FCC Test Report

Product Name ： Dual-band Wireless Range Extender

Model No. ： RP-AC68U

FCC ID. ： MSQ-RPAC68U

Applicant ： ASUSTeK COMPUTER INC.

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

Date of Receipt ： 2015/05/15

Issued Date ： 2015/05/26

Report No. ： 1550369R-RFUSP39V00

Report Version ： V1.0

Test Report Certification

Issued Date : 2015/05/26
Report No. : 1550369R-RFUSP39V00

Product Name	:	Dual-band Wireless Range Extender
Applicant	:	ASUSTeK COMPUTER INC.
Address	:	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
Manufacturer	:	(1) ASKEY COMPUTER CORPORATION
		(2) ASKEY TECHNOLOGY(JIANG SU) LTD.
Model No.	:	RP-AC68U
FCC ID.	:	MSQ-RPAC68U
EUT Voltage	:	AC 100-240V, 50-60Hz
Trade Name	:	ASUS
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C Section 15.247:2014
		ANSI C63.10: 2009
Test Result	:	Complied

The test results relate only to the samples tested.
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Documented By : (Carol Tsai / Engineering Adm. Specialist)

Reviewed By : (Jimmie Liu / Senior Engineer)

Approved By : (Roy Wang / Director Manager)

Laboratory Information

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

Taiwan R.O.C.	**:**	**TAF, Accreditation Number: 3024**
USA	**:**	**FCC, Registration Number: 365520**
Canada	**:**	**IC, Submission No: 150981**

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

HsinChu Testing Laboratory:
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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 Range Extender
Product Type	WLAN(3TX,4RX)
Trade Name	ASUS
Model No.	RP-AC68U
Frequency Range/Channel Number -IEEE 802.11b_2.4GHz	2412~2462MHz / 11 Channels
Frequency Range/Channel Number -IEEE 802.11a& IEEE 802.11n (20MHz)_5.8GHz	5745~5825MHz / 5 Channels
Frequency Range/Channel Number -IEEE 802.11n (40MHz) _5.8GHz	5755~5795MHz / 2 Channels
Frequency Range/Channel Number -IEEE 802.11ac (80MHz) _5.8GHz	5775~5775MHz / 1 Channel
Type of Modulation (IEEE 802.11b)	Direct Sequence Spread Spectrum (DSSS)
Type of Modulation (IEEE 802.11a/n)	Orthogonal Frequency Division Multiplexing (OFDM)
Data Speed (IEEE 802.11b)	1Mbps, 2Mbps, 5.5Mbps, 11Mbps
Data Speed (IEEE 802.11a)	6Mbps,9Mbps,12Mbps,18Mbps,24Mbps,36Mbps,48Mbps,54Mbps
Data Speed (IEEE 802.11n)	Support a subset of the combination of GI, MCS 0~MCS 23 and bandwidth defined in 802.11n
Data Speed (IEEE 802.11ac)	Support a subset of the combination of GI, MCS 0~MCS 9 and bandwidth defined in 802.11ac
Antenna Gain	Ant1 (chain A) 120 mm :(1) 2.4G:6.08 dBi, 5 G:6.23 dBi Ant2 (chain B) 225 mm :(1) 2.4G:3.57 dBi, 5 G:4.6 dBi Ant3 (chain C) 235 mm :(1) 2.4G:3.31 dBi, 5 G:4.45 dBi Ant4 (chain D) 290 mm :(1) 2.4G:2.99 dBi, 5 G:3.56 dBi
Antenna Type	Dipole antenna

Component	
LAN Cable	Non-Shielded, 1.8m
Power Adatper	I.T.E., AD890326 I/P: 100-240V~ 50/60Hz 0.8A O/P : 19V⎓1.75A Cable Out: Non-Shielded, 1.8m

ANT-TX / RX & Bandwidth

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

(3TX / 4RX)

IEEE 802.11n

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

Table 1 – MCS parameters for TX Antenna number = 1

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

Table 2 – MCS parameters for TX Antenna number = 2

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

IEEE 802.11ac Data Rate

Spatial Streams (Note1)	MCS Index	Modulation type	Coding rate	Data Rate(Mb/s)							
				20 MHz		40 MHz		80 MHz		160 MHz	
				Guard Interval		Guard Interval		Guard Interval		Guard Interval	
				800ns	400ns	800ns	400ns	800ns	400ns	800ns	400ns
1	0	BPSK	1/2	6.5	7.2	13.5	15	29.3	32.5	58.5	65
	1	QPSK	1/2	13	14.4	27	30	58.5	65	117	130
	2	QPSK	3/4	19.5	21.7	40.5	45	87.8	97.5	175.5	195
	3	16-QAM	1/2	26	28.9	54	60	117	130	234	260
	4	16-QAM	3/4	39	43.3	81	90	175.5	195	351	390
	5	64-QAM	2/3	52	57.8	108	120	234	260	468	520
	6	64-QAM	3/4	58.5	65	121.5	135	263.3	292.5	526.5	585
	7	64-QAM	5/6	65	72.2	135	150	292.5	325	585	650
	8	256-QAM	3/4	78	86.7	162	180	351	390	702	780
	9	256-QAM	5/6	N/A	N/A	180	200	390	433.3	780	866.7

IEEE 802.11b - 2.4GHz

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
001	2412 MHz	002	2417 MHz	003	2422 MHz	004	2427 MHz
005	2432 MHz	006	2437 MHz	007	2442 MHz	008	2447 MHz
009	2452 MHz	010	2457 MHz	011	2462 MHz		

IEEE 802.11a & IEEE 802.11n (20MHz) - 5.8GHz

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

IEEE 802.11n (40MHz) - 5.8GHz

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

IEEE 802.11ac (80MHz) - 5.8GHz

Working Frequency of Each Channel	
Channel	Frequency
155	5775 MHz

Note:

1. This device is a Dual-band Wireless Range Extender including 2.4GHz b (3x4) and 5GHz a/n/ac (3x4) 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 C Paragraph 15.247.
4. Regards to the frequency band operation; the lowest、middle and highest frequency of channel were selected to perform the test, and then shown on this report.
5. The function of the 5.2GHz transmitting is measured and makes a test report of the report number: 1550369R-RFUSP56V00.
6. This device is a composite device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 1550369R-RFUSP01V00 under Declaration of Conformity.

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)	6	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies
Peak Power Output	11a	149/ 157/ 165	0+1+2	Complies
	11b	1/ 6/ 11	0+1+2	Complies
	11n(20MHz)	149/ 157/ 165	0+1+2	Complies
	11n(40MHz)	151/ 159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies
Radiated Emission	11a	149/ 157/ 165	0+1+2	Complies
	11b	1/ 6/ 11	0+1+2	Complies
	11n(20MHz)	149/ 157/ 165	0+1+2	Complies
	11n(40MHz)	151/ 159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies
RF antenna conducted test	11a	149/ 157/ 165	0/1/2	Complies
	11b	1/ 6/ 11	0/1/2	Complies
	11n(20MHz)	149/ 157/ 165	0/1/2	Complies
	11n(40MHz)	151/ 159	0/1/2	Complies
	11ac(80MHz)	155	0/1/2	Complies
Radiated Emission Band Edge	11a	149/ 157/ 165	0/1/2	Complies
	11b	1/ 6/ 11	0/1/2	Complies
	11n(20MHz)	149/ 157/ 165	0/1/2	Complies
	11n(40MHz)	151/ 159	0/1/2	Complies
	11ac(80MHz)	155	0/1/2	Complies
Occupied Bandwidth	11a	149/ 157/ 165	0/1/2	Complies
	11b	1/ 6/ 11	0/1/2	Complies
	11n(20MHz)	149/ 157/ 165	0/1/2	Complies
	11n(40MHz)	151/ 159	0/1/2	Complies
	11ac(80MHz)	155	0/1/2	Complies
Power Density	11a	149/ 157/ 165	0+1+2	Complies
	11b	1/ 6/ 11	0+1+2	Complies
	11n(20MHz)	149/ 157/ 165	0+1+2	Complies
	11n(40MHz)	151/ 159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies

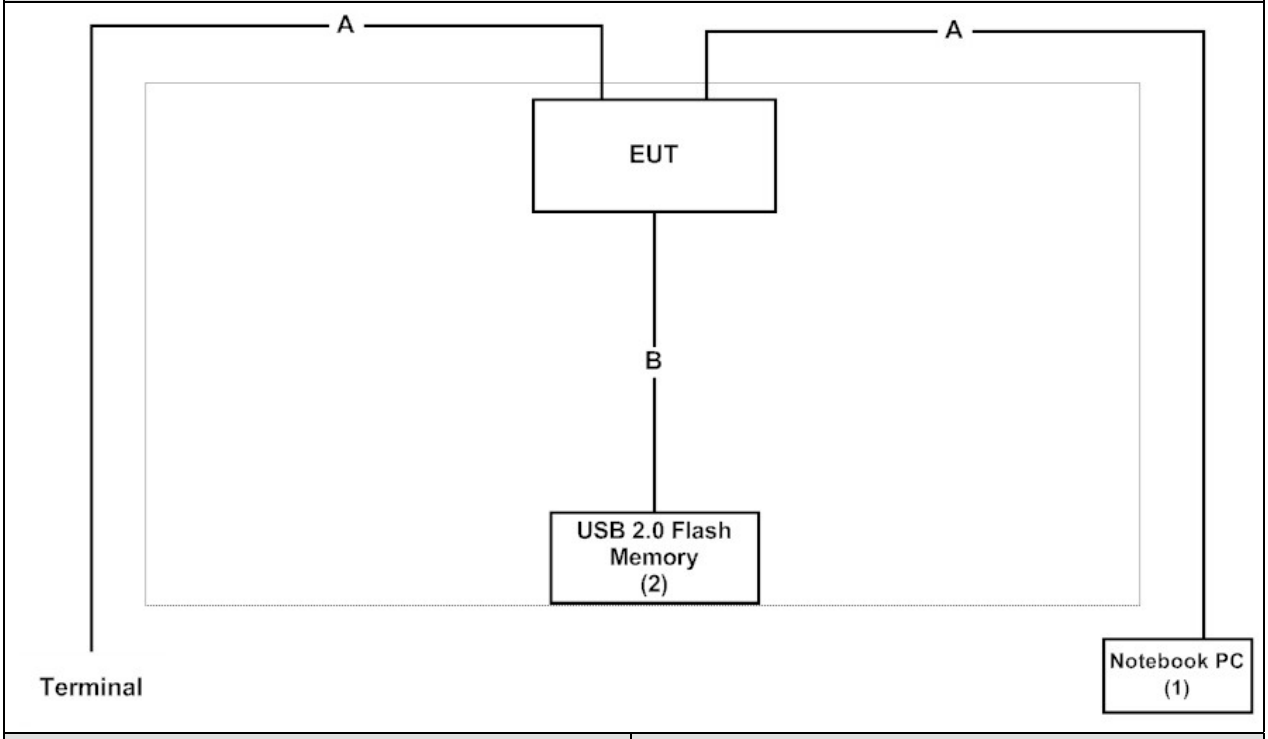
1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	ACER	MS2296	LUSCV021391 150332C2000	DoC	Non-Shielded, 2.5m one ferrite core bonded
2	USB 2.0 Flash Memory	Apacer	AH223	N/A	DoC	--

1.4. Configuration of tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	LAN Cable	Shielded, 2m
B	USB 2.0 Flash Memory Cable	Non-Shielded, 1.8m

1.5. EUT Exercise Software

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

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.207 Conducted Emission	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Peak Power Output	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Radiated Emission	15 - 35	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 RF antenna conducted test	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge	15 - 35	25
Humidity (%RH)		25 - 75	48
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Power Density	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

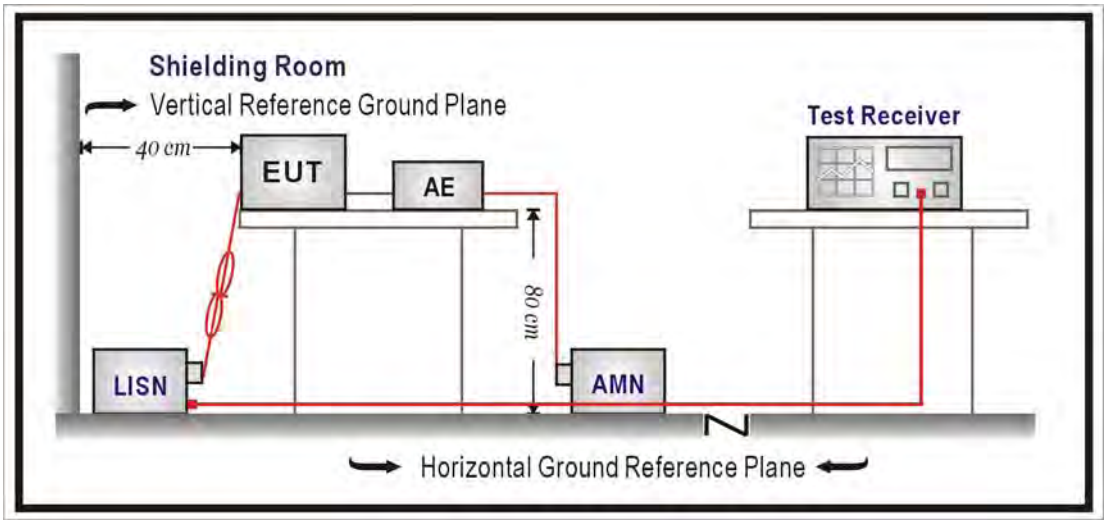
The following test equipments are used during the test:

Conducted Emission / SR2

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

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

2.2. Test Setup



2.3. Limits

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

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

2.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
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

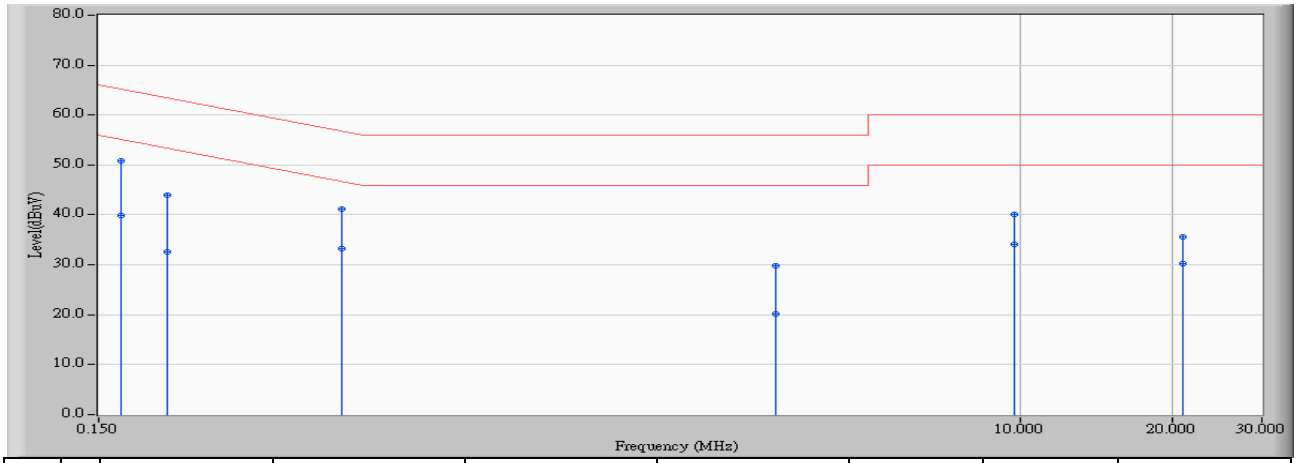
According to FCC Part 15 Subpart C Paragraph 15.207: 2014

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR2	**Time : 2015/05/15 - 19:30**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-4_0825 - Line1	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11b_2437MHz**

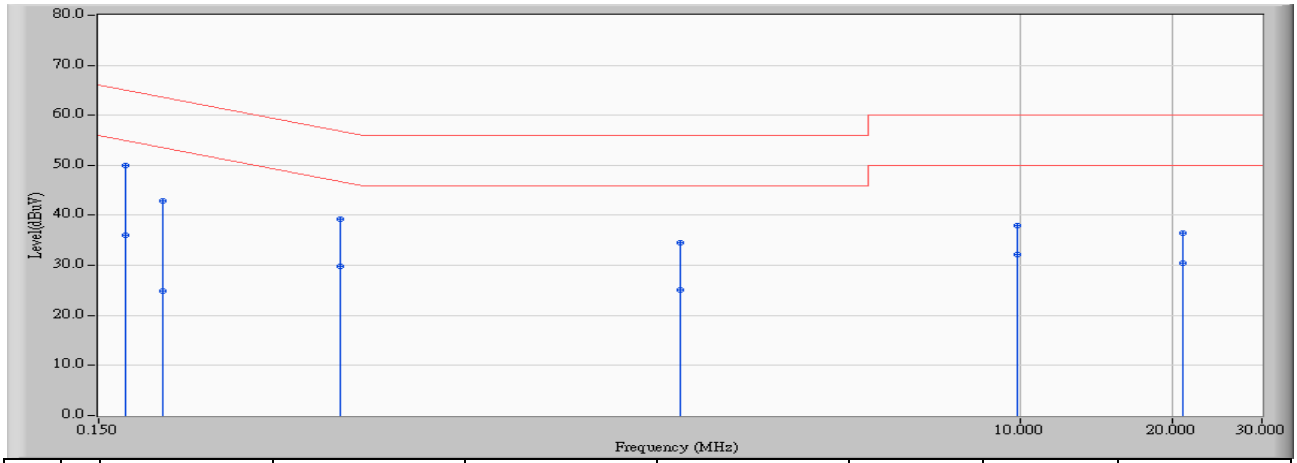


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.166	9.760	41.130	50.890	-14.287	65.177	QUASIPEAK
2		0.166	9.760	30.040	39.800	-15.377	55.177	AVERAGE
3		0.205	9.760	34.300	44.060	-19.359	63.418	QUASIPEAK
4		0.205	9.760	22.760	32.520	-20.899	53.418	AVERAGE
5		0.455	9.751	31.480	41.231	-15.558	56.789	QUASIPEAK
6	*	0.455	9.751	23.460	33.211	-13.578	46.789	AVERAGE
7		3.267	9.881	20.010	29.891	-26.109	56.000	QUASIPEAK
8		3.267	9.881	10.240	20.121	-25.879	46.000	AVERAGE
9		9.705	10.093	30.030	40.122	-19.878	60.000	QUASIPEAK
10		9.705	10.093	23.970	34.062	-15.938	50.000	AVERAGE
11		20.951	10.325	25.350	35.675	-24.325	60.000	QUASIPEAK
12		20.951	10.325	19.940	30.265	-19.735	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 : SR2	**Time : 2015/05/15 - 19:34**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-4_0825 - Line2	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11b_2437MHz**

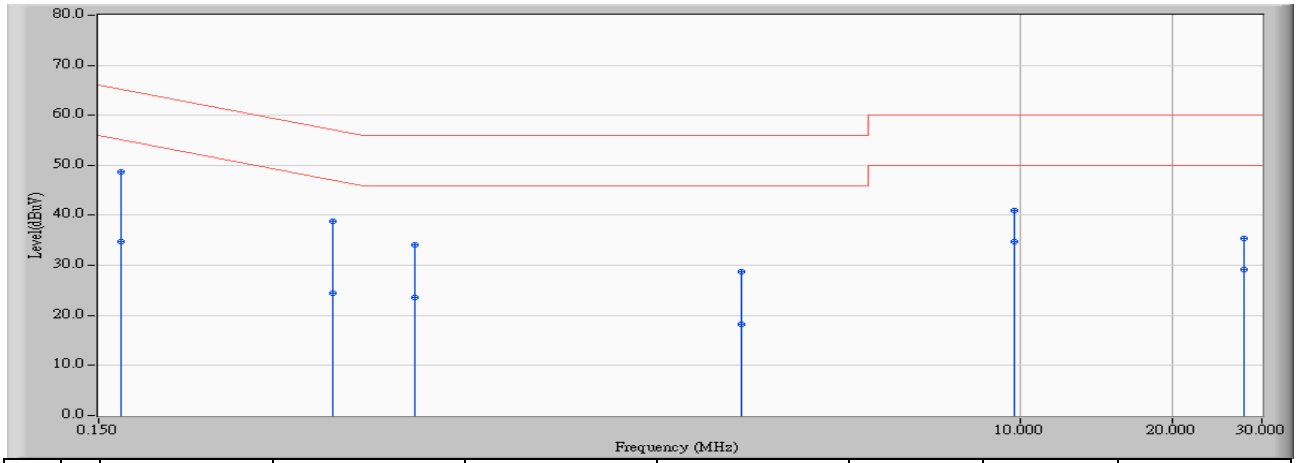


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.170	9.810	40.140	49.950	-15.033	64.983	QUASIPEAK
2		0.170	9.810	26.180	35.990	-18.993	54.983	AVERAGE
3		0.201	9.810	33.020	42.830	-20.748	63.578	QUASIPEAK
4		0.201	9.810	15.050	24.860	-28.718	53.578	AVERAGE
5		0.451	9.820	29.520	39.340	-17.521	56.861	QUASIPEAK
6		0.451	9.820	19.940	29.760	-17.101	46.861	AVERAGE
7		2.119	9.886	24.550	34.436	-21.564	56.000	QUASIPEAK
8		2.119	9.886	15.170	25.056	-20.944	46.000	AVERAGE
9		9.822	10.185	27.860	38.045	-21.955	60.000	QUASIPEAK
10		9.822	10.185	21.910	32.095	-17.905	50.000	AVERAGE
11		20.947	10.525	25.850	36.374	-23.626	60.000	QUASIPEAK
12		20.947	10.525	20.020	30.544	-19.456	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 : SR2	**Time : 2015/05/15 - 19:46**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-4_0825 - Line1	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11ac80_5775MHz**

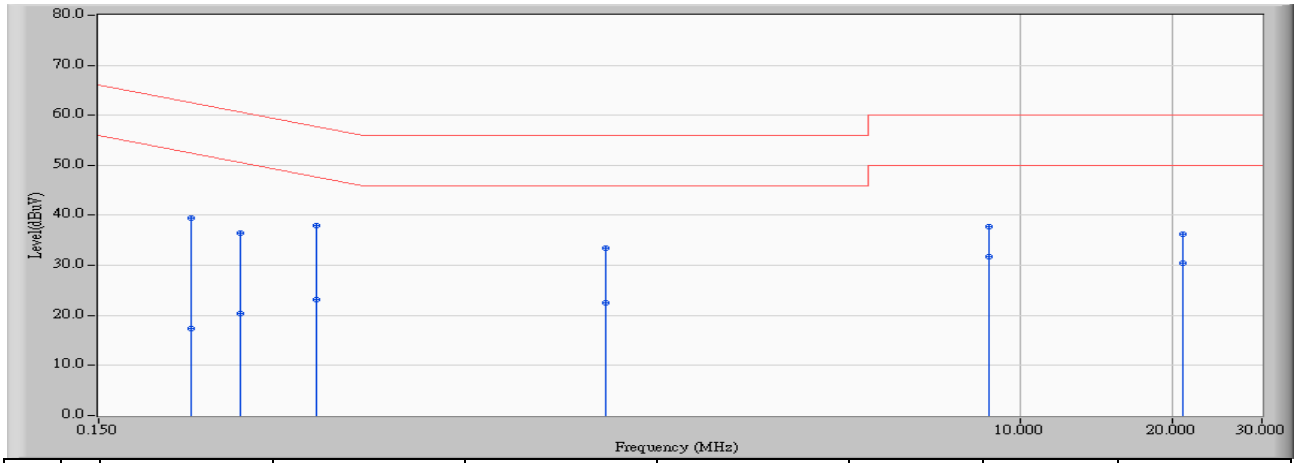


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.166	9.760	38.960	48.720	-16.457	65.177	QUASIPEAK
2		0.166	9.760	24.910	34.670	-20.507	55.177	AVERAGE
3		0.436	9.751	29.020	38.771	-18.376	57.146	QUASIPEAK
4		0.436	9.751	14.760	24.511	-22.636	47.146	AVERAGE
5		0.634	9.767	24.240	34.007	-21.993	56.000	QUASIPEAK
6		0.634	9.767	13.900	23.667	-22.333	46.000	AVERAGE
7		2.795	9.858	18.810	28.668	-27.332	56.000	QUASIPEAK
8		2.795	9.858	8.420	18.278	-27.722	46.000	AVERAGE
9		9.705	10.093	30.840	40.932	-19.068	60.000	QUASIPEAK
10	*	9.705	10.093	24.700	34.792	-15.208	50.000	AVERAGE
11		27.572	10.337	25.130	35.467	-24.533	60.000	QUASIPEAK
12		27.572	10.337	18.830	29.167	-20.833	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 : SR2	**Time : 2015/05/15 - 19:50**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR2_LISN(16A)-4_0825 - Line2	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11ac80_5775MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.228	9.811	29.650	39.461	-23.056	62.518	QUASIPEAK
2		0.228	9.811	7.620	17.431	-35.086	52.518	AVERAGE
3		0.287	9.814	26.590	36.404	-24.215	60.619	QUASIPEAK
4		0.287	9.814	10.560	20.374	-30.245	50.619	AVERAGE
5		0.404	9.820	28.120	37.940	-19.833	57.773	QUASIPEAK
6		0.404	9.820	13.430	23.250	-24.523	47.773	AVERAGE
7		1.513	9.875	23.620	33.495	-22.505	56.000	QUASIPEAK
8		1.513	9.875	12.710	22.585	-23.415	46.000	AVERAGE
9		8.642	10.150	27.690	37.840	-22.160	60.000	QUASIPEAK
10	*	8.642	10.150	21.580	31.730	-18.270	50.000	AVERAGE
11		20.947	10.525	25.670	36.194	-23.806	60.000	QUASIPEAK
12		20.947	10.525	19.940	30.464	-19.536	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. Peak Power Output

3.1. Test Equipment

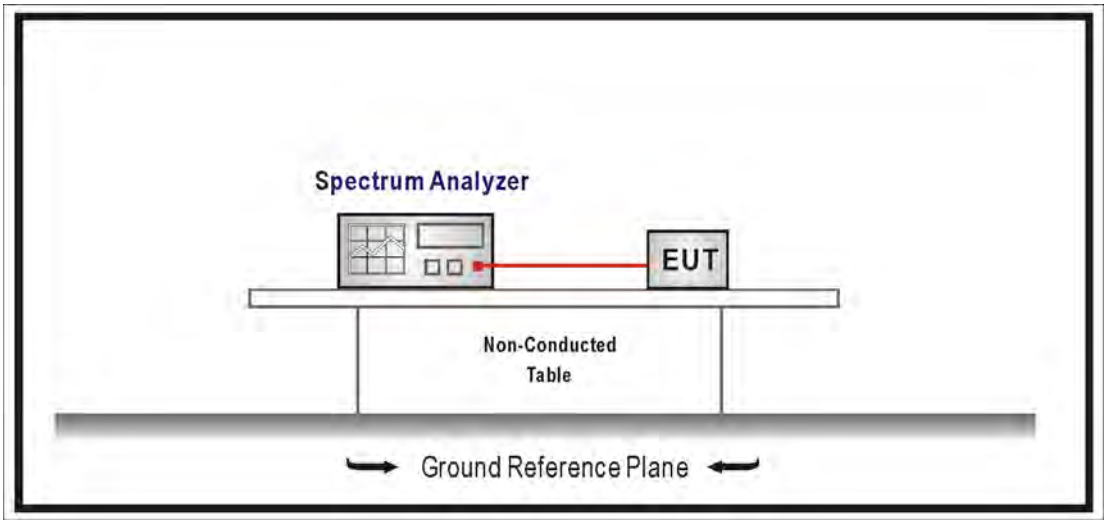
The following test equipments are used during the test:

Peak Power Output / SR7

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

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

3.2. Test Setup



3.3. Test procedures

The EUT was tested according to DTS test procedure section 9.1.2 of KDB558074 v03r02 measurement to FCC 47CFR 15.247 requirements.

3.4. Limits

The maximum peak power shall be less 1 Watt.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

3.6. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB.

3.7. Test Result

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

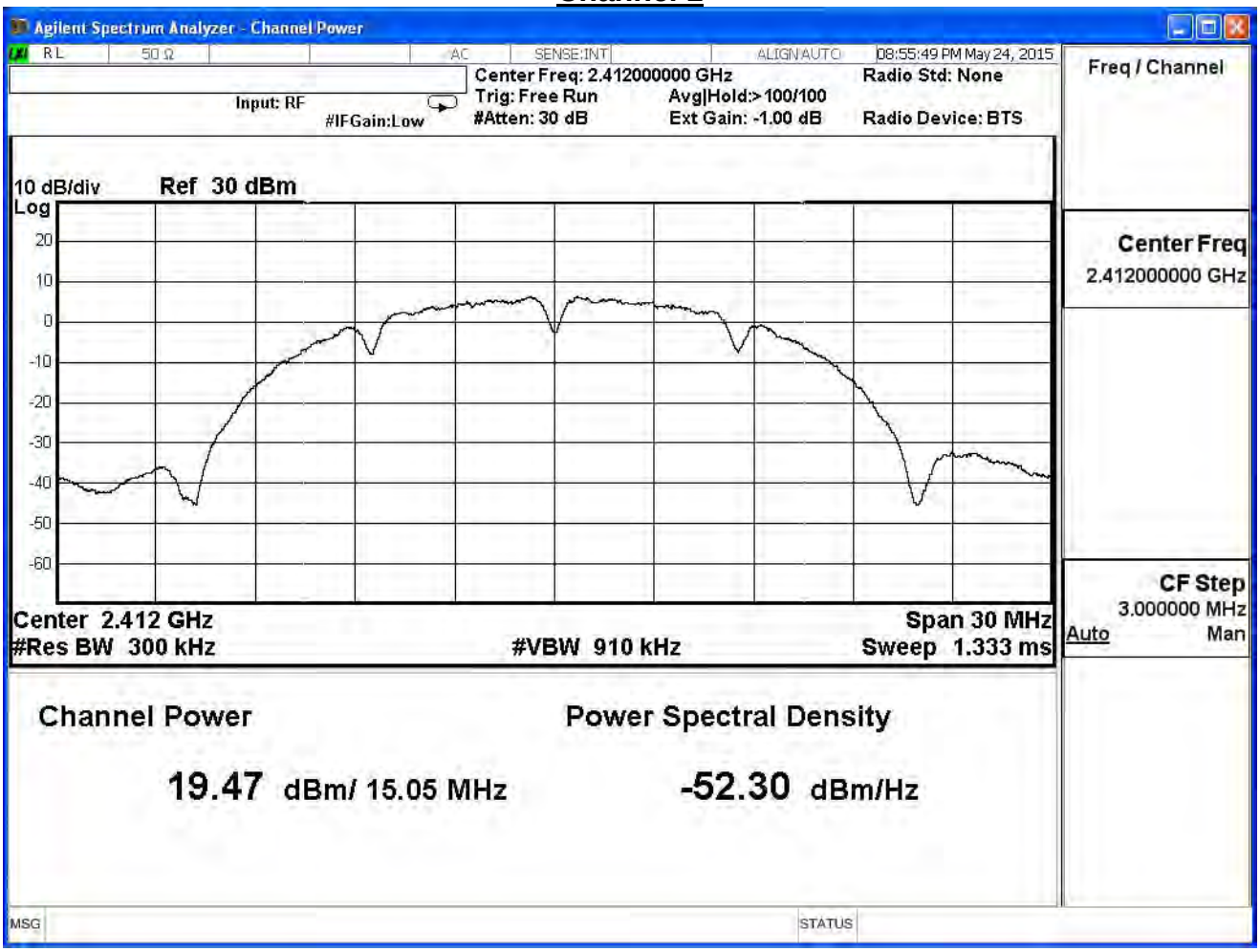
IEEE 802.11b (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	19.47	≦30	Pass
6	2437	22.13	≦30	Pass
11	2462	15.38	≦30	Pass

The worst emission of data rate is 1Mbps.

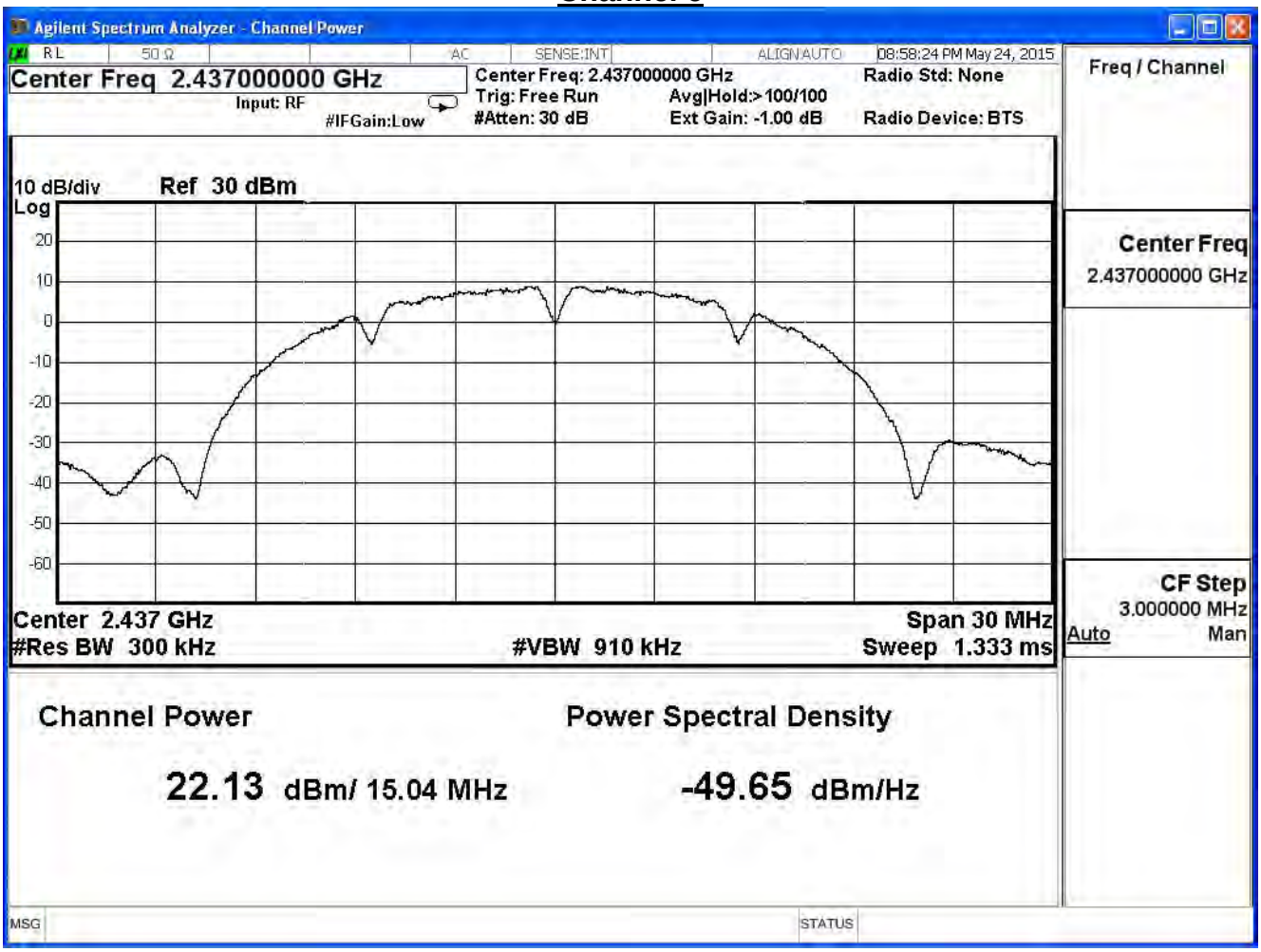
Peak Power Output (dBm)						
Channel No	Frequency (MHz)	Data Rate (Mbps)				Required Limit
		1	2	5.5	11	
1	2412	19.47	--	--	--	1 Watt=30dBm
6	2437	22.13	22.01	21.81	21.59	1 Watt=30dBm
11	2462	15.38	--	--	--	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

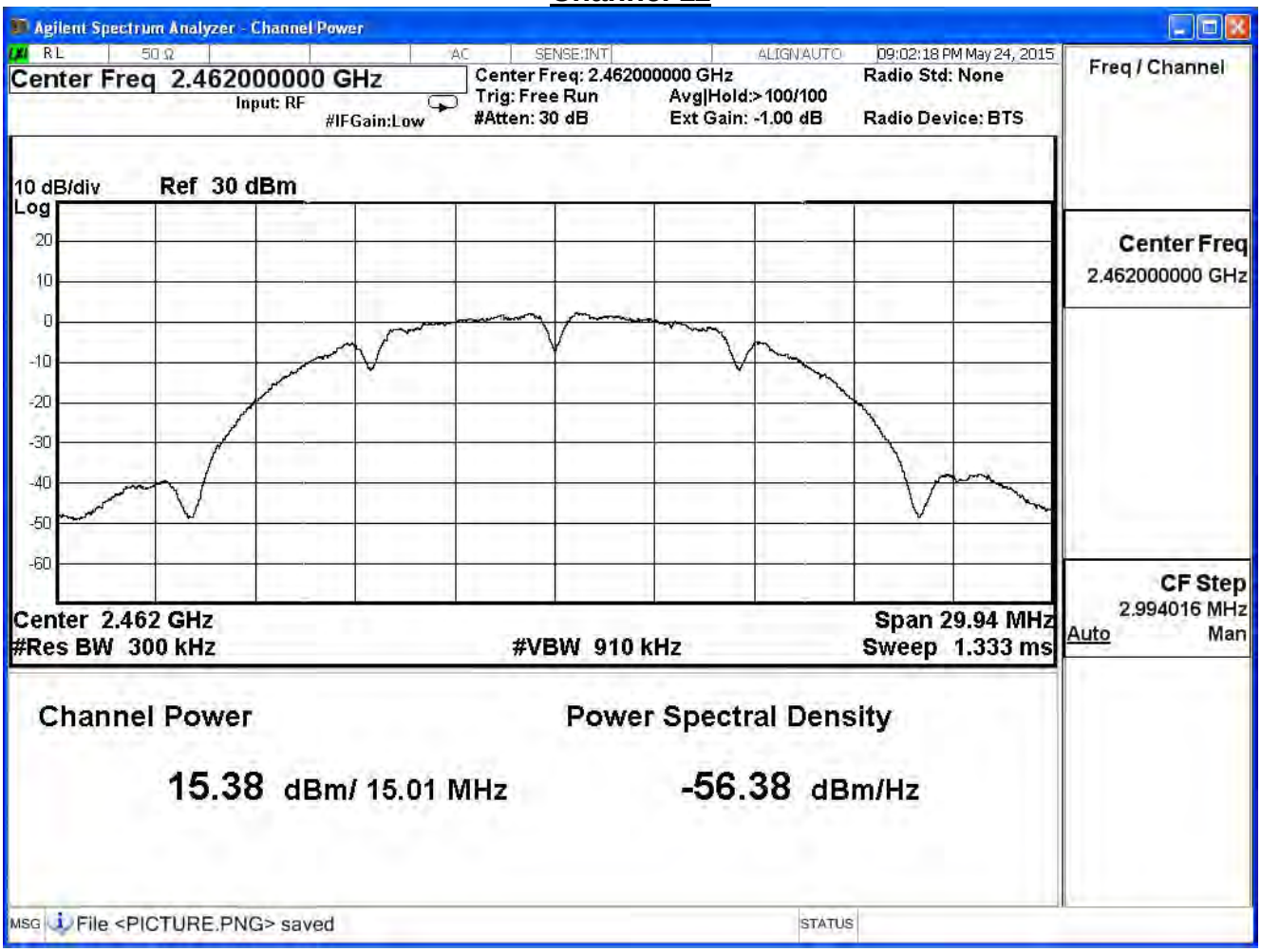
Channel 1


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:55:49 PM May 24, 2015
Input: RF
#IFGain:Low
Center Freq: 2.412000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.412000000 GHz
Center 2.412 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
19.47 dBm/ 15.05 MHz
Power Spectral Density
-52.30 dBm/Hz
MSG
STATUS

Channel 6


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:58:24 PM May 24, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
22.13 dBm/ 15.04 MHz
Power Spectral Density
-49.65 dBm/Hz
MSG
STATUS

Channel 11


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:02:18 PM May 24, 2015
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 29.94 MHz
Sweep 1.333 ms
CF Step
2.994016 MHz
Auto
Man
Channel Power
15.38 dBm/ 15.01 MHz
Power Spectral Density
-56.38 dBm/Hz
MSG
File <PICTURE.PNG> saved
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

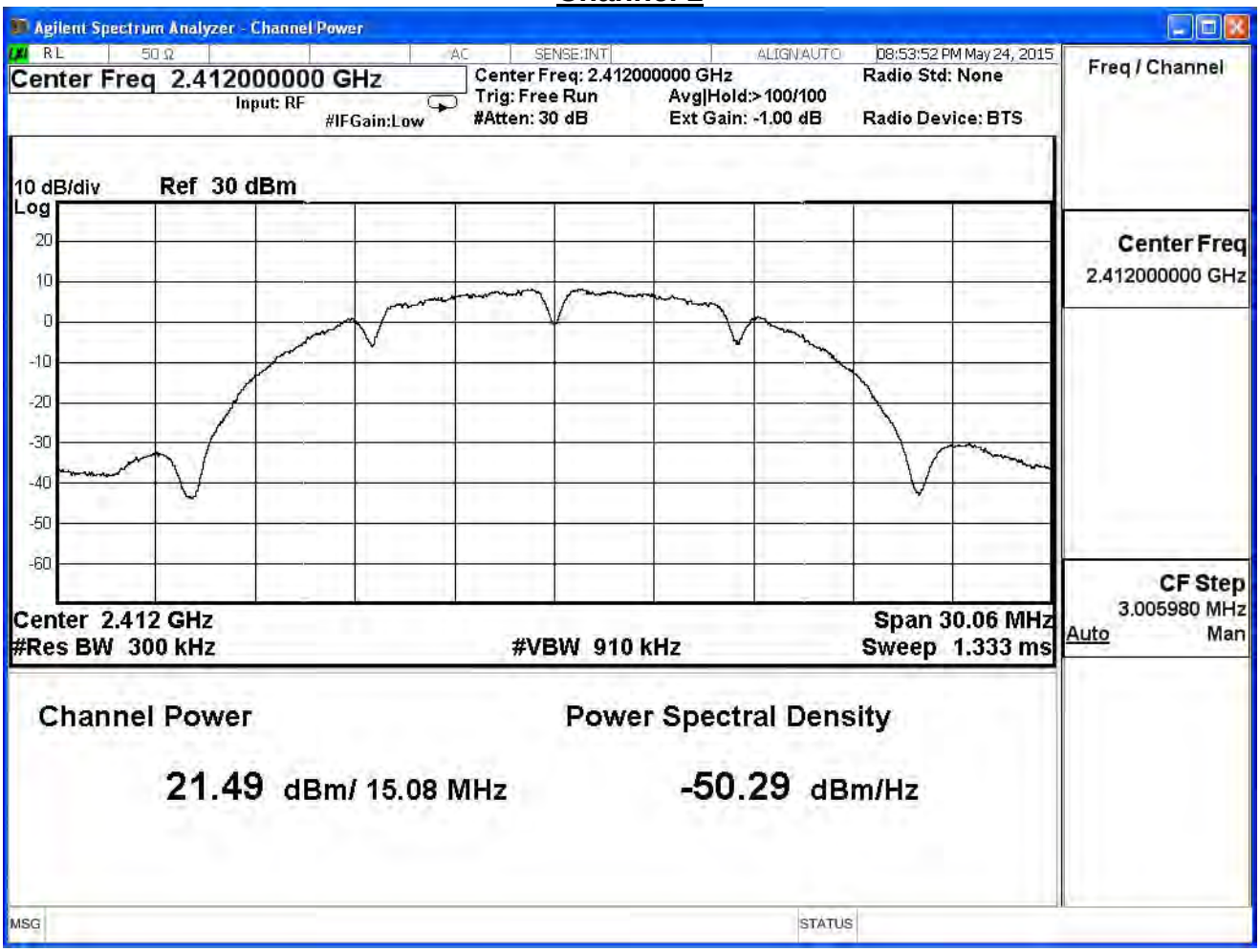
IEEE 802.11b (ANT 1)				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
1	2412	21.49	≦30	Pass
6	2437	23.89	≦30	Pass
11	2462	17.53	≦30	Pass

The worst emission of data rate is 1Mbps.

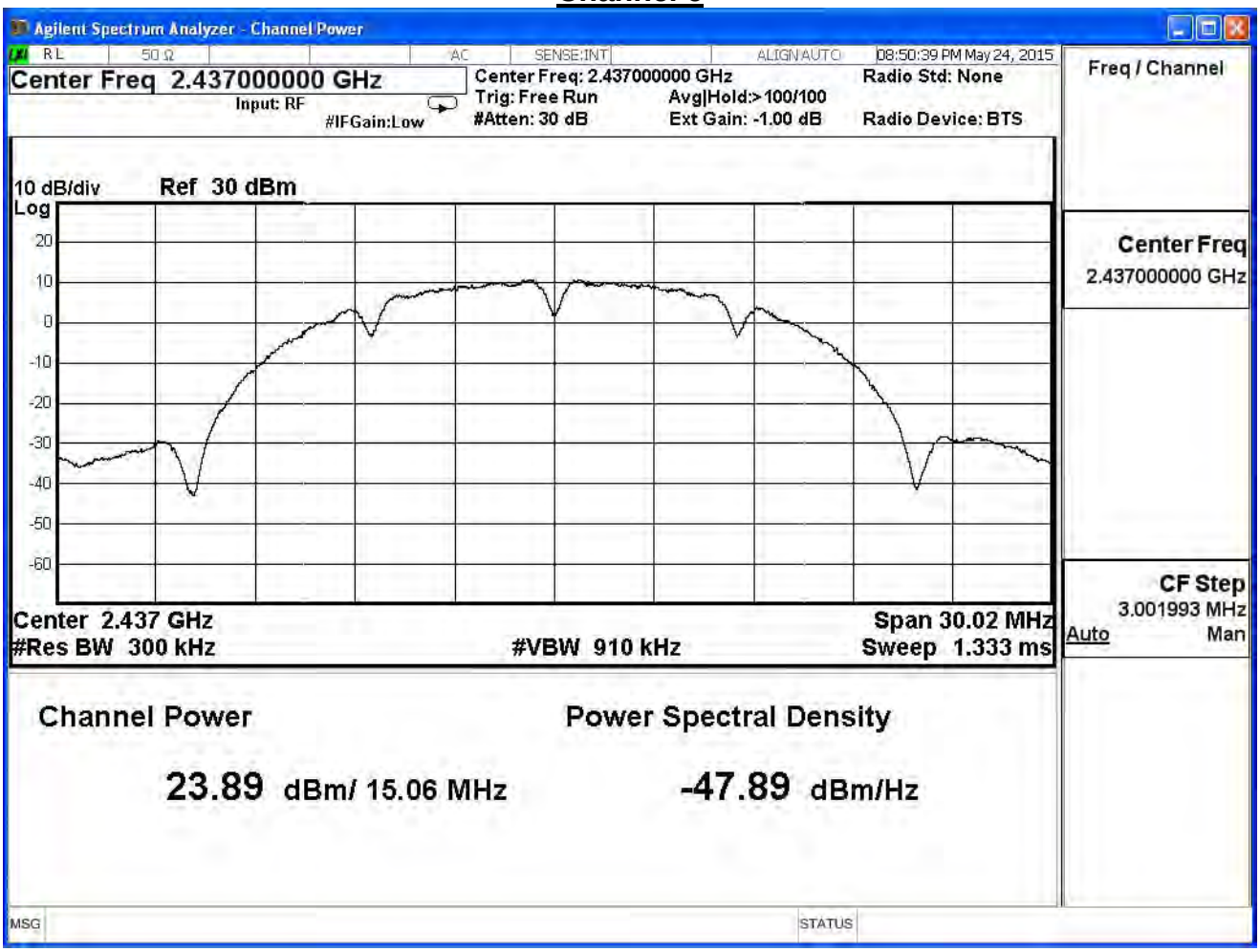
Channel No	Frequency (MHz)	Data Rate (Mbps)				Required Limit
		1	2	5.5	11	
1	2412	21.49	--	--	--	1 Watt=30dBm
6	2437	23.89	23.69	23.57	23.47	1 Watt=30dBm
11	2462	17.53	--	--	--	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

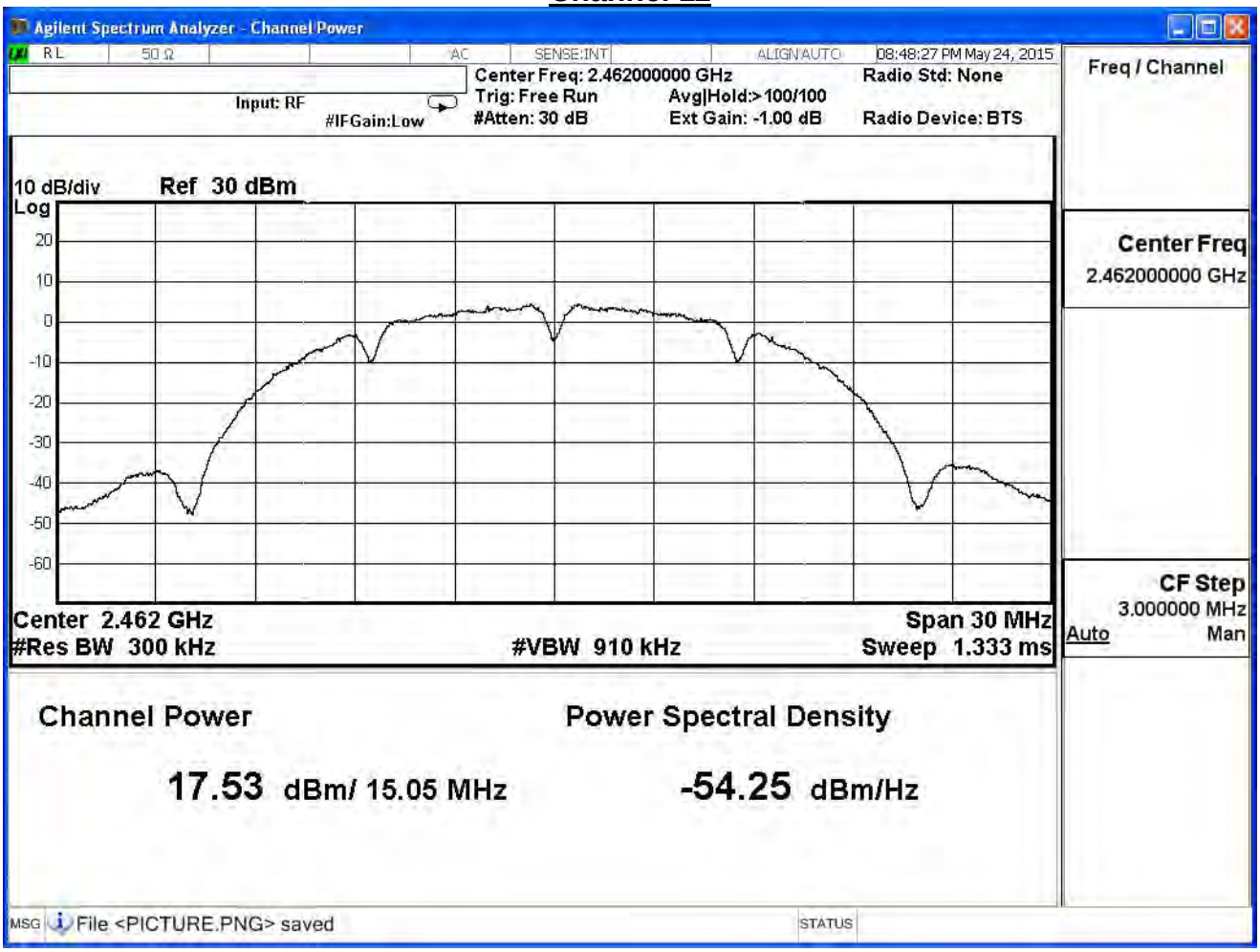
Channel 1


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:53:52 PM May 24, 2015
Center Freq 2.412000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.412000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.412000000 GHz
Center 2.412 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30.06 MHz
Sweep 1.333 ms
CF Step
3.005980 MHz
Auto
Man
Channel Power
21.49 dBm/ 15.08 MHz
Power Spectral Density
-50.29 dBm/Hz
MSG
STATUS

Channel 6


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:50:39 PM May 24, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30.02 MHz
Sweep 1.333 ms
CF Step
3.001993 MHz
Auto
Man
Channel Power
23.89 dBm/ 15.06 MHz
Power Spectral Density
-47.89 dBm/Hz
MSG
STATUS

Channel 11


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:48:27 PM May 24, 2015
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
17.53 dBm/ 15.05 MHz
Power Spectral Density
-54.25 dBm/Hz
MSG
File <PICTURE.PNG> saved
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

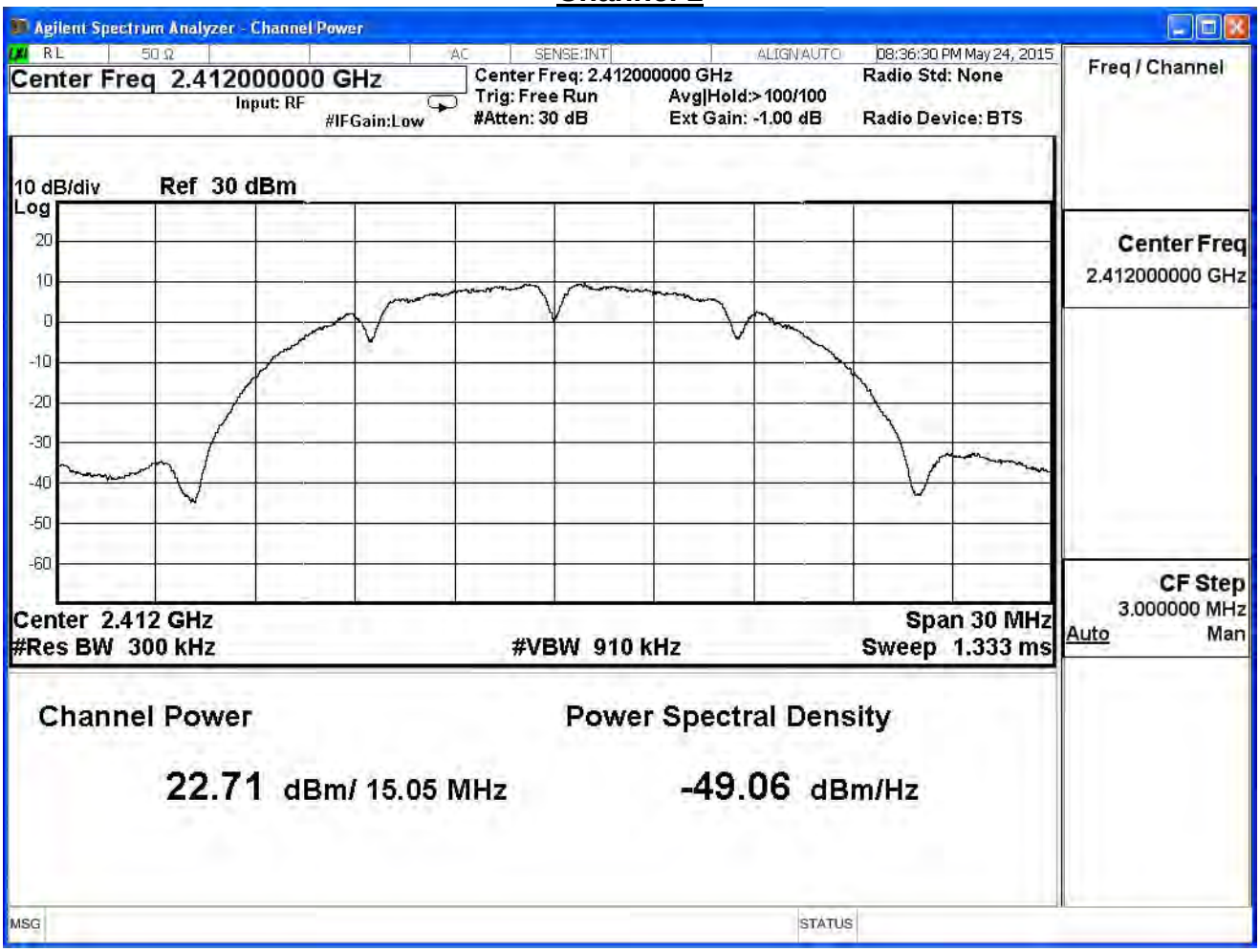
IEEE 802.11b (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	22.71	≦30	Pass
6	2437	25.09	≦30	Pass
11	2462	17.87	≦30	Pass

The worst emission of data rate is 1Mbps.

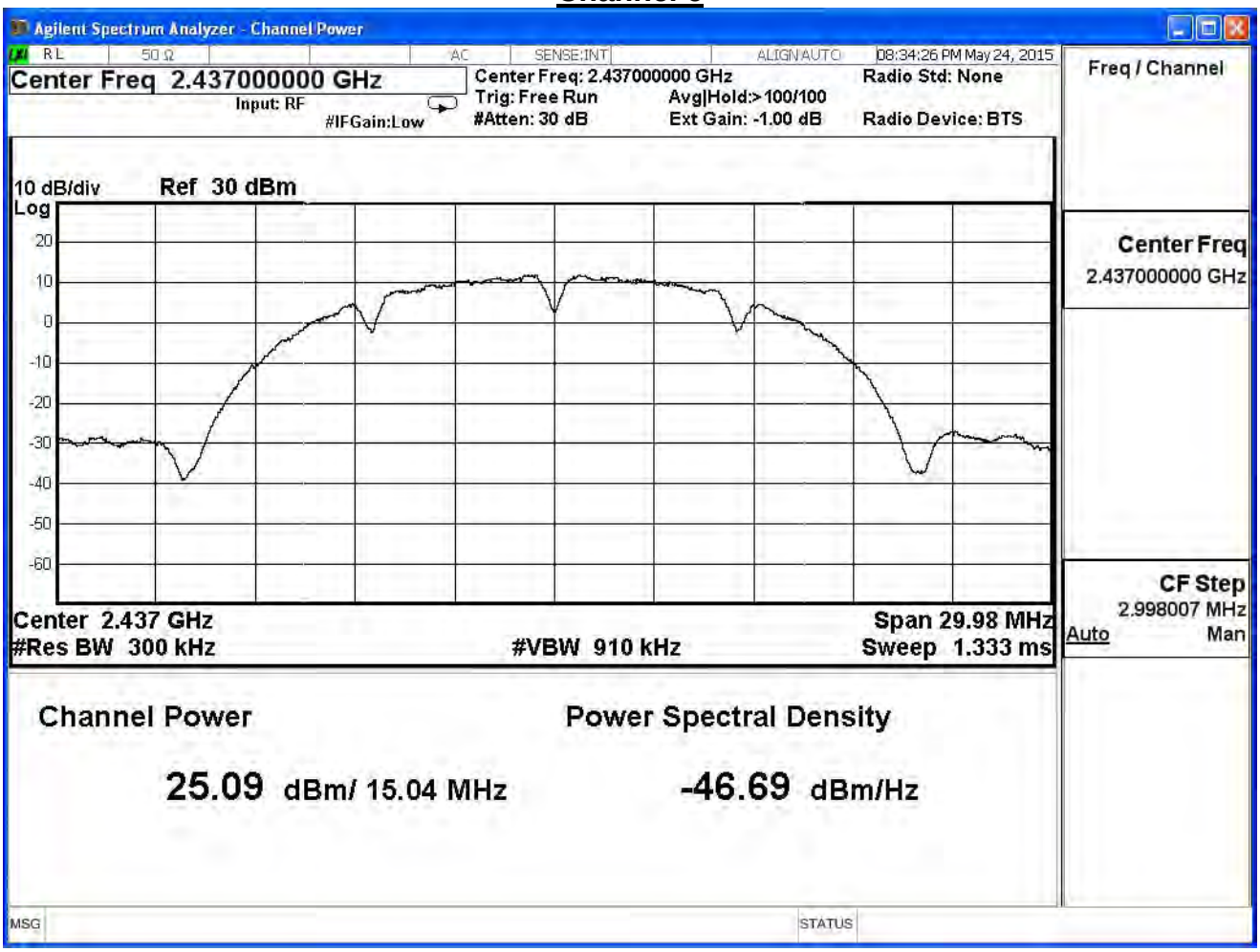
Channel No	Frequency (MHz)	Data Rate (Mbps)				Required Limit
		1	2	5.5	11	
1	2412	22.71	--	--	--	1 Watt=30dBm
6	2437	25.09	24.89	24.76	24.66	1 Watt=30dBm
11	2462	17.87	--	--	--	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

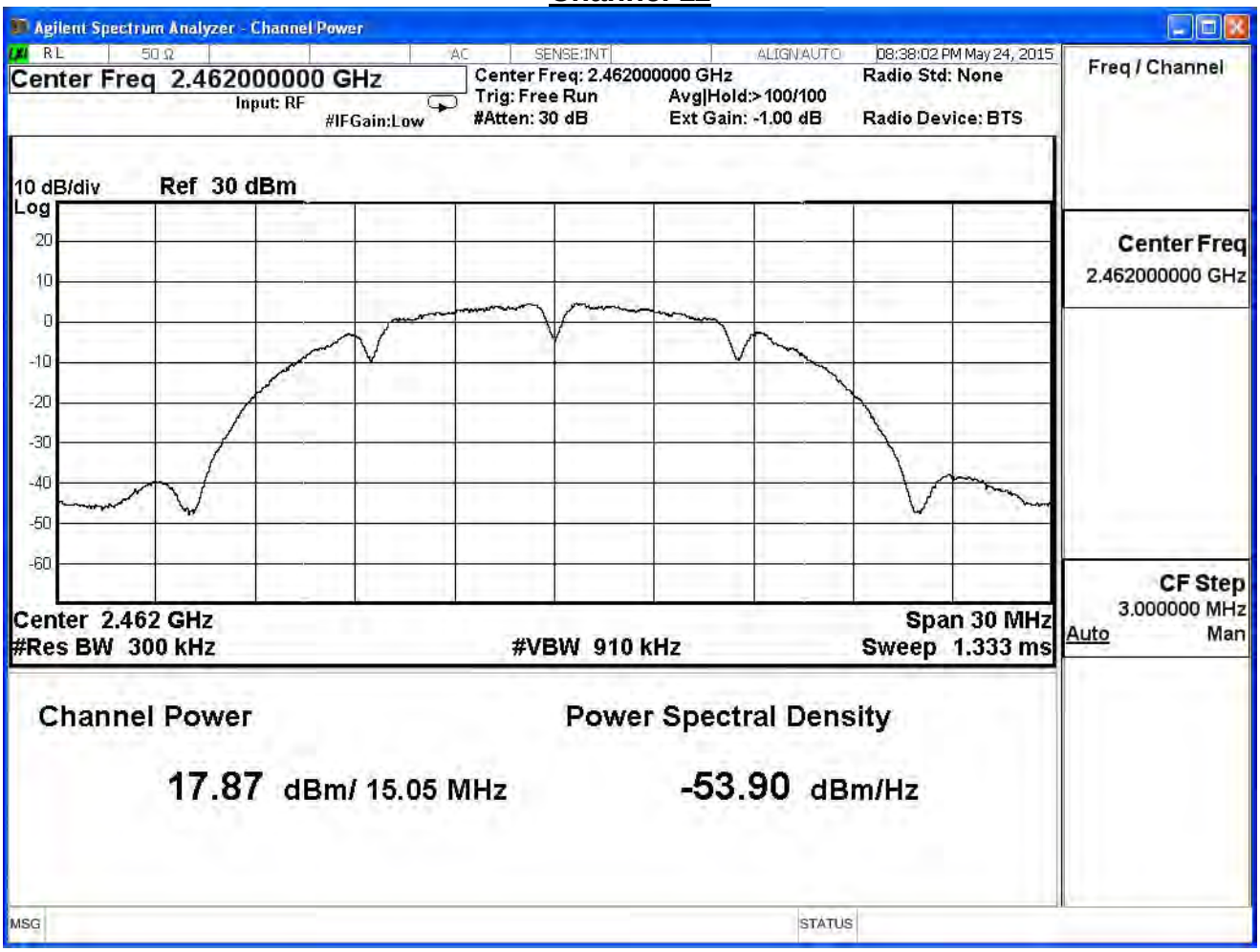
Channel 1


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:36:30 PM May 24, 2015
Center Freq 2.412000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.412000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.412000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 2.412 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
Channel Power
22.71 dBm/ 15.05 MHz
Power Spectral Density
-49.06 dBm/Hz
MSG
STATUS

Channel 6


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:34:26 PM May 24, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 29.98 MHz
Sweep 1.333 ms
CF Step
2.998007 MHz
Auto
Man
Channel Power
25.09 dBm/ 15.04 MHz
Power Spectral Density
-46.69 dBm/Hz
MSG
STATUS

Channel 11


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:38:02 PM May 24, 2015
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
17.87 dBm/ 15.05 MHz
Power Spectral Density
-53.90 dBm/Hz
MSG
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11b (ANT 0+1+2)

Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
1	2412	26.19	≦30	Pass
6	2437	28.64	≦30	Pass
11	2462	21.83	≦30	Pass

The worst emission of data rate is 1Mbps.

Channel No	Frequency (MHz)	Data Rate (Mbps)				Required Limit
		1	2	5.5	11	
1	2412	26.19	--	--	--	1 Watt=30dBm
6	2437	28.64	28.46	28.32	28.19	1 Watt=30dBm
11	2462	21.83	--	--	--	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

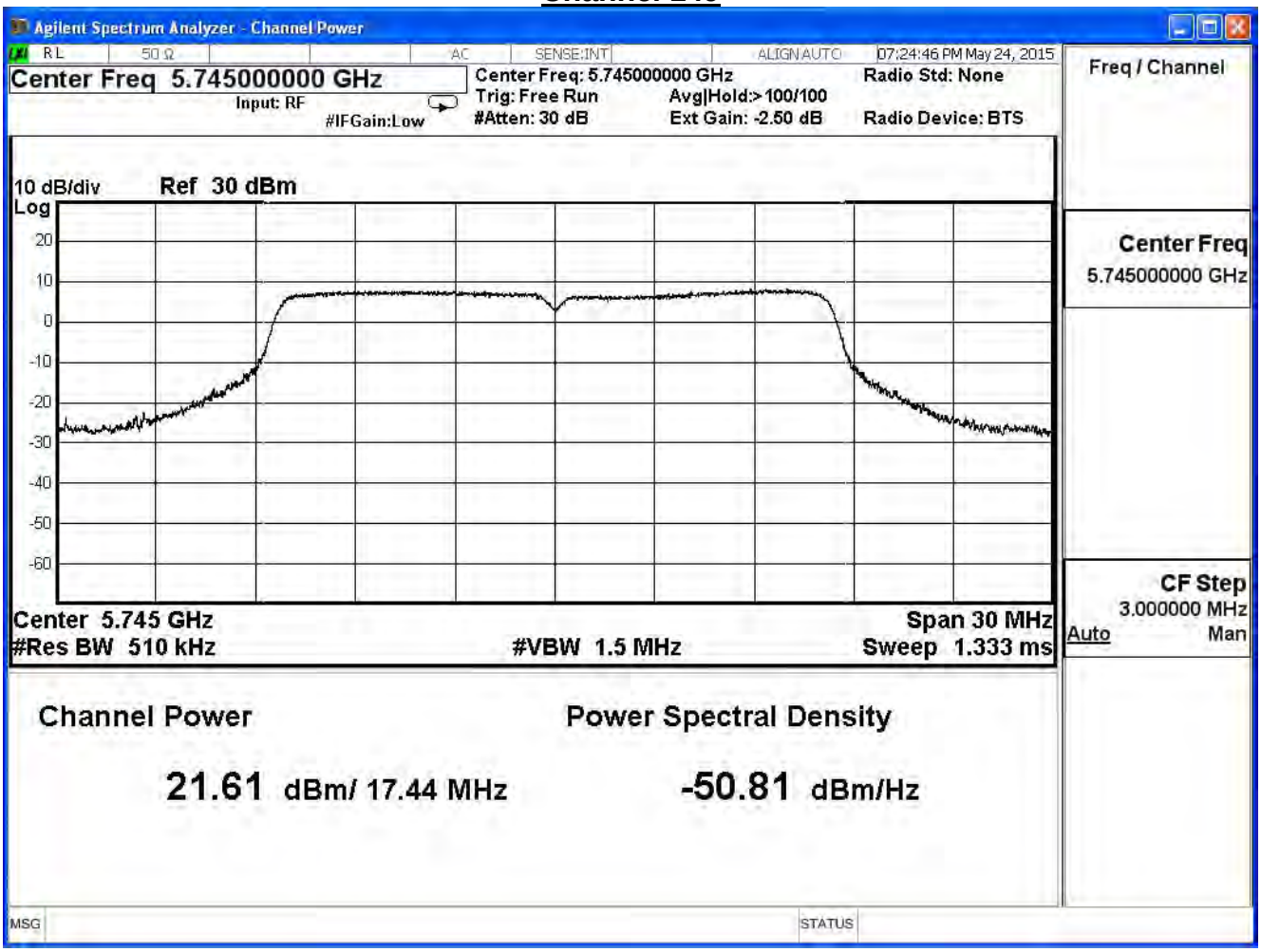
Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11a (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	21.61	≦30	Pass
157	5785	21.49	≦30	Pass
165	5825	18.13	≦30	Pass

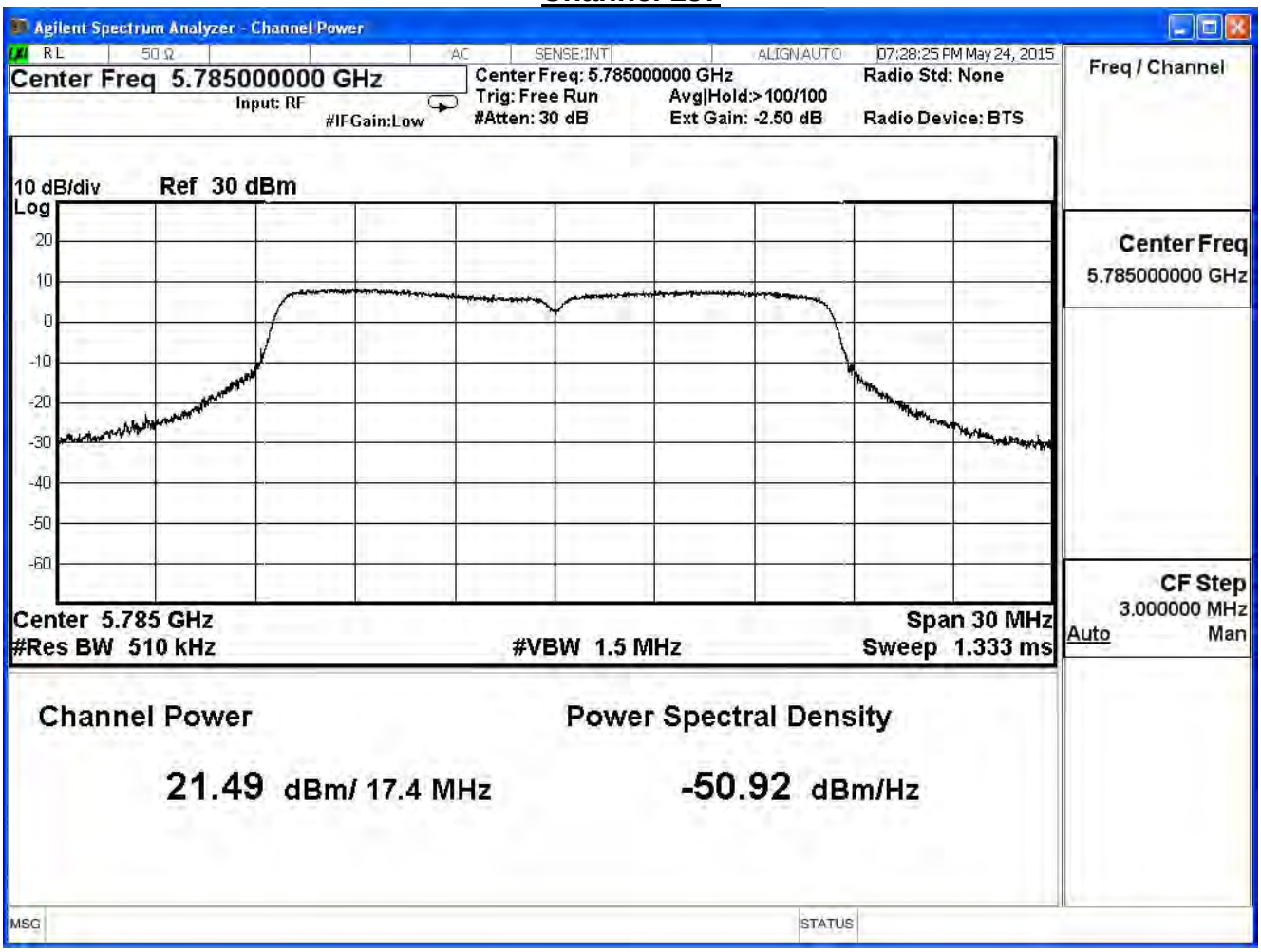
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	21.61	--	--	--	--	--	--	30dBm
157	5785	21.49	21.40	21.38	21.18	21.18	21.11	21.00	30dBm
165	5825	18.13	--	--	--	--	--	--	30dBm

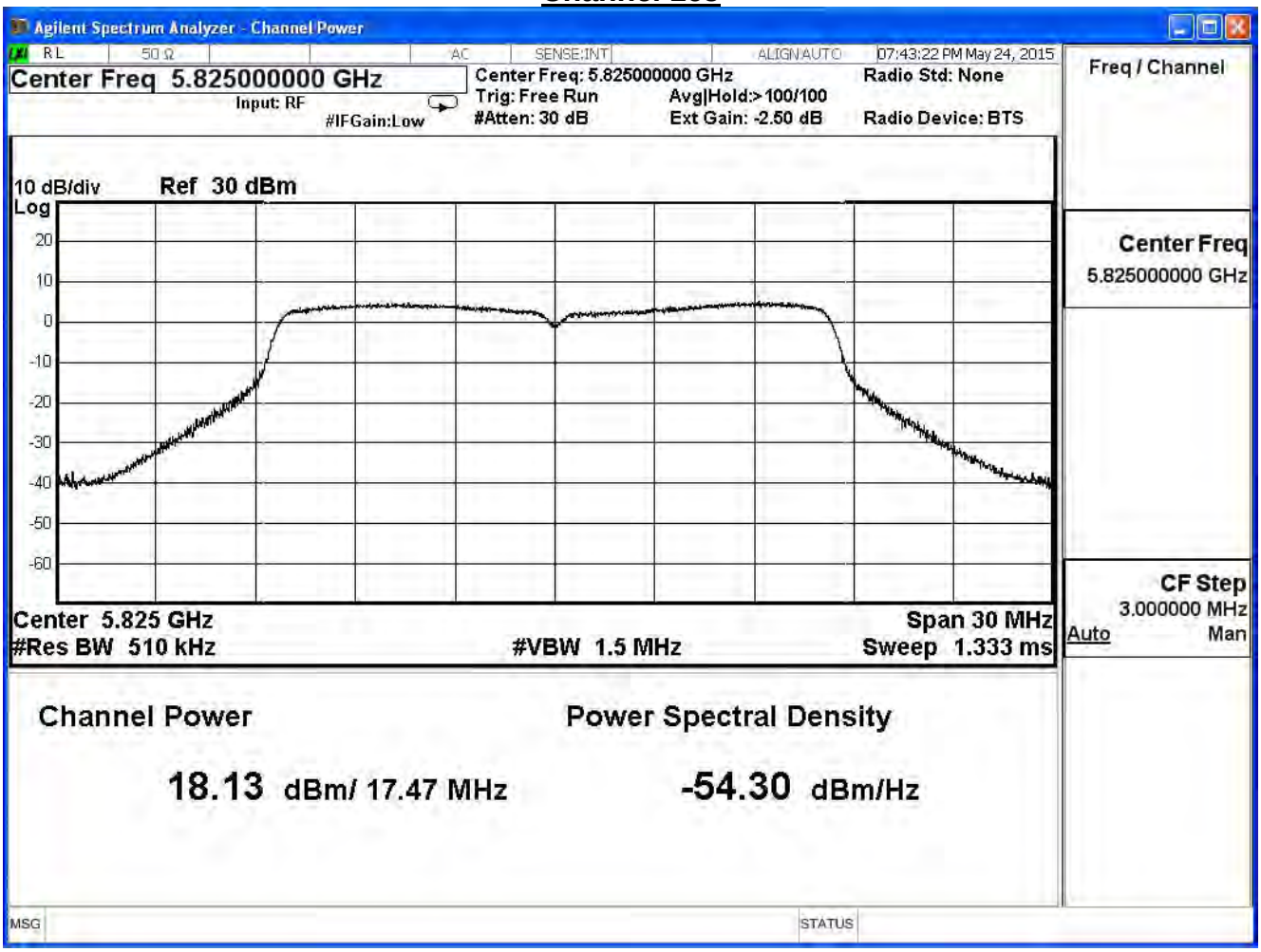
Channel 149


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:24:46 PM May 24, 2015
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.745000000 GHz
Center 5.745 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
21.61 dBm/ 17.44 MHz
Power Spectral Density
-50.81 dBm/Hz
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:28:25 PM May 24, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
21.49 dBm/ 17.4 MHz
Power Spectral Density
-50.92 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:43:22 PM May 24, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
18.13 dBm/ 17.47 MHz
Power Spectral Density
-54.30 dBm/Hz
MSG
STATUS

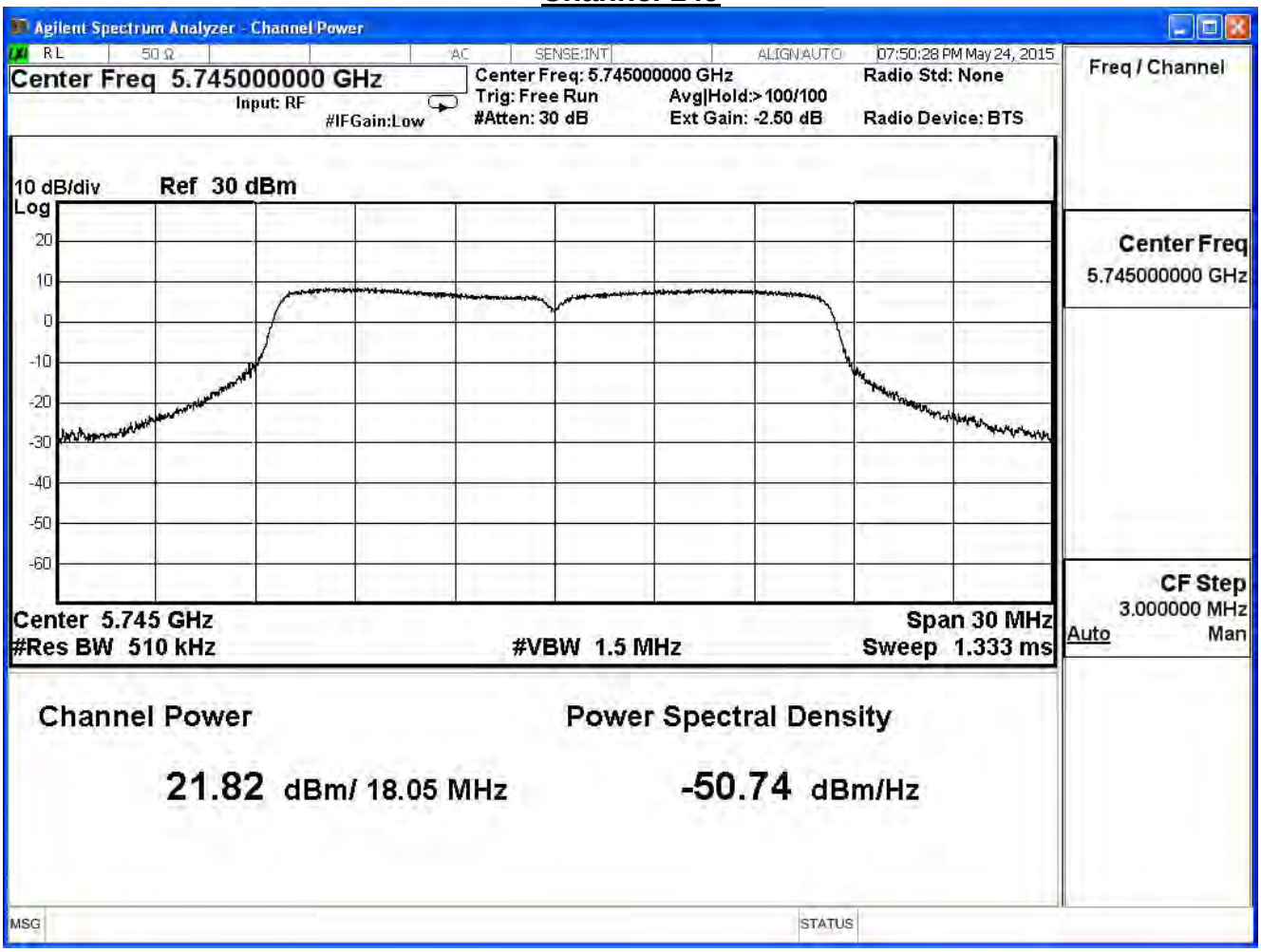
Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11a (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	21.82	≦30	Pass
157	5785	21.56	≦30	Pass
165	5825	18.08	≦30	Pass

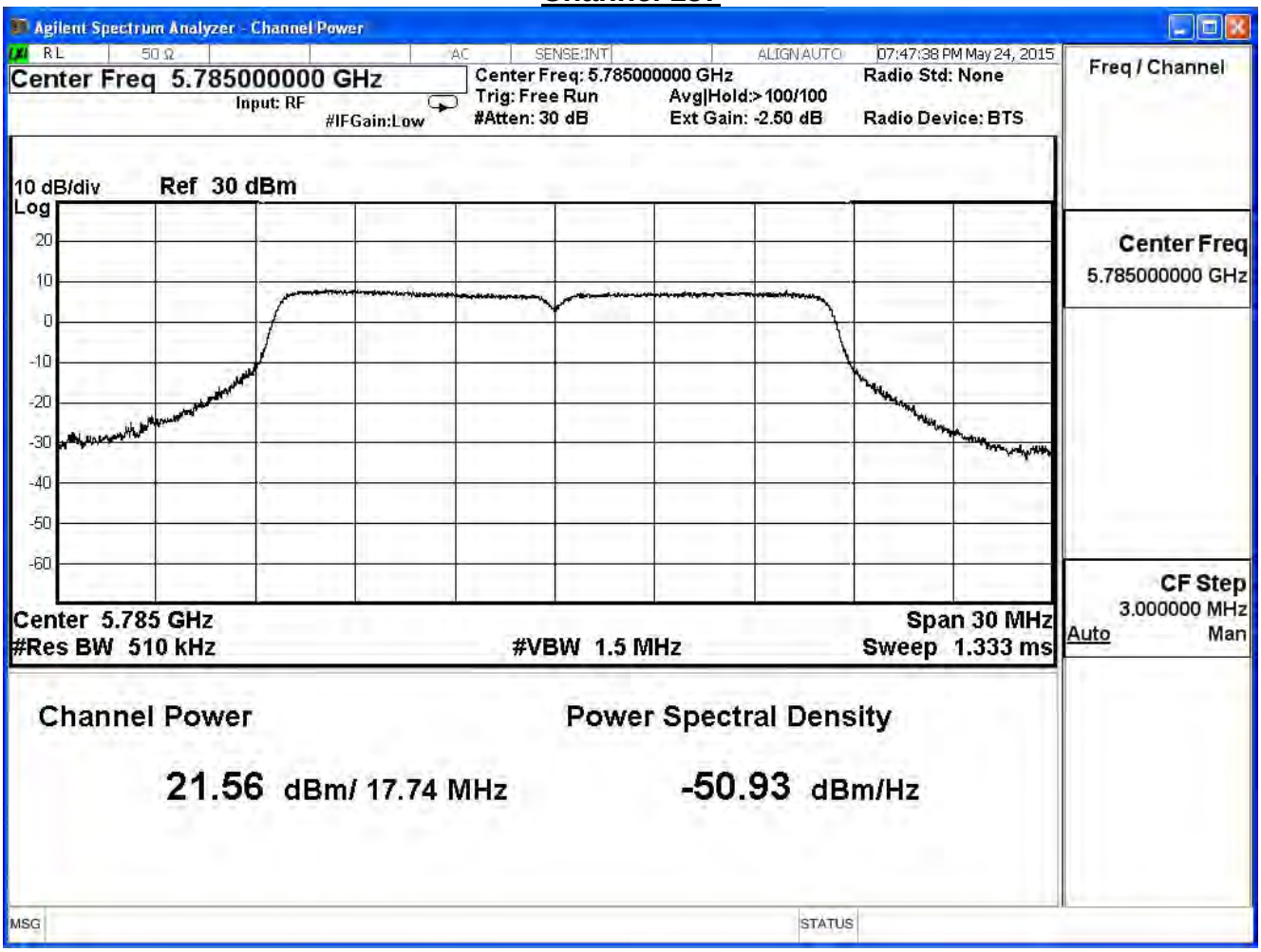
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	21.82	--	--	--	--	--	--	30dBm
157	5785	21.56	21.32	21.40	21.38	21.31	21.22	21.18	30dBm
165	5825	18.08	--	--	--	--	--	--	30dBm

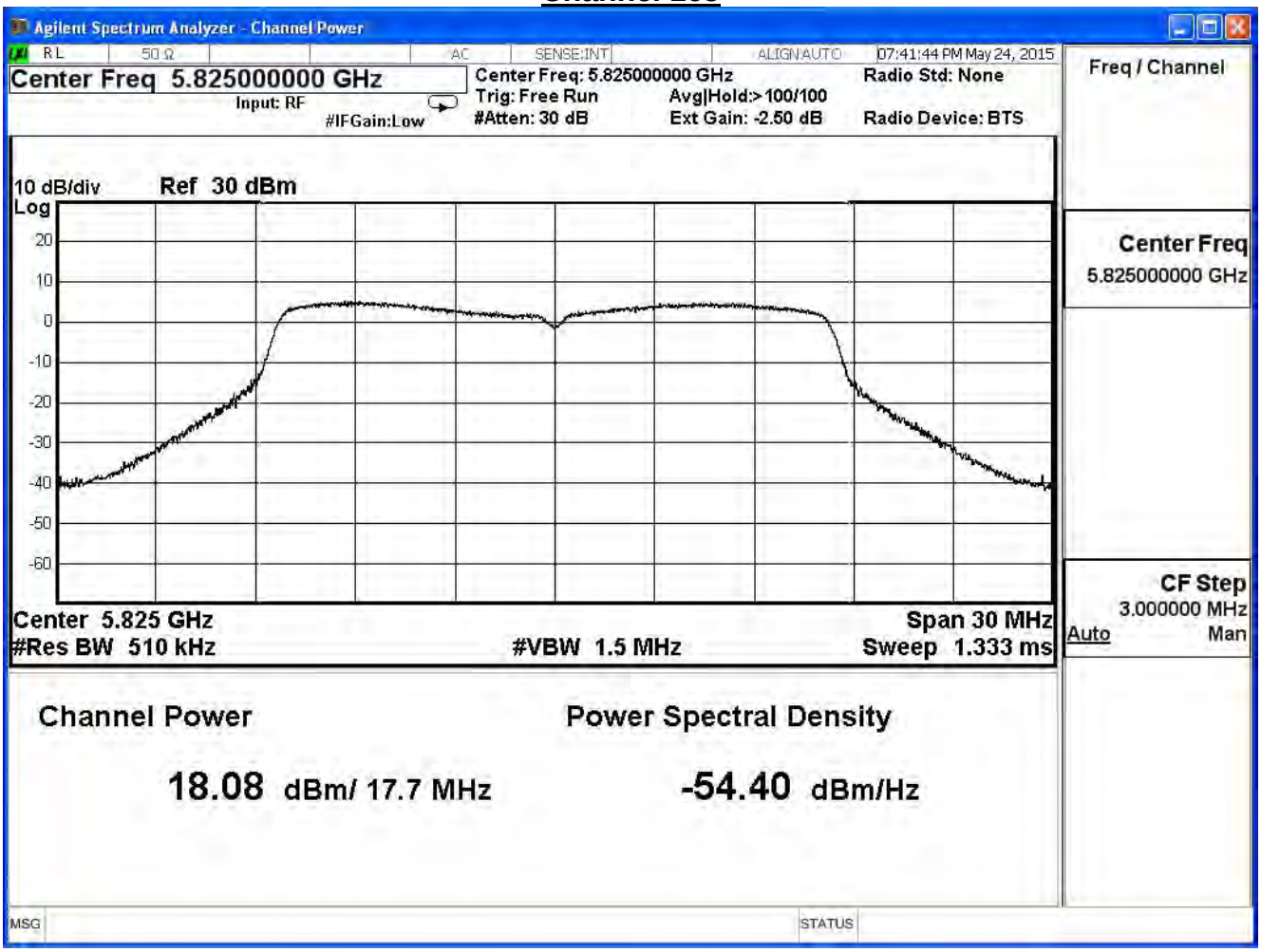
Channel 149


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:50:28 PM May 24, 2015
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.745000000 GHz
Center 5.745 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
21.82 dBm/ 18.05 MHz
Power Spectral Density
-50.74 dBm/Hz
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:47:38 PM May 24, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 30 dB
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
Channel Power
21.56 dBm/ 17.74 MHz
Power Spectral Density
-50.93 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:41:44 PM May 24, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
18.08 dBm/ 17.7 MHz
Power Spectral Density
-54.40 dBm/Hz
MSG
STATUS

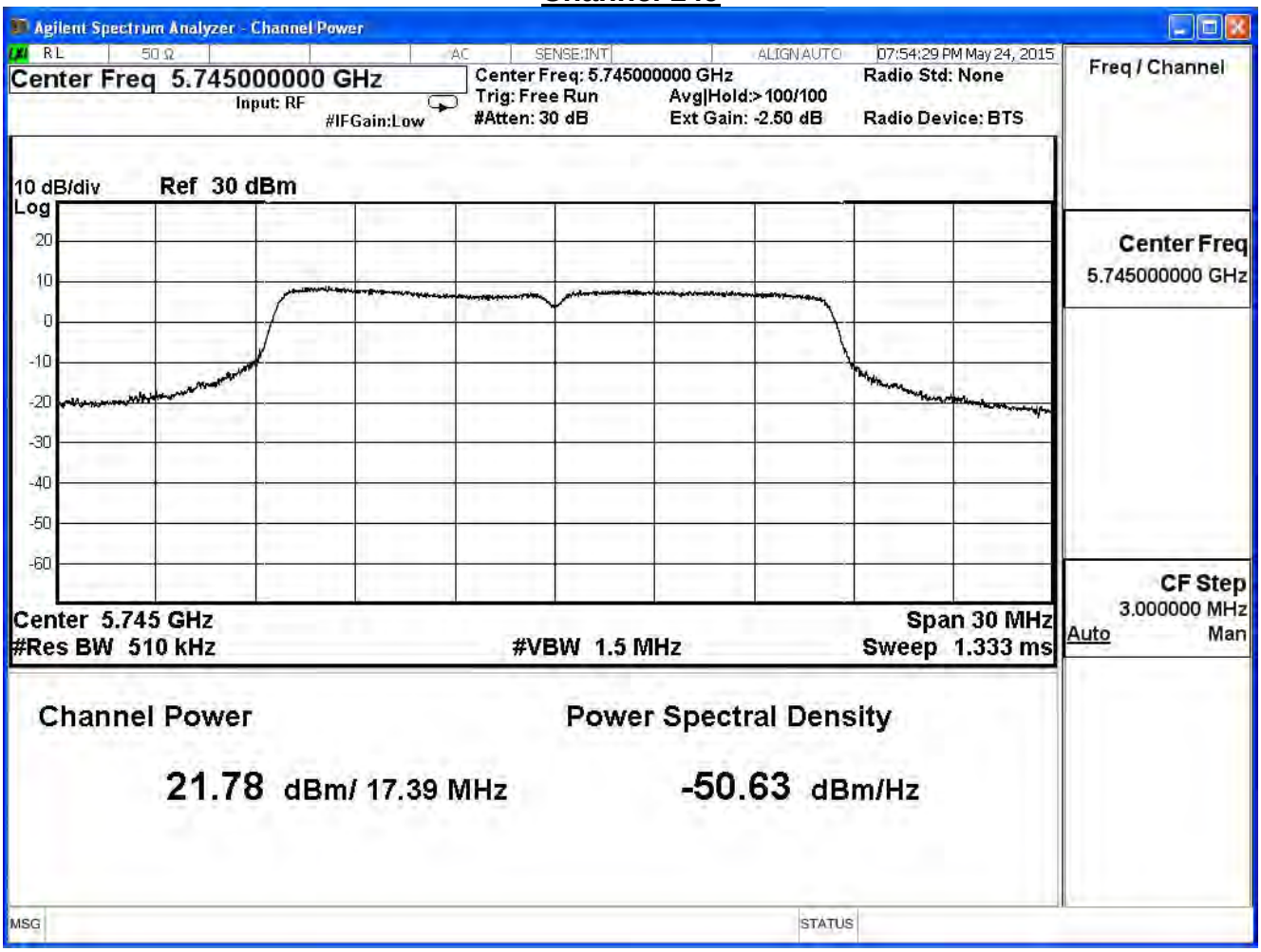
Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11a (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	21.78	≦30	Pass
157	5785	21.81	≦30	Pass
165	5825	17.96	≦30	Pass

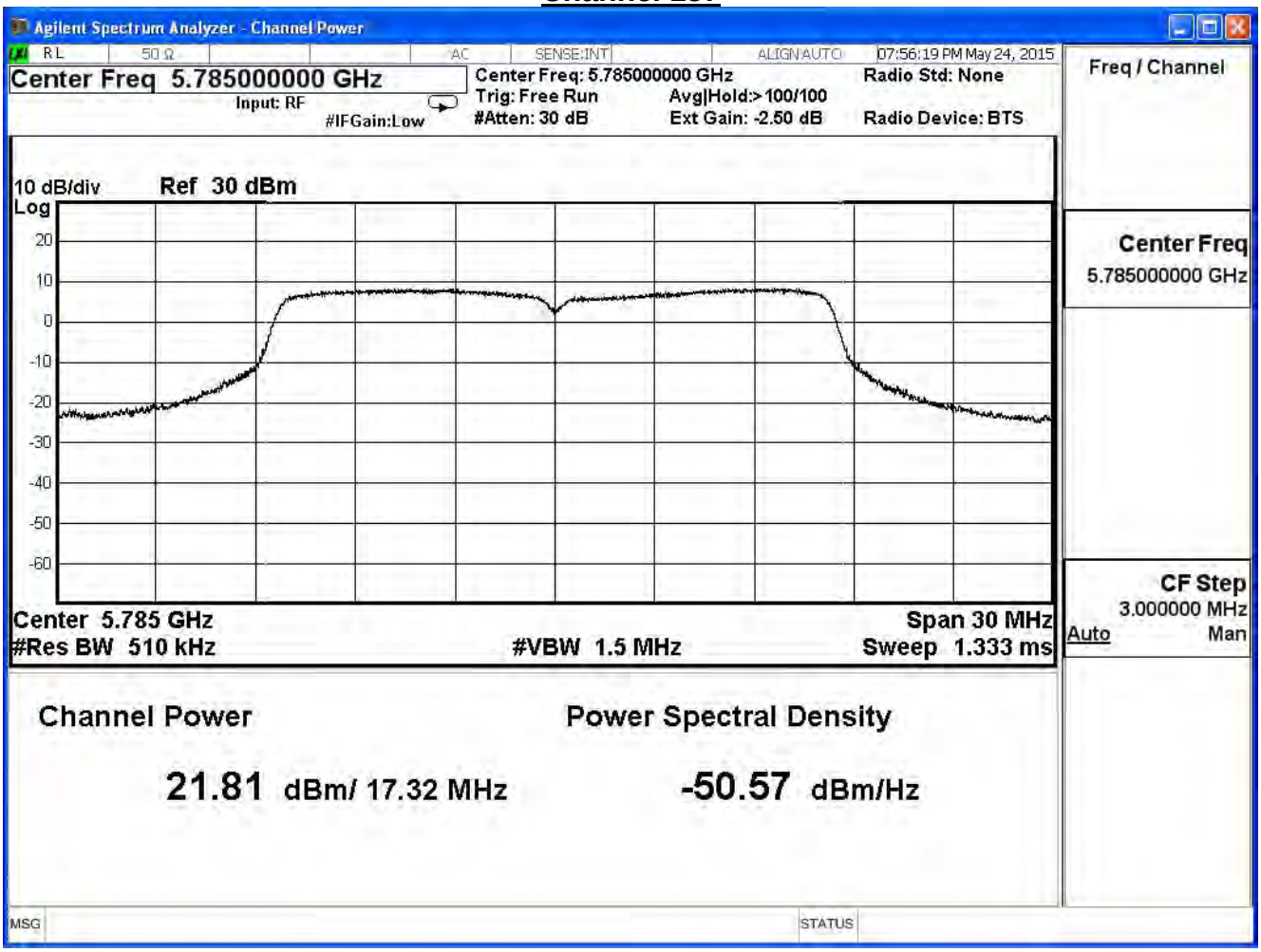
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	21.78	--	--	--	--	--	--	30dBm
157	5785	21.81	21.75	21.67	21.55	21.51	21.46	21.36	30dBm
165	5825	17.96	--	--	--	--	--	--	30dBm

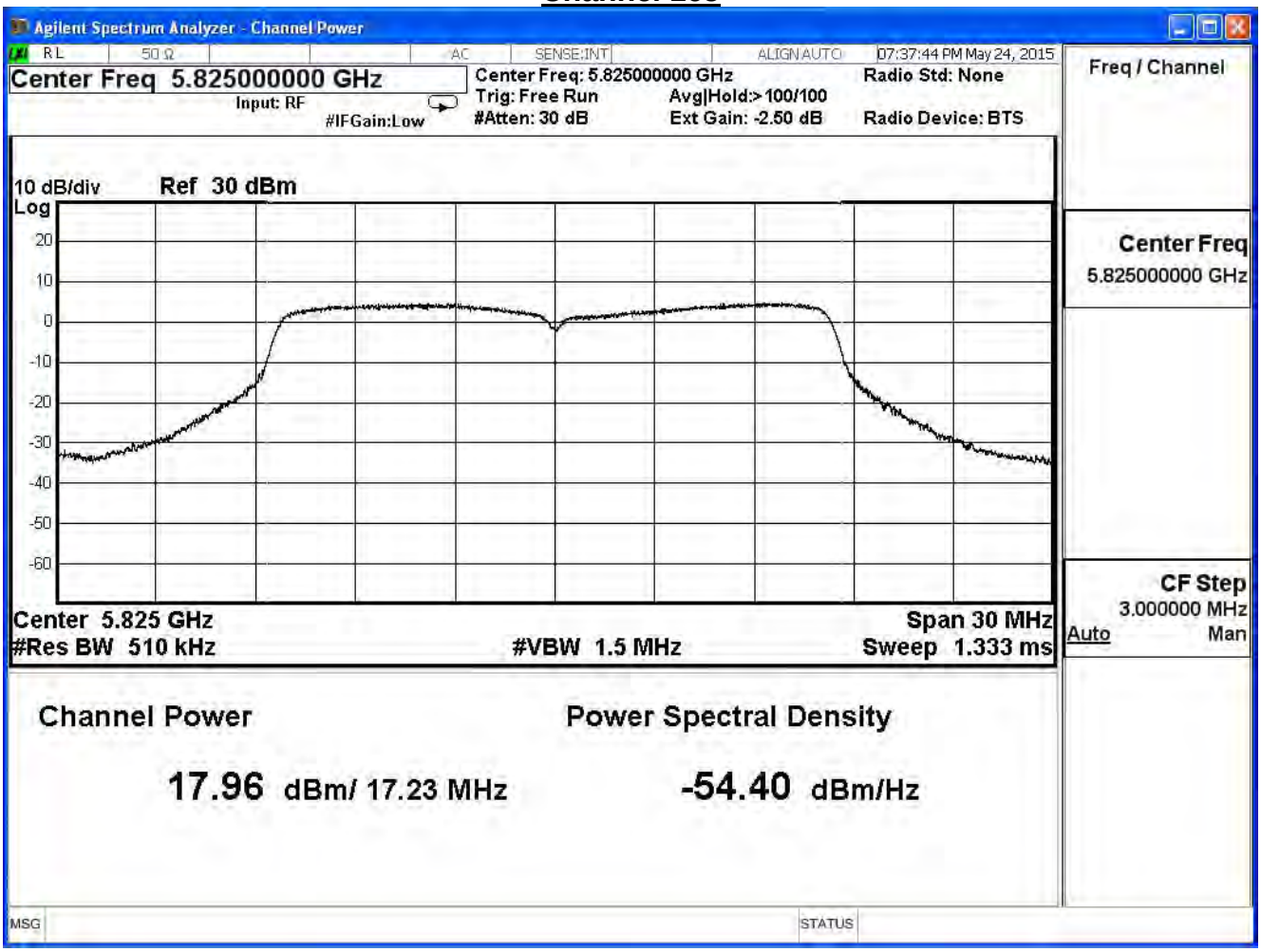
Channel 149


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:54:29 PM May 24, 2015
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.745000000 GHz
Center 5.745 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
21.78 dBm/ 17.39 MHz
Power Spectral Density
-50.63 dBm/Hz
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:56:19 PM May 24, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
21.81 dBm/ 17.32 MHz
Power Spectral Density
-50.57 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:37:44 PM May 24, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
17.96 dBm/ 17.23 MHz
Power Spectral Density
-54.40 dBm/Hz
MSG
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11a (ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	26.51	≦30	Pass
157	5785	26.39	≦30	Pass
165	5825	22.83	≦30	Pass

Peak Power Output (dBm)									
Channel	Frequency	Data Rate							Required
No	(MHz)	6	12	18	24	36	48	54	Limit
149	5745	26.51	--	--	--	--	--	--	30dBm
157	5785	26.39	26.27	26.26	26.14	26.11	26.04	25.95	30dBm
165	5825	22.83	--	--	--	--	--	--	30dBm

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

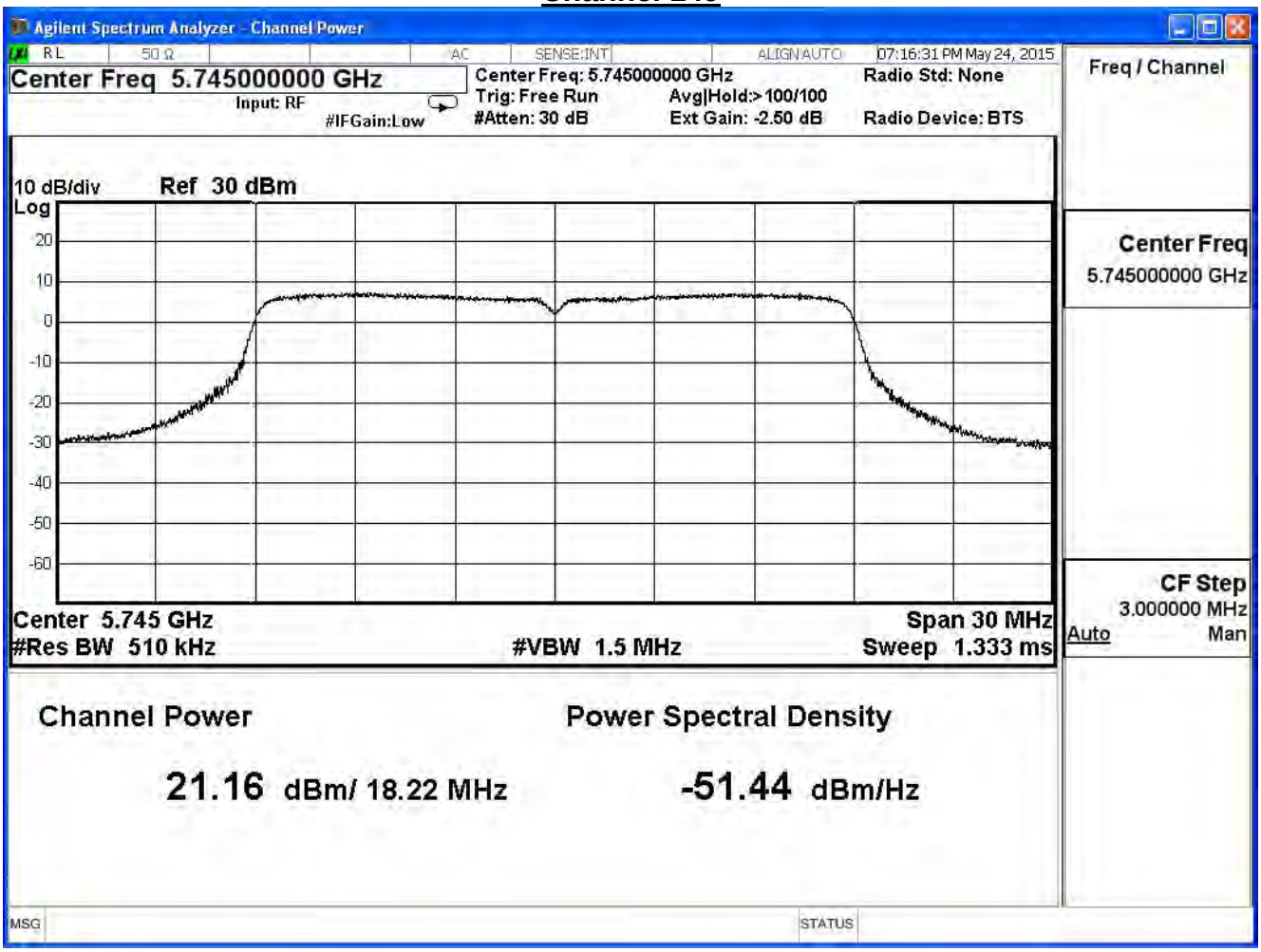
IEEE 802.11n 20MHz (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	21.16	≦30	Pass
157	5785	21.28	≦30	Pass
165	5825	20.25	≦30	Pass

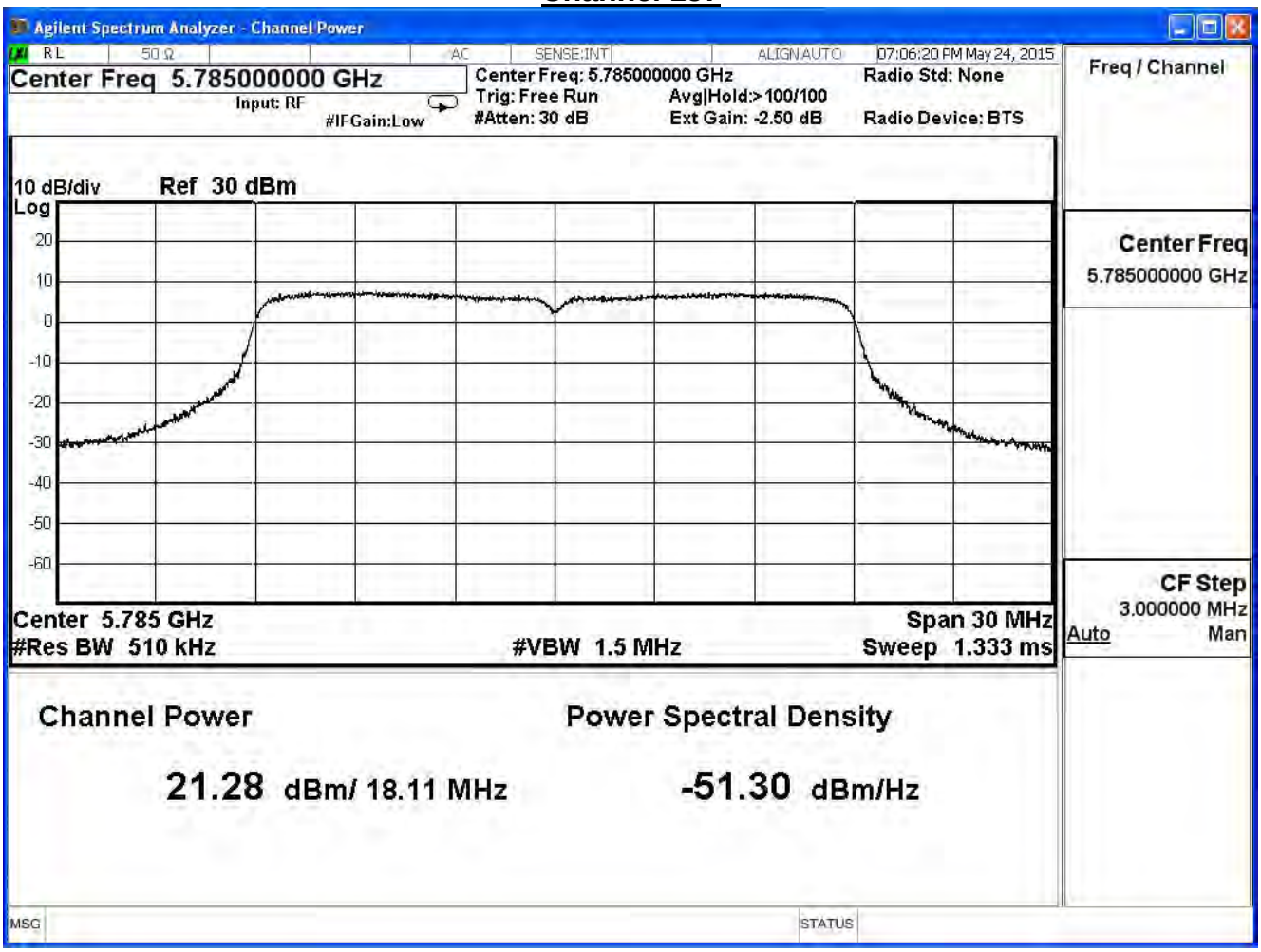
The worst emission of data rate is 6.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
149	5745	21.16	--	--	--	--	--	--	--	30dBm
157	5785	21.28	21.20	21.11	21.09	20.85	20.74	20.55	20.43	30dBm
165	5825	20.25	--	--	--	--	--	--	--	30dBm

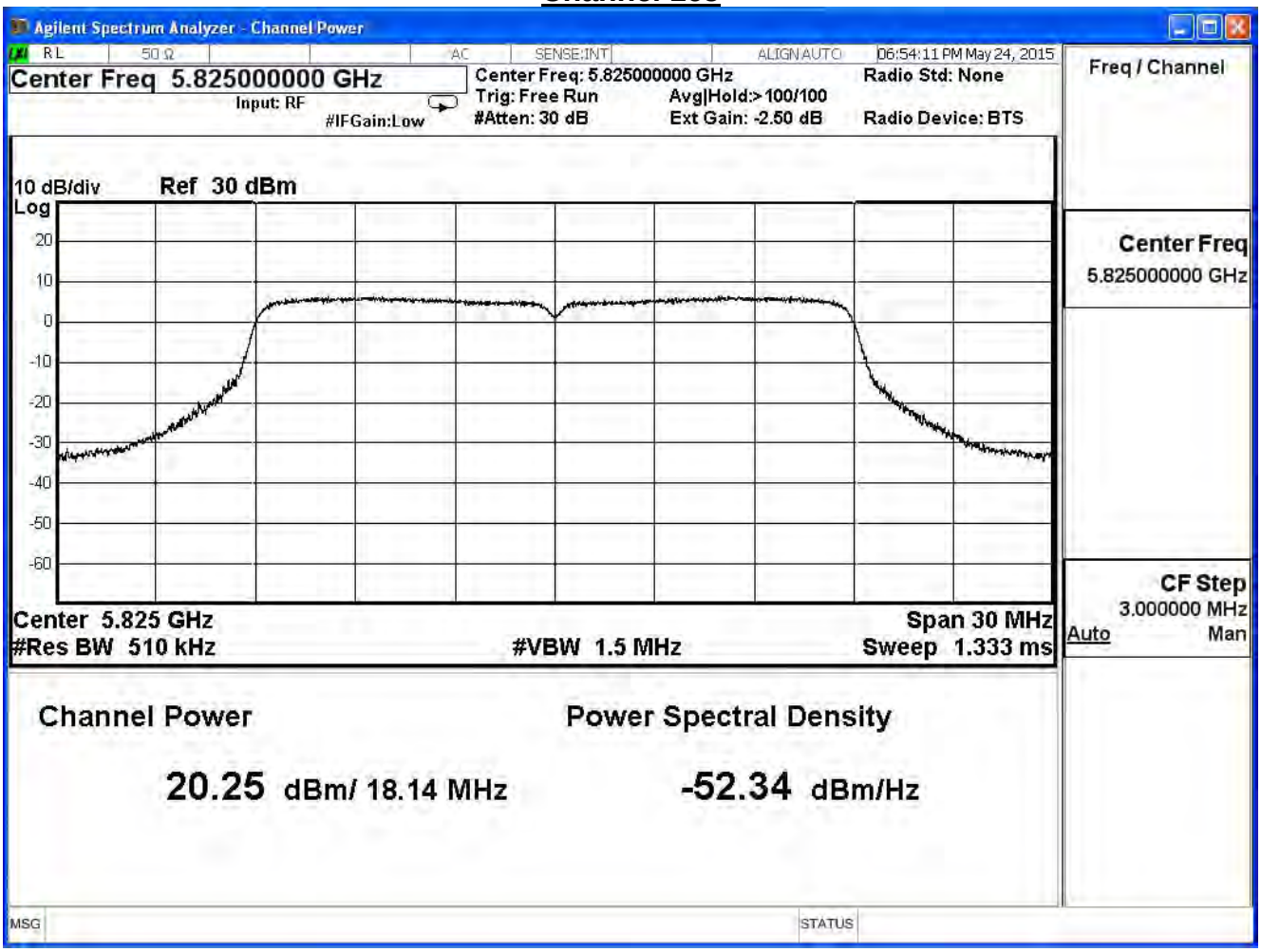
Channel 149


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:16:31 PM May 24, 2015
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.745000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 5.745 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
Channel Power
21.16 dBm/ 18.22 MHz
Power Spectral Density
-51.44 dBm/Hz
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:06:20 PM May 24, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
21.28 dBm/ 18.11 MHz
Power Spectral Density
-51.30 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:54:11 PM May 24, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
20.25 dBm/ 18.14 MHz
Power Spectral Density
-52.34 dBm/Hz
MSG
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

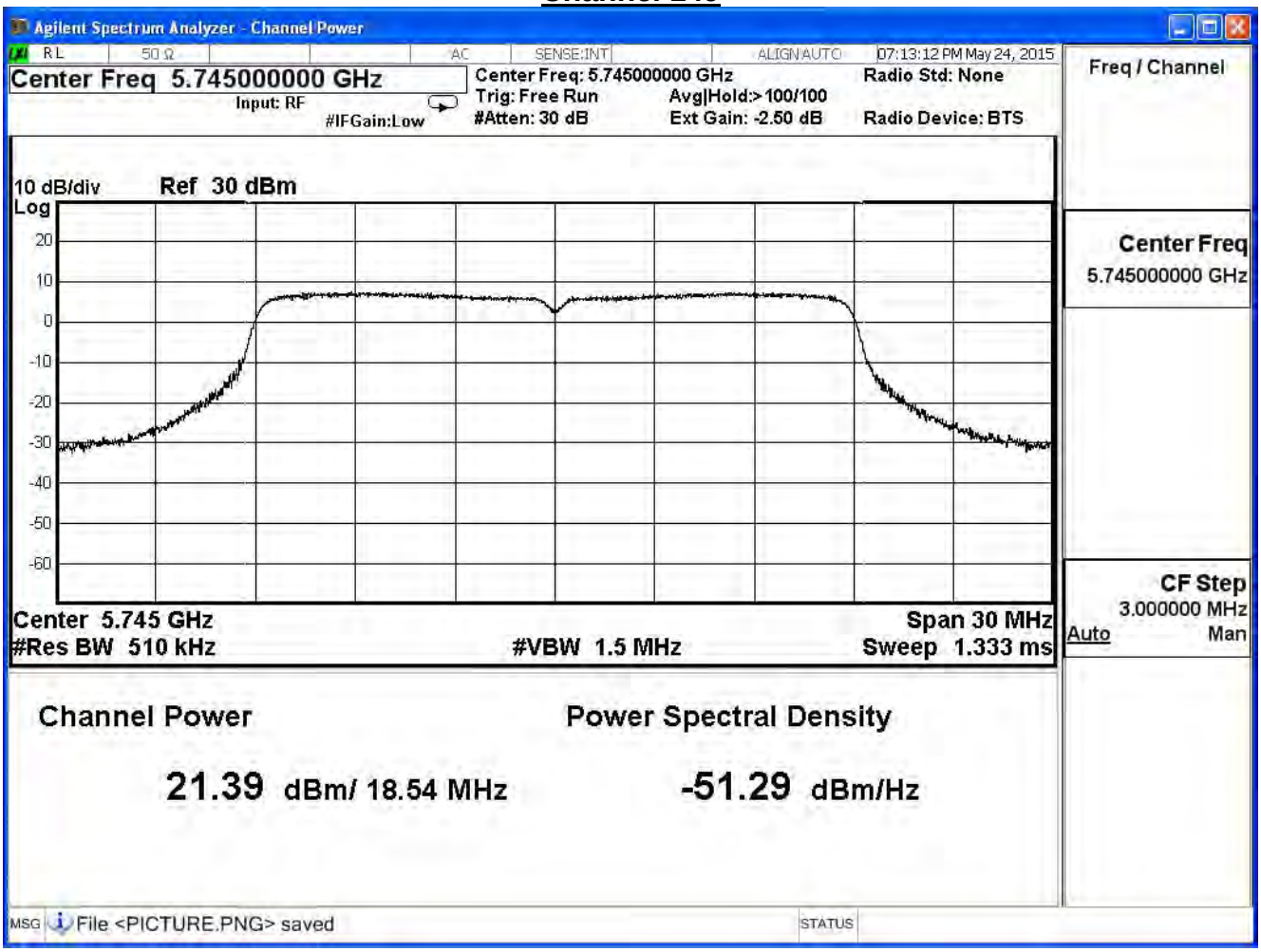
IEEE 802.11n 20MHz (ANT 1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	21.39	≦30	Pass
157	5785	21.21	≦30	Pass
165	5825	20.34	≦30	Pass

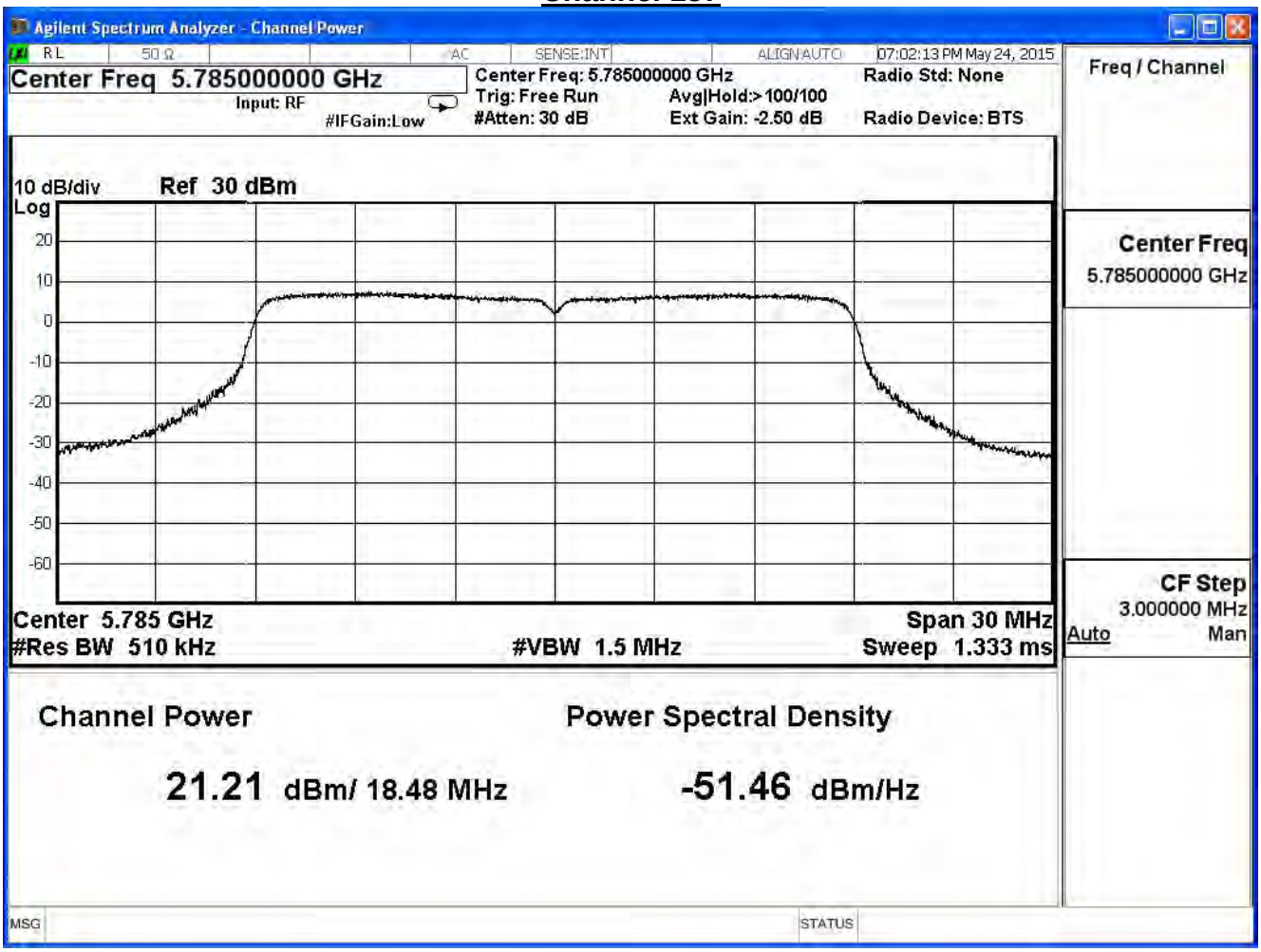
The worst emission of data rate is 6.5Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
149	5745	21.39	--	--	--	--	--	--	--	30dBm
157	5785	21.21	21.19	21.08	21.19	21.12	21.86	21.74	21.48	30dBm
165	5825	20.34	--	--	--	--	--	--	--	30dBm

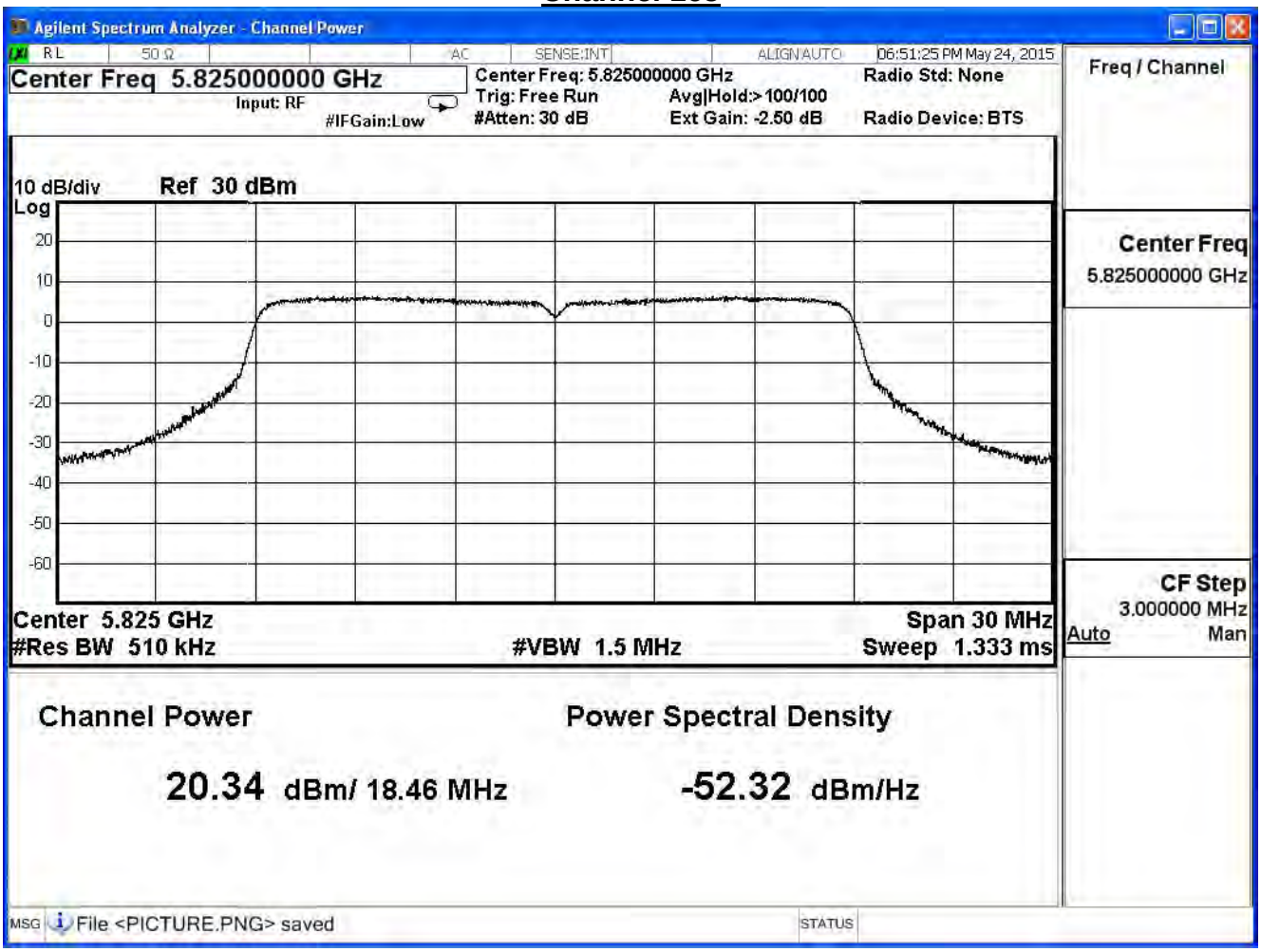
Channel 149


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:13:12 PM May 24, 2015
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.745000000 GHz
Center 5.745 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
21.39 dBm/ 18.54 MHz
Power Spectral Density
-51.29 dBm/Hz
MSG
File <PICTURE.PNG> saved
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:02:13 PM May 24, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
21.21 dBm/ 18.48 MHz
Power Spectral Density
-51.46 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:51:25 PM May 24, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
20.34 dBm/ 18.46 MHz
Power Spectral Density
-52.32 dBm/Hz
MSG
File <PICTURE.PNG> saved
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

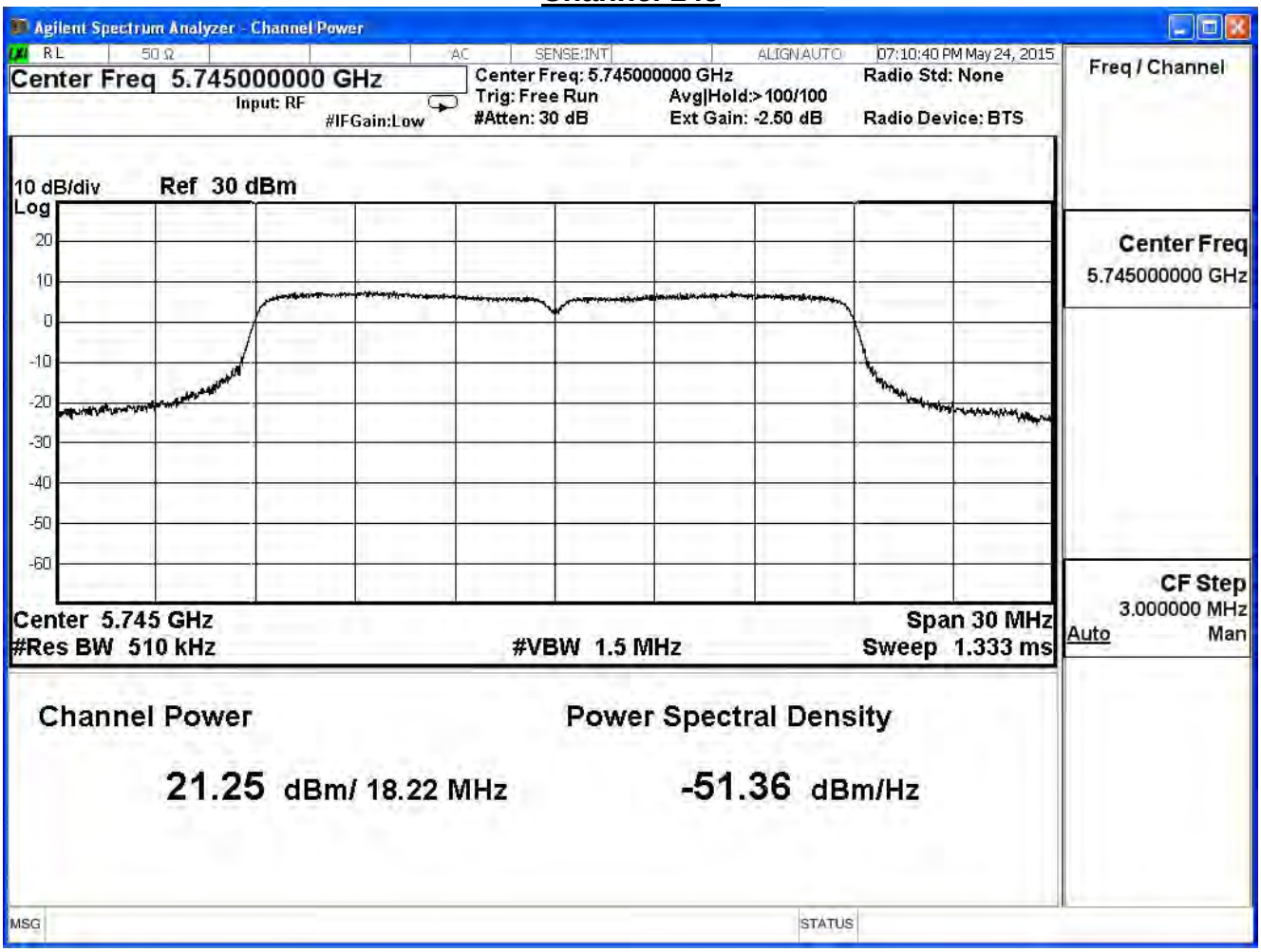
IEEE 802.11n 20MHz (ANT 2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	21.25	≦30	Pass
157	5785	21.13	≦30	Pass
165	5825	20.03	≦30	Pass

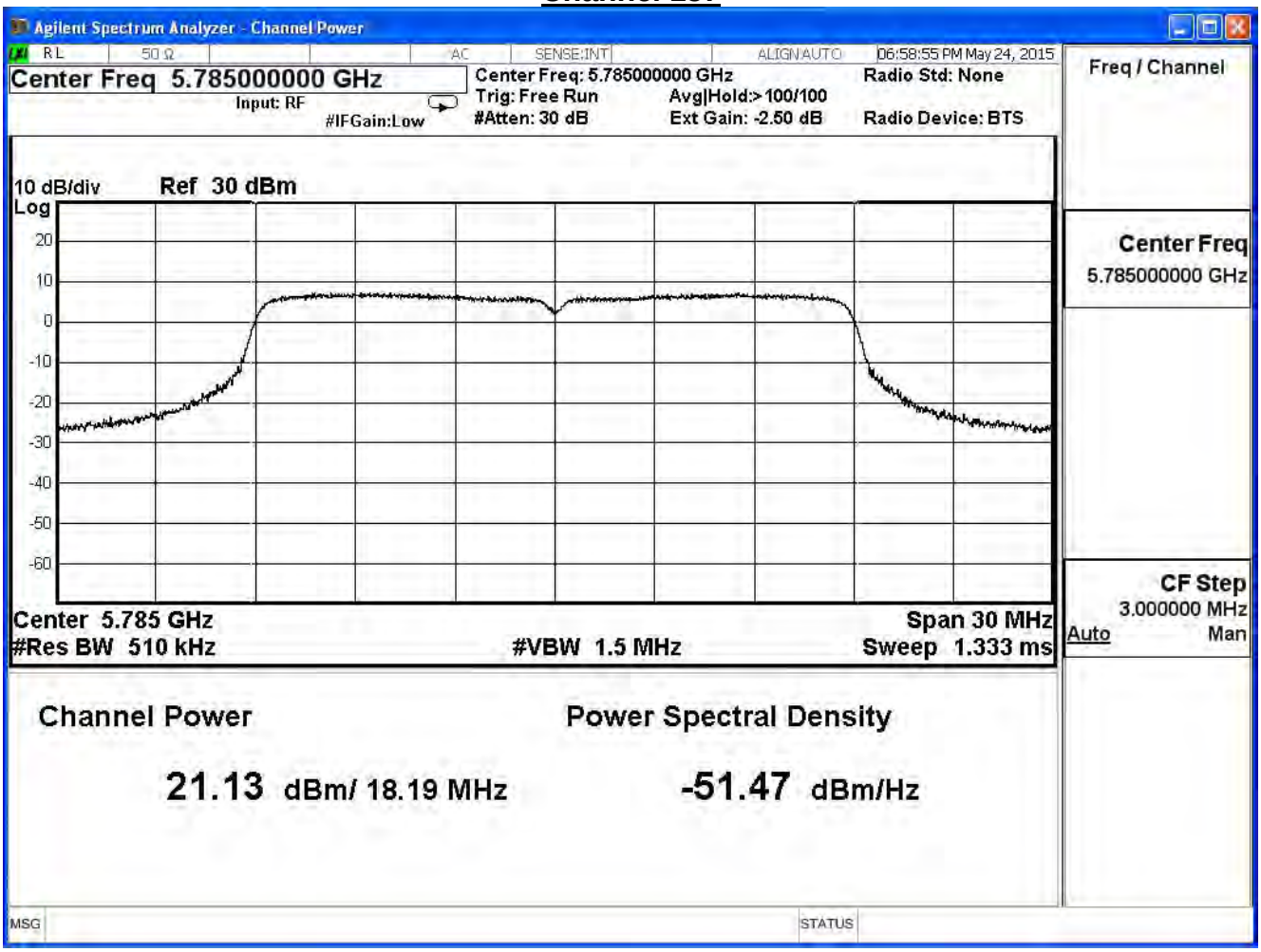
The worst emission of data rate is 6.5Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
149	5745	21.25	--	--	--	--	--	--	--	30dBm
157	5785	21.13	20.91	20.71	20.47	20.65	20.53	20.33	20.29	30dBm
165	5825	20.03	--	--	--	--	--	--	--	30dBm

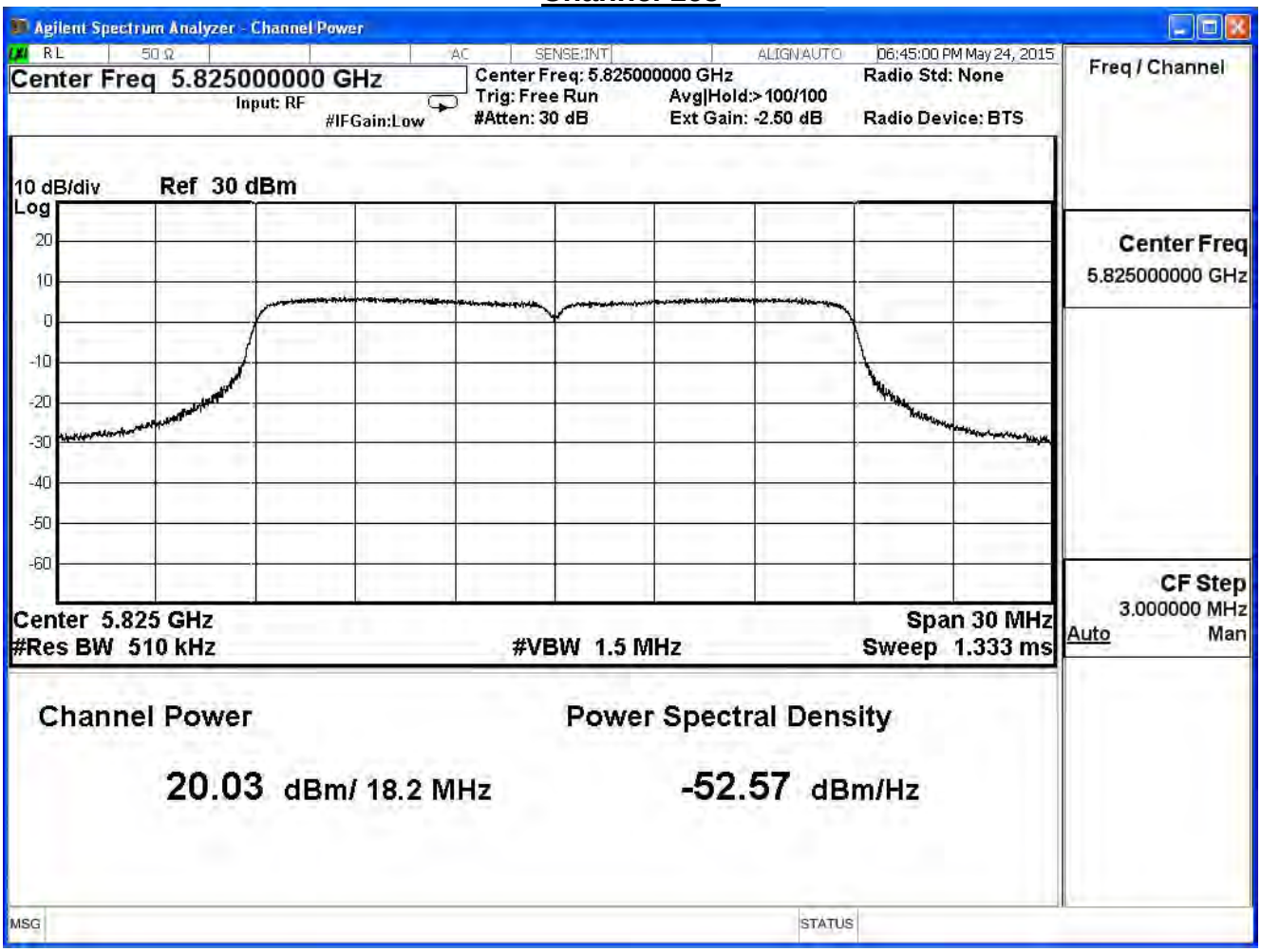
Channel 149


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:10:40 PM May 24, 2015
Center Freq 5.745000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.745000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 5.745 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
Channel Power
21.25 dBm/ 18.22 MHz
Power Spectral Density
-51.36 dBm/Hz
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:58:55 PM May 24, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>100/100
#Atten: 30 dB
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
Channel Power
21.13 dBm/ 18.19 MHz
Power Spectral Density
-51.47 dBm/Hz
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:45:00 PM May 24, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Channel Power
20.03 dBm/ 18.2 MHz
Power Spectral Density
-52.57 dBm/Hz
MSG
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11n 20MHz (ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	26.04	≦30	Pass
157	5785	25.98	≦30	Pass
165	5825	24.98	≦30	Pass

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		6.5	13	19.5	26	39	52	58.5	65	
149	5745	26.04	--	--	--	--	--	--	--	30dBm
157	5785	25.98	25.87	25.74	25.70	25.65	25.85	25.69	25.54	30dBm
165	5825	24.98	--	--	--	--	--	--	--	30dBm

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

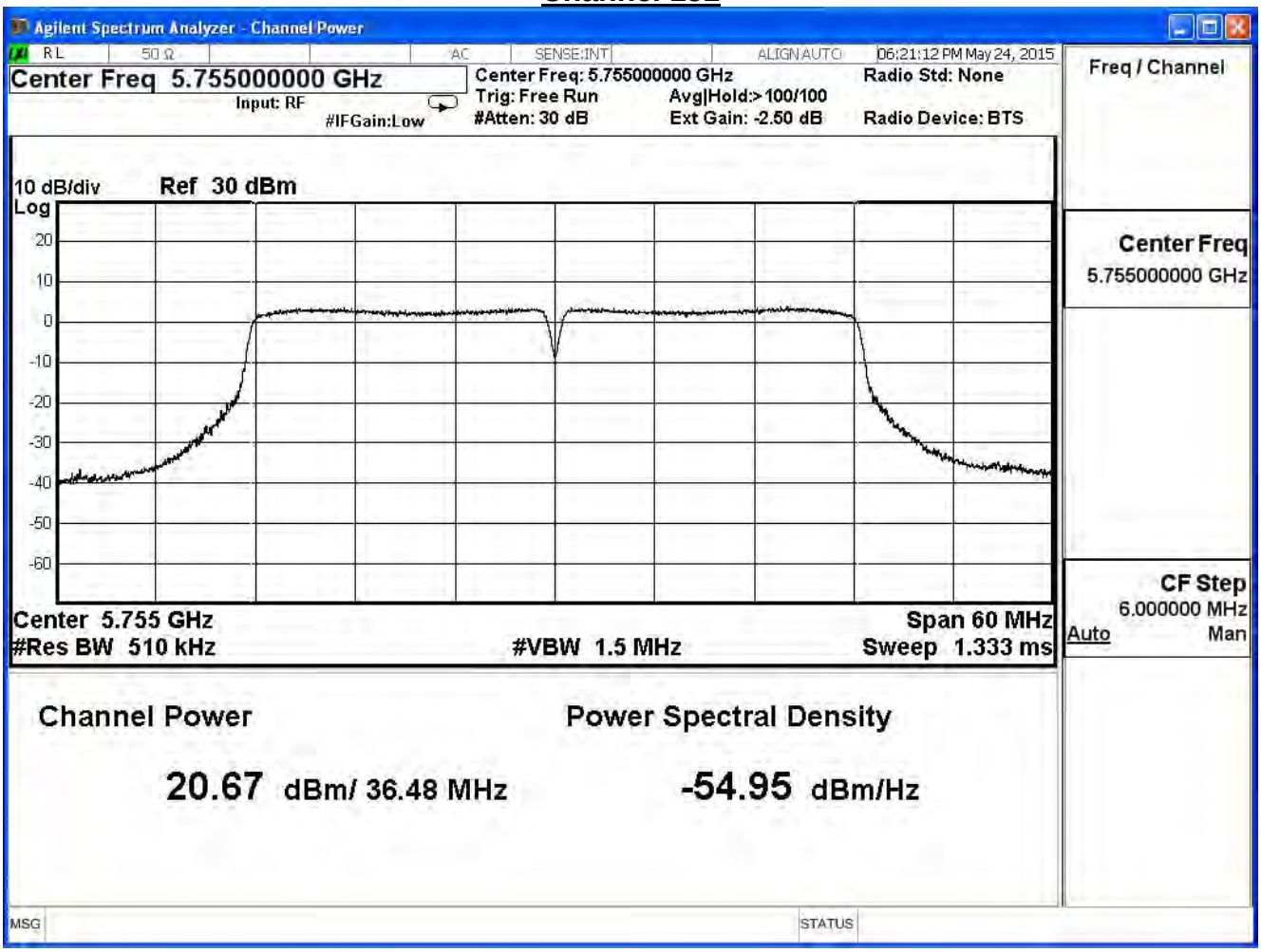
IEEE802.11n 40MHz(ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	20.67	≦30	Pass
159	5795	21.54	≦30	Pass

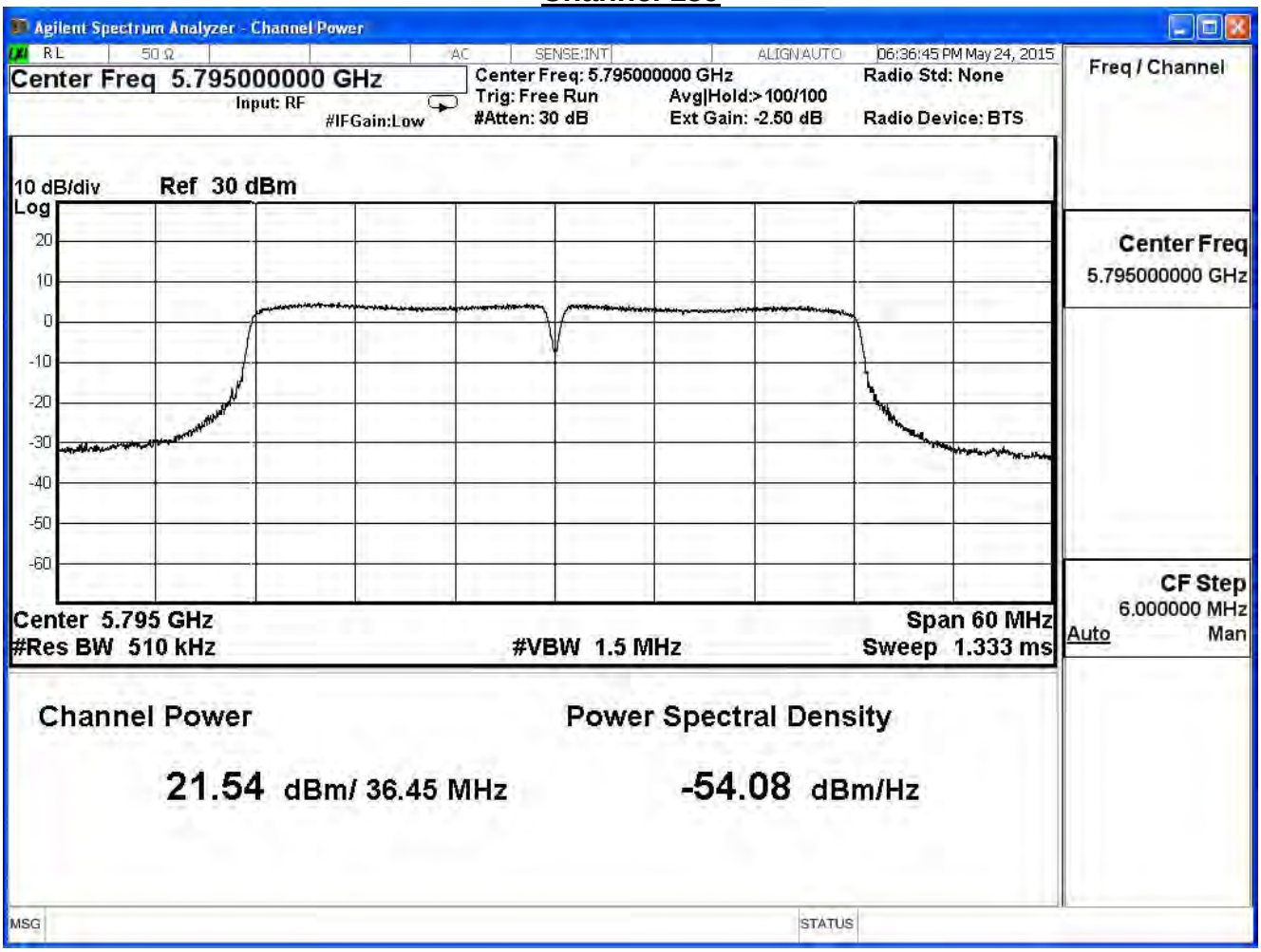
The worst emission of data rate is 13.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.5	27	40.5	54	81	108	121.5	135	
151	5755	20.67	--	--	--	--	--	--	--	30dBm
159	5795	21.54	21.46	21.36	21.26	21.16	20.92	20.80	20.60	30dBm

Channel 151


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:21:12 PM May 24, 2015
Center Freq 5.755000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.755000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.755000000 GHz
Center 5.755 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
CF Step
6.000000 MHz
Auto
Man
Channel Power
20.67 dBm/ 36.48 MHz
Power Spectral Density
-54.95 dBm/Hz
MSG
STATUS

Channel 159


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:36:45 PM May 24, 2015
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
CF Step
6.000000 MHz
Auto
Man
Center 5.795 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
Channel Power
21.54 dBm/ 36.45 MHz
Power Spectral Density
-54.08 dBm/Hz
MSG
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

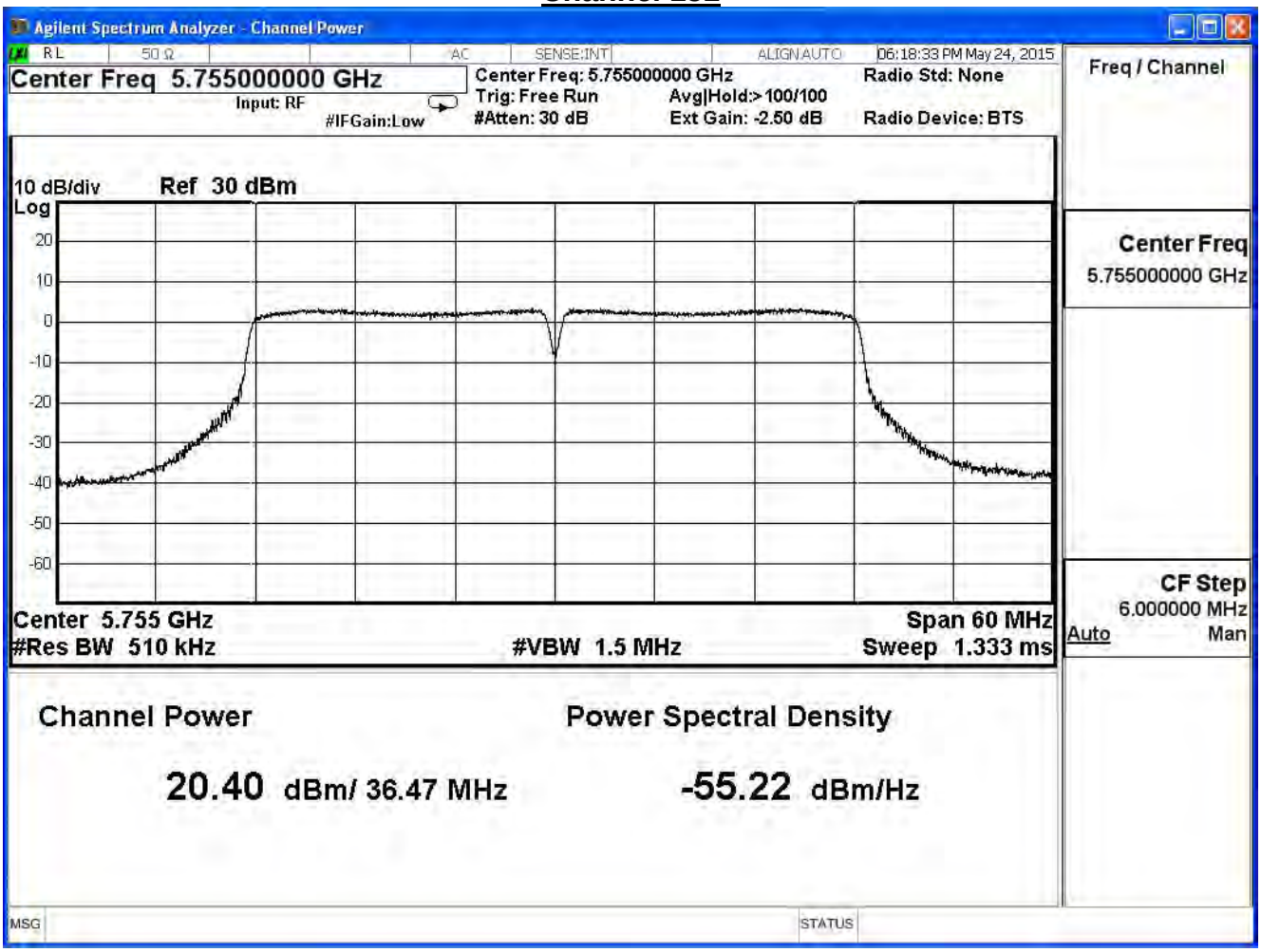
IEEE802.11n 40MHz(ANT 1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	20.40	≦30	Pass
159	5795	21.32	≦30	Pass

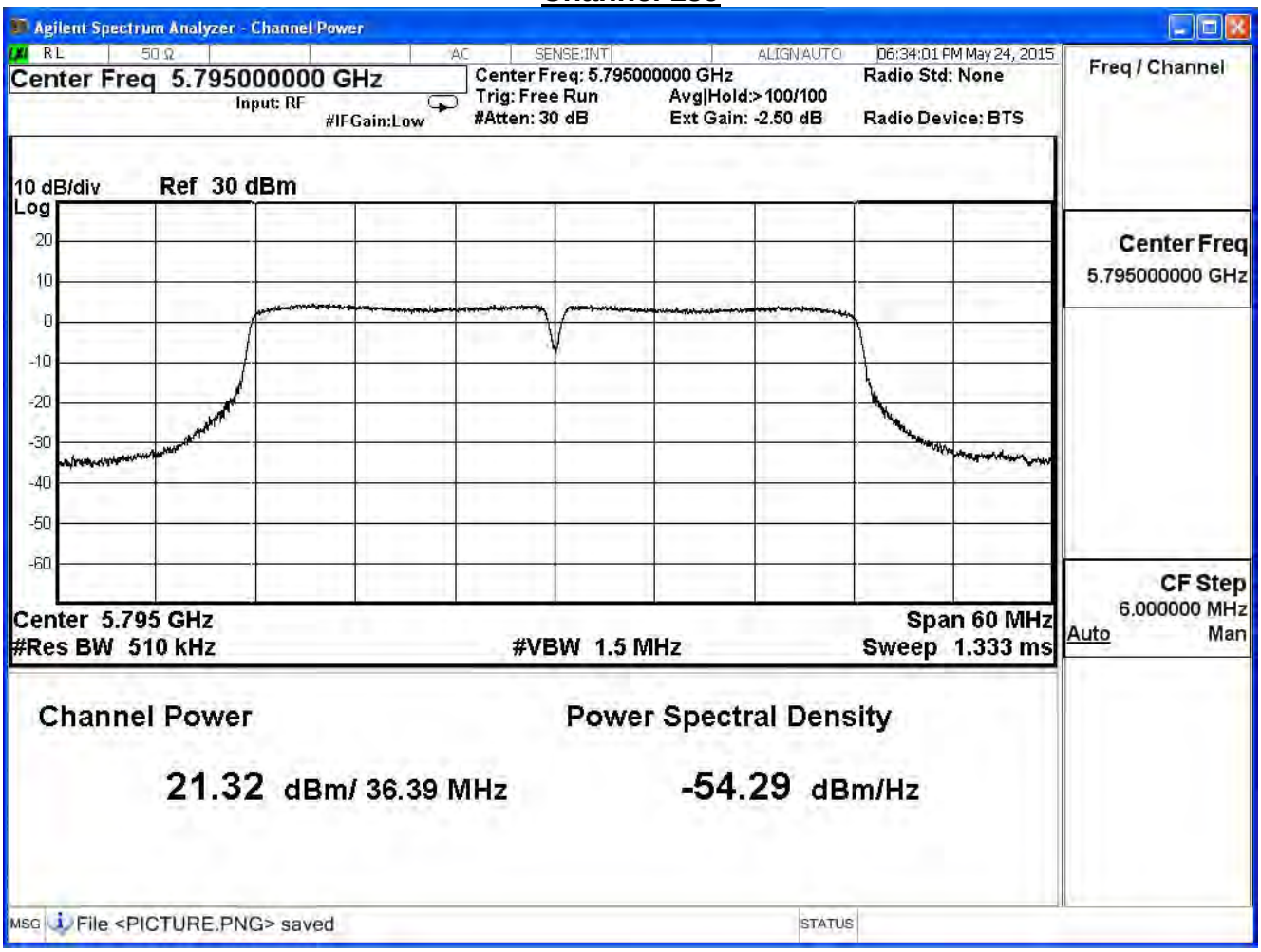
The worst emission of data rate is 13.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.5	27	40.5	54	81	108	121.5	135	
151	5755	20.40	--	--	--	--	--	--	--	30dBm
159	5795	21.32	21.22	21.13	20.93	20.77	20.53	20.29	20.17	30dBm

Channel 151


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:18:33 PM May 24, 2015
Center Freq 5.755000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.755000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.755000000 GHz
CF Step
6.000000 MHz
Auto
Man
Center 5.755 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
Channel Power
20.40 dBm/ 36.47 MHz
Power Spectral Density
-55.22 dBm/Hz
MSG
STATUS

Channel 159


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:34:01 PM May 24, 2015
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
Center 5.795 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
CF Step
6.000000 MHz
Auto
Man
Channel Power
21.32 dBm/ 36.39 MHz
Power Spectral Density
-54.29 dBm/Hz
MSG
File <PICTURE.PNG> saved
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

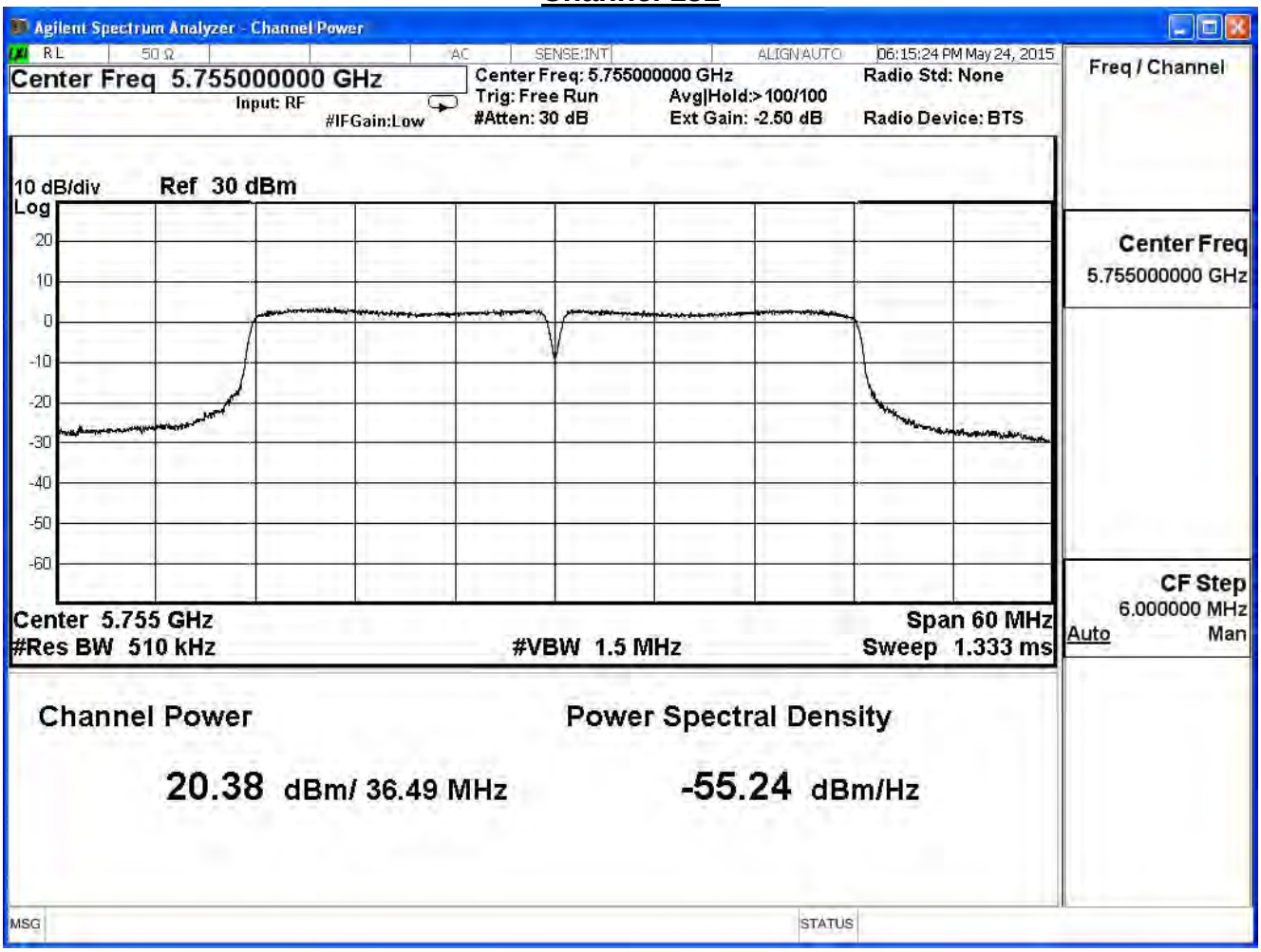
IEEE802.11n 40MHz(ANT 2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	20.38	≦30	Pass
159	5795	21.14	≦30	Pass

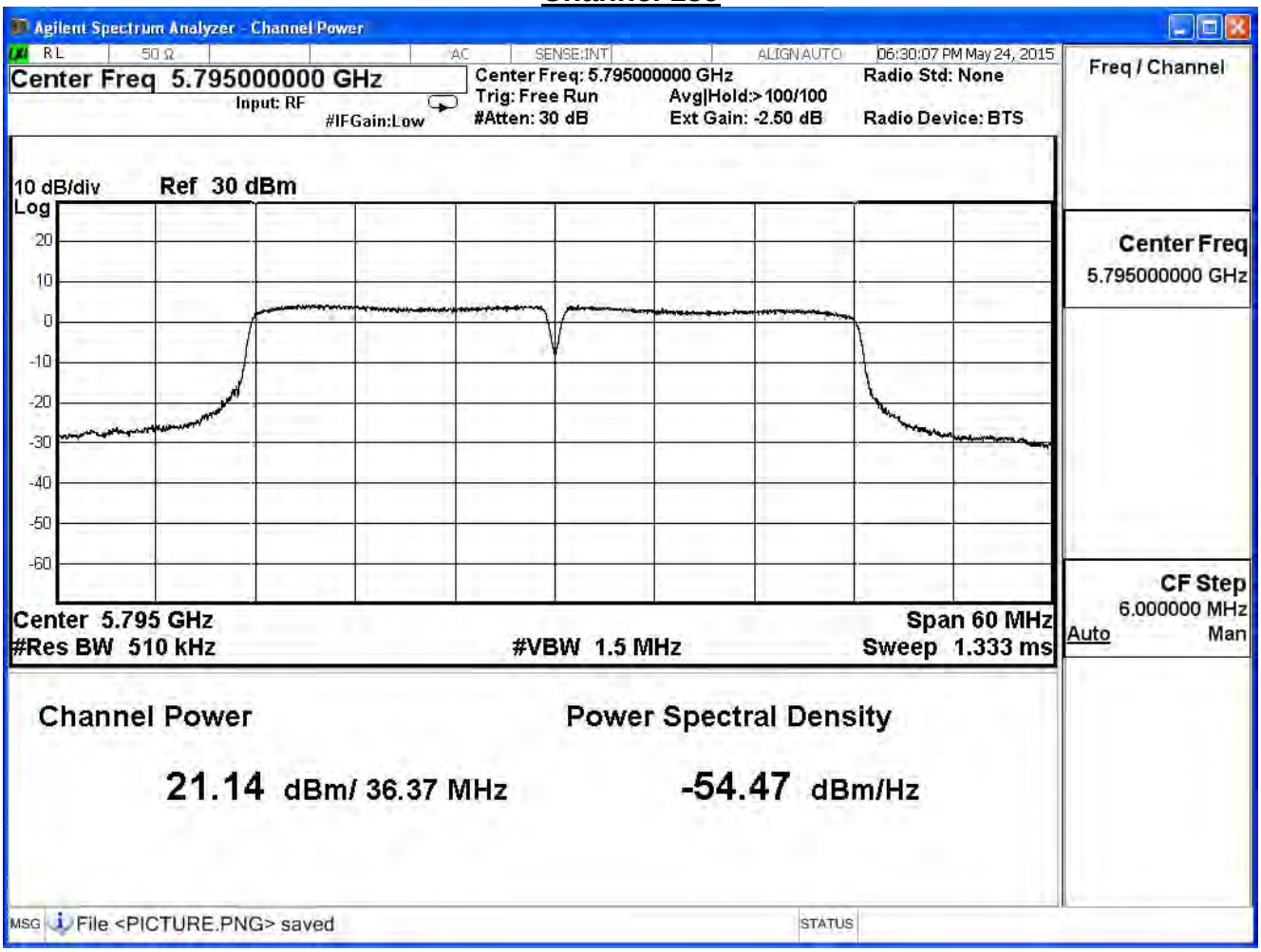
The worst emission of data rate is 13.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.5	27	40.5	54	81	108	121.5	135	
151	5755	20.38	--	--	--	--	--	--	--	30dBm
159	5795	21.14	21.03	20.93	20.83	20.63	20.51	20.38	20.26	30dBm

Channel 151


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:15:24 PM May 24, 2015
Center Freq 5.755000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.755000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.755000000 GHz
Center 5.755 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
CF Step
6.000000 MHz
Auto
Man
Channel Power
20.38 dBm/ 36.49 MHz
Power Spectral Density
-55.24 dBm/Hz
MSG
STATUS

Channel 159


Agilent Spectrum Analyzer - Channel Power
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
06:30:07 PM May 24, 2015
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>100/100
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
CF Step
6.000000 MHz
Auto
Man
Center 5.795 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
Channel Power
21.14 dBm/ 36.37 MHz
Power Spectral Density
-54.47 dBm/Hz
MSG
File <PICTURE.PNG> saved
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	25.26	≦30	Pass
159	5795	26.11	≦30	Pass

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		13.5	27	40.5	54	81	108	121.5	135	
151	5755	25.26	--	--	--	--	--	--	--	30dBm
159	5795	26.11	26.01	25.91	25.78	25.63	25.43	25.27	25.12	30dBm

Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE802.11ac 80MHz (ANT 0)

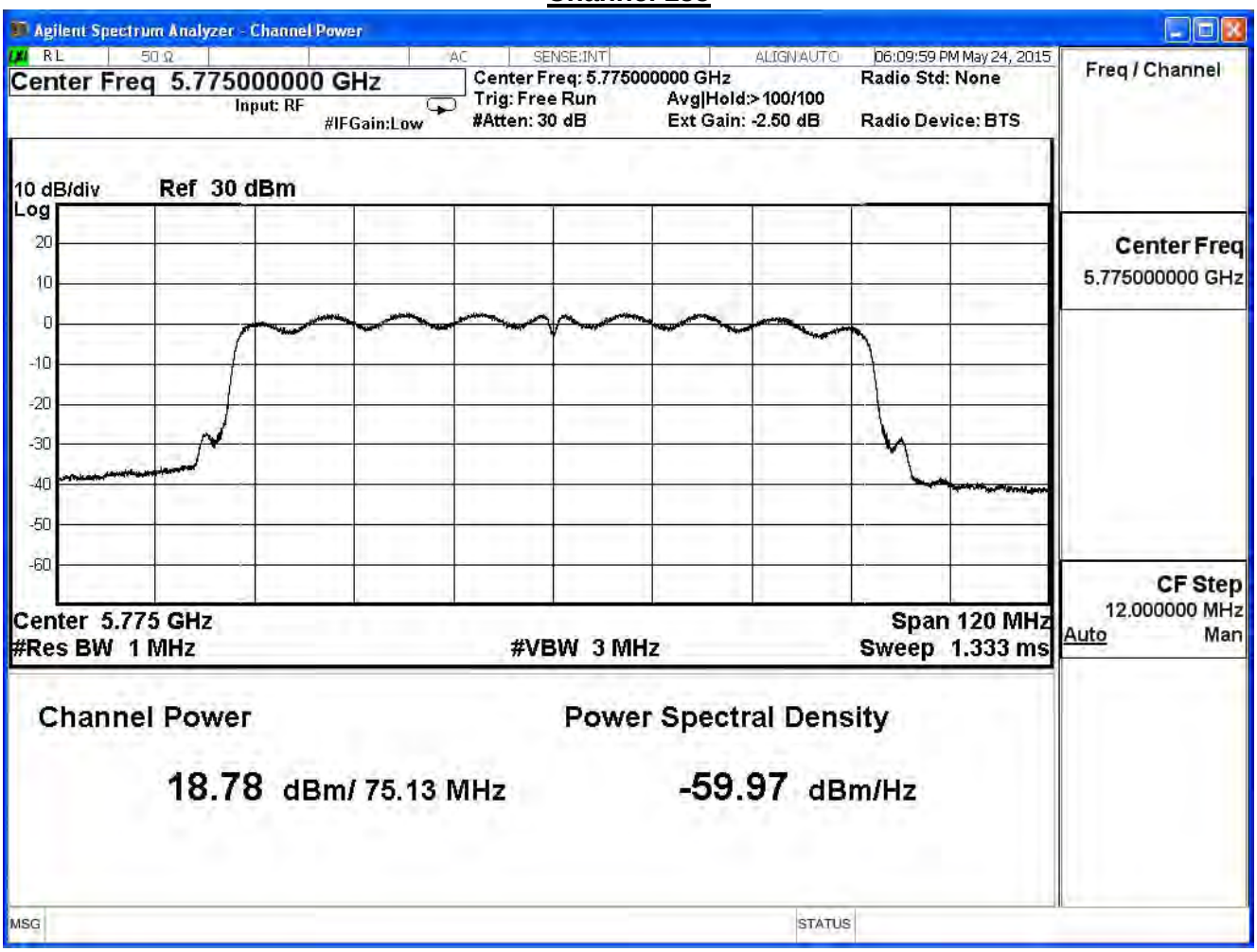
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	18.78	≦30	Pass

The worst emission of data rate is 29.3 Mbps.

Peak Power Output (dBm)											
MCS Index		0	1	2	3	4	5	6	7	8	9
Channel No	Frequency (MHz)	Data Rate									
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390
155	5775	18.78	18.73	18.53	18.33	18.46	18.30	18.18	18.06	17.96	17.84

Note: Measure Level =Reading value + cable loss

Channel 155



Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE802.11ac 80MHz (ANT 1)

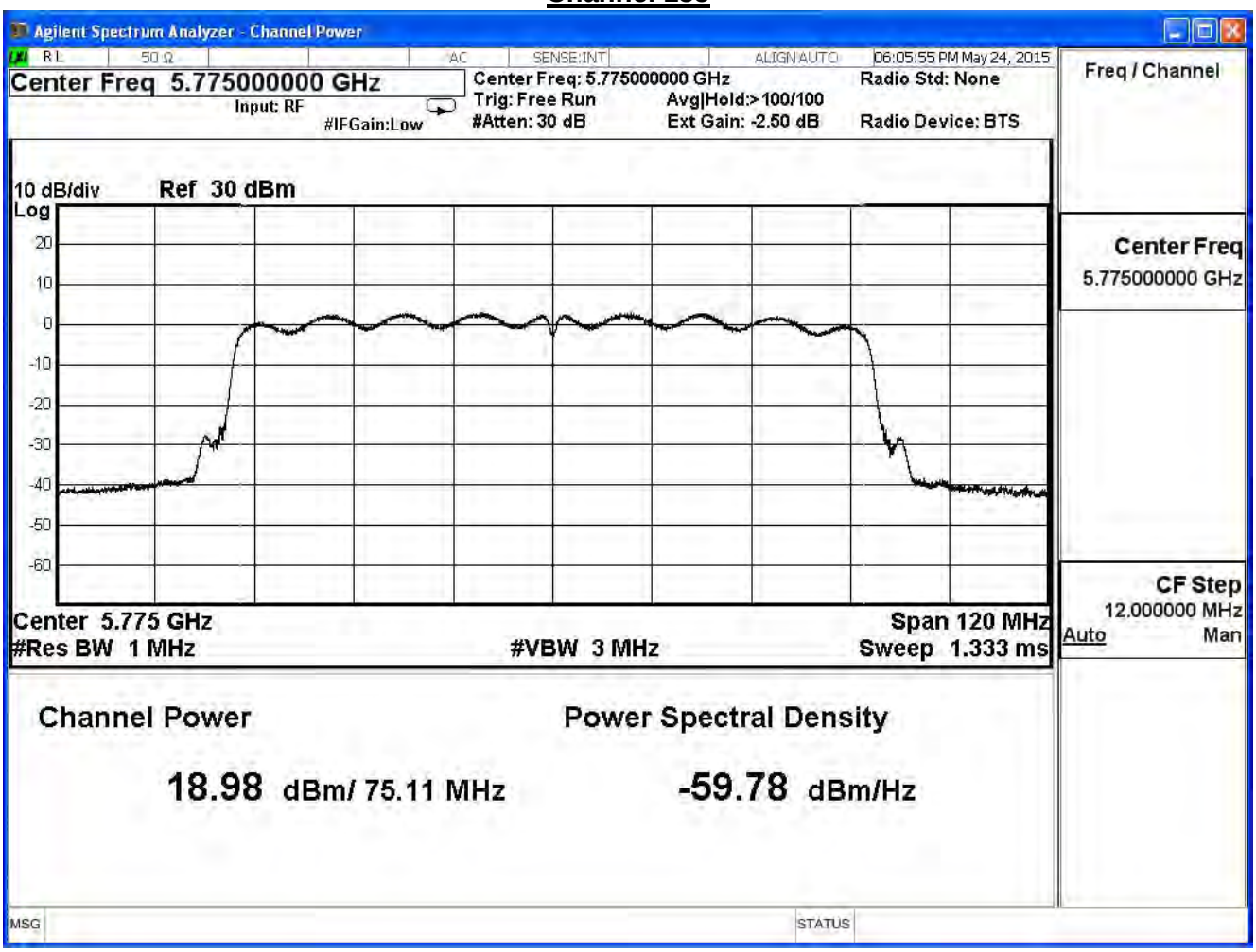
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	18.98	≦30	Pass

The worst emission of data rate is 29.3 Mbps.

Peak Power Output (dBm)											
MCS Index		0	1	2	3	4	5	6	7	8	9
Channel No	Frequency (MHz)	Data Rate									
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390
155	5775	18.98	18.78	18.68	18.58	18.48	18.30	18.06	17.86	17.62	17.50

Note: Measure Level =Reading value + cable loss

Channel 155



Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE802.11ac 80MHz (ANT 2)

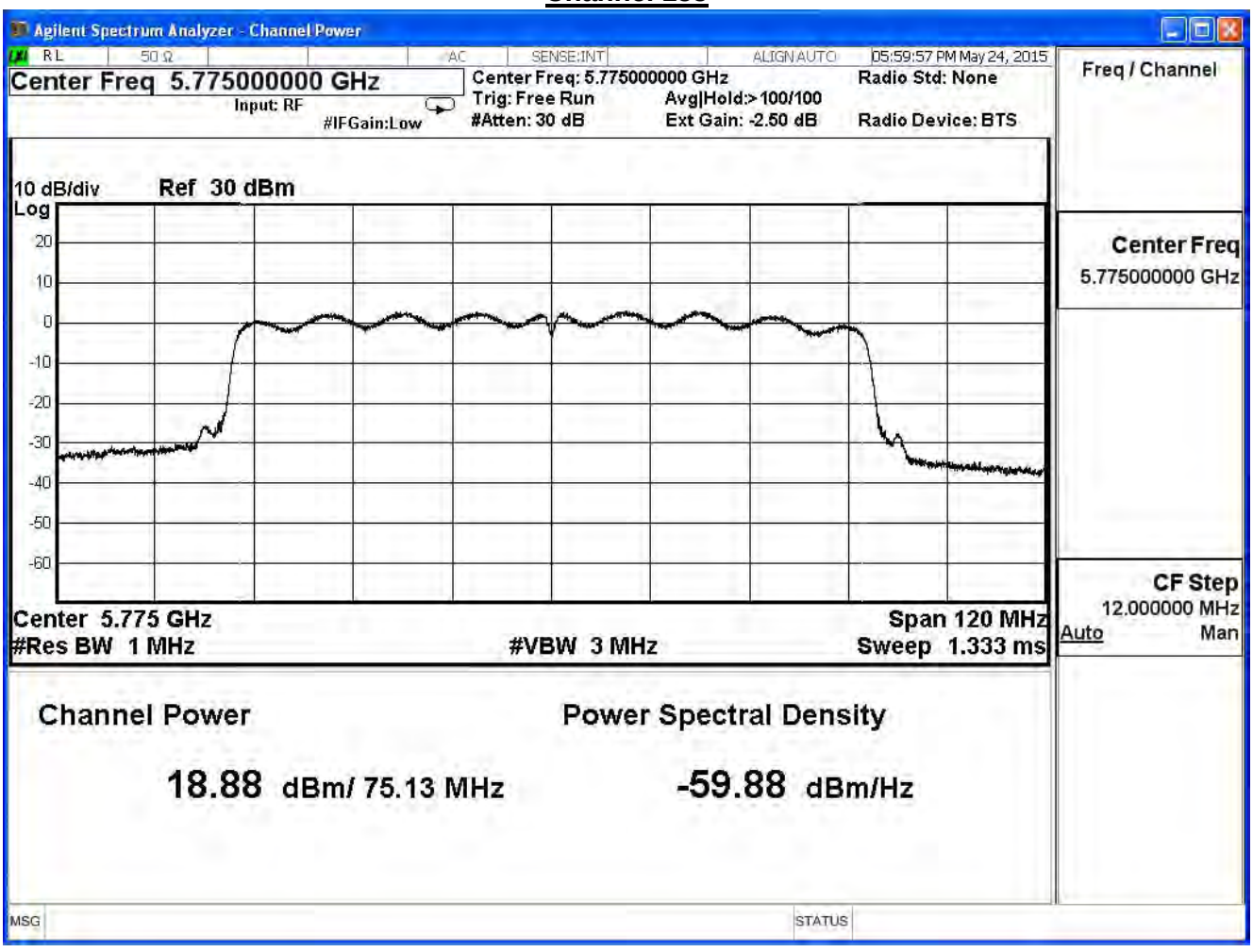
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	18.88	≦30	Pass

The worst emission of data rate is 29.3 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	8	9
Channel No	Frequency (MHz)	Data Rate									
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390
155	5775	18.88	18.78	18.55	18.50	18.34	18.30	18.25	18.20	18.11	17.78

Note: Measure Level =Reading value + cable loss

Channel 155



Product	Dual-band Wireless Range Extender		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	23.65	≦30	Pass

Peak Power Output (dBm)											
MCS Index		0	1	2	3	4	5	6	7	8	9
Channel No	Frequency (MHz)	Data Rate									
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390
155	5775	23.65	23.53	23.36	23.24	23.20	23.07	22.94	22.81	22.67	22.48

Note: Measure Level =Reading value + cable loss

4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

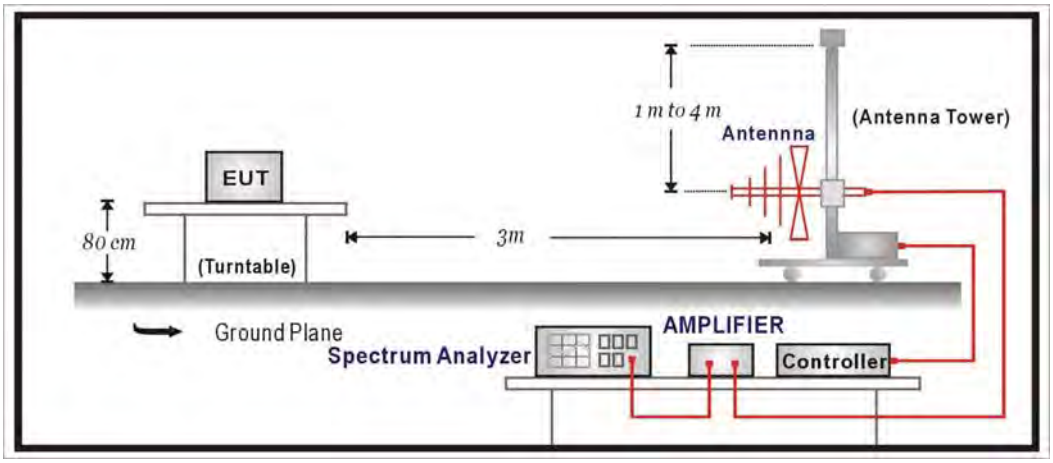
Radiated Emission / CB1

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

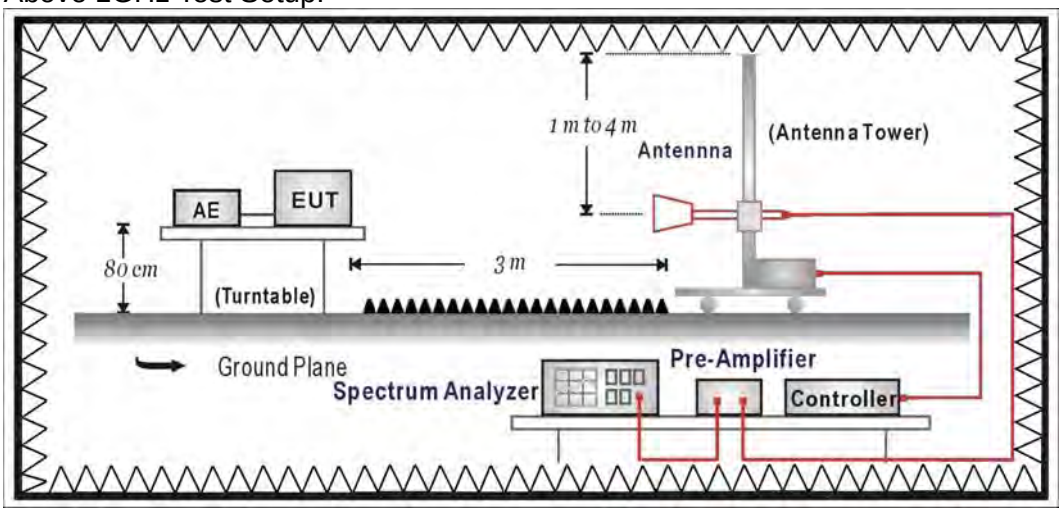
Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

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

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

4.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2009 and tested according to DTS test procedure of KDB558074 v03r02 for compliance to FCC 47CFR 15.247 requirements.
The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 2009 on radiated measurement.
On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

4.6. Uncertainty

The measurement uncertainty

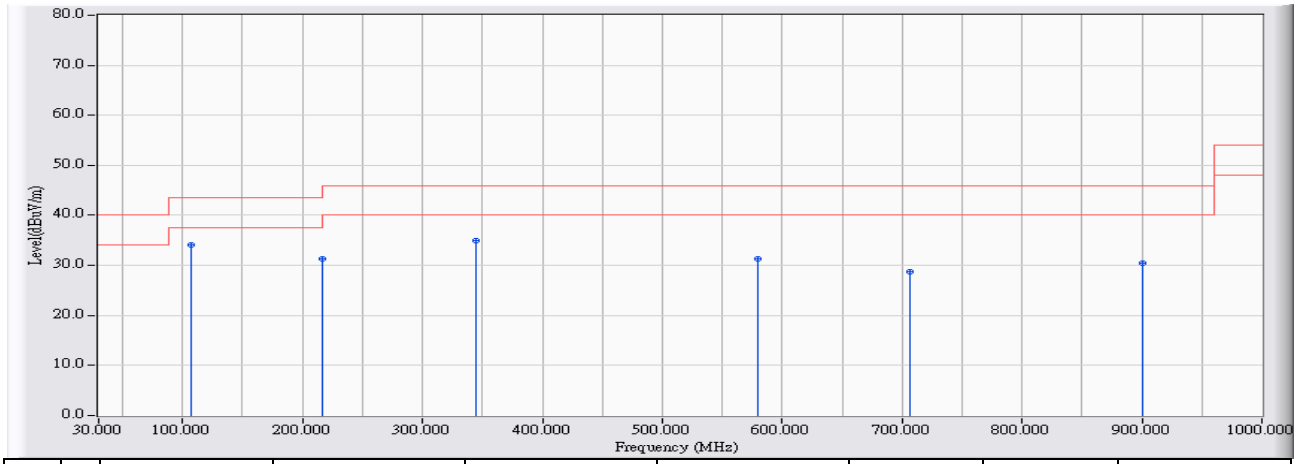
30MHz～1GHz as ±3.43dB

1GHz～26.5Ghz as ±3.65dB

4.7. Test Result

30MHz-1GHz Spurious

Site : CB1	**Time : 2015/05/16 - 02:30**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11b_2437MHz**

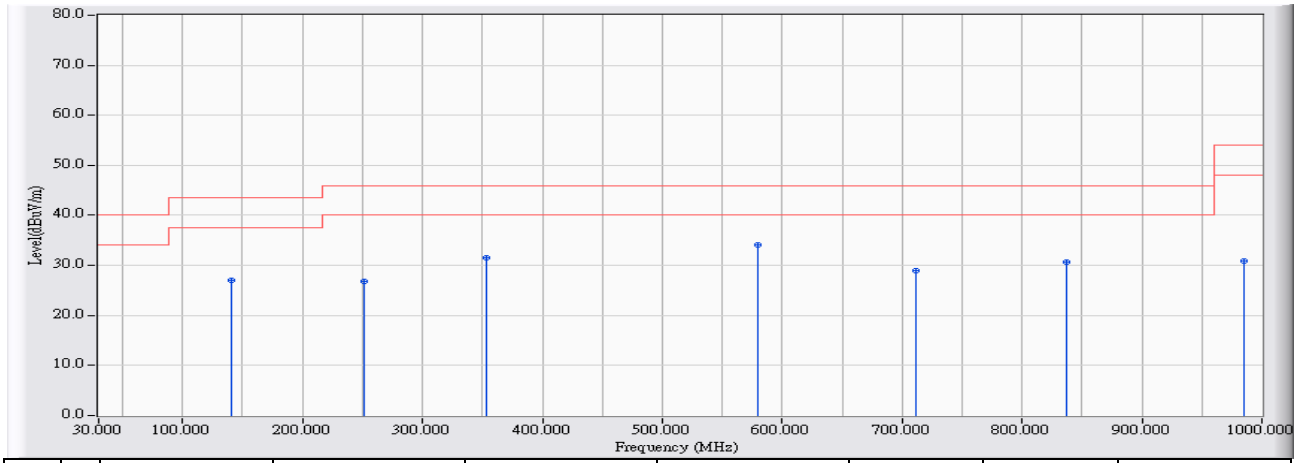


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	106.592	10.165	23.851	34.015	-9.485	43.500	QUASIPEAK
2		216.632	9.402	21.844	31.246	-14.754	46.000	QUASIPEAK
3		345.092	13.836	21.143	34.978	-11.022	46.000	QUASIPEAK
4		579.715	17.422	13.880	31.302	-14.698	46.000	QUASIPEAK
5		706.237	18.069	10.711	28.780	-17.220	46.000	QUASIPEAK
6		900.625	19.478	10.962	30.439	-15.561	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2015/05/16 - 03:42**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11b_2437MHz**

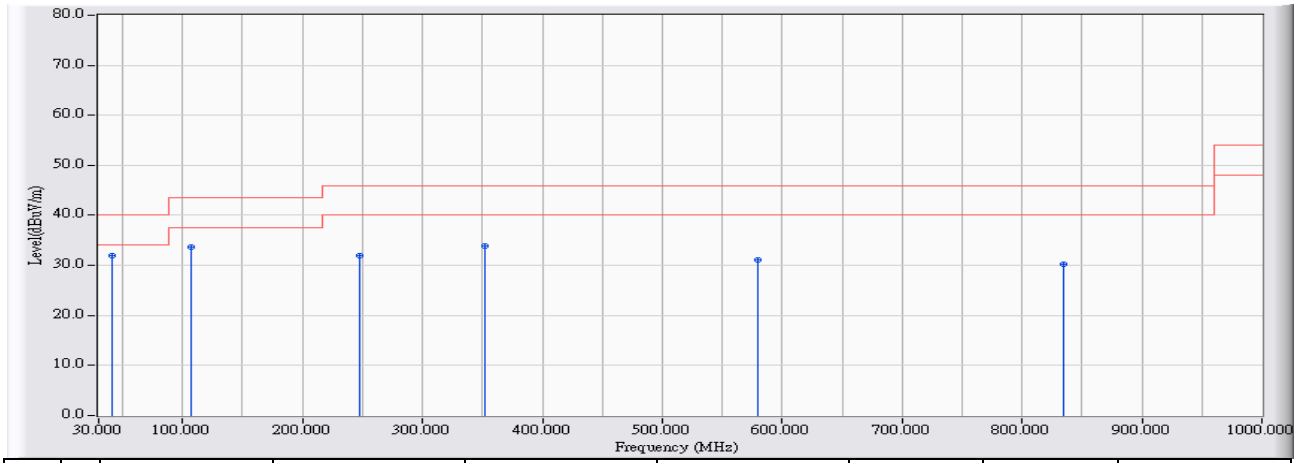


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		141.009	10.082	16.932	27.014	-16.486	43.500	QUASIPEAK
2		251.534	11.910	15.000	26.910	-19.090	46.000	QUASIPEAK
3		353.333	14.034	17.395	31.428	-14.572	46.000	QUASIPEAK
4	*	579.715	17.422	16.771	34.193	-11.807	46.000	QUASIPEAK
5		711.569	18.134	10.868	29.002	-16.998	46.000	QUASIPEAK
6		837.121	19.310	11.466	30.776	-15.224	46.000	QUASIPEAK
7		984.973	20.166	10.742	30.908	-23.092	54.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2015/05/16 - 02:28**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a_5785MHz**

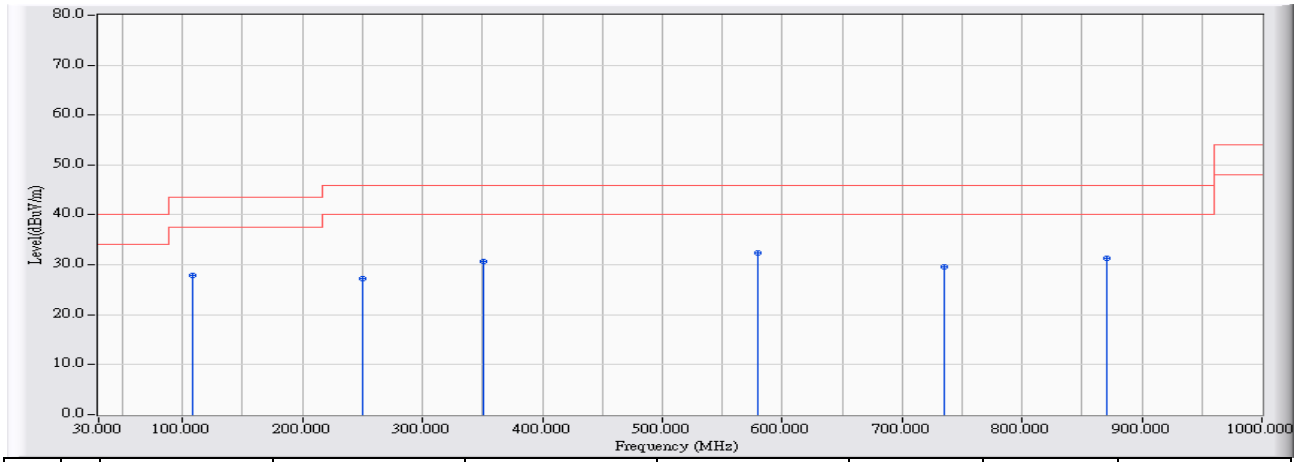


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	41.634	9.692	22.368	32.060	-7.940	40.000	QUASIPEAK
2		106.592	10.165	23.536	33.700	-9.800	43.500	QUASIPEAK
3		248.141	11.746	20.164	31.909	-14.091	46.000	QUASIPEAK
4		352.364	14.010	19.939	33.949	-12.051	46.000	QUASIPEAK
5		579.715	17.422	13.751	31.173	-14.827	46.000	QUASIPEAK
6		835.182	19.305	10.920	30.225	-15.775	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2015/05/16 - 04:00**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a_5785MHz**

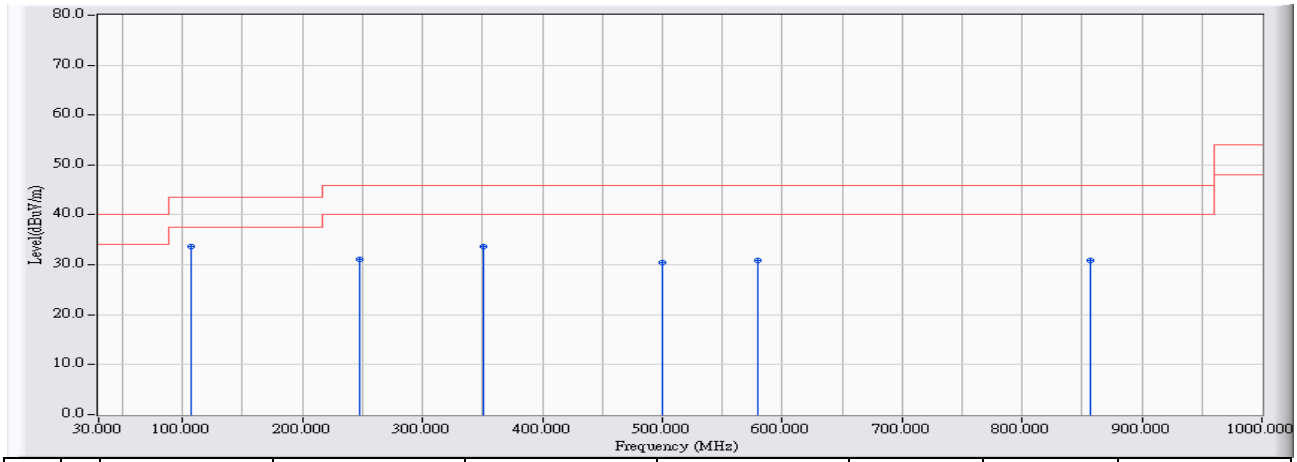


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		108.531	10.259	17.710	27.969	-15.531	43.500	QUASIPEAK
2		250.565	11.893	15.296	27.189	-18.811	46.000	QUASIPEAK
3		350.425	13.964	16.767	30.731	-15.269	46.000	QUASIPEAK
4	*	579.715	17.422	14.892	32.314	-13.686	46.000	QUASIPEAK
5		735.322	18.424	11.159	29.583	-16.417	46.000	QUASIPEAK
6		870.085	19.395	11.822	31.217	-14.783	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2015/05/16 - 02:24**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n20_5785MHz**

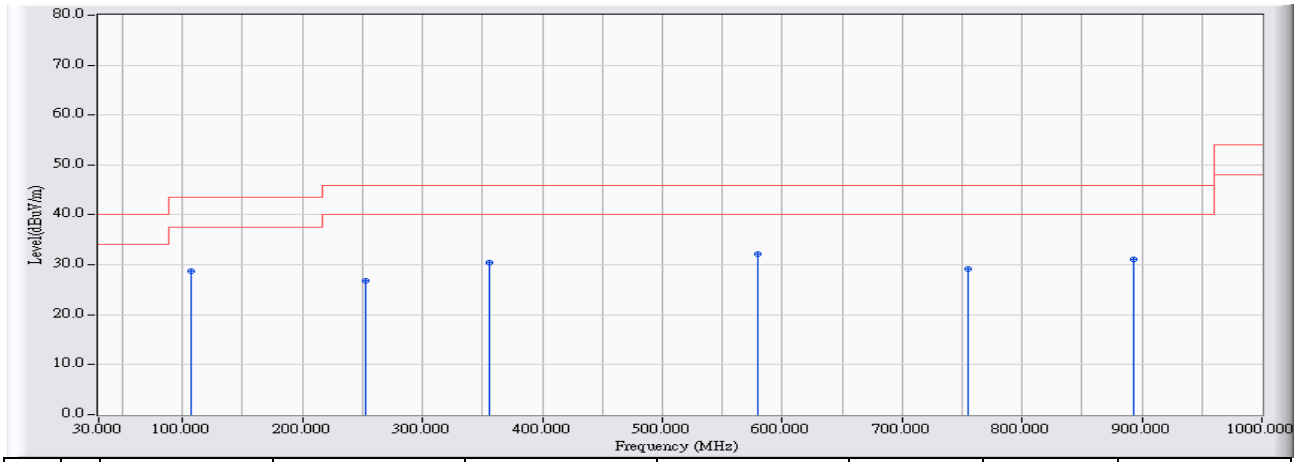


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	106.592	10.165	23.550	33.714	-9.786	43.500	QUASIPEAK
2		248.141	11.746	19.288	31.033	-14.967	46.000	QUASIPEAK
3		350.425	13.964	19.773	33.737	-12.263	46.000	QUASIPEAK
4		499.730	17.175	13.350	30.525	-15.475	46.000	QUASIPEAK
5		579.715	17.422	13.466	30.888	-15.112	46.000	QUASIPEAK
6		857.481	19.363	11.417	30.779	-15.221	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2015/05/16 - 04:03**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n20_5785MHz**

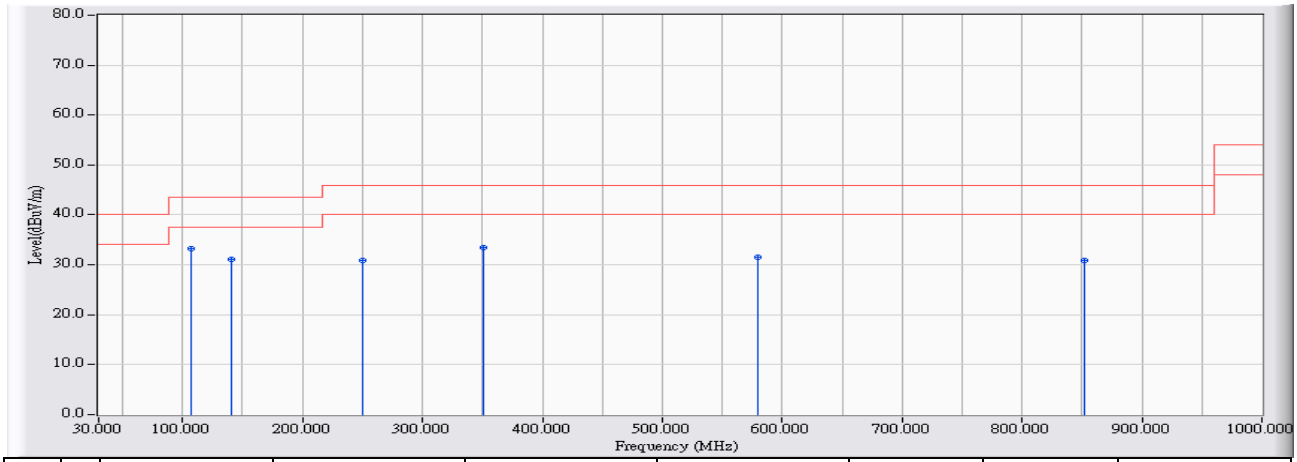


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		106.592	10.165	18.581	28.745	-14.755	43.500	QUASIPEAK
2		252.989	11.935	14.900	26.835	-19.165	46.000	QUASIPEAK
3		355.272	14.080	16.473	30.553	-15.447	46.000	QUASIPEAK
4	*	579.715	17.422	14.773	32.195	-13.805	46.000	QUASIPEAK
5		754.713	18.661	10.607	29.268	-16.732	46.000	QUASIPEAK
6		892.869	19.454	11.592	31.046	-14.954	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2015/05/16 - 02:21**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n40_5795MHz**

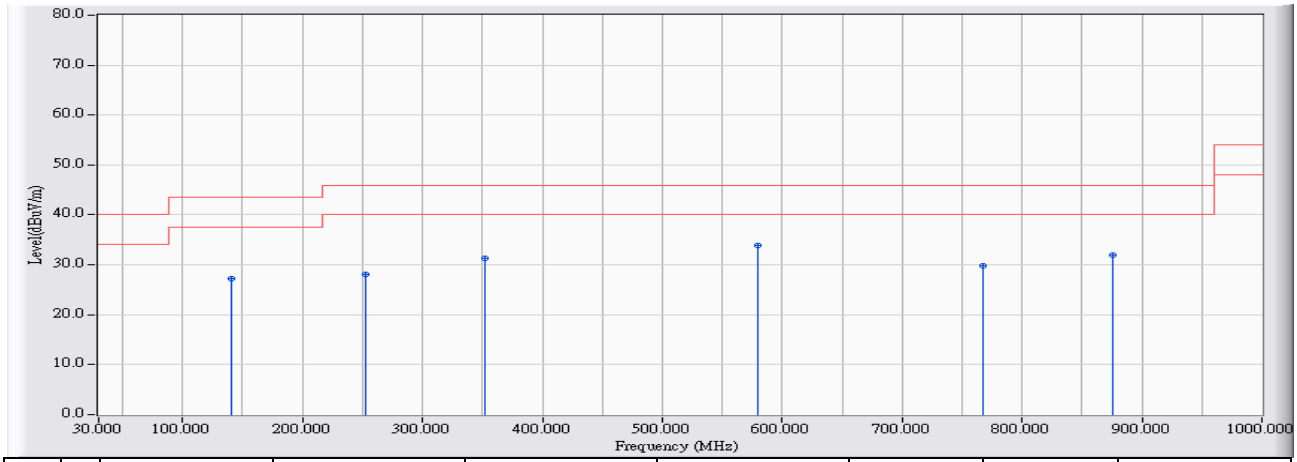


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	106.592	10.165	23.176	33.340	-10.160	43.500	QUASIPEAK
2		141.009	10.082	20.963	31.045	-12.455	43.500	QUASIPEAK
3		249.595	11.849	19.135	30.984	-15.016	46.000	QUASIPEAK
4		350.910	13.975	19.530	33.505	-12.495	46.000	QUASIPEAK
5		579.715	17.422	14.204	31.626	-14.374	46.000	QUASIPEAK
6		852.149	19.349	11.548	30.897	-15.103	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2015/05/16 - 04:05**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n40_5795MHz**

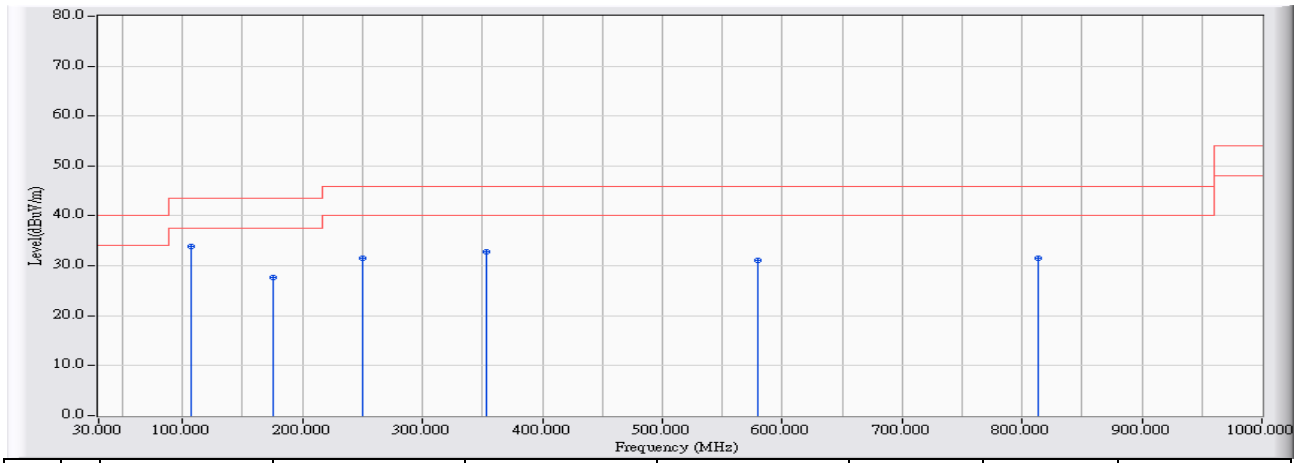


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		141.009	10.082	17.172	27.254	-16.246	43.500	QUASIPEAK
2		252.019	11.919	16.269	28.188	-17.812	46.000	QUASIPEAK
3		352.364	14.010	17.356	31.366	-14.634	46.000	QUASIPEAK
4	*	579.715	17.422	16.548	33.970	-12.030	46.000	QUASIPEAK
5		767.801	18.820	11.067	29.888	-16.112	46.000	QUASIPEAK
6		875.902	19.410	12.504	31.914	-14.086	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2015/05/16 - 02:15**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11ac80_5775MHz**

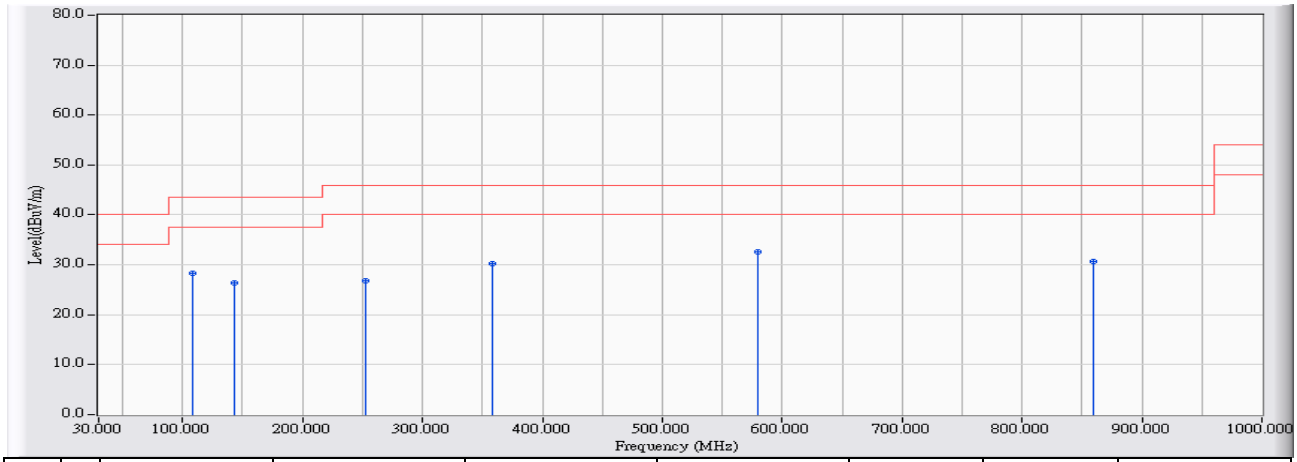


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	106.592	10.165	23.697	33.861	-9.639	43.500	QUASIPEAK
2		174.943	8.482	19.257	27.739	-15.761	43.500	QUASIPEAK
3		249.595	11.849	19.715	31.564	-14.436	46.000	QUASIPEAK
4		352.849	14.022	18.717	32.739	-13.261	46.000	QUASIPEAK
5		579.715	17.422	13.781	31.203	-14.797	46.000	QUASIPEAK
6		813.853	19.250	12.173	31.423	-14.577	46.000	QUASIPEAK

Note:

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

Site : CB1	**Time : 2015/05/16 - 04:10**
Limit : FCC_CLASS_B_03M_QP	**Margin : 6**
Probe : CB1_FCC_EFS_30-1G-2_1011 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11ac80_5775MHz**



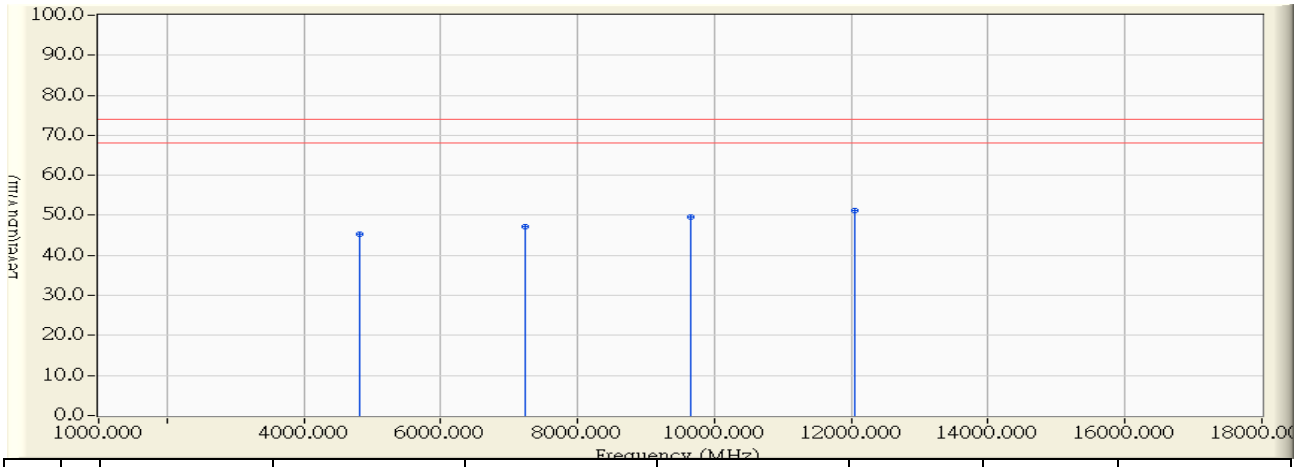
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		108.531	10.259	17.953	28.212	-15.288	43.500	QUASIPEAK
2		142.949	9.985	16.364	26.349	-17.151	43.500	QUASIPEAK
3		252.504	11.927	14.985	26.912	-19.088	46.000	QUASIPEAK
4		357.696	14.138	16.051	30.189	-15.811	46.000	QUASIPEAK
5	*	579.715	17.422	15.236	32.658	-13.342	46.000	QUASIPEAK
6		859.420	19.367	11.254	30.621	-15.379	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.

Above 1GHz Spurious

Site : CB1	**Time : 2015/05/21 - 18:29**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11b 2412MHz**

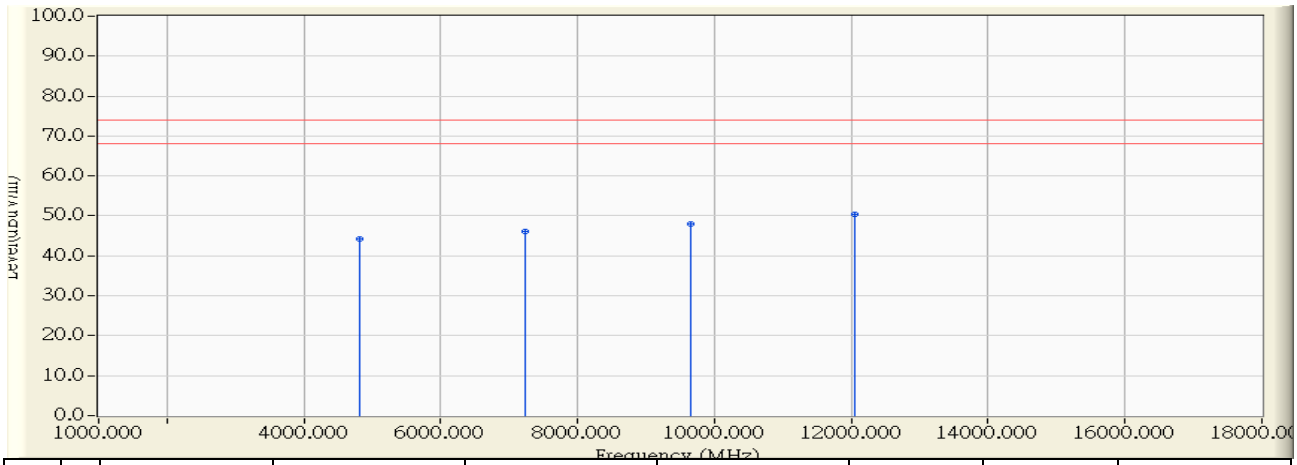


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4824.000	-1.575	46.960	45.385	-28.615	74.000	PEAK
2		7236.000	6.982	40.100	47.082	-26.918	74.000	PEAK
3		9648.000	8.671	41.010	49.681	-24.319	74.000	PEAK
4	*	12060.000	11.570	39.620	51.189	-22.811	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 : 2015/05/21 - 17:52**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11b 2412MHz**

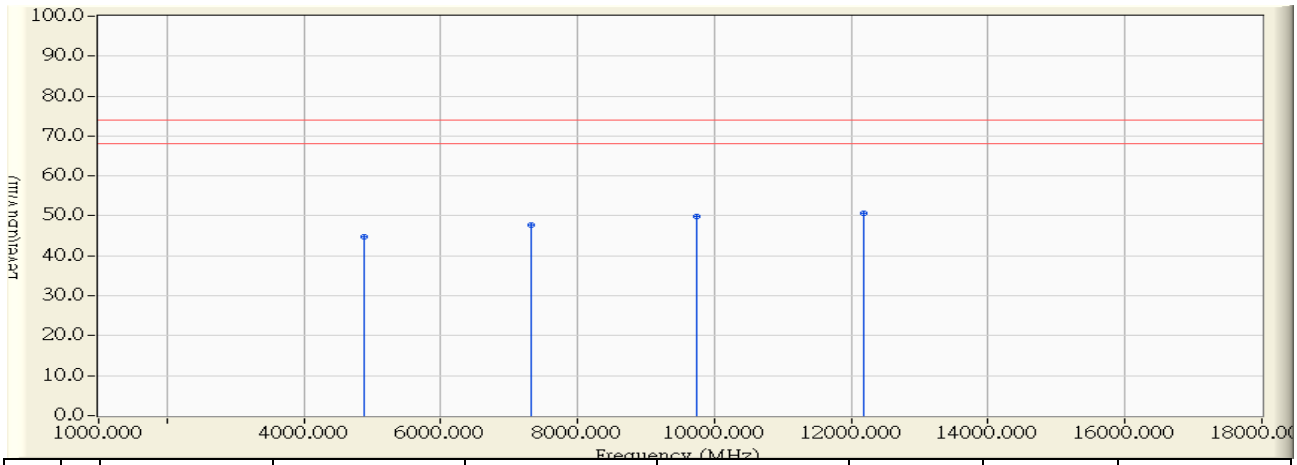


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4824.000	-0.678	44.900	44.222	-29.778	74.000	PEAK
2		7236.000	6.482	39.530	46.012	-27.988	74.000	PEAK
3		9648.000	8.174	39.880	48.053	-25.947	74.000	PEAK
4	*	12060.000	11.147	39.290	50.436	-23.564	74.000	PEAK

Note:

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

Site : CB1	**Time : 2015/05/21 - 18:38**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11b 2437MHz**

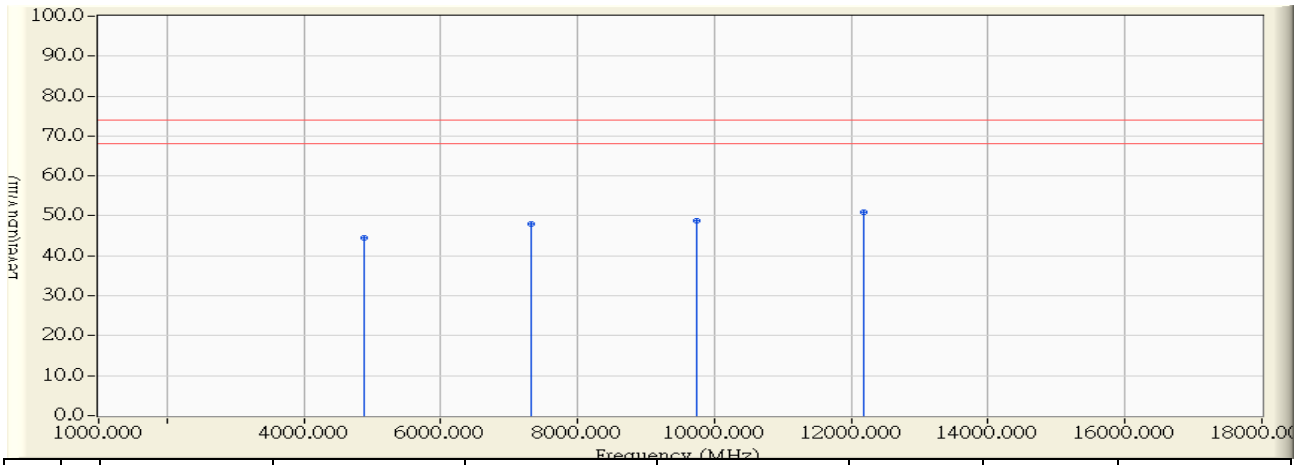


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4874.000	-1.453	46.190	44.737	-29.263	74.000	PEAK
2		7311.000	7.144	40.600	47.744	-26.256	74.000	PEAK
3		9748.000	9.218	40.660	49.878	-24.122	74.000	PEAK
4	*	12185.000	11.450	39.250	50.700	-23.300	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 : 2015/05/21 - 18:45**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11b 2437MHz**

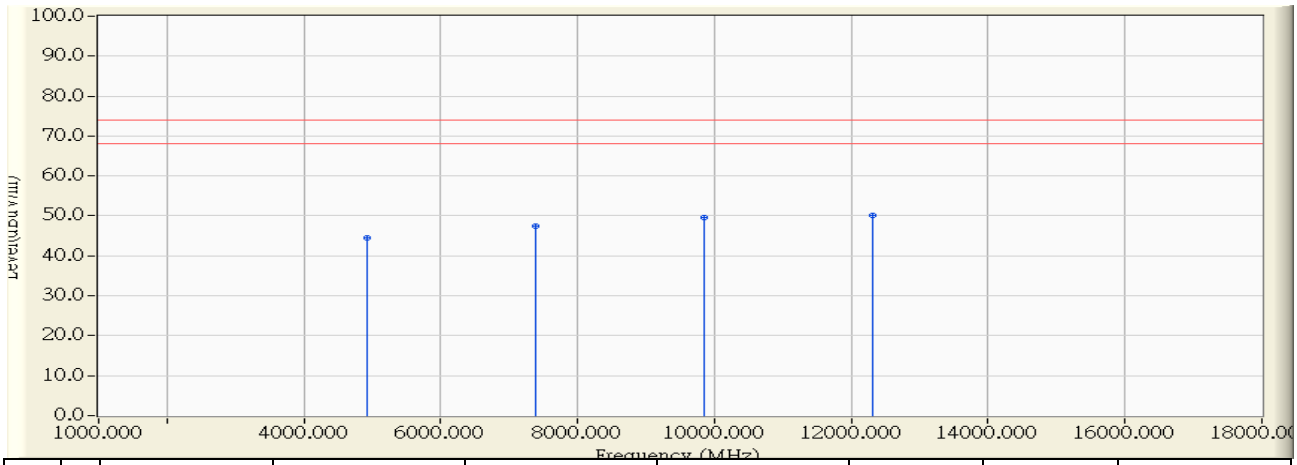


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4874.000	-0.681	45.260	44.579	-29.421	74.000	PEAK
2		7311.000	6.644	41.240	47.884	-26.116	74.000	PEAK
3		9748.000	8.570	40.170	48.741	-25.259	74.000	PEAK
4	*	12185.000	11.152	39.830	50.982	-23.018	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 : 2015/05/21 - 19:03**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11b 2462MHz**

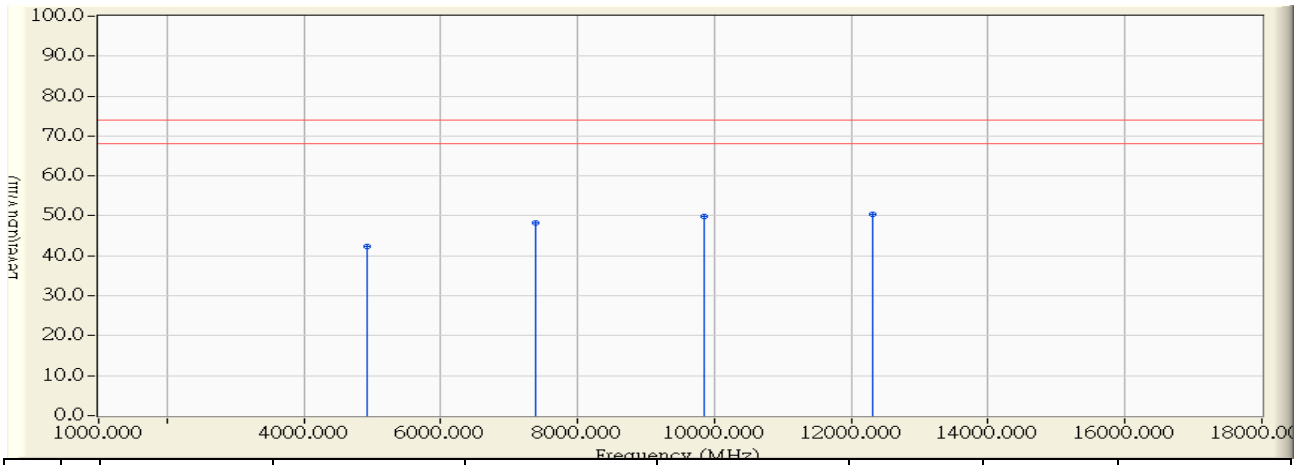


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4924.000	-1.331	45.800	44.469	-29.531	74.000	PEAK
2		7386.000	7.306	40.050	47.357	-26.643	74.000	PEAK
3		9848.000	9.766	39.770	49.536	-24.464	74.000	PEAK
4	*	12310.000	11.331	38.890	50.220	-23.780	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 : 2015/05/21 - 18:55**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11b 2462MHz**

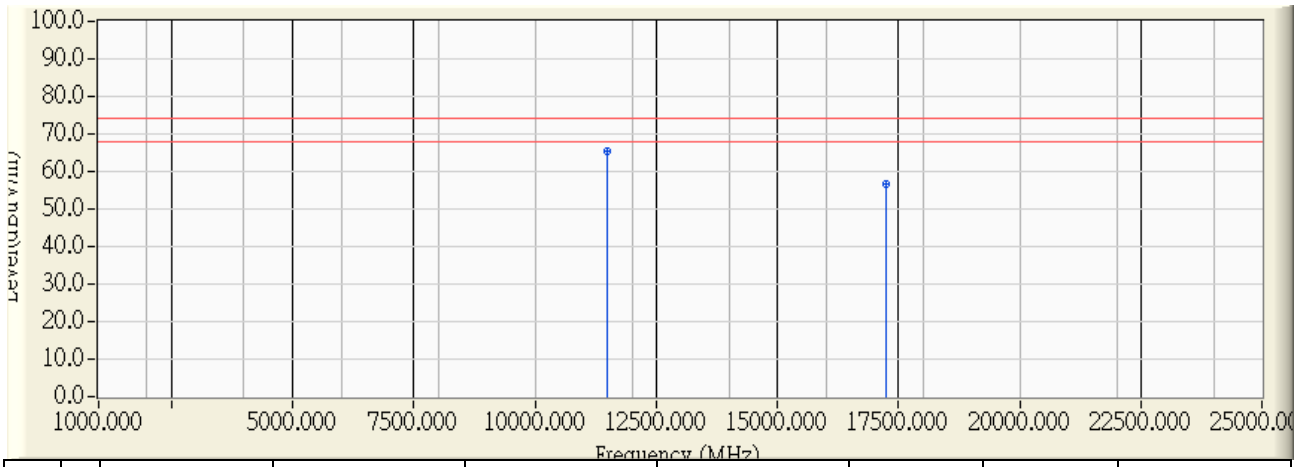


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		4924.000	-0.684	43.160	42.476	-31.524	74.000	PEAK
2		7386.000	6.806	41.400	48.207	-25.793	74.000	PEAK
3		9848.000	8.968	40.850	49.818	-24.182	74.000	PEAK
4	*	12310.000	11.158	39.250	50.407	-23.593	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 : 2015/05/19 - 18:31**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5745MHz**

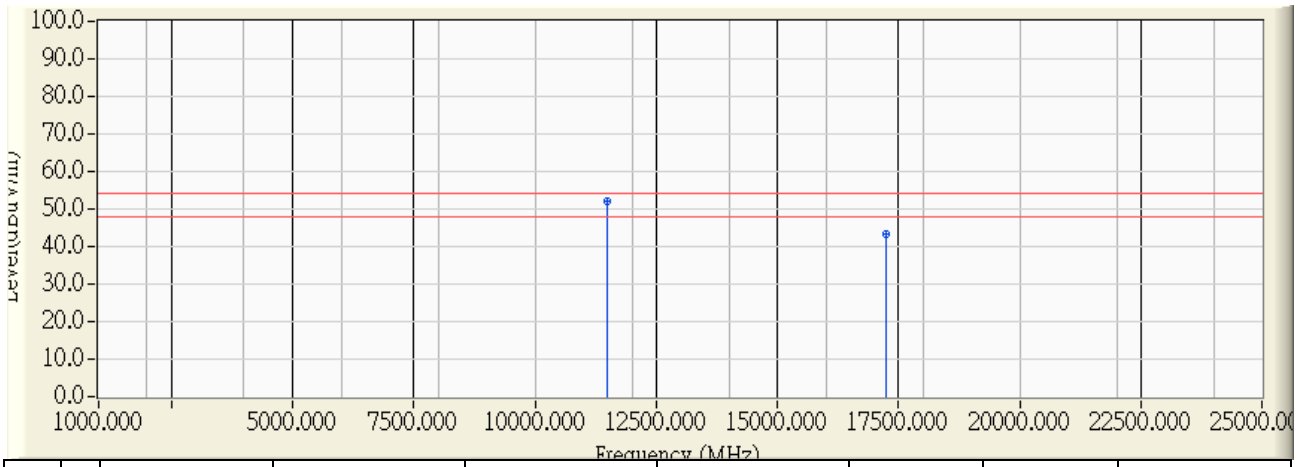


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	12.273	52.990	65.262	-8.738	74.000	PEAK
2		17235.000	15.500	40.990	56.490	-17.510	74.000	PEAK

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 : 2015/05/19 - 18:00**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5745MHz**

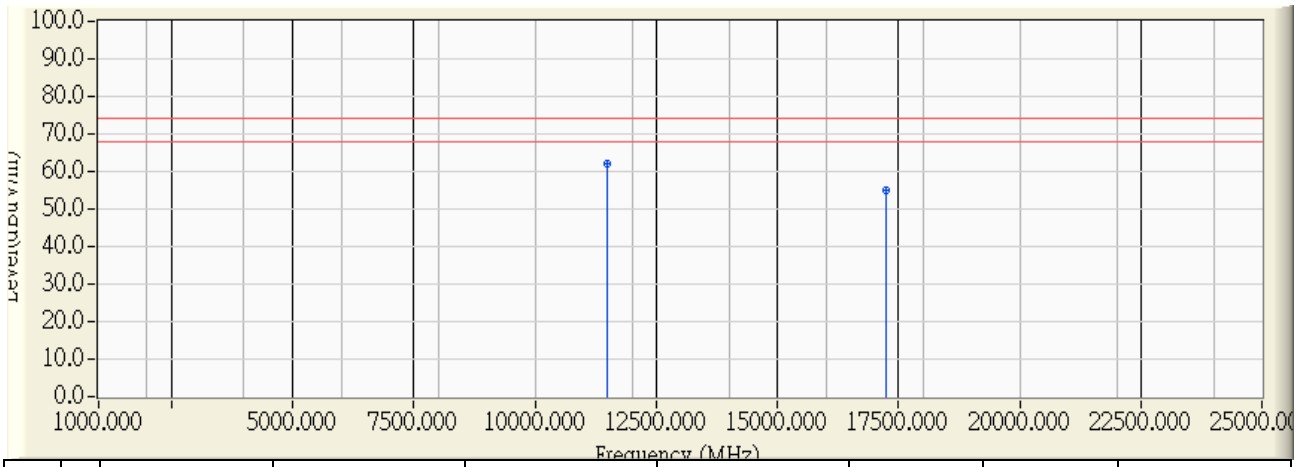


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	12.273	39.650	51.922	-2.078	54.000	AVERAGE
2		17235.000	15.500	27.910	43.410	-10.590	54.000	AVERAGE

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 : 2015/05/19 - 18:46**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5745MHz**

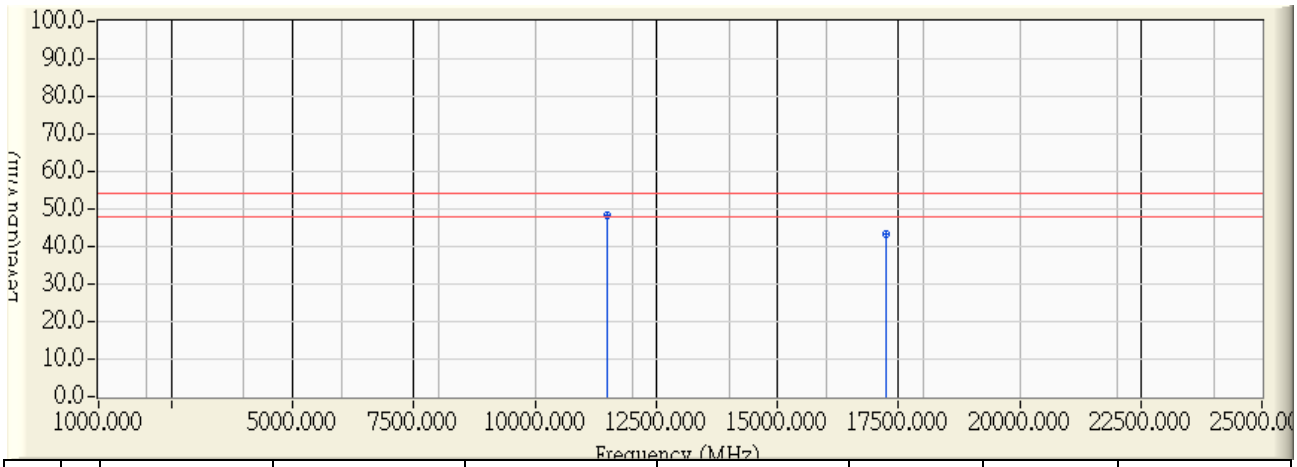


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	12.019	49.970	61.989	-12.011	74.000	PEAK
2		17235.000	15.500	39.560	55.060	-18.940	74.000	PEAK

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 : 2015/05/19 - 18:47**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5745MHz**

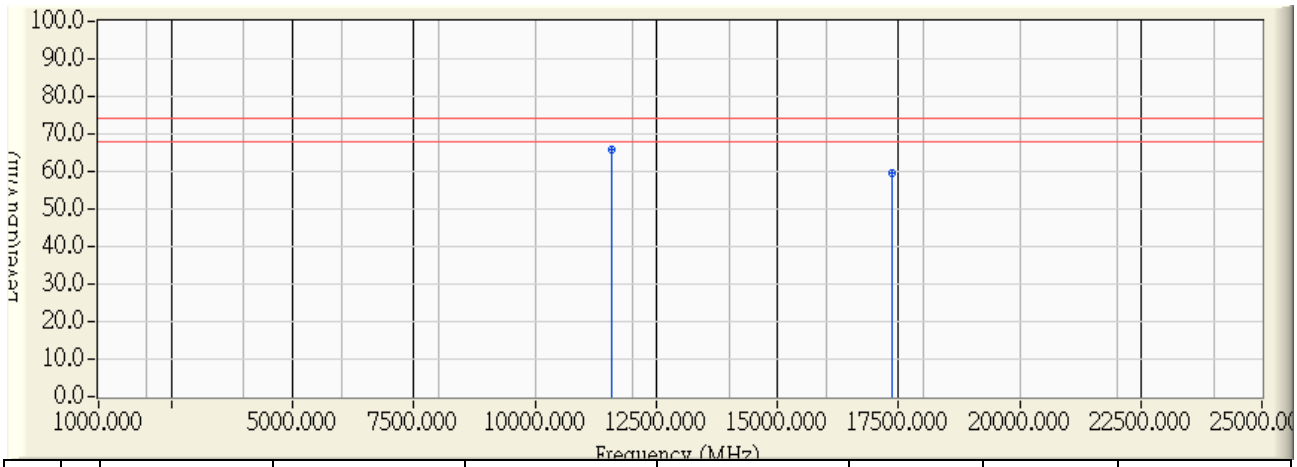


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	12.019	36.400	48.419	-5.581	54.000	AVERAGE
2		17235.000	15.500	27.730	43.230	-10.770	54.000	AVERAGE

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 : 2015/05/20 - 18:32**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5785MHz**

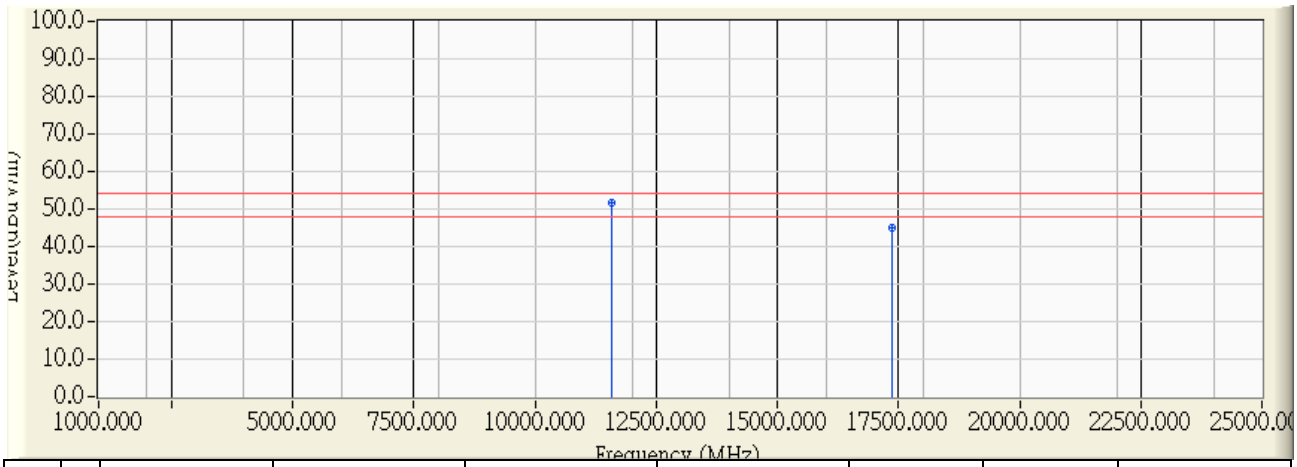


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.000	12.170	53.580	65.750	-8.250	74.000	PEAK
2		17355.000	16.052	43.610	59.662	-14.338	74.000	PEAK

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 : 2015/05/20 - 18:30**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5785MHz**

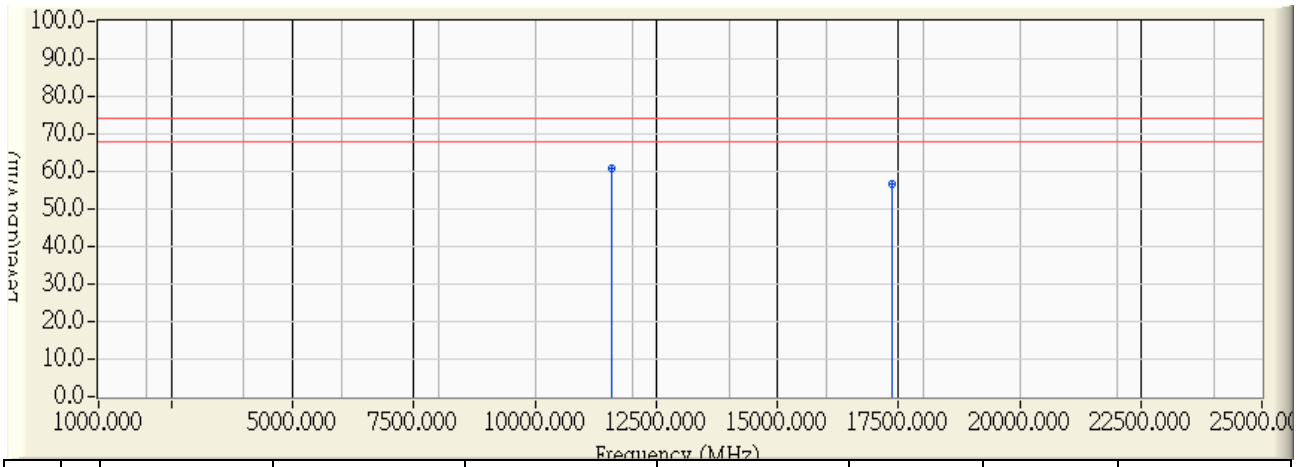


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.000	12.170	39.360	51.530	-2.470	54.000	AVERAGE
2		17355.000	16.052	28.740	44.792	-9.208	54.000	AVERAGE

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 : 2015/05/20 - 18:39**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5785MHz**

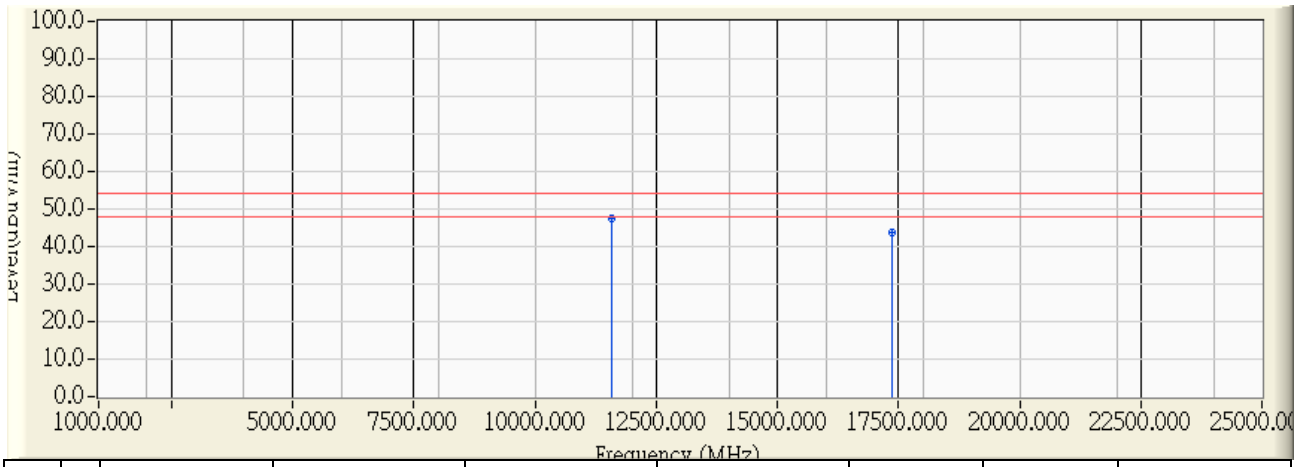


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.000	11.877	48.810	60.687	-13.313	74.000	PEAK
2		17355.000	16.052	40.810	56.862	-17.138	74.000	PEAK

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 : 2015/05/20 - 18:41**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5785MHz**

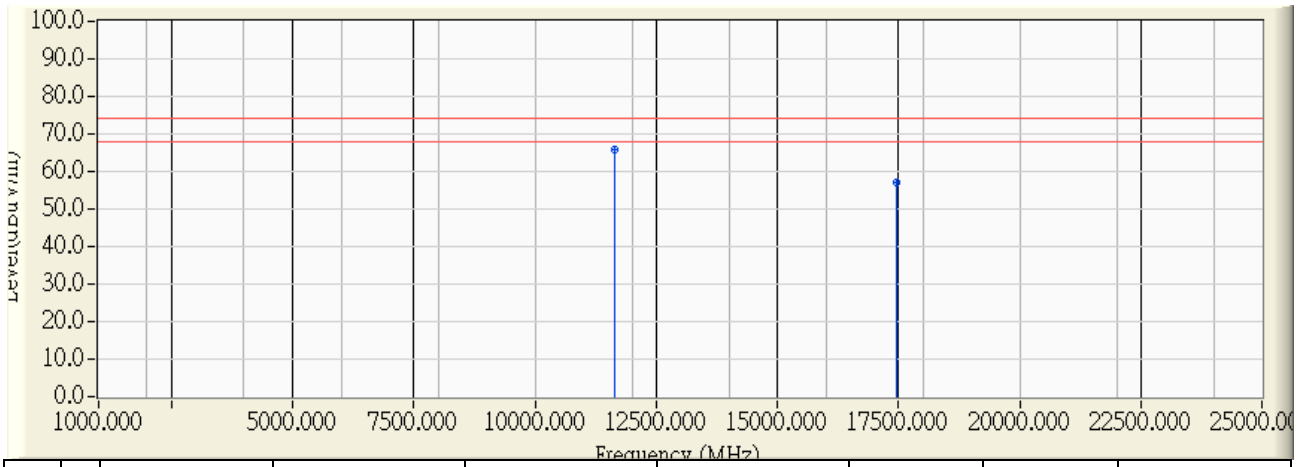


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.000	11.877	35.680	47.557	-6.443	54.000	AVERAGE
2		17355.000	16.052	27.630	43.682	-10.318	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2015/05/20 - 18:55**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5825MHz**

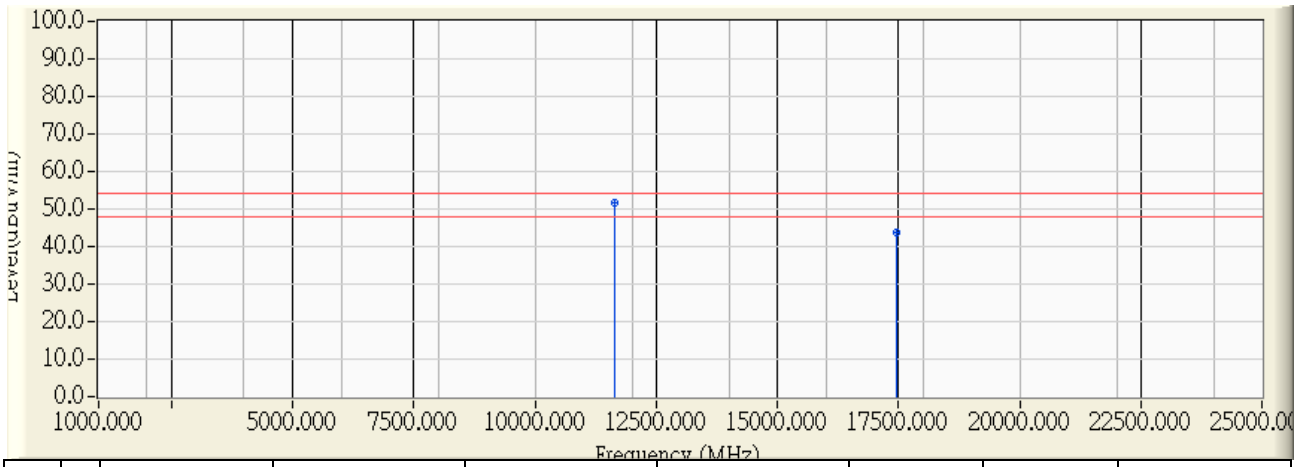


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	12.069	53.730	65.798	-8.202	74.000	PEAK
2		17475.000	16.610	40.450	57.060	-16.940	74.000	PEAK

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 : 2015/05/20 - 18:53**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5825MHz**

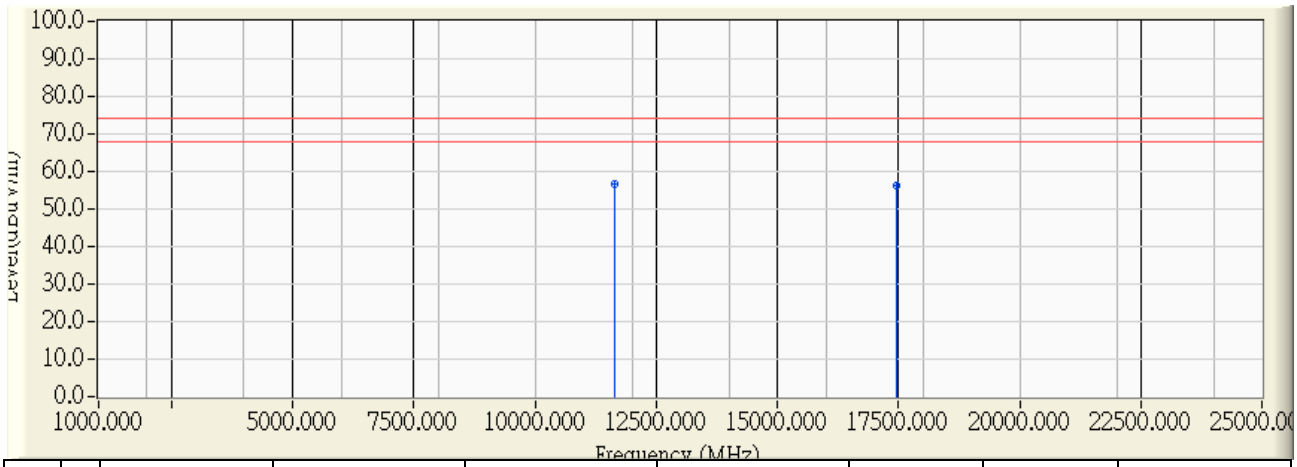


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	12.069	39.790	51.858	-2.142	54.000	AVERAGE
2		17475.000	16.610	27.240	43.850	-10.150	54.000	AVERAGE

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 : 2015/05/20 - 19:05**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5825MHz**

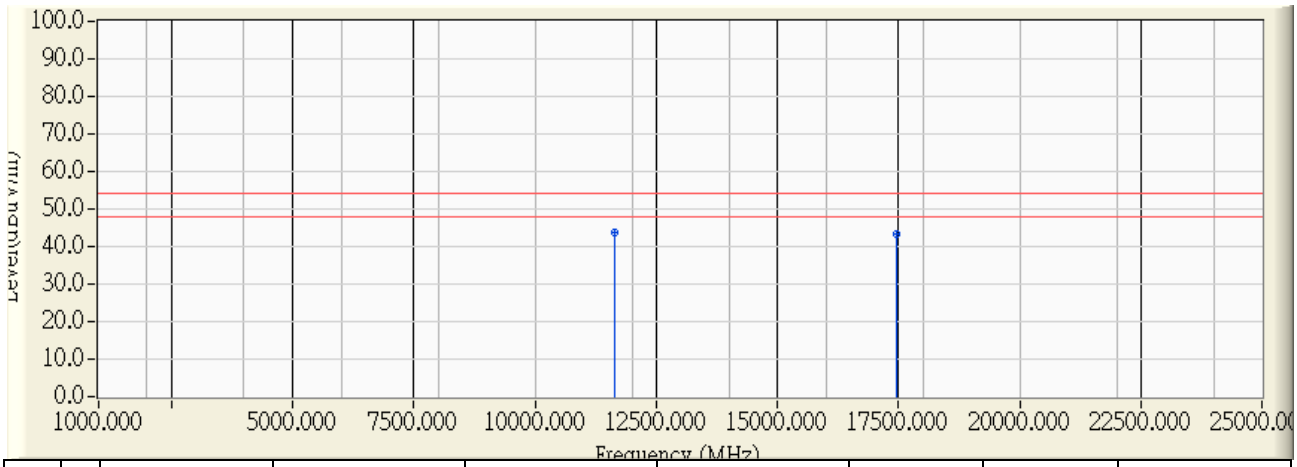


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	11.735	45.040	56.775	-17.225	74.000	PEAK
2		17475.000	16.610	39.730	56.340	-17.660	74.000	PEAK

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 : 2015/05/20 - 19:06**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11a 5825MHz**

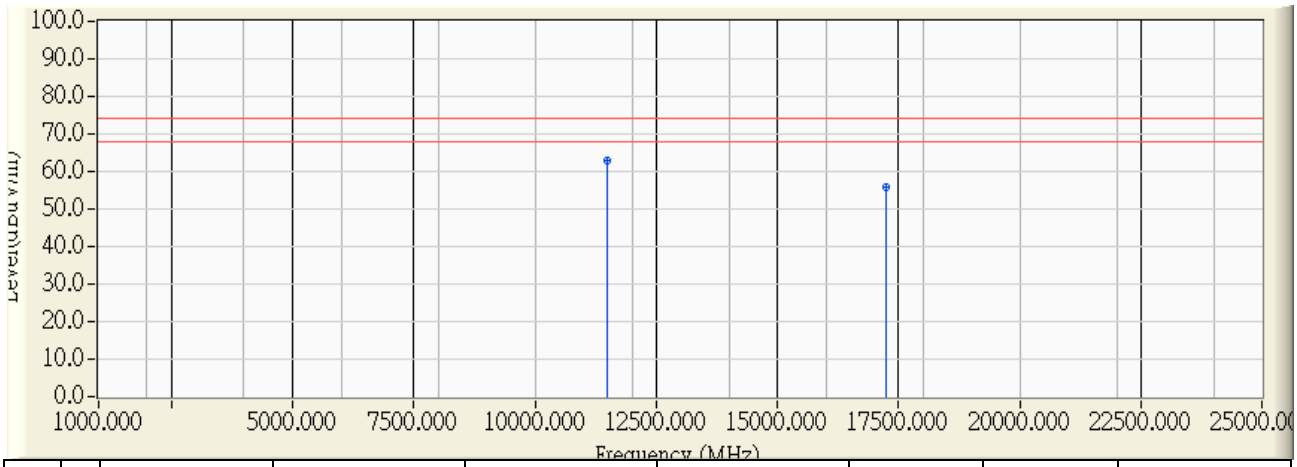


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	11.735	31.940	43.675	-10.325	54.000	AVERAGE
2		17475.000	16.610	26.650	43.260	-10.740	54.000	AVERAGE

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 : 2015/05/19 - 18:59**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5745MHz**

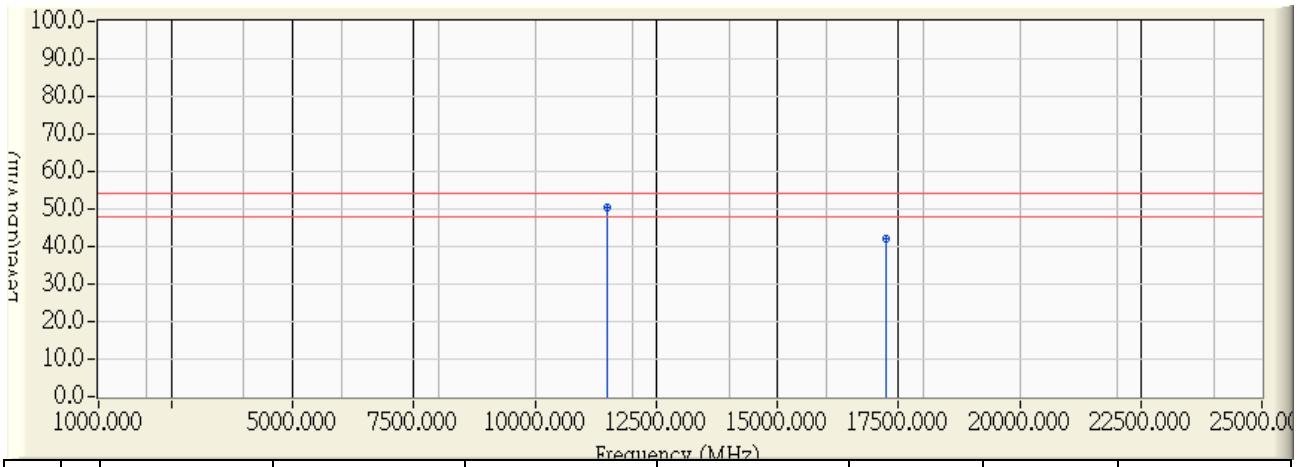


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	12.273	50.520	62.792	-11.208	74.000	PEAK
2		17235.000	15.500	40.320	55.820	-18.180	74.000	PEAK

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 : 2015/05/19 - 18:57**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5745MHz**

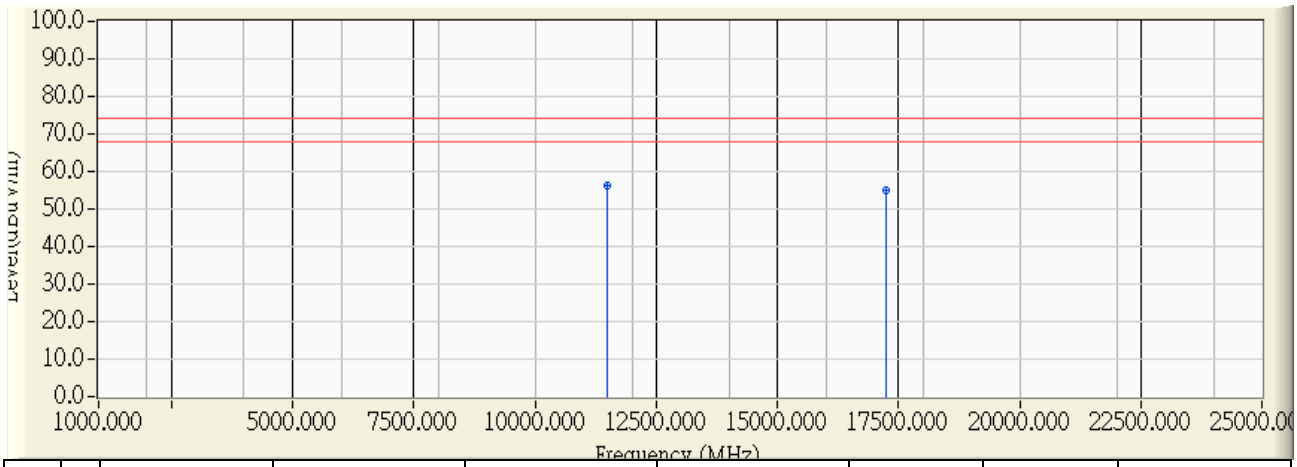


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	12.273	38.120	50.392	-3.608	54.000	AVERAGE
2		17235.000	15.500	26.530	42.030	-11.970	54.000	AVERAGE

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 : 2015/05/19 - 19:05**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5745MHz**

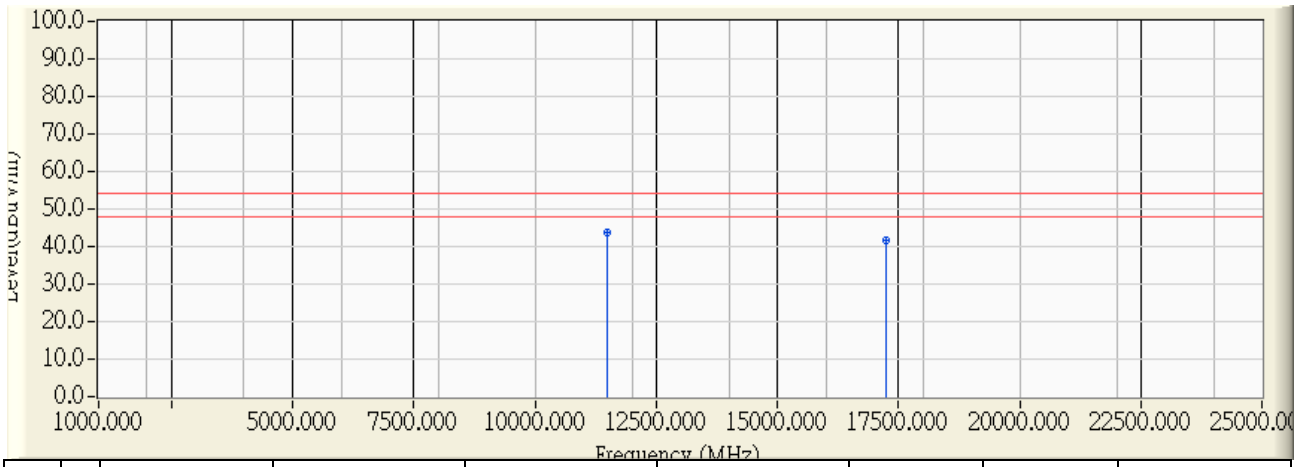


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	12.019	44.300	56.319	-17.681	74.000	PEAK
2		17235.000	15.500	39.550	55.050	-18.950	74.000	PEAK

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 : 2015/05/19 - 19:06**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5745MHz**

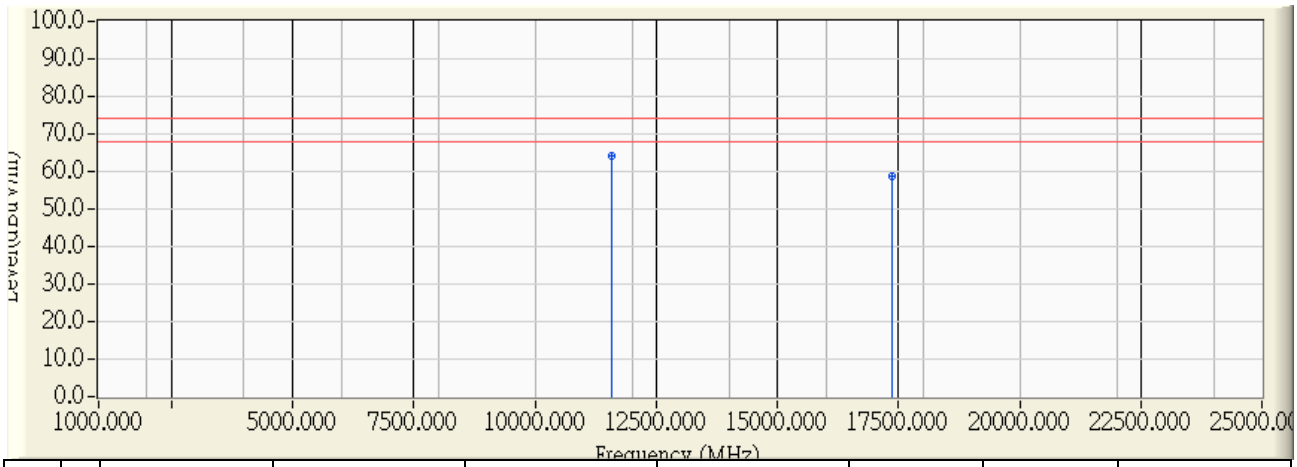


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11490.000	12.019	31.670	43.689	-10.311	54.000	AVERAGE
2		17235.000	15.500	26.280	41.780	-12.220	54.000	AVERAGE

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 : 2015/05/20 - 20:07**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5785MHz**

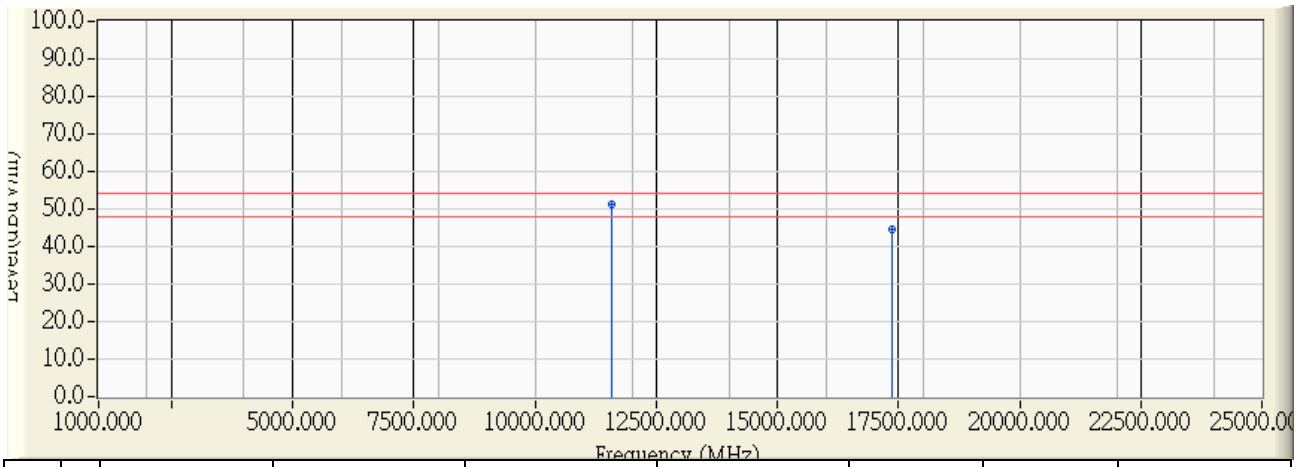


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.000	12.170	51.790	63.960	-10.040	74.000	PEAK
2		17355.000	16.052	42.500	58.552	-15.448	74.000	PEAK

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 : 2015/05/20 - 20:02**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5785MHz**

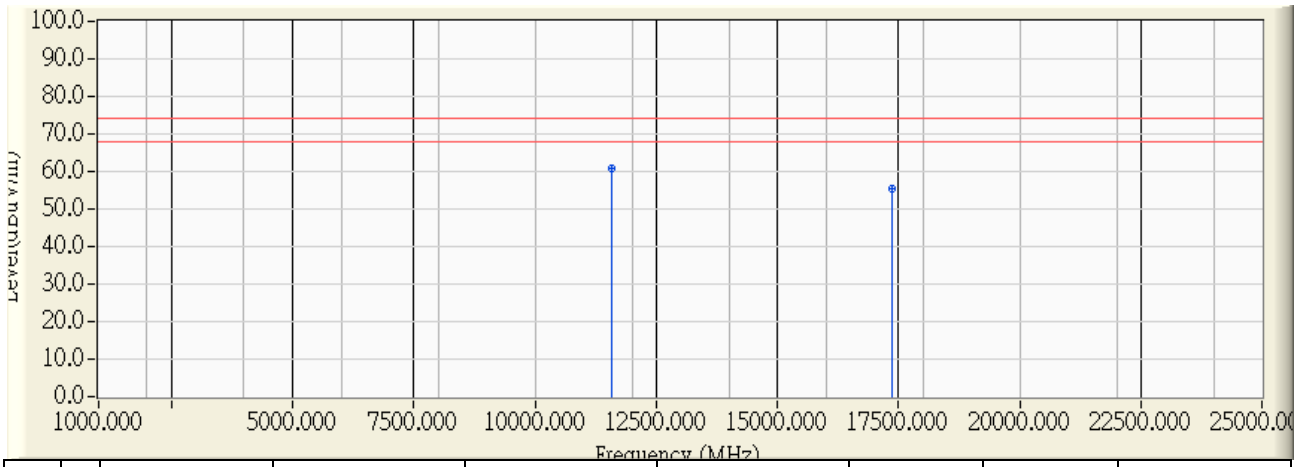


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.000	12.170	39.120	51.290	-2.710	54.000	AVERAGE
2		17355.000	16.052	28.480	44.532	-9.468	54.000	AVERAGE

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 : 2015/05/20 - 20:14**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5785MHz**

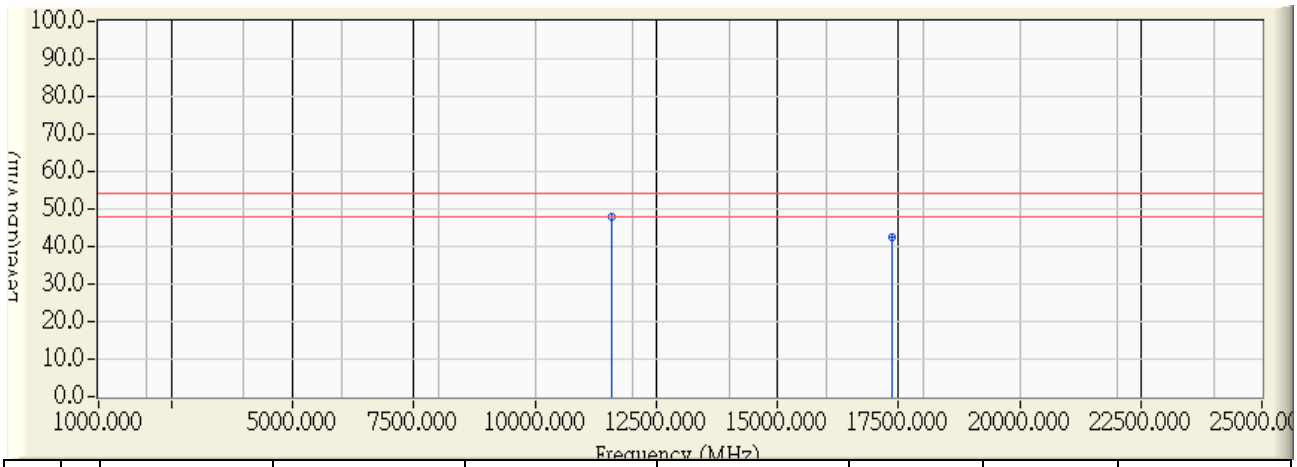


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.000	11.877	49.080	60.957	-13.043	74.000	PEAK
2		17355.000	16.052	39.490	55.542	-18.458	74.000	PEAK

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 : 2015/05/20 - 20:16**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5785MHz**

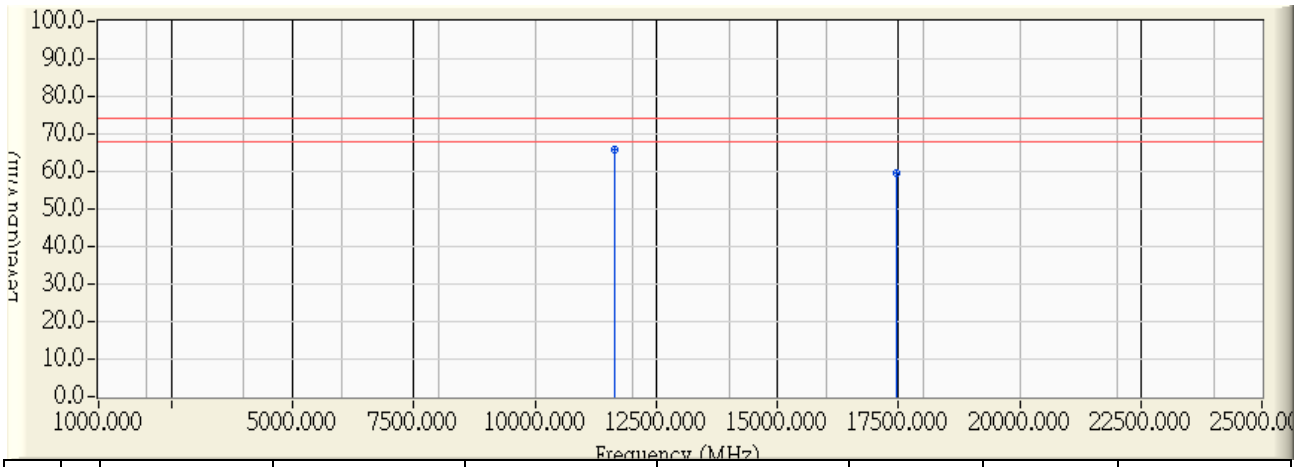


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11570.000	11.877	35.860	47.737	-6.263	54.000	AVERAGE
2		17355.000	16.052	26.240	42.292	-11.708	54.000	AVERAGE

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 : 2015/05/20 - 19:28**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5825MHz**

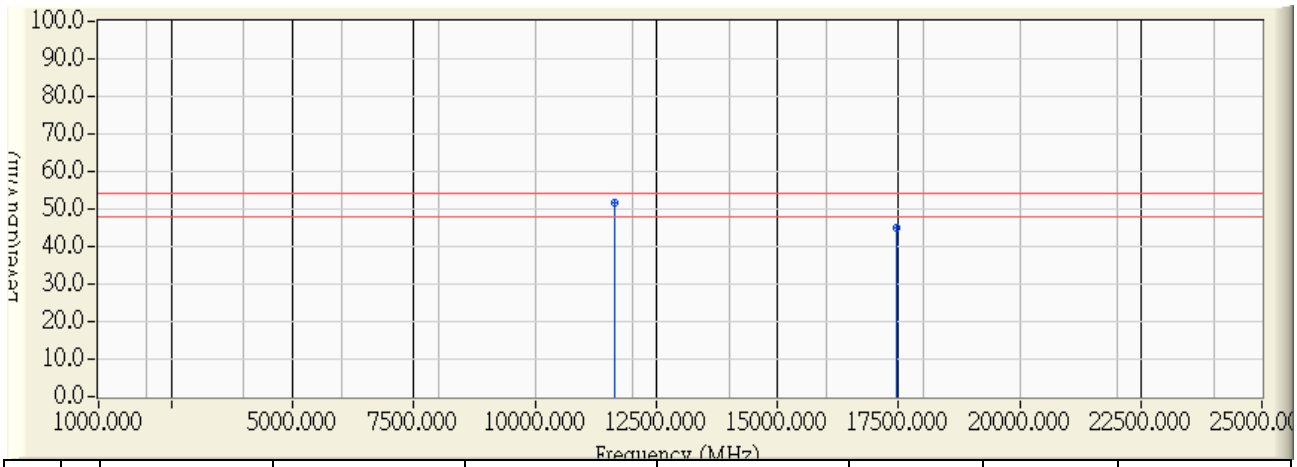


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	12.069	53.790	65.858	-8.142	74.000	PEAK
2		17475.000	16.610	42.960	59.570	-14.430	74.000	PEAK

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 : 2015/05/20 - 19:23**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5825MHz**

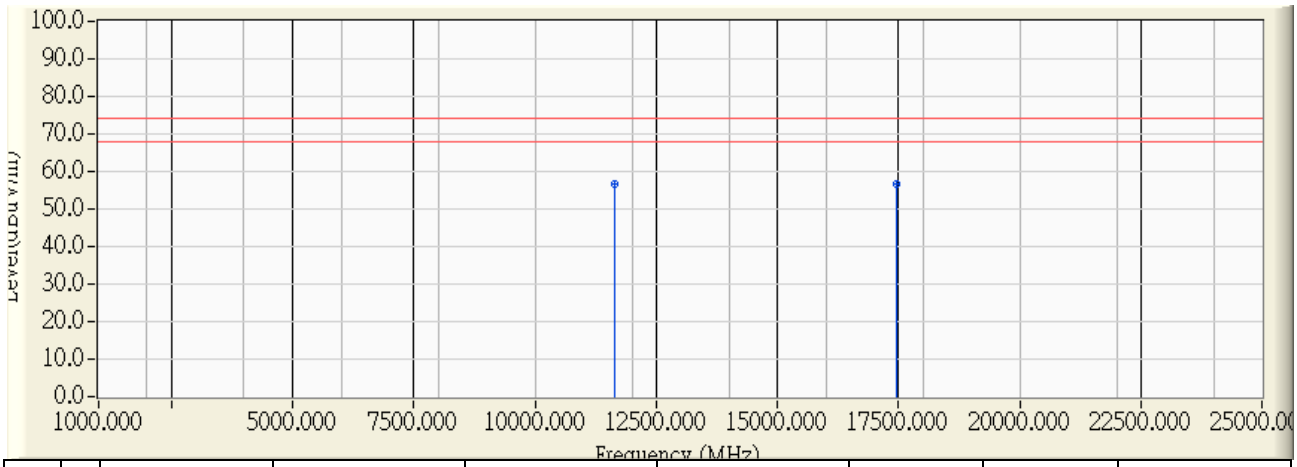


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	12.069	39.500	51.568	-2.432	54.000	AVERAGE
2		17475.000	16.610	28.200	44.810	-9.190	54.000	AVERAGE

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 : 2015/05/20 - 19:32**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5825MHz**

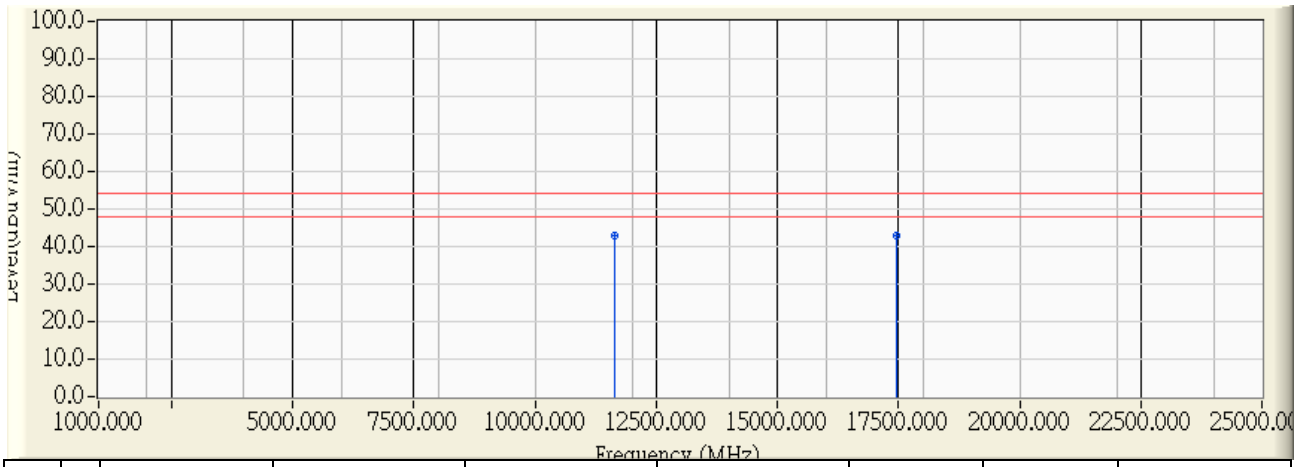


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	11.735	44.950	56.685	-17.315	74.000	PEAK
2		17475.000	16.610	39.860	56.470	-17.530	74.000	PEAK

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 : 2015/05/20 - 19:38**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 20MHz 5825MHz**

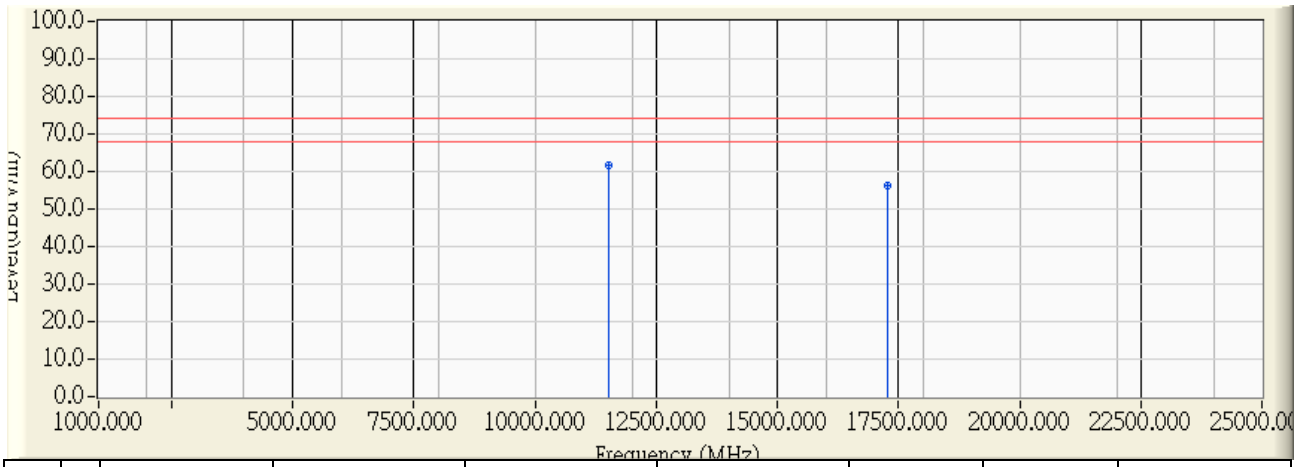


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11650.000	11.735	31.380	43.115	-10.885	54.000	AVERAGE
2		17475.000	16.610	26.240	42.850	-11.150	54.000	AVERAGE

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 : 2015/05/19 - 19:18**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 40MHz 5755MHz**

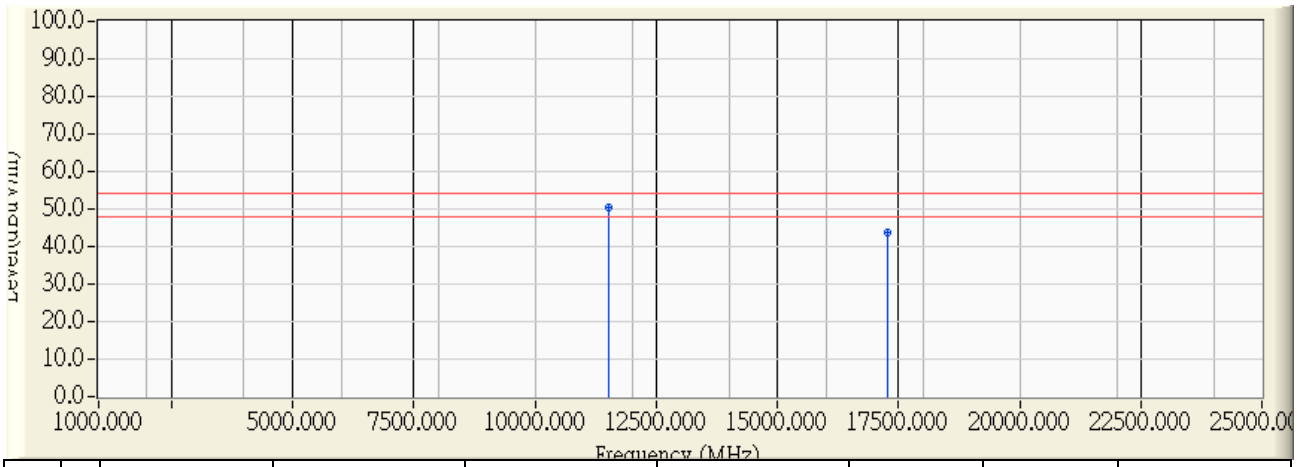


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11510.000	12.247	49.250	61.497	-12.503	74.000	PEAK
2		17265.000	15.638	40.660	56.298	-17.702	74.000	PEAK

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 : 2015/05/19 - 19:17**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 40MHz 5755MHz**

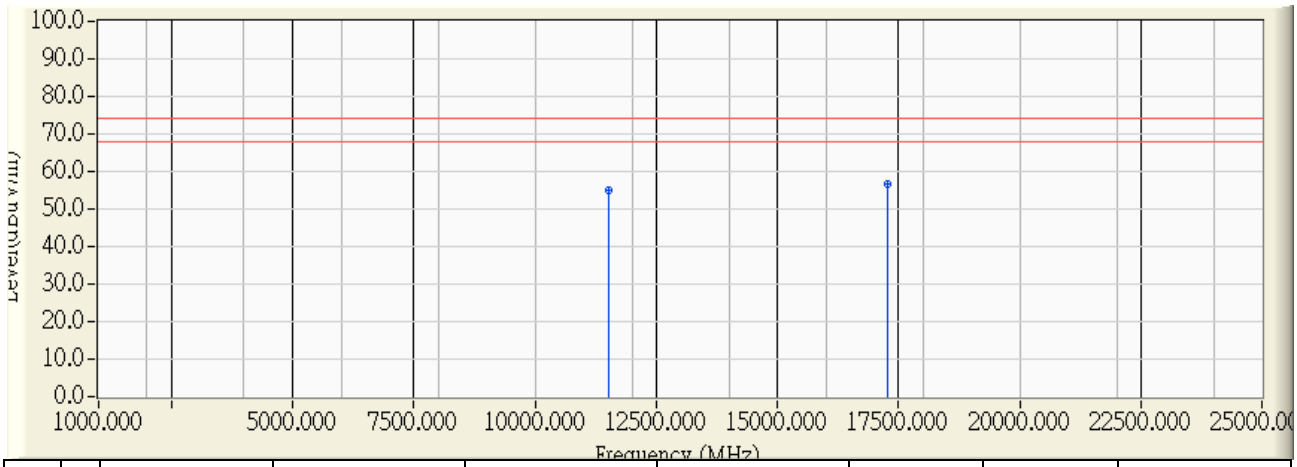


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11510.000	12.247	38.120	50.367	-3.633	54.000	AVERAGE
2		17265.000	15.638	28.120	43.758	-10.242	54.000	AVERAGE

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 : 2015/05/19 - 19:24**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 40MHz 5755MHz**

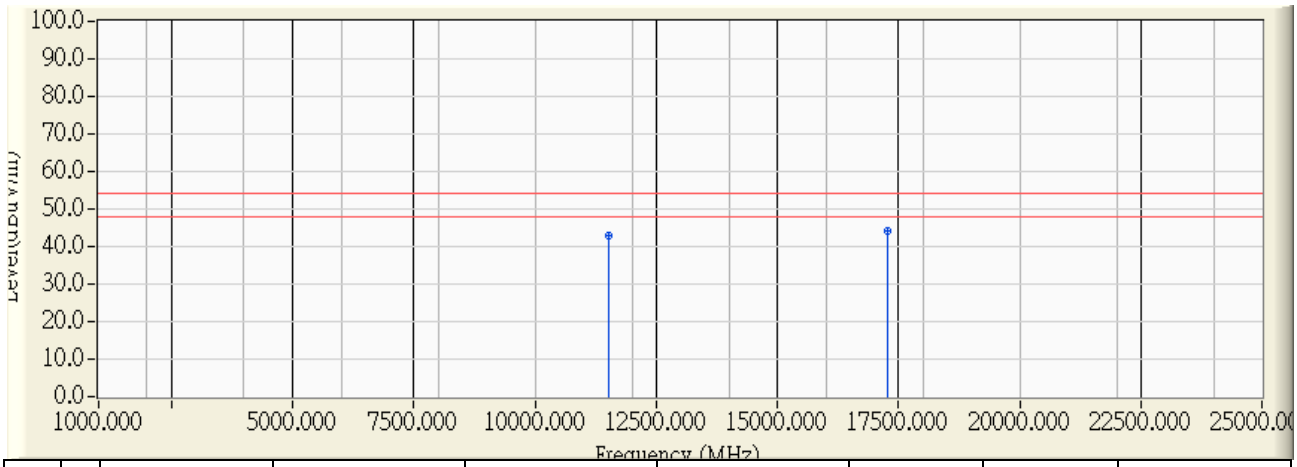


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11510.000	11.984	42.870	54.853	-19.147	74.000	PEAK
2	*	17265.000	15.638	40.830	56.468	-17.532	74.000	PEAK

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 : 2015/05/19 - 19:25**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 40MHz 5755MHz**

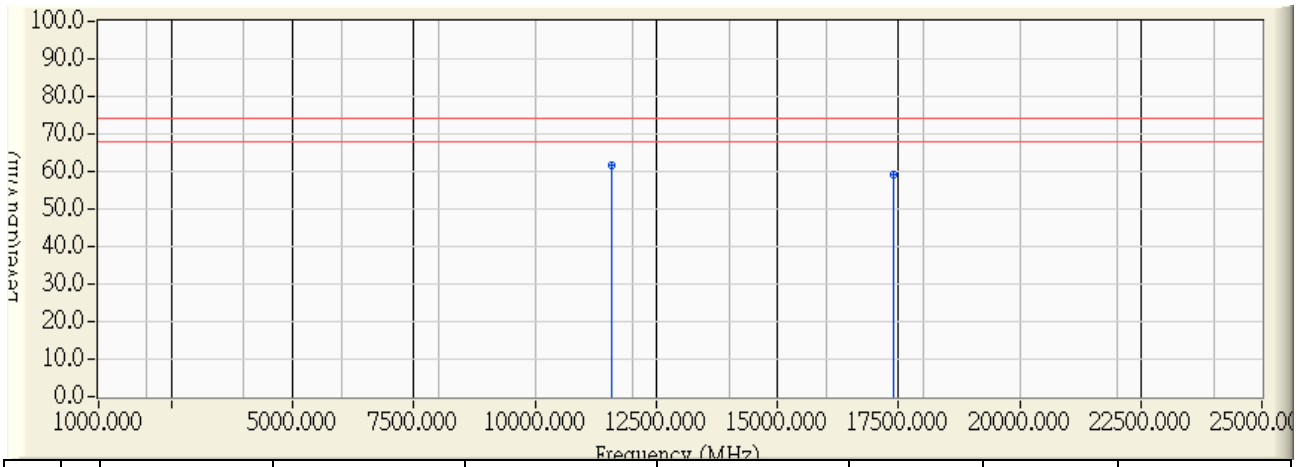


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		11510.000	11.984	30.760	42.743	-11.257	54.000	AVERAGE
2	*	17265.000	15.638	28.620	44.258	-9.742	54.000	AVERAGE

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 : 2015/05/20 - 20:33**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 40MHz 5795MHz**

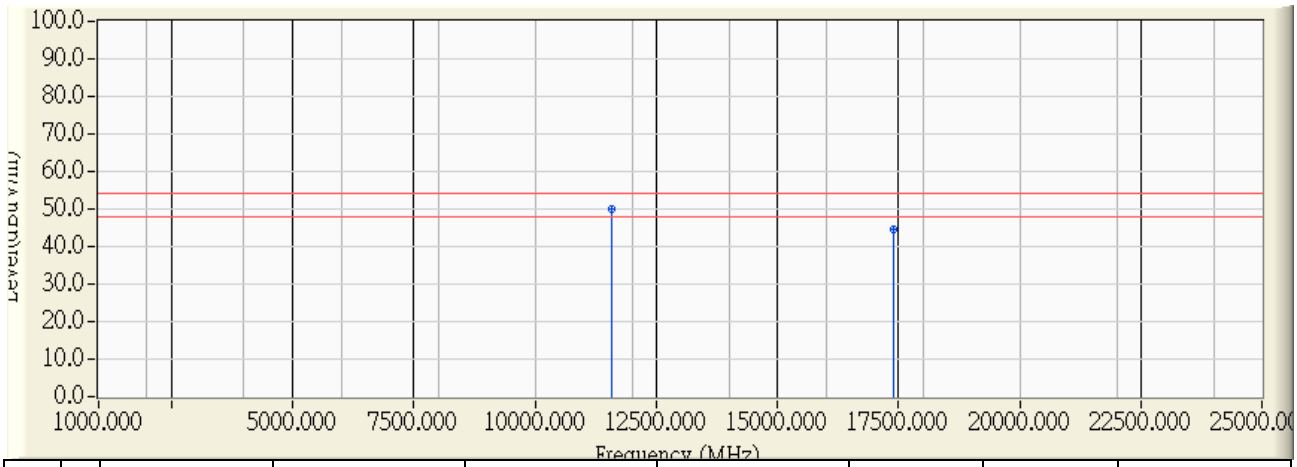


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11590.000	12.146	49.520	61.665	-12.335	74.000	PEAK
2		17385.000	16.190	42.900	59.090	-14.910	74.000	PEAK

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 : 2015/05/20 - 20:28**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 40MHz 5795MHz**

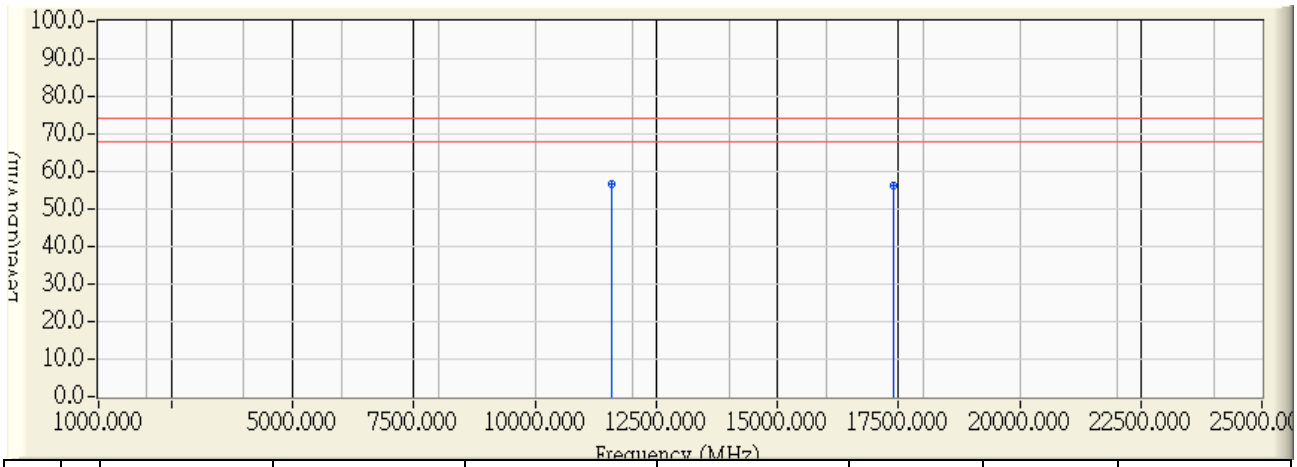


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11590.000	12.146	37.850	49.995	-4.005	54.000	AVERAGE
2		17385.000	16.190	28.190	44.380	-9.620	54.000	AVERAGE

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 : 2015/05/20 - 20:39**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 40MHz 5795MHz**

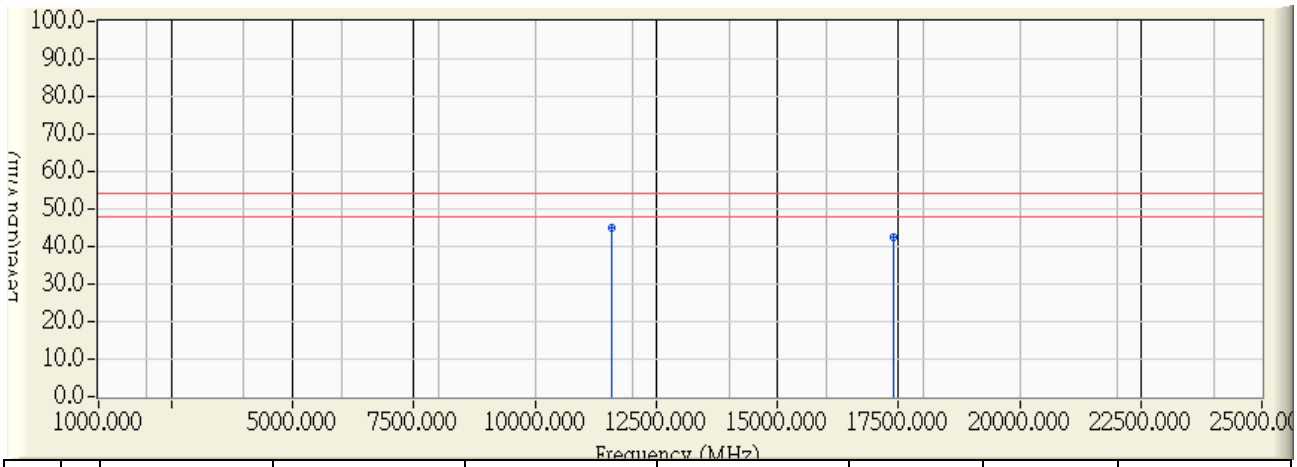


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11590.000	11.842	44.940	56.781	-17.219	74.000	PEAK
2		17385.000	16.190	40.060	56.250	-17.750	74.000	PEAK

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 : 2015/05/20 - 20:40**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11n 40MHz 5795MHz**

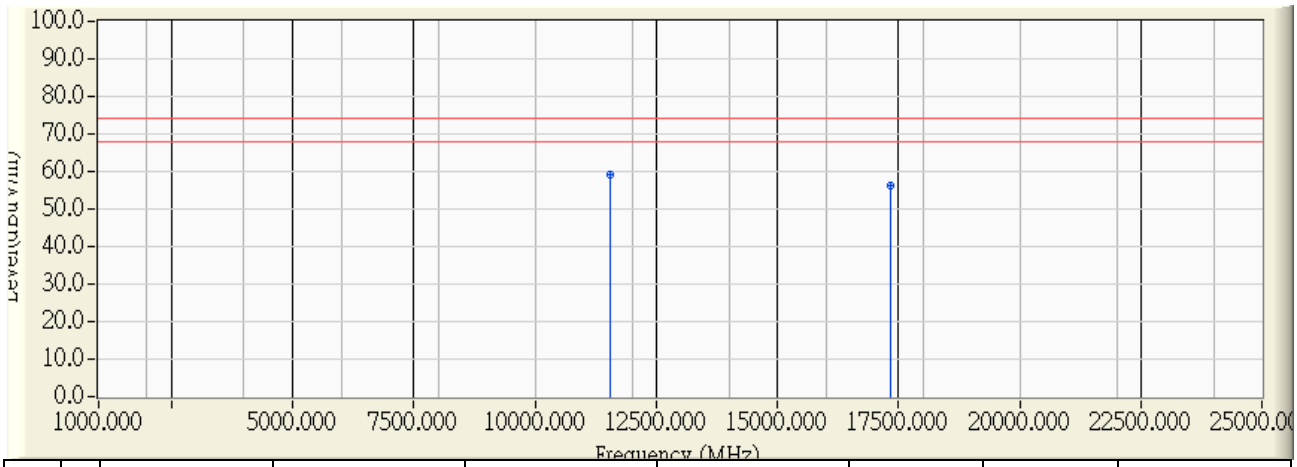


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11590.000	11.842	32.960	44.801	-9.199	54.000	AVERAGE
2		17385.000	16.190	26.270	42.460	-11.540	54.000	AVERAGE

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 : 2015/05/19 - 19:41**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11ac 80MHz 5775MHz**

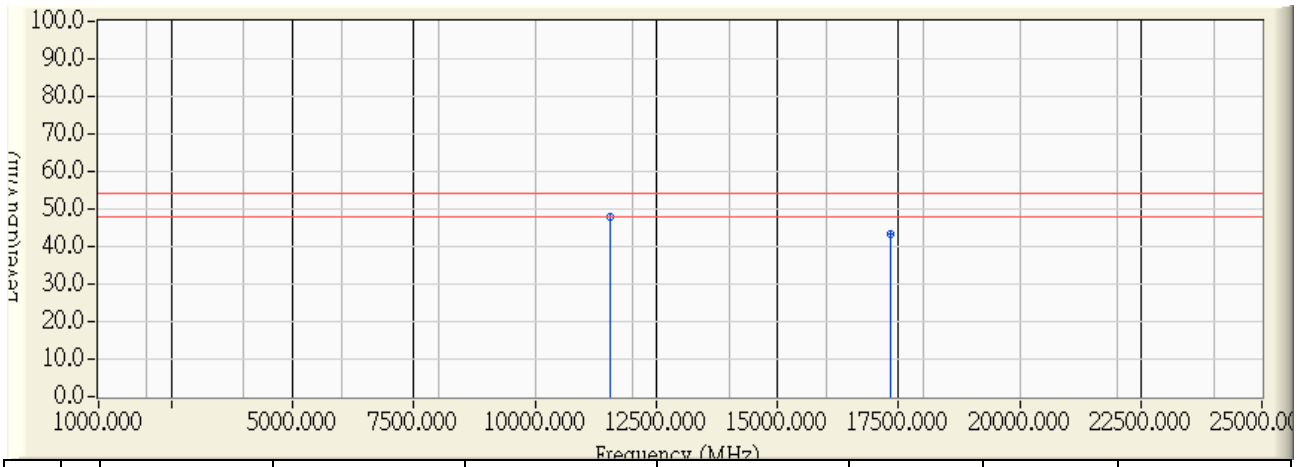


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11550.000	12.197	46.830	59.026	-14.974	74.000	PEAK
2		17325.000	15.914	40.460	56.374	-17.626	74.000	PEAK

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 : 2015/05/19 - 19:42**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11ac 80MHz 5775MHz**

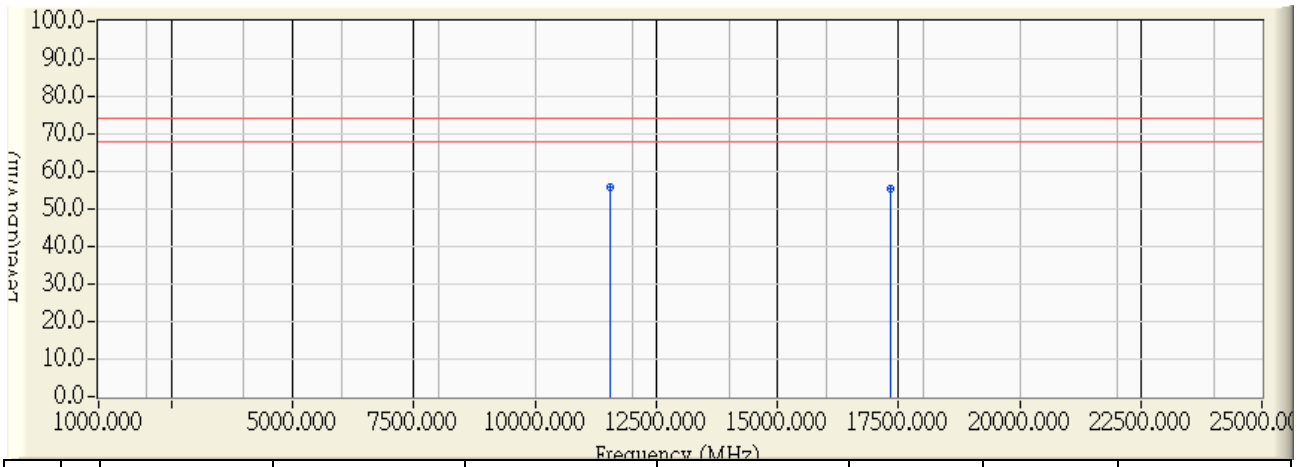


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11550.000	12.197	35.840	48.036	-5.964	54.000	AVERAGE
2		17325.000	15.914	27.500	43.414	-10.586	54.000	AVERAGE

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 : 2015/05/19 - 19:48**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11ac 80MHz 5775MHz**

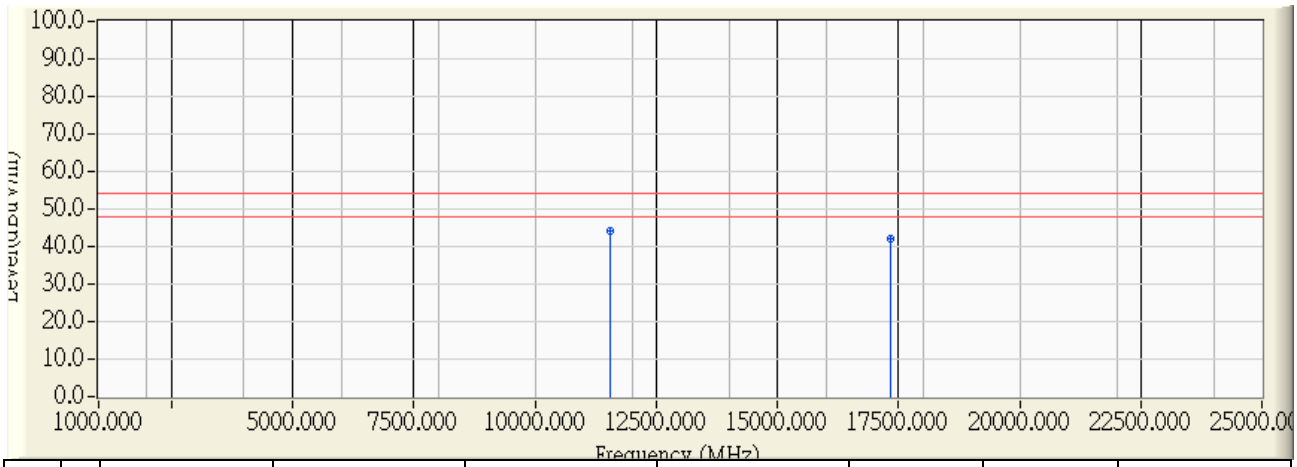


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11550.000	11.913	43.940	55.852	-18.148	74.000	PEAK
2		17325.000	15.914	39.650	55.564	-18.436	74.000	PEAK

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 : 2015/05/19 - 19:50**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	**Power : AC120V/60Hz**
EUT : Dual-band Wireless Range Extender	**Note : 802.11ac 80MHz 5775MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	11550.000	11.913	32.200	44.112	-9.888	54.000	AVERAGE
2		17325.000	15.914	26.150	42.064	-11.936	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.

5. RF antenna conducted test

5.1. Test Equipment

The following test equipments are used during the test:

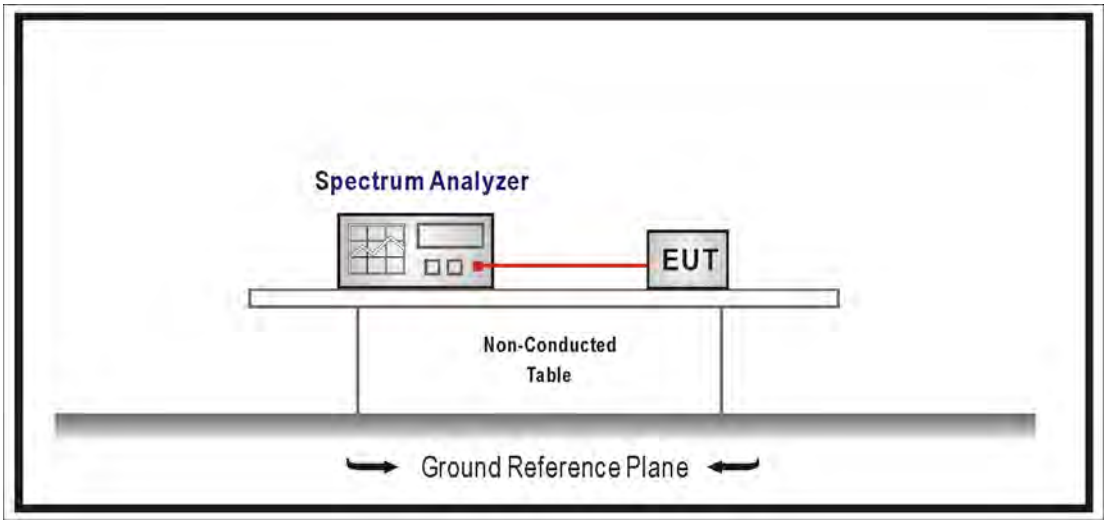
RF antenna conducted test / SR7

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

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

5.2. Test Setup

RF Antenna Conducted Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on an RF conducted or radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2009 and tested according to DTS test procedure section 11.2 of KDB558074 v03r02 for compliance to FCC 47CFR 15.247 requirements. Set RBW = 100 kHz, Set VBW> RBW, scan up through 10th harmonic.

5.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

5.6. Uncertainty

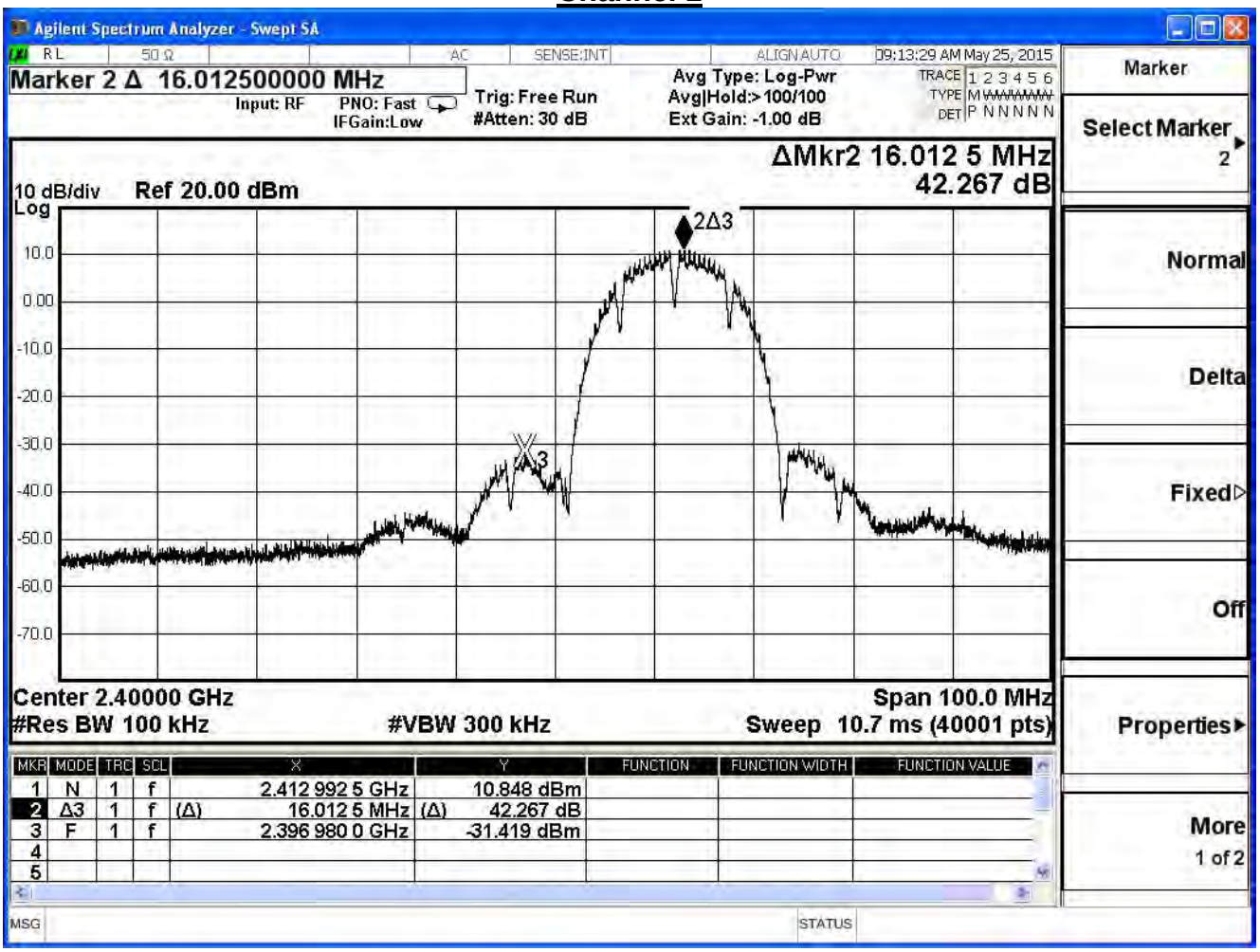
Conducted is defined as ± 1.27dB

5.7. Test Result

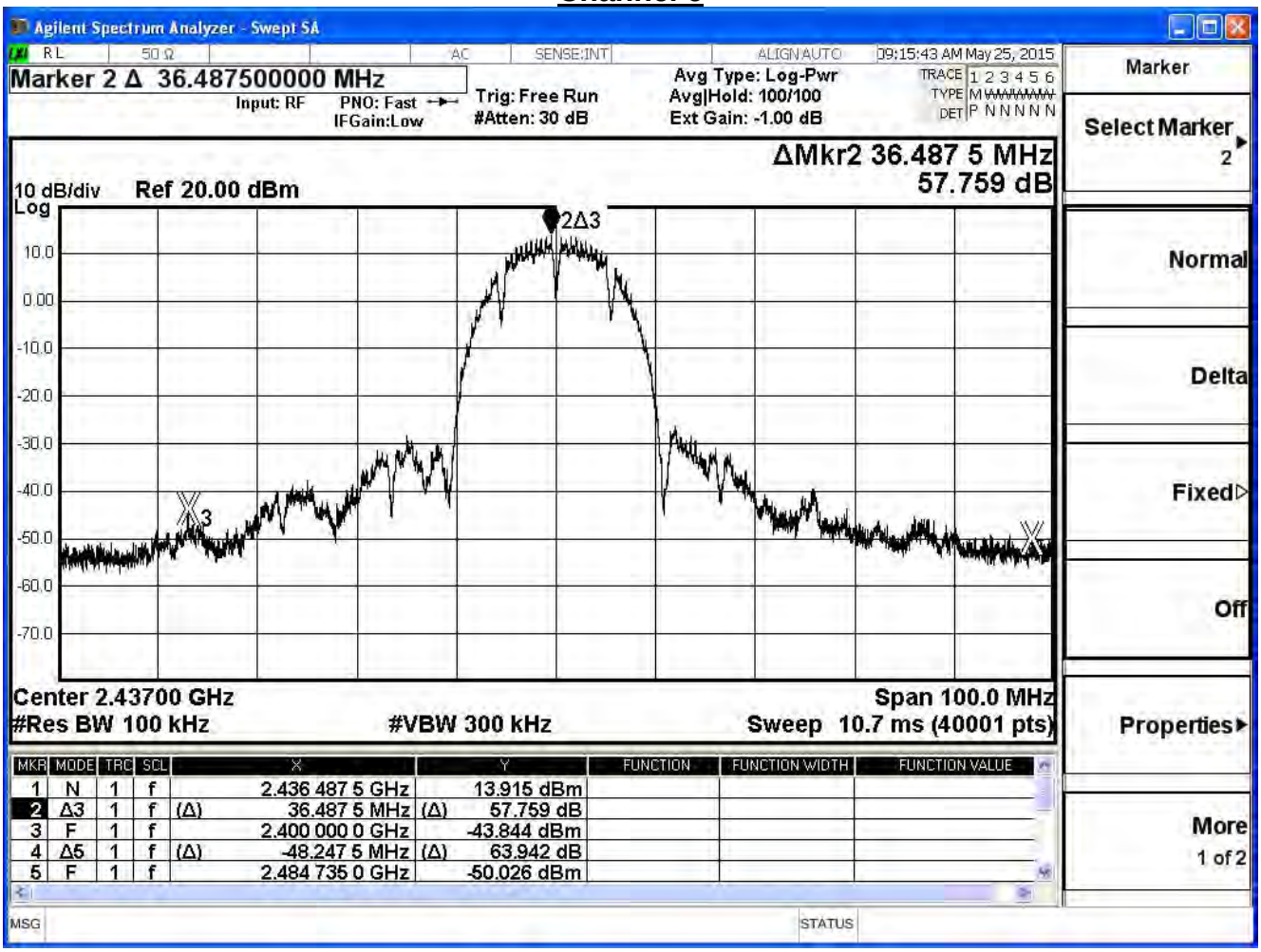
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/25	Test Site	SR7

IEEE 802.11b (ANT 0), Antenna Gain: 3.57dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	42.267	≧30	Pass
6	2437	57.759	≧30	Pass
11	2462	54.832	≧30	Pass

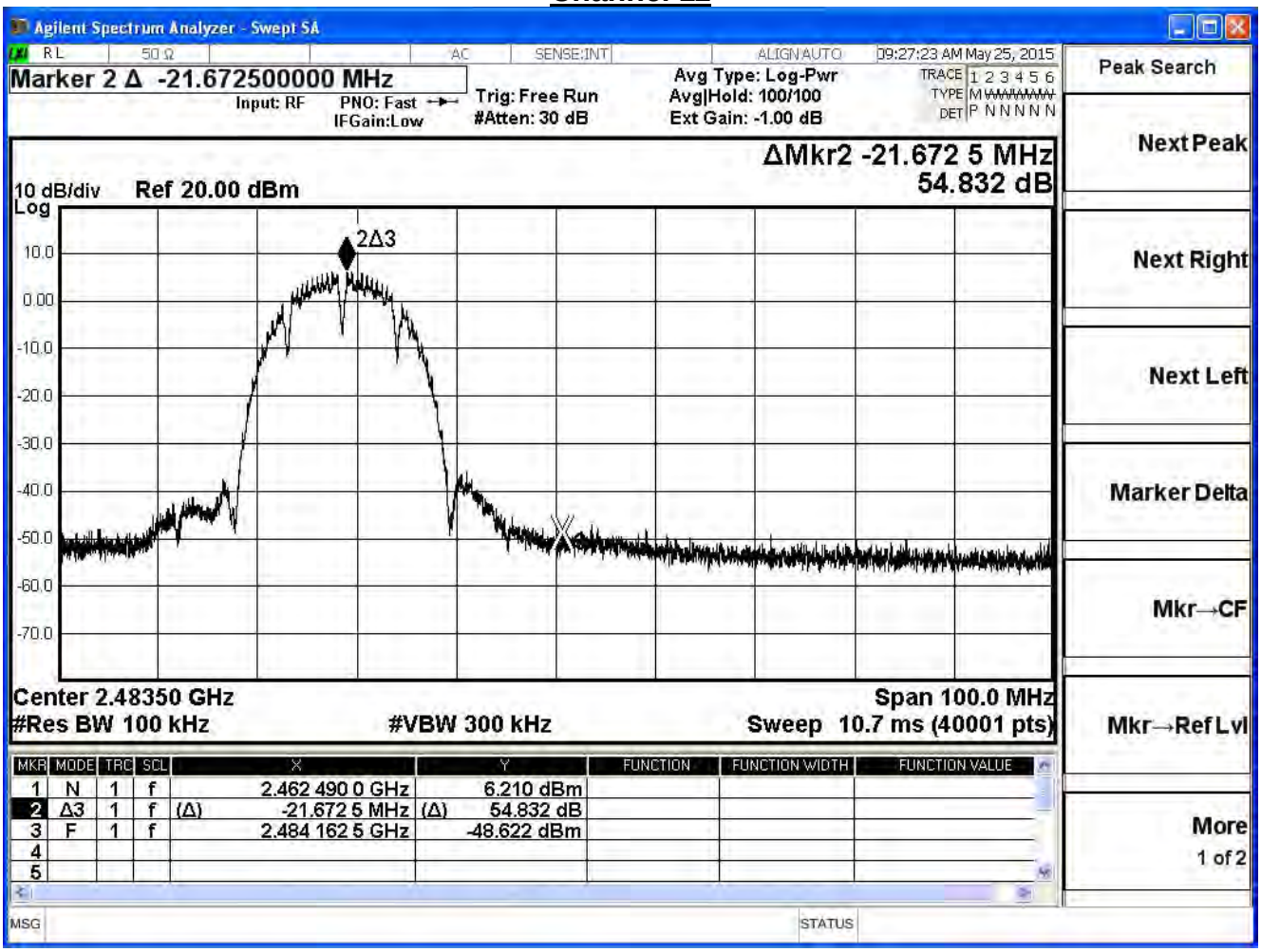
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ 36.487500000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
Ext Gain: -1.00 dB
09:15:43 AM May 25, 2015
ΔMkr2 36.487 5 MHz
57.759 dB
10 dB/div
Log
Ref 20.00 dBm
Center 2.43700 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.7 ms (40001 pts)
1 N 1 f 2.436 487 5 GHz 13.915 dBm
2 Δ3 1 f (Δ) 36.487 5 MHz (Δ) 57.759 dB
3 F 1 f 2.400 000 0 GHz -43.844 dBm
4 Δ5 1 f (Δ) -48.247 5 MHz (Δ) 63.942 dB
5 F 1 f 2.484 735 0 GHz -50.026 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

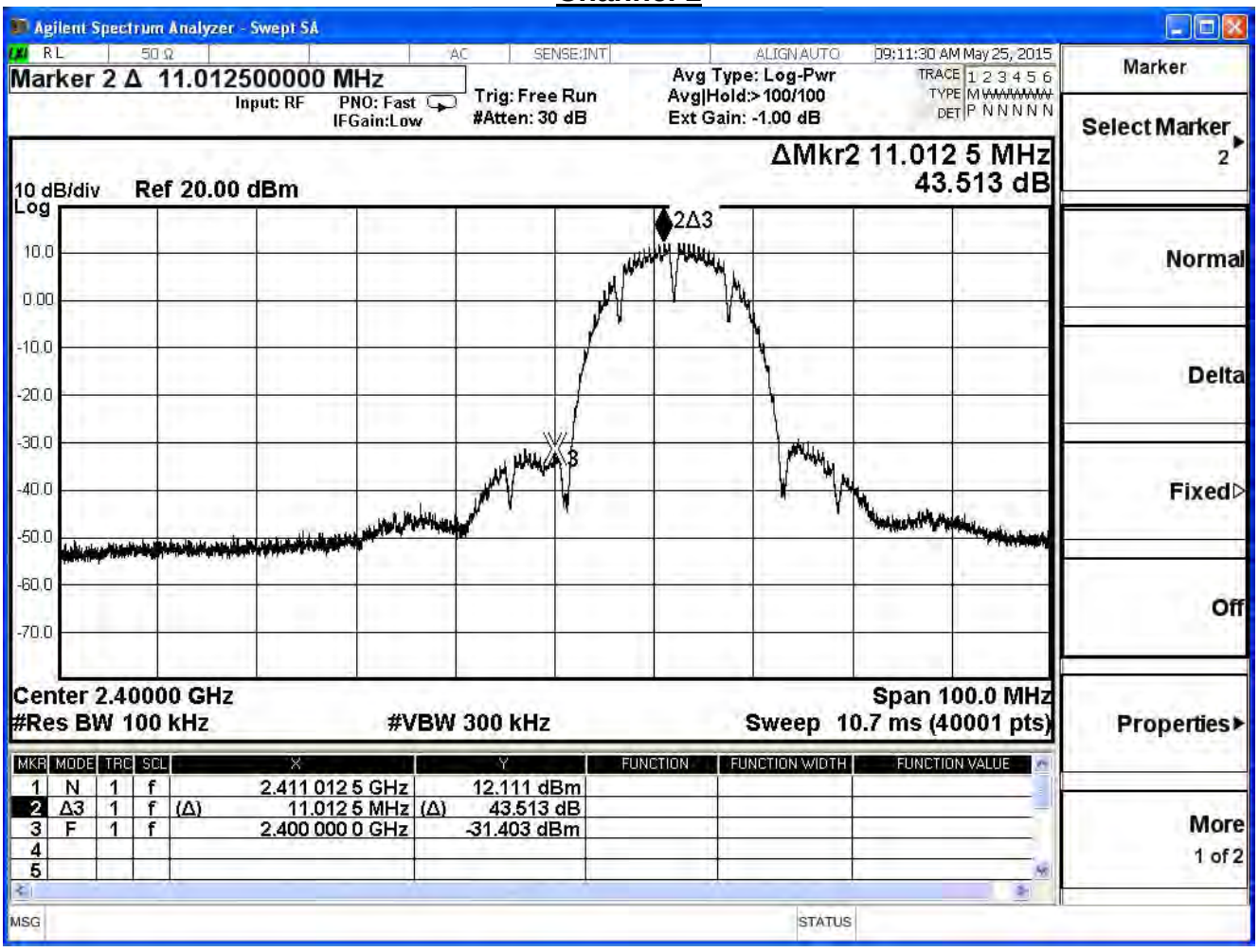
Channel 11


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ -21.672500000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
Ext Gain: -1.00 dB
09:27:23 AM May 25, 2015
ΔMkr2 -21.672 5 MHz
54.832 dB
10 dB/div
Log
Ref 20.00 dBm
2Δ3
Center 2.48350 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.7 ms (40001 pts)
1 N 1 f 2.462 490 0 GHz 6.210 dBm
2 Δ3 1 f (Δ) -21.672 5 MHz (Δ) 54.832 dB
3 F 1 f 2.484 162 5 GHz -48.622 dBm
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

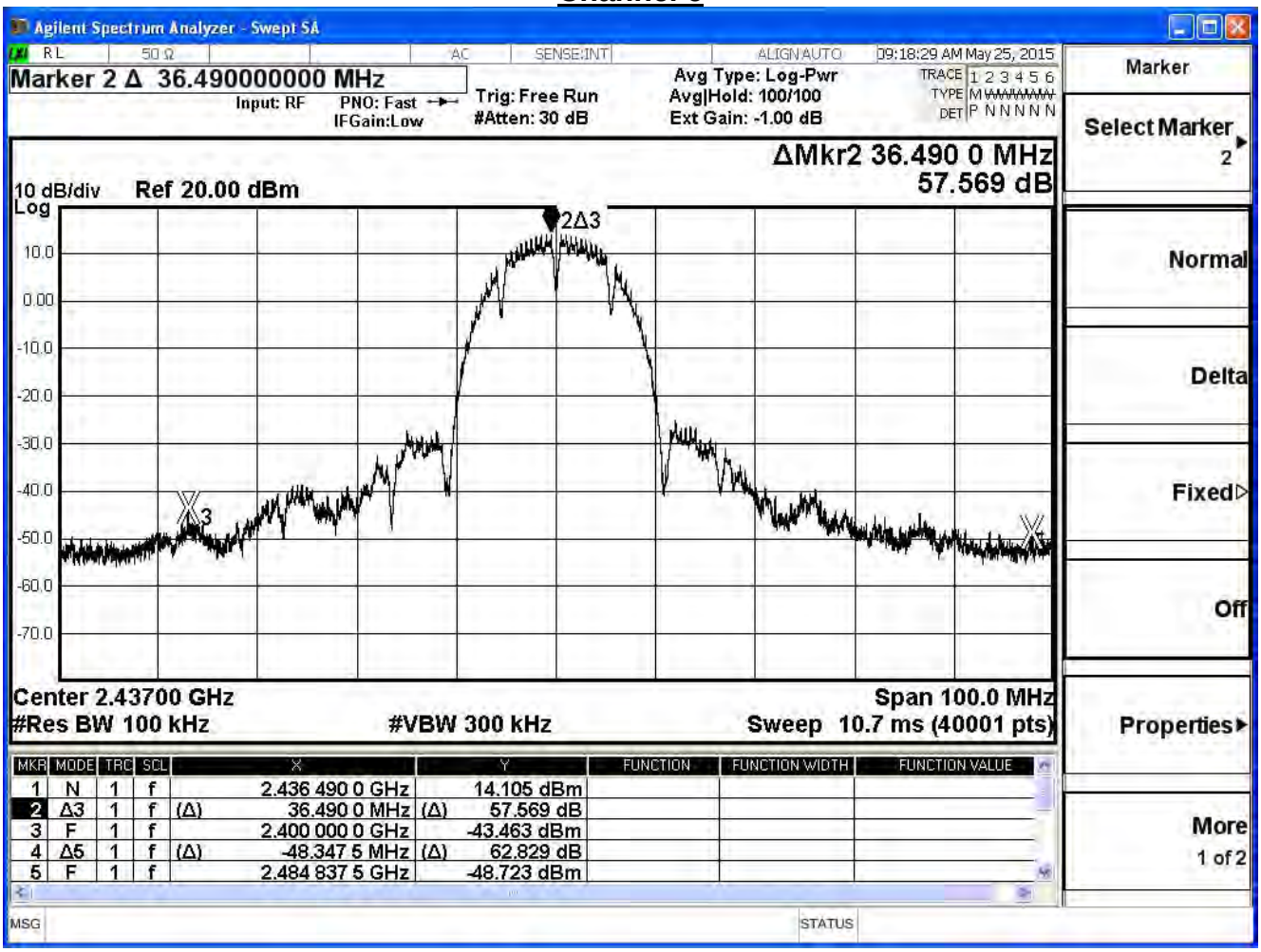
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/25	Test Site	SR7

IEEE 802.11b (ANT 1), Antenna Gain: 3.31dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	43.513	≧30	Pass
6	2437	57.569	≧30	Pass
11	2462	53.400	≧30	Pass

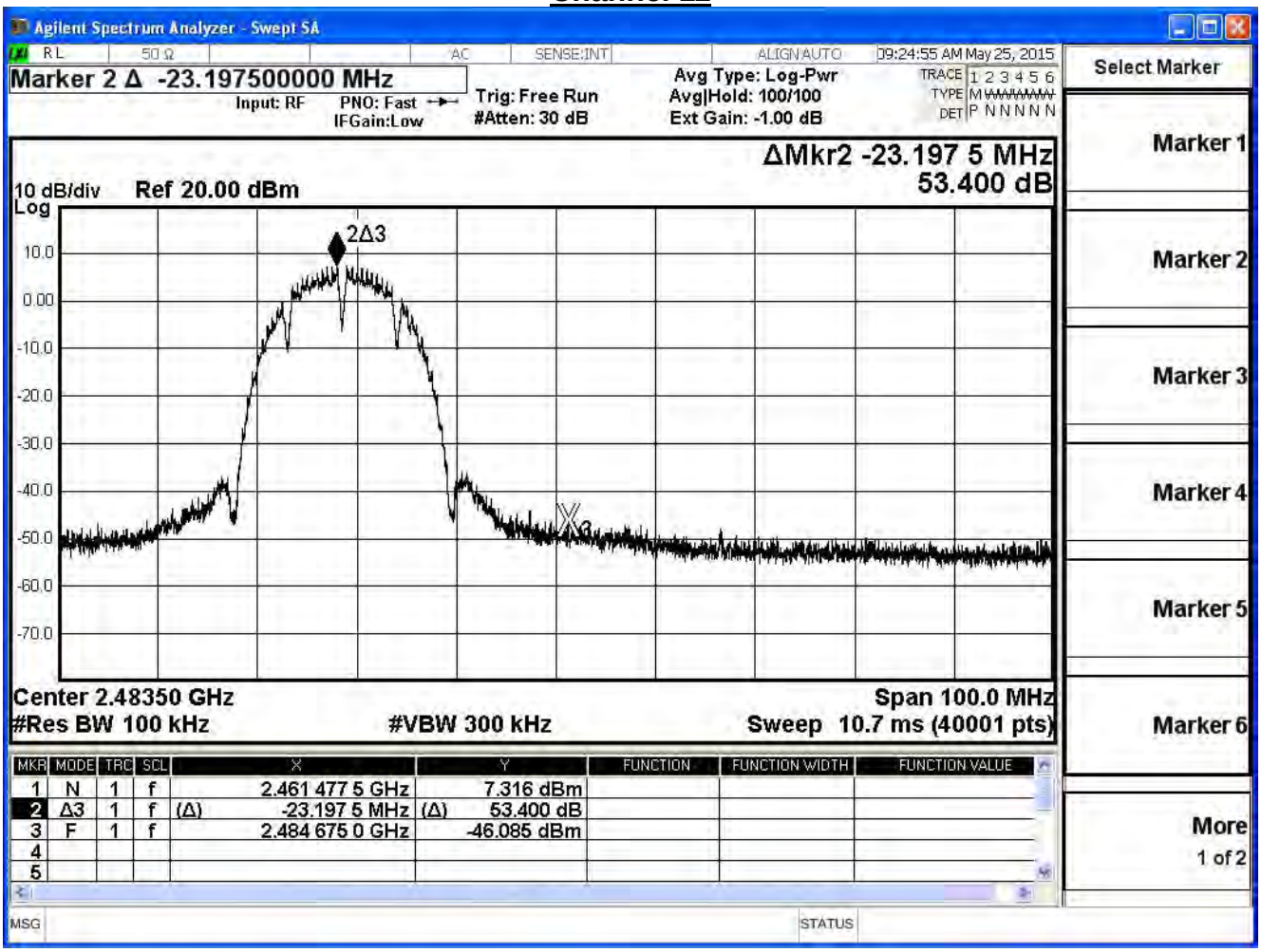
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ 36.490000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
Ext Gain: -1.00 dB
09:18:29 AM May 25, 2015
ΔMkr2 36.490 0 MHz
57.569 dB
10 dB/div
Log
Ref 20.00 dBm
Center 2.43700 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.7 ms (40001 pts)
1 N 1 f 2.436 490 0 GHz 14.105 dBm
2 Δ3 1 f (Δ) 36.490 0 MHz (Δ) 57.569 dB
3 F 1 f 2.400 000 0 GHz -43.463 dBm
4 Δ5 1 f (Δ) -48.347 5 MHz (Δ) 62.829 dB
5 F 1 f 2.484 837 5 GHz -48.723 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

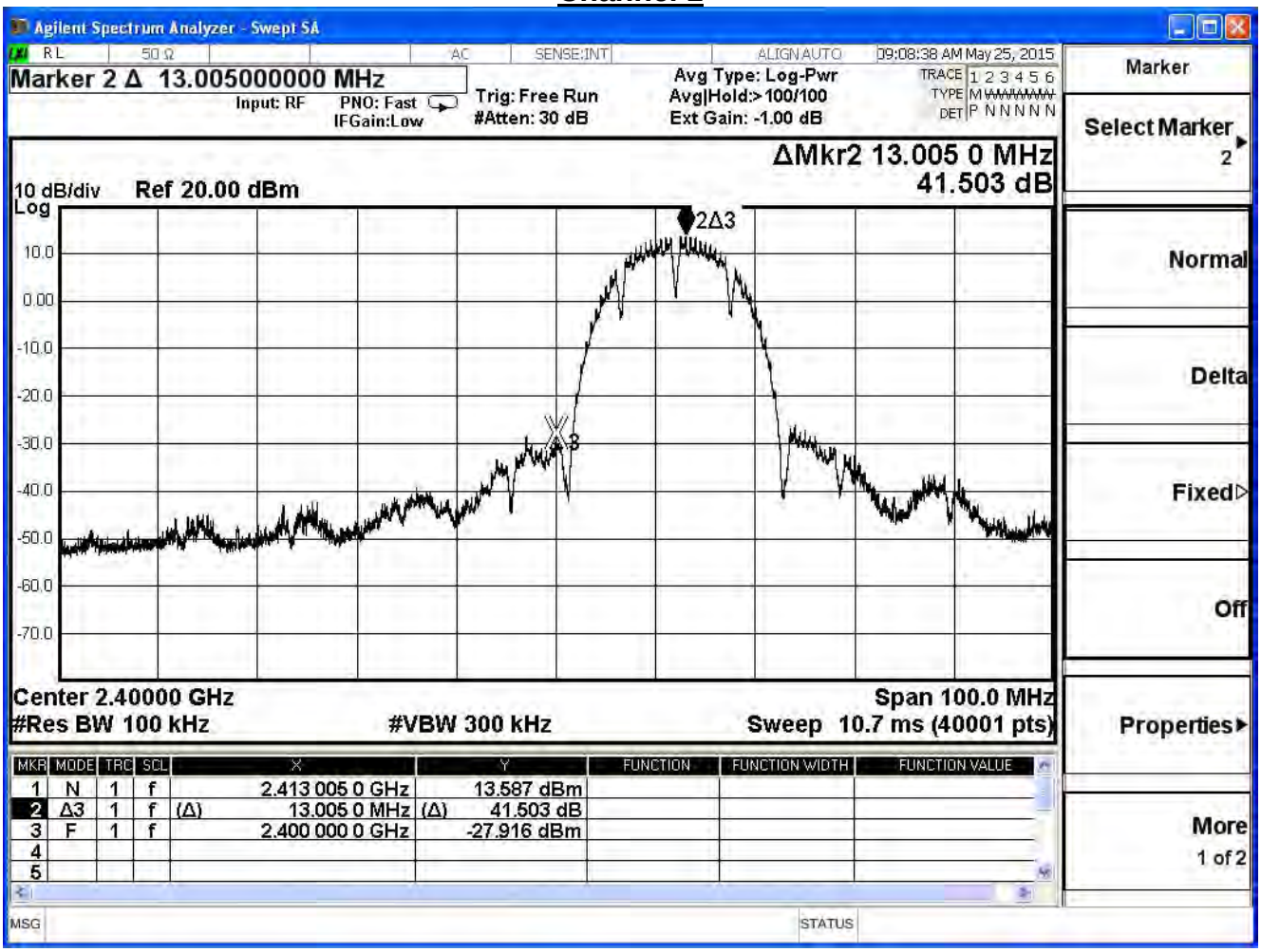
Channel 11


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ -23.197500000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
Ext Gain: -1.00 dB
09:24:55 AM May 25, 2015
ΔMkr2 -23.197 5 MHz
53.400 dB
10 dB/div
Log
Ref 20.00 dBm
2Δ3
Center 2.48350 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.7 ms (40001 pts)
1 N 1 f 2.461 477 5 GHz 7.316 dBm
2 Δ3 1 f (Δ) -23.197 5 MHz (Δ) 53.400 dB
3 F 1 f 2.484 675 0 GHz -46.085 dBm
Select Marker
Marker 1
Marker 2
Marker 3
Marker 4
Marker 5
Marker 6
More
1 of 2

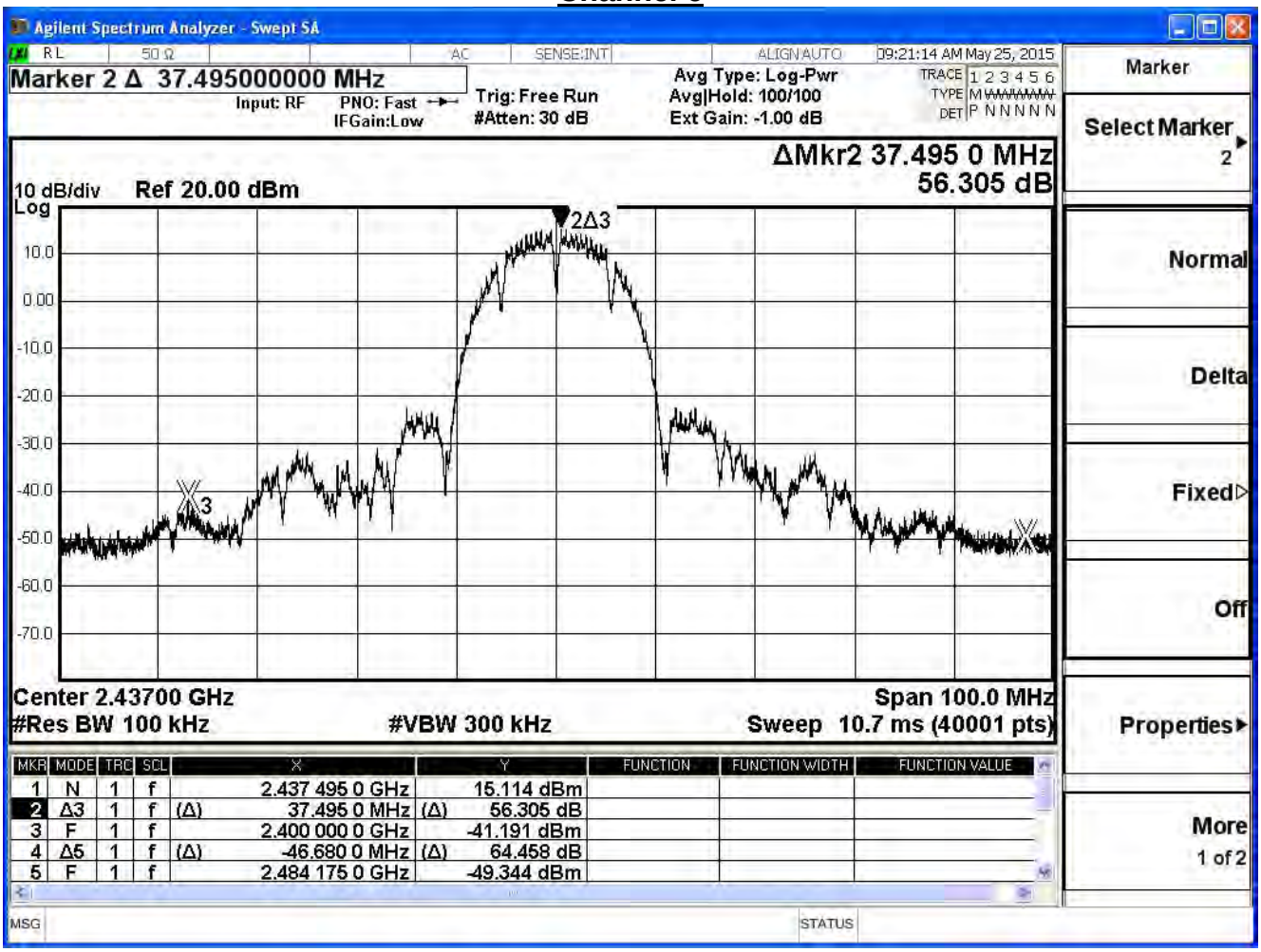
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/25	Test Site	SR7

IEEE 802.11b (ANT 2), Antenna Gain: 2.99dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
1	2412	41.503	≧30	Pass
6	2437	56.305	≧30	Pass
11	2462	54.552	≧30	Pass

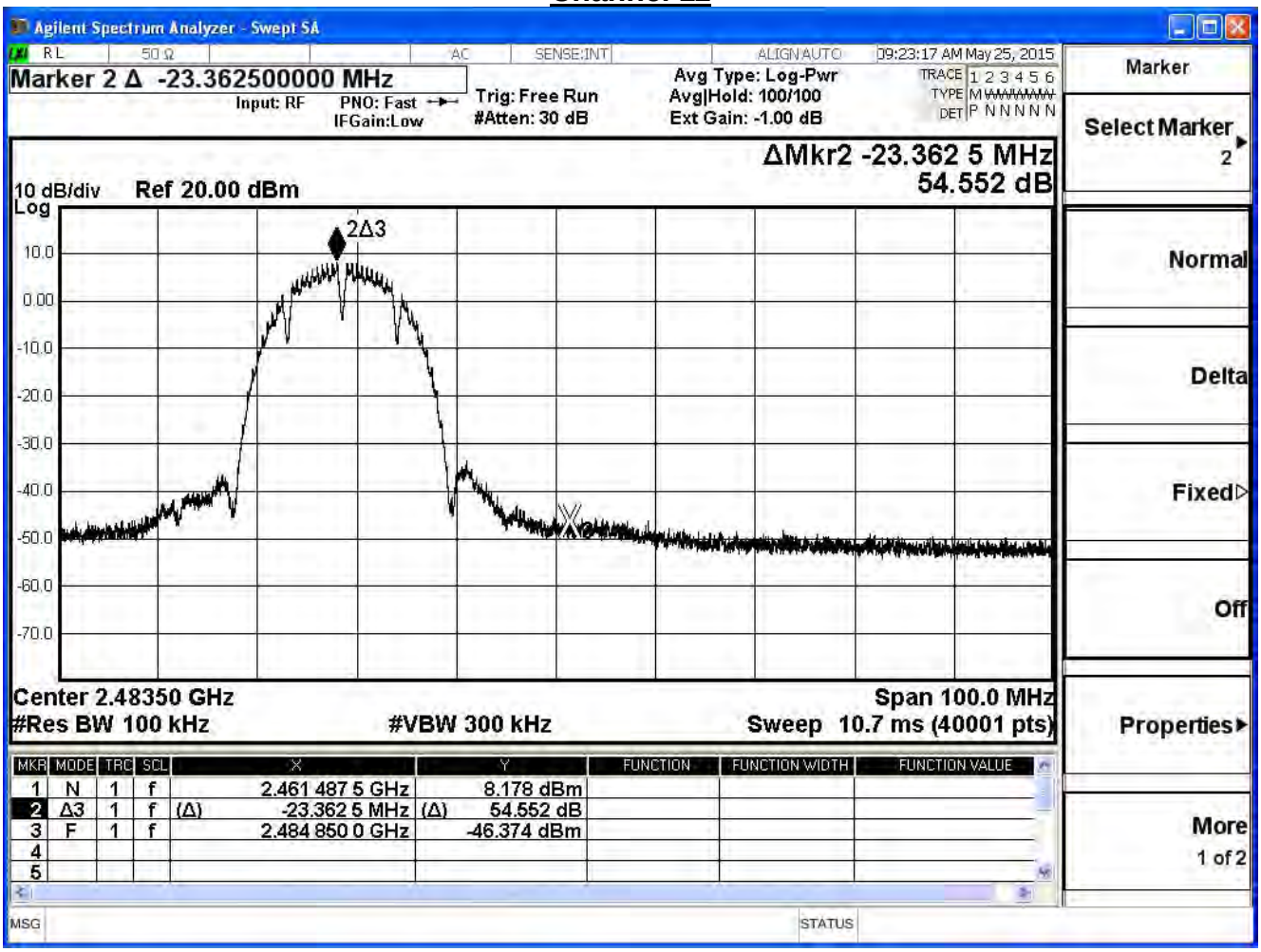
Channel 1



Channel 6

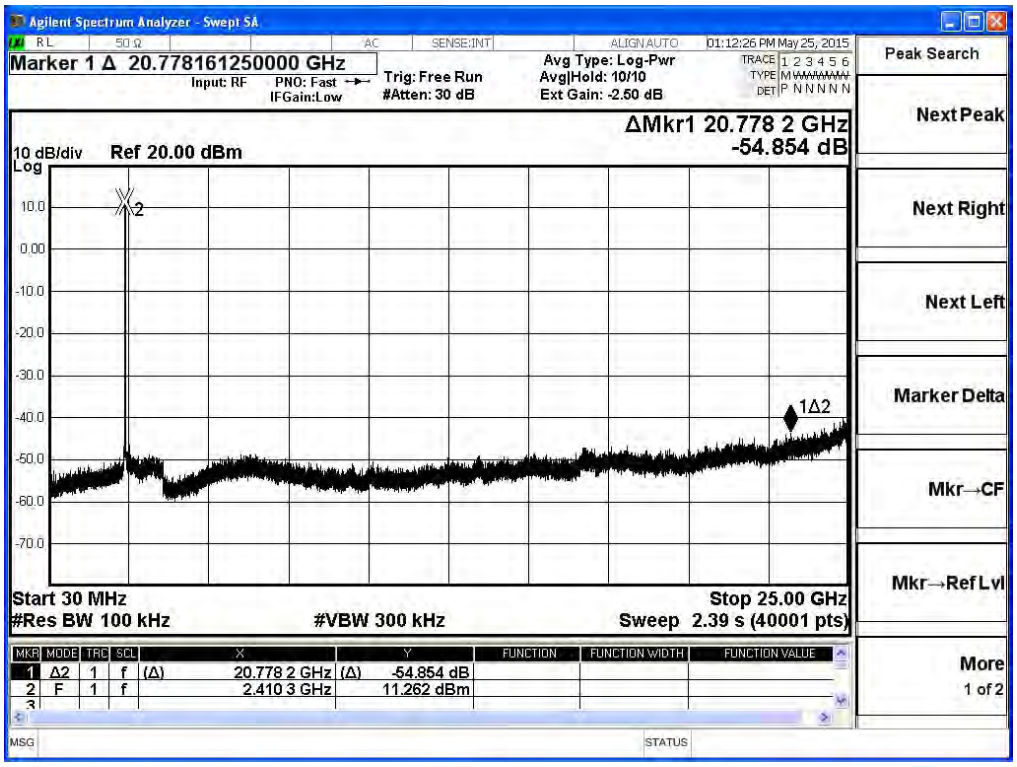

Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ 37.495000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
Ext Gain: -1.00 dB
09:21:14 AM May 25, 2015
ΔMkr2 37.495 0 MHz
56.305 dB
10 dB/div
Log
Ref 20.00 dBm
Center 2.43700 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.7 ms (40001 pts)
1 N 1 f 2.437 495 0 GHz 15.114 dBm
2 Δ3 1 f (Δ) 37.495 0 MHz (Δ) 56.305 dB
3 F 1 f 2.400 000 0 GHz -41.191 dBm
4 Δ5 1 f (Δ) -46.680 0 MHz (Δ) 64.458 dB
5 F 1 f 2.484 175 0 GHz -49.344 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

Channel 11

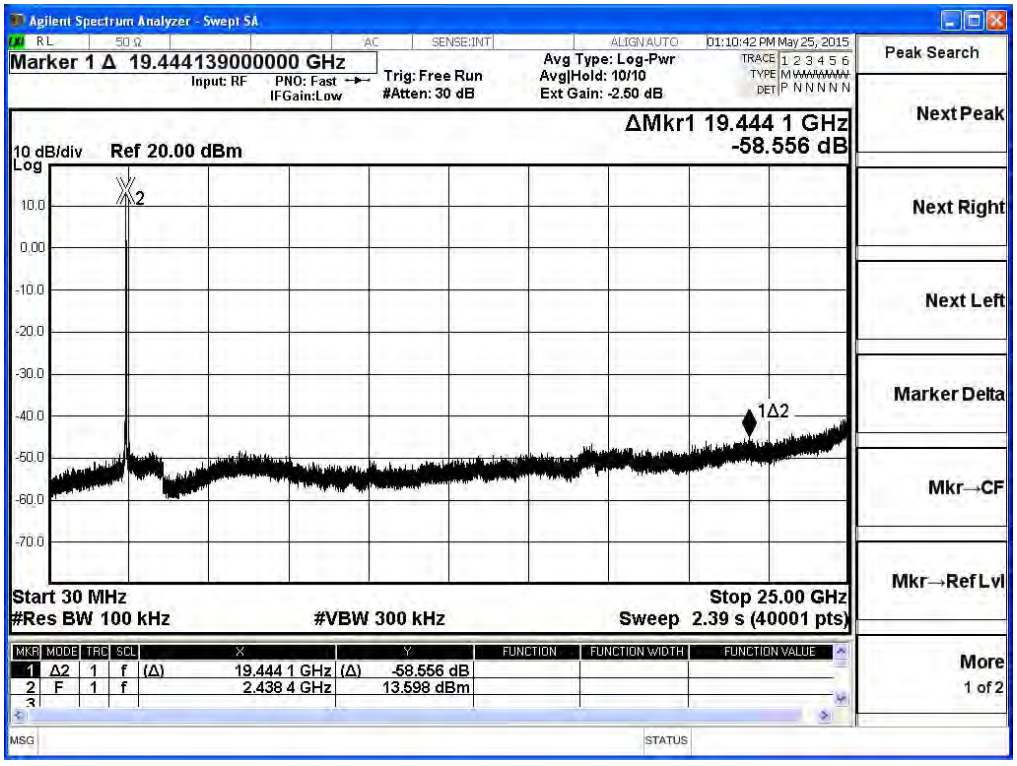

Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ -23.362500000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 100/100
Ext Gain: -1.00 dB
09:23:17 AM May 25, 2015
ΔMkr2 -23.362 5 MHz
54.552 dB
10 dB/div
Log
Ref 20.00 dBm
2Δ3
Center 2.48350 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100.0 MHz
Sweep 10.7 ms (40001 pts)
1 N 1 f 2.461 487 5 GHz 8.178 dBm
2 Δ3 1 f (Δ) -23.362 5 MHz (Δ) 54.552 dB
3 F 1 f 2.484 850 0 GHz -46.374 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/25	Test Site	SR7

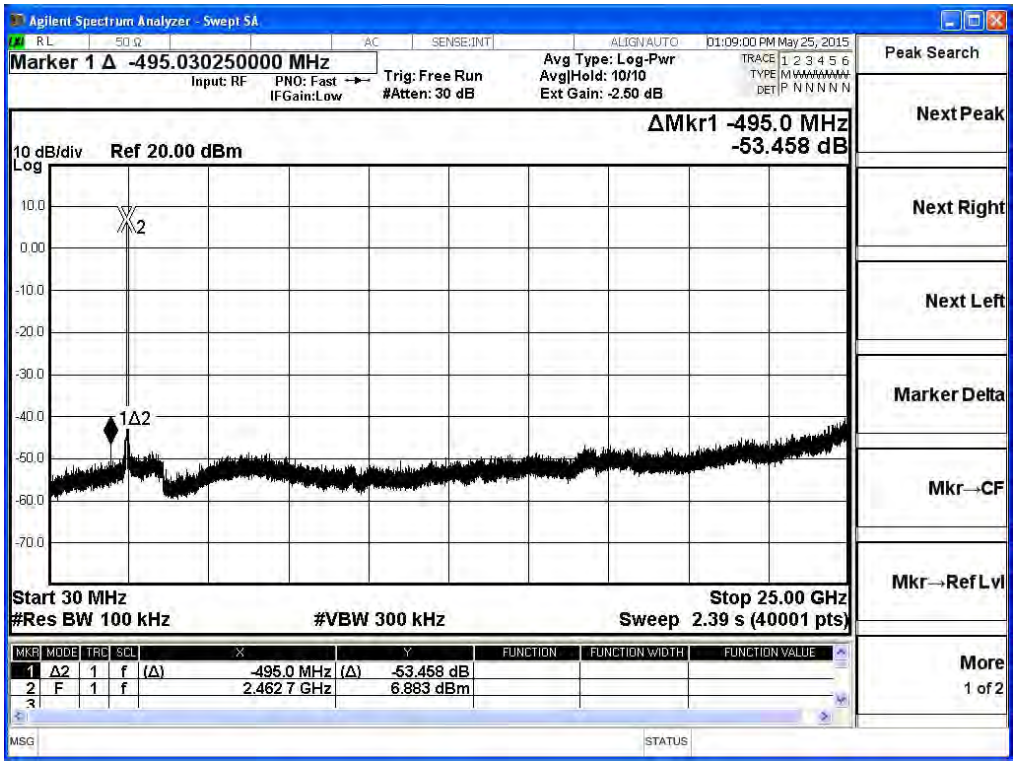
2412MHz (30MHz-25GHz)-802.11b (ANT 0)



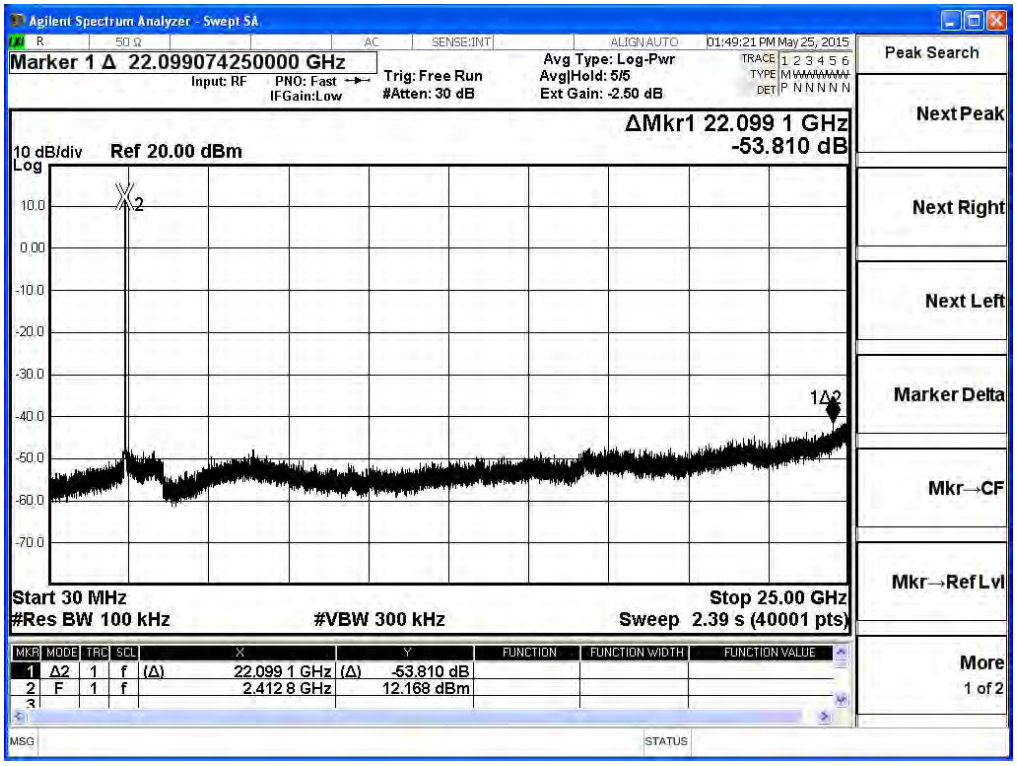
2437MHz (30MHz-25GHz)-802.11b (ANT 0)



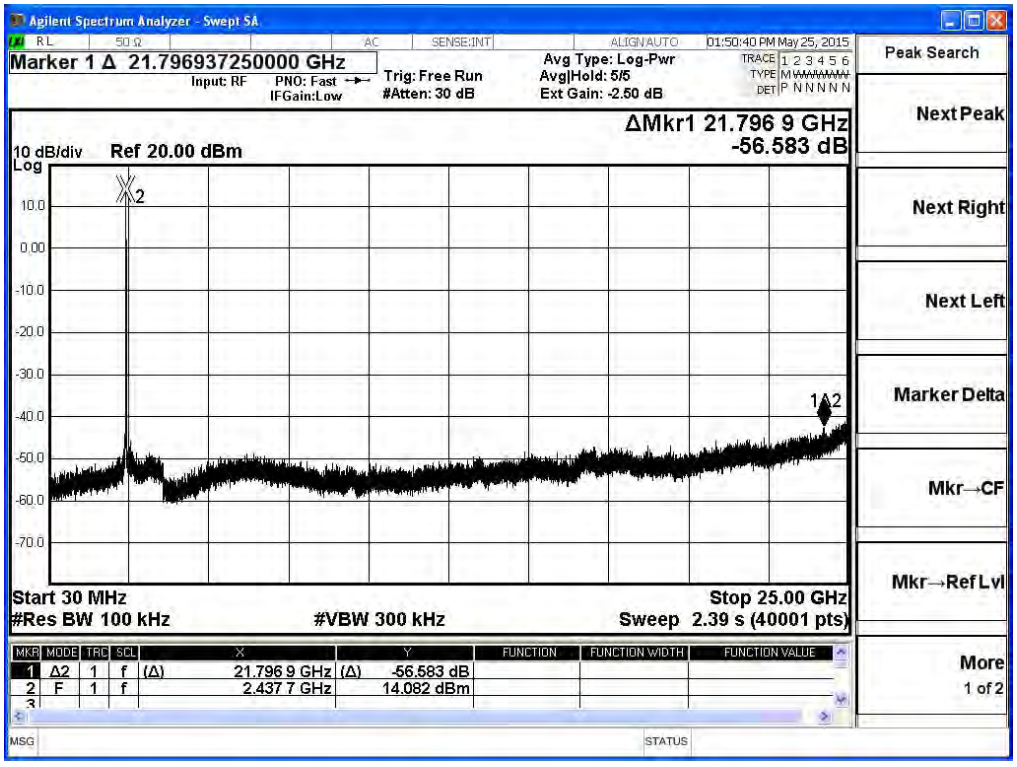
2462MHz (30MHz-25GHz) -802.11b (ANT 0)



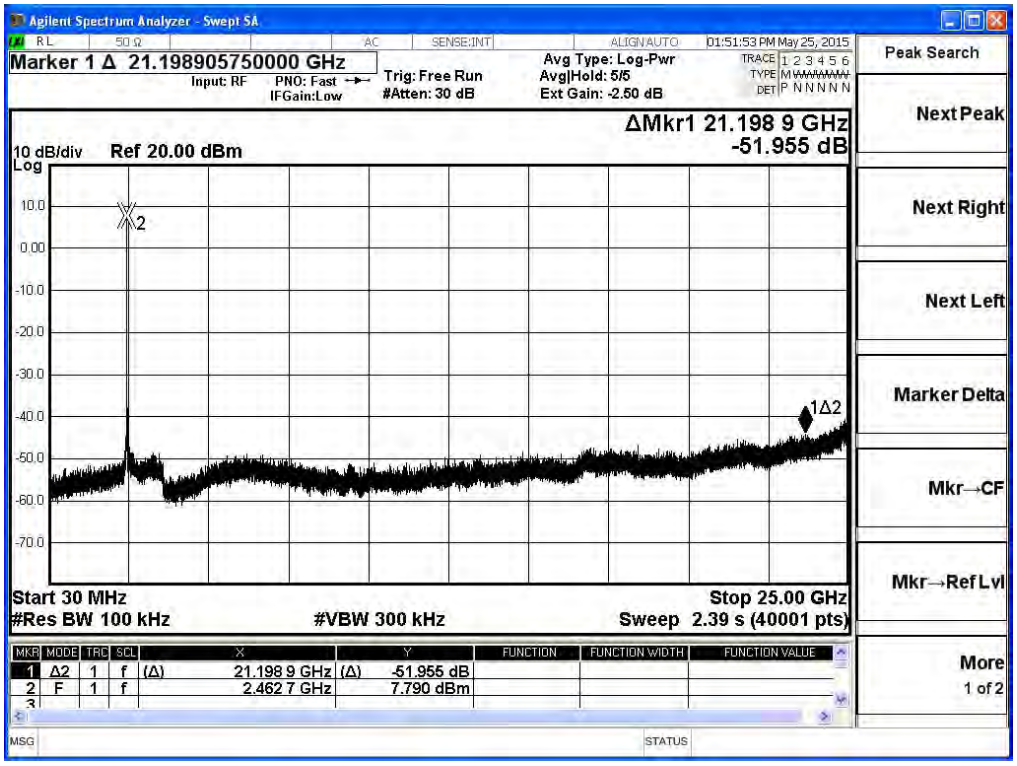
2412MHz (30MHz-25GHz)-802.11b (ANT 1)



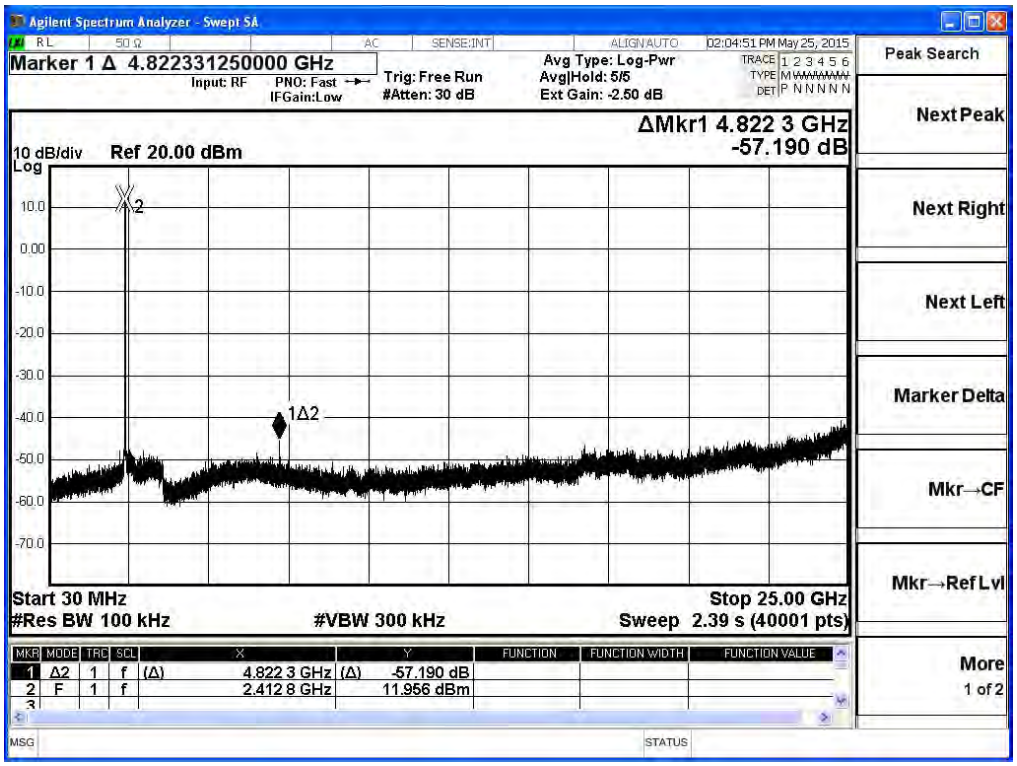
2437MHz (30MHz-25GHz)-802.11b (ANT 1)



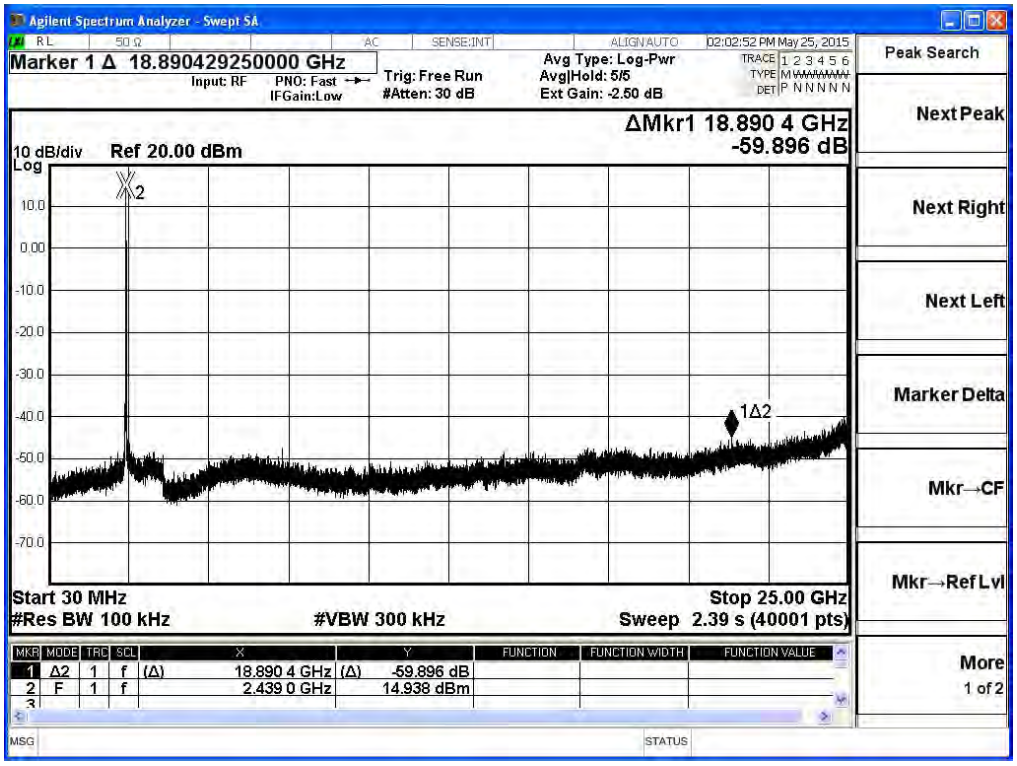
2462MHz (30MHz-25GHz) -802.11b (ANT 1)



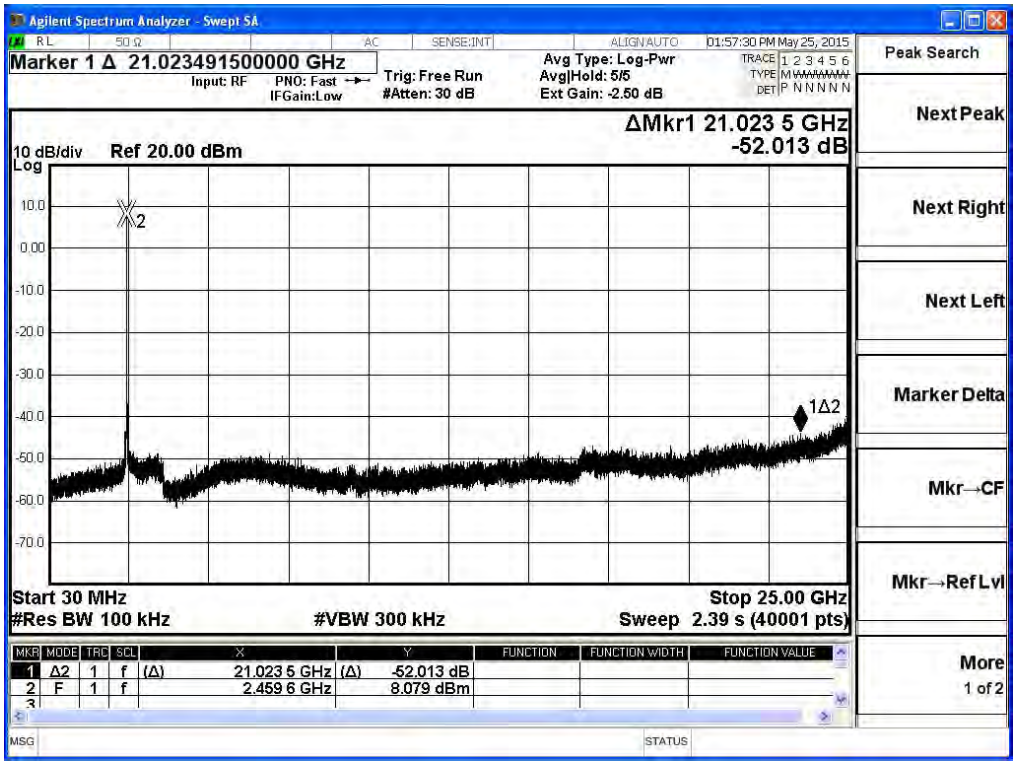
2412MHz (30MHz-25GHz)-802.11b (ANT 2)



2437MHz (30MHz-25GHz)-802.11b (ANT 2)



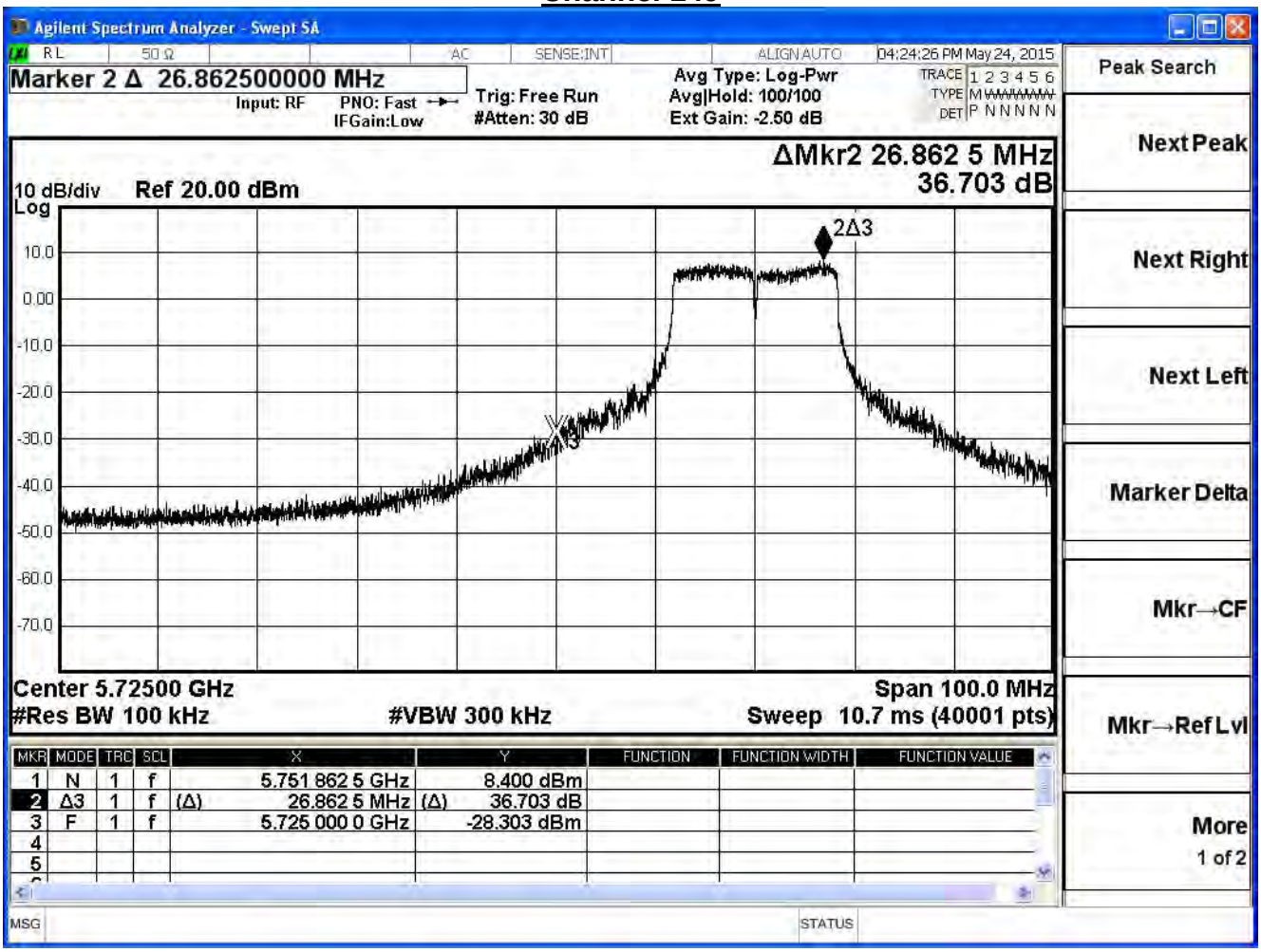
2462MHz (30MHz-25GHz) -802.11b (ANT 2)



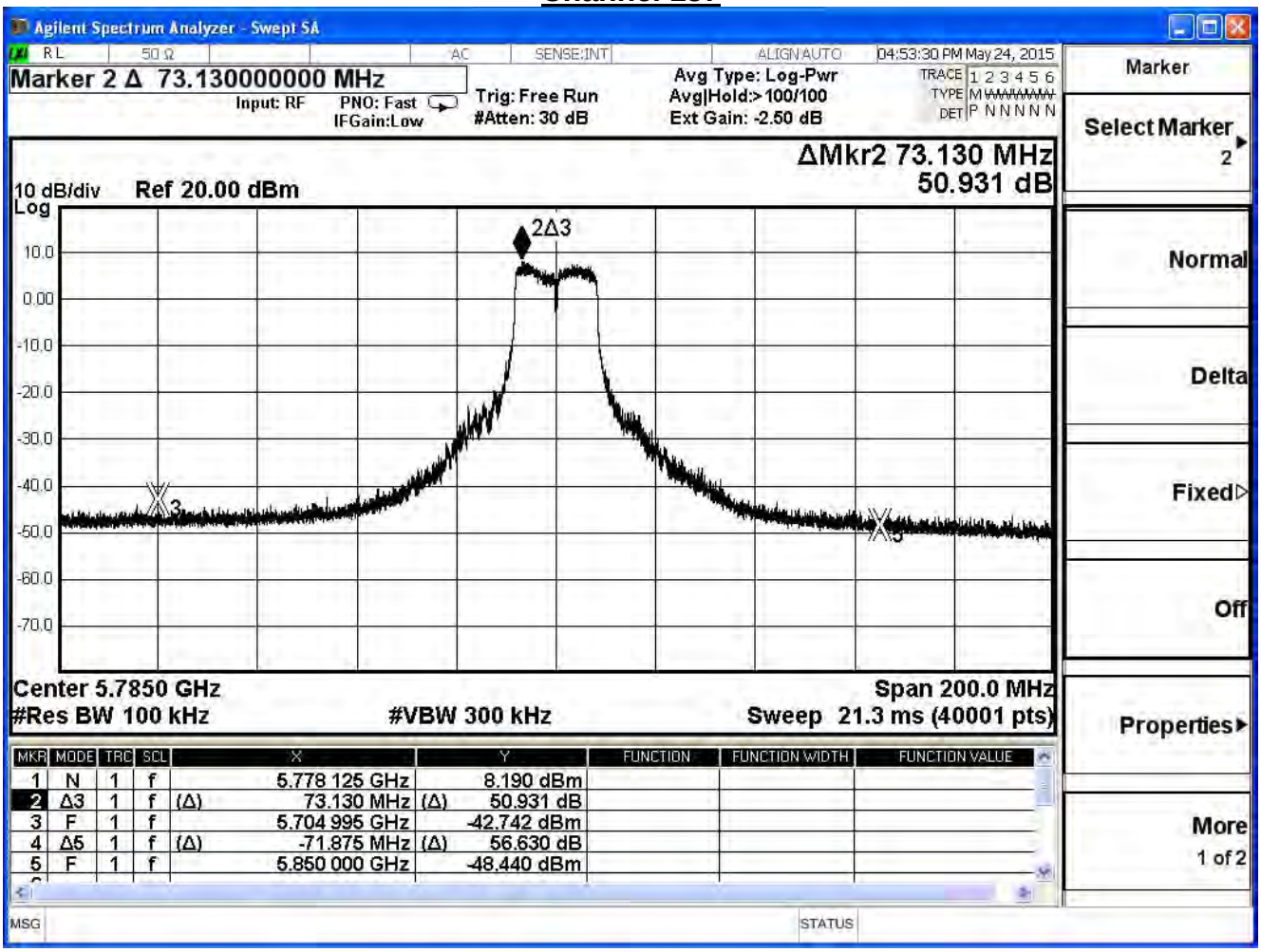
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/25	Test Site	SR7

IEEE 802.11a (ANT 0), Antenna Gain: 4.6dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
149	5745	36.703	≧30	Pass
157	5785	50.931	≧30	Pass
165	5825	44.887	≧30	Pass

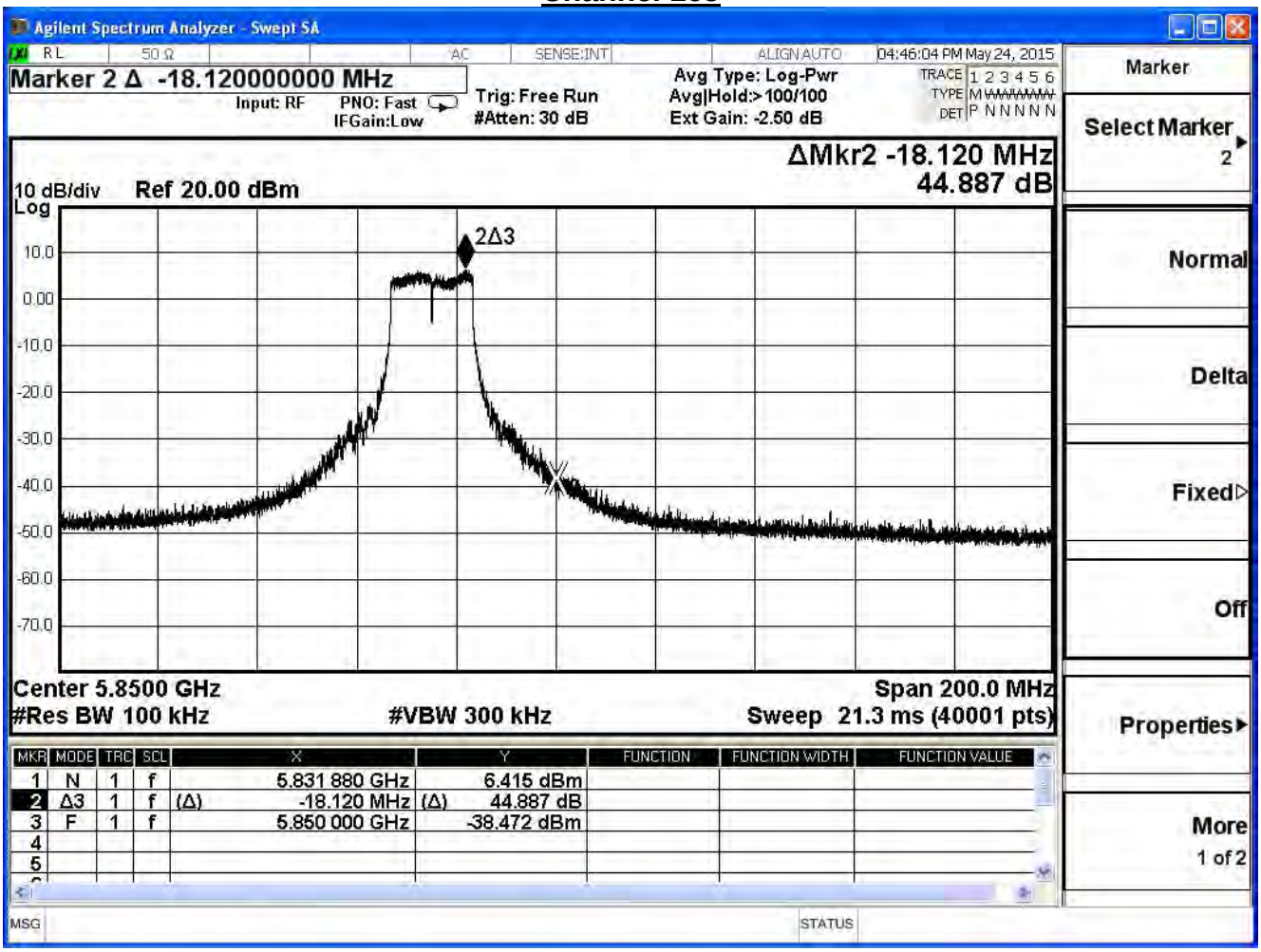
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ 73.130000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
04:53:30 PM May 24, 2015
ΔMkr2 73.130 MHz
50.931 dB
10 dB/div
Log
Ref 20.00 dBm
Center 5.7850 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
1 N 1 f 5.778 125 GHz 8.190 dBm
2 Δ3 1 f (Δ) 73.130 MHz (Δ) 50.931 dB
3 F 1 f 5.704 995 GHz -42.742 dBm
4 Δ5 1 f (Δ) -71.875 MHz (Δ) 56.630 dB
5 F 1 f 5.850 000 GHz -48.440 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

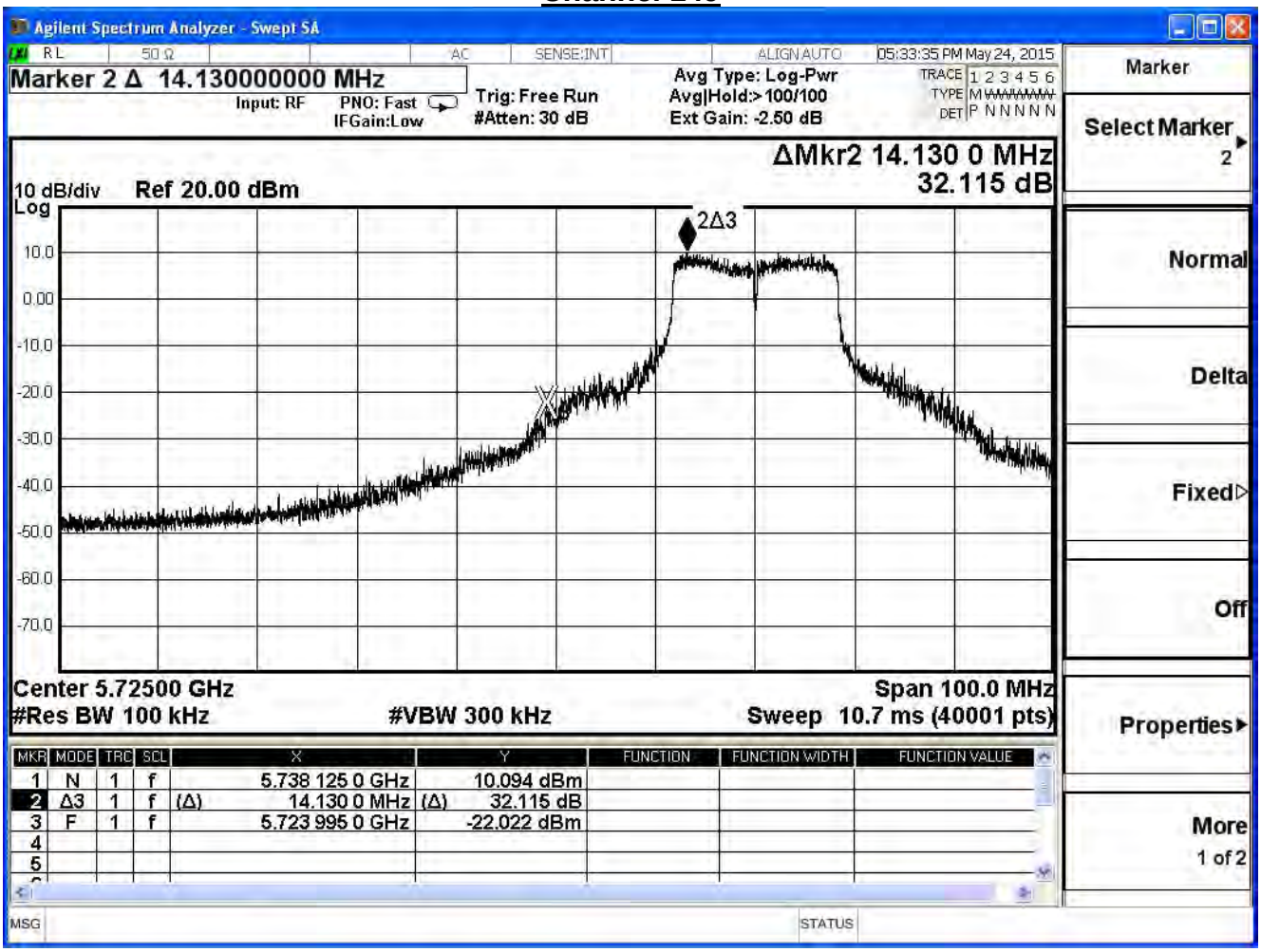
Channel 165


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ -18.120000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
04:46:04 PM May 24, 2015
ΔMkr2 -18.120 MHz
44.887 dB
10 dB/div
Log
Ref 20.00 dBm
2Δ3
Center 5.8500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
1 N 1 f 5.831 880 GHz 6.415 dBm
2 Δ3 1 f (Δ) -18.120 MHz (Δ) 44.887 dB
3 F 1 f 5.850 000 GHz -38.472 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

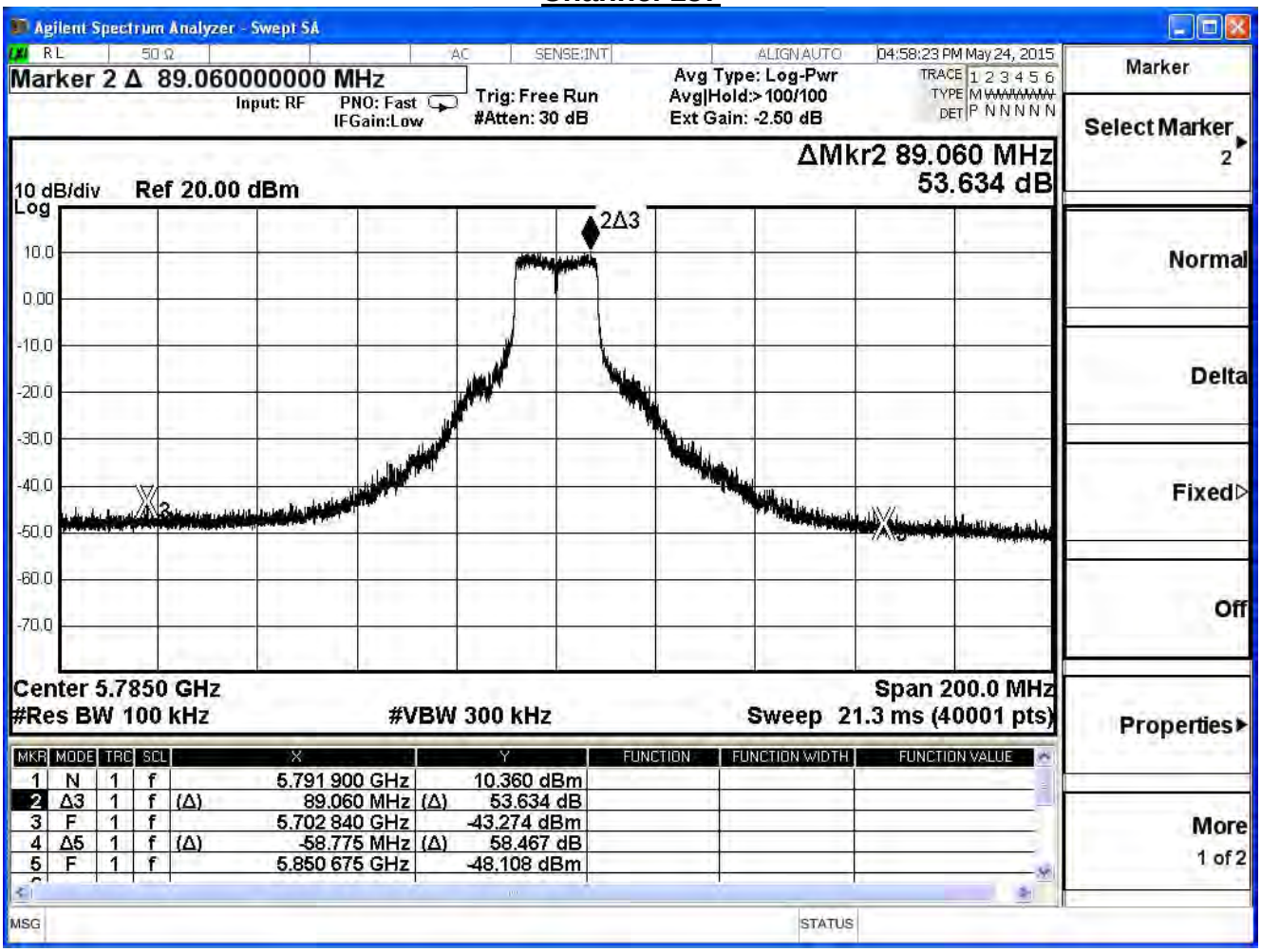
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11a (ANT 1), Antenna Gain: 4.45dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
149	5745	32.115	≧30	Pass
157	5785	53.634	≧30	Pass
165	5825	45.912	≧30	Pass

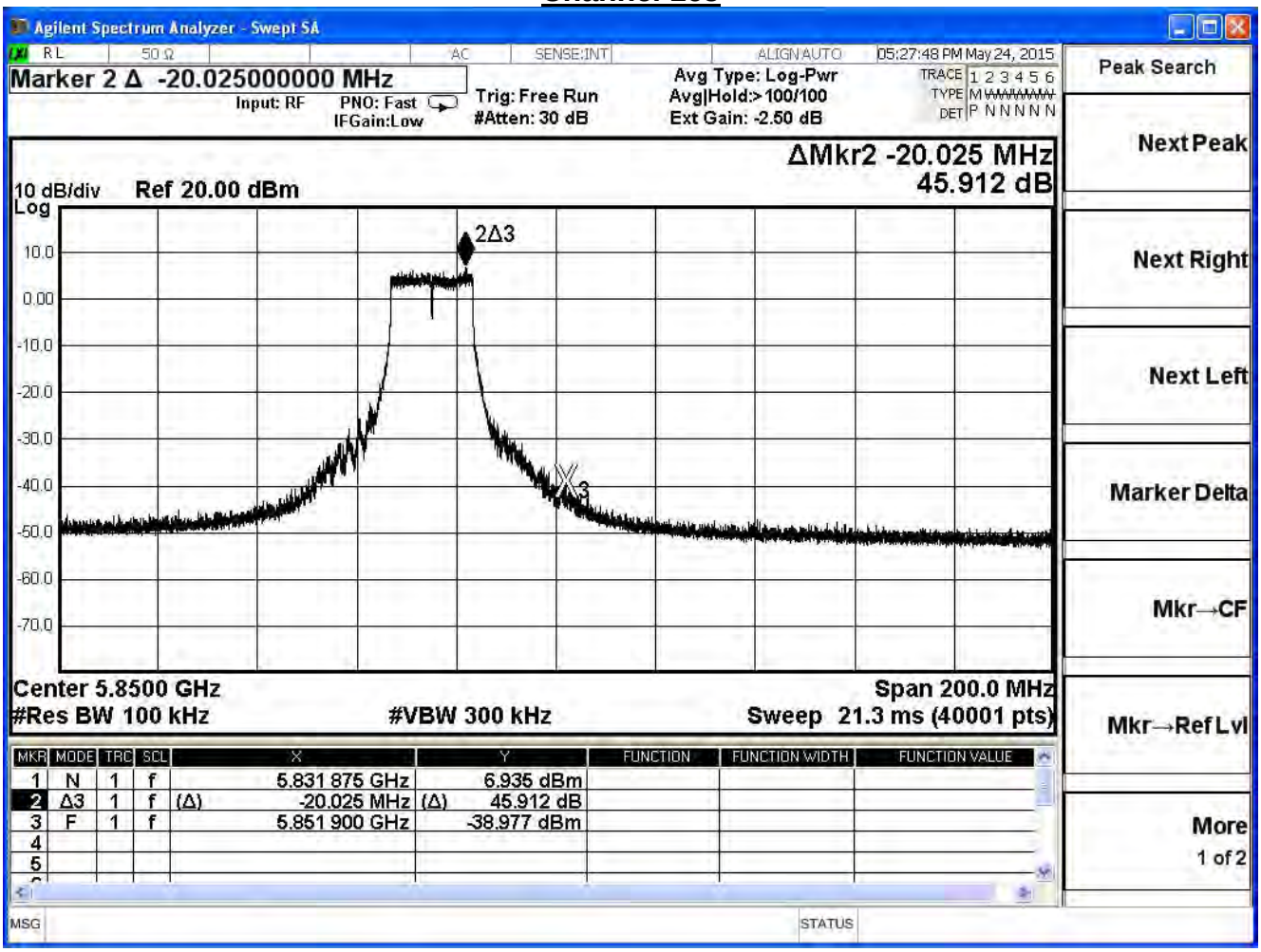
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ 89.060000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
04:58:23 PM May 24, 2015
ΔMkr2 89.060 MHz
53.634 dB
10 dB/div
Log
Ref 20.00 dBm
Center 5.7850 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2
1 N 1 f 5.791 900 GHz 10.360 dBm
2 Δ3 1 f (Δ) 89.060 MHz (Δ) 53.634 dB
3 F 1 f 5.702 840 GHz -43.274 dBm
4 Δ5 1 f (Δ) -58.775 MHz (Δ) 58.467 dB
5 F 1 f 5.850 675 GHz -48.108 dBm

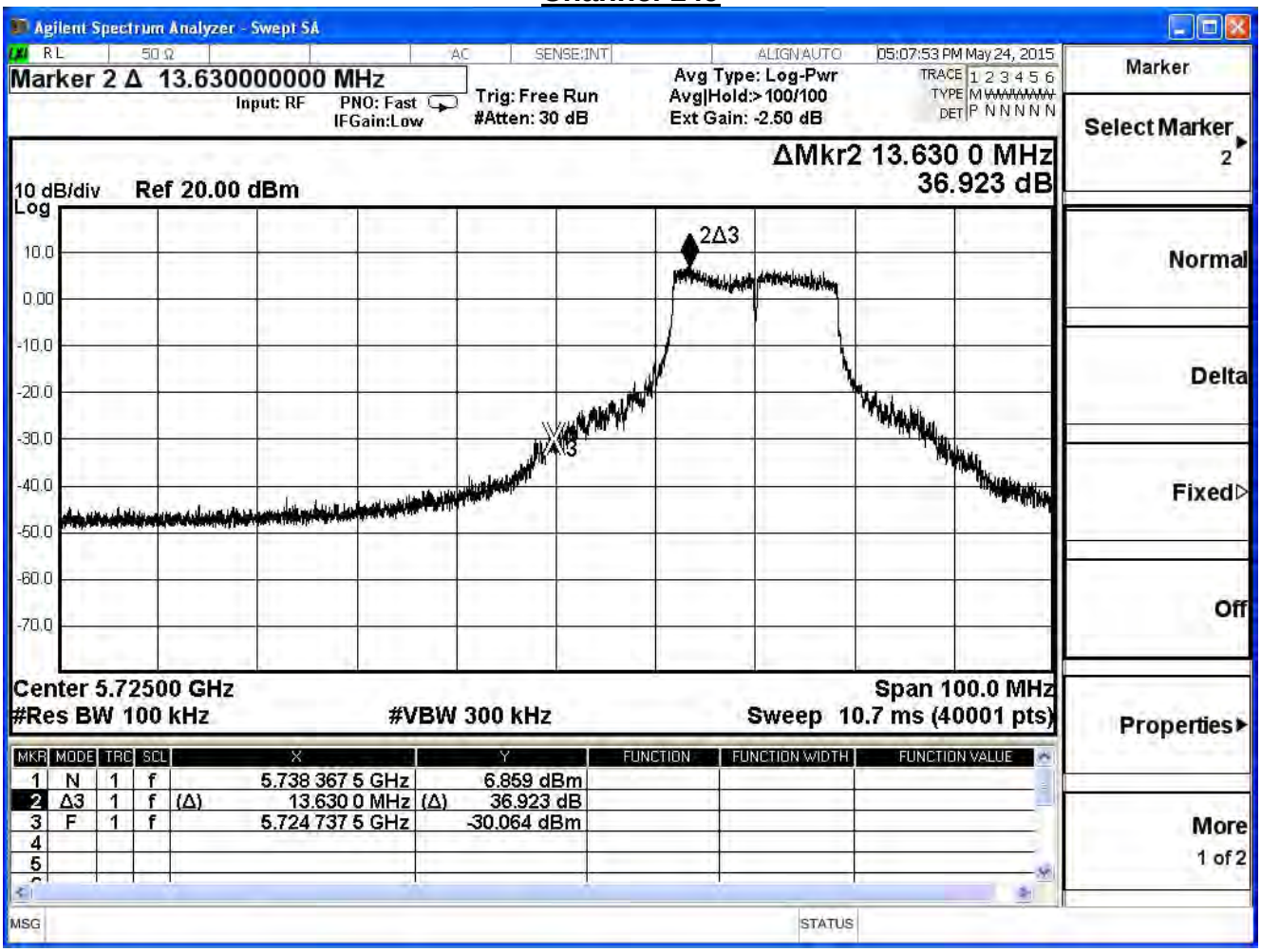
Channel 165


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ -20.025000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
05:27:48 PM May 24, 2015
ΔMkr2 -20.025 MHz
45.912 dB
10 dB/div
Log
Ref 20.00 dBm
Center 5.8500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
1 N 1 f 5.831 875 GHz 6.935 dBm
2 Δ3 1 f (Δ) -20.025 MHz (Δ) 45.912 dB
3 F 1 f 5.851 900 GHz -38.977 dBm
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

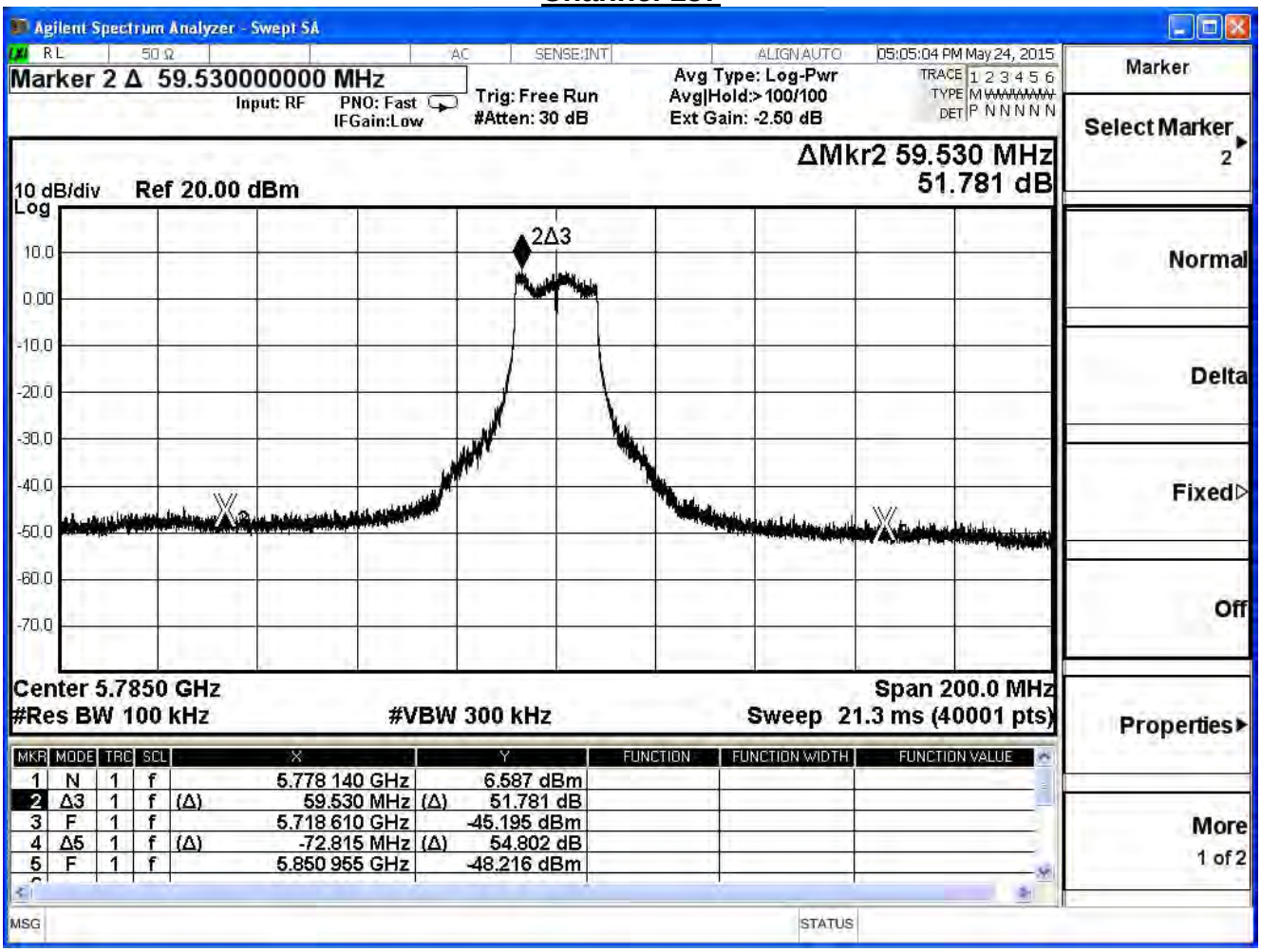
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11a (ANT 2), Antenna Gain: 3.56dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
149	5745	36.923	≧30	Pass
157	5785	51.871	≧30	Pass
165	5825	49.363	≧30	Pass

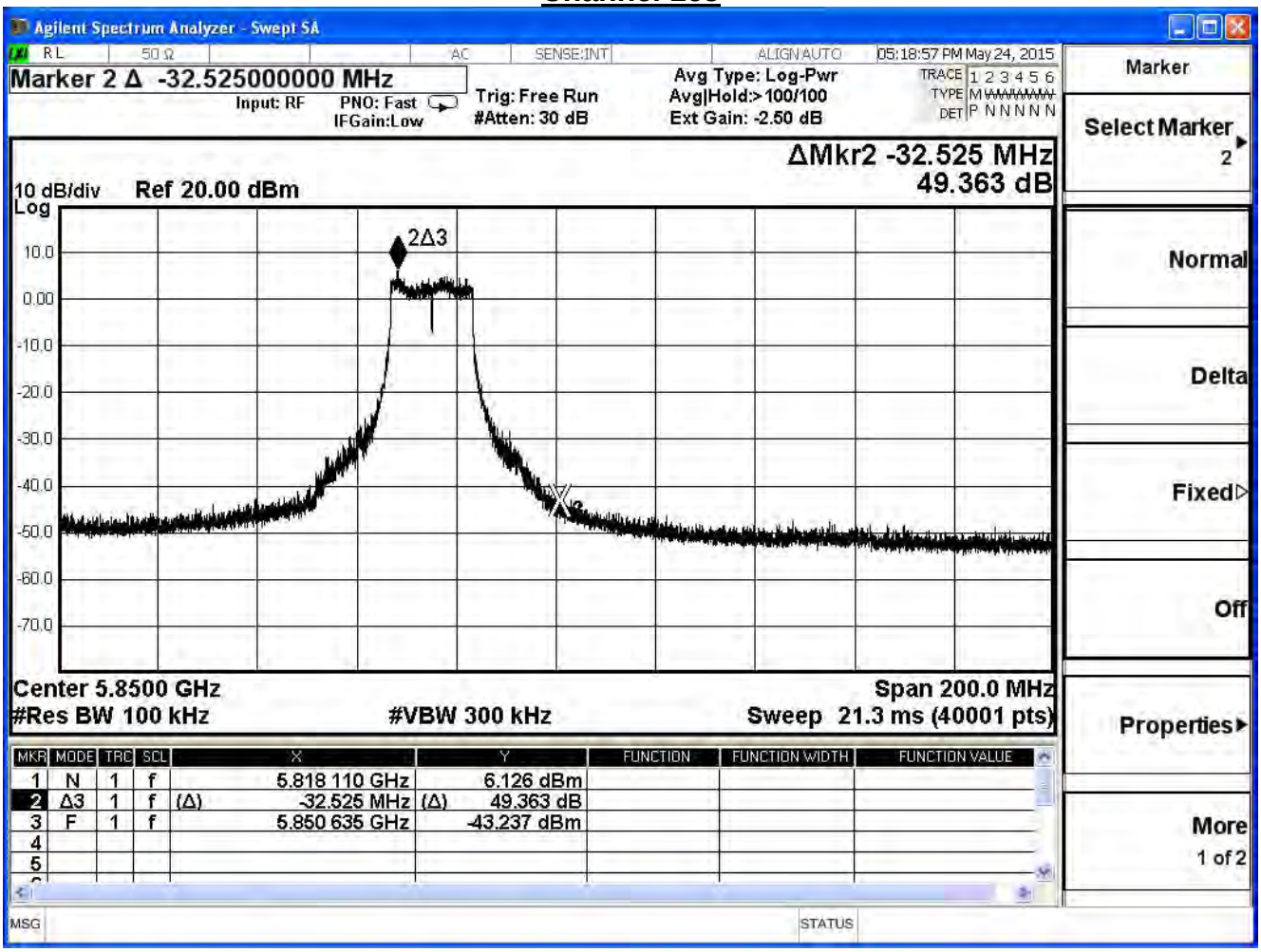
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ 59.530000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
05:05:04 PM May 24, 2015
ΔMkr2 59.530 MHz
51.781 dB
10 dB/div
Log
Ref 20.00 dBm
2Δ3
Center 5.7850 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
1 N 1 f 5.778 140 GHz 6.587 dBm
2 Δ3 1 f (Δ) 59.530 MHz (Δ) 51.781 dB
3 F 1 f 5.718 610 GHz -45.195 dBm
4 Δ5 1 f (Δ) -72.815 MHz (Δ) 54.802 dB
5 F 1 f 5.850 955 GHz -48.216 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

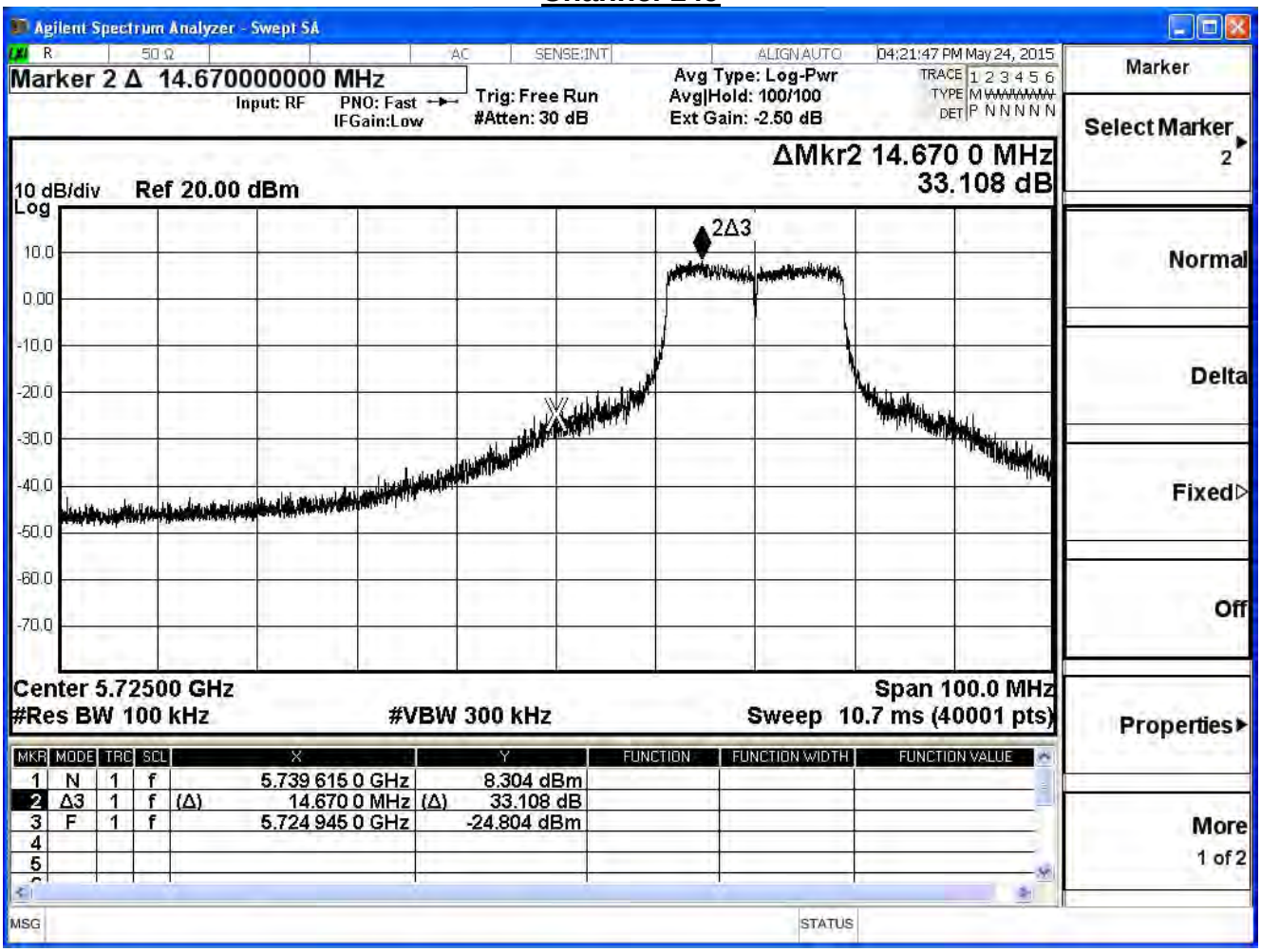
Channel 165


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ -32.525000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
05:18:57 PM May 24, 2015
ΔMkr2 -32.525 MHz
49.363 dB
10 dB/div
Log
Ref 20.00 dBm
2Δ3
Center 5.8500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
1 N 1 f 5.818 110 GHz 6.126 dBm
2 Δ3 1 f (Δ) -32.525 MHz (Δ) 49.363 dB
3 F 1 f 5.850 635 GHz -43.237 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

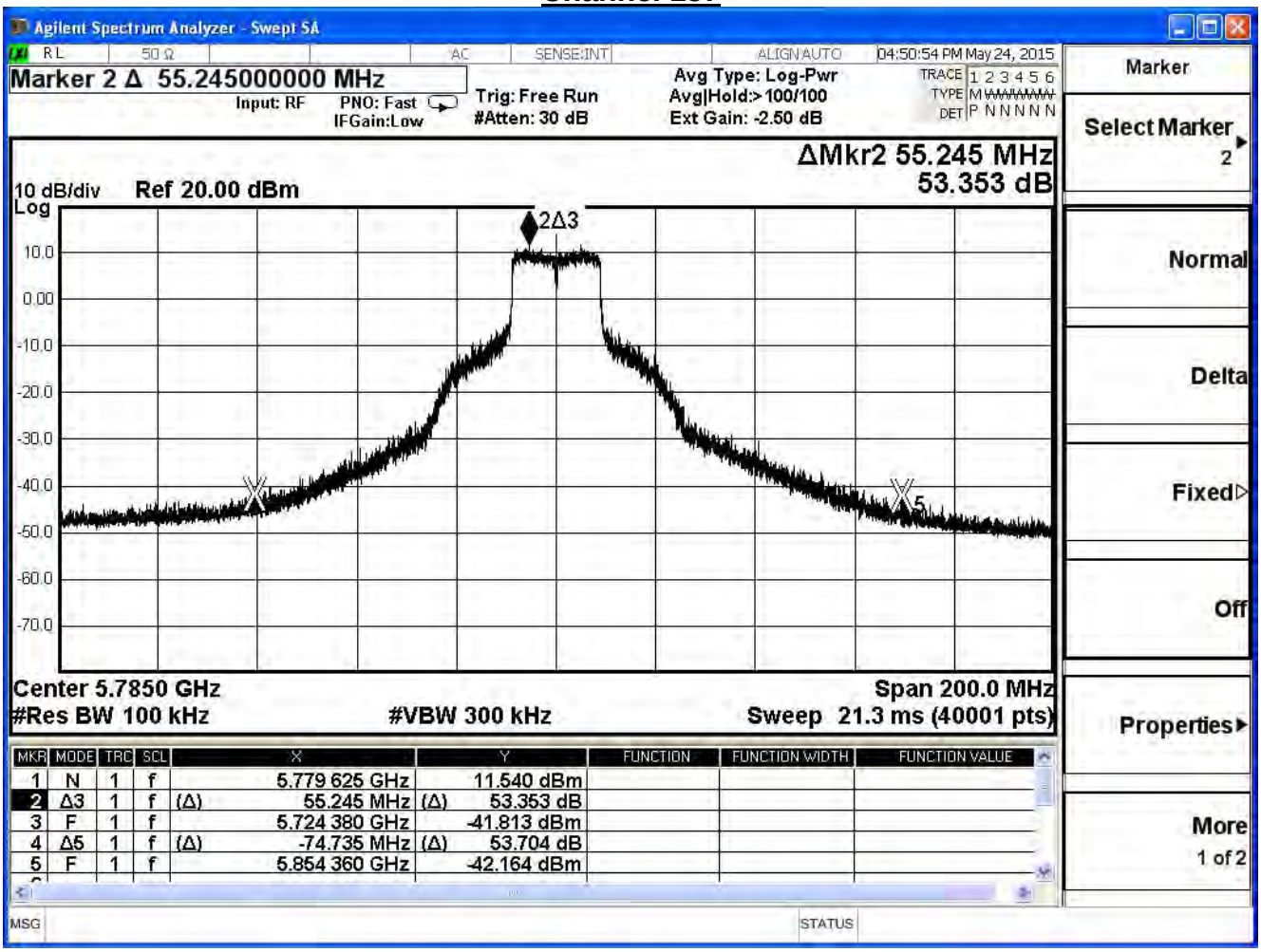
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11n (20MHz), (ANT 0) Antenna Gain: 4.6 dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
149	5745	33.108	≧30	Pass
157	5785	53.353	≧30	Pass
165	5825	41.237	≧30	Pass

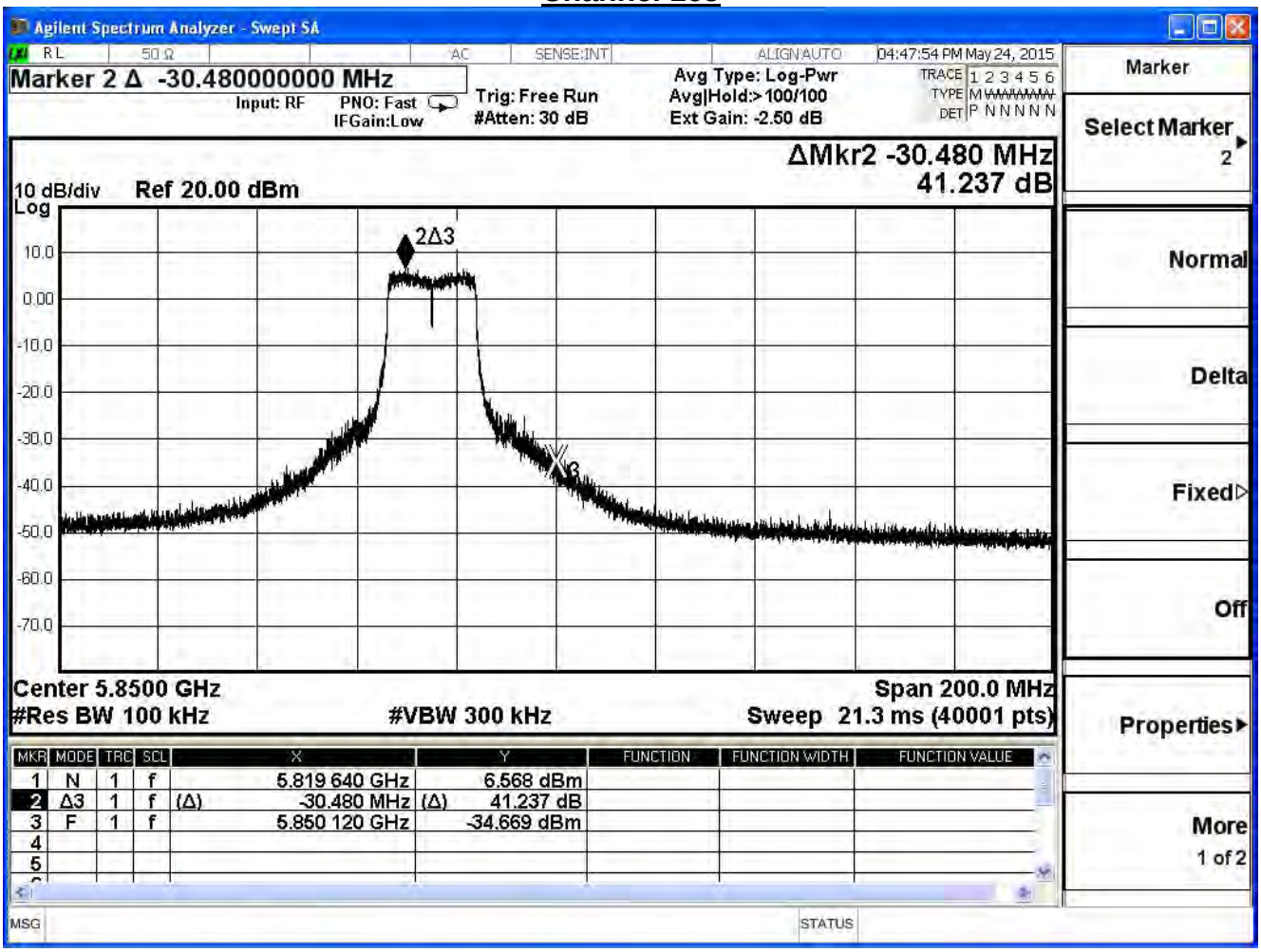
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ 55.245000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
04:50:54 PM May 24, 2015
ΔMkr2 55.245 MHz
53.353 dB
10 dB/div
Log
Ref 20.00 dBm
Center 5.7850 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
1 N 1 f 5.779 625 GHz 11.540 dBm
2 Δ3 1 f (Δ) 55.245 MHz (Δ) 53.353 dB
3 F 1 f 5.724 380 GHz -41.813 dBm
4 Δ5 1 f (Δ) -74.735 MHz (Δ) 53.704 dB
5 F 1 f 5.854 360 GHz -42.164 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

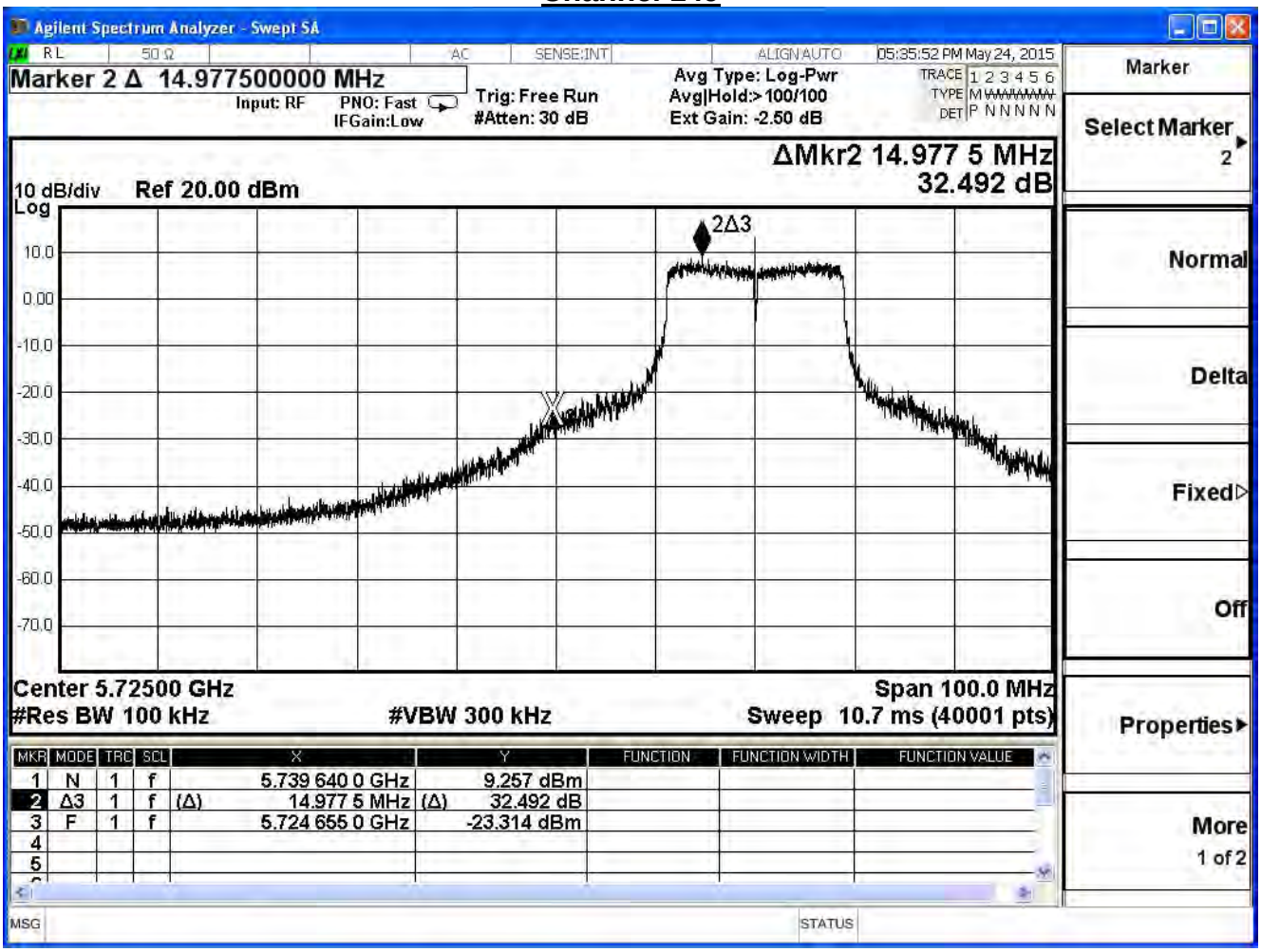
Channel 165


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ -30.480000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
04:47:54 PM May 24, 2015
ΔMkr2 -30.480 MHz
41.237 dB
10 dB/div
Log
Ref 20.00 dBm
2Δ3
Center 5.8500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
1 N 1 f 5.819 640 GHz 6.568 dBm
2 Δ3 1 f (Δ) -30.480 MHz (Δ) 41.237 dB
3 F 1 f 5.850 120 GHz -34.669 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

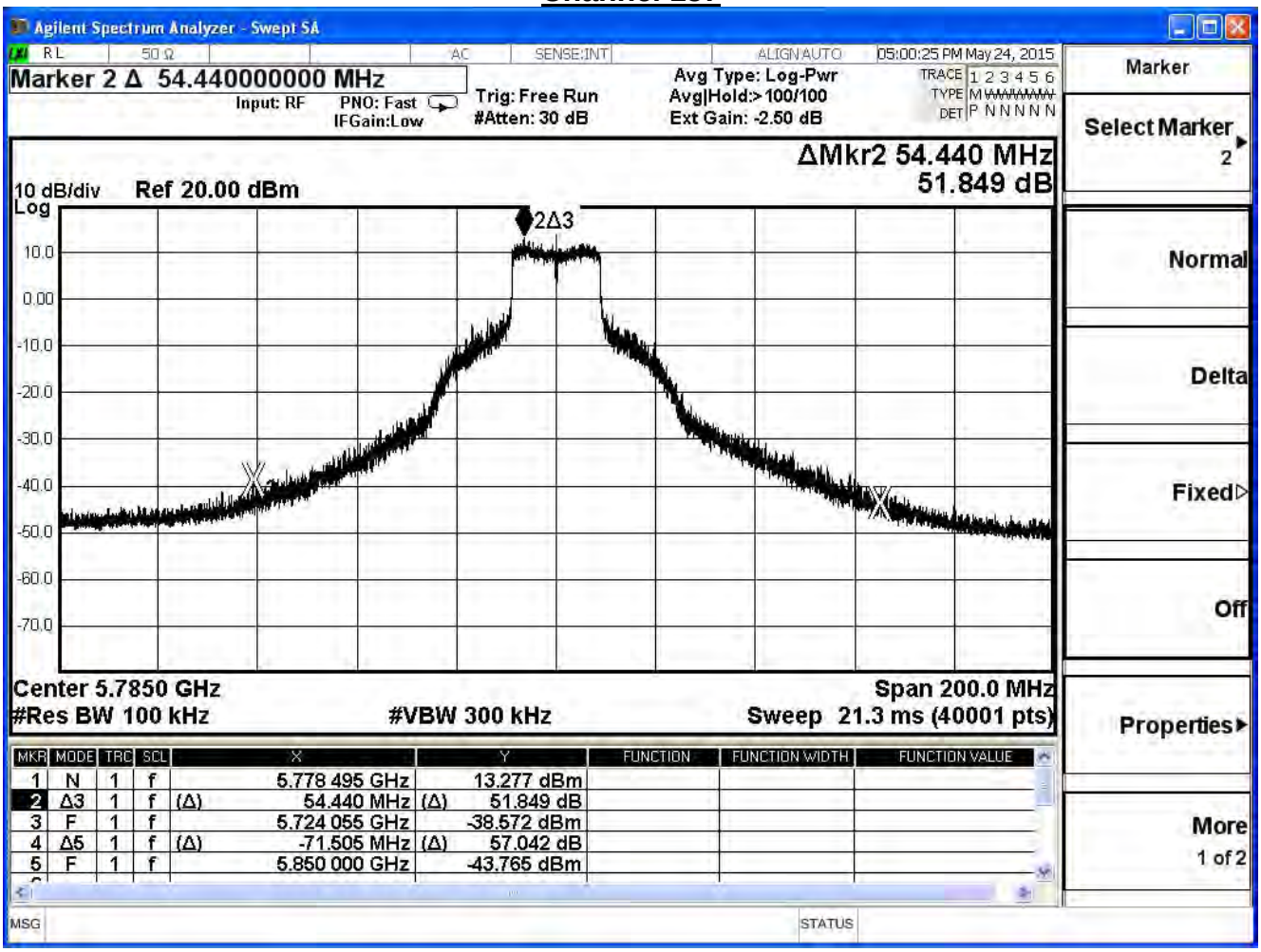
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11n (20MHz), (ANT 1) Antenna Gain: 4.45dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
149	5745	32.492	≧30	Pass
157	5785	51.849	≧30	Pass
165	5825	41.041	≧30	Pass

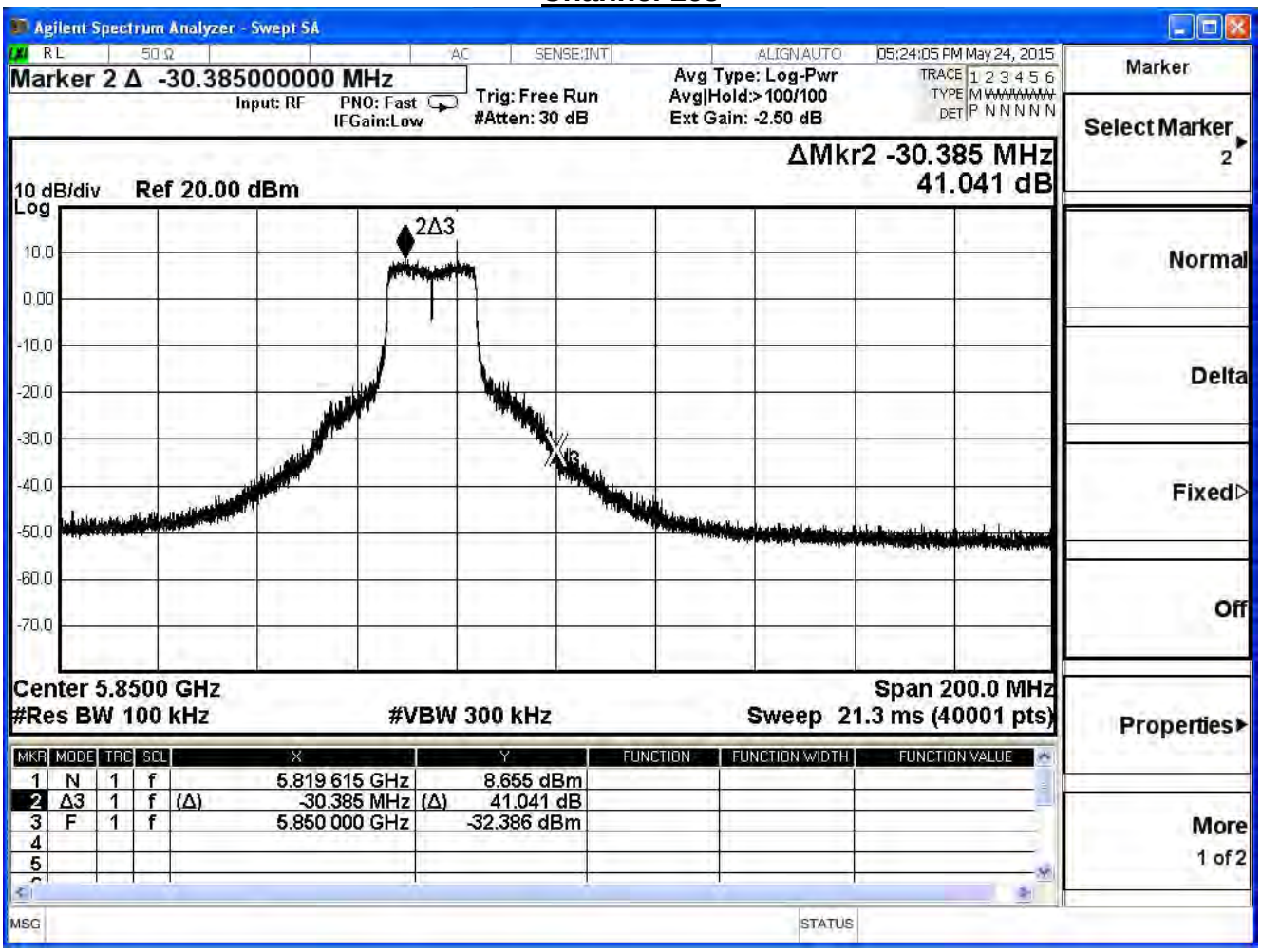
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ 54.440000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
05:00:25 PM May 24, 2015
ΔMkr2 54.440 MHz
51.849 dB
10 dB/div
Log
Ref 20.00 dBm
Center 5.7850 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
1 N 1 f 5.778 495 GHz 13.277 dBm
2 Δ3 1 f (Δ) 54.440 MHz (Δ) 51.849 dB
3 F 1 f 5.724 055 GHz -38.572 dBm
4 Δ5 1 f (Δ) -71.505 MHz (Δ) 57.042 dB
5 F 1 f 5.850 000 GHz -43.765 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

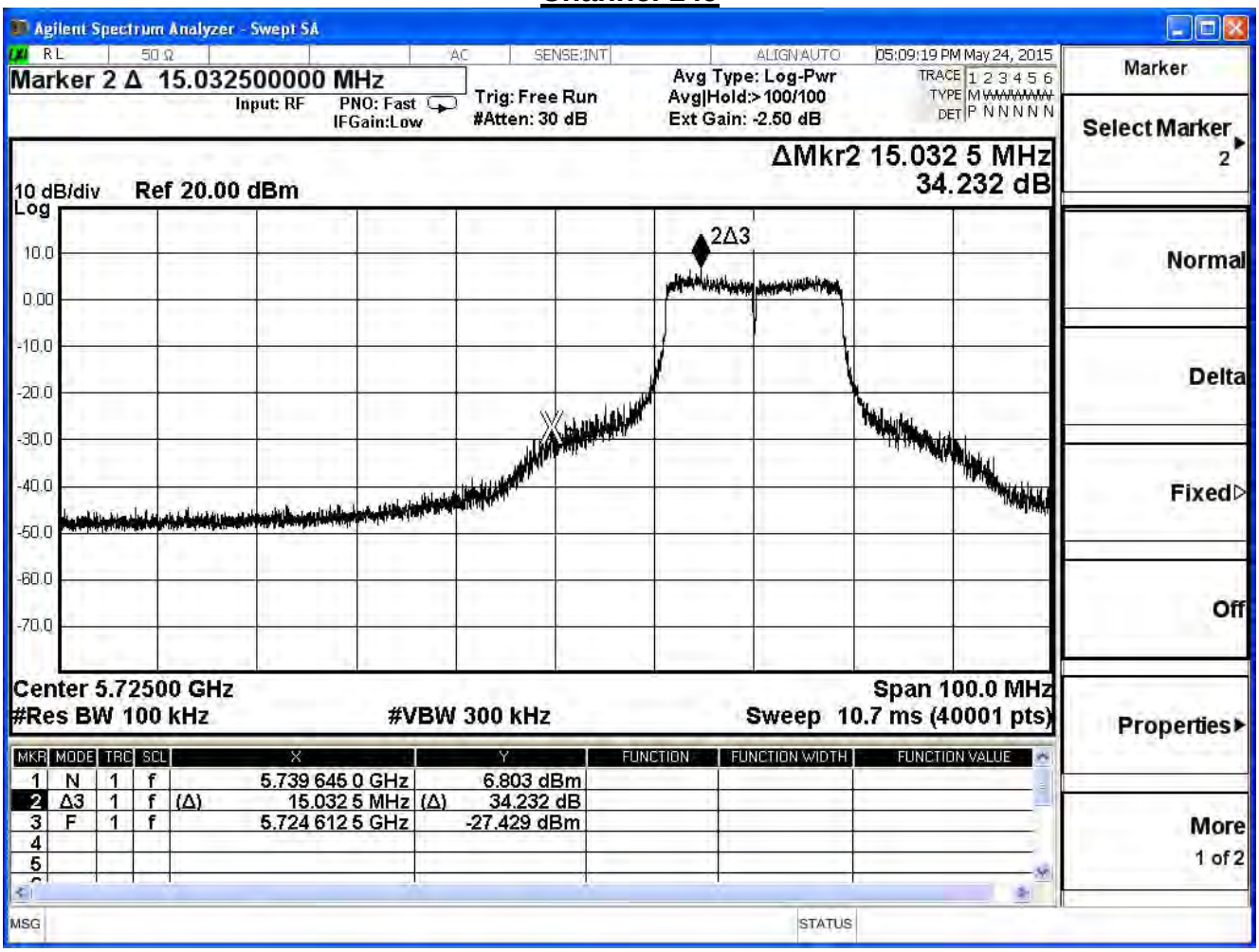
Channel 165


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ -30.385000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
05:24:05 PM May 24, 2015
ΔMkr2 -30.385 MHz
41.041 dB
10 dB/div
Log
Ref 20.00 dBm
Center 5.8500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
1 N 1 f 5.819 615 GHz 8.655 dBm
2 Δ3 1 f (Δ) -30.385 MHz (Δ) 41.041 dB
3 F 1 f 5.850 000 GHz -32.386 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

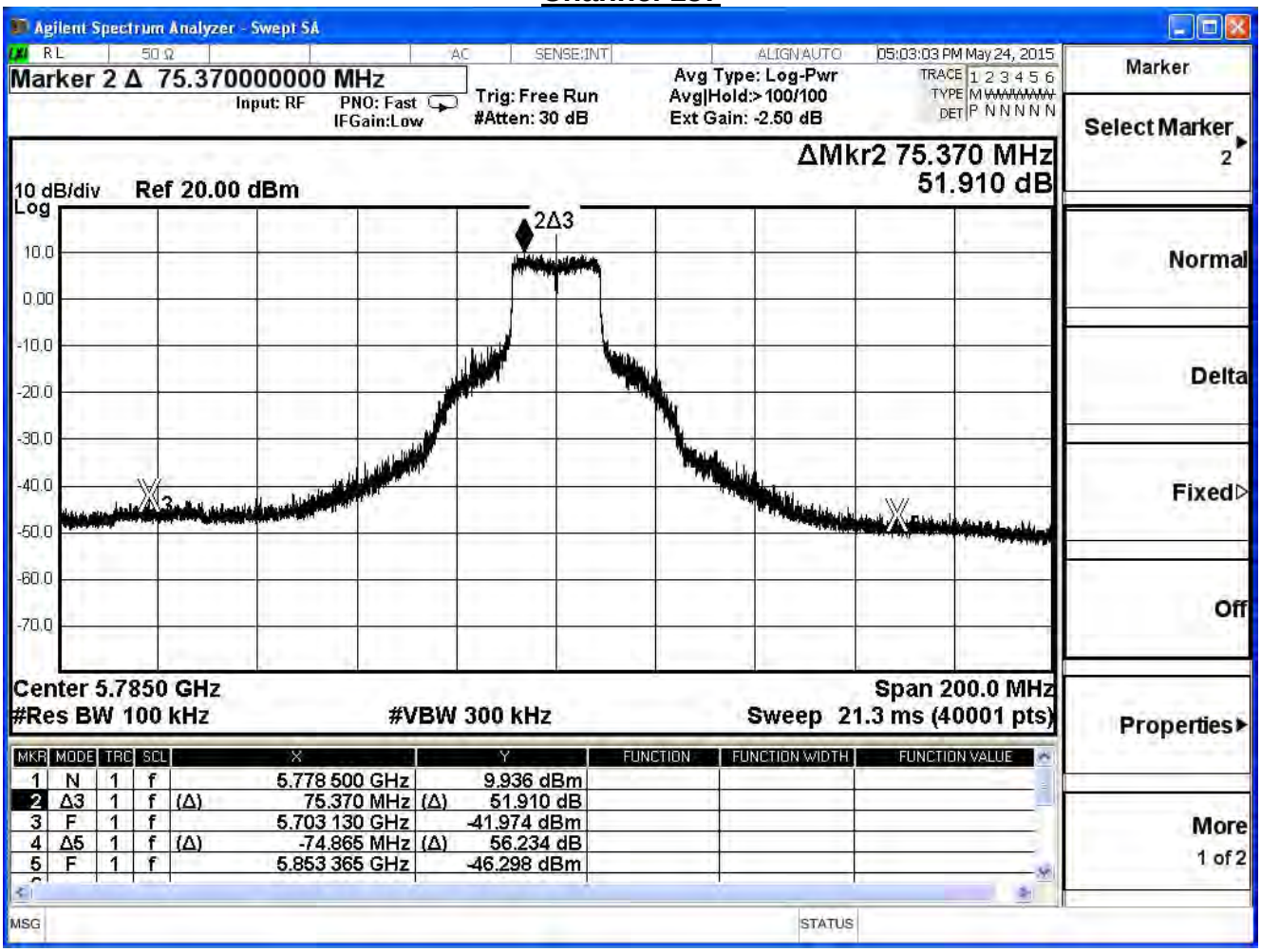
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11n (20MHz), (ANT 2) Antenna Gain: 3.56dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
149	5745	34.232	≧30	Pass
157	5785	51.910	≧30	Pass
165	5825	49.383	≧30	Pass

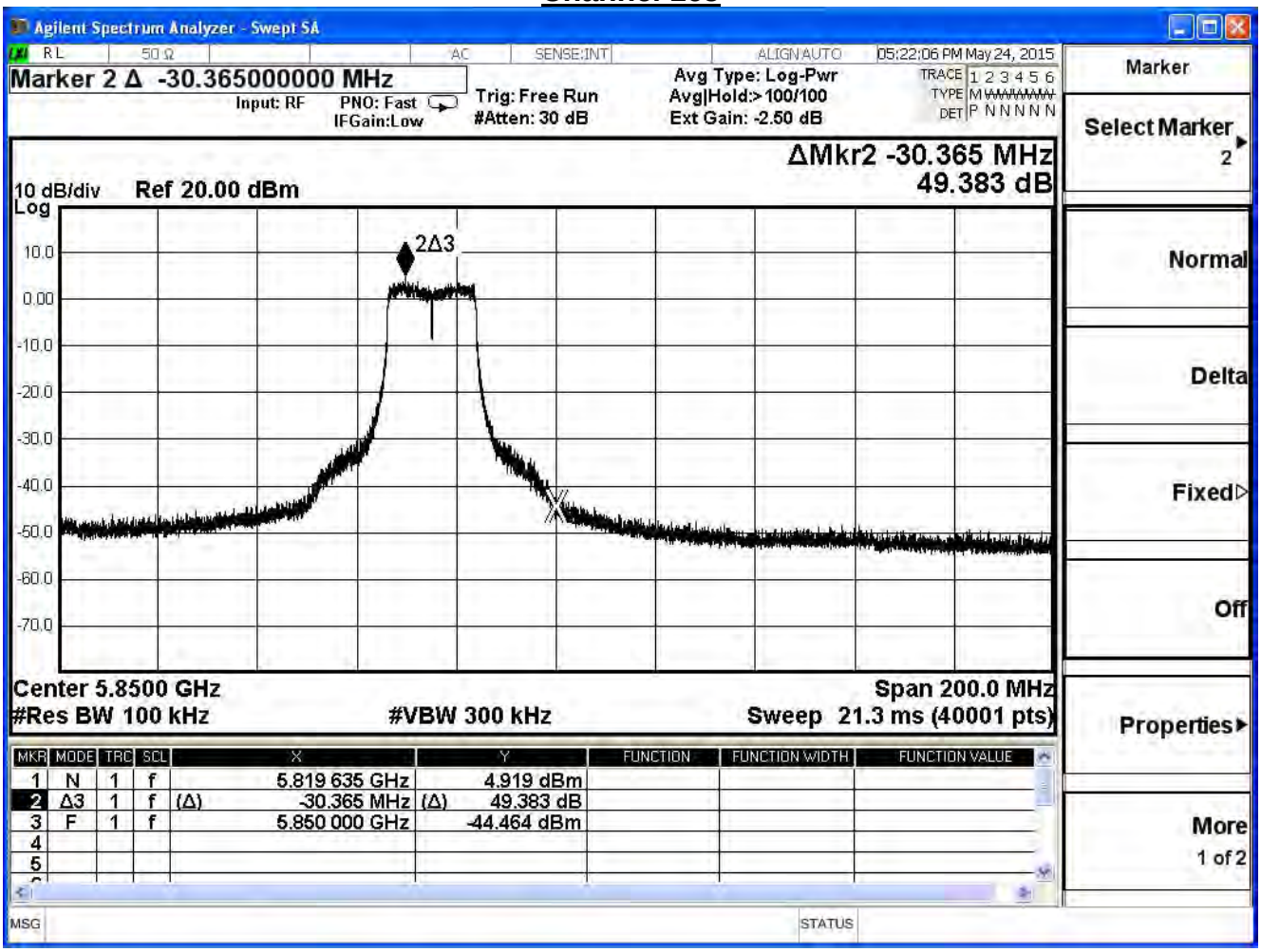
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ 75.370000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
05:03:03 PM May 24, 2015
ΔMkr2 75.370 MHz
51.910 dB
10 dB/div
Log
Ref 20.00 dBm
Center 5.7850 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
1 N 1 f 5.778 500 GHz 9.936 dBm
2 Δ3 1 f (Δ) 75.370 MHz (Δ) 51.910 dB
3 F 1 f 5.703 130 GHz -41.974 dBm
4 Δ5 1 f (Δ) -74.865 MHz (Δ) 56.234 dB
5 F 1 f 5.853 365 GHz -46.298 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

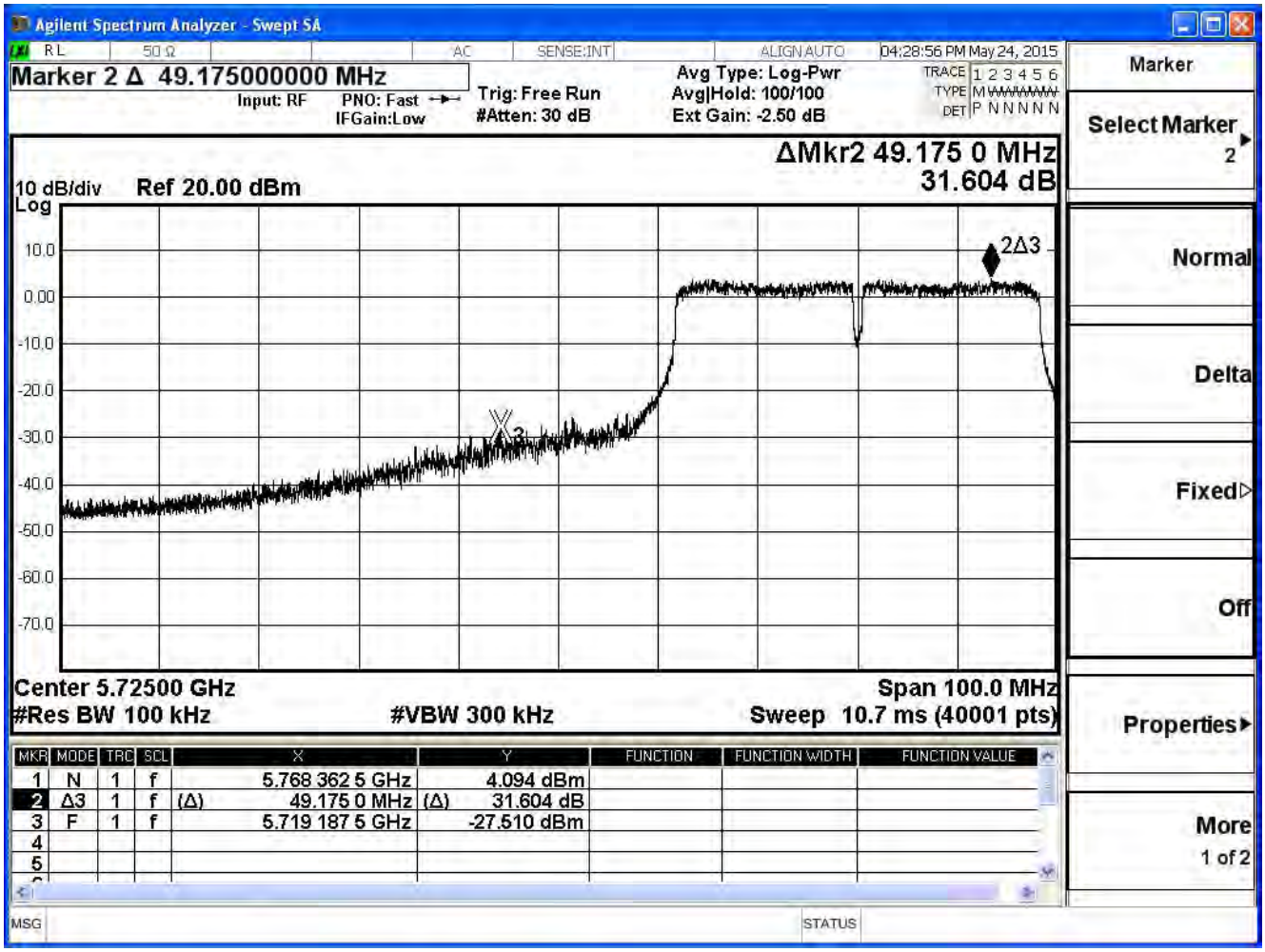
Channel 165


Agilent Spectrum Analyzer - Swept SA
Marker 2 Δ -30.365000000 MHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -2.50 dB
05:22:06 PM May 24, 2015
ΔMkr2 -30.365 MHz
49.383 dB
10 dB/div
Log
Ref 20.00 dBm
2Δ3
Center 5.8500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 200.0 MHz
Sweep 21.3 ms (40001 pts)
1 N 1 f 5.819 635 GHz 4.919 dBm
2 Δ3 1 f (Δ) -30.365 MHz (Δ) 49.383 dB
3 F 1 f 5.850 000 GHz -44.464 dBm
Marker
Select Marker
Normal
Delta
Fixed
Off
Properties
More
1 of 2

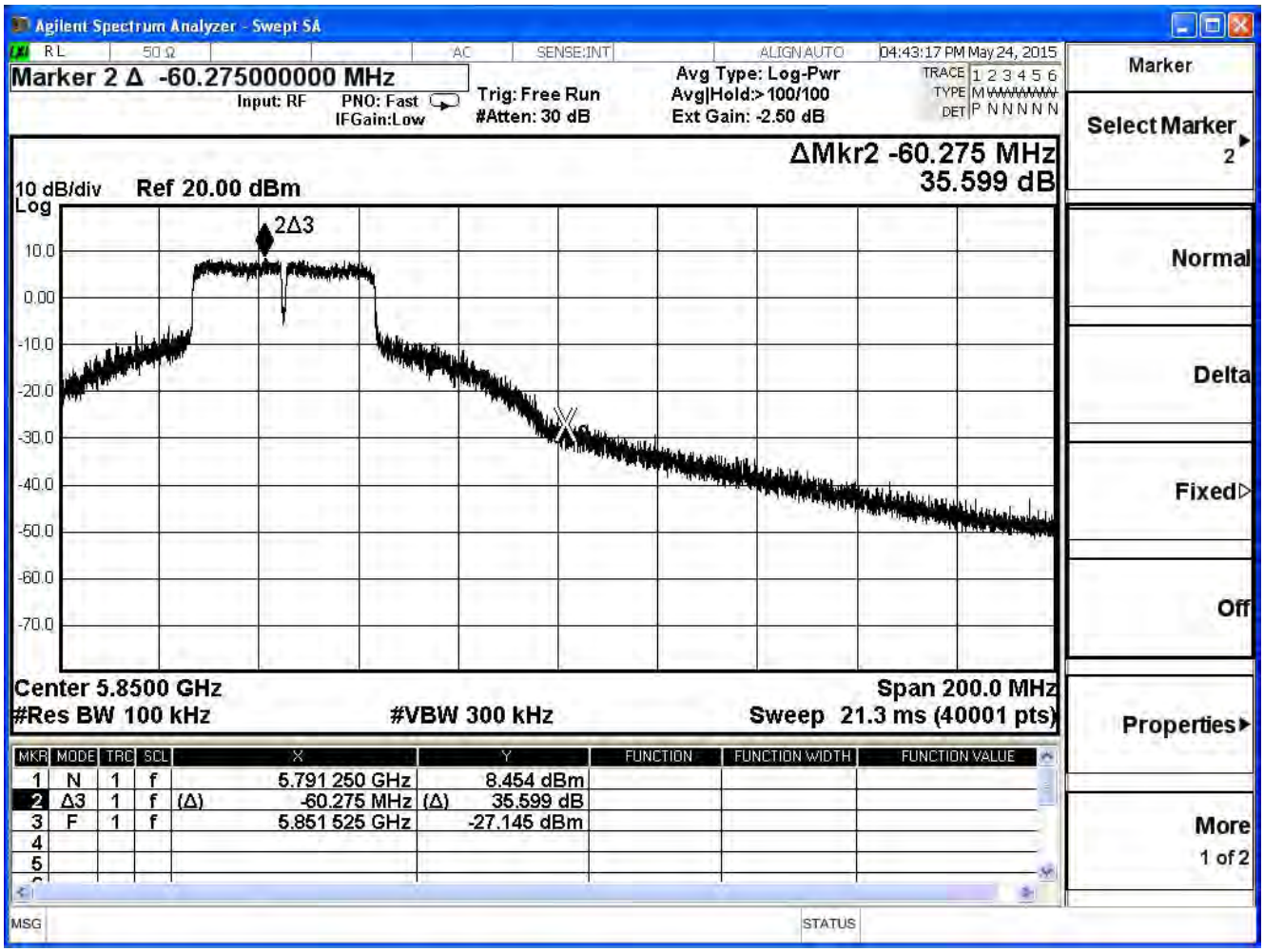
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11n (40MHz), (ANT 0) Antenna Gain: 4.6dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
151	5755	31.604	≧30	Pass
159	5795	35.599	≧30	Pass

Channel 151 (5755MHz)



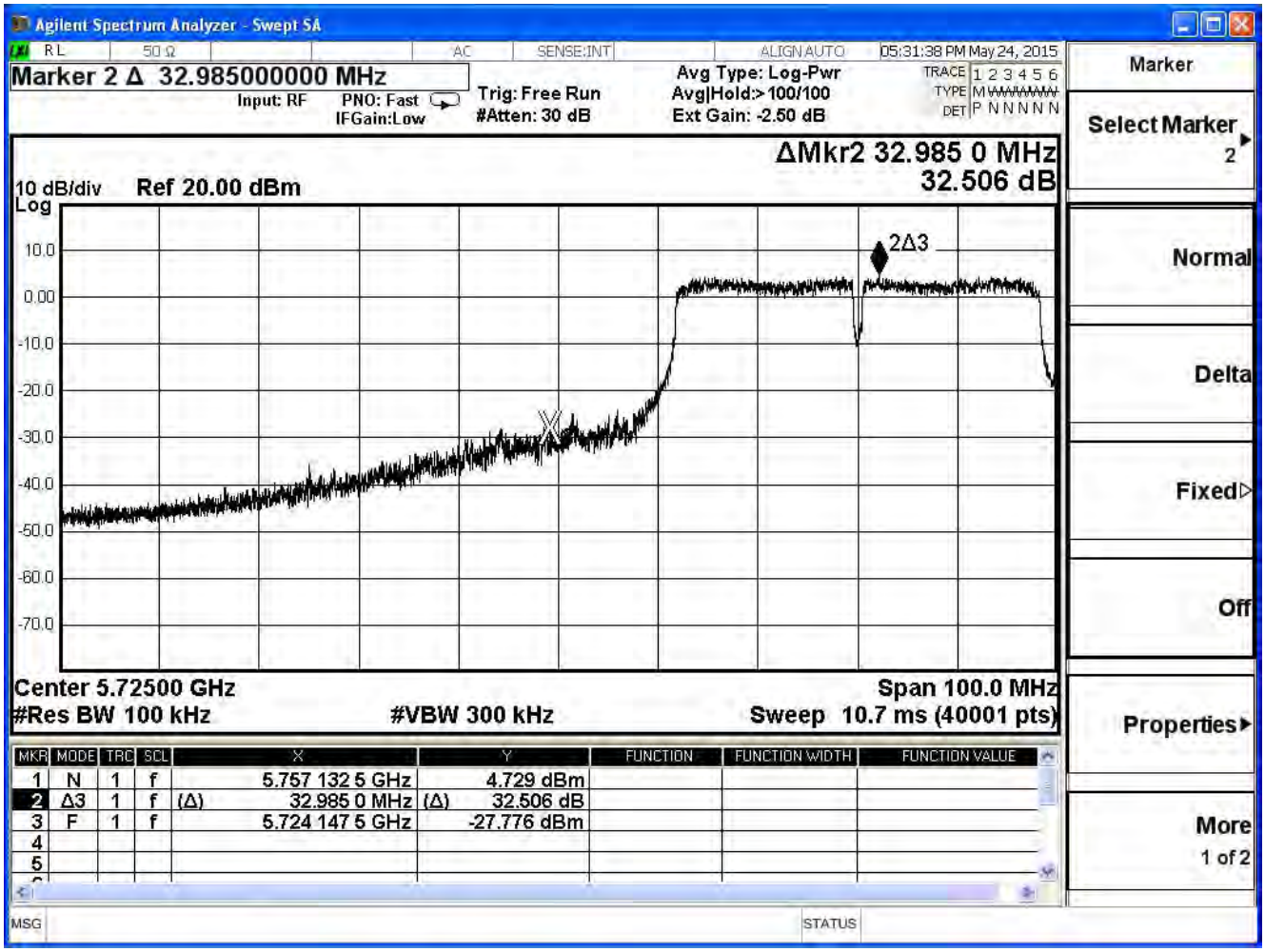
Channel 159 (5795MHz)



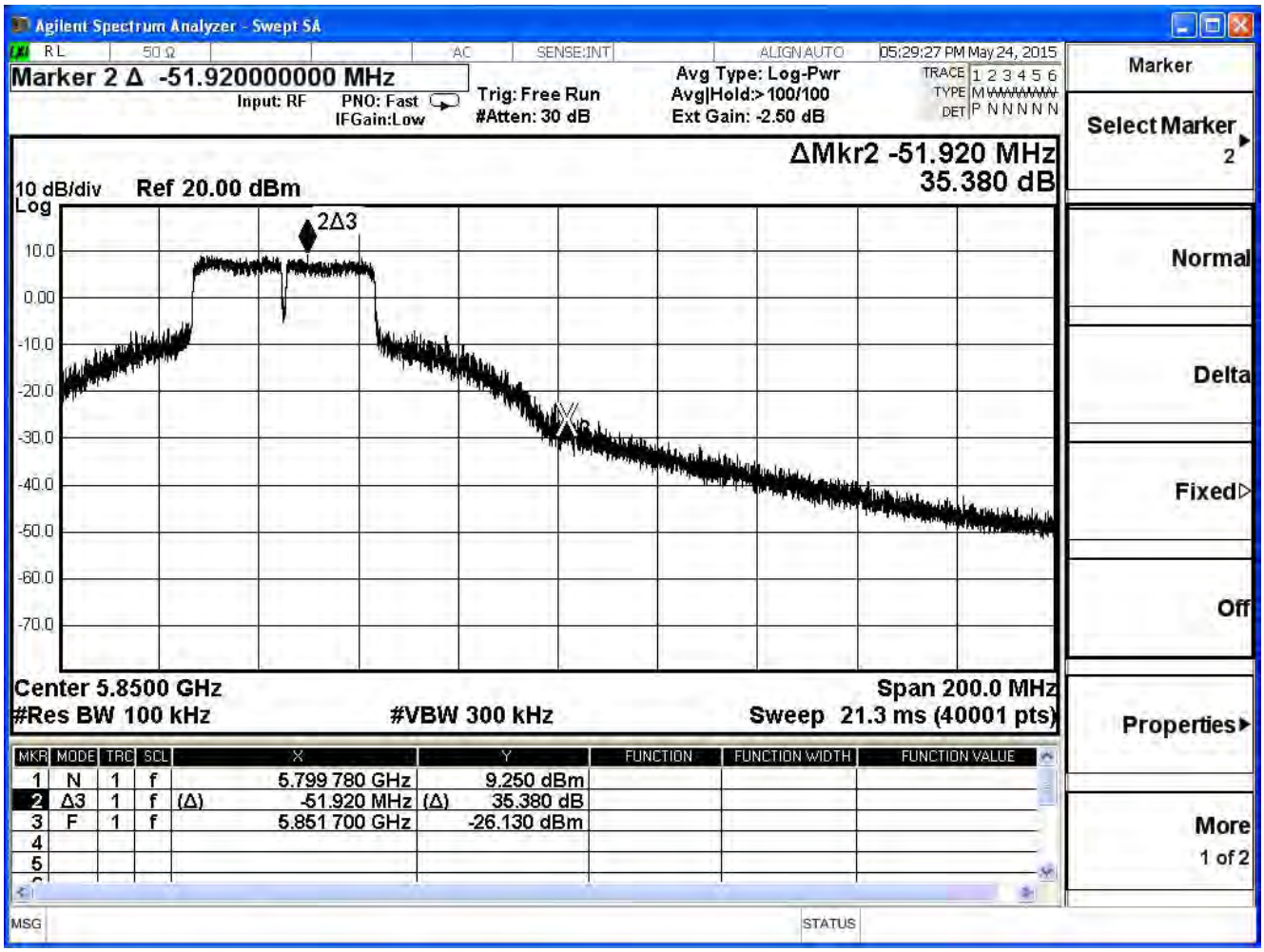
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11n (40MHz), (ANT 1) Antenna Gain: 4.45dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
151	5755	32.506	≧30	Pass
159	5795	35.380	≧30	Pass

Channel 151 (5755MHz)



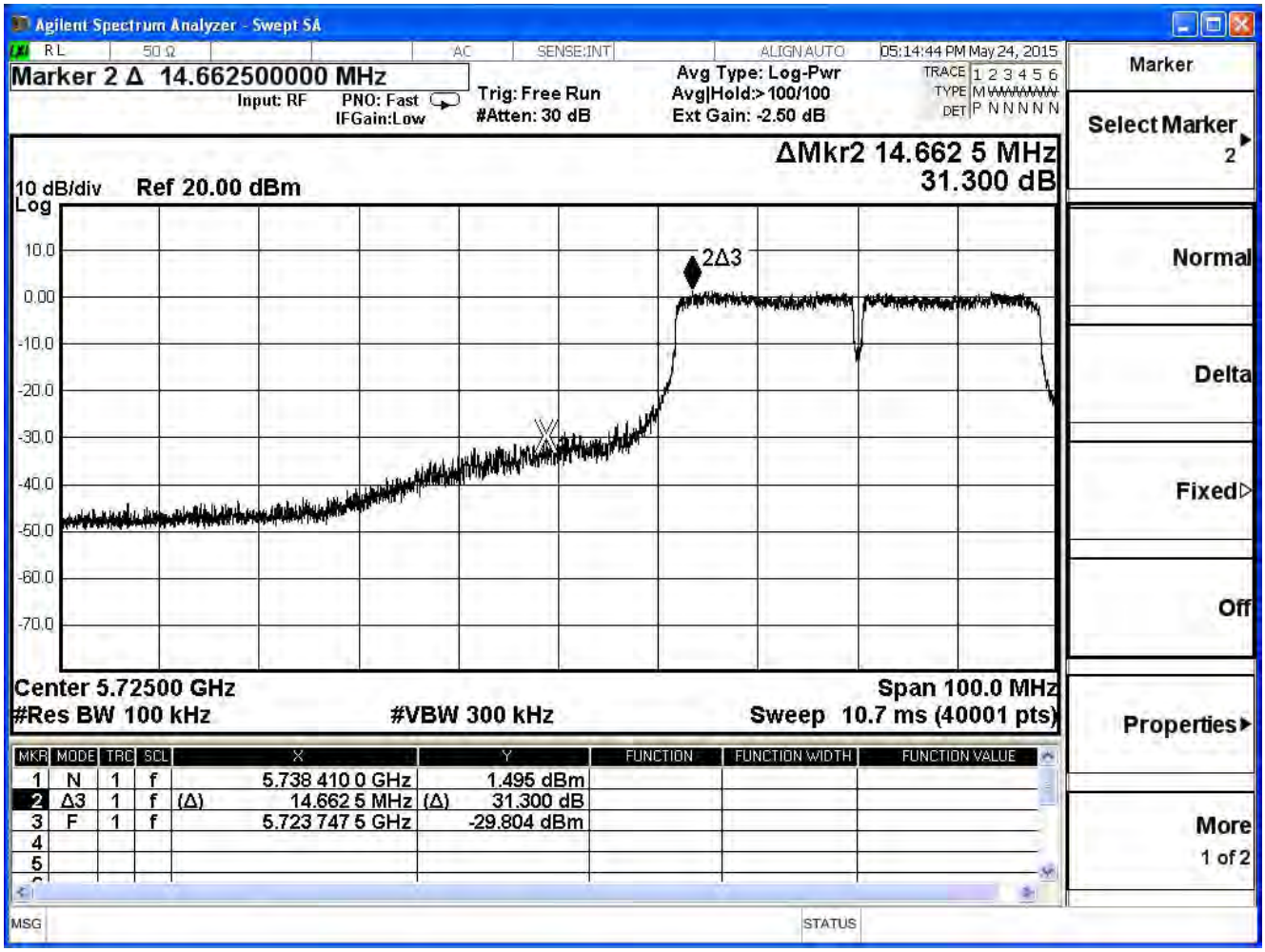
Channel 159 (5795MHz)



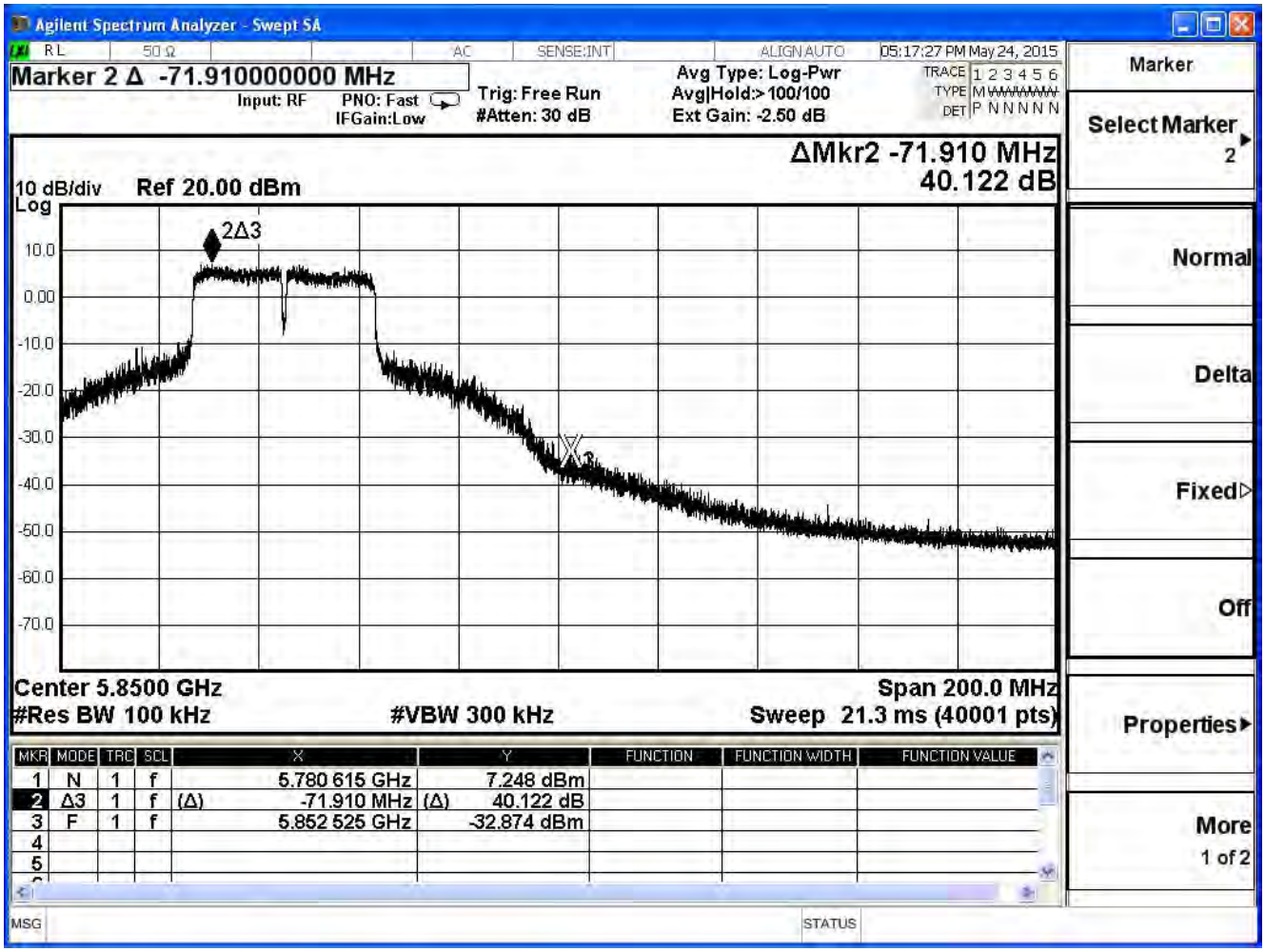
Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11n (40MHz), (ANT 2) Antenna Gain: 3.56dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
151	5755	31.300	≧30	Pass
159	5795	40.122	≧30	Pass

Channel 151 (5755MHz)



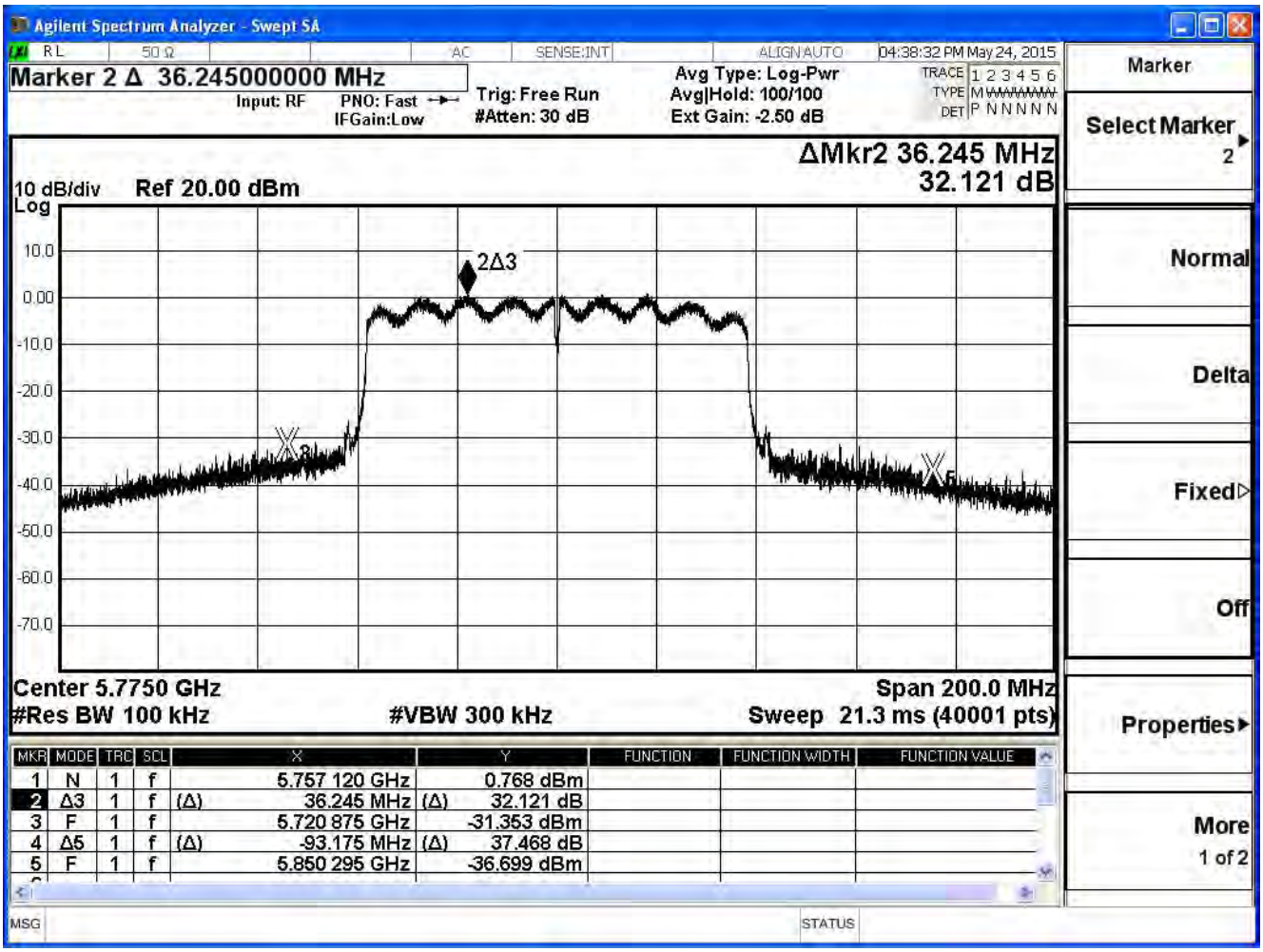
Channel 159 (5795MHz)



Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11ac (80MHz), (ANT 0) Antenna Gain: 4.6dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
155	5775	32.121	≧30	Pass

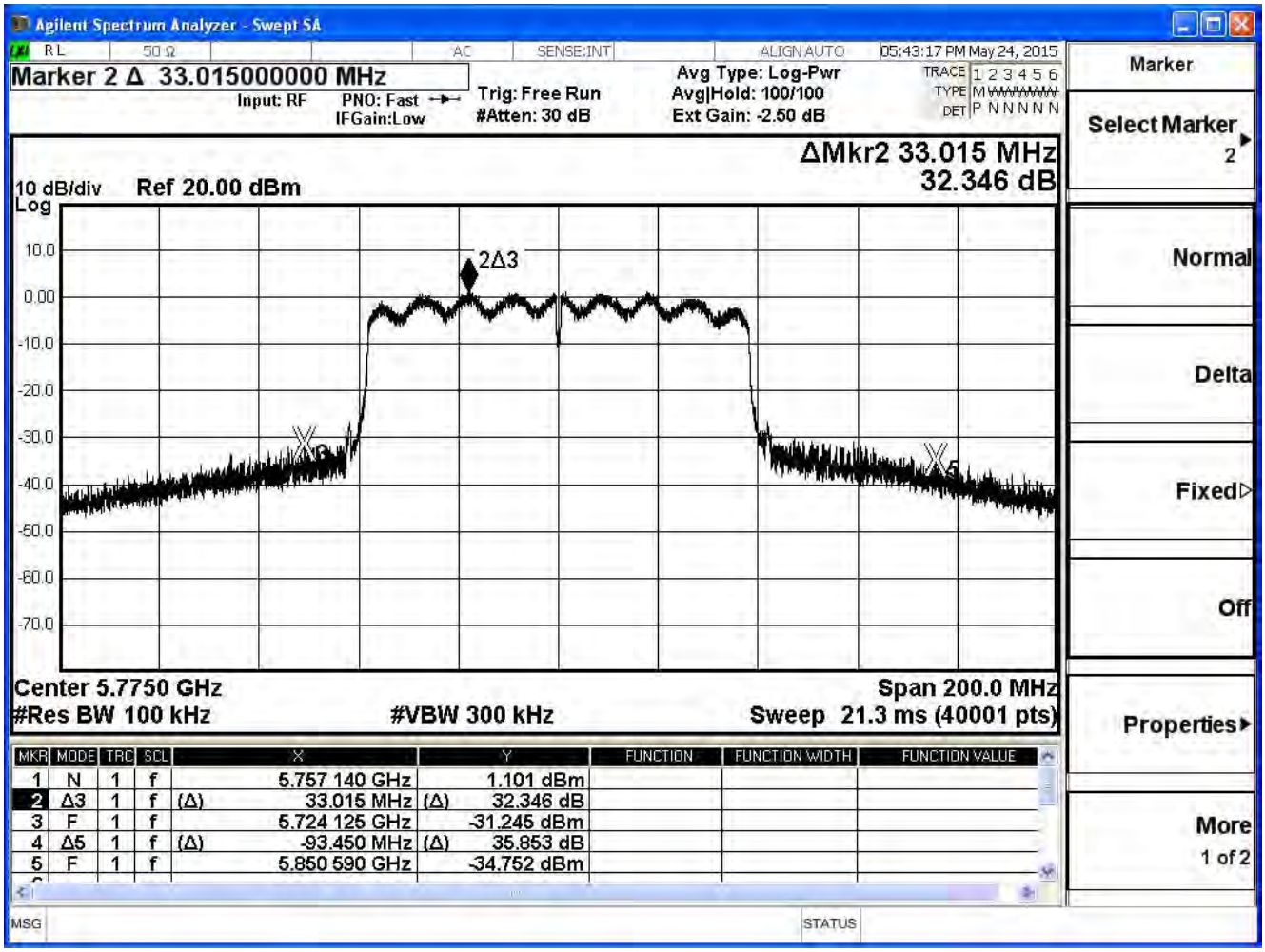
Channel 155 (5775MHz)



Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11ac (80MHz), (ANT 1) Antenna Gain: 4.45dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
155	5775	32.346	≧30	Pass

Channel 155 (5775MHz)



Product	Dual-band Wireless Range Extender		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit		
Date of Test	2015/05/24	Test Site	SR7

IEEE 802.11ac (80MHz), (ANT 2) Antenna Gain: 3.56dBi				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
155	5775	32.635	≧30	Pass

Channel 155 (5775MHz)