

FCC Test Report

Product Name : USB-AC56 dual-bank wireless adapter
Model No. : USB-AC56
FCC ID. : MSQ-USBAC56

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

Date of Receipt : 2013/05/10
Issued Date : 2013/06/24
Report No. : 135176R-RFUSP42V01
Report Version : V1.0



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

Issued Date : 2013/06/24

Report No. : 135176R-RFUSP42V01



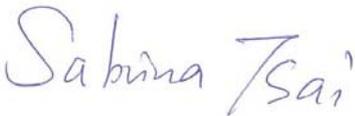
Product Name : USB-AC56 dual-bank wireless adapter
 Applicant : ASUSTeK COMPUTER INC.
 Address : 4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.
 Manufacturer : ASUSTeK COMPUTER INC.
 Model No. : USB-AC56
 FCC ID. : MSQ-USBAC56
 EUT Voltage : DC5V(Power by PC)
 Trade Name : ASUS
 Applicable Standard : 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.

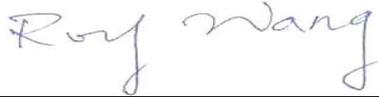
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Laboratory Information

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:

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

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

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

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1. General Information

1.1. EUT Description

Product Name	USB-AC56 dual-bank wireless adapter
Product Type	WLAN (2TX, 2RX)
Trade Name	ASUS
Model No.	USB-AC56
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 15 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	Dipole Antenna : 2.4G : Ant0 : 2.00dBi 5G : Ant0 : 2.00dBi PIFA Antenna : 2.4G : Ant0 : 1.10dBi , Ant1 : 0.13dBi 5G : Ant0 : 2.28dBi , Ant1 : 2.38dBi
Beamforming Gain	NA
Antenna Type	Dipole Antenna & PIFA Antenna

Component	
USB Cable	Shielded, 0.9m

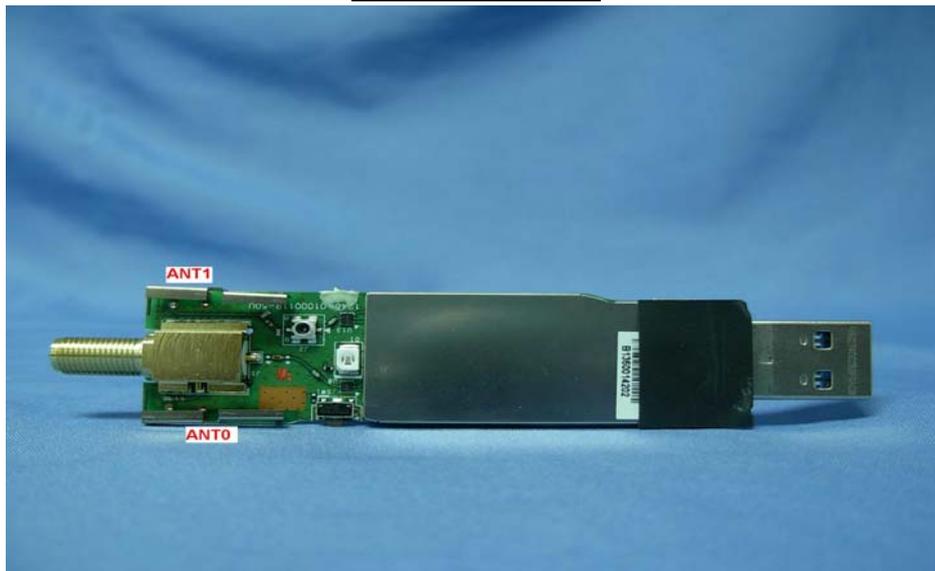
ANT-TX / Rx & Bandwidth

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

Mode1 (2TX /2RX)



Mode2 (2TX /2RX)



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 (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 _{BPSCS}	N _{CBPS}		N _{DBPS}		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

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

Draft IEEE 802.11ac Data Rate

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

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 USB-AC56 dual-bank wireless adapter including 2.4GHz b/g/n (2x2) and 5GHz a/n/ac (2x2) transmitting and receiving function.
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart 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: 135176R-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 135176R-RFUSP37V02 under Declaration of Conformity.

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 (Dipole Antenna) Mode 2: Transmit (PIFA Antenna)
----	--

Test Items	Modulation	Channel	Antenna	Result
Conducted Emission	11n(40MHz)	6	0+1	Complies
	11ac(80MHz)	155	0+1	Complies
Peak Power Output	a	149/ 157/ 165	0	Complies
	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11/ 149/ 157/ 165	0+1	Complies
	11n(40MHz)	3/ 6/ 9/ 151/ 159	0+1	Complies
	11ac(20MHz)	149/ 157/ 165	0+1	Complies
	11ac(40MHz)	151/159	0+1	Complies
	11ac(80MHz)	155	0+1	Complies
Radiated Emission	a	149/ 157/ 165	0	Complies
	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11/ 149/ 157/ 165	0+1	Complies
	11n(40MHz)	3/ 6/ 9/ 151/ 159	0+1	Complies
	11ac(20MHz)	149/ 157/ 165	0+1	Complies
	11ac(40MHz)	151/159	0+1	Complies
	11ac(80MHz)	155	0+1	Complies
RF antenna conducted test	a	149/ 165	0	Complies
	b/g	1/ 11	0	Complies
	11n(20MHz)	1/ 11/ 149/ 165	0/1	Complies
	11n(40MHz)	3/ 9/ 151/ 159	0/1	Complies
	11ac(20MHz)	149/ 165	0/1	Complies
	11ac(40MHz)	151/159	0/1	Complies
	11ac(80MHz)	155	0/1	Complies

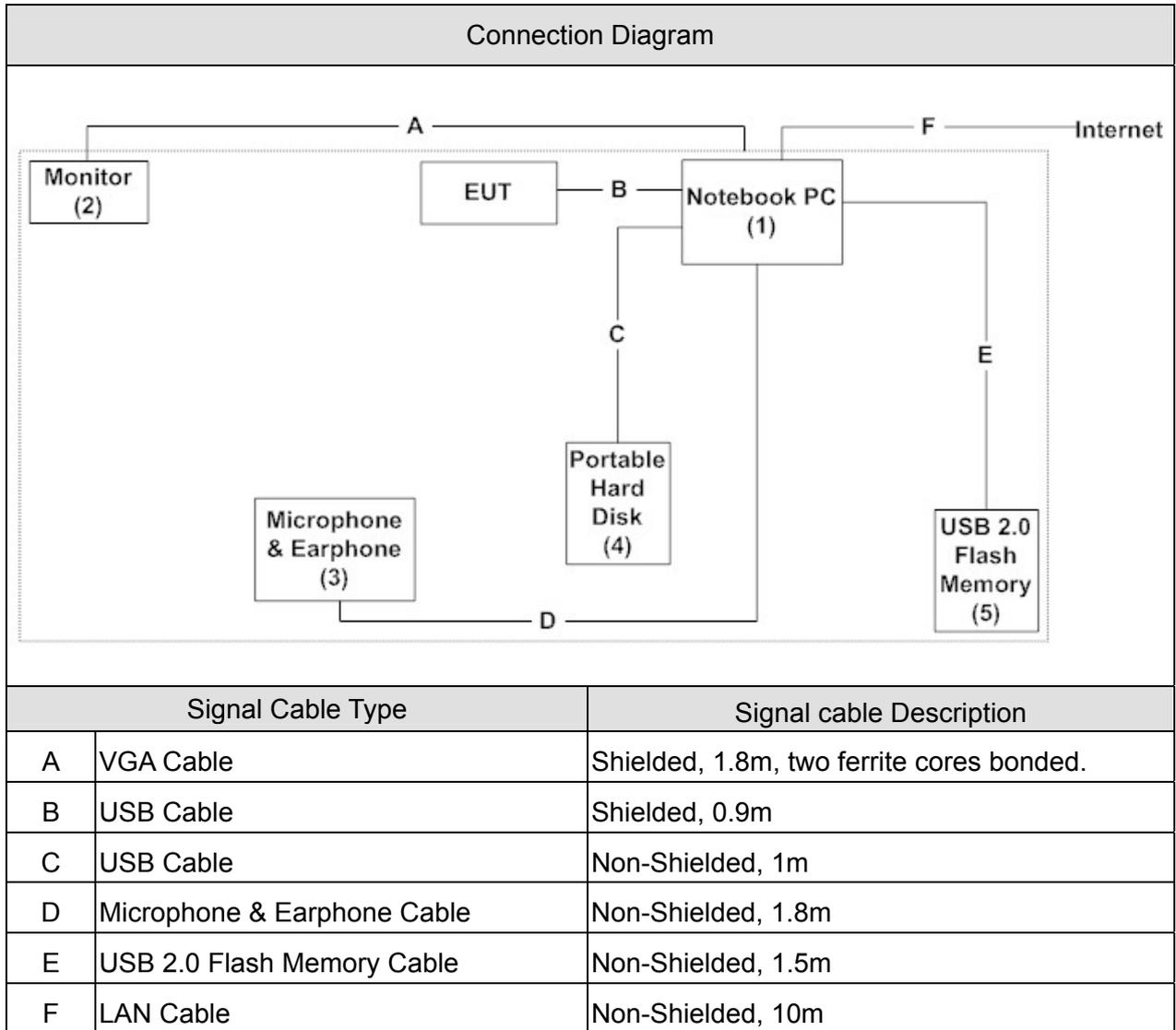
Test Items	Modulation	Channel	Antenna	Result
Radiated Emission Band Edge	a	149/165	0	Complies
	b/g	1/ 11	0	Complies
	11n(20MHz)	1/ 11/149/165	0+1	Complies
	11n(40MHz)	3/ 9/151/159	0+1	Complies
	11ac(20MHz)	1/ 11/149/165	0+1	Complies
	11ac(40MHz)	3/ 9/151/159	0+1	Complies
	11ac(80MHz)	155	0+1	Complies
Occupied Bandwidth	a	149/ 157/ 165	0	Complies
	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11/ 149/ 157/ 165	0/1	Complies
	11n(40MHz)	3/ 6/ 9/ 151/ 159	0/1	Complies
	11ac(20MHz)	149/ 157/ 165	0/1	Complies
	11ac(40MHz)	151/159	0/1	Complies
	11ac(80MHz)	155	0/1	Complies
Power Density	a	149/ 157/ 165	0	Complies
	b/g	1/ 6/ 11	0	Complies
	11n(20MHz)	1/ 6/ 11/ 149/ 157/ 165	0+1	Complies
	11n(40MHz)	3/ 6/ 9/ 151/ 159	0+1	Complies
	11ac(20MHz)	149/ 157/ 165	0+1	Complies
	11ac(40MHz)	151/159	0+1	Complies
	11ac(80MHz)	155	0+1	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 Notebook PC	ASUS	K45V	K45V-0343G3110M	DoC	Non-Shielded, 1.8m
2 Monitor	DELL	2407FPW	2407FPW	DoC	Non-Shielded, 1.8m
3 Microphone & Earphone	Fujiei	SBZ-38	N/A	DoC	--
4 Portable Hard Disk	WD	My Passport	WXE1AB0M5632	DoC	--
5 USB 2.0 Flash Memory	Apacer	AH223	N/A	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" 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

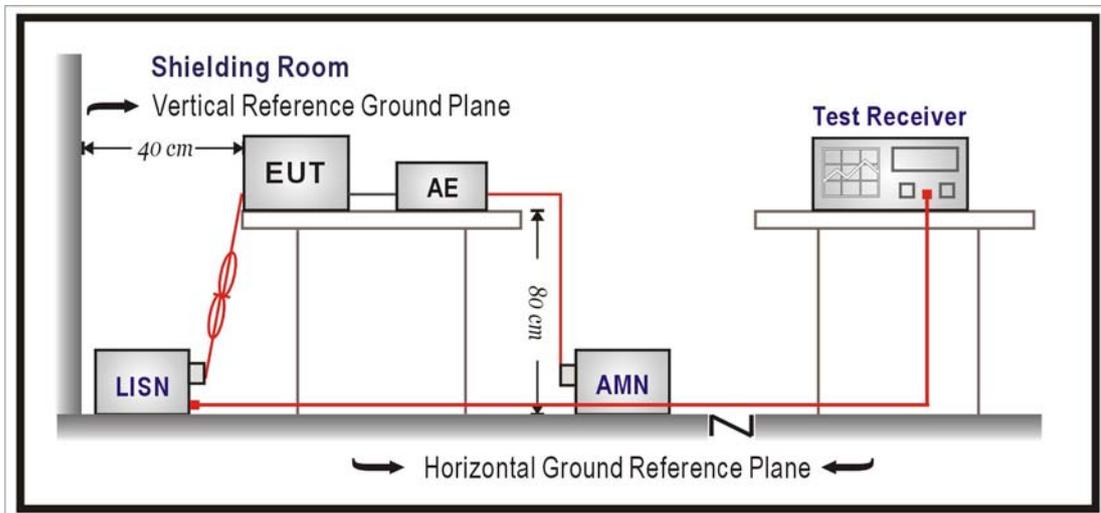
The following test equipments are used during the test:

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

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

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

2.4. Test Procedure

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

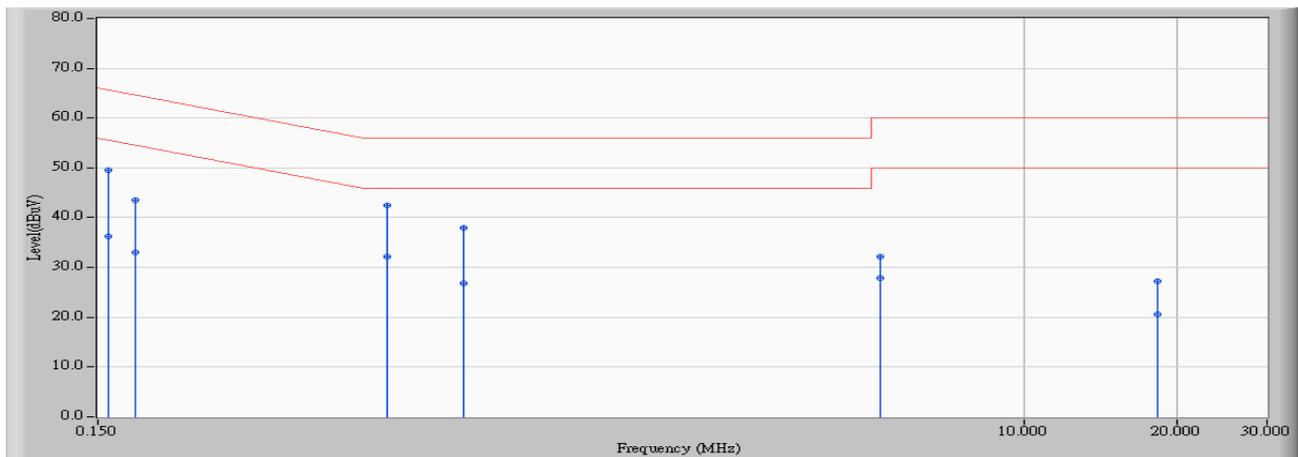
According to FCC Part 15 Subpart C Paragraph 15.207: 2012

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR3	Time : 2013/06/18 - 14:49
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line1	Power : DC5V(Power by PC)AC 110V
EUT : USB-AC56 dual-bank wireless adapter	Note : Mode 1: Transmit (Dipole Antenna)-802.11n40 2437MHz

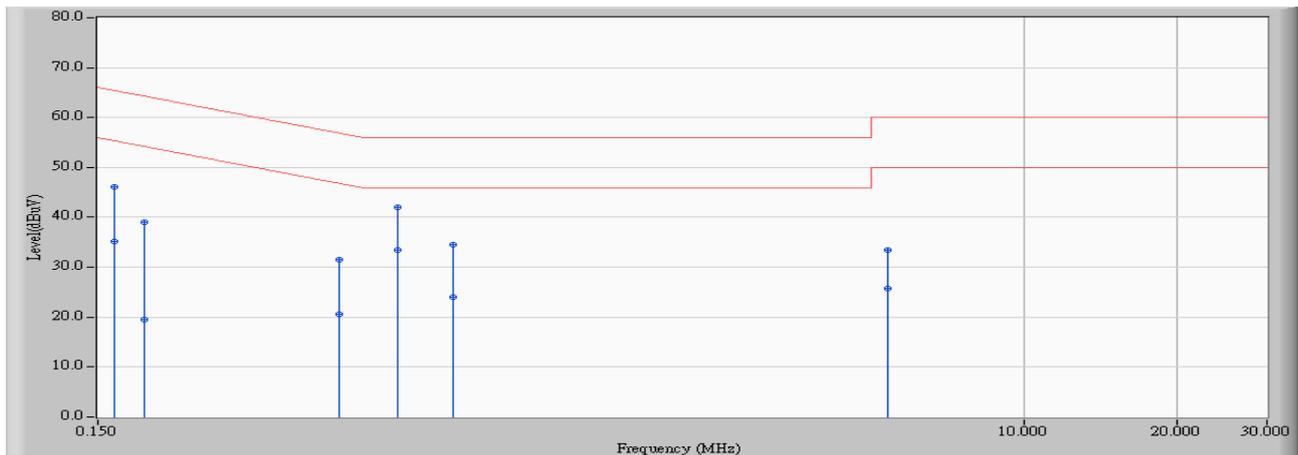


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.158	9.799	39.760	49.559	-16.019	65.578	QUASPEAK
2	0.158	9.799	26.380	36.179	-19.399	55.578	AVERAGE
3	0.177	9.735	33.730	43.465	-21.144	64.609	QUASPEAK
4	0.177	9.735	23.320	33.055	-21.554	54.609	AVERAGE
5	* 0.556	9.844	32.730	42.574	-13.426	56.000	QUASPEAK
6	0.556	9.844	22.300	32.144	-13.856	46.000	AVERAGE
7	0.787	9.893	27.990	37.884	-18.116	56.000	QUASPEAK
8	0.787	9.893	16.930	26.824	-19.176	46.000	AVERAGE
9	5.216	10.110	22.000	32.110	-27.890	60.000	QUASPEAK
10	5.216	10.110	17.710	27.820	-22.180	50.000	AVERAGE
11	18.298	10.130	17.010	27.140	-32.860	60.000	QUASPEAK
12	18.298	10.130	10.430	20.560	-29.440	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 : 2013/06/18 - 14:51
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line2	Power : DC5V(Power by PC)AC 110V
EUT : USB-AC56 dual-bank wireless adapter	Note : Mode 1: Transmit (Dipole Antenna)-802.11n40 2437MHz

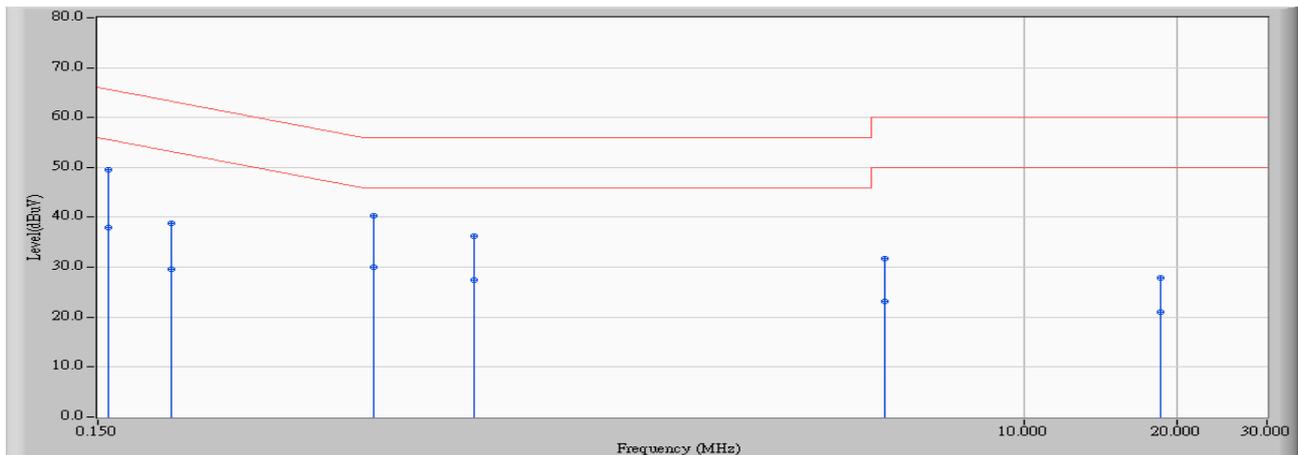


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.162	9.640	36.420	46.060	-19.315	65.375	QUASPEAK
2	0.162	9.640	25.430	35.070	-20.305	55.375	AVERAGE
3	0.185	9.652	29.400	39.051	-25.200	64.251	QUASPEAK
4	0.185	9.652	9.920	19.571	-34.680	54.251	AVERAGE
5	0.447	9.790	21.690	31.480	-25.453	56.933	QUASPEAK
6	0.447	9.790	10.760	20.550	-26.383	46.933	AVERAGE
7	0.584	9.840	32.290	42.130	-13.870	56.000	QUASPEAK
8	*	9.840	23.540	33.380	-12.620	46.000	AVERAGE
9	0.752	9.876	24.720	34.596	-21.404	56.000	QUASPEAK
10	0.752	9.876	14.090	23.966	-22.034	46.000	AVERAGE
11	5.380	10.081	23.290	33.371	-26.629	60.000	QUASPEAK
12	5.380	10.081	15.620	25.701	-24.299	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 : 2013/06/18 - 15:04
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line1	Power : DC5V(Power by PC)AC 110V
EUT : USB-AC56 dual-bank wireless adapter	Note : Mode 2: Transmit (PIFA Antenna)-802.11n40 2437MHz

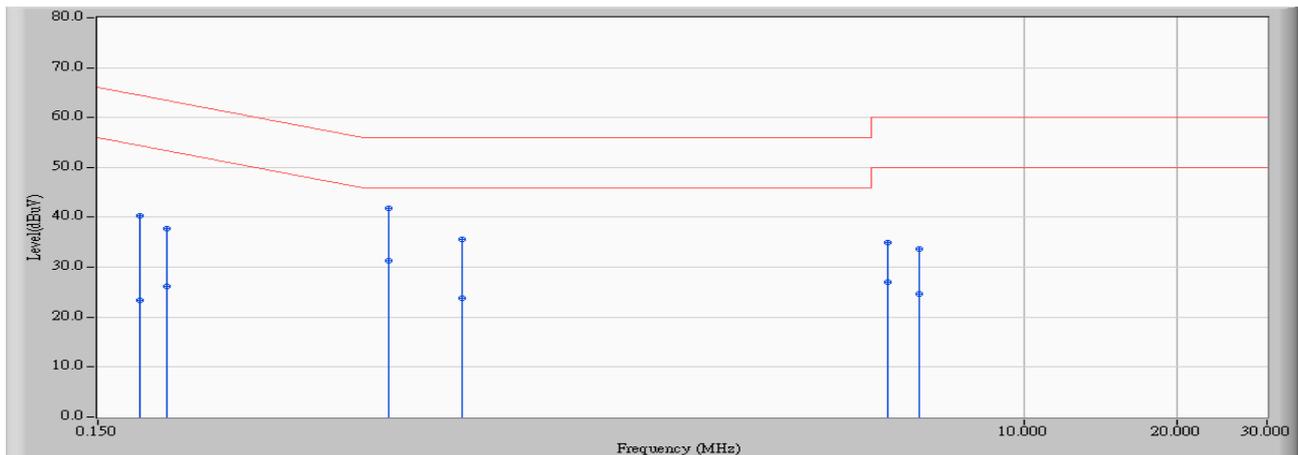


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.158	9.799	39.780	49.579	-15.999	65.578	QUASPEAK
2	0.158	9.799	28.110	37.909	-17.669	55.578	AVERAGE
3	0.209	9.679	29.180	38.859	-24.402	63.261	QUASPEAK
4	0.209	9.679	19.950	29.629	-23.632	53.261	AVERAGE
5	* 0.525	9.837	30.590	40.427	-15.573	56.000	QUASPEAK
6	0.525	9.837	20.170	30.007	-15.993	46.000	AVERAGE
7	0.826	9.902	26.430	36.332	-19.668	56.000	QUASPEAK
8	0.826	9.902	17.630	27.532	-18.468	46.000	AVERAGE
9	5.310	10.110	21.670	31.780	-28.220	60.000	QUASPEAK
10	5.310	10.110	13.100	23.210	-26.790	50.000	AVERAGE
11	18.462	10.130	17.700	27.830	-32.170	60.000	QUASPEAK
12	18.462	10.130	10.920	21.050	-28.950	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 : 2013/06/18 - 15:07
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line2	Power : DC5V(Power by PC)AC 110V
EUT : USB-AC56 dual-bank wireless adapter	Note : Mode 2: Transmit (PIFA Antenna)-802.11n40 2437MHz

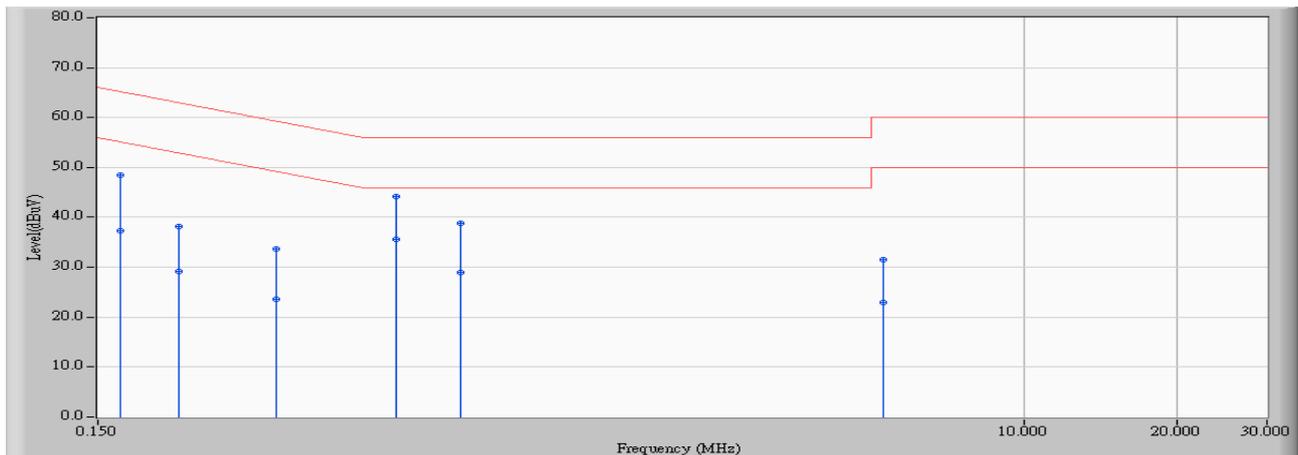


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.181	9.649	30.620	40.269	-24.159	64.428	QUASPEAK
2	0.181	9.649	13.700	23.349	-31.079	54.428	AVERAGE
3	0.205	9.661	28.000	37.661	-25.757	63.418	QUASPEAK
4	0.205	9.661	16.550	26.211	-27.207	53.418	AVERAGE
5	* 0.560	9.835	32.010	41.845	-14.155	56.000	QUASPEAK
6	0.560	9.835	21.510	31.345	-14.655	46.000	AVERAGE
7	0.779	9.882	25.720	35.602	-20.398	56.000	QUASPEAK
8	0.779	9.882	14.030	23.912	-22.088	46.000	AVERAGE
9	5.377	10.081	24.820	34.901	-25.099	60.000	QUASPEAK
10	5.377	10.081	16.900	26.981	-23.019	50.000	AVERAGE
11	6.220	10.093	23.640	33.733	-26.267	60.000	QUASPEAK
12	6.220	10.093	14.640	24.733	-25.267	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 : 2013/06/18 - 14:59
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line1	Power : DC5V(Power by PC)AC 110V
EUT : USB-AC56 dual-bank wireless adapter	Note : Mode 1: Transmit (Dipole Antenna)-802.11ac80 5775MHz

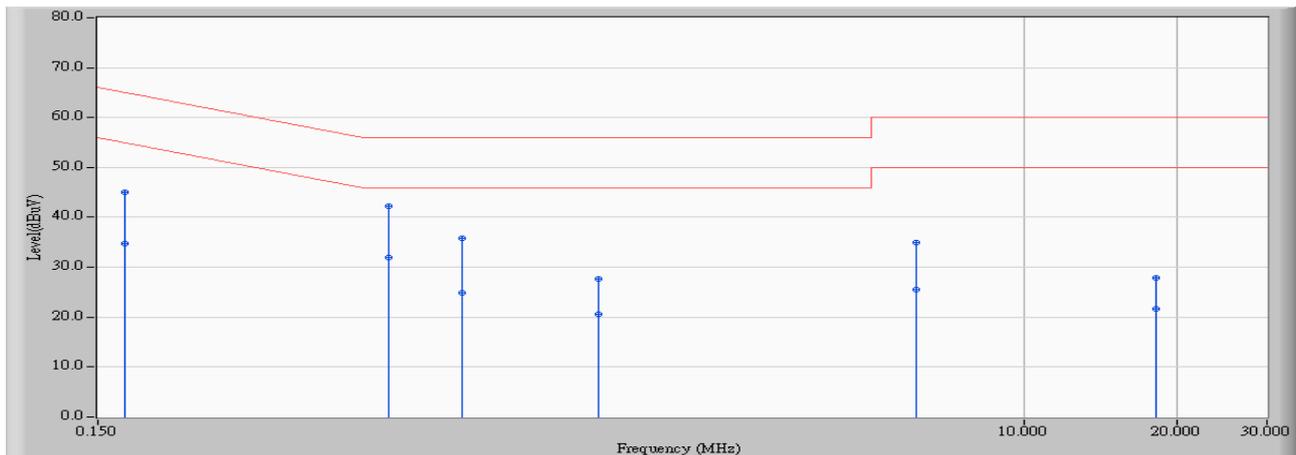


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.166	9.772	38.720	48.493	-16.684	65.177	QUASPEAK
2	0.166	9.772	27.570	37.343	-17.834	55.177	AVERAGE
3	0.216	9.672	28.610	38.282	-24.673	62.956	QUASPEAK
4	0.216	9.672	19.540	29.212	-23.743	52.956	AVERAGE
5	0.338	9.737	23.900	33.637	-25.628	59.265	QUASPEAK
6	0.338	9.737	13.810	23.547	-25.718	49.265	AVERAGE
7	0.580	9.849	34.390	44.239	-11.761	56.000	QUASPEAK
8	*	9.849	25.800	35.649	-10.351	46.000	AVERAGE
9	0.775	9.891	28.930	38.821	-17.179	56.000	QUASPEAK
10	0.775	9.891	18.970	28.861	-17.139	46.000	AVERAGE
11	5.279	10.110	21.390	31.500	-28.500	60.000	QUASPEAK
12	5.279	10.110	12.850	22.960	-27.040	50.000	AVERAGE

Note:

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

Site : SR3	Time : 2013/06/18 - 15:00
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line2	Power : DC5V(Power by PC)AC 110V
EUT : USB-AC56 dual-bank wireless adapter	Note : Mode 1: Transmit (Dipole Antenna)-802.11ac80 5775MHz

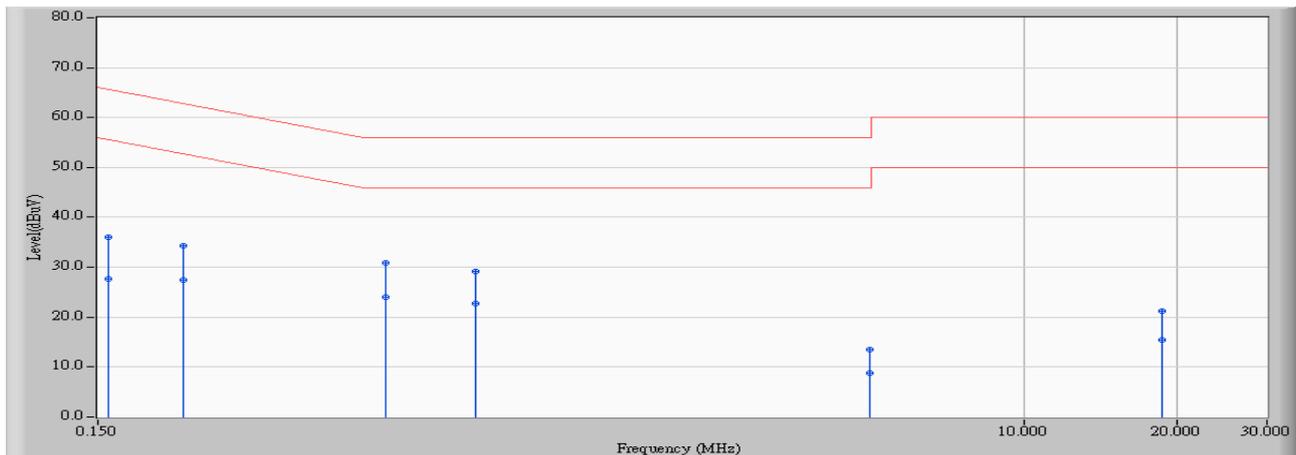


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.170	9.644	35.370	45.014	-19.970	64.983	QUASPEAK
2	0.170	9.644	25.020	34.664	-20.320	54.983	AVERAGE
3	* 0.560	9.835	32.370	42.205	-13.795	56.000	QUASPEAK
4	0.560	9.835	22.040	31.875	-14.125	46.000	AVERAGE
5	0.779	9.882	25.960	35.842	-20.158	56.000	QUASPEAK
6	0.779	9.882	14.930	24.812	-21.188	46.000	AVERAGE
7	1.451	9.935	17.760	27.695	-28.305	56.000	QUASPEAK
8	1.451	9.935	10.610	20.545	-25.455	46.000	AVERAGE
9	6.138	10.092	24.860	34.952	-25.048	60.000	QUASPEAK
10	6.138	10.092	15.480	25.572	-24.428	50.000	AVERAGE
11	18.189	10.274	17.590	27.864	-32.136	60.000	QUASPEAK
12	18.189	10.274	11.400	21.674	-28.326	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 : 2013/06/18 - 15:14
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line1	Power : DC5V(Power by PC)AC 110V
EUT : USB-AC56 dual-bank wireless adapter	Note : Mode 2: Transmit (PIFA Antenna)-802.11ac80 5775MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.158	9.799	26.270	36.069	-29.509	65.578	QUASPEAK
2	0.158	9.799	17.800	27.599	-27.979	55.578	AVERAGE
3	0.220	9.670	24.570	34.240	-28.568	62.807	QUASPEAK
4	0.220	9.670	17.790	27.460	-25.348	52.807	AVERAGE
5	0.552	9.843	21.050	30.893	-25.107	56.000	QUASPEAK
6	*	9.843	14.220	24.063	-21.937	46.000	AVERAGE
7	0.834	9.904	19.210	29.114	-26.886	56.000	QUASPEAK
8	0.834	9.904	12.830	22.734	-23.266	46.000	AVERAGE
9	4.947	10.108	3.360	13.468	-42.532	56.000	QUASPEAK
10	4.947	10.108	-1.230	8.878	-37.122	46.000	AVERAGE
11	18.638	10.130	11.110	21.240	-38.760	60.000	QUASPEAK
12	18.638	10.130	5.360	15.490	-34.510	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 : 2013/06/18 - 15:16
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR3_LISN(16A)-2_0813 - Line2	Power : DC5V(Power by PC)AC 110V
EUT : USB-AC56 dual-bank wireless adapter	Note : Mode 2: Transmit (PIFA Antenna)-802.11ac80 5775MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	0.166	9.642	36.880	46.522	-18.655	65.177	QUASPEAK
2	0.166	9.642	26.240	35.882	-19.295	55.177	AVERAGE
3	0.189	9.653	29.790	39.443	-24.635	64.078	QUASPEAK
4	0.189	9.653	12.090	21.743	-32.335	54.078	AVERAGE
5	0.505	9.821	28.420	38.241	-17.759	56.000	QUASPEAK
6	0.505	9.821	15.230	25.051	-20.949	46.000	AVERAGE
7	0.576	9.838	33.330	43.168	-12.832	56.000	QUASPEAK
8	*	9.838	23.400	33.238	-12.762	46.000	AVERAGE
9	5.334	10.080	25.340	35.420	-24.580	60.000	QUASPEAK
10	5.334	10.080	17.400	27.480	-22.520	50.000	AVERAGE
11	18.295	10.276	16.770	27.046	-32.954	60.000	QUASPEAK
12	18.295	10.276	10.430	20.706	-29.294	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

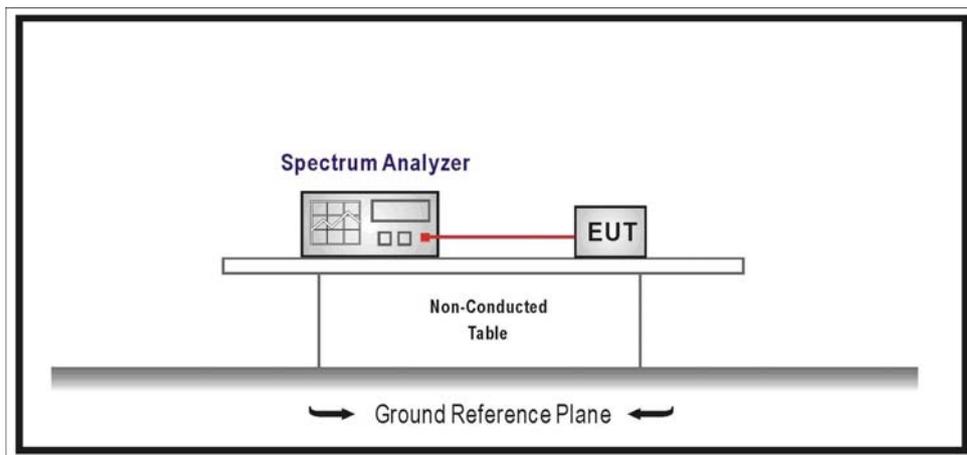
The following test equipments are used during the test:

Peak Power / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2013/07/31

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 Jan. 2012 KDB558074, Section 5.2.1.2 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 ± 1.27 dB.

3.7. Test Result

Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/07	Test Site	SR7

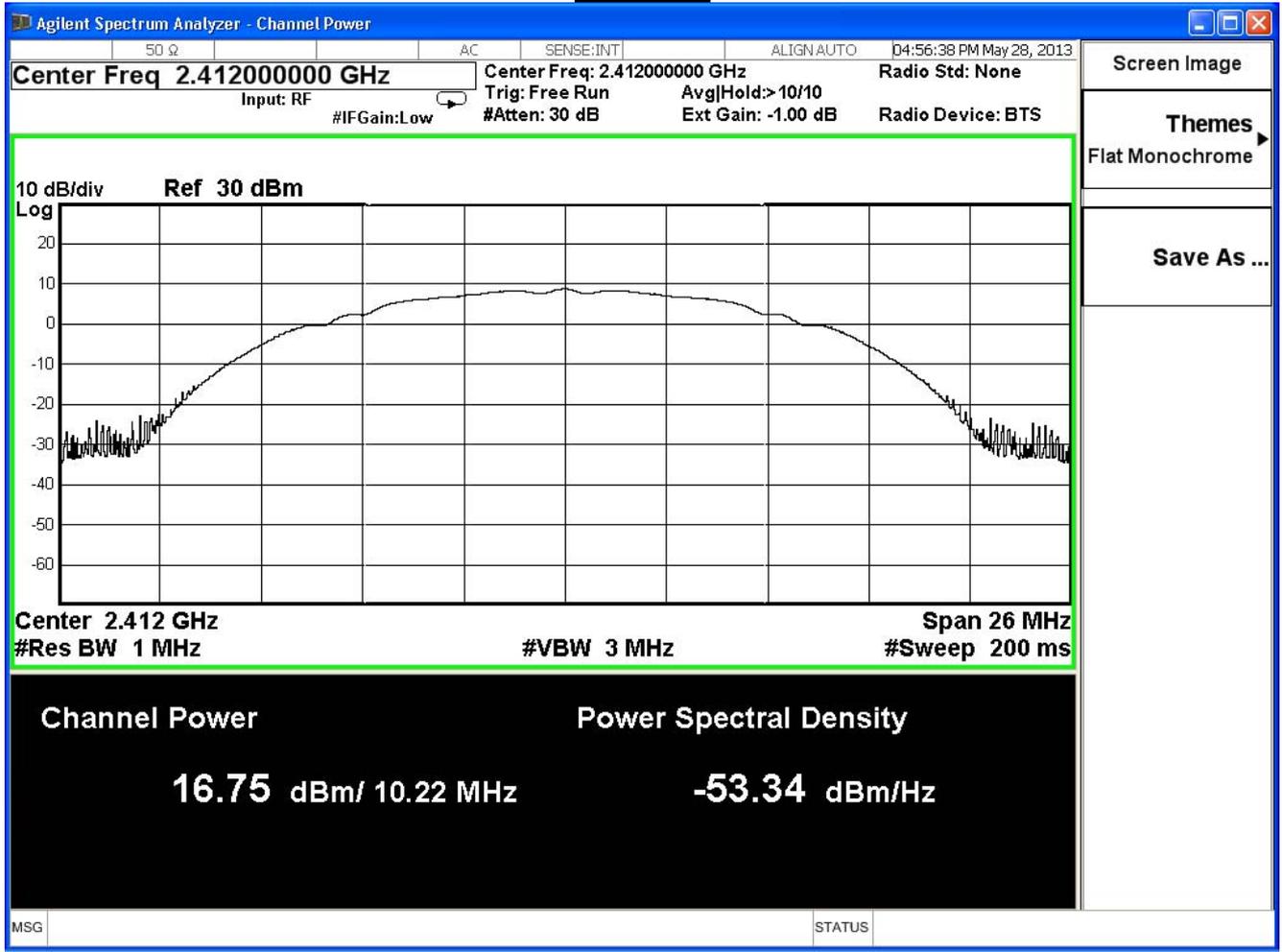
IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	16.75	≤ 30	Pass
6	2437	16.77	≤ 30	Pass
11	2462	17.01	≤ 30	Pass

The worst emission of data rate is 1Mbps.

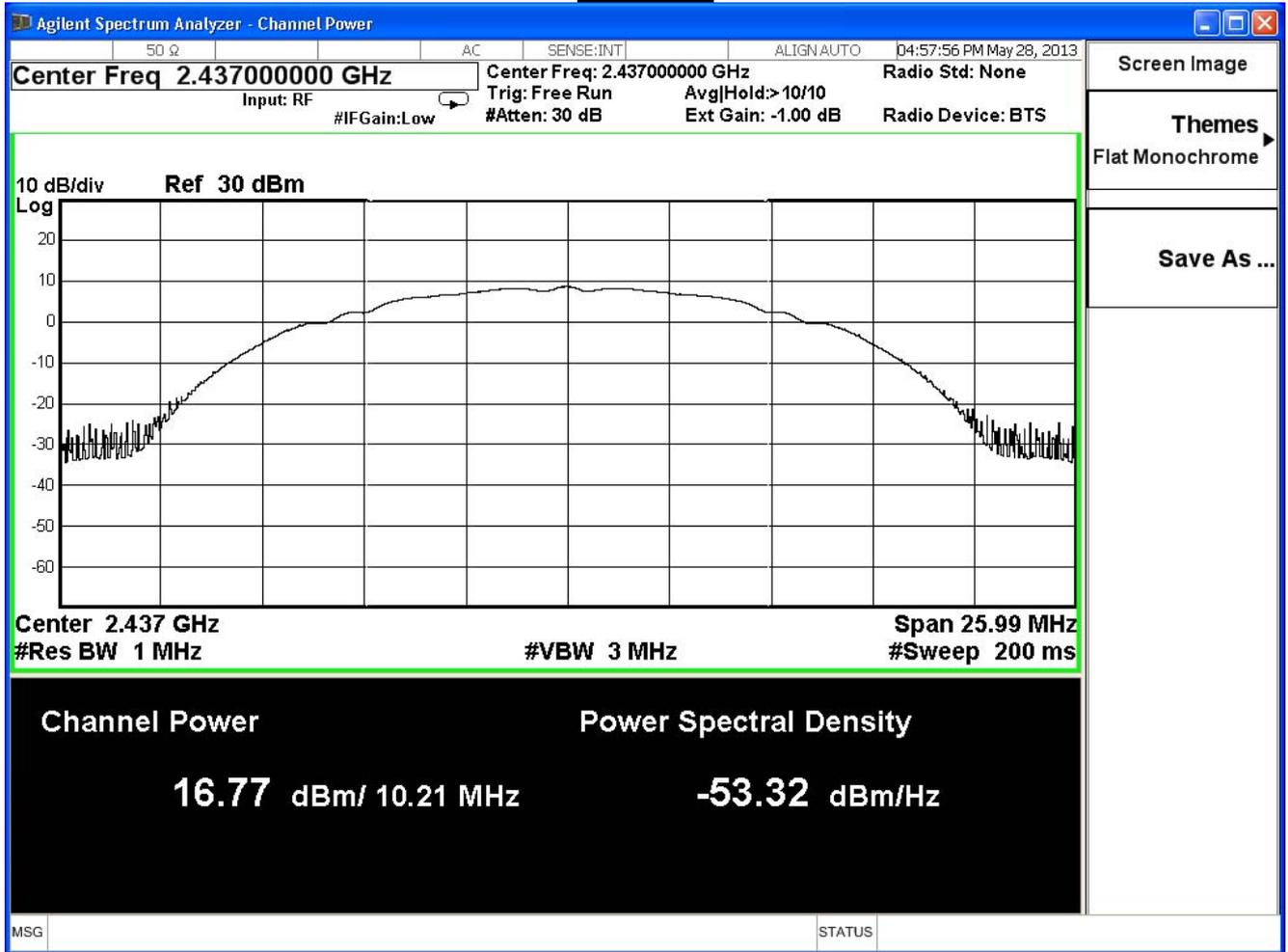
Peak Power Output Value(dBm)									
Channel No.	Frequency (MHz)	Data Rate (Mbps)							Required Limit
		6	12	18	24	36	48	54	
1	2412	16.75	--	--	--	--	--	--	1 Watt=30dBm
6	2437	16.77	16.57	16.47	16.27	16.15	16.03	15.91	1 Watt=30dBm
11	2462	17.01	--	--	--	--	--	--	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

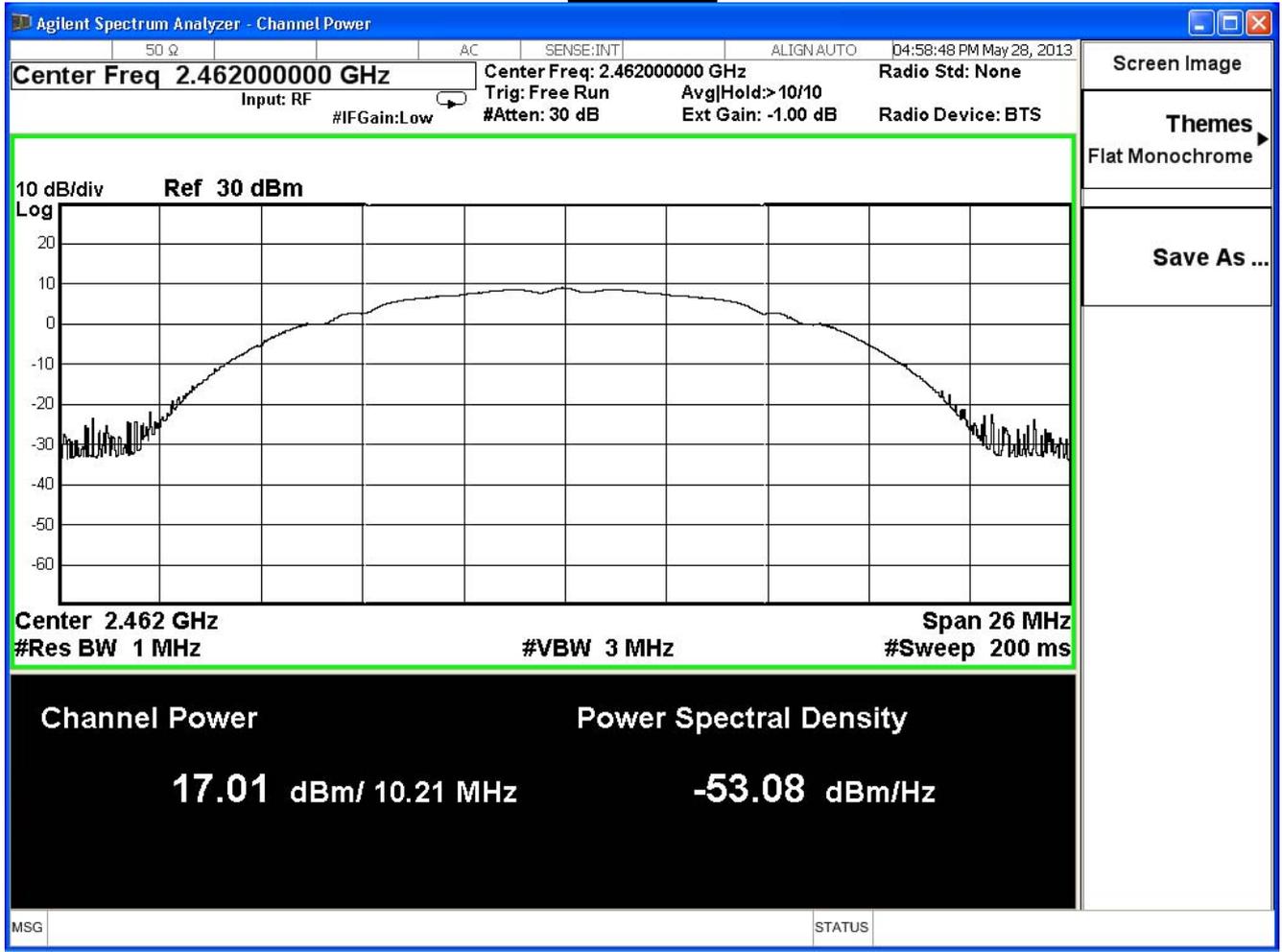
Channel 1



Channel 6



Channel 11



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/07	Test Site	SR7

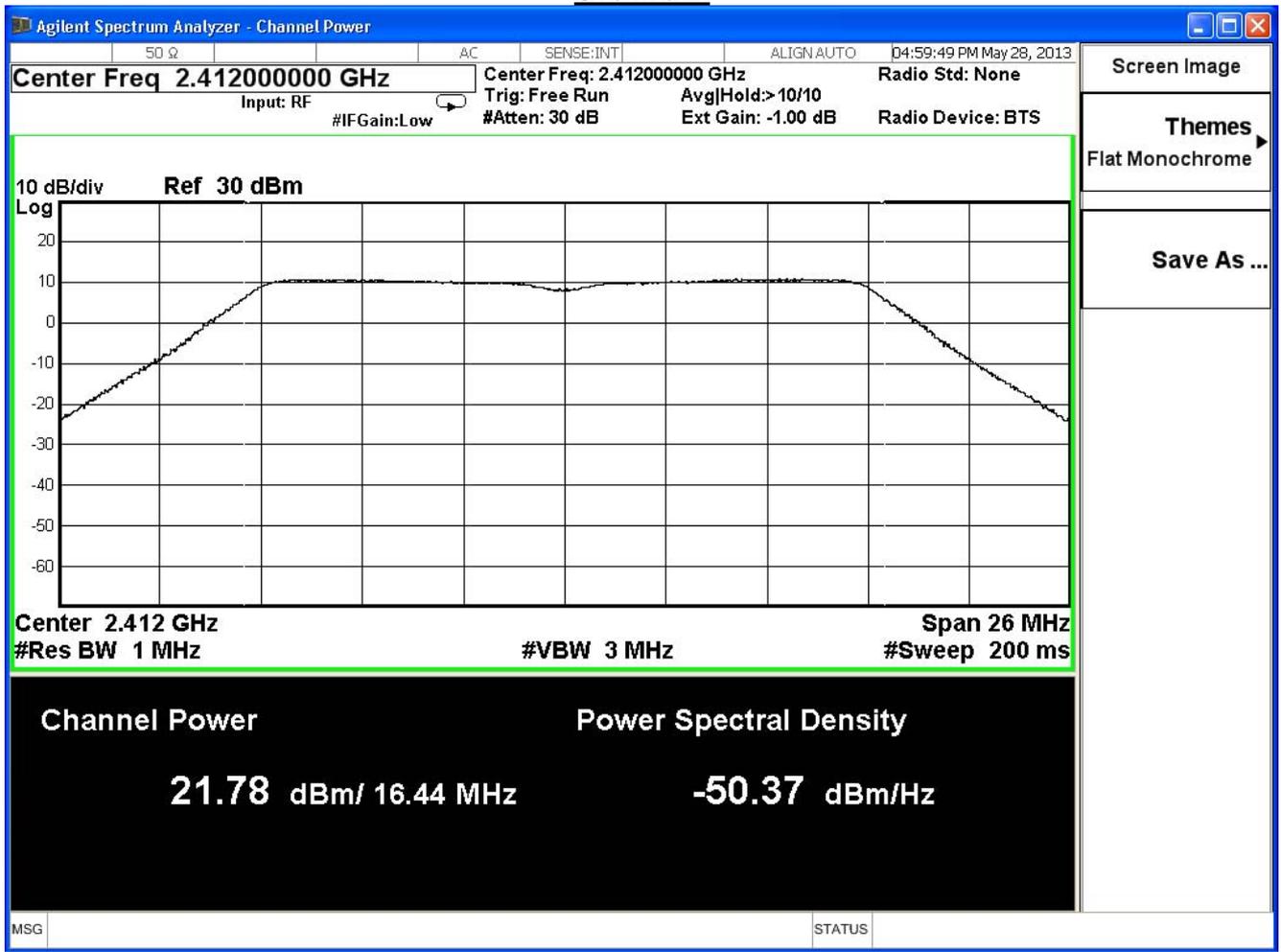
IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	21.78	≤ 30	Pass
6	2437	22.12	≤ 30	Pass
11	2462	22.21	≤ 30	Pass

The worst emission of data rate is 6Mbps.

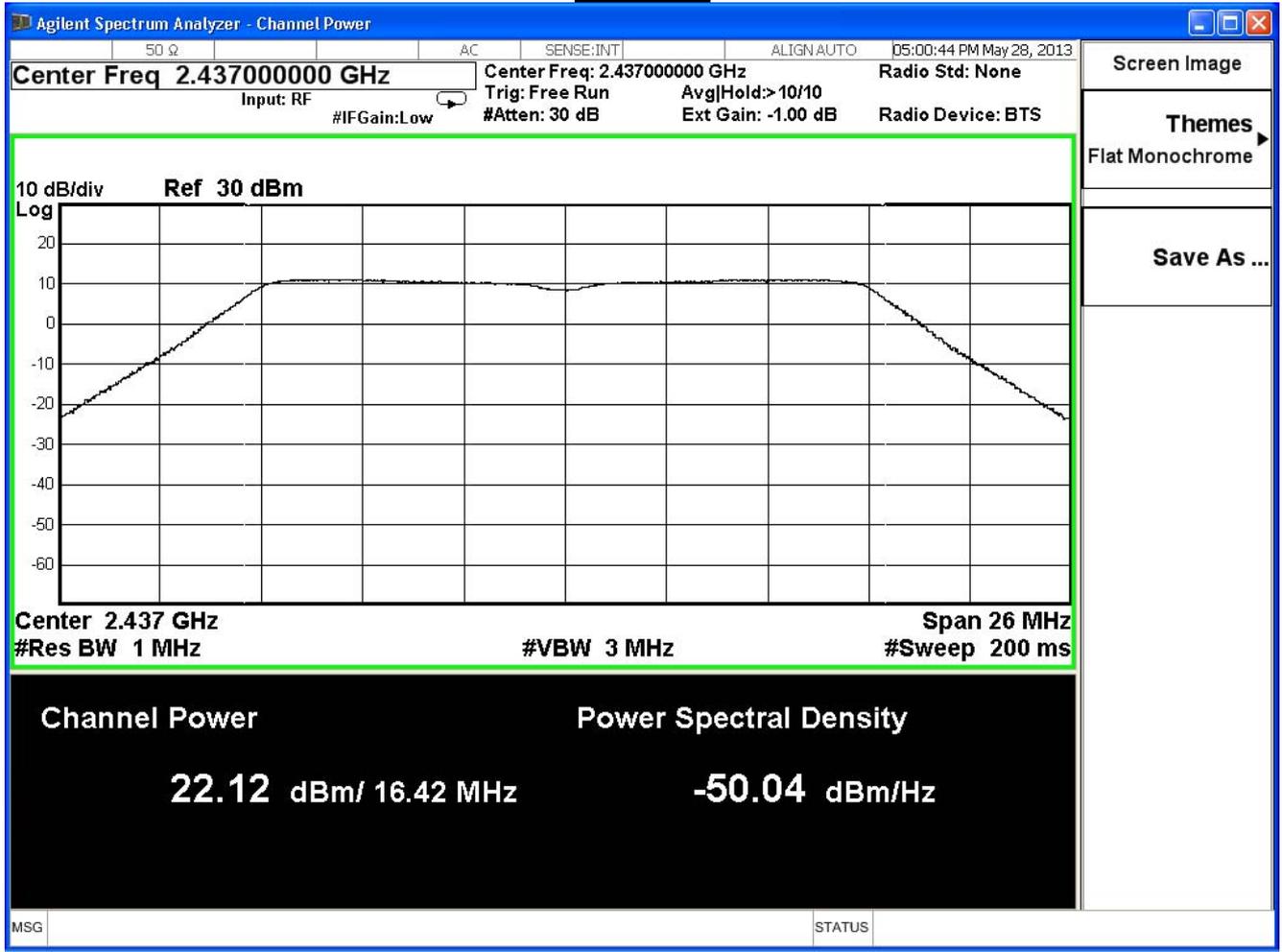
Peak Power Output Value(dBm)									
Channel No.	Frequency (MHz)	Data Rate (Mbps)							Required Limit
		6	12	18	24	36	48	54	
1	2412	21.78	--	--	--	--	--	--	1 Watt=30dBm
6	2437	22.12	21.92	21.82	21.72	21.48	21.36	21.12	1 Watt=30dBm
11	2462	22.21	--	--	--	--	--	--	1 Watt=30dBm

Note: Measure Level =Reading value + cable loss

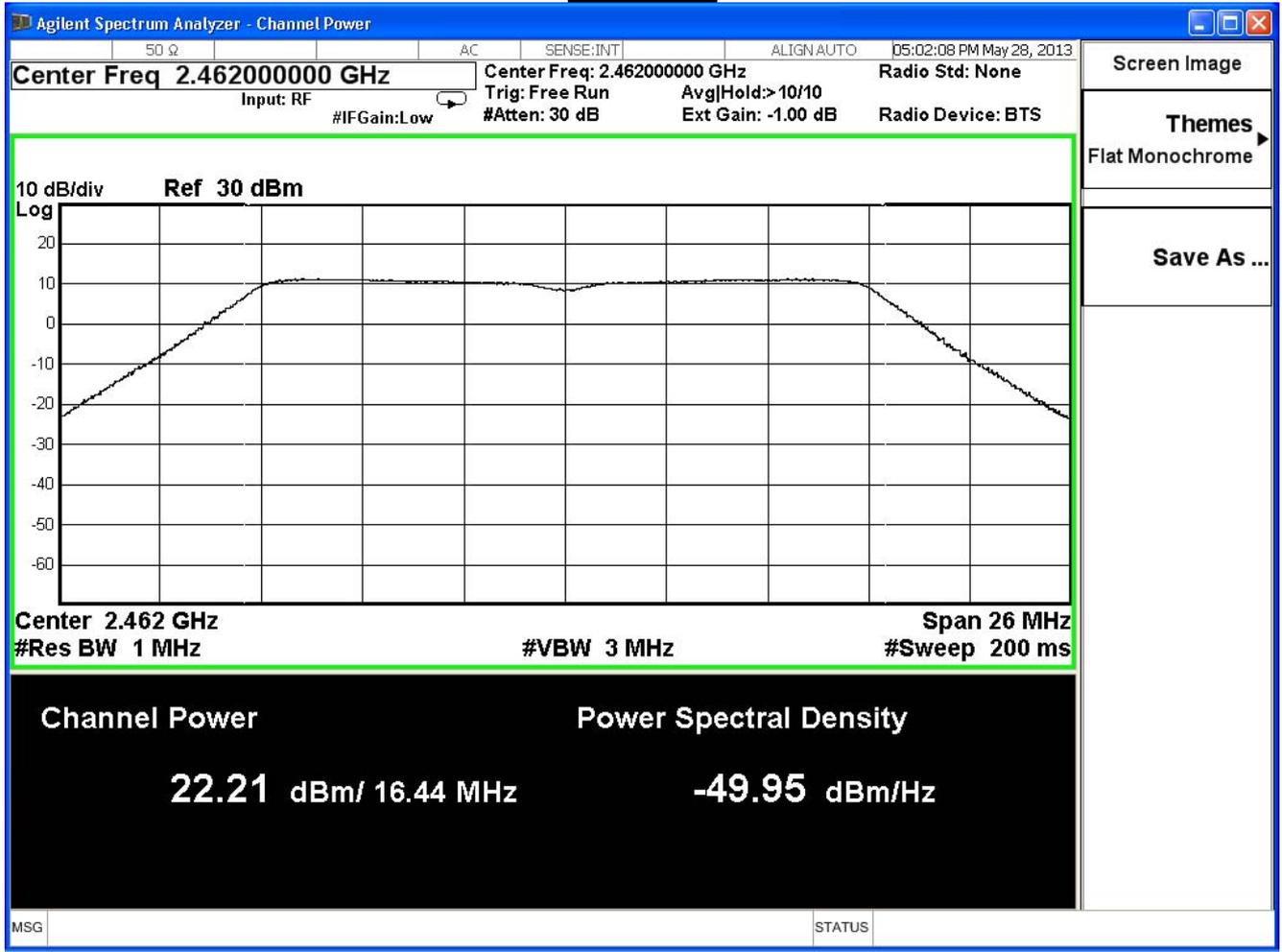
Channel 1



Channel 6



Channel 11



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/07	Test Site	SR7

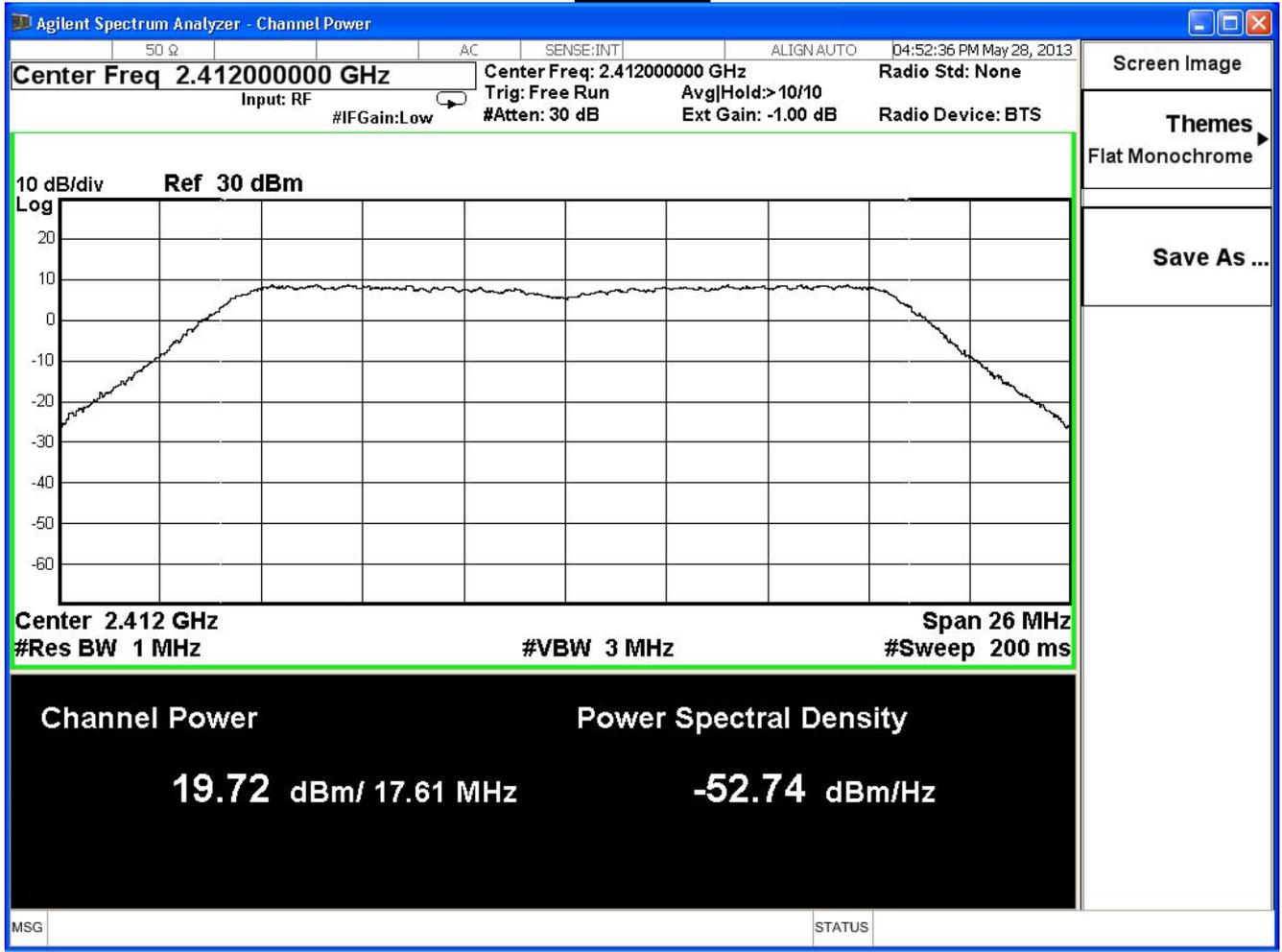
IEEE 802.11n 20MHz (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	19.72	≤ 30	Pass
6	2437	20.91	≤ 30	Pass
11	2462	20.80	≤ 30	Pass

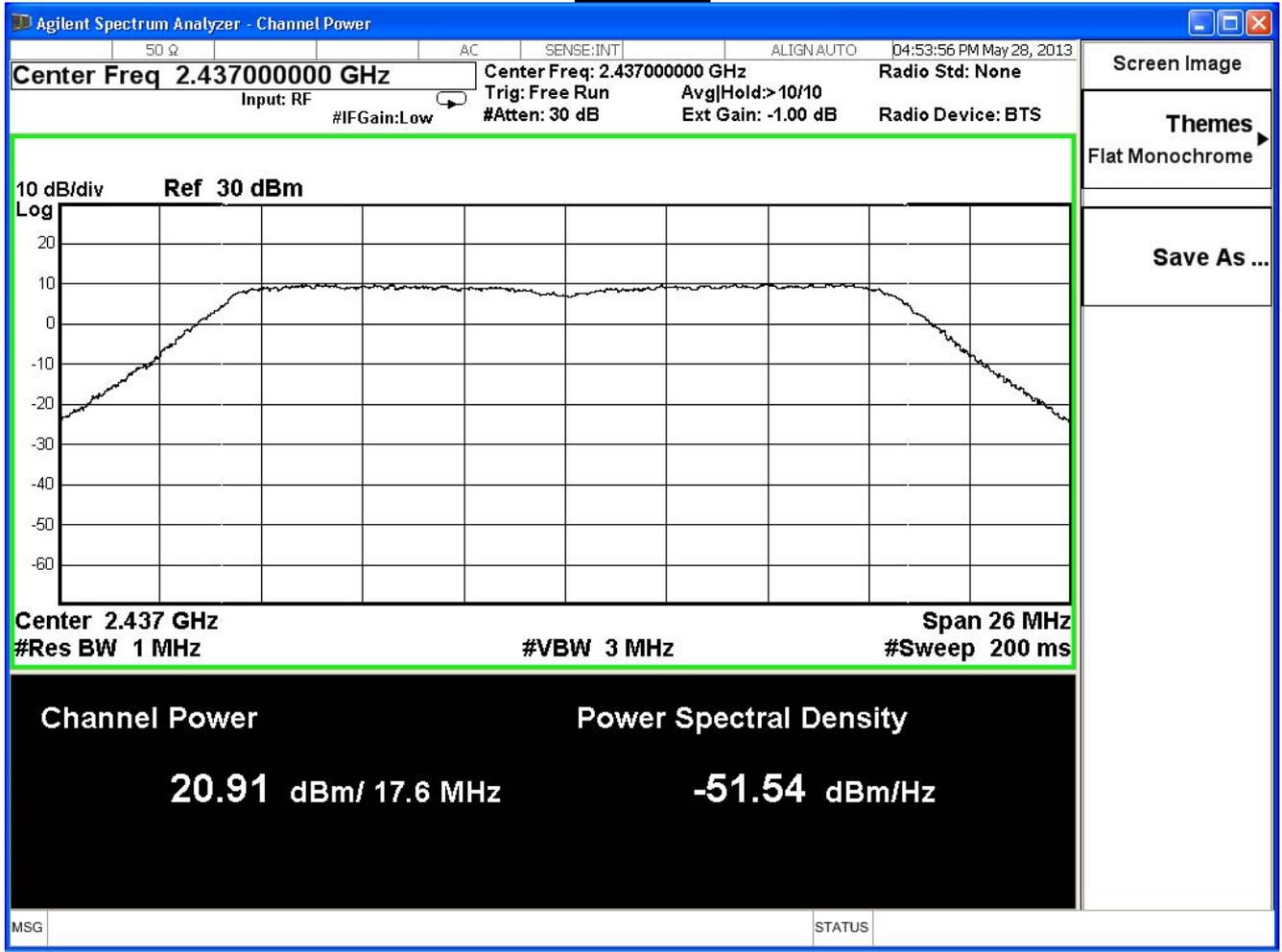
The worst emission of data rate is 19.5 Mbps.

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	19.72	--	---	---					--	30dBm
6	2437	20.91	20.81	20.71	20.51	20.41	20.29	20.05		19.81	30dBm
11	2462	20.8	--	---	---					--	30dBm

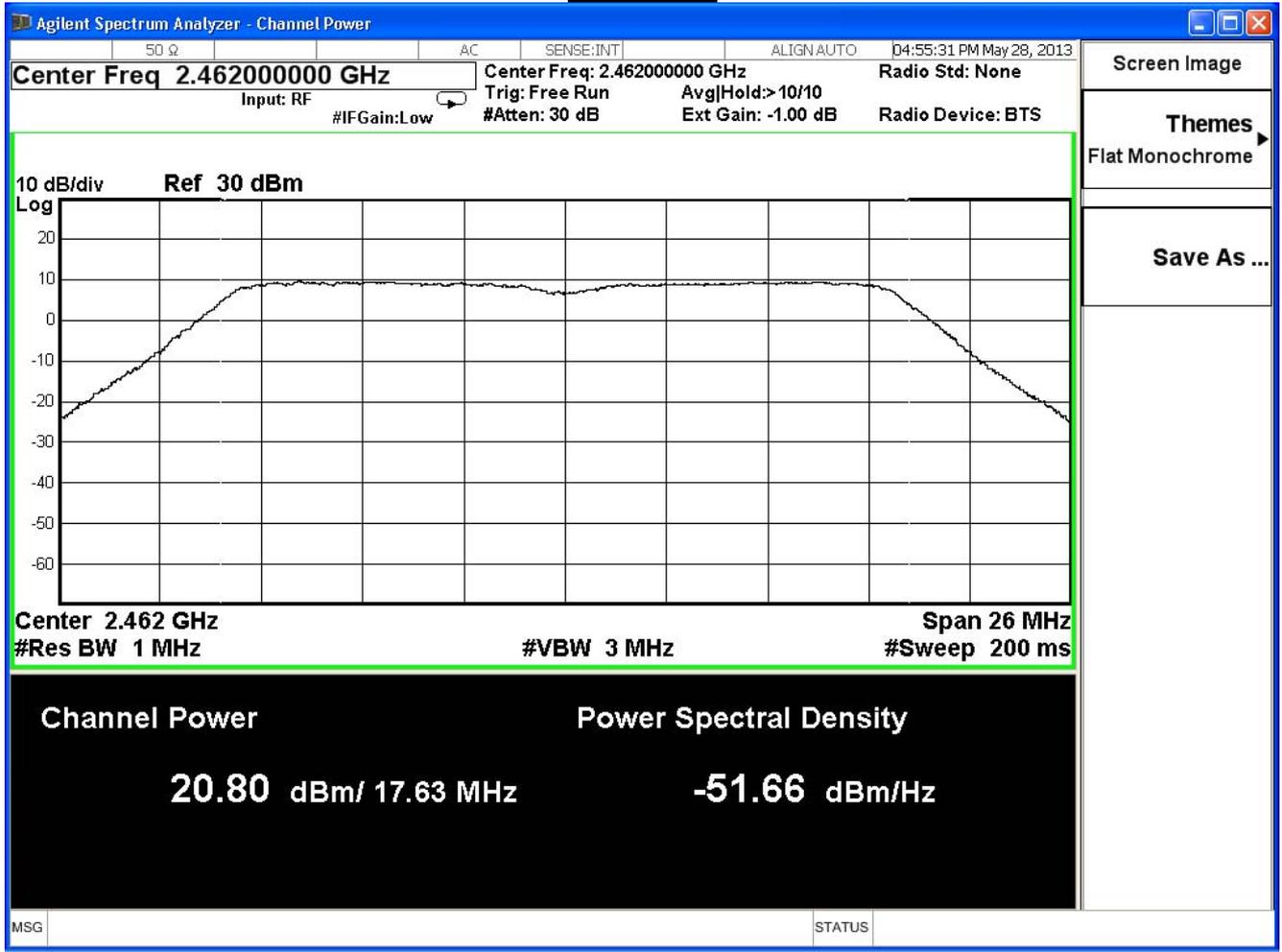
Channel 1



Channel 6



Channel 11



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/07	Test Site	SR7

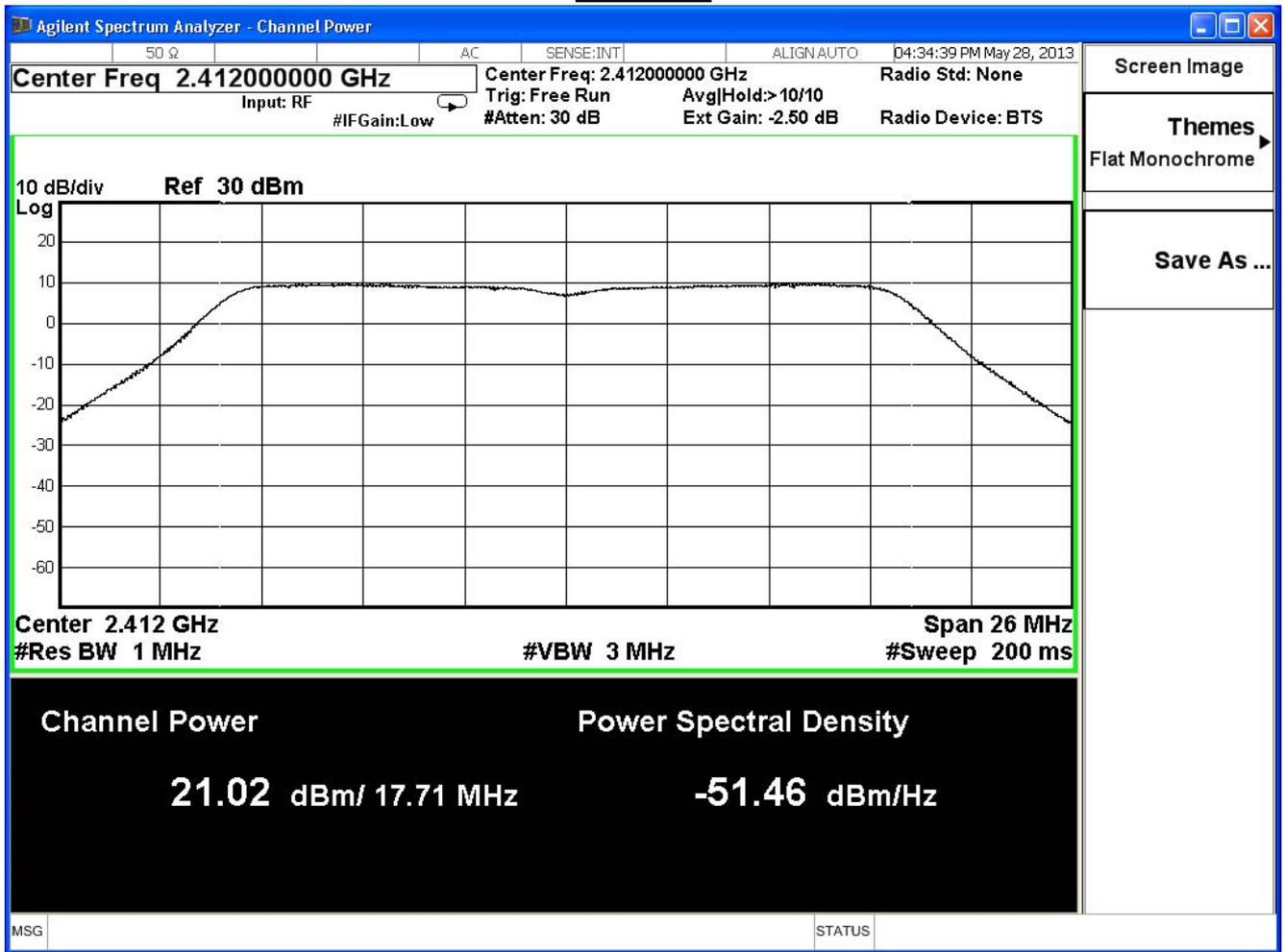
IEEE 802.11n 20MHz (ANT 1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	21.02	≤ 30	Pass
6	2437	21.46	≤ 30	Pass
11	2462	21.19	≤ 30	Pass

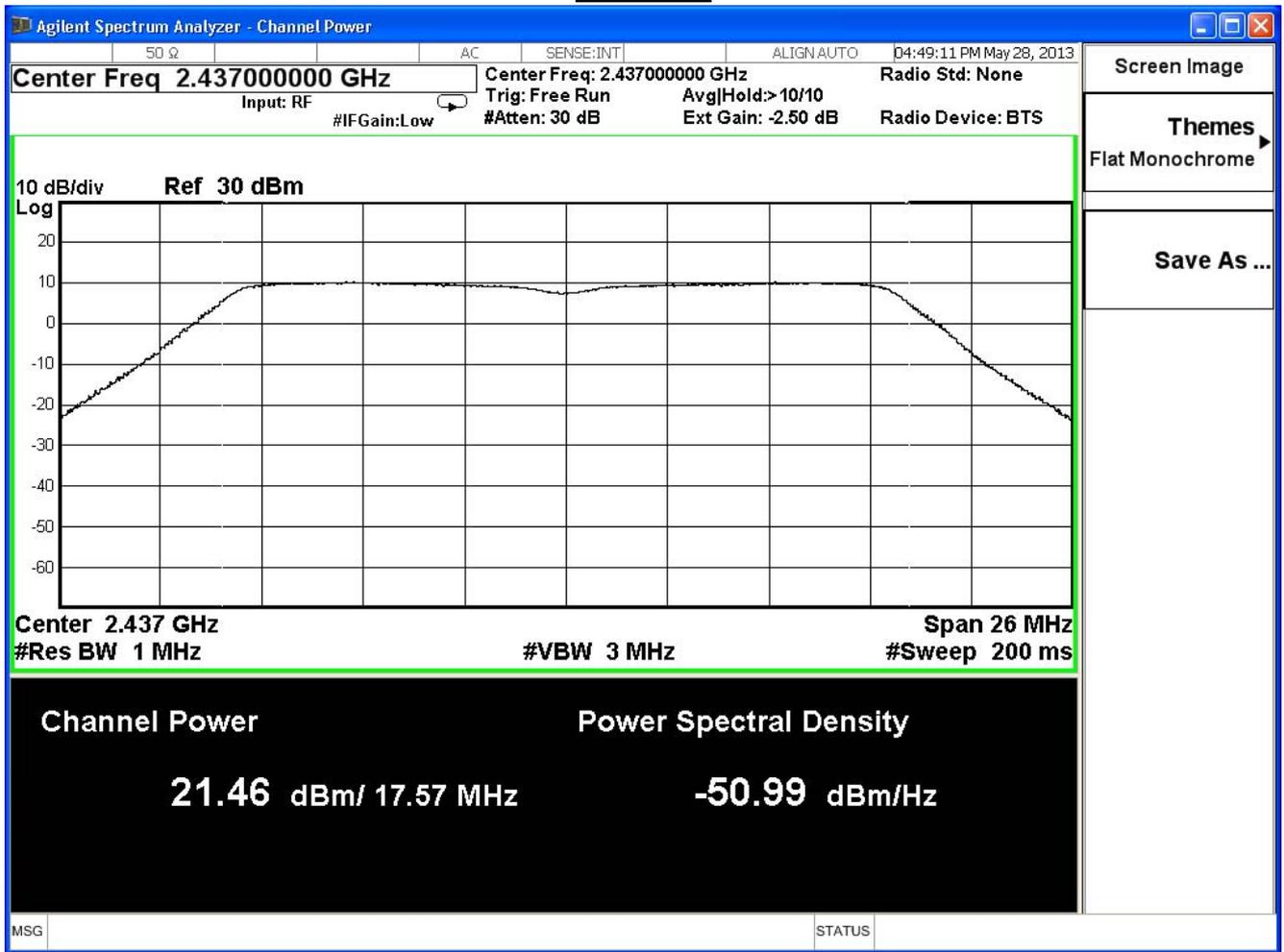
The worst emission of data rate is 19.5 Mbps.

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	21.02	--	--	--	--	--	--	--	30dBm
6	2437	21.46	21.36	21.16	21.06	20.86	20.62	20.50	20.26	30dBm
11	2462	21.19	--	--	--	--	--	--	--	30dBm

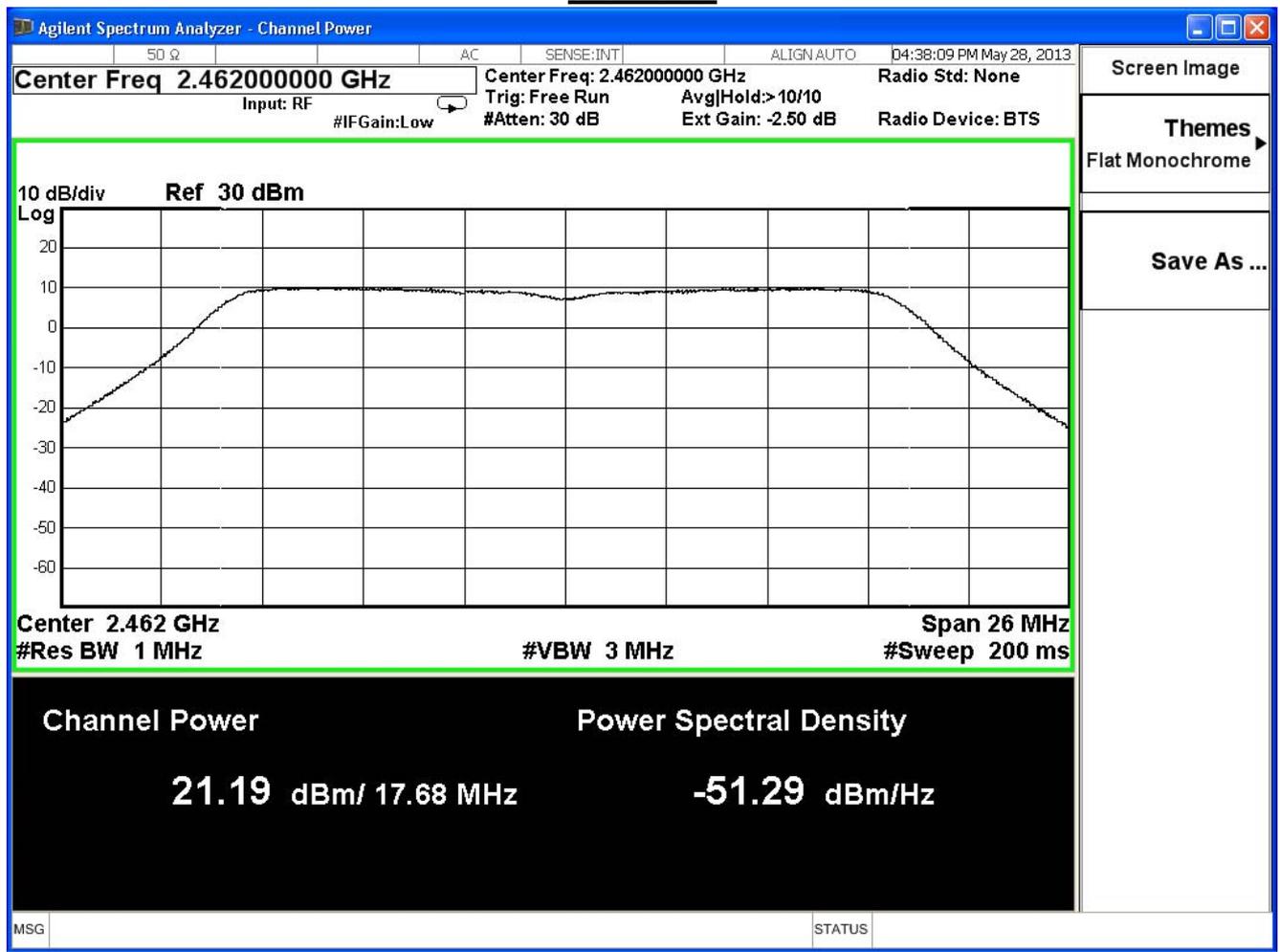
Channel 1



Channel 6



Channel 11



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/07	Test Site	SR7

IEEE 802.11n 20MHz (ANT 0+1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	23.43	≤ 30	Pass
6	2437	24.20	≤ 30	Pass
11	2462	24.01	≤ 30	Pass

The worst emission of data rate is 19.5 Mbps.

Peak Power Output (dBm)										
MCS Index		8	9	10	11	12	13 14	15	Required Limit	
Channel No	Frequency (MHz)	Data Rate								Required Limit
		19.5	39	58.5	78	117	156	175.5	195	
1	2412	23.43	--	-- --		--	-- --		--	30dBm
6	2437	24.20	24.06	23.96	23.81	23.61	23.43	23.31	23.07	30dBm
11	2462	24.01	--	-- --		--	-- --		--	30dBm

Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/07	Test Site	SR7

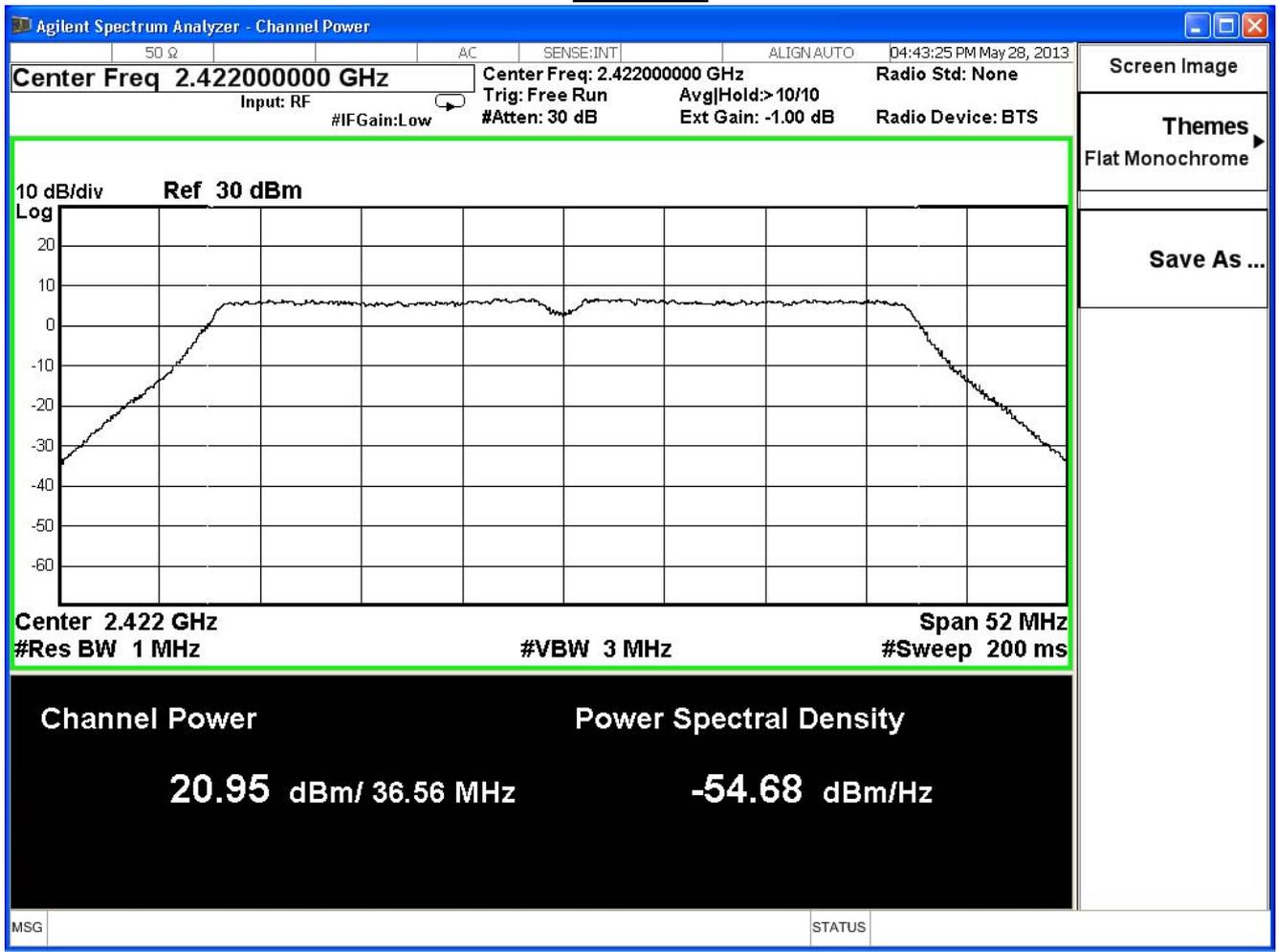
IEEE802.11n 40MHz (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	20.95	≤ 30	Pass
6	2437	21.51	≤ 30	Pass
9	2452	21.09	≤ 30	Pass

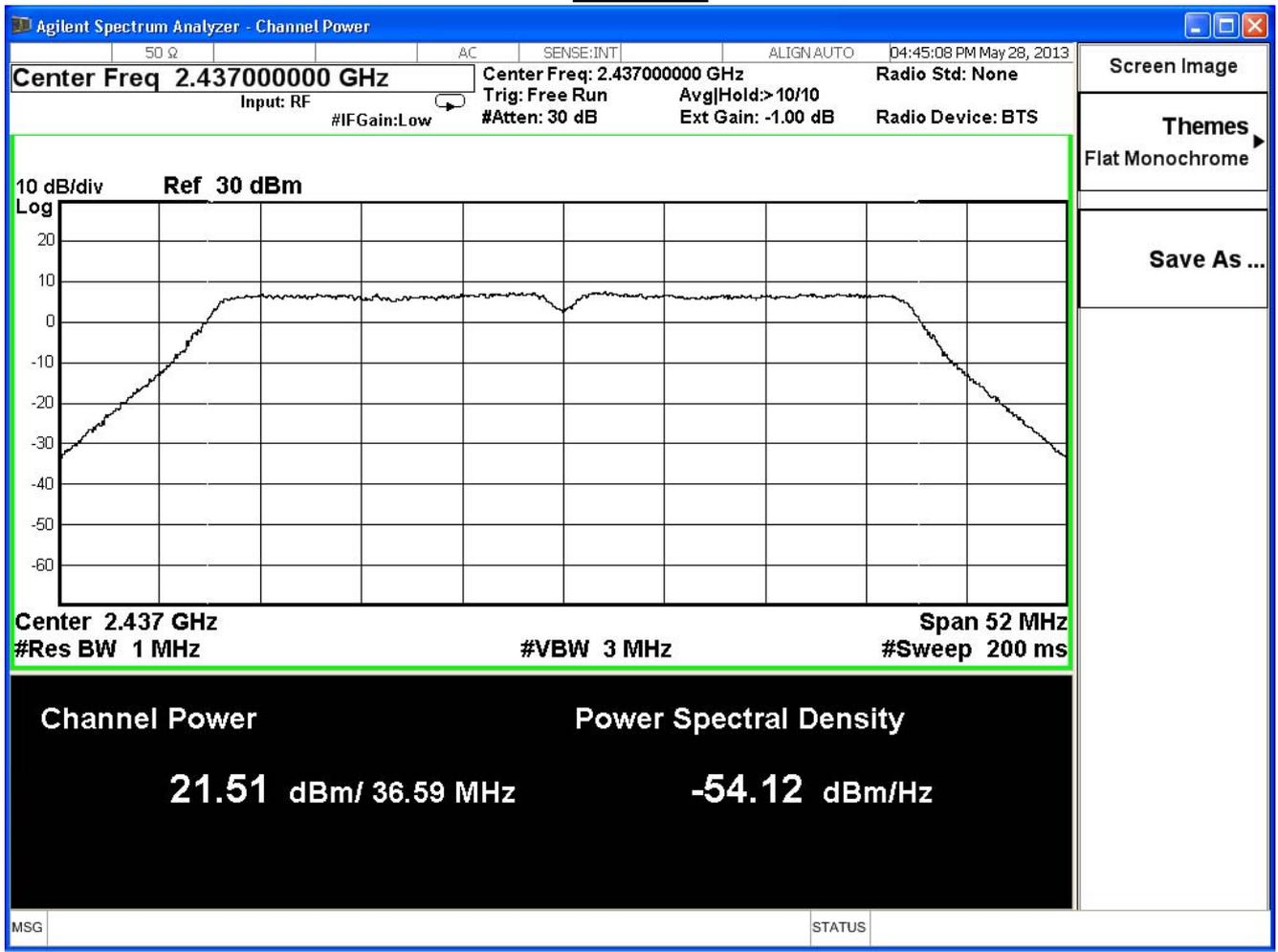
The worst emission of data rate is 40.5Mbps

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	20.95	--	--	--	--	--	--	--	--	30dBm
6	2437	21.51	21.41	21.21	21.01	20.91	20.79	20.55	20.31		30dBm
9	2452	21.09	--	--	--	--	--	--	--	--	30dBm

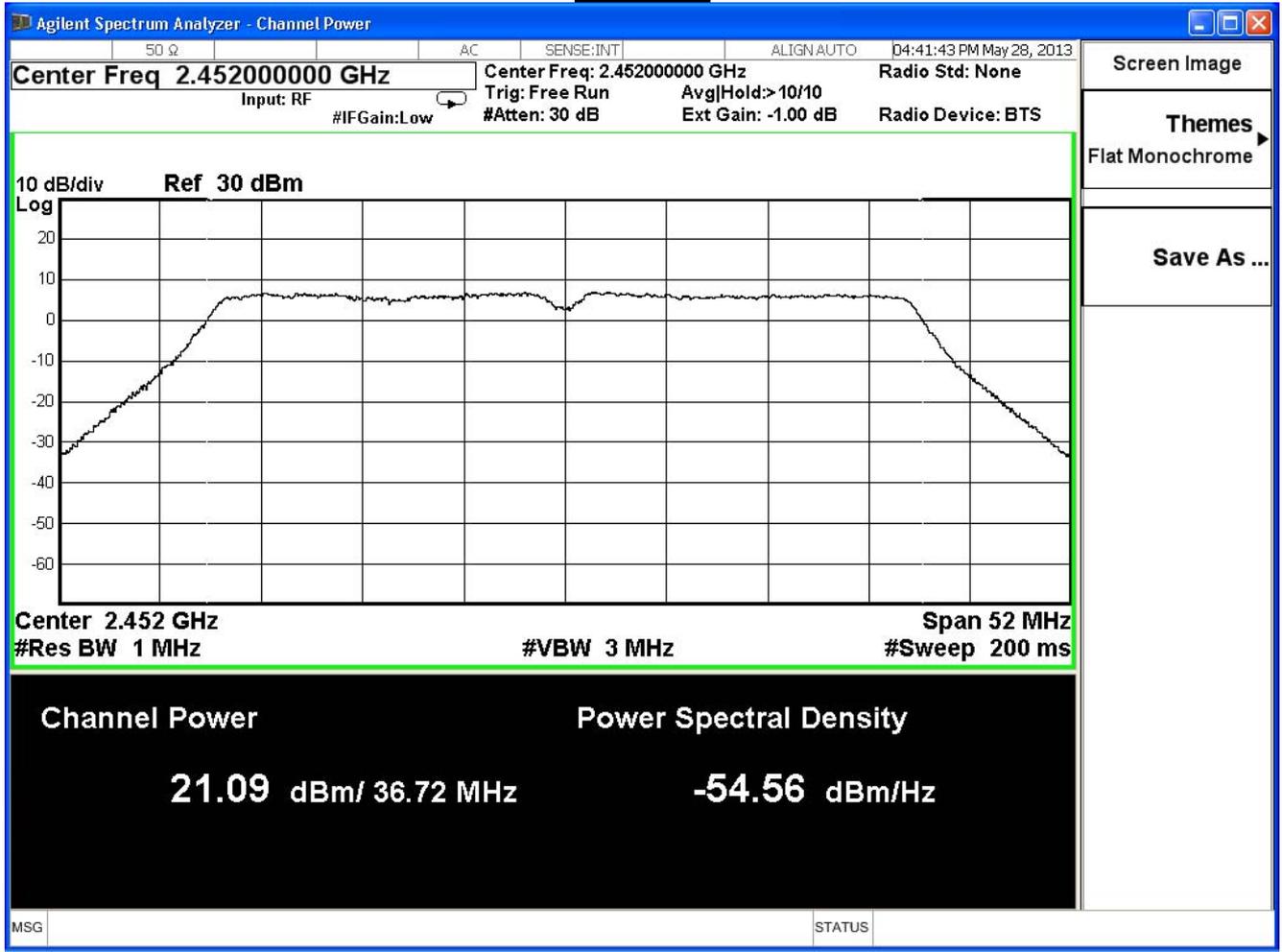
Channel 3



Channel 6



Channel 9



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/07	Test Site	SR7

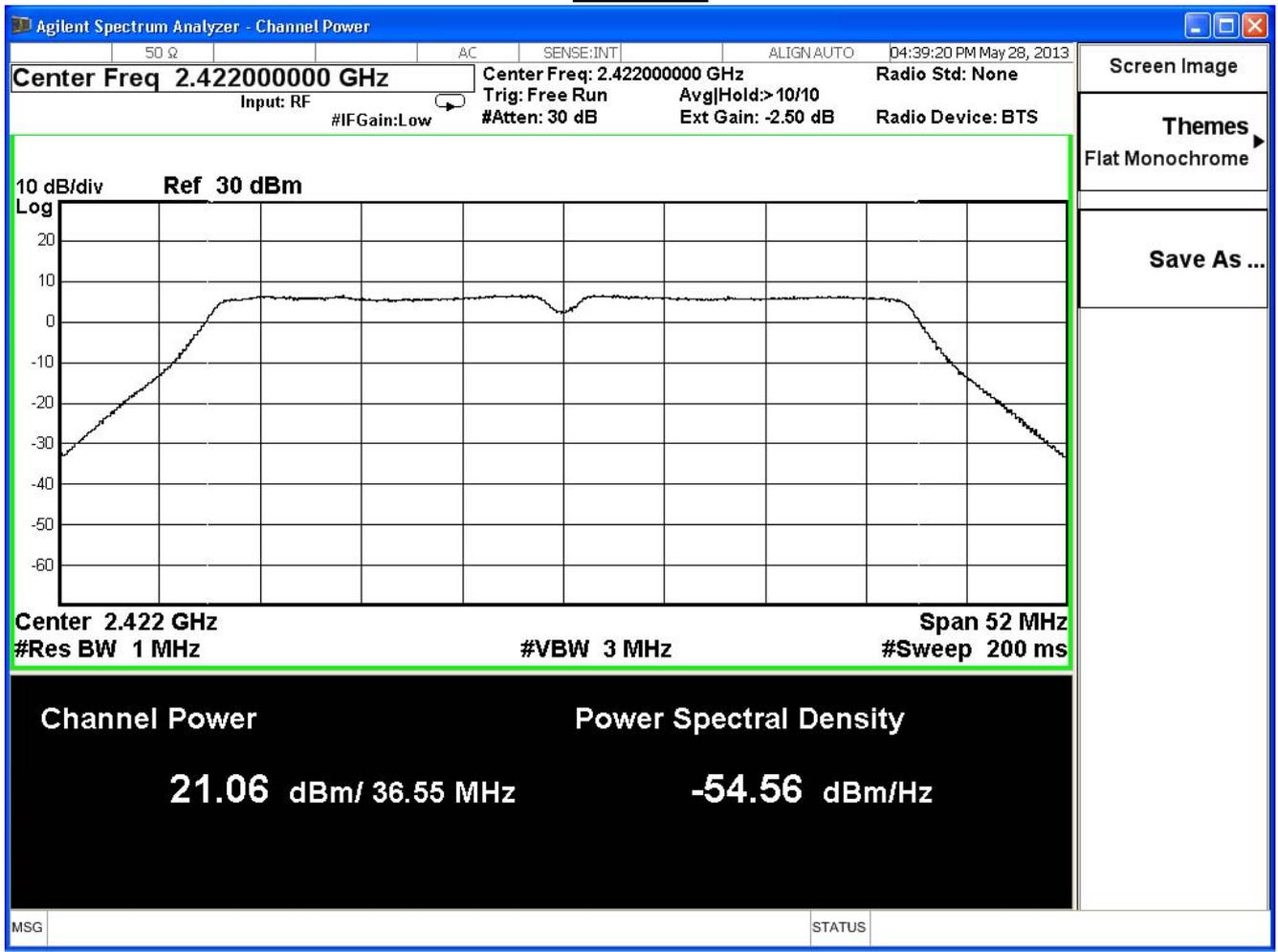
IEEE802.11n 40MHz (ANT 1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	21.06	≤ 30	Pass
6	2437	20.76	≤ 30	Pass
9	2452	20.86	≤ 30	Pass

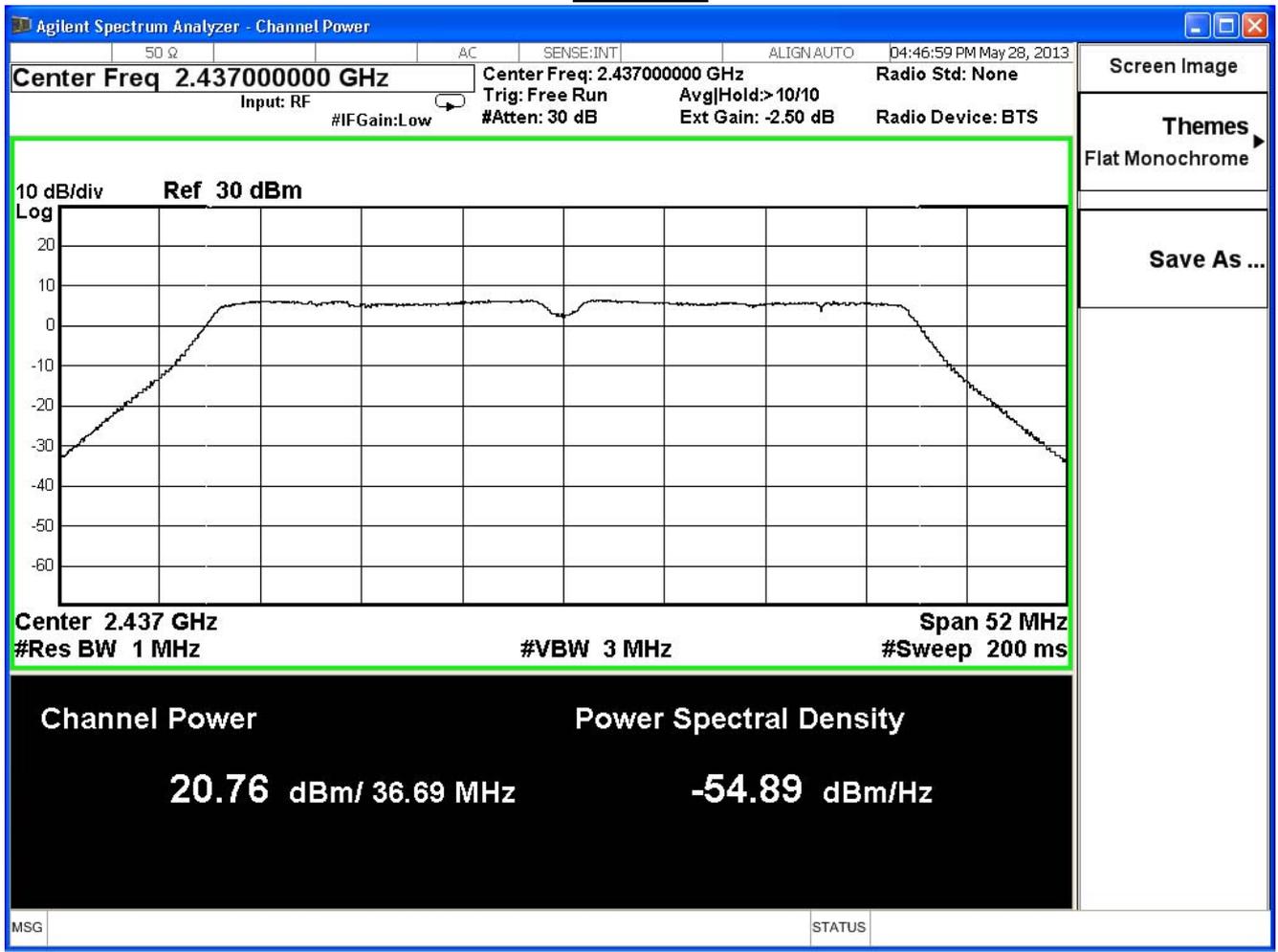
The worst emission of data rate is 40.5Mbps

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	21.06	--	--	--	--	--	--		--	30dBm
6	2437	20.76	20.56	20.46	20.36	20.16	19.92	19.80	19.56		30dBm
9	2452	20.86	--	--	--	--	--	--		--	30dBm

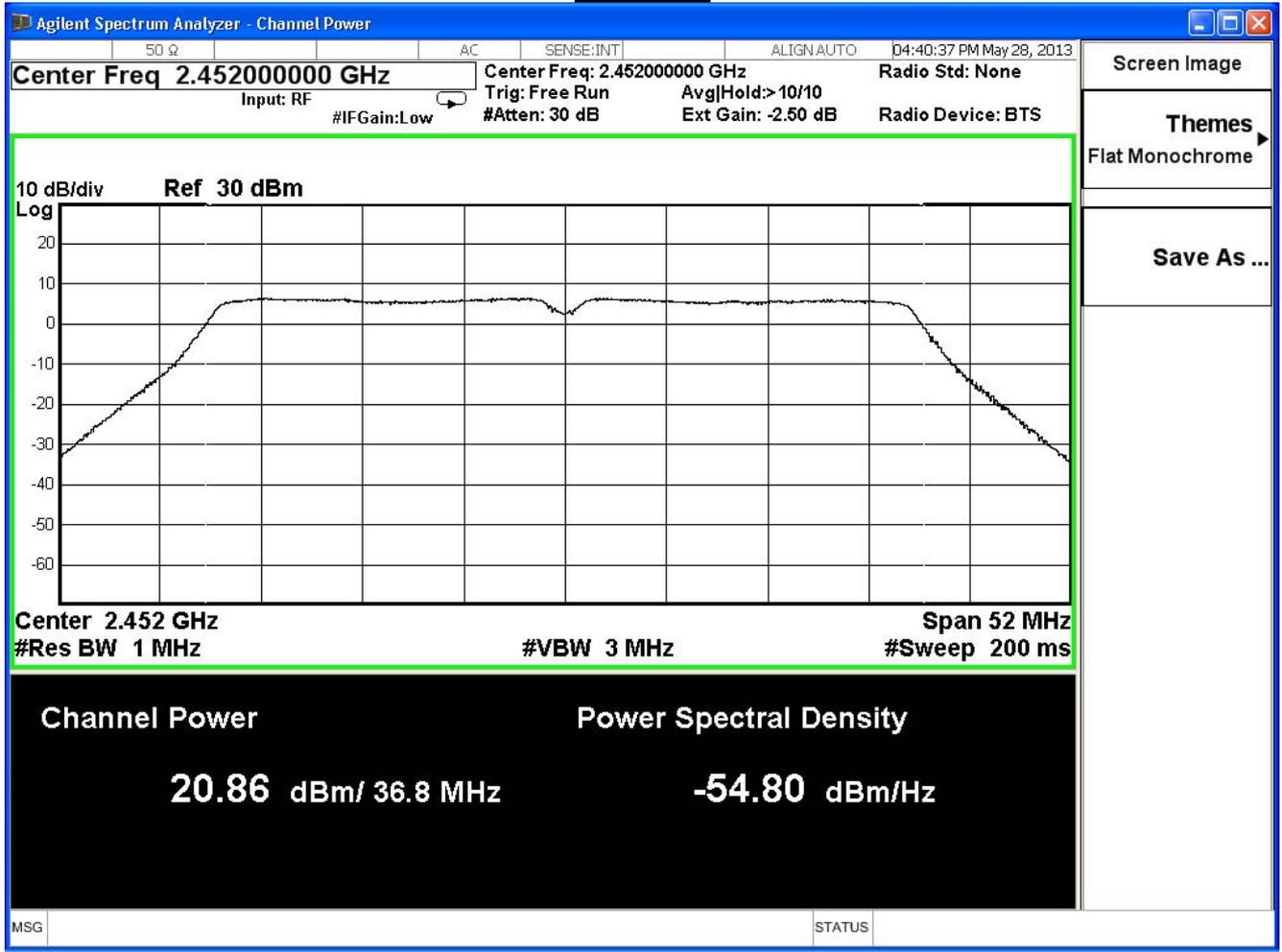
Channel 3



Channel 6



Channel 9



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/07	Test Site	SR7

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	24.02	≤ 30	Pass
6	2437	24.16	≤ 30	Pass
9	2452	23.99	≤ 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	24.02	--	-- --		--	--	-- --		30dBm
6	2437	24.16	24.02	23.86	23.71	23.56	23.39	23.20	22.96	30dBm
9	2452	23.99	--	-- --		--	--	-- --		30dBm

Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/17	Test Site	SR7

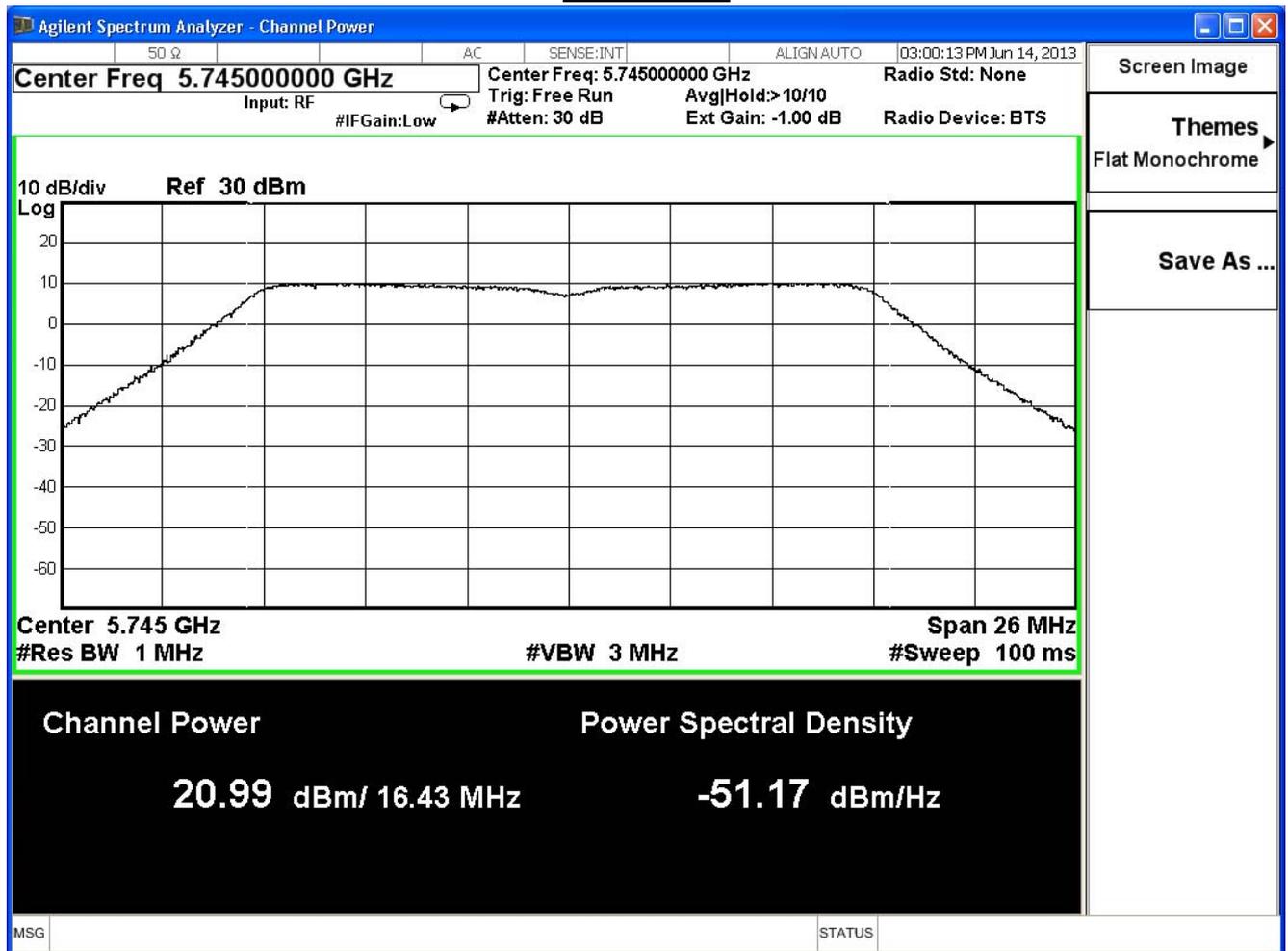
IEEE802.11a (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	20.99	≤ 30	Pass
157	5785	21.20	≤ 30	Pass
165	5825	21.24	≤ 30	Pass

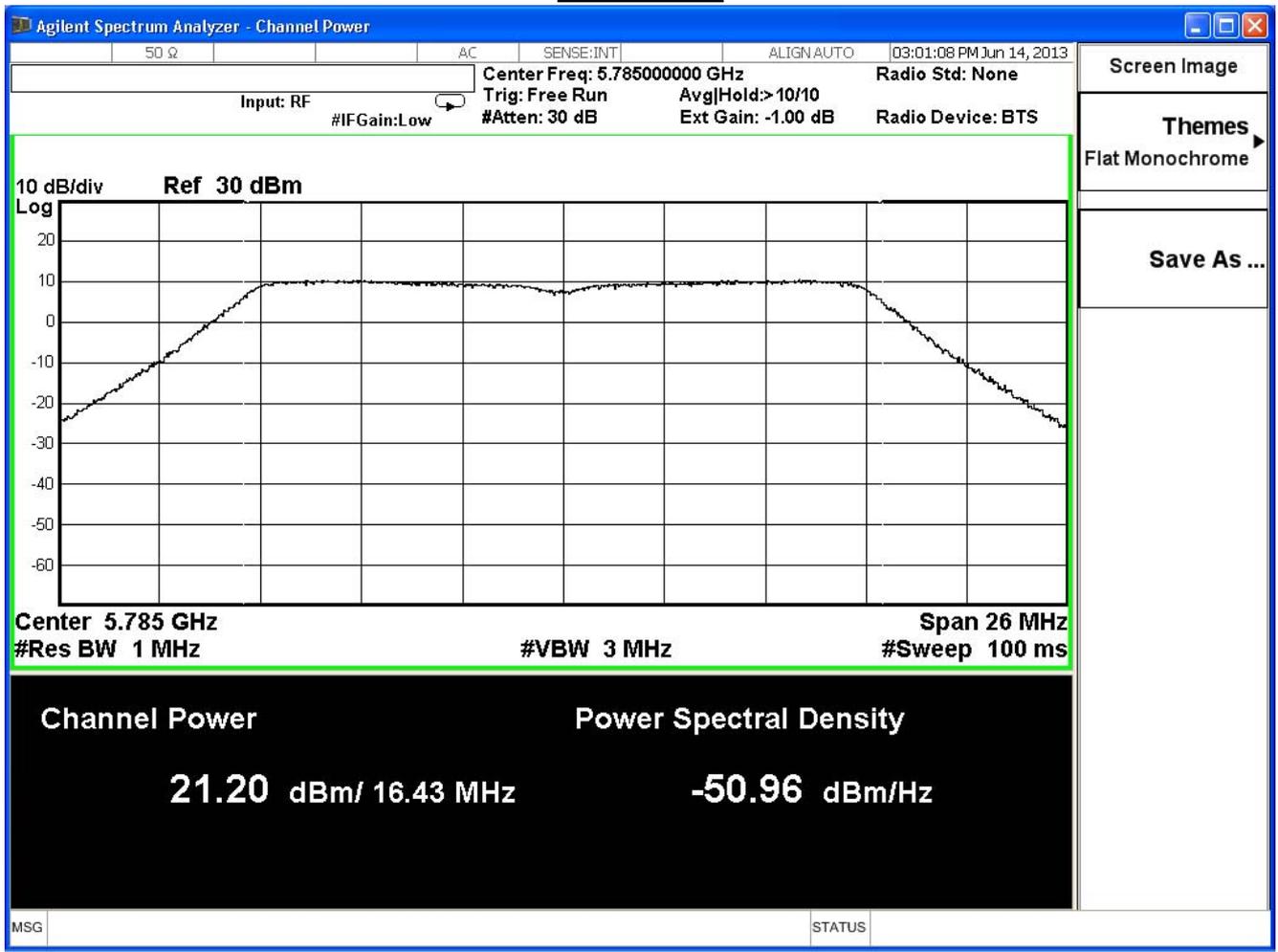
The worst emission of data rate is 6Mbps

Peak Power Output Value(dBm)									
Channel No.	Frequency (MHz)	Data Rate (Mbps)							Required Limit
		6	12	18	24	36	48	54	
149	5745	20.99	--	--	--	--	--	--	1 Watt=30dBm
157	5785	21.20	21.10	21.00	20.80	20.56	20.32	20.20	1 Watt=30dBm
165	5825	21.24	--	--	--	--	--	--	1 Watt=30dBm

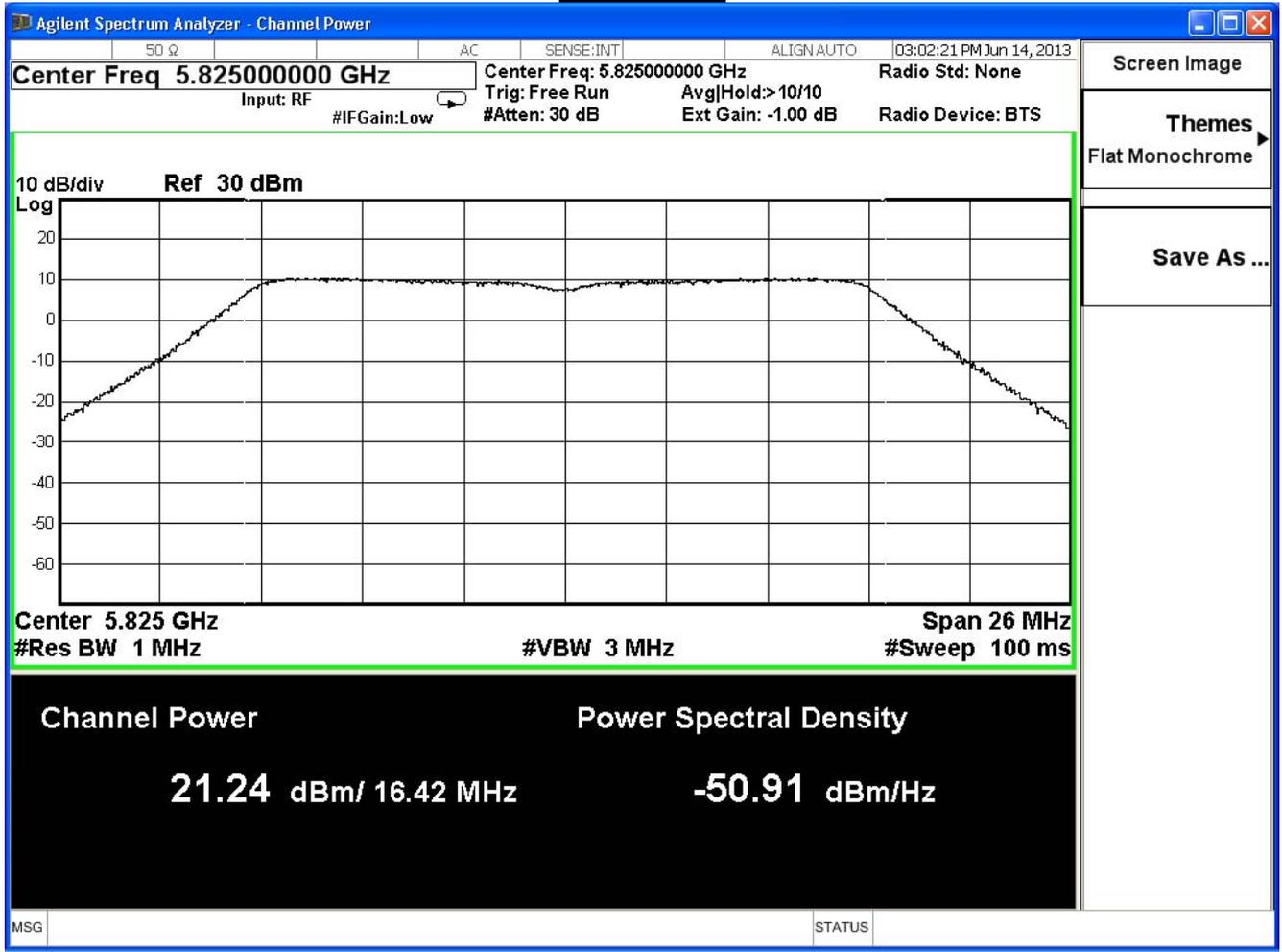
Channel 149



Channel 157



Channel 165



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/17	Test Site	SR7

IEEE802.11 n 20MHz (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	21.16	≤ 30	Pass
157	5785	20.49	≤ 30	Pass
165	5825	20.81	≤ 30	Pass

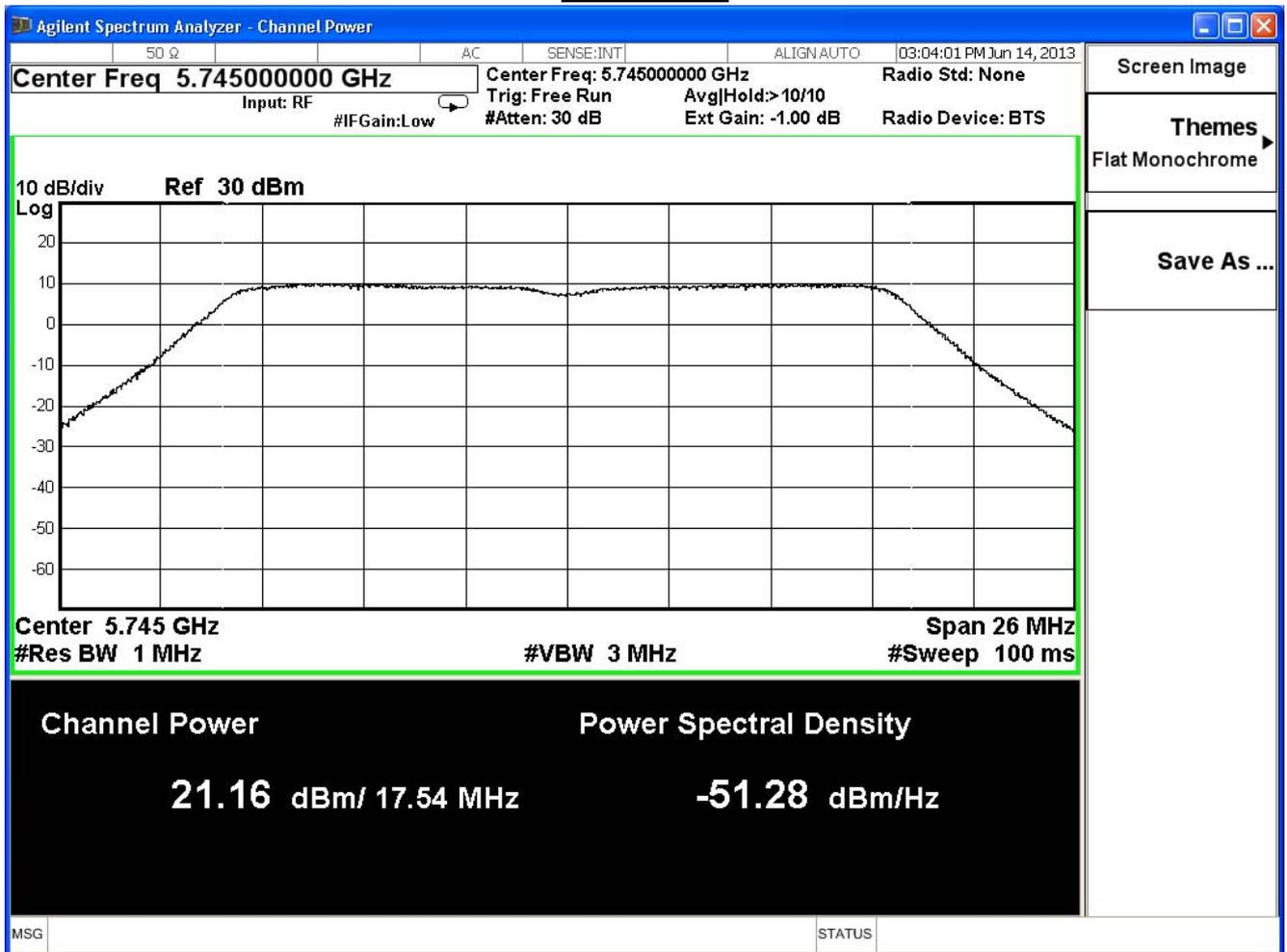
The worst emission of data rate is 19.5Mbps

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.5	58.5	78	117	156	175.5	195	
149	5745	21.16	--	--	--	--	--	--	--	30dBm
157	5785	20.49	20.29	20.19	20.09	19.89	19.65	19.53	19.41	30dBm
165	5825	20.81	--	--	--	--	--	--	--	30dBm

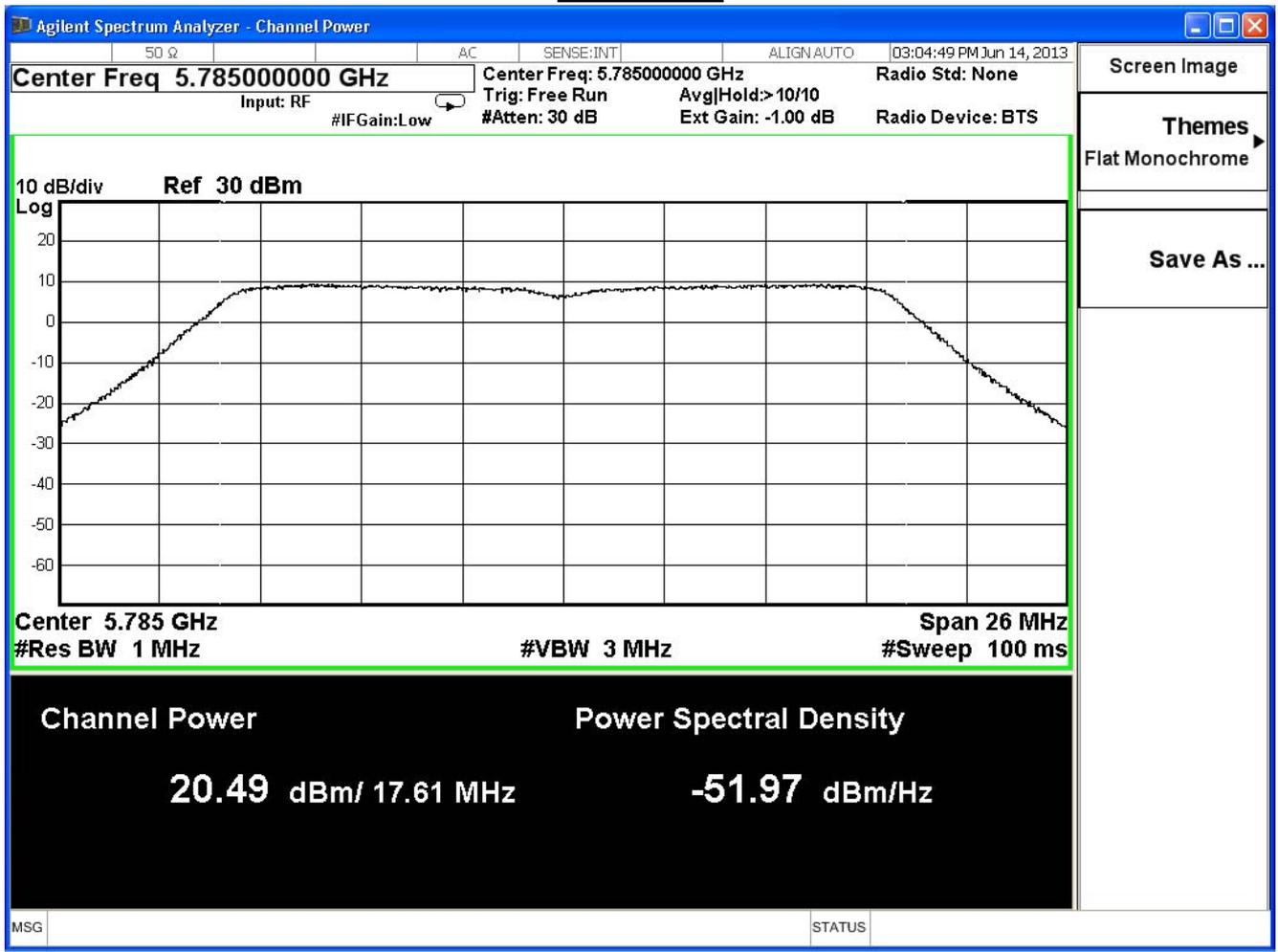
Note:

Measure Level =Reading value + cable loss

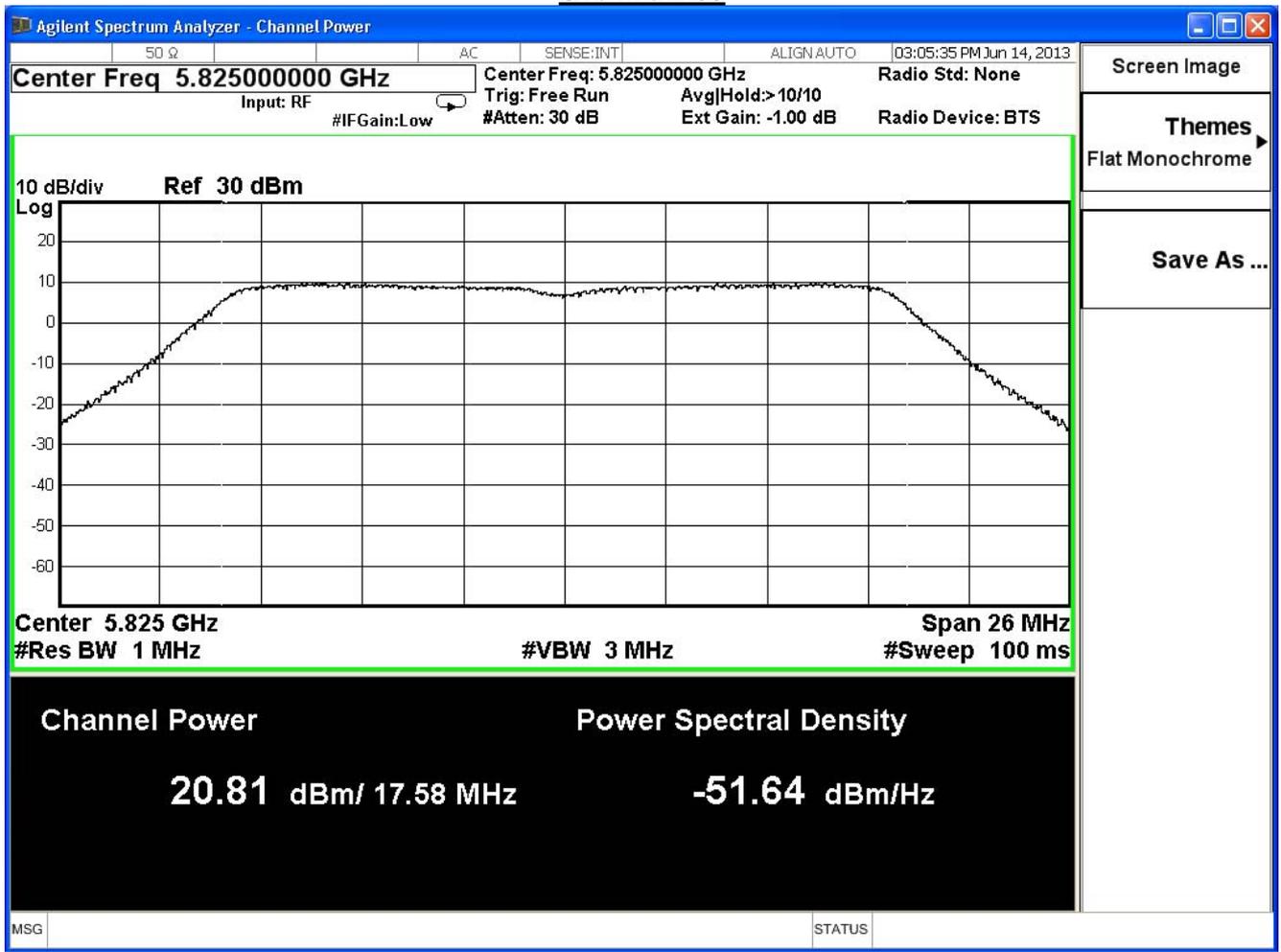
Channel 149



Channel 157



Channel 165



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/17	Test Site	SR7

IEEE802.11 n 20MHz (ANT 1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	21.31	≤ 30	Pass
157	5785	20.82	≤ 30	Pass
165	5825	21.17	≤ 30	Pass

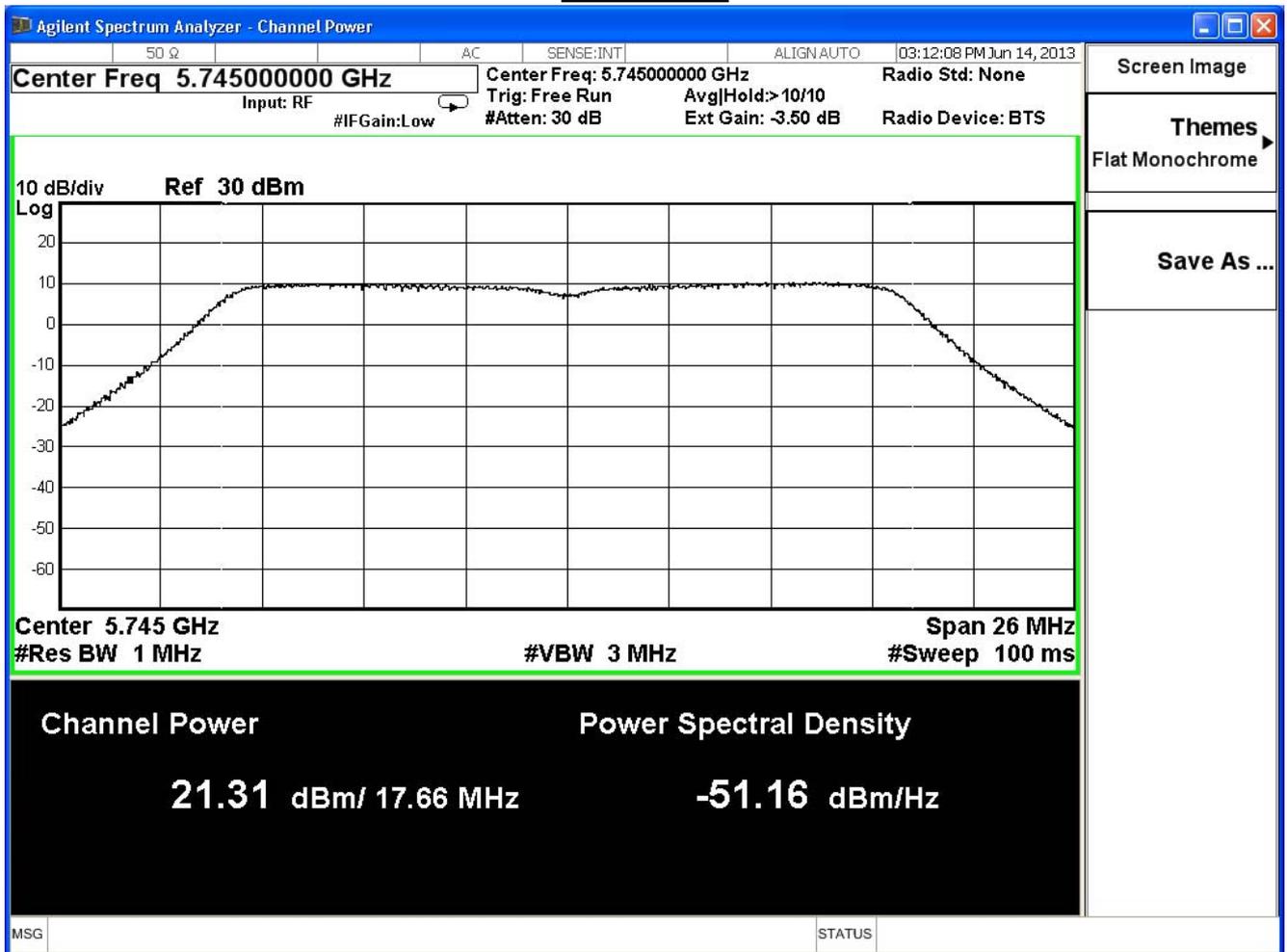
The worst emission of data rate is 19.5Mbps

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.5	58.5	78	117	156	175.5	195	
149	5745	21.31	--	--	--	--	--	--	--	30dBm
157	5785	20.82	20.62	20.42	20.32	20.22	20.10	19.86	19.62	30dBm
165	5825	21.17	--	--	--	--	--	--	--	30dBm

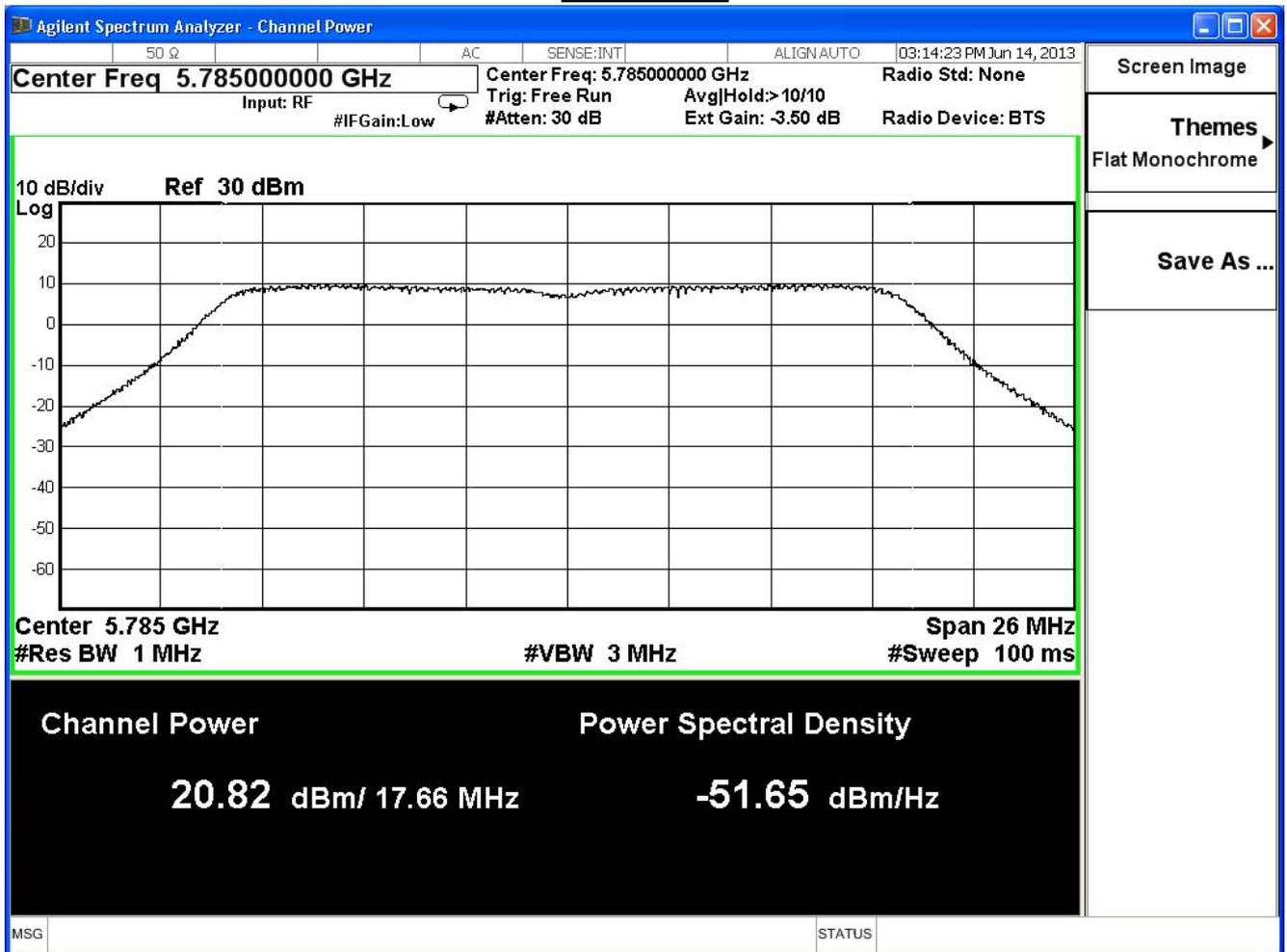
Note:

Measure Level =Reading value + cable loss

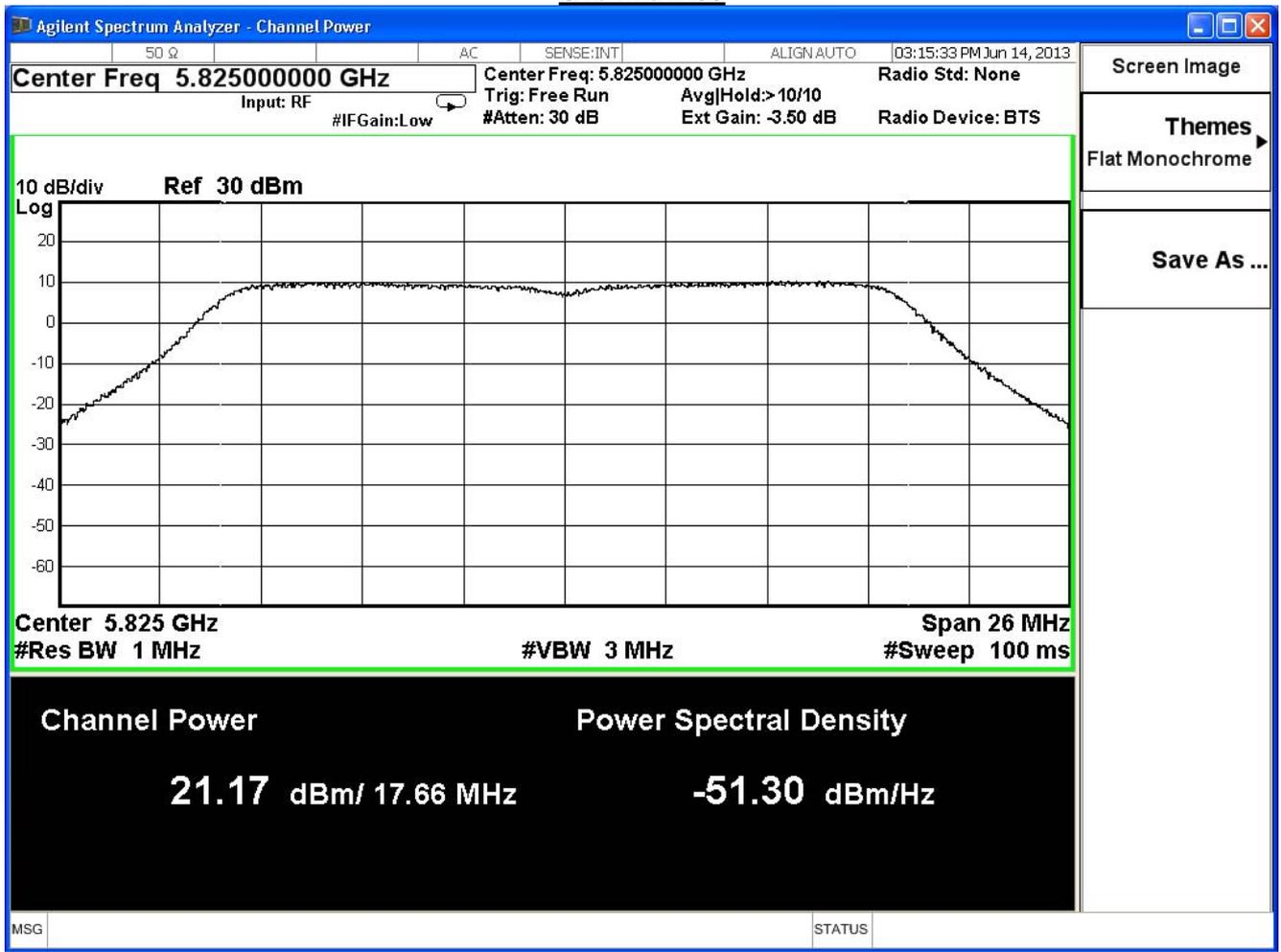
Channel 149



Channel 157



Channel 165



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/17	Test Site	SR7

IEEE802.11n 20MHz (ANT 0+1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	24.25	≤ 30	Pass
157	5785	23.67	≤ 30	Pass
165	5825	24.00	≤ 30	Pass

The worst emission of data rate is 19.5Mbps

Peak Power Output (dBm)										
MCS Index		8	9	10	11	12	13	14	15	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39	58.5	78	117	156	175.5	195	
149	5745	24.25	--	--	--	--	--	--	--	30dBm
157	5785	23.67	23.47	23.32	23.22	23.07	22.89	22.71	22.53	30dBm
165	5825	24.00	--	--	--	--	--	--	--	30dBm

Note:

Measure Level = Reading value + cable loss

Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/17	Test Site	SR7

IEEE802.11 n 40MHz (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	20.75	≤ 30	Pass
159	5795	21.45	≤ 30	Pass

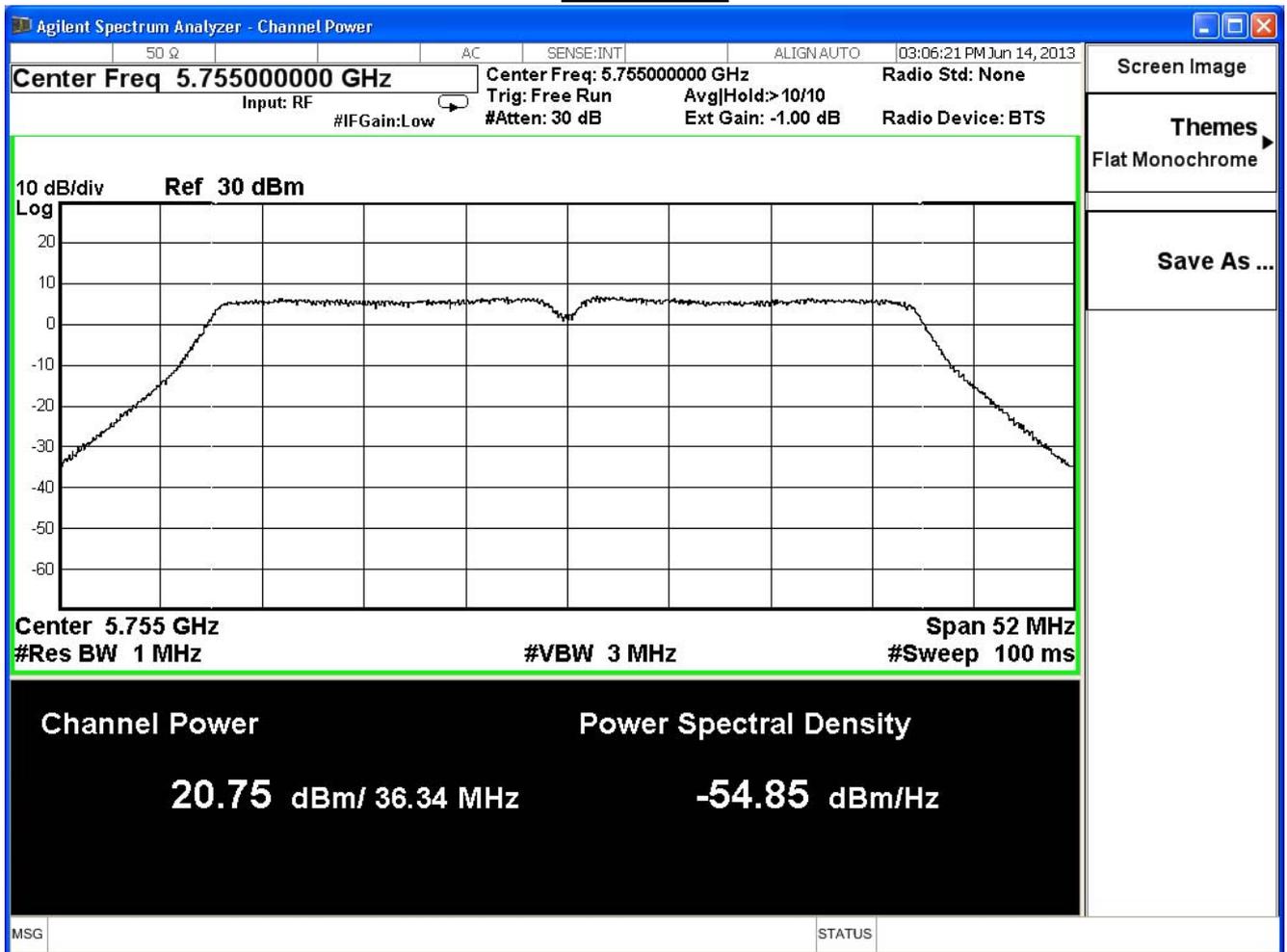
The worst emission of data rate is 40.5Mbps

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	
151	5755	20.75	--	-- --		--	--	-- --		30dBm
159	5795	21.45	21.25	21.05	20.95	20.85	20.61	20.37	20.13	30dBm

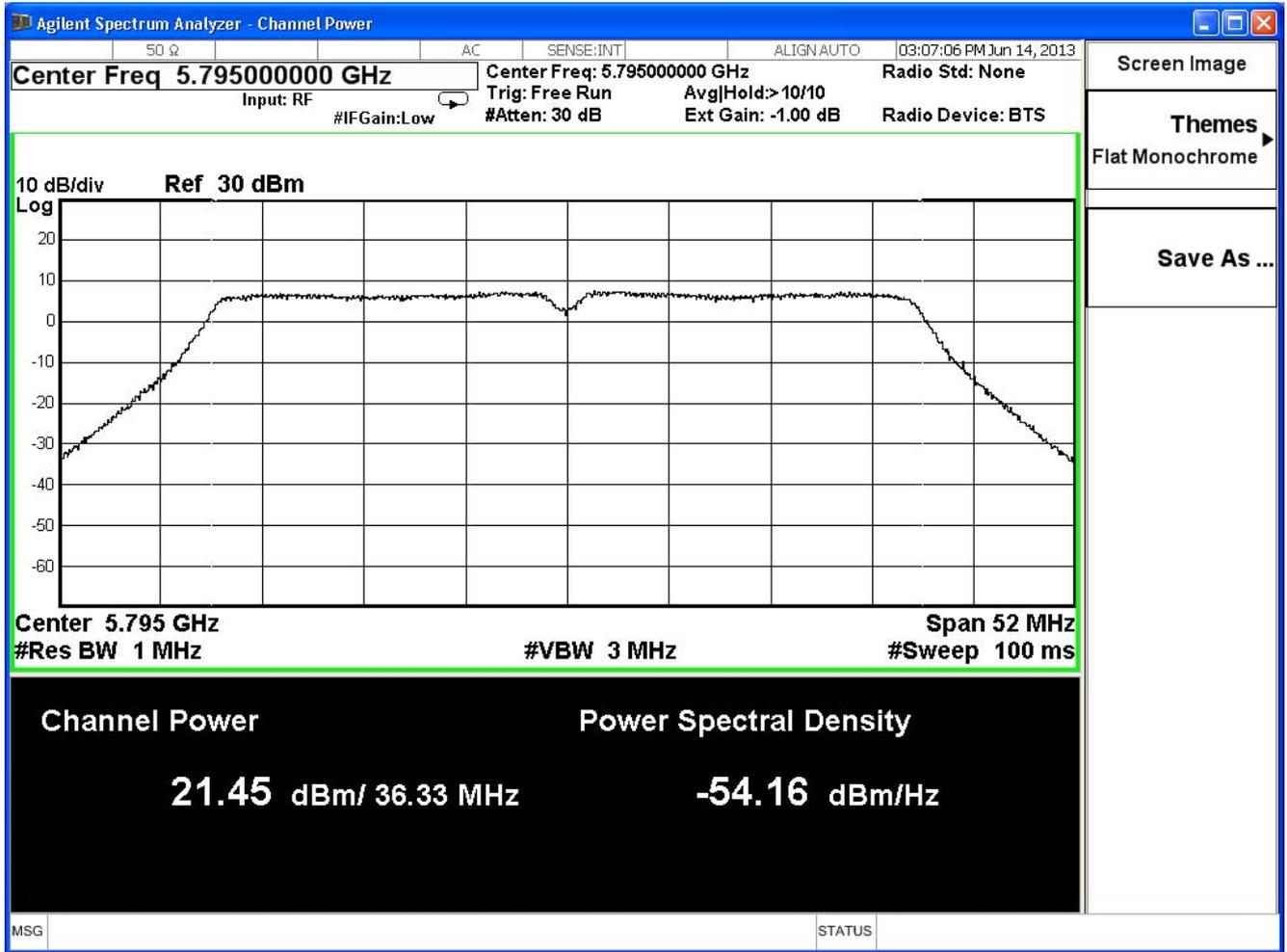
Note:

Measure Level =Reading value + cable loss

Channel 151



Channel 159



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/17	Test Site	SR7

IEEE802.11 n 40MHz (ANT 1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	21.22	≤ 30	Pass
159	5795	21.57	≤ 30	Pass

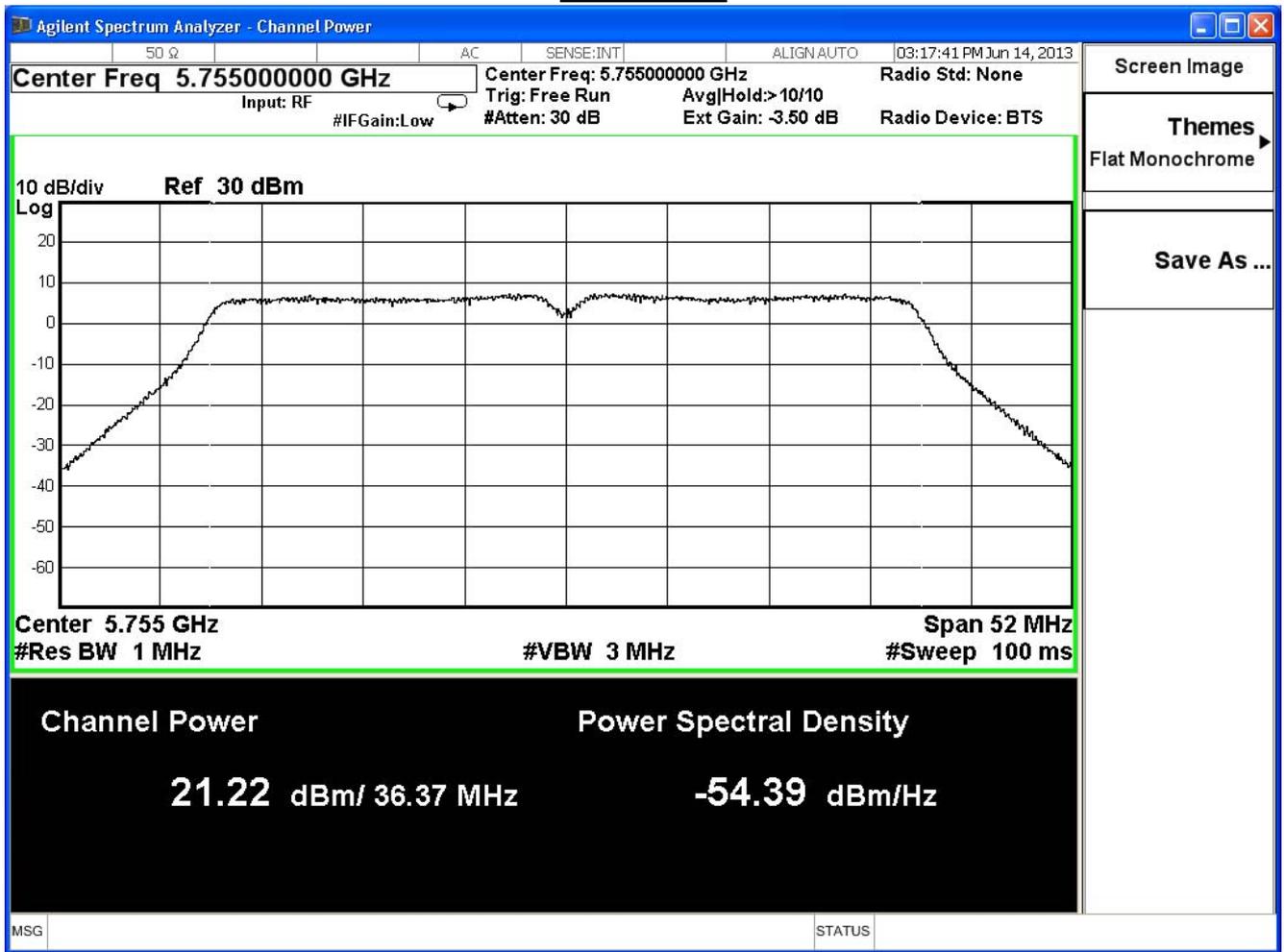
The worst emission of data rate is 40.5Mbps

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	
151	5755	21.22	--	-- --		--	--	-- --		30dBm
159	5795	21.57	21.37	21.17	20.97	20.87	20.63	20.39	20.15	30dBm

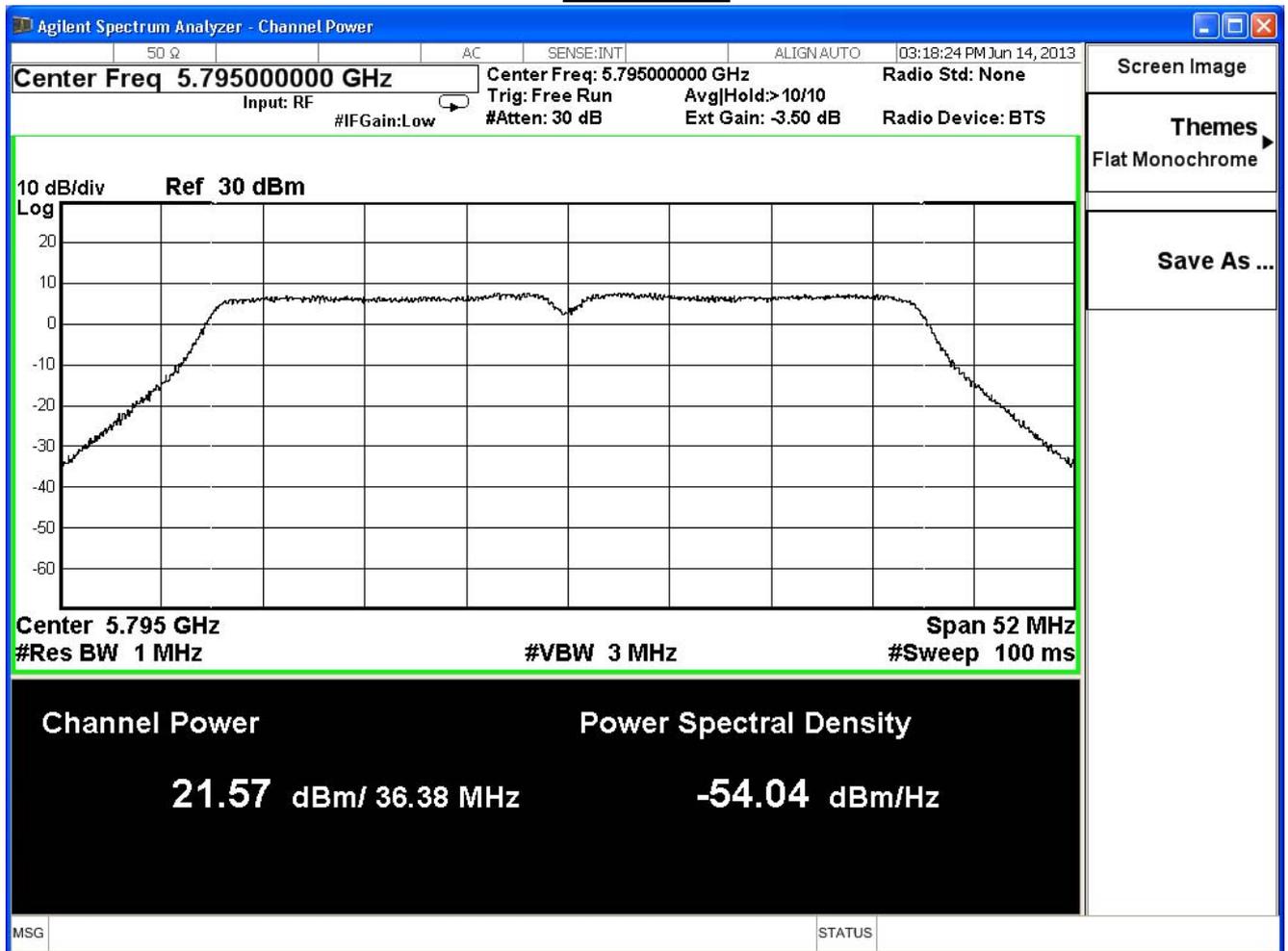
Note:

Measure Level =Reading value + cable loss

Channel 151



Channel 159



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/17	Test Site	SR7

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	24.00	≤ 30	Pass
159	5795	24.52	≤ 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	
151	5755	24.00	--	--	--	--	--	--	--	30dBm
159	5795	24.52	24.32	24.12	23.97	23.87	23.63	23.39	23.15	30dBm

Note:

Measure Level =Reading value + cable loss

Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/17	Test Site	SR7

IEEE802.11ac 80MHz (ANT 0)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	22.08	≤ 26.78	Pass

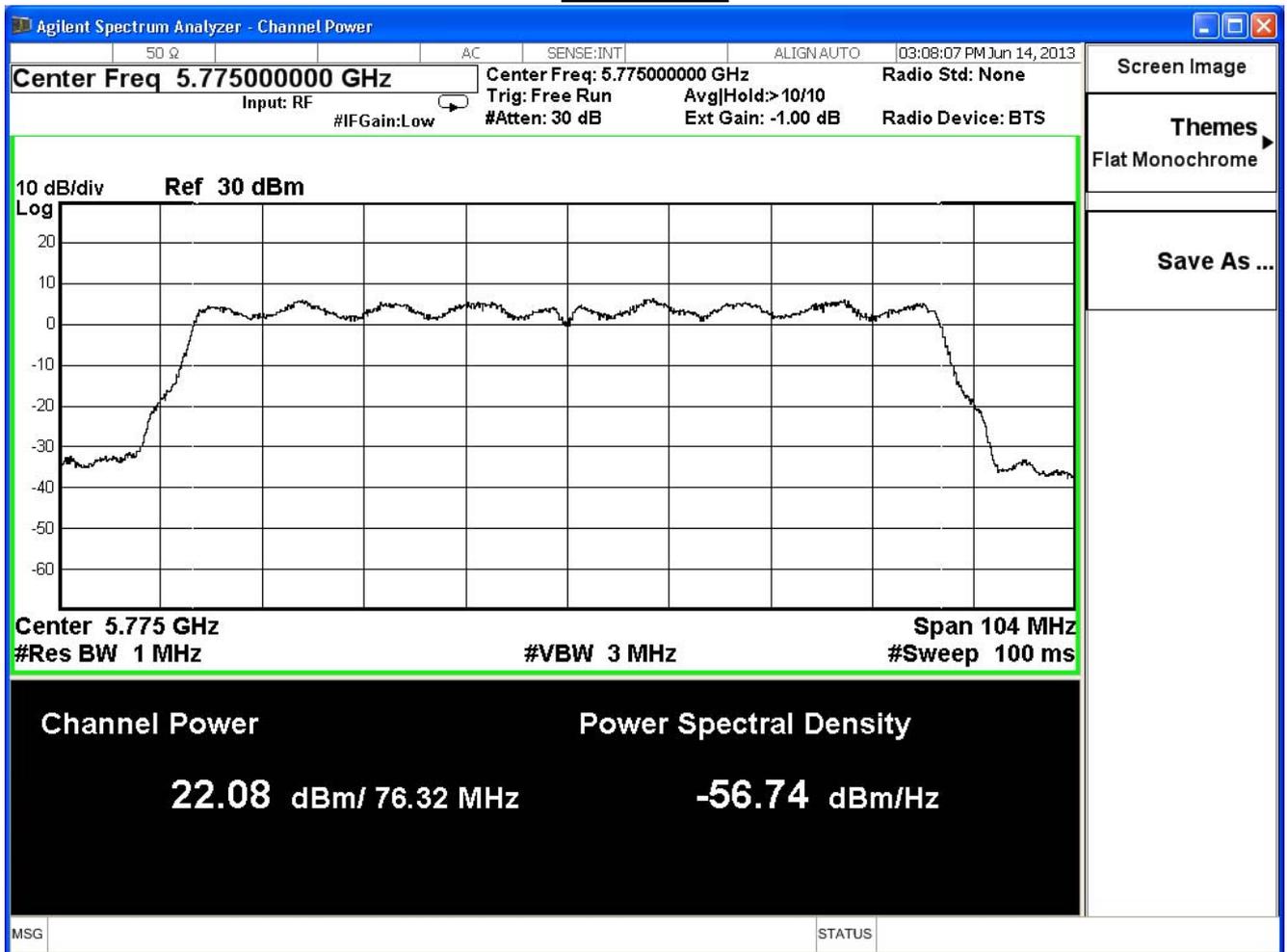
The worst emission of data rate is 87.9Mbps

Peak Power Output (dBm)											
MCS Index		0	1	2	3 4	5	6 7 8			9	
Channel No	Frequency (MHz)	Data Rate									
		87.9	175.5	263.4	351	526.5	702	789.9	877.5	1053	1170
155	5775	22.08	21.98	21.78	21.58	21.38	21.18	20.94	20.82	20.70	20.58

Note:

Measure Level =Reading value + cable loss

Channel 155



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/17	Test Site	SR7

IEEE802.11ac 80MHz (ANT 1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	22.45	≤ 30	Pass

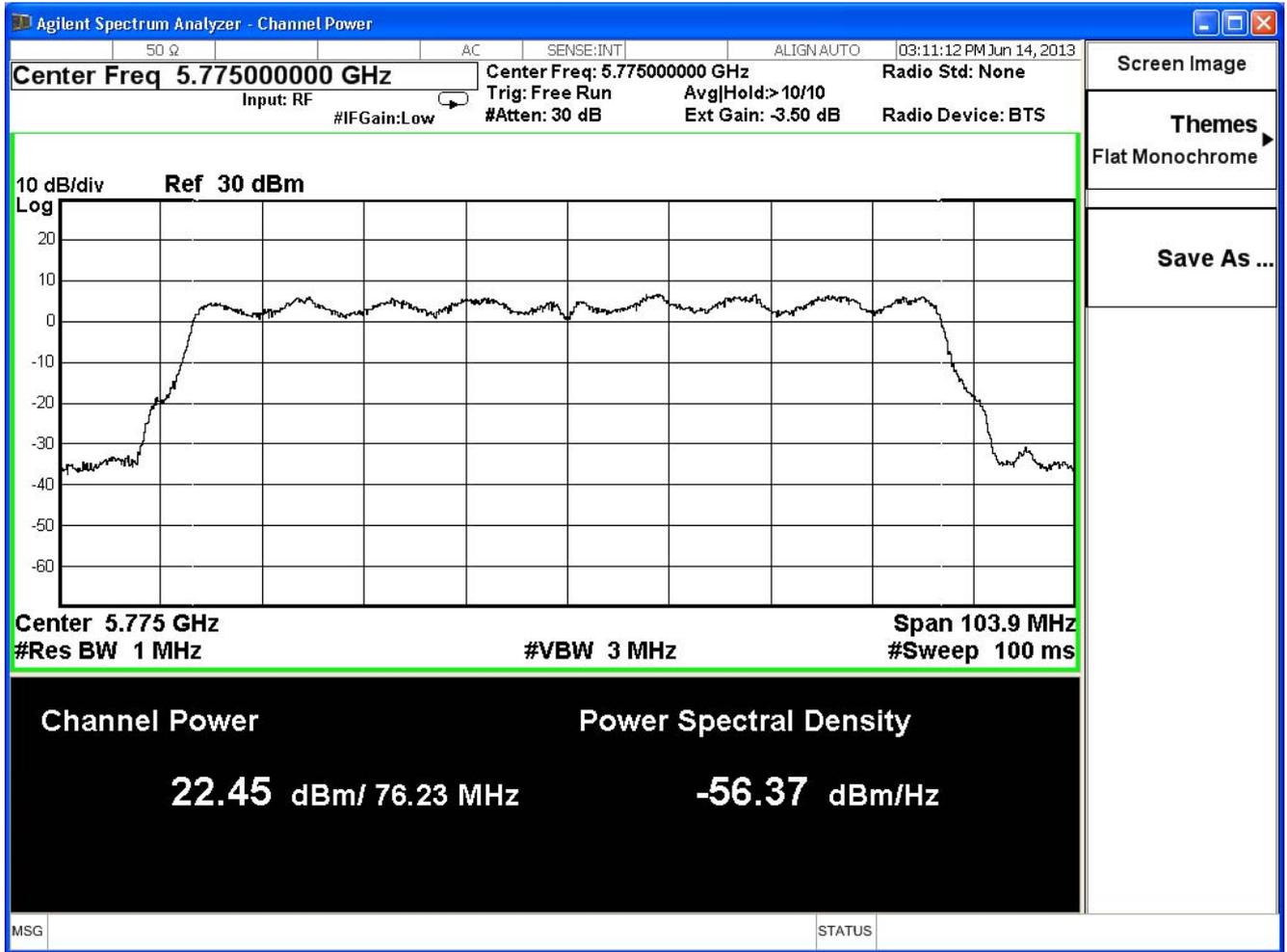
The worst emission of data rate is 87.9Mbps

Peak Power Output (dBm)											
MCS Index		0	1	2	3 4	5	6 7 8			9	
Channel No	Frequency (MHz)	Data Rate									
		87.9	175.5	263.4	351	526.5	702	789.9	877.5	1053	1170
155	5775	22.45	22.25	22.05	21.95	21.85	21.65	21.53	21.29	21.05	20.93

Note:

Measure Level =Reading value + cable loss

Channel 155



Product	USB-AC56 dual-bank wireless adapter		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit (Dipole Antenna)		
Date of Test	2013/06/17	Test Site	SR7

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

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	25.28	≤30	Pass

The worst emission of data rate is 87.9Mbps

Peak Power Output (dBm)											
MCS Index		0	1	2	3 4	5	6 7 8			9	
Channel No	Frequency (MHz)	Data Rate									
		87.9	175.5	263.4	351	526.5	702	789.9	877.5	1053	1170
155	5775	25.28	25.13	24.98	24.83	24.63	24.43	24.26	24.14	24.02	23.83

Note:

Measure Level =Reading value + cable loss