FCC Test Report

Product Name ： PCE-AC56 Dual-Band Wireless PCI-E Adapter

Trade Name ： ASUS

Model No. ： PCE-AC56

FCC ID. ： MSQ-PCEAC56

Applicant ： ASUSTeK COMPUTER INC.

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

Date of Receipt ： Feb. 01, 2016

Issued Date ： May 11, 2016

Report No. ： 1620121R-RFUSP42V00-A

Report Version ： V1.0

Testing Laboratory
3024

Test Report Certification

Issued Date: May 11, 2016
Report No. : 1620121R-RFUSP42V00-A

Product Name	:	PCE-AC56 Dual-Band Wireless PCI-E Adapter
Applicant	:	ASUSTeK COMPUTER INC.
Address	:	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
Manufacturer	:	Arcadyan Technology Corporation
Model No.	:	PCE-AC56
FCC ID.	:	MSQ-PCEAC56
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
13B0341R-RFUSP38V00	V1.0	Initial issue of report	Dec. 11, 2013
1620121R-RFUSP42V00-A	V1.0	Update WLAN 5G band 4 standard to FCC 15.407. The 2.4G test data, please refer to the 13B0341R-RFUSP38V00. 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 11, 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:
No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

LinKou Testing Laboratory:
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

TABLE OF CONTENTS

1. General Information

1.1. EUT Description

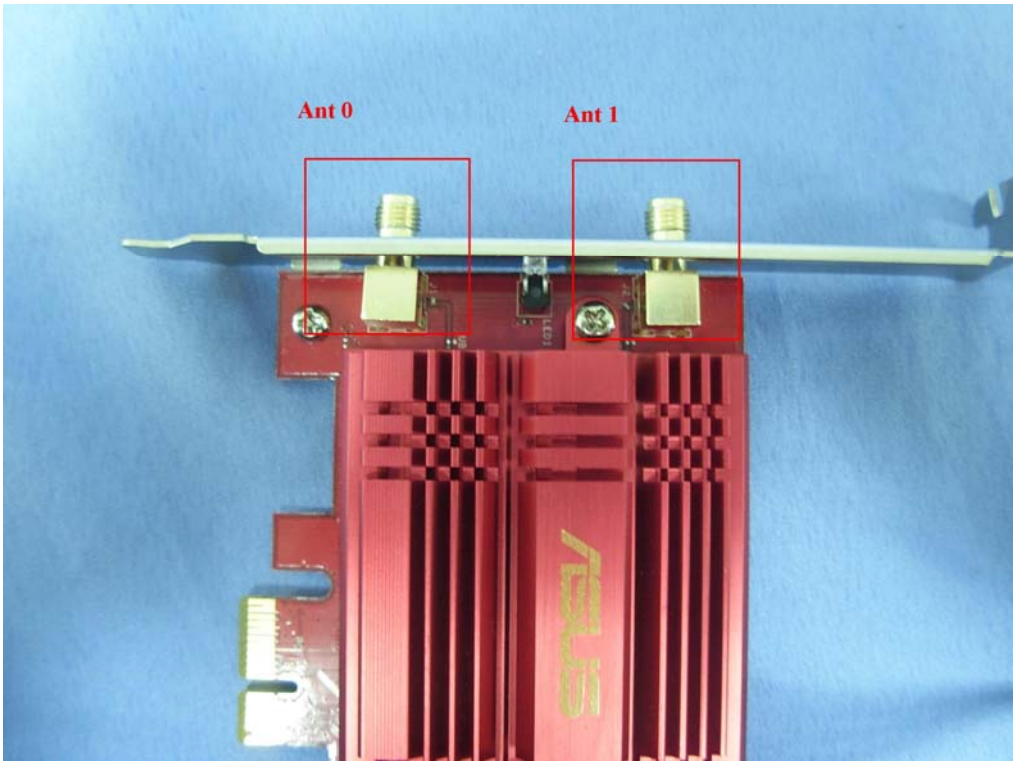
Product Name	PCE-AC56 Dual-Band Wireless PCI-E Adapter	
Trade Name	ASUS	
Model No.	PCE-AC56	
Frequency Range/ Channel Number	IEEE 802.11a IEEE 802.11n (20MHz) IEEE 802.11ac (20MHz)	5745~5825MHz / 5 Channels
	IEEE 802.11n (40MHz) IEEE 802.11ac (40MHz)	5755~5795MHz / 2 Channels
	IEEE 802.11ac (80MHz)	5775~5775MHz / 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 Gain	Ant0: 4dBi, Ant1: 4dBi
Beamforming Gain	3dBi
Antenna Type	Dipole Antenna

ANT-TX / RX & Bandwidth

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

2TX / 2RX



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

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

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 PCE-AC56 Dual-Band Wireless PCI-E Adapter including 2.4GHz b/g/n and 5GHz a/n/ac (2x2) 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: 1620121R-RFUSP42V00.
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 13B0341R-RFUSP01V00.

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

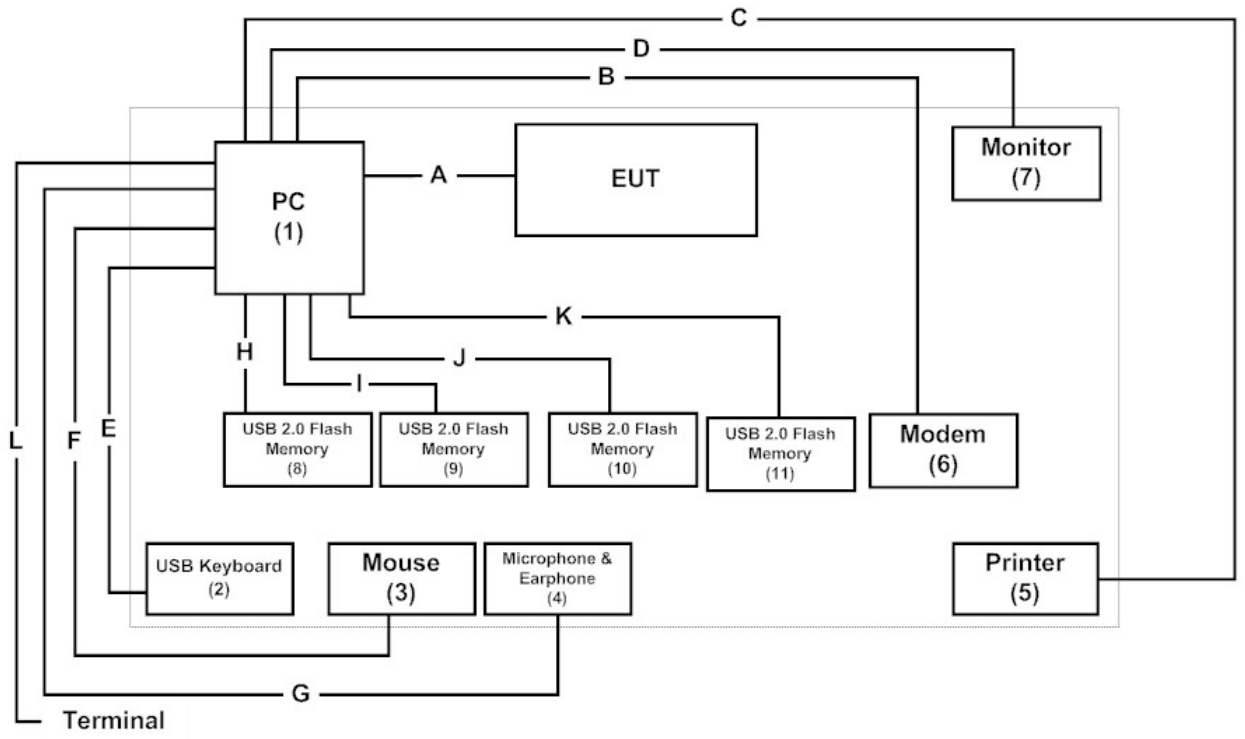
1.3. Tested System Details

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 1.4.
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 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 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

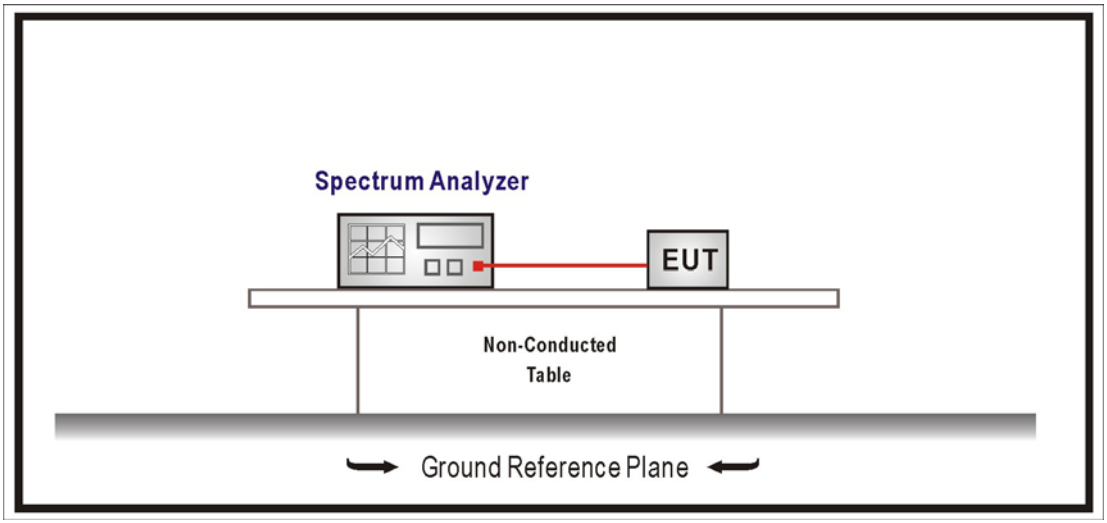
The following test equipments are used during the radiated emission tests:

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 V01R02
Set RBW 1% of the emission bandwidth, VBW equal to 3 times the RBW.

2.5. Uncertainty

The measurement uncertainty is defined as ±150Hz

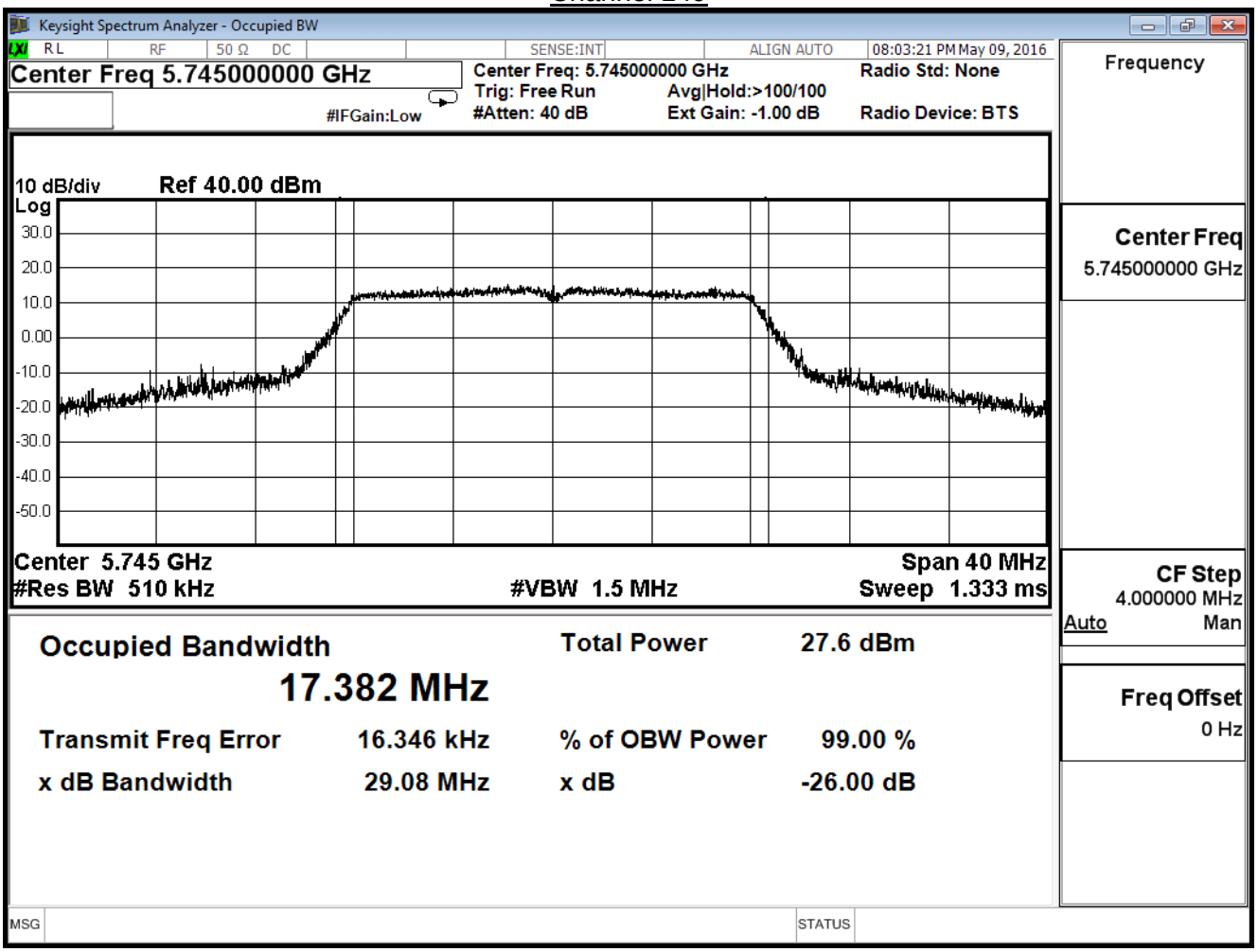
2.6. Test Result

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

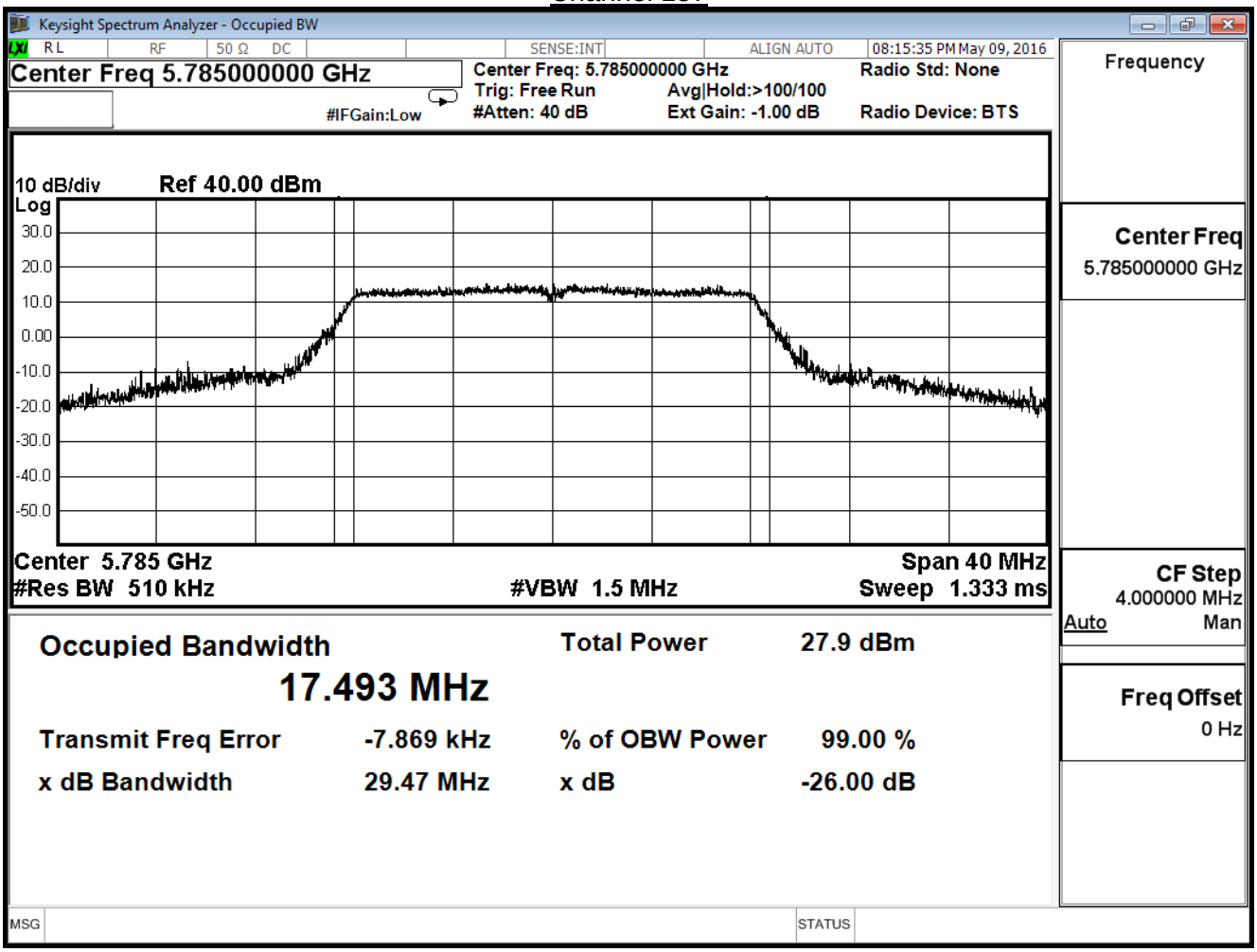
802.11 a (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
149	5745	29.08	17.38	--
157	5785	29.47	17.49	--
165	5825	31.71	17.38	--

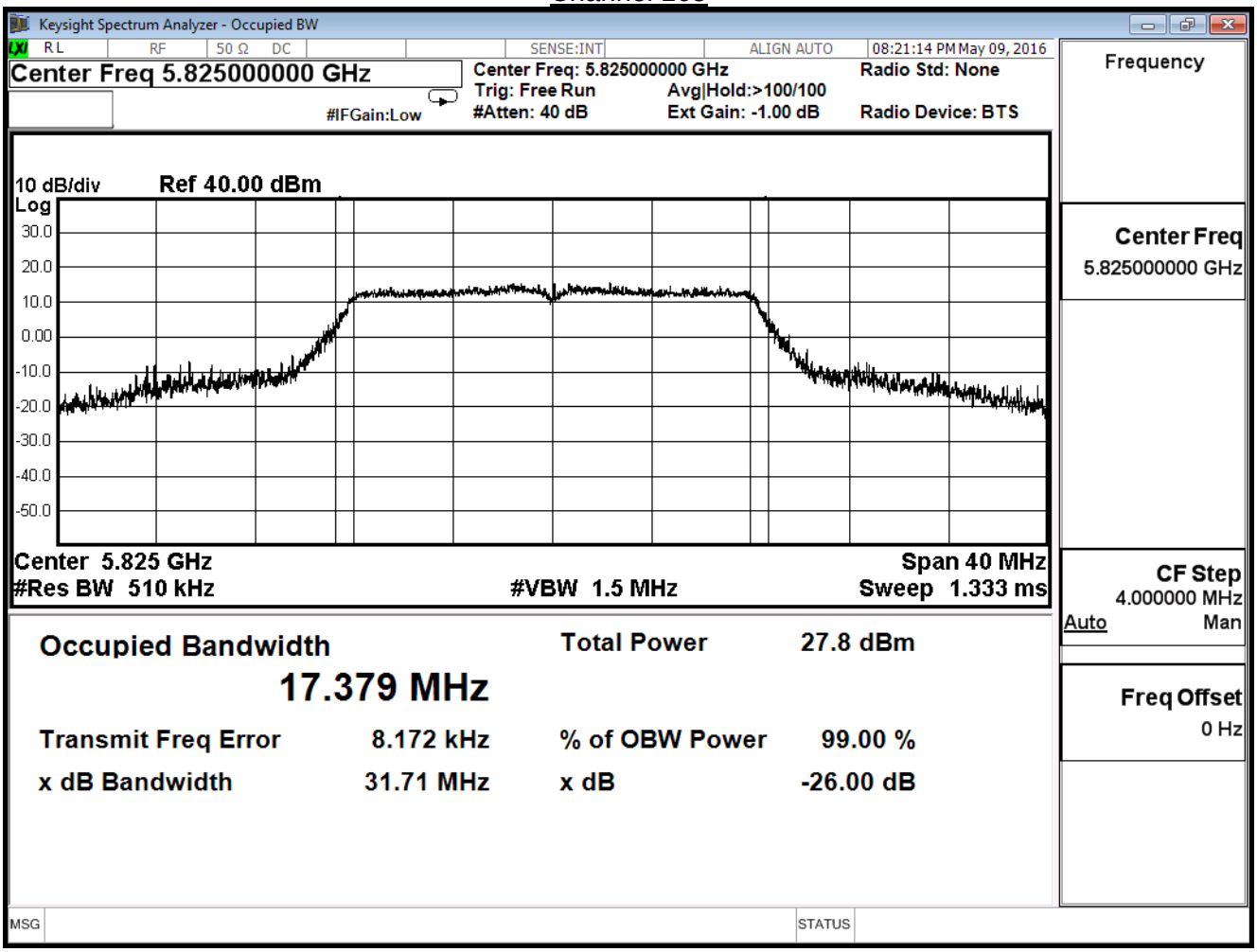
Channel 149



Channel 157


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:15:35 PM May 09, 2016
Center Freq 5.785000000 GHz
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
17.493 MHz
Total Power
27.9 dBm
Transmit Freq Error
-7.869 kHz
% of OBW Power
99.00 %
x dB Bandwidth
29.47 MHz
x dB
-26.00 dB
Freq Offset
0 Hz
MSG
STATUS

Channel 165

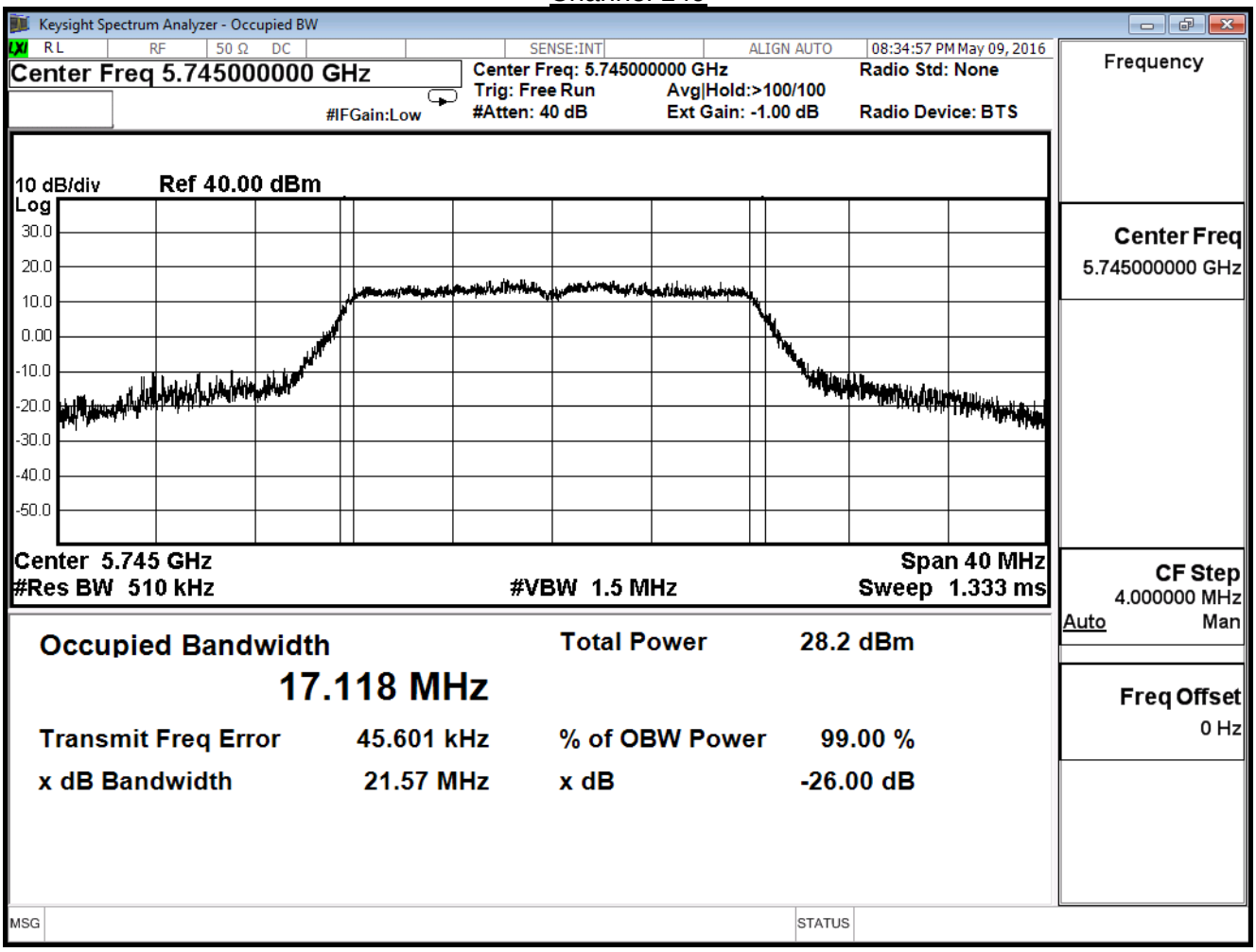

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:21:14 PM May 09, 2016
Center Freq 5.825000000 GHz
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Ref 40.00 dBm
Log
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
17.379 MHz
Total Power
27.8 dBm
Transmit Freq Error
8.172 kHz
% of OBW Power
99.00 %
x dB Bandwidth
31.71 MHz
x dB
-26.00 dB
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

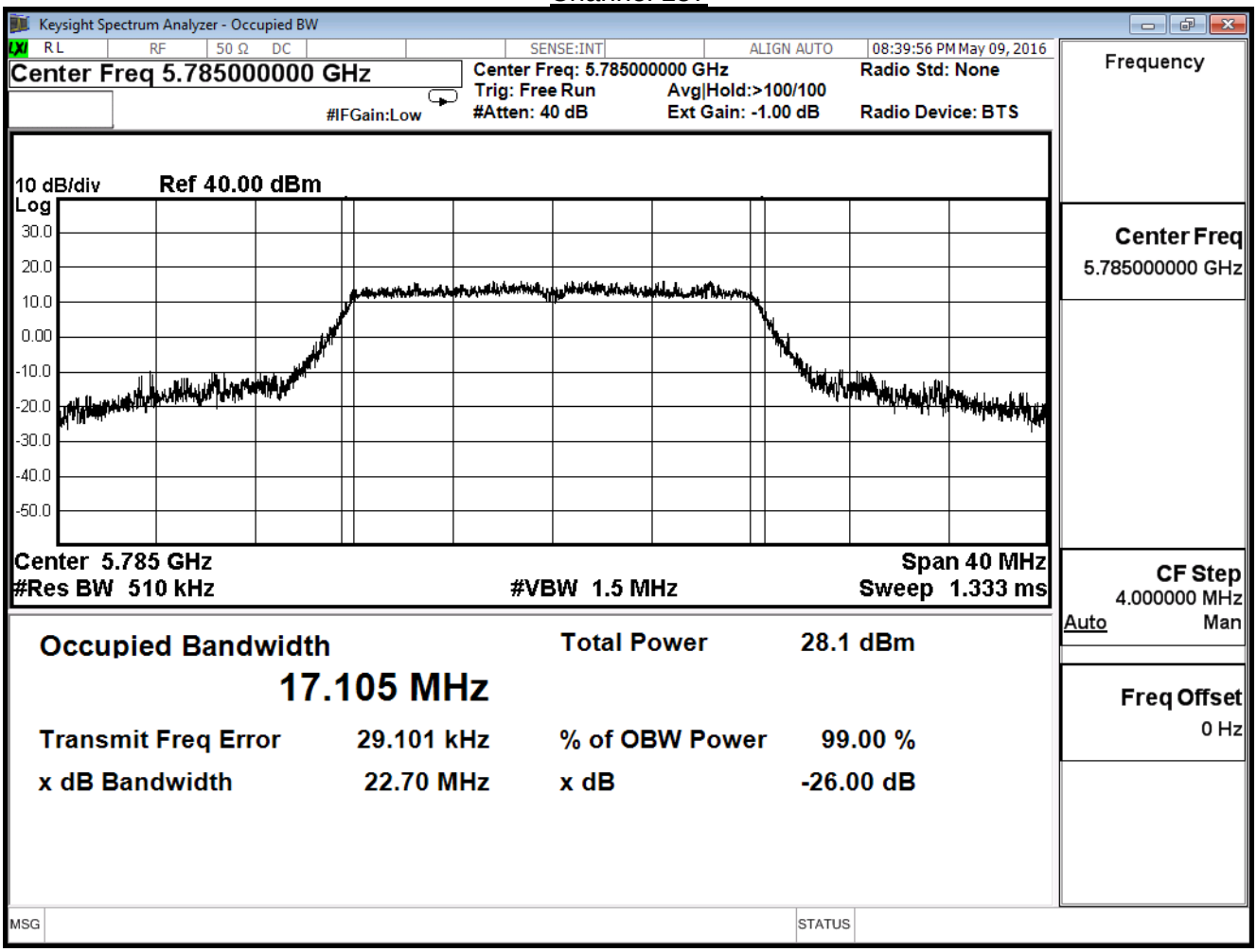
802.11 a (ANT 1)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
149	5745	21.57	17.12	--
157	5785	22.70	17.11	--
165	5825	21.59	17.13	--

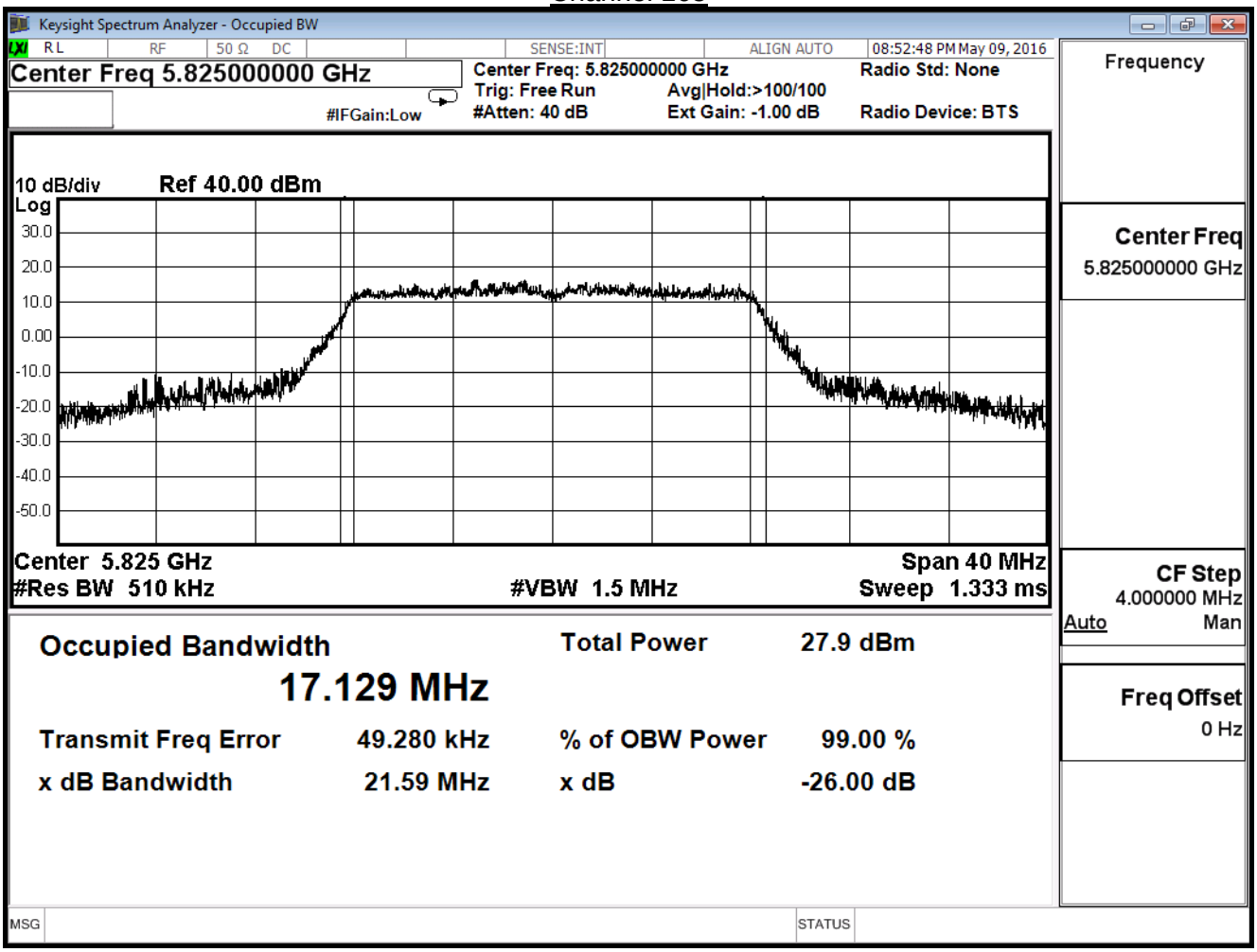
Channel 149



Channel 157


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:39:56 PM May 09, 2016
Center Freq 5.785000000 GHz
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 40 MHz
Sweep 1.333 ms
Occupied Bandwidth
17.105 MHz
Total Power 28.1 dBm
Transmit Freq Error 29.101 kHz
% of OBW Power 99.00 %
x dB Bandwidth 22.70 MHz
x dB -26.00 dB
Center Freq
5.785000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Channel 165

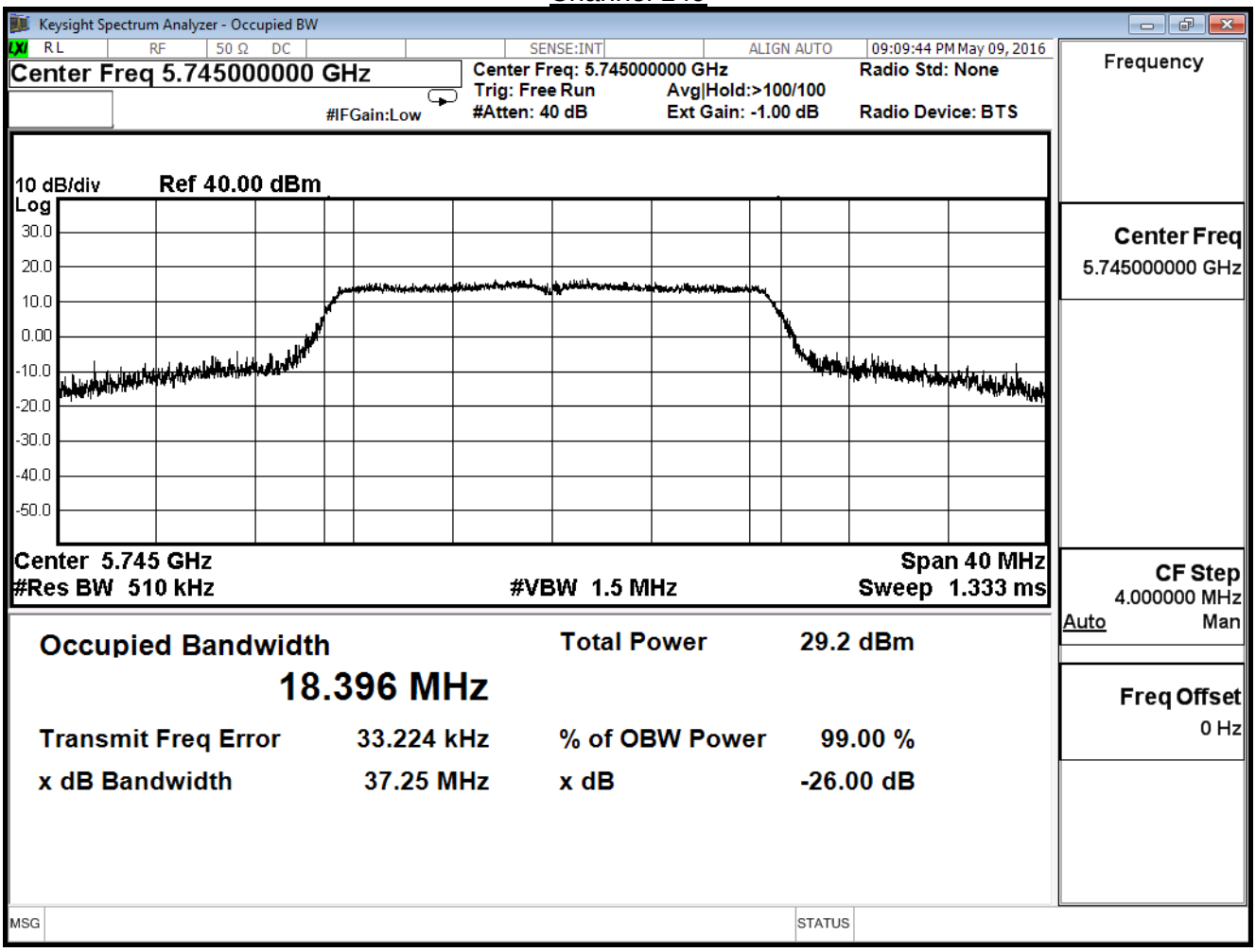

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:52:48 PM May 09, 2016
Center Freq 5.825000000 GHz
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Ref 40.00 dBm
Log
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
17.129 MHz
Total Power
27.9 dBm
Transmit Freq Error
49.280 kHz
% of OBW Power
99.00 %
x dB Bandwidth
21.59 MHz
x dB
-26.00 dB
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

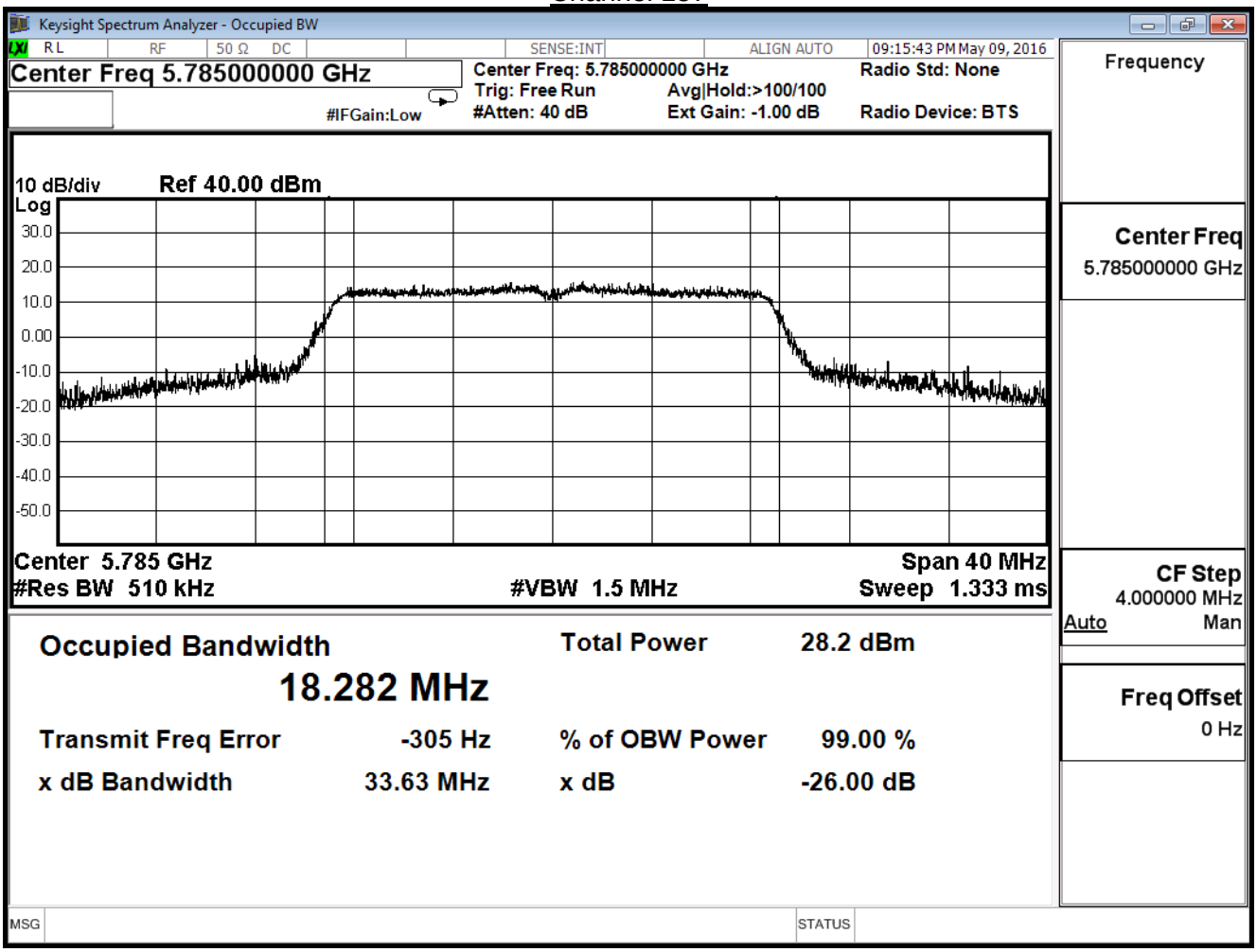
IEEE 802.11n (20MHz)(ANT 0)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
149	5745	37.25	18.40	--
157	5785	33.63	18.28	--
165	5825	34.81	18.45	--

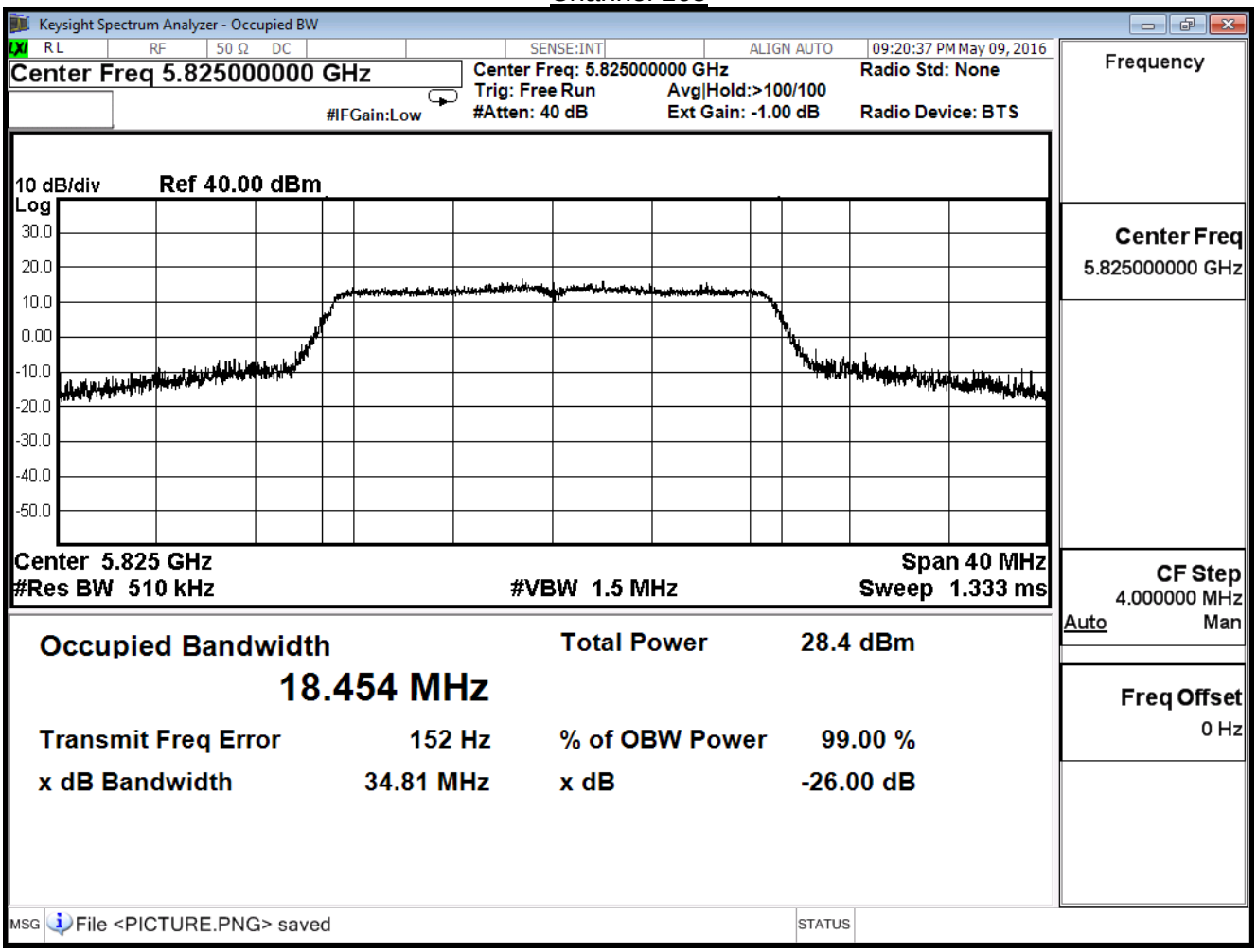
Channel 149



Channel 157


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:15:43 PM May 09, 2016
Center Freq 5.785000000 GHz
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Ref 40.00 dBm
Log
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
18.282 MHz
Total Power
28.2 dBm
Freq Offset
0 Hz
Transmit Freq Error
-305 Hz
% of OBW Power
99.00 %
x dB Bandwidth
33.63 MHz
x dB
-26.00 dB
MSG
STATUS

Channel 165

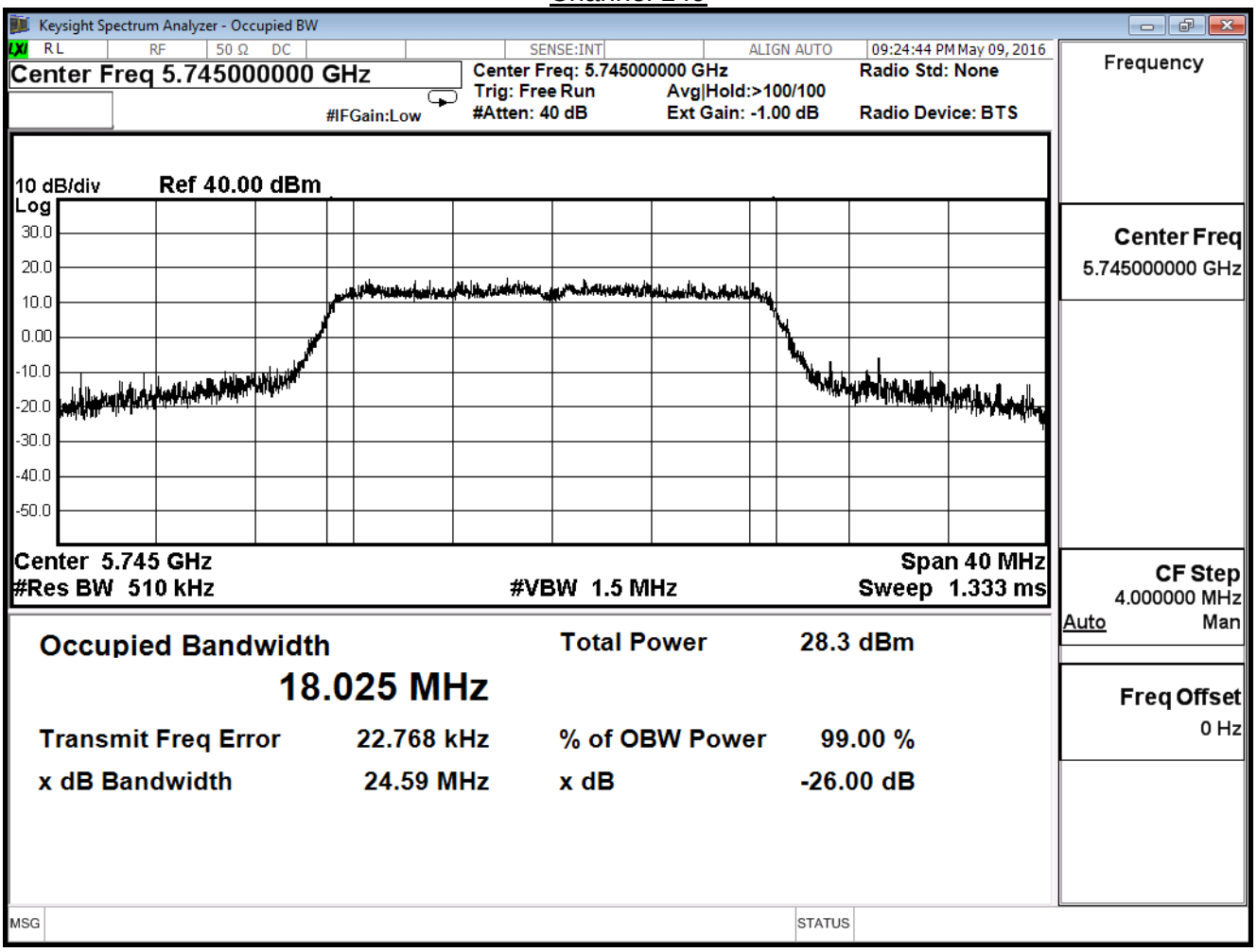

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:20:37 PM May 09, 2016
Center Freq 5.825000000 GHz
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Ref 40.00 dBm
Log
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
18.454 MHz
Total Power
28.4 dBm
Transmit Freq Error
152 Hz
% of OBW Power
99.00 %
x dB Bandwidth
34.81 MHz
x dB
-26.00 dB
Freq Offset
0 Hz
MSG
File <PICTURE.PNG> saved
STATUS

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

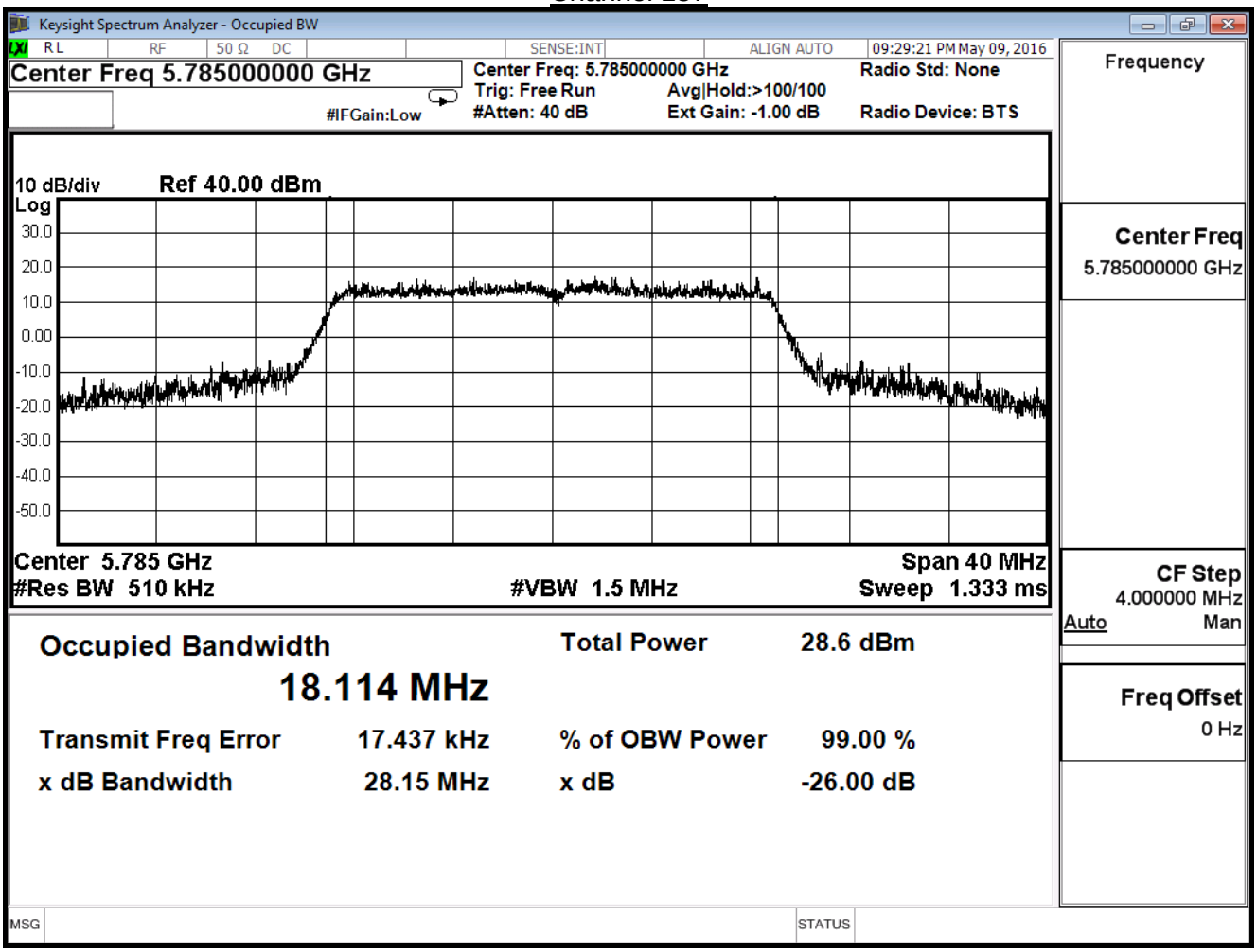
IEEE 802.11n (20MHz)(ANT 1)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
149	5745	24.59	18.03	--
157	5785	28.15	18.11	--
165	5825	28.48	18.13	--

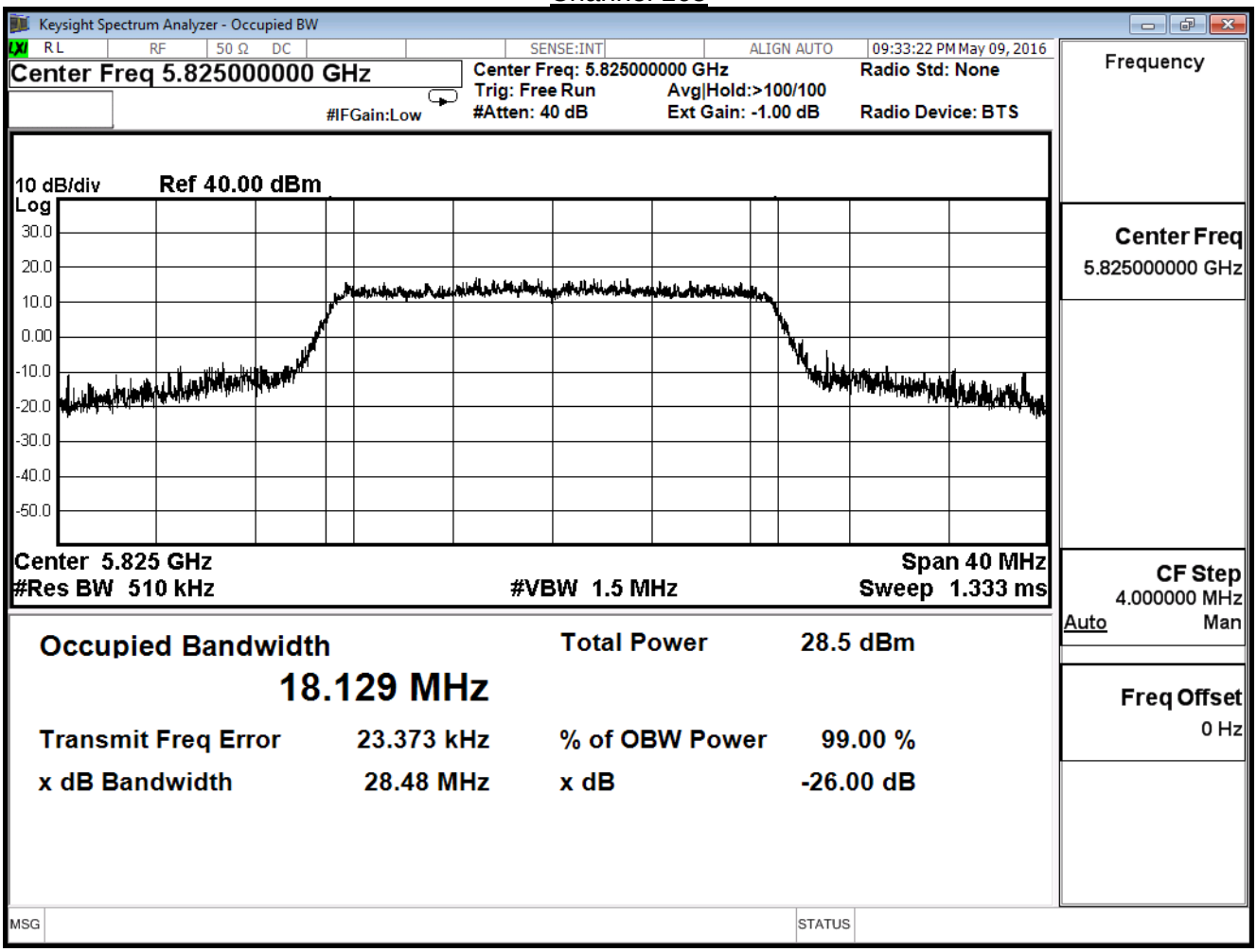
Channel 149



Channel 157


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:29:21 PM May 09, 2016
Center Freq 5.785000000 GHz
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
18.114 MHz
Total Power 28.6 dBm
Transmit Freq Error 17.437 kHz
% of OBW Power 99.00 %
x dB Bandwidth 28.15 MHz
x dB -26.00 dB
Freq Offset
0 Hz
MSG
STATUS

Channel 165

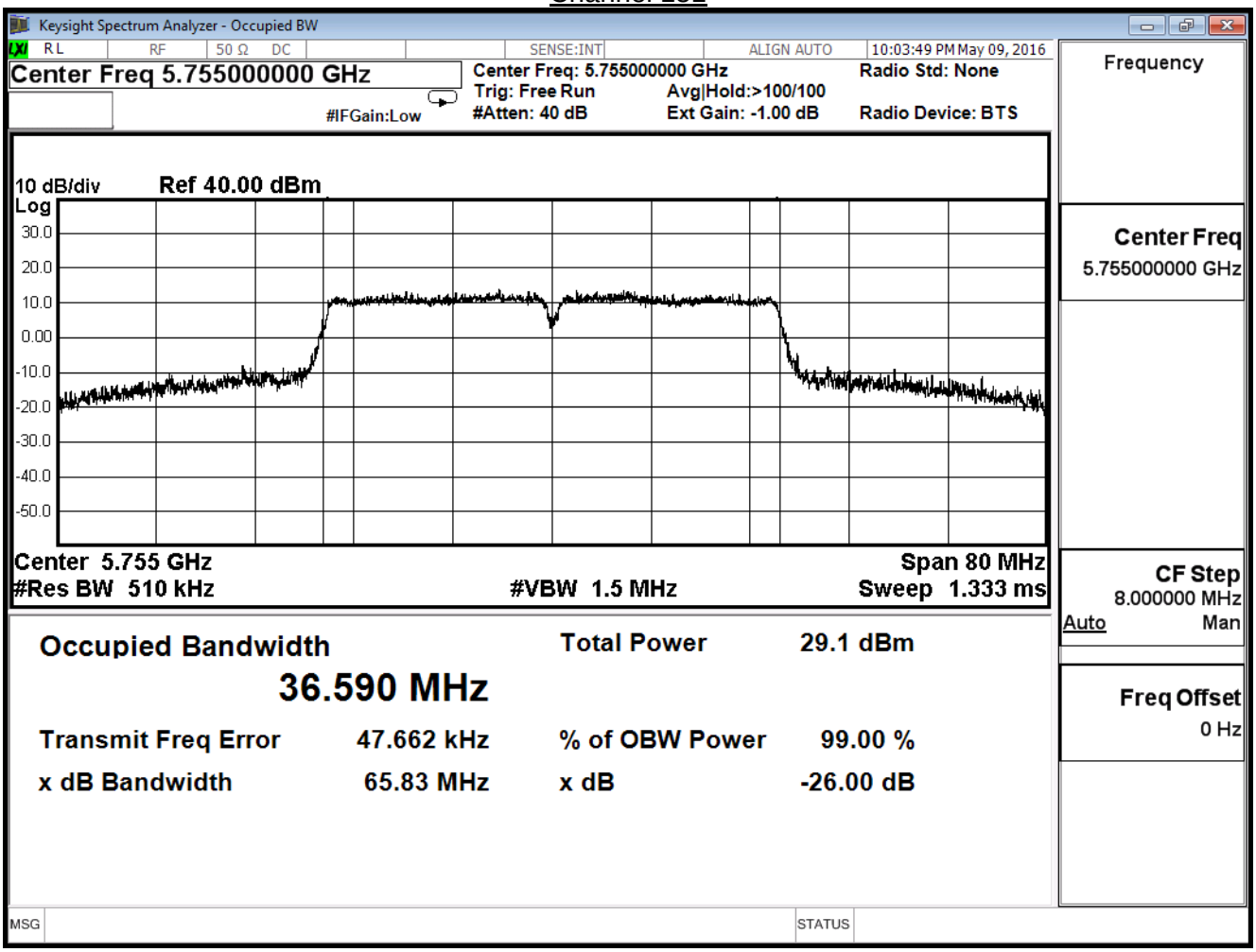

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:33:22 PM May 09, 2016
Center Freq 5.825000000 GHz
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Ref 40.00 dBm
Log
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
18.129 MHz
Total Power
28.5 dBm
Transmit Freq Error
23.373 kHz
% of OBW Power
99.00 %
x dB Bandwidth
28.48 MHz
x dB
-26.00 dB
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

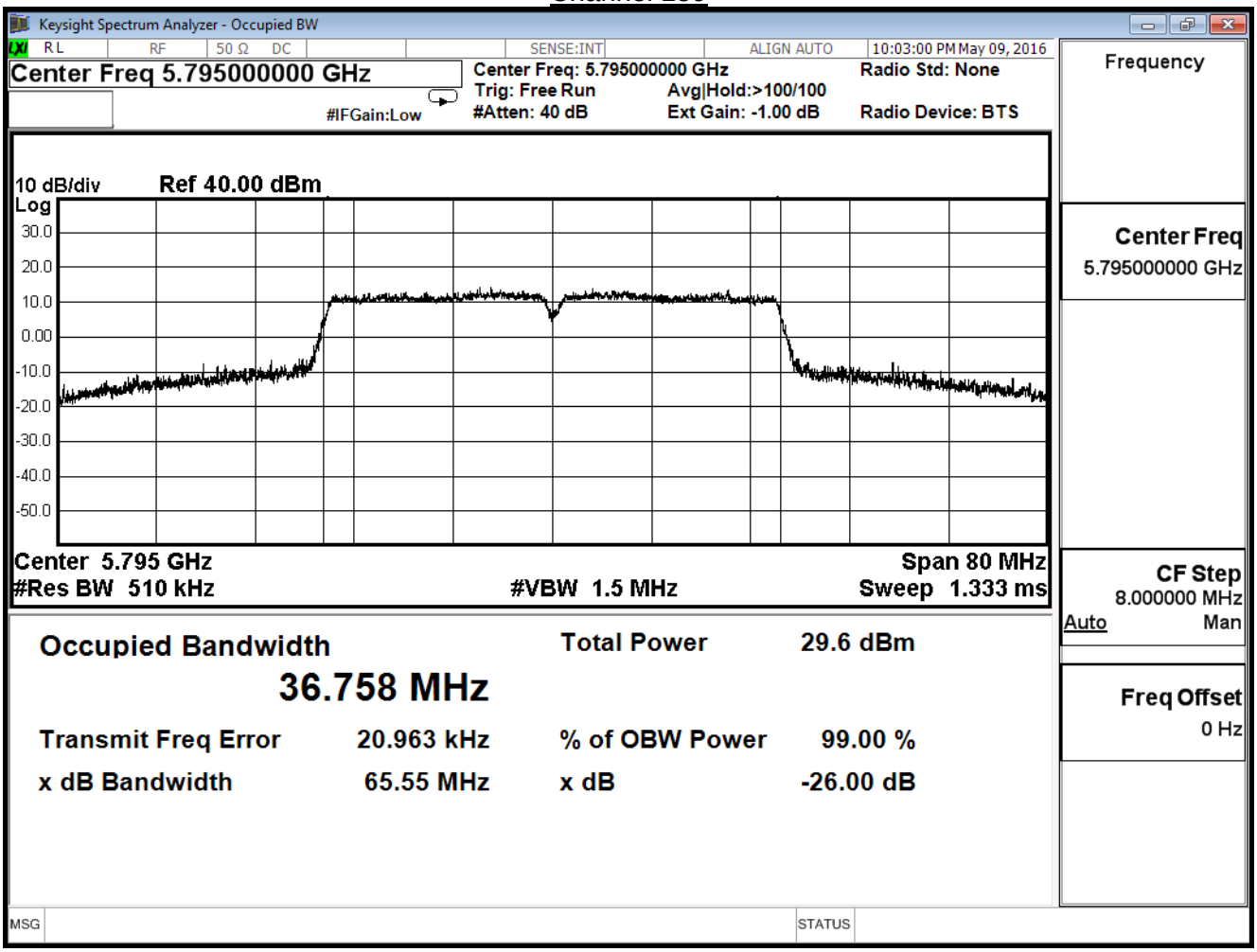
IEEE 802.11n (40MHz)(ANT 0)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
151	5755	65.83	36.59	--
159	5795	65.55	36.76	--

Channel 151



Channel 159

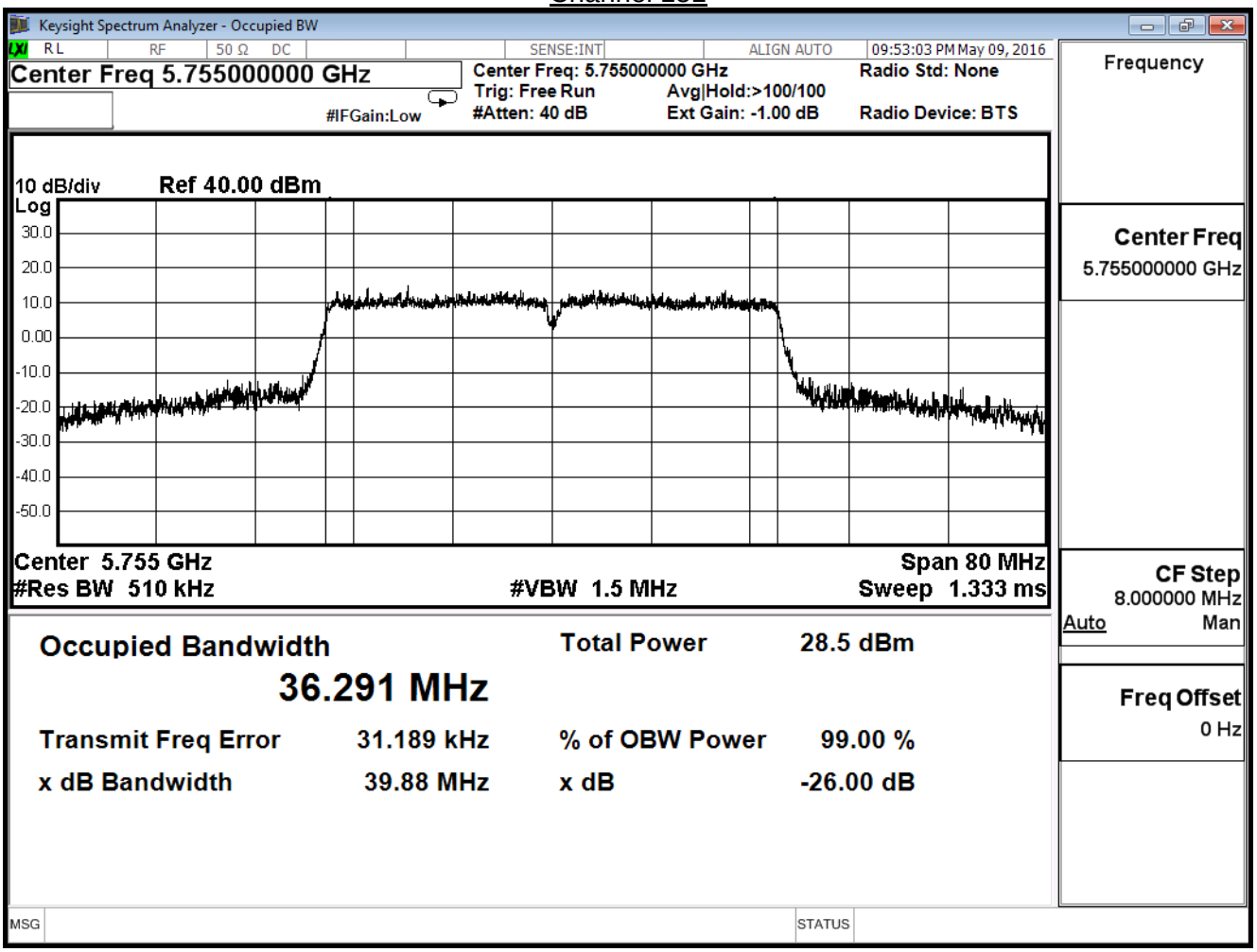

Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:03:00 PM May 09, 2016
Center Freq 5.795000000 GHz
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
36.758 MHz
Total Power
29.6 dBm
Transmit Freq Error
20.963 kHz
% of OBW Power
99.00 %
x dB Bandwidth
65.55 MHz
x dB
-26.00 dB
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

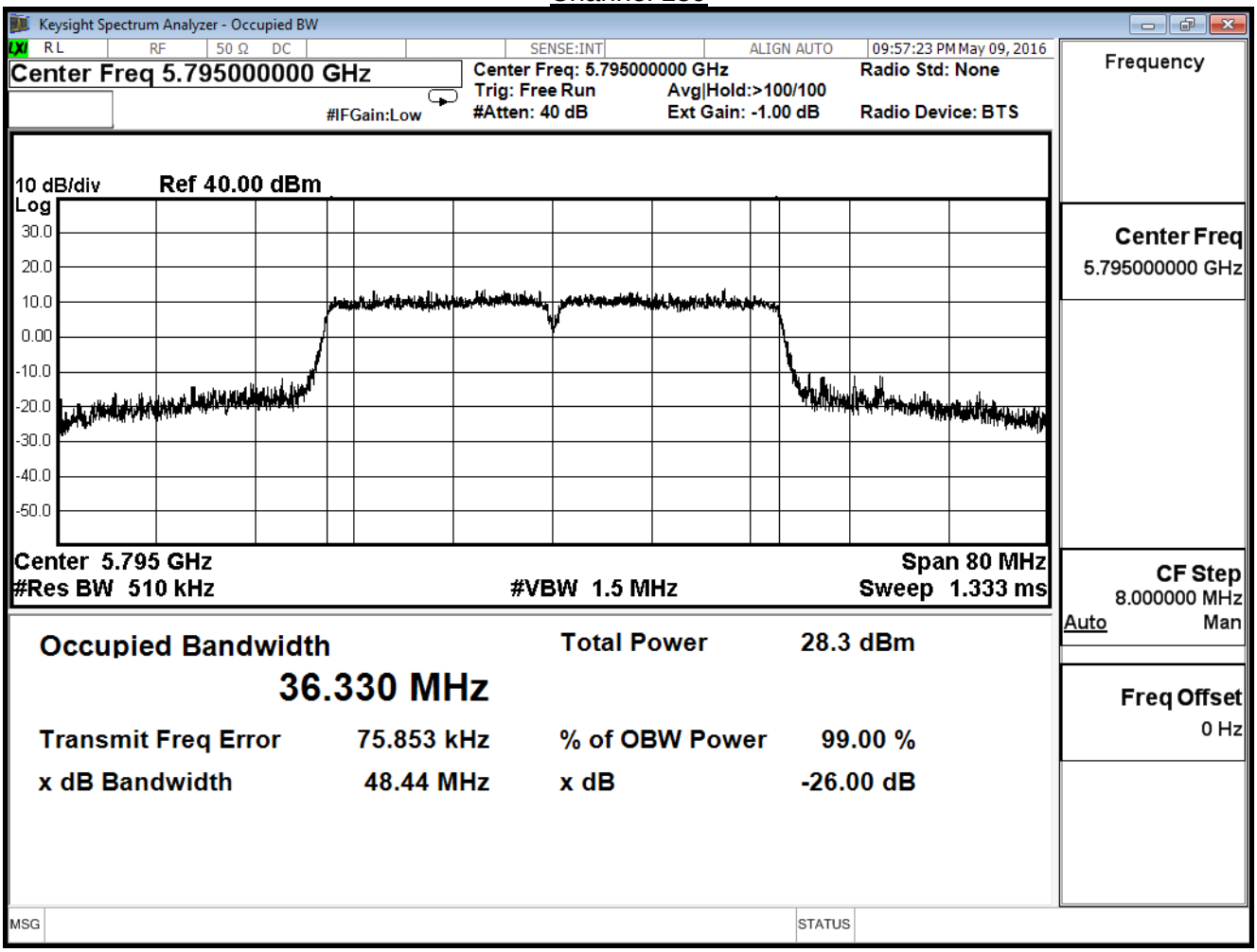
IEEE 802.11n (40MHz)(ANT 1)

Channel No.	Frequency (MHz)	Measure Level (MHz)		Limit (MHz)
		26dB BW	99% BW	
151	5755	39.88	36.29	--
159	5795	48.44	36.33	--

Channel 151



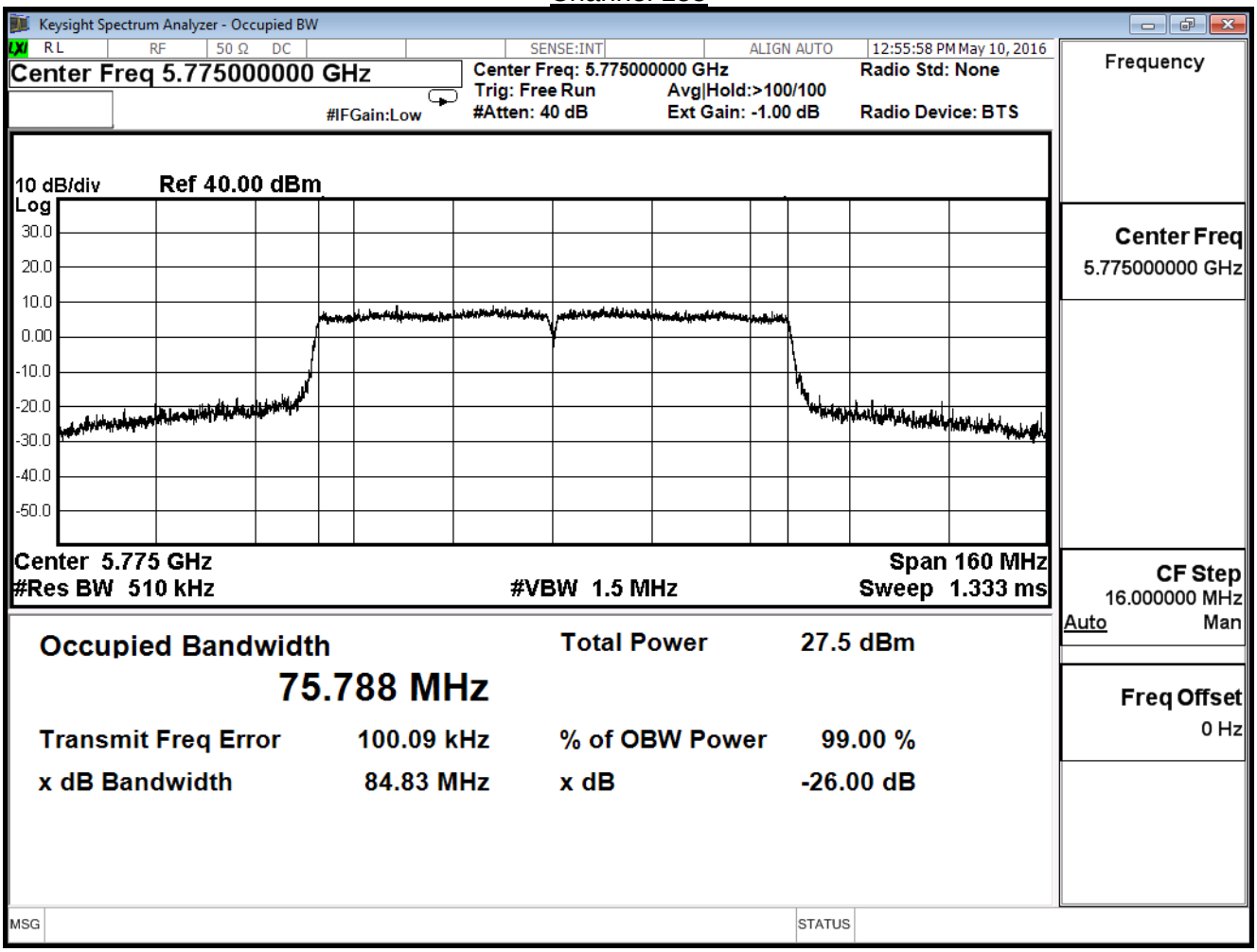
Channel 159


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:57:23 PM May 09, 2016
Center Freq 5.795000000 GHz
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
36.330 MHz
Total Power 28.3 dBm
Transmit Freq Error 75.853 kHz
% of OBW Power 99.00 %
x dB Bandwidth 48.44 MHz
x dB -26.00 dB
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless 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	84.83	75.79	--

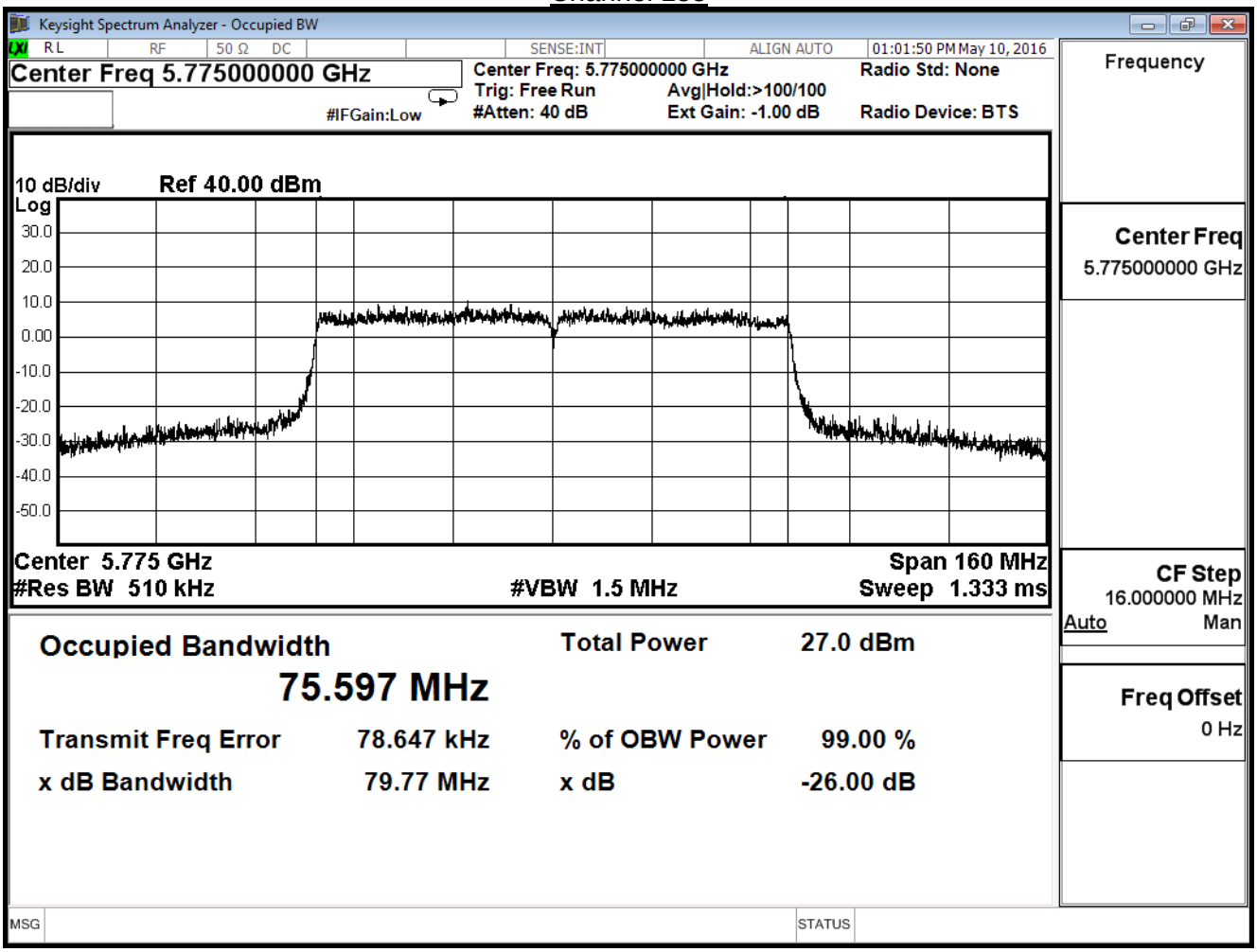
Channel 155



Product	PCE-AC56 Dual-Band Wireless 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	79.77	75.60	--

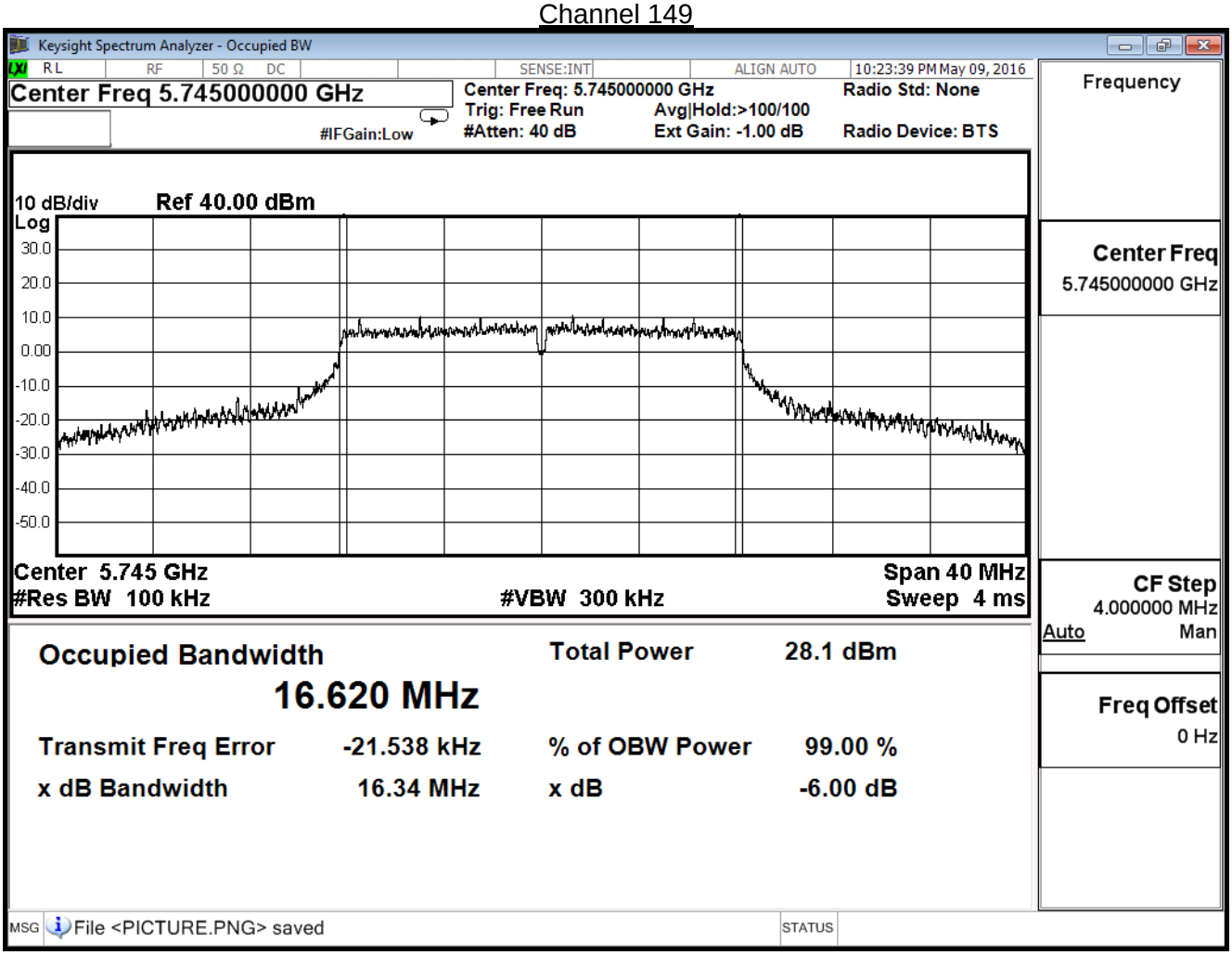
Channel 155



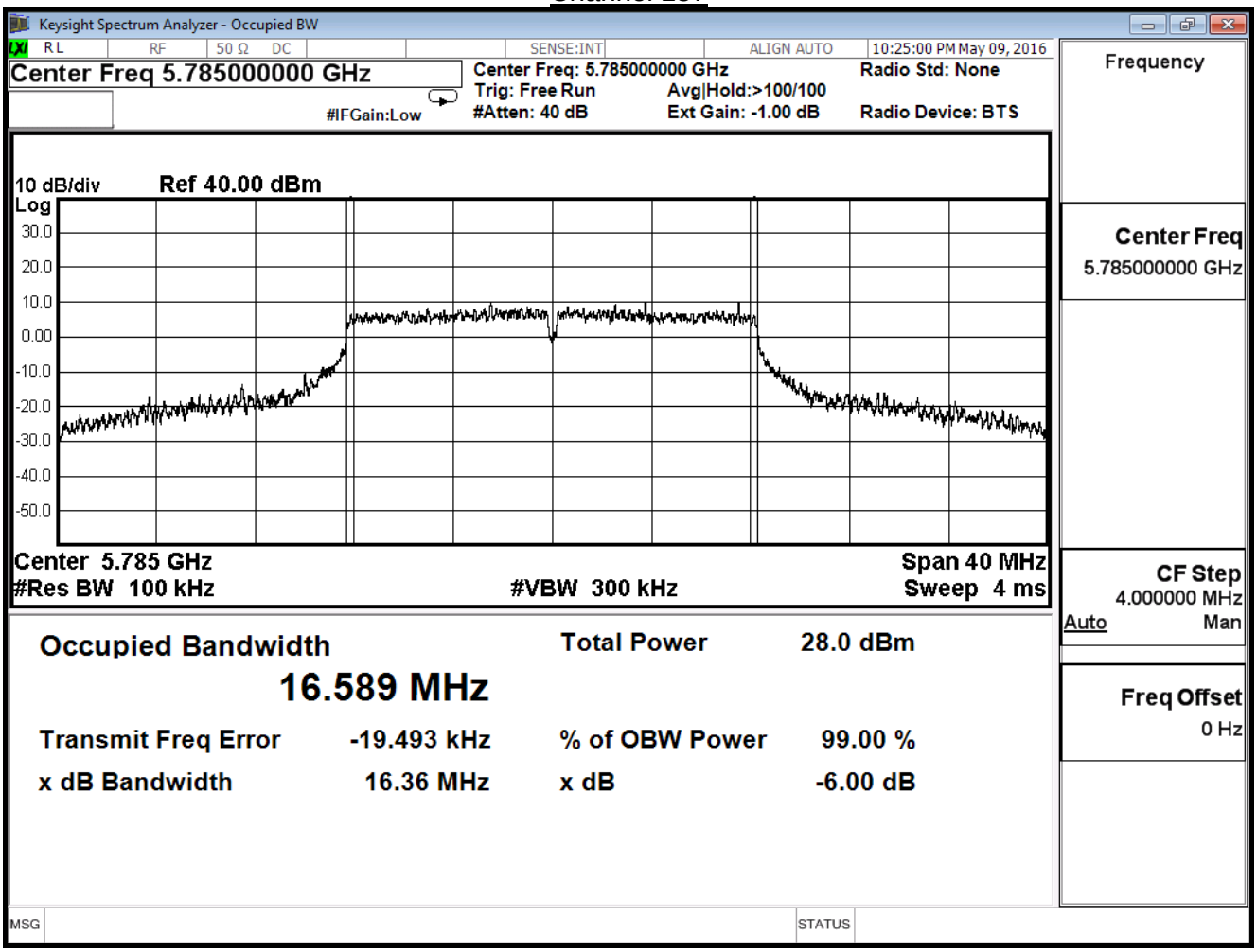
Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

802.11 a (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	16.34	≧0.5	Pass
157	5785	16.36	≧0.5	Pass
165	5825	16.37	≧0.5	Pass

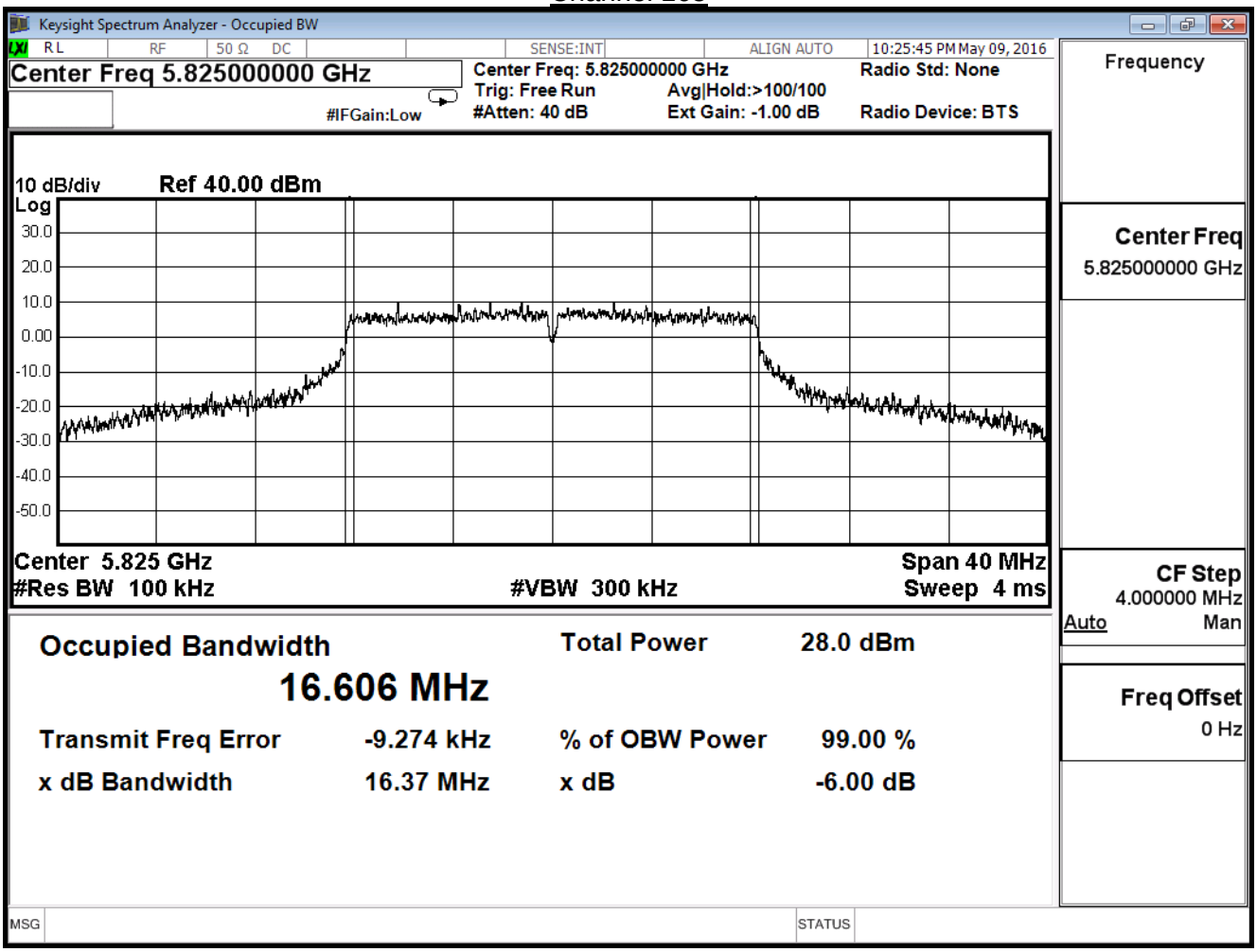
Channel 149



Channel 157


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:25:00 PM May 09, 2016
Center Freq 5.785000000 GHz
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
16.589 MHz
Total Power 28.0 dBm
Transmit Freq Error -19.493 kHz
% of OBW Power 99.00 %
x dB Bandwidth 16.36 MHz
x dB -6.00 dB
Freq Offset
0 Hz
MSG
STATUS

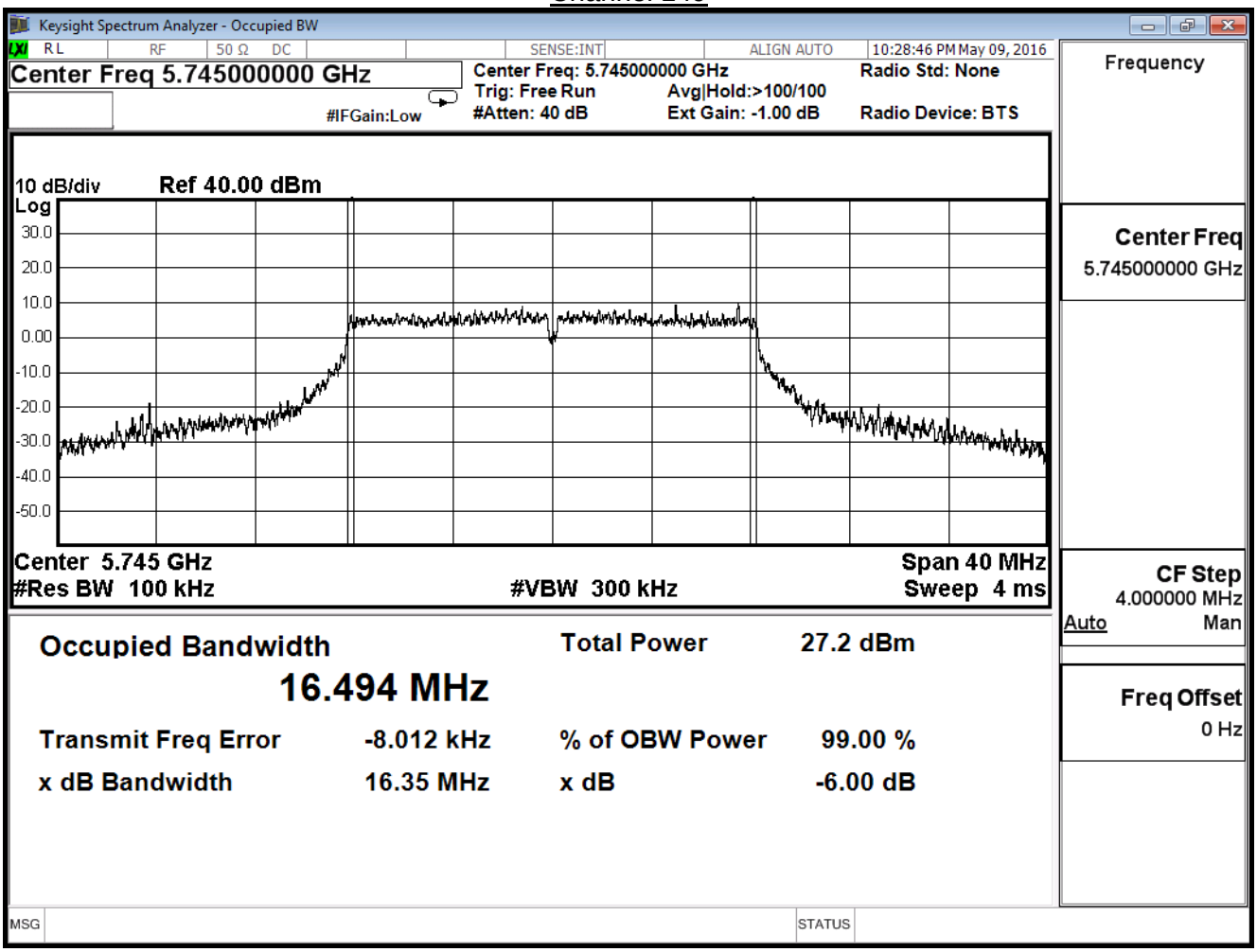
Channel 165


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:25:45 PM May 09, 2016
Center Freq 5.825000000 GHz
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
16.606 MHz
Total Power 28.0 dBm
Transmit Freq Error -9.274 kHz
% of OBW Power 99.00 %
x dB Bandwidth 16.37 MHz
x dB -6.00 dB
Freq Offset
0 Hz
MSG
STATUS

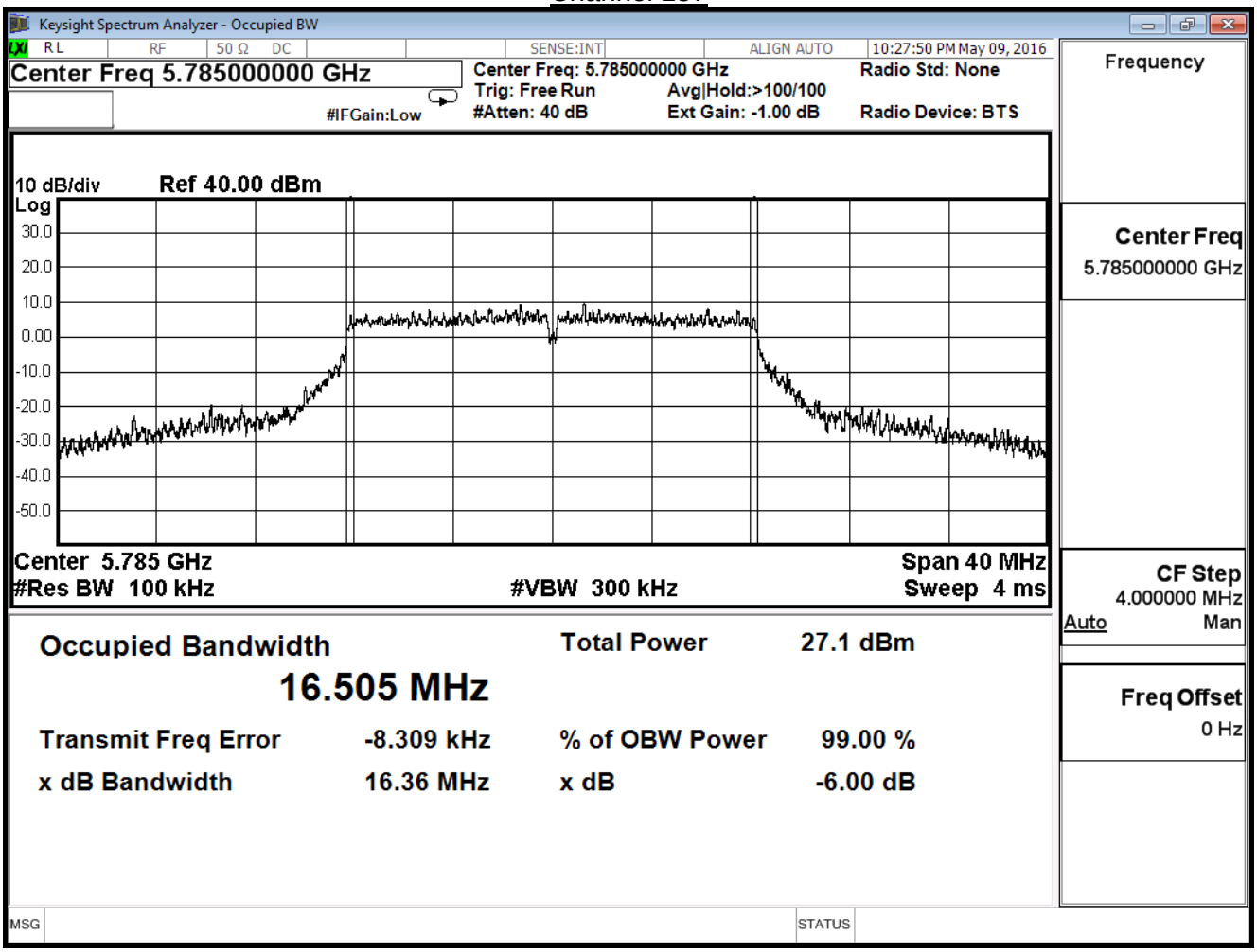
Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

802.11 a (ANT 1)				
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	16.34	≧0.5	Pass

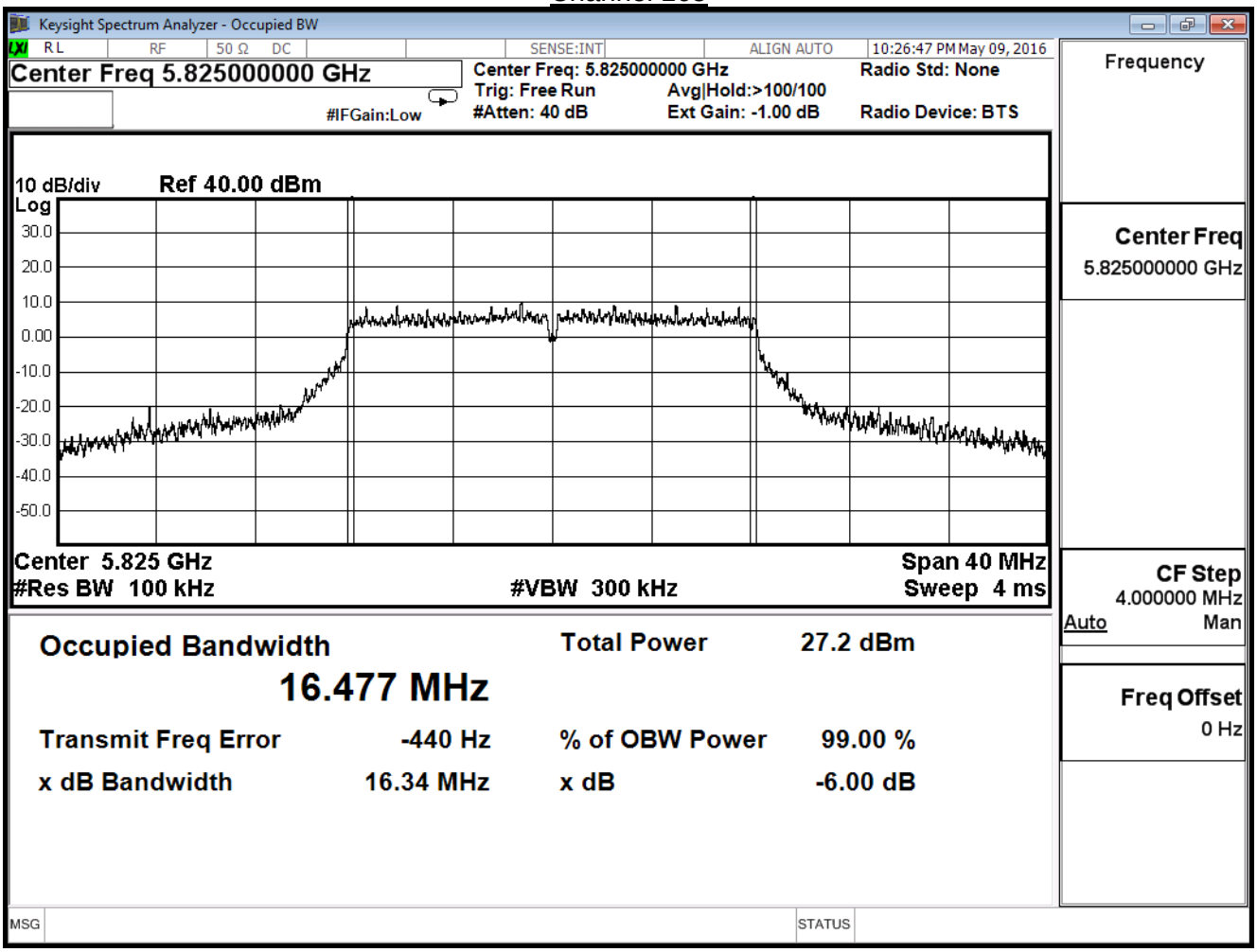
Channel 149



Channel 157


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:27:50 PM May 09, 2016
Center Freq 5.785000000 GHz
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
16.505 MHz
Total Power 27.1 dBm
Transmit Freq Error -8.309 kHz
% of OBW Power 99.00 %
x dB Bandwidth 16.36 MHz
x dB -6.00 dB
Freq Offset
0 Hz
MSG
STATUS

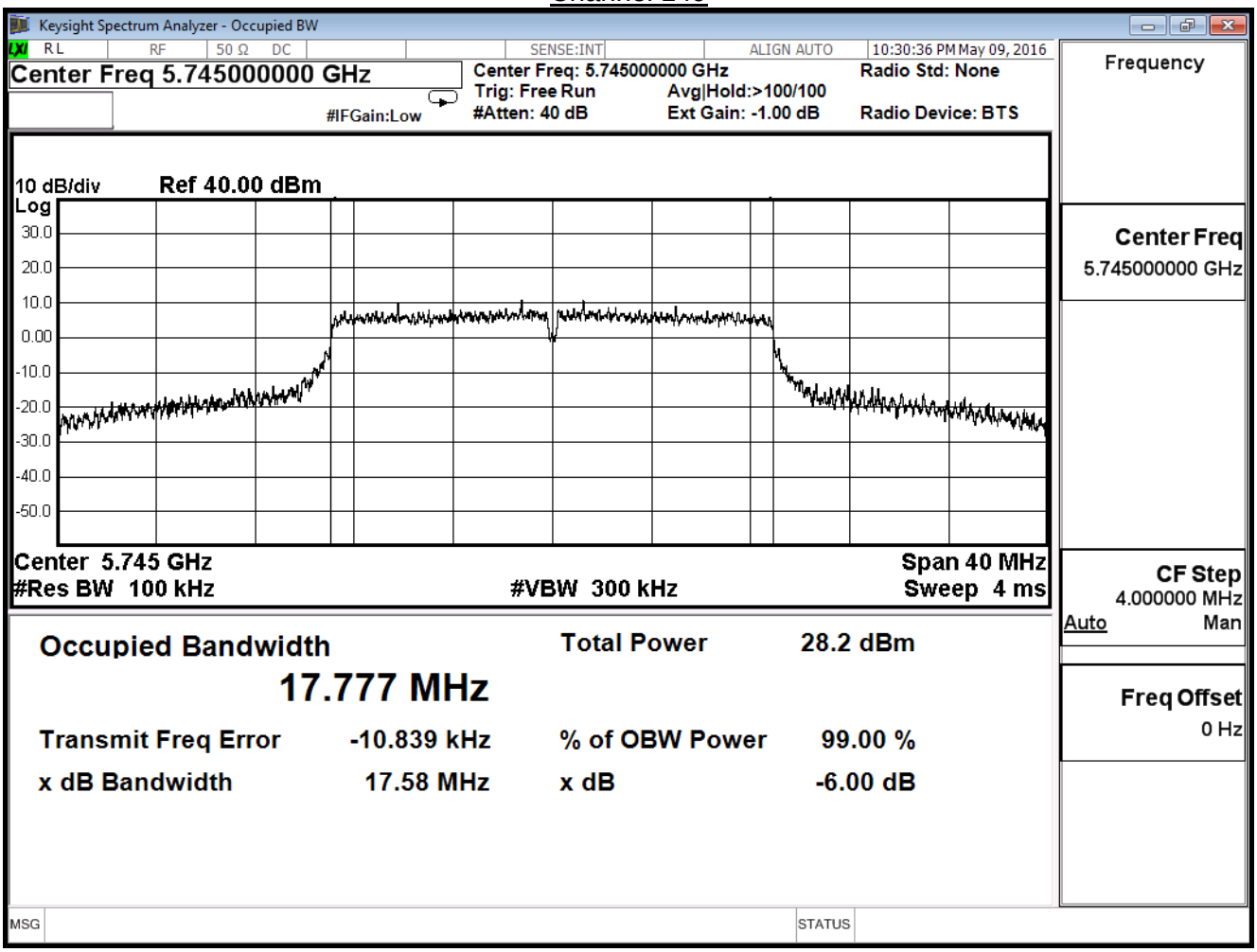
Channel 165


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:26:47 PM May 09, 2016
Center Freq 5.825000000 GHz
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Ref 40.00 dBm
Log
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
16.477 MHz
Total Power 27.2 dBm
Transmit Freq Error -440 Hz
% of OBW Power 99.00 %
x dB Bandwidth 16.34 MHz
x dB -6.00 dB
Freq Offset
0 Hz
MSG
STATUS

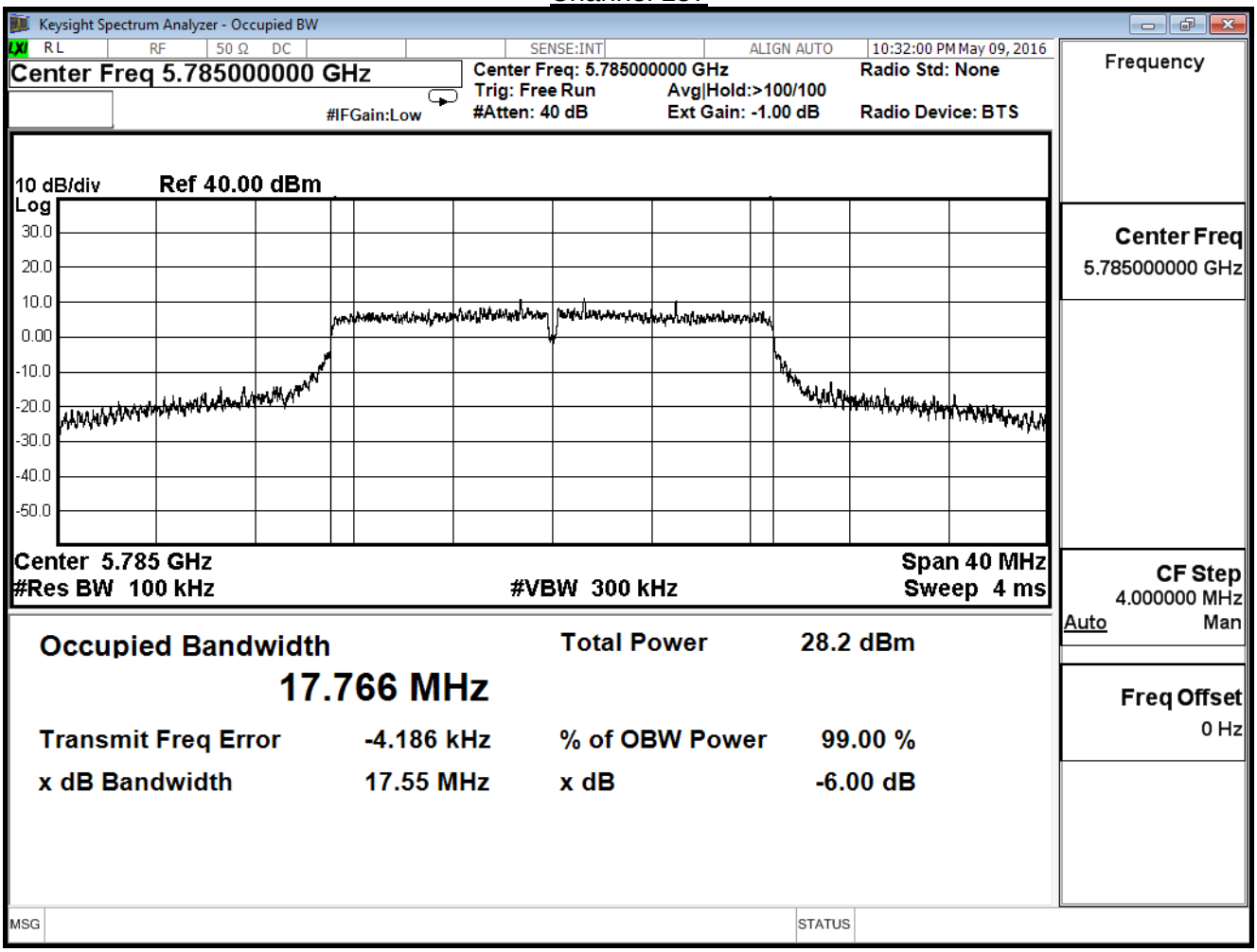
Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	17.58	≧0.5	Pass
157	5785	17.55	≧0.5	Pass
165	5825	17.57	≧0.5	Pass

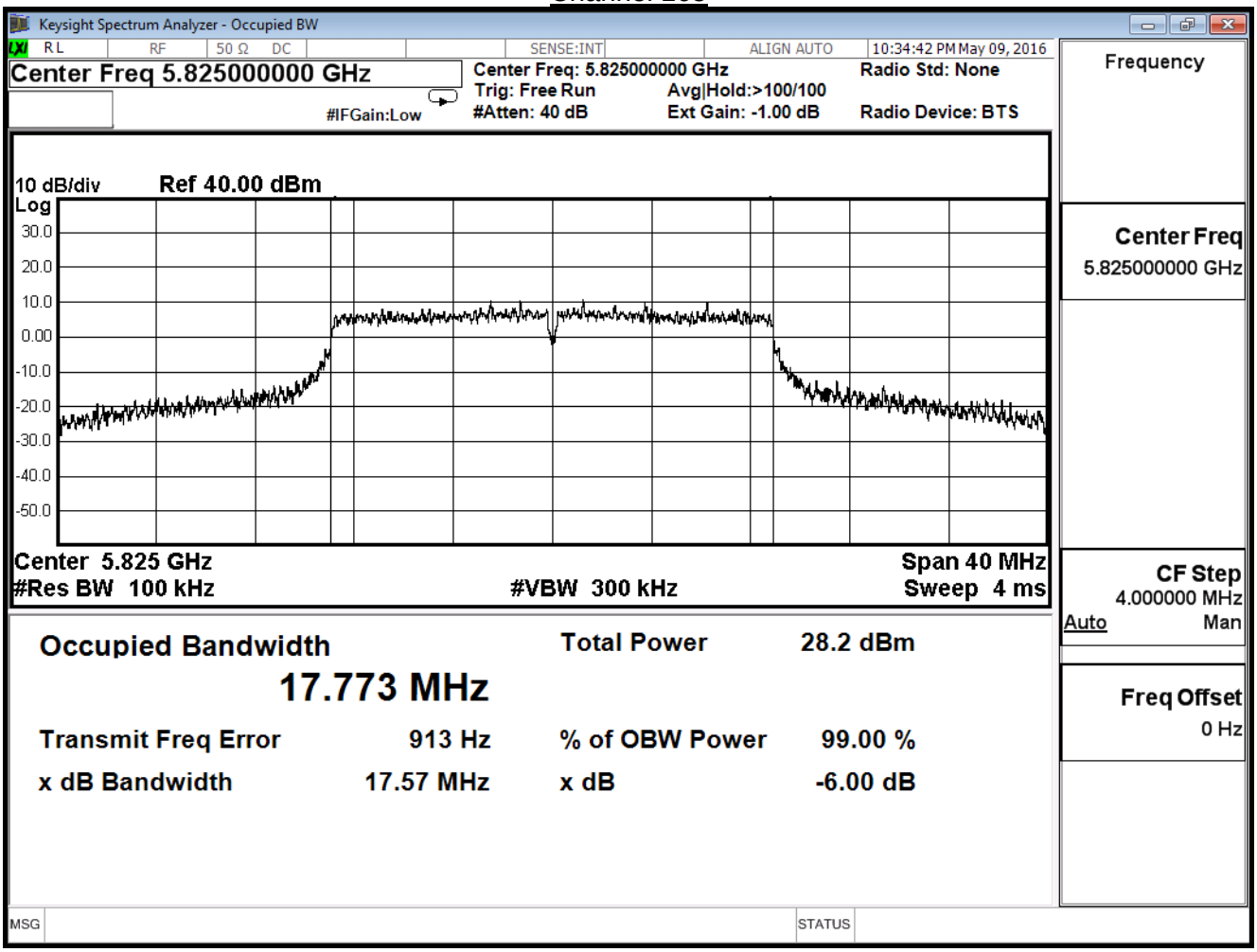
Channel 149



Channel 157


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:32:00 PM May 09, 2016
Center Freq 5.785000000 GHz
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.766 MHz
Total Power 28.2 dBm
Transmit Freq Error -4.186 kHz
% of OBW Power 99.00 %
x dB Bandwidth 17.55 MHz
x dB -6.00 dB
Freq Offset
0 Hz
MSG
STATUS

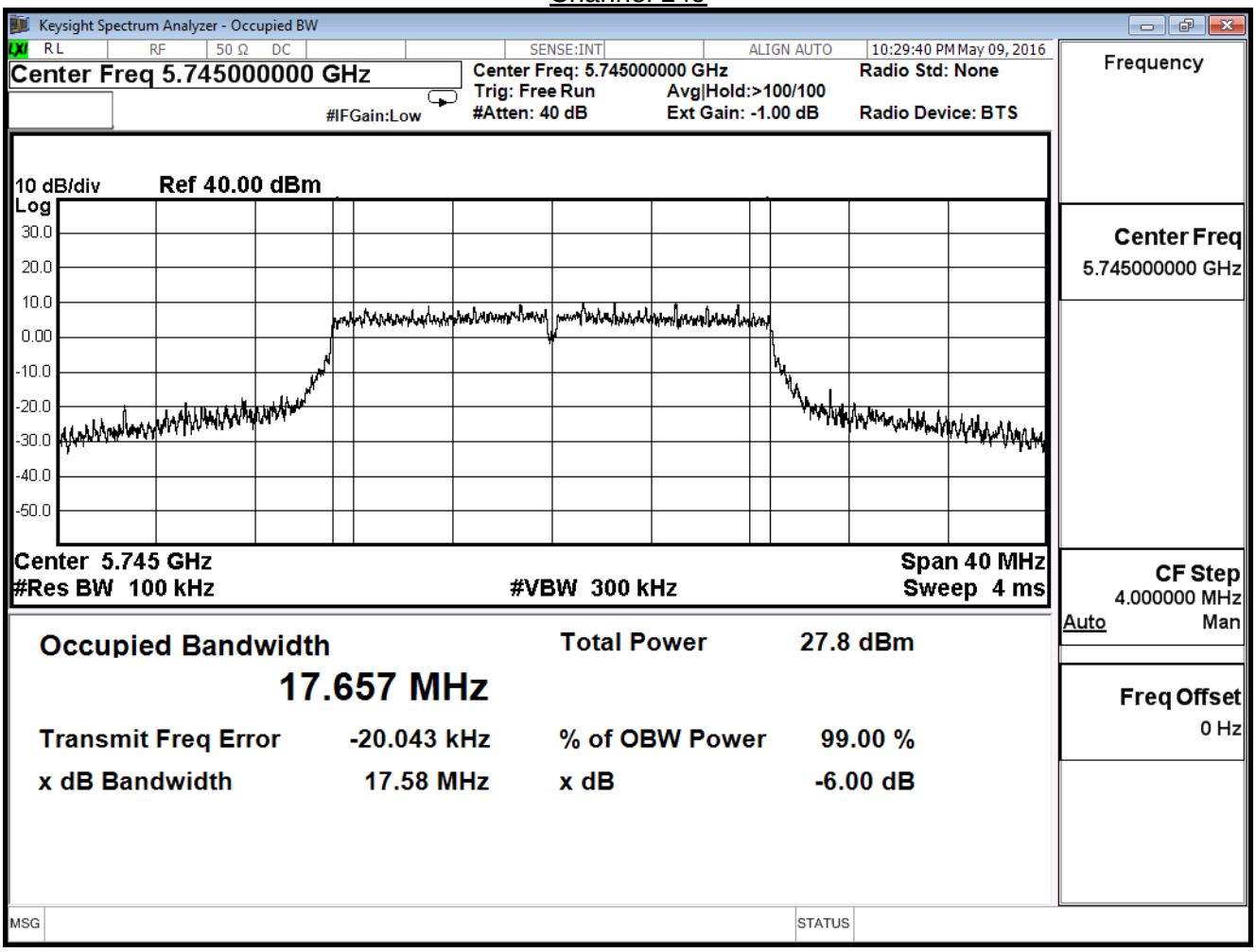
Channel 165


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:34:42 PM May 09, 2016
Center Freq 5.825000000 GHz
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
17.773 MHz
Total Power 28.2 dBm
Transmit Freq Error 913 Hz
% of OBW Power 99.00 %
x dB Bandwidth 17.57 MHz
x dB -6.00 dB
Freq Offset
0 Hz
MSG
STATUS

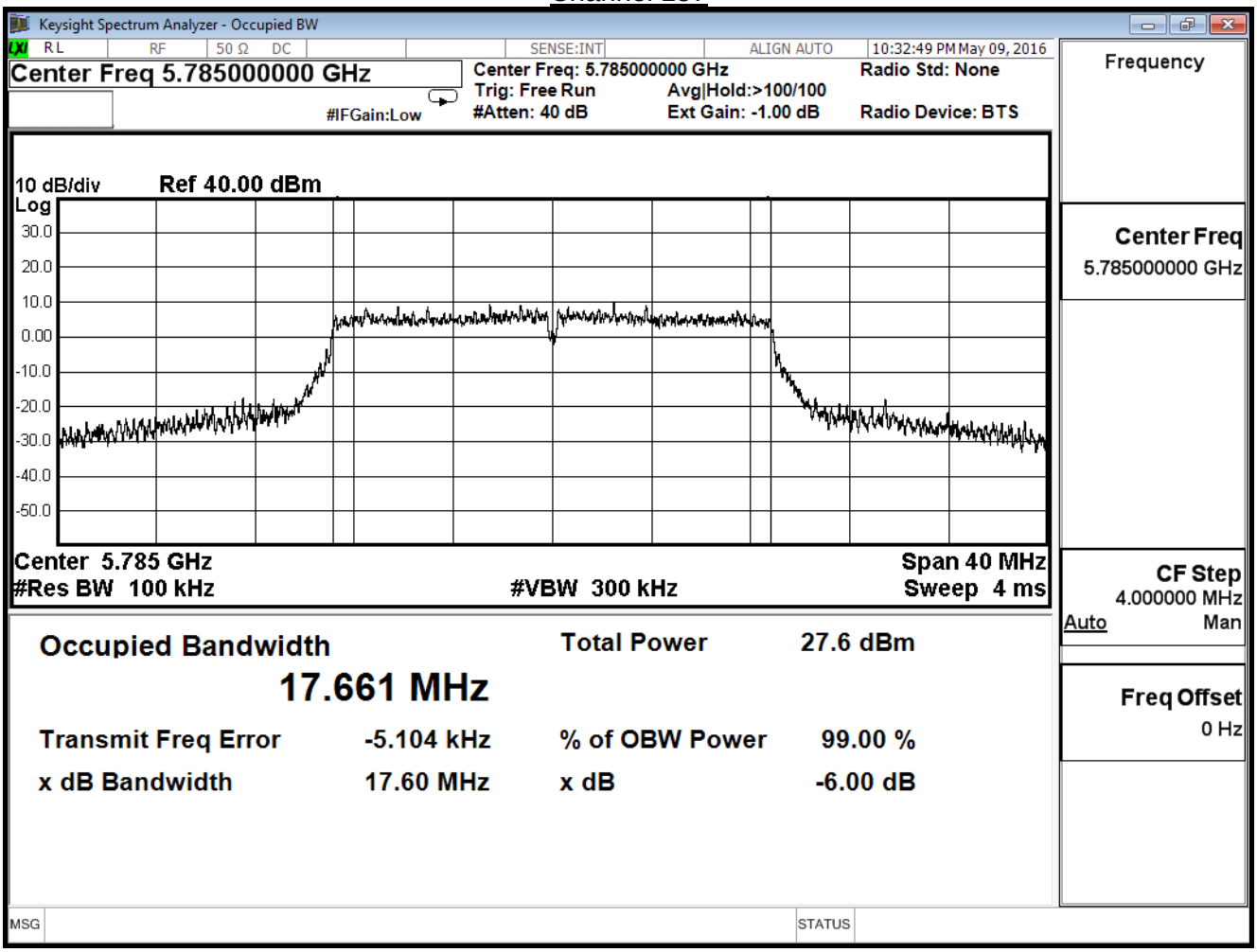
Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	17.58	≧0.5	Pass
157	5785	17.60	≧0.5	Pass
165	5825	17.61	≧0.5	Pass

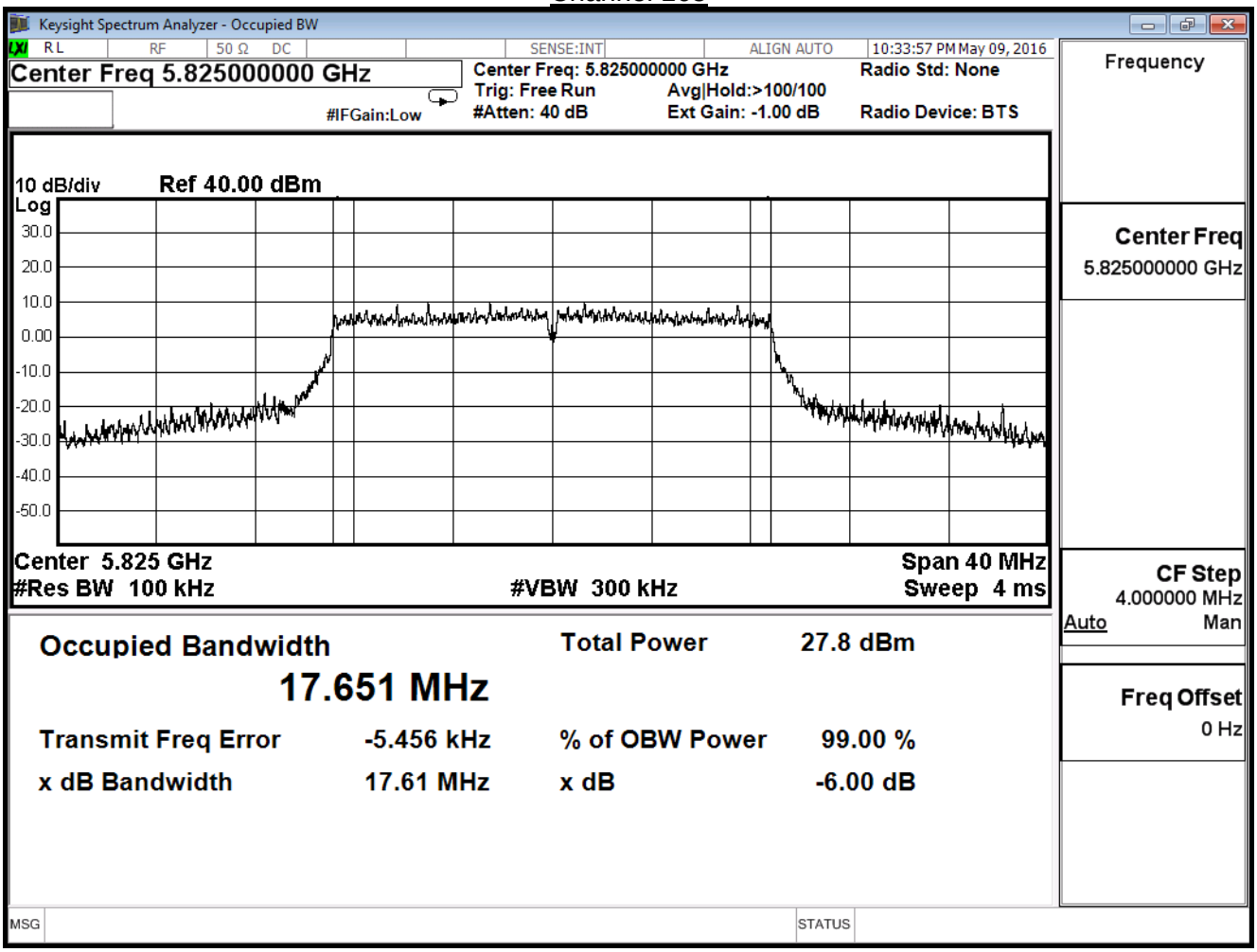
Channel 149



Channel 157


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:32:49 PM May 09, 2016
Center Freq 5.785000000 GHz
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 40 MHz
Sweep 4 ms
CF Step
4.000000 MHz
Auto
Man
Occupied Bandwidth
17.661 MHz
Total Power 27.6 dBm
Transmit Freq Error -5.104 kHz
% of OBW Power 99.00 %
x dB Bandwidth 17.60 MHz
x dB -6.00 dB
Freq Offset
0 Hz
MSG
STATUS

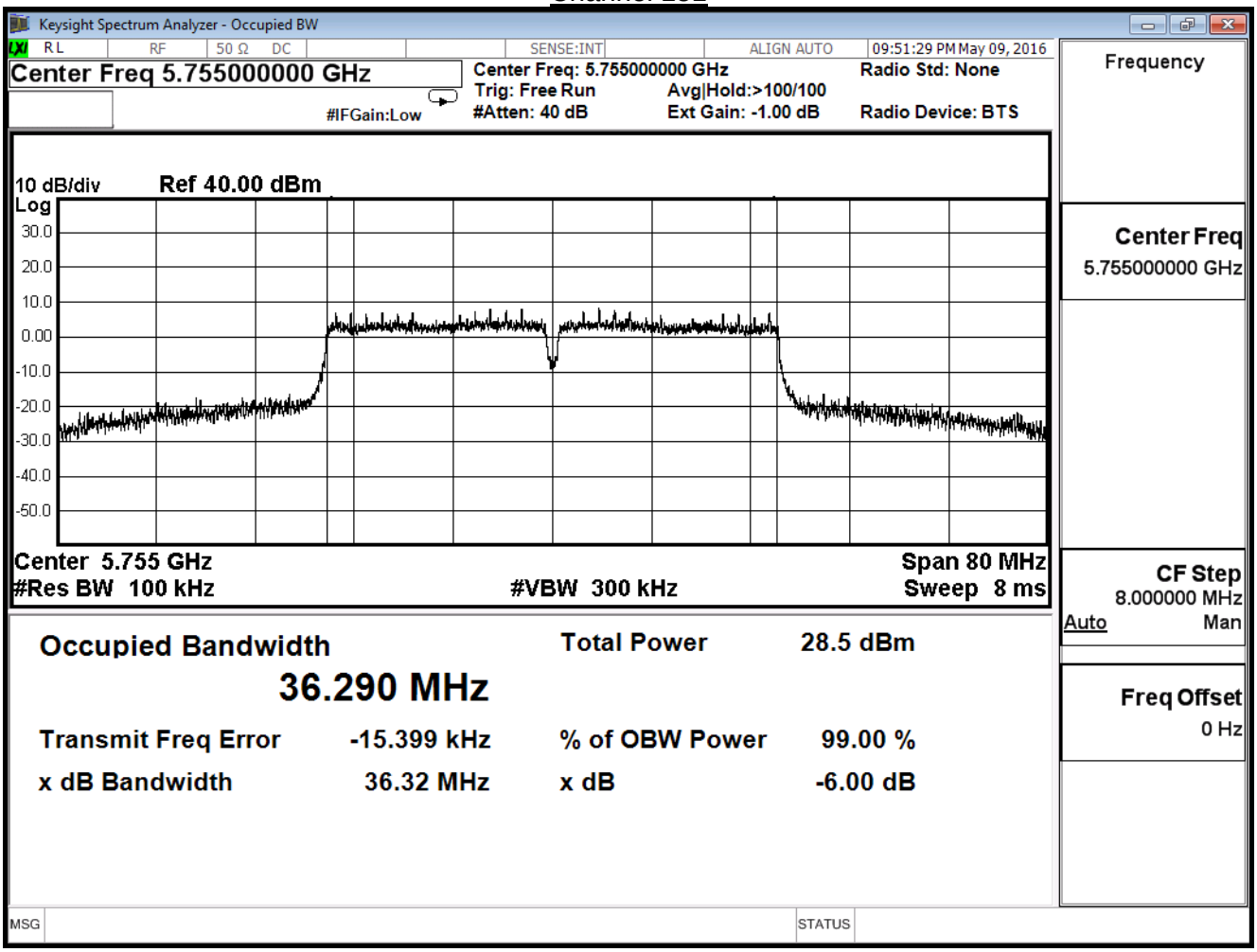
Channel 165


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:33:57 PM May 09, 2016
Center Freq 5.825000000 GHz
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
17.651 MHz
Total Power 27.8 dBm
Transmit Freq Error -5.456 kHz
% of OBW Power 99.00 %
x dB Bandwidth 17.61 MHz
x dB -6.00 dB
Freq Offset
0 Hz
MSG
STATUS

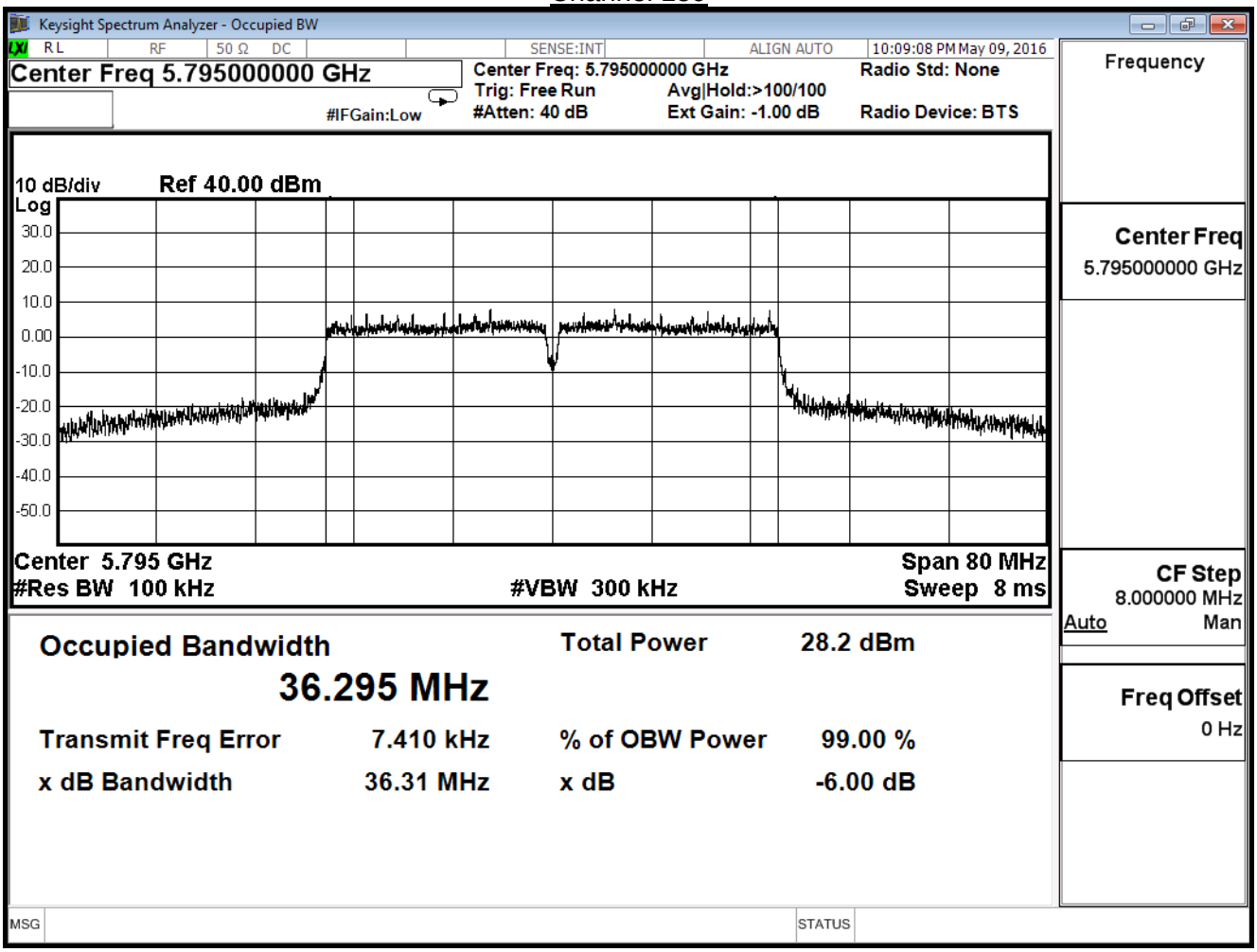
Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.32	≧0.5	Pass
159	5795	36.31	≧0.5	Pass

Channel 151



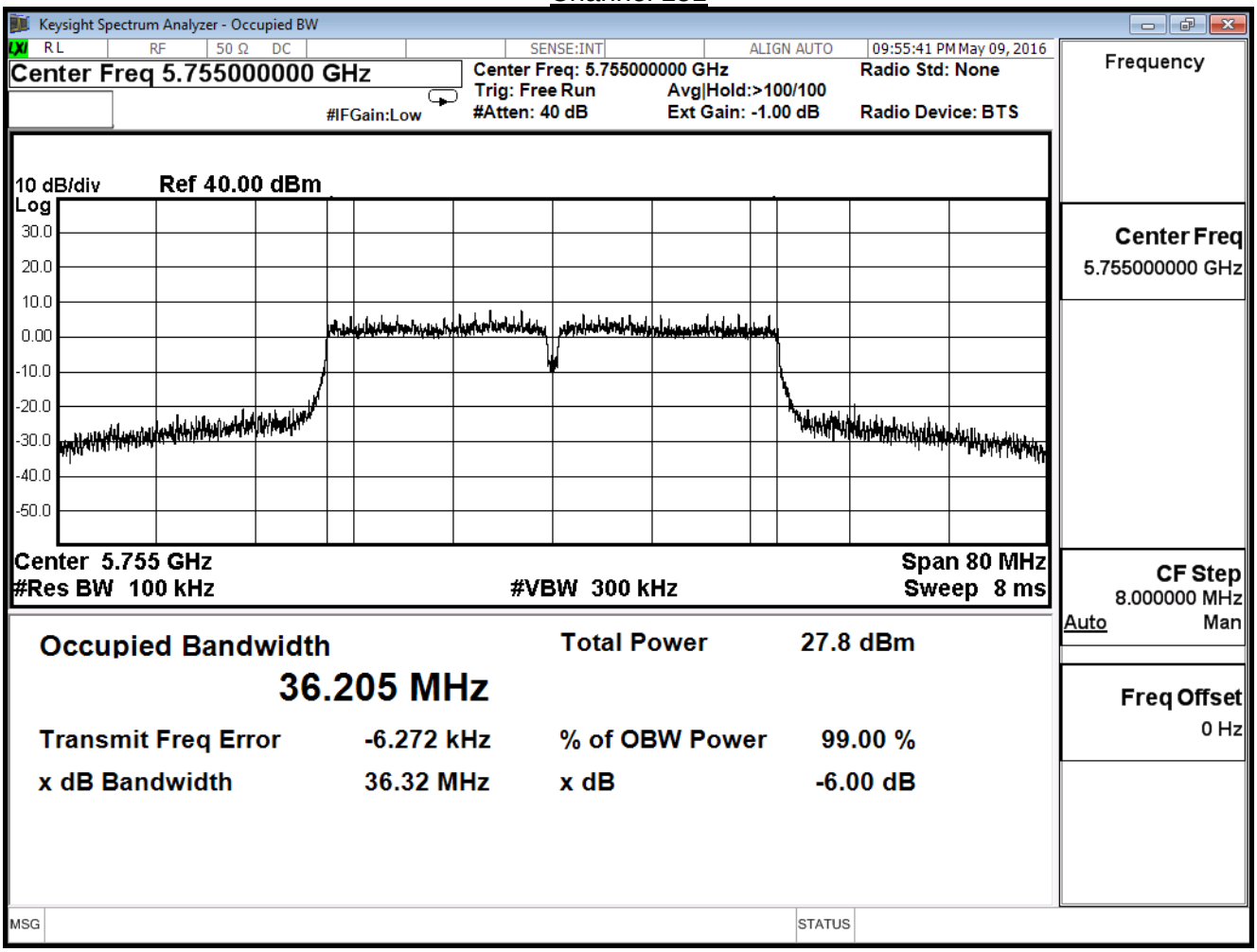
Channel 159


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:09:08 PM May 09, 2016
Center Freq 5.795000000 GHz
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Center 5.795 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 8 ms
Occupied Bandwidth
36.295 MHz
Total Power 28.2 dBm
Transmit Freq Error 7.410 kHz
% of OBW Power 99.00 %
x dB Bandwidth 36.31 MHz
x dB -6.00 dB
Center Freq
5.795000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

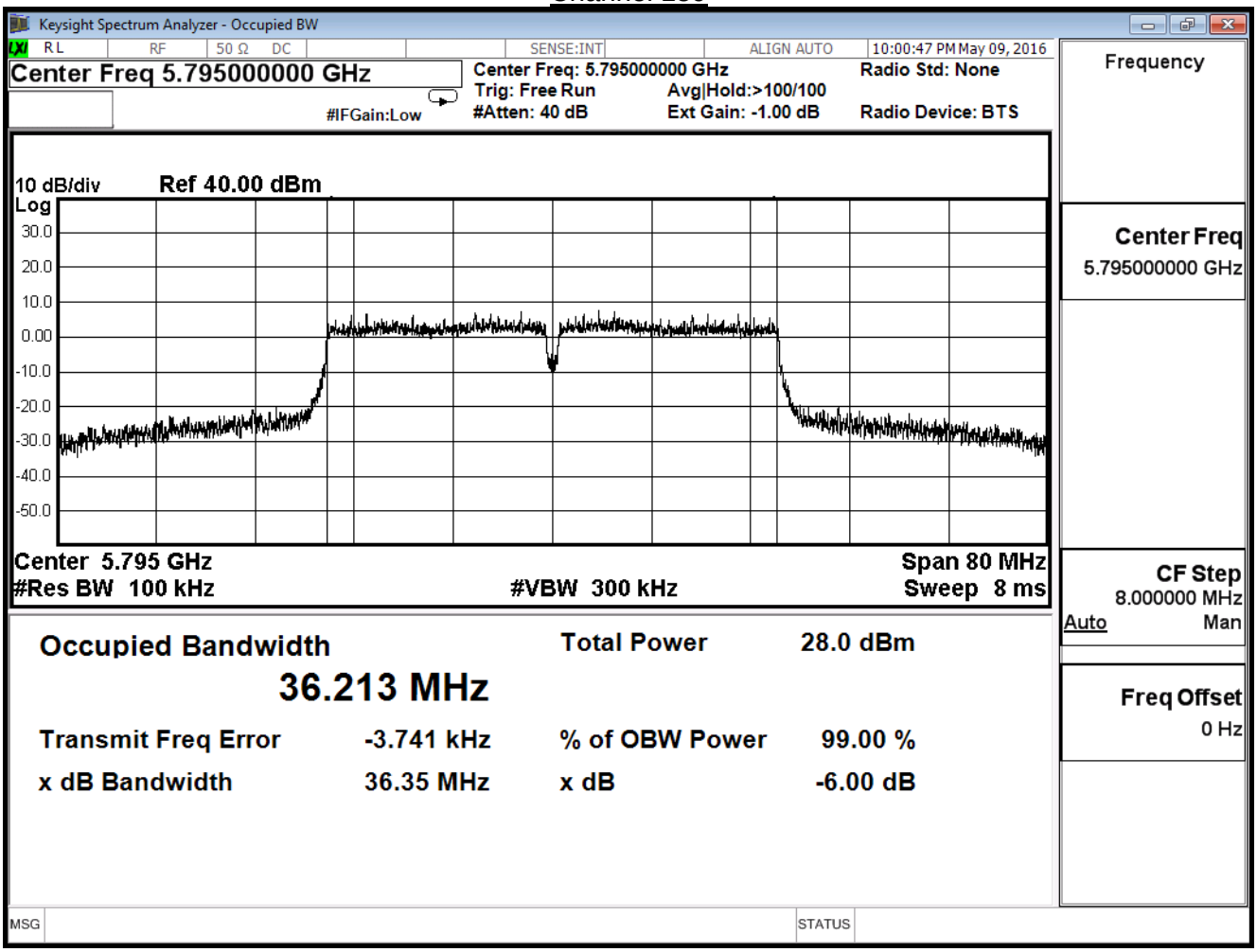
Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.32	≧0.5	Pass
159	5795	36.35	≧0.5	Pass

Channel 151



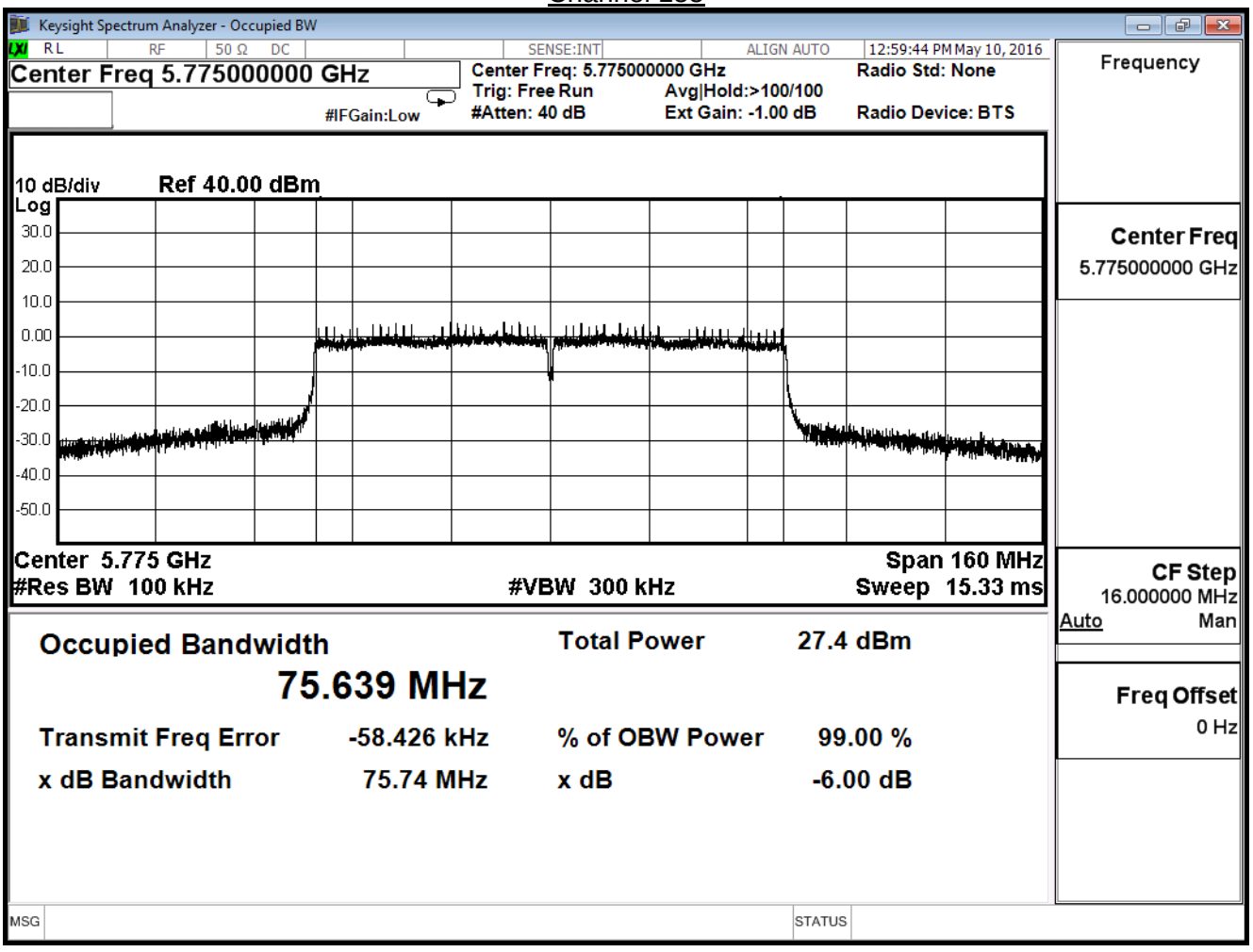
Channel 159


Keysight Spectrum Analyzer - Occupied BW
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:00:47 PM May 09, 2016
Center Freq 5.795000000 GHz
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Center Freq
5.795000000 GHz
Center 5.795 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 80 MHz
Sweep 8 ms
CF Step
8.000000 MHz
Auto
Man
Occupied Bandwidth
36.213 MHz
Total Power 28.0 dBm
Transmit Freq Error -3.741 kHz
% of OBW Power 99.00 %
x dB Bandwidth 36.35 MHz
x dB -6.00 dB
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless 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	75.74	≧0.5	Pass

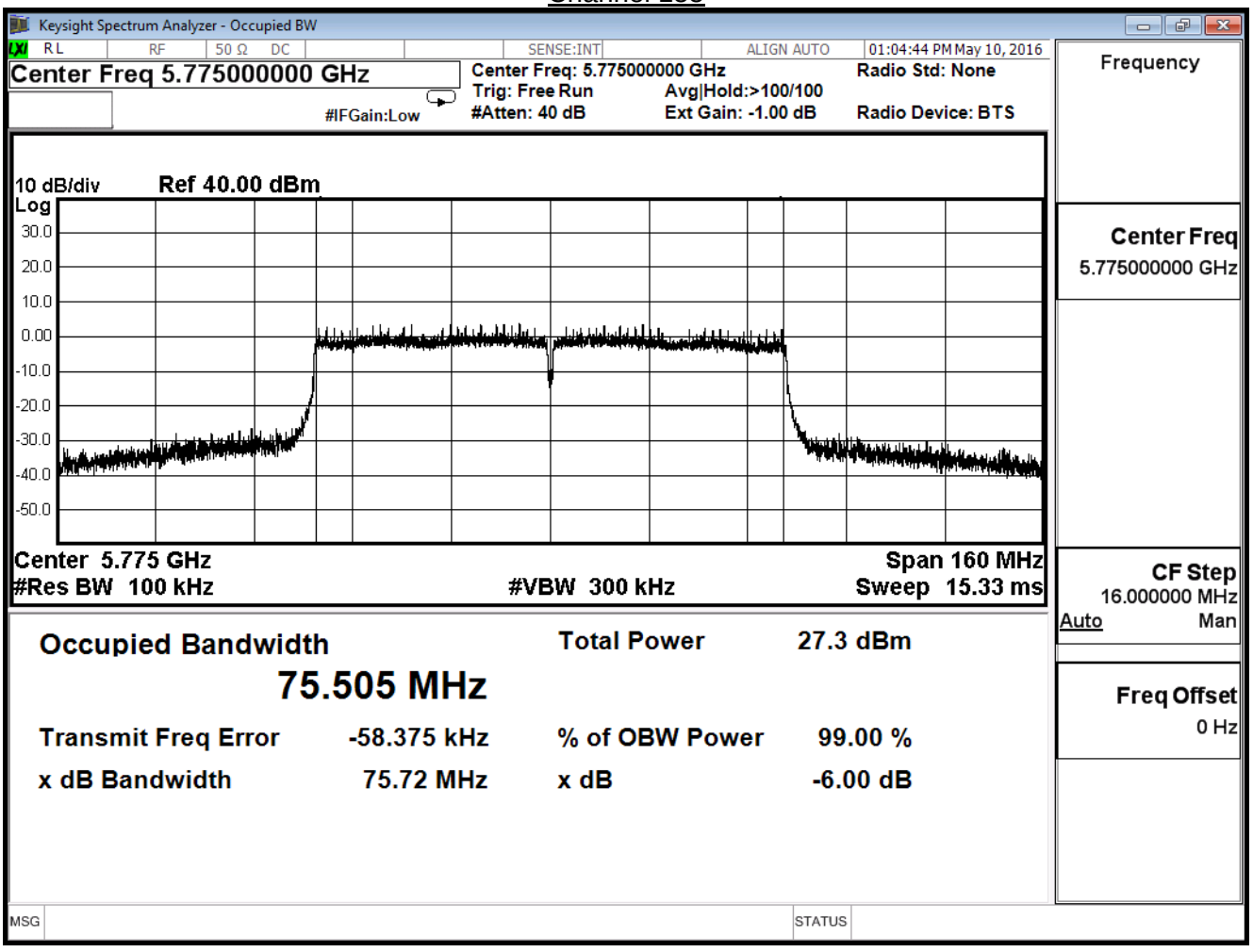
Channel 155



Product	PCE-AC56 Dual-Band Wireless 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	75.72	≧0.5	Pass

Channel 155



3. Peak Transmit Output

3.1. Test Equipment

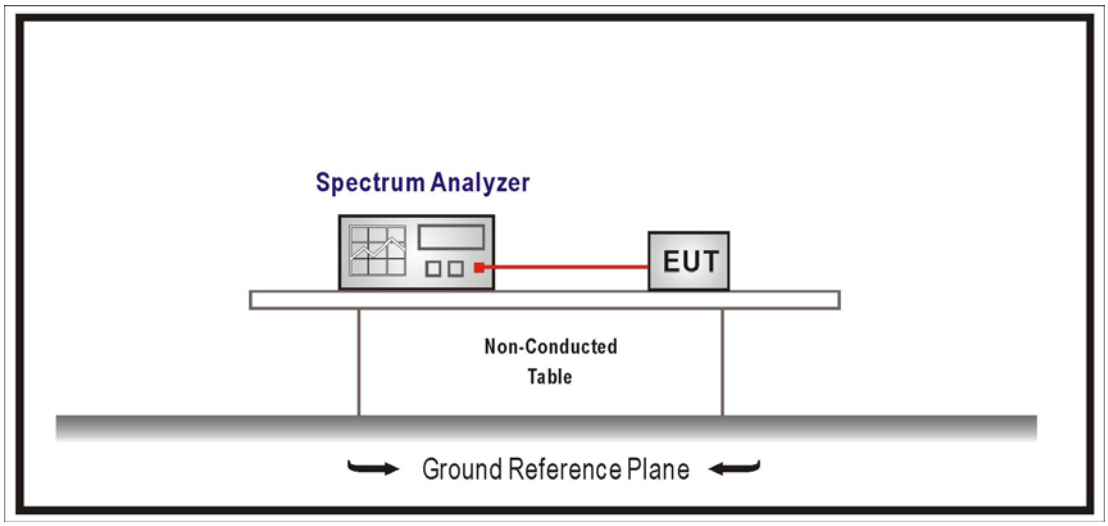
The following test equipments are used during the radiated emission tests:

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 V01R02 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	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

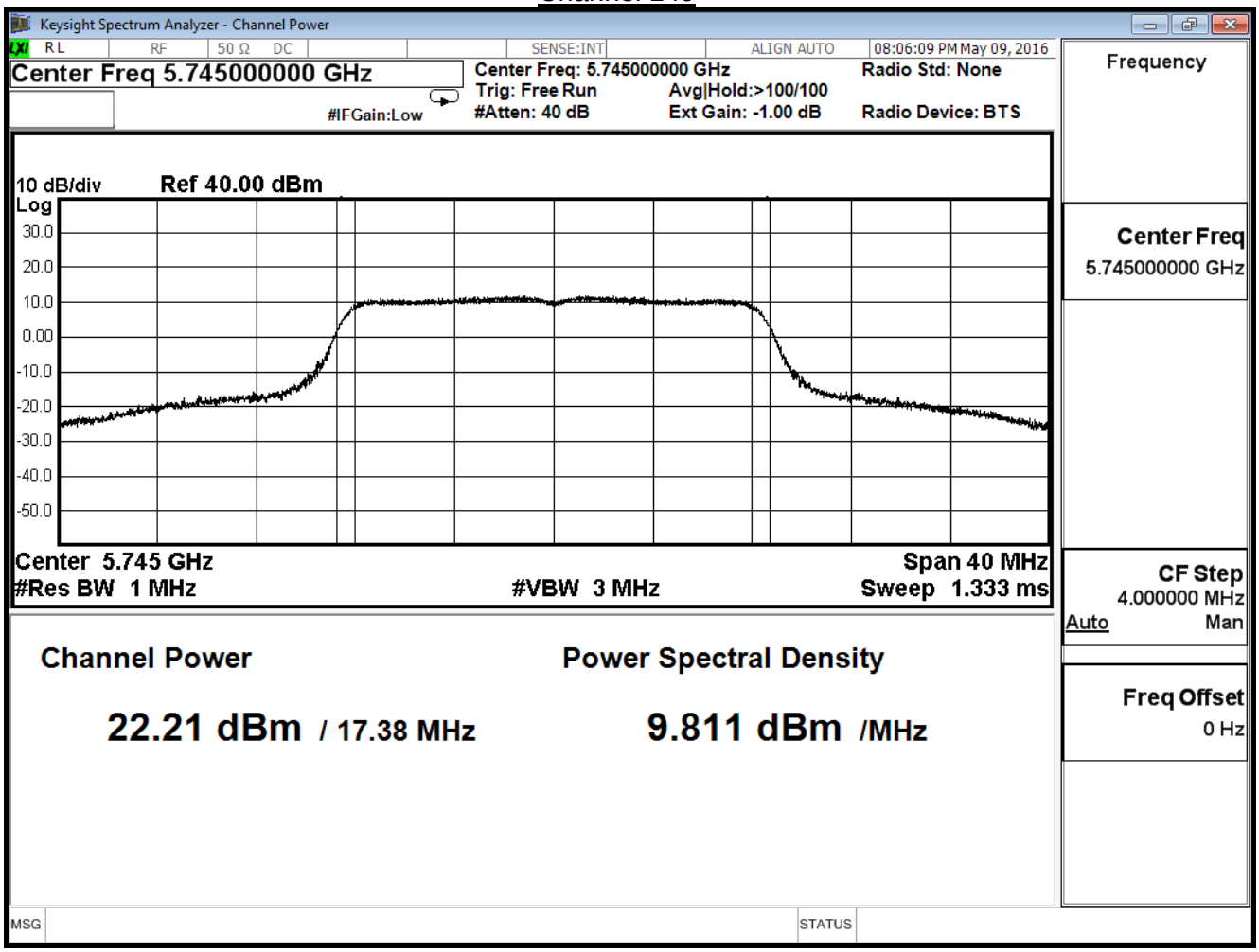
IEEE 802.11a (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	22.21	≦30
157	5785	22.17	≦30
165	5825	22.17	≦30

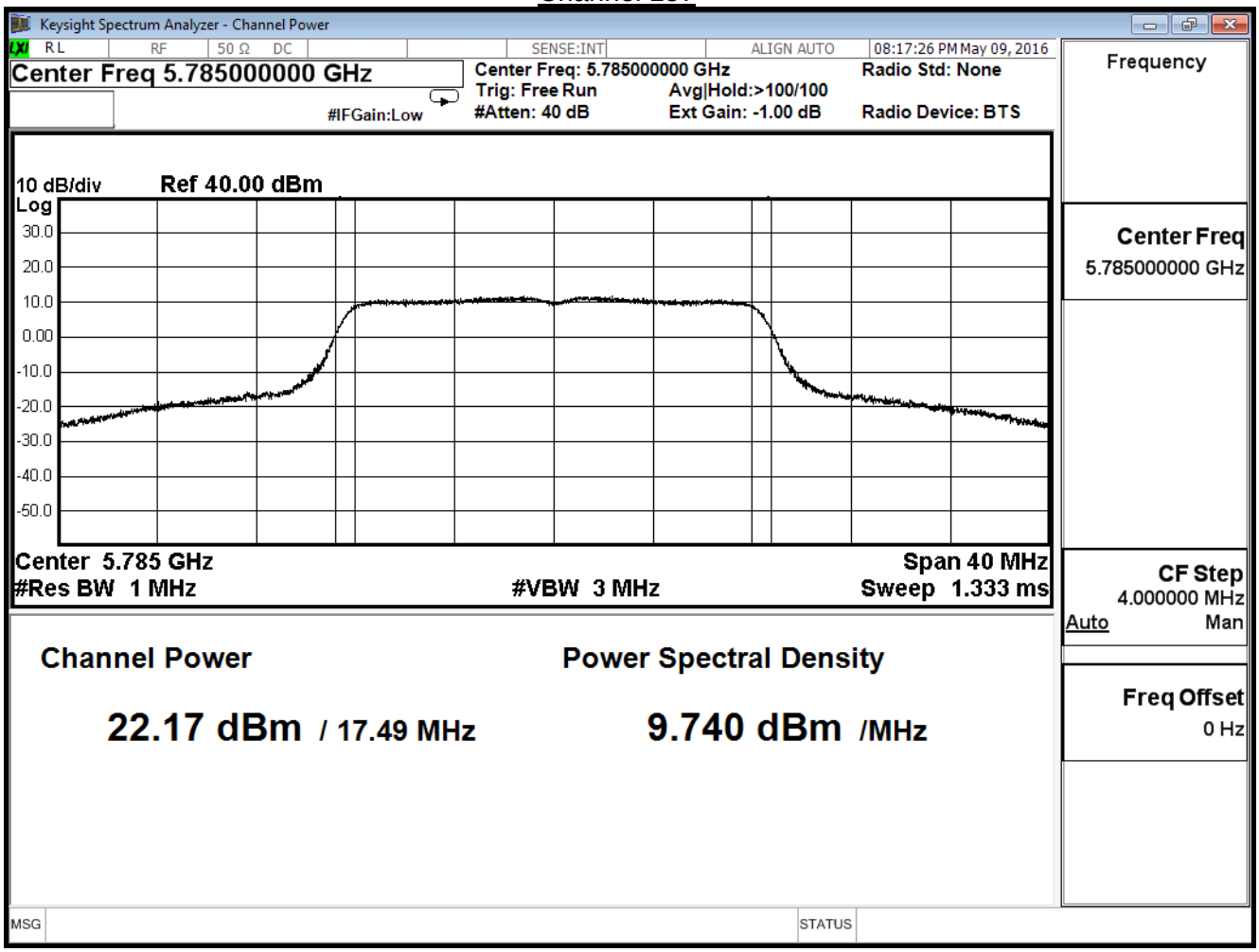
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	22.21	--	--	--	--	--	--	≦30
157	5785	22.17	22.06	21.86	21.76	21.64	21.52	21.22	
165	5825	22.17	--	--	--	--	--	--	

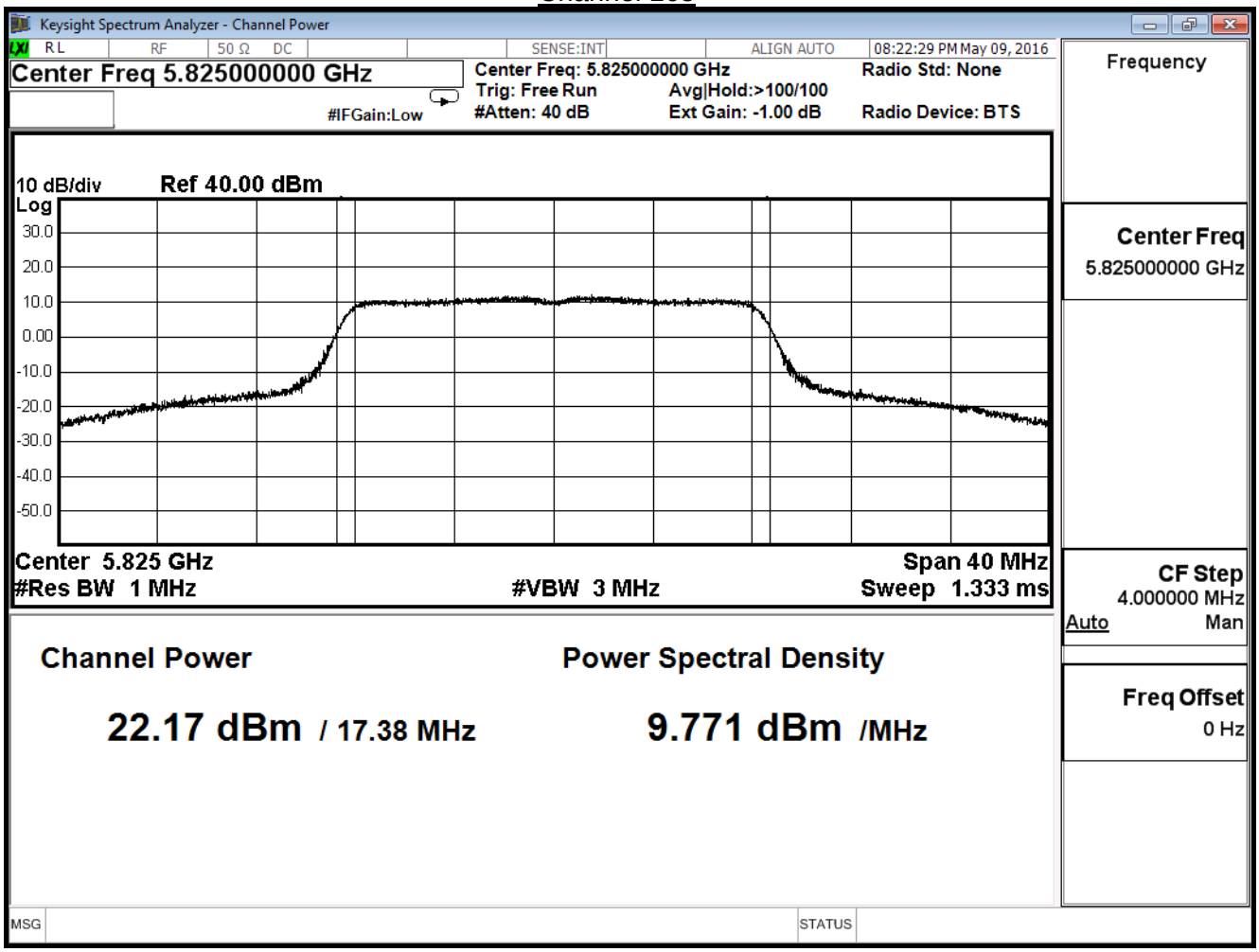
Channel 149


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:06:09 PM May 09, 2016
Center Freq 5.745000000 GHz
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.21 dBm / 17.38 MHz
Power Spectral Density
9.811 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Channel 157


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:17:26 PM May 09, 2016
Center Freq 5.785000000 GHz
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.17 dBm / 17.49 MHz
Power Spectral Density
9.740 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Channel 165


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:22:29 PM May 09, 2016
Center Freq 5.825000000 GHz
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.17 dBm / 17.38 MHz
Power Spectral Density
9.771 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

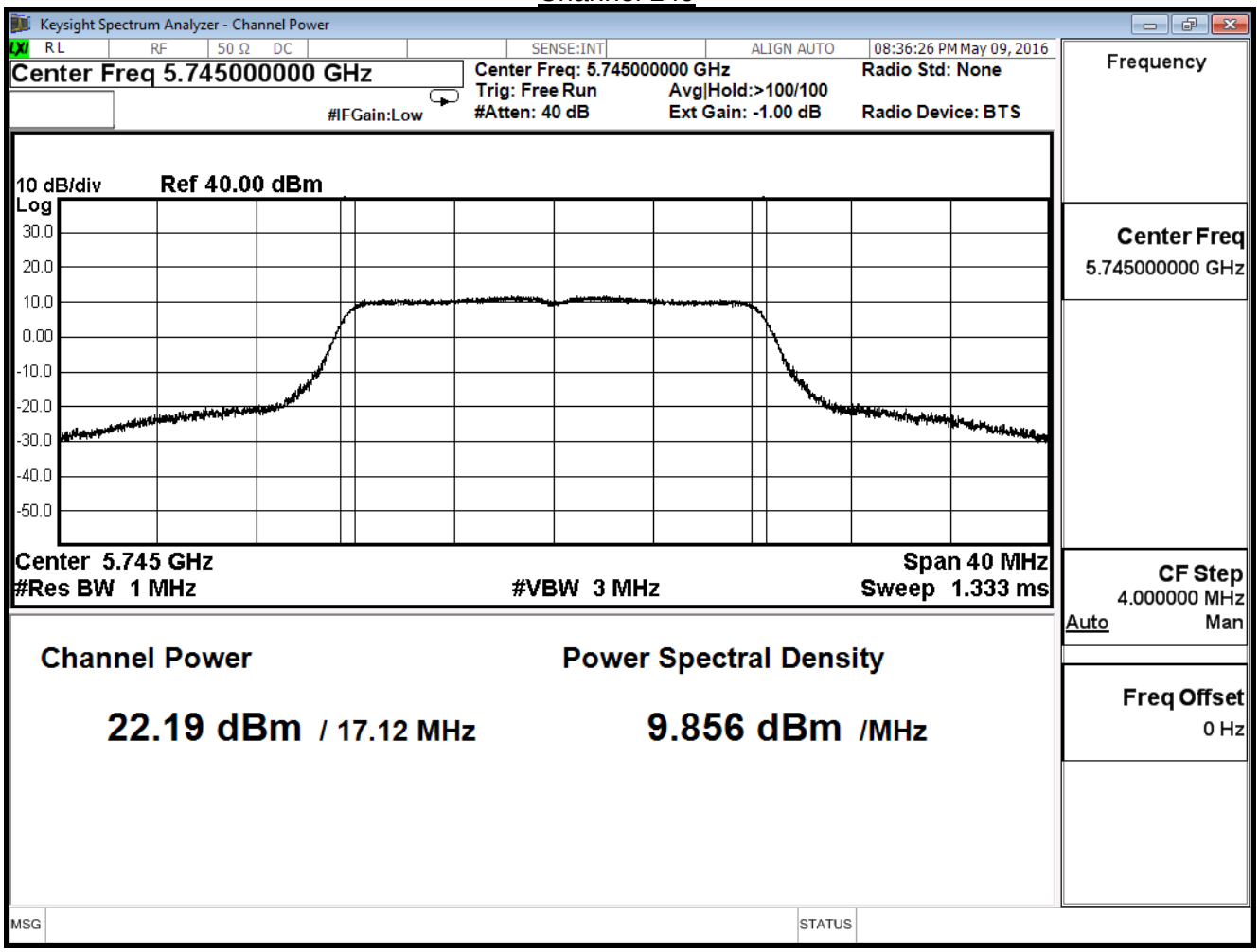
IEEE 802.11a (ANT 1)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	22.19	≦30
157	5785	22.26	≦30
165	5825	22.29	≦30

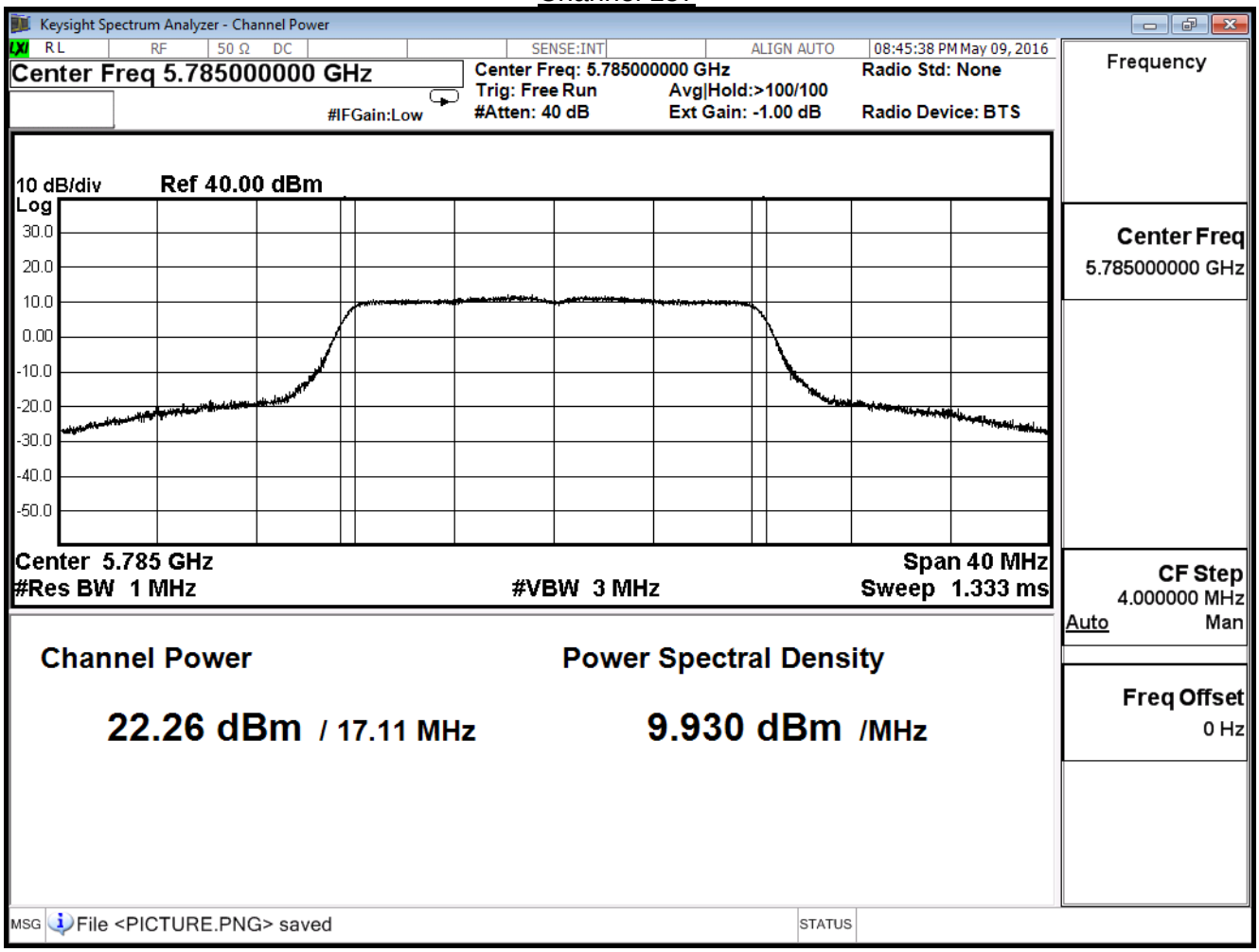
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	22.19	--	--	--	--	--	--	≦30
157	5785	22.26	22.06	21.94	21.74	21.64	21.38	21.26	
165	5825	22.29	--	--	--	--	--	--	

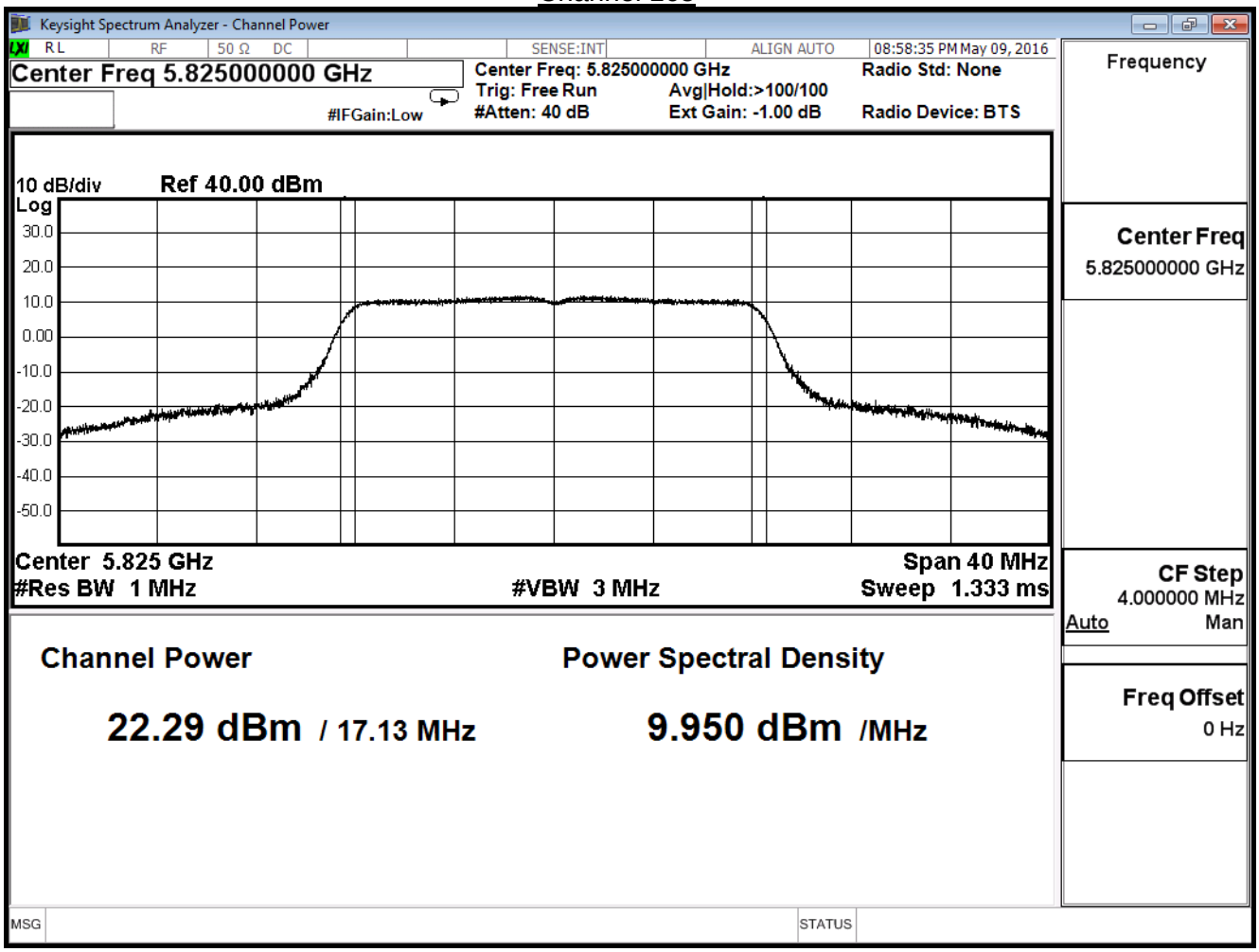
Channel 149


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:36:26 PM May 09, 2016
Center Freq 5.745000000 GHz
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Center 5.745 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
Center Freq
5.745000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz
Channel Power
22.19 dBm / 17.12 MHz
Power Spectral Density
9.856 dBm /MHz
MSG
STATUS

Channel 157


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:45:38 PM May 09, 2016
Center Freq 5.785000000 GHz
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Center 5.785 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 40 MHz
Sweep 1.333 ms
Center Freq
5.785000000 GHz
CF Step
4.000000 MHz
Auto
Man
Freq Offset
0 Hz
Channel Power
22.26 dBm / 17.11 MHz
Power Spectral Density
9.930 dBm /MHz
MSG
File <PICTURE.PNG> saved
STATUS

Channel 165


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:58:35 PM May 09, 2016
Center Freq 5.825000000 GHz
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.29 dBm / 17.13 MHz
Power Spectral Density
9.950 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11a (ANT 0+1)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	25.21	≦30
157	5785	25.23	≦30
165	5825	25.24	≦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	25.21	--	--	--	--	--	--	≦30
157	5785	25.23	25.07	24.91	24.76	24.65	24.46	24.25	
165	5825	25.24	--	--	--	--	--	--	

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

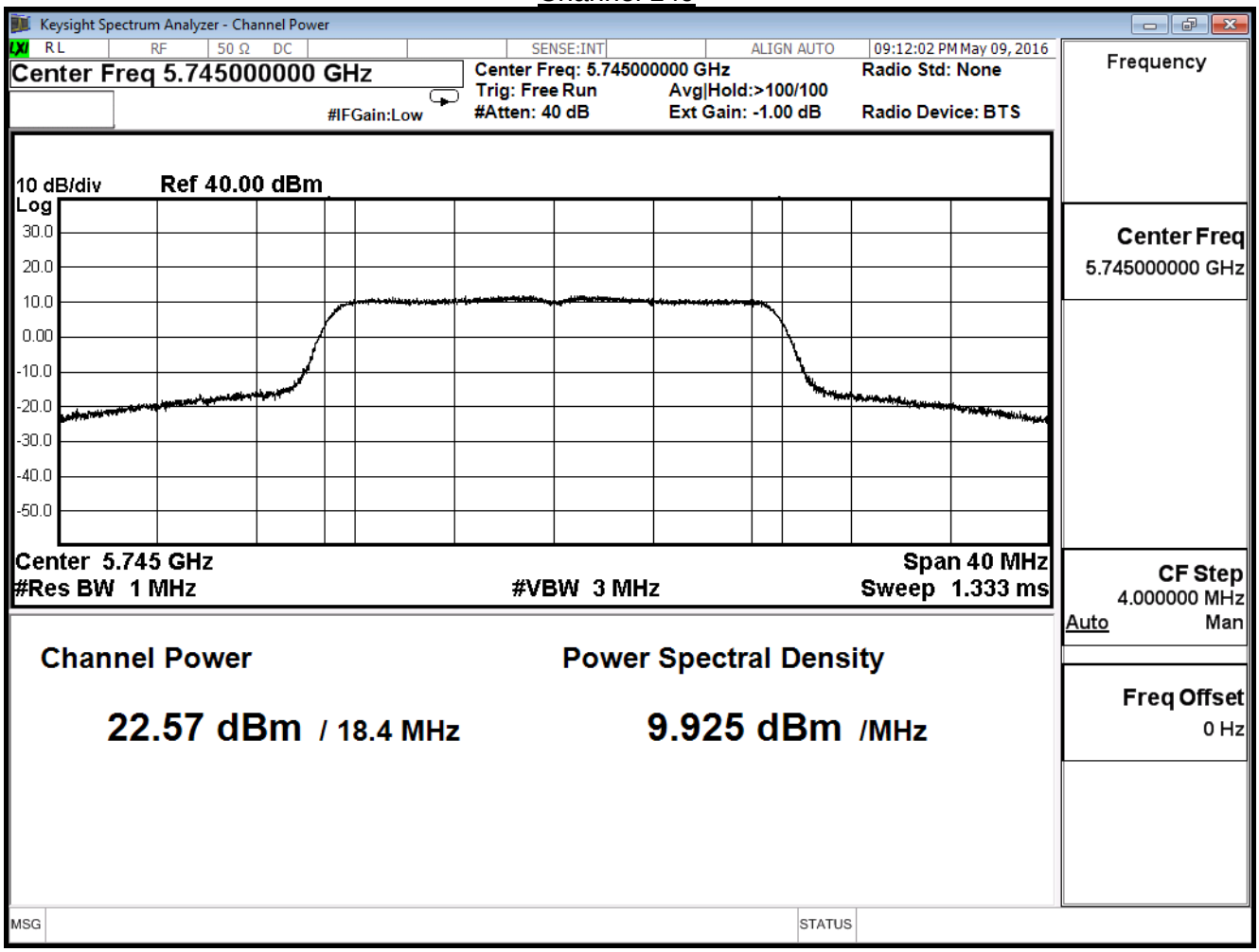
IEEE 802.11n_20M (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	22.57	≦30
157	5785	22.35	≦30
165	5825	22.28	≦30

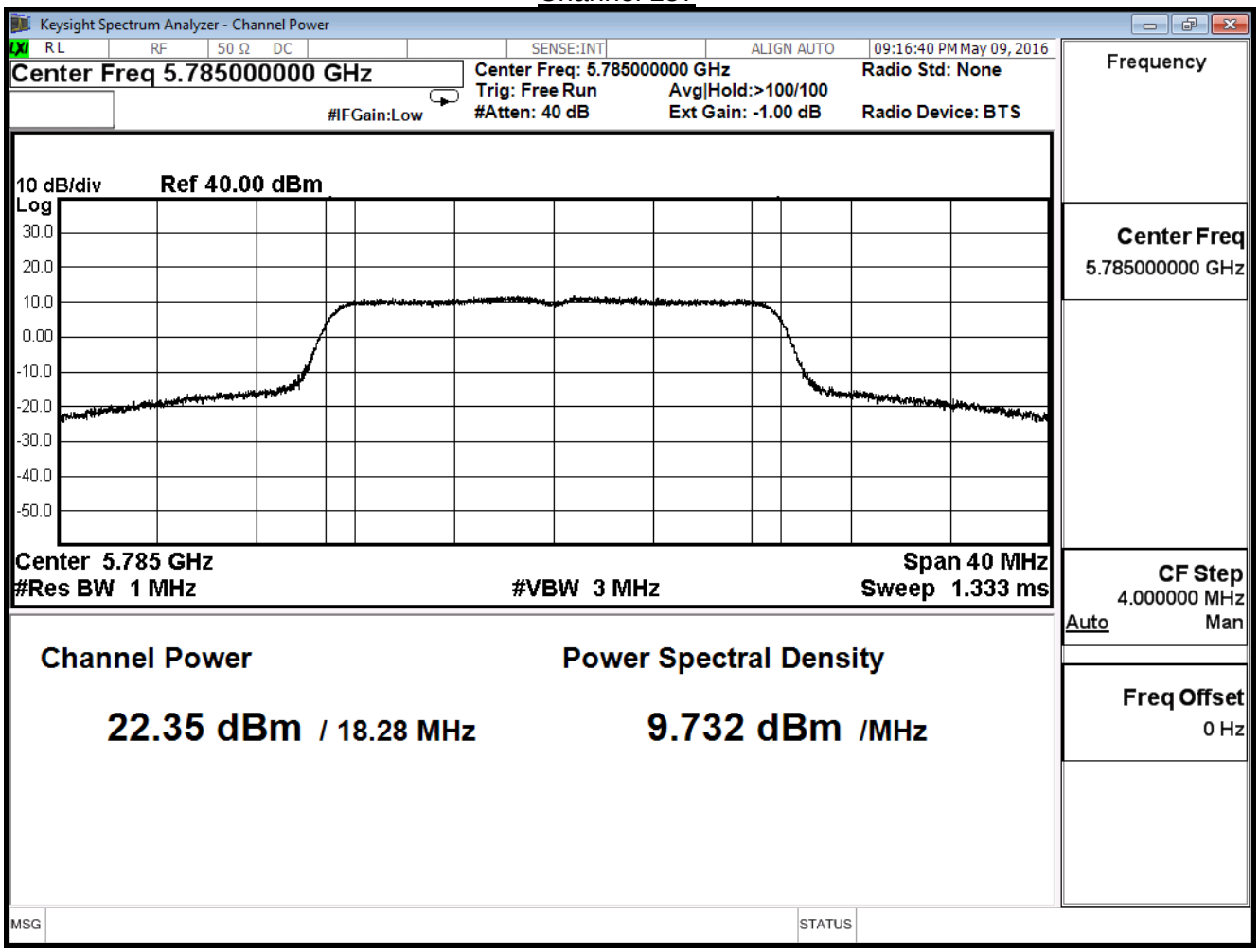
The worst emission of data rate is 6.5 Mbps.

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	22.57	--	--	--	--	--	--	--	≦30
157	5785	22.35	22.13	22.03	21.93	21.69	21.57	21.42	21.30	
165	5825	22.28	--	--	--	--	--	--	--	

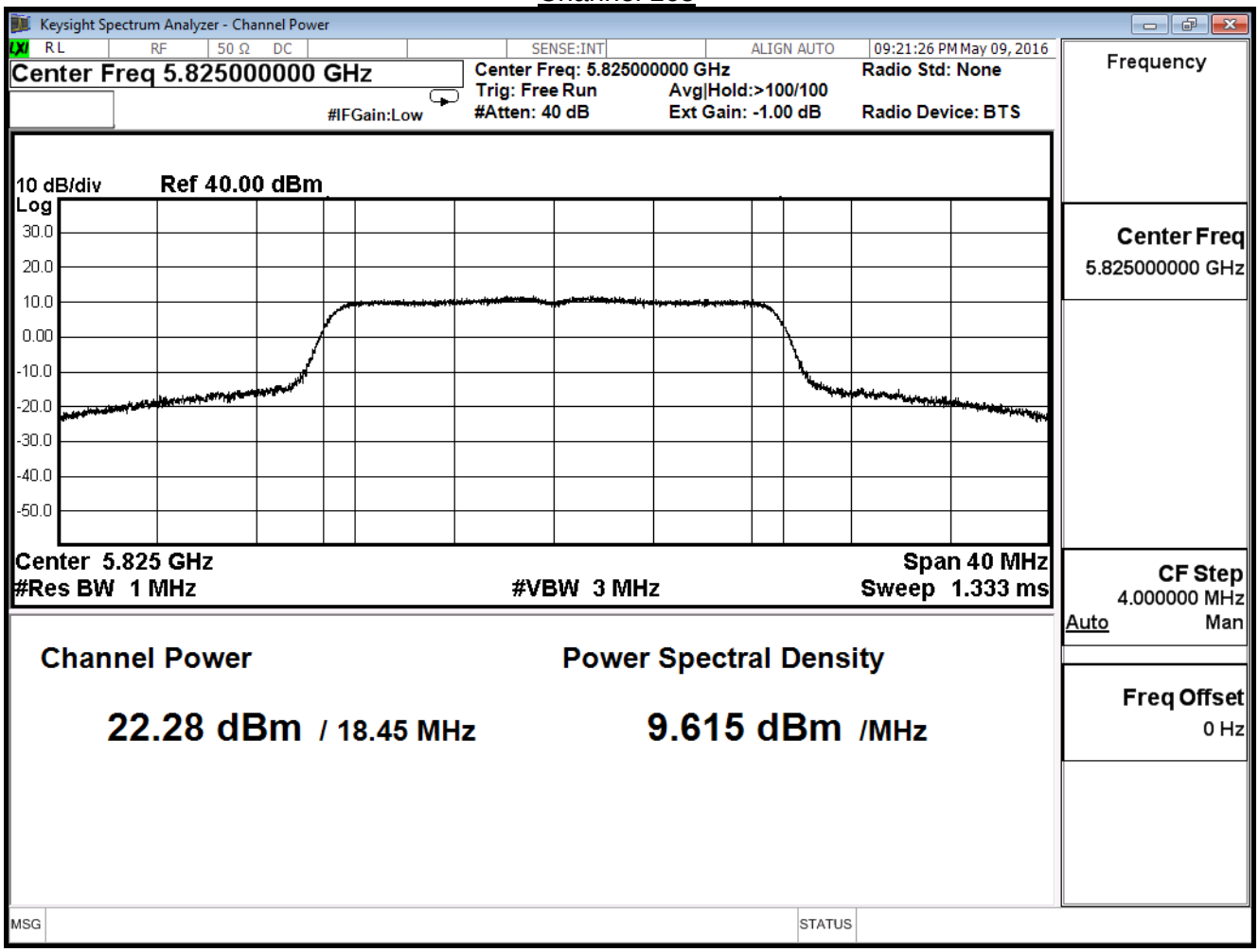
Channel 149


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:12:02 PM May 09, 2016
Center Freq 5.745000000 GHz
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.57 dBm / 18.4 MHz
Power Spectral Density
9.925 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Channel 157


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:16:40 PM May 09, 2016
Center Freq 5.785000000 GHz
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.35 dBm / 18.28 MHz
Power Spectral Density
9.732 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Channel 165


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:21:26 PM May 09, 2016
Center Freq 5.825000000 GHz
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.28 dBm / 18.45 MHz
Power Spectral Density
9.615 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

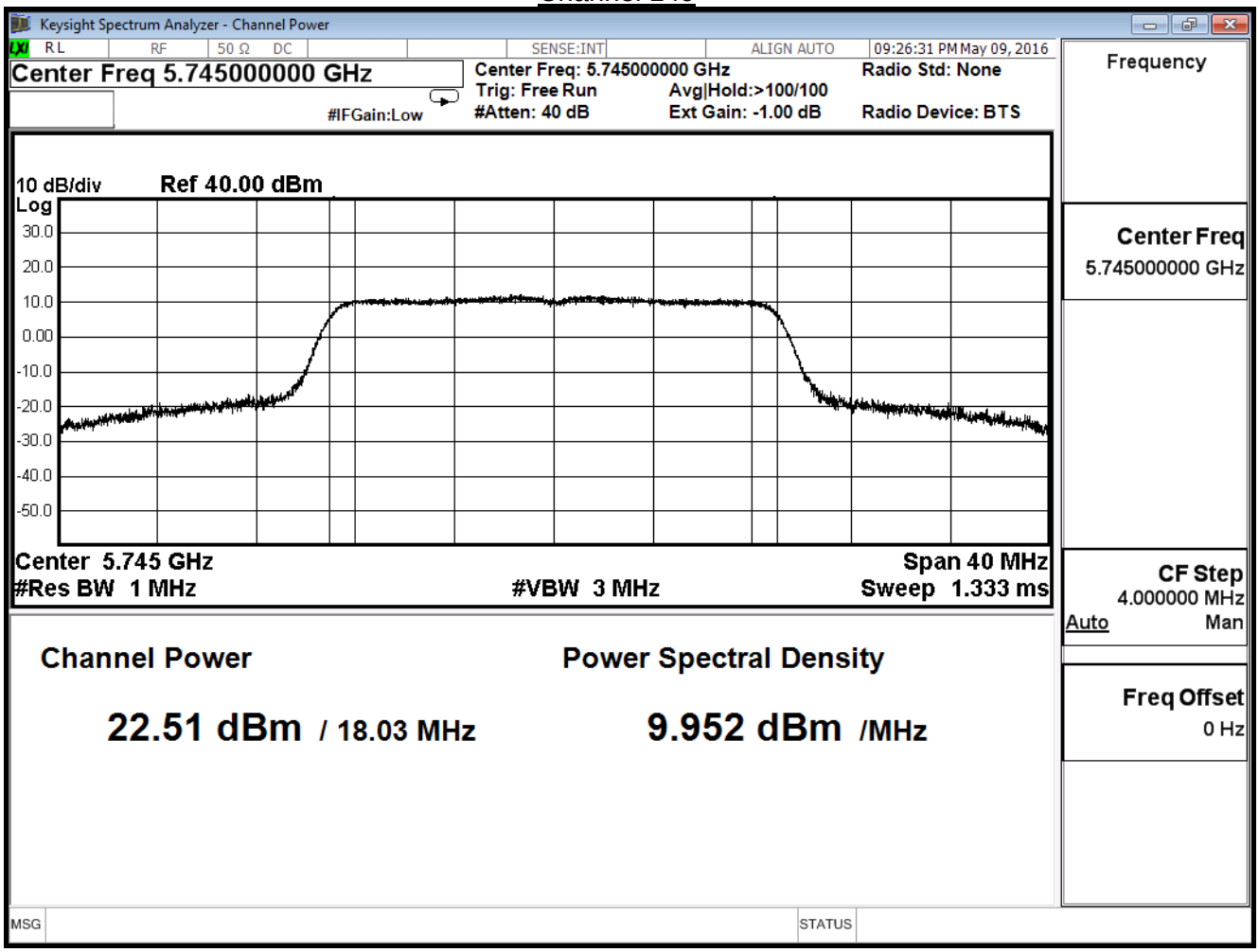
IEEE 802.11n_20M (ANT 1)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	22.51	≦30
157	5785	22.22	≦30
165	5825	22.16	≦30

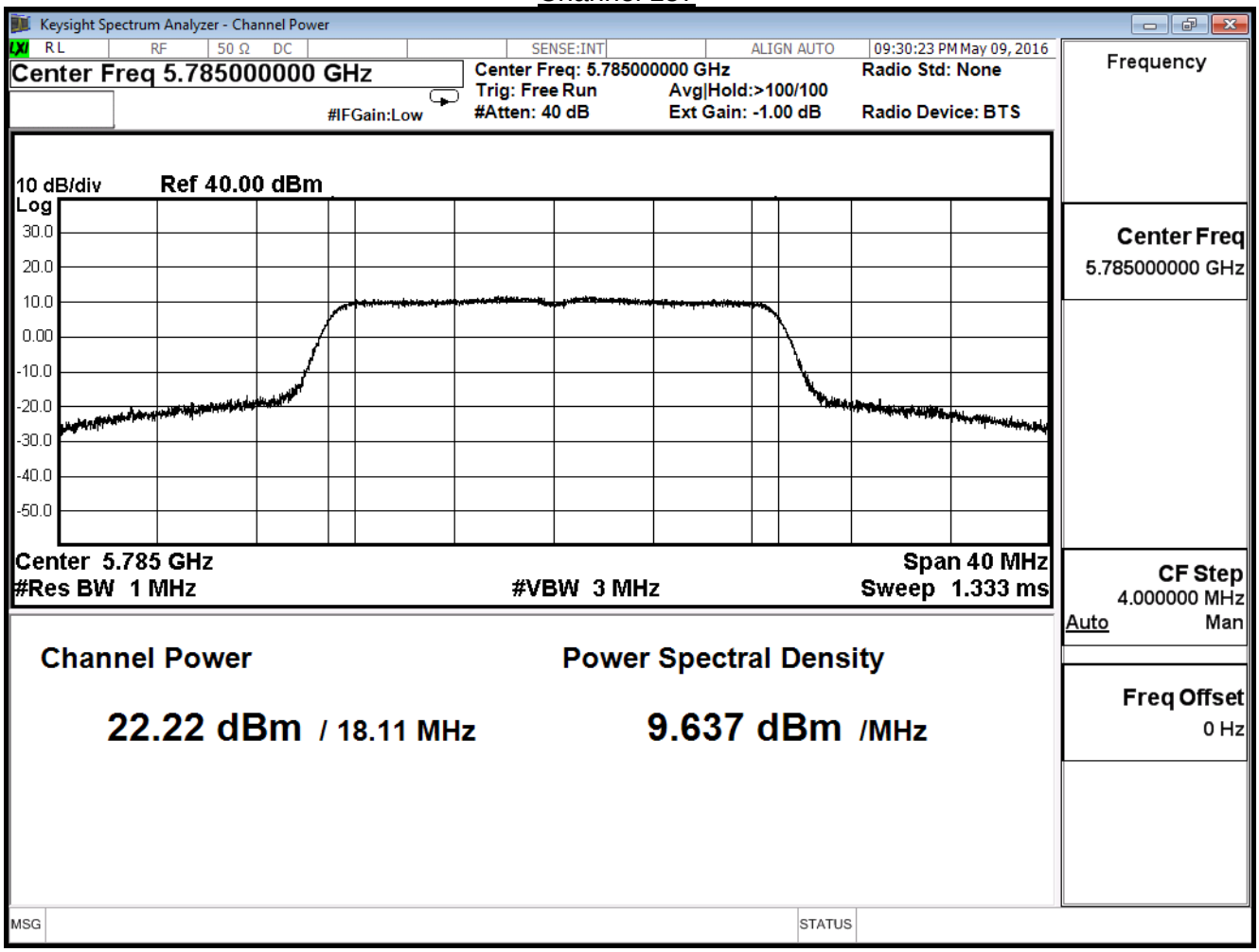
The worst emission of data rate is 6.5 Mbps.

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	22.51	--	--	--	--	--	--	--	≦30
157	5785	22.22	22.02	21.90	21.80	21.70	21.57	21.45	21.33	
165	5825	22.16	--	--	--	--	--	--	--	

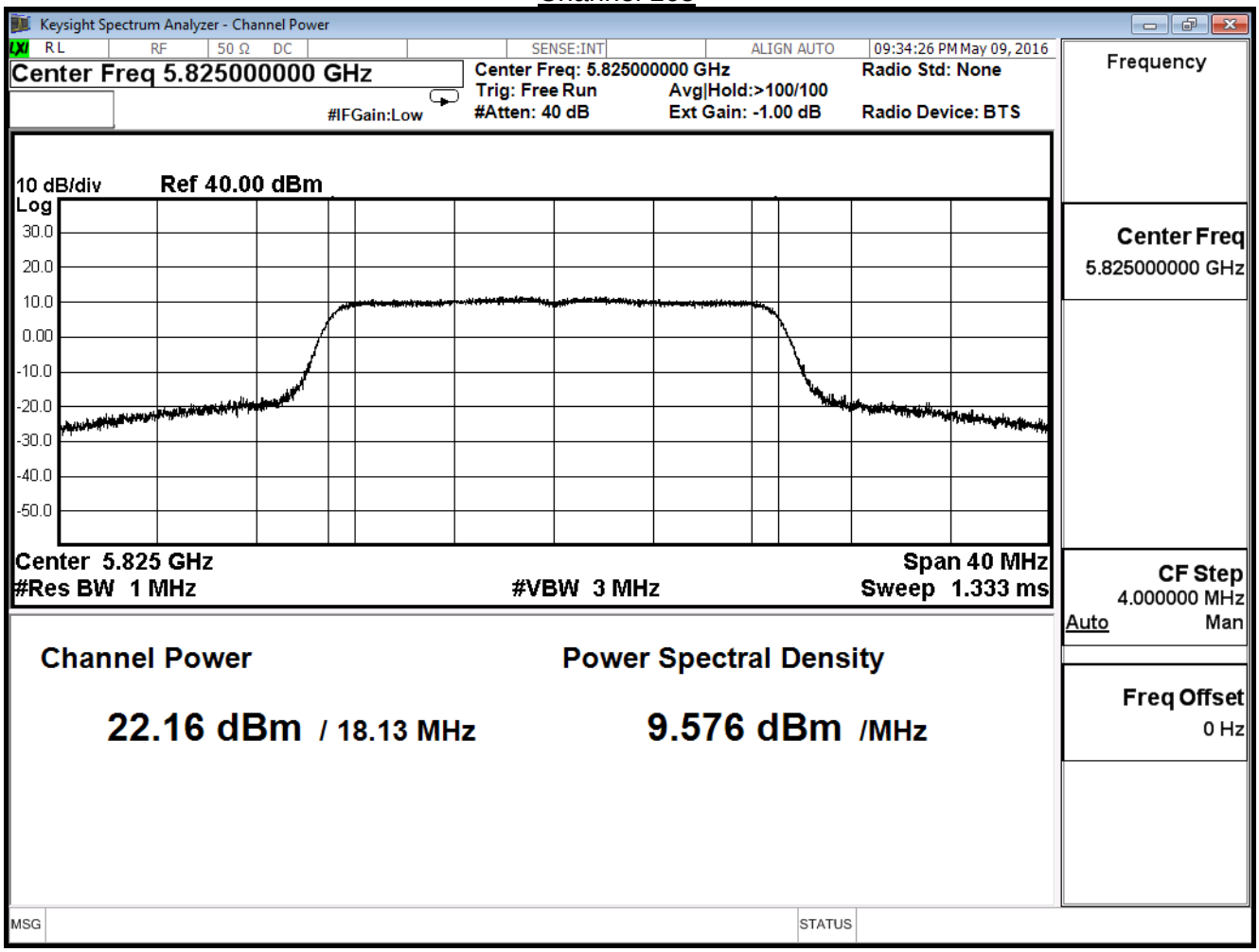
Channel 149


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:26:31 PM May 09, 2016
Center Freq 5.745000000 GHz
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.51 dBm / 18.03 MHz
Power Spectral Density
9.952 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Channel 157


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:30:23 PM May 09, 2016
Center Freq 5.785000000 GHz
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.22 dBm / 18.11 MHz
Power Spectral Density
9.637 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Channel 165


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:34:26 PM May 09, 2016
Center Freq 5.825000000 GHz
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.16 dBm / 18.13 MHz
Power Spectral Density
9.576 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n_20M (ANT 0+1)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	25.55	≦30
157	5785	25.30	≦30
165	5825	25.23	≦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	25.55	--	--	--	--	--	--	--	≦30
157	5785	25.30	25.09	24.98	24.88	24.71	24.58	24.45	24.33	
165	5825	25.23	--	--	--	--	--	--	--	

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

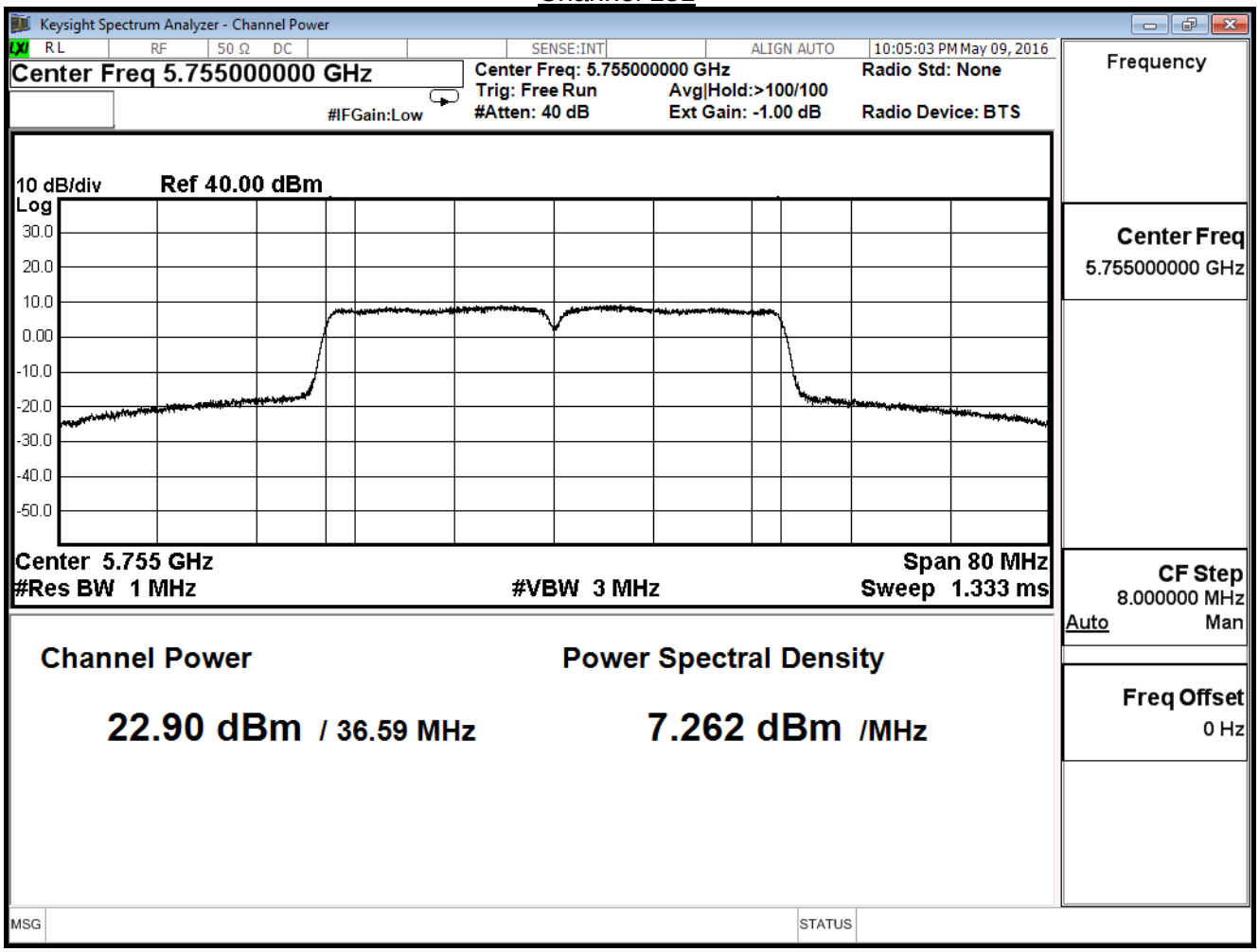
IEEE802.11n 40MHz(ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	22.90	≦30
159	5795	22.73	≦30

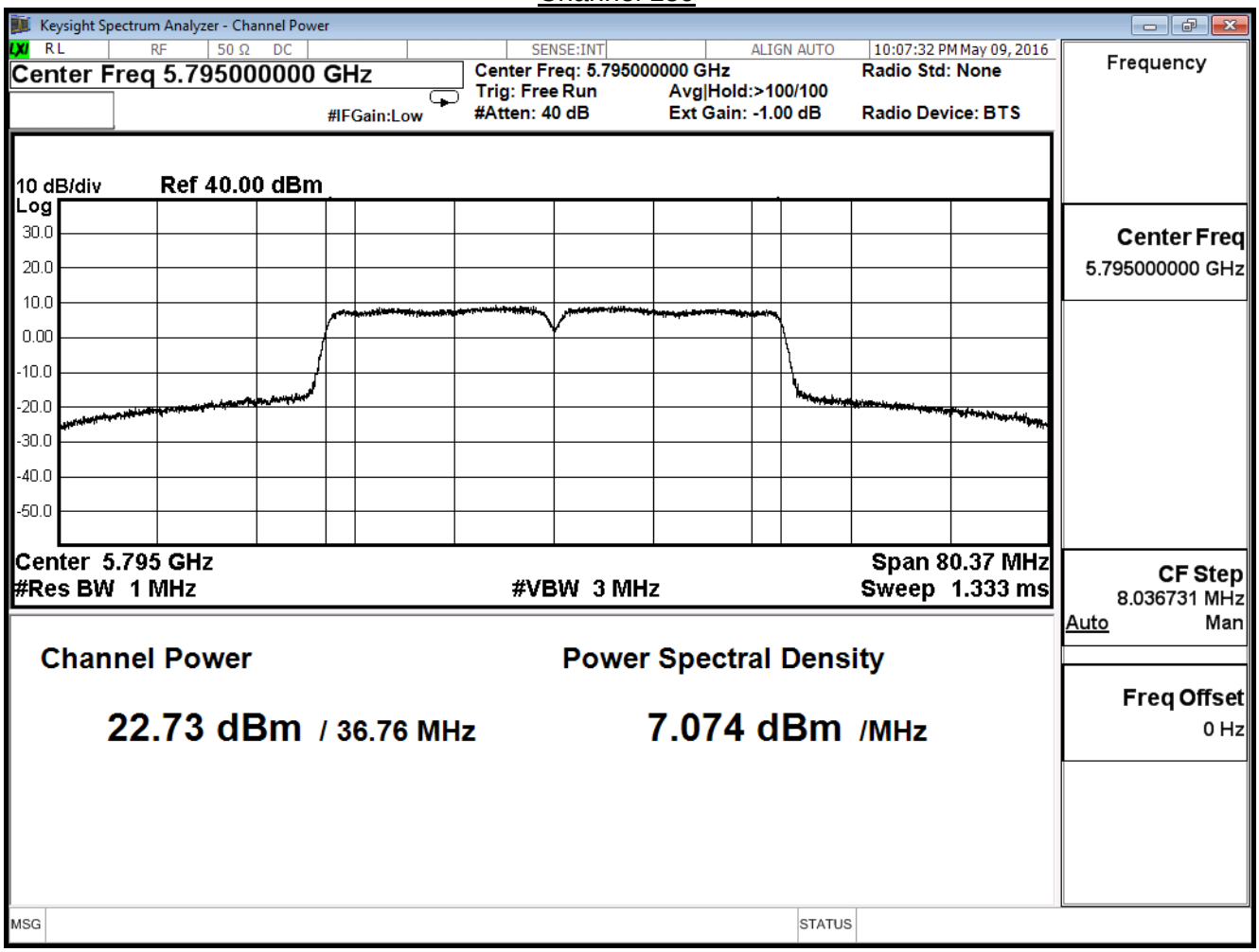
The worst emission of data rate is 13.5 Mbps.

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	22.90	--	--	--	--	--	--	--	≦30
159	5795	22.73	22.63	22.53	22.33	22.23	22.11	21.87	21.63	

Channel 151


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:05:03 PM May 09, 2016
Center Freq 5.755000000 GHz
Center Freq: 5.755000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.90 dBm / 36.59 MHz
Power Spectral Density
7.262 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Channel 159


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:07:32 PM May 09, 2016
Center Freq 5.795000000 GHz
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Ref 40.00 dBm
Log
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
Center Freq
5.795000000 GHz
Center 5.795 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 80.37 MHz
Sweep 1.333 ms
CF Step
8.036731 MHz
Auto
Man
Channel Power
22.73 dBm / 36.76 MHz
Power Spectral Density
7.074 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

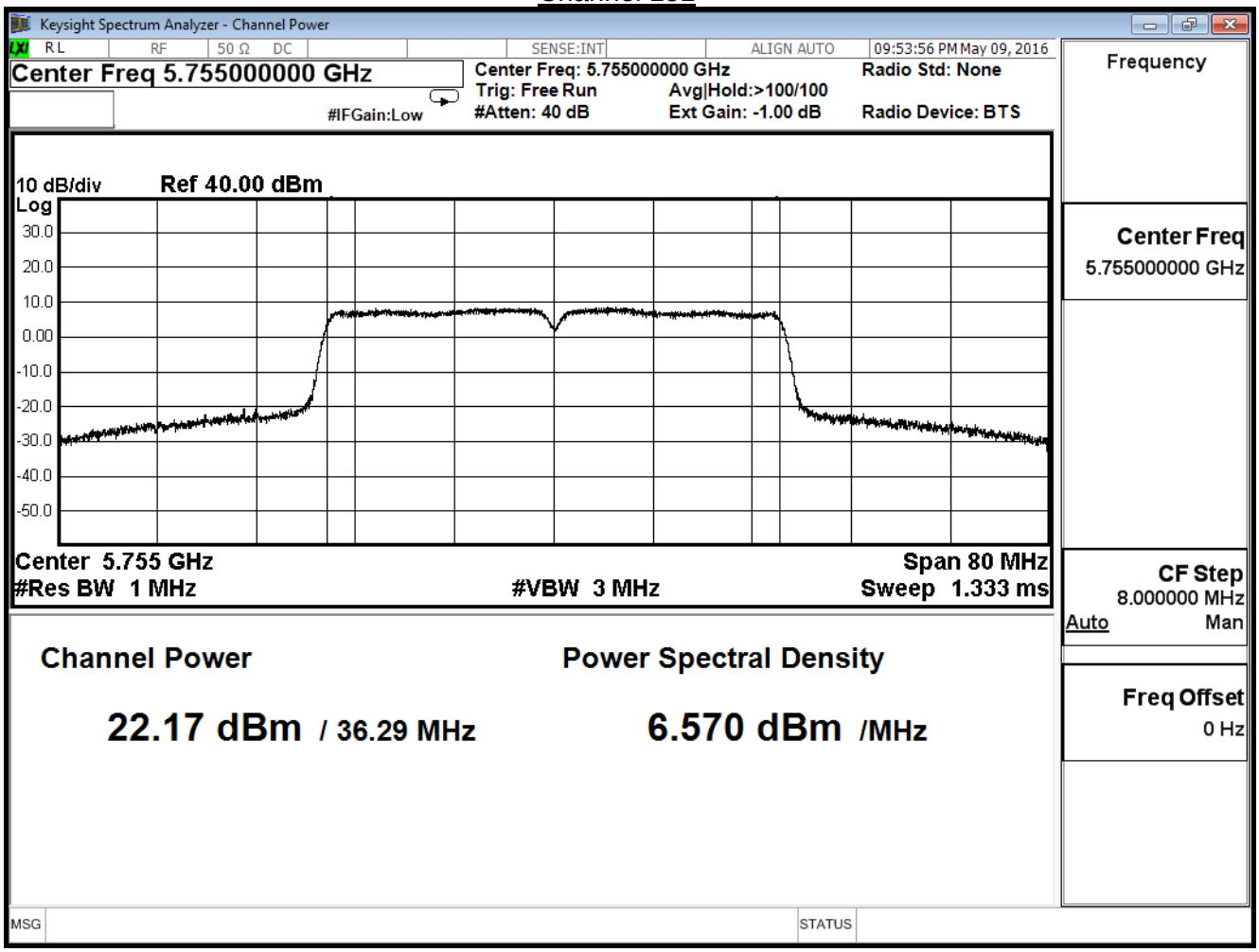
IEEE802.11n 40MHz(ANT 1)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	22.17	≦30
159	5795	22.26	≦30

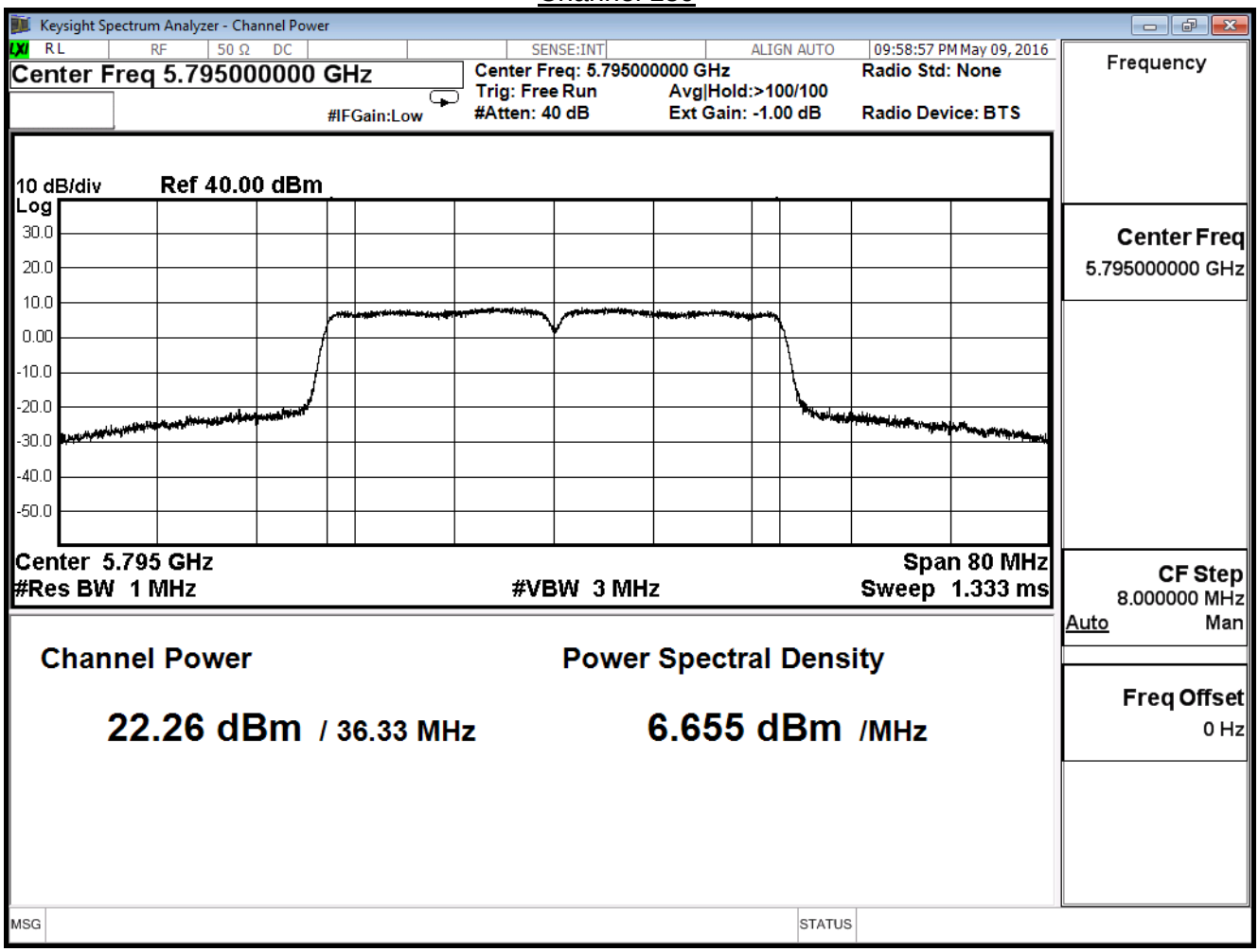
The worst emission of data rate is 13.5 Mbps.

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	22.17	--	--	--	--	--	--	--	≦30
159	5795	22.26	22.06	21.96	21.76	21.66	21.42	21.18	21.06	

Channel 151


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:53:56 PM May 09, 2016
Center Freq 5.755000000 GHz
Center Freq: 5.755000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Log
Ref 40.00 dBm
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.17 dBm / 36.29 MHz
Power Spectral Density
6.570 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Channel 159


Keysight Spectrum Analyzer - Channel Power
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:58:57 PM May 09, 2016
Center Freq 5.795000000 GHz
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#IFGain:Low
#Atten: 40 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Frequency
10 dB/div
Ref 40.00 dBm
Log
30.0
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
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
22.26 dBm / 36.33 MHz
Power Spectral Density
6.655 dBm /MHz
Freq Offset
0 Hz
MSG
STATUS

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

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

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	25.56	≦30
159	5795	25.51	≦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	25.56	--	--	--	--	--	--	--	≦30
159	5795	25.51	25.36	25.26	25.06	24.96	24.79	24.55	24.36	

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

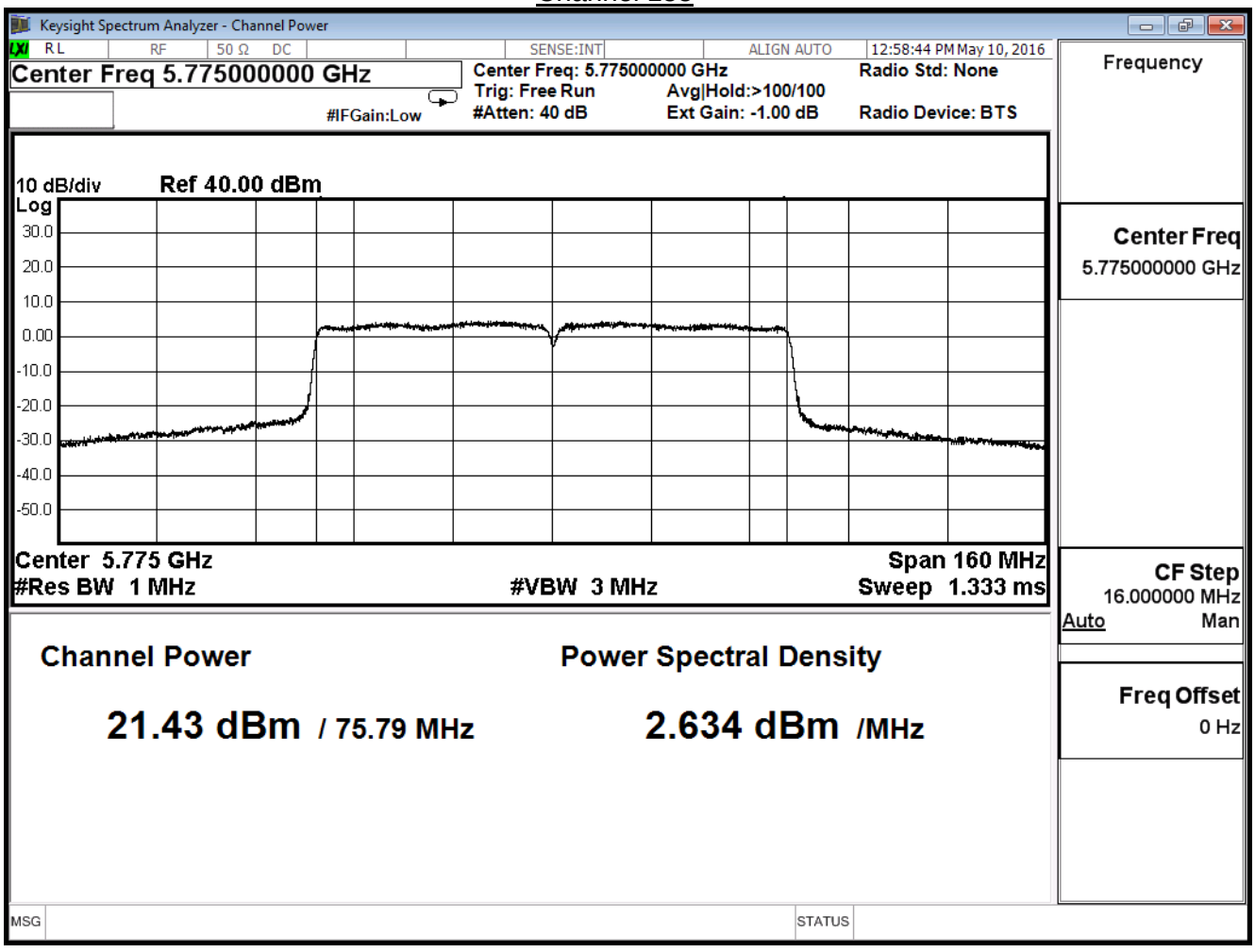
IEEE 802.11ac 80MHz (ANT 0)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	21.43	≦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	21.43	21.33	21.23	21.03	20.93	20.83	20.71	20.47	20.35	20.23	≦30

Channel 155



Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

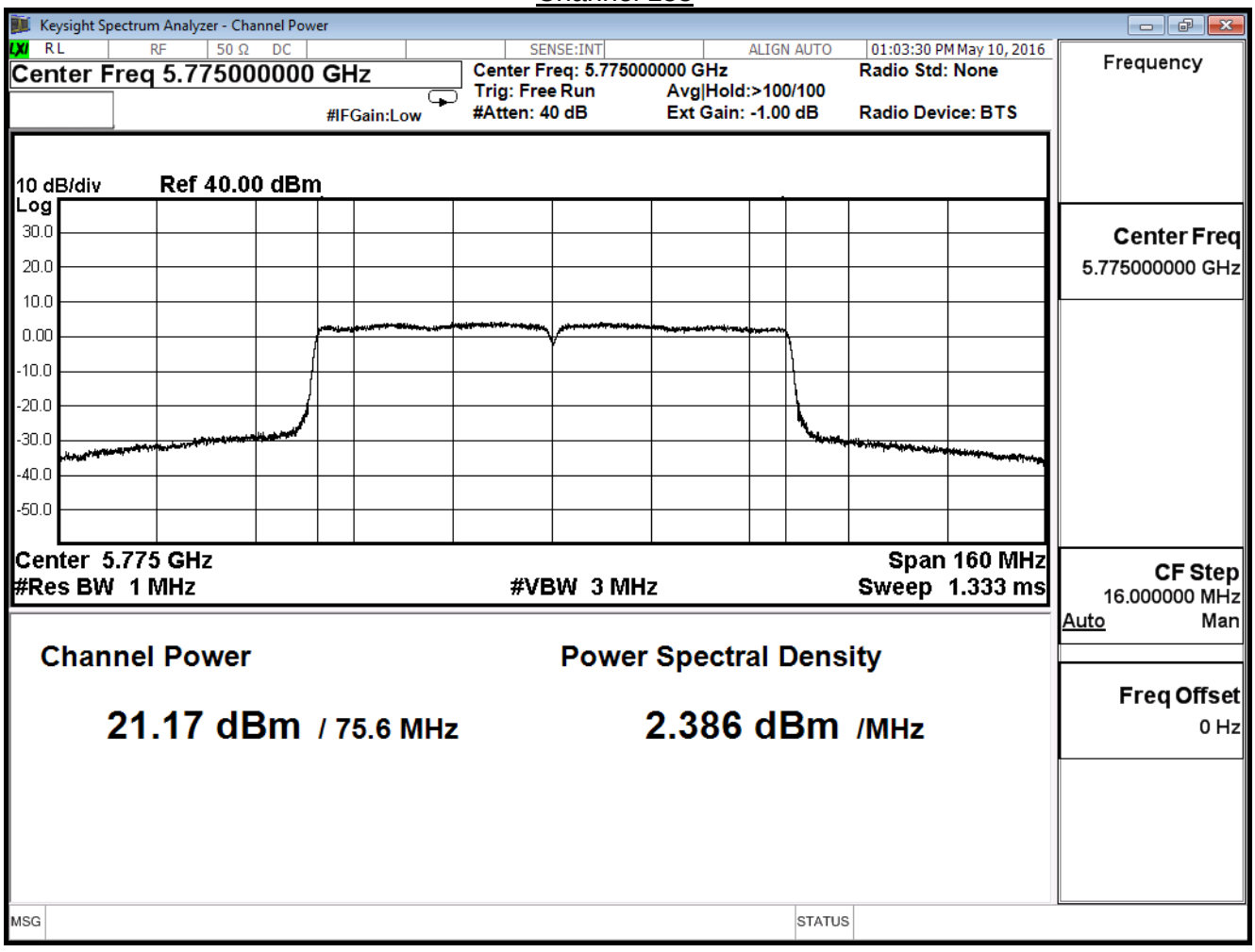
IEEE 802.11ac 80MHz (ANT 1)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	21.17	≦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	21.17	20.97	20.87	20.77	20.57	20.47	20.35	20.11	19.99	19.87	≦30

Channel 155



Product	PCE-AC56 Dual-Band Wireless 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)

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	24.31	≦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	24.31	24.16	24.06	23.91	23.76	23.66	23.54	23.30	23.18	23.06	≦30

4. Peak Power Spectrum Density

4.1. Test Equipment

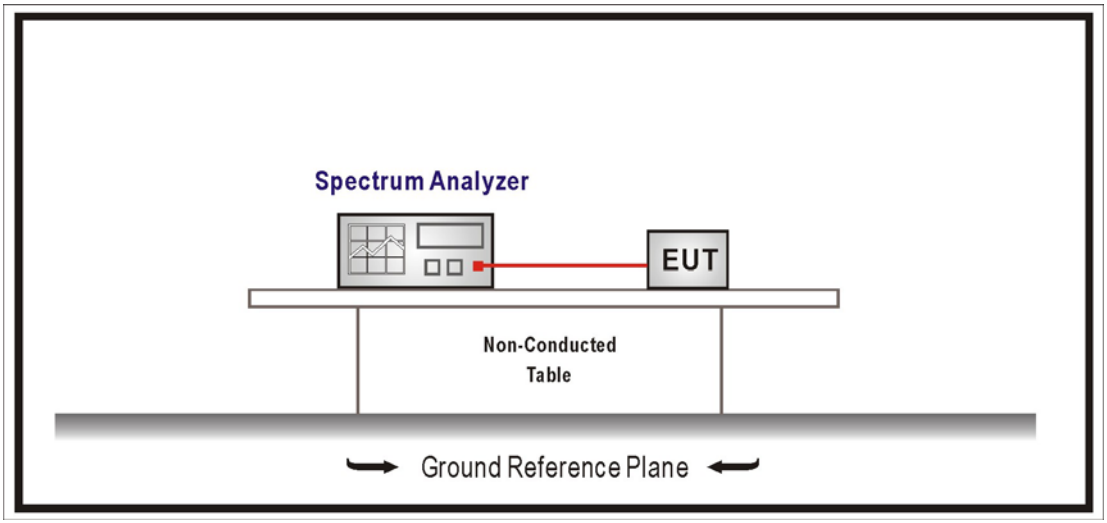
The following test equipments are used during the radiated emission tests:

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 V01R02 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

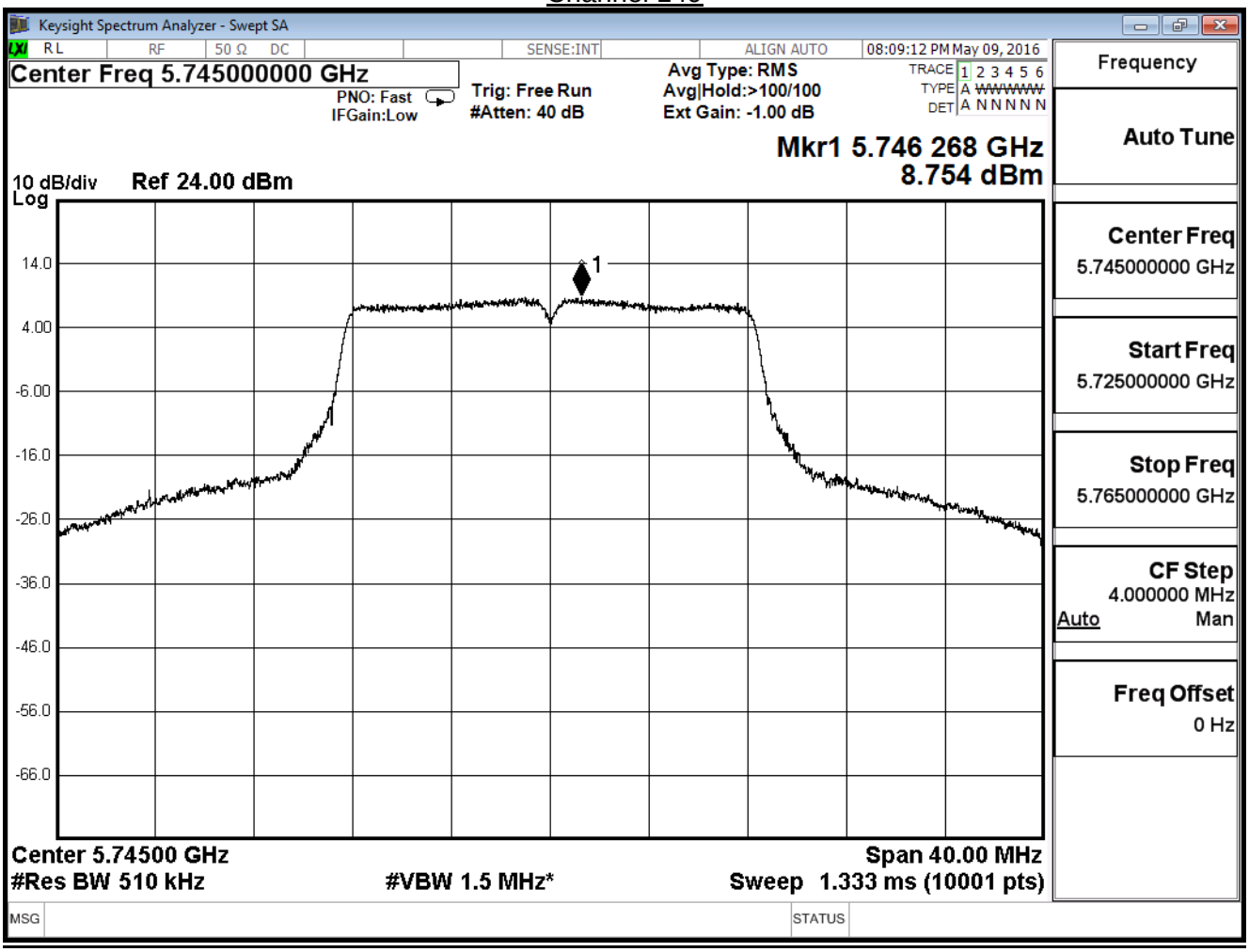
4.6. Test Result

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

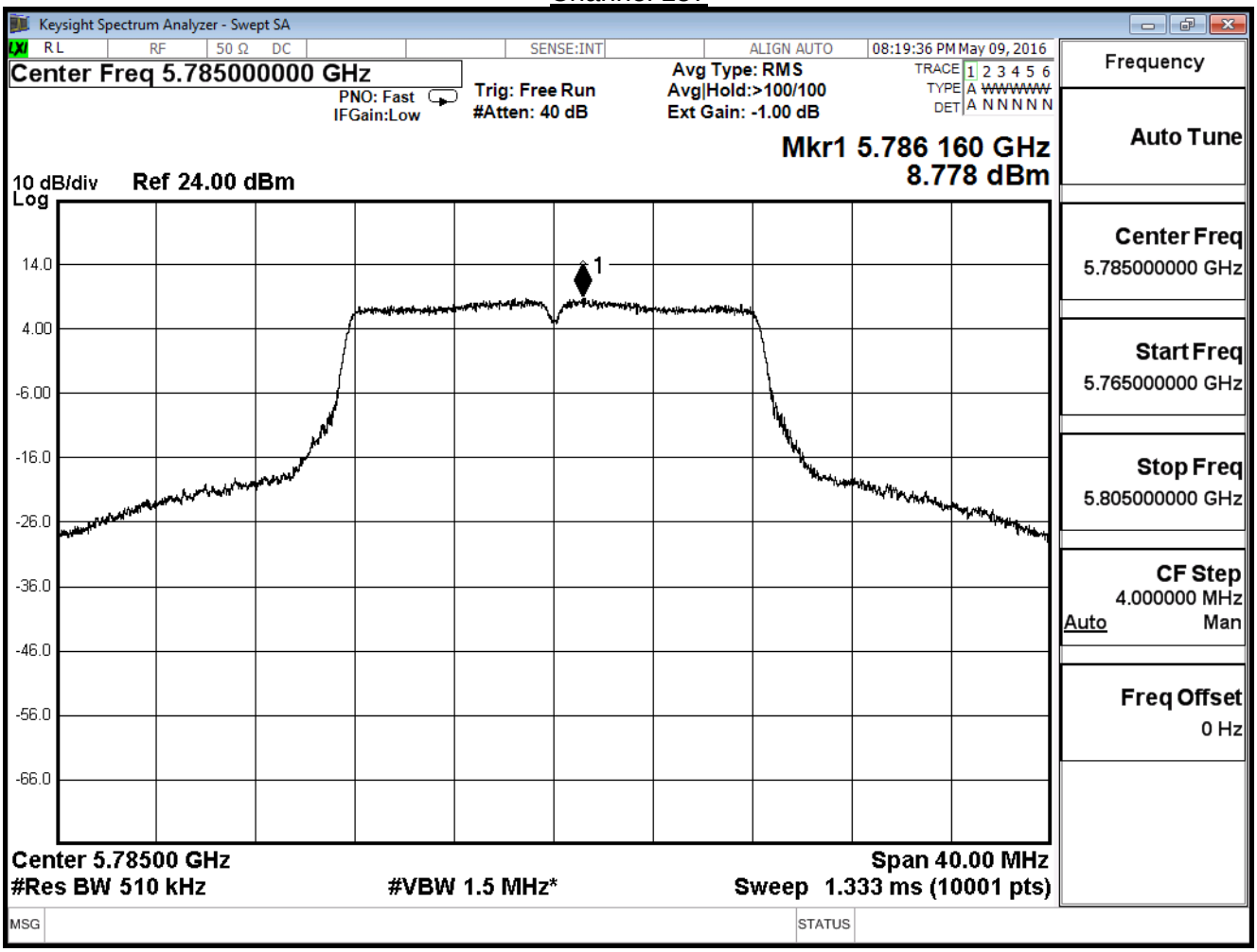
IEEE 802.11a (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	8.75	≦28.99	Pass
157	5785	5.78	≦28.99	Pass
165	5825	8.79	≦28.99	Pass

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

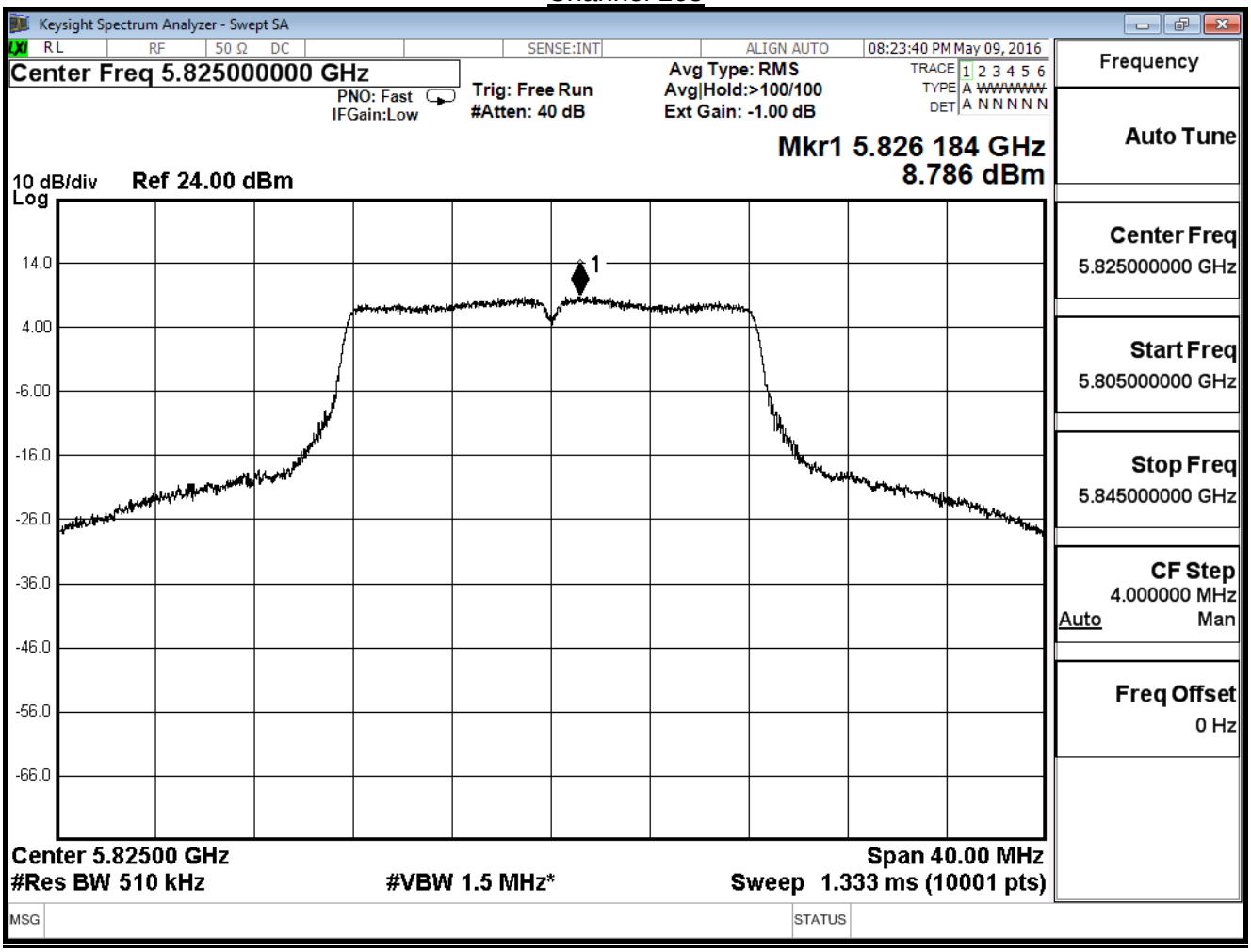
Channel 149



Channel 157


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:19:36 PM May 09, 2016
Center Freq 5.785000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.786 160 GHz
8.778 dBm
10 dB/div
Log
Ref 24.00 dBm
14.0
4.00
-6.00
-16.0
-26.0
-36.0
-46.0
-56.0
-66.0
Center 5.78500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 40.00 MHz
Sweep 1.333 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

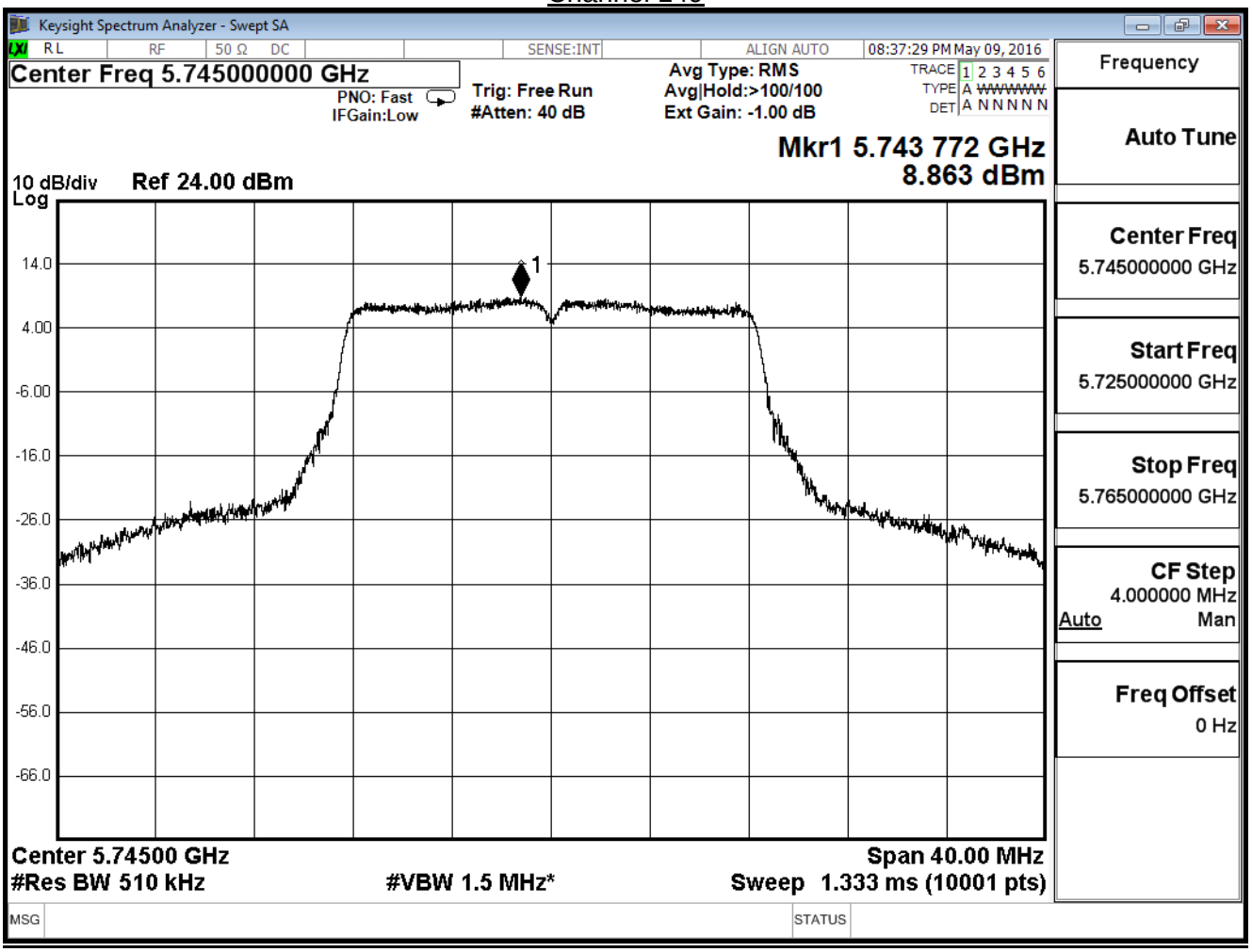

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:23:40 PM May 09, 2016
Center Freq 5.825000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.826 184 GHz
8.786 dBm
10 dB/div
Log
Ref 24.00 dBm
14.0
4.00
-6.00
-16.0
-26.0
-36.0
-46.0
-56.0
-66.0
Center 5.82500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 40.00 MHz
Sweep 1.333 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	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

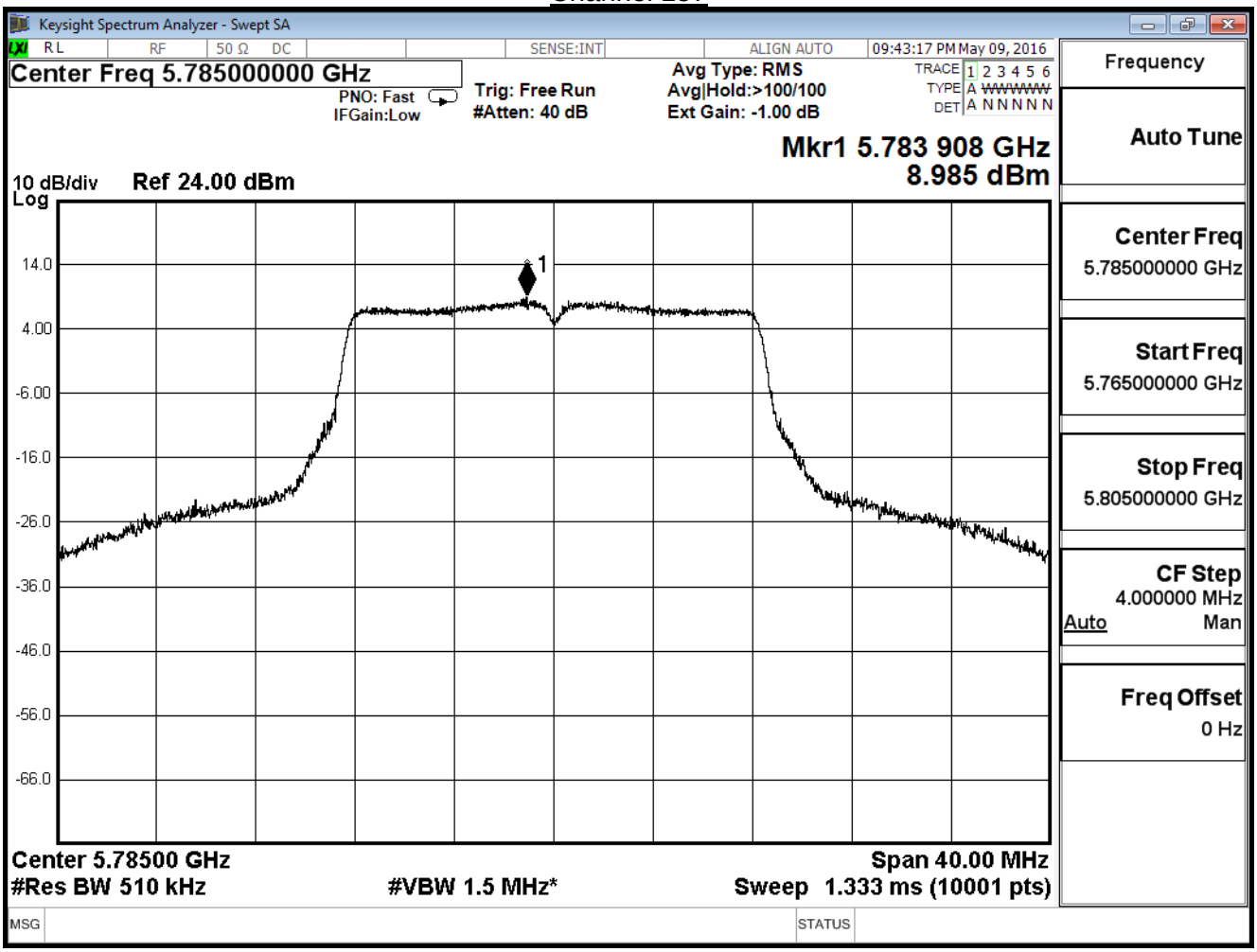
IEEE 802.11a (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	8.86	≦28.99	Pass
157	5785	8.99	≦28.99	Pass
165	5825	8.86	≦28.99	Pass

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

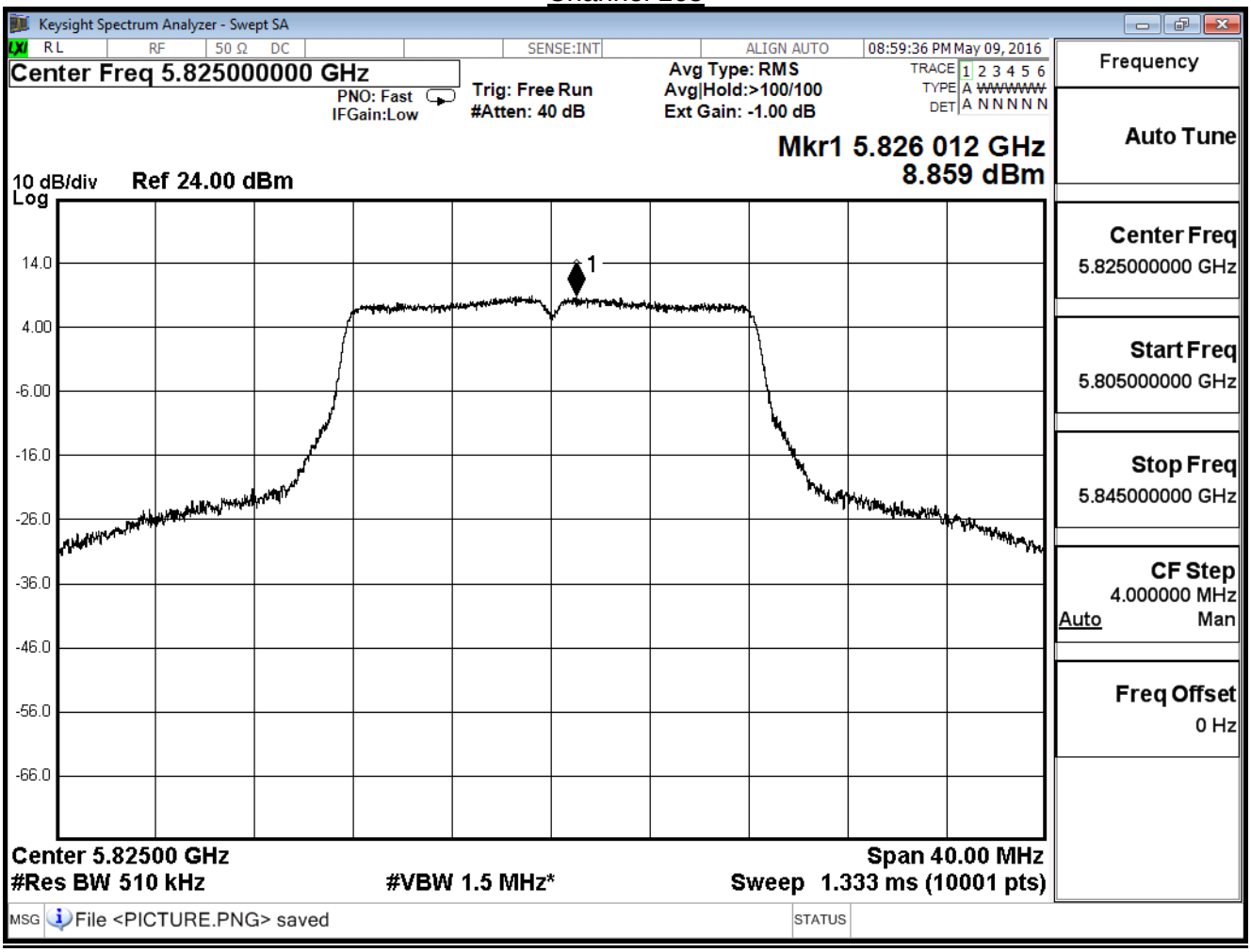
Channel 149



Channel 157


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:43:17 PM May 09, 2016
Center Freq 5.785000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.783 908 GHz
8.985 dBm
10 dB/div
Log
Ref 24.00 dBm
14.0
4.00
-6.00
-16.0
-26.0
-36.0
-46.0
-56.0
-66.0
Center 5.78500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 40.00 MHz
Sweep 1.333 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


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
08:59:36 PM May 09, 2016
Center Freq 5.825000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.826 012 GHz
8.859 dBm
10 dB/div
Log
Ref 24.00 dBm
14.0
4.00
-6.00
-16.0
-26.0
-36.0
-46.0
-56.0
-66.0
Center 5.82500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 40.00 MHz
Sweep 1.333 ms (10001 pts)
MSG
File <PICTURE.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	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11a (ANT 0+1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	11.82	≦28.99	Pass
157	5785	10.68	≦28.99	Pass
165	5825	11.83	≦28.99	Pass

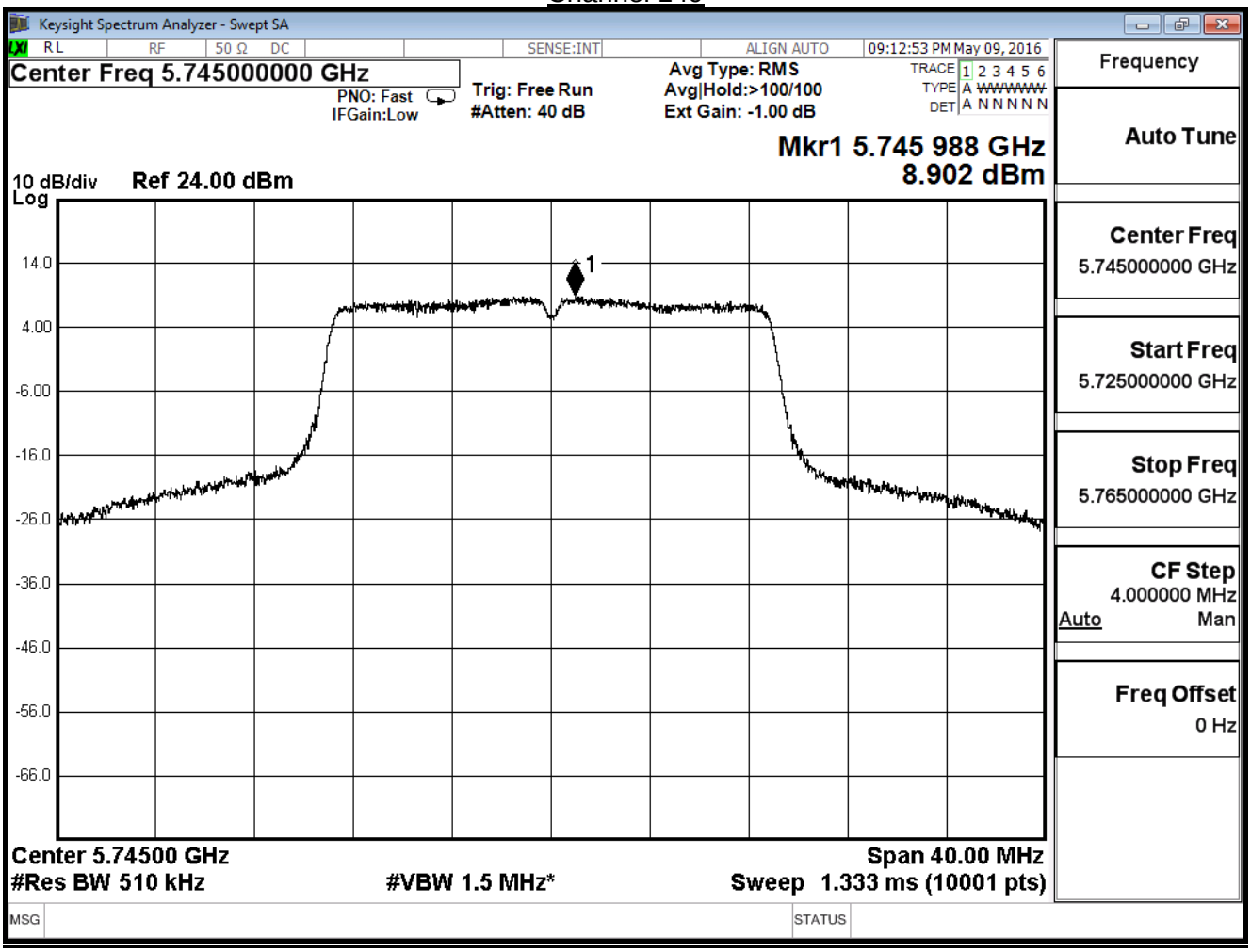
Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

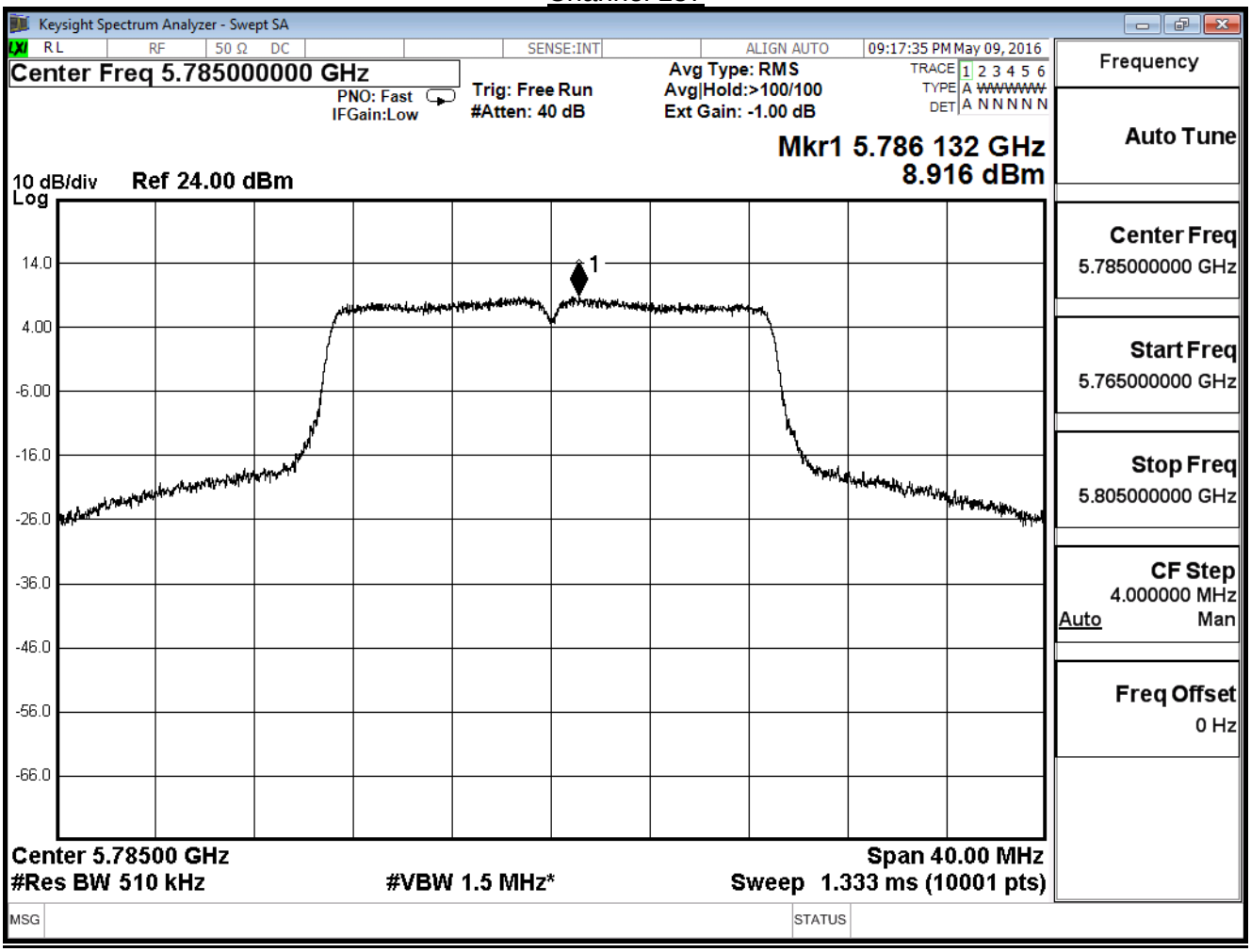
IEEE802.11n_20MHz_(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	8.90	≦28.99	Pass
157	5785	8.92	≦28.99	Pass
165	5825	8.61	≦28.99	Pass

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

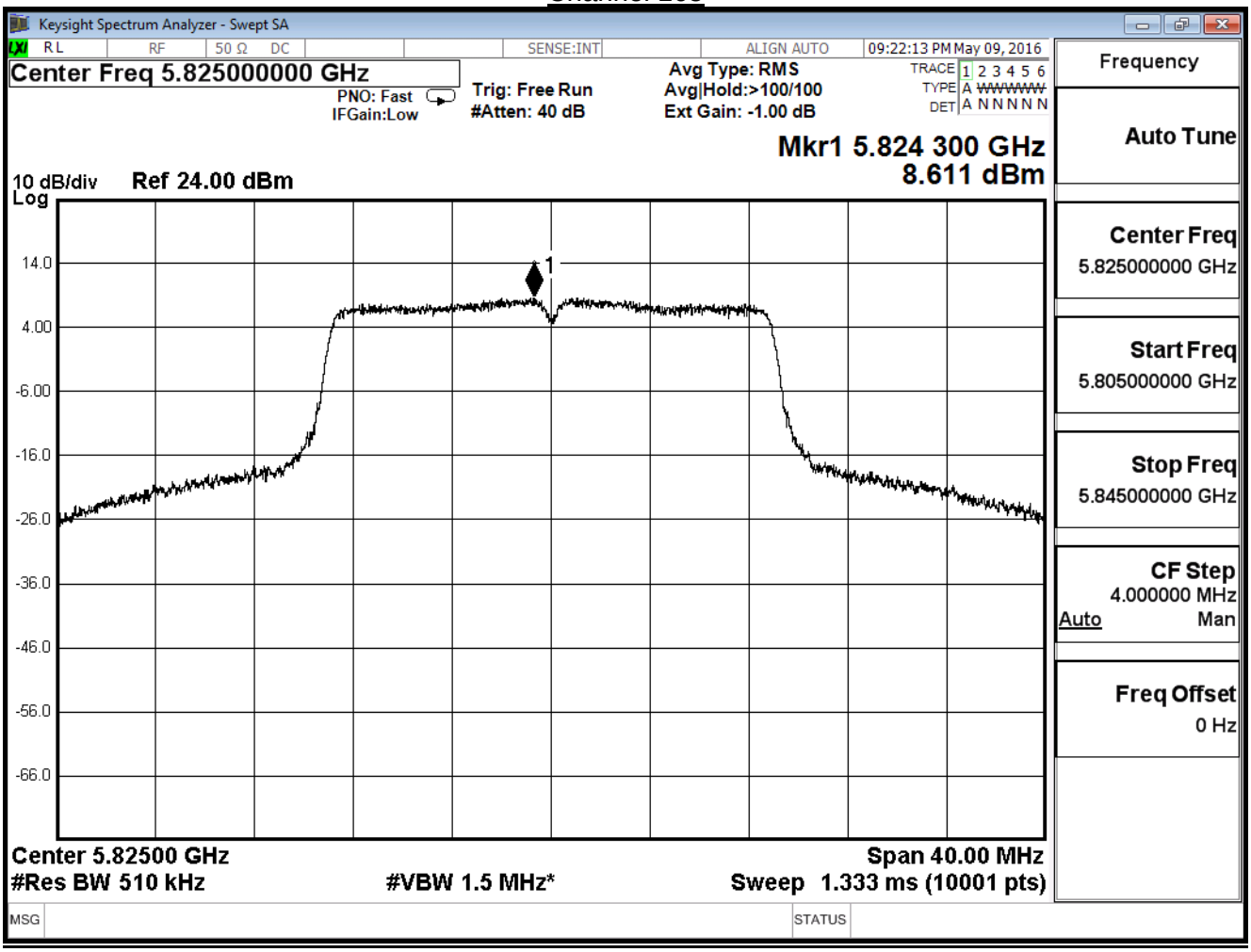
Channel 149



Channel 157


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:17:35 PM May 09, 2016
Center Freq 5.785000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.786 132 GHz
8.916 dBm
10 dB/div
Log
Ref 24.00 dBm
14.0
4.00
-6.00
-16.0
-26.0
-36.0
-46.0
-56.0
-66.0
1
Center 5.78500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 40.00 MHz
Sweep 1.333 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

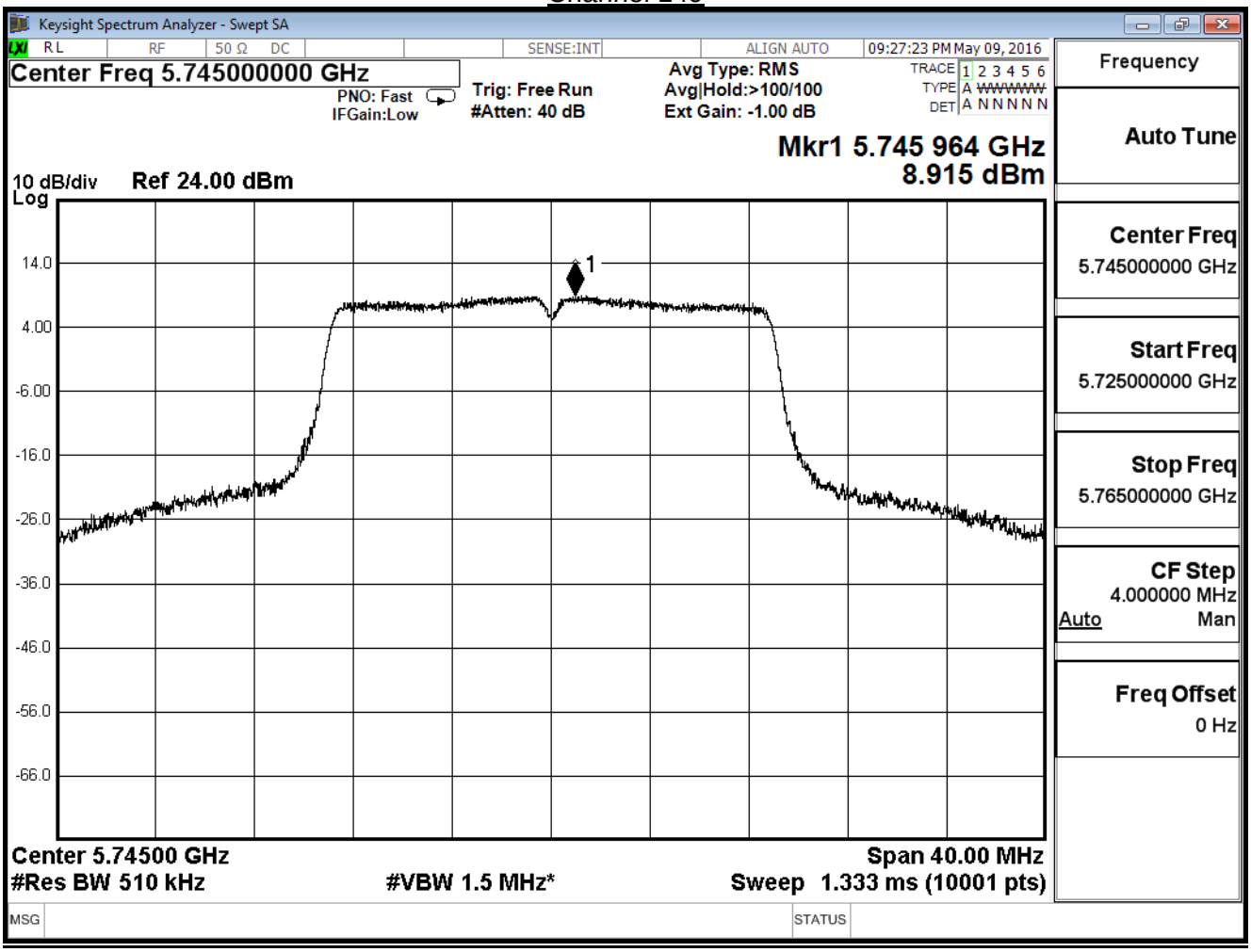

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:22:13 PM May 09, 2016
Center Freq 5.825000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.824 300 GHz
8.611 dBm
10 dB/div
Log
Ref 24.00 dBm
14.0
4.00
-6.00
-16.0
-26.0
-36.0
-46.0
-56.0
-66.0
Center 5.82500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 40.00 MHz
Sweep 1.333 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	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

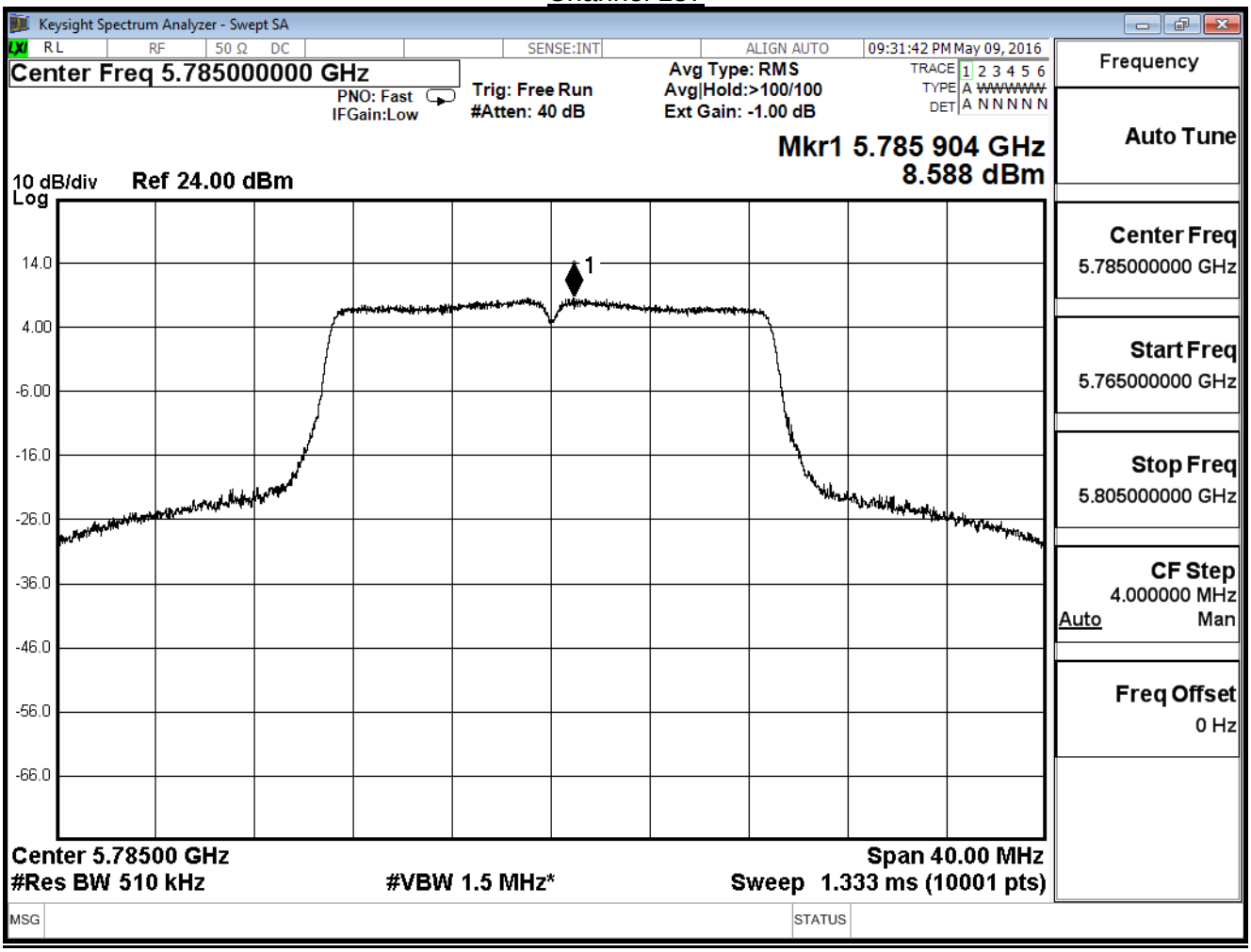
IEEE802.11n_20MHz_(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	8.92	≦28.99	Pass
157	5785	8.59	≦28.99	Pass
165	5825	8.64	≦28.99	Pass

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

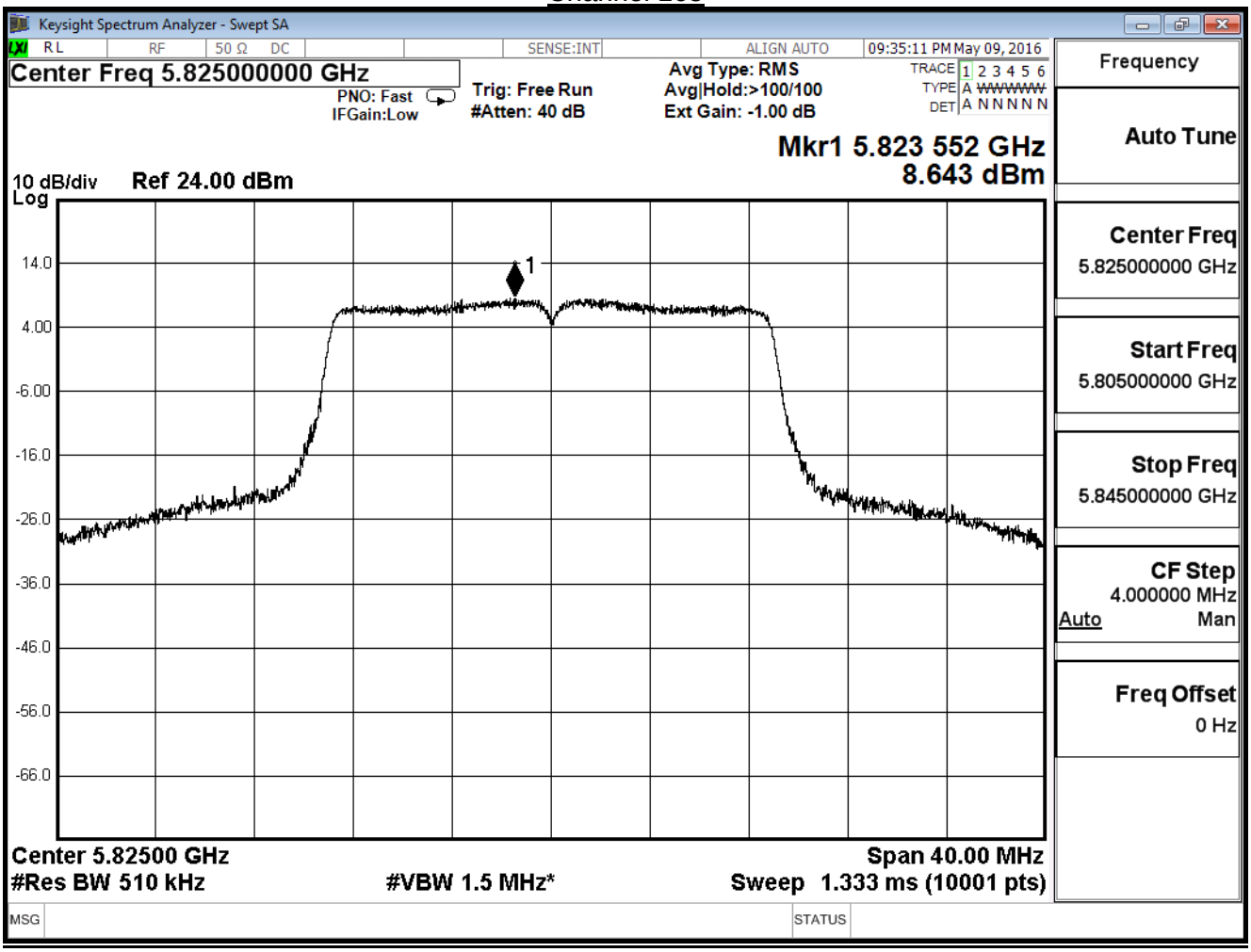
Channel 149



Channel 157


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:31:42 PM May 09, 2016
Center Freq 5.785000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.785 904 GHz
8.588 dBm
10 dB/div
Log
Ref 24.00 dBm
14.0
4.00
-6.00
-16.0
-26.0
-36.0
-46.0
-56.0
-66.0
1
Center 5.78500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 40.00 MHz
Sweep 1.333 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


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:35:11 PM May 09, 2016
Center Freq 5.825000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.823 552 GHz
8.643 dBm
10 dB/div
Log
Ref 24.00 dBm
14.0
4.00
-6.00
-16.0
-26.0
-36.0
-46.0
-56.0
-66.0
Center 5.82500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 40.00 MHz
Sweep 1.333 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	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	11.92	≦28.99	Pass
157	5785	11.77	≦28.99	Pass
165	5825	11.64	≦28.99	Pass

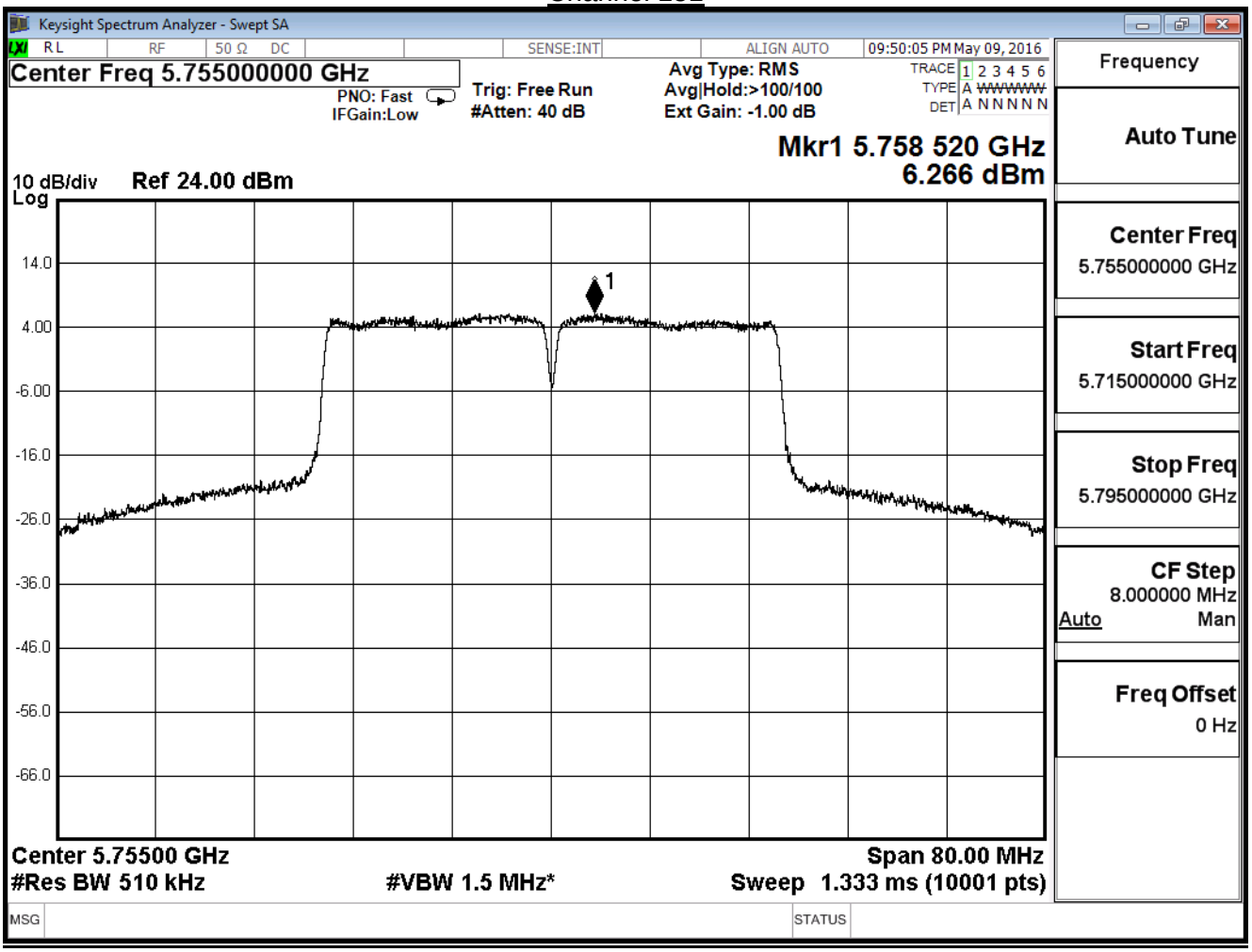
Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi

Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

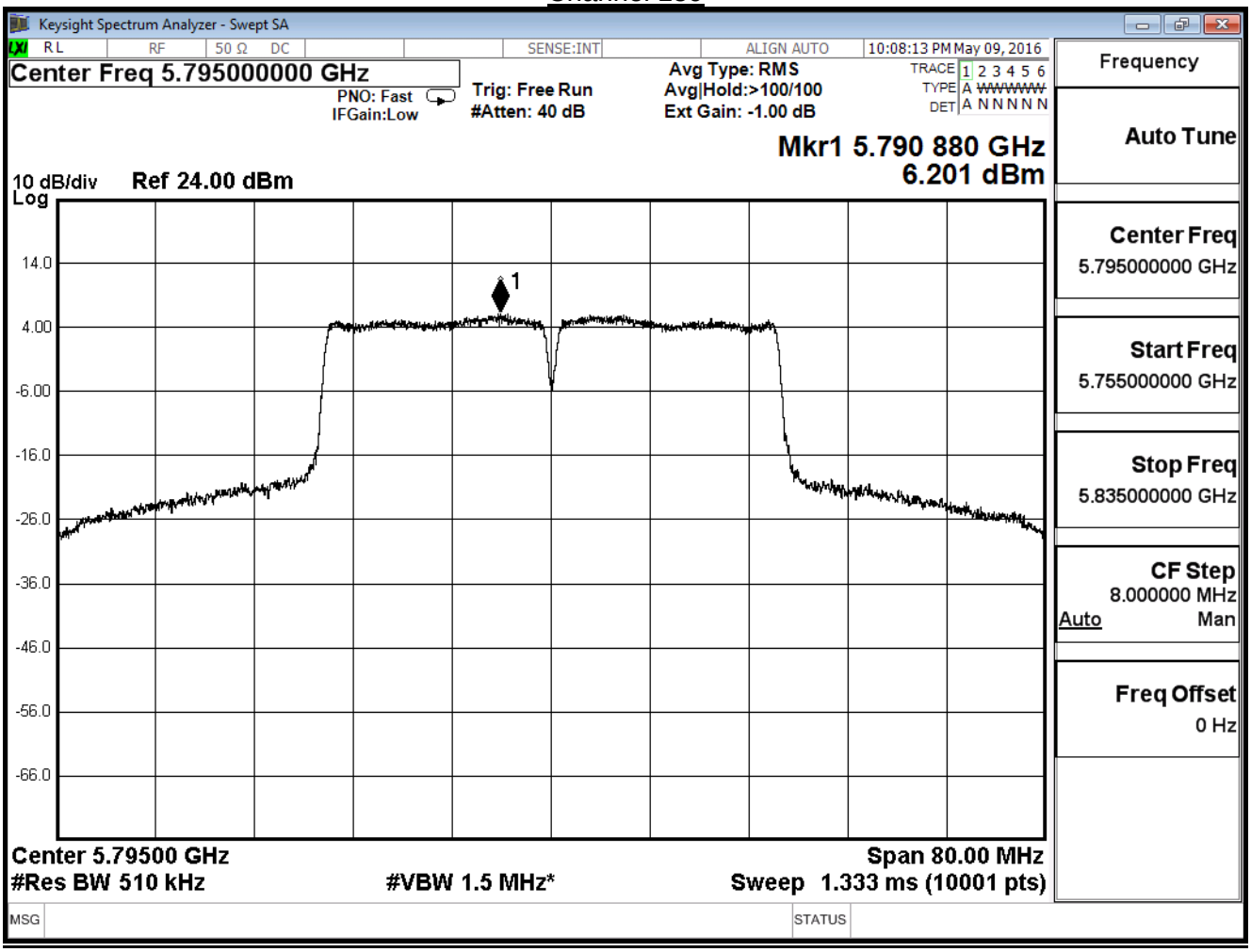
IEEE 802.11n_40MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	6.27	≦28.99	Pass
159	5795	6.20	≦28.99	Pass

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

Channel 151



Channel 159

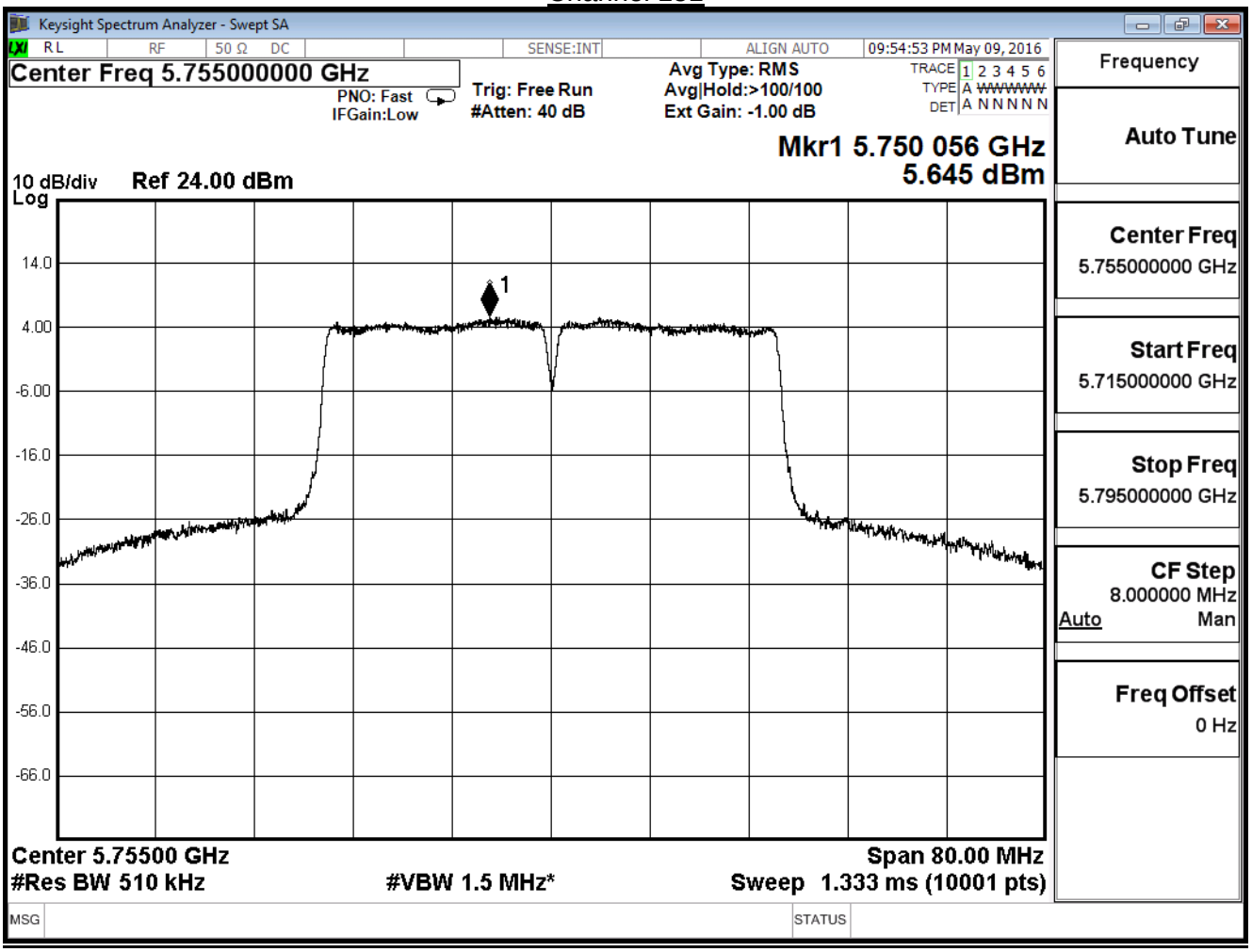

Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
10:08:13 PM May 09, 2016
Center Freq 5.795000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.790 880 GHz
6.201 dBm
10 dB/div
Log
Ref 24.00 dBm
14.0
4.00
-6.00
-16.0
-26.0
-36.0
-46.0
-56.0
-66.0
Center 5.79500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 80.00 MHz
Sweep 1.333 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	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

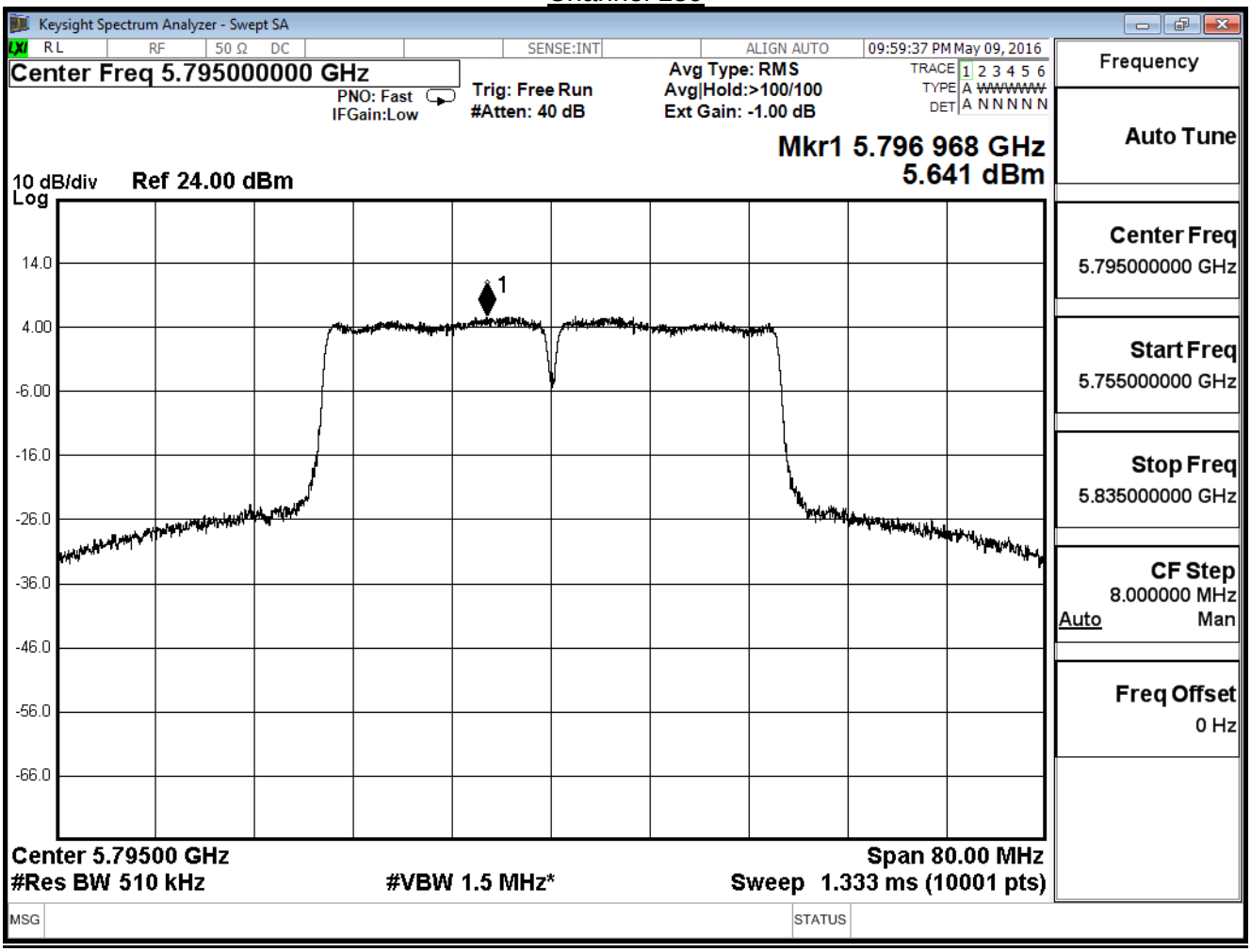
IEEE 802.11n_40MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	5.65	≦28.99	Pass
159	5795	5.64	≦28.99	Pass

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

Channel 151



Channel 159


Keysight Spectrum Analyzer - Swept SA
RL
RF
50 Ω DC
SENSE:INT
ALIGN AUTO
09:59:37 PM May 09, 2016
Center Freq 5.795000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.796 968 GHz
5.641 dBm
10 dB/div
Log
Ref 24.00 dBm
14.0
4.00
-6.00
-16.0
-26.0
-36.0
-46.0
-56.0
-66.0
1
Center 5.79500 GHz
#Res BW 510 kHz
#VBW 1.5 MHz*
Span 80.00 MHz
Sweep 1.333 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	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/09	Test Site	SR7

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	8.98	≦28.99	Pass
159	5795	8.94	≦28.99	Pass

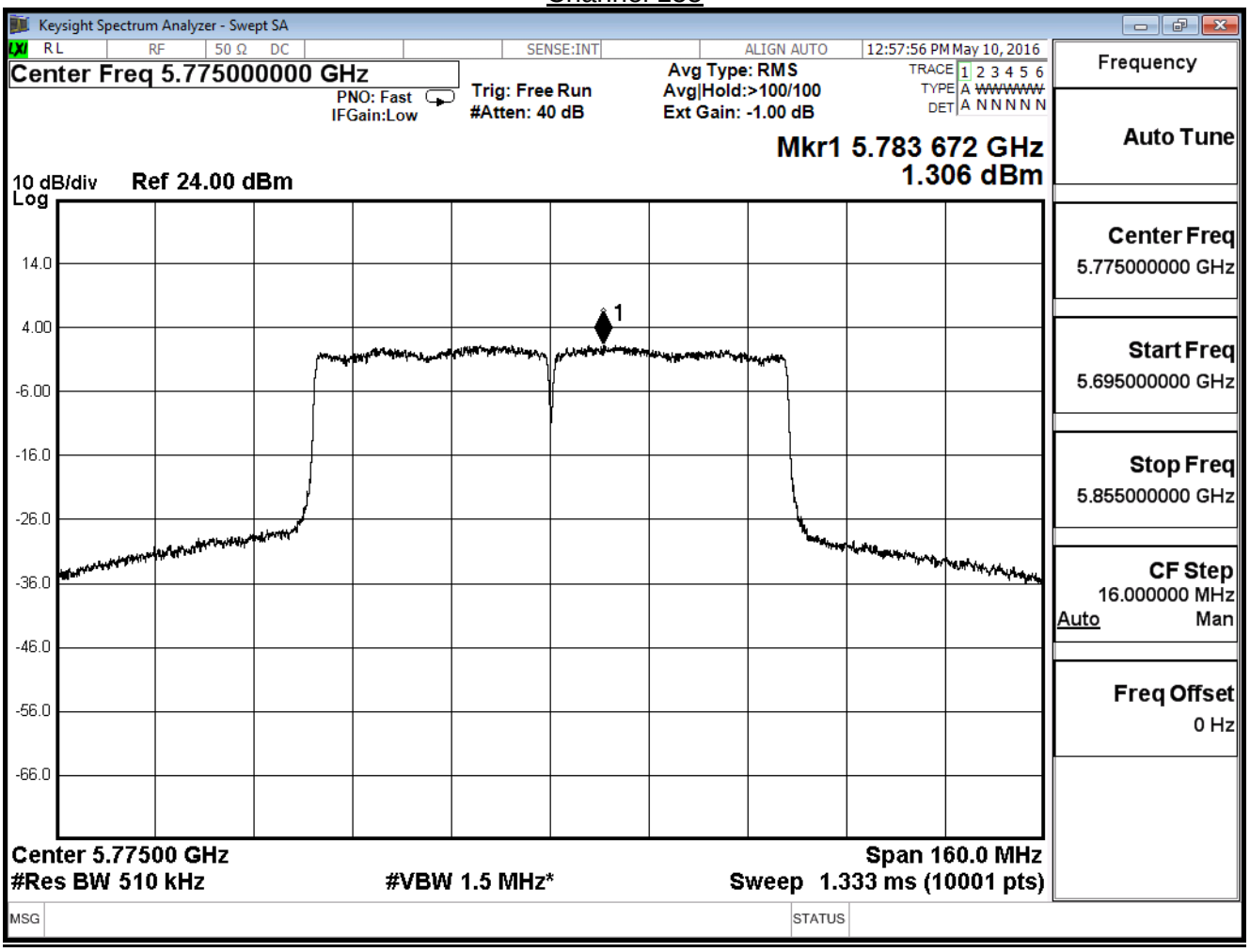
Total Gain: 10log(ANT N)+max Gain = 7.01dBi
Limit=30-(7.01dBi-6dBi)=28.99dBi

Product	PCE-AC56 Dual-Band Wireless 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)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	1.31	≦28.99	Pass

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

Channel 155

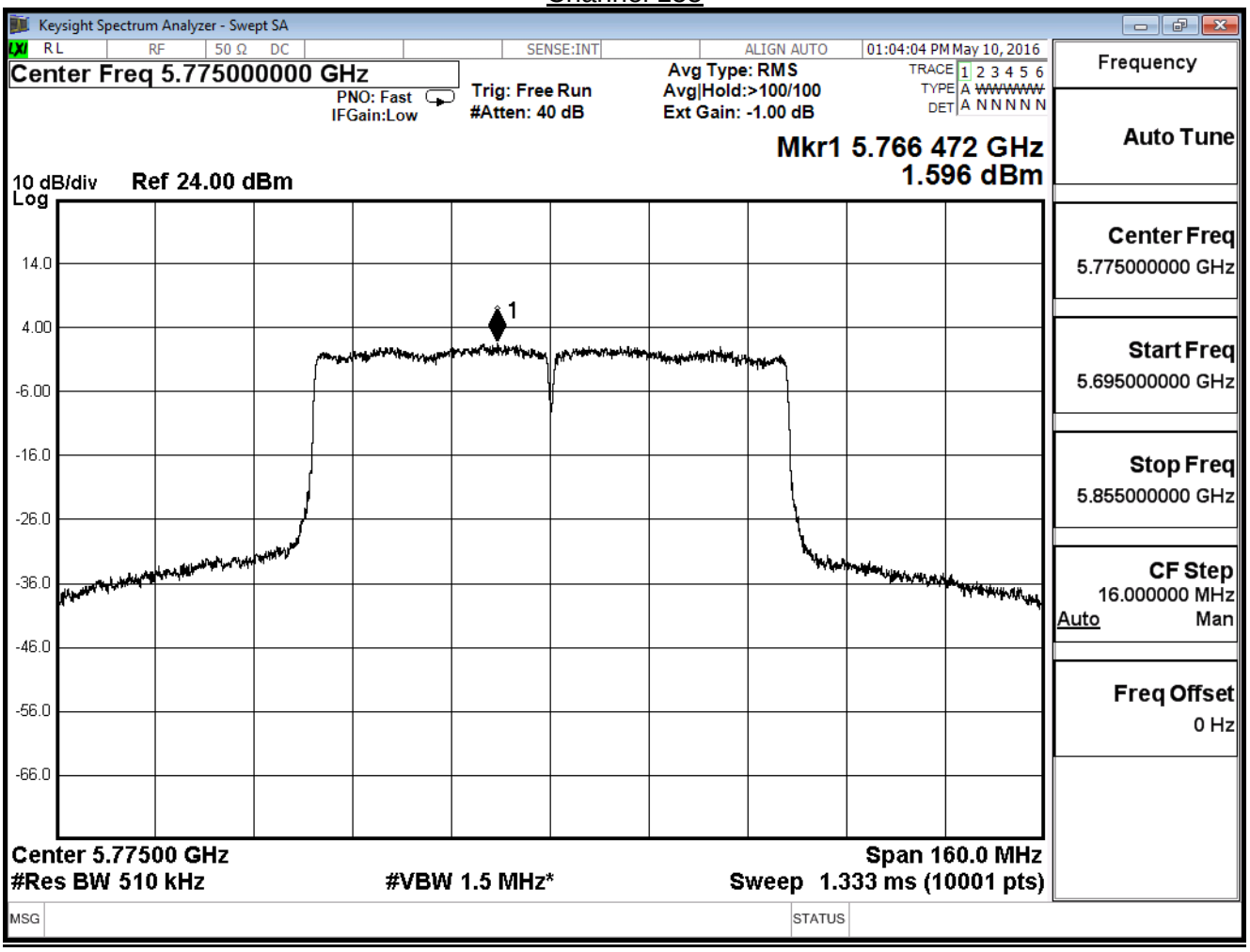


Product	PCE-AC56 Dual-Band Wireless PCI-E Adapter		
Test Item	Peak Power Spectrum Density		
Test Mode	Mode 1: Transmit_CDD Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac_80MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	1.60	≦28.99	Pass

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

Channel 155



Product	PCE-AC56 Dual-Band Wireless 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)

Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
155	5775	4.46	≦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:

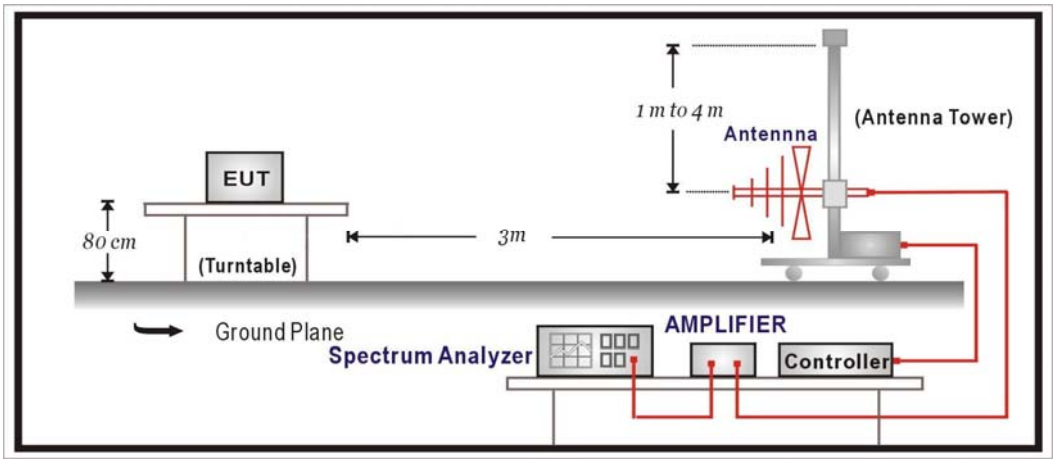
Radiated Emission / CB1

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

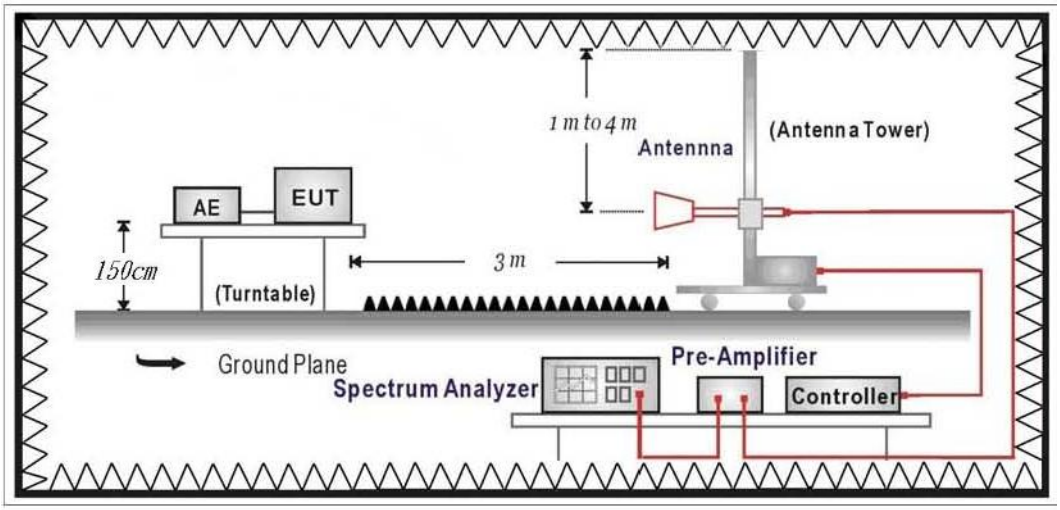
Note: All equipments that need to calibrate are with calibration period of 1 year.

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.

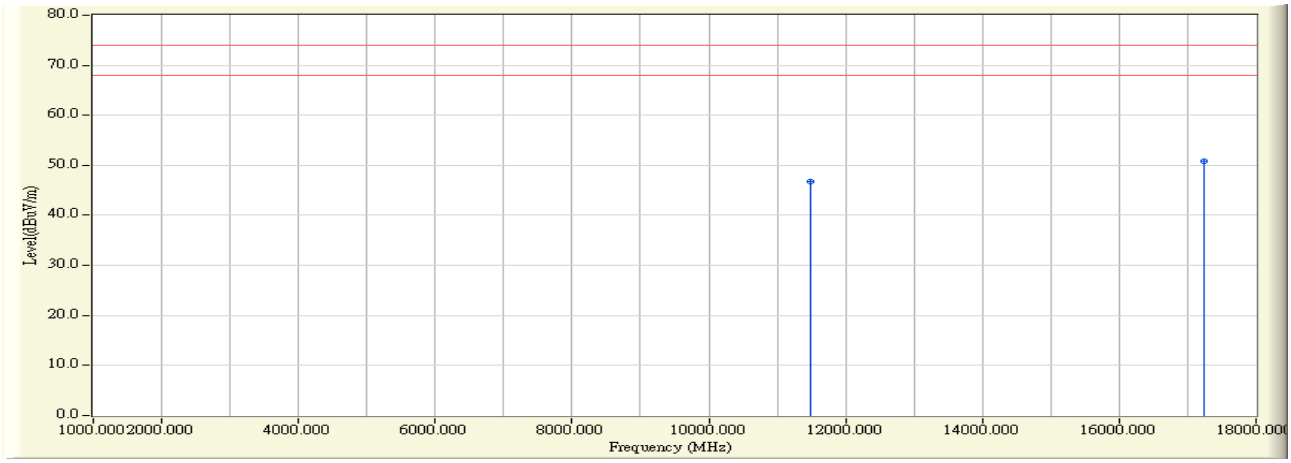
5.5. Uncertainty

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

5.6. Test Result

Above 1GHz Spurious

Site : CB1	**Time : 2016/04/27 - 13:13**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

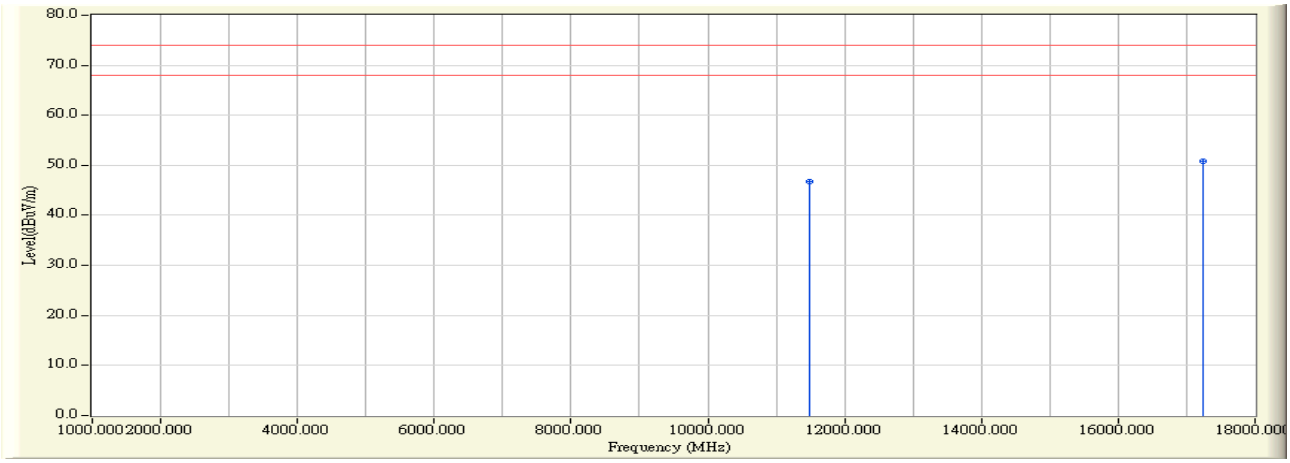


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11490.000	11.040	35.700	46.739	-27.261	74.000	PEAK
2	*	17235.000	14.361	36.550	50.912	-23.088	74.000	PEAK

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 : 2016/04/27 - 13:15**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

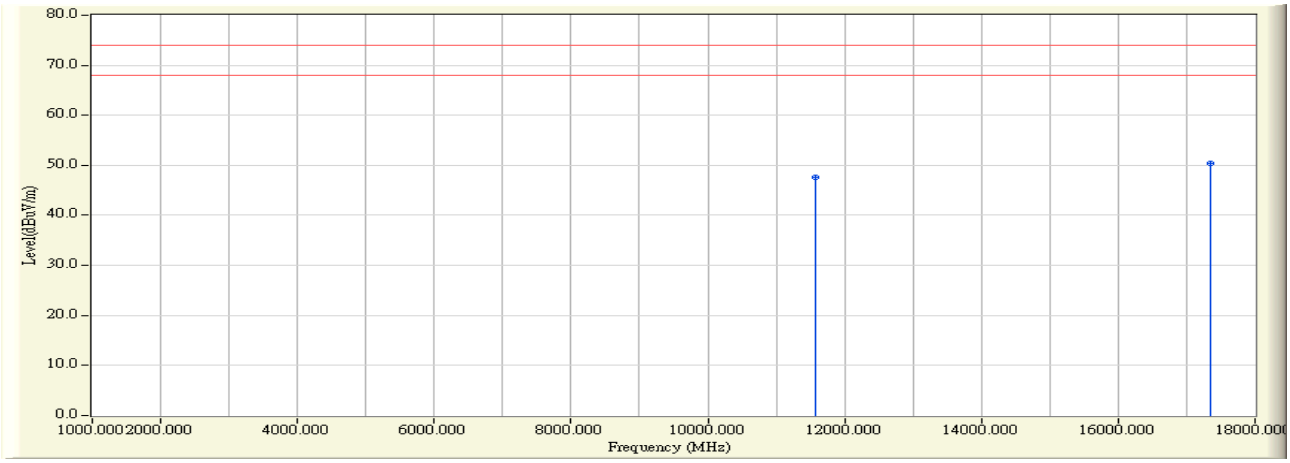


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11490.000	10.786	36.010	46.796	-27.204	74.000	PEAK
2	*	17235.000	14.361	36.380	50.742	-23.258	74.000	PEAK

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 : 2016/04/27 - 13:20**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

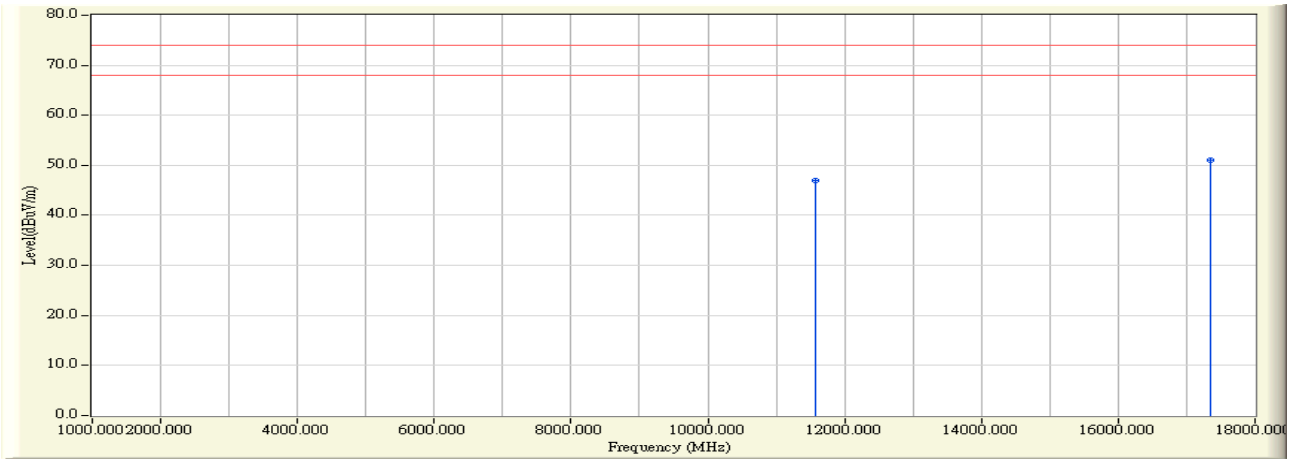


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11570.000	10.940	36.650	47.590	-26.410	74.000	PEAK
2	*	17355.000	14.937	35.380	50.317	-23.683	74.000	PEAK

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 : 2016/04/27 - 13:22**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

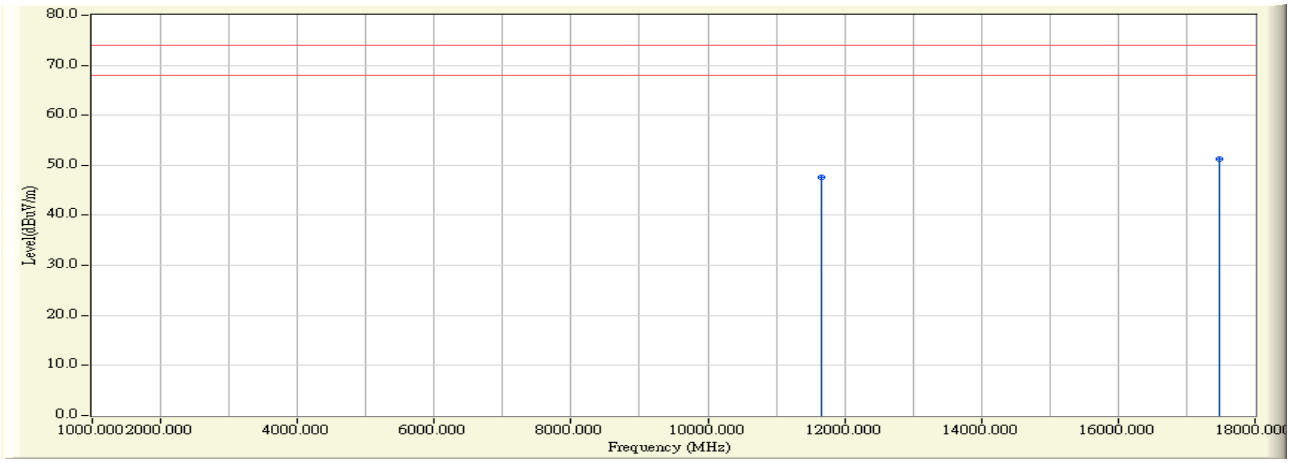


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11570.000	10.647	36.300	46.947	-27.053	74.000	PEAK
2	*	17355.000	14.937	36.110	51.047	-22.953	74.000	PEAK

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 : 2016/04/27 - 13:27**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

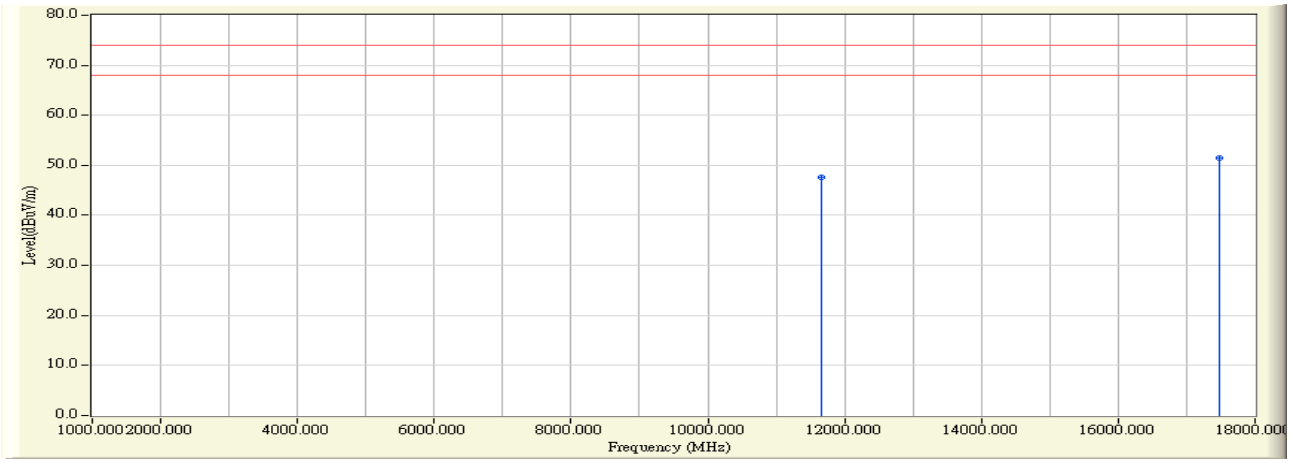


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11650.000	10.842	36.860	47.701	-26.299	74.000	PEAK
2	*	17475.000	15.519	35.770	51.289	-22.711	74.000	PEAK

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 : 2016/04/27 - 13:30**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

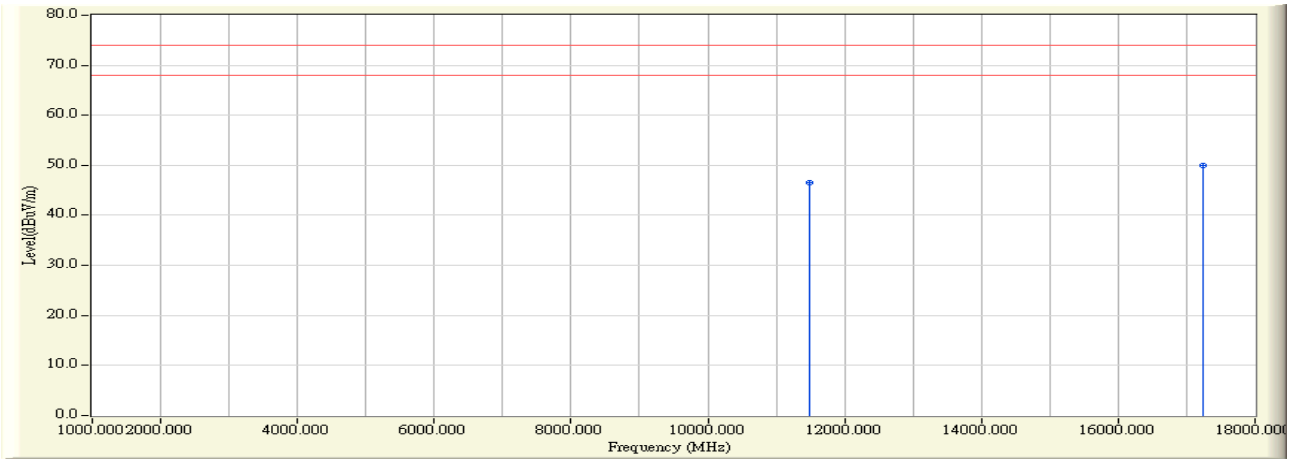


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11650.000	10.508	37.020	47.528	-26.472	74.000	PEAK
2	*	17475.000	15.519	35.850	51.369	-22.631	74.000	PEAK

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 : 2016/04/27 - 13:33**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

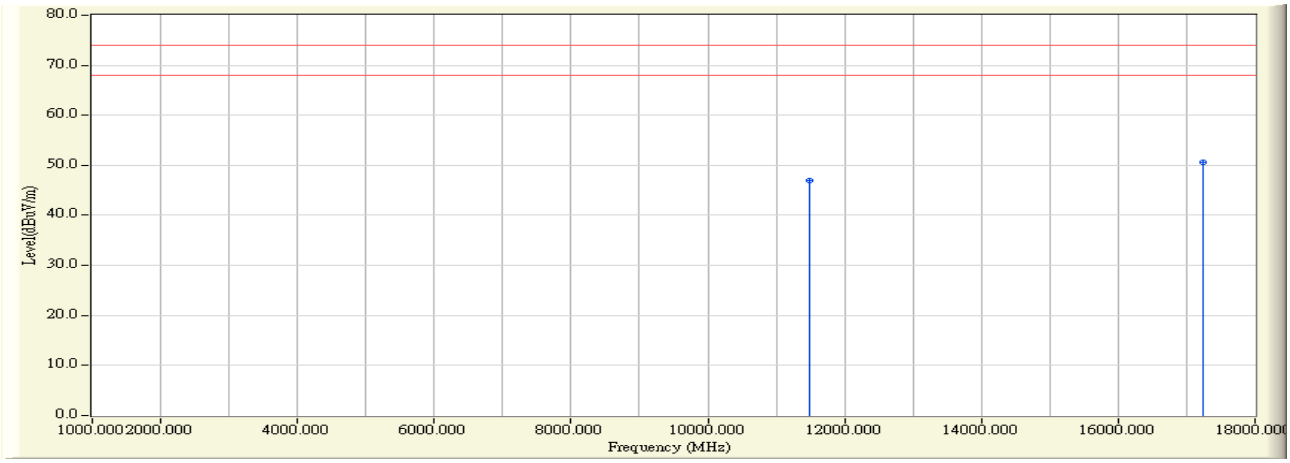


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11490.000	11.040	35.500	46.539	-27.461	74.000	PEAK
2	*	17235.000	14.361	35.710	50.072	-23.928	74.000	PEAK

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 : 2016/04/27 - 13:35**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

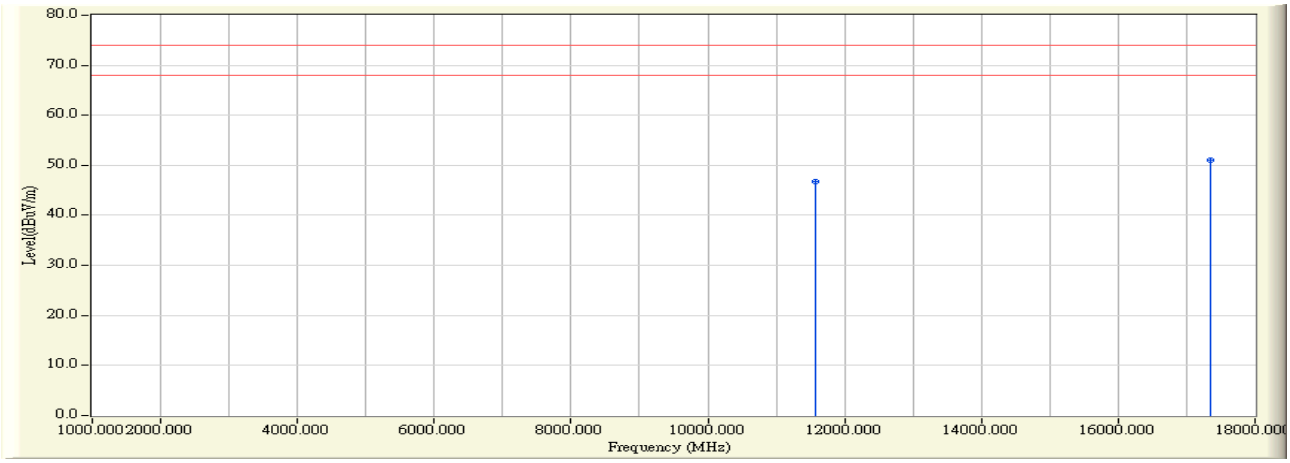


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11490.000	10.786	36.100	46.886	-27.114	74.000	PEAK
2	*	17235.000	14.361	36.250	50.612	-23.388	74.000	PEAK

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 : 2016/04/27 - 13:38**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

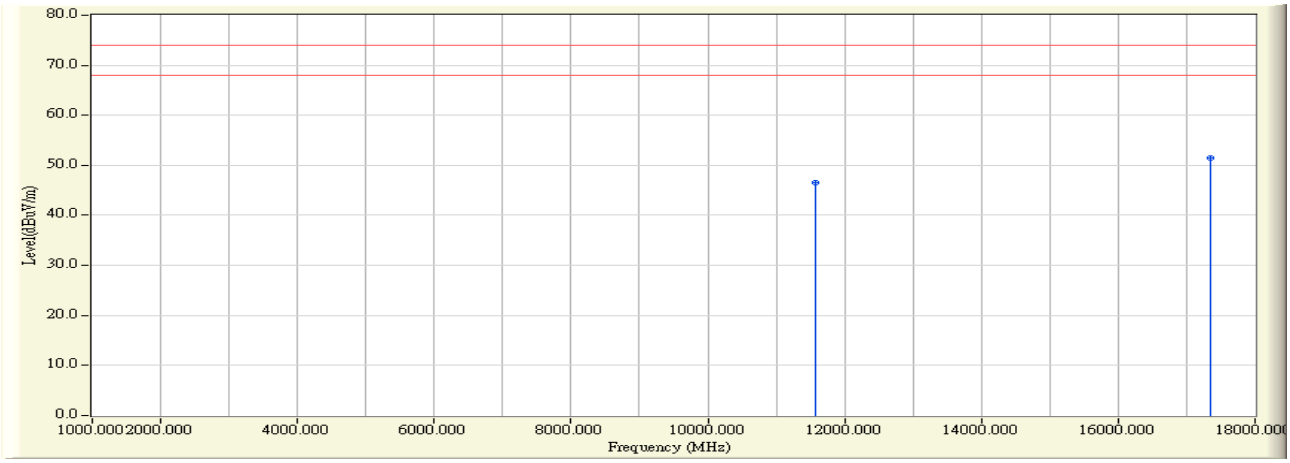


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11570.000	10.940	35.780	46.720	-27.280	74.000	PEAK
2	*	17355.000	14.937	36.120	51.057	-22.943	74.000	PEAK

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 : 2016/04/27 - 13:41**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

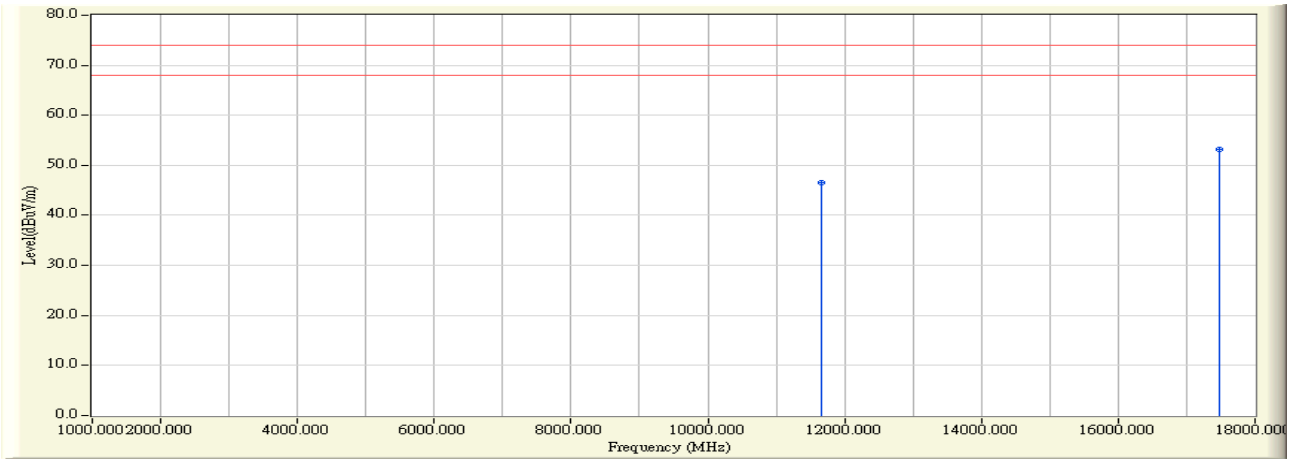


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11570.000	10.647	35.910	46.557	-27.443	74.000	PEAK
2	*	17355.000	14.937	36.610	51.547	-22.453	74.000	PEAK

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 : 2016/04/27 - 13:53**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

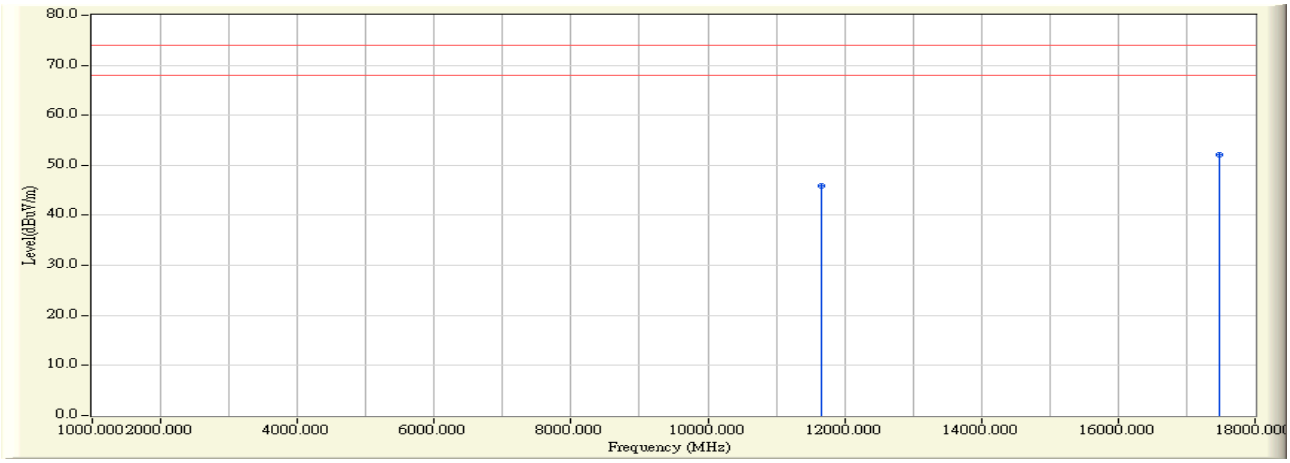


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11650.000	10.842	35.750	46.591	-27.409	74.000	PEAK
2	*	17475.000	15.519	37.730	53.249	-20.751	74.000	PEAK

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 : 2016/04/27 - 13:55**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

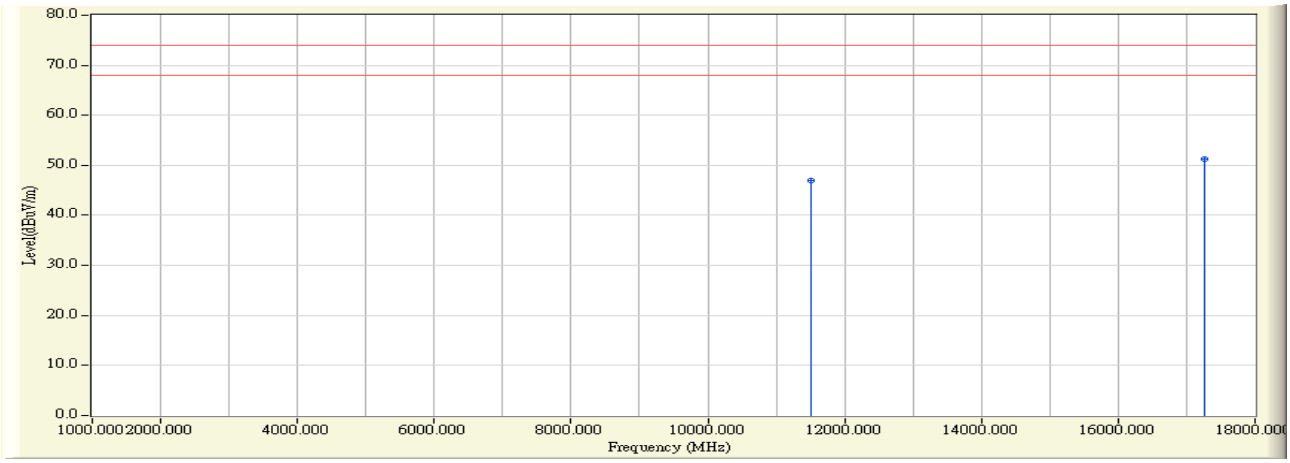


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11650.000	10.508	35.470	45.978	-28.022	74.000	PEAK
2	*	17475.000	15.519	36.650	52.169	-21.831	74.000	PEAK

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 : 2016/04/27 - 13:59**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

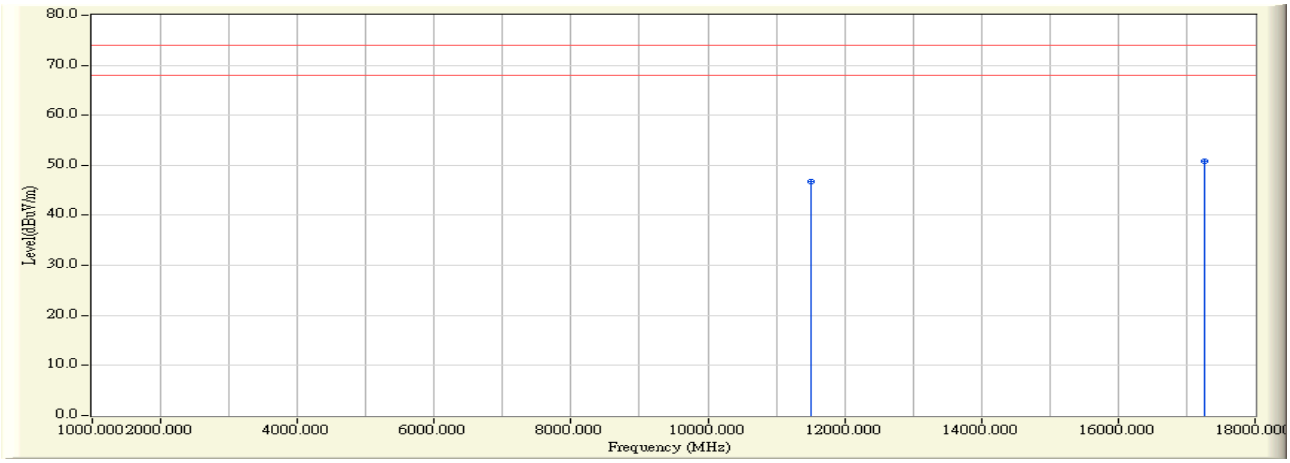


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11510.000	11.014	36.000	47.015	-26.985	74.000	PEAK
2	*	17265.000	14.505	36.750	51.255	-22.745	74.000	PEAK

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 : 2016/04/27 - 14:02**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

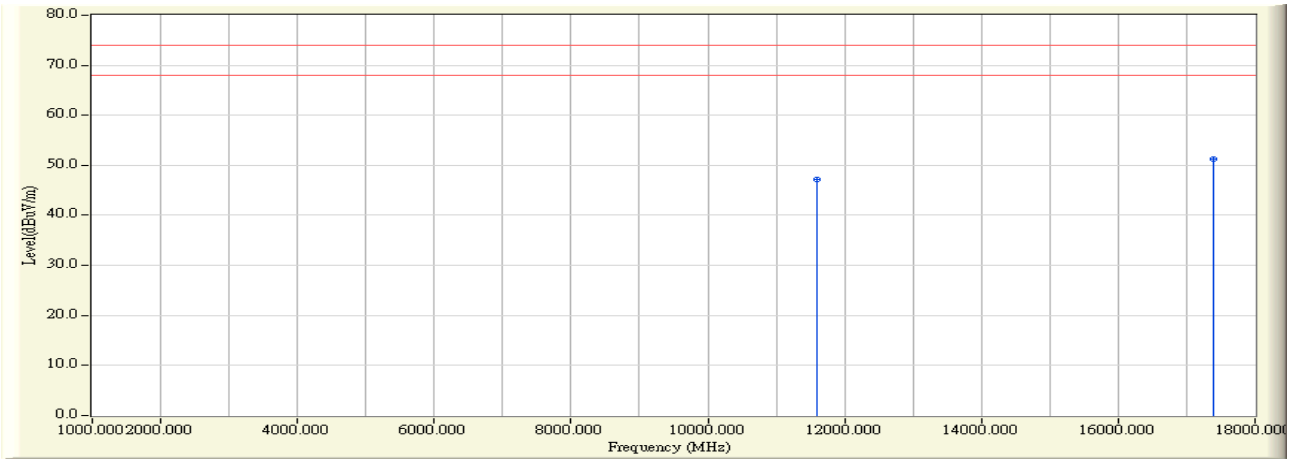


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11510.000	10.751	36.090	46.841	-27.159	74.000	PEAK
2	*	17265.000	14.505	36.370	50.875	-23.125	74.000	PEAK

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 : 2016/04/27 - 14:05**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

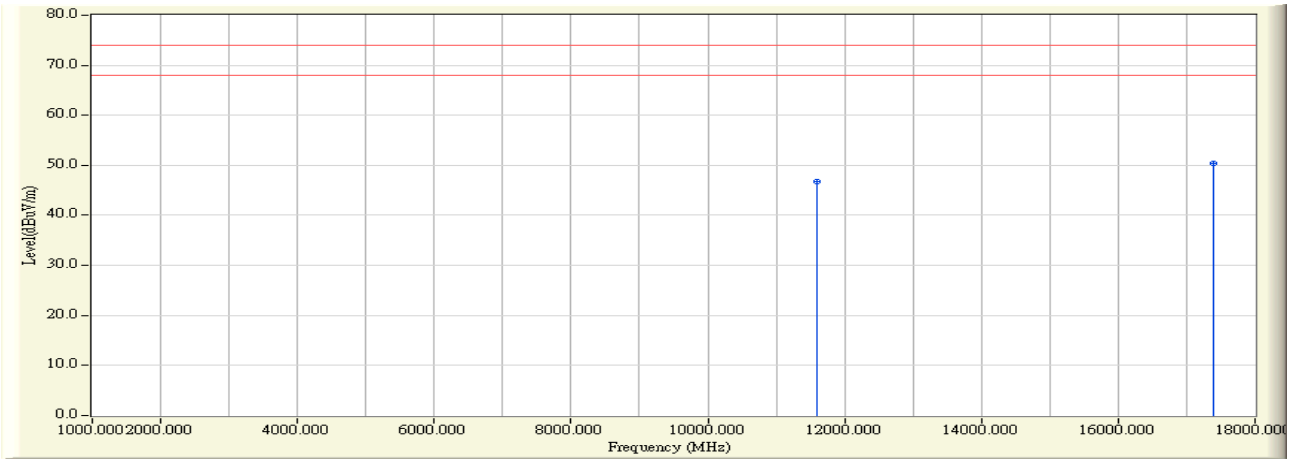


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11590.000	10.916	36.340	47.256	-26.744	74.000	PEAK
2	*	17385.000	15.081	36.180	51.261	-22.739	74.000	PEAK

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 : 2016/04/27 - 14:08**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

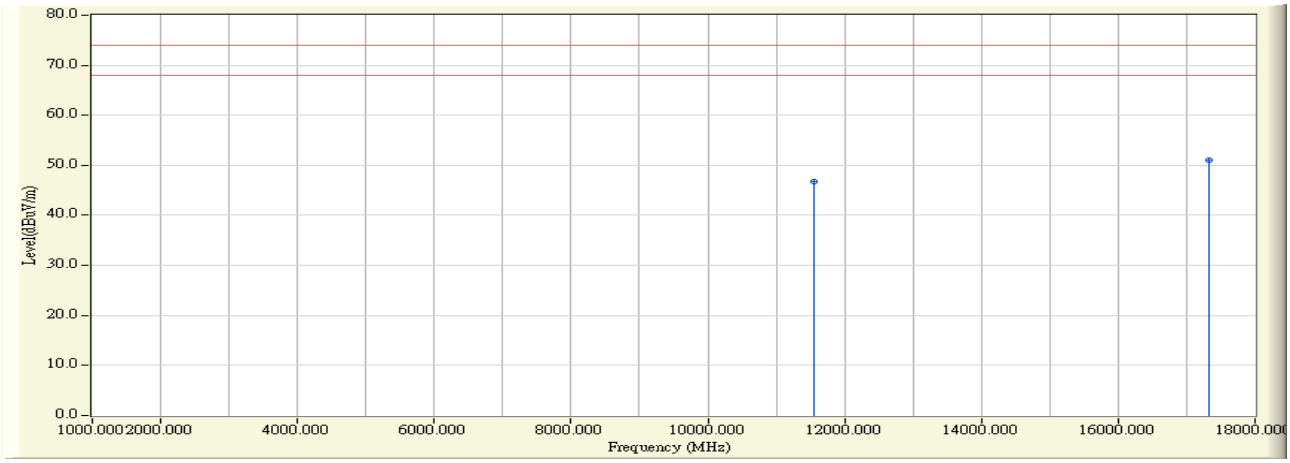


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11590.000	10.612	36.250	46.862	-27.138	74.000	PEAK
2	*	17385.000	15.081	35.420	50.501	-23.499	74.000	PEAK

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 : 2016/04/27 - 14:11**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**

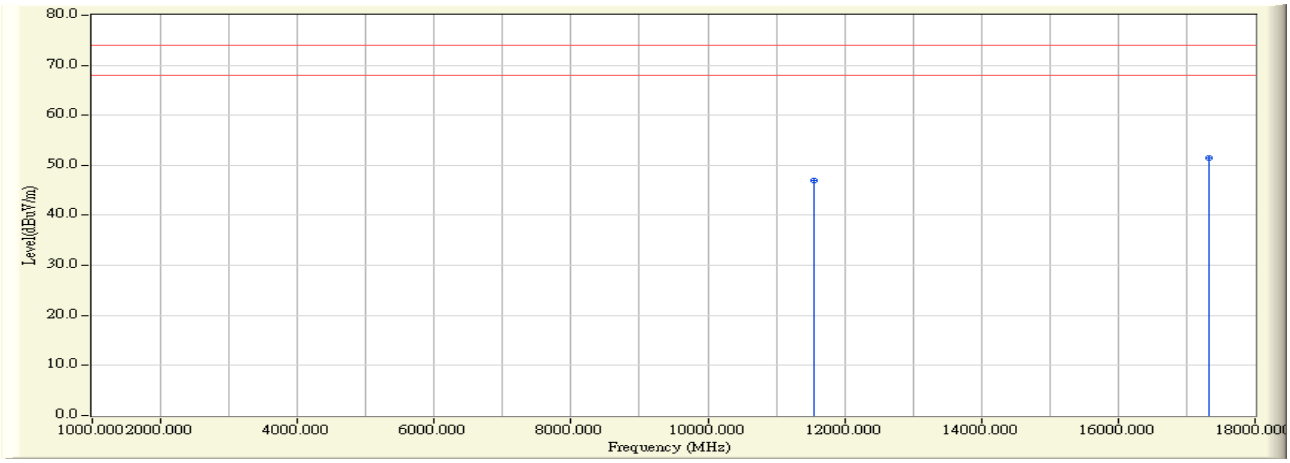


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11550.000	10.966	35.720	46.685	-27.315	74.000	PEAK
2	*	17325.000	14.793	36.230	51.023	-22.977	74.000	PEAK

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 : 2016/04/27 - 14:14**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless 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		11550.000	10.682	36.290	46.972	-27.028	74.000	PEAK
2	*	17325.000	14.793	36.680	51.473	-22.527	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.

6. Band Edge

6.1. Test Equipment

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

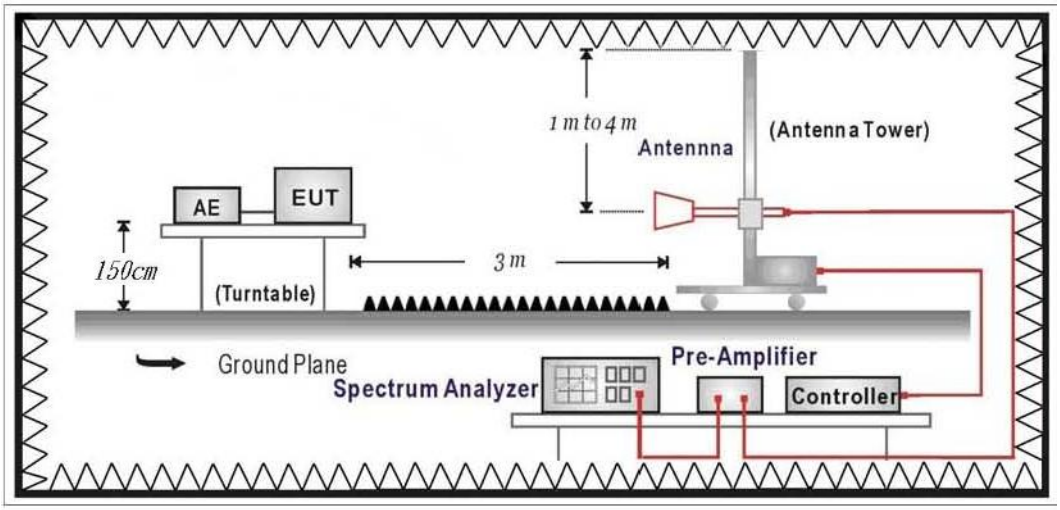
Band Edge / CB1

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.

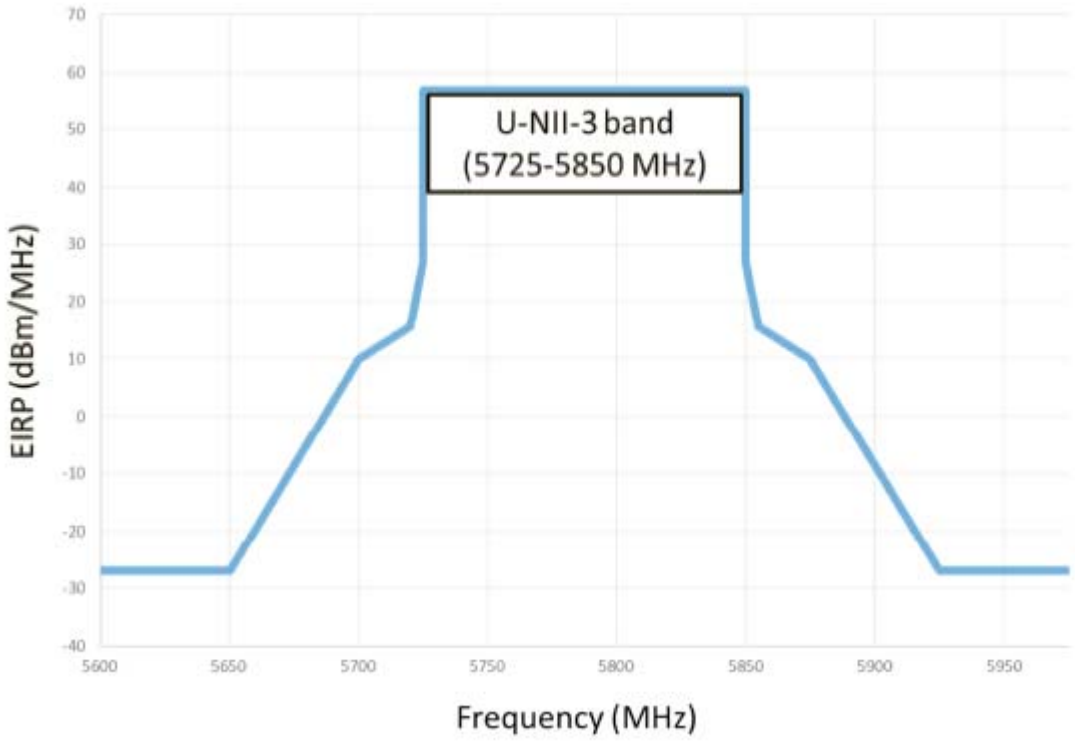
➢ **Unwanted Emission out of the restricted bands Limits**

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.

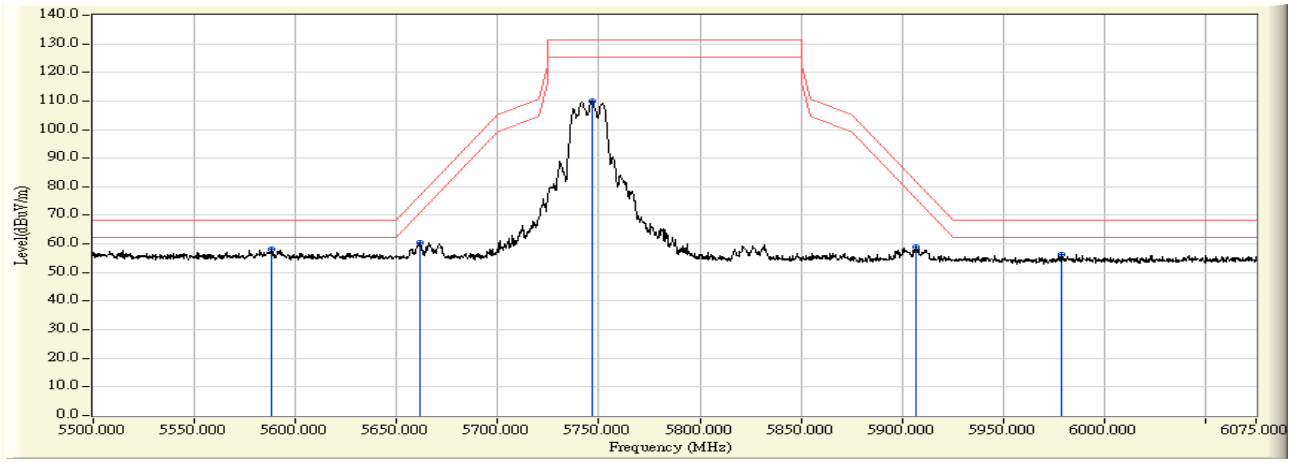
6.5. Uncertainty

The measurement uncertainty is defined as ± 3.65dB

6.6. Test Result

Radiated is defined as

Site : CB1	**Time : 2016/05/10 - 09:14**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

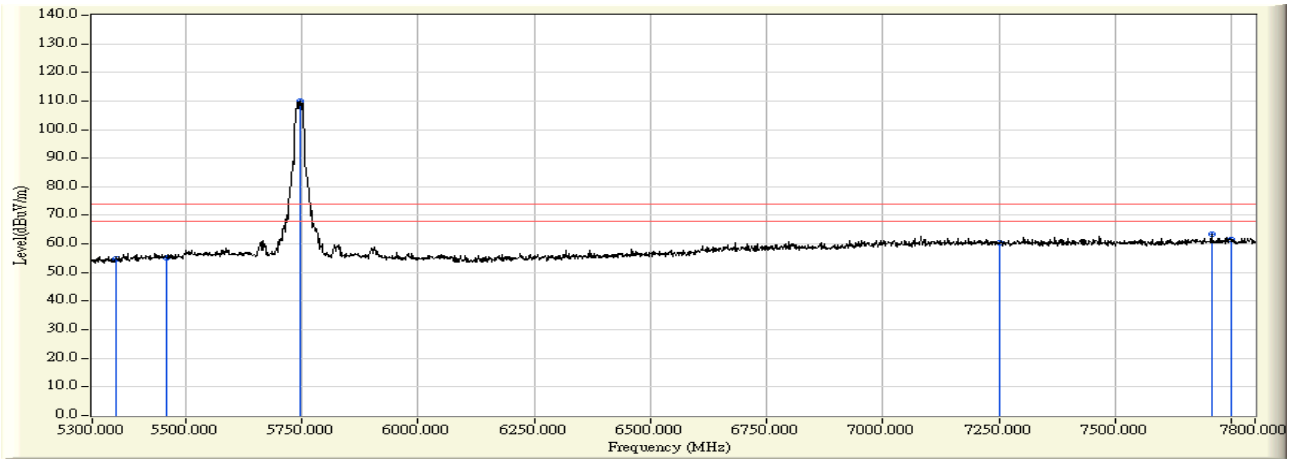


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5588.263	1.792	56.410	58.202	-9.998	68.200	PEAK
2		5661.288	1.616	58.860	60.476	-16.077	76.553	PEAK
3	*	5746.675	1.411	108.649	110.060	-21.140	131.200	PEAK
4		5906.813	1.027	57.774	58.800	-22.858	81.658	PEAK
5		5978.688	0.853	55.366	56.219	-11.981	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 = 1MHz, 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 : 2016/04/28 - 21:42**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

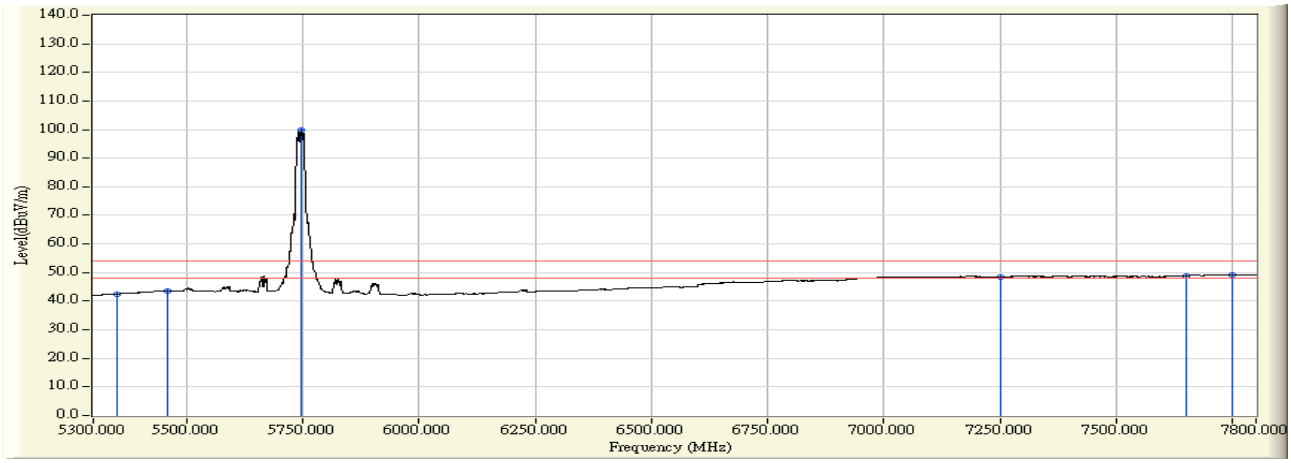


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	53.987	54.921	-19.079	74.000	PEAK
2		5460.000	1.853	53.474	55.327	-18.673	74.000	PEAK
3	*	5746.250	1.412	108.661	110.073	36.073	74.000	PEAK
4		7250.000	5.954	54.577	60.530	-13.470	74.000	PEAK
5		7706.250	6.765	56.481	63.246	-10.754	74.000	PEAK
6		7750.000	6.833	54.539	61.373	-12.627	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 = 1MHz, 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 : 2016/04/28 - 21:45**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

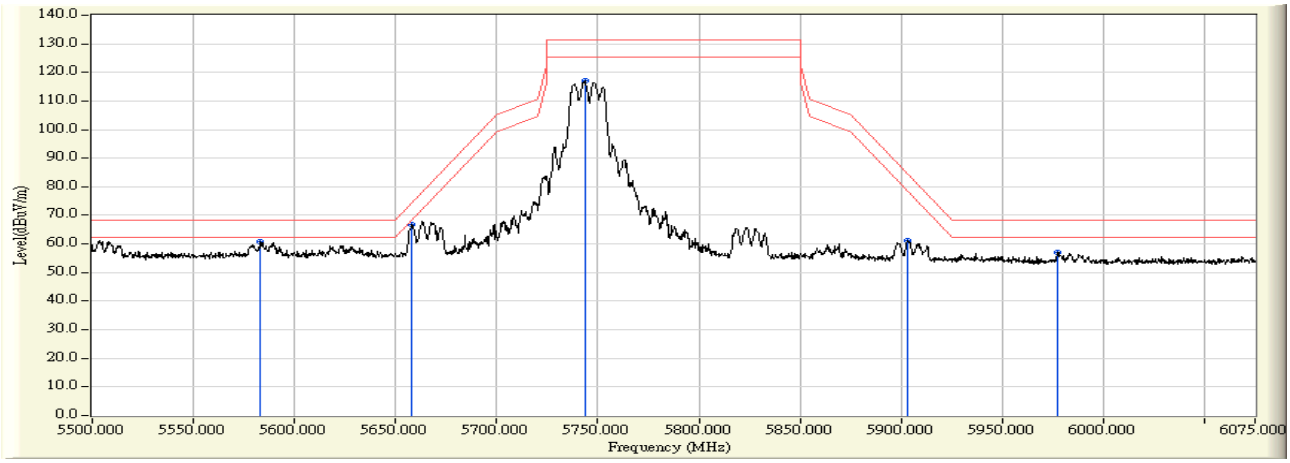


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.610	42.544	-11.456	54.000	AVERAGE
2		5460.000	1.853	41.590	43.443	-10.557	54.000	AVERAGE
3	*	5746.250	1.412	98.290	99.702	45.702	54.000	AVERAGE
4		7250.000	5.954	42.532	48.485	-5.515	54.000	AVERAGE
5		7651.250	6.678	42.284	48.962	-5.038	54.000	AVERAGE
6		7750.000	6.833	42.319	49.153	-4.847	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 = 1MHz, 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 - 09:16**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

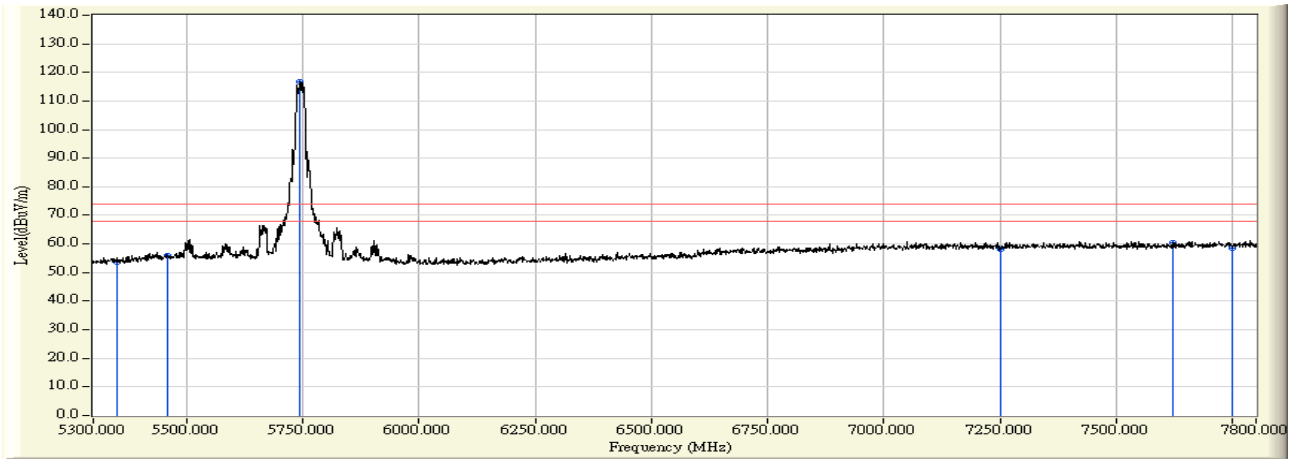


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5583.088	2.005	58.978	60.982	-7.218	68.200	PEAK
2		5658.125	1.786	64.933	66.719	-7.494	74.213	PEAK
3	*	5743.513	1.538	115.451	116.990	-14.210	131.200	PEAK
4		5903.363	1.075	60.083	61.157	-23.054	84.211	PEAK
5		5977.250	0.860	56.263	57.123	-11.077	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 = 1MHz, 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 : 2016/04/28 - 21:31**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

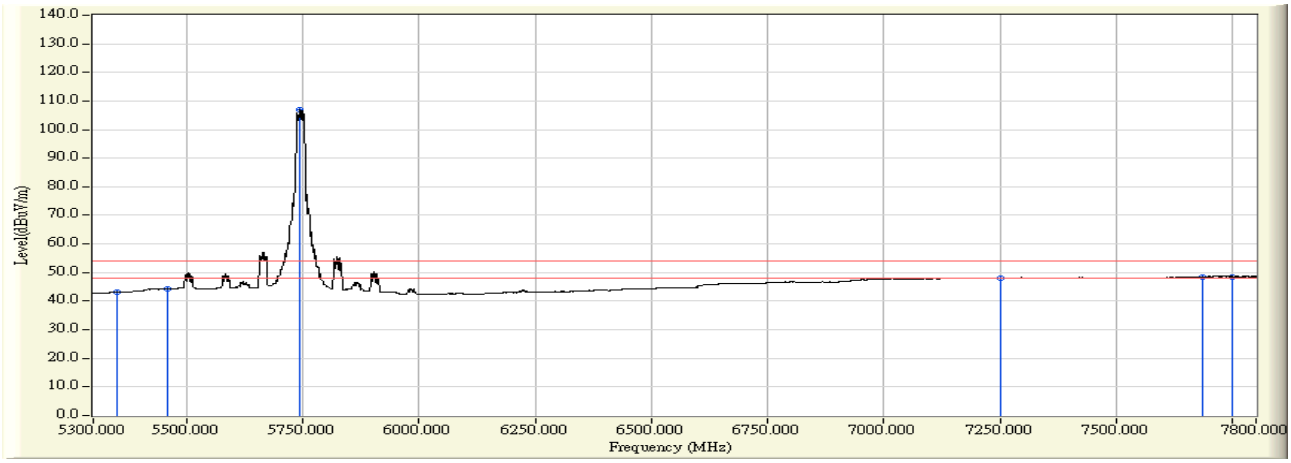


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	52.474	53.724	-20.276	74.000	PEAK
2		5460.000	2.114	53.799	55.913	-18.087	74.000	PEAK
3	*	5743.750	1.537	115.136	116.674	42.674	74.000	PEAK
4		7250.000	5.454	52.590	58.043	-15.957	74.000	PEAK
5		7621.250	6.131	54.290	60.420	-13.580	74.000	PEAK
6		7750.000	6.333	52.250	58.584	-15.416	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 = 1MHz, 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 : 2016/04/28 - 21:33**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5745MHz**

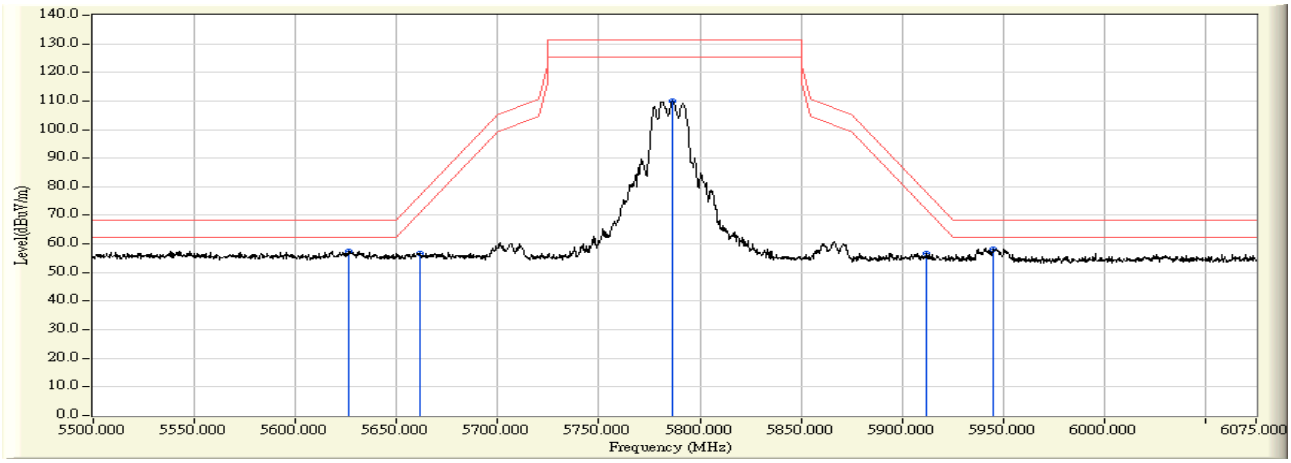


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	41.863	43.113	-10.887	54.000	AVERAGE
2		5460.000	2.114	42.052	44.166	-9.834	54.000	AVERAGE
3	*	5743.750	1.537	105.471	107.009	53.009	54.000	AVERAGE
4		7250.000	5.454	42.435	47.888	-6.112	54.000	AVERAGE
5		7683.750	6.229	42.111	48.340	-5.660	54.000	AVERAGE
6		7750.000	6.333	42.242	48.576	-5.424	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 = 1MHz, 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 - 09:16**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

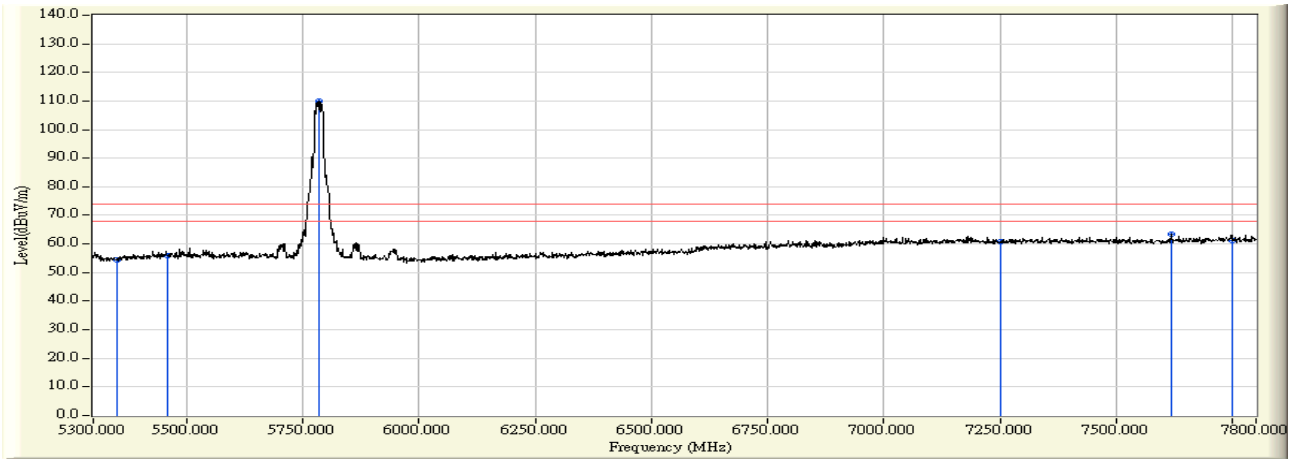


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5626.500	1.700	55.862	57.562	-10.638	68.200	PEAK
2		5661.575	1.615	55.065	56.681	-20.084	76.766	PEAK
3	*	5786.350	1.316	108.774	110.090	-21.110	131.200	PEAK
4		5912.275	1.013	55.791	56.804	-20.812	77.617	PEAK
5	*	5945.338	0.934	57.167	58.101	-10.099	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 = 1MHz, 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 : 2016/04/28 - 22:12**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

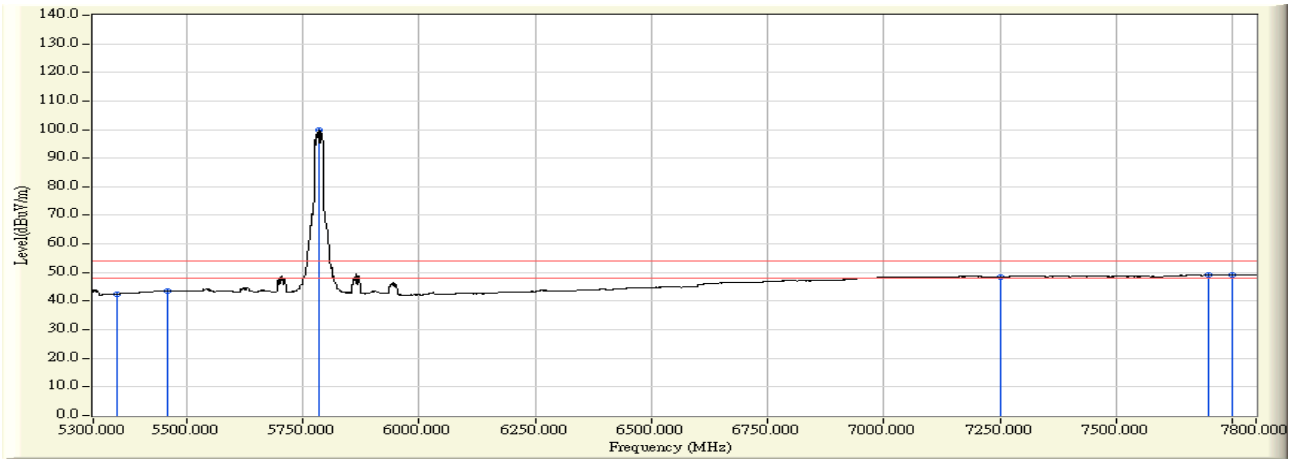


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	53.626	54.560	-19.440	74.000	PEAK
2		5460.000	1.853	54.221	56.074	-17.926	74.000	PEAK
3	*	5786.250	1.316	108.730	110.046	36.046	74.000	PEAK
4		7250.000	5.954	54.751	60.704	-13.296	74.000	PEAK
5		7617.500	6.624	56.689	63.314	-10.686	74.000	PEAK
6		7750.000	6.833	54.362	61.196	-12.804	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 = 1MHz, 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 : 2016/04/28 - 22:16**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

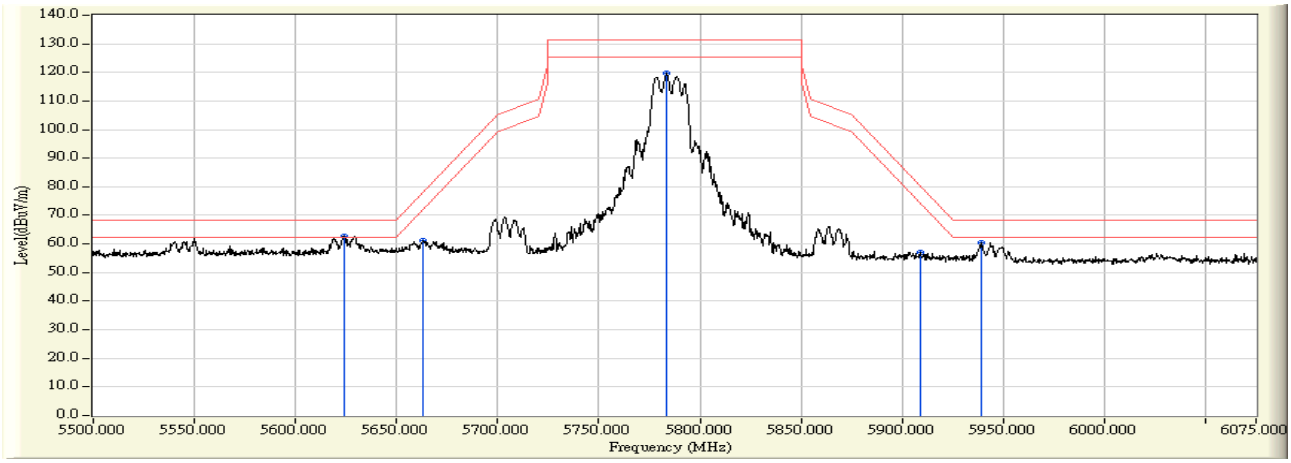


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.623	42.557	-11.443	54.000	AVERAGE
2		5460.000	1.853	41.683	43.536	-10.464	54.000	AVERAGE
3	*	5786.250	1.316	98.389	99.705	45.705	54.000	AVERAGE
4		7250.000	5.954	42.500	48.453	-5.547	54.000	AVERAGE
5		7696.250	6.749	42.394	49.143	-4.857	54.000	AVERAGE
6		7750.000	6.833	42.288	49.122	-4.878	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 = 1MHz, 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 - 09:16**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

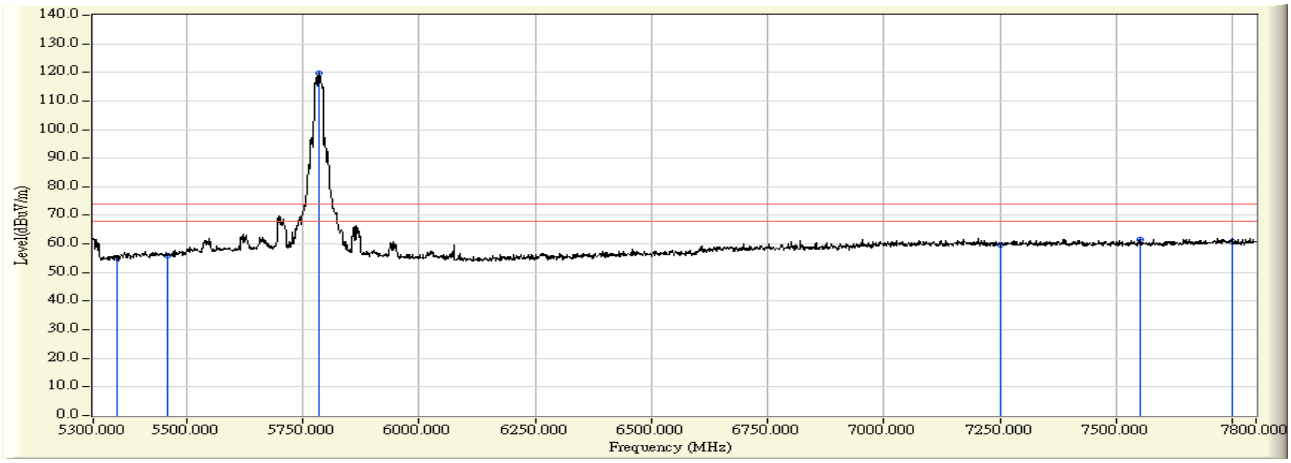


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5623.913	1.886	60.916	62.802	-5.398	68.200	PEAK
2		5663.300	1.771	59.358	61.129	-16.913	78.042	PEAK
3	*	5783.475	1.422	118.153	119.575	-11.625	131.200	PEAK
4		5908.825	1.059	55.855	56.913	-23.257	80.170	PEAK
5		5939.300	0.970	59.429	60.399	-7.801	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 = 1MHz, 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 : 2016/04/28 - 21:55**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

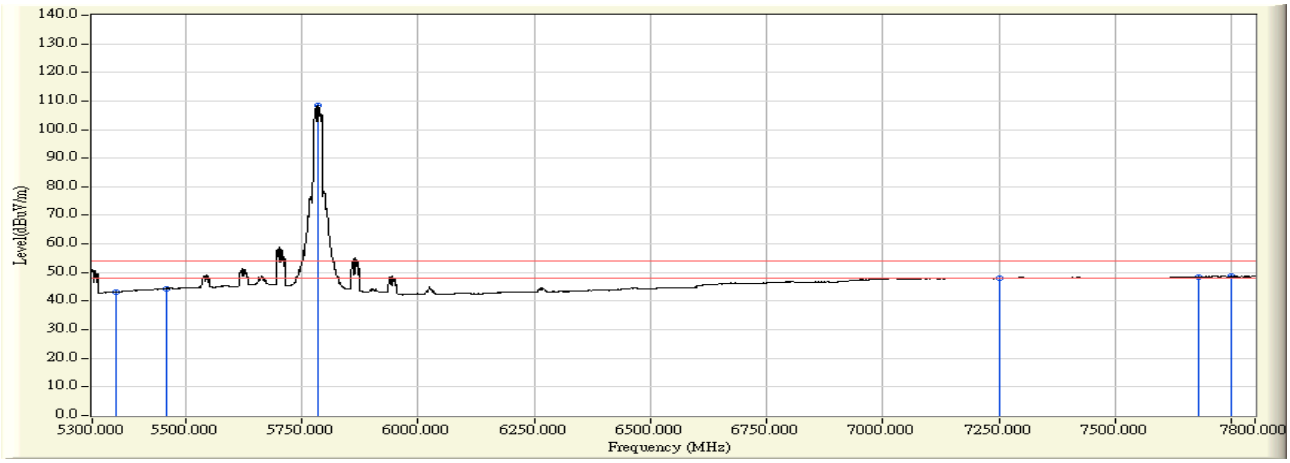


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	54.058	55.308	-18.692	74.000	PEAK
2		5460.000	2.114	53.990	56.104	-17.896	74.000	PEAK
3	*	5783.750	1.421	118.222	119.644	45.644	74.000	PEAK
4		7250.000	5.454	54.080	59.533	-14.467	74.000	PEAK
5		7552.500	6.021	55.690	61.712	-12.288	74.000	PEAK
6		7750.000	6.333	54.356	60.690	-13.310	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 = 1MHz, 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 : 2016/04/28 - 21:56**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5785MHz**

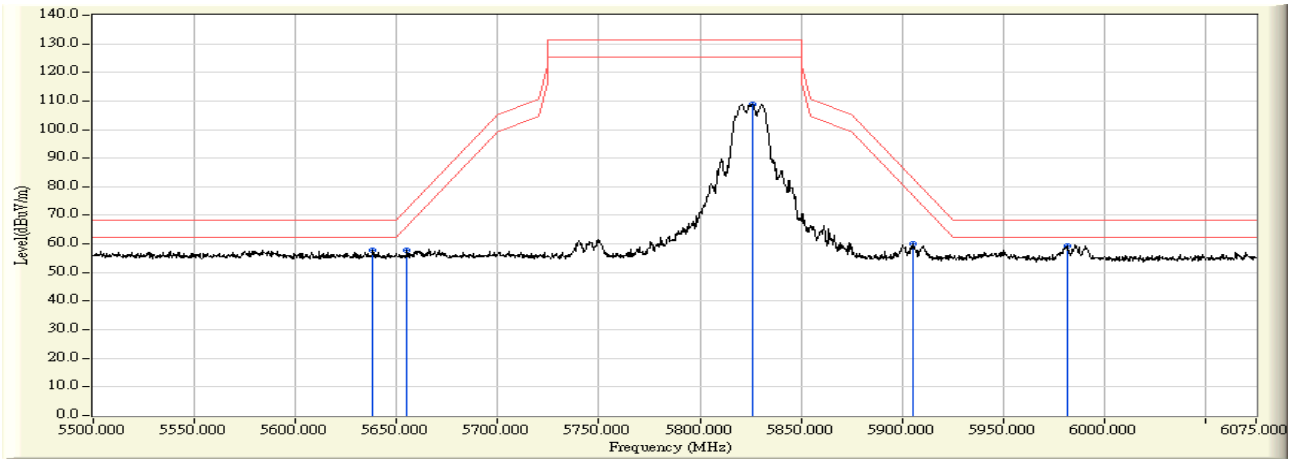


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	41.924	43.174	-10.826	54.000	AVERAGE
2		5460.000	2.114	42.361	44.475	-9.525	54.000	AVERAGE
3	*	5783.750	1.421	107.179	108.601	54.601	54.000	AVERAGE
4		7250.000	5.454	42.501	47.954	-6.046	54.000	AVERAGE
5		7680.000	6.223	42.265	48.488	-5.512	54.000	AVERAGE
6		7750.000	6.333	42.286	48.620	-5.380	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 = 1MHz, 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 - 09:16**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

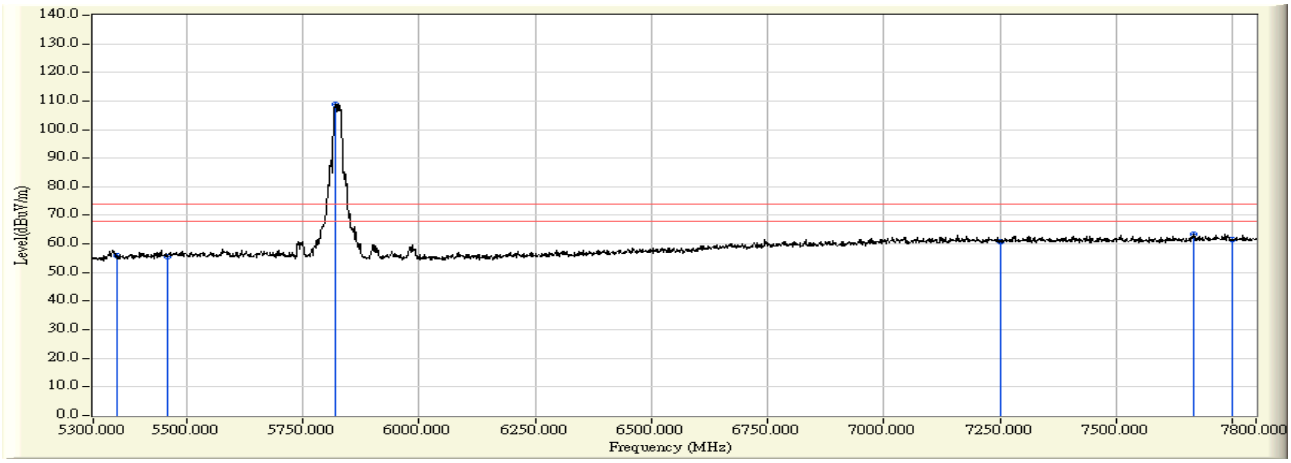


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5638.288	1.672	56.109	57.781	-10.419	68.200	PEAK
2		5655.250	1.631	55.999	57.630	-14.455	72.085	PEAK
3	*	5826.313	1.220	107.814	109.034	-22.166	131.200	PEAK
4		5905.375	1.030	59.150	60.180	-22.542	82.723	PEAK
5	*	5981.563	0.850	58.543	59.393	-8.807	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 = 1MHz, 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 : 2016/04/29 - 13:34**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

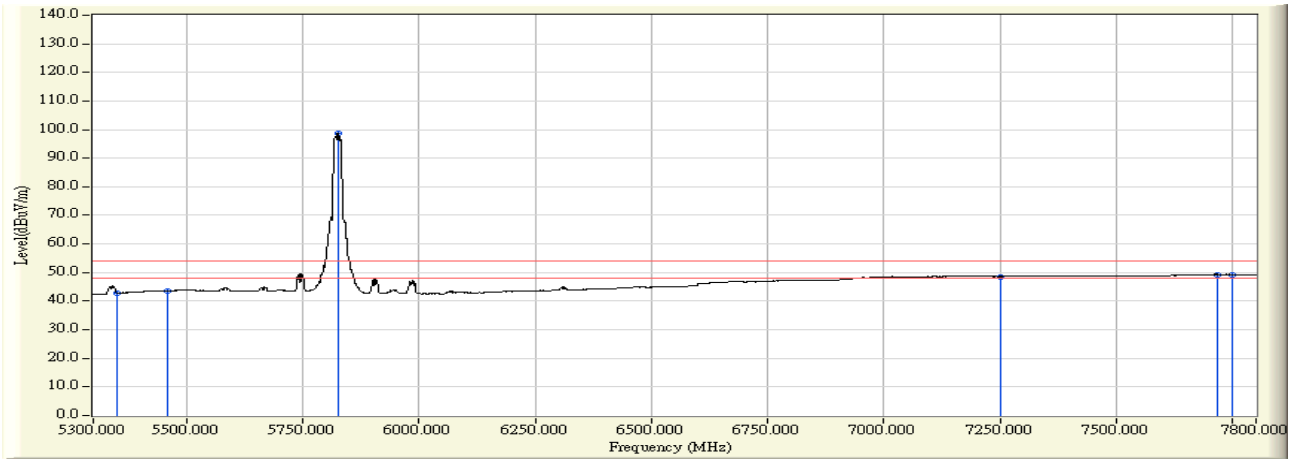


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	54.892	55.826	-18.174	74.000	PEAK
2		5460.000	1.853	53.820	55.673	-18.327	74.000	PEAK
3	*	5821.250	1.232	107.672	108.904	34.904	74.000	PEAK
4		7250.000	5.954	54.729	60.682	-13.318	74.000	PEAK
5		7666.250	6.702	56.844	63.546	-10.454	74.000	PEAK
6		7750.000	6.833	54.604	61.438	-12.562	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 = 1MHz, 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 : 2016/04/29 - 13:36**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

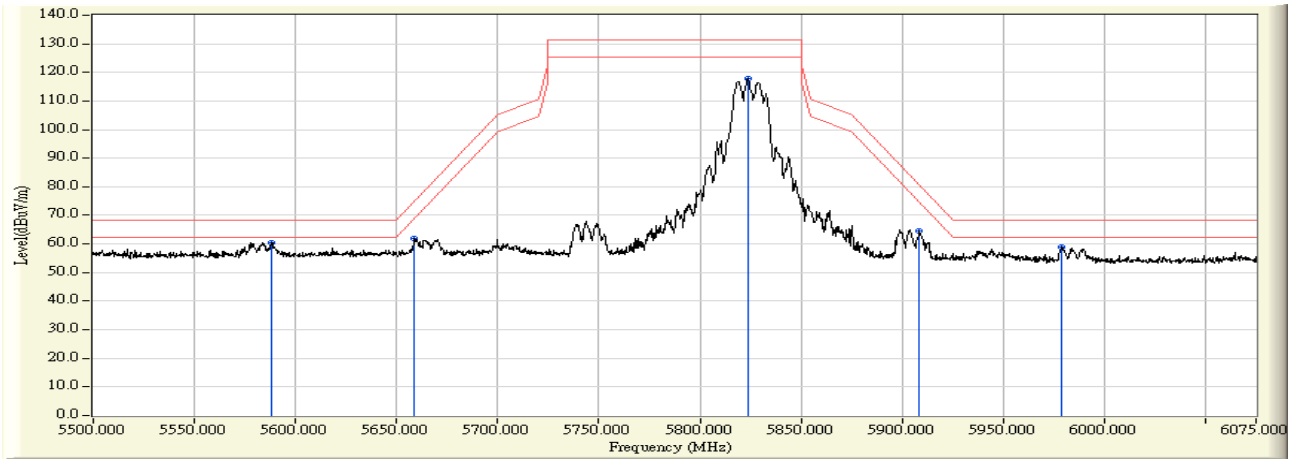


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.927	42.861	-11.139	54.000	AVERAGE
2		5460.000	1.853	41.819	43.672	-10.328	54.000	AVERAGE
3	*	5826.250	1.220	97.424	98.644	44.644	54.000	AVERAGE
4		7250.000	5.954	42.649	48.602	-5.398	54.000	AVERAGE
5		7716.250	6.781	42.550	49.331	-4.669	54.000	AVERAGE
6		7750.000	6.833	42.468	49.302	-4.698	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 = 1MHz, 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 - 09:17**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

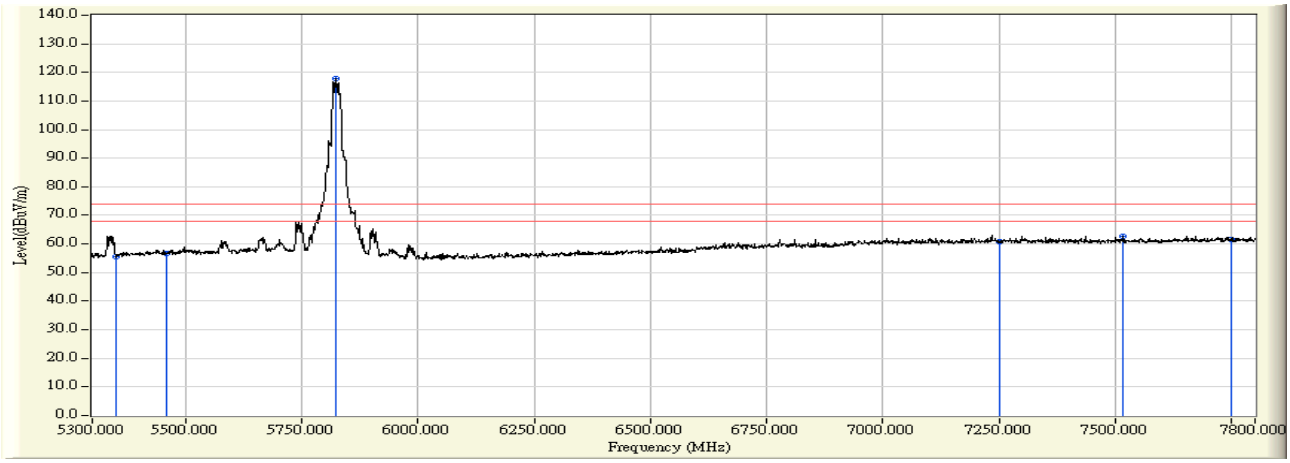


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5587.975	1.991	58.534	60.524	-7.676	68.200	PEAK
2		5658.988	1.784	60.061	61.845	-13.006	74.851	PEAK
3	*	5823.725	1.305	116.379	117.685	-13.515	131.200	PEAK
4		5908.538	1.060	63.325	64.384	-15.998	80.382	PEAK
5		5978.688	0.855	58.176	59.032	-9.168	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 = 1MHz, 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 : 2016/04/28 - 22:41**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

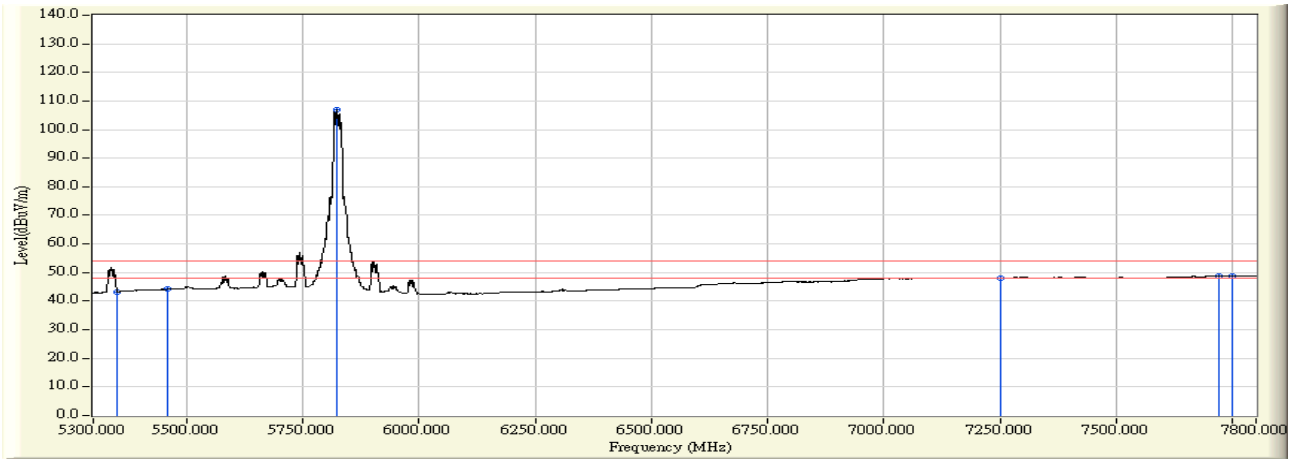


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	54.194	55.444	-18.556	74.000	PEAK
2		5460.000	2.114	54.708	56.822	-17.178	74.000	PEAK
3	*	5823.750	1.305	116.498	117.803	43.803	74.000	PEAK
4		7250.000	5.454	55.509	60.962	-13.038	74.000	PEAK
5		7516.250	5.965	56.895	62.860	-11.140	74.000	PEAK
6		7750.000	6.333	55.077	61.411	-12.589	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 = 1MHz, 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 : 2016/04/28 - 22:45**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11a_5825MHz**

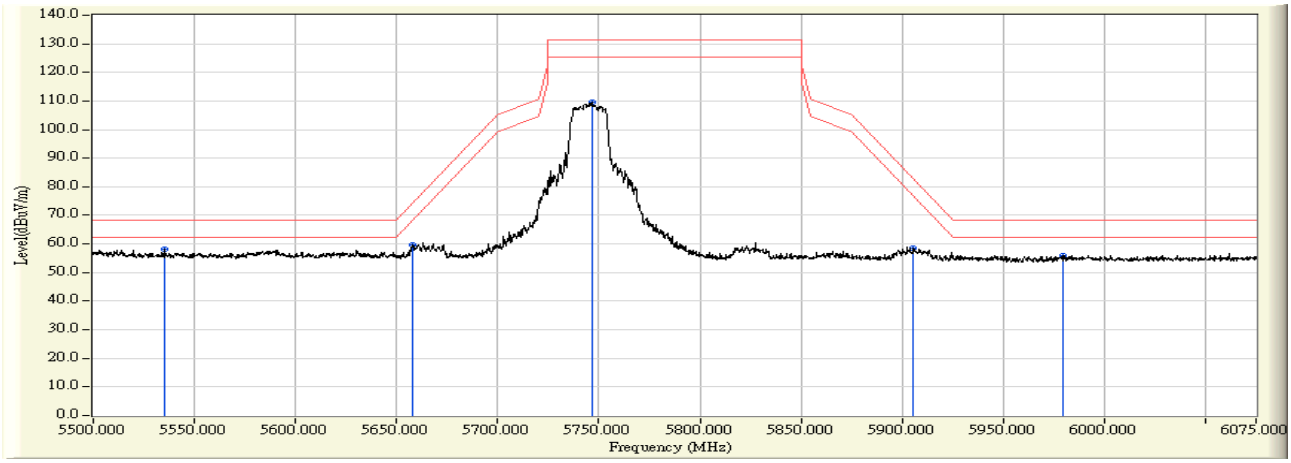


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.095	43.345	-10.655	54.000	AVERAGE
2		5460.000	2.114	42.024	44.138	-9.862	54.000	AVERAGE
3	*	5823.750	1.305	105.661	106.966	52.966	54.000	AVERAGE
4		7250.000	5.454	42.498	47.951	-6.049	54.000	AVERAGE
5		7720.000	6.286	42.439	48.725	-5.275	54.000	AVERAGE
6		7750.000	6.333	42.317	48.651	-5.349	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 = 1MHz, 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 - 09:17**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

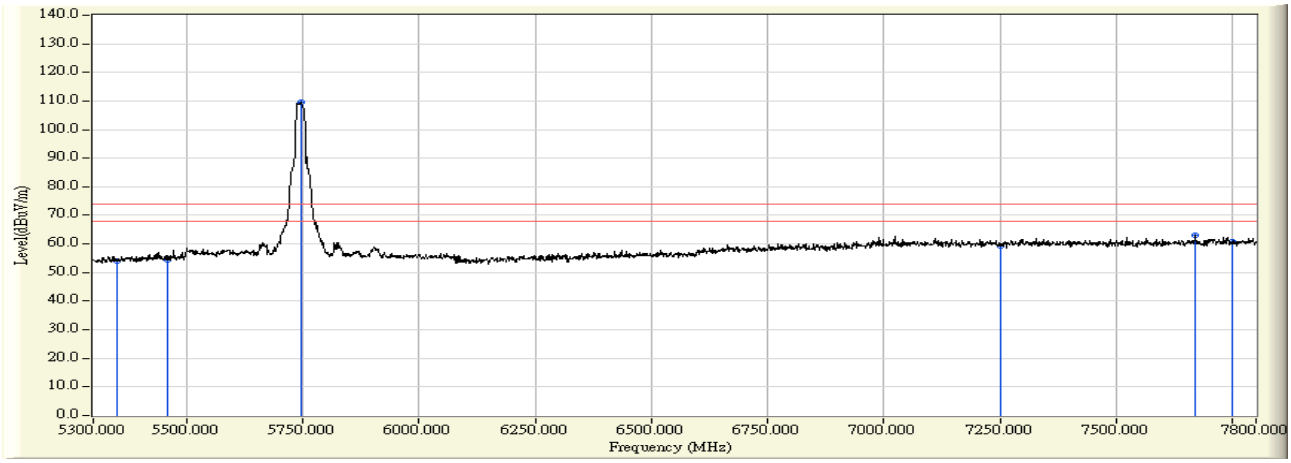


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5535.363	1.919	56.217	58.136	-10.064	68.200	PEAK
2		5657.838	1.624	58.094	59.719	-14.281	74.000	PEAK
3	*	5746.388	1.412	108.076	109.488	-21.712	131.200	PEAK
4		5905.663	1.029	57.701	58.730	-23.779	82.509	PEAK
5		5979.263	0.852	54.932	55.784	-12.416	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 = 1MHz, 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 : 2016/04/28 - 21:48**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

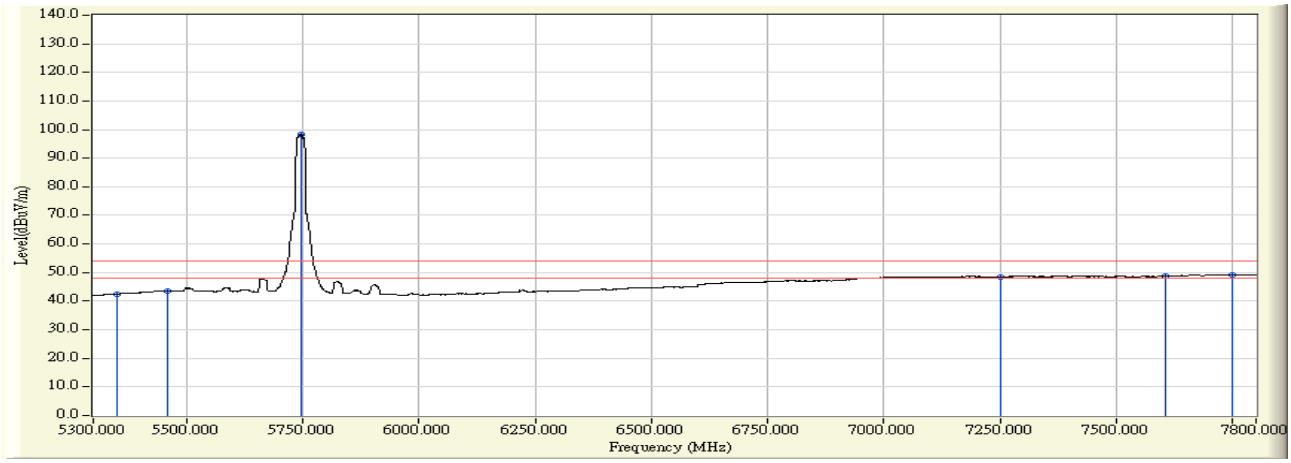


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	53.004	53.938	-20.062	74.000	PEAK
2		5460.000	1.853	52.523	54.376	-19.624	74.000	PEAK
3	*	5746.250	1.412	108.105	109.517	35.517	74.000	PEAK
4		7250.000	5.954	53.360	59.313	-14.687	74.000	PEAK
5		7668.750	6.706	56.213	62.918	-11.082	74.000	PEAK
6		7750.000	6.833	54.060	60.894	-13.106	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 = 1MHz, 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 : 2016/04/28 - 21:49**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

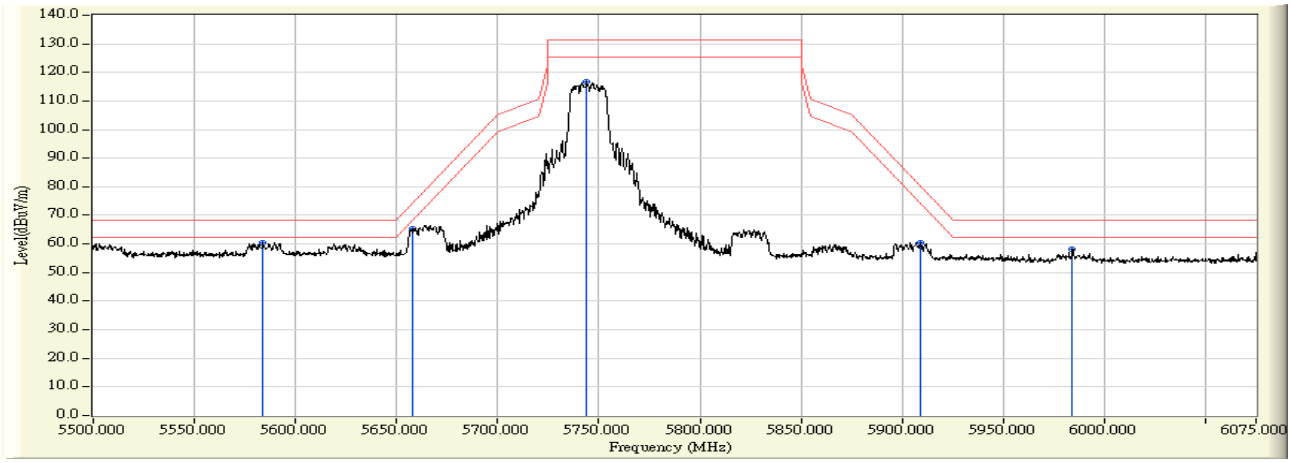


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.621	42.555	-11.445	54.000	AVERAGE
2		5460.000	1.853	41.602	43.455	-10.545	54.000	AVERAGE
3	*	5746.250	1.412	97.021	98.433	44.433	54.000	AVERAGE
4		7250.000	5.954	42.464	48.417	-5.583	54.000	AVERAGE
5		7606.250	6.607	42.169	48.776	-5.224	54.000	AVERAGE
6		7750.000	6.833	42.252	49.086	-4.914	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 = 1MHz, 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 - 09:18**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

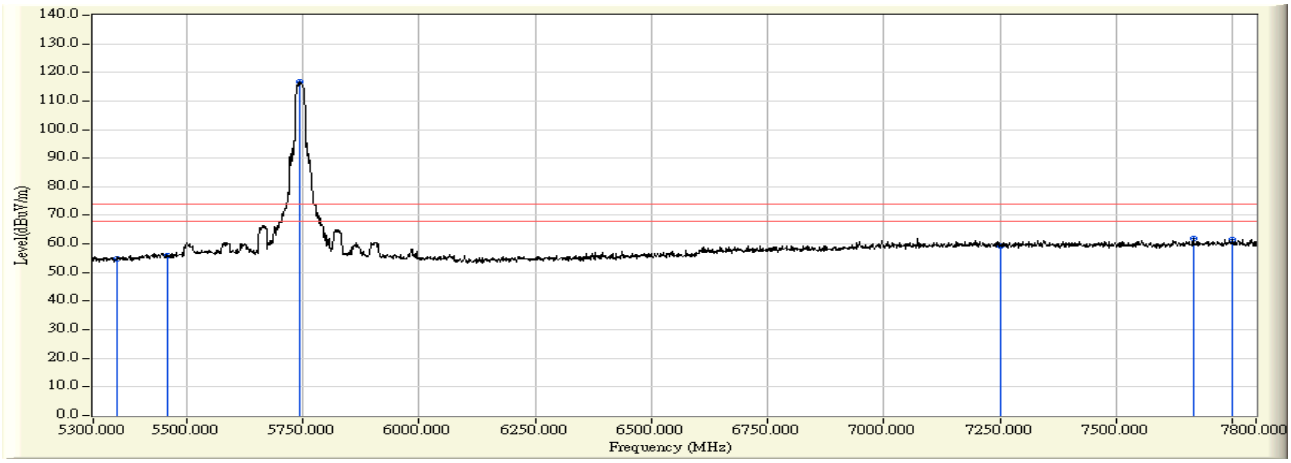


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5583.663	2.003	58.331	60.334	-7.866	68.200	PEAK
2		5657.550	1.788	63.570	65.358	-8.429	73.787	PEAK
3	*	5744.088	1.537	115.151	116.688	-14.512	131.200	PEAK
4		5909.400	1.057	59.383	60.440	-19.304	79.744	PEAK
5		5984.150	0.860	57.132	57.992	-10.208	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 = 1MHz, 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 : 2016/04/28 - 21:36**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

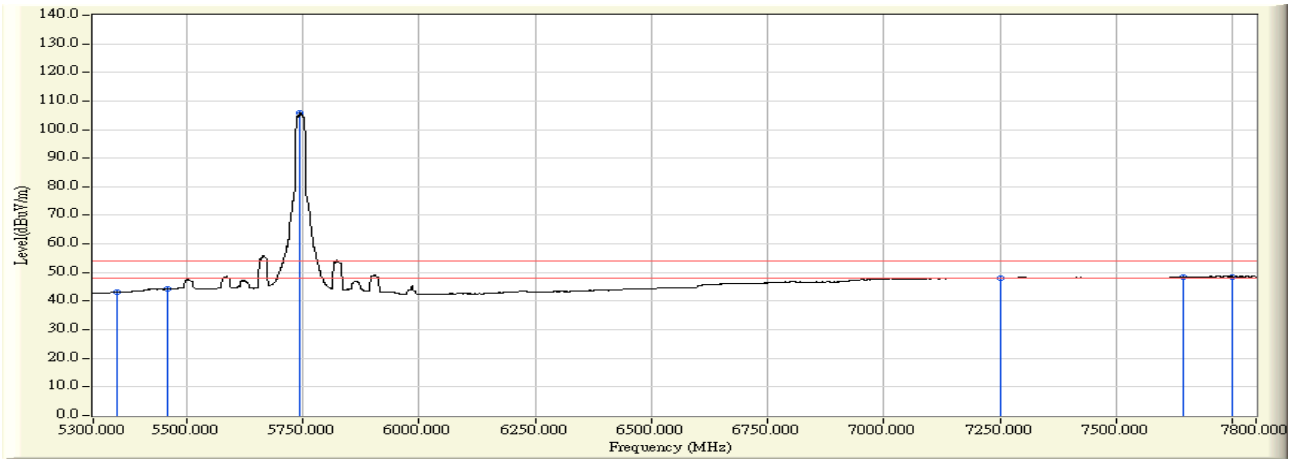


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	53.576	54.826	-19.174	74.000	PEAK
2		5460.000	2.114	53.834	55.948	-18.052	74.000	PEAK
3	*	5743.750	1.537	115.151	116.689	42.689	74.000	PEAK
4		7250.000	5.454	54.025	59.478	-14.522	74.000	PEAK
5		7665.000	6.199	55.753	61.953	-12.047	74.000	PEAK
6		7750.000	6.333	55.142	61.476	-12.524	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 = 1MHz, 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 : 2016/04/28 - 21:37**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5745MHz**

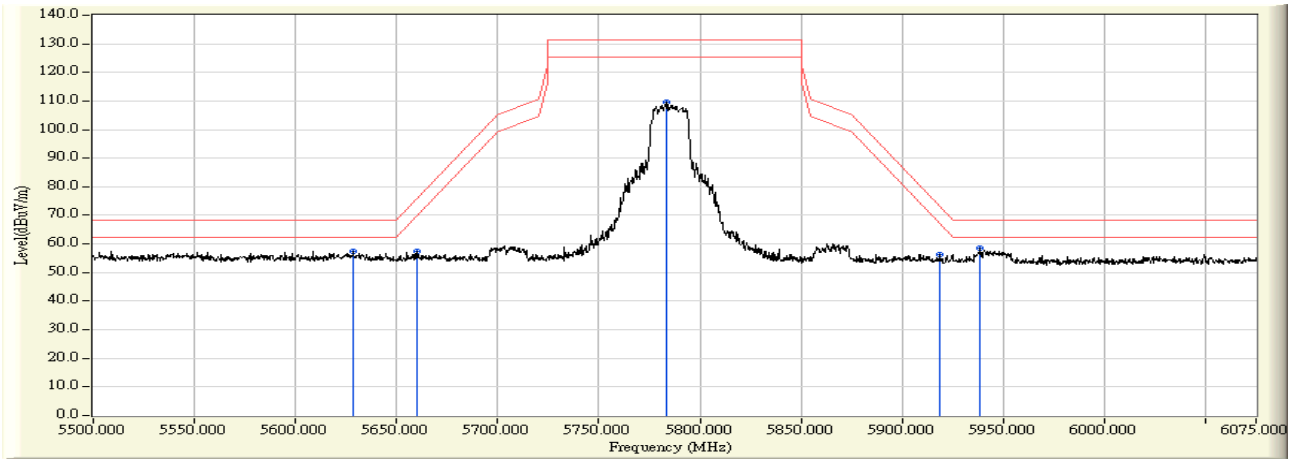


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	41.859	43.109	-10.891	54.000	AVERAGE
2		5460.000	2.114	42.044	44.158	-9.842	54.000	AVERAGE
3	*	5743.750	1.537	104.307	105.845	51.845	54.000	AVERAGE
4		7250.000	5.454	42.440	47.893	-6.107	54.000	AVERAGE
5		7645.000	6.168	42.176	48.344	-5.656	54.000	AVERAGE
6		7750.000	6.333	42.252	48.586	-5.414	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 = 1MHz, 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 - 09:18**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

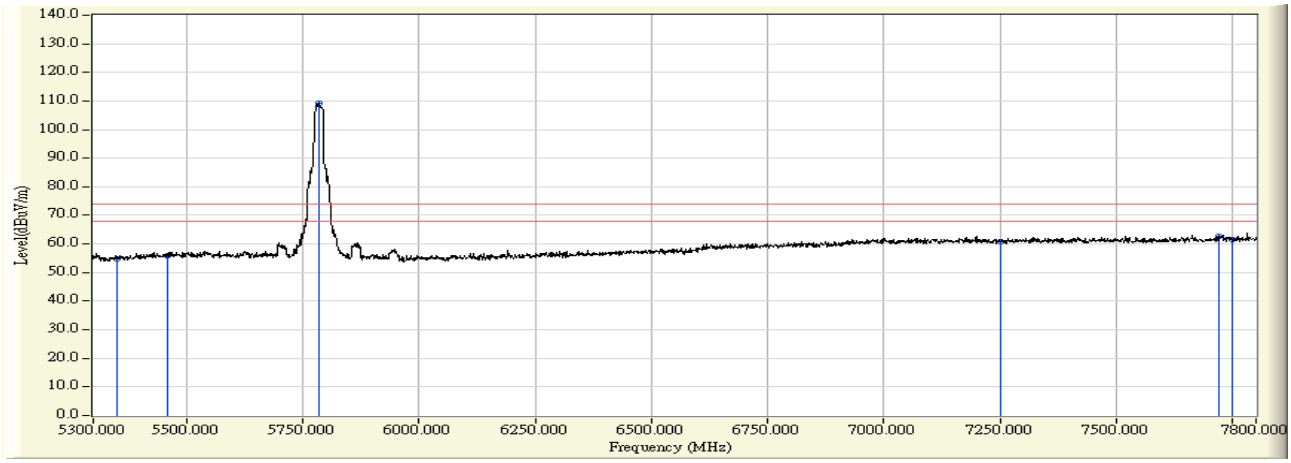


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5628.513	1.695	55.896	57.591	-10.609	68.200	PEAK
2		5660.425	1.619	55.680	57.298	-18.617	75.914	PEAK
3	*	5783.188	1.323	108.450	109.773	-21.427	131.200	PEAK
4		5918.888	0.997	55.312	56.309	-16.414	72.723	PEAK
5	*	5938.725	0.950	57.477	58.426	-9.774	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 = 1MHz, 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 : 2016/04/28 - 22:20**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

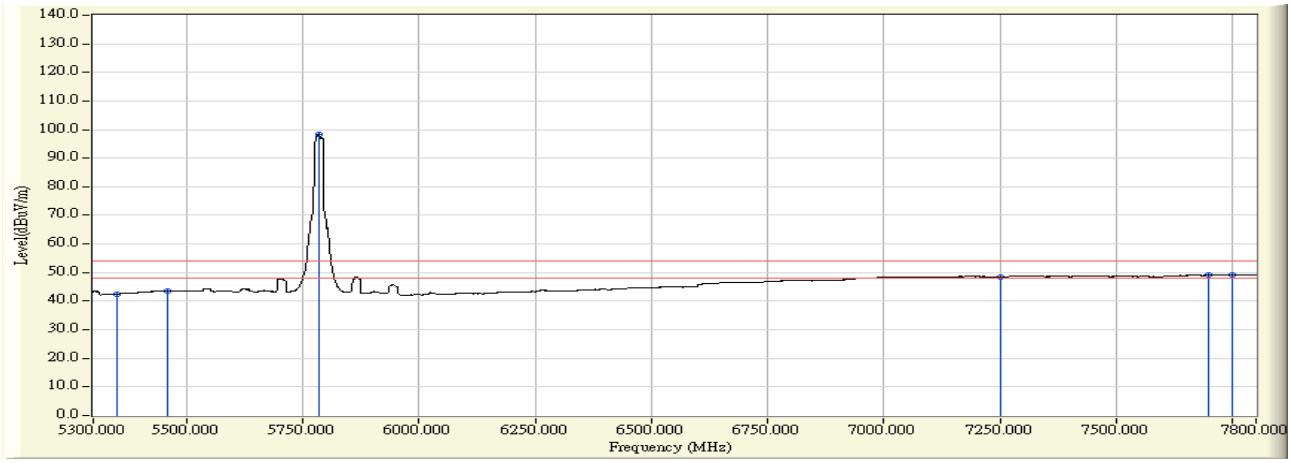


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	53.960	54.894	-19.106	74.000	PEAK
2		5460.000	1.853	53.992	55.845	-18.155	74.000	PEAK
3	*	5783.750	1.322	107.815	109.137	35.137	74.000	PEAK
4		7250.000	5.954	54.781	60.734	-13.266	74.000	PEAK
5		7721.250	6.789	56.027	62.815	-11.185	74.000	PEAK
6		7750.000	6.833	54.543	61.377	-12.623	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 = 1MHz, 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 : 2016/04/28 - 22:24**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

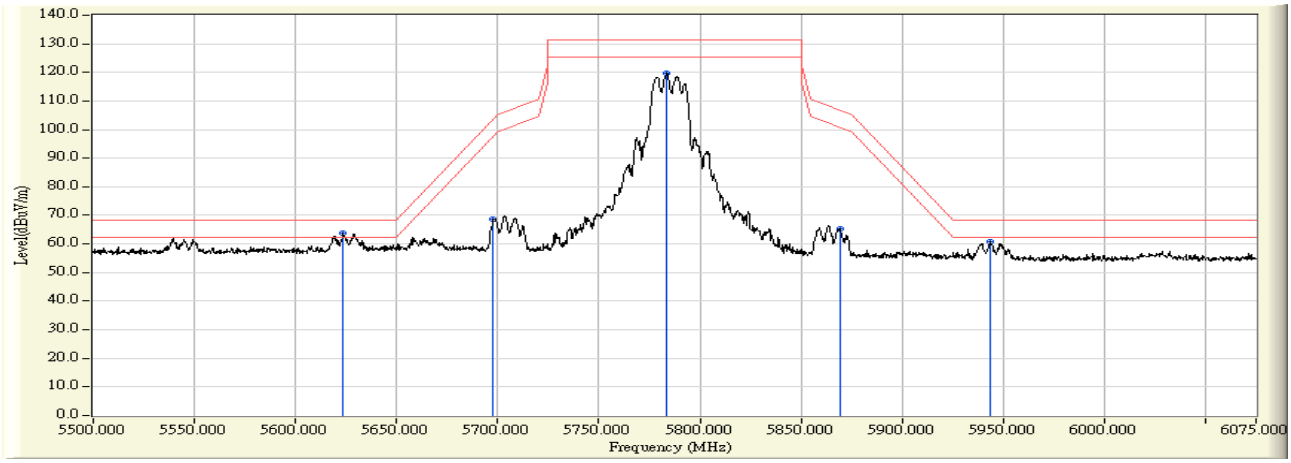


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.639	42.573	-11.427	54.000	AVERAGE
2		5460.000	1.853	41.637	43.490	-10.510	54.000	AVERAGE
3	*	5783.750	1.322	97.132	98.454	44.454	54.000	AVERAGE
4		7250.000	5.954	42.503	48.456	-5.544	54.000	AVERAGE
5		7696.250	6.749	42.346	49.095	-4.905	54.000	AVERAGE
6		7750.000	6.833	42.326	49.160	-4.840	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 = 1MHz, 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 - 09:18**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

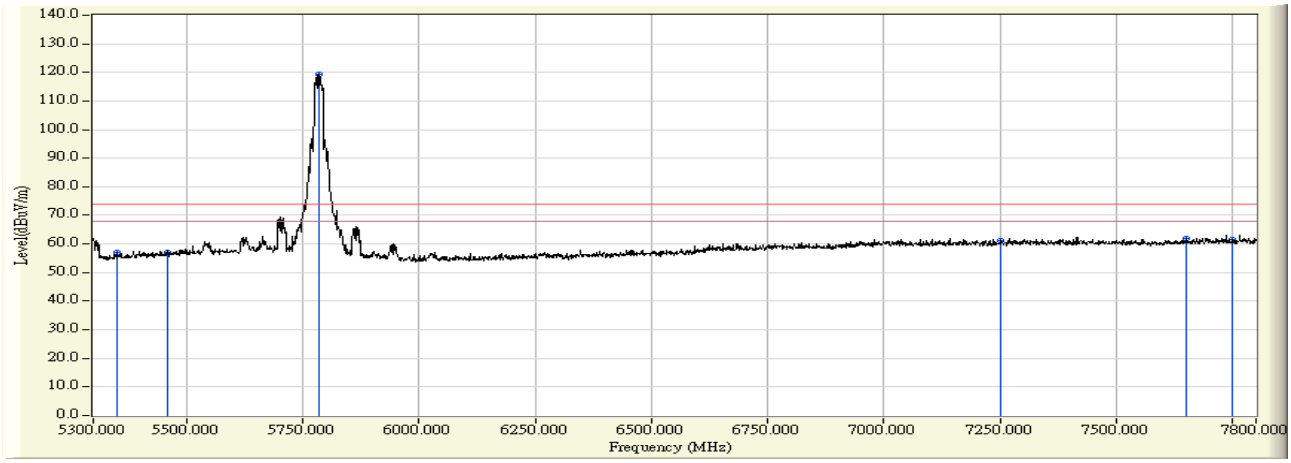


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5623.625	1.887	61.810	63.697	-4.503	68.200	PEAK
2		5697.800	1.671	66.955	68.626	-34.946	103.572	PEAK
3	*	5783.763	1.421	118.234	119.656	-11.544	131.200	PEAK
4		5869.150	1.173	64.042	65.216	-41.622	106.838	PEAK
5		5943.900	0.957	59.901	60.858	-7.342	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 = 1MHz, 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 : 2016/04/28 - 21:59**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

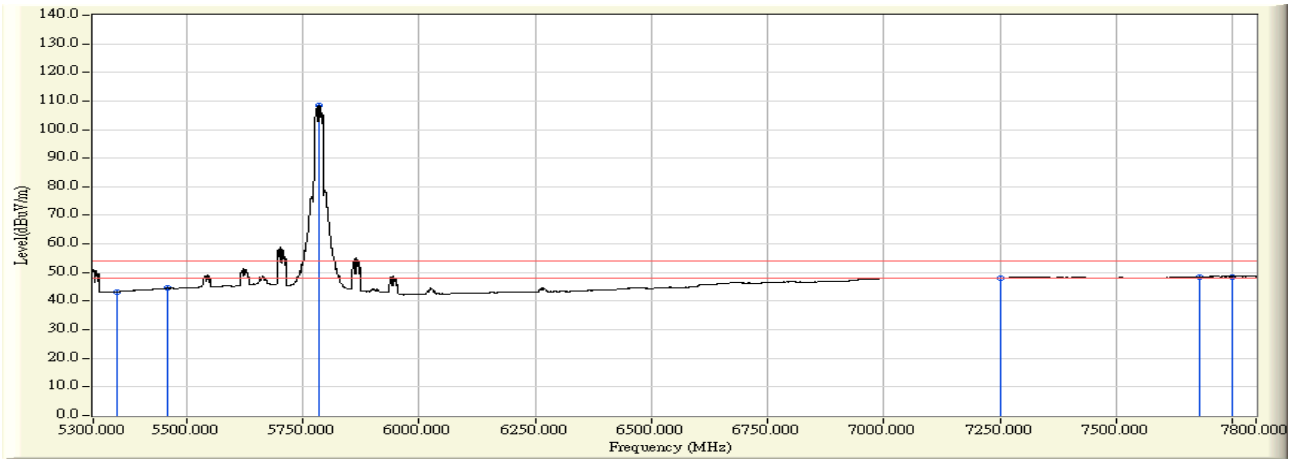


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	55.704	56.954	-17.046	74.000	PEAK
2		5460.000	2.114	55.012	57.126	-16.874	74.000	PEAK
3	*	5783.750	1.421	117.898	119.320	45.320	74.000	PEAK
4		7250.000	5.454	55.671	61.124	-12.876	74.000	PEAK
5		7650.000	6.175	55.785	61.961	-12.039	74.000	PEAK
6		7750.000	6.333	55.308	61.642	-12.358	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 = 1MHz, 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 : 2016/04/28 - 22:01**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5785MHz**

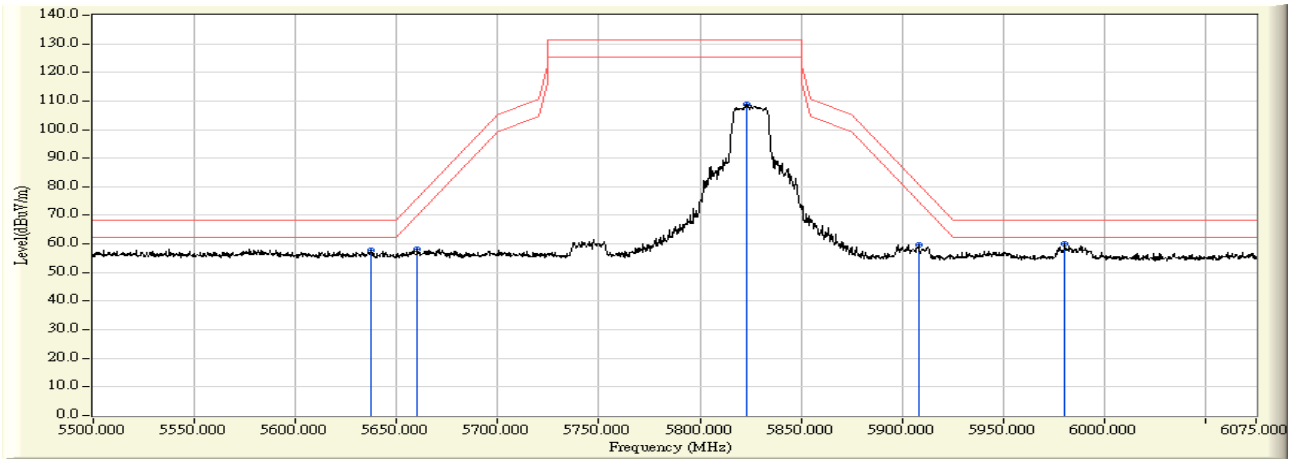


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.045	43.295	-10.705	54.000	AVERAGE
2		5460.000	2.114	42.405	44.519	-9.481	54.000	AVERAGE
3	*	5783.750	1.421	107.198	108.620	54.620	54.000	AVERAGE
4		7250.000	5.454	42.627	48.080	-5.920	54.000	AVERAGE
5		7680.000	6.223	42.297	48.520	-5.480	54.000	AVERAGE
6		7750.000	6.333	42.268	48.602	-5.398	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 = 1MHz, 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 - 09:18**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

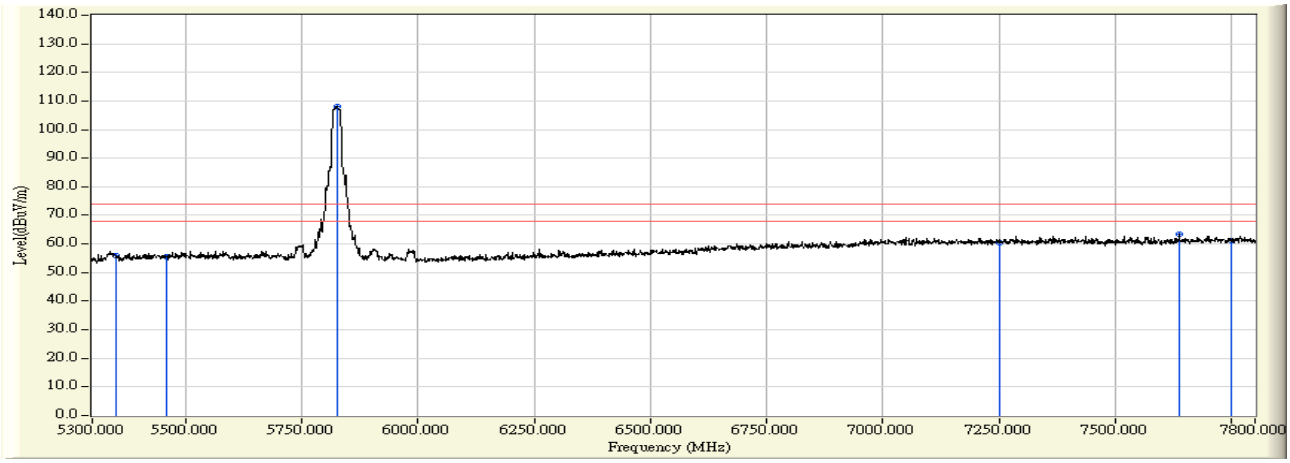


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5637.425	1.674	56.017	57.691	-10.509	68.200	PEAK
2		5660.425	1.619	56.641	58.259	-17.656	75.914	PEAK
3	*	5823.150	1.228	107.668	108.895	-22.305	131.200	PEAK
4		5907.963	1.023	58.811	59.834	-20.973	80.807	PEAK
5	*	5980.413	0.849	59.347	60.196	-8.004	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 = 1MHz, 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 : 2016/04/29 - 13:40**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

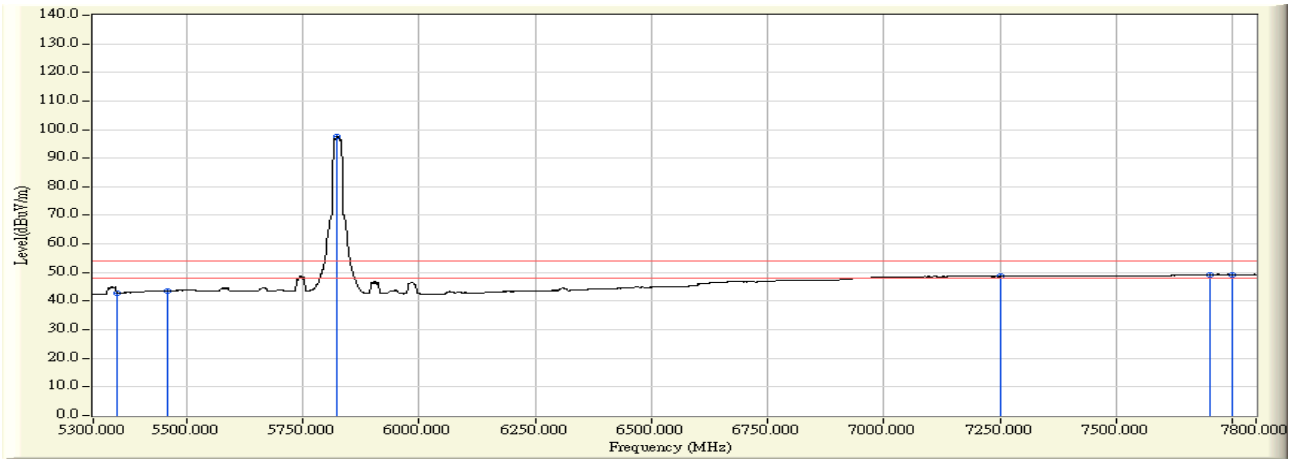


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	55.013	55.947	-18.053	74.000	PEAK
2		5460.000	1.853	53.541	55.394	-18.606	74.000	PEAK
3	*	5827.500	1.217	106.978	108.195	34.195	74.000	PEAK
4		7250.000	5.954	54.587	60.540	-13.460	74.000	PEAK
5		7637.500	6.656	56.632	63.288	-10.712	74.000	PEAK
6		7750.000	6.833	54.269	61.103	-12.897	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 = 1MHz, 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 : 2016/04/29 - 13:42**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

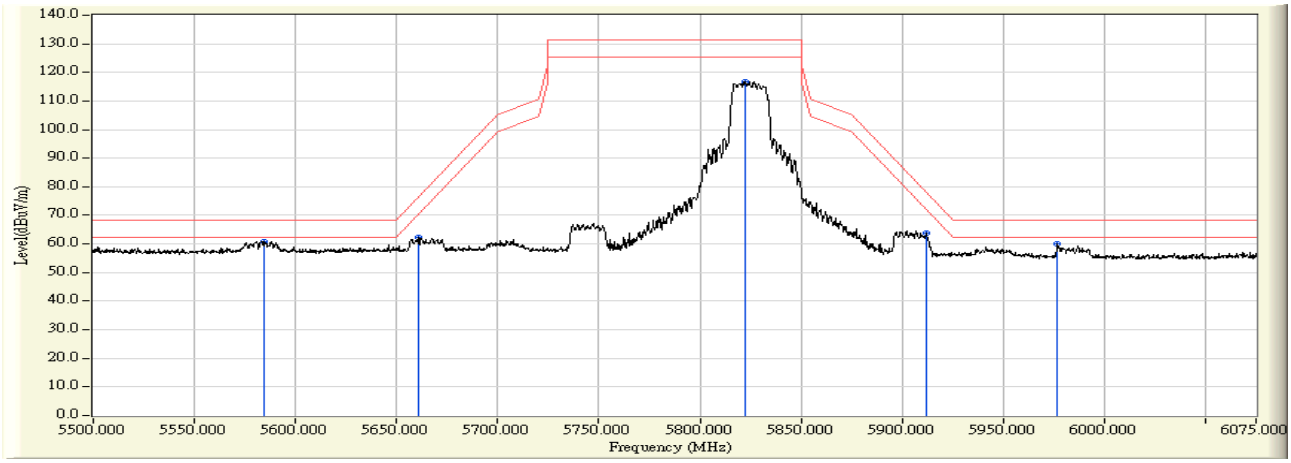


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.953	42.887	-11.113	54.000	AVERAGE
2		5460.000	1.853	41.791	43.644	-10.356	54.000	AVERAGE
3	*	5822.500	1.229	96.420	97.649	43.649	54.000	AVERAGE
4		7250.000	5.954	42.664	48.617	-5.383	54.000	AVERAGE
5		7702.500	6.758	42.565	49.324	-4.676	54.000	AVERAGE
6		7750.000	6.833	42.429	49.263	-4.737	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 = 1MHz, 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 - 09:18**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

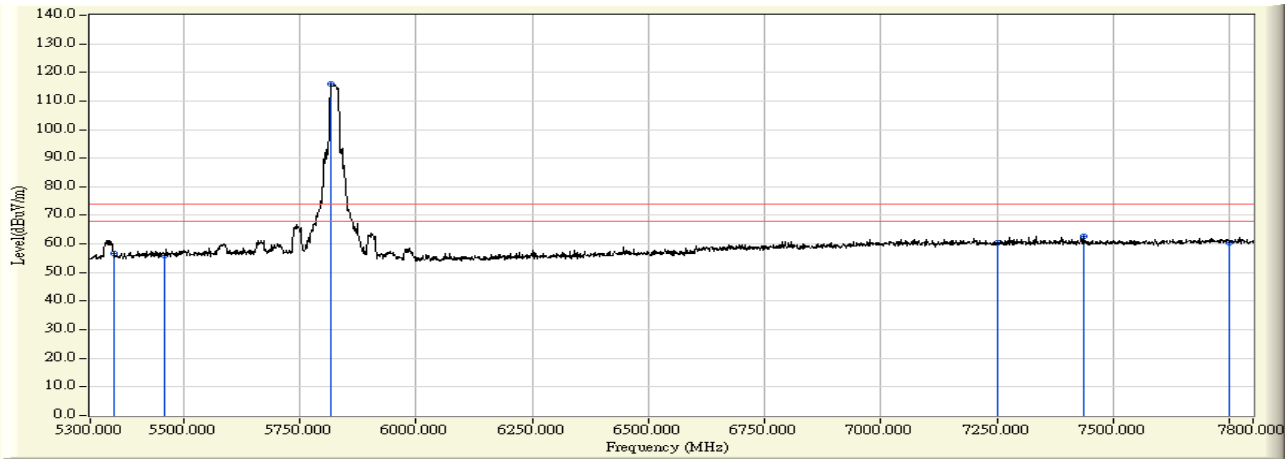


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5584.525	2.001	58.944	60.944	-7.256	68.200	PEAK
2		5660.713	1.779	60.499	62.278	-13.850	76.128	PEAK
3	*	5822.288	1.309	115.526	116.836	-14.364	131.200	PEAK
4		5911.988	1.050	62.929	63.978	-13.851	77.829	PEAK
5		5976.963	0.860	59.078	59.939	-8.261	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 = 1MHz, 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 : 2016/04/28 - 22:52**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

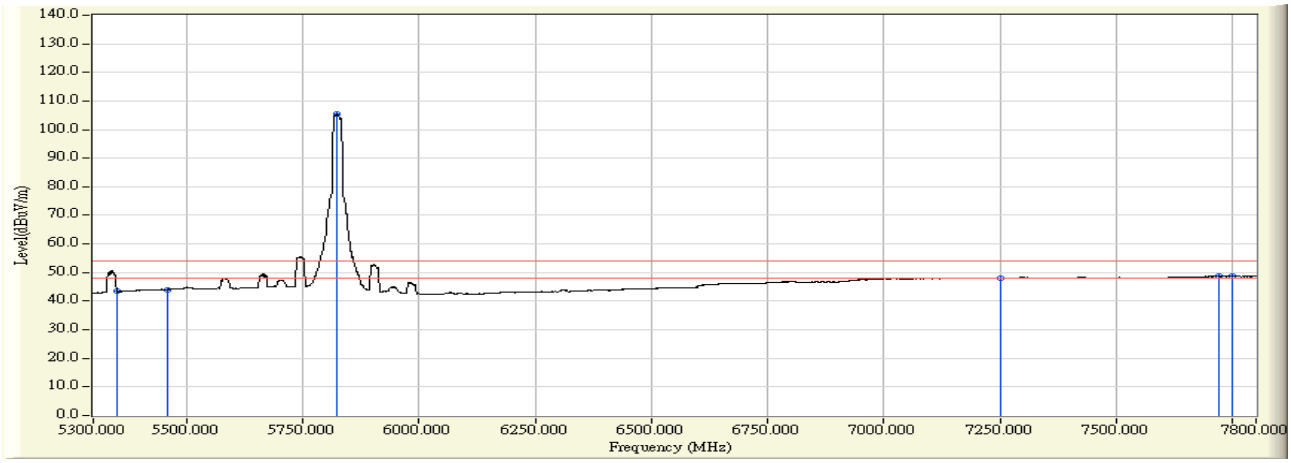


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	55.258	56.508	-17.492	74.000	PEAK
2		5460.000	2.114	53.662	55.776	-18.224	74.000	PEAK
3	*	5818.750	1.320	114.496	115.816	41.816	74.000	PEAK
4		7250.000	5.454	54.805	60.258	-13.742	74.000	PEAK
5		7435.000	5.818	56.929	62.747	-11.253	74.000	PEAK
6		7750.000	6.333	53.997	60.331	-13.669	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 = 1MHz, 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 : 2016/04/28 - 22:55**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(20M)_5825MHz**

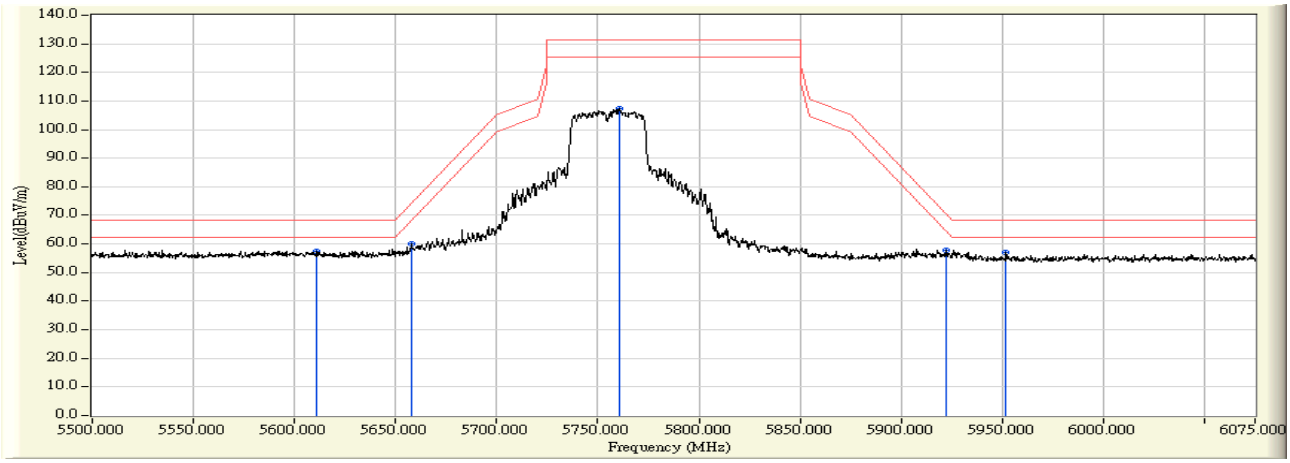


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.437	43.687	-10.313	54.000	AVERAGE
2		5460.000	2.114	41.967	44.081	-9.919	54.000	AVERAGE
3	*	5825.000	1.302	104.079	105.381	51.381	54.000	AVERAGE
4		7250.000	5.454	42.462	47.915	-6.085	54.000	AVERAGE
5		7718.750	6.285	42.442	48.727	-5.273	54.000	AVERAGE
6		7750.000	6.333	42.278	48.612	-5.388	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 = 1MHz, 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 - 09:18**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

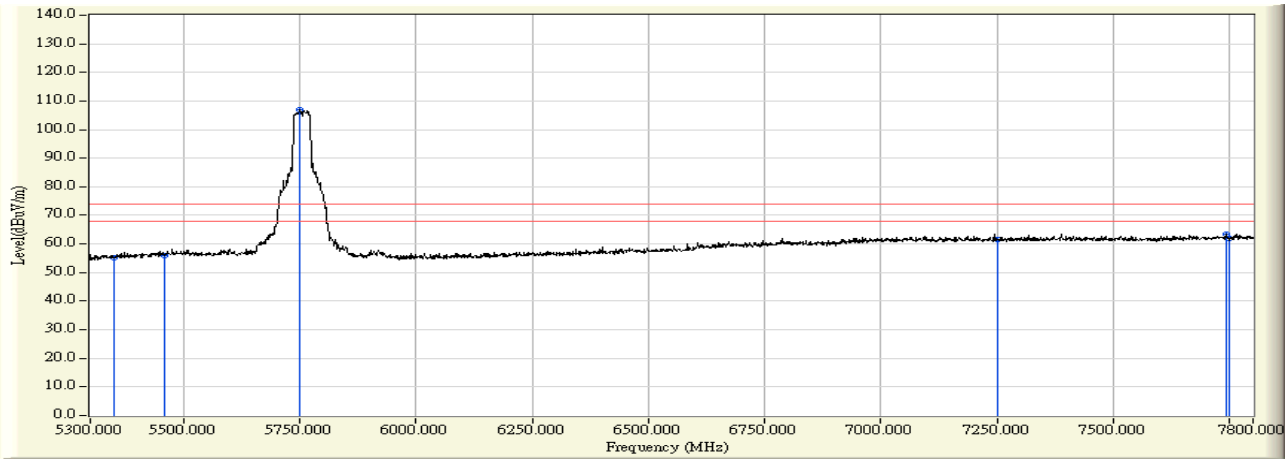


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5610.975	1.737	55.762	57.499	-10.701	68.200	PEAK
2		5657.838	1.624	58.271	59.896	-14.104	74.000	PEAK
3	*	5760.475	1.378	105.851	107.229	-23.971	131.200	PEAK
4		5922.050	0.990	56.682	57.672	-12.711	70.383	PEAK
5		5951.950	0.917	56.027	56.945	-11.255	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 = 1MHz, 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 : 2016/04/29 - 14:48**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

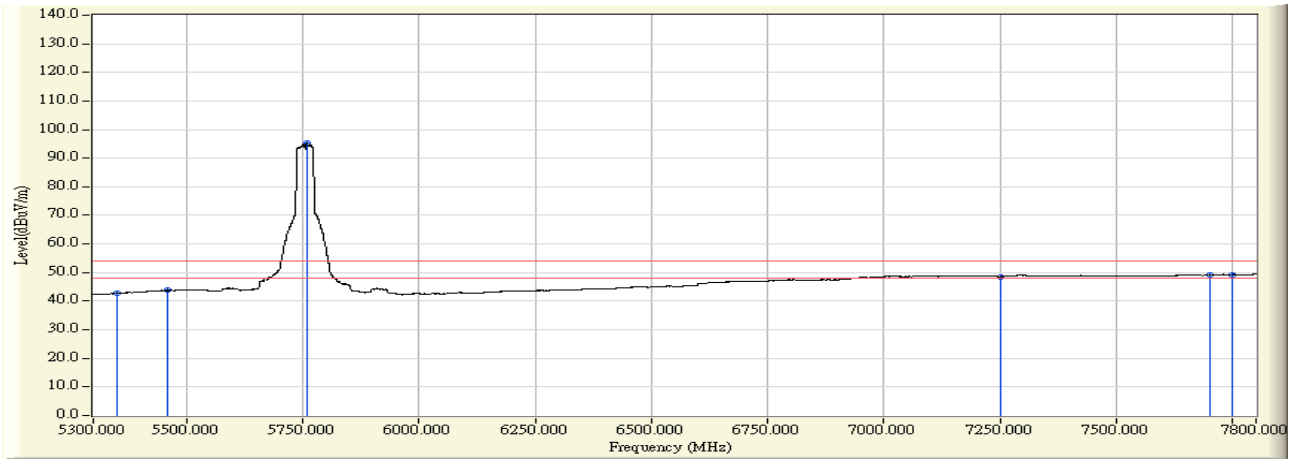


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	54.423	55.357	-18.643	74.000	PEAK
2		5460.000	1.853	54.195	56.048	-17.952	74.000	PEAK
3	*	5750.000	1.403	105.519	106.922	32.922	74.000	PEAK
4		7250.000	5.954	55.519	61.472	-12.528	74.000	PEAK
5		7742.500	6.822	56.665	63.487	-10.513	74.000	PEAK
6		7750.000	6.833	55.087	61.921	-12.079	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 = 1MHz, 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 : 2016/04/29 - 14:51**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

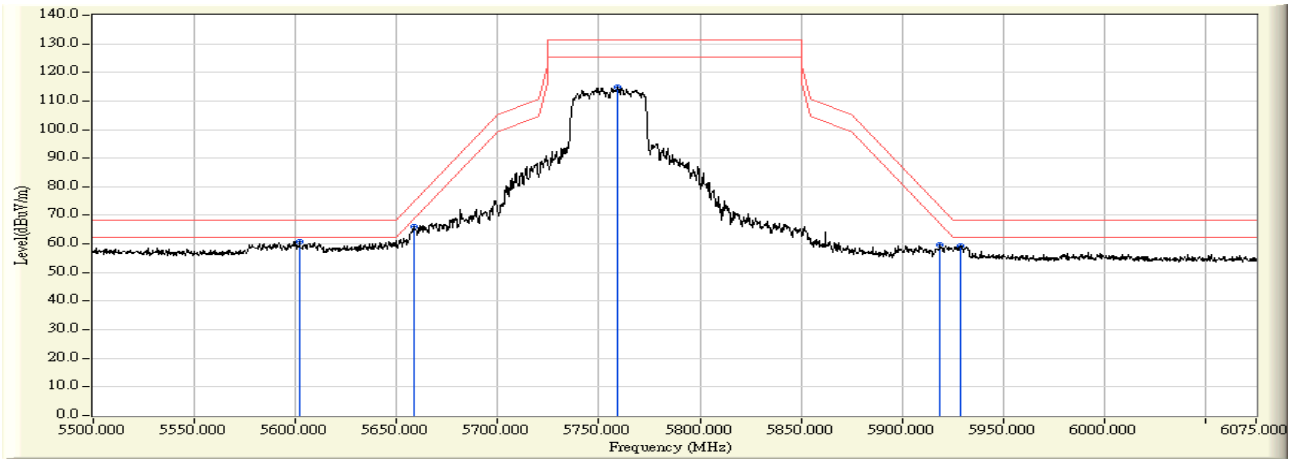


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.774	42.708	-11.292	54.000	AVERAGE
2		5460.000	1.853	41.887	43.740	-10.260	54.000	AVERAGE
3	*	5761.250	1.376	93.824	95.200	41.200	54.000	AVERAGE
4		7250.000	5.954	42.651	48.604	-5.396	54.000	AVERAGE
5		7701.250	6.757	42.572	49.329	-4.671	54.000	AVERAGE
6		7750.000	6.833	42.515	49.349	-4.651	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 = 1MHz, 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 - 09:18**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

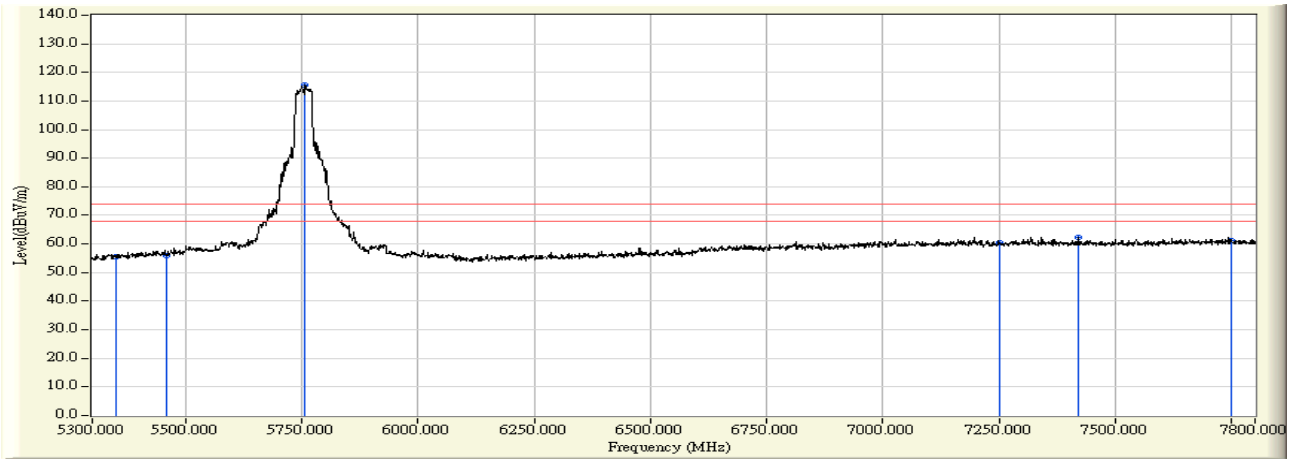


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5602.063	1.949	58.902	60.851	-7.349	68.200	PEAK
2		5658.413	1.786	64.346	66.132	-8.294	74.426	PEAK
3	*	5759.325	1.493	113.477	114.970	-16.230	131.200	PEAK
4		5918.888	1.029	58.503	59.532	-13.191	72.723	PEAK
5		5928.663	1.001	58.367	59.368	-8.832	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 = 1MHz, 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 : 2016/04/29 - 14:35**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

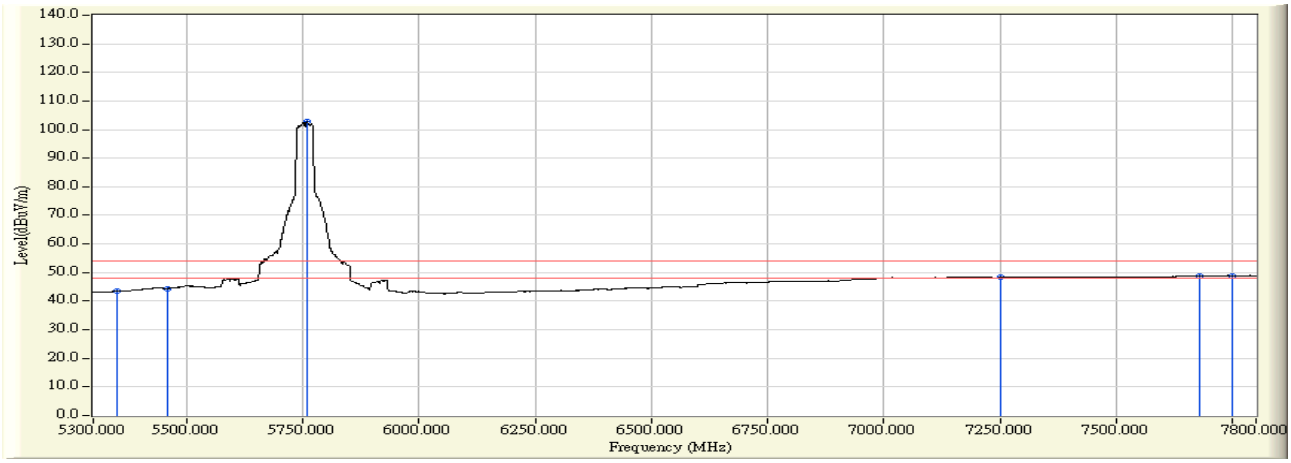


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	54.222	55.472	-18.528	74.000	PEAK
2		5460.000	2.114	53.971	56.085	-17.915	74.000	PEAK
3	*	5756.250	1.502	113.935	115.436	41.436	74.000	PEAK
4		7250.000	5.454	55.162	60.615	-13.385	74.000	PEAK
5		7421.250	5.790	56.597	62.387	-11.613	74.000	PEAK
6		7750.000	6.333	54.770	61.104	-12.896	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 = 1MHz, 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 : 2016/04/29 - 14:39**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5755MHz**

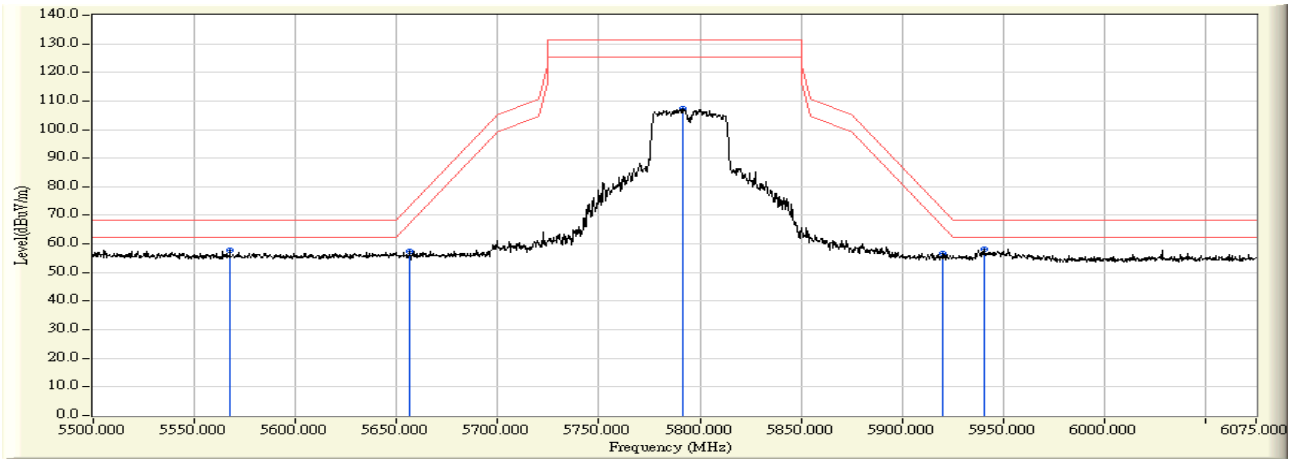


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.228	43.478	-10.522	54.000	AVERAGE
2		5460.000	2.114	42.333	44.447	-9.553	54.000	AVERAGE
3	*	5758.750	1.494	101.344	102.838	48.838	54.000	AVERAGE
4		7250.000	5.454	42.826	48.279	-5.721	54.000	AVERAGE
5		7680.000	6.223	42.590	48.813	-5.187	54.000	AVERAGE
6		7750.000	6.333	42.595	48.929	-5.071	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 = 1MHz, 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 - 09:19**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

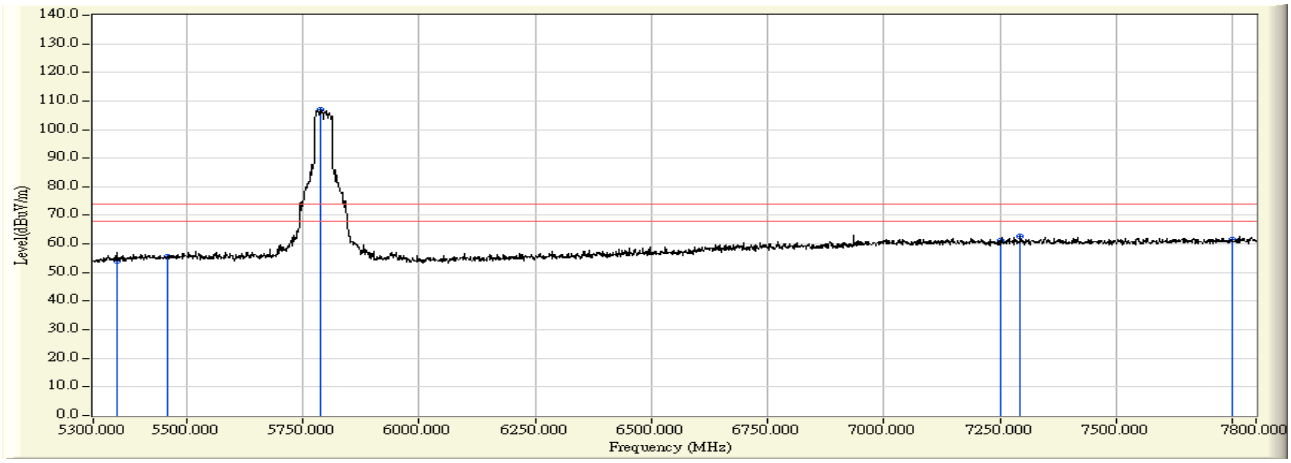


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5567.563	1.841	55.897	57.739	-10.461	68.200	PEAK
2		5656.400	1.628	55.707	57.335	-15.601	72.936	PEAK
3	*	5791.813	1.303	105.890	107.193	-24.007	131.200	PEAK
4		5920.038	0.994	55.818	56.812	-15.060	71.872	PEAK
5	*	5940.450	0.946	57.270	58.215	-9.985	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 = 1MHz, 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 : 2016/04/29 - 15:42**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

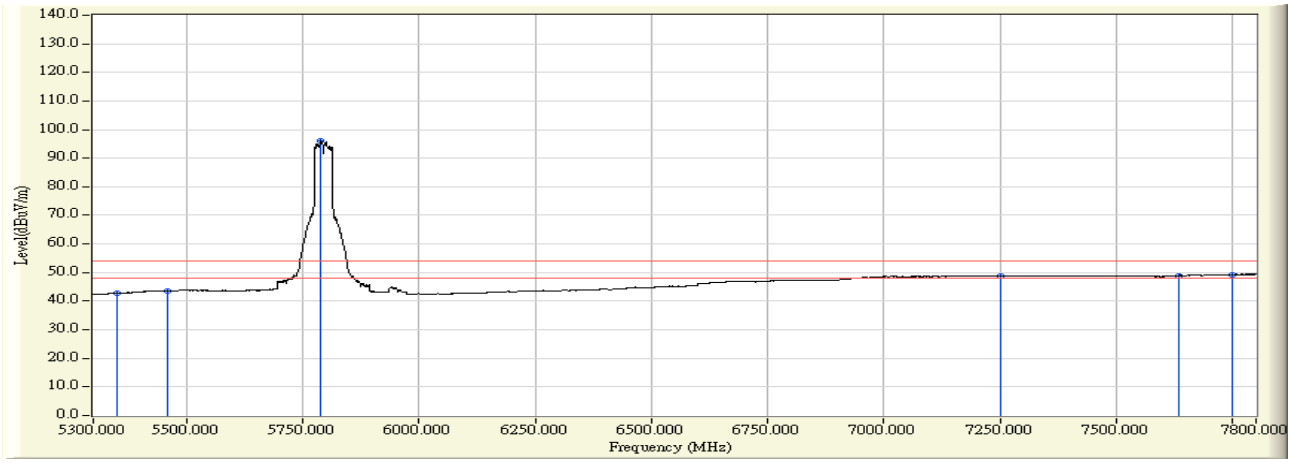


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	53.222	54.156	-19.844	74.000	PEAK
2		5460.000	1.853	53.681	55.534	-18.466	74.000	PEAK
3	*	5790.000	1.307	105.523	106.830	32.830	74.000	PEAK
4		7250.000	5.954	55.253	61.206	-12.794	74.000	PEAK
5		7292.500	6.037	56.723	62.760	-11.240	74.000	PEAK
6		7750.000	6.833	54.595	61.429	-12.571	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 = 1MHz, 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 : 2016/04/29 - 15:44**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

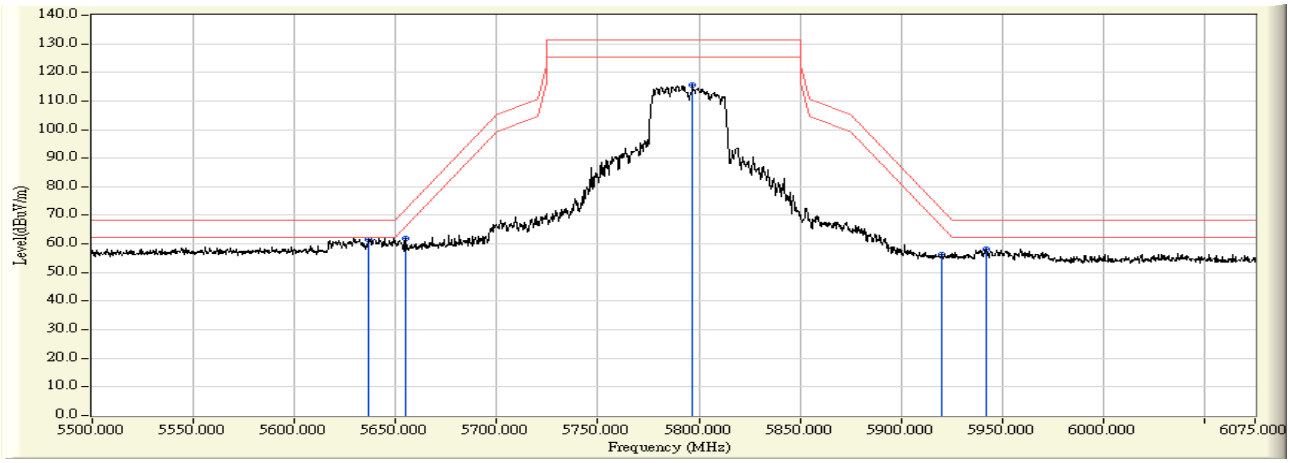


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.866	42.800	-11.200	54.000	AVERAGE
2		5460.000	1.853	41.710	43.563	-10.437	54.000	AVERAGE
3	*	5790.000	1.307	94.627	95.934	41.934	54.000	AVERAGE
4		7250.000	5.954	42.737	48.690	-5.310	54.000	AVERAGE
5		7635.000	6.652	42.248	48.900	-5.100	54.000	AVERAGE
6		7750.000	6.833	42.474	49.308	-4.692	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 = 1MHz, 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 - 09:19**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

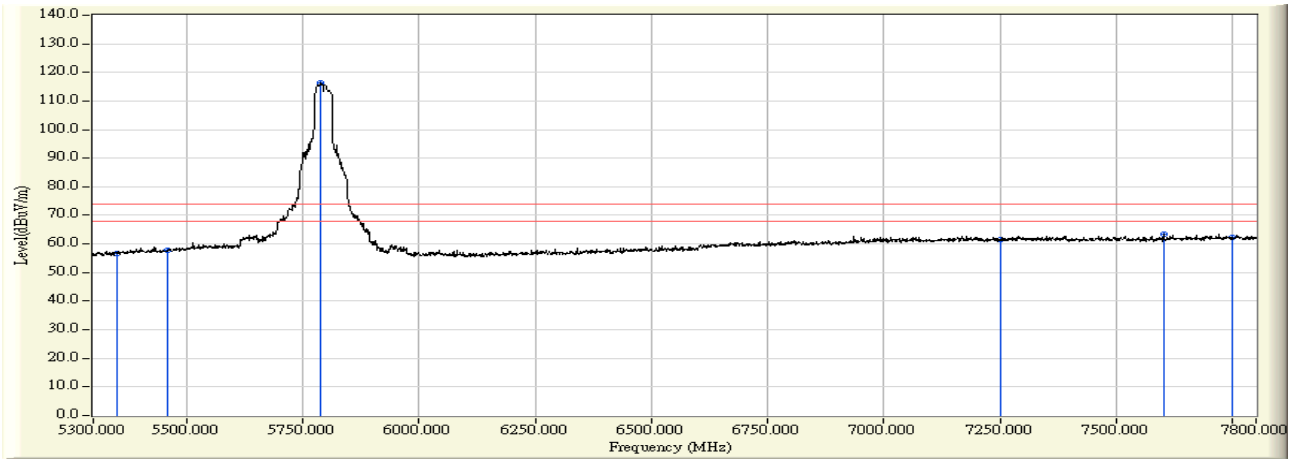


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5636.563	1.850	59.801	61.650	-6.550	68.200	PEAK
2		5654.675	1.796	60.244	62.040	-9.620	71.660	PEAK
3	*	5796.700	1.384	114.138	115.522	-15.678	131.200	PEAK
4		5919.750	1.026	55.394	56.421	-15.664	72.085	PEAK
5		5941.888	0.962	57.337	58.299	-9.901	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 = 1MHz, 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 : 2016/04/29 - 15:22**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

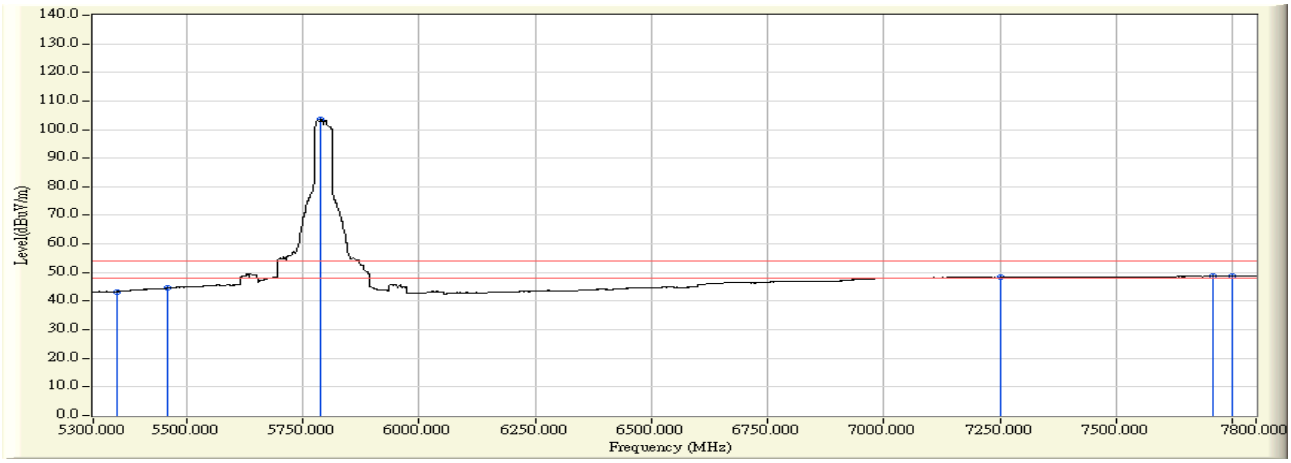


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	55.378	56.628	-17.372	74.000	PEAK
2		5460.000	2.114	55.513	57.627	-16.373	74.000	PEAK
3	*	5788.750	1.407	114.909	116.316	42.316	74.000	PEAK
4		7250.000	5.454	56.237	61.690	-12.310	74.000	PEAK
5		7601.250	6.099	57.374	63.473	-10.527	74.000	PEAK
6		7750.000	6.333	55.878	62.212	-11.788	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 = 1MHz, 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 : 2016/04/29 - 15:26**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11n(40M)_5795MHz**

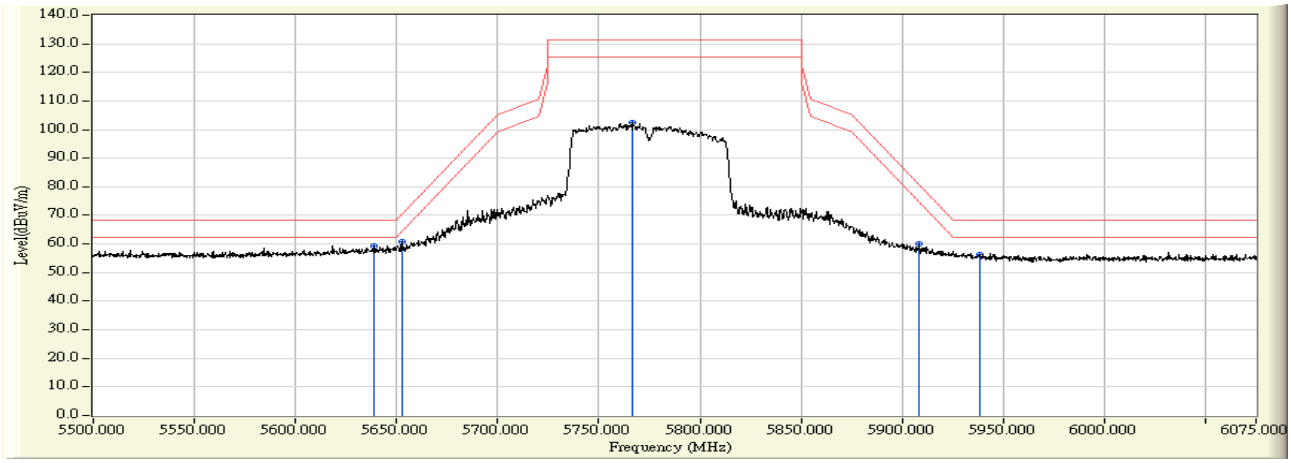


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	42.090	43.340	-10.660	54.000	AVERAGE
2		5460.000	2.114	42.465	44.579	-9.421	54.000	AVERAGE
3	*	5788.750	1.407	102.216	103.623	49.623	54.000	AVERAGE
4		7250.000	5.454	42.811	48.264	-5.736	54.000	AVERAGE
5		7708.750	6.269	42.572	48.841	-5.159	54.000	AVERAGE
6		7750.000	6.333	42.499	48.833	-5.167	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 = 1MHz, 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 - 09:19**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**

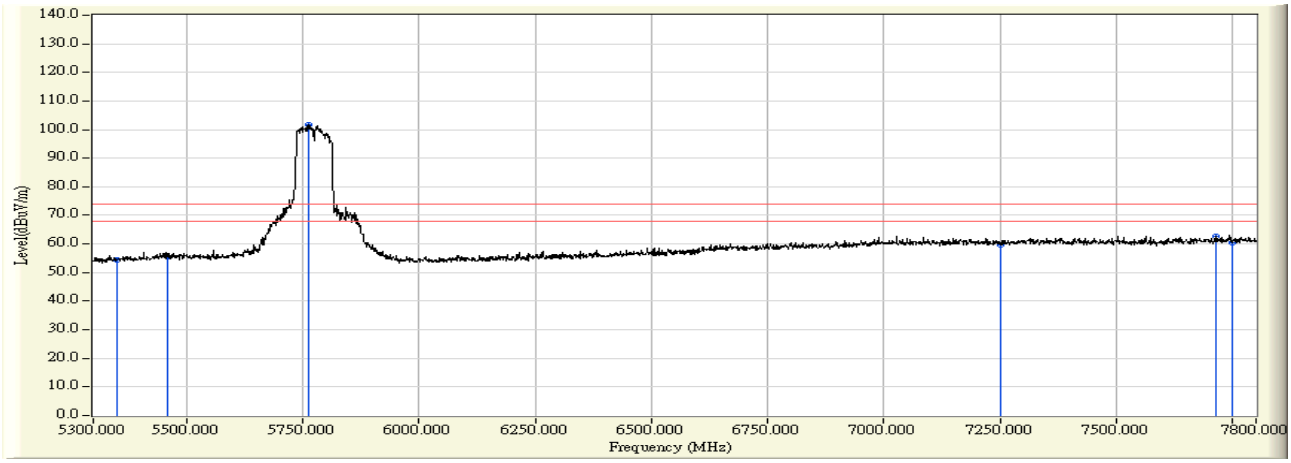


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5638.575	1.671	57.553	59.224	-8.976	68.200	PEAK
2		5652.663	1.637	59.008	60.645	-9.526	70.171	PEAK
3	*	5766.225	1.364	100.945	102.309	-28.891	131.200	PEAK
4		5908.250	1.022	58.959	59.982	-20.613	80.595	PEAK
5		5938.438	0.950	55.491	56.441	-11.759	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 = 1MHz, 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 : 2016/04/29 - 16:10**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**

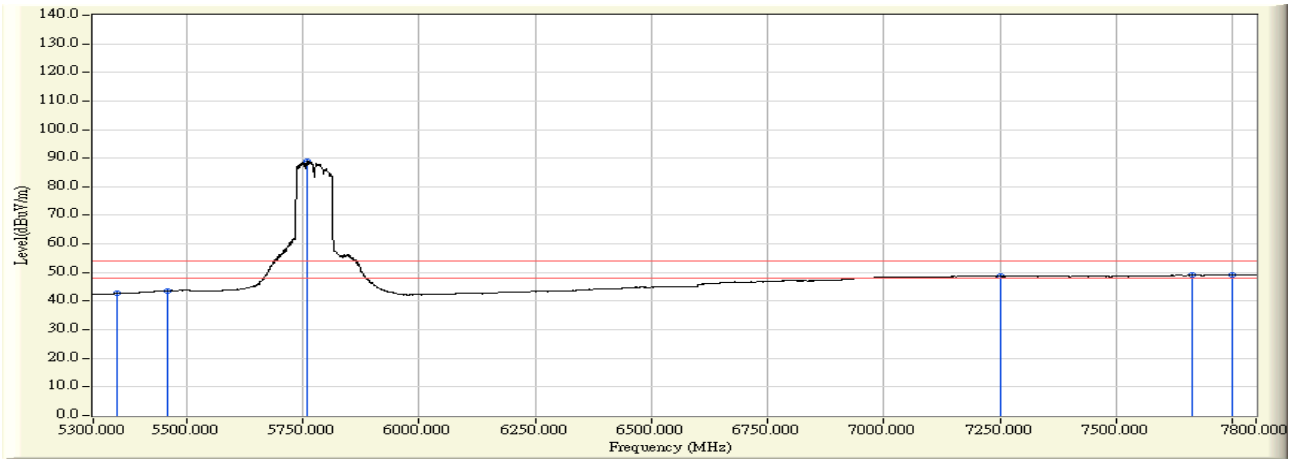


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	53.364	54.298	-19.702	74.000	PEAK
2		5460.000	1.853	53.673	55.526	-18.474	74.000	PEAK
3	*	5762.500	1.374	100.258	101.631	27.631	74.000	PEAK
4		7250.000	5.954	53.843	59.796	-14.204	74.000	PEAK
5		7715.000	6.778	55.876	62.655	-11.345	74.000	PEAK
6		7750.000	6.833	53.586	60.420	-13.580	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 = 1MHz, 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 : 2016/04/29 - 16:12**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**

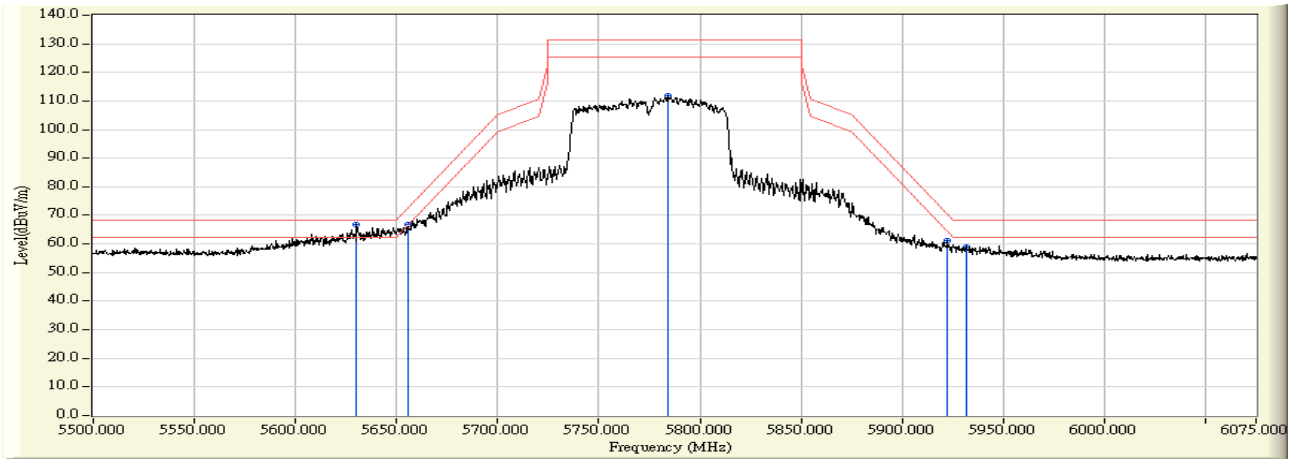


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	0.934	41.760	42.694	-11.306	54.000	AVERAGE
2		5460.000	1.853	41.725	43.578	-10.422	54.000	AVERAGE
3	*	5760.000	1.379	87.429	88.808	34.808	54.000	AVERAGE
4		7250.000	5.954	42.698	48.651	-5.349	54.000	AVERAGE
5		7661.250	6.694	42.317	49.011	-4.989	54.000	AVERAGE
6		7750.000	6.833	42.276	49.110	-4.890	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 = 1MHz, 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 - 09:19**
Limit : FCC_Part15E_2016_B4_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**

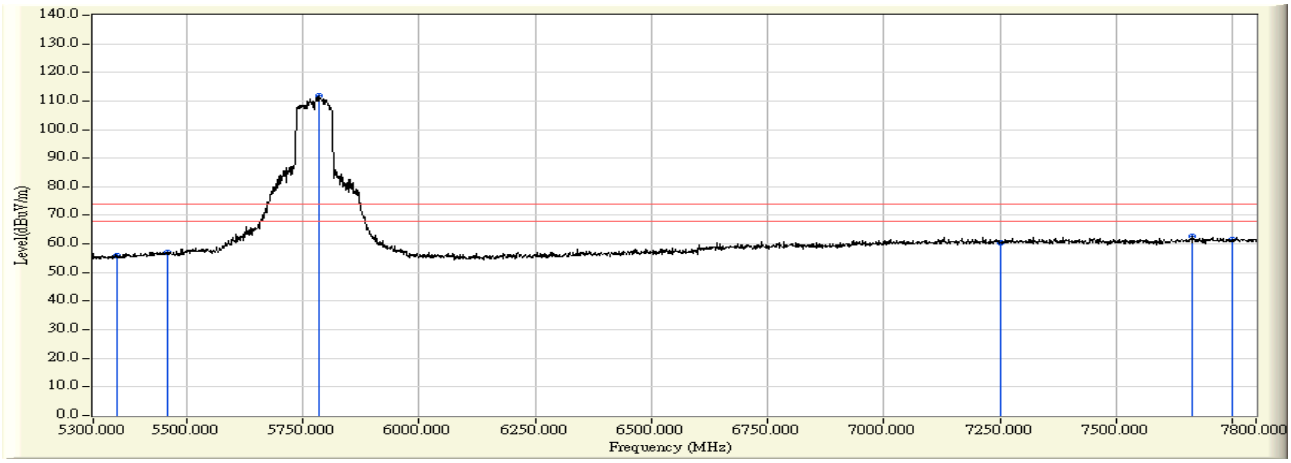


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	5630.238	1.868	64.986	66.853	-1.347	68.200	PEAK
2		5655.538	1.794	64.961	66.755	-5.543	72.298	PEAK
3	*	5784.050	1.420	110.462	111.883	-19.317	131.200	PEAK
4		5922.338	1.019	59.990	61.009	-9.161	70.170	PEAK
5		5931.538	0.992	58.044	59.036	-9.164	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 = 1MHz, 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 : 2016/04/29 - 16:03**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless PCI-E Adapter	**Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL**
Power : DC 3.3V (Power by PC)	**Note : 802.11ac(80M)_5775MHz**

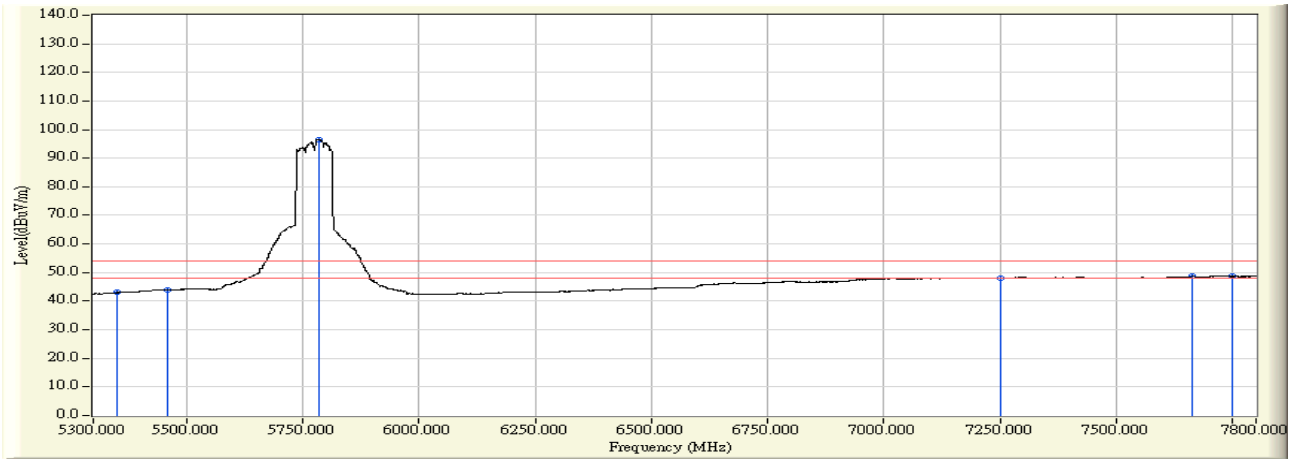


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	1.250	54.653	55.903	-18.097	74.000	PEAK
2		5460.000	2.114	54.828	56.942	-17.058	74.000	PEAK
3	*	5783.750	1.421	110.462	111.884	37.884	74.000	PEAK
4		7250.000	5.454	55.079	60.532	-13.468	74.000	PEAK
5		7663.750	6.198	56.521	62.719	-11.281	74.000	PEAK
6		7750.000	6.333	55.155	61.489	-12.511	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 = 1MHz, 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 : 2016/04/29 - 16:05**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
EUT : PCE-AC56 Dual-Band Wireless 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	41.735	42.985	-11.015	54.000	AVERAGE
2		5460.000	2.114	41.818	43.932	-10.068	54.000	AVERAGE
3	*	5785.000	1.418	95.206	96.624	42.624	54.000	AVERAGE
4		7250.000	5.454	42.509	47.962	-6.038	54.000	AVERAGE
5		7661.250	6.194	42.415	48.609	-5.391	54.000	AVERAGE
6		7750.000	6.333	42.285	48.619	-5.381	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 = 1MHz, 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

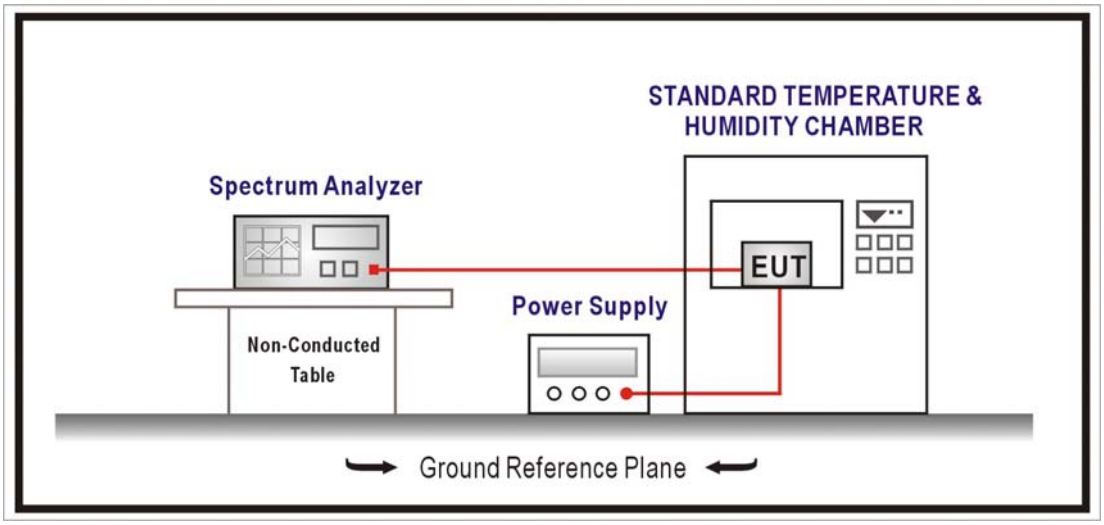
The following test equipments are used during the radiated emission tests:

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 V01R02 for compliance to FCC 47CFR Subpart E requirements.

7.5. Uncertainty

The measurement uncertainty is defined as ± 150 Hz

7.6. Test Result

Product	PCE-AC56 Dual-Band Wireless 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	5745.01344	2.3460	Pass
-10		5745.03361	5.8507	Pass
0		5745.00261	0.4539	Pass
10		5744.99978	-0.0382	Pass
20		5744.99704	-0.5159	Pass
30		5744.99922	-0.1352	Pass
40		5744.96991	-5.2372	Pass
50		5744.98514	-2.5873	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99757	-0.4238	Pass
	120	5744.99504	-0.8632	Pass
	138	5744.95076	-8.5701	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5825.00266	0.4632	Pass
-10		5825.03805	6.5316	Pass
0		5825.01861	3.1951	Pass
10		5824.98578	-2.4404	Pass
20		5824.99031	-1.6636	Pass
30		5824.99267	-1.2582	Pass
40		5824.99876	-0.2122	Pass
50		5824.95245	-8.1625	Pass

Temperature Interval (^{o}C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99760	-0.4116	Pass
	120	5824.99726	-0.4709	Pass
	138	5824.96413	-6.1583	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5745.02516	4.3853	Pass
-10		5745.01284	2.2355	Pass
0		5745.00834	1.4525	Pass
10		5744.98074	-3.3524	Pass
20		5744.99797	-0.3532	Pass
30		5744.98395	-2.7944	Pass
40		5744.96633	-5.8602	Pass
50		5744.97132	-4.9924	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99722	-0.4840	Pass
	120	5744.98993	-1.7532	Pass
	138	5744.98289	-2.9781	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5825.01708	2.9377	Pass
-10		5825.02118	3.6358	Pass
0		5825.01575	2.7047	Pass
10		5824.99504	-0.8518	Pass
20		5824.98382	-2.7777	Pass
30		5824.97773	-3.8237	Pass
40		5824.95796	-7.2168	Pass
50		5824.99104	-1.5383	Pass

Temperature Interval (^{o}C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99930	-0.1205	Pass
	120	5824.97264	-4.6976	Pass
	138	5824.97686	-3.9732	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5745.03365	5.8631	Pass
-10		5745.03304	5.7505	Pass
0		5745.02254	3.9231	Pass
10		5744.98606	-2.4260	Pass
20		5744.99163	-1.4573	Pass
30		5744.98051	-3.3918	Pass
40		5744.98063	-3.3715	Pass
50		5744.98104	-3.2999	Pass

Temperature Interval (^{o}C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99988	-0.0209	Pass
	120	5744.99729	-0.4722	Pass
	138	5744.97348	-4.6166	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5825.04588	7.8824	Pass
-10		5825.03483	5.9793	Pass
0		5825.00897	1.5405	Pass
10		5824.99289	-1.2214	Pass
20		5824.99126	-1.5001	Pass
30		5824.99938	-0.1064	Pass
40		5824.94398	-9.6166	Pass
50		5824.97558	-4.1930	Pass

Temperature Interval (^{o}C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99723	-0.4750	Pass
	120	5824.96755	-5.5715	Pass
	138	5824.96409	-6.1640	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5745.02224	3.8776	Pass
-10		5745.02372	4.1284	Pass
0		5745.00896	1.5599	Pass
10		5744.98306	-2.9482	Pass
20		5744.99940	-0.1051	Pass
30		5744.97666	-4.0630	Pass
40		5744.99535	-0.8092	Pass
50		5744.96362	-6.3317	Pass

Temperature Interval (^{o}C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5744.99993	-0.0118	Pass
	120	5744.97552	-4.2605	Pass
	138	5744.99940	-0.1043	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5825.00789	1.3599	Pass
-10		5825.00604	1.0375	Pass
0		5825.01124	1.9301	Pass
10		5824.99940	-0.1035	Pass
20		5824.99638	-0.6223	Pass
30		5824.97585	-4.1463	Pass
40		5824.94108	-10.1159	Pass
50		5824.97329	-4.5847	Pass

Temperature Interval (^{o}C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5824.99834	-0.2845	Pass
	120	5824.96710	-5.6483	Pass
	138	5824.99772	-0.3911	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5755.00805	1.4045	Pass
-10		5755.01451	2.5219	Pass
0		5755.01289	2.2393	Pass
10		5754.98760	-2.1543	Pass
20		5754.99024	-1.6954	Pass
30		5754.97451	-4.4297	Pass
40		5754.95926	-7.0788	Pass
50		5754.97414	-4.4936	Pass

Temperature Interval (^{o}C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5754.99737	-0.4578	Pass
	120	5754.96158	-6.6765	Pass
	138	5754.95700	-7.4723	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5795.04120	7.1163	Pass
-10		5795.00307	0.5298	Pass
0		5795.01441	2.4860	Pass
10		5794.99807	-0.3334	Pass
20		5794.98405	-2.7519	Pass
30		5794.99076	-1.5937	Pass
40		5794.98405	-2.7520	Pass
50		5794.96658	-5.7669	Pass

Temperature Interval (^{o}C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5794.99720	-0.4836	Pass
	120	5794.98268	-2.9886	Pass
	138	5794.95862	-7.1411	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5755.00705	1.2309	Pass
-10		5755.00284	0.4927	Pass
0		5755.00514	0.8926	Pass
10		5754.98441	-2.7092	Pass
20		5754.99195	-1.3988	Pass
30		5754.98952	-1.8202	Pass
40		5754.94748	-9.1266	Pass
50		5754.96934	-5.3274	Pass

Temperature Interval (^{o}C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5754.99731	-0.4671	Pass
	120	5754.98462	-2.6718	Pass
	138	5754.96479	-6.1187	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5795.02565	4.4319	Pass
-10		5795.02432	4.1959	Pass
0		5795.02951	5.0930	Pass
10		5794.98795	-2.0788	Pass
20		5794.99919	-0.1399	Pass
30		5794.97613	-4.1185	Pass
40		5794.96195	-6.5661	Pass
50		5794.97108	-4.9902	Pass

Temperature Interval (^{o}C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5794.99761	-0.4127	Pass
	120	5794.99989	-0.0190	Pass
	138	5794.98557	-2.4902	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5775.03004	5.2082	Pass
-10		5775.00939	1.6261	Pass
0		5775.01280	2.2172	Pass
10		5774.98565	-2.4846	Pass
20		5774.98114	-3.2652	Pass
30		5774.97135	-4.9605	Pass
40		5774.94153	-10.1242	Pass
50		5774.99039	-1.6633	Pass

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5774.99989	-0.0189	Pass
	120	5774.98487	-2.6192	Pass
	138	5774.98947	-1.8236	Pass

Product	PCE-AC56 Dual-Band Wireless 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	5775.01657	2.8745	Pass
-10		5775.03223	5.5803	Pass
0		5775.00712	1.2324	Pass
10		5774.99956	-0.0768	Pass
20		5774.98302	-2.9410	Pass
30		5774.99382	-1.0704	Pass
40		5774.96007	-6.9144	Pass
50		5774.95503	-7.7875	Pass

Temperature Interval (^{o}C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5774.99961	-0.0667	Pass
	120	5774.97406	-4.4911	Pass
	138	5774.95939	-7.0316	Pass