FCC Test Report

Product Name ： Dual Band 3x3 802.11AC Gigabit Router

Model No. ： RT-AC66U, RT-AC66R

FCC ID. ： MSQ-RTAC66U

Applicant ： ASUSTeK COMPUTER INC.

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

Date of Receipt ： 2014/06/13

Issued Date ： 2014/06/19

Report No. ： 1460422R-RFUSP59V00

Report Version ： V1.0

Testing Laboratory
1313

Test Report Certification

Issued Date : 2014/06/19
Report No. : 1460422R-RFUSP59V00

QuieTek

Product Name	:	Dual Band 3x3 802.11AC Gigabit Router
Applicant	:	ASUSTeK COMPUTER INC.
Address	:	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
Manufacturer	:	(1) Askey Technology (Jiang Su) Ltd. (2) Compal Networking (KunShan) Co., Ltd.
Model No.	:	RT-AC66U, RT-AC66R
FCC ID.	:	MSQ-RTAC66U
EUT Rated Voltage	:	19V⎓1.58A
EUT Voltage	:	AC 100-240V, 50-60Hz
Trade Name	:	ASUS
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart E Section 15.407:2013 ANSI C63.4: 2009
Test Result	:	Complied

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

Documented By : 
(Carol Tsai / Engineering Adm. Specialist)

Reviewed By : 
(JuBo Shen / 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: 1313**
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/tw/ctg/cts/accreditations.htm
The address and introduction of QuieTek Corporation's laboratories can be founded in our Web site : http://www.quietek.com/
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory:
No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

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

TABLE OF CONTENTS

1. General Information

1.1. EUT Description

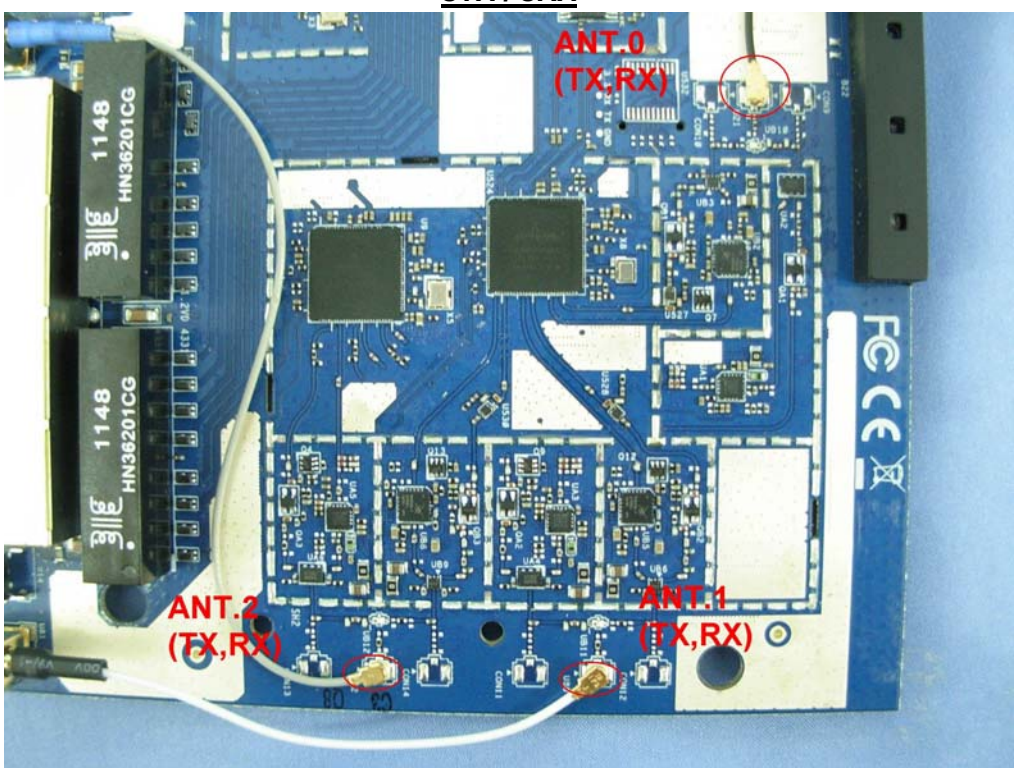
Product Name	Dual Band 3x3 802.11AC Gigabit Router	
Product Type	WLAN (3TX, 3RX)	
Trade Name	ASUS	
Model No.	RT-AC66U, RT-AC66R	
Frequency Range/ Channel Number	IEEE 802.11a/ IEEE 802.11n (20MHz) / IEEE 802.11ac (20MHz)	5180~5240MHz / 4 Channels
	IEEE 802.11n (40MHz) / IEEE 802.11ac (40MHz)	5190~5230MHz / 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	I EEE 802.11a	6Mbps,9Mbps,12Mbps,18Mbps,24Mbps,36Mbps,48Mbps,54Mbps
	EEE 802.11n	Support a subset of the combination of GI, MCS 0~MCS 23 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	2dBi	
Antenna Type	Dipole	

Component	
Antenna	ARISTOTLE, RFA-25-C35-M10, 3 Pcs
Antenna	MAG. LAYERS, EDA-1410-25GR2-A1_V01, 3 Pcs
Antenna	Walsin, RFDPA141000SBLB801, 3 Pcs
Power Adatper	ASUS, EXA1004UH I/P : AC 100-240V, 50-60Hz 1A O/P : 19V⎓1.58A Cable Out: Non-shielded, 2.5m, one ferrite core bonded.
Power Adatper	ASUS, AD82030 I/P : AC 100-240V, 50/60Hz 0.8A O/P : 19V⎓1.58A Cable Out: Non-Shielded, 2.5m, one ferrite core bonded.

ANT-TX / RX & Bandwidth

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

3TX / 3RX



IEEE 802.11n

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

Table 1 – MCS parameters for TX Antenna number = 1

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

Table 2 – MCS parameters for TX Antenna number = 2

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

Table 3 – MCS parameters for TX Antenna number = 3

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

Draft IEEE 802.11ac Data Rate

Spatial Streams (Note1)	MCS Index	Modulation type	Coding rate	Data Rate(Mb/s)							
				20 MHz		40 MHz		80 MHz		160 MHz	
				Guard Interval		Guard Interval		Guard Interval		Guard Interval	
				800ns	400ns	800ns	400ns	800ns	400ns	800ns	400ns
1	0	BPSK	1/2	6.5	7.2	13.5	15	29.3	32.5	58.5	65
	1	QPSK	1/2	13	14.4	27	30	58.5	65	117	130
	2	QPSK	3/4	19.5	21.7	40.5	45	87.8	97.5	175.5	195
	3	16-QAM	1/2	26	28.9	54	60	117	130	234	260
	4	16-QAM	3/4	39	43.3	81	90	175.5	195	351	390
	5	64-QAM	2/3	52	57.8	108	120	234	260	468	520
	6	64-QAM	3/4	58.5	65	121.5	135	263.3	292.5	526.5	585
	7	64-QAM	5/6	65	72.2	135	150	292.5	325	585	650
	8	256-QAM	3/4	78	86.7	162	180	351	390	702	780
	9	256-QAM	5/6	N/A	N/A	180	200	390	433.3	780	866.7
2	0	BPSK	1/2	13	14.4	27	30	58.6	65	117	130
	1	QPSK	1/2	26	28.8	54	60	117	130	234	260
	2	QPSK	3/4	39	43.4	81	90	175.6	195	351	390
	3	16-QAM	1/2	52	57.8	108	120	234	260	468	520
	4	16-QAM	3/4	78	86.6	162	180	351	390	702	780
	5	64-QAM	2/3	104	115.6	216	240	468	520	936	1040
	6	64-QAM	3/4	117	130	243	270	526.6	585	1053	1170
	7	64-QAM	5/6	130	144.4	270	300	585	650	1170	1300
	8	256-QAM	3/4	156	173.4	324	360	702	780	1404	1560
	9	256-QAM	5/6	N/A	N/A	360	400	780	866.6	1560	1733.4
3	0	BPSK	1/2	19.5	21.6	40.5	45	87.9	97.5	175.5	195
	1	QPSK	1/2	39	43.2	81	90	175.5	195	351	390
	2	QPSK	3/4	58.5	65.1	121.5	135	263.4	292.5	526.5	585
	3	16-QAM	1/2	78	86.7	162	180	351	390	702	780
	4	16-QAM	3/4	117	129.9	243	270	526.5	585	1053	1170
	5	64-QAM	2/3	156	173.4	324	360	702	780	1404	1560
	6	64-QAM	3/4	175.5	195	364.5	405	789.9	877.5	1579.5	1755
	7	64-QAM	5/6	195	216.6	405	450	877.5	975	1755	1950
	8	256-QAM	3/4	234	260.1	486	540	1053	1170	2106	2340
	9	256-QAM	5/6	N/A	N/A	540	600	1170	1299.9	2340	2600.1

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)- 5.8GHz

Working Frequency of Each Channel	
Channel	Frequency
42	5210 MHz

Note:

1. This device is a Dual Band 3x3 802.11AC Gigabit Router including 2.4GHz b/g/n and 5GHz a/n/ac (3x3) transmitting and receiving function.
2. The variation of model number is for different strategy of marketing.
3. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart E Paragraph 15.407.
4. 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.
5. The function of the 2.4GHz & 5.8GHz transmitting is measured and makes a test report of the report number: 1420094R-RFUSP39V00.
6. This device is a composite device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 1420094R-RFUSP01V00 under Declaration of Conformity.
7. This report is class II change.

1.2. Test Mode

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

TX	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) Mode 2: Transmit (Adapter: AD82030)

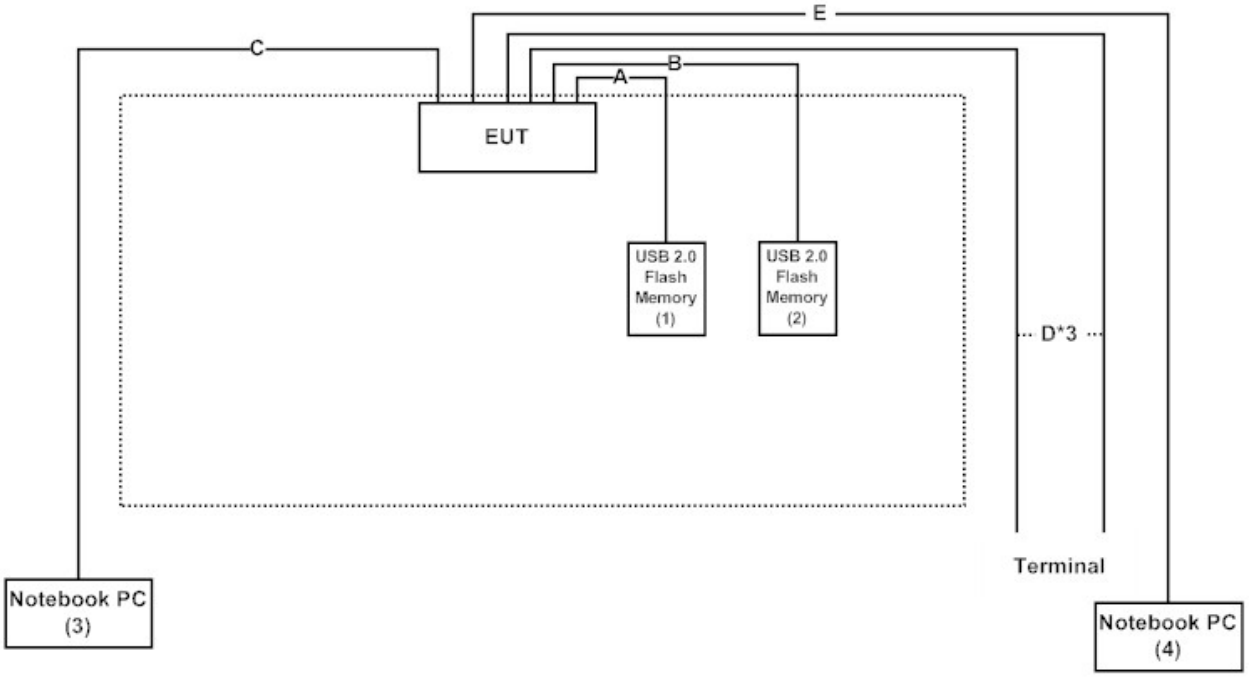
Test Items	Mode	Modulation	Channel	Antenna	Result
Conducted Emission	1,2	11ac (80MHz)	42	0+1+2	Complies
99 % & 26dB Bandwidth	1	a	36/44/48	0/1/2	Complies
	1	11n (20MHz)	36/44/48	0/1/2	Complies
	1	11n (40MHz)	38/46	0/1/2	Complies
	1	11ac (80MHz)	42	0/1/2	Complies
Peak Transmit Output	1	a	36/44/48	0+1+2	Complies
	1	11n (20MHz)	36/44/48	0+1+2	Complies
	1	11n (40MHz)	38/46	0+1+2	Complies
	1	11ac (80MHz)	42	0+1+2	Complies
Peak Power Spectrum Density	1	a	36/44/48	0+1+2	Complies
	1	11n (20MHz)	36/44/48	0+1+2	Complies
	1	11n (40MHz)	38/46	0+1+2	Complies
	1	11ac (80MHz)	42	0+1+2	Complies
Radiated Emission	1,2	a	36/44/48	0+1+2	Complies
	1,2	11n (20MHz)	36/44/48	0+1+2	Complies
	1,2	11n (40MHz)	38/46	0+1+2	Complies
	1,2	11ac (80MHz)	42	0+1+2	Complies
Band Edge	1	a	36	0+1+2	Complies
	1	11n (20MHz)	36	0+1+2	Complies
	1	11n (40MHz)	38	0+1+2	Complies
	1	11ac (80MHz)	42	0+1+2	Complies
Frequency Stability	1	a	36/44/48	0/1/2	Complies
	1	11n (20MHz)	36/44/48	0/1/2	Complies
	1	11n (40MHz)	38/46	0/1/2	Complies
	1	11ac (80MHz)	42	0/1/2	Complies

1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	USB 2.0 Flash Memory	Sony	USM2GJX	N/A	DoC	--
2	USB 2.0 Flash Memory	Sony	USM2GJX	N/A	DoC	--
3	Notebook PC	DELL	PP37L	CD8BNG1	DoC	Non-Shielded, 1.8m
4	Notebook PC	HP Compaq	NX6320FF	CNU7020BXT	DoC	Non-Shielded, 1.8m

1.4. Configuration of tested System

Connection Diagram


Signal Cable Type		Signal cable Description
A	USB 2.0 Flash Memory Cable	Shielded, 1.0m
B	USB 2.0 Flash Memory Cable	Shielded, 1.0m
C	LAN Cable	Non-Shielded, 3.0m
D	LAN Cable	Non-Shielded, 3.0m, 3PCS
E	LAN Cable	Non-Shielded, 3.0m

1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.5.
2	Execute the MFG Control Panel Ver 1.4.0.0 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	45
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	48
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Band Edge	15 - 35	25
Humidity (%RH)		25 - 75	48
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 (Mode 1)

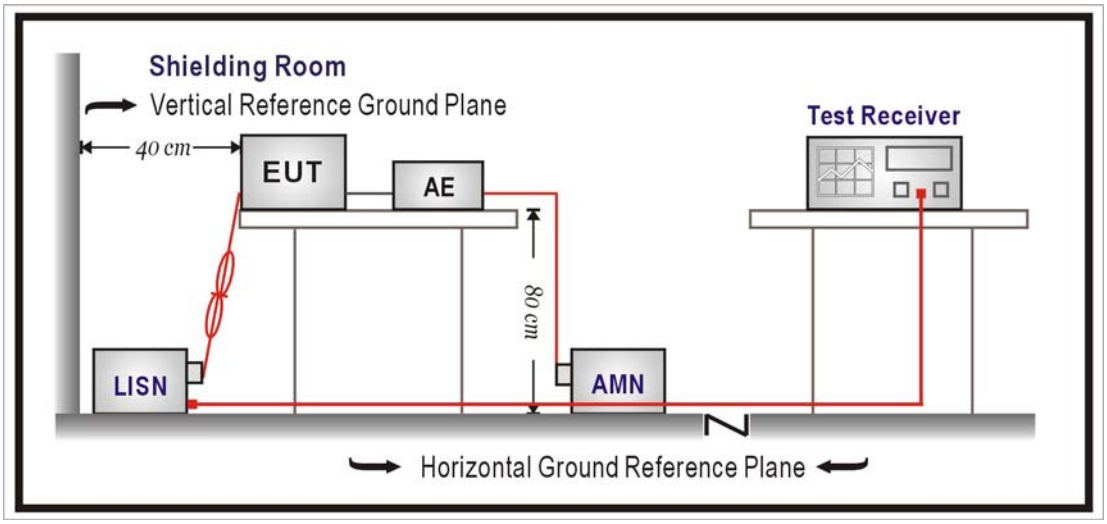
Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
LISN	R&S	ENV216	100096	2014/08/01
LISN	R&S	ESH3-Z5	836679/022	2015/01/02
Test Receiver	R&S	ESCS 30	825442/017	2014/12/24

Conducted Emission / SR3 (Mode 2)

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
LISN	R&S	ENV216	100096	2012/09/06
LISN	R&S	ESH3-Z5	836679/022	2013/02/06
Test Receiver	R&S	ESCS 30	825442/017	2013/01/01

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 C63.4: 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

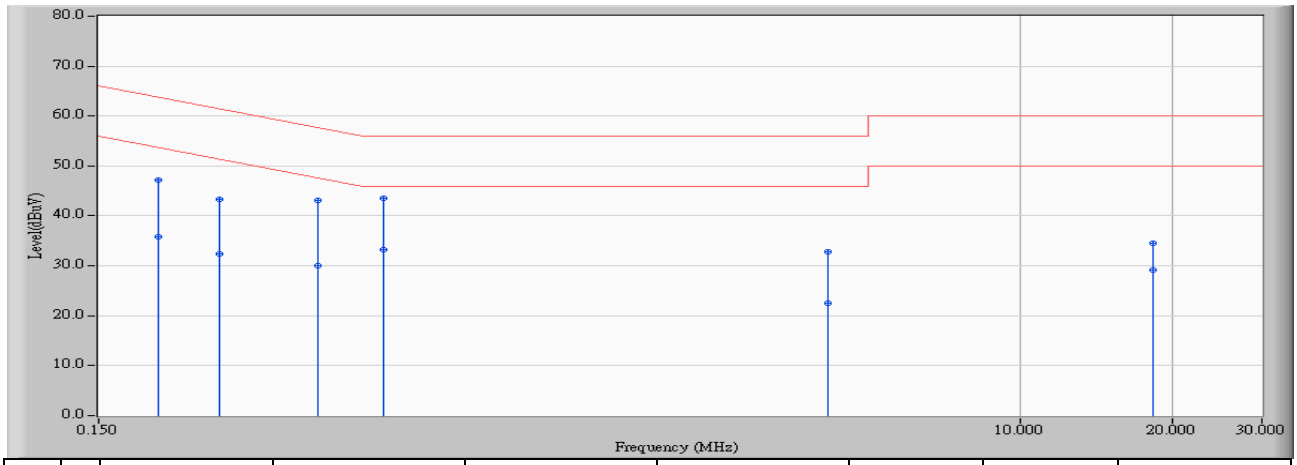
According to FCC Part 15 Subpart C Paragraph 15.207:2013

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR3	**Time : 2012/05/09 - 18:36**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-1_0907 - Line1	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (Adapter: EXA1004UH) 5210MHz,802.11ac(80M)**

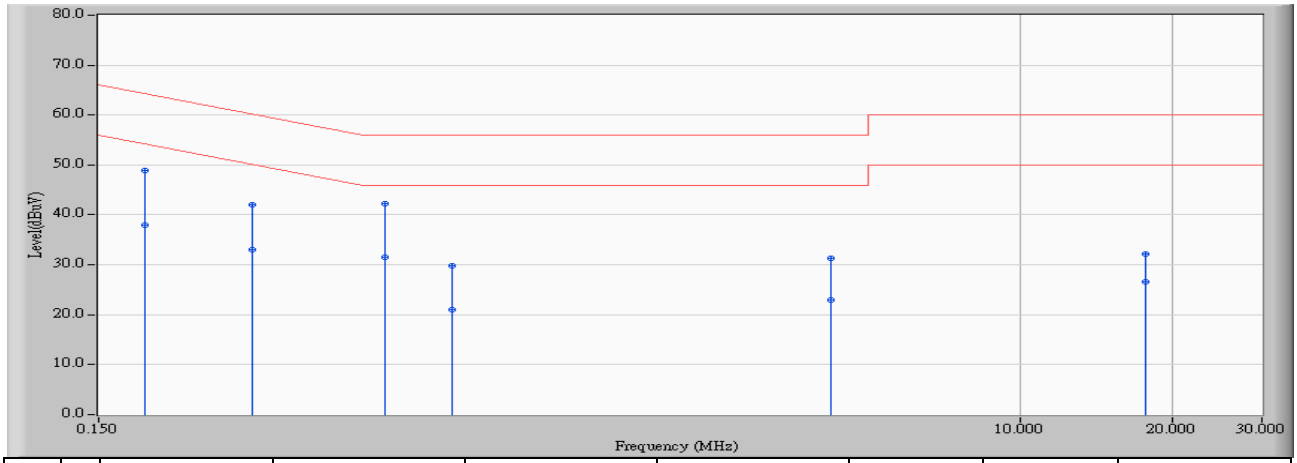


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.197	9.658	37.470	47.127	-16.614	63.741	QUASIPEAK
2		0.197	9.658	26.130	35.787	-17.954	53.741	AVERAGE
3		0.259	9.665	33.710	43.375	-18.076	61.451	QUASIPEAK
4		0.259	9.665	22.790	32.455	-18.996	51.451	AVERAGE
5		0.408	9.687	33.520	43.207	-14.486	57.693	QUASIPEAK
6		0.408	9.687	20.370	30.057	-17.636	47.693	AVERAGE
7	*	0.548	9.709	33.820	43.529	-12.471	56.000	QUASIPEAK
8		0.548	9.709	23.480	33.189	-12.811	46.000	AVERAGE
9		4.150	10.020	22.860	32.880	-23.120	56.000	QUASIPEAK
10		4.150	10.020	12.530	22.550	-23.450	46.000	AVERAGE
11		18.232	10.286	24.300	34.586	-25.414	60.000	QUASIPEAK
12		18.232	10.286	18.960	29.246	-20.754	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.

Site : SR3	**Time : 2012/05/09 - 18:39**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-1_0907 - Line2	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (Adapter: EXA1004UH) 5210MHz,802.11ac(80M)**

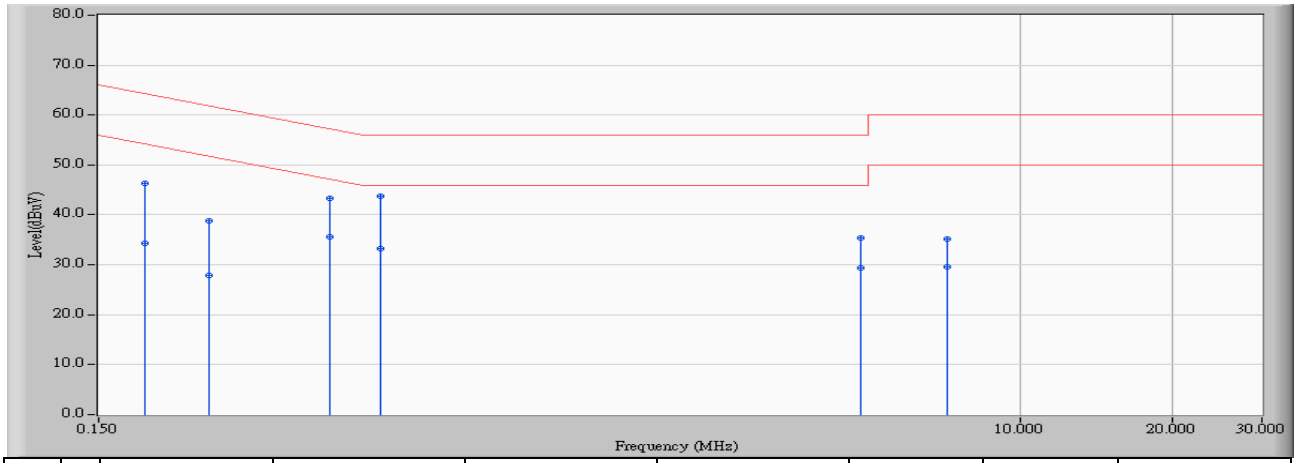


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.185	9.666	39.190	48.856	-15.395	64.251	QUASIPEAK
2		0.185	9.666	28.260	37.926	-16.325	54.251	AVERAGE
3		0.302	9.682	32.400	42.082	-18.097	60.178	QUASIPEAK
4		0.302	9.682	23.310	32.992	-17.187	50.178	AVERAGE
5	*	0.552	9.717	32.610	42.327	-13.673	56.000	QUASIPEAK
6		0.552	9.717	21.810	31.527	-14.473	46.000	AVERAGE
7		0.752	9.745	20.090	29.835	-26.165	56.000	QUASIPEAK
8		0.752	9.745	11.370	21.115	-24.885	46.000	AVERAGE
9		4.224	10.045	21.290	31.335	-24.665	56.000	QUASIPEAK
10		4.224	10.045	12.890	22.935	-23.065	46.000	AVERAGE
11		17.677	10.445	21.810	32.255	-27.745	60.000	QUASIPEAK
12		17.677	10.445	16.100	26.545	-23.455	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.

Site : SR3	**Time : 2012/05/11 - 10:11**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-1_0907 - Line1	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 2: Transmit (Adapter: AD82030) 5210MHz,802.11ac(80M)**

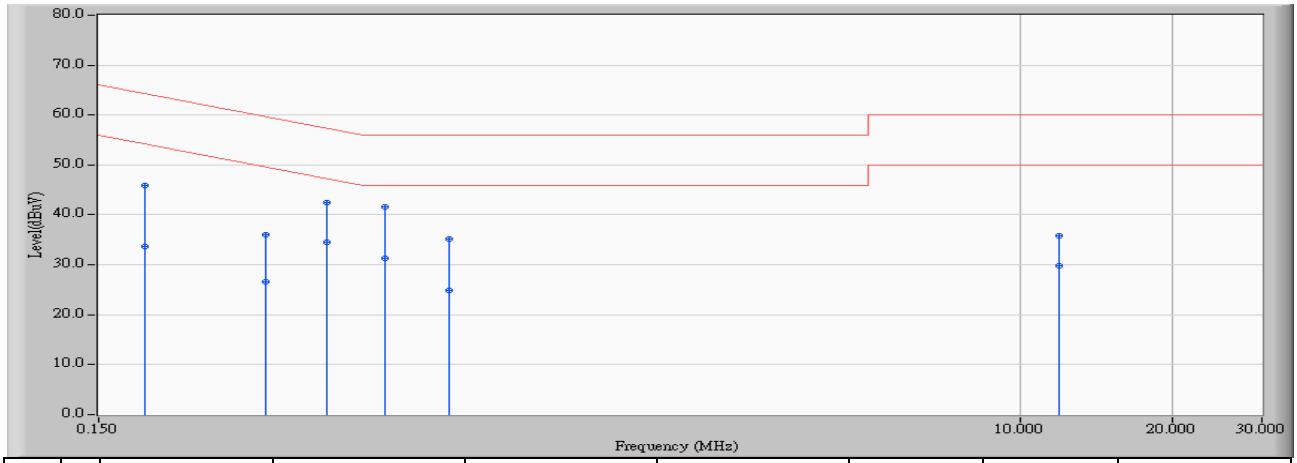


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.185	9.656	36.570	46.226	-18.025	64.251	QUASIPEAK
2		0.185	9.656	24.580	34.236	-20.015	54.251	AVERAGE
3		0.248	9.664	29.060	38.724	-23.112	61.835	QUASIPEAK
4		0.248	9.664	18.180	27.844	-23.992	51.835	AVERAGE
5		0.431	9.691	33.590	43.281	-13.948	57.229	QUASIPEAK
6	*	0.431	9.691	25.830	35.521	-11.708	47.229	AVERAGE
7		0.541	9.708	33.940	43.648	-12.352	56.000	QUASIPEAK
8		0.541	9.708	23.540	33.248	-12.752	46.000	AVERAGE
9		4.810	10.050	25.290	35.340	-20.660	56.000	QUASIPEAK
10		4.810	10.050	19.440	29.490	-16.510	46.000	AVERAGE
11		7.166	10.089	25.050	35.139	-24.861	60.000	QUASIPEAK
12		7.166	10.089	19.580	29.669	-20.331	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.

Site : SR3	**Time : 2012/05/11 - 10:14**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-1_0907 - Line2	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 2: Transmit (Adapter: AD82030) 5210MHz,802.11ac(80M)**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.185	9.666	36.330	45.996	-18.255	64.251	QUASIPEAK
2		0.185	9.666	24.010	33.676	-20.575	54.251	AVERAGE
3		0.322	9.684	26.390	36.074	-23.584	59.658	QUASIPEAK
4		0.322	9.684	16.840	26.524	-23.134	49.658	AVERAGE
5		0.423	9.699	32.740	42.439	-14.942	57.380	QUASIPEAK
6	*	0.423	9.699	24.830	34.529	-12.852	47.380	AVERAGE
7		0.552	9.717	31.910	41.627	-14.373	56.000	QUASIPEAK
8		0.552	9.717	21.570	31.287	-14.713	46.000	AVERAGE
9		0.740	9.743	25.350	35.093	-20.907	56.000	QUASIPEAK
10		0.740	9.743	15.200	24.943	-21.057	46.000	AVERAGE
11		11.931	10.259	25.590	35.849	-24.151	60.000	QUASIPEAK
12		11.931	10.259	19.590	29.849	-20.151	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

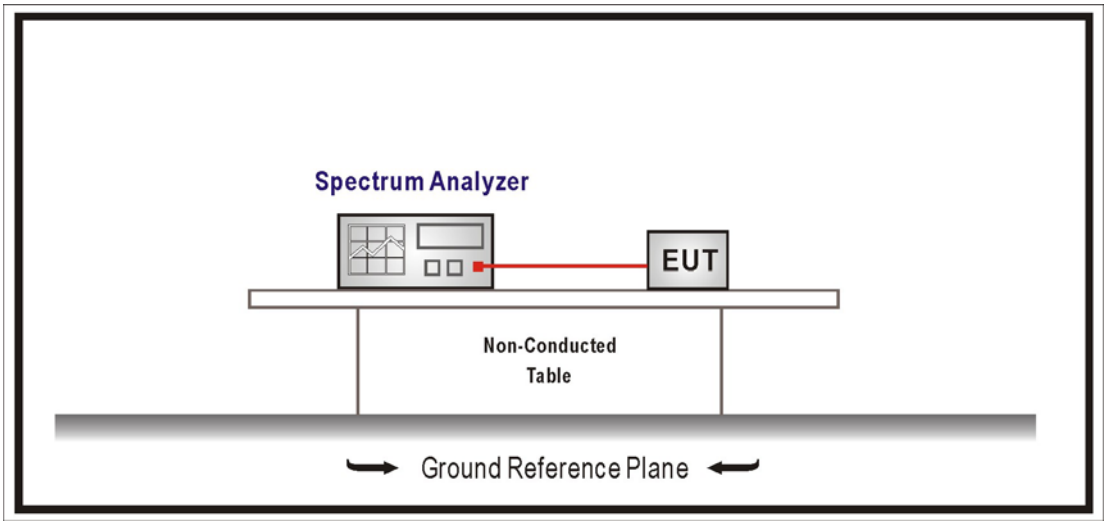
The following test equipments are used during the radiated emission tests:

99% & 26dB Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

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

3.2. Test Setup



3.3. Limits

No Required

3.4. Test Procedure

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

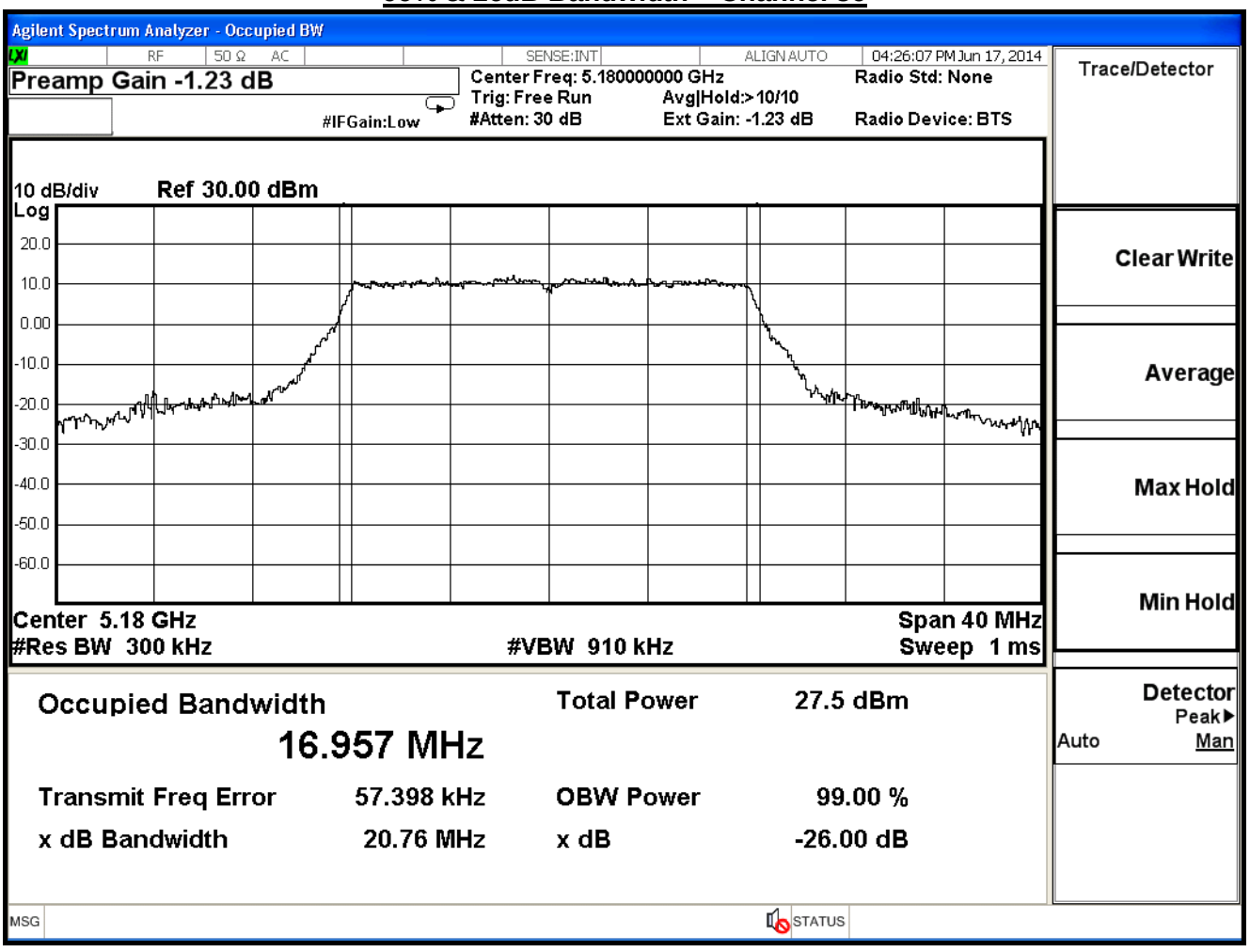
The measurement uncertainty is defined as ±150Hz

3.6. Test Result

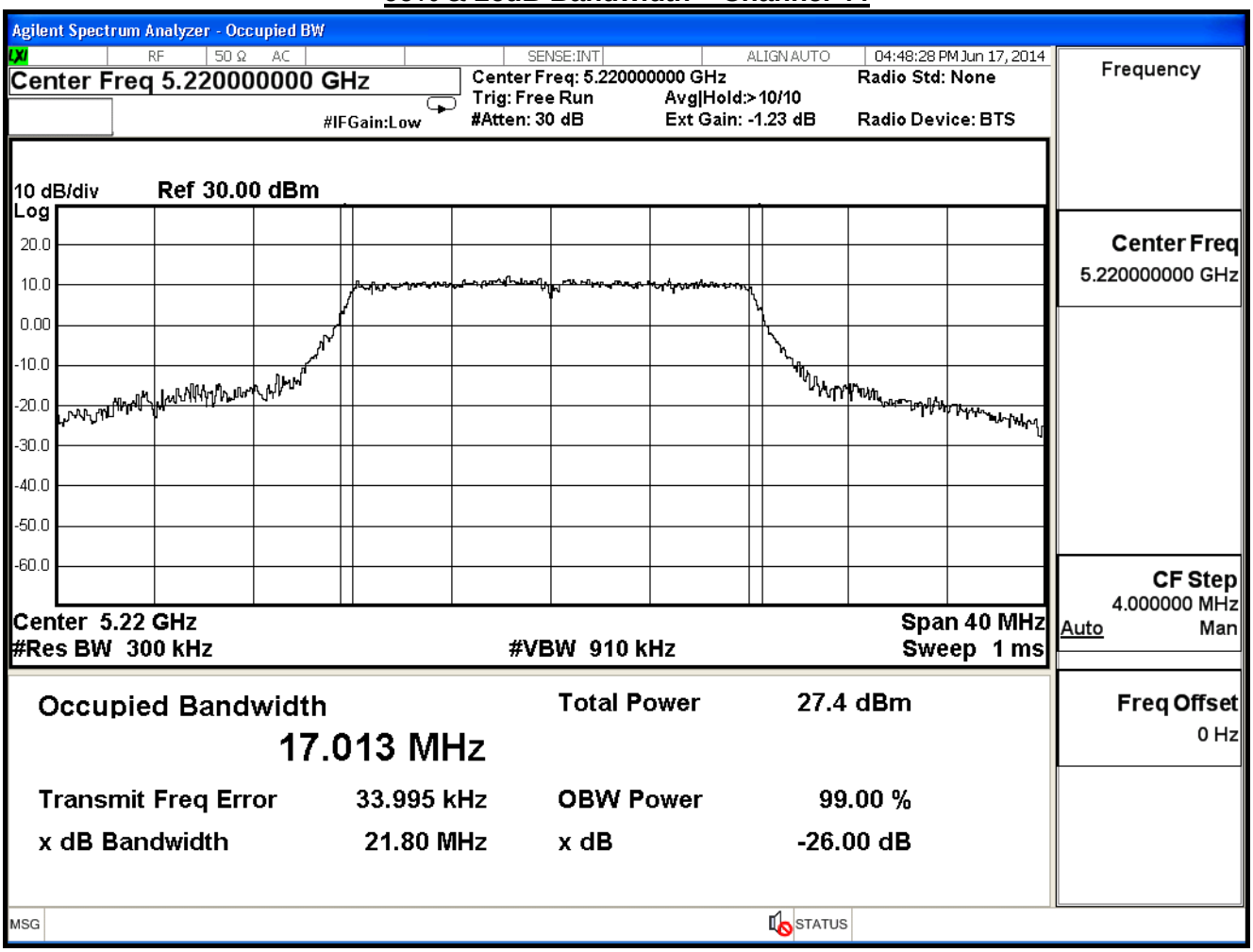
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11a (ANT 0)					
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
36	5180	20.76	16.957	--	PASS
44	5220	21.80	17.013	--	PASS
48	5240	20.18	16.886	--	PASS

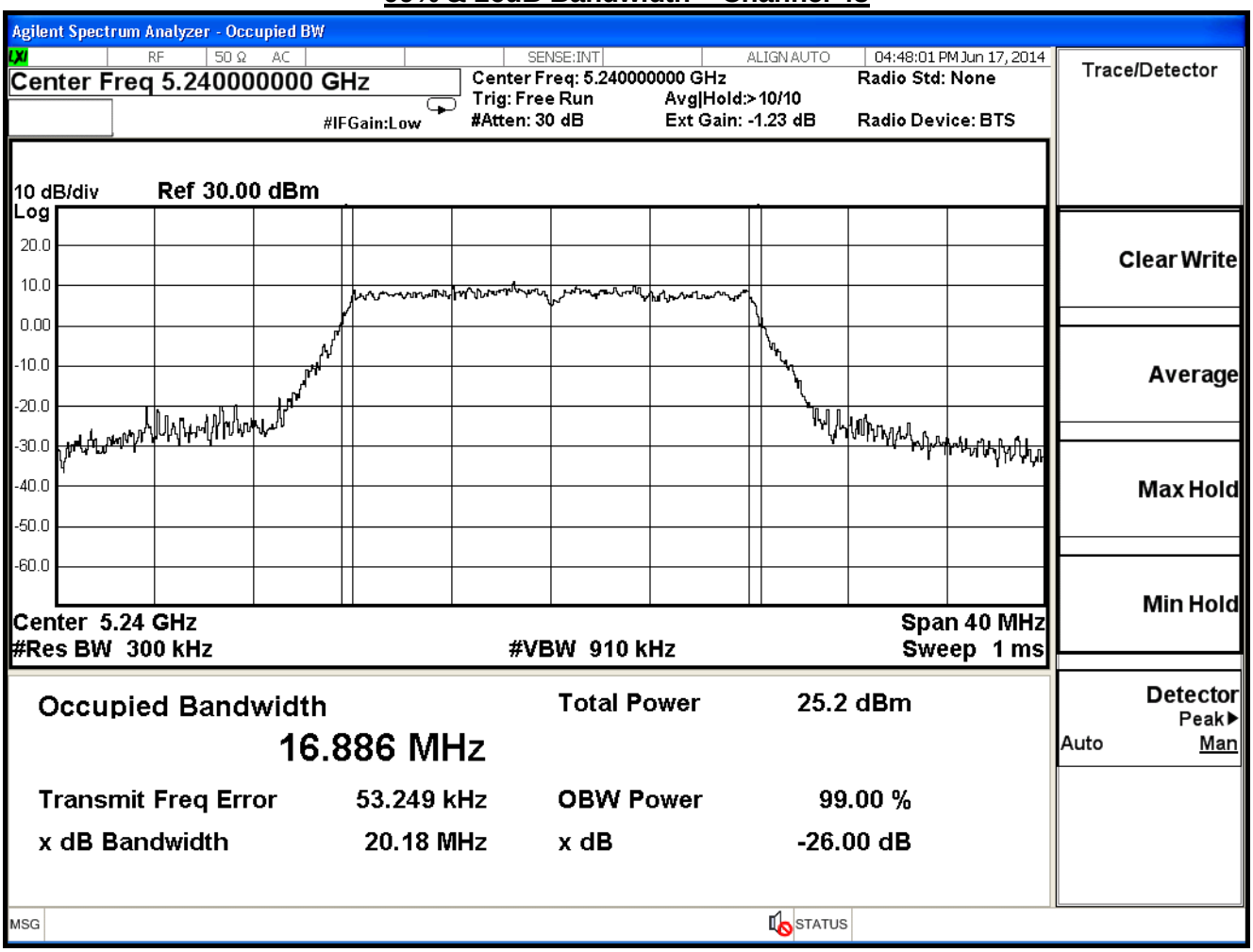
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



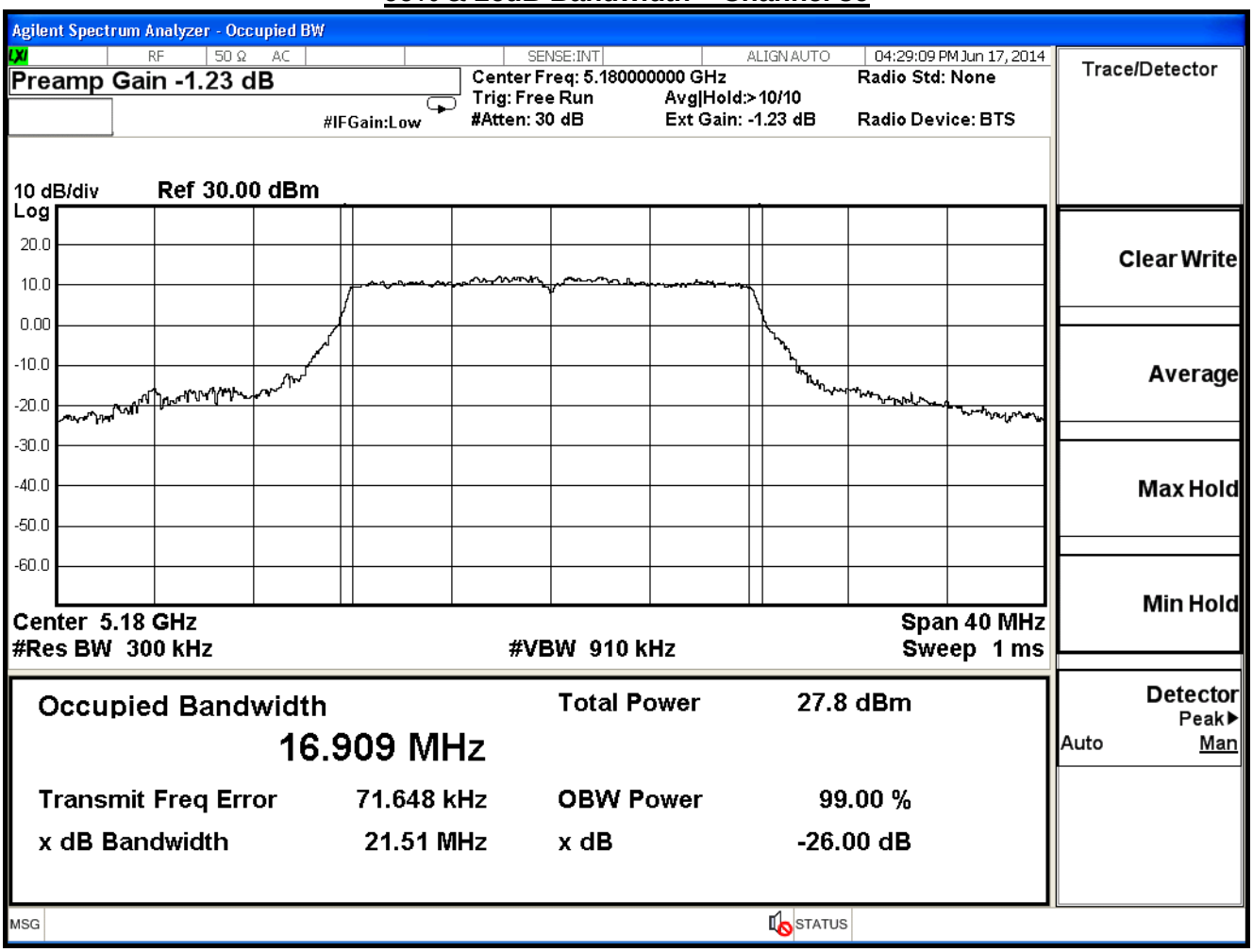
99% & 26dB Bandwidth – Channel 48



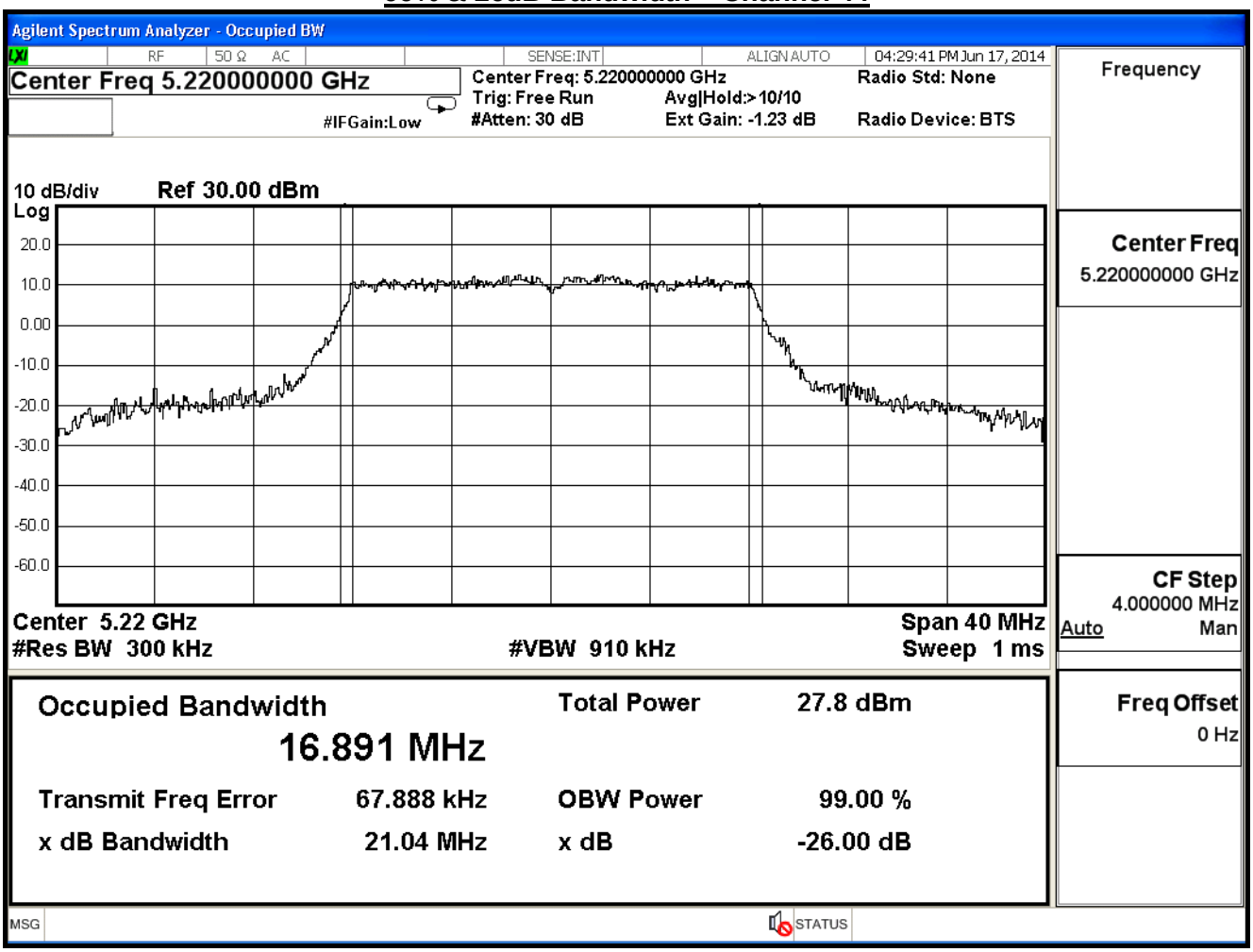
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11a (ANT 1)					
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
36	5180	21.51	16.909	--	PASS
44	5220	21.04	16.891	--	PASS
48	5240	20.20	16.835	--	PASS

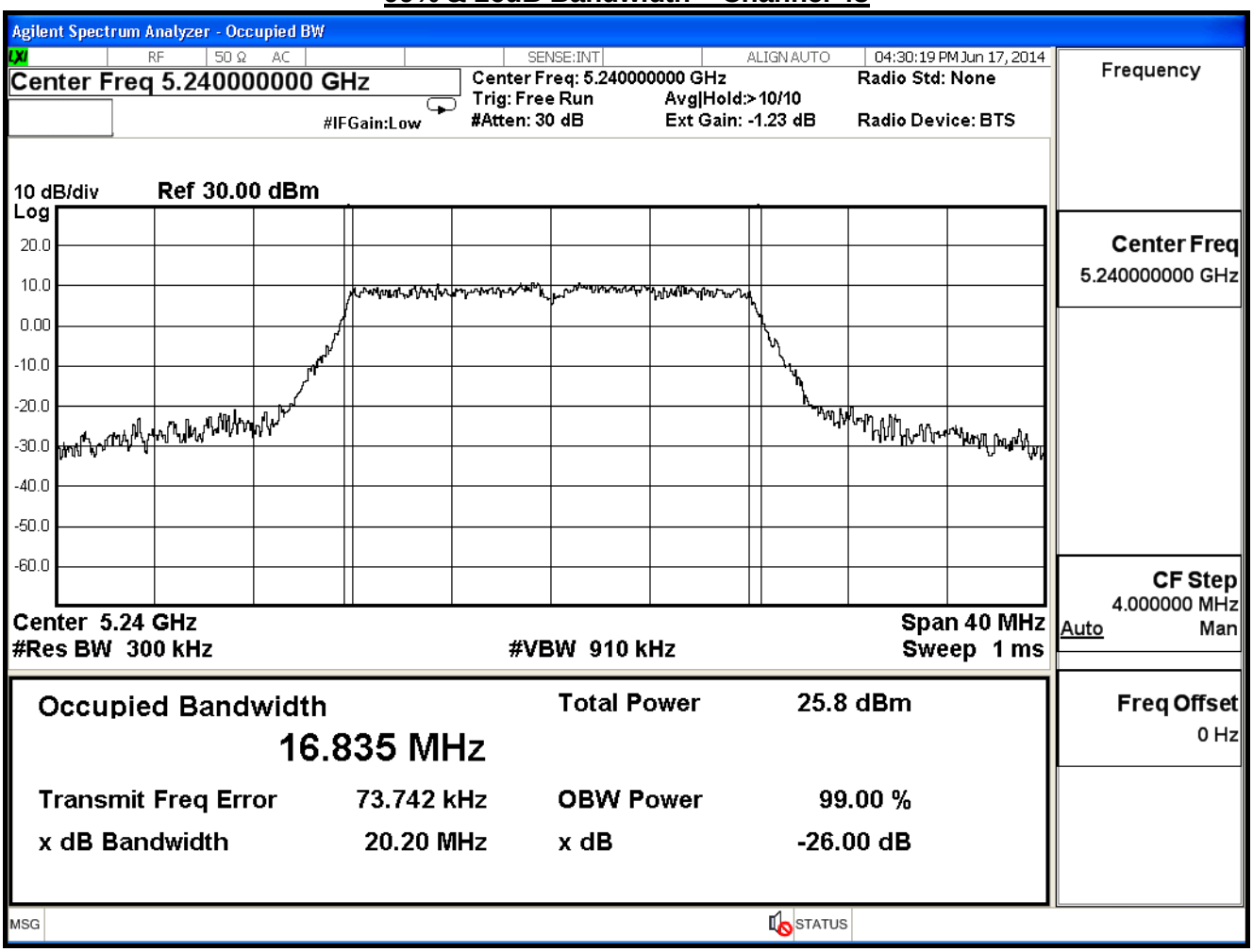
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



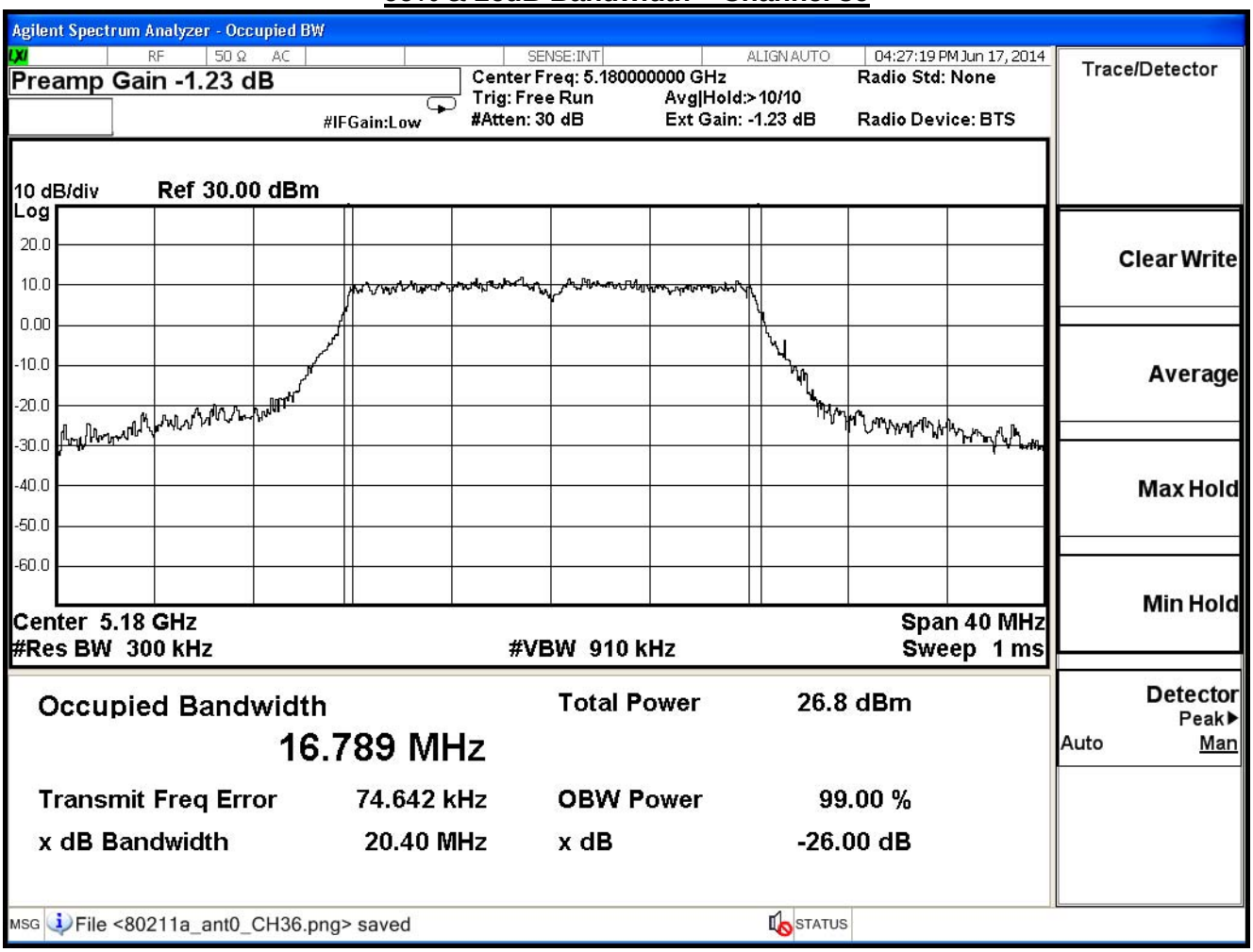
99% & 26dB Bandwidth – Channel 48



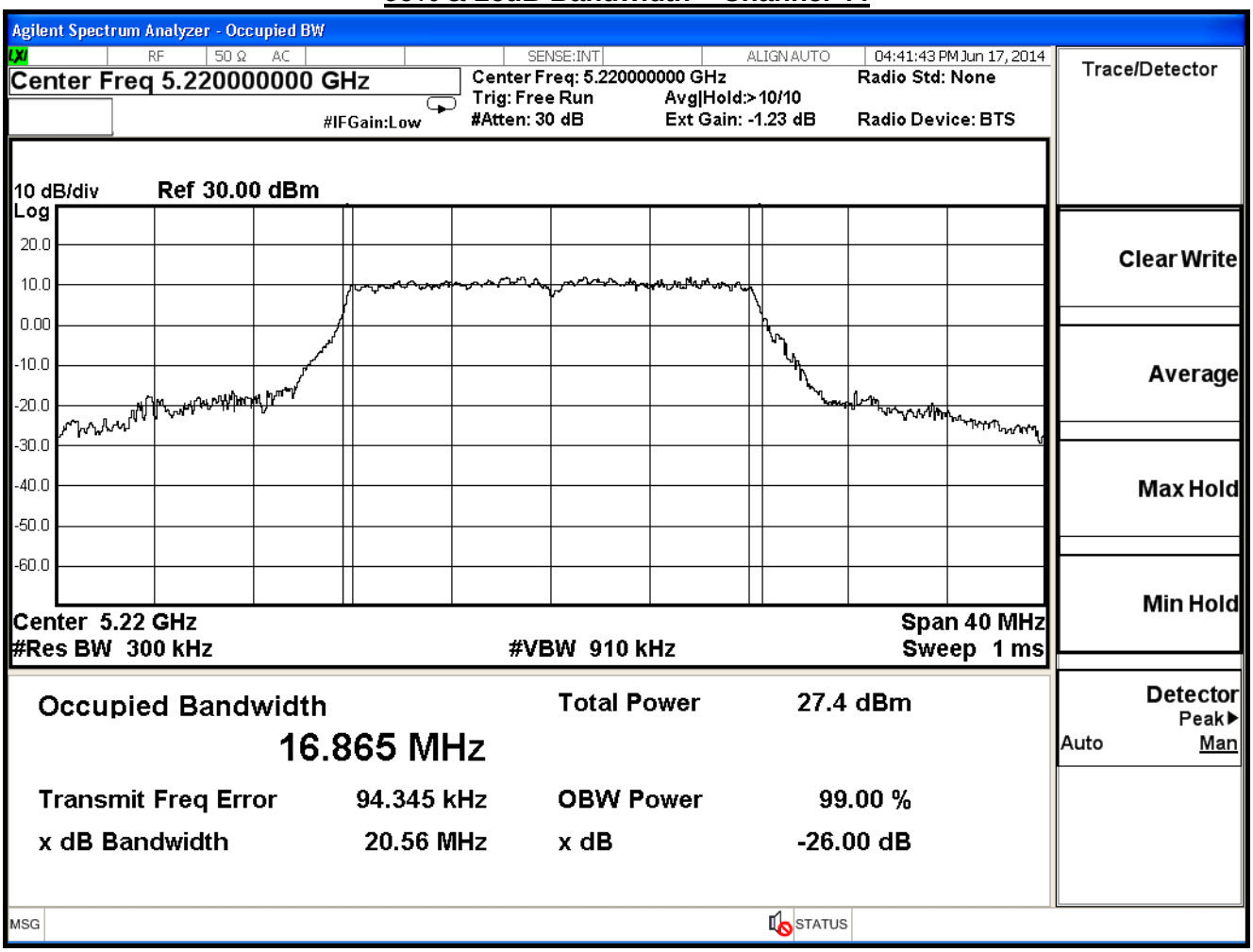
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11a (ANT 2)					
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
36	5180	20.40	16.789	--	PASS
44	5220	20.56	16.865	--	PASS
48	5240	20.25	16.793	--	PASS

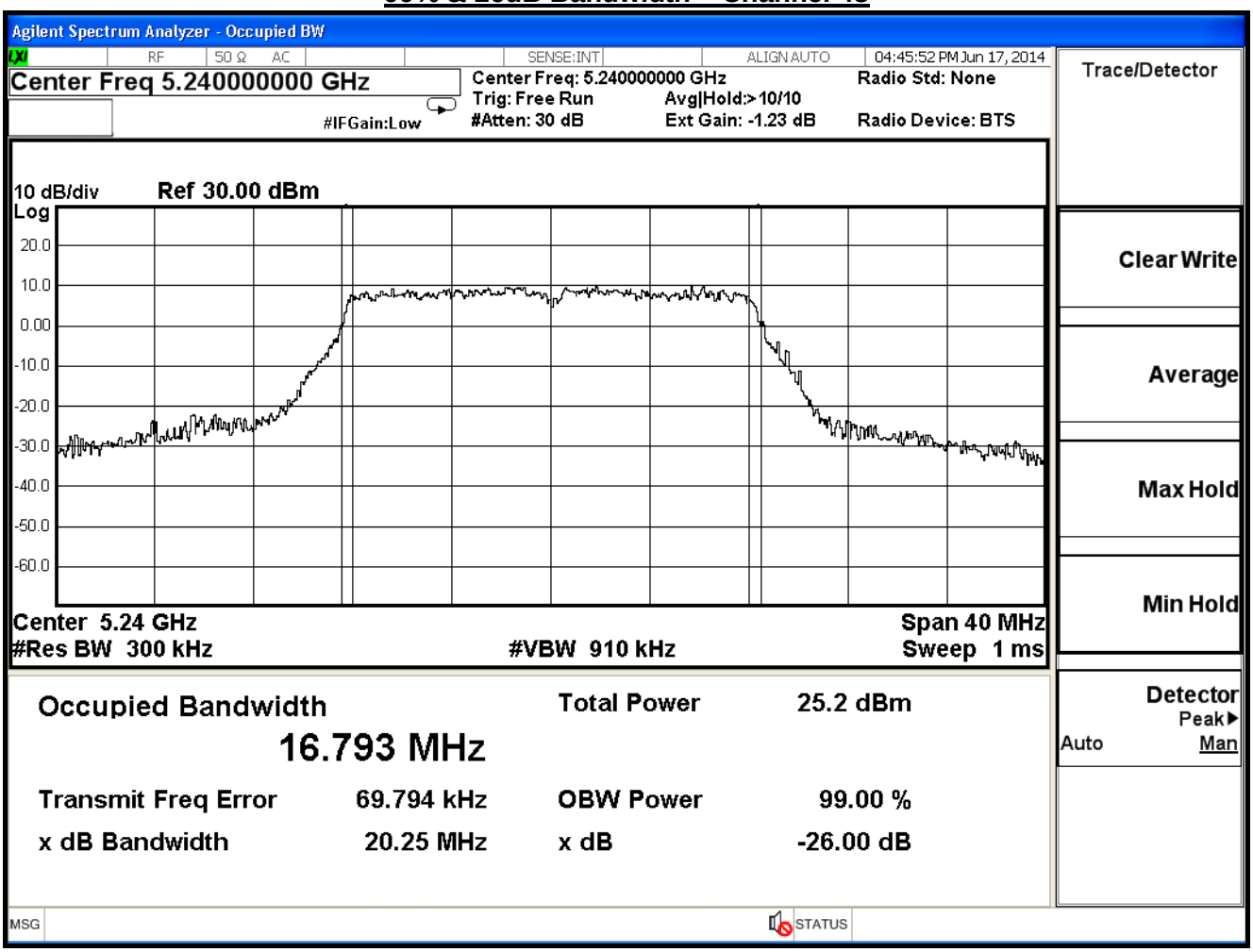
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



99% & 26dB Bandwidth – Channel 48

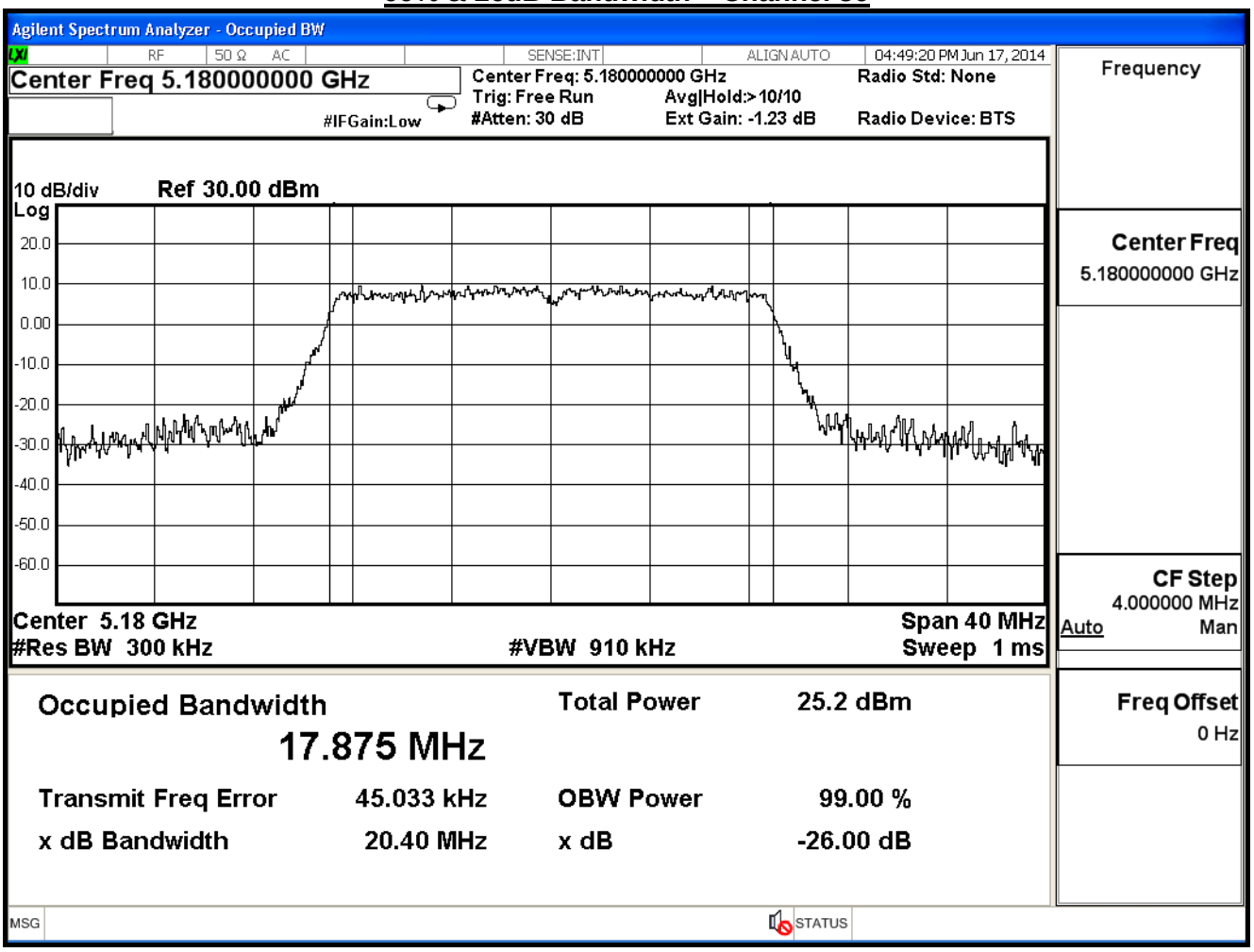


Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

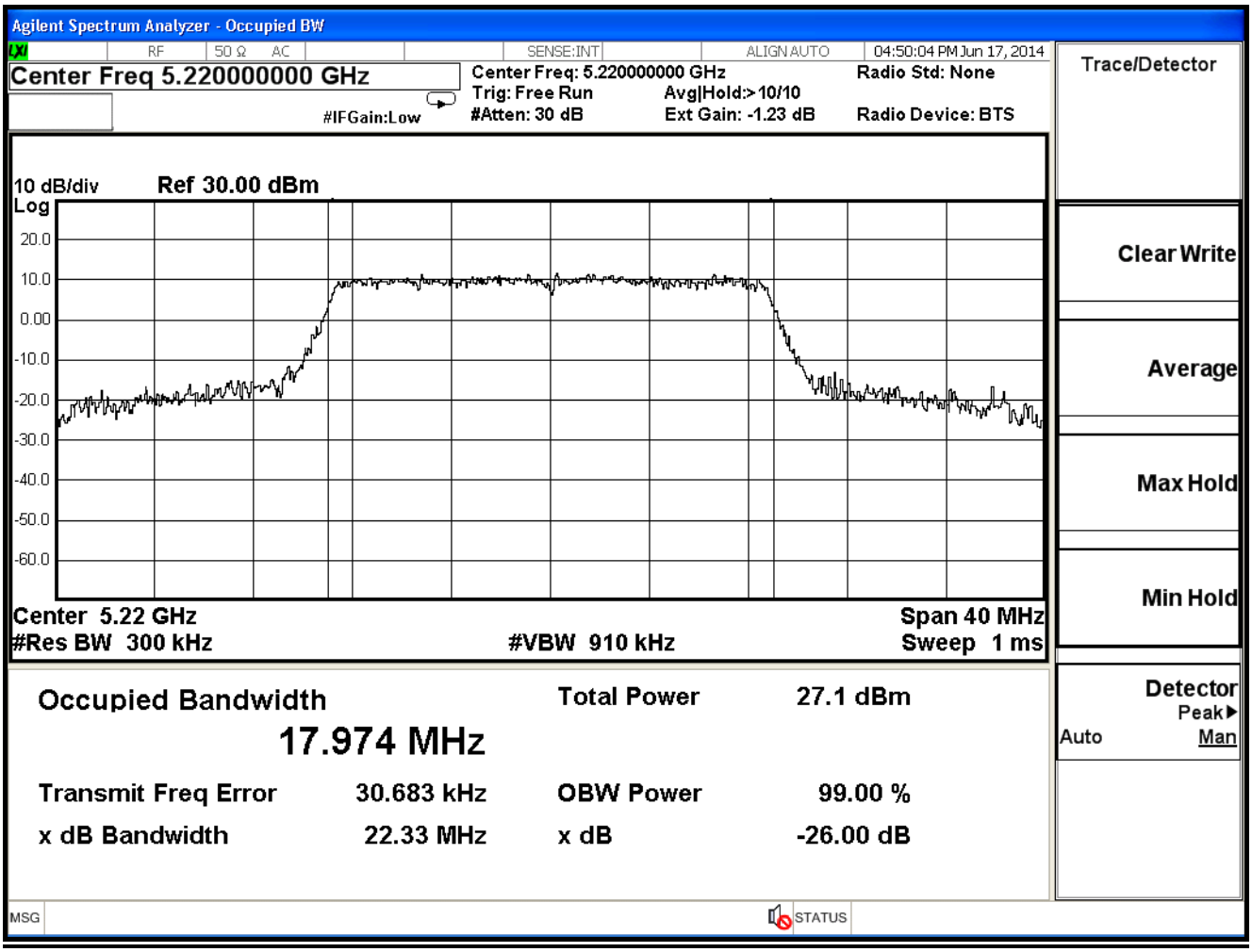
802.11n_20M(ANT 0)

Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
36	5180	20.40	17.875	--	PASS
44	5220	22.33	17.974	--	PASS
48	5240	22.10	18.009	--	PASS

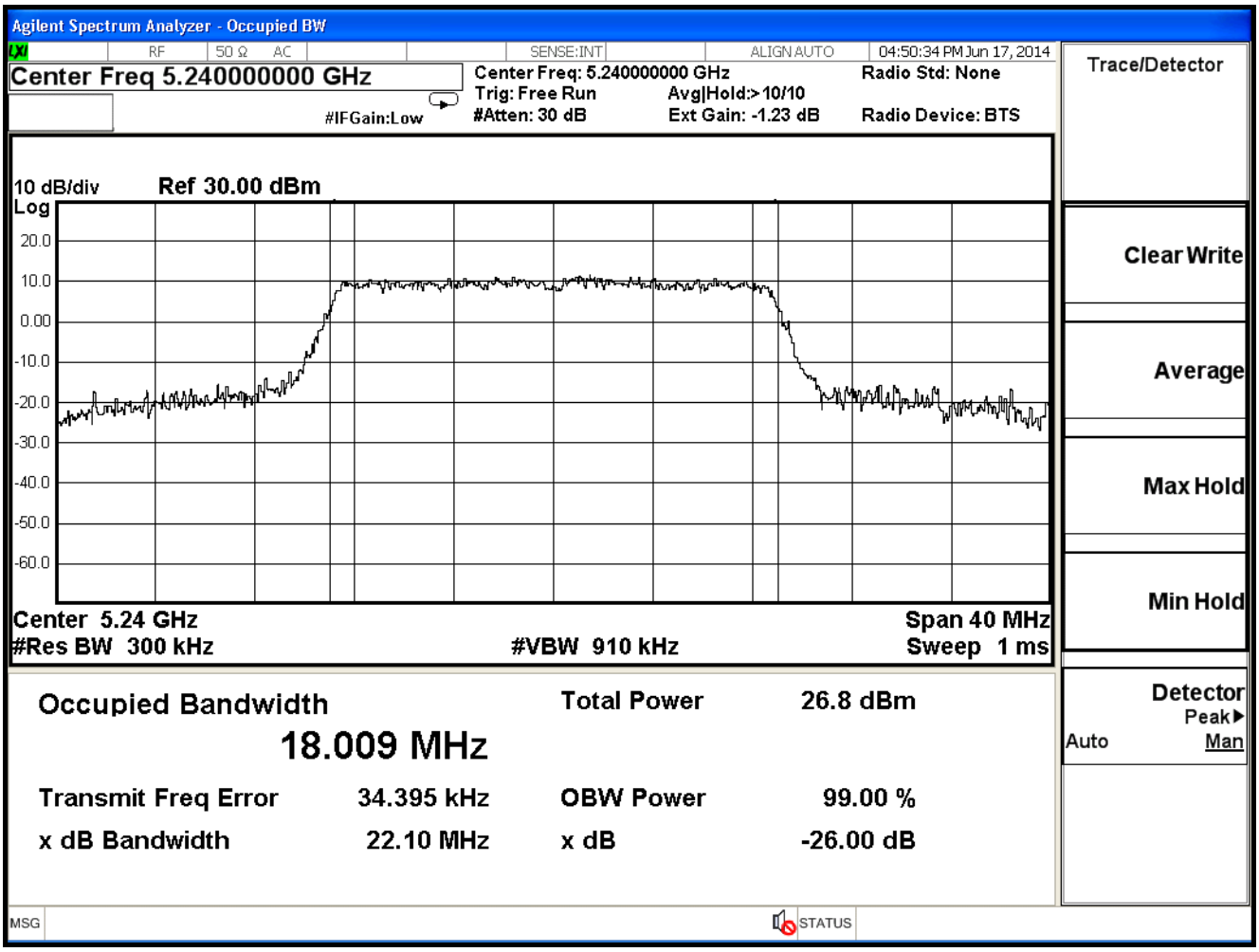
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



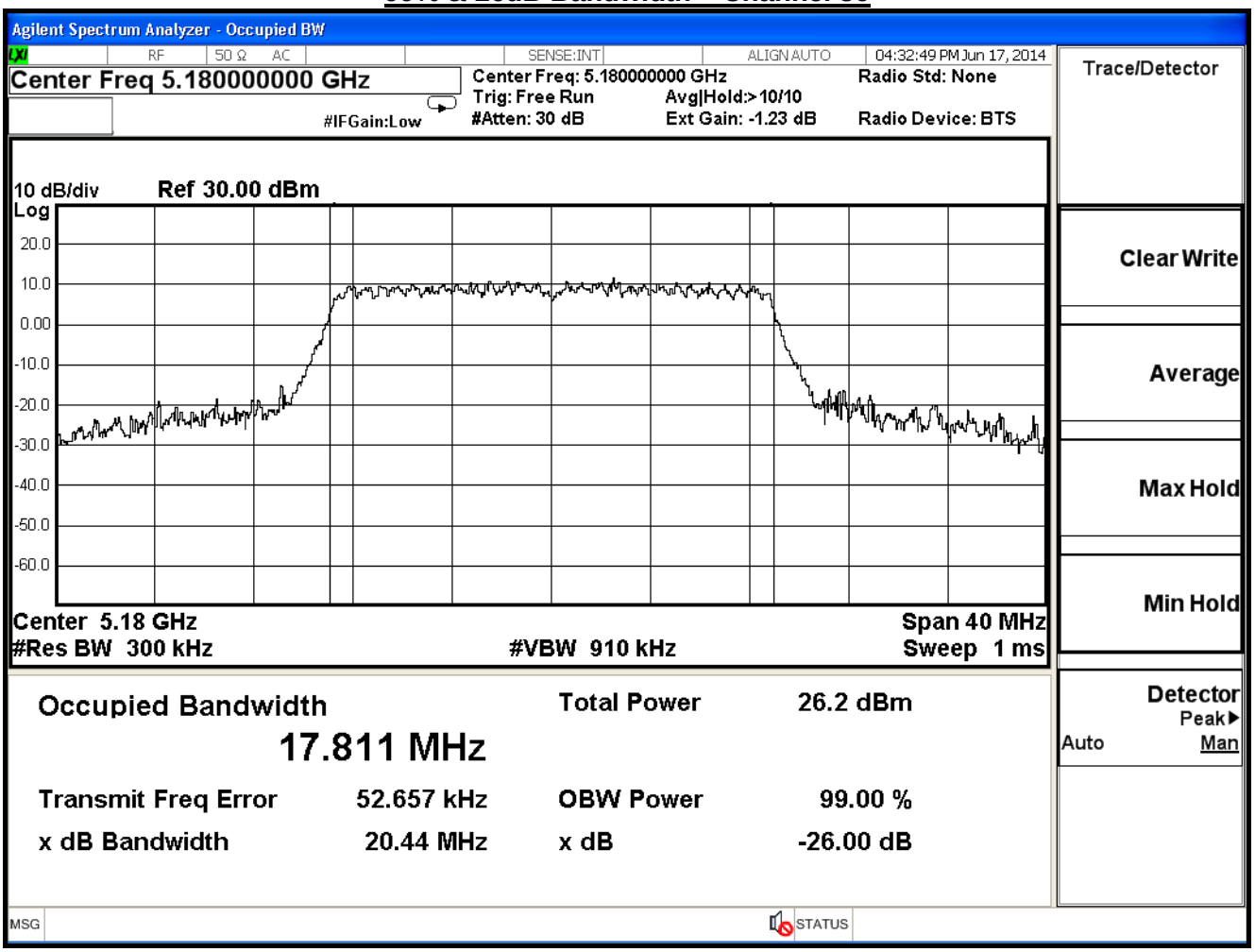
99% & 26dB Bandwidth – Channel 48



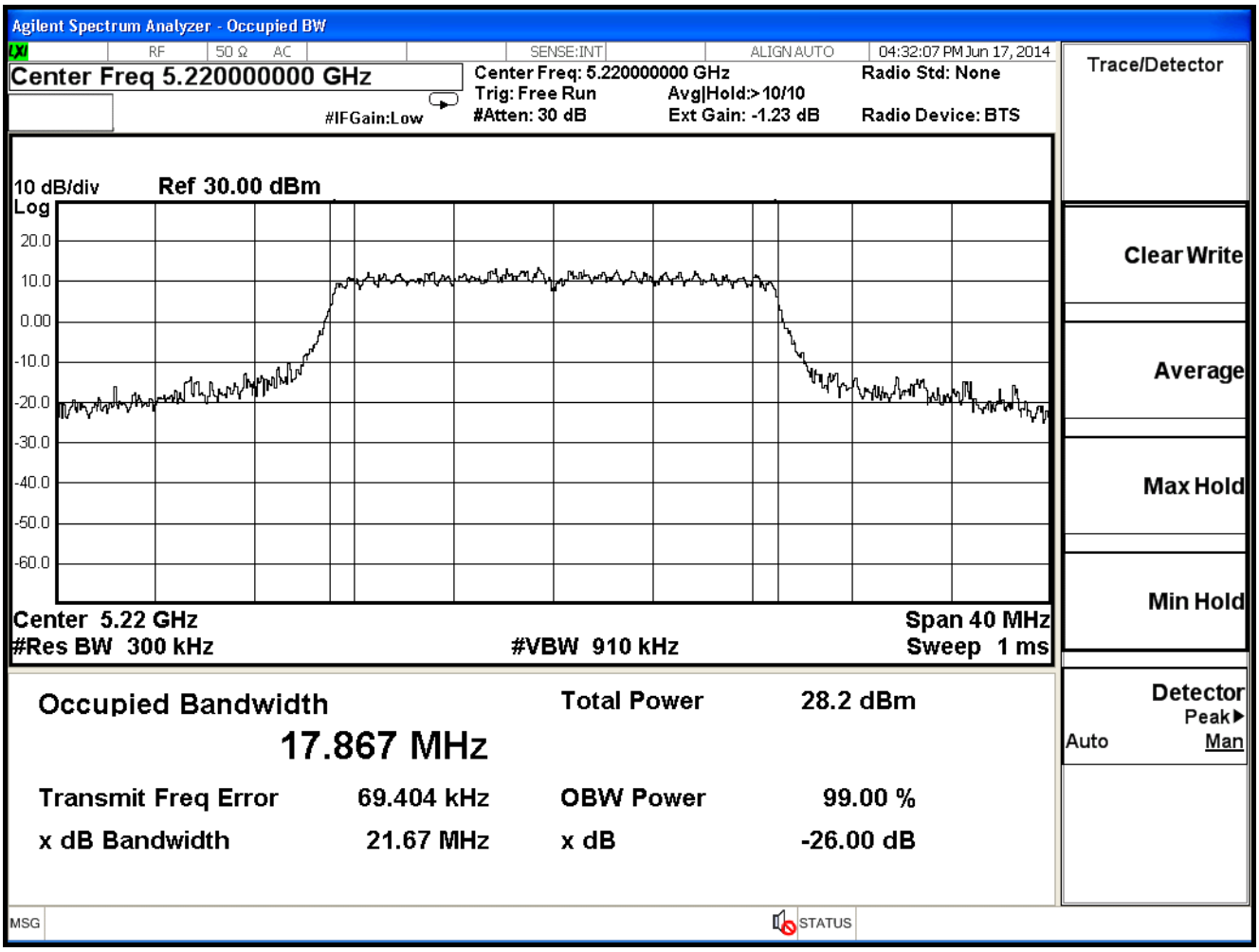
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11n_20M(ANT 1)					
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
36	5180	20.44	17.811	--	PASS
44	5220	21.67	17.867	--	PASS
48	5240	25.99	17.898	--	PASS

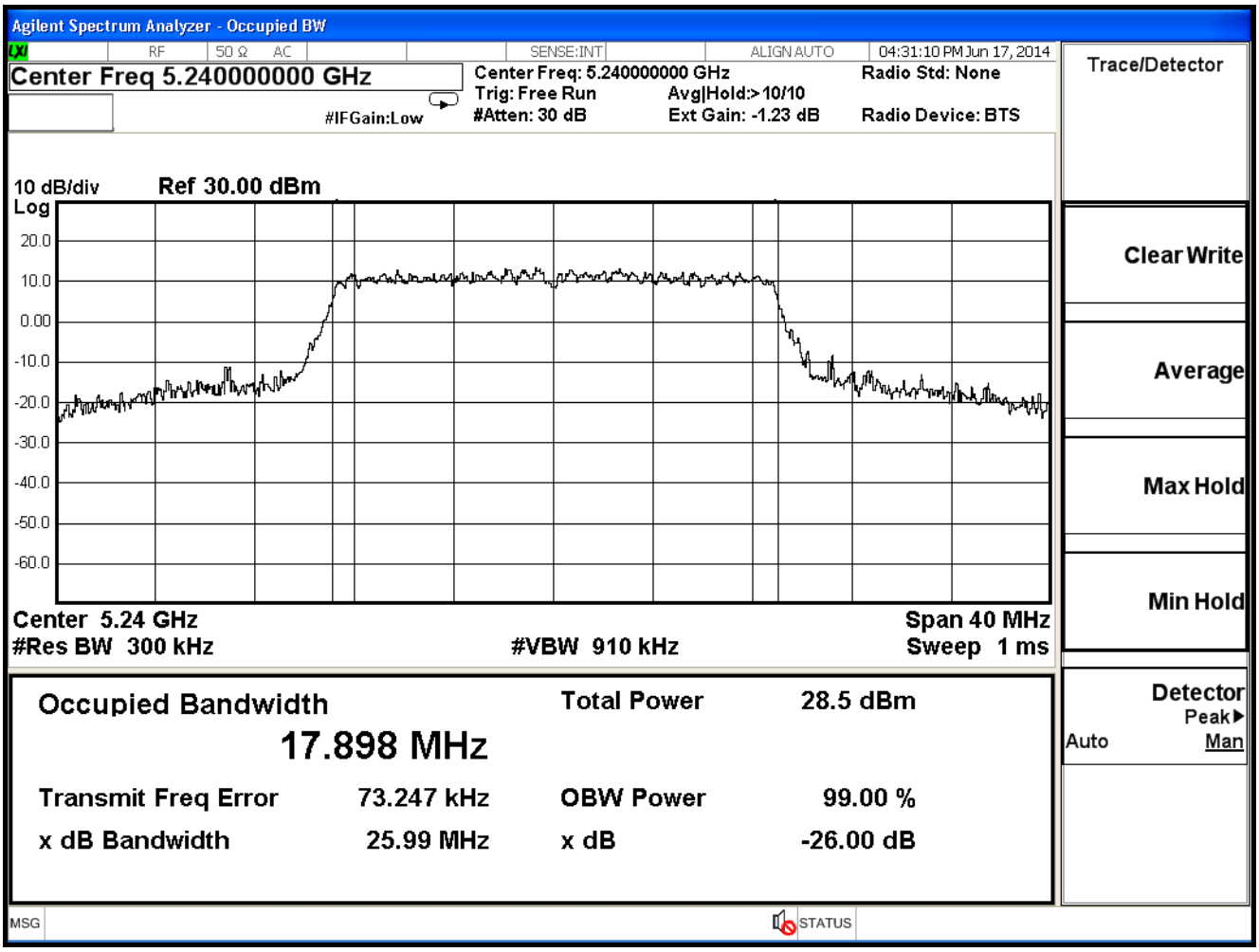
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



99% & 26dB Bandwidth – Channel 48

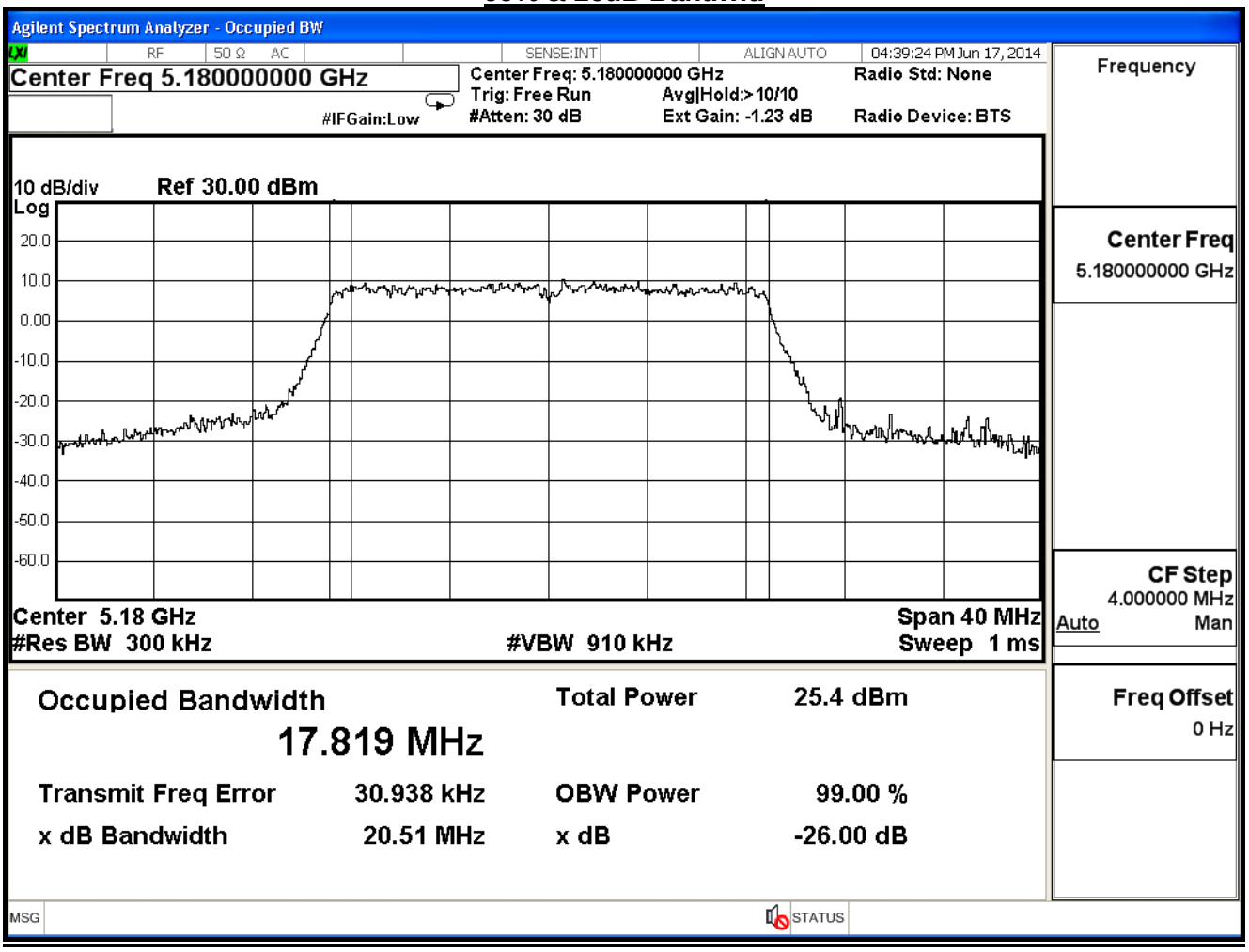


Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

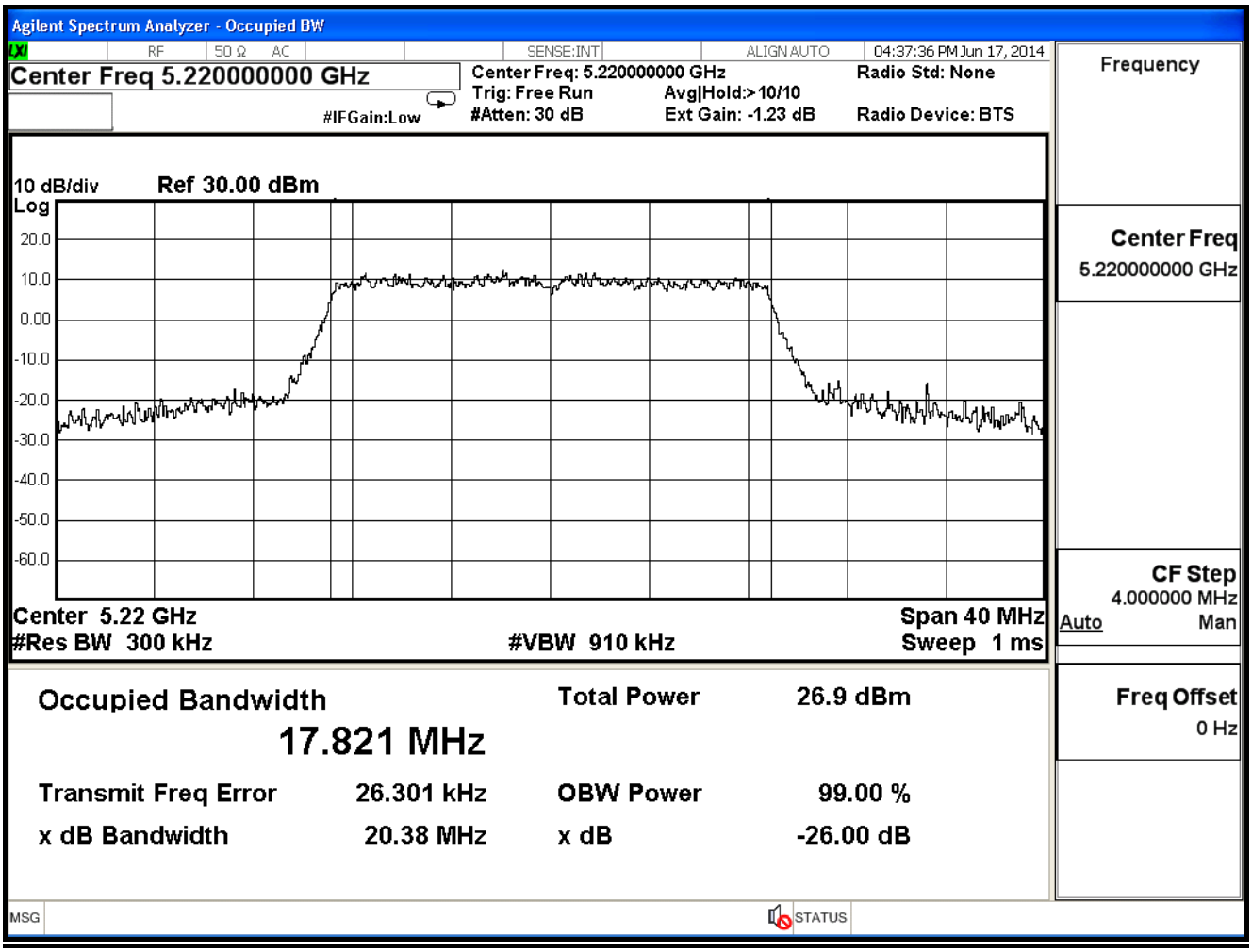
802.11n_20M(ANT 2)

Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
36	5180	20.51	17.819	--	PASS
44	5220	20.38	17.821	--	PASS
48	5240	20.44	17.823	--	PASS

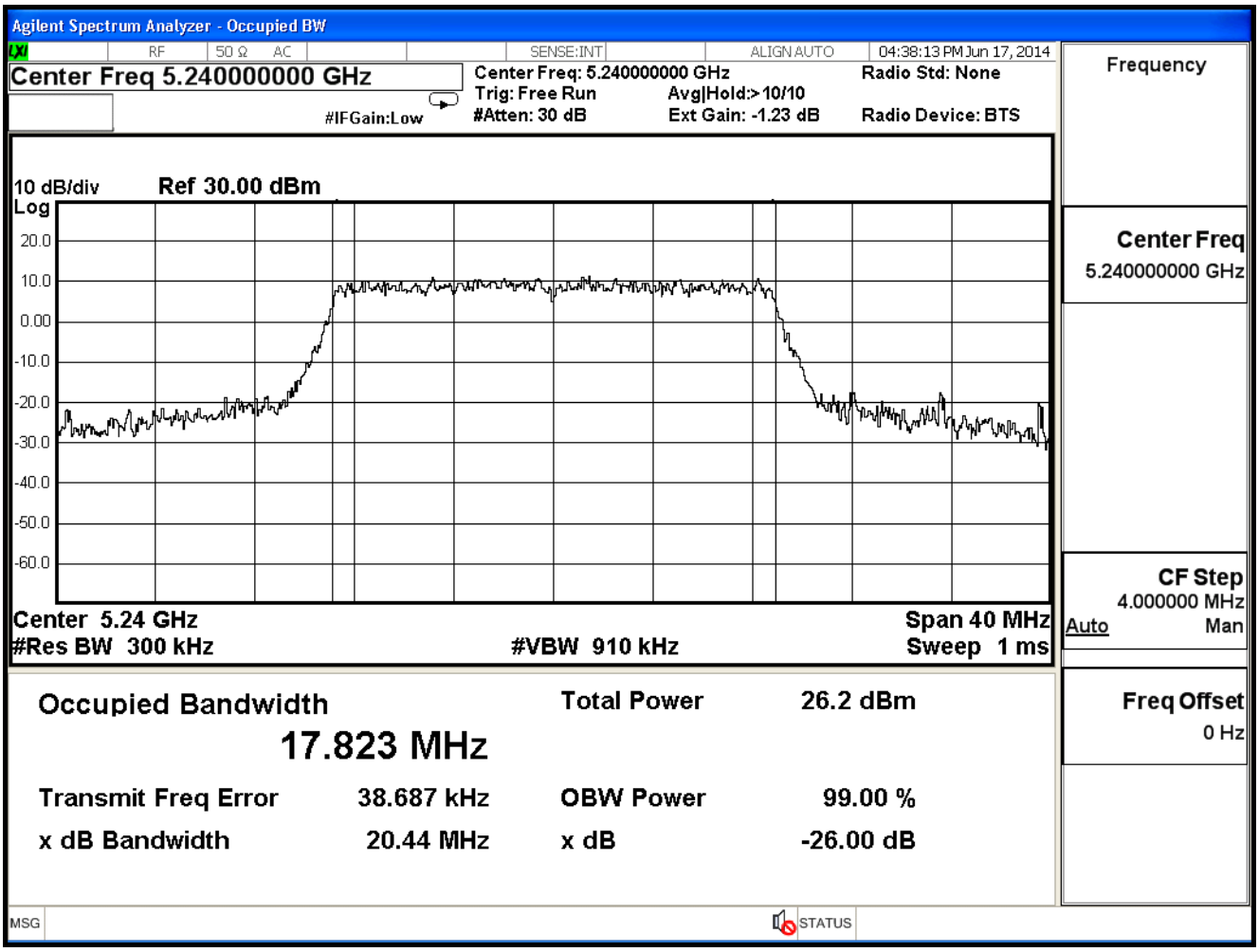
99% & 26dB Bandwid



99% & 26dB Bandwidth – Channel 44



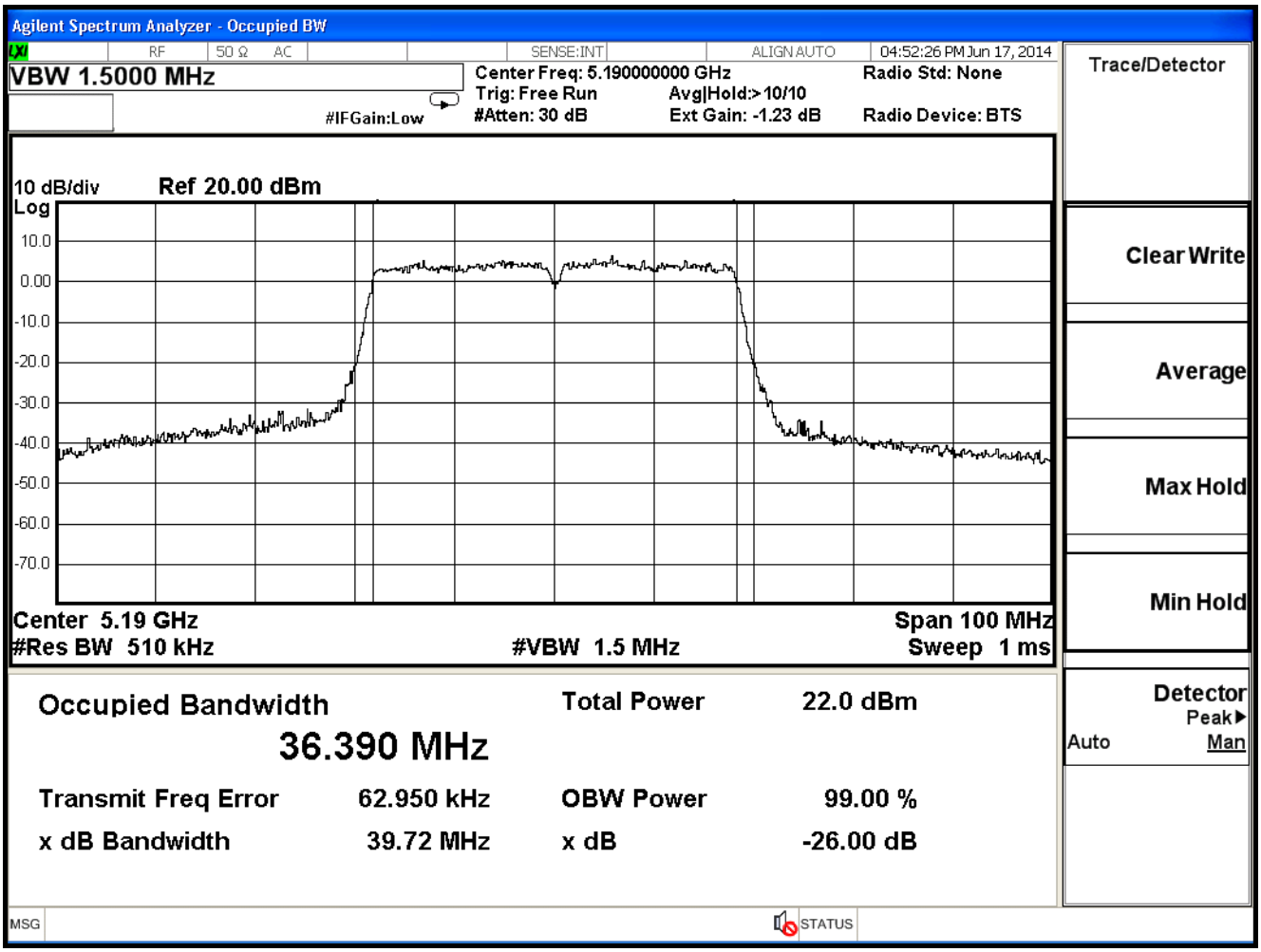
99% & 26dB Bandwidth – Channel 48



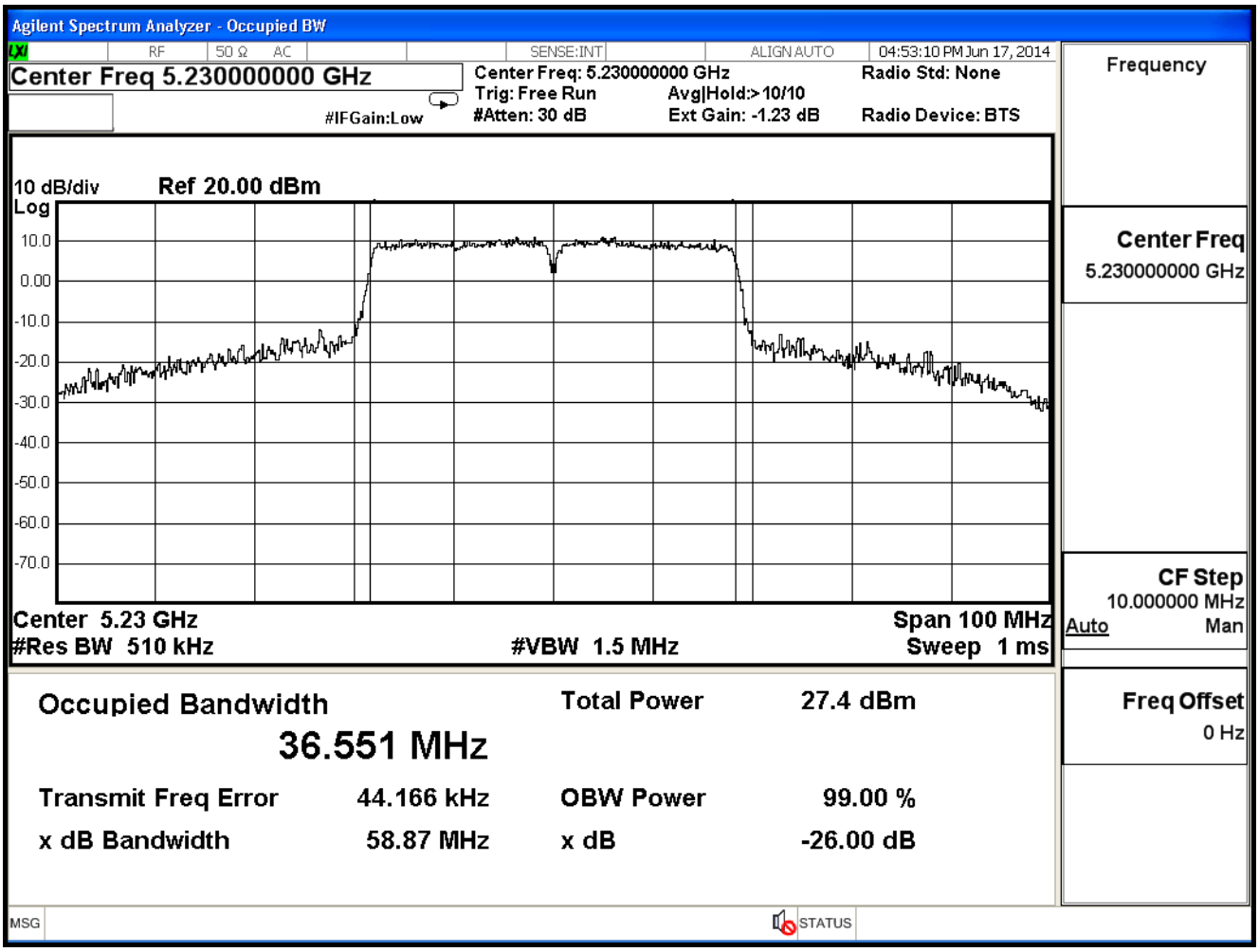
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11n_40M(ANT 0)					
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
38	5190	39.72	36.390	--	PASS
46	5230	58.87	36.551	--	PASS

99% & 26dB Bandwidth – Channel 38



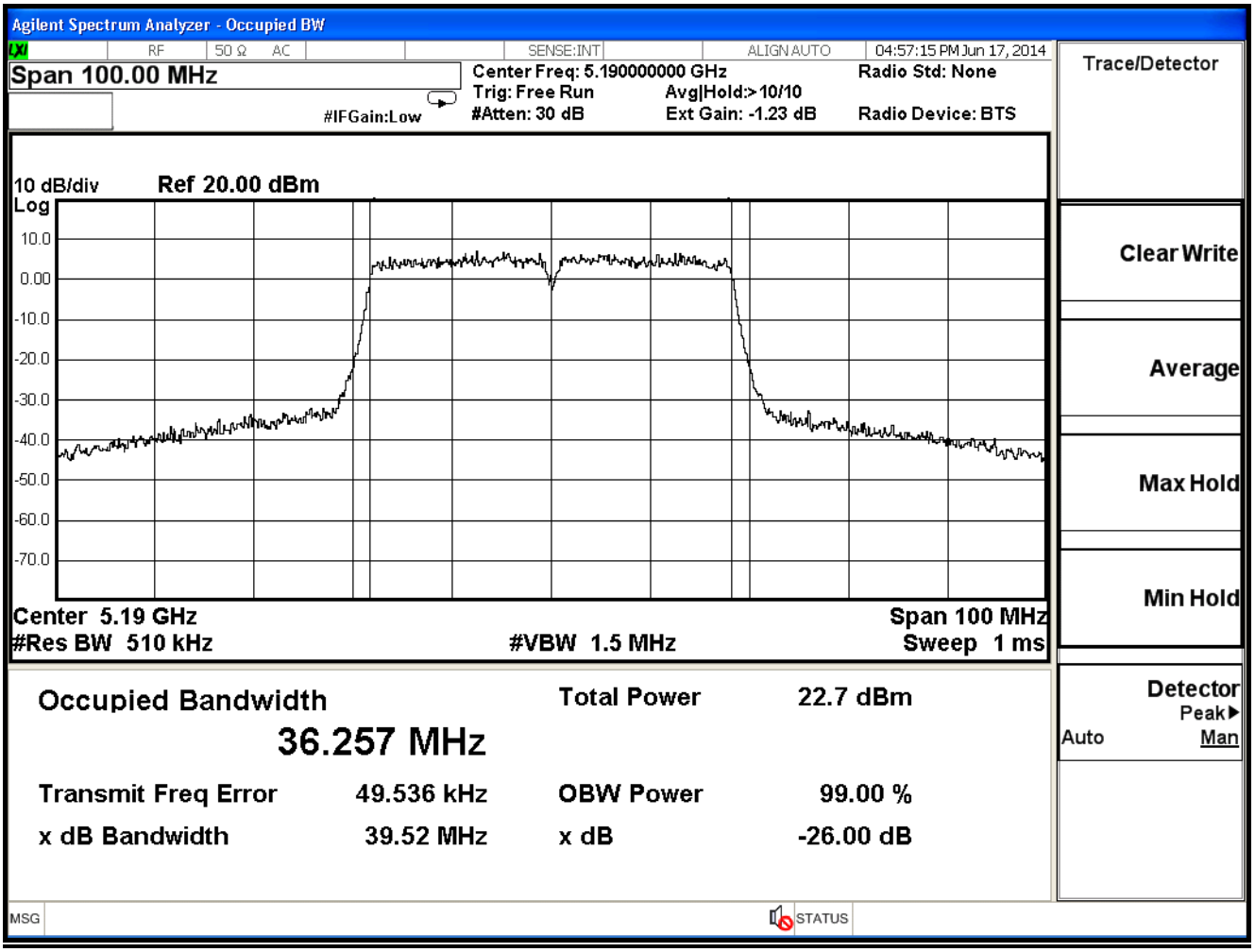
99% & 26dB Bandwidth – Channel 46



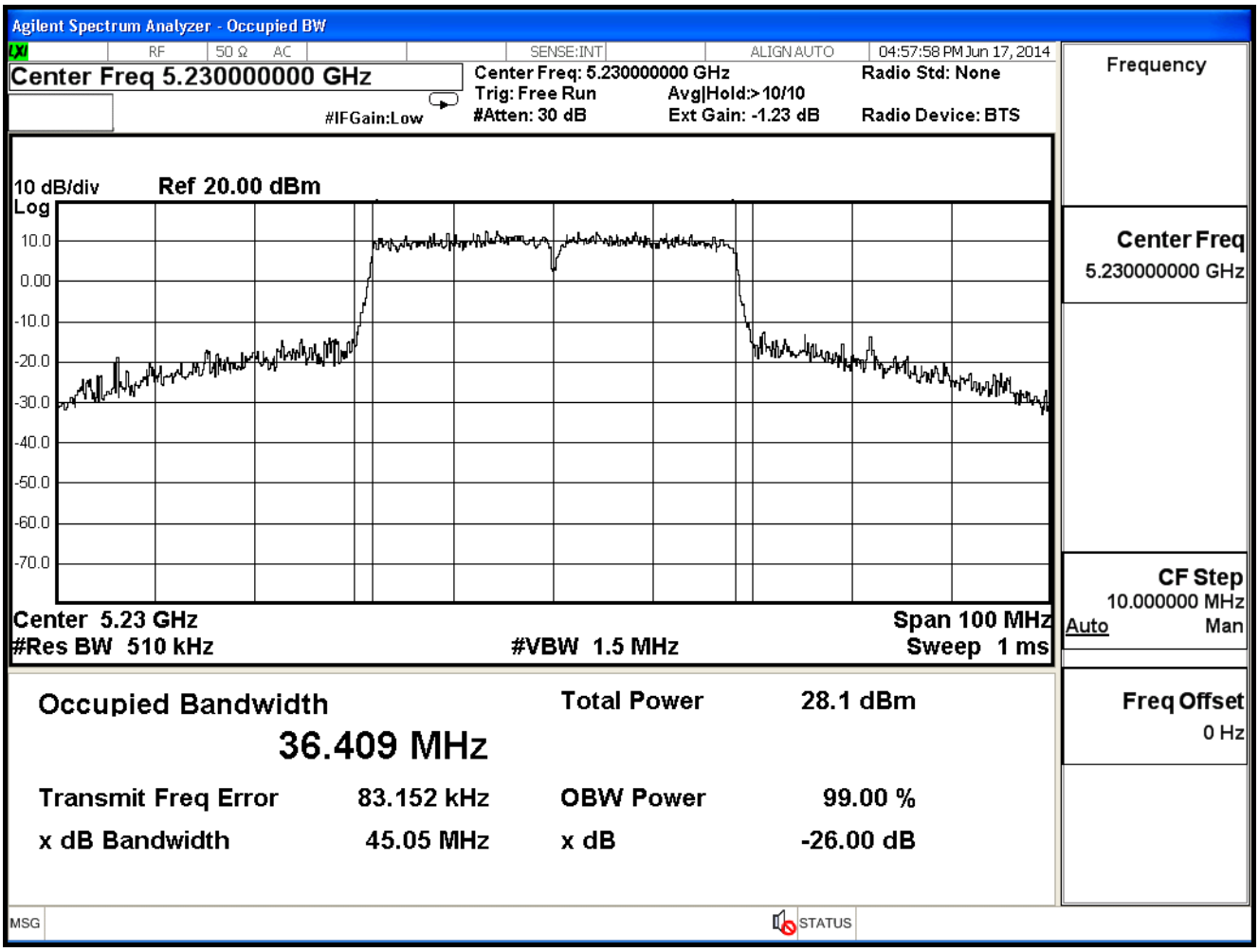
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11n_40M(ANT 1)					
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
38	5190	39.52	36.257	--	PASS
46	5230	45.05	36.409	--	PASS

99% & 26dB Bandwidth – Channel 38



99% & 26dB Bandwidth – Channel 46

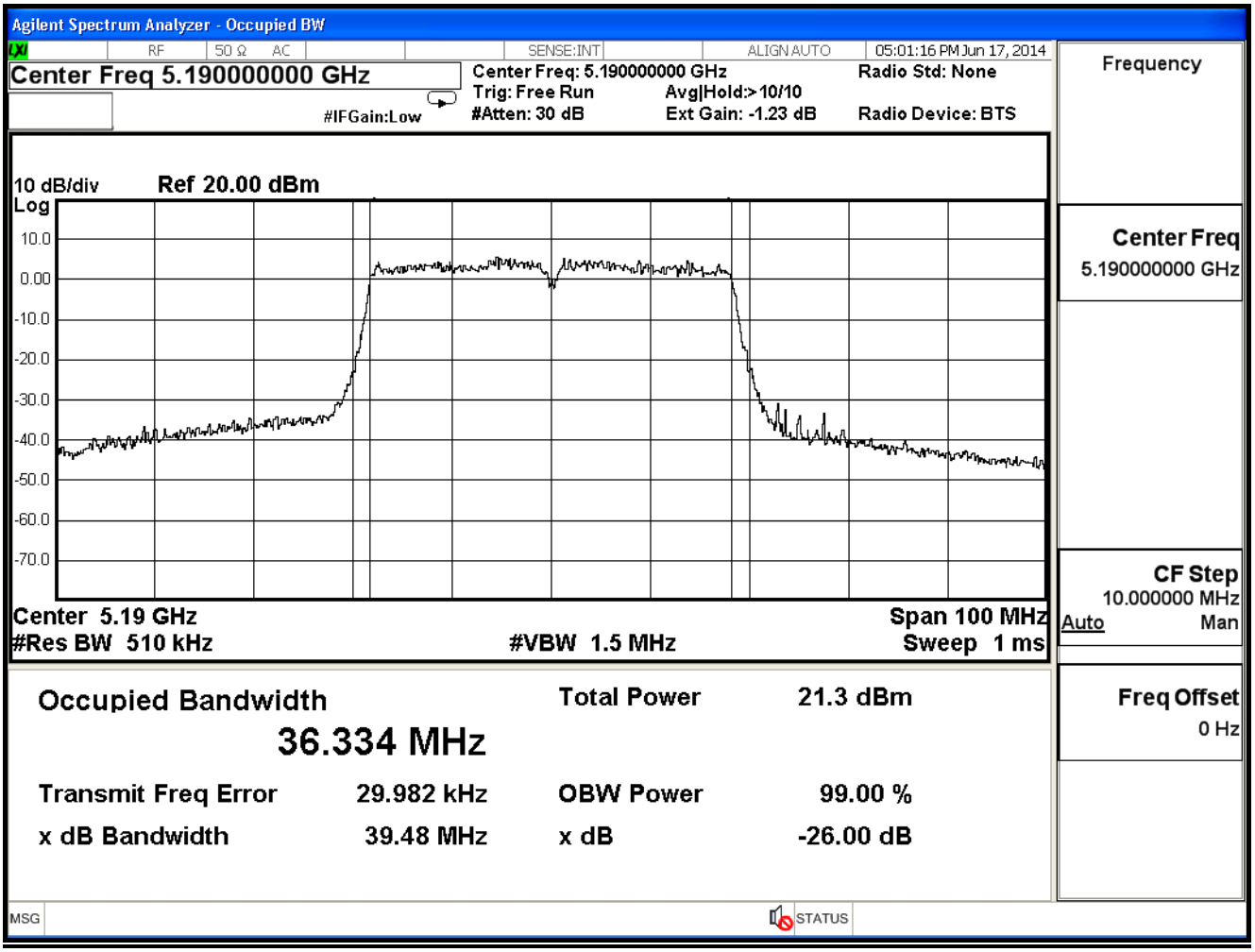


Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

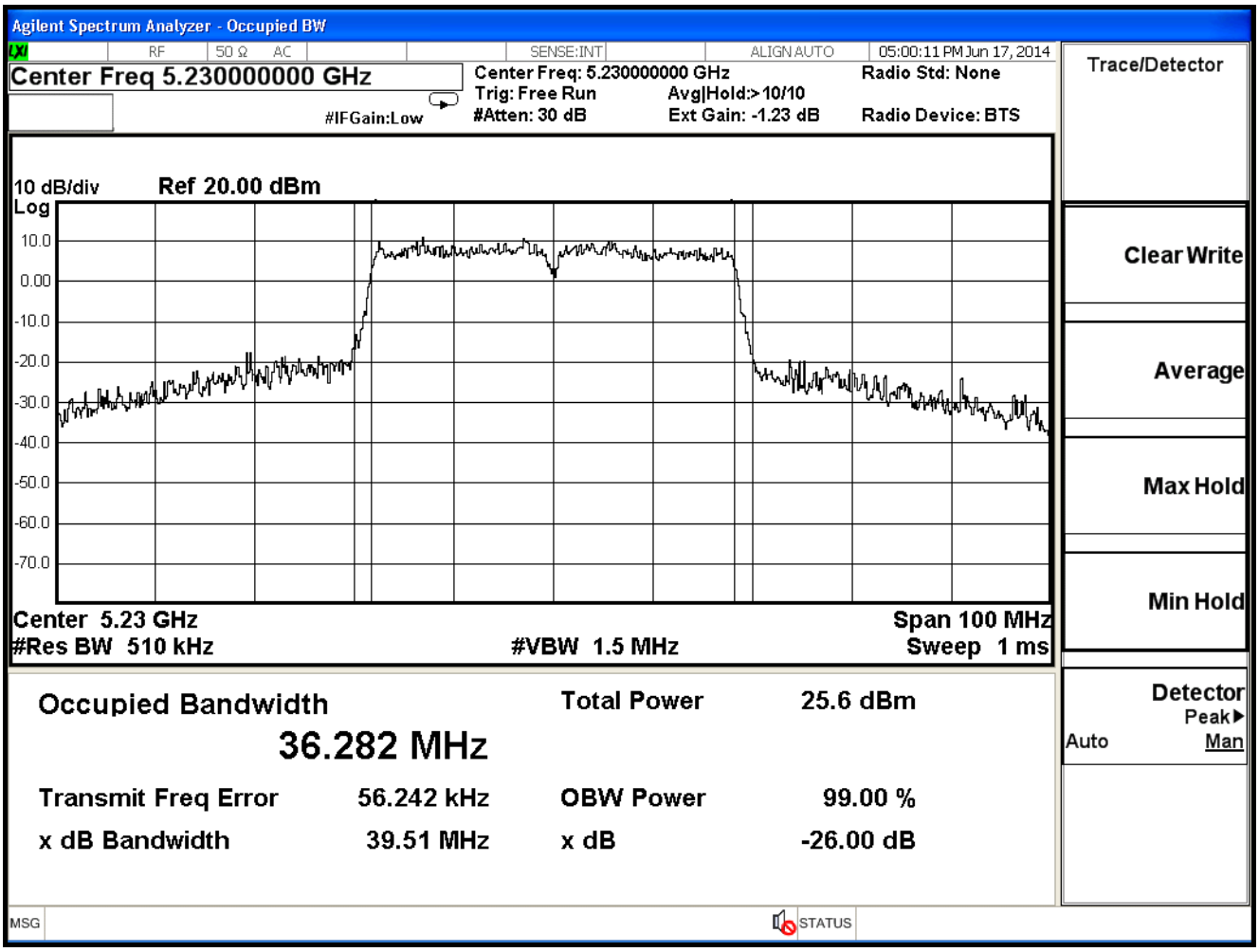
802.11n_40M(ANT 2)

Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
38	5190	39.48	36.334	--	PASS
46	5230	39.51	36.282	--	PASS

99% & 26dB Bandwidth – Channel 38



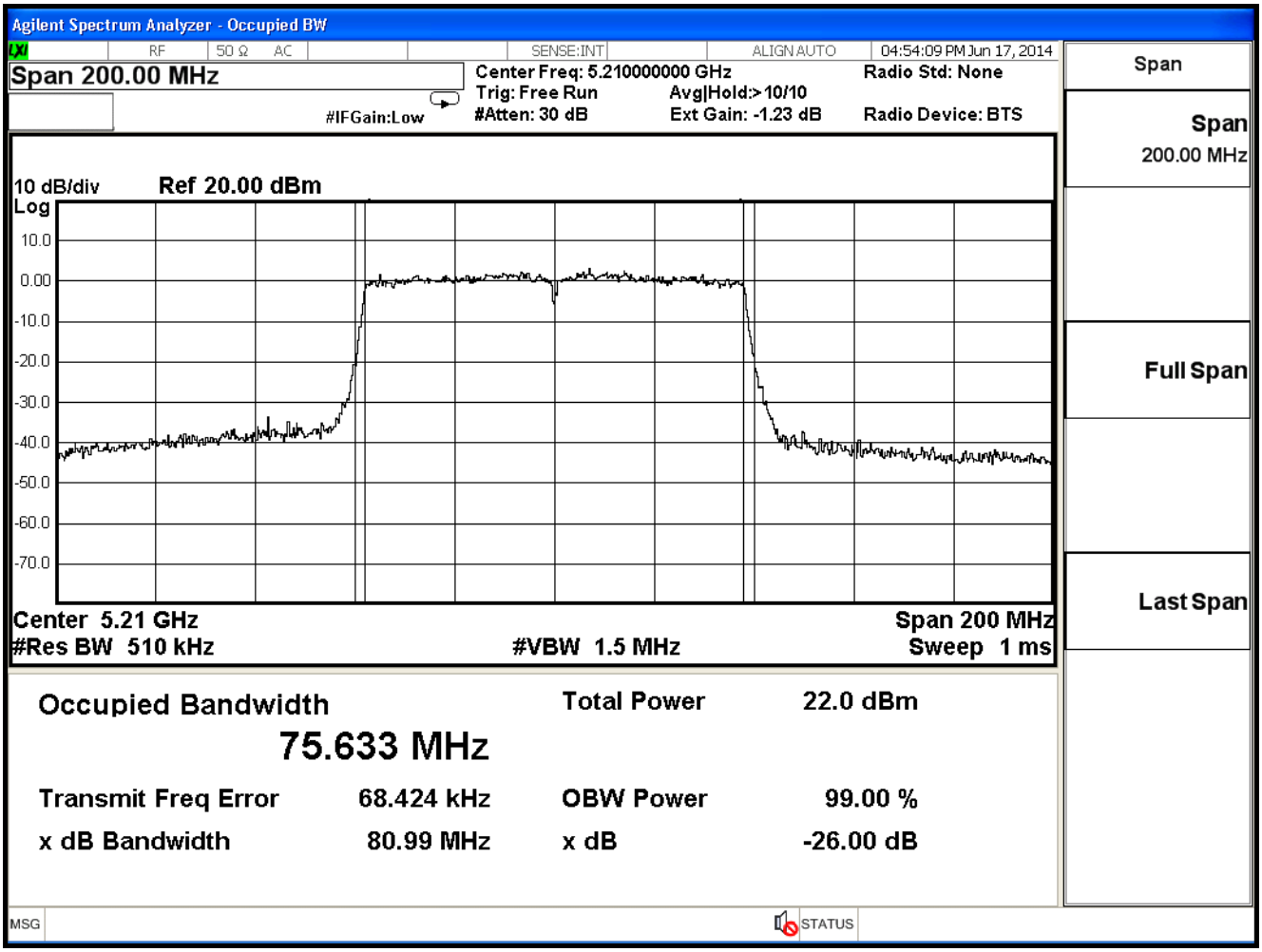
99% & 26dB Bandwidth – Channel 46



Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11ac_80M(ANT 0)					
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
42	5210	80.99	75.633	--	PASS

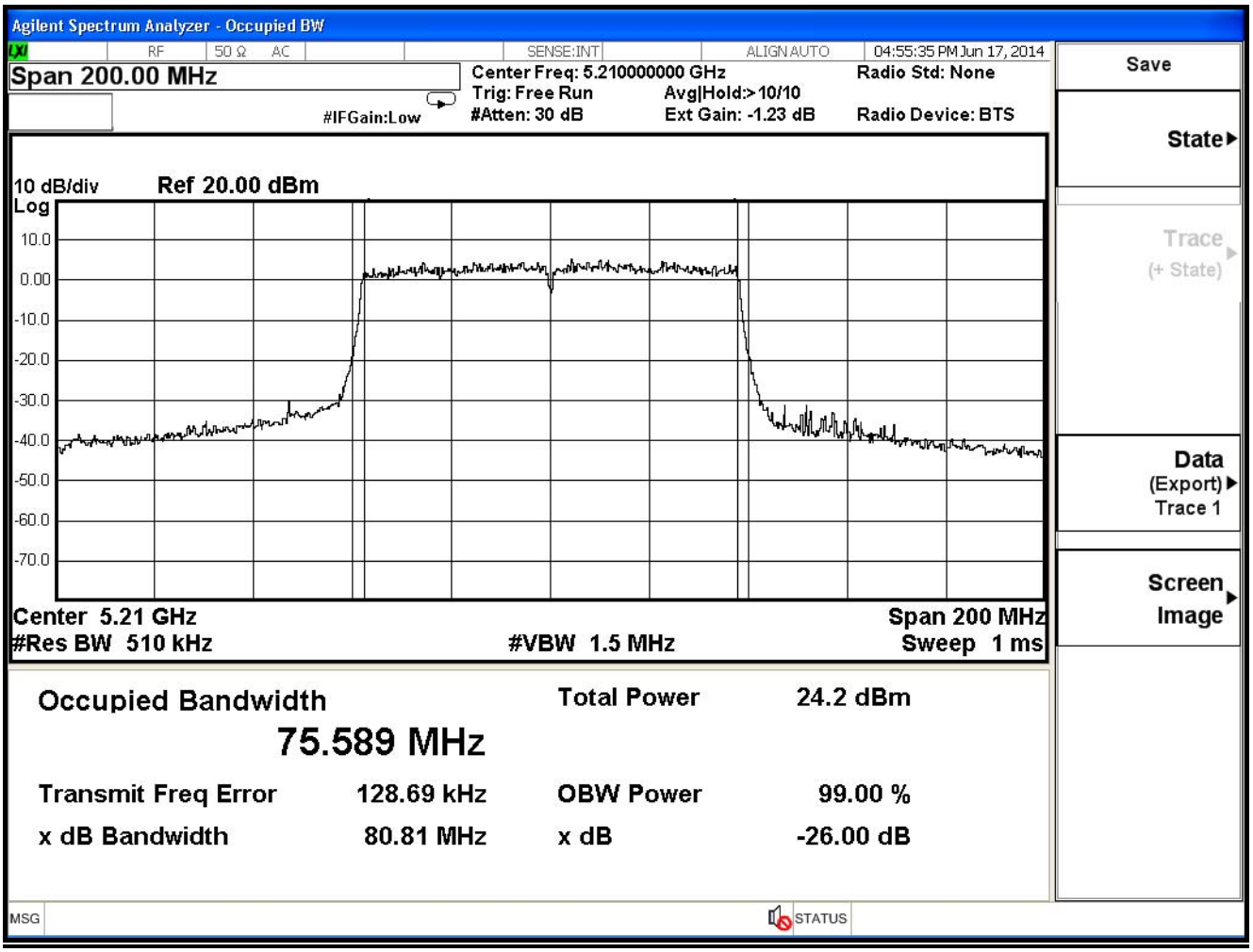
99% & 26dB Bandwidth – Channel 42



Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11ac_80M(ANT 1)					
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
42	5210	80.81	75.589	--	PASS

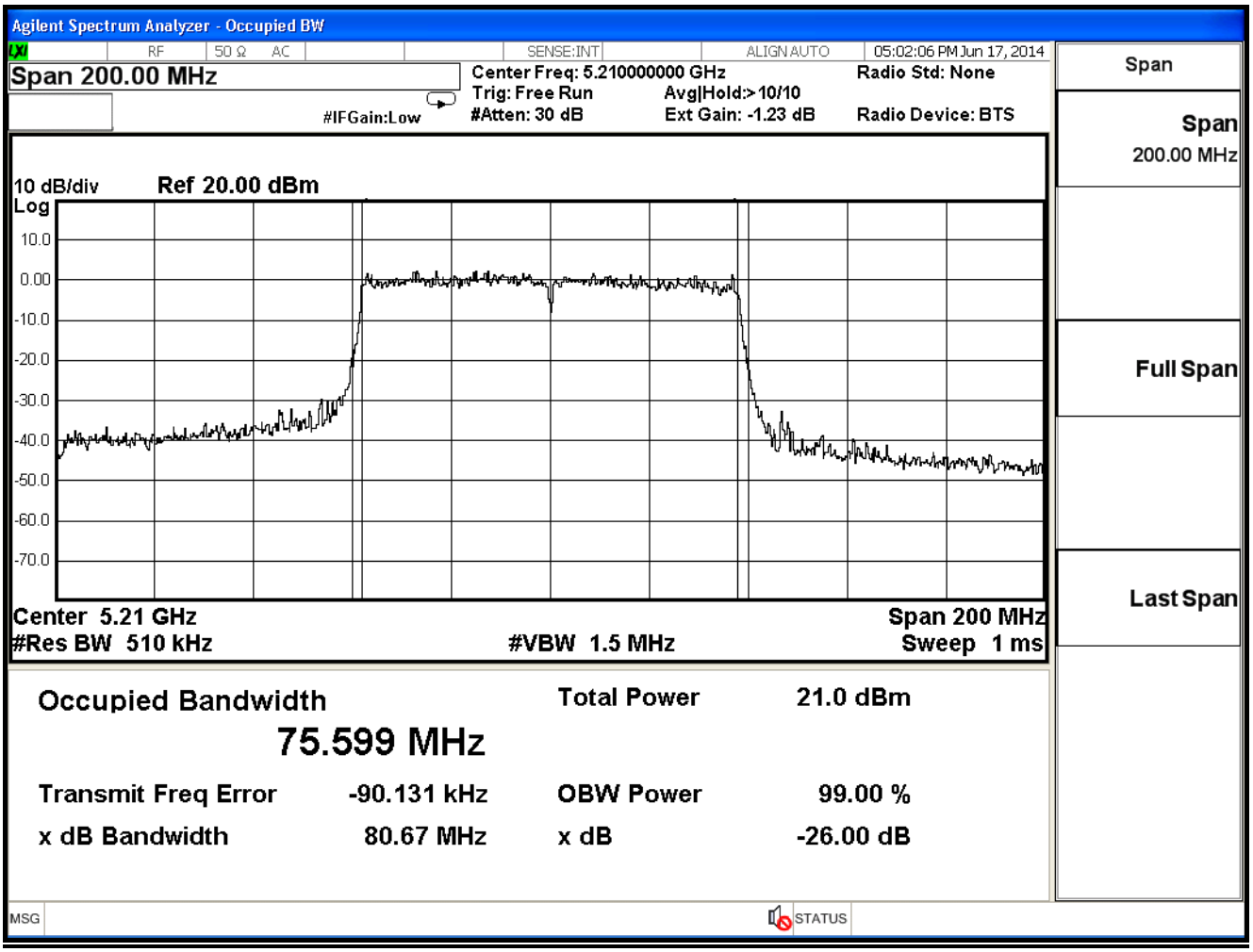
99% & 26dB Bandwidth – Channel 42



Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11ac_80M(ANT 2)					
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Required Limit (MHz)	Result
42	5210	80.67	75.599	--	PASS

99% & 26dB Bandwidth – Channel 42



4. Peak Transmit Output

4.1. Test Equipment

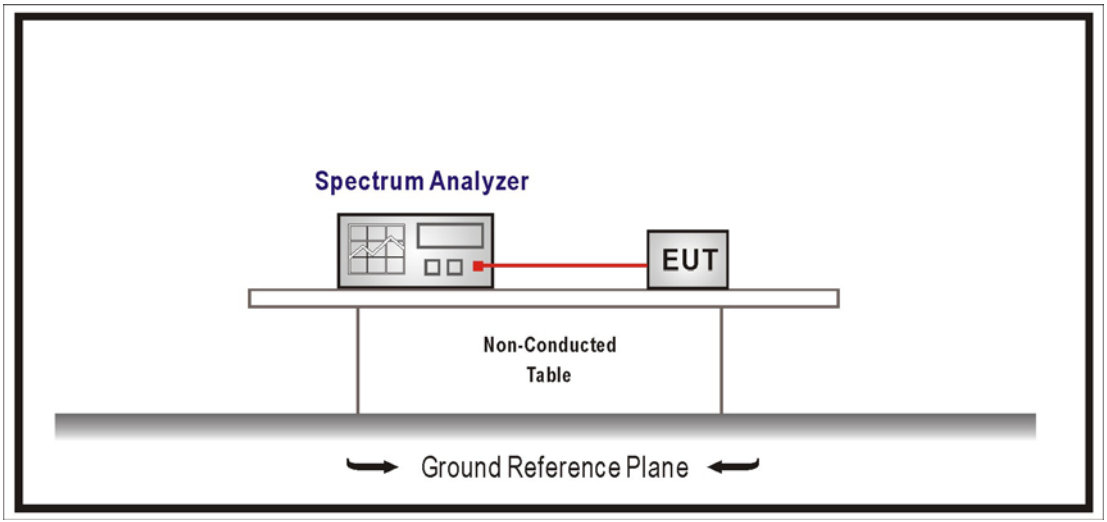
The following test equipments are used during the radiated emission tests:

Peak Transmit Output / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

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 or 17 dBm + 10log B, where B is the 26dB emission bandwidth in MHz. 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 or 11 dBm + 10log B, where B is the 26dB emission bandwidth in MHz. 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 5.725-5.825 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 1W or 17 dBm + 10log B, where B is the 26dB emission bandwidth in MHz. 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 C63.4, 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 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

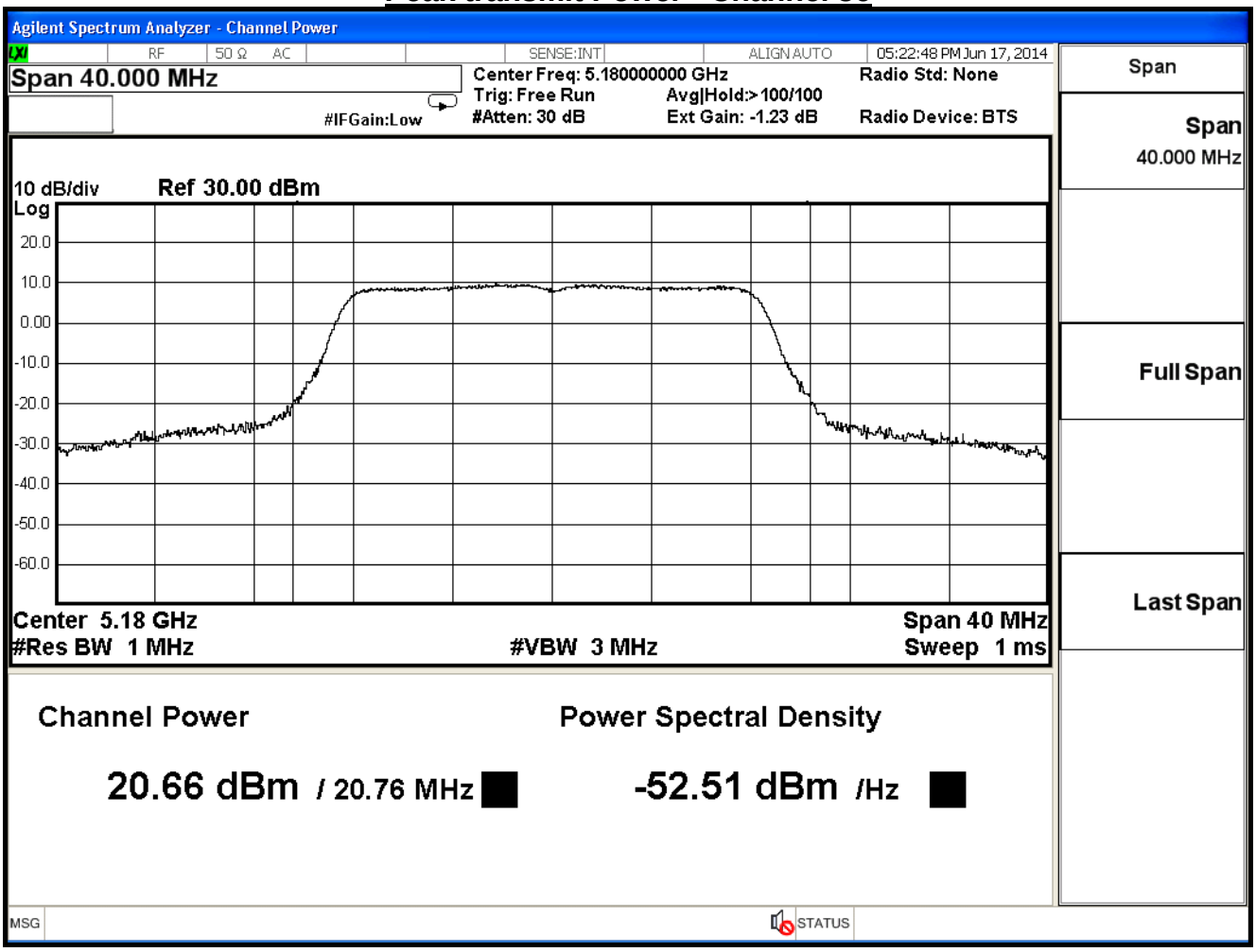
802.11a (ANT 0)

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
36	5180	20.76	20.66	≤30	30.17	Pass
44	5220	21.80	20.99	≤30	30.38	Pass
48	5240	20.18	19.41	≤30	30.05	Pass

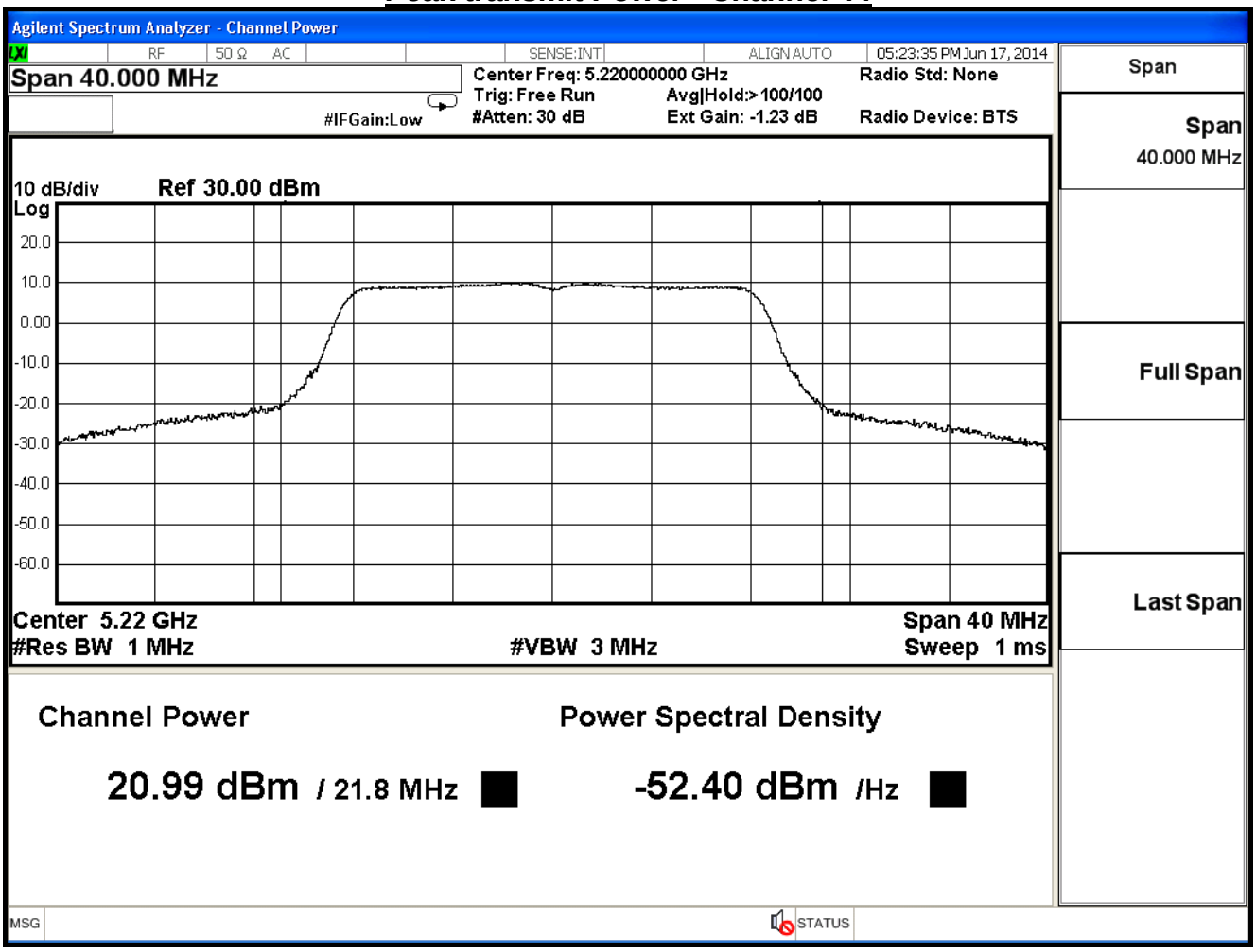
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
36	5180	20.66	--	--	--	--	--	--	30dBm or 17dBm+10logB
44	5220	20.99	20.43	19.84	19.35	19.24	19.01	18.97	
48	5240	19.41	--	--	--	--	--	--	

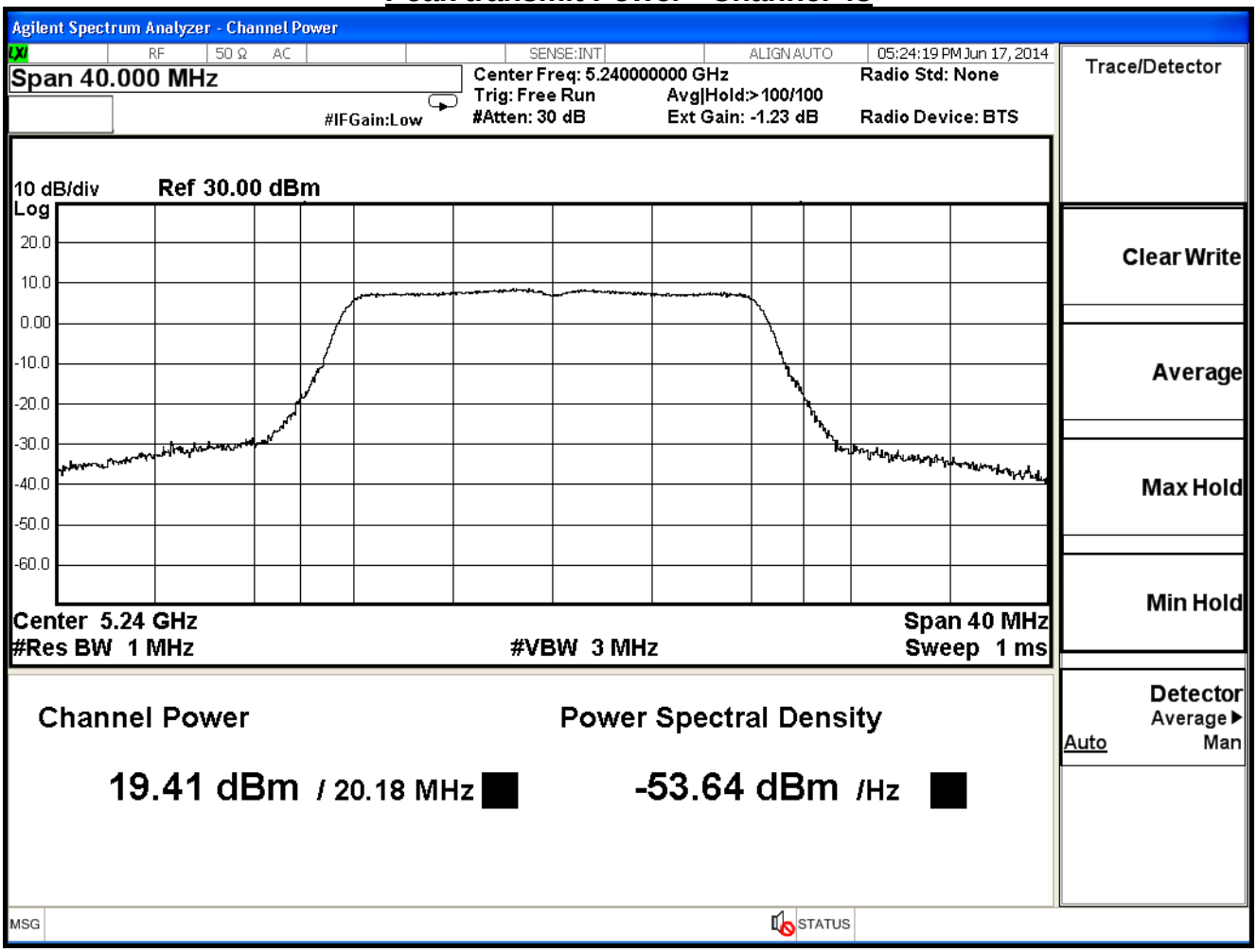
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



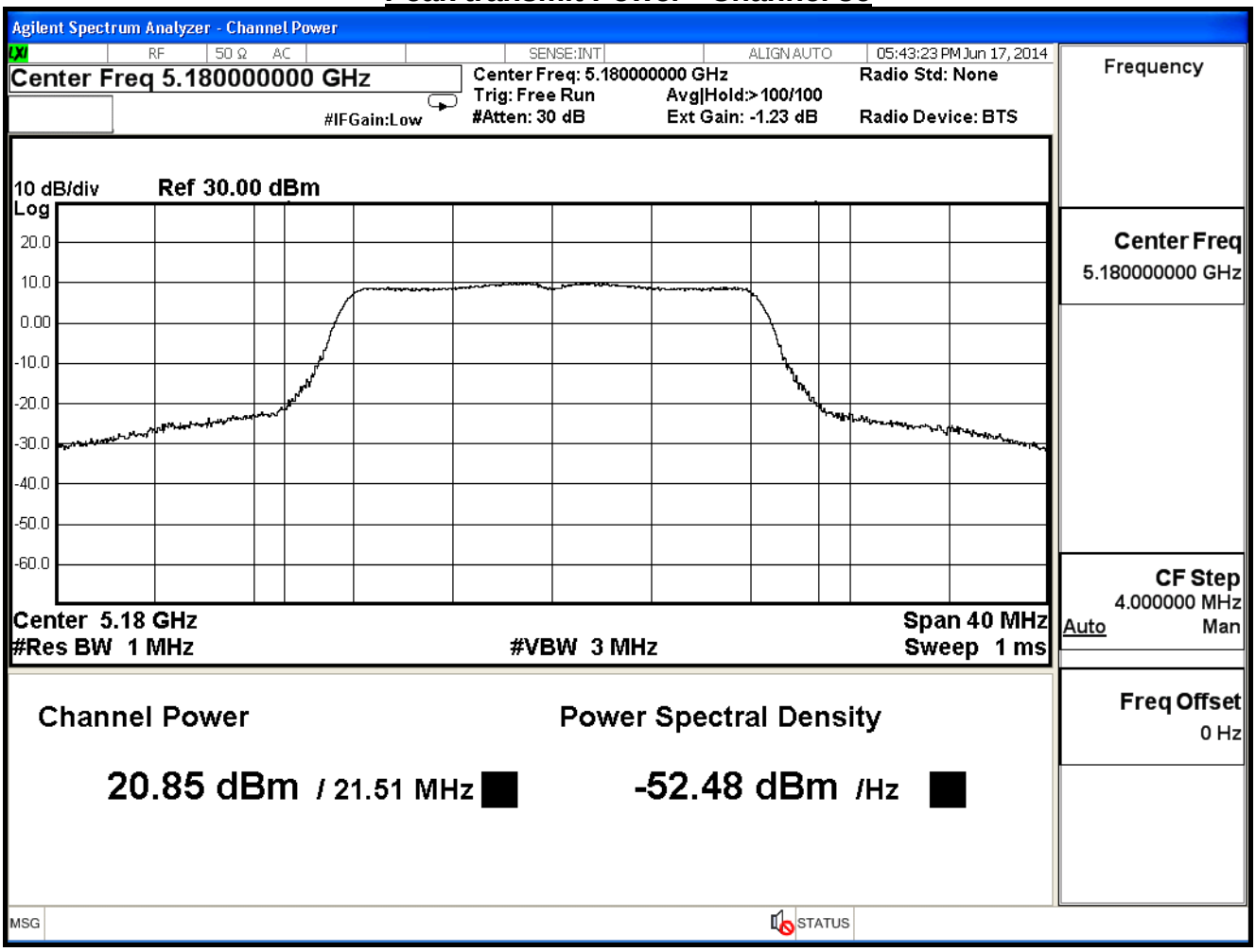
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11a (ANT 1)						
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
36	5180	21.51	20.85	≤30	30.32	Pass
44	5220	21.04	21.59	≤30	30.23	Pass
48	5240	20.20	20.13	≤30	30.05	Pass

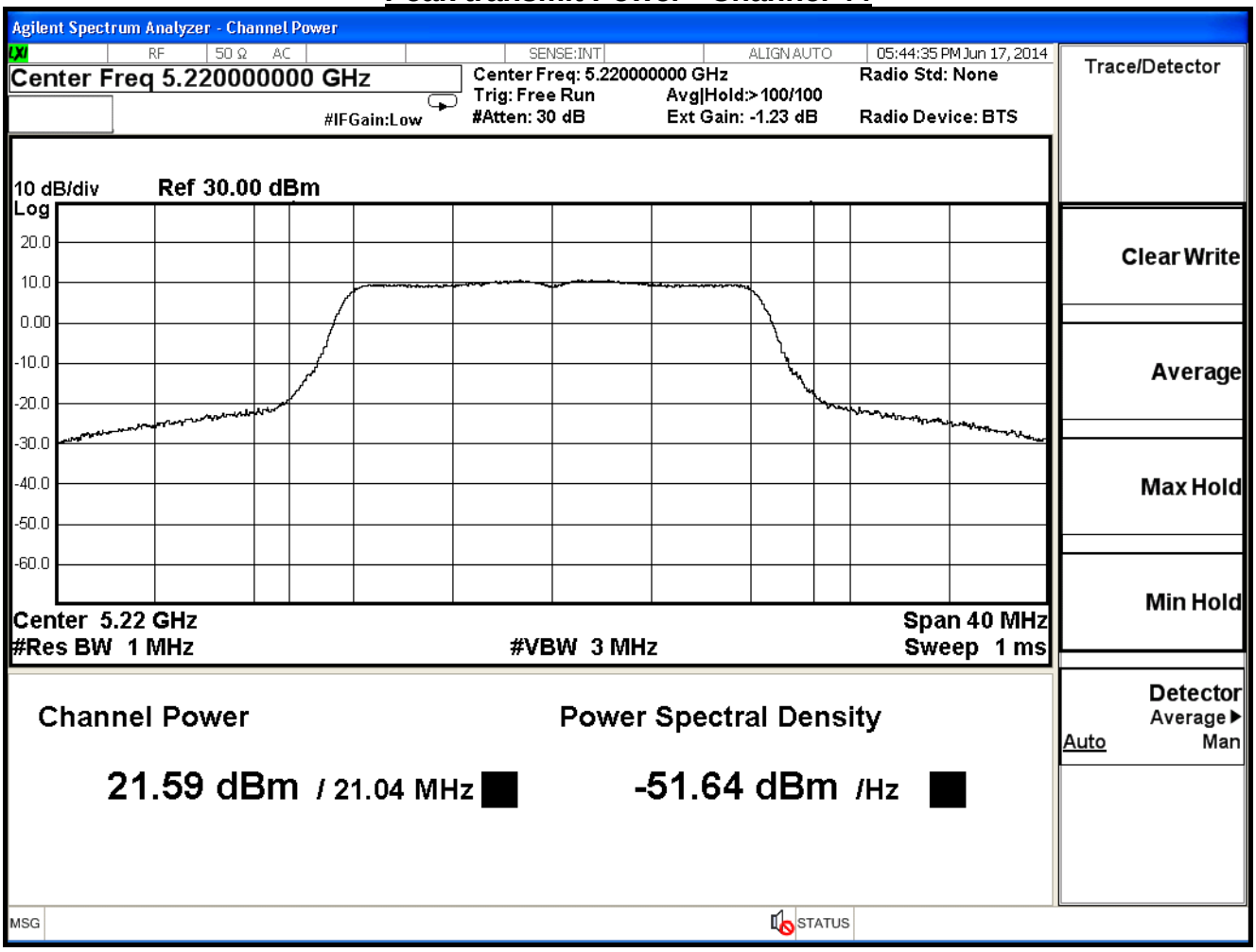
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
36	5180	20.85	--	--	--	--	--	--	30dBm or 17dBm+10logB
44	5220	21.59	21.41	21.12	21.05	20.94	20.61	20.33	
48	5240	20.13	--	--	--	--	--	--	

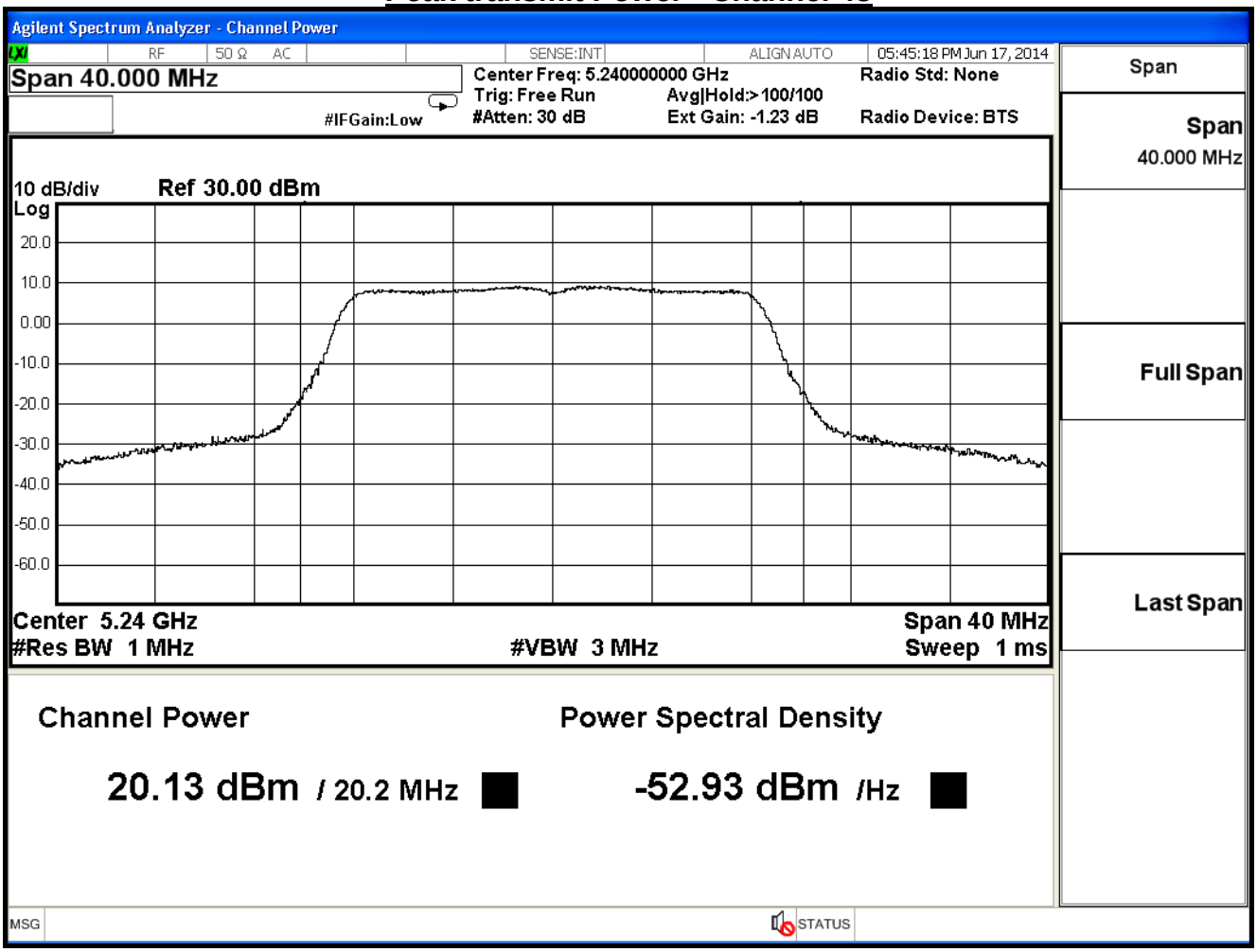
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



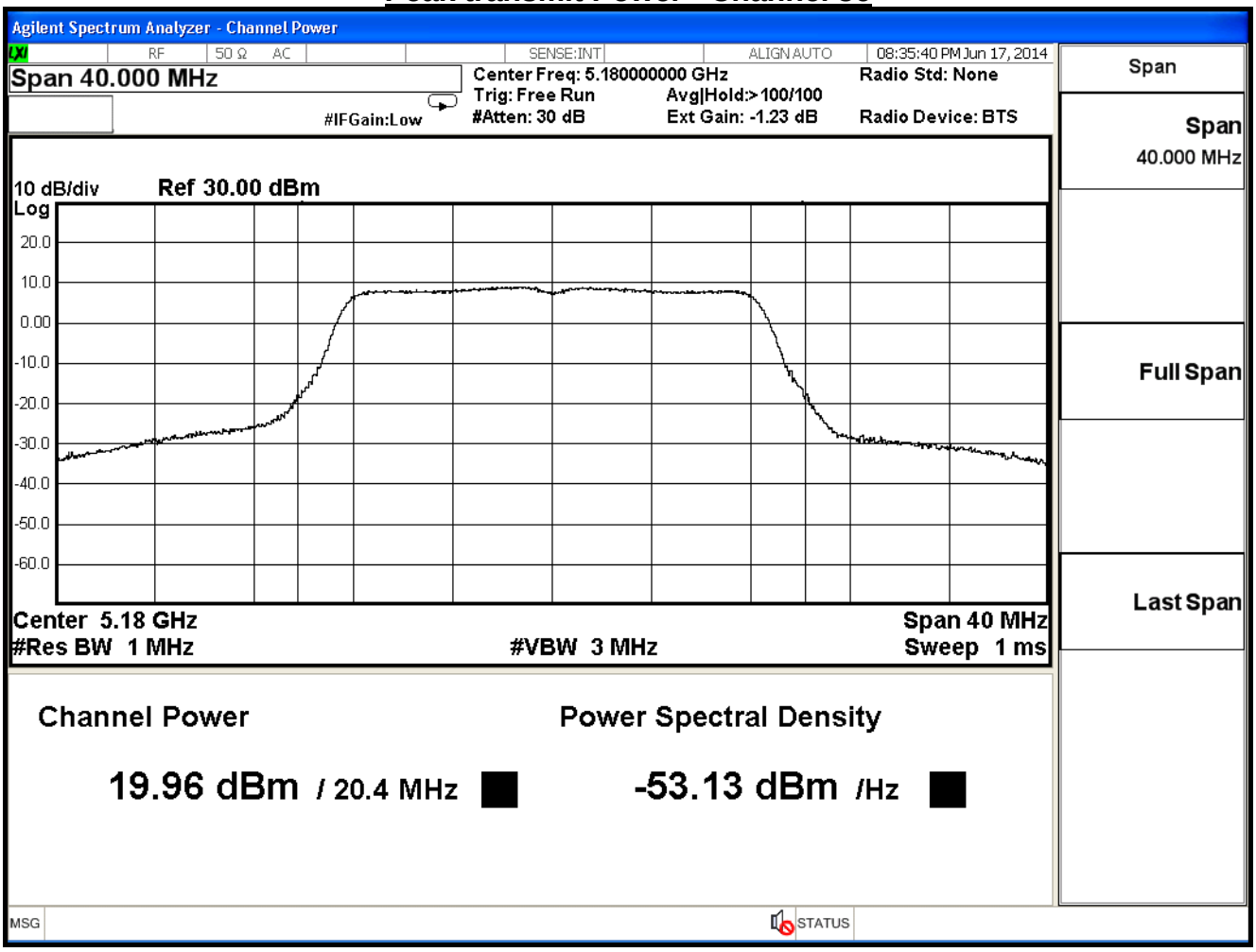
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11a (ANT 2)						
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
36	5180	20.40	19.96	≤30	30.09	Pass
44	5220	20.56	20.41	≤30	30.13	Pass
48	5240	20.25	18.64	≤30	30.06	Pass

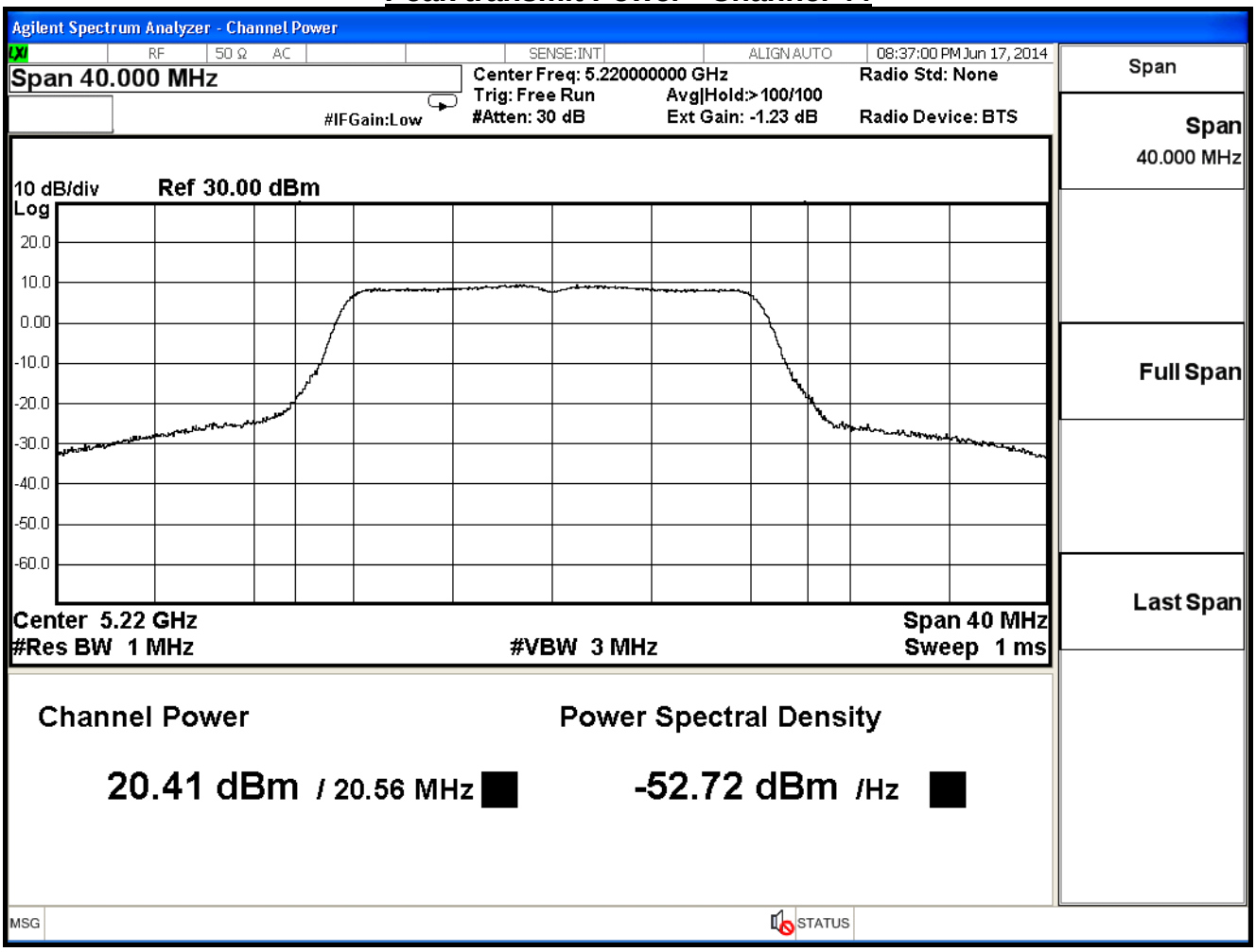
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
36	5180	19.96	--	--	--	--	--	--	30dBm or 17dBm+10logB
44	5220	20.41	20.15	19.78	19.32	19.12	19.04	18.96	
48	5240	18.64	--	--	--	--	--	--	

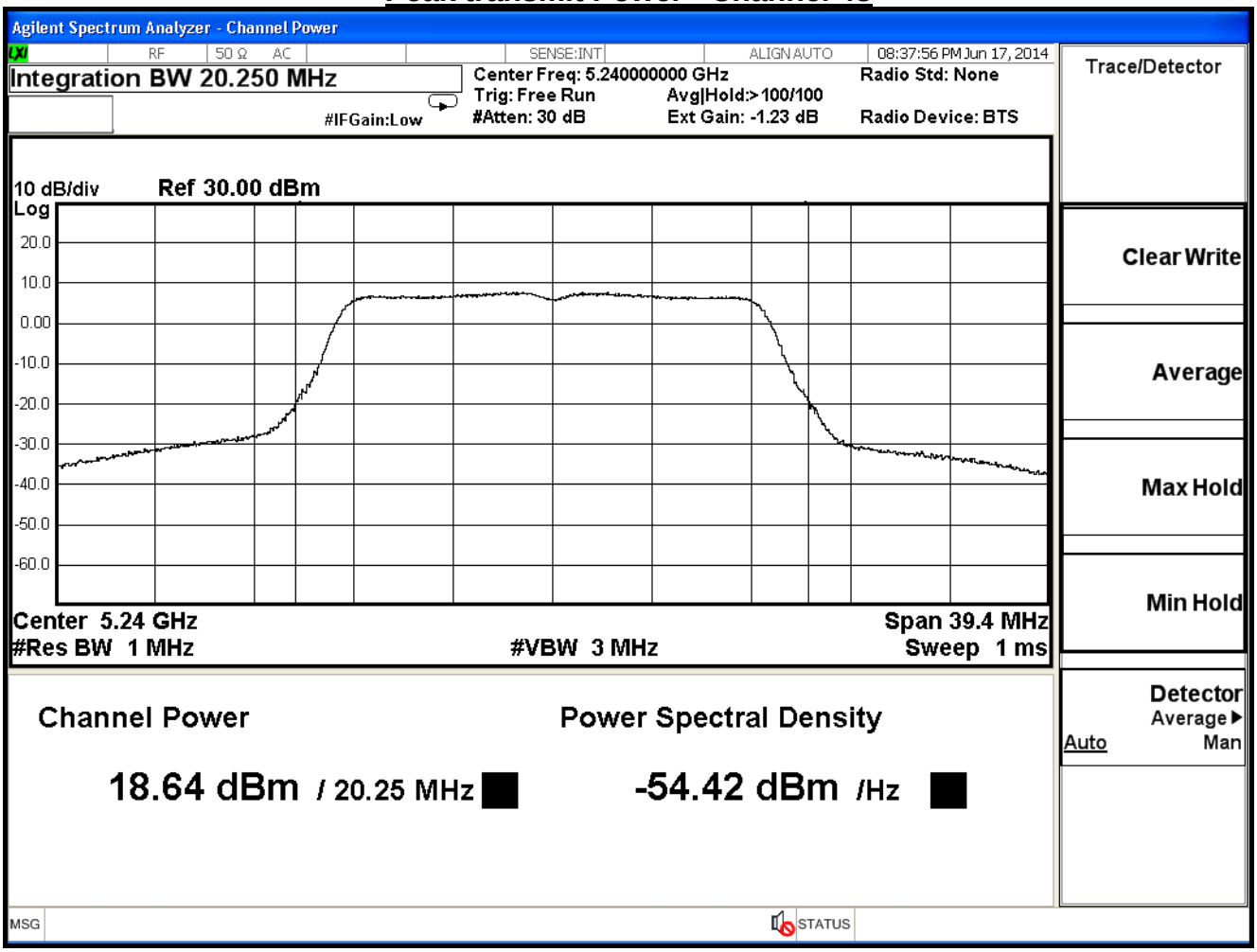
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

802.11a (ANT 0+1+2)					
Channel No.	Frequency (MHz)	Total Output Power		Required Limit (dBm)	Result
		(mW)	(dBm)		
36	5180	337.11	25.28	≤30	Pass
44	5220	379.72	25.79	≤30	Pass
48	5240	263.45	24.21	≤30	Pass

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
36	5180	25.28	--	--	--	--	--	--	30dBm or 17dBm+10logB
44	5220	25.79	25.68	25.41	25.20	25.01	24.93	24.82	
48	5240	24.21	--	--	--	--	--	--	

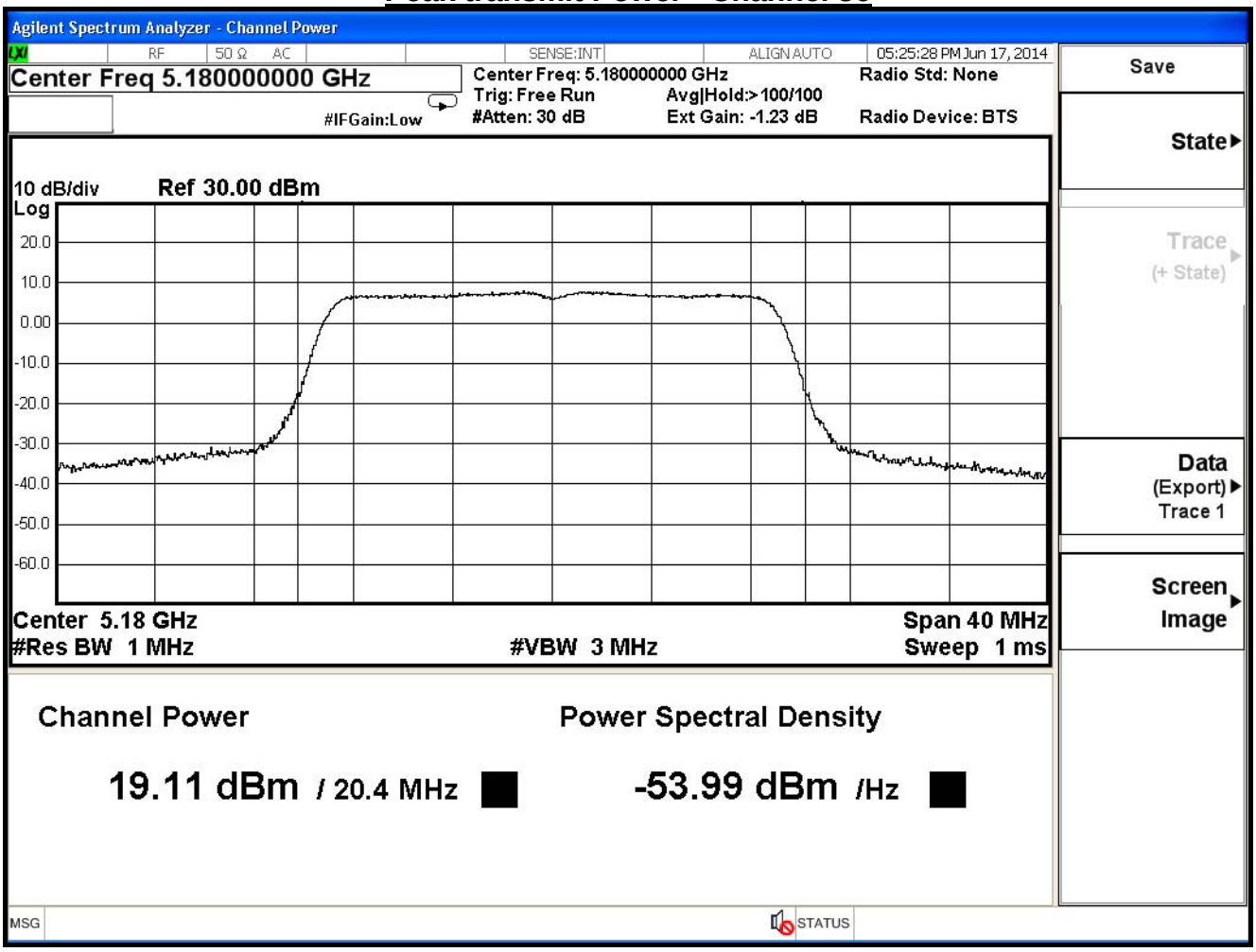
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

IEEE 802.11n(20MHz)(ANT 0)						
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
36	5180	20.40	19.11	≤30	30.09	Pass
44	5220	22.33	20.93	≤30	30.48	Pass
48	5240	22.10	20.31	≤30	30.44	Pass

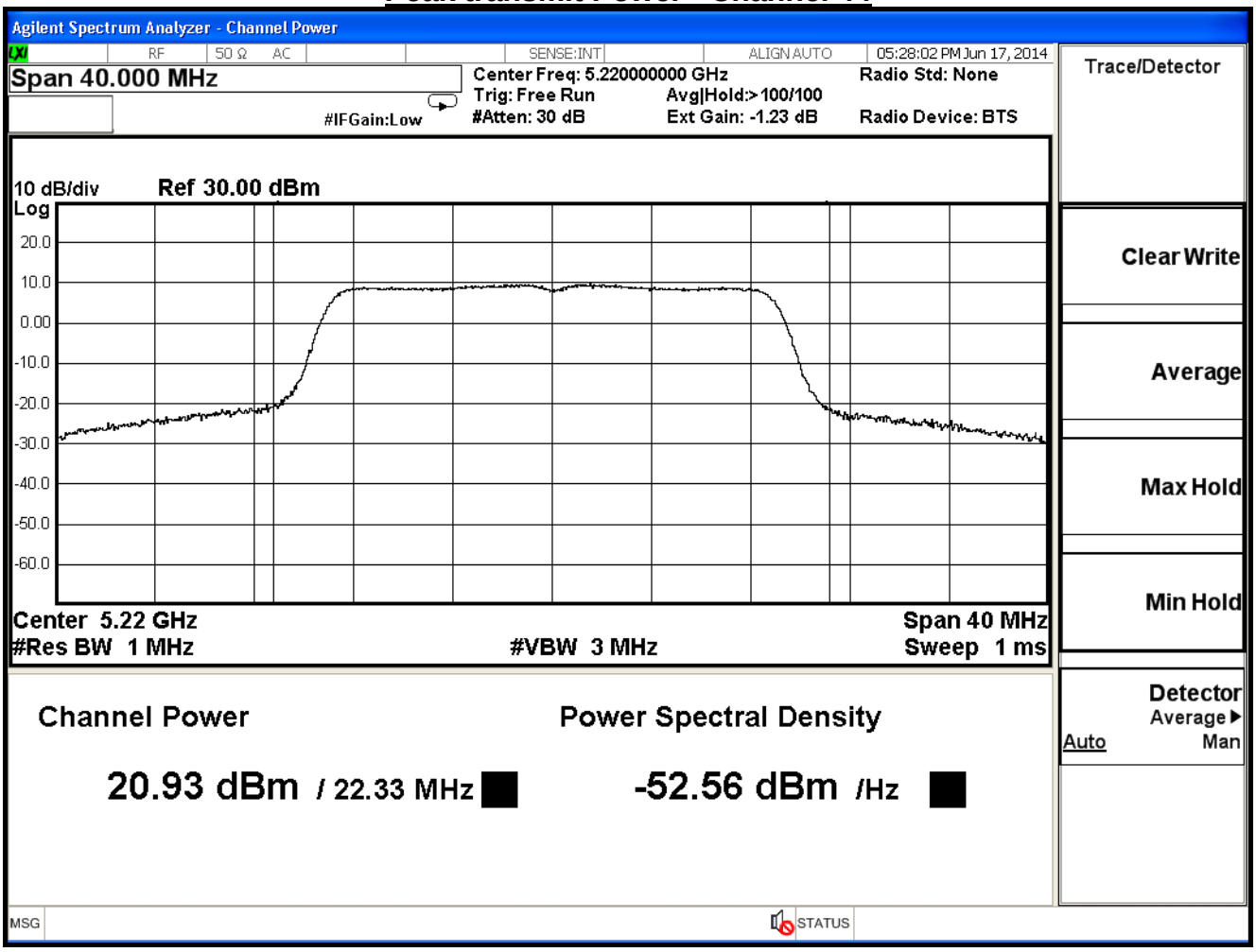
The worst emission of data rate is 6.5 Mbps.

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	19.11	--	--	--	--	--	--	--	30dBm or 17dBm+10logB
44	5220	20.93	20.64	20.25	20.11	19.84	19.60	19.25	19.02	
48	5240	20.31	--	--	--	--	--	--	--	

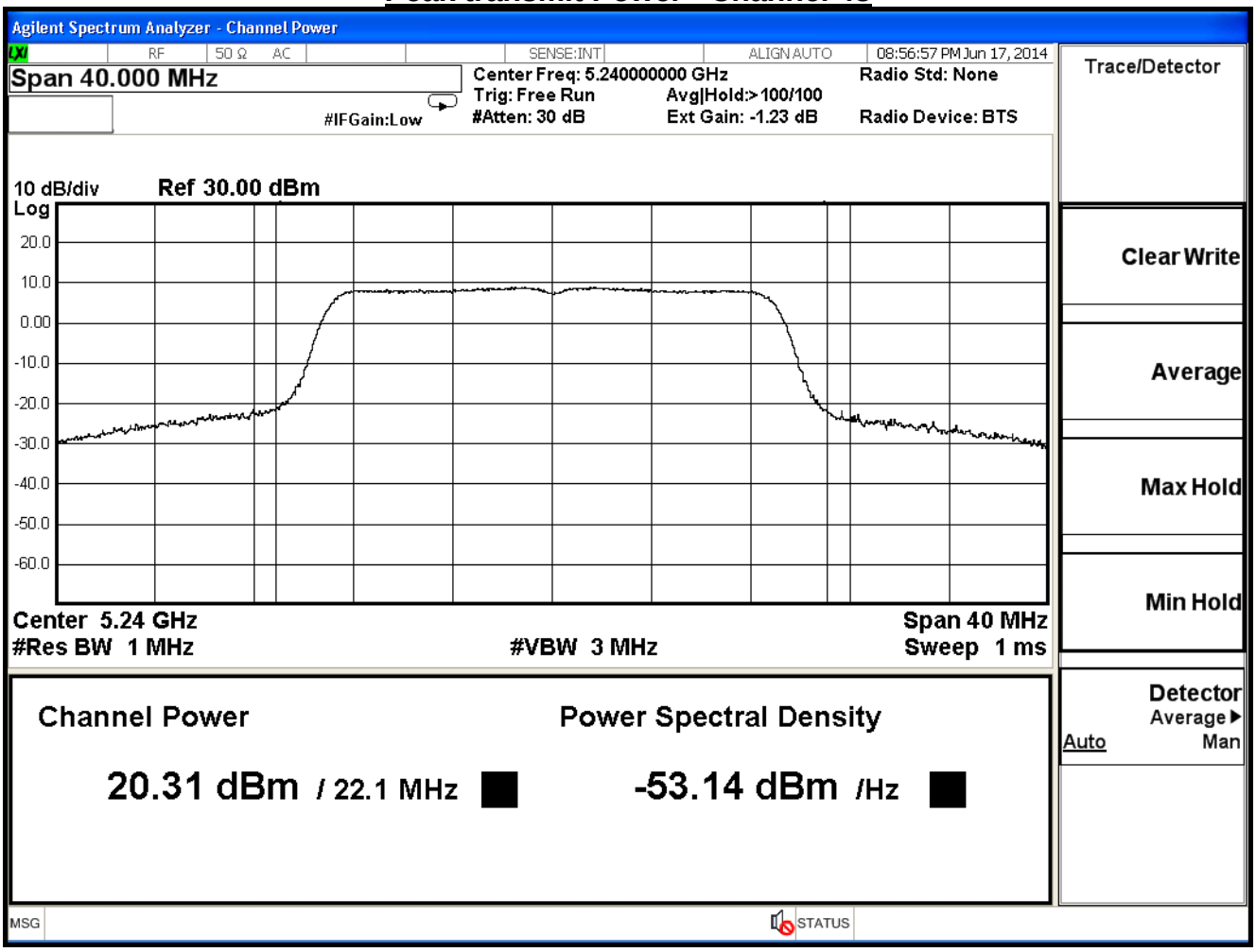
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



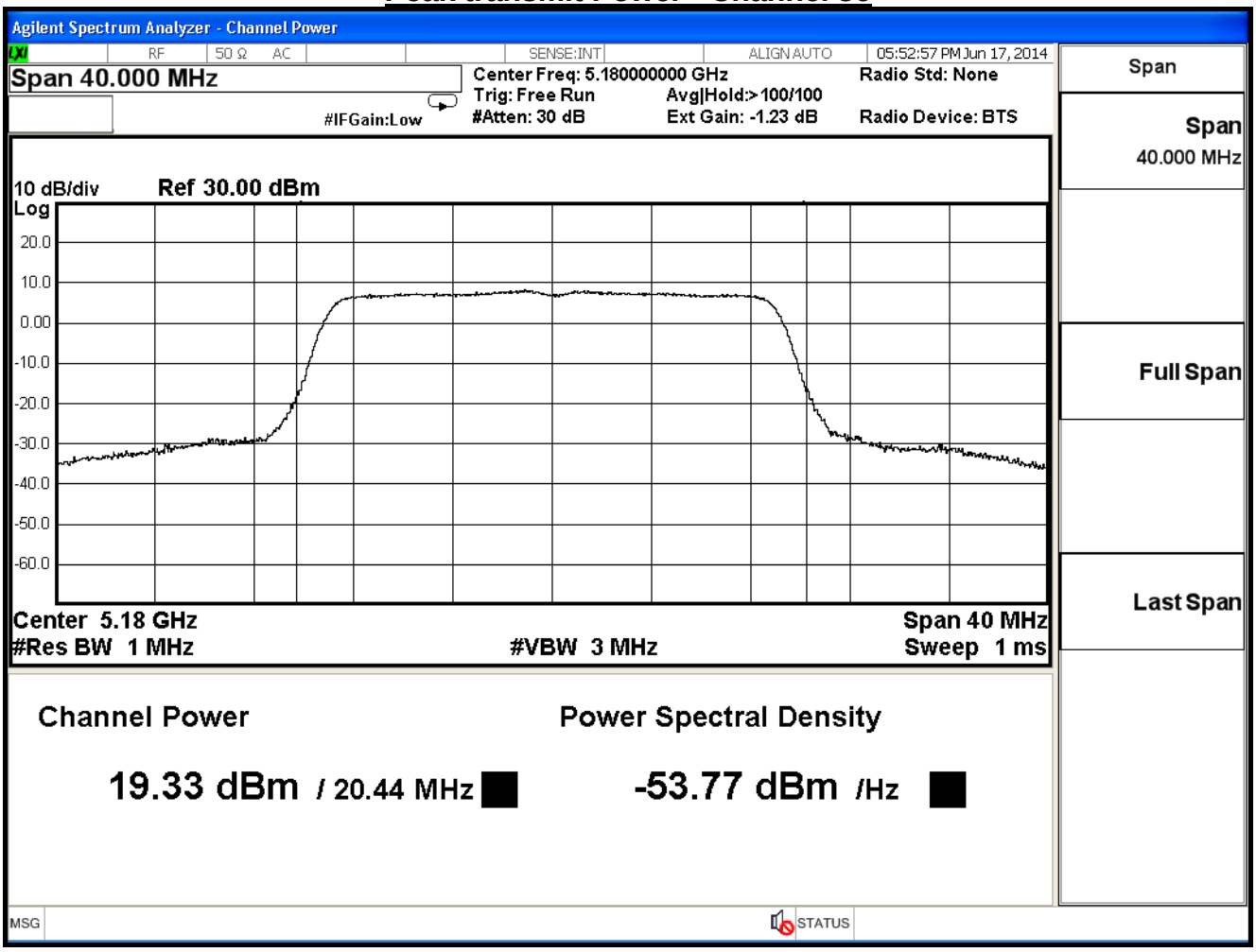
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

IEEE 802.11n(20MHz)(ANT 1)						
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
36	5180	20.44	19.33	≤30	30.10	Pass
44	5220	21.67	21.50	≤30	30.35	Pass
48	5240	25.99	21.49	≤30	31.14	Pass

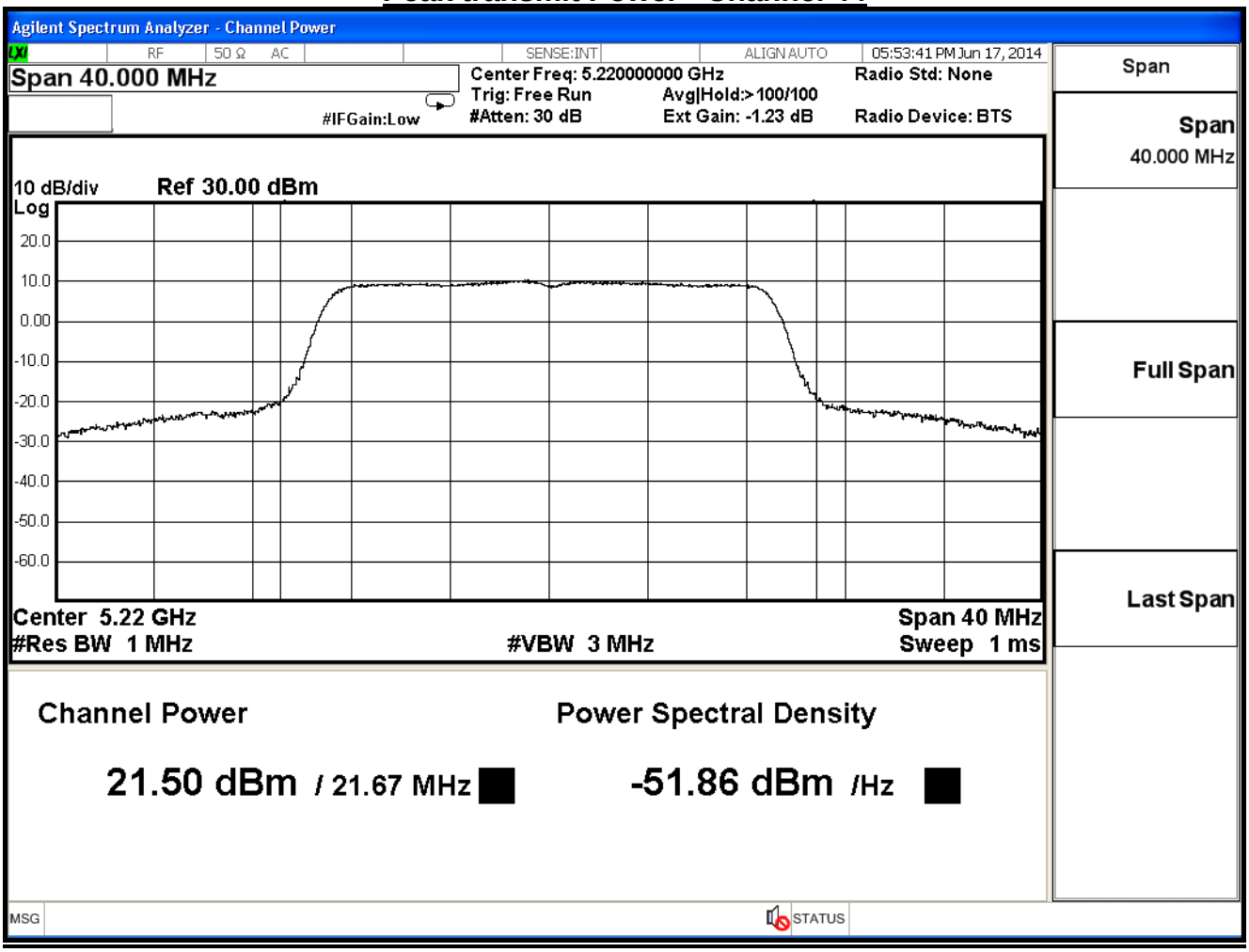
The worst emission of data rate is 6.5 Mbps.

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	19.33	--	--	--	--	--	--	--	30dBm or 17dBm+10logB
44	5220	21.50	21.33	21.05	20.97	20.94	20.82	20.41	20.22	
48	5240	21.49	--	--	--	--	--	--	--	

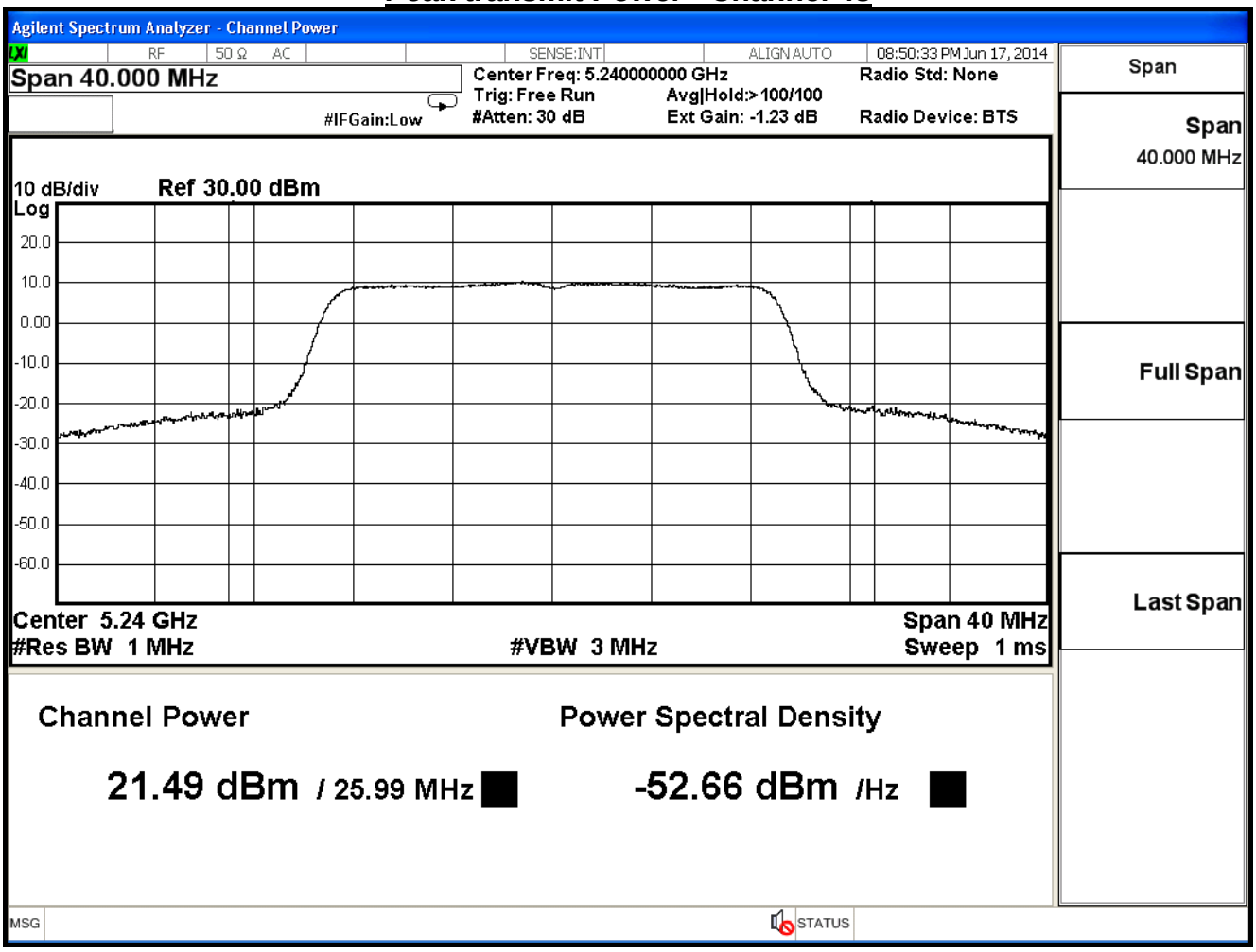
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



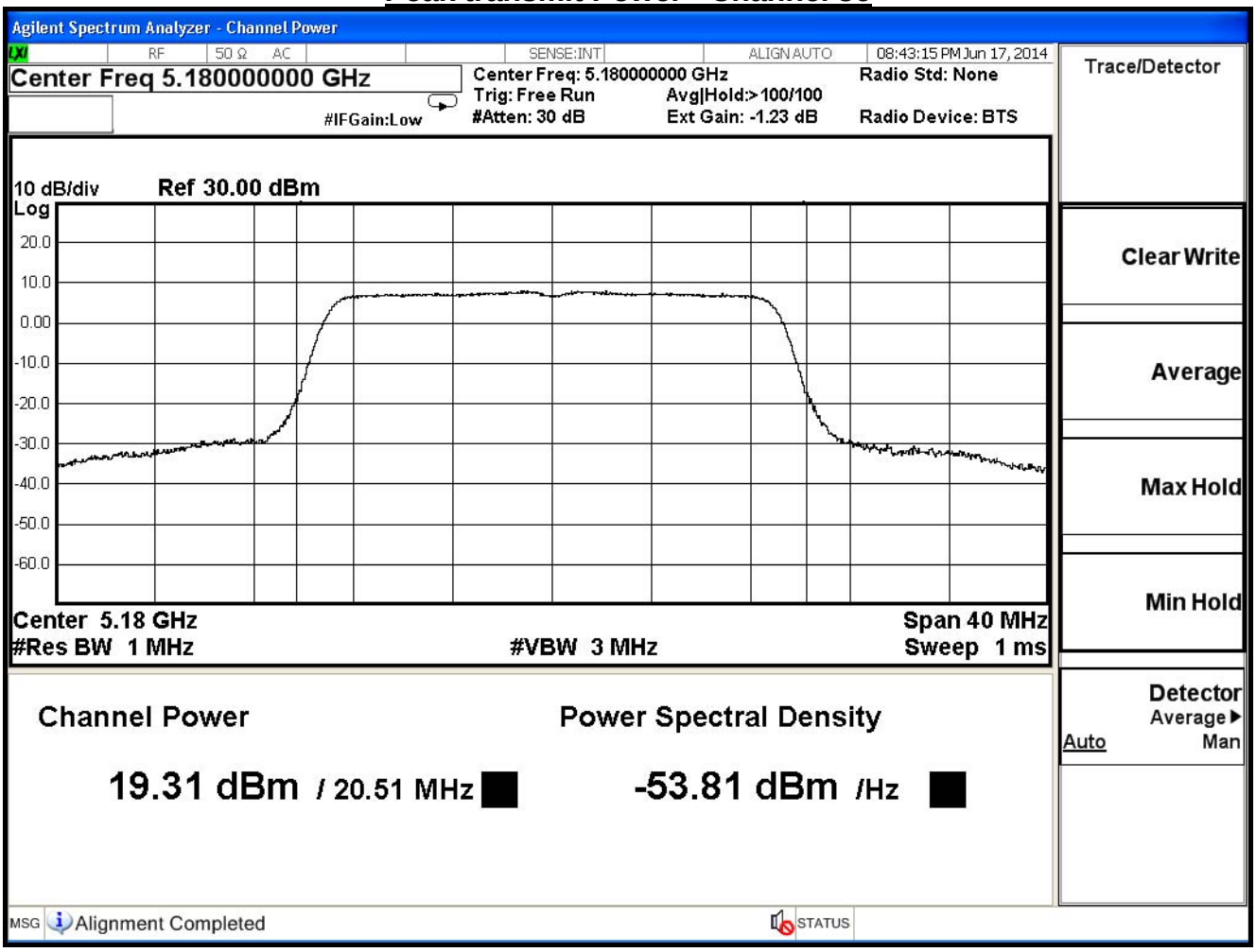
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

IEEE 802.11n(20MHz)(ANT 2)						
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
36	5180	20.51	19.31	≤30	30.12	Pass
44	5220	20.38	21.48	≤30	30.09	Pass
48	5240	20.44	21.45	≤30	30.10	Pass

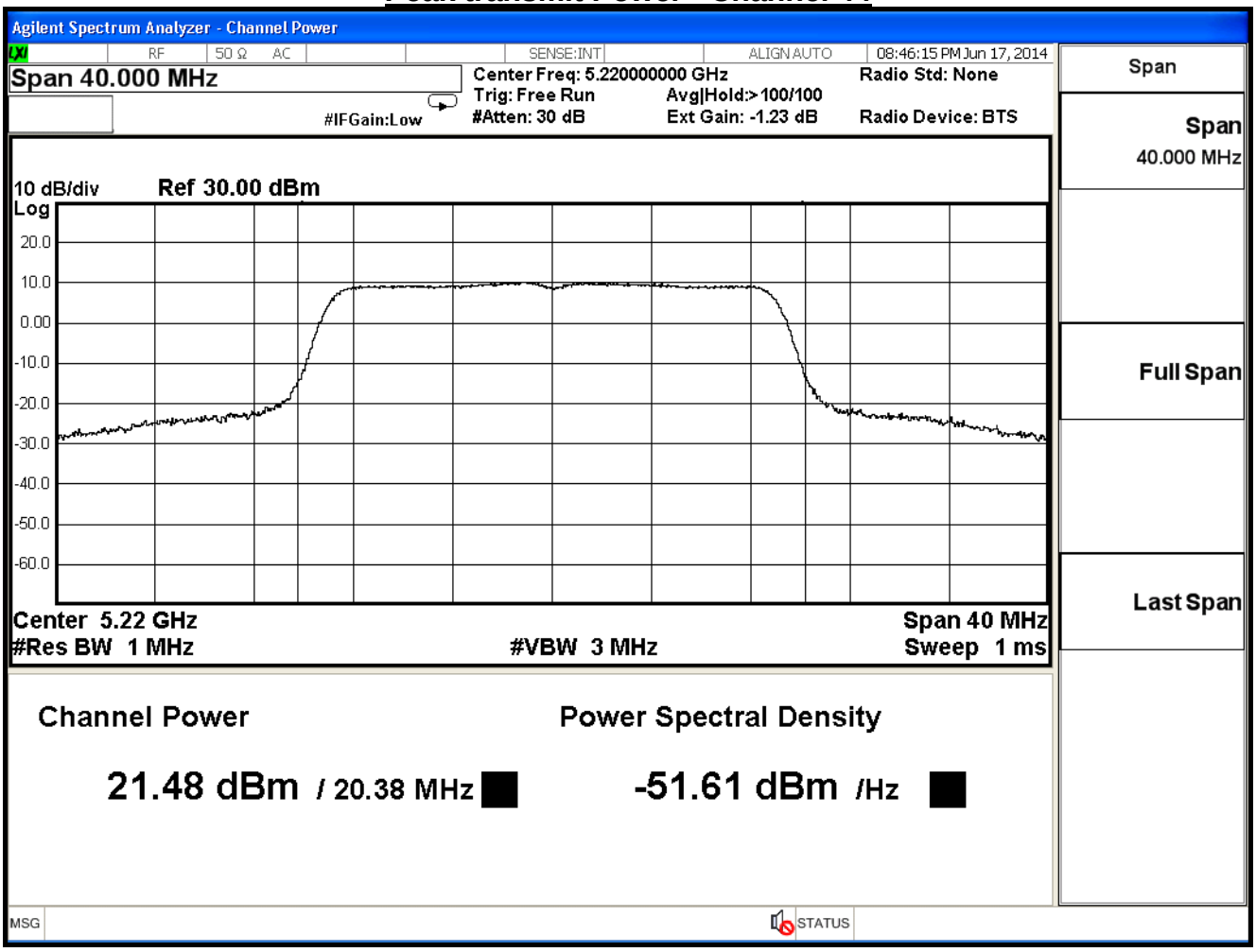
The worst emission of data rate is 6.5 Mbps.

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	19.31	--	--	--	--	--	--	--	30dBm or 17dBm+10logB
44	5220	21.48	21.22	21.06	20.94	20.83	20.77	20.46	20.13	
48	5240	21.45	--	--	--	--	--	--	--	

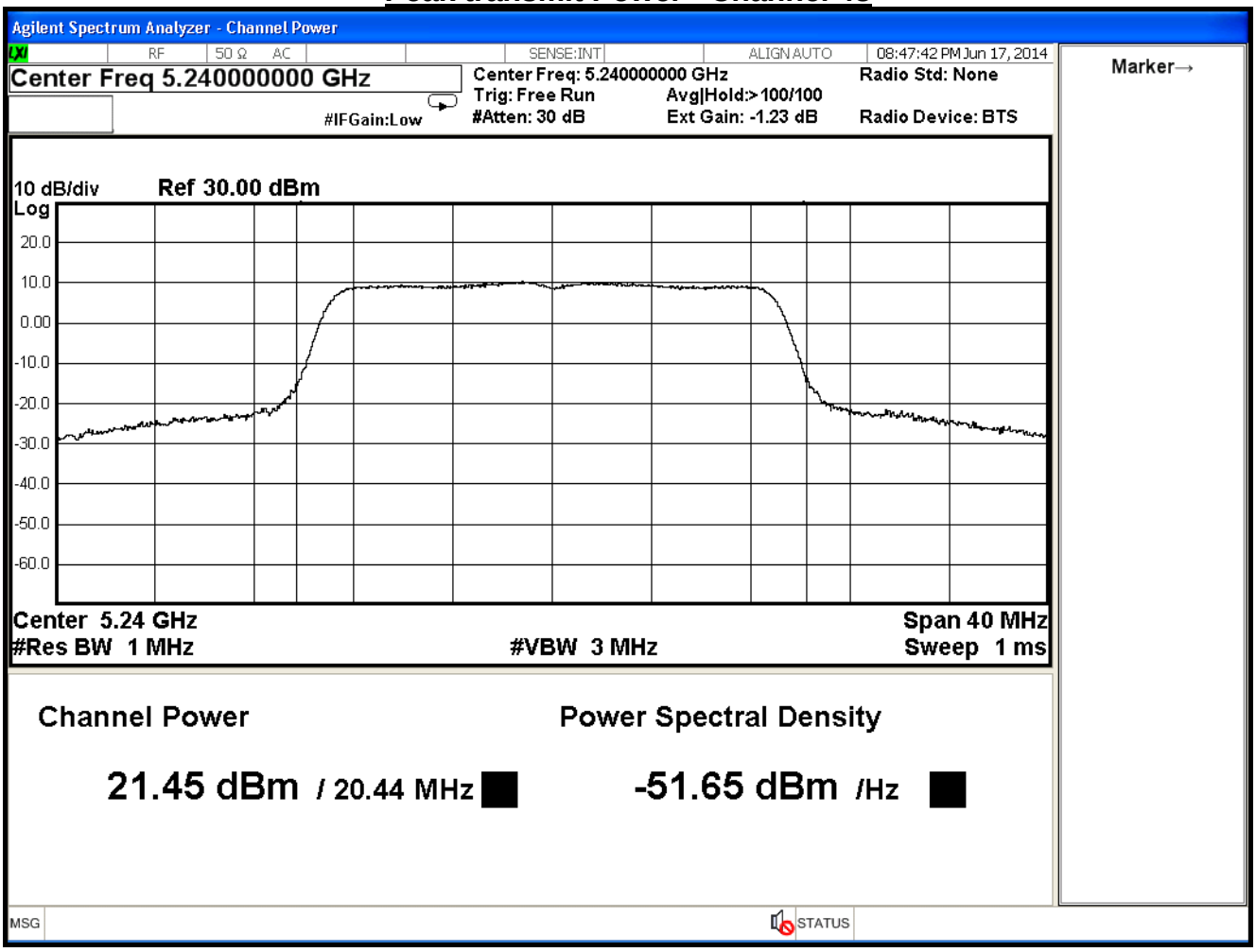
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

IEEE 802.11n(20MHz) (ANT 0+1+2)					
Channel No.	Frequency (MHz)	Total Output Power		Required Limit (dBm)	Result
		(mW)	(dBm)		
36	5180	252.48	24.02	≤30	Pass
44	5220	405.74	26.08	≤30	Pass
48	5240	387.96	25.89	≤30	Pass

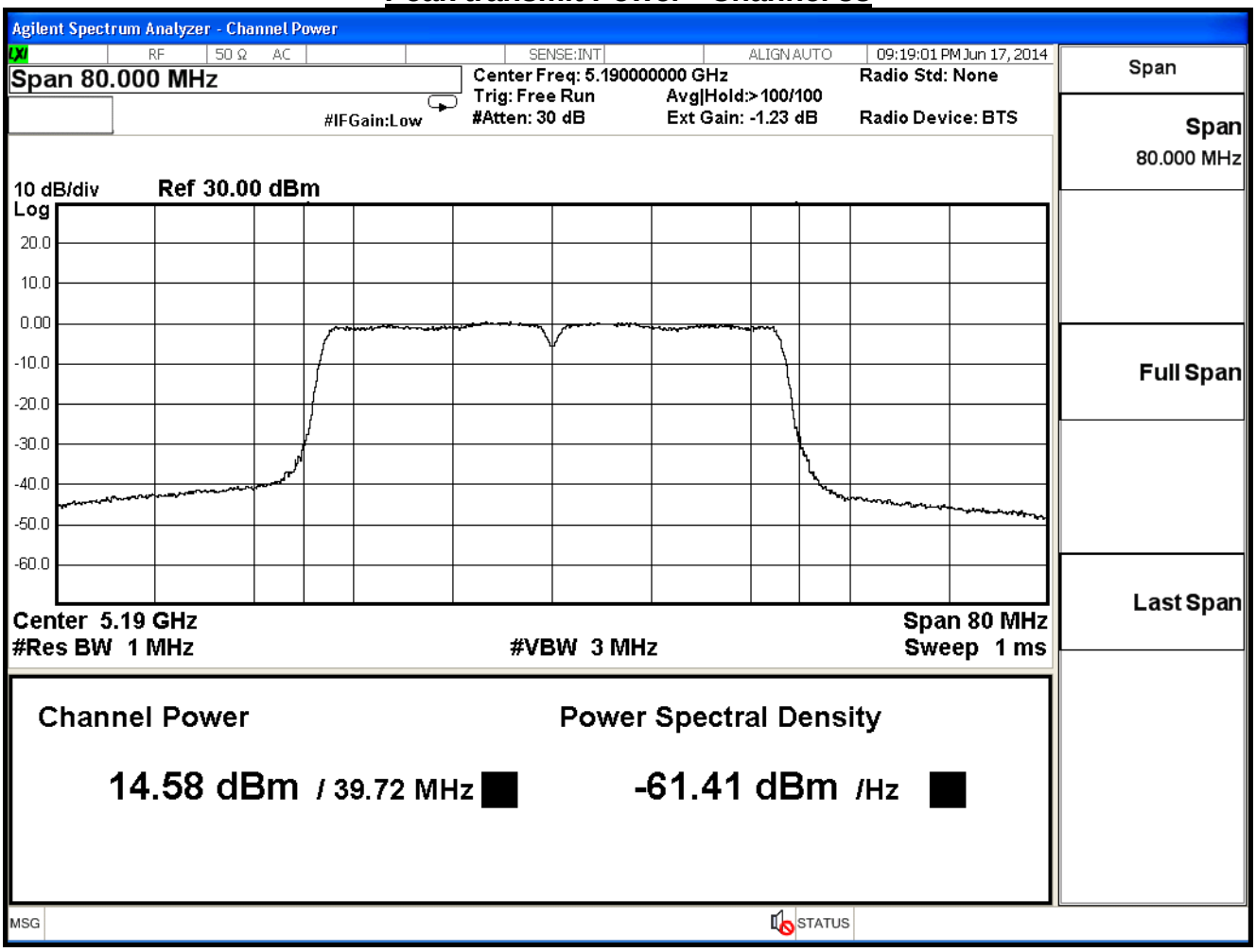
Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
36	5180	24.02	--	--	--	--	--	--	--	30dBm or 17dBm+10logB
44	5220	26.08	25.92	25.71	25.63	25.24	25.16	25.08	24.96	
48	5240	25.89	--	--	--	--	--	--	--	

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

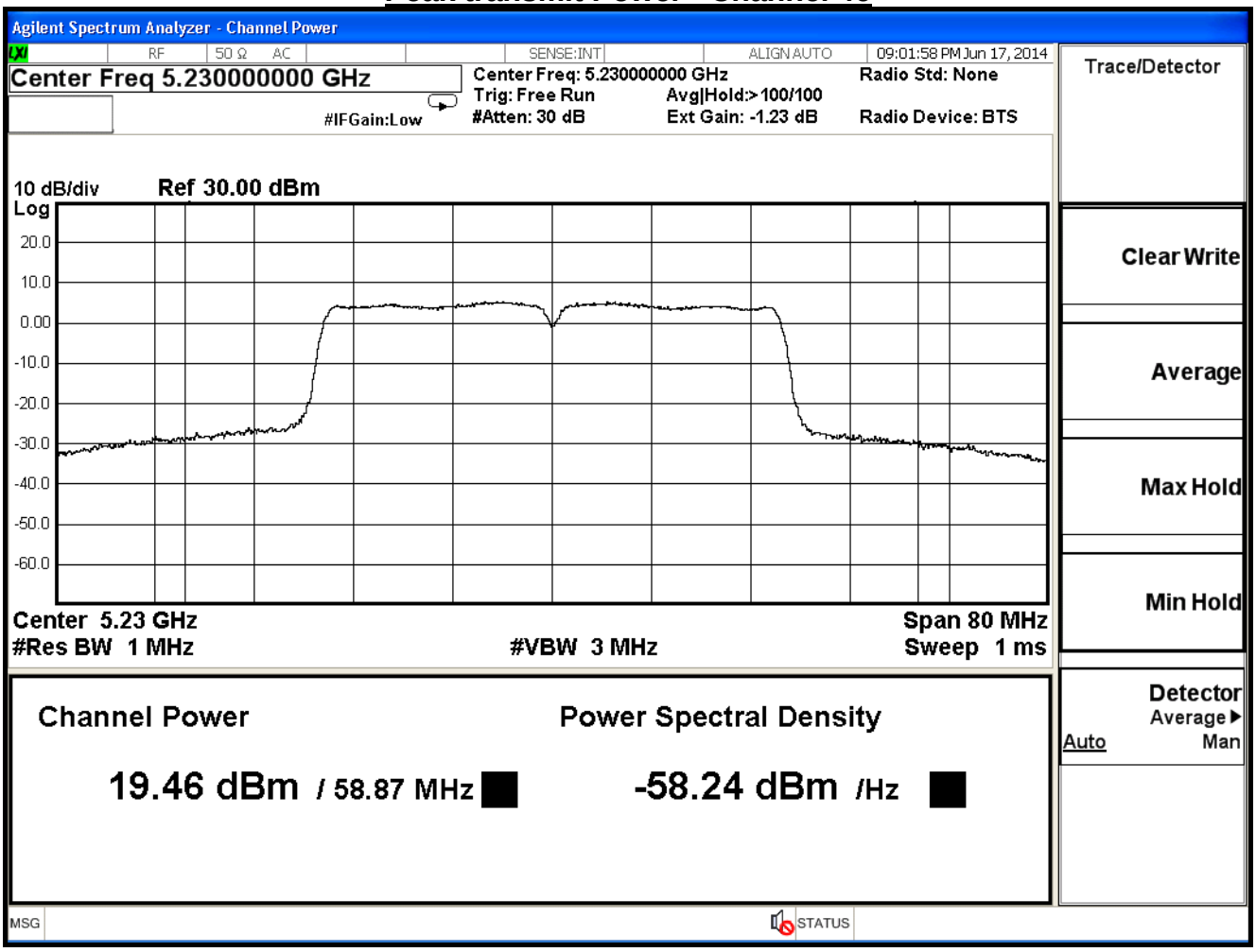
IEEE 802.11n(40MHz)(ANT 0)						
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
38	5190	39.72	14.58	≤30	32.99	Pass
46	5230	58.87	19.46	≤30	34.69	Pass

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	14.58	--	--	--	--	--	--	--	30dBm or 17dBm+10logB
46	5230	19.46	19.33	18.41	18.21	18.03	17.96	17.81	17.35	

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



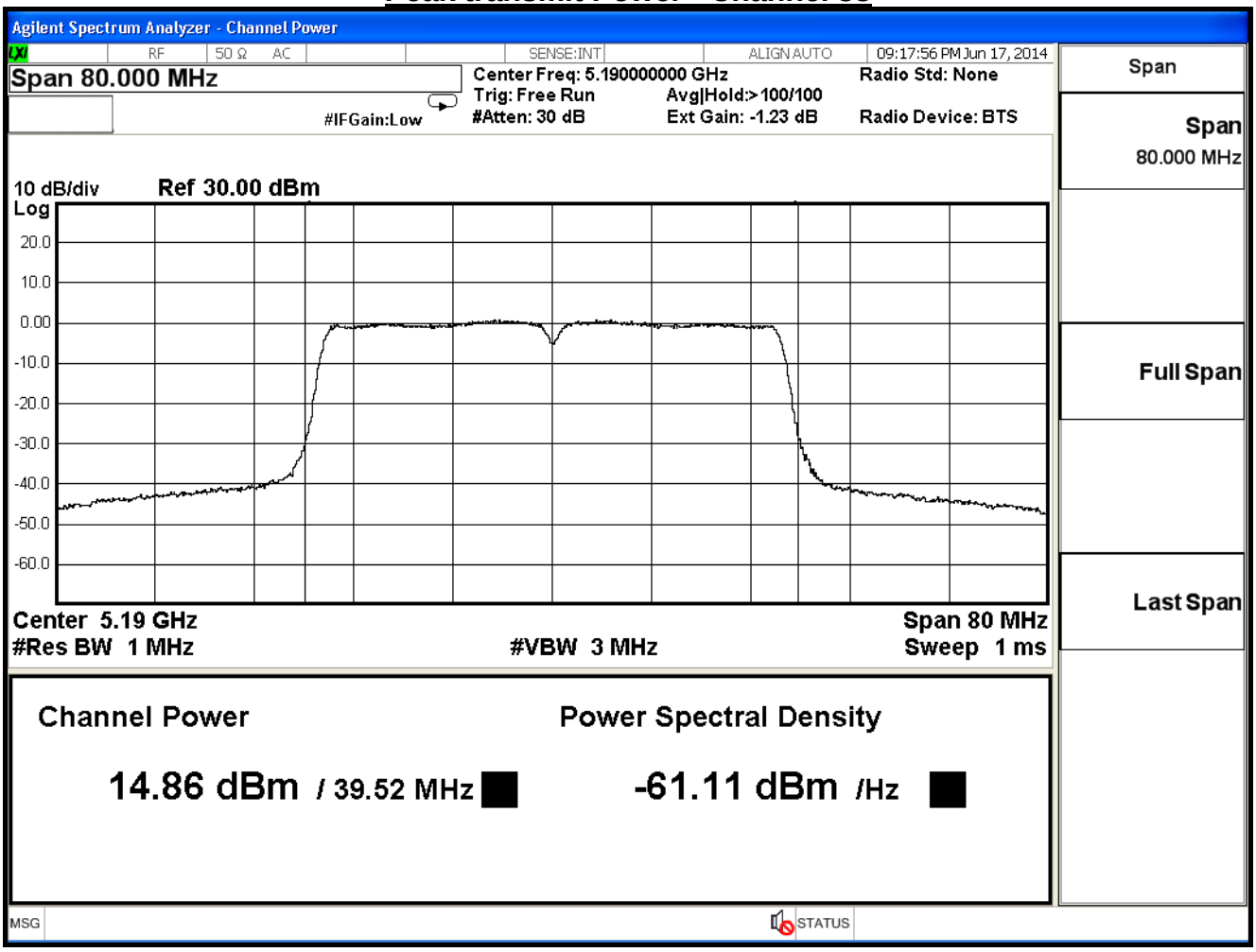
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

IEEE 802.11n(40MHz)(ANT 1)						
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
38	5190	39.52	14.86	≤30	32.96	Pass
46	5230	45.05	21.59	≤30	33.53	Pass

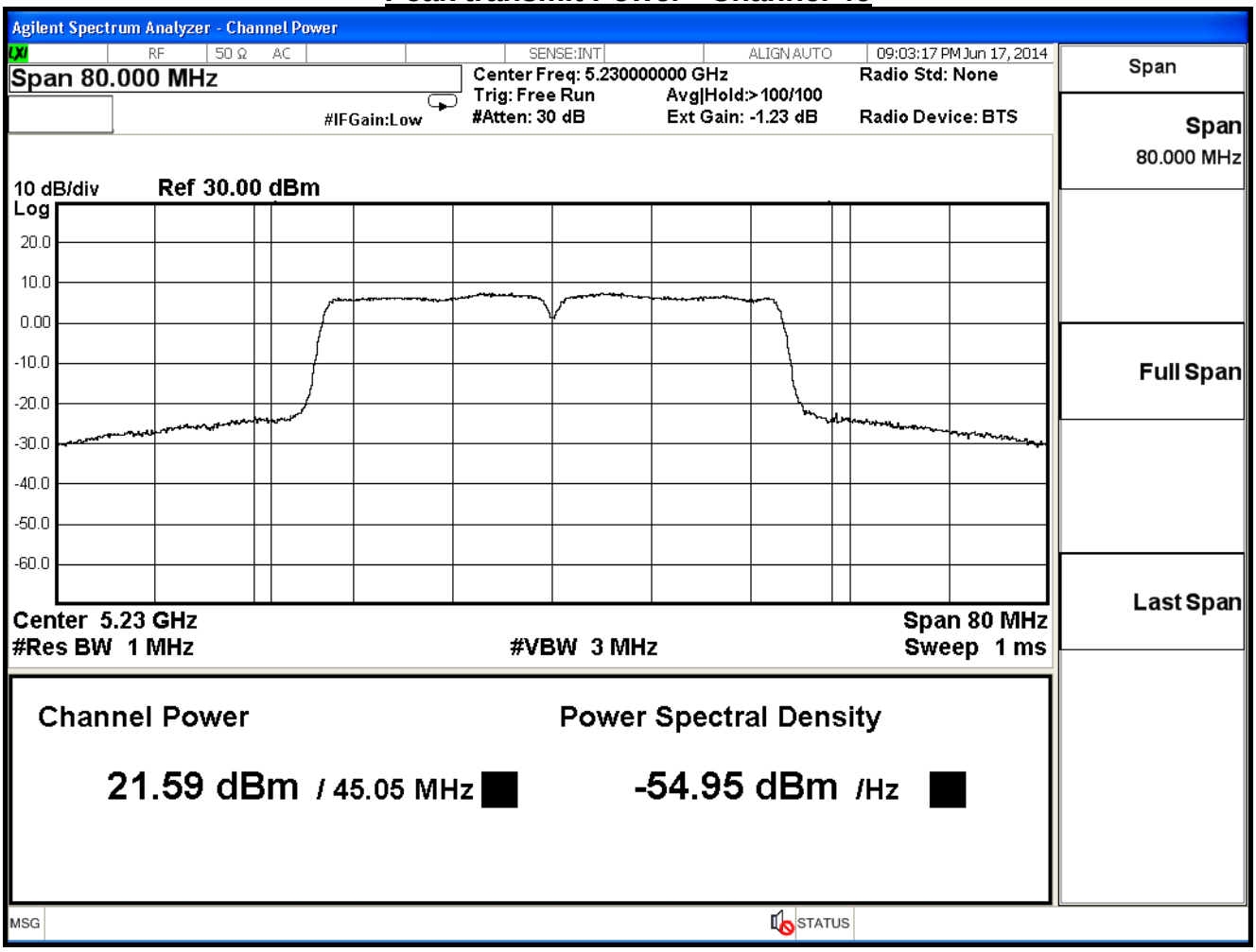
The worst emission of data rate is 13.5 Mbps

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	14.86	--	--	--	--	--	--	--	30dBm or 17dBm+10logB
46	5230	21.59	21.36	21.04	20.94	20.82	20.64	20.38	20.15	

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



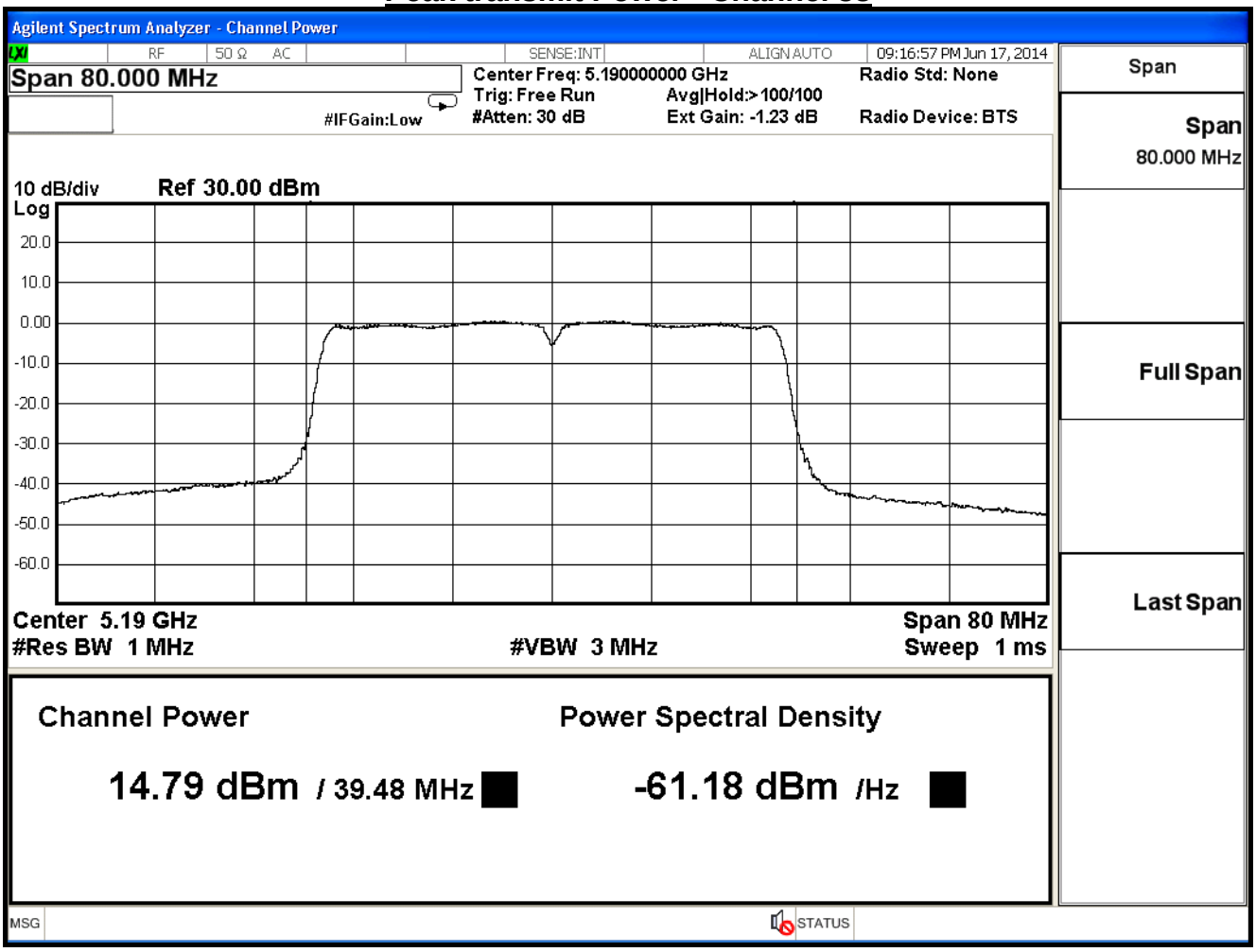
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

IEEE 802.11n(40MHz)(ANT 2)						
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
38	5190	39.48	14.79	≤30	32.96	Pass
46	5230	39.51	20.43	≤30	32.96	Pass

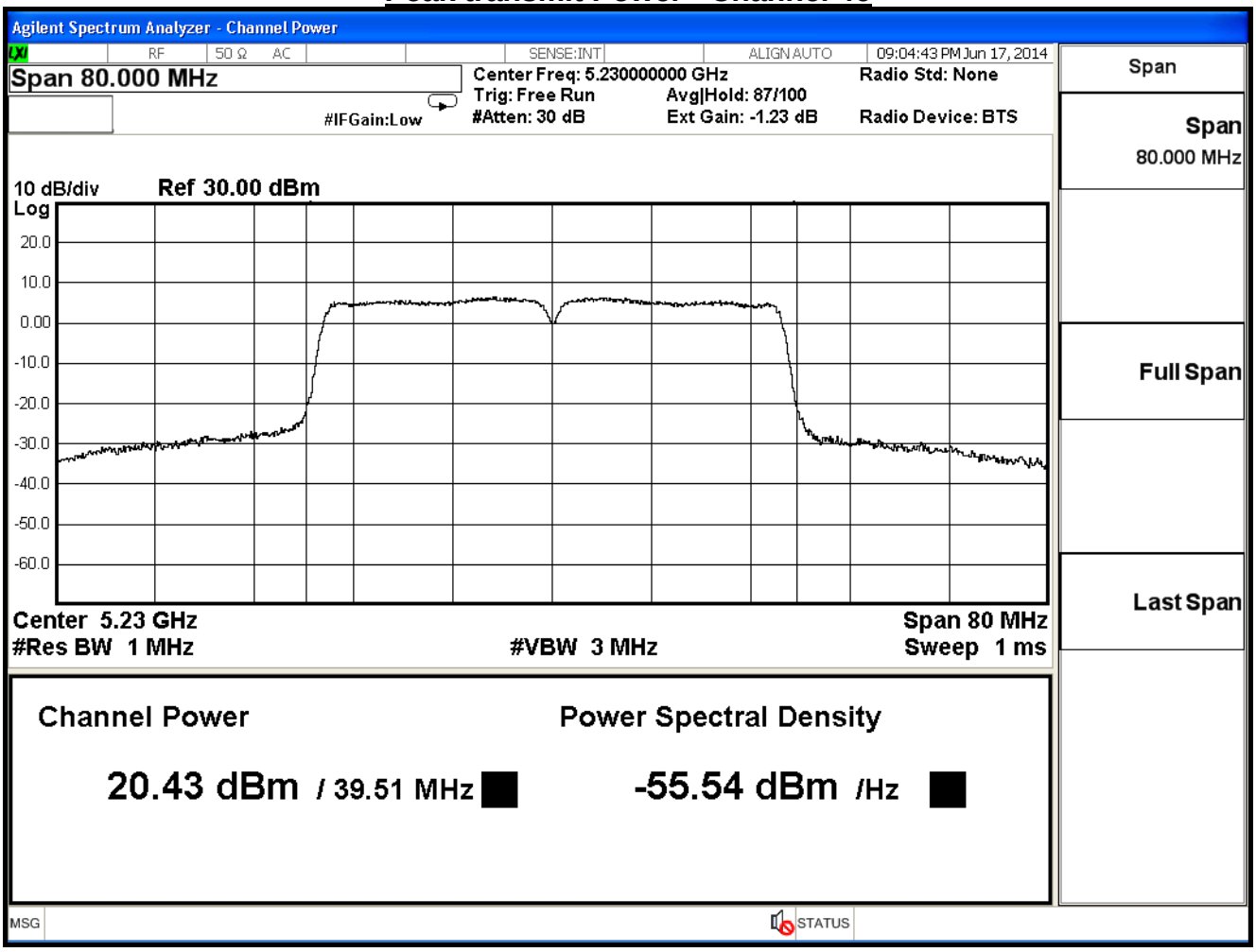
The worst emission of data rate is 13.5 Mbps

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	14.79	--	--	--	--	--	--	--	30dBm or 17dBm+10logB
46	5230	20.43	20.13	20.08	19.76	19.55	19.24	19.11	18.92	

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

IEEE 802.11n(40MHz) (ANT 0+1+2)					
Channel No.	Frequency (MHz)	Total Output Power		Required Limit (dBm)	Result
		(mW)	(dBm)		
38	5190	89.46	19.52	≤30	Pass
46	5230	342.93	25.35	≤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	19.52	--	--	--	--	--	--	--	30dBm or 17dBm+10logB
46	5230	25.35	25.21	25.05	24.91	24.67	24.31	24.11	24.01	

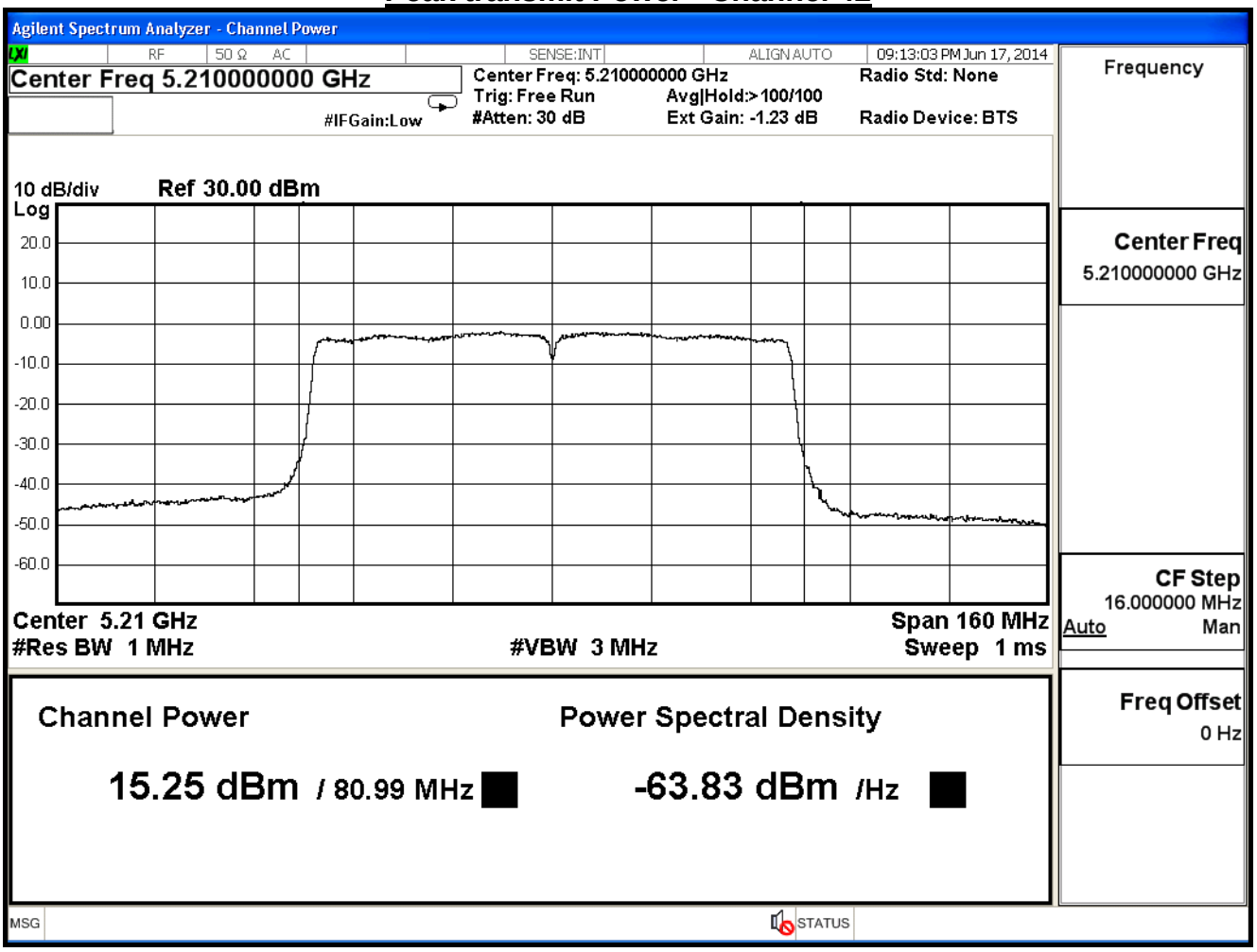
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

IEEE 802.11ac(80MHz)(ANT 0)						
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
42	5210	80.99	15.25	≤30	36.08	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	
42	5210	15.25	15.03	14.96	14.84	14.71	14.66	14.52	14.30	30dBm or 17dBm+10logB

Peak transmit Power - Channel 42

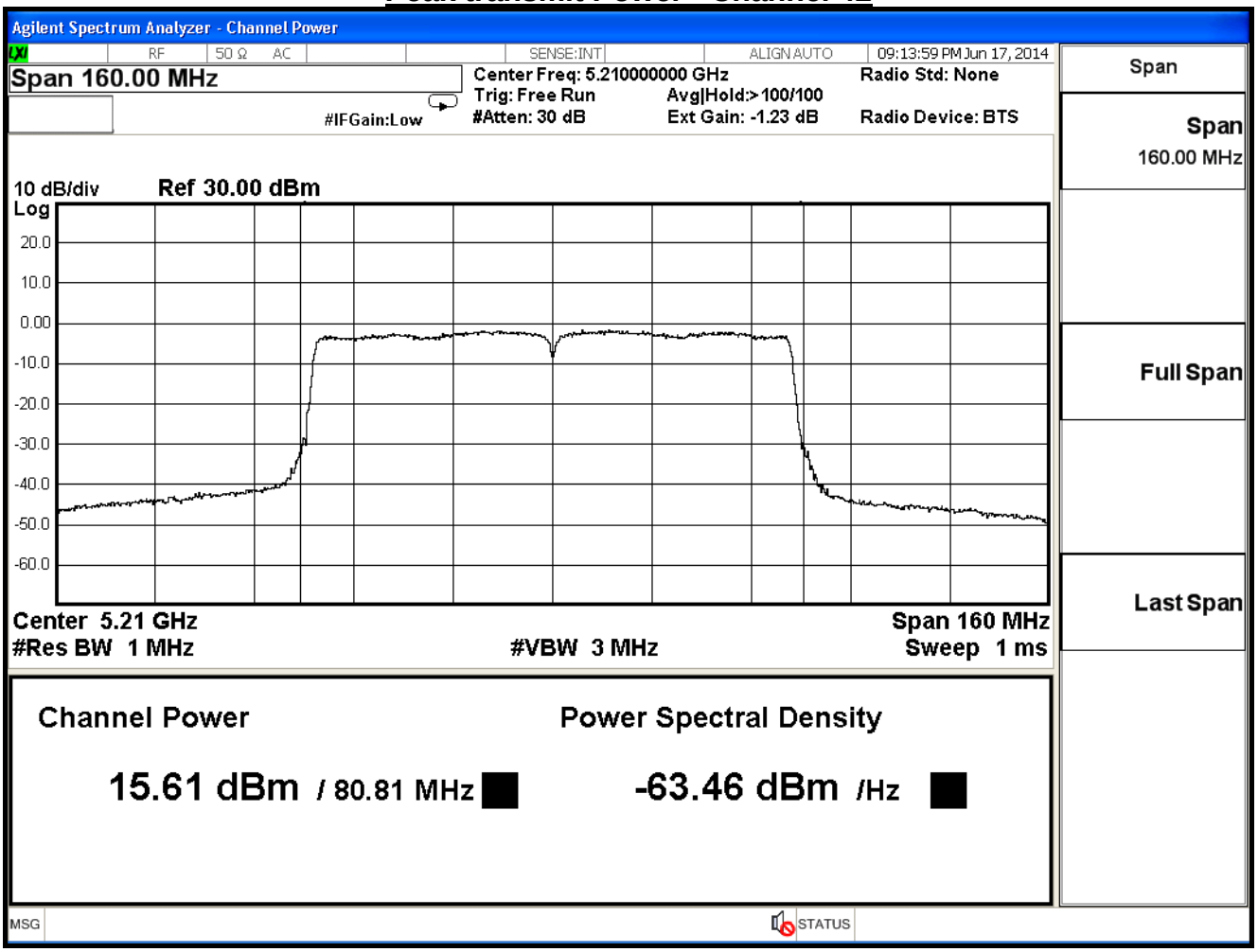


Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

IEEE 802.11ac(80MHz)(ANT 1)						
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
42	5210	80.81	15.61	≤30	36.07	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	
42	5210	15.61	15.32	15.11	15.04	14.97	14.82	14.71	14.63	30dBm or 17dBm+10logB

Peak transmit Power - Channel 42

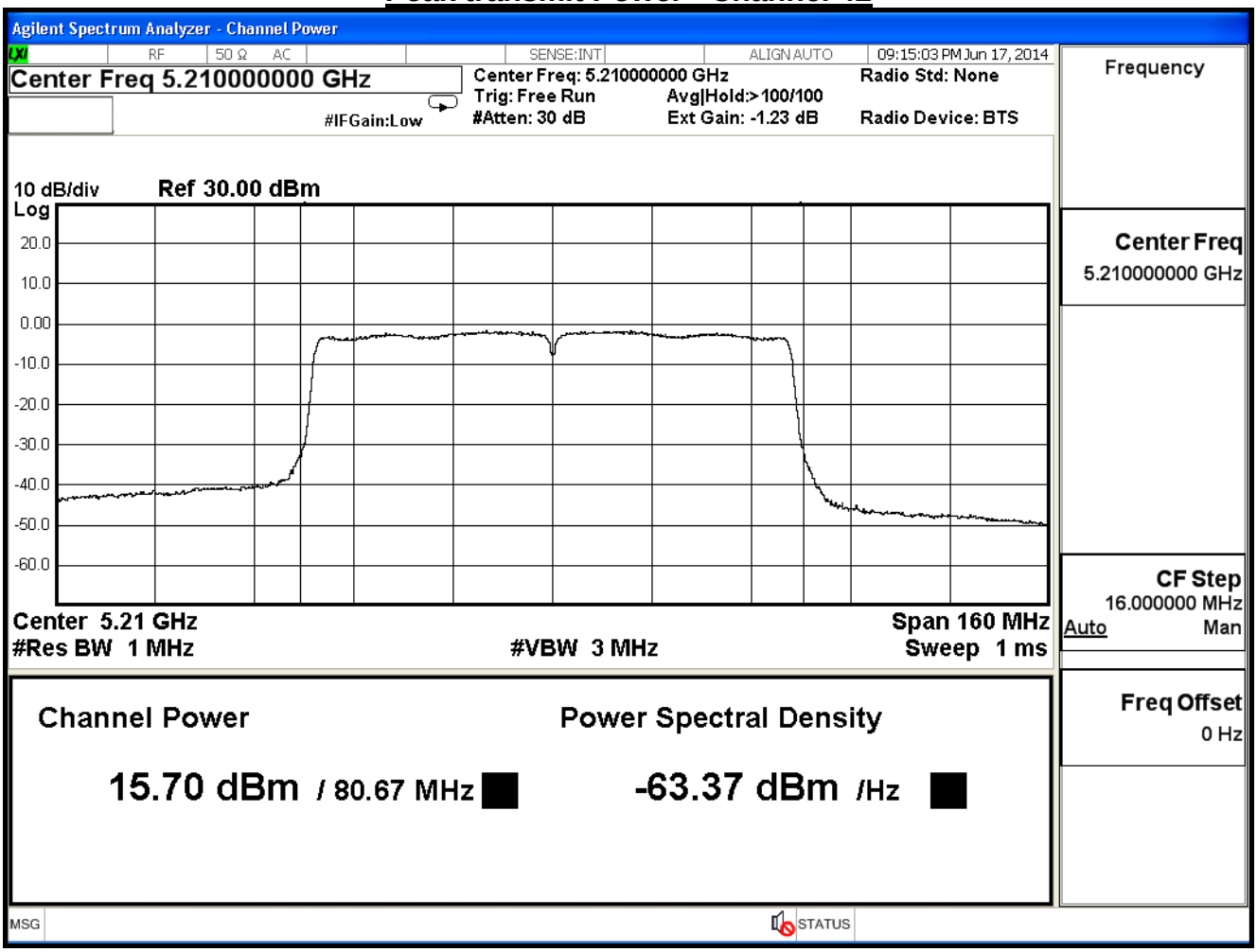


Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

IEEE 802.11ac(80MHz)(ANT 2)						
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	Output Power (dBm)	Required Limit		Result
				Fixed Limit (dBm)	17+10logB Limit (dBm)	
42	5210	80.67	15.70	≤30	36.06	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	
42	5210	15.70	15.32	15.02	14.93	14.74	14.62	14.30	14.02	30dBm or 17dBm+10logB

Peak transmit Power - Channel 42



Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/17	Test Site	SR7

IEEE 802.11ac(80MHz)(ANT 0+1+2)					
Channel No.	Frequency (MHz)	Total Output Power		Required Limit (dBm)	Result
		(mW)	(dBm)		
42	5210	107.04	20.30	≤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	
42	5210	20.30	20.13	20.04	19.74	19.62	19.41	19.31	19.10	30dBm or 17dBm+10logB

5. Peak Power Spectrum Density

5.1. Test Equipment

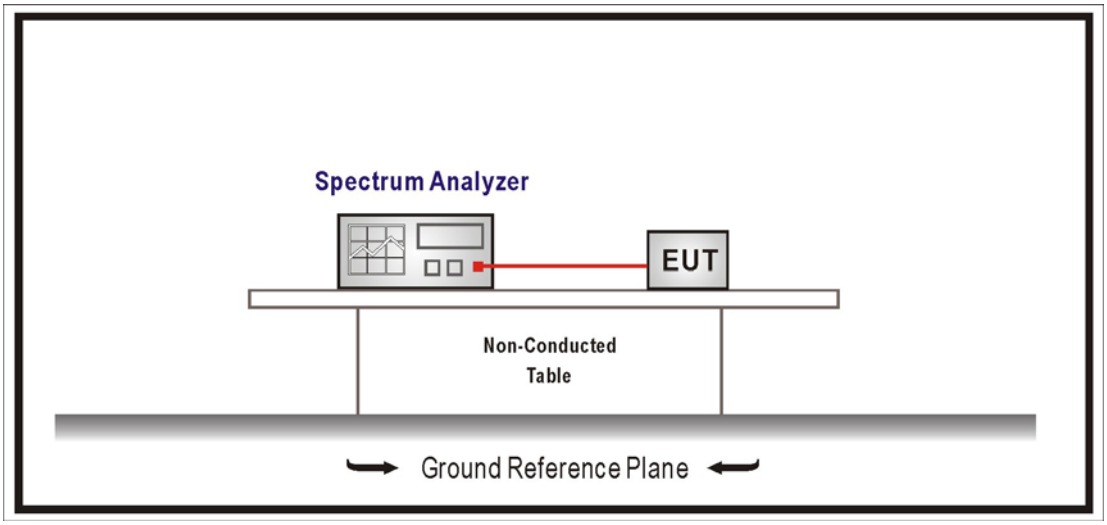
The following test equipments are used during the radiated emission tests:

Peak Power Spectrum Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

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 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.
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 5.725-5.825 GHz, the peak power spectral density shall not exceed 17 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.

5.4. Test Procedure

The EUT was setup to ANSI C63.4, 2009; tested to U-NII test procedure of KDB 789033 for compliance to FCC 47CFR Subpart E requirements.

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.

5.5. Uncertainty

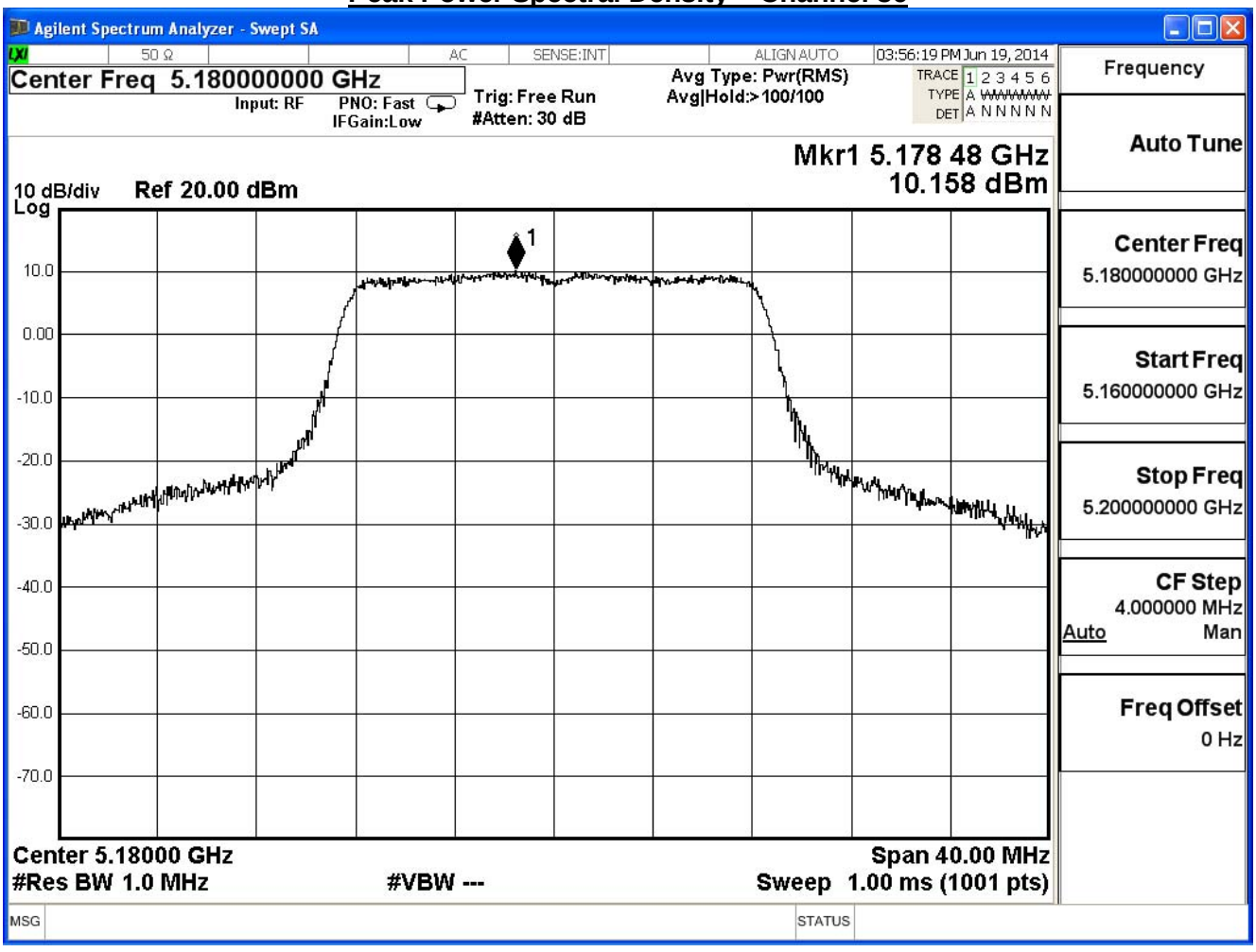
The measurement uncertainty is defined as ± 1.27 dB

5.6. Test Result

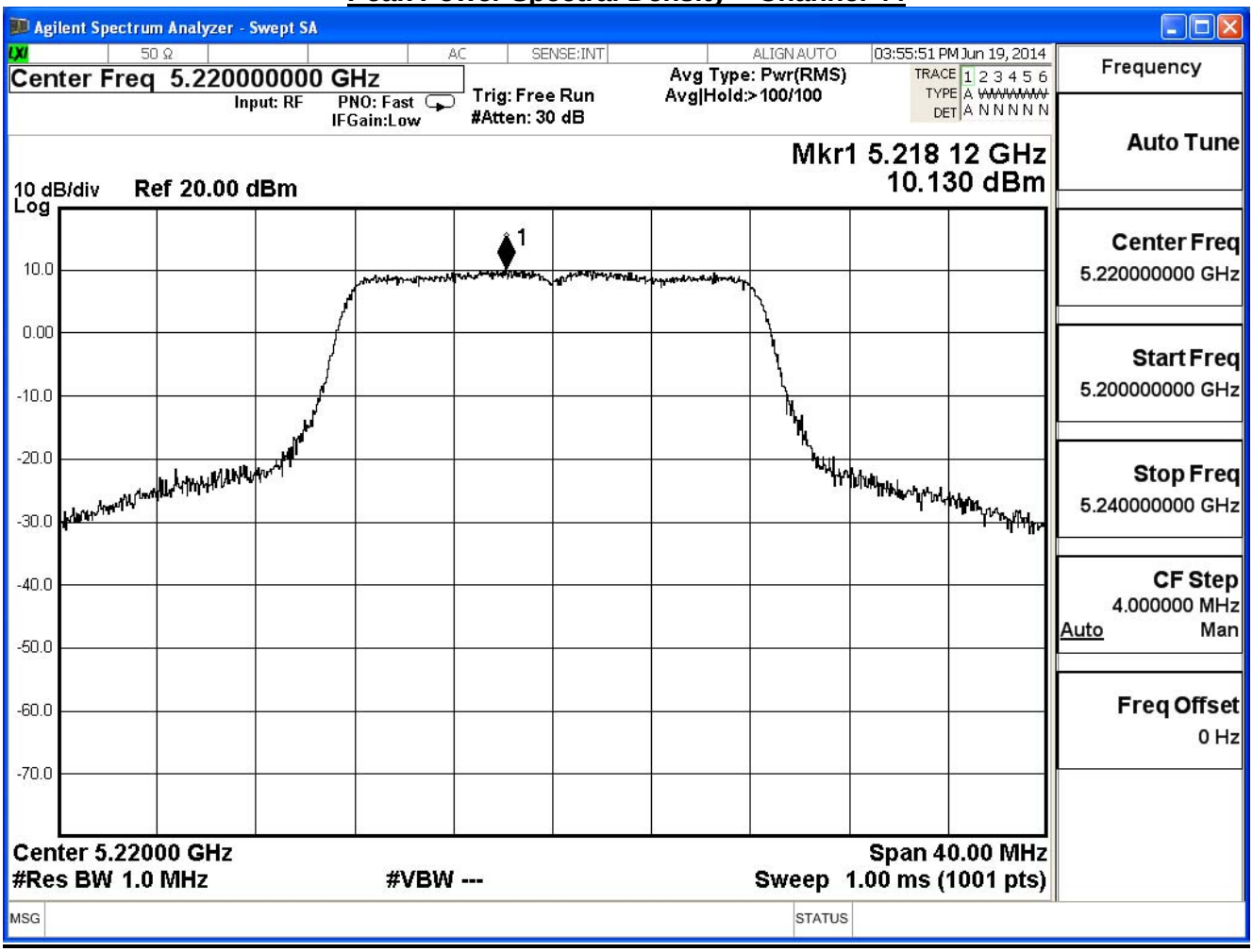
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11a (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	10.158	≤ 16.23	Pass
44	5220	10.130	≤ 16.23	Pass
48	5240	8.602	≤ 16.23	Pass

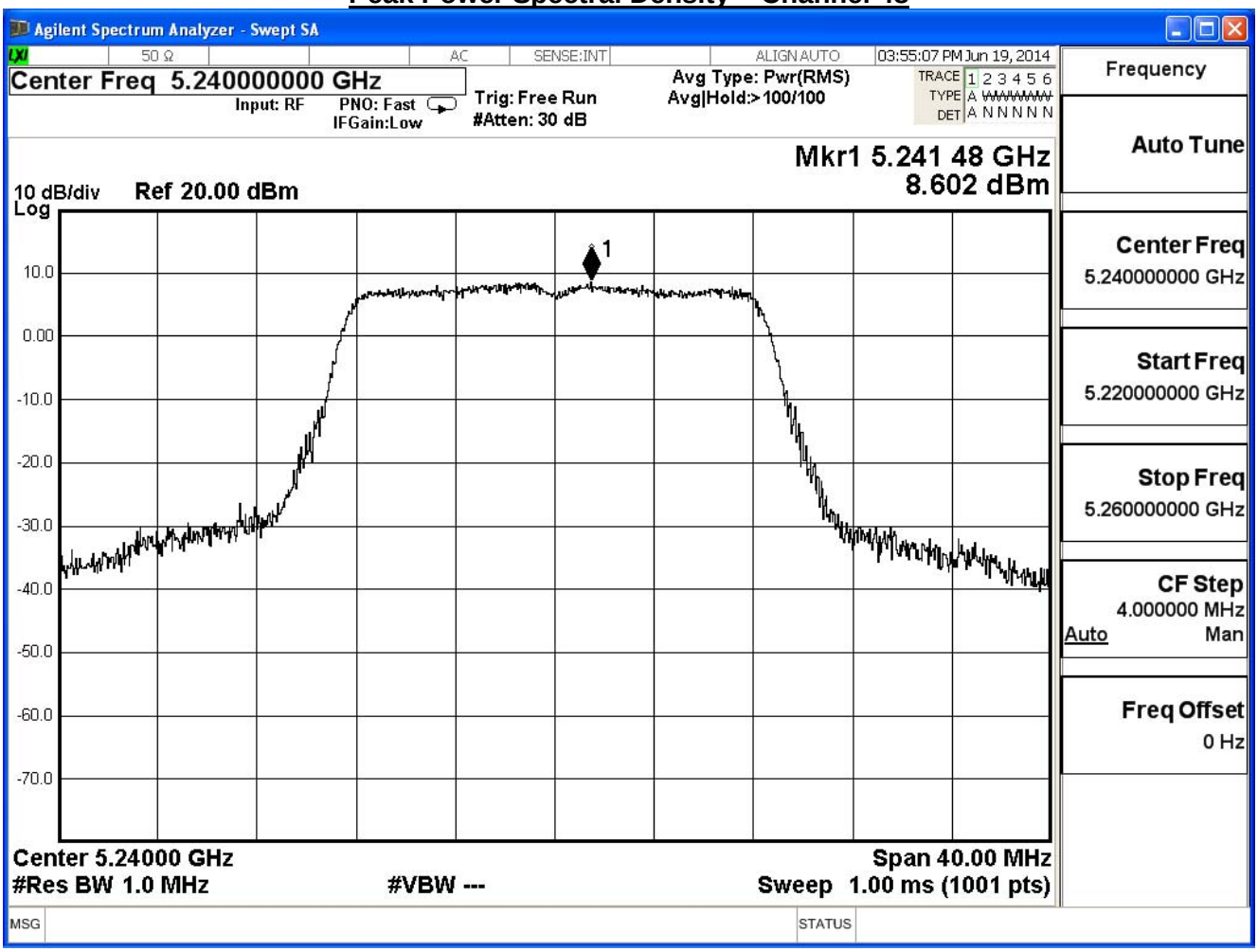
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



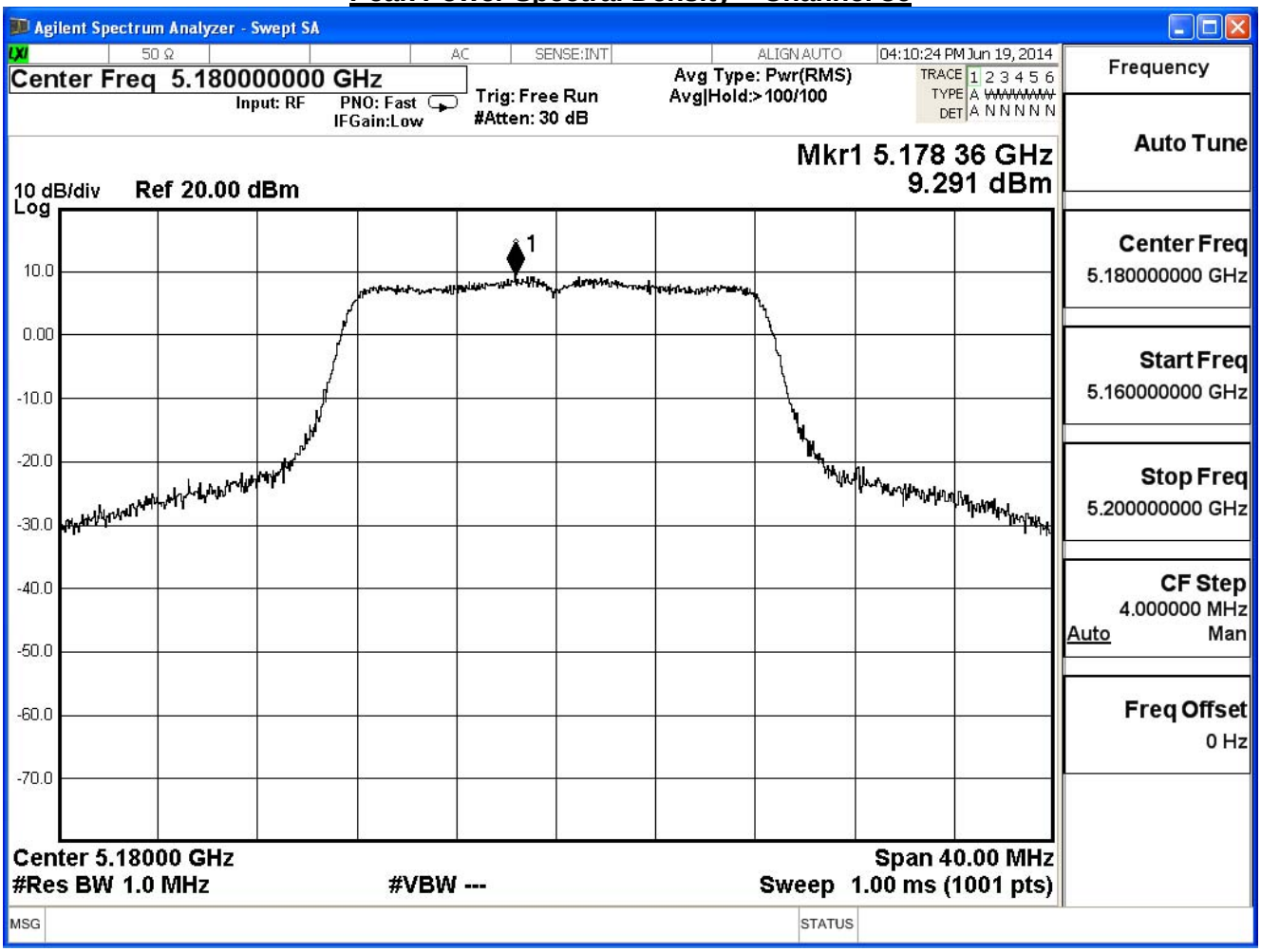
Peak Power Spectral Density – Channel 48



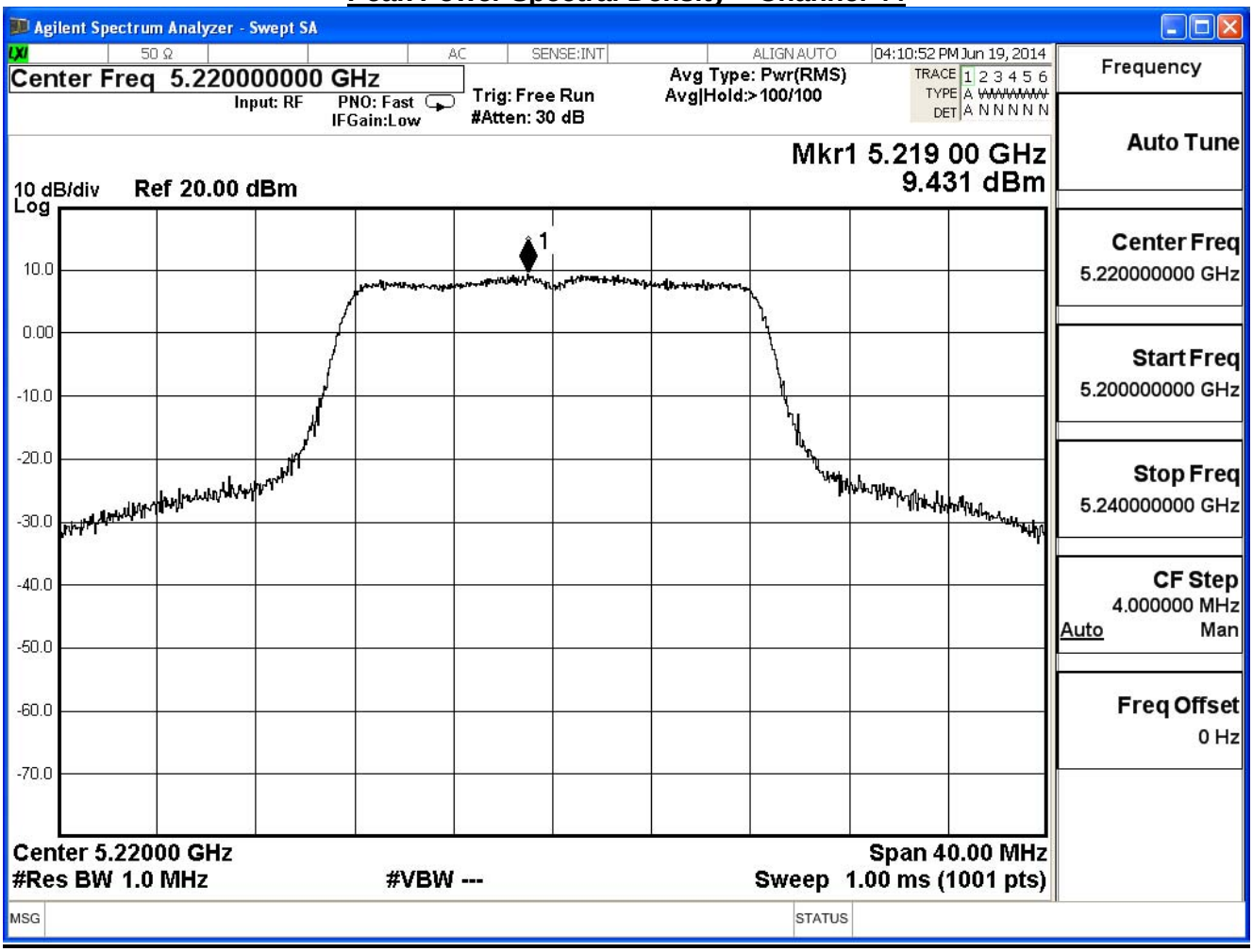
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11a(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	9.291	≤ 16.23	Pass
44	5220	9.431	≤ 16.23	Pass
48	5240	7.705	≤ 16.23	Pass

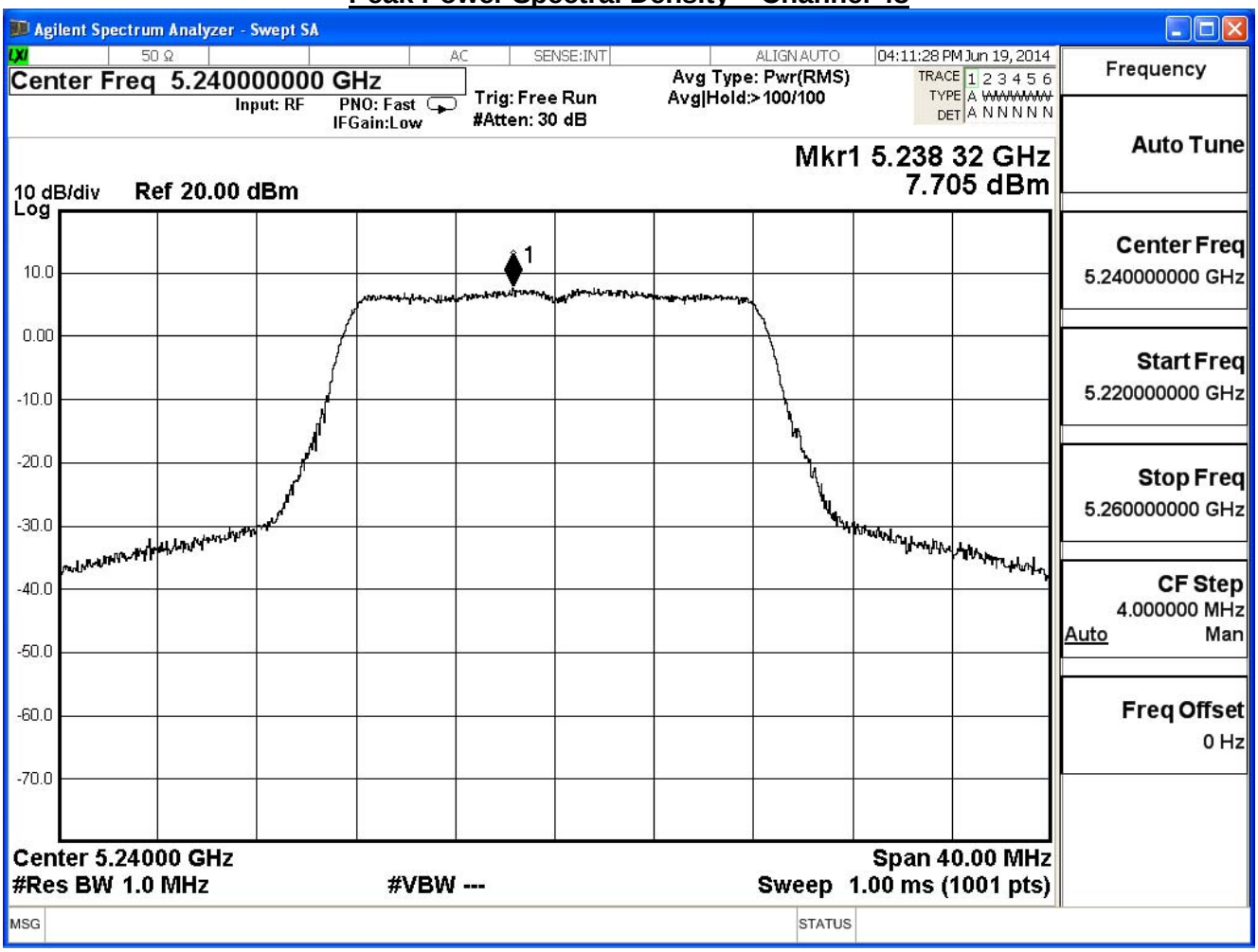
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



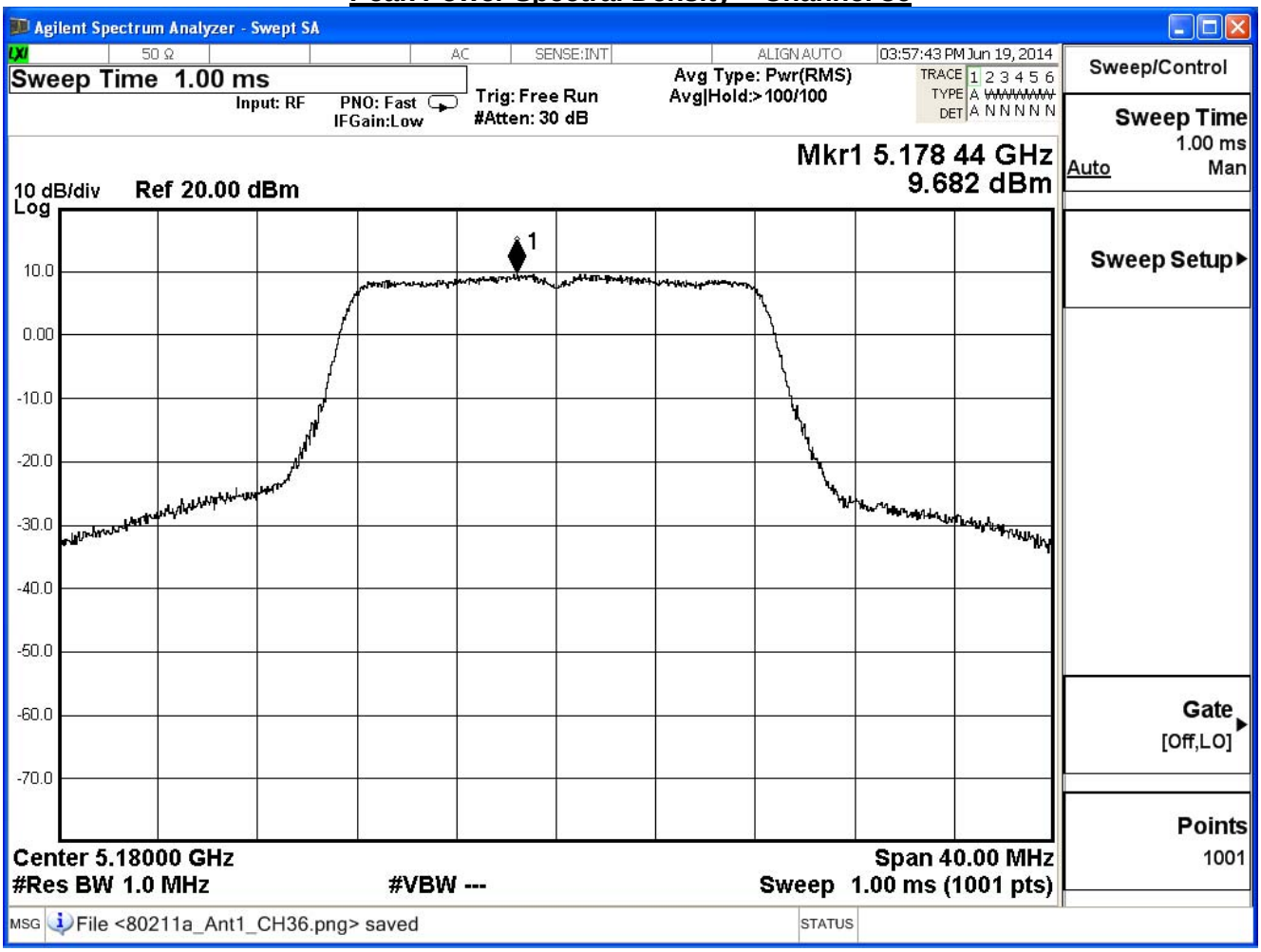
Peak Power Spectral Density – Channel 48



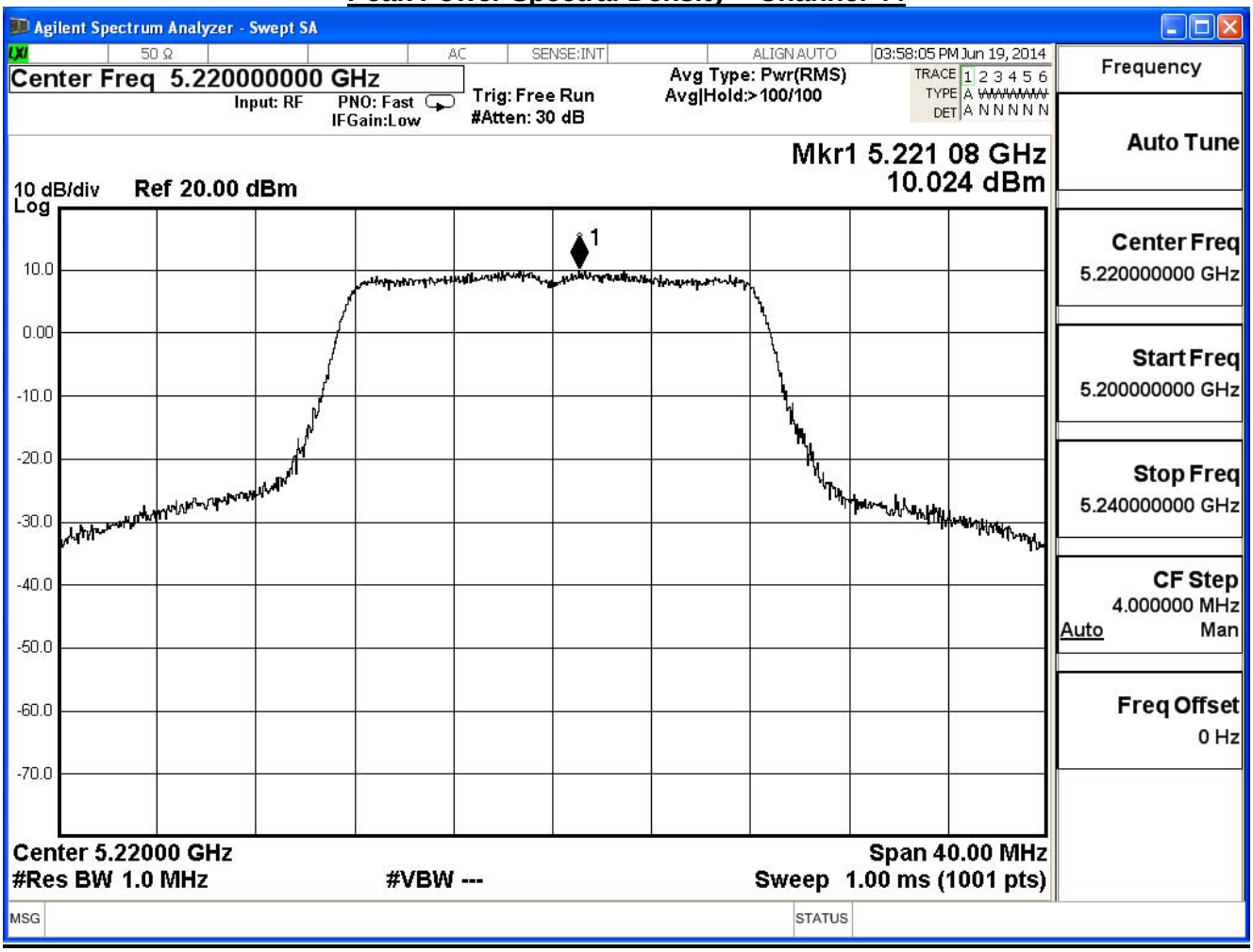
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11a(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	9.682	≤ 16.23	Pass
44	5220	10.024	≤ 16.23	Pass
48	5240	8.488	≤ 16.23	Pass

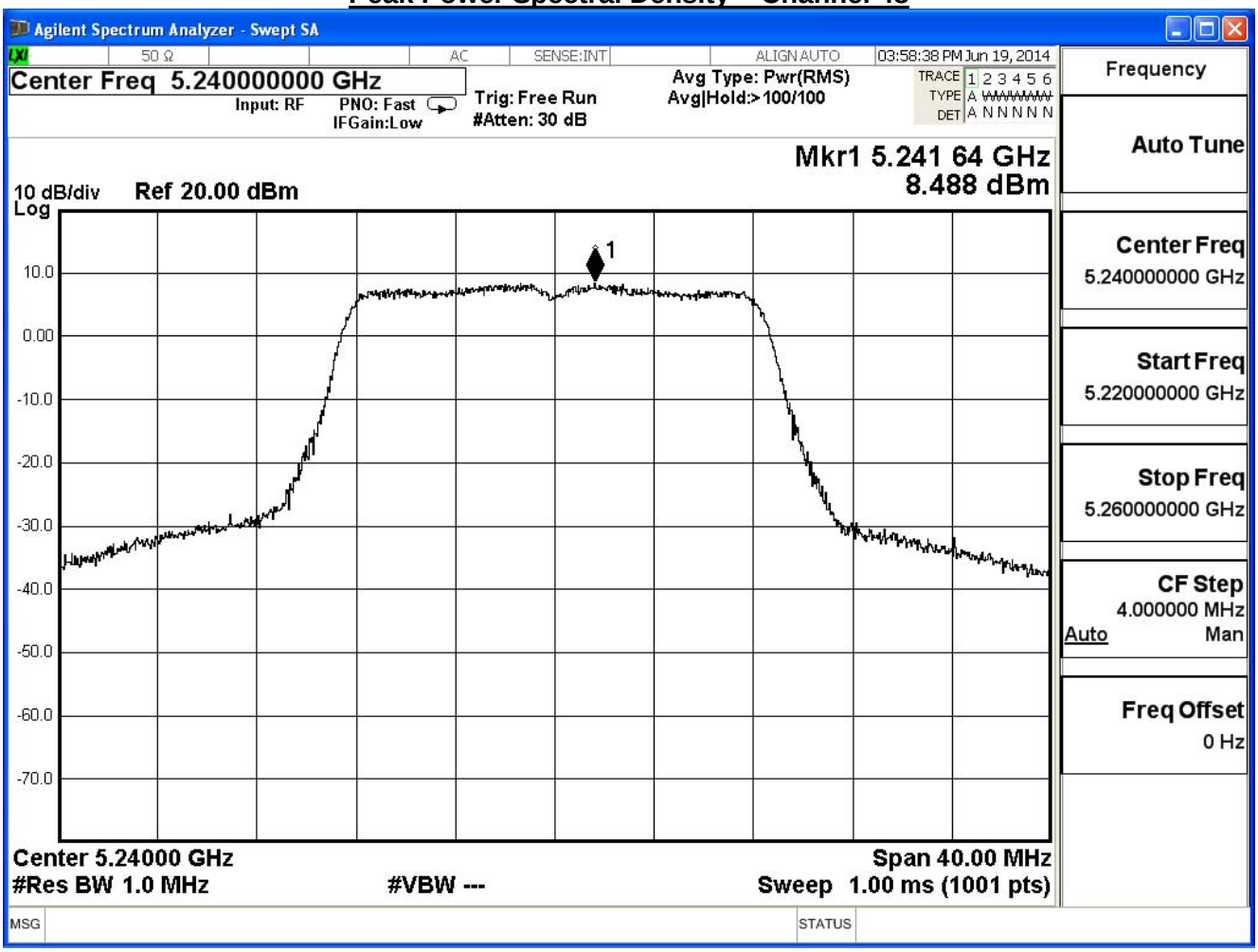
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



Peak Power Spectral Density – Channel 48



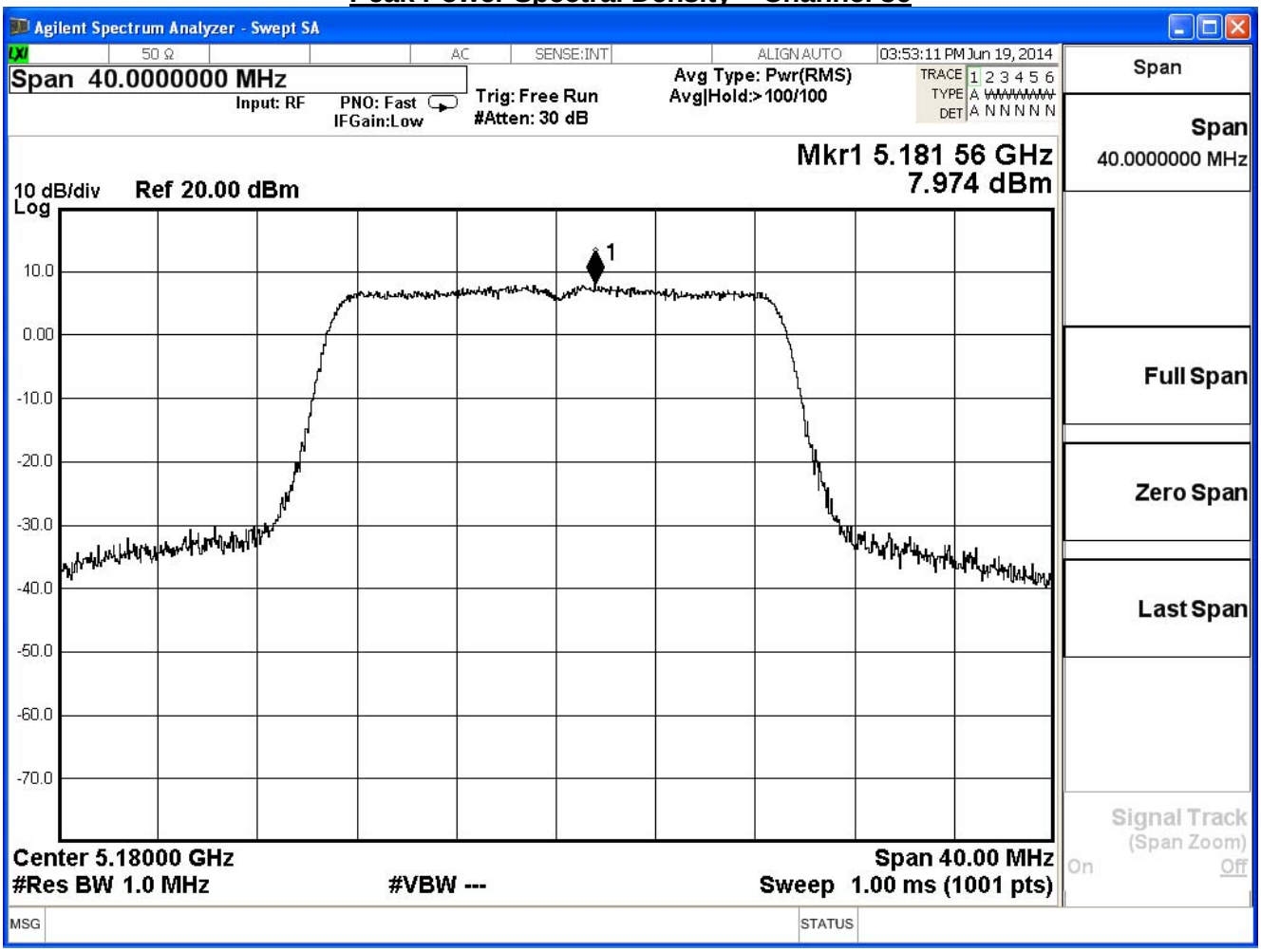
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11a (ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	14.496	≤ 16.23	Pass
44	5220	14.644	≤ 16.23	Pass
48	5240	13.054	≤ 16.23	Pass

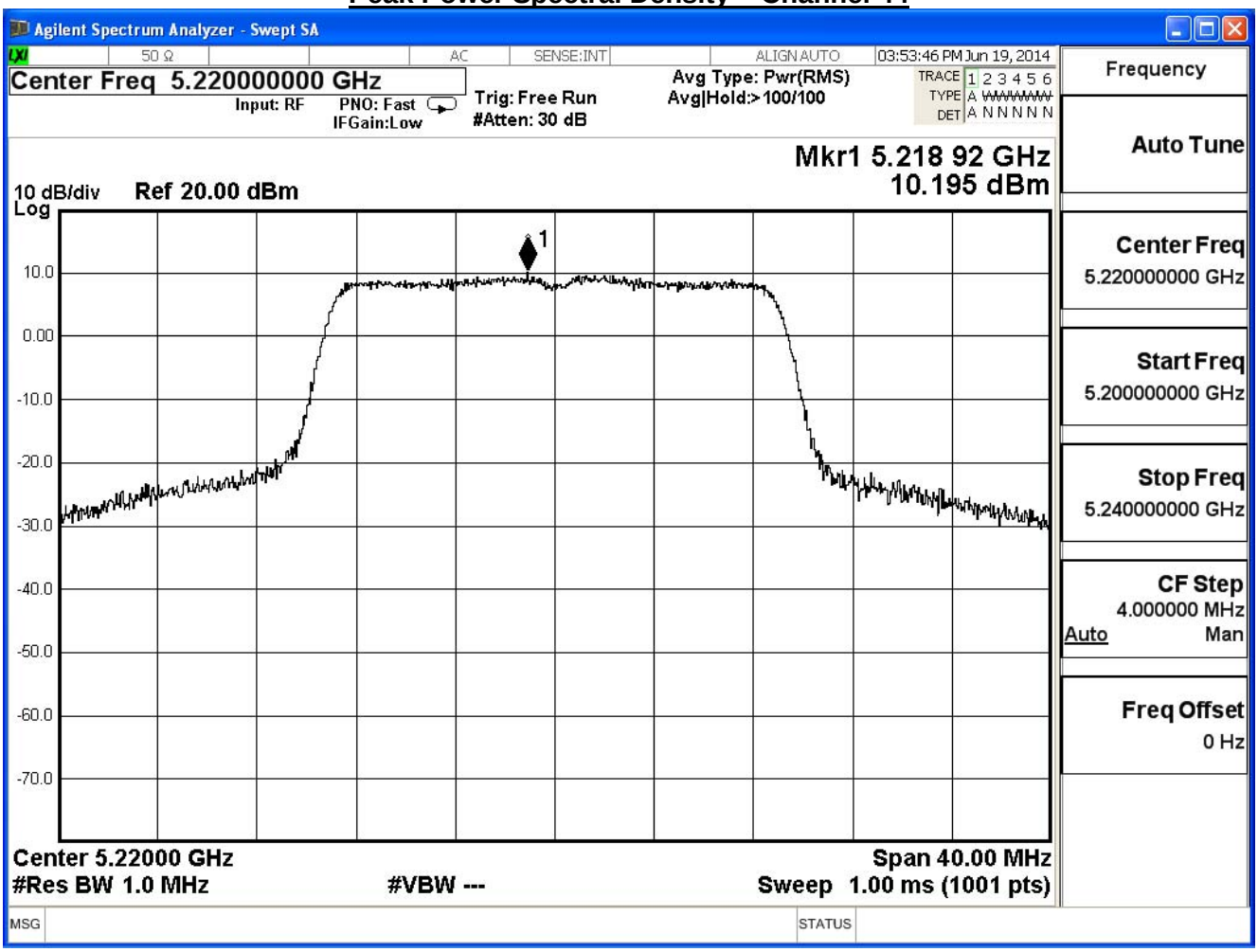
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11n_20M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	7.974	≤ 16.23	Pass
44	5220	10.195	≤ 16.23	Pass
48	5240	9.607	≤ 16.23	Pass

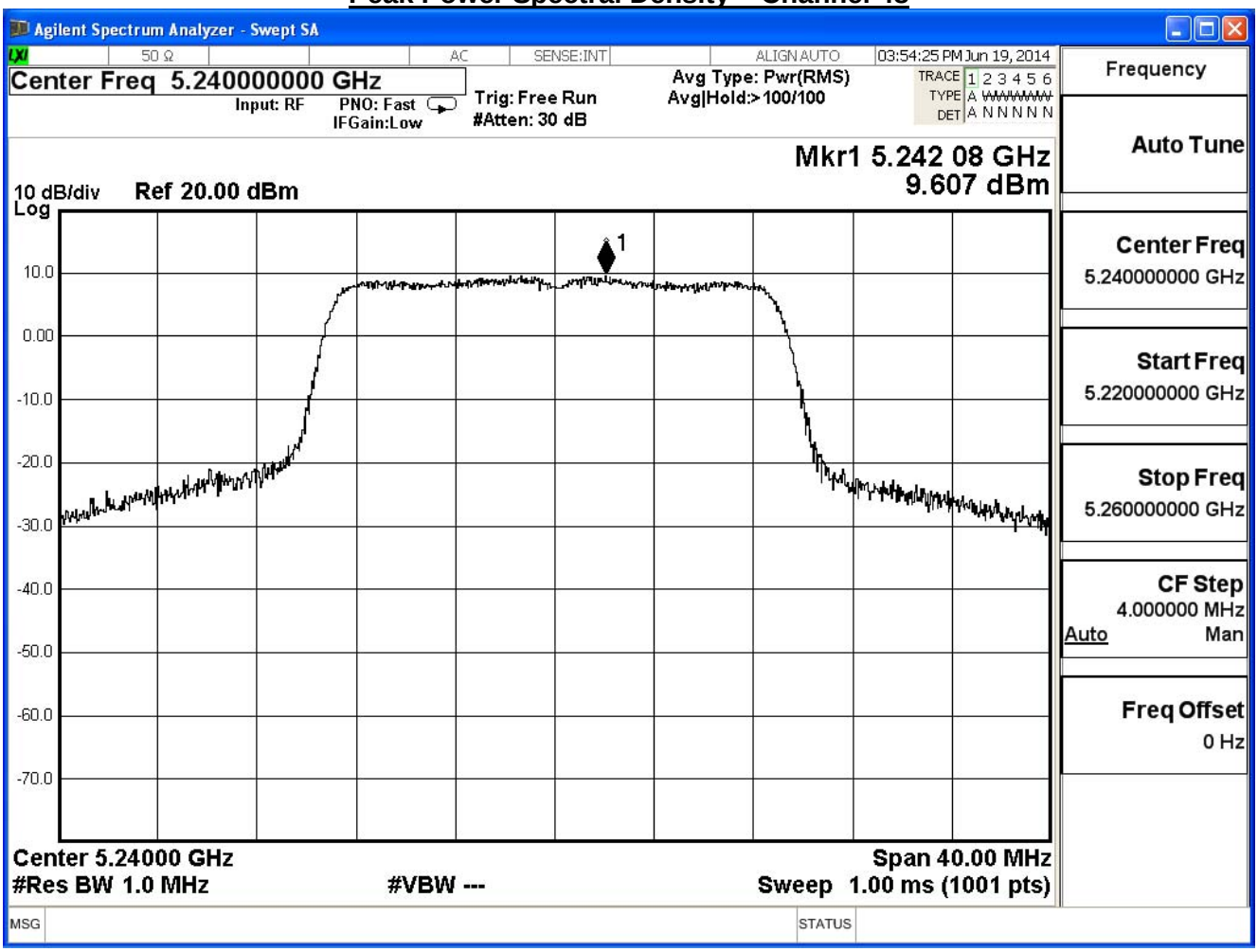
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



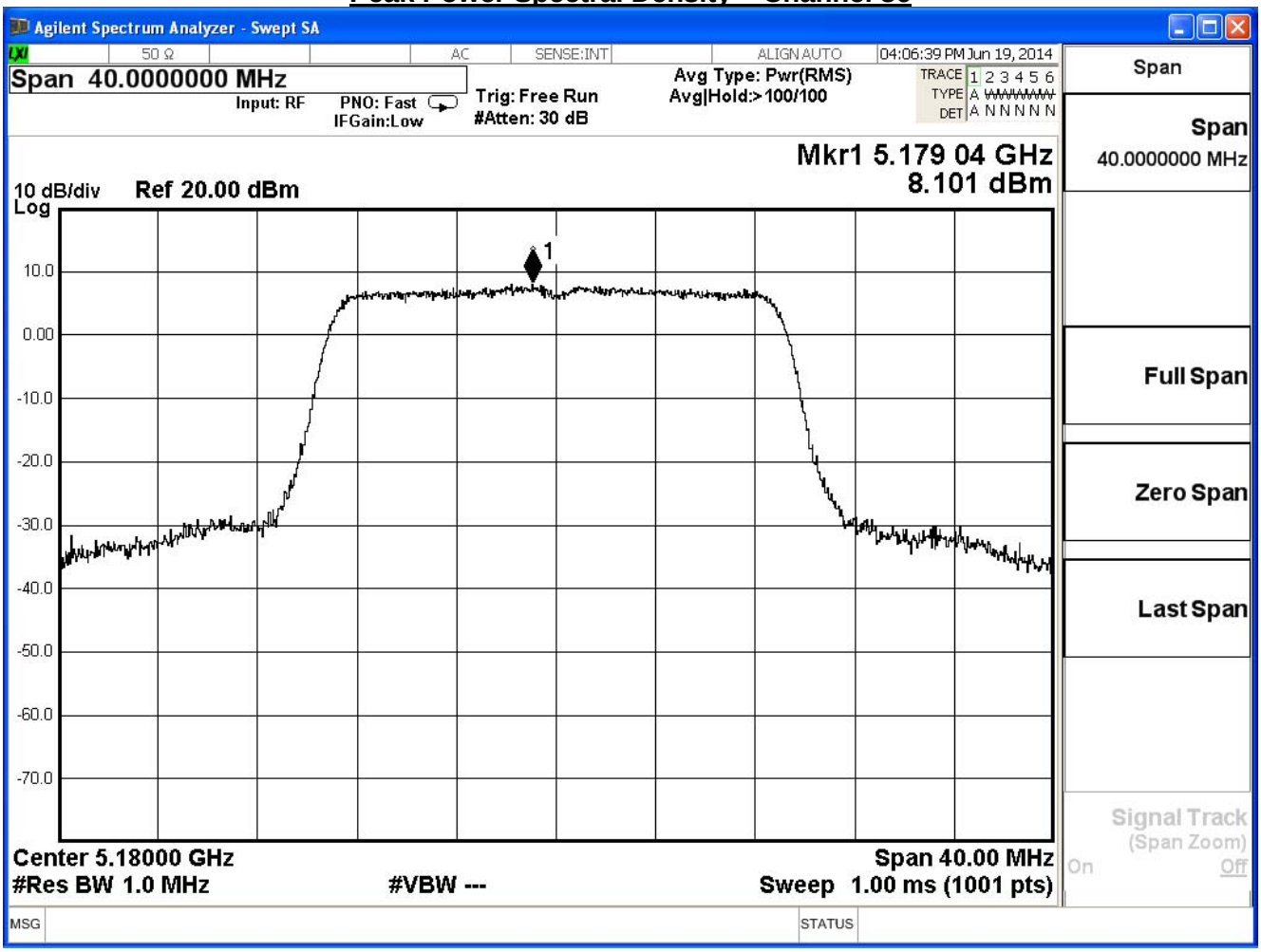
Peak Power Spectral Density – Channel 48



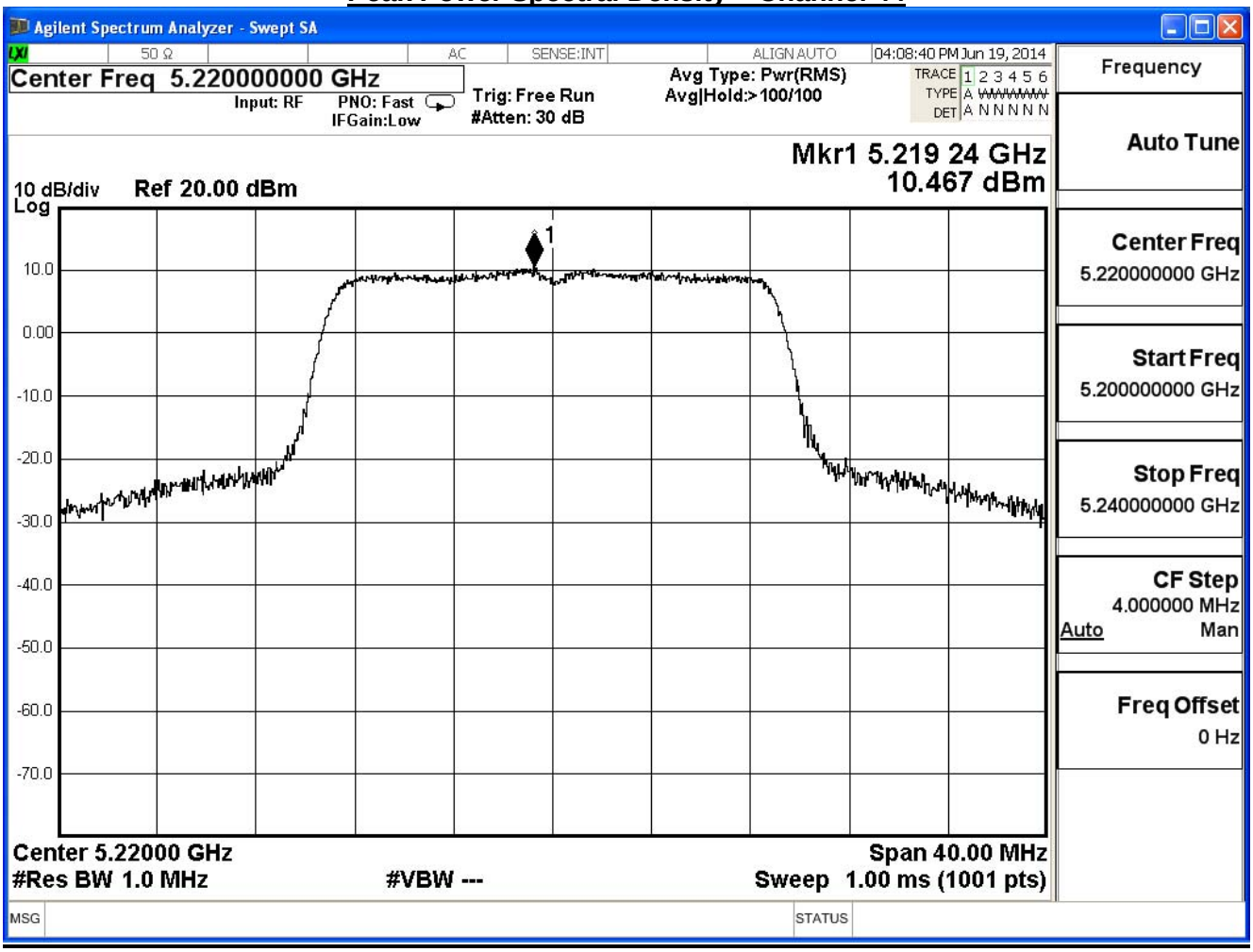
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11n_20M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	8.101	≤ 16.23	Pass
44	5220	10.467	≤ 16.23	Pass
48	5240	9.056	≤ 16.23	Pass

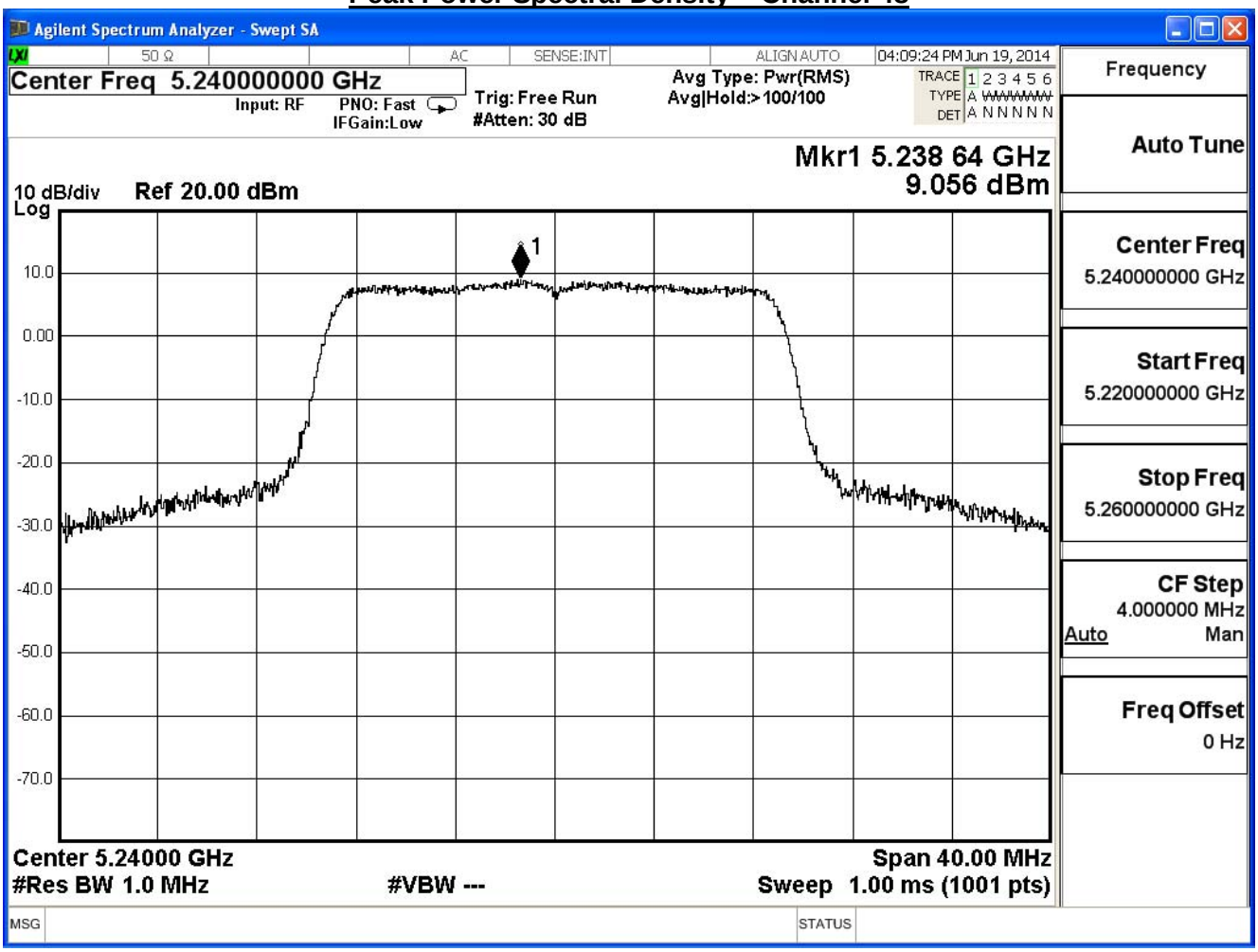
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



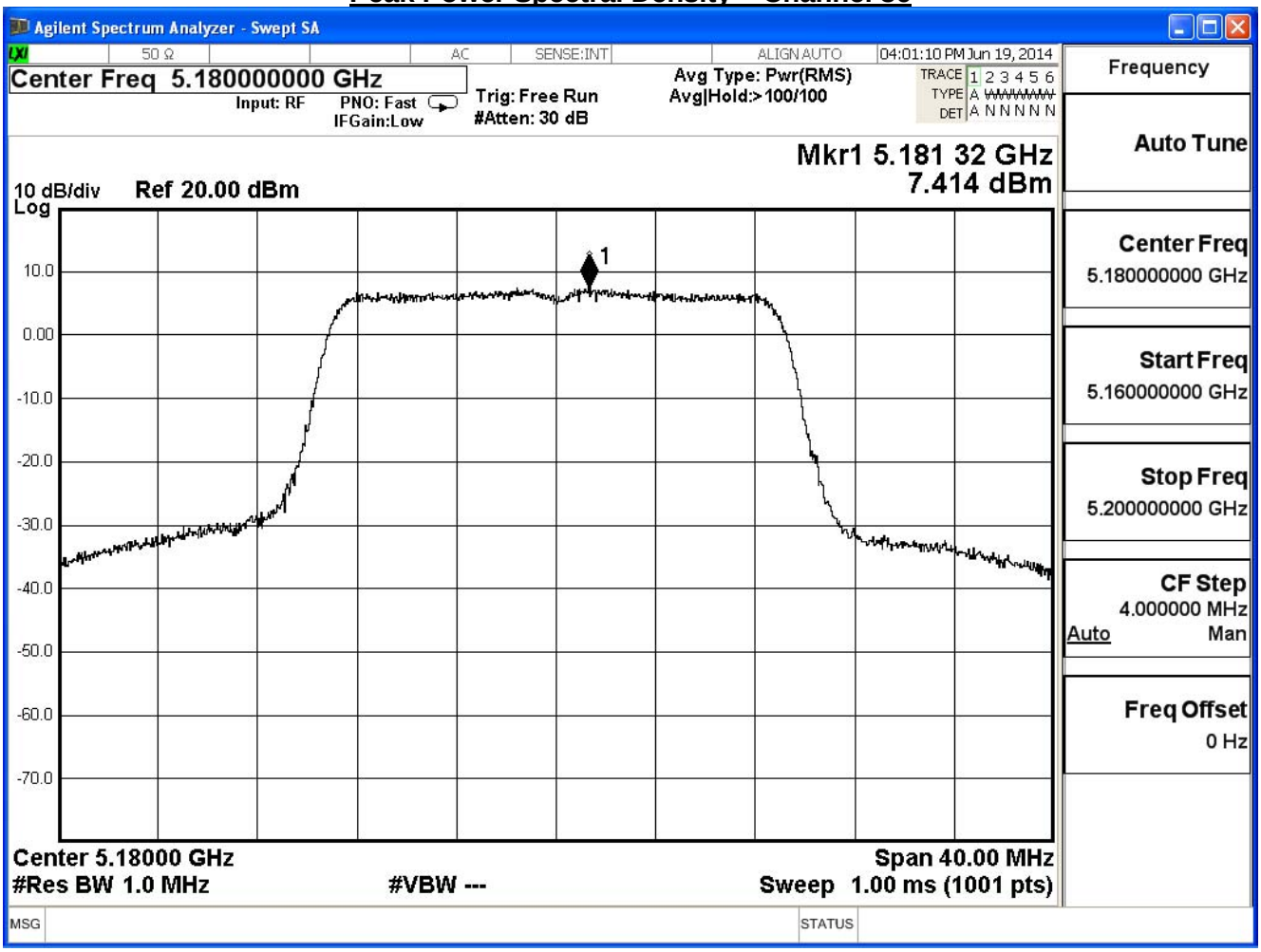
Peak Power Spectral Density – Channel 48



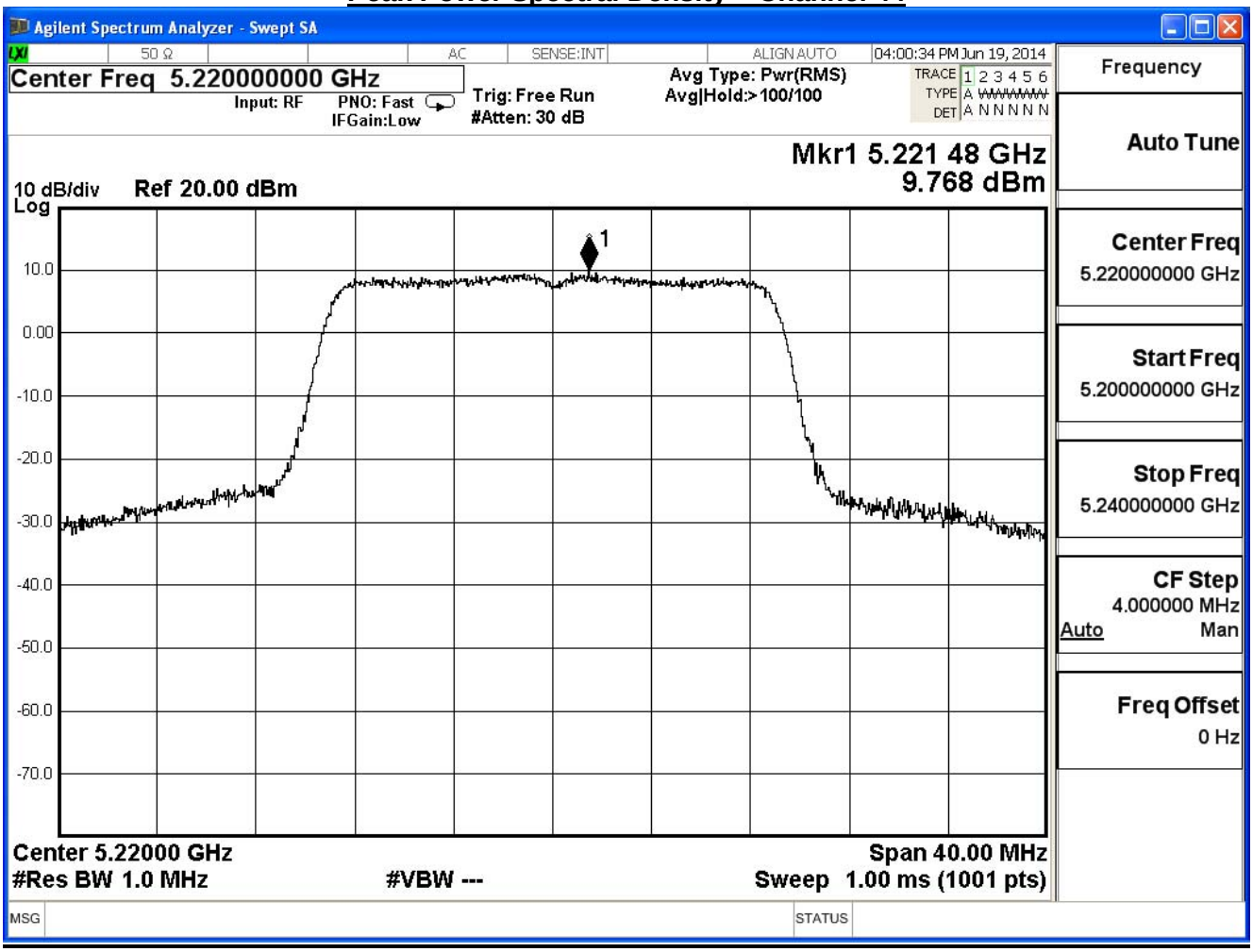
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11n_20M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	7.414	≤ 16.23	Pass
44	5220	9.768	≤ 16.23	Pass
48	5240	9.534	≤ 16.23	Pass

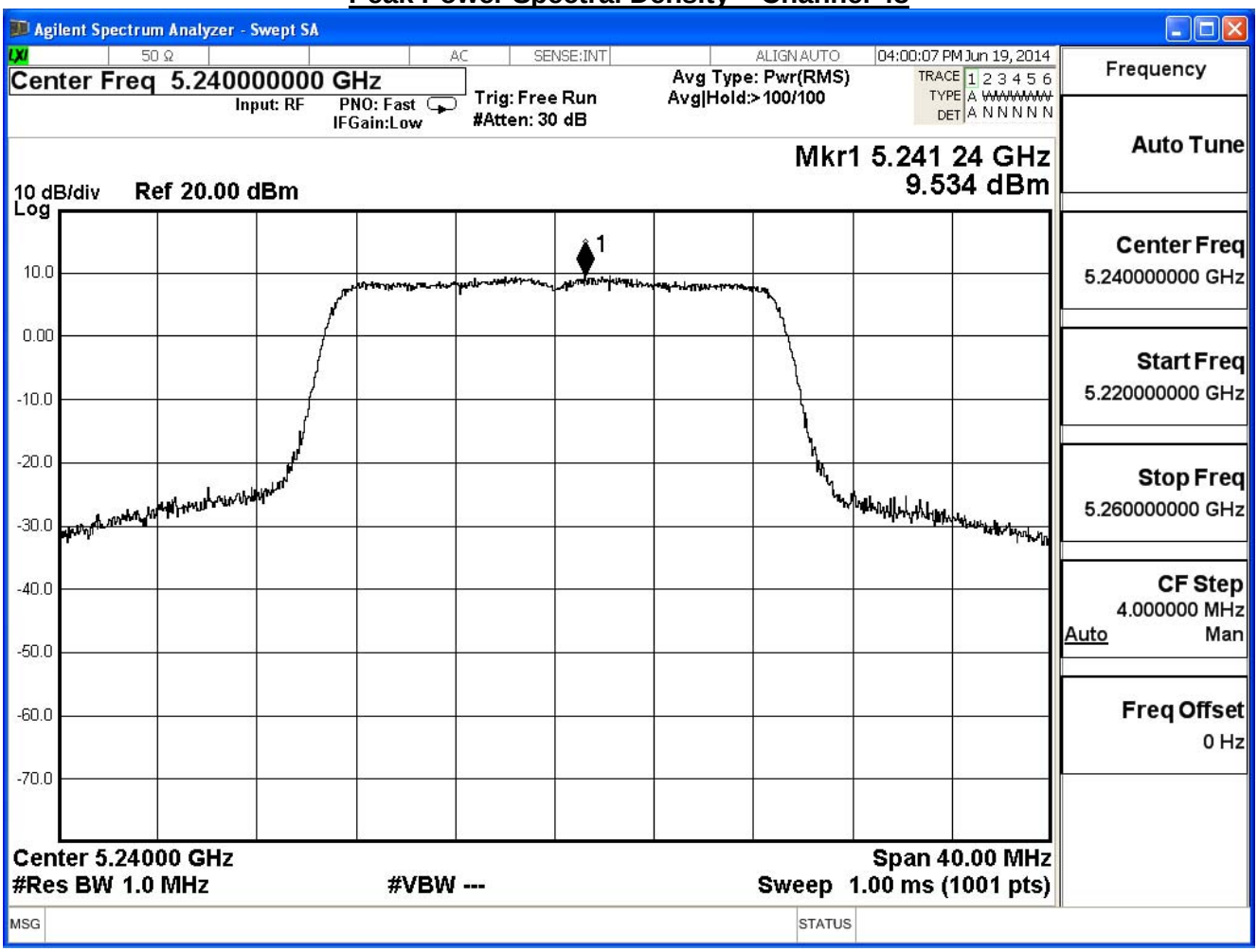
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



Peak Power Spectral Density – Channel 48



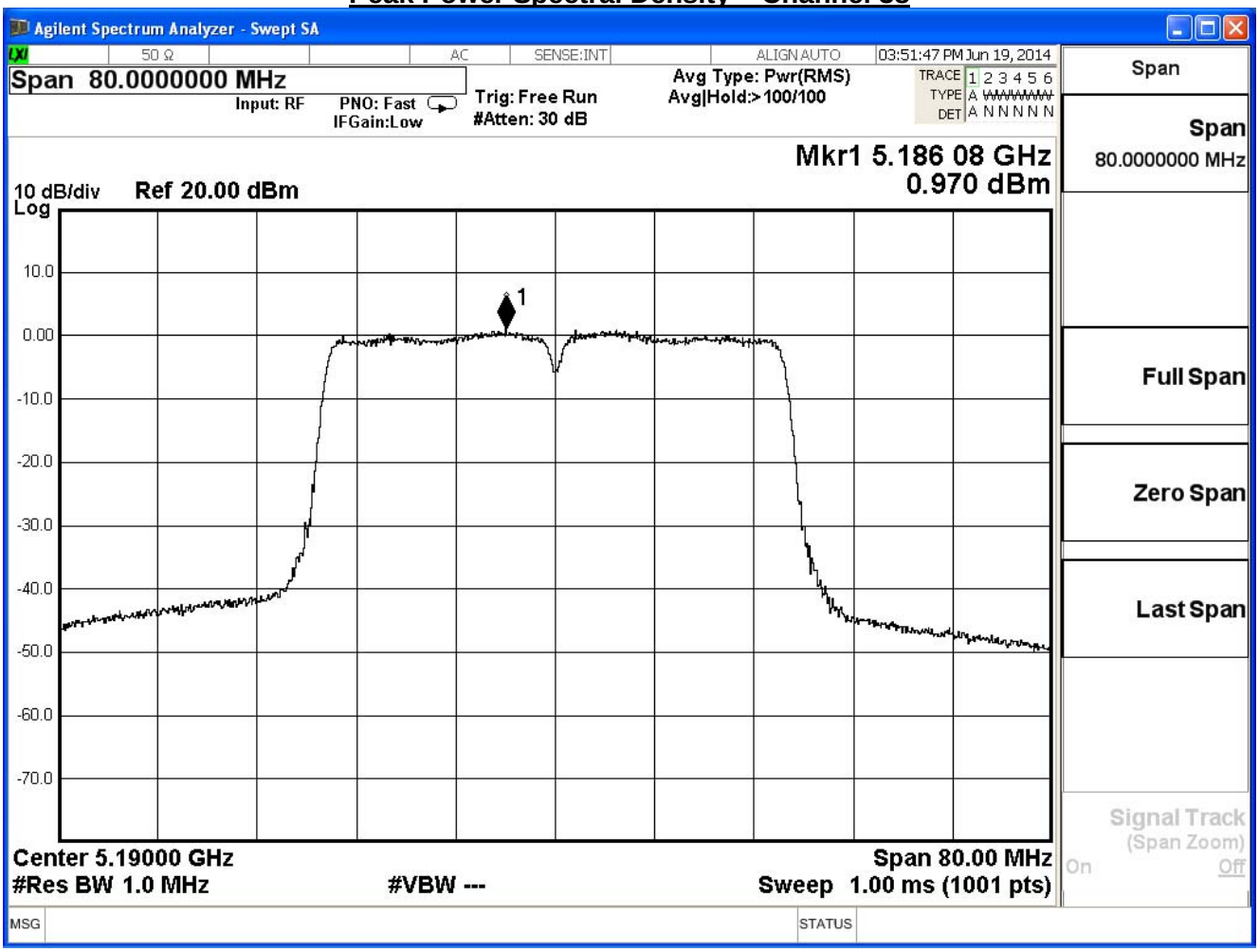
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11n_20M(ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
36	5180	12.611	≤ 16.23	Pass
44	5220	14.924	≤ 16.23	Pass
48	5240	14.177	≤ 16.23	Pass

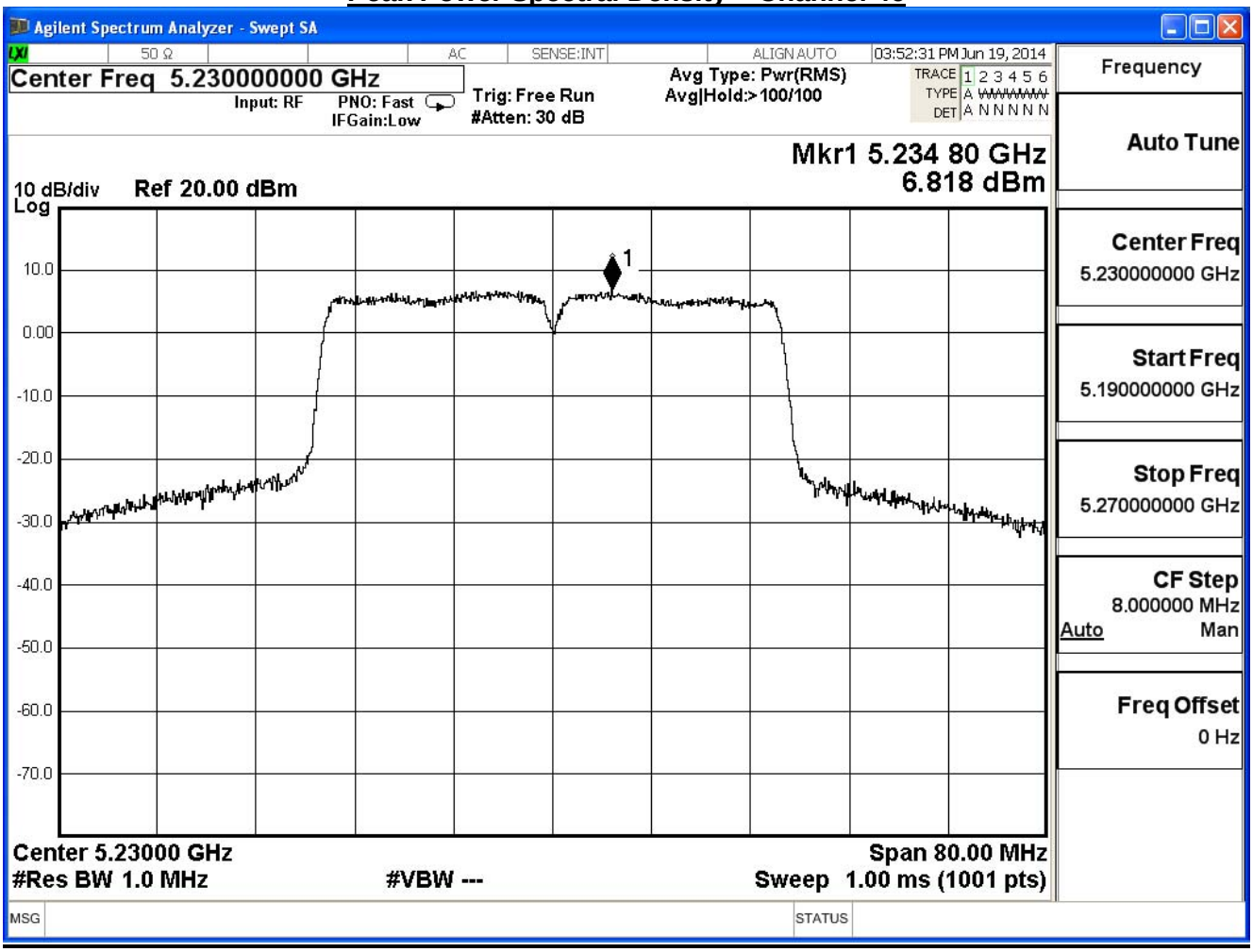
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11n_40M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	0.970	≤ 16.23	Pass
46	5230	6.818	≤ 16.23	Pass

Peak Power Spectral Density – Channel 38



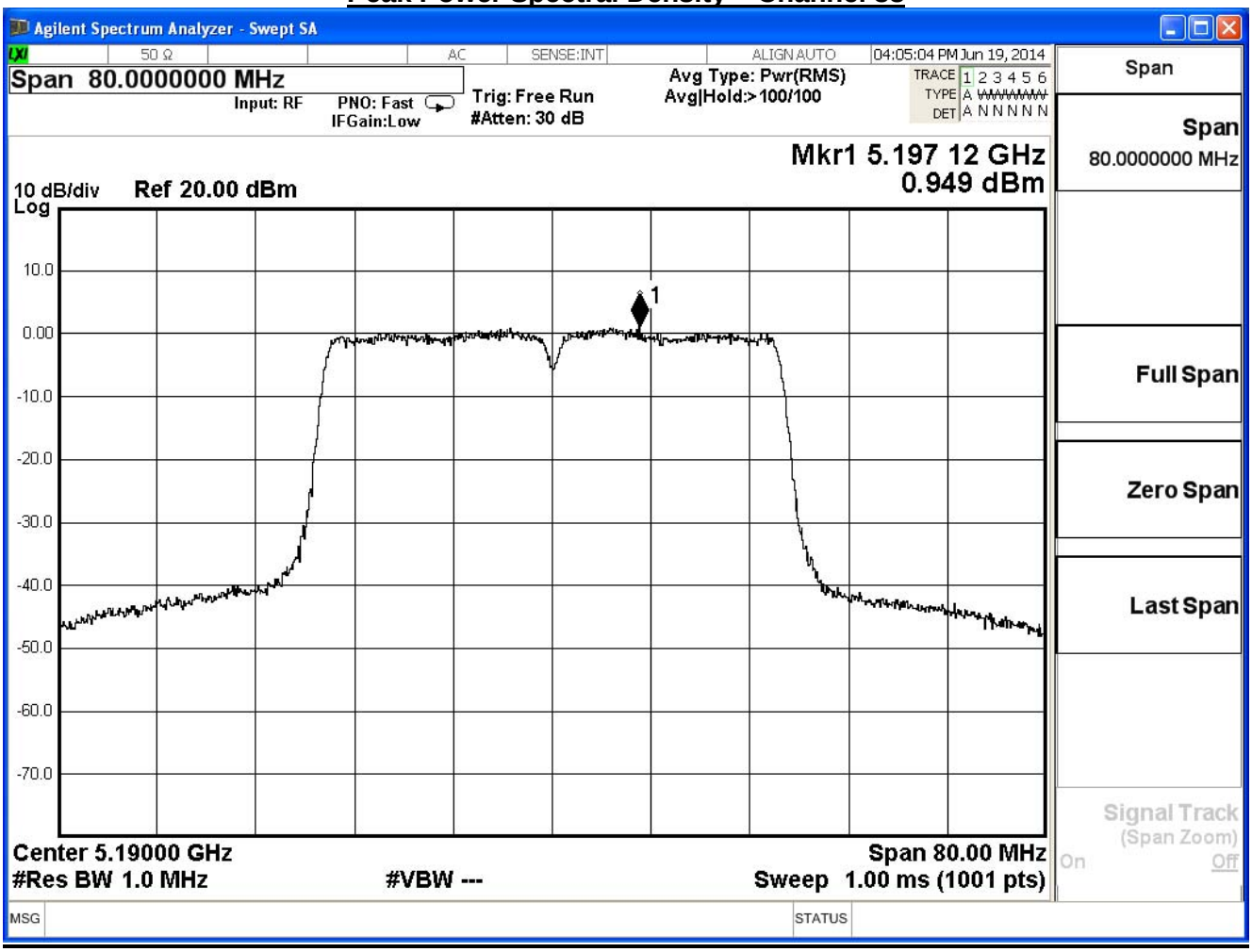
Peak Power Spectral Density – Channel 46



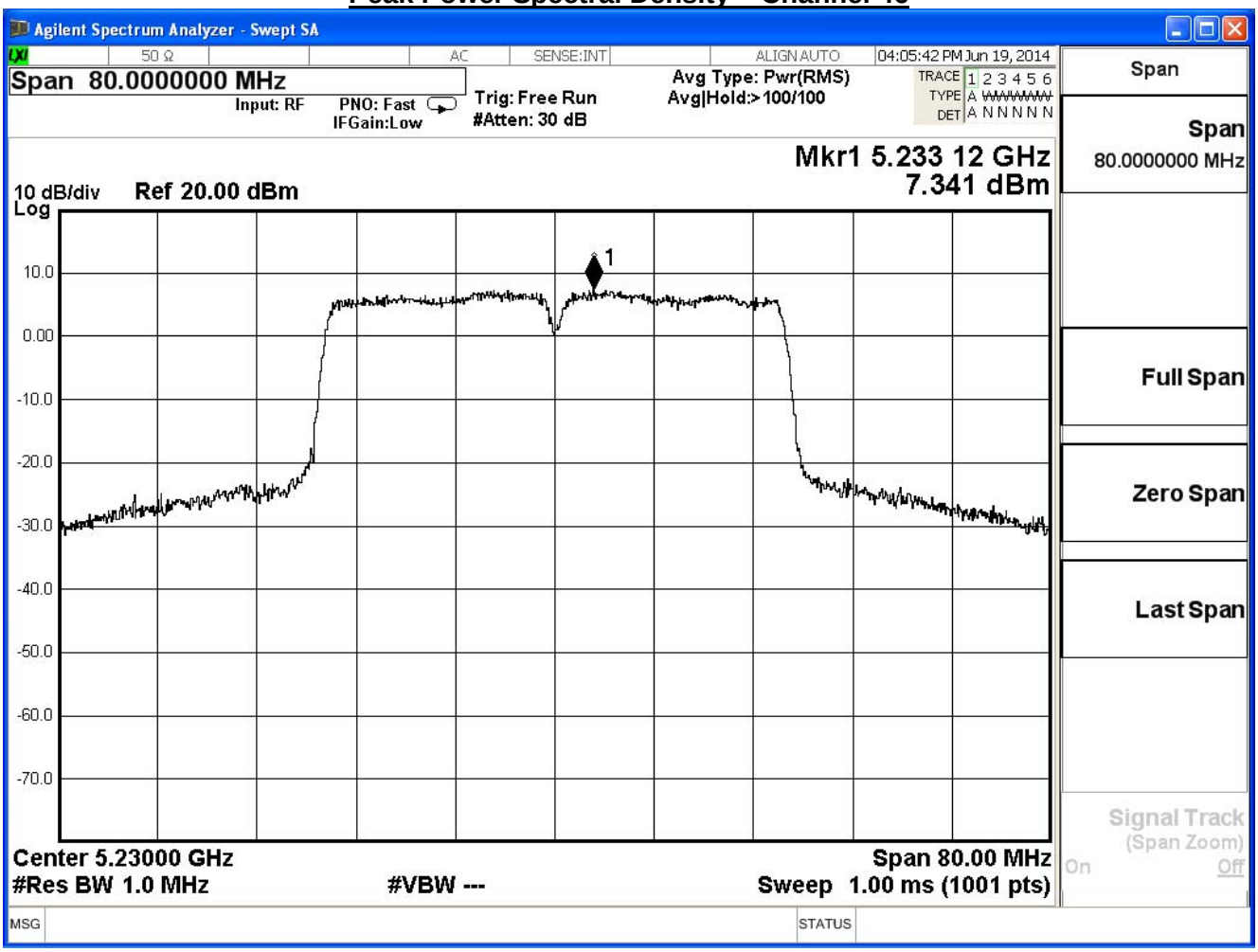
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11n_40M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	0.949	≤ 16.23	Pass
46	5230	7.341	≤ 16.23	Pass

Peak Power Spectral Density – Channel 38



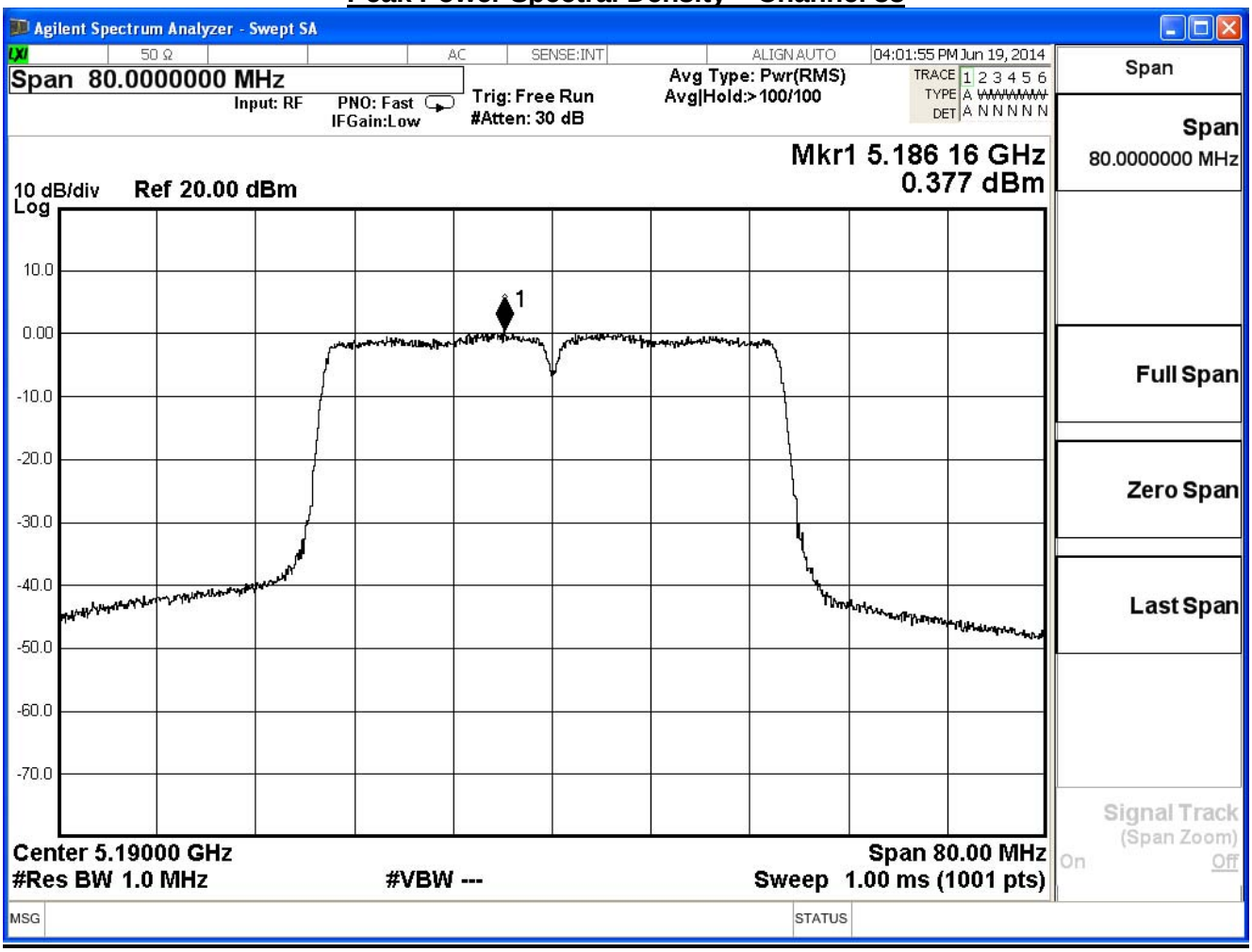
Peak Power Spectral Density – Channel 46



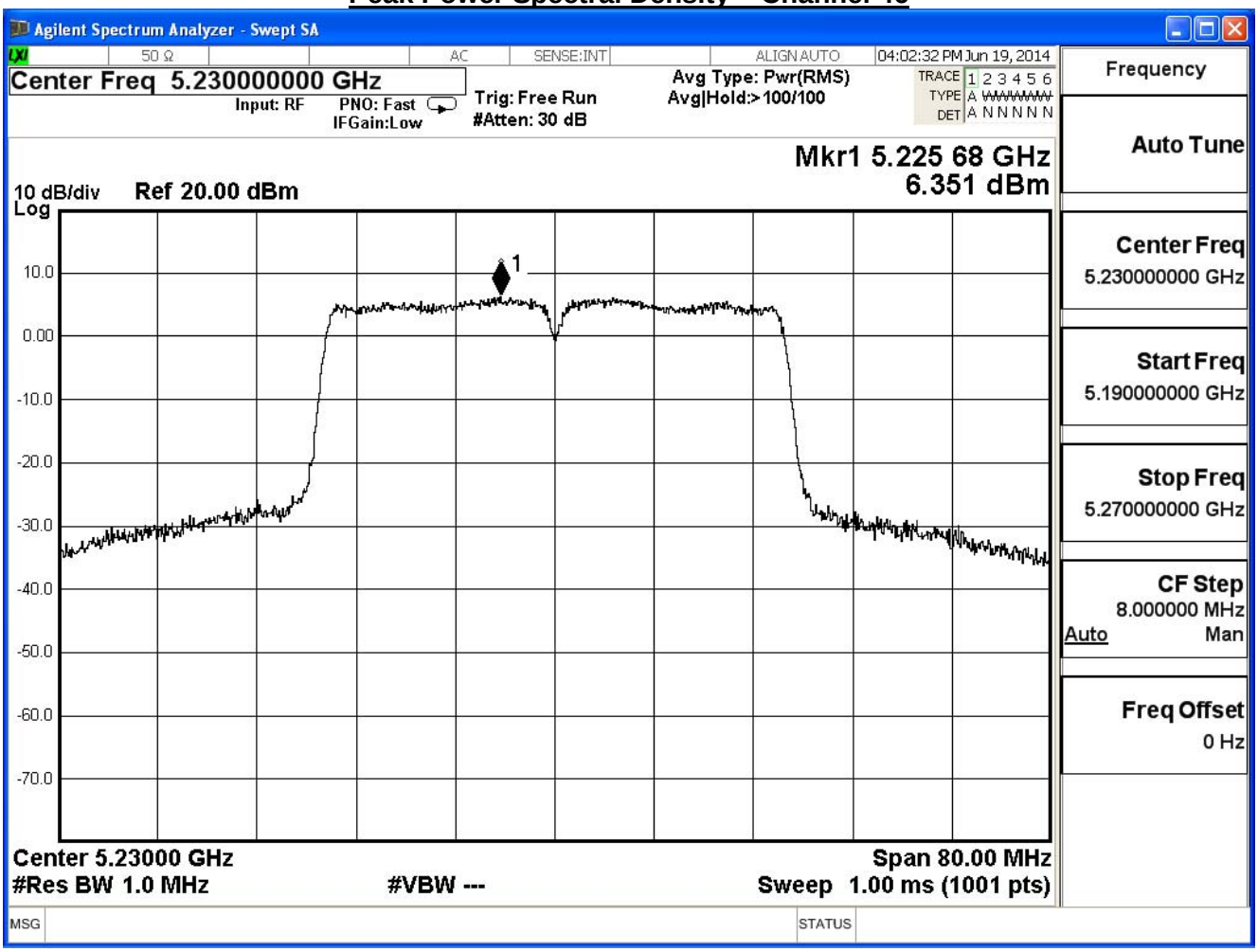
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11n_40M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	0.377	≤ 16.23	Pass
46	5230	6.351	≤ 16.23	Pass

Peak Power Spectral Density – Channel 38



Peak Power Spectral Density – Channel 46



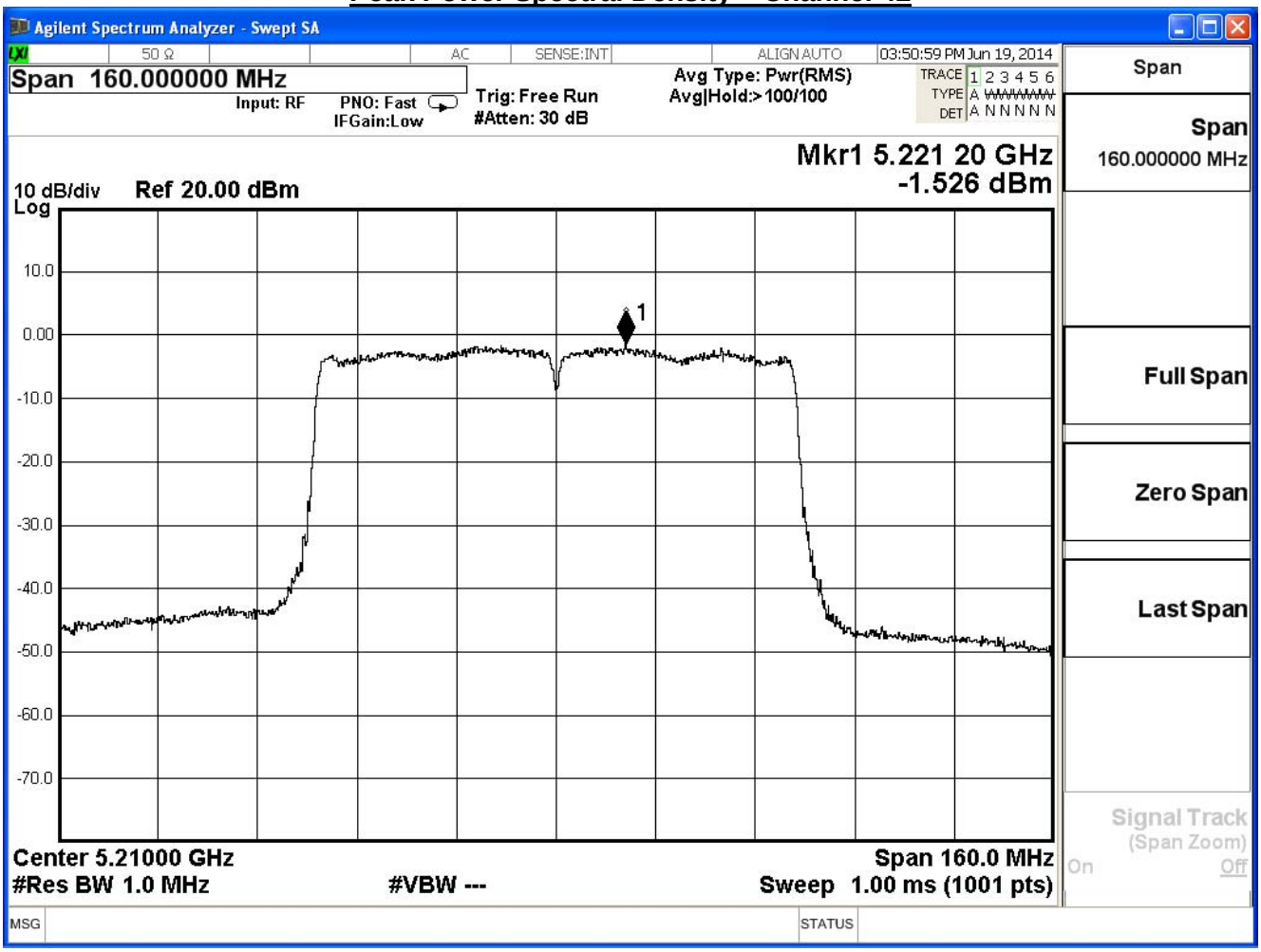
Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11n_40M(ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
38	5190	5.545	≤ 16.23	Pass
46	5230	11.627	≤ 16.23	Pass

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11ac_80M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
42	5210	-1.526	≤ 16.23	Pass

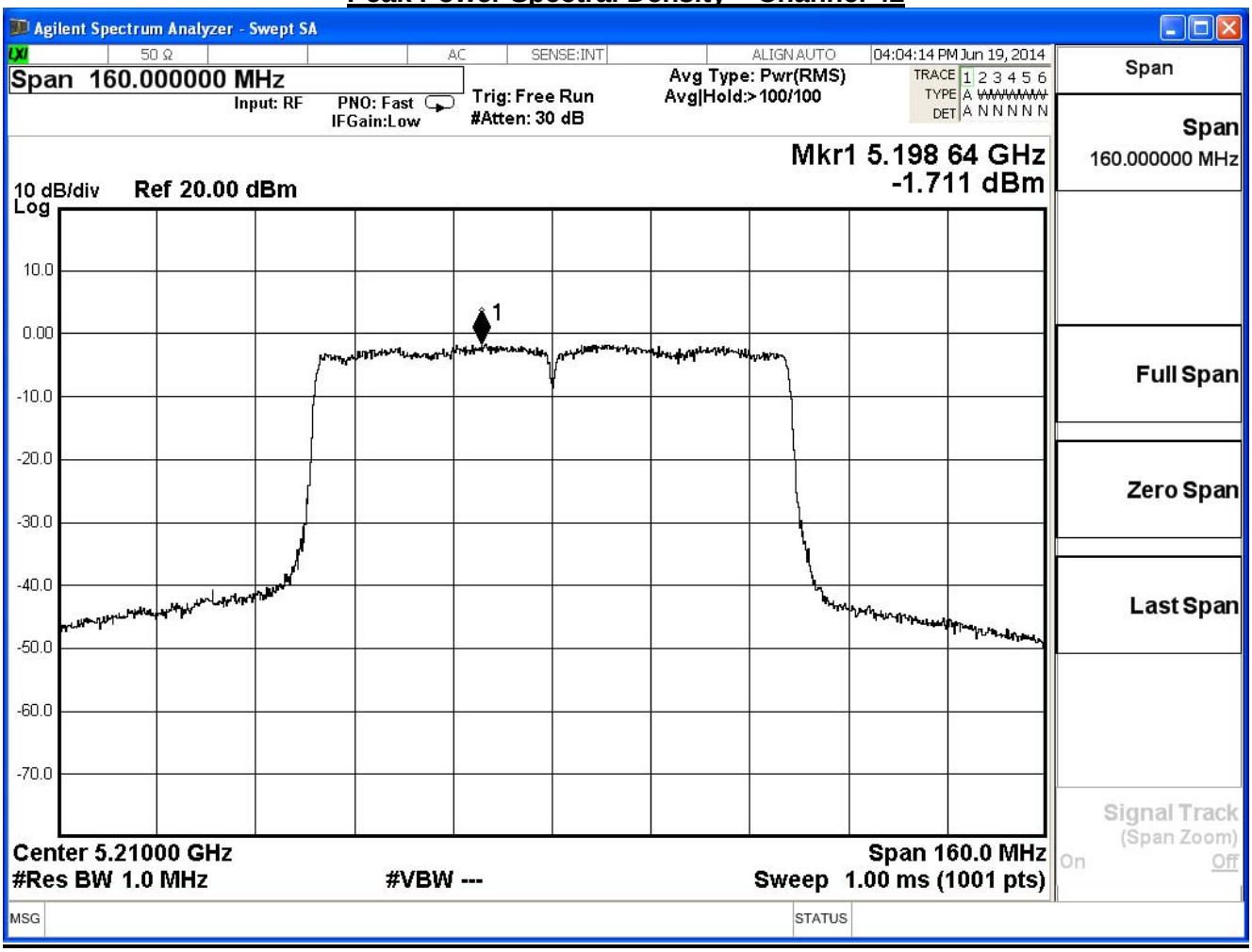
Peak Power Spectral Density – Channel 42



Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11ac_80M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
42	5210	-1.711	≤ 16.23	Pass

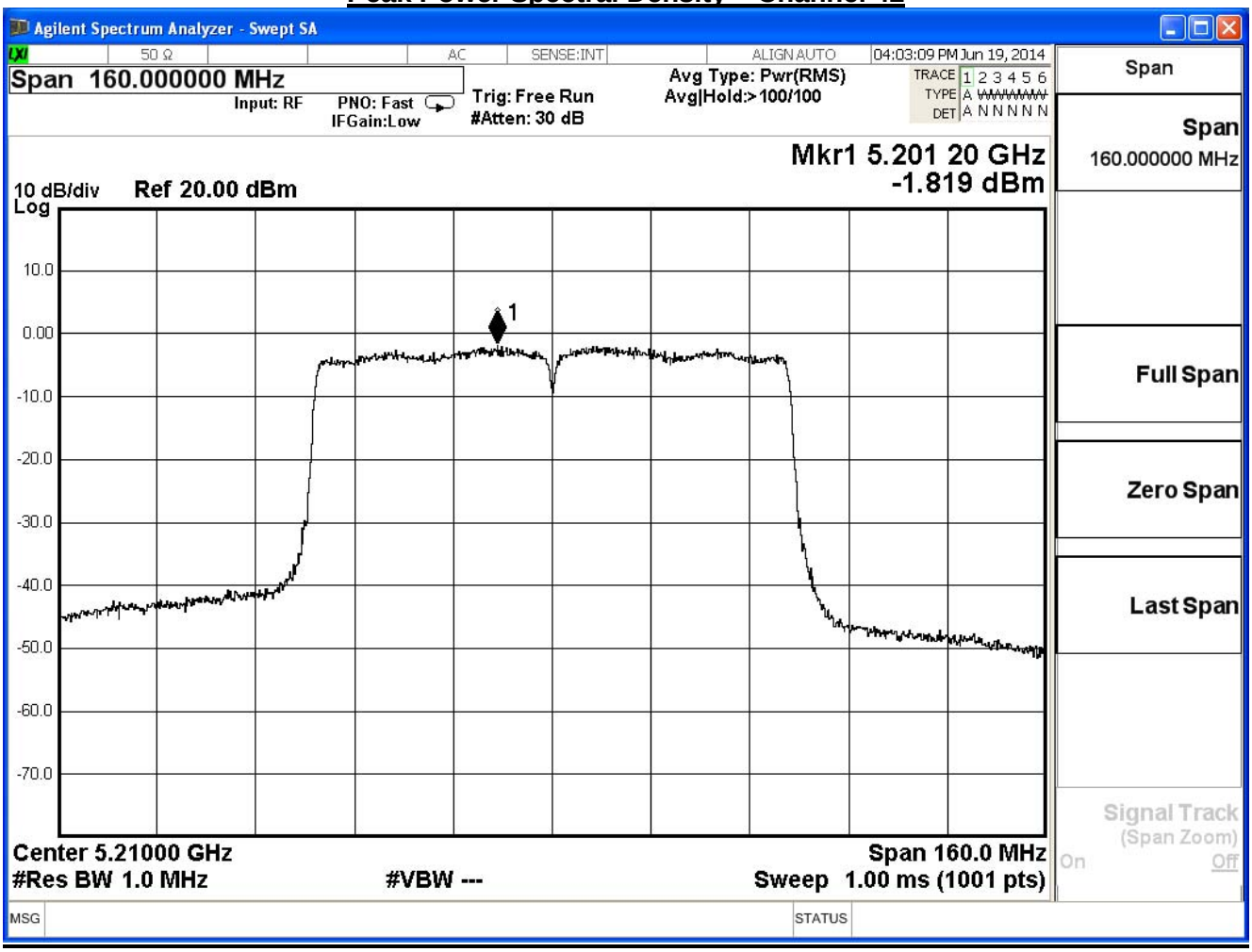
Peak Power Spectral Density – Channel 42



Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11ac_80M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
42	5210	-1.819	≤ 16.23	Pass

Peak Power Spectral Density – Channel 42



Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)		
Date of Test	2014/06/19	Test Site	SR7

IEEE 802.11ac_80M(ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Required Limit (dBm)	Result
42	5210	3.088	≤ 16.23	Pass

6. Radiated Emission

6.1. Test Equipment

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

Radiated Emission / CB1 (Under 1G: Mode 1 / Above 1G)

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895(CB1)	2014/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2015/02/12
Pre-Amplifier	Quietek	AMF-4D.	888003	2015/06/02
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2015/02/06
Spectrum Analyzer	Agilent	E4440A	MY46187335	2015/01/12
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2015/02/10

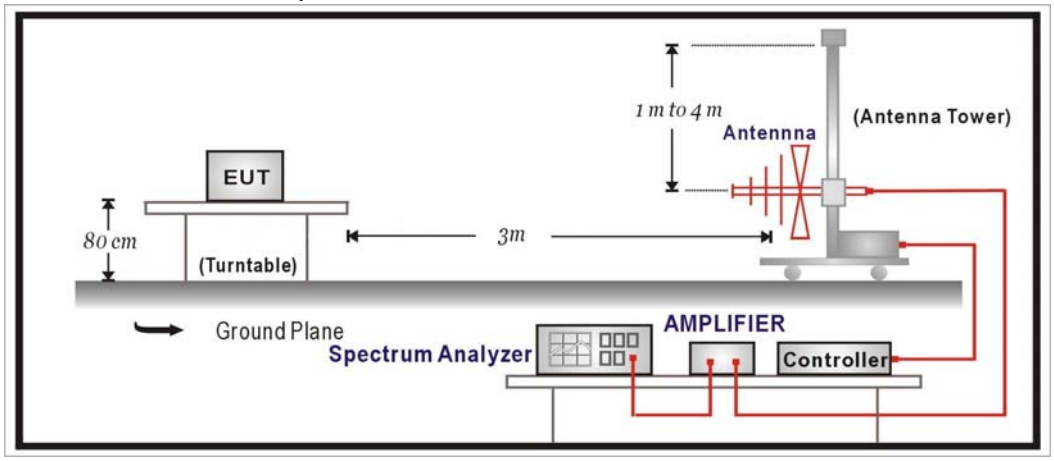
Radiated Emission / CB1 (Under 1G: Mode 2)

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895	2012/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120D	743	2013/02/02
Pre-Amplifier	MITEQ	AMF-4D-005180-24-10P	888003	2012/12/05
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2013/03/01
Spectrum Analyzer	Agilent	E4440A	MY46187335	2013/02/07
Coaxial Cable	Huber+Suhner AG	Sucoflex 102	25623/2	2013/03/04

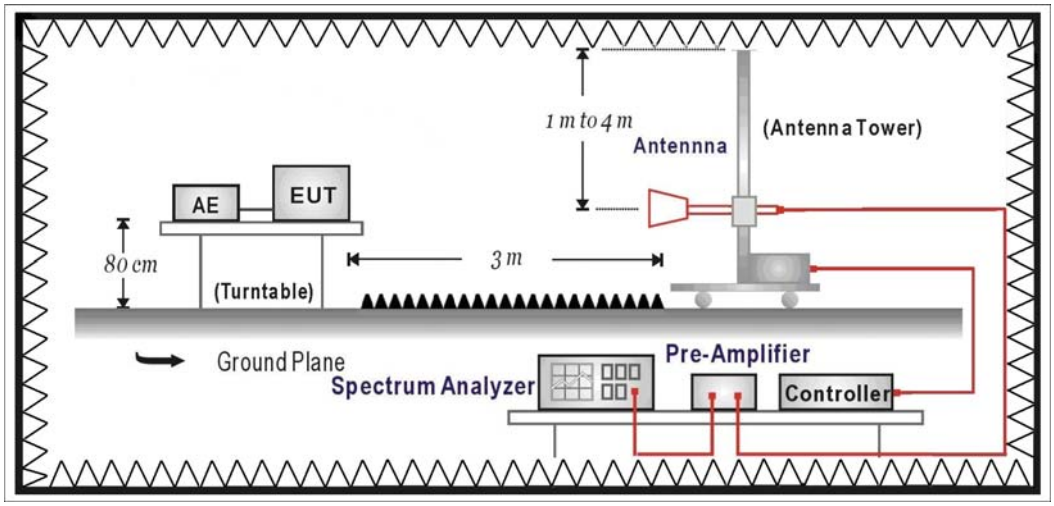
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

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
5725~5825	-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 C63.4: 2009 on radiated measurement.
The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field dtrength of harmonics measurement.
The bandwidth below 1GHz setting on the field strength meter is 120 KHz, above 1GHz are 1 MHz.
The frequency range from 30MHz to 10th harminics is checked.

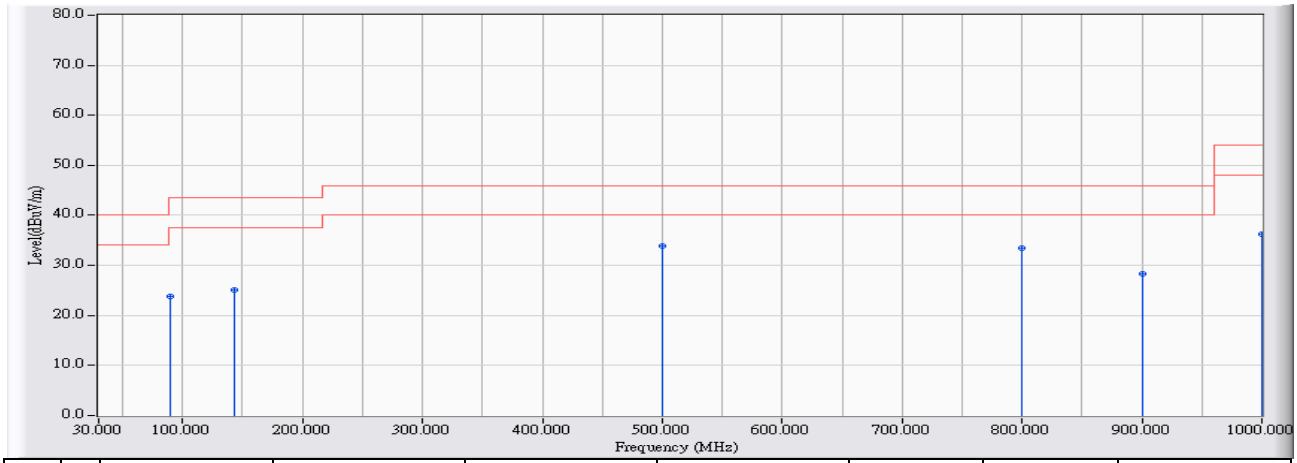
6.5. Uncertainty

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

6.6. Test Result

30MHz-1GHz Spurious

Site : CB1	**Time : 2014/06/18 - 20:33**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_30M-1G-4_9161 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5220MHz**

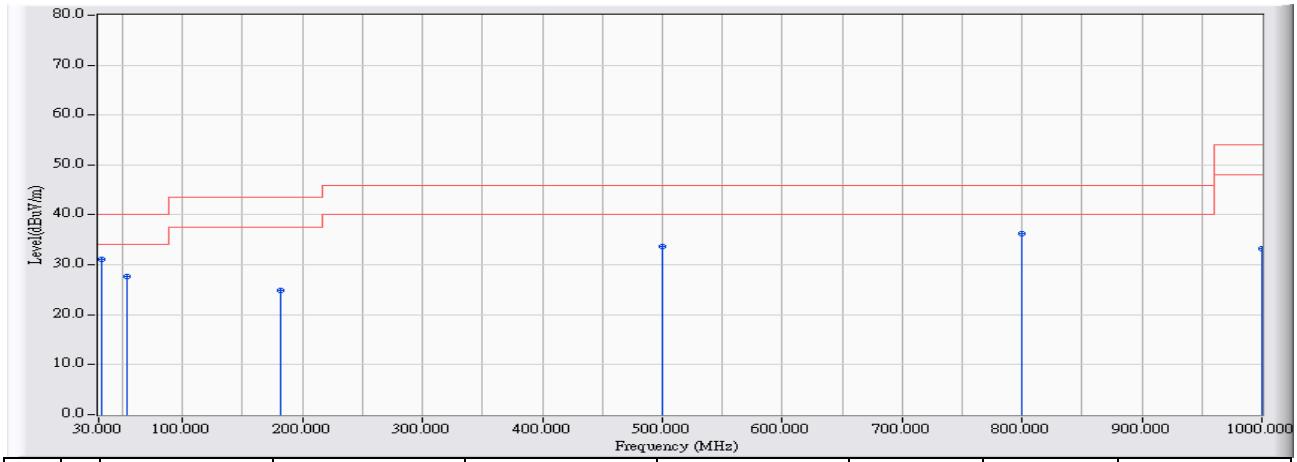


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		90.140	-21.813	45.700	23.886	-19.614	43.500	QUASIPEAK
2		143.490	-16.895	42.087	25.192	-18.308	43.500	QUASIPEAK
3	*	500.450	-15.639	49.590	33.951	-12.049	46.000	QUASIPEAK
4		800.180	-11.274	44.695	33.421	-12.579	46.000	QUASIPEAK
5		900.090	-10.147	38.353	28.206	-17.794	46.000	QUASIPEAK
6		1000.000	-9.191	45.514	36.323	-17.677	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 : 2014/06/18 - 20:36**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_30M-1G-4_9161 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5220MHz**

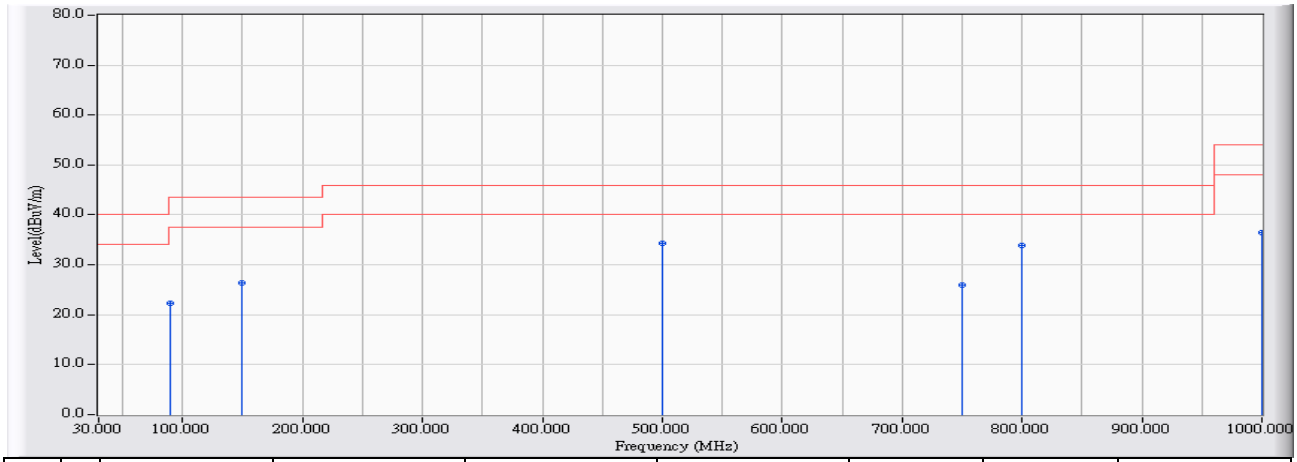


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	32.910	-21.508	52.692	31.184	-8.816	40.000	QUASIPEAK
2		53.280	-21.919	49.550	27.631	-12.369	40.000	QUASIPEAK
3		181.320	-19.292	44.185	24.893	-18.607	43.500	QUASIPEAK
4		500.450	-15.639	49.221	33.582	-12.418	46.000	QUASIPEAK
5		800.180	-11.274	47.479	36.205	-9.795	46.000	QUASIPEAK
6		1000.000	-9.191	42.408	33.217	-20.783	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 : 2014/06/18 - 20:39**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_30M-1G-4_9161 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5220MHz**

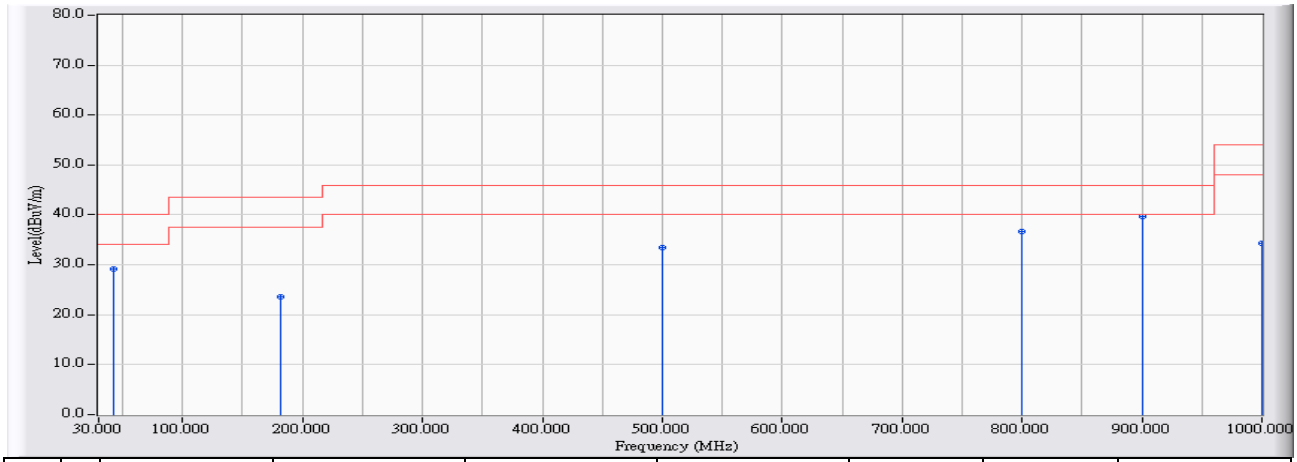


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		90.140	-21.813	44.024	22.210	-21.290	43.500	QUASIPEAK
2		149.310	-15.890	42.195	26.305	-17.195	43.500	QUASIPEAK
3	*	500.450	-15.639	49.860	34.221	-11.779	46.000	QUASIPEAK
4		749.740	-11.860	37.740	25.880	-20.120	46.000	QUASIPEAK
5		800.180	-11.274	45.172	33.898	-12.102	46.000	QUASIPEAK
6		1000.000	-9.191	45.615	36.424	-17.576	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 : 2014/06/18 - 20:41**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_30M-1G-4_9161 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5220MHz**

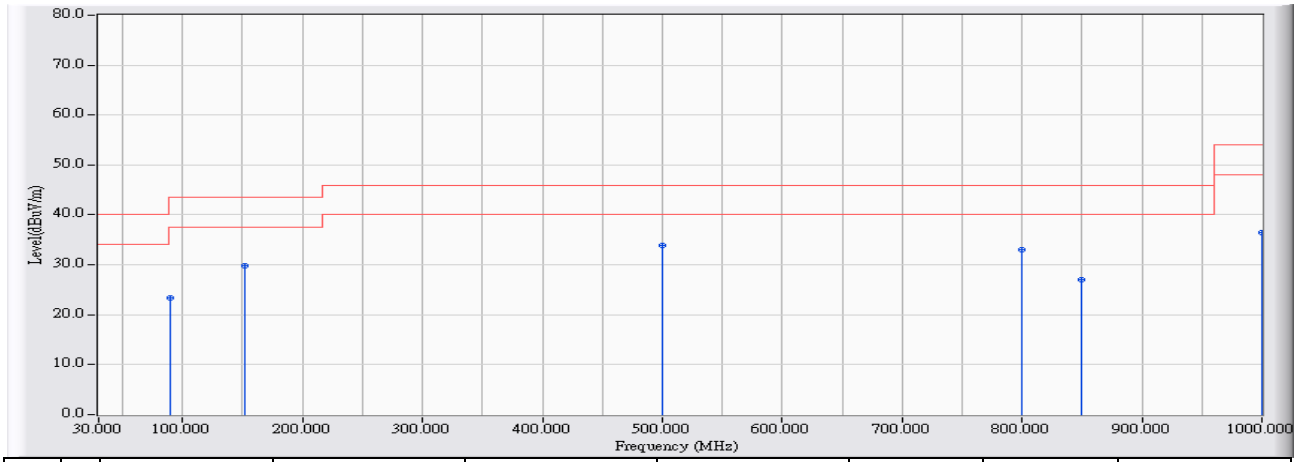


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		42.610	-21.183	50.307	29.123	-10.877	40.000	QUASIPEAK
2		181.320	-19.292	42.976	23.684	-19.816	43.500	QUASIPEAK
3		500.450	-15.639	49.071	33.432	-12.568	46.000	QUASIPEAK
4		800.180	-11.274	47.980	36.706	-9.294	46.000	QUASIPEAK
5	*	900.090	-10.147	49.802	39.655	-6.345	46.000	QUASIPEAK
6		1000.000	-9.191	43.603	34.412	-19.588	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 : 2014/06/18 - 20:45**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_30M-1G-4_9161 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40MHz_5230MHz**

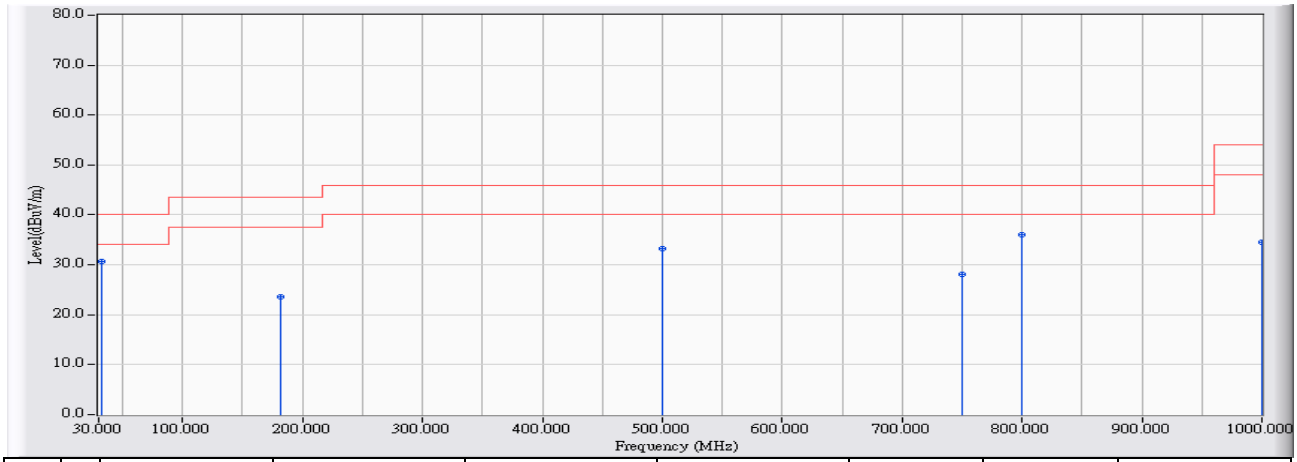


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		90.140	-21.813	45.182	23.368	-20.132	43.500	QUASIPEAK
2		151.250	-15.746	45.464	29.719	-13.781	43.500	QUASIPEAK
3	*	500.450	-15.639	49.515	33.876	-12.124	46.000	QUASIPEAK
4		800.180	-11.274	44.338	33.064	-12.936	46.000	QUASIPEAK
5		849.650	-10.716	37.832	27.116	-18.884	46.000	QUASIPEAK
6		1000.000	-9.191	45.664	36.473	-17.527	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 : 2014/06/18 - 20:47**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_30M-1G-4_9161 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40MHz_5230MHz**

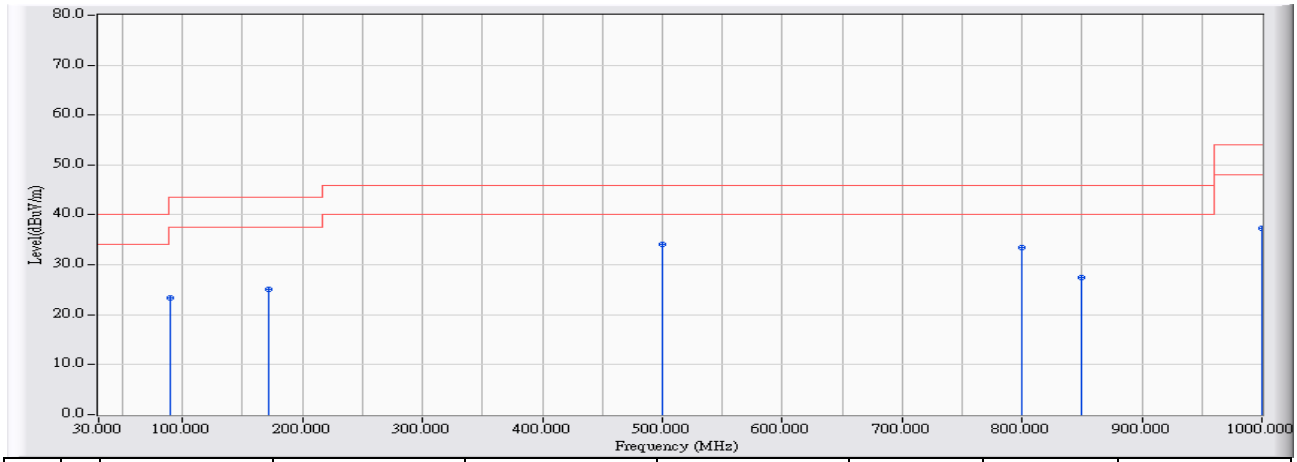


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	32.910	-21.508	52.211	30.703	-9.297	40.000	QUASIPEAK
2		181.320	-19.292	42.870	23.578	-19.922	43.500	QUASIPEAK
3		500.450	-15.639	48.778	33.139	-12.861	46.000	QUASIPEAK
4		749.740	-11.860	39.911	28.051	-17.949	46.000	QUASIPEAK
5		800.180	-11.274	47.202	35.928	-10.072	46.000	QUASIPEAK
6		1000.000	-9.191	43.761	34.570	-19.430	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 : 2014/06/18 - 20:51**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_30M-1G-4_9161 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11ac 80MHz_5210MHz**

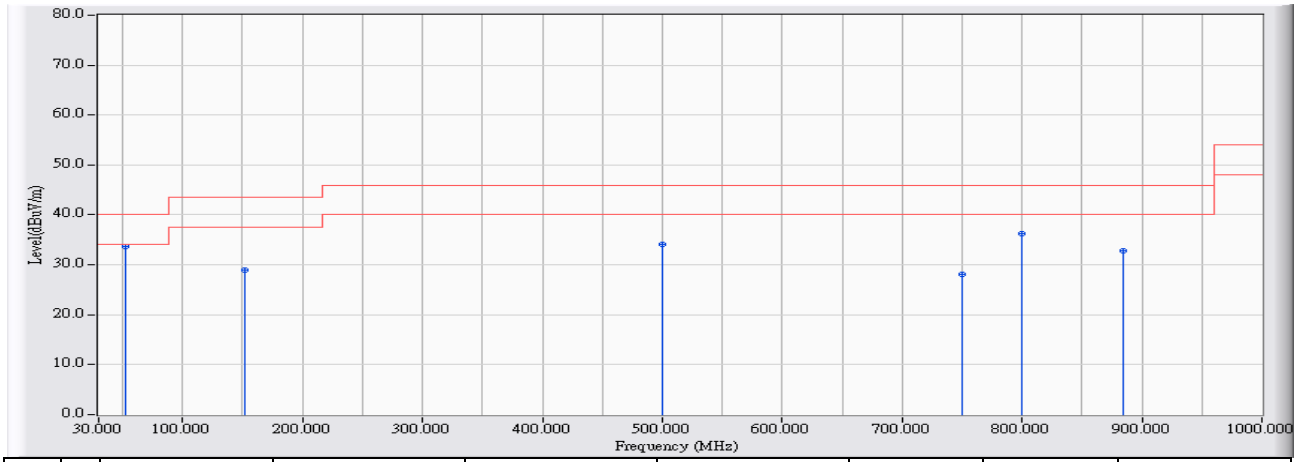


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		90.140	-21.813	45.169	23.355	-20.145	43.500	QUASIPEAK
2		171.620	-17.736	42.905	25.169	-18.331	43.500	QUASIPEAK
3	*	500.450	-15.639	49.703	34.064	-11.936	46.000	QUASIPEAK
4		800.180	-11.274	44.693	33.419	-12.581	46.000	QUASIPEAK
5		849.650	-10.716	38.131	27.415	-18.585	46.000	QUASIPEAK
6		1000.000	-9.191	46.422	37.231	-16.769	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 : 2014/06/18 - 20:54**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_30M-1G-4_9161 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11ac 80MHz_5210MHz**

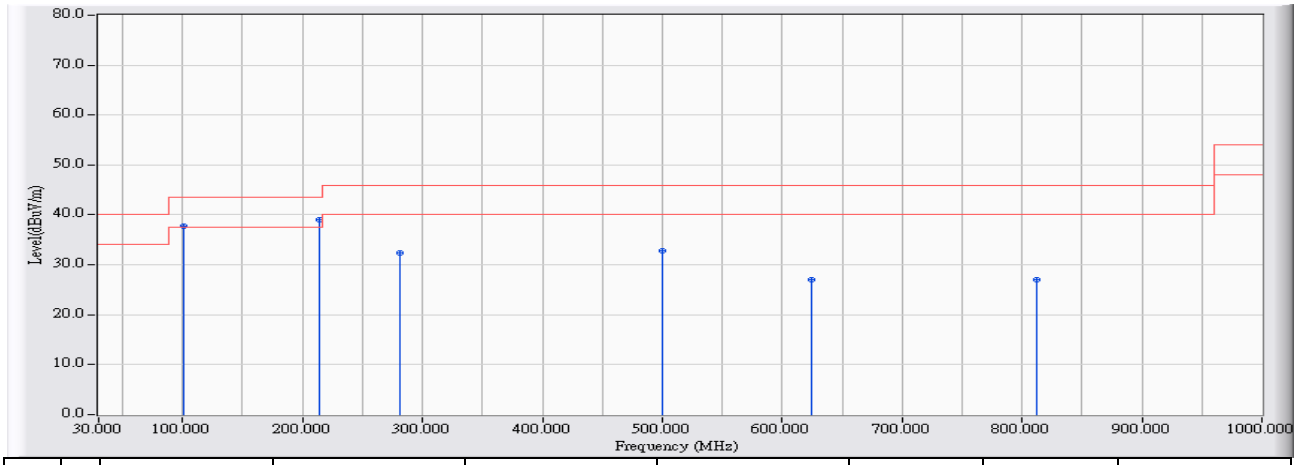


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	52.310	-21.856	55.595	33.739	-6.261	40.000	QUASIPEAK
2		151.250	-15.746	44.624	28.879	-14.621	43.500	QUASIPEAK
3		500.450	-15.639	49.703	34.064	-11.936	46.000	QUASIPEAK
4		749.740	-11.860	39.991	28.131	-17.869	46.000	QUASIPEAK
5		800.180	-11.274	47.598	36.324	-9.676	46.000	QUASIPEAK
6		884.570	-10.321	43.087	32.765	-13.235	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 : 2012/05/08 - 09:29**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 2: Transmit (Adapter: AD82030)** **802.11a_5220MHz**

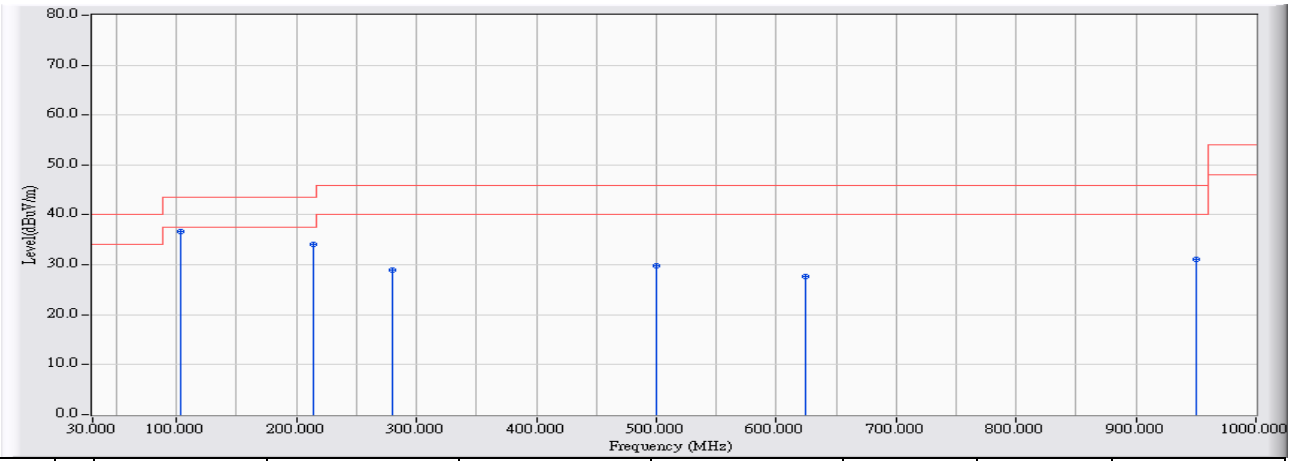


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		101.127	-13.425	51.128	37.703	-5.797	43.500	QUASIPEAK
2	*	214.300	-13.672	52.625	38.953	-4.547	43.500	QUASIPEAK
3		280.586	-10.580	42.937	32.357	-13.643	46.000	QUASIPEAK
4		500.450	-5.372	38.256	32.884	-13.116	46.000	QUASIPEAK
5		624.934	-4.207	31.213	27.006	-18.994	46.000	QUASIPEAK
6		812.461	-2.568	29.630	27.062	-18.938	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 : 2012/05/08 - 09:29**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 2: Transmit (Adapter: AD82030)** **802.11a_5220MHz**

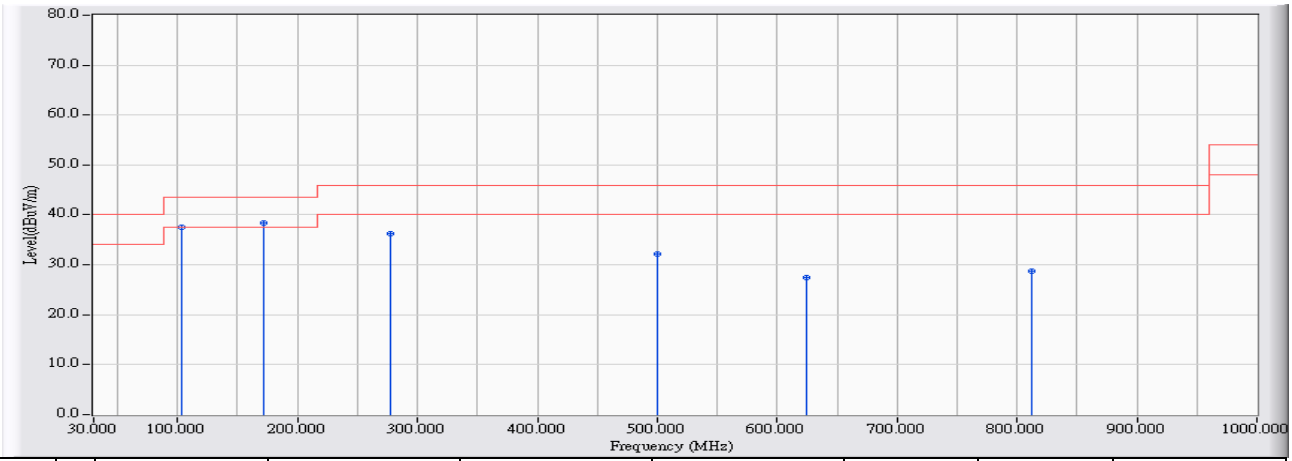


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	102.755	-13.285	50.046	36.761	-6.739	43.500	QUASIPEAK
2		214.294	-13.672	47.762	34.090	-9.410	43.500	QUASIPEAK
3		280.574	-10.580	39.532	28.952	-17.048	46.000	QUASIPEAK
4		500.453	-5.372	35.157	29.785	-16.215	46.000	QUASIPEAK
5		624.934	-4.207	31.884	27.677	-18.323	46.000	QUASIPEAK
6		949.876	-1.448	32.623	31.175	-14.825	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 : 2012/05/08 - 09:29**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 2: Transmit (Adapter: AD82030) 802.11n(20M)_5220MHz**

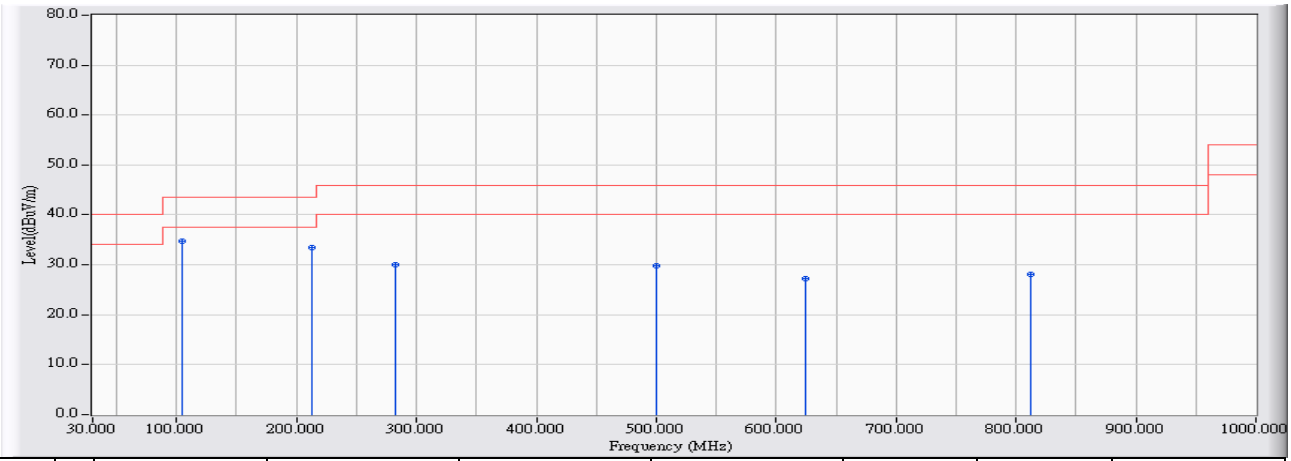


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		102.754	-13.285	50.719	37.434	-6.066	43.500	QUASIPEAK
2	*	172.270	-14.414	52.907	38.493	-5.007	43.500	QUASIPEAK
3		277.342	-10.633	46.957	36.324	-9.676	46.000	QUASIPEAK
4		500.454	-5.372	37.455	32.083	-13.917	46.000	QUASIPEAK
5		624.936	-4.207	31.630	27.423	-18.577	46.000	QUASIPEAK
6		812.467	-2.568	31.312	28.744	-17.256	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 : 2012/05/08 - 09:30**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 2: Transmit (Adapter: AD82030) 802.11n(20M)_5220MHz**

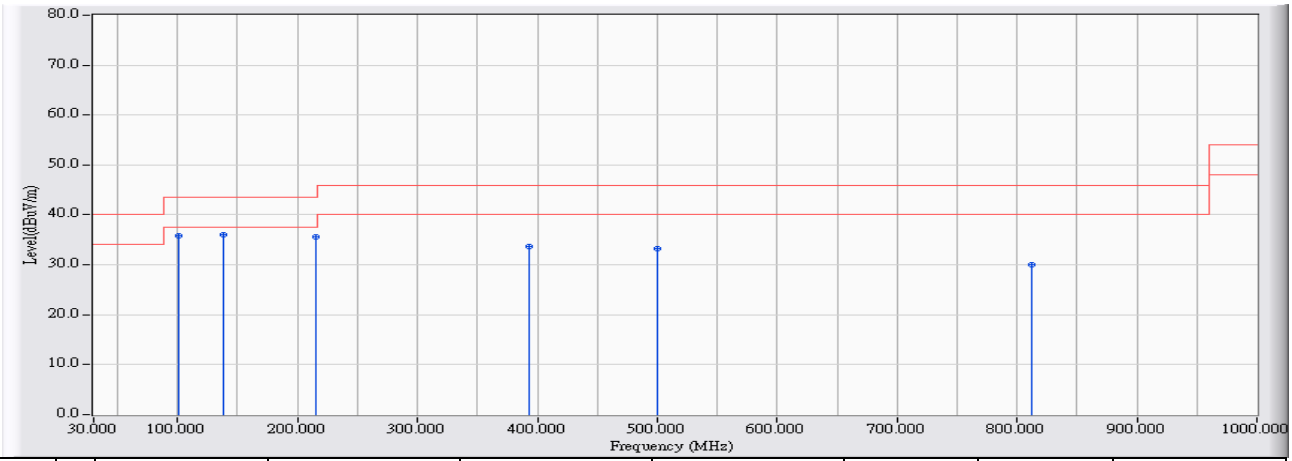


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	104.358	-13.145	47.825	34.680	-8.820	43.500	QUASIPEAK
2		212.687	-13.789	47.329	33.540	-9.960	43.500	QUASIPEAK
3		282.195	-10.556	40.556	30.000	-16.000	46.000	QUASIPEAK
4		500.442	-5.372	35.138	29.766	-16.234	46.000	QUASIPEAK
5		624.927	-4.207	31.394	27.187	-18.813	46.000	QUASIPEAK
6		812.460	-2.568	30.696	28.128	-17.872	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 : 2012/05/08 - 09:30**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 2: Transmit (Adapter: AD82030) 802.11n(40M)_5190MHz**

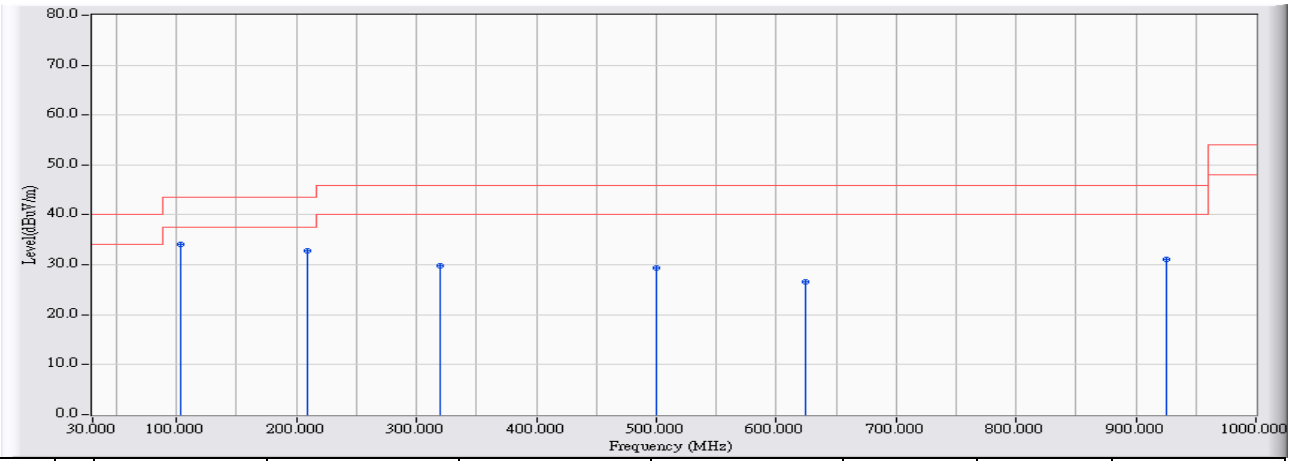


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		101.135	-13.425	49.344	35.919	-7.581	43.500	QUASIPEAK
2	*	138.310	-12.849	48.821	35.972	-7.528	43.500	QUASIPEAK
3		215.909	-13.554	49.086	35.532	-7.968	43.500	QUASIPEAK
4		393.741	-7.551	41.136	33.585	-12.415	46.000	QUASIPEAK
5		500.453	-5.372	38.709	33.337	-12.663	46.000	QUASIPEAK
6		812.471	-2.568	32.646	30.078	-15.922	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 : 2012/05/08 - 09:30**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 2: Transmit (Adapter: AD82030)** **802.11n(40M)_5190MHz**

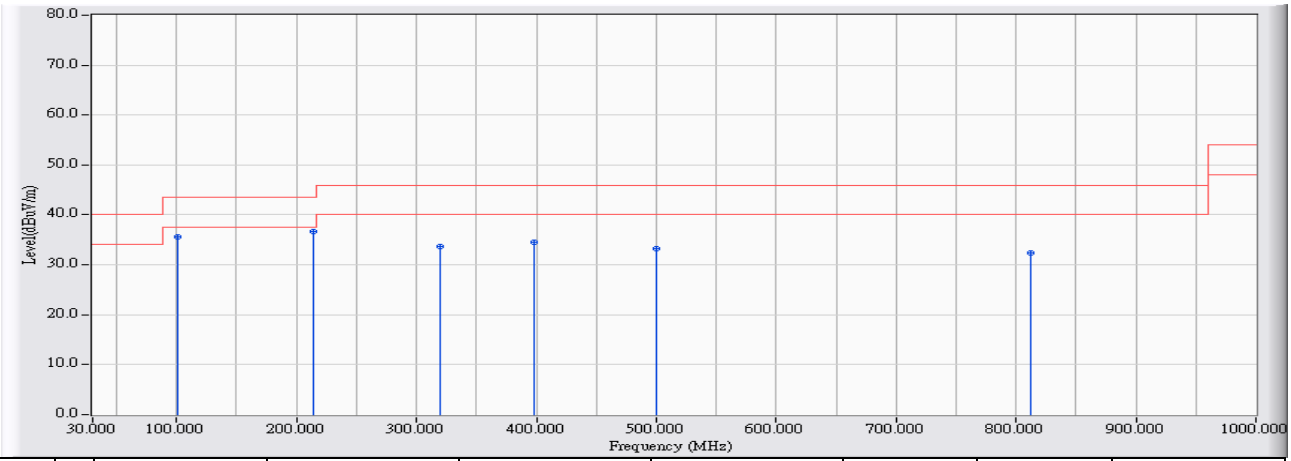


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	102.753	-13.285	47.315	34.030	-9.470	43.500	QUASIPEAK
2		209.453	-14.026	46.749	32.723	-10.777	43.500	QUASIPEAK
3		319.375	-9.707	39.541	29.834	-16.166	46.000	QUASIPEAK
4		500.454	-5.372	34.735	29.363	-16.637	46.000	QUASIPEAK
5		624.934	-4.207	30.774	26.567	-19.433	46.000	QUASIPEAK
6		925.626	-1.722	32.741	31.019	-14.981	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 : 2012/05/08 - 09:30**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 2: Transmit (Adapter: AD82030) 802.11ac(80M)_5210MHz**

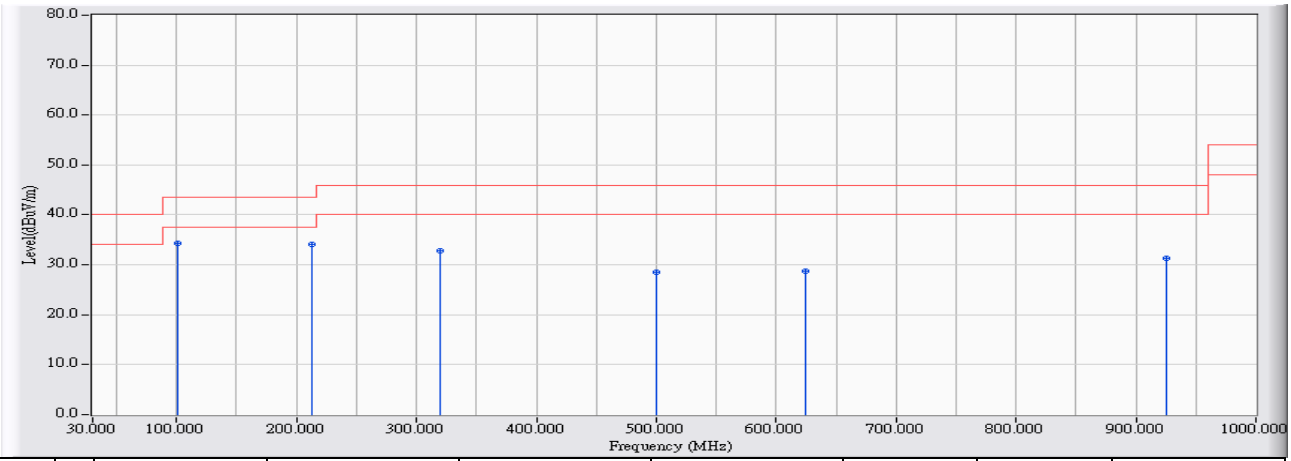


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		101.133	-13.425	48.992	35.567	-7.933	43.500	QUASIPEAK
2	*	214.291	-13.672	50.412	36.740	-6.760	43.500	QUASIPEAK
3		319.374	-9.707	43.425	33.718	-12.282	46.000	QUASIPEAK
4		398.603	-7.411	41.865	34.454	-11.546	46.000	QUASIPEAK
5		500.451	-5.372	38.574	33.202	-12.798	46.000	QUASIPEAK
6		812.458	-2.568	34.936	32.368	-13.632	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 : 2012/05/08 - 09:30**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 2: Transmit (Adapter: AD82030) 802.11ac(80M)_5210MHz**



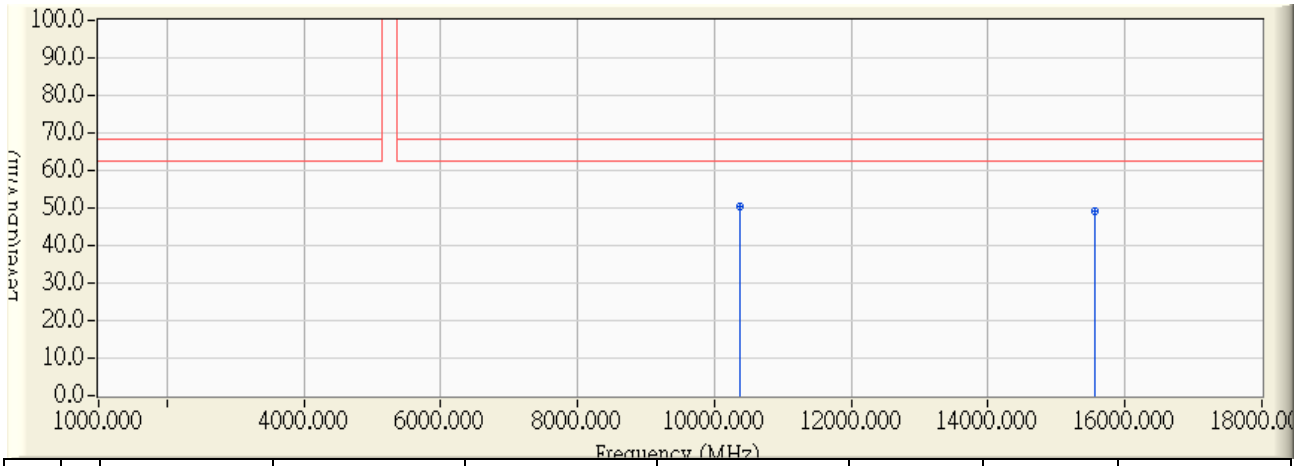
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	101.137	-13.425	47.679	34.254	-9.246	43.500	QUASIPEAK
2		212.676	-13.789	47.863	34.074	-9.426	43.500	QUASIPEAK
3		319.384	-9.707	42.444	32.737	-13.263	46.000	QUASIPEAK
4		500.451	-5.372	34.002	28.630	-17.370	46.000	QUASIPEAK
5		624.925	-4.207	32.885	28.678	-17.322	46.000	QUASIPEAK
6		925.635	-1.722	32.967	31.245	-14.755	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.

Harmonic & Spurious:

Site : CB1	**Time : 2014/06/16 - 14:09**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5180MHz**

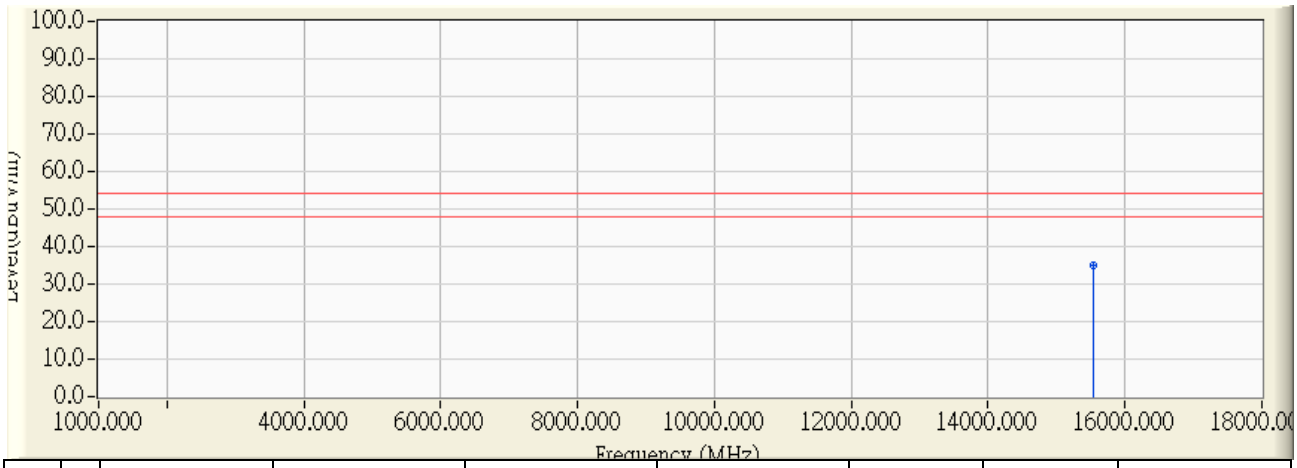


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10365.500	10.415	39.840	50.256	-18.044	68.300	PEAK
2		15548.320	11.100	37.870	48.970	-19.330	68.300	PEAK

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 : 2014/06/16 - 14:13**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5180MHz**

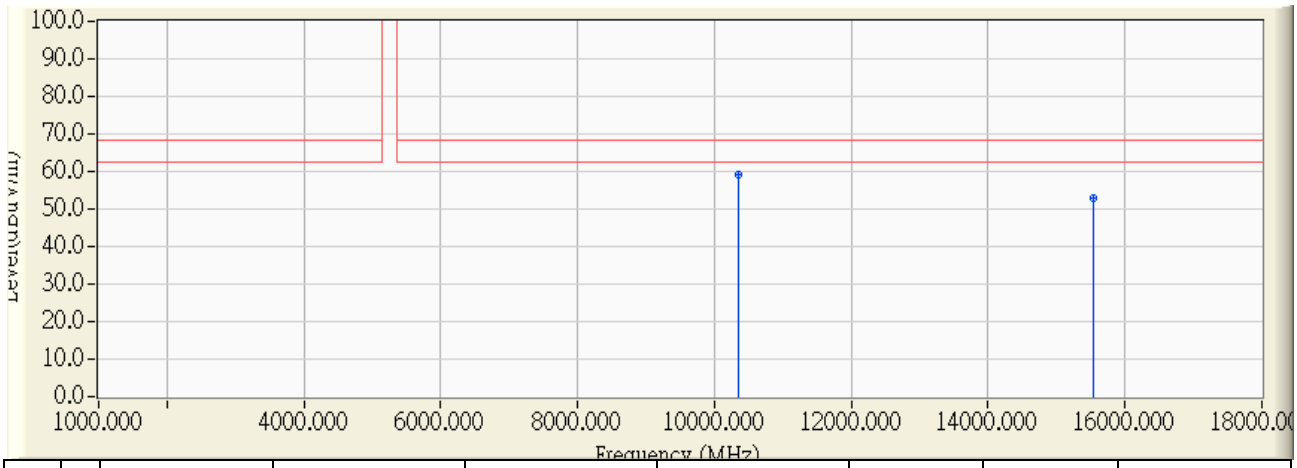


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	15545.580	11.104	23.700	34.803	-19.197	54.000	AVERAGE

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 : 2014/06/16 - 14:14**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5180MHz**

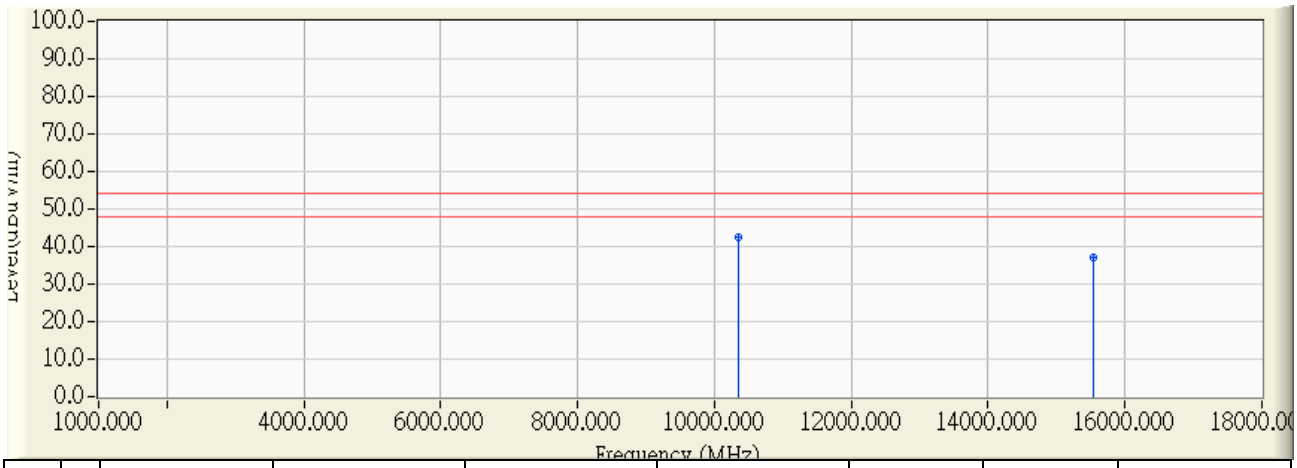


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10358.475	10.436	48.850	59.287	-9.013	68.300	PEAK
2		15541.610	11.107	41.820	52.927	-15.373	68.300	PEAK

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 : 2014/06/16 - 14:19**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5180MHz**

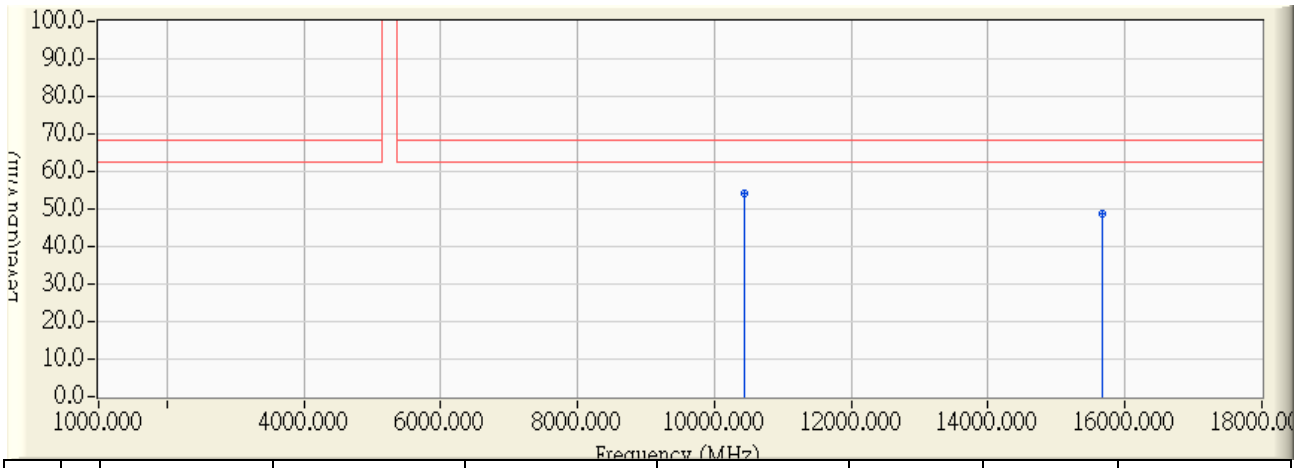


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10358.120	10.438	32.020	42.458	-11.542	54.000	AVERAGE
2		15542.090	11.107	25.940	37.047	-16.953	54.000	AVERAGE

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 : 2014/06/16 - 14:29**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5220MHz**

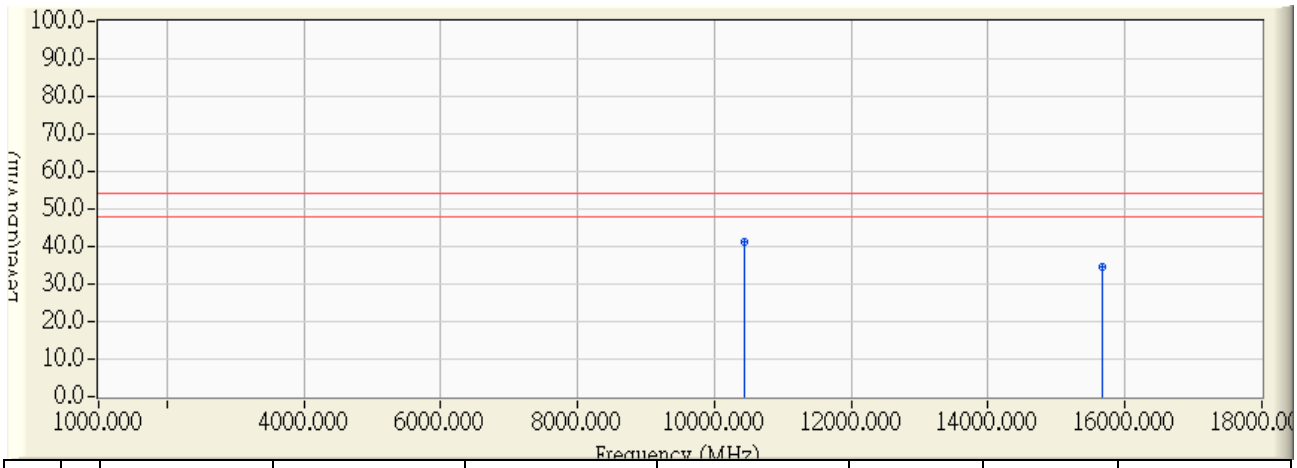


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.460	10.192	43.820	54.013	-14.287	68.300	PEAK
2		15672.340	10.961	37.660	48.622	-19.678	68.300	PEAK

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 : 2014/06/16 - 14:29**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5220MHz**

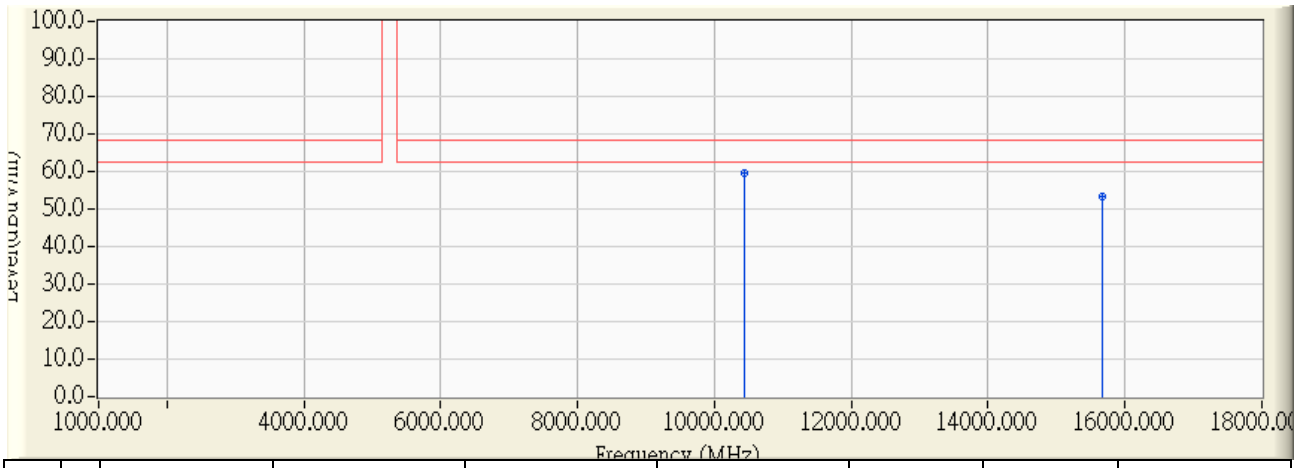


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10440.340	10.193	31.010	41.203	-12.797	54.000	AVERAGE
2		15658.060	10.978	23.540	34.517	-19.483	54.000	AVERAGE

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 : 2014/06/16 - 14:35**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5220MHz**

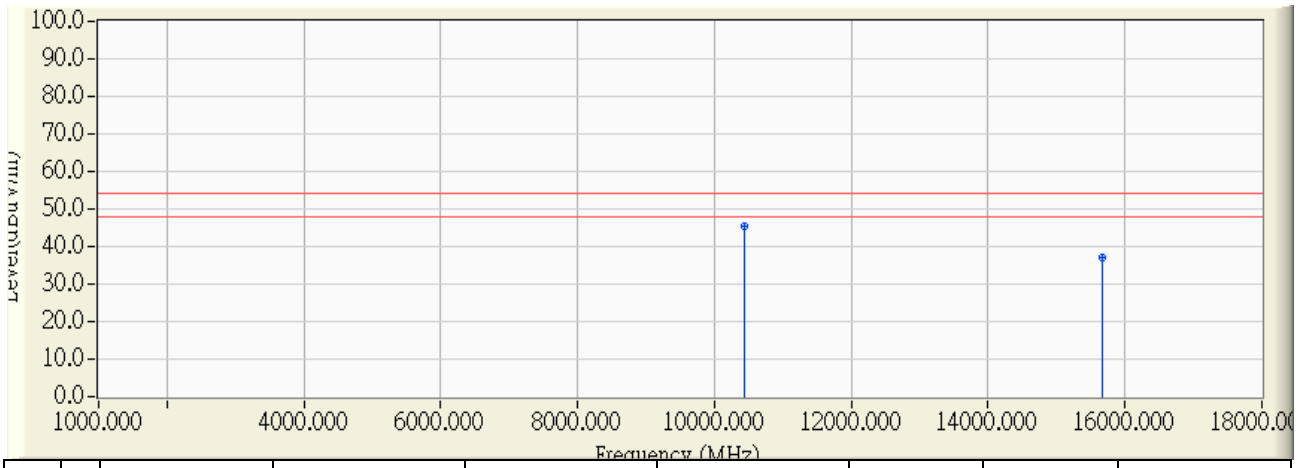


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10439.060	10.196	49.250	59.447	-8.853	68.300	PEAK
2		15661.180	10.973	42.310	53.284	-15.016	68.300	PEAK

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 : 2014/06/16 - 14:35**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5220MHz**

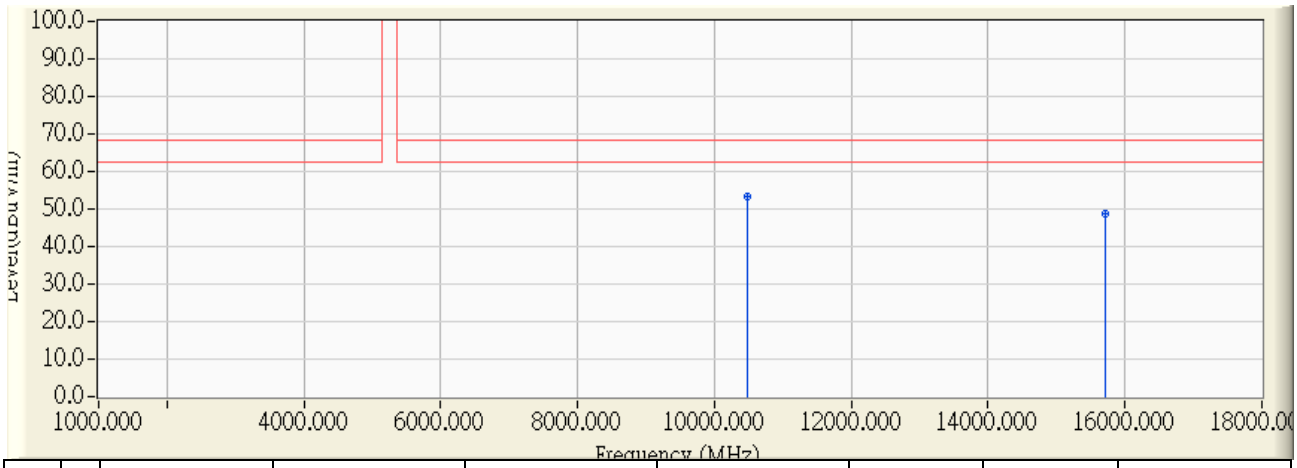


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10439.000	10.197	35.176	45.373	-8.627	54.000	AVERAGE
2		15658.320	10.977	25.920	36.897	-17.103	54.000	AVERAGE

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 : 2014/06/16 - 14:45**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5240MHz**

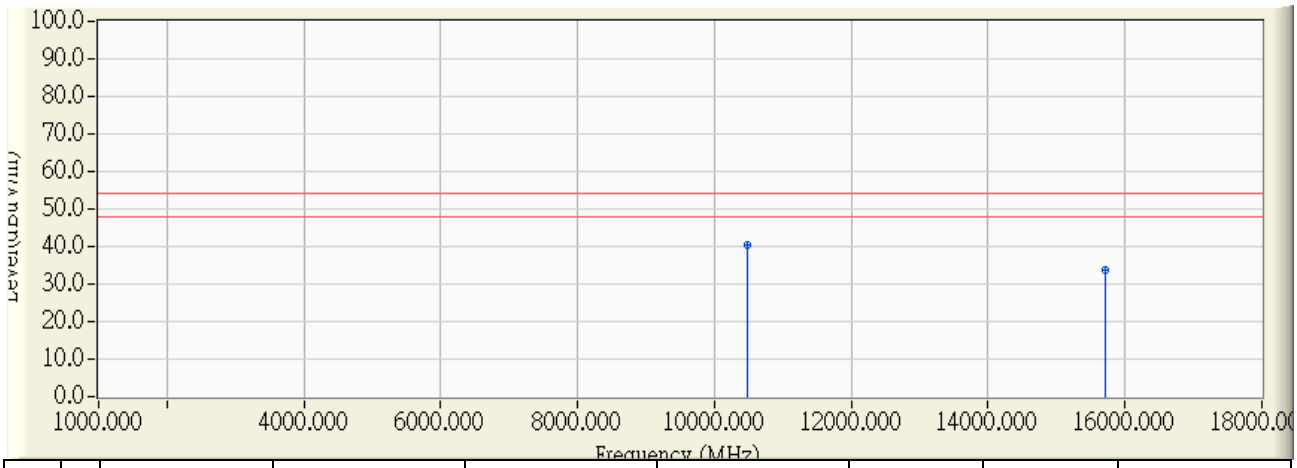


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10481.080	10.072	43.200	53.272	-15.028	68.300	PEAK
2		15706.800	10.923	37.800	48.723	-19.577	68.300	PEAK

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 : 2014/06/16 - 14:45**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5240MHz**

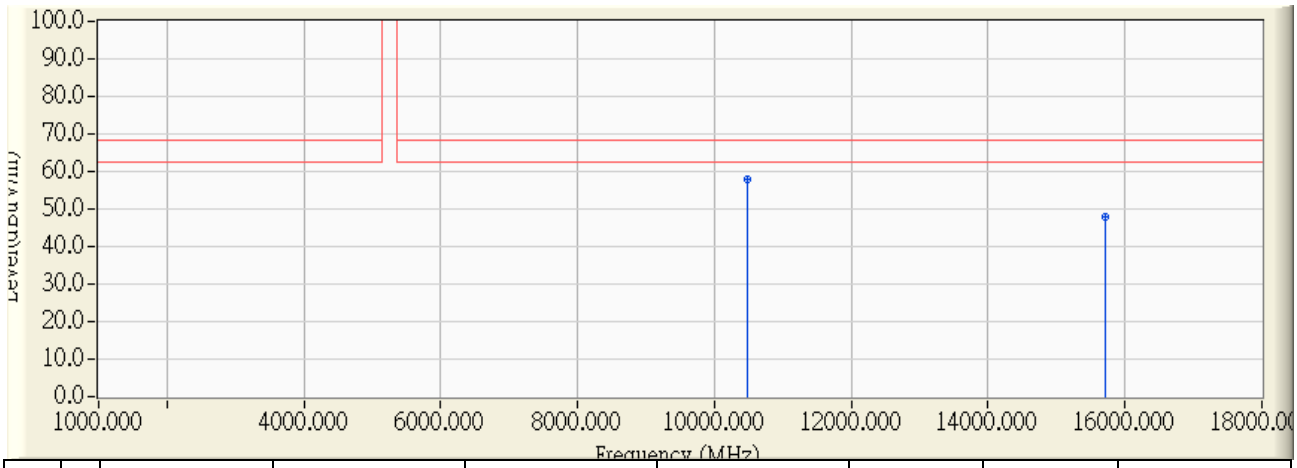


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.580	10.073	30.259	40.332	-13.668	54.000	AVERAGE
2		15708.000	10.922	22.910	33.832	-20.168	54.000	AVERAGE

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 : 2014/06/16 - 14:57**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5240MHz**

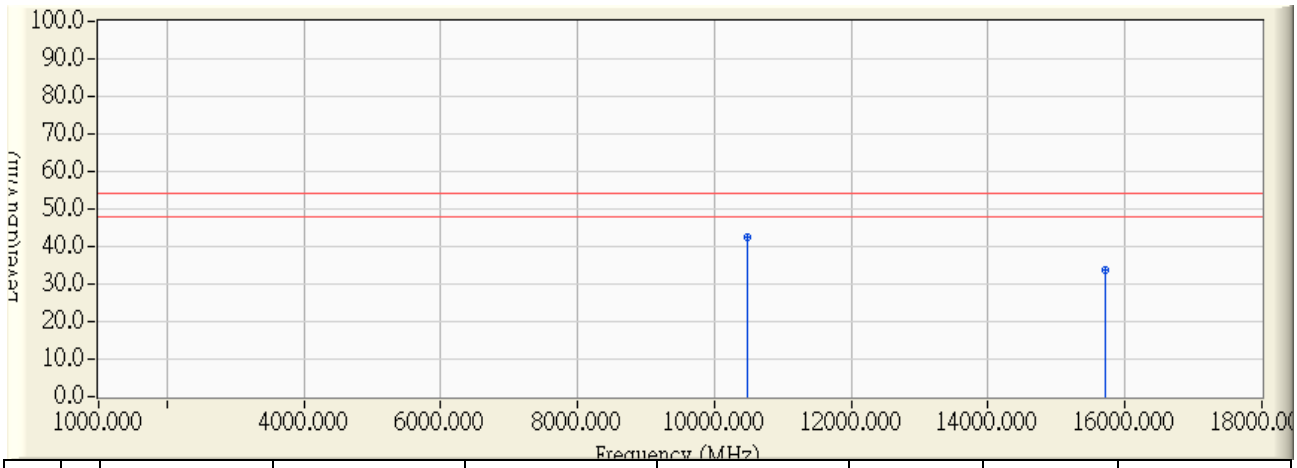


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10478.340	10.080	47.630	57.710	-10.590	68.300	PEAK
2		15721.620	10.907	37.090	47.997	-20.303	68.300	PEAK

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 : 2014/06/16 - 15:00**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5240MHz**

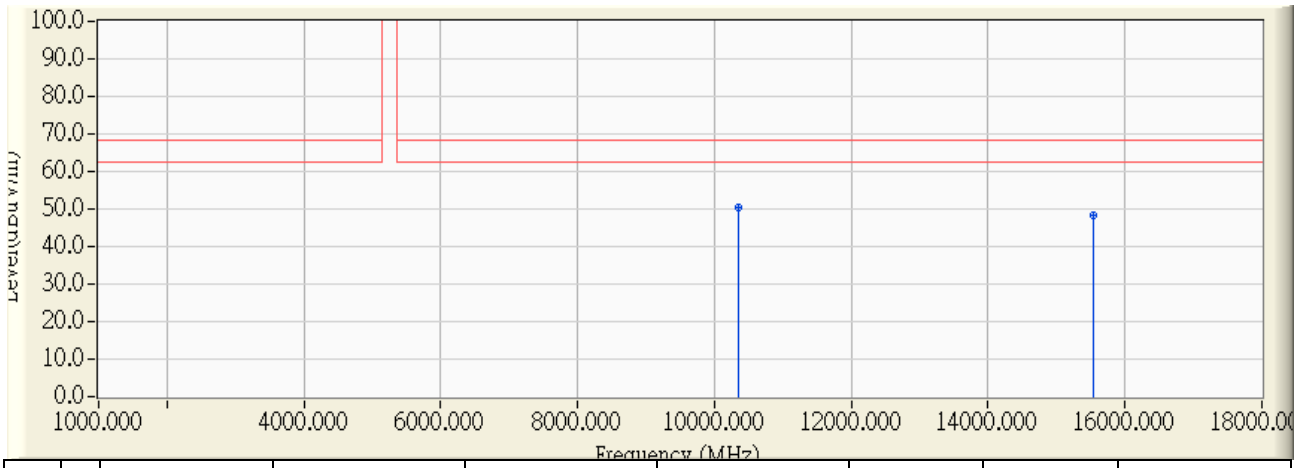


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10479.240	10.078	32.500	42.577	-11.423	54.000	AVERAGE
2		15708.380	10.921	22.910	33.831	-20.169	54.000	AVERAGE

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 : 2014/06/17 - 21:45**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5180MHz**

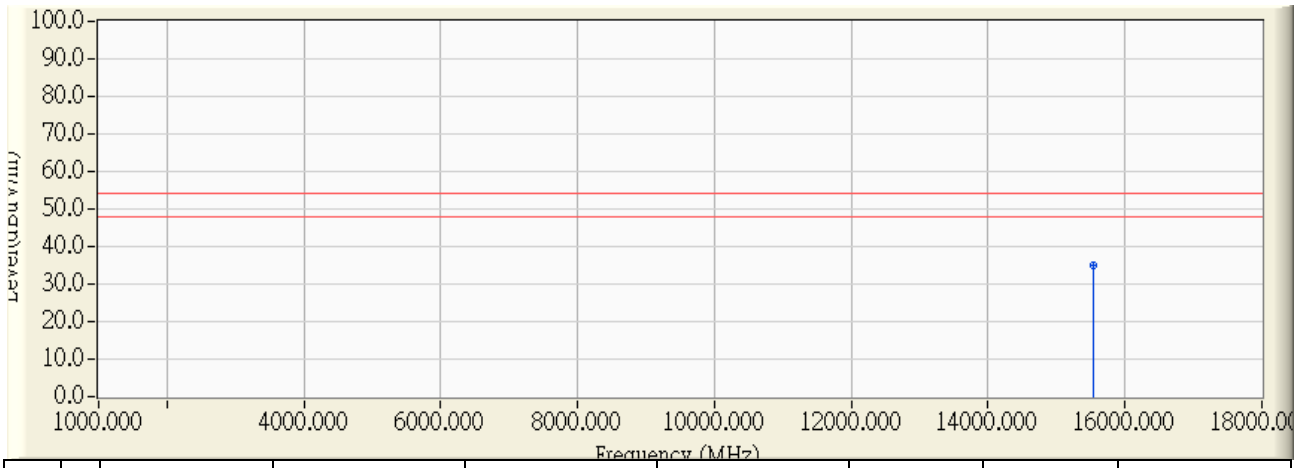


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10360.070	10.432	40.180	50.612	-17.688	68.300	PEAK
2		15533.600	11.116	37.330	48.446	-19.854	68.300	PEAK

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 : 2014/06/17 - 21:45**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5180MHz**

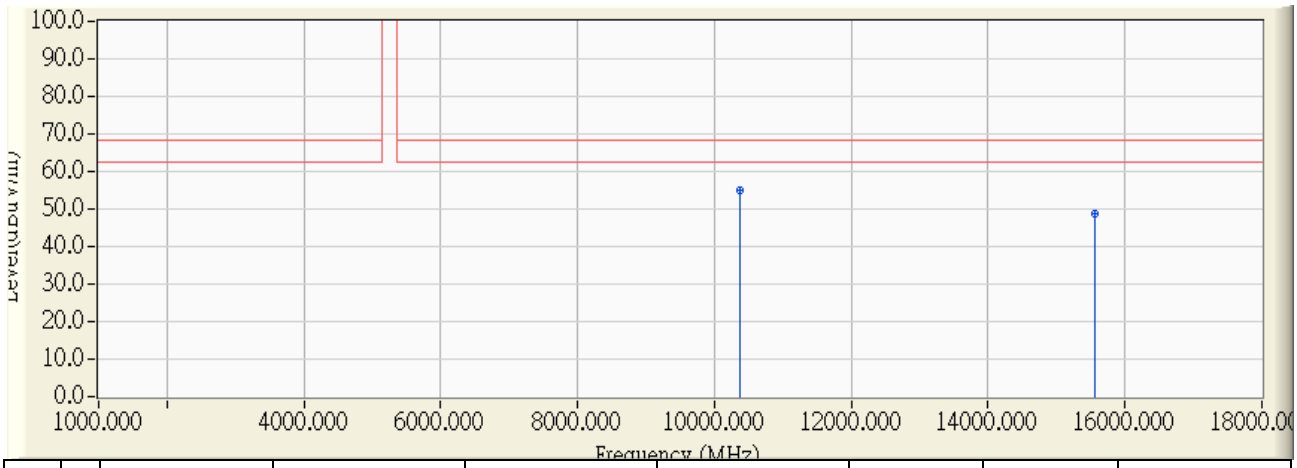


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	15542.760	11.105	23.710	34.816	-19.184	54.000	AVERAGE

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 : 2014/06/17 - 21:52**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5180MHz**

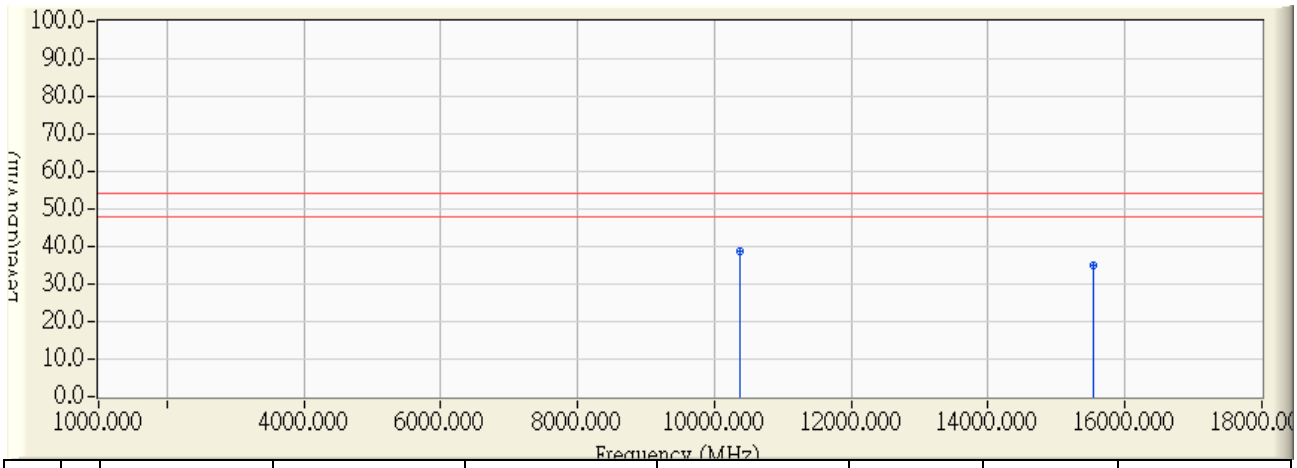


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10361.840	10.426	44.370	54.797	-13.503	68.300	PEAK
2		15556.880	11.090	37.470	48.560	-19.740	68.300	PEAK

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 : 2014/06/17 - 21:52**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5180MHz**

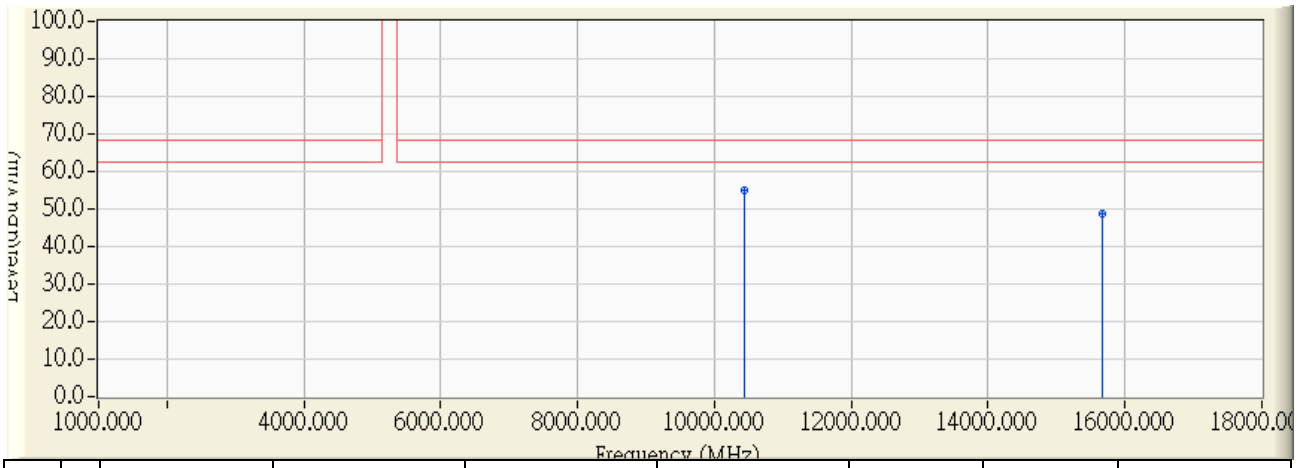


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10361.680	10.427	28.370	38.797	-15.203	54.000	AVERAGE
2		15542.680	11.106	23.790	34.896	-19.104	54.000	AVERAGE

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 : 2014/06/17 - 21:57**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5220MHz**

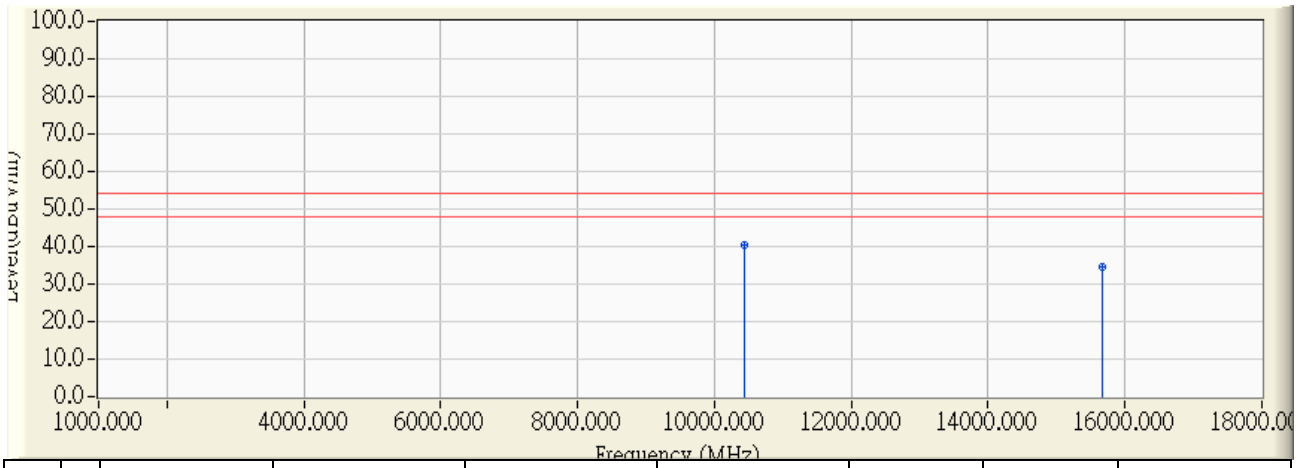


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10441.450	10.190	44.720	54.910	-13.390	68.300	PEAK
2		15659.600	10.976	37.960	48.936	-19.364	68.300	PEAK

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 : 2014/06/17 - 21:58**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5220MHz**

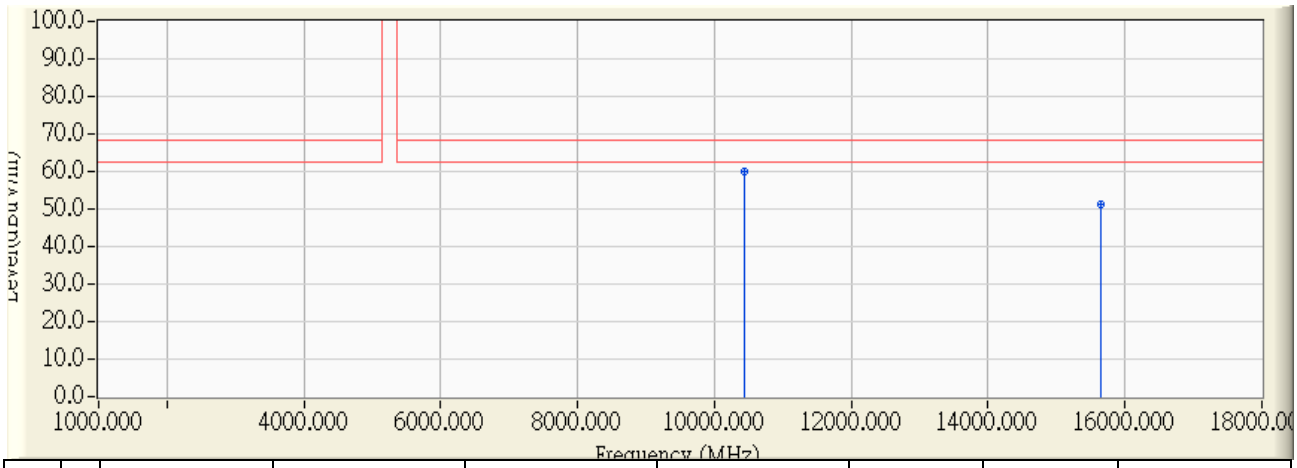


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10439.125	10.196	30.400	40.597	-13.403	54.000	AVERAGE
2		15662.875	10.972	23.720	34.692	-19.308	54.000	AVERAGE

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 : 2014/06/17 - 22:02**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5220MHz**

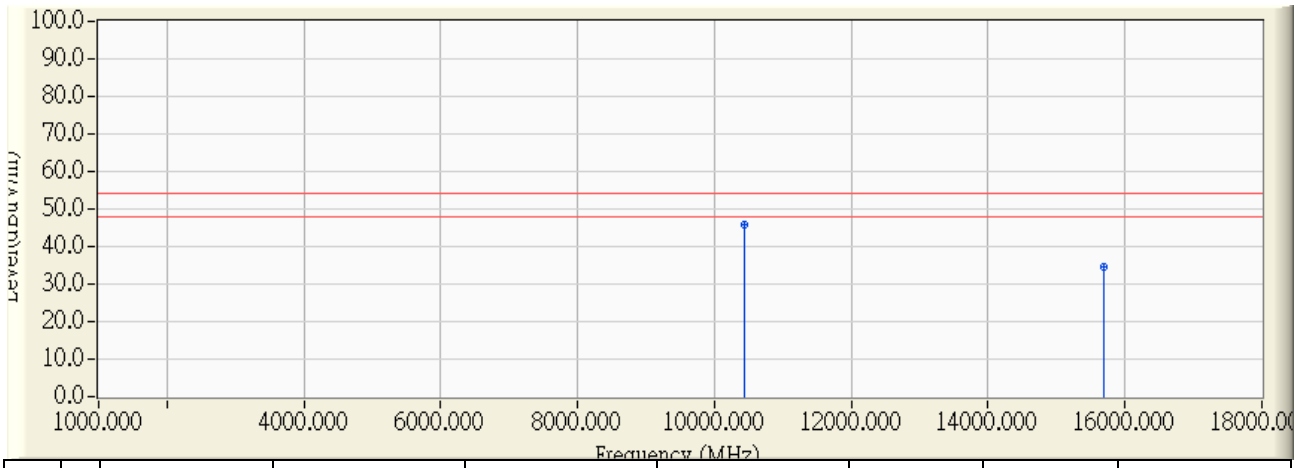


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10439.800	10.195	49.890	60.085	-8.215	68.300	PEAK
2		15654.600	10.982	40.085	51.066	-17.234	68.300	PEAK

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 : 2014/06/17 - 22:03**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5220MHz**

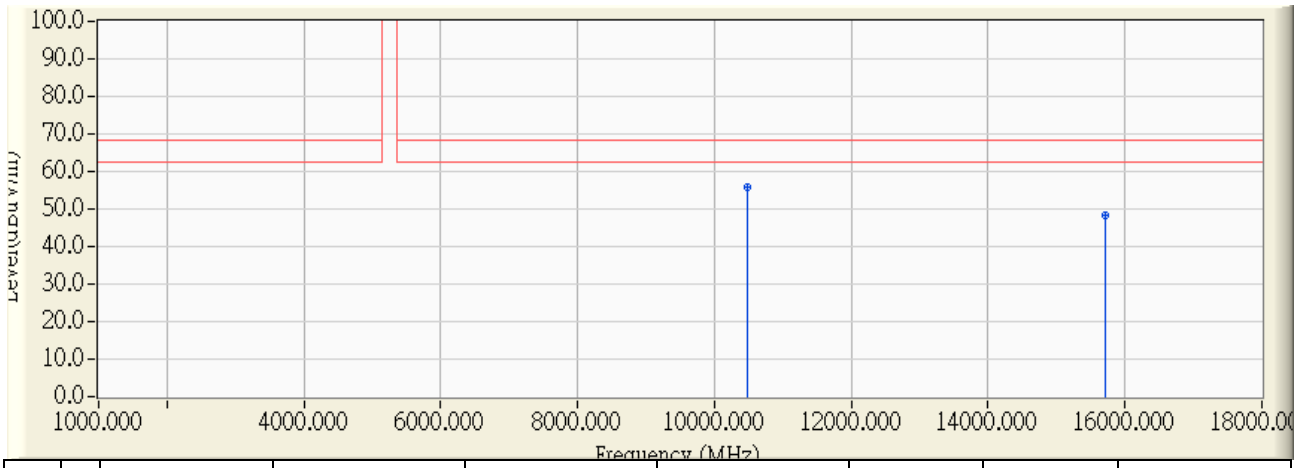


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10439.375	10.196	35.520	45.716	-8.284	54.000	AVERAGE
2		15683.650	10.948	23.690	34.639	-19.361	54.000	AVERAGE

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 : 2014/06/17 - 22:09**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5240MHz**

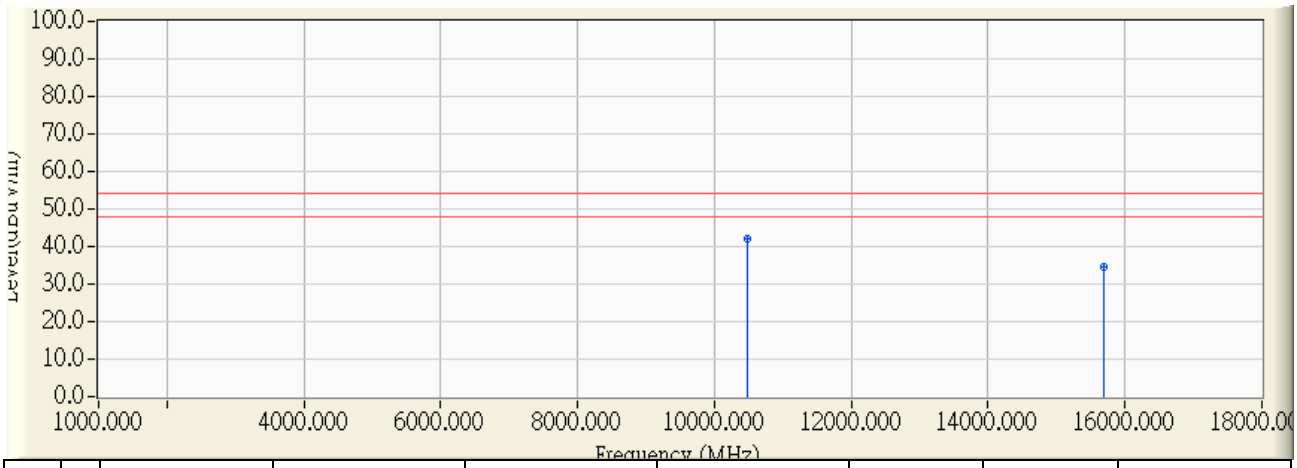


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10483.925	10.063	45.840	55.903	-12.397	68.300	PEAK
2		15704.500	10.925	37.230	48.156	-20.144	68.300	PEAK

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 : 2014/06/17 - 22:09**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5240MHz**

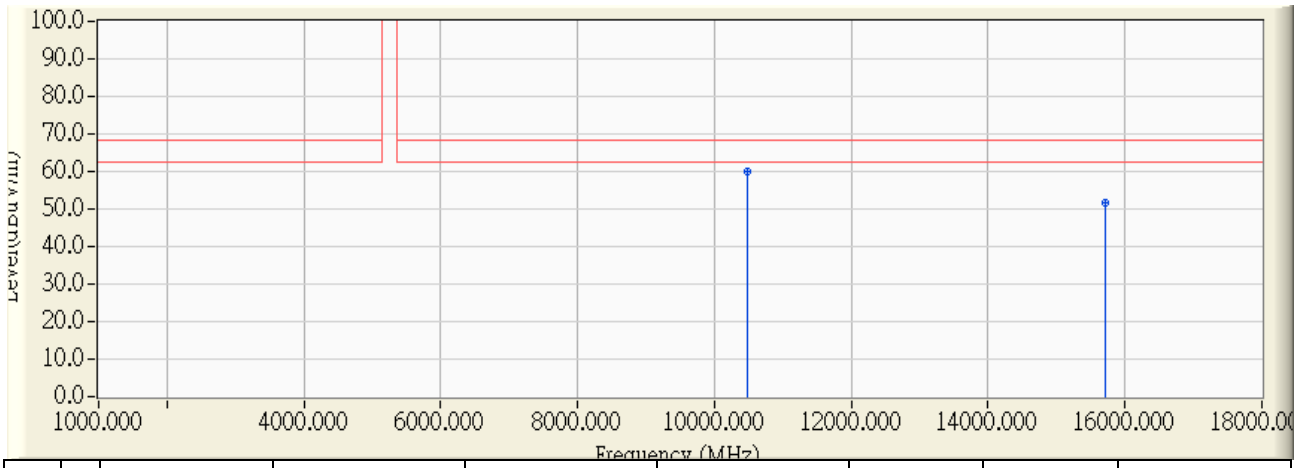


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10479.025	10.078	31.900	41.978	-12.022	54.000	AVERAGE
2		15695.075	10.936	23.660	34.596	-19.404	54.000	AVERAGE

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 : 2014/06/17 - 22:15**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5240MHz**

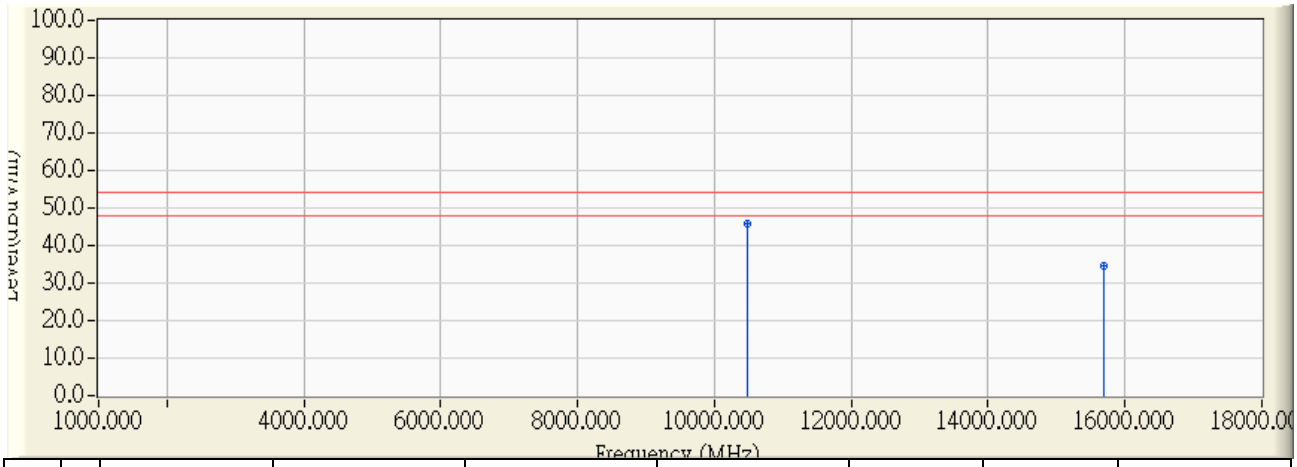


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10478.925	10.078	50.080	60.158	-8.142	68.300	PEAK
2		15713.150	10.916	40.840	51.756	-16.544	68.300	PEAK

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.

Engineer :	
Site : CB1	**Time : 2014/06/17 - 22:15**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20MHz_5240MHz**

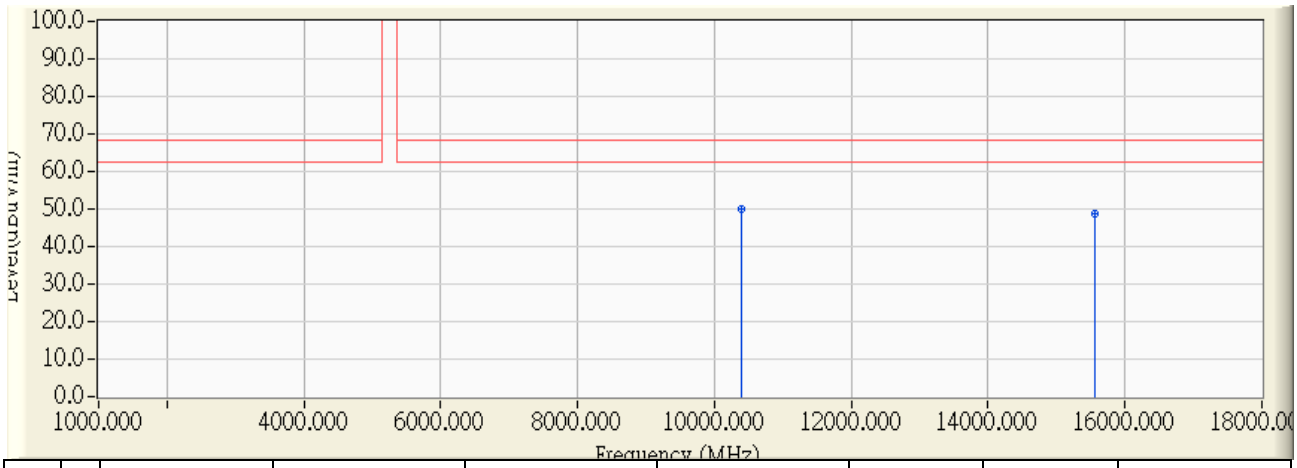


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10478.000	10.081	35.915	45.996	-8.004	54.000	AVERAGE
2		15695.000	10.936	23.570	34.506	-19.494	54.000	AVERAGE

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 : 2014/06/17 - 22:19**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40MHz_5190MHz**

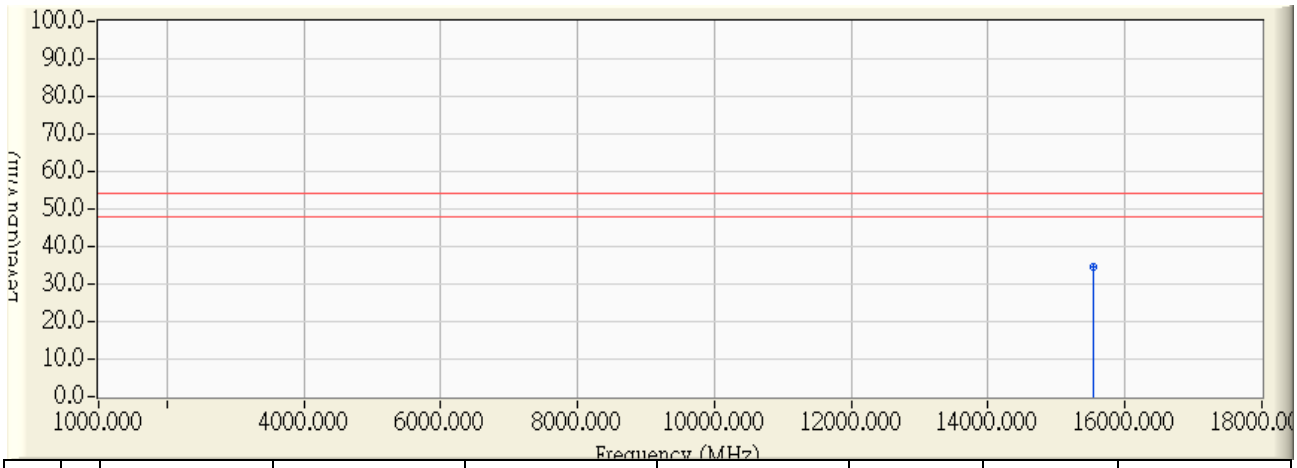


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		10386.750	10.353	39.590	49.943	-18.357	68.300	PEAK
2	*	15564.925	11.081	37.530	48.611	-19.689	68.300	PEAK

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 : 2014/06/17 - 22:21**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40MHz_5190MHz**

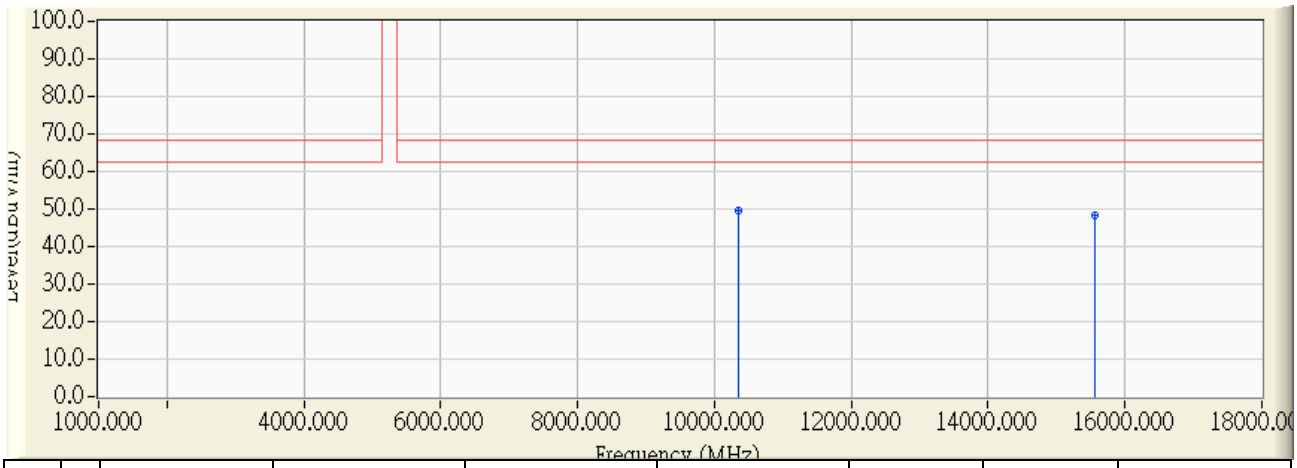


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	15546.775	11.102	23.455	34.557	-19.443	54.000	AVERAGE

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 : 2014/06/17 - 22:23**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40MHz_5190MHz**

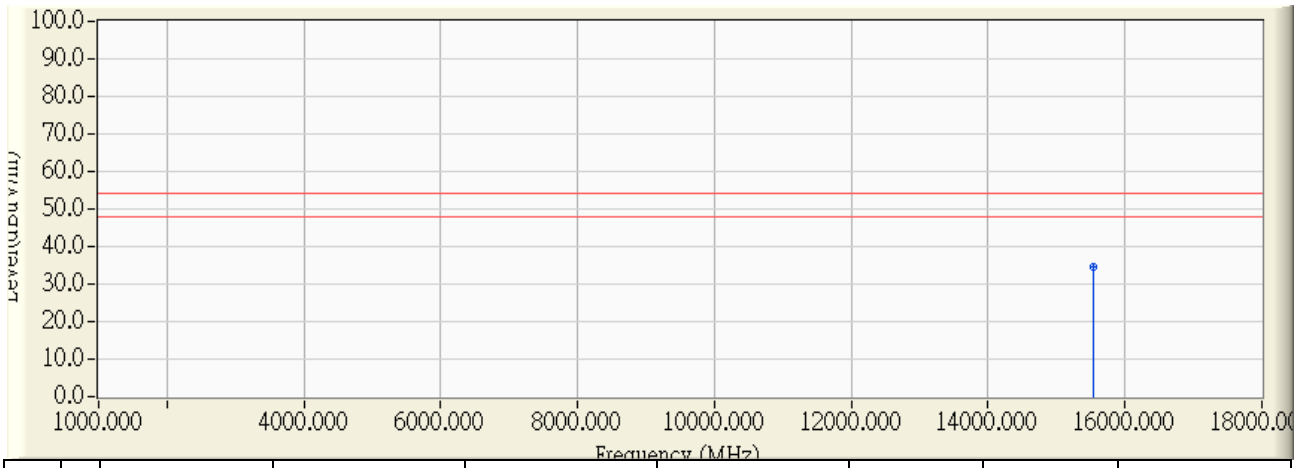


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10356.000	10.444	39.060	49.504	-18.796	68.300	PEAK
2		15555.125	11.092	37.220	48.312	-19.988	68.300	PEAK

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 : 2014/06/17 - 22:26**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40MHz_5190MHz**

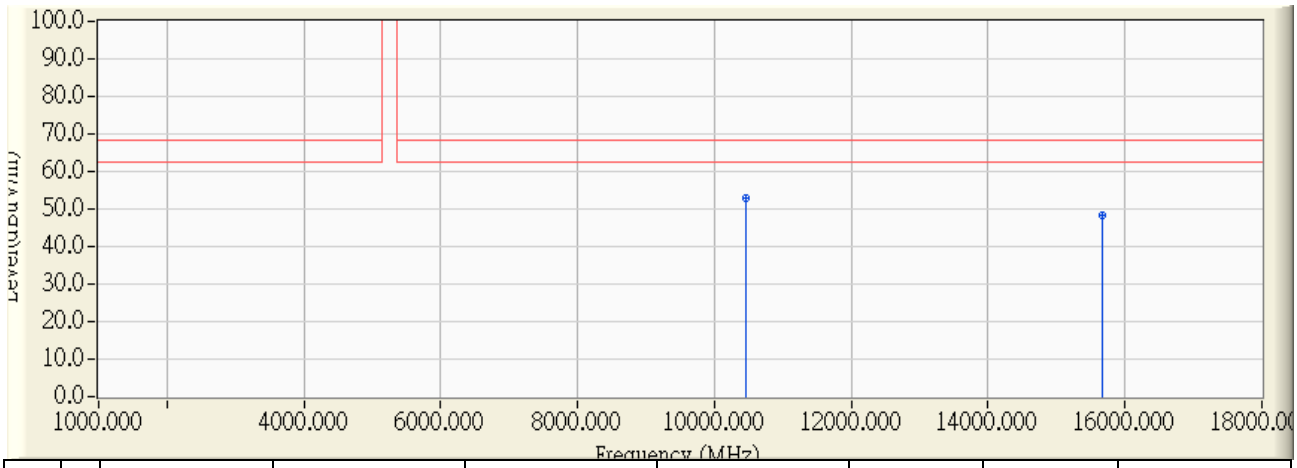


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	15545.525	11.104	23.480	34.583	-19.417	54.000	AVERAGE

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 : 2014/06/17 - 22:28**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40MHz_5230MHz**

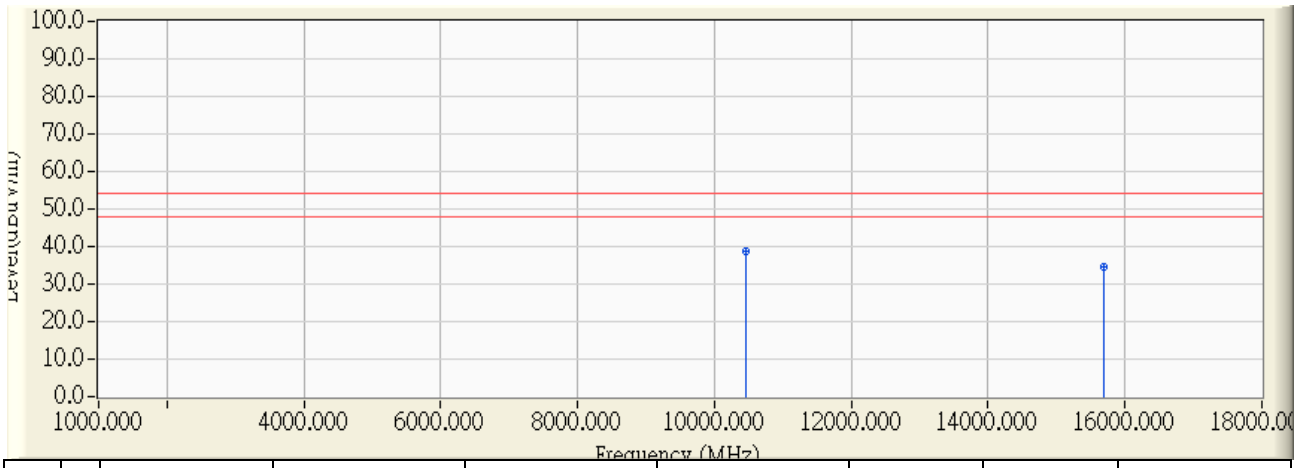


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10458.750	10.138	42.760	52.898	-15.402	68.300	PEAK
2		15668.050	10.967	37.370	48.336	-19.964	68.300	PEAK

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 : 2014/06/17 - 22:29**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40MHz_5230MHz**

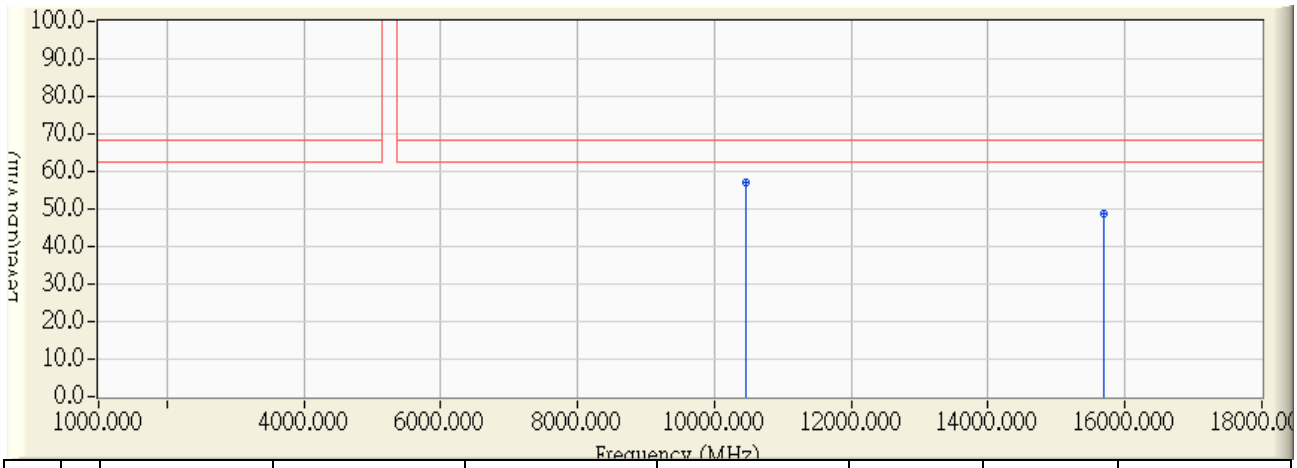


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10459.025	10.137	28.570	38.707	-15.293	54.000	AVERAGE
2		15684.350	10.948	23.740	34.688	-19.312	54.000	AVERAGE

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 : 2014/06/17 - 22:33**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40MHz_5230MHz**

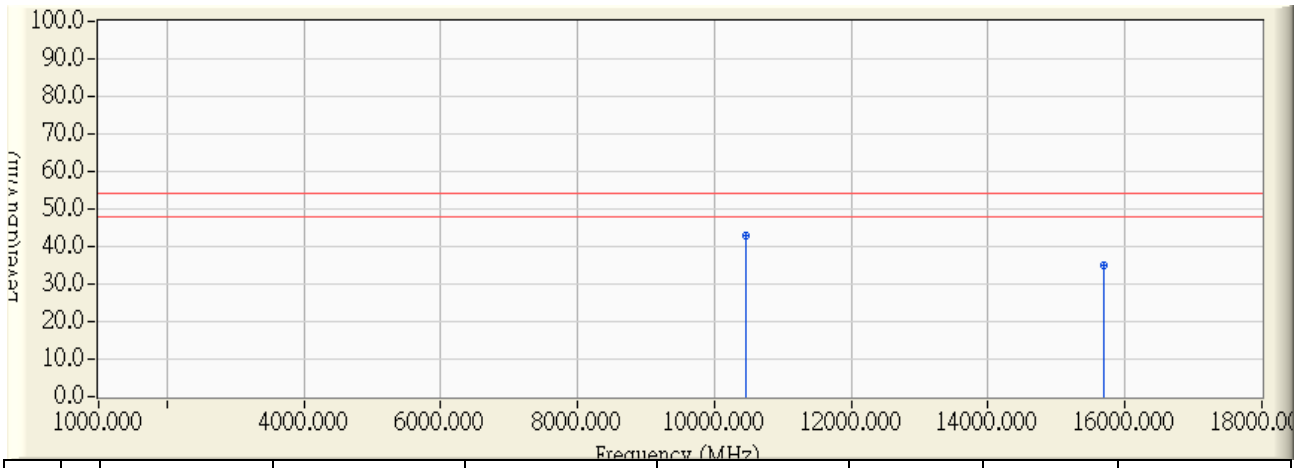


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10458.775	10.137	46.910	57.048	-11.252	68.300	PEAK
2		15689.175	10.943	37.710	48.653	-19.647	68.300	PEAK

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 : 2014/06/17 - 22:34**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40MHz_5230MHz**

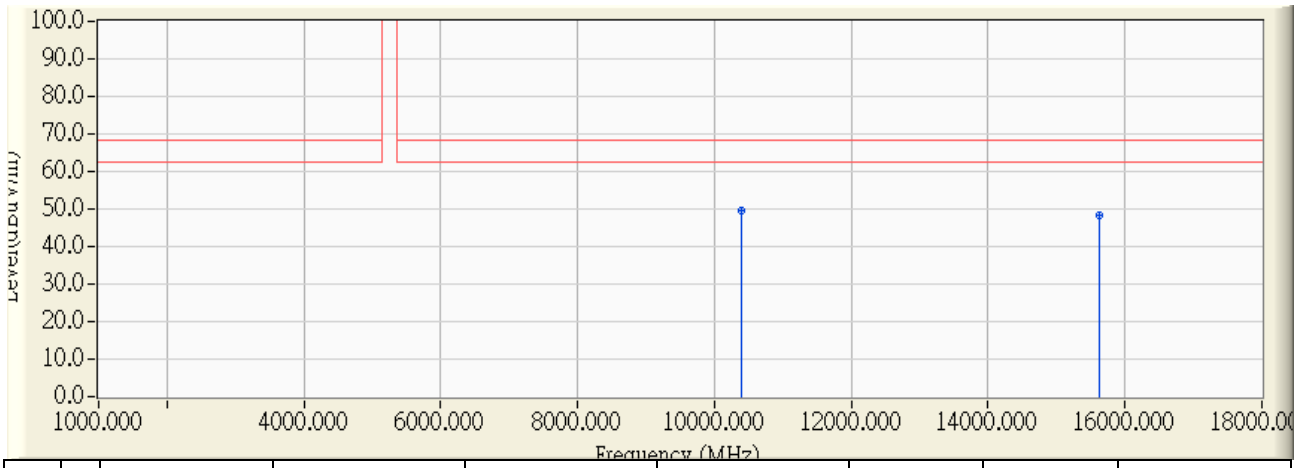


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10459.750	10.135	32.820	42.955	-11.045	54.000	AVERAGE
2		15683.425	10.949	24.250	35.199	-18.801	54.000	AVERAGE

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 : 2014/06/17 - 22:39**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11ac 80MHz_5210MHz**

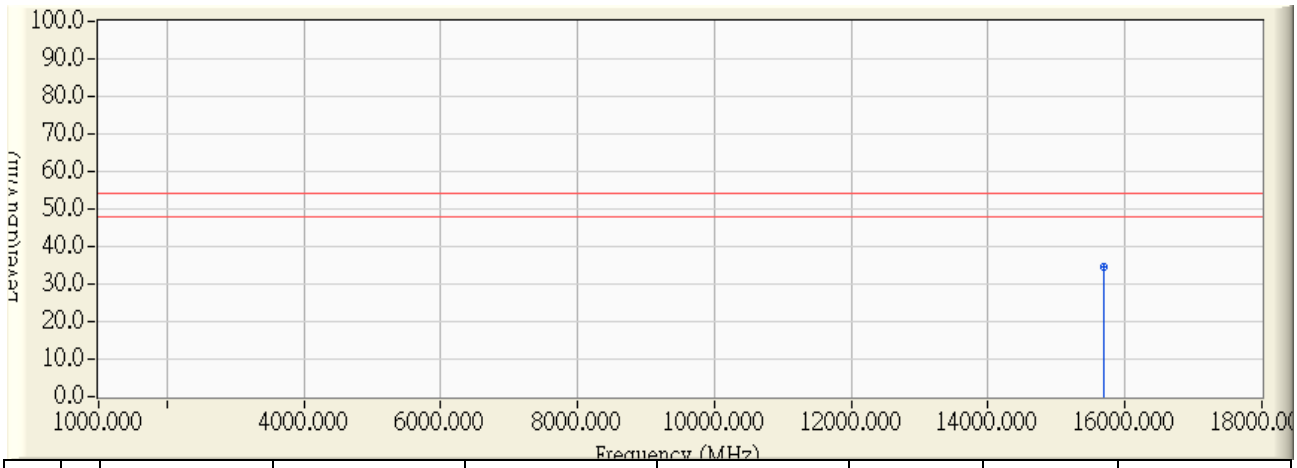


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10392.350	10.336	39.320	49.656	-18.644	68.300	PEAK
2		15618.250	11.022	37.190	48.212	-20.088	68.300	PEAK

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 : 2014/06/17 - 22:40**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11ac 80MHz_5210MHz**

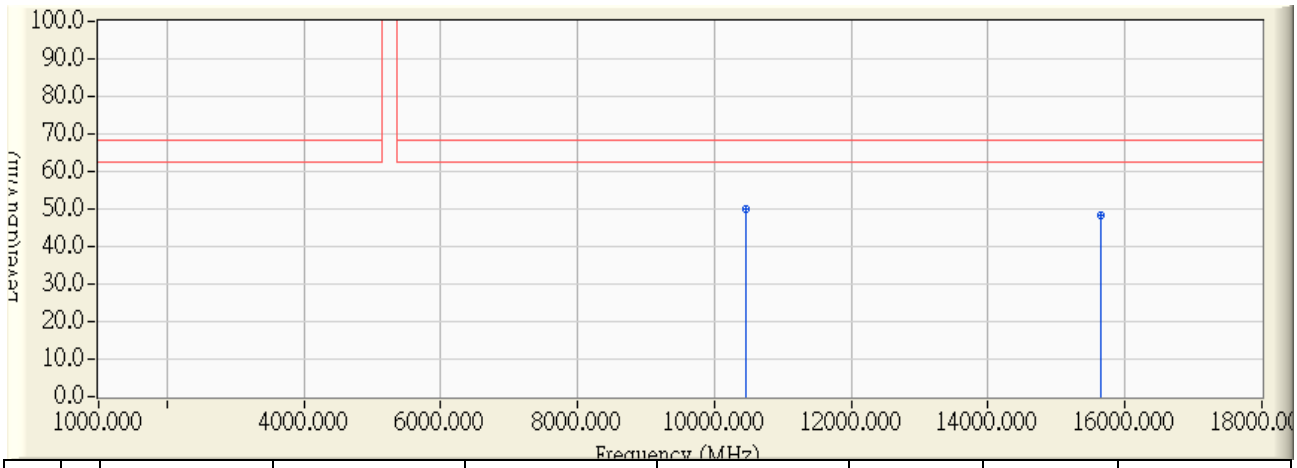


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	15680.000	10.953	23.550	34.503	-19.497	54.000	AVERAGE

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 : 2014/06/17 - 22:43**
Limit : FCC_SPARTE_15.407_H_Band1_03M_PK	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11ac 80MHz_5210MHz**

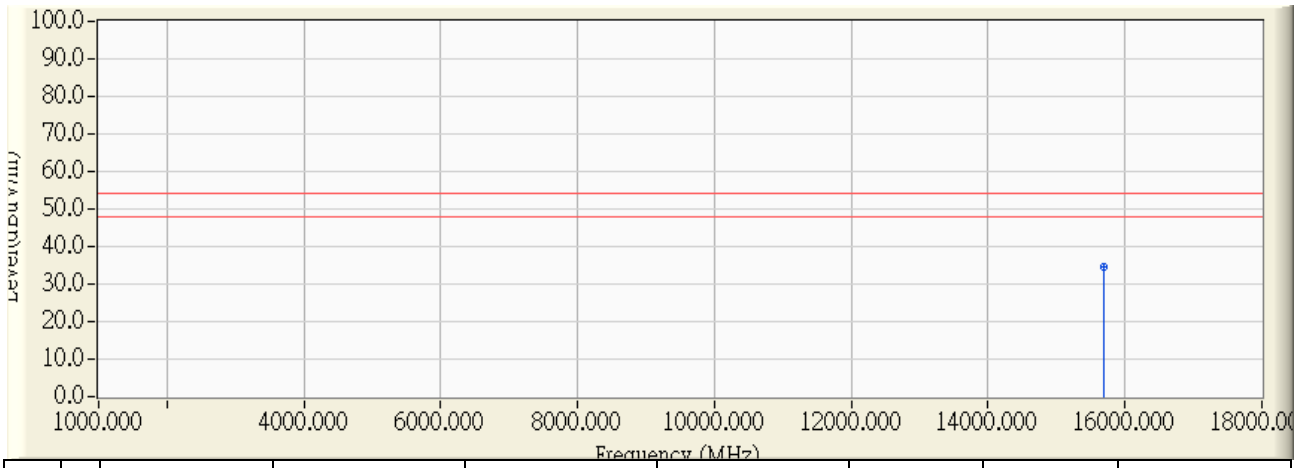


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10448.750	10.168	40.020	50.188	-18.112	68.300	PEAK
2		15653.900	10.983	37.410	48.392	-19.908	68.300	PEAK

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 : 2014/06/17 - 22:44**
Limit : FCC_SPARTE_15.407_H_2014_03M_AV	**Margin : 6**
Probe : CB1_FCCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11ac 80MHz_5210MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	15679.100	10.954	23.600	34.554	-19.446	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.

7. Band Edge

7.1. Test Equipment

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

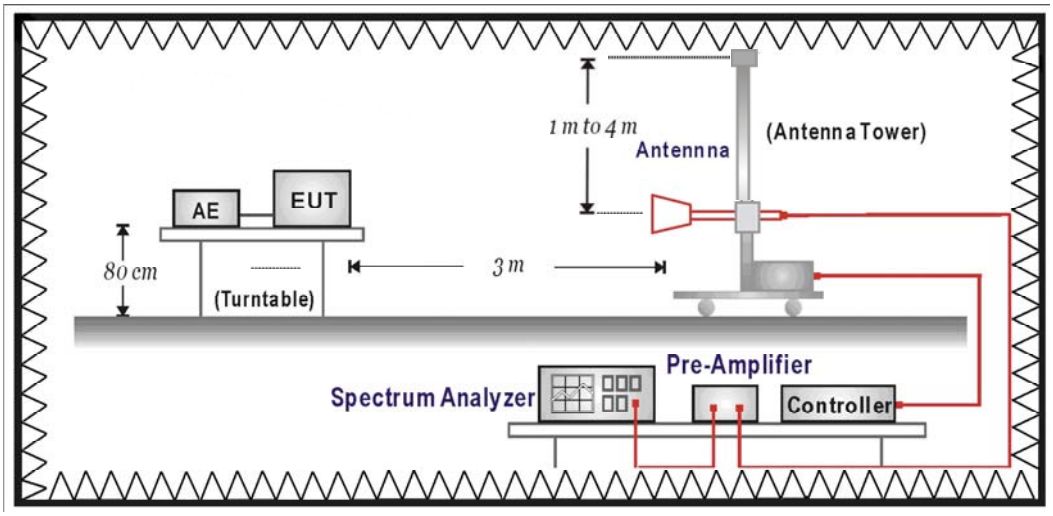
Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2015/02/12
Spectrum Analyzer	Agilent	E4440A	MY46187335	2015/01/12
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2015/02/10

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:

4. RF Voltage (dBuV) = 20 log RF Voltage (uV)
5. In the Above Table, the tighter limit applies at the band edges.
6. 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
5725~5825	-27 (Note1)	68.3
	-17 (Note2)	78.3

Remark:

4. For frequencies more than 10 MHz above or below the band edges.
5. For frequency range from the band edges to 10 MHz above or below the band edges.
6. 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 C63.4: 2009on radiated measurement.

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

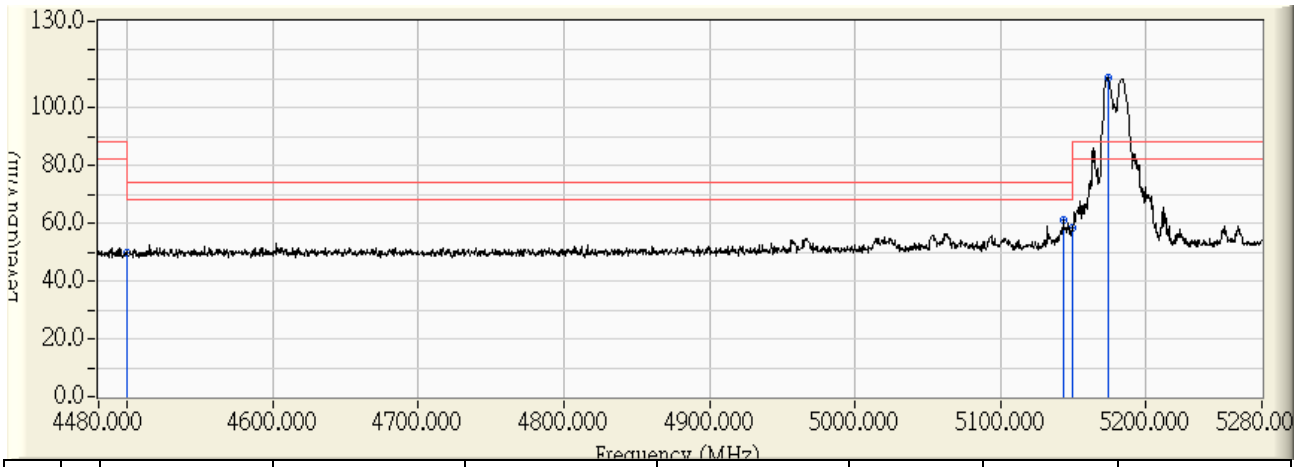
7.5. Uncertainty

The measurement uncertainty is defined as ± 3.65dB

7.6. Test Result

Radiated is defined as

Site : CB1	**Time : 2014/06/13 - 19:12**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5180MHz**

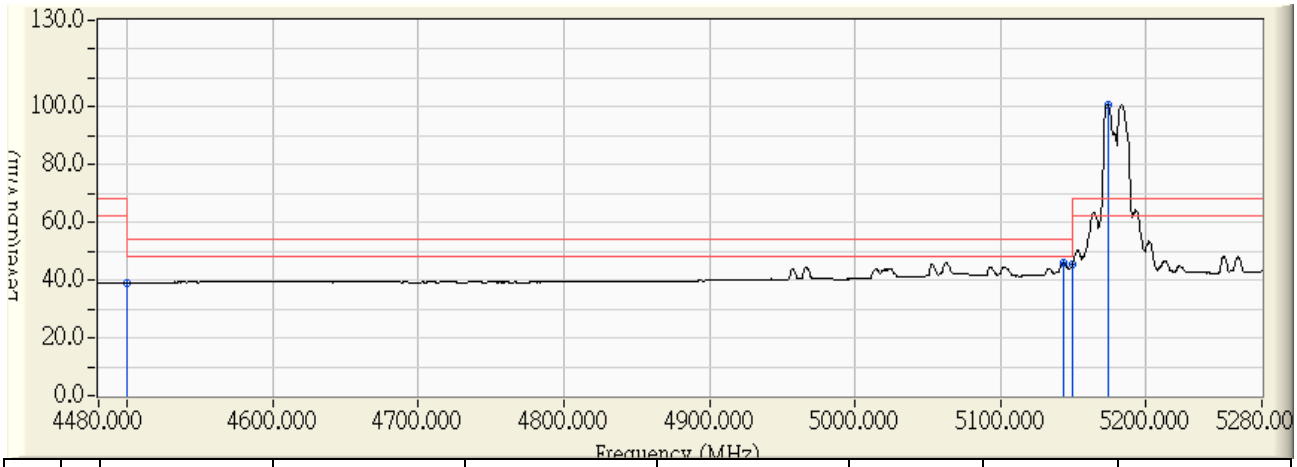


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	51.361	49.956	-24.044	74.000	PEAK
2		5143.200	0.923	60.326	61.249	-12.751	74.000	PEAK
3		5150.000	0.975	57.442	58.417	-15.583	74.000	PEAK
4	*	5174.000	1.162	109.136	110.297	21.997	88.300	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 : 2014/06/13 - 19:13**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5180MHz**

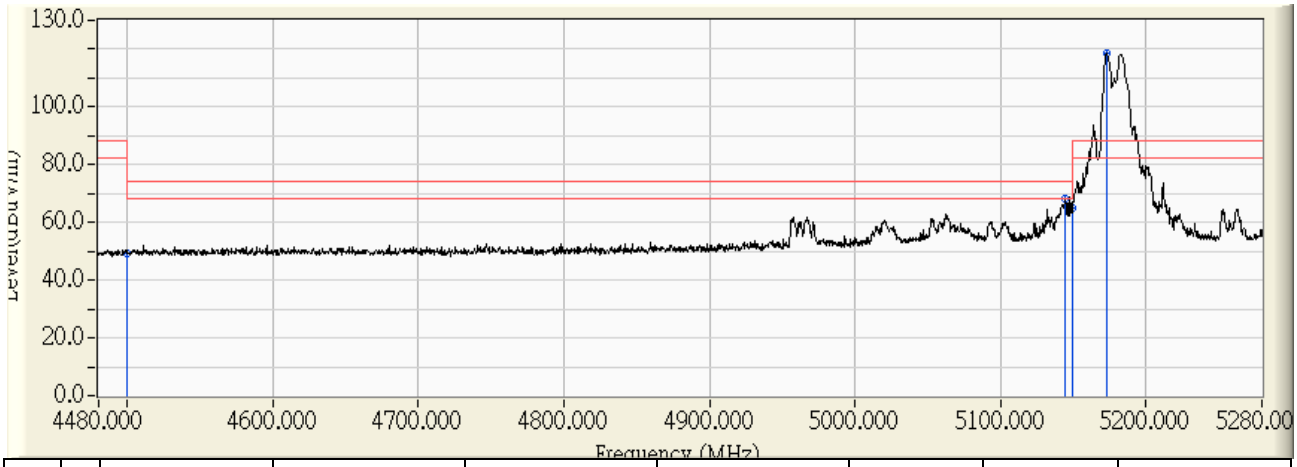


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.475	39.070	-14.930	54.000	AVERAGE
2		5143.200	0.923	44.871	45.794	-8.206	54.000	AVERAGE
3		5150.000	0.975	44.547	45.522	-8.478	54.000	AVERAGE
4	*	5174.000	1.162	99.583	100.744	32.444	68.300	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 : 2014/06/13 - 19:08**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **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	-1.406	50.709	49.304	-24.696	74.000	PEAK
2		5144.800	0.936	67.333	68.268	-5.732	74.000	PEAK
3		5150.000	0.975	64.167	65.142	-8.858	74.000	PEAK
4	*	5173.200	1.155	117.352	118.507	30.207	88.300	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.

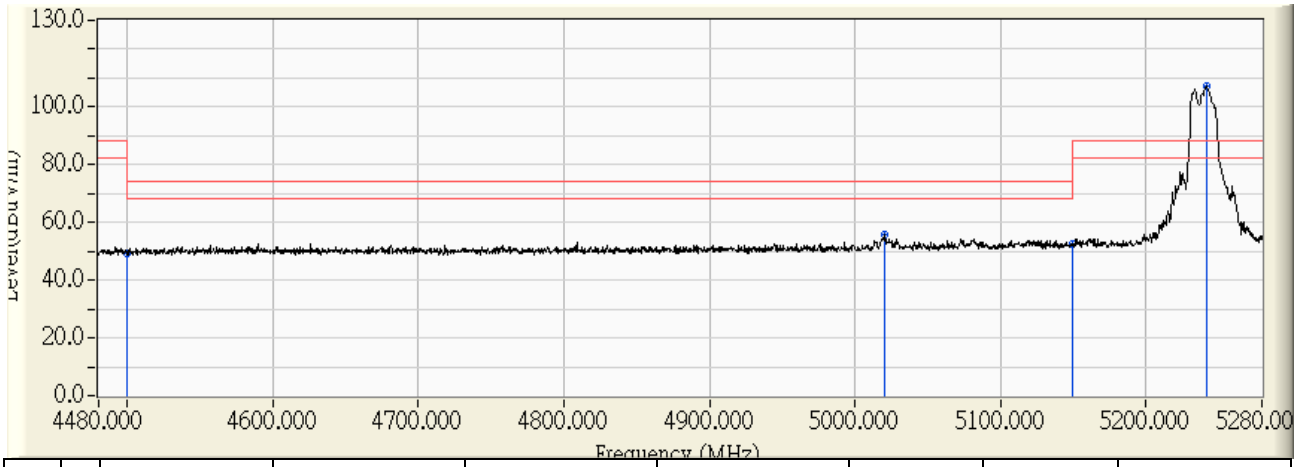
Site : CB1	**Time : 2014/06/13 - 19:06**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5180MHz**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.544	39.139	-14.861	54.000	AVERAGE
2		5062.800	0.299	51.991	52.290	-1.710	54.000	AVERAGE
3		5150.000	0.975	52.075	53.050	-0.950	54.000	AVERAGE
4	*	5183.200	1.233	108.240	109.473	41.173	68.300	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 : 2014/06/13 - 19:55**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5240MHz**

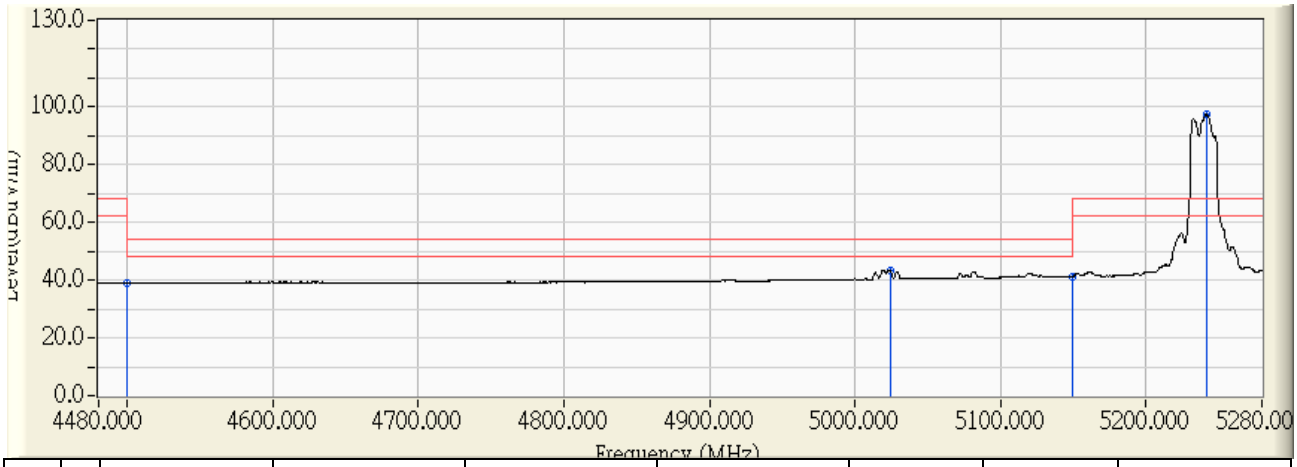


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	50.477	49.072	-24.928	74.000	PEAK
2		5020.000	-0.033	55.730	55.697	-18.303	74.000	PEAK
3		5150.000	0.975	51.332	52.307	-21.693	74.000	PEAK
4	*	5242.400	1.693	105.733	107.425	19.125	88.300	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 : 2014/06/13 - 19:56**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5240MHz**

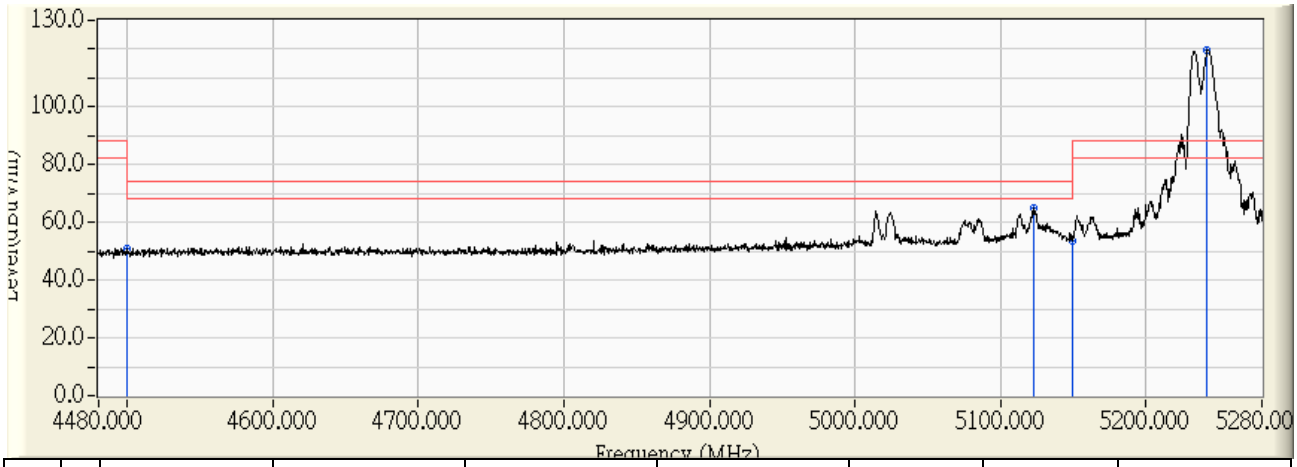


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.310	38.905	-15.095	54.000	AVERAGE
2		5024.400	0.002	43.235	43.236	-10.764	54.000	AVERAGE
3		5150.000	0.975	40.264	41.239	-12.761	54.000	AVERAGE
4	*	5241.600	1.686	95.669	97.355	29.055	68.300	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 : 2014/06/13 - 19:48**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5240MHz**

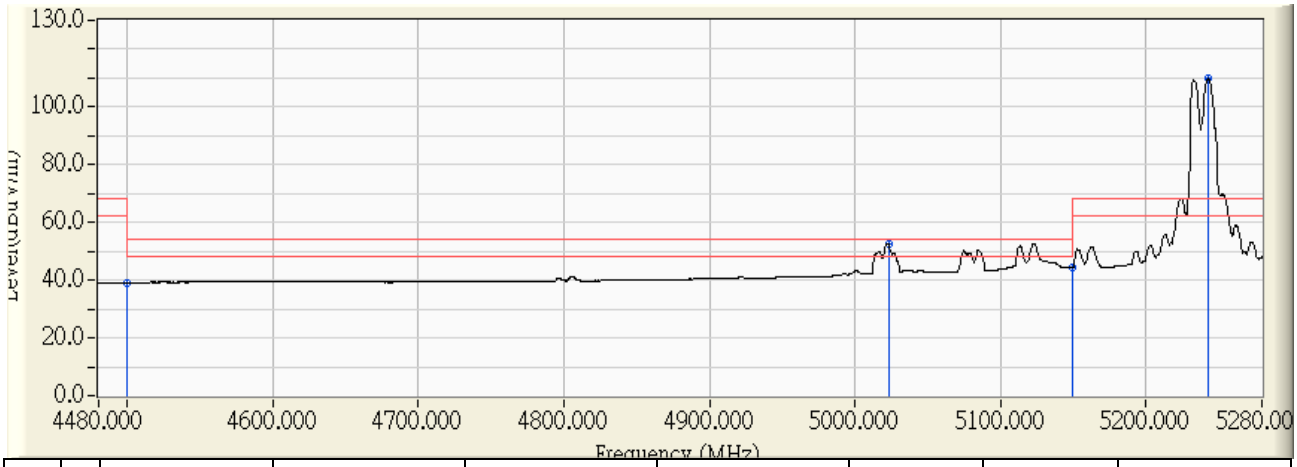


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	52.218	50.813	-23.187	74.000	PEAK
2		5122.800	0.764	64.022	64.786	-9.214	74.000	PEAK
3		5150.000	0.975	52.893	53.868	-20.132	74.000	PEAK
4	*	5242.400	1.693	117.881	119.573	31.273	88.300	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 : 2014/06/13 - 19:45**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11a_5240MHz**

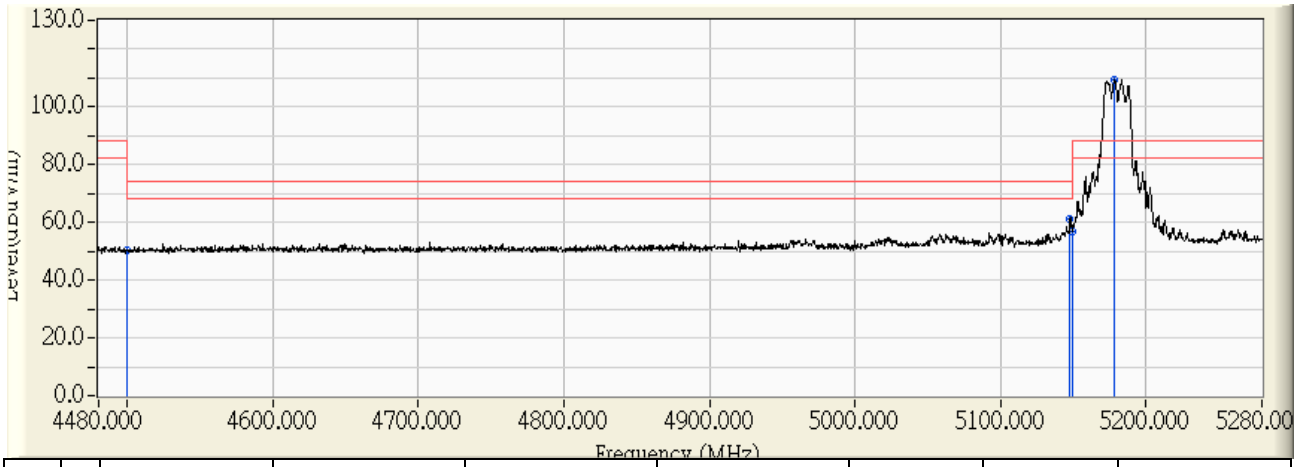


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.567	39.162	-14.838	54.000	AVERAGE
2		5023.200	-0.008	52.547	52.539	-1.461	54.000	AVERAGE
3		5150.000	0.975	43.504	44.479	-9.521	54.000	AVERAGE
4	*	5243.200	1.698	107.995	109.693	41.393	68.300	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 : 2014/06/13 - 16:45**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20M_5180MHz**

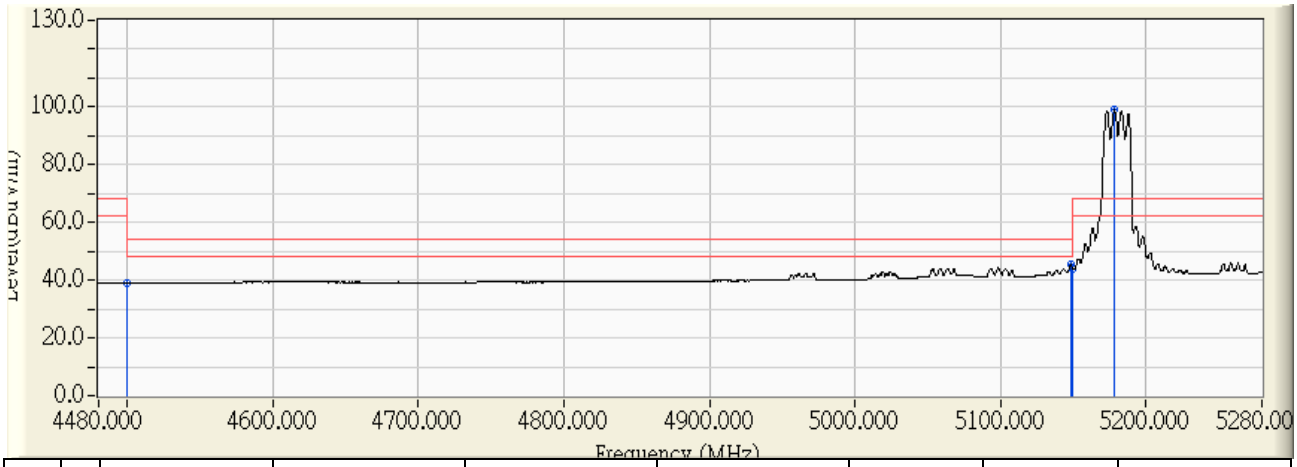


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	51.830	50.425	-23.575	74.000	PEAK
2		5147.600	0.956	60.071	61.028	-12.972	74.000	PEAK
3		5150.000	0.975	56.159	57.134	-16.866	74.000	PEAK
4	*	5178.800	1.198	108.421	109.620	21.320	88.300	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 : 2014/06/13 - 16:47**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20M_5180MHz**

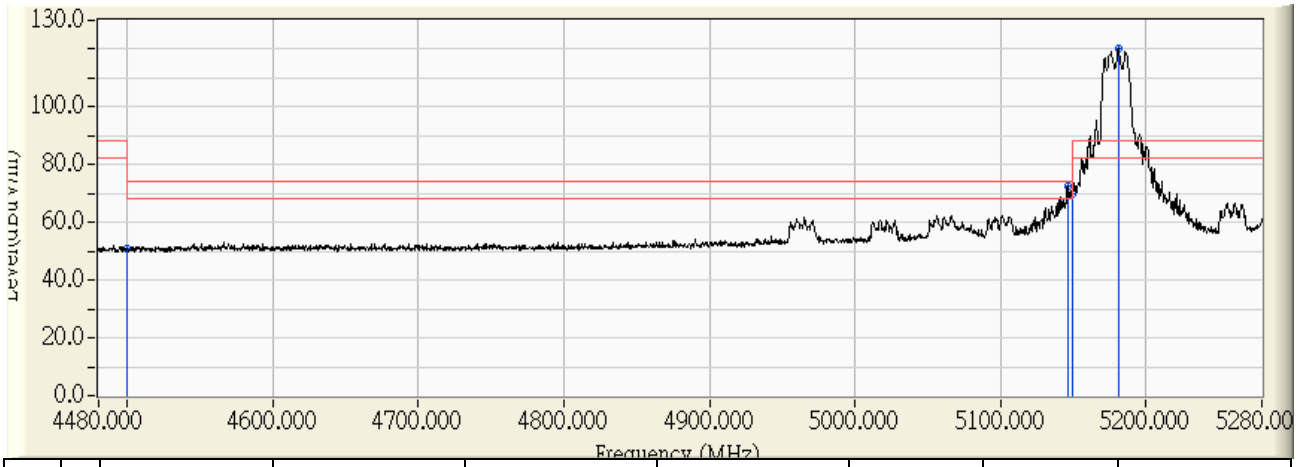


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.334	38.929	-15.071	54.000	AVERAGE
2		5148.400	0.963	44.340	45.303	-8.697	54.000	AVERAGE
3		5150.000	0.975	43.022	43.997	-10.003	54.000	AVERAGE
4	*	5178.400	1.195	97.724	98.920	30.620	68.300	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 : 2014/06/13 - 16:25**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20M_5180MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	52.382	50.977	-23.023	74.000	PEAK
2		5146.800	0.951	71.504	72.455	-1.545	74.000	PEAK
3		5150.000	0.975	69.097	70.072	-3.928	74.000	PEAK
4	*	5181.200	1.218	118.868	120.085	31.785	88.300	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.

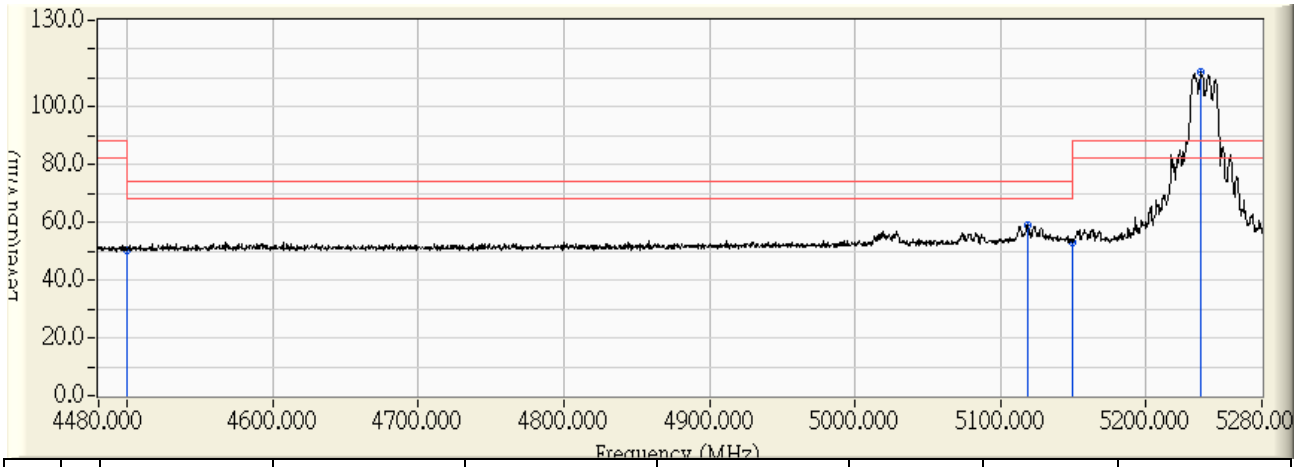
Site : CB1	**Time : 2014/06/13 - 16:23**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20M_5180MHz**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.389	38.984	-15.016	54.000	AVERAGE
2		5146.000	0.944	51.764	52.708	-1.292	54.000	AVERAGE
3		5150.000	0.975	51.668	52.643	-1.357	54.000	AVERAGE
4	*	5181.200	1.218	108.123	109.340	41.040	68.300	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 : 2014/06/13 - 17:38**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20M_5240MHz**

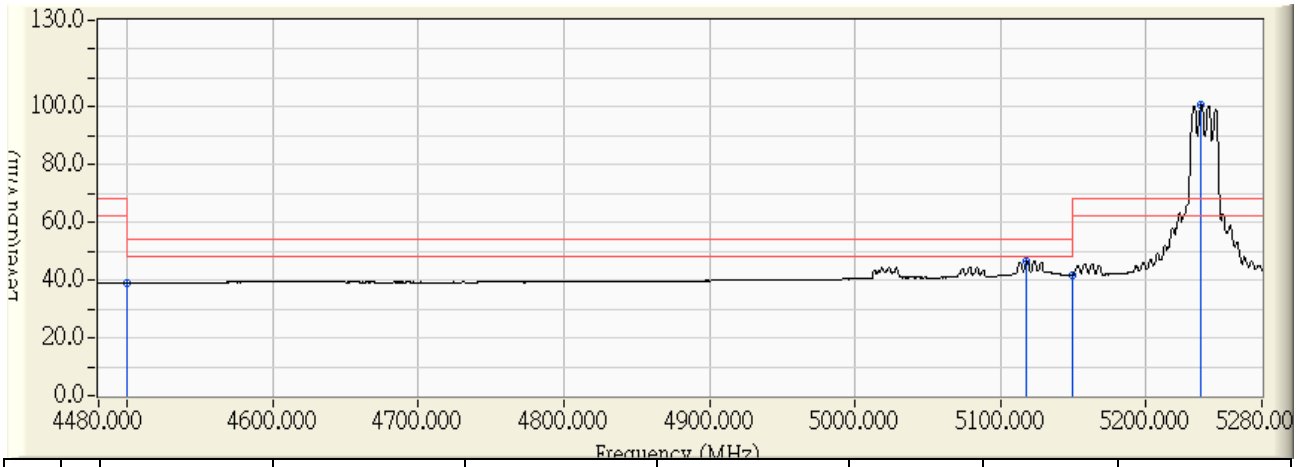


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	51.690	50.285	-23.715	74.000	PEAK
2		5118.800	0.733	58.318	59.051	-14.949	74.000	PEAK
3		5150.000	0.975	52.276	53.251	-20.749	74.000	PEAK
4	*	5238.000	1.657	110.273	111.931	23.631	88.300	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 : 2014/06/13 - 17:41**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20M_5240MHz**

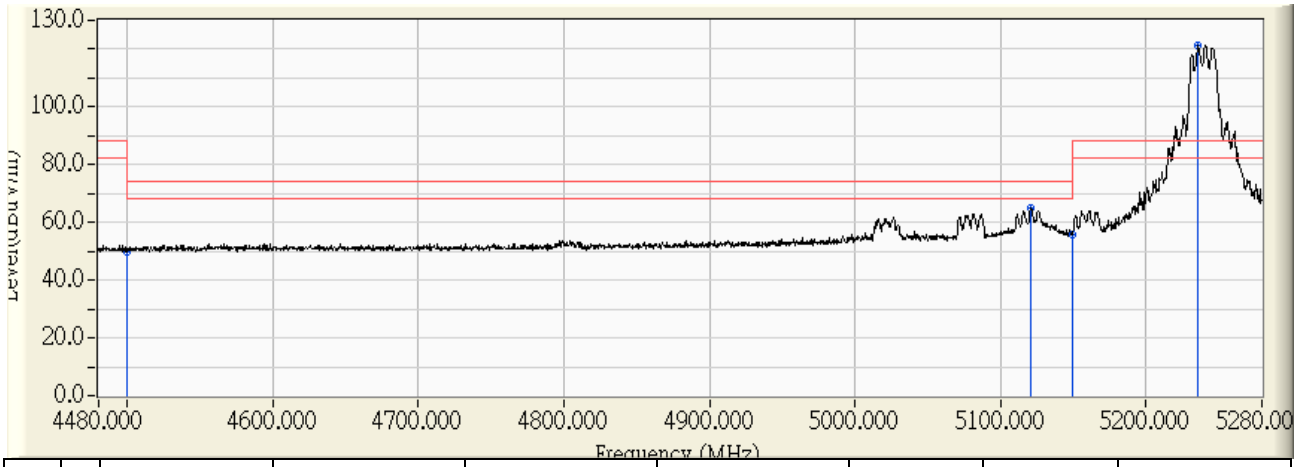


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.346	38.941	-15.059	54.000	AVERAGE
2		5118.000	0.727	45.755	46.482	-7.518	54.000	AVERAGE
3		5150.000	0.975	40.851	41.826	-12.174	54.000	AVERAGE
4	*	5238.400	1.660	99.112	100.773	32.473	68.300	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 : 2014/06/13 - 17:31**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20M_5240MHz**

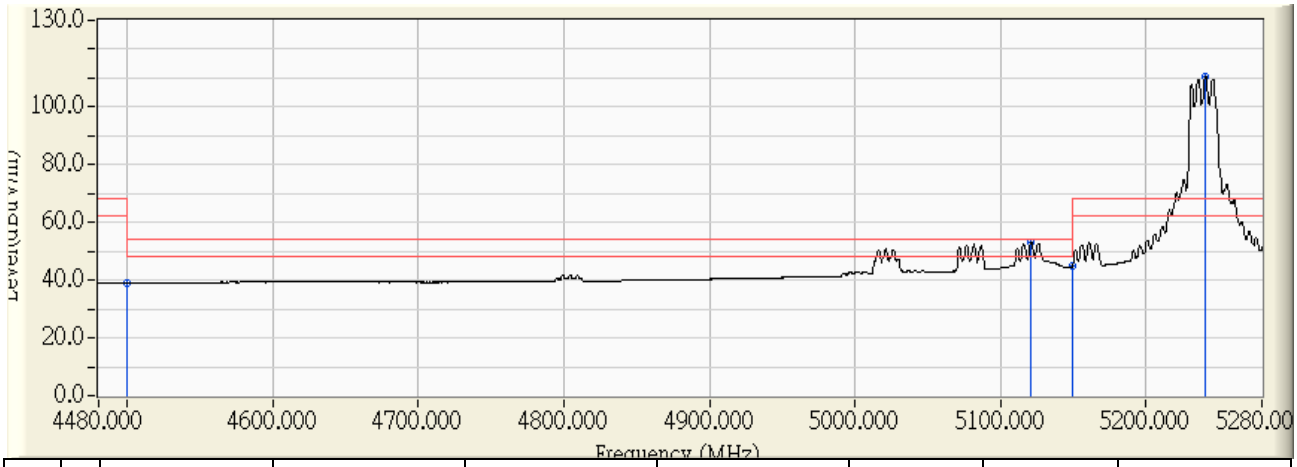


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	51.155	49.750	-24.250	74.000	PEAK
2		5121.200	0.752	64.001	64.753	-9.247	74.000	PEAK
3		5150.000	0.975	55.072	56.047	-17.953	74.000	PEAK
4	*	5236.400	1.645	119.738	121.383	33.083	88.300	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 : 2014/06/13 - 17:30**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 20M_5240MHz**

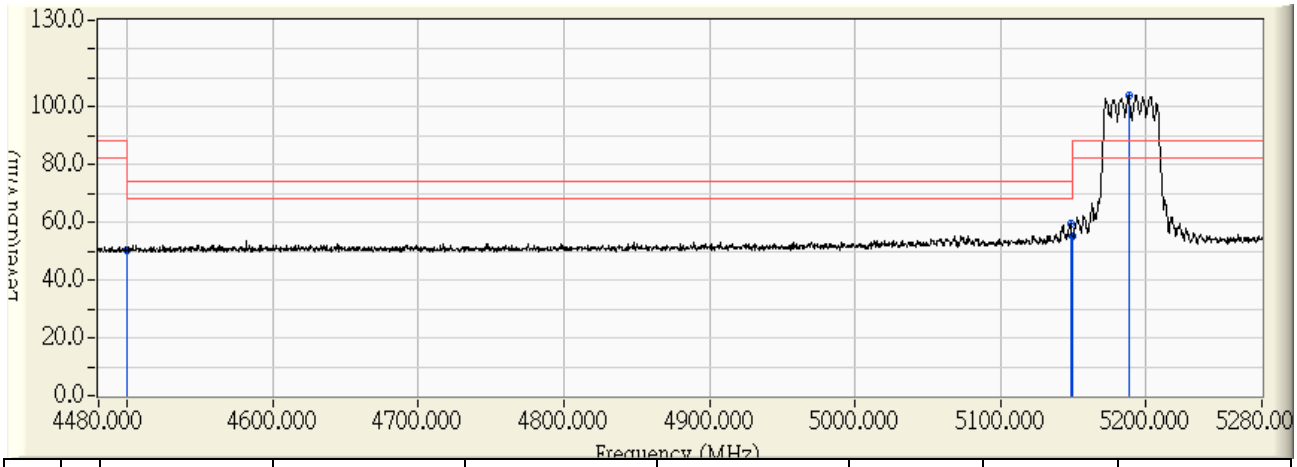


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.331	38.926	-15.074	54.000	AVERAGE
2		5121.200	0.752	52.143	52.895	-1.105	54.000	AVERAGE
3		5150.000	0.975	43.822	44.797	-9.203	54.000	AVERAGE
4	*	5241.200	1.683	108.653	110.336	42.036	68.300	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 : 2014/06/13 - 18:15**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40M_5190MHz**

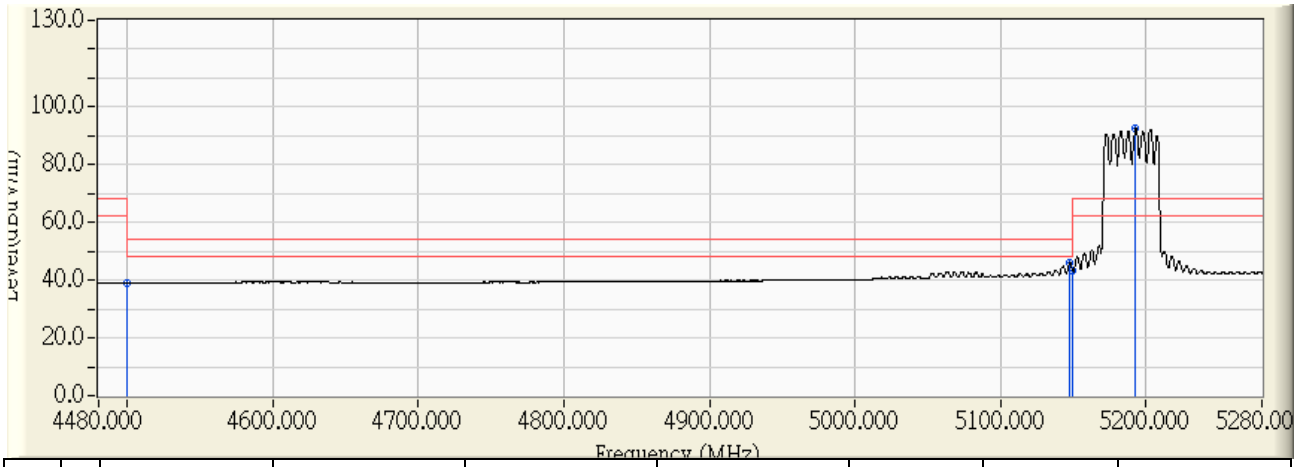


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	51.680	50.275	-23.725	74.000	PEAK
2		5148.400	0.963	58.768	59.731	-14.269	74.000	PEAK
3		5150.000	0.975	54.198	55.173	-18.827	74.000	PEAK
4	*	5188.400	1.273	102.688	103.961	15.661	88.300	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 : 2014/06/13 - 18:17**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40M_5190MHz**

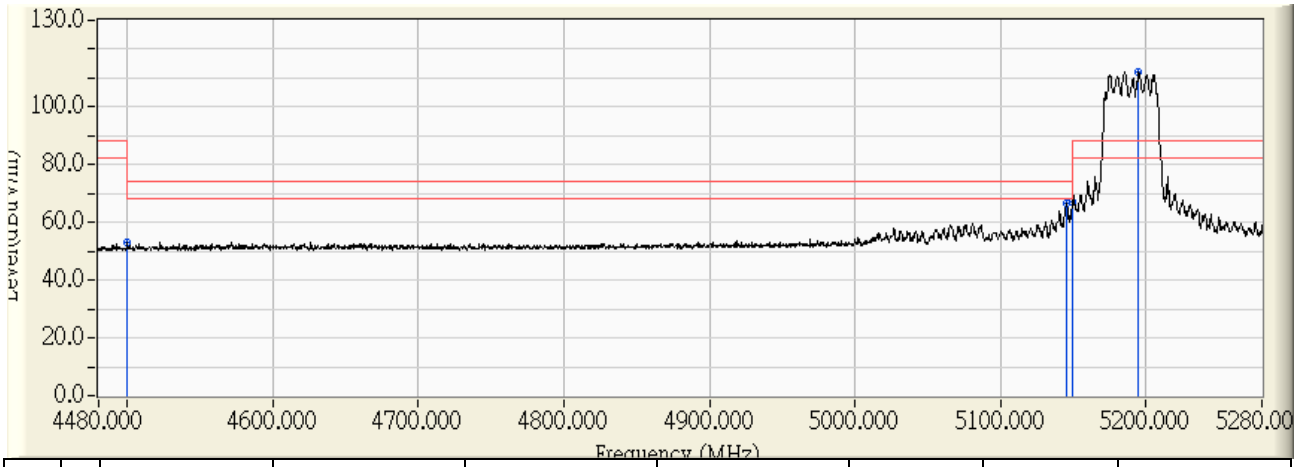


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.333	38.928	-15.072	54.000	AVERAGE
2		5147.600	0.956	44.982	45.939	-8.061	54.000	AVERAGE
3		5150.000	0.975	42.132	43.107	-10.893	54.000	AVERAGE
4	*	5193.200	1.310	91.130	92.440	24.140	68.300	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 : 2014/06/13 - 18:10**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40M_5190MHz**

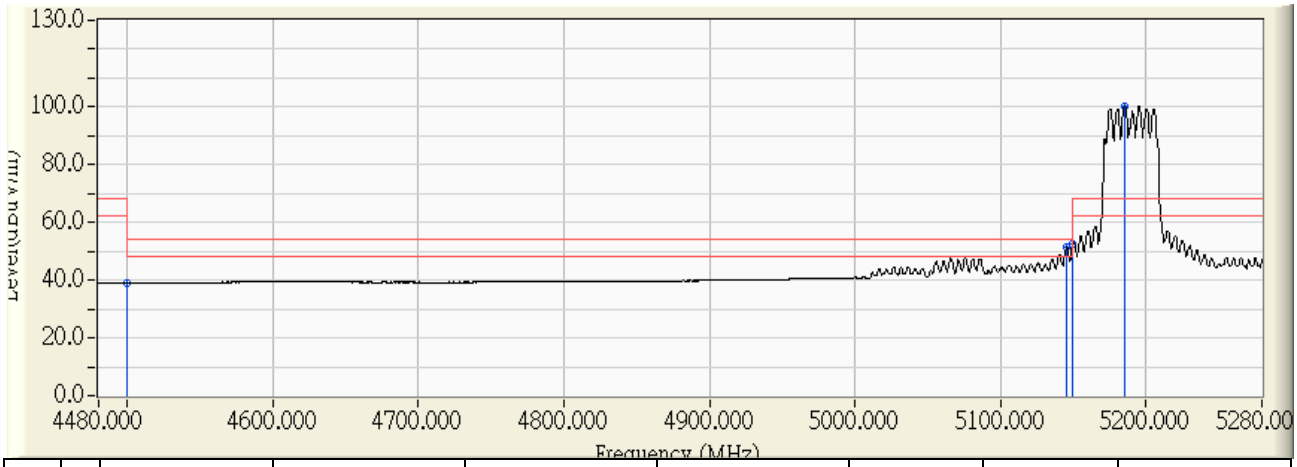


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	54.300	52.895	-21.105	74.000	PEAK
2		5146.000	0.944	65.422	66.366	-7.634	74.000	PEAK
3		5150.000	0.975	66.159	67.134	-6.866	74.000	PEAK
4	*	5195.200	1.325	110.694	112.020	23.720	88.300	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 : 2014/06/13 - 18:03**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40M_5190MHz**

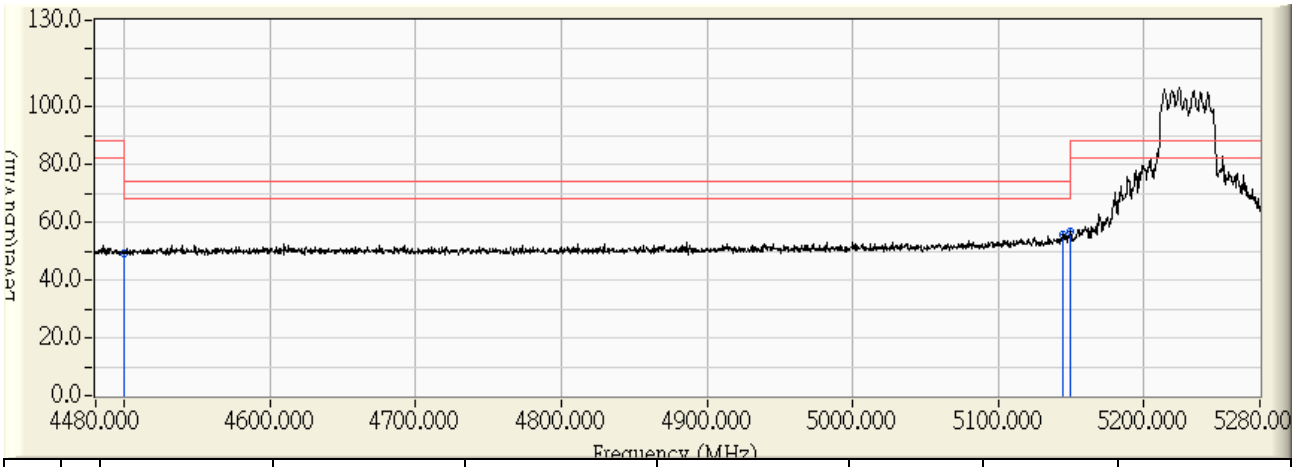


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.355	38.950	-15.050	54.000	AVERAGE
2		5146.000	0.944	50.251	51.195	-2.805	54.000	AVERAGE
3		5150.000	0.975	51.823	52.798	-1.202	54.000	AVERAGE
4	*	5185.600	1.251	99.164	100.415	32.115	68.300	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 : 2014/06/13 - 18:35**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40M_5230MHz**

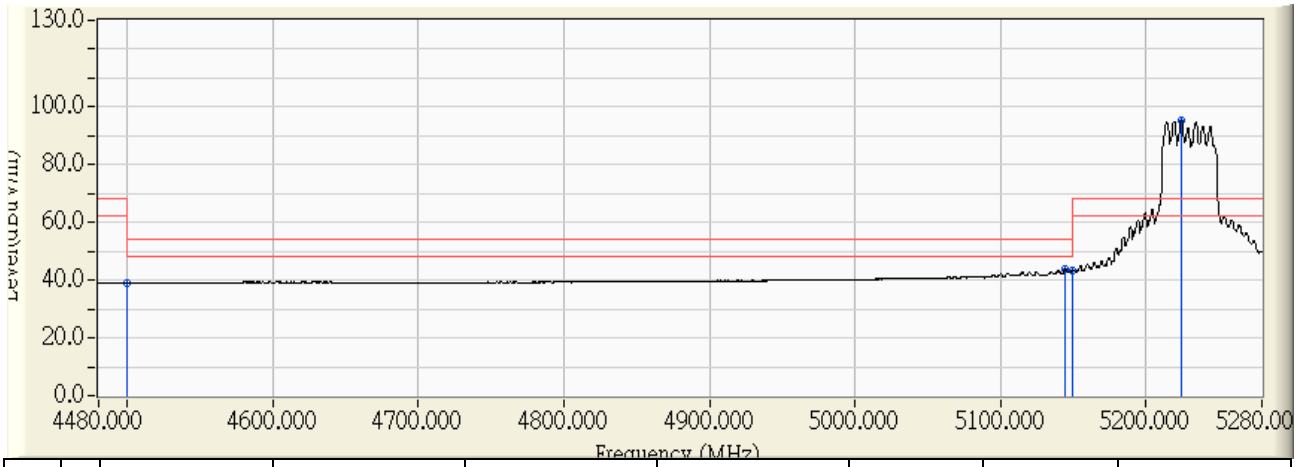


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	50.455	49.050	-24.950	74.000	PEAK
2		5144.400	0.932	54.644	55.576	-18.424	74.000	PEAK
3	*	5150.000	0.975	55.913	56.888	-17.112	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 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 : 2014/06/13 - 18:37**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40M_5230MHz**

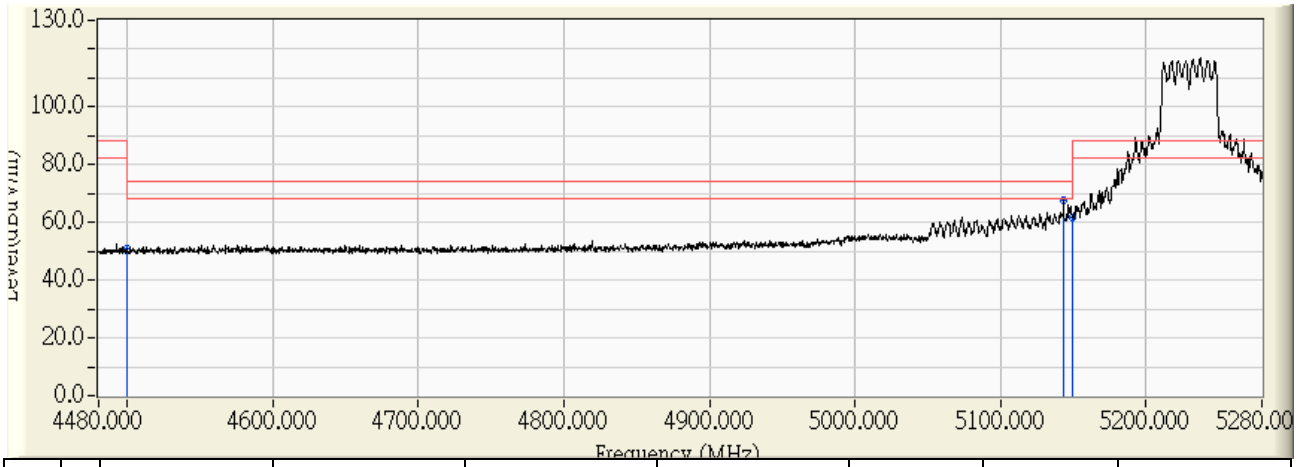


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.305	38.900	-15.100	54.000	AVERAGE
2		5144.800	0.936	42.851	43.786	-10.214	54.000	AVERAGE
3		5150.000	0.975	42.475	43.450	-10.550	54.000	AVERAGE
4	*	5224.400	1.553	93.845	95.397	27.097	68.300	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 : 2014/06/13 - 18:31**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40M_5230MHz**

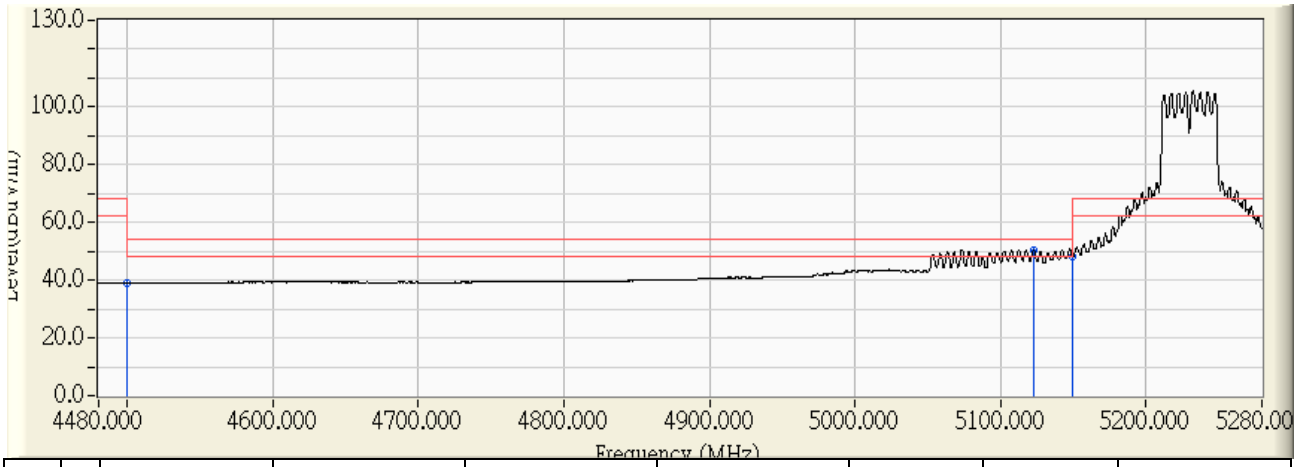


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	52.568	51.163	-22.837	74.000	PEAK
2	*	5143.600	0.926	66.800	67.726	-6.274	74.000	PEAK
3		5150.000	0.975	60.881	61.856	-12.144	74.000	PEAK

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 : 2014/06/13 - 18:30**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11n 40M_5230MHz**

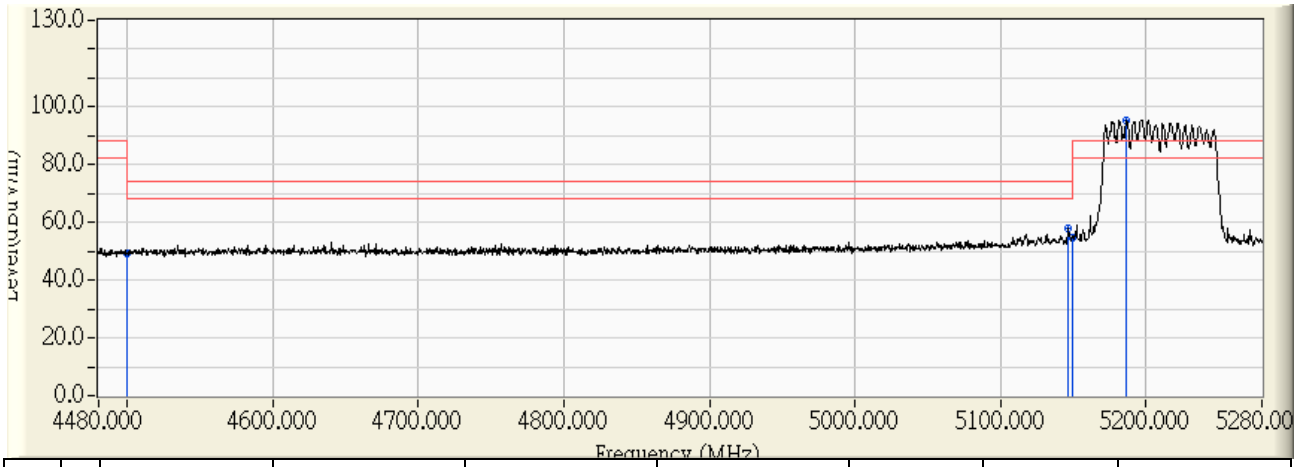


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.302	38.897	-15.103	54.000	AVERAGE
2	*	5122.800	0.764	49.546	50.310	-3.690	54.000	AVERAGE
3		5150.000	0.975	47.106	48.081	-5.919	54.000	AVERAGE

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 : 2014/06/13 - 18:53**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11ac 80M_5210MHz**

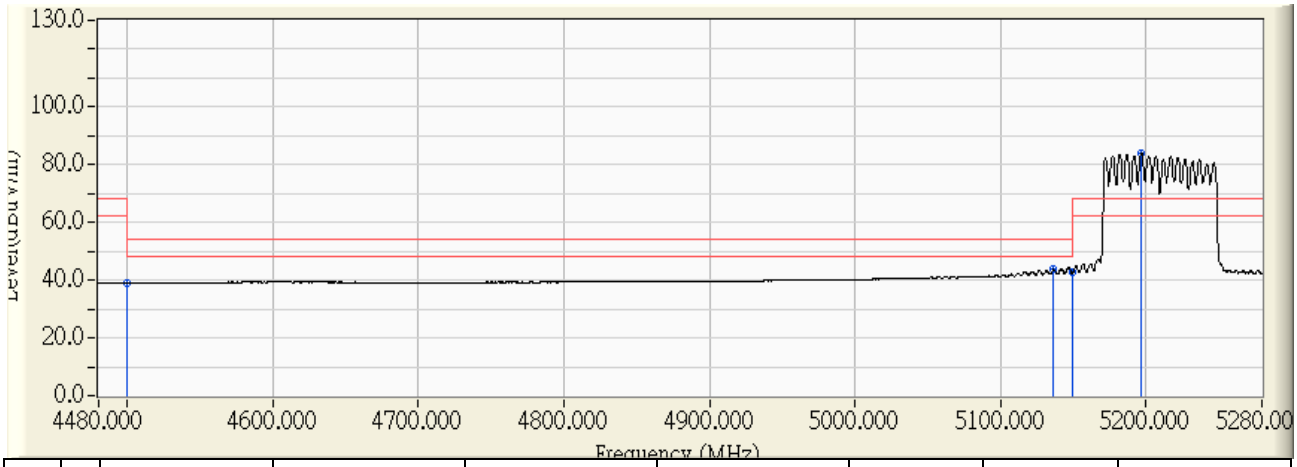


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	50.957	49.552	-24.448	74.000	PEAK
2		5146.800	0.951	56.790	57.741	-16.259	74.000	PEAK
3		5150.000	0.975	53.637	54.612	-19.388	74.000	PEAK
4	*	5186.800	1.261	94.213	95.474	7.174	88.300	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 : 2014/06/13 - 18:55**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11ac 80M_5210MHz**

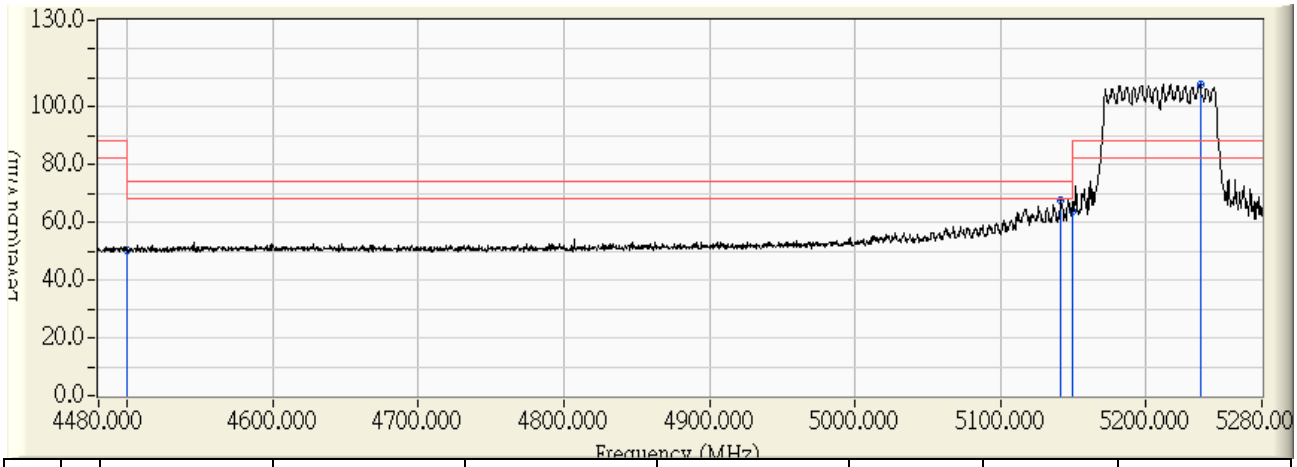


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.350	38.945	-15.055	54.000	AVERAGE
2		5136.800	0.873	42.751	43.624	-10.376	54.000	AVERAGE
3		5150.000	0.975	41.631	42.606	-11.394	54.000	AVERAGE
4	*	5197.200	1.342	82.528	83.869	15.569	68.300	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 : 2014/06/13 - 18:48**
Limit : FCC_SpartE_15.407_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11ac 80M_5210MHz**

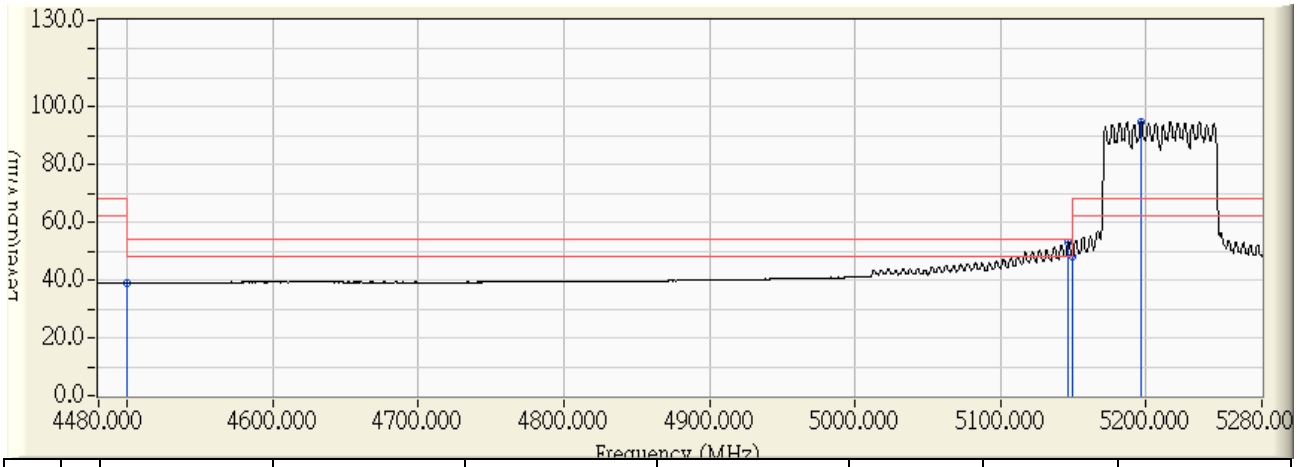


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	51.569	50.164	-23.836	74.000	PEAK
2		5141.600	0.911	66.583	67.493	-6.507	74.000	PEAK
3		5150.000	0.975	62.978	63.953	-10.047	74.000	PEAK
4	*	5237.600	1.654	106.089	107.744	19.444	88.300	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 : 2014/06/13 - 18:47**
Limit : FCC_SpartE_15.407_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual Band 3x3 802.11AC Gigabit Router	**Note : Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH)** **802.11ac 80M_5210MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.406	40.318	38.913	-15.087	54.000	AVERAGE
2		5146.800	0.951	52.041	52.992	-1.008	54.000	AVERAGE
3		5150.000	0.975	47.457	48.432	-5.568	54.000	AVERAGE
4	*	5197.200	1.342	93.501	94.842	26.542	68.300	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

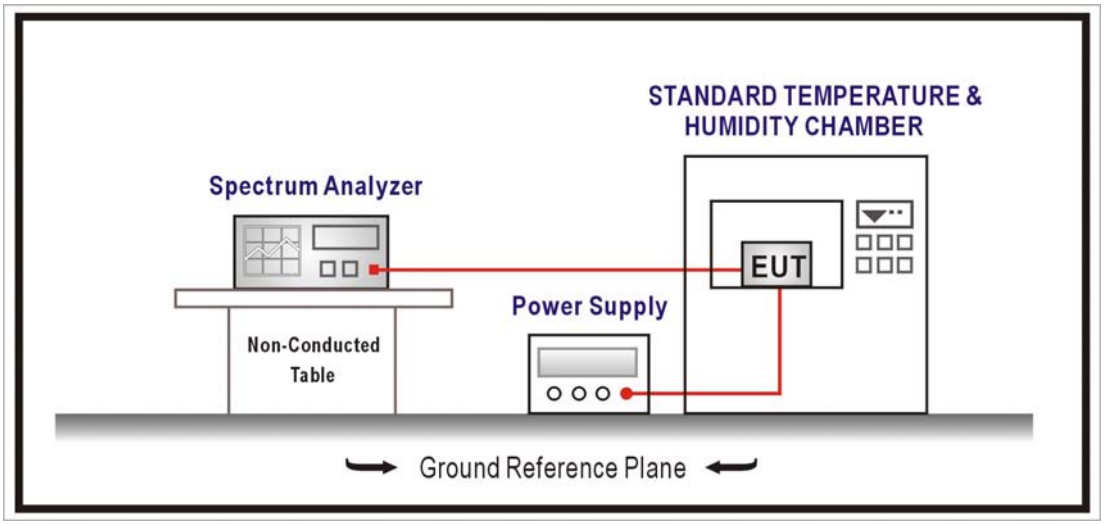
The following test equipments are used during the radiated emission tests:

Frequency Stability / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05
Temperature & Humidity Chamber	WIT	TH-1S-B	1082101	2015/01/22

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

8.2. Test Setup



8.3. Limits

Manufactures of U-NII 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 C63.4, 2009; tested to DTS test procedure of Aug 2002 DA 02-2138 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 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11a - 5180MHz (ANT 0)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.0142	2.7319	PASS
-10		5180.3337	64.4247	PASS
0		5180.7529	145.3524	PASS
10		5180.2722	52.5417	PASS
20		5180.1330	25.6846	PASS
30		5180.0375	7.2307	PASS
40		5180.8350	161.2047	PASS
50		5180.3230	62.3580	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.2833	54.6863	PASS
	120	5180.2282	44.0587	PASS
	138	5180.5781	111.5979	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11a - 5240MHz (ANT 0)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.0295	1917.6812	PASS
-10		5240.2462	1959.1141	PASS
0		5240.3914	1986.8782	PASS
10		5240.8649	2077.4125	PASS
20		5240.7529	2056.0034	PASS
30		5240.0012	1912.2662	PASS
40		5240.7065	2047.1393	PASS
50		5240.1063	1932.3683	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.3320	1975.5294	PASS
	120	5240.6141	2029.4663	PASS
	138	5240.4528	1998.6251	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11a - 5180MHz (ANT 1)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.7500	144.7780	PASS
-10		5180.6080	117.3790	PASS
0		5180.0467	9.0231	PASS
10		5180.5732	110.6609	PASS
20		5180.3479	67.1606	PASS
30		5180.8637	166.7410	PASS
40		5180.0510	9.8403	PASS
50		5180.1176	22.7008	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.6815	131.5628	PASS
	120	5180.5596	108.0224	PASS
	138	5180.0006	0.1137	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11a - 5240MHz (ANT 1)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.2522	48.1245	PASS
-10		5240.7433	141.8484	PASS
0		5240.2385	45.5072	PASS
10		5240.0971	18.5353	PASS
20		5240.2821	53.8318	PASS
30		5240.2833	54.0612	PASS
40		5240.0523	9.9750	PASS
50		5240.3873	73.9081	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.5933	113.2223	PASS
	120	5240.5225	99.7108	PASS
	138	5240.6096	116.3421	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11a - 5180MHz (ANT 2)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.8067	155.7338	PASS
-10		5180.4594	88.6857	PASS
0		5180.4898	94.5603	PASS
10		5180.8559	165.2340	PASS
20		5180.5307	102.4436	PASS
30		5180.6795	131.1723	PASS
40		5180.8787	169.6348	PASS
50		5180.0026	0.4945	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.4170	80.4944	PASS
	120	5180.2313	44.6590	PASS
	138	5180.3366	64.9806	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11a - 5240MHz (ANT 2)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.2785	1965.2966	PASS
-10		5240.6834	2042.7190	PASS
0		5240.7623	2057.8051	PASS
10		5240.7408	2053.6843	PASS
20		5240.5831	2023.5342	PASS
30		5240.8576	2076.0289	PASS
40		5240.7852	2062.1751	PASS
50		5240.2034	1950.9291	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.7192	2049.5686	PASS
	120	5240.2694	1963.5525	PASS
	138	5240.6645	2039.1086	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_20M - 5180MHz(ANT 0)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.8236	159.0044	PASS
-10		5180.8990	173.5485	PASS
0		5180.1737	33.5257	PASS
10		5180.0284	5.4849	PASS
20		5180.3795	73.2705	PASS
30		5180.4084	78.8387	PASS
40		5180.7756	149.7203	PASS
50		5180.5224	100.8462	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.0081	1.5609	PASS
	120	5180.1013	19.5559	PASS
	138	5180.2708	52.2860	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_20M - 5240MHz(ANT 0)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.4466	1997.4447	PASS
-10		5240.3950	1987.5767	PASS
0		5240.7422	2053.9664	PASS
10		5240.6737	2040.8566	PASS
20		5240.5010	2007.8308	PASS
30		5240.6691	2039.9843	PASS
40		5240.6955	2045.0321	PASS
50		5240.7733	2059.9020	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.3846	1985.5900	PASS
	120	5240.2484	1959.5454	PASS
	138	5240.0454	1920.7231	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_20M - 5180MHz(ANT 1)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.1539	29.7155	PASS
-10		5180.2649	51.1442	PASS
0		5180.1396	26.9432	PASS
10		5180.1635	31.5685	PASS
20		5180.5684	109.7381	PASS
30		5180.1714	33.0812	PASS
40		5180.1213	23.4123	PASS
50		5180.5379	103.8466	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.4499	86.8475	PASS
	120	5180.7189	138.7790	PASS
	138	5180.6641	128.1955	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_20M - 5240MHz(ANT 1)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.0594	1923.4048	PASS
-10		5240.2634	1962.4184	PASS
0		5240.0153	1914.9737	PASS
10		5240.2717	1964.0055	PASS
20		5240.5336	2014.0763	PASS
30		5240.1610	1942.8294	PASS
40		5240.0513	1921.8490	PASS
50		5240.6134	2029.3360	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.1656	1943.7097	PASS
	120	5240.8983	2083.8012	PASS
	138	5240.4020	1988.9147	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_20M - 5180MHz (ANT 2)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.3721	71.8356	PASS
-10		5180.8640	166.8022	PASS
0		5180.2572	49.6582	PASS
10		5180.6419	123.9181	PASS
20		5180.6123	118.2037	PASS
30		5180.1601	30.9089	PASS
40		5180.3127	60.3752	PASS
50		5180.8689	167.7323	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.0452	8.7164	PASS
	120	5180.1877	36.2329	PASS
	138	5180.4532	87.4925	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_20M - 5240MHz (ANT 2)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.6449	123.0796	PASS
-10		5240.4292	81.9021	PASS
0		5240.0561	10.7075	PASS
10		5240.3406	64.9912	PASS
20		5240.4193	80.0283	PASS
30		5240.2096	40.0010	PASS
40		5240.3721	71.0152	PASS
50		5240.4222	80.5789	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.0140	2.6732	PASS
	120	5240.7777	148.4143	PASS
	138	5240.4949	94.4526	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_40M - 5190MHz(ANT 0)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5190.4894	94.2961	PASS
-10		5190.5736	110.5294	PASS
0		5190.5598	107.8553	PASS
10		5190.0913	17.5989	PASS
20		5190.5097	98.2009	PASS
30		5190.1185	22.8360	PASS
40		5190.6949	133.8928	PASS
50		5190.8908	171.6450	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5190.1899	36.5880	PASS
	120	5190.2130	41.0327	PASS
	138	5190.5302	102.1502	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_40M - 5230MHz(ANT 0)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.3165	60.5224	PASS
-10		5230.0630	12.0380	PASS
0		5230.2095	40.0553	PASS
10		5230.1857	35.4996	PASS
20		5230.1838	35.1384	PASS
30		5230.5329	101.8867	PASS
40		5230.8822	168.6840	PASS
50		5230.1472	28.1429	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.3379	64.6014	PASS
	120	5230.7377	141.0471	PASS
	138	5230.8092	154.7226	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_40M - 5190MHz(ANT 1)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5190.0928	17.8743	PASS
-10		5190.6465	124.5637	PASS
0		5190.2845	54.8109	PASS
10		5190.5460	105.2022	PASS
20		5190.1122	21.6252	PASS
30		5190.2080	40.0680	PASS
40		5190.4174	80.4156	PASS
50		5190.6293	121.2530	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5190.4959	95.5494	PASS
	120	5190.7212	138.9544	PASS
	138	5190.7559	145.6546	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_40M - 5230MHz(ANT 1)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.3681	70.3838	PASS
-10		5230.2651	50.6873	PASS
0		5230.8819	168.6296	PASS
10		5230.0513	9.8103	PASS
20		5230.0840	16.0519	PASS
30		5230.2787	53.2864	PASS
40		5230.2836	54.2263	PASS
50		5230.8618	164.7809	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.3557	68.0046	PASS
	120	5230.2510	47.9917	PASS
	138	5230.1297	24.7969	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_40M - 5190MHz(ANT 2)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5190.8824	170.0184	PASS
-10		5190.2993	57.6638	PASS
0		5190.2859	55.0850	PASS
10		5190.5047	97.2379	PASS
20		5190.6960	134.1114	PASS
30		5190.3756	72.3737	PASS
40		5190.1516	29.2069	PASS
50		5190.3007	57.9315	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5190.7246	139.6084	PASS
	120	5190.8012	154.3696	PASS
	138	5190.6597	127.1045	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11n_40M -5230MHz(ANT 2)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.2891	55.2707	PASS
-10		5230.8585	164.1465	PASS
0		5230.8985	171.7982	PASS
10		5230.8834	168.9111	PASS
20		5230.2228	42.5994	PASS
30		5230.6568	125.5916	PASS
40		5230.0905	17.3028	PASS
50		5230.4801	91.8015	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.3120	59.6551	PASS
	120	5230.4901	93.7039	PASS
	138	5230.6424	122.8313	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11ac_80M -5210MHz(ANT0)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5210.6218	119.3425	PASS
-10		5210.1673	32.1120	PASS
0		5210.7797	149.6533	PASS
10		5210.3626	69.6044	PASS
20		5210.3660	70.2567	PASS
30		5210.4432	85.0709	PASS
40		5210.6455	123.8953	PASS
50		5210.8920	171.2053	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5210.3568	68.4748	PASS
	120	5210.1875	35.9968	PASS
	138	5210.6523	125.2040	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11ac_80M -5210MHz(ANT1)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5210.7398	142.0002	PASS
-10		5210.7167	137.5653	PASS
0		5210.1492	28.6400	PASS
10		5210.4241	81.3951	PASS
20		5210.6649	127.6275	PASS
30		5210.1596	30.6258	PASS
40		5210.3333	63.9723	PASS
50		5210.1893	36.3327	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5210.2222	42.6468	PASS
	120	5210.5617	107.8073	PASS
	138	5210.3119	59.8571	PASS

Product	Dual Band 3x3 802.11AC Gigabit Router		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit (CDD Mode) (Adapter: EXA1004UH) - 802.11ac_80M -5210MHz(ANT2)		
Date of Test	2014/06/19	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5210.8688	166.7467	PASS
-10		5210.2367	45.4354	PASS
0		5210.3031	58.1698	PASS
10		5210.2894	55.5514	PASS
20		5210.4132	79.3135	PASS
30		5210.3542	67.9834	PASS
40		5210.2272	43.6011	PASS
50		5210.0440	8.4385	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5210.0905	17.3792	PASS
	120	5210.2707	51.9574	PASS
	138	5210.1142	21.9143	PASS