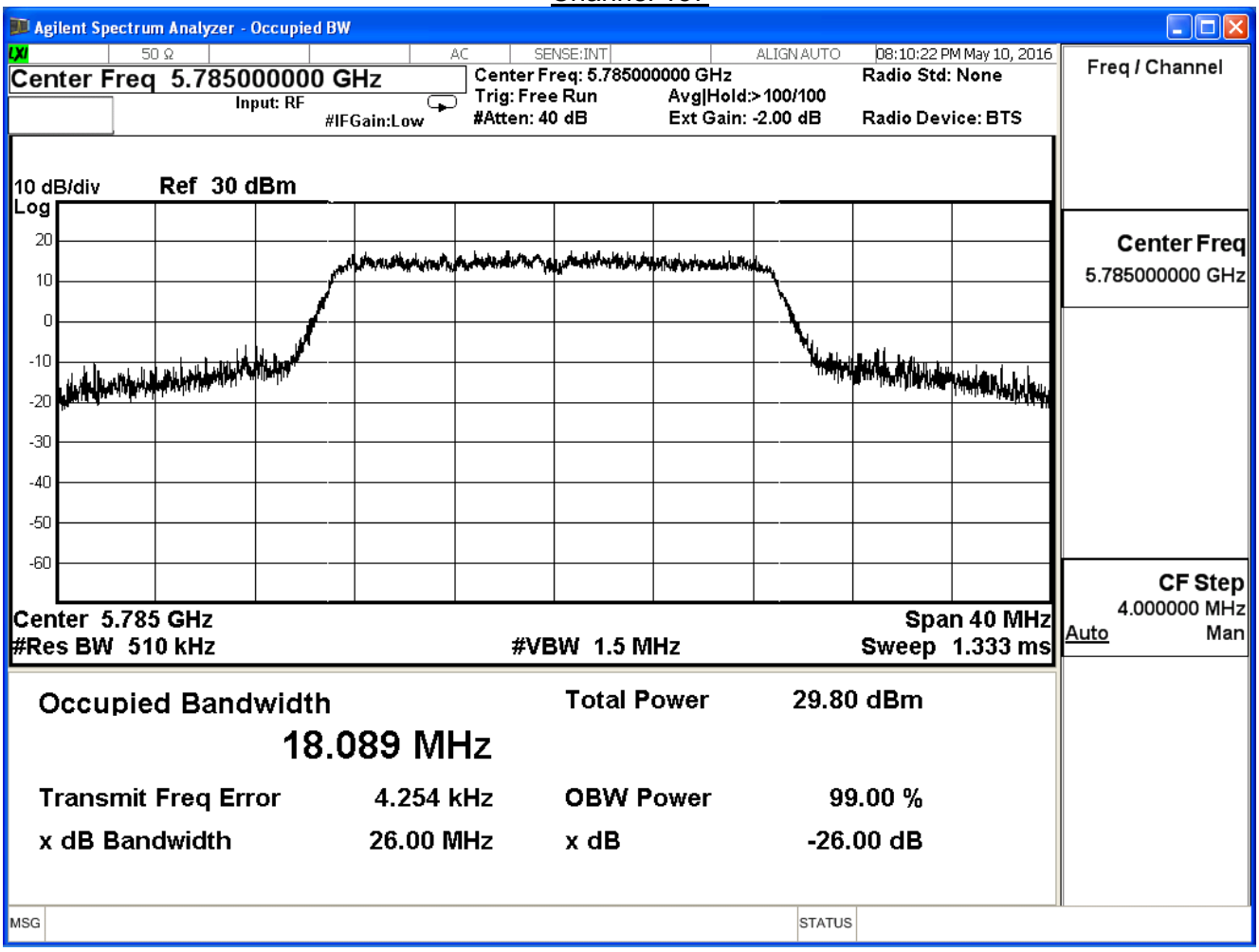
IEEE 802.11n (20MHz)(ANT 1)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
149	5745	25.96	18.056	--
157	5785	26.00	18.089	--
165	5825	26.15	18.070	--

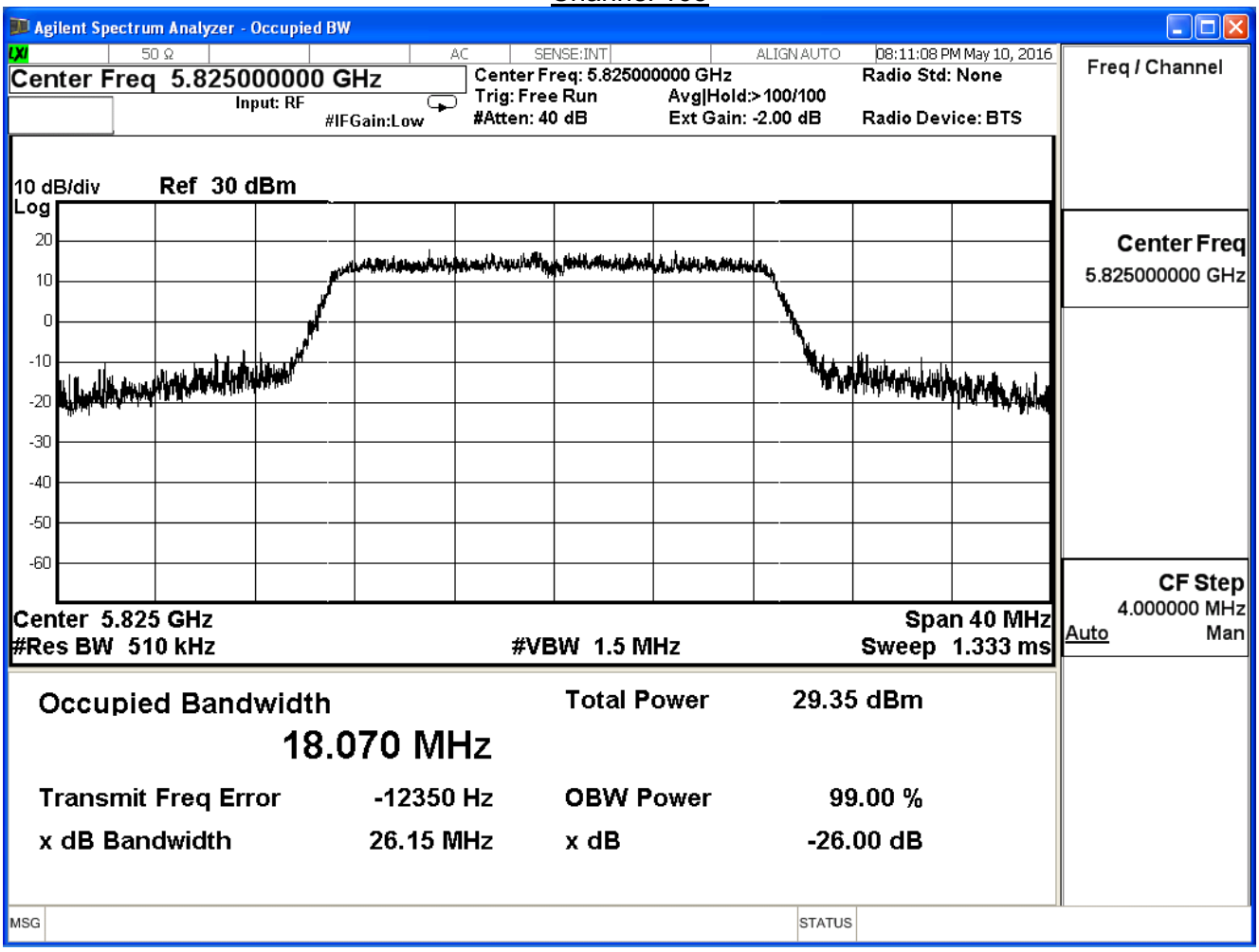
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:10:22 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
18.089 MHz
Total Power
29.80 dBm
Transmit Freq Error
4.254 kHz
OBW Power
99.00 %
x dB Bandwidth
26.00 MHz
x dB
-26.00 dB
MSG
STATUS

Channel 165

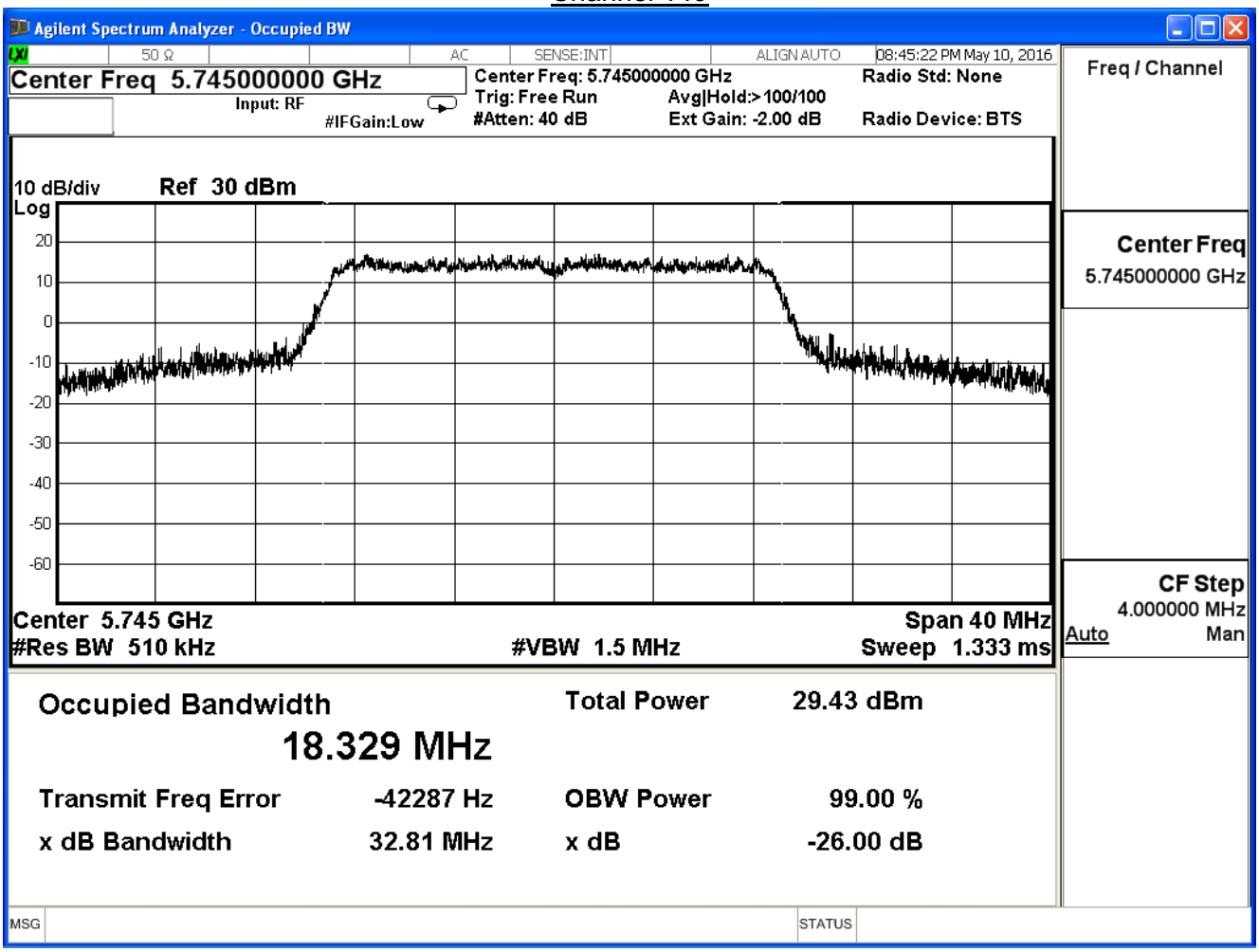

Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:11:08 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
18.070 MHz
Total Power
29.35 dBm
Transmit Freq Error
-12350 Hz
OBW Power
99.00 %
x dB Bandwidth
26.15 MHz
x dB
-26.00 dB
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

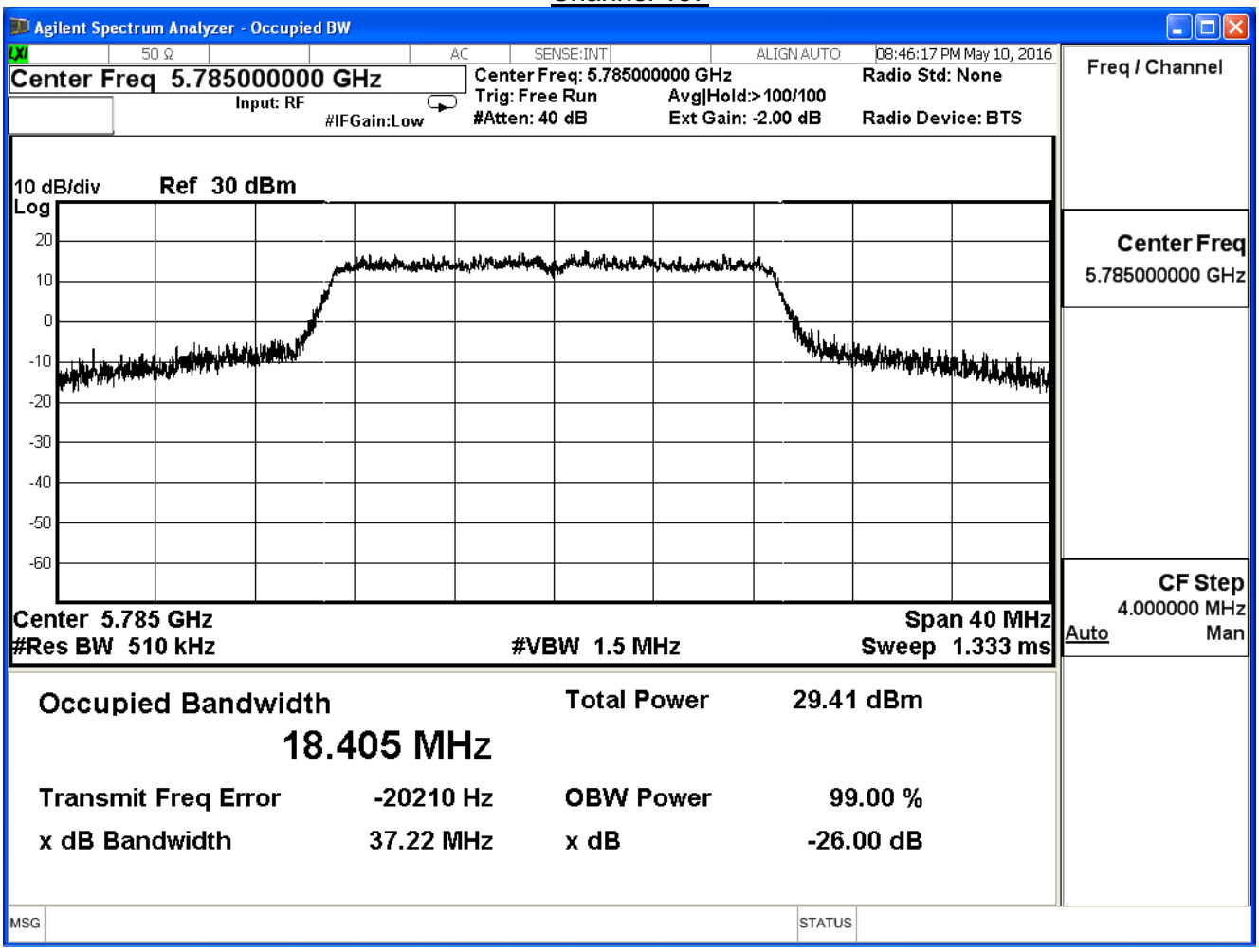
IEEE 802.11n (20MHz)(ANT 2)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
149	5745	32.81	18.329	--
157	5785	37.22	18.405	--
165	5825	34.55	18.340	--

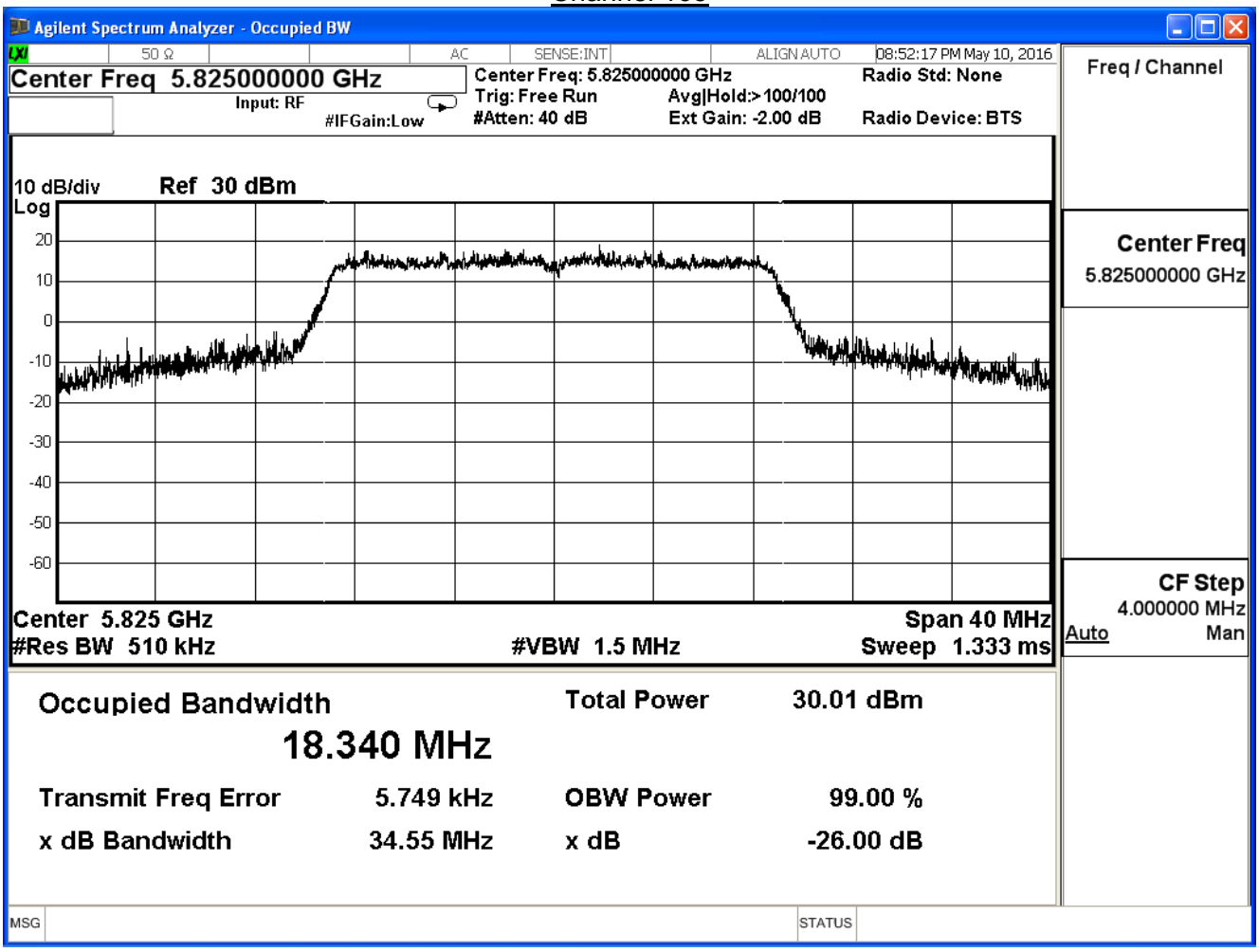
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:46:17 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
18.405 MHz
Total Power
29.41 dBm
Transmit Freq Error
-20210 Hz
OBW Power
99.00 %
x dB Bandwidth
37.22 MHz
x dB
-26.00 dB
MSG
STATUS

Channel 165

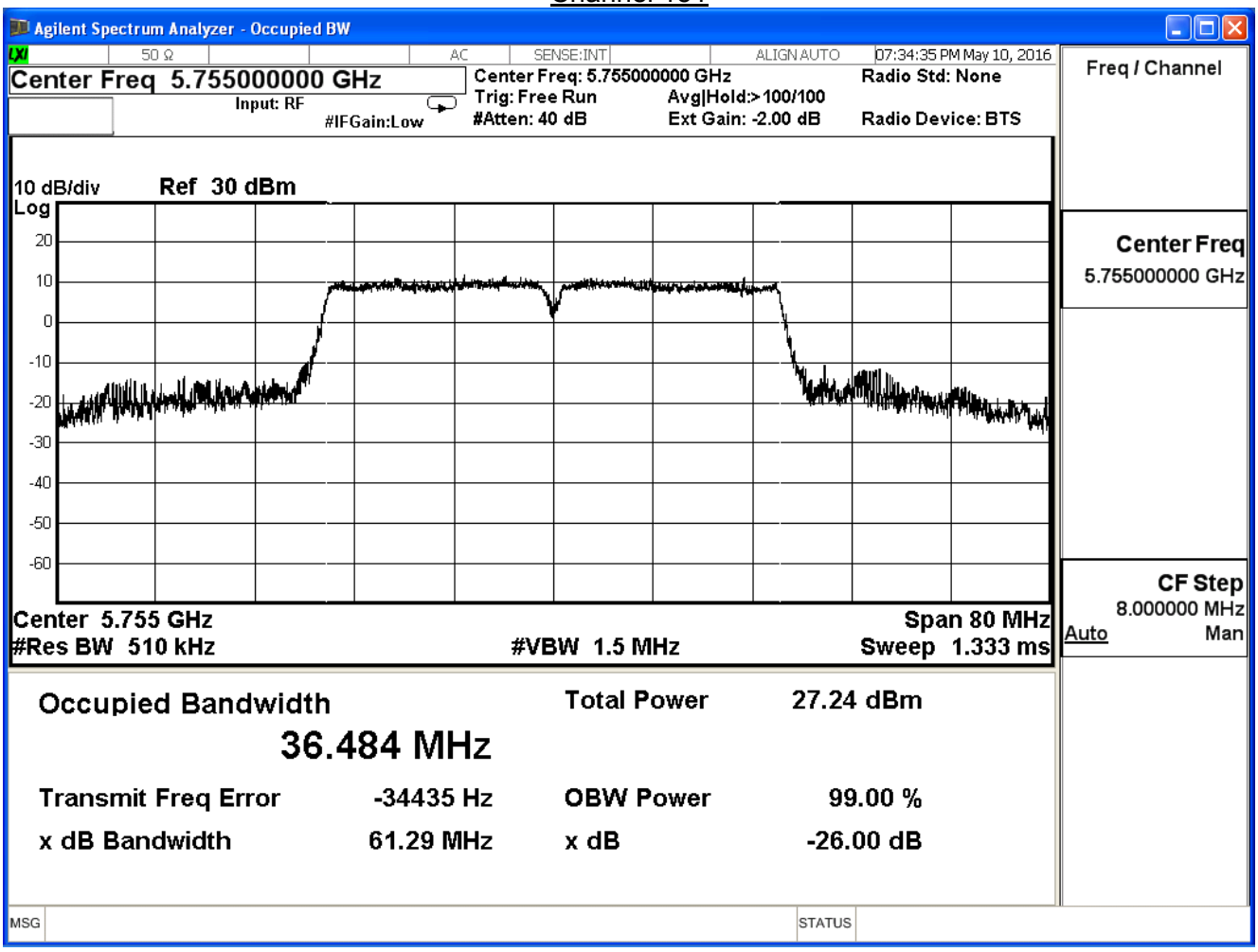

Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:52:17 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
18.340 MHz
Total Power
30.01 dBm
Transmit Freq Error
5.749 kHz
OBW Power
99.00 %
x dB Bandwidth
34.55 MHz
x dB
-26.00 dB
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

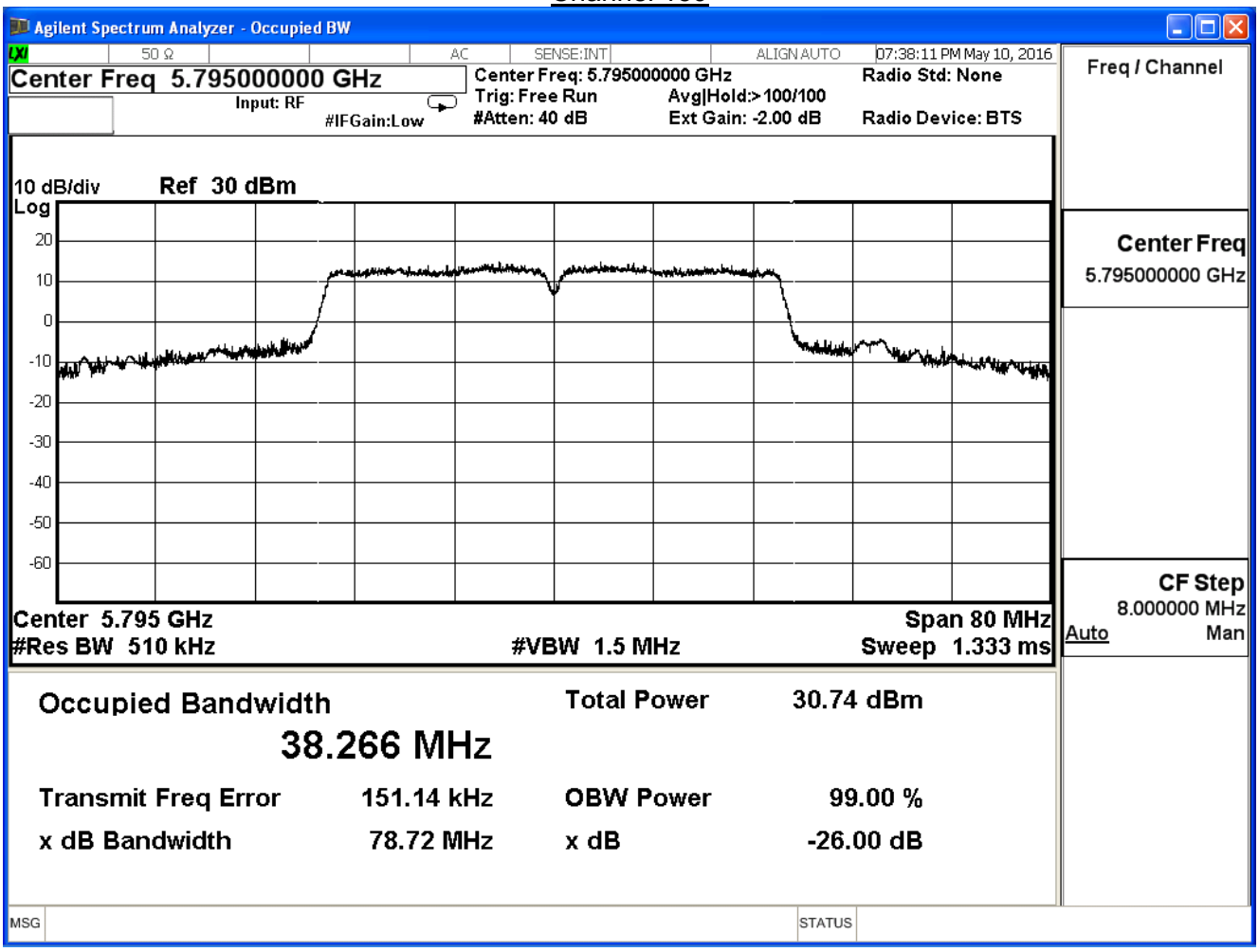
IEEE 802.11n (40MHz)(ANT 0)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
151	5755	61.29	36.484	--
159	5795	78.72	38.266	--

Channel 151



Channel 159

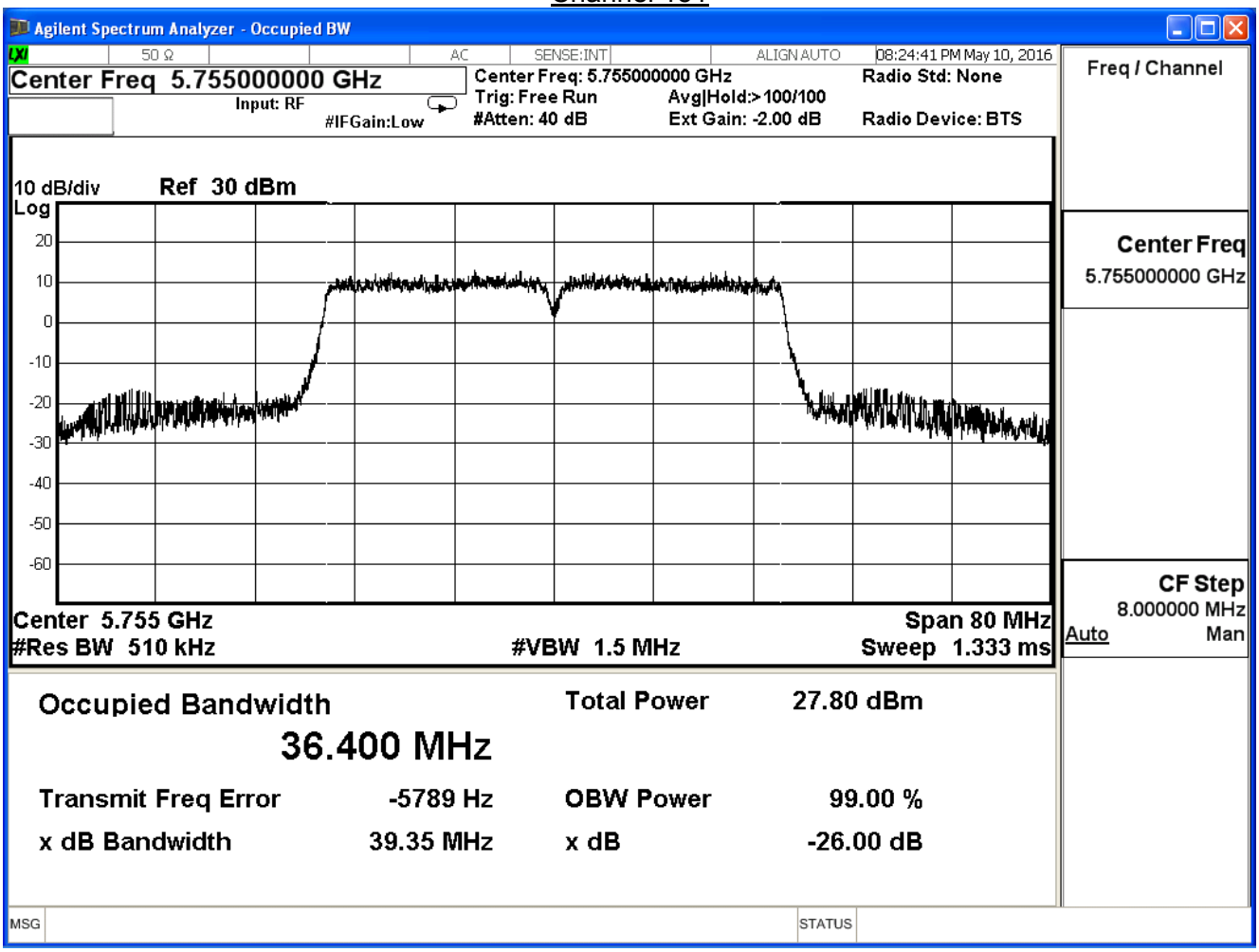

Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:38:11 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
Center 5.795 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 80 MHz
Sweep 1.333 ms
CF Step
8.000000 MHz
Auto
Man
Occupied Bandwidth
38.266 MHz
Total Power
30.74 dBm
Transmit Freq Error
151.14 kHz
OBW Power
99.00 %
x dB Bandwidth
78.72 MHz
x dB
-26.00 dB
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

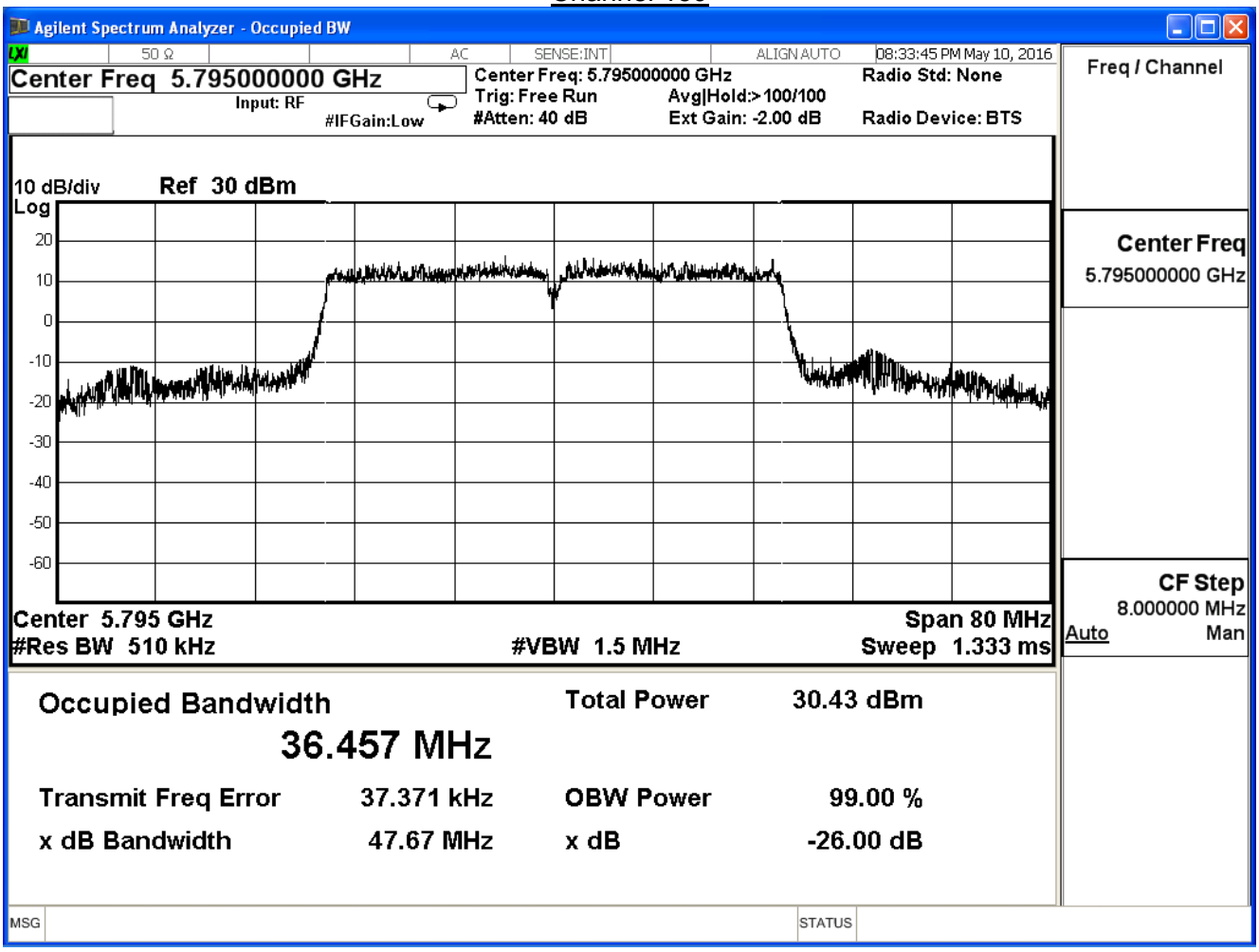
IEEE 802.11n (40MHz)(ANT 1)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
151	5755	39.35	36.400	--
159	5795	47.67	36.457	--

Channel 151



Channel 159

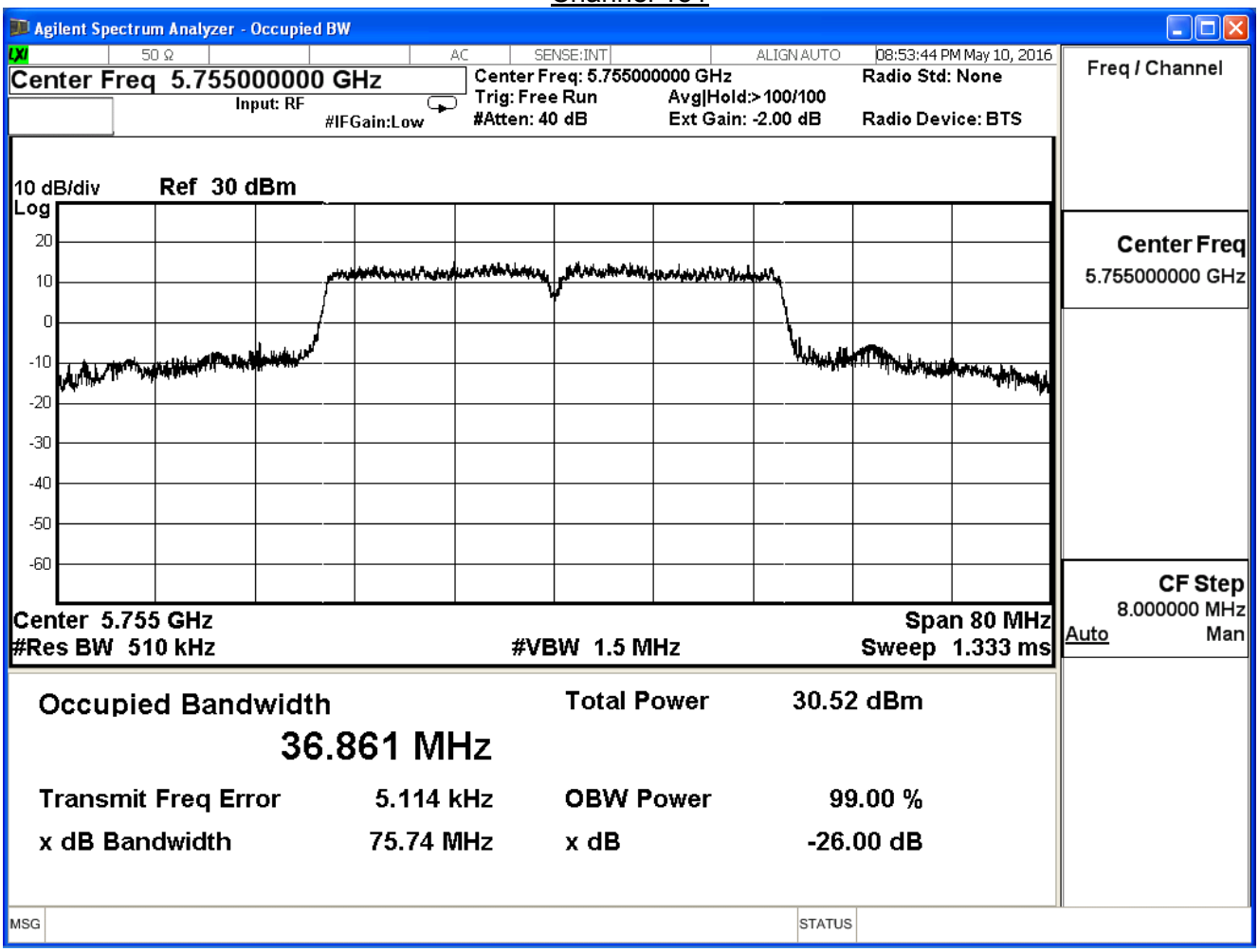

Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:33:45 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
Center 5.795 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 80 MHz
Sweep 1.333 ms
CF Step
8.000000 MHz
Auto
Man
Occupied Bandwidth
36.457 MHz
Total Power
30.43 dBm
Transmit Freq Error
37.371 kHz
OBW Power
99.00 %
x dB Bandwidth
47.67 MHz
x dB
-26.00 dB
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

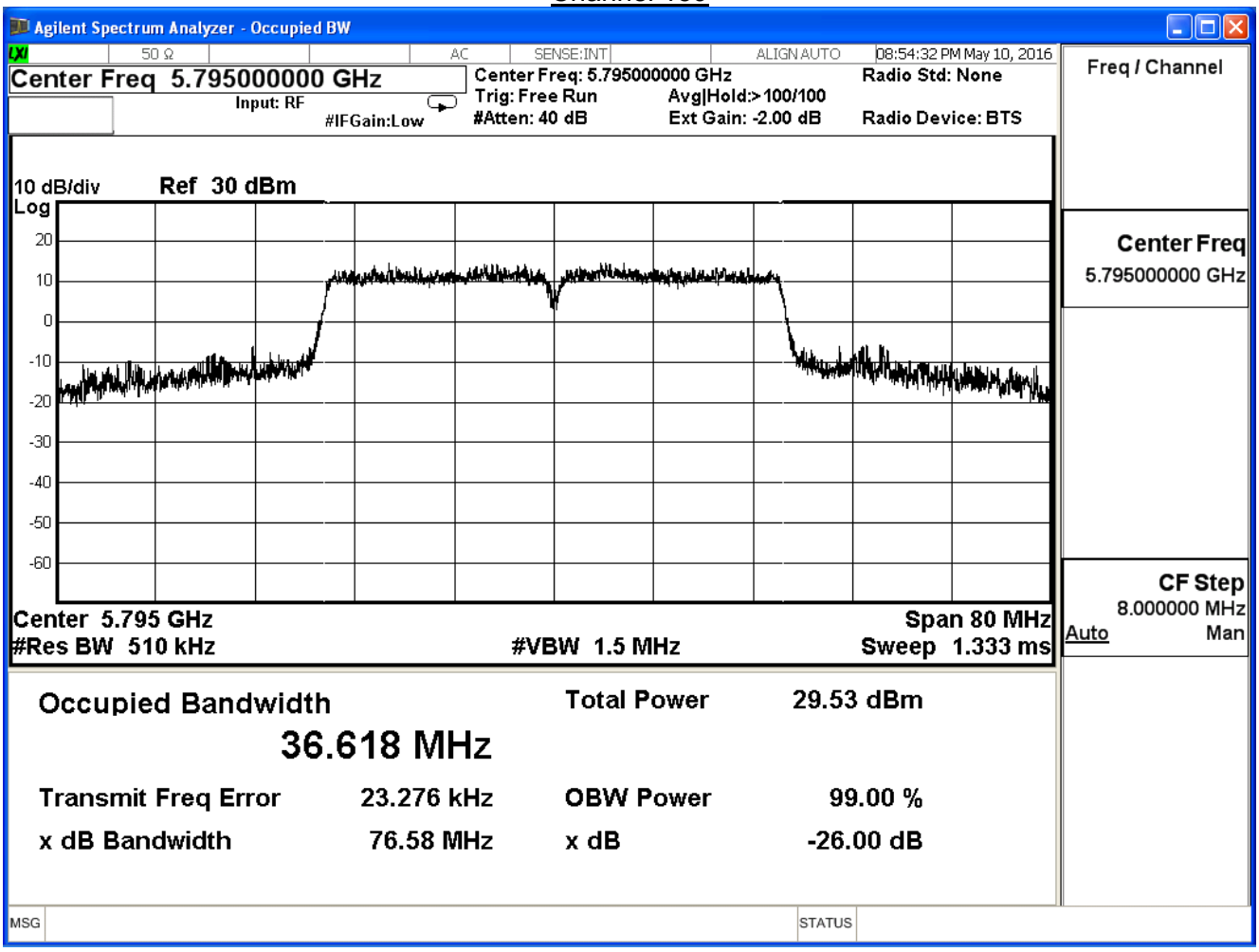
IEEE 802.11n (40MHz)(ANT 2)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
151	5755	75.74	36.861	--
159	5795	76.58	36.618	--

Channel 151



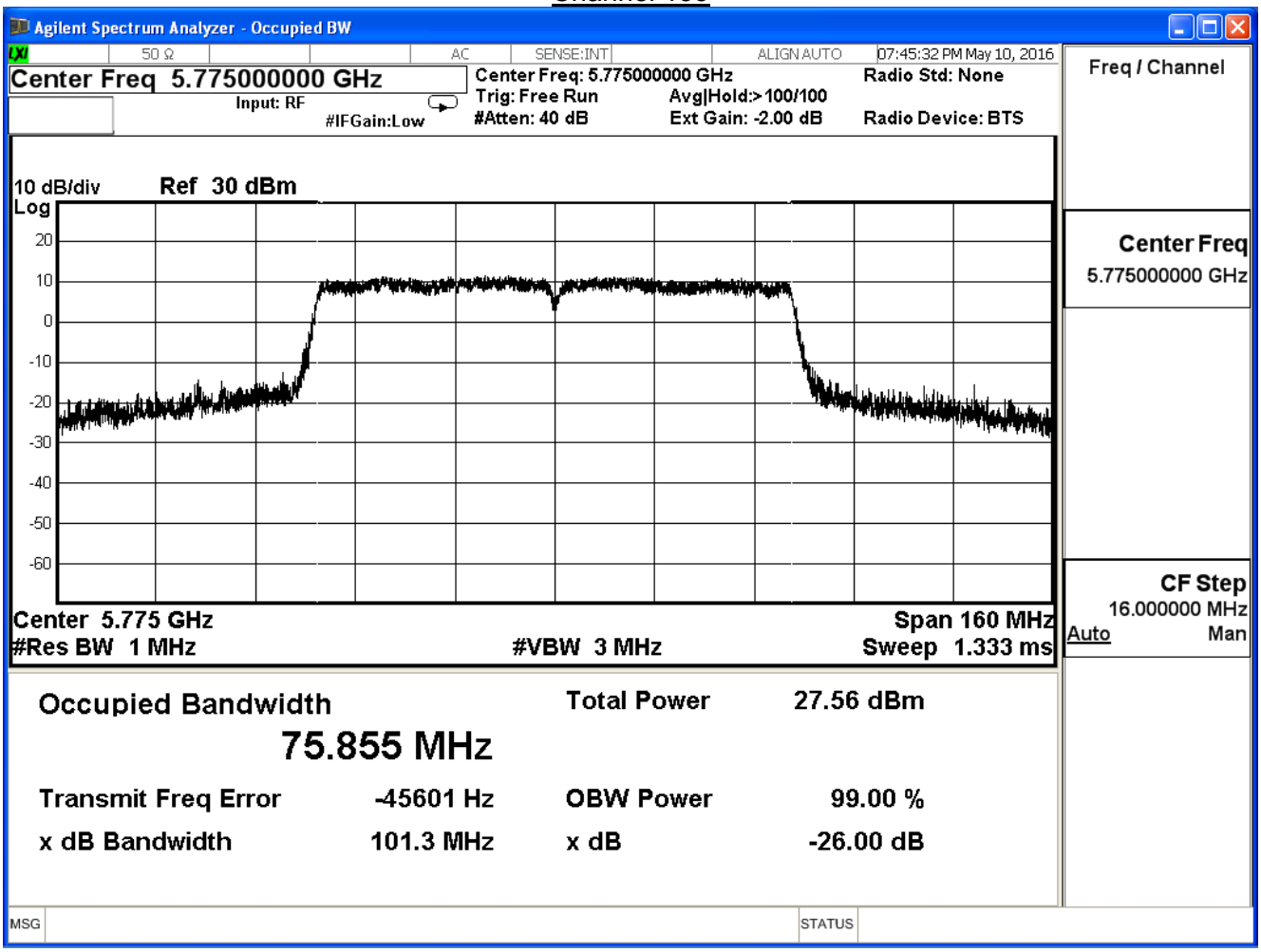
Channel 159


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:54:32 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
Center 5.795 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 80 MHz
Sweep 1.333 ms
CF Step
8.000000 MHz
Auto
Man
Occupied Bandwidth
36.618 MHz
Total Power
29.53 dBm
Transmit Freq Error
23.276 kHz
OBW Power
99.00 %
x dB Bandwidth
76.58 MHz
x dB
-26.00 dB
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac (80MHz) (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
155	5775	101.3	75.855	--

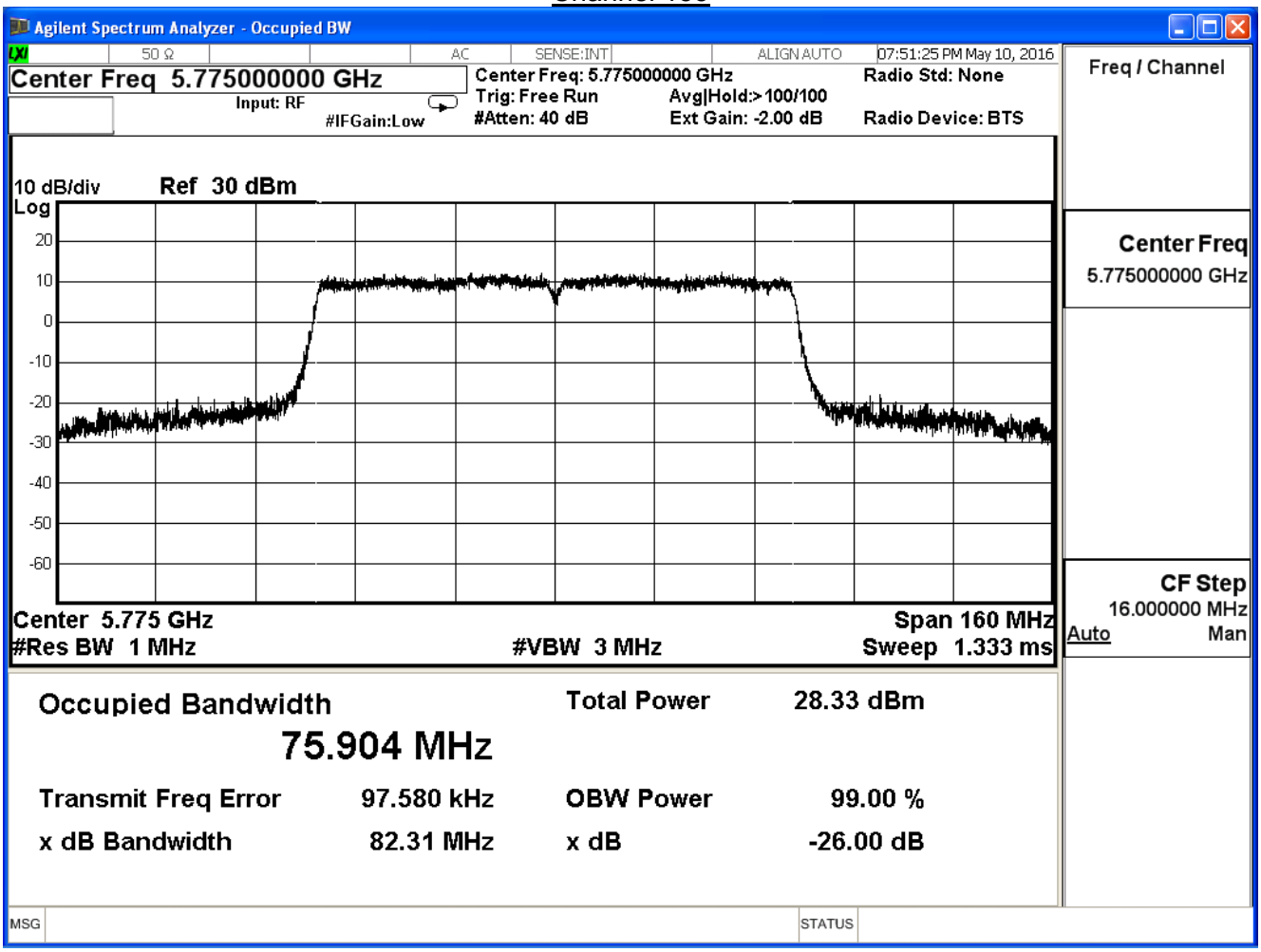
Channel 155



Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac (80MHz) (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
155	5775	82.31	75.904	--

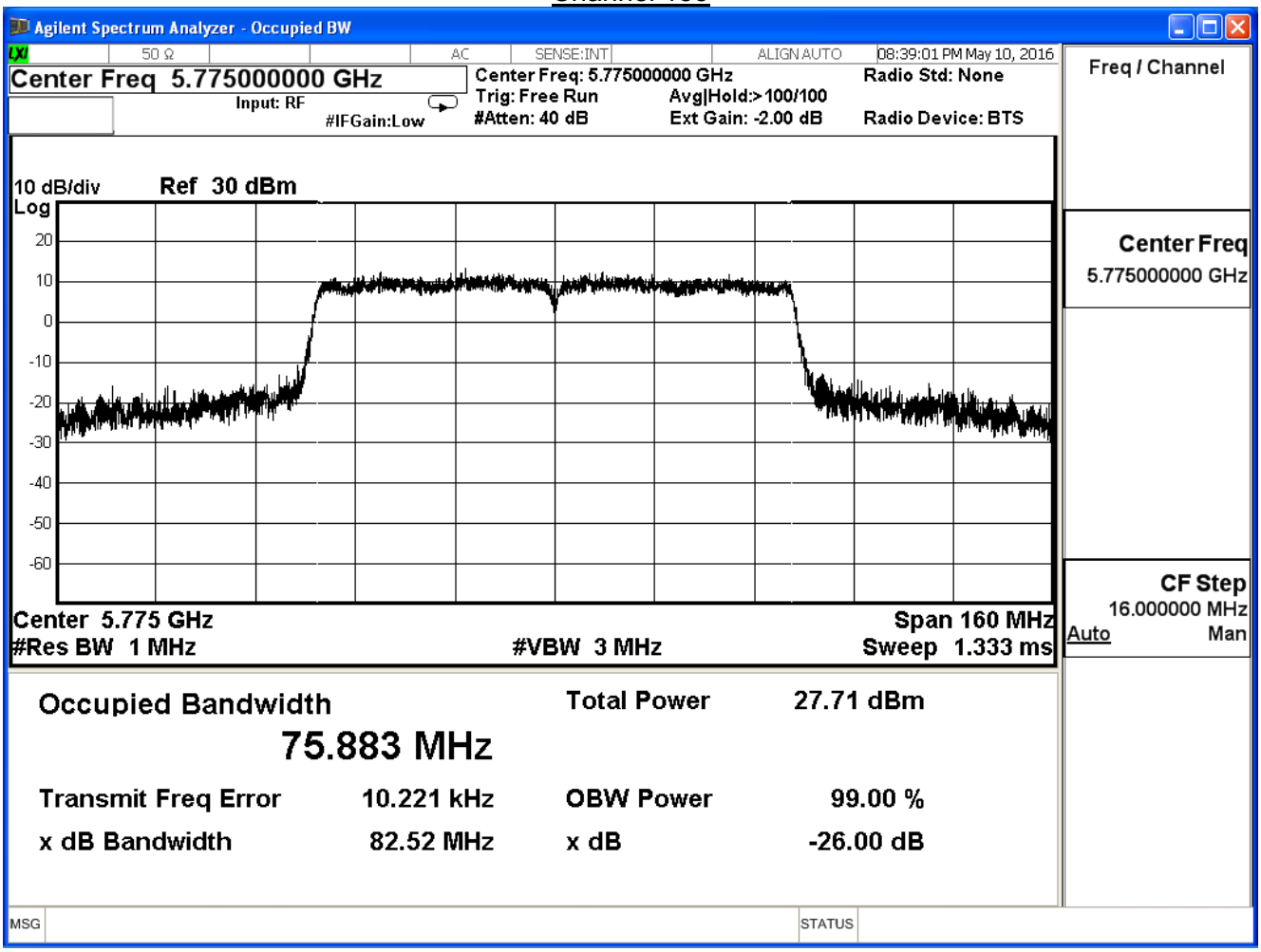
Channel 155



Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac (80MHz) (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
155	5775	82.52	75.883	--

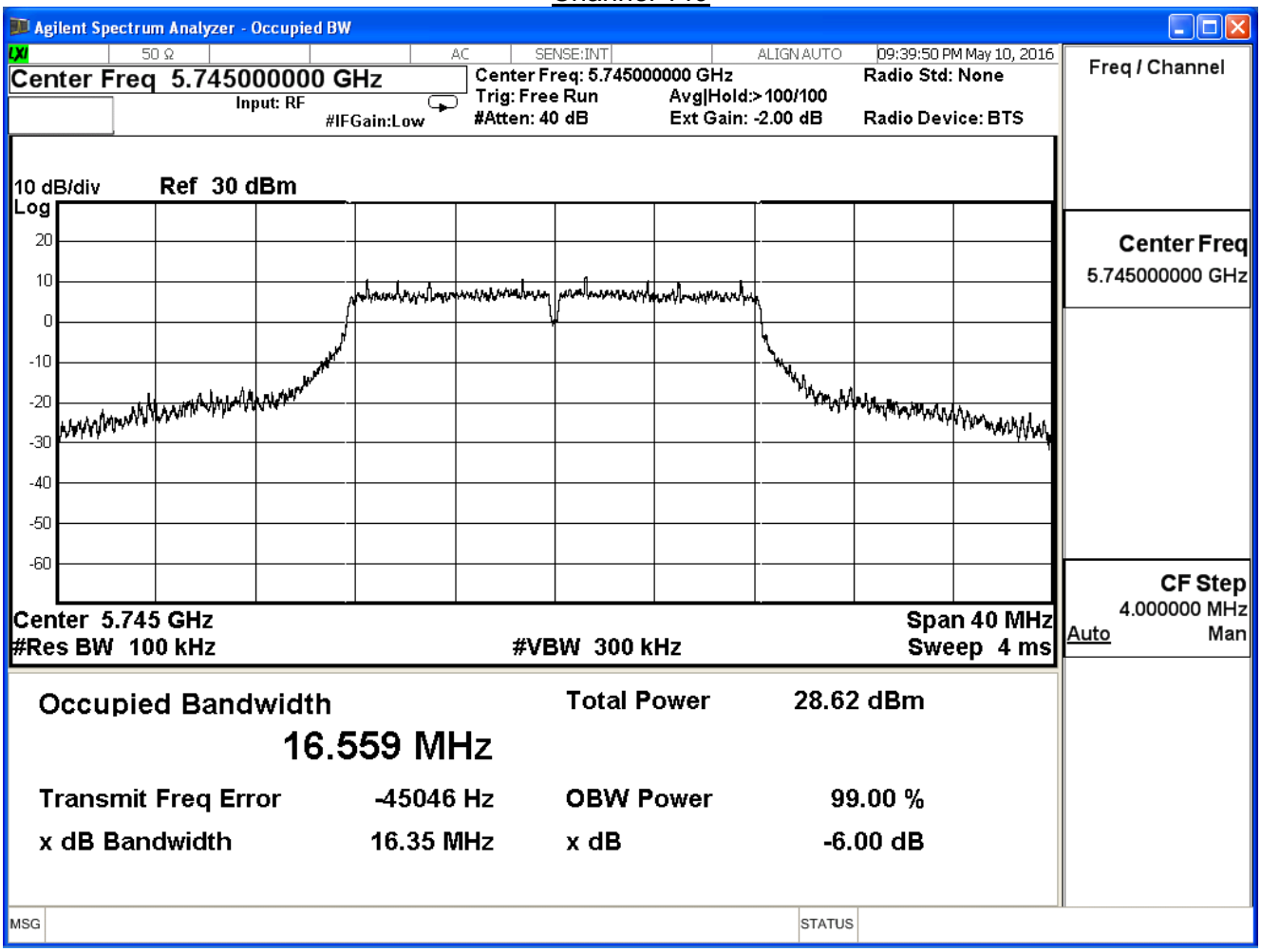
Channel 155



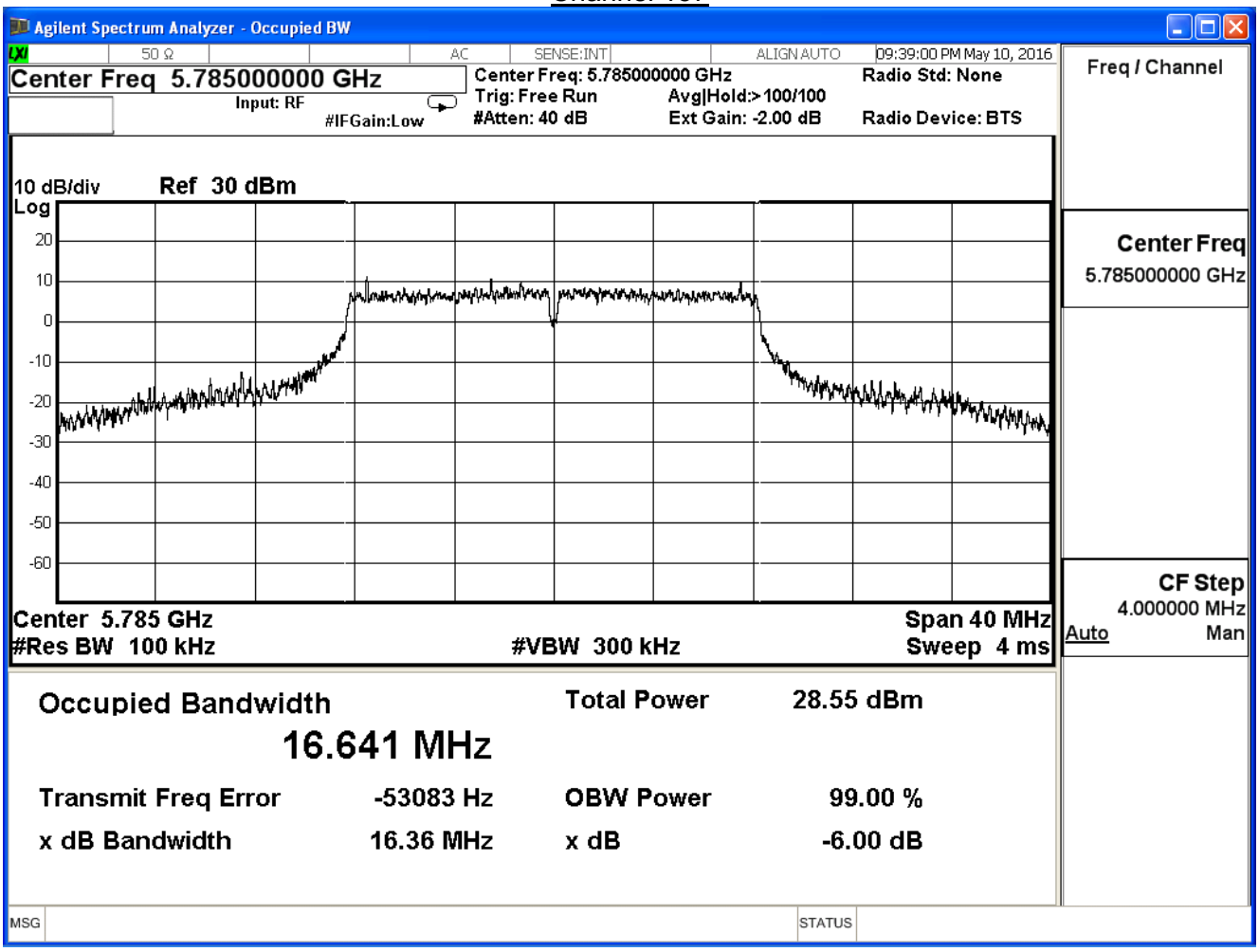
Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

802.11 a (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	16.35	≧0.5	Pass
157	5785	16.36	≧0.5	Pass
165	5825	16.43	≧0.5	Pass

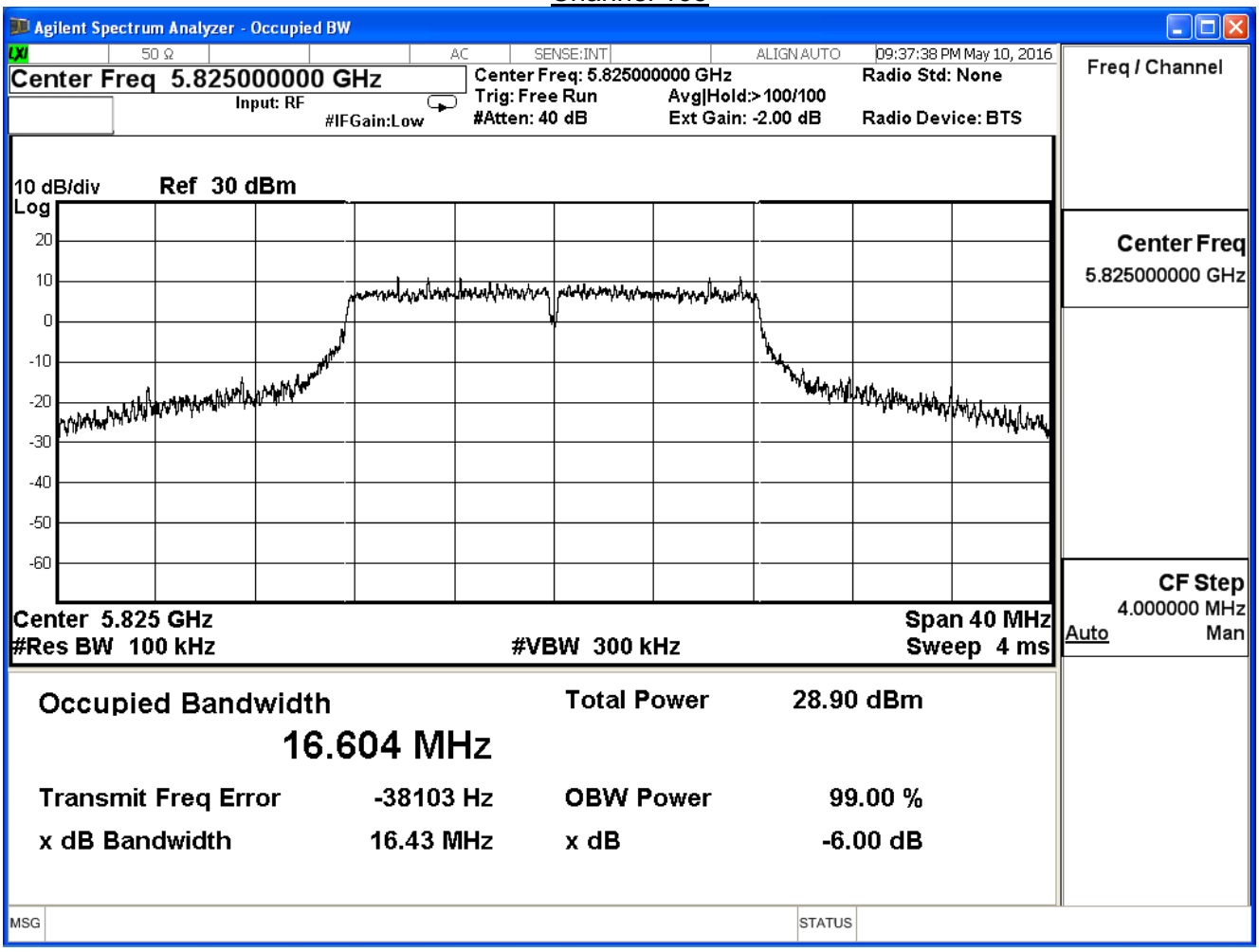
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:39:00 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
Occupied Bandwidth
16.641 MHz
Total Power
28.55 dBm
Transmit Freq Error
-53083 Hz
OBW Power
99.00 %
x dB Bandwidth
16.36 MHz
x dB
-6.00 dB
MSG
STATUS

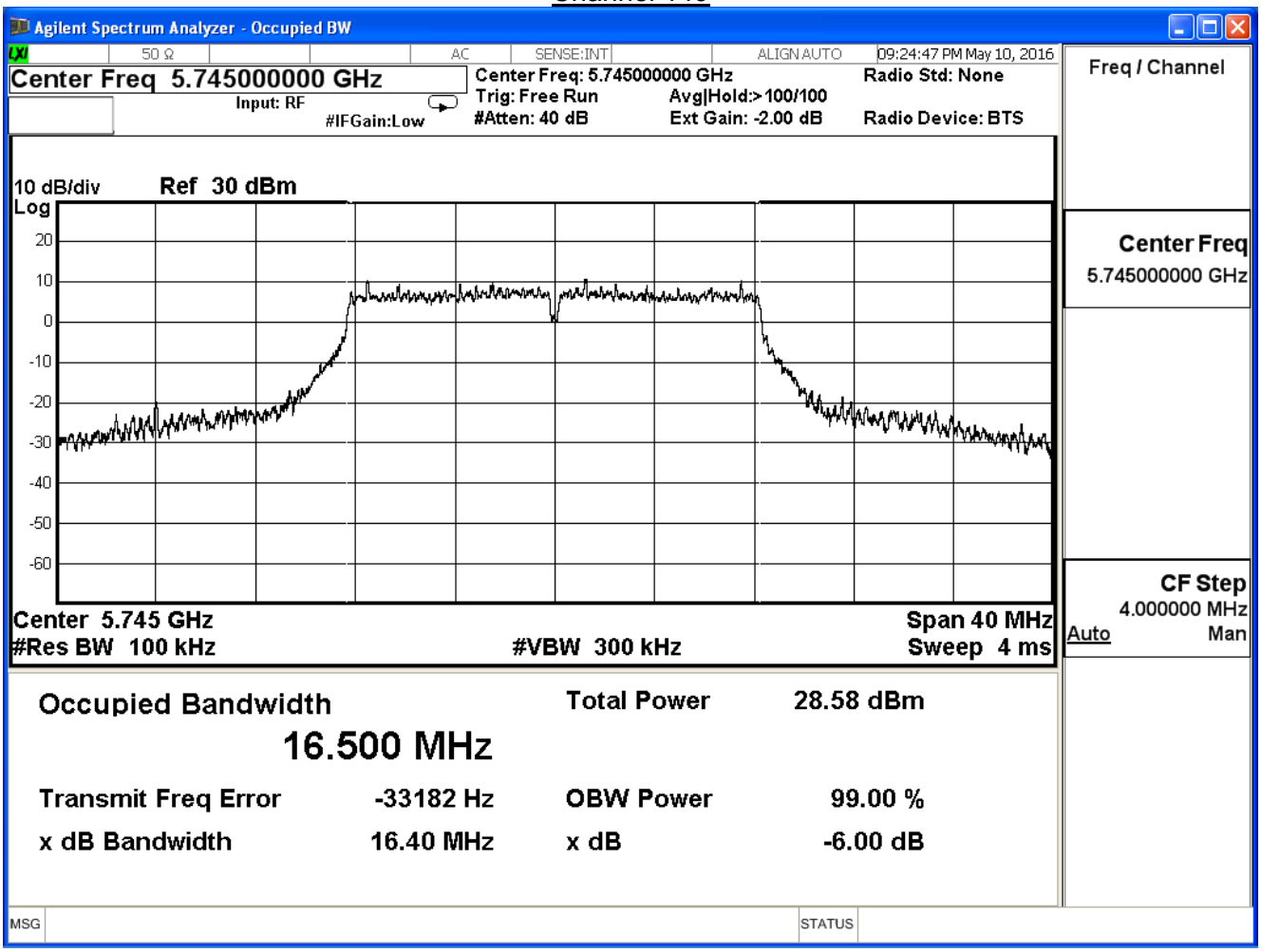
Channel 165


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:37:38 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.825 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
Occupied Bandwidth
16.604 MHz
Total Power
28.90 dBm
Transmit Freq Error
-38103 Hz
OBW Power
99.00 %
x dB Bandwidth
16.43 MHz
x dB
-6.00 dB
MSG
STATUS

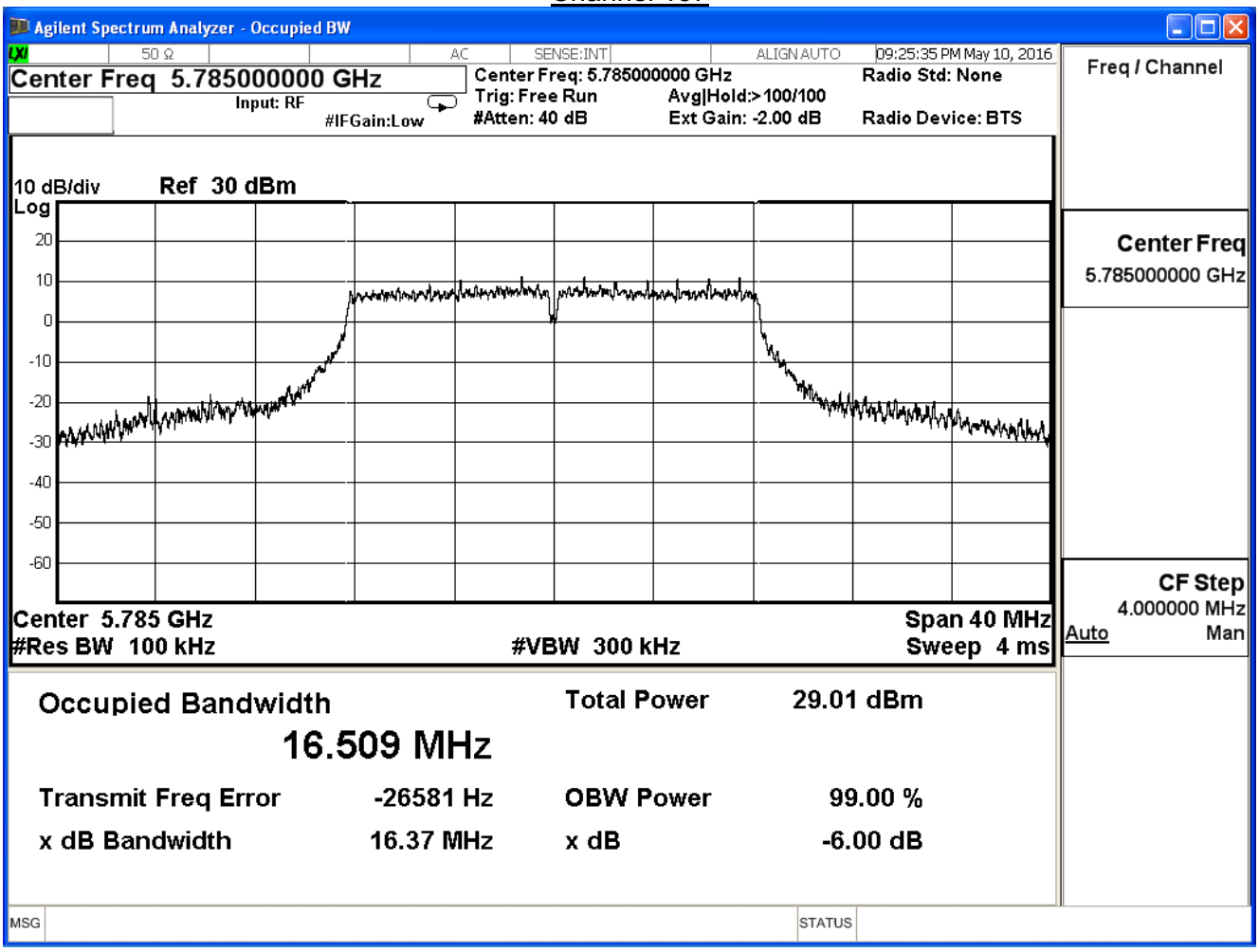
Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

802.11 a (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	16.40	≧0.5	Pass
157	5785	16.37	≧0.5	Pass
165	5825	16.38	≧0.5	Pass

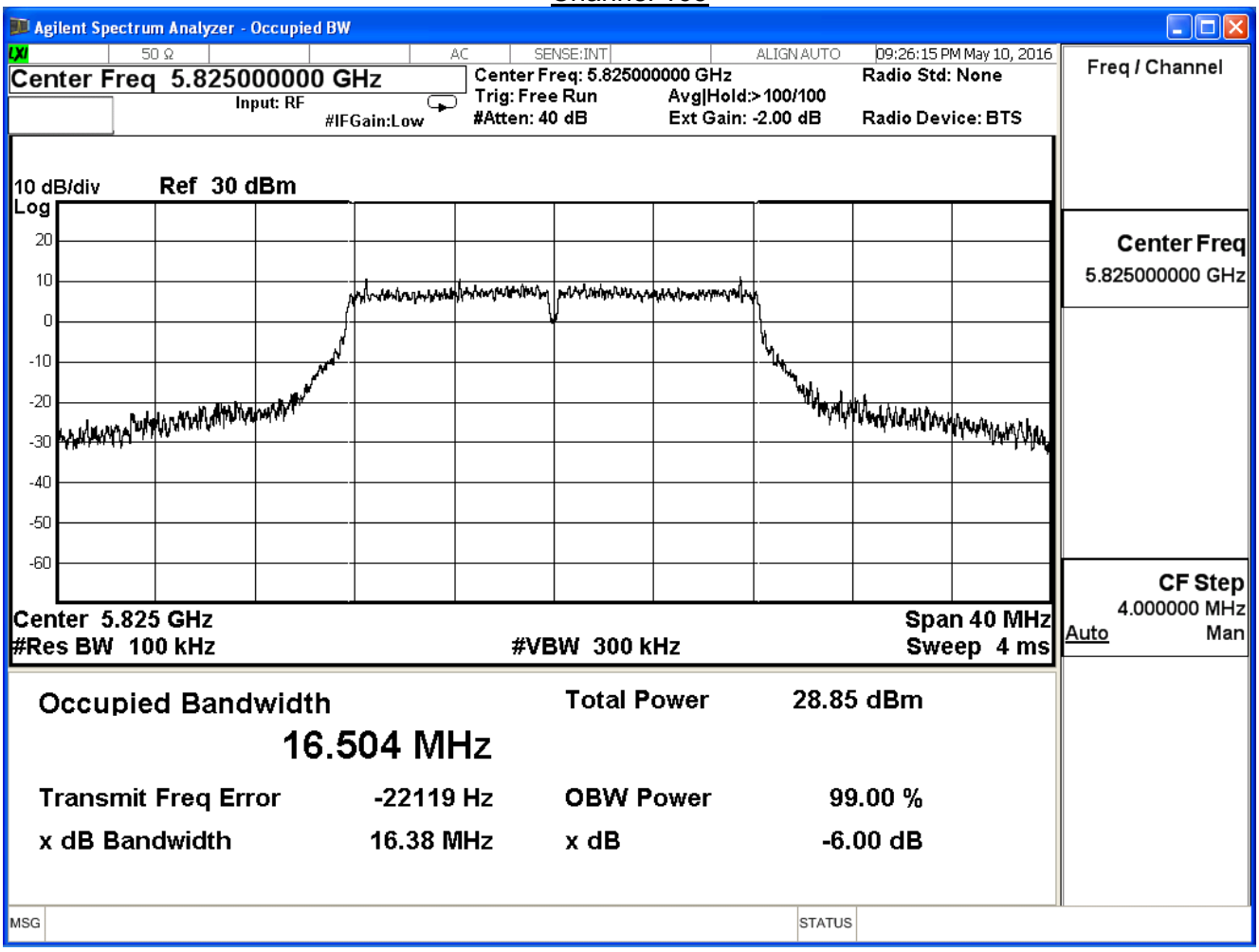
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:25:35 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
Occupied Bandwidth
16.509 MHz
Total Power
29.01 dBm
Transmit Freq Error
-26581 Hz
OBW Power
99.00 %
x dB Bandwidth
16.37 MHz
x dB
-6.00 dB
MSG
STATUS

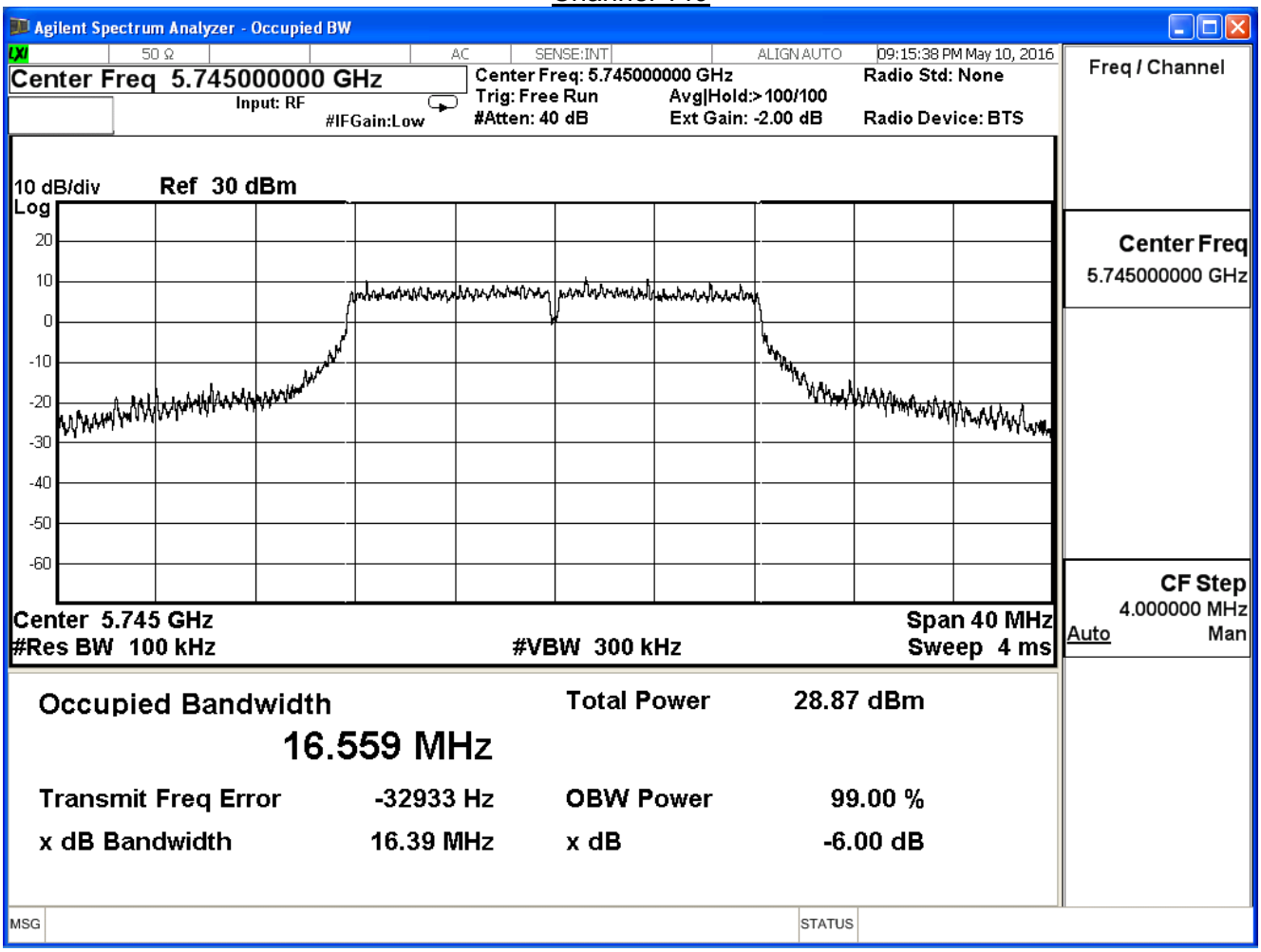
Channel 165


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:26:15 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.825 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
Occupied Bandwidth
16.504 MHz
Total Power
28.85 dBm
Transmit Freq Error
-22119 Hz
OBW Power
99.00 %
x dB Bandwidth
16.38 MHz
x dB
-6.00 dB
MSG
STATUS

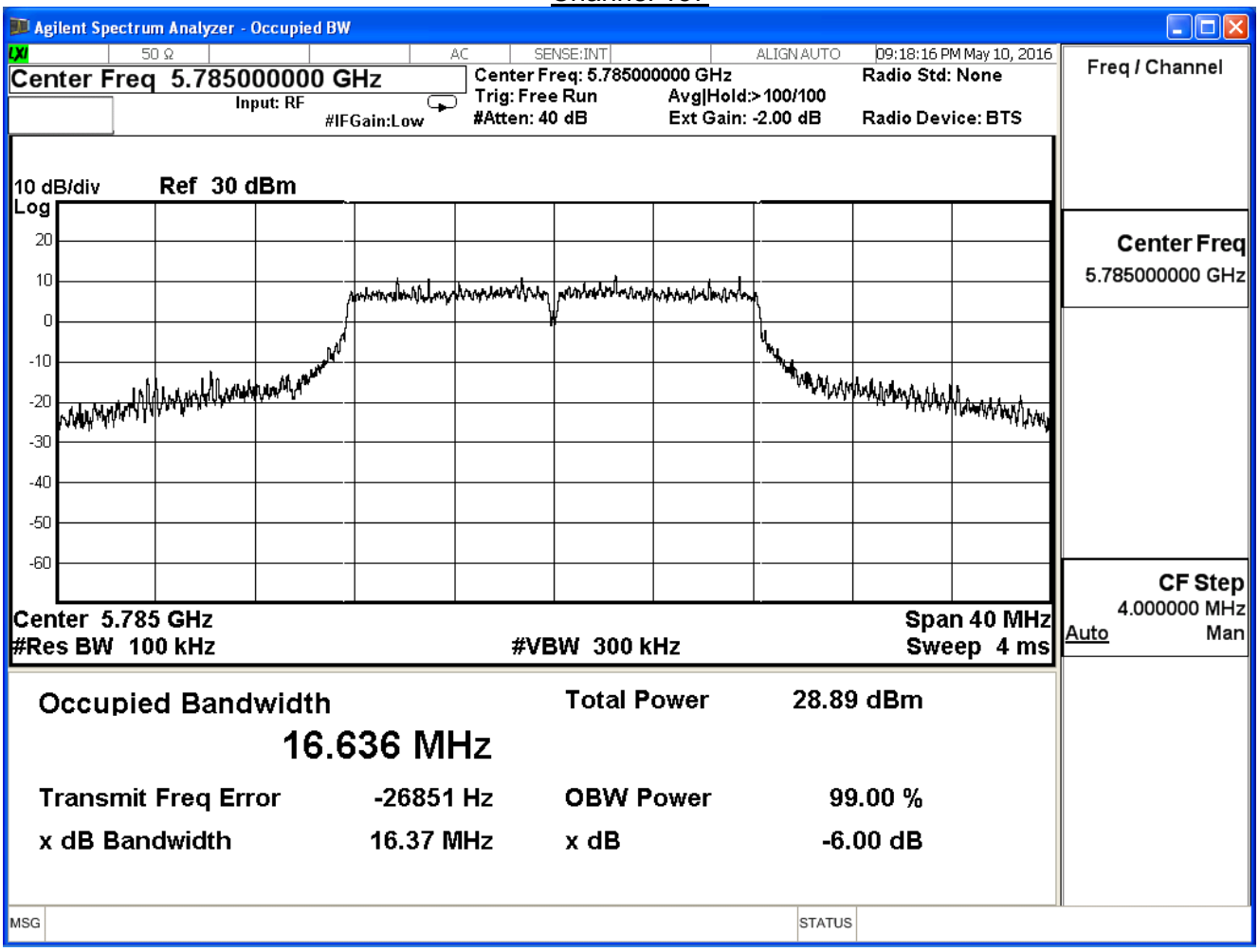
Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

802.11 a (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	16.39	≧0.5	Pass
157	5785	16.37	≧0.5	Pass
165	5825	16.38	≧0.5	Pass

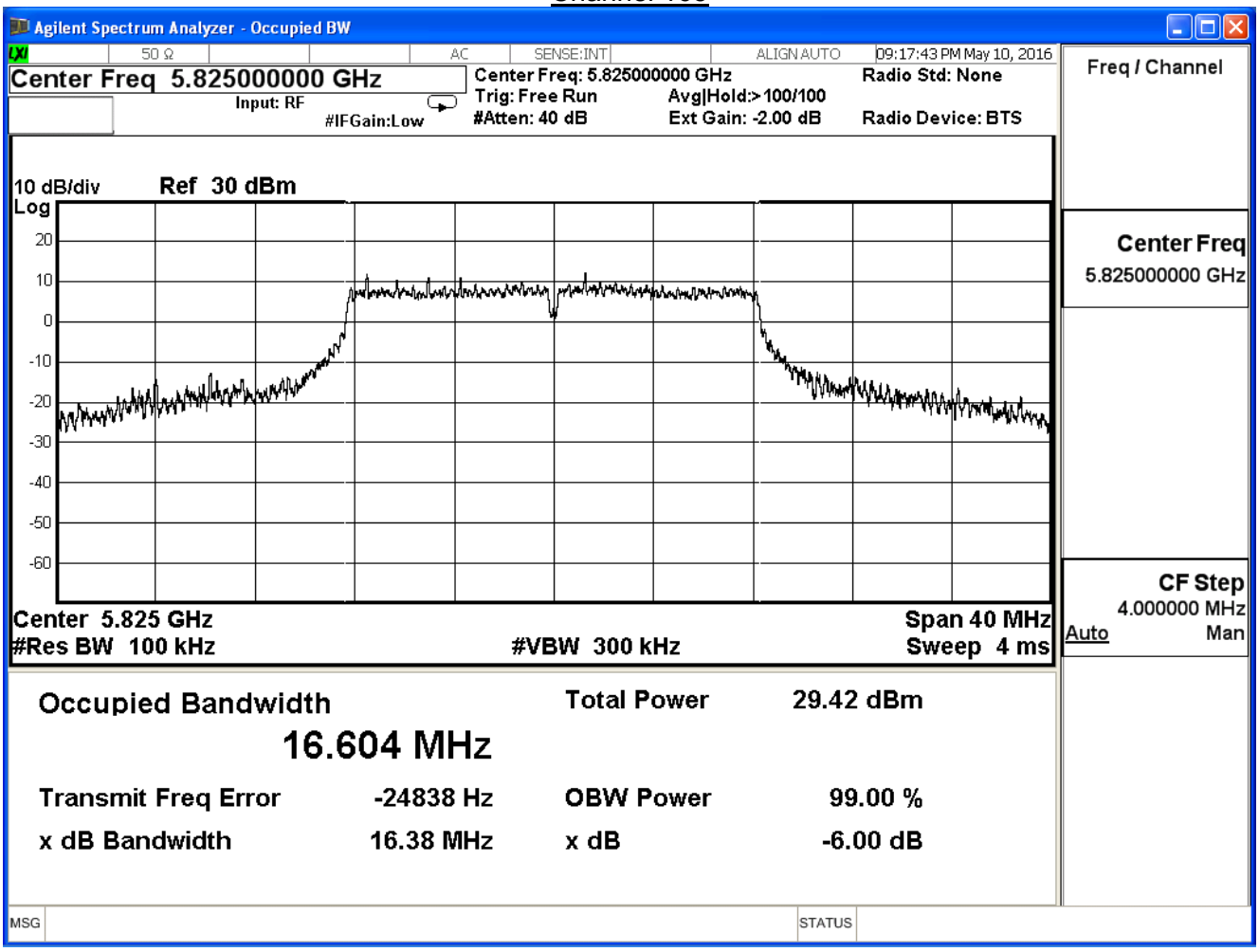
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:18:16 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
Occupied Bandwidth
16.636 MHz
Total Power
28.89 dBm
Transmit Freq Error
-26851 Hz
OBW Power
99.00 %
x dB Bandwidth
16.37 MHz
x dB
-6.00 dB
MSG
STATUS

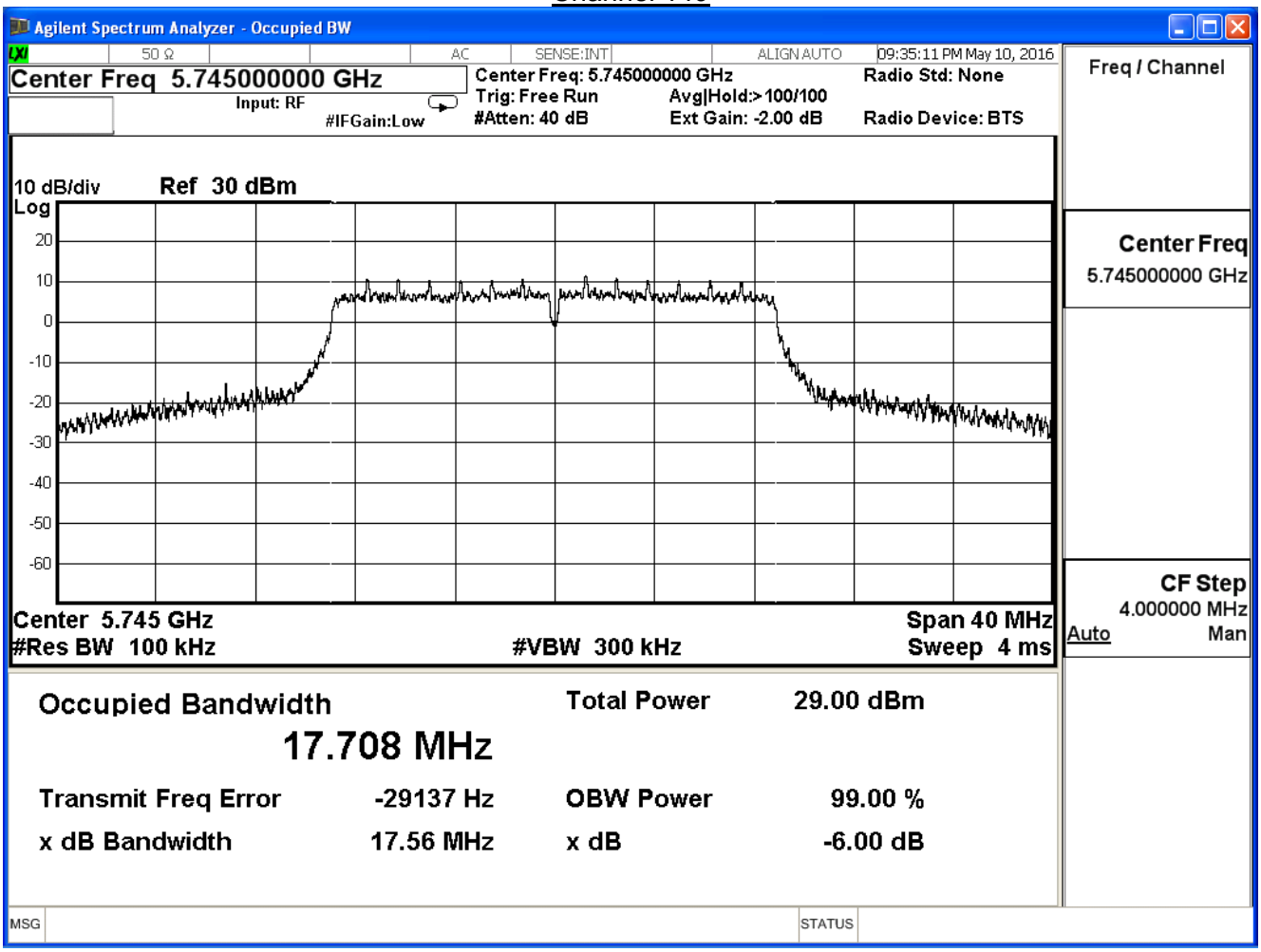
Channel 165


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:17:43 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.825 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
Occupied Bandwidth
16.604 MHz
Total Power
29.42 dBm
Transmit Freq Error
-24838 Hz
OBW Power
99.00 %
x dB Bandwidth
16.38 MHz
x dB
-6.00 dB
MSG
STATUS

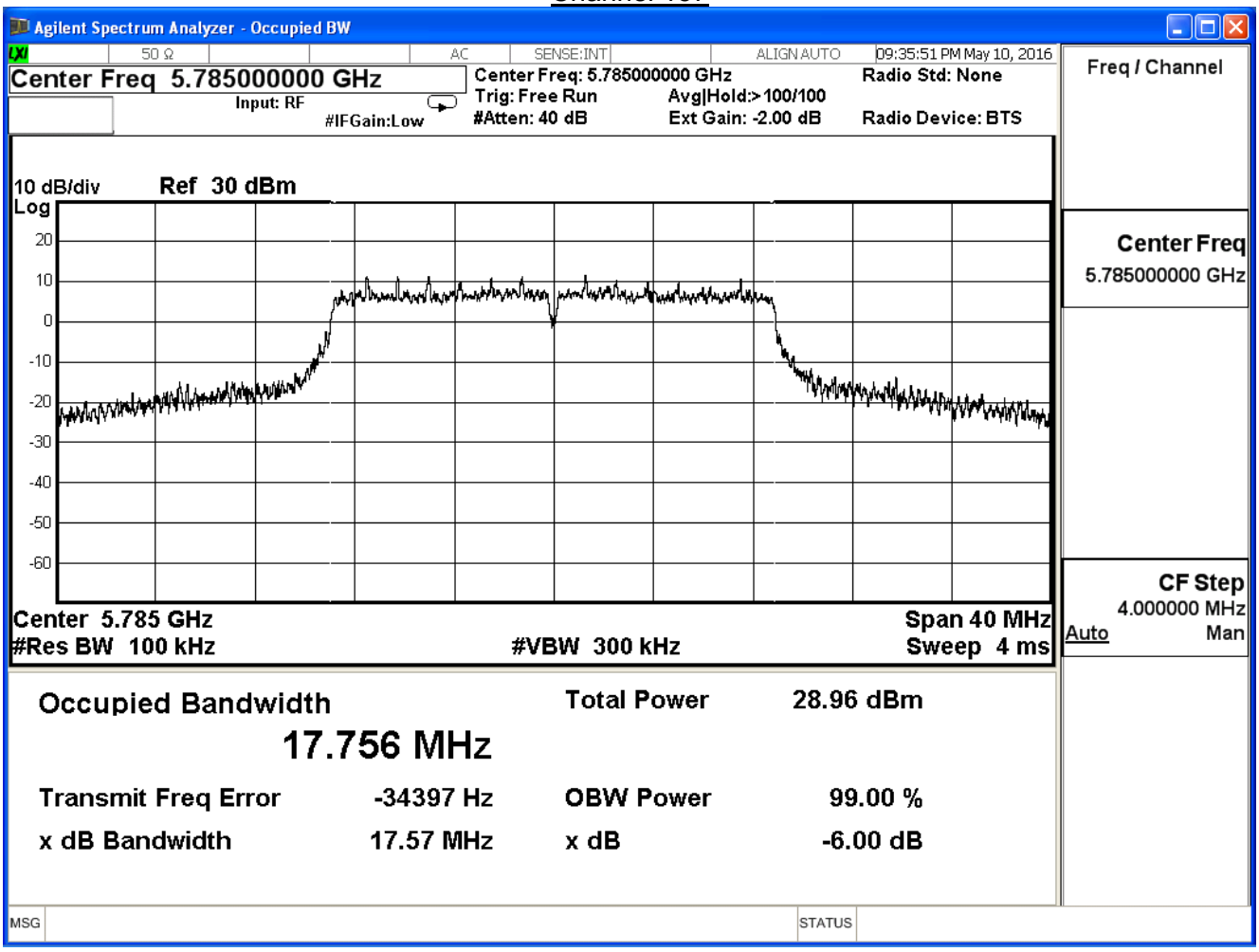
Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	17.56	≧0.5	Pass
157	5785	17.57	≧0.5	Pass
165	5825	17.58	≧0.5	Pass

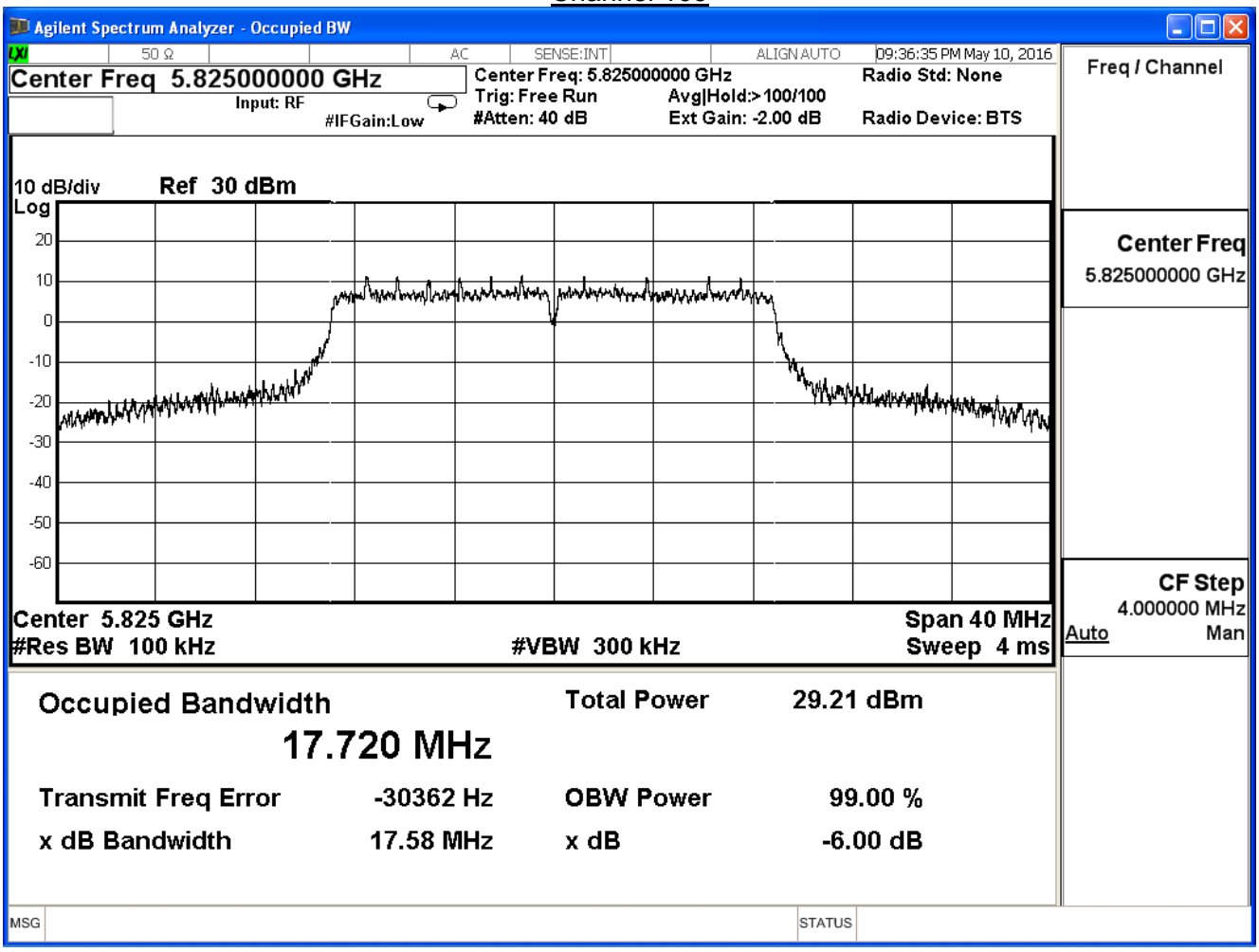
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:35:51 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
Occupied Bandwidth
17.756 MHz
Total Power
28.96 dBm
Transmit Freq Error
-34397 Hz
OBW Power
99.00 %
x dB Bandwidth
17.57 MHz
x dB
-6.00 dB
MSG
STATUS

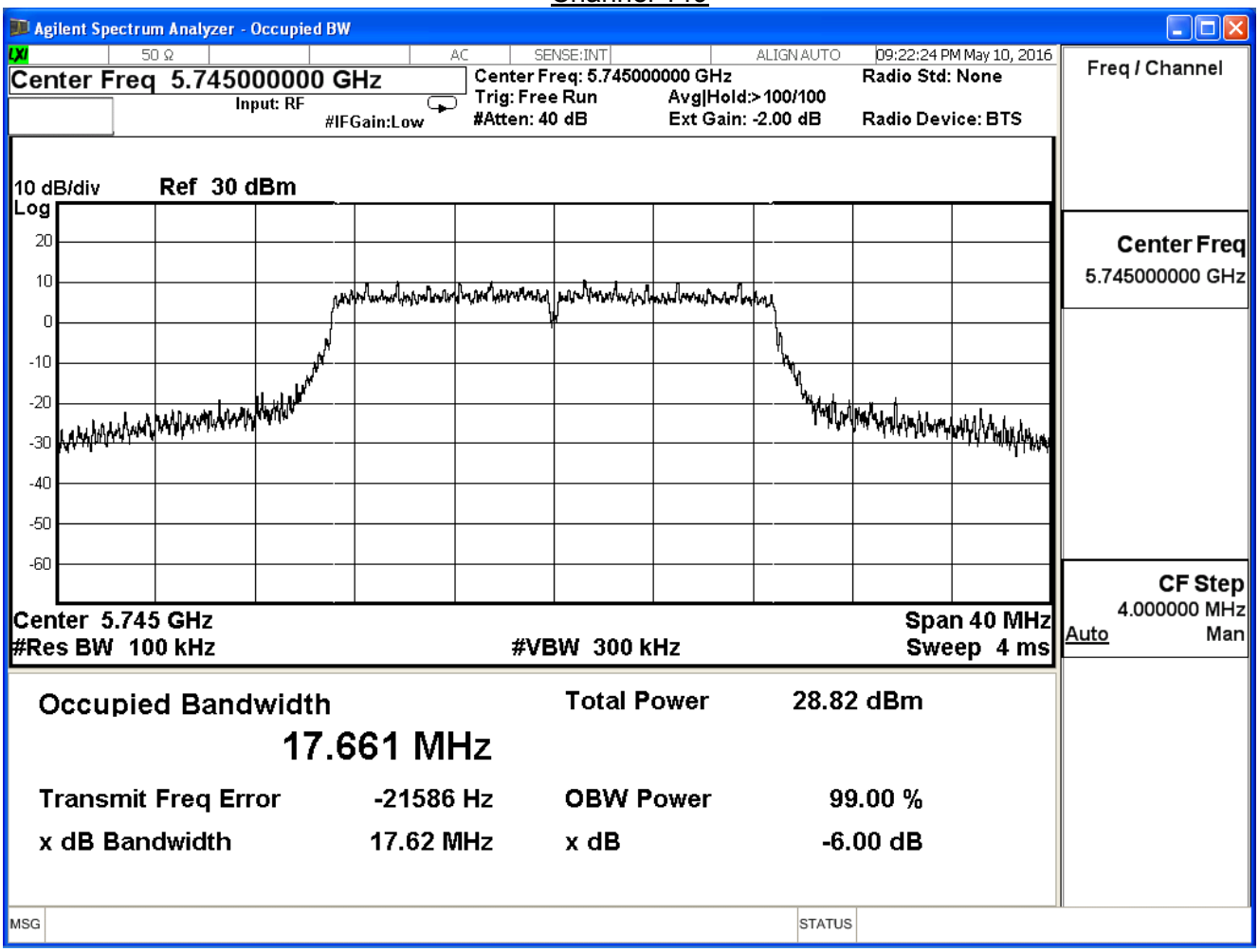
Channel 165


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:36:35 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.720 MHz
Total Power
29.21 dBm
Transmit Freq Error
-30362 Hz
OBW Power
99.00 %
x dB Bandwidth
17.58 MHz
x dB
-6.00 dB
MSG
STATUS

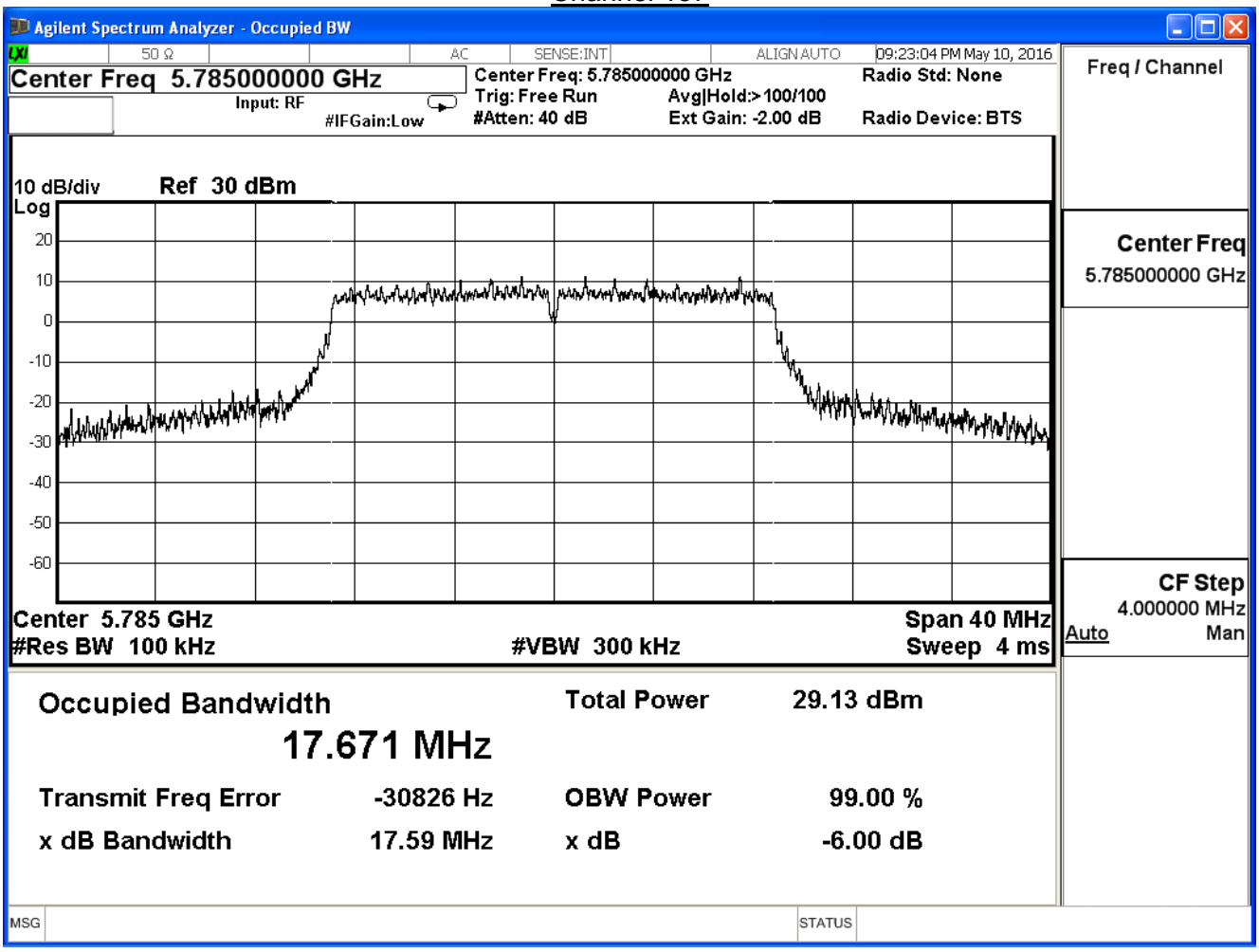
Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	17.62	≧0.5	Pass
157	5785	17.59	≧0.5	Pass
165	5825	17.62	≧0.5	Pass

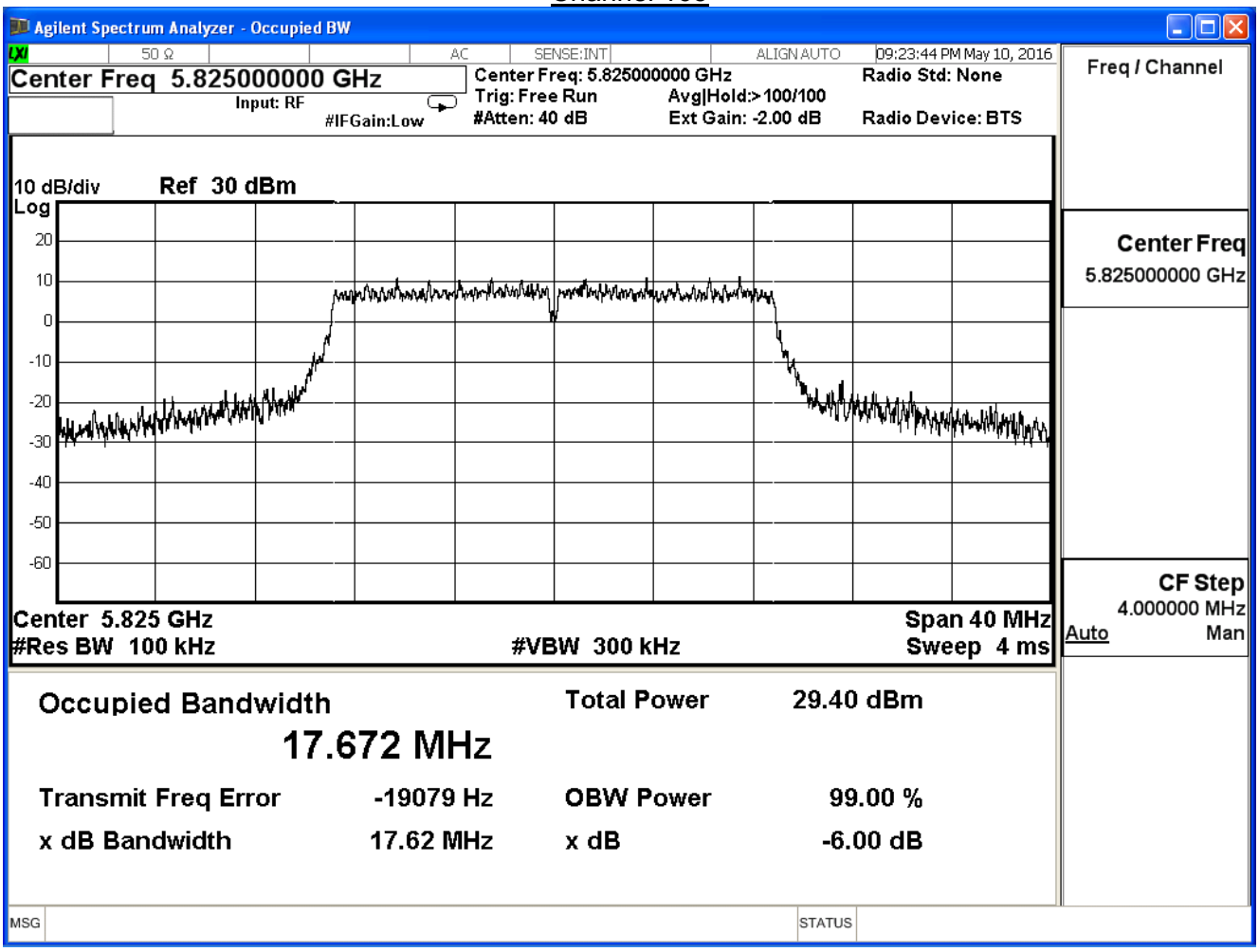
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:23:04 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
Occupied Bandwidth
17.671 MHz
Total Power
29.13 dBm
Transmit Freq Error
-30826 Hz
OBW Power
99.00 %
x dB Bandwidth
17.59 MHz
x dB
-6.00 dB
MSG
STATUS

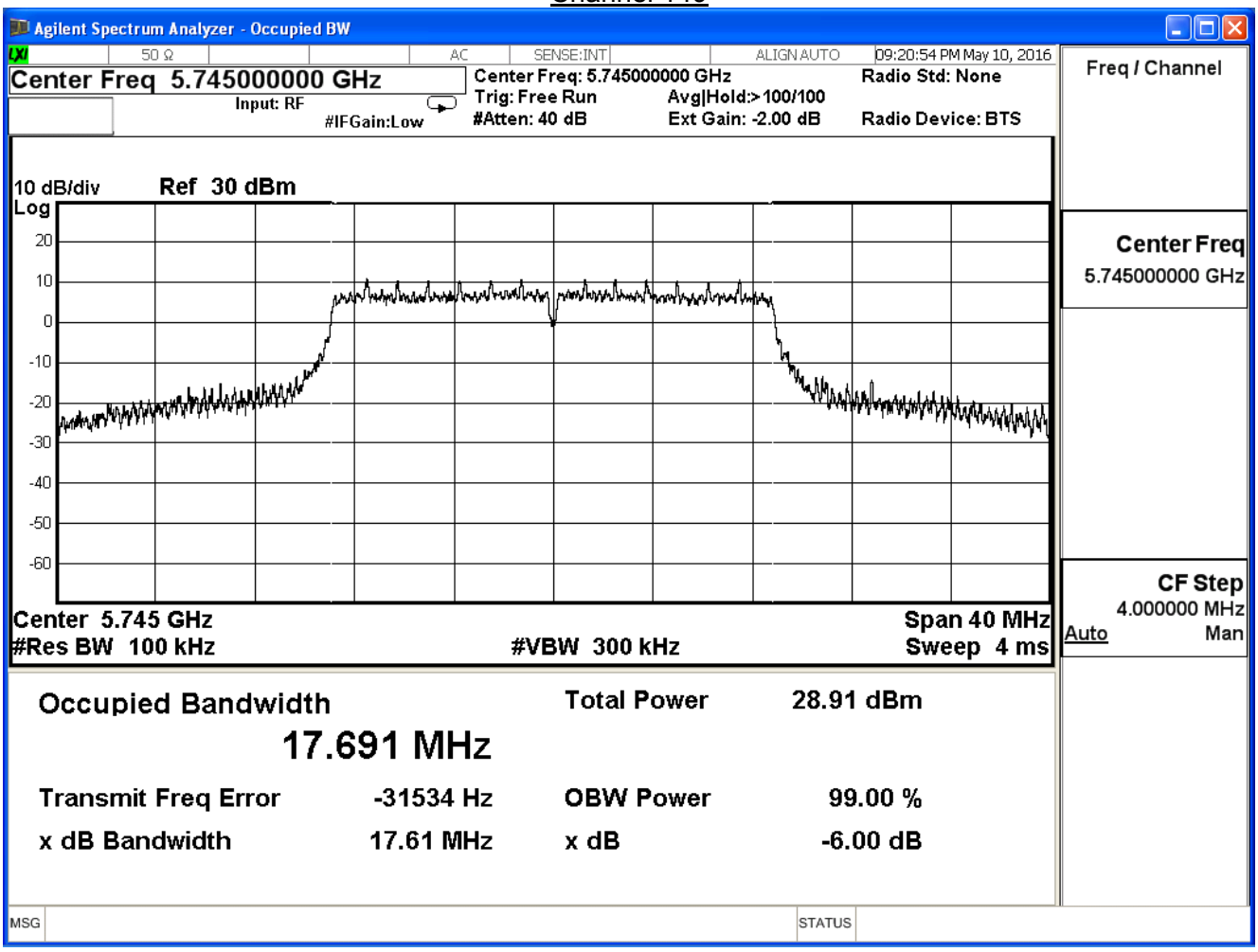
Channel 165


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:23:44 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.825 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
Occupied Bandwidth
17.672 MHz
Total Power
29.40 dBm
Transmit Freq Error
-19079 Hz
OBW Power
99.00 %
x dB Bandwidth
17.62 MHz
x dB
-6.00 dB
MSG
STATUS

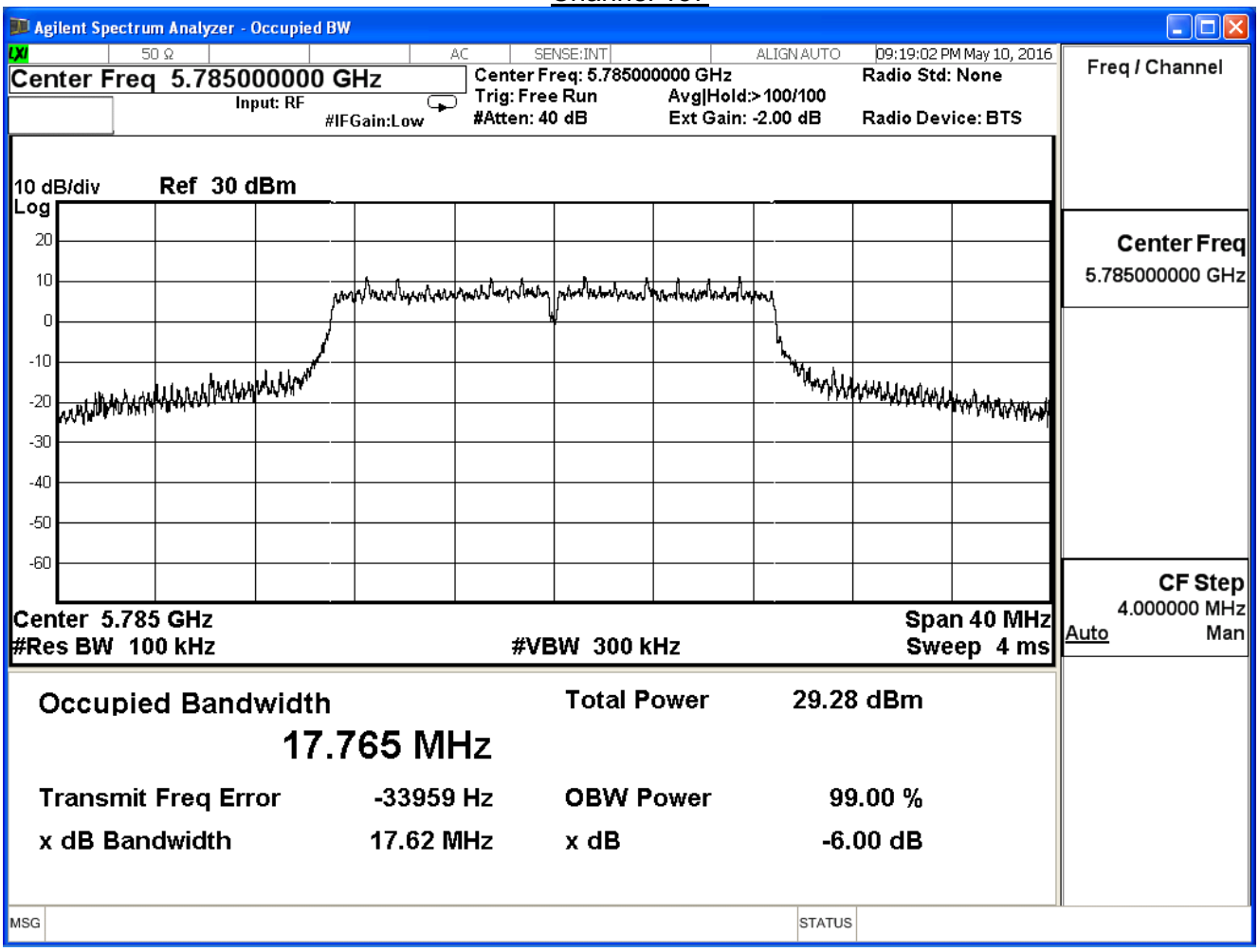
Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	17.61	≧0.5	Pass
157	5785	17.62	≧0.5	Pass
165	5825	17.60	≧0.5	Pass

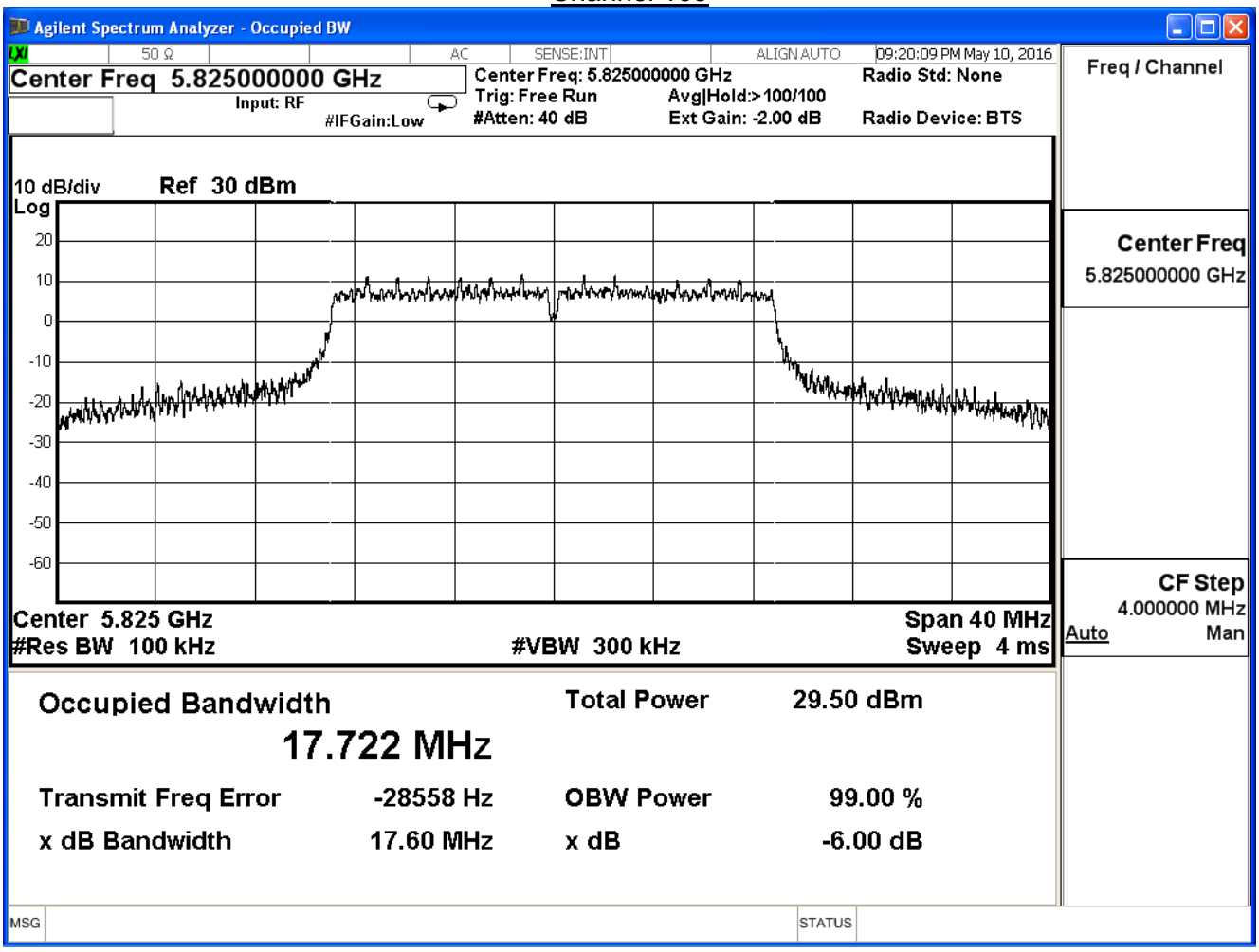
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:19:02 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
Occupied Bandwidth
17.765 MHz
Total Power
29.28 dBm
Transmit Freq Error
-33959 Hz
OBW Power
99.00 %
x dB Bandwidth
17.62 MHz
x dB
-6.00 dB
MSG
STATUS

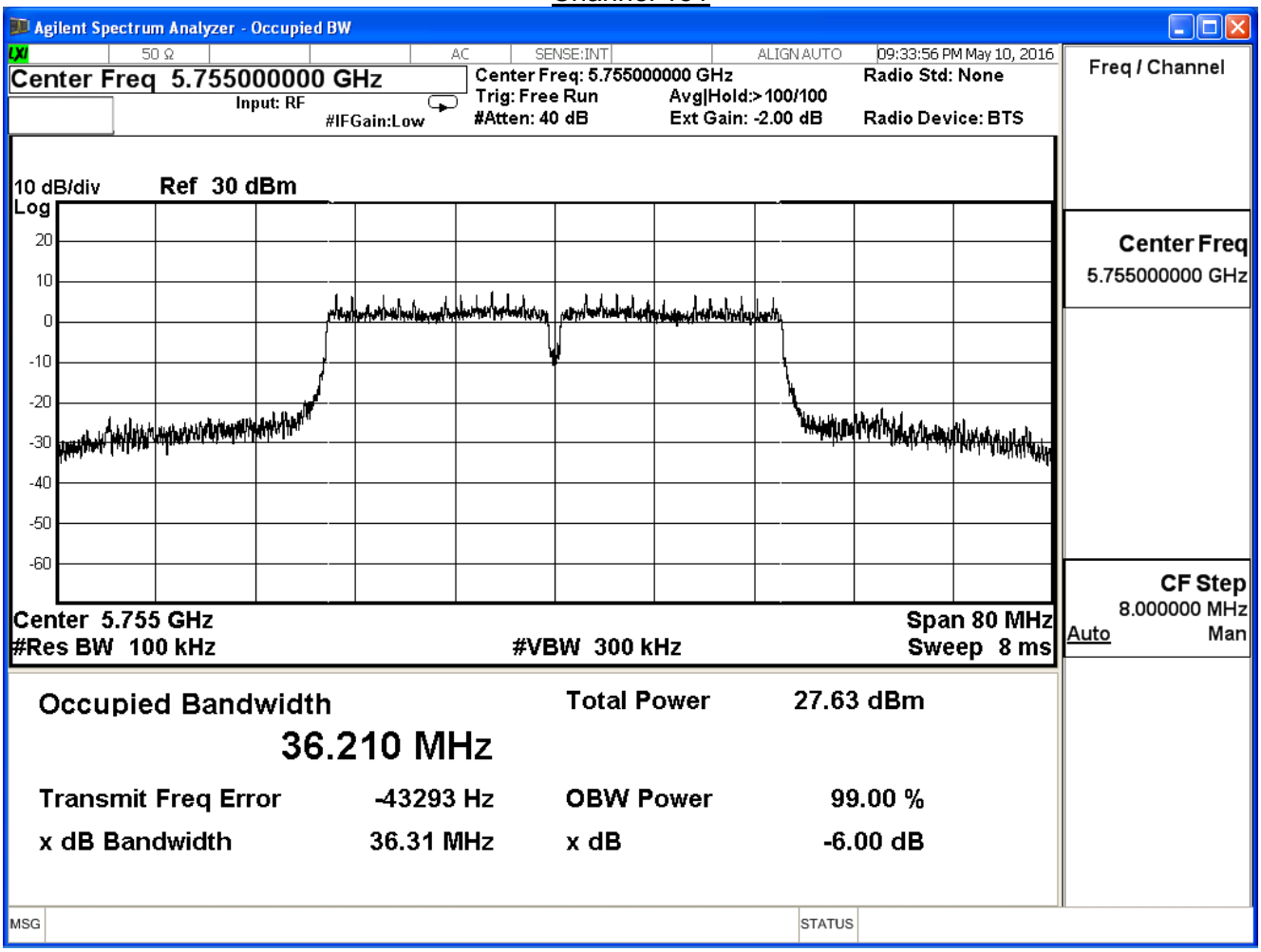
Channel 165


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:20:09 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.825 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
Occupied Bandwidth
17.722 MHz
Total Power
29.50 dBm
Transmit Freq Error
-28558 Hz
OBW Power
99.00 %
x dB Bandwidth
17.60 MHz
x dB
-6.00 dB
MSG
STATUS

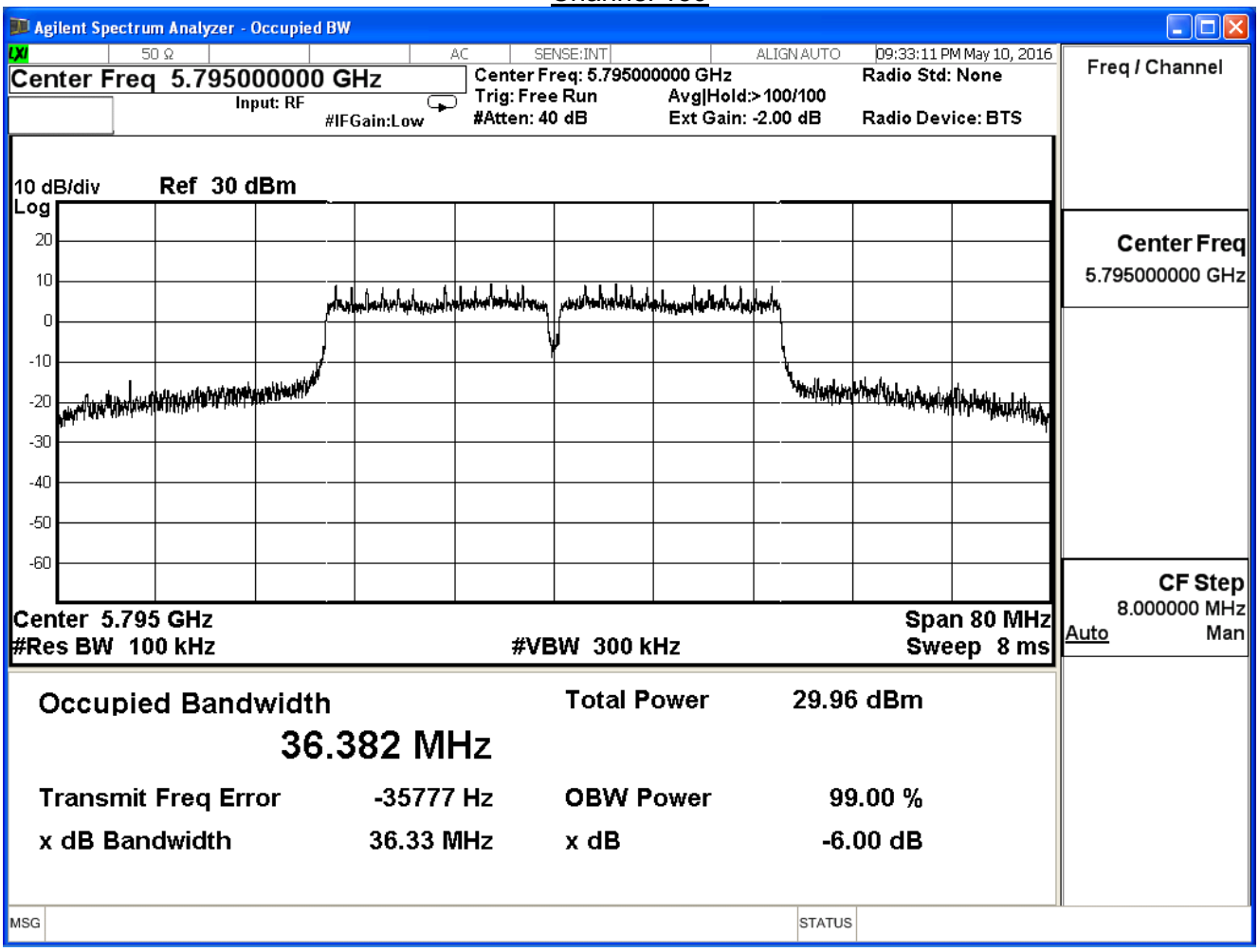
Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.31	≧0.5	Pass
159	5795	36.33	≧0.5	Pass

Channel 151



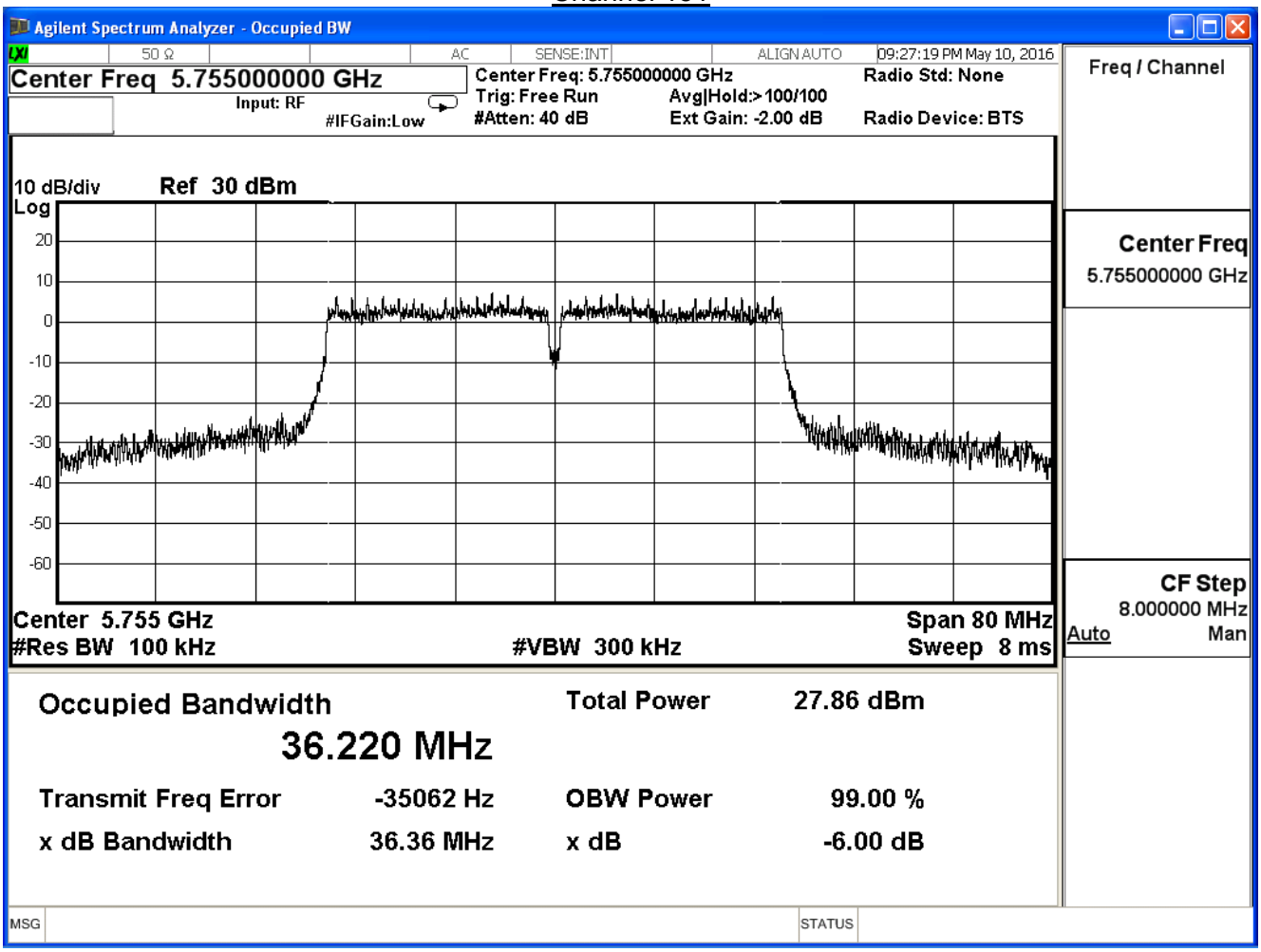
Channel 159


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:33:11 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
CF Step
8.000000 MHz
Auto
Man
Center 5.795 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 8 ms
Occupied Bandwidth
36.382 MHz
Total Power
29.96 dBm
Transmit Freq Error
-35777 Hz
OBW Power
99.00 %
x dB Bandwidth
36.33 MHz
x dB
-6.00 dB
MSG
STATUS

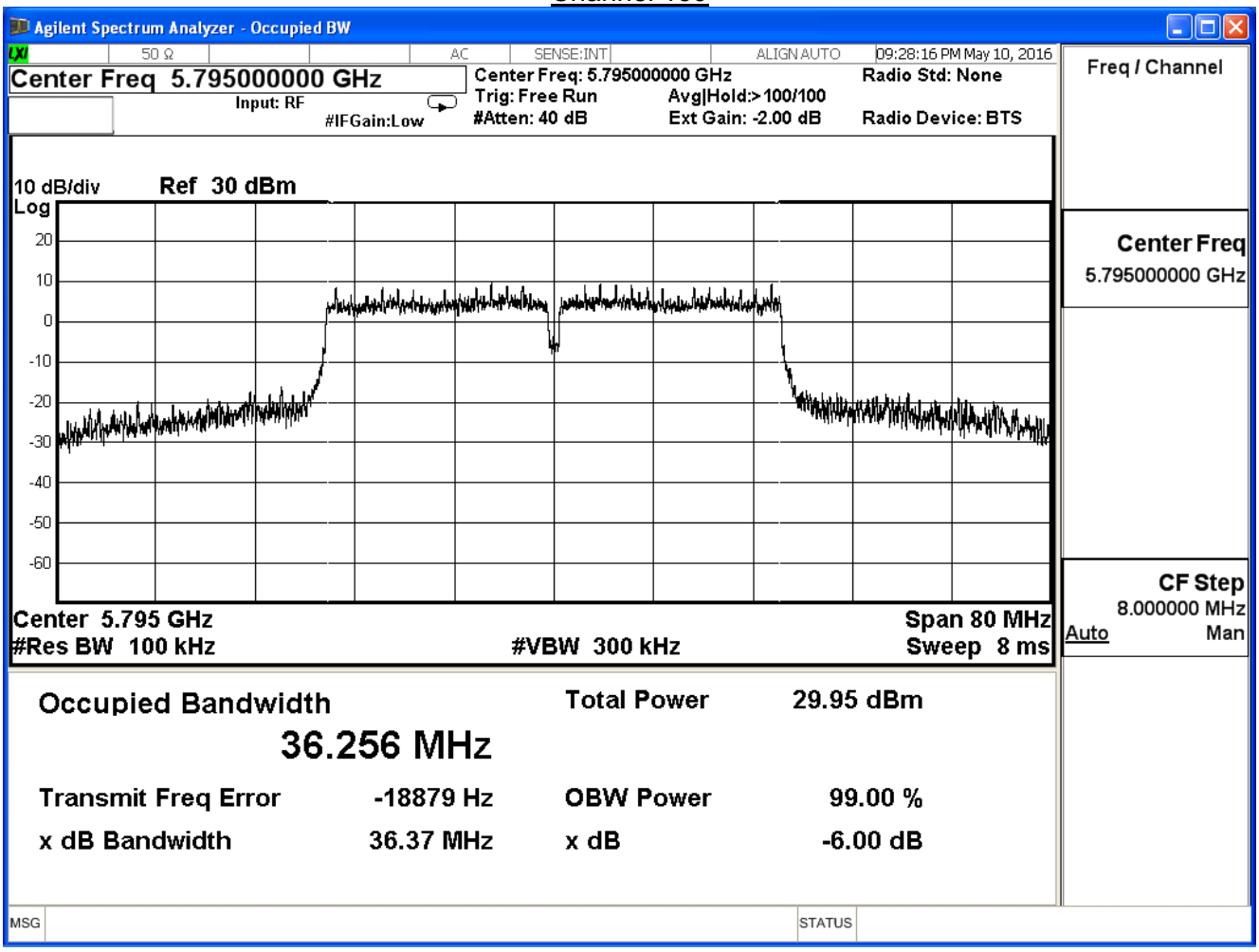
Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.36	≧0.5	Pass
159	5795	36.37	≧0.5	Pass

Channel 151



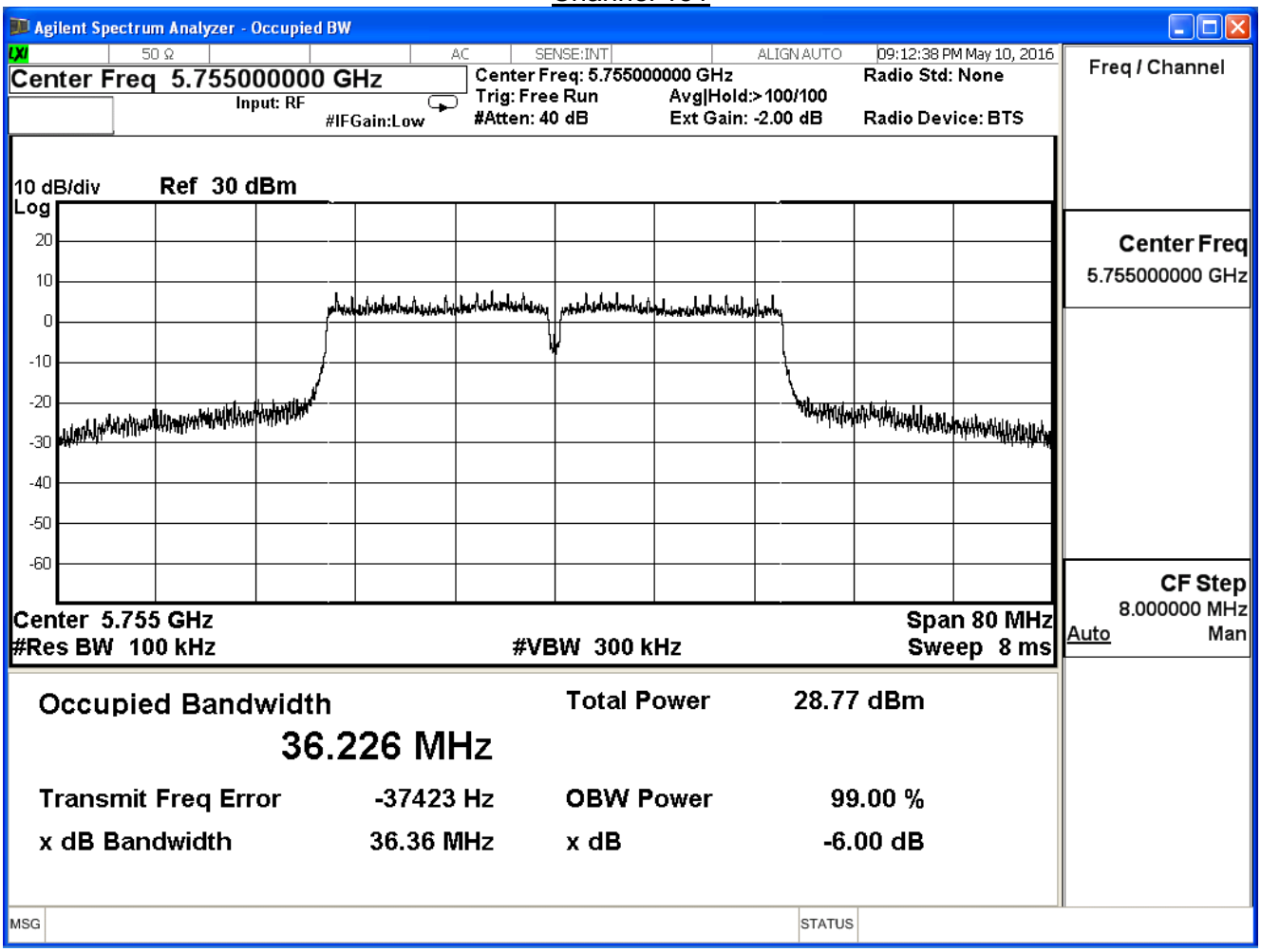
Channel 159


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:28:16 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
CF Step
8.000000 MHz
Auto
Man
Center 5.795 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 8 ms
Occupied Bandwidth
36.256 MHz
Total Power
29.95 dBm
Transmit Freq Error
-18879 Hz
OBW Power
99.00 %
x dB Bandwidth
36.37 MHz
x dB
-6.00 dB
MSG
STATUS

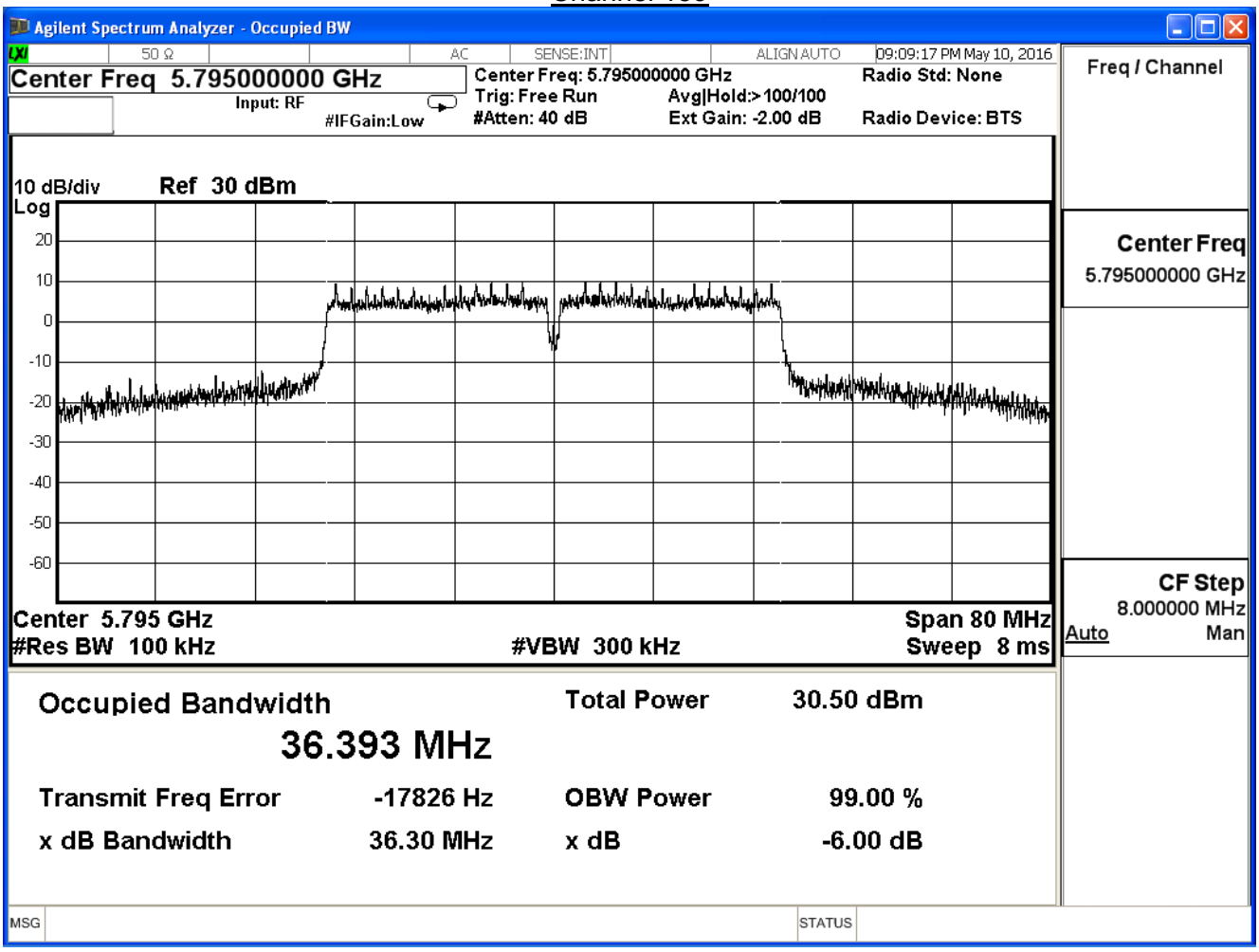
Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.36	≧0.5	Pass
159	5795	36.30	≧0.5	Pass

Channel 151



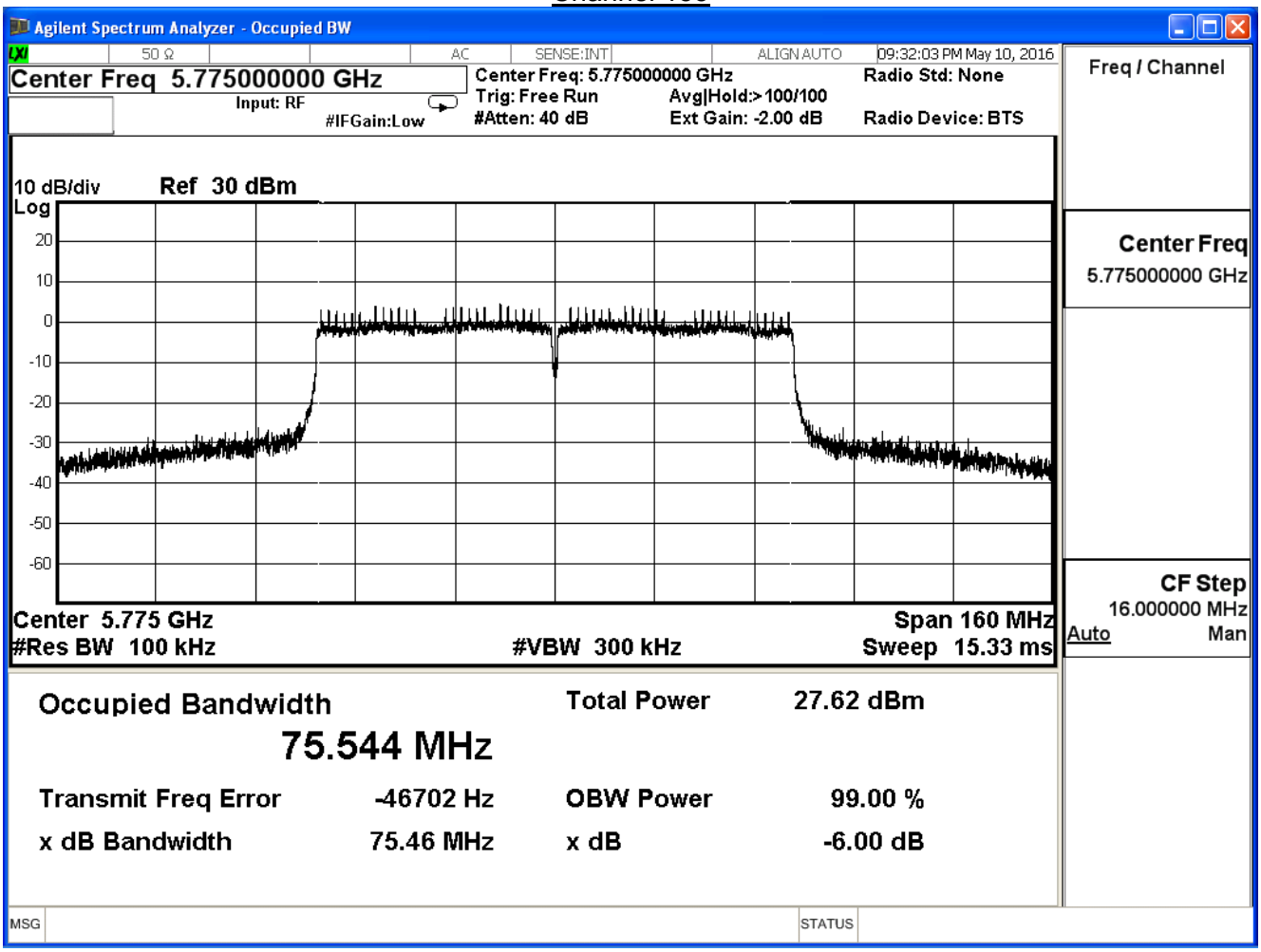
Channel 159


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:09:17 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
CF Step
8.000000 MHz
Auto
Man
Center 5.795 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 8 ms
Occupied Bandwidth
36.393 MHz
Total Power
30.50 dBm
Transmit Freq Error
-17826 Hz
OBW Power
99.00 %
x dB Bandwidth
36.30 MHz
x dB
-6.00 dB
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac (80MHz) (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	75.46	≧0.5	Pass

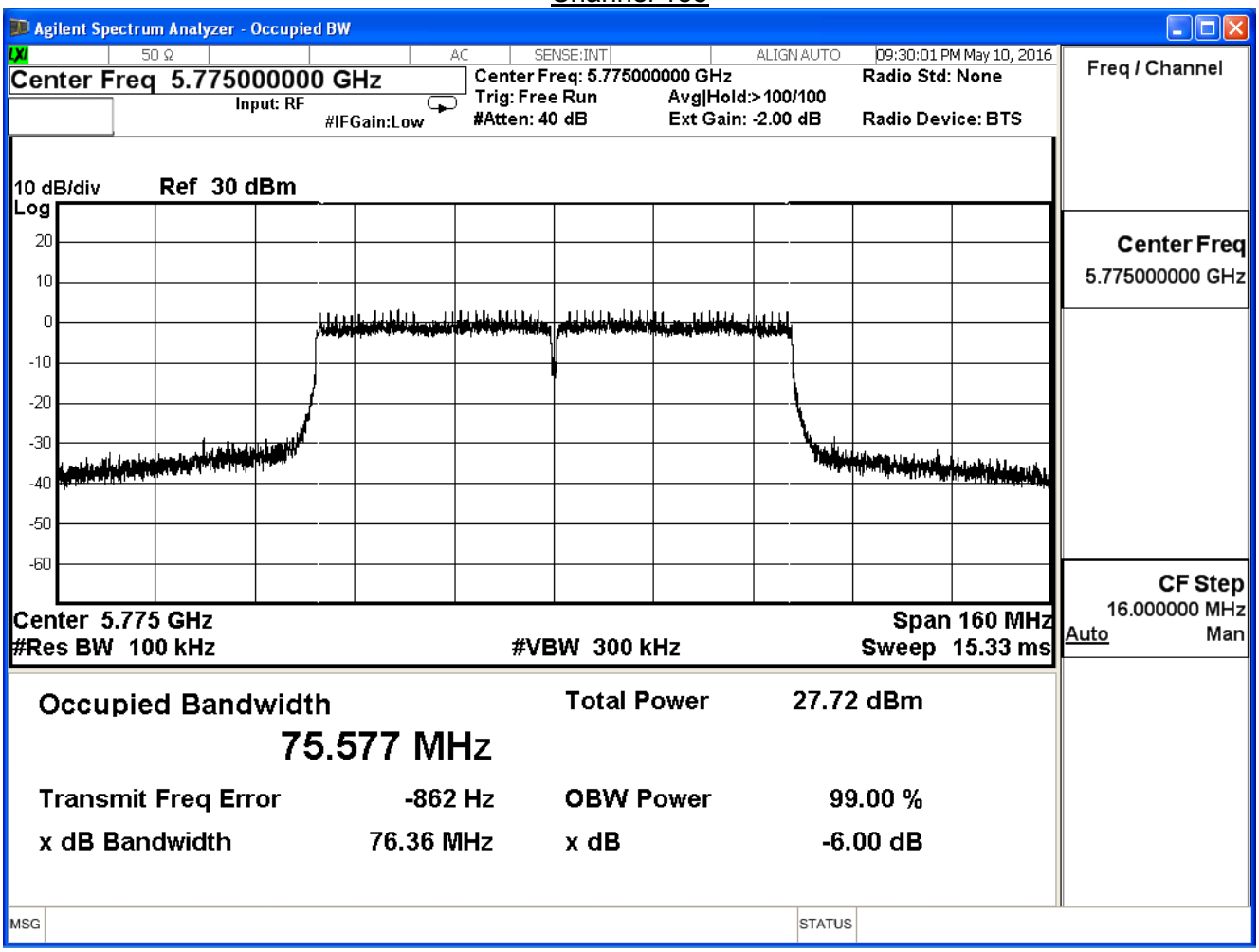
Channel 155



Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac (80MHz) (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	76.36	≧0.5	Pass

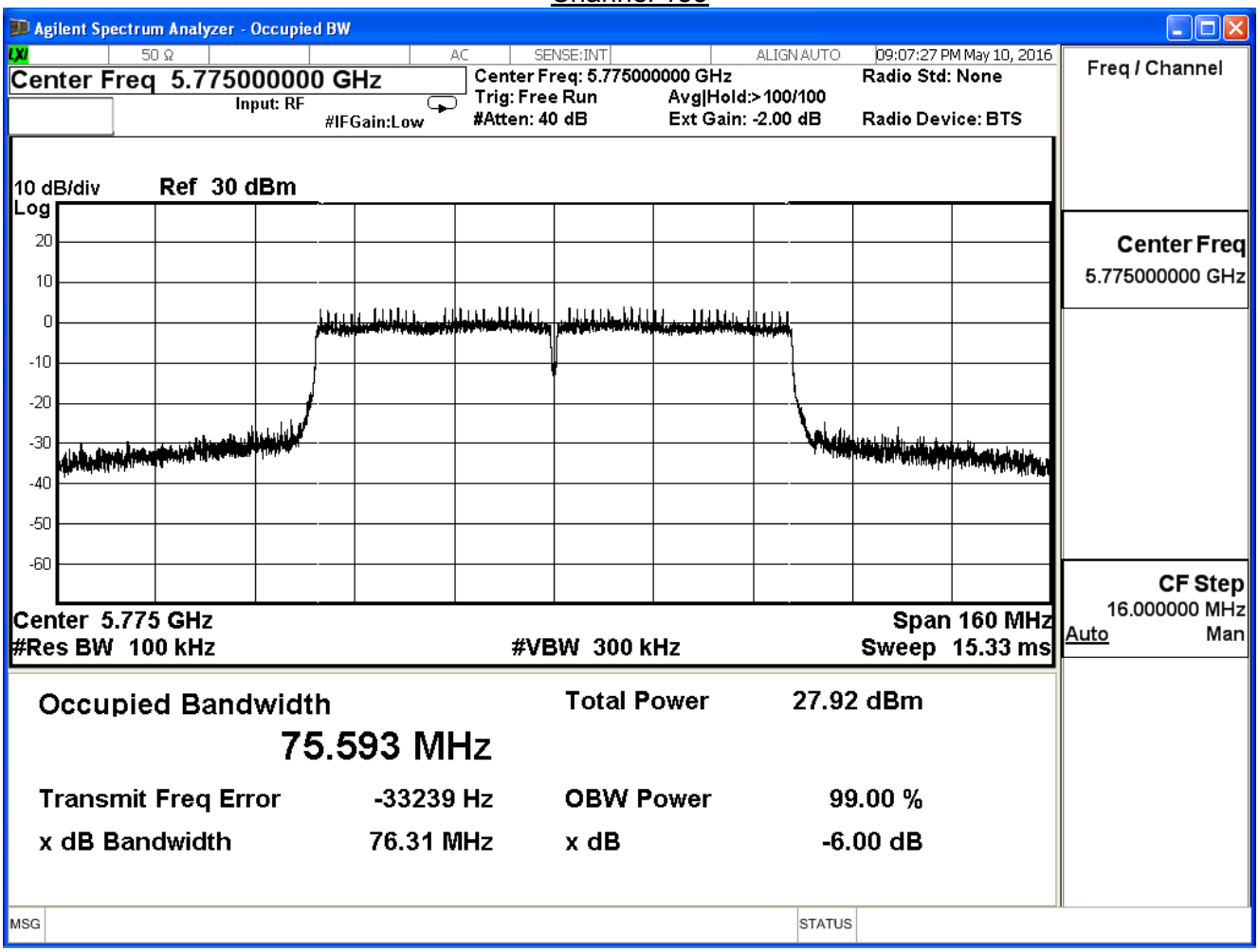
Channel 155



Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac (80MHz) (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	76.31	≧0.5	Pass

Channel 155



3. Peak Transmit Output

3.1. Test Equipment

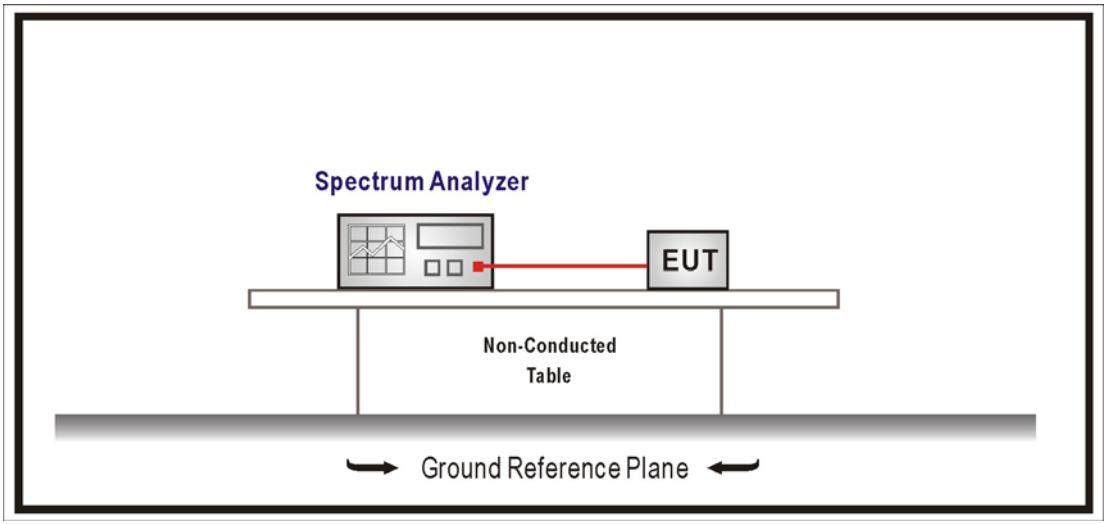
The following test equipments are used during the radiated emission tests:

Peak Transmit Output / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/07/13

Note: All equipments that need to calibrate are with calibration period of 1 year.

3.2. Test Setup



3.3. Limits

1. For the band 5.15-5.25 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 1W. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

2. For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. The maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
3. For the band 5.25-5.35 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 250 mW. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

4. For the band 5.725-5.850 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 1W. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

3.4. Test Procedure

The EUT was setup to ANSI C63.10:2009; tested to U-NII test procedure of 789033 D02 V01R01 for compliance to FCC 47CFR Subpart E requirements. The Method SA-1 of the Maximum conducted output power was used.
Set RBW=1MHz, VBW=3MHz with RMS detector and trace average 100 traces in power averaging mode. Set span to encompass the entire emission bandwidth (EBW) of the signal. Compute power by integrating the spectrum across the 26 dB EBW of the signal.

3.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

3.6. Test Result

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

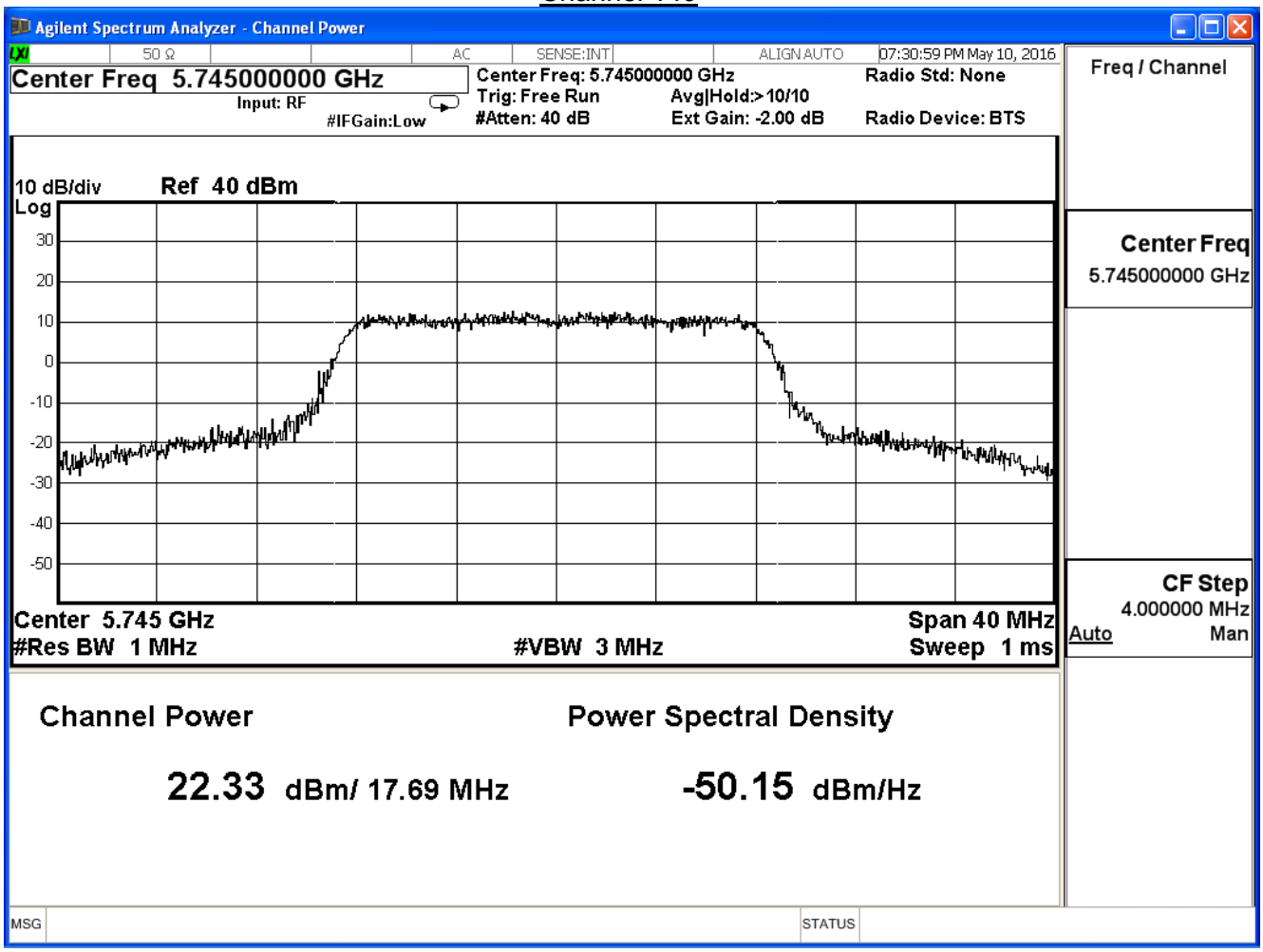
IEEE 802.11a (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	22.33	≤30
157	5785	22.56	≤30
165	5825	22.34	≤30

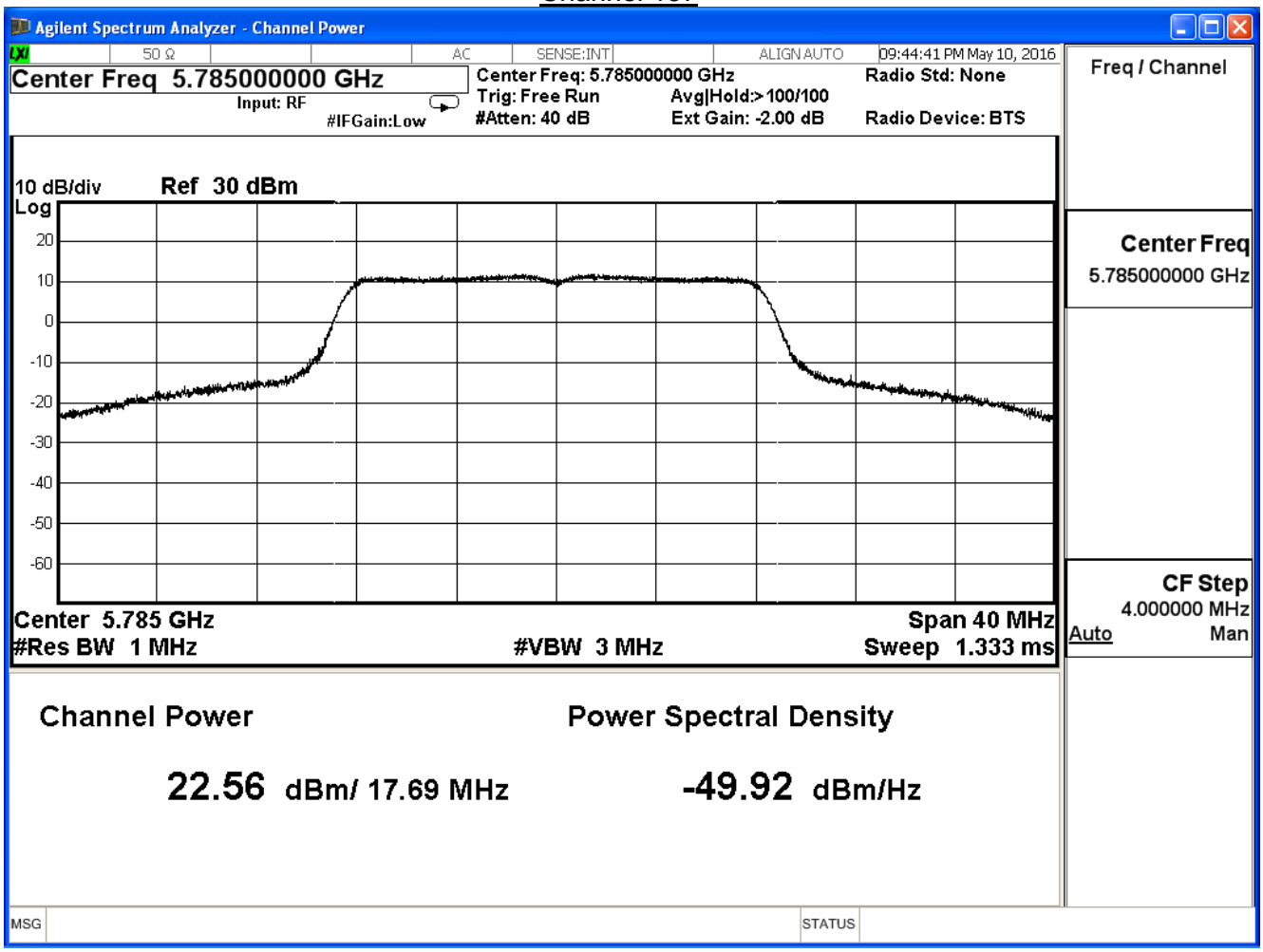
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	22.33	--	--	--	--	--	--	≤30dBm
157	5785	22.56	22.34	22.14	21.94	21.70	21.46	21.16	
165	5825	22.34	--	--	--	--	--	--	

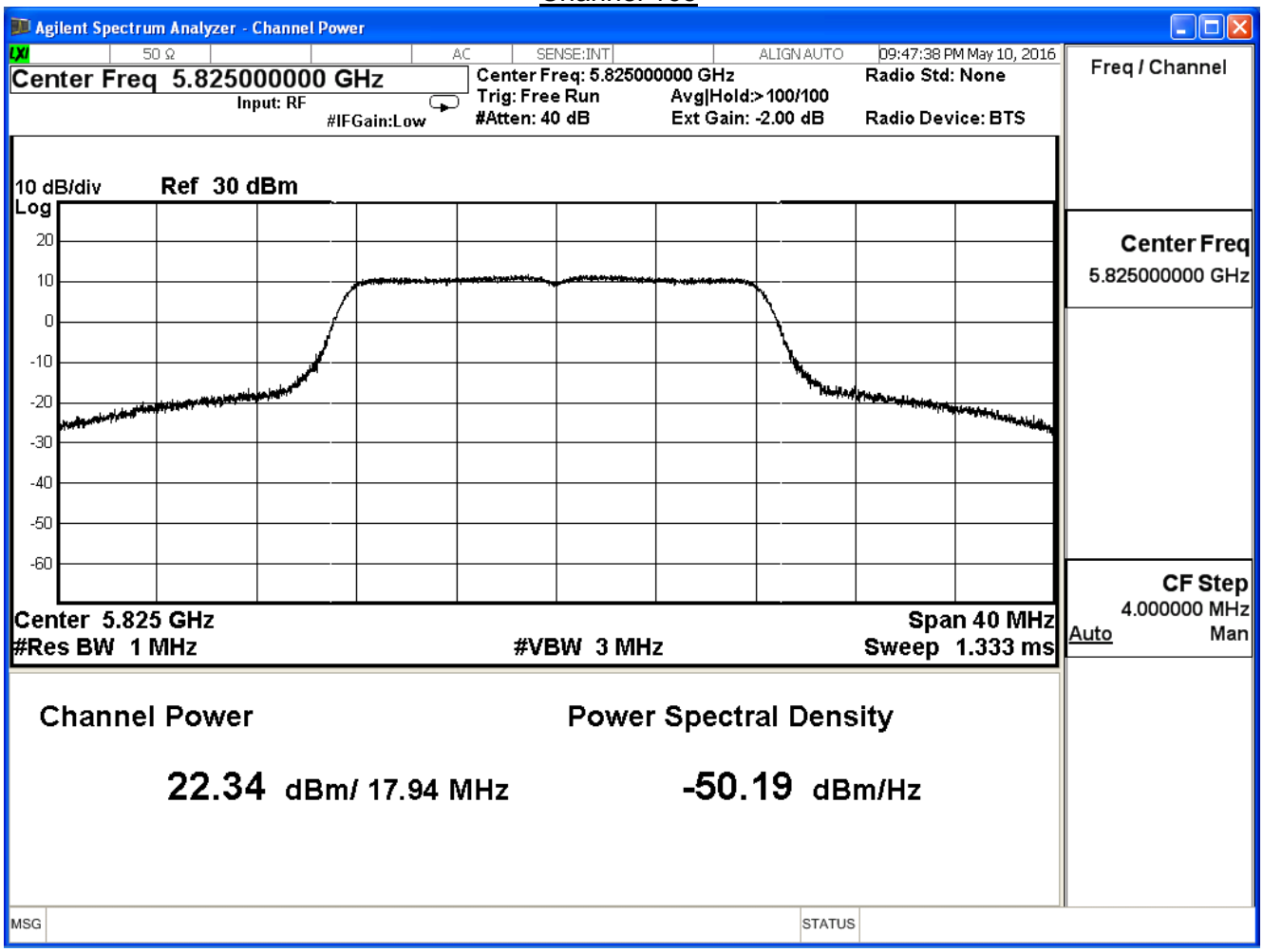
Channel 149


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:30:59 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 40 dBm
30
20
10
0
-10
-20
-30
-40
-50
Center Freq
5.745000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.745 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1 ms
Channel Power
22.33 dBm/ 17.69 MHz
Power Spectral Density
-50.15 dBm/Hz
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:44:41 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
Channel Power
22.56 dBm/ 17.69 MHz
Power Spectral Density
-49.92 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:47:38 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.825 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
Channel Power
22.34 dBm/ 17.94 MHz
Power Spectral Density
-50.19 dBm/Hz
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

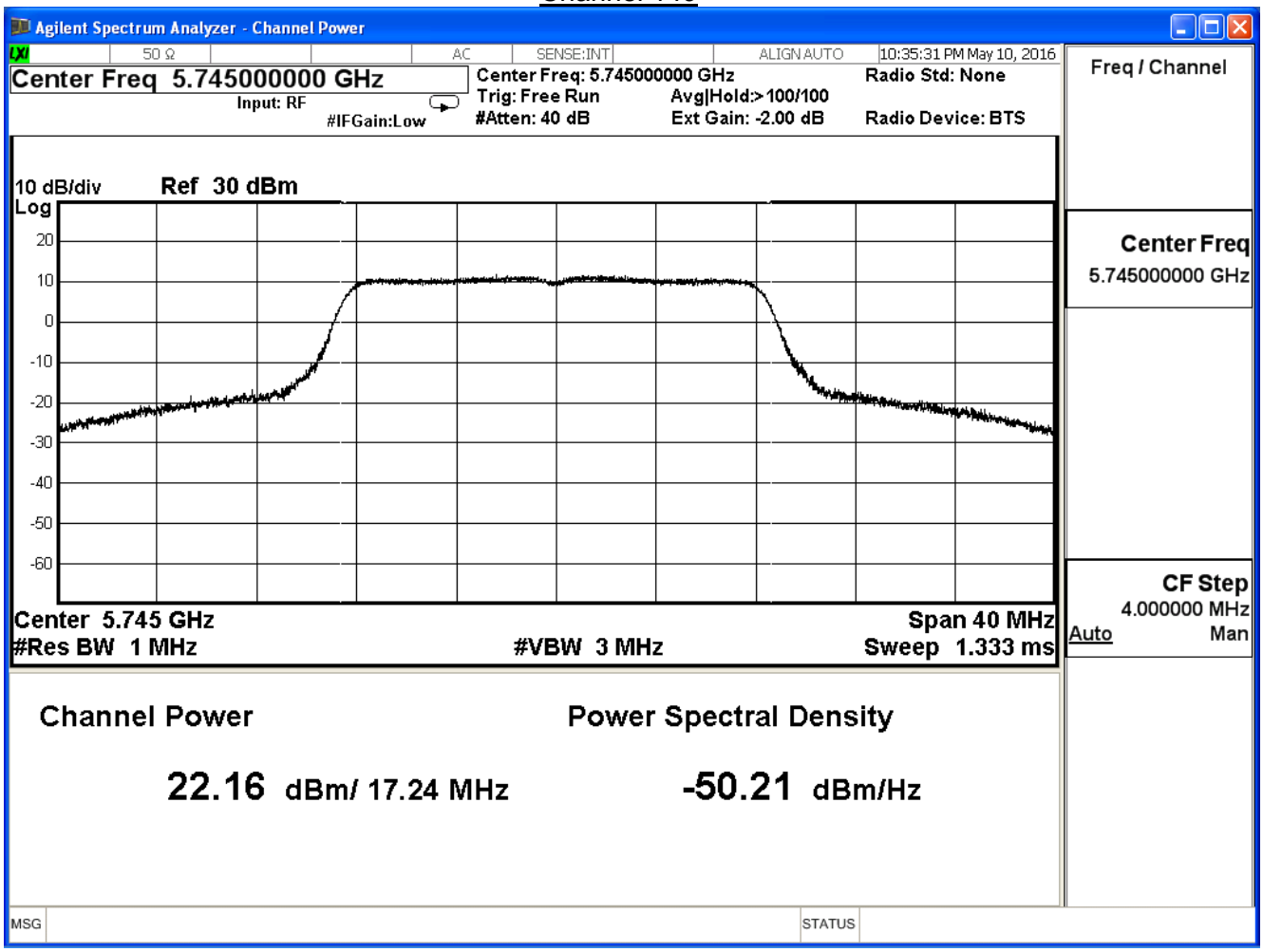
IEEE 802.11a (ANT 1)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	22.16	≤30
157	5785	22.43	≤30
165	5825	22.20	≤30

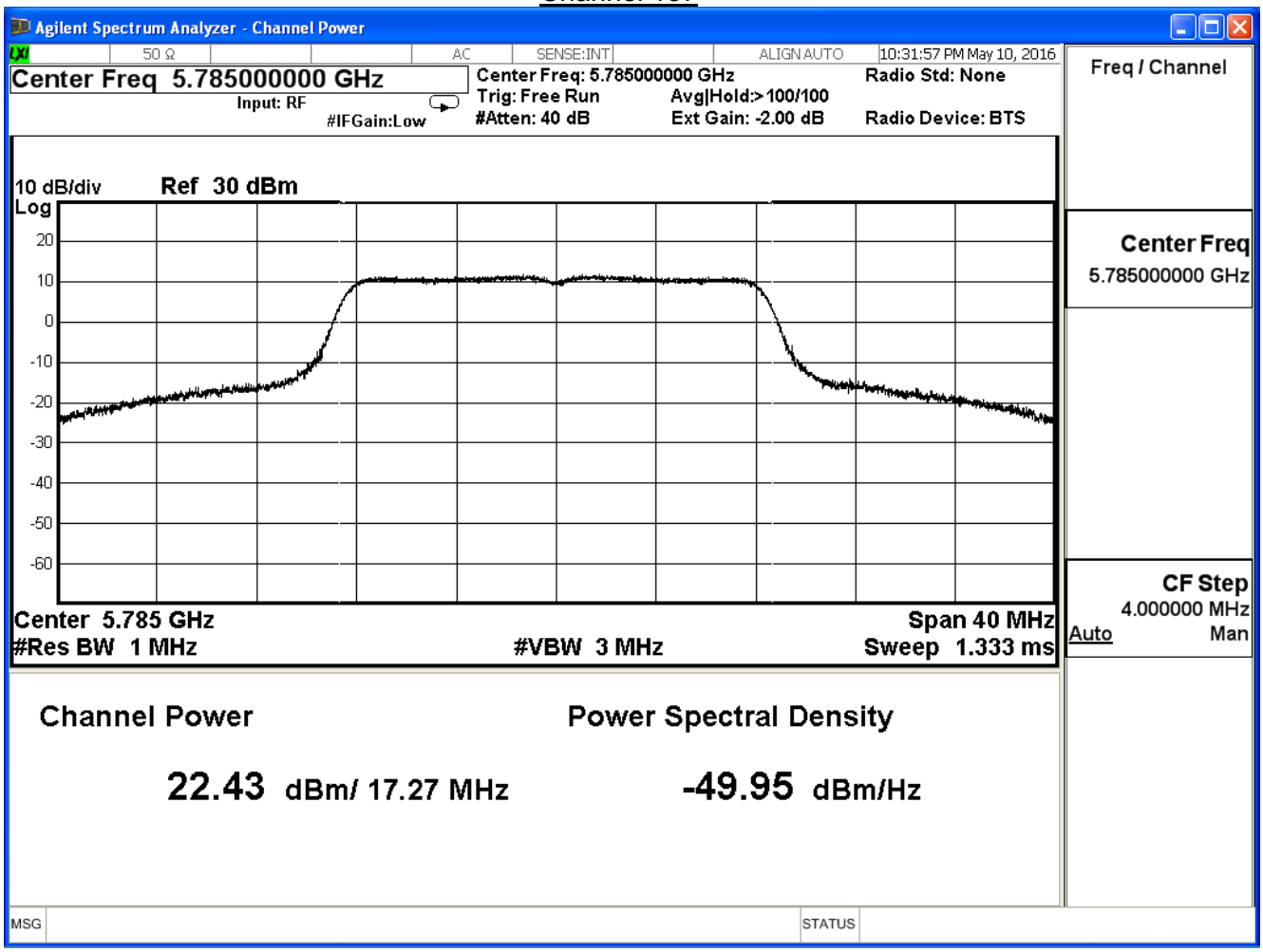
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	22.16	--	--	--	--	--	--	≤30dBm
157	5785	22.43	22.23	21.99	21.79	21.69	21.43	21.19	
165	5825	22.20	--	--	--	--	--	--	

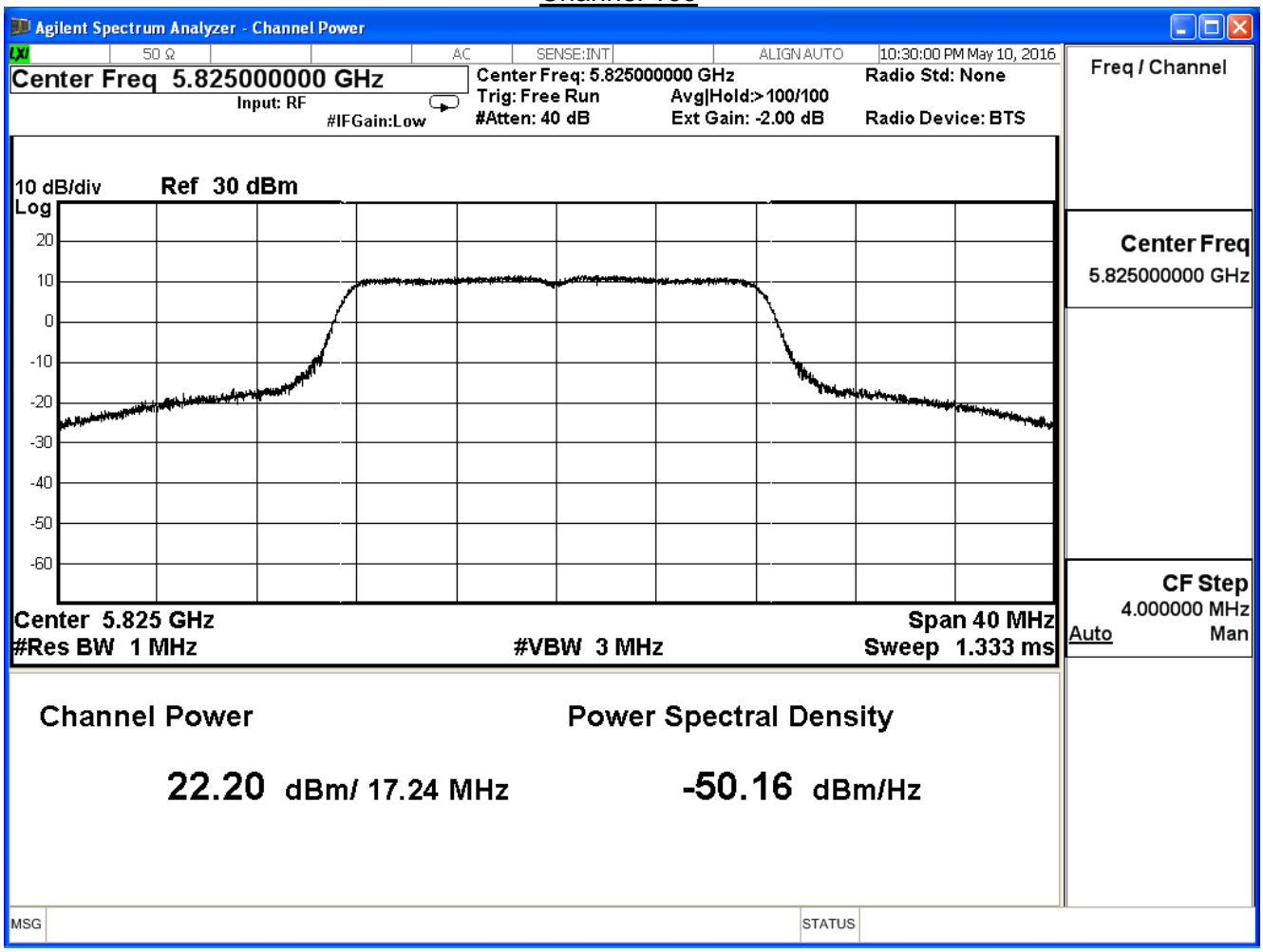
Channel 149


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:35:31 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.745000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.745 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
Channel Power
22.16 dBm/ 17.24 MHz
Power Spectral Density
-50.21 dBm/Hz
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:31:57 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Channel Power
22.43 dBm/ 17.27 MHz
Power Spectral Density
-49.95 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:30:00 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.825 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
Channel Power
22.20 dBm/ 17.24 MHz
Power Spectral Density
-50.16 dBm/Hz
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

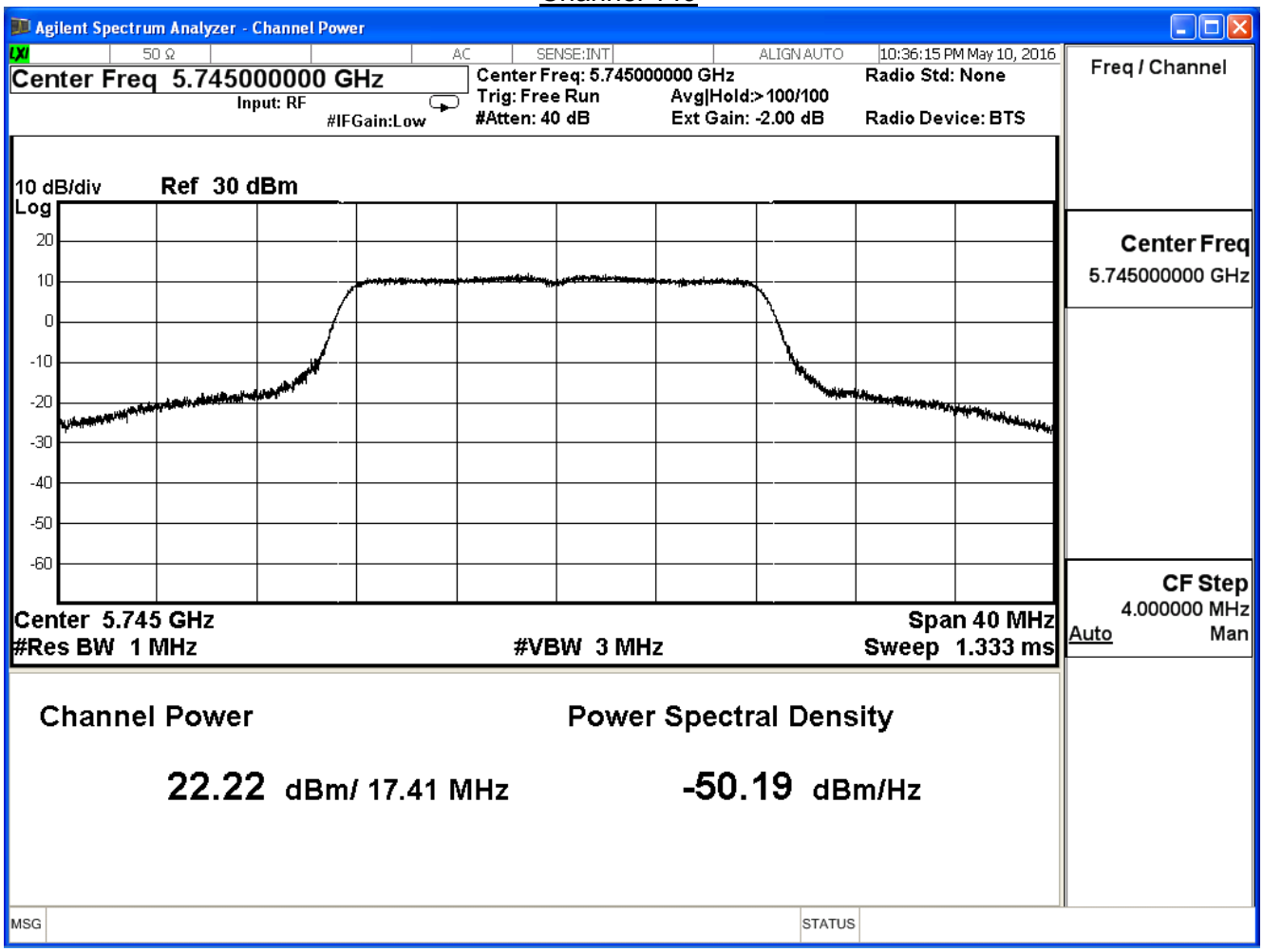
IEEE 802.11a (ANT 2)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	22.22	≤30
157	5785	22.37	≤30
165	5825	22.21	≤30

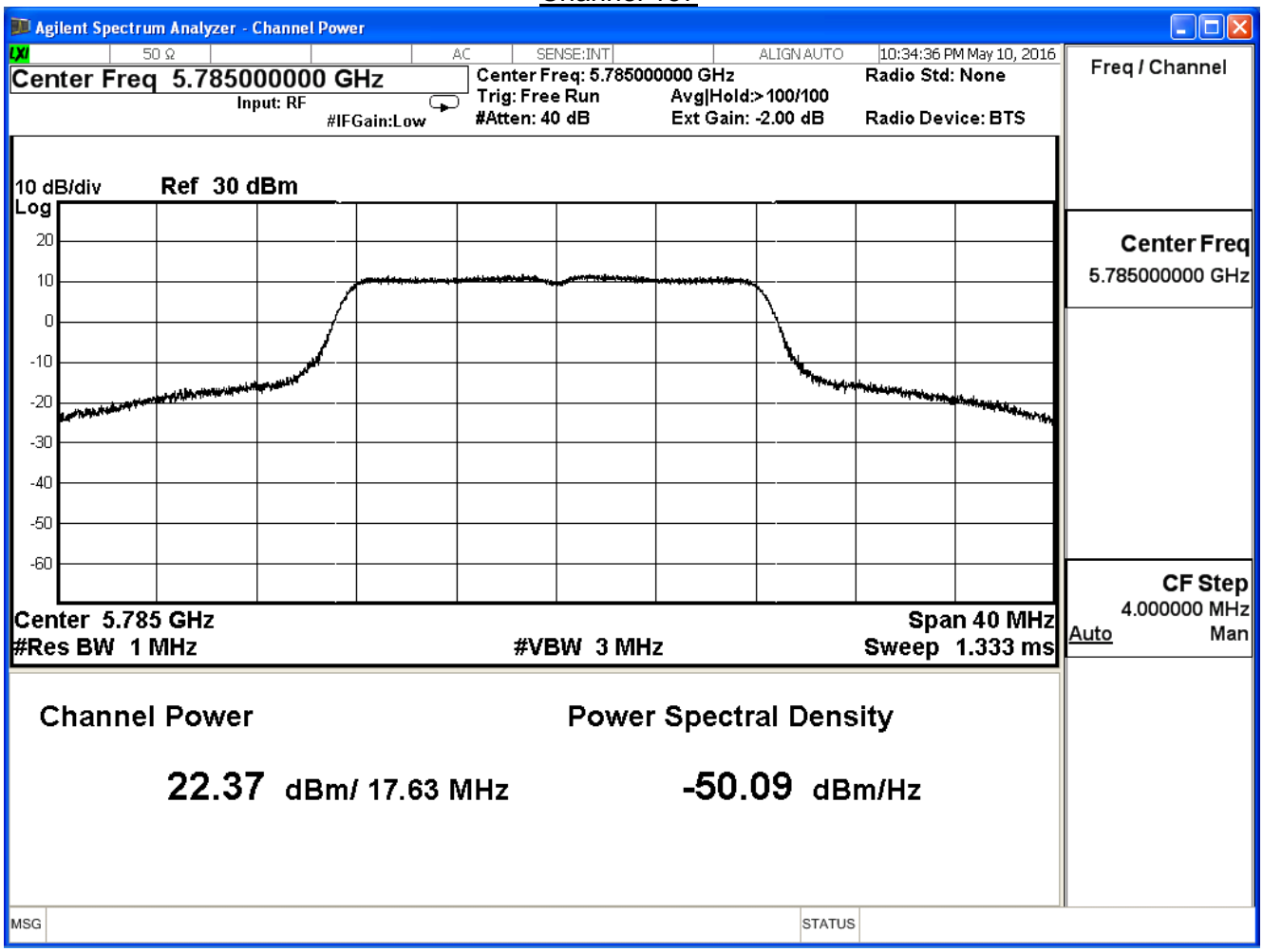
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	22.22	--	--	--	--	--	--	≤30dBm
157	5785	22.37	22.17	21.97	21.85	21.65	21.53	21.29	
165	5825	22.21	--	--	--	--	--	--	

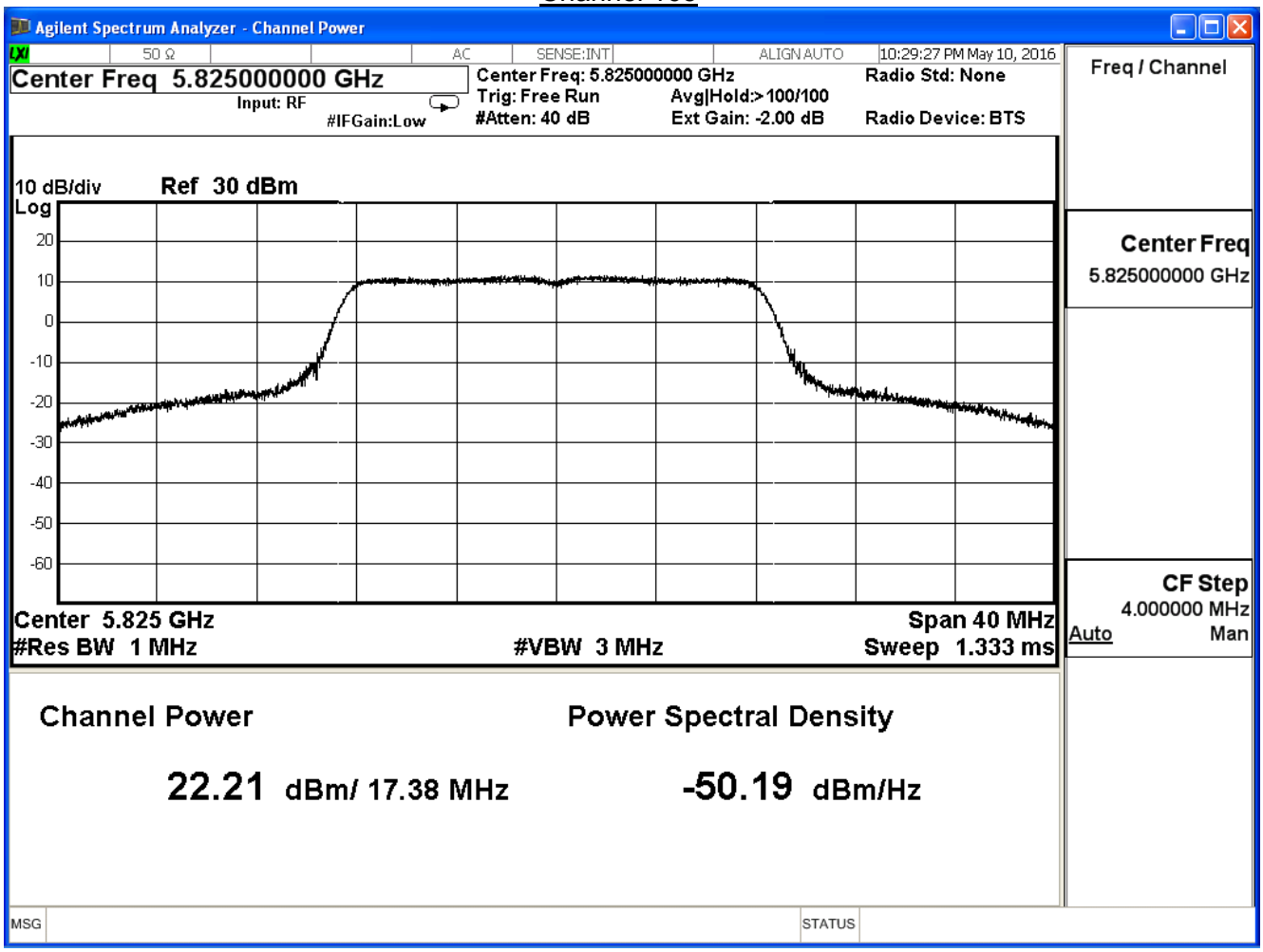
Channel 149


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:36:15 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.745000000 GHz
Center 5.745 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Channel Power
22.22 dBm/ 17.41 MHz
Power Spectral Density
-50.19 dBm/Hz
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:34:36 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Channel Power
22.37 dBm/ 17.63 MHz
Power Spectral Density
-50.09 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:29:27 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Channel Power
22.21 dBm/ 17.38 MHz
Power Spectral Density
-50.19 dBm/Hz
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11a (ANT 0+1+2)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	27.01	≤30
157	5785	27.23	≤30
165	5825	27.02	≤30

The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	27.01	--	--	--	--	--	--	≤30dBm
157	5785	27.23	27.02	26.84	26.70	26.52	26.35	26.15	
165	5825	27.02	--	--	--	--	--	--	

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

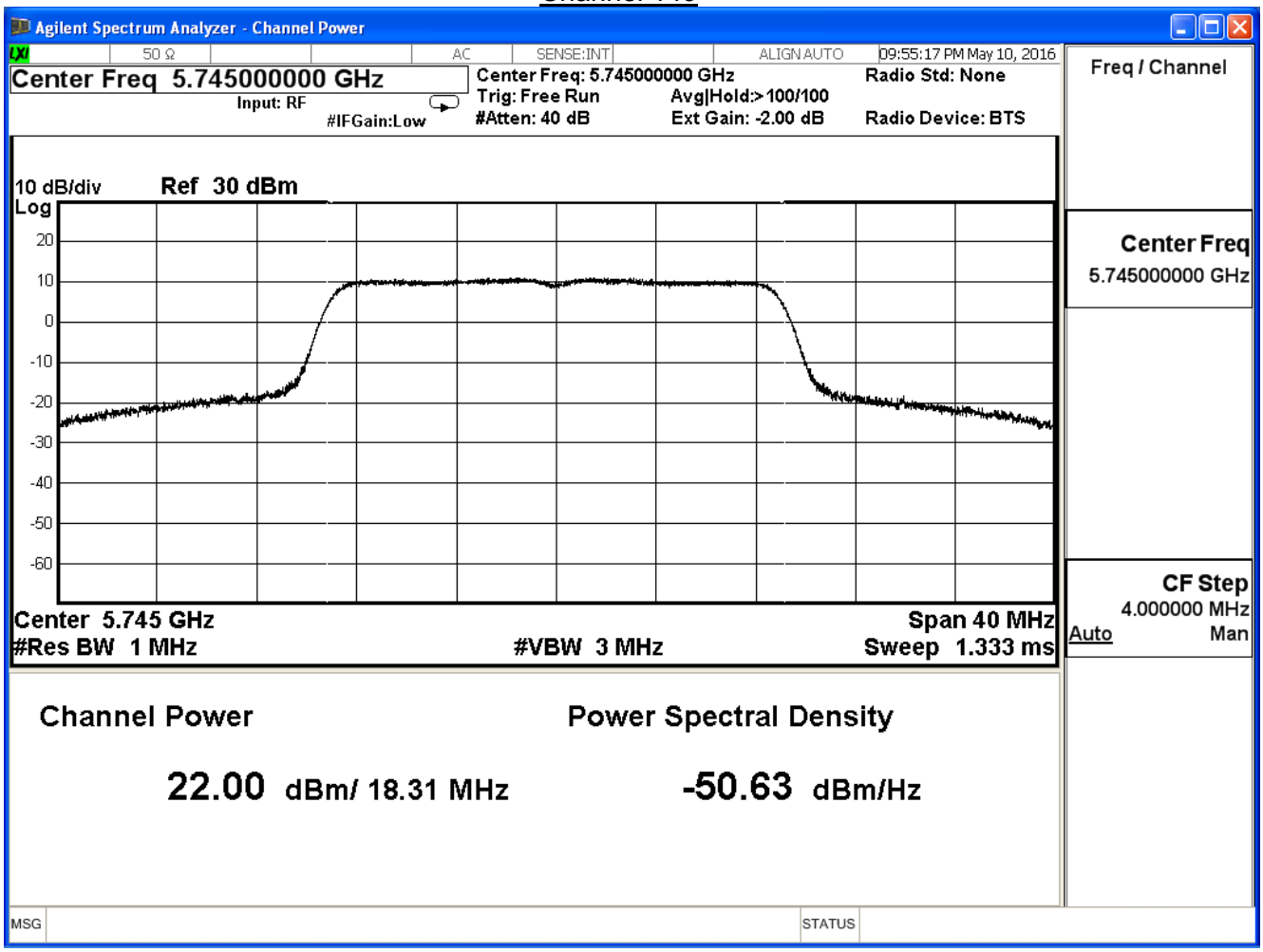
IEEE 802.11n_20M (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	22.00	≤30
157	5785	22.54	≤30
165	5825	22.53	≤30

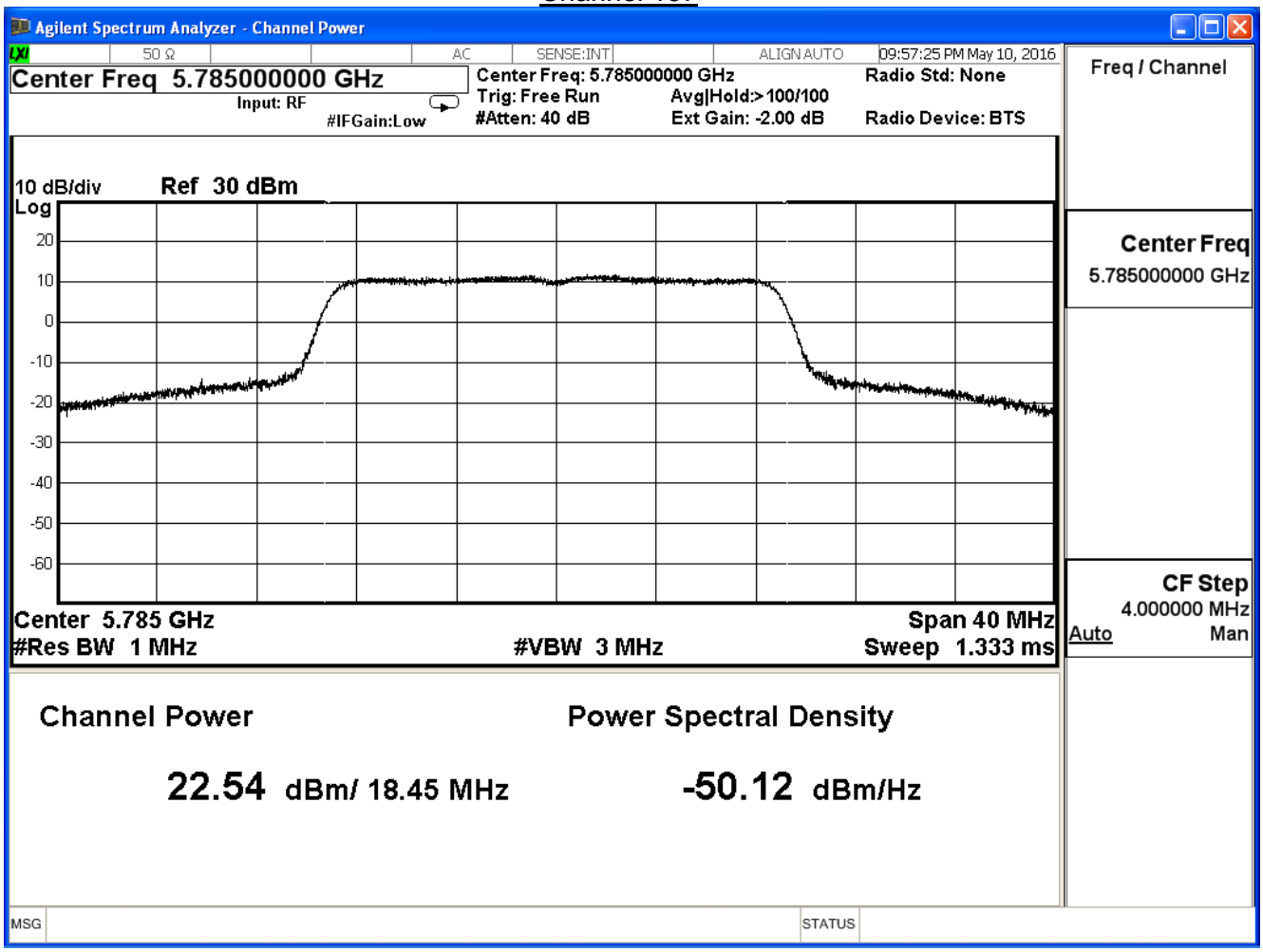
The worst emission of data rate is 6.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
149	5745	22.00	--	--	--	--	--	--	--	≤30dBm
157	5785	22.54	22.43	22.23	22.13	22.01	21.89	21.74	21.50	
165	5825	22.53	--	--	--	--	--	--	--	

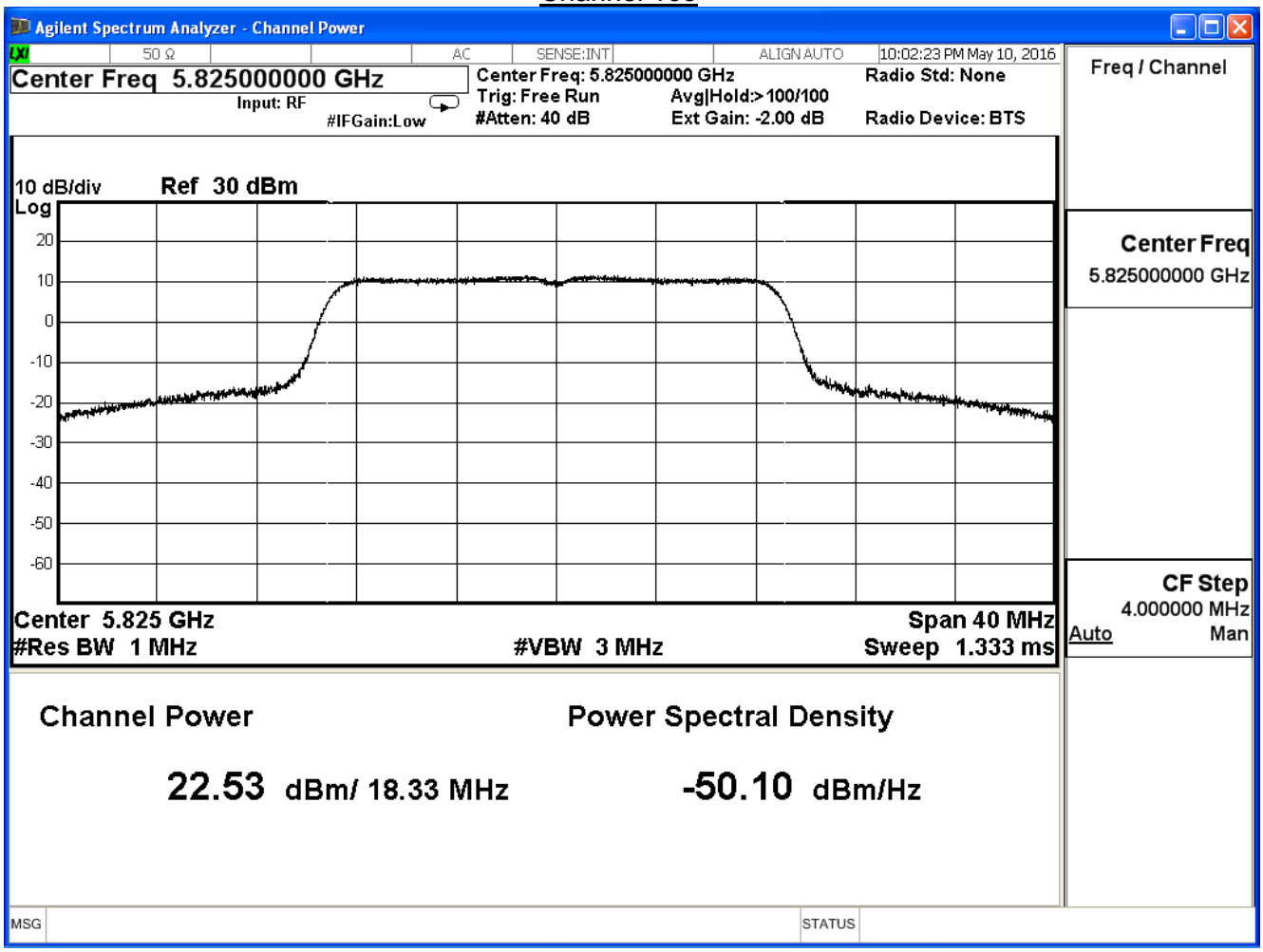
Channel 149


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:55:17 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.745000000 GHz
Center 5.745 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Channel Power
22.00 dBm/ 18.31 MHz
Power Spectral Density
-50.63 dBm/Hz
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:57:25 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
Channel Power
22.54 dBm/ 18.45 MHz
Power Spectral Density
-50.12 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:02:23 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Channel Power
22.53 dBm/ 18.33 MHz
Power Spectral Density
-50.10 dBm/Hz
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

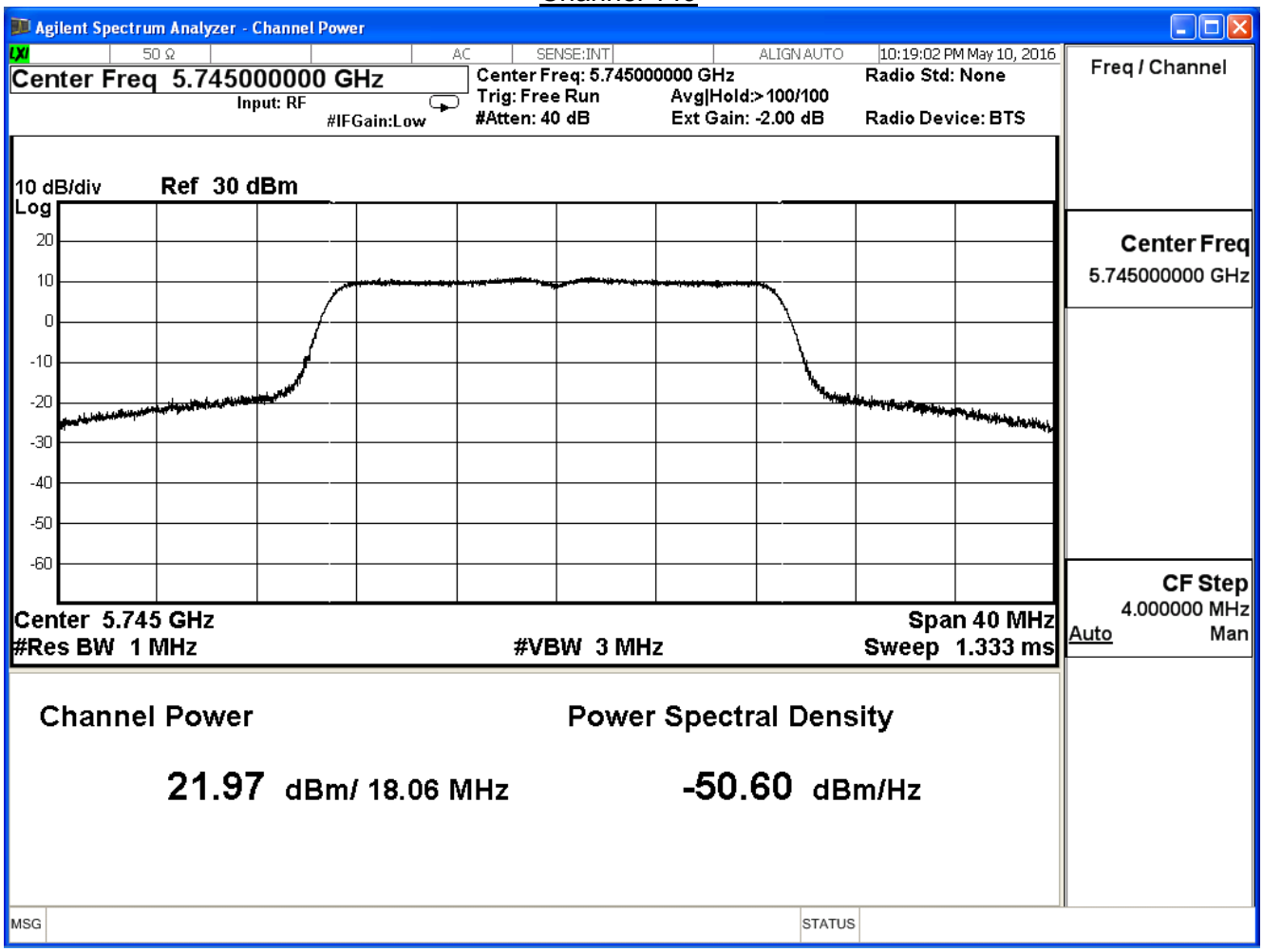
IEEE 802.11n_20M (ANT 1)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	21.97	≤30
157	5785	22.46	≤30
165	5825	22.48	≤30

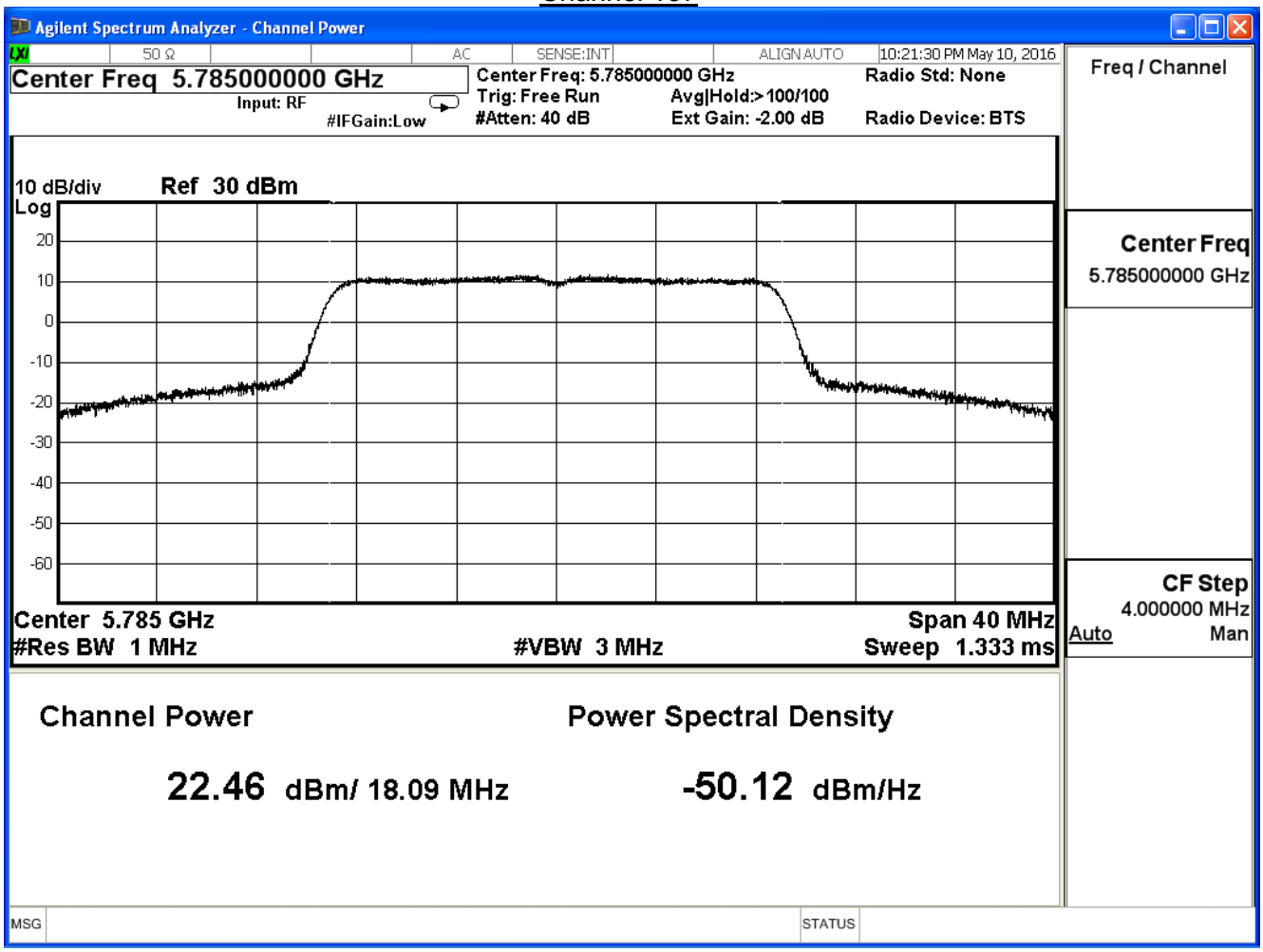
The worst emission of data rate is 6.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
149	5745	21.97	--	--	--	--	--	--	--	≤30dBm
157	5785	22.46	22.26	22.14	21.94	21.74	21.61	21.37	21.25	
165	5825	22.48	--	--	--	--	--	--	--	

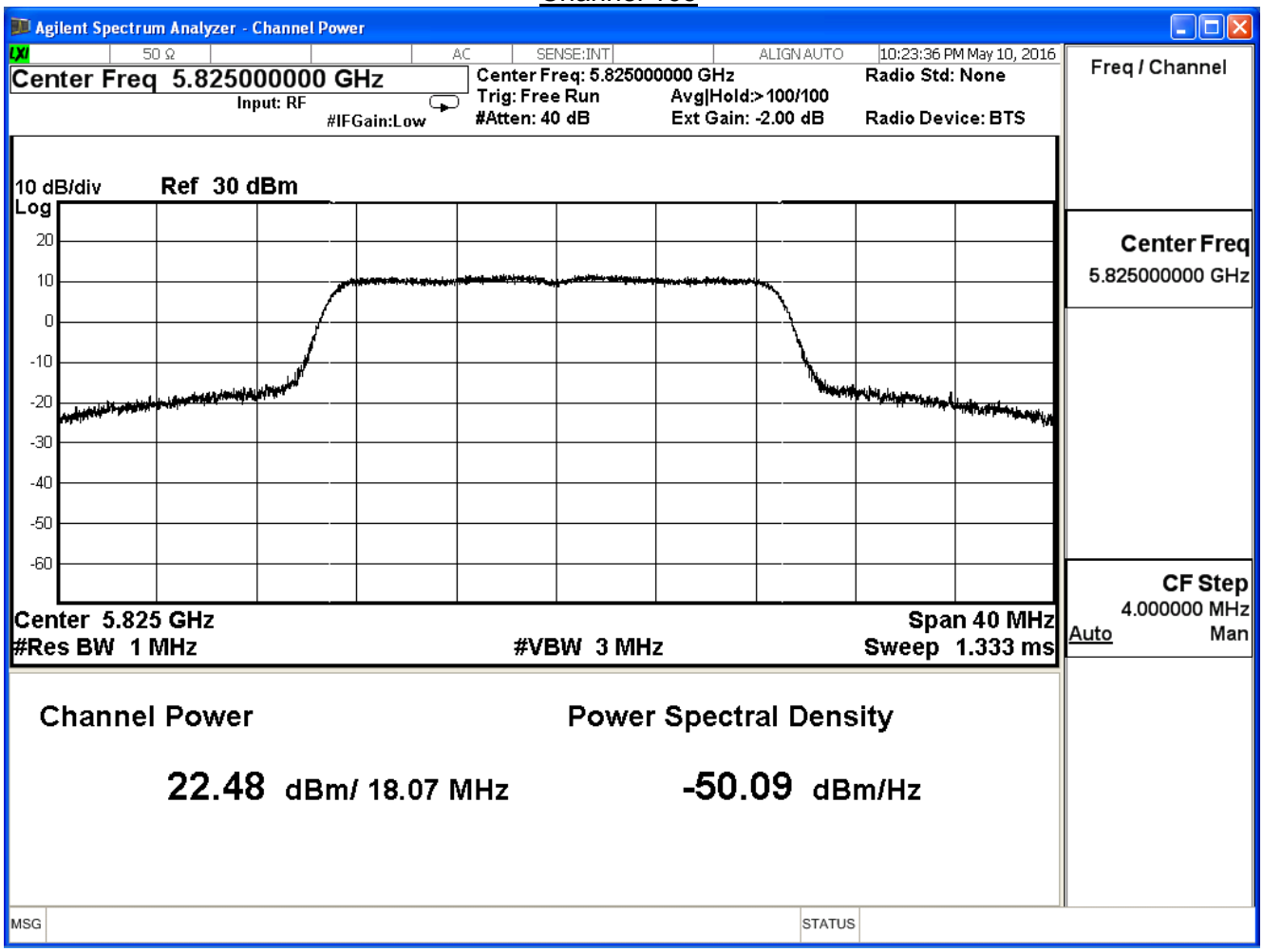
Channel 149


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:19:02 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.745000000 GHz
Center 5.745 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Channel Power
21.97 dBm/ 18.06 MHz
Power Spectral Density
-50.60 dBm/Hz
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:21:30 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
Channel Power
22.46 dBm/ 18.09 MHz
Power Spectral Density
-50.12 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:23:36 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.825 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
Channel Power
22.48 dBm/ 18.07 MHz
Power Spectral Density
-50.09 dBm/Hz
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

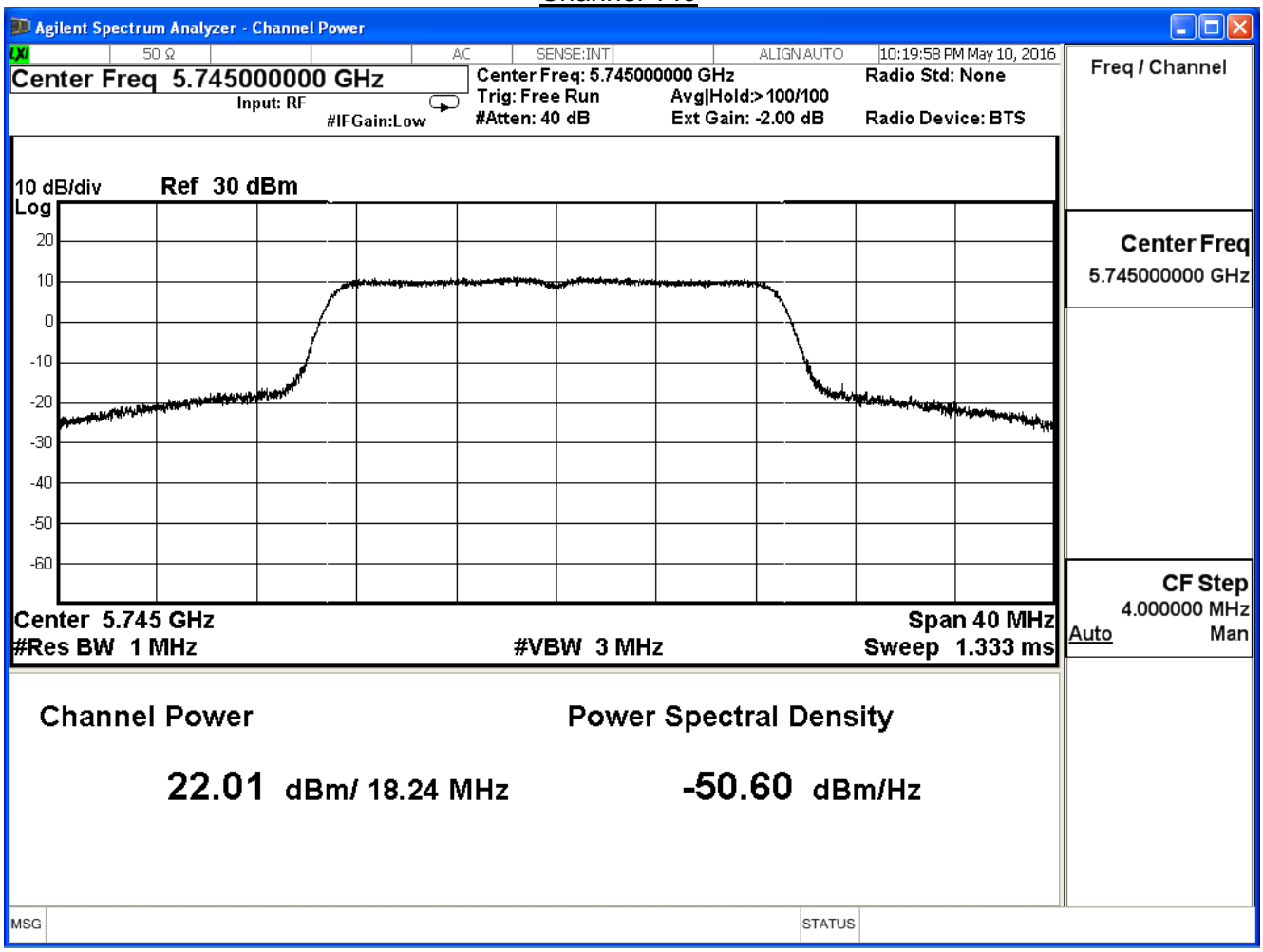
IEEE 802.11n_20M (ANT 2)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	22.01	≤30
157	5785	22.49	≤30
165	5825	22.50	≤30

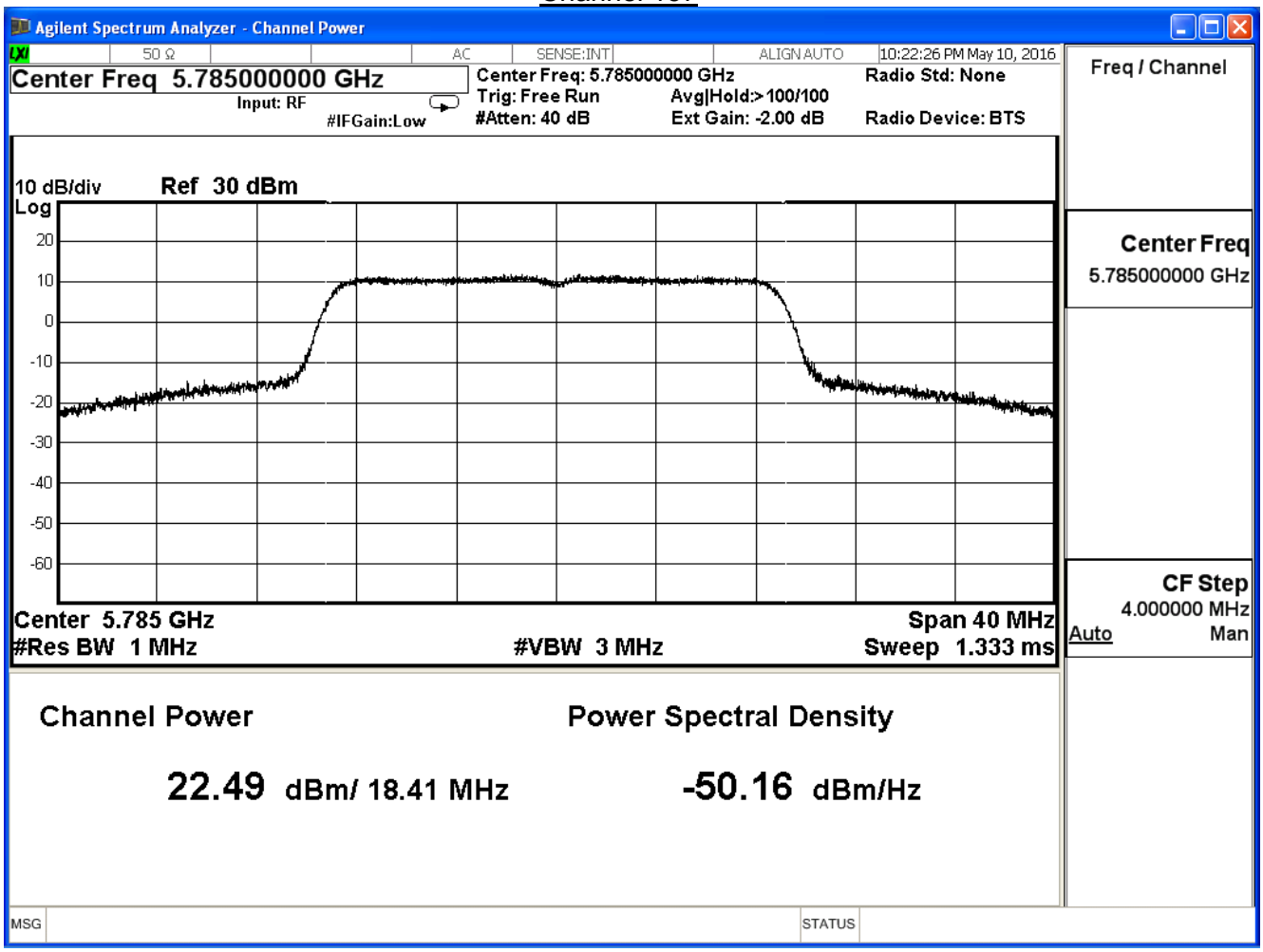
The worst emission of data rate is 6.5 Mbps.

Peak Power Output (dBm)									
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
149	5745	22.01	--	--	--	--	--	--	--	≤30dBm
157	5785	22.49	22.29	22.19	21.95	21.75	21.63	21.51	21.39	
165	5825	22.50	--	--	--	--	--	--	--	

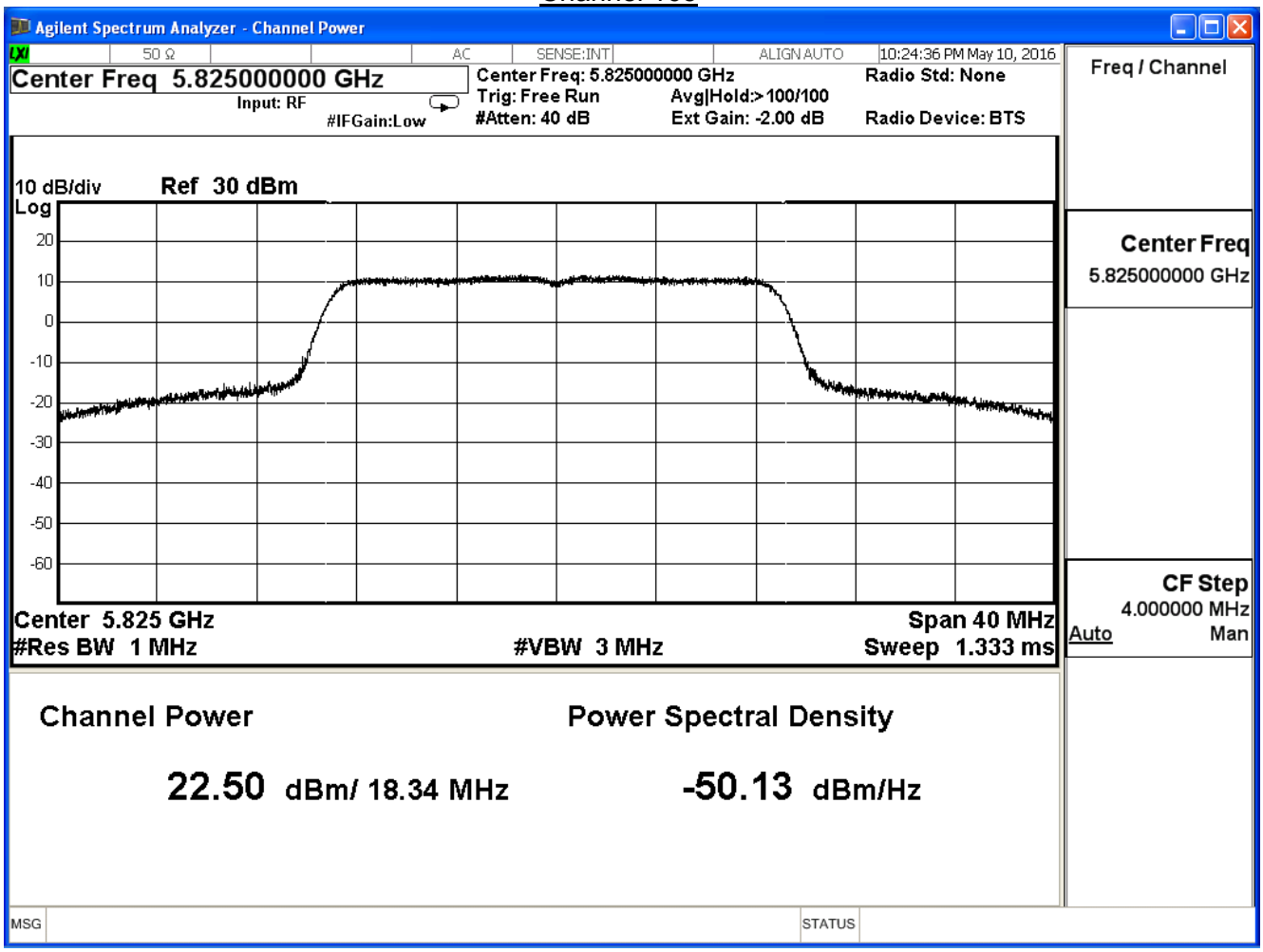
Channel 149


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:19:58 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.745000000 GHz
Center 5.745 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Channel Power
22.01 dBm/ 18.24 MHz
Power Spectral Density
-50.60 dBm/Hz
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:22:26 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
CF Step
4.000000 MHz
Auto
Man
Channel Power
22.49 dBm/ 18.41 MHz
Power Spectral Density
-50.16 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:24:36 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
CF Step
4.000000 MHz
Auto
Man
Center 5.825 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
Channel Power
22.50 dBm/ 18.34 MHz
Power Spectral Density
-50.13 dBm/Hz
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11n_20M (ANT 0+1+2)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	26.76	≤30
157	5785	27.27	≤30
165	5825	27.27	≤30

The worst emission of data rate is 6.5 Mbps.

Peak Power Output (dBm)									
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
149	5745	26.76	--	--	--	--	--	--	--	≤30dBm
157	5785	27.27	27.10	26.96	26.78	26.61	26.48	26.31	26.15	
165	5825	27.27	--	--	--	--	--	--	--	

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

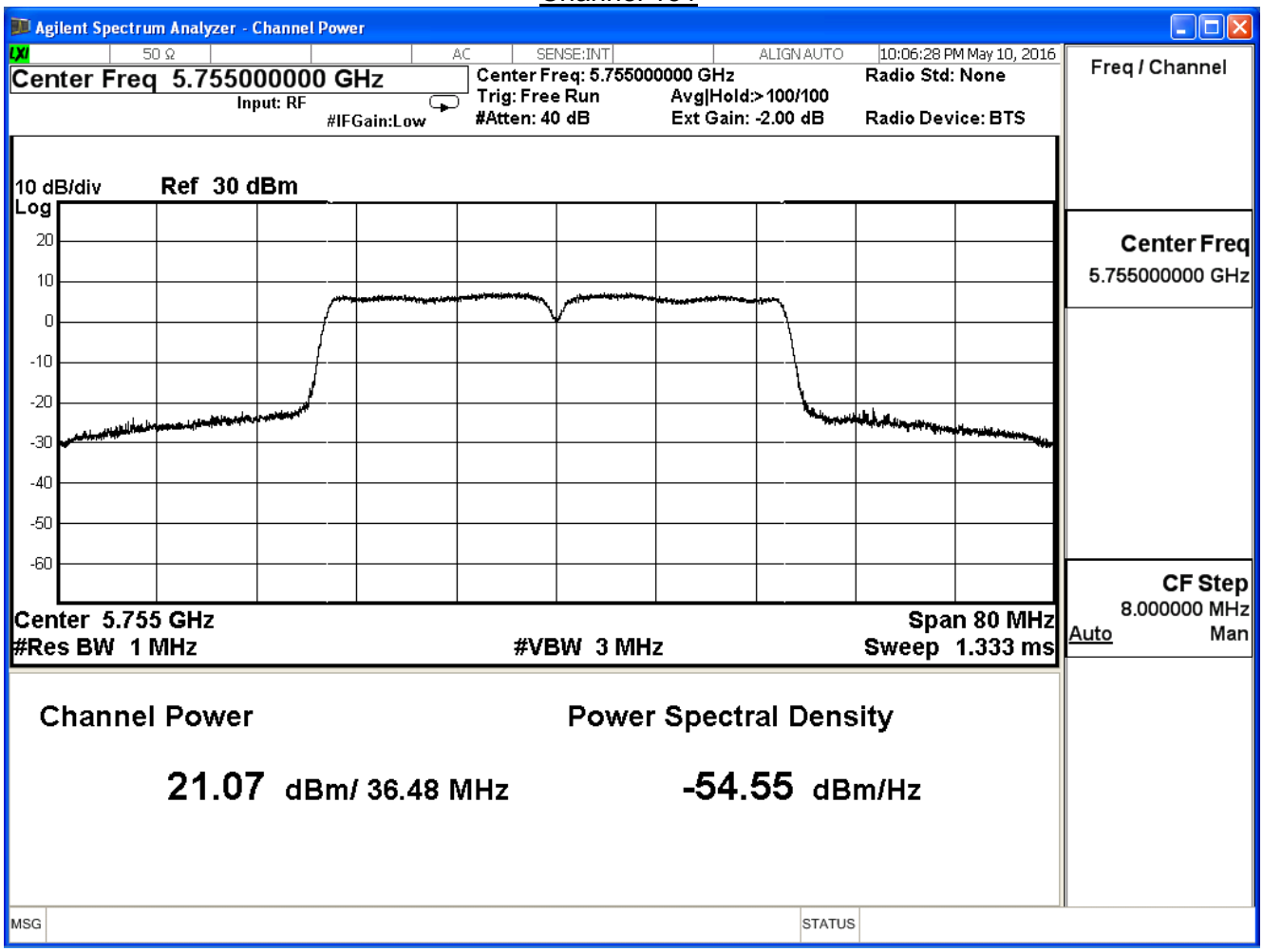
IEEE802.11n 40MHz(ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	21.07	≤30
159	5795	23.15	≤30

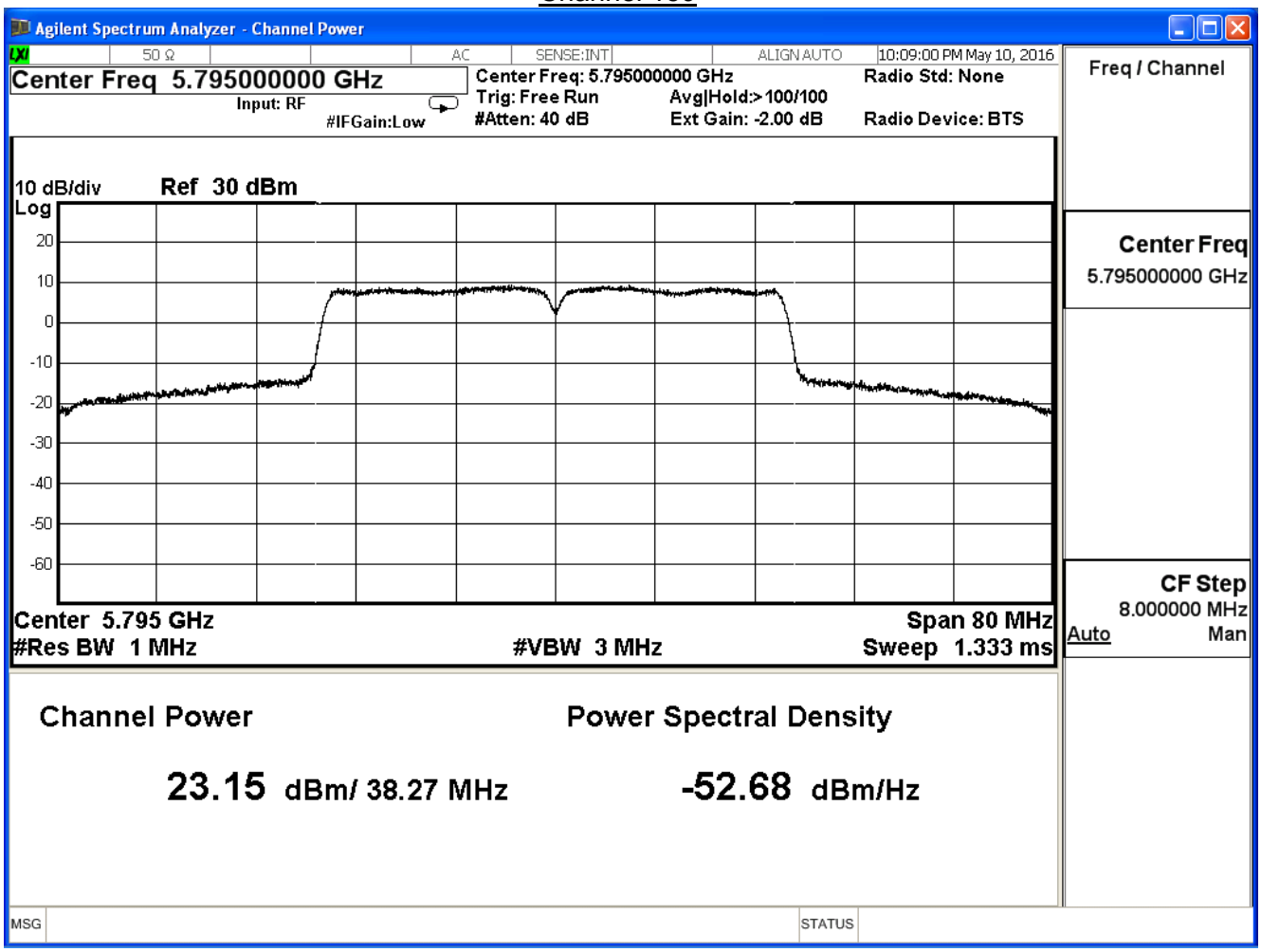
The worst emission of data rate is 13.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.5	27	40.5	54	81	108	121.5	135	
151	5755	21.07	--	--	--	--	--	--	--	≤30dBm
159	5795	23.15	23.05	22.85	22.75	22.65	22.41	22.29	22.17	

Channel 151


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:06:28 PM May 10, 2016
Center Freq 5.755000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.755000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.755000000 GHz
CF Step
8.000000 MHz
Auto
Man
Center 5.755 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 80 MHz
Sweep 1.333 ms
Channel Power
21.07 dBm/ 36.48 MHz
Power Spectral Density
-54.55 dBm/Hz
MSG
STATUS

Channel 159


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:09:00 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>100/100
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
CF Step
8.000000 MHz
Auto
Man
Center 5.795 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 80 MHz
Sweep 1.333 ms
Channel Power
23.15 dBm/ 38.27 MHz
Power Spectral Density
-52.68 dBm/Hz
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

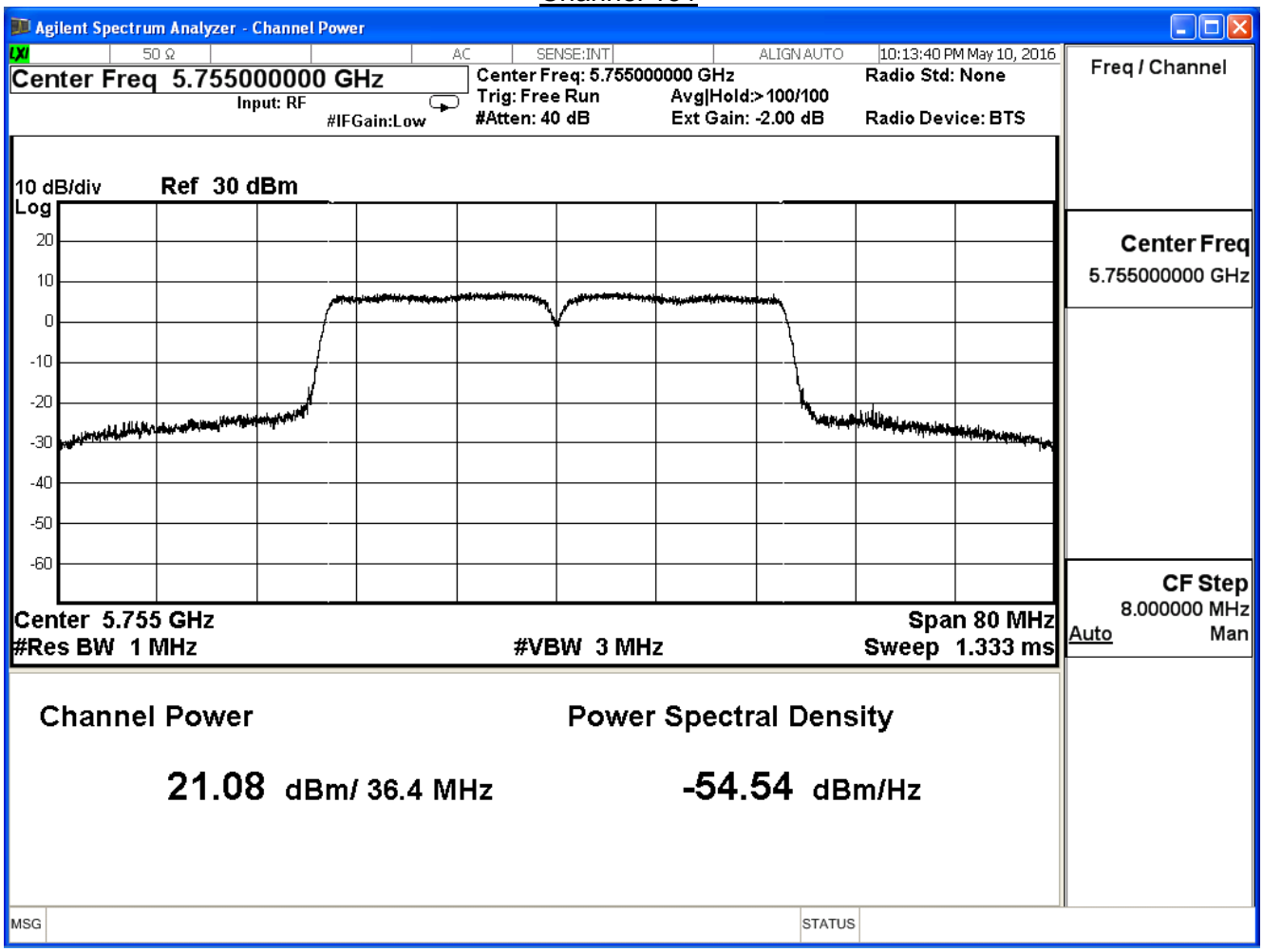
IEEE802.11n 40MHz(ANT 1)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	21.08	≤30
159	5795	23.12	≤30

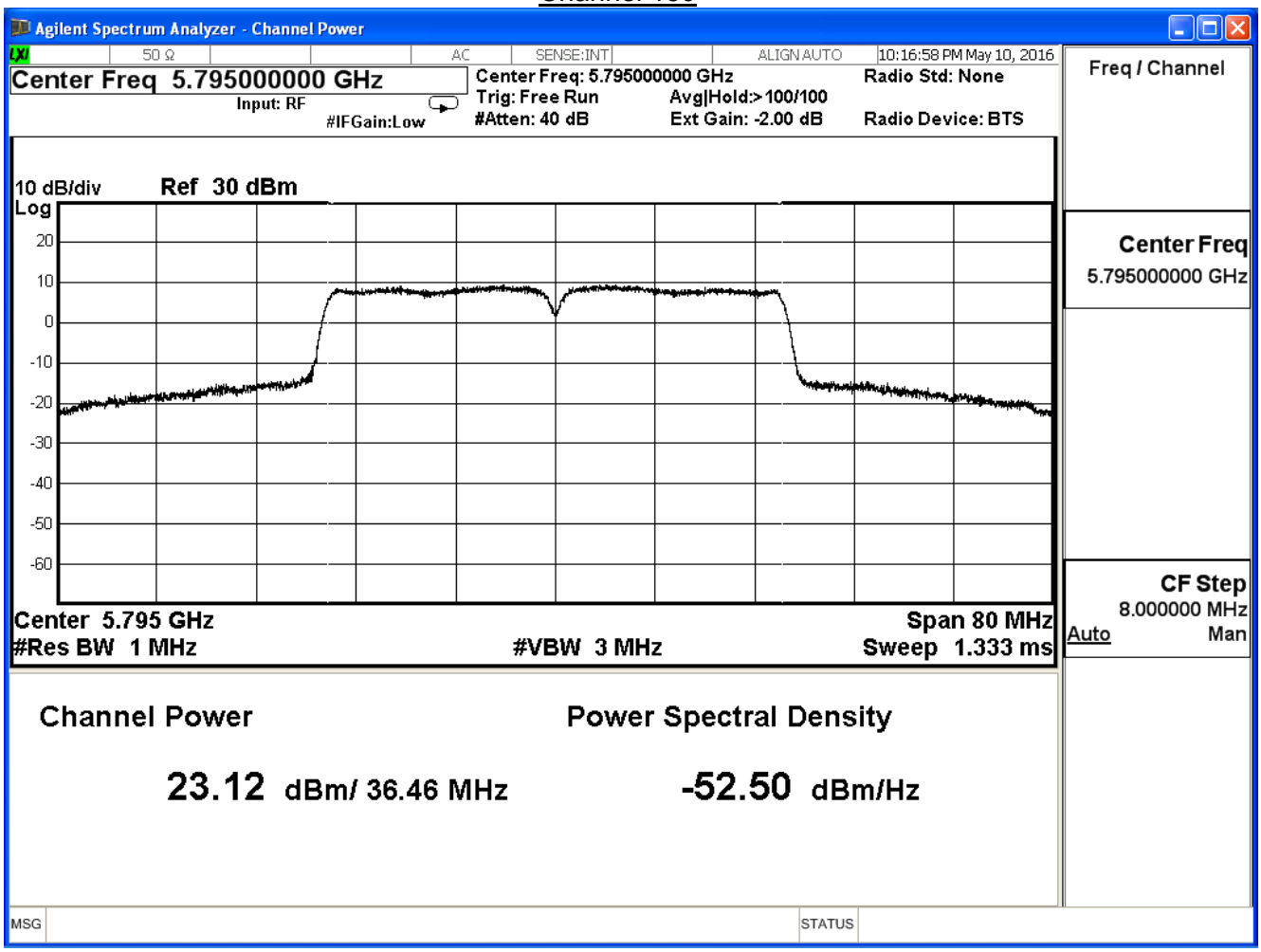
The worst emission of data rate is 13.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.5	27	40.5	54	81	108	121.5	135	
151	5755	21.08	--	--	--	--	--	--	--	≤30dBm
159	5795	23.12	23.02	22.92	22.82	22.72	22.48	22.24	22.00	

Channel 151


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:13:40 PM May 10, 2016
Center Freq 5.755000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.755000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.755000000 GHz
Center 5.755 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 80 MHz
Sweep 1.333 ms
CF Step
8.000000 MHz
Auto
Man
Channel Power
21.08 dBm/ 36.4 MHz
Power Spectral Density
-54.54 dBm/Hz
MSG
STATUS

Channel 159


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:16:58 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>100/100
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
CF Step
8.000000 MHz
Auto
Man
Center 5.795 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 80 MHz
Sweep 1.333 ms
Channel Power
23.12 dBm/ 36.46 MHz
Power Spectral Density
-52.50 dBm/Hz
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

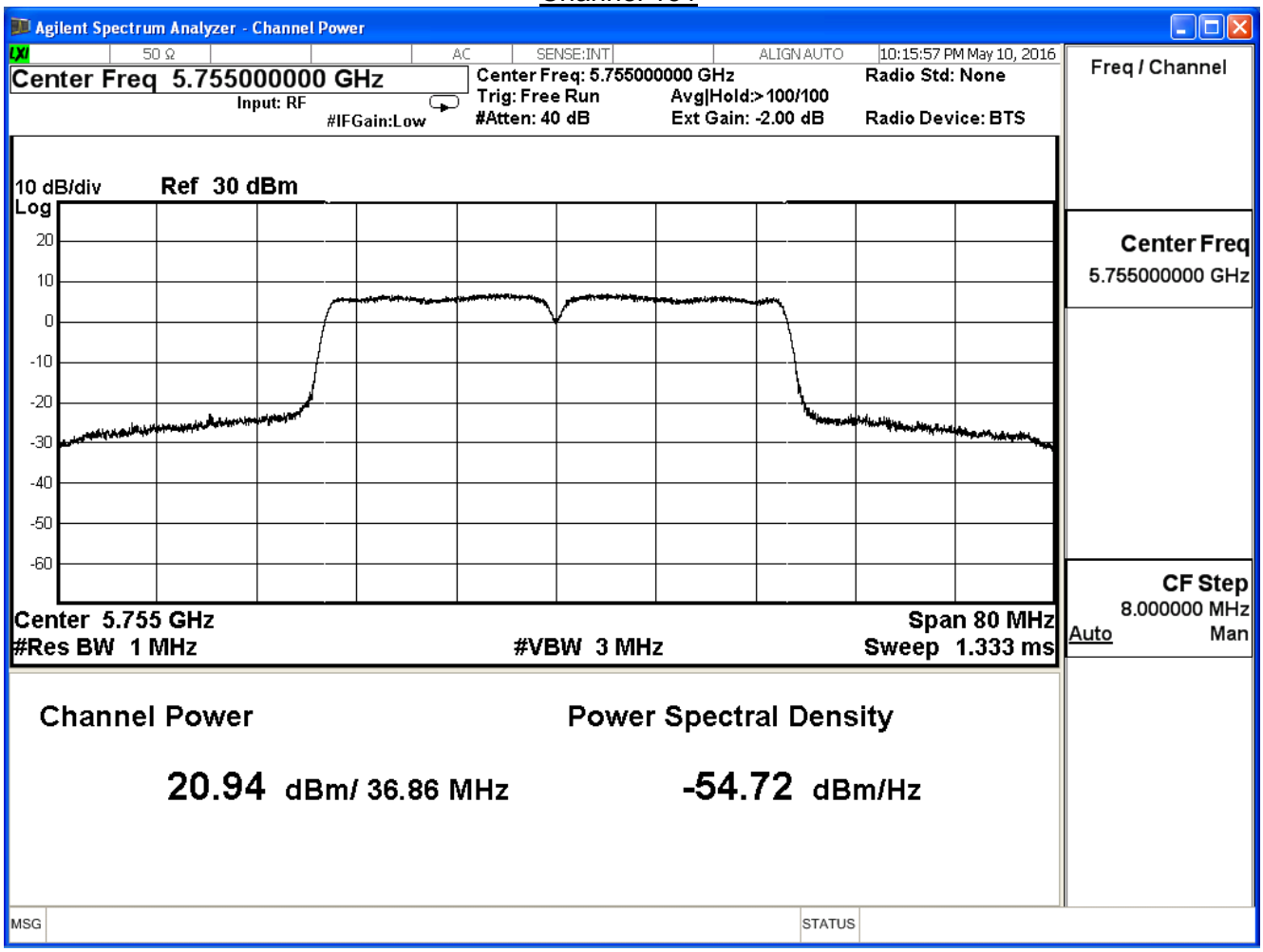
IEEE802.11n 40MHz(ANT 2)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	20.94	≤30
159	5795	23.14	≤30

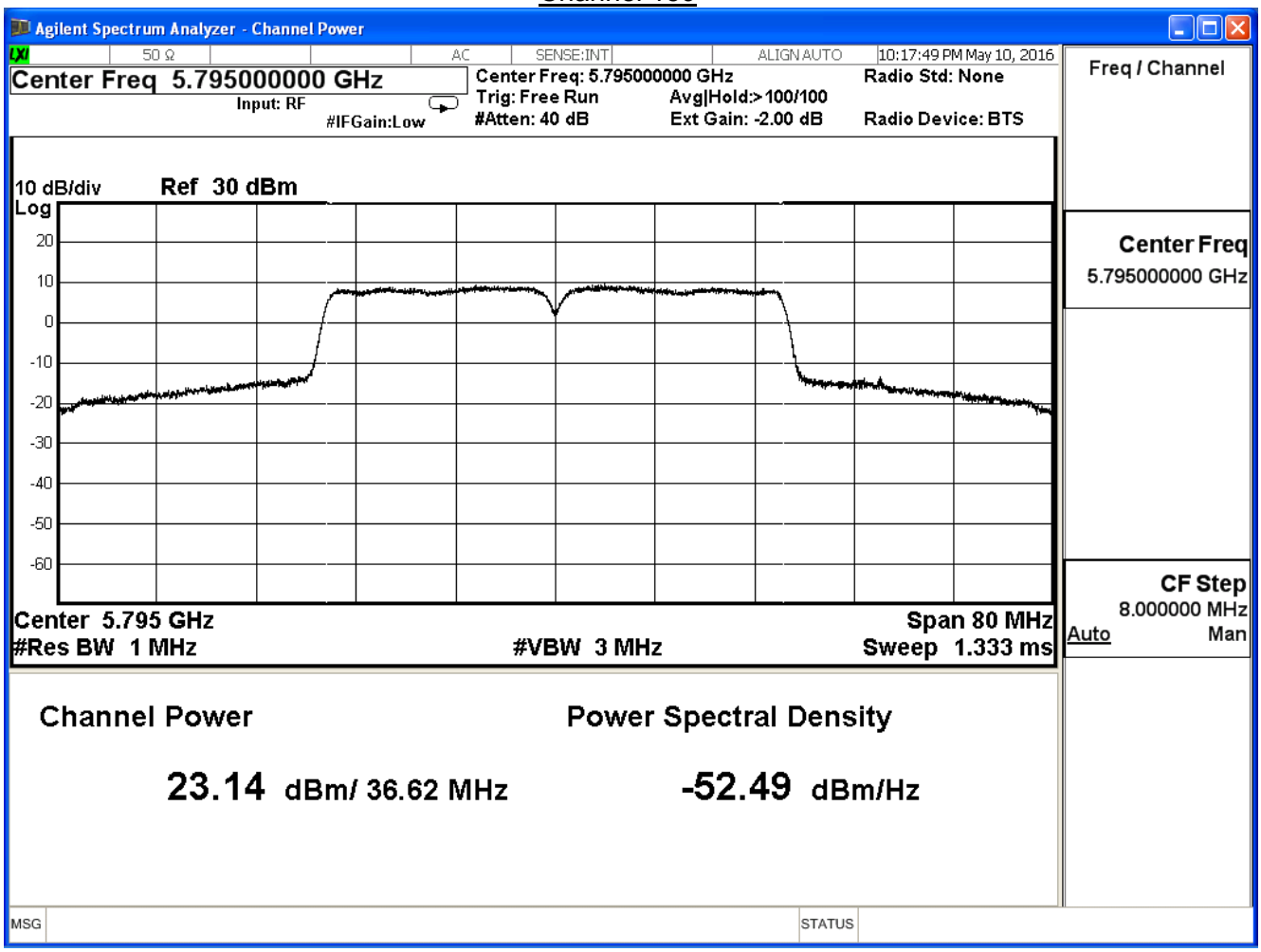
The worst emission of data rate is 13.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.5	27	40.5	54	81	108	121.5	135	
151	5755	20.94	--	--	--	--	--	--	--	≤30dBm
159	5795	23.14	22.94	22.74	22.64	22.44	22.20	22.08	21.84	

Channel 151


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:15:57 PM May 10, 2016
Center Freq 5.755000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.755000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.755000000 GHz
CF Step
8.000000 MHz
Auto
Man
Center 5.755 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 80 MHz
Sweep 1.333 ms
Channel Power
20.94 dBm/ 36.86 MHz
Power Spectral Density
-54.72 dBm/Hz
MSG
STATUS

Channel 159


Agilent Spectrum Analyzer - Channel Power
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:17:49 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
#Atten: 40 dB
Avg|Hold:>100/100
Ext Gain: -2.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
Center 5.795 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 80 MHz
Sweep 1.333 ms
CF Step
8.000000 MHz
Auto
Man
Channel Power
23.14 dBm/ 36.62 MHz
Power Spectral Density
-52.49 dBm/Hz
MSG
STATUS

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE802.11n 40MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	25.80	≤30
159	5795	27.91	≤30

The worst emission of data rate is 13.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.5	27	40.5	54	81	108	121.5	135	
151	5755	25.80	--	--	--	--	--	--	--	≤30dBm
159	5795	27.91	27.77	27.61	27.51	27.38	27.14	26.98	26.78	

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

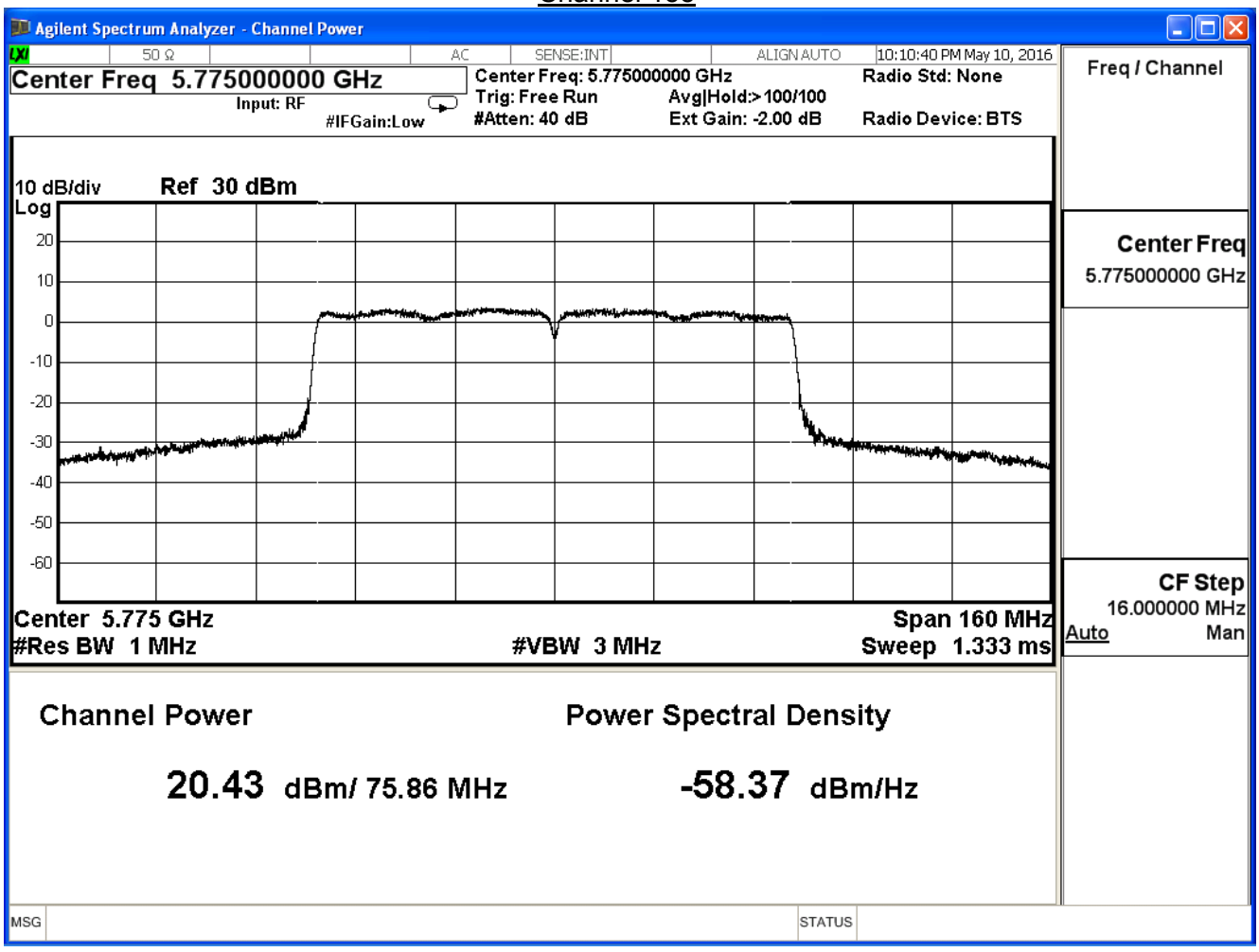
IEEE 802.11ac 80MHz (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	20.43	≤30

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	
155	5775	20.43	20.23	20.13	20.03	19.83	19.73	19.61	19.37	19.25	19.13	≤30dBm

Channel 155



Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

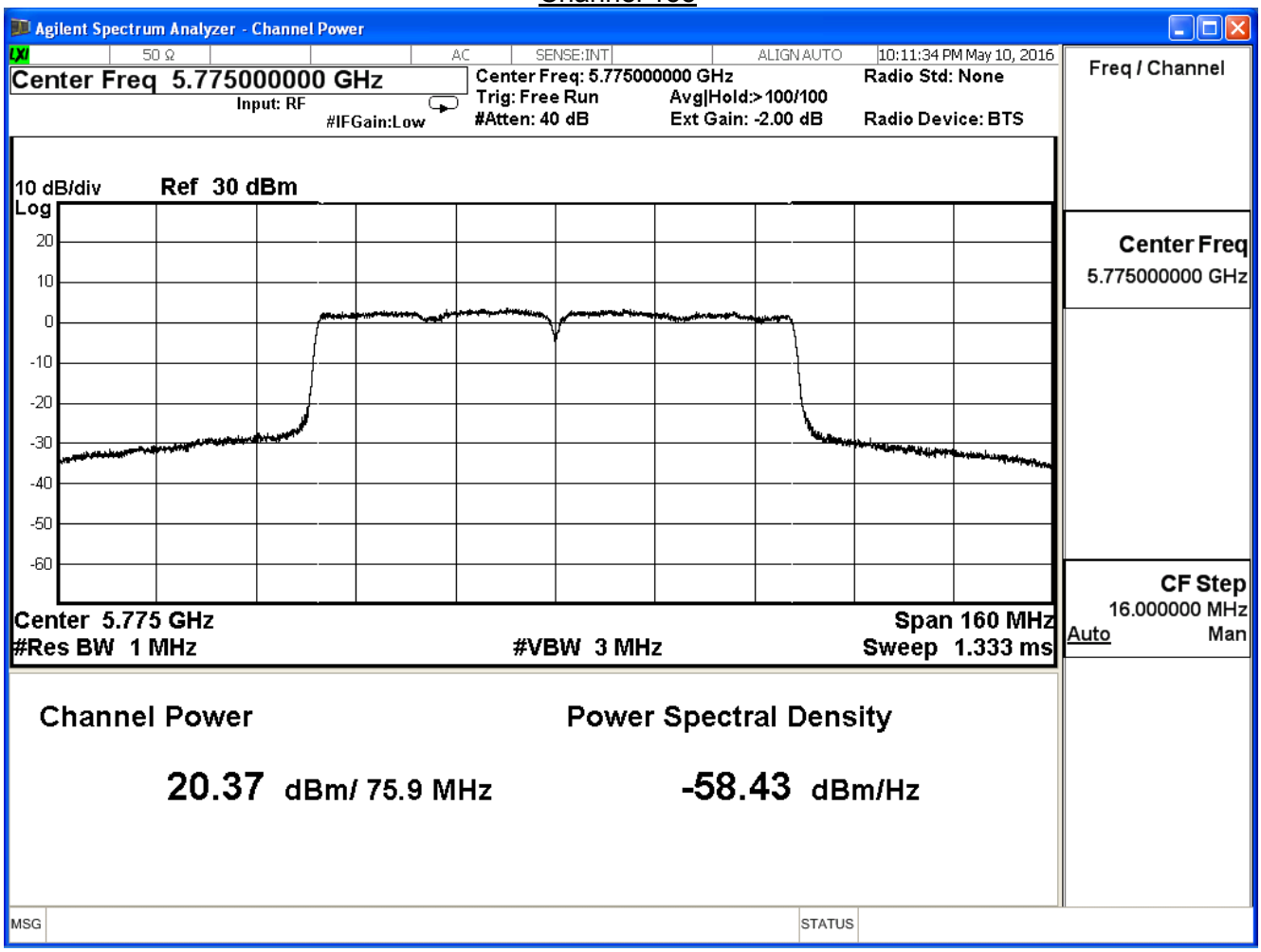
IEEE 802.11ac 80MHz (ANT 1)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	20.37	≤30

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	
155	5775	20.37	20.17	19.97	19.87	19.67	19.47	19.35	19.11	18.99	18.75	≤30dBm

Channel 155



Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

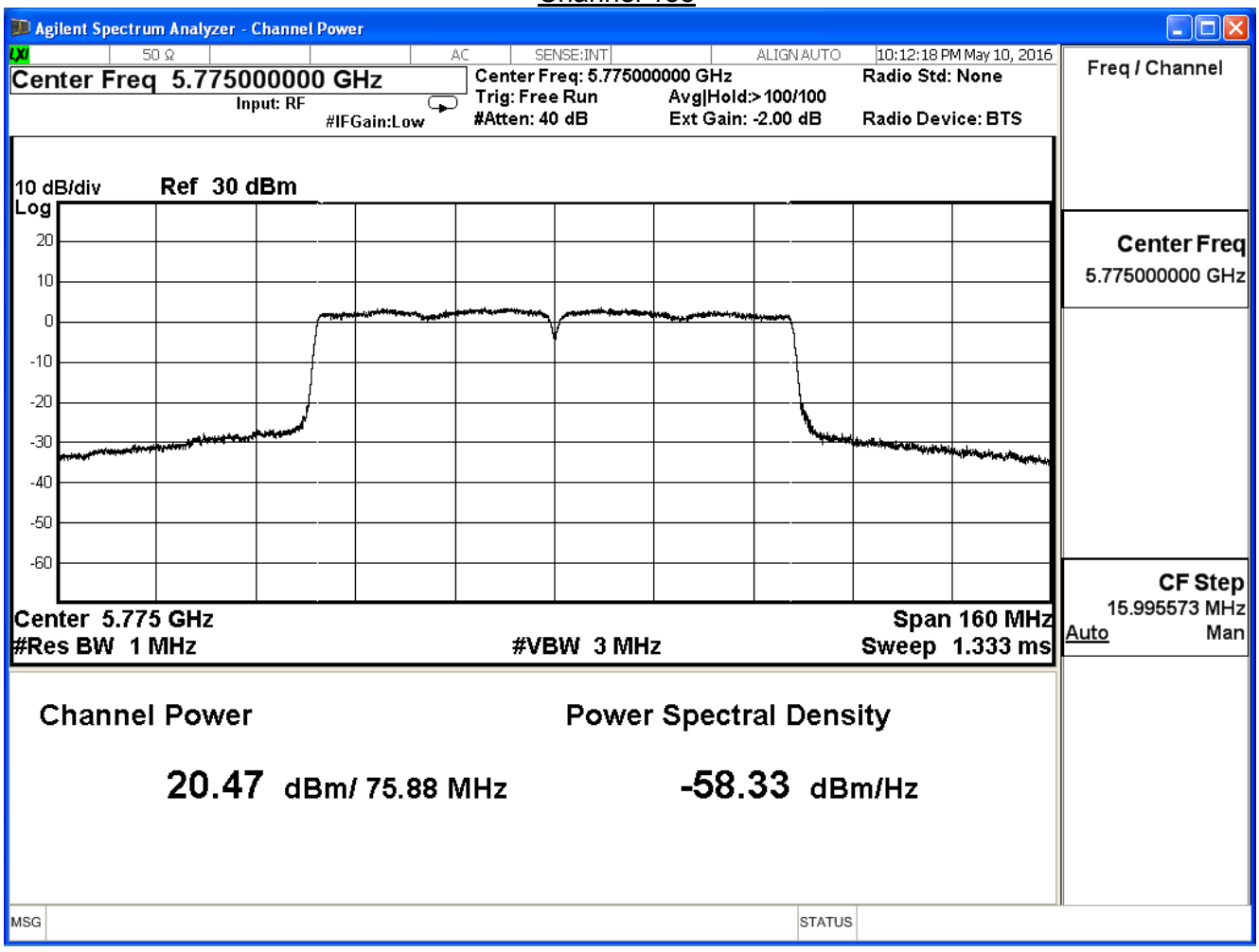
IEEE 802.11ac 80MHz (ANT 2)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	20.47	≤30

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	
155	5775	20.47	20.37	20.17	20.07	19.97	19.87	19.75	19.63	19.51	19.39	≤30dBm

Channel 155



Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac 80MHz (ANT 0+1+2)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	25.19	≤30

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	≤30dBm
155	5775	25.19	25.03	24.86	24.76	24.60	24.46	24.34	24.15	24.03	23.87	

4. Peak Power Spectrum Density

4.1. Test Equipment

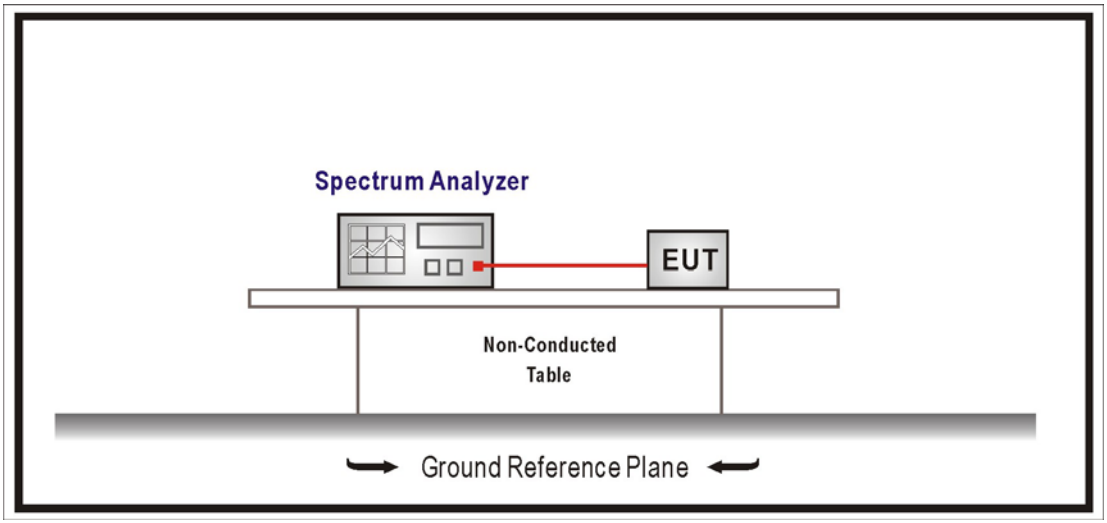
The following test equipments are used during the radiated emission tests:

Peak Power Spectrum Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/07/13

Note: All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup



4.3. Limits

1. For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 17 dBm in any 1MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
2. For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi
3. For the band 5.25-5.35 GHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
4. For the band 5.725-5.850 GHz, the peak power spectral density shall not exceed 30 dBm in any 500KHz band. If transmitting antenna of directional gain greater than 6 dBi are used, the peak power spectral density shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi..

4.4. Test Procedure

The EUT was setup to ANSI C63.10:2009; tested to U-NII test procedure of 789033 D02 V01R01 for compliance to FCC 47CFR Subpart E requirements.

For Band1 : Set RBW=1MHz, VBW=3MHz with RMS detector. The PPSD is the highest level found across the emission in any 1-MHz band after 100 sweeps of averaging.

For Band4 : Set RBW=500KHz, VBW=1.5MHz with RMS detector. The PPSD is the highest level found across the emission in any 500KHz band after 100 sweeps of averaging.

4.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

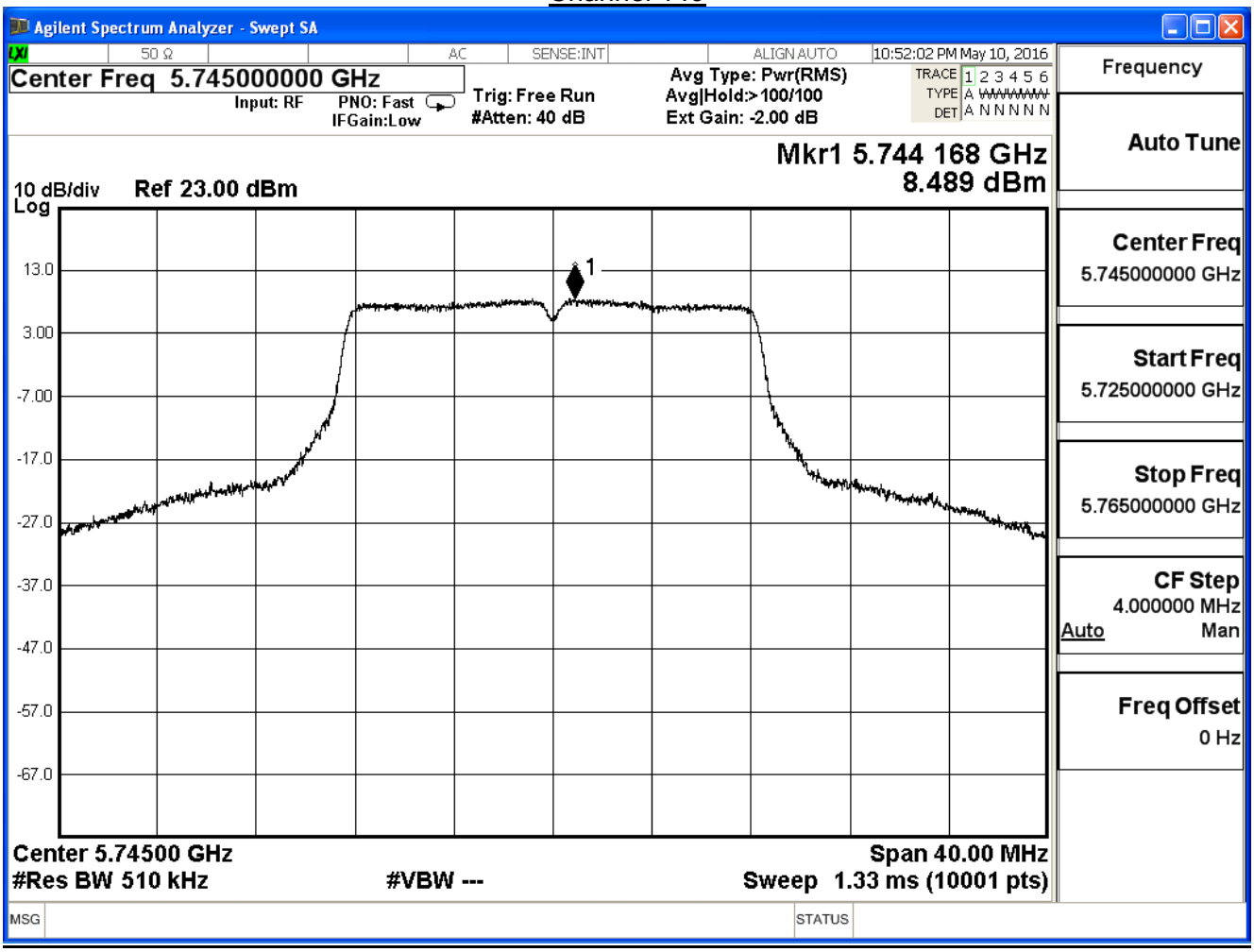
4.6. Test Result

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

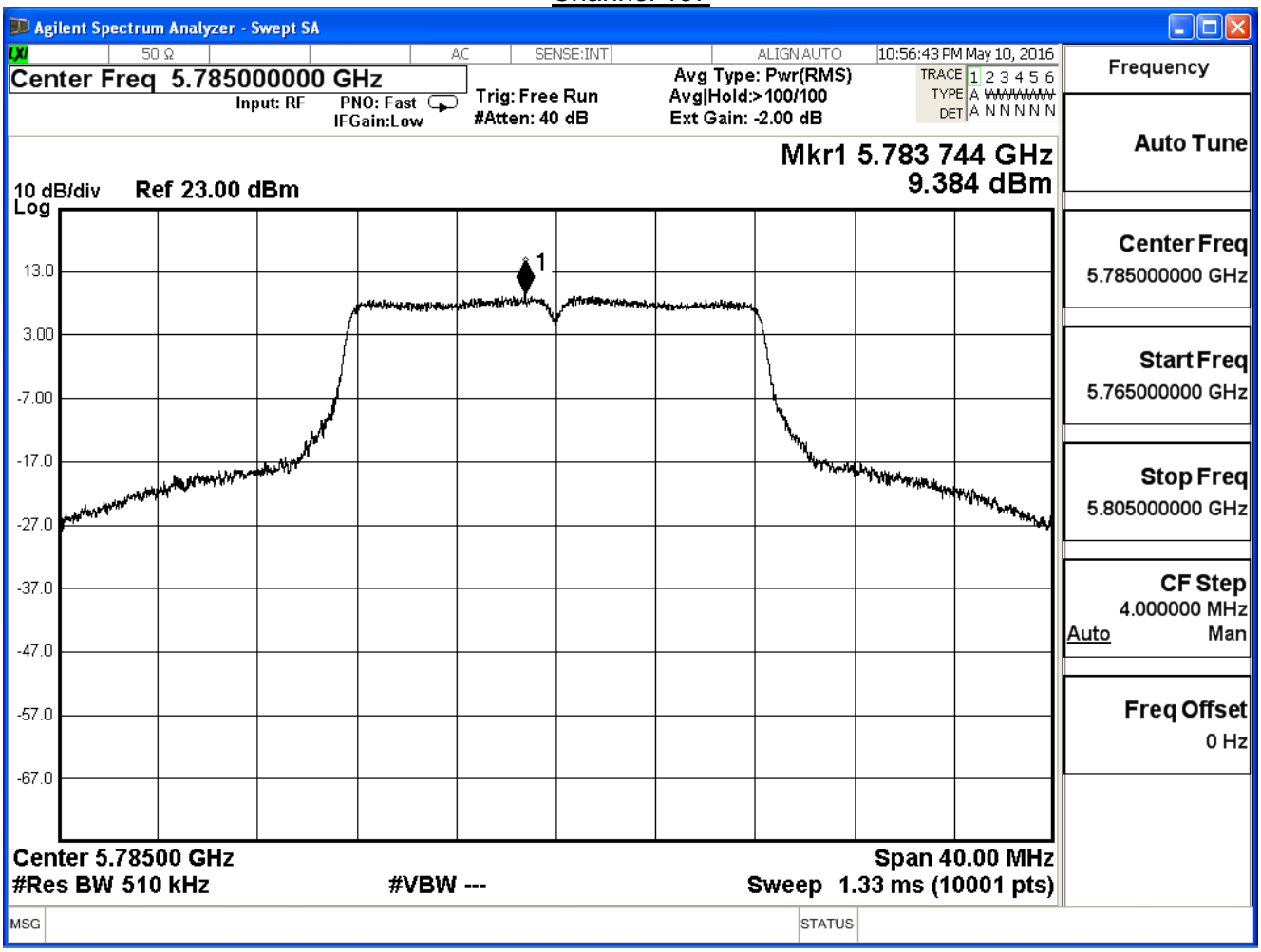
IEEE 802.11a (ANT 0)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
149	5745	8.489	≦28.99	Pass
157	5785	9.384	≦28.99	Pass
165	5825	9.431	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.77dBi
Limit=30-(7.77dBi-6dBi)=28.23dBi

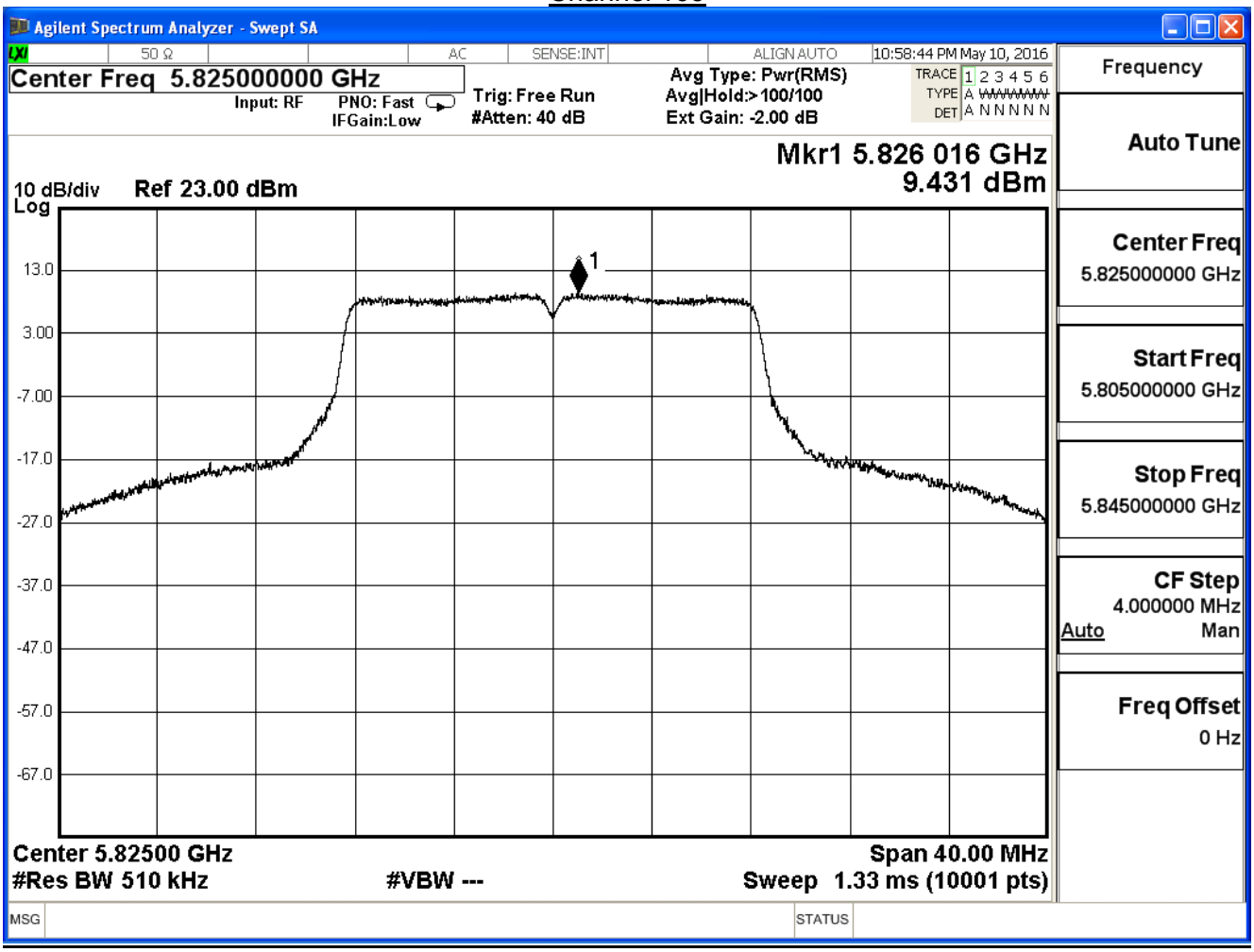
Channel 149


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:52:02 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.744 168 GHz
8.489 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.74500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.745000000 GHz
Start Freq
5.725000000 GHz
Stop Freq
5.765000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 157


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:56:43 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.783 744 GHz
9.384 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.78500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.765000000 GHz
Stop Freq
5.805000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165

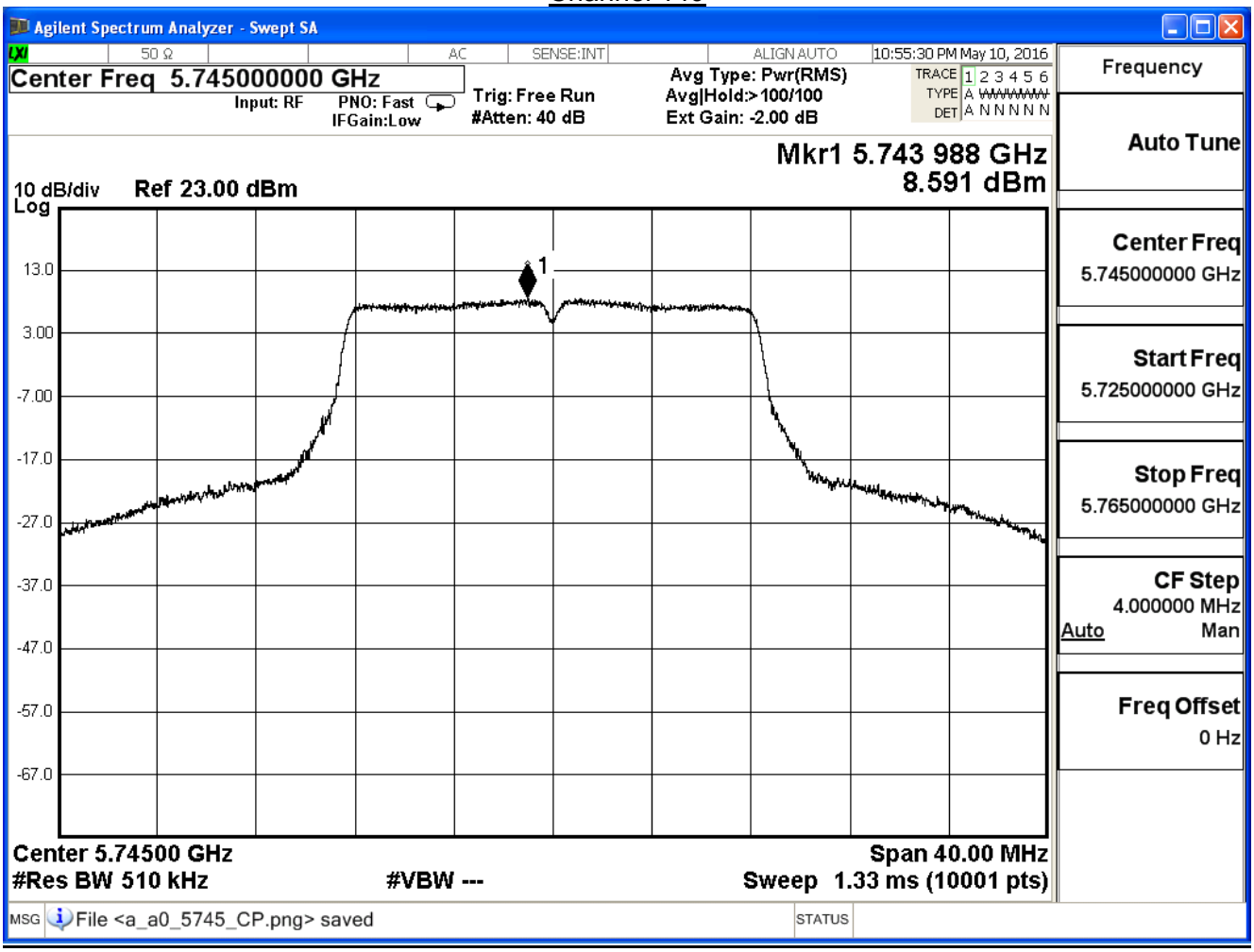

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:58:44 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.826 016 GHz
9.431 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.82500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.825000000 GHz
Start Freq
5.805000000 GHz
Stop Freq
5.845000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

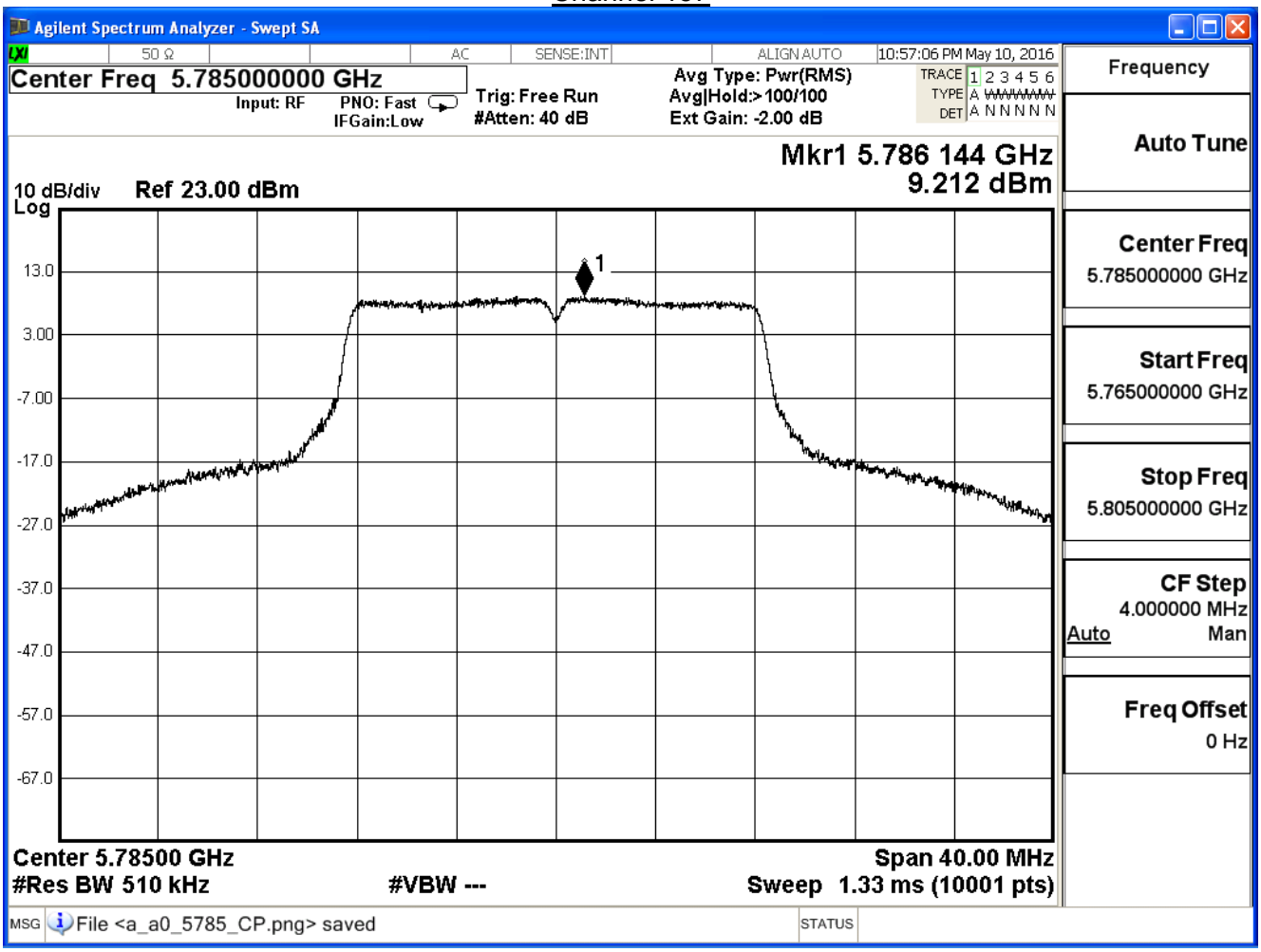
IEEE 802.11a (ANT 1)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
149	5745	8.591	≦28.99	Pass
157	5785	9.212	≦28.99	Pass
165	5825	9.573	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi_

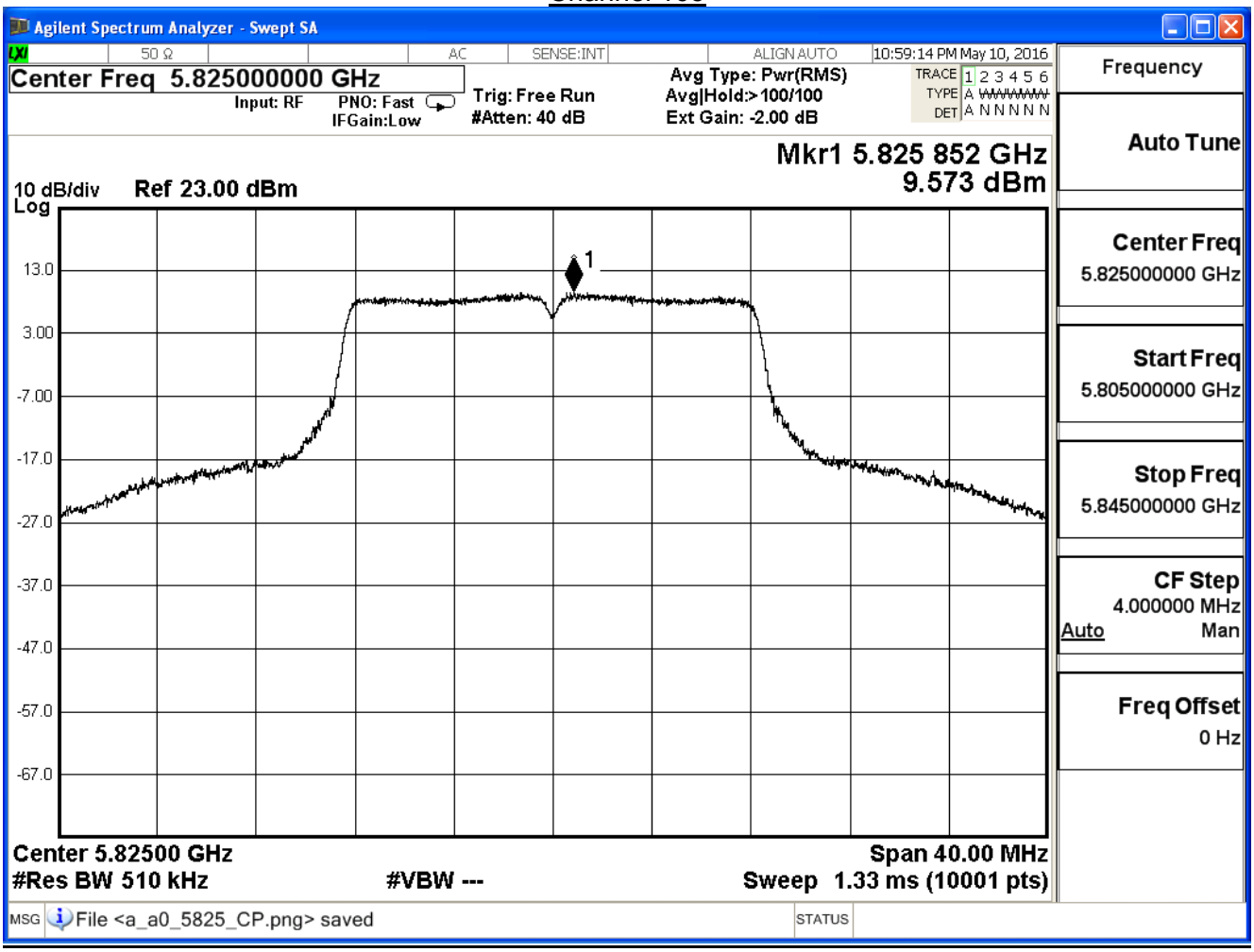
Channel 149


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:55:30 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.743 988 GHz
8.591 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.74500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <a_a0_5745_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.745000000 GHz
Start Freq
5.725000000 GHz
Stop Freq
5.765000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 157


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:57:06 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.786 144 GHz
9.212 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.78500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <a_a0_5785_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.765000000 GHz
Stop Freq
5.805000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165

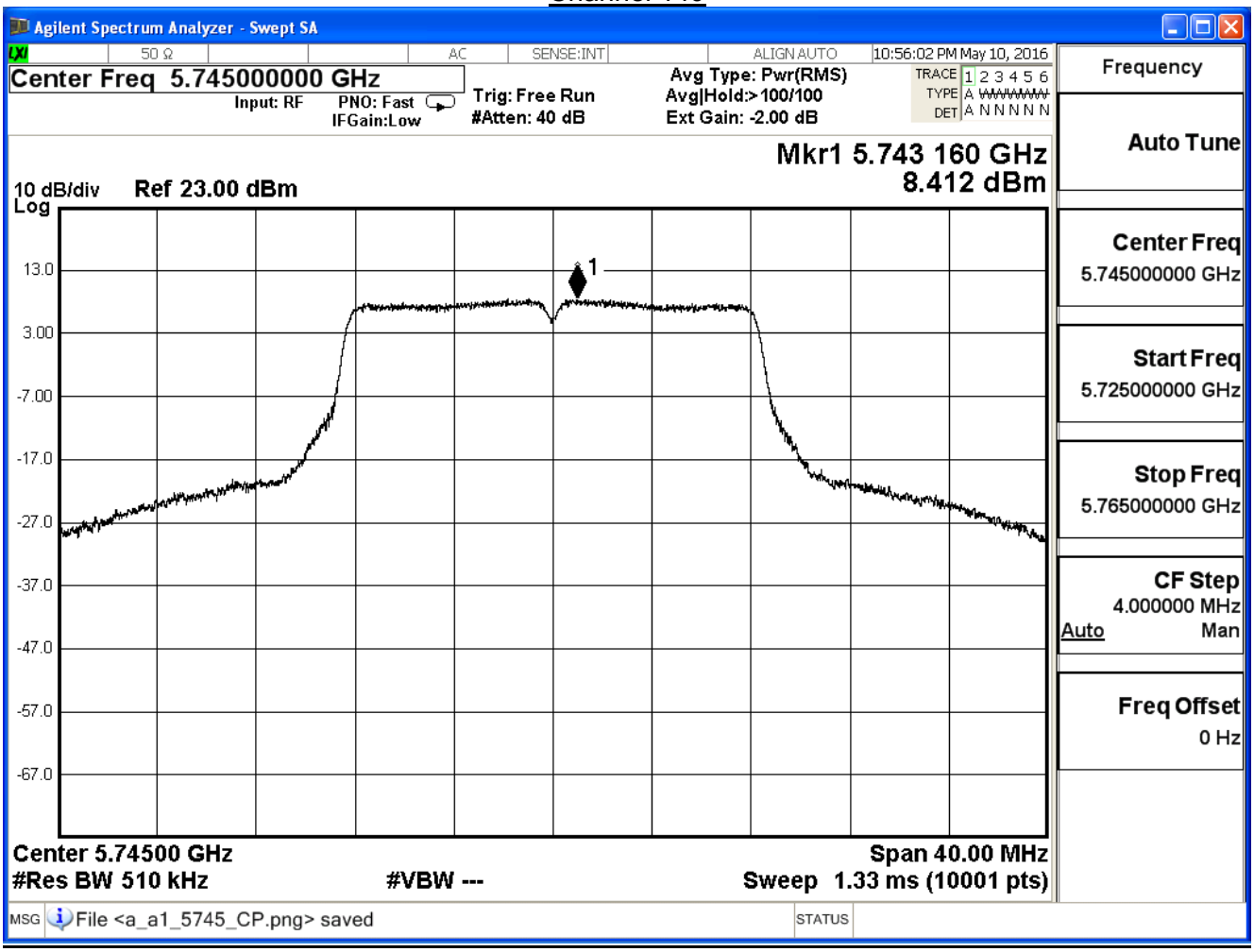

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:59:14 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.825 852 GHz
9.573 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.82500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <a_a0_5825_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.825000000 GHz
Start Freq
5.805000000 GHz
Stop Freq
5.845000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

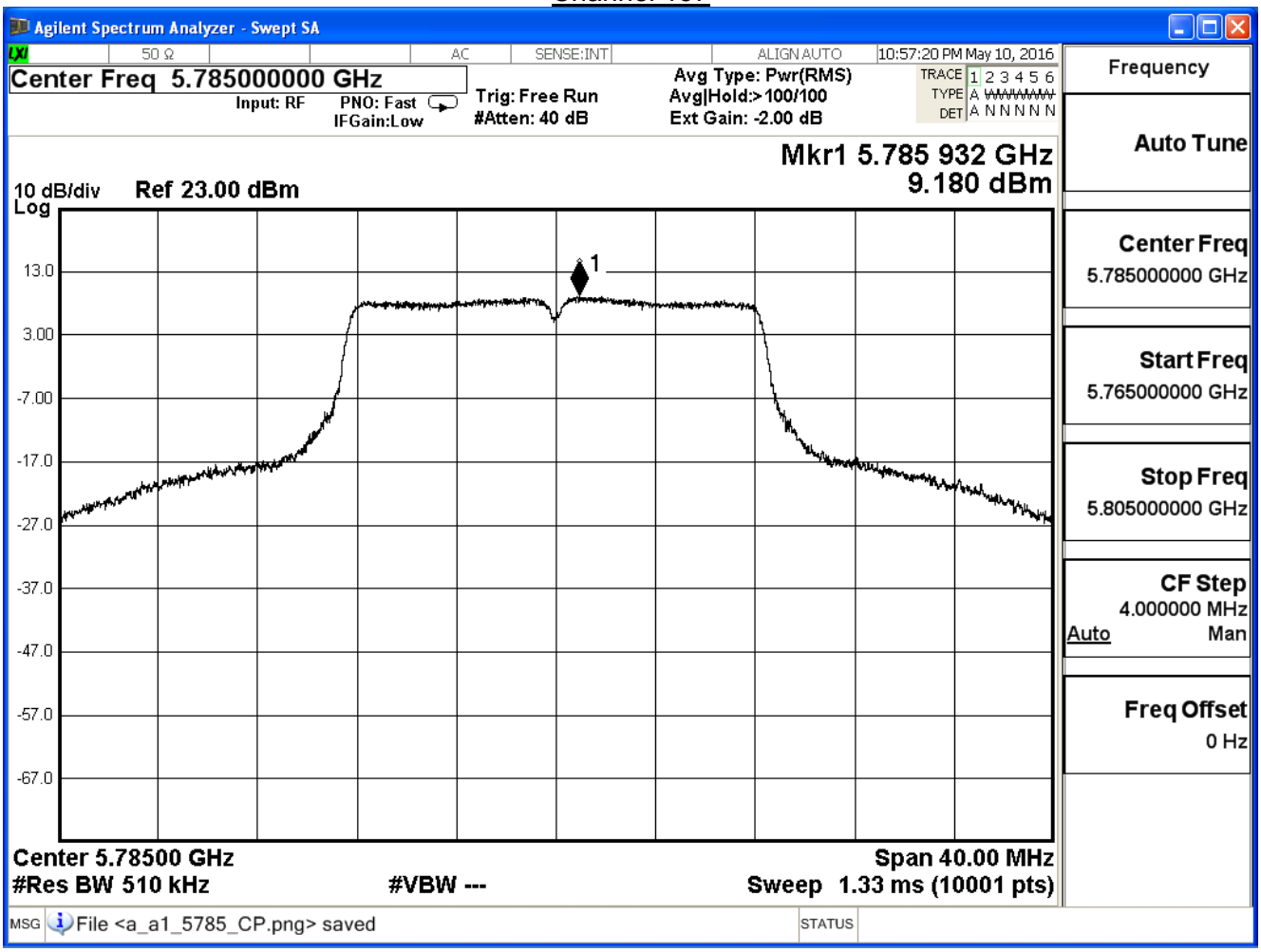
IEEE 802.11a (ANT 2)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
149	5745	8.412	≦28.99	Pass
157	5785	9.180	≦28.99	Pass
165	5825	9.120	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi_

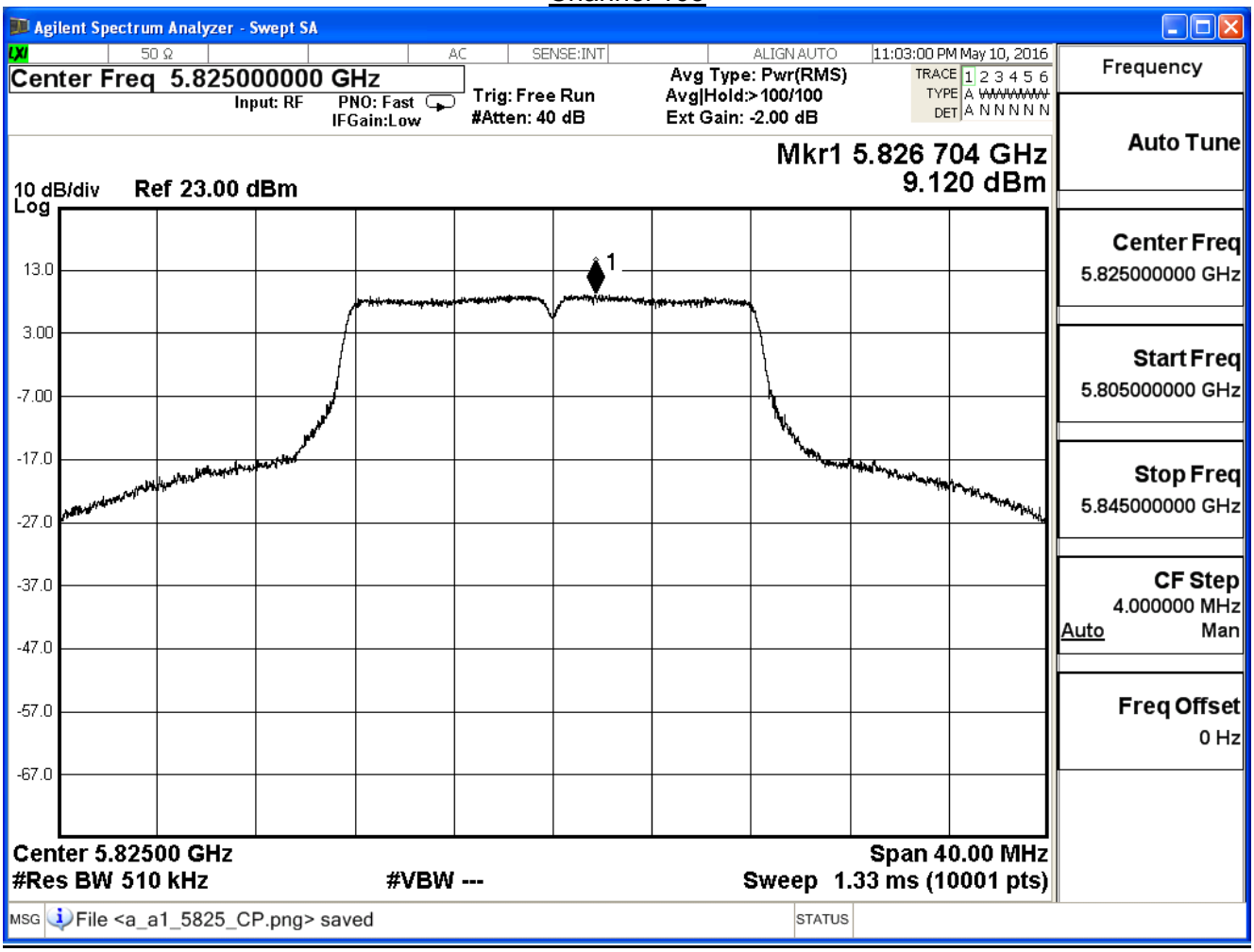
Channel 149


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:56:02 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.743 160 GHz
8.412 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.74500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <a_a1_5745_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.745000000 GHz
Start Freq
5.725000000 GHz
Stop Freq
5.765000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 157


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:57:20 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.785 932 GHz
9.180 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.78500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <a_a1_5785_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.765000000 GHz
Stop Freq
5.805000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:03:00 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.826 704 GHz
9.120 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
Center 5.82500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <a_a1_5825_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.825000000 GHz
Start Freq
5.805000000 GHz
Stop Freq
5.845000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11a (ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
149	5745	13.269	≦28.99	Pass
157	5785	14.031	≦28.99	Pass
165	5825	14.150	≦28.99	Pass

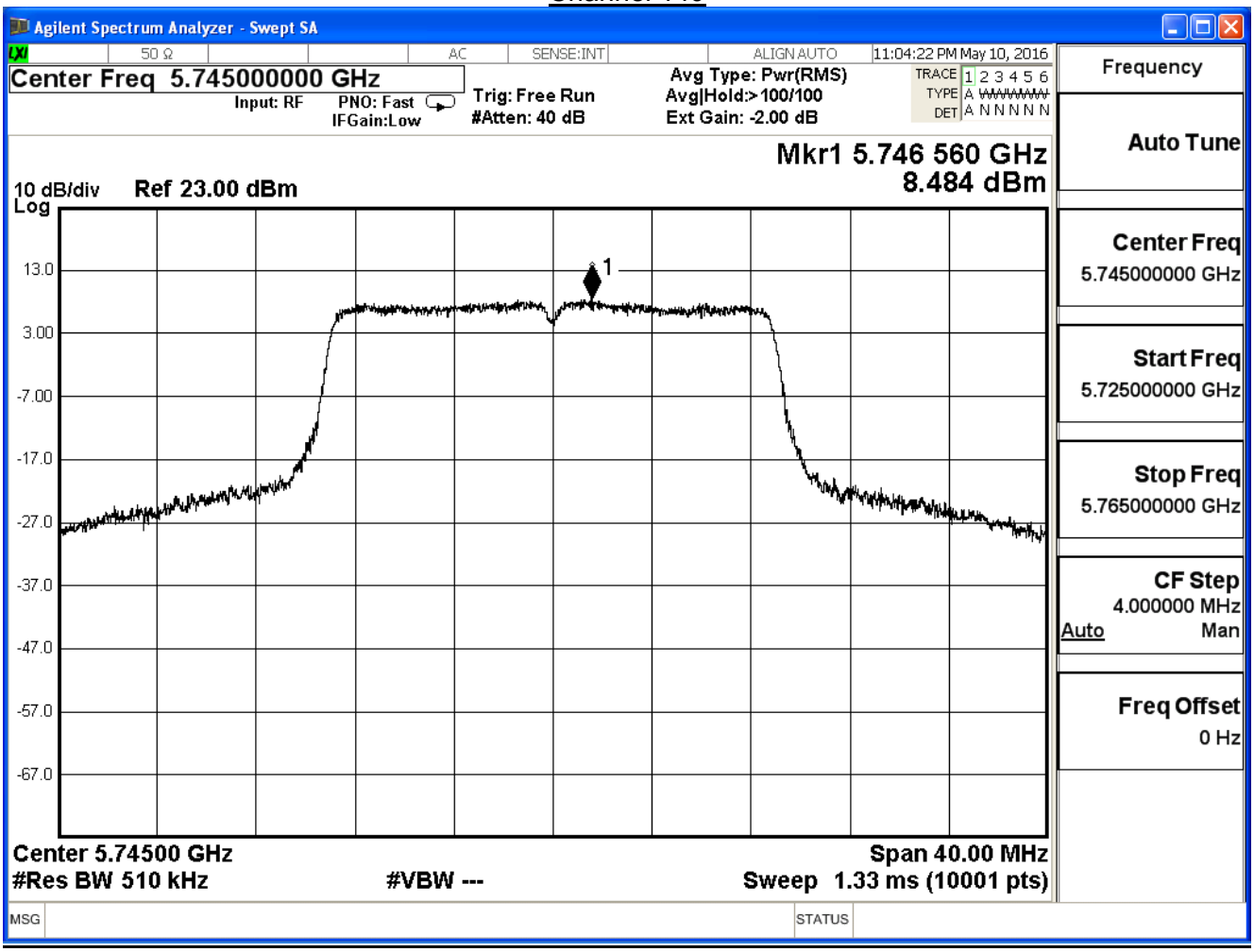
Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

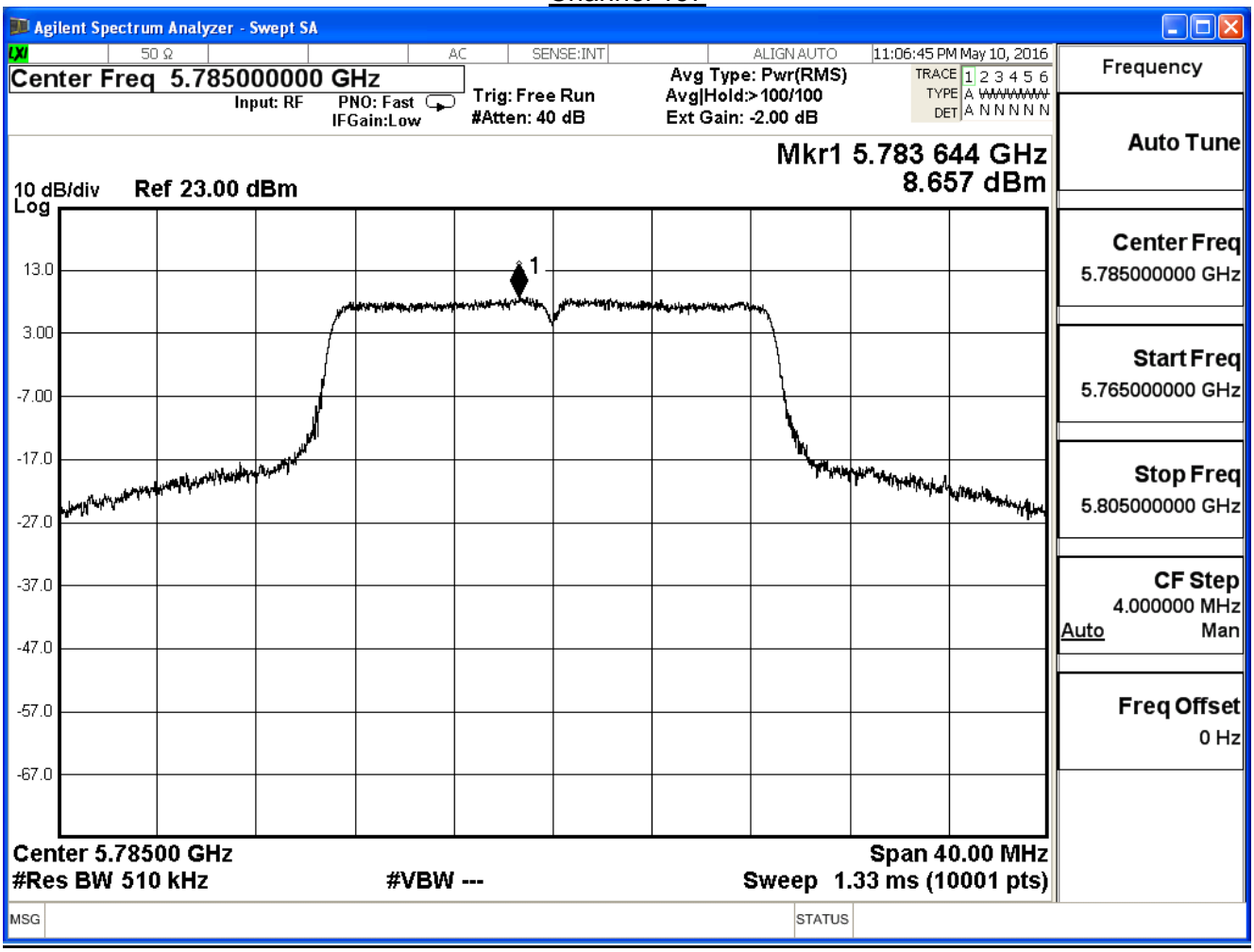
IEEE802.11n_20MHz_(ANT 0)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
149	5745	8.484	≦28.99	Pass
157	5785	8.657	≦28.99	Pass
165	5825	8.977	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi_

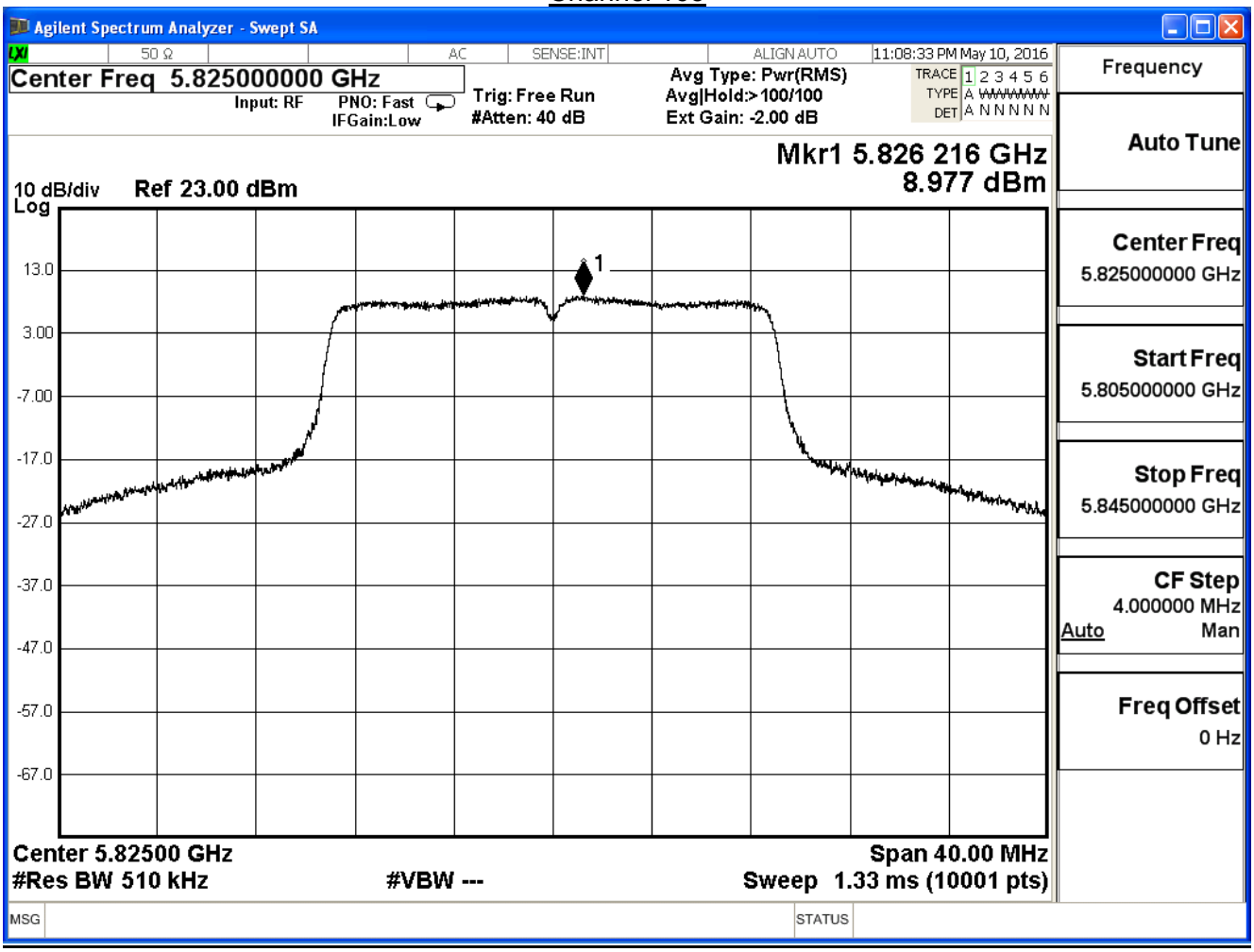
Channel 149


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:04:22 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.746 560 GHz
8.484 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.74500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.745000000 GHz
Start Freq
5.725000000 GHz
Stop Freq
5.765000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 157


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:06:45 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.783 644 GHz
8.657 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.78500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.765000000 GHz
Stop Freq
5.805000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165

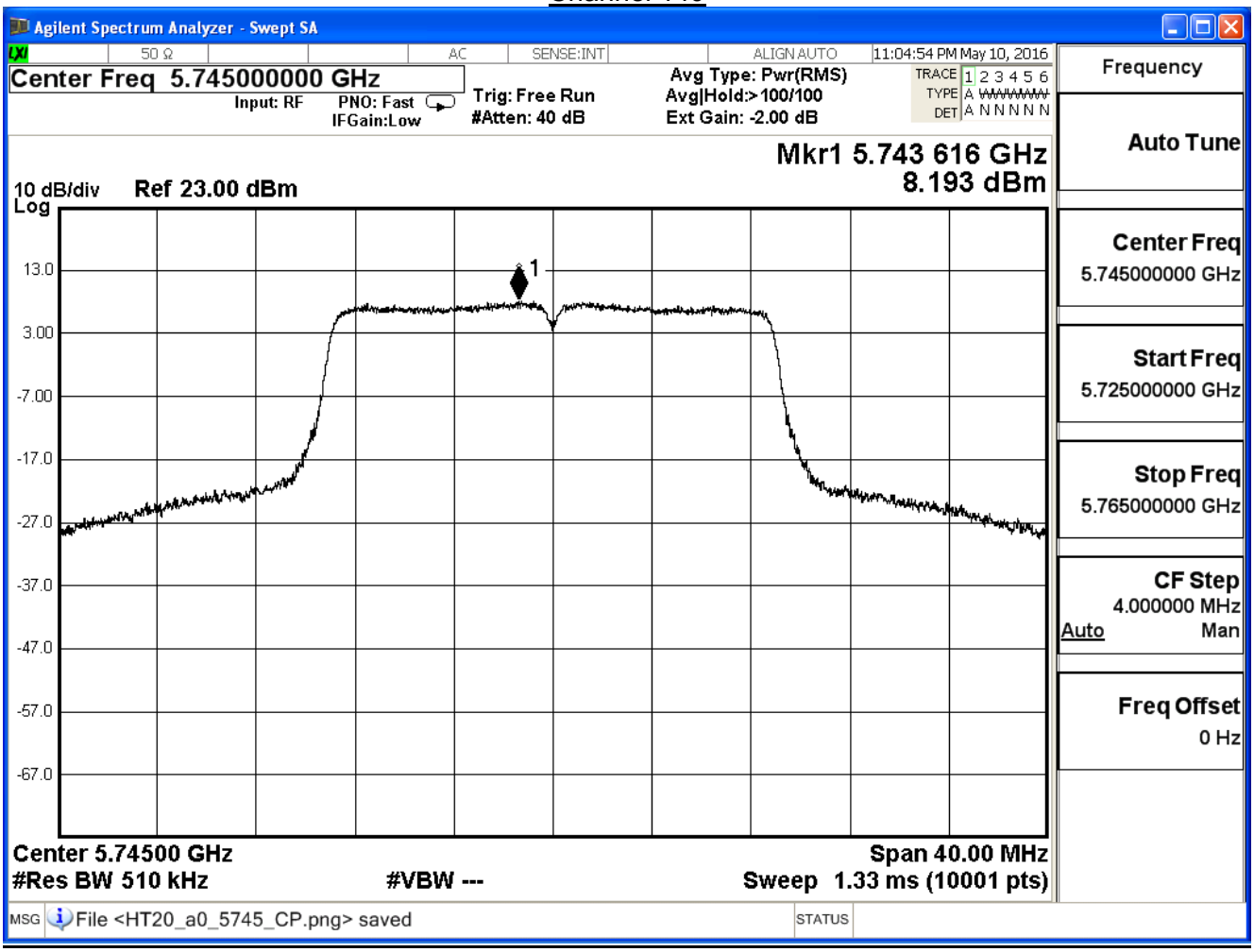

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:08:33 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.826 216 GHz
8.977 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
Center 5.82500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.825000000 GHz
Start Freq
5.805000000 GHz
Stop Freq
5.845000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

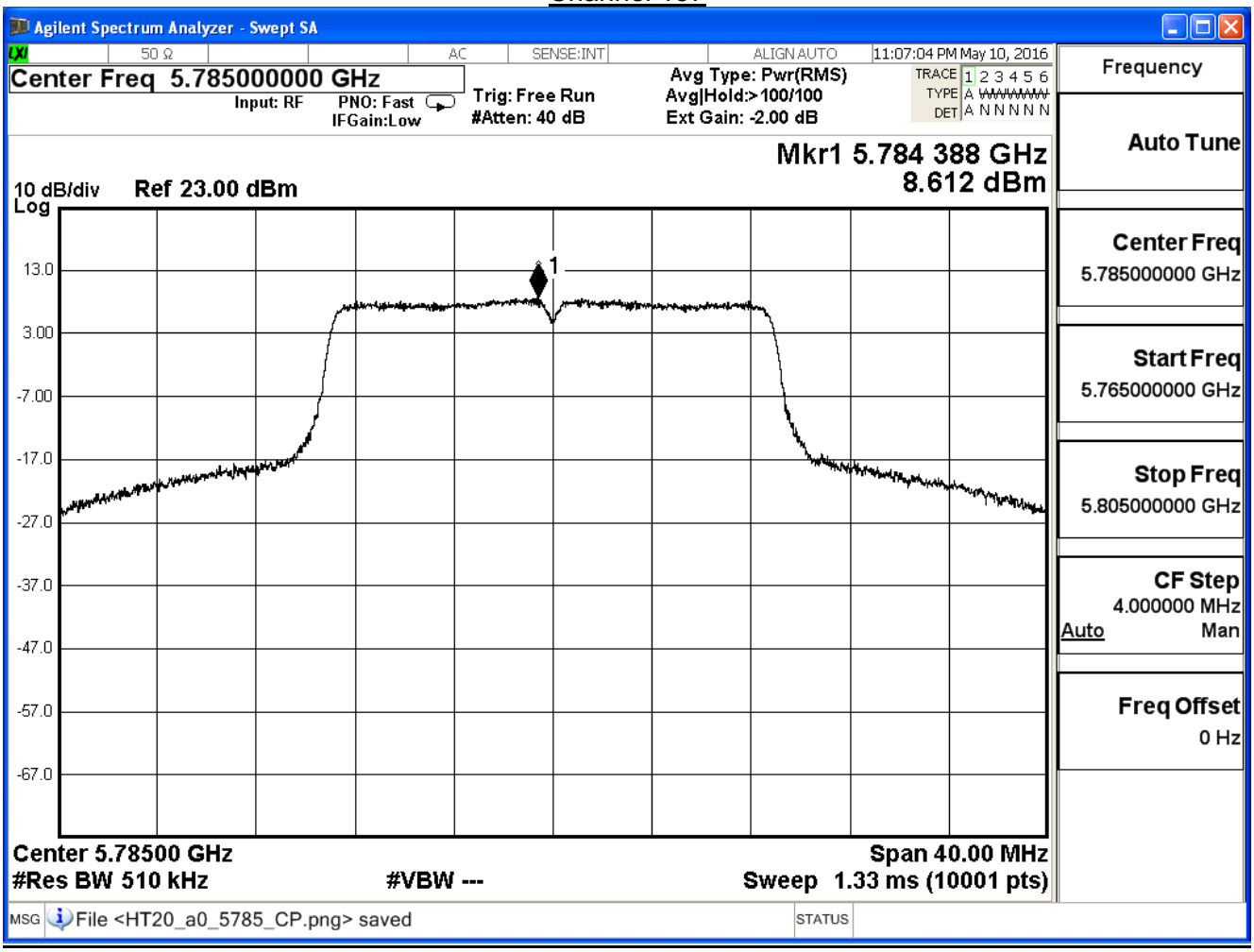
IEEE802.11n_20MHz_(ANT 1)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
149	5745	8.193	≦28.99	Pass
157	5785	8.612	≦28.99	Pass
165	5825	8.998	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi_

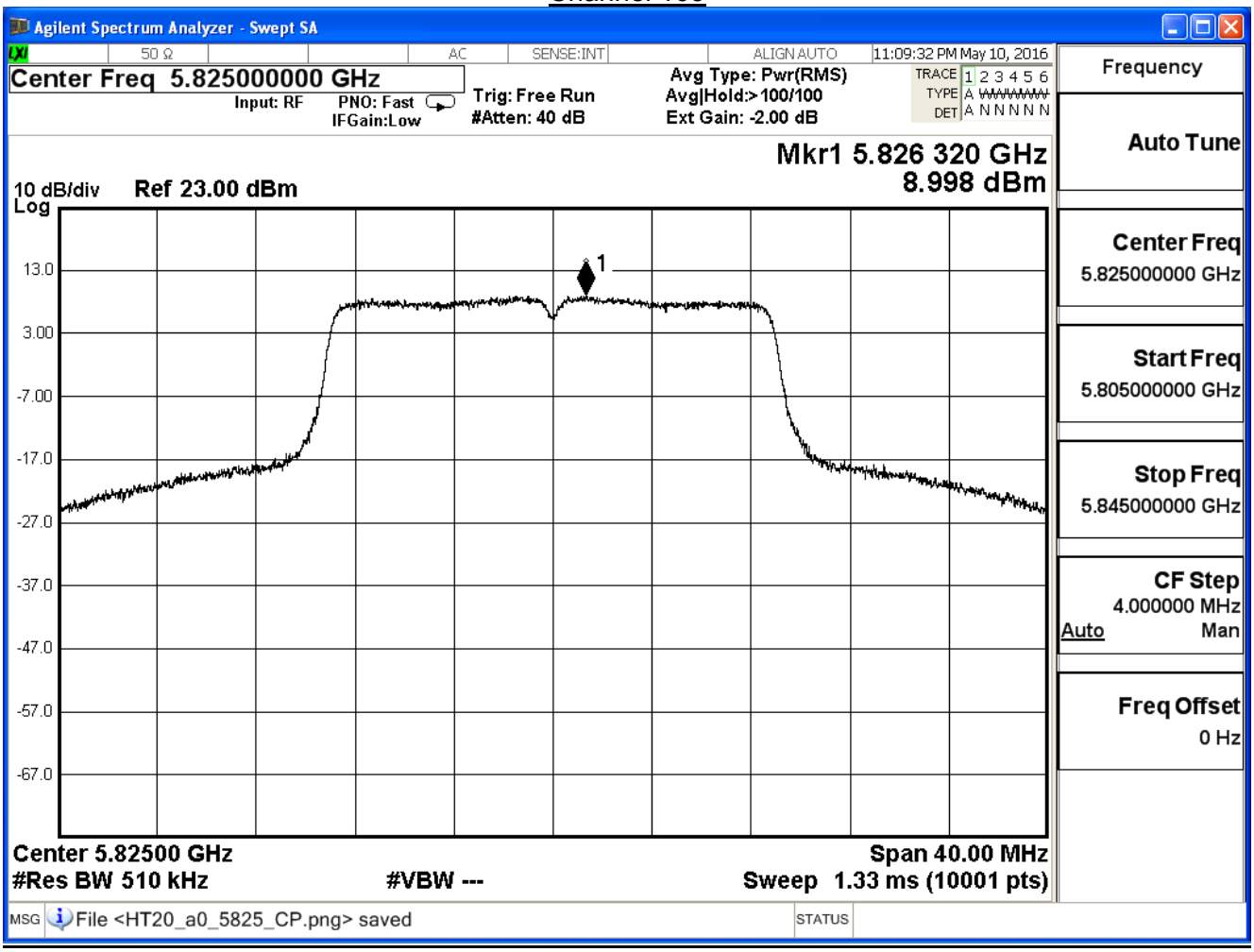
Channel 149


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:04:54 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.743 616 GHz
8.193 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.74500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <HT20_a0_5745_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.745000000 GHz
Start Freq
5.725000000 GHz
Stop Freq
5.765000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 157


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:07:04 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.784 388 GHz
8.612 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.78500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <HT20_a0_5785_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.765000000 GHz
Stop Freq
5.805000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165

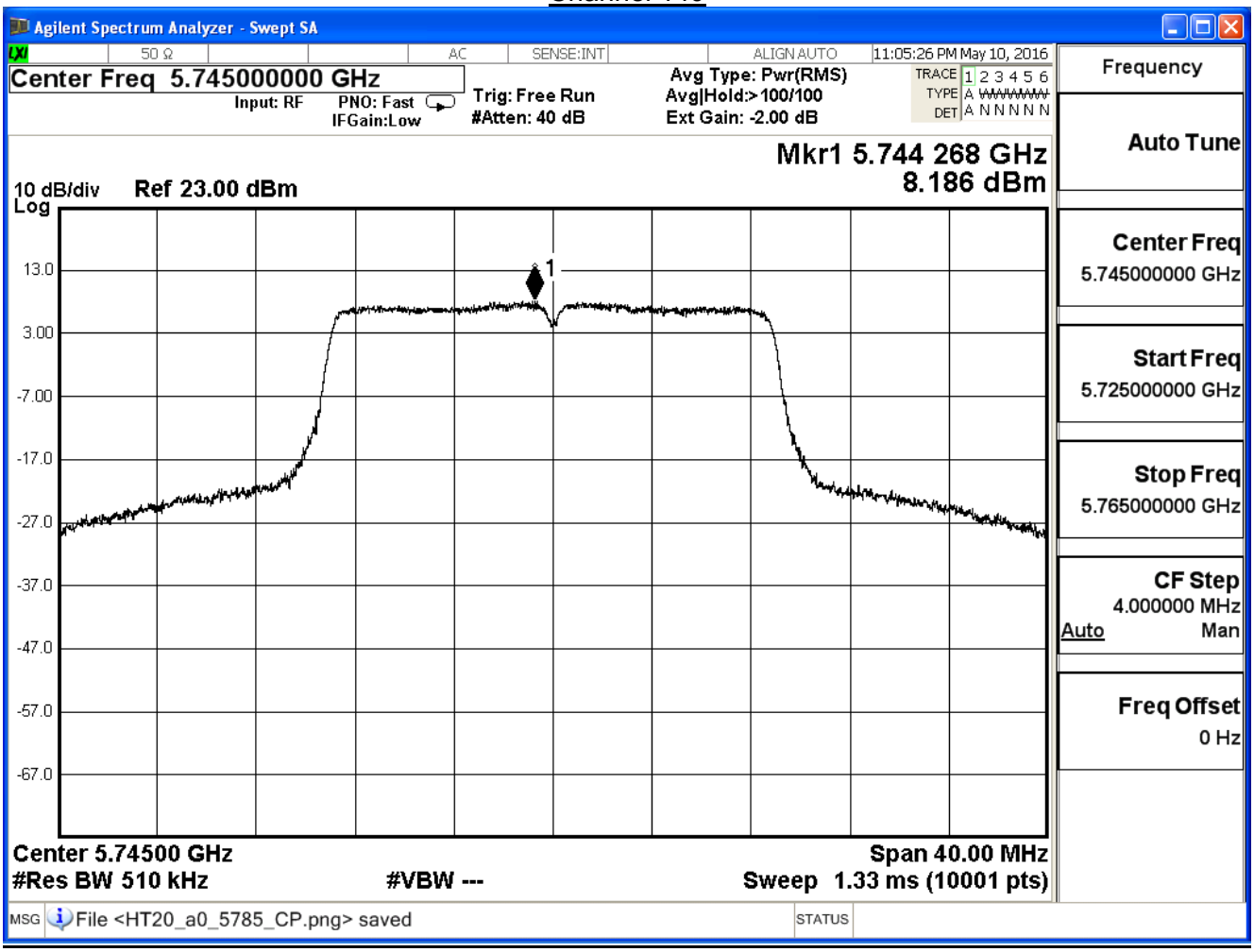

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:09:32 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.826 320 GHz
8.998 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.82500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <HT20_a0_5825_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.825000000 GHz
Start Freq
5.805000000 GHz
Stop Freq
5.845000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

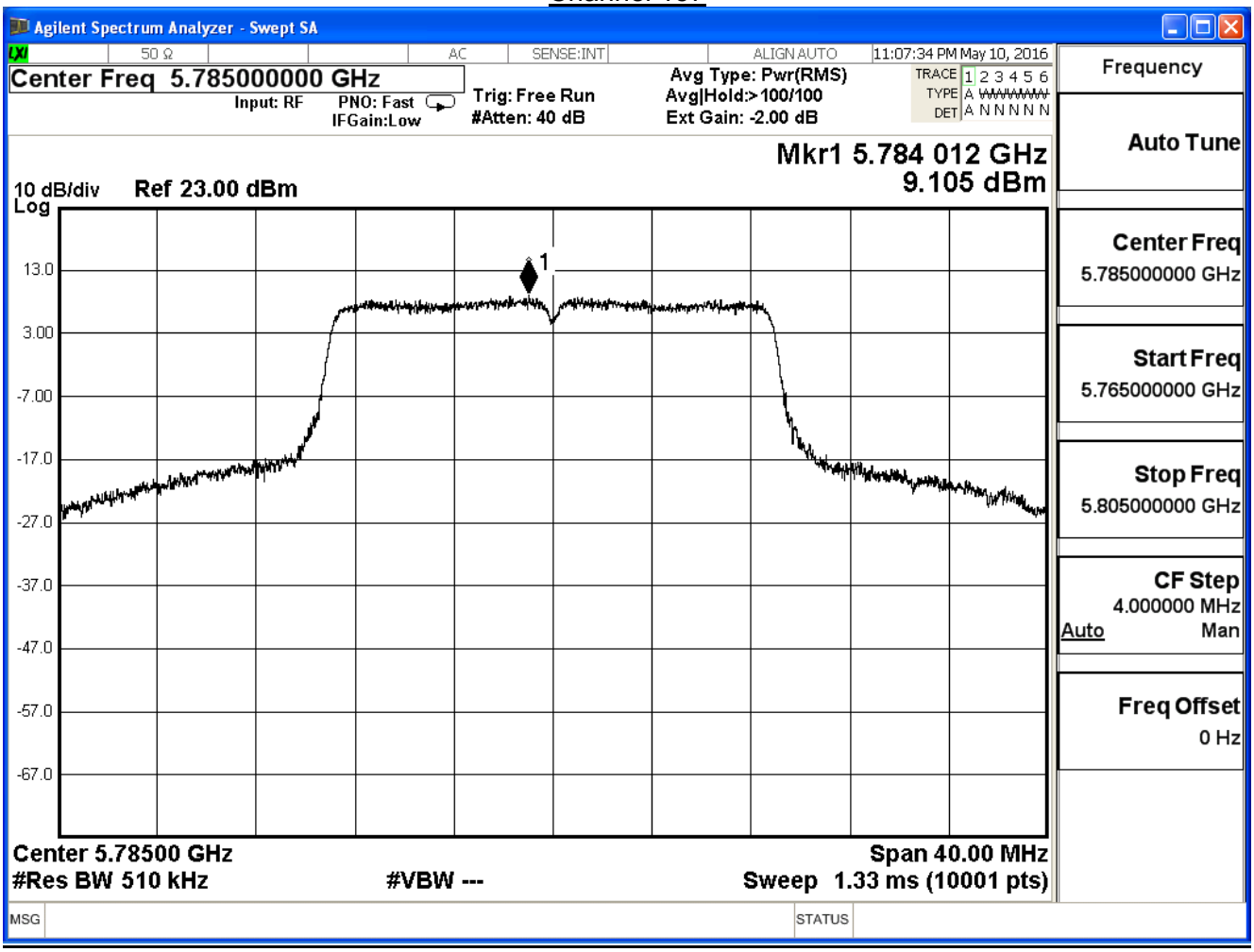
IEEE802.11n_20MHz_(ANT 2)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
149	5745	8.186	≦28.99	Pass
157	5785	9.105	≦28.99	Pass
165	5825	8.921	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi_

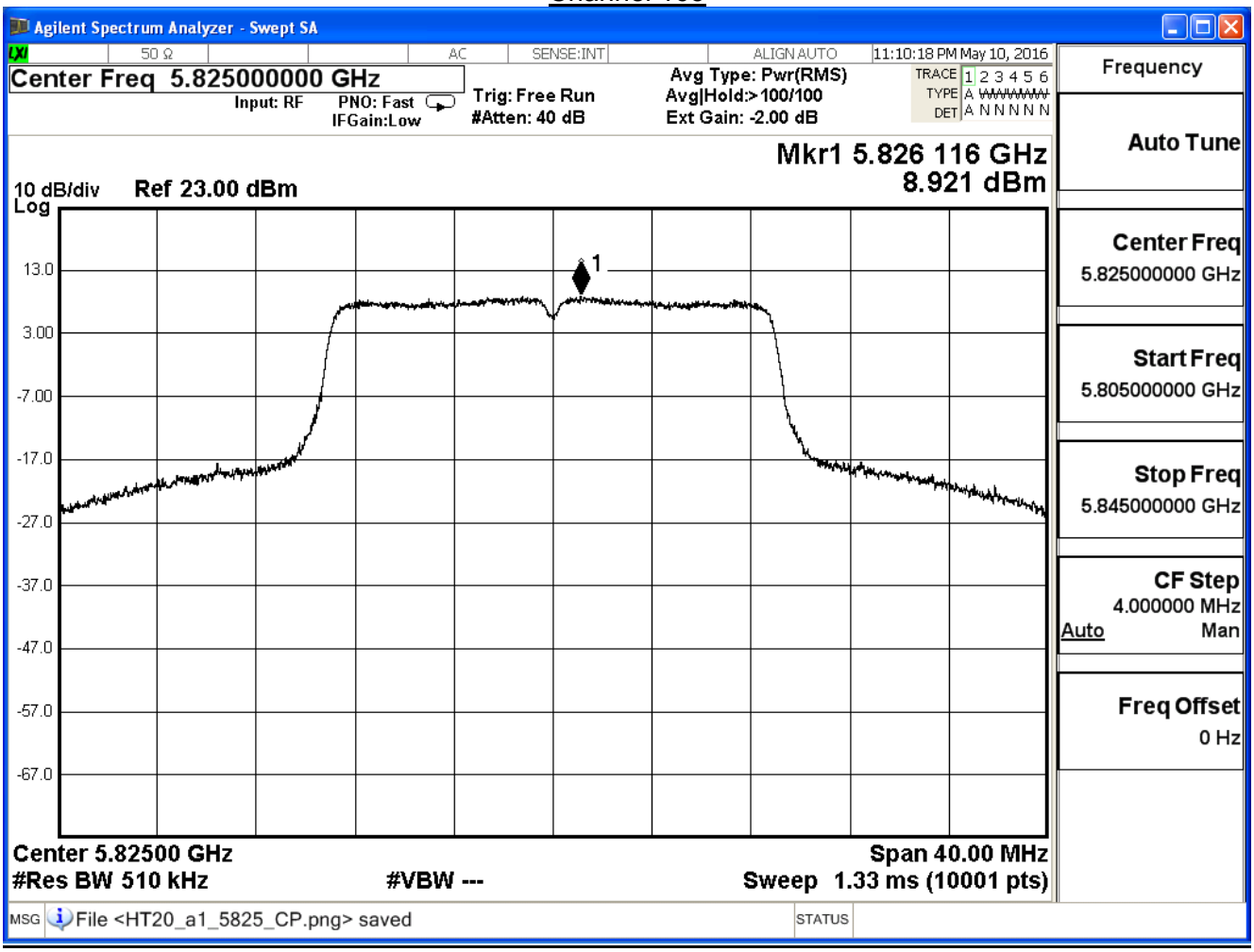
Channel 149


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:05:26 PM May 10, 2016
Center Freq 5.745000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.744 268 GHz
8.186 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
Center 5.74500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
Frequency
Auto Tune
Center Freq
5.745000000 GHz
Start Freq
5.725000000 GHz
Stop Freq
5.765000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
File <HT20_a0_5785_CP.png> saved
STATUS

Channel 157


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:07:34 PM May 10, 2016
Center Freq 5.785000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.784 012 GHz
9.105 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
Center 5.78500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.765000000 GHz
Stop Freq
5.805000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:10:18 PM May 10, 2016
Center Freq 5.825000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.826 116 GHz
8.921 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.82500 GHz
#Res BW 510 kHz
#VBW ---
Span 40.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <HT20_a1_5825_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.825000000 GHz
Start Freq
5.805000000 GHz
Stop Freq
5.845000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE802.11n 20MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
149	5745	13.061	≦28.99	Pass
157	5785	13.568	≦28.99	Pass
165	5825	13.737	≦28.99	Pass

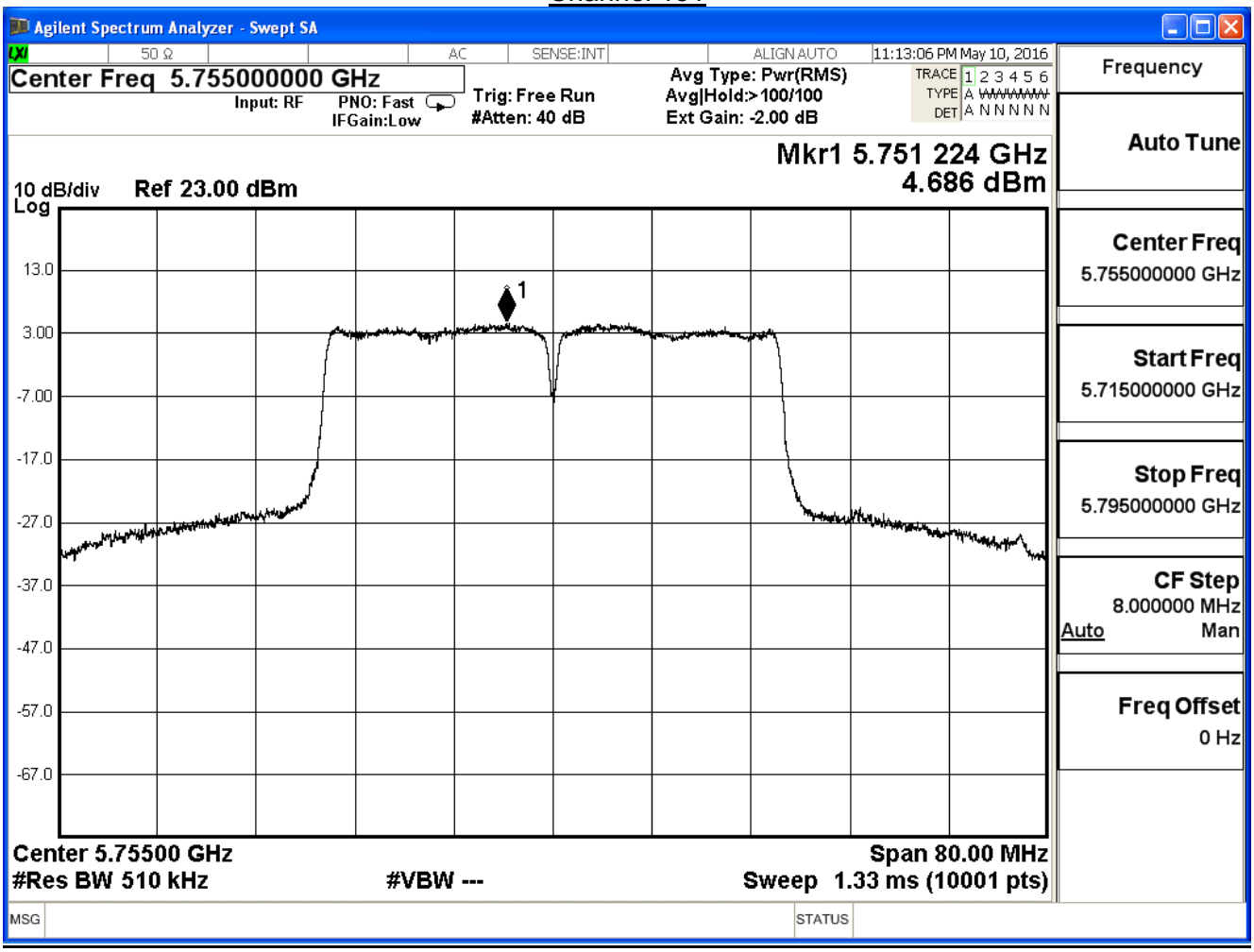
Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi_

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

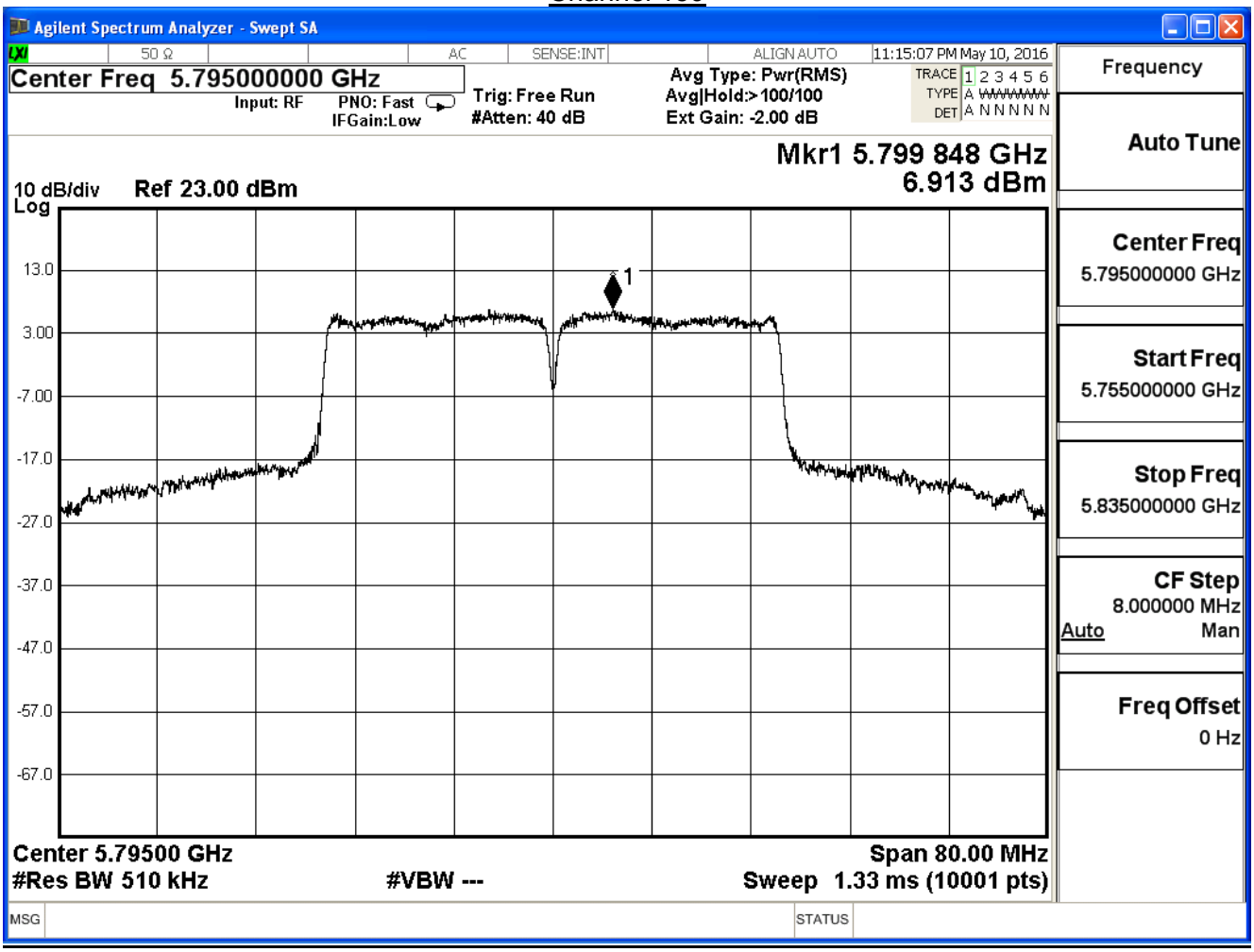
IEEE 802.11n_40MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
151	5755	4.686	≦28.99	Pass
159	5795	6.913	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi_

Channel 151


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:13:06 PM May 10, 2016
Center Freq 5.755000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.751 224 GHz
4.686 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.75500 GHz
#Res BW 510 kHz
#VBW ---
Span 80.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.755000000 GHz
Start Freq
5.715000000 GHz
Stop Freq
5.795000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 159

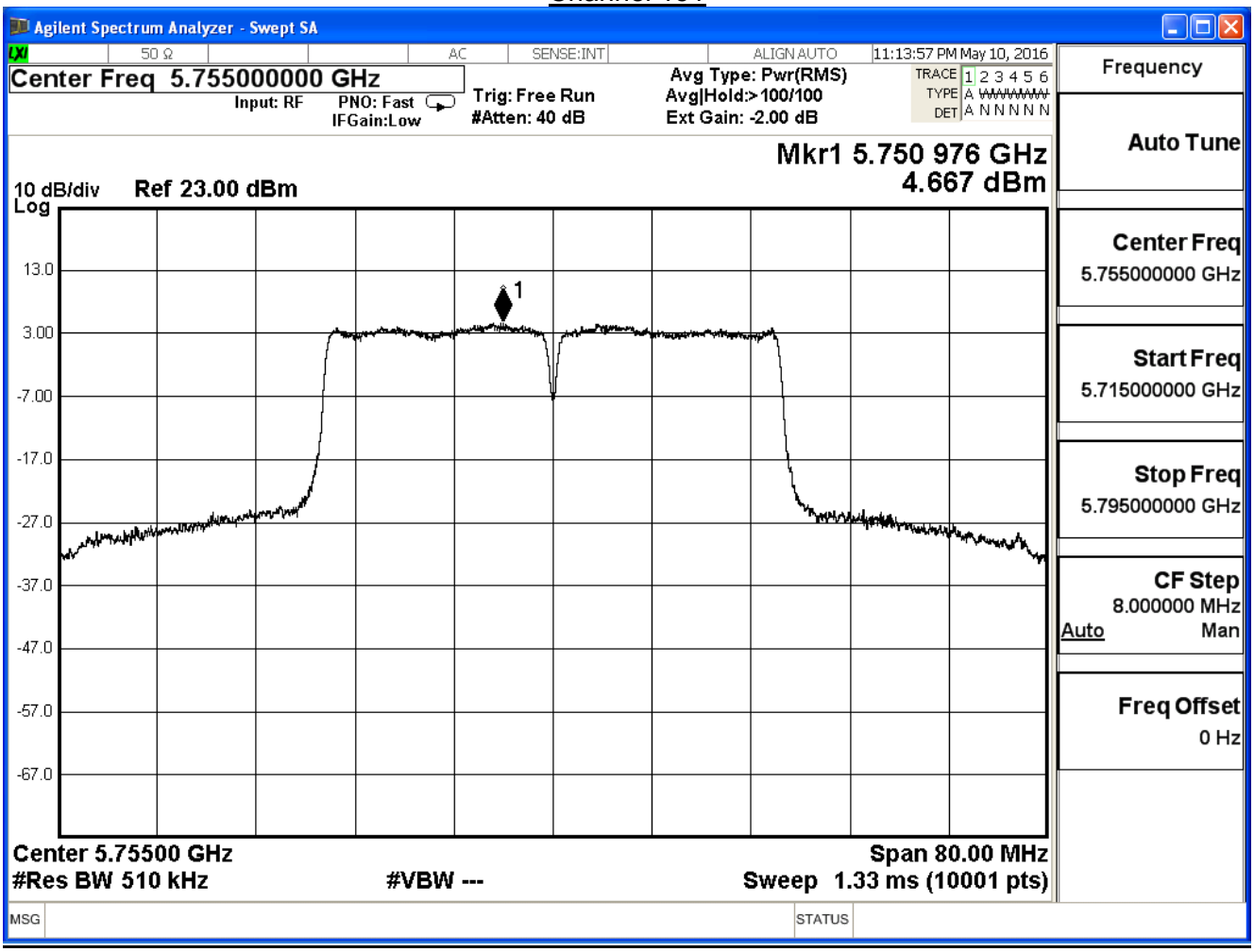

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:15:07 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.799 848 GHz
6.913 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.79500 GHz
#Res BW 510 kHz
#VBW ---
Span 80.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.795000000 GHz
Start Freq
5.755000000 GHz
Stop Freq
5.835000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

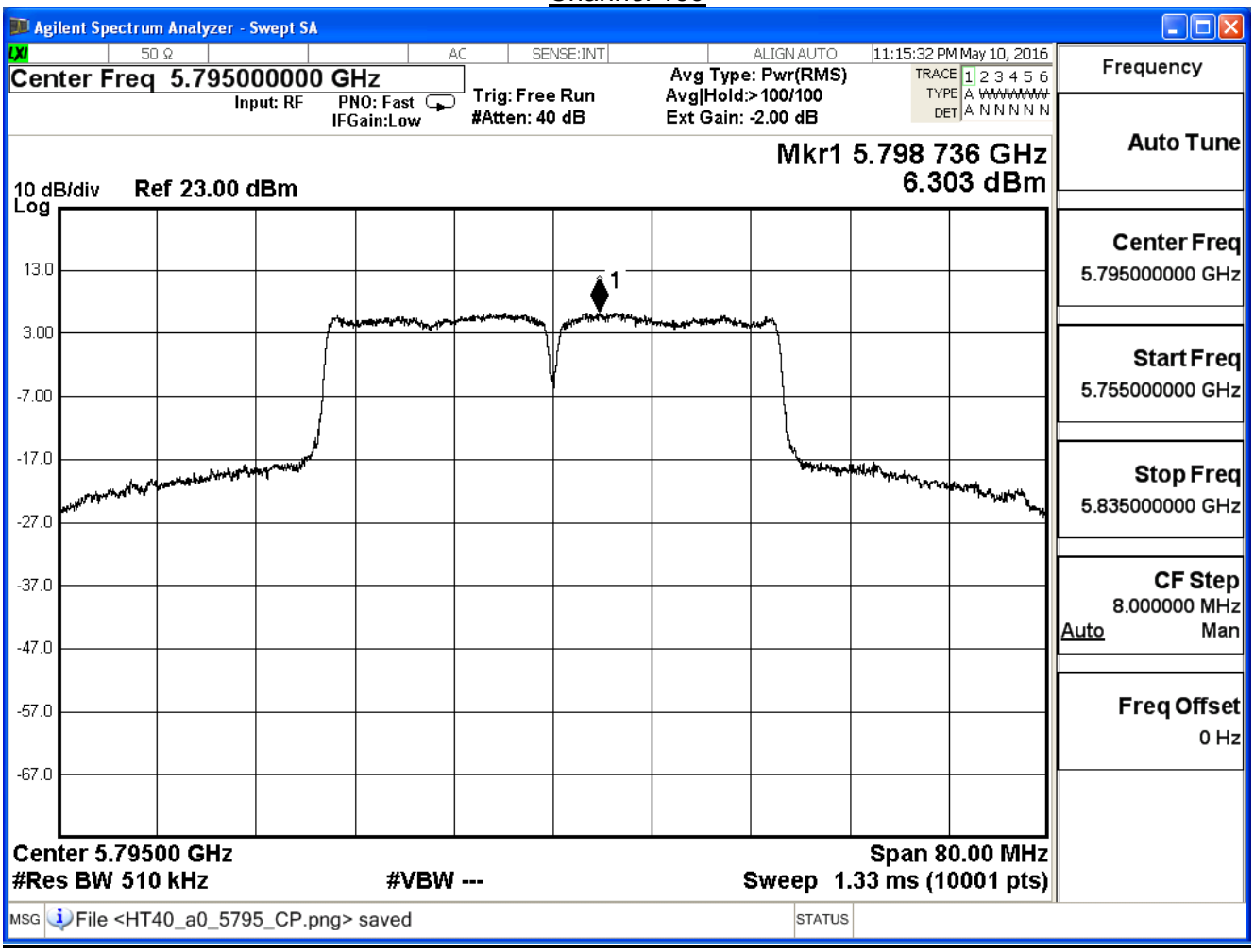
IEEE 802.11n_40MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
151	5755	4.667	≦28.99	Pass
159	5795	6.303	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi_

Channel 151


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:13:57 PM May 10, 2016
Center Freq 5.755000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.750 976 GHz
4.667 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
Center 5.75500 GHz
#Res BW 510 kHz
#VBW ---
Span 80.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.755000000 GHz
Start Freq
5.715000000 GHz
Stop Freq
5.795000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 159

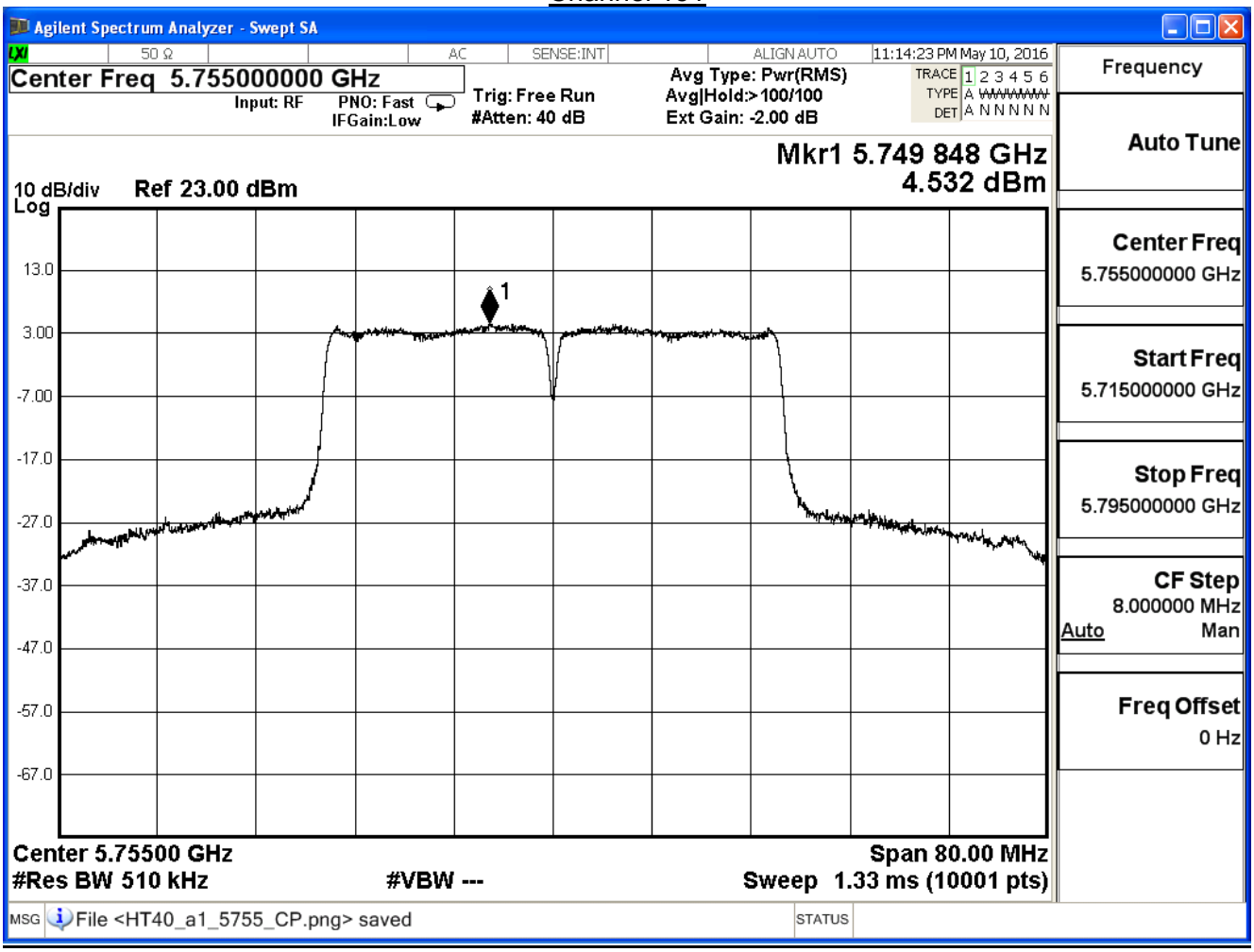

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:15:32 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.798 736 GHz
6.303 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.79500 GHz
#Res BW 510 kHz
#VBW ---
Span 80.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <HT40_a0_5795_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.795000000 GHz
Start Freq
5.755000000 GHz
Stop Freq
5.835000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

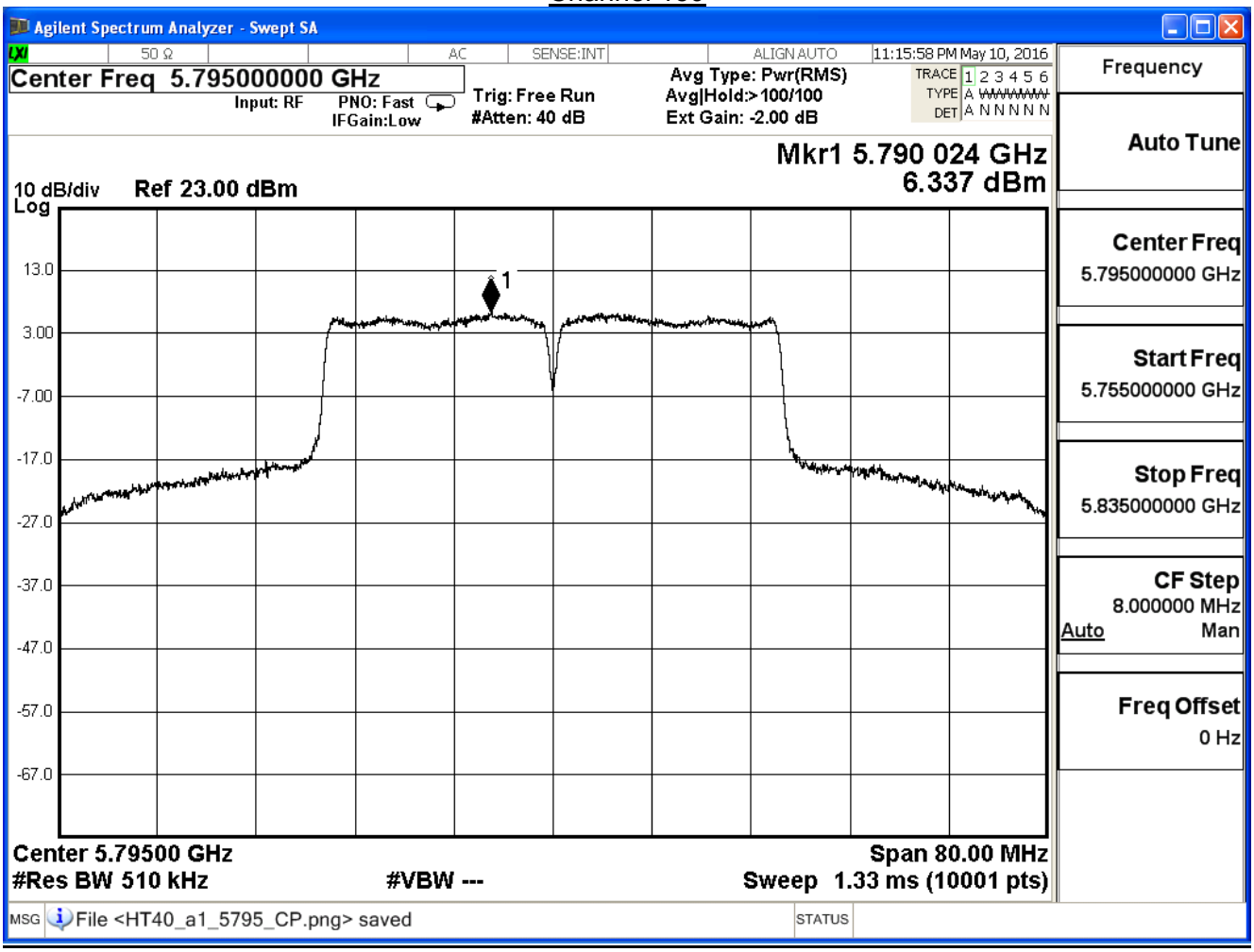
IEEE 802.11n_40MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
151	5755	4.532	≦28.99	Pass
159	5795	6.337	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi_

Channel 151


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:14:23 PM May 10, 2016
Center Freq 5.755000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.749 848 GHz
4.532 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
Center 5.75500 GHz
#Res BW 510 kHz
#VBW ---
Span 80.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <HT40_a1_5755_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.755000000 GHz
Start Freq
5.715000000 GHz
Stop Freq
5.795000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 159


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:15:58 PM May 10, 2016
Center Freq 5.795000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.790 024 GHz
6.337 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.79500 GHz
#Res BW 510 kHz
#VBW ---
Span 80.00 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <HT40_a1_5795_CP.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.795000000 GHz
Start Freq
5.755000000 GHz
Stop Freq
5.835000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE802.11n 40MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
151	5755	9.400	≦28.99	Pass
159	5795	11.298	≦28.99	Pass

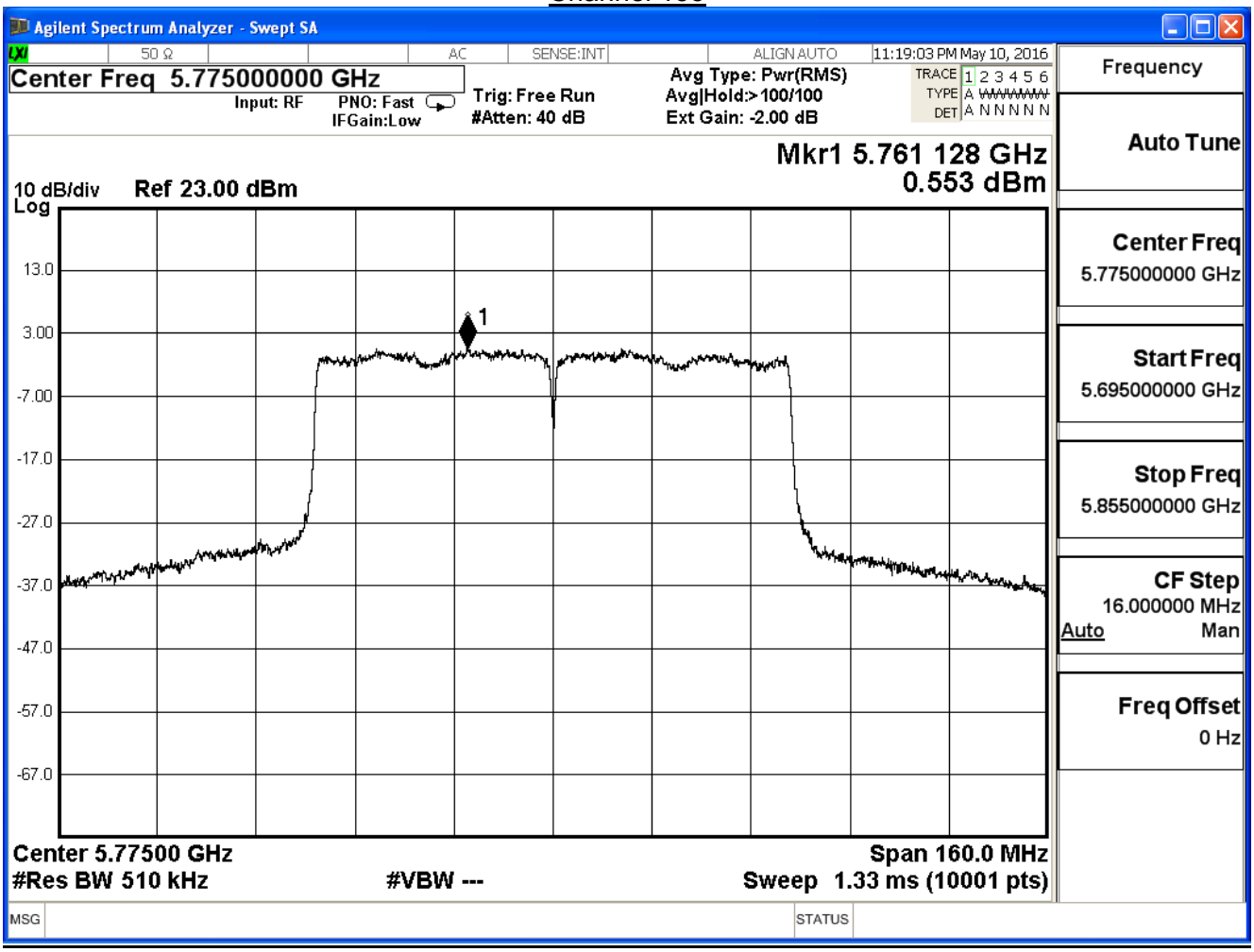
Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac_80MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
155	5775	0.553	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi_

Channel 155

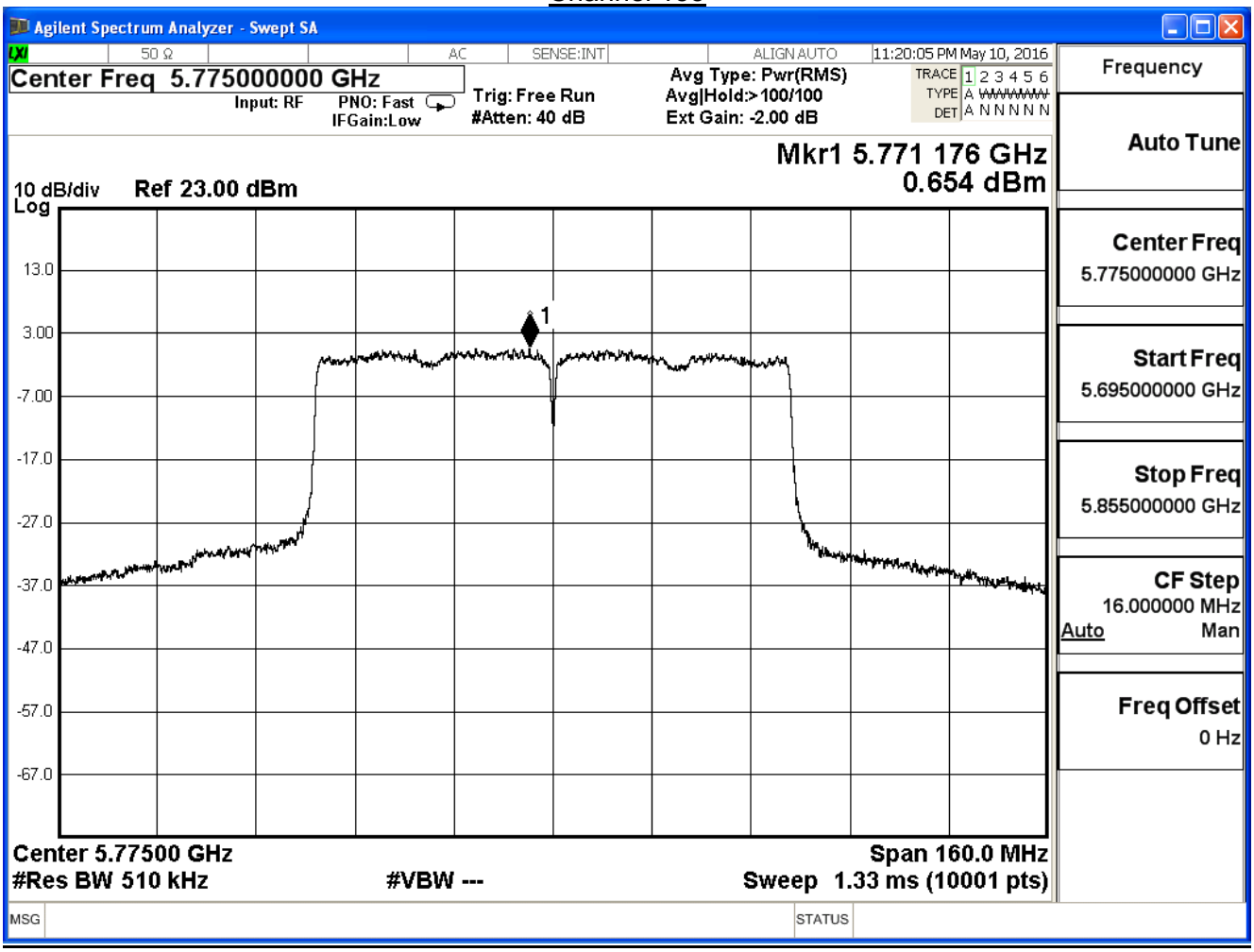

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:19:03 PM May 10, 2016
Center Freq 5.775000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.761 128 GHz
0.553 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.77500 GHz
#Res BW 510 kHz
#VBW ---
Span 160.0 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.775000000 GHz
Start Freq
5.695000000 GHz
Stop Freq
5.855000000 GHz
CF Step
16.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac_80MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
155	5775	0.654	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi

Channel 155

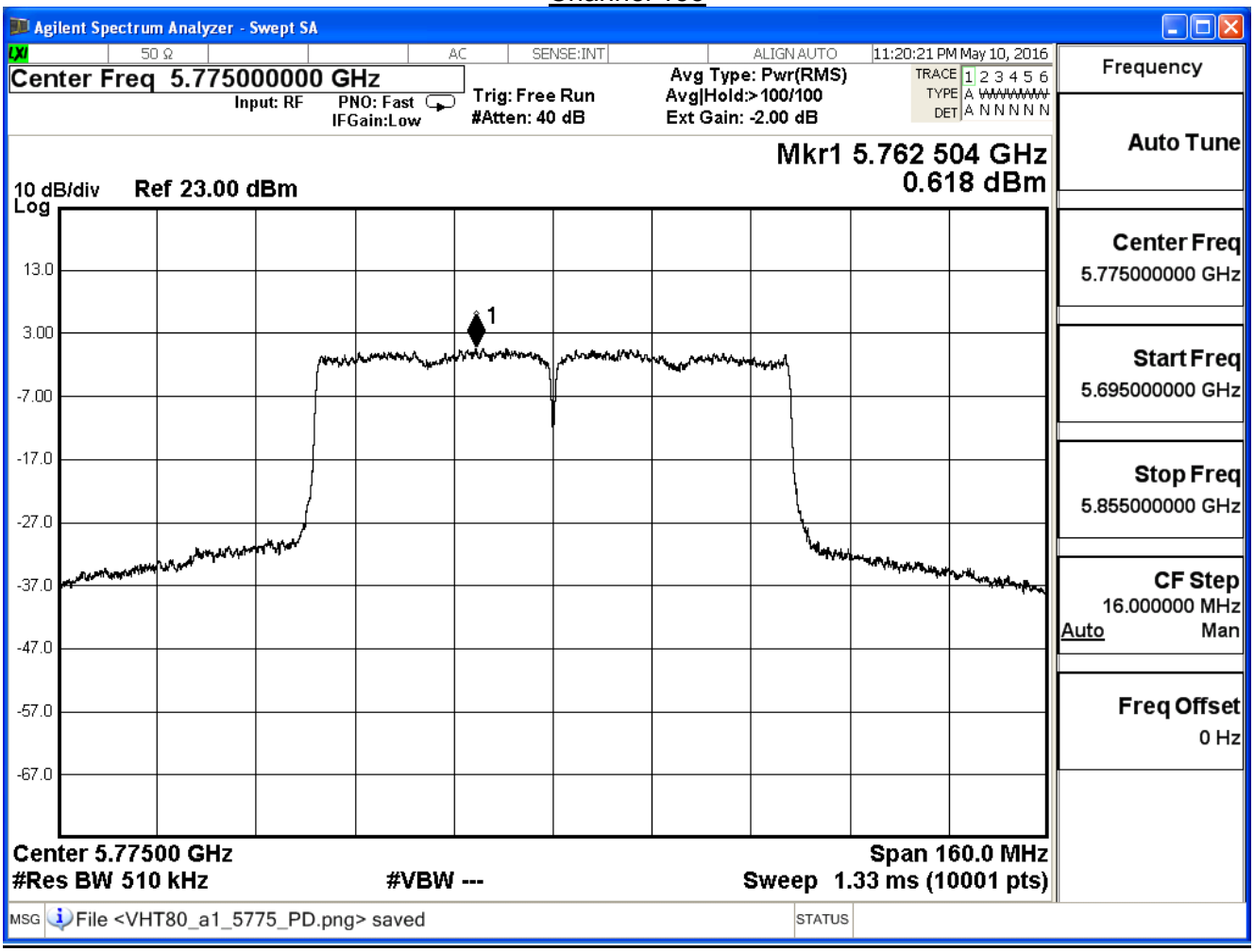

Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:20:05 PM May 10, 2016
Center Freq 5.775000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.771 176 GHz
0.654 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.77500 GHz
#Res BW 510 kHz
#VBW ---
Span 160.0 MHz
Sweep 1.33 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.775000000 GHz
Start Freq
5.695000000 GHz
Stop Freq
5.855000000 GHz
CF Step
16.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac_80MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
155	5775	0.618	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi

Channel 155


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:20:21 PM May 10, 2016
Center Freq 5.775000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Pwr(RMS)
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.762 504 GHz
0.618 dBm
10 dB/div
Log
Ref 23.00 dBm
13.0
3.00
-7.00
-17.0
-27.0
-37.0
-47.0
-57.0
-67.0
1
Center 5.77500 GHz
#Res BW 510 kHz
#VBW ---
Span 160.0 MHz
Sweep 1.33 ms (10001 pts)
MSG
File <VHT80_a1_5775_PD.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.775000000 GHz
Start Freq
5.695000000 GHz
Stop Freq
5.855000000 GHz
CF Step
16.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE802.11ac 80MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
155	5775	5.380	≦28.99	Pass

Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi

5. Radiated Emission

5.1. Test Equipment

The following test equipments are used during the radiated emission test:

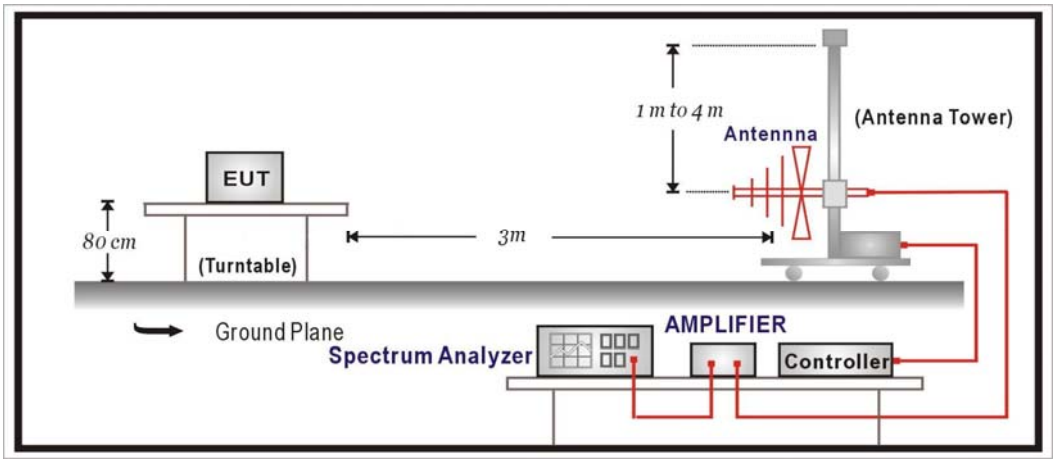
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	Schaffner	CBL6112B	2895	2016/08/14
Double Ridged Guide Horn Antenna	Schwarzbeck	BBHA 9120	D743	2017/01/14
Pre-Amplifier	EMCI	EMC0031835	980233	2017/01/26
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2017/01/03
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/12/24
k Type Cable	Huber+Suhner	SF 102	25623/2	2017/01/11
Horn Antenna	Schwarzbeck	BBHA 9170	203	2016/09/07
Signal & Spectrum Analyzer	R&S	FSV40	101049	2017/01/05

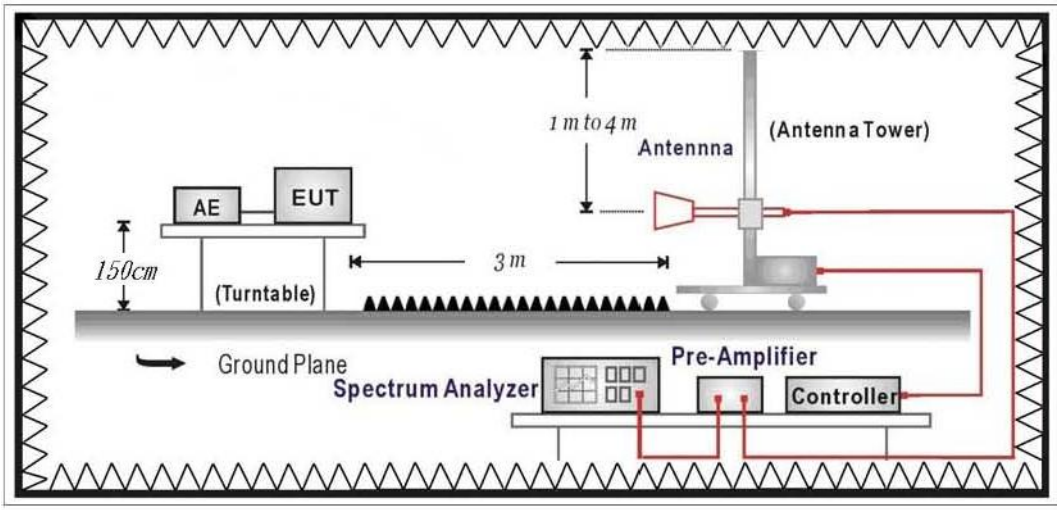
Note: All equipments that need to calibrate are with calibration period of 1 year.

5.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



5.3. Limits

➢ General Radiated Emission Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remark:

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

➢ Unwanted Emission out of the restricted bands Limits

FCC Part 15 Subpart C Paragraph 15.407(b) Limits		
Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength (dBuV/m@3m)
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5850	-27 (Note1)	68.3
	-17 (Note2)	78.3

Remark:

1. For frequencies more than 10 MHz above or below the band edges.
2. For frequency range from the band edges to 10 MHz above or below the band edges.
3. uV/m = $\frac{1000000\sqrt{30 \times EIRP}}{3}$, RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)

5.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2009 on radiated measurement.
The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field dtrength of harmonics measurement.
The bandwidth below 1GHz setting on the field strength meter is 120 KHz, above 1GHz are 1 MHz.
The frequency range from 30MHz to 10th harminics is checked.

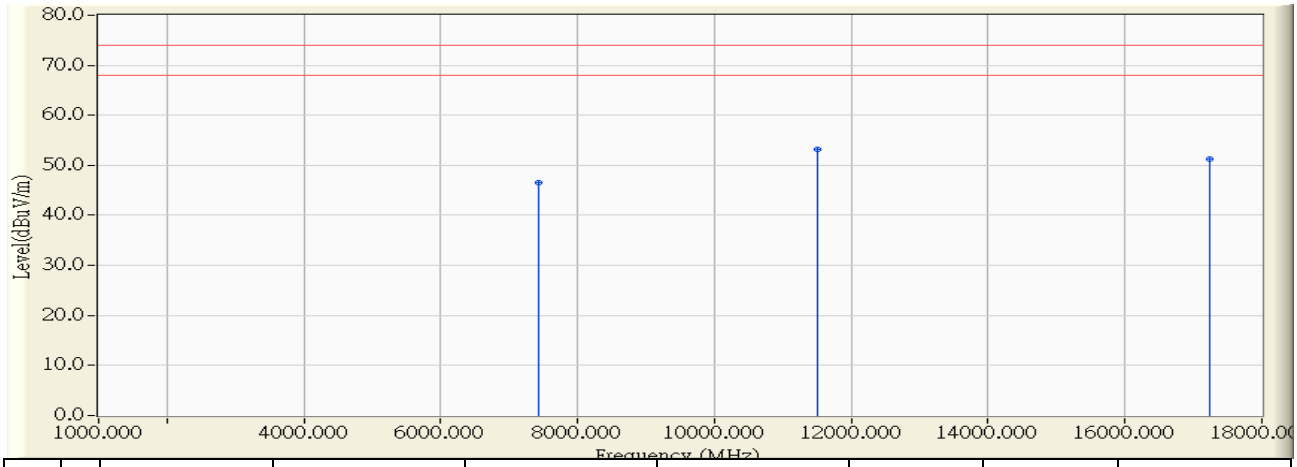
5.5. Uncertainty

The measurement uncertainty
30MHz～1GHz as ±3.43dB
1GHz～26.5Ghz as ±3.65dB

5.6. Test Result

Above 1GHz Spurious

Site : CB1	Time : 2016/05/11 - 00:30
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 3.3V (Power by PC)
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	Note : 802.11a_5745MHz

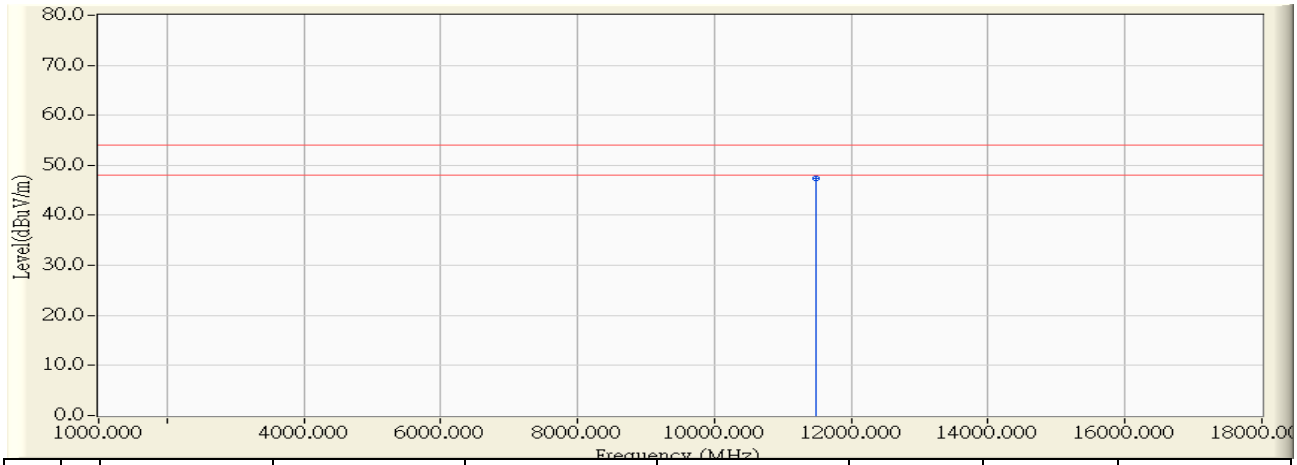


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7426.000	6.299	40.234	46.534	-27.466	74.000	PEAK
2	*	11497.500	11.030	42.250	53.280	-20.720	74.000	PEAK
3		17235.000	14.361	36.875	51.237	-22.763	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 00:33**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11a_5745MHz**

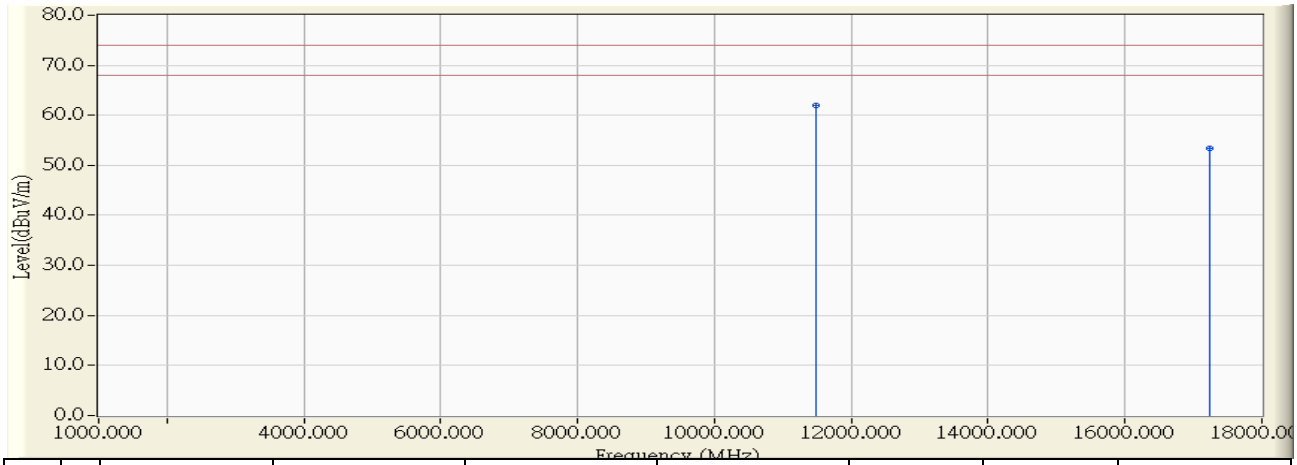


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11489.540	11.040	36.360	47.400	-6.600	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 00:35**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11a_5745MHz**

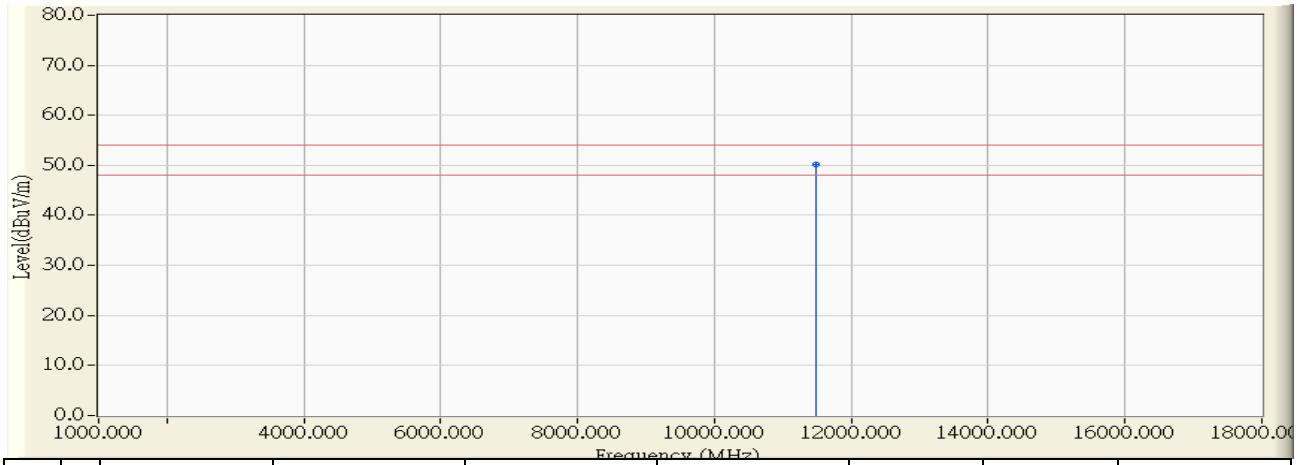


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11493.600	10.780	51.260	62.040	-11.960	74.000	PEAK
2		17228.720	14.331	39.180	53.511	-20.489	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 00:38**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11a_5745MHz**

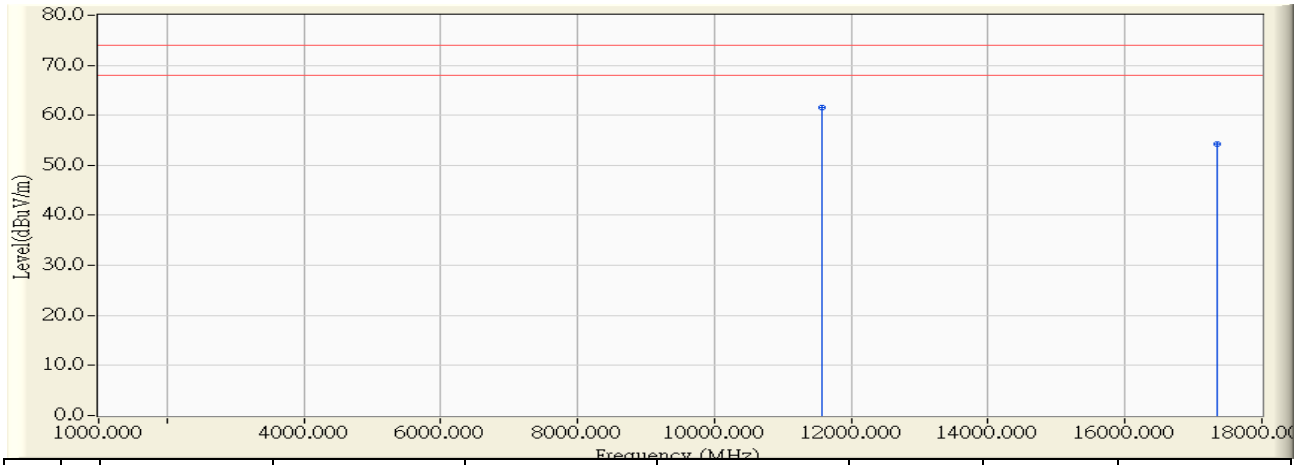


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11489.500	10.787	39.300	50.087	-3.913	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 00:45**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11a_5785MHz**

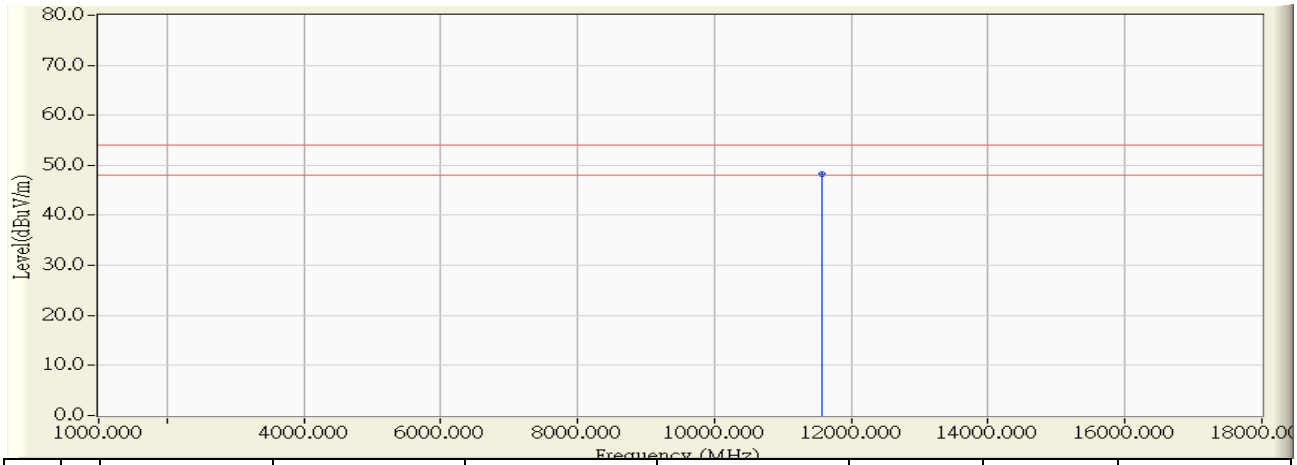


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11565.160	10.947	50.670	61.616	-12.384	74.000	PEAK
2		17349.360	14.910	39.280	54.190	-19.810	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 00:49**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11a_5785MHz**

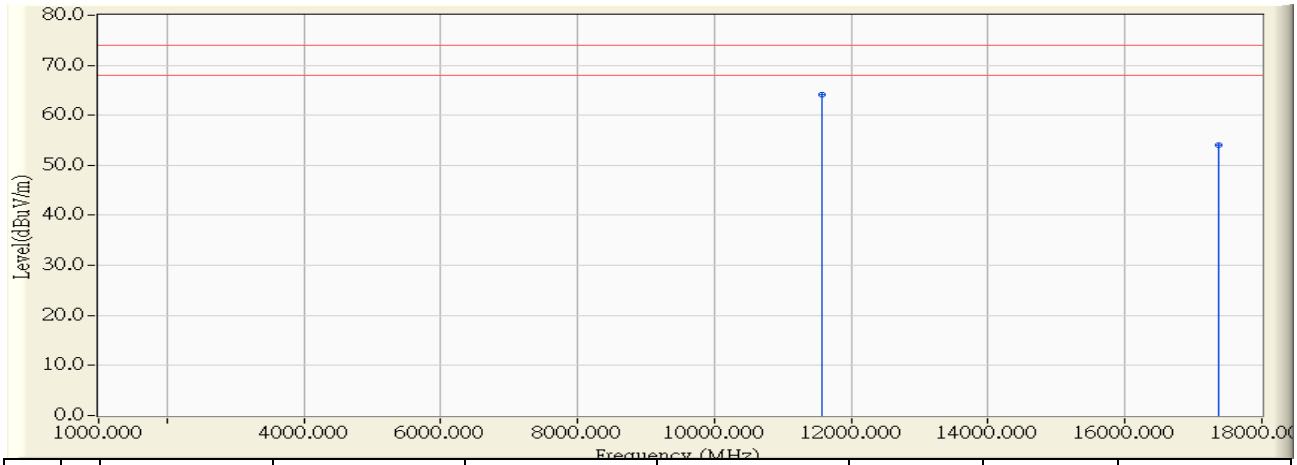


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11573.000	10.937	37.360	48.297	-5.703	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 00:59**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11a_5785MHz**

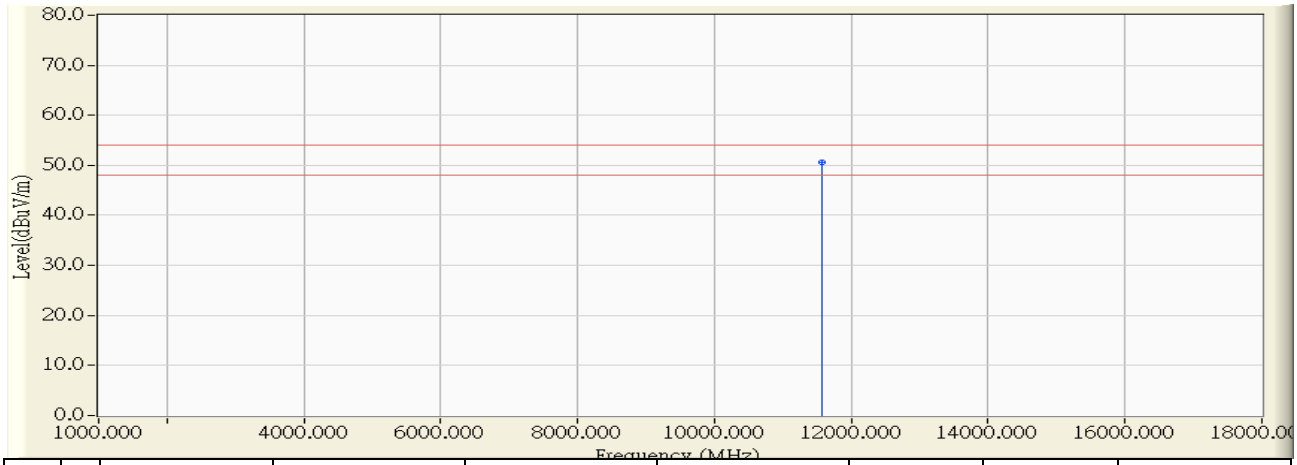


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11575.220	10.639	53.420	64.058	-9.942	74.000	PEAK
2		17358.000	14.951	39.100	54.051	-19.949	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 01:02**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11a_5785MHz**

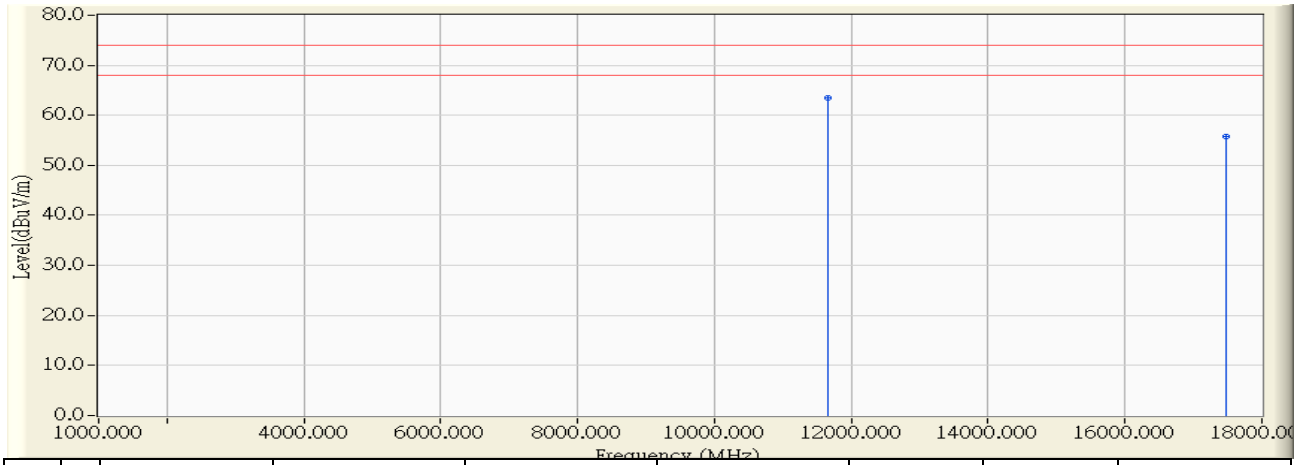


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11573.880	10.640	39.950	50.590	-3.410	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 09:28**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11a_5825MHz**

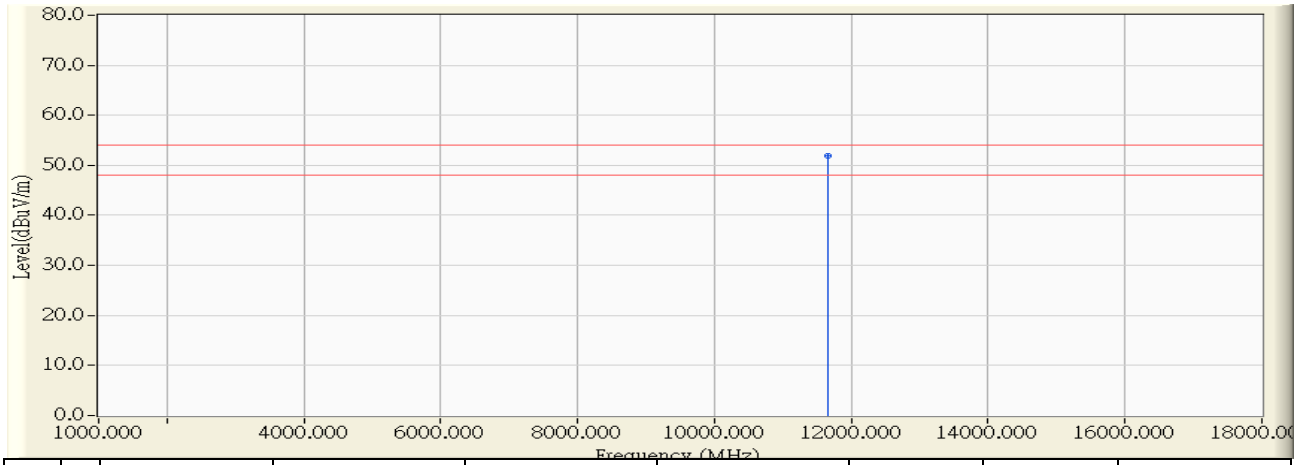


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11648.650	10.844	52.730	63.573	-10.427	74.000	PEAK
2		17477.200	15.536	40.140	55.676	-18.324	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 09:30**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11a_5825MHz**

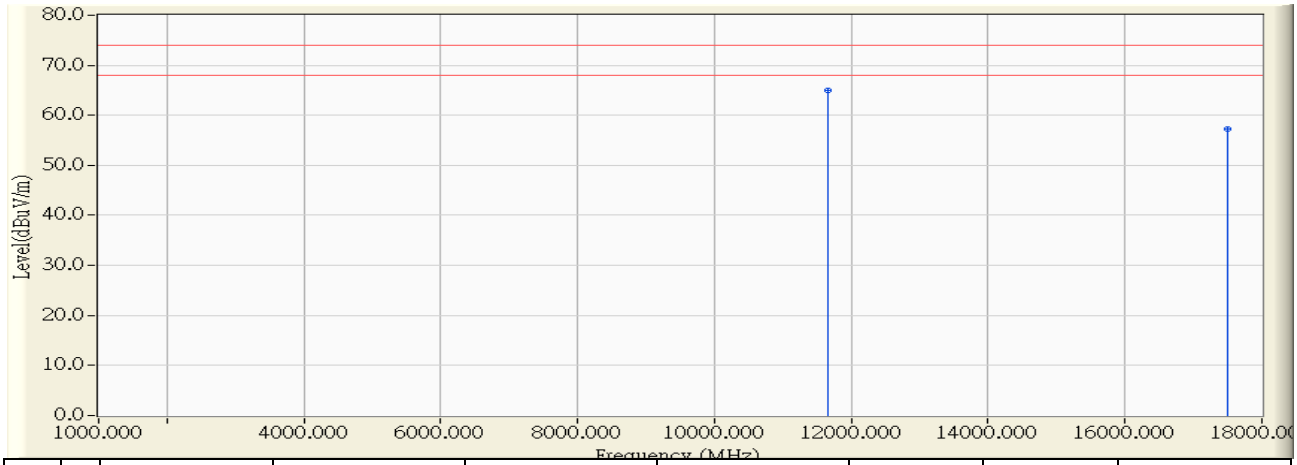


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11649.550	10.842	40.960	51.802	-2.198	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 09:33**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11a_5825MHz**

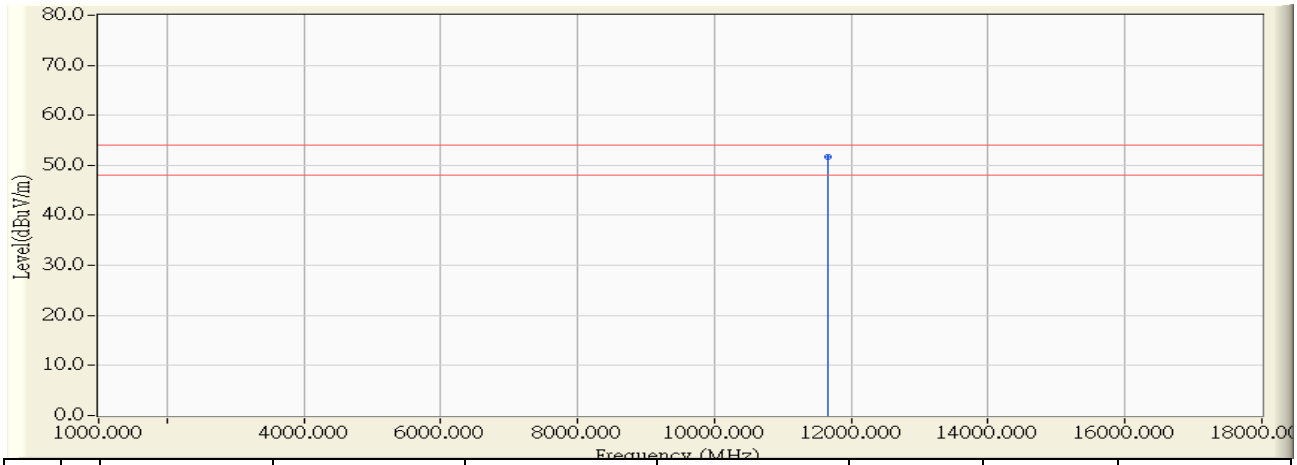


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11655.650	10.498	54.450	64.948	-9.052	74.000	PEAK
2		17495.000	15.700	41.490	57.190	-16.810	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 09:35**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11a_5825MHz**

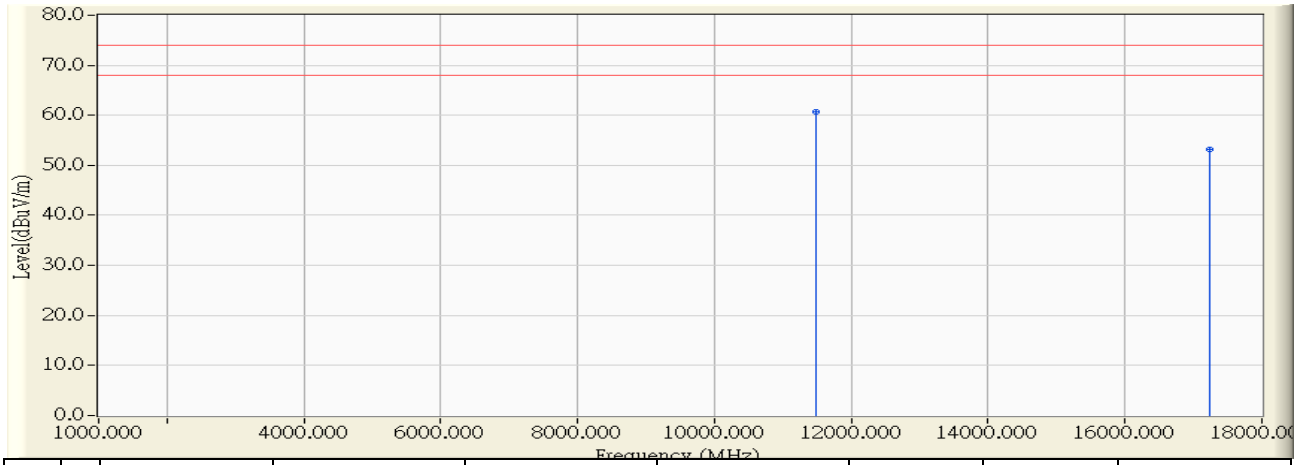


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11653.900	10.501	41.210	51.711	-2.289	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 09:38**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5745MHz**

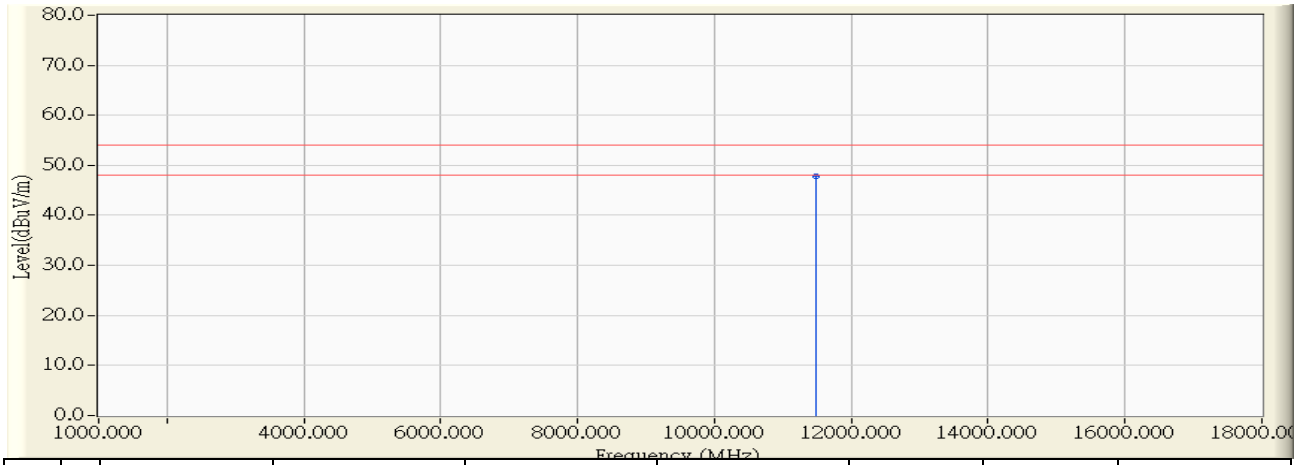


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11481.075	11.047	49.560	60.608	-13.392	74.000	PEAK
2		17230.300	14.339	38.790	53.129	-20.871	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 09:40**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5745MHz**

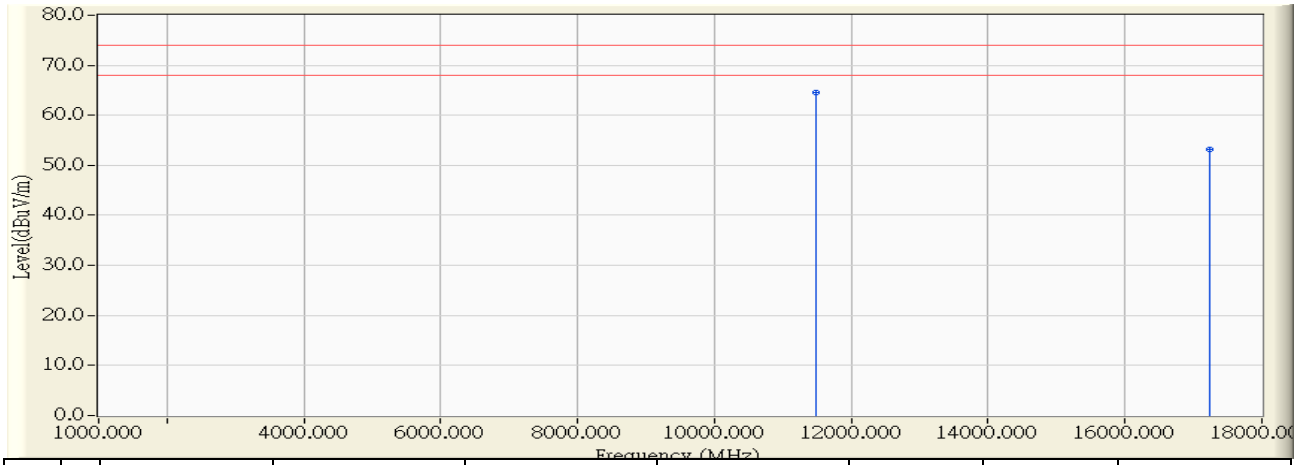


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11493.200	11.036	36.740	47.775	-6.225	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 09:52**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5745MHz**

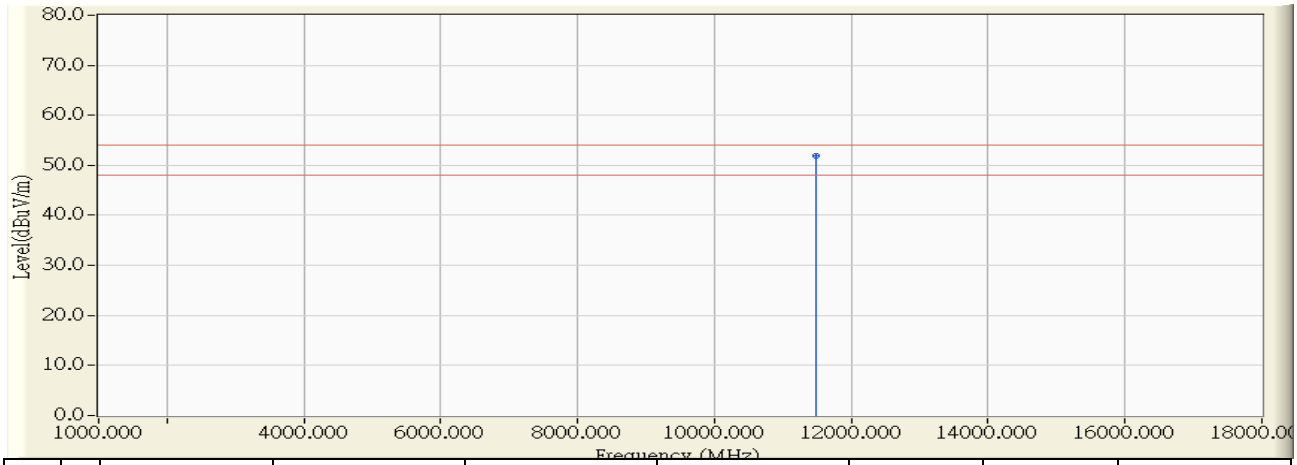


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11491.300	10.783	53.870	64.654	-9.346	74.000	PEAK
2		17235.525	14.365	38.860	53.224	-20.776	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 09:53**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5745MHz**

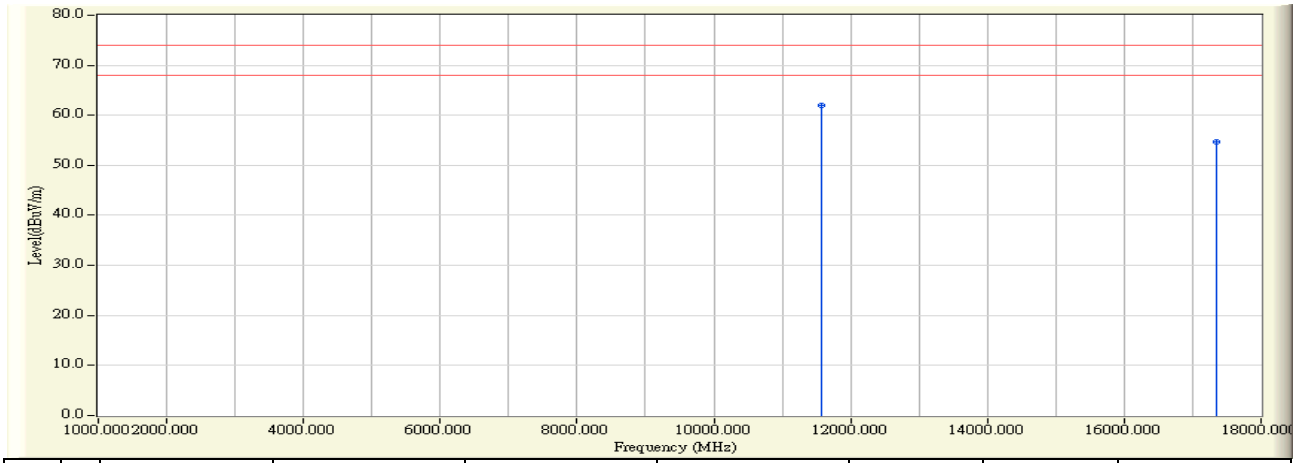


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11489.000	10.788	41.050	51.838	-2.162	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 09:57**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5785MHz**

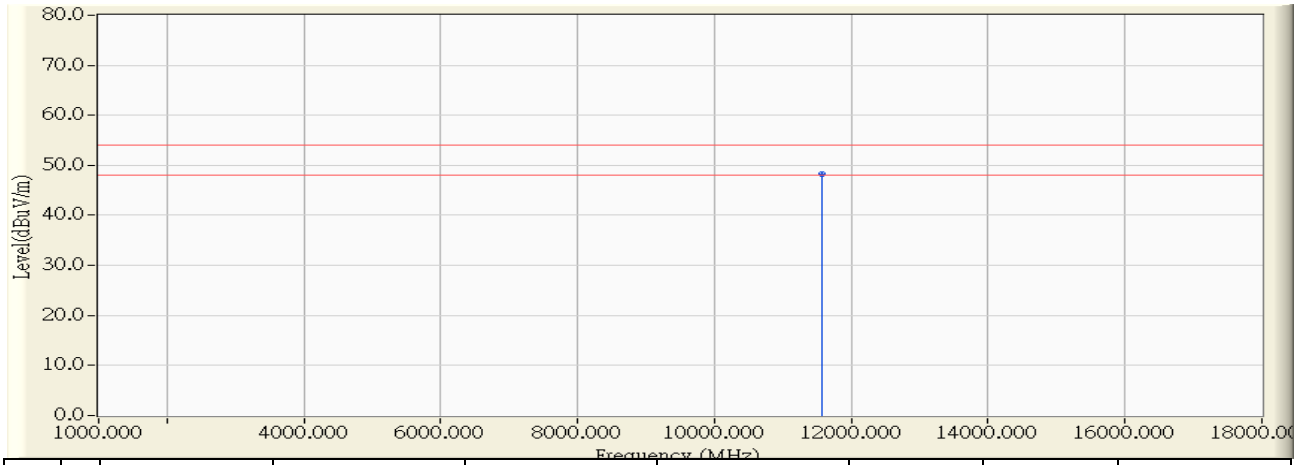


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11571.325	10.939	51.040	61.979	-12.021	74.000	PEAK
2		17355.240	14.857	39.870	54.727	-19.273	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 10:01**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5785MHz**

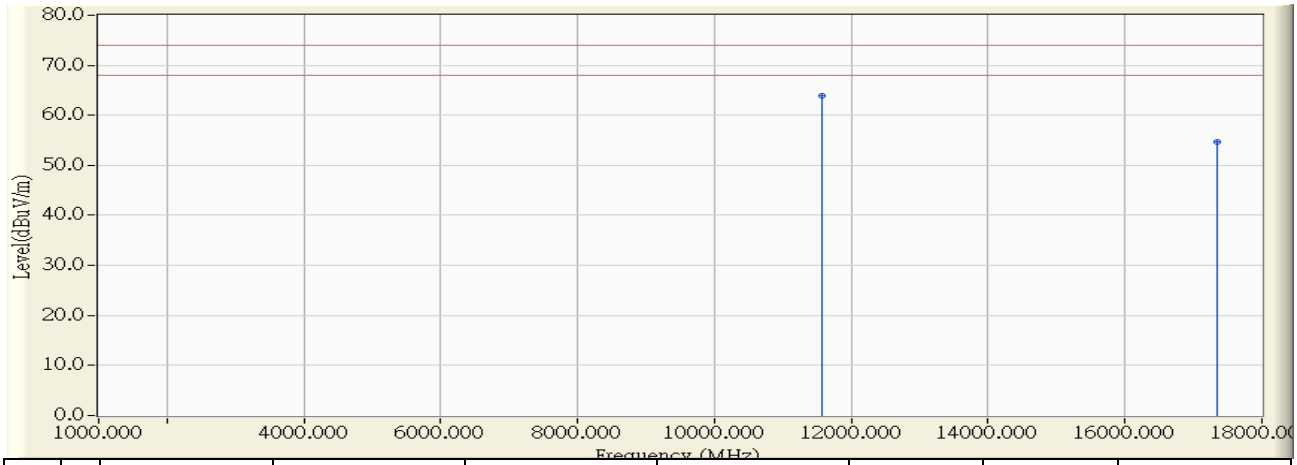


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.825	10.939	37.390	48.329	-5.671	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 20:06**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5785MHz**

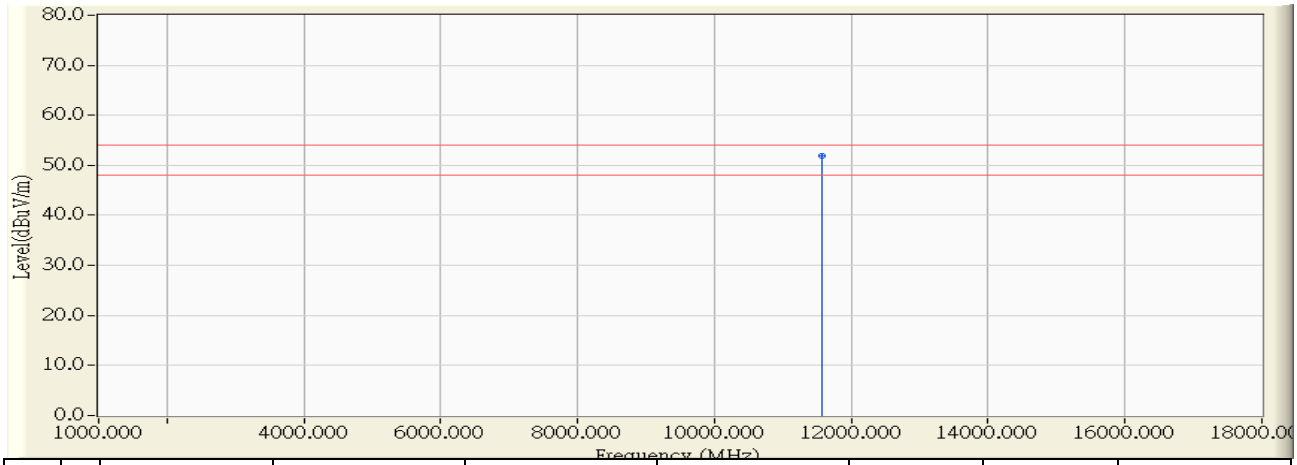


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11571.260	10.644	53.310	63.955	-10.045	74.000	PEAK
2		17352.360	14.924	39.710	54.634	-19.366	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 20:12**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5785MHz**

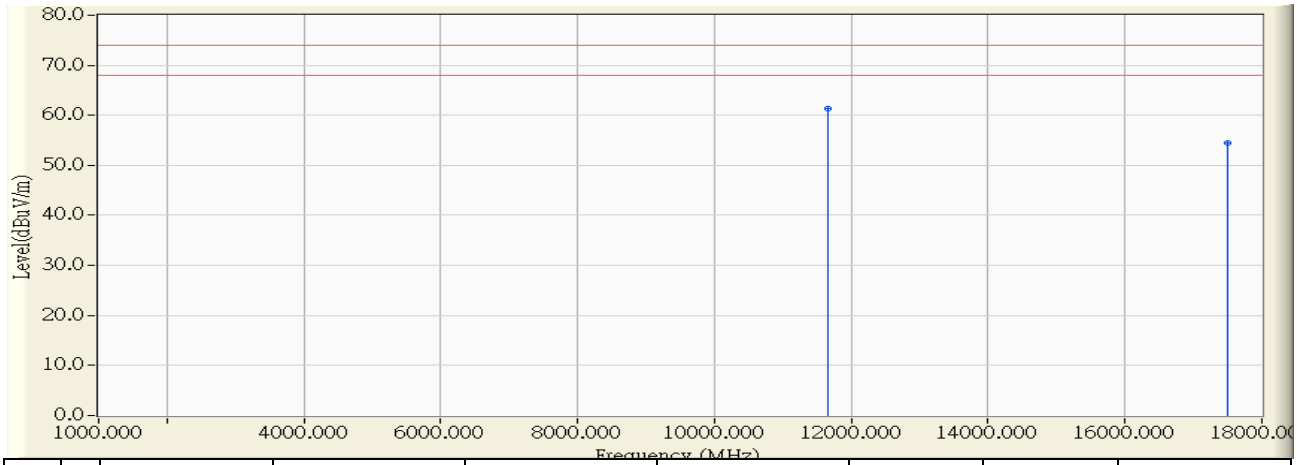


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11571.460	10.644	41.340	51.984	-2.016	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 20:19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5825MHz**

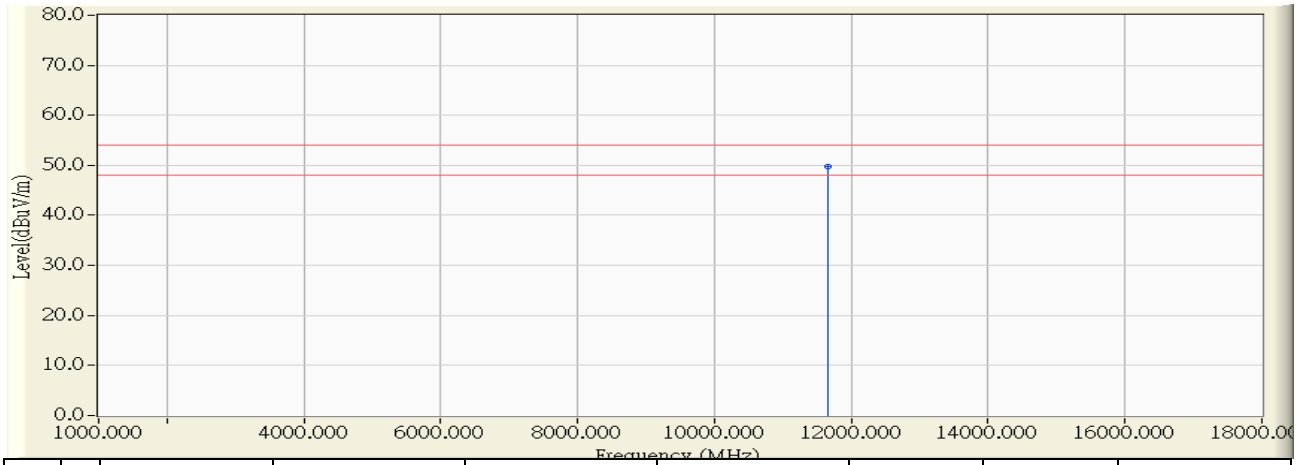


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.700	10.839	50.430	61.270	-12.730	74.000	PEAK
2		17493.000	15.675	38.780	54.455	-19.545	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 20:23**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5825MHz**

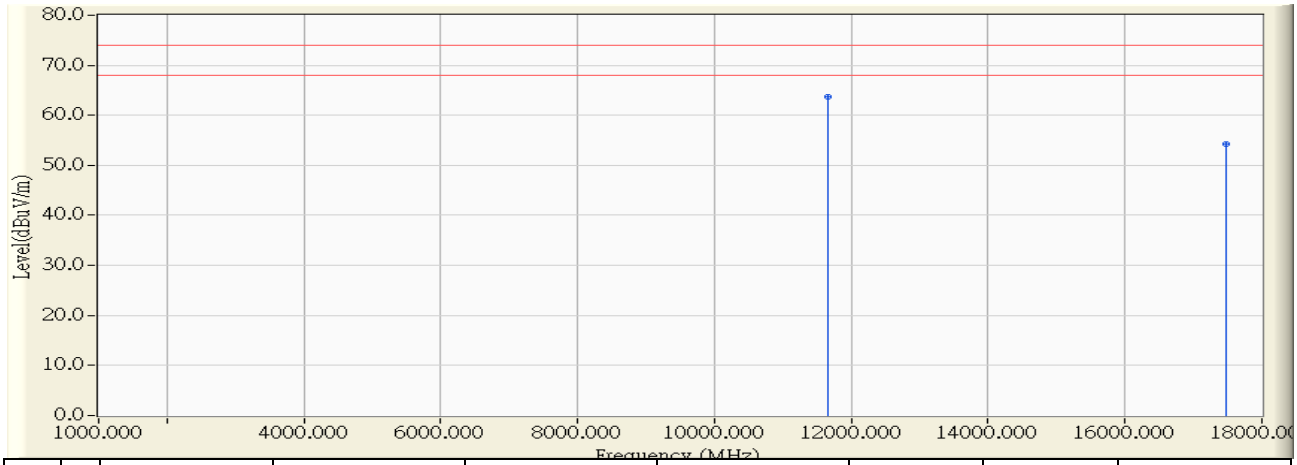


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11649.040	10.843	38.840	49.682	-4.318	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 20:54**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5825MHz**

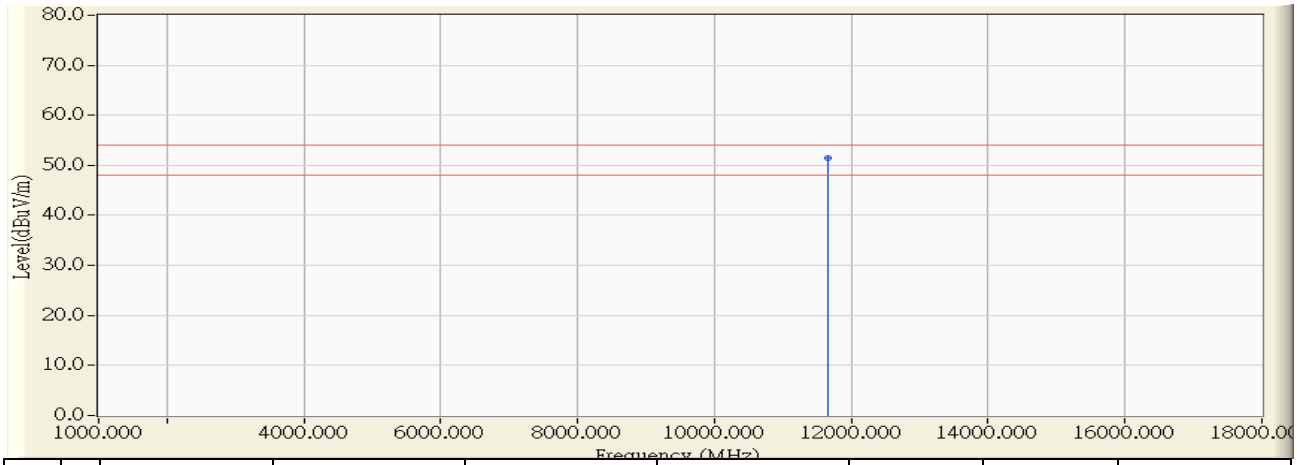


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11649.140	10.510	53.100	63.609	-10.391	74.000	PEAK
2		17486.600	15.611	38.730	54.341	-19.659	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 21:01**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(20M)_5825MHz**

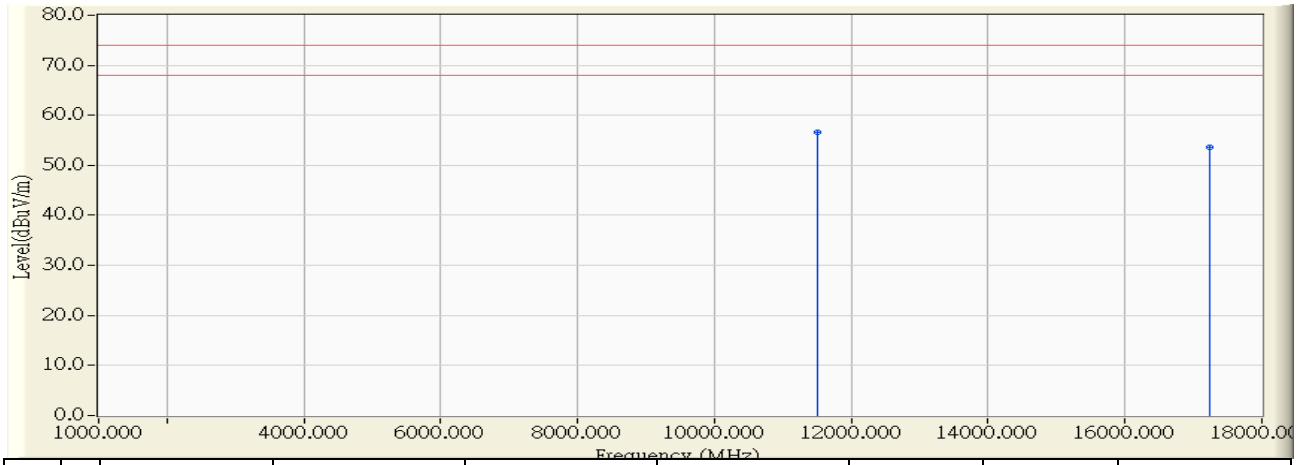


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11649.440	10.509	40.970	51.479	-2.521	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 21:53**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(40M)_5755MHz**

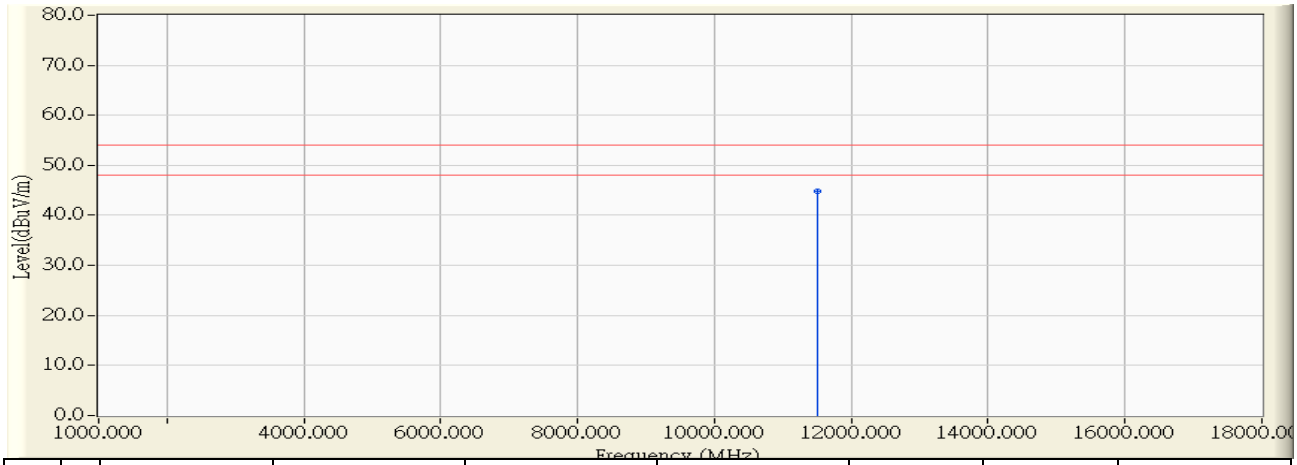


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11510.550	11.014	45.690	56.704	-17.296	74.000	PEAK
2		17247.850	14.423	39.290	53.713	-20.287	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 21:56**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(40M)_5755MHz**

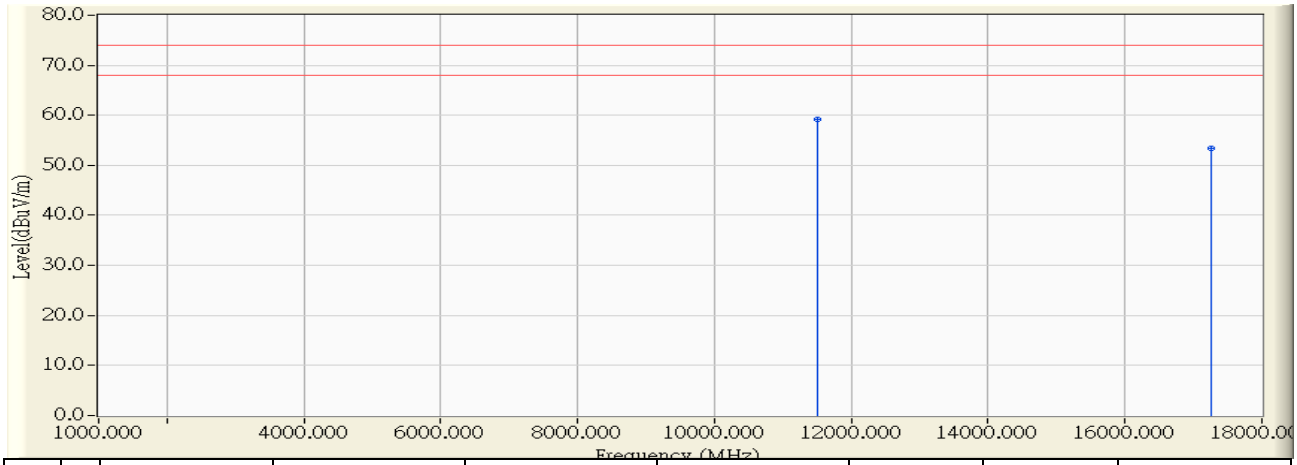


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11515.350	11.008	33.810	44.818	-9.182	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 22:10**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(40M)_5755MHz**

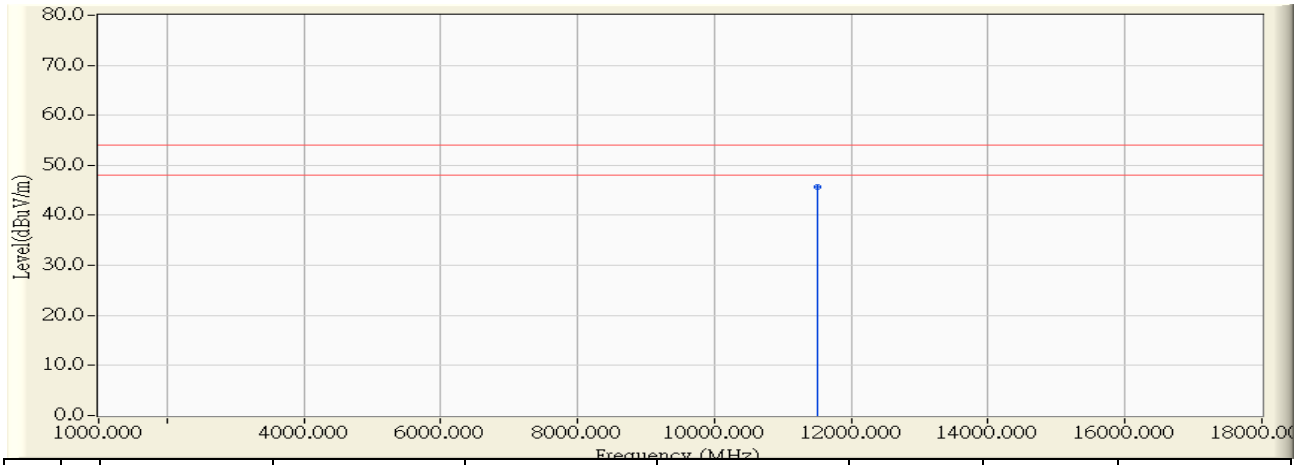


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11508.900	10.753	48.540	59.293	-14.707	74.000	PEAK
2		17267.150	14.515	38.940	53.456	-20.544	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 22:13**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(40M)_5755MHz**

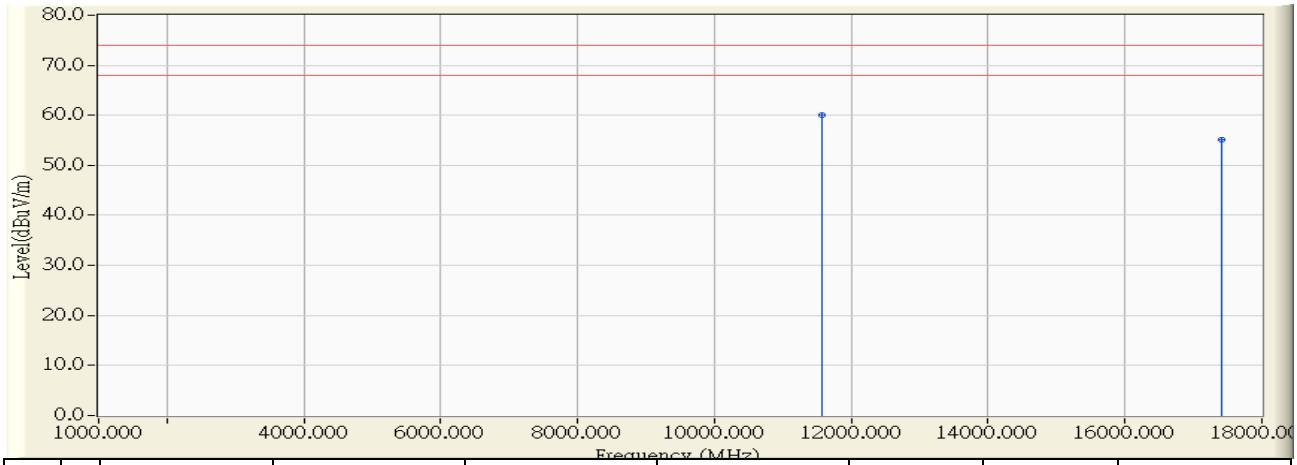


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11503.900	10.762	34.900	45.662	-8.338	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 22:18**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(40M)_5795MHz**

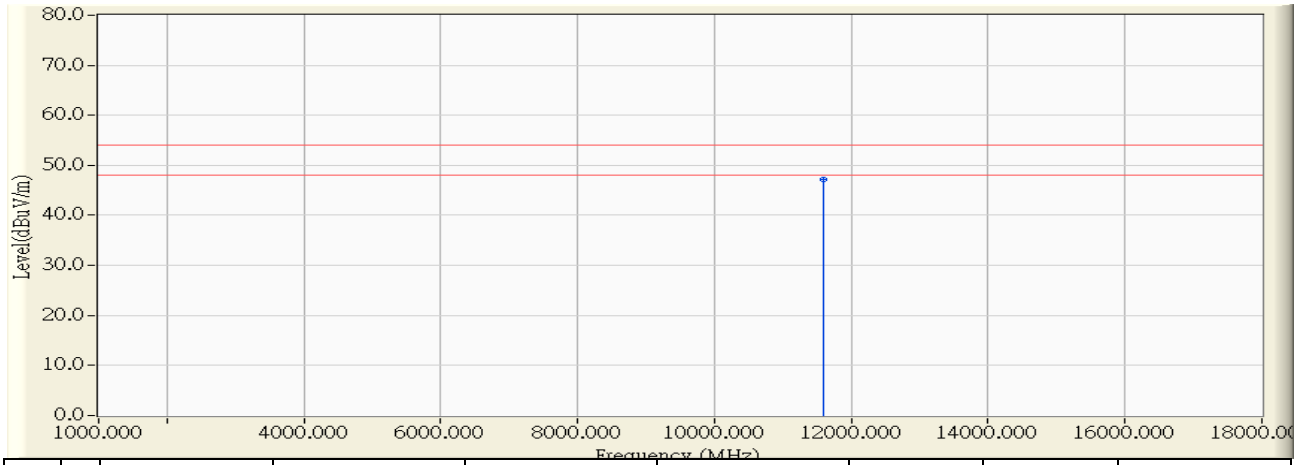


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11573.150	10.937	49.220	60.156	-13.844	74.000	PEAK
2		17408.850	15.196	39.930	55.125	-18.875	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 22:24**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(40M)_5795MHz**

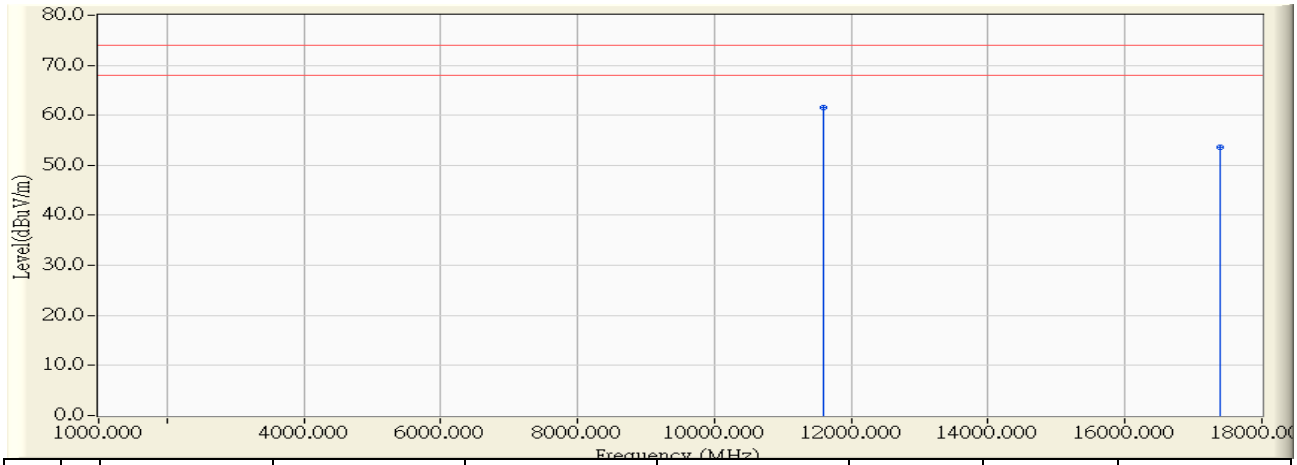


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11583.950	10.924	36.310	47.233	-6.767	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 22:29**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(40M)_5795MHz**

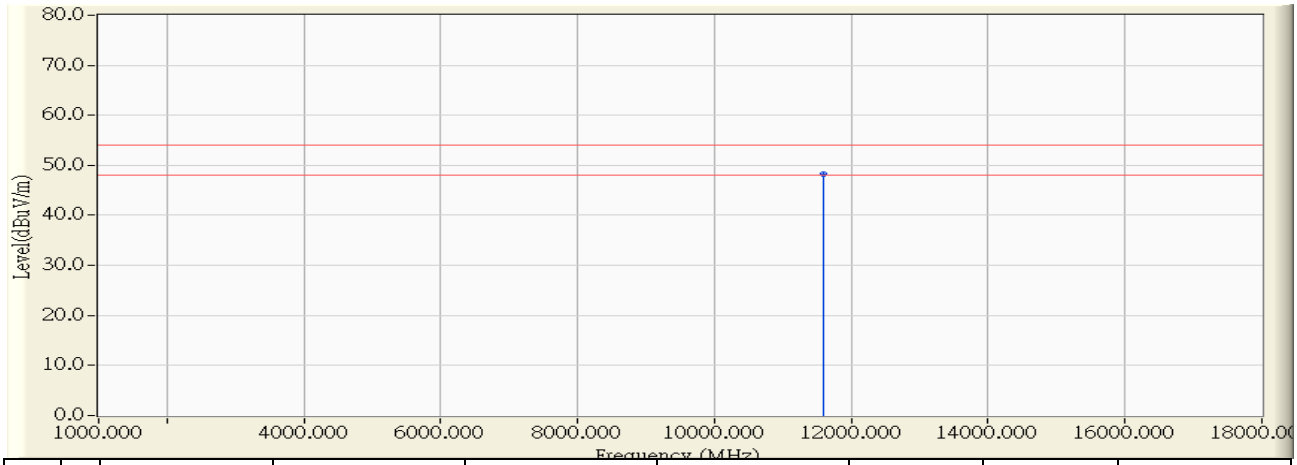


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11589.200	10.614	50.930	61.543	-12.457	74.000	PEAK
2		17383.550	15.074	38.650	53.724	-20.276	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 22:31**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11n(40M)_5795MHz**

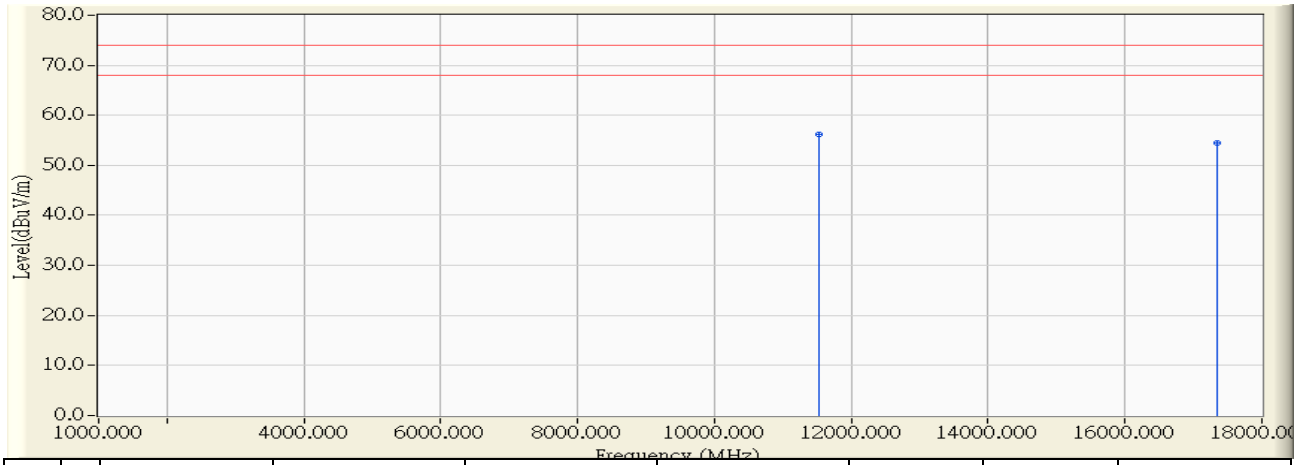


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11589.800	10.612	37.670	48.282	-5.718	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 22:37**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11ac(80M)_5775MHz**

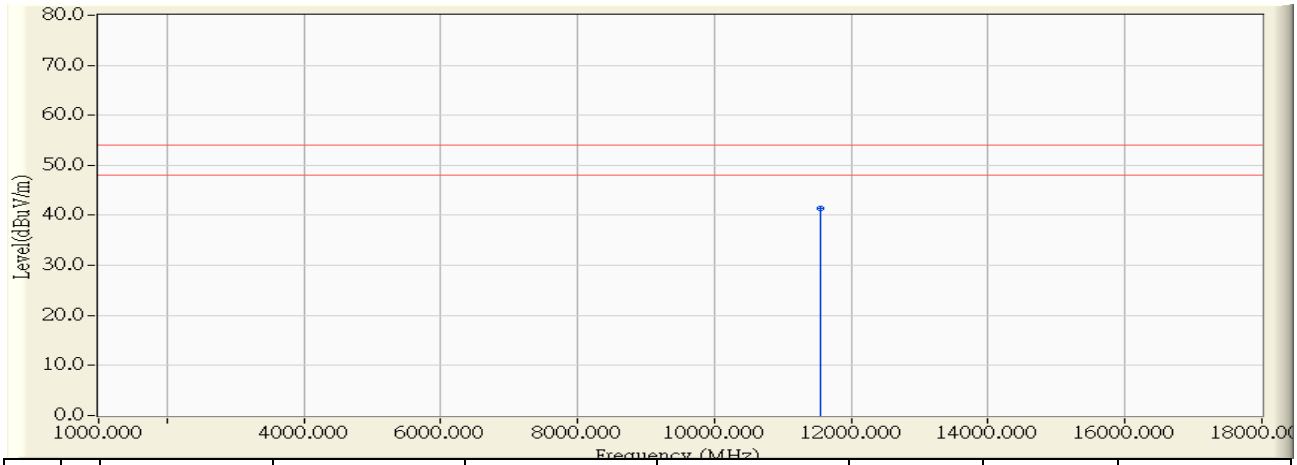


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11533.100	10.986	45.110	56.096	-17.904	74.000	PEAK
2		17352.250	14.924	39.610	54.534	-19.466	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 22:40**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11ac(80M)_5775MHz**

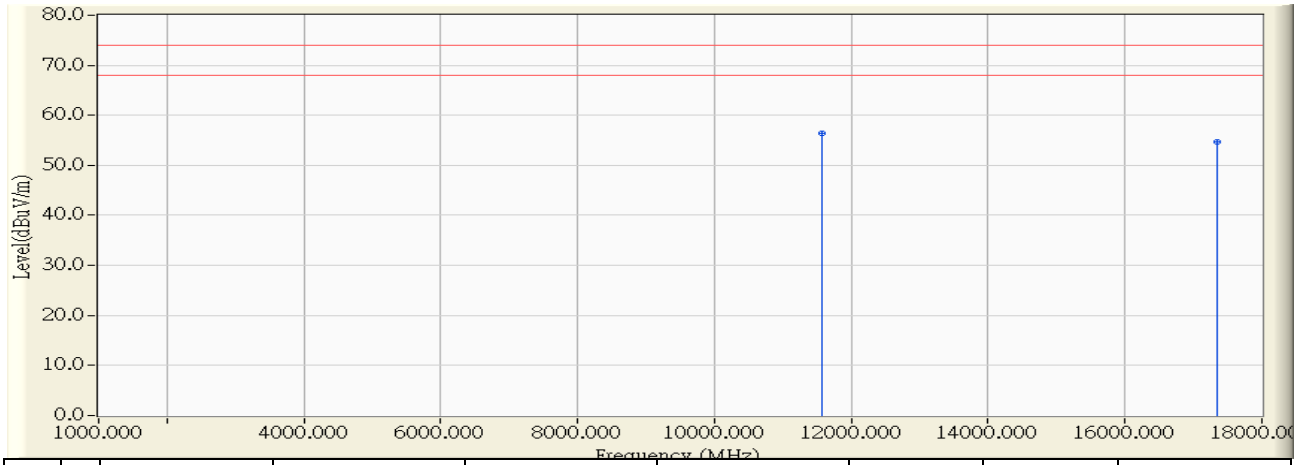


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11555.700	10.958	30.500	41.458	-12.542	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 22:50**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11ac(80M)_5775MHz**

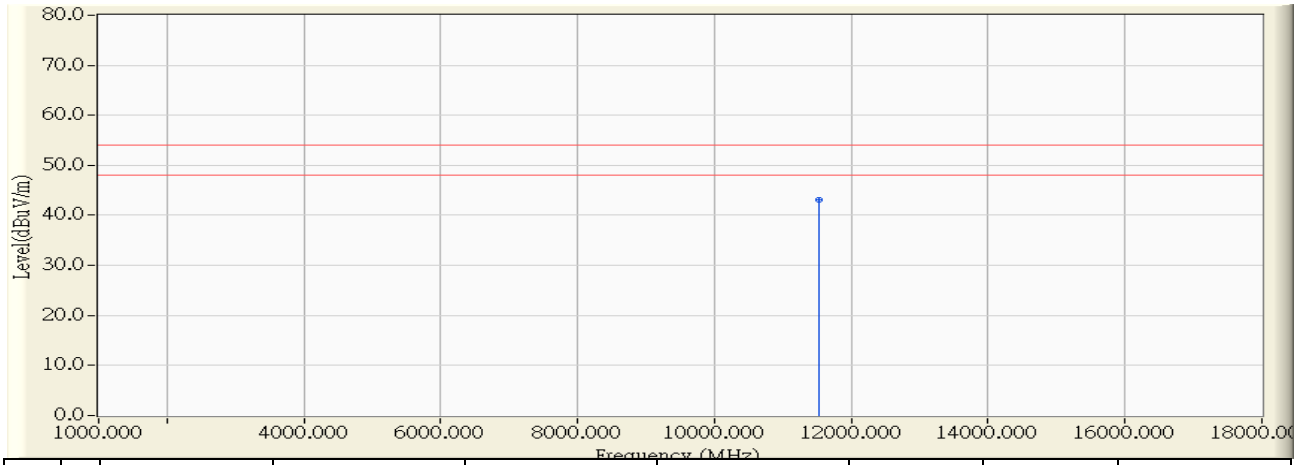


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.950	10.645	45.790	56.435	-17.565	74.000	PEAK
2		17340.000	14.865	39.880	54.745	-19.255	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

Site : CB1	**Time : 2016/05/11 - 22:53**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : DC 3.3V (Power by PC)**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Note : 802.11ac(80M)_5775MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11533.600	10.710	32.440	43.150	-10.850	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 18GHz were not included is because their levels are too low.

6. Band Edge

6.1. Test Equipment

The following test equipments are used during the band edge tests:

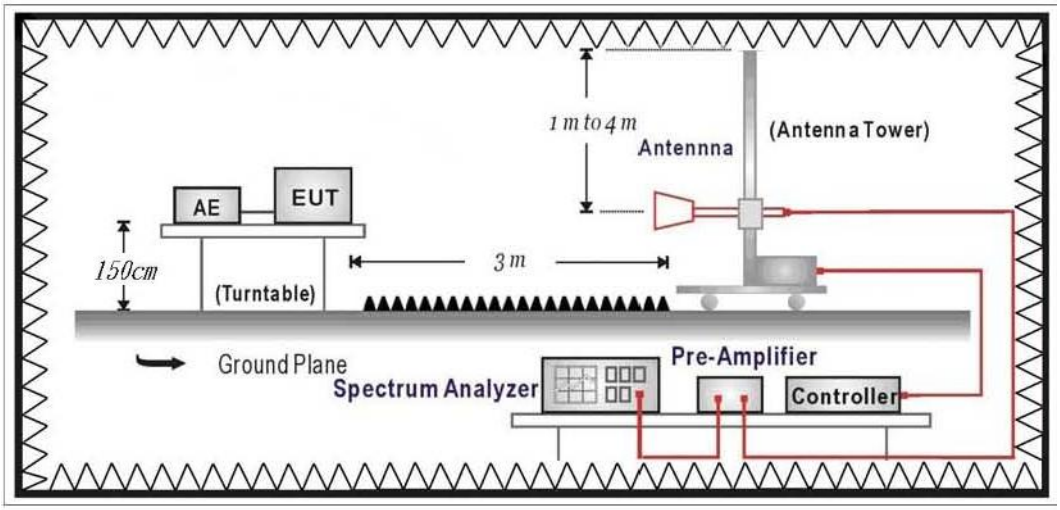
Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzbeck	BBHA 9120	D743	2017/01/14
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/12/24
k Type Cable	Huber+Suhner	SF 102	25623/2	2017/01/11
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2017/01/03
Pre-Amplifier	EMCI	EMC0031835	980233	2017/01/26

Note: All equipments that need to calibrate are with calibration period of 1 year.

6.2. Test Setup

RF Radiated Measurement:



6.3. Limits

➢ General Radiated Emission Limits

The provisions of Section 15.205 of this part apply to intentional radiators operating under this section. Radiated emissions which fall in the restricted bands, as defined in Section 15.205, must also comply with the radiated emission limits specified in Section 15.209:

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remark:

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

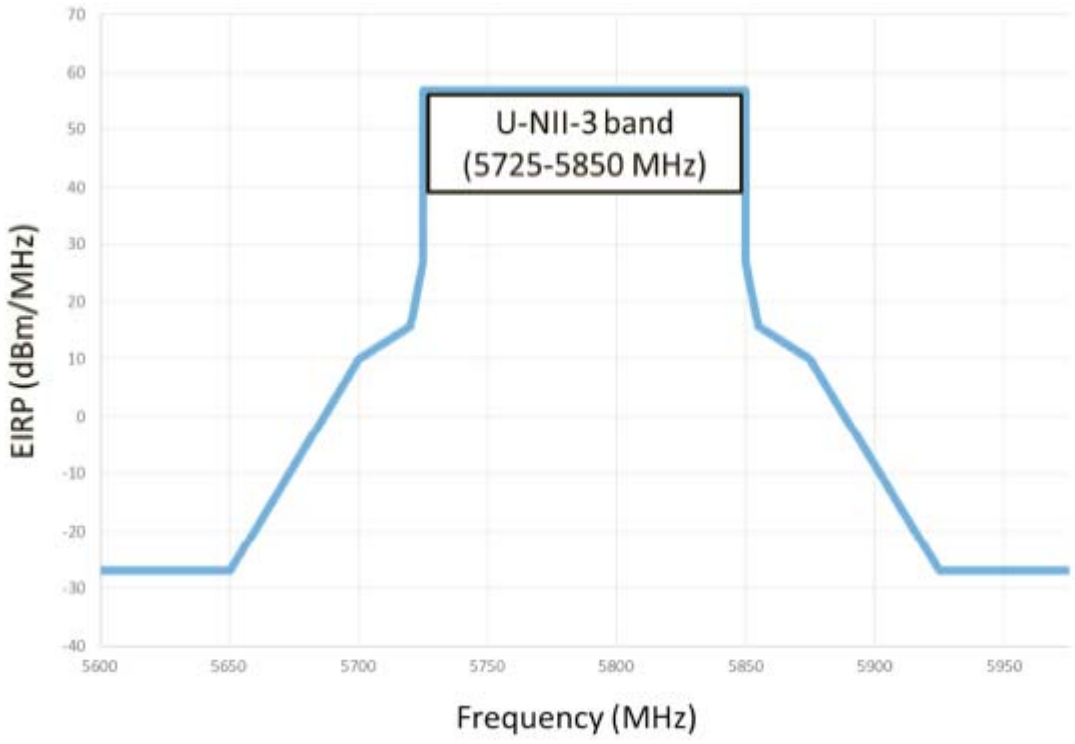
➢ Unwanted Emission out of the restricted bands Limits

FCC Part 15 Subpart E Paragraph 15.407(b) Limits		
Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength (dBuV/m@3m)
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5850	-27 (Note1)	68.3
	-17 (Note2)	78.3

4. For transmitters operating in the 5.725-5.85 GHz band

(i) 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 27dBm/MHz at the band edge.

(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in Section 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in Section 15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.



Remark:

1. For frequencies more than 10 MHz above or below the band edges.
2. For frequency range from the band edges to 10 MHz above or below the band edges.
3. uV/m = $\frac{1000000\sqrt{30 \times EIRP}}{3}$, RF Voltage (dBuV/m) = 20 log RF Voltage (uV/m)

6.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2009 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 KHz, above 1GHz are 1 MHz.

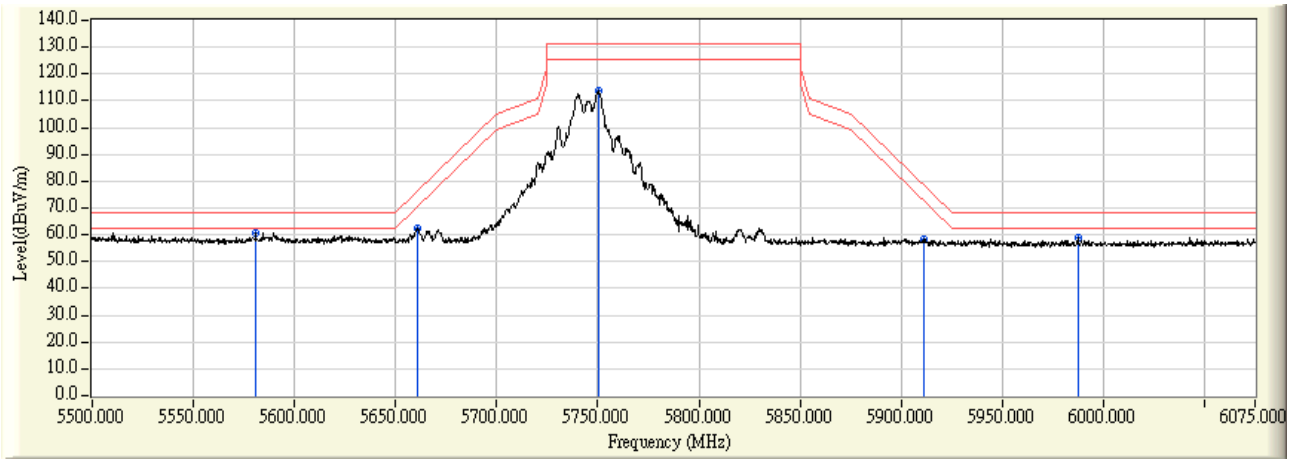
6.5. Uncertainty

The measurement uncertainty is defined as ± 3.65dB

6.6. Test Result

Radiated is defined as

Site : CB1	**Time : 2016/05/11 - 10:00**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

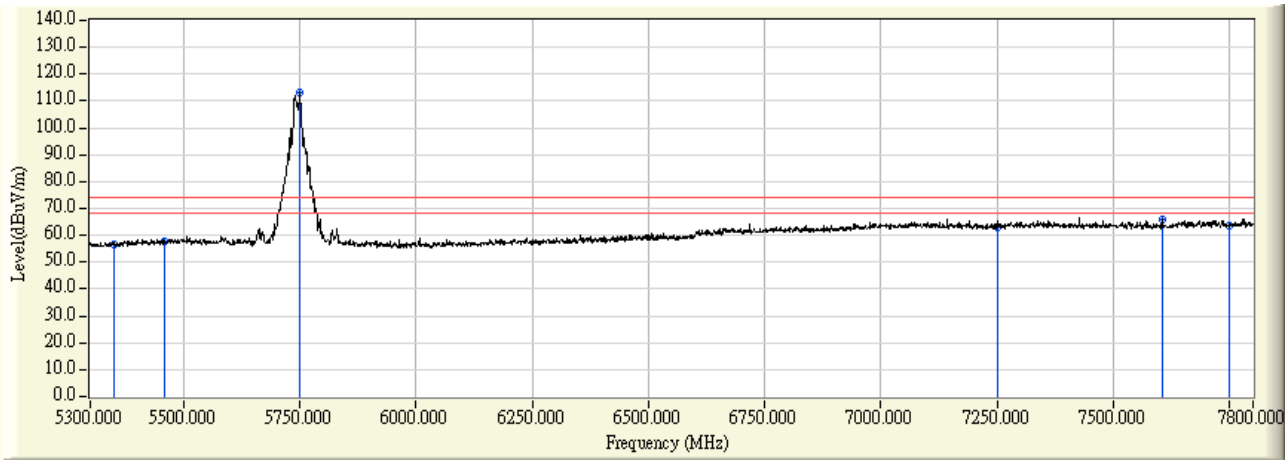


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5580.788	1.810	58.688	60.498	-7.702	68.200	PEAK
2		5660.713	1.618	60.867	62.485	-13.643	76.128	PEAK
3		5750.125	1.403	112.177	113.580	-17.620	131.200	PEAK
4		5911.125	1.016	57.239	58.255	-20.212	78.467	PEAK
5		5987.313	0.873	58.041	58.914	-9.286	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 17:45**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

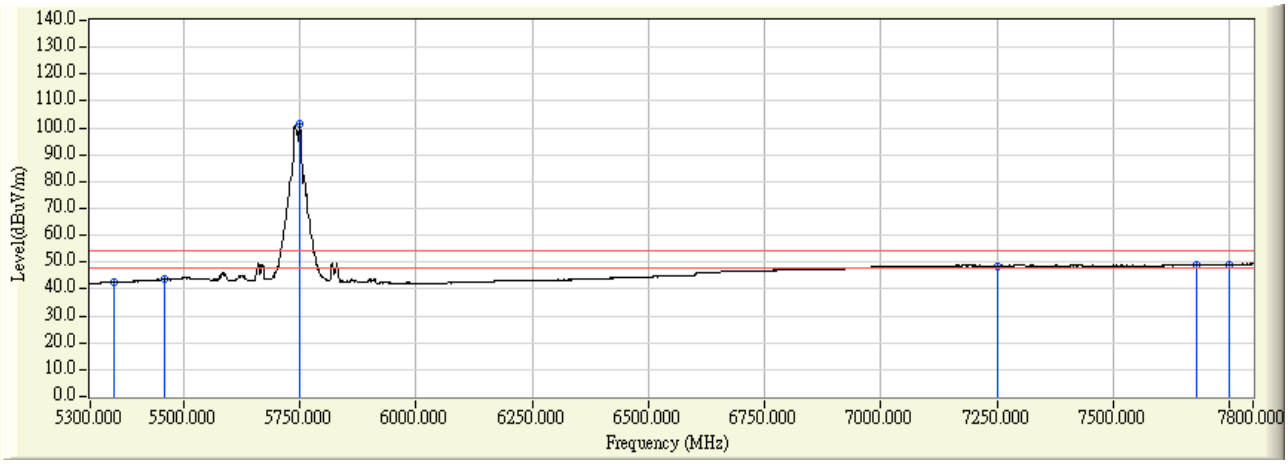


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	55.679	56.613	-17.387	74.000	PEAK
2		5460.000	1.853	55.993	57.846	-16.154	74.000	PEAK
3	*	5750.000	1.403	111.693	113.096	39.096	74.000	PEAK
4		7250.000	5.954	57.162	63.115	-10.885	74.000	PEAK
5		7605.000	6.604	59.361	65.966	-8.034	74.000	PEAK
6		7750.000	6.833	56.486	63.320	-10.680	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 18:04**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

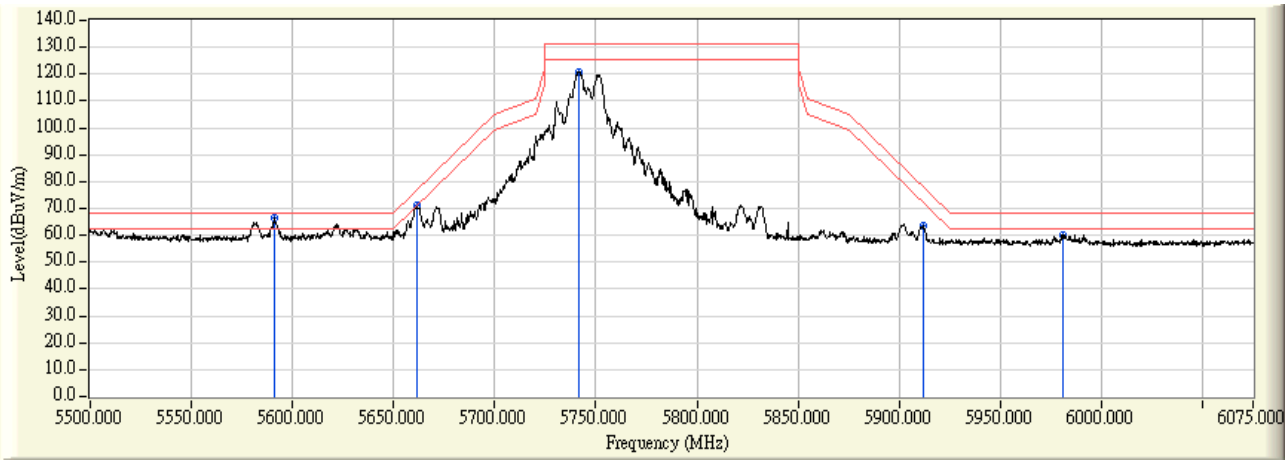


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.668	42.602	-11.398	54.000	AVERAGE
2		5460.000	1.853	41.770	43.623	-10.377	54.000	AVERAGE
3	*	5750.000	1.403	100.212	101.615	47.615	54.000	AVERAGE
4		7250.000	5.954	42.584	48.537	-5.463	54.000	AVERAGE
5		7677.500	6.719	42.362	49.081	-4.919	54.000	AVERAGE
6		7750.000	6.833	42.327	49.161	-4.839	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:10**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

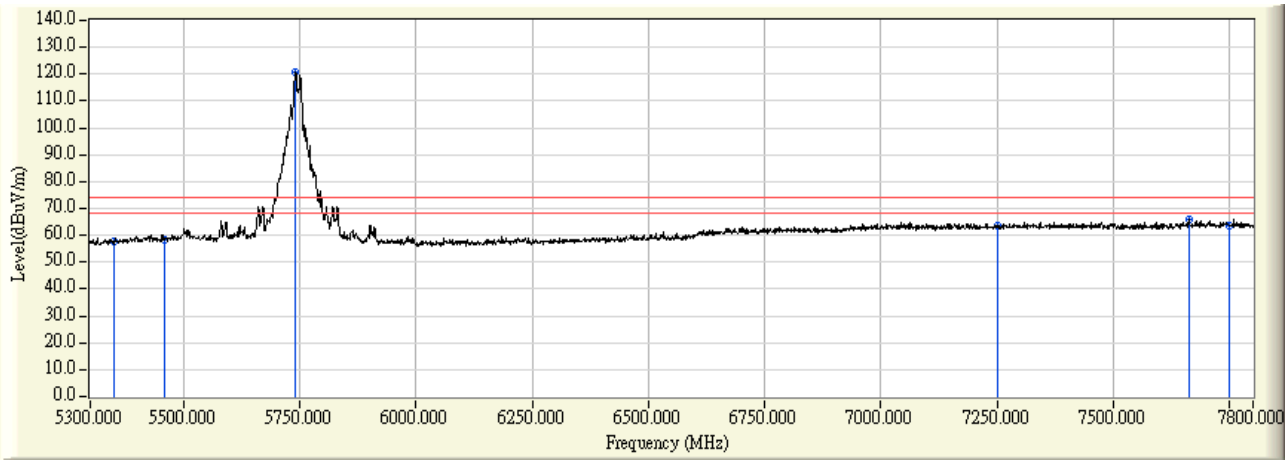


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5591.138	1.981	64.543	66.524	-1.676	68.200	PEAK
2		5661.288	1.777	69.587	71.364	-5.189	76.553	PEAK
3		5741.500	1.544	119.336	120.880	-10.320	131.200	PEAK
4		5911.700	1.051	62.302	63.352	-14.690	78.042	PEAK
5		5981.275	0.850	58.976	59.826	-8.374	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 17:34**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

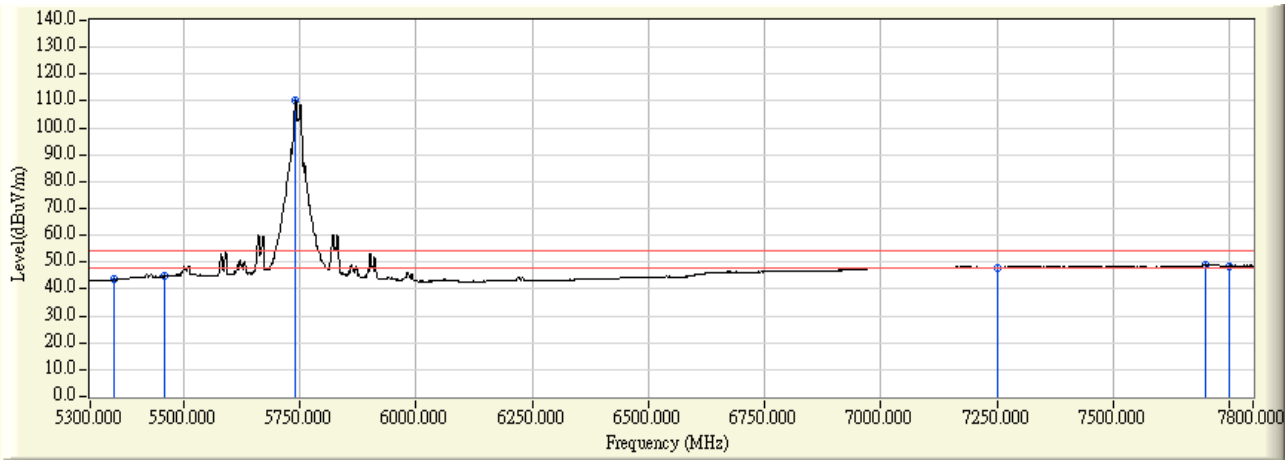


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	56.568	57.818	-16.182	74.000	PEAK
2		5460.000	2.114	56.234	58.348	-15.652	74.000	PEAK
3	*	5741.250	1.545	119.063	120.608	46.608	74.000	PEAK
4		7250.000	5.454	58.051	63.504	-10.496	74.000	PEAK
5		7661.250	6.194	59.482	65.676	-8.324	74.000	PEAK
6		7750.000	6.333	57.487	63.821	-10.179	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 17:35**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

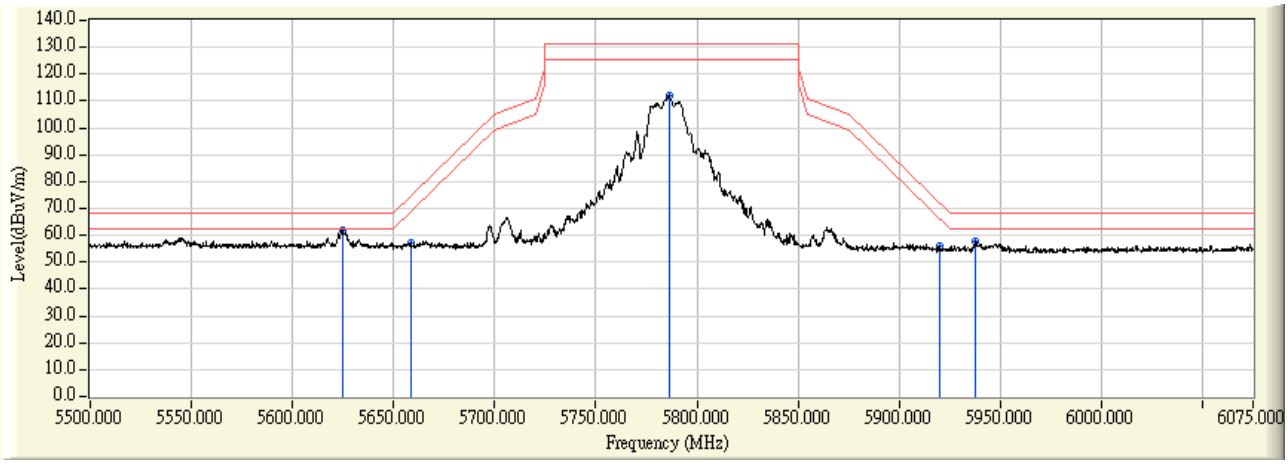


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.236	43.486	-10.514	54.000	AVERAGE
2		5460.000	2.114	42.543	44.657	-9.343	54.000	AVERAGE
3	*	5741.250	1.545	108.462	110.007	56.007	54.000	AVERAGE
4		7250.000	5.454	42.534	47.987	-6.013	54.000	AVERAGE
5		7696.250	6.249	42.480	48.729	-5.271	54.000	AVERAGE
6		7750.000	6.333	42.366	48.700	-5.300	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:11**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

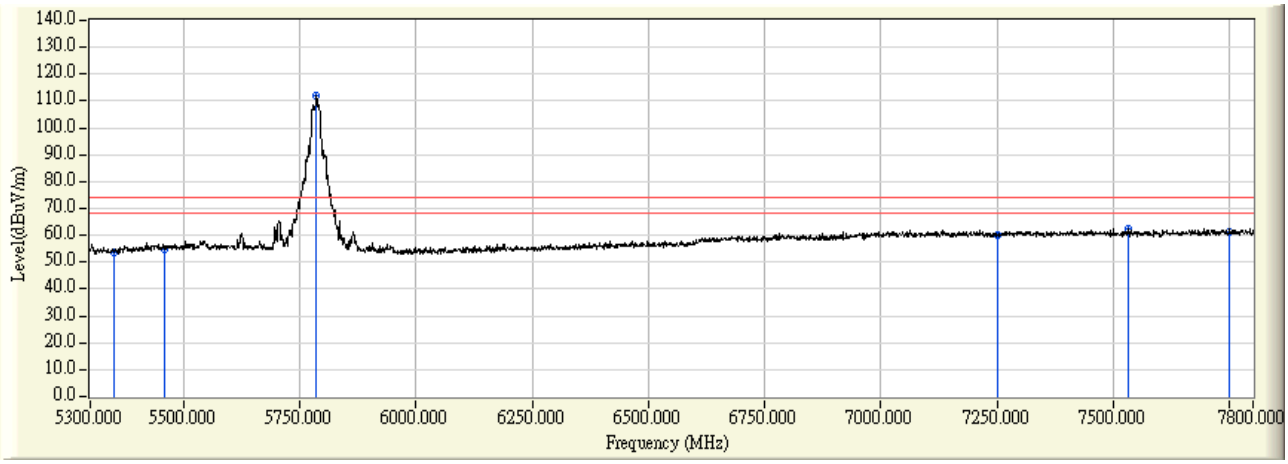


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5625.063	1.704	60.071	61.774	-6.426	68.200	PEAK
2		5658.700	1.623	55.431	57.054	-17.584	74.638	PEAK
3		5786.063	1.317	110.686	112.002	-19.198	131.200	PEAK
4		5919.750	0.995	54.811	55.806	-16.279	72.085	PEAK
5		5937.863	0.951	56.981	57.932	-10.268	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 19:45**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

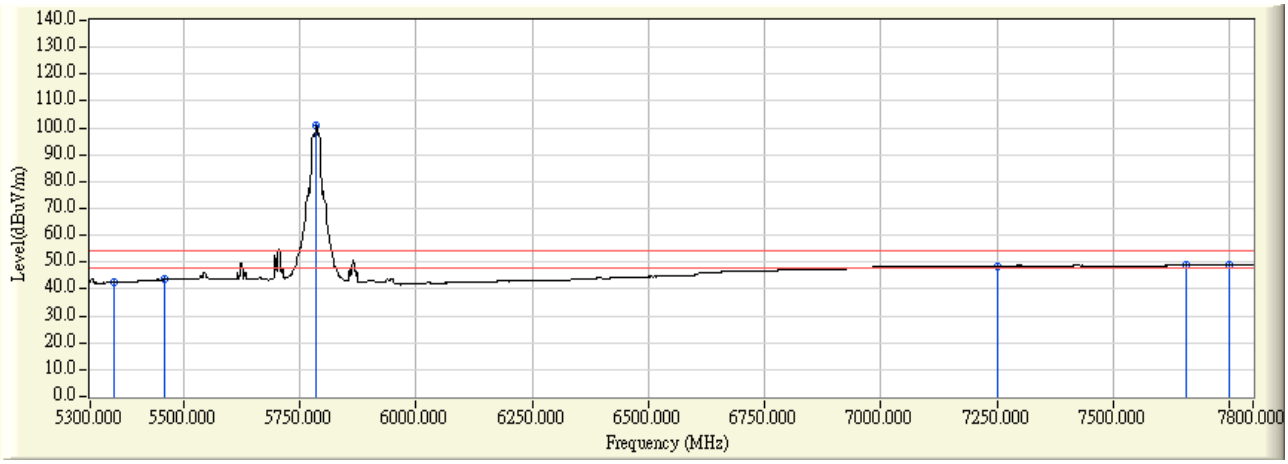


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	52.857	53.791	-20.209	74.000	PEAK
2		5460.000	1.853	53.117	54.970	-19.030	74.000	PEAK
3	*	5786.250	1.316	110.428	111.744	37.744	74.000	PEAK
4		7250.000	5.954	53.854	59.807	-14.193	74.000	PEAK
5		7531.250	6.488	56.145	62.633	-11.367	74.000	PEAK
6		7750.000	6.833	54.293	61.127	-12.873	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 19:52**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

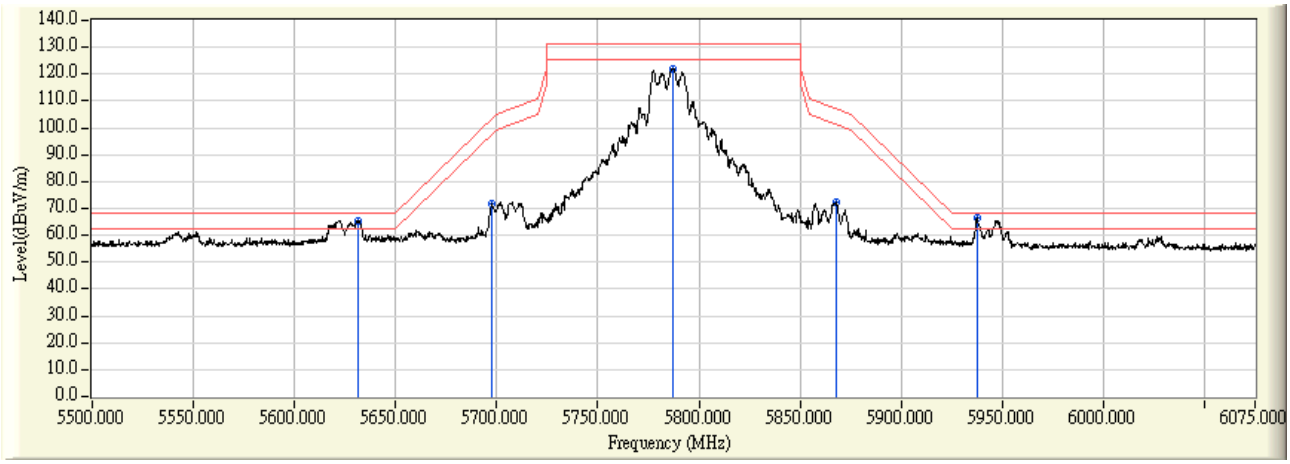


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.518	42.452	-11.548	54.000	AVERAGE
2		5460.000	1.853	41.631	43.484	-10.516	54.000	AVERAGE
3	*	5786.250	1.316	99.769	101.085	47.085	54.000	AVERAGE
4		7250.000	5.954	42.432	48.385	-5.615	54.000	AVERAGE
5		7657.500	6.687	42.261	48.949	-5.051	54.000	AVERAGE
6		7750.000	6.833	42.249	49.083	-4.917	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:11**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

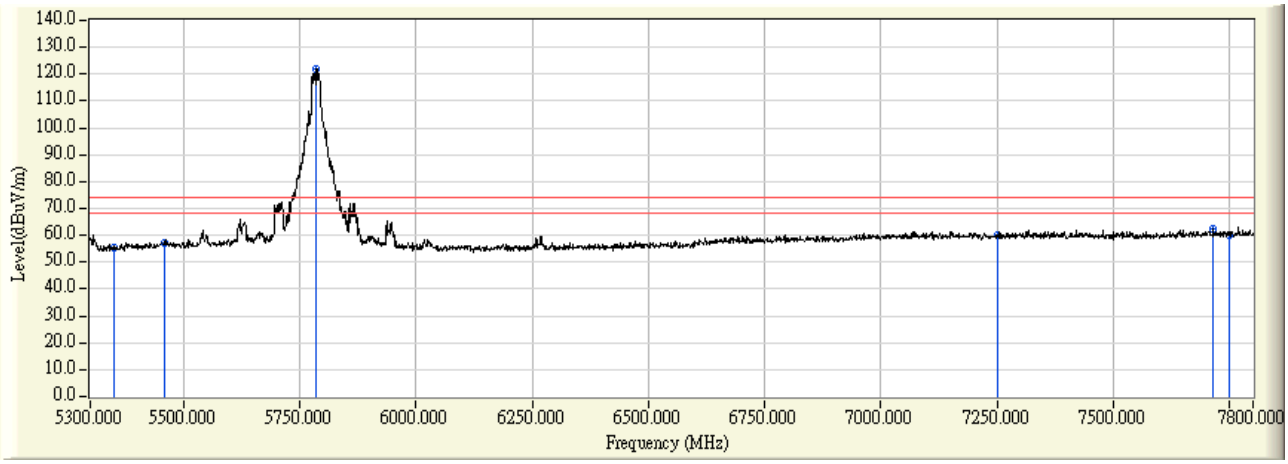


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5631.100	1.865	63.429	65.294	-2.906	68.200	PEAK
2		5697.513	1.672	70.272	71.944	-31.416	103.360	PEAK
3		5786.925	1.412	120.581	121.993	-9.207	131.200	PEAK
4		5867.713	1.178	71.318	72.496	-34.744	107.240	PEAK
5	*	5937.575	0.975	65.431	66.406	-1.794	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 19:01**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

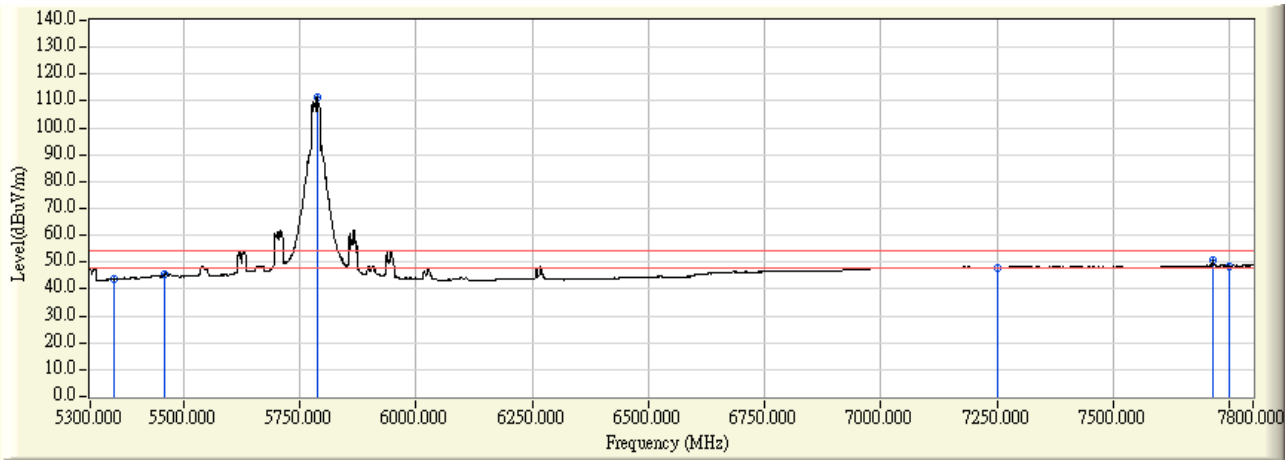


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	53.971	55.221	-18.779	74.000	PEAK
2		5460.000	2.114	55.333	57.447	-16.553	74.000	PEAK
3	*	5786.250	1.415	120.426	121.840	47.840	74.000	PEAK
4		7250.000	5.454	54.820	60.273	-13.727	74.000	PEAK
5		7713.750	6.277	56.022	62.299	-11.701	74.000	PEAK
6		7750.000	6.333	54.027	60.361	-13.639	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 19:03**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

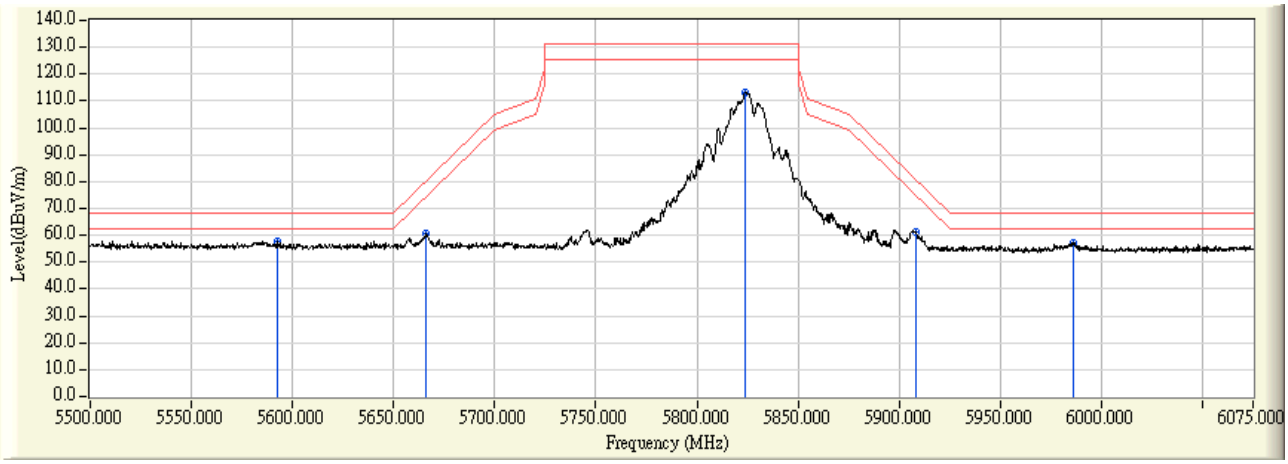


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.406	43.656	-10.344	54.000	AVERAGE
2		5460.000	2.114	43.255	45.369	-8.631	54.000	AVERAGE
3	*	5787.500	1.410	109.998	111.409	57.409	54.000	AVERAGE
4		7250.000	5.454	42.437	47.890	-6.110	54.000	AVERAGE
5		7712.500	6.274	44.230	50.505	-3.495	54.000	AVERAGE
6		7750.000	6.333	42.210	48.544	-5.456	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:12**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

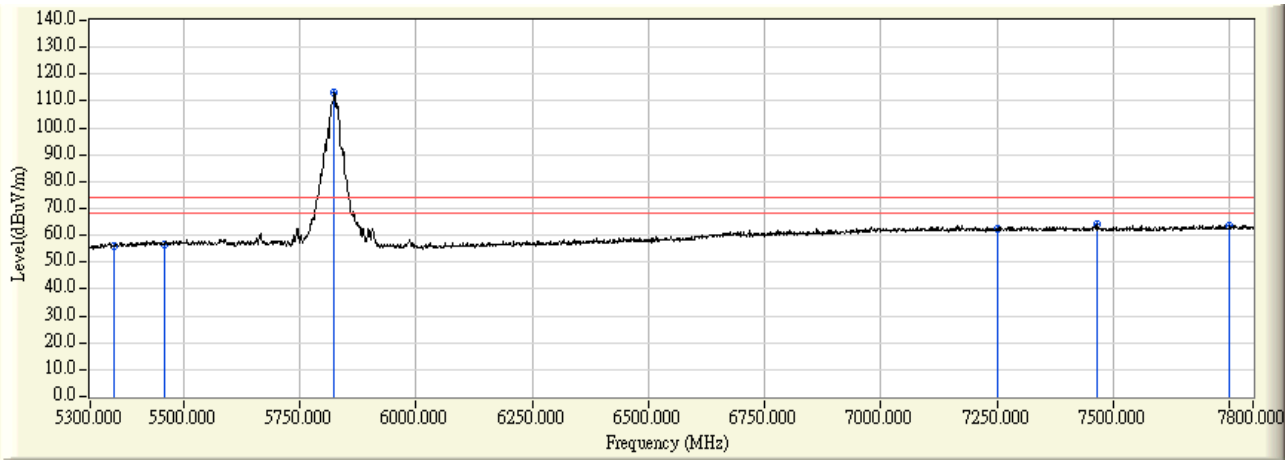


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5592.863	1.781	55.820	57.601	-10.599	68.200	PEAK
2		5665.600	1.606	58.771	60.377	-19.367	79.744	PEAK
3		5824.013	1.225	112.054	113.279	-17.921	131.200	PEAK
4		5908.250	1.022	60.446	61.469	-19.126	80.595	PEAK
5		5986.450	0.870	56.209	57.078	-11.122	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 21:02**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

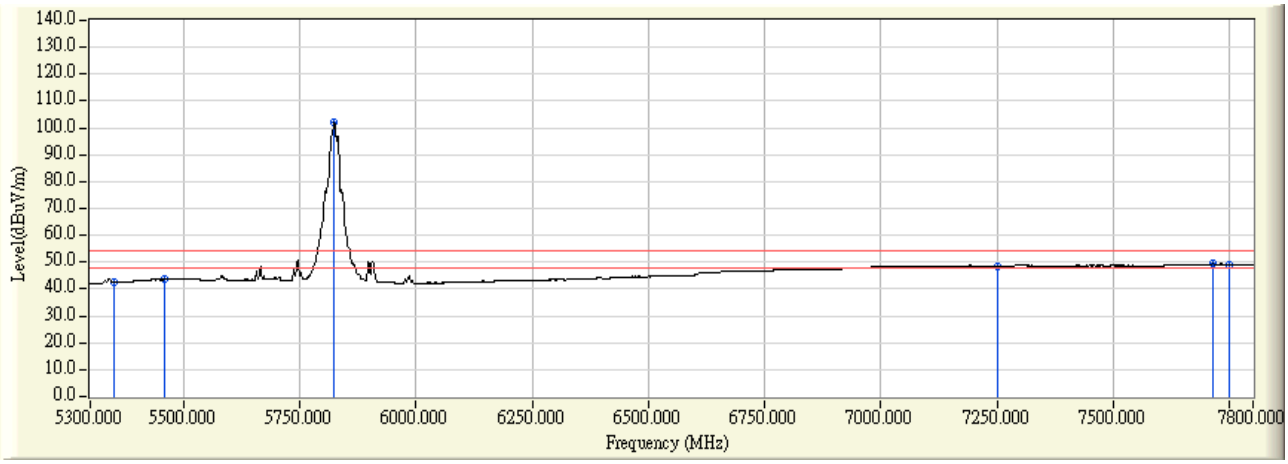


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	55.038	55.972	-18.028	74.000	PEAK
2		5460.000	1.853	54.936	56.789	-17.211	74.000	PEAK
3	*	5823.750	1.226	111.871	113.097	39.097	74.000	PEAK
4		7250.000	5.954	56.435	62.388	-11.612	74.000	PEAK
5		7466.250	6.378	57.639	64.018	-9.982	74.000	PEAK
6		7750.000	6.833	56.602	63.436	-10.564	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 21:04**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

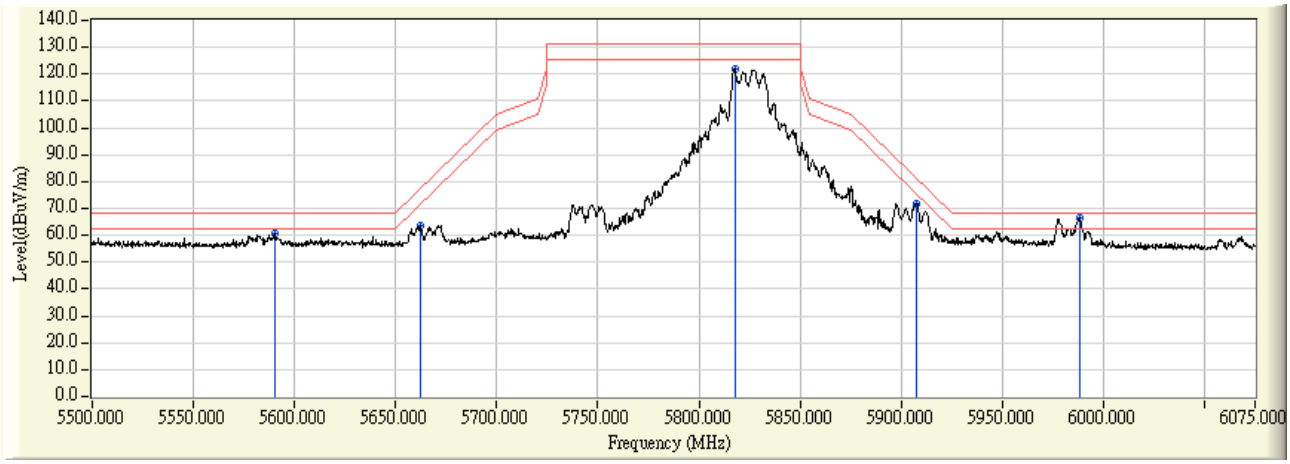


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.649	42.583	-11.417	54.000	AVERAGE
2		5460.000	1.853	41.649	43.502	-10.498	54.000	AVERAGE
3	*	5823.750	1.226	100.896	102.122	48.122	54.000	AVERAGE
4		7250.000	5.954	42.534	48.487	-5.513	54.000	AVERAGE
5		7712.500	6.774	42.533	49.308	-4.692	54.000	AVERAGE
6		7750.000	6.833	42.389	49.223	-4.777	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:12**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

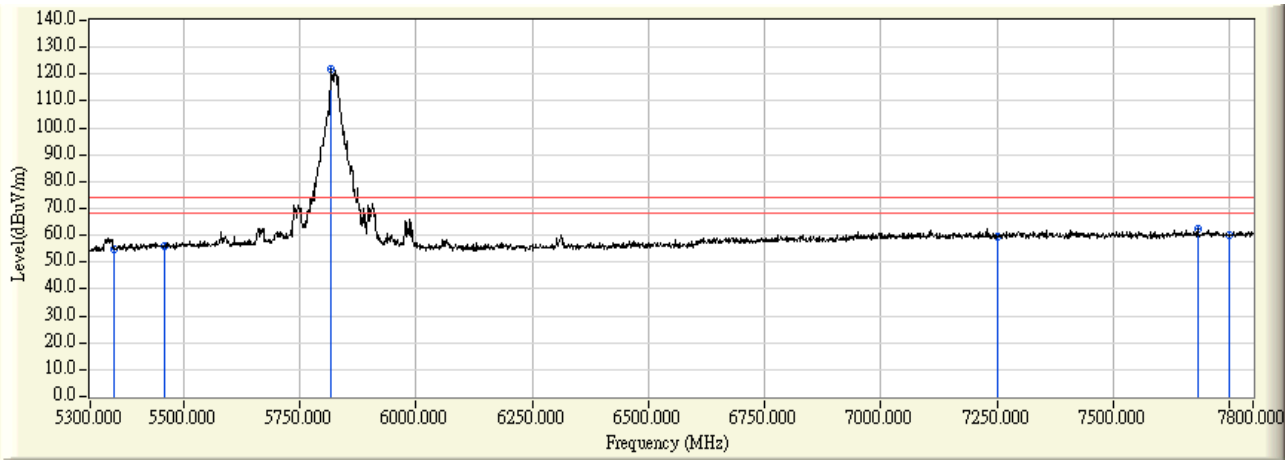


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5589.988	1.985	58.758	60.742	-7.458	68.200	PEAK
2		5662.150	1.775	61.540	63.315	-13.876	77.191	PEAK
3		5817.688	1.323	120.654	121.977	-9.223	131.200	PEAK
4		5907.388	1.063	70.882	71.945	-9.288	81.233	PEAK
5	*	5988.175	0.873	65.733	66.607	-1.593	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 19:57**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

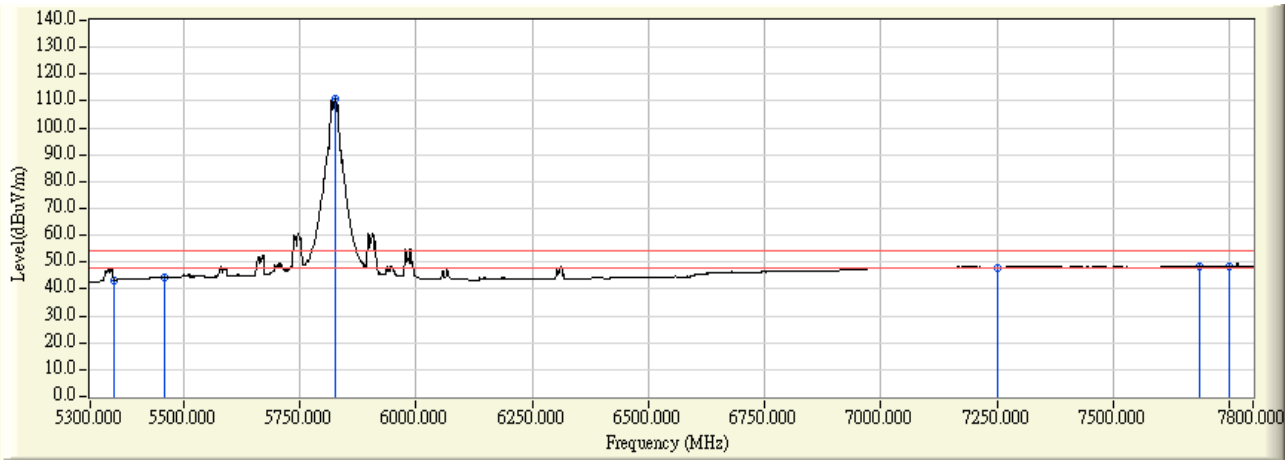


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	53.691	54.941	-19.059	74.000	PEAK
2		5460.000	2.114	53.707	55.821	-18.179	74.000	PEAK
3	*	5817.500	1.323	120.311	121.635	47.635	74.000	PEAK
4		7250.000	5.454	53.836	59.289	-14.711	74.000	PEAK
5		7681.250	6.225	55.959	62.184	-11.816	74.000	PEAK
6		7750.000	6.333	53.758	60.092	-13.908	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 20:16**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

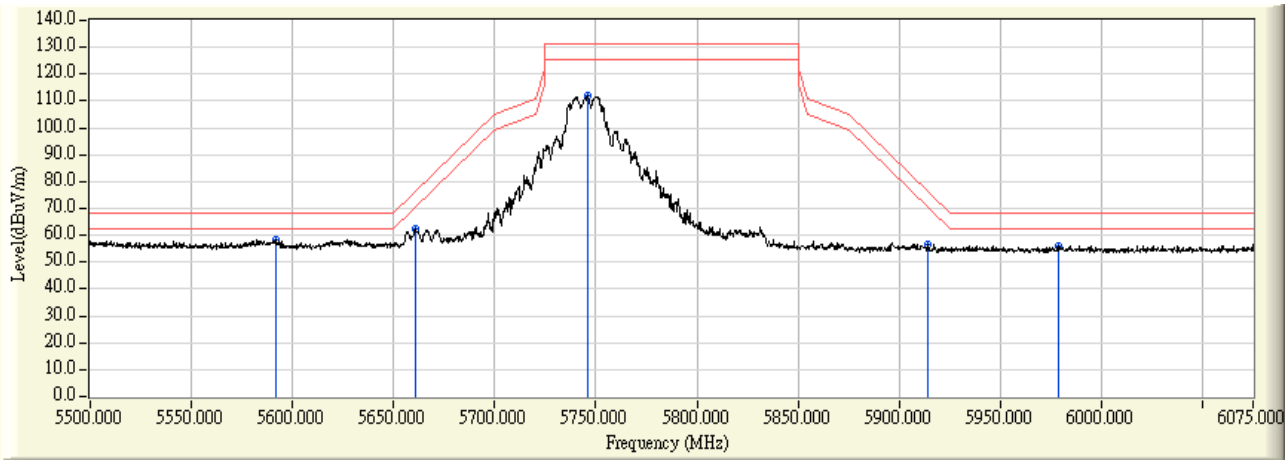


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.150	43.400	-10.600	54.000	AVERAGE
2		5460.000	2.114	42.251	44.365	-9.635	54.000	AVERAGE
3	*	5826.250	1.299	109.562	110.860	56.860	54.000	AVERAGE
4		7250.000	5.454	42.549	48.002	-5.998	54.000	AVERAGE
5		7683.750	6.229	42.195	48.424	-5.576	54.000	AVERAGE
6		7750.000	6.333	42.287	48.621	-5.379	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:13**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

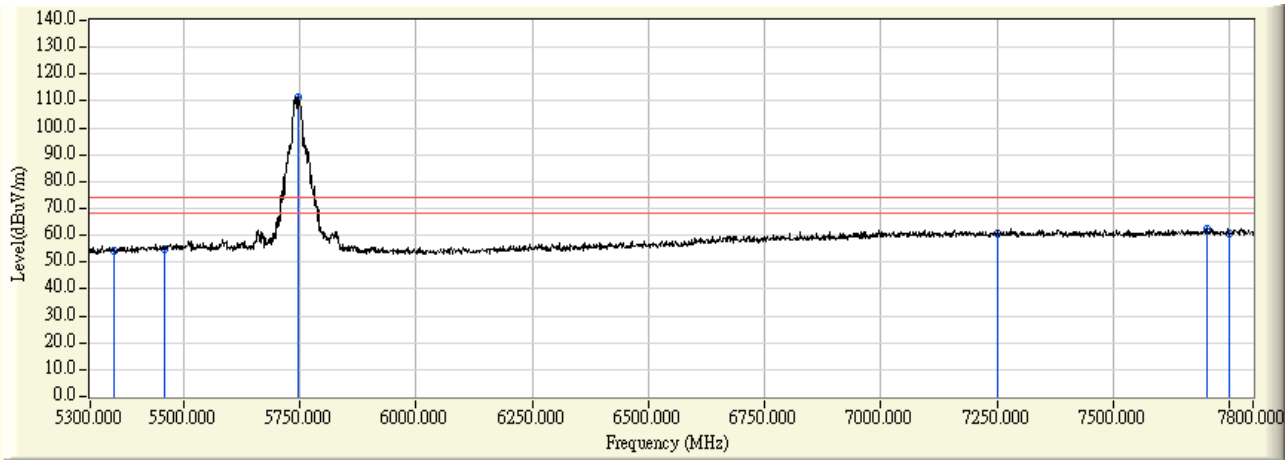


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5591.713	1.784	56.541	58.325	-9.875	68.200	PEAK
2		5660.713	1.618	60.728	62.346	-13.782	76.128	PEAK
3		5746.100	1.413	110.589	112.002	-19.198	131.200	PEAK
4		5914.000	1.009	55.726	56.735	-19.605	76.340	PEAK
5		5978.688	0.853	54.908	55.761	-12.439	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 18:36**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

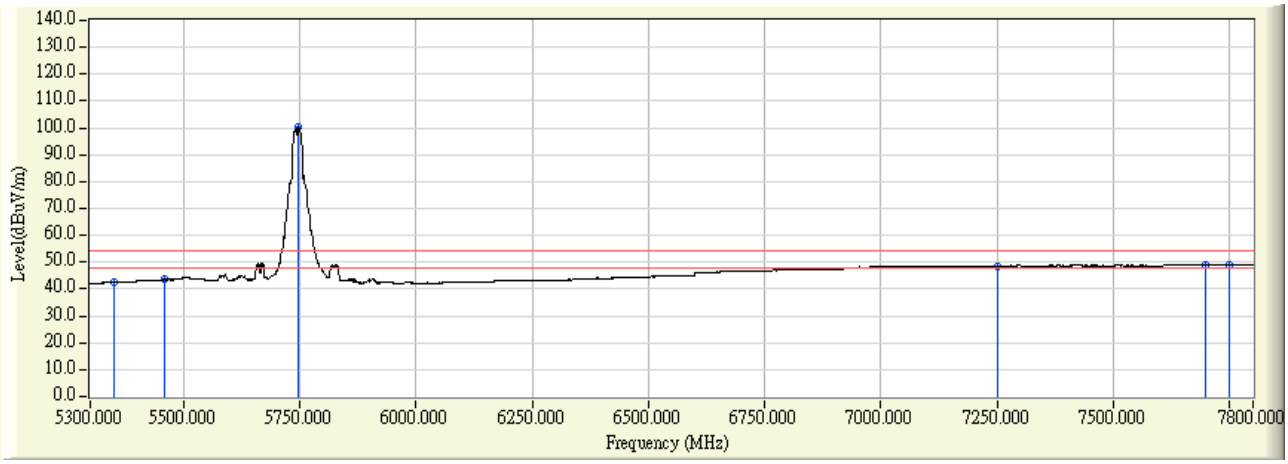


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	53.234	54.168	-19.832	74.000	PEAK
2		5460.000	1.853	52.913	54.766	-19.234	74.000	PEAK
3	*	5746.250	1.412	109.987	111.399	37.399	74.000	PEAK
4		7250.000	5.954	54.661	60.614	-13.386	74.000	PEAK
5		7702.500	6.758	55.616	62.375	-11.625	74.000	PEAK
6		7750.000	6.833	54.069	60.903	-13.097	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 18:39**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

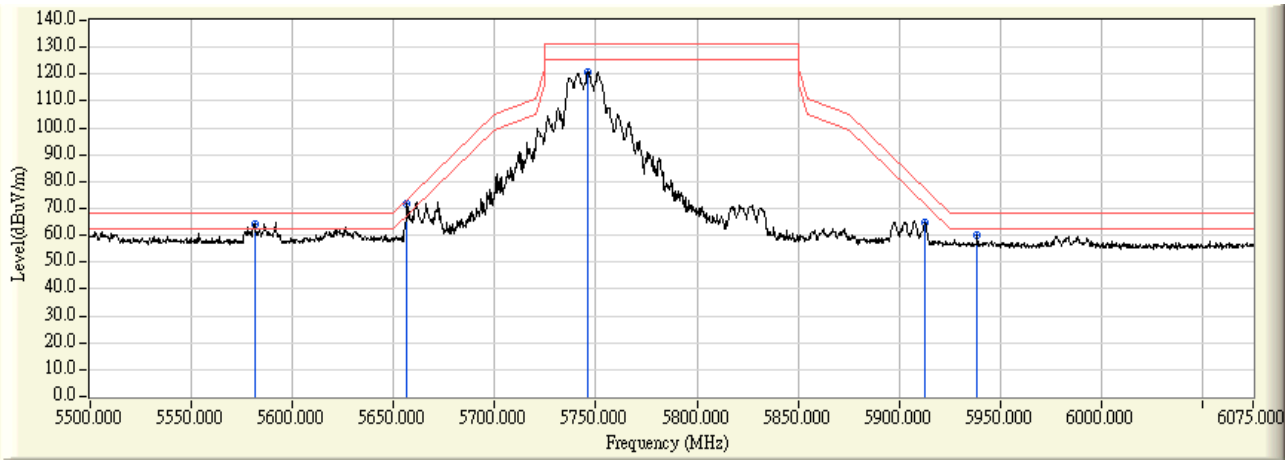


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.654	42.588	-11.412	54.000	AVERAGE
2		5460.000	1.853	41.608	43.461	-10.539	54.000	AVERAGE
3	*	5746.250	1.412	98.782	100.194	46.194	54.000	AVERAGE
4		7250.000	5.954	42.531	48.484	-5.516	54.000	AVERAGE
5		7696.250	6.749	42.382	49.131	-4.869	54.000	AVERAGE
6		7750.000	6.833	42.341	49.175	-4.825	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:14**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

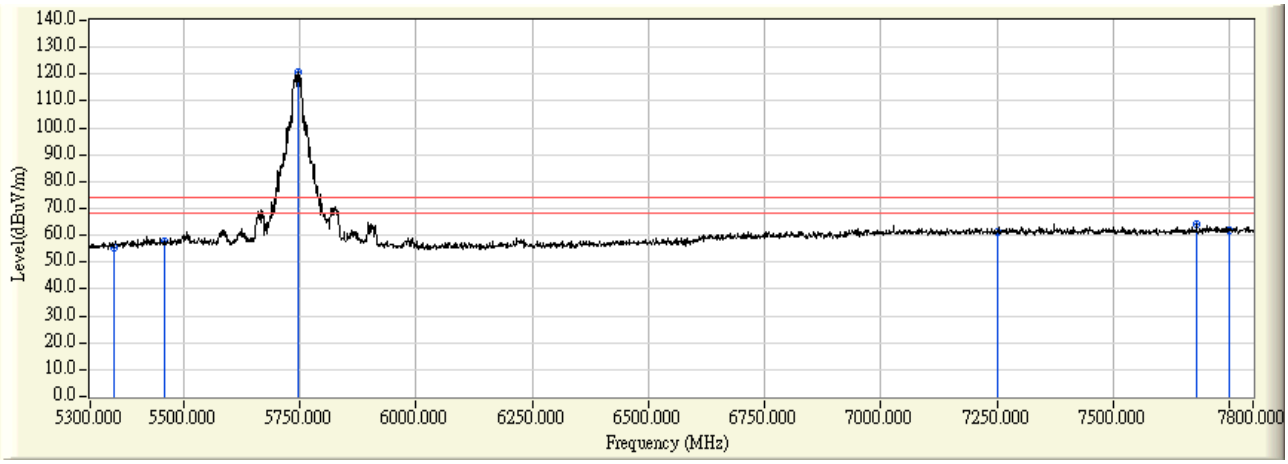


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5581.363	2.010	62.101	64.110	-4.090	68.200	PEAK
2	*	5656.688	1.791	70.001	71.792	-1.357	73.149	PEAK
3		5745.813	1.532	119.133	120.665	-10.535	131.200	PEAK
4		5912.563	1.048	63.434	64.482	-12.921	77.403	PEAK
5		5938.725	0.972	58.837	59.809	-8.391	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 18:49**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

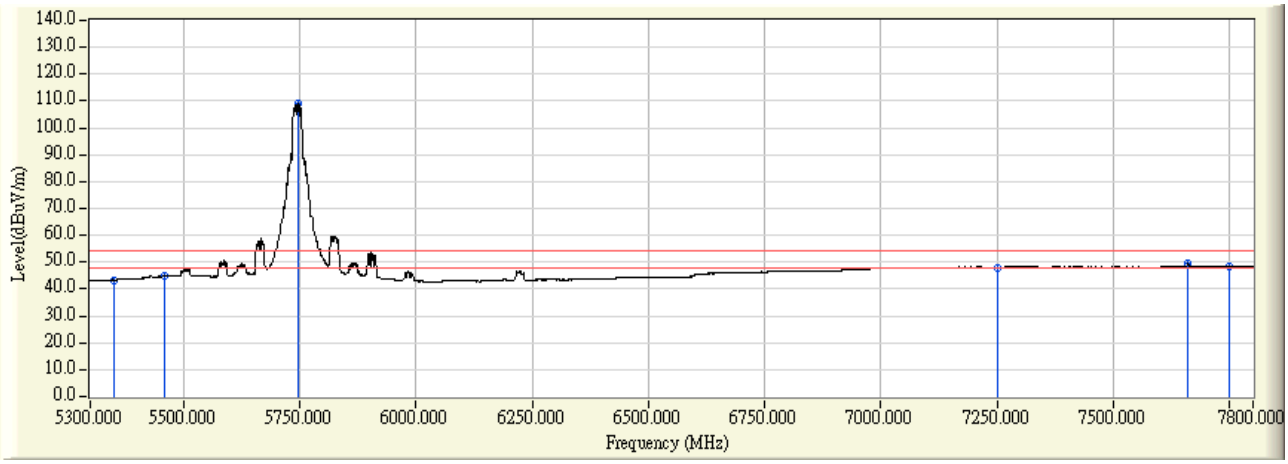


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	54.422	55.672	-18.328	74.000	PEAK
2		5460.000	2.114	55.455	57.569	-16.431	74.000	PEAK
3	*	5746.250	1.531	118.950	120.481	46.481	74.000	PEAK
4		7250.000	5.454	55.506	60.959	-13.041	74.000	PEAK
5		7678.750	6.221	57.827	64.048	-9.952	74.000	PEAK
6		7750.000	6.333	55.339	61.673	-12.327	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 18:50**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

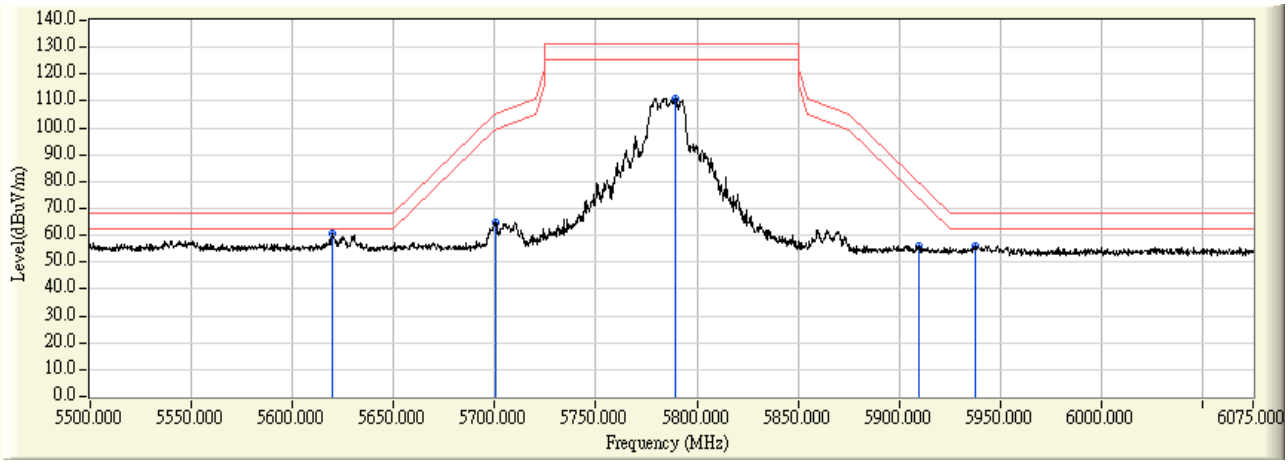


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.189	43.439	-10.561	54.000	AVERAGE
2		5460.000	2.114	42.583	44.697	-9.303	54.000	AVERAGE
3	*	5746.250	1.531	107.724	109.255	55.255	54.000	AVERAGE
4		7250.000	5.454	42.487	47.940	-6.060	54.000	AVERAGE
5		7660.000	6.191	43.672	49.864	-4.136	54.000	AVERAGE
6		7750.000	6.333	42.219	48.553	-5.447	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:14**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

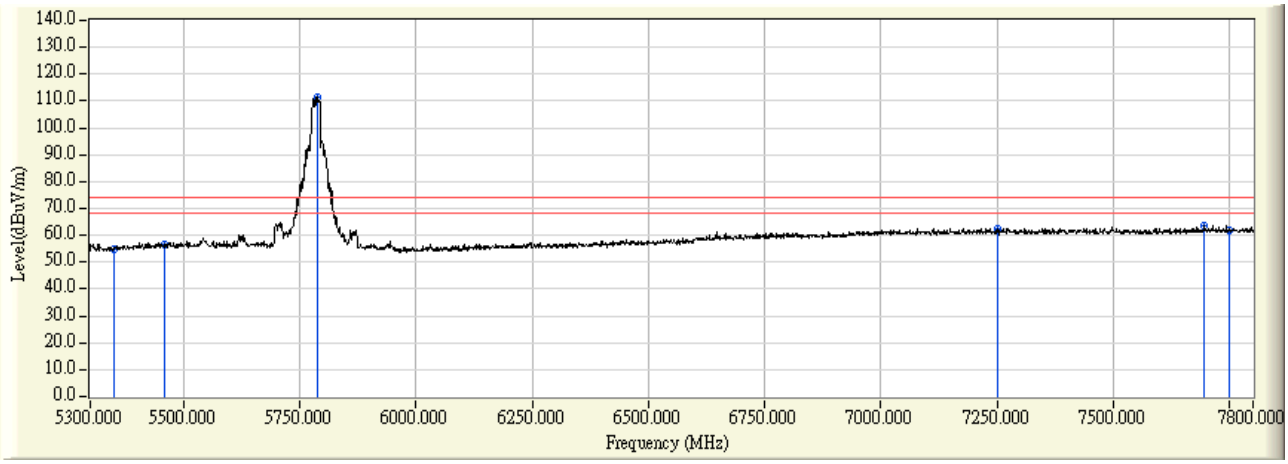


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5619.888	1.716	59.019	60.735	-7.465	68.200	PEAK
2		5700.388	1.523	63.305	64.827	-40.482	105.309	PEAK
3		5789.225	1.309	109.813	111.122	-20.078	131.200	PEAK
4		5909.688	1.019	54.732	55.751	-23.780	79.531	PEAK
5		5937.863	0.951	54.929	55.880	-12.320	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 19:41**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

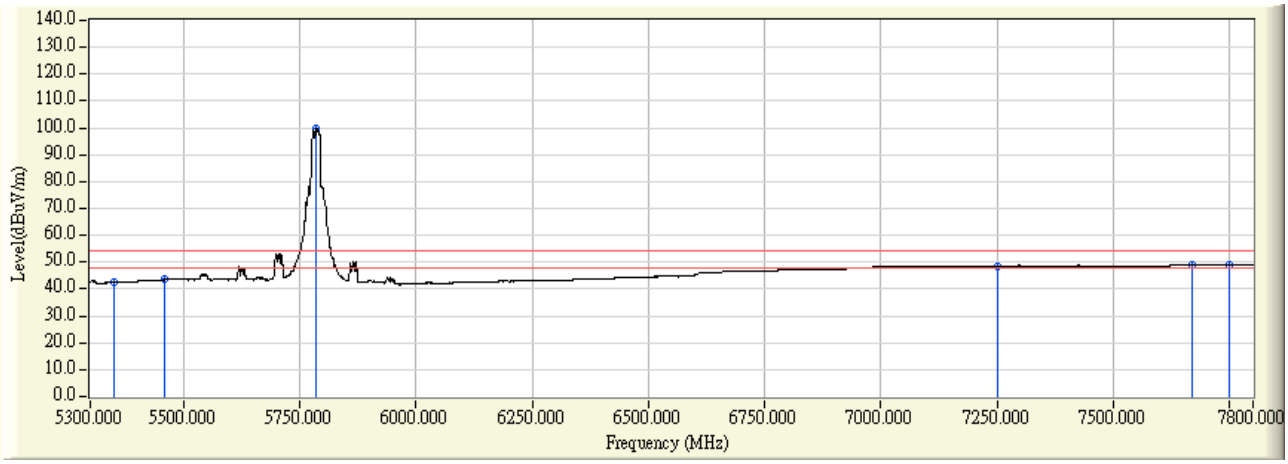


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	54.144	55.078	-18.922	74.000	PEAK
2		5460.000	1.853	54.639	56.492	-17.508	74.000	PEAK
3	*	5788.750	1.310	110.207	111.517	37.517	74.000	PEAK
4		7250.000	5.954	56.643	62.596	-11.404	74.000	PEAK
5		7695.000	6.747	56.905	63.652	-10.348	74.000	PEAK
6		7750.000	6.833	55.018	61.852	-12.148	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 19:42**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

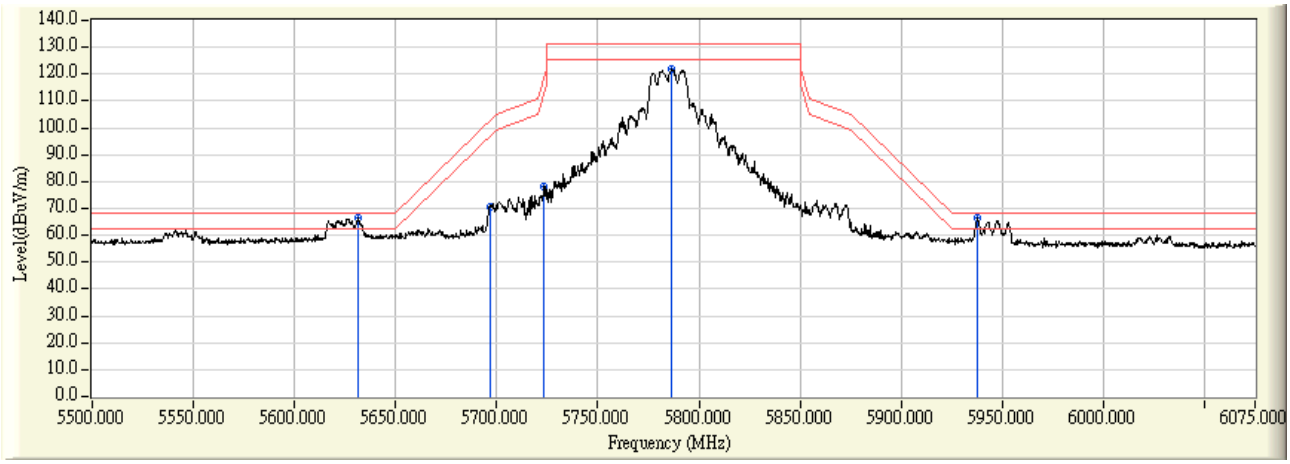


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.463	42.397	-11.603	54.000	AVERAGE
2		5460.000	1.853	41.706	43.559	-10.441	54.000	AVERAGE
3	*	5785.000	1.319	98.582	99.901	45.901	54.000	AVERAGE
4		7250.000	5.954	42.389	48.342	-5.658	54.000	AVERAGE
5		7667.500	6.703	42.260	48.964	-5.036	54.000	AVERAGE
6		7750.000	6.833	42.242	49.076	-4.924	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:15**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

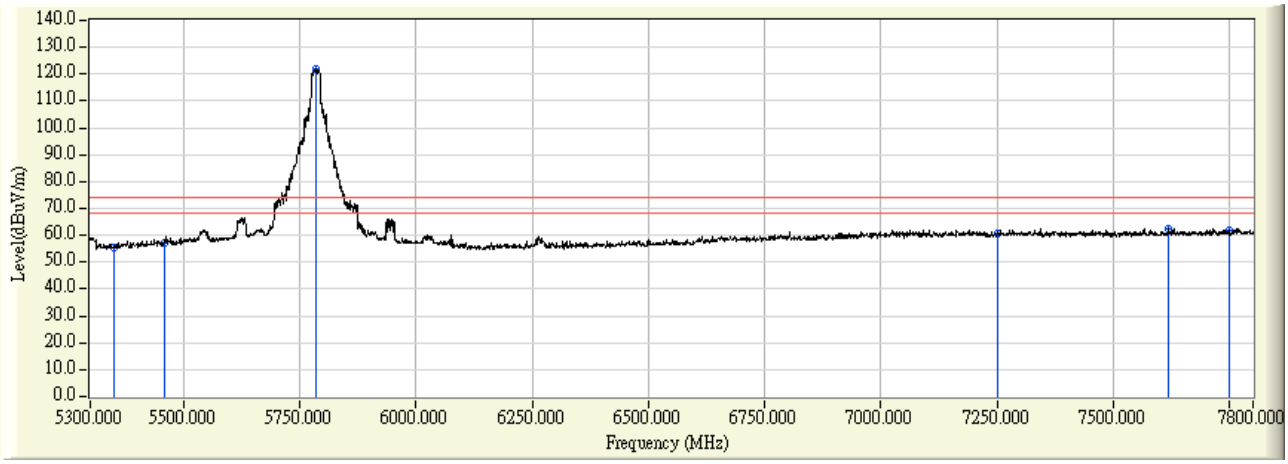


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5631.100	1.865	64.350	66.215	-1.985	68.200	PEAK
2		5696.650	1.674	69.158	70.833	-31.888	102.721	PEAK
3		5723.388	1.597	76.731	78.328	-40.197	118.525	PEAK
4		5786.350	1.414	120.349	121.763	-9.437	131.200	PEAK
5	*	5937.863	0.974	65.277	66.251	-1.949	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 19:09**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

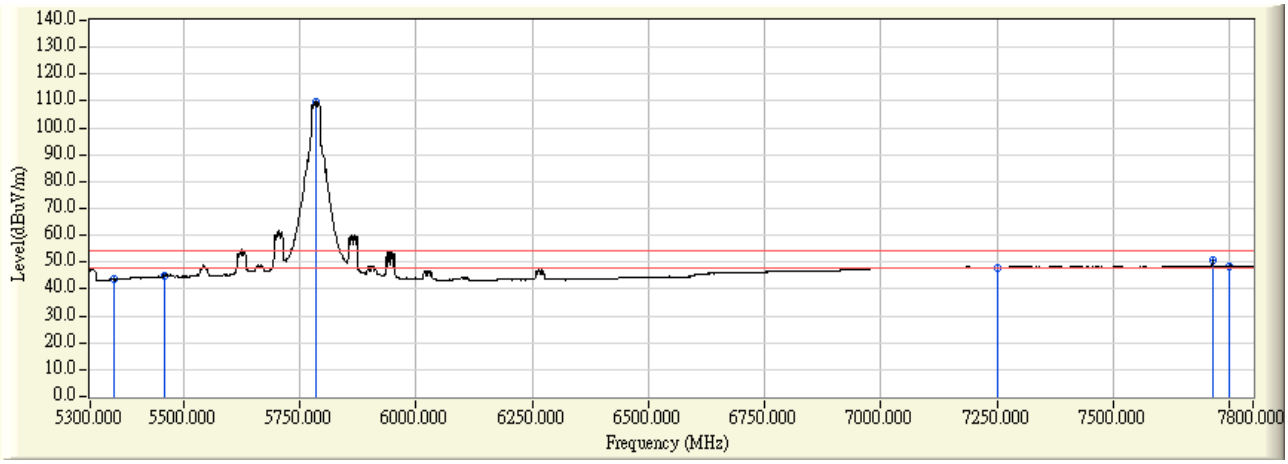


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	54.168	55.418	-18.582	74.000	PEAK
2		5460.000	2.114	54.766	56.880	-17.120	74.000	PEAK
3	*	5786.250	1.415	120.582	121.996	47.996	74.000	PEAK
4		7250.000	5.454	54.974	60.427	-13.573	74.000	PEAK
5		7618.750	6.127	56.057	62.183	-11.817	74.000	PEAK
6		7750.000	6.333	55.433	61.767	-12.233	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 19:10**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

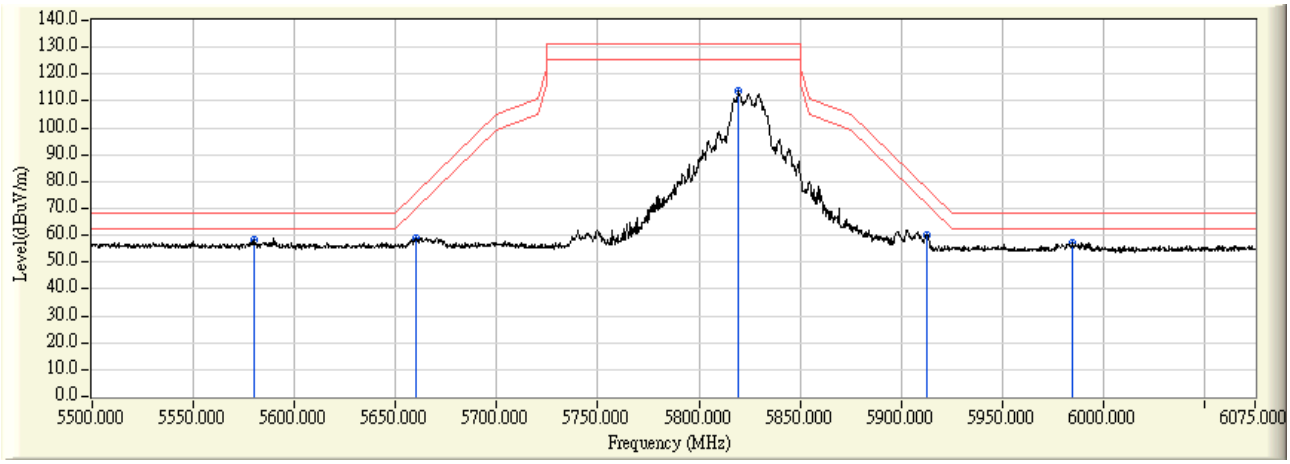


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.255	43.505	-10.495	54.000	AVERAGE
2		5460.000	2.114	42.955	45.069	-8.931	54.000	AVERAGE
3	*	5786.250	1.415	108.522	109.936	55.936	54.000	AVERAGE
4		7250.000	5.454	42.460	47.913	-6.087	54.000	AVERAGE
5		7713.750	6.277	44.254	50.531	-3.469	54.000	AVERAGE
6		7750.000	6.333	42.281	48.615	-5.385	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:15**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

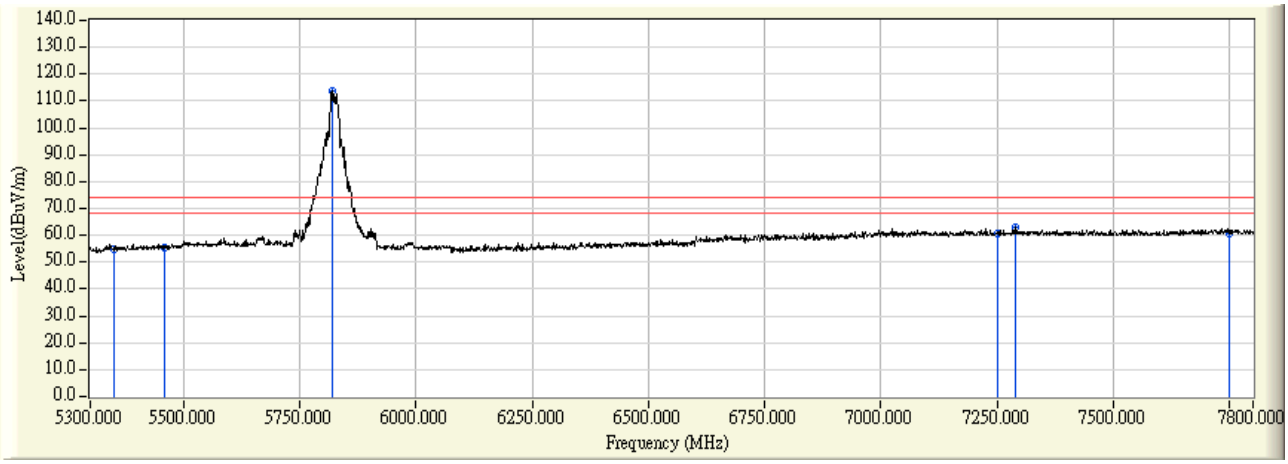


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5579.925	1.812	56.295	58.107	-10.093	68.200	PEAK
2		5659.850	1.619	57.083	58.703	-16.786	75.489	PEAK
3		5819.700	1.236	112.637	113.873	-17.327	131.200	PEAK
4		5912.563	1.012	58.894	59.906	-17.497	77.403	PEAK
5		5985.013	0.864	56.295	57.159	-11.041	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 20:29**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

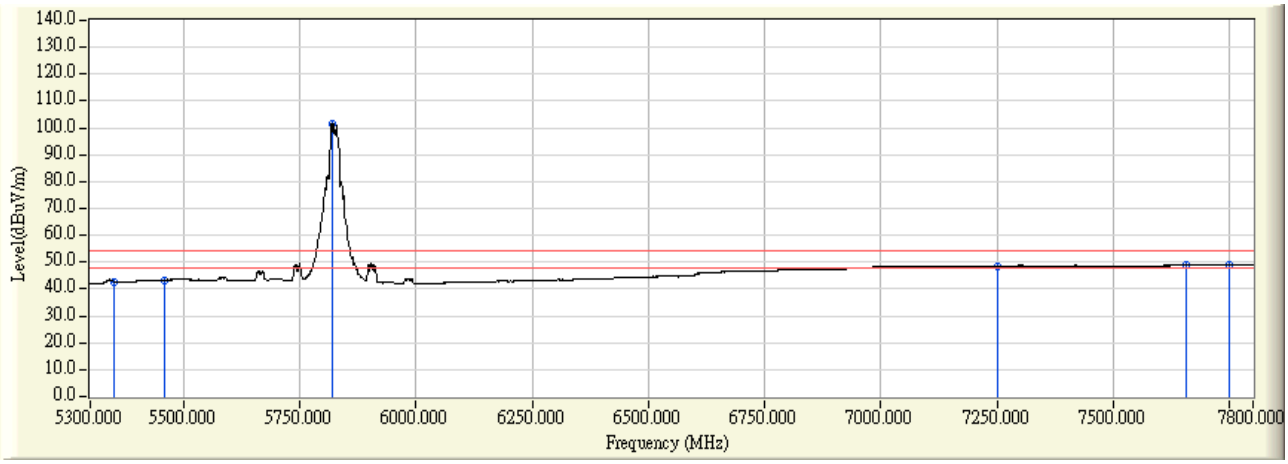


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	53.868	54.802	-19.198	74.000	PEAK
2		5460.000	1.853	53.703	55.556	-18.444	74.000	PEAK
3	*	5820.000	1.235	112.638	113.873	39.873	74.000	PEAK
4		7250.000	5.954	54.939	60.892	-13.108	74.000	PEAK
5		7290.000	6.033	56.678	62.710	-11.290	74.000	PEAK
6		7750.000	6.833	53.805	60.639	-13.361	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 20:30**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

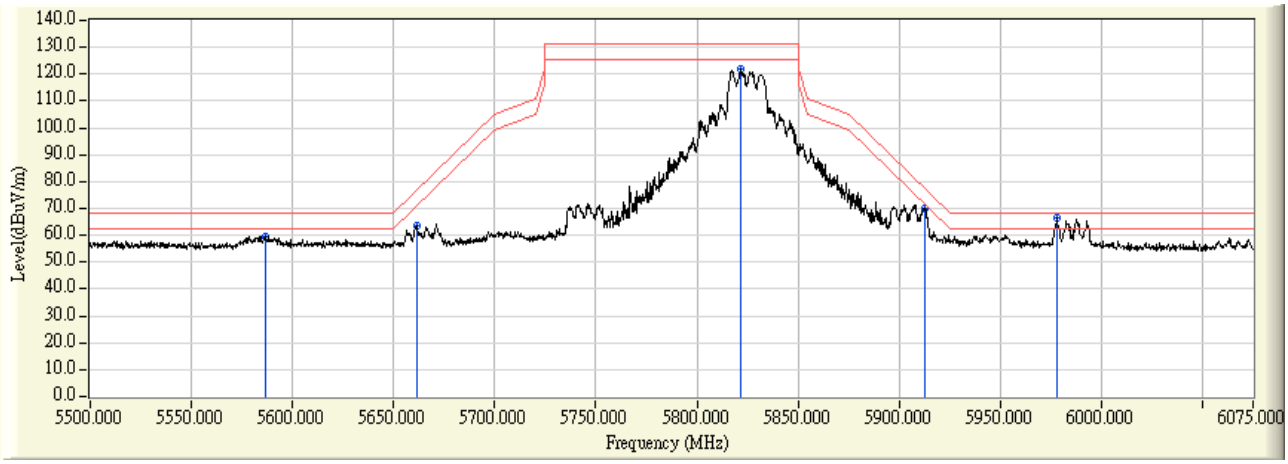


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.490	42.424	-11.576	54.000	AVERAGE
2		5460.000	1.853	41.528	43.381	-10.619	54.000	AVERAGE
3	*	5820.000	1.235	100.495	101.730	47.730	54.000	AVERAGE
4		7250.000	5.954	42.438	48.391	-5.609	54.000	AVERAGE
5		7655.000	6.683	42.243	48.927	-5.073	54.000	AVERAGE
6		7750.000	6.833	42.209	49.043	-4.957	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:16**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

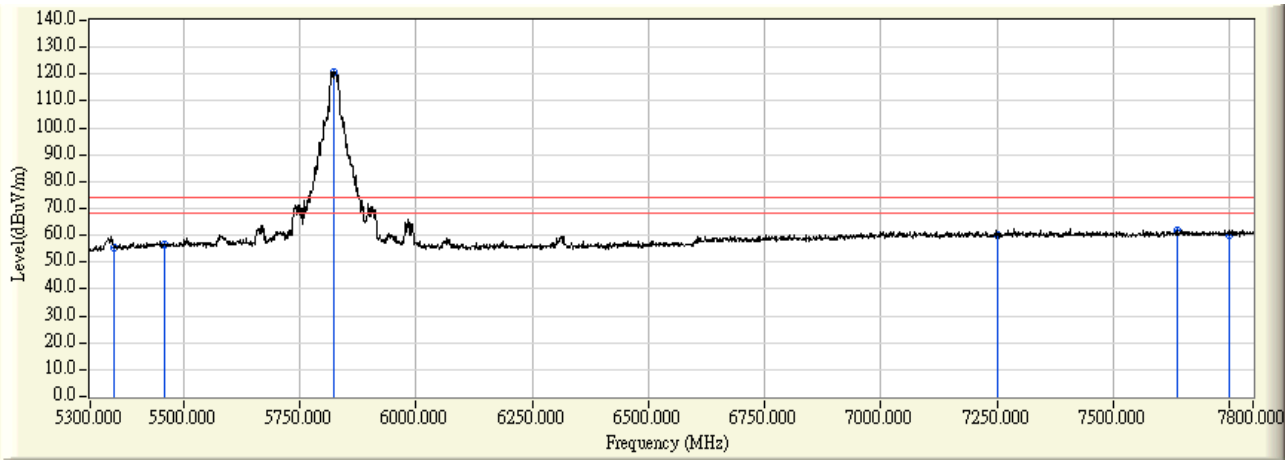


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5586.538	1.995	57.566	59.560	-8.640	68.200	PEAK
2		5661.288	1.777	61.790	63.567	-12.986	76.553	PEAK
3		5821.713	1.312	120.357	121.668	-9.532	131.200	PEAK
4		5912.850	1.047	68.770	69.817	-7.374	77.191	PEAK
5	*	5978.113	0.857	65.459	66.316	-1.884	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 20:19**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

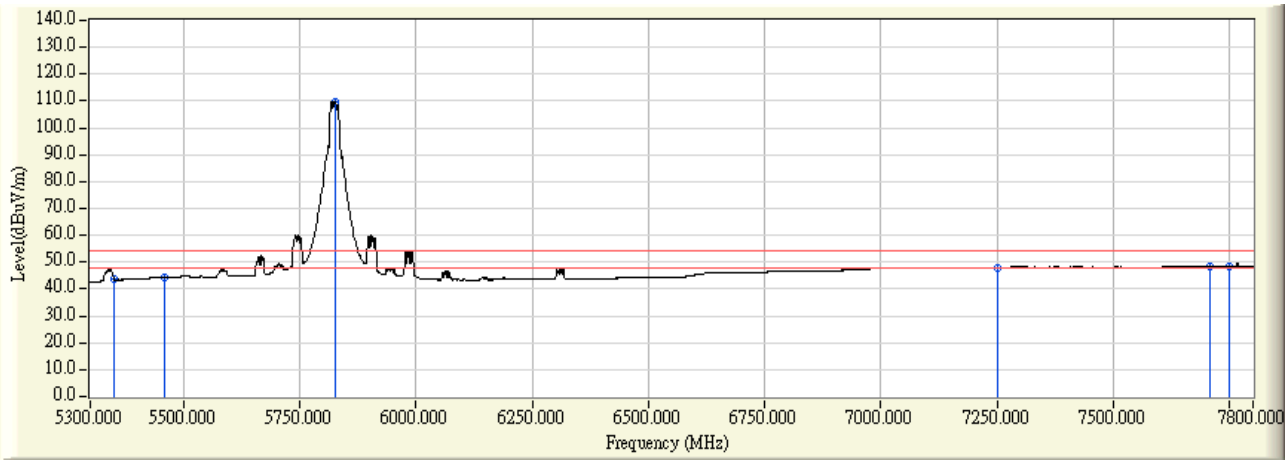


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	54.085	55.335	-18.665	74.000	PEAK
2		5460.000	2.114	54.583	56.697	-17.303	74.000	PEAK
3	*	5822.500	1.309	119.723	121.032	47.032	74.000	PEAK
4		7250.000	5.454	54.620	60.073	-13.927	74.000	PEAK
5		7636.250	6.154	55.955	62.109	-11.891	74.000	PEAK
6		7750.000	6.333	53.709	60.043	-13.957	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 20:22**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

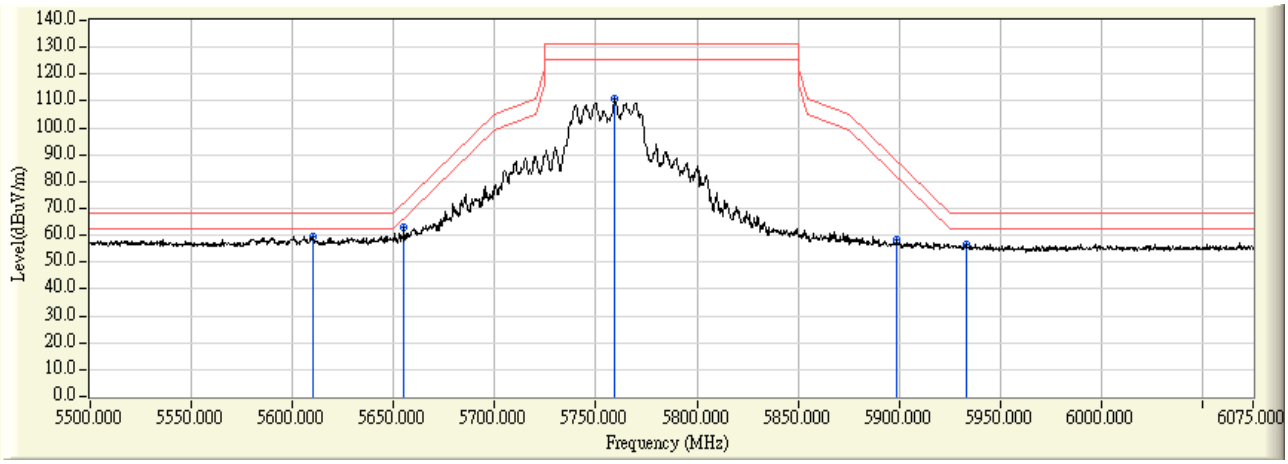


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.335	43.585	-10.415	54.000	AVERAGE
2		5460.000	2.114	42.170	44.284	-9.716	54.000	AVERAGE
3	*	5826.250	1.299	108.538	109.836	55.836	54.000	AVERAGE
4		7250.000	5.454	42.364	47.817	-6.183	54.000	AVERAGE
5		7706.250	6.265	42.280	48.545	-5.455	54.000	AVERAGE
6		7750.000	6.333	42.214	48.548	-5.452	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:16**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

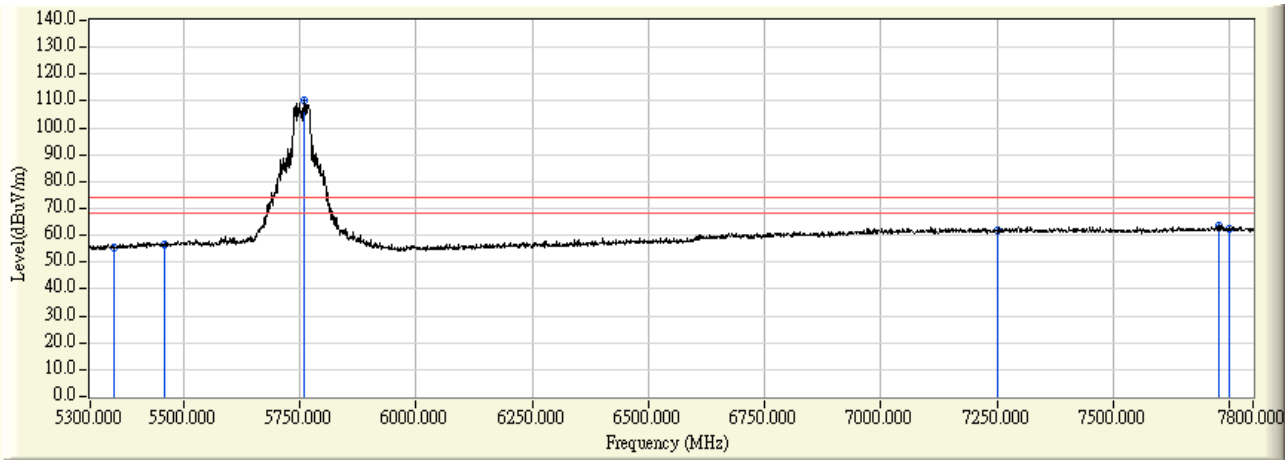


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5610.113	1.740	57.712	59.451	-8.749	68.200	PEAK
2		5655.250	1.631	61.332	62.963	-9.122	72.085	PEAK
3		5759.325	1.381	109.384	110.765	-20.435	131.200	PEAK
4		5898.763	1.046	57.069	58.114	-29.501	87.615	PEAK
5		5933.550	0.962	55.807	56.769	-11.431	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 21:36**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

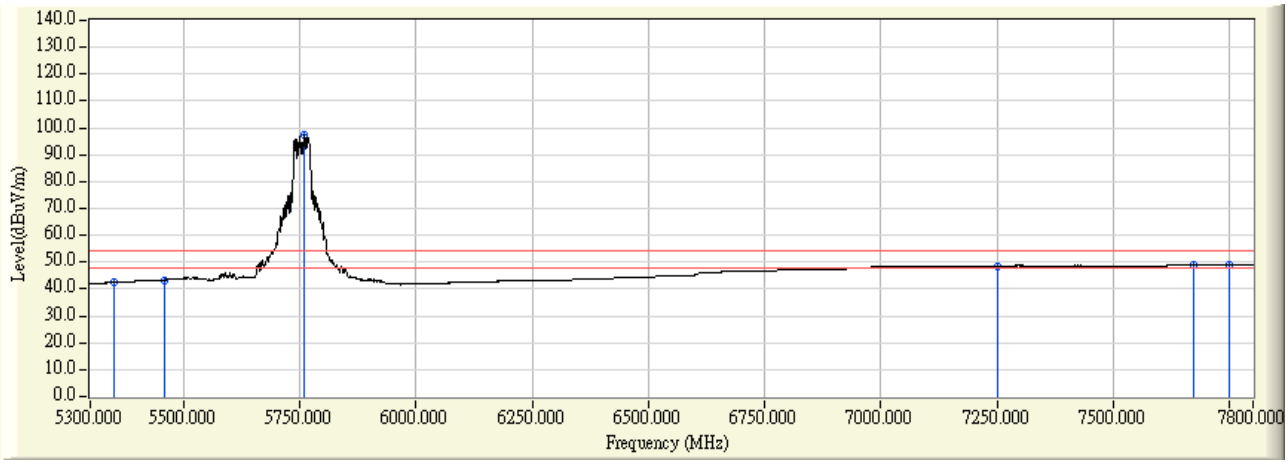


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	54.687	55.621	-18.379	74.000	PEAK
2		5460.000	1.853	54.570	56.423	-17.577	74.000	PEAK
3	*	5760.000	1.379	108.677	110.056	36.056	74.000	PEAK
4		7250.000	5.954	55.933	61.886	-12.114	74.000	PEAK
5		7725.000	6.794	56.585	63.379	-10.621	74.000	PEAK
6		7750.000	6.833	55.773	62.607	-11.393	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 21:38**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

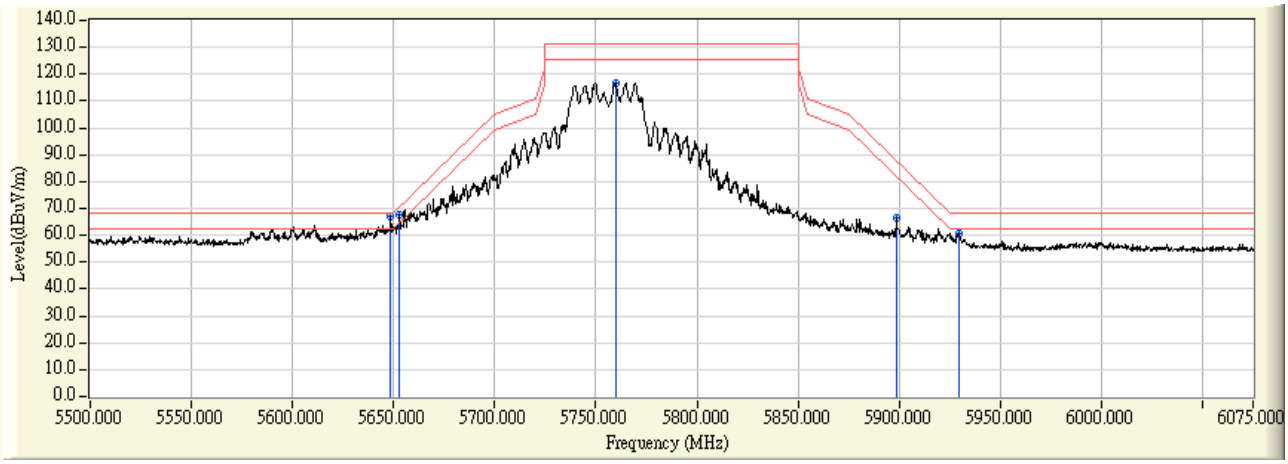


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.587	42.521	-11.479	54.000	AVERAGE
2		5460.000	1.853	41.597	43.450	-10.550	54.000	AVERAGE
3	*	5760.000	1.379	96.117	97.496	43.496	54.000	AVERAGE
4		7250.000	5.954	42.485	48.438	-5.562	54.000	AVERAGE
5		7671.250	6.710	42.305	49.014	-4.986	54.000	AVERAGE
6		7750.000	6.833	42.266	49.100	-4.900	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:17**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

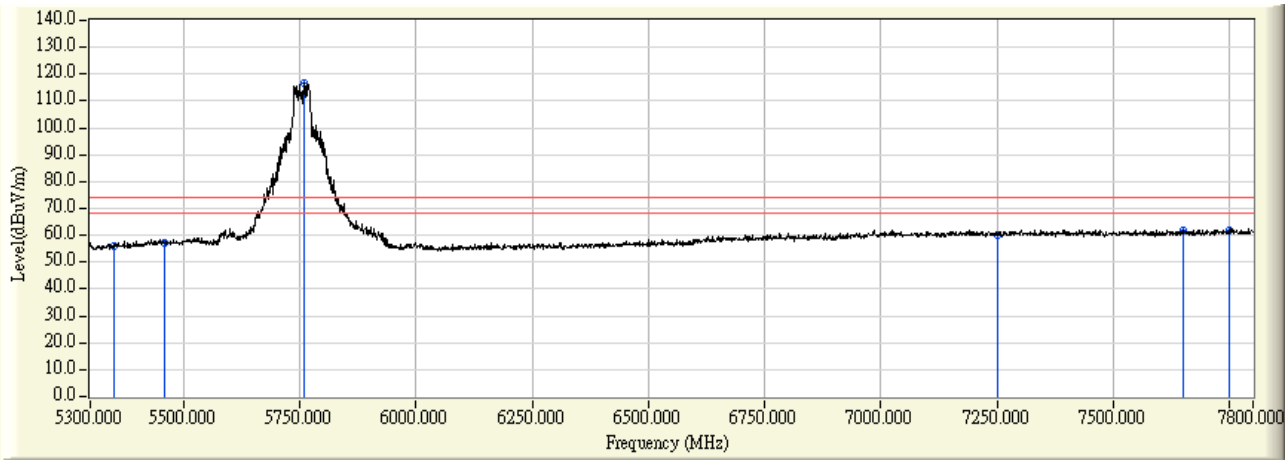


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5648.350	1.815	65.282	67.097	-1.103	68.200	PEAK
2		5652.950	1.801	66.071	67.872	-2.511	70.383	PEAK
3		5759.613	1.492	115.355	116.847	-14.353	131.200	PEAK
4		5898.763	1.088	65.131	66.219	-21.396	87.615	PEAK
5		5929.238	0.999	59.947	60.946	-7.254	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 21:21**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

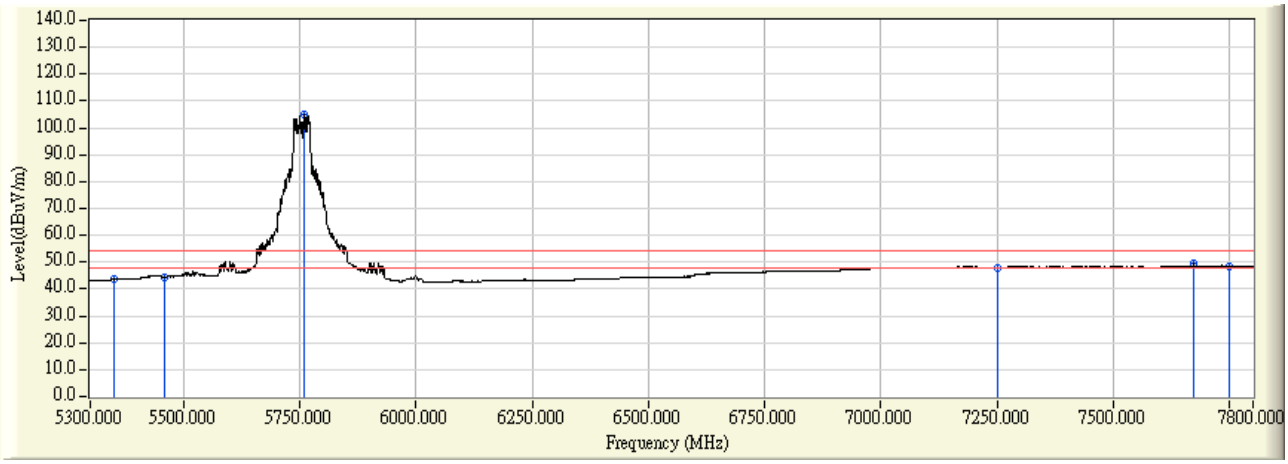


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	54.484	55.734	-18.266	74.000	PEAK
2		5460.000	2.114	54.888	57.002	-16.998	74.000	PEAK
3	*	5760.000	1.491	115.203	116.694	42.694	74.000	PEAK
4		7250.000	5.454	54.601	60.054	-13.946	74.000	PEAK
5		7651.250	6.178	55.726	61.904	-12.096	74.000	PEAK
6		7750.000	6.333	55.446	61.780	-12.220	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 21:23**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

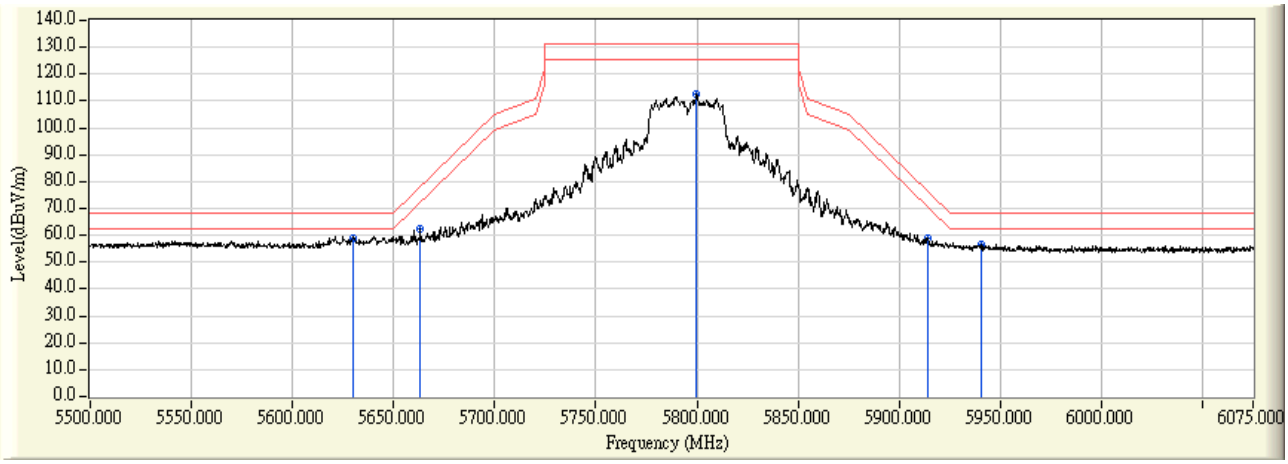


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.273	43.523	-10.477	54.000	AVERAGE
2		5460.000	2.114	42.466	44.580	-9.420	54.000	AVERAGE
3	*	5760.000	1.491	103.396	104.887	50.887	54.000	AVERAGE
4		7250.000	5.454	42.518	47.971	-6.029	54.000	AVERAGE
5		7672.500	6.211	43.182	49.393	-4.607	54.000	AVERAGE
6		7750.000	6.333	42.302	48.636	-5.364	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:17**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

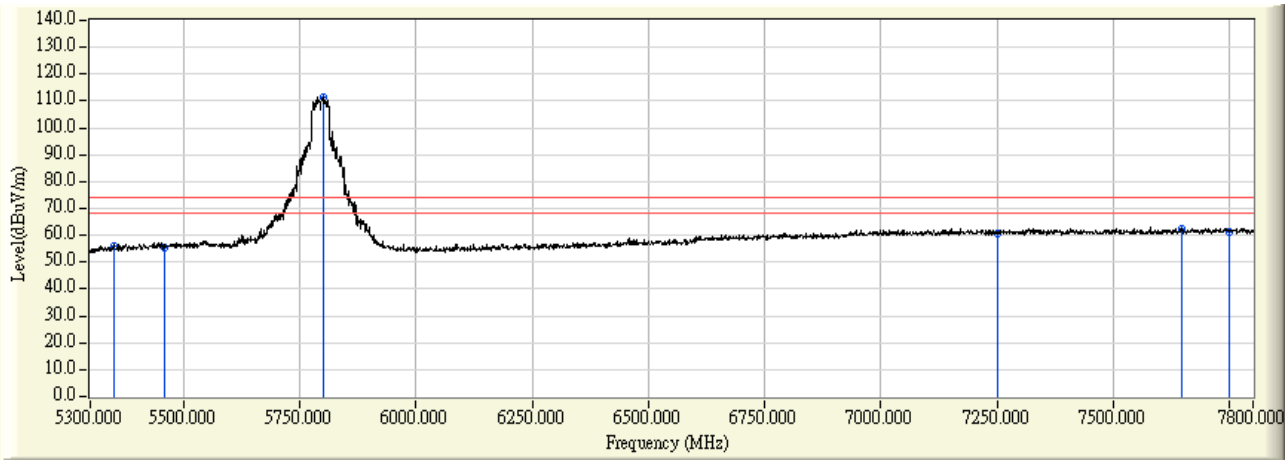


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5630.238	1.691	57.435	59.126	-9.074	68.200	PEAK
2		5663.013	1.612	60.808	62.420	-15.410	77.830	PEAK
3		5799.863	1.283	111.023	112.306	-18.894	131.200	PEAK
4		5914.000	1.009	57.689	58.698	-17.642	76.340	PEAK
5		5940.738	0.945	55.736	56.681	-11.519	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 22:43**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

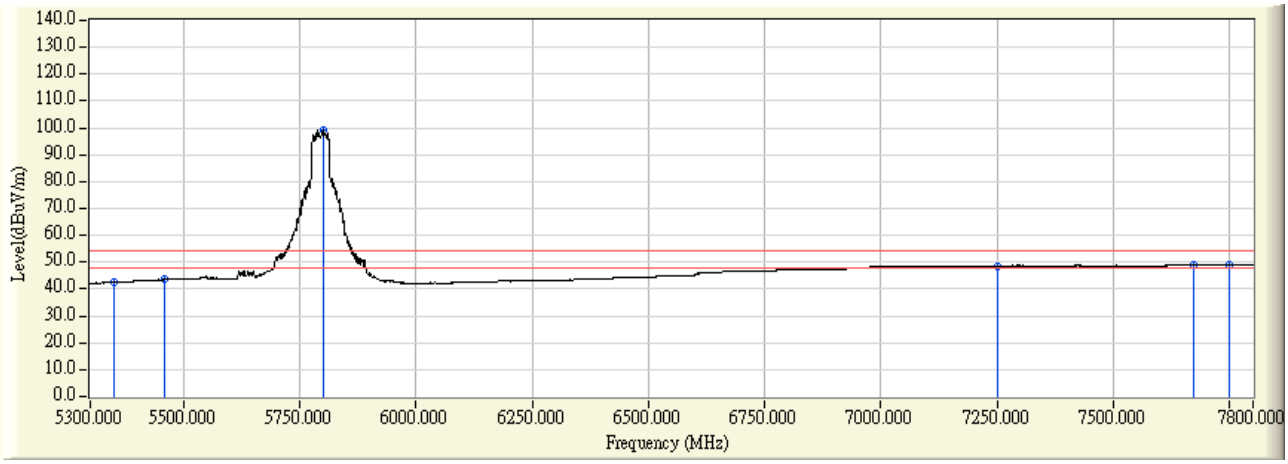


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	55.143	56.077	-17.923	74.000	PEAK
2		5460.000	1.853	53.719	55.572	-18.428	74.000	PEAK
3	*	5800.000	1.283	110.181	111.464	37.464	74.000	PEAK
4		7250.000	5.954	54.800	60.753	-13.247	74.000	PEAK
5		7647.500	6.671	56.027	62.699	-11.301	74.000	PEAK
6		7750.000	6.833	54.562	61.396	-12.604	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 22:43**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

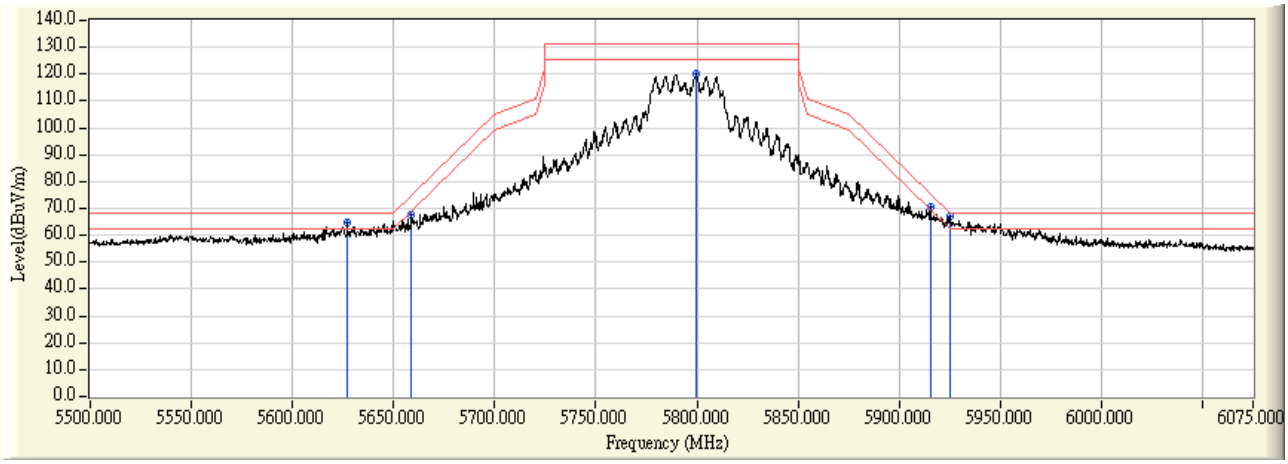


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.585	42.519	-11.481	54.000	AVERAGE
2		5460.000	1.853	41.774	43.627	-10.373	54.000	AVERAGE
3	*	5800.000	1.283	98.137	99.420	45.420	54.000	AVERAGE
4		7250.000	5.954	42.414	48.367	-5.633	54.000	AVERAGE
5		7671.250	6.710	42.314	49.023	-4.977	54.000	AVERAGE
6		7750.000	6.833	42.244	49.078	-4.922	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:17**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

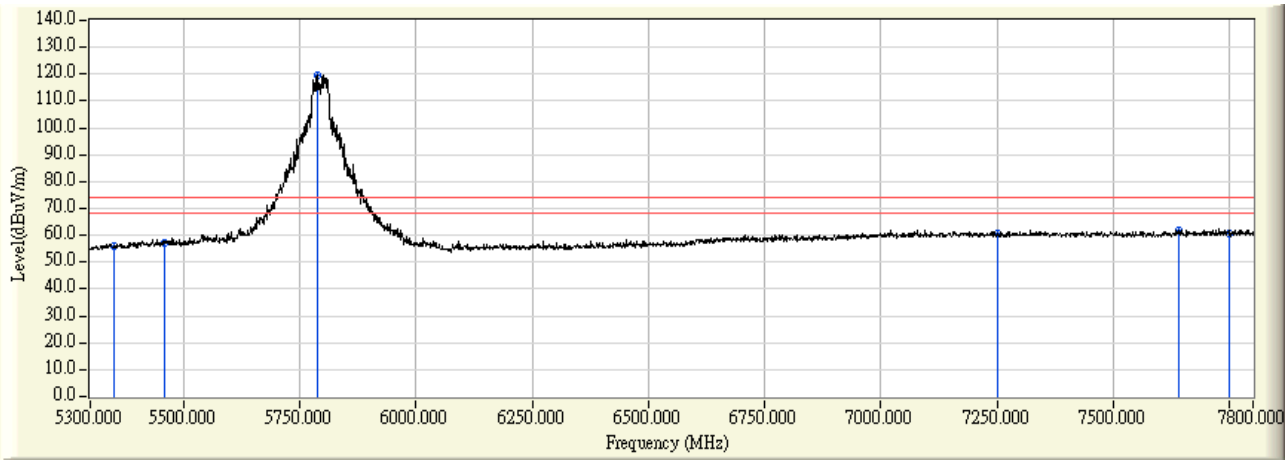


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5627.075	1.877	62.808	64.685	-3.515	68.200	PEAK
2		5658.988	1.784	65.598	67.382	-7.469	74.851	PEAK
3		5799.575	1.376	118.524	119.900	-11.300	131.200	PEAK
4		5915.438	1.039	69.274	70.313	-4.963	75.276	PEAK
5	*	5925.500	1.010	65.825	66.835	-1.365	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 22:01**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

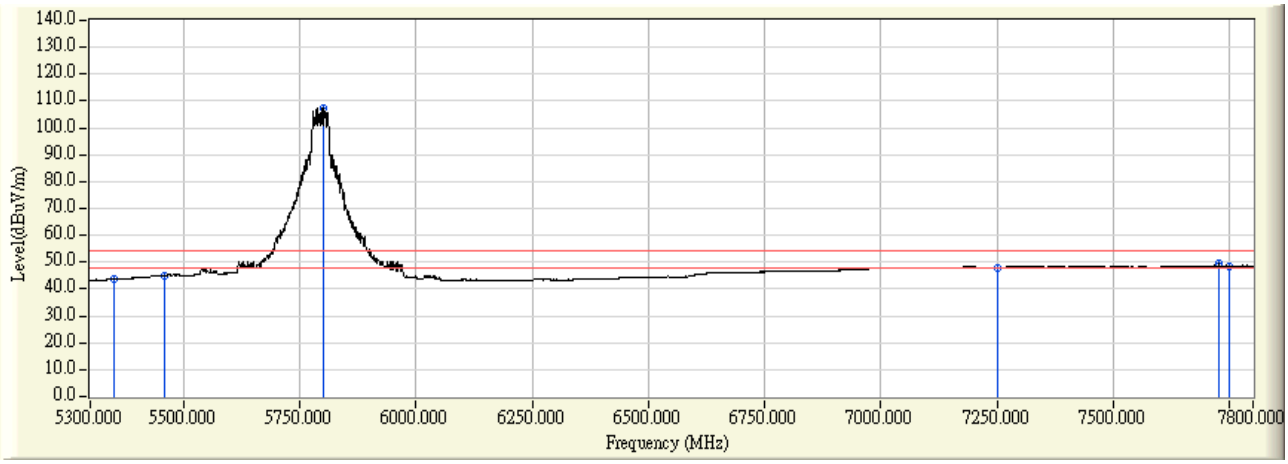


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	54.898	56.148	-17.852	74.000	PEAK
2		5460.000	2.114	55.250	57.364	-16.636	74.000	PEAK
3	*	5790.000	1.404	118.141	119.545	45.545	74.000	PEAK
4		7250.000	5.454	54.973	60.426	-13.574	74.000	PEAK
5		7640.000	6.160	55.706	61.866	-12.134	74.000	PEAK
6		7750.000	6.333	54.554	60.888	-13.112	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 22:04**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

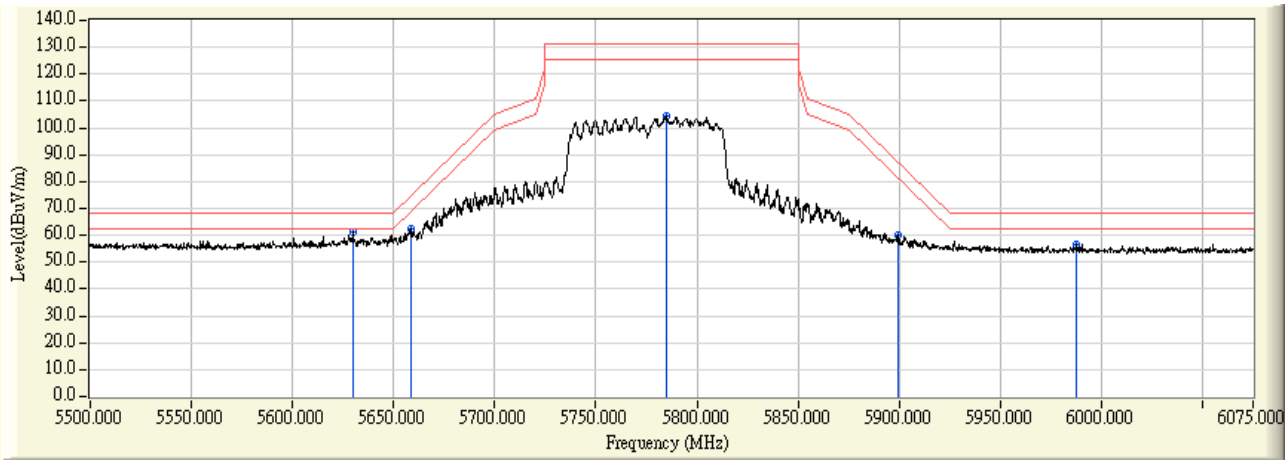


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.442	43.692	-10.308	54.000	AVERAGE
2		5460.000	2.114	43.066	45.180	-8.820	54.000	AVERAGE
3	*	5800.000	1.375	106.236	107.610	53.610	54.000	AVERAGE
4		7250.000	5.454	42.458	47.911	-6.089	54.000	AVERAGE
5		7726.250	6.296	43.452	49.748	-4.252	54.000	AVERAGE
6		7750.000	6.333	42.289	48.623	-5.377	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:18**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**

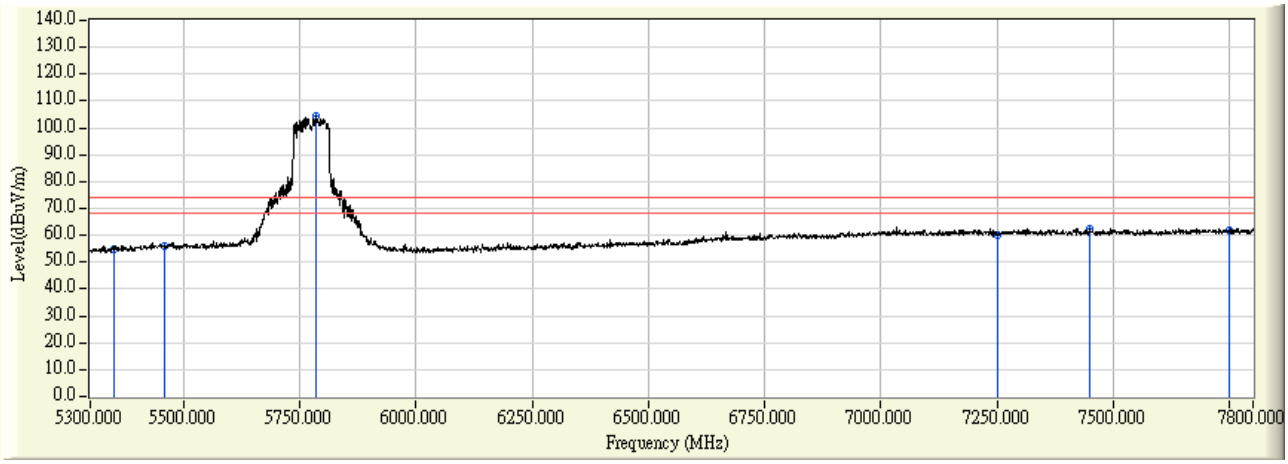


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5629.950	1.692	59.718	61.410	-6.790	68.200	PEAK
2		5658.700	1.623	60.551	62.174	-12.464	74.638	PEAK
3		5784.625	1.320	103.121	104.441	-26.759	131.200	PEAK
4		5899.338	1.044	58.874	59.918	-27.272	87.190	PEAK
5		5987.600	0.874	55.490	56.364	-11.836	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 23:05**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**

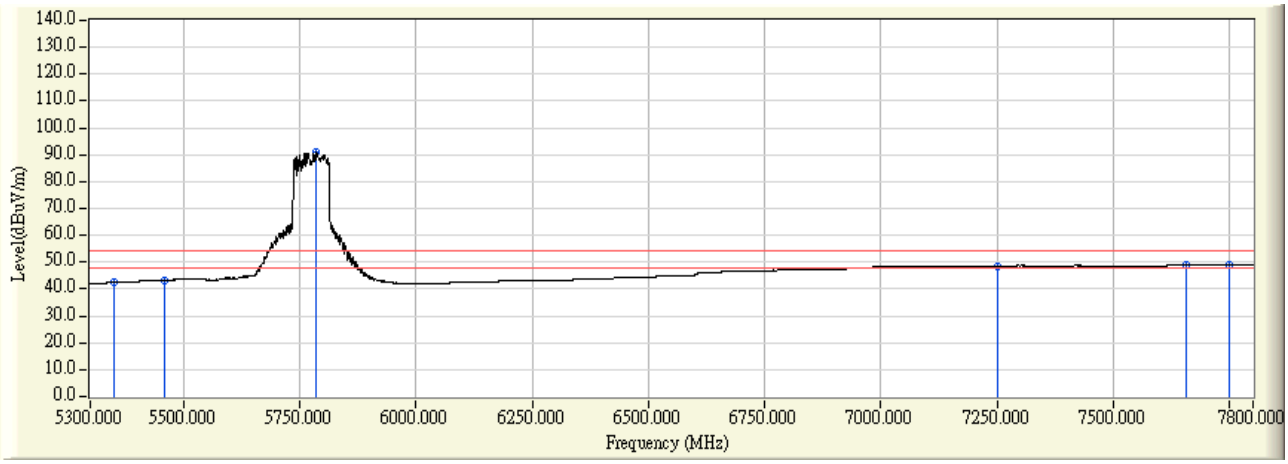


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	54.064	54.998	-19.002	74.000	PEAK
2		5460.000	1.853	53.962	55.815	-18.185	74.000	PEAK
3	*	5785.000	1.319	103.252	104.571	30.571	74.000	PEAK
4		7250.000	5.954	54.242	60.195	-13.805	74.000	PEAK
5		7447.500	6.342	56.220	62.562	-11.438	74.000	PEAK
6		7750.000	6.833	54.802	61.636	-12.364	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 23:09**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**

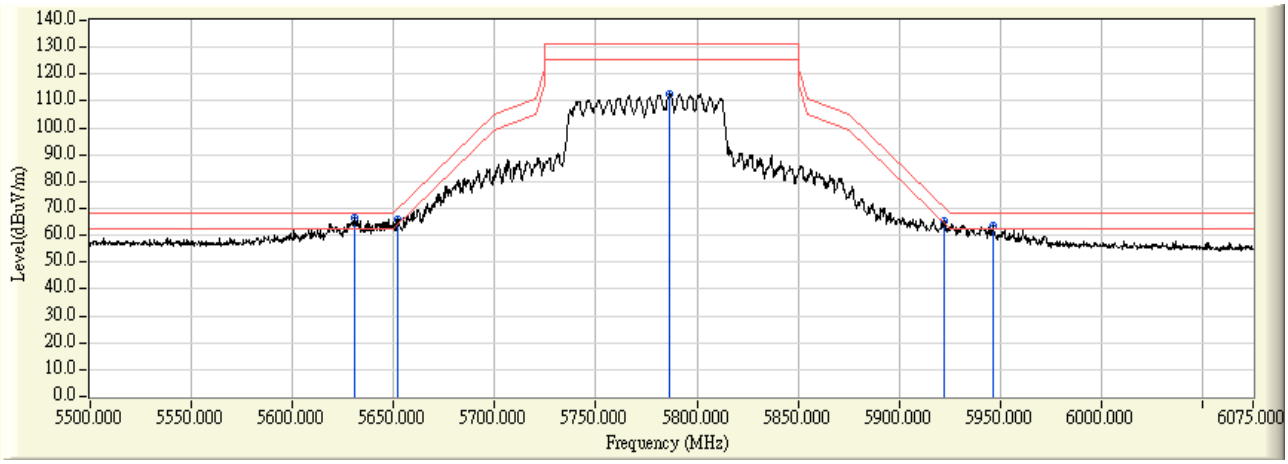


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.478	42.412	-11.588	54.000	AVERAGE
2		5460.000	1.853	41.510	43.363	-10.637	54.000	AVERAGE
3	*	5785.000	1.319	89.507	90.826	36.826	54.000	AVERAGE
4		7250.000	5.954	42.472	48.425	-5.575	54.000	AVERAGE
5		7655.000	6.683	42.253	48.937	-5.063	54.000	AVERAGE
6		7750.000	6.833	42.303	49.137	-4.863	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/11 - 10:18**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**

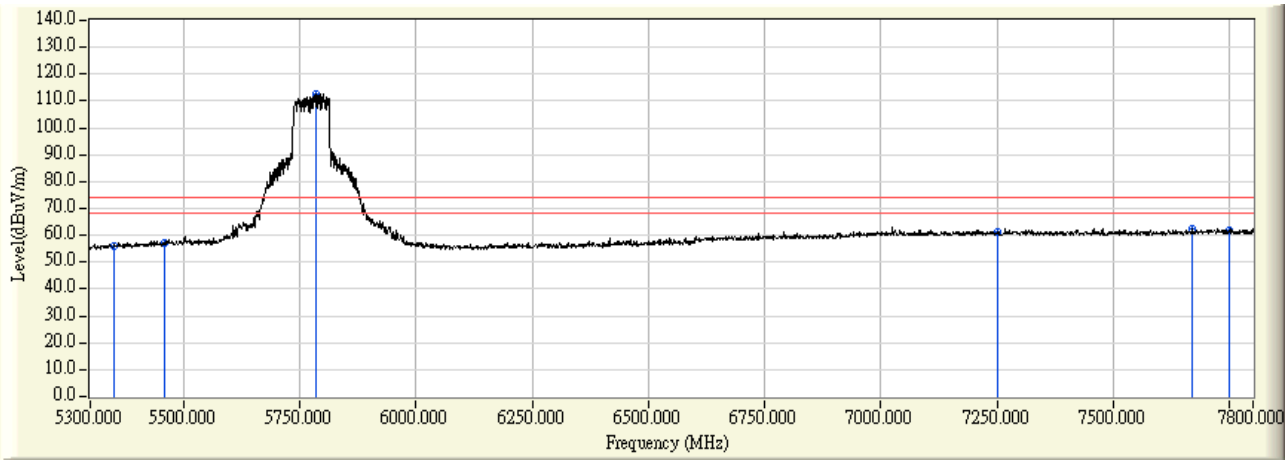


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5630.525	1.867	64.448	66.315	-1.885	68.200	PEAK
2		5652.088	1.804	64.318	66.122	-3.623	69.745	PEAK
3		5786.350	1.414	111.203	112.617	-18.583	131.200	PEAK
4		5922.050	1.020	64.314	65.334	-5.049	70.383	PEAK
5		5946.488	0.949	62.860	63.809	-4.391	68.200	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 22:48**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**

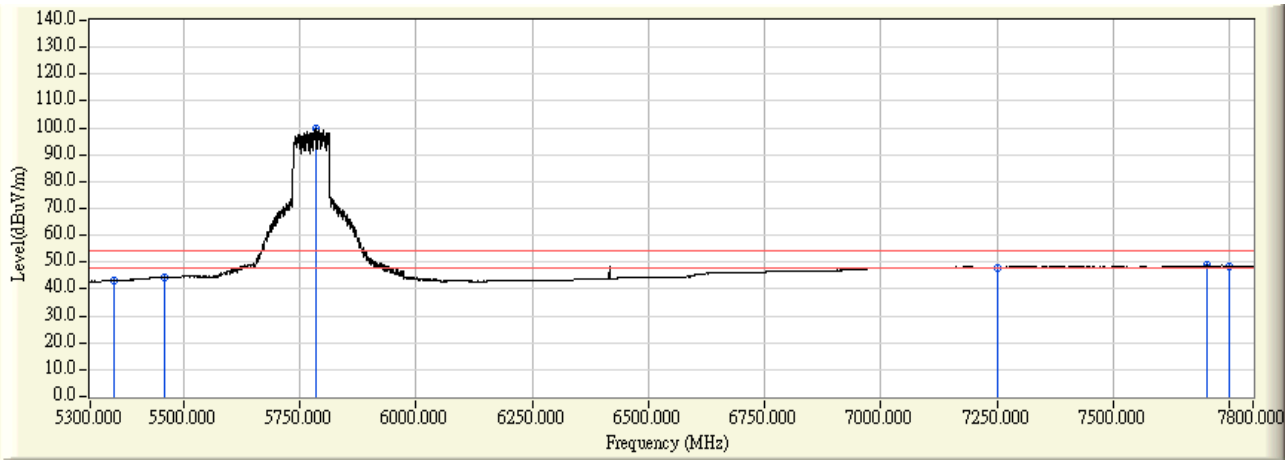


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	54.502	55.752	-18.248	74.000	PEAK
2		5460.000	2.114	55.247	57.361	-16.639	74.000	PEAK
3	*	5786.250	1.415	111.094	112.508	38.508	74.000	PEAK
4		7250.000	5.454	55.593	61.046	-12.954	74.000	PEAK
5		7668.750	6.206	55.927	62.132	-11.868	74.000	PEAK
6		7750.000	6.333	55.223	61.557	-12.443	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	**Time : 2016/05/10 - 22:50**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : Dual Band 3x3 802.11ac PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.035	43.285	-10.715	54.000	AVERAGE
2		5460.000	2.114	42.054	44.168	-9.832	54.000	AVERAGE
3	*	5786.250	1.415	98.099	99.513	45.513	54.000	AVERAGE
4		7250.000	5.454	42.479	47.932	-6.068	54.000	AVERAGE
5		7700.000	6.254	42.565	48.820	-5.180	54.000	AVERAGE
6		7750.000	6.333	42.294	48.628	-5.372	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. Frequency Stability

7.1. Test Equipment

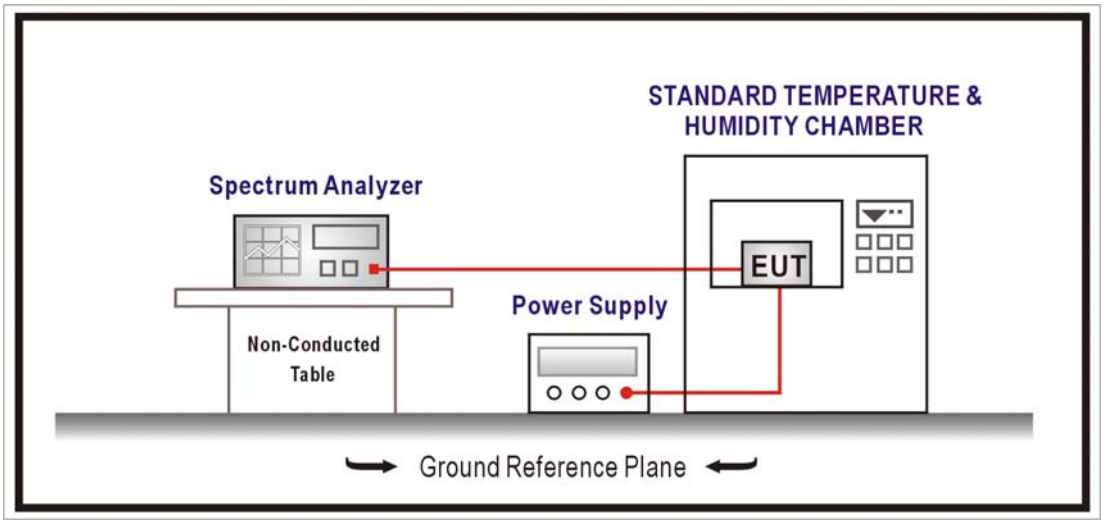
The following test equipments are used during the radiated emission tests:

Frequency Stability / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23
Temperature & Humidity Chamber	WIT	TH-1S-B	1082101	2017/01/18

Note: All equipments that need to calibrate are with calibration period of 1 year.

7.2. Test Setup



7.3. Limits

Manufactures of all devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified

7.4. Test Procedure

The EUT was setup to ANSI C63.10:2009; tested to U-NII test procedure of 789033 D02 V01R01 for compliance to FCC 47CFR Subpart E requirements.

7.5. Uncertainty

The measurement uncertainty is defined as ± 150 Hz

7.6. Test Result

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326_802.11a - 5745MHz, ANT 0		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5745.00667	1.1666	Pass
-10		5745.00638	1.1109	Pass
0		5745.00670	1.1662	Pass
10		5744.99570	-0.7478	Pass
20		5744.98566	-2.4967	Pass
30		5744.98427	-2.7383	Pass
40		5744.99385	-1.0704	Pass
50		5744.99189	-1.4123	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99818	-0.3174	Pass
	120	5744.95926	-7.0906	Pass
	138	5744.98375	-2.8283	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11a - 5825MHz, ANT 0		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5825.01833	3.1520	Pass
-10		5825.00098	0.1679	Pass
0		5825.02709	4.6511	Pass
10		5824.99723	-0.4750	Pass
20		5824.98499	-2.5761	Pass
30		5824.97765	-3.8371	Pass
40		5824.98866	-1.9462	Pass
50		5824.96007	-6.8551	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99951	-0.0849	Pass
	120	5824.98216	-3.0631	Pass
	138	5824.97956	-3.5099	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11a - 5745MHz, ANT 1		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5745.02065	3.6004	Pass
-10		5745.01648	2.8691	Pass
0		5745.02728	4.7487	Pass
10		5744.99172	-1.4411	Pass
20		5744.98321	-2.9231	Pass
30		5744.99522	-0.8321	Pass
40		5744.95698	-7.4880	Pass
50		5744.96544	-6.0158	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99955	-0.0775	Pass
	120	5744.99282	-1.2491	Pass
	138	5744.97550	-4.2654	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11a - 5825MHz, ANT 1		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5825.03532	6.0691	Pass
-10		5825.03816	6.5515	Pass
0		5825.01712	2.9391	Pass
10		5824.98564	-2.4655	Pass
20		5824.98319	-2.8855	Pass
30		5824.98093	-3.2739	Pass
40		5824.96323	-6.3119	Pass
50		5824.98433	-2.6899	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99904	-0.1652	Pass
	120	5824.97089	-4.9980	Pass
	138	5824.98057	-3.3353	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11a - 5745MHz, ANT 2		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5745.04867	8.4782	Pass
-10		5745.01126	1.9604	Pass
0		5745.01239	2.1574	Pass
10		5744.98104	-3.2997	Pass
20		5744.99741	-0.4511	Pass
30		5744.97699	-4.0057	Pass
40		5744.96145	-6.7096	Pass
50		5744.96545	-6.0139	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99983	-0.0292	Pass
	120	5744.99966	-0.0598	Pass
	138	5744.99420	-1.0088	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11a - 5825MHz, ANT 2		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5825.02565	4.4101	Pass
-10		5825.00002	0.0027	Pass
0		5825.02716	4.6627	Pass
10		5824.98391	-2.7618	Pass
20		5824.98151	-3.1746	Pass
30		5824.97278	-4.6724	Pass
40		5824.96296	-6.3589	Pass
50		5824.97268	-4.6895	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99721	-0.4796	Pass
	120	5824.97941	-3.5341	Pass
	138	5824.99962	-0.0648	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5745MHz, ANT 0		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5745.01232	2.1501	Pass
-10		5745.00899	1.5652	Pass
0		5745.00974	1.6962	Pass
10		5744.98817	-2.0584	Pass
20		5744.98577	-2.4768	Pass
30		5744.97502	-4.3480	Pass
40		5744.95418	-7.9756	Pass
50		5744.95049	-8.6174	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99962	-0.0657	Pass
	120	5744.99428	-0.9951	Pass
	138	5744.95276	-8.2226	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5825MHz, ANT 0		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5825.00943	1.6248	Pass
-10		5825.01365	2.3429	Pass
0		5825.02624	4.5047	Pass
10		5824.98526	-2.5297	Pass
20		5824.99441	-0.9598	Pass
30		5824.97114	-4.9538	Pass
40		5824.99376	-1.0711	Pass
50		5824.96096	-6.7017	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99881	-0.2046	Pass
	120	5824.97824	-3.7360	Pass
	138	5824.97189	-4.8257	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5745MHz, ANT 1		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5745.03812	6.6417	Pass
-10		5745.00613	1.0676	Pass
0		5745.02060	3.5855	Pass
10		5744.98940	-1.8448	Pass
20		5744.99778	-0.3869	Pass
30		5744.99311	-1.1999	Pass
40		5744.98188	-3.1537	Pass
50		5744.99042	-1.6679	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99770	-0.4004	Pass
	120	5744.98785	-2.1157	Pass
	138	5744.99587	-0.7188	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5825MHz, ANT 1		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5825.04615	7.9280	Pass
-10		5825.01931	3.3143	Pass
0		5825.01541	2.6450	Pass
10		5824.99279	-1.2370	Pass
20		5824.98368	-2.8010	Pass
30		5824.99722	-0.4768	Pass
40		5824.97100	-4.9790	Pass
50		5824.98705	-2.2238	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99858	-0.2441	Pass
	120	5824.98534	-2.5168	Pass
	138	5824.96523	-5.9699	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5745MHz, ANT 2		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5745.03791	6.6044	Pass
-10		5745.02823	4.9142	Pass
0		5745.01532	2.6670	Pass
10		5744.99592	-0.7095	Pass
20		5744.98580	-2.4711	Pass
30		5744.97990	-3.4995	Pass
40		5744.99166	-1.4519	Pass
50		5744.99878	-0.2120	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99794	-0.3590	Pass
	120	5744.97232	-4.8173	Pass
	138	5744.98483	-2.6401	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_20M - 5825MHz, ANT 2		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5825.02604	4.4769	Pass
-10		5825.01291	2.2162	Pass
0		5825.01078	1.8511	Pass
10		5824.98989	-1.7359	Pass
20		5824.99130	-1.4941	Pass
30		5824.97246	-4.7286	Pass
40		5824.98586	-2.4272	Pass
50		5824.95105	-8.4039	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99788	-0.3642	Pass
	120	5824.99714	-0.4903	Pass
	138	5824.95436	-7.8344	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5755MHz, ANT 0		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5755.01318	2.2959	Pass
-10		5755.00815	1.4160	Pass
0		5755.01056	1.8358	Pass
10		5754.98833	-2.0279	Pass
20		5754.99664	-0.5840	Pass
30		5754.97955	-3.5531	Pass
40		5754.94919	-8.8287	Pass
50		5754.98645	-2.3536	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5754.99881	-0.2074	Pass
	120	5754.98707	-2.2465	Pass
	138	5754.99569	-0.7492	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5795MHz, ANT 0		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5795.03736	6.4530	Pass
-10		5795.01199	2.0690	Pass
0		5795.00342	0.5902	Pass
10		5794.99665	-0.5775	Pass
20		5794.98741	-2.1723	Pass
30		5794.99908	-0.1593	Pass
40		5794.96120	-6.6954	Pass
50		5794.97934	-3.5653	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5794.99896	-0.1787	Pass
	120	5794.97000	-5.1767	Pass
	138	5794.99940	-0.1029	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5755MHz, ANT 1		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5755.04610	8.0165	Pass
-10		5755.01614	2.8038	Pass
0		5755.02809	4.8806	Pass
10		5754.99243	-1.3162	Pass
20		5754.98137	-3.2374	Pass
30		5754.99595	-0.7029	Pass
40		5754.96249	-6.5173	Pass
50		5754.95933	-7.0671	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5754.99739	-0.4528	Pass
	120	5754.99041	-1.6657	Pass
	138	5754.99197	-1.3958	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5795MHz, ANT 1		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5795.03715	6.4176	Pass
-10		5795.00650	1.1223	Pass
0		5795.00177	0.3058	Pass
10		5794.98394	-2.7720	Pass
20		5794.99884	-0.2004	Pass
30		5794.99493	-0.8757	Pass
40		5794.98777	-2.1098	Pass
50		5794.99607	-0.6782	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5794.99874	-0.2175	Pass
	120	5794.97463	-4.3776	Pass
	138	5794.99827	-0.2981	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5755MHz, ANT 2		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5755.02615	4.5497	Pass
-10		5755.00260	0.4512	Pass
0		5755.00364	0.6319	Pass
10		5754.98364	-2.8432	Pass
20		5754.98155	-3.2065	Pass
30		5754.99383	-1.0727	Pass
40		5754.96998	-5.2159	Pass
50		5754.96876	-5.4277	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5754.99885	-0.1991	Pass
	120	5754.99239	-1.3217	Pass
	138	5754.98109	-3.2864	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11n_40M - 5795MHz, ANT 2		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5795.01626	2.8126	Pass
-10		5795.00118	0.2037	Pass
0		5795.02969	5.1232	Pass
10		5794.99986	-0.0245	Pass
20		5794.98668	-2.2984	Pass
30		5794.99887	-0.1944	Pass
40		5794.98763	-2.1351	Pass
50		5794.95199	-8.2850	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5794.99733	-0.4609	Pass
	120	5794.98482	-2.6196	Pass
	138	5794.96107	-6.7172	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11ac_80M - 5775MHz, ANT 0		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5775.04267	7.3951	Pass
-10		5775.00869	1.5053	Pass
0		5775.01105	1.9137	Pass
10		5774.98079	-3.3267	Pass
20		5774.99196	-1.3915	Pass
30		5774.97087	-5.0433	Pass
40		5774.98871	-1.9542	Pass
50		5774.95823	-7.2333	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5774.99879	-0.2089	Pass
	120	5774.97614	-4.1316	Pass
	138	5774.97792	-3.8231	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11ac_80M - 5775MHz, ANT 1		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5775.00774	1.3470	Pass
-10		5775.03965	6.8659	Pass
0		5775.02139	3.7037	Pass
10		5774.99246	-1.3063	Pass
20		5774.98676	-2.2934	Pass
30		5774.97264	-4.7376	Pass
40		5774.97302	-4.6712	Pass
50		5774.96266	-6.4654	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5774.99752	-0.4302	Pass
	120	5774.96788	-5.5622	Pass
	138	5774.95768	-7.3275	Pass

Product	Dual Band 3x3 802.11ac PCI-E Adapter		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit_AD890326- 802.11ac_80M - 5775MHz, ANT 2		
Date of Test	2016/04/09	Test Site	SR7

Temperature Interval (oC)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5775.01644	2.8532	Pass
-10		5775.02962	5.1298	Pass
0		5775.02776	4.8076	Pass
10		5774.99620	-0.6576	Pass
20		5774.99317	-1.1831	Pass
30		5774.97862	-3.7014	Pass
40		5774.94603	-9.3462	Pass
50		5774.97474	-4.3735	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5774.99972	-0.0482	Pass
	120	5774.96389	-6.2521	Pass
	138	5774.96416	-6.2065	Pass

Attachment 2

- **Original Report**