

# FCC Test Report

Product Name : Wireless-AC1900 Dual Band Gigabit Router  
Model No. : RT-AC68U, RT-AC68R  
FCC ID. : MSQ-RTAC68U

Applicant : ASUSTeK COMPUTER INC.  
Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan

Date of Receipt : 2013/04/09  
Issued Date : 2013/08/28  
Report No. : 134199R-RFUSP42V01  
Report Version : V1.0



The test results relate only to the samples tested.  
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# Test Report Certification

Issued Date : 2013/08/28


Report No. : 134199R-RFUSP42V01

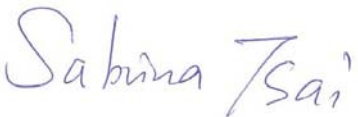



Product Name : Wireless-AC1900 Dual Band Gigabit Router  
 Applicant : ASUSTeK COMPUTER INC.  
 Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan  
 Manufacturer : Askey Technology (Jiangsu) Ltd.  
 Model No. : RT-AC68U, RT-AC68R  
 FCC ID. : MSQ-RTAC68U  
 EUT Voltage : AC 100-240V, 50-60Hz  
 Trade Name : ASUS  
 Applicable Standard : FCC CFR Title 47 Part 15 Subpart C Section 15.247: 2012  
 ANSI C63.4: 2009  
 Test Result : Complied

The test results relate only to the samples tested.

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**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:

<b>Taiwan R.O.C.</b>	<b>:</b>	<b>TAF, Accreditation Number: 1313</b>
<b>USA</b>	<b>:</b>	<b>FCC, Registration Number: 365520</b>
<b>Canada</b>	<b>:</b>	<b>IC, Submission No: 150981</b>

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site:<http://www.quietek.com/tw/ctg/cts/accreditations.htm>

The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : <http://www.quietek.com/>

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## 1. General Information

### 1.1. EUT Description

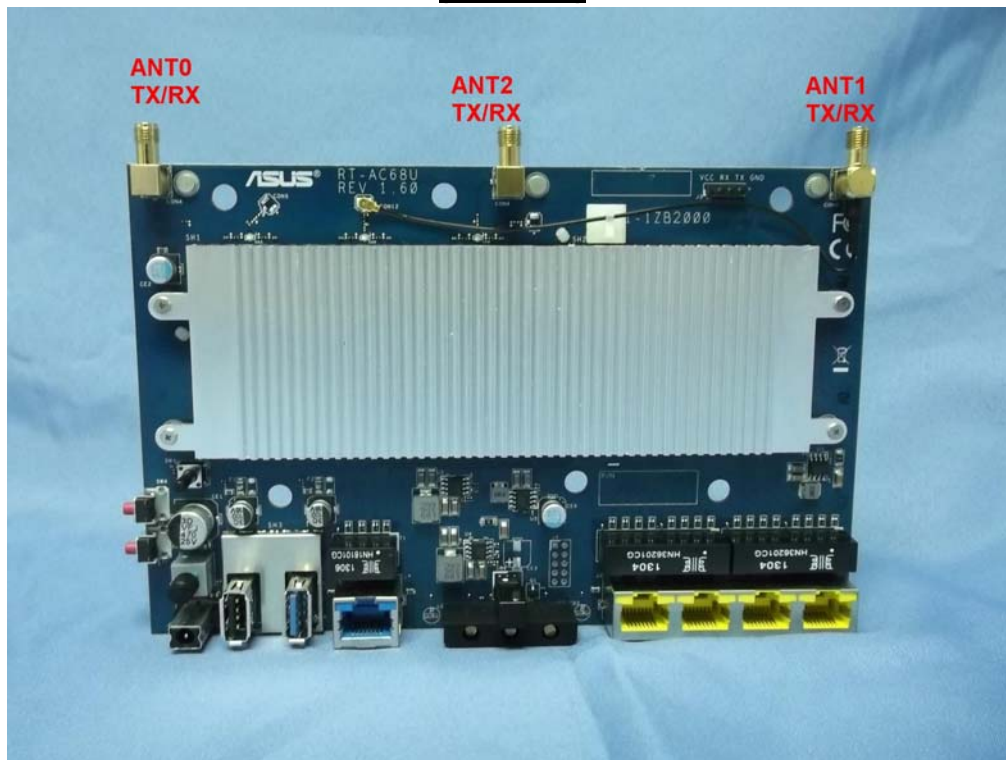
Product Name	Wireless-AC1900 Dual Band Gigabit Router
Product Type	WLAN (3TX, 3RX)
Trade Name	ASUS
Model No.	RT-AC68U, RT-AC68R
Frequency Range/Channel Number -IEEE 802.11b/g & IEEE 802.11n (20MHz)_2.4GHz	2412~2462MHz / 11 Channels
Frequency Range/Channel Number -IEEE 802.11n(40MHz) _2.4GHz	2422~2452MHz / 7 Channels
Frequency Range/Channel Number -IEEE 802.11a & IEEE 802.11n/ac (20MHz)_5.8GHz	5745~5825MHz / 5 Channels
Frequency Range/Channel Number -IEEE 802.11n/ac (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/g/n)	Orthogonal Frequency Division Multiplexing (OFDM)
Data Speed (IEEE 802.11b)	1Mbps, 2Mbps, 5.5Mbps, 11Mbps
Data Speed (IEEE 802.11a/g)	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	WAISIN,RFDPA141000SBLB802 Antenna : 2.4G: Ant0:1.91dBi, Ant1: 1.91dBi, Ant2: 1.91dBi 5G: Ant0: 4.04Bi, Ant1: 4.04dBi, Ant2:4.04dBi MAG.,EDA-1410-25GR2-A1 Antenna : 2.4G: Ant0:1.91dBi, Ant1: 1.91dBi, Ant2: 1.91dBi 5G: Ant0: 4.04Bi, Ant1: 4.04dBi, Ant2:4.04dBi
Beamforming Gain	2.4G: 4.77dB 5G:4.77dB
Antenna Type	Dipole Antenna

Component	
LAN Cable	Non-Shielded, 1.5m
Dipole Antenna	WAISIN,RFDPA141000SBLB802,3pcs
Dipole Antenna	MAG.,EDA-1410-25GR2-A1,3pcs
Power Adapter	Enertronix, EXA1206UH I/P: 100-240V~50/60Hz, 1.0A O/P: 19V $\overline{=}$ 1.75A Cable In: Non-Shielded, 2.4m
Power Adapter	PIE, AD8900326 I/P: 100-240V~50/60Hz, 0.8A O/P: 19V $\overline{=}$ 1.75A Cable In: Non-Shielded, 2.4m

ANT-TX / RX & Bandwidth

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

**(3TX /3RX)**





IEEE 802.11n

MCS Index	Modulation	R	N <sub>BPSCS</sub>	N <sub>CBPS</sub>		N <sub>DBPS</sub>		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI (Note1)	
								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 <sub>BPSCS</sub>	N <sub>CBPS</sub>		N <sub>DBPS</sub>		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI (Note1)	
								20MHz	40MHz	20MHz	40MHz
8	BPSK	1/2	1	104	216	52	108	13.0	27.0	14.4	30.0
9	QPSK	1/2	2	208	432	104	216	26.0	54.0	28.9	60.0
10	QPSK	3/4	2	208	432	156	324	39.0	81.0	43.3	90.0
11	16-QAM	1/2	4	416	864	208	432	52.0	108.0	57.8	120.0
12	16-QAM	3/4	4	416	864	312	648	78.0	162.0	86.7	180.0
13	64-QAM	2/3	6	624	1296	416	864	104.0	216.0	115.6	240.0
14	64-QAM	3/4	6	624	1296	468	972	117.0	243.0	130.0	270.0
15	64-QAM	5/6	6	624	1296	520	1080	130.0	270.0	144.4	300.0

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 2 – MCS parameters for TX Antenna number = 2

MCS Index	Modulation	R	N <sub>BPSCS</sub>	N <sub>CBPS</sub>		N <sub>DBPS</sub>		Data Rate(Mb/s)			
				20MHz	40MHz	20MHz	40MHz	800ns GI		400ns GI (Note1)	
								20MHz	40MHz	20MHz	40MHz
16	BPSK	1/2	1	156	324	78	162	19.5	40.5	21.7	45.0
17	QPSK	1/2	2	312	648	156	324	39.0	81.0	43.3	90.0
18	QPSK	3/4	2	312	648	234	486	58.5	121.5	65.0	135.0
19	16-QAM	1/2	4	624	1296	312	648	78.0	162.0	86.7	180.0
20	16-QAM	3/4	4	624	1296	468	972	117.0	243.0	130.0	270.0
21	64-QAM	2/3	6	936	1944	624	1296	156.0	324.0	173.3	360.0
22	64-QAM	3/4	6	936	1944	702	1458	175.5	364.5	195.0	405.0
23	64-QAM	5/6	6	936	1944	780	1620	195.0	405.0	216.7	450.0

Note 1: Support of 400ns GI is optional on transmit and receive.

Table 3 – MCS parameters for TX Antenna number = 3

Symbol	Explanation
R	Code rate
N <sub>BPSC</sub>	Number of coded bits per single carrier
N <sub>CBPS</sub>	Number of coded bits per symbol
N <sub>DBPS</sub>	Number of data bits per symbol
GI	guard interval

**Draft IEEE 802.11ac Data Rate**

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

IEEE 802.11b/g & IEEE 802.11n (20MHz) - 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 802.11n (40MHz) - 2.4GHz

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
003	2422 MHz	004	2427 MHz	005	2432 MHz	006	2437 MHz
007	2442 MHz	008	2447 MHz	009	2452 MHz		

IEEE 802.11a & IEEE 802.11n/ac (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/ac (40MHz) - 5.8GHz

Working Frequency of Each Channel			
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 Wireless-AC1900 Dual Band Gigabit Router including 2.4GHz b/g/n (3x3) and 5GHz a/n/ac (3x3) transmitting and receiving function.
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart C Paragraph 15.247.
3. Regards to the frequency band operation; the lowest , middle and highest frequency of channel were selected to perform the test, and then shown on this report.
4. The function of the 5.2GHz transmitting is measured and makes a test report of the report number: 134199R-RFUSP46V01.
5. This device is a composite device in accordance with Part 15 regulations. The receiving function receiving was tested and its test report number is 134199R-RFUSP37V02 under Declaration of Conformity.
6. This power index value is only suitable for testing samples, it is not suitable for products of the market sells.

### 1.3. Test Mode

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

TX	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH Mode 2: Transmit (Beamforming Mode)_Adapter: EXA1206UH Mode 3: Transmit (CDD Mode)_Adapter: AD890326
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Test Items	Modulation	Channel	Antenna	Result
Conducted Emission	11n/ac(40MHz)	6	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies
Peak Power Output	a	149/ 157/ 165	0+1+2	Complies
	b/g	1/ 6/ 11	0+1+2	Complies
	11n/ac(20MHz)	1/ 6/ 11/ 149/ 157/ 165	0+1+2	Complies
	11n/ac(40MHz)	3/ 6/ 9/ 151/ 159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies
Radiated Emission	a	149/ 157/ 165	0+1+2	Complies
	b/g	1/ 6/ 11	0+1+2	Complies
	11n/ac(20MHz)	1/ 6/ 11/ 149/ 157/ 165	0+1+2	Complies
	11n/ac(40MHz)	3/ 6/ 9/ 151/ 159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies
RF antenna conducted test	a	149/ 165	0/1/2	Complies
	b/g	1/ 11	0/1/2	Complies
	11n/ac(20MHz)	1/ 11/ 149/ 165	0/1/2	Complies
	11n/ac(40MHz)	3/ 9/ 151/ 159	0/1/2	Complies
	11ac(80MHz)	155	0/1/2	Complies
Radiated Emission Band Edge	a	149/165	0+1+2	Complies
	b/g	1/ 11	0+1+2	Complies
	11n/ac(20MHz)	1/ 11/149/165	0+1+2	Complies
	11n/ac(40MHz)	3/ 9/151/159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies

Test Items	Modulation	Channel	Antenna	Result
Radiated Emission Band Edge	a	149/165	0+1+2	Complies
	b/g	1/ 11	0+1+2	Complies
	11n/ac(20MHz)	1/ 11/149/165	0+1+2	Complies
	11n/ac(40MHz)	3/ 9/151/159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies
Occupied Bandwidth	a	149/ 157/ 165	0/1/2	Complies
	b/g	1/ 6/ 11	0/1/2	Complies
	11n/ac(20MHz)	1/ 6/ 11/ 149/ 157/ 165	0/1/2	Complies
	11n/ac(40MHz)	3/ 6/ 9/ 151/ 159	0/1/2	Complies
	11ac(80MHz)	155	0/1/2	Complies
Power Density	a	149/ 157/ 165	0+1+2	Complies
	b/g	1/ 6/ 11	0+1+2	Complies
	11n/ac(20MHz)	1/ 6/ 11/ 149/ 157/ 165	0+1+2	Complies
	11n/ac(40MHz)	3/ 6/ 9/ 151/ 159	0+1+2	Complies
	11ac(80MHz)	155	0+1+2	Complies

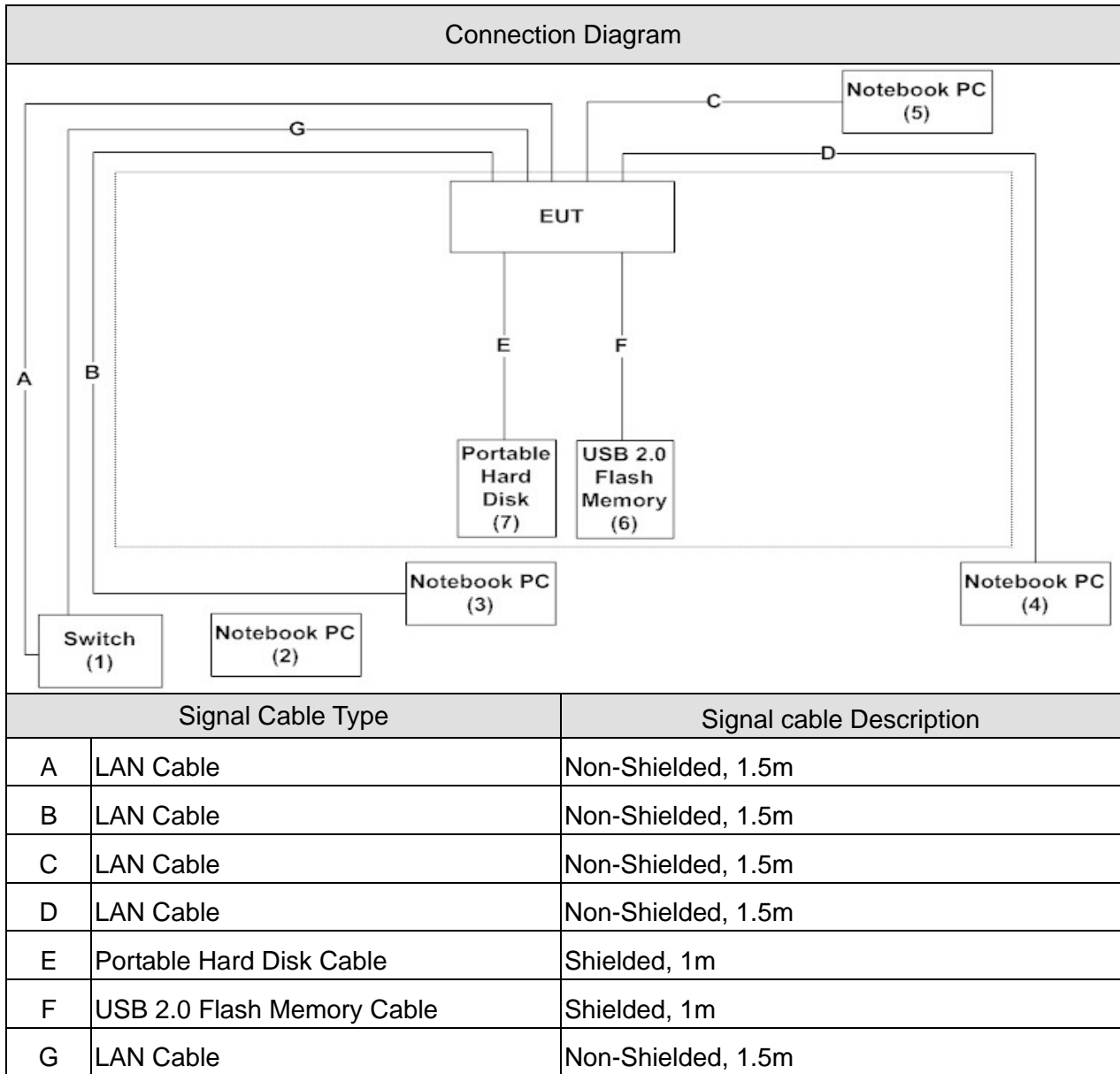
#### 1.4. Tested System Details

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 Switch	D-Link	DGS1216T	F360298000042	DoC	Non-Shielded, 1.8m
2 Notebook PC	DELL	Vostro3400	7F808N1	DoC	Non-Shielded, 1.8m
3 Notebook PC	HP Compaq	NX6320FF	CNU7020BXT	DoC	Non-Shielded, 1.8m
4 Notebook PC	DELL	Precision M65	28G9NIS	DoC	Non-Shielded, 1.8m
5 Notebook PC	DELL	PP37L	CD8BNG1	DoC	Non-Shielded, 1.8m
6 USB 2.0 Flash Memory	Apacer	AH223	N/A	DoC	--
7 Portable Hard Disk	WD	My Passport	WXE1AB0M5632	DoC	--



1.5. Configuration of tested System



1.6. EUT Exercise Software

1	Setup the EUT as shown in Section 1.5.
2	Execute the test program "MTool V2.0.0.7" on the Notebook.
3	Configure the test mode, the test channel, and the data rate.
4	Press "Start TX" to start the continuous transmitting.
5	Verify that the EUT works properly.

## 1.7. 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 (DSSS)	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Radiated Emission (DSSS)	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 RF antenna conducted test (DSSS)	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge (DSSS)	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth (DSSS)	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Power Density (DSSS)	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

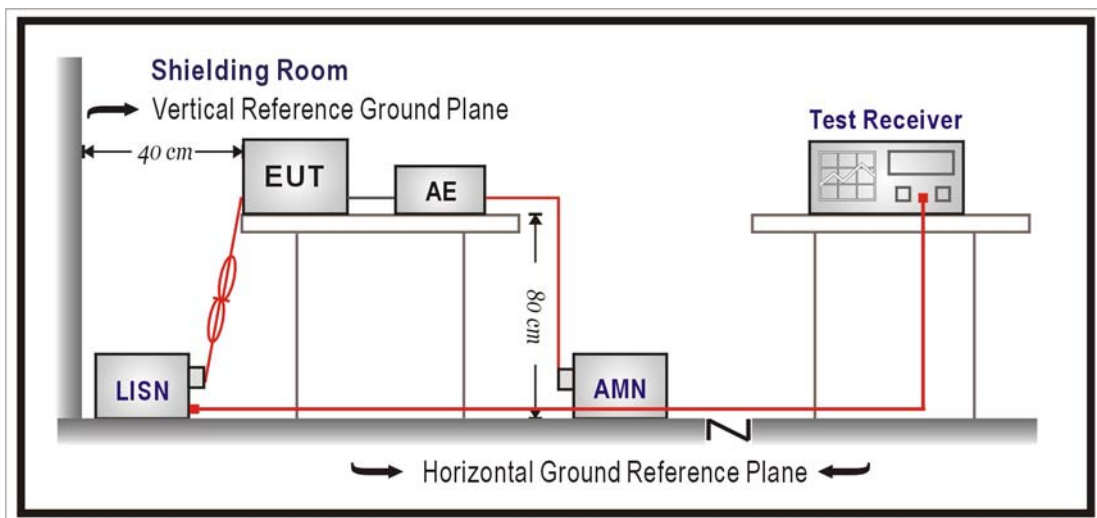
The following test equipments are used during the test:

Conducted Emission / SR3

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

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

2.2. Test Setup



**2.3. Limits**

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

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

**2.4. Test Procedure**

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of Oct. 2012 KDB5580744 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**

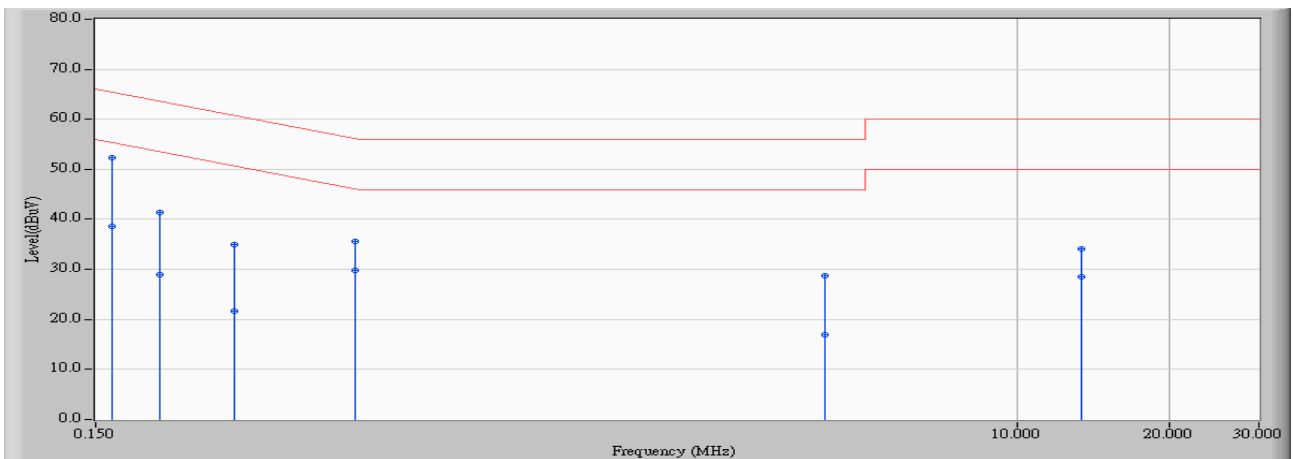
According to FCC Part 15 Subpart C Paragraph 15.207: 2012

**2.6. Uncertainty**

The measurement uncertainty is defined as  $\pm 2.26$  dB.

2.7. Test Result

Site : SR3	Time : 2013/05/01 - 10:01
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line1	Power : AC 120V/60Hz
EUT : Wireless-AC1900 Dual Band Gigabit Router	Note : Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH-2437MHz_802.11n(40M)

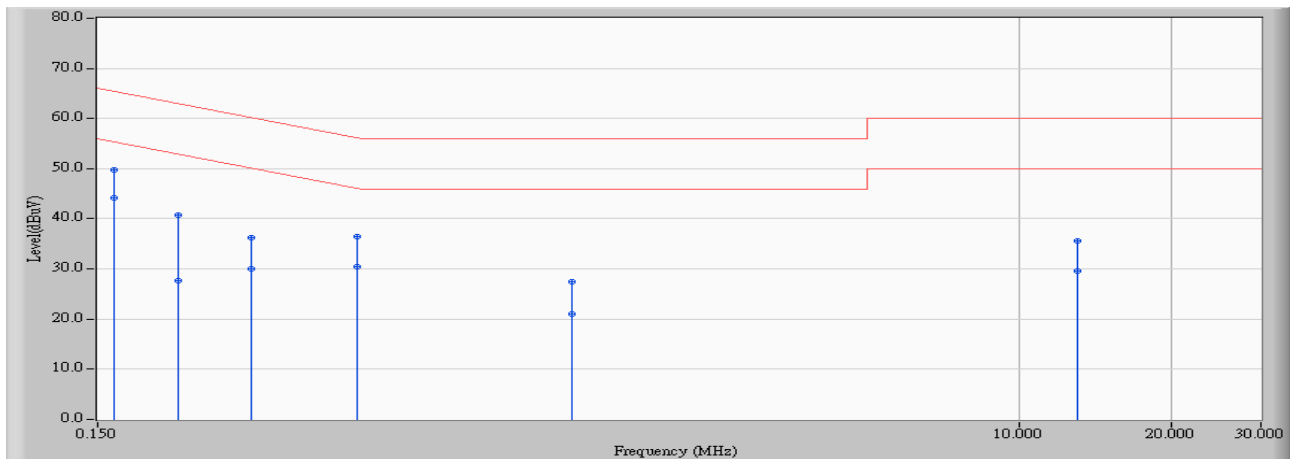


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.162	9.785	42.590	52.375	-13.000	65.375	QUASPEAK
2		0.162	9.785	28.840	38.625	-16.750	55.375	AVERAGE
3		0.201	9.685	31.630	41.315	-22.263	63.578	QUASPEAK
4		0.201	9.685	19.220	28.905	-24.673	53.578	AVERAGE
5		0.283	9.705	25.320	35.025	-25.707	60.733	QUASPEAK
6		0.283	9.705	11.950	21.655	-29.077	50.733	AVERAGE
7		0.490	9.826	25.750	35.575	-20.595	56.170	QUASPEAK
8		0.490	9.826	20.000	29.825	-16.345	46.170	AVERAGE
9		4.142	10.081	18.590	28.671	-27.329	56.000	QUASPEAK
10		4.142	10.081	6.880	16.961	-29.039	46.000	AVERAGE
11		13.384	10.123	24.050	34.173	-25.827	60.000	QUASPEAK
12		13.384	10.123	18.500	28.623	-21.377	50.000	AVERAGE

Note:

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

Site : SR3	Time : 2013/05/01 - 10:06
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line2	Power : AC 120V/60Hz
EUT : Wireless-AC1900 Dual Band Gigabit Router	Note : Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH-2437MHz_802.11n(40M)

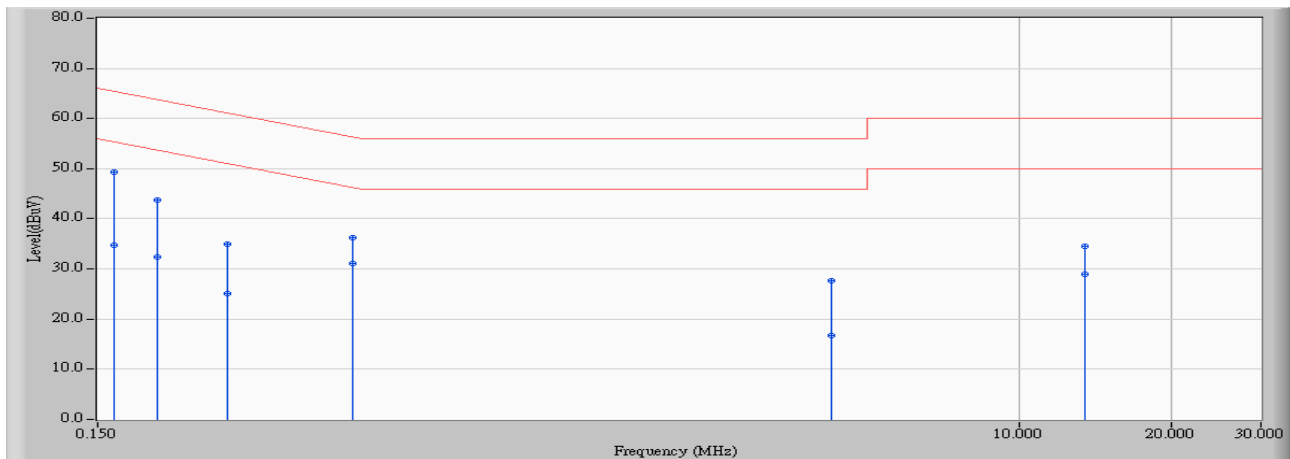


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.162	9.640	40.120	49.760	-15.615	65.375	QUASPEAK
2	*	9.640	34.540	44.180	-11.195	55.375	AVERAGE
3	0.216	9.666	31.070	40.737	-22.219	62.956	QUASPEAK
4	0.216	9.666	18.050	27.717	-25.239	52.956	AVERAGE
5	0.302	9.711	26.520	36.231	-23.947	60.178	QUASPEAK
6	0.302	9.711	20.420	30.131	-20.047	50.178	AVERAGE
7	0.490	9.816	26.710	36.525	-19.645	56.170	QUASPEAK
8	0.490	9.816	20.670	30.485	-15.685	46.170	AVERAGE
9	1.298	9.933	17.520	27.453	-28.547	56.000	QUASPEAK
10	1.298	9.933	11.070	21.003	-24.997	46.000	AVERAGE
11	13.041	10.186	25.340	35.526	-24.474	60.000	QUASPEAK
12	13.041	10.186	19.390	29.576	-20.424	50.000	AVERAGE

**Note:**

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

Site : SR3	Time : 2013/05/01 - 10:10
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line1	Power : AC 120V/60Hz
EUT : Wireless-AC1900 Dual Band Gigabit Router	Note : Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH-5775MHz_802.11ac(80M)

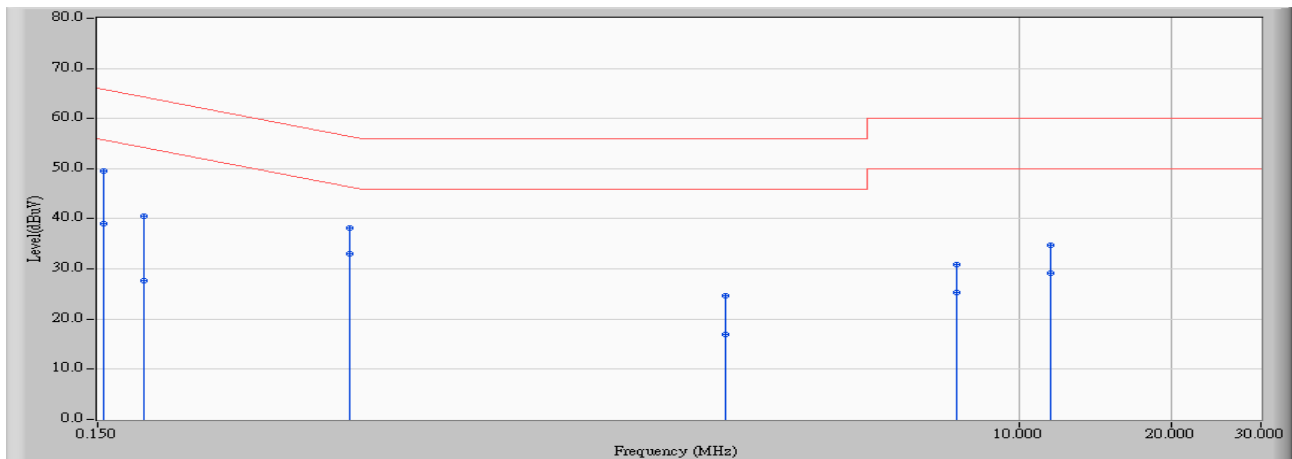


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.162	9.785	39.490	49.275	-16.100	65.375	QUASPEAK
2	0.162	9.785	25.060	34.845	-20.530	55.375	AVERAGE
3	0.197	9.688	34.020	43.709	-20.033	63.741	QUASPEAK
4	0.197	9.688	22.690	32.379	-21.363	53.741	AVERAGE
5	0.271	9.699	25.170	34.869	-26.216	61.084	QUASPEAK
6	0.271	9.699	15.310	25.009	-26.076	51.084	AVERAGE
7	0.478	9.818	26.440	36.258	-20.113	56.372	QUASPEAK
8	* 0.478	9.818	21.360	31.178	-15.193	46.372	AVERAGE
9	4.252	10.085	17.570	27.655	-28.345	56.000	QUASPEAK
10	4.252	10.085	6.540	16.625	-29.375	46.000	AVERAGE
11	13.416	10.124	24.340	34.464	-25.536	60.000	QUASPEAK
12	13.416	10.124	18.800	28.924	-21.076	50.000	AVERAGE

**Note:**

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

Site : SR3	Time : 2013/05/01 - 10:12
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line2	Power : AC 120V/60Hz
EUT : Wireless-AC1900 Dual Band Gigabit Router	Note : Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH-5775MHz_802.11ac(80M)



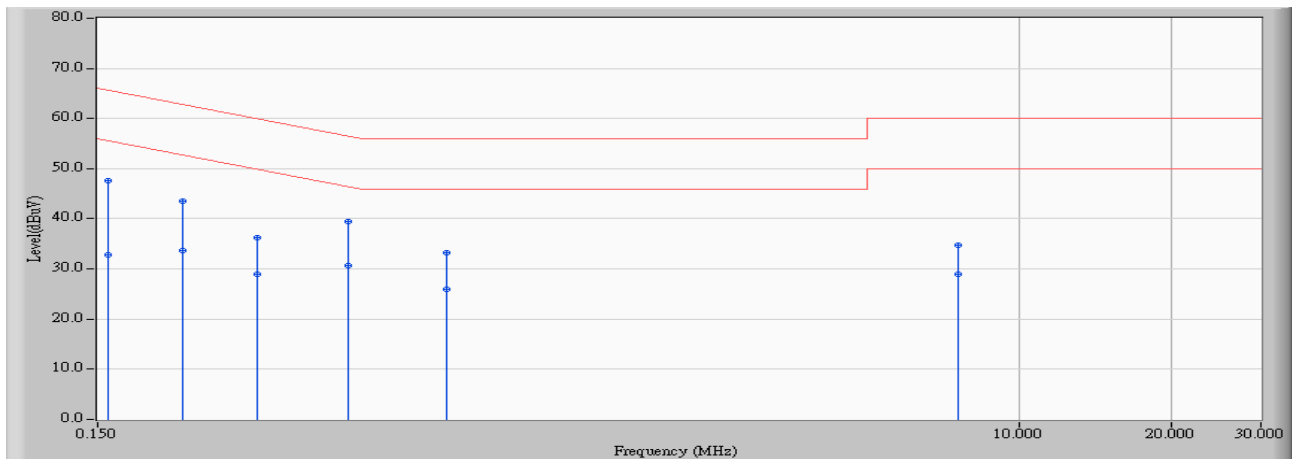
	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.154	9.639	39.820	49.459	-16.328	65.786	QUASPEAK
2	0.154	9.639	29.340	38.979	-16.808	55.786	AVERAGE
3	0.185	9.652	30.870	40.521	-23.730	64.251	QUASPEAK
4	0.185	9.652	17.990	27.641	-26.610	54.251	AVERAGE
5	0.474	9.806	28.430	38.236	-18.204	56.440	QUASPEAK
6	*	9.806	23.140	32.946	-13.494	46.440	AVERAGE
7	2.615	9.966	14.760	24.727	-31.273	56.000	QUASPEAK
8	2.615	9.966	6.940	16.907	-29.093	46.000	AVERAGE
9	7.513	10.113	20.770	30.883	-29.117	60.000	QUASPEAK
10	7.513	10.113	15.180	25.293	-24.707	50.000	AVERAGE
11	11.545	10.169	24.660	34.829	-25.171	60.000	QUASPEAK
12	11.545	10.169	19.010	29.179	-20.821	50.000	AVERAGE

**Note:**

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



Site : SR3	Time : 2013/05/01 - 10:42
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line1	Power : AC 120V/60Hz
EUT : Wireless-AC1900 Dual Band Gigabit Router	Note : Mode 3: Transmit (CDD Mode)_Adapter: AD890326-2437MHz_802.11n(40M)

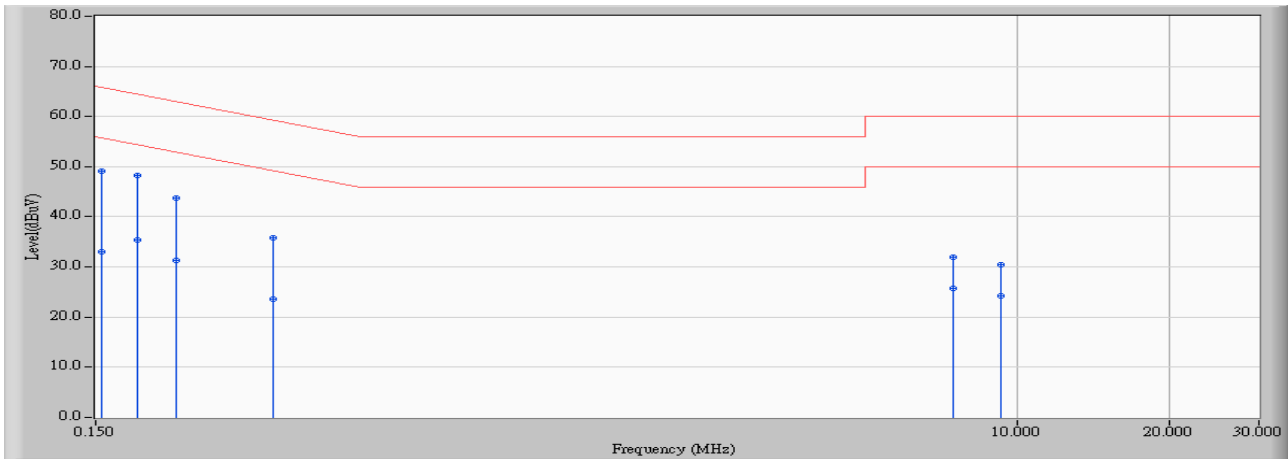


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.158	9.799	37.760	47.559	-18.019	65.578	QUASPEAK
2	0.158	9.799	22.950	32.749	-22.829	55.578	AVERAGE
3	0.220	9.670	33.950	43.620	-19.188	62.807	QUASPEAK
4	0.220	9.670	23.900	33.570	-19.238	52.807	AVERAGE
5	0.310	9.721	26.550	36.271	-23.695	59.966	QUASPEAK
6	0.310	9.721	19.160	28.881	-21.085	49.966	AVERAGE
7	0.470	9.813	29.720	39.534	-16.975	56.508	QUASPEAK
8	* 0.470	9.813	20.770	30.584	-15.925	46.508	AVERAGE
9	0.736	9.883	23.380	33.263	-22.737	56.000	QUASPEAK
10	0.736	9.883	16.090	25.973	-20.027	46.000	AVERAGE
11	7.537	10.110	24.600	34.710	-25.290	60.000	QUASPEAK
12	7.537	10.110	18.760	28.870	-21.130	50.000	AVERAGE

**Note:**

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

Site : SR3	Time : 2013/05/01 - 10:44
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line2	Power : AC 120V/60Hz
EUT : Wireless-AC1900 Dual Band Gigabit Router	Note : Mode 3: Transmit (CDD Mode)_Adapter: AD890326-2437MHz_802.11n(40M)

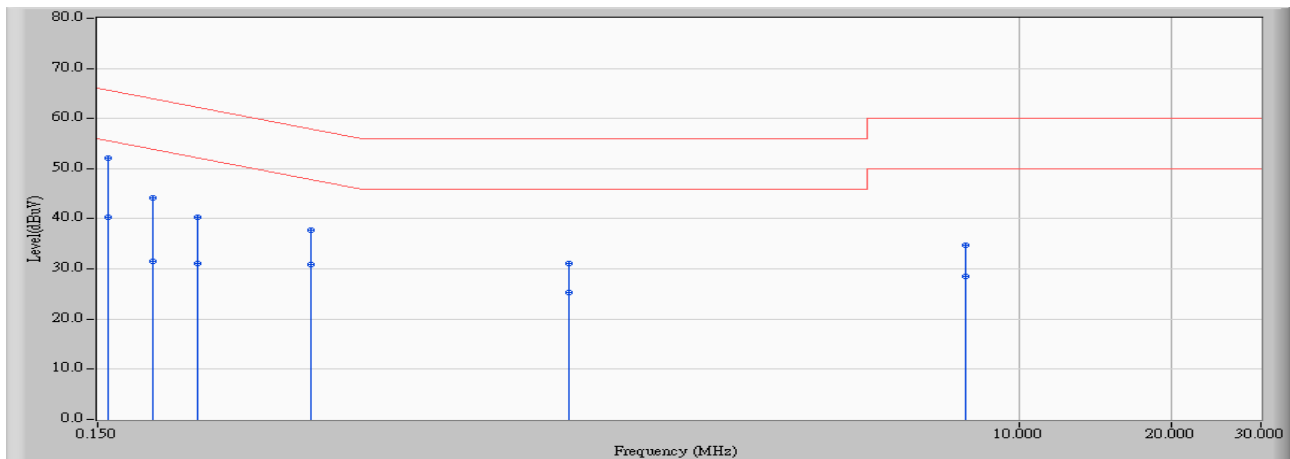


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.154	9.639	39.410	49.049	-16.738	65.786	QUASPEAK
2	0.154	9.639	23.490	33.129	-22.658	55.786	AVERAGE
3	* 0.181	9.649	38.710	48.359	-16.069	64.428	QUASPEAK
4	0.181	9.649	25.750	35.399	-19.029	54.428	AVERAGE
5	0.216	9.666	34.090	43.757	-19.199	62.956	QUASPEAK
6	0.216	9.666	21.650	31.317	-21.639	52.956	AVERAGE
7	0.338	9.730	25.990	35.720	-23.545	59.265	QUASPEAK
8	0.338	9.730	13.790	23.520	-25.745	49.265	AVERAGE
9	7.447	10.112	21.860	31.972	-28.028	60.000	QUASPEAK
10	7.447	10.112	15.670	25.782	-24.218	50.000	AVERAGE
11	9.263	10.139	20.330	30.469	-29.531	60.000	QUASPEAK
12	9.263	10.139	14.120	24.259	-25.741	50.000	AVERAGE

**Note:**

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

Site : SR3	Time : 2013/05/01 - 10:46
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line1	Power : AC 120V/60Hz
EUT : Wireless-AC1900 Dual Band Gigabit Router	Note : Mode 3: Transmit (CDD Mode)_Adapter: AD890326-5775MHz_802.11ac(80M)

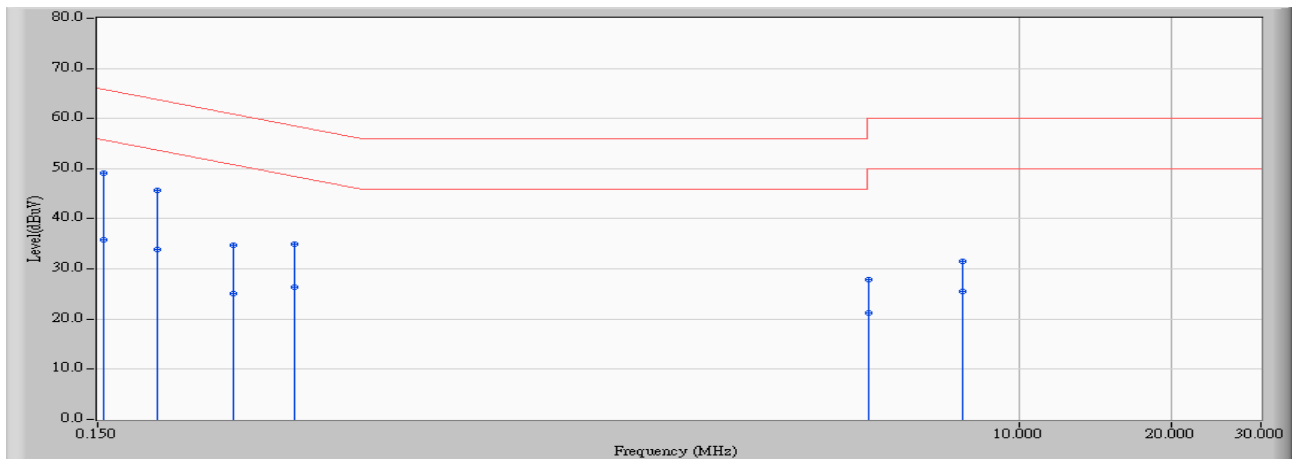


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.158	9.799	42.290	52.089	-13.489	65.578	QUASPEAK
2		0.158	9.799	30.480	40.279	-15.299	55.578	AVERAGE
3		0.193	9.692	34.430	44.122	-19.786	63.908	QUASPEAK
4		0.193	9.692	21.770	31.462	-22.446	53.908	AVERAGE
5		0.236	9.679	30.750	40.429	-21.809	62.238	QUASPEAK
6		0.236	9.679	21.460	31.139	-21.099	52.238	AVERAGE
7		0.396	9.770	27.920	37.690	-20.245	57.935	QUASPEAK
8		0.396	9.770	21.040	30.810	-17.125	47.935	AVERAGE
9		1.279	9.946	21.070	31.016	-24.984	56.000	QUASPEAK
10		1.279	9.946	15.360	25.306	-20.694	46.000	AVERAGE
11		7.798	10.110	24.530	34.640	-25.360	60.000	QUASPEAK
12		7.798	10.110	18.490	28.600	-21.400	50.000	AVERAGE

**Note:**

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

Site : SR3	Time : 2013/05/01 - 10:48
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line2	Power : AC 120V/60Hz
EUT : Wireless-AC1900 Dual Band Gigabit Router	Note : Mode 3: Transmit (CDD Mode)_Adapter: AD890326-5775MHz_802.11ac(80M)



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.154	9.639	39.530	49.169	-16.618	65.786	QUASPEAK
2		0.154	9.639	26.210	35.849	-19.938	55.786	AVERAGE
3		0.197	9.657	36.100	45.757	-17.984	63.741	QUASPEAK
4		0.197	9.657	24.290	33.947	-19.794	53.741	AVERAGE
5		0.279	9.699	25.140	34.839	-26.009	60.848	QUASPEAK
6		0.279	9.699	15.300	24.999	-25.849	50.848	AVERAGE
7		0.369	9.746	25.240	34.986	-23.543	58.529	QUASPEAK
8		0.369	9.746	16.600	26.346	-22.183	48.529	AVERAGE
9		5.037	10.076	17.720	27.796	-32.204	60.000	QUASPEAK
10		5.037	10.076	11.110	21.186	-28.814	50.000	AVERAGE
11		7.685	10.115	21.460	31.575	-28.425	60.000	QUASPEAK
12		7.685	10.115	15.370	25.485	-24.515	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**

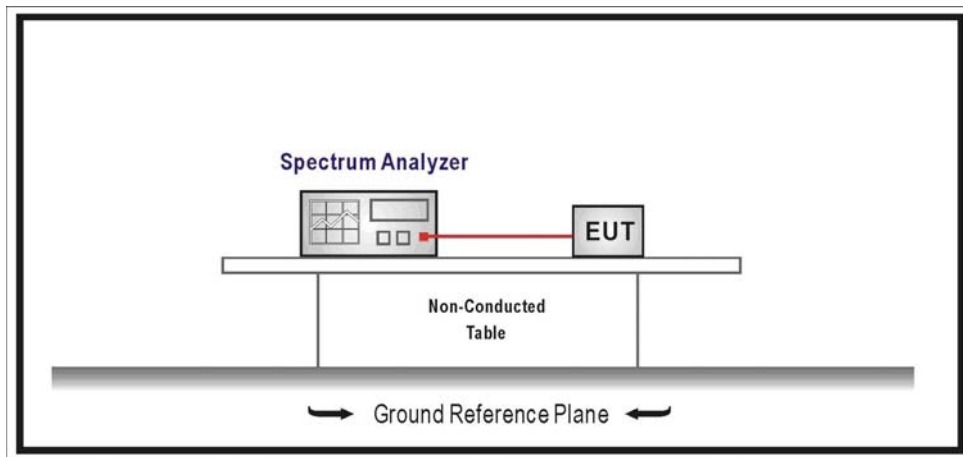
The following test equipments are used during the test:

Peak Power / SR7

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

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

**3.2. Test Setup**



**3.3. Test procedures**

The EUT was tested according to DTS test procedure of Oct. 2012 KDB5580744, Section 8.2.1 Measurement Procedure PK2 for compliance 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: 2012

**3.6. Uncertainty**

The measurement uncertainty is defined as  $\pm 1.27$  dB.

**3.7. Test Result**

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

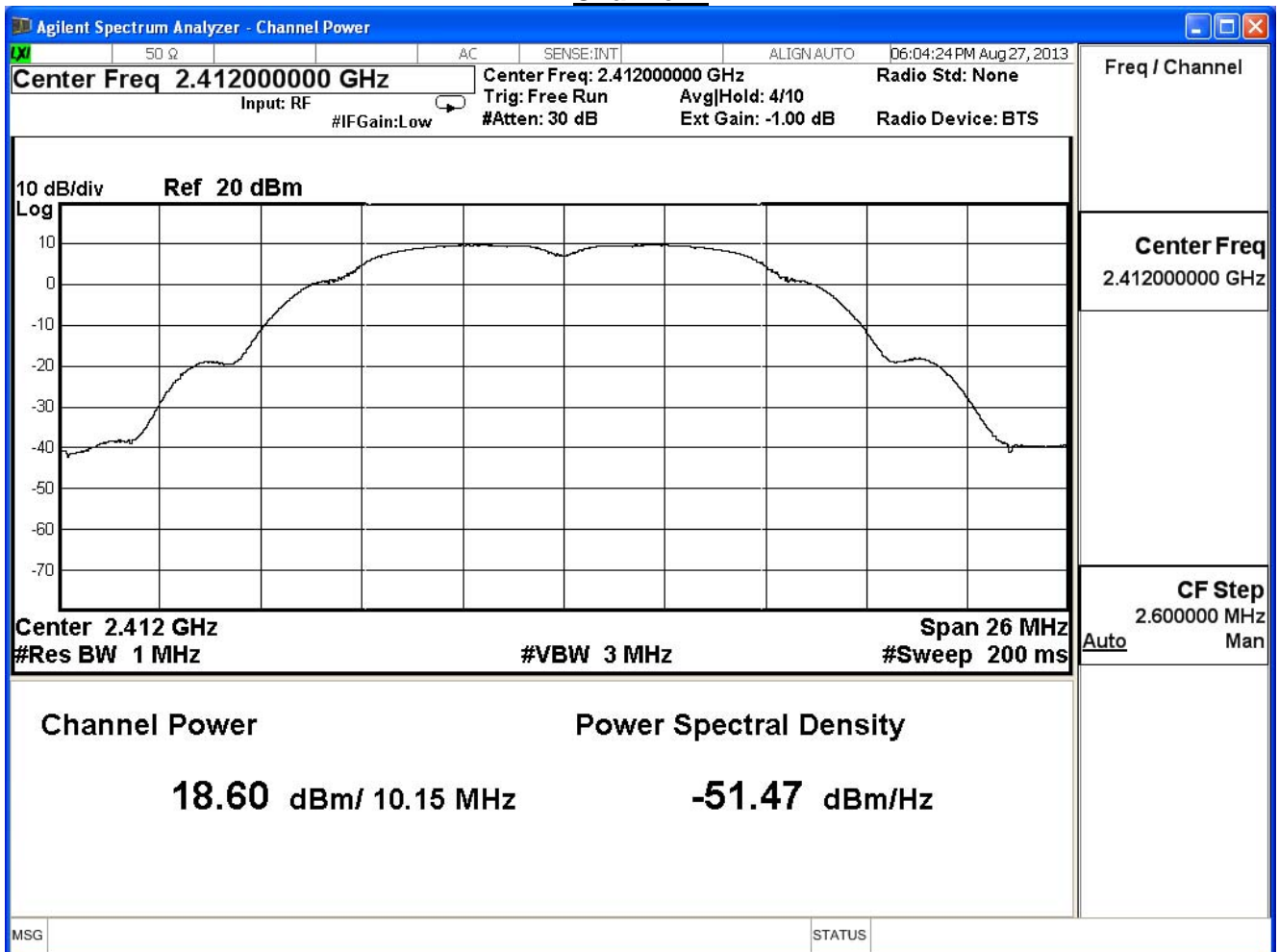
IEEE 802.11b (ANT0) , power index: ch1:78, ch6:80, ch11:86				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	18.60	≤ 30	Pass
6	2437	19.72	≤ 30	Pass
11	2462	20.98	≤ 30	Pass

The worst emission of data rate is 1Mbps.

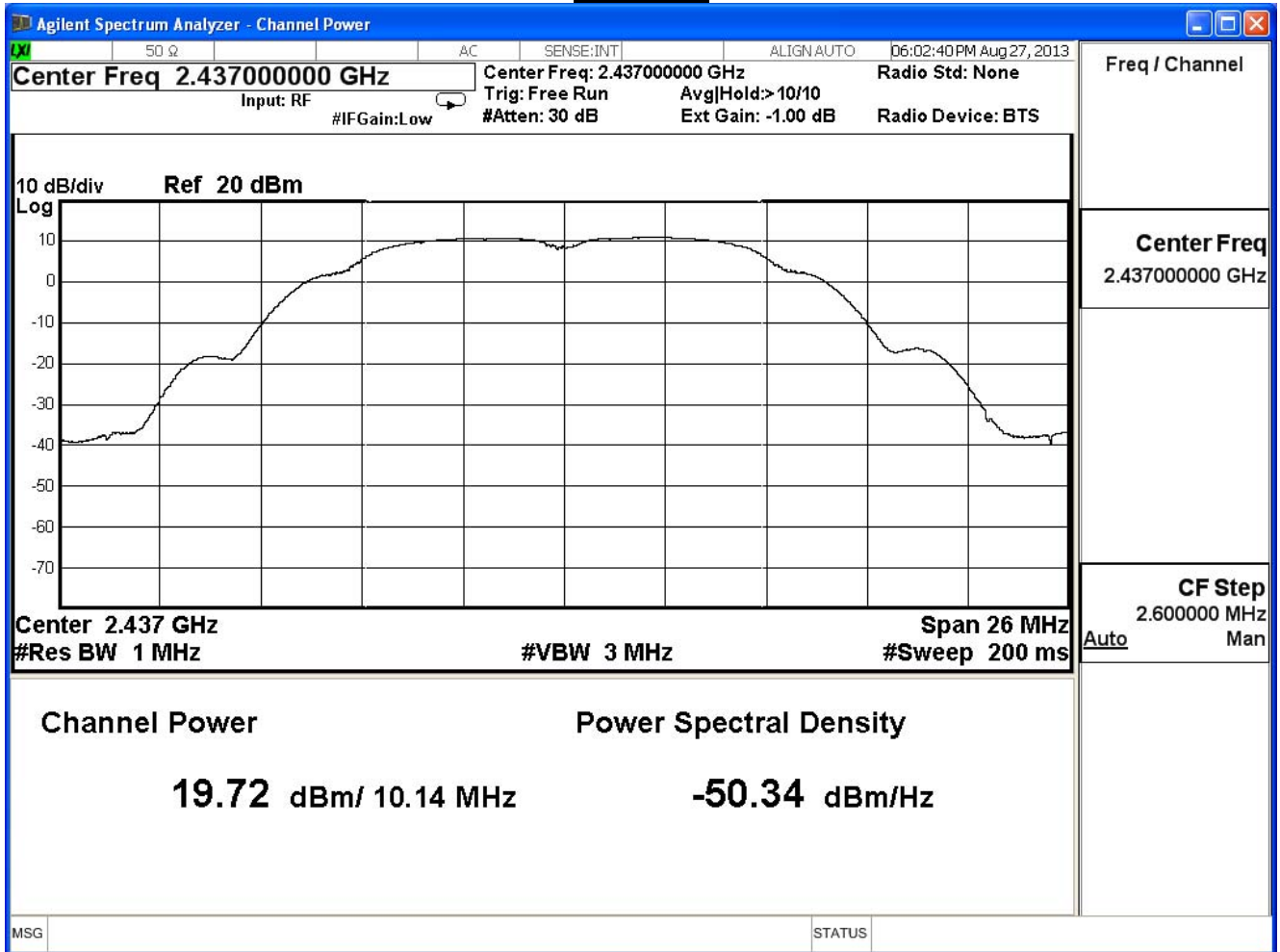
Peak Power Output Value (dBm)						
Channel No.	Frequency (MHz)	Data Rate				Required Limit
		1	2	5.5	11	
1	2412	18.60	--	--	--	30 dBm
6	2437	19.72	19.52	19.40	19.29	30 dBm
11	2462	20.98	--	--	--	30 dBm

Note: Measure Level =Reading value + cable loss

## Channel 1

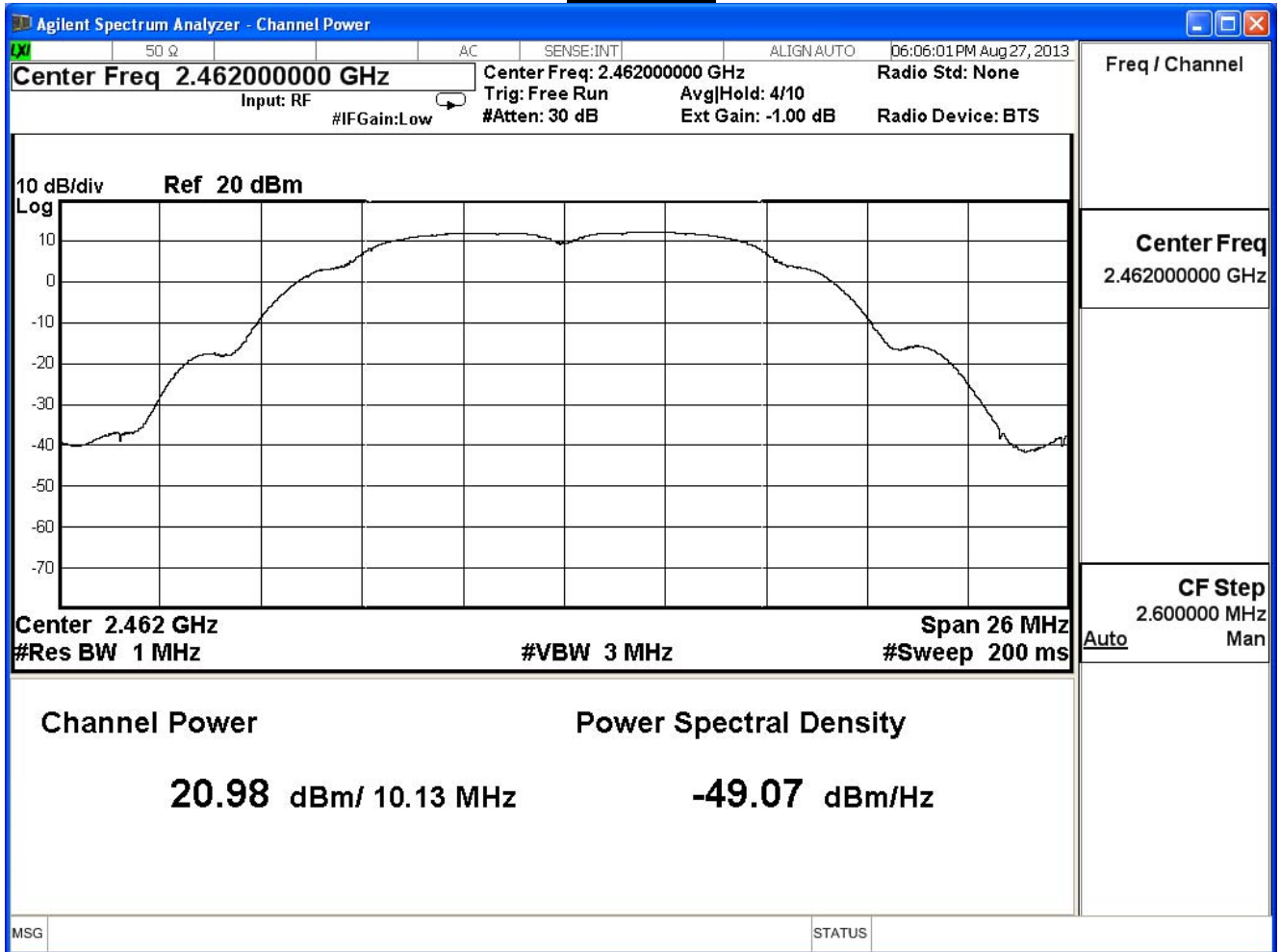


Channel 6





Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

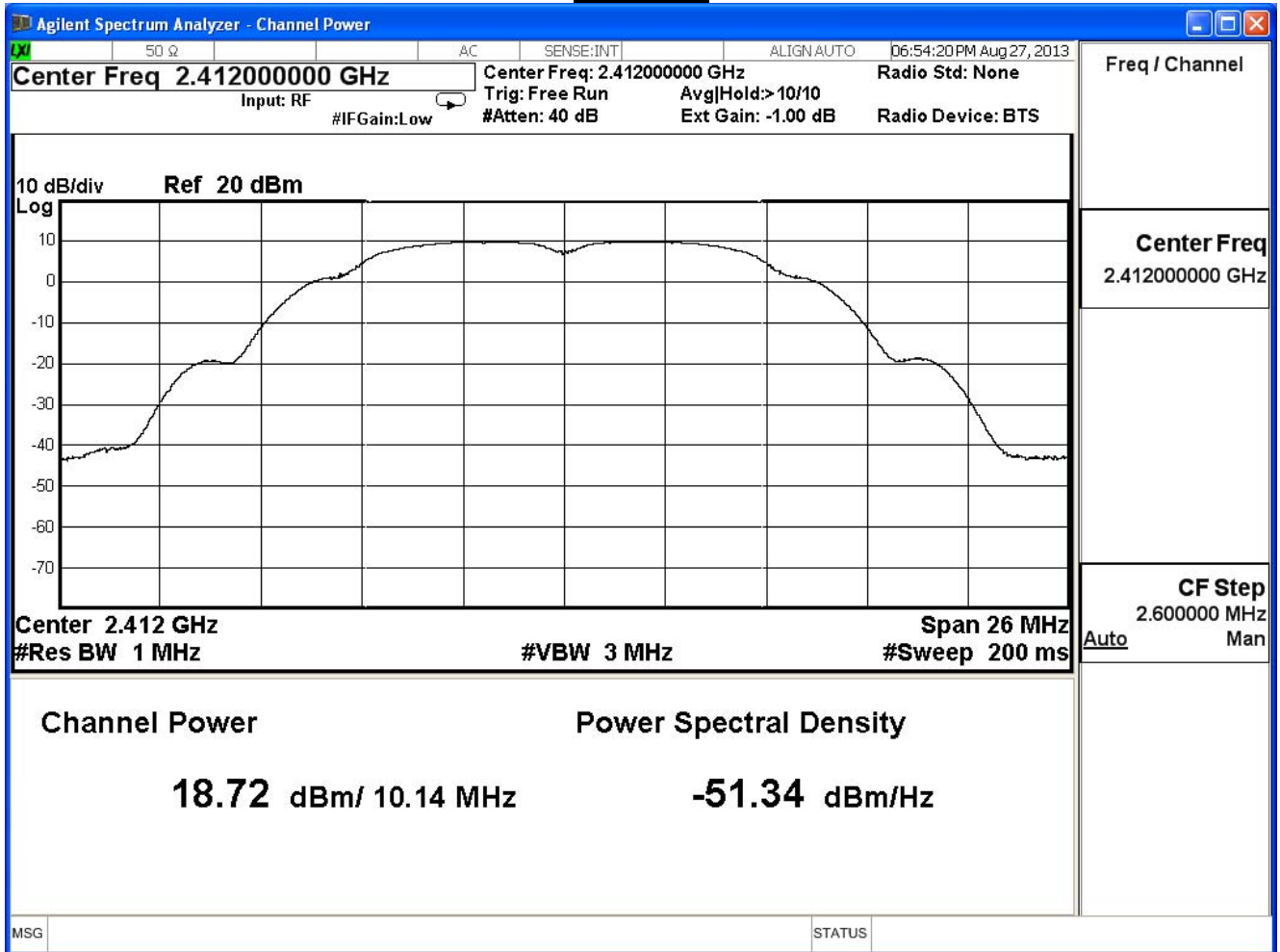
IEEE 802.11b (ANT1) , power index: ch1:78, ch6:80, ch11:86				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	18.72	≤ 30	Pass
6	2437	18.83	≤ 30	Pass
11	2462	20.16	≤ 30	Pass

The worst emission of data rate is 1Mbps.

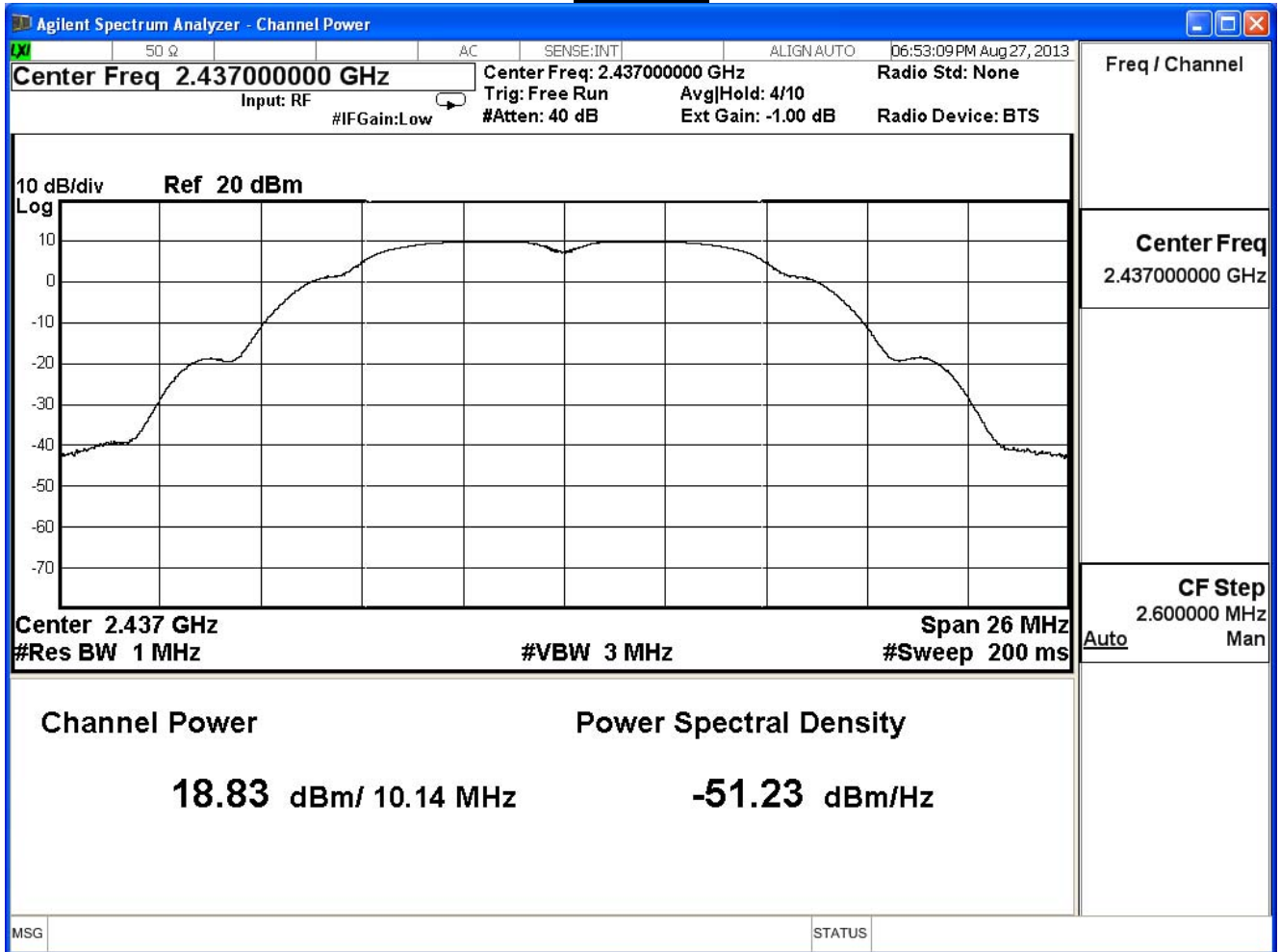
Peak Power Output Value (dBm)						
Channel No.	Frequency (MHz)	Data Rate				Required Limit
		1	2	5.5	11	
1	2412	18.72	--	--	--	30 dBm
6	2437	18.83	18.73	18.49	18.38	30 dBm
11	2462	20.16	--	--	--	30 dBm

Note: Measure Level =Reading value + cable loss

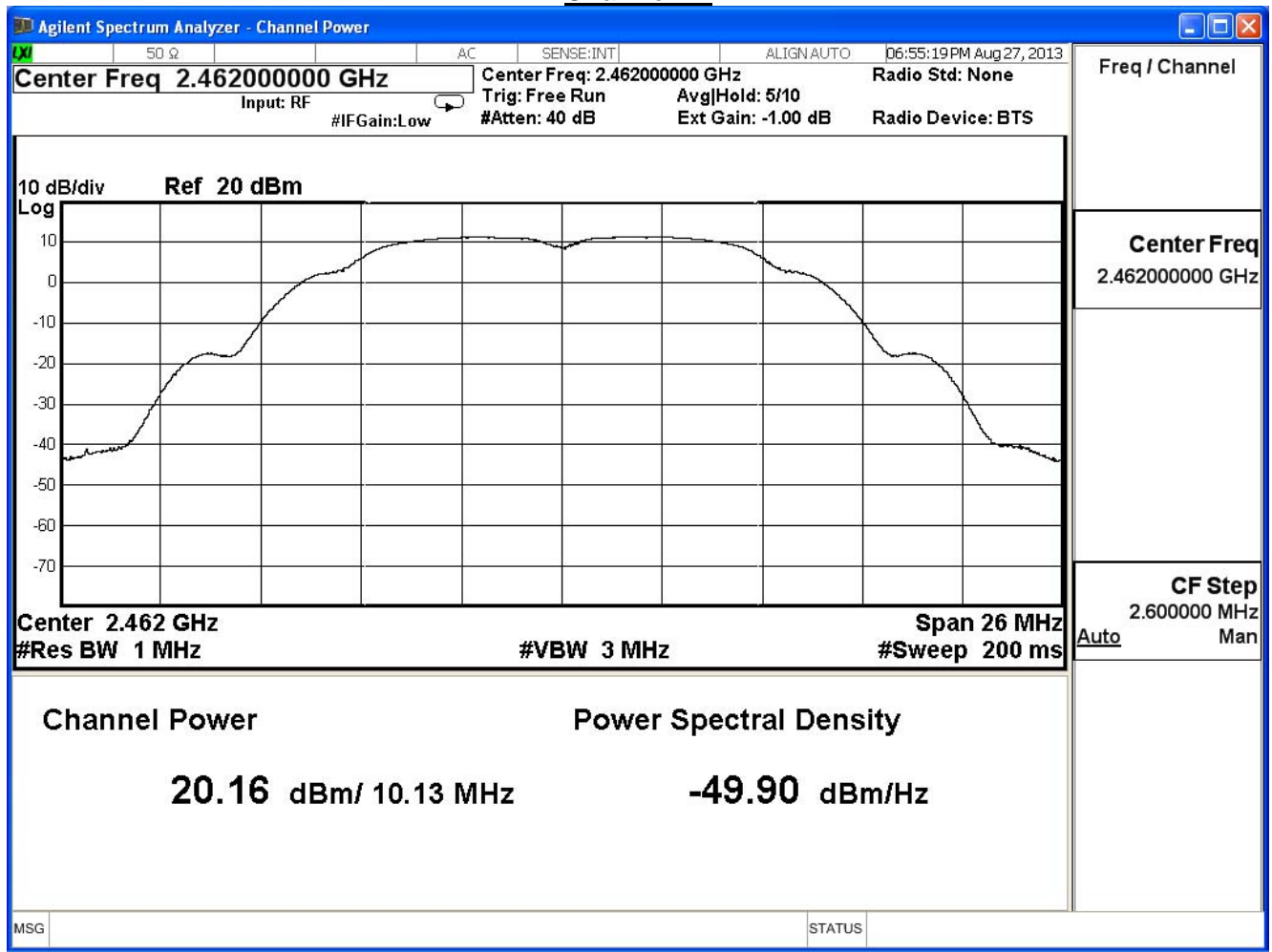
## Channel 1



Channel 6



## Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

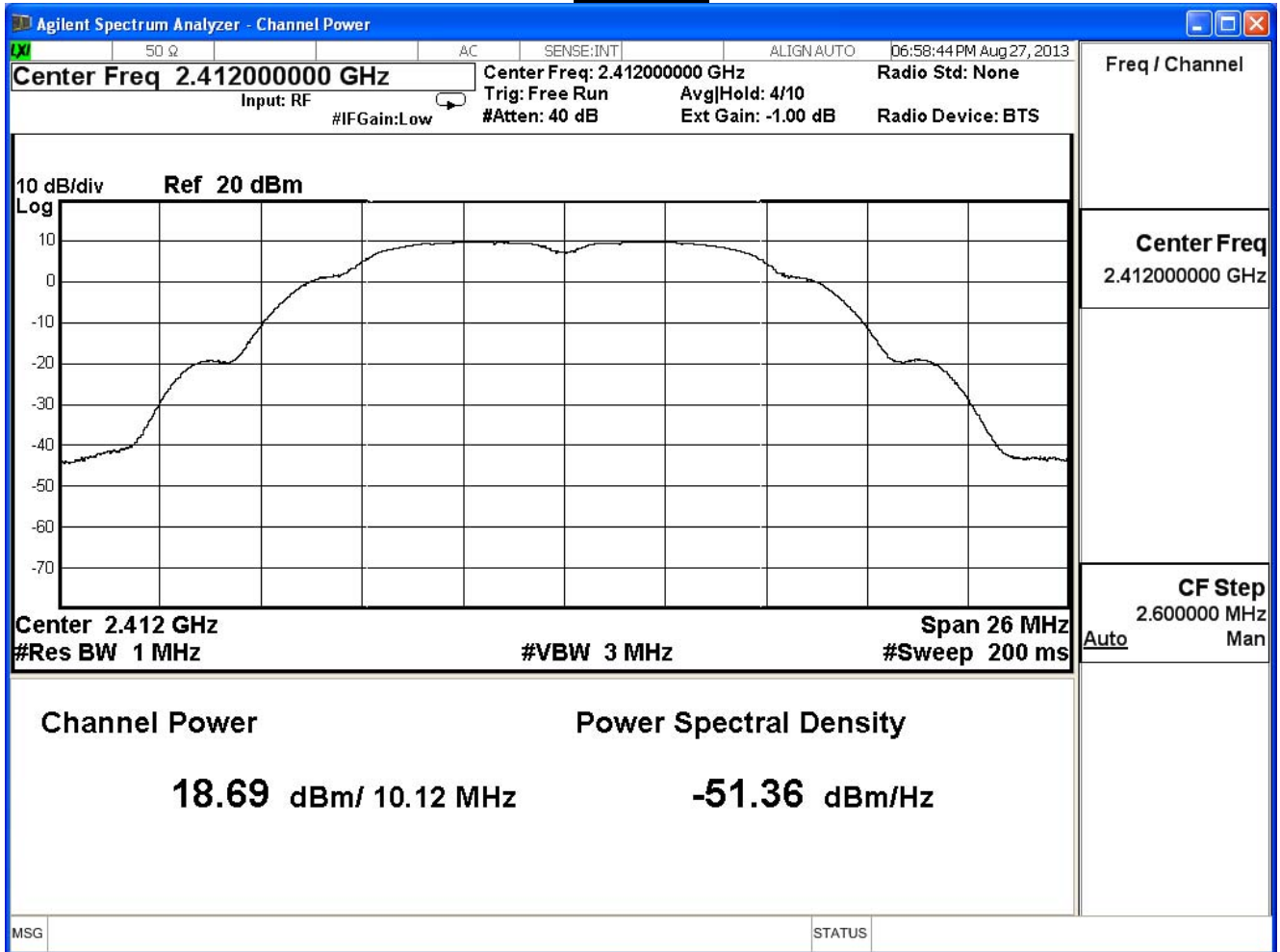
IEEE 802.11b (ANT2) , power index: ch1:78, ch6:80, ch11:86				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	18.69	≤ 30	Pass
6	2437	18.82	≤ 30	Pass
11	2462	20.41	≤ 30	Pass

The worst emission of data rate is 1Mbps.

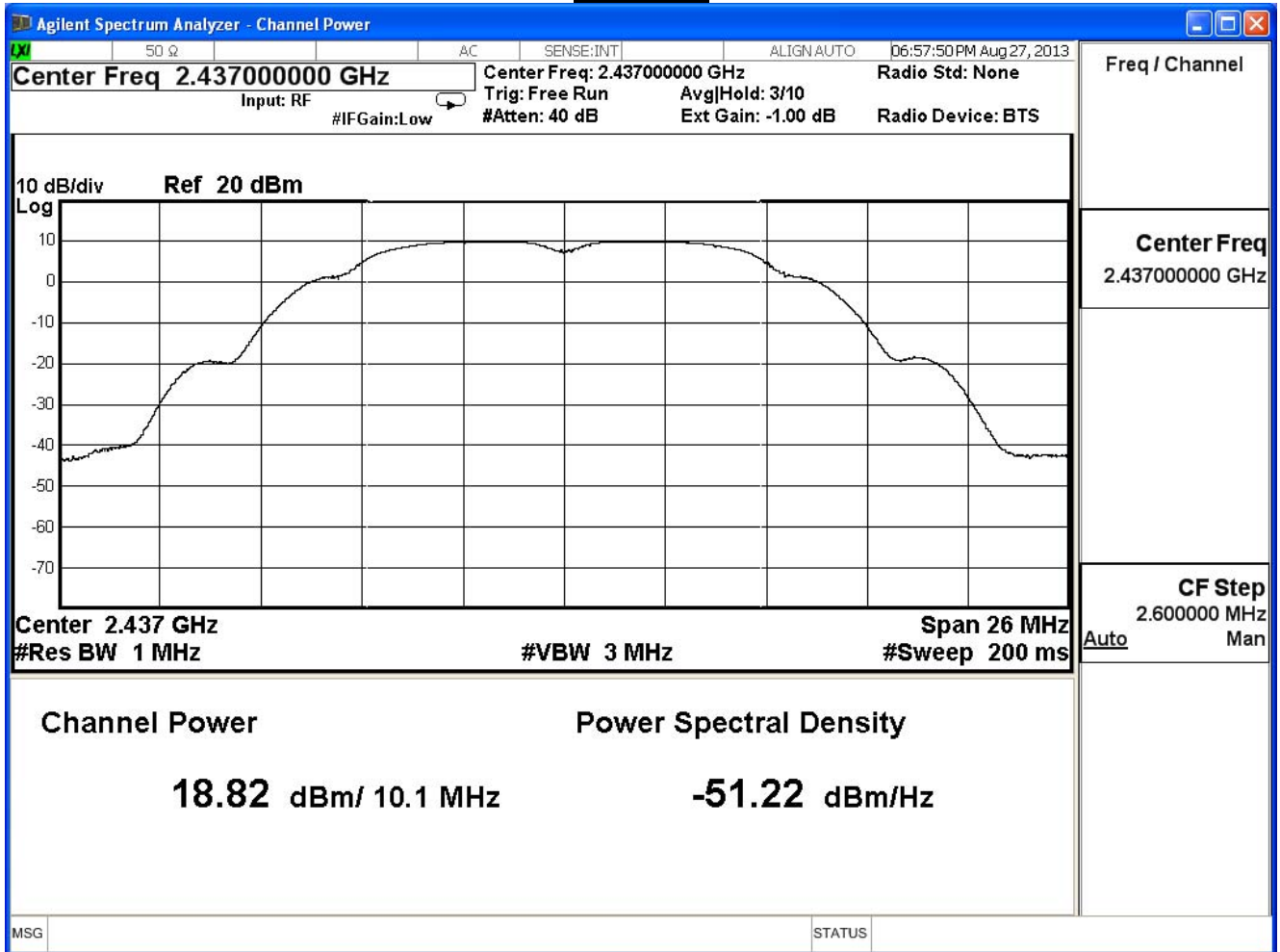
Peak Power Output Value (dBm)						
Channel No.	Frequency (MHz)	Data Rate				Required Limit
		1	2	5.5	11	
1	2412	18.69	--	--	--	30 dBm
6	2437	18.82	18.62	18.50	18.28	30 dBm
11	2462	20.41	--	--	--	30 dBm

Note: Measure Level =Reading value + cable loss

## Channel 1

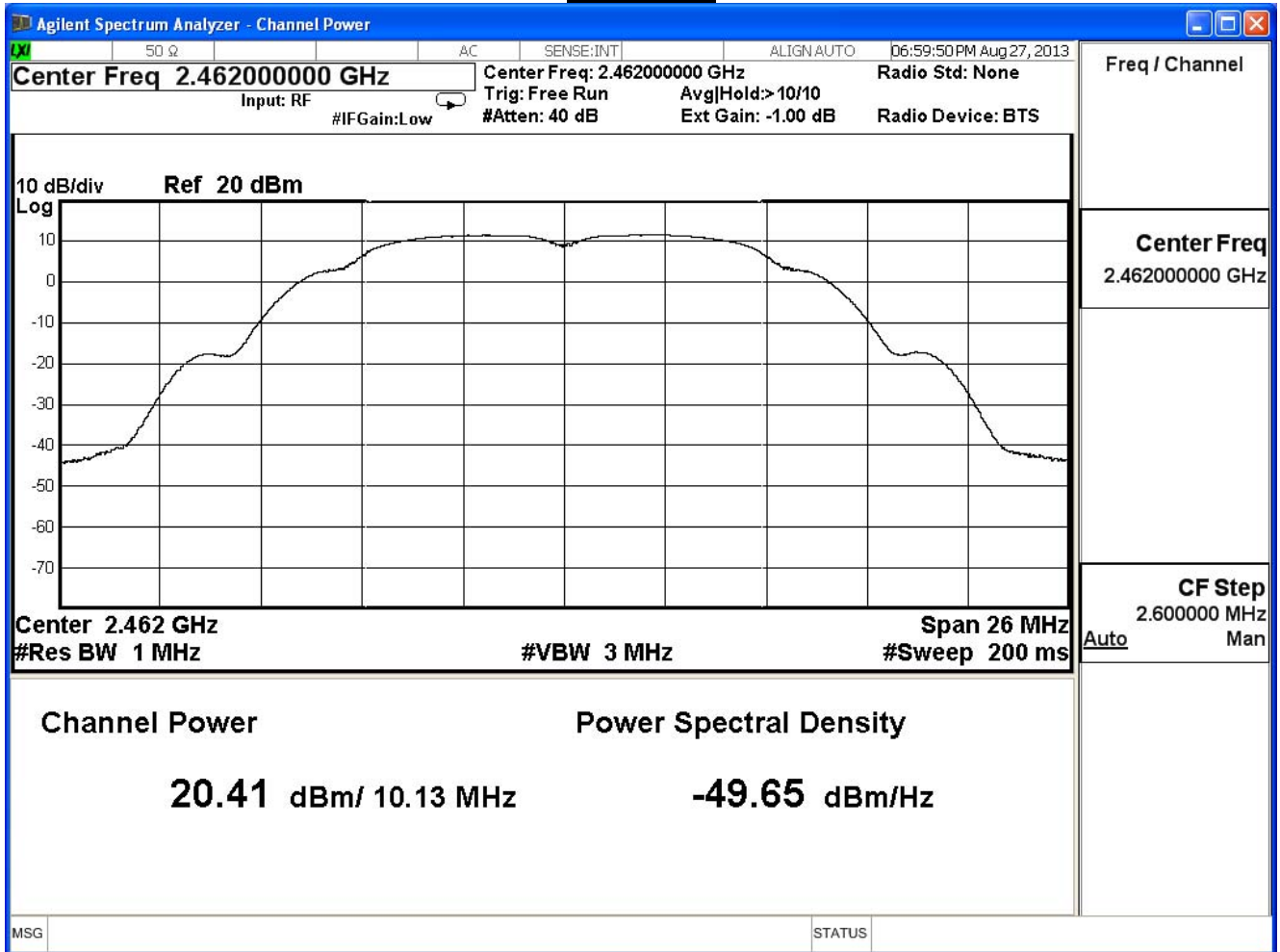


## Channel 6





Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

IEEE 802.11b (ANT0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	23.44	≤ 30	Pass
6	2437	23.92	≤ 30	Pass
11	2462	25.30	≤ 30	Pass

The worst emission of data rate is 1Mbps.

Peak Power Output Value (dBm)						
Channel No.	Frequency (MHz)	Data Rate				Required Limit
		1	2	5.5	11	
1	2412	23.44	--	--	--	30 dBm
6	2437	23.92	23.37	23.59	23.45	30 dBm
11	2462	25.30	--	--	--	30 dBm

Note: Measure Level =Reading value + cable loss

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

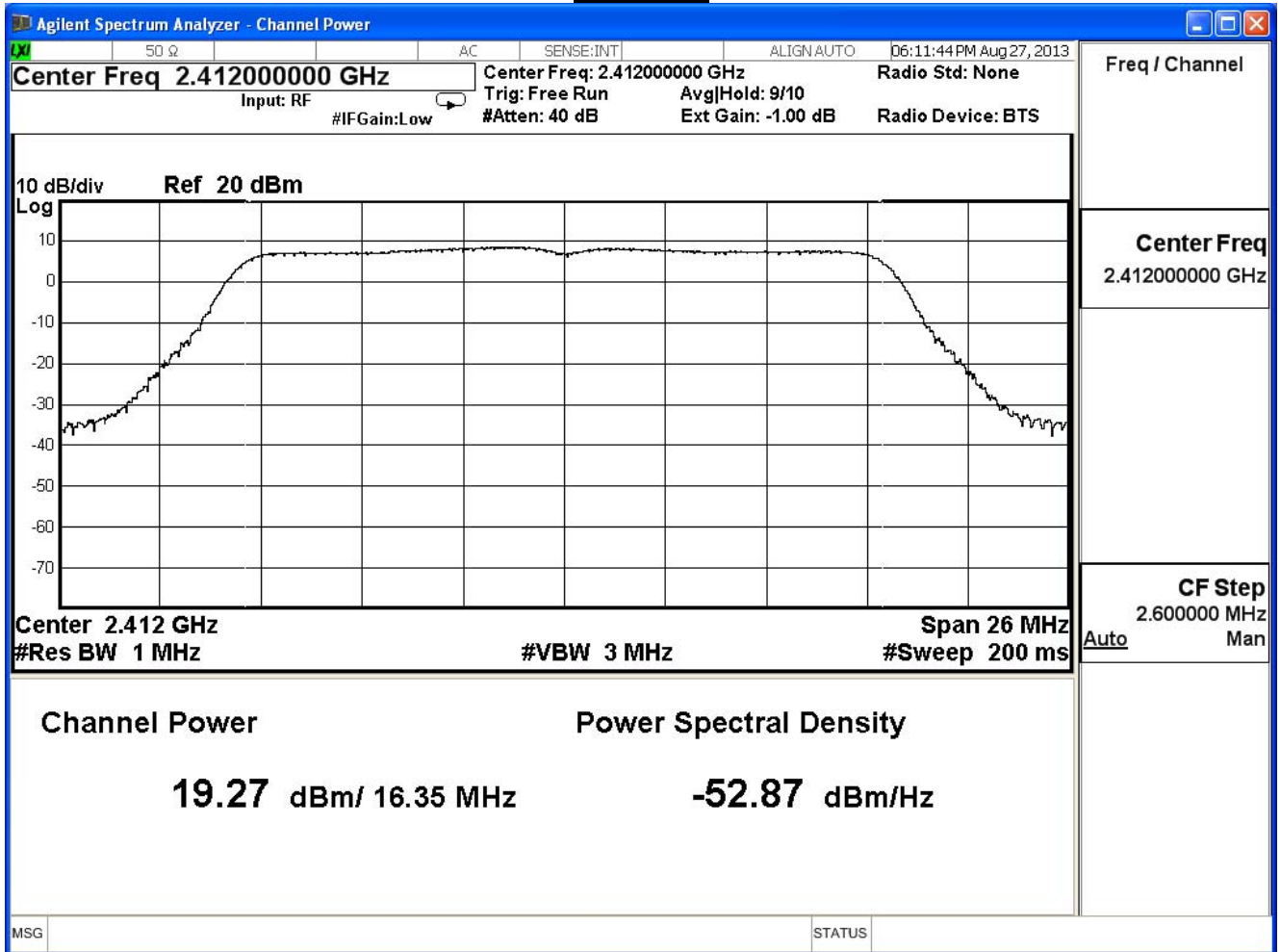
IEEE 802.11g (ANT0) , power index: ch1:79, ch6:100, ch11:74				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	19.27	≤ 30	Pass
6	2437	24.65	≤ 30	Pass
11	2462	18.32	≤ 30	Pass

The worst emission of data rate is 6Mbps.

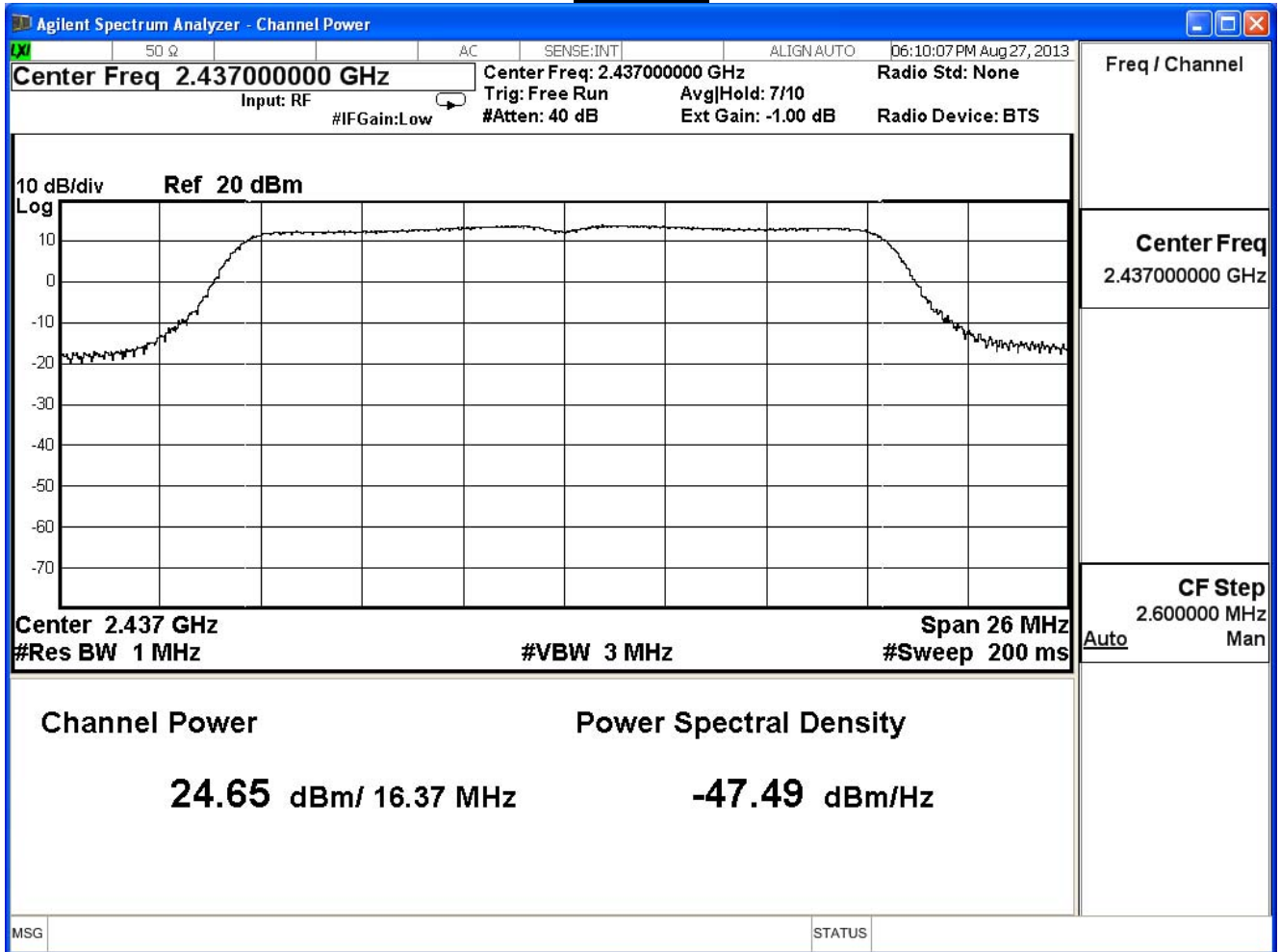
Peak Power Output Value(dBm)									
Channel No.	Frequency (MHz)	Data Rate (Mbps)							Required Limit
		6	12	18	24	36	48	54	
1	2412	19.27	--	--	--	--	--	--	30 dBm
6	2437	24.65	24.45	24.23	23.97	23.85	23.63	23.51	30 dBm
11	2462	18.32	--	--	--	--	--	--	30 dBm

Note: Measure Level =Reading value + cable loss

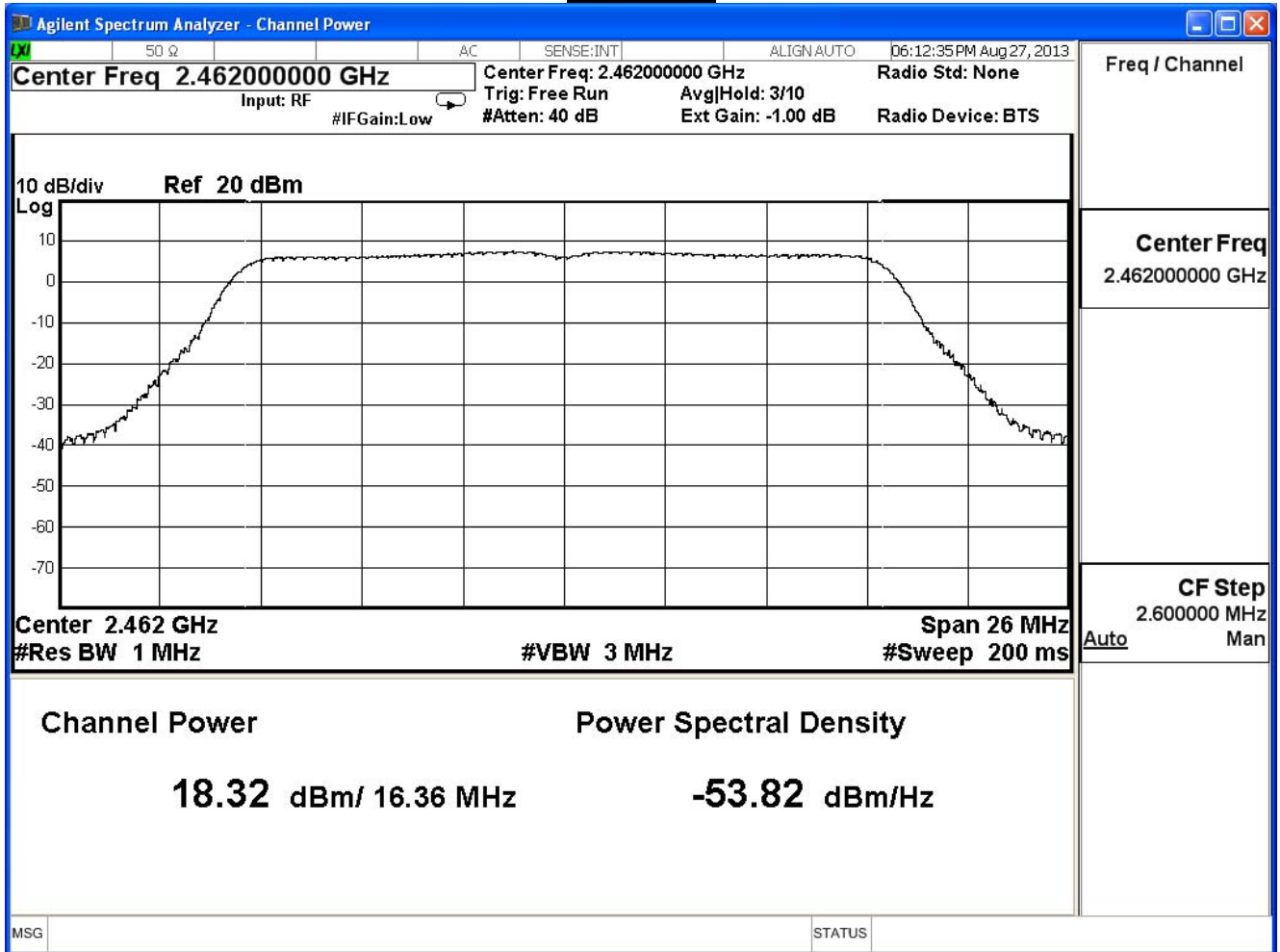
## Channel 1



## Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

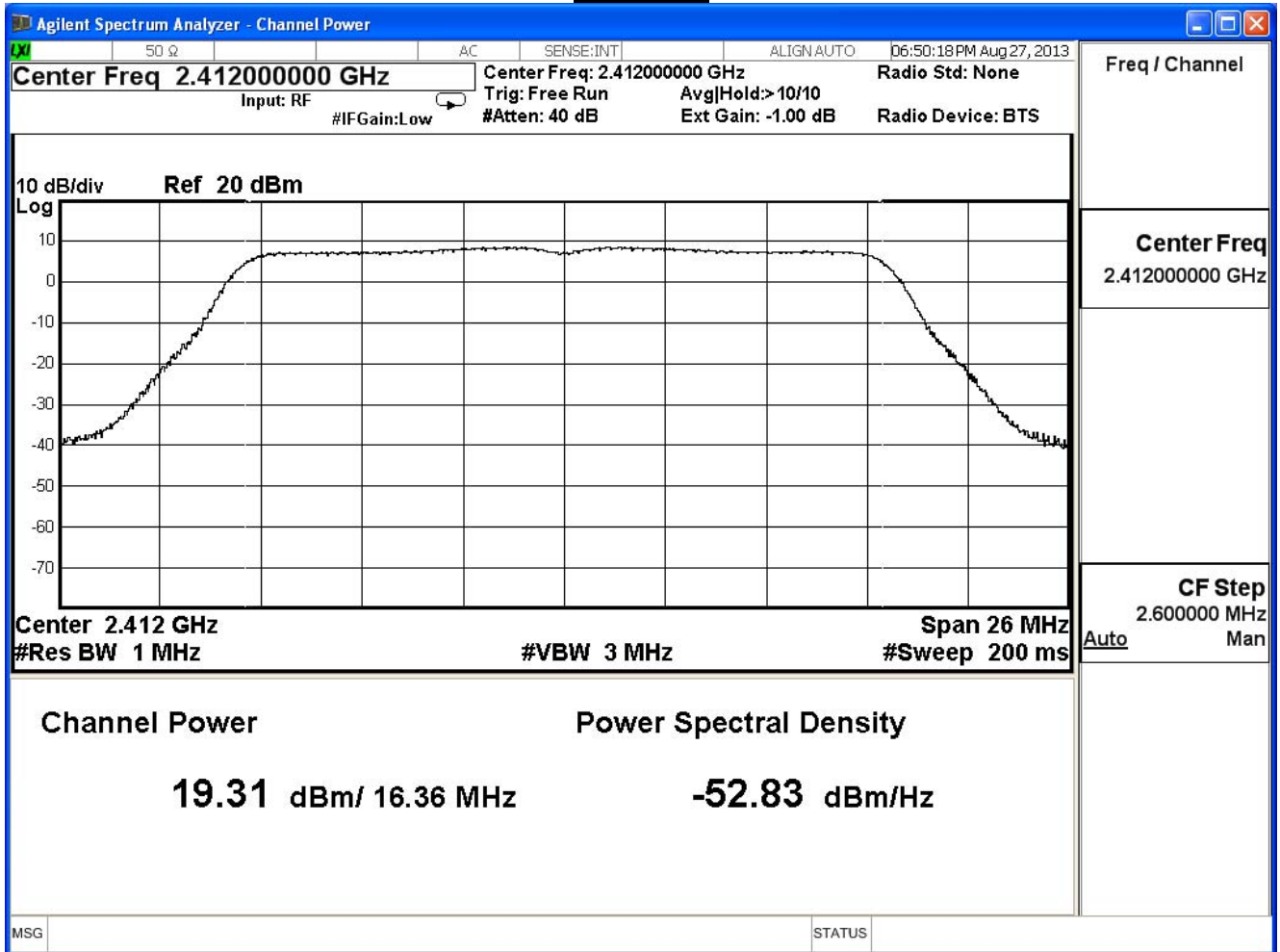
IEEE 802.11g (ANT1) , power index: ch1:79, ch6:100, ch11:74				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	19.31	≤ 30	Pass
6	2437	23.62	≤ 30	Pass
11	2462	17.83	≤ 30	Pass

The worst emission of data rate is 6Mbps.

Peak Power Output Value(dBm)									
Channel No.	Frequency (MHz)	Data Rate (Mbps)							Required Limit
		6	12	18	24	36	48	54	
1	2412	19.31	--	--	--	--	--	--	30 dBm
6	2437	23.62	23.42	23.20	23.07	22.95	22.84	22.60	30 dBm
11	2462	17.83	--	--	--	--	--	--	30 dBm

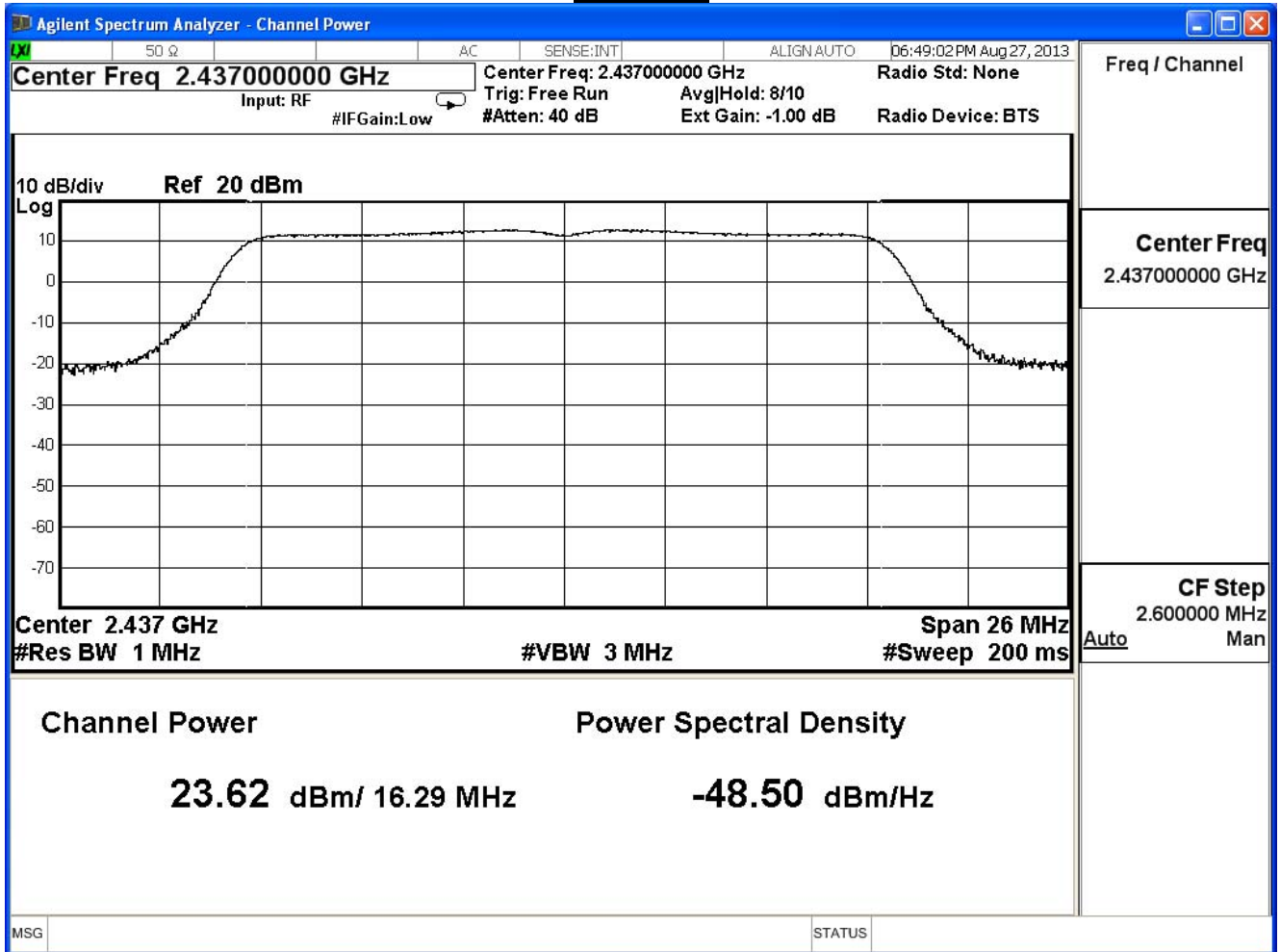
Note: Measure Level =Reading value + cable loss

Channel 1

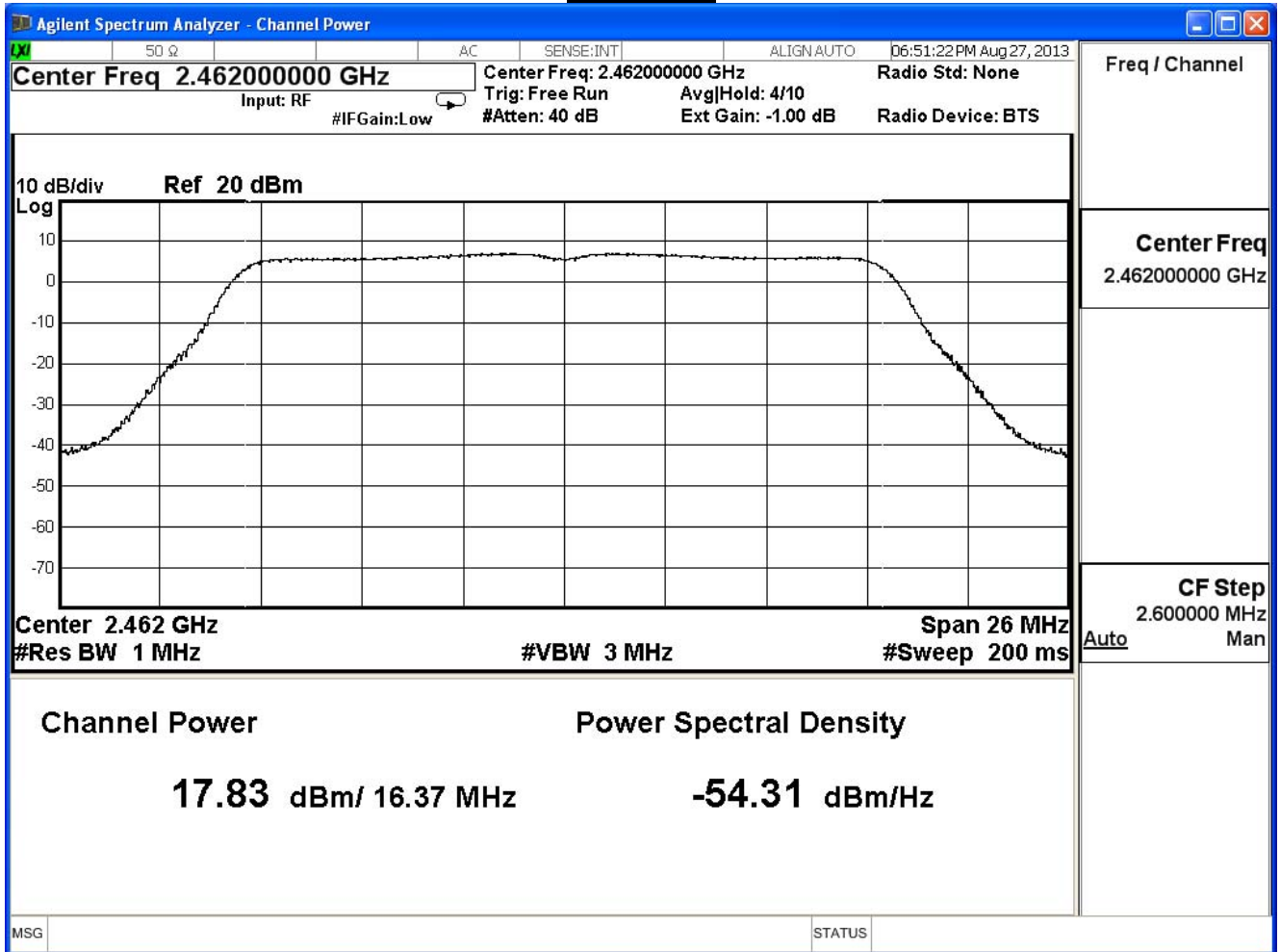




Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

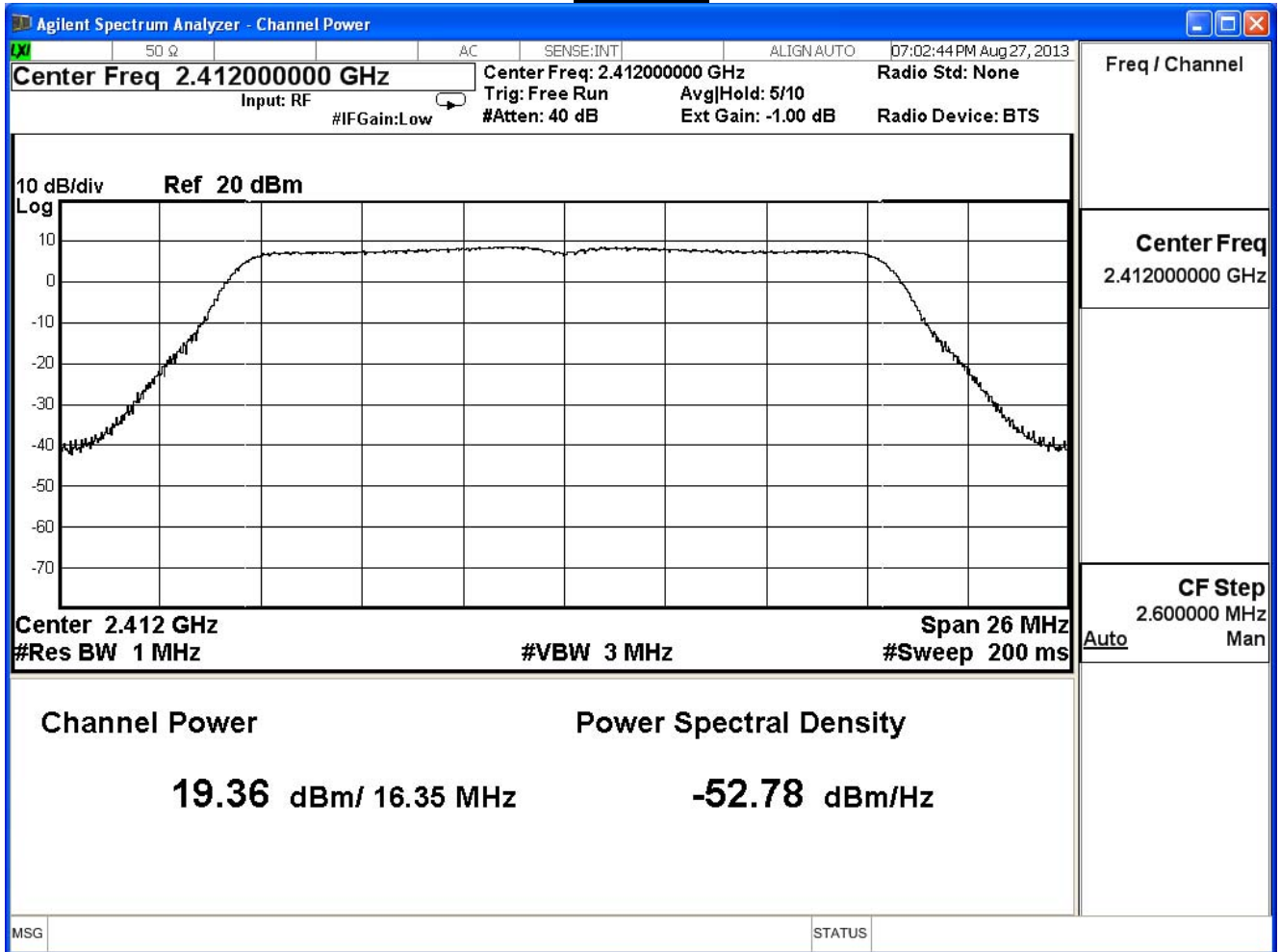
IEEE 802.11g (ANT2) , power index: ch1:79, ch6:100, ch11:74				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	19.36	≤ 30	Pass
6	2437	23.87	≤ 30	Pass
11	2462	17.99	≤ 30	Pass

The worst emission of data rate is 6Mbps.

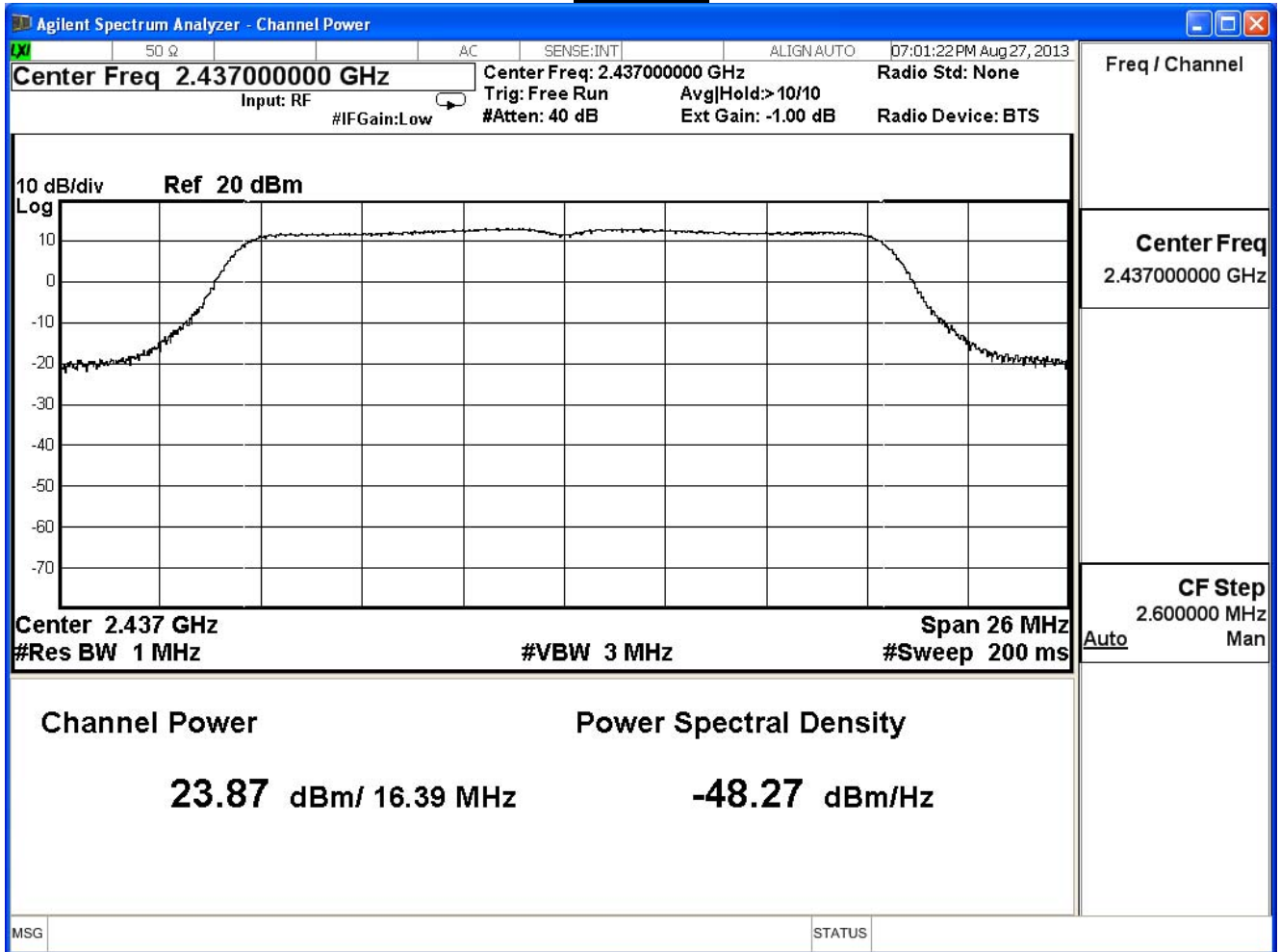
Peak Power Output Value(dBm)									
Channel No.	Frequency (MHz)	Data Rate (Mbps)							Required Limit
		6	12	18	24	36	48	54	
1	2412	19.36	--	--	--	--	--	--	30 dBm
6	2437	23.87	23.77	23.55	23.29	23.17	23.06	22.94	30 dBm
11	2462	17.99	--	--	--	--	--	--	30 dBm

Note: Measure Level =Reading value + cable loss

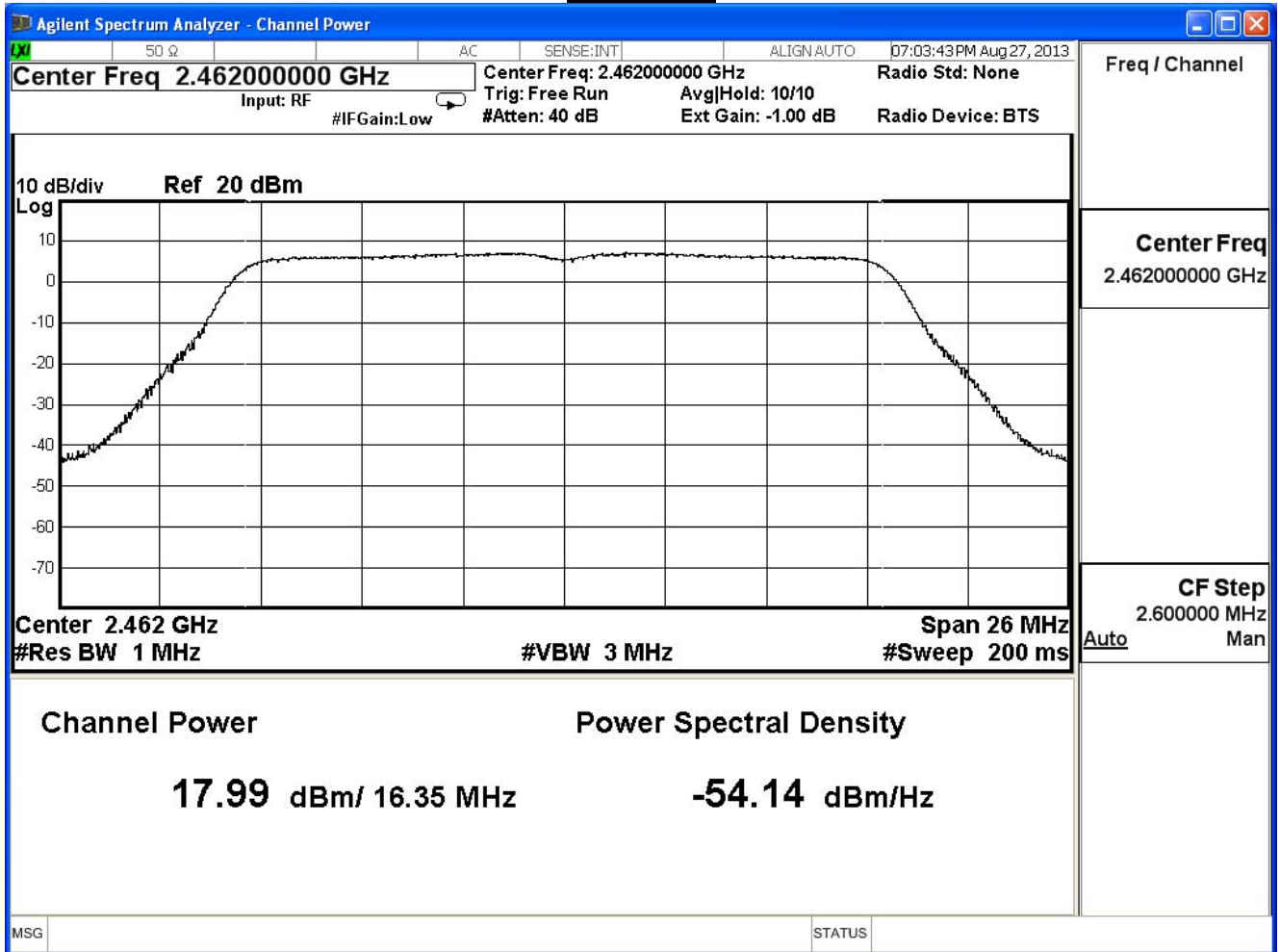
Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

IEEE 802.11g (ANT0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	24.08	≤ 30	Pass
6	2437	28.84	≤ 30	Pass
11	2462	22.82	≤ 30	Pass

The worst emission of data rate is 6Mbps.

Peak Power Output Value(dBm)									
Channel No.	Frequency (MHz)	Data Rate (Mbps)							Required Limit
		6	12	18	24	36	48	54	
1	2412	24.08	--	--	--	--	--	--	30 dBm
6	2437	28.84	28.67	28.10	28.23	28.11	27.96	27.80	30 dBm
11	2462	22.82	--	--	--	--	--	--	30 dBm

Note: Measure Level =Reading value + cable loss

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

IEEE 802.11n 20MHz (ANT 0) , power index: ch1:56, ch6:91, ch11:58

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	17.62	≤ 30	Pass
6	2437	23.54	≤ 30	Pass
11	2462	17.67	≤ 30	Pass

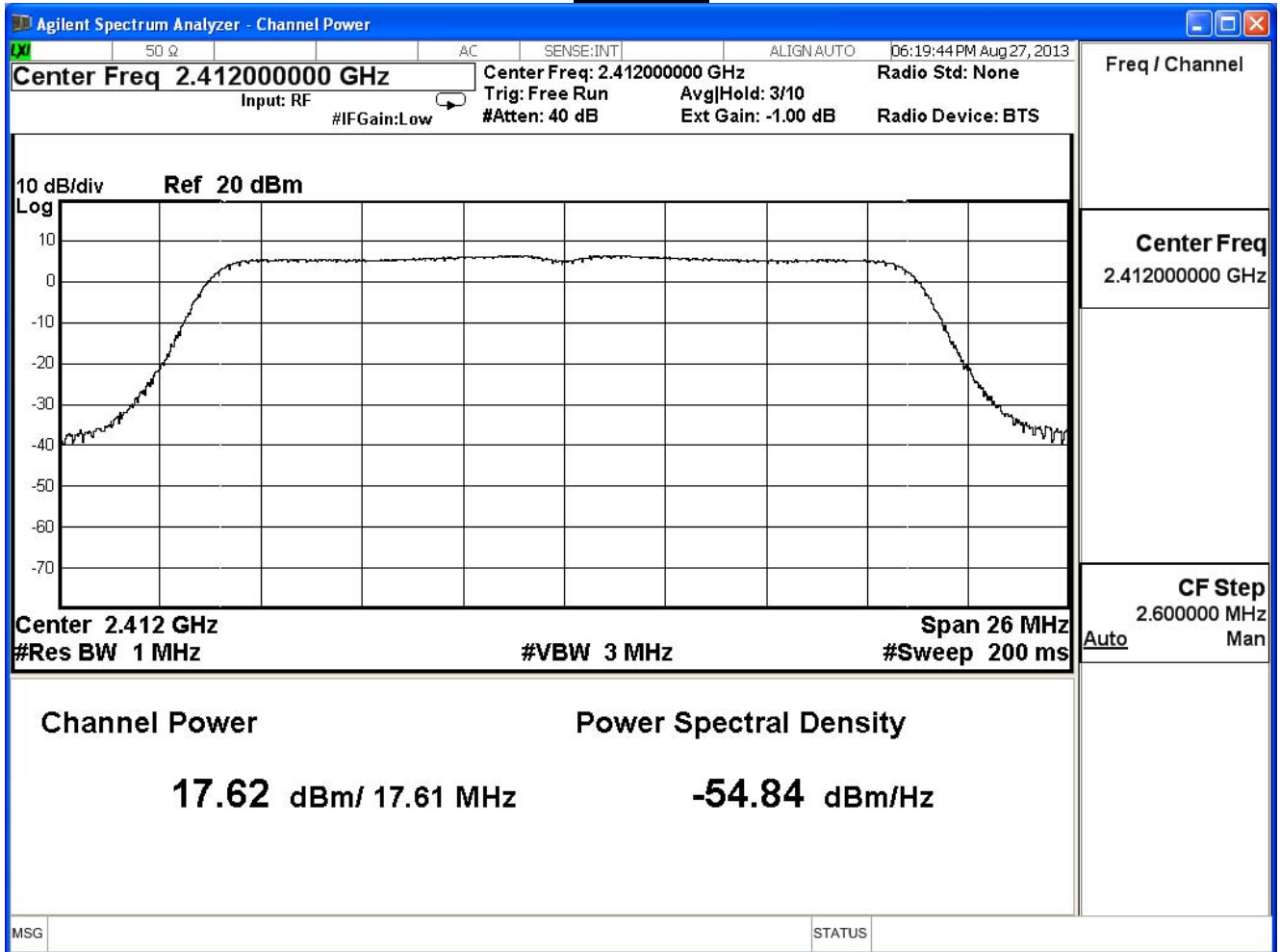
The worst emission of data rate is 19.5 Mbps.

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39	58.5	78	117	156	175.5	195	
1	2412	17.62	--	--	--	--	--	--	--	30dBm
6	2437	23.54	23.42	23.32	23.21	23.08	22.84	22.60	22.49	30dBm
11	2462	17.67	--	--	--	--	--	--	--	30dBm

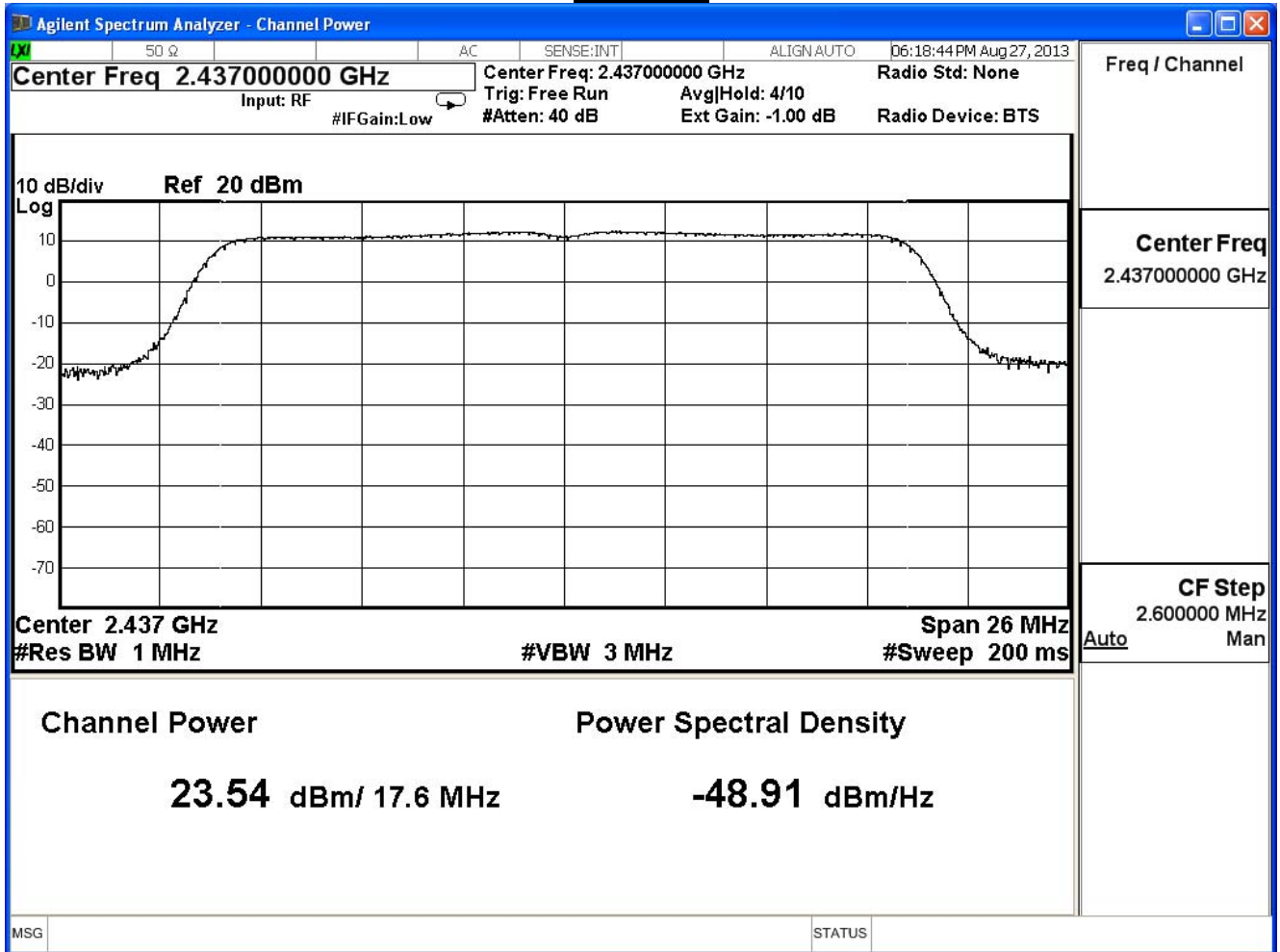
Note: Measure Level =Reading value + cable loss



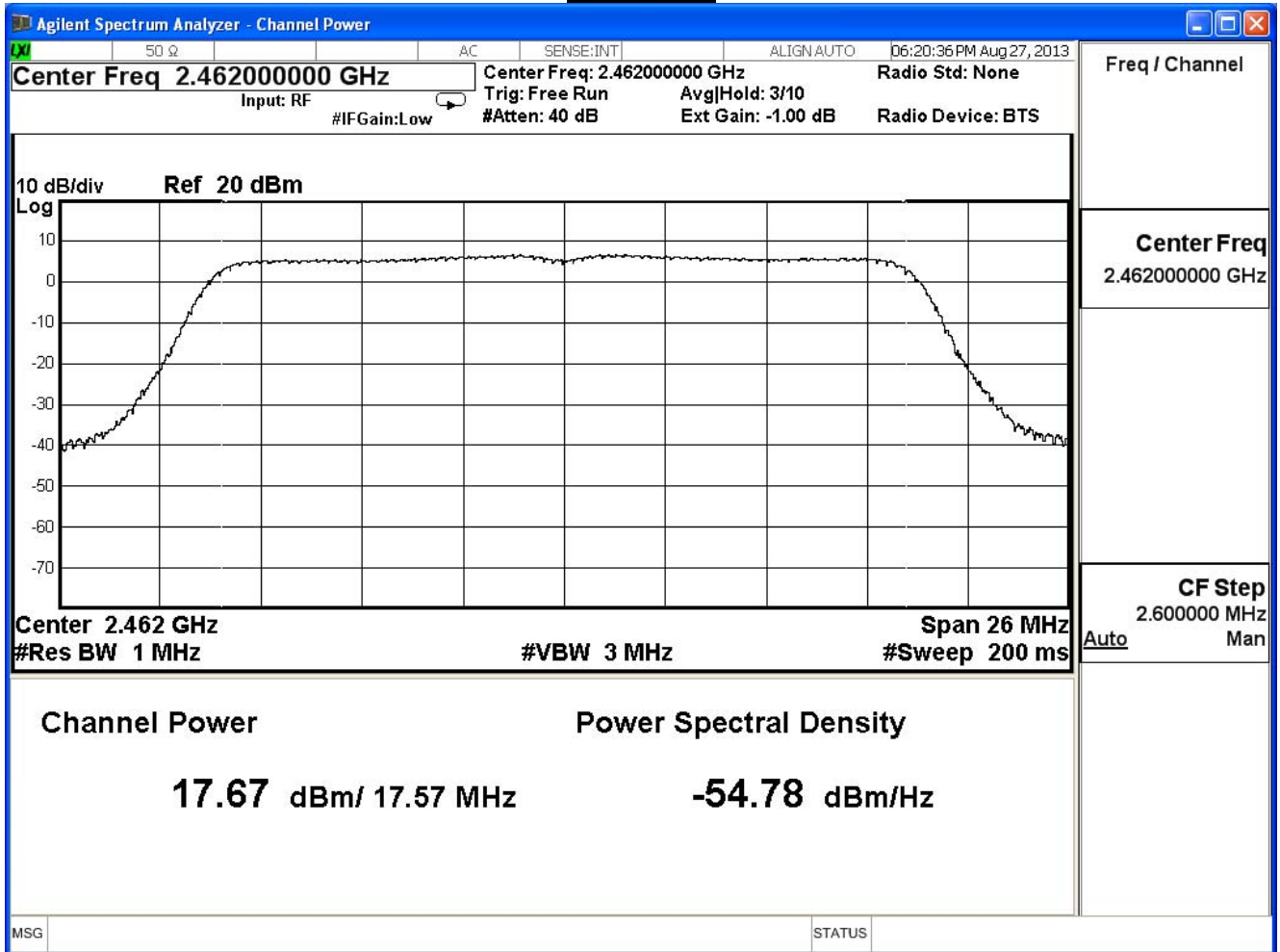
## Channel 1



Channel 6



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

IEEE 802.11n 20MHz (ANT 1) , power index: ch1:56, ch6:91, ch11:58

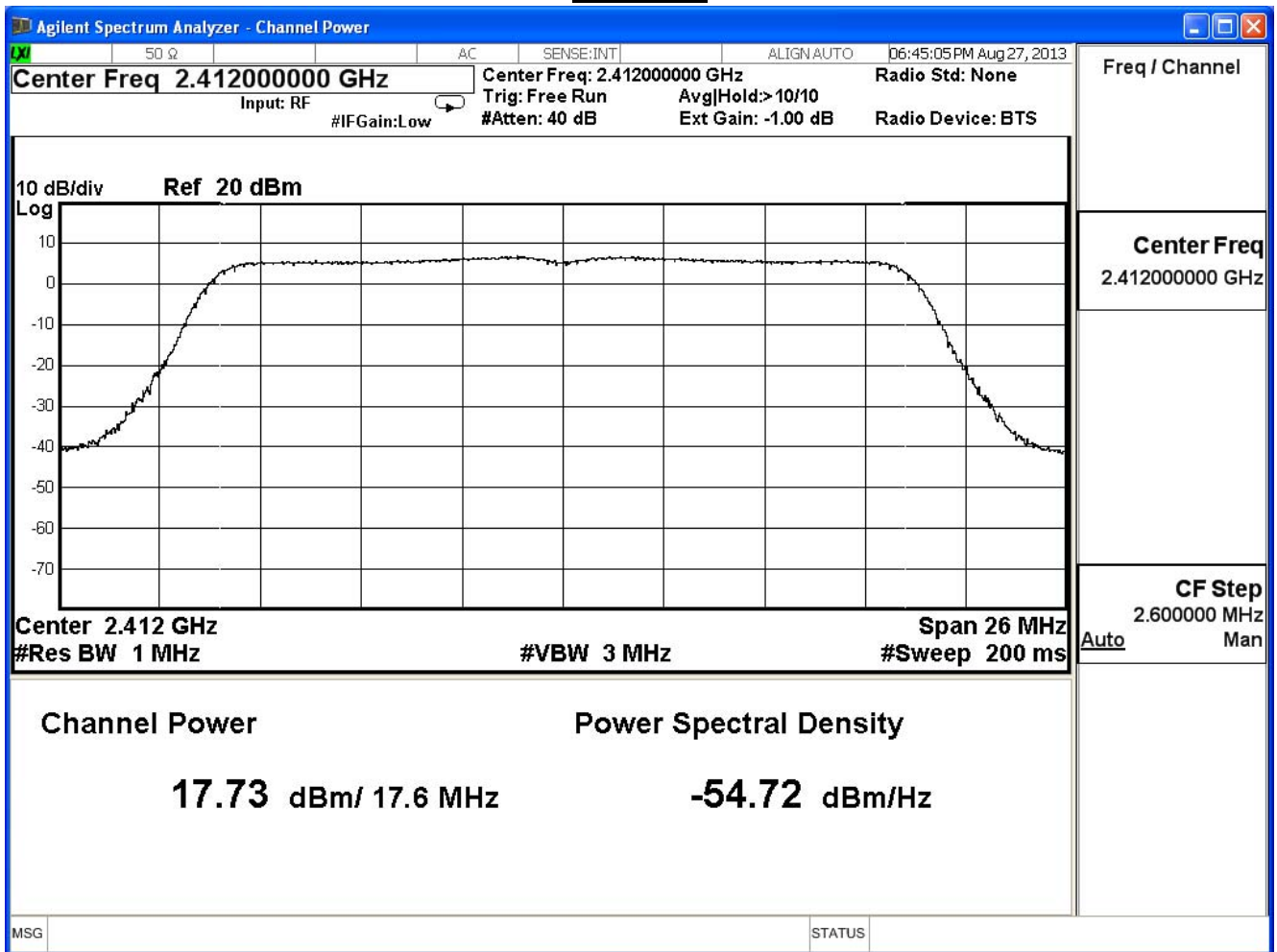
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	17.73	≤ 30	Pass
6	2437	22.78	≤ 30	Pass
11	2462	17.34	≤ 30	Pass

The worst emission of data rate is 19.5 Mbps.

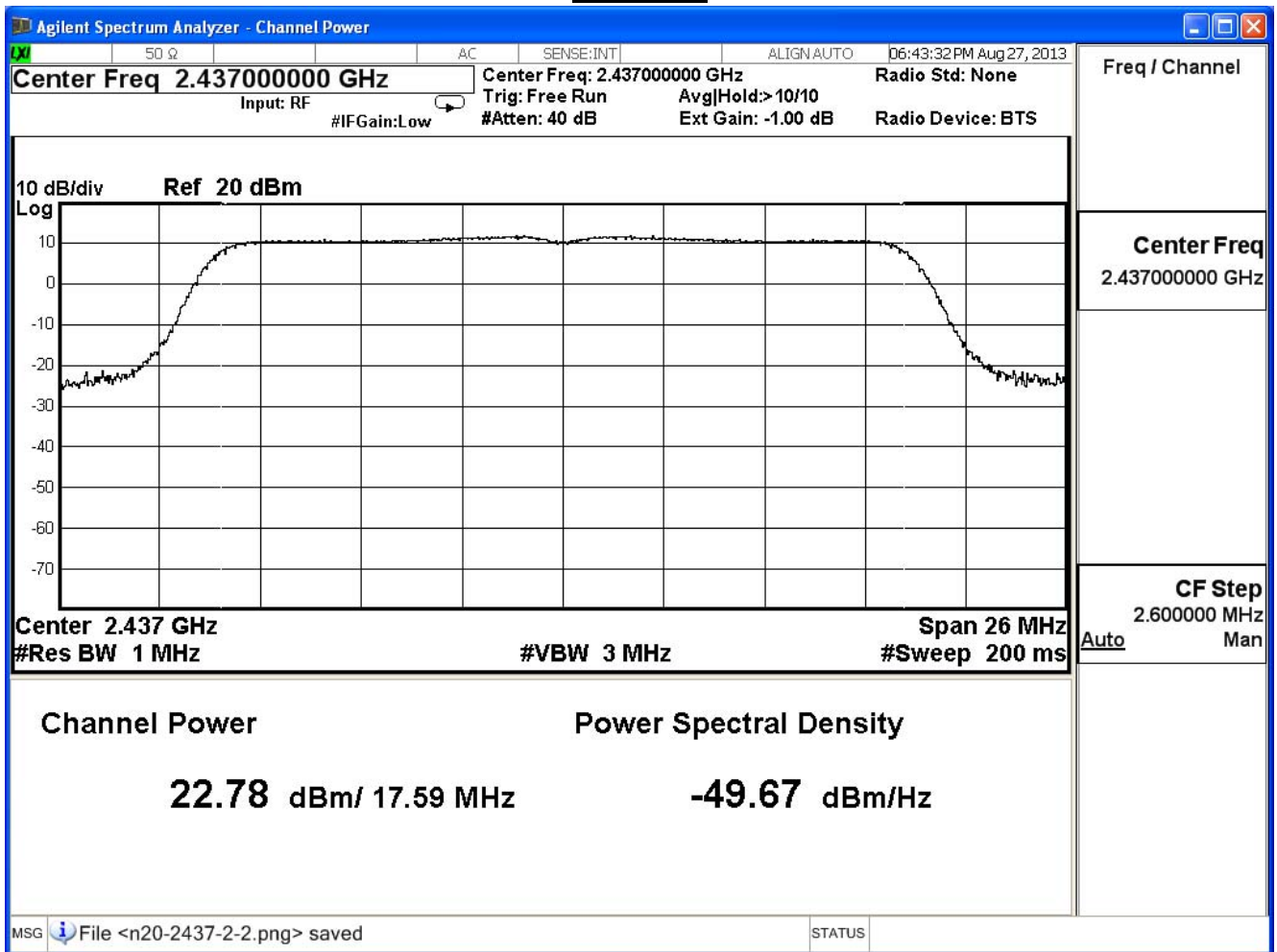
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39	58.5	78	117	156	175.5	195	
1	2412	17.73	--	--	--	--	--	--	--	30dBm
6	2437	22.78	22.68	22.56	22.36	22.24	22.12	22.00	21.87	30dBm
11	2462	17.34	--	--	--	--	--	--	--	30dBm

Note: Measure Level =Reading value + cable loss

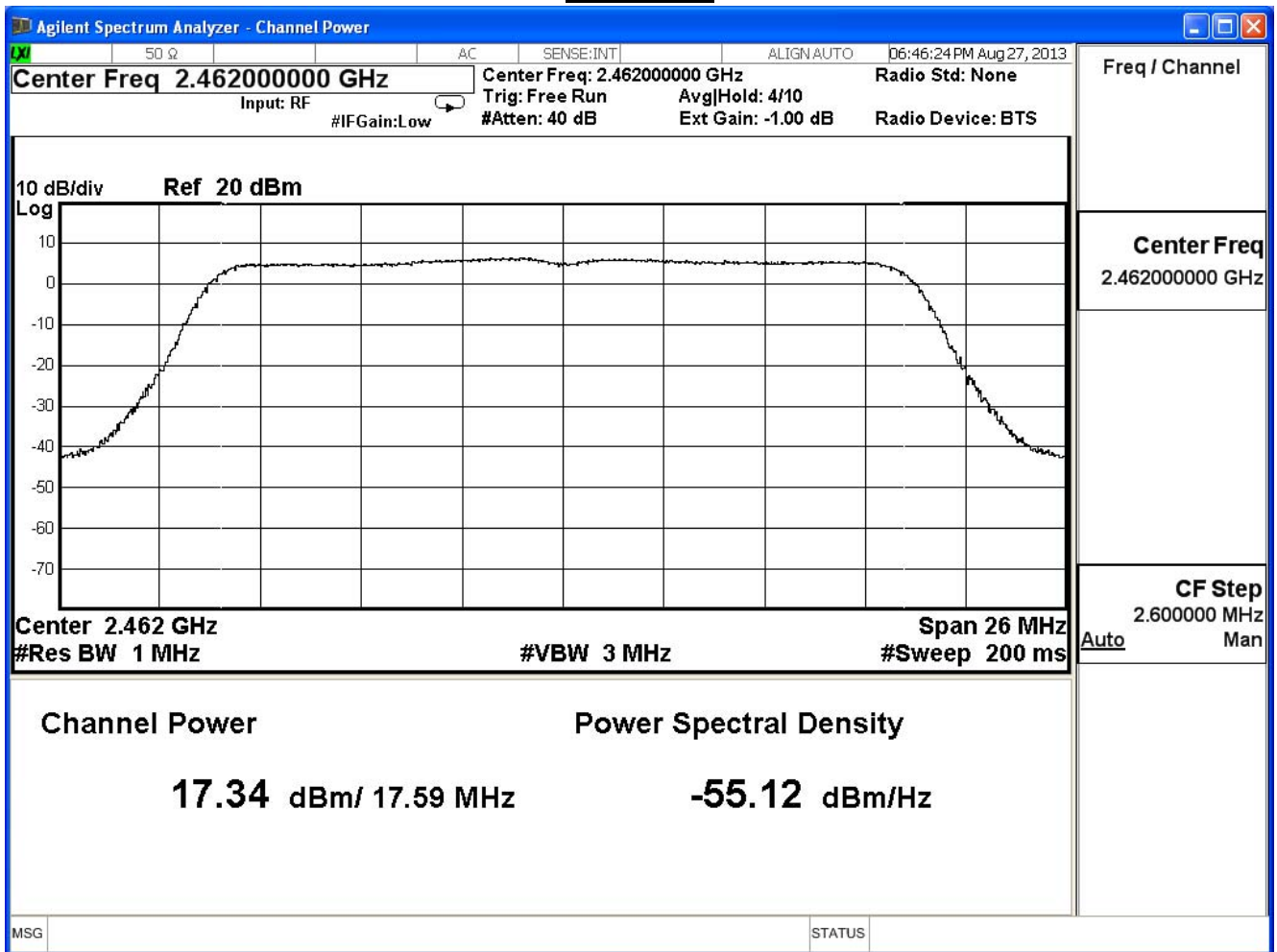
Channel 1



**Channel 6**



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

IEEE 802.11n 20MHz (ANT 2) , power index: ch1:56, ch6:91, ch11:58

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	17.73	≤ 30	Pass
6	2437	22.64	≤ 30	Pass
11	2462	17.19	≤ 30	Pass

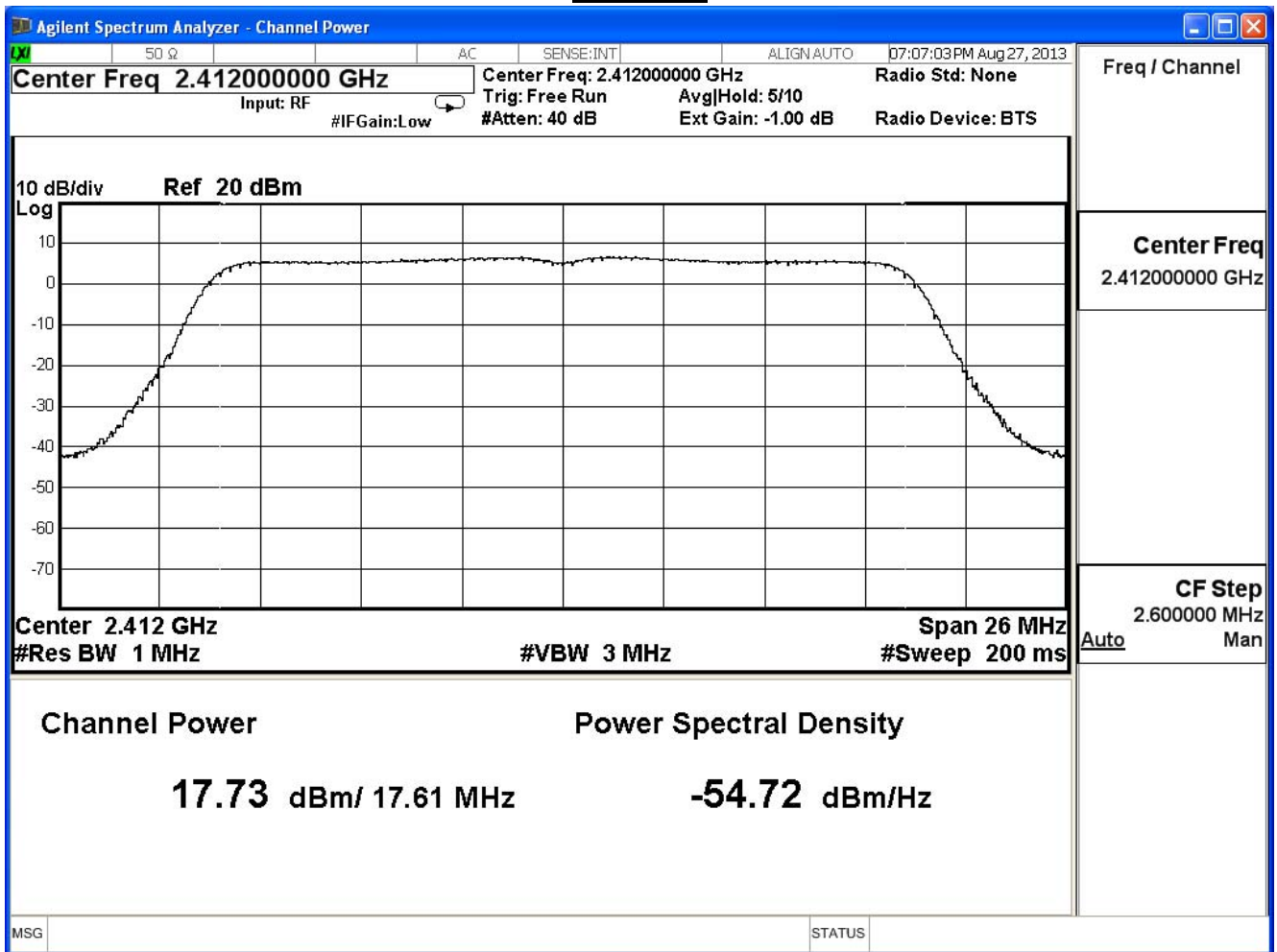
The worst emission of data rate is 19.5 Mbps.

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39	58.5	78	117	156	175.5	195	
1	2412	17.73	--	--	--	--	--	--	--	30dBm
6	2437	22.64	22.54	22.41	22.21	21.95	21.83	21.59	21.35	30dBm
11	2462	17.19	--	--	--	--	--	--	--	30dBm

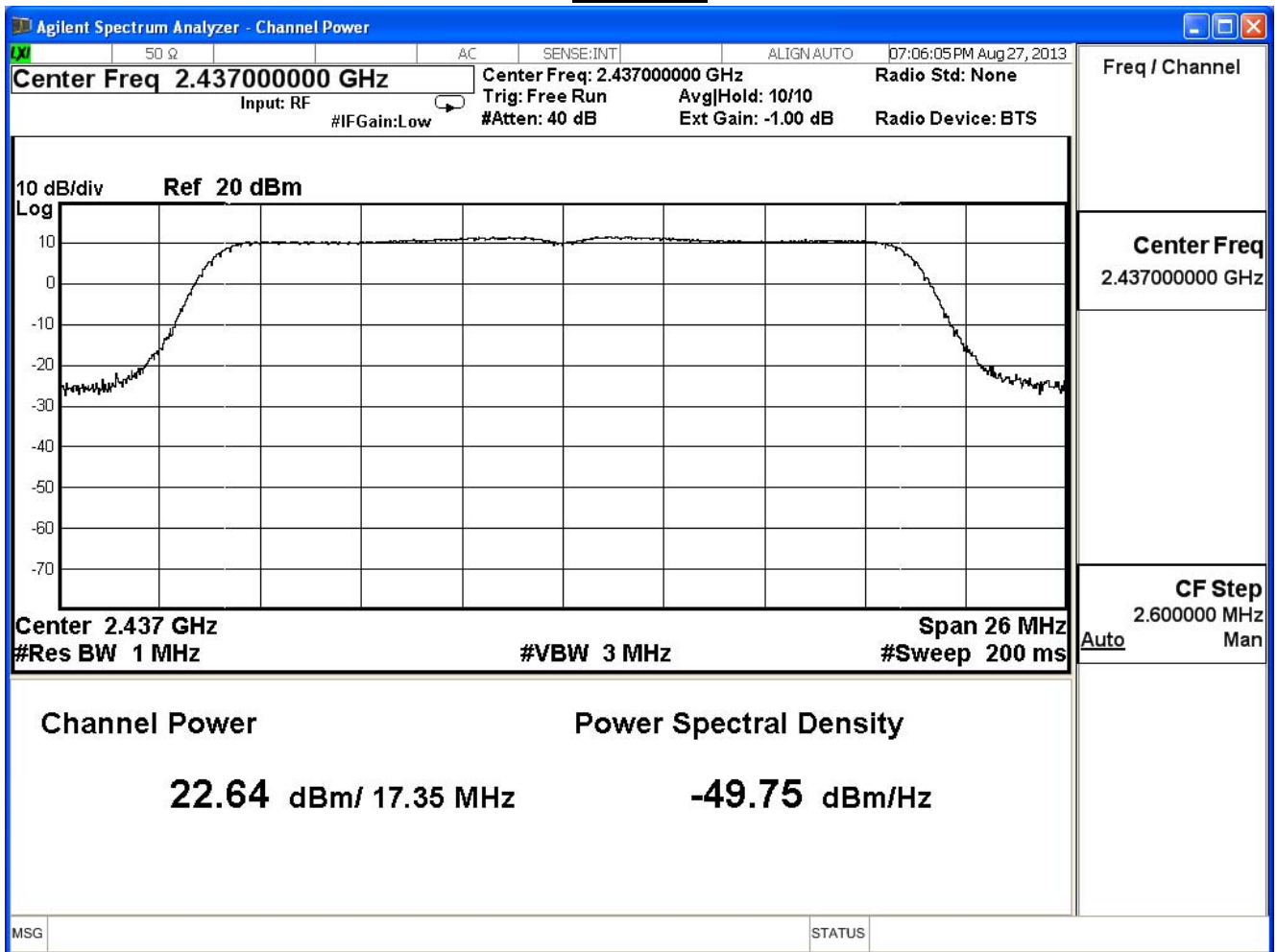
Note: Measure Level =Reading value + cable loss



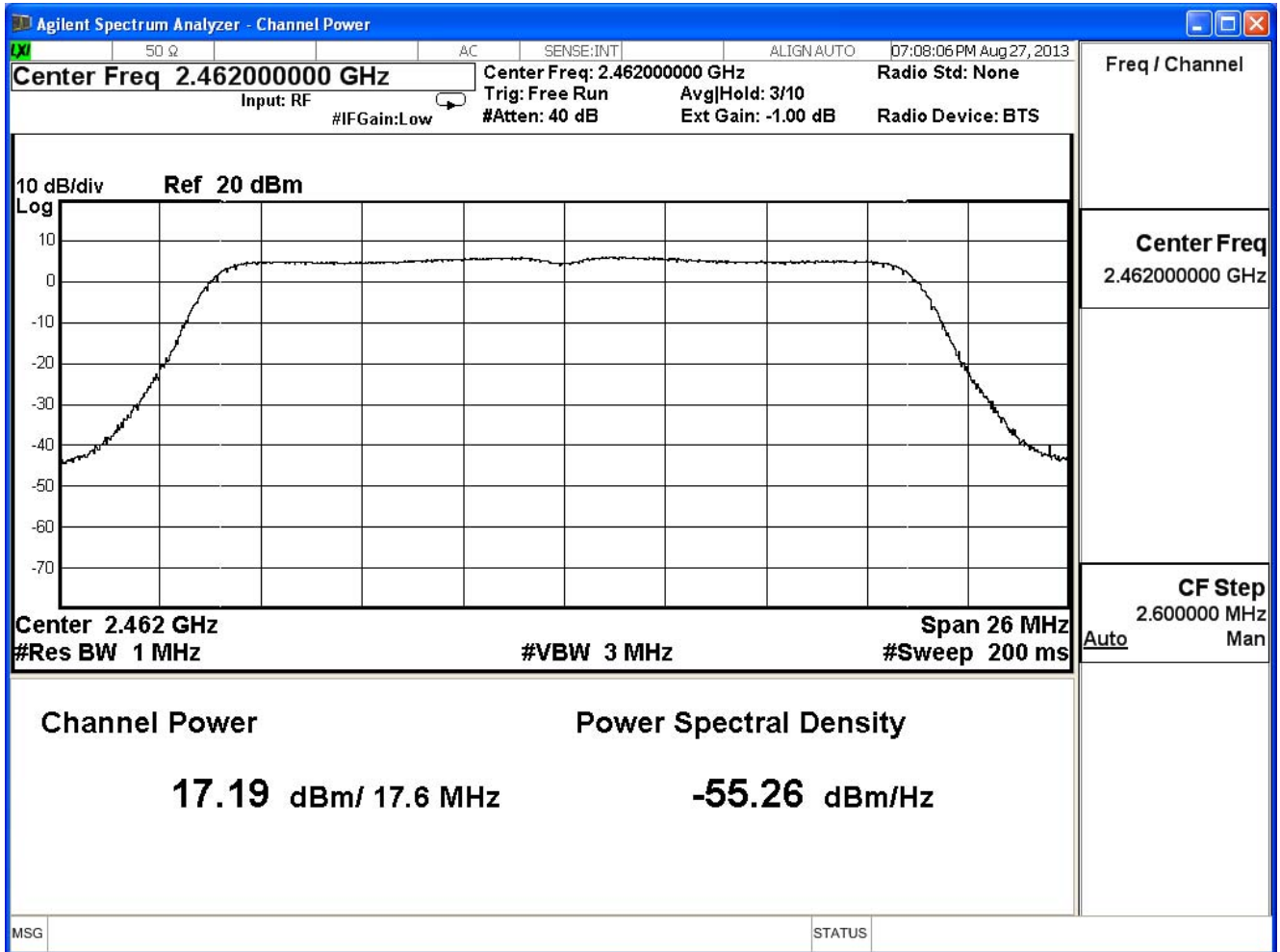
Channel 1



**Channel 6**



Channel 11



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	22.46	≤ 30	Pass
6	2437	27.78	≤ 30	Pass
11	2462	22.18	≤ 30	Pass

The worst emission of data rate is 19.5 Mbps.

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39	58.5	78	117	156	175.5	195	
1	2412	22.46	--	--	--	--	--	--	--	30dBm
6	2437	27.78	27.67	27.55	27.39	27.22	27.06	26.85	26.70	30dBm
11	2462	22.18	--	--	--	--	--	--	--	30dBm

Note: Measure Level =Reading value + cable loss

Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

IEEE802.11n 40MHz (ANT 0) , power index: ch3:55, ch6:96, ch9:53

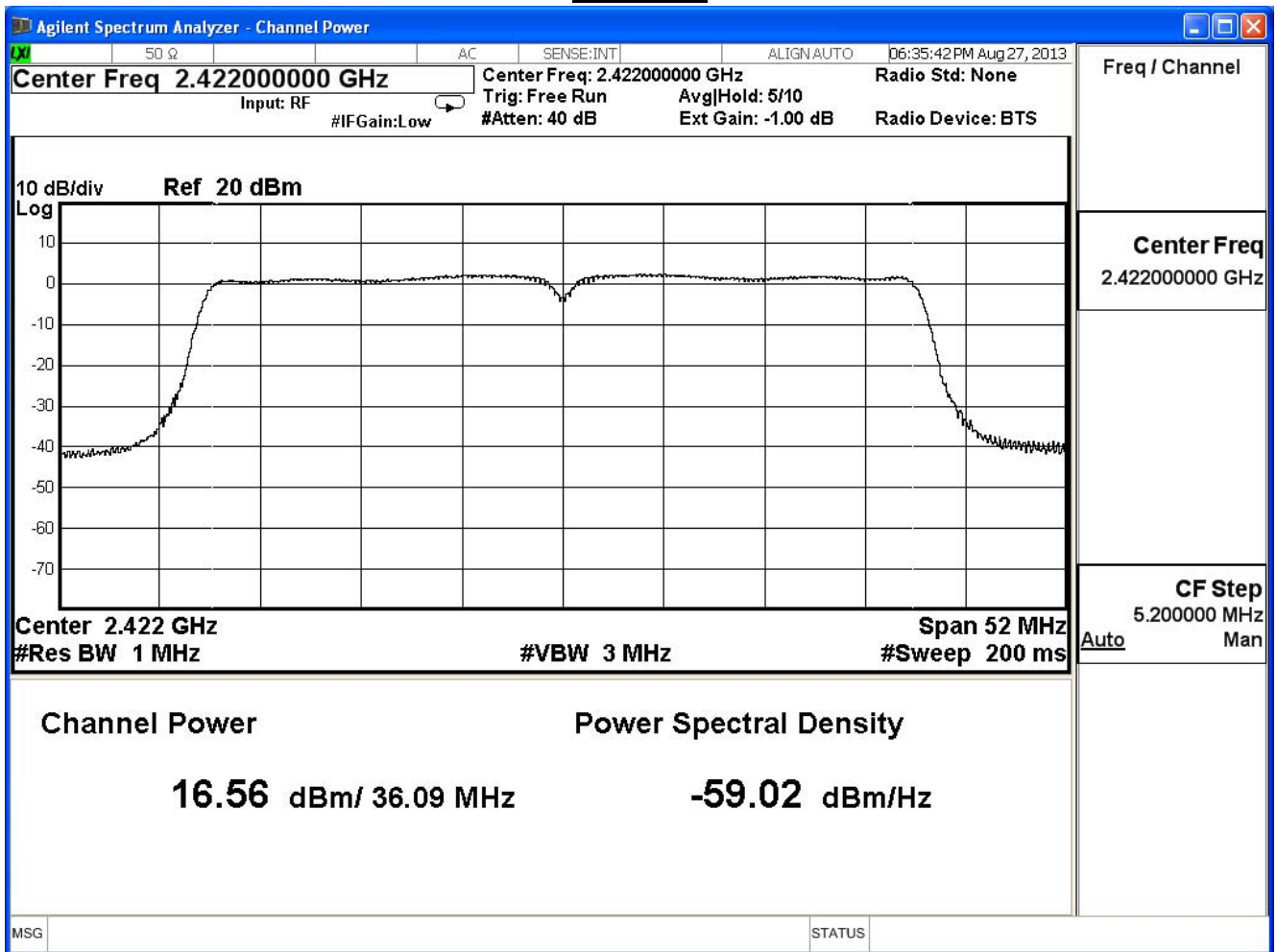
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	16.56	≤ 30	Pass
6	2437	19.04	≤ 30	Pass
9	2452	15.66	≤ 30	Pass

The worst emission of data rate is 40.5Mbps

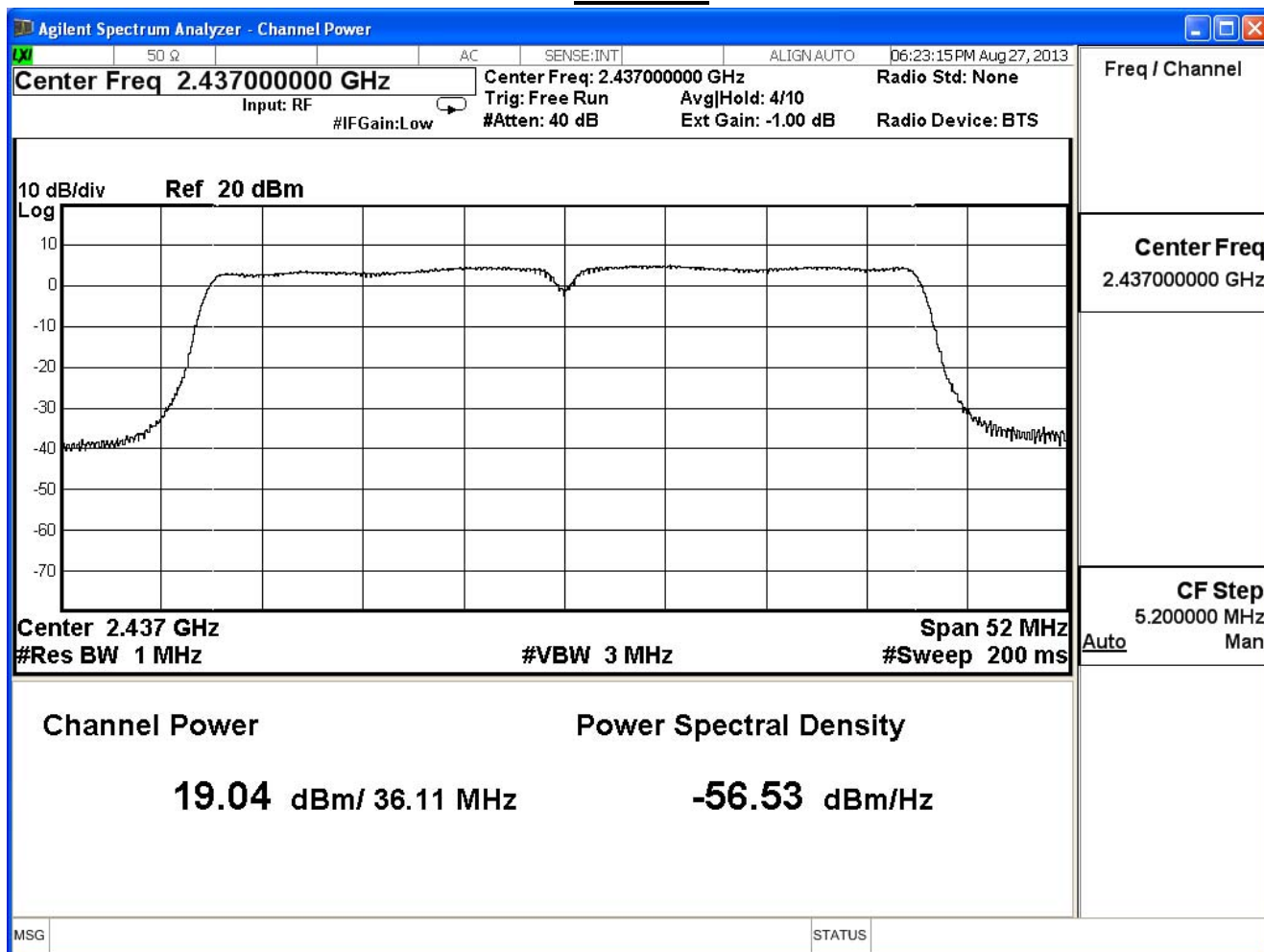
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		40.5	81.0	121.5	162.0	243.0	324.0	364.5	405.0	
3	2422	16.56	--	--	--	--	--	--	--	30dBm
6	2437	19.04	18.84	18.62	18.52	18.42	18.18	18.05	17.93	30dBm
9	2452	15.66	--	--	--	--	--	--	--	30dBm

Note: Measure Level =Reading value + cable loss

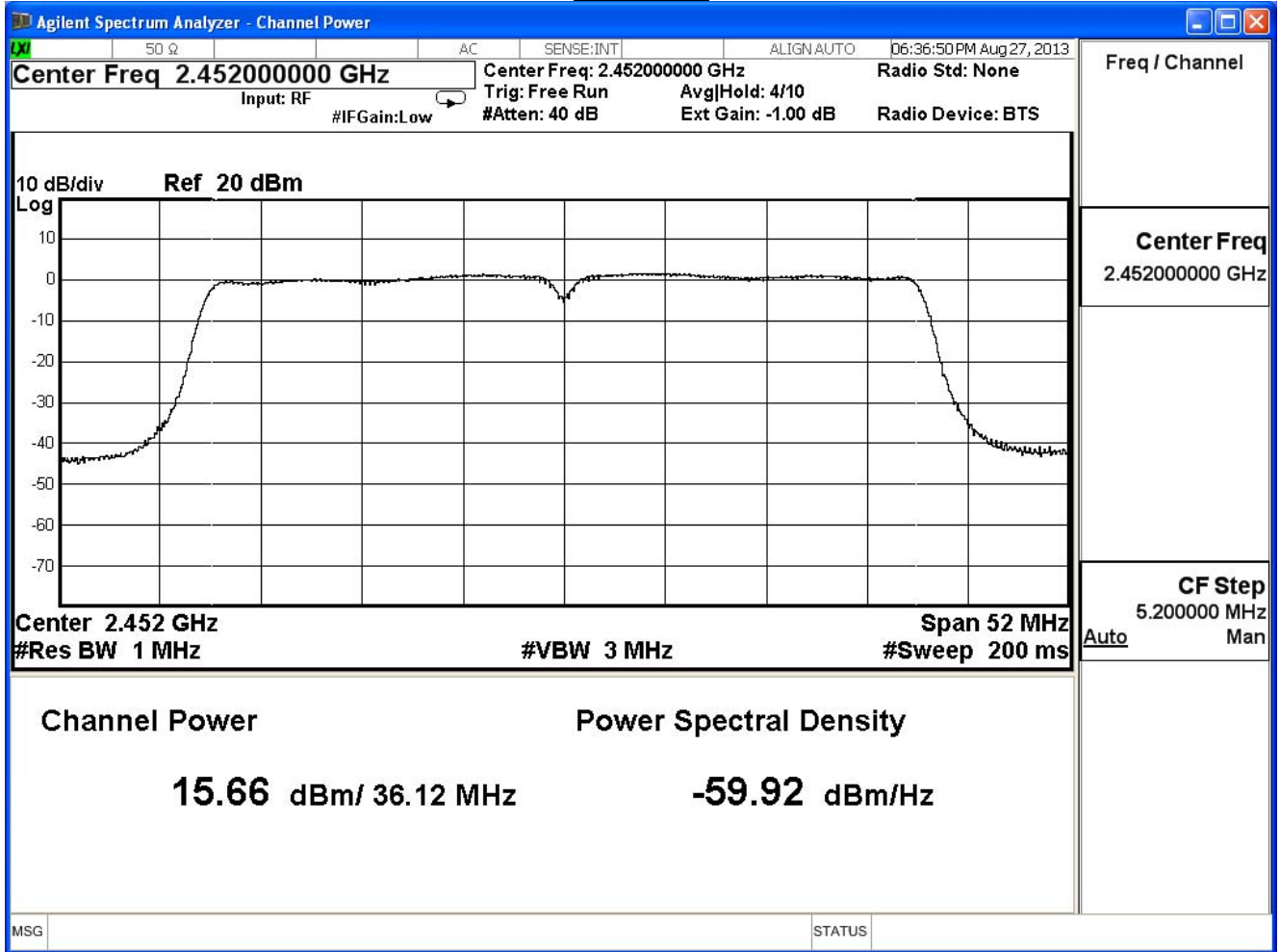
**Channel 3**



## Channel 6



Channel 9





Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

IEEE802.11n 40MHz (ANT 1) , power index: ch3:55, ch6:96, ch9:53

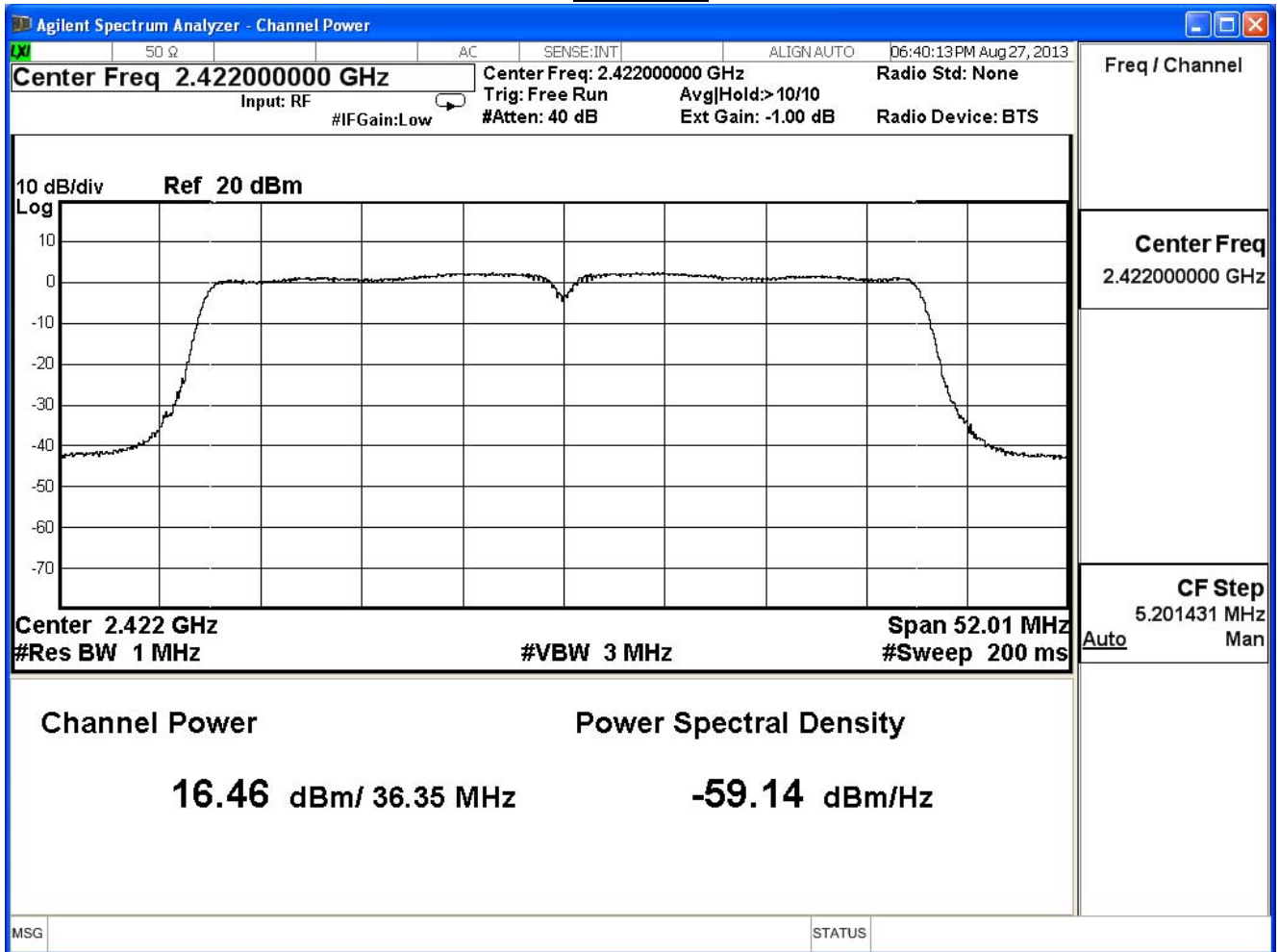
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	16.46	≤ 30	Pass
6	2437	18.44	≤ 30	Pass
9	2452	15.45	≤ 30	Pass

The worst emission of data rate is 40.5Mbps

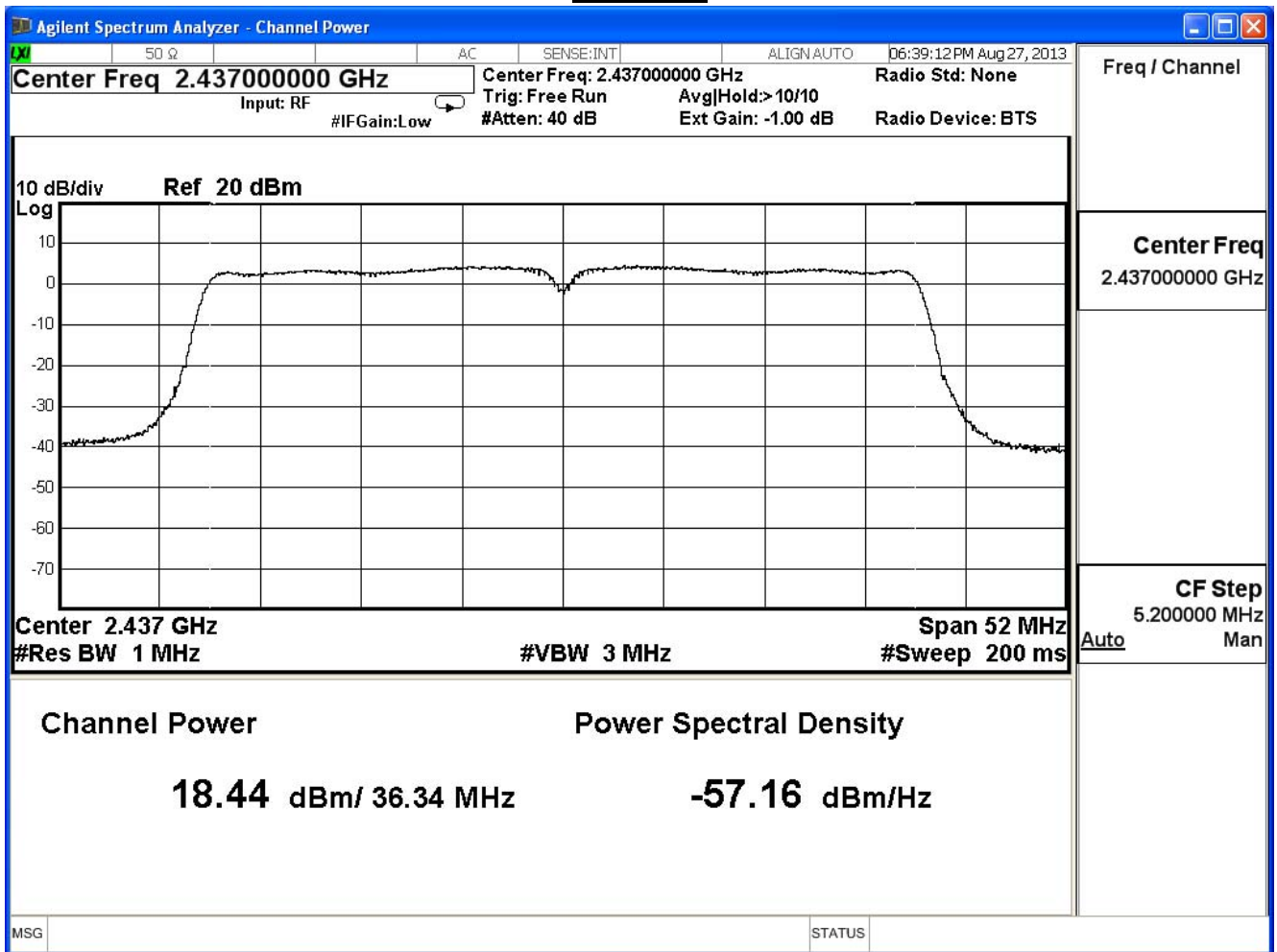
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		40.5	81.0	121.5	162.0	243.0	324.0	364.5	405.0	
3	2422	16.46	--	--	--	--	--	--	--	30dBm
6	2437	18.44	18.34	18.24	18.11	18.01	17.77	17.65	17.53	30dBm
9	2452	15.45	--	--	--	--	--	--	--	30dBm

Note: Measure Level =Reading value + cable loss

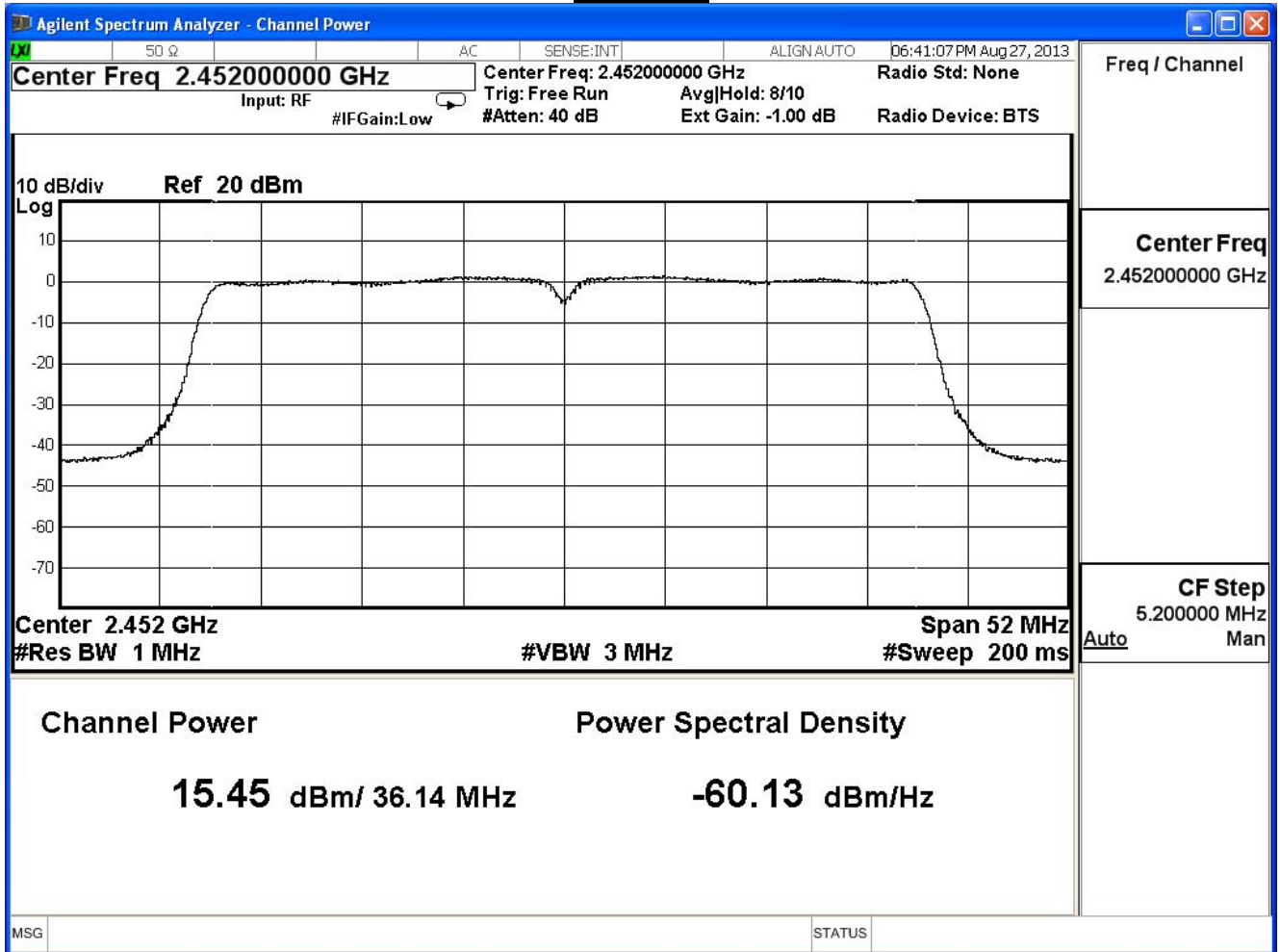
## Channel 3



**Channel 6**



Channel 9



Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

IEEE802.11n 40MHz (ANT 2) , power index: ch3:55, ch6:96, ch9:53

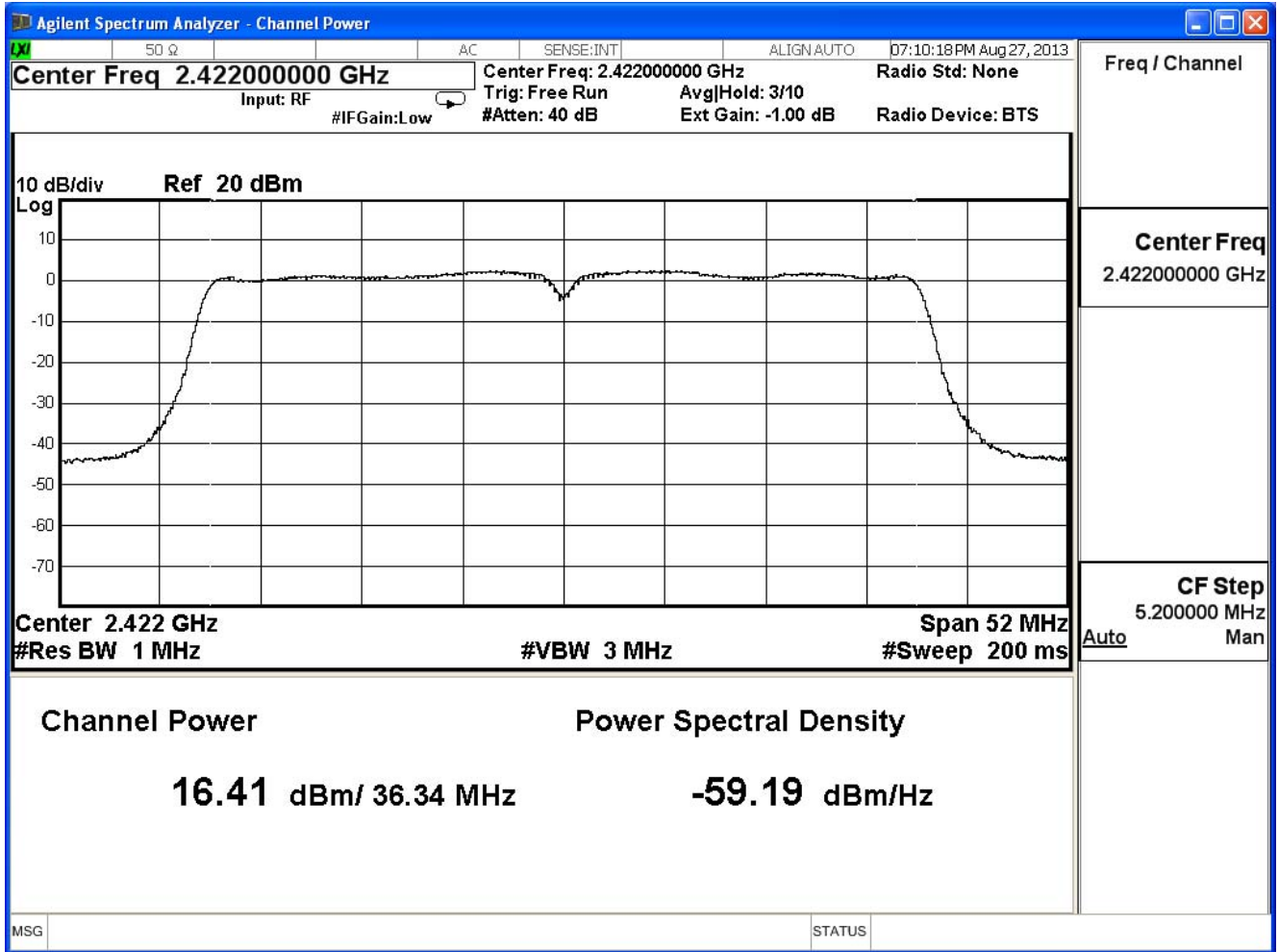
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	16.41	≤ 30	Pass
6	2437	18.50	≤ 30	Pass
9	2452	15.57	≤ 30	Pass

The worst emission of data rate is 40.5Mbps

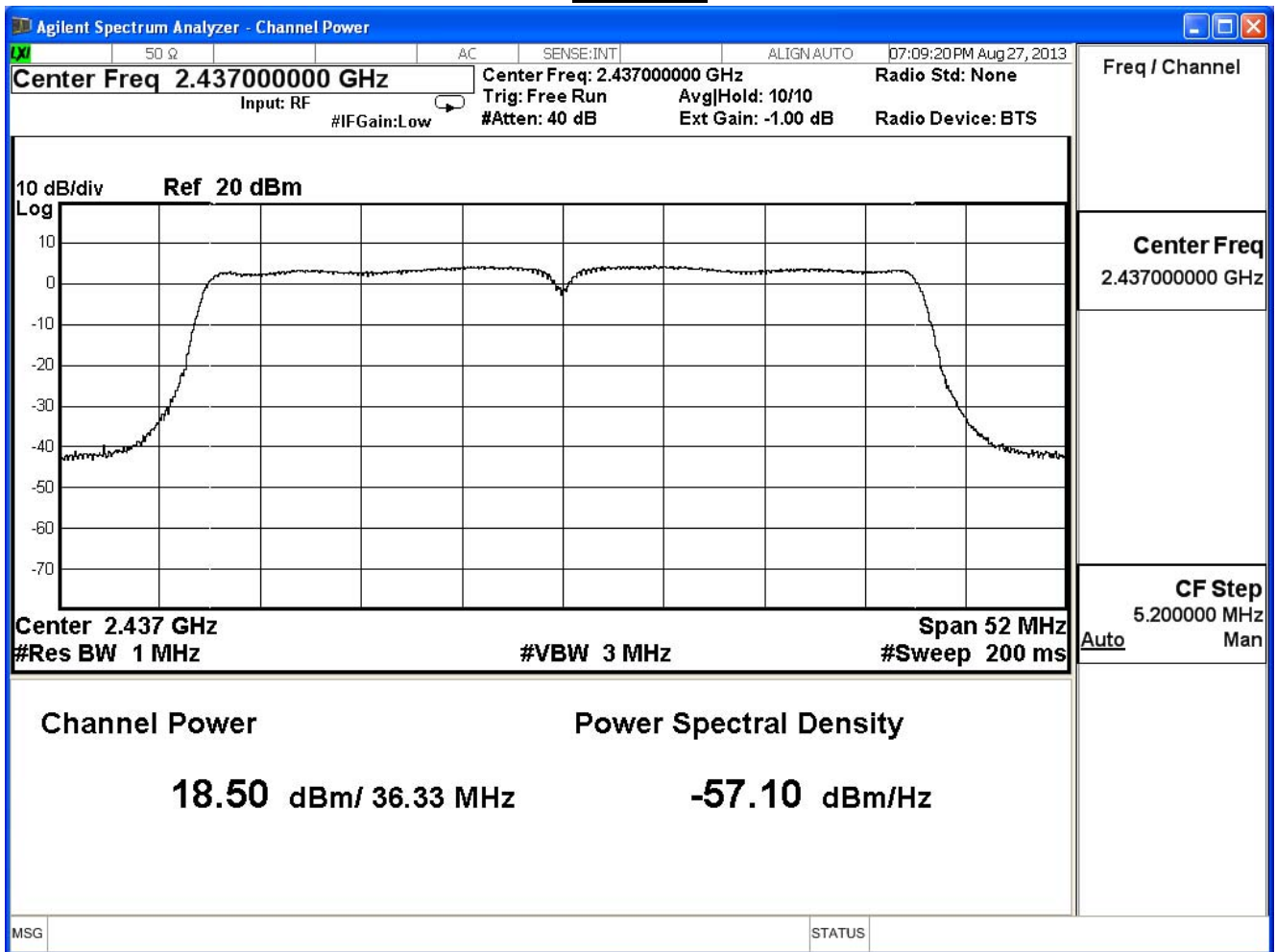
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		40.5	81.0	121.5	162.0	243.0	324.0	364.5	405.0	
3	2422	16.41	--	--	--	--	--	--	--	30dBm
6	2437	18.50	18.40	18.29	18.09	17.97	17.85	17.61	17.37	30dBm
9	2452	15.57	--	--	--	--	--	--	--	30dBm

Note: Measure Level =Reading value + cable loss

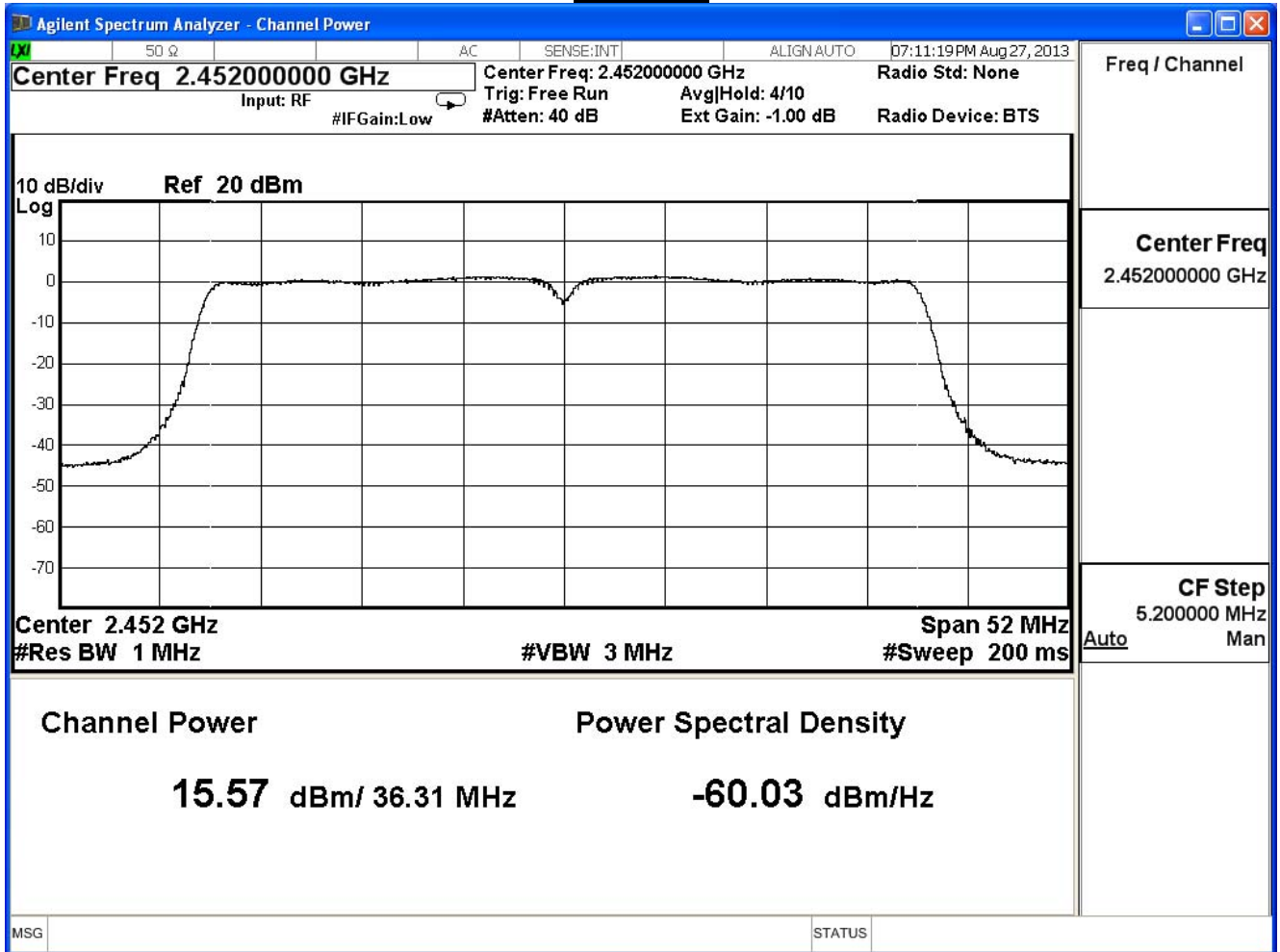
Channel 3



**Channel 6**



Channel 9





Product	Wireless-AC1900 Dual Band Gigabit Router		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (CDD Mode)_Adapter: EXA1206UH		
Date of Test	2013/08/28	Test Site	SR7

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	21.25	≤ 30	Pass
6	2437	23.44	≤ 30	Pass
9	2452	20.33	≤ 30	Pass

The worst emission of data rate is 40.5Mbps

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		40.5	81.0	121.5	162.0	243.0	324.0	364.5	405.0	
3	2422	21.25	--	--	--	--	--	--	--	30dBm
6	2437	23.44	23.30	23.16	23.02	22.91	22.71	22.55	22.39	30dBm
9	2452	20.33	--	--	--	--	--	--	--	30dBm

Note: Measure Level =Reading value + cable loss