FCC Test Report

Product Name ： Dual-Band Wireless N-600 Range Extender

Trade Name ： ASUS

Model No. ： RP-N53, RP-N54

FCC ID. ： MSQ-RPN53

Applicant ： ASUSTeK COMPUTER INC.

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

Date of Receipt ： Jan. 30, 2016

Issued Date ： Mar. 15, 2016

Report No. ： 1620104R-RFUSP57V00

Report Version ： V1.0

Testing Laboratory
3024

Test Report Certification

Issued Date : Mar. 15, 2016
Report No. : 1620104R-RFUSP57V00

Product Name	:	Dual-Band Wireless N-600 Range Extender
Applicant	:	ASUSTeK COMPUTER INC.
Address	:	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
Manufacturer	:	ASUSTeK COMPUTER INC.
Model No.	:	RP-N53, RP-N54
FCC ID.	:	MSQ-RPN53
EUT Voltage	:	AC 100-240V, 50-60Hz
Testing Voltage	:	AC 120V/60Hz
Trade Name	:	ASUS
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart E Section 15.407: 2014 ANSI C63.10: 2013
Test Lab	:	QuieTek Hsin Chu Laboratory
Test Result	:	Complied

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

Documented By : (Demi Chang / Engineering Adm. Specialist)

Tested By : (JuBo Shen / Senior Engineer)

Approved By : (Roy Wang / Director)

Revision History

Report No.	Version	Description	Issued Date
133212R-RFUSP46V01	V1.0	Initial issue of report	Jun. 06, 2013
139108R-RFUSP46V01	V1.0	Update EUT photo for add a sample that with heat sink holes.	Sep. 16, 2013
1590468R-RFUSP56V00	V1.0	Add one model name(RP-N54).	Oct. 05, 2015
1620104R-RFUSP57V00	V1.0	Update WLAN 5G band 1 standard to FCC 15.407:2014.	Mar. 15, 2016

Laboratory Information

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

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

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

HsinChu Testing Laboratory:
No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
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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

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1. General Information

1.1. EUT Description

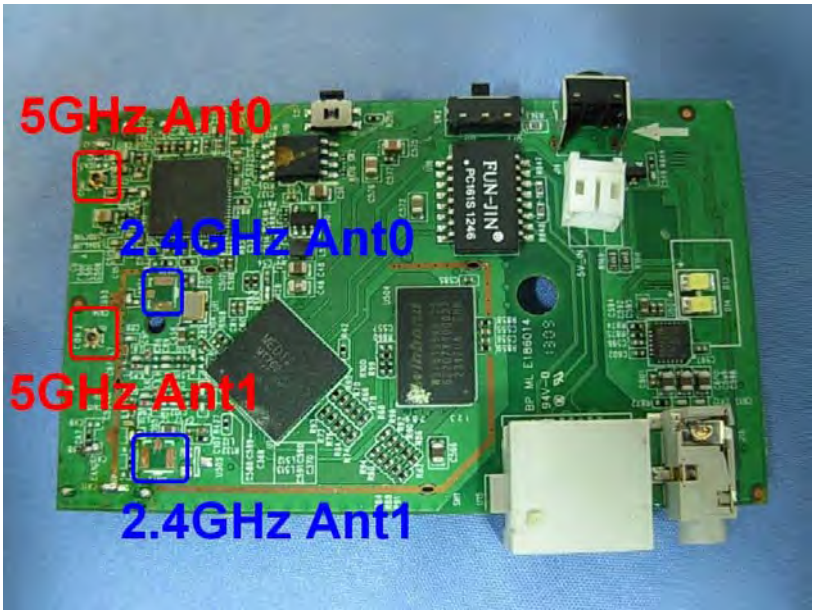
Product Name	Dual-Band Wireless N-600 Range Extender	
Trade Name	ASUS	
Model No.	RP-N53, RP-N54	
Frequency Range/ Channel Number	IEEE 802.11a/ IEEE 802.11n (20MHz)	5180~5240MHz / 4 Channels
	IEEE 802.11n (40MHz)	5190~5230MHz / 2 Channels
Type of Modulation	IEEE 802.11a/n	Orthogonal Frequency Division Multiplexing
Data Speed	IEEE 802.11a	6Mbps,9Mbps,12Mbps,18Mbps,24Mbps,36Mbps,48Mbps,54Mbps
	IEEE 802.11n	Support a subset of the combination of GI, MCS 0~MCS 15 and bandwidth defined in 802.11n

Antenna Information	
Antenna Type	PIFA Antenna
Antenna Gain	5G Band 1: 3.5dBi 5G Band 4: 3.5dBi

ANT-TX / RX & Bandwidth

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

2TX / RX



IEEE 802.11n

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

Table 1 – MCS parameters for TX Antenna number = 1

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

Table 2 – MCS parameters for TX Antenna number = 2

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

IEEE 802.11a & IEEE 802.11n (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)

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

Note:

1. This device is a Dual-Band Wireless N-600 Range Extender including 2.4GHz b/g/n (2x2) and 5GHz a/n (2x2) 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 lowest and highest data rates were tested. Only the worst case is shown in the report.
6. The function of the 2.4GHz transmitting is measured and makes a test report of the report number: 1590468R-RFUSP27V00 and 5.8GHz report number:1620104R-RFUSP37V00.
7. This device has Ethernet port, which can be connected to computer. It is a Class B personal computer and peripheral. Its test report number is 1590468R-RFUSP01V00.

1.2. Test Mode

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

TX	Mode 1: Transmit

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

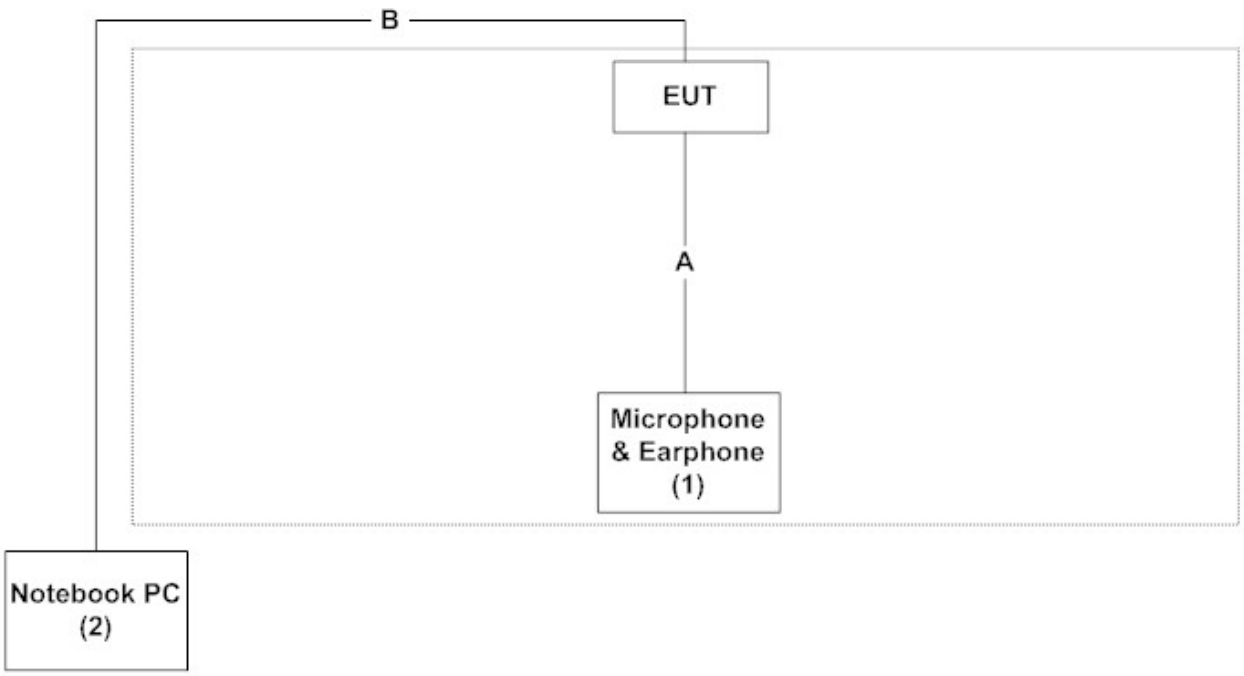
1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Microphone & Earphone	Samsung	N/A	N/A	DoC	--
2	Notebook PC	ACER	MS2296	LUSCV021391150332C2000	DoC	Non-Shielded, 2.5m one ferrite core bonded

1.4. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	Microphone & Earphone Cable	Non-Shielded, 1.2m
B	LAN Cable	Non-Shielded, 10m

1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.4.
2	Execute the control program “RT5x9xQA” for 5G function on the Notebook.
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°C
Humidity (%RH)		25 - 75	50%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 99 % & 26dB Bandwidth	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Peak Transmit Power	15 - 35	25°C
Humidity (%RH)		25 - 75	65%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Peak Power Spectrum Density	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Radiated Emission	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Band Edge	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Frequency Stability	15 - 35	25°C
Humidity (%RH)		25 - 75	45%RH
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

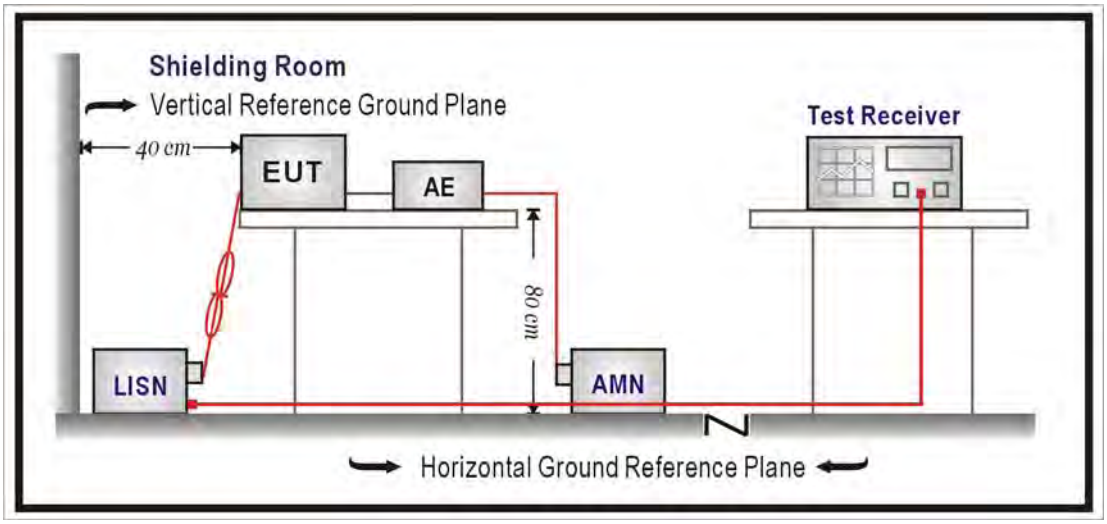
The following test equipments are used during the test:

Conducted Emission / SR3

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
LISN	R&S	ENV216	100096	2013/08/12
LISN	R&S	ESH3-Z5	836679/022	2014/01/20
Test Receiver	R&S	ESCS 30	825442/017	2014/01/01

Note: 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

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

2.4. Test Procedure

The EUT was setup according to ANSI C63.10:2013. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

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

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

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

2.5. Test Specification

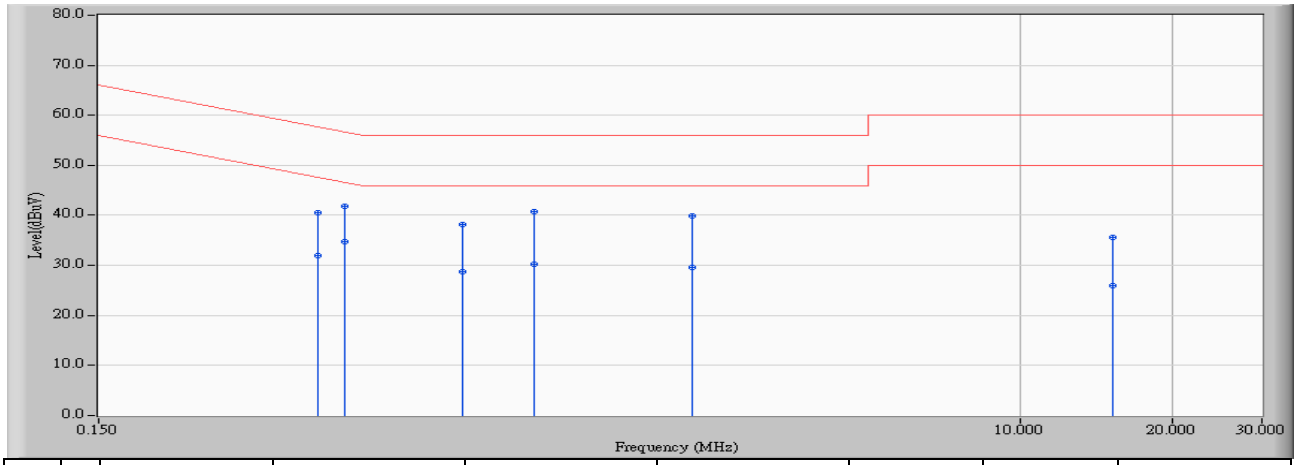
According to FCC Part 15 Subpart C Paragraph 15.207: 2014

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR3	**Time : 2013/04/29 - 17:19**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-2_0813 - Line1	**Power : AC 120V/60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n40_5230MHz**

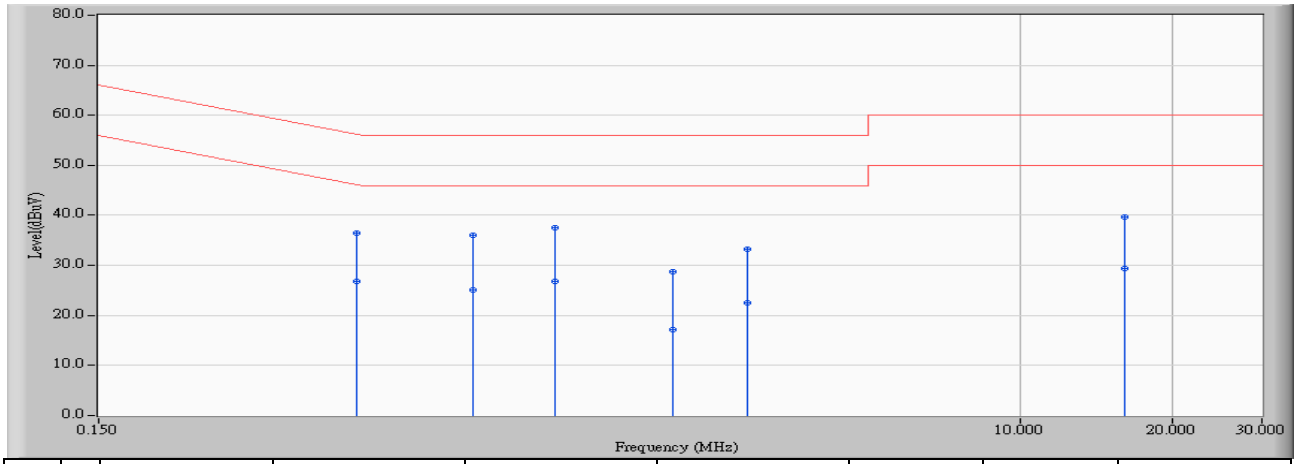


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.408	9.777	30.850	40.627	-17.066	57.693	QUASIPEAK
2		0.408	9.777	22.260	32.037	-15.656	47.693	AVERAGE
3		0.459	9.807	32.080	41.887	-14.831	56.718	QUASIPEAK
4	*	0.459	9.807	25.020	34.827	-11.891	46.718	AVERAGE
5		0.787	9.893	28.330	38.224	-17.776	56.000	QUASIPEAK
6		0.787	9.893	18.930	28.824	-17.176	46.000	AVERAGE
7		1.087	9.942	30.890	40.832	-15.168	56.000	QUASIPEAK
8		1.087	9.942	20.300	30.242	-15.758	46.000	AVERAGE
9		2.244	9.974	29.990	39.964	-16.036	56.000	QUASIPEAK
10		2.244	9.974	19.570	29.544	-16.456	46.000	AVERAGE
11		15.197	10.130	25.400	35.530	-24.470	60.000	QUASIPEAK
12		15.197	10.130	15.830	25.960	-24.040	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 : 2013/04/29 - 17:22**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-2_0813 - Line2	**Power : AC 120V/60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n40_5230MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.486	9.812	26.560	36.373	-19.864	56.237	QUASIPEAK
2		0.486	9.812	17.030	26.843	-19.394	46.237	AVERAGE
3		0.826	9.892	26.130	36.022	-19.978	56.000	QUASIPEAK
4		0.826	9.892	15.270	25.162	-20.838	46.000	AVERAGE
5	*	1.201	9.932	27.550	37.482	-18.518	56.000	QUASIPEAK
6		1.201	9.932	16.790	26.722	-19.278	46.000	AVERAGE
7		2.052	9.943	18.850	28.792	-27.208	56.000	QUASIPEAK
8		2.052	9.943	7.140	17.082	-28.918	46.000	AVERAGE
9		2.888	9.979	23.250	33.228	-22.772	56.000	QUASIPEAK
10		2.888	9.979	12.590	22.568	-23.432	46.000	AVERAGE
11		16.056	10.231	29.470	39.701	-20.299	60.000	QUASIPEAK
12		16.056	10.231	19.120	29.351	-20.649	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

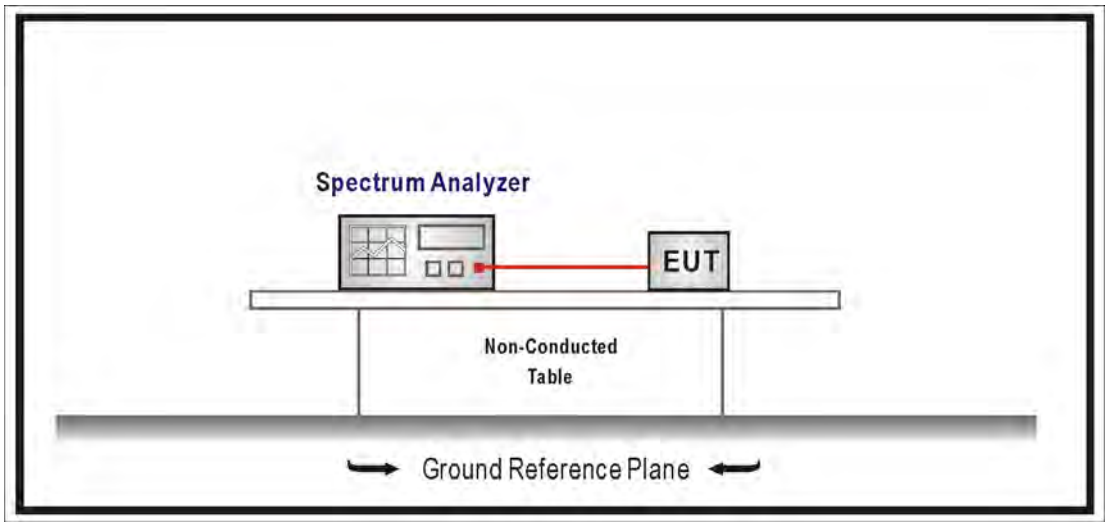
The following test equipments are used during the radiated emission tests:

99% & 26dB Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23
Signal & Spectrum Analyzer	R&S	FSV40	101049	2017/01/05
Signal Analyzer	R&S	FSV7	101650	2016/11/30

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

3.2. Test Setup



3.3. Limits

99% & 26dB Bandwidth : No Required

3.4. Test Procedure

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

3.5. Uncertainty

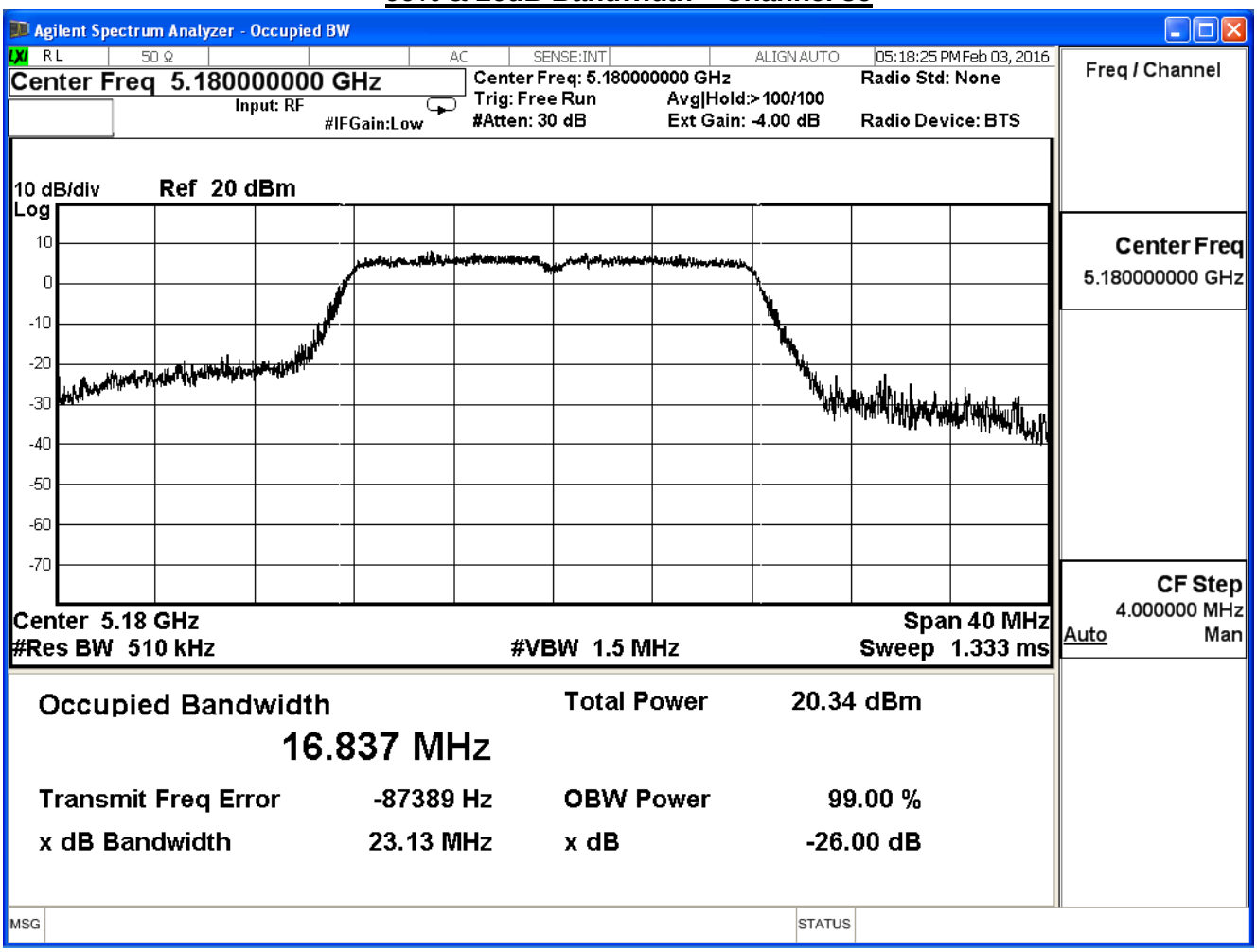
The measurement uncertainty is defined as ±150Hz

3.6. Test Result

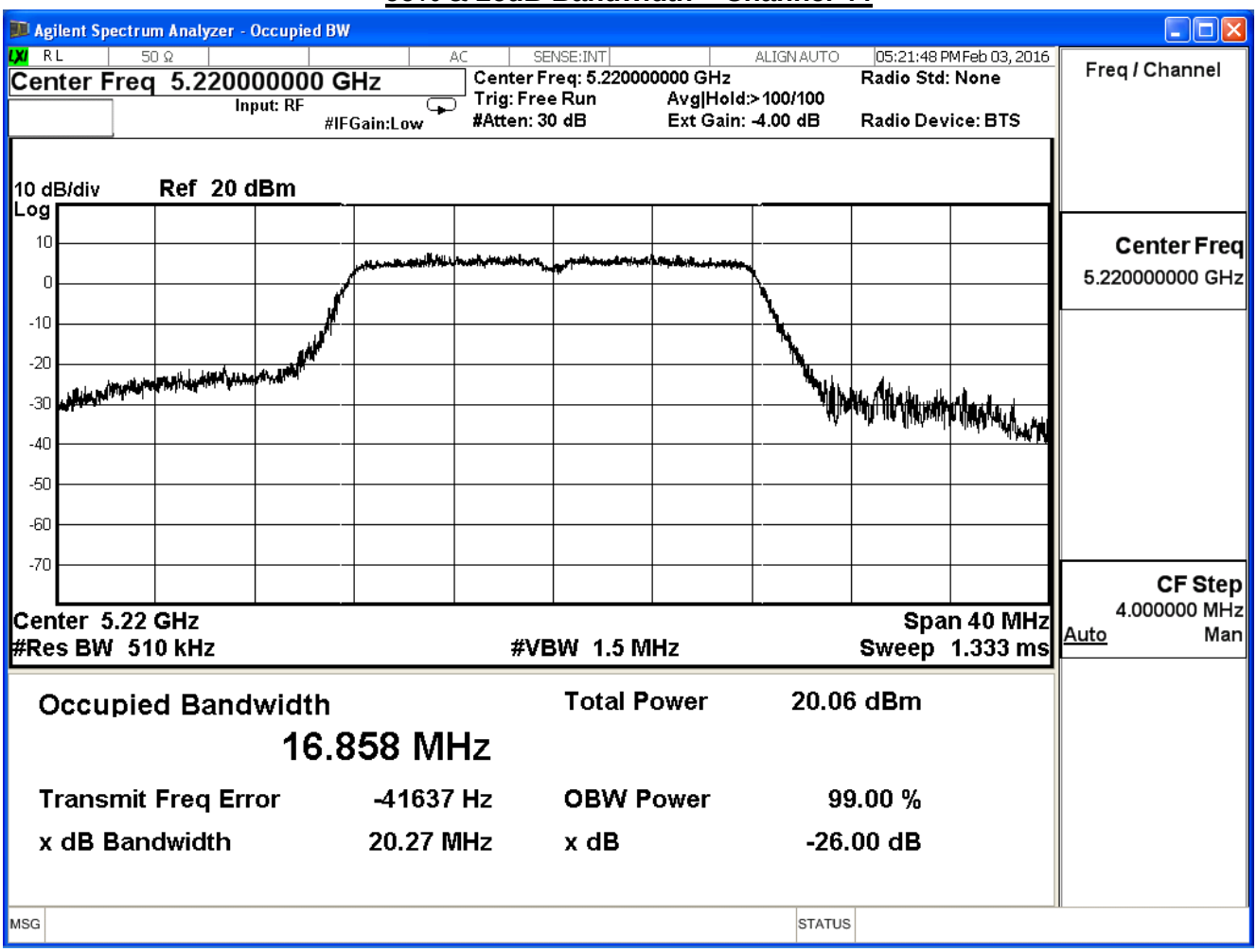
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

802.11a (ANT 0)				
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
36	5180	23.13	16.837	--
44	5220	20.27	16.858	--
48	5240	19.97	16.833	--

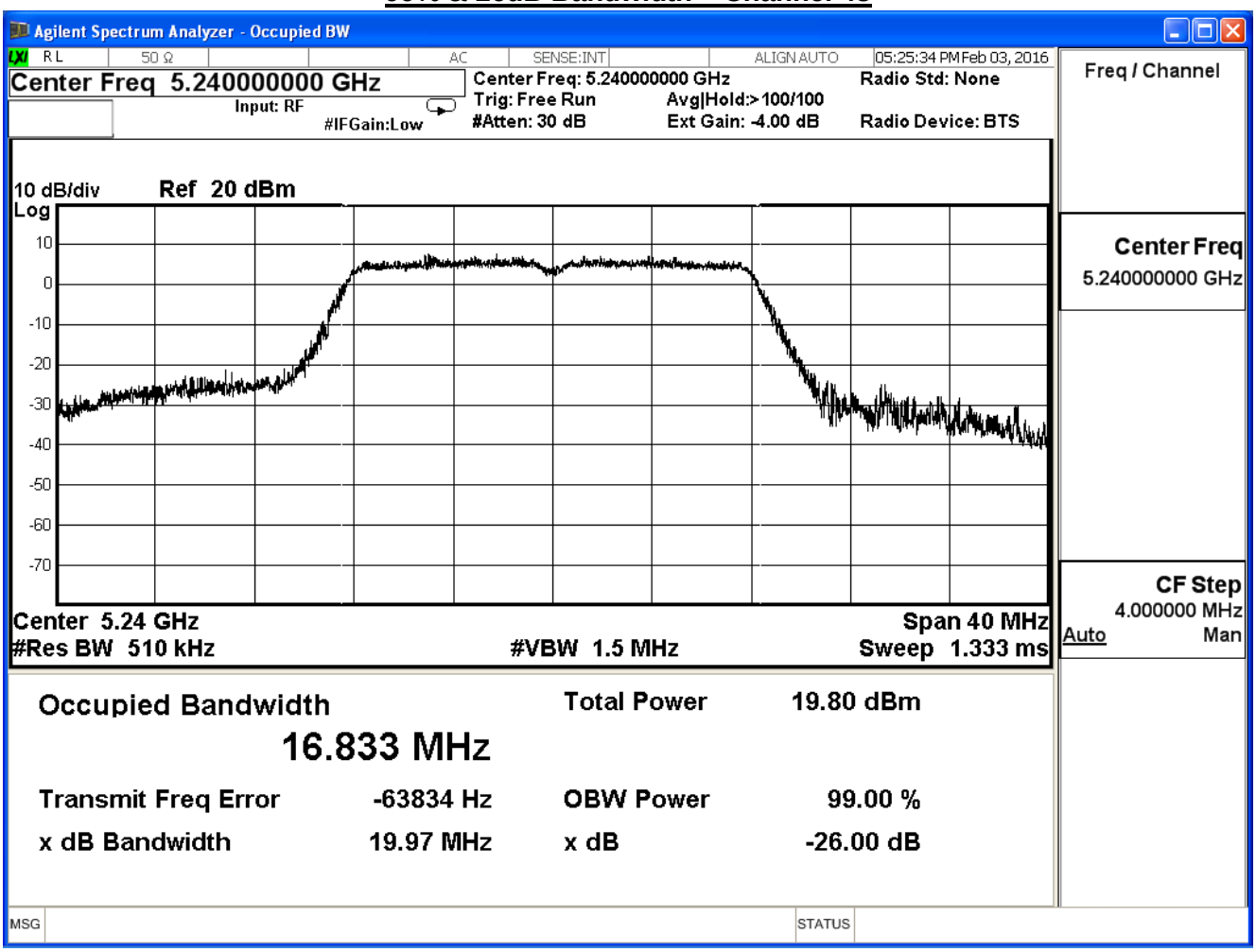
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



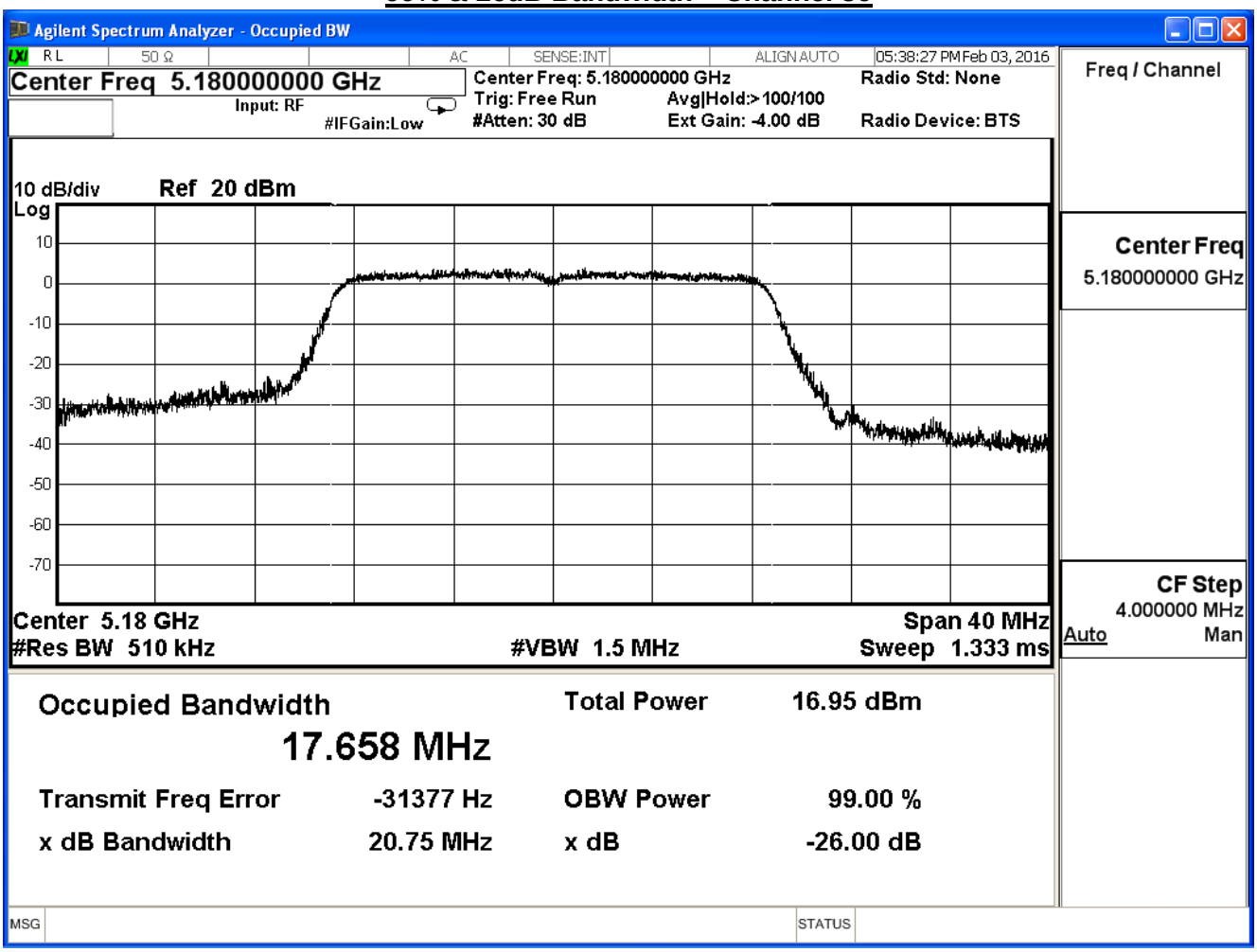
99% & 26dB Bandwidth – Channel 48



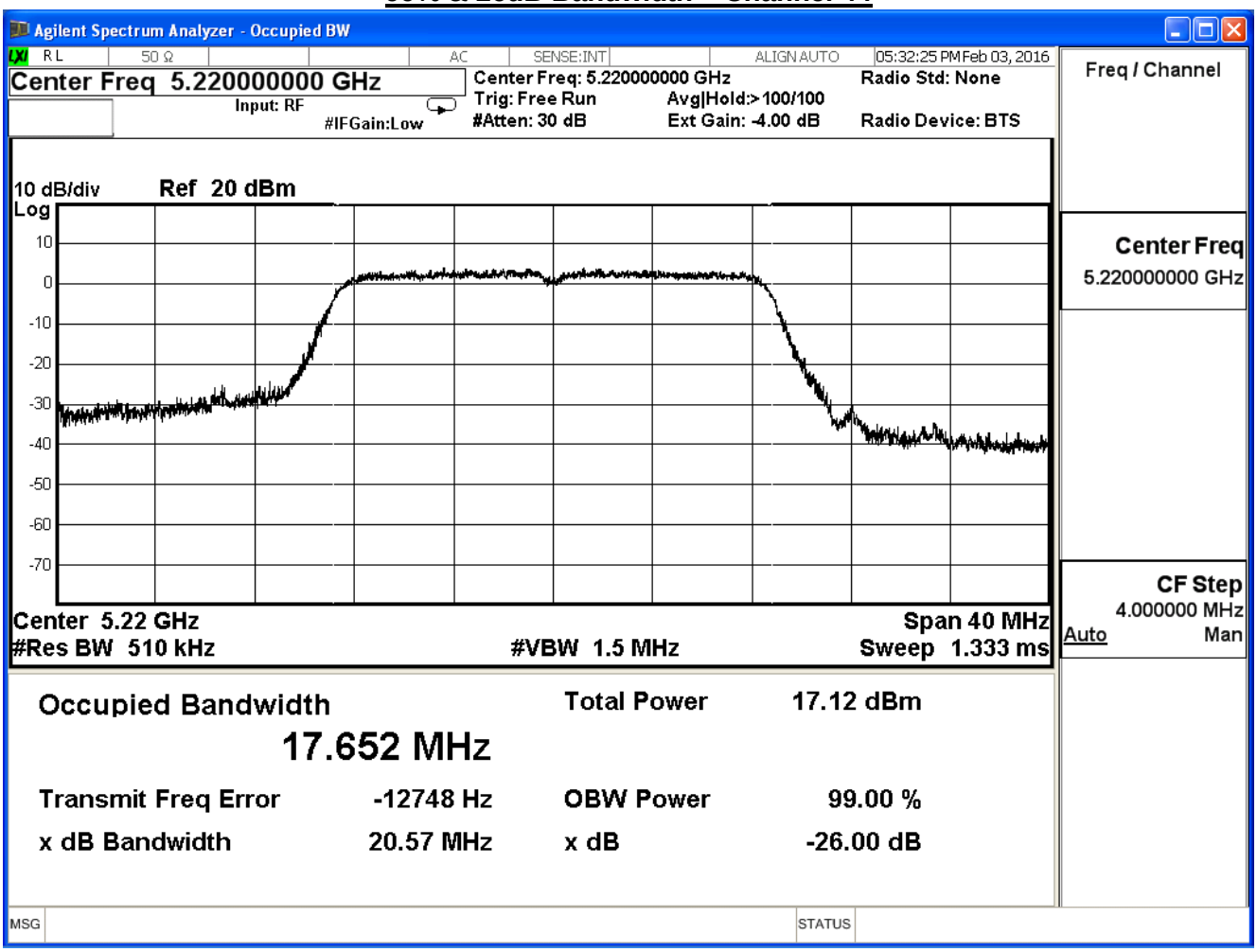
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n(20MHz)(ANT 0)				
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
36	5180	20.75	17.658	--
44	5220	20.57	17.652	--
48	5240	20.73	17.614	--

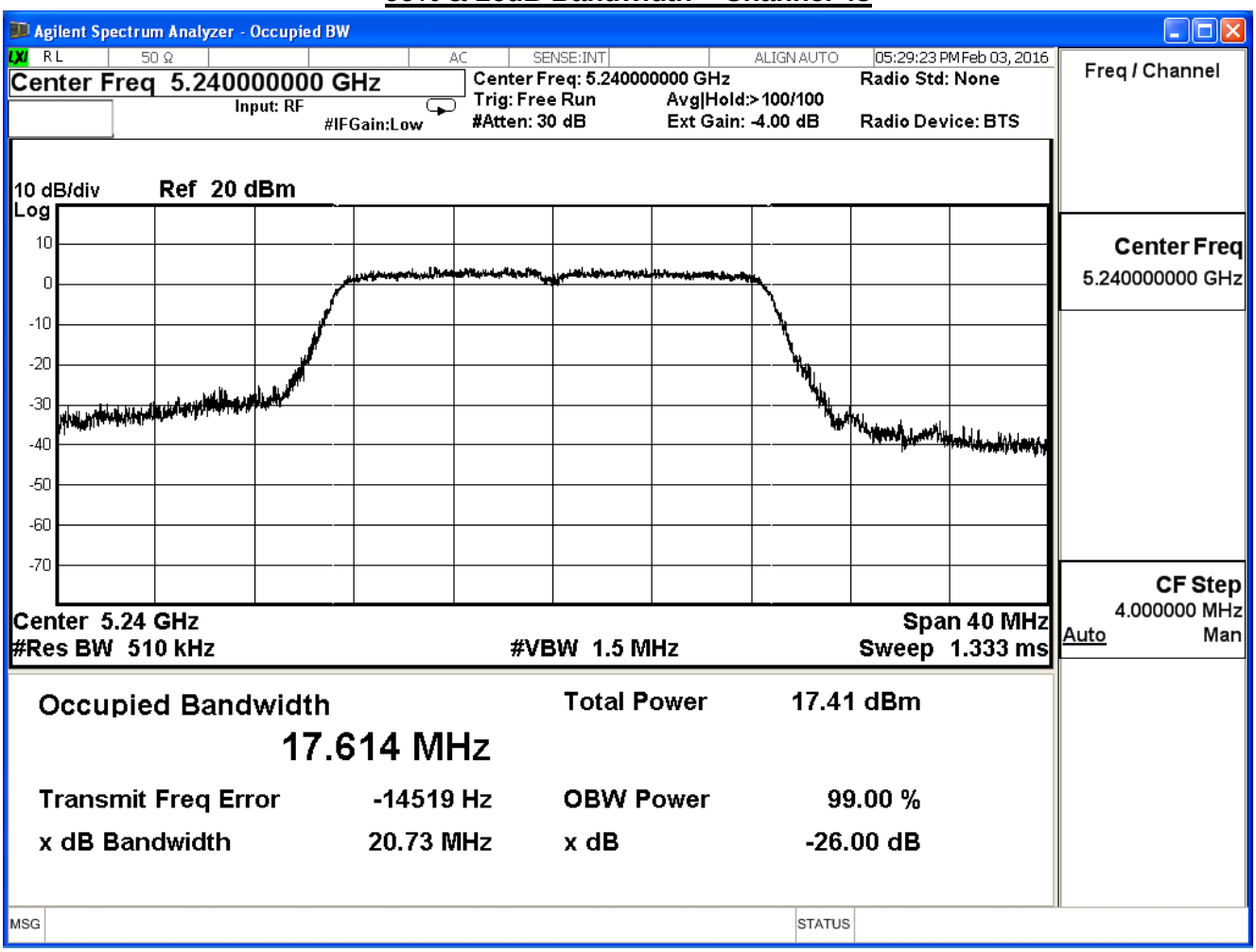
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



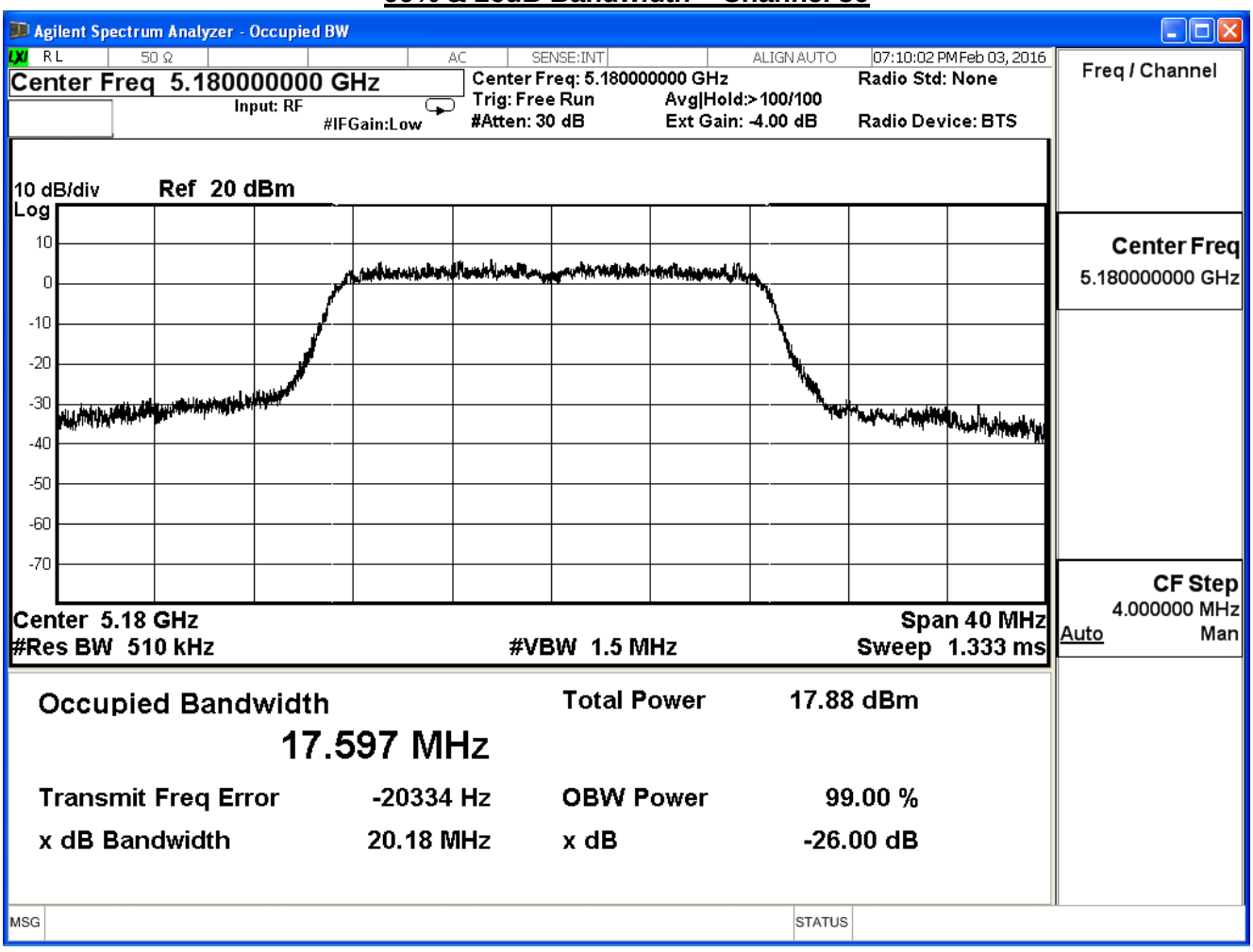
99% & 26dB Bandwidth – Channel 48



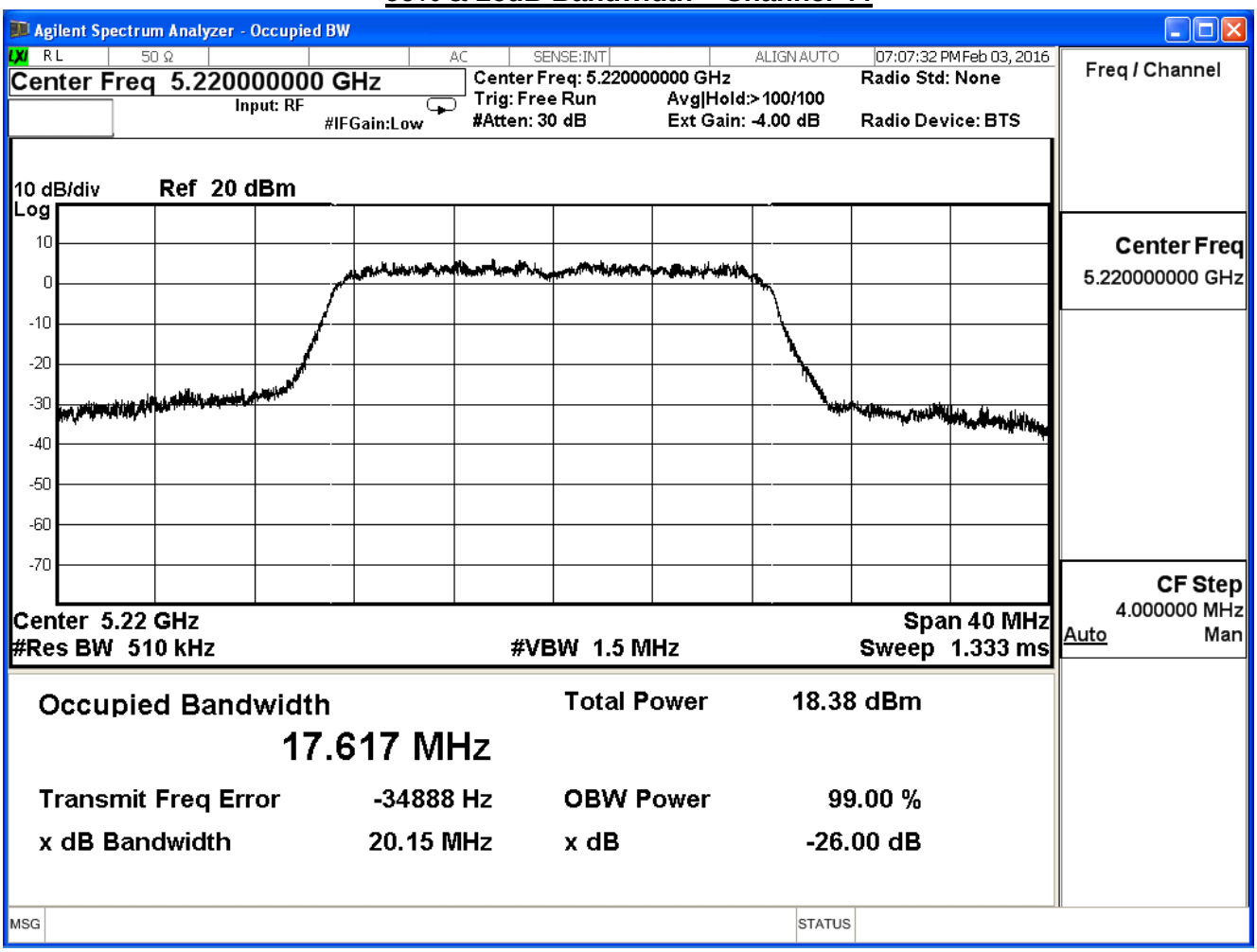
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n(20MHz)(ANT 1)				
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
36	5180	20.18	17.597	--
44	5220	20.15	17.617	--
48	5240	20.09	17.634	--

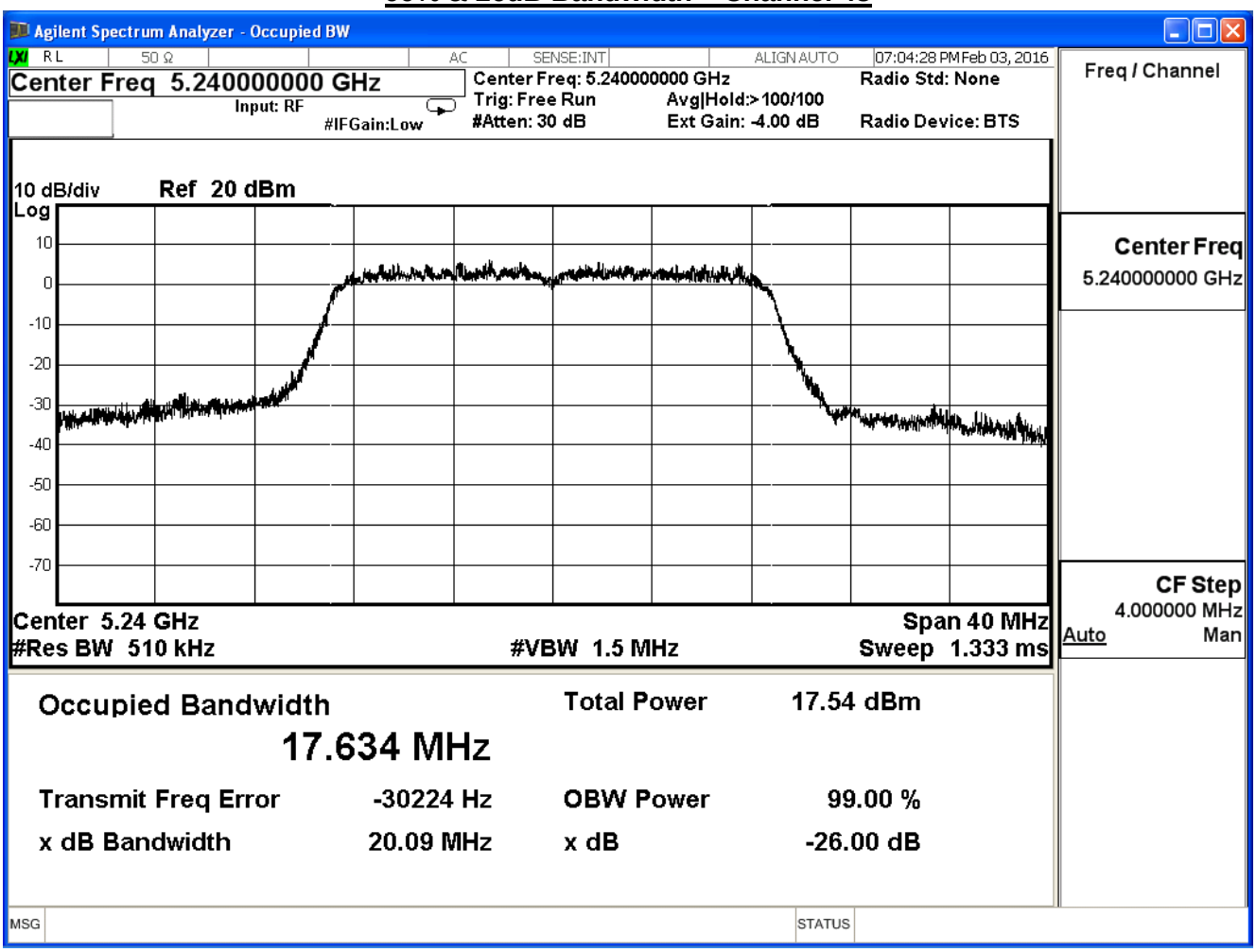
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



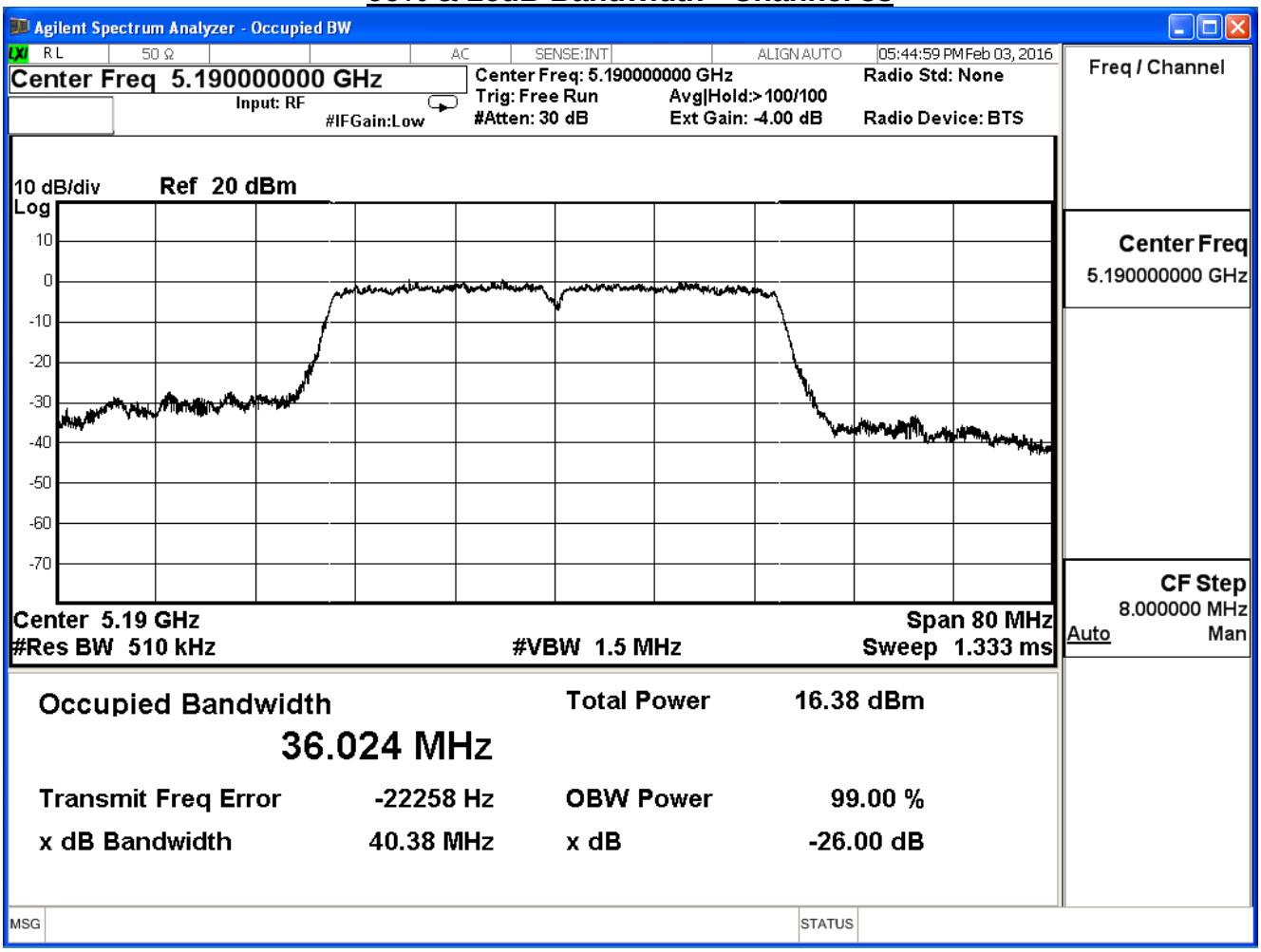
99% & 26dB Bandwidth – Channel 48



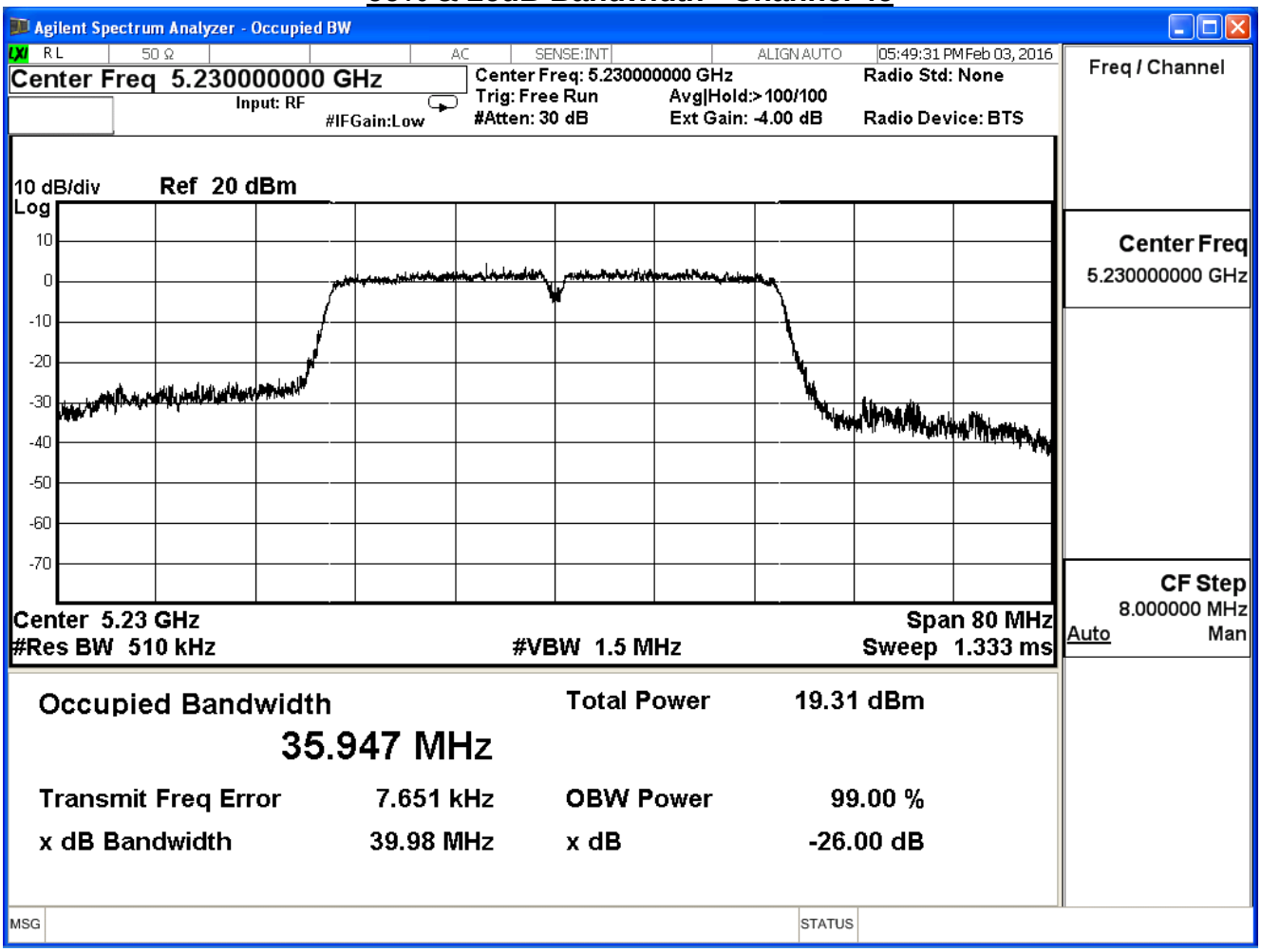
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n(40MHz)(ANT 0)				
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
38	5190	40.38	36.024	--
46	5230	39.98	35.947	--

99% & 26dB Bandwidth - Channel 38



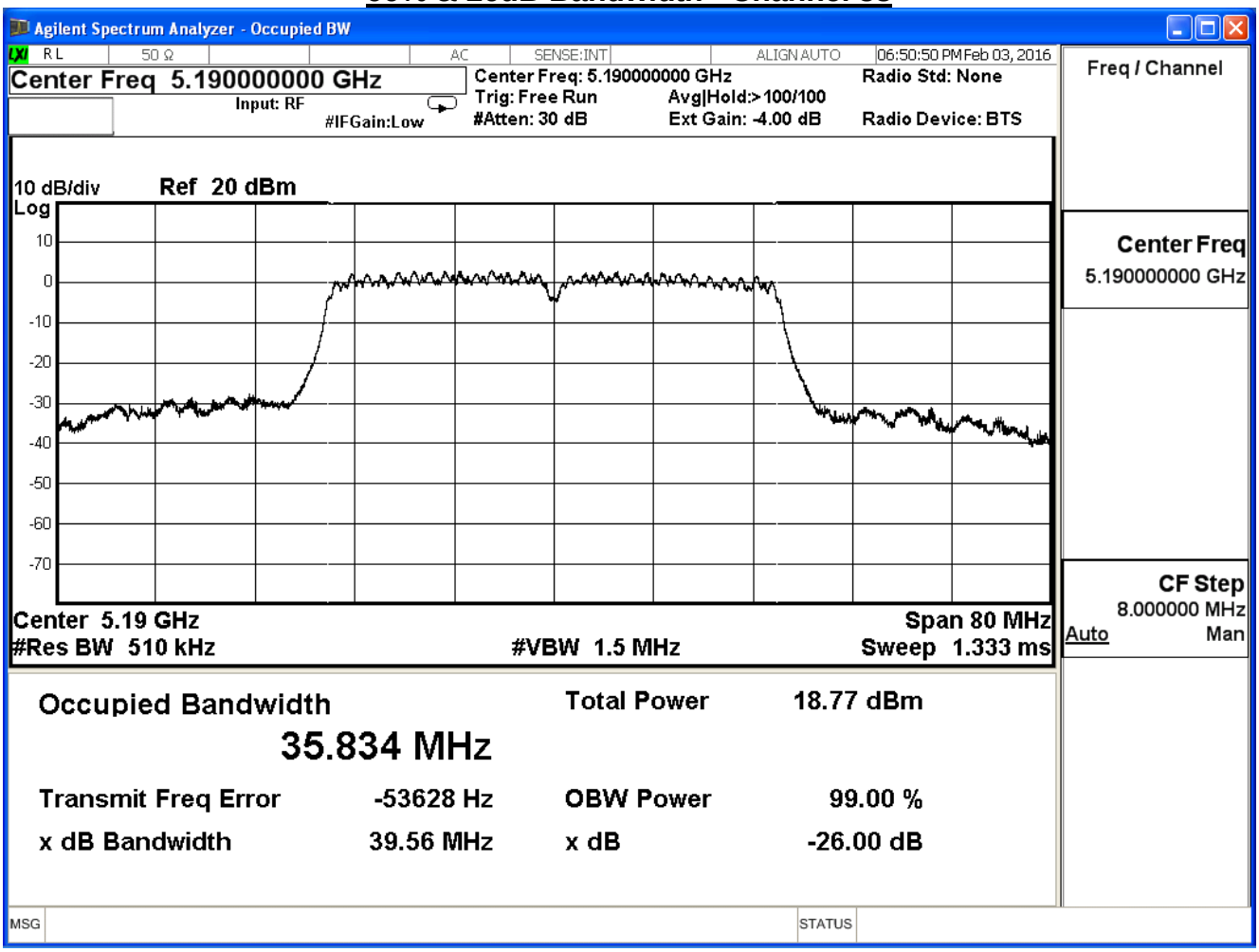
99% & 26dB Bandwidth - Channel 46



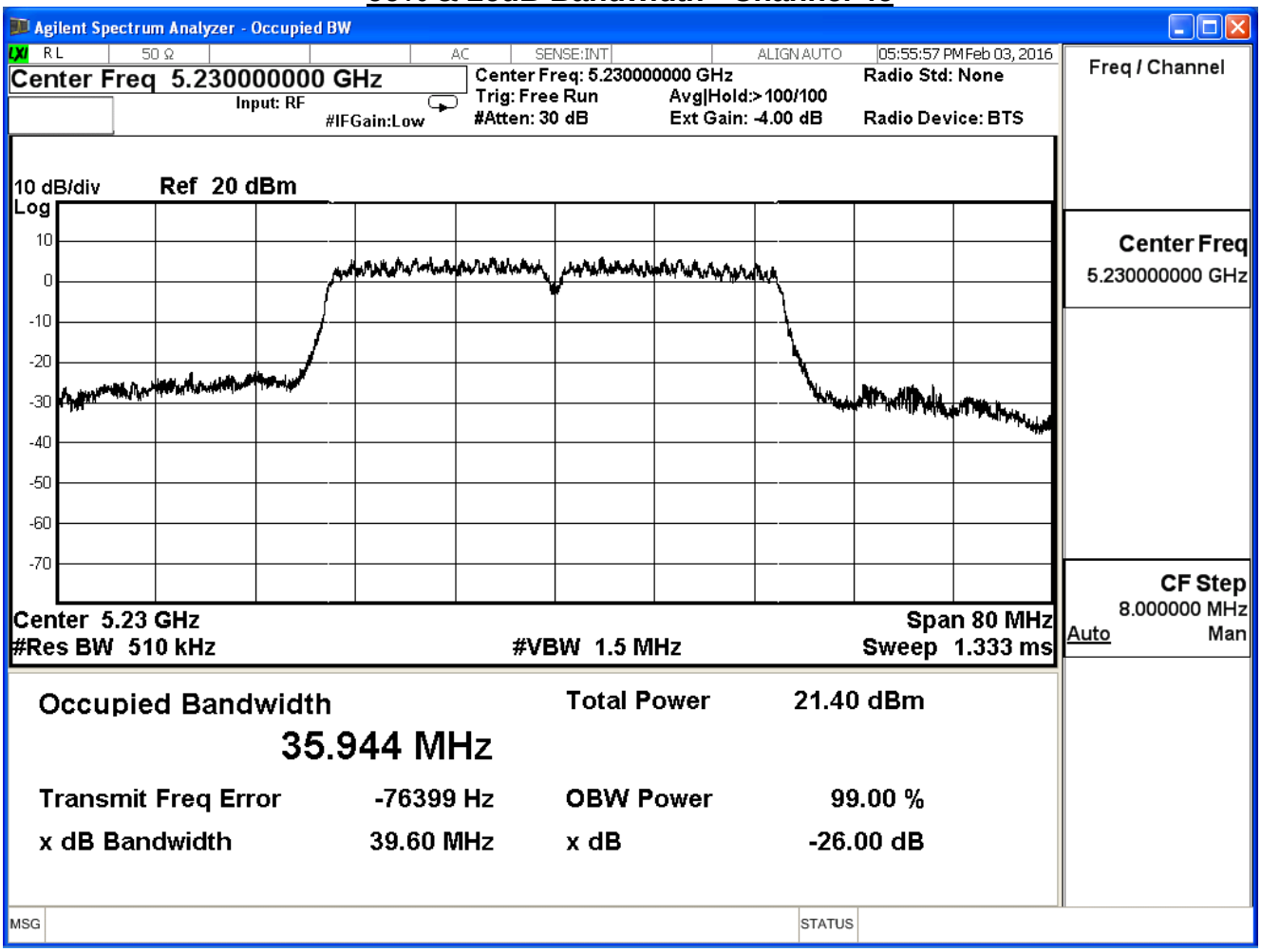
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n(40MHz)(ANT 1)				
Channel No.	Frequency (MHz)	26dB BW (MHz)	99 % OBW (MHz)	Limit (MHz)
38	5190	39.56	35.834	--
46	5230	39.60	35.944	--

99% & 26dB Bandwidth - Channel 38



99% & 26dB Bandwidth - Channel 46



4. Peak Transmit Output

4.1. Test Equipment

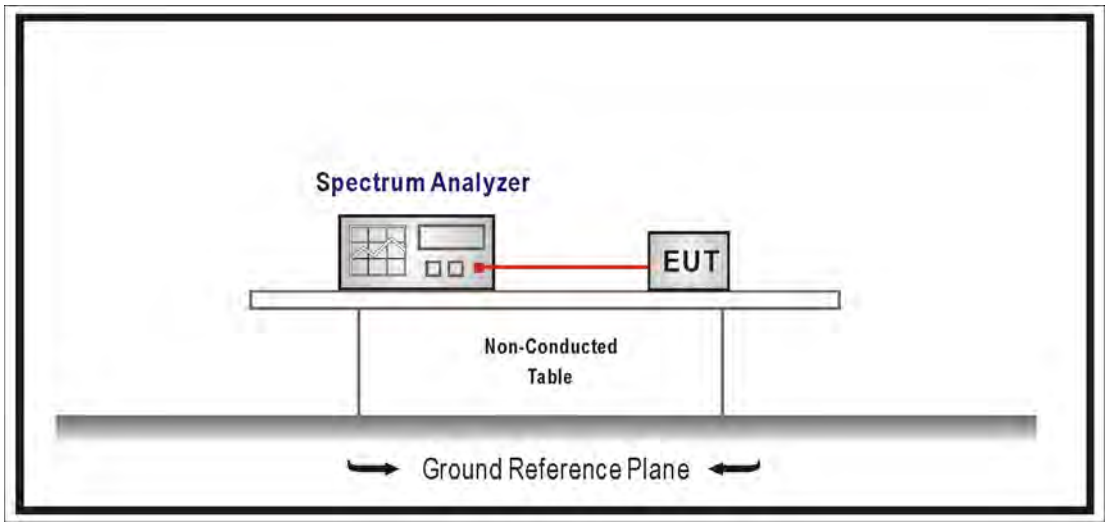
The following test equipments are used during the radiated emission tests:

Peak Transmit Output / SR7

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

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

4.2. Test Setup



4.3. Limits

1. For the band 5.15-5.25 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 1W. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
2. For the band 5.25-5.35 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 250 mW. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
3. For the band 5.725-5.850 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 1W. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

4.4. Test Procedure

The EUT was setup to ANSI C63.10:2013; tested to U-NII test procedure of KDB 789033 D02 for compliance to FCC 47CFR Subpart E requirements. The Method SA-1 of the Maximum conducted output power was used.

Set RBW=1MHz, VBW=3MHz with RMS detector and trace average 100 traces in power averaging mode. Set span to encompass the entire emission bandwidth (EBW) of the signal. Compute power by integrating the spectrum across the 26 dB EBW of the signal.

4.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

4.6. Test Result

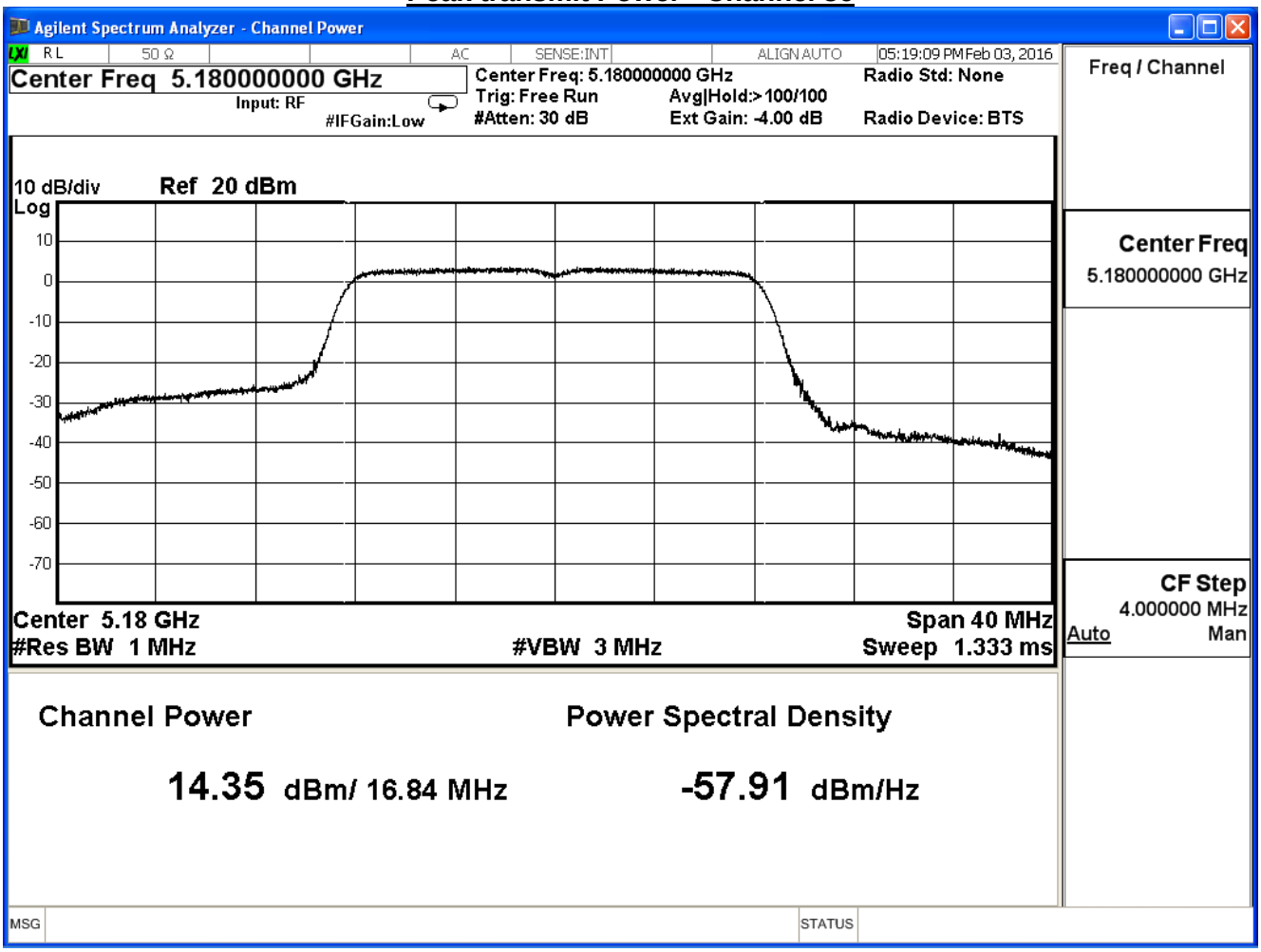
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11 a, ANT0			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	14.35	≤30
44	5220	14.00	≤30
48	5240	13.72	≤30

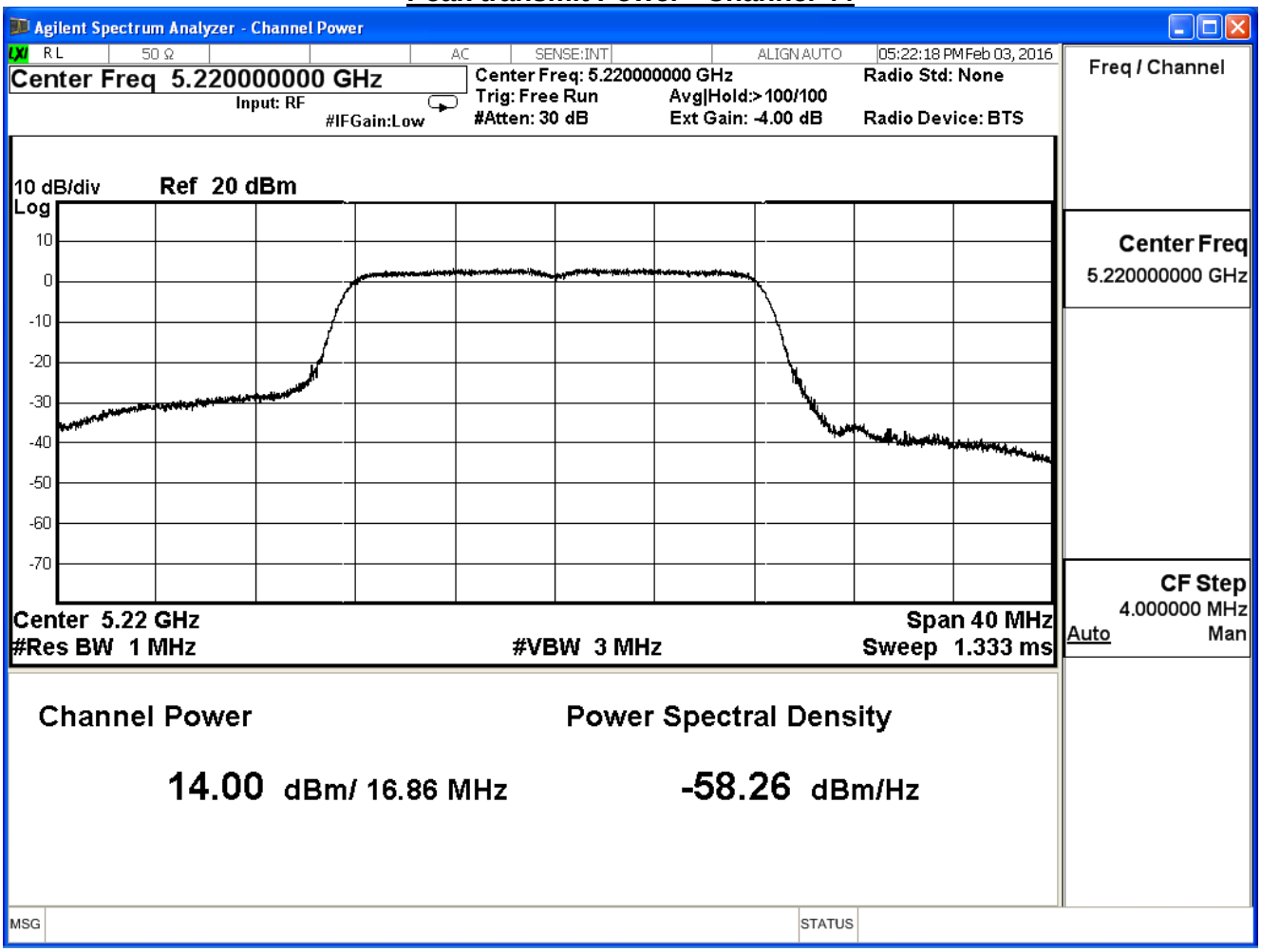
The worst emission of data rate is 6.5 Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
36	5180	14.35	--	--	--	--	--	--	≤30dBm
44	5220	14.00	13.78	13.58	13.38	13.14	12.90	12.75	
48	5240	13.72	--	--	--	--	--	--	

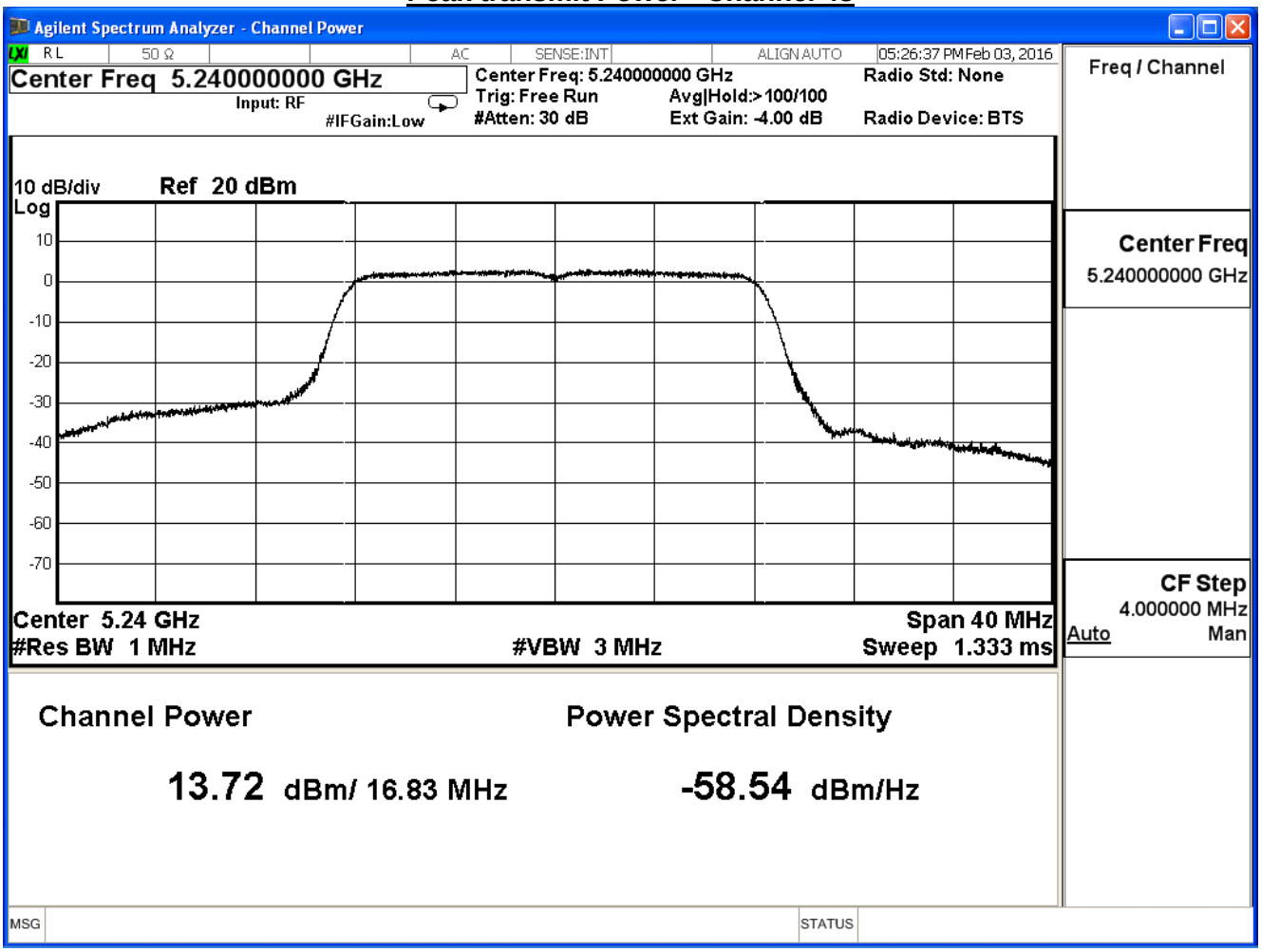
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

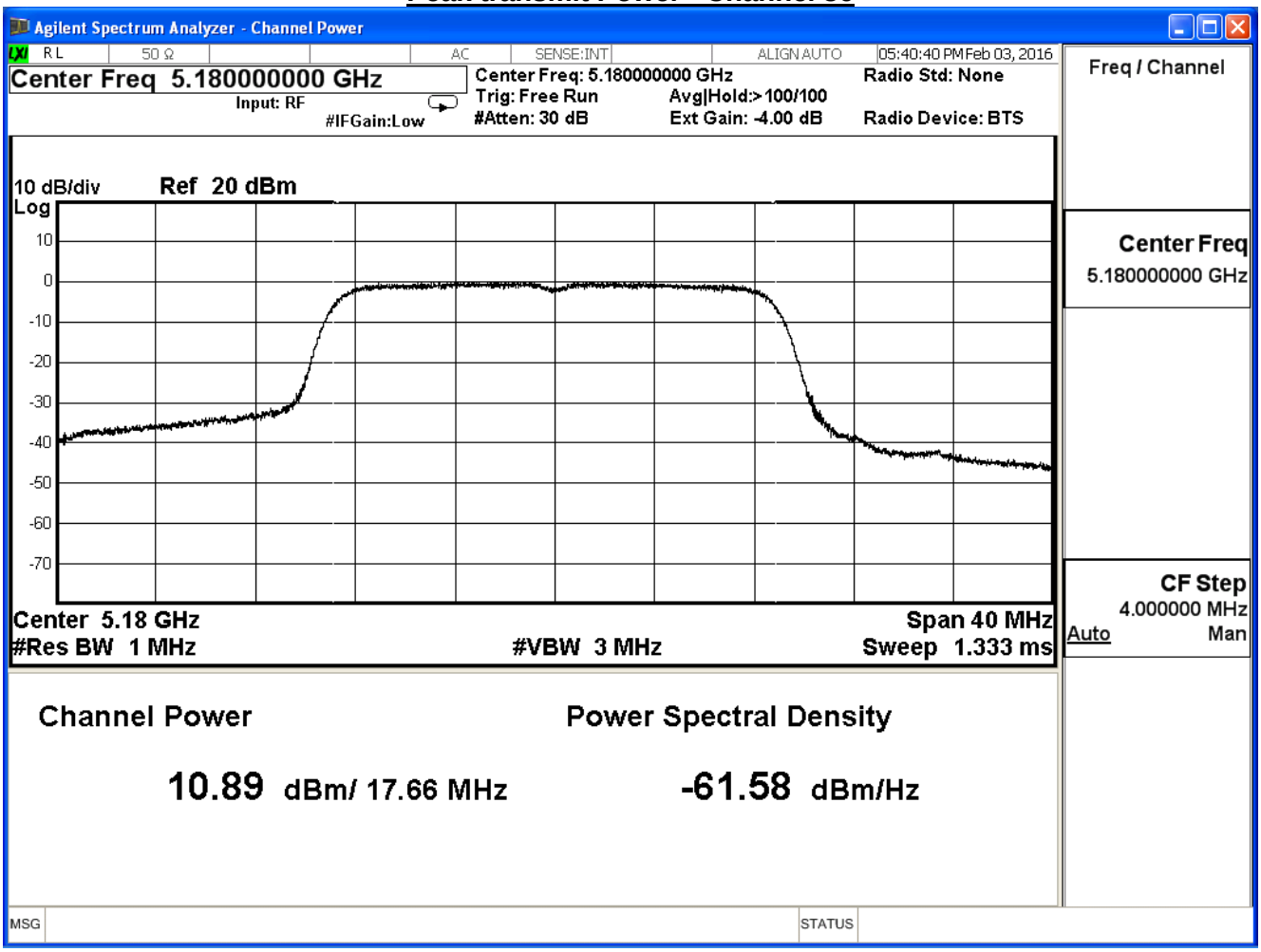
IEEE 802.11 n20, ANT0			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	10.89	≤29.49
44	5220	11.11	≤29.49
48	5240	10.86	≤29.49

The worst emission of data rate is 6.5 Mbps.

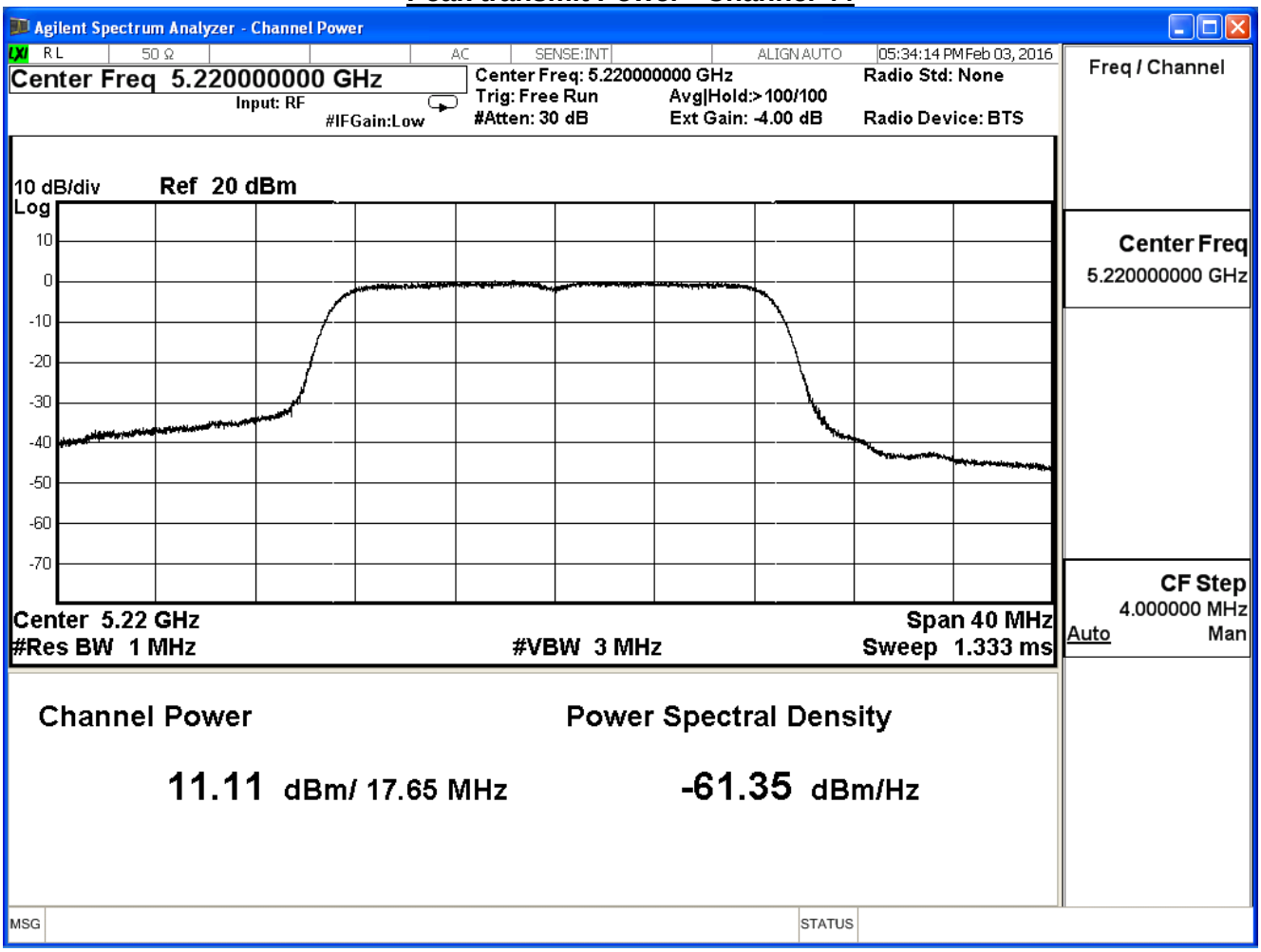
Peak Power Output (dBm)									
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
36	5180	10.89	--	--	--	--	--	--	--	≤29.49dBm
44	5220	11.11	11.00	10.90	10.70	10.68	10.58	10.34	10.19	
48	5240	10.86	--	--	--	--	--	--	--	

Note:
10Log(Ant N)+max Gain = 10(2)+3.5=6.51dBi
Required Limit = 30dBm-(6.51dBi-6dBi)=30-0.51=29.49dBi

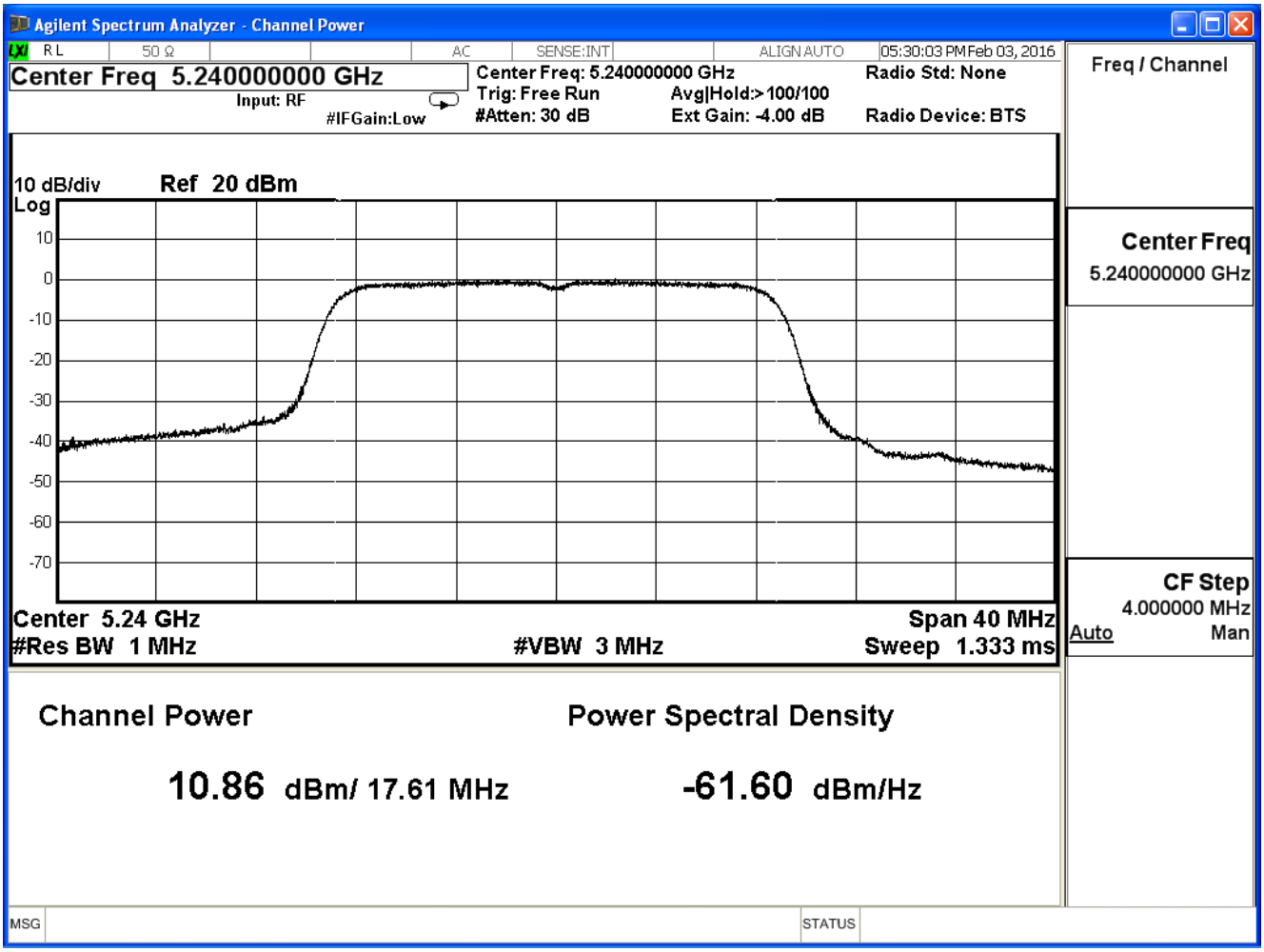
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

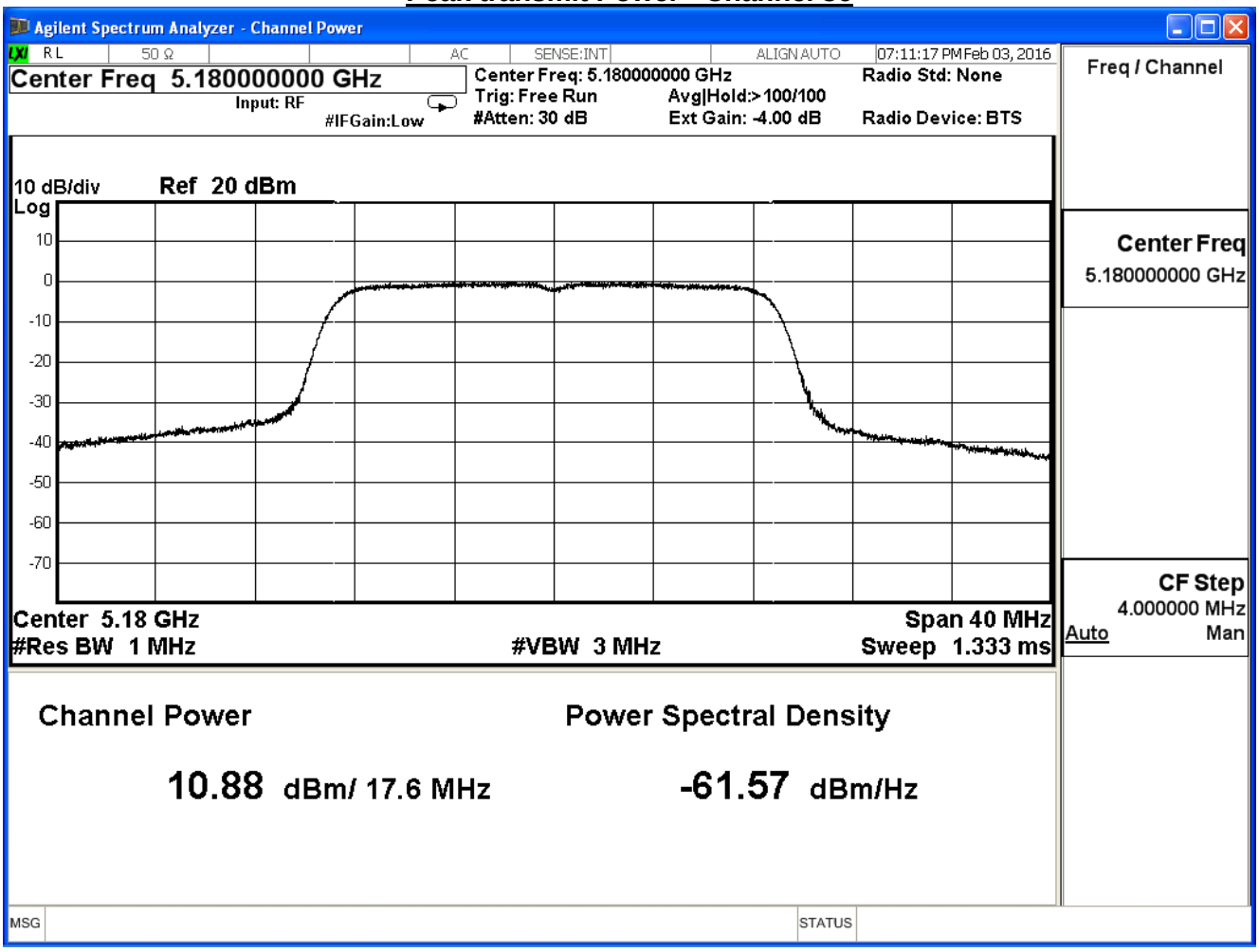
IEEE 802.11 n20, ANT1			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	10.88	≤29.49
44	5220	10.90	≤29.49
48	5240	10.52	≤29.49

The worst emission of data rate is 6.5 Mbps.

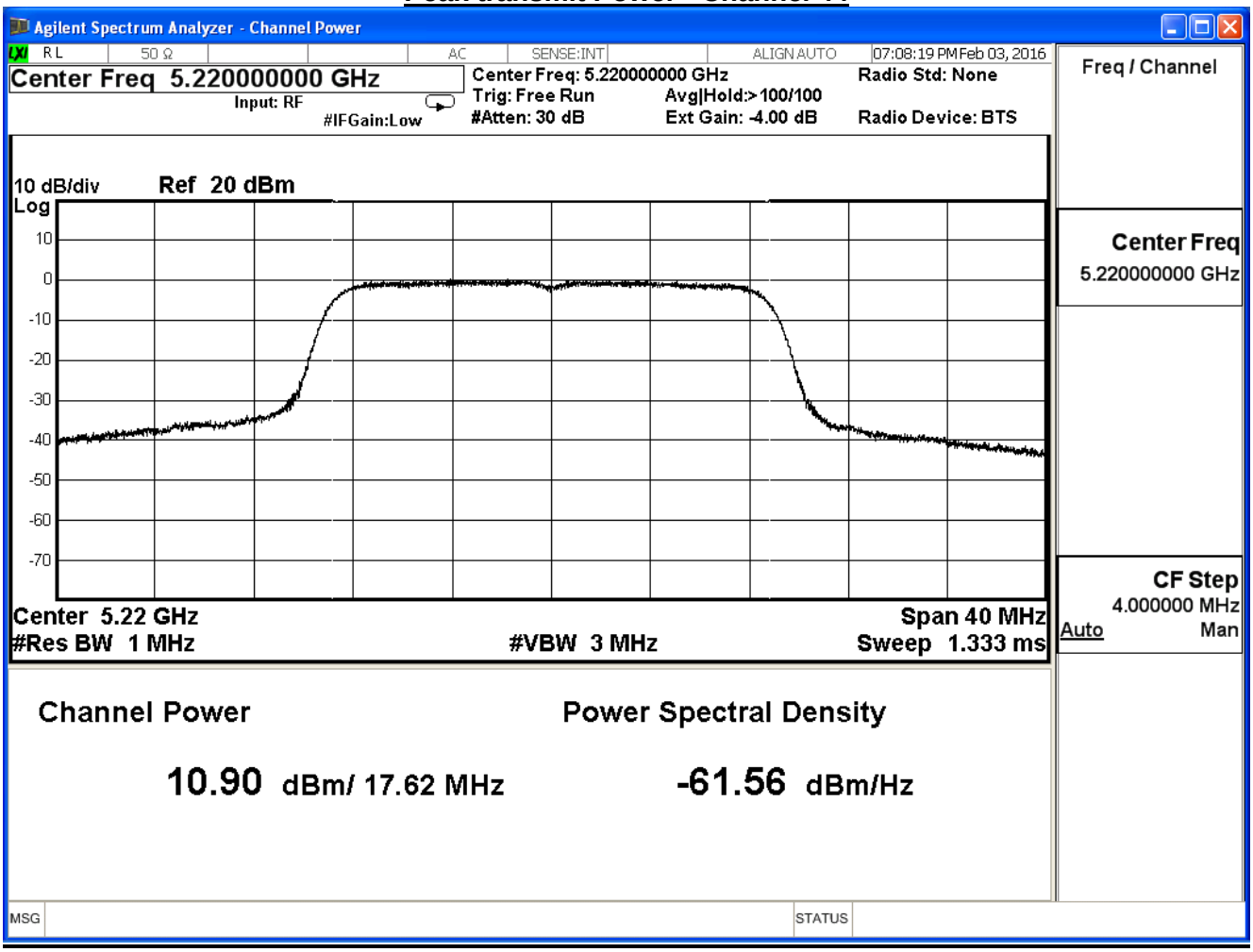
Peak Power Output (dBm)									
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
36	5180	10.88	--	--	--	--	--	--	--	≤29.49dBm
44	5220	10.90	10.80	10.56	10.36	10.16	10.03	9.79	9.67	
48	5240	10.52	--	--	--	--	--	--	--	

Note:
10Log(Ant N)+max Gain = 10(2)+3.5=6.51dBi
Required Limit = 30dBm-(6.51dBi-6dBi)=30-0.51=29.49dBi

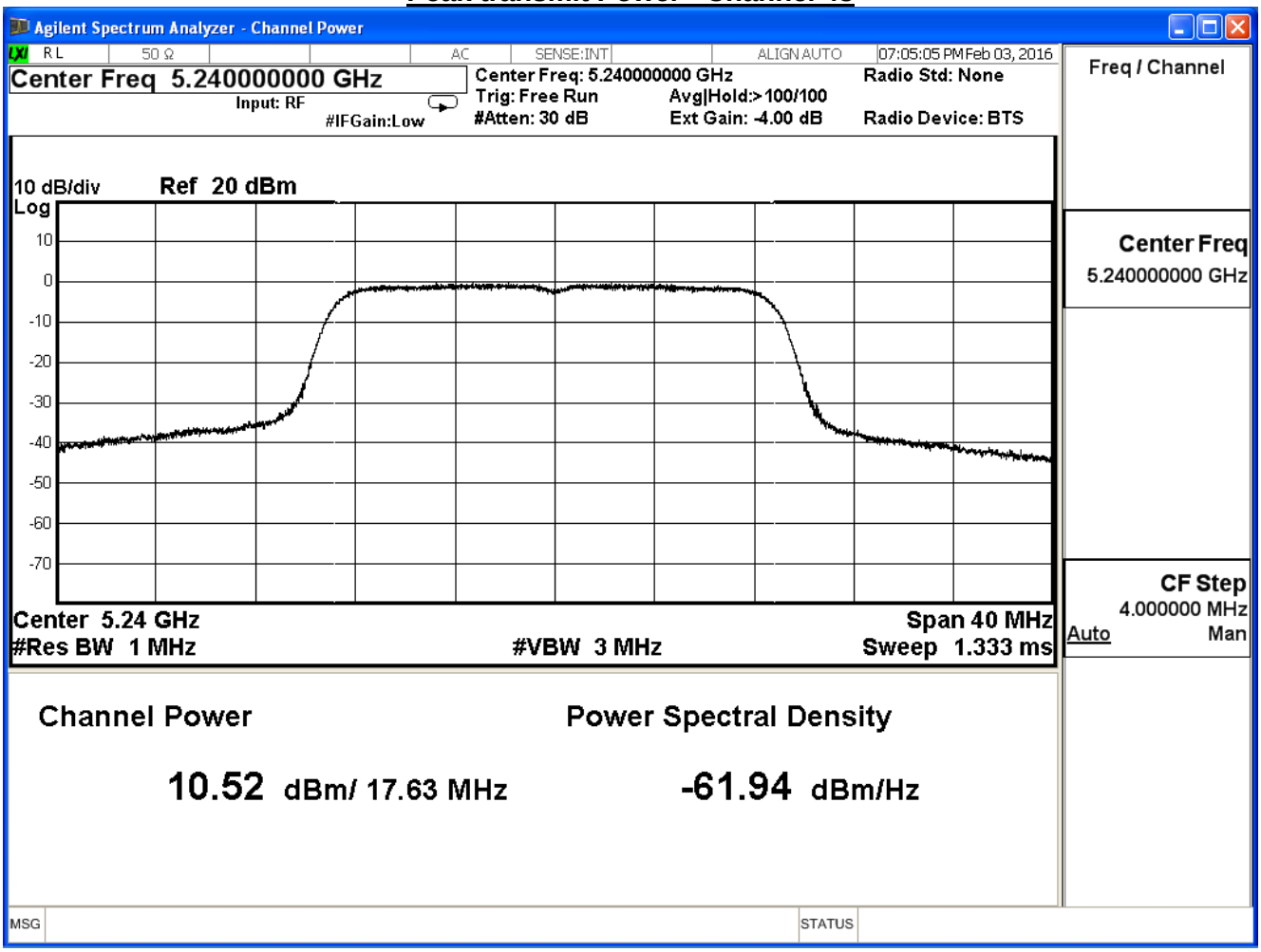
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11 n20, ANT0+1			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	13.90	≤29.49
44	5220	14.02	≤29.49
48	5240	13.70	≤29.49

The worst emission of data rate is 6.5 Mbps.

Peak Power Output (dBm)									
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
149	5745	13.90	--	--	--	--	--	--	--	≤29.49dBm
157	5785	14.02	13.91	13.74	13.54	13.44	13.32	13.08	12.95	
165	5825	13.70	--	--	--	--	--	--	--	

Note:
10Log(Ant N)+max Gain = 10(2)+3.5=6.51dBi
Required Limit = 30dBm-(6.51dBi-6dBi)=30-0.51=29.49dBi

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

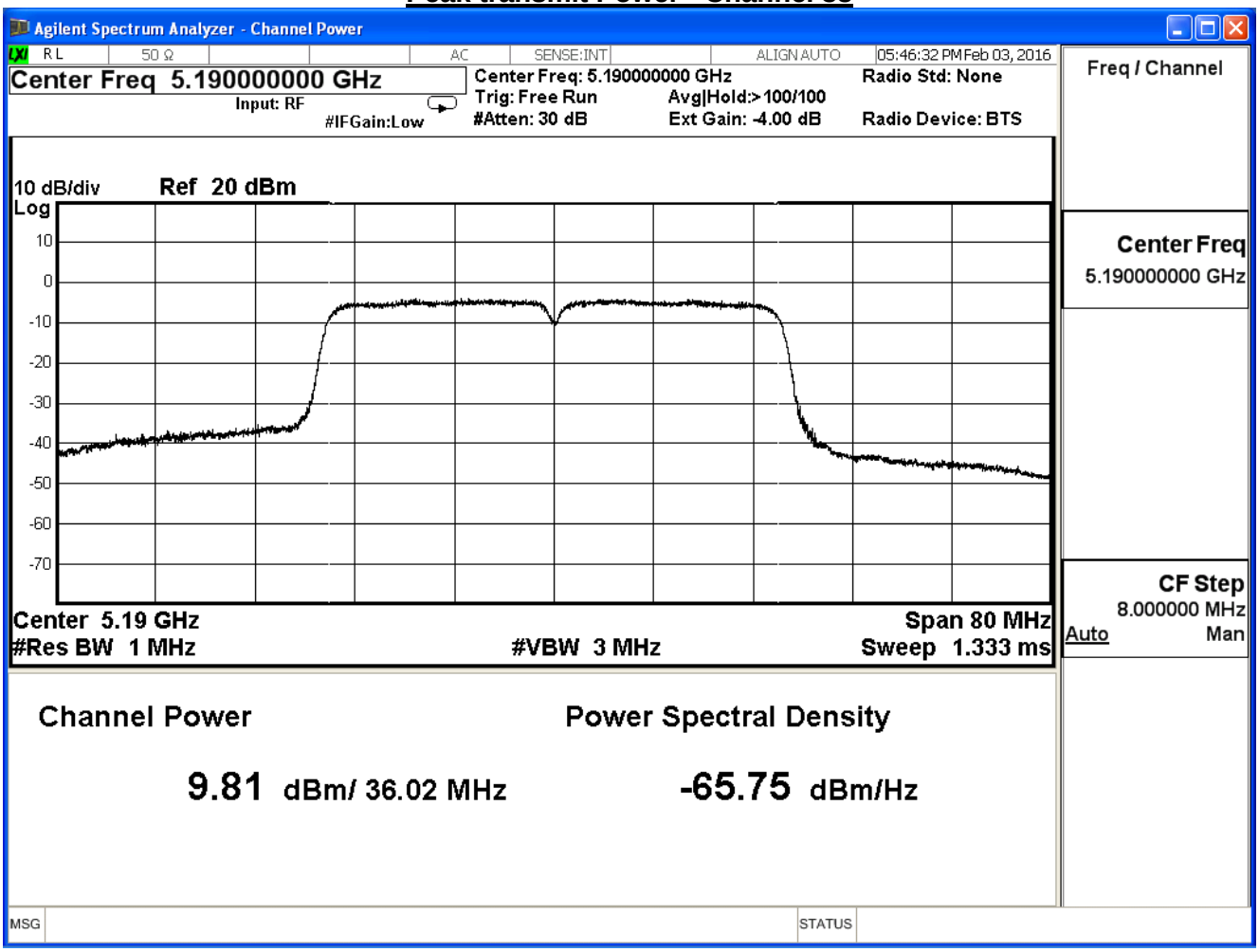
IEEE 802.11 n40, ANT0			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
38	5190	9.81	≤29.49
46	5230	13.19	≤29.49

The worst emission of data rate is 13.5 Mbps.

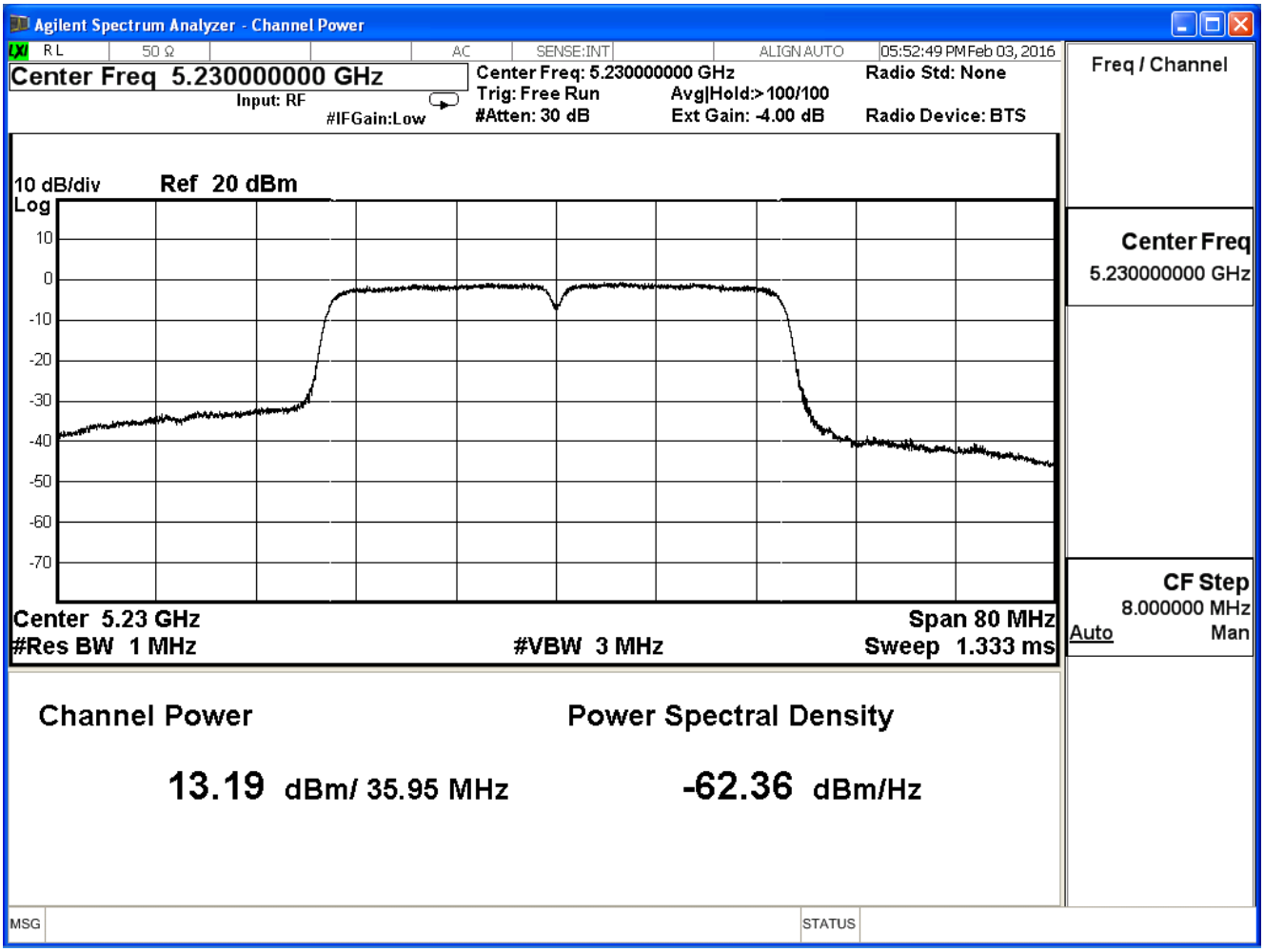
Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.5	27	40.5	54	81	108	121.5	135	
38	5190	9.81	--	--	--	--	--	--	--	≤29.49dBm
46	5230	13.19	13.09	12.89	12.68	12.54	12.35	12.11	11.87	

Note:
10Log(Ant N)+max Gain = 10(2)+3.5=6.51dBi
Required Limit = 30dBm-(6.51dBi-6dBi)=30-0.51=29.49dBi

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

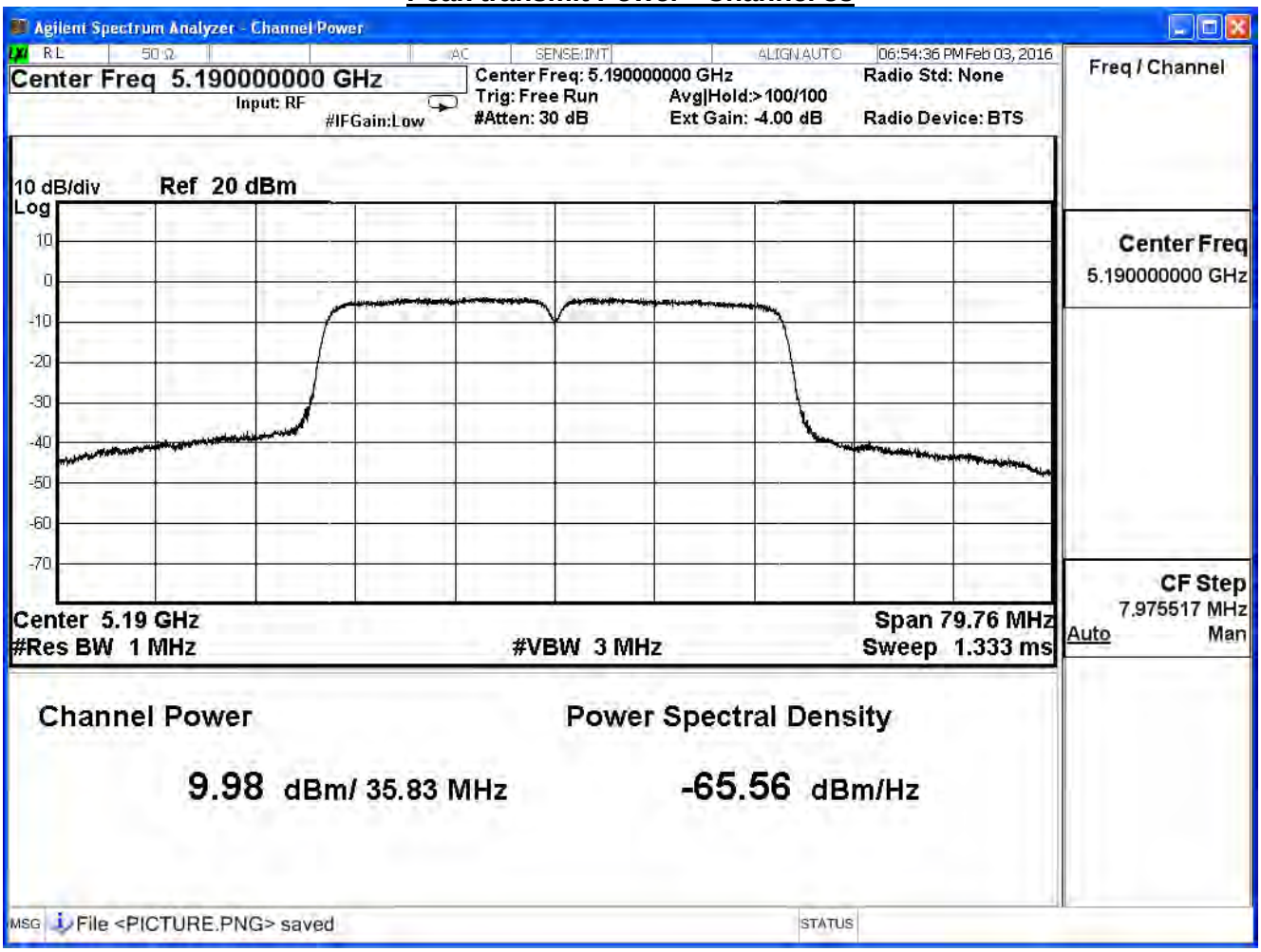
IEEE 802.11 n40, ANT1			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
38	5190	9.98	≤29.49
46	5230	13.29	≤29.49

The worst emission of data rate is 13.5 Mbps.

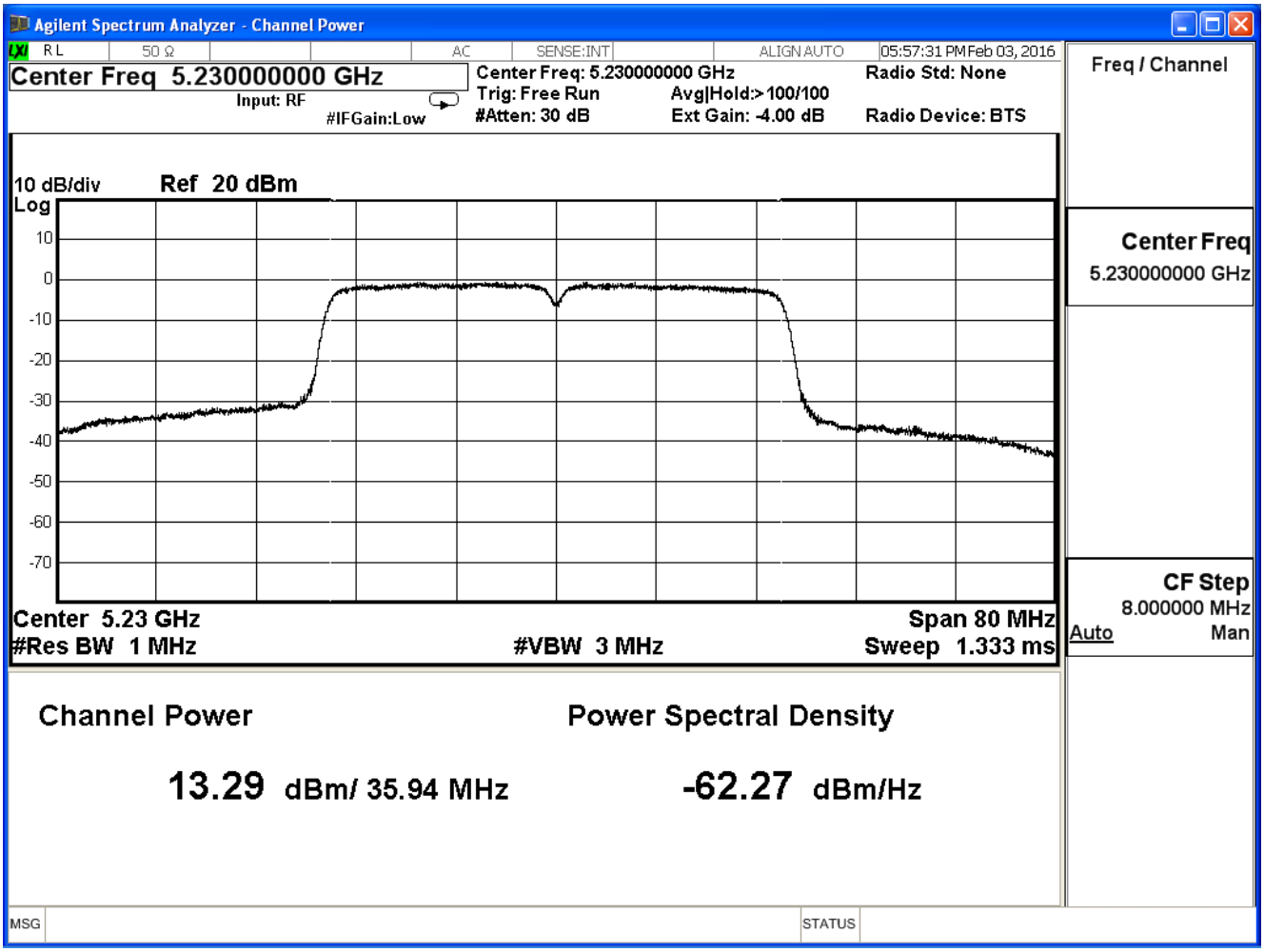
Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.5	27	40.5	54	81	108	121.5	135	
38	5190	9.98	--	--	--	--	--	--	--	≤29.49dBm
46	5230	13.29	13.19	13.09	12.99	12.79	12.67	12.55	12.43	

Note:
10Log(Ant N)+max Gain = 10(2)+3.5=6.51dBi
Required Limit = 30dBm-(6.51dBi-6dBi)=30-0.51=29.49dBi

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11 n40, ANT0+1			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
38	5190	12.91	≤29.49
46	5230	16.25	≤29.49

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	12.91	--	--	--	--	--	--	--	≤29.49dBm
46	5230	16.25	16.15	16.00	15.85	15.70	15.52	15.35	15.17	

Note:
10Log(Ant N)+max Gain = 10(2)+3.5=6.51dBi
Required Limit = 30dBm-(6.51dBi-6dBi)=30-0.51=29.49dBi

5. Peak Power Spectrum Density

5.1. Test Equipment

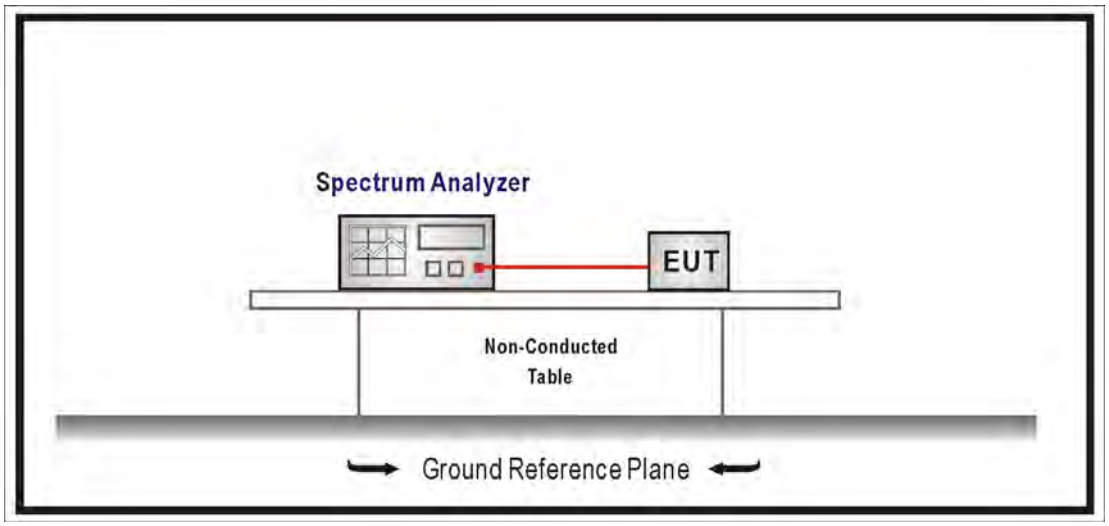
The following test equipments are used during the radiated emission tests:

Peak Power Spectrum Density / SR7

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

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

5.2. Test Setup



5.3. Limits

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

5.4. Test Procedure

The EUT was setup to ANSI C63.10:2013; tested to U-NII test procedure of KDB 789033 D02 for compliance to FCC 47CFR Subpart E requirements.

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

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

5.5. Uncertainty

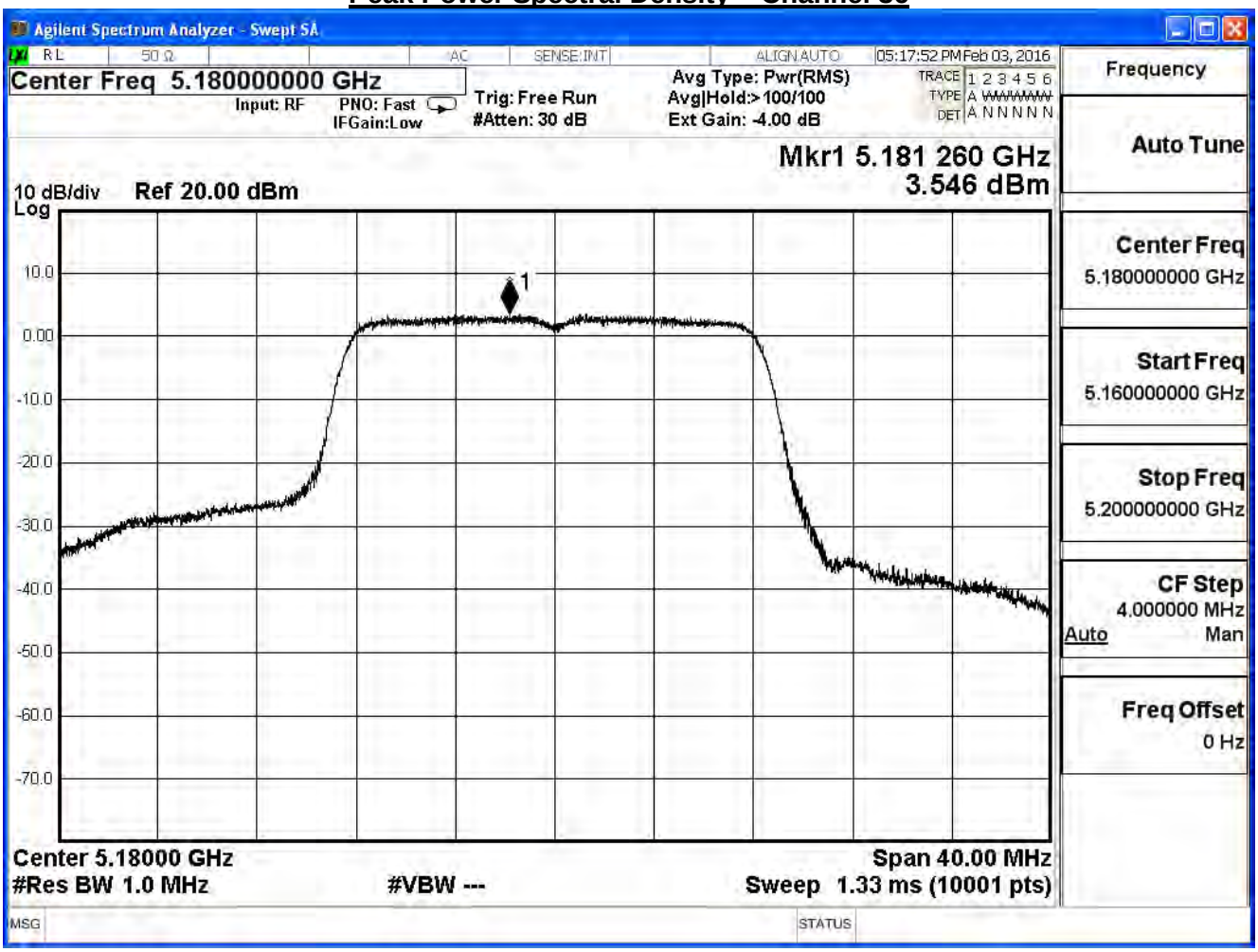
The measurement uncertainty is defined as ± 1.27 dB

5.6. Test Result

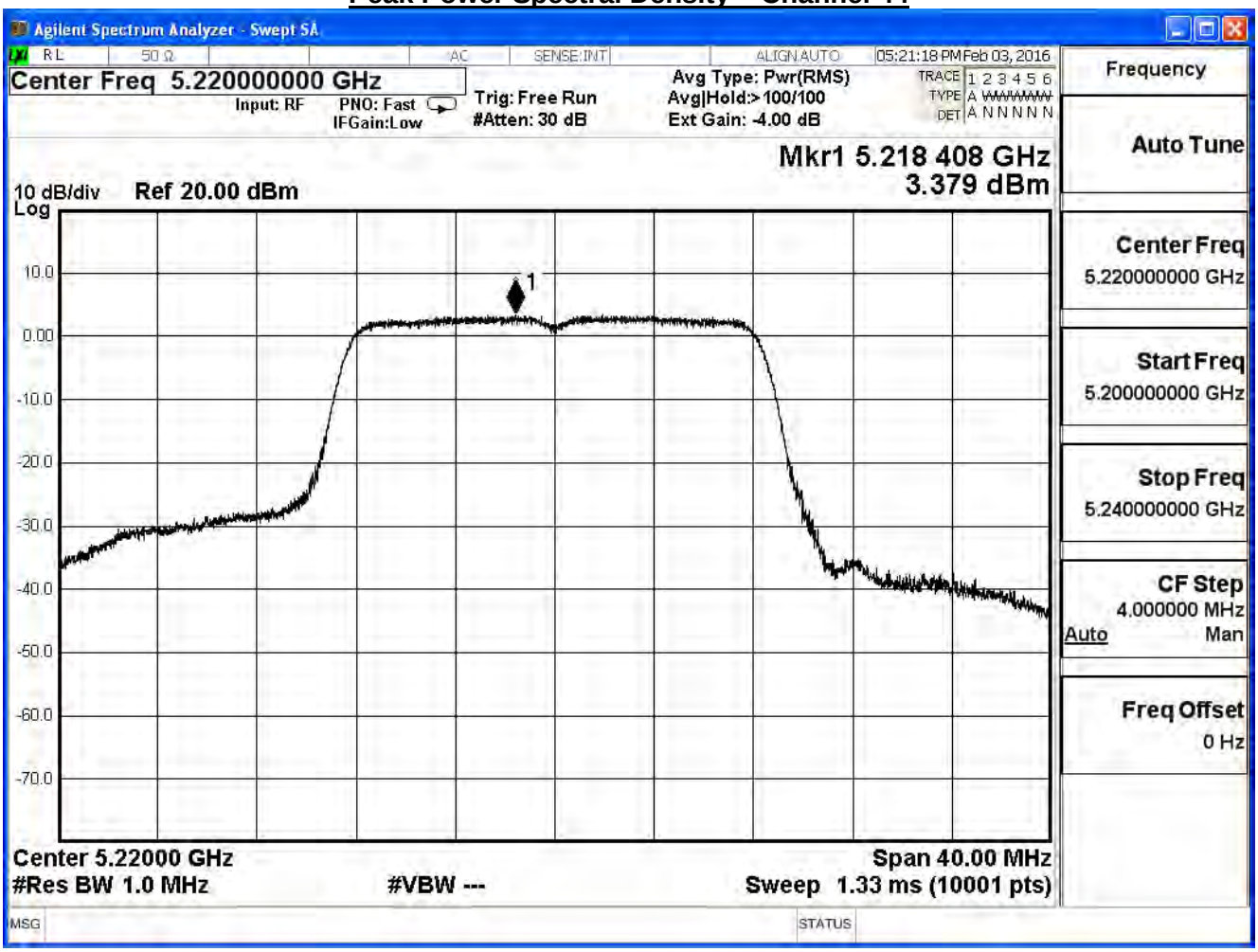
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11a (ANT 0)			
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)
36	5180	3.546	≦17
44	5220	3.379	≦17
48	5240	2.831	≦17

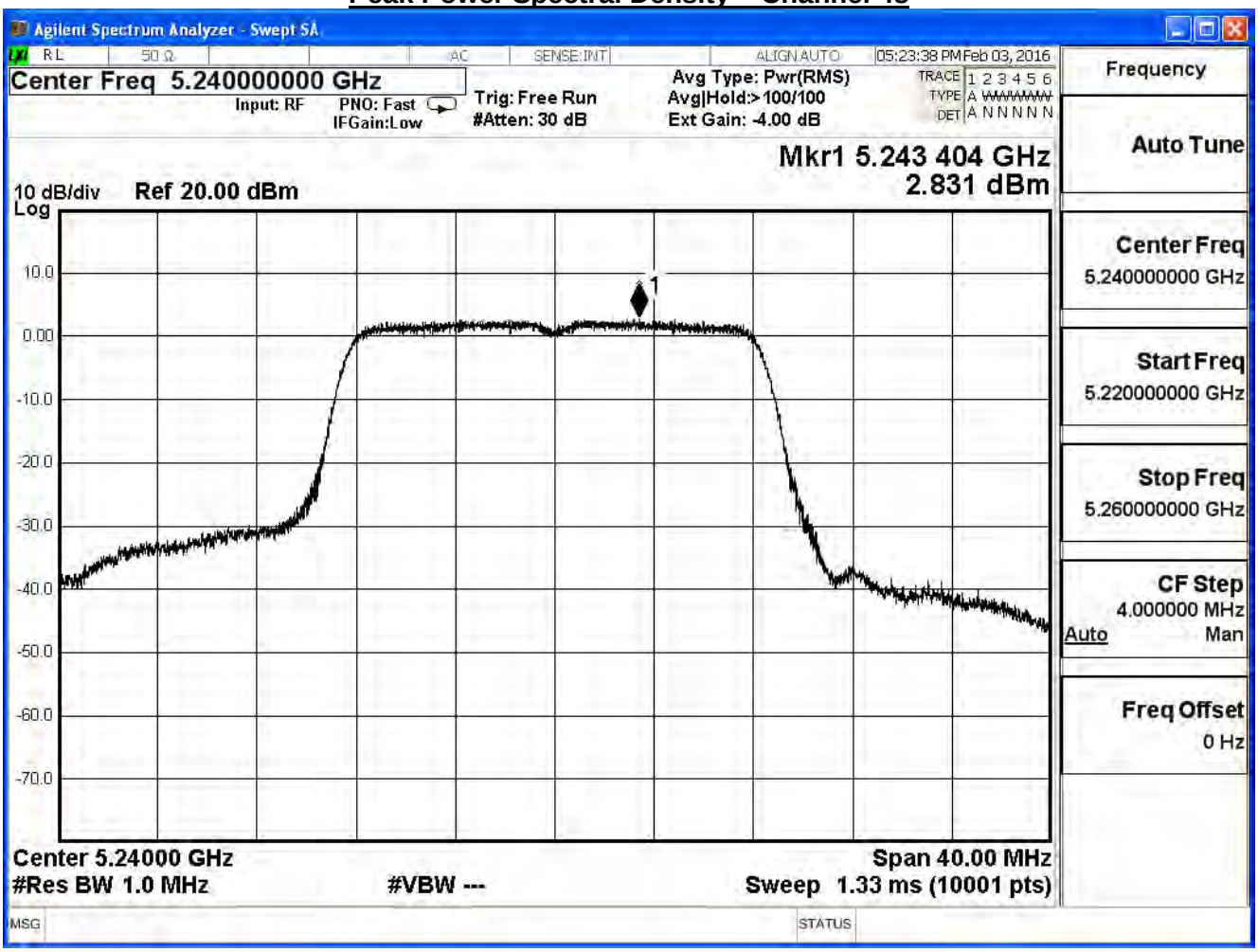
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



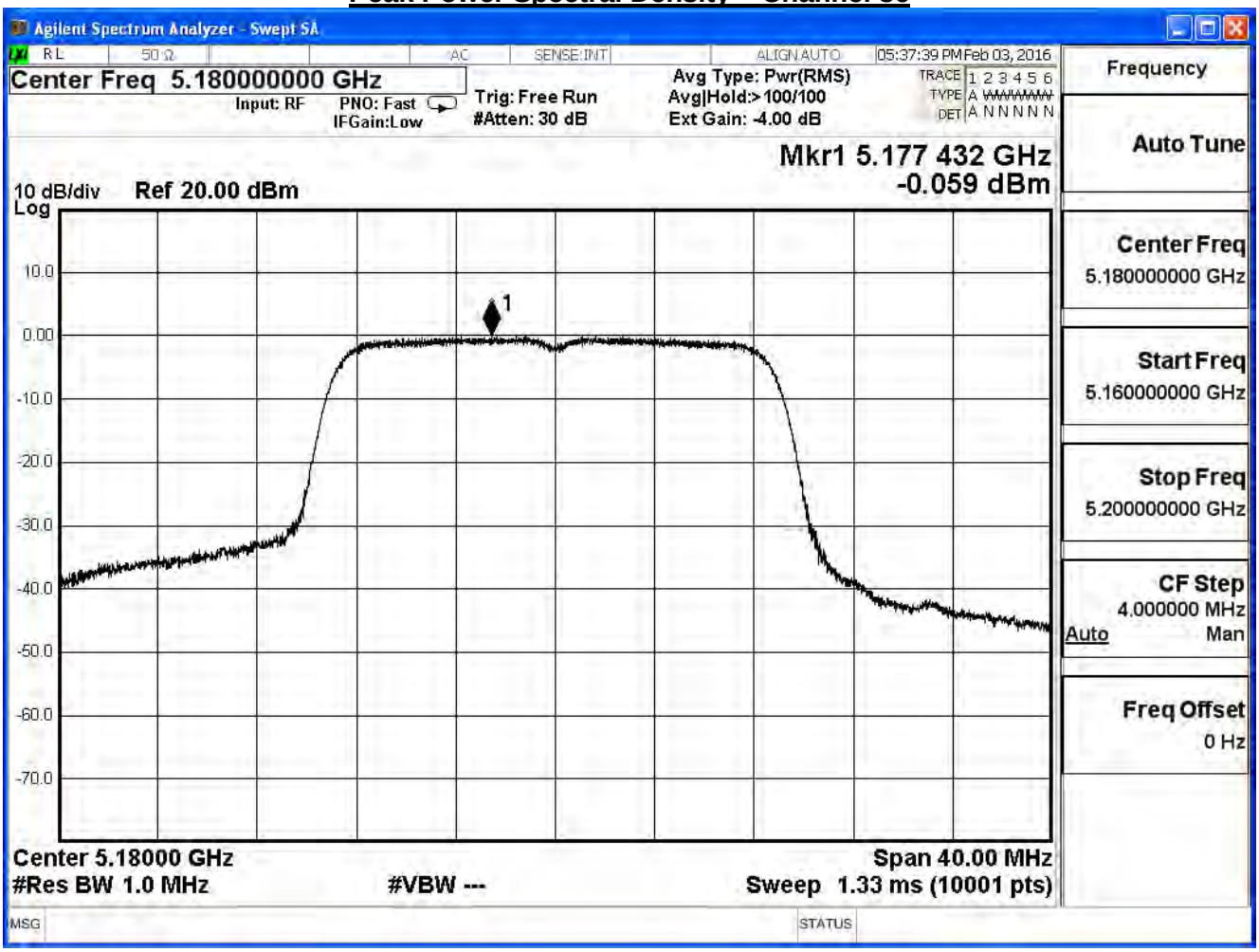
Peak Power Spectral Density – Channel 48



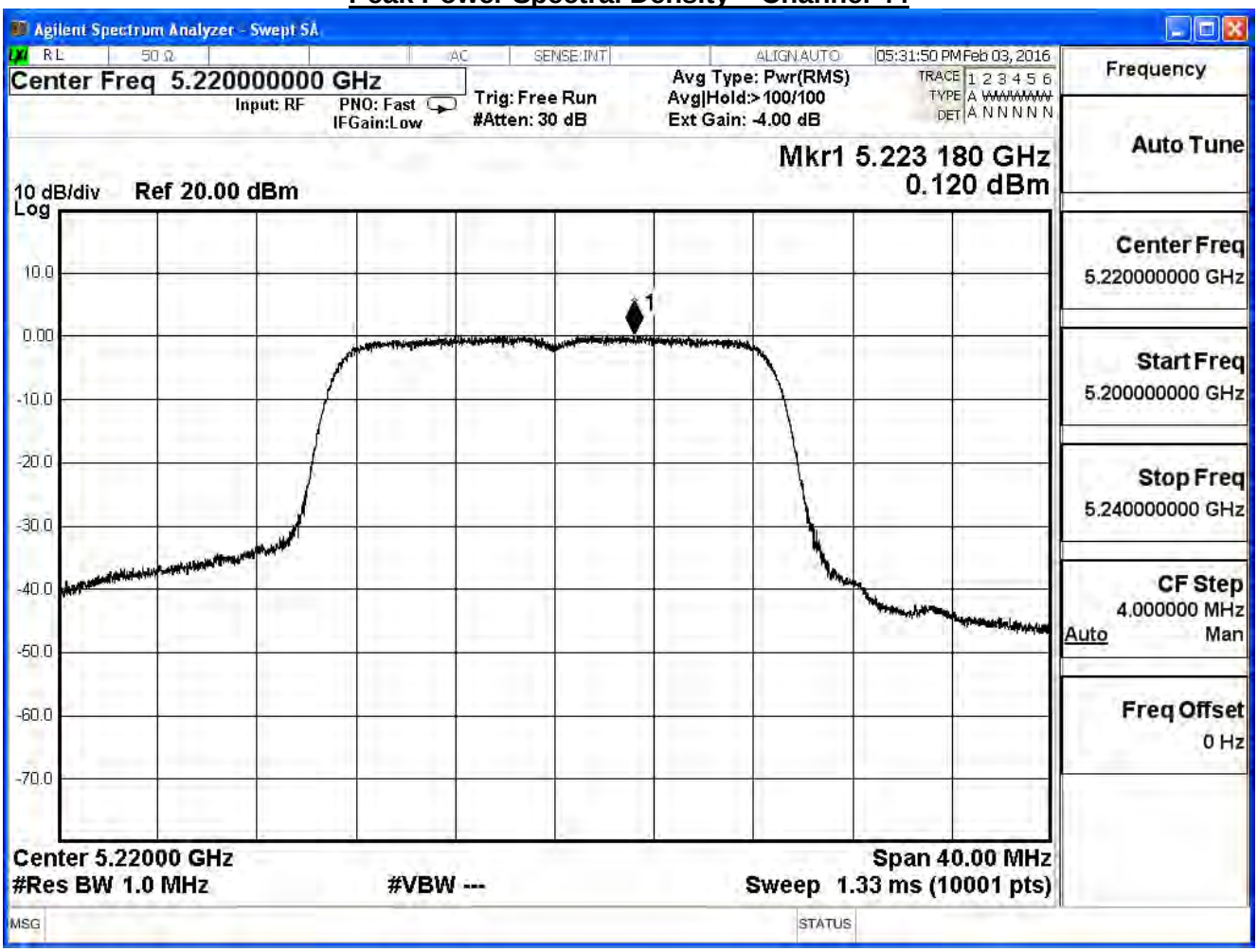
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n_20M(ANT 0)			
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)
36	5180	-0.059	≦17
44	5220	0.120	≦17
48	5240	-0.130	≦17

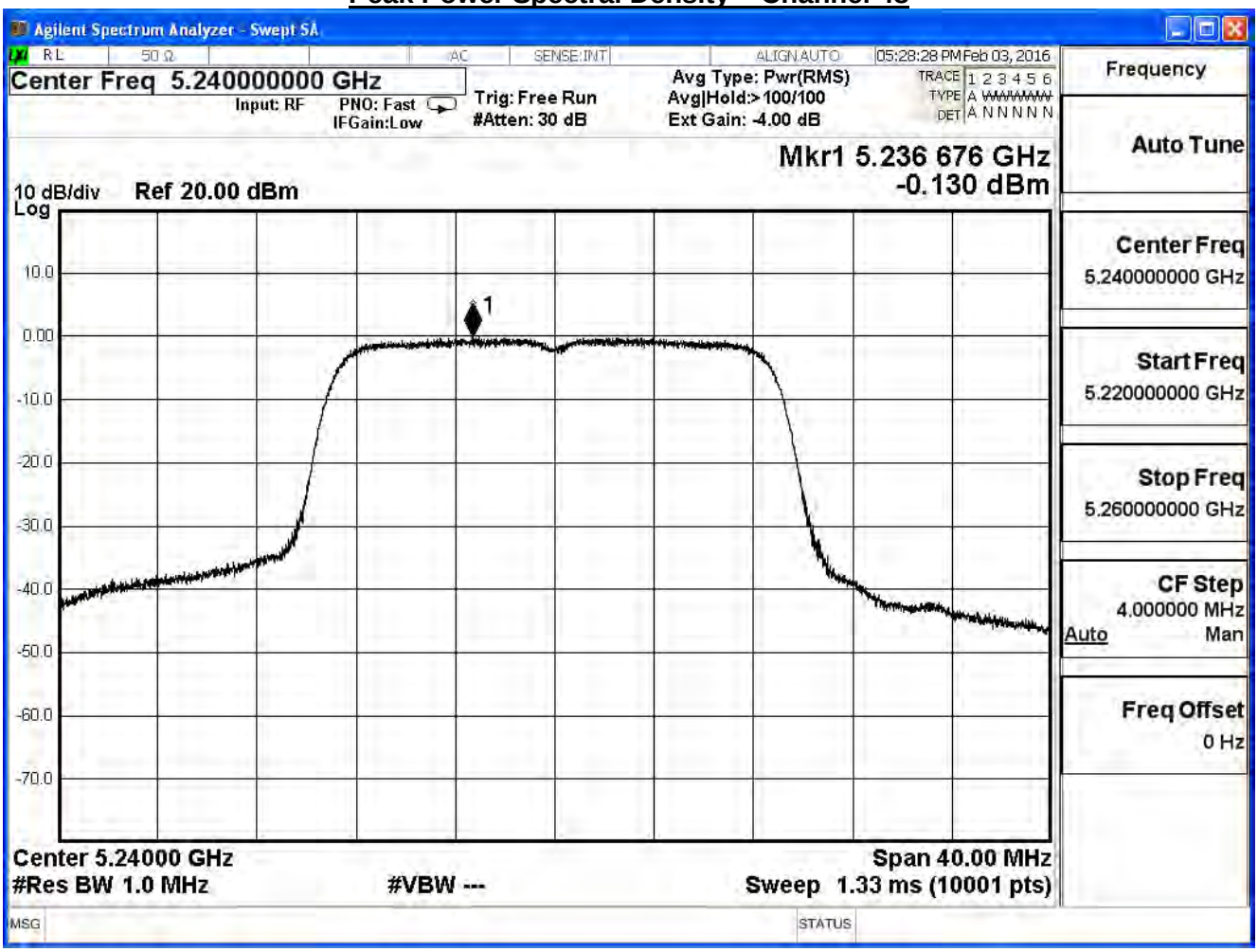
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



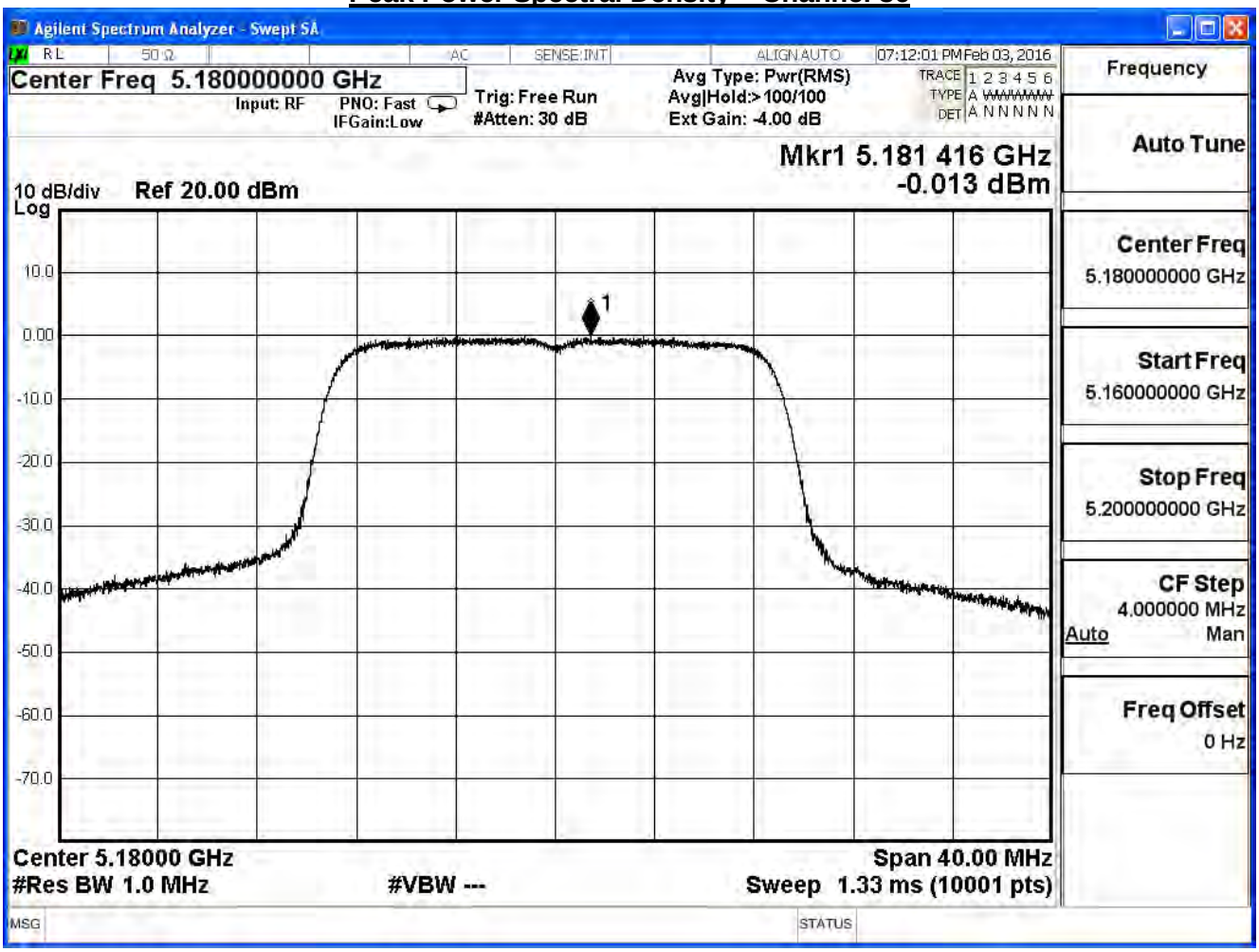
Peak Power Spectral Density – Channel 48



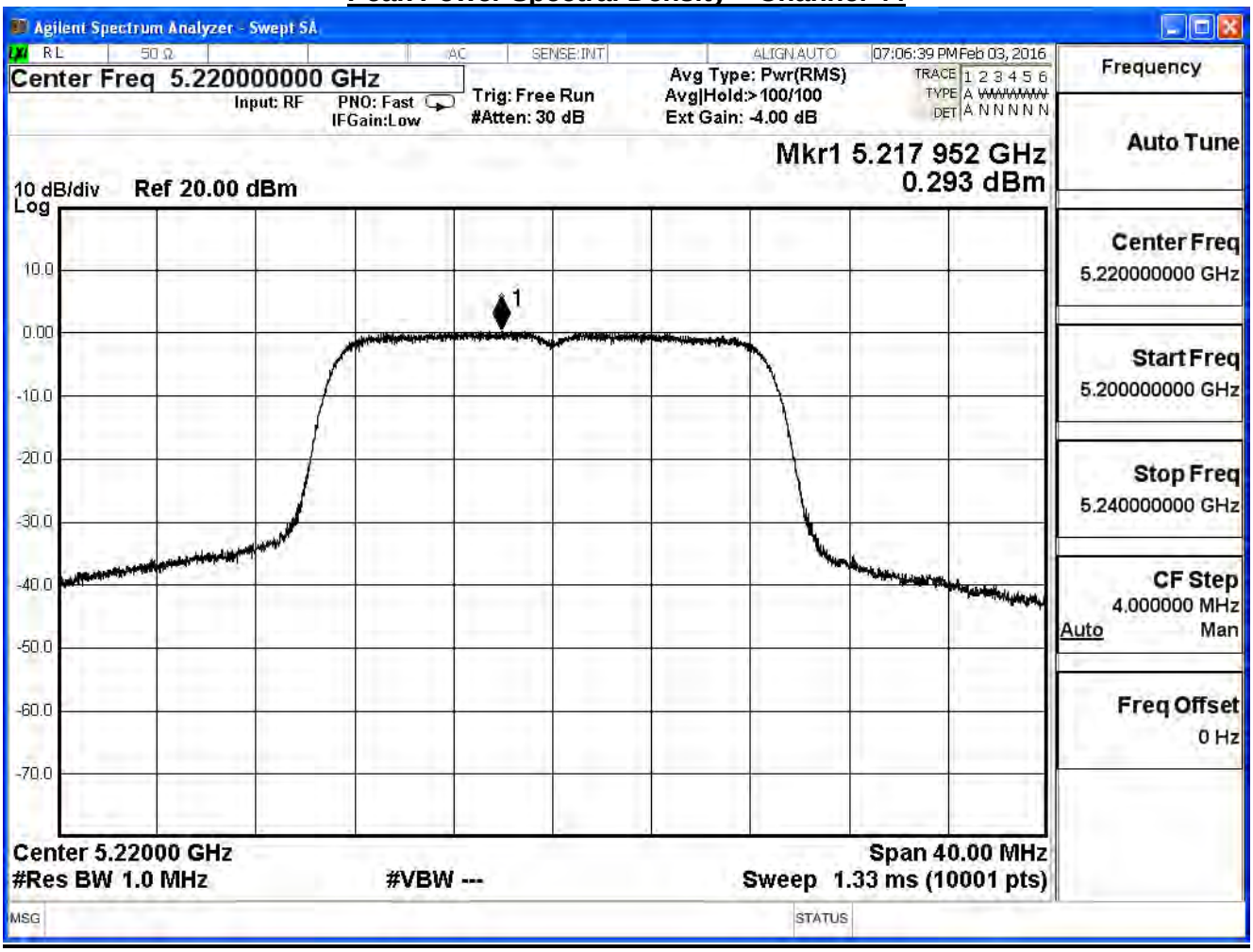
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n_20M(ANT 1)			
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)
36	5180	-0.013	≦17
44	5220	0.293	≦17
48	5240	0.065	≦17

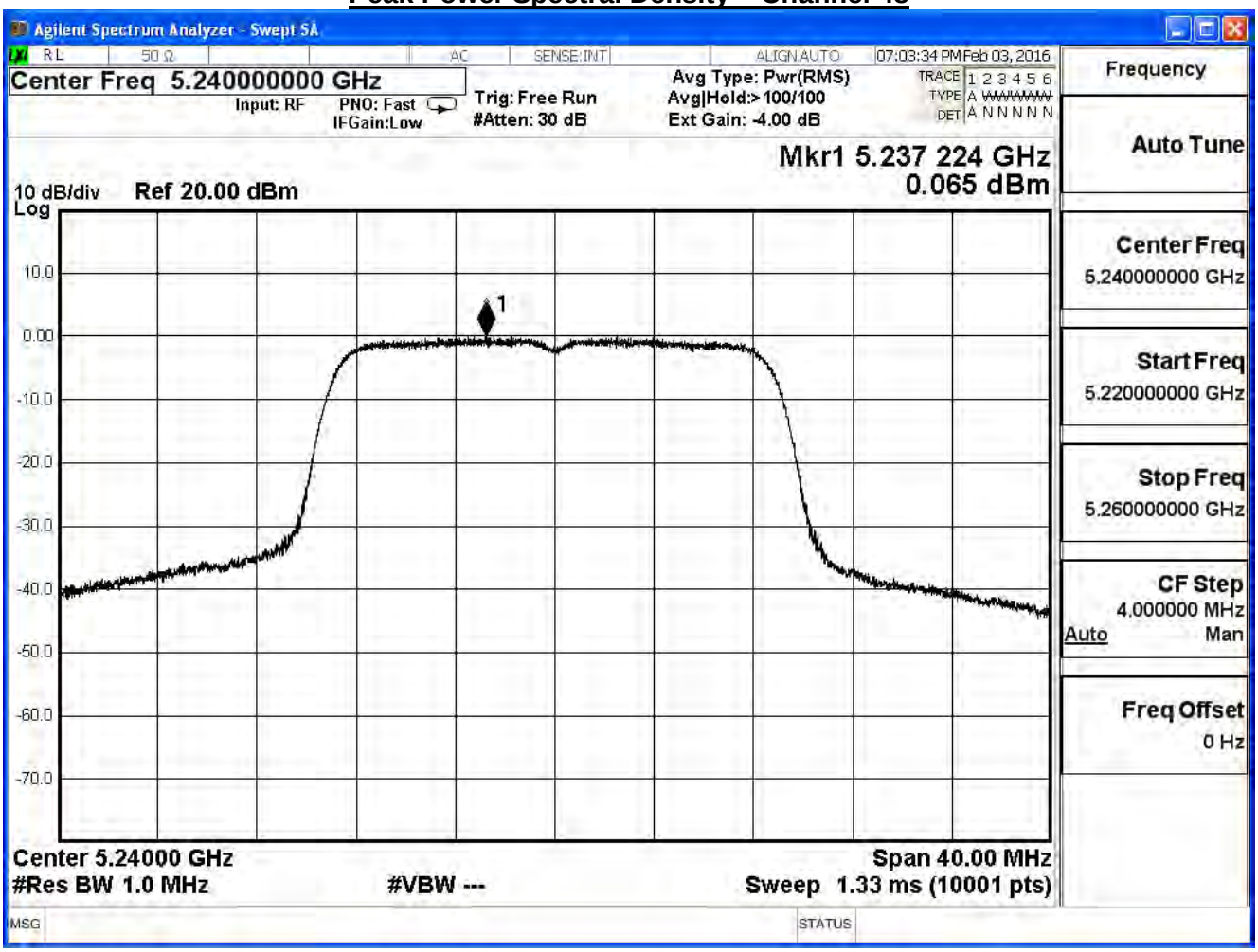
Peak Power Spectral Density – Channel 36



Peak Power Spectral Density – Channel 44



Peak Power Spectral Density – Channel 48



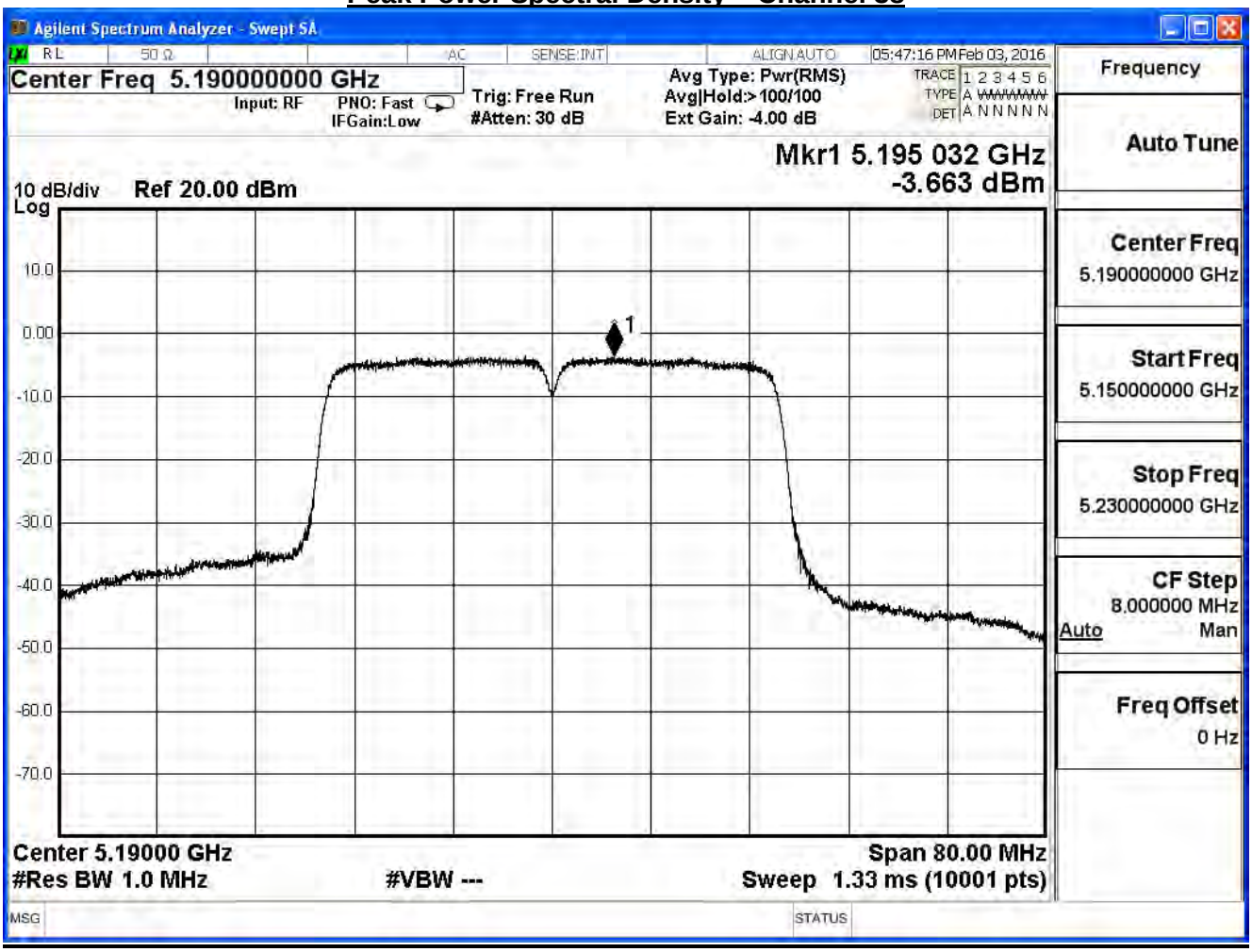
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n_20M(ANT 0+1)			
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)
36	5180	2.974	≦17
44	5220	3.218	≦17
48	5240	2.979	≦17

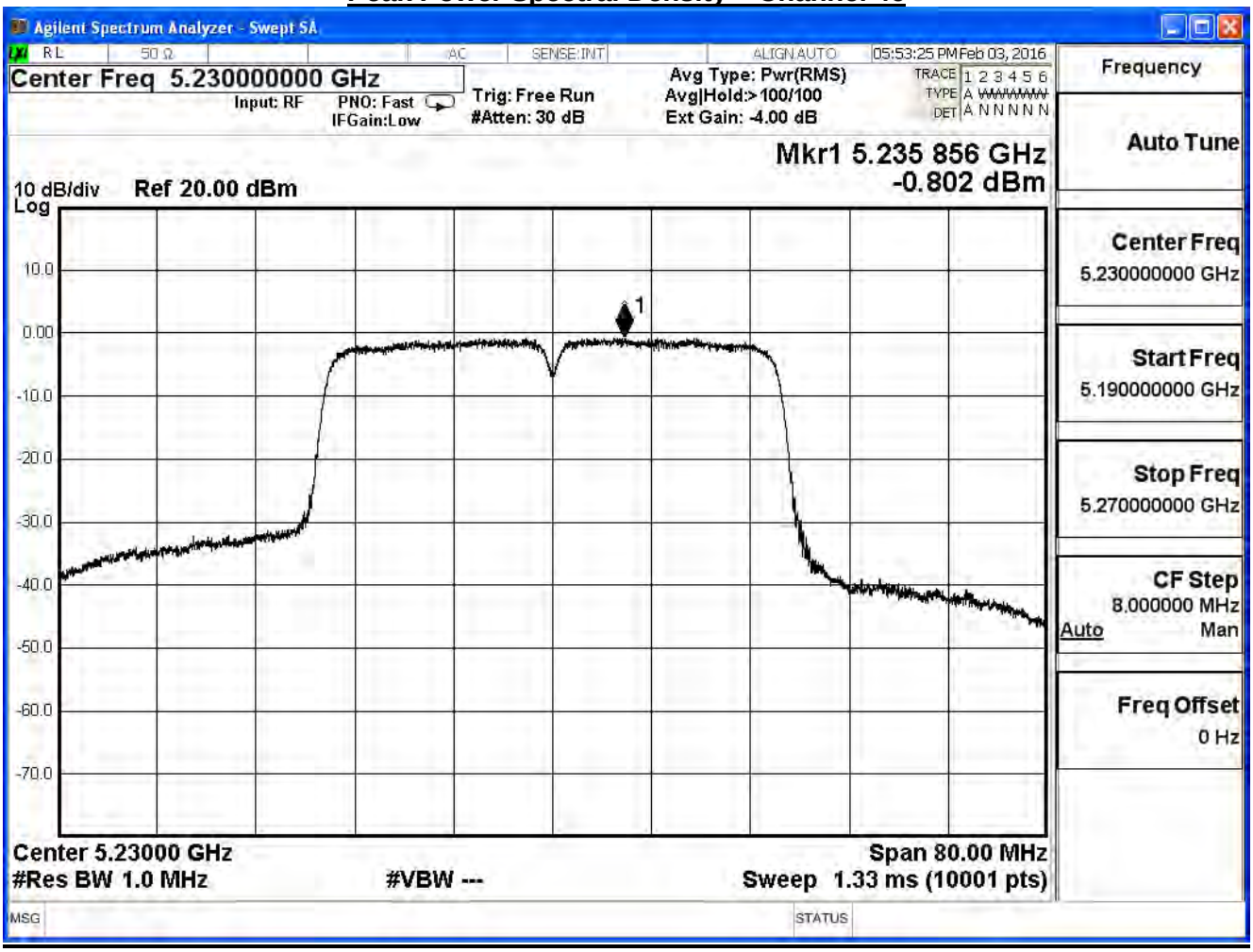
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n_40M(ANT 0)			
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)
38	5190	-3.663	≦17
46	5230	-0.802	≦17

Peak Power Spectral Density – Channel 38



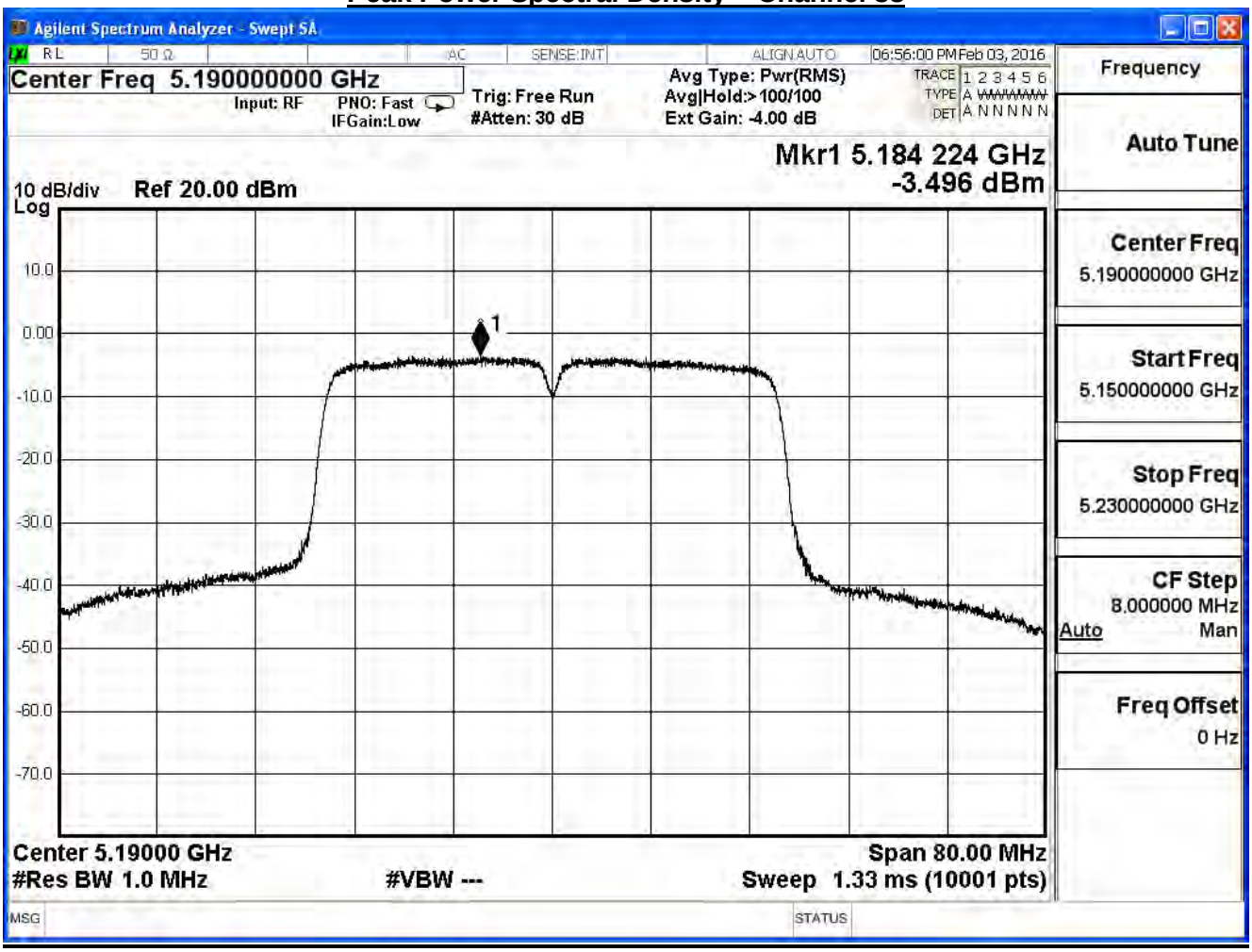
Peak Power Spectral Density – Channel 46



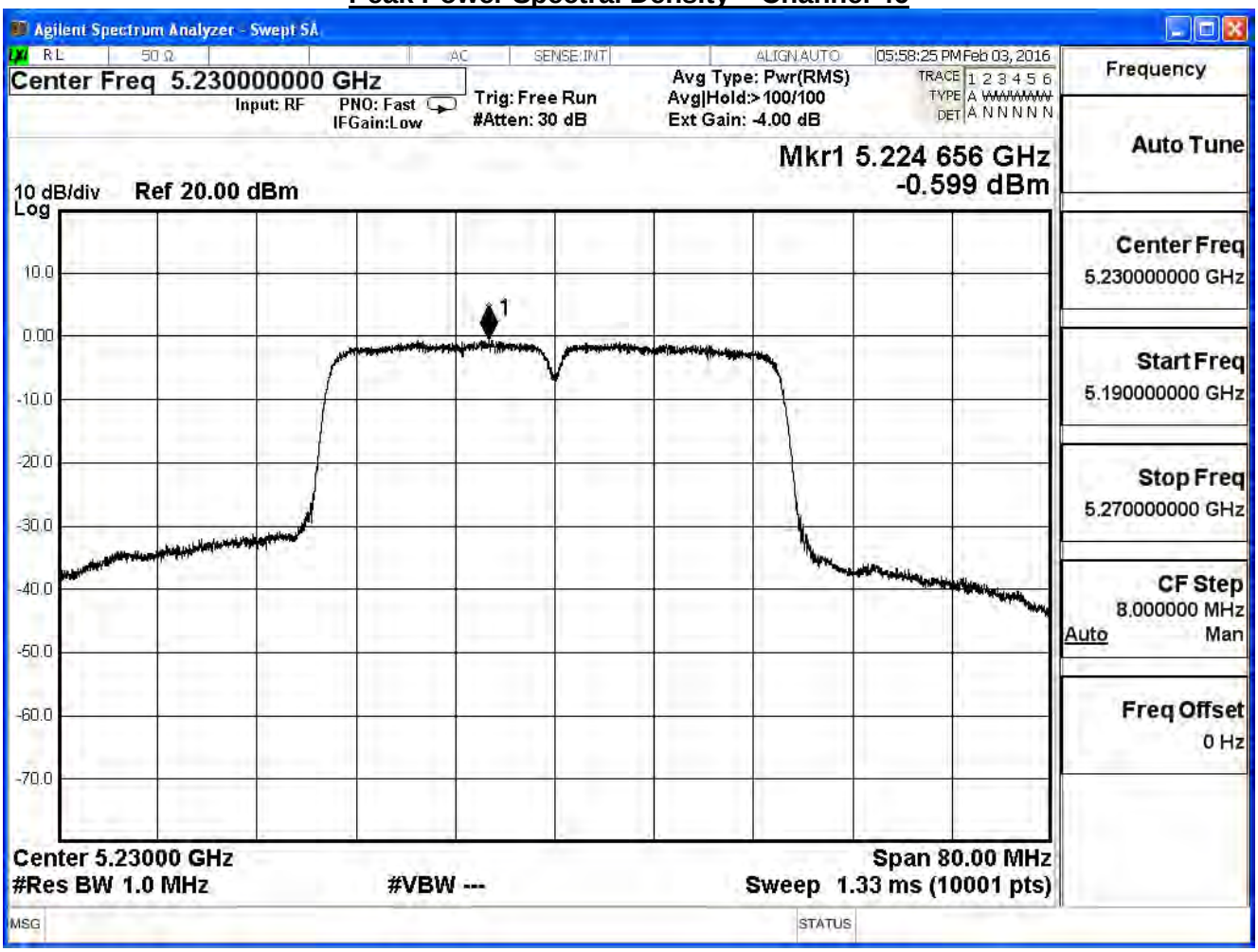
Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n_40M(ANT 1)			
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)
38	5190	-3.496	≦17
46	5230	-0.599	≦17

Peak Power Spectral Density – Channel 38



Peak Power Spectral Density – Channel 46



Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Peak Power Spectral Density		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n_40M(ANT 0+1)			
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)
38	5190	-0.568	≦17
46	5230	2.311	≦17

6. Radiated Emission

6.1. Test Equipment

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

Radiated Emission / CB1 (Under 1GHz)

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	SCHAFFNER	CBL6112B	2895	2013/08/14
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2014/02/17
Pre-Amplifier	MITEQ	AMF-4D-005180-24-10P	888003	2013/12/02
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2014/02/19
Spectrum Analyzer	Agilent	E4440A	MY46187335	2014/01/27
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2014/02/21

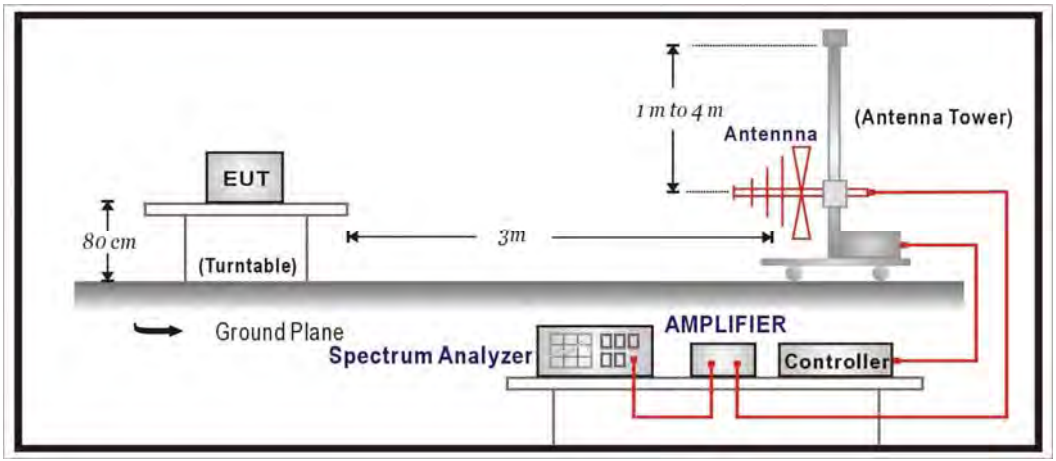
Radiated Emission / CB1 (Above 1GHz)

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	Schaffner	CBL6112B	2895	2016/08/14
Double Ridged Guide Horn Antenna	Schwarzbeck	BBHA 9120	D743	2017/01/14
Pre-Amplifier	EMCI	EMC0031835	4583/10/13	2017/01/18
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2017/01/03
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/12/24
k Type Cable	Huber+Suhner	SF 102	25623/2	2017/01/11

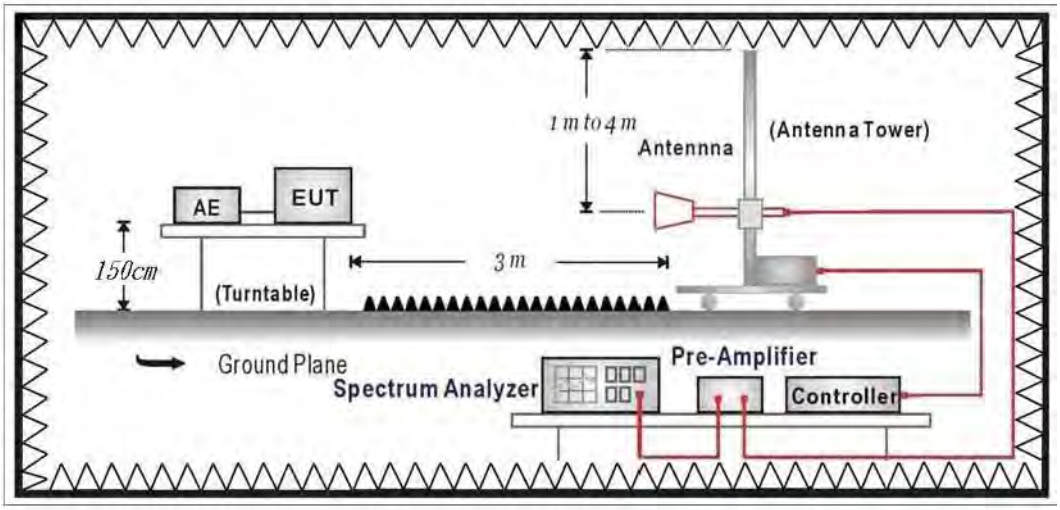
Note: All equipments that need to calibrate are with calibration period of 1 year.

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

Remark:

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

6.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 or 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2013 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.

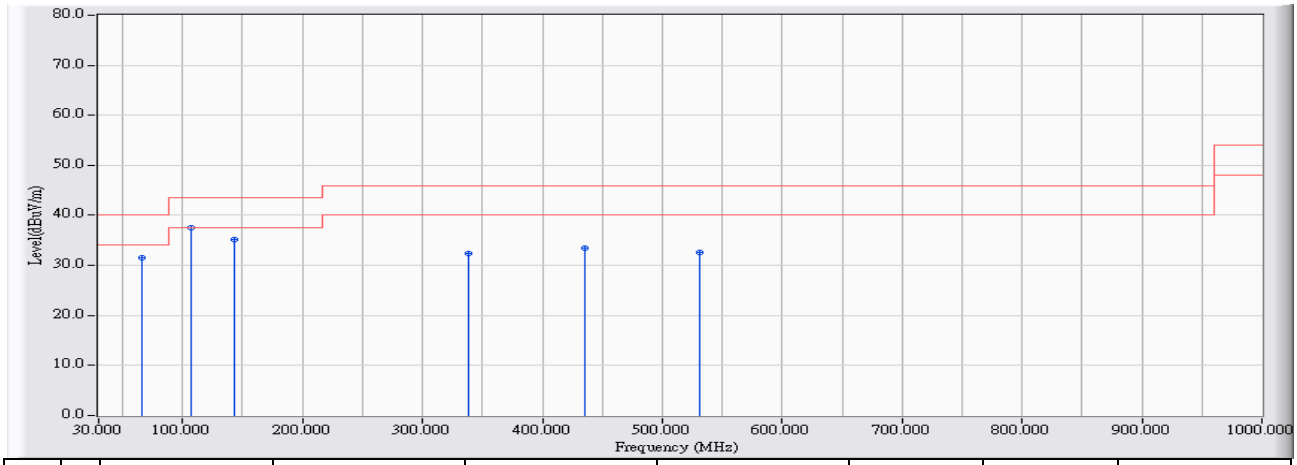
6.5. Uncertainty

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

6.6. Test Result

30MHz-1GHz Spurious

Site : CB1	**Time : 2013/05/18 - 14:31**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC 120V /60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5220MHz**

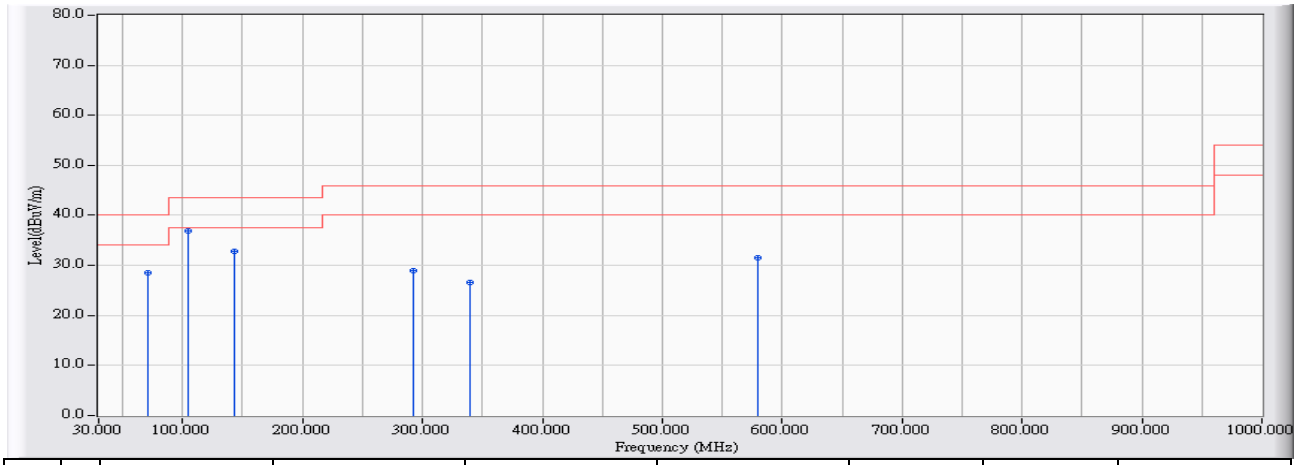


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		65.890	-16.931	48.436	31.505	-8.495	40.000	QUASIPEAK
2	*	106.630	-12.446	50.061	37.615	-5.885	43.500	QUASIPEAK
3		143.490	-12.730	47.853	35.123	-8.377	43.500	QUASIPEAK
4		338.460	-8.980	41.365	32.385	-13.615	46.000	QUASIPEAK
5		435.460	-6.615	40.042	33.428	-12.572	46.000	QUASIPEAK
6		531.490	-5.012	37.621	32.609	-13.391	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 : 2013/05/18 - 14:31**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC 120V /60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5220MHz**

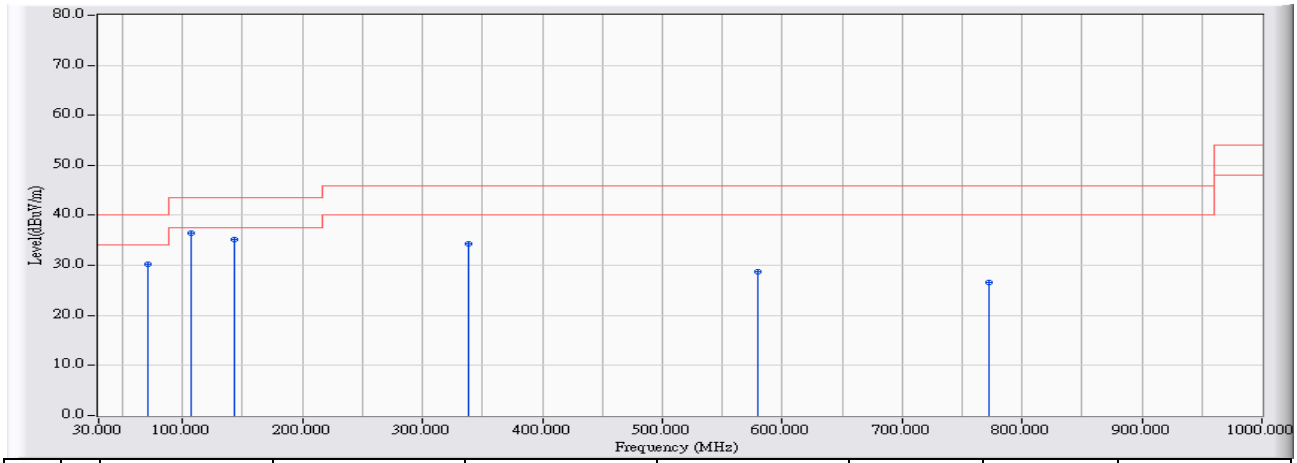


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		70.740	-16.953	45.493	28.540	-11.460	40.000	QUASIPEAK
2	*	104.690	-12.537	49.391	36.854	-6.646	43.500	QUASIPEAK
3		143.490	-12.730	45.618	32.888	-10.612	43.500	QUASIPEAK
4		292.870	-10.069	38.936	28.867	-17.133	46.000	QUASIPEAK
5		339.430	-8.956	35.573	26.617	-19.383	46.000	QUASIPEAK
6		579.990	-4.916	36.459	31.543	-14.457	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 : 2013/05/18 - 14:32**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC 120V /60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20MHz)_5220MHz**

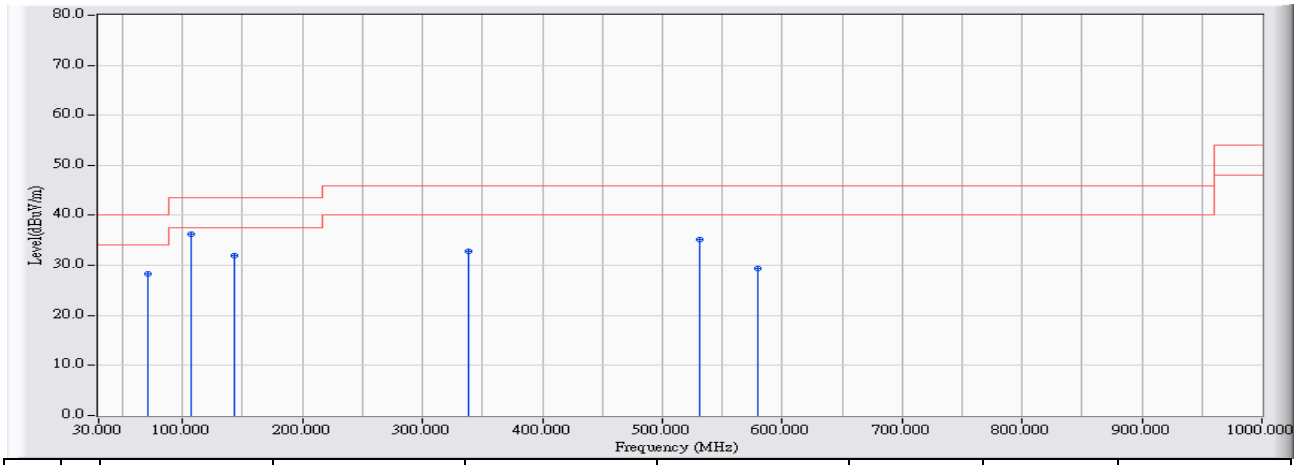


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		70.740	-16.953	47.246	30.293	-9.707	40.000	QUASIPEAK
2	*	106.630	-12.446	49.009	36.563	-6.937	43.500	QUASIPEAK
3		143.490	-12.730	47.854	35.124	-8.376	43.500	QUASIPEAK
4		338.460	-8.980	43.191	34.211	-11.789	46.000	QUASIPEAK
5		579.990	-4.916	33.667	28.751	-17.249	46.000	QUASIPEAK
6		773.020	-3.311	29.960	26.649	-19.351	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 : 2013/05/18 - 14:32**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC 120V /60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20MHz)_5220MHz**

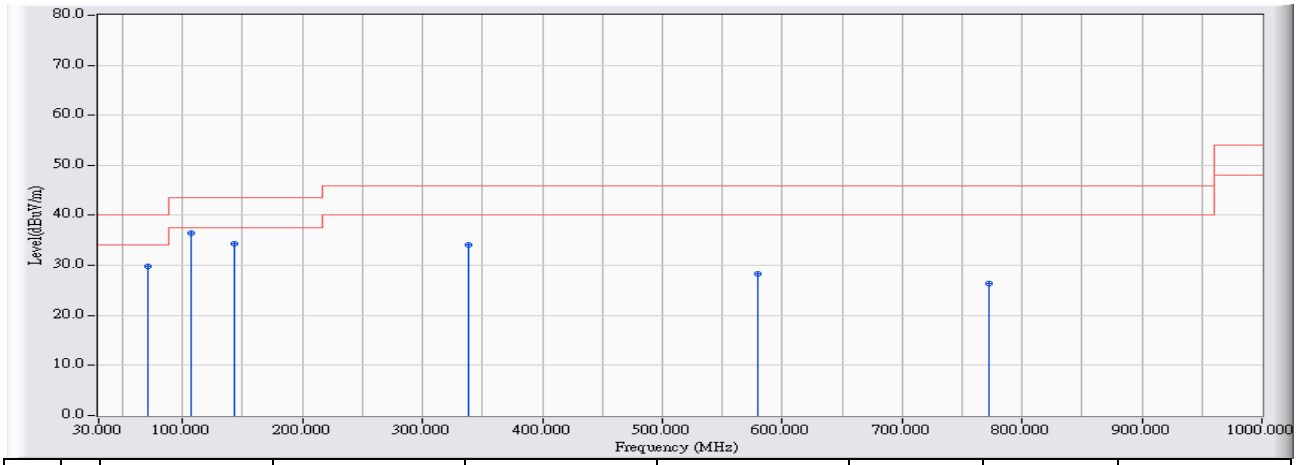


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		70.740	-16.953	45.351	28.398	-11.602	40.000	QUASIPEAK
2	*	106.630	-12.446	48.734	36.288	-7.212	43.500	QUASIPEAK
3		143.490	-12.730	44.600	31.870	-11.630	43.500	QUASIPEAK
4		338.460	-8.980	41.696	32.716	-13.284	46.000	QUASIPEAK
5		531.490	-5.012	40.184	35.172	-10.828	46.000	QUASIPEAK
6		579.990	-4.916	34.216	29.300	-16.700	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 : 2013/05/18 - 14:34**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC 120V /60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40MHz)_5230MHz**

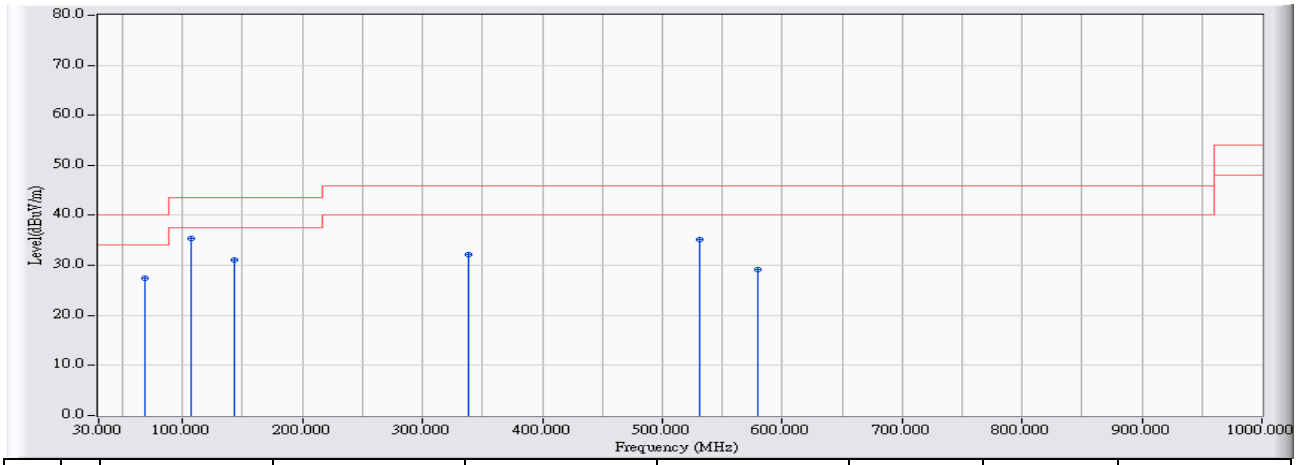


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		70.740	-16.953	46.747	29.794	-10.206	40.000	QUASIPEAK
2	*	106.630	-12.446	48.909	36.463	-7.037	43.500	QUASIPEAK
3		143.490	-12.730	46.983	34.253	-9.247	43.500	QUASIPEAK
4		338.460	-8.980	42.989	34.009	-11.991	46.000	QUASIPEAK
5		579.990	-4.916	33.137	28.221	-17.779	46.000	QUASIPEAK
6		773.020	-3.311	29.712	26.401	-19.599	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 : 2013/05/18 - 14:35**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC 120V /60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40MHz)_5230MHz**



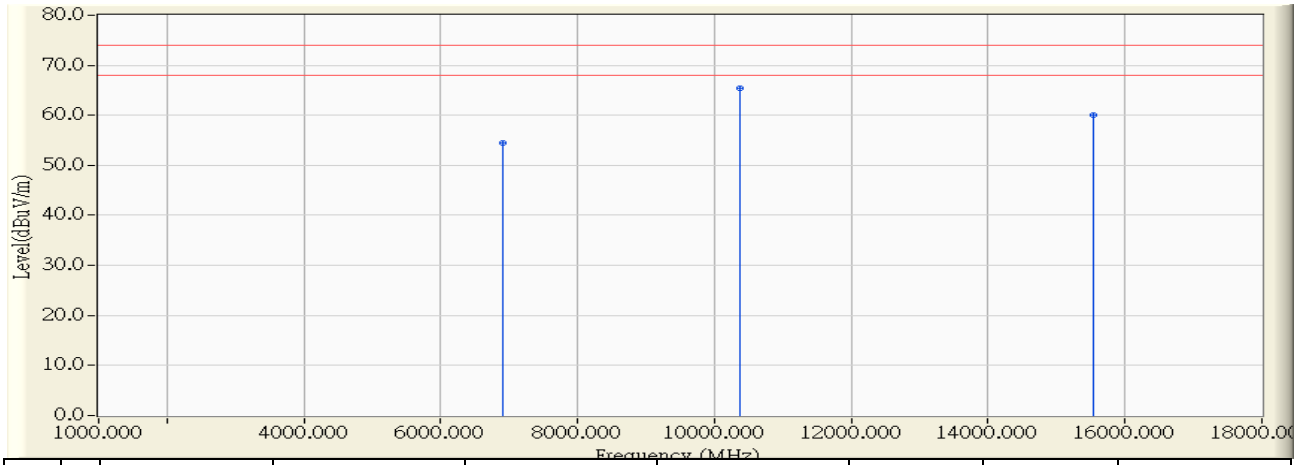
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		68.800	-16.985	44.431	27.446	-12.554	40.000	QUASIPEAK
2	*	106.630	-12.446	47.860	35.414	-8.086	43.500	QUASIPEAK
3		143.490	-12.730	43.899	31.169	-12.331	43.500	QUASIPEAK
4		338.460	-8.980	41.105	32.125	-13.875	46.000	QUASIPEAK
5		531.490	-5.012	40.149	35.137	-10.863	46.000	QUASIPEAK
6		579.990	-4.916	34.170	29.254	-16.746	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 : 2016/02/01 - 15:02**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5180MHz**

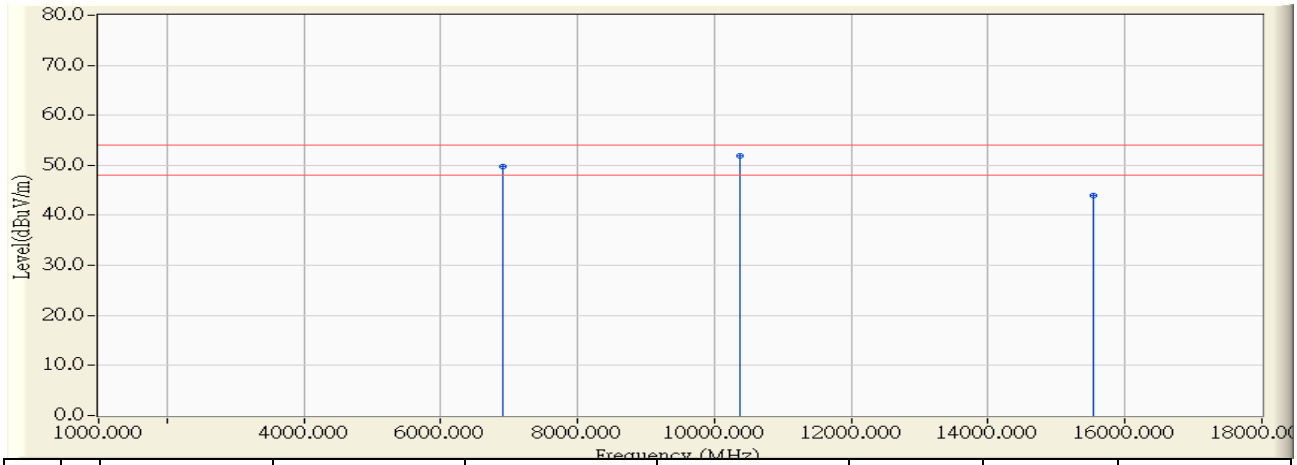


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6906.640	5.095	49.430	54.525	-19.475	74.000	PEAK
2	*	10361.560	9.158	56.290	65.449	-8.551	74.000	PEAK
3		15539.480	9.740	50.300	60.040	-13.960	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 15:10**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5180MHz**

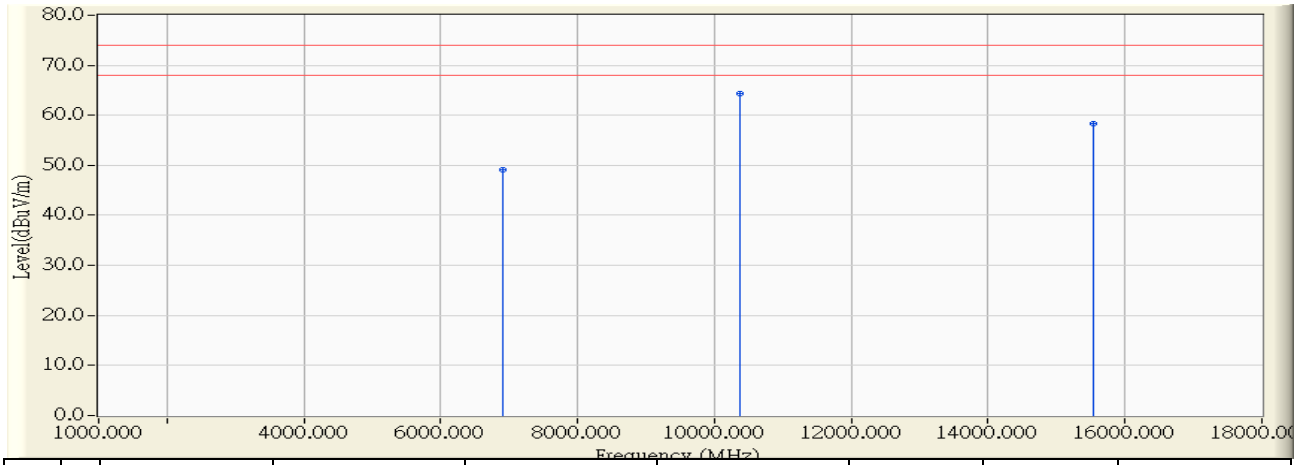


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6906.640	5.095	44.580	49.675	-4.325	54.000	AVERAGE
2	*	10361.340	9.159	42.690	51.849	-2.151	54.000	AVERAGE
3		15539.600	9.740	34.290	44.030	-29.970	74.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 15:16**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5180MHz**

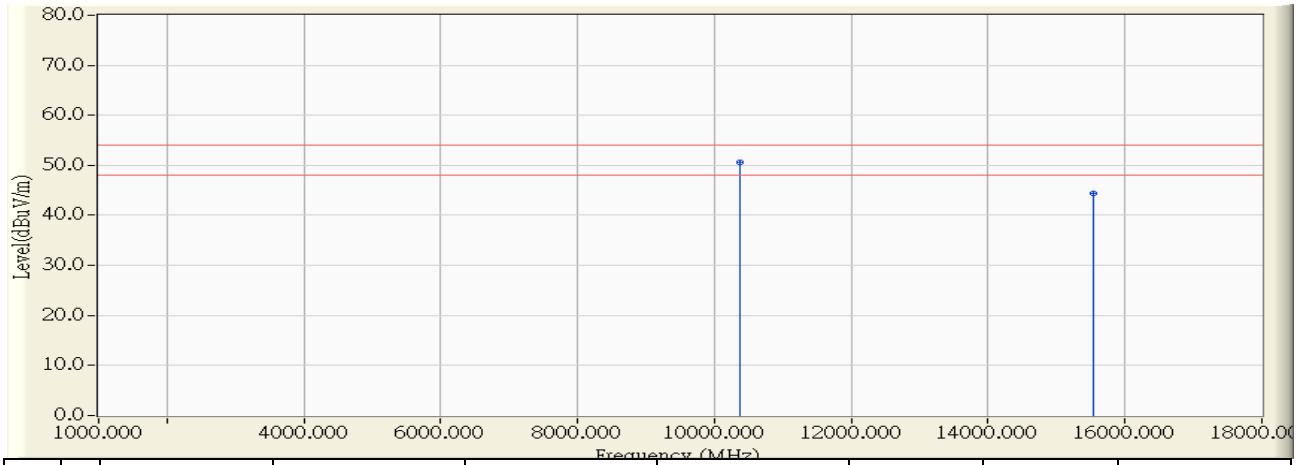


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6906.520	4.633	44.450	49.083	-24.917	74.000	PEAK
2	*	10361.680	8.537	55.840	64.377	-9.623	74.000	PEAK
3		15538.560	9.742	48.560	58.301	-15.699	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 15:18**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5180MHz**

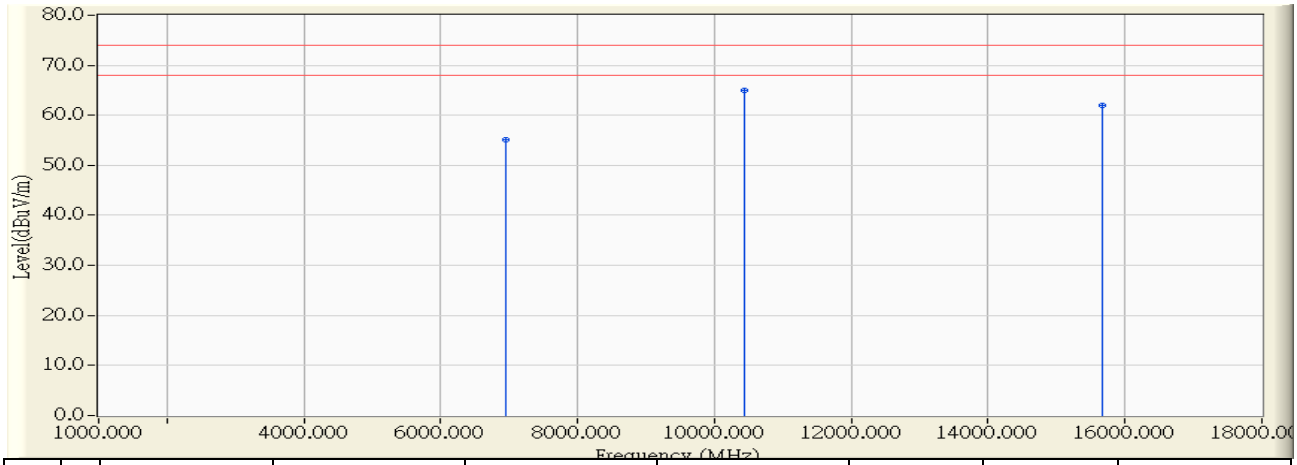


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10361.620	8.537	41.980	50.517	-3.483	54.000	AVERAGE
2		15539.920	9.739	34.620	44.360	-9.640	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 15:25**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5220MHz**

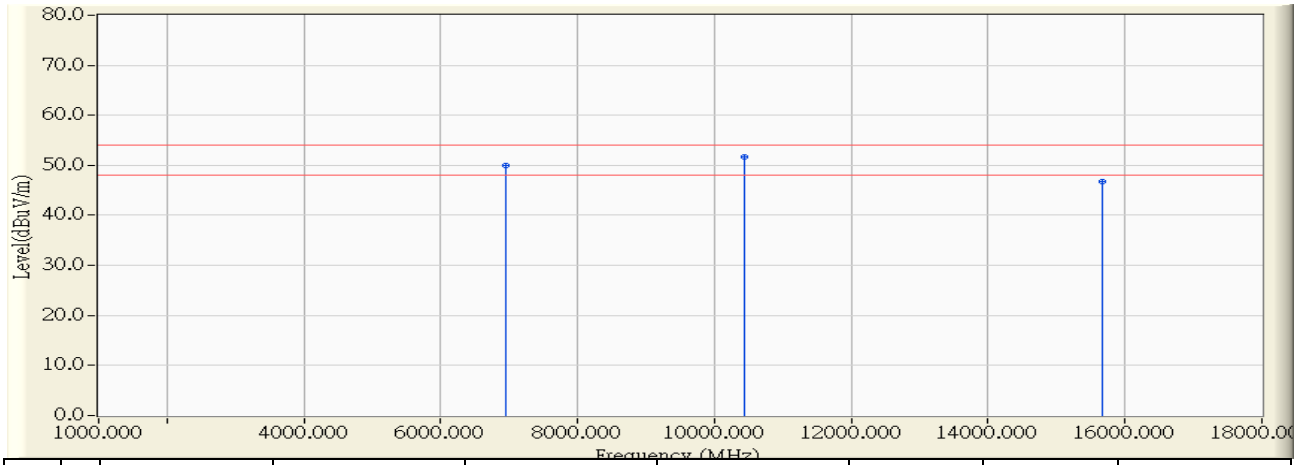


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6960.060	5.329	49.770	55.098	-18.902	74.000	PEAK
2	*	10441.780	9.092	55.870	64.962	-9.038	74.000	PEAK
3		15663.000	9.631	52.320	61.951	-12.049	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 15:27**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5220MHz**

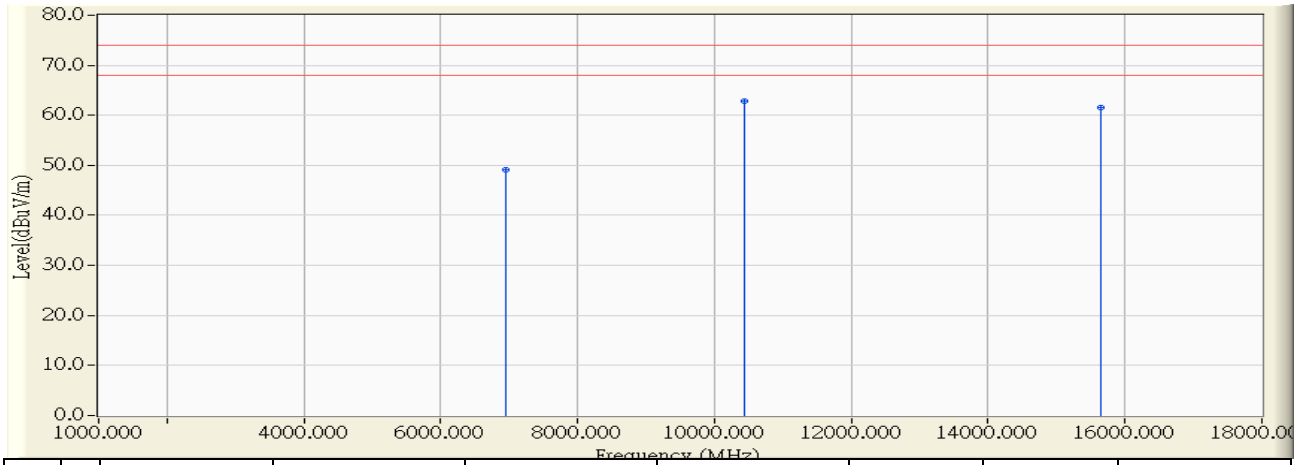


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6960.040	5.328	44.750	50.078	-3.922	54.000	AVERAGE
2	*	10441.340	9.093	42.630	51.723	-2.277	54.000	AVERAGE
3		15662.180	9.632	37.210	46.842	-7.158	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 15:35**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5220MHz**

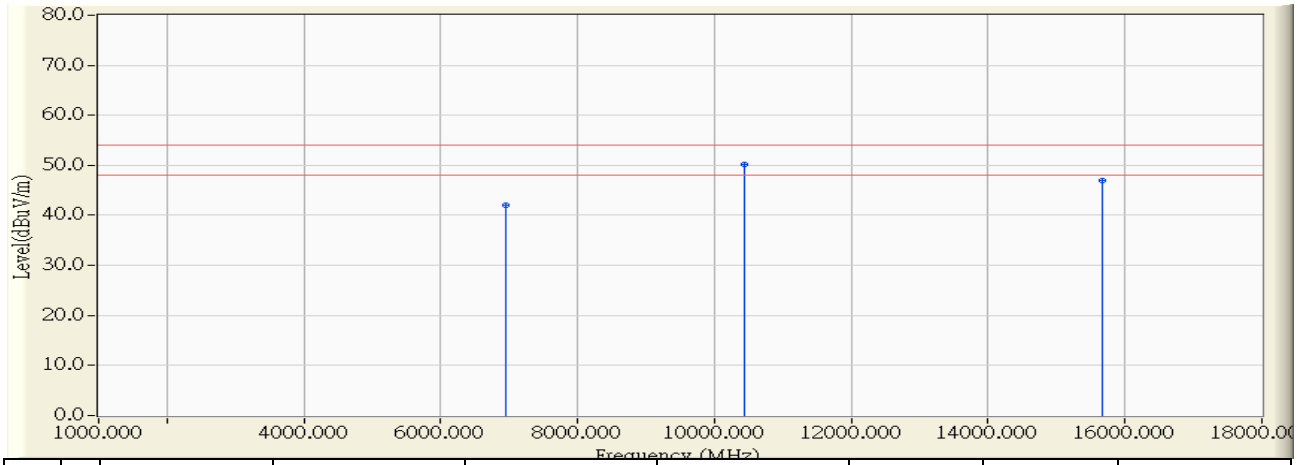


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6960.200	4.840	44.310	49.150	-24.850	74.000	PEAK
2	*	10441.700	8.551	54.210	62.761	-11.239	74.000	PEAK
3		15654.840	9.639	51.870	61.508	-12.492	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 15:38**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5220MHz**

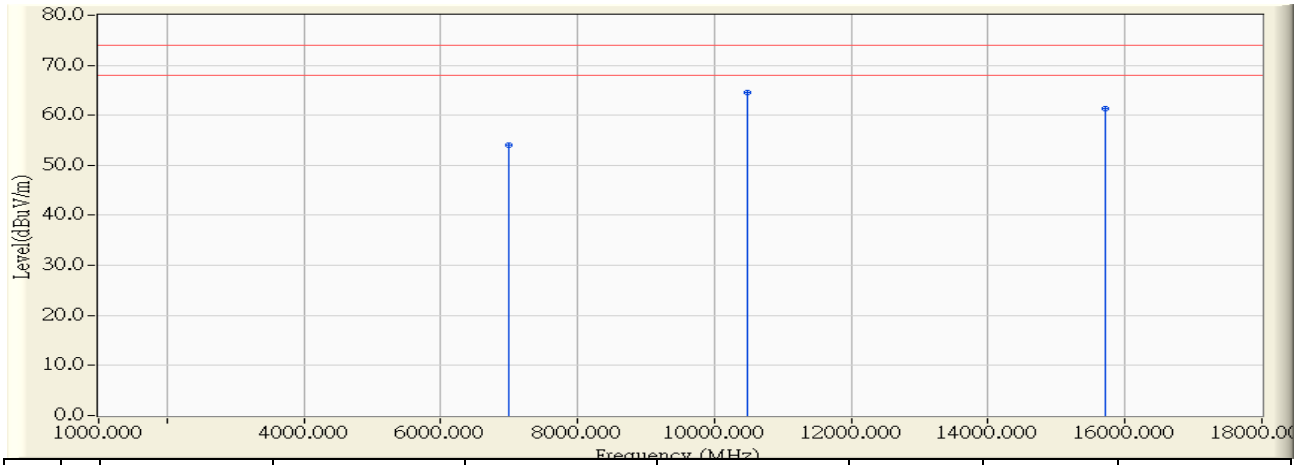


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6959.840	4.839	37.200	42.039	-11.961	54.000	AVERAGE
2	*	10441.640	8.551	41.590	50.141	-3.859	54.000	AVERAGE
3		15660.080	9.633	37.430	47.064	-6.936	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 15:45**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5240MHz**

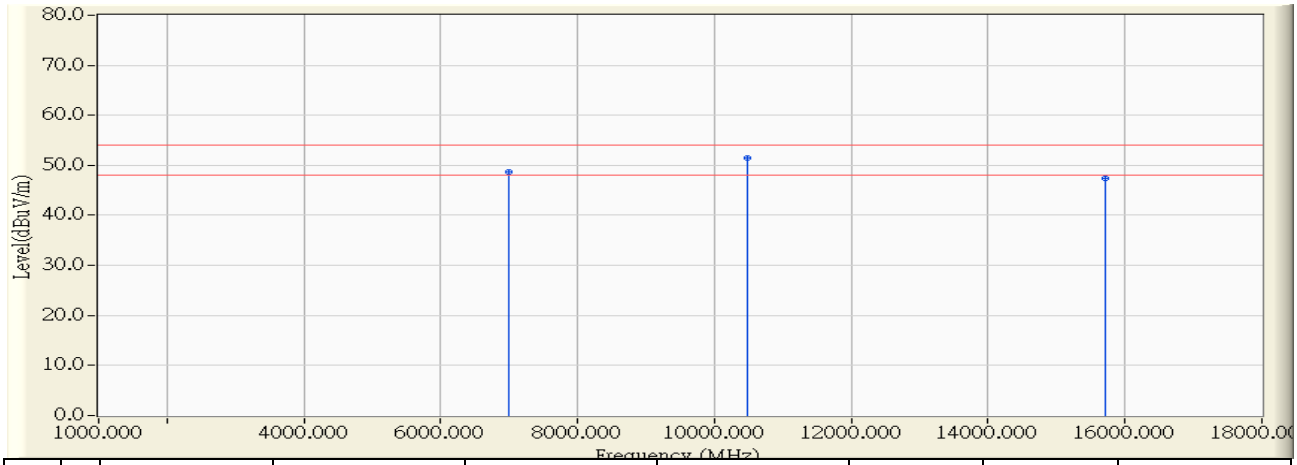


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6986.600	5.435	48.570	54.005	-19.995	74.000	PEAK
2	*	10481.780	9.072	55.420	64.491	-9.509	74.000	PEAK
3		15717.420	9.583	51.790	61.373	-12.627	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 15:50**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5240MHz**

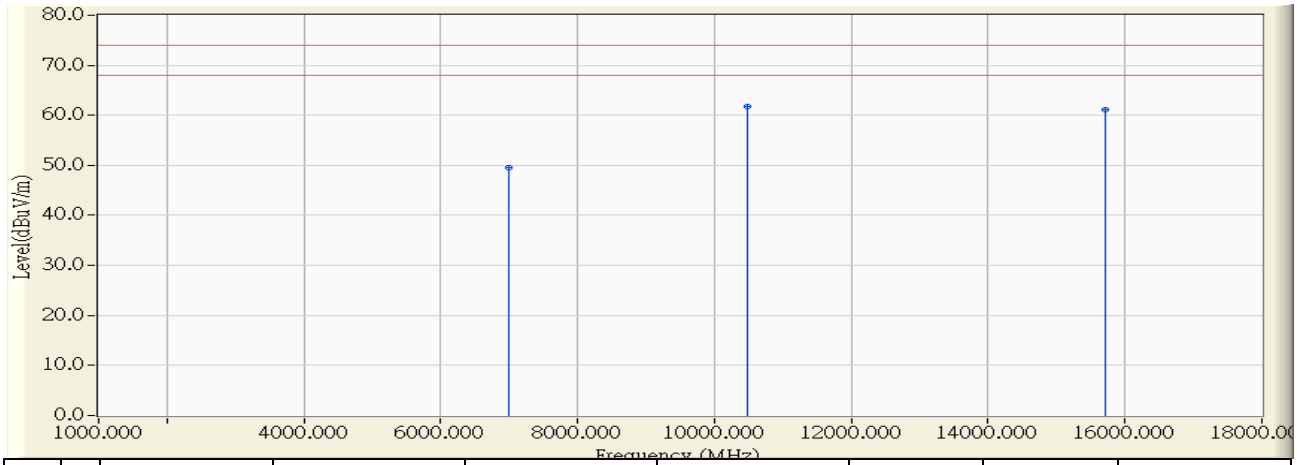


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6986.620	5.435	43.320	48.755	-5.245	54.000	AVERAGE
2	*	10481.880	9.072	42.310	51.381	-2.619	54.000	AVERAGE
3		15719.540	9.581	37.910	47.491	-6.509	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 15:59**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5240MHz**

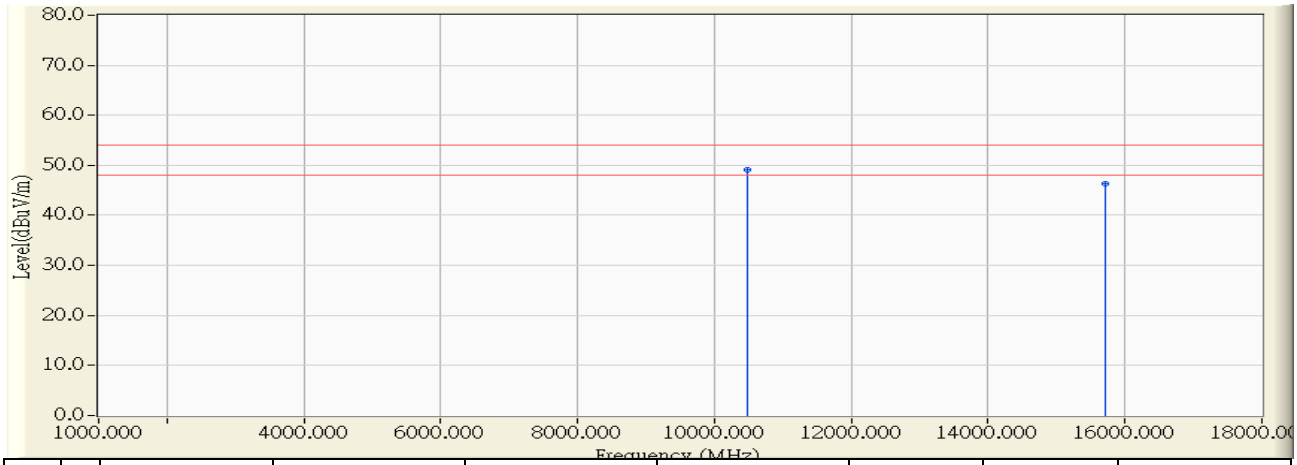


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6986.660	4.935	44.540	49.475	-24.525	74.000	PEAK
2	*	10479.880	8.568	53.210	61.778	-12.222	74.000	PEAK
3		15714.740	9.586	51.540	61.126	-12.874	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 16:05**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5240MHz**

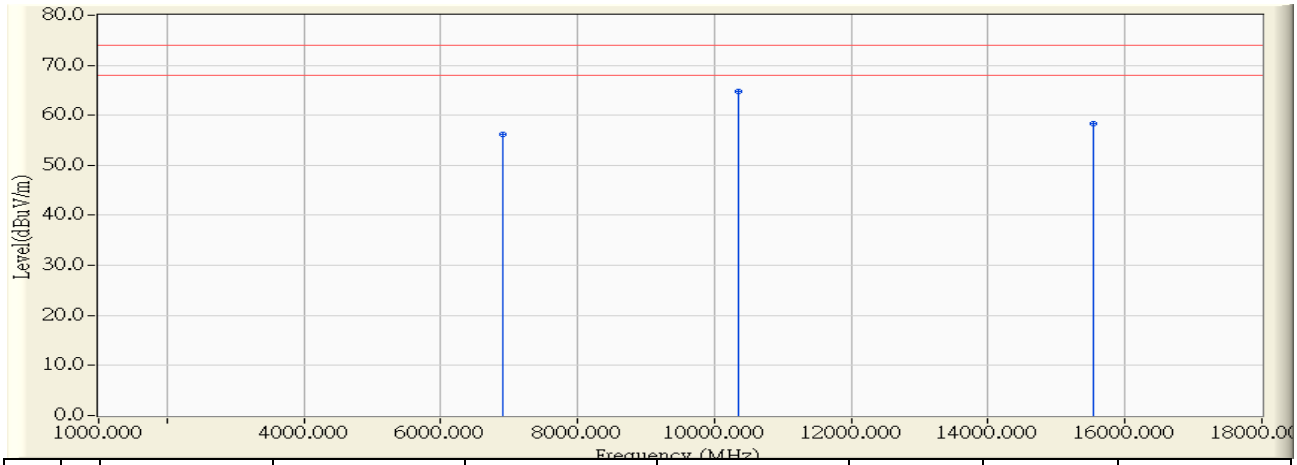


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10481.860	8.571	40.580	49.150	-4.850	54.000	AVERAGE
2		15719.980	9.580	36.750	46.331	-7.669	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 16:12**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5180MHz**

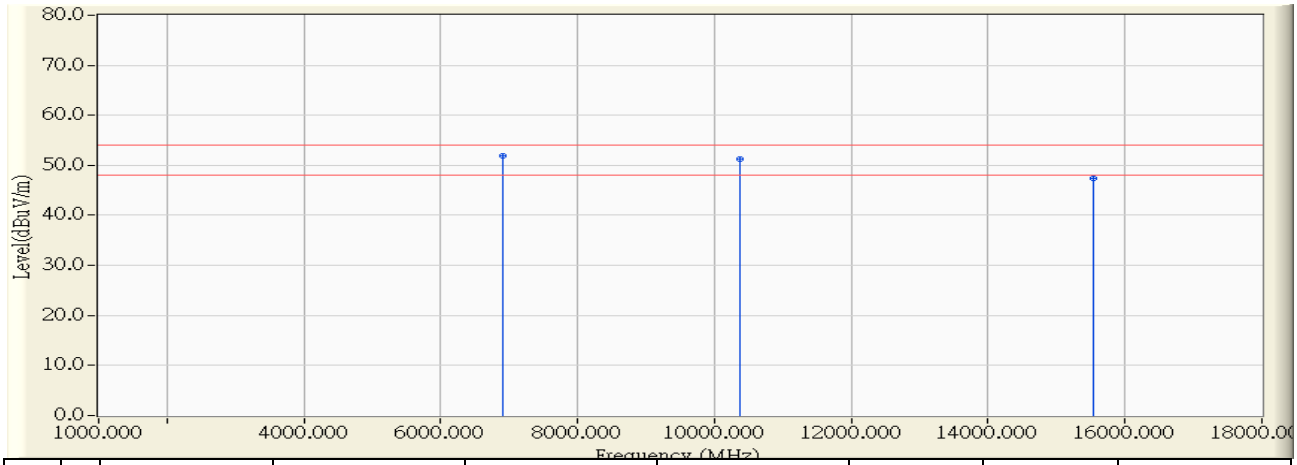


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6907.030	5.097	51.160	56.257	-17.743	74.000	PEAK
2	*	10357.820	9.162	55.630	64.792	-9.208	74.000	PEAK
3		15532.720	9.747	48.680	58.426	-15.574	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 16:18**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5180MHz**

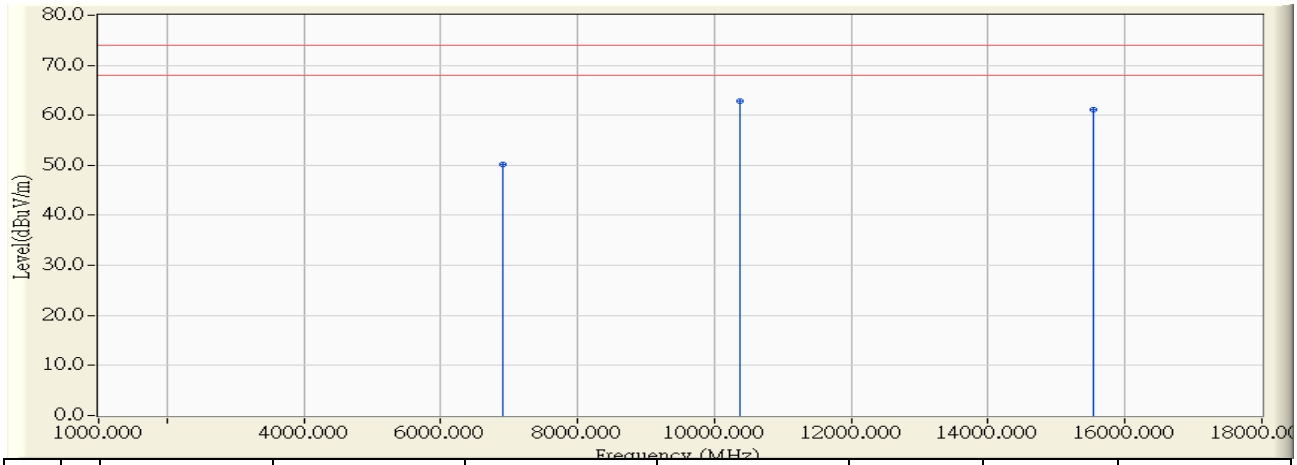


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	6907.030	5.097	46.860	51.957	-2.043	54.000	AVERAGE
2		10361.160	9.159	42.190	51.349	-2.651	54.000	AVERAGE
3		15537.260	9.742	37.620	47.362	-6.638	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 16:27**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5180MHz**

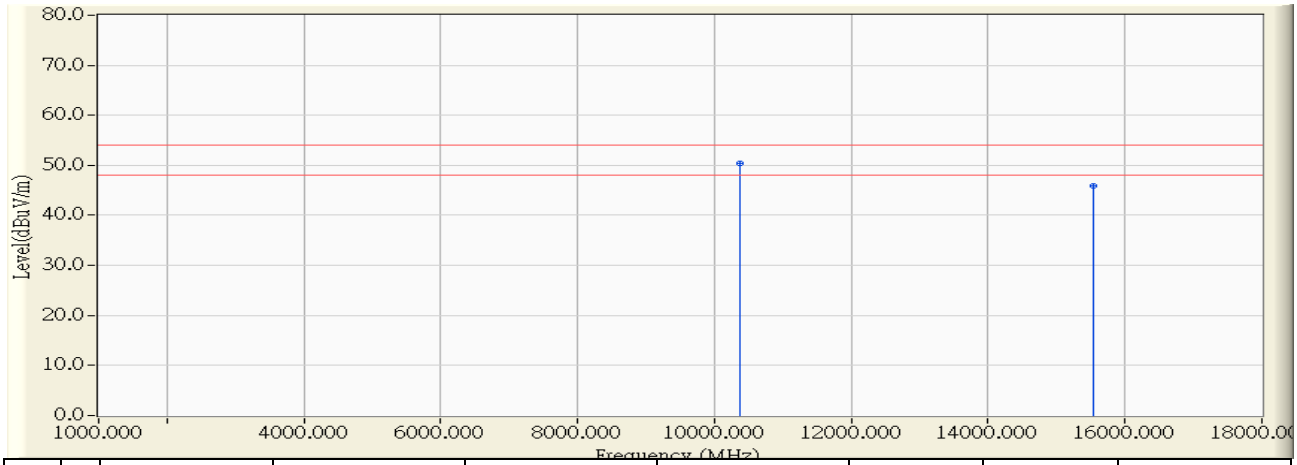


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6906.990	4.635	45.480	50.115	-23.885	74.000	PEAK
2	*	10361.320	8.537	54.410	62.947	-11.053	74.000	PEAK
3		15533.400	9.745	51.440	61.186	-12.814	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 16:36**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5180MHz**

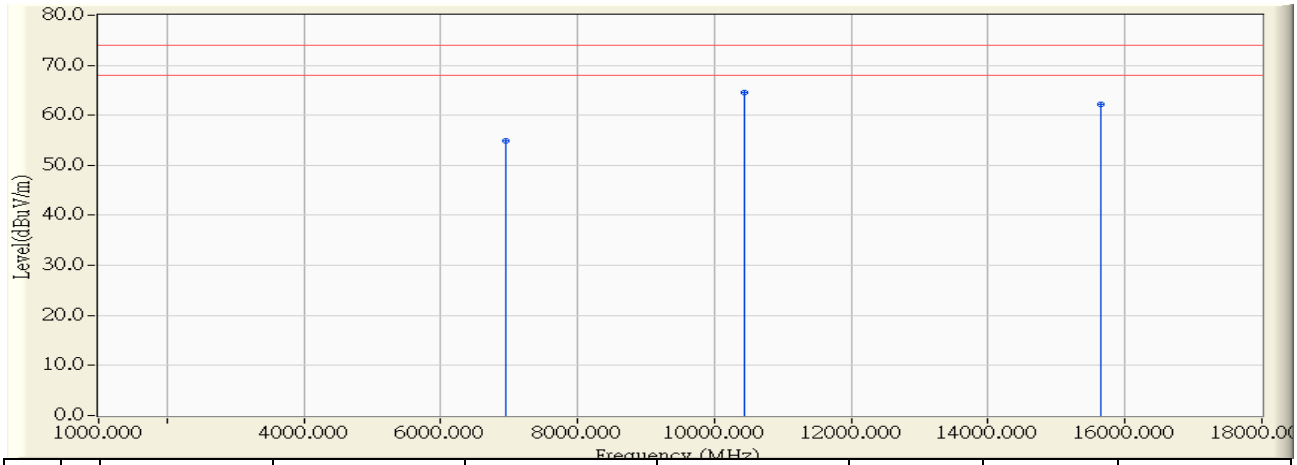


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10361.400	8.537	41.760	50.297	-3.703	54.000	AVERAGE
2		15536.260	9.743	36.110	45.853	-8.147	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 16:44**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5220MHz**

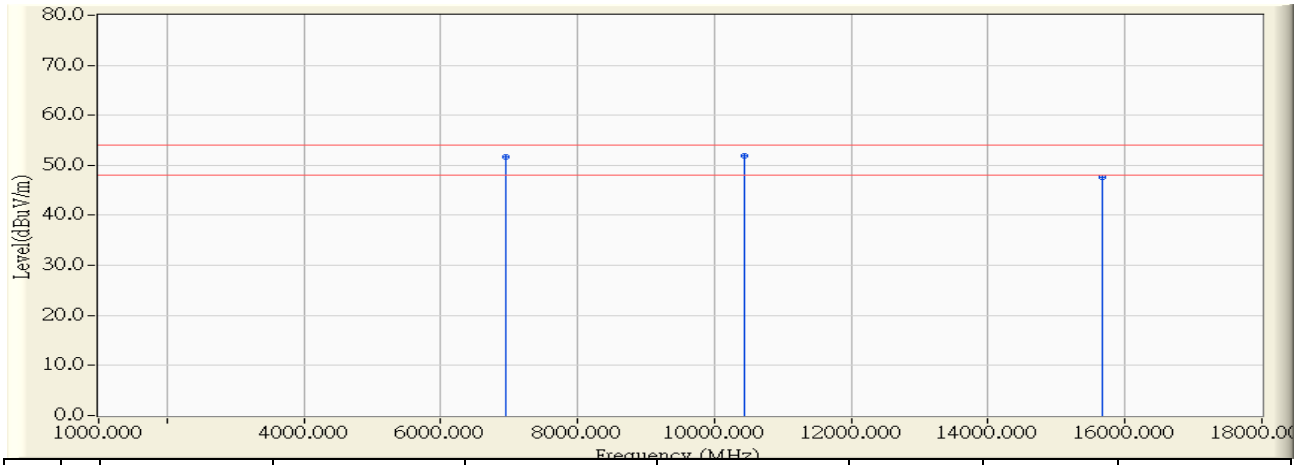


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6960.520	5.329	49.500	54.830	-19.170	74.000	PEAK
2	*	10438.020	9.095	55.400	64.495	-9.505	74.000	PEAK
3		15653.320	9.639	52.530	62.170	-11.830	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 16:53**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5220MHz**

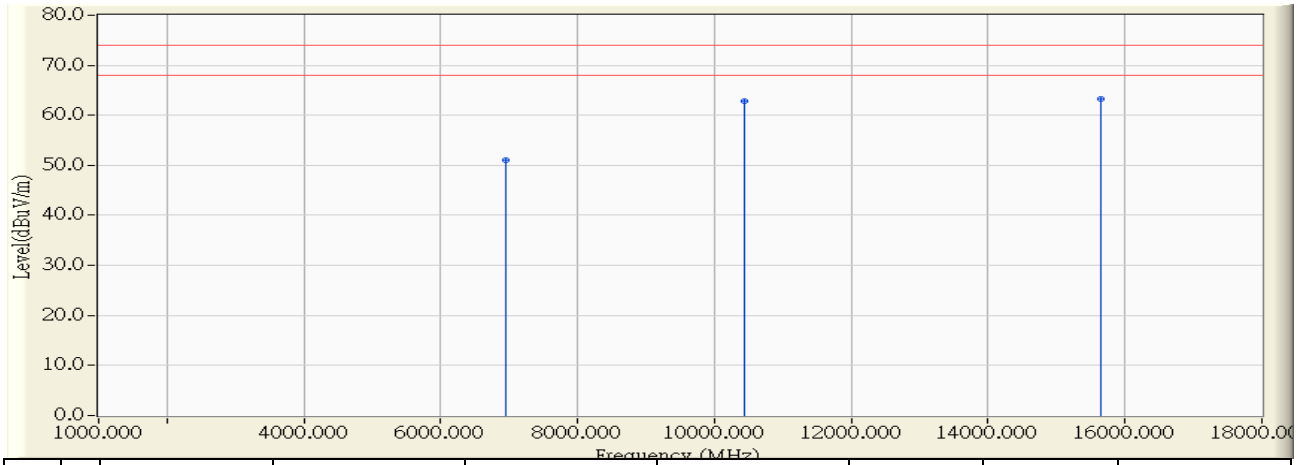


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6960.360	5.330	46.440	51.769	-2.231	54.000	AVERAGE
2	*	10441.200	9.093	42.860	51.953	-2.047	54.000	AVERAGE
3		15657.140	9.636	38.020	47.656	-6.344	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 17:04**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5220MHz**

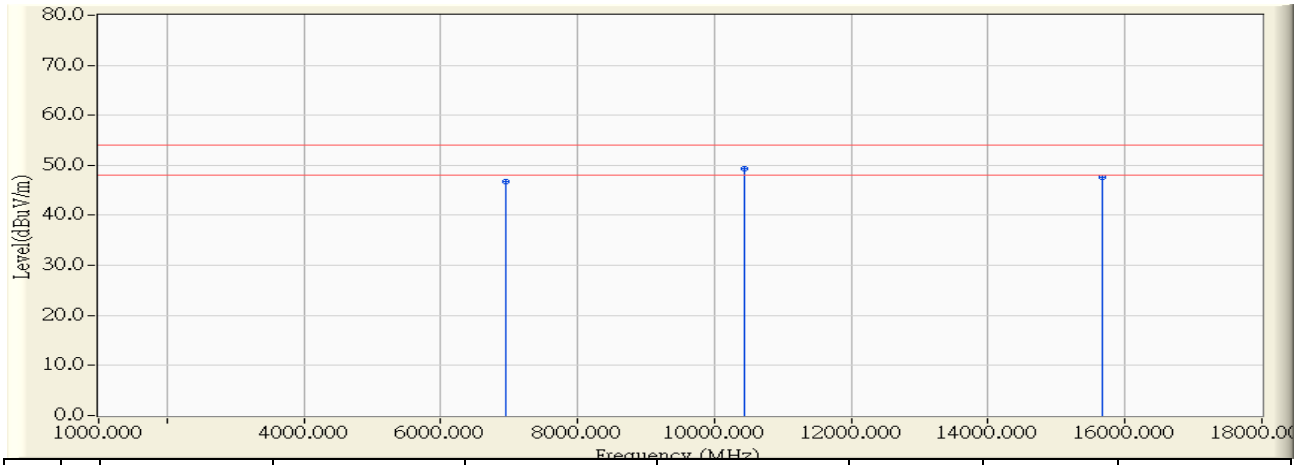


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6960.400	4.841	46.200	51.041	-22.959	74.000	PEAK
2		10438.540	8.550	54.220	62.770	-11.230	74.000	PEAK
3	*	15653.320	9.639	53.630	63.270	-10.730	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 17:08**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5220MHz**

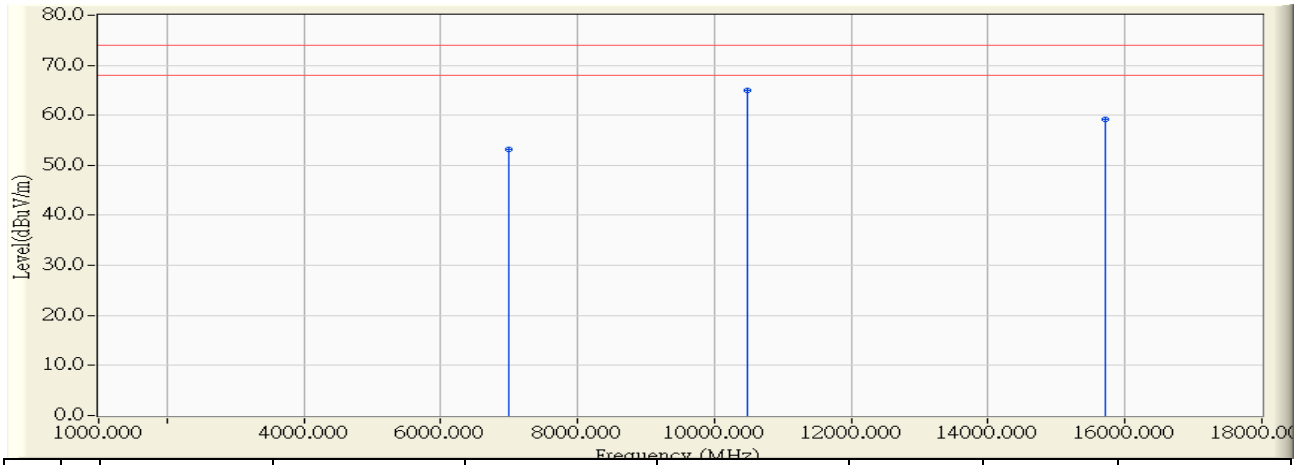


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6960.380	4.841	41.980	46.821	-7.179	54.000	AVERAGE
2	*	10440.940	8.551	40.860	49.411	-4.589	54.000	AVERAGE
3		15658.360	9.635	37.960	47.595	-6.405	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 17:15**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5240MHz**

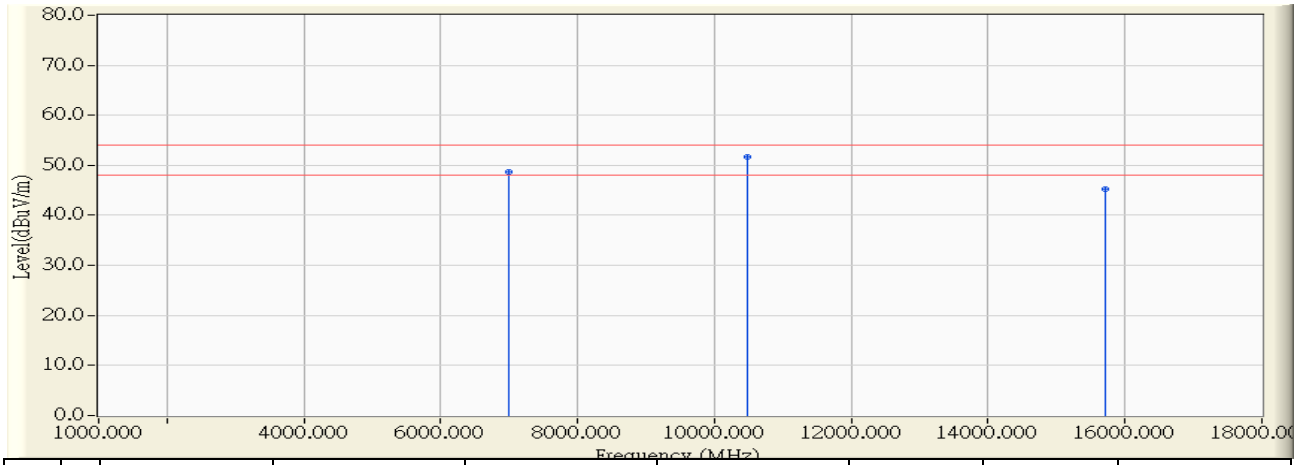


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6986.715	5.435	47.700	53.135	-20.865	74.000	PEAK
2	*	10481.060	9.070	55.840	64.911	-9.089	74.000	PEAK
3		15716.920	9.584	49.610	59.194	-14.806	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 17:19**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5240MHz**

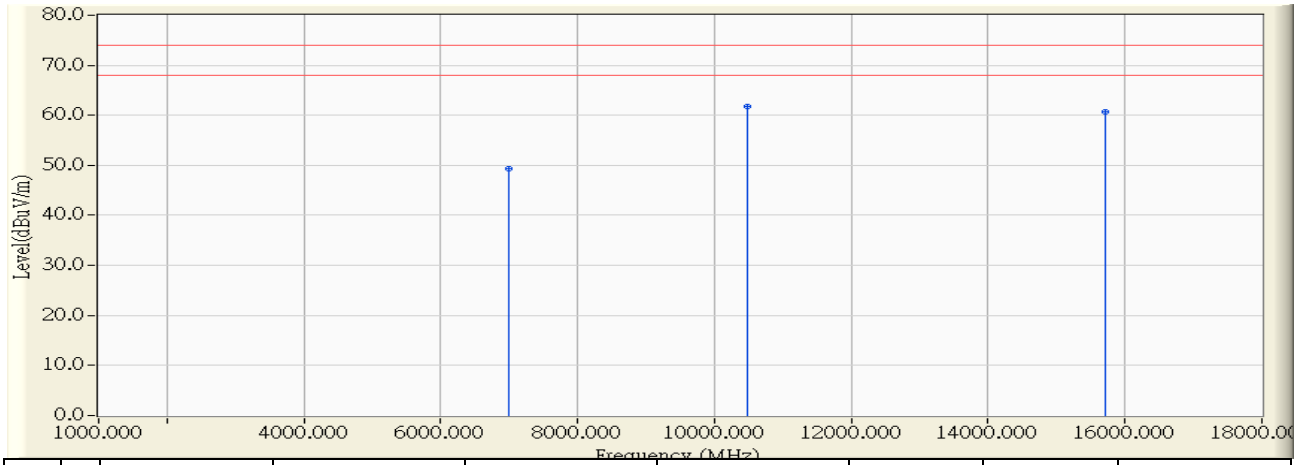


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6986.675	5.435	43.160	48.595	-5.405	54.000	AVERAGE
2	*	10481.500	9.072	42.640	51.711	-2.289	54.000	AVERAGE
3		15719.480	9.581	35.580	45.161	-8.839	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 17:22**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5240MHz**

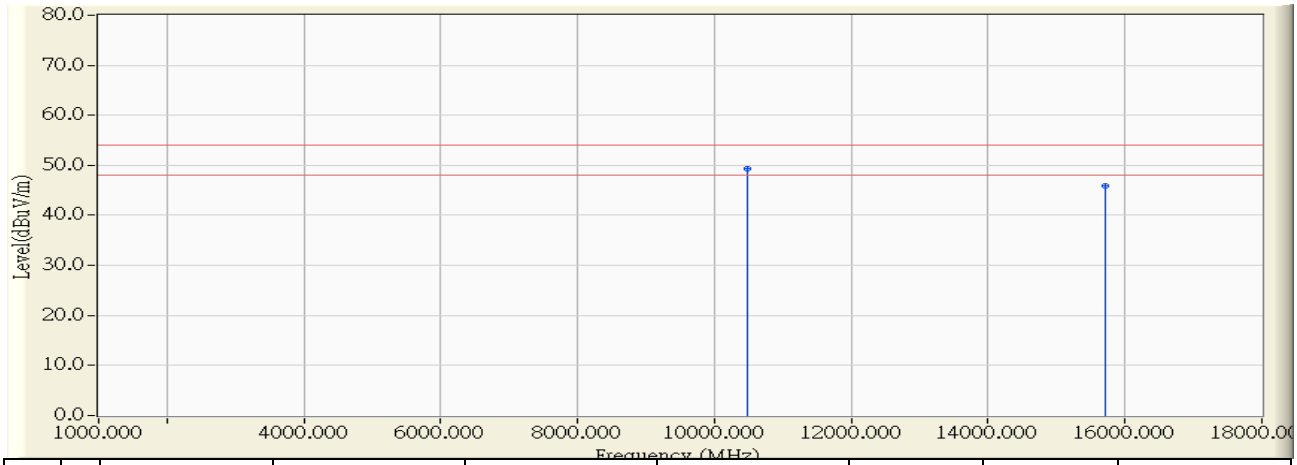


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6986.800	4.936	44.320	49.256	-24.744	74.000	PEAK
2	*	10478.525	8.566	53.250	61.816	-12.184	74.000	PEAK
3		15719.150	9.581	51.150	60.732	-13.268	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 17:26**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5240MHz**

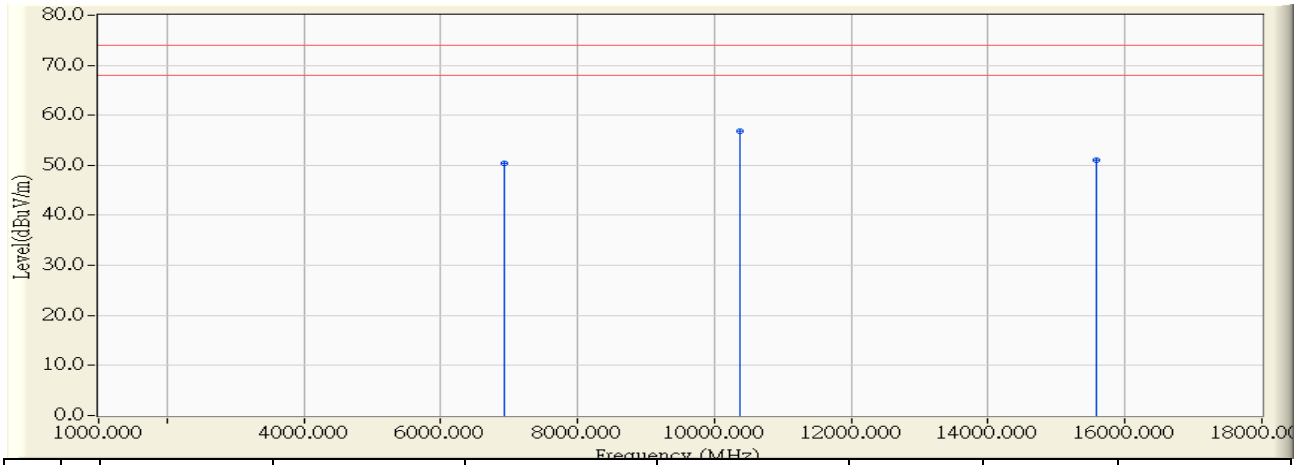


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10480.000	8.568	40.840	49.408	-4.592	54.000	AVERAGE
2		15717.675	9.584	36.420	46.003	-7.997	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 17:33**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40M)_5190MHz**

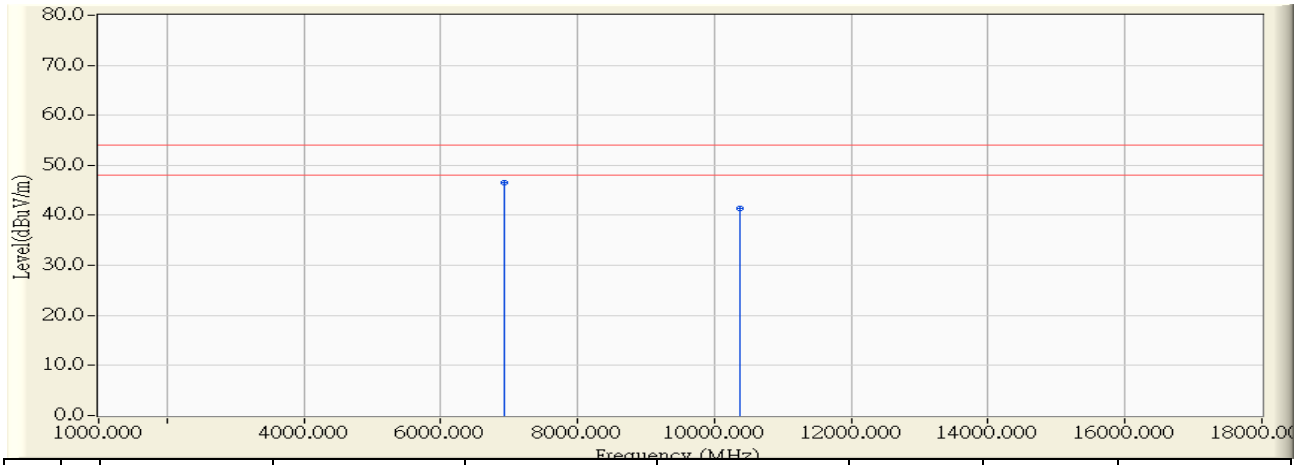


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6919.980	5.154	45.300	50.453	-23.547	74.000	PEAK
2	*	10377.850	9.145	47.600	56.745	-17.255	74.000	PEAK
3		15576.075	9.709	41.280	50.988	-23.012	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 17:40**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40M)_5190MHz**

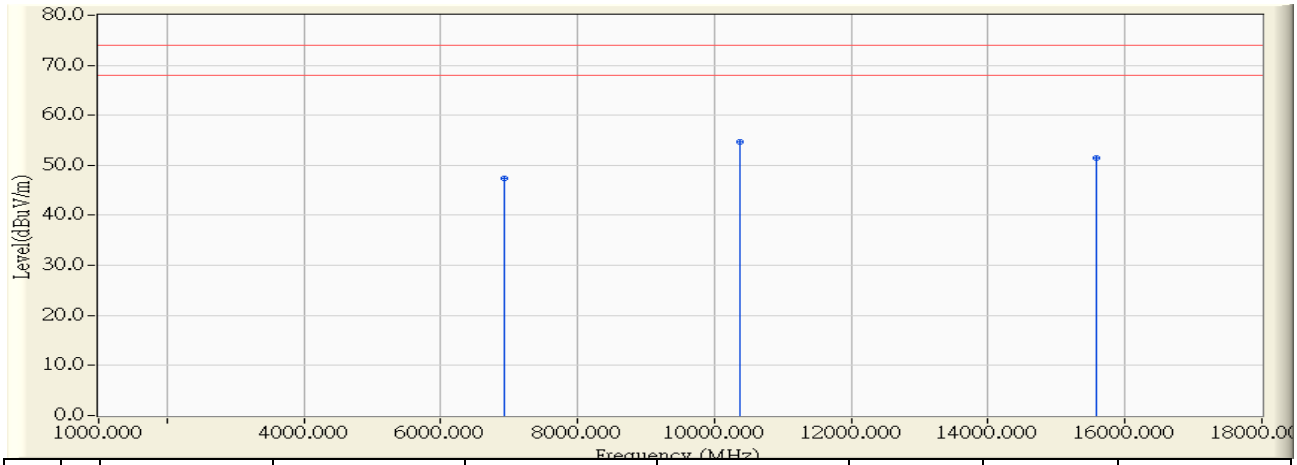


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	6920.210	5.155	41.320	46.474	-7.526	54.000	AVERAGE
2		10379.225	9.144	32.240	41.384	-12.616	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 17:46**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40M)_5190MHz**

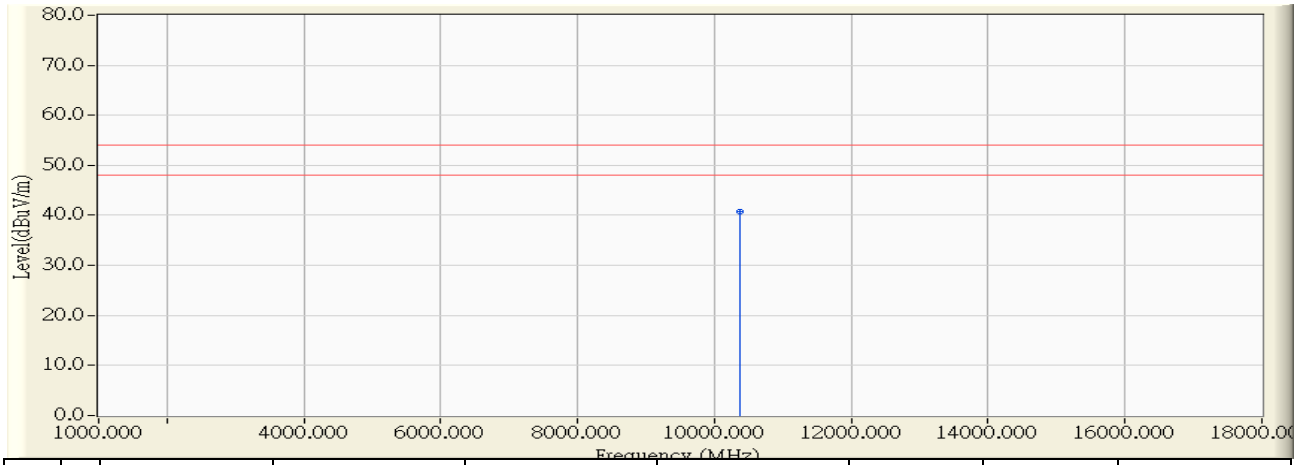


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6920.150	4.686	42.740	47.426	-26.574	74.000	PEAK
2	*	10381.550	8.541	46.240	54.781	-19.219	74.000	PEAK
3		15576.400	9.708	41.760	51.468	-22.532	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 17:50**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40M)_5190MHz**

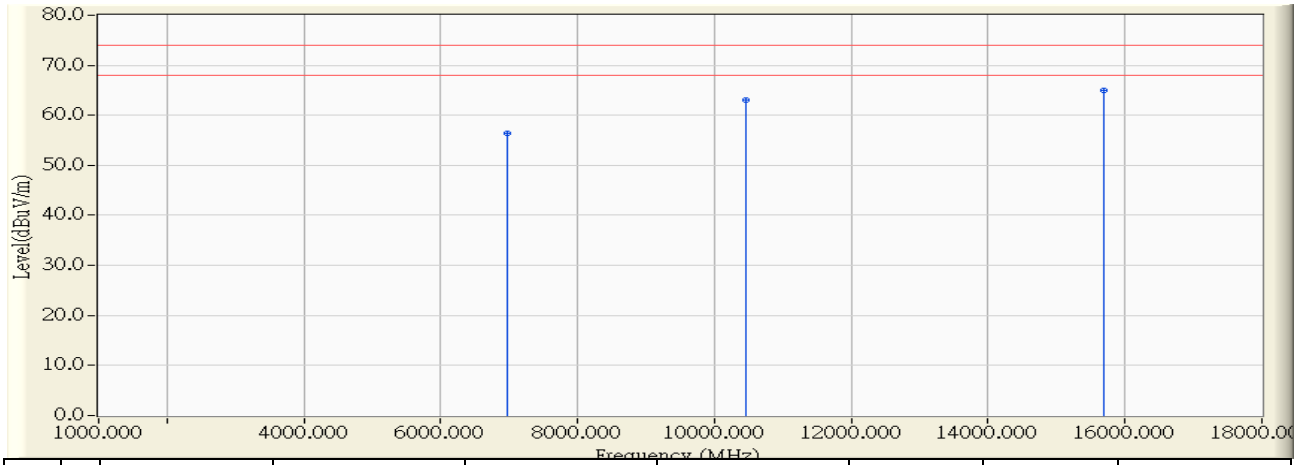


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10381.300	8.541	32.240	40.781	-13.219	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 18:00**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40M)_5230MHz**

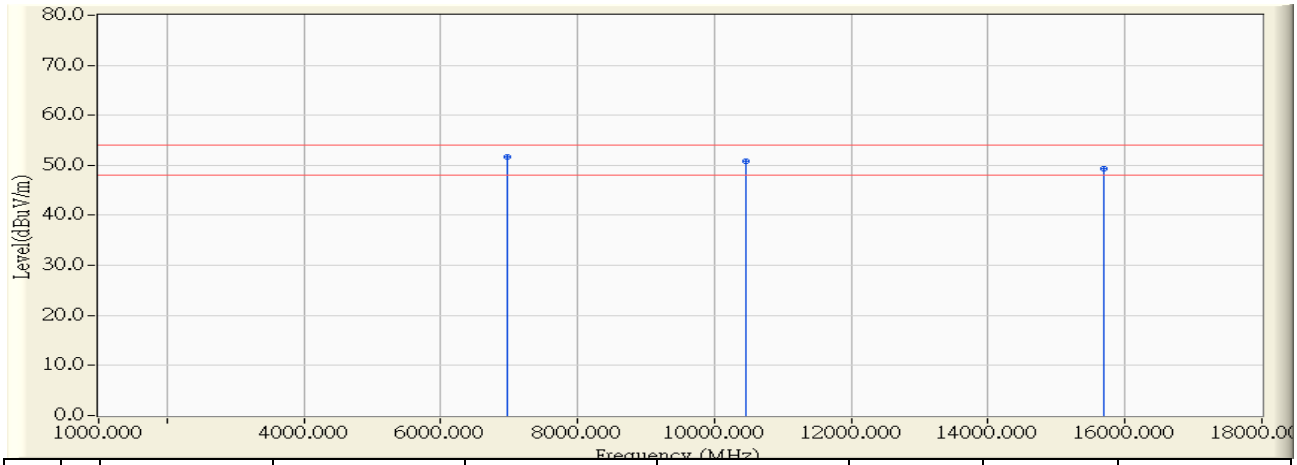


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6973.700	5.387	51.090	56.477	-17.523	74.000	PEAK
2		10458.150	9.079	53.950	63.029	-10.971	74.000	PEAK
3	*	15696.350	9.602	55.290	64.892	-9.108	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 18:06**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40M)_5230MHz**

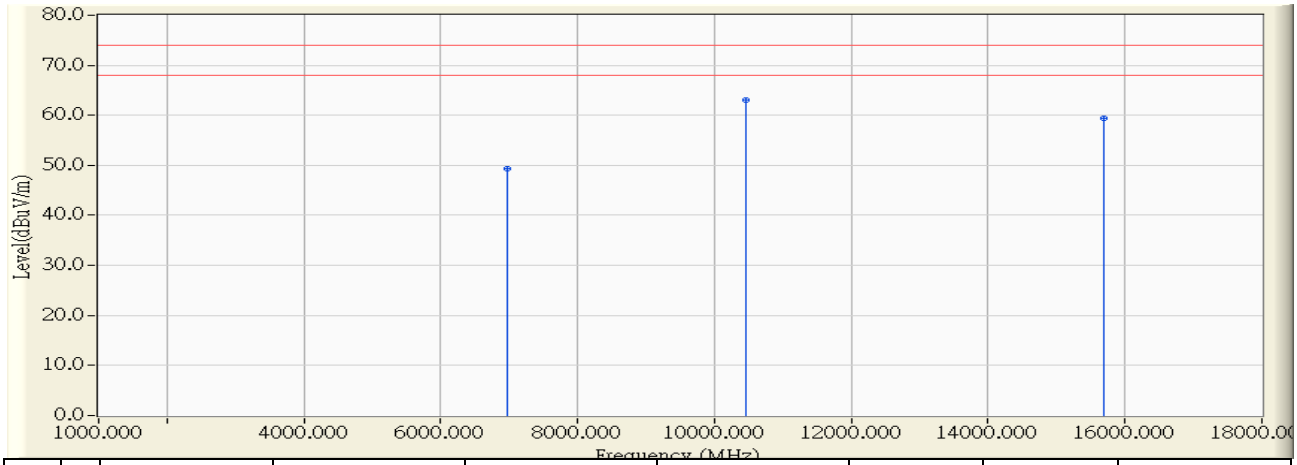


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	6973.680	5.387	46.350	51.736	-2.264	54.000	AVERAGE
2		10453.950	9.082	41.650	50.732	-3.268	54.000	AVERAGE
3		15692.850	9.605	39.650	49.255	-4.745	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 18:13**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40M)_5230MHz**

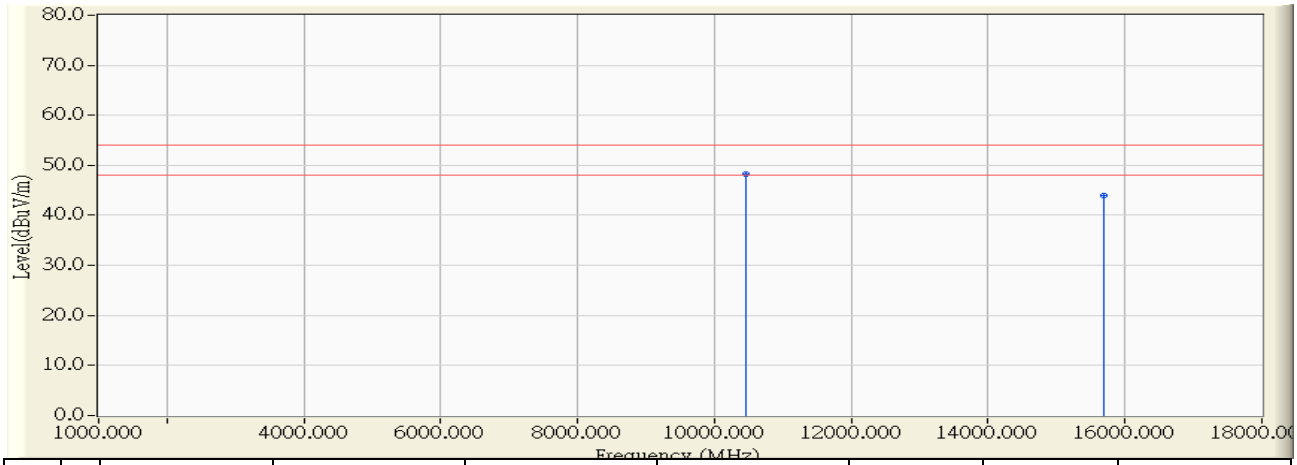


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		6973.440	4.891	44.420	49.310	-24.690	74.000	PEAK
2	*	10458.250	8.554	54.430	62.984	-11.016	74.000	PEAK
3		15696.450	9.602	49.850	59.452	-14.548	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 18:16**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40M)_5230MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	10453.300	8.553	39.810	48.363	-5.637	54.000	AVERAGE
2		15688.650	9.608	34.430	44.039	-9.961	54.000	AVERAGE

Note:

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

7. Band Edge

7.1. Test Equipment

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

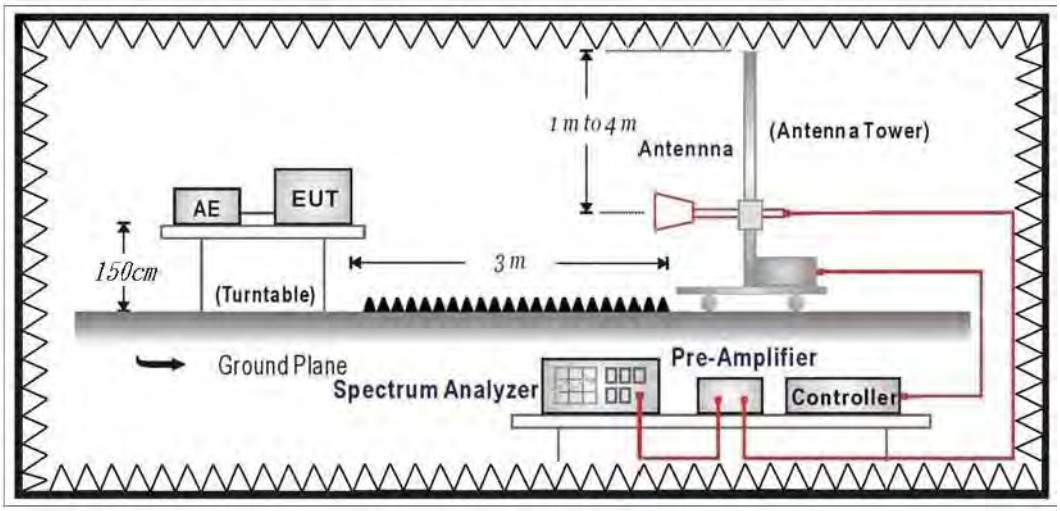
Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzbeck	BBHA 9120	D743	2017/01/14
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/12/24
k Type Cable	Huber+Suhner	SF 102	25623/2	2017/01/11

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

7.2. Test Setup

RF Radiated Measurement:



7.3. Limits

➢ General Radiated Emission Limits

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

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

Remark:

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

➢ Unwanted Emission out of the restricted bands Limits

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

Remark:

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

7.4. Test Procedure

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

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

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10:2013 on radiated measurement.

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

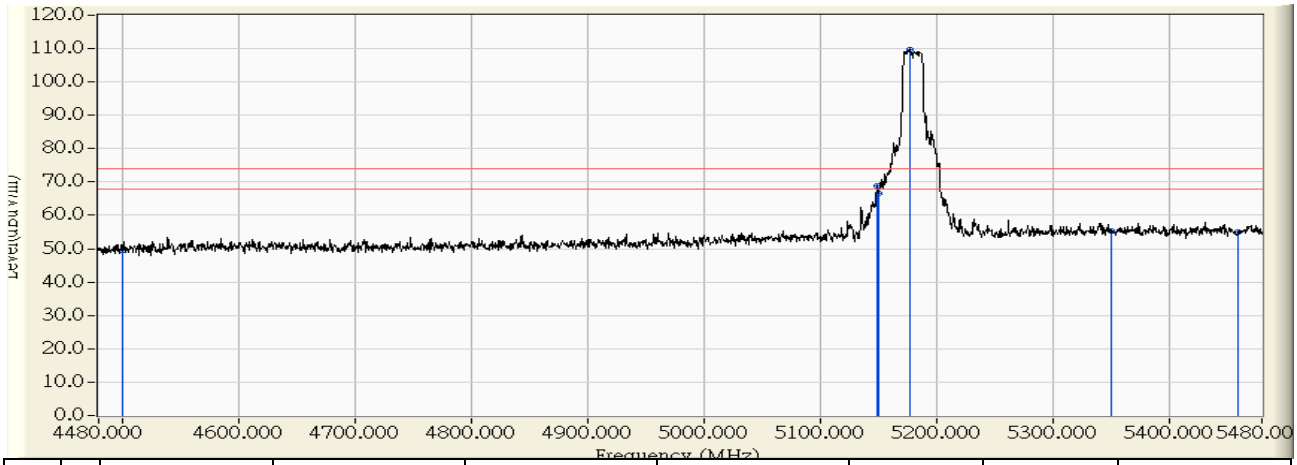
7.5. Uncertainty

The measurement uncertainty is defined as ± 3.65dB

7.6. Test Result

Radiated is defined as

Site : CB1	**Time : 2016/02/01 - 13:51**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5180MHz**

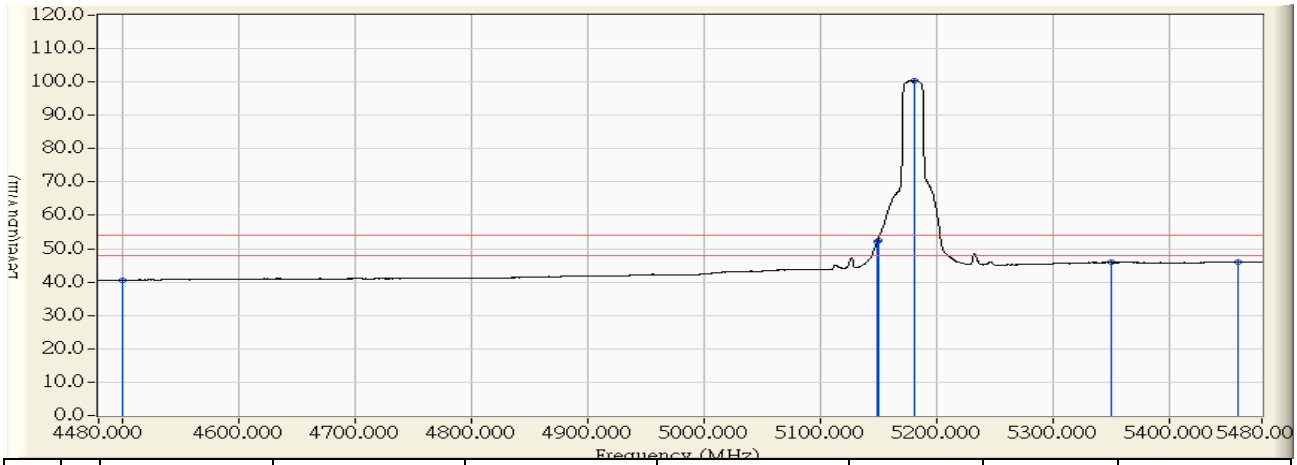


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-3.428	52.836	49.408	-24.592	74.000	PEAK
2		5149.000	-0.746	69.717	68.971	-5.029	74.000	PEAK
3		5150.000	-0.737	67.394	66.656	-7.344	74.000	PEAK
4	*	5178.000	-0.504	110.127	109.623	35.623	74.000	PEAK
5		5350.000	0.934	54.270	55.204	-18.796	74.000	PEAK
6		5460.000	1.853	53.126	54.979	-19.021	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 13:52**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5180MHz**

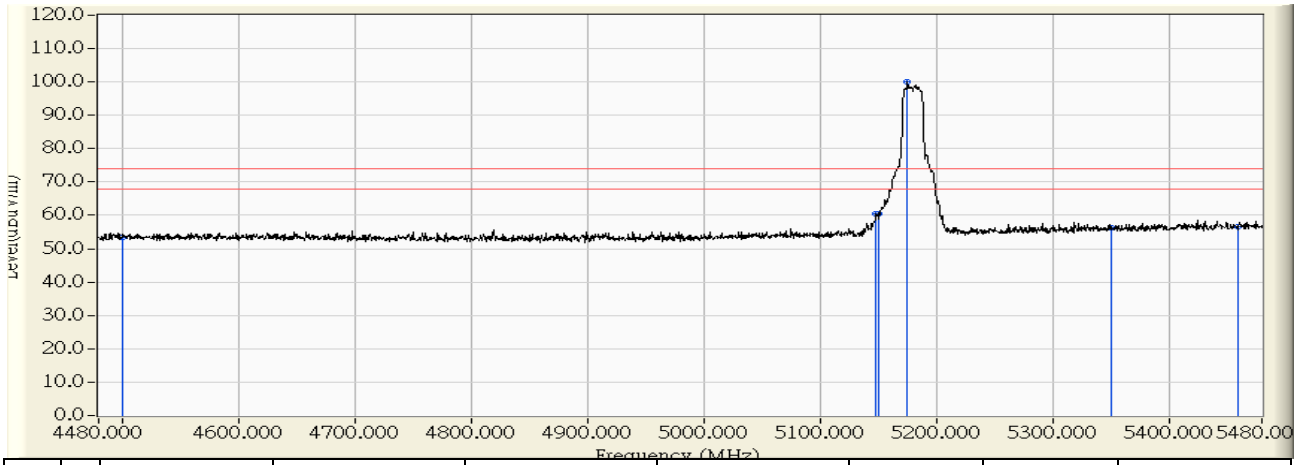


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-3.428	44.004	40.576	-13.424	54.000	AVERAGE
2		5149.500	-0.741	52.862	52.120	-1.880	54.000	AVERAGE
3		5150.000	-0.737	53.167	52.429	-1.571	54.000	AVERAGE
4	*	5181.500	-0.475	100.972	100.498	46.498	54.000	AVERAGE
5		5350.000	0.934	44.922	45.856	-8.144	54.000	AVERAGE
6		5460.000	1.853	44.054	45.907	-8.093	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 13:58**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11a_5180MHz**

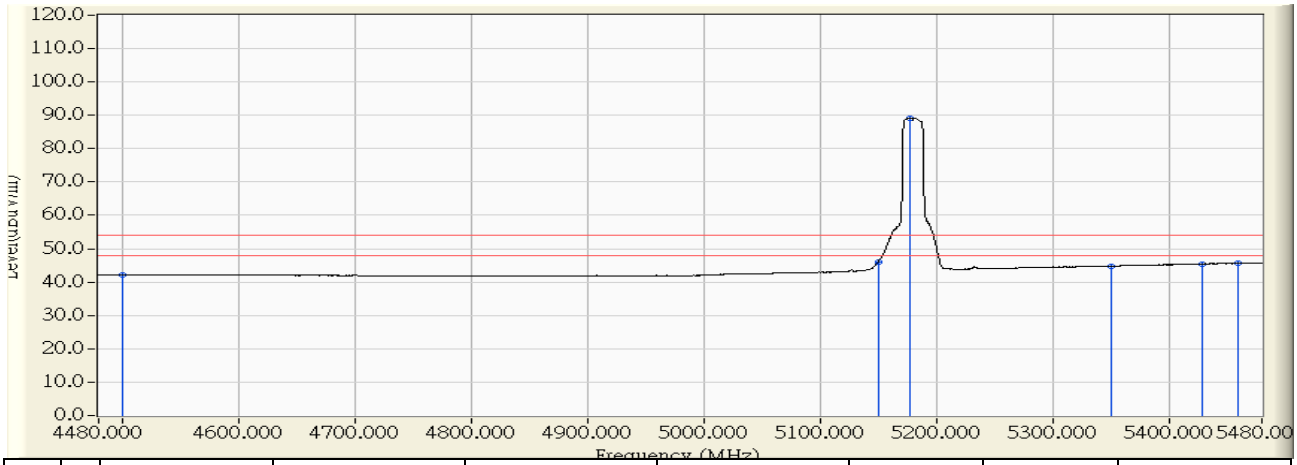


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.721	55.170	53.449	-20.551	74.000	PEAK
2		5148.000	-0.336	60.831	60.494	-13.506	74.000	PEAK
3		5150.000	-0.321	60.669	60.348	-13.652	74.000	PEAK
4	*	5175.000	-0.124	100.216	100.091	26.091	74.000	PEAK
5		5350.000	1.250	54.932	56.182	-17.818	74.000	PEAK
6		5460.000	2.114	54.454	56.568	-17.432	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 14:00**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_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	-1.721	43.858	42.137	-11.863	54.000	AVERAGE
2		5150.000	-0.321	46.366	46.045	-7.955	54.000	AVERAGE
3	*	5177.000	-0.109	89.373	89.264	35.264	54.000	AVERAGE
4		5350.000	1.250	43.504	44.754	-9.246	54.000	AVERAGE
5		5428.500	1.867	43.570	45.437	-8.563	54.000	AVERAGE
6		5460.000	2.114	43.507	45.621	-8.379	54.000	AVERAGE

Note:

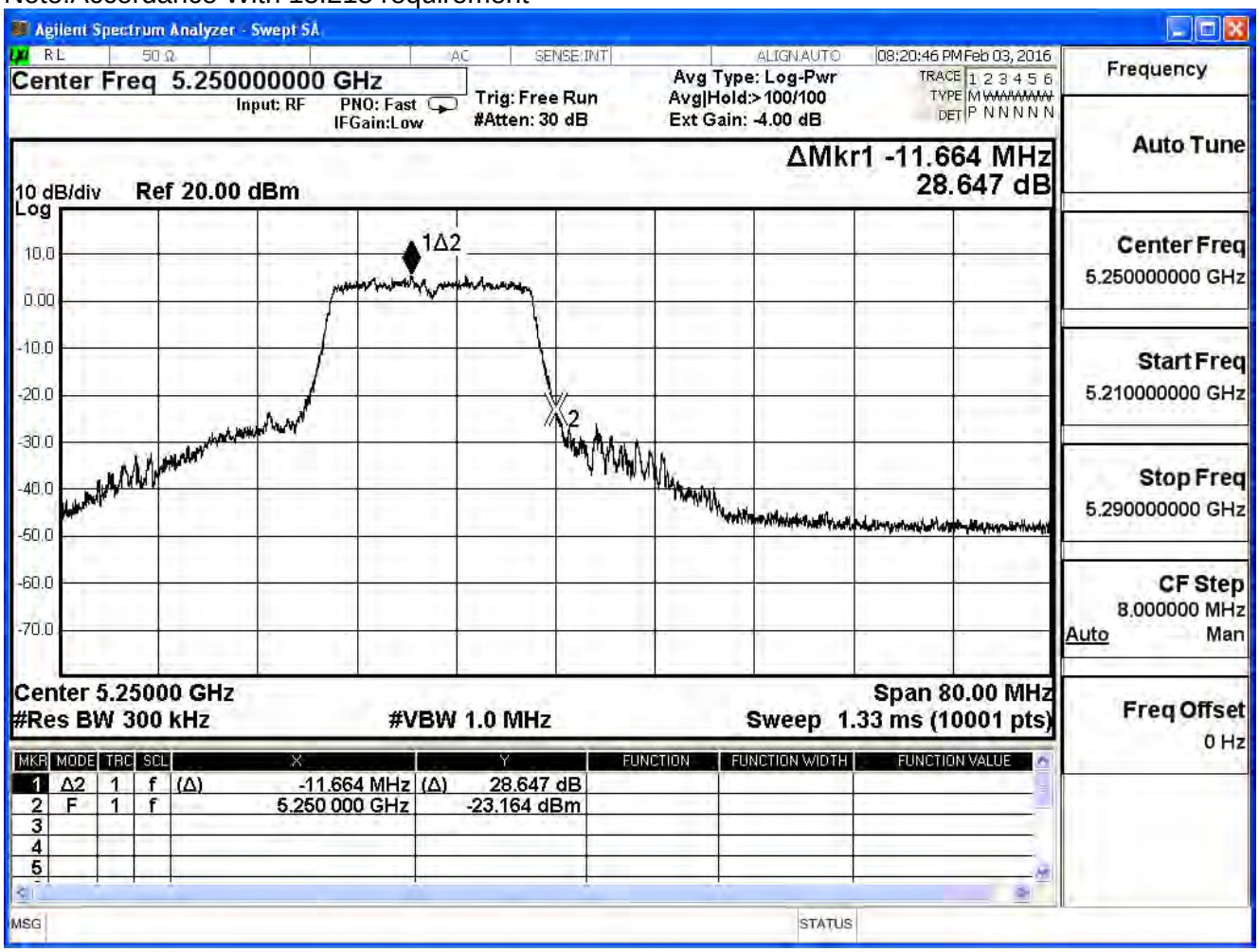
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading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

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Band edge Data		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

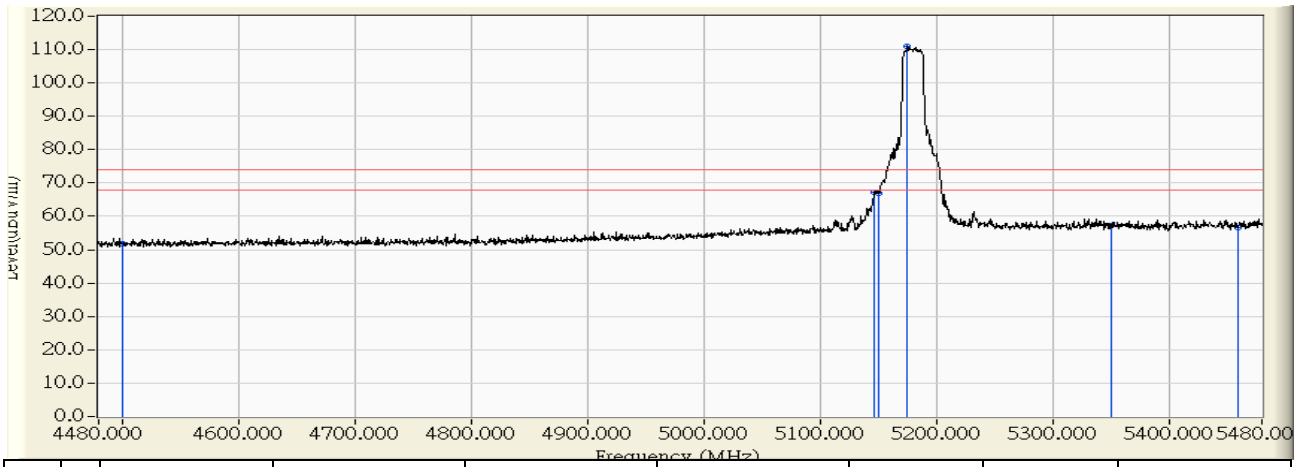
802.11a (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)
48	5240	28.647	>20

Note:Accordance With 15.215 requirement



Site : CB1	**Time : 2016/02/01 - 14:12**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5180MHz**

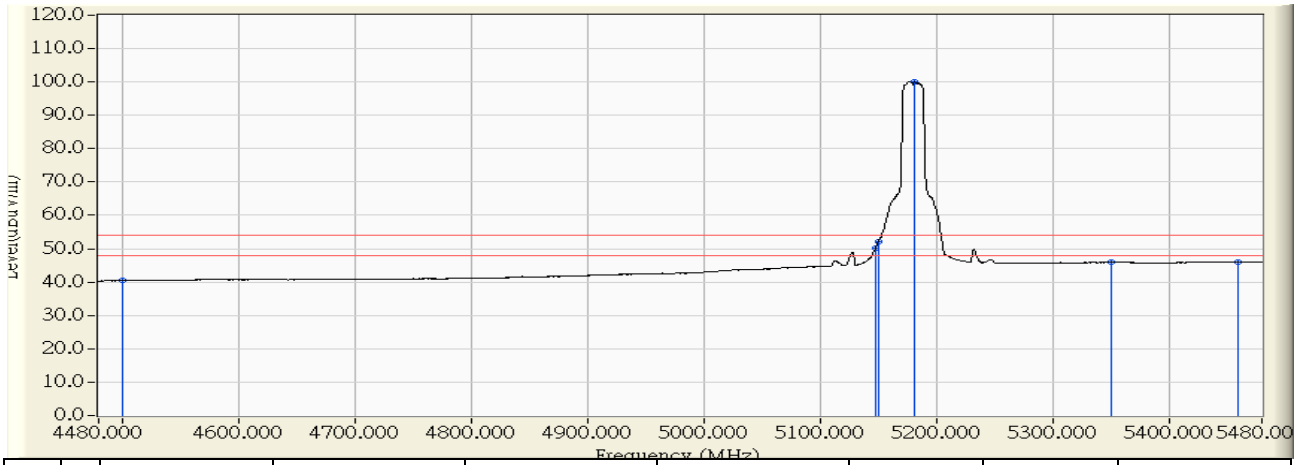


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-3.428	55.180	51.752	-22.248	74.000	PEAK
2		5147.000	-0.762	67.976	67.213	-6.787	74.000	PEAK
3		5150.000	-0.737	67.815	67.077	-6.923	74.000	PEAK
4	*	5175.500	-0.524	111.384	110.860	36.860	74.000	PEAK
5		5350.000	0.934	56.370	57.304	-16.696	74.000	PEAK
6		5460.000	1.853	54.836	56.689	-17.311	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 14:15**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5180MHz**

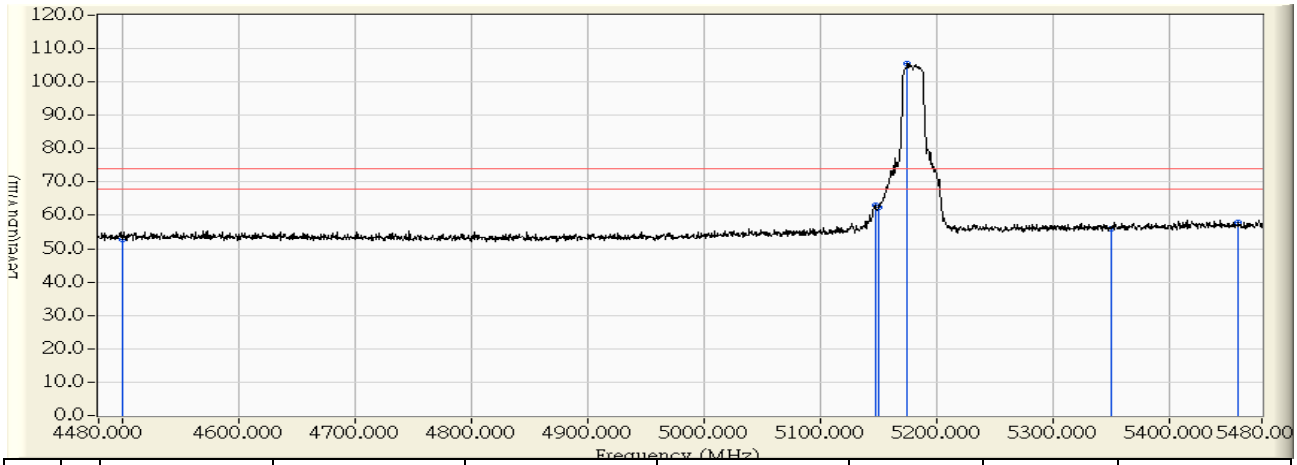


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-3.428	43.884	40.456	-13.544	54.000	AVERAGE
2		5148.000	-0.754	51.088	50.334	-3.666	54.000	AVERAGE
3		5150.000	-0.737	52.754	52.016	-1.984	54.000	AVERAGE
4	*	5181.500	-0.475	100.485	100.011	46.011	54.000	AVERAGE
5		5350.000	0.934	44.997	45.931	-8.069	54.000	AVERAGE
6		5460.000	1.853	44.034	45.887	-8.113	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 14:23**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(20M)_5180MHz**

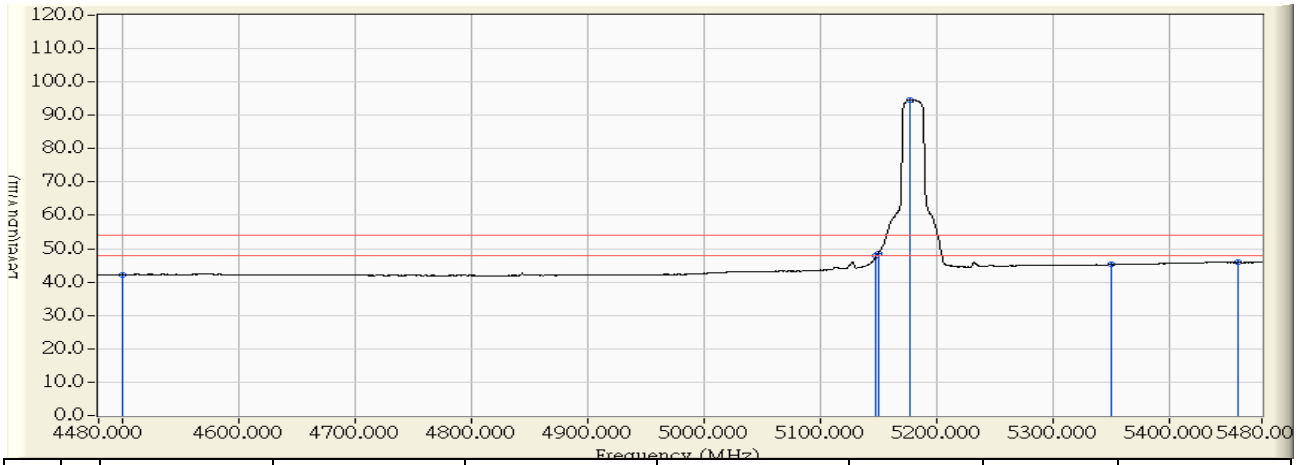


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.721	54.640	52.919	-21.081	74.000	PEAK
2		5148.000	-0.336	63.241	62.904	-11.096	74.000	PEAK
3		5150.000	-0.321	62.758	62.437	-11.563	74.000	PEAK
4	*	5175.500	-0.120	105.801	105.680	31.680	74.000	PEAK
5		5350.000	1.250	54.833	56.083	-17.917	74.000	PEAK
6		5460.000	2.114	55.635	57.749	-16.251	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 14:24**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_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	-1.721	43.991	42.270	-11.730	54.000	AVERAGE
2		5148.500	-0.333	48.150	47.817	-6.183	54.000	AVERAGE
3		5150.000	-0.321	48.912	48.591	-5.409	54.000	AVERAGE
4	*	5177.000	-0.109	94.808	94.699	40.699	54.000	AVERAGE
5		5350.000	1.250	43.956	45.206	-8.794	54.000	AVERAGE
6		5460.000	2.114	43.752	45.866	-8.134	54.000	AVERAGE

Note:

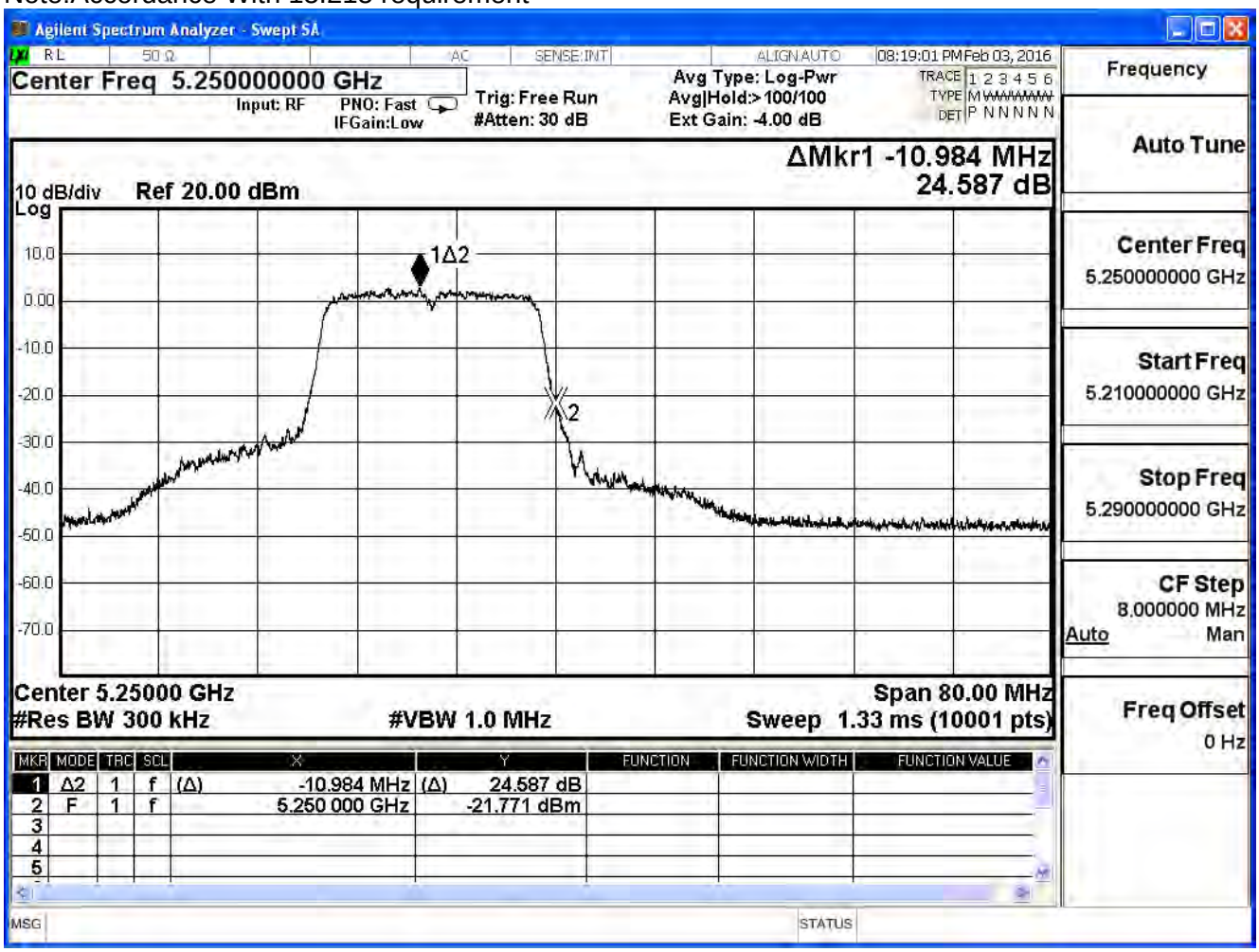
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading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

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Band edge Data		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n_20M(ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)
48	5240	24.587	>20

Note:Accordance With 15.215 requirement

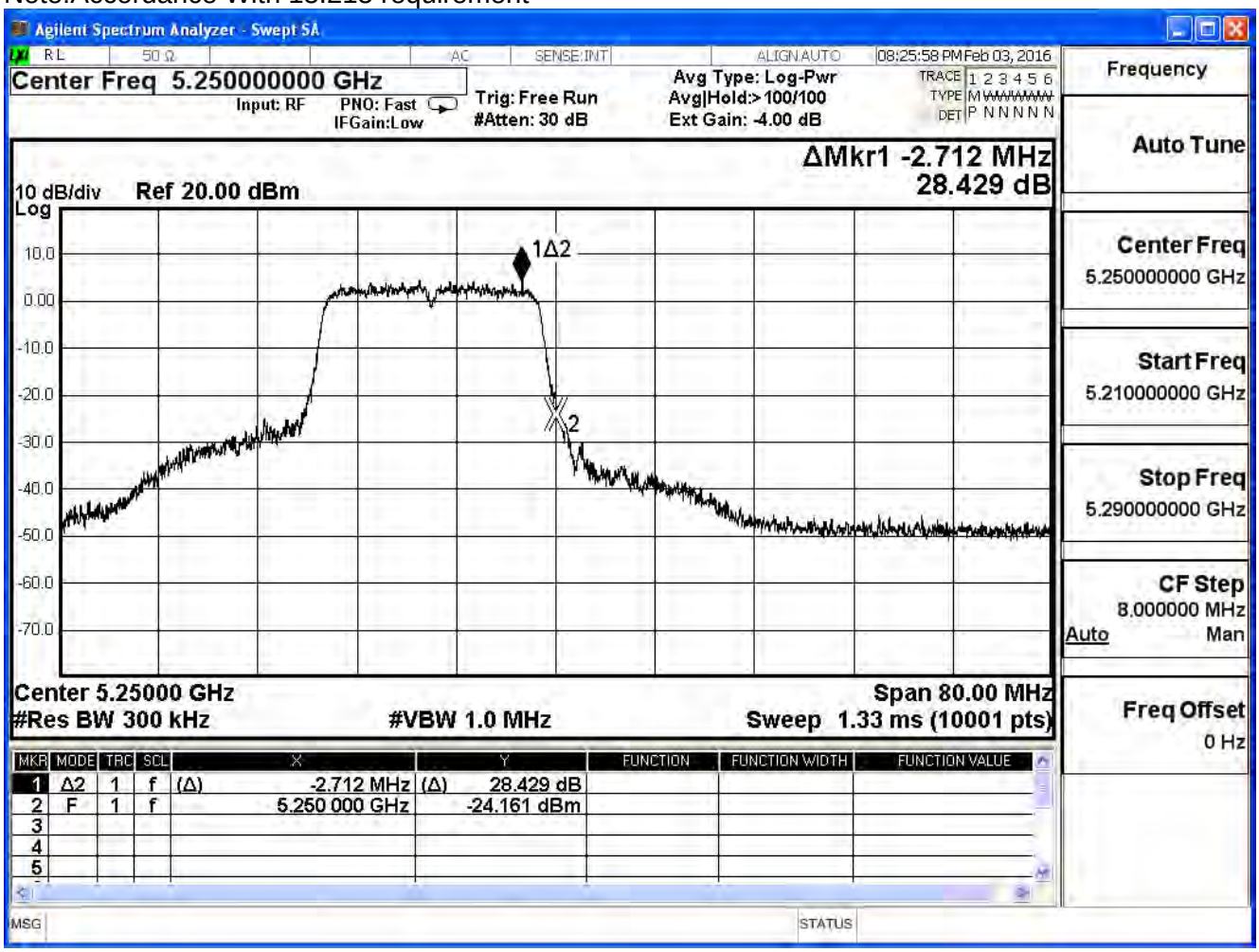


Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Band edge Data		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

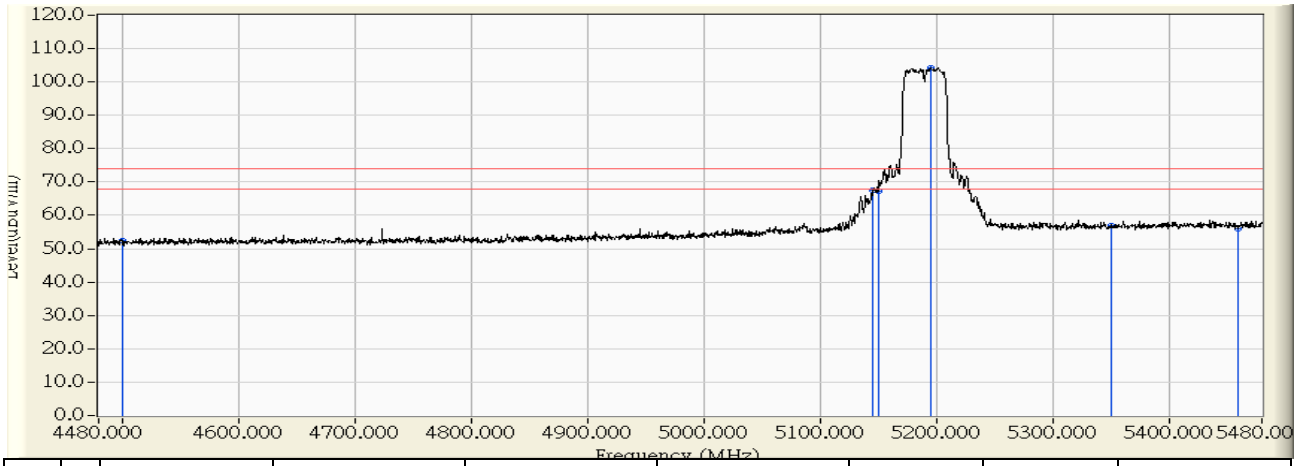
IEEE 802.11n_20M(ANT 1)

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)
48	5240	28.429	>20

Note:Accordance With 15.215 requirement



Site : CB1	**Time : 2016/02/01 - 14:35**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40M)_5190MHz**

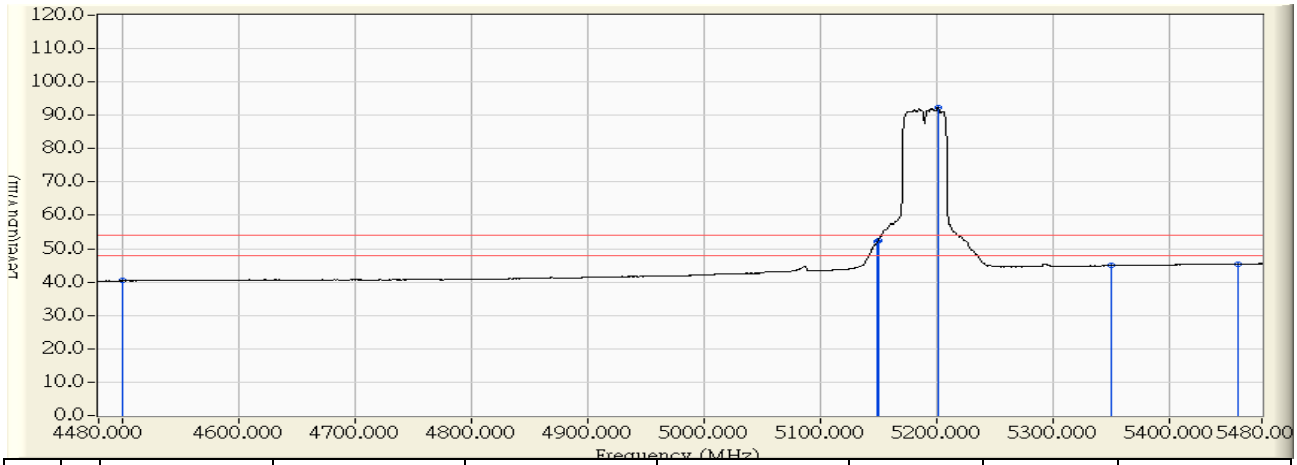


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-3.428	55.987	52.559	-21.441	74.000	PEAK
2		5146.000	-0.772	68.472	67.701	-6.299	74.000	PEAK
3		5150.000	-0.737	68.130	67.392	-6.608	74.000	PEAK
4	*	5196.000	-0.354	104.744	104.391	30.391	74.000	PEAK
5		5350.000	0.934	55.878	56.812	-17.188	74.000	PEAK
6		5460.000	1.853	54.266	56.119	-17.881	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 14:37**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40M)_5190MHz**

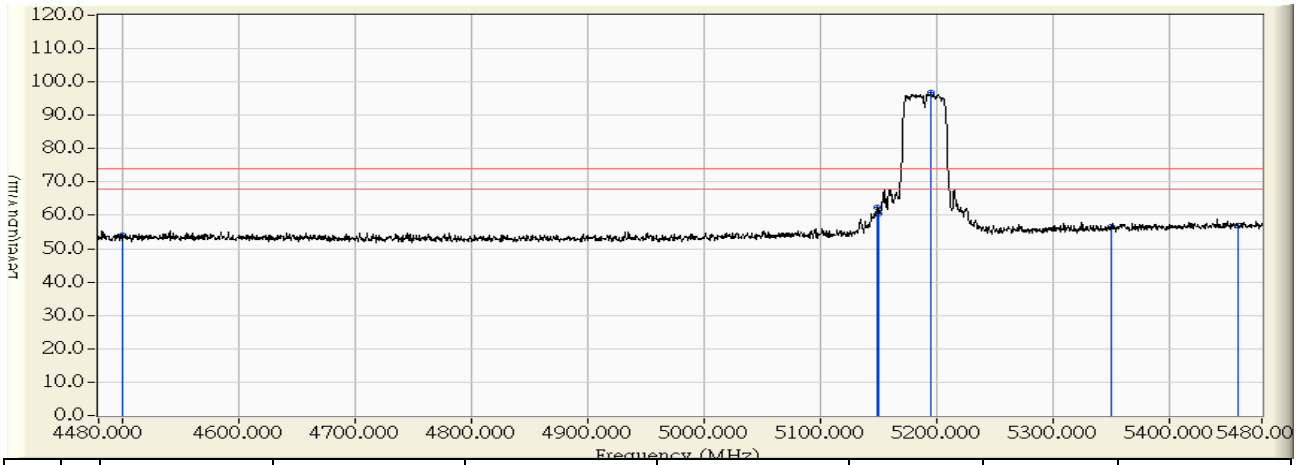


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-3.428	43.811	40.383	-13.617	54.000	AVERAGE
2		5149.500	-0.741	52.708	51.966	-2.034	54.000	AVERAGE
3		5150.000	-0.737	53.224	52.486	-1.514	54.000	AVERAGE
4	*	5201.500	-0.308	92.506	92.199	38.199	54.000	AVERAGE
5		5350.000	0.934	44.023	44.957	-9.043	54.000	AVERAGE
6		5460.000	1.853	43.546	45.399	-8.601	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2016/02/01 - 14:46**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_802.11n(40M)_5190MHz**

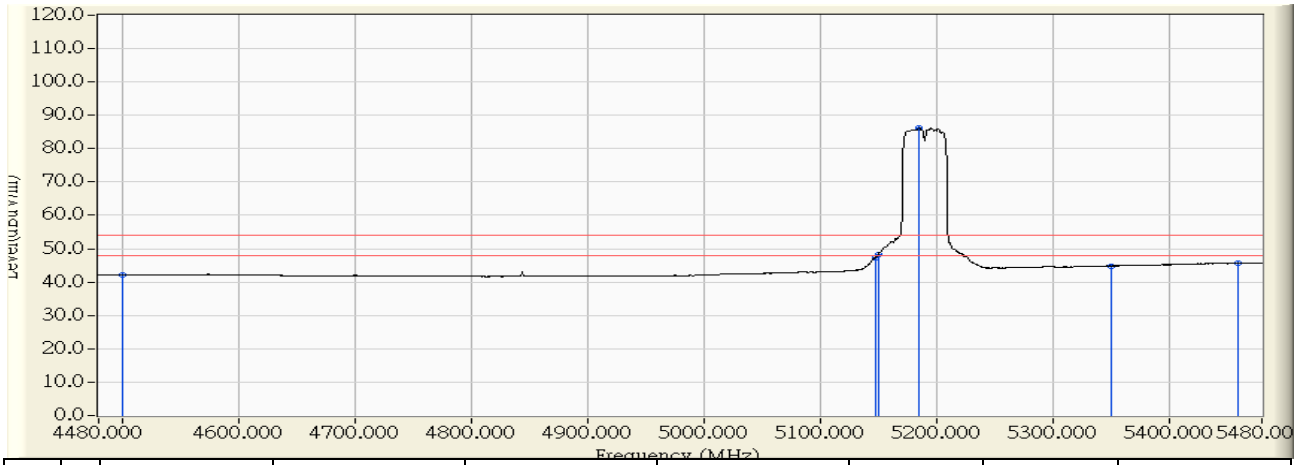


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4500.000	-1.721	55.645	53.924	-20.076	74.000	PEAK
2		5149.000	-0.329	62.878	62.549	-11.451	74.000	PEAK
3		5150.000	-0.321	60.894	60.573	-13.427	74.000	PEAK
4	*	5195.500	0.036	96.754	96.790	22.790	74.000	PEAK
5		5350.000	1.250	55.310	56.560	-17.440	74.000	PEAK
6		5460.000	2.114	54.961	57.075	-16.925	74.000	PEAK

Note:

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

Site : CB1	**Time : 2016/02/01 - 14:54**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC 120V / 60Hz**
EUT : Dual-Band Wireless N-600 Range Extender	**Note : Mode 1: Transmit_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	-1.721	43.930	42.209	-11.791	54.000	AVERAGE
2		5147.500	-0.340	47.666	47.325	-6.675	54.000	AVERAGE
3		5150.000	-0.321	48.544	48.223	-5.777	54.000	AVERAGE
4	*	5185.000	-0.046	86.240	86.194	32.194	54.000	AVERAGE
5		5350.000	1.250	43.599	44.849	-9.151	54.000	AVERAGE
6		5460.000	2.114	43.510	45.624	-8.376	54.000	AVERAGE

Note:

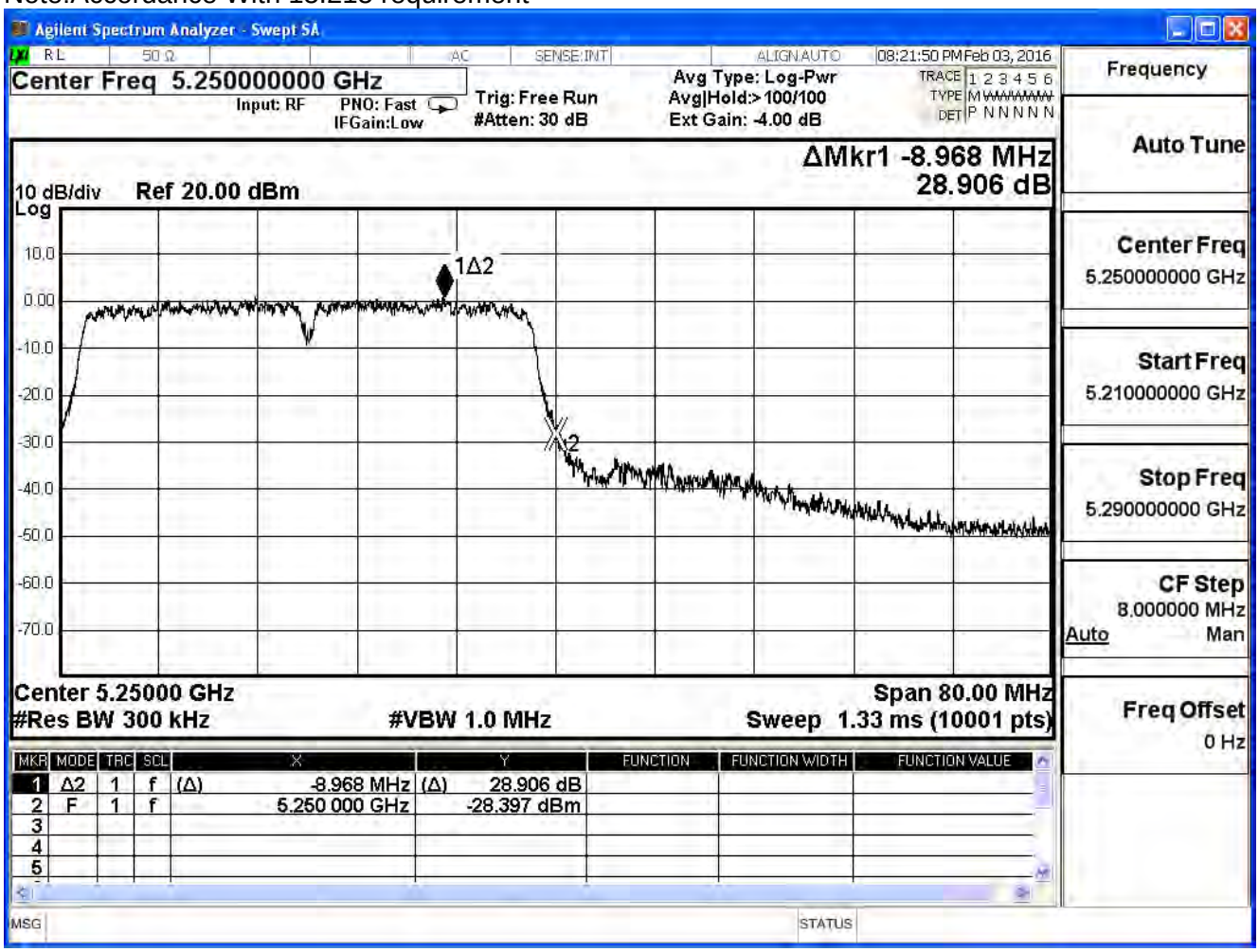
1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 1MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading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

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Band edge Data		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n_40M(ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)
46	5230	28.906	>20

Note:Accordance With 15.215 requirement

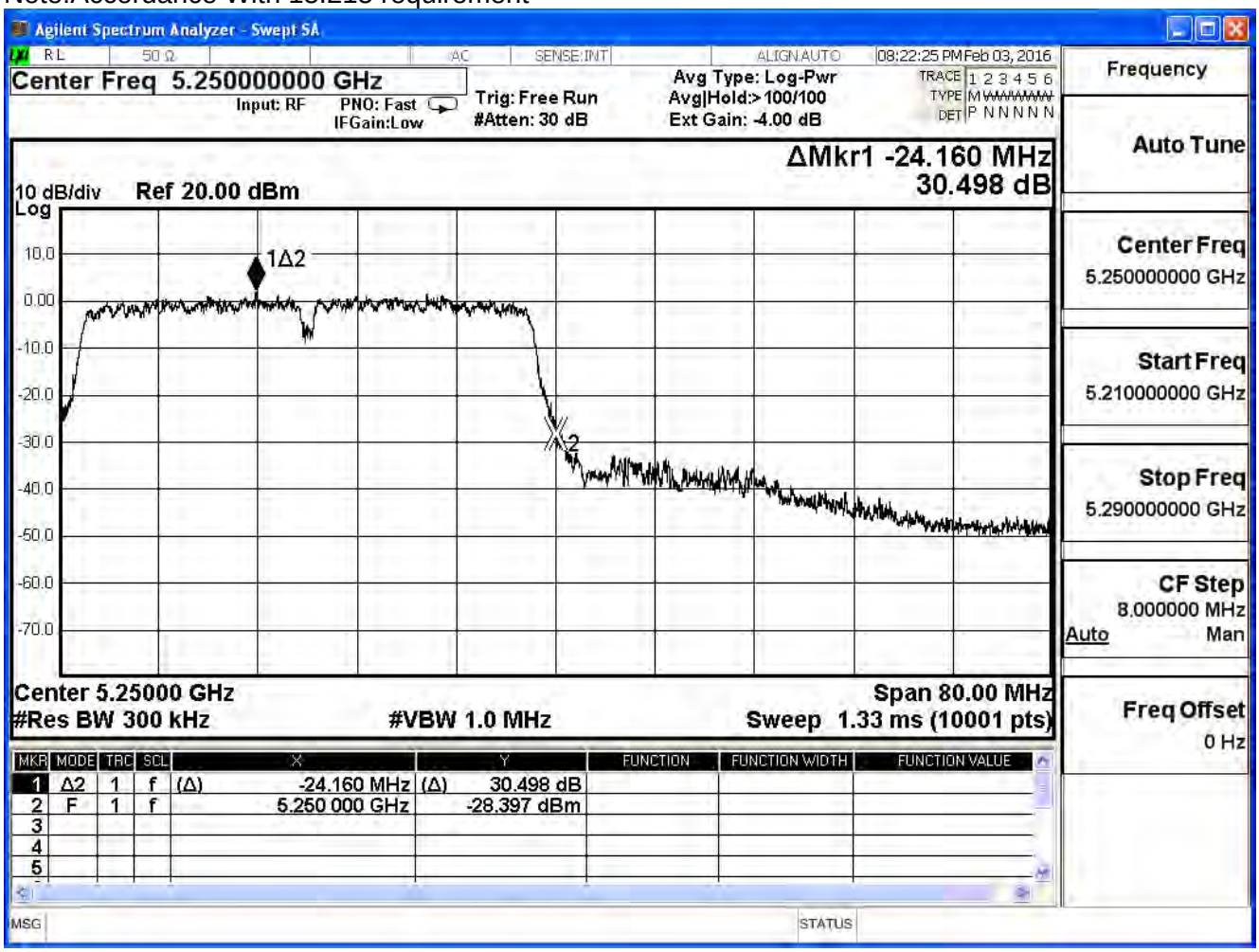


Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Band edge Data		
Test Mode	Mode 1: Transmit		
Date of Test	2016/02/03	Test Site	SR7

IEEE 802.11n_40M(ANT 1)

Channel No.	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)
46	5230	30.498	>20

Note:Accordance With 15.215 requirement



8. Frequency Stability

8.1. Test Equipment

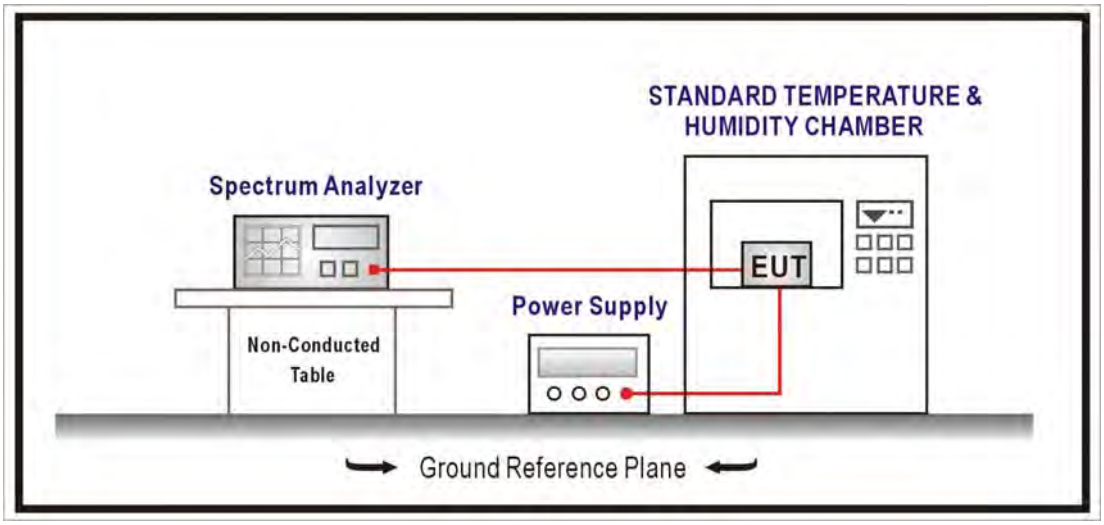
The following test equipments are used during the radiated emission tests:

Frequency Stability / SR7

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

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

8.2. Test Setup



8.3. Limits

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

8.4. Test Procedure

The EUT was setup to ANSI C63.10:2013; tested to U-NII test procedure of KDB 789033 D02 for compliance to FCC 47CFR Subpart E requirements.

8.5. Uncertainty

The measurement uncertainty is defined as ± 150 Hz

8.6. Test Result

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11a - 5180MHz		
Date of Test	2013/05/30	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.8515	164.3773	PASS
-10		5180.1500	28.9649	PASS
0		5180.4131	79.7514	PASS
10		5180.1681	32.4537	PASS
20		5180.6015	116.1249	PASS
30		5180.1891	36.5154	PASS
40		5180.2311	44.6110	PASS
50		5180.7774	150.0747	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.6192	119.5428	PASS
	120	5180.3966	76.5635	PASS
	138	5180.8888	171.5747	PASS

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11a - 5240MHz		
Date of Test	2013/05/30	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.3950	75.3738	PASS
-10		5240.8346	159.2807	PASS
0		5240.8022	153.0982	PASS
10		5240.3343	63.7884	PASS
20		5240.5727	109.2871	PASS
30		5240.2257	43.0679	PASS
40		5240.7499	143.1098	PASS
50		5240.2144	40.9226	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.2867	54.7084	PASS
	120	5240.2099	40.0540	PASS
	138	5240.4509	86.0459	PASS

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5180MHz(ANT 0)		
Date of Test	2013/05/30	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.3521	67.9772	PASS
-10		5180.7978	154.0223	PASS
0		5180.3344	64.5519	PASS
10		5180.0243	4.6908	PASS
20		5180.3233	62.4165	PASS
30		5180.2888	55.7570	PASS
40		5180.8042	155.2569	PASS
50		5180.1404	27.1094	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.5773	111.4534	PASS
	120	5180.4247	81.9869	PASS
	138	5179.8843	-22.3452	PASS

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5240MHz(ANT 0)		
Date of Test	2013/05/30	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.5221	99.6282	PASS
-10		5240.2562	48.8855	PASS
0		5240.4377	83.5347	PASS
10		5240.6571	125.3956	PASS
20		5240.3013	57.5020	PASS
30		5240.1594	30.4269	PASS
40		5240.0200	3.8163	PASS
50		5240.3829	73.0793	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.8308	158.5583	PASS
	120	5240.5206	99.3427	PASS
	138	5240.5668	108.1621	PASS

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5180MHz(ANT 1)		
Date of Test	2013/05/30	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5180.2417	46.6605	PASS
-10		5180.5022	96.9464	PASS
0		5180.1206	23.2787	PASS
10		5180.0429	8.2909	PASS
20		5180.7699	148.6388	PASS
30		5180.0614	11.8442	PASS
40		5180.6396	123.4797	PASS
50		5180.8480	163.7061	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5180.6395	123.4490	PASS
	120	5180.8637	166.7446	PASS
	138	5180.4501	86.8955	PASS

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_20M - 5240MHz(ANT 1)		
Date of Test	2013/05/30	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5240.5140	98.0970	PASS
-10		5240.3234	61.7139	PASS
0		5240.0117	2.2352	PASS
10		5240.0166	3.1768	PASS
20		5240.7740	147.7132	PASS
30		5240.4131	78.8443	PASS
40		5240.4794	91.4881	PASS
50		5240.4556	86.9417	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5240.7366	140.5798	PASS
	120	5240.3631	69.2910	PASS
	138	5240.2460	46.9501	PASS

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5190MHz(ANT 0)		
Date of Test	2013/05/30	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5190.1219	23.4969	PASS
-10		5190.0690	13.2926	PASS
0		5190.0262	5.0531	PASS
10		5190.3528	67.9786	PASS
20		5190.1267	24.4164	PASS
30		5190.0178	3.4211	PASS
40		5190.8672	167.0871	PASS
50		5190.0850	16.3693	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5190.7482	144.1689	PASS
	120	5190.4479	86.3051	PASS
	138	5190.0457	8.8149	PASS

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5230MHz(ANT 0)		
Date of Test	2013/05/30	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.1911	36.5460	PASS
-10		5230.4173	79.7974	PASS
0		5230.2909	55.6192	PASS
10		5230.4045	77.3376	PASS
20		5230.8475	162.0380	PASS
30		5230.7816	149.4433	PASS
40		5230.0729	13.9406	PASS
50		5230.7349	140.5070	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.2402	45.9253	PASS
	120	5230.2473	47.2814	PASS
	138	5230.5449	104.1871	PASS

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5190MHz(ANT 1)		
Date of Test	2013/05/30	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5190.4815	92.7709	PASS
-10		5190.2034	39.1812	PASS
0		5190.1966	37.8782	PASS
10		5190.3810	73.4193	PASS
20		5190.2441	47.0412	PASS
30		5190.3291	63.4139	PASS
40		5190.5571	107.3372	PASS
50		5190.0159	3.0671	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5190.0668	12.8777	PASS
	120	5190.1500	28.9038	PASS
	138	5190.1464	28.2172	PASS

Product	Dual-Band Wireless N-600 Range Extender		
Test Item	Frequency Stability		
Test Mode	Mode 1: Transmit - 802.11n_40M - 5230MHz(ANT 1)		
Date of Test	2013/05/30	Test Site	SR7

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
-20	120	5230.3054	58.3868	PASS
-10		5230.6895	131.8347	PASS
0		5230.1236	23.6409	PASS
10		5230.3752	71.7332	PASS
20		5230.0802	15.3324	PASS
30		5230.2199	42.0382	PASS
40		5230.3329	63.6481	PASS
50		5230.6018	115.0615	PASS

Temperature Interval (°C)	AC Voltage (V)	Frequency (MHz)	Deviation (ppm)	Result
25	102	5230.5232	100.0357	PASS
	120	5230.0827	15.8128	PASS
	138	5230.5984	114.4080	PASS

Attachment 1

➢ Test Setup Photograph

<Conducted Emission>

Test Mode ： Mode 1: Transmit

Description： Front View of Conducted Emission Test Setup

Test Mode ： Mode 1: Transmit

Description： Back View of Conducted Emission Test Setup

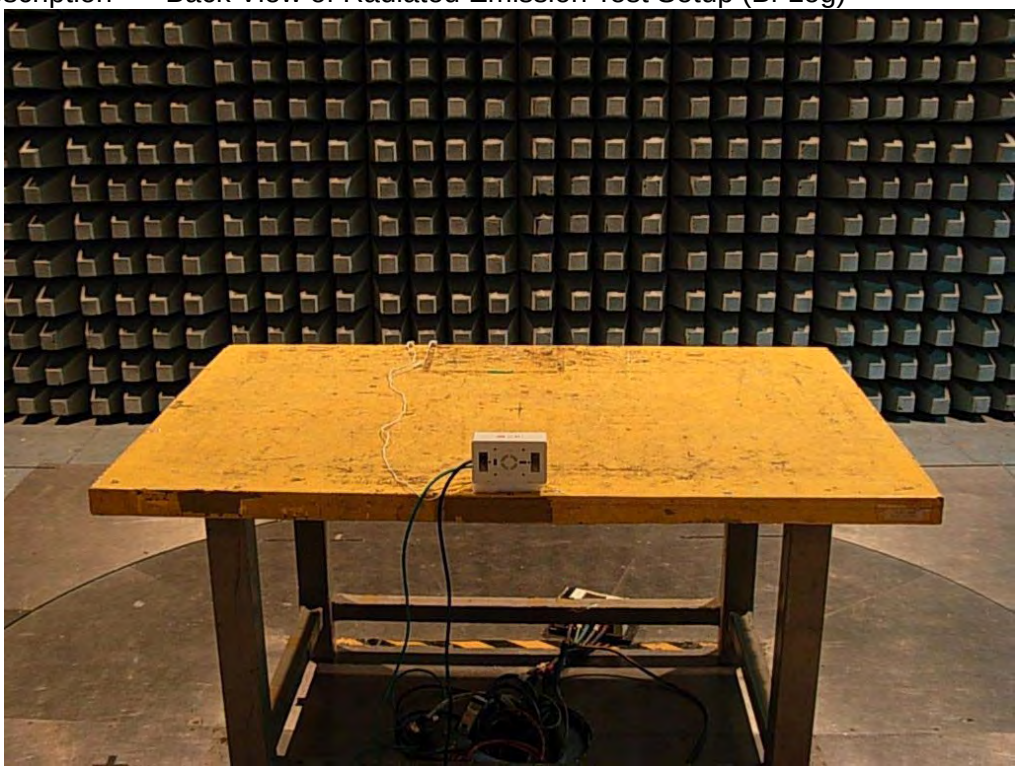
<Radiated Emission>

Test Mode ： Mode 1: Transmit

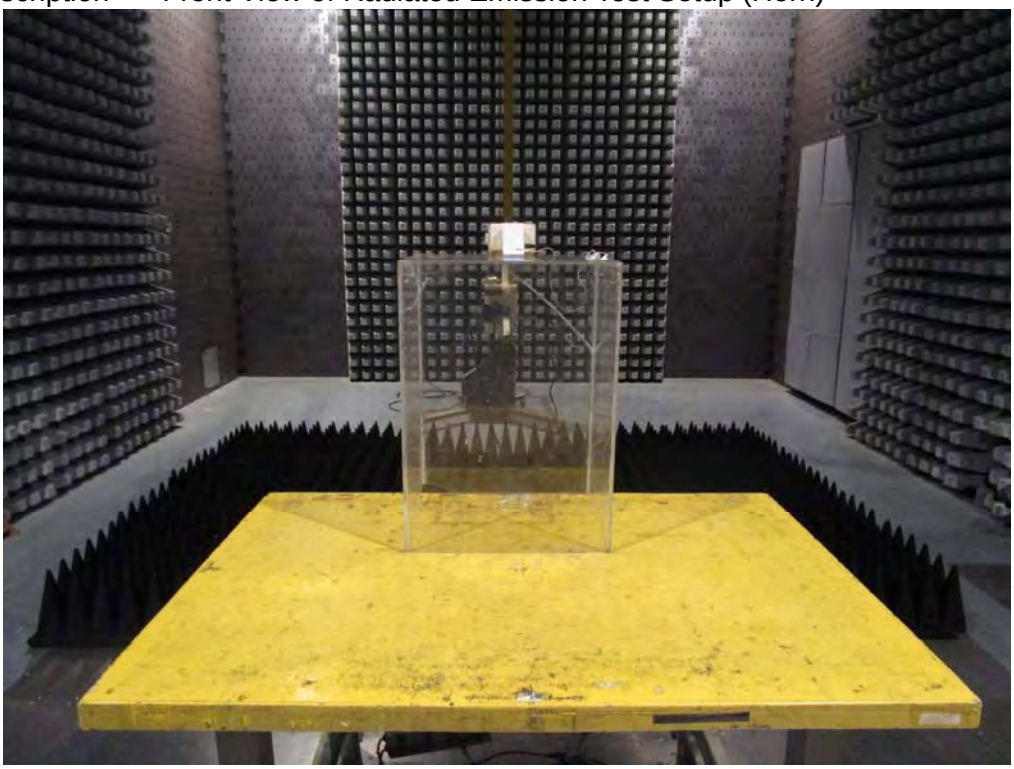
Description： Front View of Radiated Emission Test Setup (Bi-Log)

Test Mode ： Mode 1: Transmit

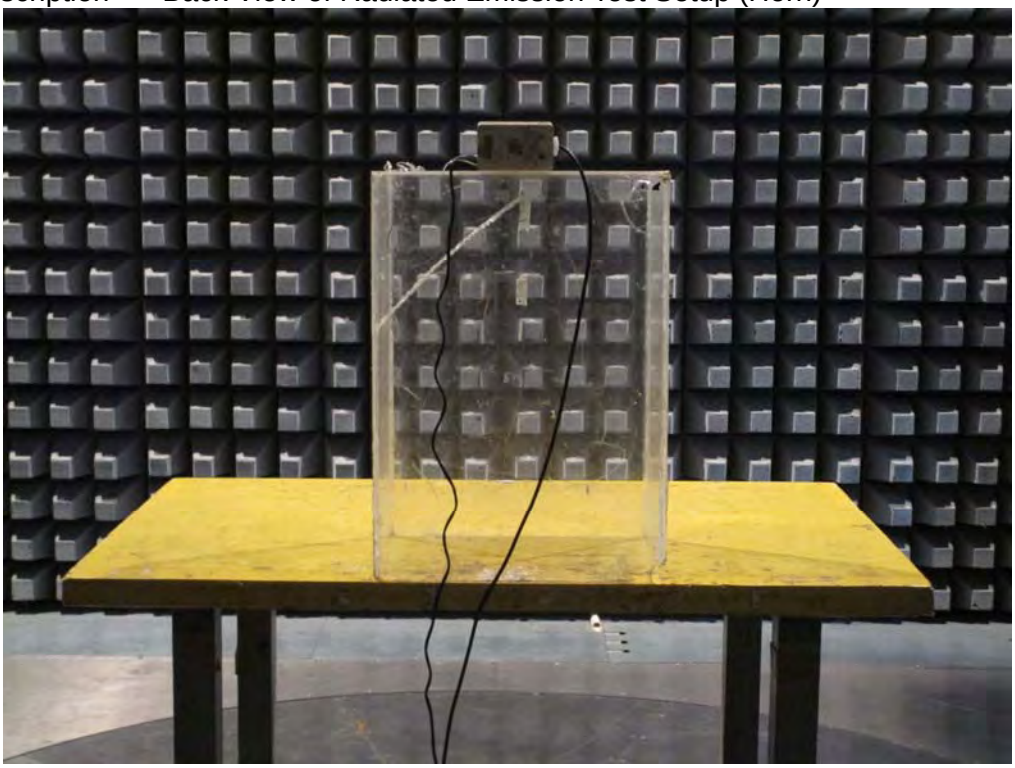
Description： Back View of Radiated Emission Test Setup (Bi-Log)



Test Mode ： Mode 1: Transmit
Description： Front View of Radiated Emission Test Setup (Horn)



Test Mode ： Mode 1: Transmit
Description： Back View of Radiated Emission Test Setup (Horn)

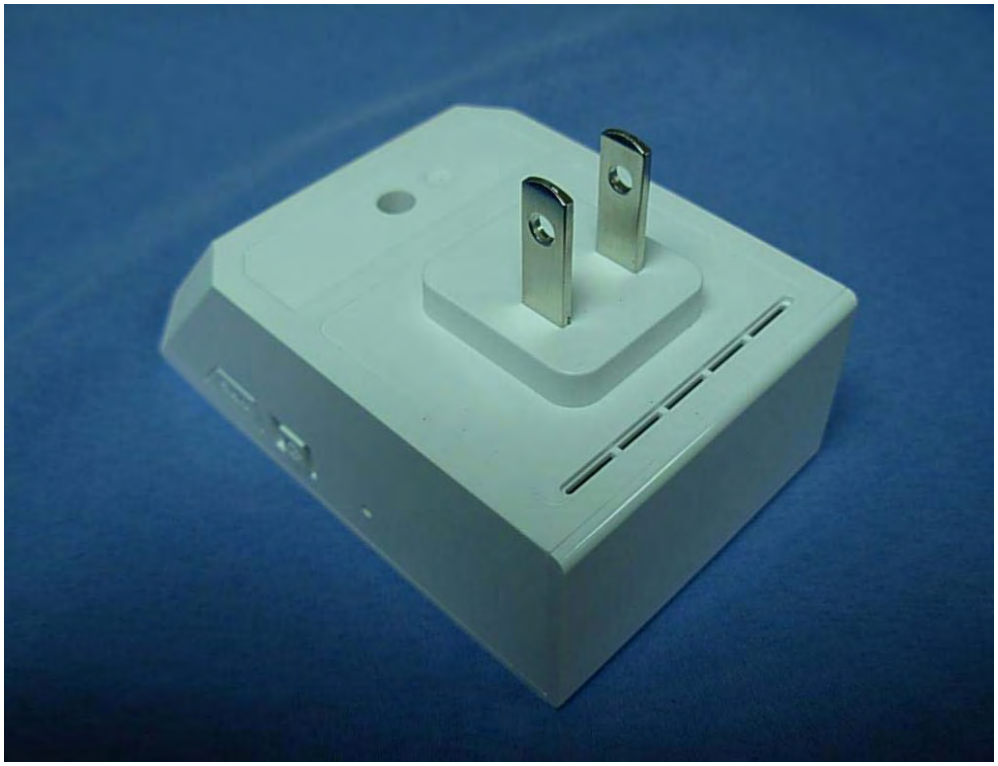


Attachment 2

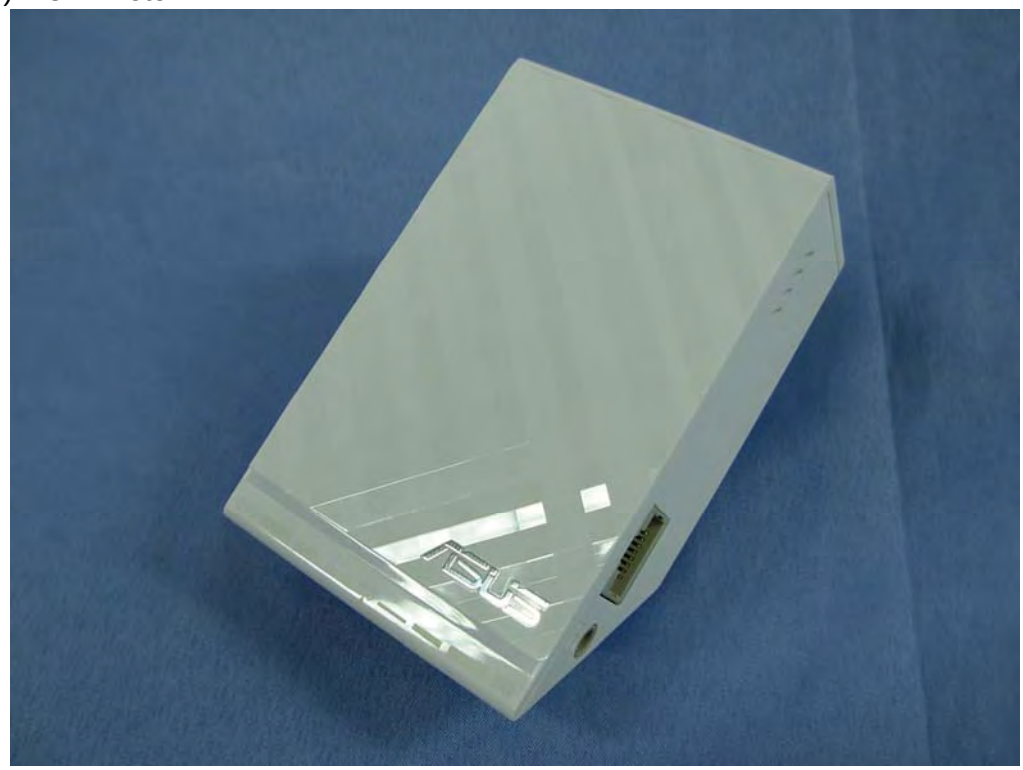
➢ EUT External Photograph

(1) EUT Photo

(2) EUT Photo



(3) EUT Photo



(4) EUT Photo

Attachment 3

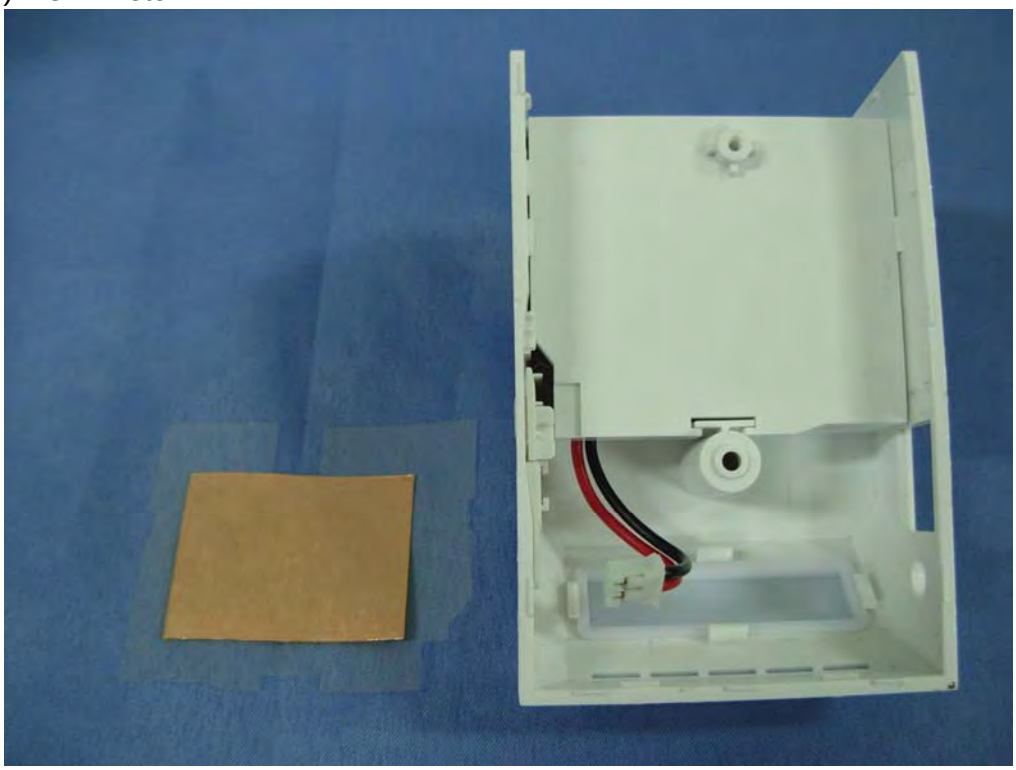
➢ EUT Internal Photograph

(1) EUT Photo (Without heat sink holes)

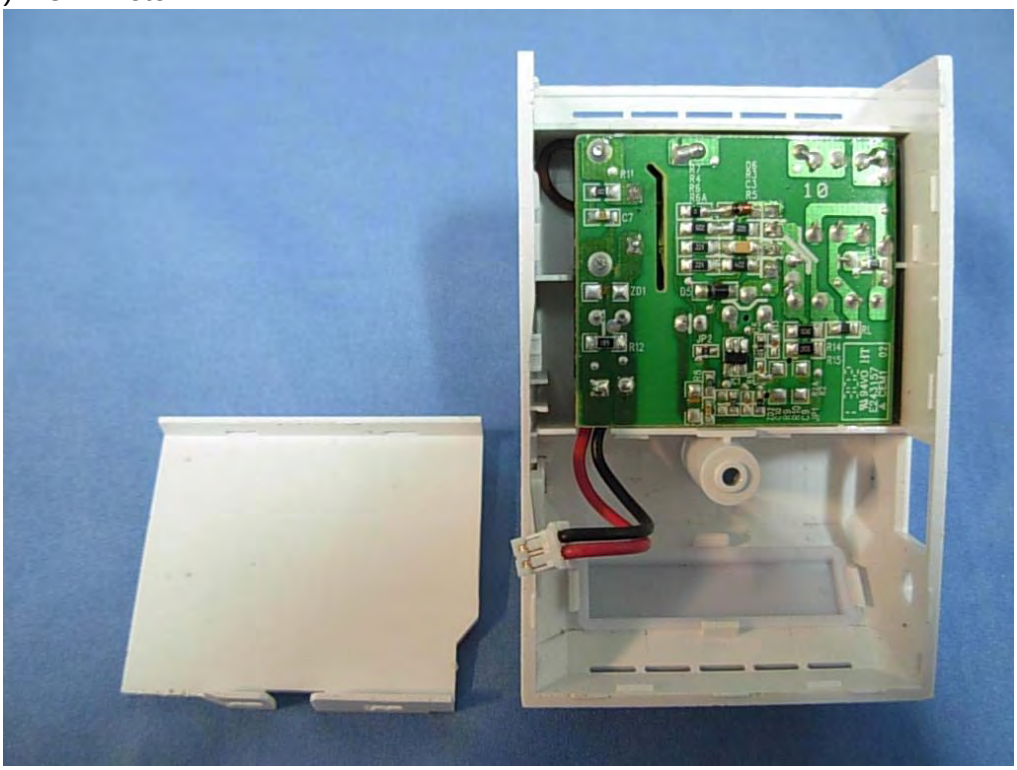
(2) EUT Photo

(3) EUT Photo

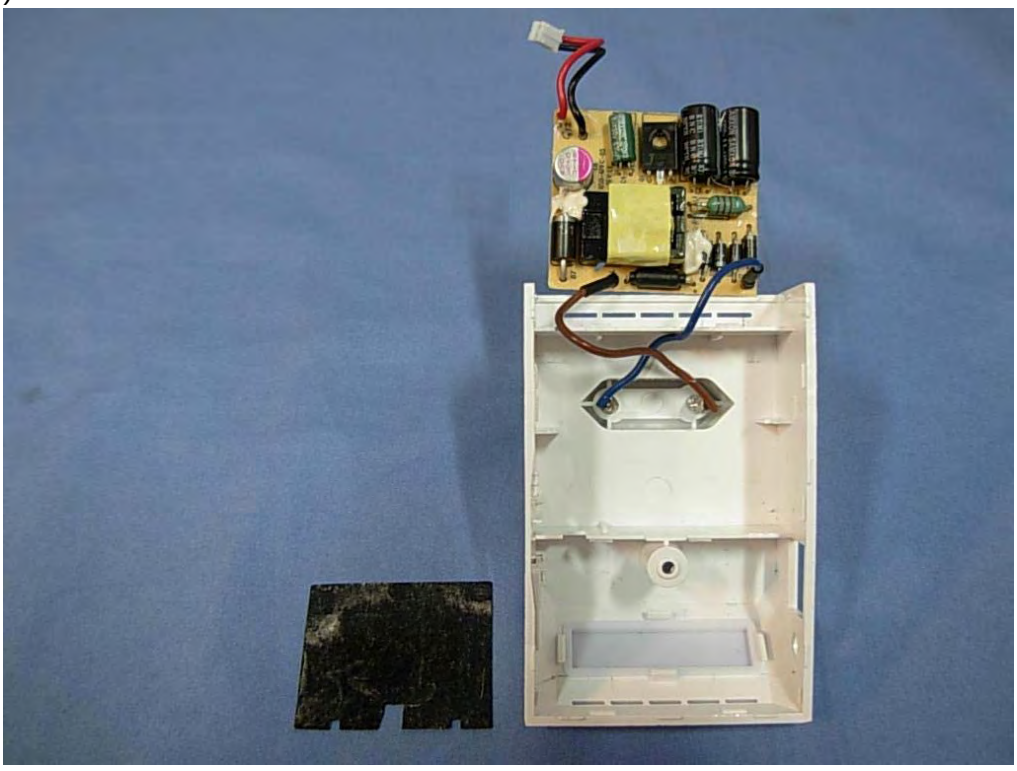
(4) EUT Photo



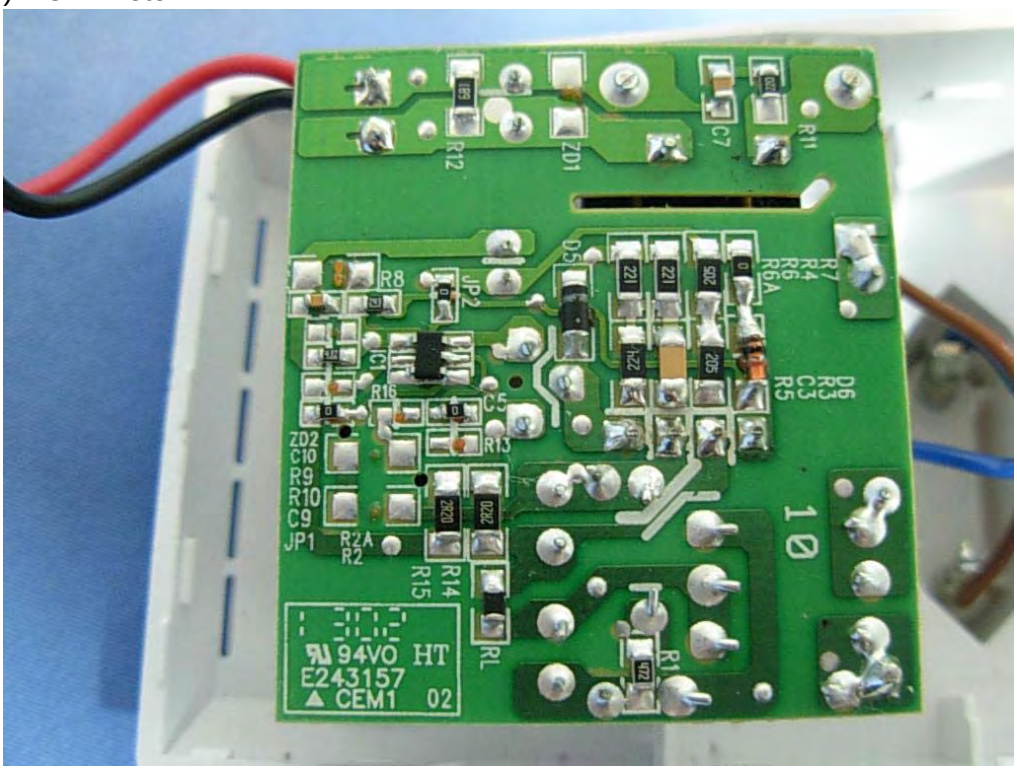
(5) EUT Photo



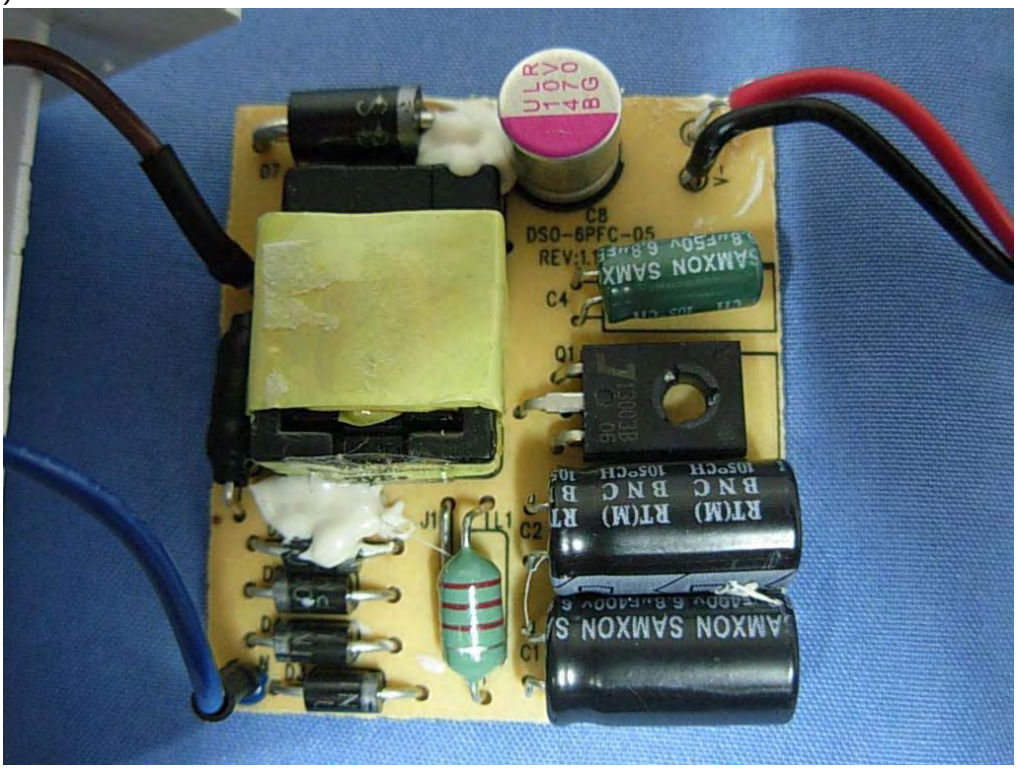
(6) EUT Photo



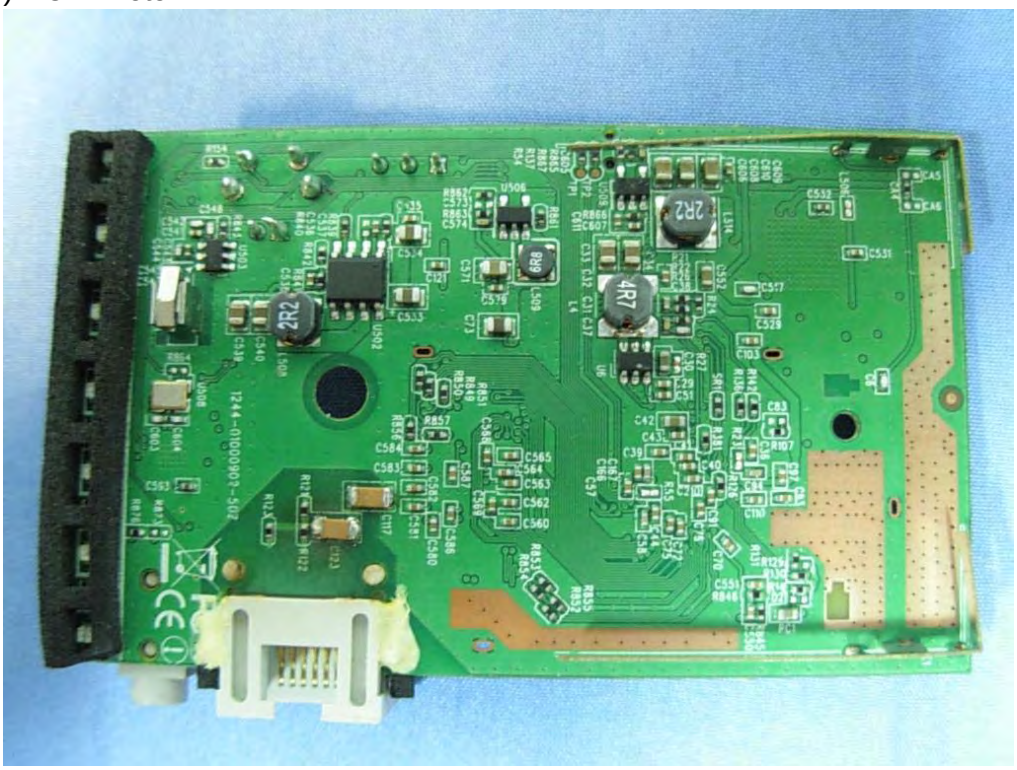
(7) EUT Photo



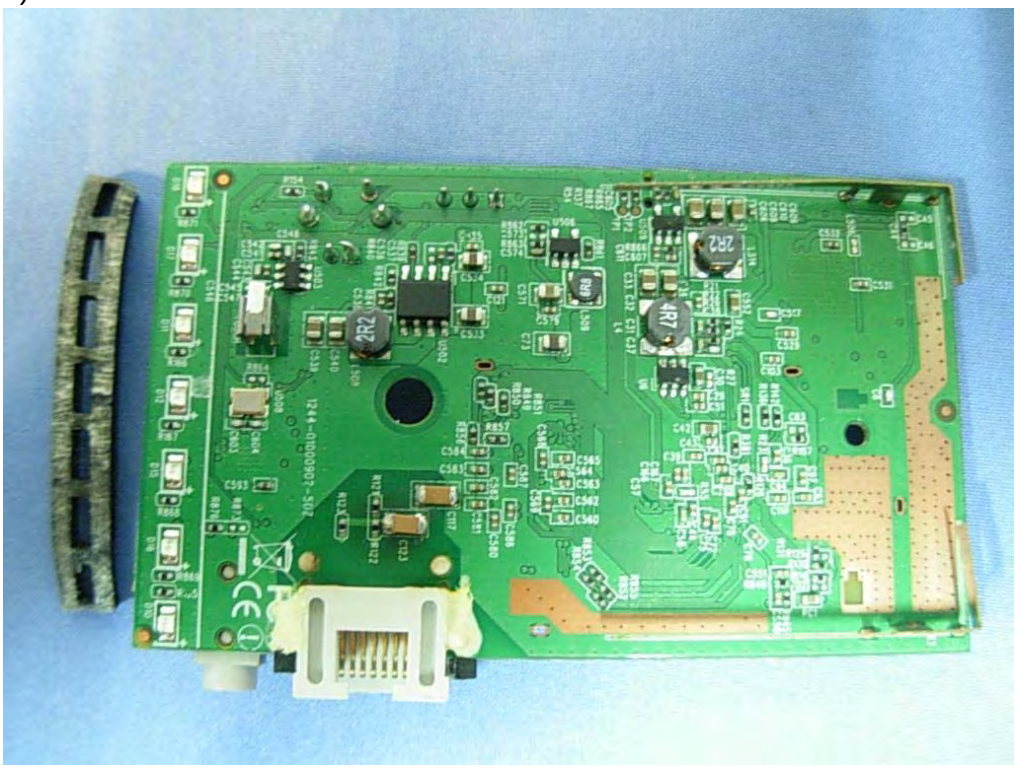
(8) EUT Photo



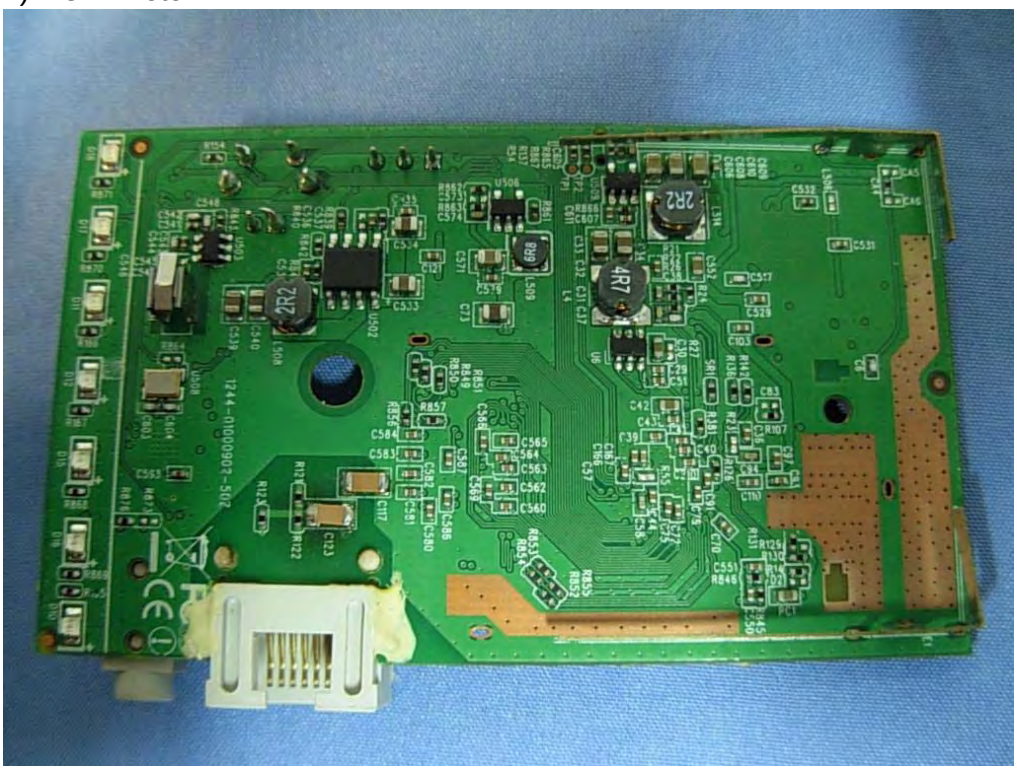
(9) EUT Photo



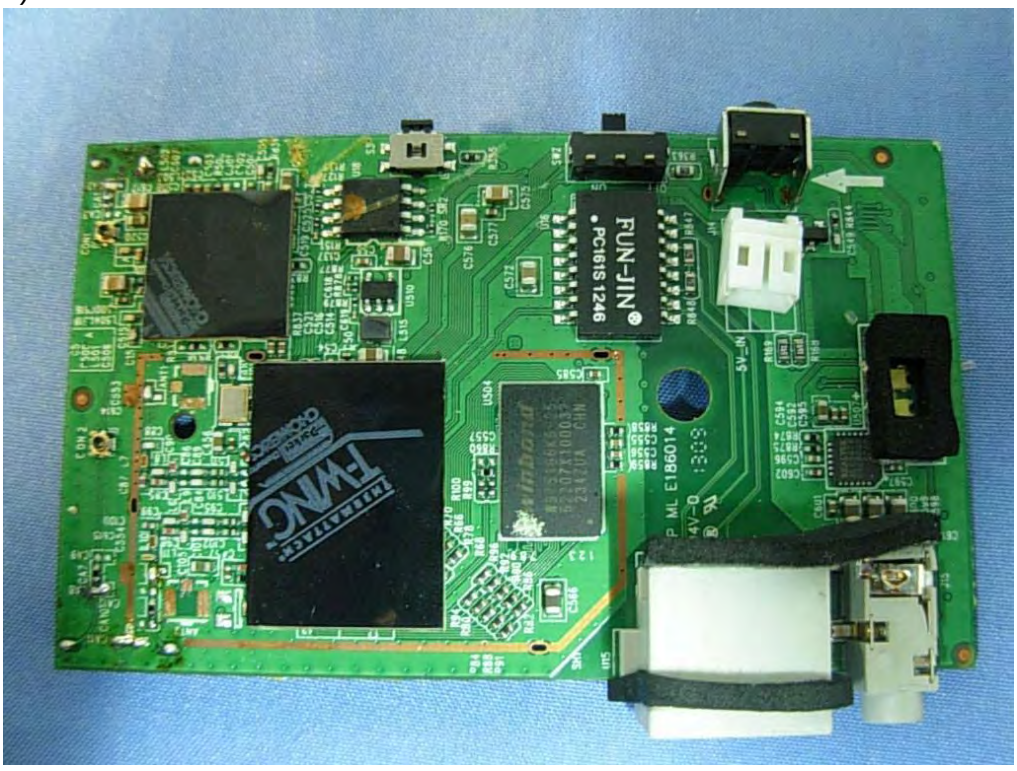
(10) EUT Photo



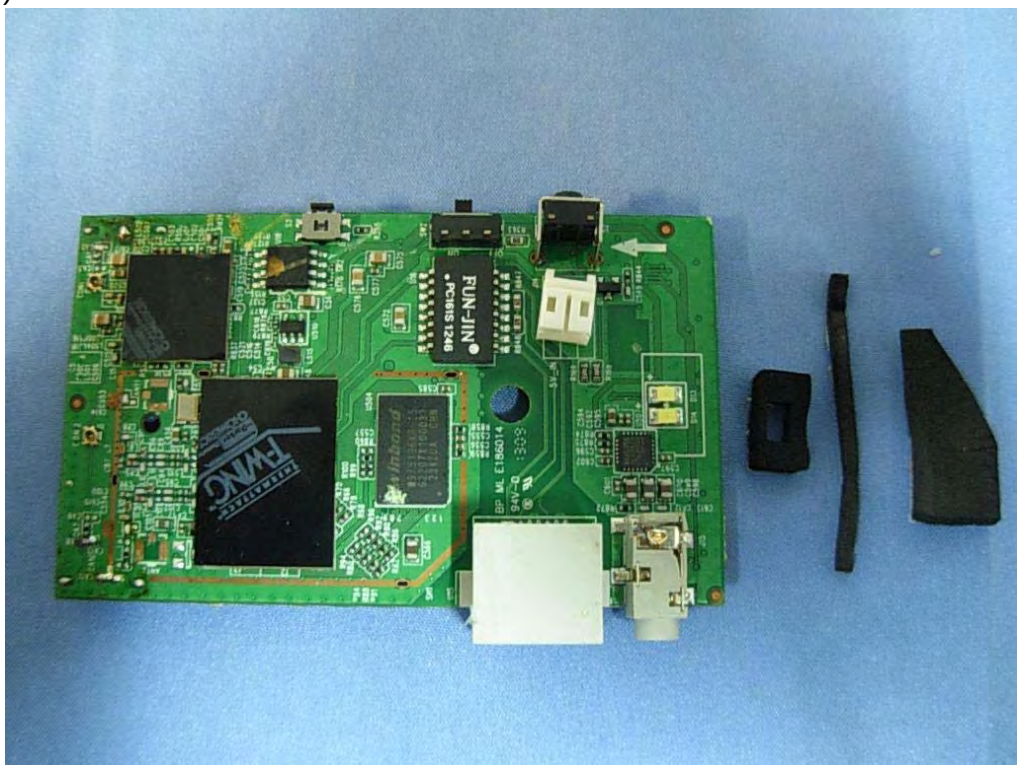
(11) EUT Photo



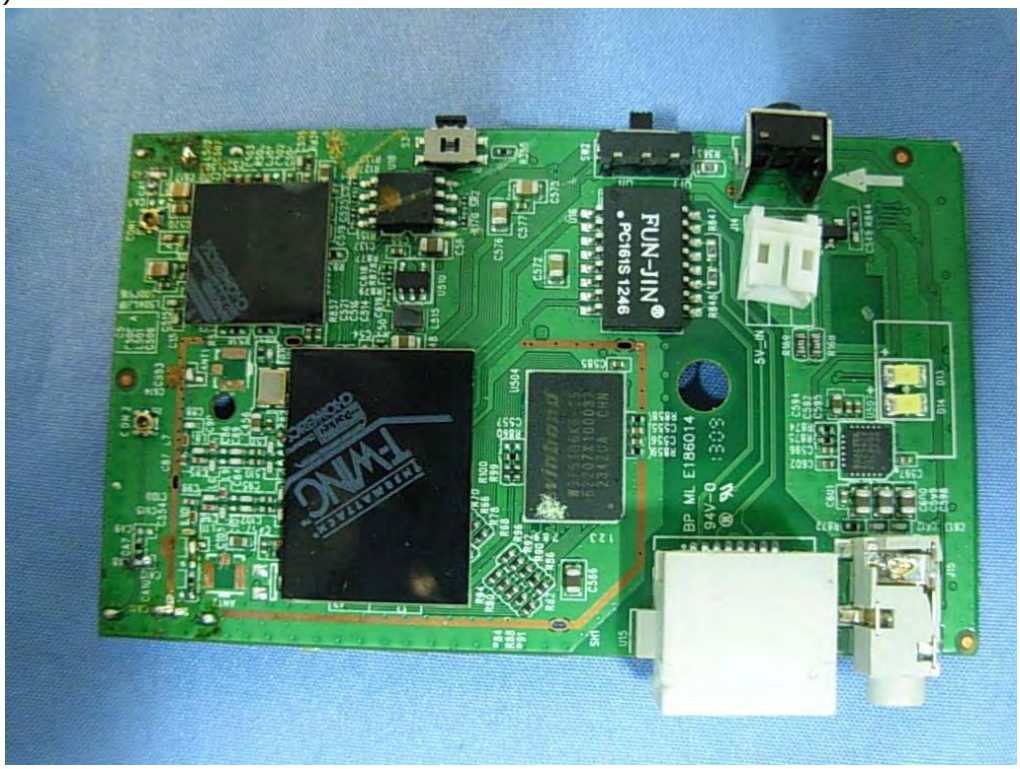
(12) EUT Photo



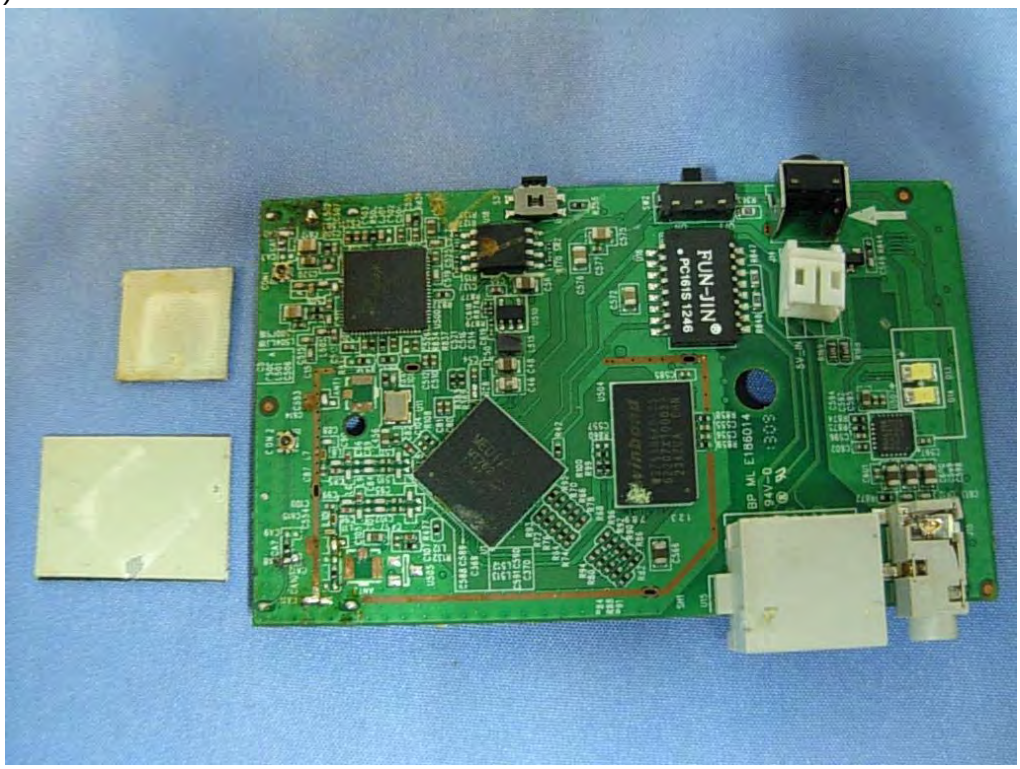
(13) EUT Photo



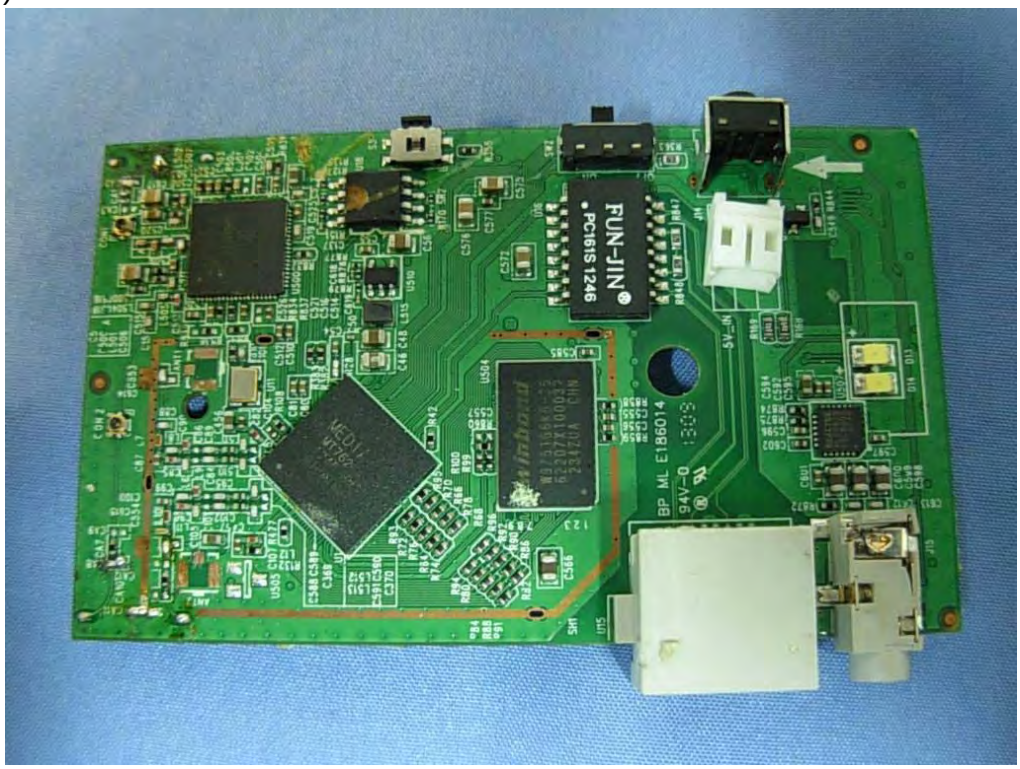
(14) EUT Photo



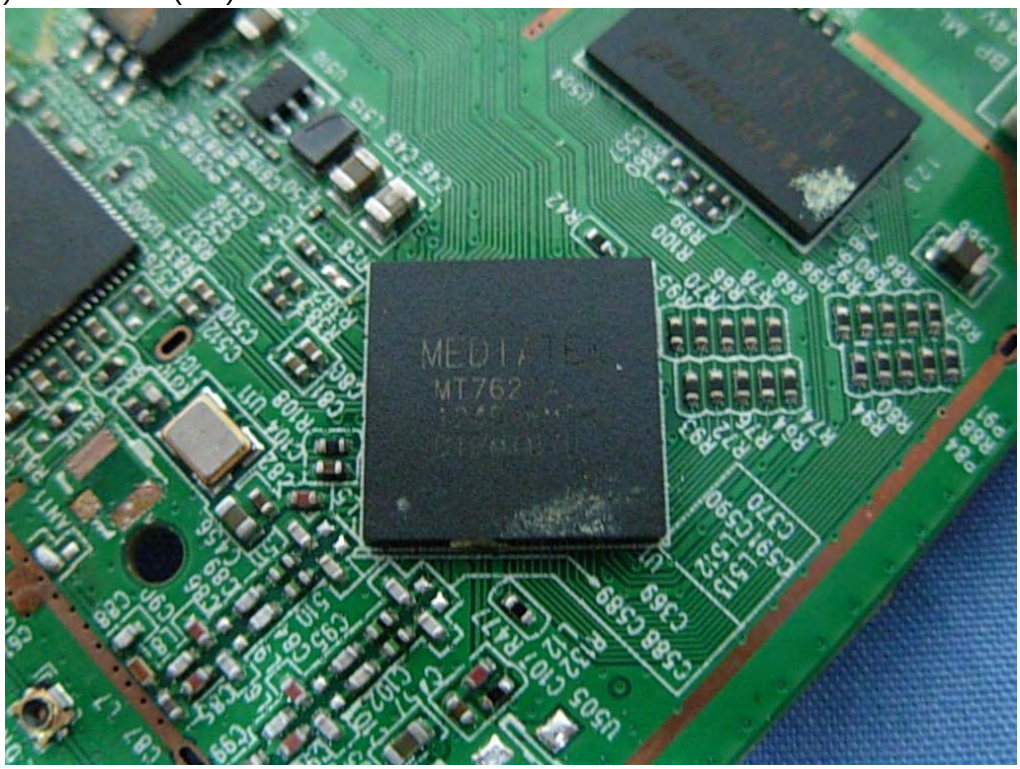
(15) EUT Photo



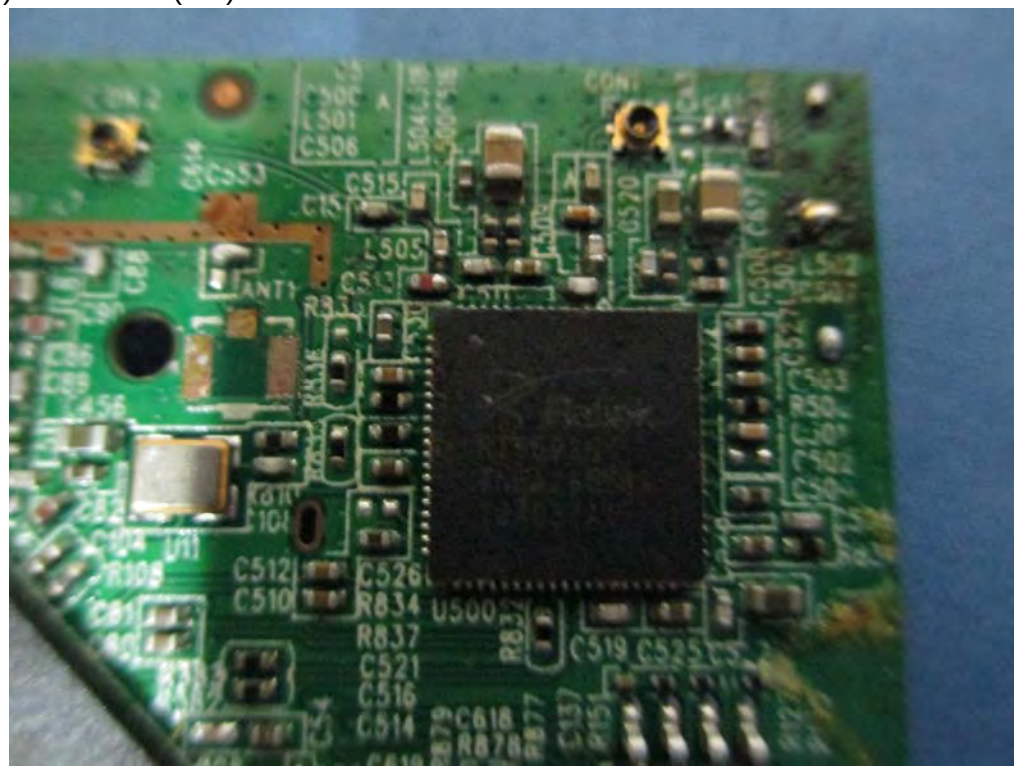
(16) EUT Photo



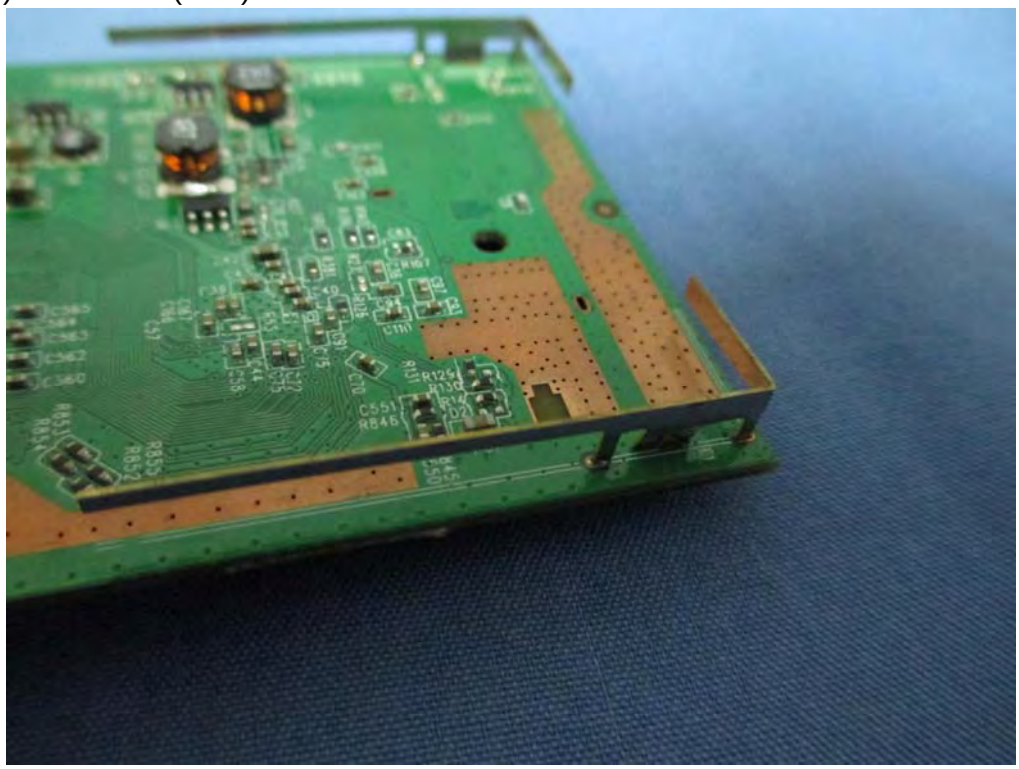
(17) EUT Photo (MB)



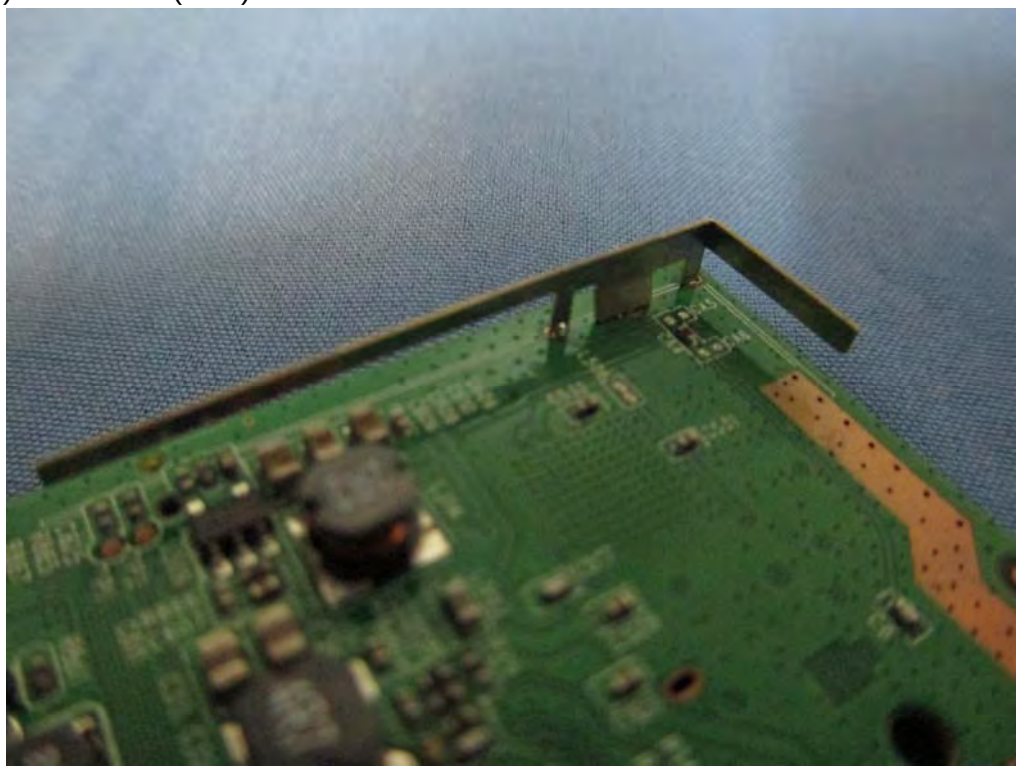
(18) EUT Photo (MB)



(19) EUT Photo (ANT)



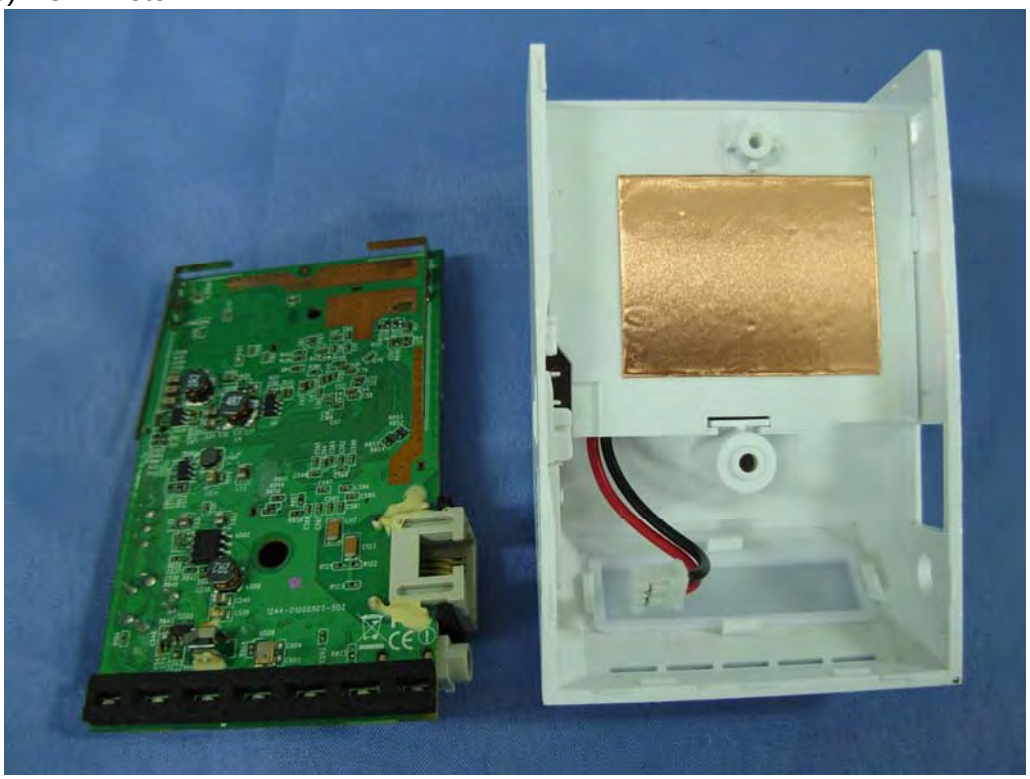
(20) EUT Photo (ANT)



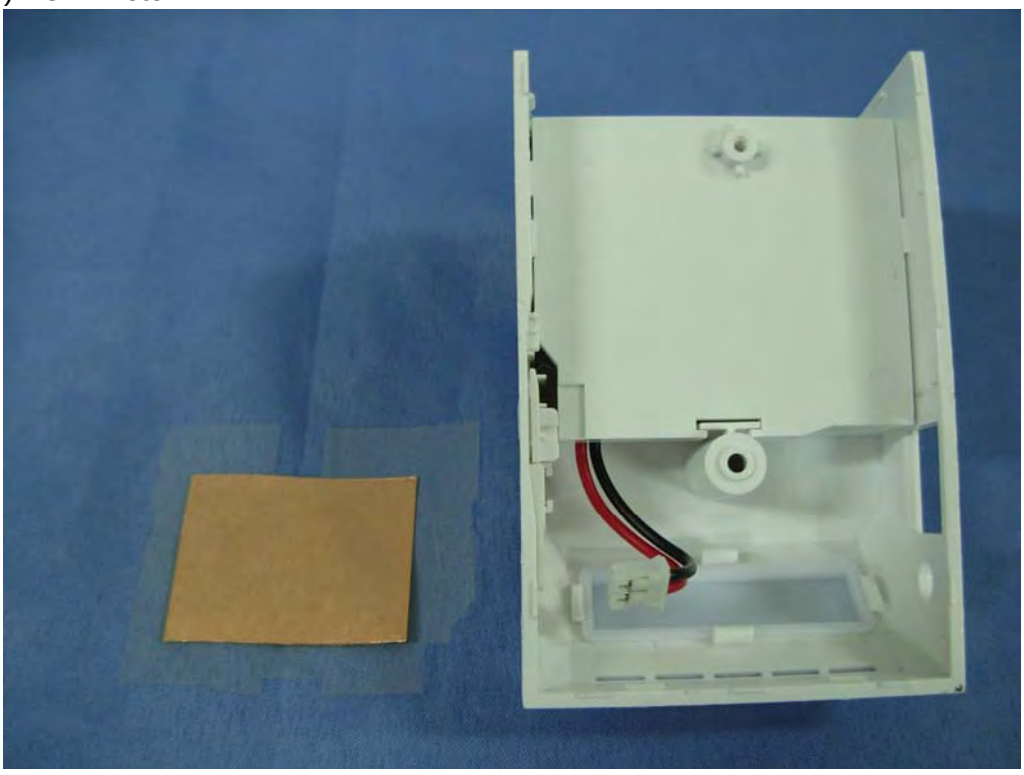
(21) EUT Photo (With heat sink holes)

(22) EUT Photo

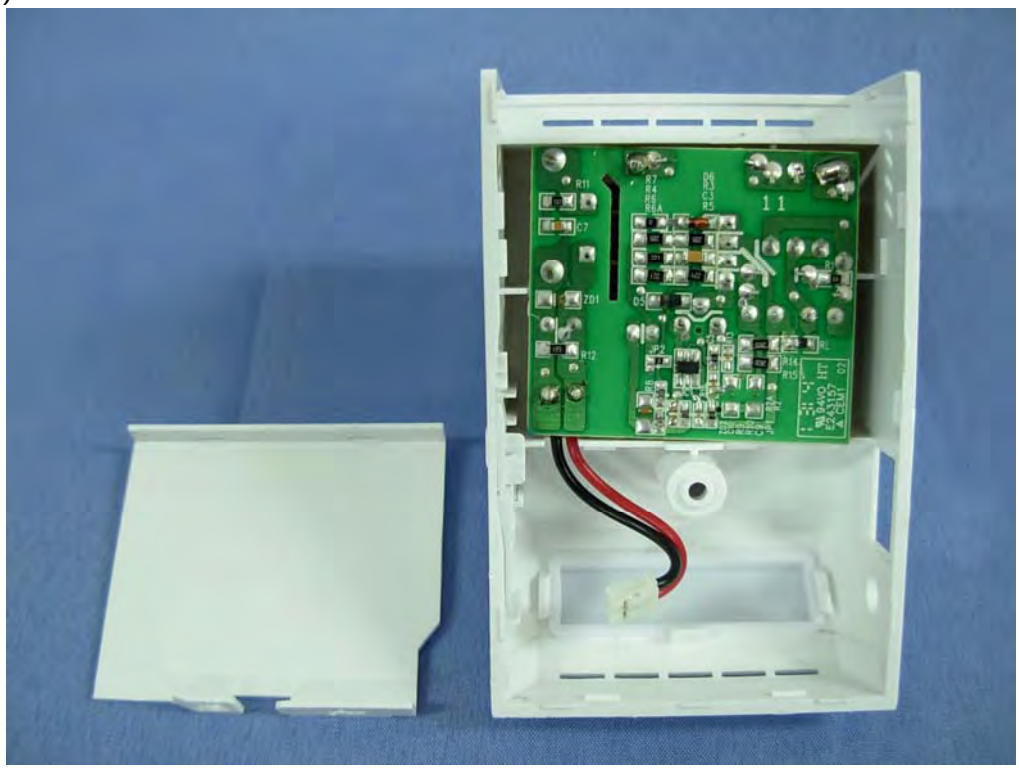
(23) EUT Photo



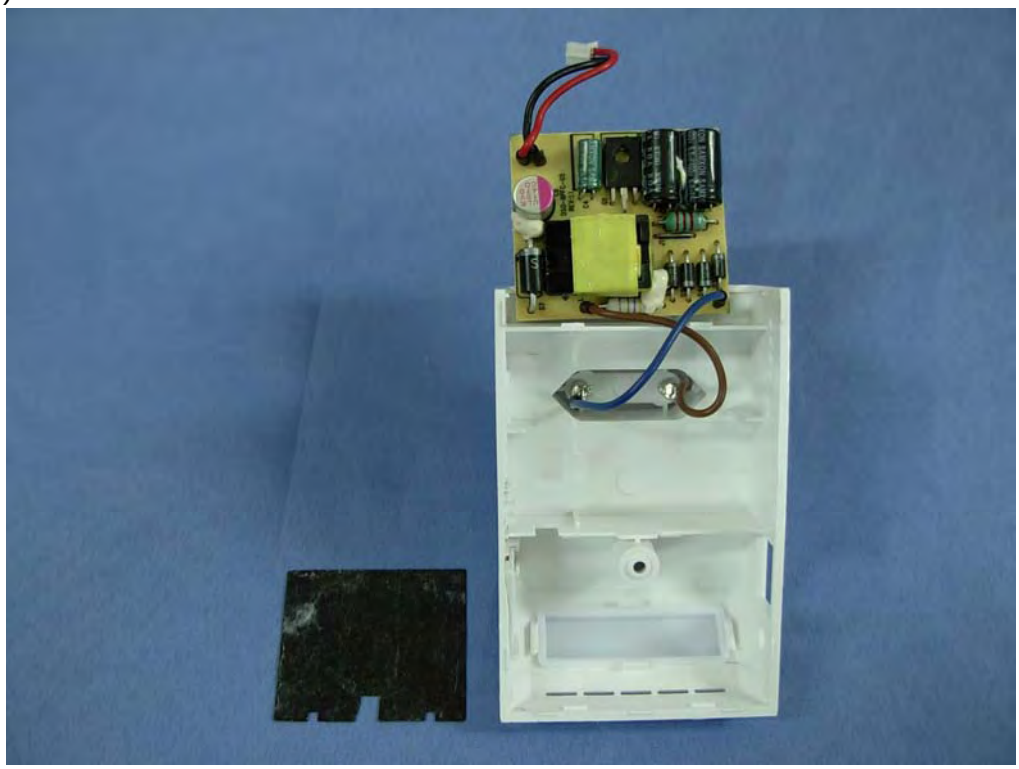
(24) EUT Photo



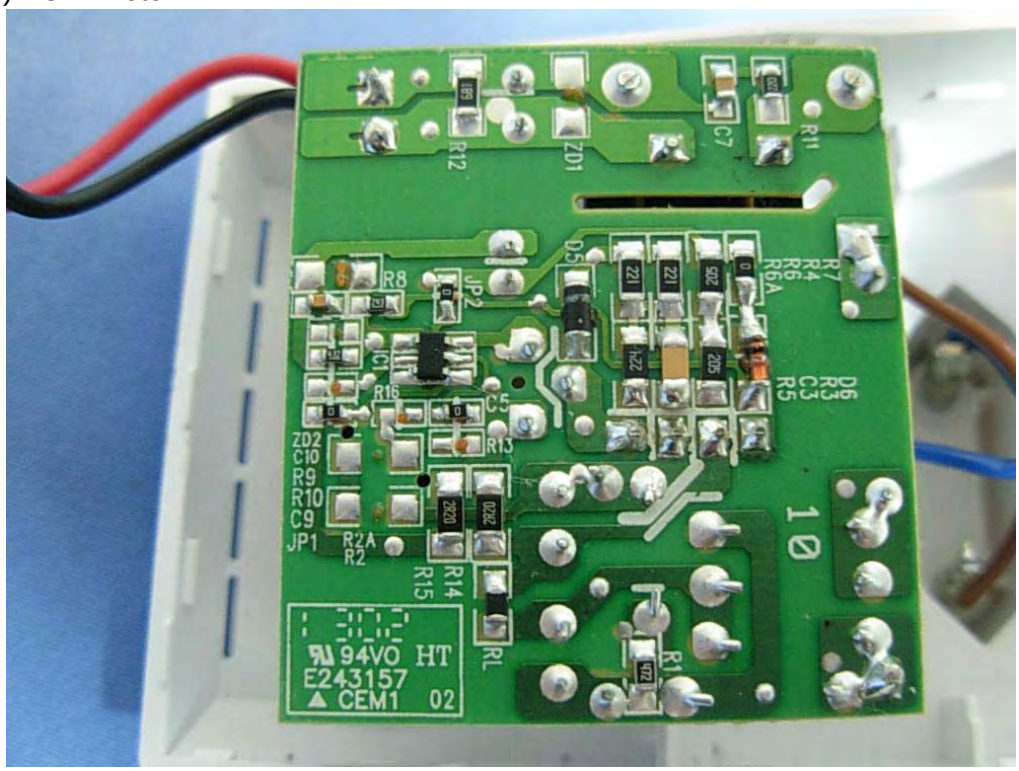
(25) EUT Photo



(26) EUT Photo



(27) EUT Photo



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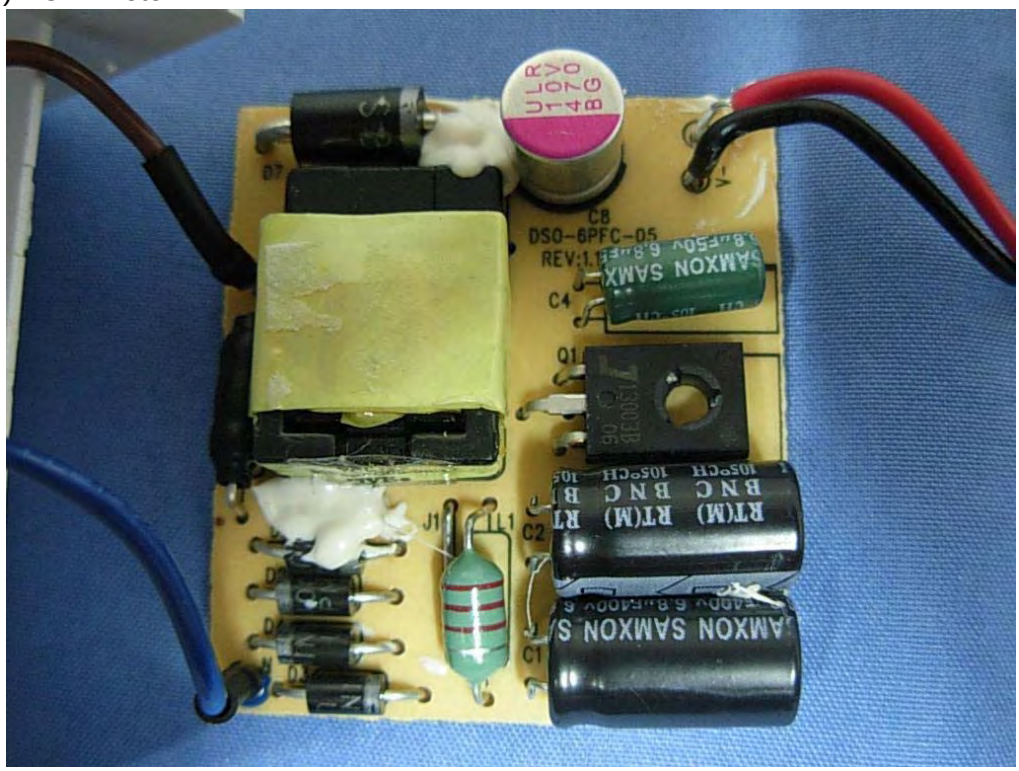

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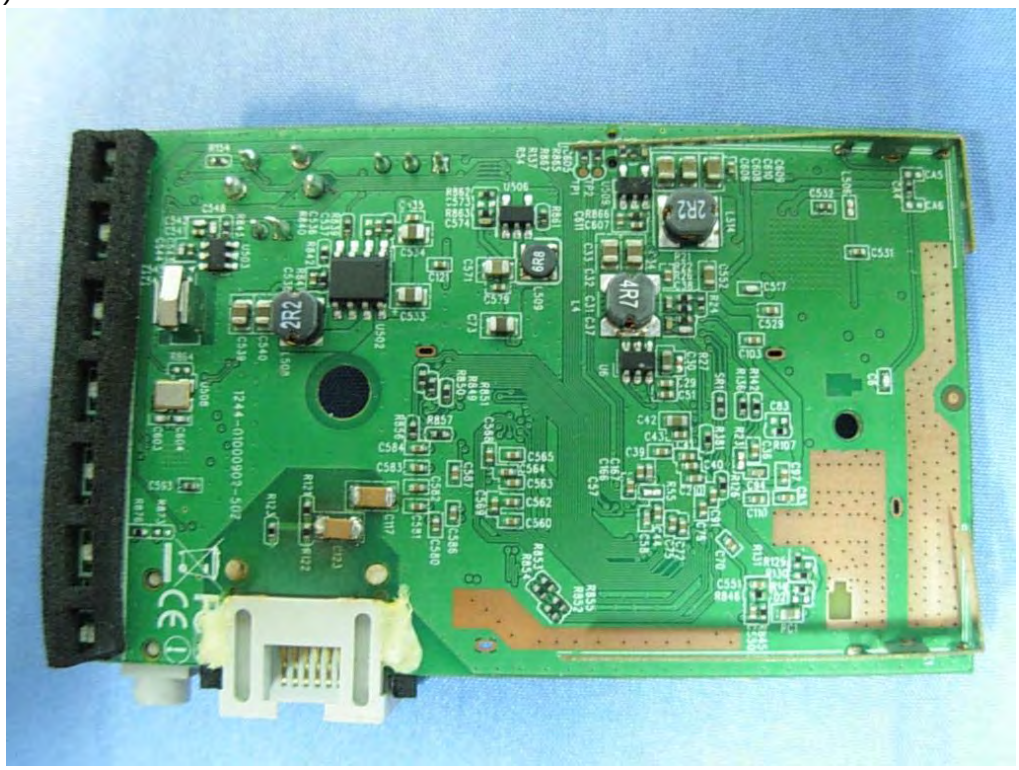

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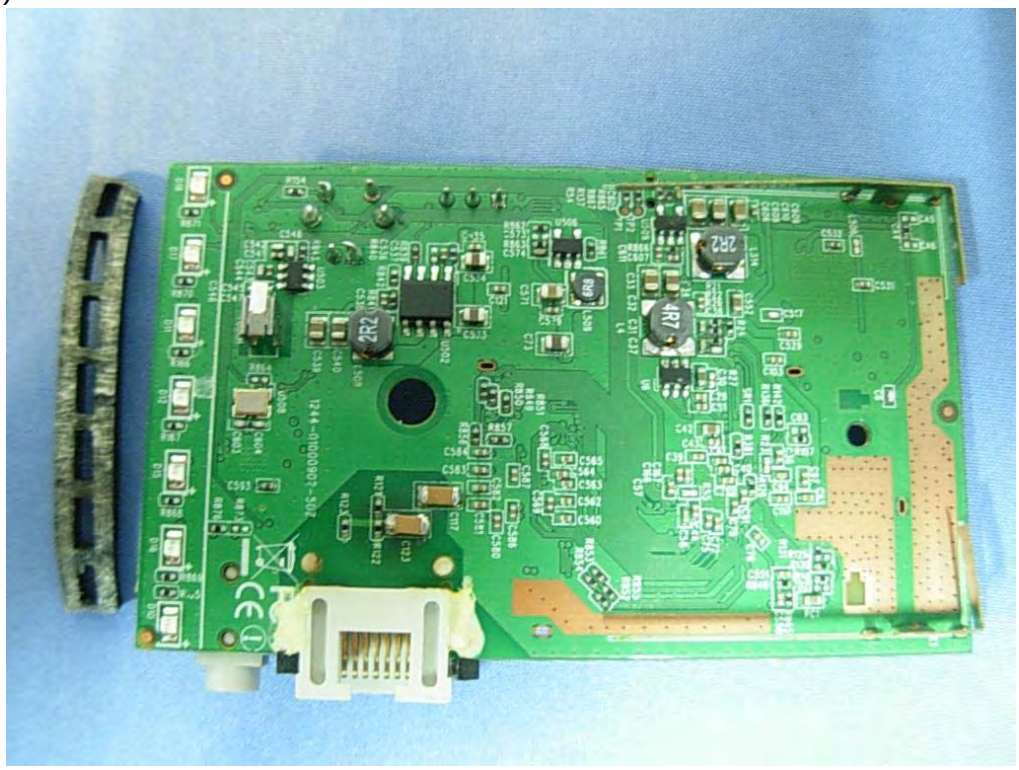
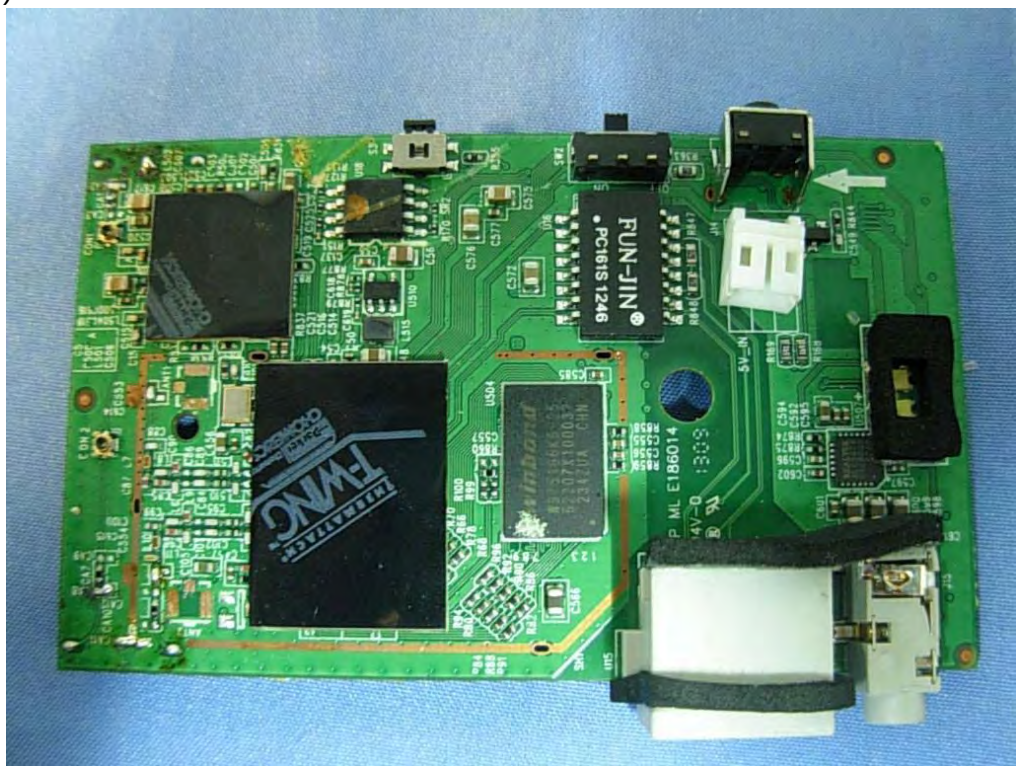


(31) EUT Photo

(32) EUT Photo



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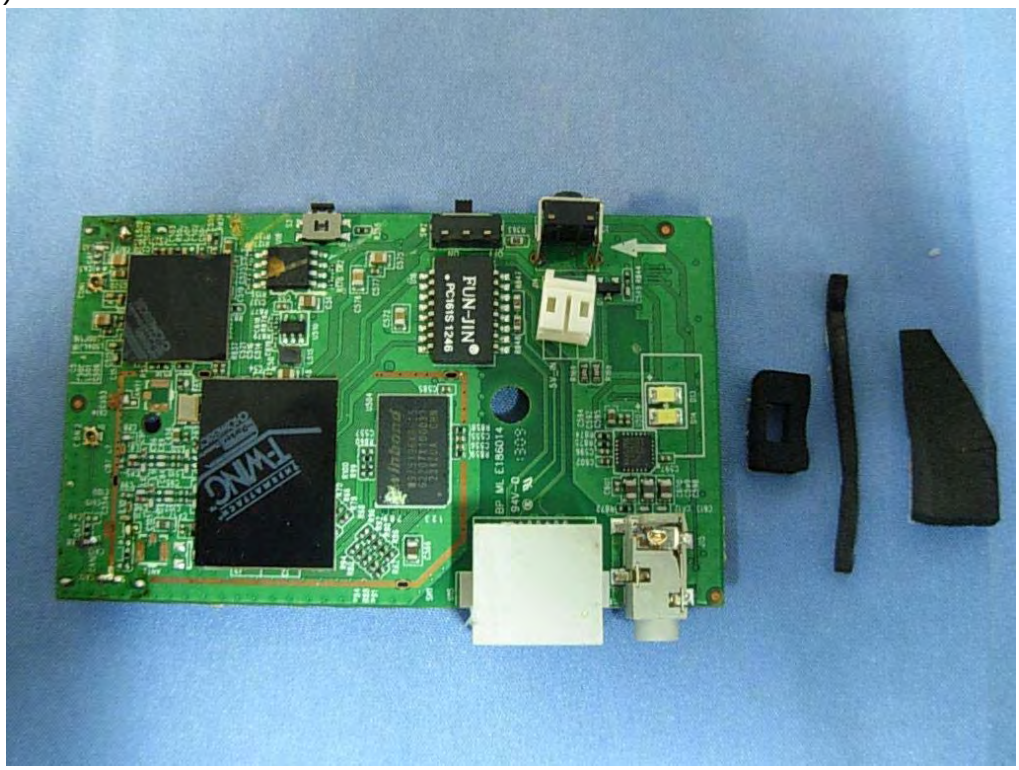

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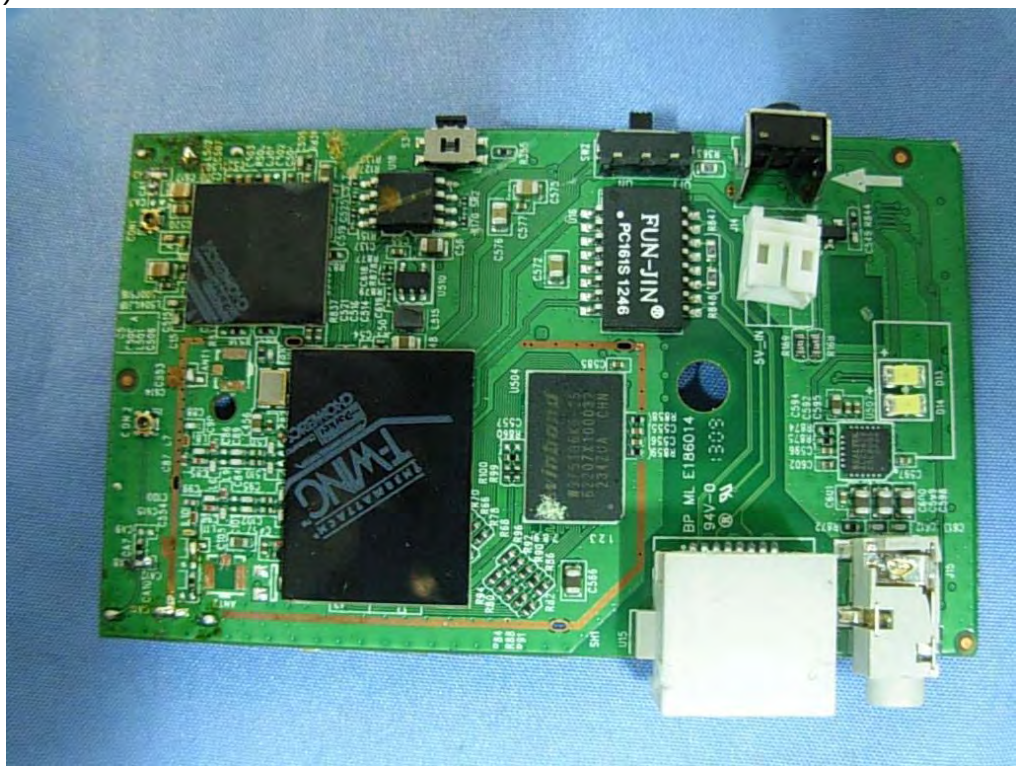

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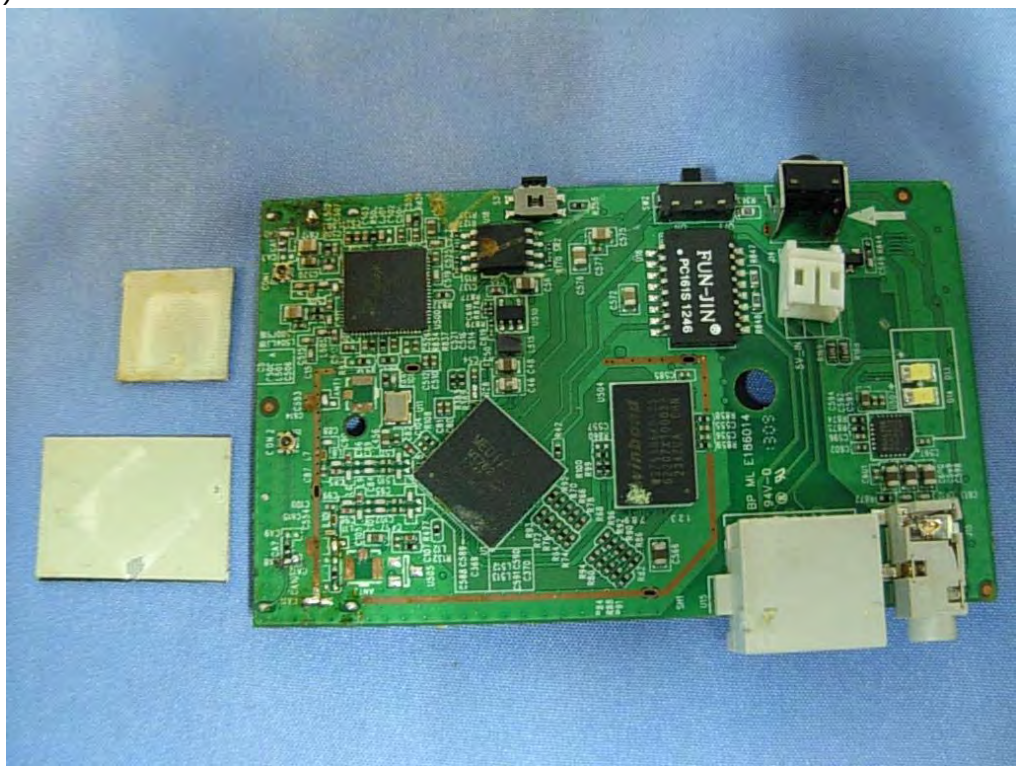

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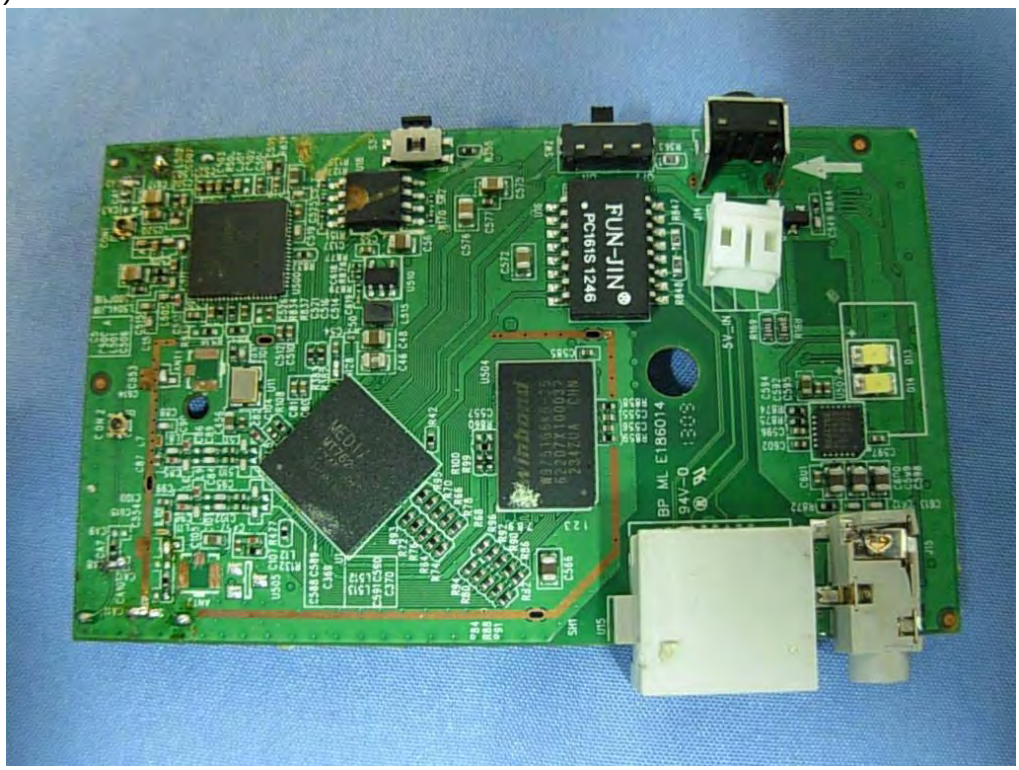
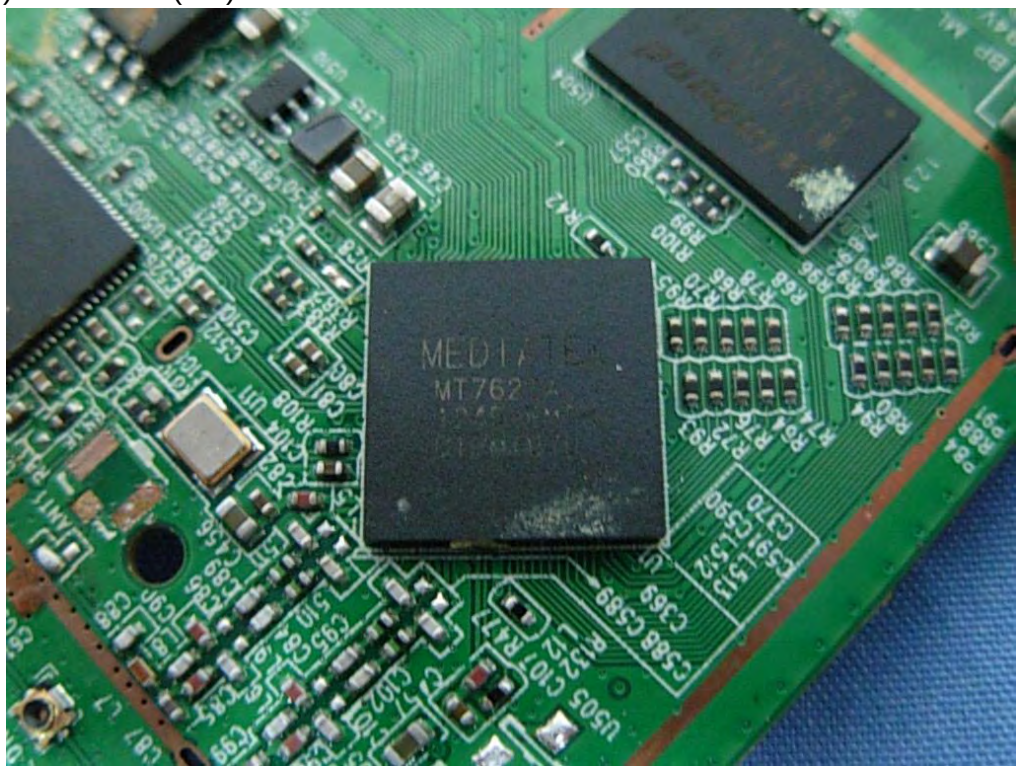
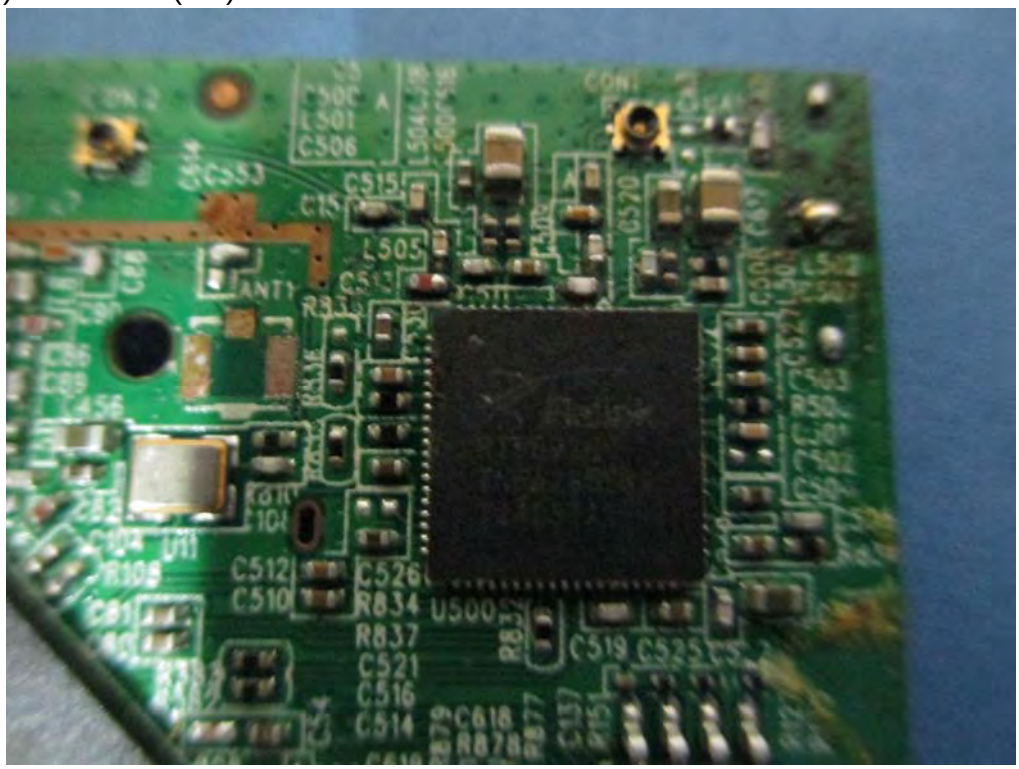


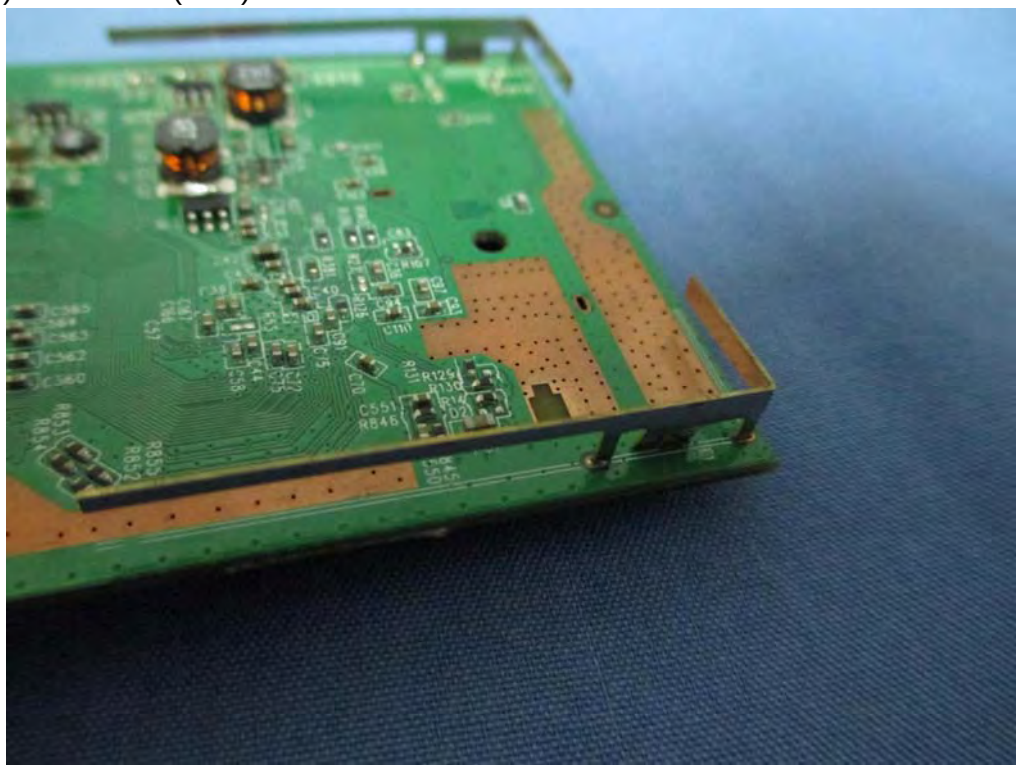
(37) EUT Photo (MB)



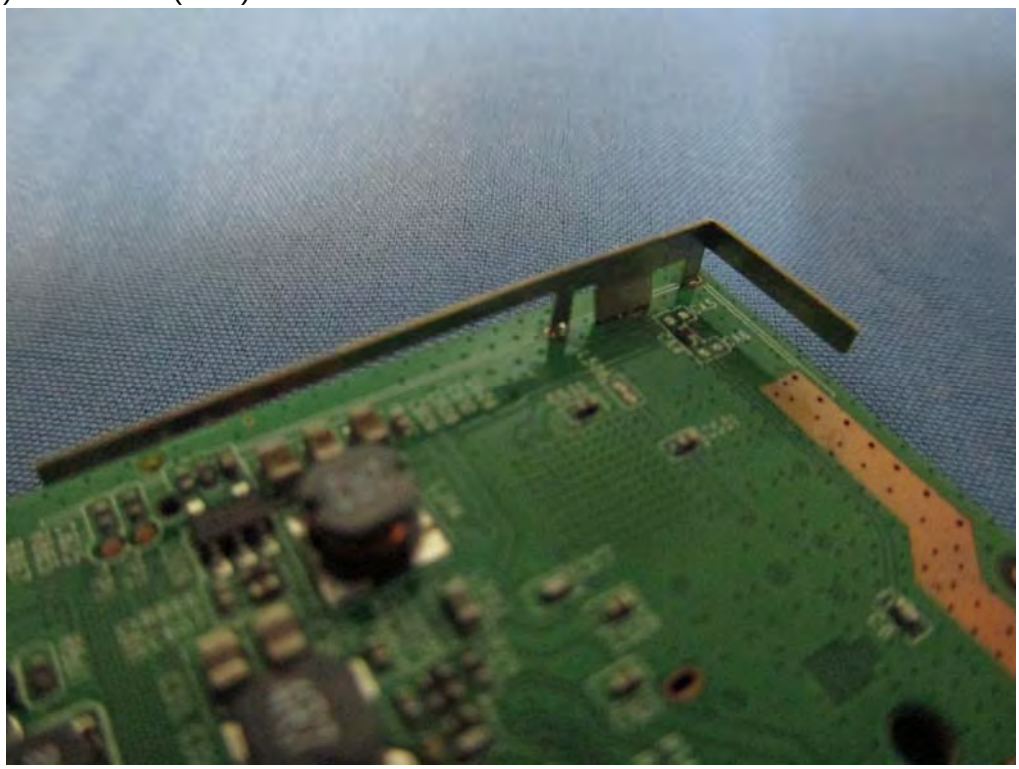
(38) EUT Photo (MB)



(39) EUT Photo (ANT)



(40) EUT Photo (ANT)



(41) EUT Photo (Adapter)

Attachment 4

- **Original Report**