

FCC Test Report

Product Name : Dual-band Wireless-AC1200 Range Extender

Model No. : RP-AC56, RP-AC1200

FCC ID. : MSQ-RPAC56

Applicant : ASUSTeK COMPUTER INC.

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

Date of Receipt : 2015/04/10

Issued Date : 2015/05/22

Report No. : 1540255R-RFUSP56V00

Report Version : V1.0



The test results relate only to the samples tested.

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Test Report Certification

Issued Date : 2015/05/22

Report No. : 1540255R-RFUSP56V00



Product Name : Dual-band Wireless-AC1200 Range Extender
Applicant : ASUSTeK COMPUTER INC.
Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
Manufacturer : ASUSTeK COMPUTER INC.
Model No. : RP-AC56, RP-AC1200
FCC ID. : MSQ-RPAC56
EUT Voltage : AC 100-240V, 50-60Hz
Trade Name : ASUS
Applicable Standard : FCC CFR Title 47 Part 15 Subpart E Section 15.407:2014
ANSI C63.10: 2009
Test Result : Complied

The test results relate only to the samples tested.

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Documented By :

(Demi Chang / Engineering Adm. Specialist)

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(Jimmie Liu / Senior Engineer)

Approved By :

(Roy Wang / Director)

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: 150981

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

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1. General Information

1.1. EUT Description

Product Name	Dual-band Wireless-AC1200 Range Extender	
Product Type	WLAN (2TX, 2RX)	
Trade Name	ASUS	
Model No.	RP-AC56, RP-AC1200	
Frequency Range/ Channel Number	IEEE 802.11a/ IEEE 802.11n (20MHz) / IEEE 802.11ac (20MHz)	5180~5240MHz / 4 Channels
	IEEE 802.11n (40MHz) / IEEE 802.11ac (40MHz)	5190~5230MHz / 2 Channels
	IEEE 802.11ac (80MHz)	5210~5210MHz / 1 Channel
Type of Modulation	IEEE 802.11a/n/ac	Orthogonal Frequency Division Multiplexing (OFDM)
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 15 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 Gain	Ant0: 4dBi, Ant1: 4dBi	
Antenna Type	Dipole	

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 _{BPS}	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 _{BPS}	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
36	5180MHz	40	5200MHz	44	5220MHz	48	5240MHz

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

Working Frequency of Each Channel			
Channel	Frequency	Channel	Frequency
38	5190MHz	46	5230MHz

IEEE 802.11ac (80MHz)

Working Frequency of Each Channel	
Channel	Frequency
42	5210 MHz

Note:

1. This device is an Dual-band Wireless-AC1200 Range Extender including 2.4GHz/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 2.4GHz & 5.8GHz transmitting is measured and makes a test report of the report number: 1540255R-RFUSP28V00.
5. This device has USB and Ethernet ports, which can be connected to computer. It is a Class B personal computer and peripheral. Its test report number is 1540255R-RFUSP01V00 under part 15B with Declaration of Conformity letter.
6. The 5.2GHz is performed according to the UNII Test Procedures New Rules.

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
----	------------------

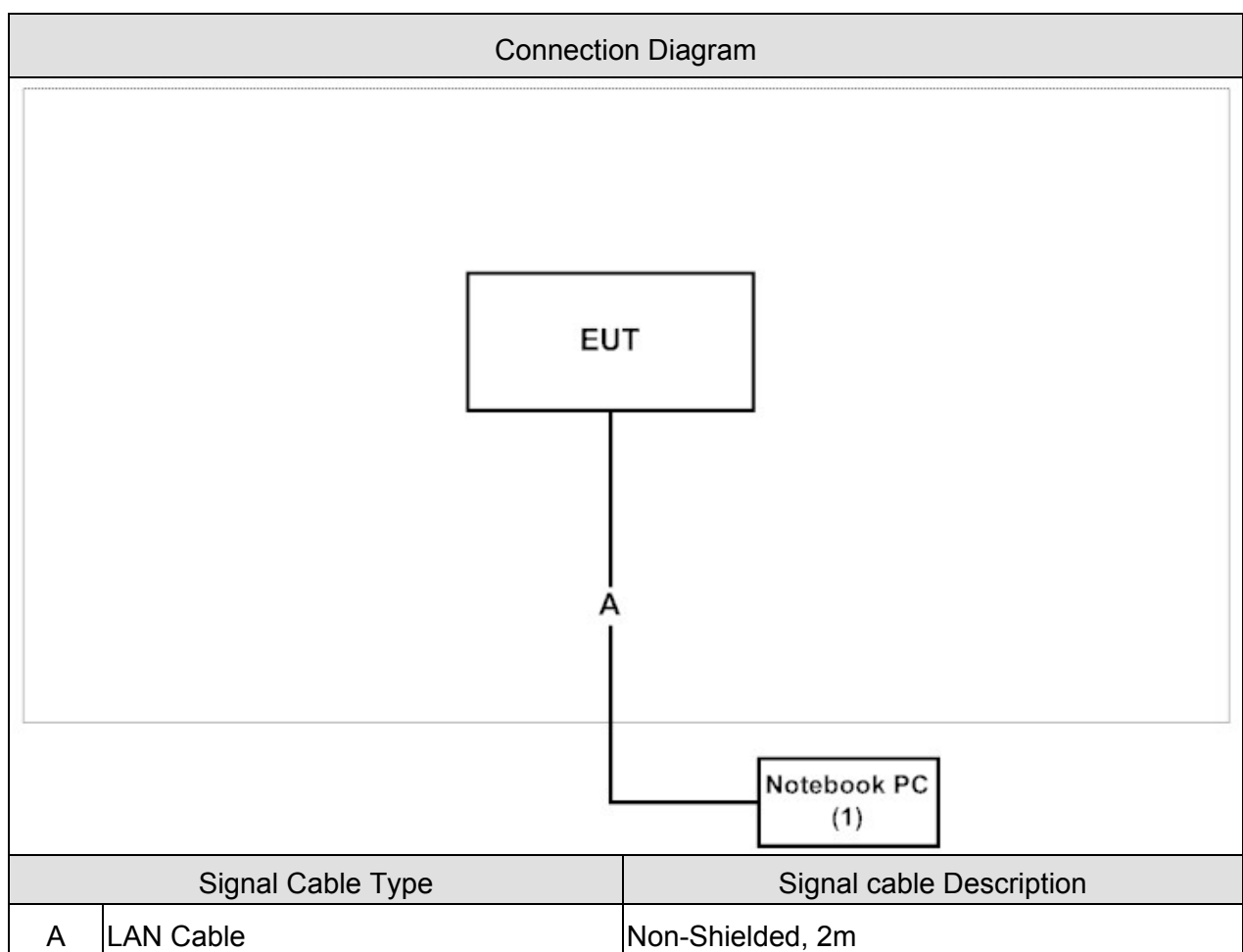
Test Items	Modulation	Channel	Antenna	Result
Conducted Emission	11ac (80MHz)	42	0+1	Complies
99 % & 26dB Bandwidth	11a	36/44/48	0/1	Complies
	11n (20MHz)	36/44/48	0/1	Complies
	11n (40MHz)	38/46	0/1	Complies
	11ac (80MHz)	42	0/1	Complies
Peak Transmit Output	11a	36/44/48	0+1	Complies
	11n (20MHz)	36/44/48	0+1	Complies
	11n (40MHz)	38/46	0+1	Complies
	11ac (80MHz)	42	0+1	Complies
Peak Power Spectrum Density	11a	36/44/48	0+1	Complies
	11n (20MHz)	36/44/48	0+1	Complies
	11n (40MHz)	38/46	0+1	Complies
	11ac (80MHz)	42	0+1	Complies
Radiated Emission	11a	36/44/48	0+1	Complies
	11n (20MHz)	36/44/48	0+1	Complies
	11n (40MHz)	38/46	0+1	Complies
	11ac (80MHz)	42	0+1	Complies
Band Edge	11a	36	0+1	Complies
	11n (20MHz)	36	0+1	Complies
	11n (40MHz)	38	0+1	Complies
	11ac (80MHz)	42	0+1	Complies
Frequency Stability	11a	36/44/48	0/1	Complies
	11n (20MHz)	36/44/48	0/1	Complies
	11n (40MHz)	38/46	0/1	Complies
	11ac (80MHz)	42	0/1	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 Notebook PC	DELL	Vostro3400	7F808N1	DoC	Non-Shielded, 1.8m

1.4. Configuration of tested System



1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.4.
2	Execute the telnet command 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 Conducted Emission	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 99 % & 26dB Bandwidth	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Peak Transmit Power	15 - 35	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Peak Power Spectrum Density	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Radiated Emission	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Band Edge	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Frequency Stability	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

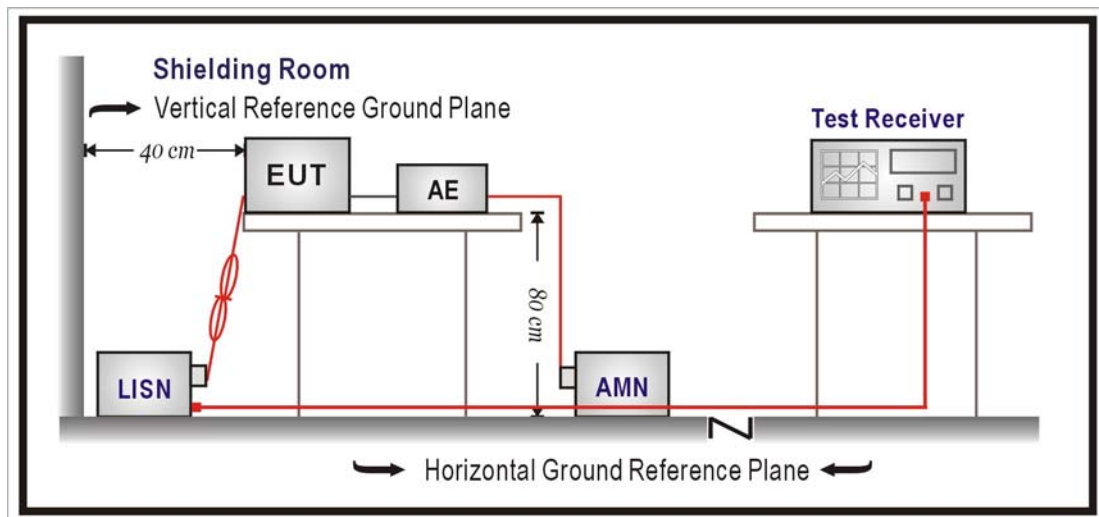
The following test equipments are used during the test:

Conducted Emission / SR3

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
LISN	R&S	ENV216	100096	2015/08/10
LISN	R&S	ESH3-Z5	836679/022	2015/12/15
Test Receiver	R&S	ESCS 30	825442/017	2016/01/14

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

2.2. Test Setup



2.3. Limits

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

Remarks: In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT was setup according to ANSI C63.10:2009. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

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

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

2.5. Test Specification

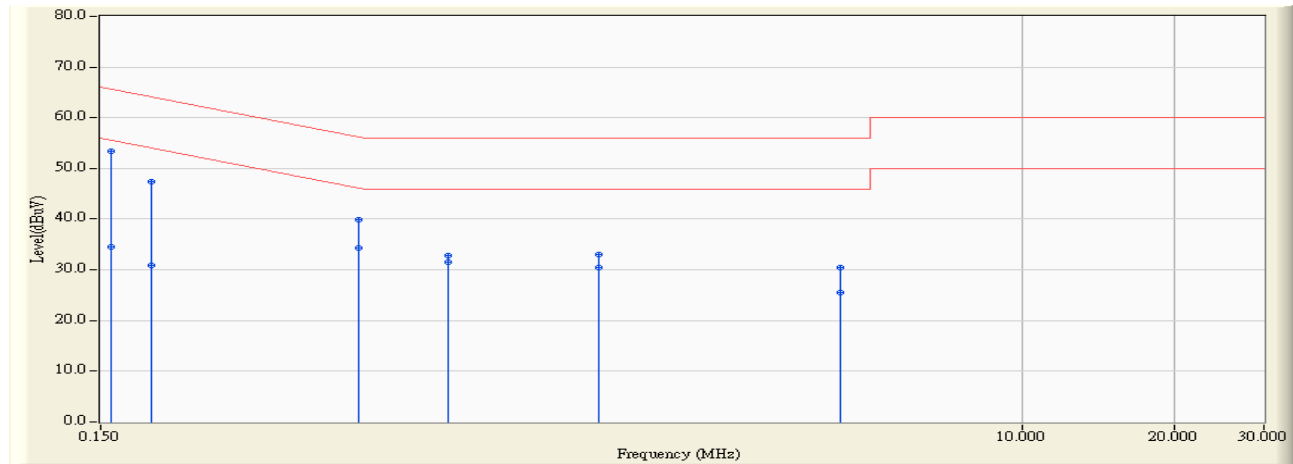
According to FCC Part 15 Subpart C Paragraph 15.207: 2014

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR3	Time : 2015/05/11 - 20:14
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-4_0811 - Line1	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11ac80_5210MHz

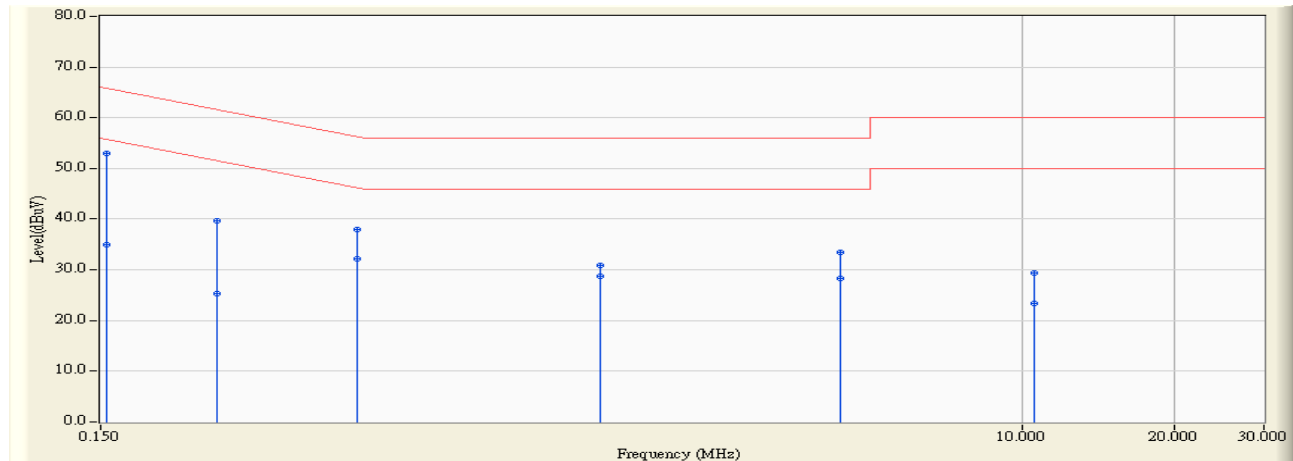


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.158	9.664	43.660	53.324	-12.254	65.578	QUASIPeAK
2		0.158	9.664	24.830	34.494	-21.084	55.578	AVERAGE
3		0.189	9.671	37.830	47.501	-16.576	64.078	QUASIPeAK
4		0.189	9.671	21.130	30.801	-23.276	54.078	AVERAGE
5		0.486	9.830	30.100	39.930	-16.306	56.237	QUASIPeAK
6	*	0.486	9.830	24.460	34.290	-11.946	46.237	AVERAGE
7		0.728	9.895	22.980	32.875	-23.125	56.000	QUASIPeAK
8		0.728	9.895	21.660	31.555	-14.445	46.000	AVERAGE
9		1.455	9.950	23.000	32.950	-23.050	56.000	QUASIPeAK
10		1.455	9.950	20.610	30.560	-15.440	46.000	AVERAGE
11		4.365	10.053	20.500	30.553	-25.447	56.000	QUASIPeAK
12		4.365	10.053	15.460	25.513	-20.487	46.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : SR3	Time : 2015/05/11 - 20:17
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-4_0811 - Line2	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11ac80_5210MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.154	9.657	43.400	53.058	-12.729	65.786	QUASIPeAK
2		0.154	9.657	25.290	34.948	-20.839	55.786	AVERAGE
3		0.255	9.702	29.990	39.692	-21.885	61.577	QUASIPeAK
4		0.255	9.702	15.670	25.372	-26.205	51.577	AVERAGE
5		0.482	9.829	28.120	37.949	-18.351	56.300	QUASIPeAK
6		0.482	9.829	22.390	32.219	-14.081	46.300	AVERAGE
7		1.459	9.955	20.960	30.915	-25.085	56.000	QUASIPeAK
8		1.459	9.955	18.790	28.745	-17.255	46.000	AVERAGE
9		4.373	10.066	23.410	33.476	-22.524	56.000	QUASIPeAK
10		4.373	10.066	18.150	28.216	-17.784	46.000	AVERAGE
11		10.533	10.189	19.160	29.349	-30.651	60.000	QUASIPeAK
12		10.533	10.189	13.120	23.309	-26.691	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

3. 99% & 26dB Bandwidth

3.1. Test Equipment

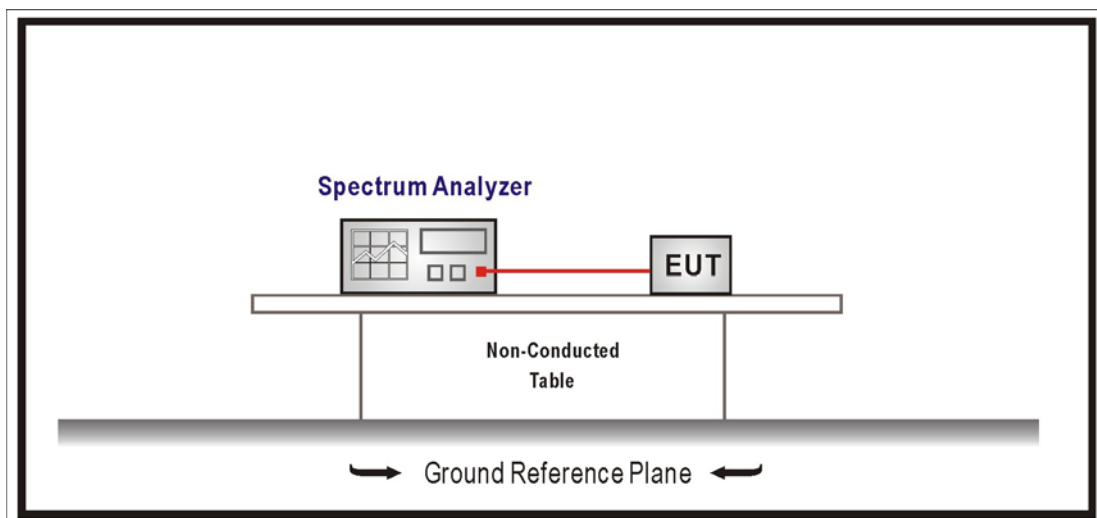
The following test equipments are used during the radiated emission tests:

99% & 26dB Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2015/07/14

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

3.2. Test Setup



3.3. Limits

99% & 26dB Bandwidth : No Required

3.4. Test Procedure

99% & 26dB Bandwidth :

The EUT was tested according to U-NII test procedure of KDB 789033.

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

3.5. Uncertainty

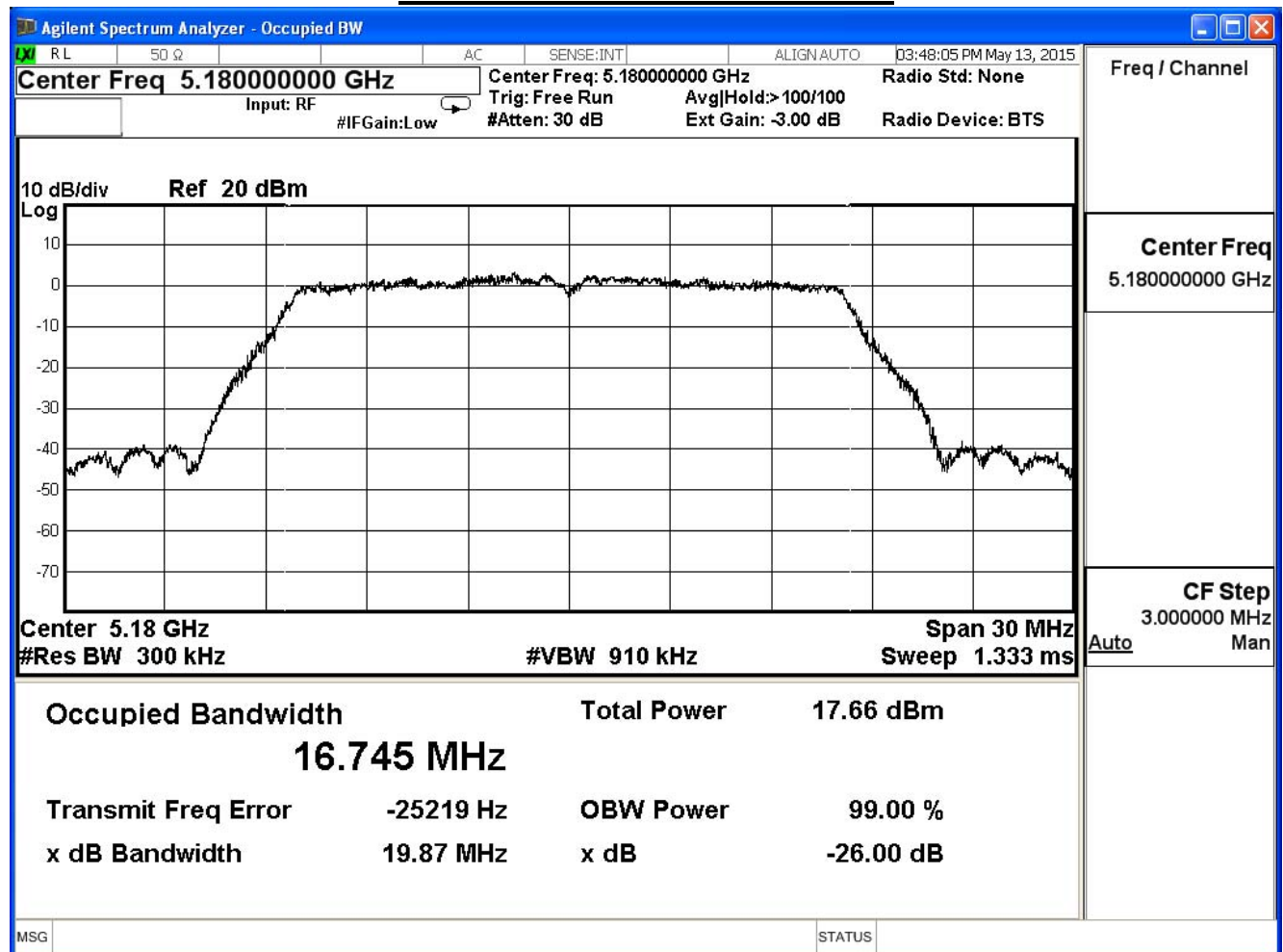
The measurement uncertainty is defined as $\pm 150\text{Hz}$

3.6. Test Result

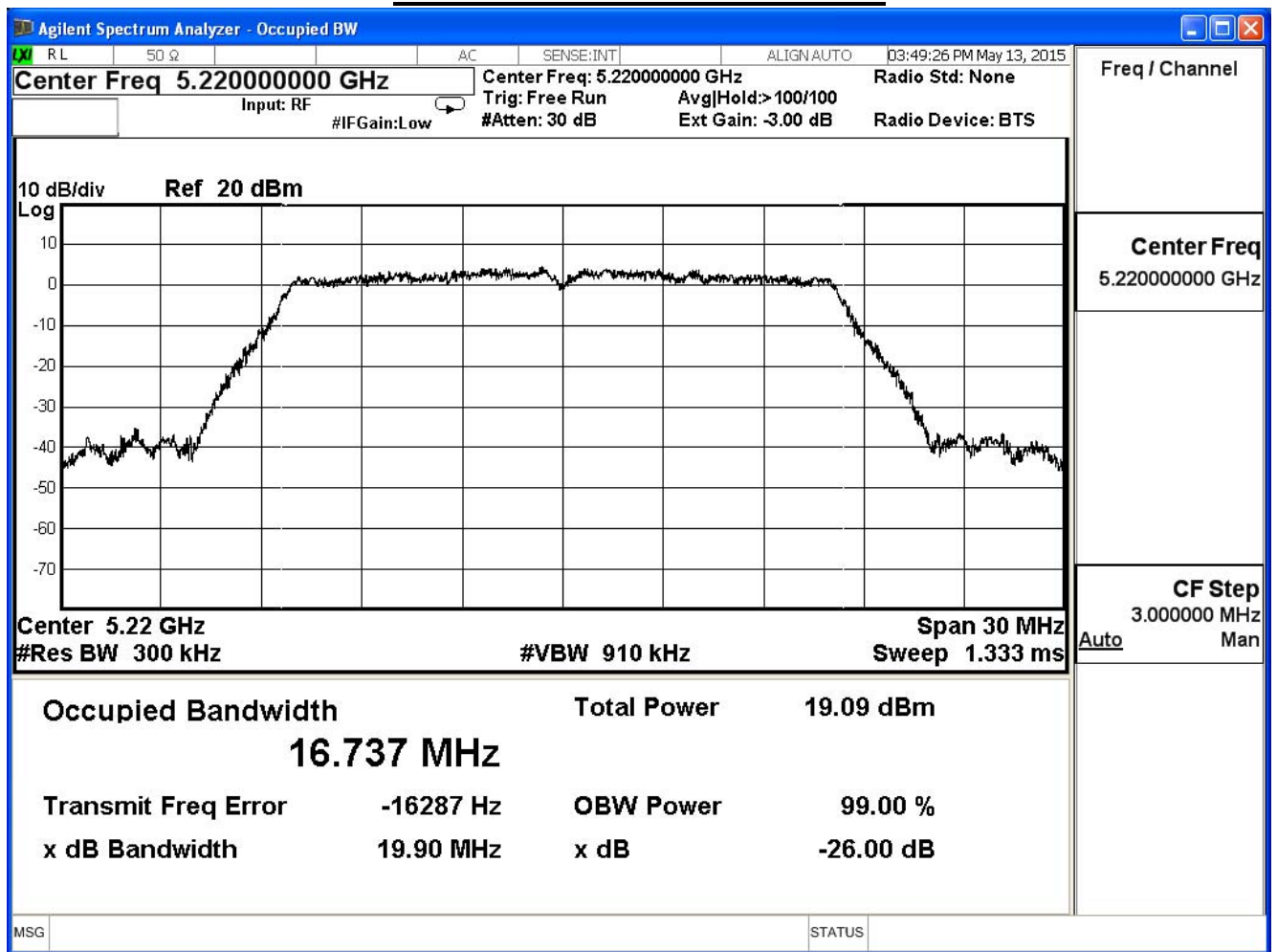
Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/12	Test Site	SR7

802.11a (ANT 0)				
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
36	5180	19.87	16.745	--
44	5220	19.90	16.737	--
48	5240	20.01	16.750	--

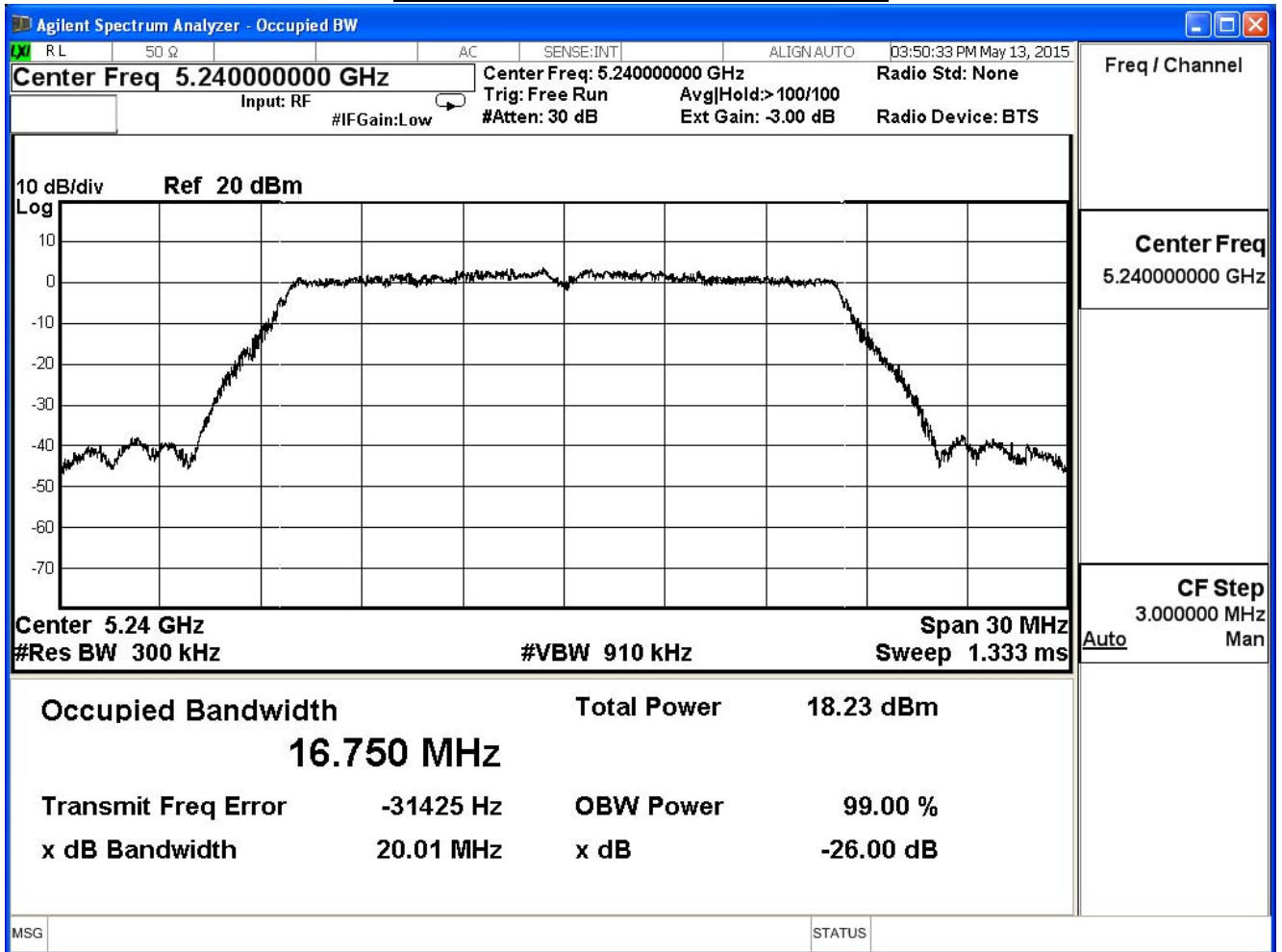
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



99% & 26dB Bandwidth – Channel 48

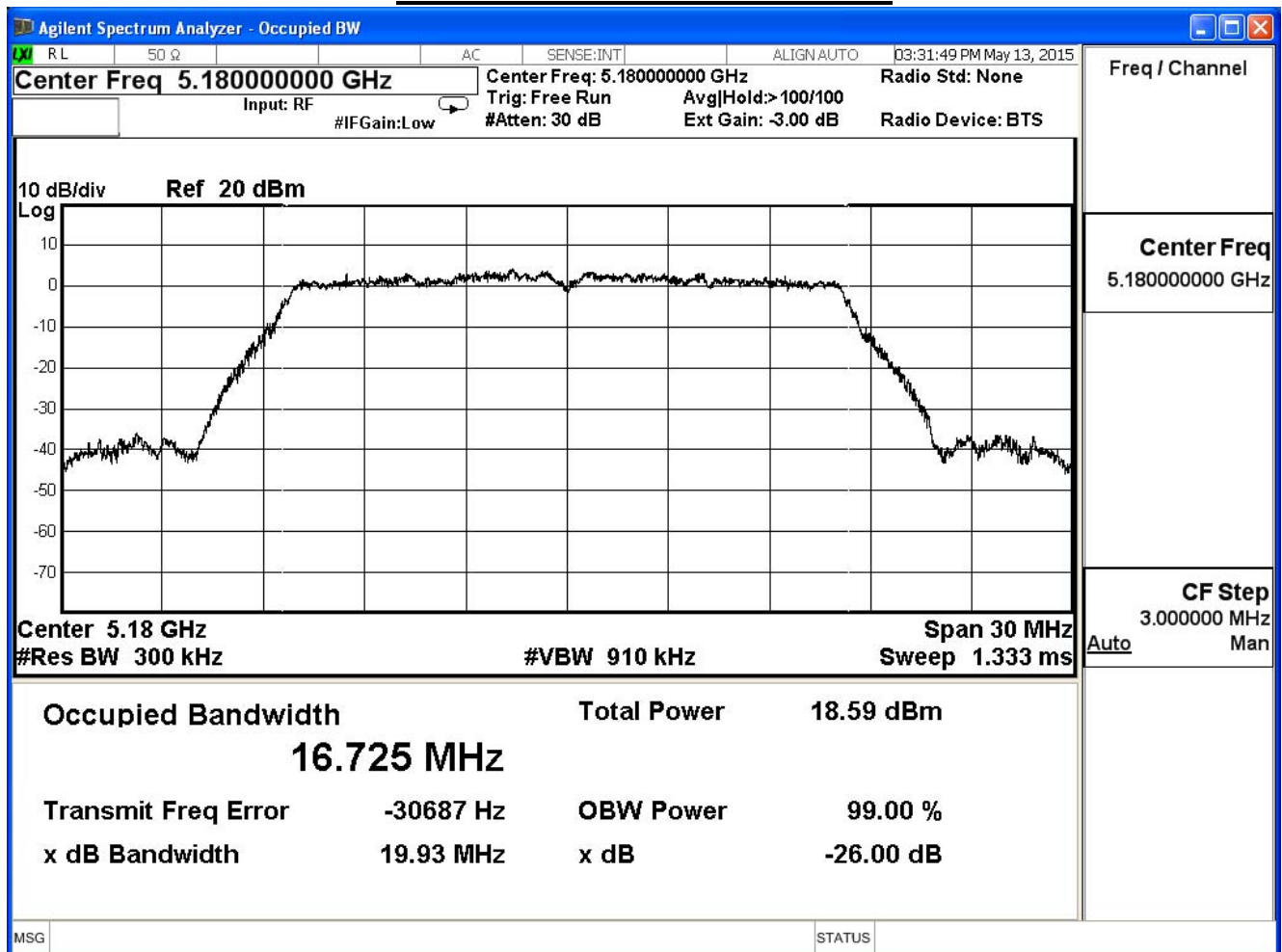


Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/12	Test Site	SR7

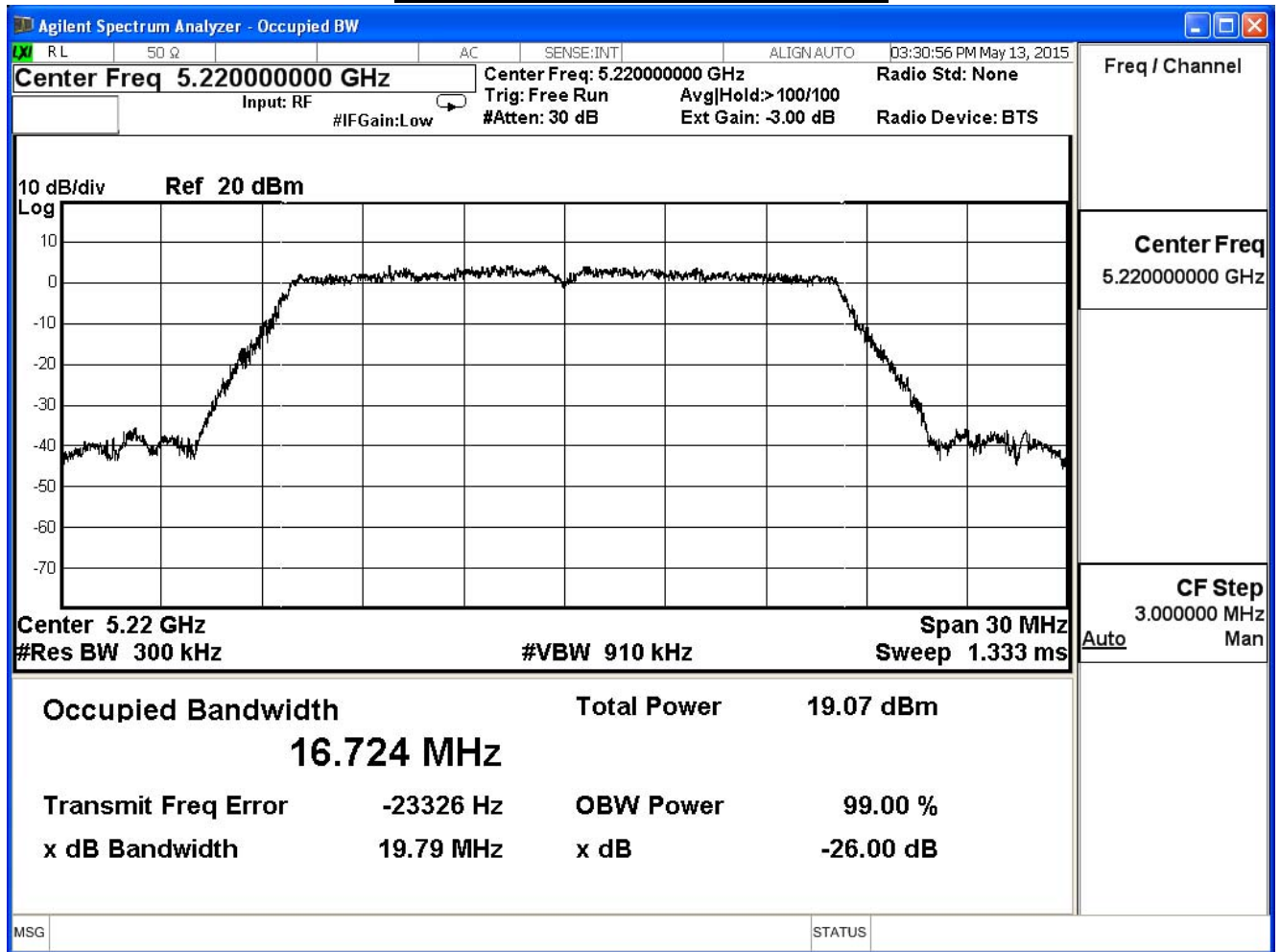
802.11a (ANT 1)

Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
36	5180	19.93	16.725	--
44	5220	19.79	16.724	--
48	5240	19.77	16.754	--

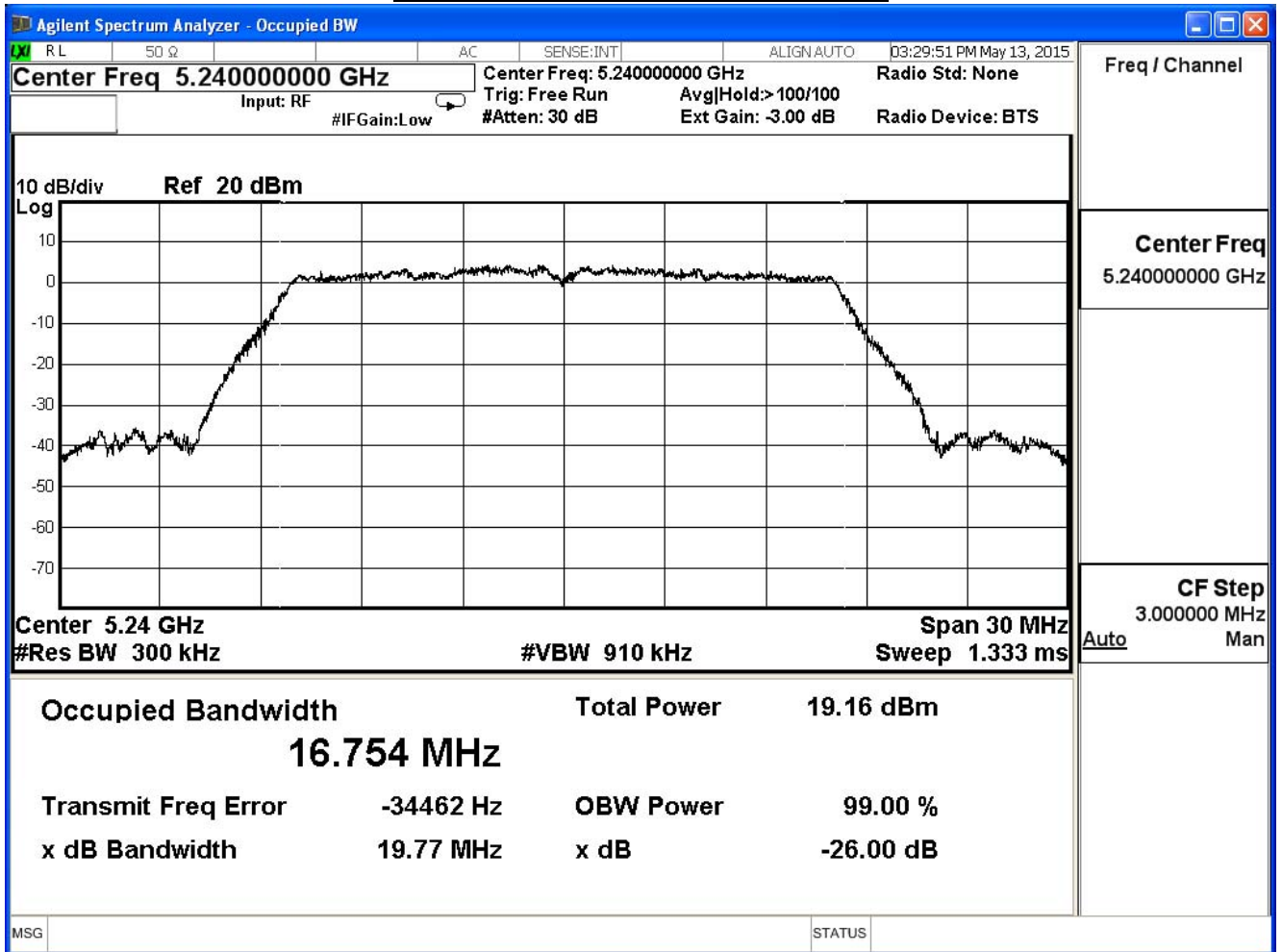
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



99% & 26dB Bandwidth – Channel 48

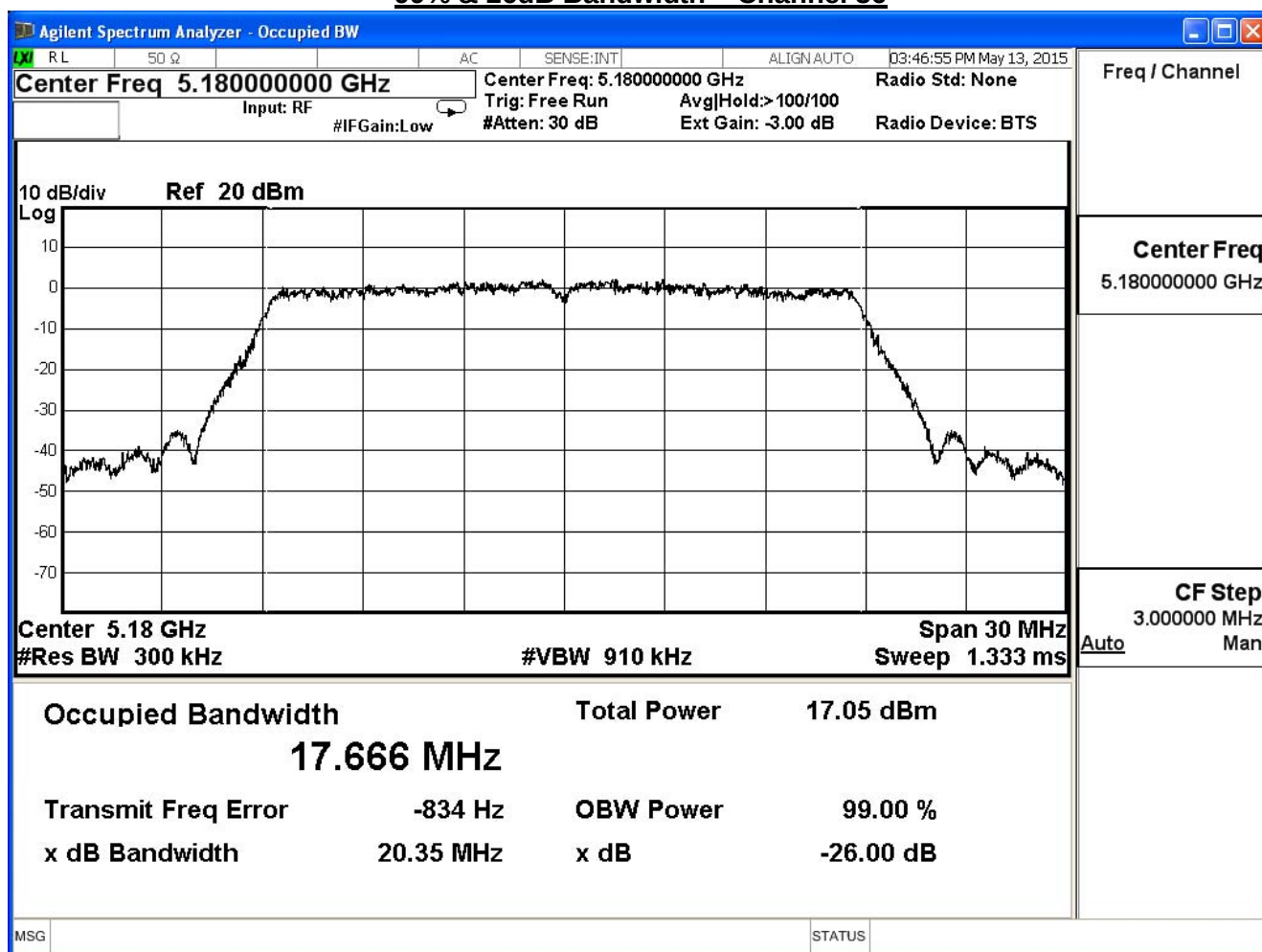


Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/12	Test Site	SR7

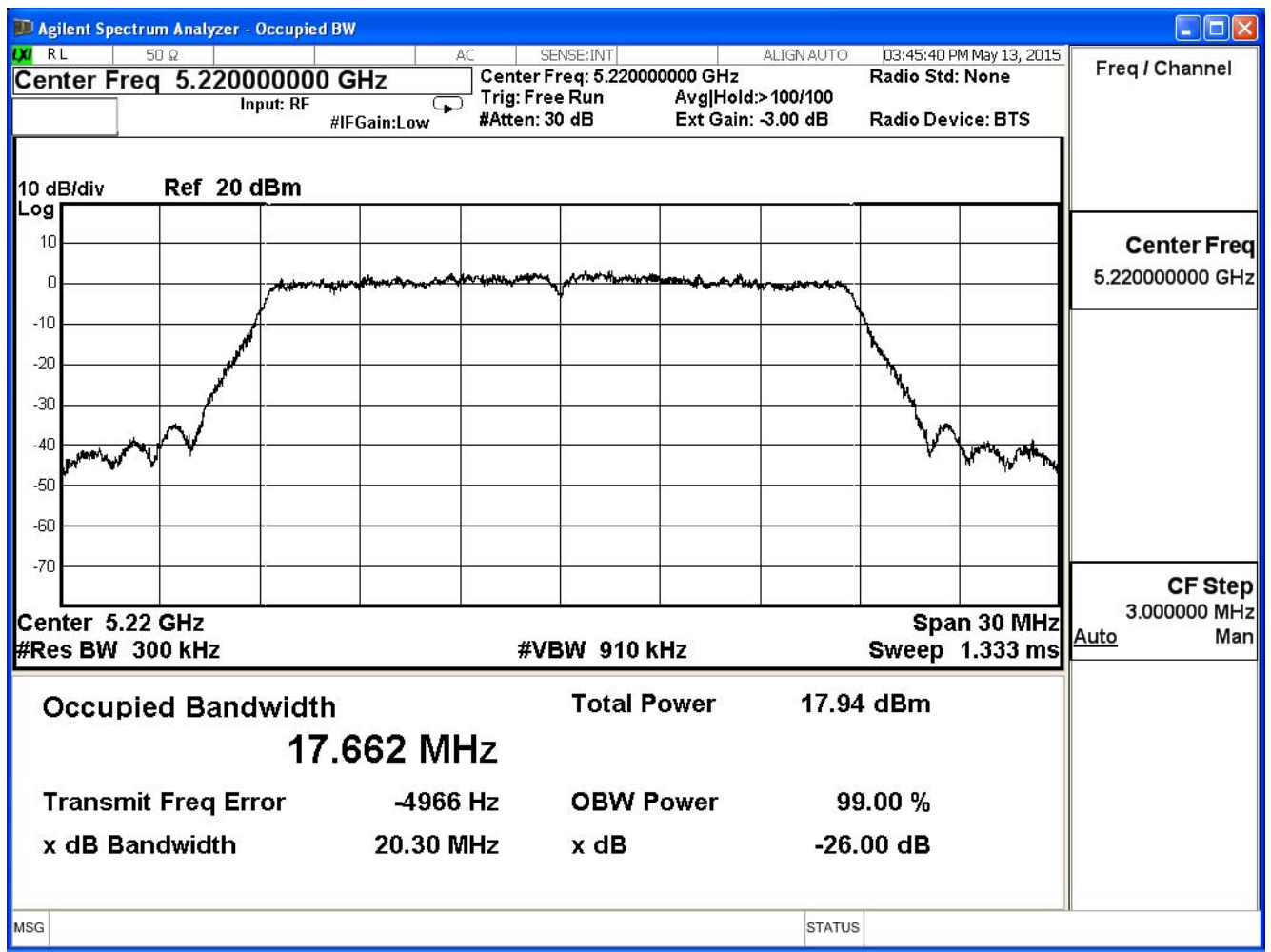
802.11n_20M(ANT 0)

Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
36	5180	20.35	17.666	--
44	5220	20.30	17.662	--
48	5240	20.31	17.658	--

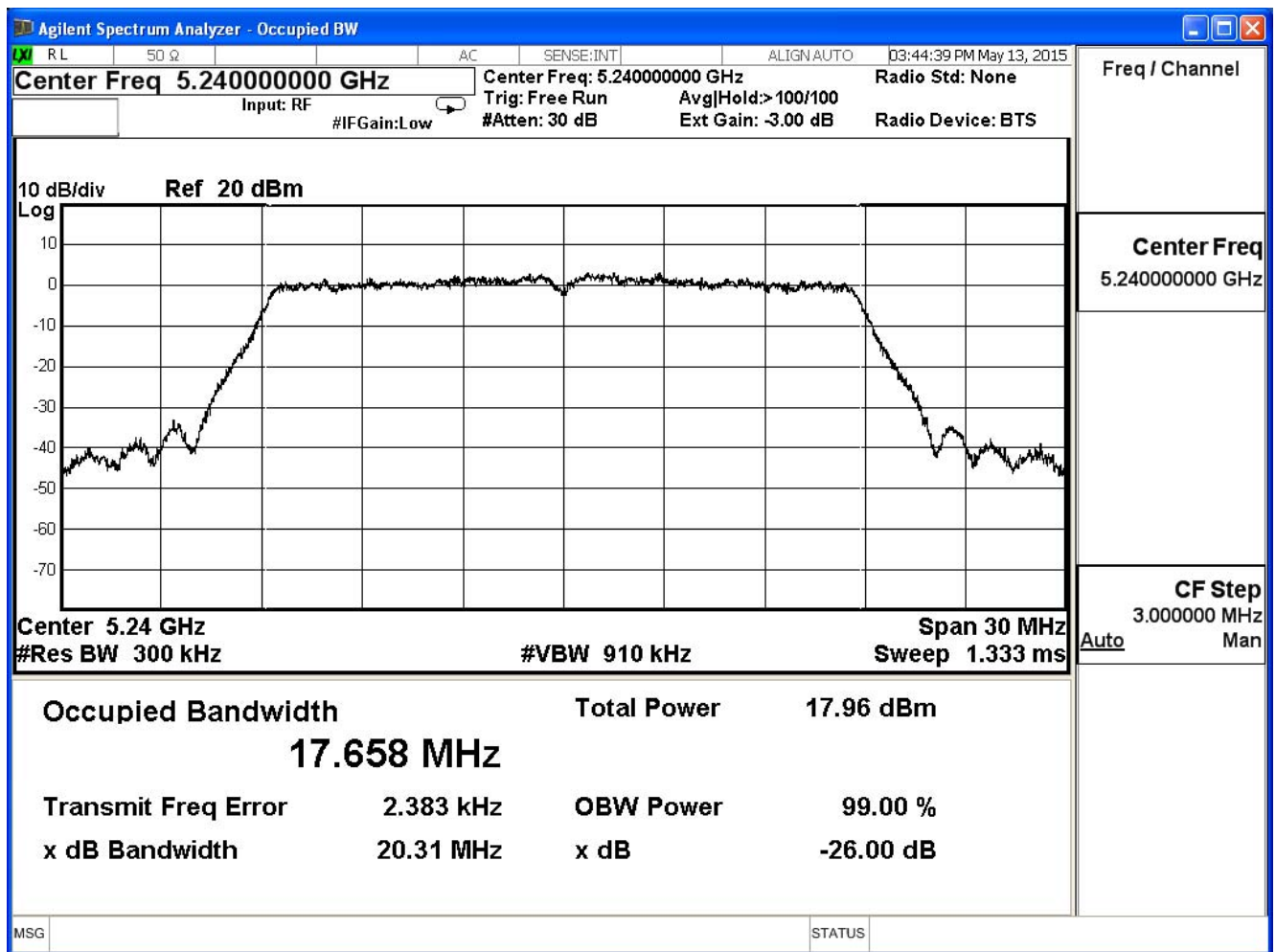
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



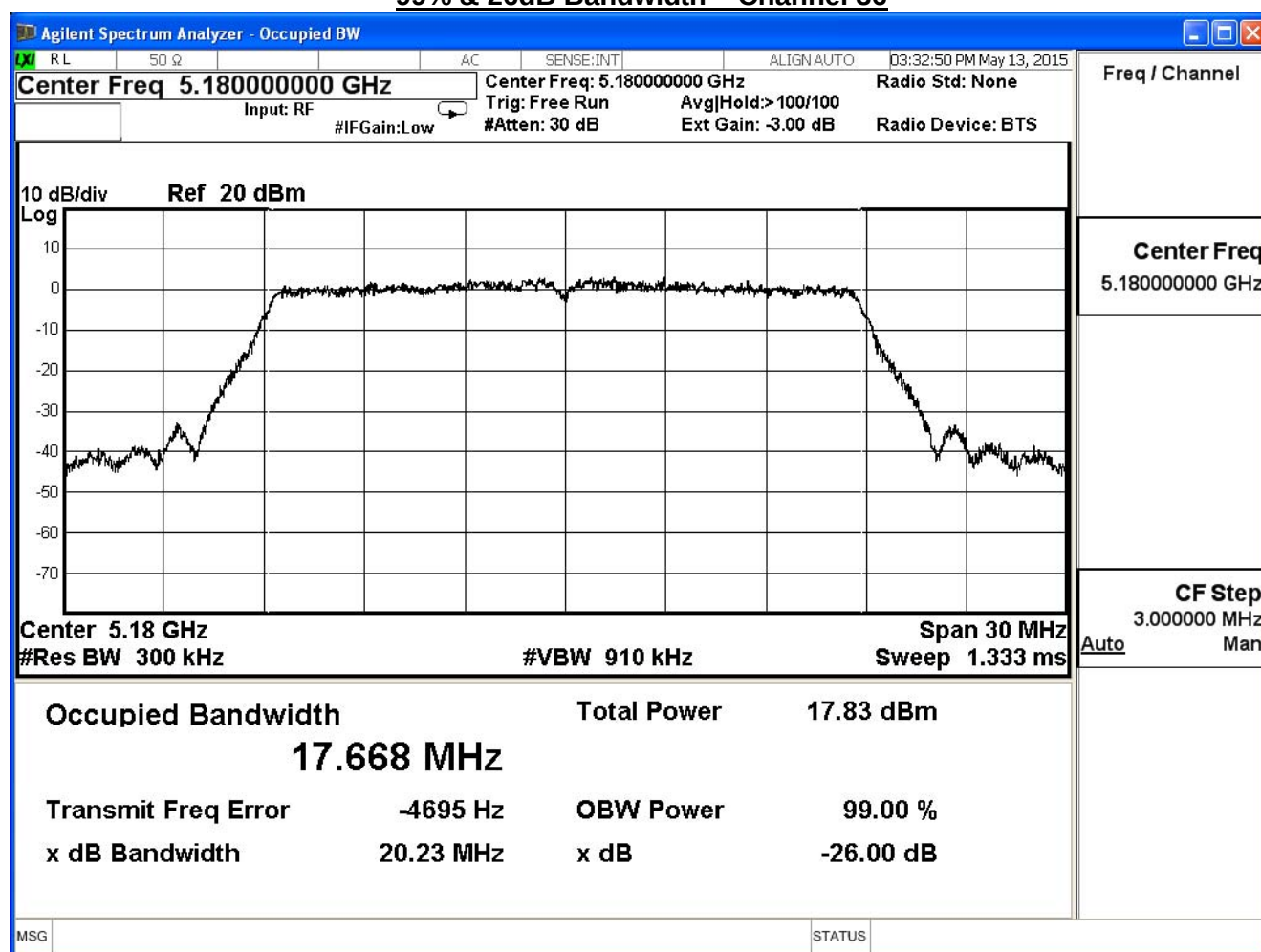
99% & 26dB Bandwidth – Channel 48



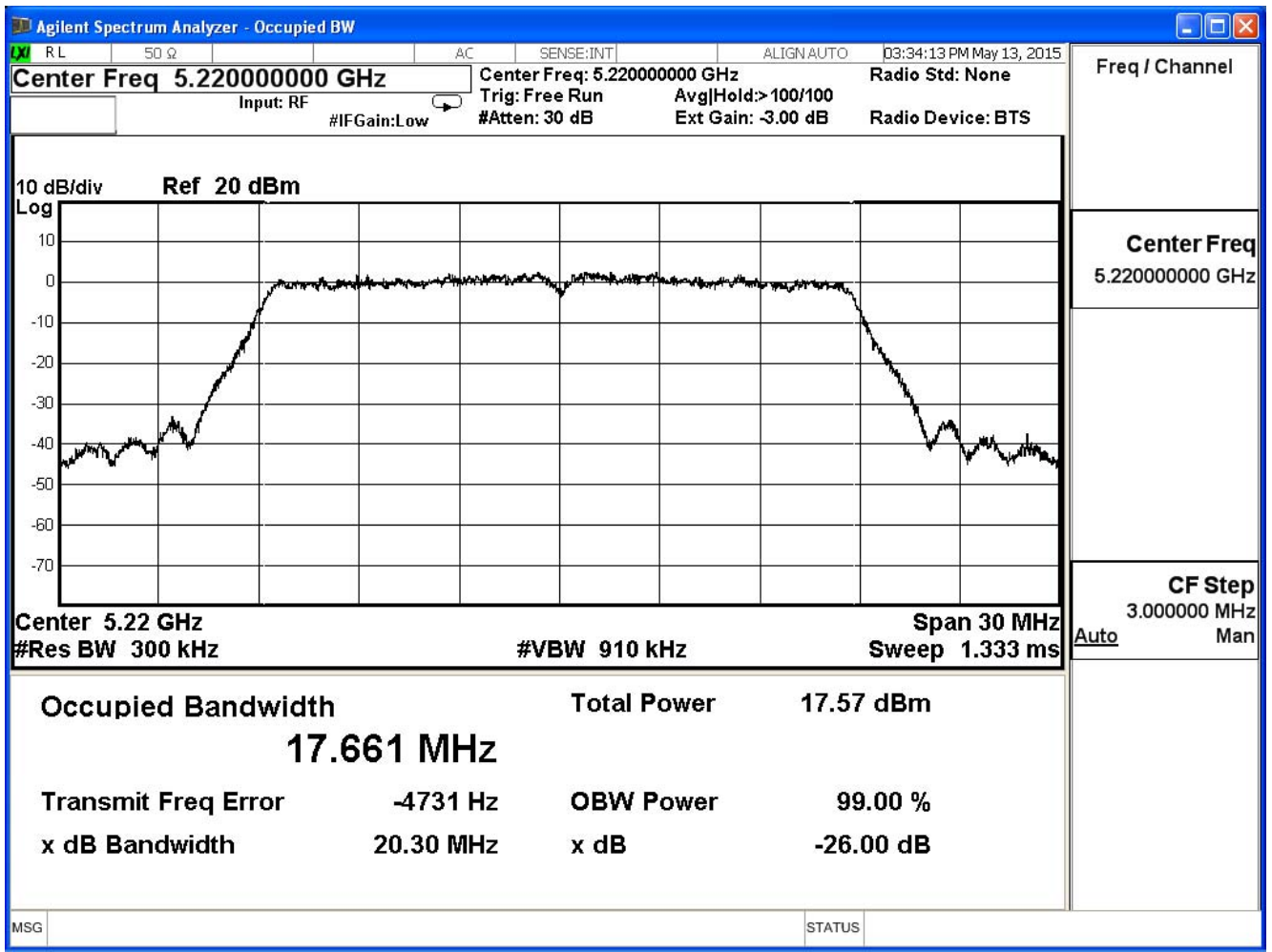
Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/12	Test Site	SR7

802.11n_20M(ANT 1)				
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
36	5180	20.23	17.668	--
44	5220	20.30	17.661	--
48	5240	20.42	17.652	--

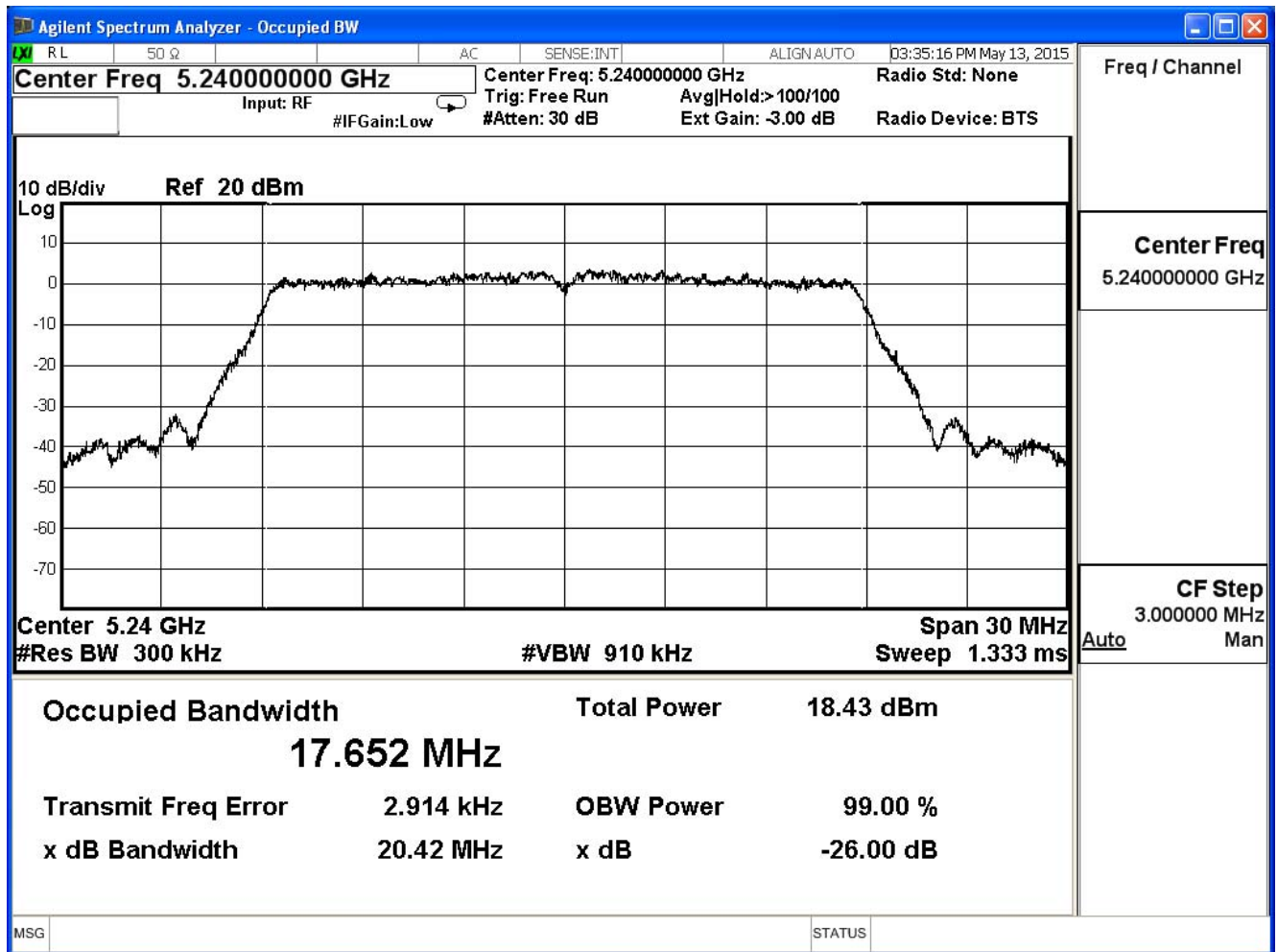
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



99% & 26dB Bandwidth – Channel 48

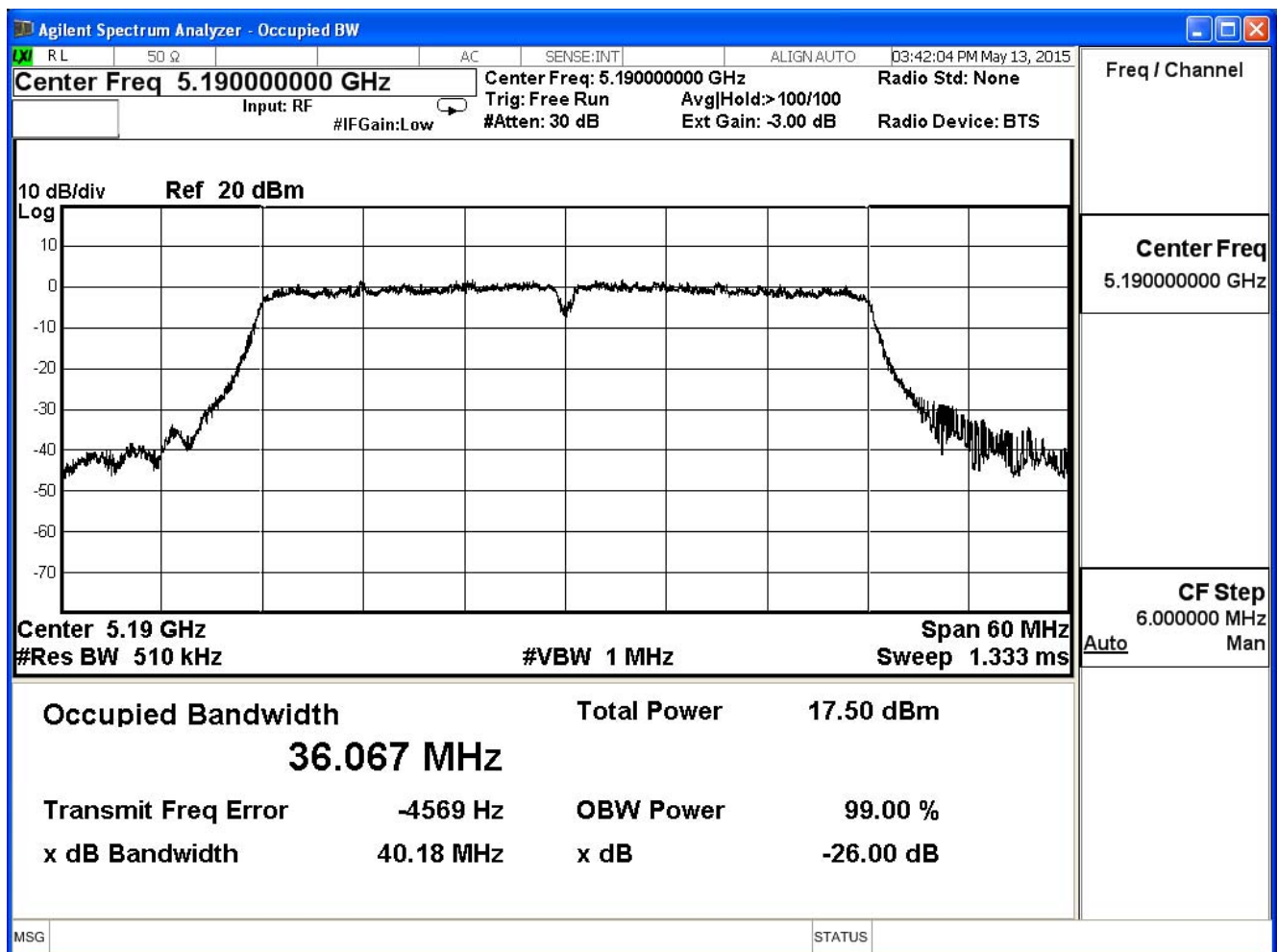


Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/12	Test Site	SR7

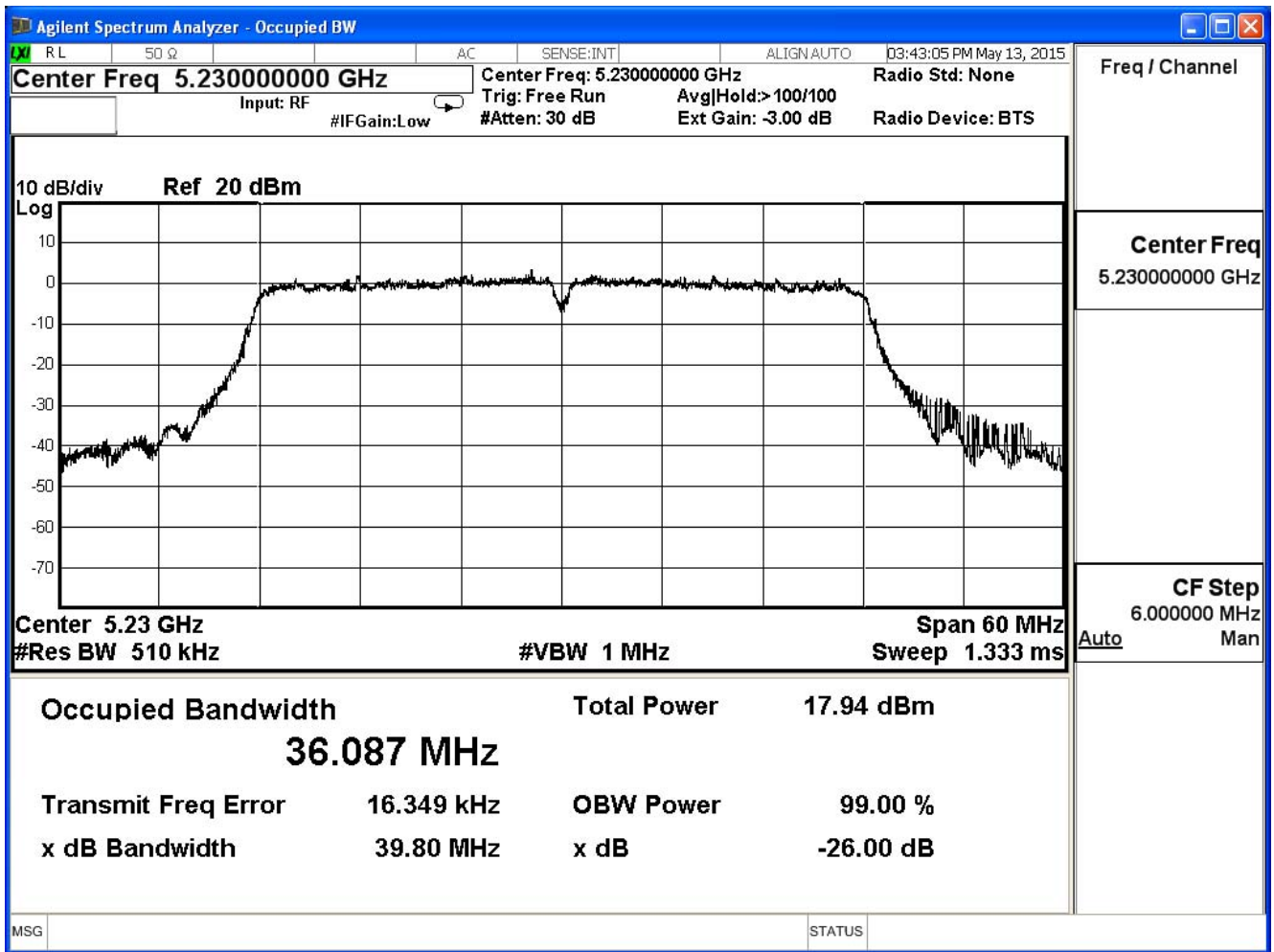
802.11n_40M(ANT 0)

Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
38	5190	40.18	36.067	--
46	5230	39.80	36.087	--

99% & 26dB Bandwidth – Channel 38



99% & 26dB Bandwidth – Channel 46

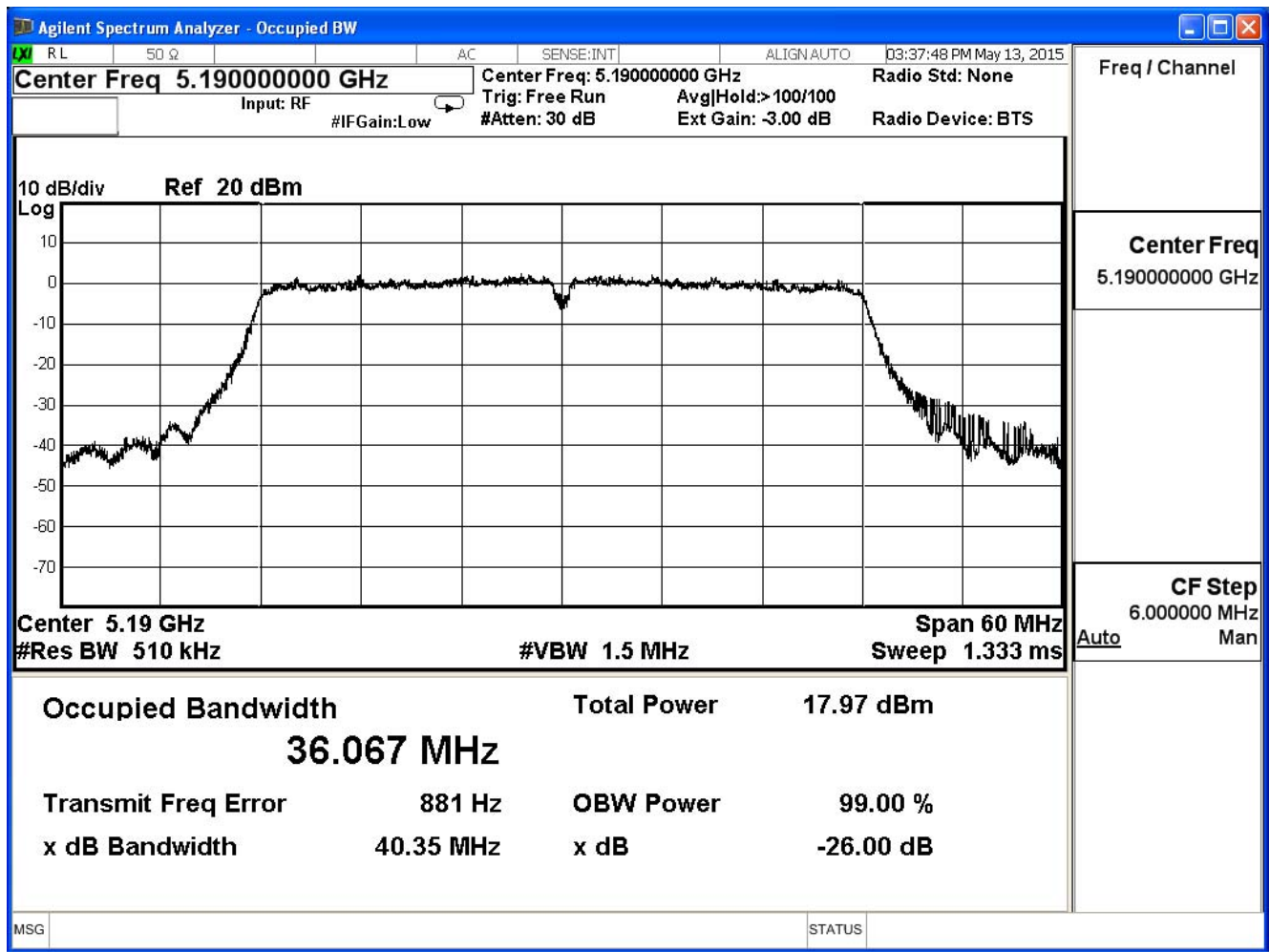


Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/12	Test Site	SR7

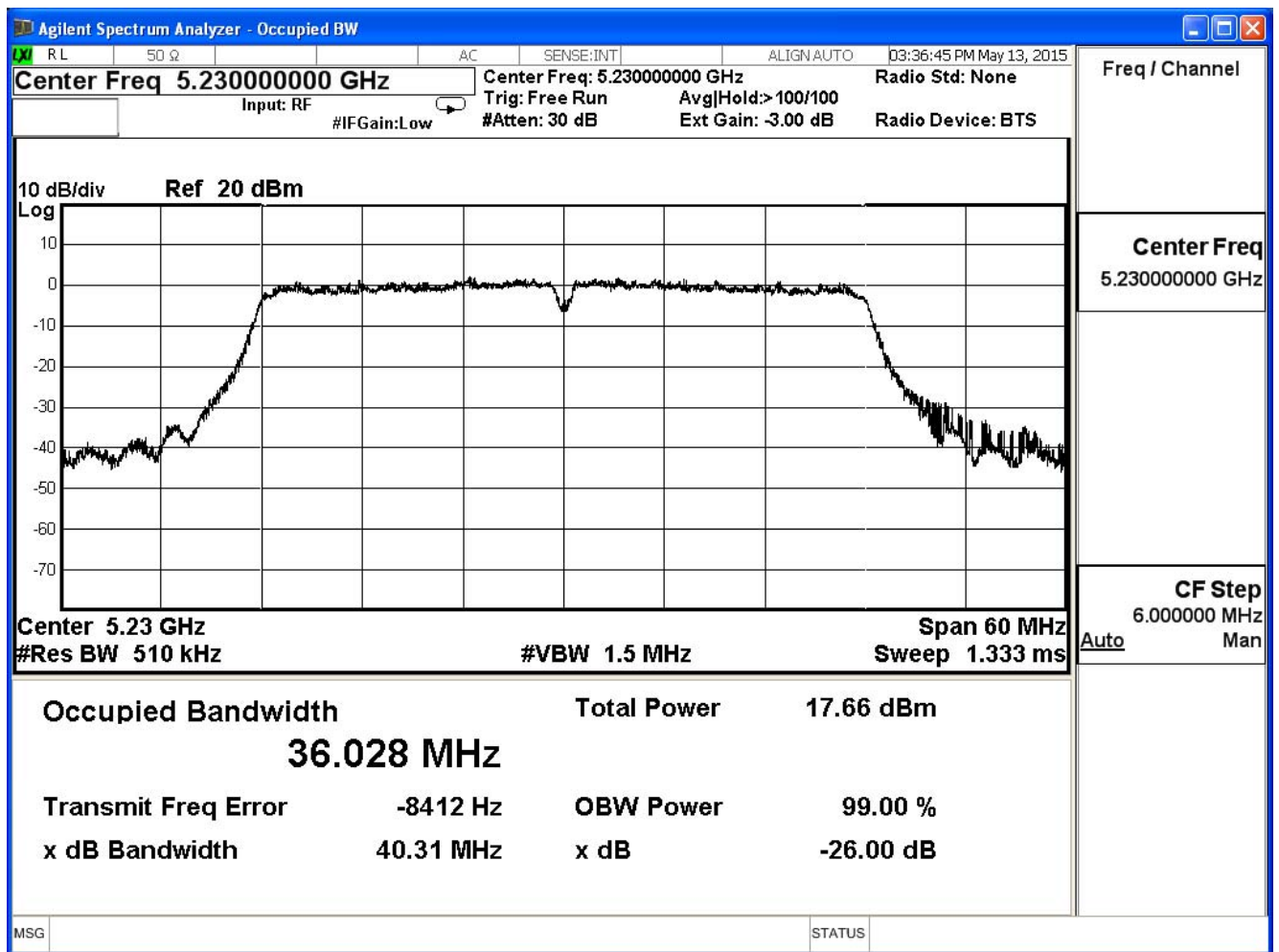
802.11n_40M(ANT 1)

Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
38	5190	40.35	36.067	--
46	5230	40.31	36.028	--

99% & 26dB Bandwidth – Channel 38



99% & 26dB Bandwidth – Channel 46

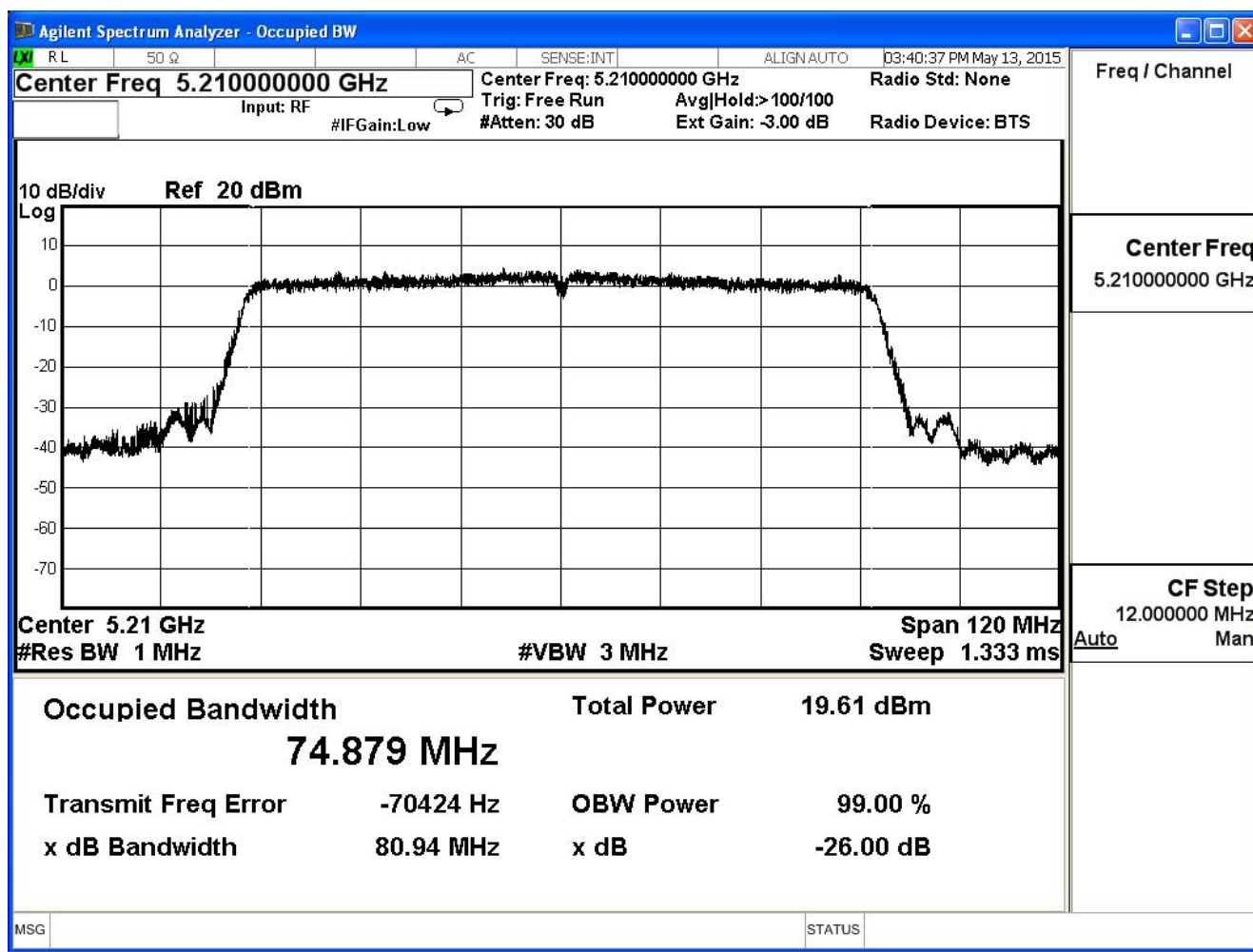


Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/12	Test Site	SR7

802.11 ac_80M(ANT 0)

Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
42	5210	80.94	74.879	--

99% & 26dB Bandwidth – Channel 42

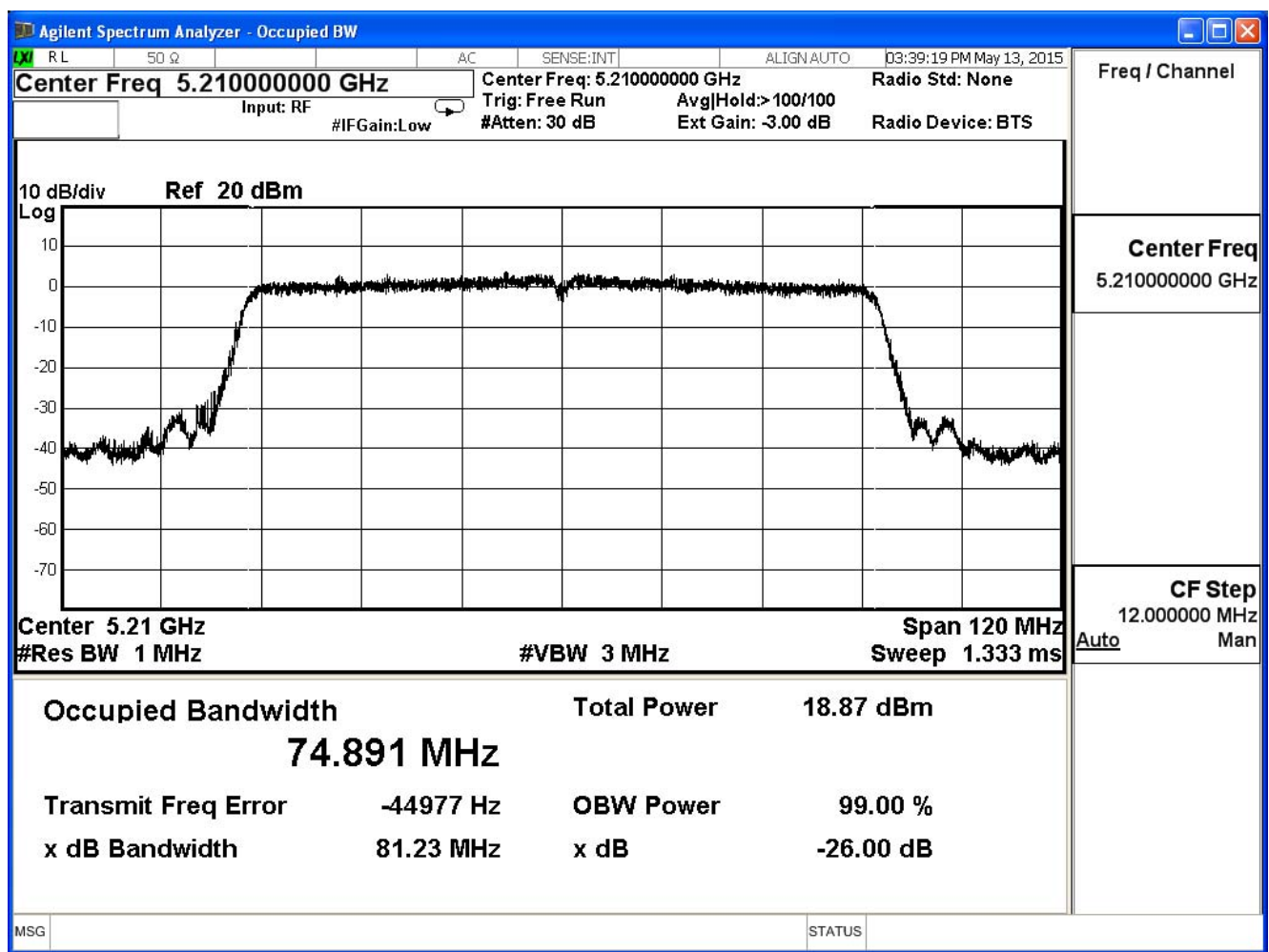


Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/12	Test Site	SR7

802.11 ac_80M(ANT 1)

Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
42	5210	81.23	74.891	--

99% & 26dB Bandwidth – Channel 42



4. Peak Transmit Output

4.1. Test Equipment

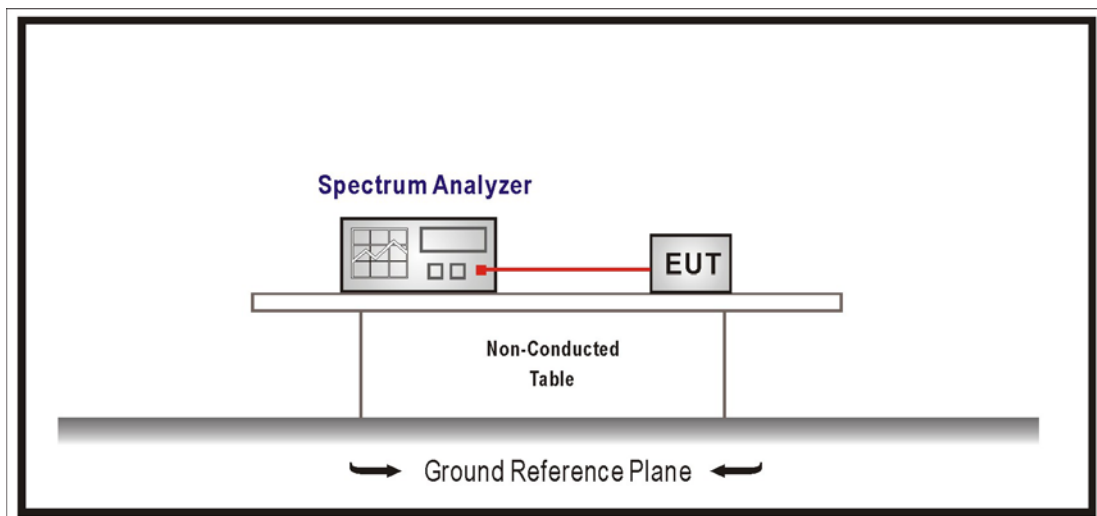
The following test equipments are used during the radiated emission tests:

Peak Transmit Output / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2015/07/14

Note: 1. 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 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 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.
3. 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.

4.4. Test Procedure

The EUT was setup to ANSI C63.10:2009; tested to U-NII test procedure of KDB 789033 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.

4.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

4.6. Test Result

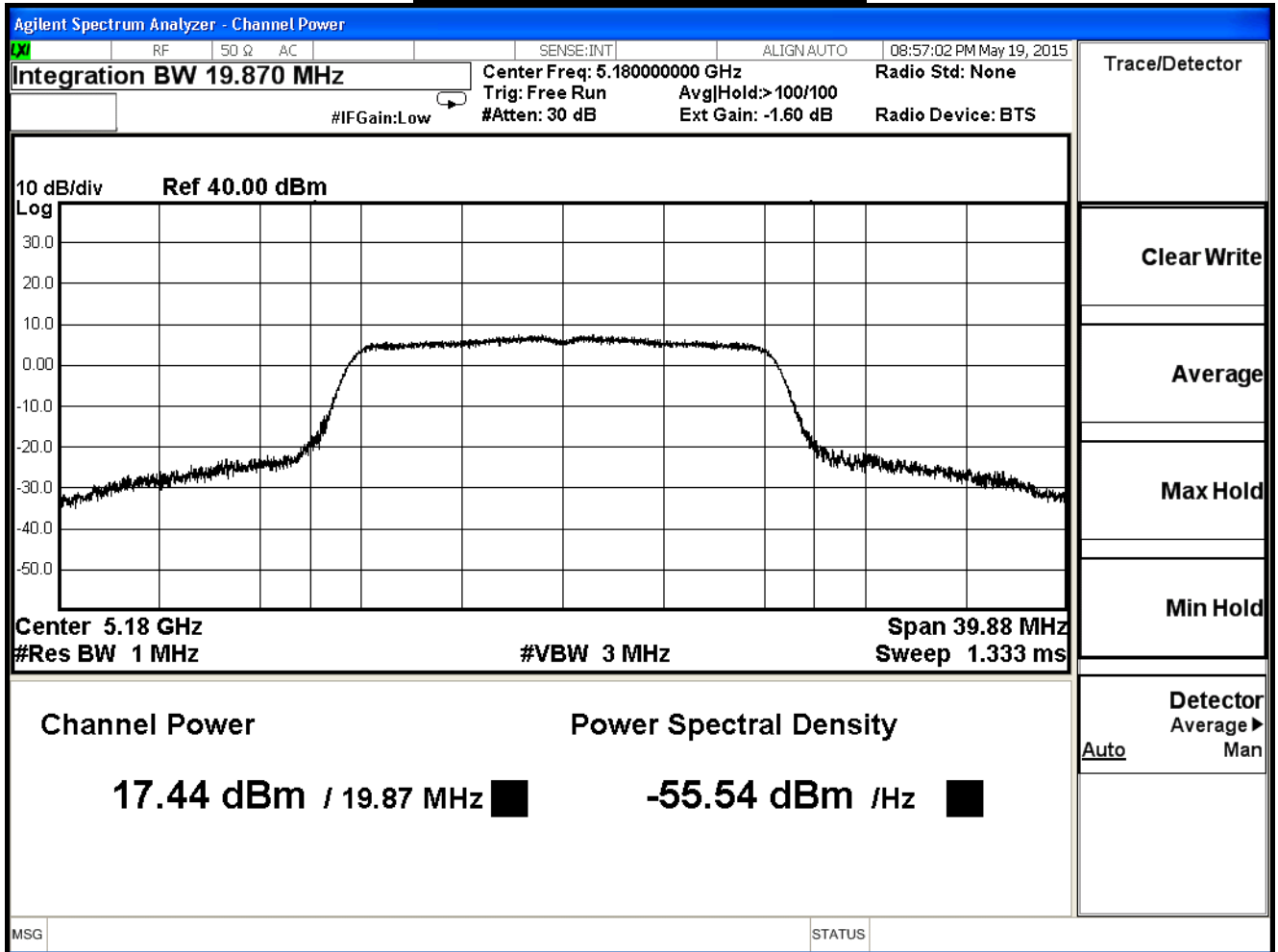
Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

802.11a (ANT 0) -AP and Bridge Mode					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit	Result
36	5180	19.87	17.44	≤30	Pass
44	5220	19.90	20.28	≤30	Pass
48	5240	20.01	19.13	≤30	Pass

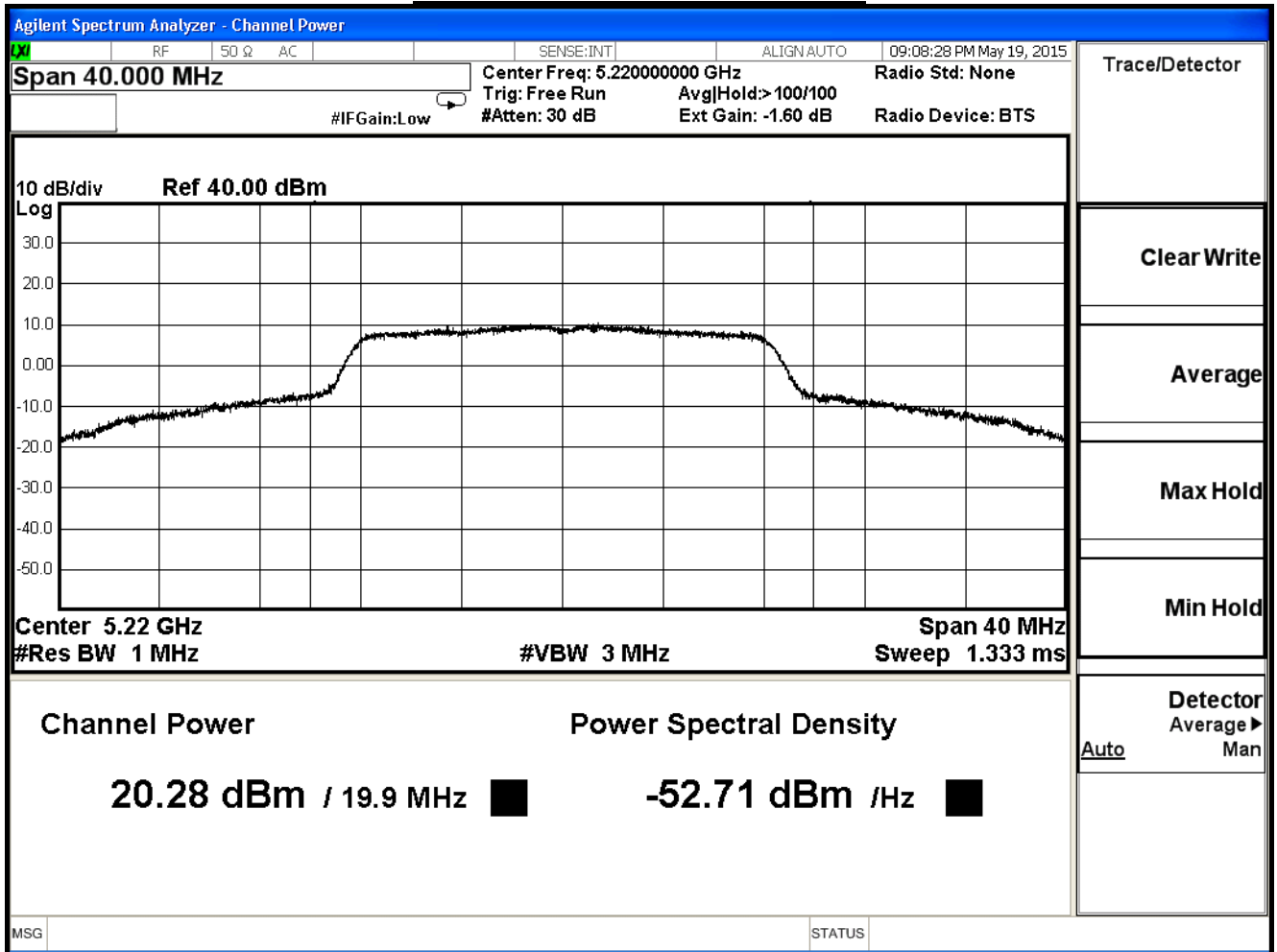
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
36	5180	17.44	--	--	--	--	--	--	30 dBm
44	5220	20.28	20.08	19.88	19.68	19.48	19.24	19.12	
48	5240	19.13	--	--	--	--	--	--	

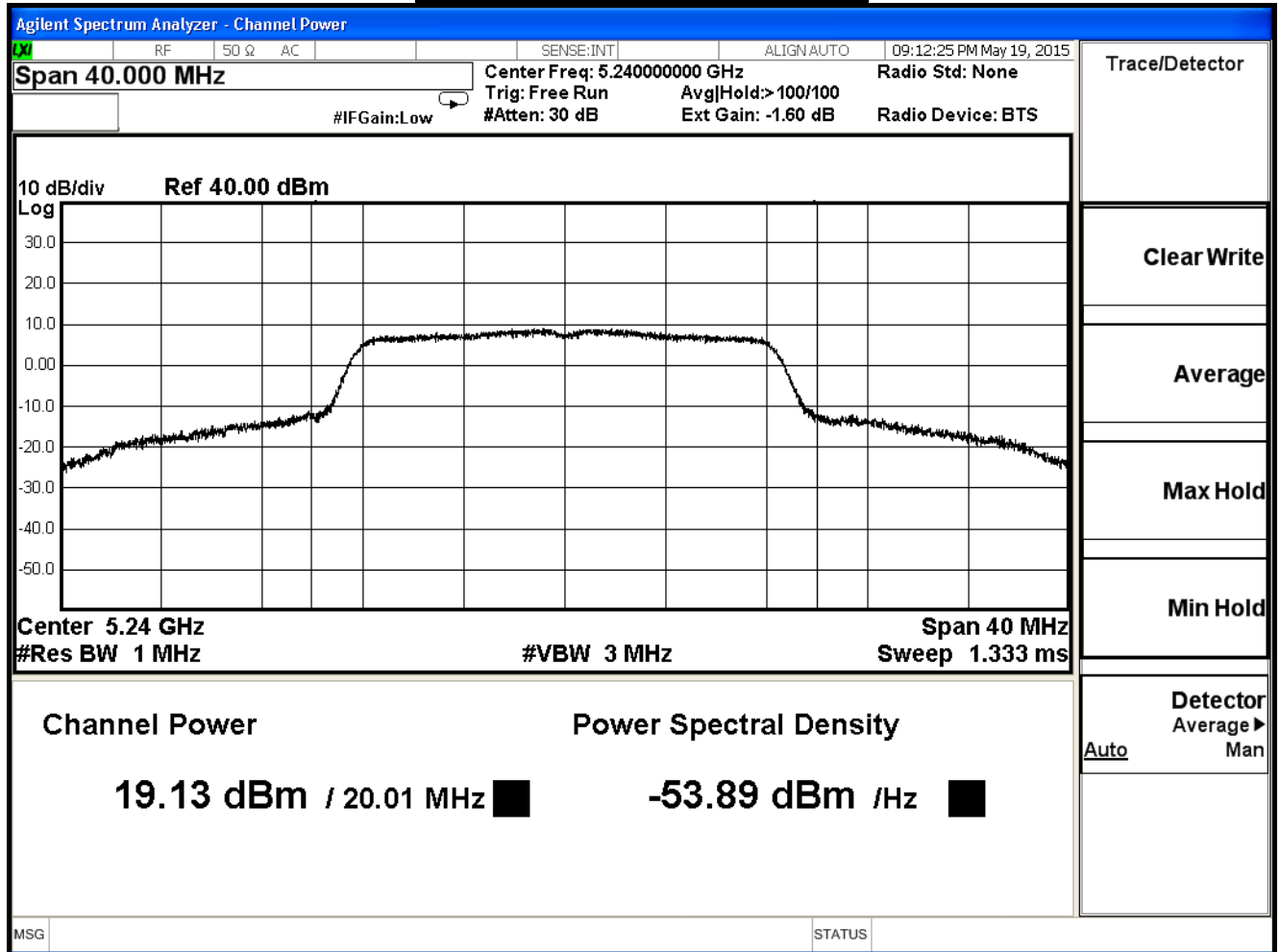
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



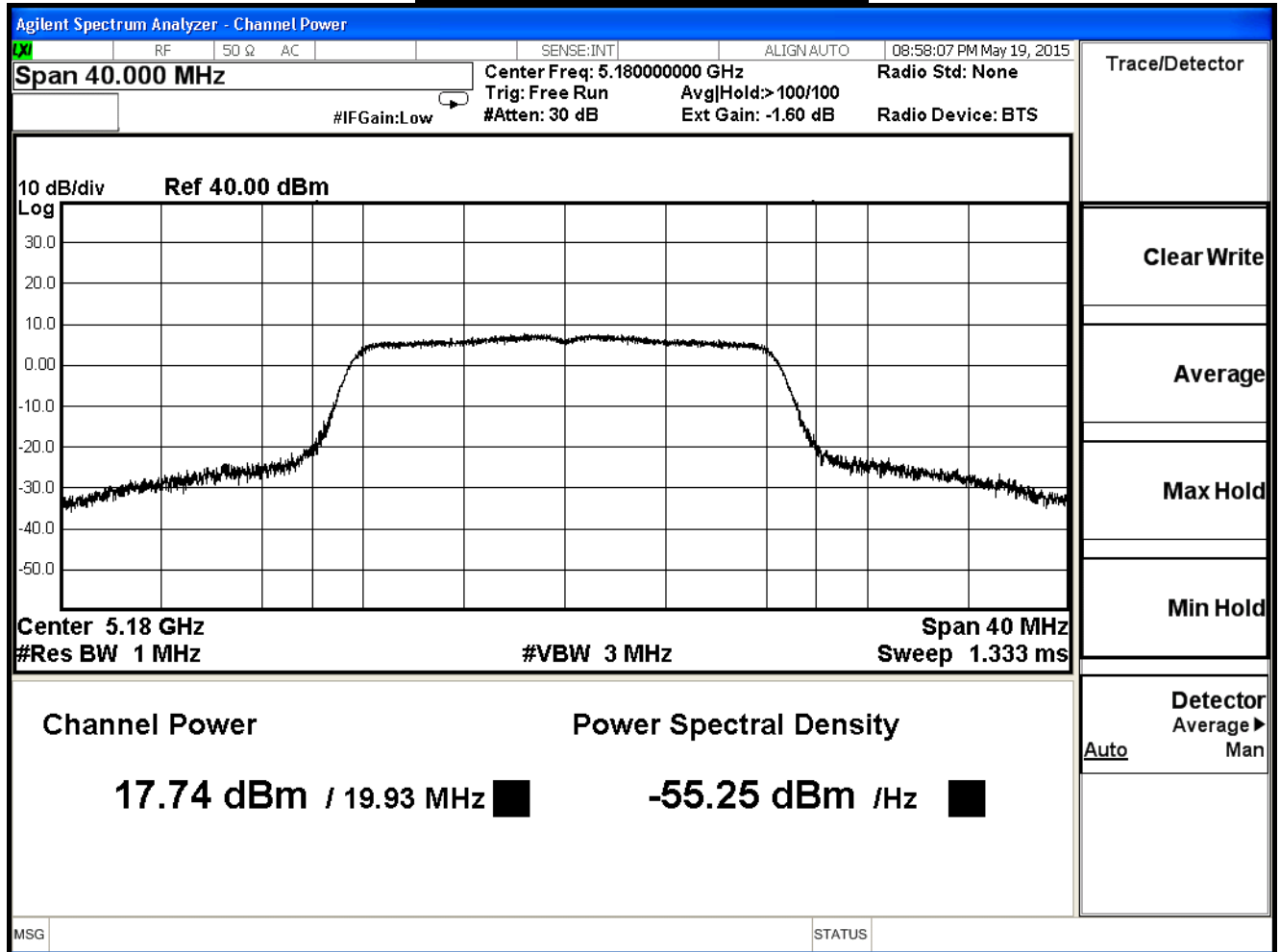
Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

802.11a (ANT 1) -AP and Bridge Mode					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit	Result
36	5180	19.93	17.74	≤30	Pass
44	5220	19.79	20.14	≤30	Pass
48	5240	19.77	19.11	≤30	Pass

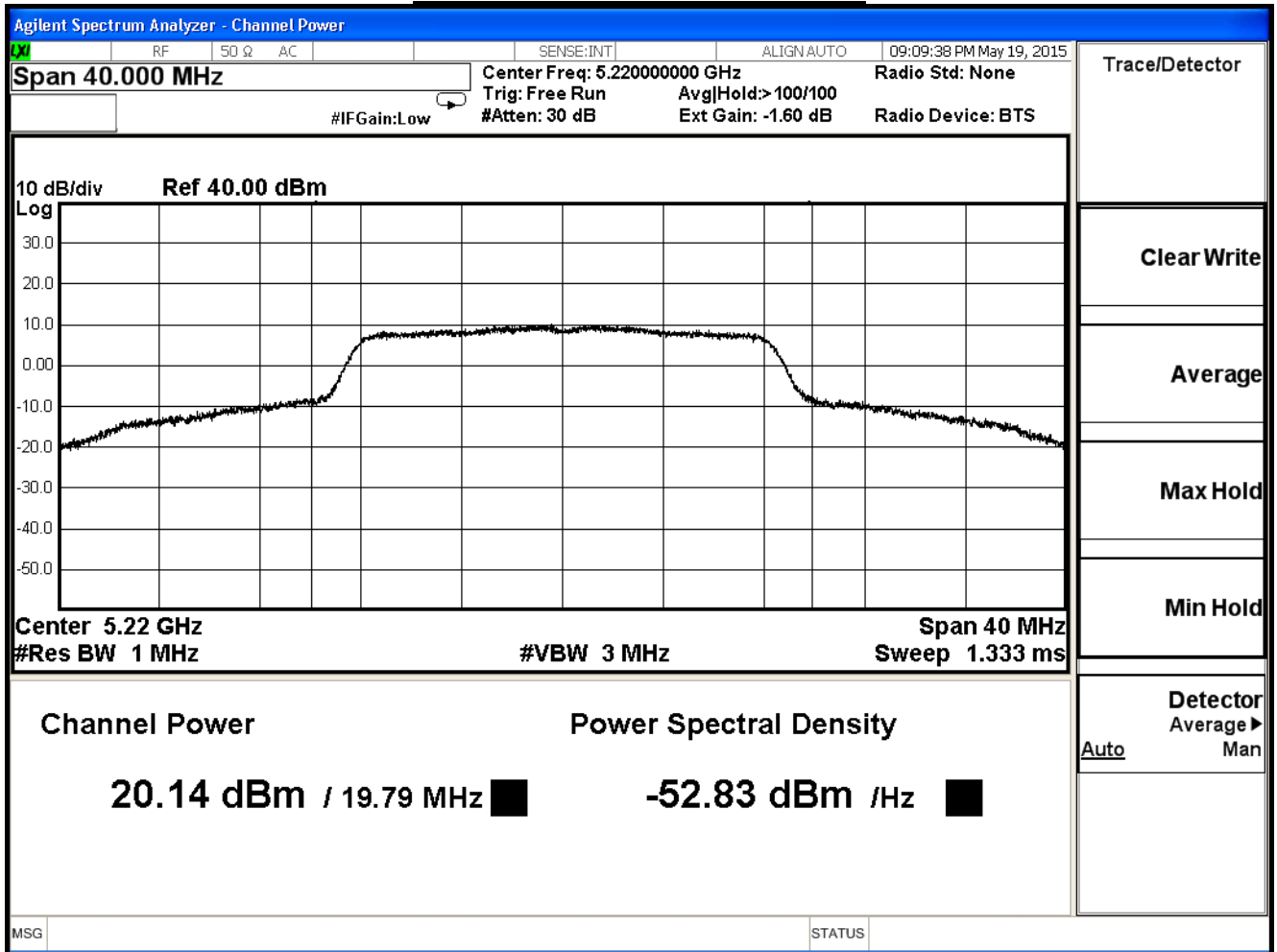
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
36	5180	17.74	--	--	--	--	--	--	30 dBm
44	5220	20.14	19.94	19.84	19.64	19.44	19.32	19.20	
48	5240	19.11	--	--	--	--	--	--	

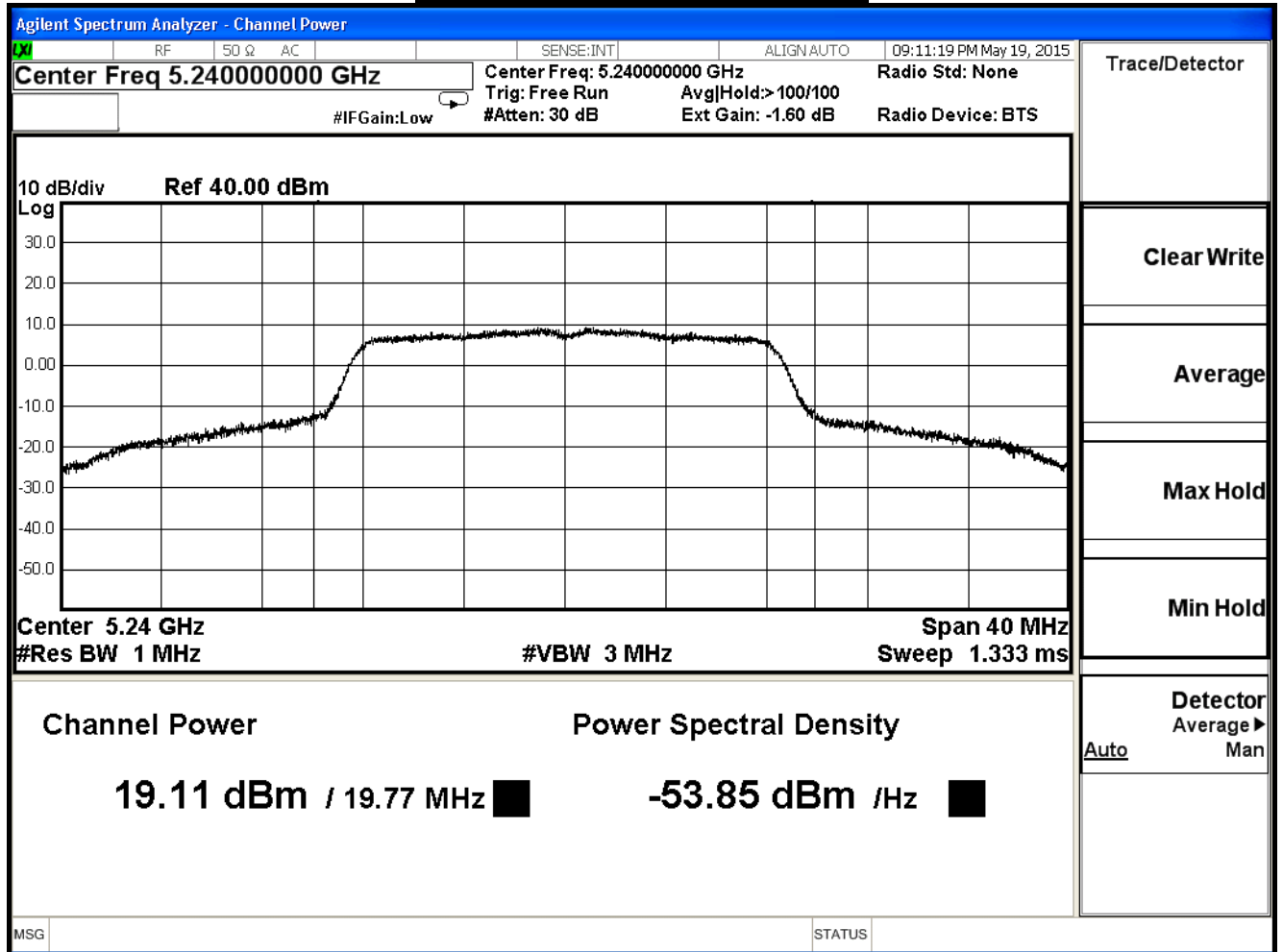
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

802.11a (ANT 0+1) -AP and Bridge Mode					
Channel No.	Frequency (MHz)	Output Power (mW)	Output Power (dBm)	Required Limit	Result
36	5180	114.82	20.60	≤30	Pass
44	5220	209.89	23.22	≤30	Pass
48	5240	162.55	22.13	≤30	Pass

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
36	5180	20.60	--	--	--	--	--	--	30 dBm
44	5220	23.22	23.02	22.87	22.67	22.47	22.29	22.17	
48	5240	22.13	--	--	--	--	--	--	

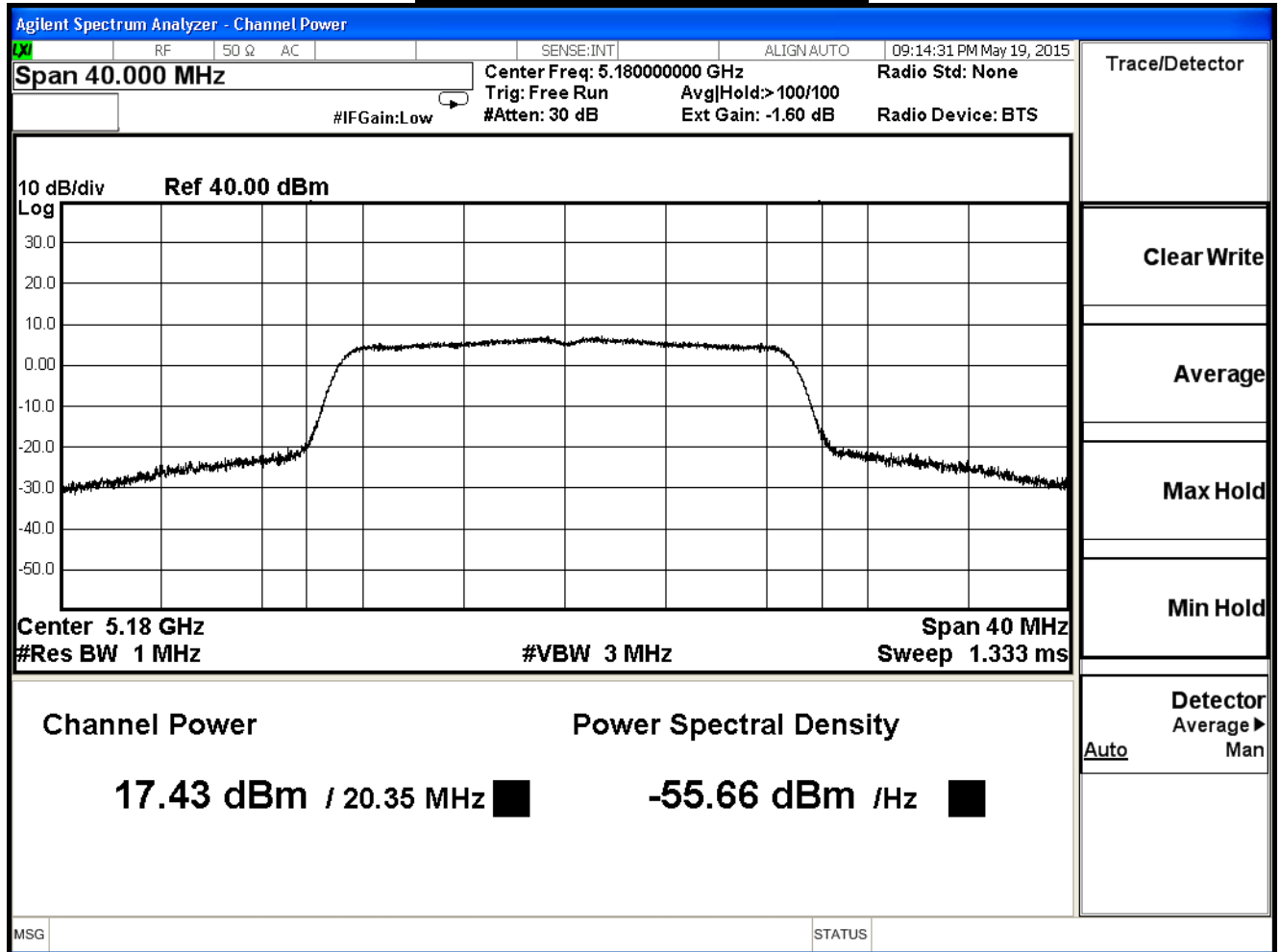
Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11n(20MHz) (ANT 0) -AP and Bridge Mode					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit	Result
36	5180	20.35	17.43	≤30	Pass
44	5220	20.30	18.69	≤30	Pass
48	5240	20.31	18.63	≤30	Pass

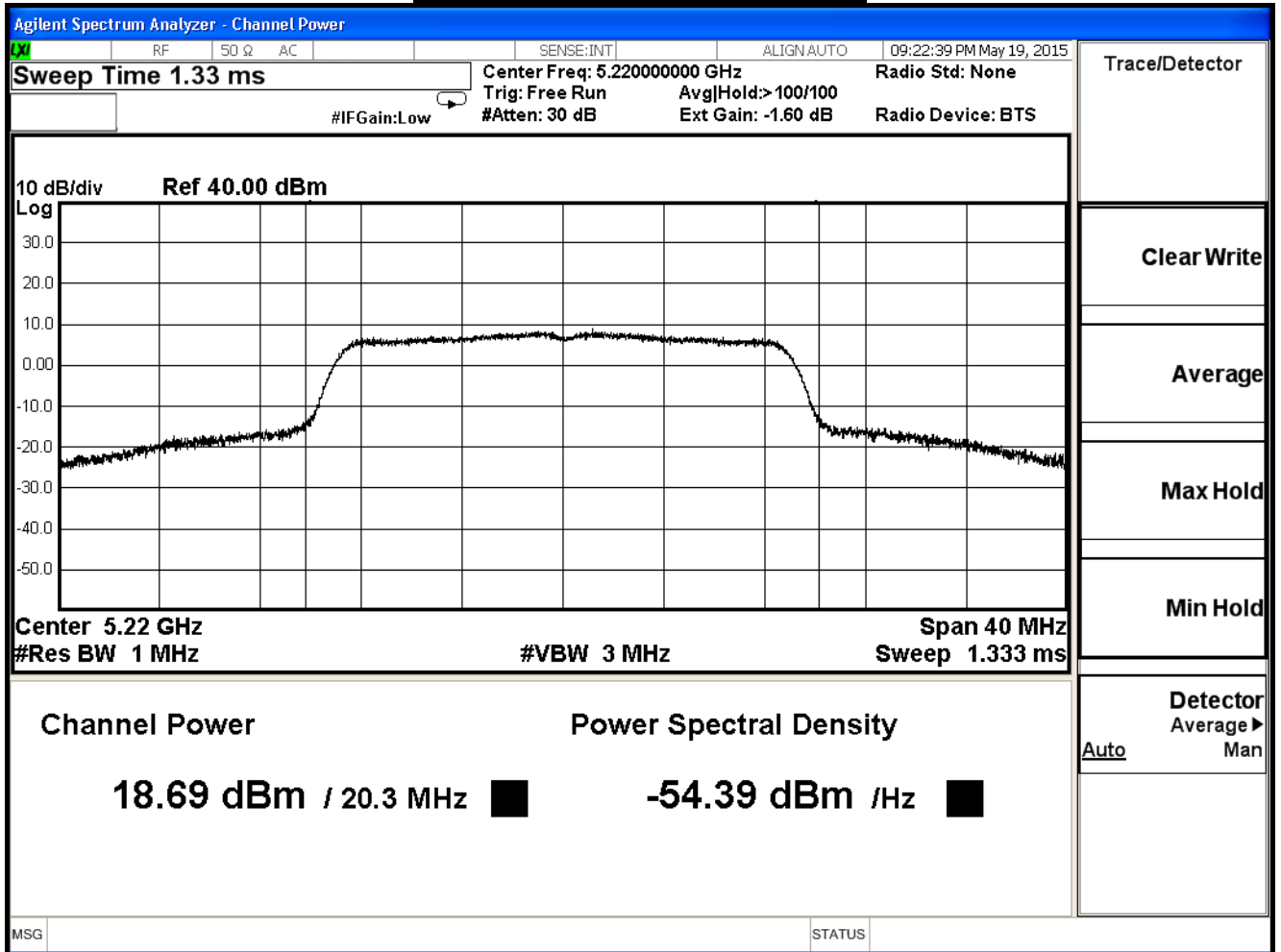
The worst emission of data rate is 6.5 Mbps.

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	
36	5180	17.43	--	--	--	--	--	--	--	30 dBm
44	5220	18.69	18.59	18.49	18.29	18.09	17.97	17.73	17.61	
48	5240	18.63	--	--	--	--	--	--	--	

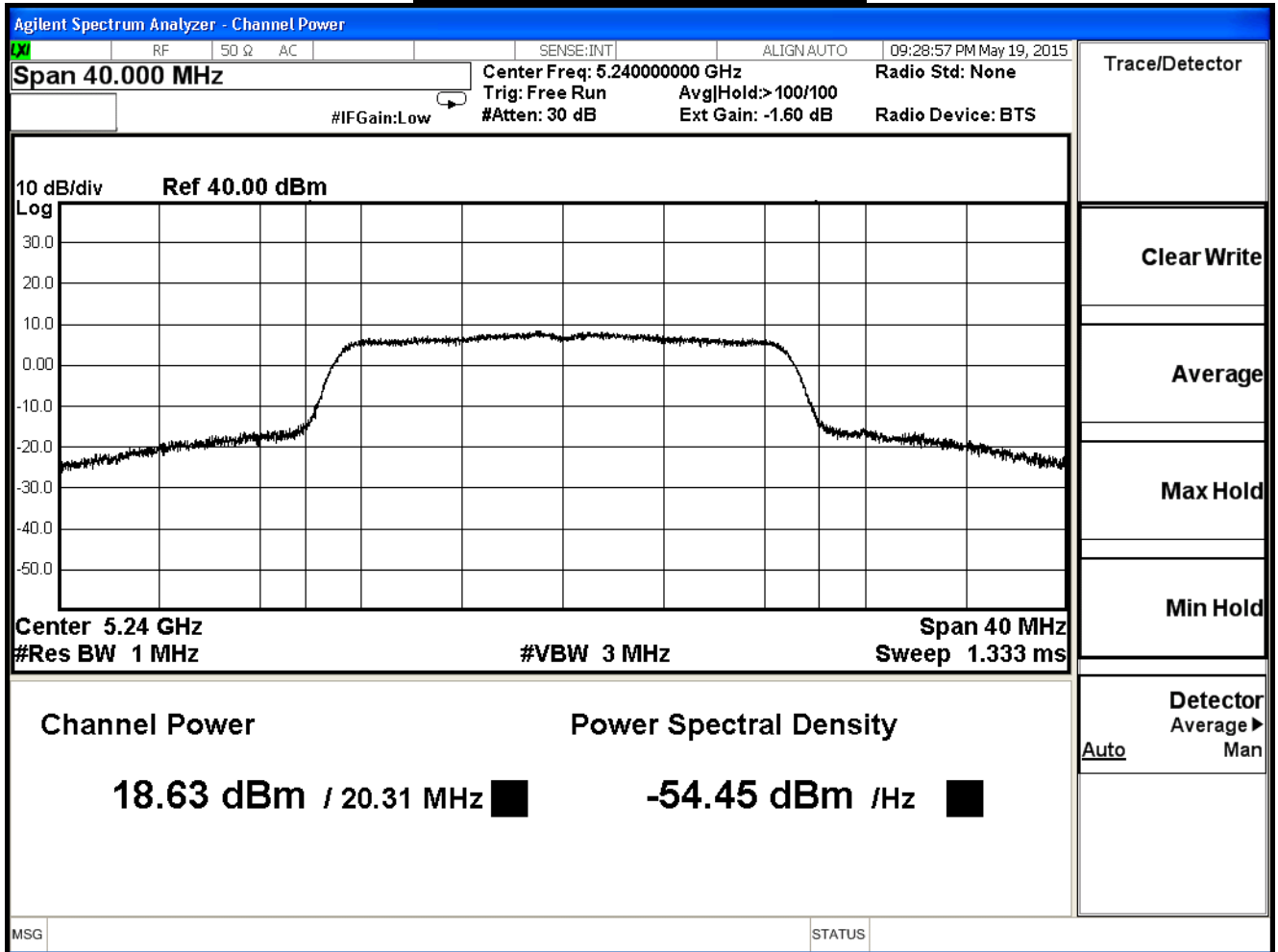
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



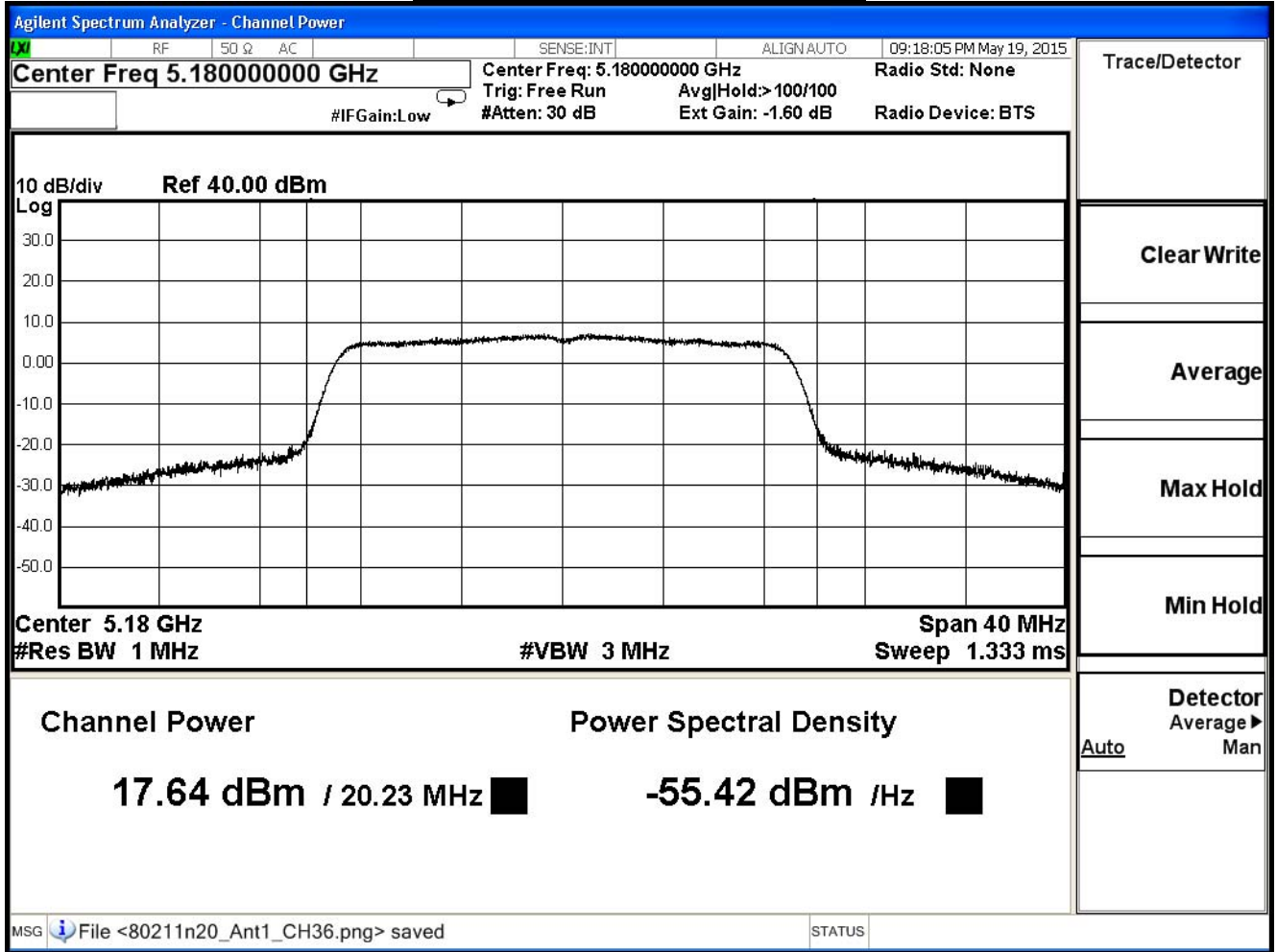
Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11n(20MHz)(ANT 1) -AP and Bridge Mode					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit	Result
36	5180	20.23	17.64	≤30	Pass
44	5220	20.30	18.60	≤30	Pass
48	5240	20.42	18.65	≤30	Pass

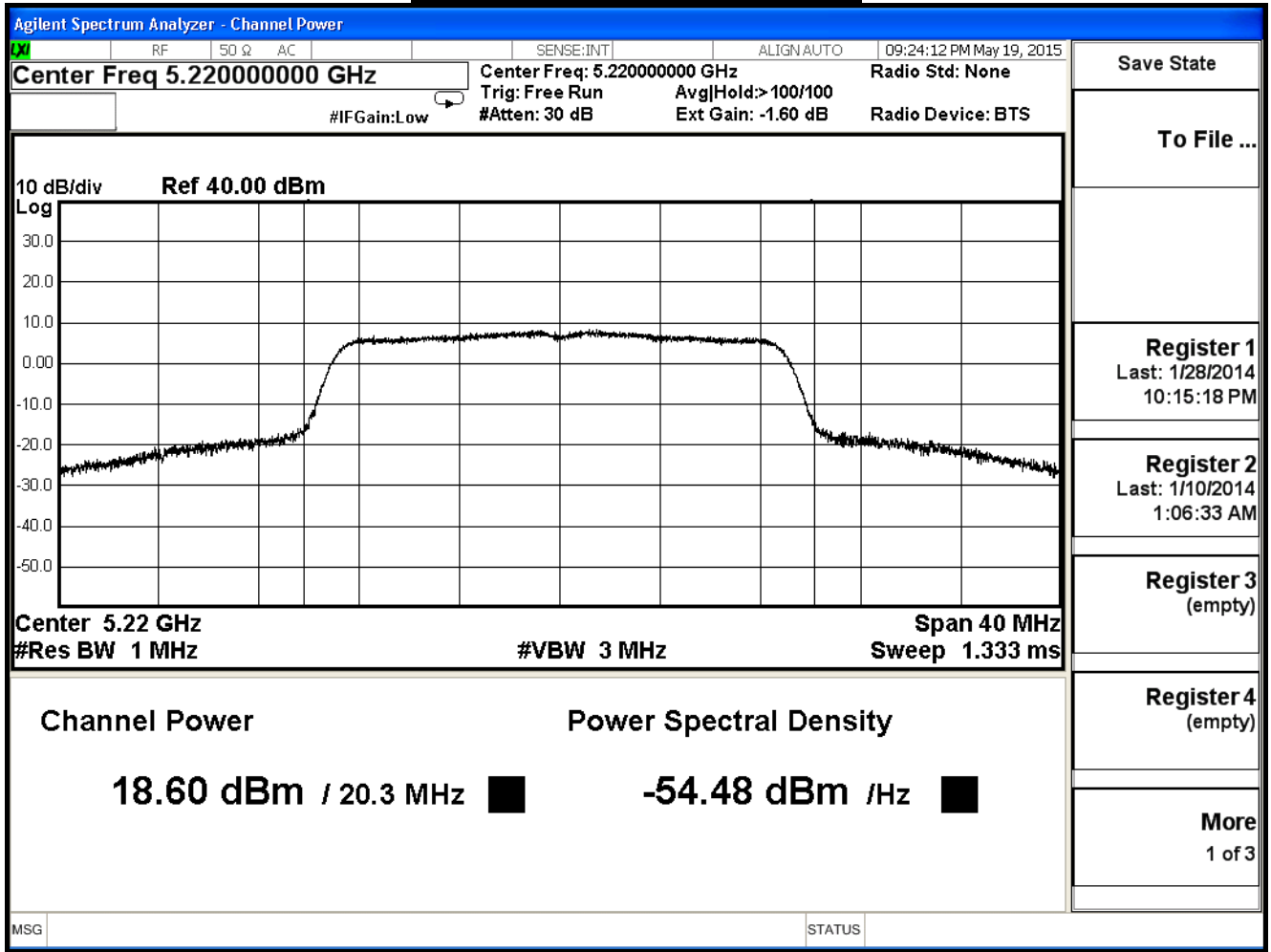
The worst emission of data rate is 6.5 Mbps.

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	
36	5180	17.64	--	--	--	--	--	--	--	30 dBm
44	5220	18.60	18.50	18.30	18.10	18.00	17.76	17.64	17.52	
48	5240	18.65	--	--	--	--	--	--	--	

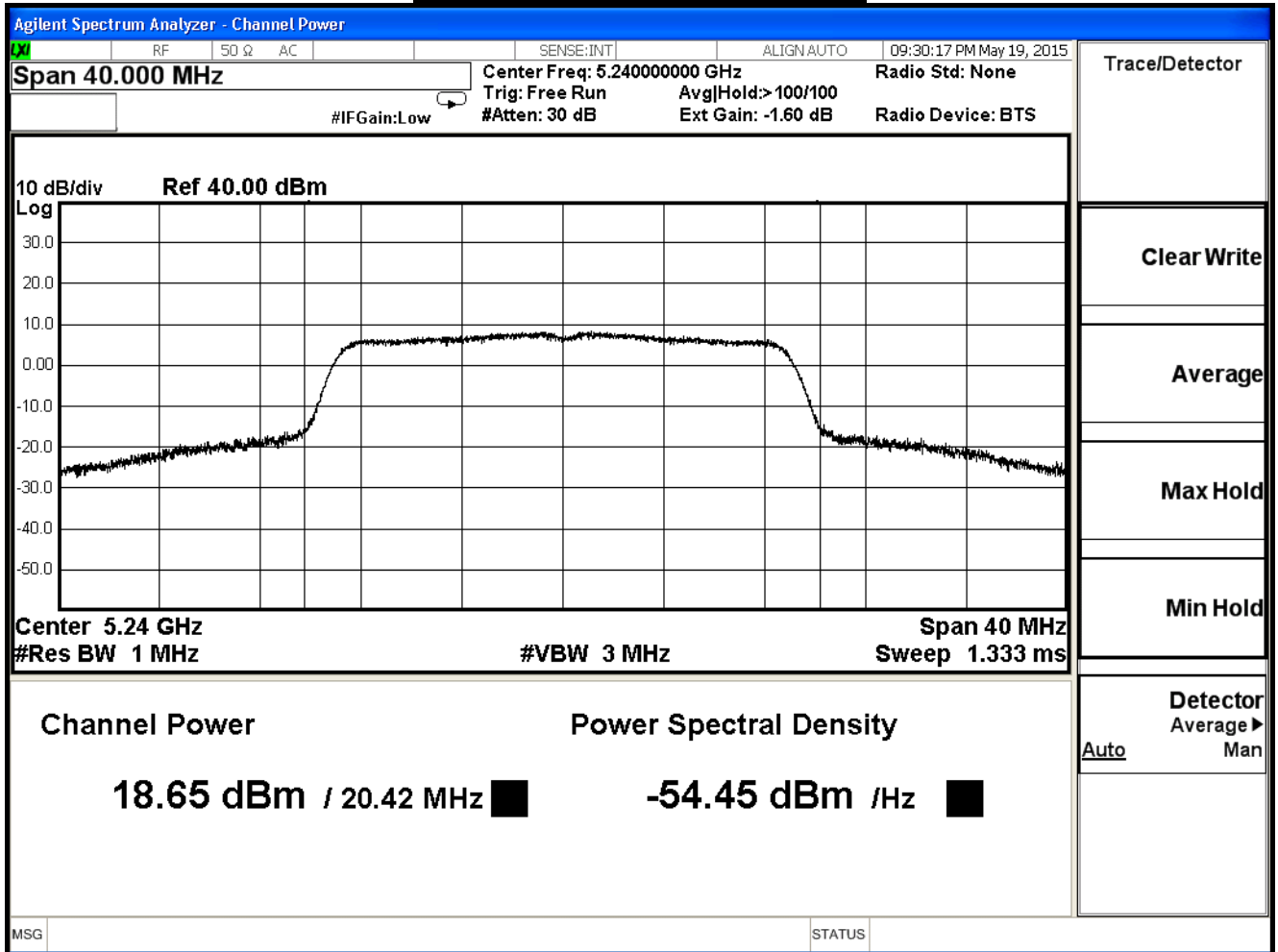
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11n(20MHz)(ANT 0+1) -AP and Bridge Mode					
Channel No.	Frequency (MHz)	Output Power (mW)	Output Power (dBm)	Required Limit	Result
36	5180	113.50	20.55	≤30	Pass
44	5220	146.55	21.66	≤30	Pass
48	5240	146.22	21.65	≤30	Pass

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	
36	5180	20.55	--	--	--	--	--	--	--	30 dBm
44	5220	21.66	21.56	21.41	21.21	21.06	20.88	20.70	20.58	
48	5240	21.65	--	--	--	--	--	--	--	

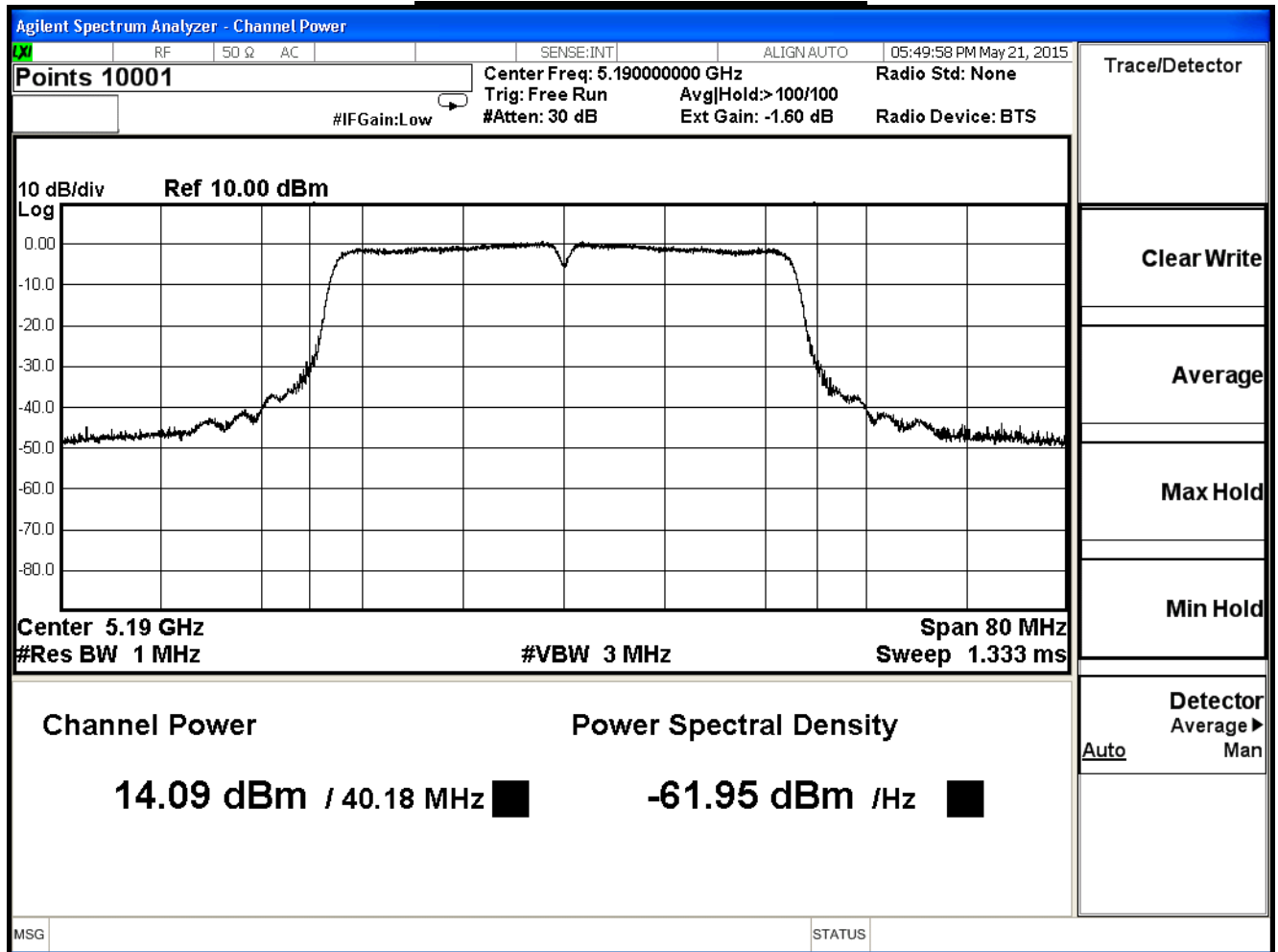
Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11n(40MHz)(ANT 0) -AP and Bridge Mode					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit	Result
38	5190	40.18	14.09	≤30	Pass
46	5230	39.80	18.22	≤30	Pass

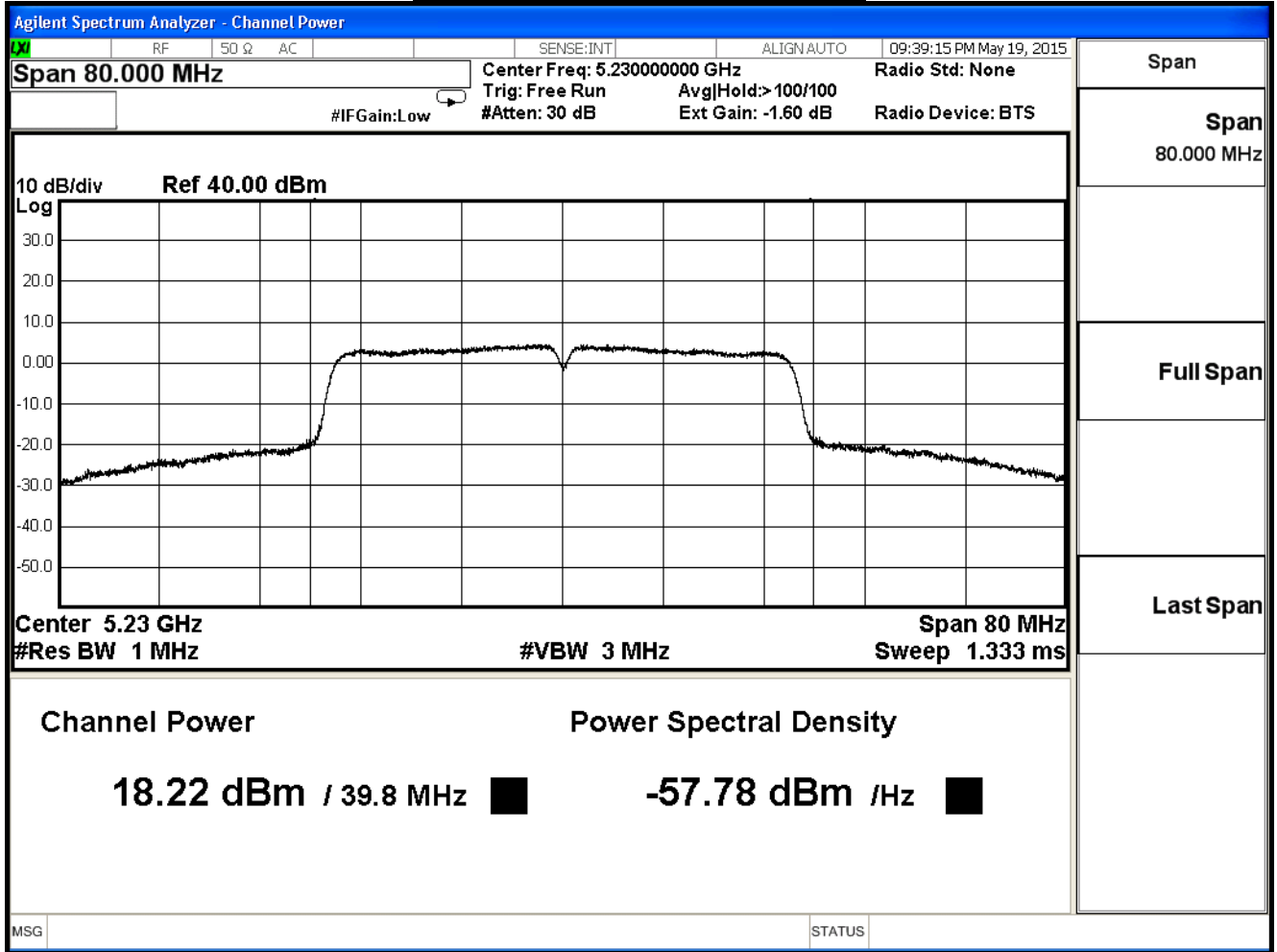
The worst emission of data rate is 13.5 Mbps

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	
38	5190	14.09	--	--	--	--	--	--	--	30 dBm
46	5230	18.22	18.02	17.92	17.72	17.52	17.28	17.04	16.80	

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



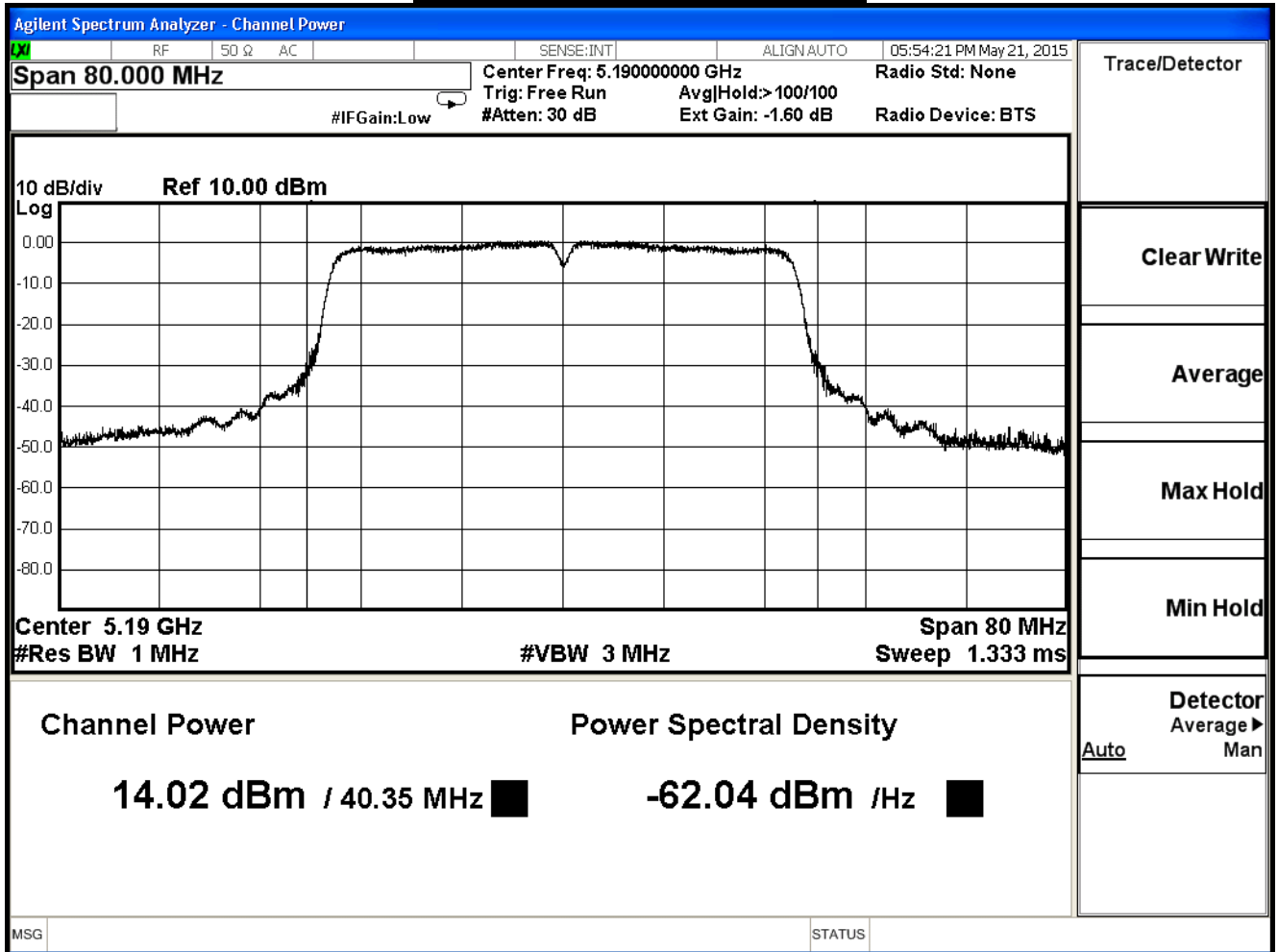
Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11n(40MHz)(ANT 1) -AP and Bridge Mode					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit	Result
38	5190	40.35	14.02	≤30	Pass
46	5230	40.31	18.30	≤30	Pass

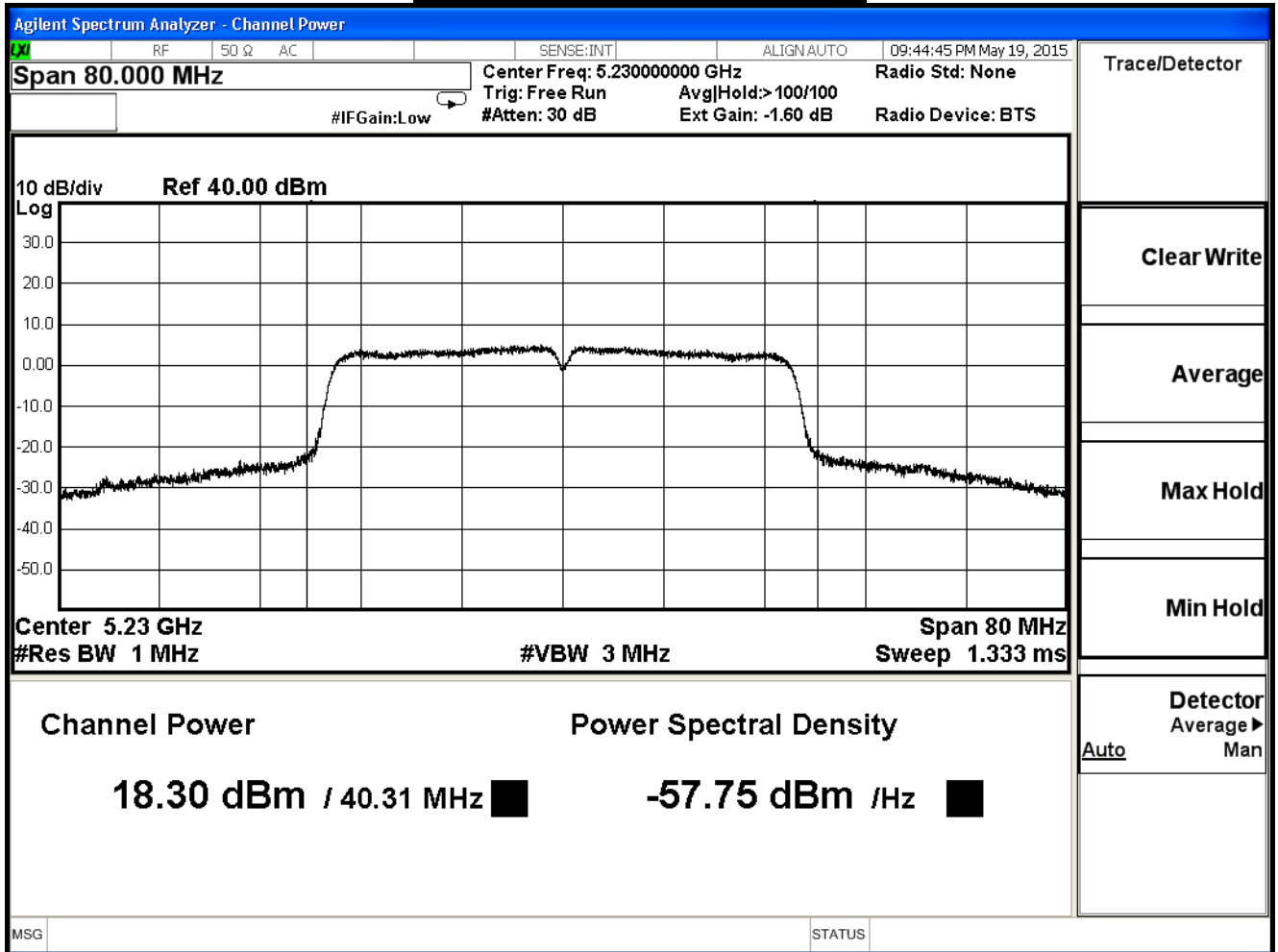
The worst emission of data rate is 13.5 Mbps

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	
38	5190	14.02	--	--	--	--	--	--	--	30 dBm
46	5230	18.30	18.20	18.10	18.00	17.80	17.56	17.32	17.08	

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11n(40MHz)(ANT 0+1) -AP and Bridge Mode					
Channel No.	Frequency (MHz)	Output Power (mW)	Output Power (dBm)	Required Limit	Result
38	5190	50.93	17.07	≤30	Pass
46	5230	133.97	21.27	≤30	Pass

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	
38	5190	17.07	--	--	--	--	--	--	--	30 dBm
46	5230	21.27	21.12	21.02	20.87	20.67	20.43	20.19	19.95	

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

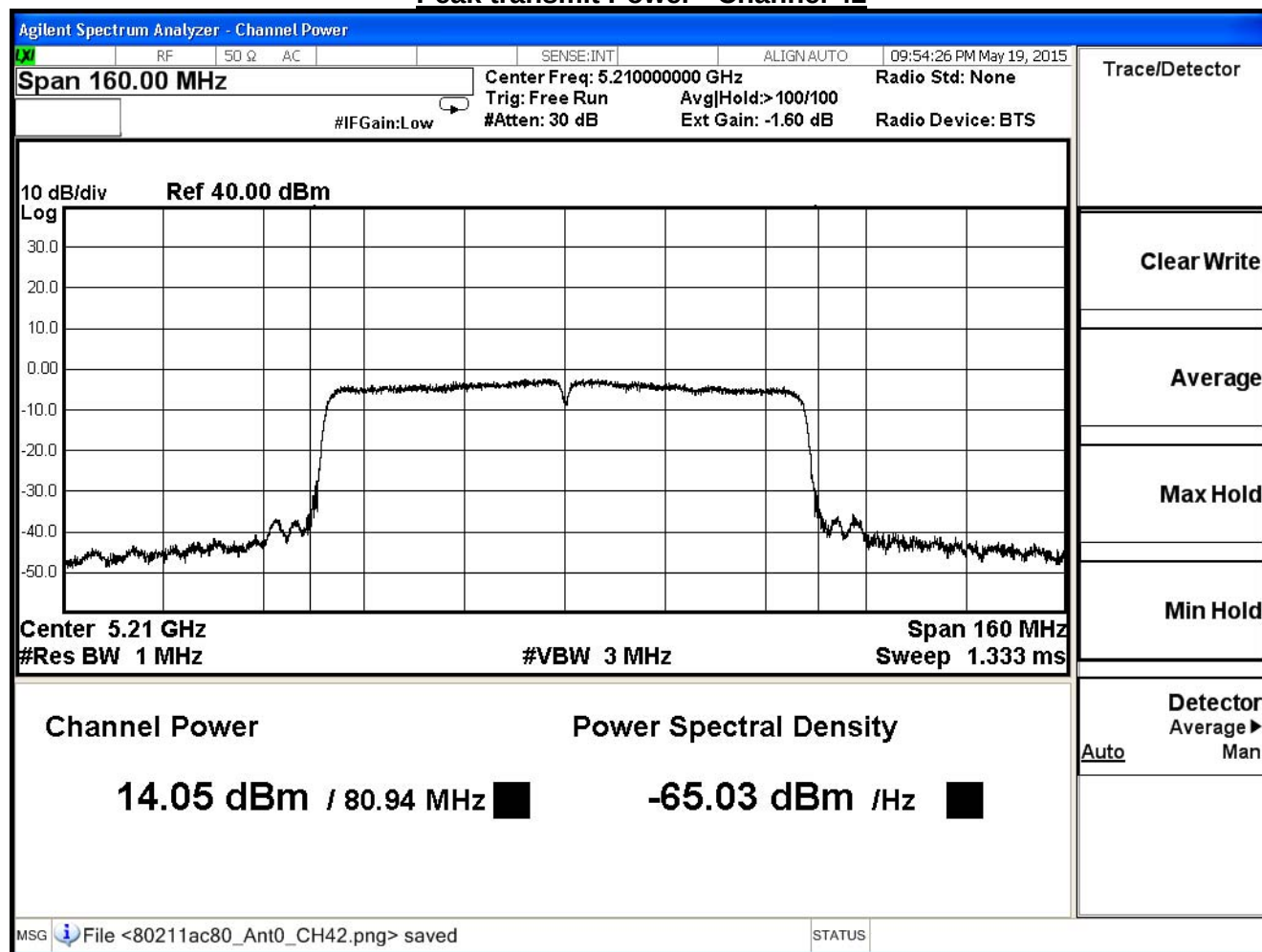
IEEE 802.11ac (80MHz) (ANT 0) -AP and Bridge Mode

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit	Result
42	5210	80.94	14.05	≤30	Pass

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
Channel No	Frequency (MHz)	Data Rate									
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390
42	5210	14.05	13.85	13.65	13.45	13.25	13.05	12.81	12.57	12.45	12.21

Peak transmit Power - Channel 42



Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

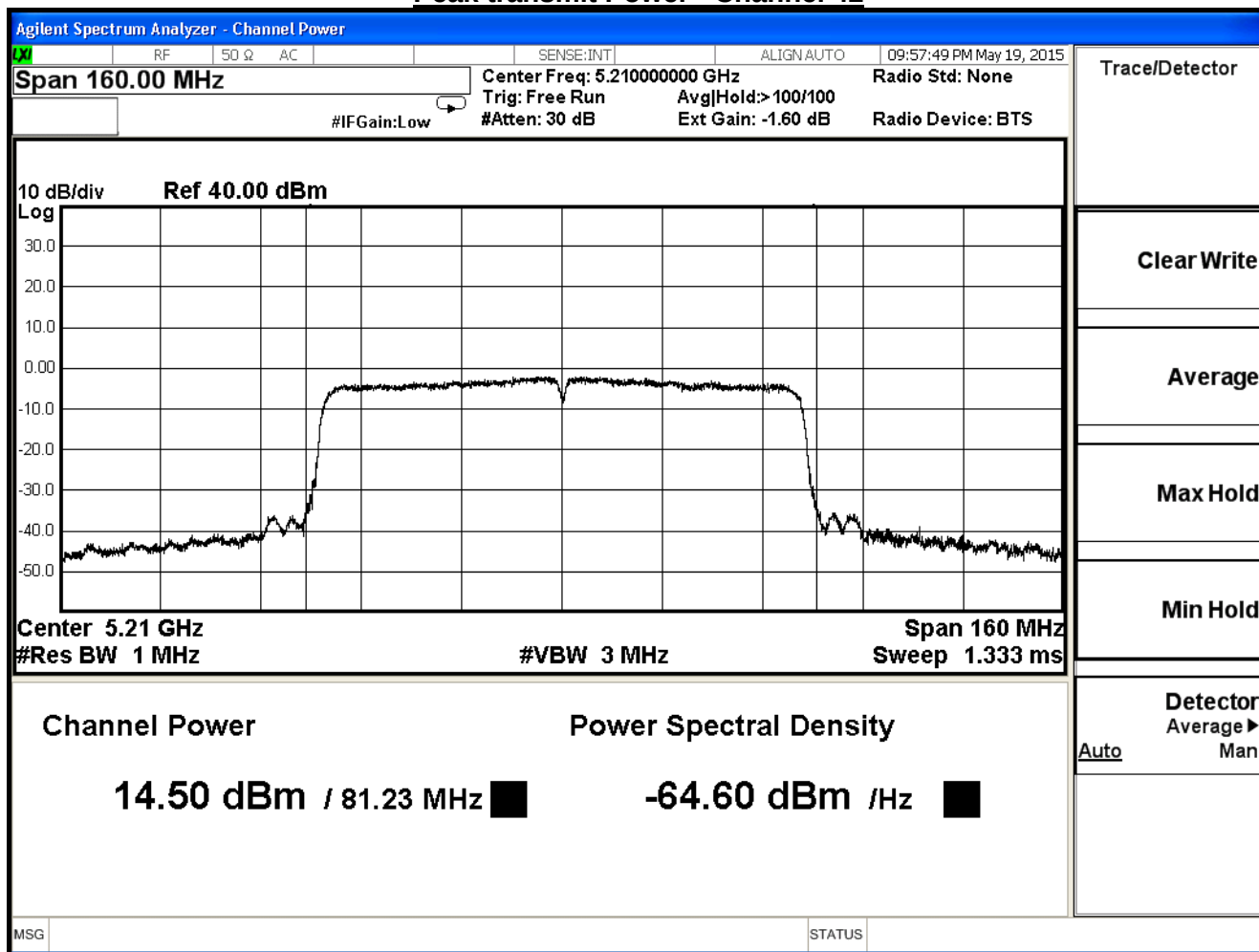
IEEE 802.11ac (80MHz) (ANT 1) -AP and Bridge Mode

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit	Result
42	5210	81.23	14.50	≤30	Pass

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
Channel No	Frequency (MHz)	Data Rate									
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390
42	5210	14.50	14.40	14.20	14.00	13.80	13.60	13.36	13.12	12.88	12.64

Peak transmit Power - Channel 42



Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11ac (80MHz) (ANT 0+1) -AP and Bridge Mode											
Channel No.	Frequency (MHz)	Output Power (mW)		Output Power (dBm)		Required Limit			Result		
42	5210	55.58		17.29		≤30			Pass		
Peak Power Output (dBm)											
MCS Index		0	1	2	3	4	5	6	7	8	9
Channel No	Frequency (MHz)	Data Rate									
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390
42	5210	17.29	17.14	16.94	16.74	16.54	16.34	16.10	15.86	15.68	15.44

5. Peak Power Spectrum Density

5.1. Test Equipment

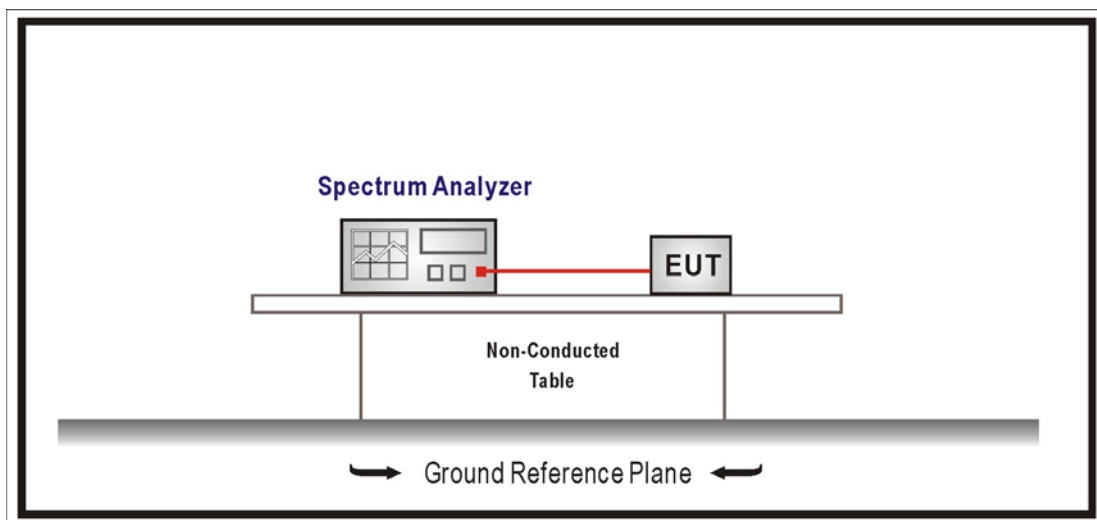
The following test equipments are used during the radiated emission tests:

Peak Power Spectrum Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2015/07/14

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

5.2. Test Setup



5.3. 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 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.
3. 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.

5.4. Test Procedure

The EUT was setup to ANSI C63.10:2009; tested to U-NII test procedure of KDB 789033 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.

5.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

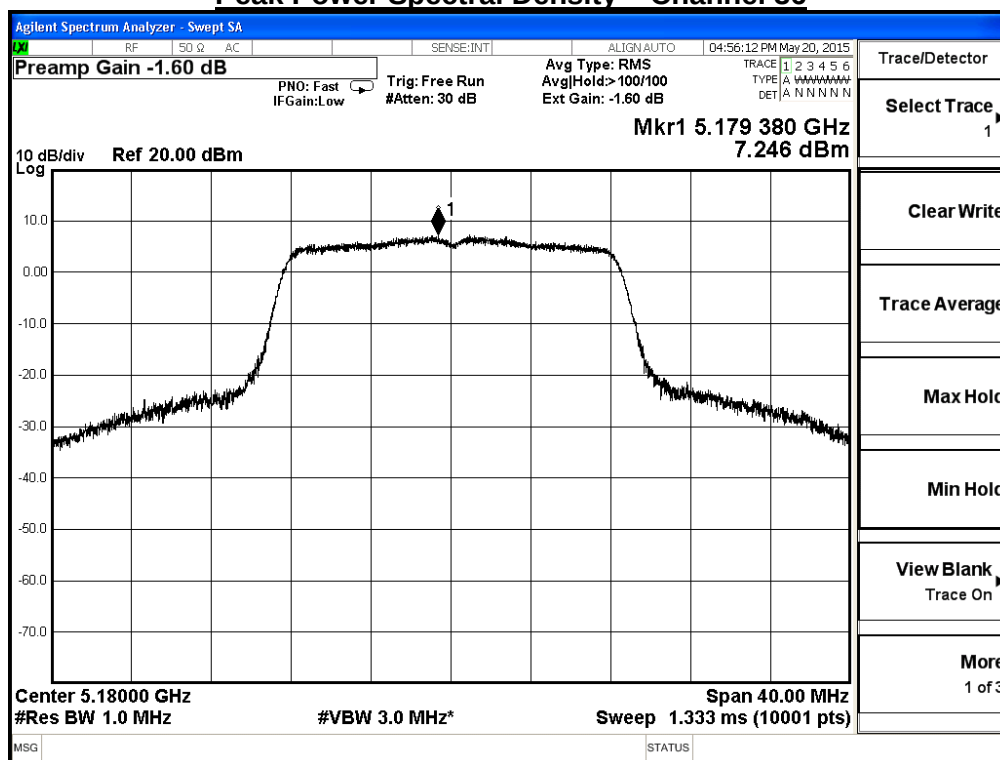
5.6. Test Result

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

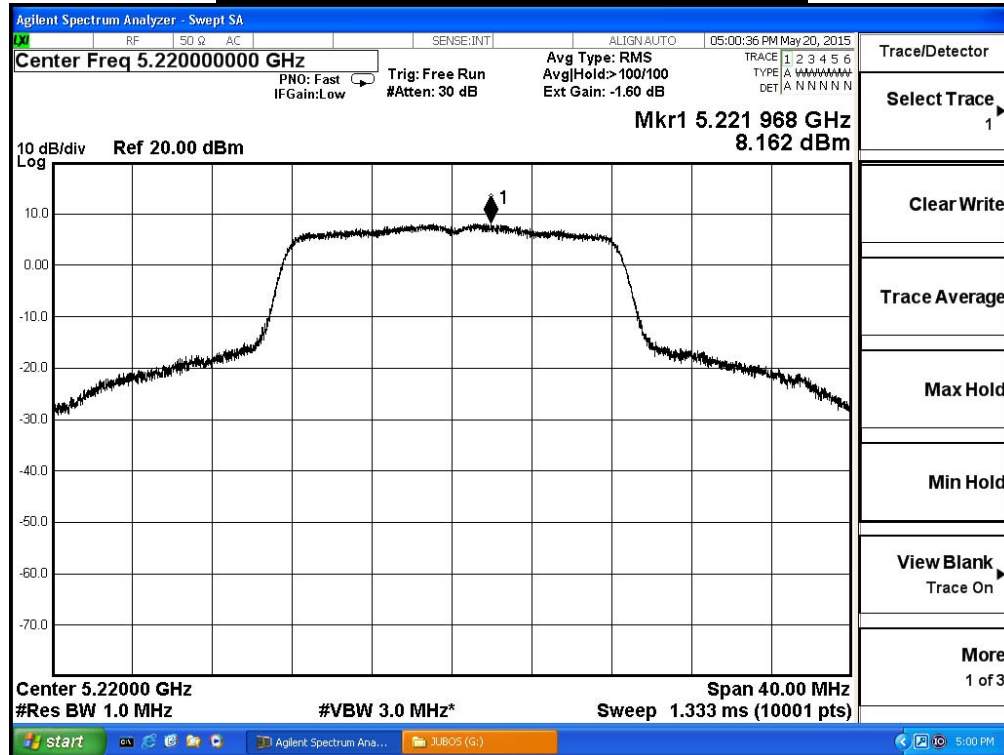
IEEE 802.11a (ANT 0) -AP and Bridge Mode				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
36	5180	7.25	≤ 15.9897	Pass
44	5220	8.16	≤ 15.9897	Pass
48	5240	8.67	≤ 15.9897	Pass

5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
Power Density Limit : $17-(7.0103-6)=15.9897\text{ dBm/MHz}$

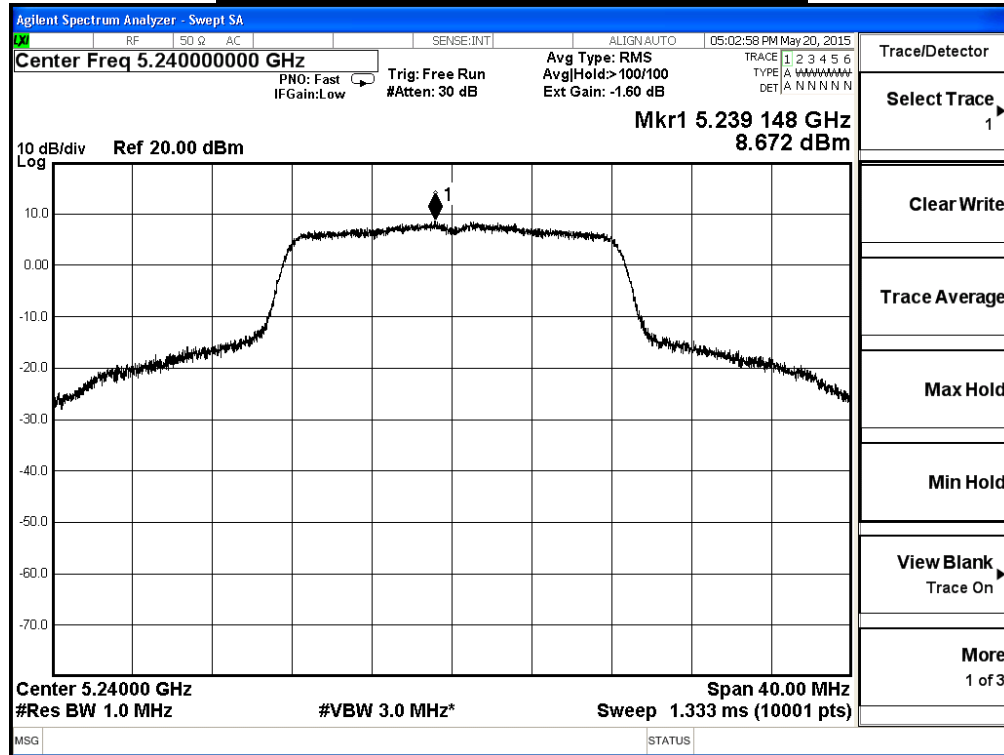
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



Peak Power Spectral Density – Channel 48

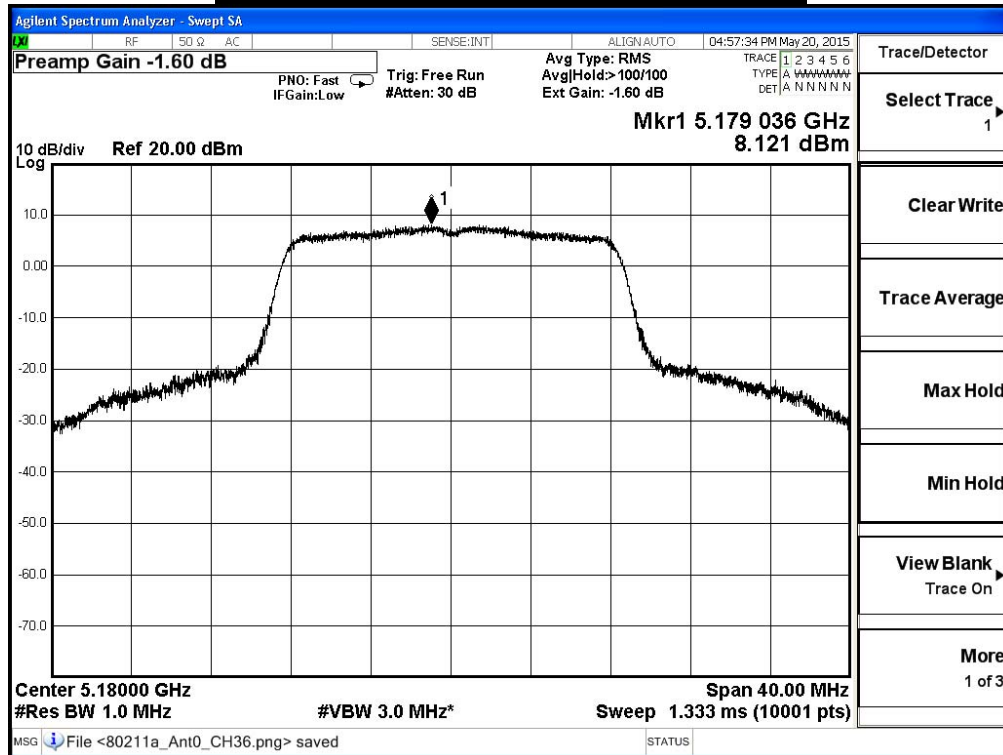


Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

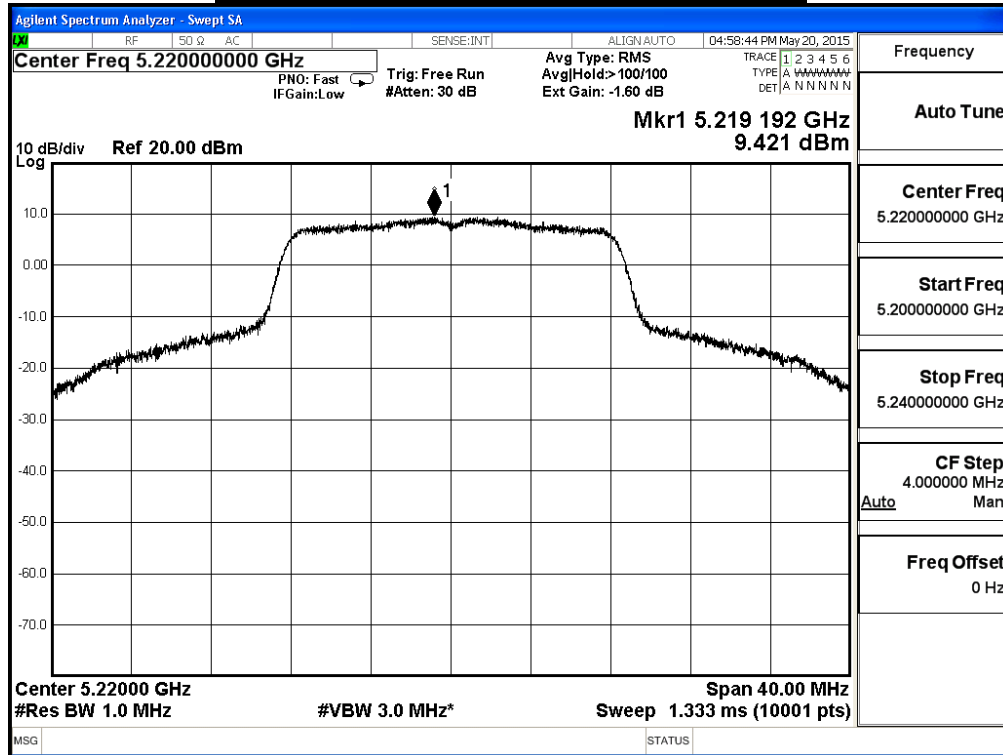
IEEE 802.11a (ANT 1) -AP and Bridge Mode				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
36	5180	8.12	≤ 15.9897	Pass
44	5220	9.42	≤ 15.9897	Pass
48	5240	9.56	≤ 15.9897	Pass

5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
Power Density Limit : $17-(7.0103-6)=15.9897\text{ dBm/MHz}$

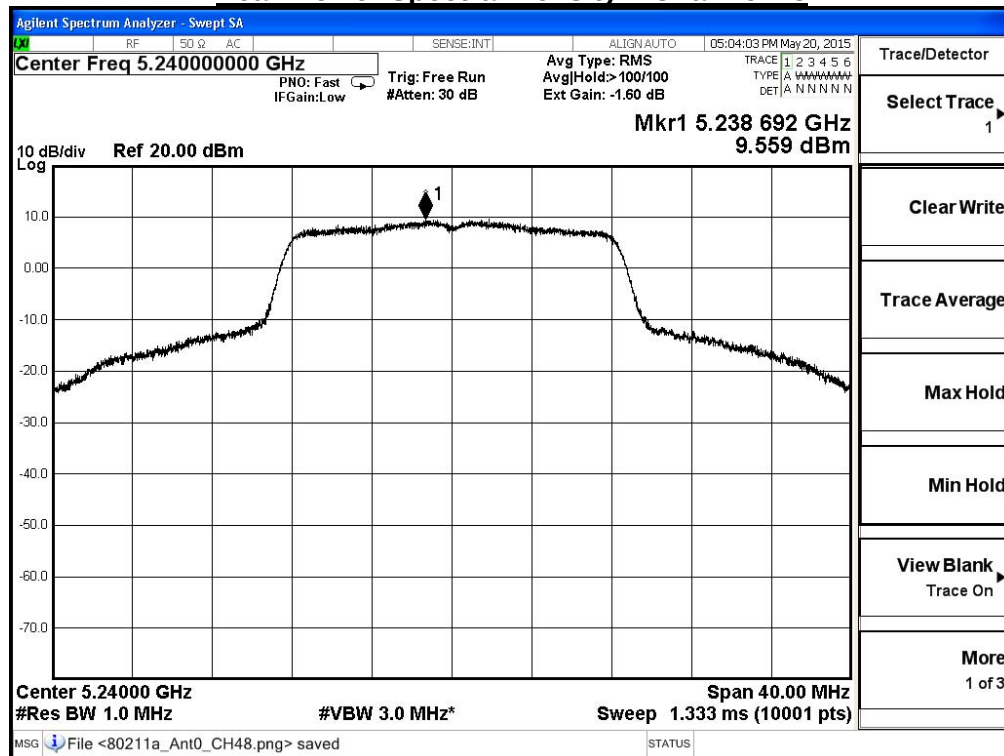
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



Peak Power Spectral Density – Channel 48



Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11a (ANT 0+1) -AP and Bridge Mode				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
36	5180	10.72	≤ 15.9897	Pass
44	5220	11.85	≤ 15.9897	Pass
48	5240	12.15	≤ 15.9897	Pass

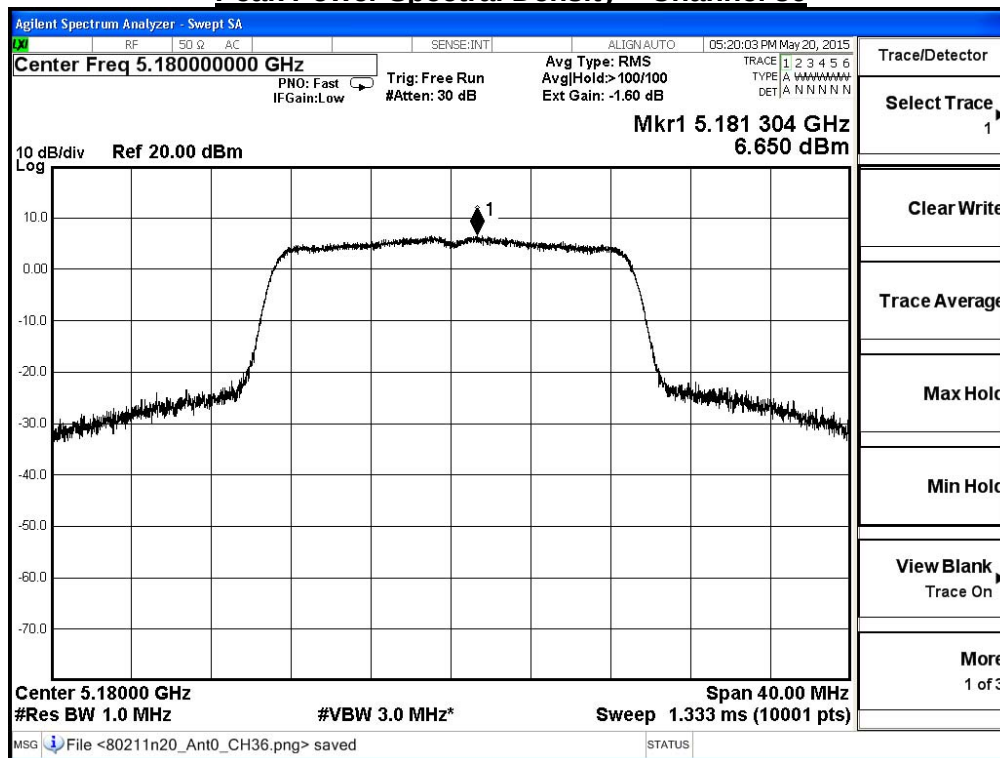
5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
Power Density Limit : $17-(7.0103-6)=15.9897 \text{ dBm/MHz}$

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

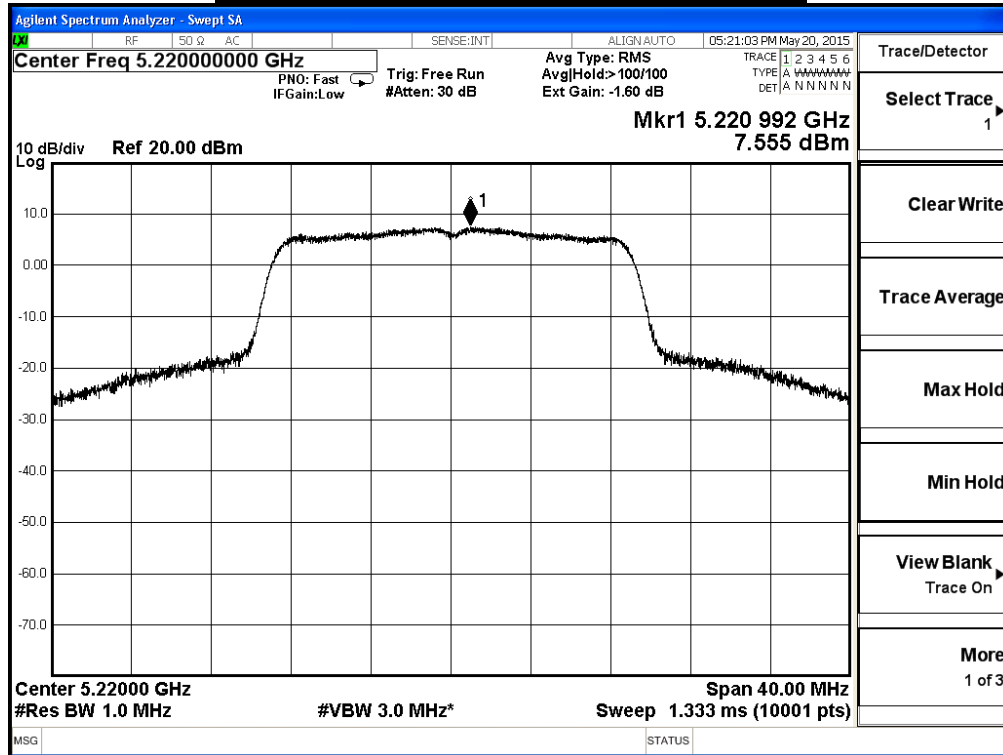
IEEE 802.11n_20M(ANT 0) -AP and Bridge Mode				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
36	5180	6.65	≤ 15.9897	Pass
44	5220	7.56	≤ 15.9897	Pass
48	5240	7.61	≤ 15.9897	Pass

5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
 Power Density Limit : $17-(7.0103-6)=15.9897\text{ dBm/MHz}$

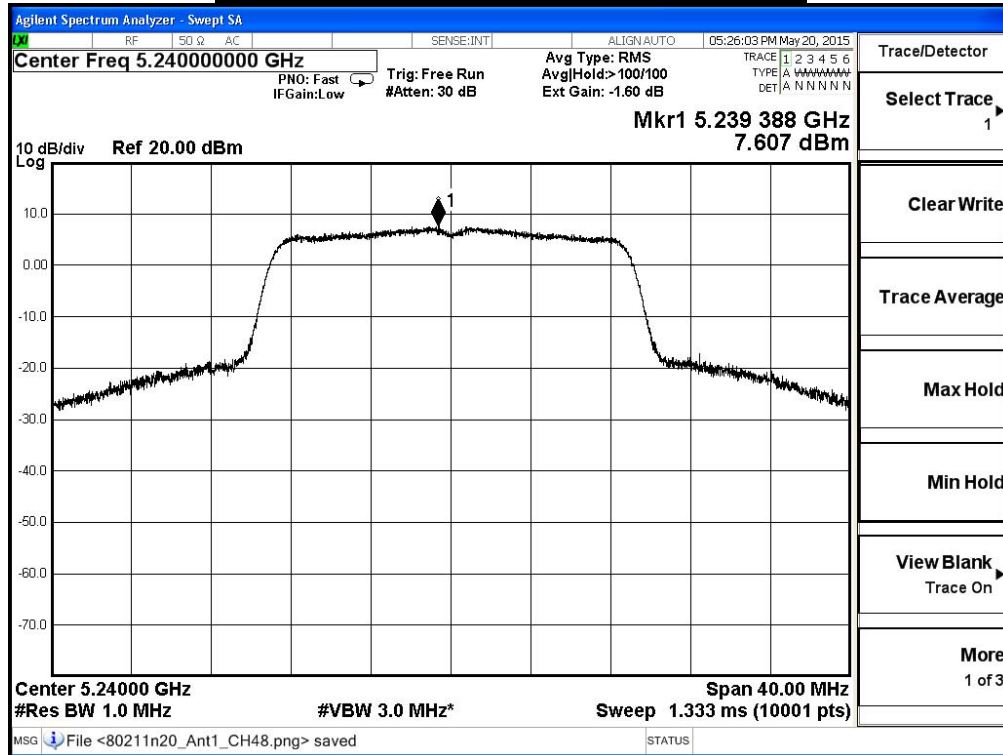
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



Peak Power Spectral Density – Channel 48

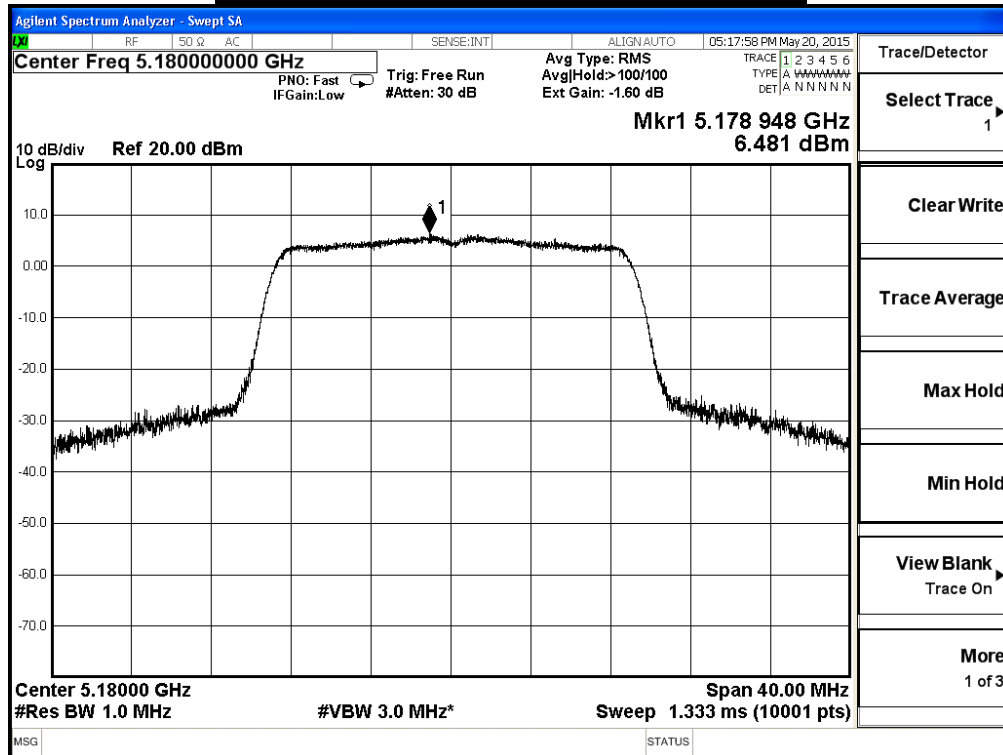


Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

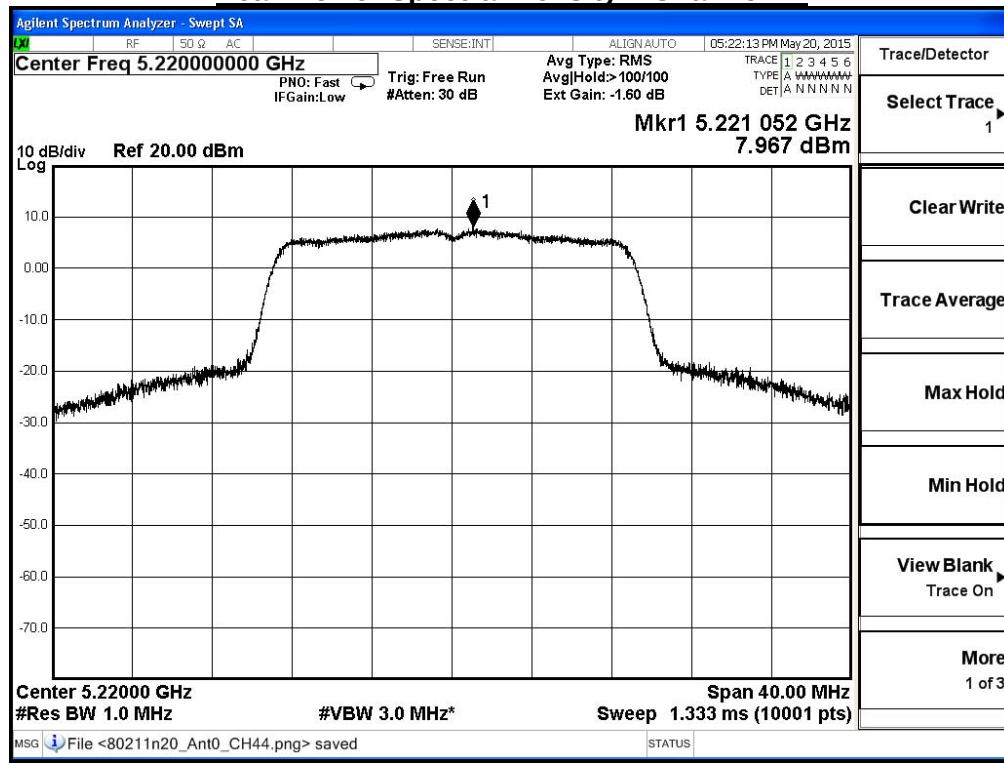
IEEE 802.11n_20M(ANT 1) -AP and Bridge Mode				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
36	5180	6.48	≤ 15.9897	Pass
44	5220	7.97	≤ 15.9897	Pass
48	5240	7.87	≤ 15.9897	Pass

5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
Power Density Limit : $17-(7.0103-6)=15.9897\text{ dBm/MHz}$

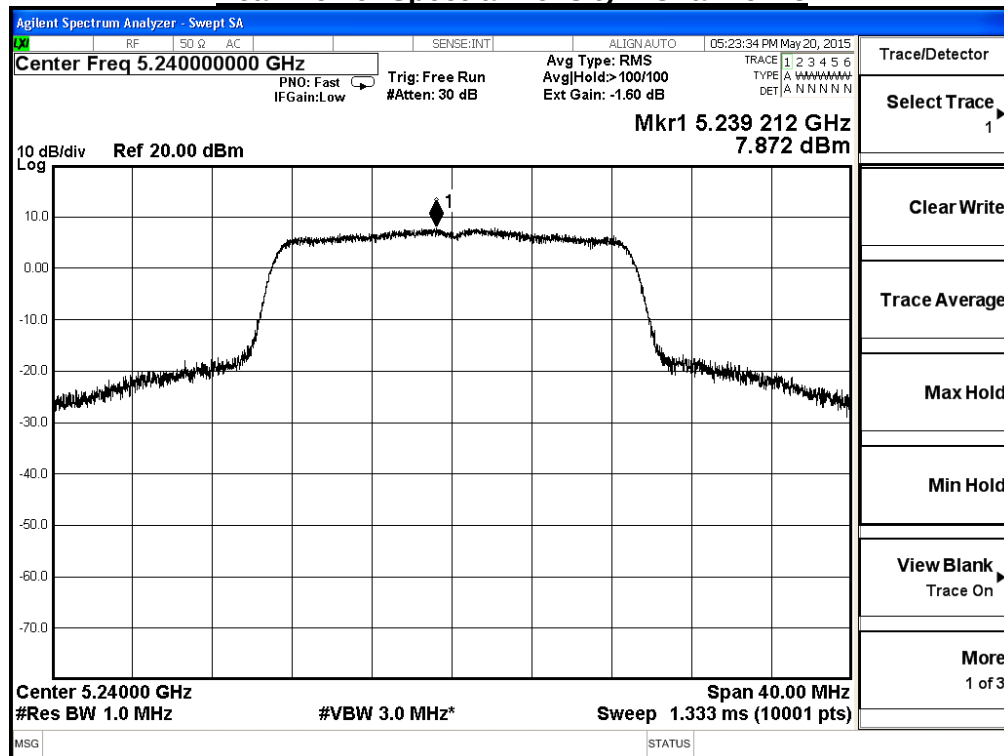
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



Peak Power Spectral Density – Channel 48



Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11n_20M(ANT 0+1) -AP and Bridge Mode				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
36	5180	9.58	≤ 15.9897	Pass
44	5220	10.78	≤ 15.9897	Pass
48	5240	10.75	≤ 15.9897	Pass

5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
Power Density Limit : $17-(7.0103-6)=15.9897\text{ dBm/MHz}$

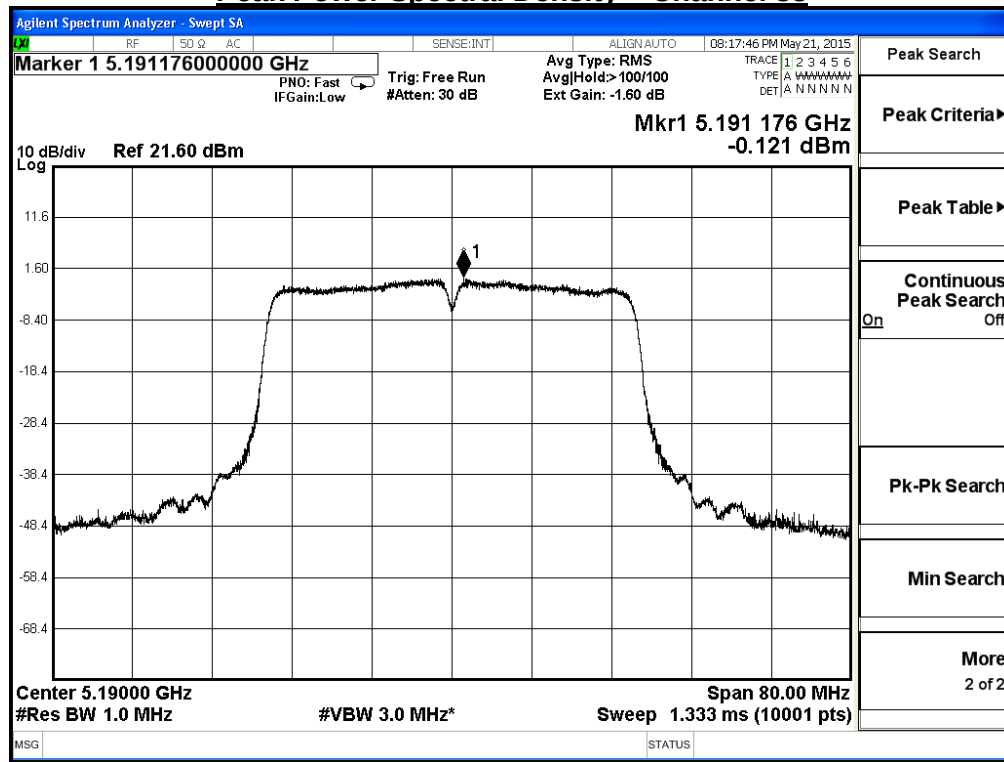
Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11n_40M(ANT 0) -AP and Bridge Mode

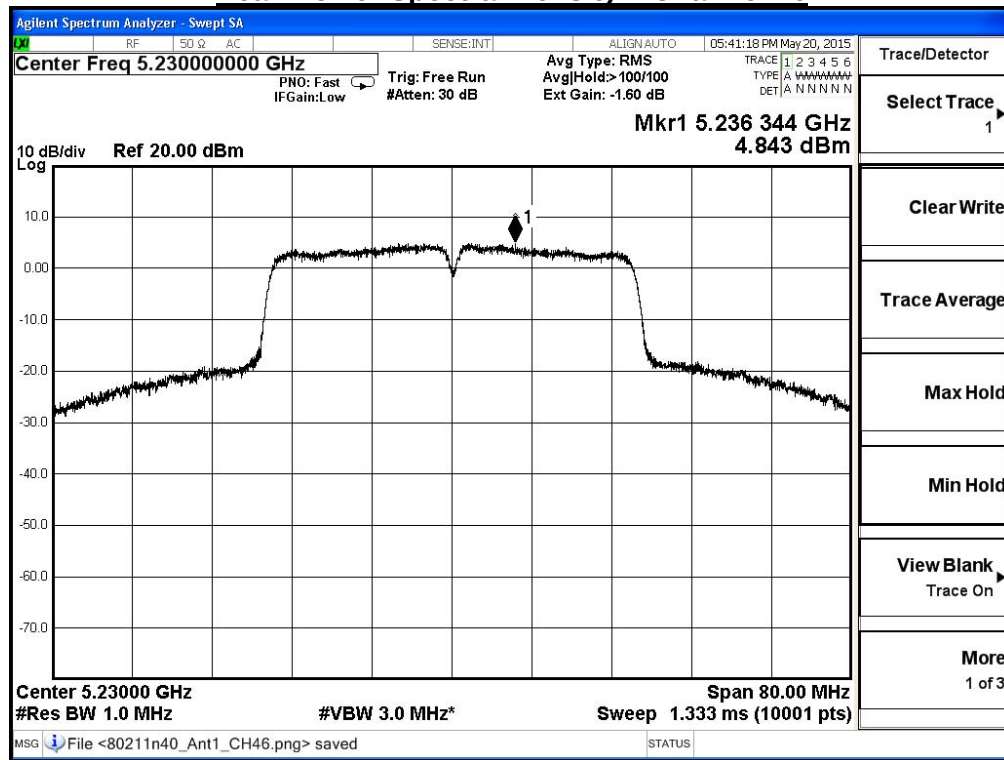
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)
38	5190	-0.12	≤ 15.9897
46	5230	4.84	≤ 15.9897

5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
Power Density Limit : $17-(7.0103-6)=15.9897\text{ dBm/MHz}$

Peak Power Spectral Density – Channel 38



Peak Power Spectral Density – Channel 46

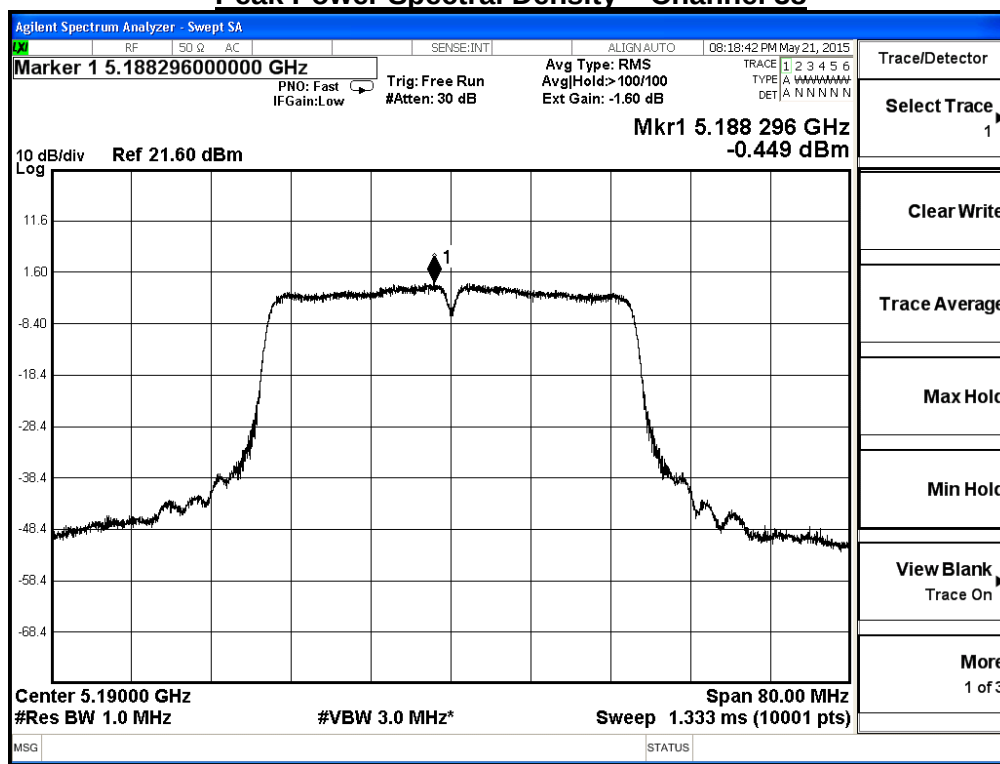


Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

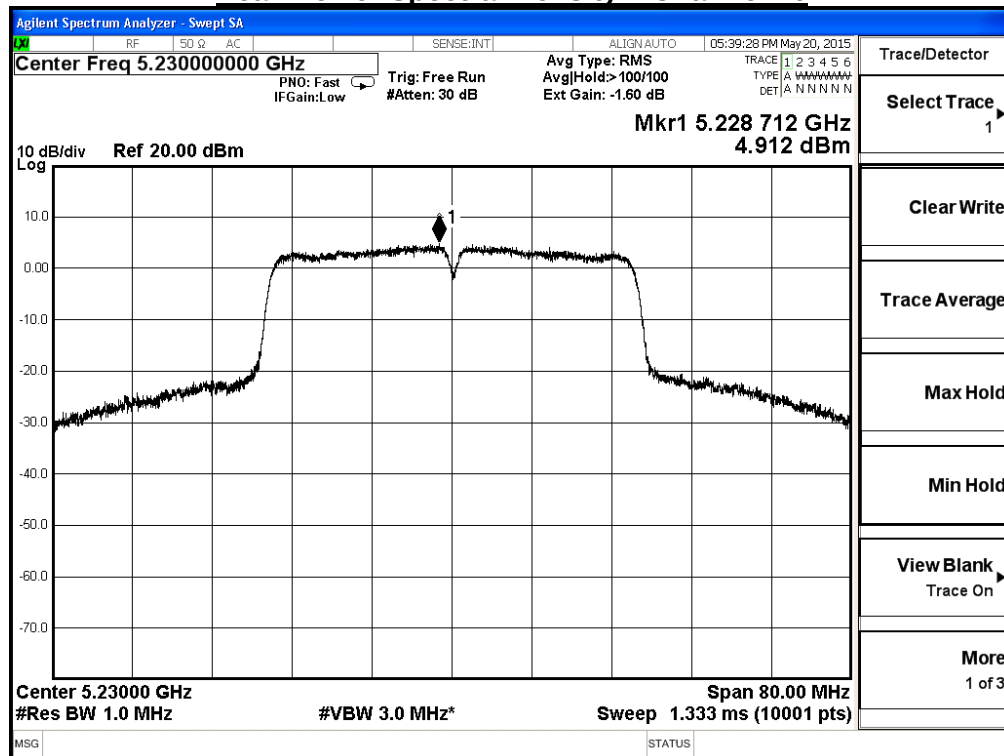
IEEE 802.11n_40M(ANT 1) -AP and Bridge Mode				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
38	5190	-0.45	≤ 15.9897	Pass
46	5230	4.91	≤ 15.9897	Pass

5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
Power Density Limit : $17-(7.0103-6)=15.9897\text{ dBm/MHz}$

Peak Power Spectral Density – Channel 38



Peak Power Spectral Density – Channel 46



Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11n_40M(ANT 0+1) -AP and Bridge Mode				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
38	5190	2.73	≤ 15.9897	Pass
46	5230	7.89	≤ 15.9897	Pass

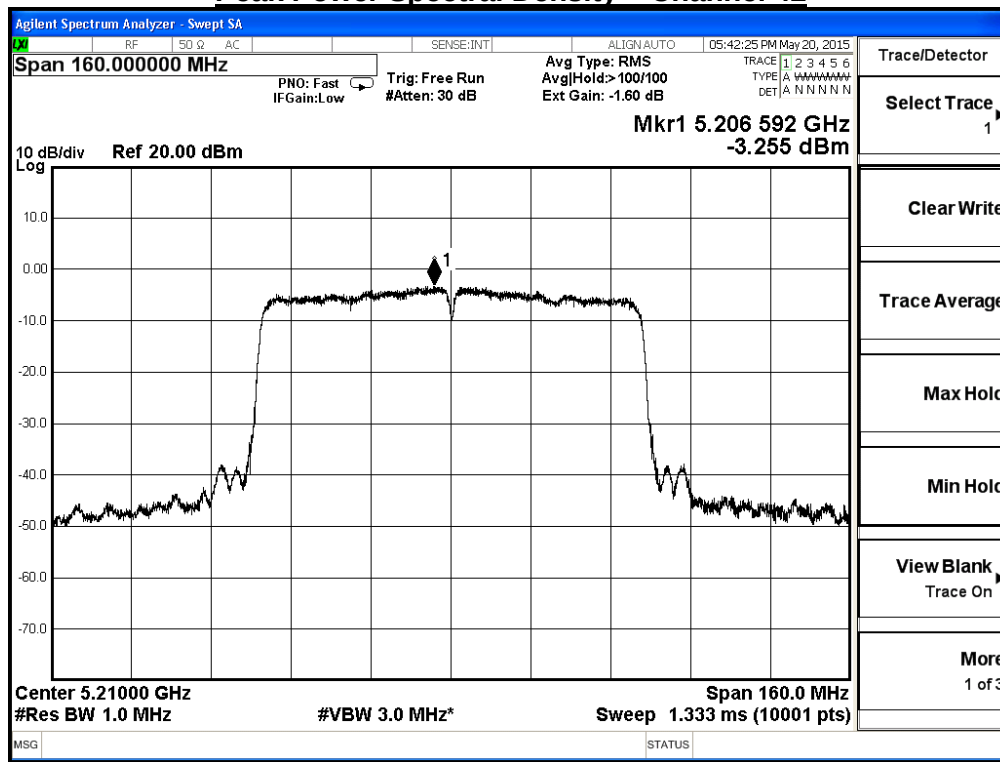
5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
Power Density Limit : $17-(7.0103-6)=15.9897\text{ dBm/MHz}$

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11ac_80M(ANT 0) -AP and Bridge Mode				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
42	5210	-3.26	≤ 15.9897	Pass

5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
Power Density Limit : $17-(7.0103-6)=15.9897\text{ dBm/MHz}$

Peak Power Spectral Density – Channel 42

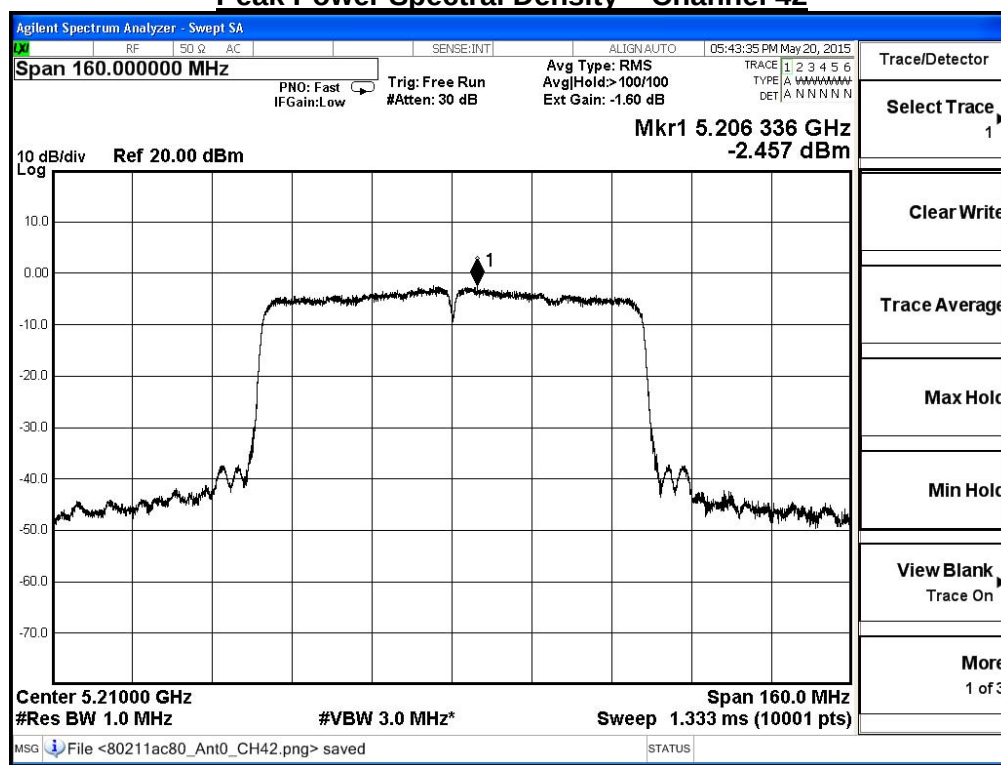


Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11ac_80M(ANT 1) -AP and Bridge Mode				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
42	5210	-2.46	≤ 15.9897	Pass

5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
Power Density Limit : $17-(7.0103-6)=15.9897\text{ dBm/MHz}$

Peak Power Spectral Density – Channel 42



Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/20	Test Site	SR7

IEEE 802.11ac_80M(ANT 0+1) -AP and Bridge Mode				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
42	5210	0.17	≤ 15.9897	Pass

5G Antenna Gain: 4 dBi , $4+10\log(2)=7.0103\text{dB}$
Power Density Limit : $17-(7.0103-6)=15.9897\text{ dBm/MHz}$

6. Radiated Emission

6.1. Test Equipment

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

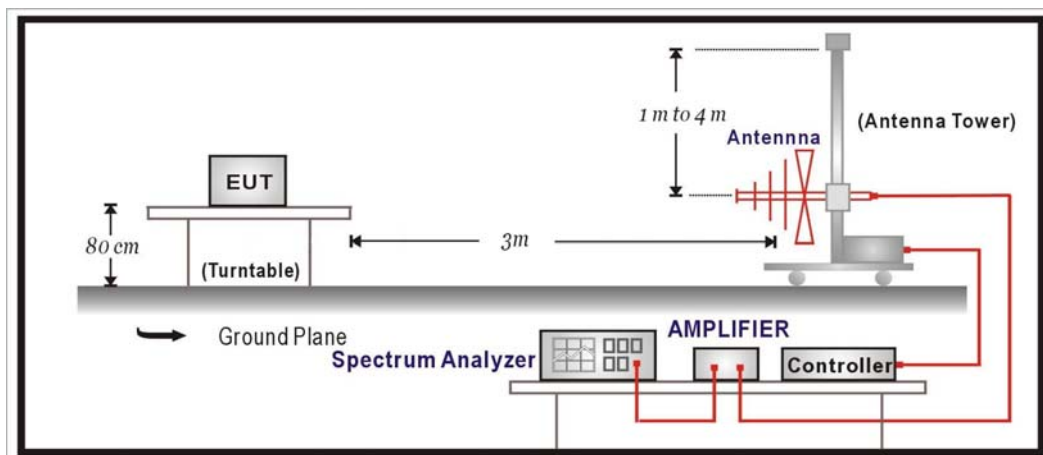
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895(CB1)	2015/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2016/01/26
Pre-Amplifier	EMCI	EMC0031835	980233	2016/01/18
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2016/01/18
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/01/07
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2016/01/26

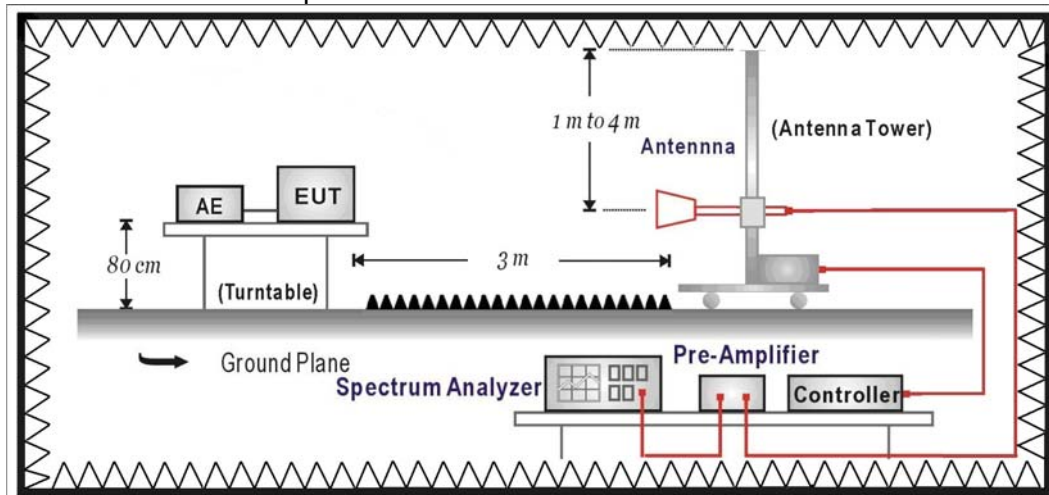
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

6.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



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

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 0.8 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 strength 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 harmonics is checked.

6.5. Uncertainty

The measurement uncertainty

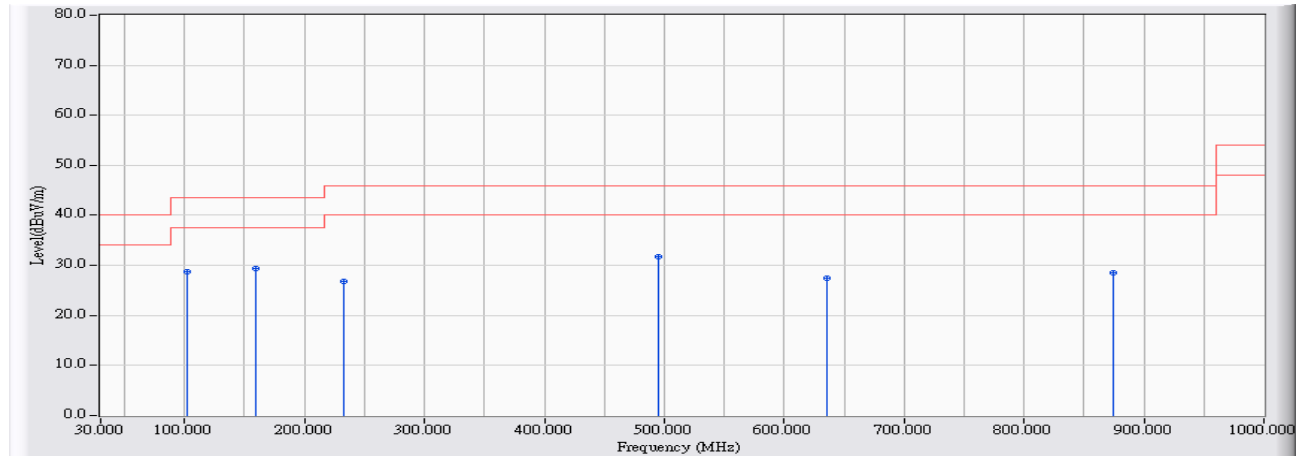
30MHz~1GHz as $\pm 3.43\text{dB}$

1GHz~26.5Ghz as $\pm 3.65\text{dB}$

6.6. Test Result

30MHz-1GHz Spurious

Site : CB1	Time : 2015/05/18 - 23:43
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a_5220MHz

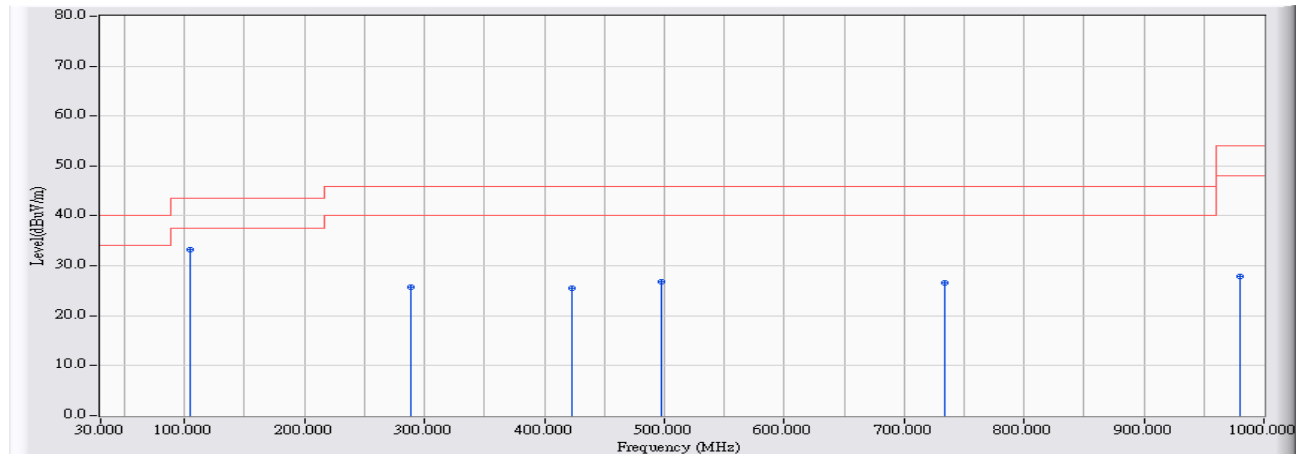


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		101.744	9.928	18.915	28.843	-14.657	43.500	QUASIPeAK
2	*	159.430	9.164	20.244	29.409	-14.091	43.500	QUASIPeAK
3		233.113	10.628	16.260	26.888	-19.112	46.000	QUASIPeAK
4		495.367	17.089	14.563	31.652	-14.348	46.000	QUASIPeAK
5		635.947	17.666	9.817	27.483	-18.517	46.000	QUASIPeAK
6		874.933	19.407	9.180	28.587	-17.413	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/05/18 - 20:59
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a_5220MHz

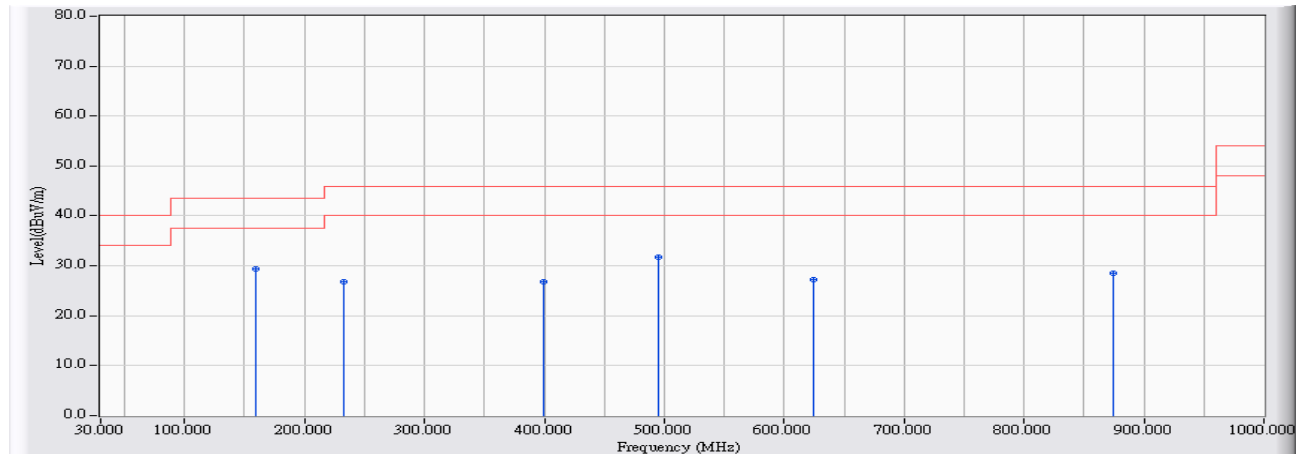


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	104.653	10.070	23.172	33.242	-10.258	43.500	QUASIPeAK
2		288.376	12.550	13.181	25.731	-20.269	46.000	QUASIPeAK
3		423.138	15.624	9.795	25.419	-20.581	46.000	QUASIPeAK
4		497.306	17.129	9.600	26.728	-19.272	46.000	QUASIPeAK
5		733.868	18.406	8.260	26.666	-19.334	46.000	QUASIPeAK
6		979.640	20.122	7.770	27.893	-26.107	54.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/05/18 - 23:40
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n20_5220MHz

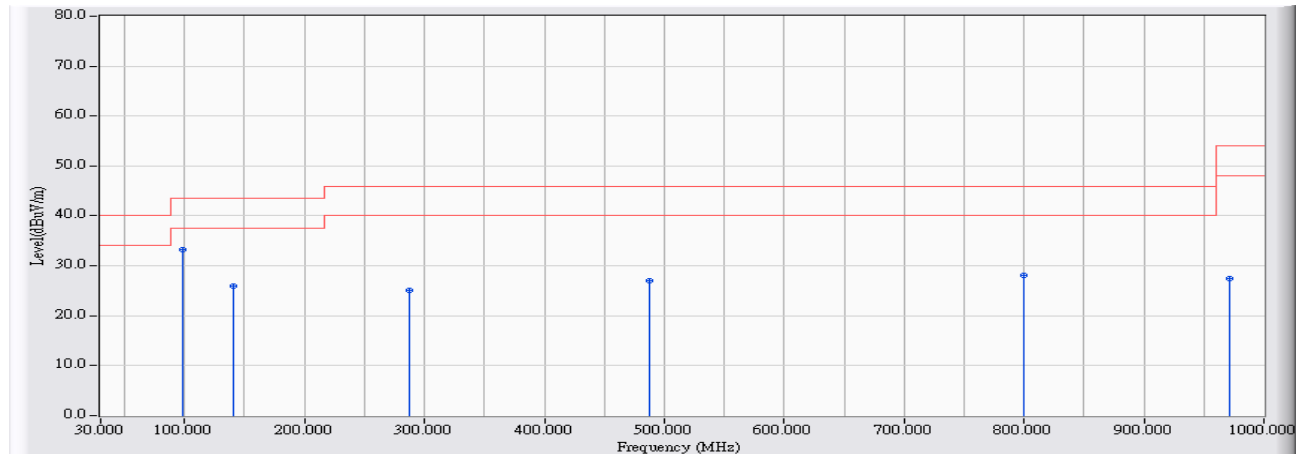


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	159.430	9.164	20.244	29.409	-14.091	43.500	QUASIPeAK
2		233.113	10.628	16.260	26.888	-19.112	46.000	QUASIPeAK
3		399.870	15.150	11.742	26.893	-19.107	46.000	QUASIPeAK
4		495.367	17.089	14.563	31.652	-14.348	46.000	QUASIPeAK
5		624.798	17.610	9.623	27.233	-18.767	46.000	QUASIPeAK
6		874.933	19.407	9.180	28.587	-17.413	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/05/18 - 21:07
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n20_5220MHz

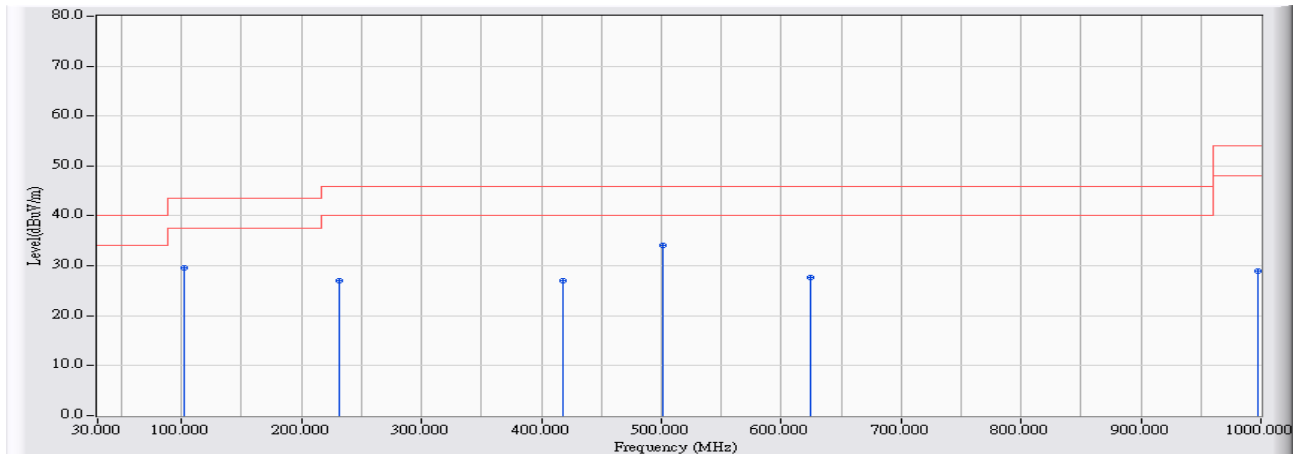


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	98.351	9.456	23.879	33.335	-10.165	43.500	QUASIPeAK
2		141.009	10.082	15.886	25.968	-17.532	43.500	QUASIPeAK
3		287.891	12.542	12.634	25.176	-20.824	46.000	QUASIPeAK
4		487.611	16.931	10.116	27.047	-18.953	46.000	QUASIPeAK
5		799.795	19.211	8.969	28.179	-17.821	46.000	QUASIPeAK
6		971.399	20.056	7.498	27.553	-26.447	54.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/05/18 - 23:39
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n40_5230MHz

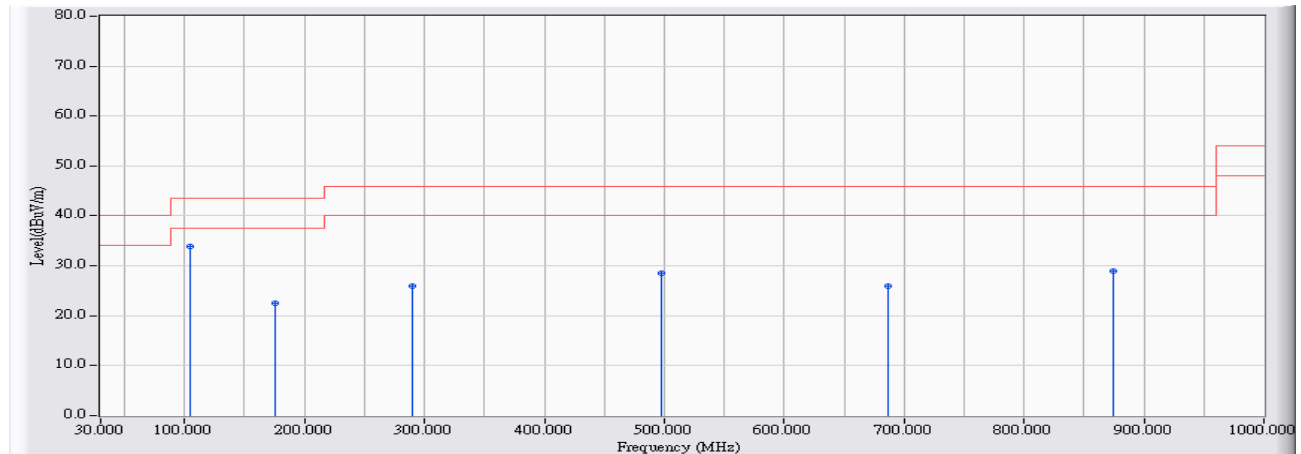


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	101.744	9.928	19.698	29.626	-13.874	43.500	QUASIPeAK
2	231.659	10.520	16.608	27.127	-18.873	46.000	QUASIPeAK
3	418.291	15.525	11.482	27.007	-18.993	46.000	QUASIPeAK
4	* 501.184	17.186	16.987	34.173	-11.827	46.000	QUASIPeAK
5	624.798	17.610	10.093	27.703	-18.297	46.000	QUASIPeAK
6	997.091	20.265	8.787	29.052	-24.948	54.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/05/18 - 21:11
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n20_5230MHz

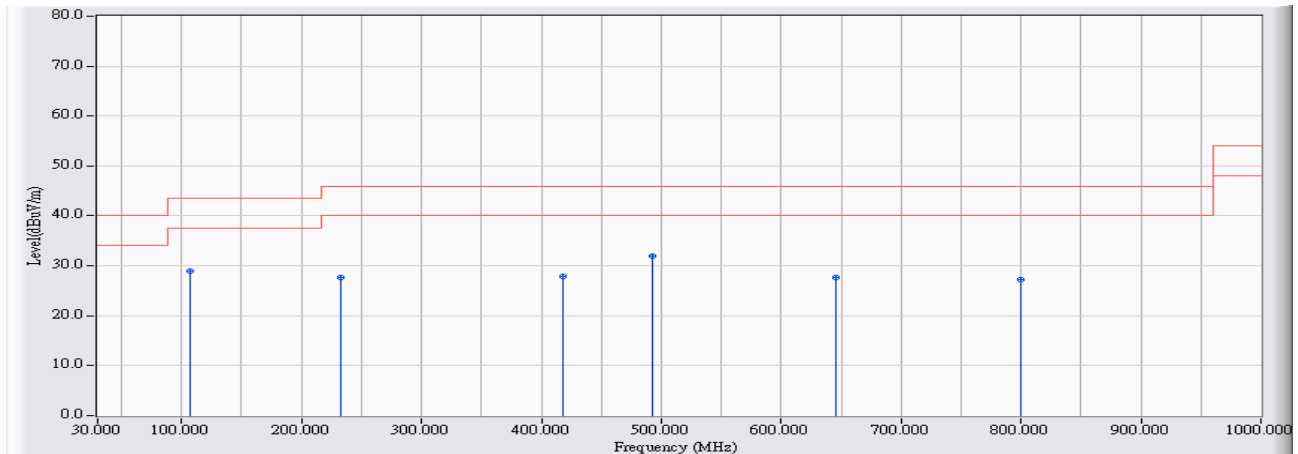


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	104.653	10.070	23.798	33.868	-9.632	43.500	QUASIPeAK
2		174.943	8.482	13.933	22.415	-21.085	43.500	QUASIPeAK
3		289.830	12.575	13.275	25.850	-20.150	46.000	QUASIPeAK
4		497.791	17.138	11.374	28.512	-17.488	46.000	QUASIPeAK
5		686.362	17.923	8.054	25.977	-20.023	46.000	QUASIPeAK
6		874.933	19.407	9.534	28.941	-17.059	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/05/18 - 23:30
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11ac80_5210MHz

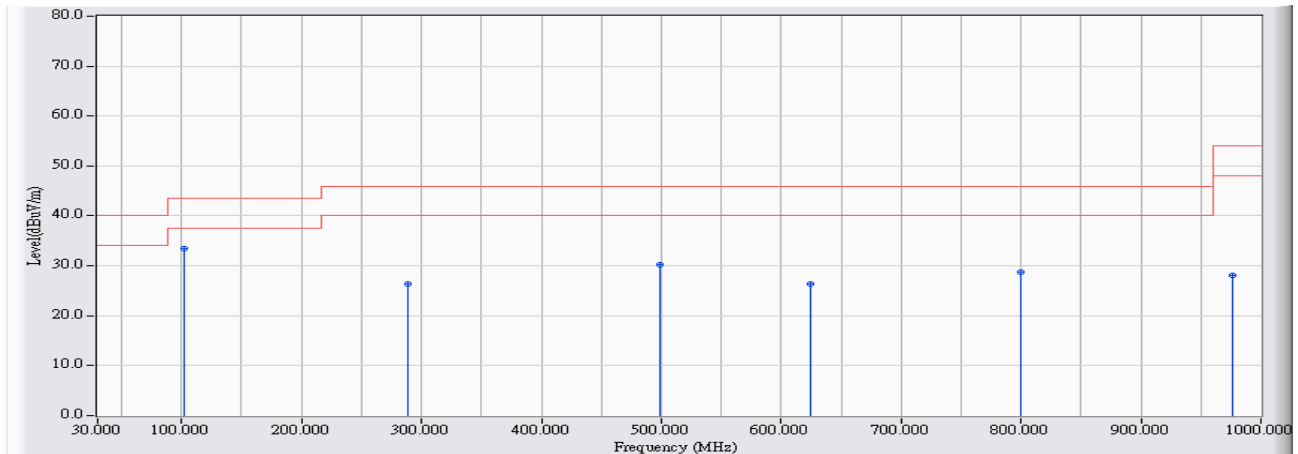


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	106.592	10.165	18.792	28.956	-14.544	43.500	QUASIPeAK
2	233.113	10.628	17.022	27.650	-18.350	46.000	QUASIPeAK
3	417.806	15.516	12.338	27.854	-18.146	46.000	QUASIPeAK
4	* 492.459	17.030	14.976	32.006	-13.994	46.000	QUASIPeAK
5	646.127	17.718	9.981	27.699	-18.301	46.000	QUASIPeAK
6	799.795	19.211	8.121	27.331	-18.669	46.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Site : CB1	Time : 2015/05/18 - 21:15
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11ac80_5210MHz



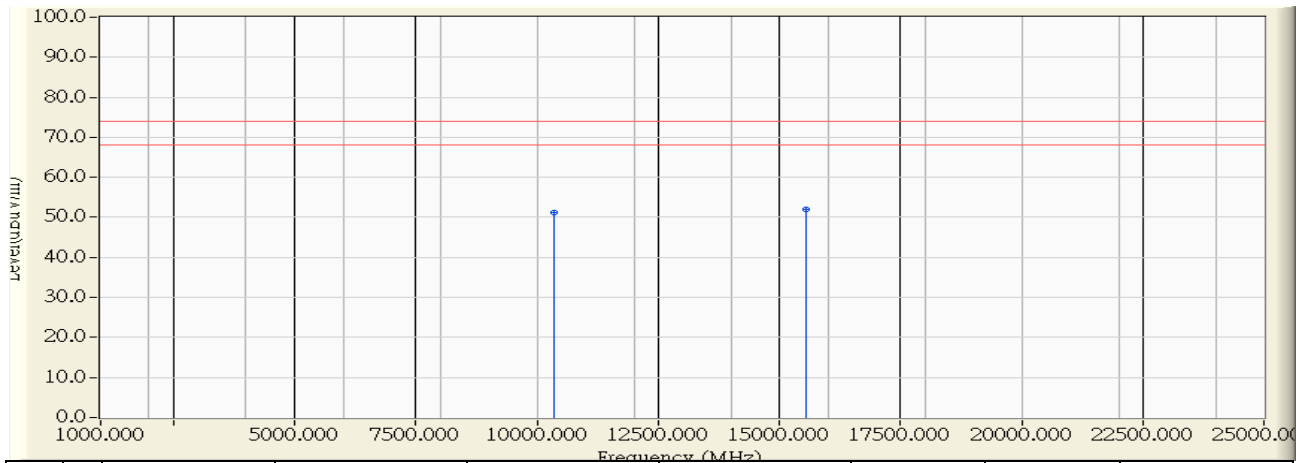
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	101.744	9.928	23.477	33.405	-10.095	43.500	QUASIPeAK
2		288.376	12.550	13.806	26.356	-19.644	46.000	QUASIPeAK
3		499.245	17.168	13.180	30.347	-15.653	46.000	QUASIPeAK
4		624.798	17.610	8.865	26.475	-19.525	46.000	QUASIPeAK
5		799.795	19.211	9.445	28.655	-17.345	46.000	QUASIPeAK
6		976.247	20.095	8.045	28.140	-25.860	54.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.

Harmonic & Spurious:

Site : CB1	Time : 2015/05/18 - 09:57
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5180MHz

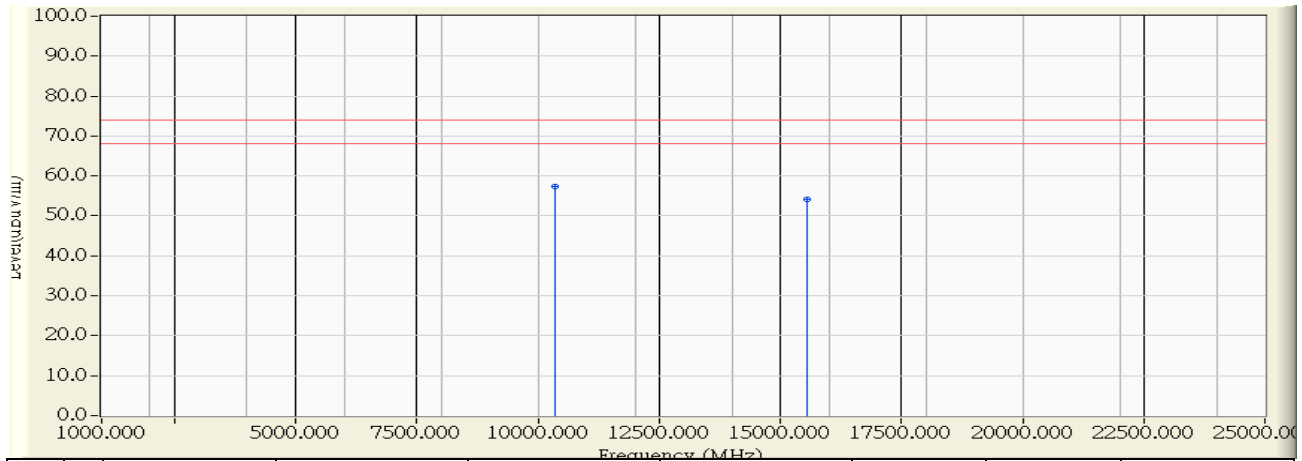


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10360.000	10.136	41.140	51.276	-22.724	74.000	PEAK
2	*	15540.000	11.090	40.890	51.980	-22.020	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 09:31
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5180MHz

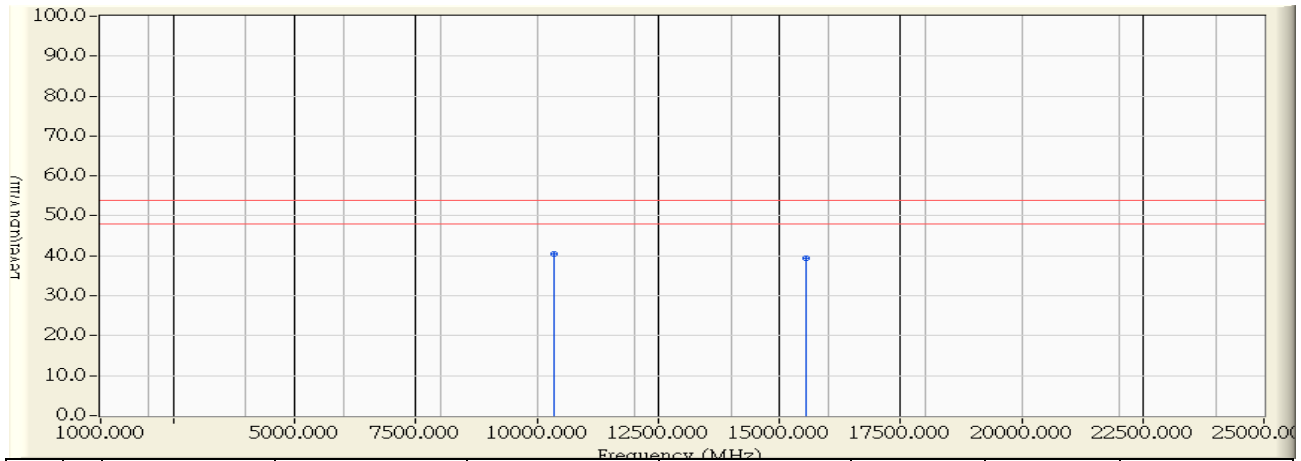


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10360.000	9.513	47.760	57.273	-16.727	74.000	PEAK
2		15540.000	11.090	43.130	54.220	-19.780	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 09:31
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5180MHz

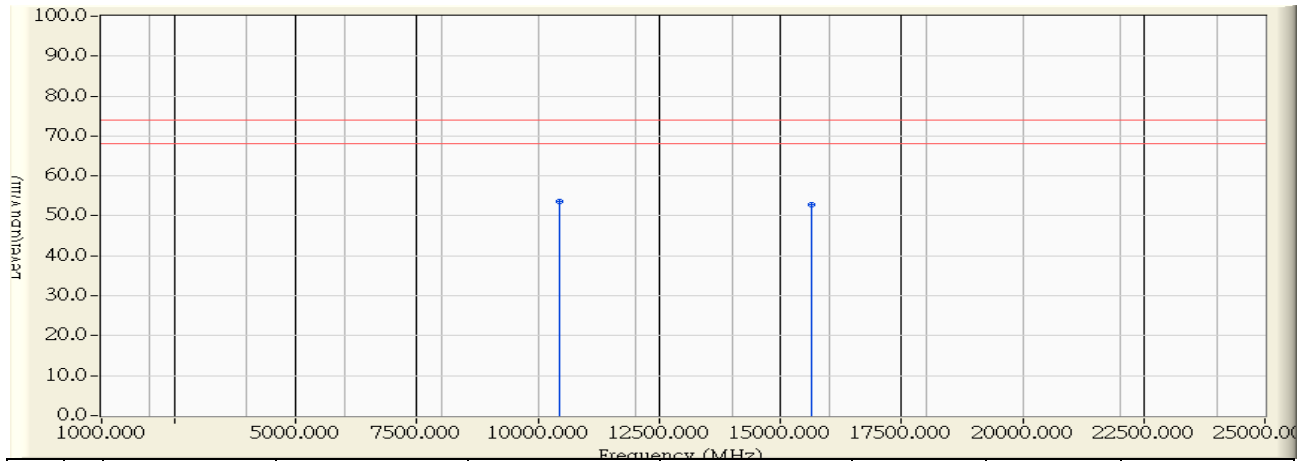


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10360.000	9.513	31.050	40.563	-13.437	54.000	AVERAGE
2		15540.000	11.090	28.250	39.340	-14.660	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 10:19
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5220MHz

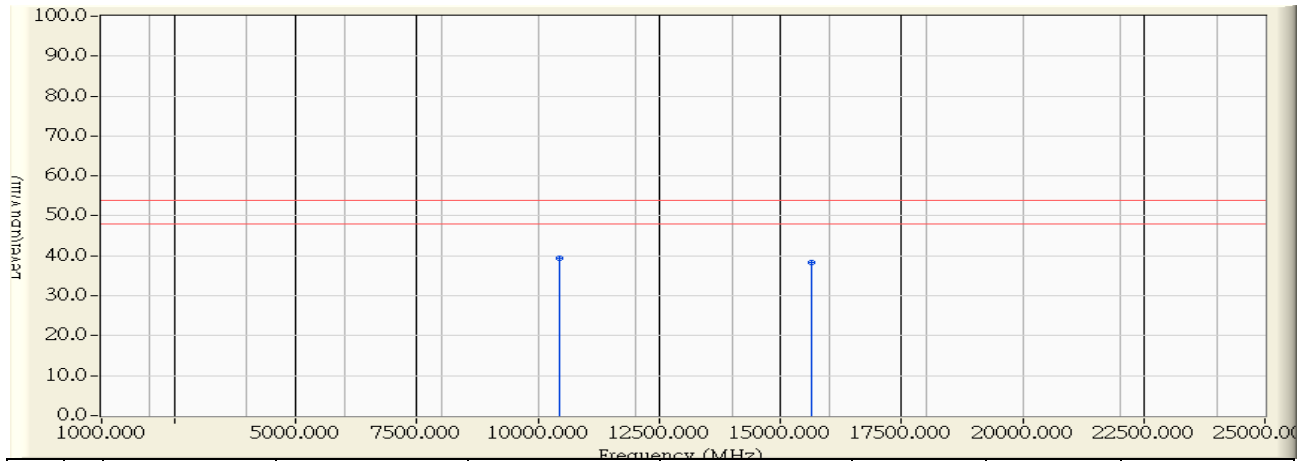


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	10.057	43.550	53.607	-20.393	74.000	PEAK
2		15660.000	10.956	41.960	52.916	-21.084	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 10:20
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5220MHz

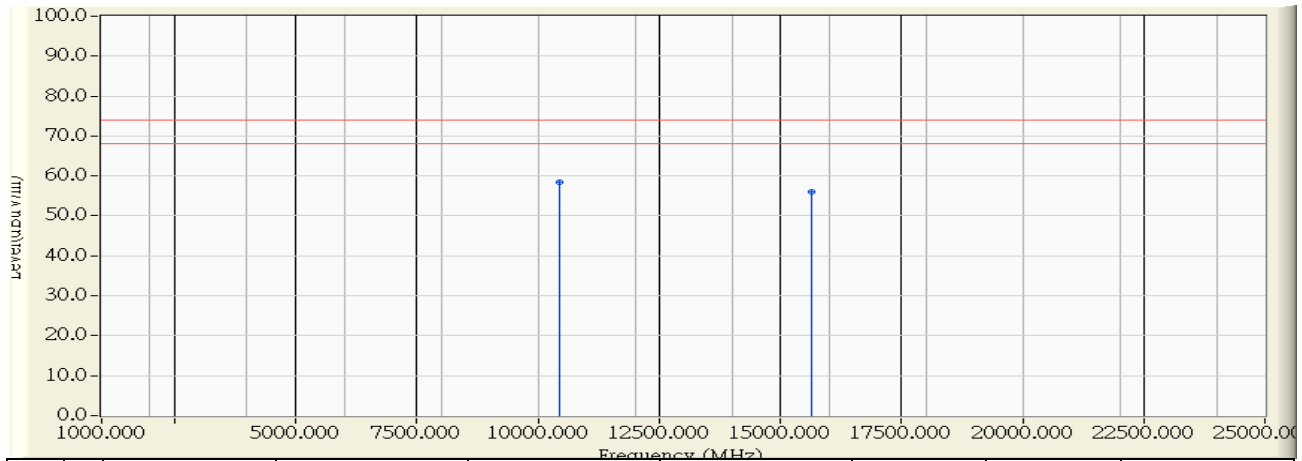


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	10.057	29.420	39.477	-14.523	54.000	AVERAGE
2		15660.000	10.956	27.360	38.316	-15.684	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 10:07
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5220MHz

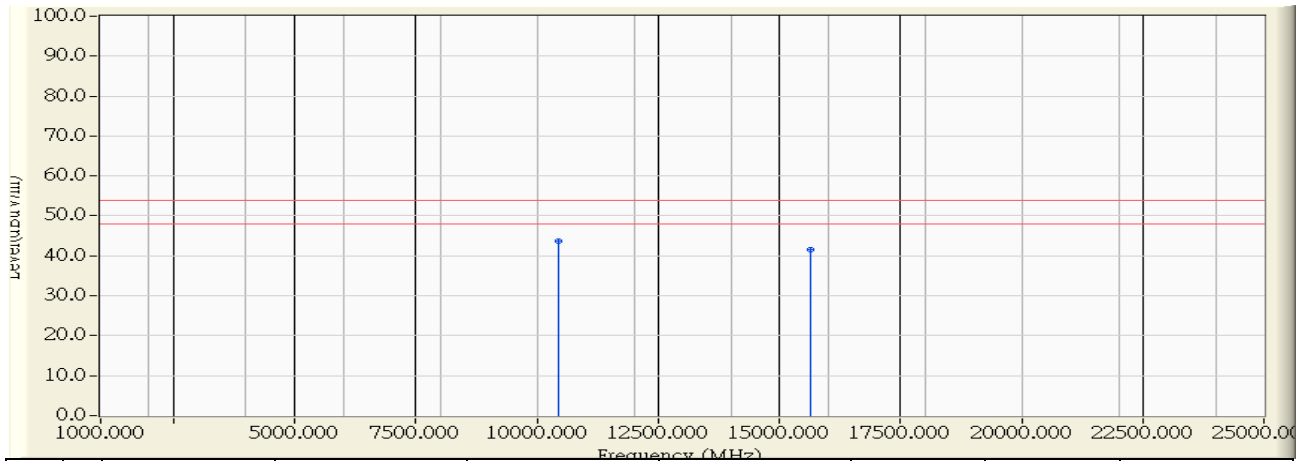


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	9.514	48.960	58.474	-15.526	74.000	PEAK
2		15660.000	10.956	44.990	55.946	-18.054	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. “ # ”, means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 10:09
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5220MHz

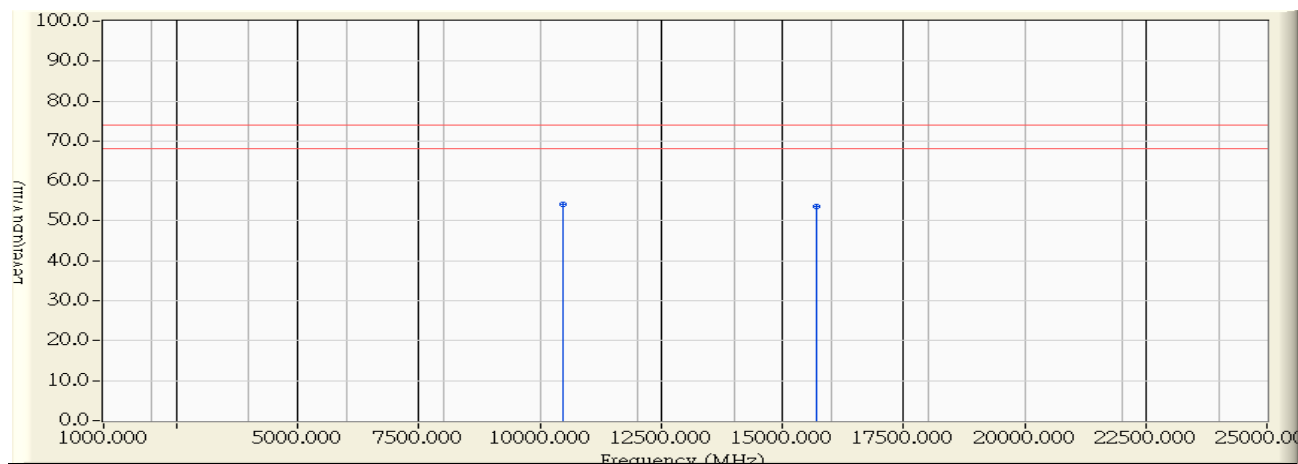


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	9.514	34.140	43.654	-10.346	54.000	AVERAGE
2		15660.000	10.956	30.520	41.476	-12.524	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 10:24
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5240MHz

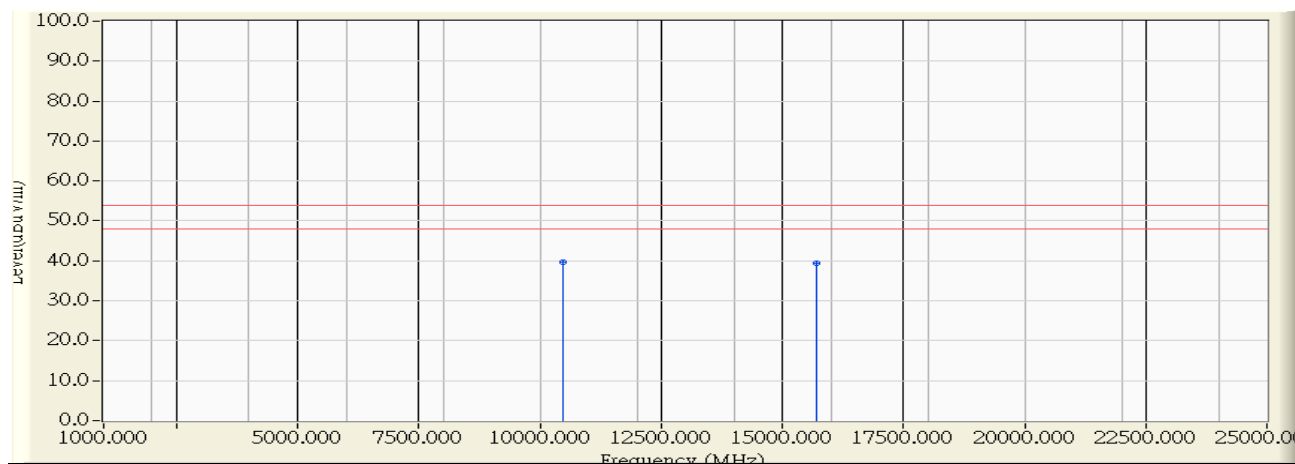


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	10.029	44.040	54.069	-19.931	74.000	PEAK
2		15720.000	10.889	42.760	53.649	-20.351	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 10:25
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5240MHz

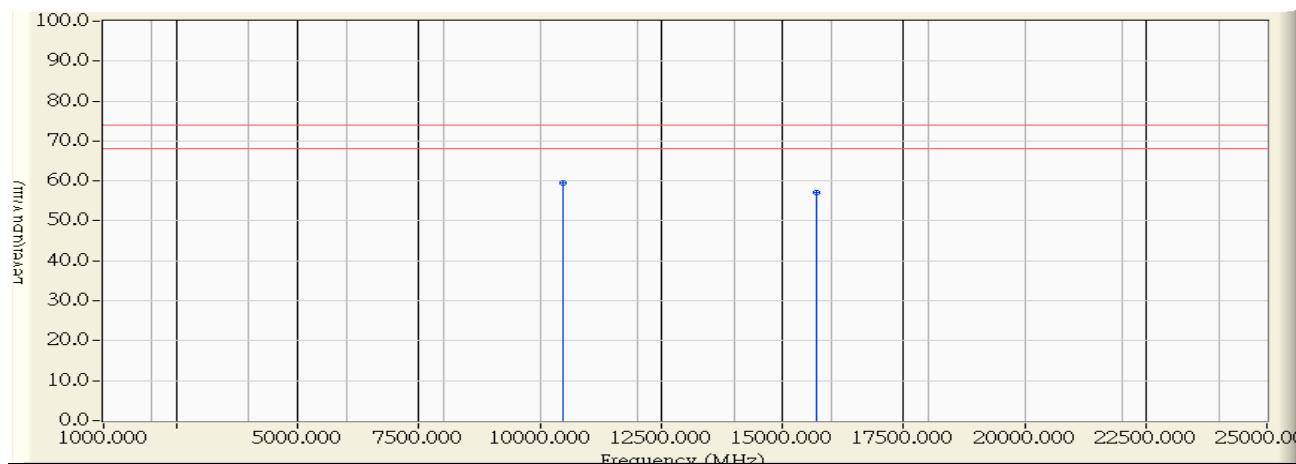


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	10.029	29.710	39.739	-14.261	54.000	AVERAGE
2		15720.000	10.889	28.650	39.539	-14.461	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 10:30
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5240MHz

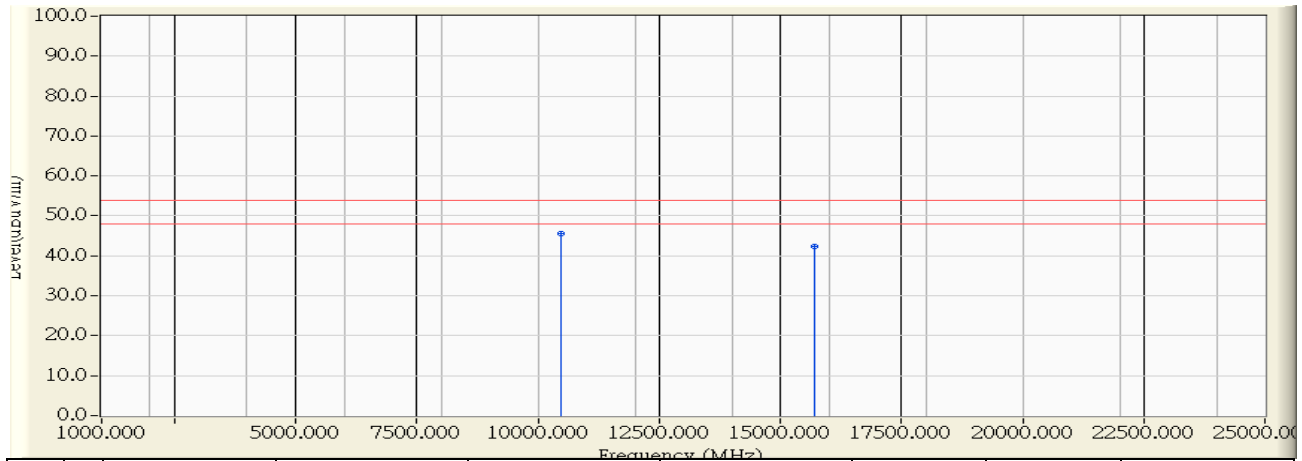


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	9.526	49.860	59.386	-14.614	74.000	PEAK
2		15720.000	10.889	46.270	57.159	-16.841	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 10:31
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5240MHz

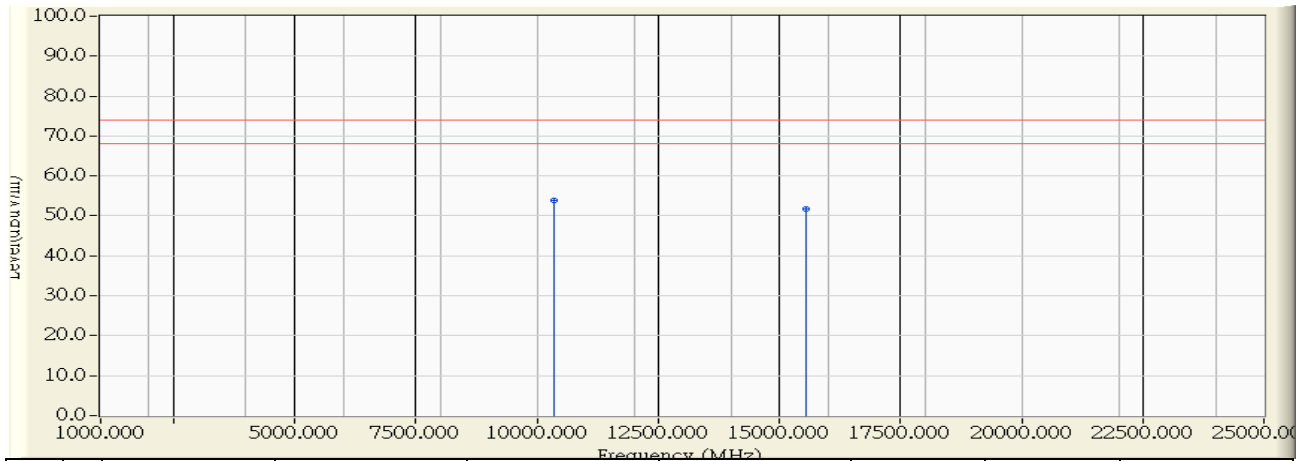


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	9.526	35.940	45.466	-8.534	54.000	AVERAGE
2		15720.000	10.889	31.510	42.399	-11.601	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:55
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5180MHz

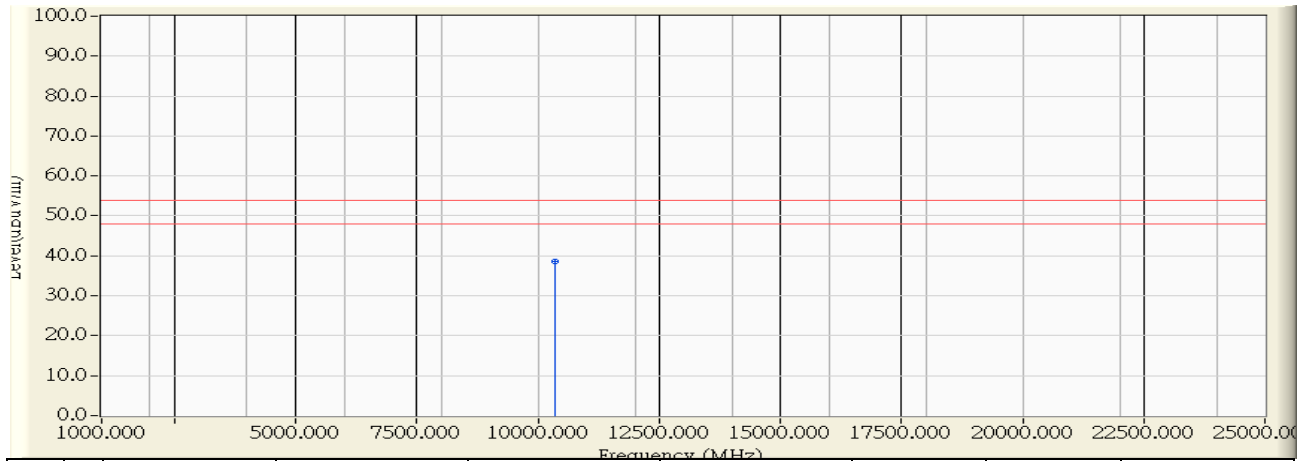


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10360.000	10.136	43.860	53.996	-20.004	74.000	PEAK
2		15540.000	11.090	40.600	51.690	-22.310	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:56
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5180MHz

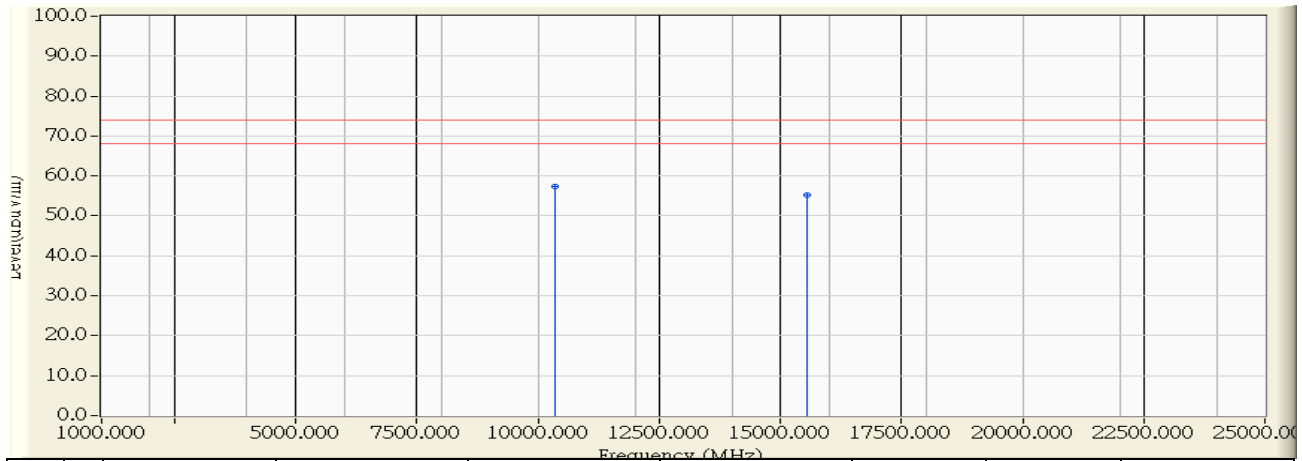


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10360.000	10.136	28.420	38.556	-15.444	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:47
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5180MHz

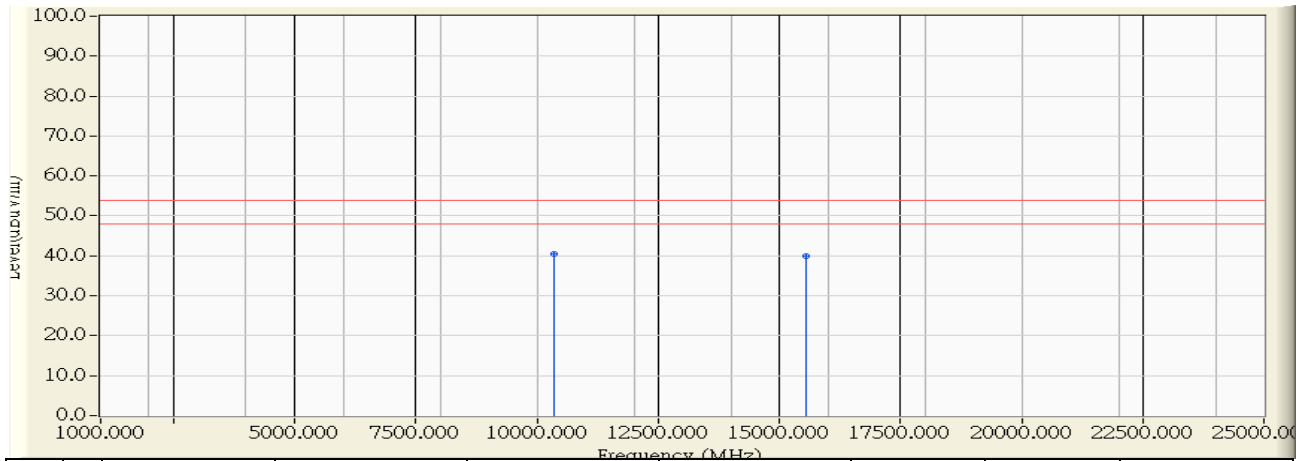


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10360.000	9.513	47.860	57.373	-16.627	74.000	PEAK
2		15540.000	11.090	44.110	55.200	-18.800	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:49
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5180MHz

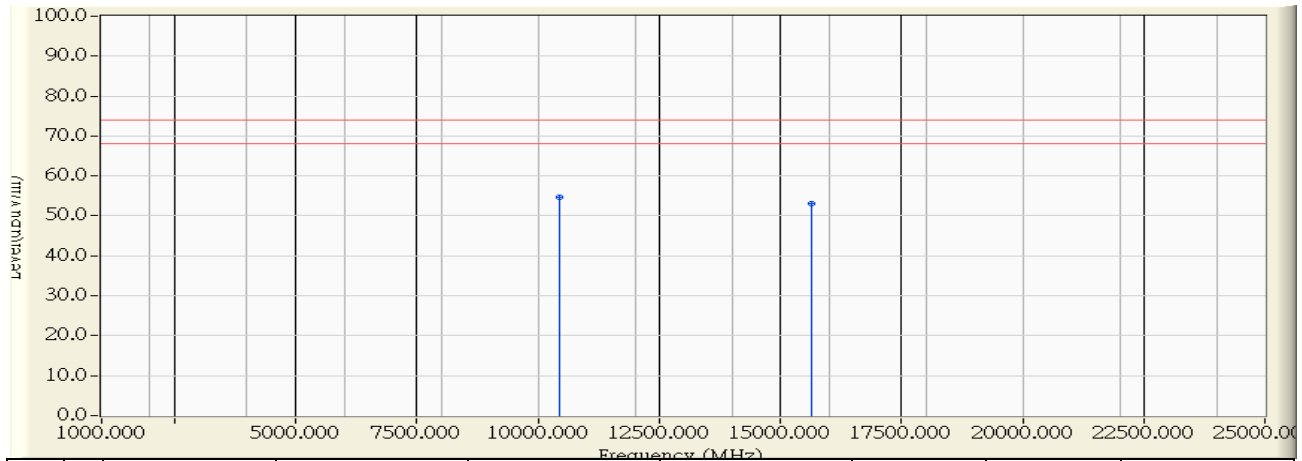


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10360.000	9.513	30.950	40.463	-13.537	54.000	AVERAGE
2		15540.000	11.090	28.830	39.920	-14.080	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:38
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5220MHz

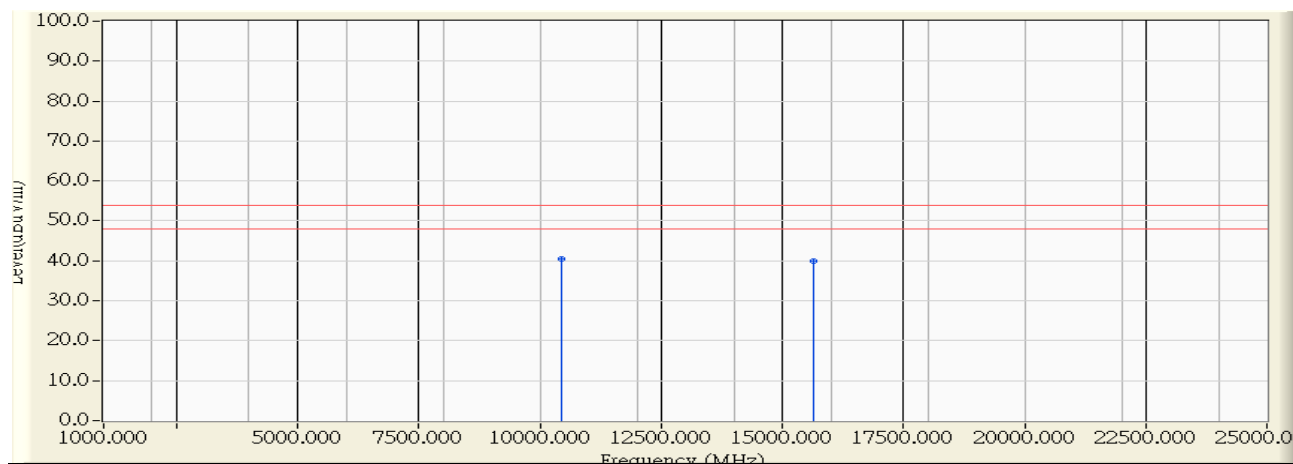


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	10.057	44.650	54.707	-19.293	74.000	PEAK
2		15660.000	10.956	42.210	53.166	-20.834	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:36
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5220MHz

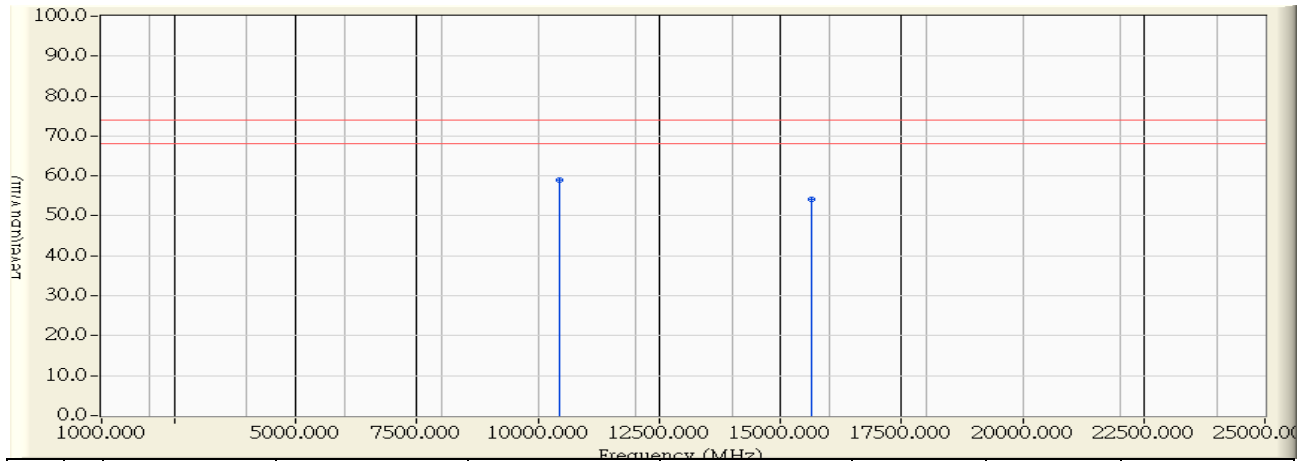


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	10.057	30.420	40.477	-13.523	54.000	AVERAGE
2		15660.000	10.956	29.000	39.956	-14.044	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:42
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5220MHz

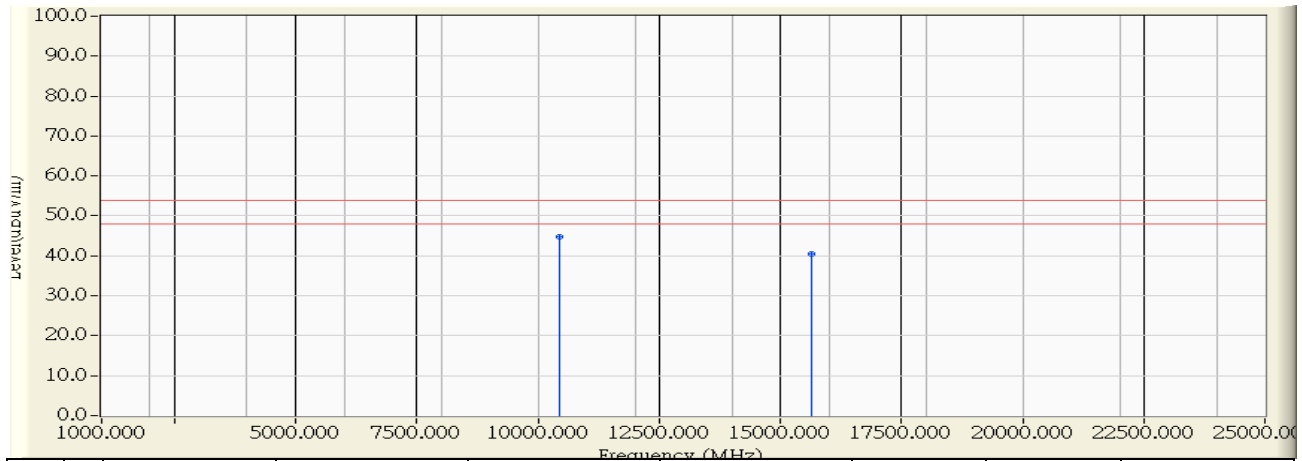


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	9.514	49.560	59.074	-14.926	74.000	PEAK
2		15660.000	10.956	43.150	54.106	-19.894	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:44
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5220MHz

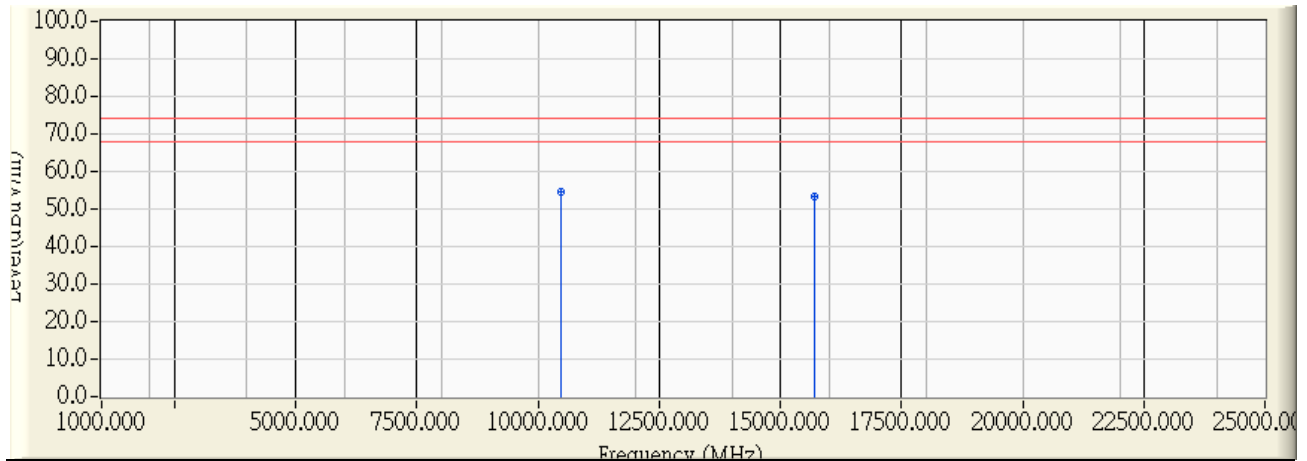


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.000	9.514	35.160	44.674	-9.326	54.000	AVERAGE
2		15660.000	10.956	29.560	40.516	-13.484	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:30
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5240MHz

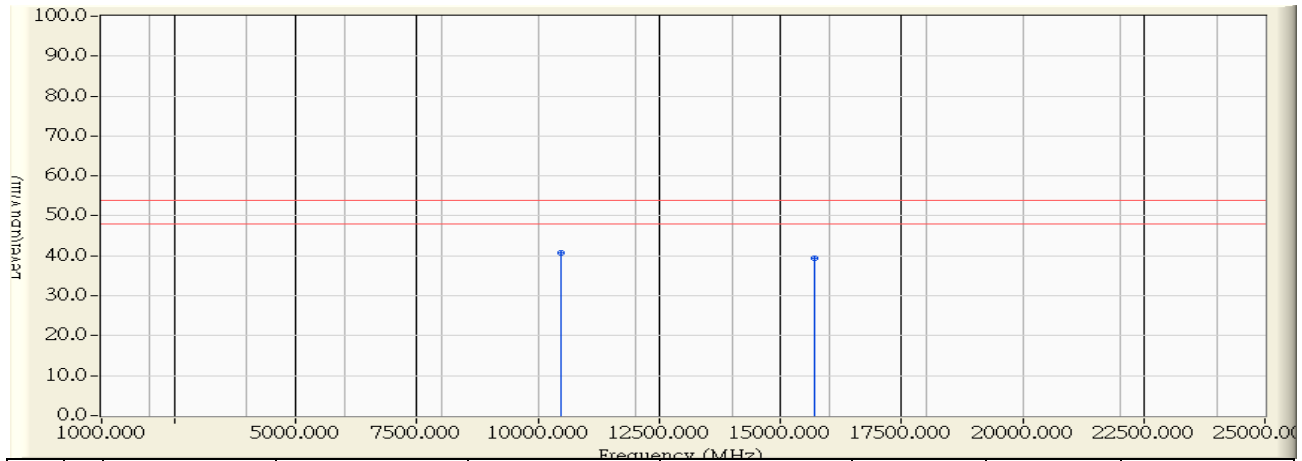


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	10.029	44.730	54.759	-19.241	74.000	PEAK
2		15720.000	10.889	42.530	53.419	-20.581	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:33
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5240MHz

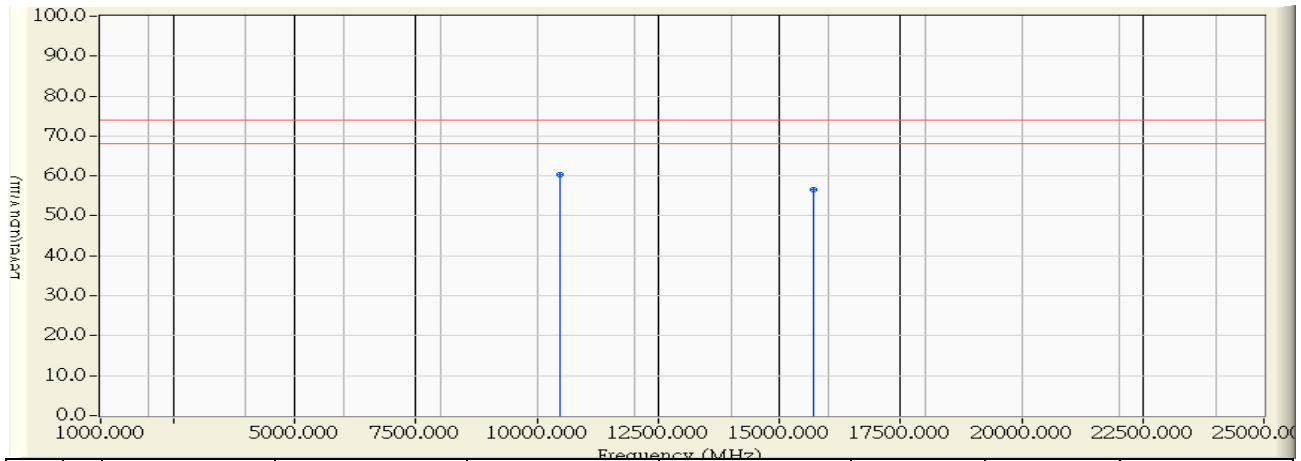


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	10.029	30.740	40.769	-13.231	54.000	AVERAGE
2		15720.000	10.889	28.580	39.469	-14.531	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:20
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5240MHz

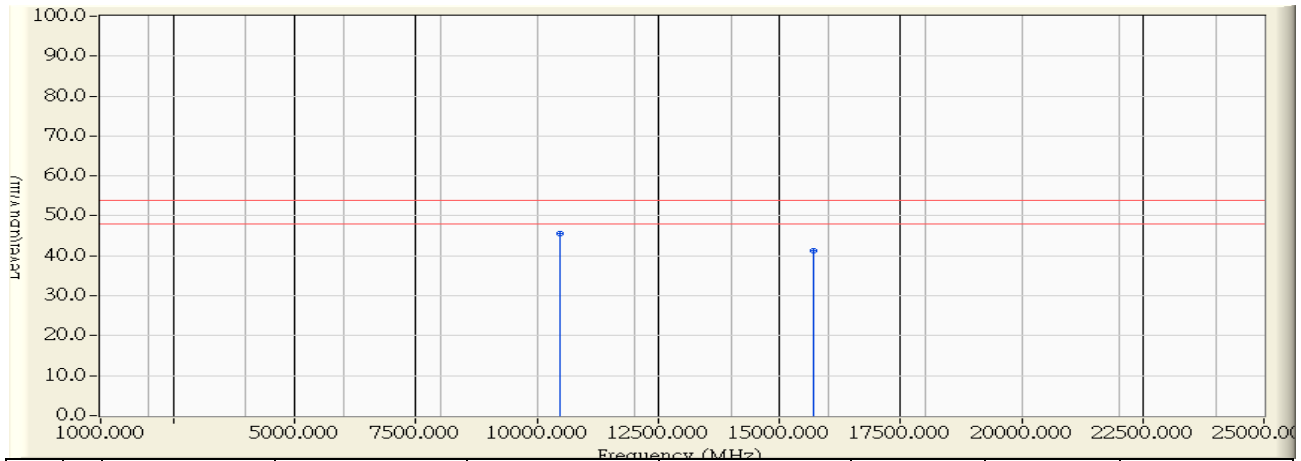


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	9.526	50.900	60.426	-13.574	74.000	PEAK
2		15720.000	10.889	45.740	56.629	-17.371	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 13:19
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5240MHz

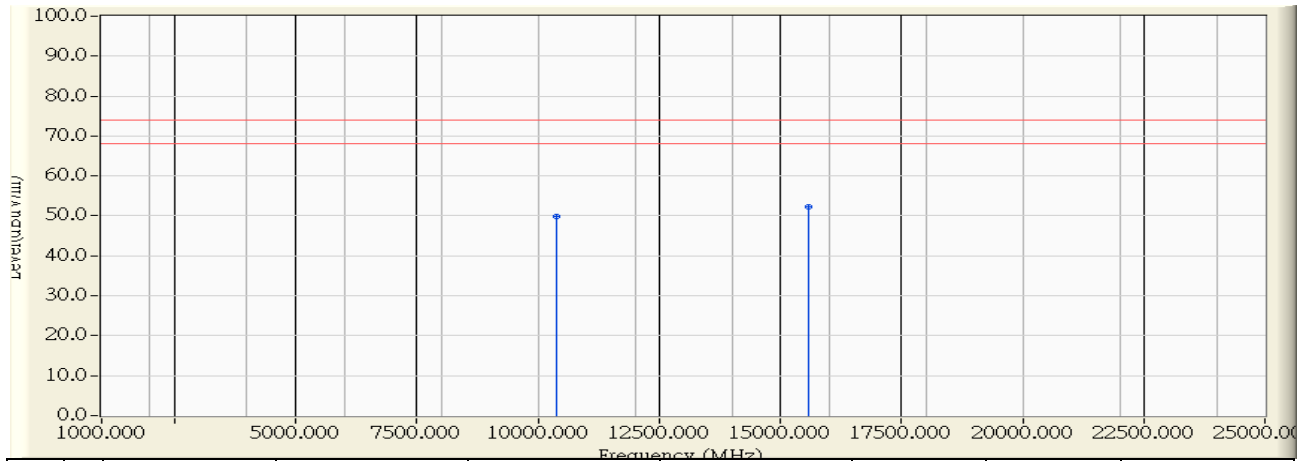


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	9.526	36.020	45.546	-8.454	54.000	AVERAGE
2		15720.000	10.889	30.390	41.279	-12.721	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 15:46
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5190MHz

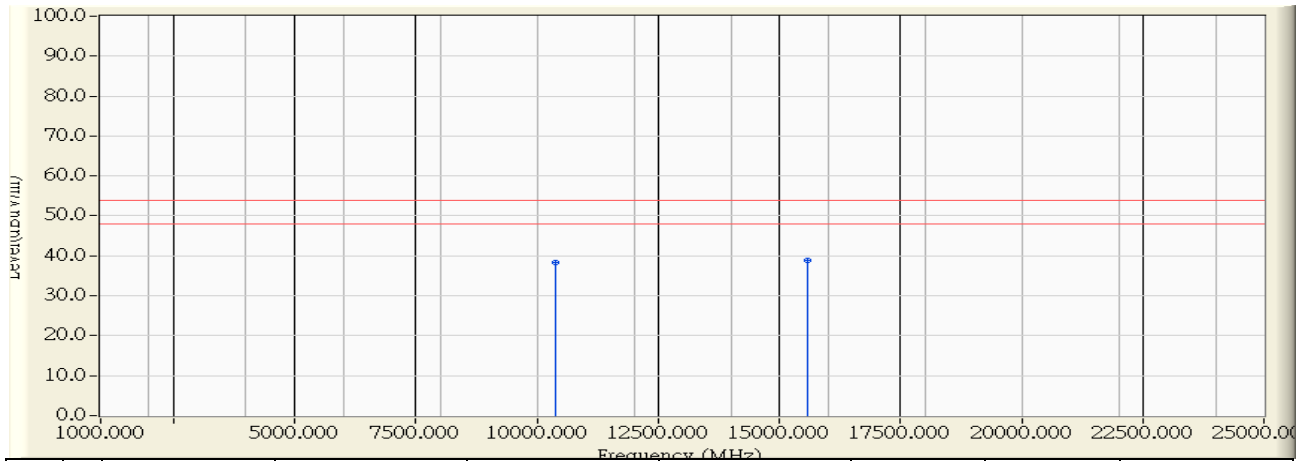


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10379.990	10.116	39.660	49.776	-24.224	74.000	PEAK
2	*	15570.000	11.056	41.330	52.387	-21.613	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 16:58
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5190MHz

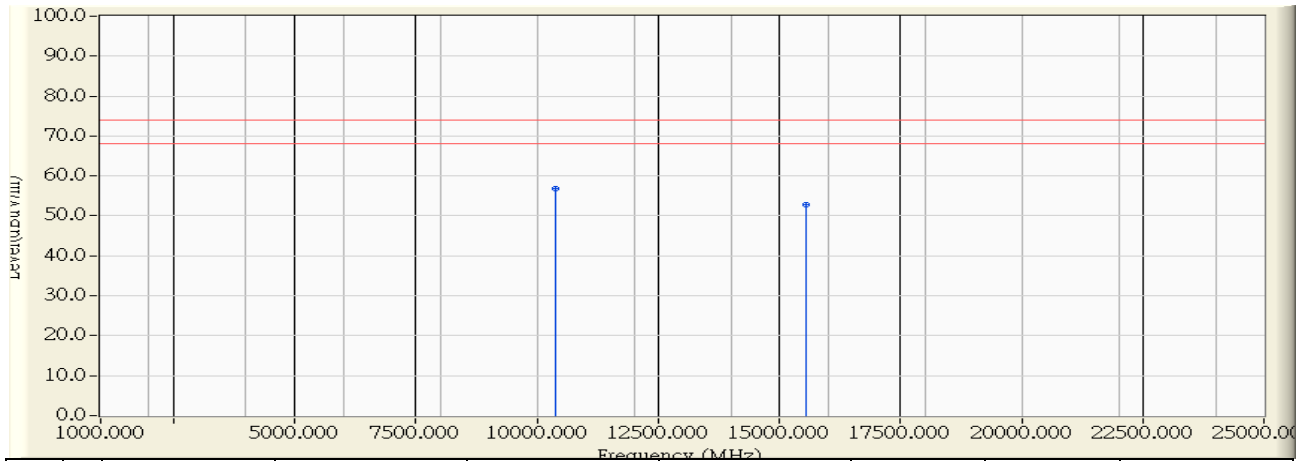


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10380.000	10.116	28.250	38.366	-15.634	54.000	AVERAGE
2	*	15570.000	11.056	27.830	38.887	-15.113	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 15:40
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5190MHz

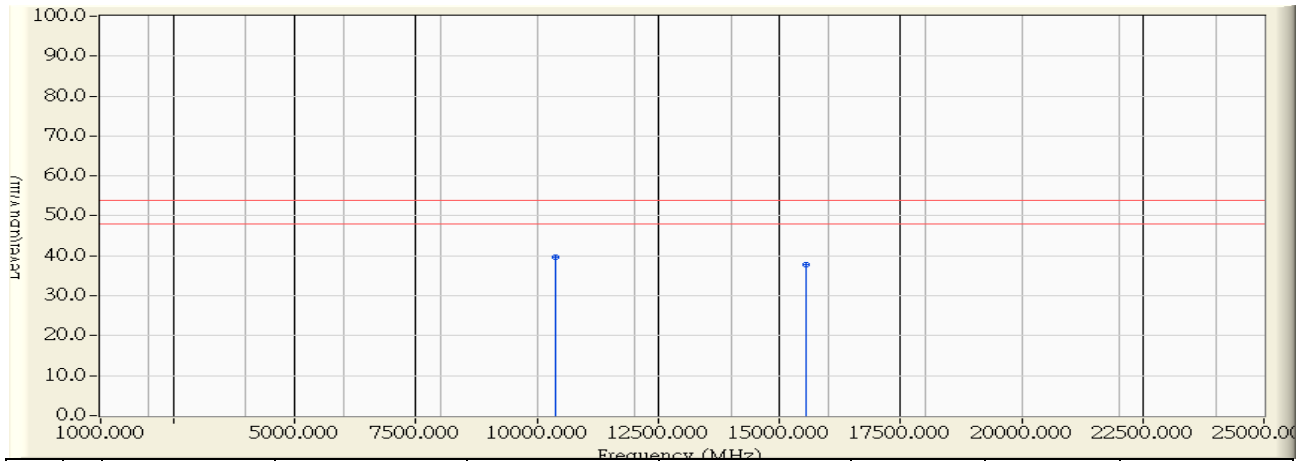


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10380.200	9.513	47.400	56.913	-17.087	74.000	PEAK
2		15560.855	11.066	41.650	52.717	-21.283	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 15:41
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5190MHz

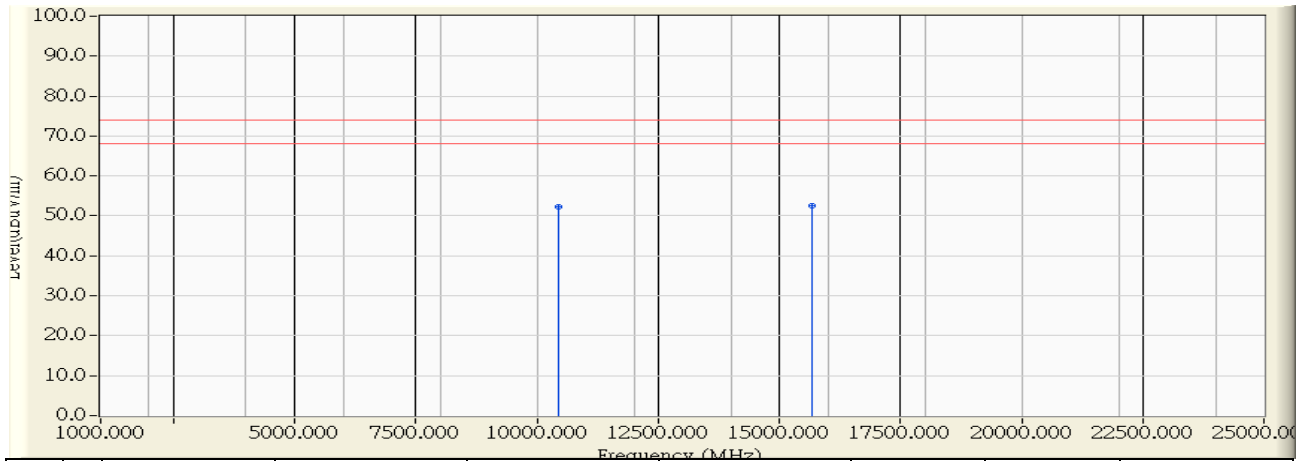


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10380.000	9.513	30.250	39.763	-14.237	54.000	AVERAGE
2		15566.952	11.061	26.800	37.860	-16.140	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 17:09
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5230MHz

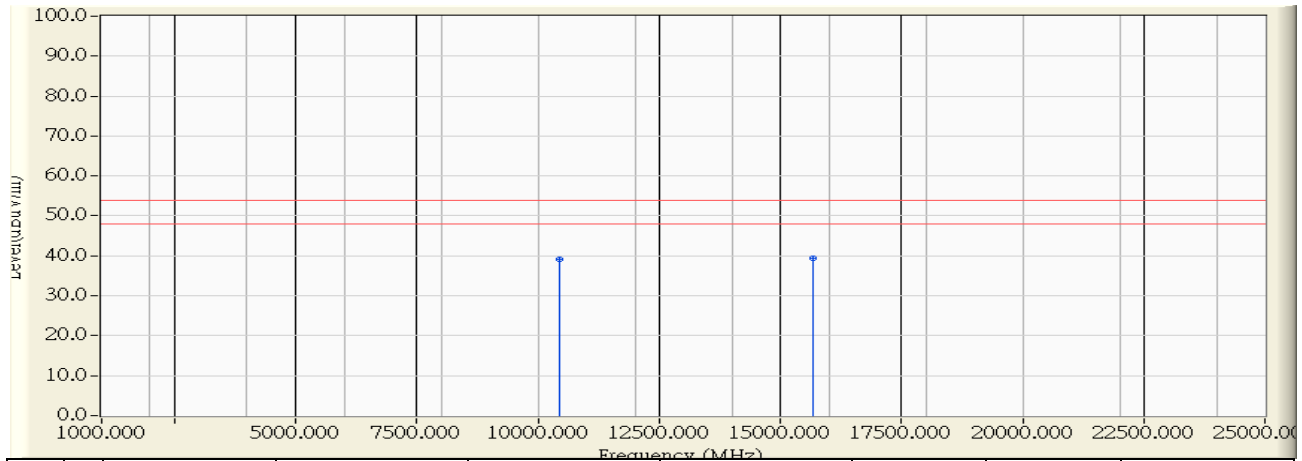


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10460.000	10.038	42.340	52.378	-21.622	74.000	PEAK
2	*	15690.000	10.922	41.690	52.613	-21.387	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 17:02
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5230MHz

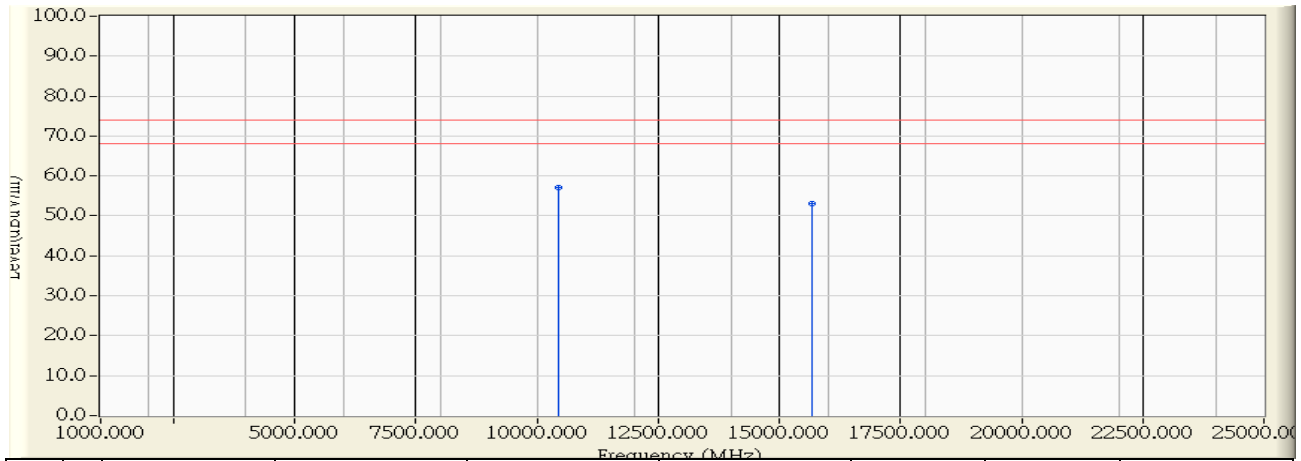


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10460.000	10.038	29.170	39.208	-14.792	54.000	AVERAGE
2	*	15690.000	10.922	28.430	39.353	-14.647	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 17:19
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5230MHz

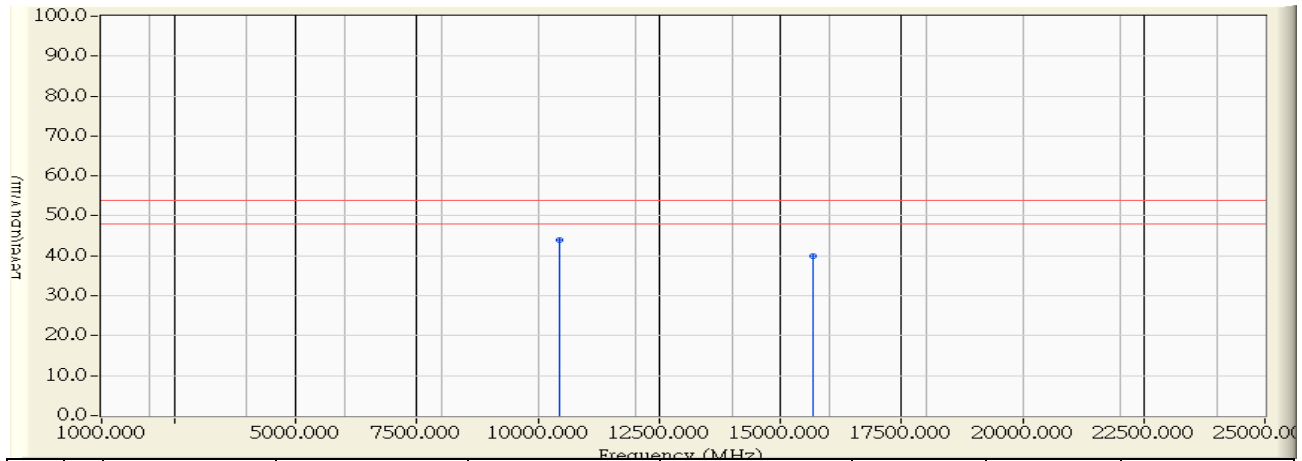


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10460.000	9.515	47.540	57.055	-16.945	74.000	PEAK
2		15690.000	10.922	42.030	52.953	-21.047	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 17:18
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5230MHz

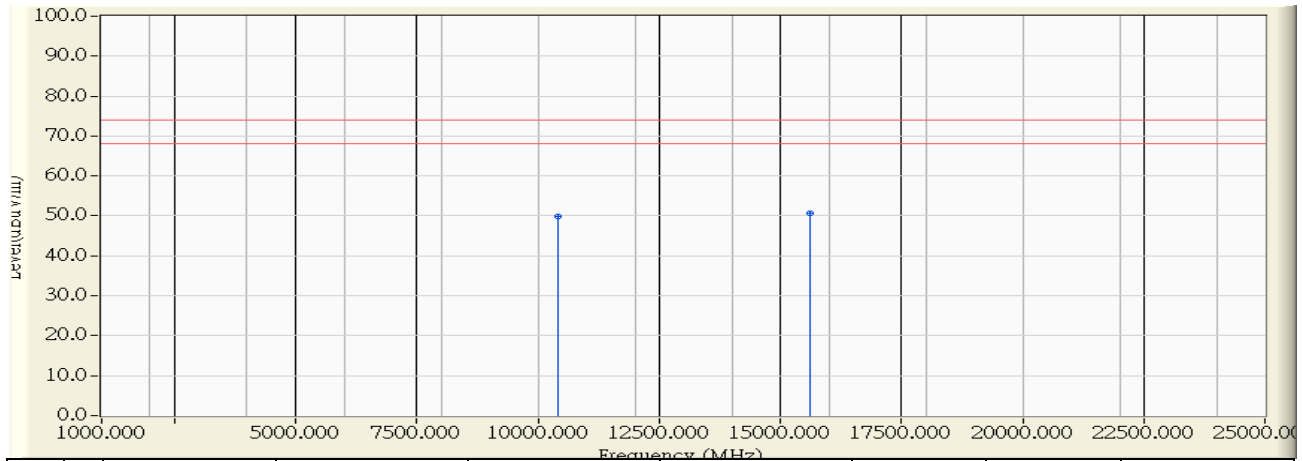


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10460.000	9.515	34.520	44.035	-9.965	54.000	AVERAGE
2		15690.000	10.922	29.050	39.973	-14.027	54.000	AVERAGE

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 18:55
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11ac 80MHz 5210MHz

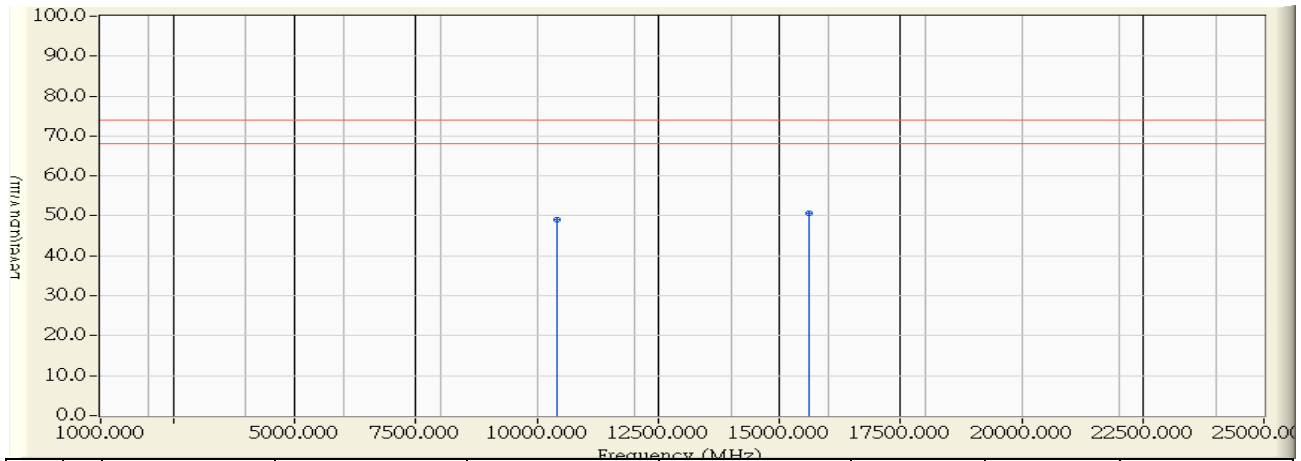


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10420.000	10.077	39.660	49.737	-24.263	74.000	PEAK
2	*	15630.000	10.989	39.670	50.660	-23.340	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

Site : CB1	Time : 2015/05/18 - 18:59
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11ac 80MHz 5210MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10420.000	9.514	39.520	49.034	-24.966	74.000	PEAK
2	*	15630.000	10.989	39.720	50.710	-23.290	74.000	PEAK

Note:

1. All Readings below 1GHz are Quasi-Peak, 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. " # ", means the frequency is out of the restricted band.
6. Measurement Level = Reading Level + Correct Factor.
7. The average measurement was not performed when the peak measured data under the limit of average detection.

7. Band Edge

7.1. Test Equipment

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

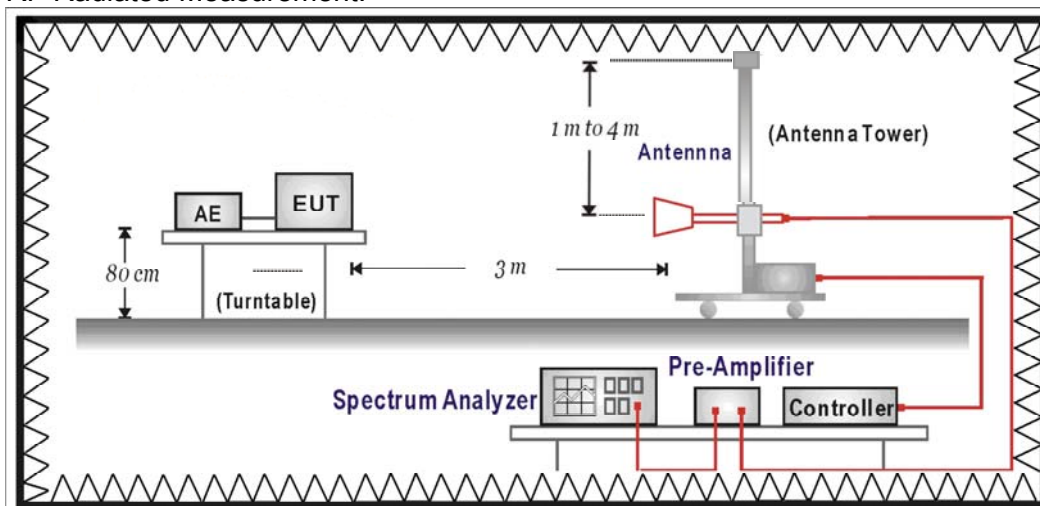
Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2016/01/26
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/01/07
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2016/01/26

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

7.2. Test Setup

RF Radiated Measurement:



7.3. 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

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)

7.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 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.

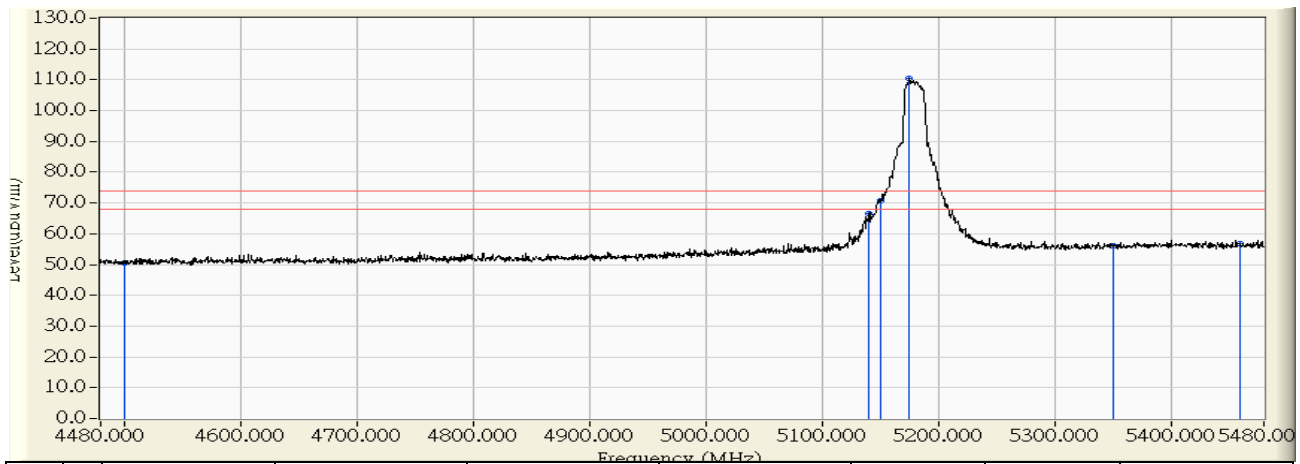
7.5. Uncertainty

The measurement uncertainty is defined as $\pm 3.65\text{dB}$

7.6. Test Result

Radiated is defined as

Site : CB1	Time : 2015/05/14 - 14:06
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5180MHz

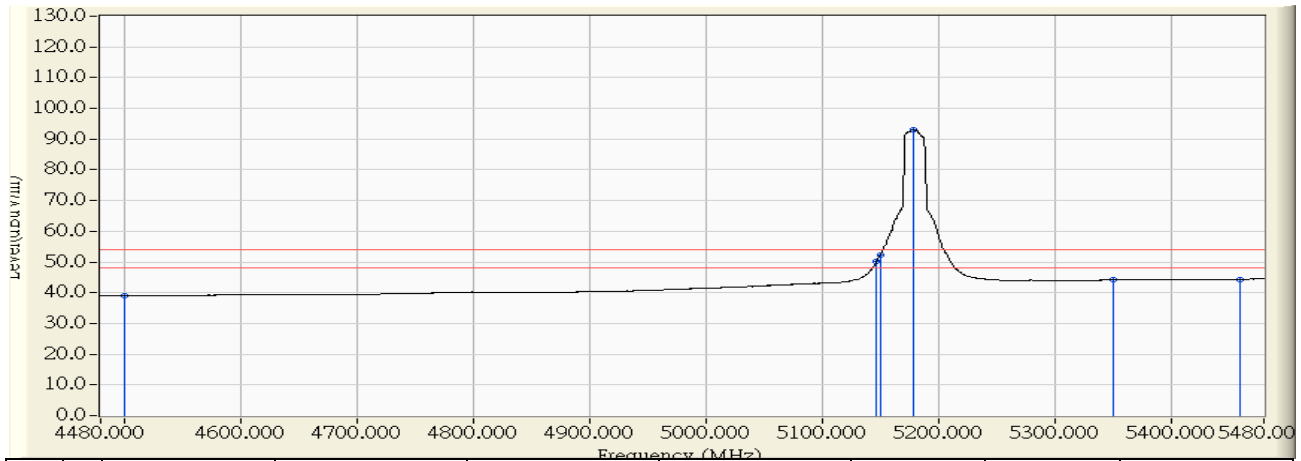


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	52.956	50.591	-23.409	74.000	PEAK
2	5140.669	0.192	66.388	66.581	-7.419	74.000	PEAK
3	5150.000	0.275	70.504	70.778	-3.222	74.000	PEAK
4	* 5175.152	0.495	110.110	110.604	36.604	74.000	PEAK
5	5350.000	2.026	54.136	56.161	-17.839	74.000	PEAK
6	5460.000	2.989	53.872	56.860	-17.140	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 : 2015/05/14 - 14:05
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5180MHz

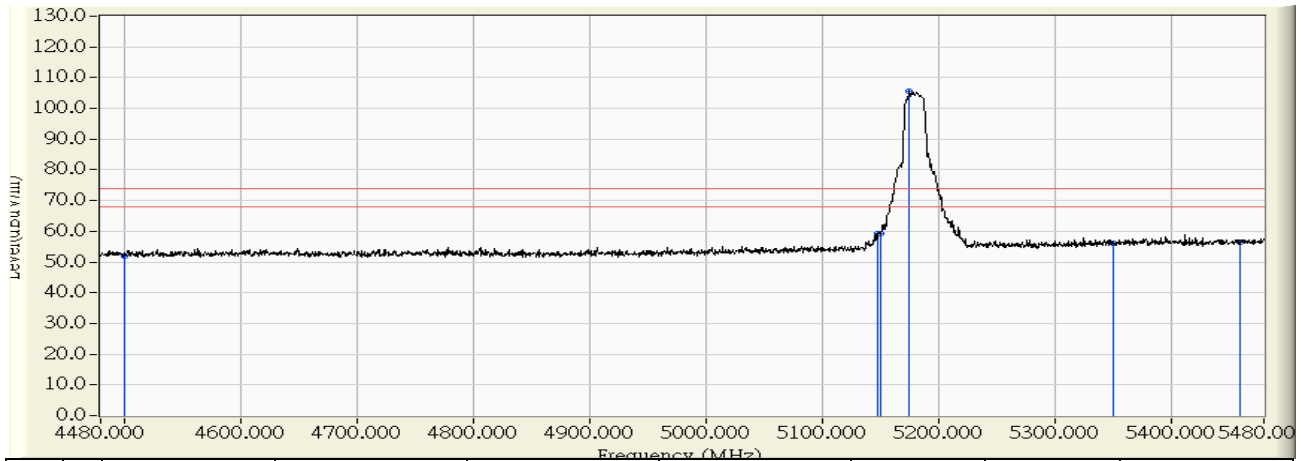


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	41.294	38.929	-15.071	54.000	AVERAGE
2	5147.167	0.249	50.000	50.249	-3.751	54.000	AVERAGE
3	5150.000	0.275	51.931	52.205	-1.795	54.000	AVERAGE
4	* 5179.150	0.530	92.639	93.168	39.168	54.000	AVERAGE
5	5350.000	2.026	42.141	44.166	-9.834	54.000	AVERAGE
6	5460.000	2.989	41.339	44.327	-9.673	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 : 2015/05/14 - 14:11
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5180MHz

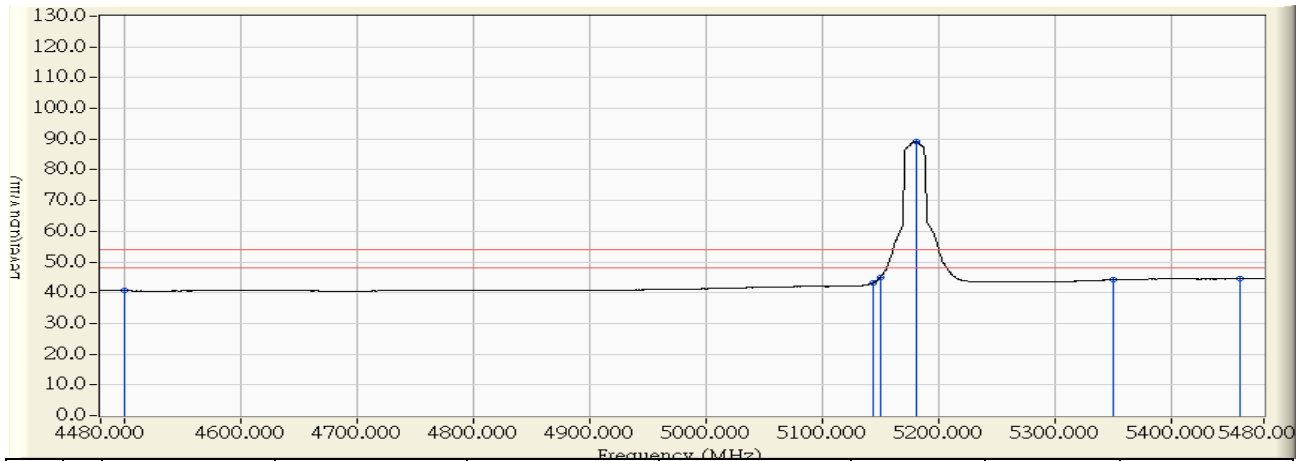


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	52.713	52.056	-21.944	74.000	PEAK
2	5148.166	0.676	58.719	59.395	-14.605	74.000	PEAK
3	5150.000	0.691	58.689	59.380	-14.620	74.000	PEAK
4	* 5175.152	0.899	104.600	105.498	31.498	74.000	PEAK
5	5350.000	2.342	53.613	55.955	-18.045	74.000	PEAK
6	5460.000	3.250	53.260	56.510	-17.490	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 : 2015/05/14 - 14:17
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5180MHz

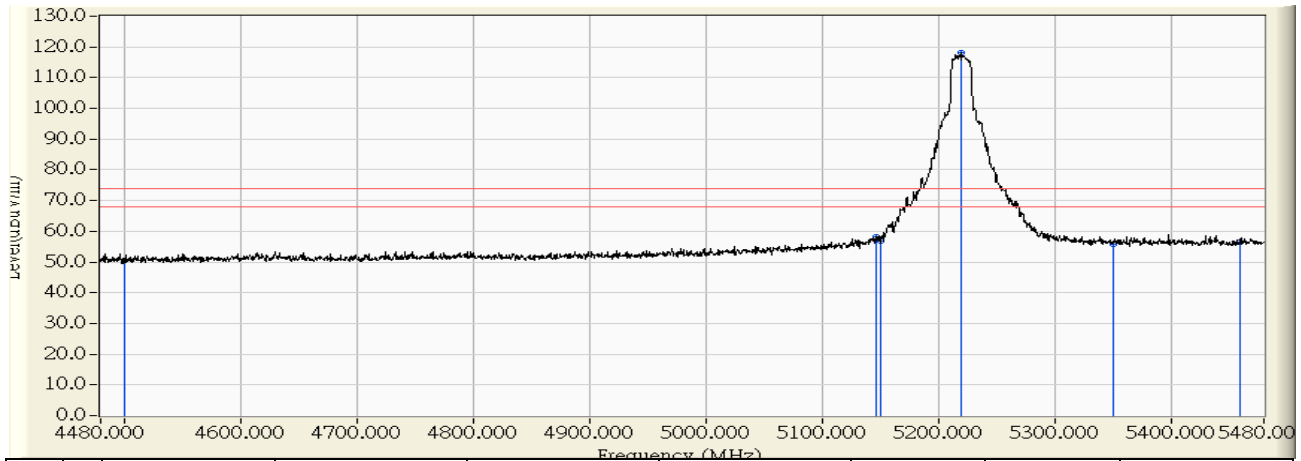


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	41.286	40.629	-13.371	54.000	AVERAGE
2	5143.668	0.638	42.465	43.103	-10.897	54.000	AVERAGE
3	5150.000	0.691	44.293	44.984	-9.016	54.000	AVERAGE
4	* 5181.149	0.947	88.310	89.258	35.258	54.000	AVERAGE
5	5350.000	2.342	41.839	44.181	-9.819	54.000	AVERAGE
6	5460.000	3.250	41.226	44.476	-9.524	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 : 2015/05/14 - 14:40
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5220MHz

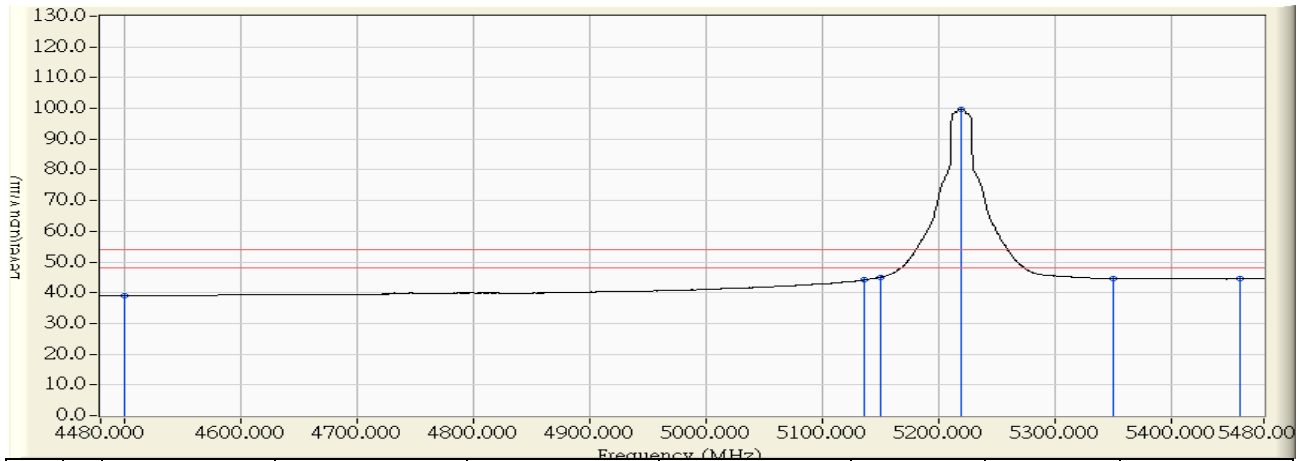


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	52.883	50.518	-23.482	74.000	PEAK
2	5146.167	0.241	58.054	58.295	-15.705	74.000	PEAK
3	5150.000	0.275	56.422	56.696	-17.304	74.000	PEAK
4	* 5219.130	0.879	117.129	118.008	44.008	74.000	PEAK
5	5350.000	2.026	53.904	55.929	-18.071	74.000	PEAK
6	5460.000	2.989	53.526	56.514	-17.486	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 : 2015/05/14 - 14:39
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5220MHz

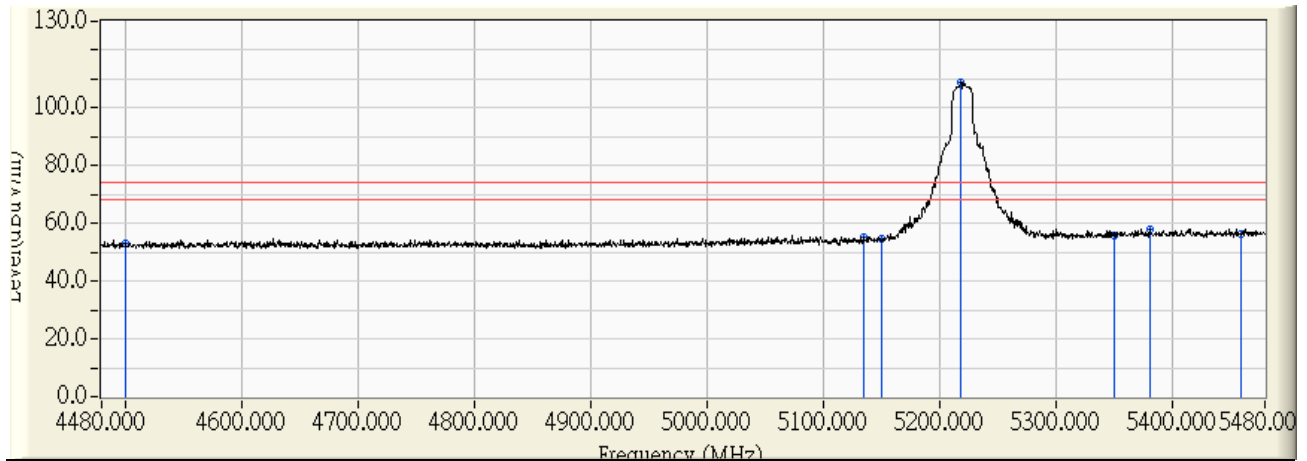


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	41.300	38.935	-15.065	54.000	AVERAGE
2	5136.672	0.157	44.012	44.170	-9.830	54.000	AVERAGE
3	5150.000	0.275	44.739	45.013	-8.987	54.000	AVERAGE
4	* 5219.130	0.879	98.916	99.795	45.795	54.000	AVERAGE
5	5350.000	2.026	42.614	44.639	-9.361	54.000	AVERAGE
6	5460.000	2.989	41.497	44.485	-9.515	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 : 2015/05/14 - 14:44
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5220MHz

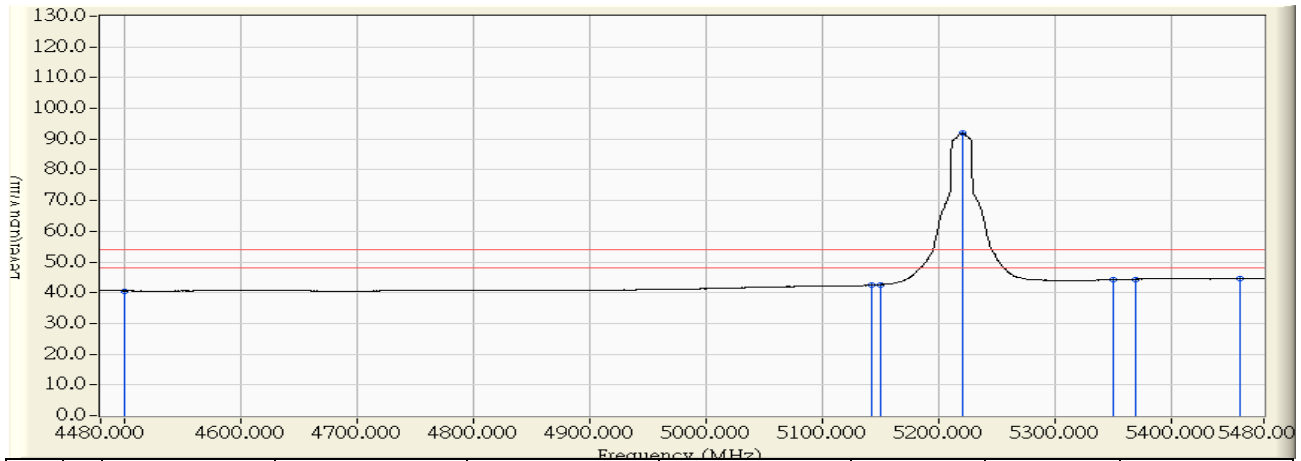


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	53.906	53.249	-20.751	74.000	PEAK
2	5135.672	0.572	54.613	55.185	-18.815	74.000	PEAK
3	5150.000	0.691	53.756	54.447	-19.553	74.000	PEAK
4	* 5218.631	1.257	107.762	109.019	35.019	74.000	PEAK
5	5350.000	2.342	53.544	55.886	-18.114	74.000	PEAK
6	5381.049	2.598	55.154	57.752	-16.248	74.000	PEAK
7	5460.000	3.250	52.853	56.103	-17.897	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 : 2015/05/14 - 14:49
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5220MHz

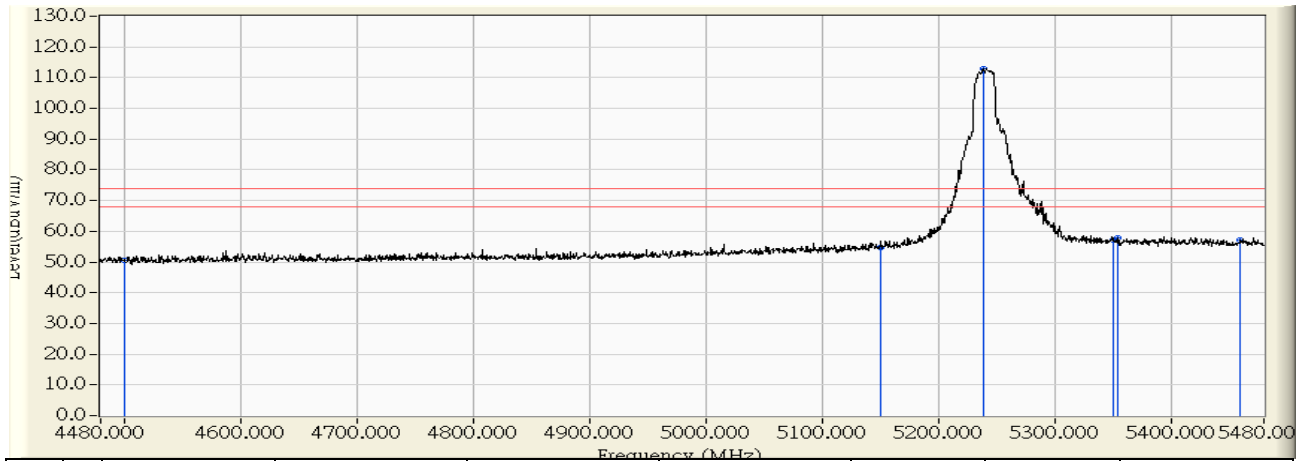


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	41.249	40.592	-13.408	54.000	AVERAGE
2	5143.168	0.634	41.922	42.556	-11.444	54.000	AVERAGE
3	5150.000	0.691	41.987	42.678	-11.322	54.000	AVERAGE
4	* 5221.129	1.277	90.678	91.956	37.956	54.000	AVERAGE
5	5350.000	2.342	41.954	44.296	-9.704	54.000	AVERAGE
6	5369.555	2.504	41.918	44.421	-9.579	54.000	AVERAGE
7	5460.000	3.250	41.263	44.513	-9.487	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 : 2015/05/14 - 15:04
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5240MHz

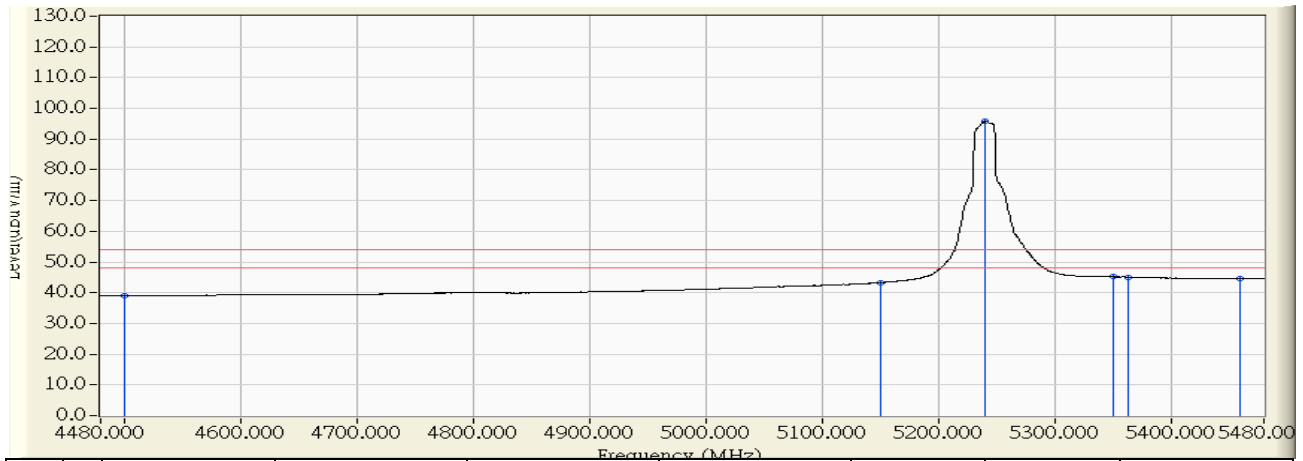


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	52.883	50.518	-23.482	74.000	PEAK
2	5150.000	0.275	54.565	54.839	-19.161	74.000	PEAK
3	* 5239.121	1.054	111.891	112.945	38.945	74.000	PEAK
4	5350.000	2.026	55.132	57.157	-16.843	74.000	PEAK
5	5354.562	2.065	55.945	58.010	-15.990	74.000	PEAK
6	5460.000	2.989	54.133	57.121	-16.879	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 : 2015/05/14 - 15:03
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5240MHz

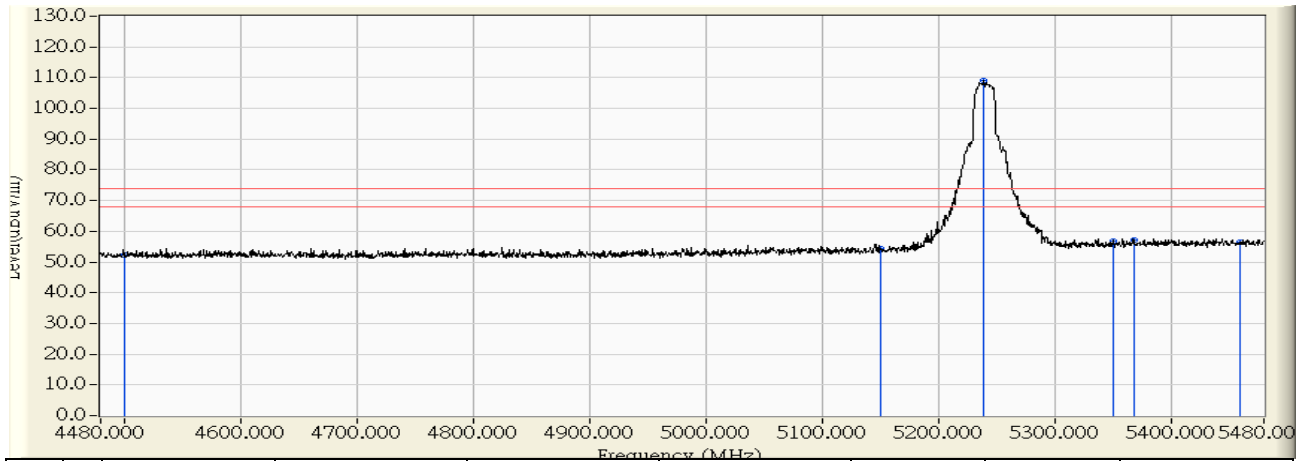


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	41.289	38.924	-15.076	54.000	AVERAGE
2	5150.000	0.275	43.070	43.344	-10.656	54.000	AVERAGE
3	* 5240.620	1.067	94.858	95.926	41.926	54.000	AVERAGE
4	5350.000	2.026	43.157	45.182	-8.818	54.000	AVERAGE
5	5363.059	2.139	42.939	45.078	-8.922	54.000	AVERAGE
6	5460.000	2.989	41.568	44.556	-9.444	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 : 2015/05/14 - 15:08
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5240MHz

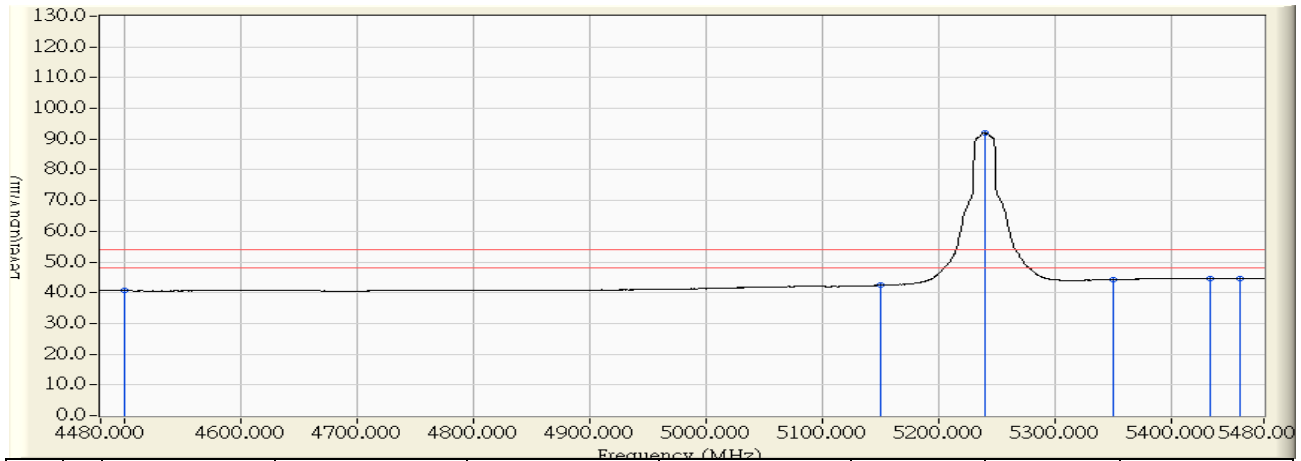


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	52.837	52.180	-21.820	74.000	PEAK
2	5150.000	0.691	53.675	54.366	-19.634	74.000	PEAK
3	* 5239.121	1.426	107.496	108.922	34.922	74.000	PEAK
4	5350.000	2.342	54.540	56.882	-17.118	74.000	PEAK
5	5368.056	2.491	54.713	57.204	-16.796	74.000	PEAK
6	5460.000	3.250	53.120	56.370	-17.630	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 : 2015/05/14 - 15:13
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11a 5240MHz

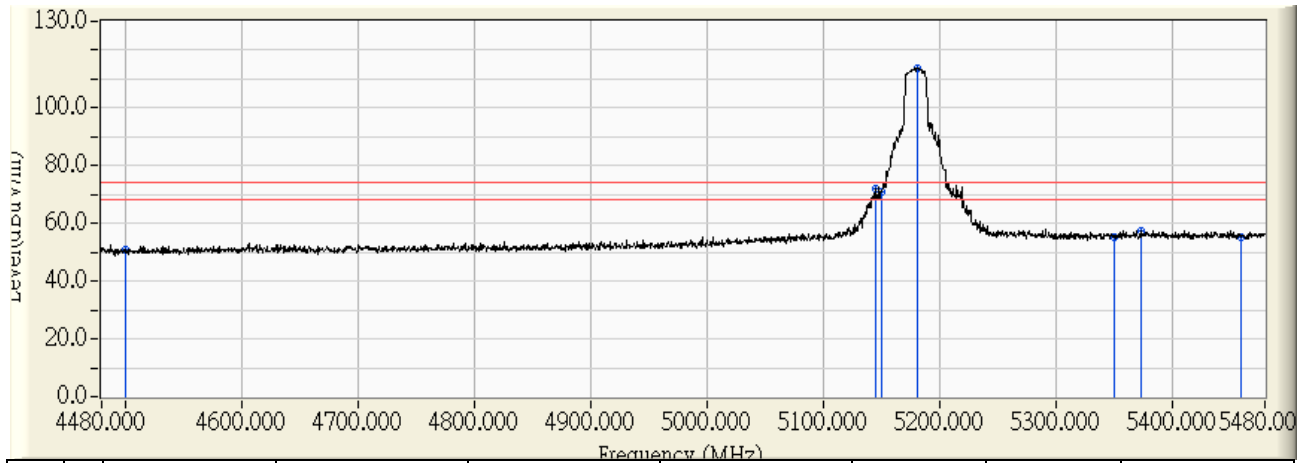


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	41.296	40.639	-13.361	54.000	AVERAGE
2	5150.000	0.691	41.726	42.417	-11.583	54.000	AVERAGE
3	* 5240.620	1.438	90.713	92.152	38.152	54.000	AVERAGE
4	5350.000	2.342	41.928	44.270	-9.730	54.000	AVERAGE
5	5433.523	3.031	41.457	44.488	-9.512	54.000	AVERAGE
6	5460.000	3.250	41.296	44.546	-9.454	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 : 2015/05/14 - 15:29
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5180MHz

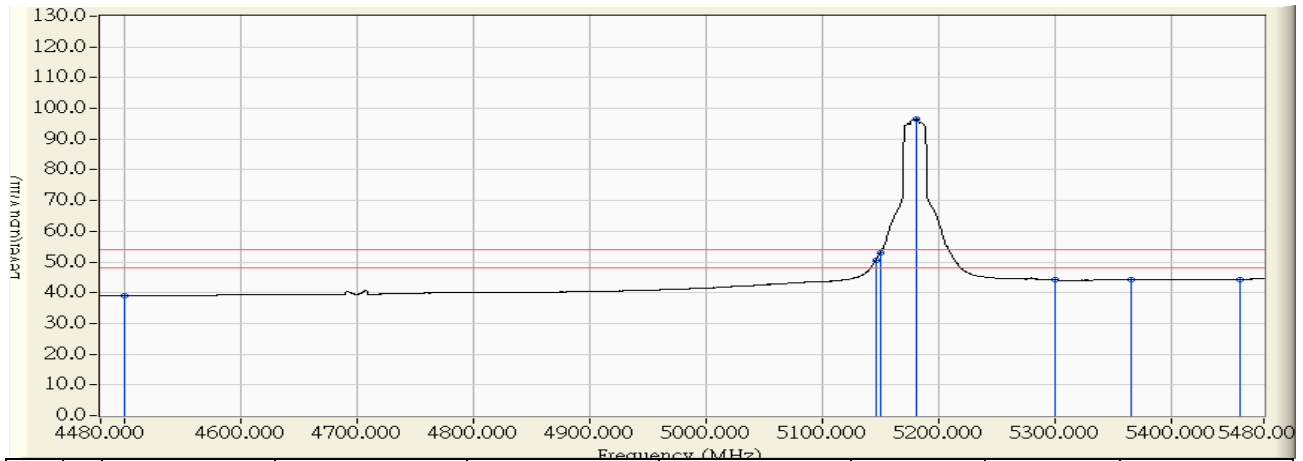


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	53.452	51.087	-22.913	74.000	PEAK
2	5145.167	0.232	71.909	72.141	-1.859	74.000	PEAK
3	5150.000	0.275	70.837	71.111	-2.889	74.000	PEAK
4	* 5181.649	0.551	113.322	113.873	39.873	74.000	PEAK
5	5350.000	2.026	53.462	55.487	-18.513	74.000	PEAK
6	5373.054	2.227	55.360	57.587	-16.413	74.000	PEAK
7	5460.000	2.989	52.387	55.375	-18.625	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 : 2015/05/14 - 15:28
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5180MHz

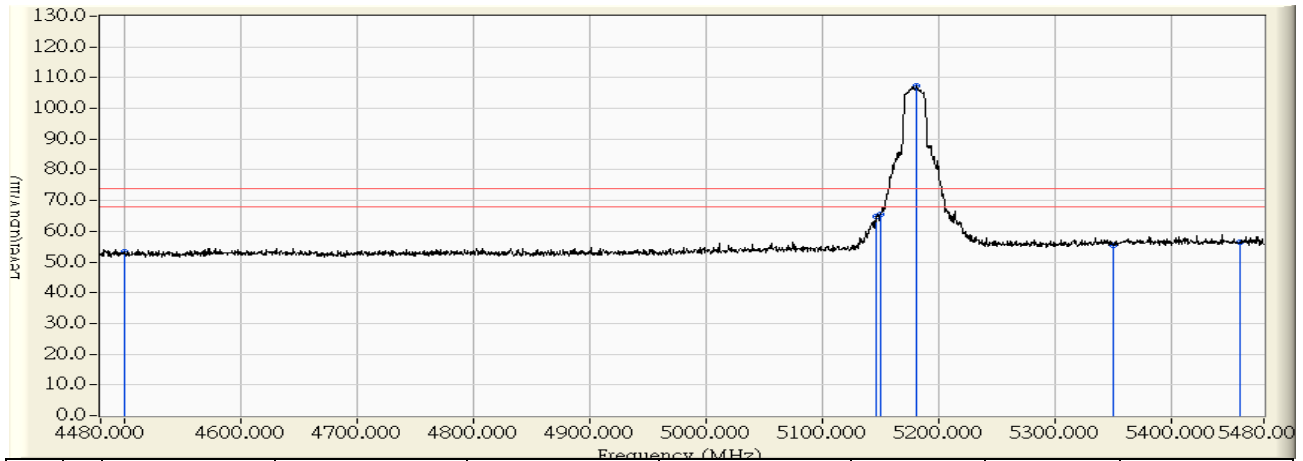


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	41.262	38.897	-15.103	54.000	AVERAGE
2	5146.167	0.241	50.284	50.525	-3.475	54.000	AVERAGE
3	5150.000	0.275	52.636	52.910	-1.090	54.000	AVERAGE
4	* 5181.149	0.546	95.982	96.529	42.529	54.000	AVERAGE
5	5300.000	1.588	42.522	44.109	-9.891	54.000	AVERAGE
6	5365.557	2.160	42.084	44.245	-9.755	54.000	AVERAGE
7	5460.000	2.989	41.349	44.337	-9.663	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 : 2015/05/14 - 15:35
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5180MHz

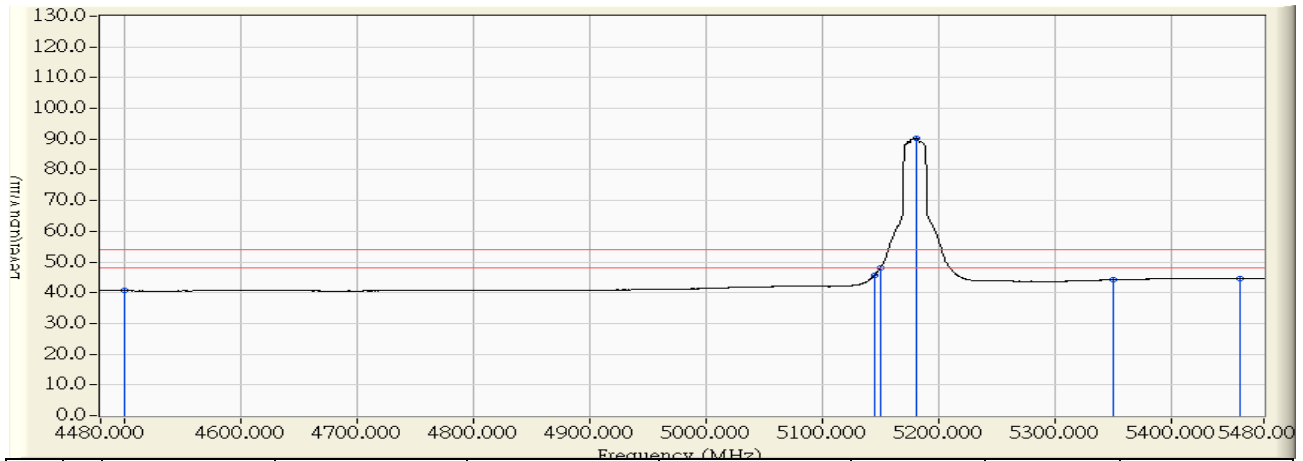


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	53.973	53.316	-20.684	74.000	PEAK
2	5147.167	0.667	64.252	64.919	-9.081	74.000	PEAK
3	5150.000	0.691	64.848	65.539	-8.461	74.000	PEAK
4	* 5181.149	0.947	106.246	107.194	33.194	74.000	PEAK
5	5350.000	2.342	53.139	55.481	-18.519	74.000	PEAK
6	5460.000	3.250	53.162	56.412	-17.588	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 : 2015/05/14 - 15:39
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5180MHz

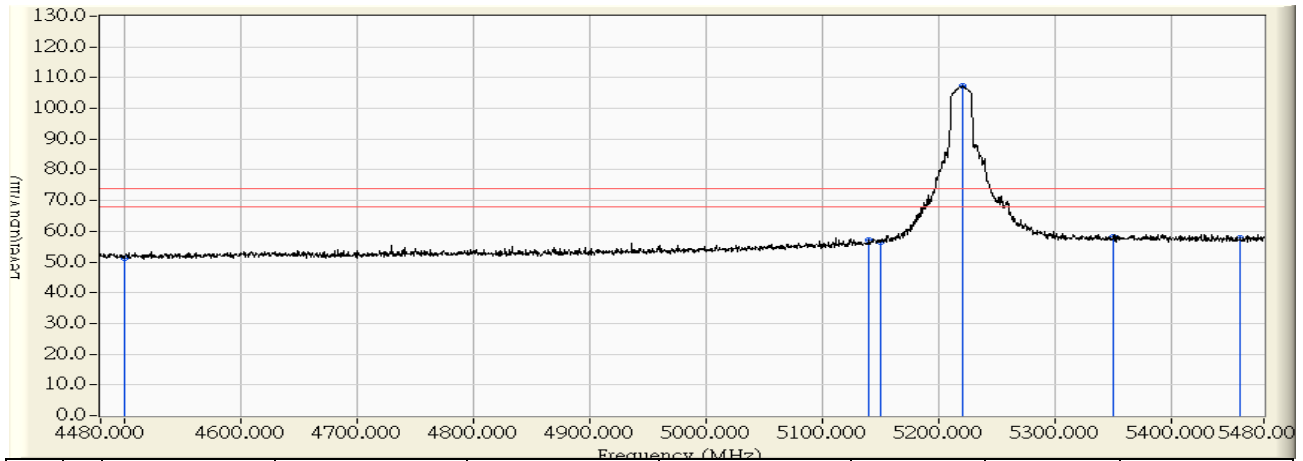


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	41.297	40.640	-13.360	54.000	AVERAGE
2	5145.667	0.654	45.131	45.786	-8.214	54.000	AVERAGE
3	5150.000	0.691	47.338	48.029	-5.971	54.000	AVERAGE
4	* 5181.649	0.951	89.401	90.353	36.353	54.000	AVERAGE
5	5350.000	2.342	41.905	44.247	-9.753	54.000	AVERAGE
6	5460.000	3.250	41.235	44.485	-9.515	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 : 2015/05/14 - 15:58
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5220MHz

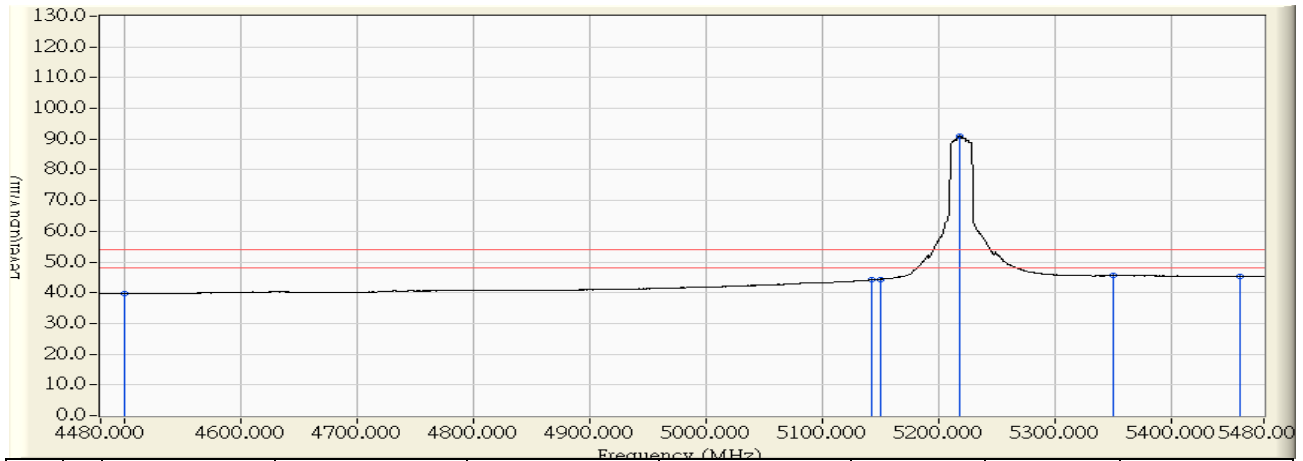


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	53.624	51.259	-22.741	74.000	PEAK
2	5140.669	0.192	56.971	57.164	-16.836	74.000	PEAK
3	5150.000	0.275	56.217	56.491	-17.509	74.000	PEAK
4	* 5221.129	0.896	106.275	107.172	33.172	74.000	PEAK
5	5350.000	2.026	56.086	58.111	-15.889	74.000	PEAK
6	5460.000	2.989	54.856	57.844	-16.156	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 : 2015/05/14 - 15:57
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5220MHz

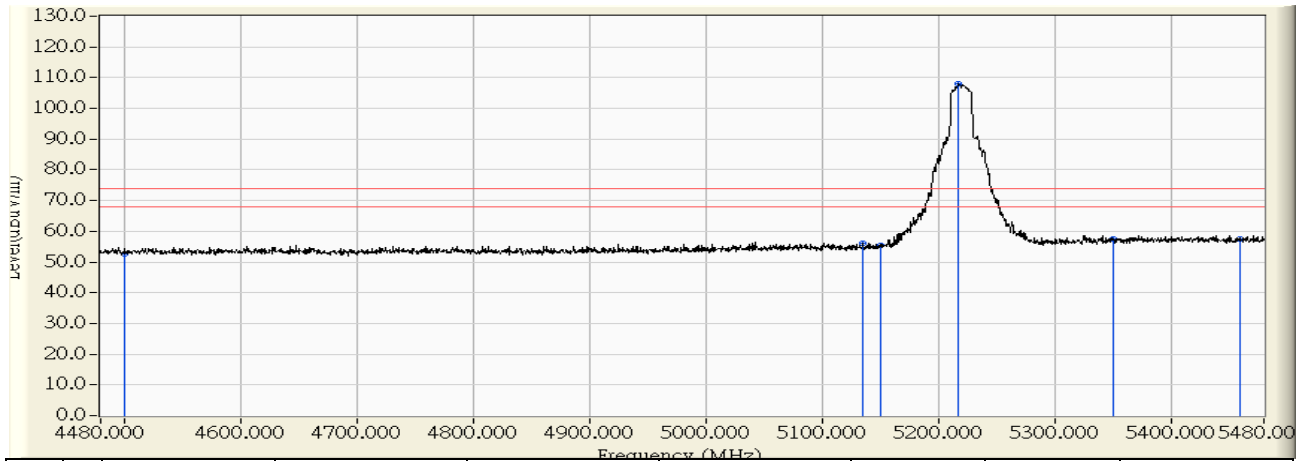


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	42.068	39.703	-14.297	54.000	AVERAGE
2	5142.668	0.210	43.941	44.151	-9.849	54.000	AVERAGE
3	5150.000	0.275	44.122	44.396	-9.604	54.000	AVERAGE
4	* 5218.131	0.871	90.178	91.049	37.049	54.000	AVERAGE
5	5350.000	2.026	43.476	45.501	-8.499	54.000	AVERAGE
6	5460.000	2.989	42.258	45.246	-8.754	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 : 2015/05/14 - 16:08
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5220MHz

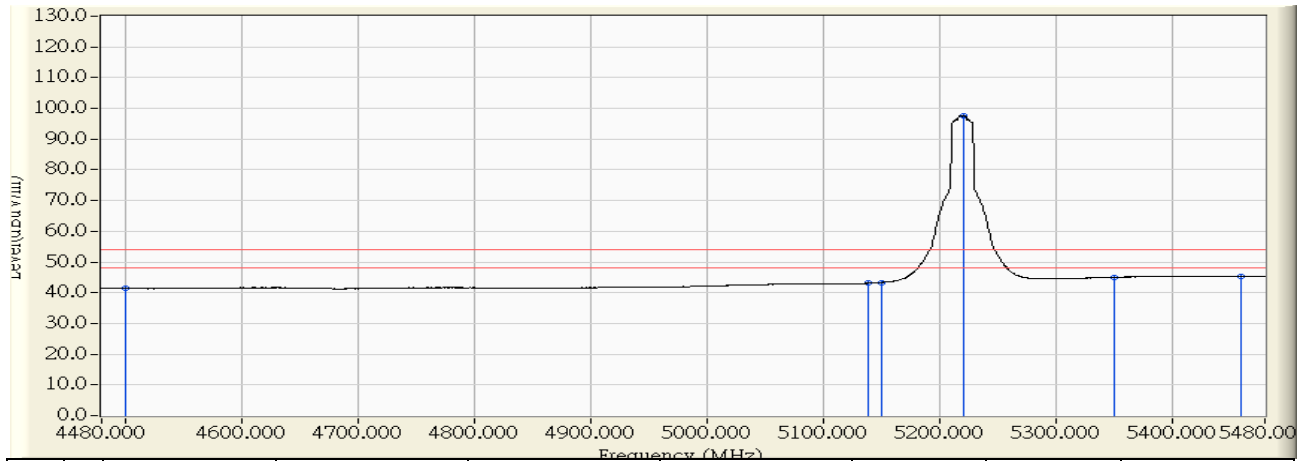


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	53.232	52.575	-21.425	74.000	PEAK
2	5135.672	0.572	55.656	56.228	-17.772	74.000	PEAK
3	5150.000	0.691	54.748	55.439	-18.561	74.000	PEAK
4	* 5217.631	1.249	106.892	108.141	34.141	74.000	PEAK
5	5350.000	2.342	55.158	57.500	-16.500	74.000	PEAK
6	5460.000	3.250	54.175	57.425	-16.575	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 : 2015/05/14 - 16:11
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5220MHz

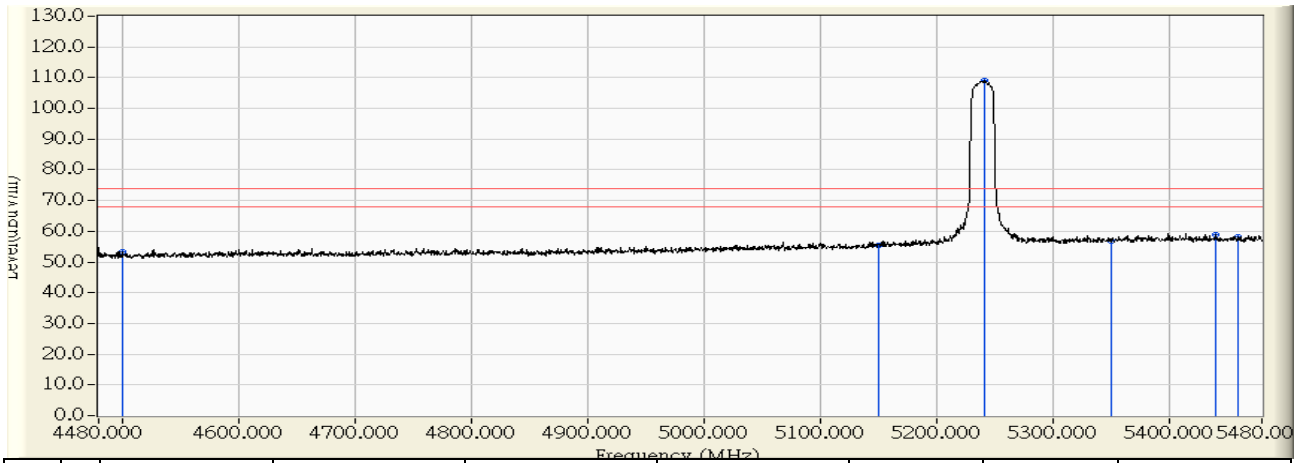


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	42.080	41.423	-12.577	54.000	AVERAGE
2	5138.671	0.598	42.483	43.080	-10.920	54.000	AVERAGE
3	5150.000	0.691	42.645	43.336	-10.664	54.000	AVERAGE
4	* 5221.129	1.277	96.380	97.658	43.658	54.000	AVERAGE
5	5350.000	2.342	42.704	45.046	-8.954	54.000	AVERAGE
6	5460.000	3.250	42.056	45.306	-8.694	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 : 2015/05/14 - 16:18
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5240MHz

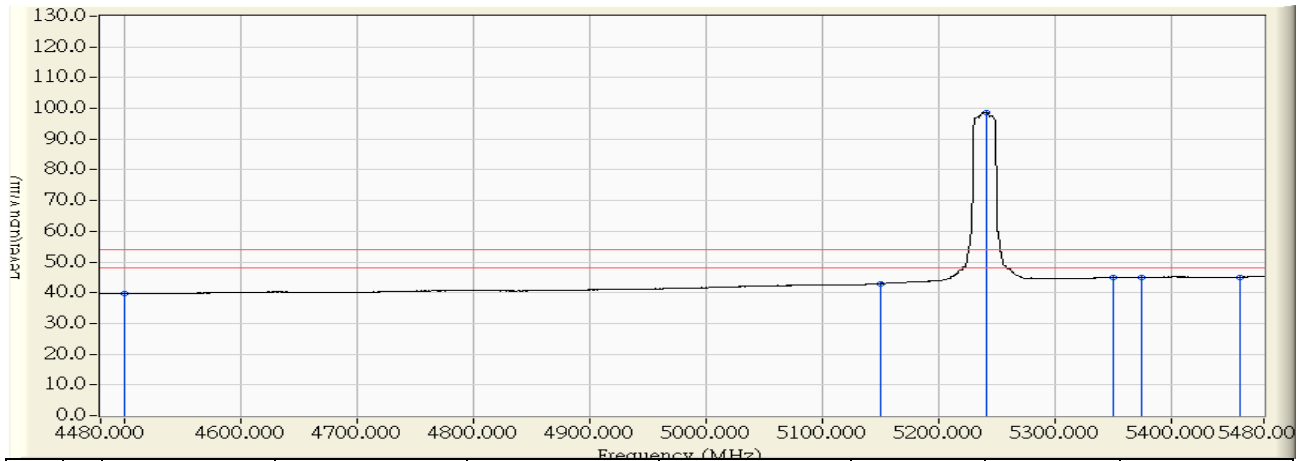


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	55.628	53.263	-20.737	74.000	PEAK
2	5150.000	0.275	55.255	55.529	-18.471	74.000	PEAK
3	* 5241.120	1.071	107.853	108.925	34.925	74.000	PEAK
4	5350.000	2.026	54.672	56.697	-17.303	74.000	PEAK
5	5440.520	2.817	56.206	59.024	-14.976	74.000	PEAK
6	5460.000	2.989	55.267	58.255	-15.745	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 = 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 : 2015/05/14 - 16:17
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5240MHz

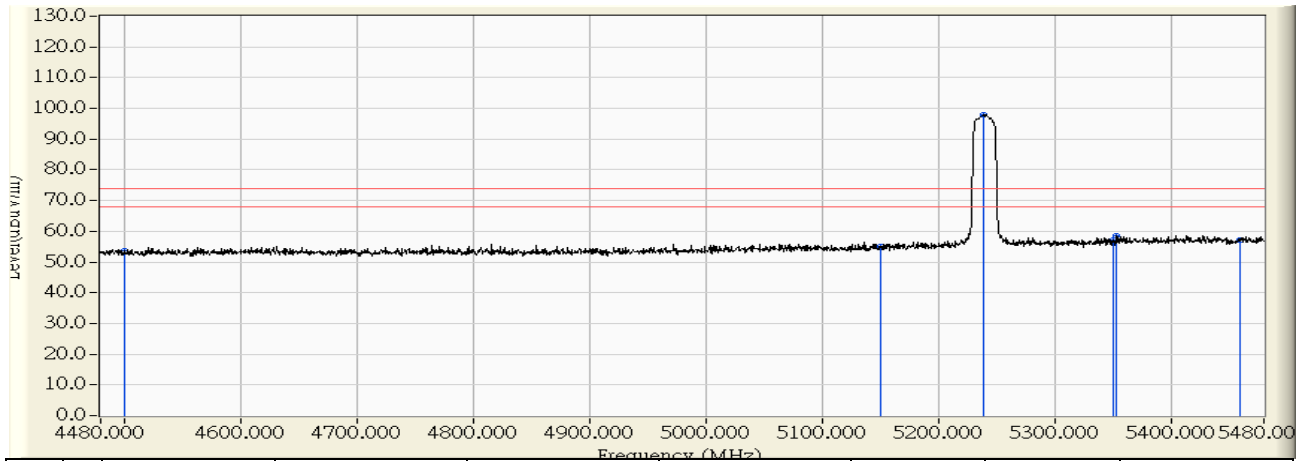


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	42.048	39.683	-14.317	54.000	AVERAGE
2	5150.000	0.275	42.714	42.988	-11.012	54.000	AVERAGE
3	* 5241.619	1.076	97.716	98.792	44.792	54.000	AVERAGE
4	5350.000	2.026	42.945	44.970	-9.030	54.000	AVERAGE
5	5374.553	2.240	42.780	45.020	-8.980	54.000	AVERAGE
6	5460.000	2.989	42.100	45.088	-8.912	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 : 2015/05/14 - 16:23
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5240MHz

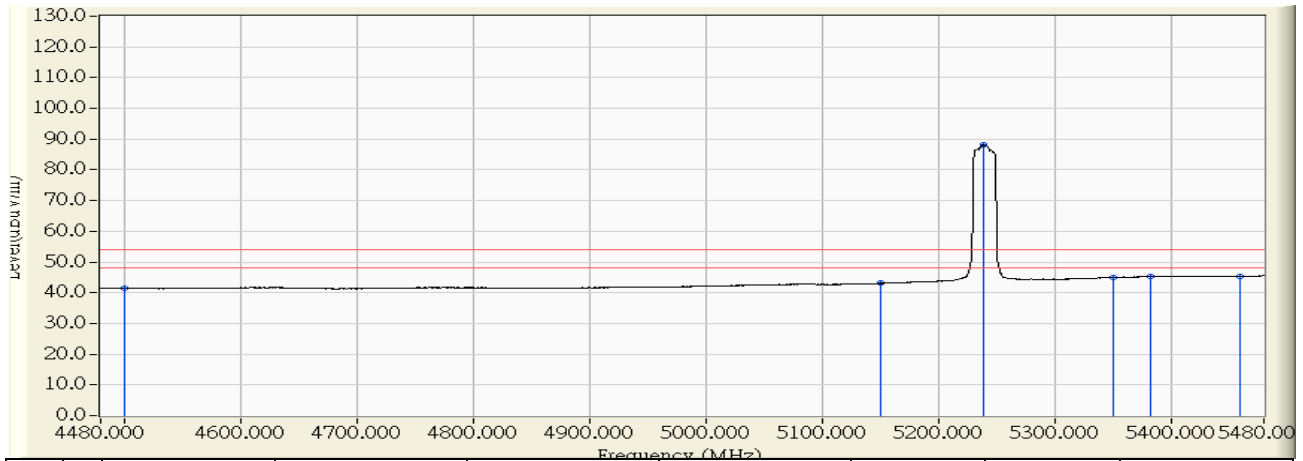


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	54.180	53.523	-20.477	74.000	PEAK
2	5150.000	0.691	54.259	54.950	-19.050	74.000	PEAK
3	* 5238.621	1.422	96.499	97.921	23.921	74.000	PEAK
4	5350.000	2.342	54.713	57.055	-16.945	74.000	PEAK
5	5352.563	2.363	56.175	58.538	-15.462	74.000	PEAK
6	5460.000	3.250	53.747	56.997	-17.003	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 : 2015/05/14 - 16:25
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 20MHz 5240MHz

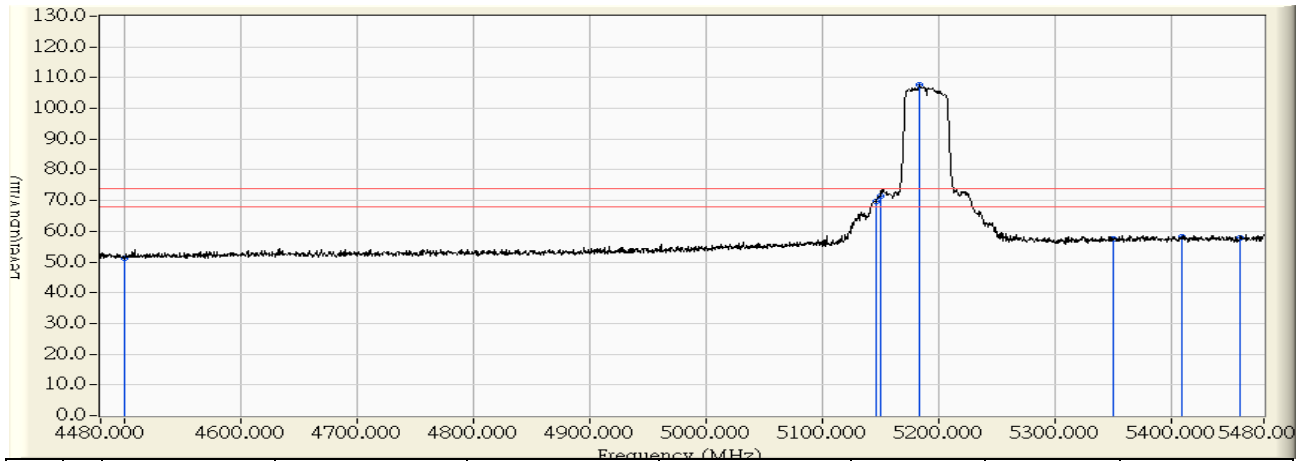


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	42.068	41.411	-12.589	54.000	AVERAGE
2	5150.000	0.691	42.369	43.060	-10.940	54.000	AVERAGE
3	* 5238.621	1.422	86.607	88.029	34.029	54.000	AVERAGE
4	5350.000	2.342	42.611	44.953	-9.047	54.000	AVERAGE
5	5382.049	2.606	42.657	45.263	-8.737	54.000	AVERAGE
6	5460.000	3.250	42.023	45.273	-8.727	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 : 2015/05/15 - 14:53
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5190MHz

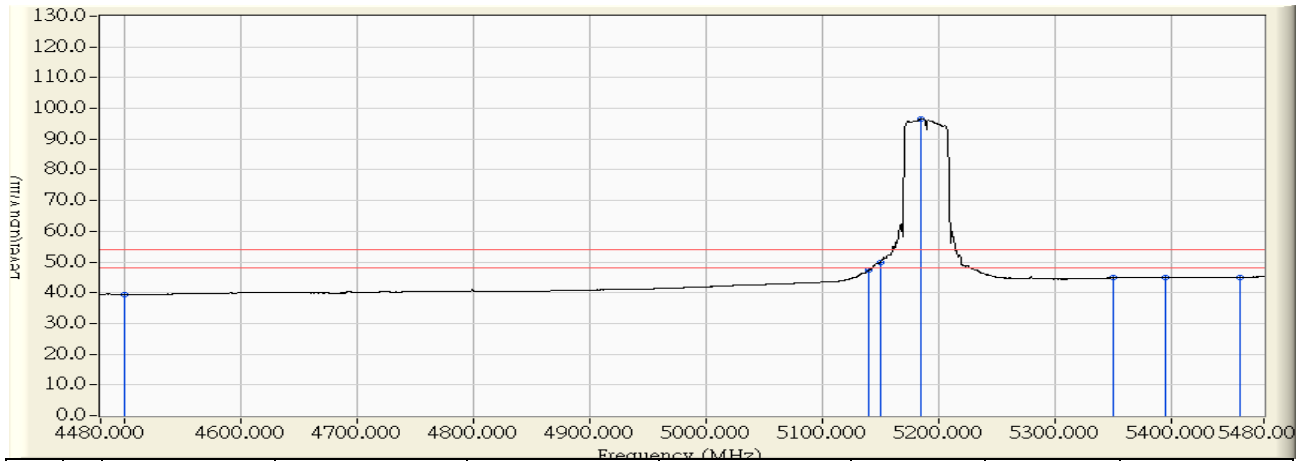


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	53.522	51.157	-22.843	74.000	PEAK
2	5147.166	0.249	69.605	69.854	-4.146	74.000	PEAK
3	5150.000	0.275	71.198	71.472	-2.528	74.000	PEAK
4	* 5184.148	0.574	107.017	107.590	33.590	74.000	PEAK
5	5350.000	2.026	55.517	57.542	-16.458	74.000	PEAK
6	5409.035	2.542	55.762	58.304	-15.696	74.000	PEAK
7	5460.000	2.989	54.995	57.983	-16.017	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 : 2015/05/15 - 14:58
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5190MHz

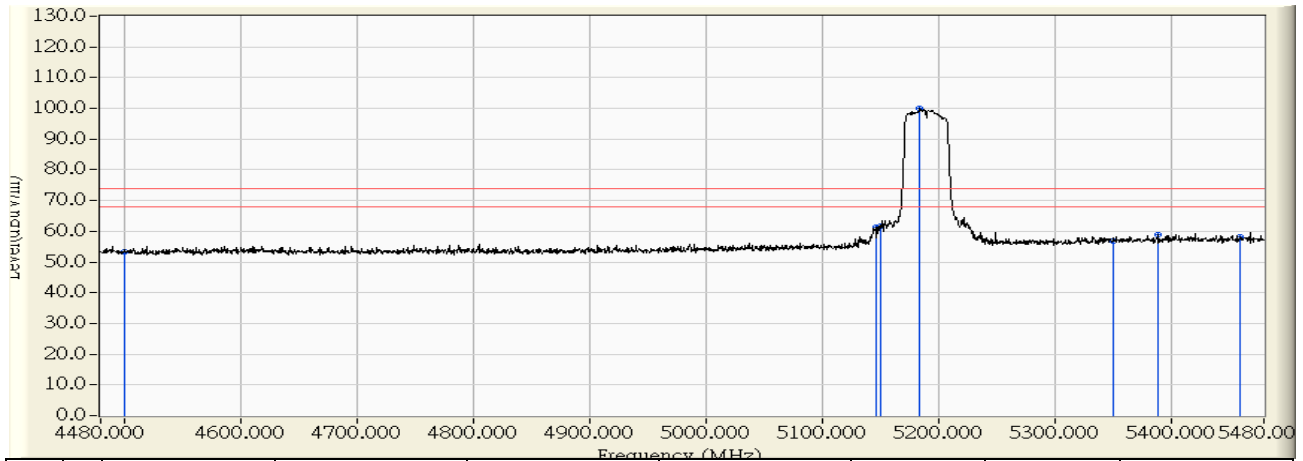


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	41.876	39.511	-14.489	54.000	AVERAGE
2	5140.670	0.192	47.223	47.416	-6.584	54.000	AVERAGE
3	5150.000	0.275	49.697	49.971	-4.029	54.000	AVERAGE
4	* 5184.648	0.578	95.957	96.535	42.535	54.000	AVERAGE
5	5350.000	2.026	42.804	44.829	-9.171	54.000	AVERAGE
6	5395.042	2.420	42.645	45.064	-8.936	54.000	AVERAGE
7	5460.000	2.989	42.031	45.019	-8.981	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 : 2015/05/15 - 15:08
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5190MHz

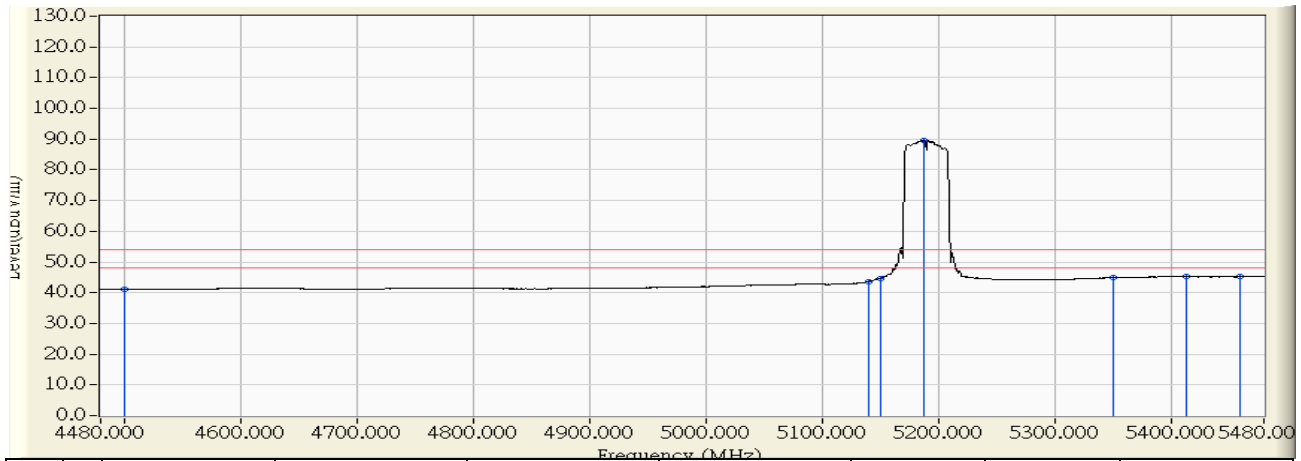


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	54.056	53.399	-20.601	74.000	PEAK
2	5146.667	0.663	60.543	61.206	-12.794	74.000	PEAK
3	5150.000	0.691	61.070	61.761	-12.239	74.000	PEAK
4	* 5184.148	0.973	99.124	100.097	26.097	74.000	PEAK
5	5350.000	2.342	54.621	56.963	-17.037	74.000	PEAK
6	5389.545	2.669	56.319	58.987	-15.013	74.000	PEAK
7	5460.000	3.250	54.812	58.062	-15.938	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 : 2015/05/15 - 15:06
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5190MHz

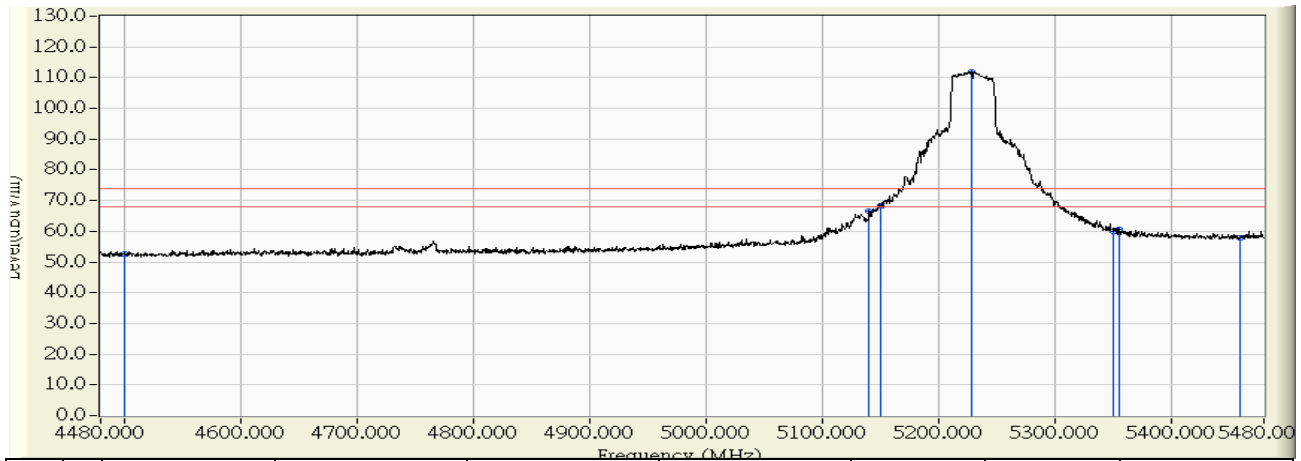


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	41.841	41.184	-12.816	54.000	AVERAGE
2	5140.170	0.610	43.032	43.642	-10.358	54.000	AVERAGE
3	5150.000	0.691	43.942	44.633	-9.367	54.000	AVERAGE
4	* 5187.646	1.002	88.551	89.552	35.552	54.000	AVERAGE
5	5350.000	2.342	42.527	44.869	-9.131	54.000	AVERAGE
6	5413.034	2.862	42.317	45.179	-8.821	54.000	AVERAGE
7	5460.000	3.250	41.929	45.179	-8.821	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 : 2015/05/15 - 15:28
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5230MHz

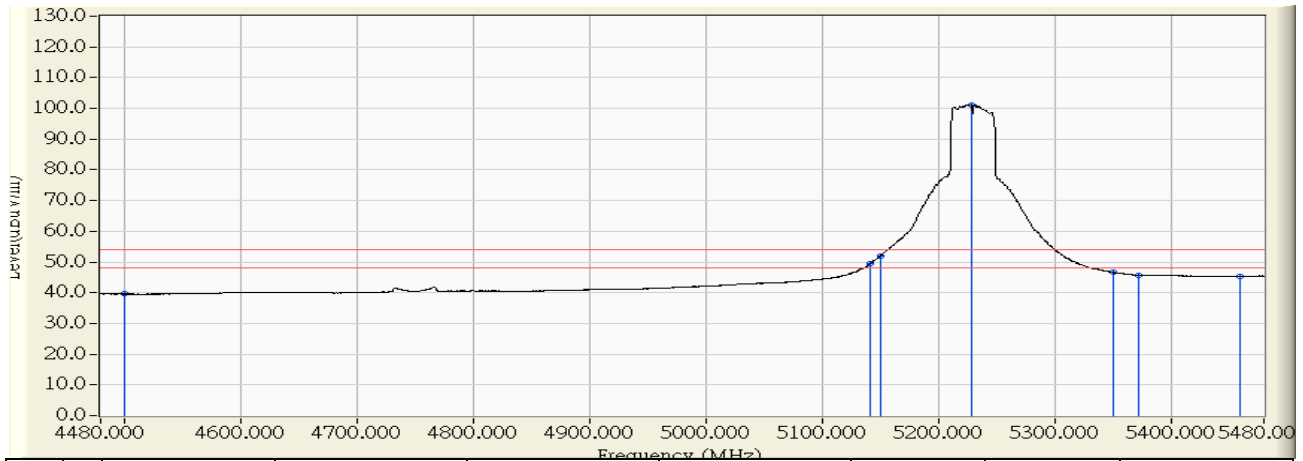


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	55.019	52.654	-21.346	74.000	PEAK
2	5140.670	0.192	66.420	66.613	-7.387	74.000	PEAK
3	5150.000	0.275	68.071	68.345	-5.655	74.000	PEAK
4	* 5228.126	0.958	111.061	112.019	38.019	74.000	PEAK
5	5350.000	2.026	57.796	59.821	-14.179	74.000	PEAK
6	5356.062	2.078	58.709	60.787	-13.213	74.000	PEAK
7	5460.000	2.989	55.001	57.989	-16.011	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 : 2015/05/15 - 15:31
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5230MHz

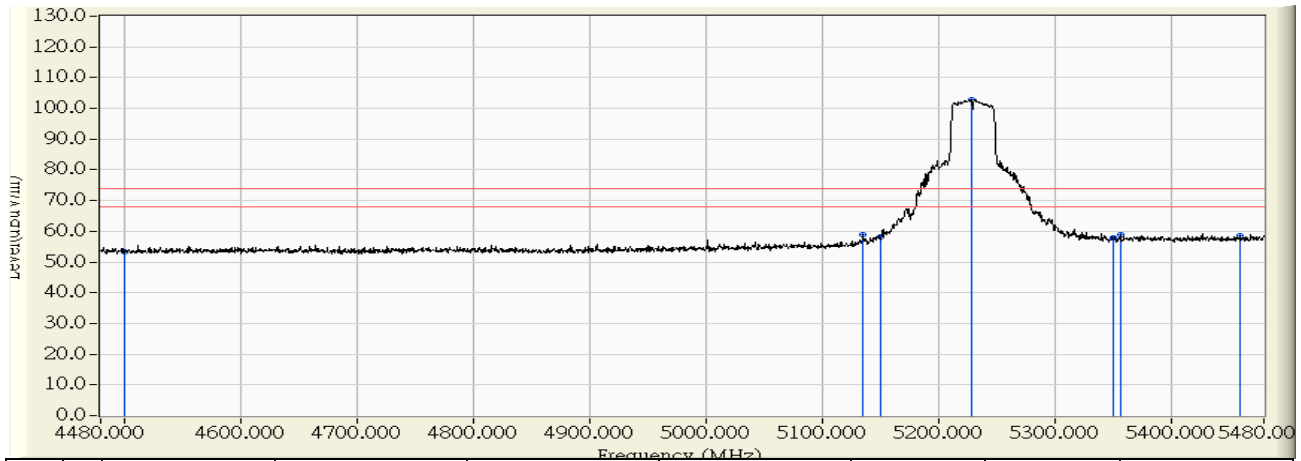


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	41.927	39.562	-14.438	54.000	AVERAGE
2	5142.169	0.205	49.435	49.641	-4.359	54.000	AVERAGE
3	5150.000	0.275	51.648	51.922	-2.078	54.000	AVERAGE
4	* 5228.126	0.958	100.286	101.244	47.244	54.000	AVERAGE
5	5350.000	2.026	44.597	46.622	-7.378	54.000	AVERAGE
6	5372.054	2.218	43.561	45.779	-8.221	54.000	AVERAGE
7	5460.000	2.989	42.341	45.329	-8.671	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 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 : 2015/05/15 - 15:36
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5230MHz

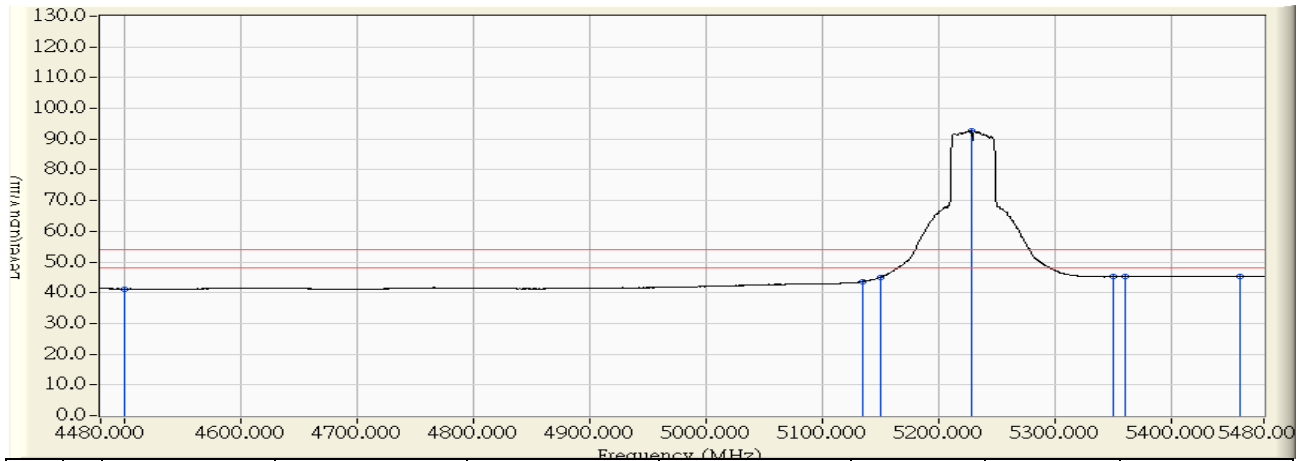


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	53.963	53.306	-20.694	74.000	PEAK
2	5135.672	0.572	58.365	58.937	-15.063	74.000	PEAK
3	5150.000	0.691	57.488	58.179	-15.821	74.000	PEAK
4	* 5228.126	1.335	101.619	102.955	28.955	74.000	PEAK
5	5350.000	2.342	55.393	57.735	-16.265	74.000	PEAK
6	5356.562	2.395	56.352	58.748	-15.252	74.000	PEAK
7	5460.000	3.250	55.197	58.447	-15.553	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 : 2015/05/15 - 15:34
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11n 40MHz 5230MHz

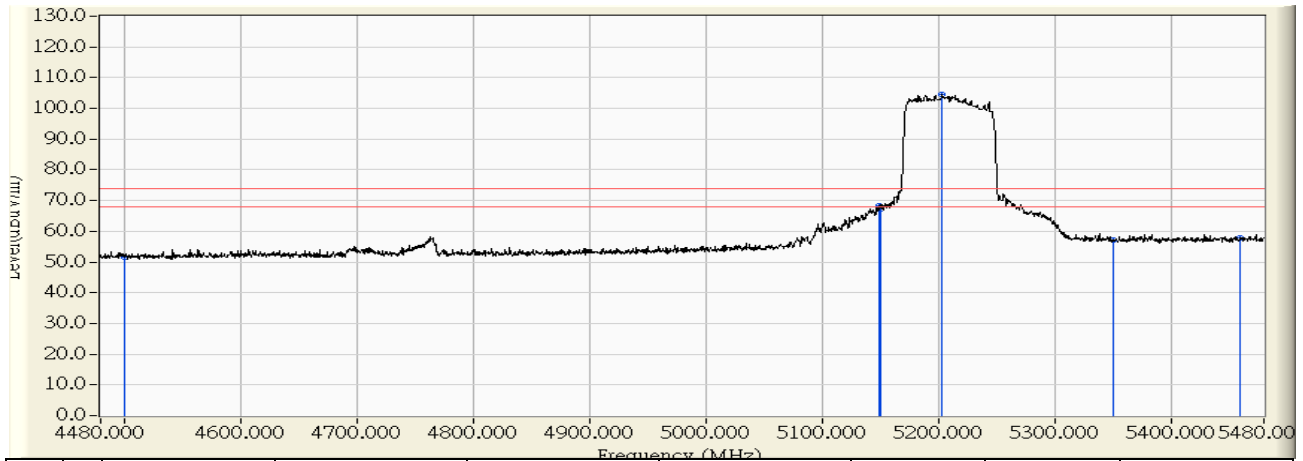


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	41.881	41.224	-12.776	54.000	AVERAGE
2	5135.672	0.572	43.060	43.632	-10.368	54.000	AVERAGE
3	5150.000	0.691	44.256	44.947	-9.053	54.000	AVERAGE
4	* 5228.126	1.335	91.271	92.607	38.607	54.000	AVERAGE
5	5350.000	2.342	42.845	45.187	-8.813	54.000	AVERAGE
6	5360.560	2.429	42.816	45.245	-8.755	54.000	AVERAGE
7	5460.000	3.250	41.983	45.233	-8.767	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 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 : 2015/05/15 - 15:54
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11ac 80MHz 5210MHz

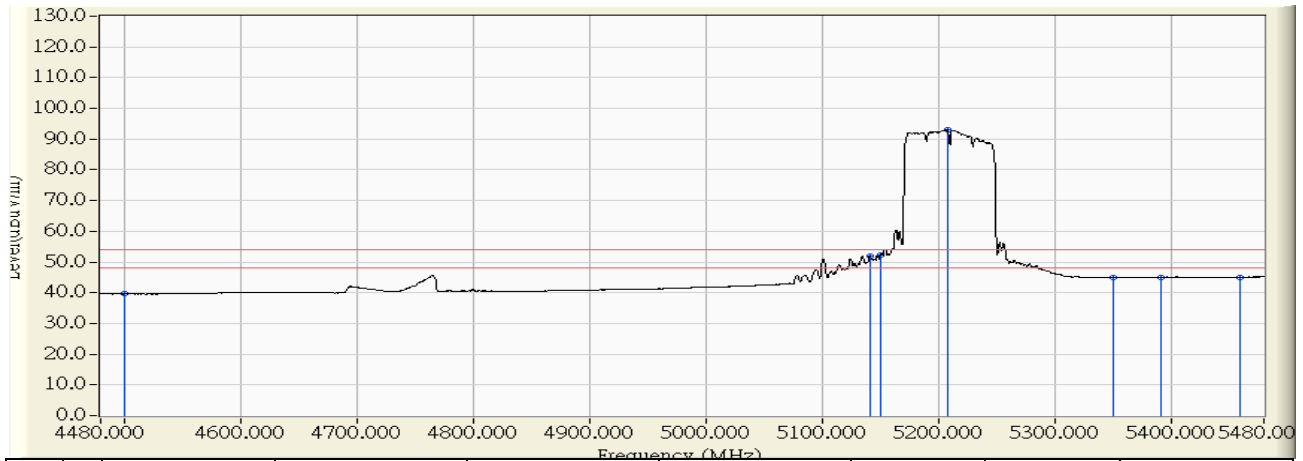


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	54.014	51.649	-22.351	74.000	PEAK
2	5148.666	0.263	67.959	68.222	-5.778	74.000	PEAK
3	5150.000	0.275	67.124	67.398	-6.602	74.000	PEAK
4	* 5203.138	0.739	103.831	104.570	30.570	74.000	PEAK
5	5350.000	2.026	55.185	57.210	-16.790	74.000	PEAK
6	5460.000	2.989	54.996	57.984	-16.016	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 : 2015/05/15 - 15:52
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11ac 80MHz 5210MHz

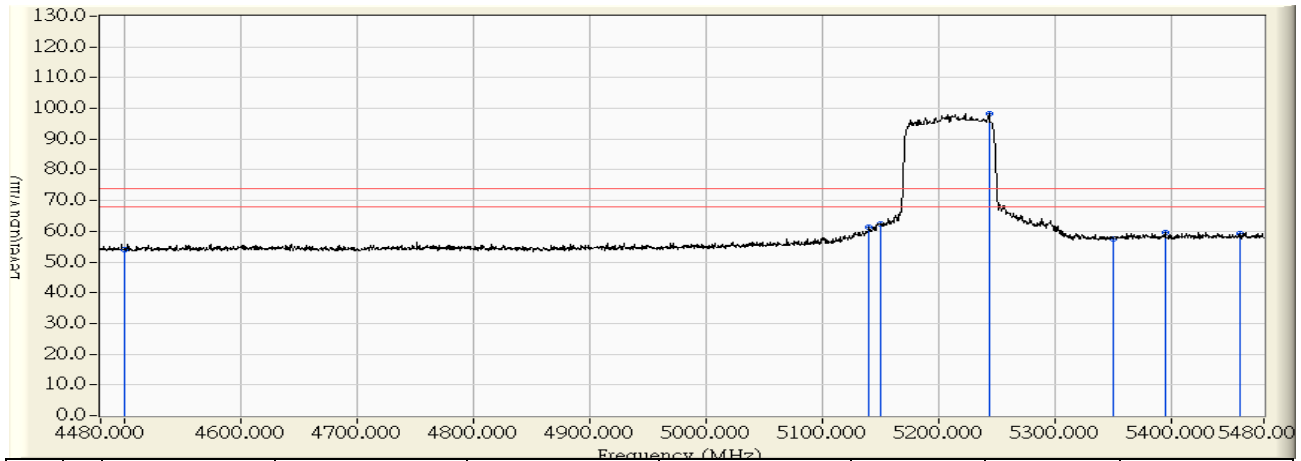


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-2.365	41.925	39.560	-14.440	54.000	AVERAGE
2	5141.169	0.197	51.839	52.036	-1.964	54.000	AVERAGE
3	5150.000	0.275	51.973	52.247	-1.753	54.000	AVERAGE
4	* 5207.636	0.779	92.182	92.961	38.961	54.000	AVERAGE
5	5350.000	2.026	42.897	44.922	-9.078	54.000	AVERAGE
6	5391.044	2.384	42.682	45.066	-8.934	54.000	AVERAGE
7	5460.000	2.989	42.046	45.034	-8.966	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 : 2015/05/15 - 16:00
Limit : FCC_SpartC_15.209_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11ac 80MHz 5210MHz

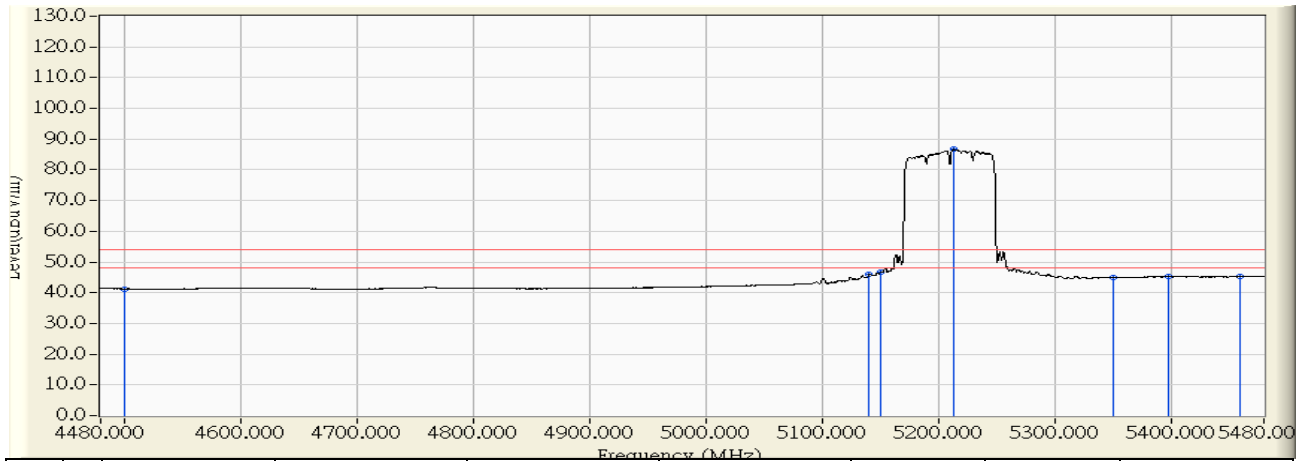


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	54.713	54.056	-19.944	74.000	PEAK
2	5140.670	0.614	60.681	61.295	-12.705	74.000	PEAK
3	5150.000	0.691	61.567	62.258	-11.742	74.000	PEAK
4	* 5243.618	1.464	96.779	98.242	24.242	74.000	PEAK
5	5350.000	2.342	55.250	57.592	-16.408	74.000	PEAK
6	5395.042	2.714	56.829	59.542	-14.458	74.000	PEAK
7	5460.000	3.250	56.092	59.342	-14.658	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 : 2015/05/15 - 16:03
Limit : FCC_SpartC_15.209_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : AC 120V/60Hz
EUT : Dual-band Wireless-AC1200 Range Extender	Note : 802.11ac 80MHz 5210MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4500.000	-0.658	41.914	41.257	-12.743	54.000	AVERAGE
2	5140.670	0.614	45.354	45.968	-8.032	54.000	AVERAGE
3	5150.000	0.691	45.889	46.580	-7.420	54.000	AVERAGE
4	* 5213.633	1.216	85.414	86.630	32.630	54.000	AVERAGE
5	5350.000	2.342	42.607	44.949	-9.051	54.000	AVERAGE
6	5397.541	2.734	42.521	45.255	-8.745	54.000	AVERAGE
7	5460.000	3.250	41.917	45.167	-8.833	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.

8. Frequency Stability

8.1. Test Equipment

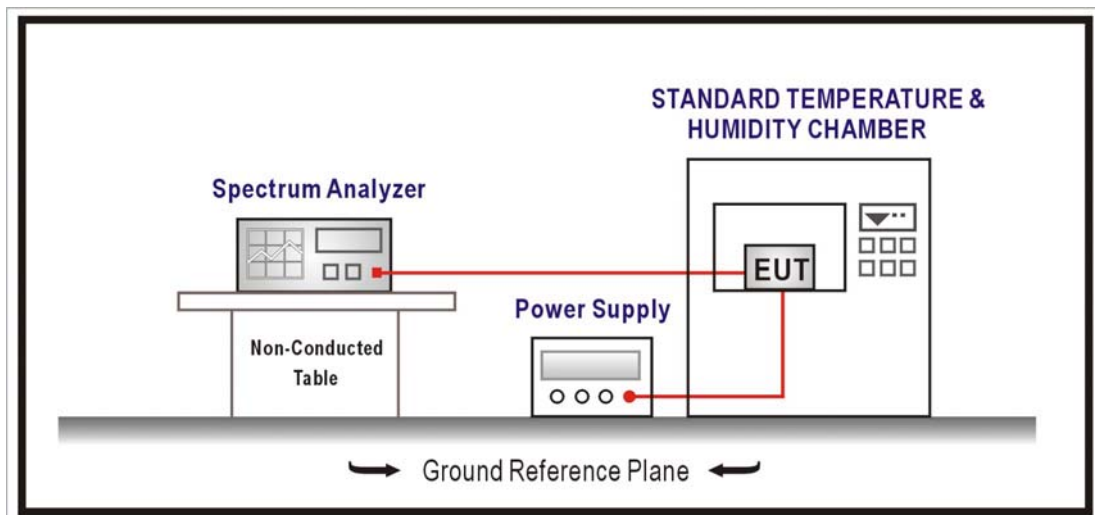
The following test equipments are used during the radiated emission tests:

Frequency Stability / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2015/07/14
Temperature & Humidity Chamber	WIT	TH-1S-B	1082101	2016/01/22

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

8.2. Test Setup



8.3. 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

8.4. Test Procedure

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

8.5. Uncertainty

The measurement uncertainty is defined as ± 150 Hz

8.6. Test Result

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11a - 5180MHz(ANT 0)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.1682	32.4617	PASS
-10		5180.0064	1.2353	PASS
0		5180.0317	6.1185	PASS
10		5180.0543	10.4774	PASS
20		5180.4042	78.0389	PASS
30		5180.3484	67.2607	PASS
40		5180.1273	24.5753	PASS
50		5180.3031	58.5220	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.2511	48.4702	PASS
	120	5180.3511	67.7764	PASS
	138	5180.2640	50.9695	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11a - 5240MHz(ANT 0)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.3266	63.0438	PASS
-10		5180.2108	40.7017	PASS
0		5180.7971	153.8796	PASS
10		5180.2712	52.3579	PASS
20		5180.6804	131.3593	PASS
30		5180.3005	58.0077	PASS
40		5180.1050	20.2628	PASS
50		5180.5168	99.7633	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.3945	76.1610	PASS
	120	5180.0726	14.0188	PASS
	138	5180.5640	108.8756	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11a - 5180MHz(ANT 1)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.5736	109.4752	PASS
-10		5240.8495	162.1215	PASS
0		5240.2916	55.6520	PASS
10		5240.3564	68.0172	PASS
20		5240.3958	75.5386	PASS
30		5240.4584	87.4866	PASS
40		5240.6287	119.9804	PASS
50		5240.6273	119.7170	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.4420	84.3429	PASS
	120	5240.1900	36.2672	PASS
	138	5240.8752	167.0212	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11a - 5240MHz(ANT 1)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.2623	50.0526	PASS
-10		5240.5554	105.9828	PASS
0		5240.2835	54.1051	PASS
10		5240.8478	161.7908	PASS
20		5240.3727	71.1309	PASS
30		5240.4296	81.9809	PASS
40		5240.7965	152.0048	PASS
50		5240.7655	146.0838	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.8668	165.4145	PASS
	120	5240.7323	139.7610	PASS
	138	5240.6774	129.2715	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5180MHz(ANT 0)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.2712	52.3610	PASS
-10		5180.1623	31.3405	PASS
0		5180.6688	129.1038	PASS
10		5180.7609	146.8864	PASS
20		5180.0085	1.6387	PASS
30		5180.7539	145.5353	PASS
40		5180.5757	111.1355	PASS
50		5180.1635	31.5627	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.6900	133.2141	PASS
	120	5180.1585	30.6070	PASS
	138	5180.2511	48.4837	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5240MHz(ANT 0)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.0722	13.9304	PASS
-10		5180.6473	124.9613	PASS
0		5180.6205	119.7886	PASS
10		5180.2691	51.9482	PASS
20		5180.5387	104.0058	PASS
30		5180.1526	29.4554	PASS
40		5180.1683	32.4816	PASS
50		5180.2203	42.5273	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.8548	165.0147	PASS
	120	5180.3657	70.5893	PASS
	138	5180.2630	50.7691	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5180MHz(ANT 1)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.2851	54.4029	PASS
-10		5240.1565	29.8592	PASS
0		5240.5030	95.9995	PASS
10		5240.4214	80.4144	PASS
20		5240.2789	53.2190	PASS
30		5240.2465	47.0457	PASS
40		5240.2584	49.3182	PASS
50		5240.2068	39.4737	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.0021	0.4016	PASS
	120	5240.2439	46.5486	PASS
	138	5240.7741	147.7227	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5240MHz(ANT 1)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.5627	107.3909	PASS
-10		5240.5942	113.3977	PASS
0		5240.2674	51.0268	PASS
10		5240.8347	159.3025	PASS
20		5240.1214	23.1639	PASS
30		5240.6522	124.4644	PASS
40		5240.0836	15.9567	PASS
50		5240.5560	106.1107	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.6869	131.0850	PASS
	120	5240.6838	130.4943	PASS
	138	5240.7948	151.6884	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5190MHz(ANT 0)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5190.2173	41.8724	PASS
-10		5190.4195	80.8208	PASS
0		5190.4062	78.2631	PASS
10		5190.5390	103.8536	PASS
20		5190.8087	155.8173	PASS
30		5190.7504	144.5856	PASS
40		5190.6596	127.0843	PASS
50		5190.5036	97.0263	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5190.0433	8.3387	PASS
	120	5190.2178	41.9741	PASS
	138	5190.3497	67.3766	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5230MHz(ANT 0)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5190.0918	17.6880	PASS
-10		5190.5255	101.2514	PASS
0		5190.4745	91.4235	PASS
10		5190.8382	161.4982	PASS
20		5190.5152	99.2621	PASS
30		5190.7799	150.2709	PASS
40		5190.6451	124.2933	PASS
50		5190.4431	85.3702	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5190.8581	165.3300	PASS
	120	5190.3933	75.7716	PASS
	138	5190.4434	85.4382	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5190MHz(ANT 1)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.4805	91.8752	PASS
-10		5230.4619	88.3088	PASS
0		5230.0694	13.2774	PASS
10		5230.8699	166.3335	PASS
20		5230.0162	3.0924	PASS
30		5230.6277	120.0167	PASS
40		5230.6060	115.8793	PASS
50		5230.4974	95.0979	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.7781	148.7676	PASS
	120	5230.0565	10.8048	PASS
	138	5230.7653	146.3206	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5230MHz(ANT 1)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.6644	127.0410	PASS
-10		5230.6854	131.0542	PASS
0		5230.5377	102.8200	PASS
10		5230.2203	42.1305	PASS
20		5230.5735	109.6479	PASS
30		5230.8279	158.2887	PASS
40		5230.8054	153.9949	PASS
50		5230.7578	144.8991	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.6007	114.8492	PASS
	120	5230.4800	91.7854	PASS
	138	5230.4377	83.6933	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11ac_80M -5210MHz(ANT 0)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5210.4869	93.4592	PASS
-10		5210.6188	118.7766	PASS
0		5210.8828	169.4518	PASS
10		5210.8989	172.5246	PASS
20		5210.6252	119.9961	PASS
30		5210.2776	53.2865	PASS
40		5210.6226	119.5020	PASS
50		5210.1987	38.1394	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5210.0798	15.3111	PASS
	120	5210.7743	148.6226	PASS
	138	5210.7230	138.7776	PASS

Product	Dual-band Wireless-AC1200 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11ac_80M -5210MHz(ANT 1)		
Date of Test	2015/05/20	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5210.1368	26.2543	PASS
-10		5210.2442	46.8794	PASS
0		5210.3883	74.5218	PASS
10		5210.8782	168.5674	PASS
20		5210.6460	123.9910	PASS
30		5210.3883	74.5289	PASS
40		5210.3413	65.5120	PASS
50		5210.6715	128.8935	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5210.2812	53.9651	PASS
	120	5210.4794	92.0086	PASS
	138	5210.1307	25.0841	PASS