FCC Test Report

Product Name ： Dual band AC1900 USB 3.0 Wi-Fi Adapter

Trade Name ： ASUS

Model No. ： USB-AC68

FCC ID. ： MSQ-USBR700

Applicant ： ASUSTeK COMPUTER INC.

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

Date of Receipt ： Nov. 30, 2015

Issued Date ： May 11, 2016

Report No. ： 15C0048R-RFUSP56V00

Report Version ： V1.0

Test Report Certification

Issued Date : May 11, 2016
Report No. : 15C0048R-RFUSP56V00

Product Name	:	Dual band AC1900 USB 3.0 Wi-Fi Adapter
Applicant	:	ASUSTeK COMPUTER INC.
Address	:	4F, No. 150, Li-Te Rd., Peitou, Taipei, Taiwan
Manufacturer	:	ASUSTeK COMPUTER INC.
Model No.	:	USB-AC68
FCC ID.	:	MSQ-USBR700
EUT Voltage	:	DC 5V (Power by Notebook PC)
Testing Voltage	:	DC 5V (Power by Notebook PC)
Trade Name	:	ASUS
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart E Section 15.407: 2015 ANSI C63.10:2013
Test Lab	:	QuieTek Hsin Chu Laboratory
Test Result	:	Complied

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

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

Tested By : (JuBo Shen / Senior Engineer)

Approved By : (Roy Wang / Director)

Revision History

Report No.	Version	Description	Issued Date
15C0048R-RFUSP56V00	V1.0	Initial issue of report	May 11, 2016

Laboratory Information

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

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

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

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TABLE OF CONTENTS

Description Page

1. General Information

1.1. EUT Description

Product Name	Dual band AC1900 USB 3.0 Wi-Fi Adapter	
Trade Name	ASUS	
Model No.	USB-AC68	
Frequency Range/ Channel Number	IEEE 802.11a/ IEEE 802.11n/ac (20MHz)	5180~5240MHz / 4 Channels 5745~5825MHz / 5 Channels
	IEEE 802.11n/ac (40MHz)	5190~5230MHz / 2 Channels 5755~5795MHz / 2 Channels
	IEEE 802.11ac (80MHz)	5210~5210MHz / 1 Channel 5775~5775MHz / 1 Channel
Type of Modulation	IEEE 802.11a/n/ac	Orthogonal Frequency Division Multiplexing
Data Speed	IEEE 802.11a	6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps
	IEEE 802.11n	Support a subset of the combination of GI, MCS 0~MCS 23 and bandwidth defined in 802.11n
	IEEE 802.11ac	Support a subset of the combination of GI, MCS 0~MCS 9 and bandwidth defined in 802.11ac

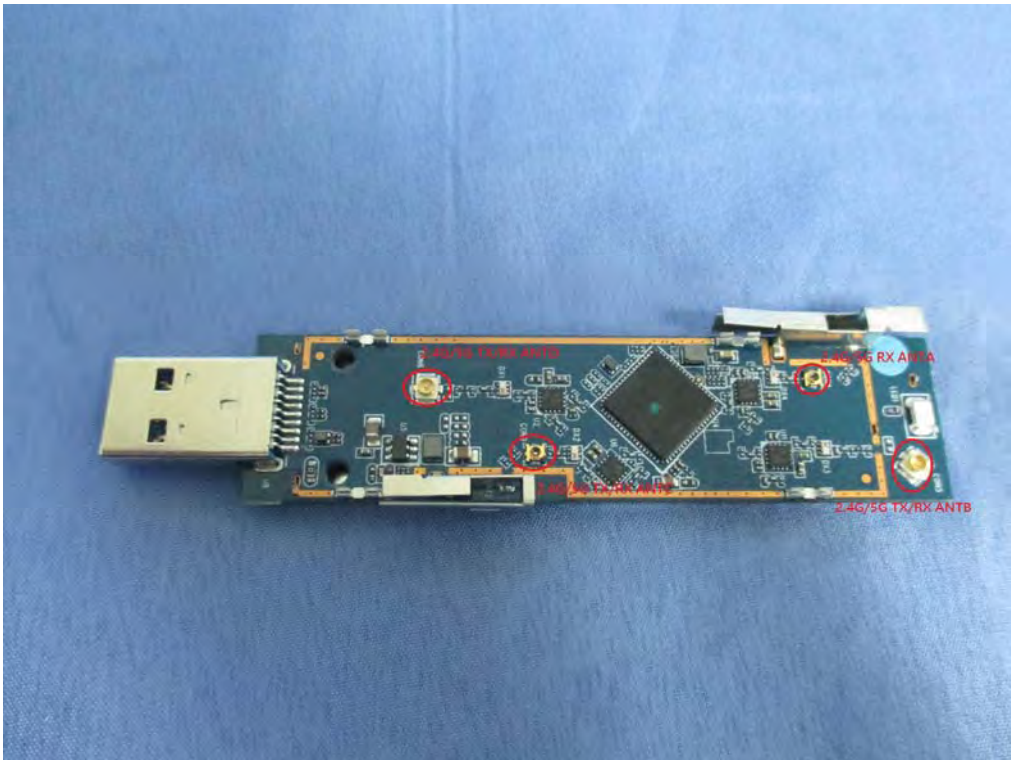
Antenna Information	
Antenna Gain	2.4G(3Tx/4Rx): RX(Chain A):2.55dBi TX/RX Ant0(Chain B): 2.71dBi TX/RX Ant1(Chain C): 2.41dBi TX/RX Ant2(Chain D): 2.52dBi 5G(3Tx/4Rx): RX(Chain A):3.89dBi TX/RX Ant0(Chain B): 3.89dBi TX/RX Ant1(Chain C): 3.55dBi TX/RX Ant2(Chain D): 4.03dBi
Beamforming Gain	2.4G: 1.51dBi 5G:1.75dBi
Antenna Type	FPC/PIFA Antenna

Accessories Information	
Cradle Cable	Shielded, 1m

ANT-TX / RX & Bandwidth

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

5GHz WLAN (3TX / 4RX)



IEEE 802.11n

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

Table 1 – MCS parameters for TX Antenna number = 1

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

Table 2 – MCS parameters for TX Antenna number = 2

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

Table 3 – MCS parameters for TX Antenna number = 3

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

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

Table 3 – MCS parameters

IEEE 802.11a & IEEE 802.11n/ac (20MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180MHz	40	5200MHz	44	5220MHz	48	5240MHz
149	5745MHz	153	5765MHz	157	5785MHz	161	5805MHz
165	5825MHz						

IEEE 802.11n/ac (40MHz)

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190MHz	46	5230MHz	151	5755MHz	159	5795MHz

IEEE 802.11ac (80MHz)

Working Frequency of Each Channel			
Channel	Frequency	Channel	Frequency
42	5210MHz	155	5775MHz

Note:

1. This device is a Dual band AC1900 USB 3.0 Wi-Fi Adapter including 2.4GHz b/g/n (3x4) and 5G a/n/ac (3x4) 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 E Paragraph 15.407.
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 2.4GHz transmitting is measured and makes a test report of the report number: 15C0048R-RFUSP28V00.
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 15C0048R-RFUSP01V00.

1.2. Test Mode

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

TX	Mode 1: Transmit_SISO Mode Mode 2: Transmit_MIMO Mode Mode 3: Transmit_Beamforming Mode

Test Items	Modulation	Channel	Antenna	Result
Conducted Emission	11ac (80MHz)	42/155	0+1+2	Complies
99 % & 26dB Bandwidth	11a	36/44/48/149/157/165	0/1/2	Complies
	11n/ac (20MHz)	36/44/48/149/157/165	0/1/2	Complies
	11n/ac (40MHz)	38/46//151/159	0/1/2	Complies
	11ac (80MHz)	42/155	0/1/2	Complies
Peak Transmit Output	11a	36/44/48/149/157/165	0/1/2	Complies
	11n/ac (20MHz)	36/44/48/149/157/165	0+1+2	Complies
	11n/ac (40MHz)	38/46/151/159	0+1+2	Complies
	11ac (80MHz)	42/155	0+1+2	Complies
Peak Power Spectrum Density	11a	36/44/48/149/157/165	0/1/2	Complies
	11n/ac (20MHz)	36/44/48/149/157/165	0+1+2	Complies
	11n/ac (40MHz)	38/46/151/159	0+1+2	Complies
	11ac (80MHz)	42/155	0+1+2	Complies
Radiated Emission	11a	36/44/48/149/157/165	0	Complies
	11n/ac (20MHz)	36/44/48/149/157/165	0+1+2	Complies
	11n/ac (40MHz)	38/46/151/159	0+1+2	Complies
	11ac (80MHz)	42/155	0+1+2	Complies
Band Edge	11a	36/149/165	0	Complies
	11n/ac (20MHz)	36/149/165	0+1+2	Complies
	11n/ac (40MHz)	38/151/159	0+1+2	Complies
	11ac (80MHz)	42/155	0+1+2	Complies
Frequency Stability	11a	36/44/48/149/165	0	Complies
	11n/ac (20MHz)	36/44/48/149/165	0/1/2	Complies
	11n/ac (40MHz)	38/46/151/159	0/1/2	Complies
	11ac (80MHz)	42/155	0/1/2	Complies

1.3. Tested System Details

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

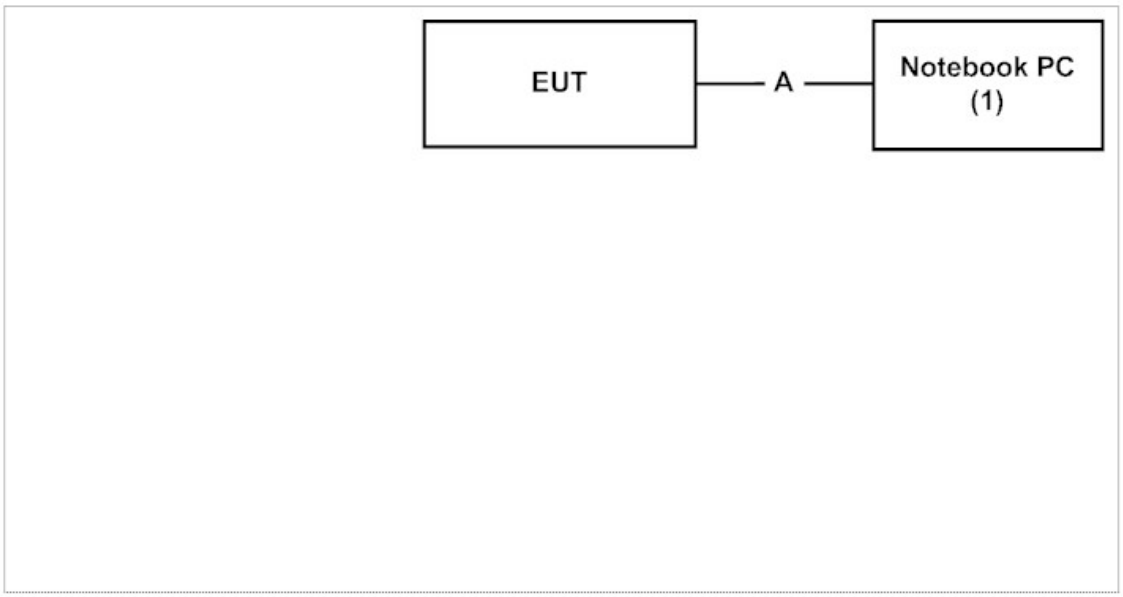
Test Mode		Mode 1: Transmit_SISO Mode Mode 2: Transmit_MIMO Mode				
Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	ASUS	X522EP	E5N0CV043264197	DoC	Non-Shielded, 1.8m, one ferrite core bonded

Test Mode		Mode 3: Transmit_Beamforming Mode				
Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	ASUS	X522EP	E5N0CV043264197	DoC	Non-Shielded, 1.8m, one ferrite core bonded
2	Notebook PC	DELL	Vostro3400	7F808N1	DoC	Non-Shielded, 1.8m
3	Router	RealTek	AP-#173	N/A	DoC	--

1.4. Configuration of tested System

Test Mode	Mode 2: Transmit_MIMO Mode

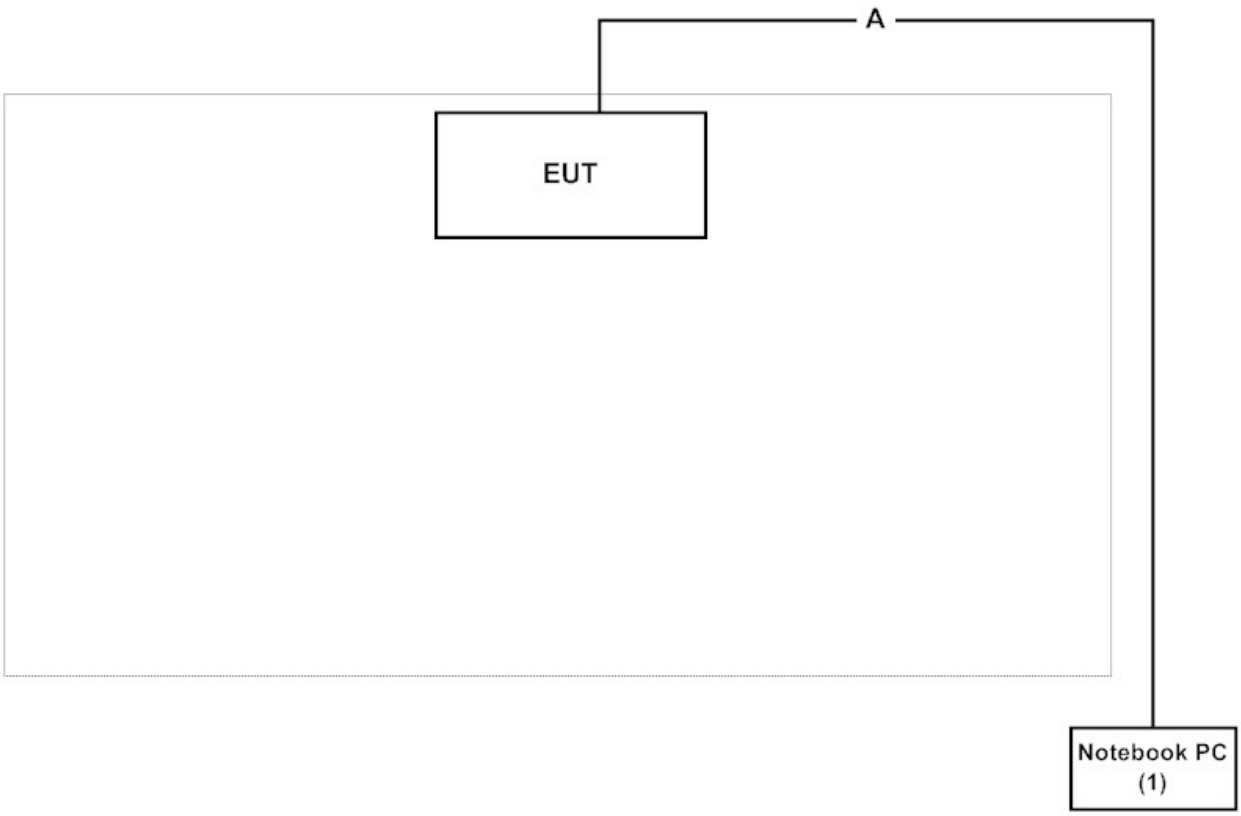
Connection Diagram (Only for Conducted Emission Test)



Signal Cable Type		Signal cable Description
A	USB Cable	Shielded, 3m

Test Mode	Mode 1: Transmit_SISO Mode Mode 2: Transmit_MIMO Mode

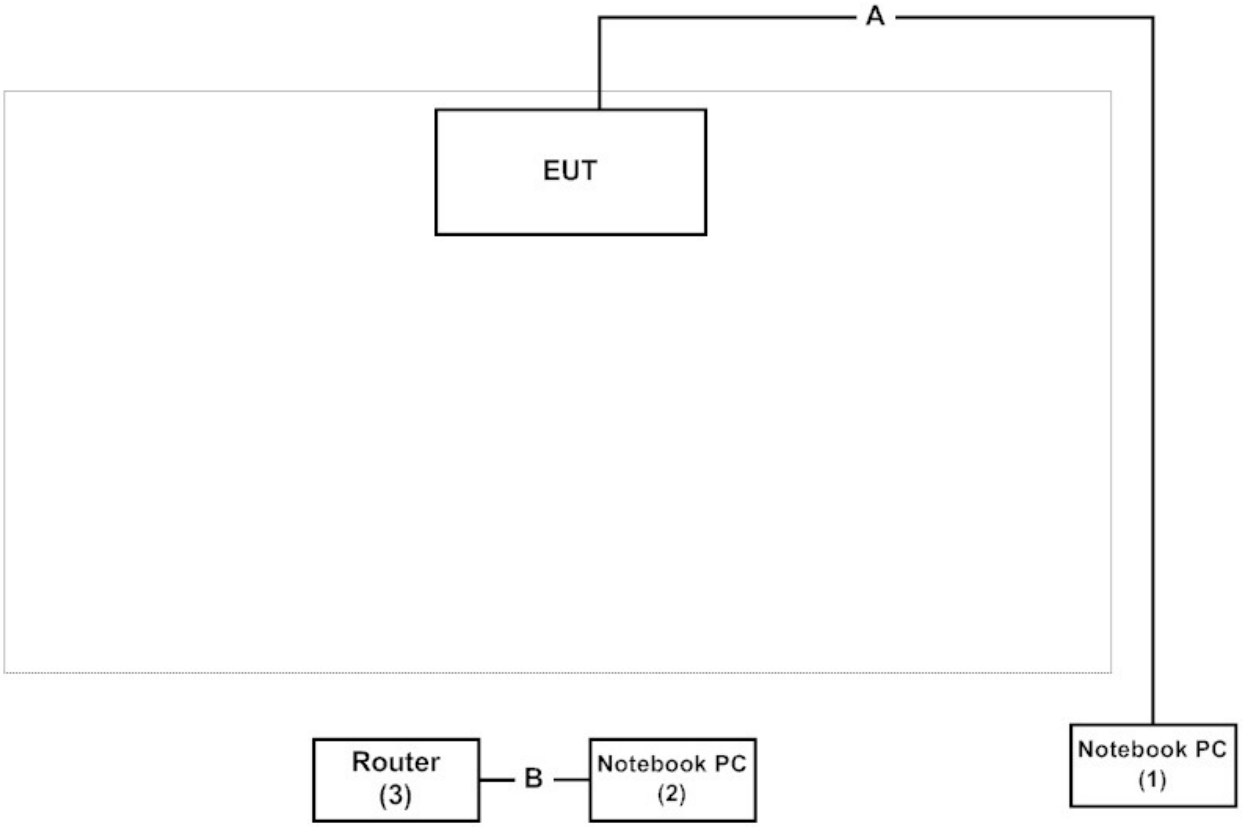
Connection Diagram



Signal Cable Type		Signal cable Description
A	USB Cable	Shielded, 3m

Test Mode	Mode 3: Transmit_Beamforming Mode

Connection Diagram



Signal Cable Type		Signal cable Description
A	USB Cable	Shielded, 3m
B	LAN Cable	Non-Shielded, 3m

1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.4.
2	Execute “Realtek 11ac 8814AU USB WLAN NIC Kit on the EUT.
3	Configure the test mode, the test channel, and the data rate.
4	Press “Start TX” to start the continuous transmitting.
5	Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 E 15.407 Conducted Emission	15 - 35	20
Humidity (%RH)		25 - 75	50
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 99 % & 26dB Bandwidth	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Peak Transmit Power	15 - 35	25
Humidity (%RH)		25 - 75	65
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Peak Power Spectrum Density	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Radiated Emission	15 - 35	25
Humidity (%RH)		25 - 75	48
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Band Edge	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 E 15.407 Frequency Stability	15 - 35	25
Humidity (%RH)		25 - 75	45
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

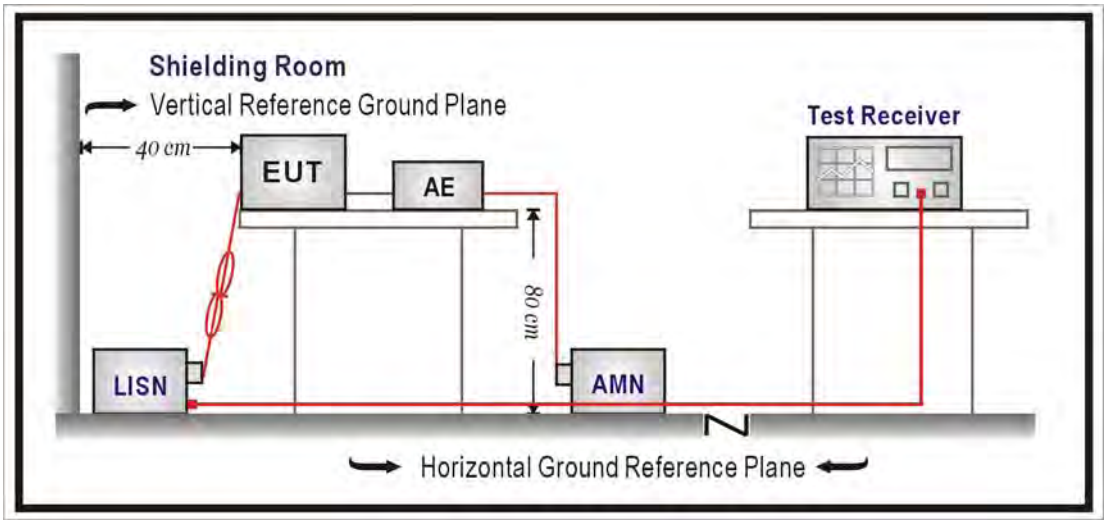
The following test equipments are used during the test:

Conducted Emission / SR3

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
LISN	R&S	ENV216	100096	2016/07/27
LISN	R&S	ESH3-Z5	836679/022	2016/11/30
Test Receiver	R&S	ESCS 30	825442/017	2017/01/04

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

2.2. Test Setup



2.3. Limits

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

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

2.4. Test Procedure

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

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

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

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

2.5. Test Specification

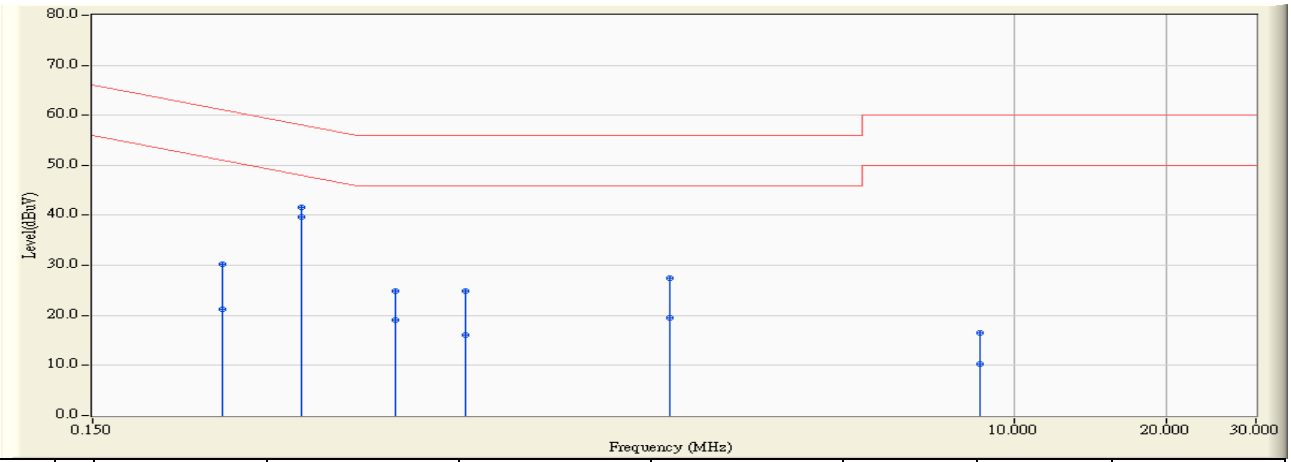
According to FCC Part 15 Subpart C Paragraph 15.207: 2015

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR3	**Time : 2016/04/18 - 10:31**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-5_0728 - Line1	**Power : AC 120V/60Hz**
EUT : Dual band AC1900 USB 3.0 Wi-Fi Adapter	**Note : Mode 2: Transmit_MIMO Mode 802.11ac(80M)-5210MHz**

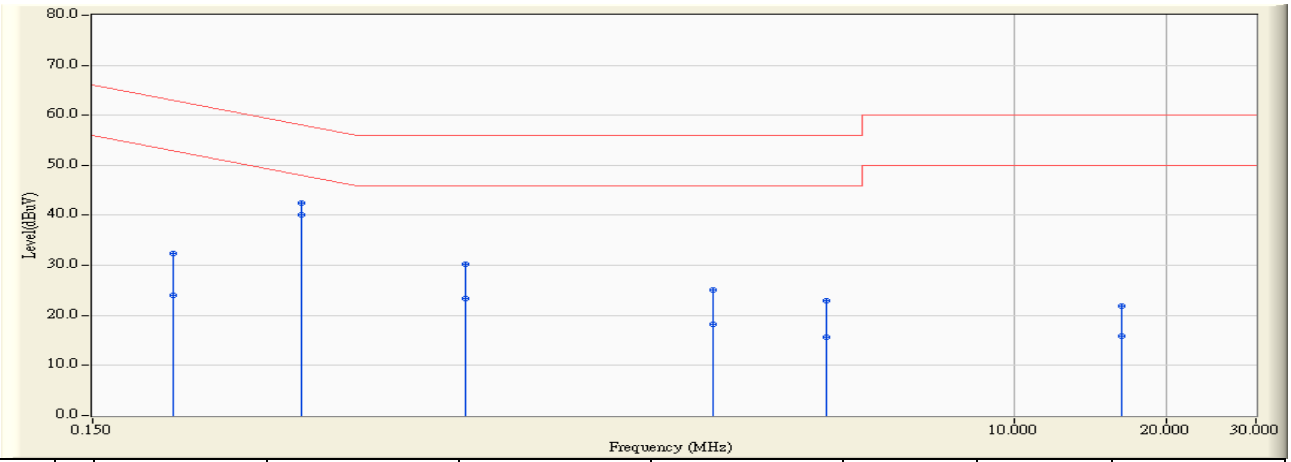


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.271	9.757	20.440	30.197	-30.887	61.084	QUASIPEAK
2		0.271	9.757	11.480	21.237	-29.847	51.084	AVERAGE
3		0.387	9.774	31.840	41.614	-16.514	58.128	QUASIPEAK
4	*	0.387	9.774	29.900	39.674	-8.454	48.128	AVERAGE
5		0.595	9.790	15.110	24.900	-31.100	56.000	QUASIPEAK
6		0.595	9.790	9.280	19.070	-26.930	46.000	AVERAGE
7		0.822	9.790	15.130	24.920	-31.080	56.000	QUASIPEAK
8		0.822	9.790	6.210	16.000	-30.000	46.000	AVERAGE
9		2.076	9.823	17.730	27.553	-28.447	56.000	QUASIPEAK
10		2.076	9.823	9.610	19.433	-26.567	46.000	AVERAGE
11		8.541	10.064	6.490	16.554	-43.446	60.000	QUASIPEAK
12		8.541	10.064	0.210	10.274	-39.726	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 : 2016/04/18 - 10:34**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-5_0728 - Line2	**Power : AC 120V/60Hz**
EUT : Dual band AC1900 USB 3.0 Wi-Fi Adapter	**Note : Mode 2: Transmit_MIMO Mode 802.11ac(80M)-5210MHz**

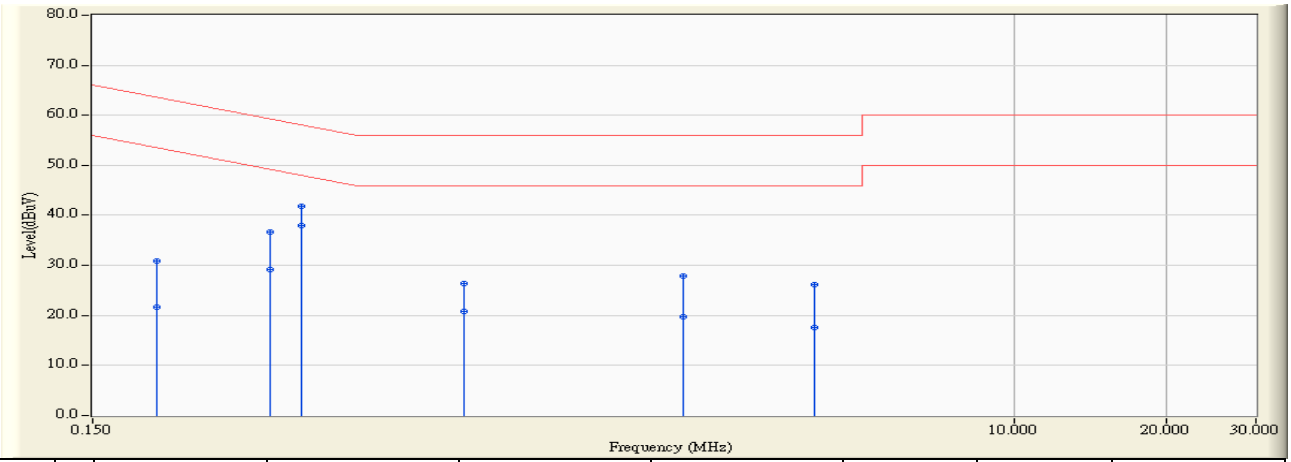


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.216	9.748	22.570	32.319	-30.637	62.956	QUASIPEAK
2		0.216	9.748	14.360	24.109	-28.847	52.956	AVERAGE
3		0.388	9.765	32.680	42.445	-15.656	58.100	QUASIPEAK
4	*	0.388	9.765	30.380	40.145	-7.956	48.100	AVERAGE
5		0.818	9.787	20.400	30.187	-25.813	56.000	QUASIPEAK
6		0.818	9.787	13.570	23.357	-22.643	46.000	AVERAGE
7		2.533	9.839	15.210	25.050	-30.950	56.000	QUASIPEAK
8		2.533	9.839	8.290	18.130	-27.870	46.000	AVERAGE
9		4.228	9.902	13.070	22.972	-33.028	56.000	QUASIPEAK
10		4.228	9.902	5.780	15.682	-30.318	46.000	AVERAGE
11		16.322	10.322	11.600	21.922	-38.078	60.000	QUASIPEAK
12		16.322	10.322	5.480	15.802	-34.198	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 : 2016/04/18 - 10:44**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-5_0728 - Line1	**Power : AC 120V/60Hz**
EUT : Dual band AC1900 USB 3.0 Wi-Fi Adapter	**Note : Mode 2: Transmit_MIMO Mode 802.11ac(80M)-5775MHz**

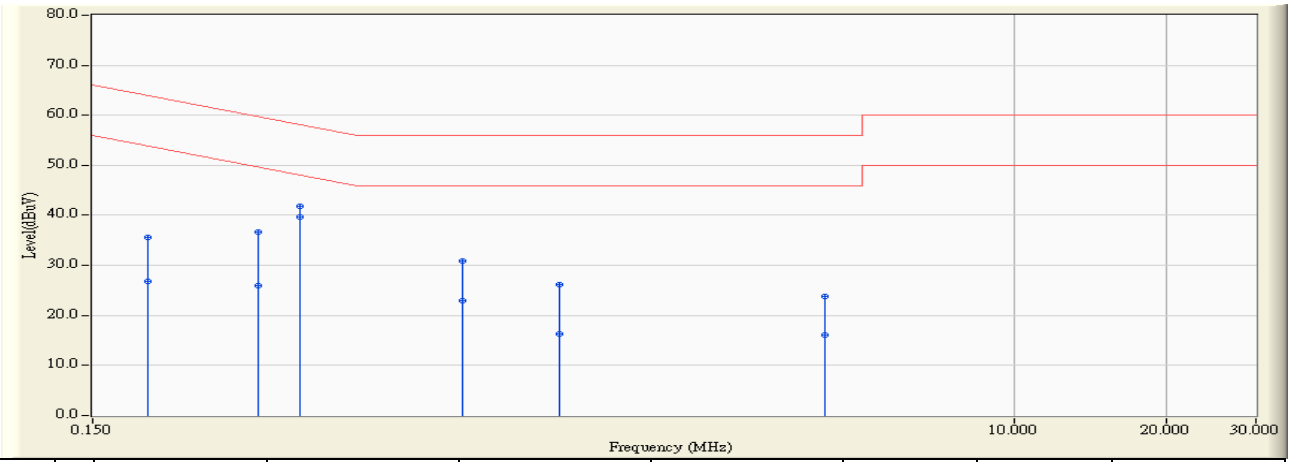


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.201	9.748	21.190	30.938	-32.640	63.578	QUASIPEAK
2		0.201	9.748	11.820	21.568	-32.010	53.578	AVERAGE
3		0.338	9.767	26.820	36.587	-22.678	59.265	QUASIPEAK
4		0.338	9.767	19.410	29.177	-20.088	49.265	AVERAGE
5		0.388	9.774	32.010	41.784	-16.316	58.100	QUASIPEAK
6	*	0.388	9.774	28.120	37.894	-10.206	48.100	AVERAGE
7		0.813	9.790	16.560	26.350	-29.650	56.000	QUASIPEAK
8		0.813	9.790	11.090	20.880	-25.120	46.000	AVERAGE
9		2.205	9.827	18.120	27.947	-28.053	56.000	QUASIPEAK
10		2.205	9.827	9.950	19.777	-26.223	46.000	AVERAGE
11		4.017	9.894	16.360	26.254	-29.746	56.000	QUASIPEAK
12		4.017	9.894	7.700	17.594	-28.406	46.000	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 : 2016/04/18 - 10:48**
Limit : CISPR_B_00M_QP	**Margin : 10**
Probe : SR3_LISN(16A)-5_0728 - Line2	**Power : AC 120V/60Hz**
EUT : Dual band AC1900 USB 3.0 Wi-Fi Adapter	**Note : Mode 2: Transmit_MIMO Mode 802.11ac(80M)-5775MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.193	9.747	25.890	35.637	-28.271	63.908	QUASIPEAK
2		0.193	9.747	17.070	26.817	-27.091	53.908	AVERAGE
3		0.318	9.758	26.930	36.688	-23.072	59.760	QUASIPEAK
4		0.318	9.758	16.220	25.978	-23.782	49.760	AVERAGE
5		0.386	9.765	32.150	41.914	-16.241	58.155	QUASIPEAK
6	*	0.386	9.765	29.860	39.624	-8.531	48.155	AVERAGE
7		0.808	9.787	21.110	30.897	-25.103	56.000	QUASIPEAK
8		0.808	9.787	13.180	22.967	-23.033	46.000	AVERAGE
9		1.259	9.798	16.340	26.138	-29.862	56.000	QUASIPEAK
10		1.259	9.798	6.580	16.378	-29.622	46.000	AVERAGE
11		4.224	9.902	13.940	23.842	-32.158	56.000	QUASIPEAK
12		4.224	9.902	6.210	16.112	-29.888	46.000	AVERAGE

Note:

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

3. 99% & 26dB & DTS Bandwidth

3.1. Test Equipment

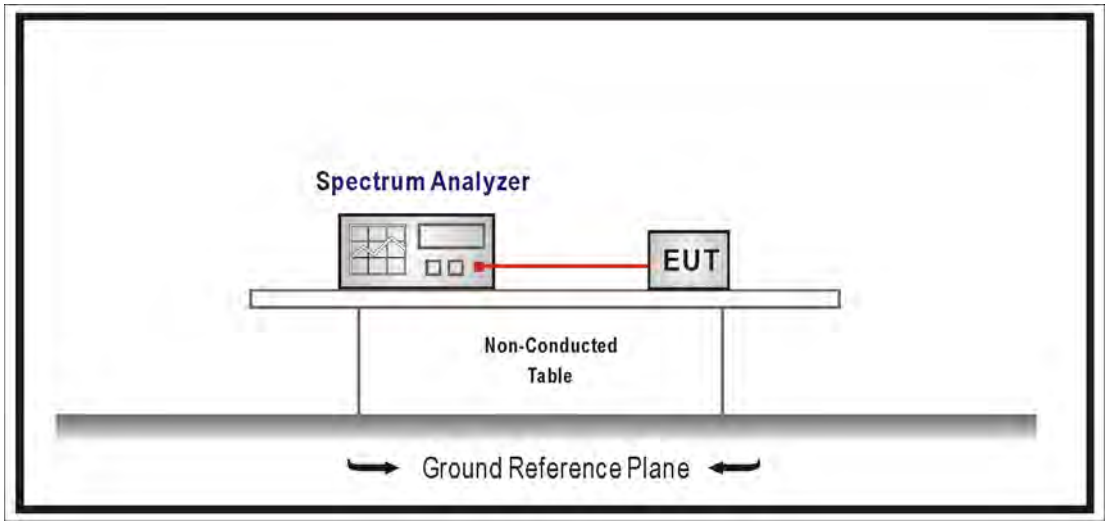
The following test equipments are used during the radiated emission tests:

99% & 26dB & DTS Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23

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

3.2. Test Setup



3.3. Limits

99% & 26dB Bandwidth : No Required
DTS Bandwidth : ≧500KHz

3.4. Test Procedure

99% & 26dB Bandwidth :
The EUT was tested according to U-NII test procedure of KDB 789033.
Set RBW 1% of the emission bandwidth, VBW equal to 3 times the RBW.
DTS Bandwidth :
Set RBW = 100KHz, VBW≧3xRBW, Sweep time=Auto, Set Peak detector.

3.5. Uncertainty

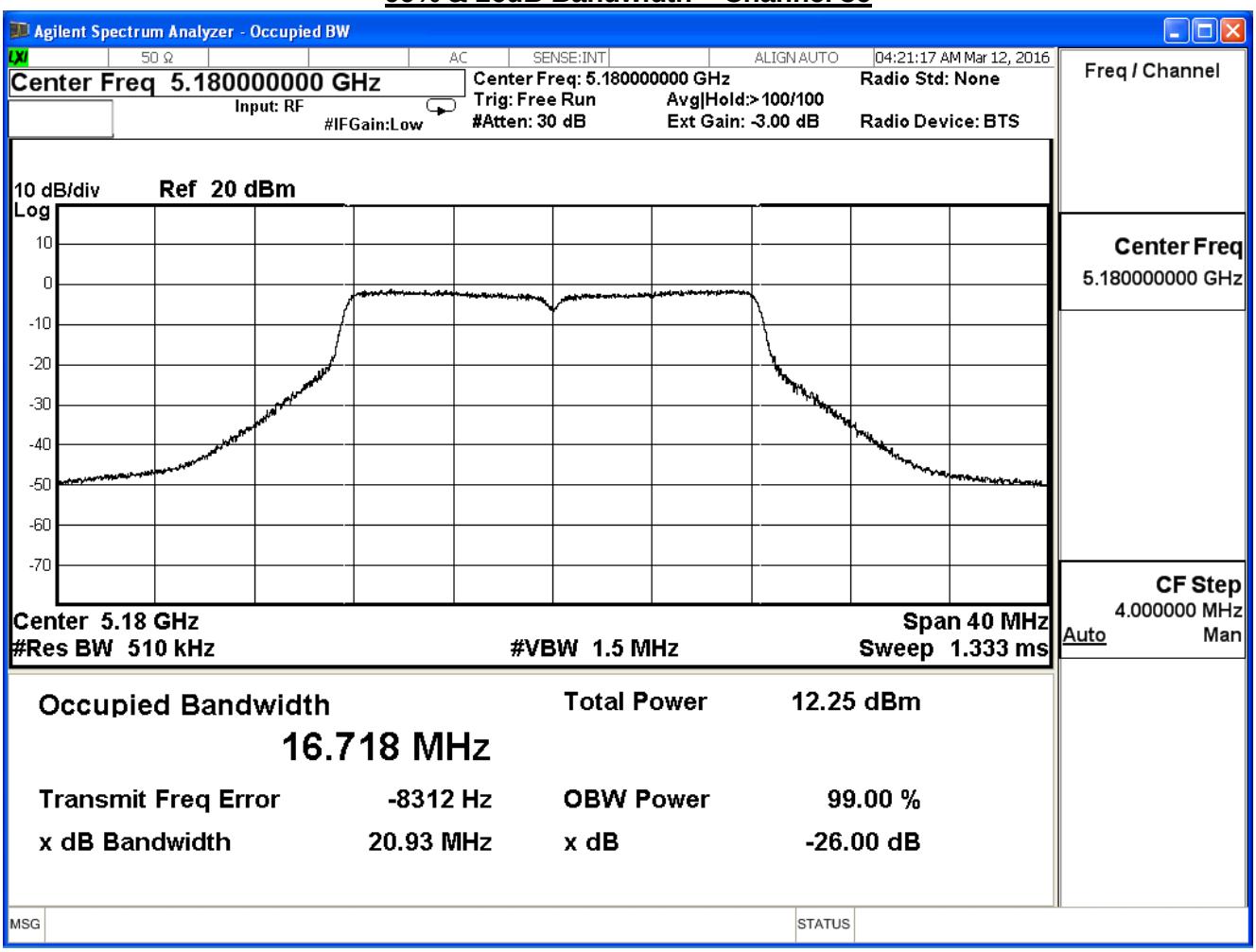
The measurement uncertainty is defined as ±150Hz

3.6. Test Result

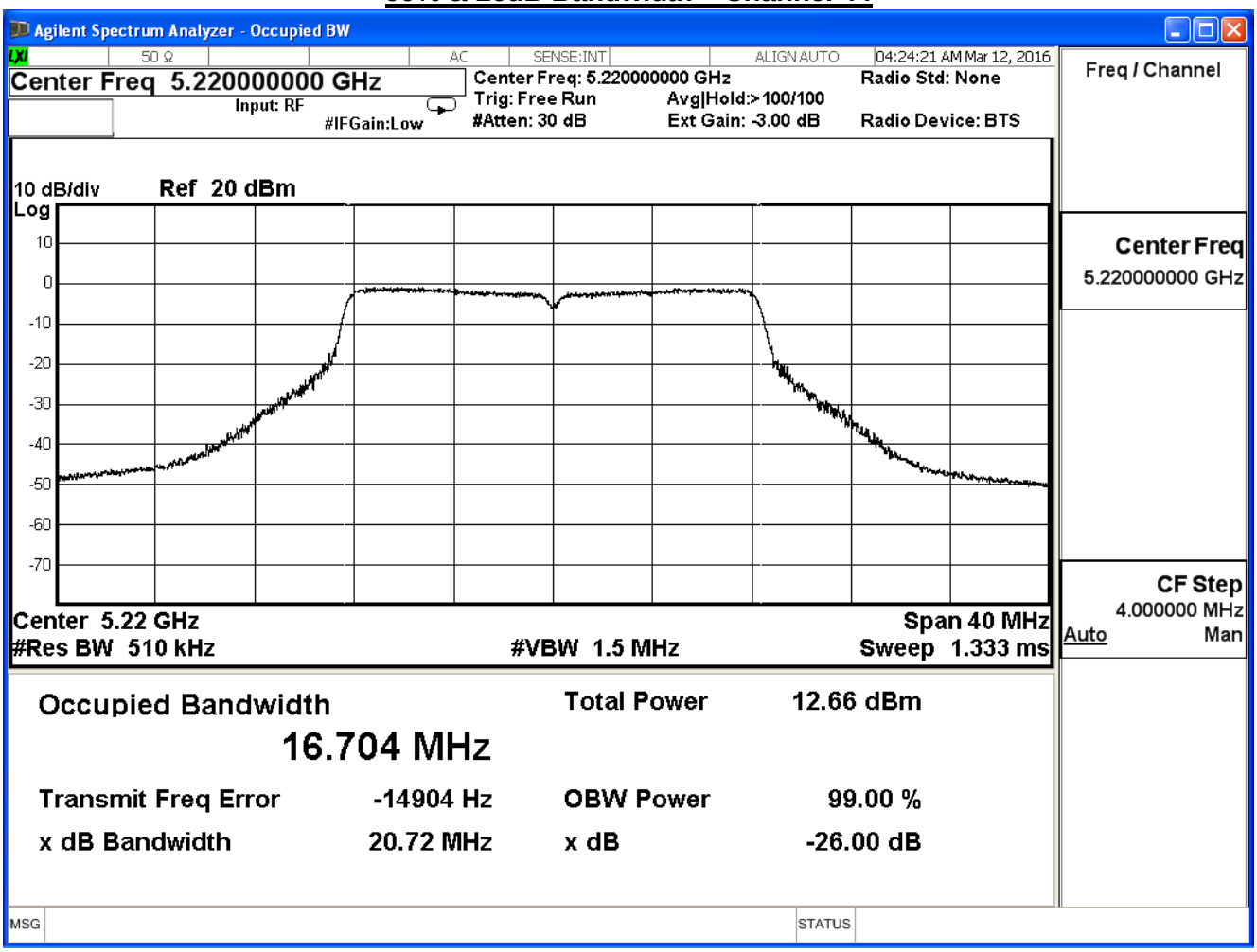
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11a (ANT 0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
36	5180	20.93	16.718	--	Pass
44	5220	20.72	16.704	--	Pass
48	5240	21.19	16.714	--	Pass

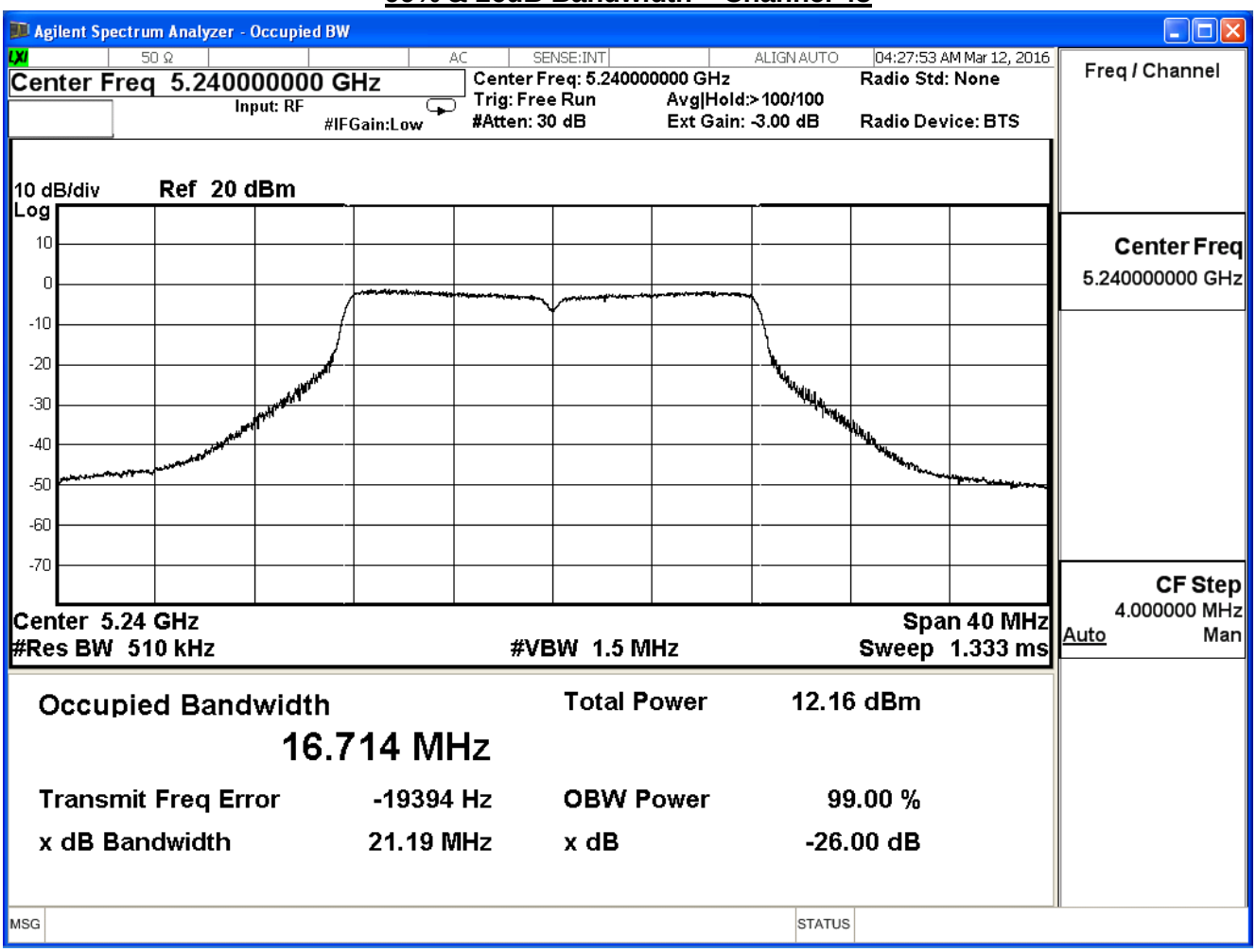
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



99% & 26dB Bandwidth – Channel 48

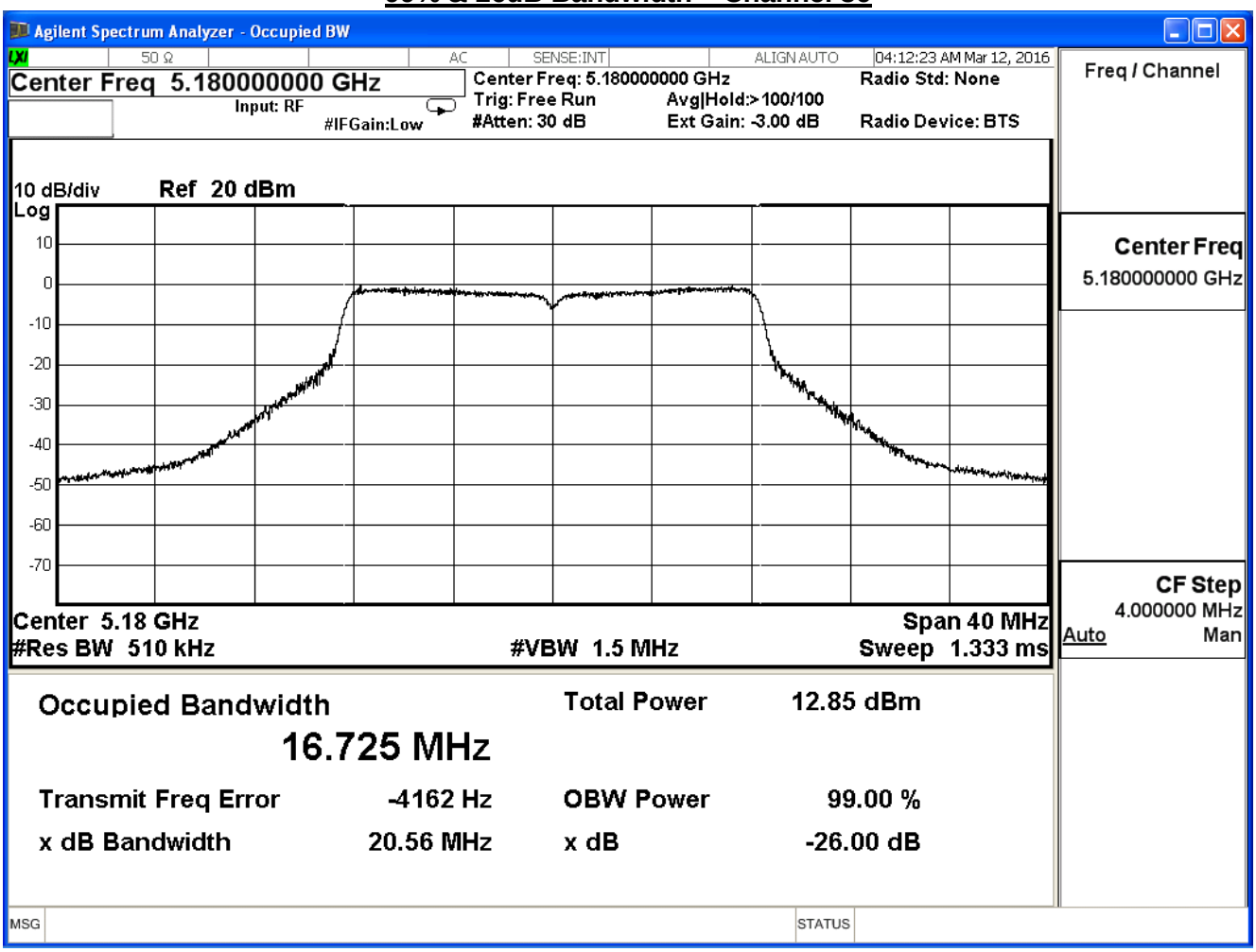


Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/12	Test Site	SR7

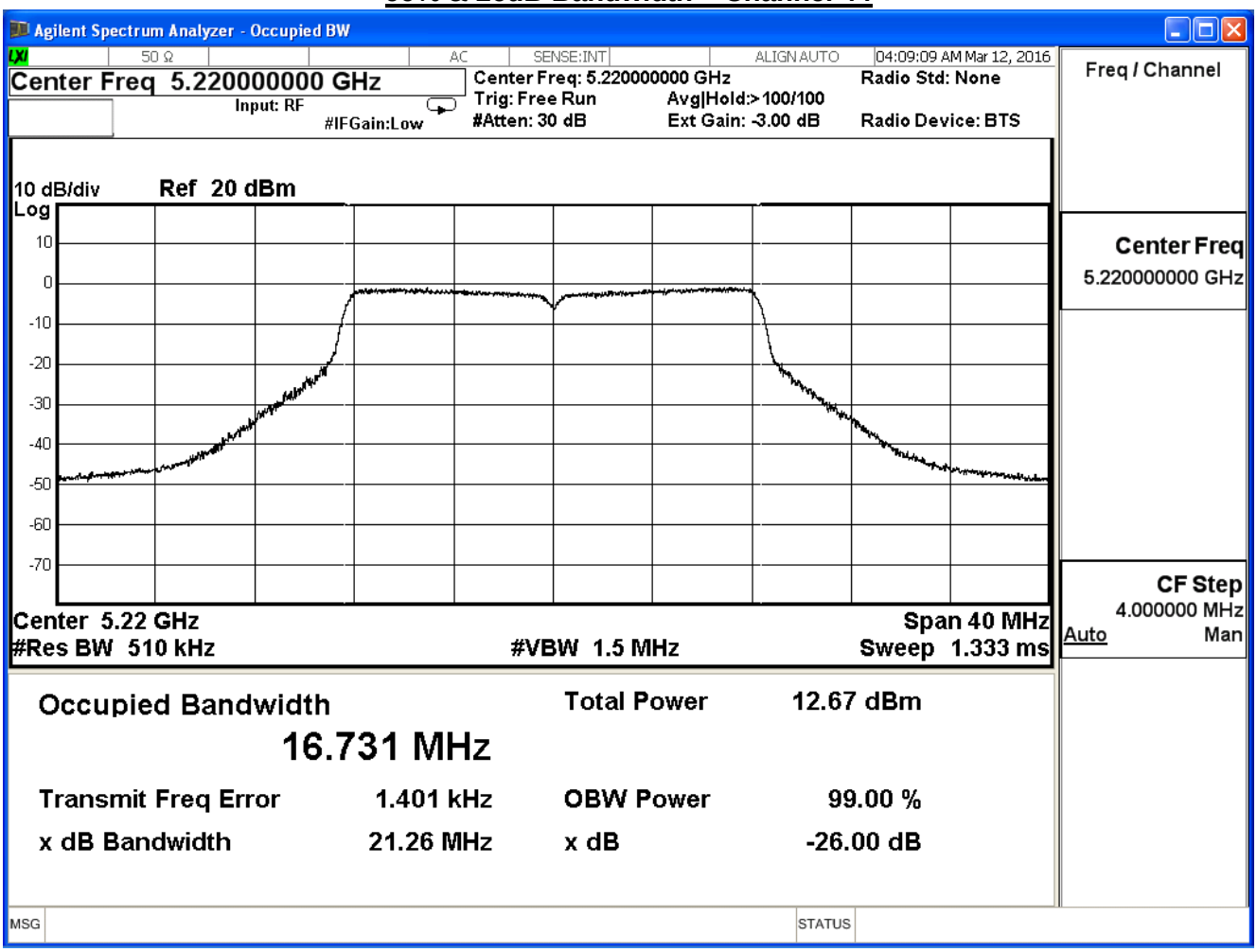
802.11a (ANT 1)

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
36	5180	20.56	16.725	--	Pass
44	5220	21.26	16.731	--	Pass
48	5240	21.15	16.713	--	Pass

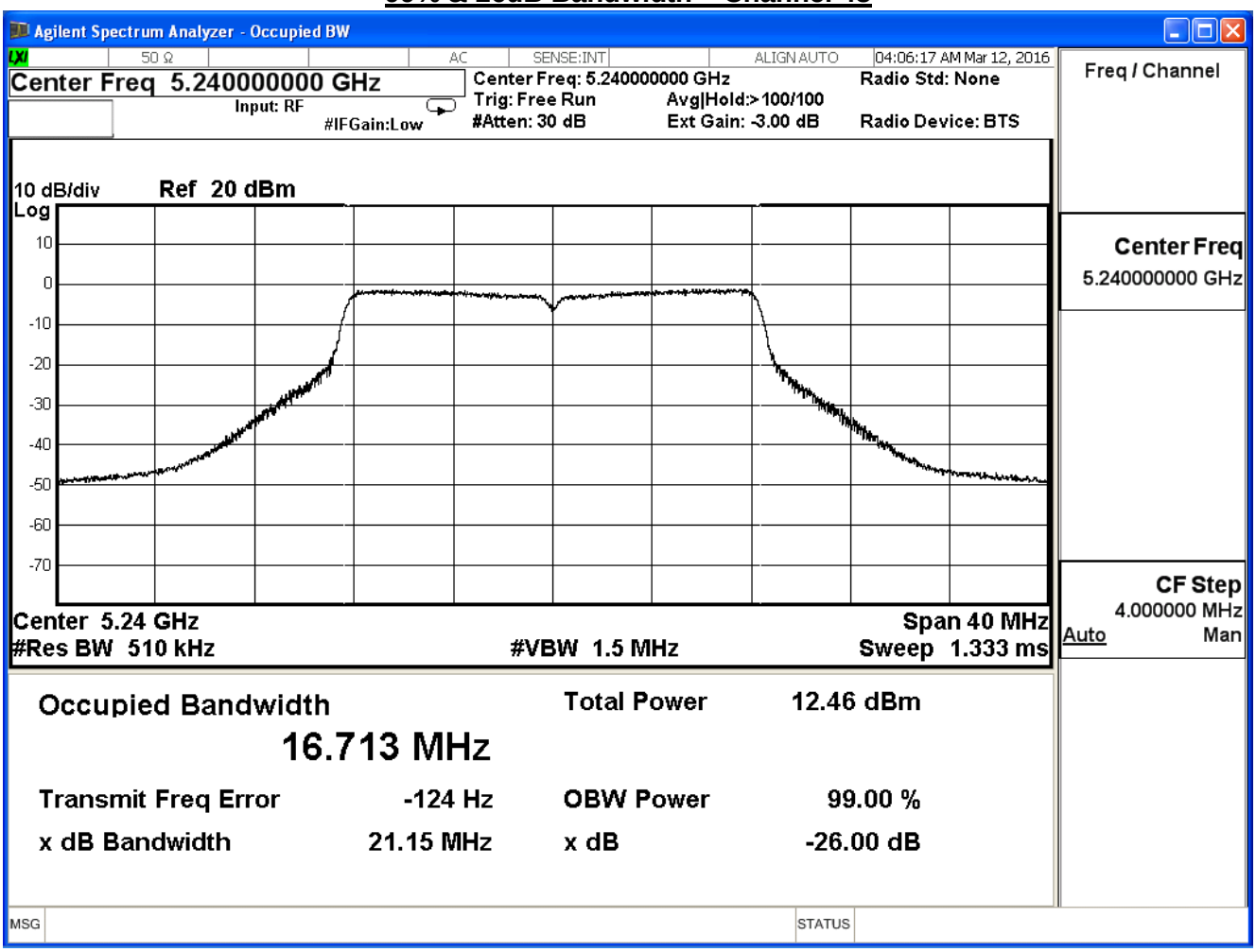
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



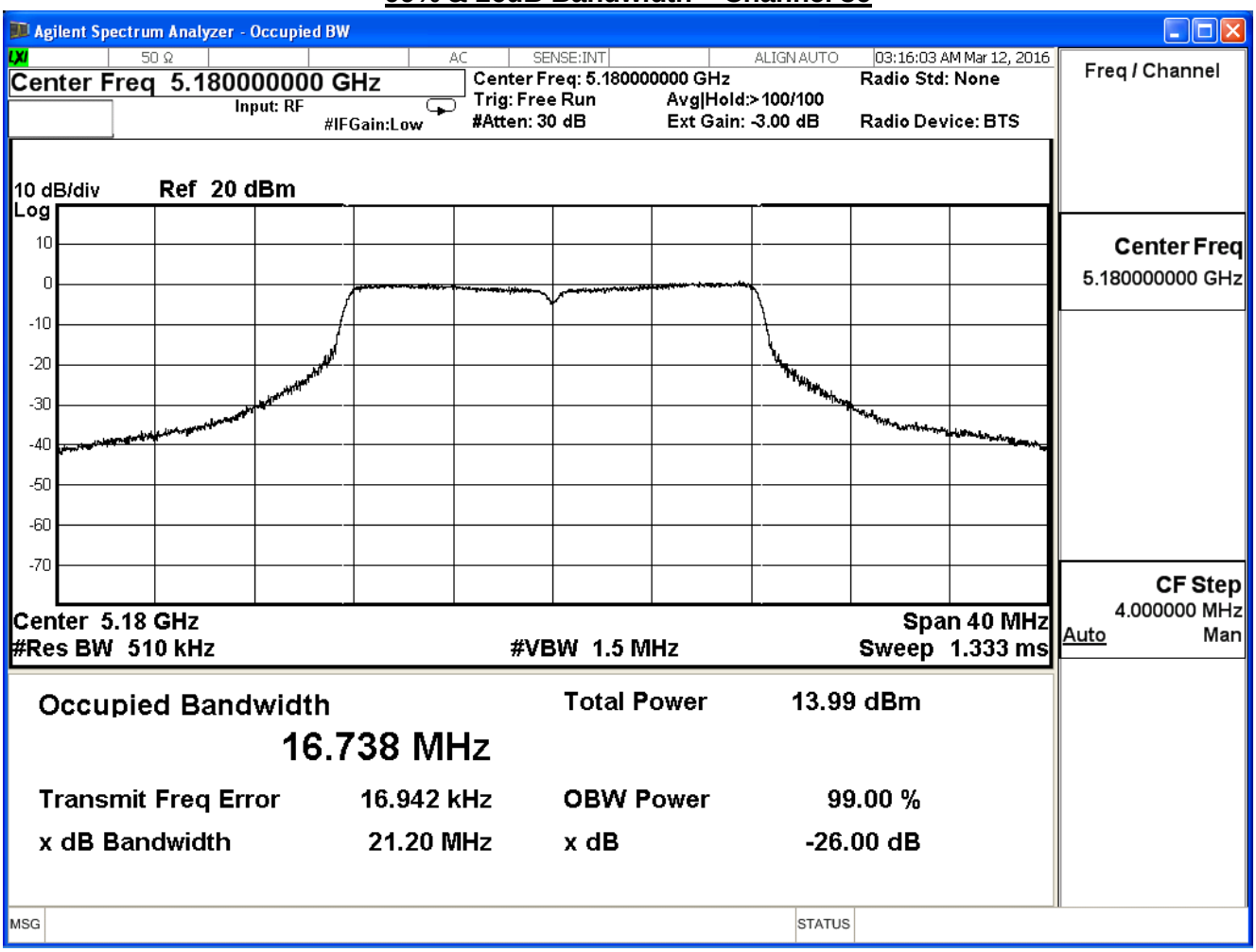
99% & 26dB Bandwidth – Channel 48



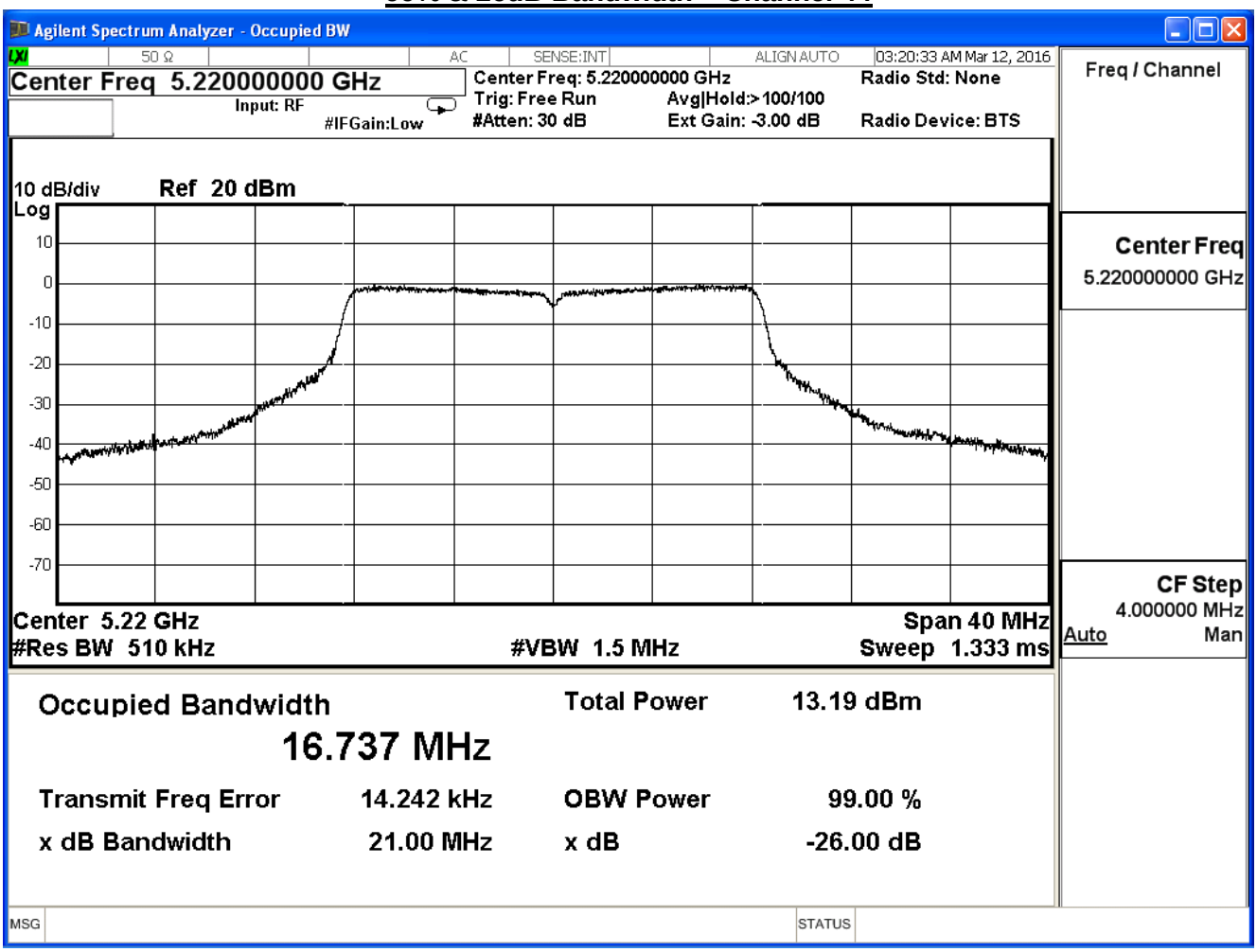
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11a (ANT 2)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
36	5180	21.20	16.738	--	Pass
44	5220	21.00	16.737	--	Pass
48	5240	21.03	16.739	--	Pass

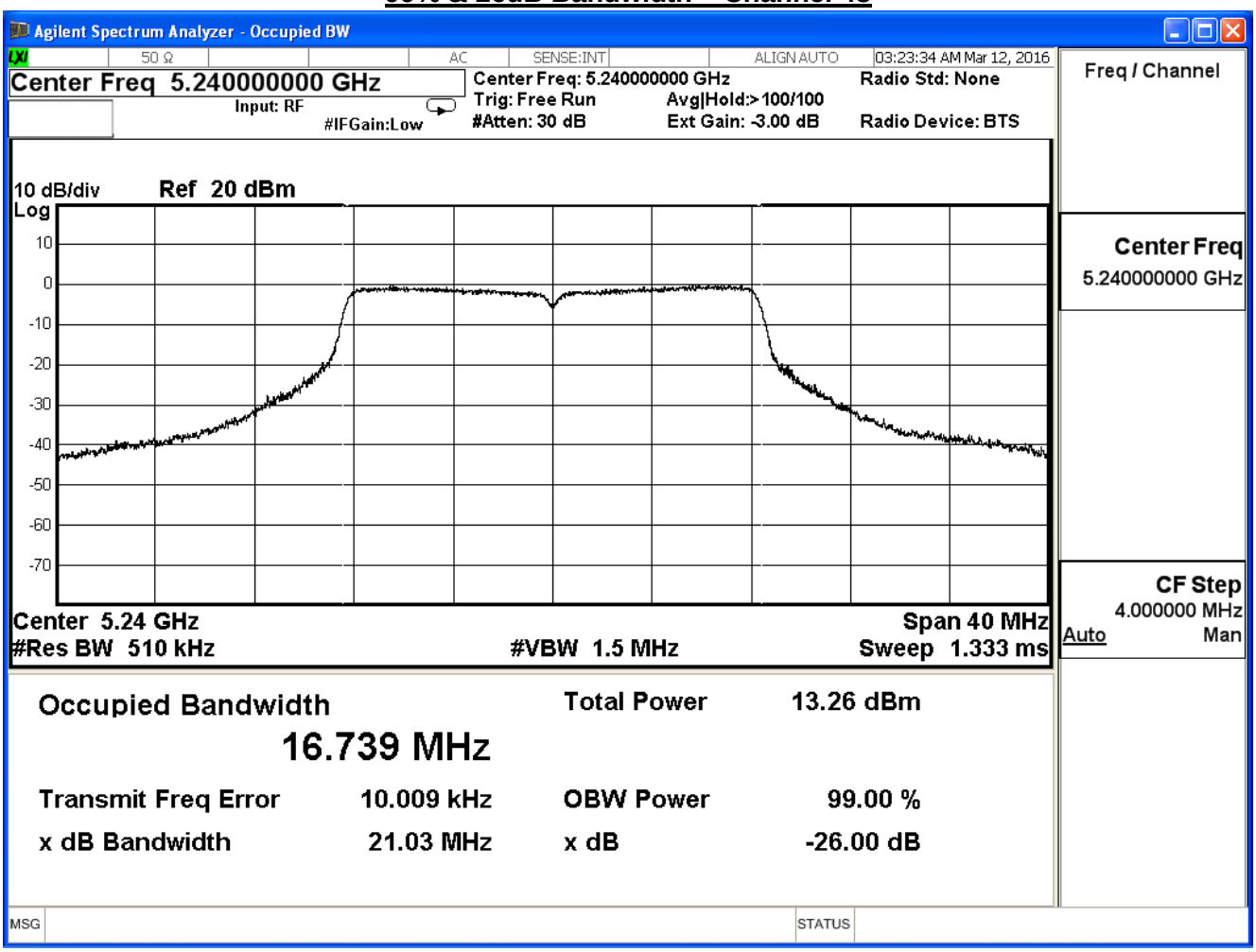
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



99% & 26dB Bandwidth – Channel 48

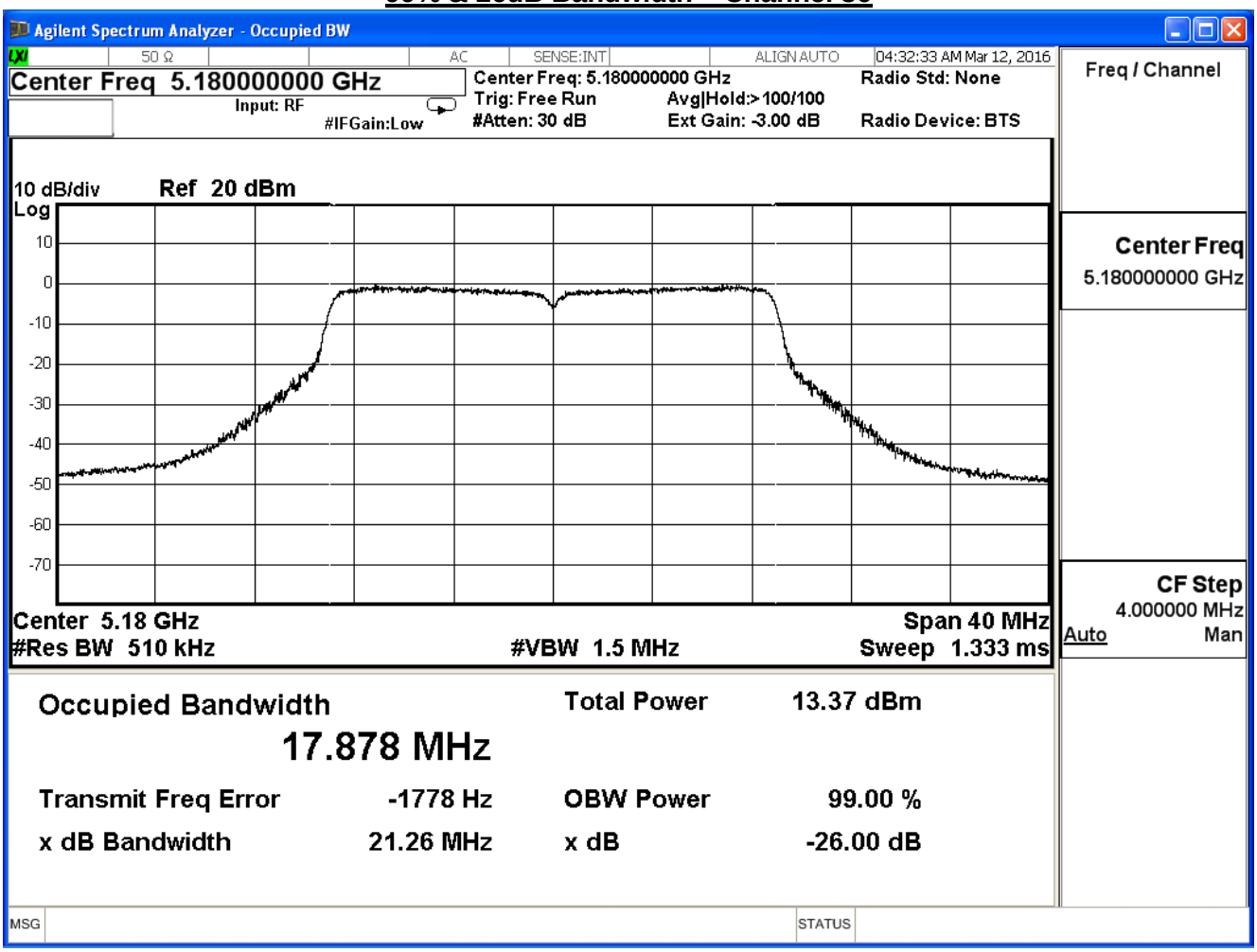


Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

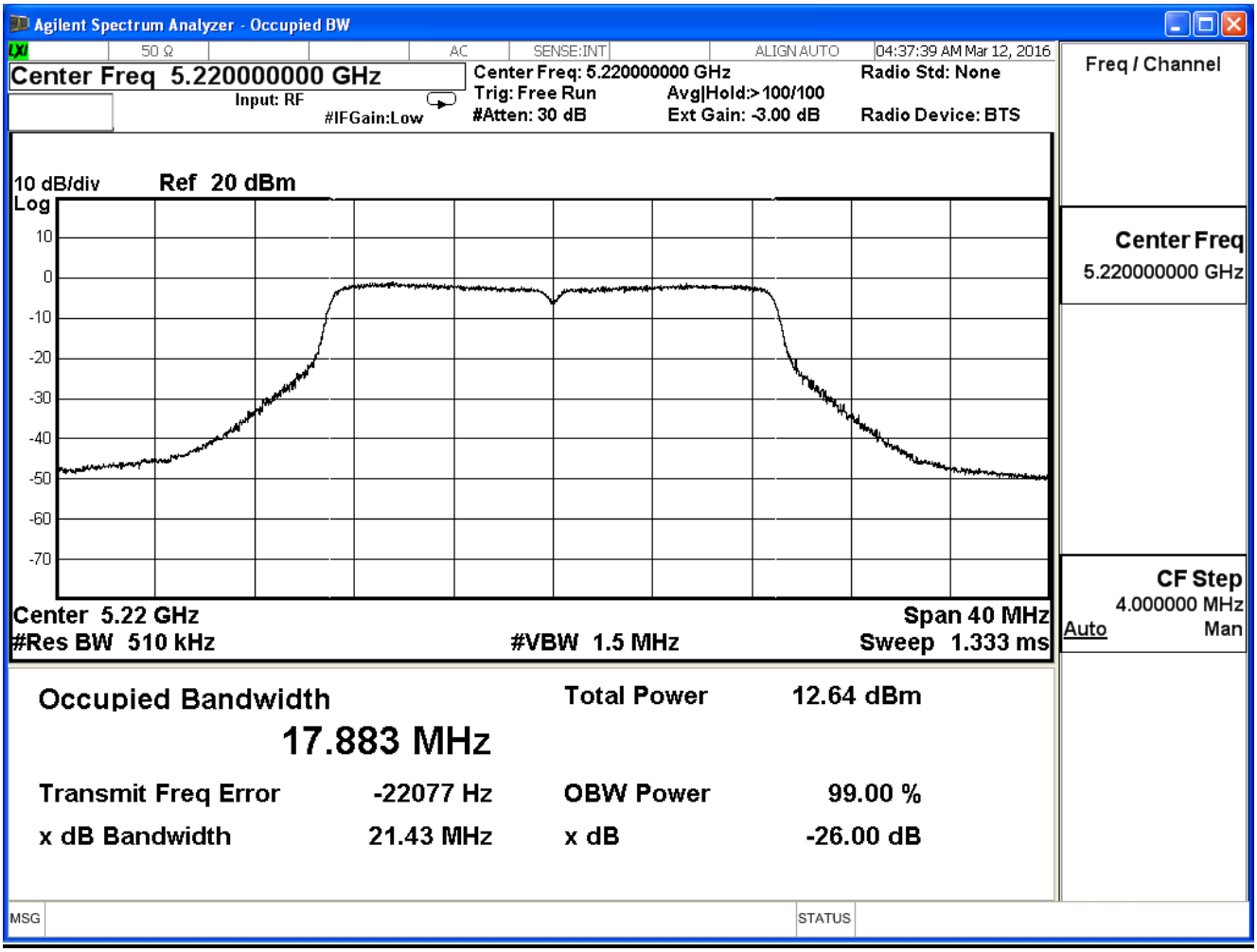
802.11n_20M(ANT 0)

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
36	5180	21.26	17.878	--	Pass
44	5220	21.43	17.883	--	Pass
48	5240	21.54	17.884	--	Pass

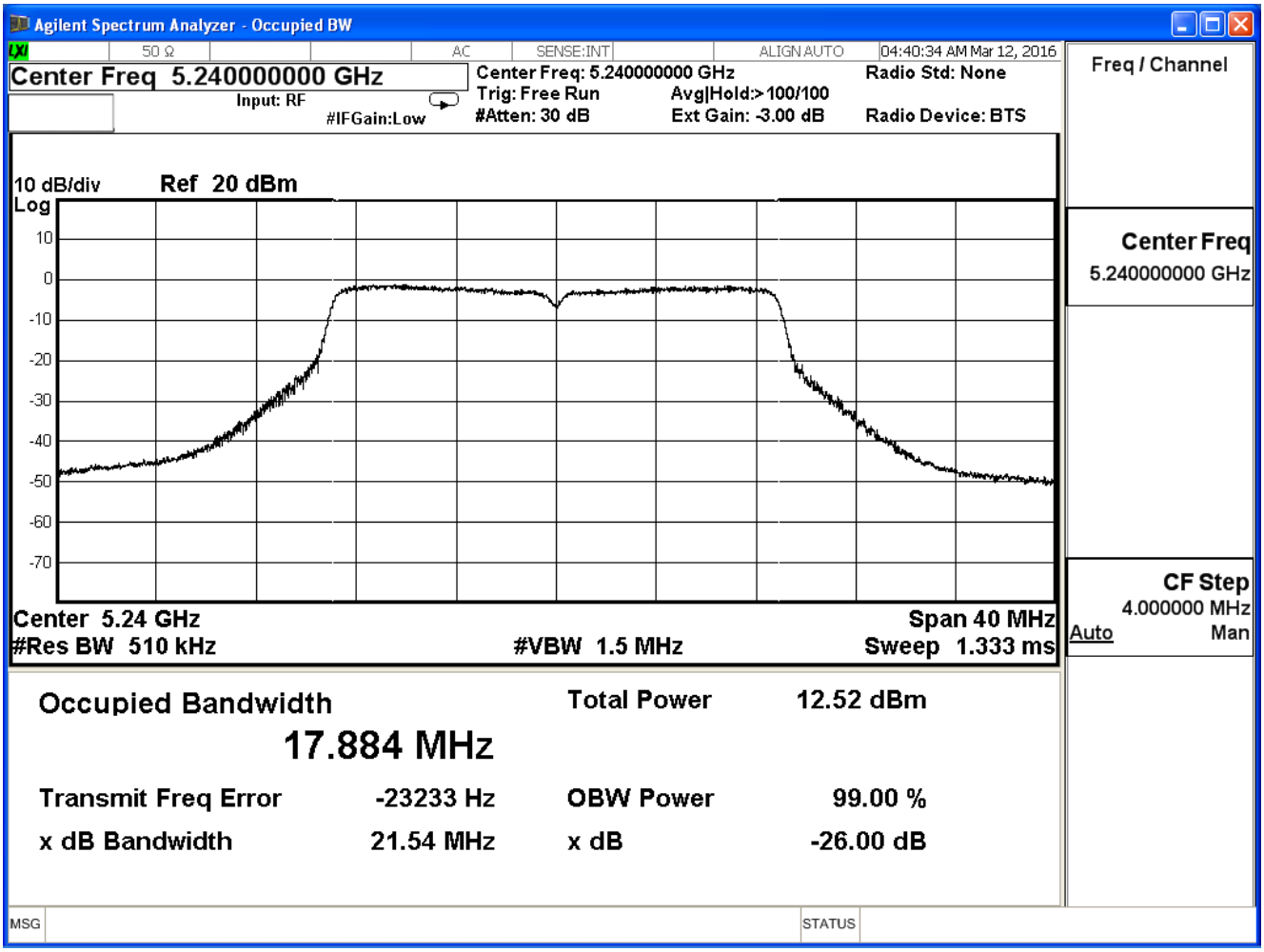
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



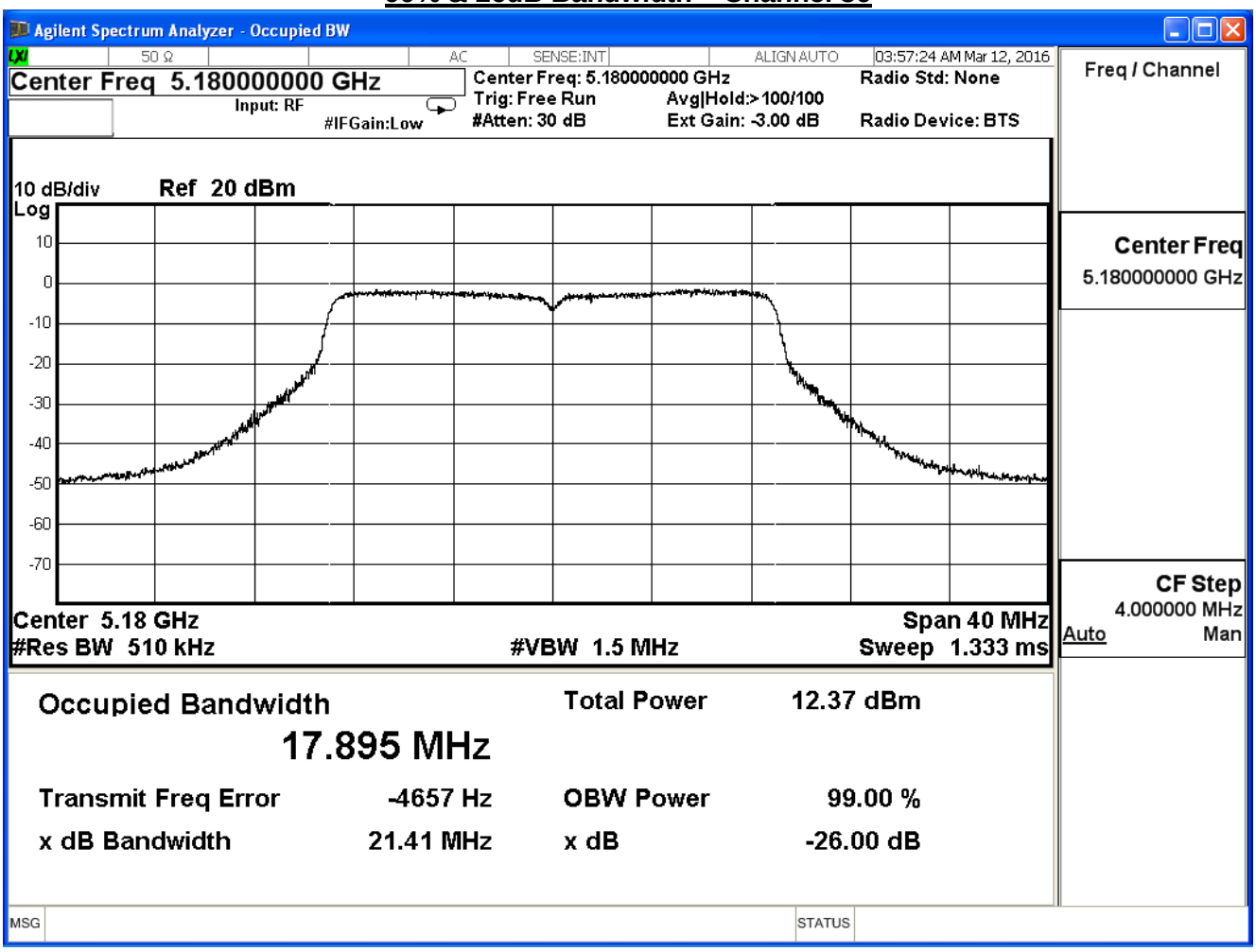
99% & 26dB Bandwidth – Channel 48



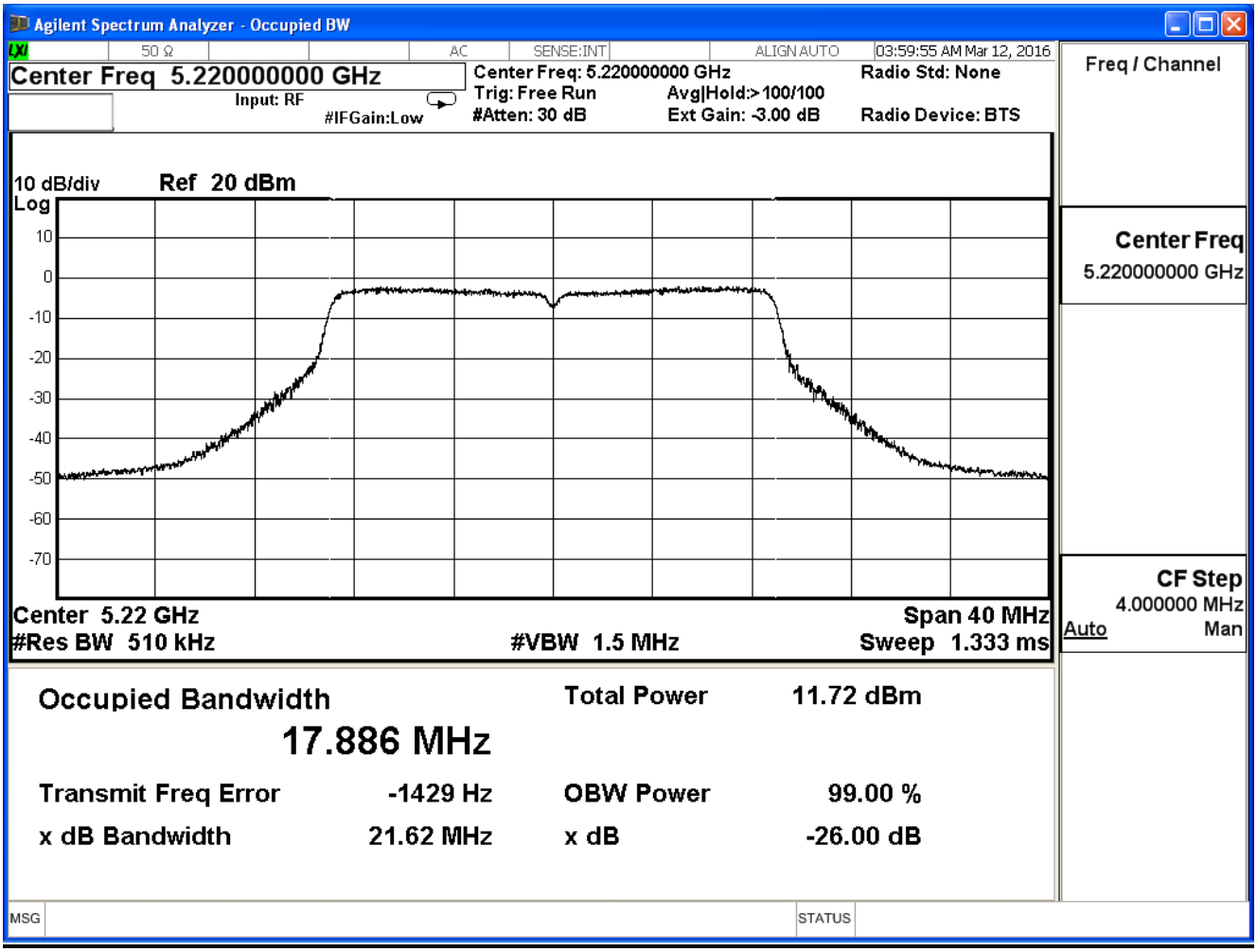
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11n_20M(ANT 1)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
36	5180	21.41	17.895	--	Pass
44	5220	21.62	17.886	--	Pass
48	5240	21.52	17.879	--	Pass

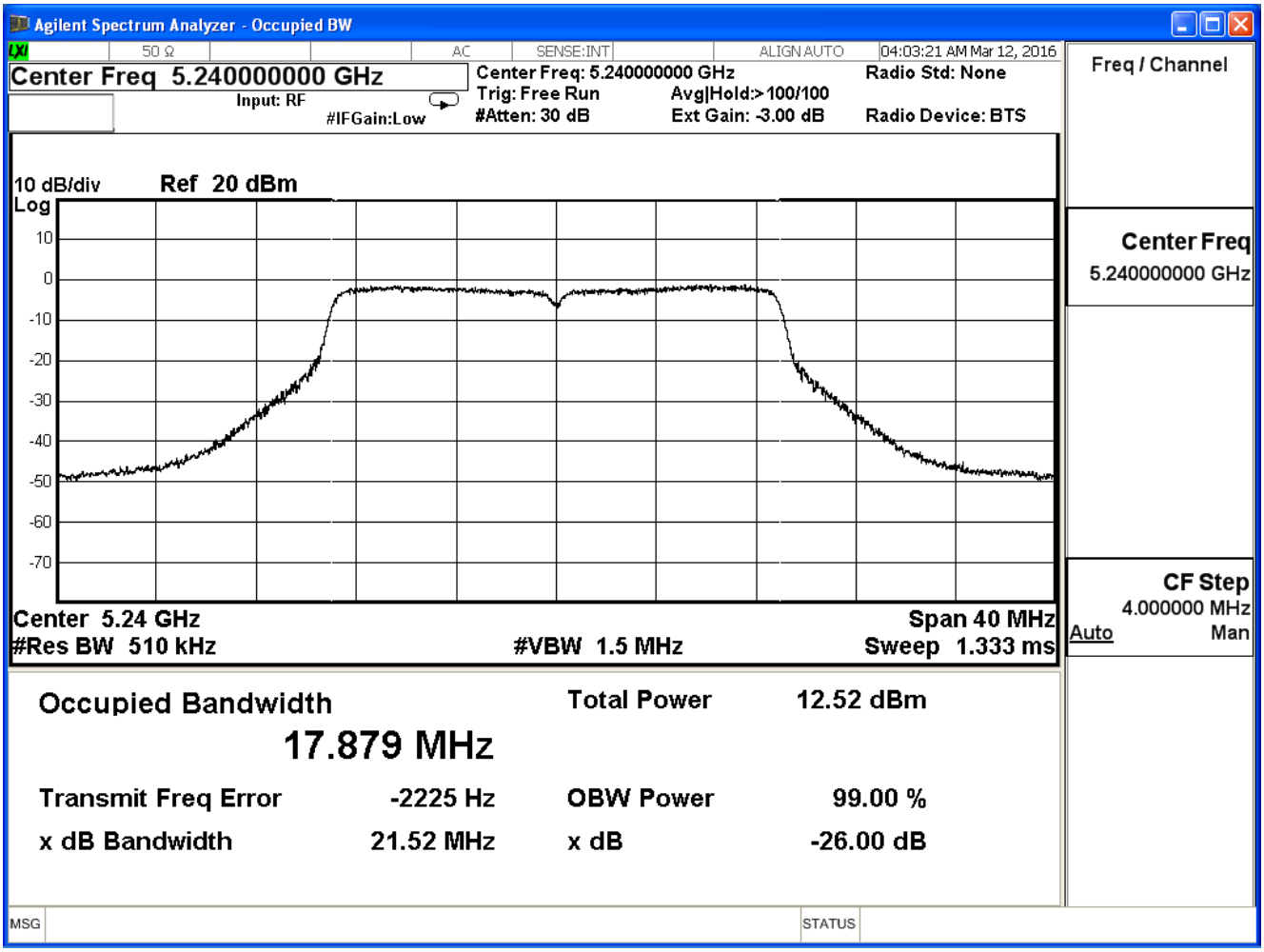
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



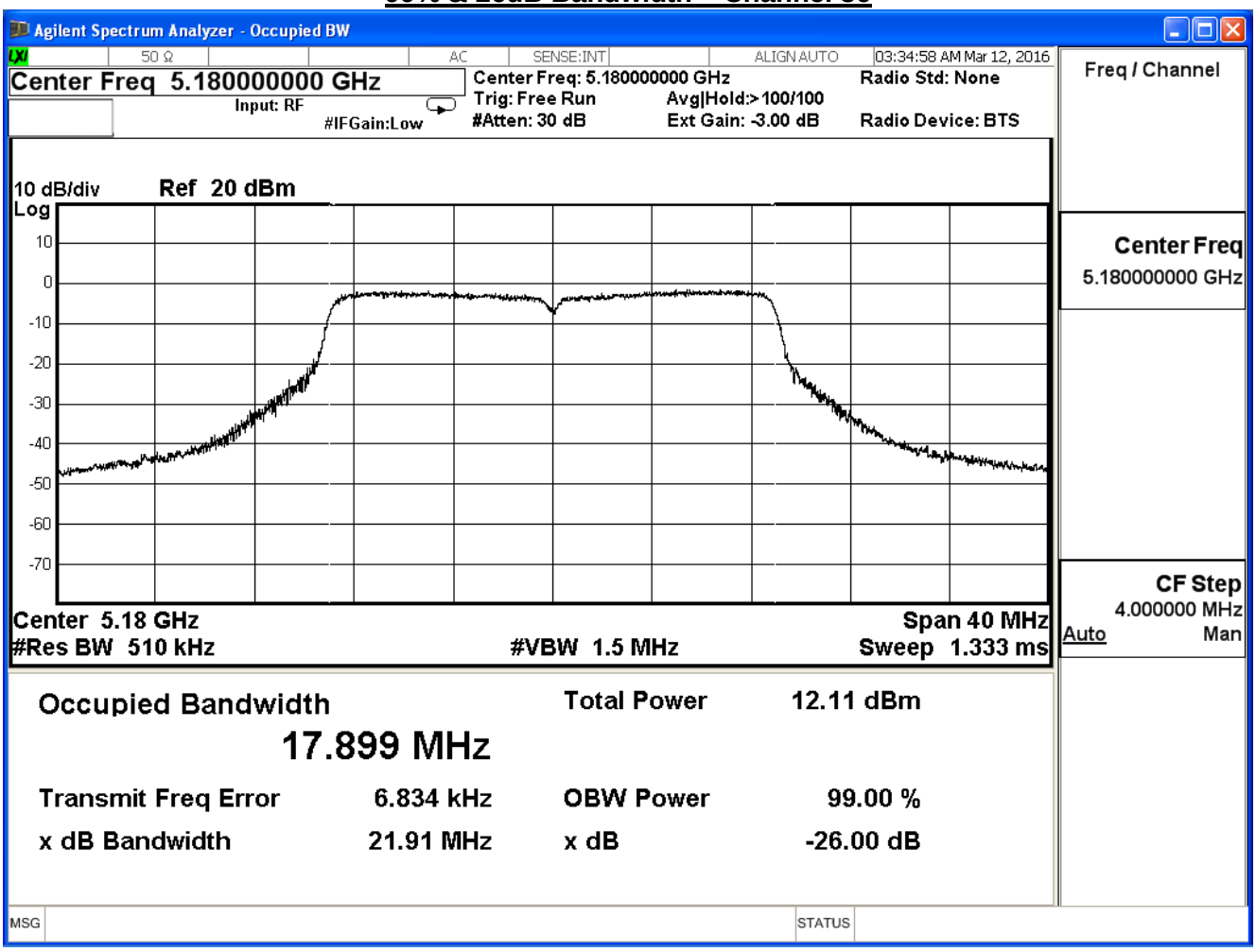
99% & 26dB Bandwidth – Channel 48



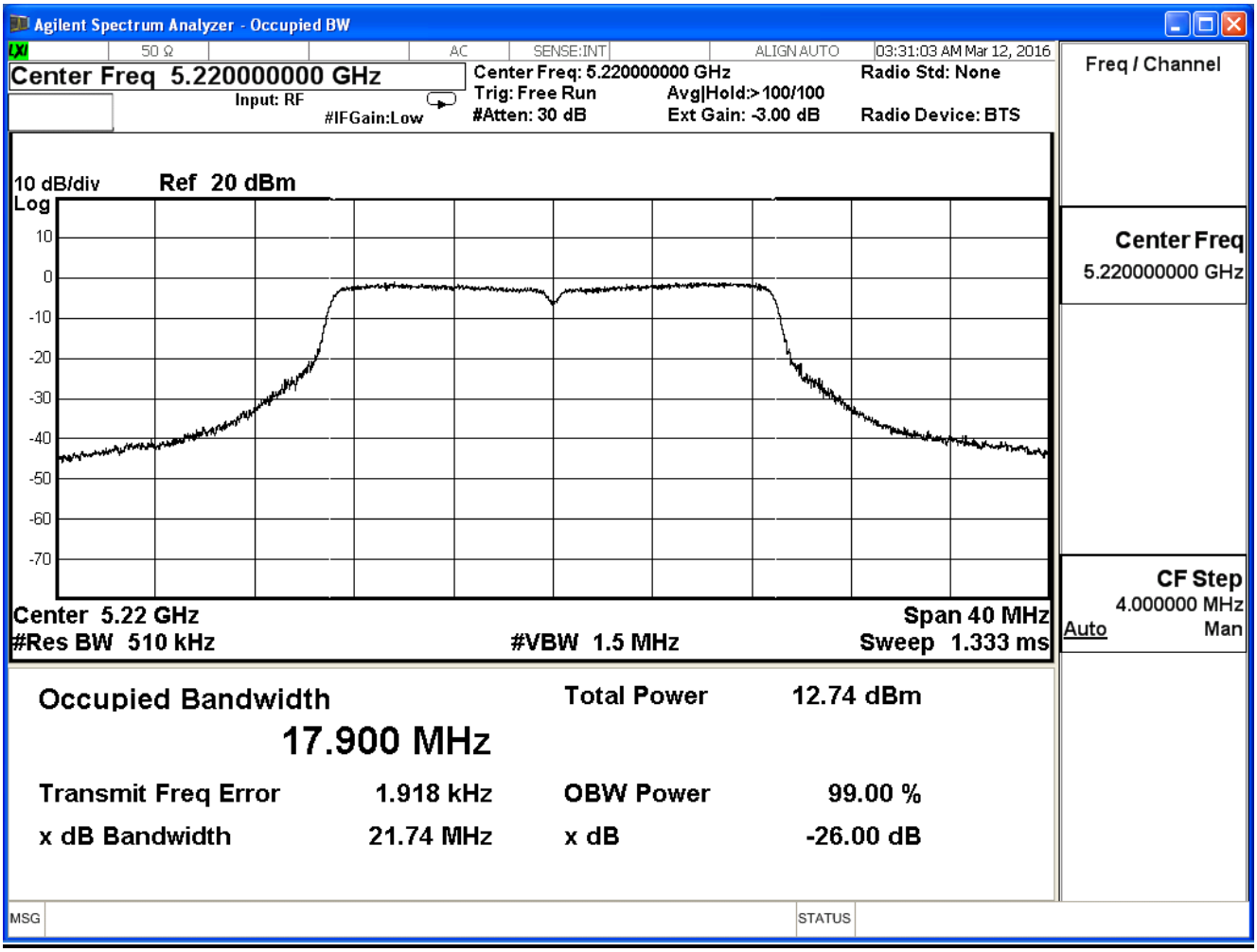
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11n_20M(ANT 2)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
36	5180	21.91	17.899	--	Pass
44	5220	21.74	17.900	--	Pass
48	5240	21.73	17.907	--	Pass

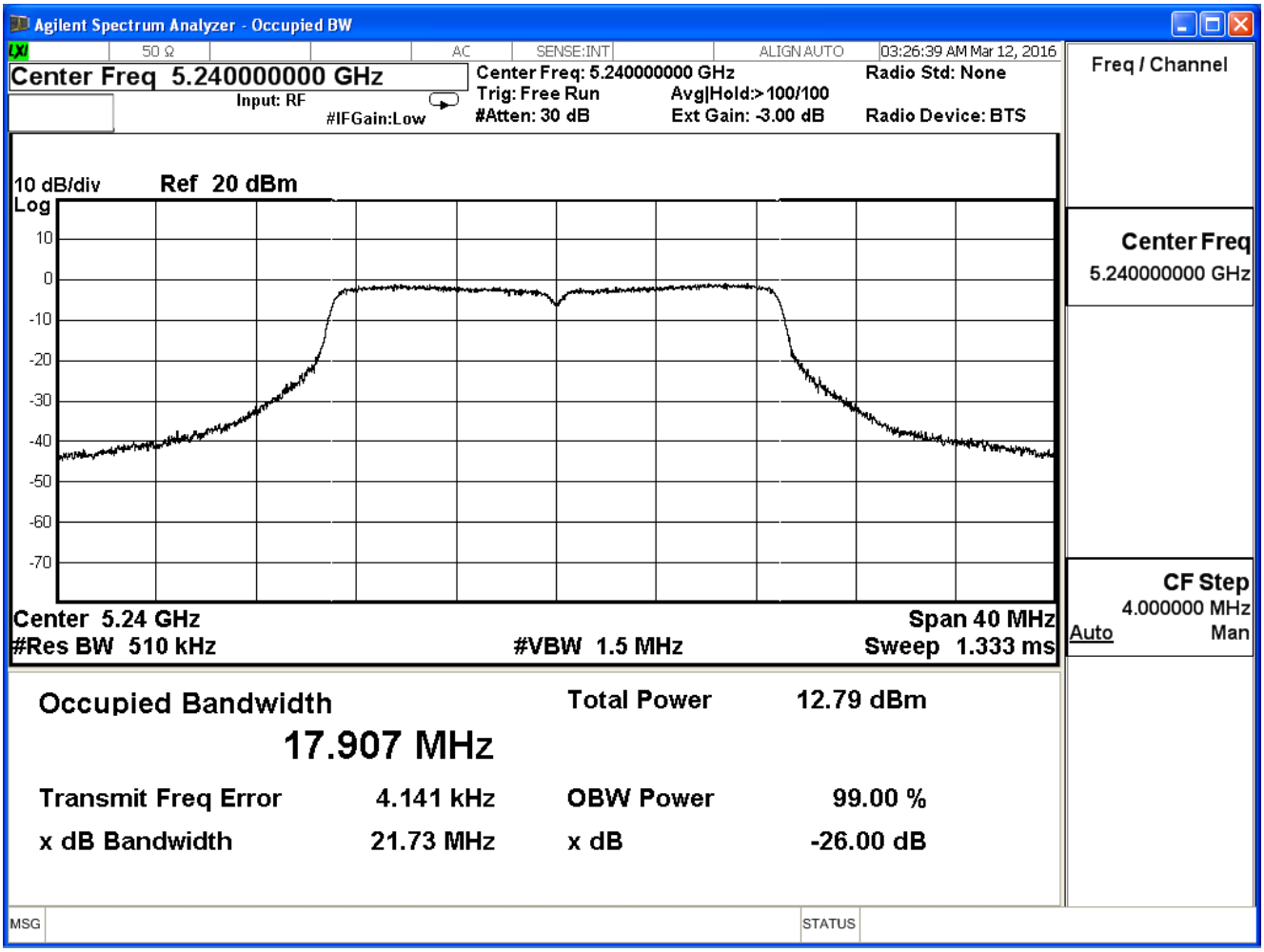
99% & 26dB Bandwidth – Channel 36



99% & 26dB Bandwidth – Channel 44



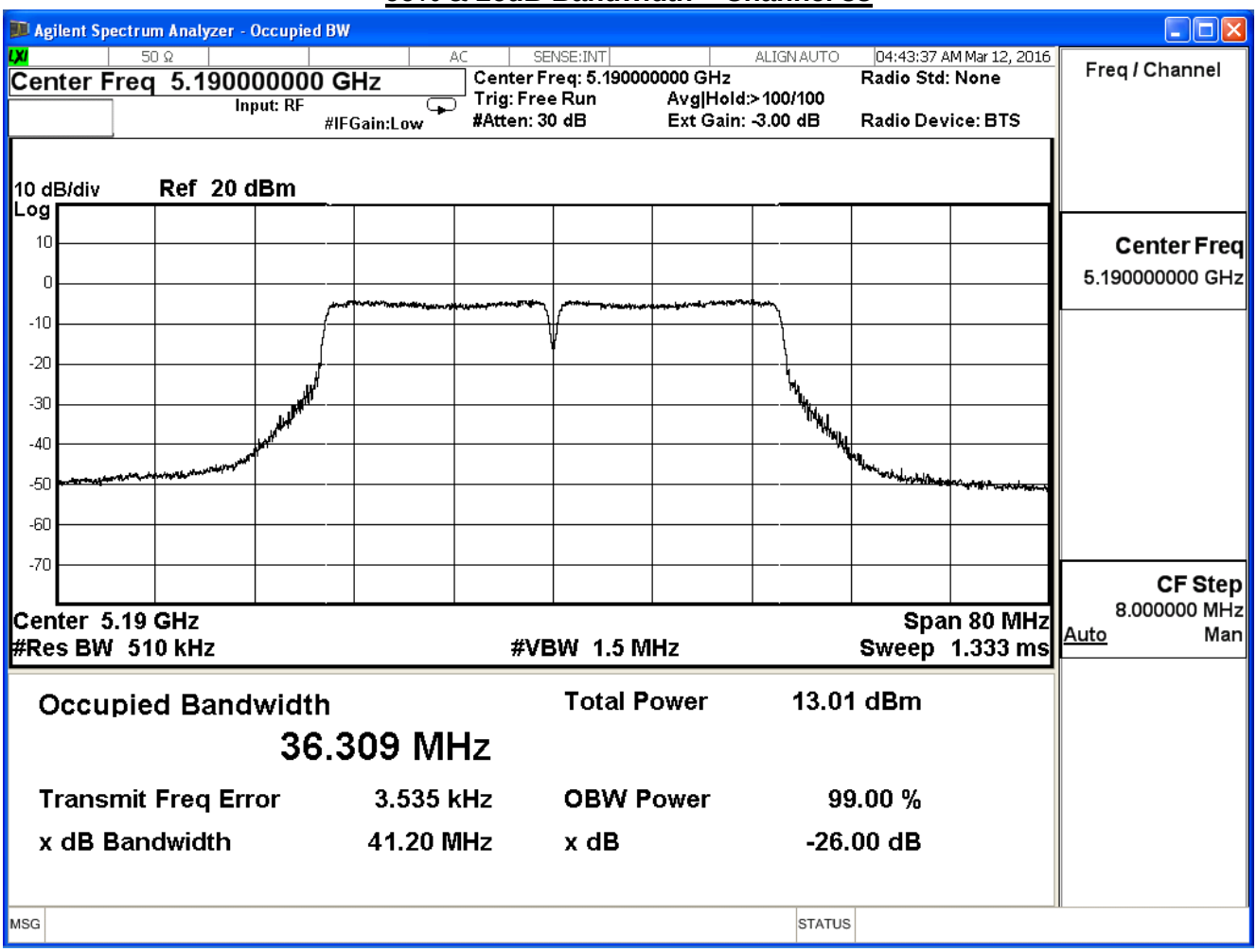
99% & 26dB Bandwidth – Channel 48



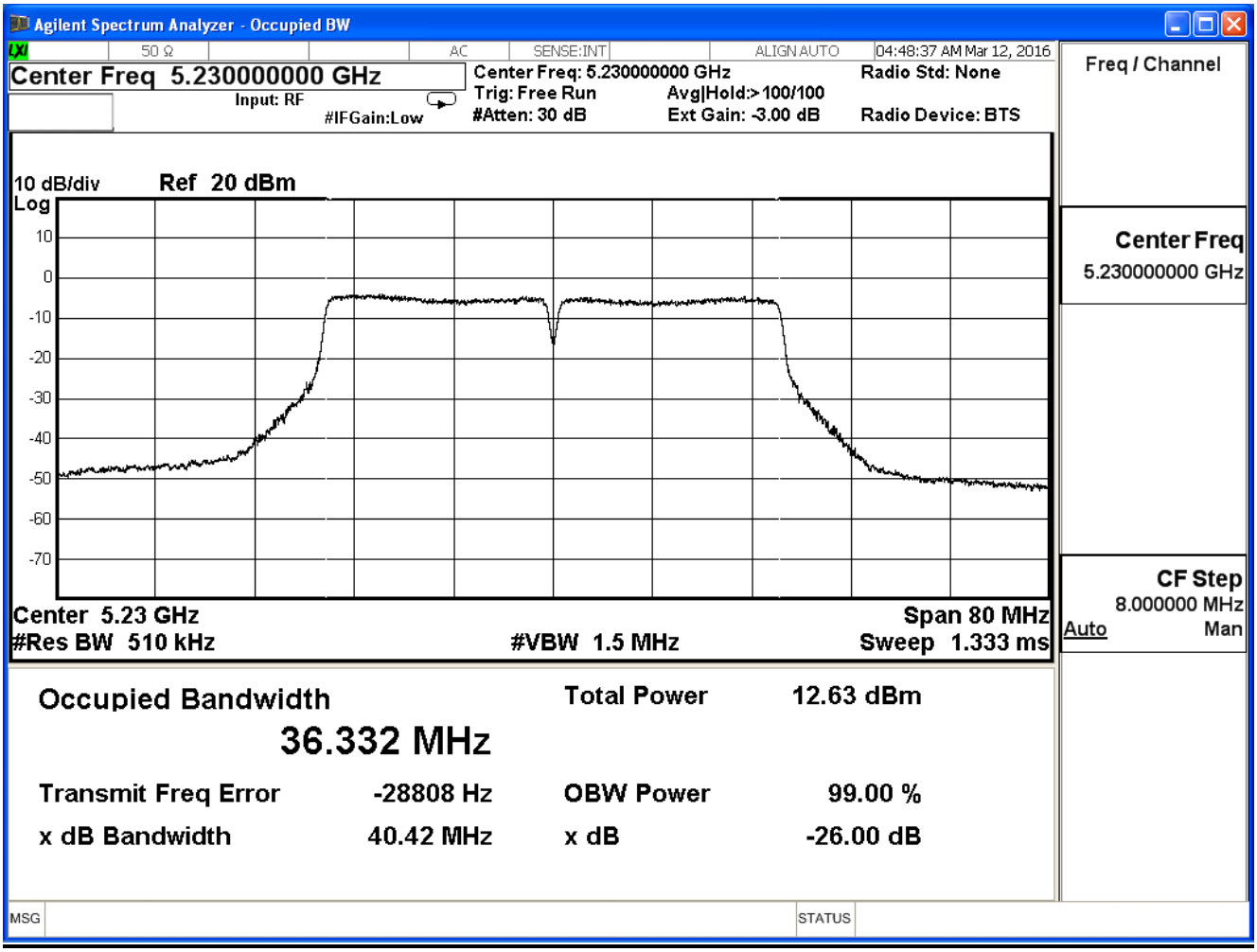
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11n_40M(ANT 0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
38	5190	41.20	36.309	--	Pass
46	5230	40.42	36.332	--	Pass

99% & 26dB Bandwidth – Channel 38



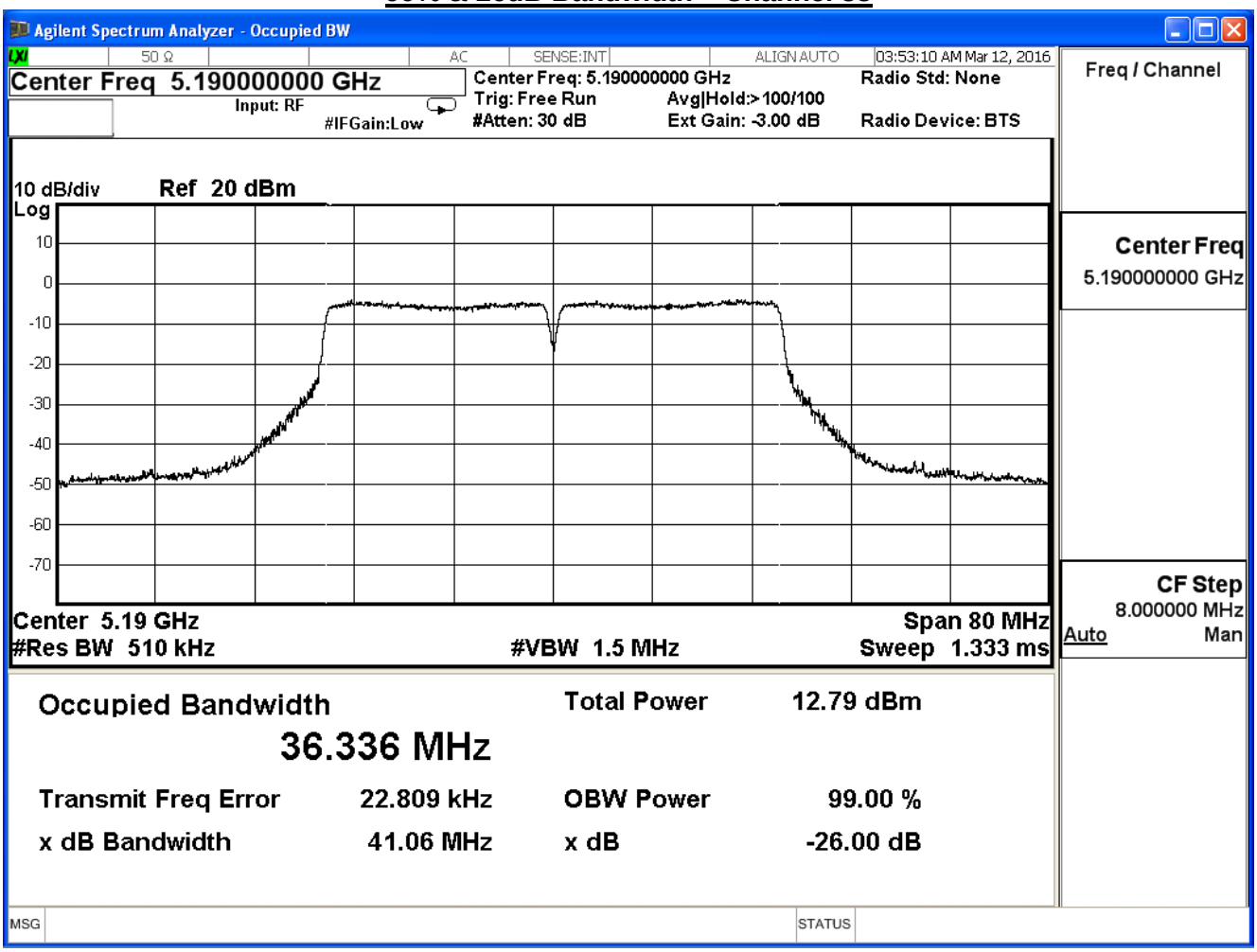
99% & 26dB Bandwidth – Channel 46



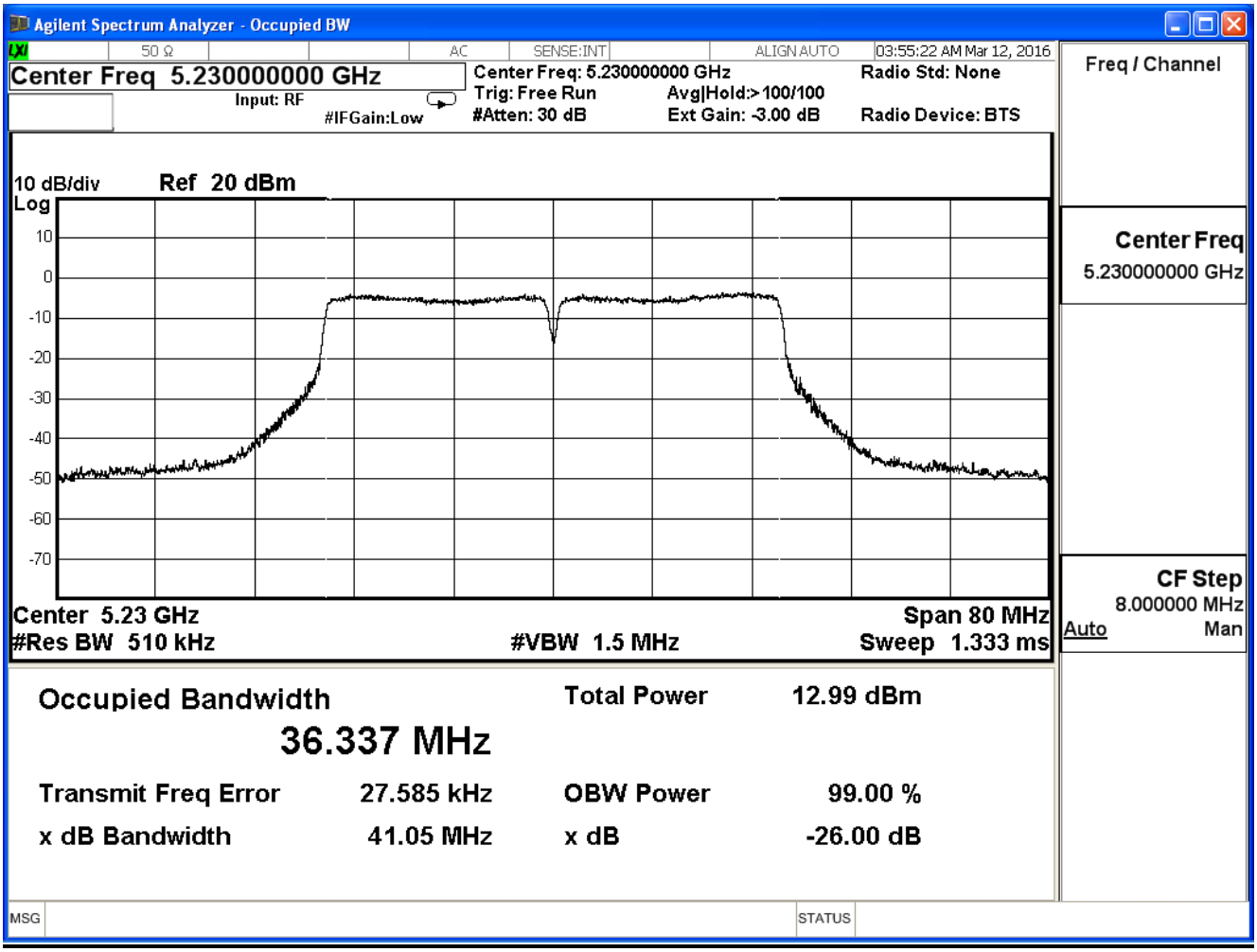
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11n_40M(ANT 1)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
38	5190	41.06	36.336	--	Pass
46	5230	41.05	36.337	--	Pass

99% & 26dB Bandwidth – Channel 38



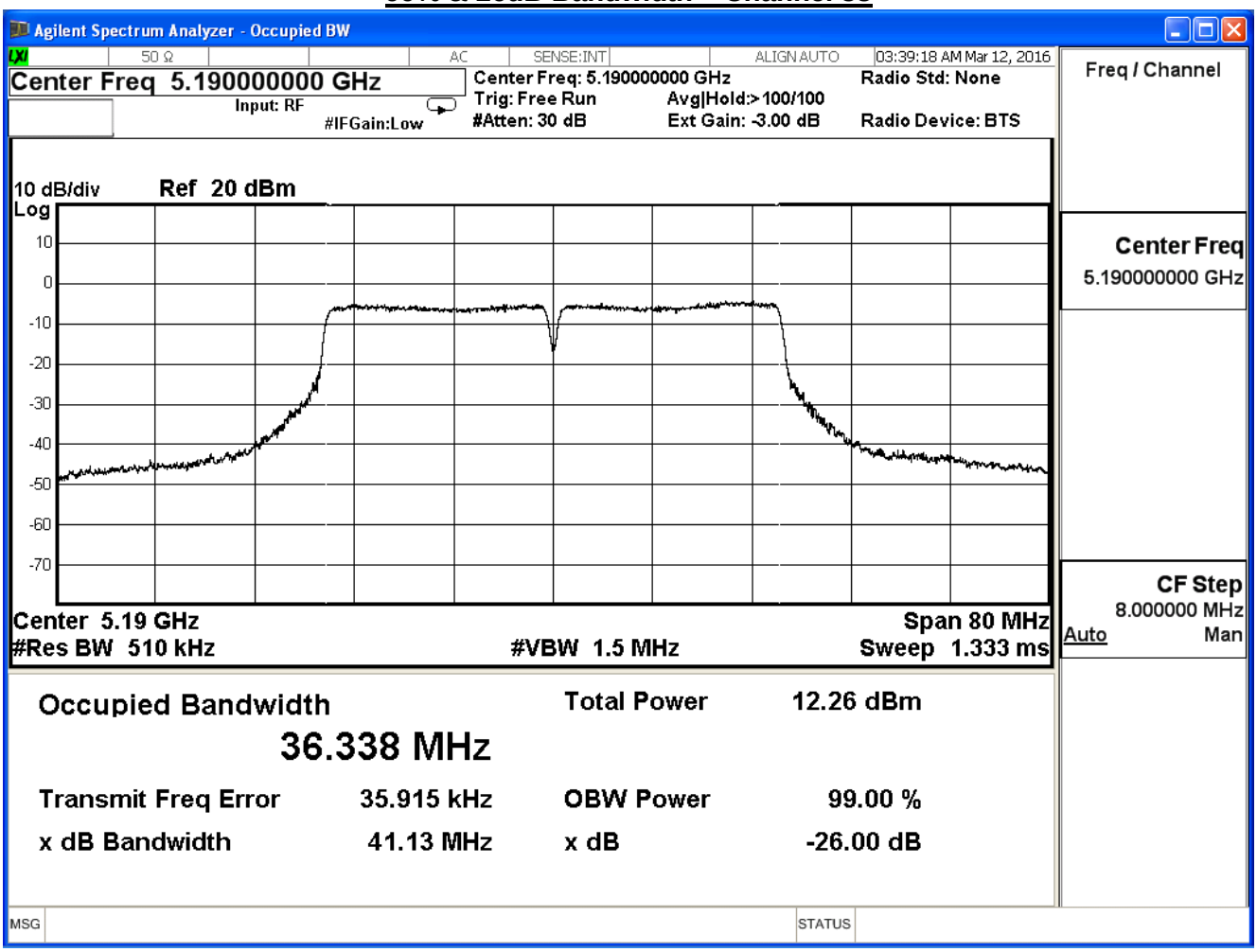
99% & 26dB Bandwidth – Channel 46



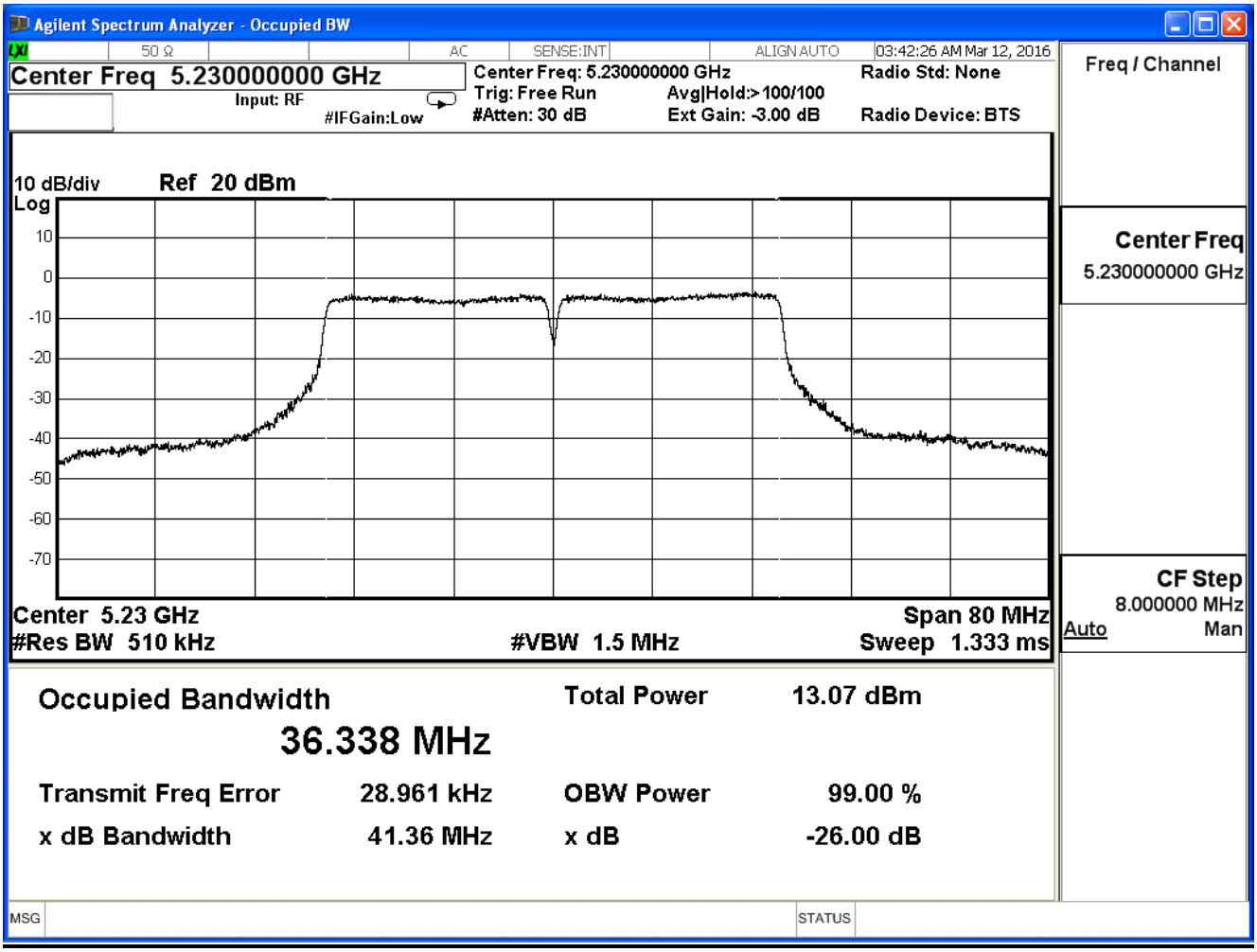
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11n_40M(ANT 2)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
38	5190	41.13	36.338	--	Pass
46	5230	41.36	36.338	--	Pass

99% & 26dB Bandwidth – Channel 38



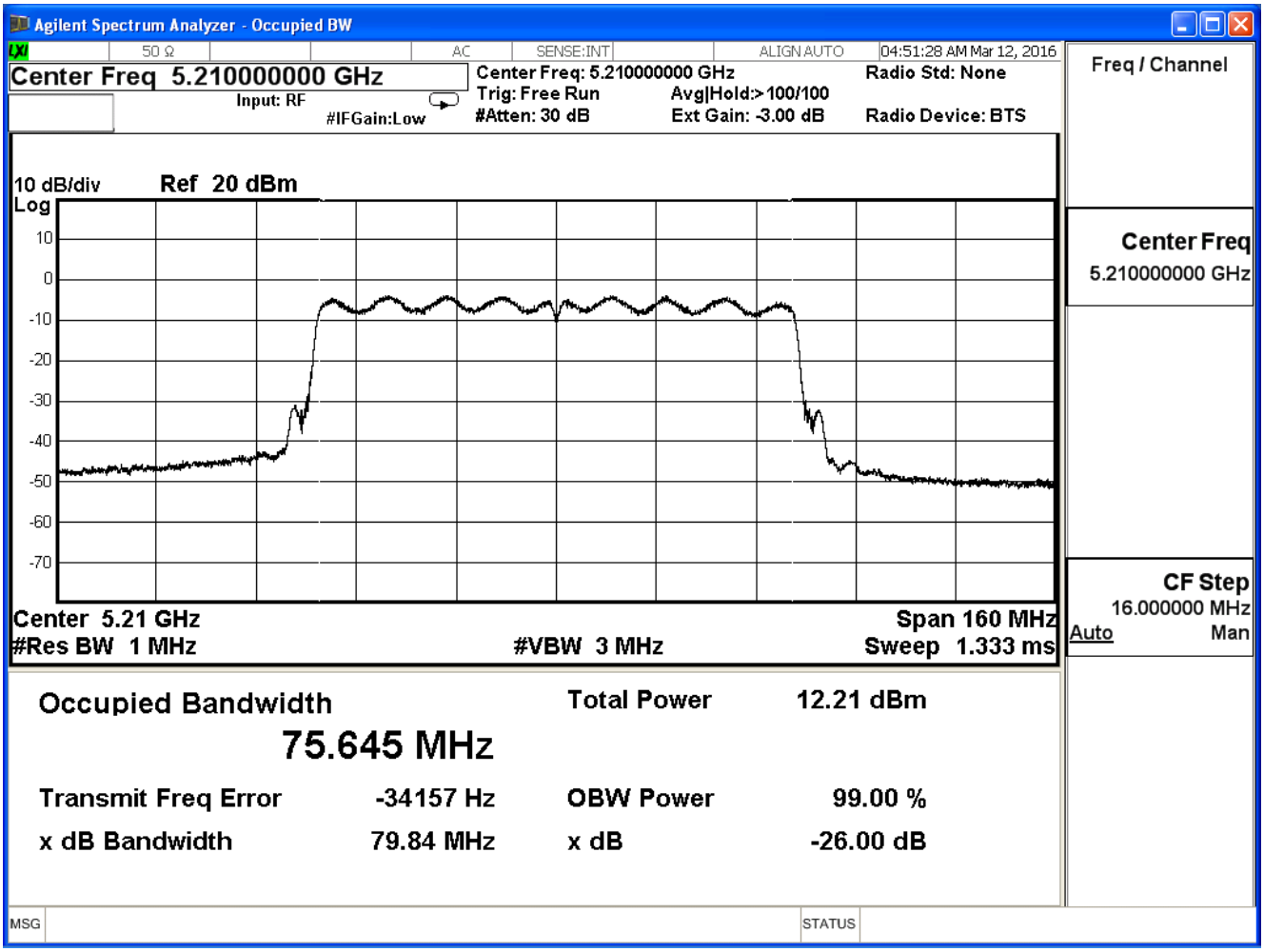
99% & 26dB Bandwidth – Channel 46



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11ac_80M(ANT 0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
42	5210	79.84	75.645	--	Pass

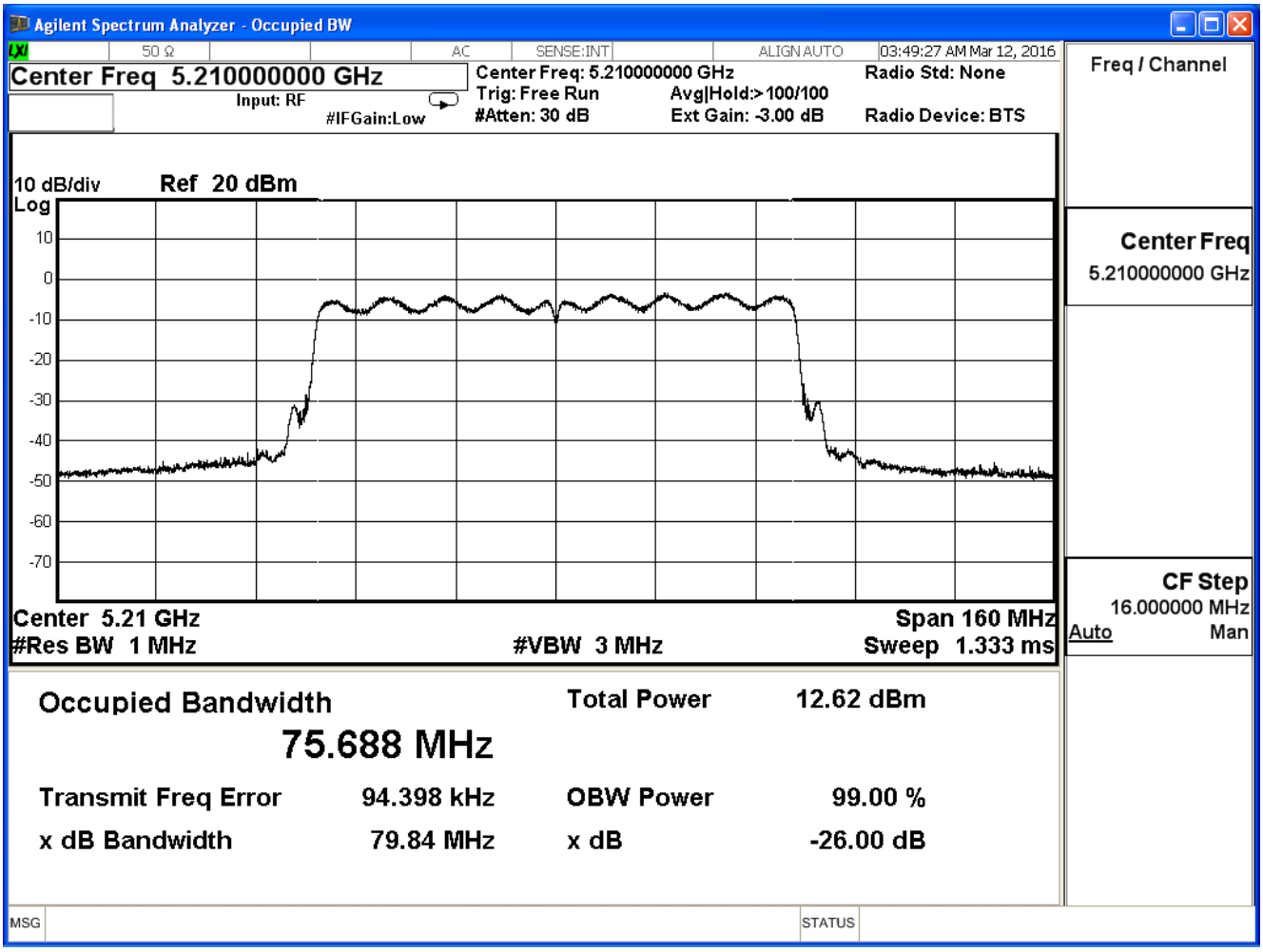
99% & 26dB Bandwidth – Channel 42



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11ac_80M(ANT 1)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
42	5210	79.84	75.688	--	Pass

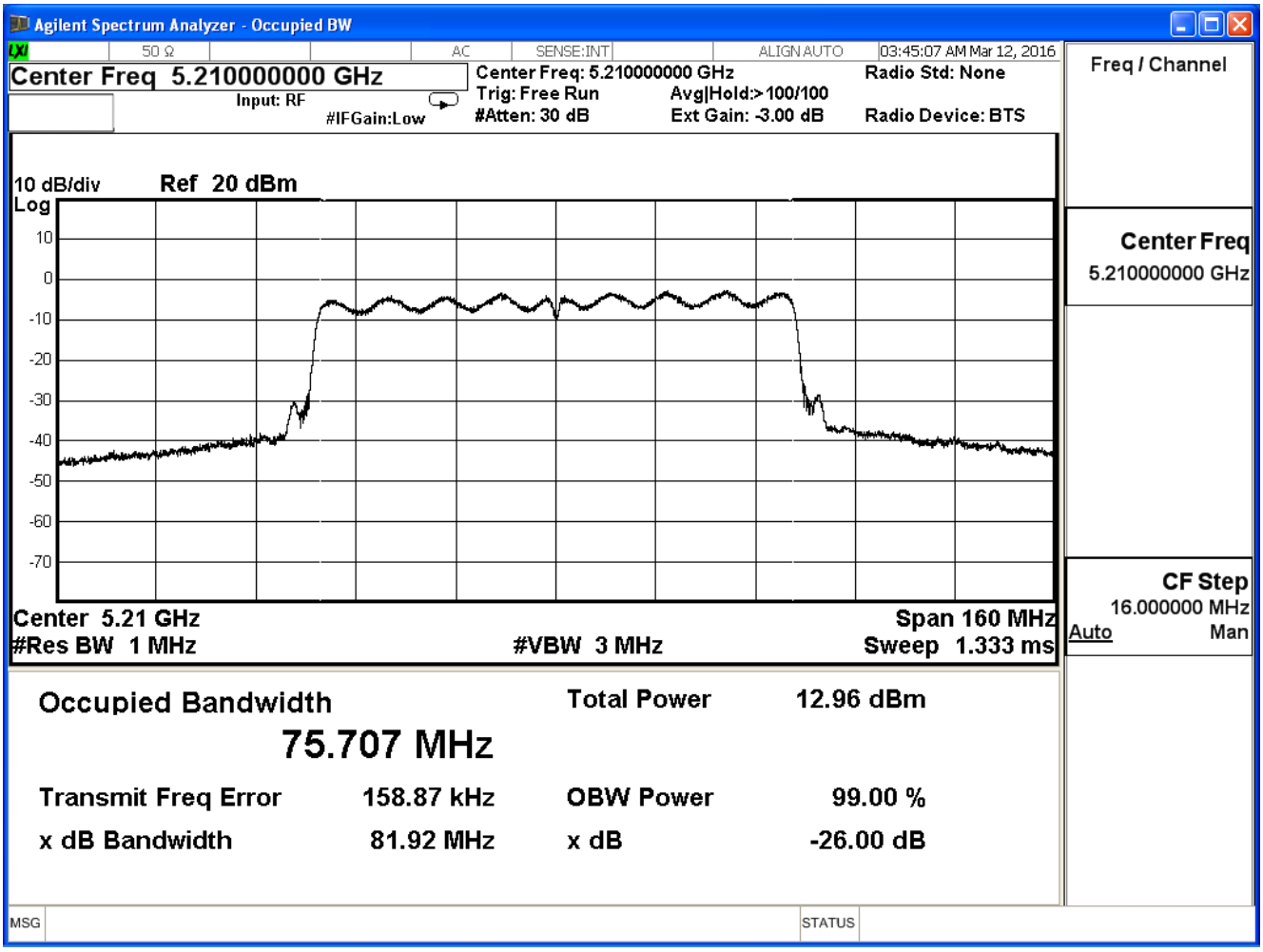
99% & 26dB Bandwidth – Channel 42



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11ac_80M(ANT 2)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
42	5210	81.92	75.707	--	Pass

99% & 26dB Bandwidth – Channel 42

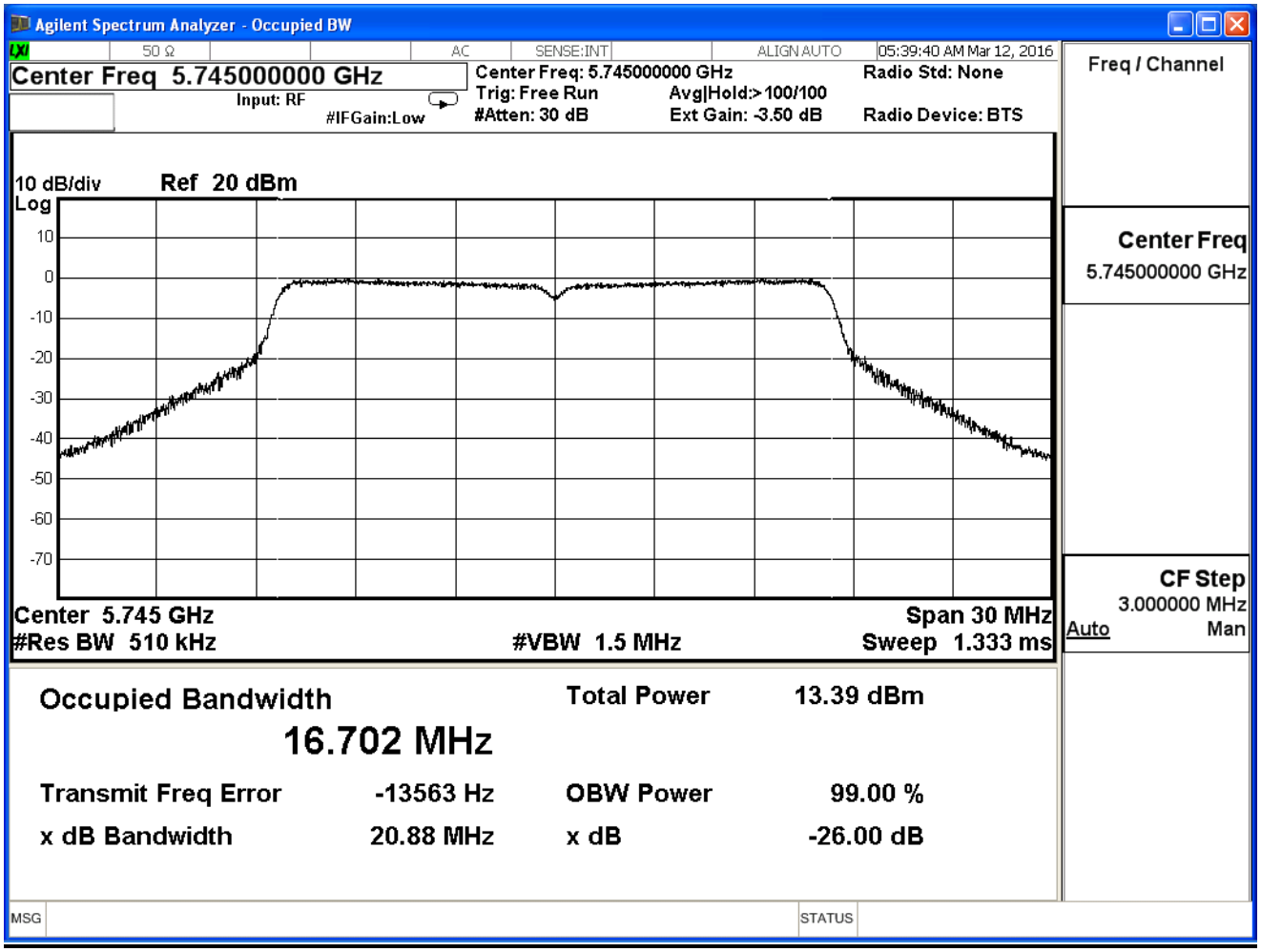


Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/12	Test Site	SR7

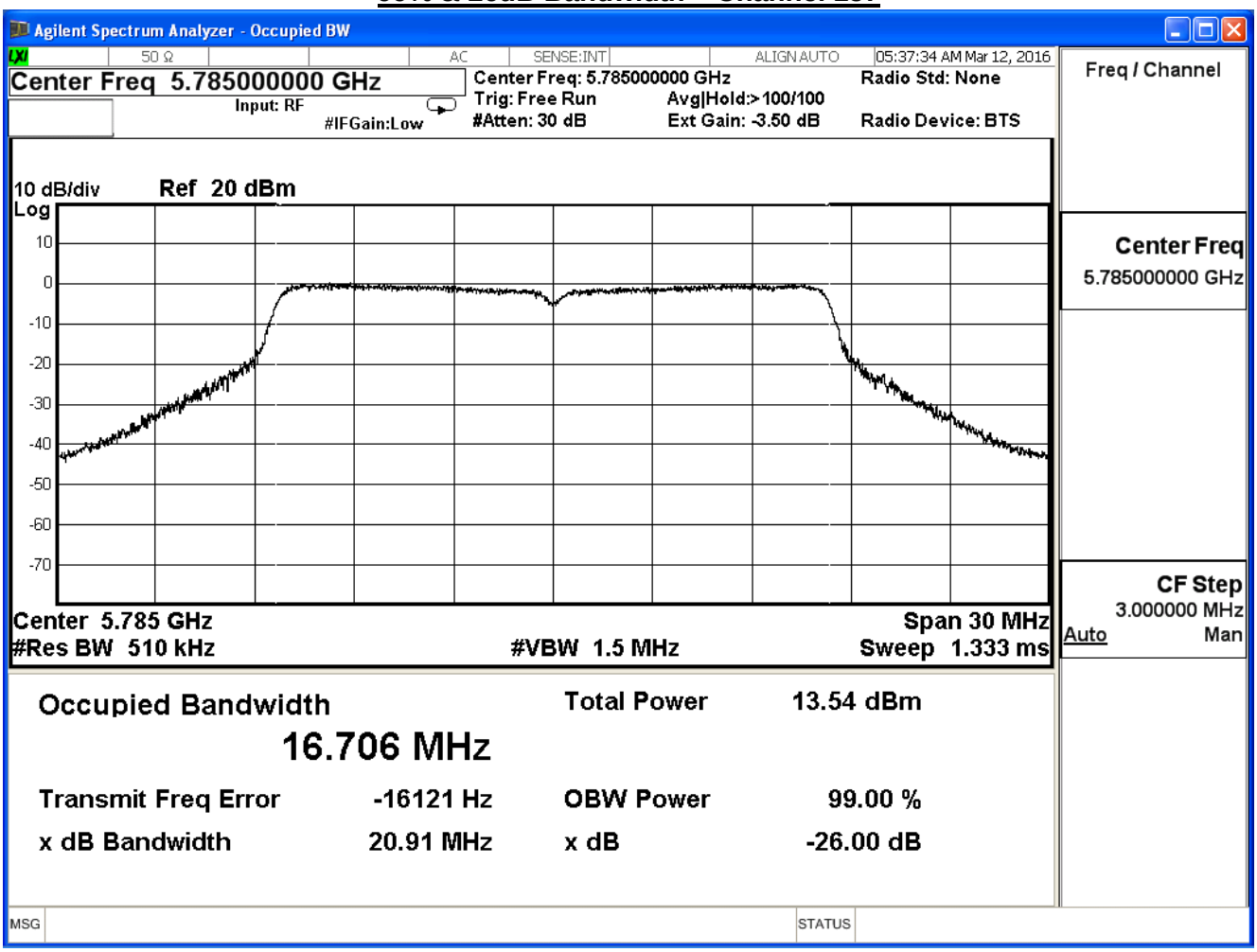
802.11a (ANT 0)

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
149	5745	20.88	16.702	--	Pass
157	5785	20.91	16.706	--	Pass
165	5825	20.71	16.716	--	Pass

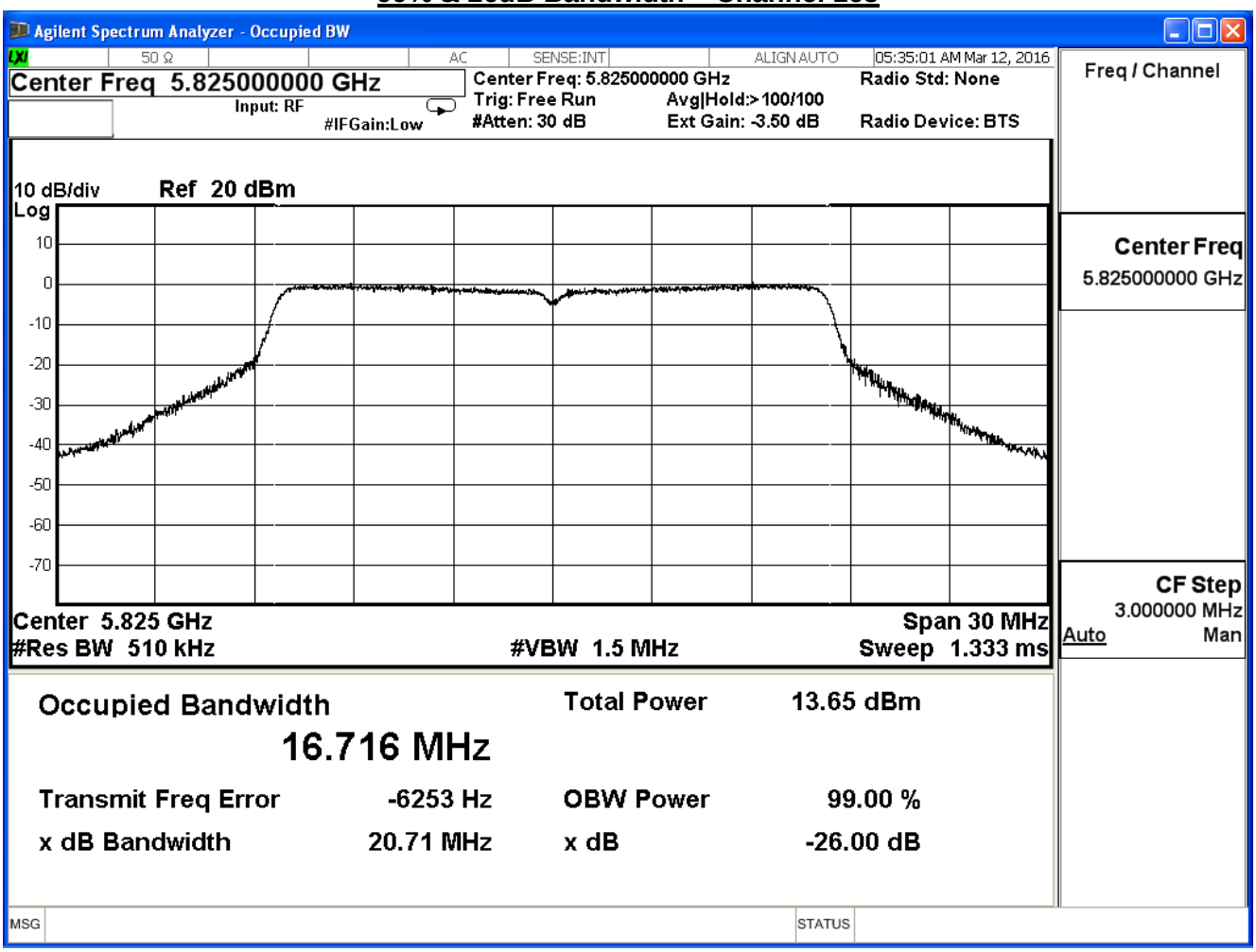
99% & 26dB Bandwidth – Channel 149



99% & 26dB Bandwidth – Channel 157



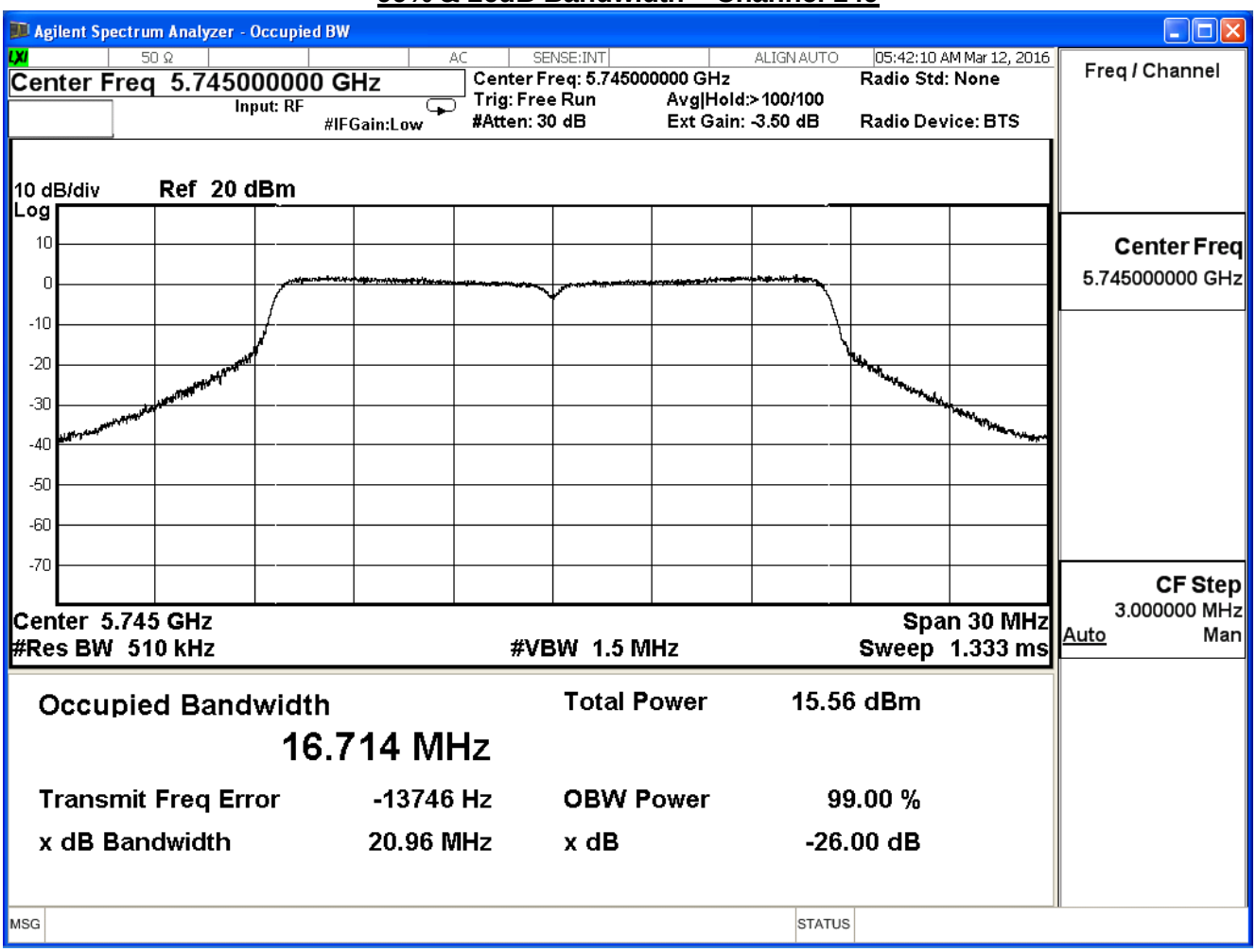
99% & 26dB Bandwidth – Channel 165



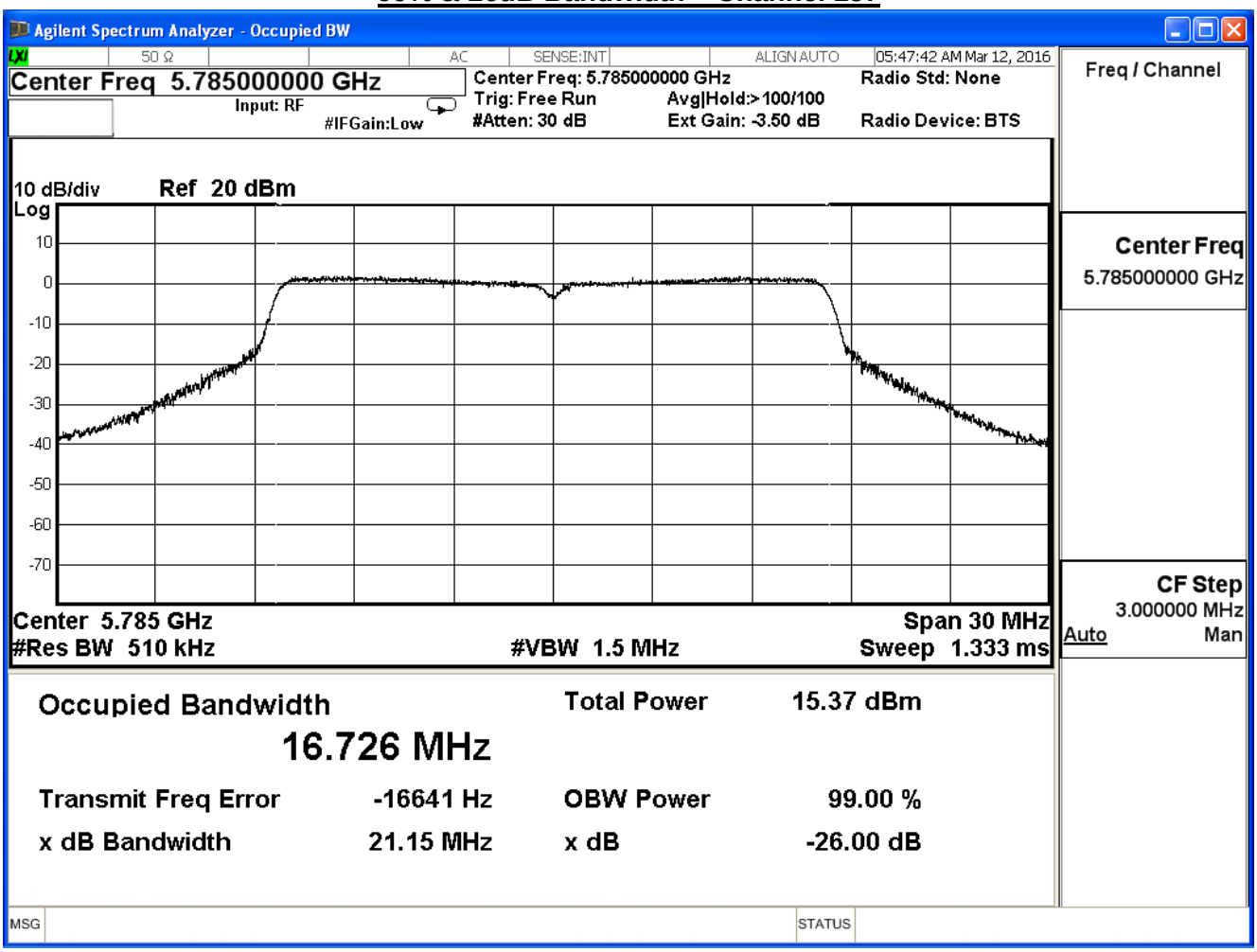
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11a (ANT 1)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
149	5745	20.96	16.714	--	Pass
157	5785	21.15	16.726	--	Pass
165	5825	20.88	16.712	--	Pass

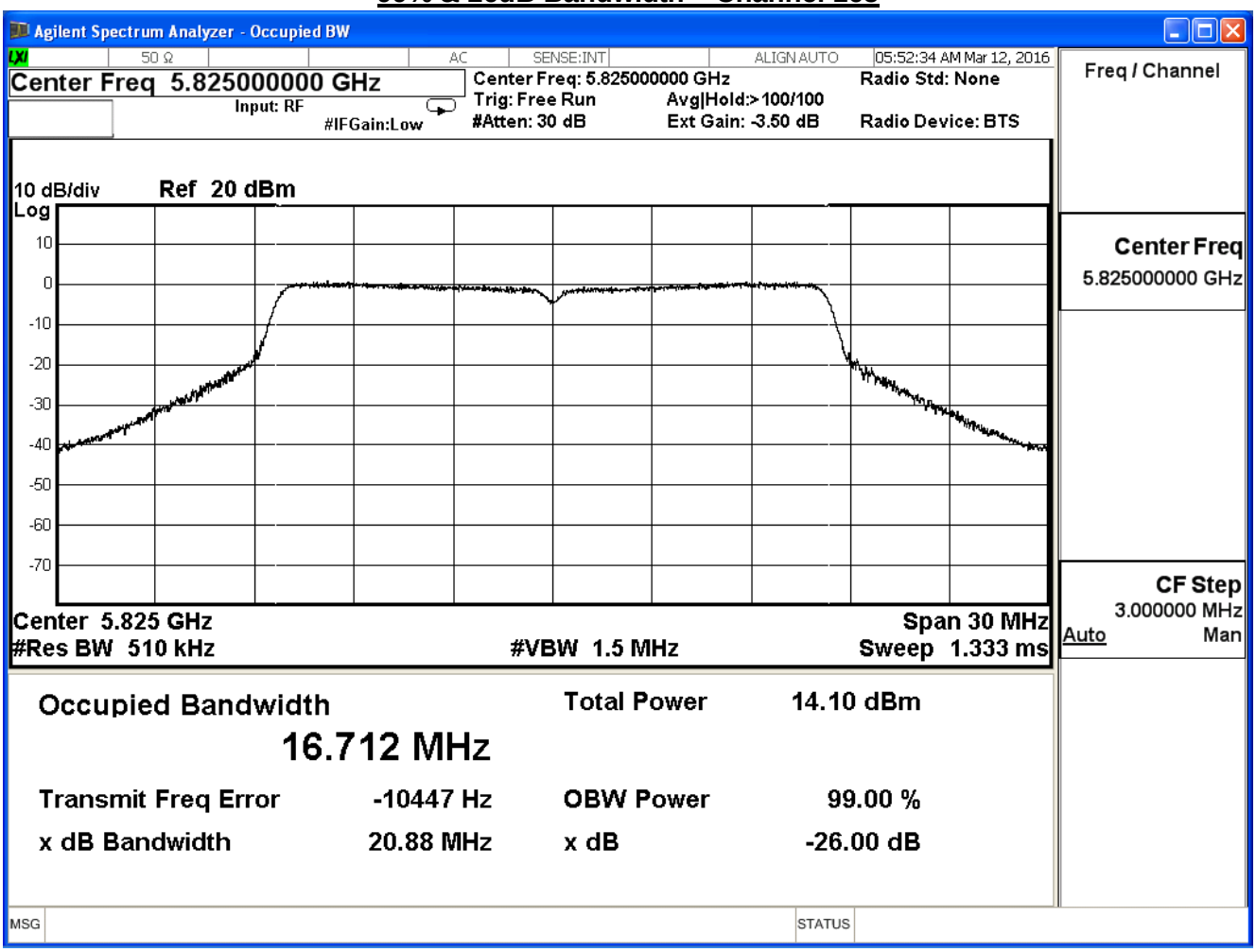
99% & 26dB Bandwidth – Channel 149



99% & 26dB Bandwidth – Channel 157



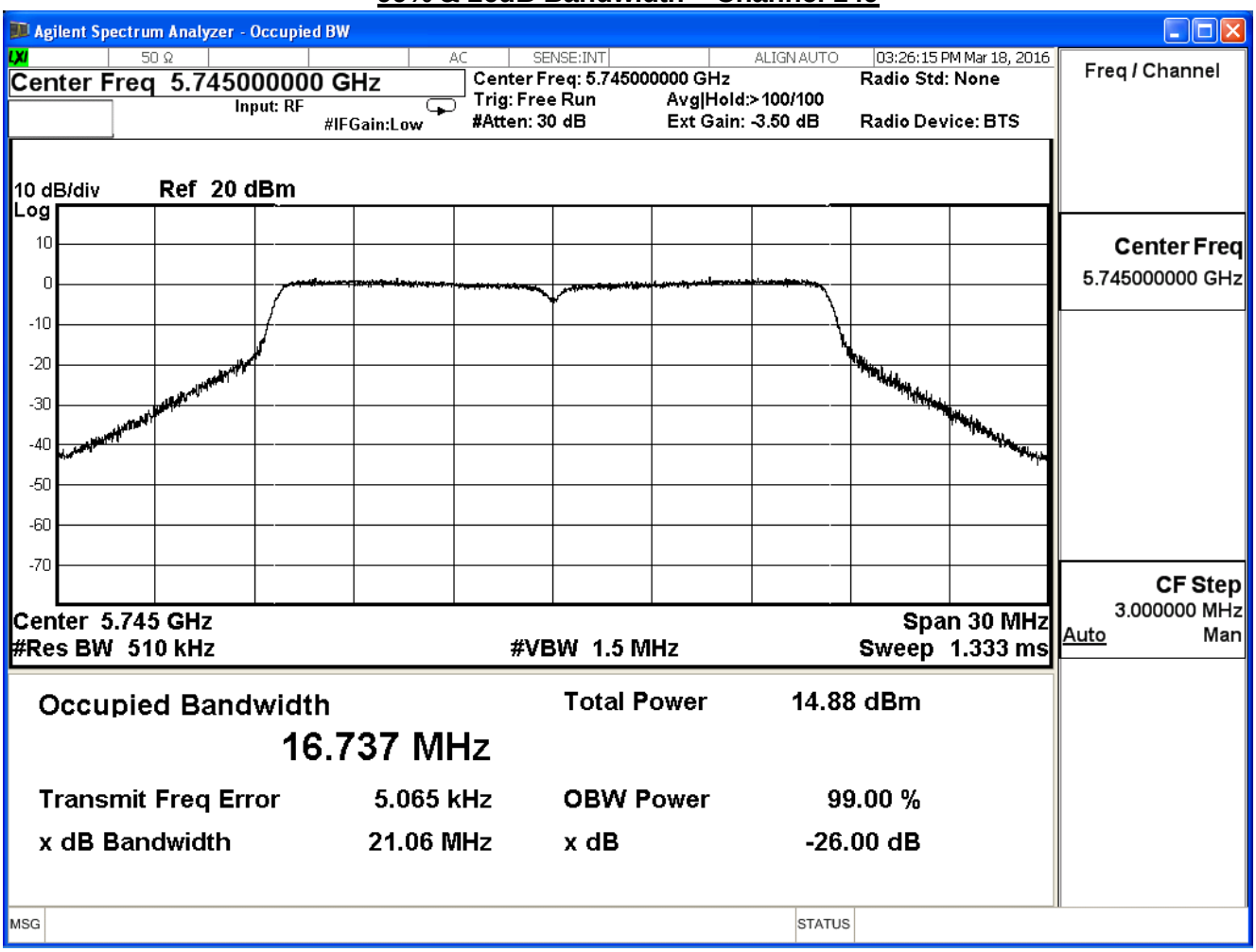
99% & 26dB Bandwidth – Channel 165



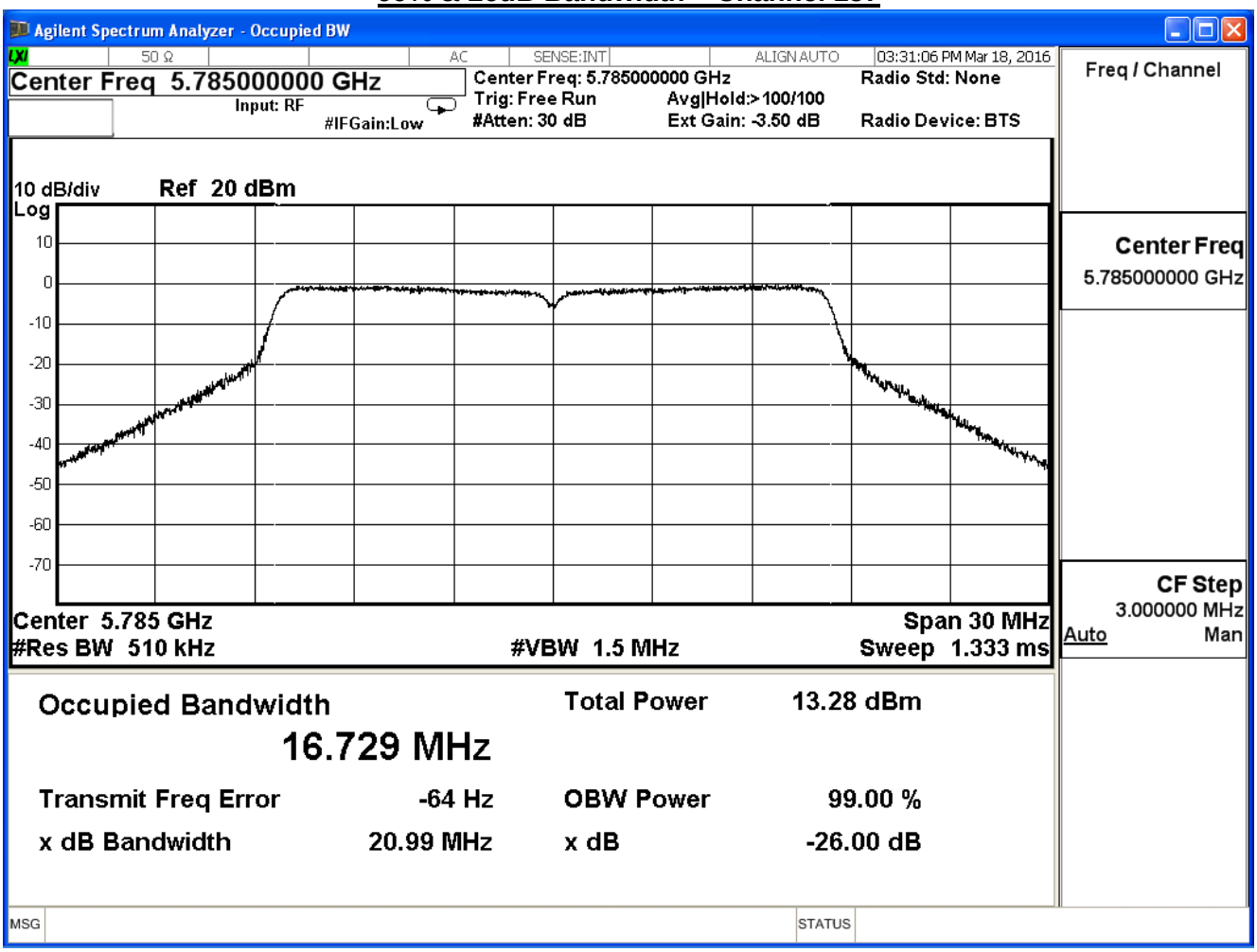
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/18	Test Site	SR7

802.11a (ANT 2)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
149	5745	21.06	16.737	--	Pass
157	5785	20.99	16.729	--	Pass
165	5825	20.93	16.730	--	Pass

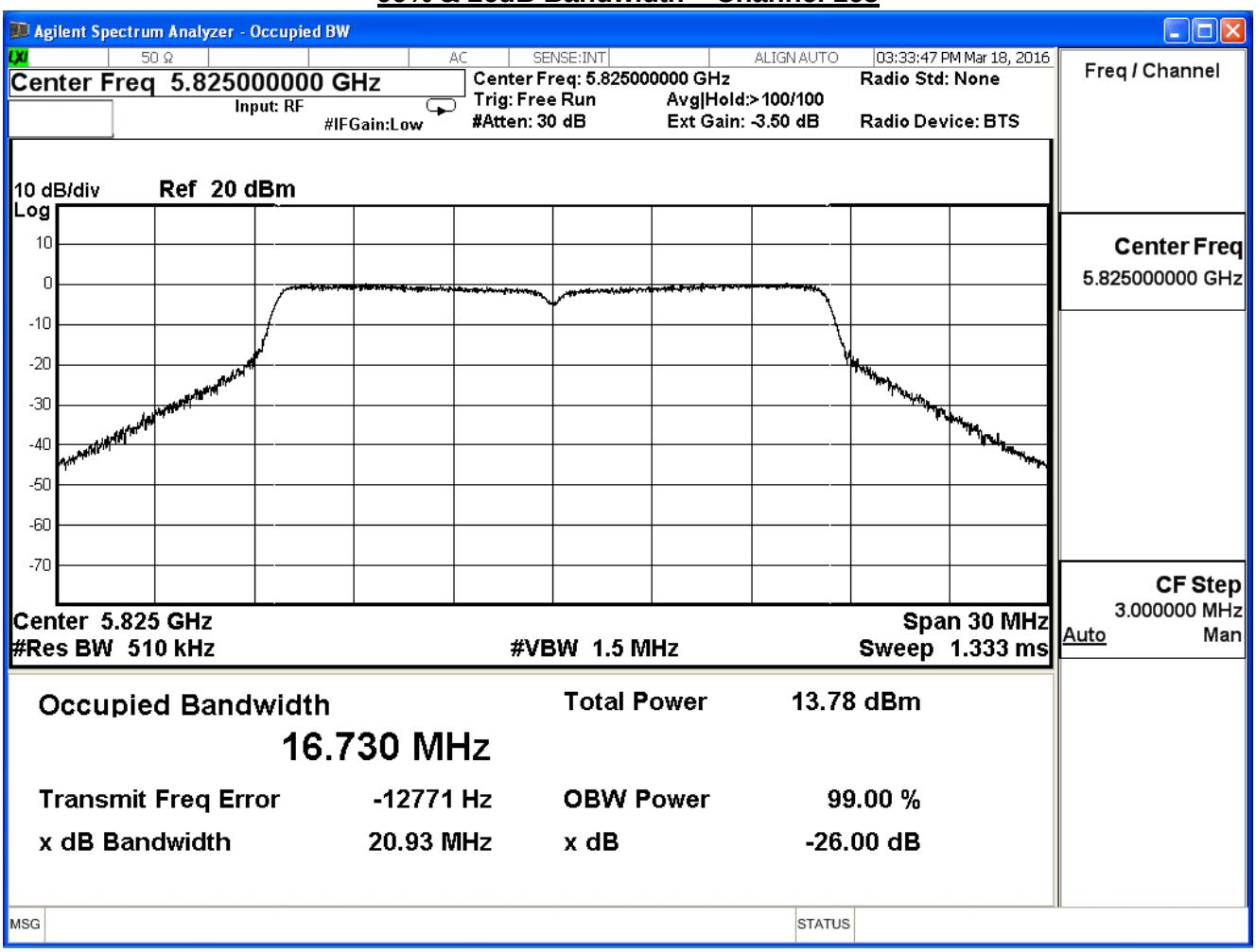
99% & 26dB Bandwidth – Channel 149



99% & 26dB Bandwidth – Channel 157



99% & 26dB Bandwidth – Channel 165

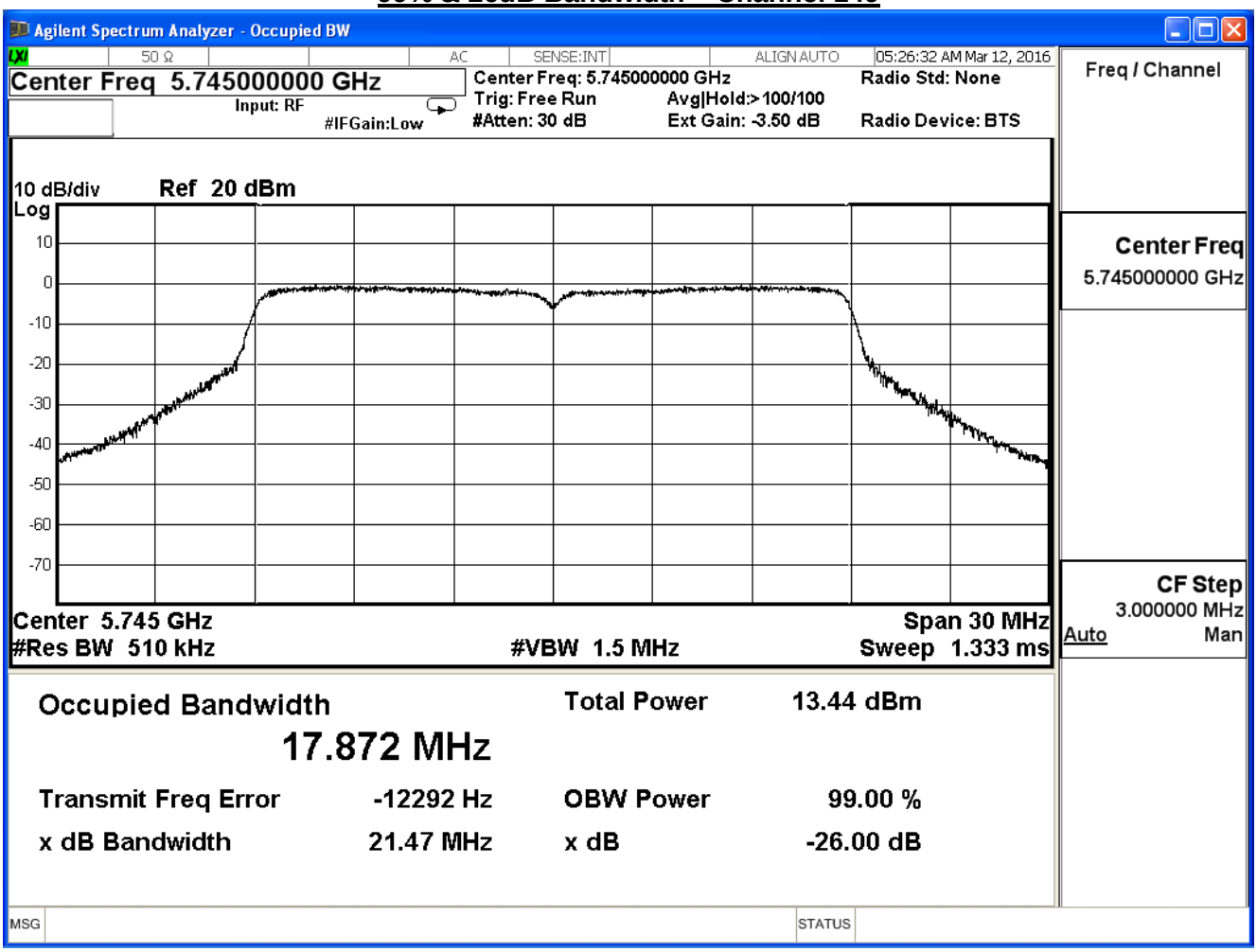


Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

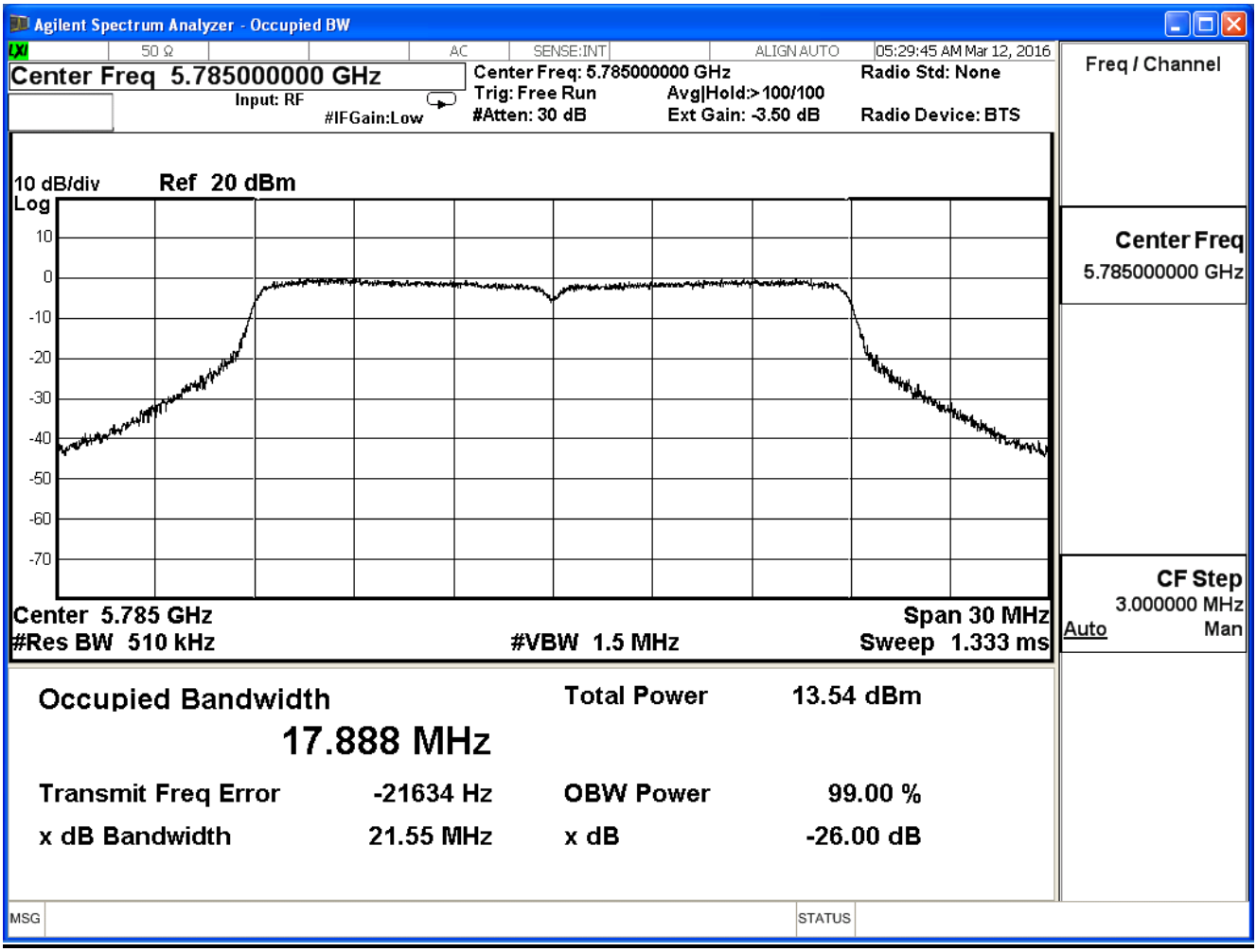
802.11n_20M(ANT 0)

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
149	5745	21.47	17.872	--	Pass
157	5785	21.55	17.888	--	Pass
165	5825	21.79	17.874	--	Pass

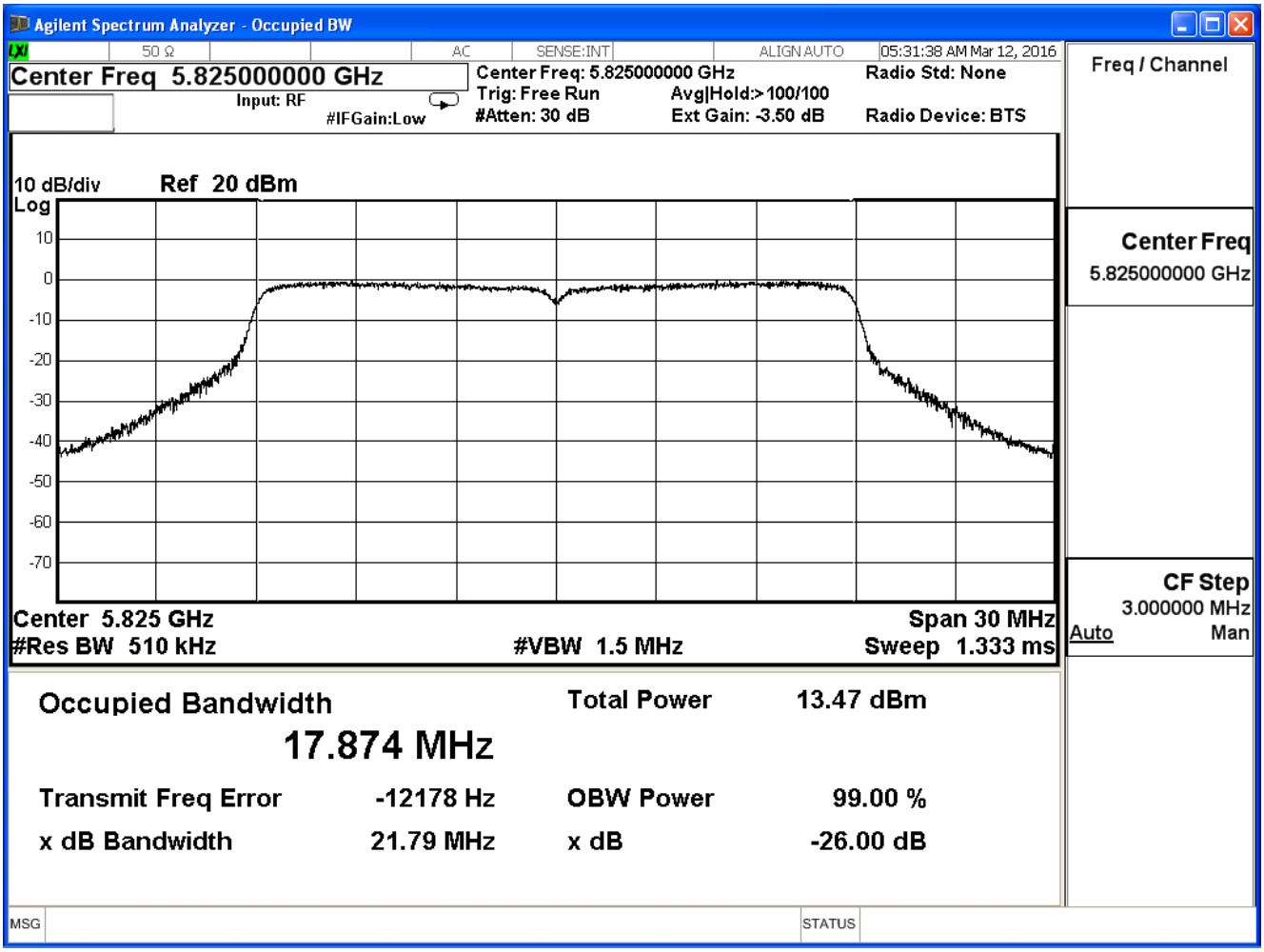
99% & 26dB Bandwidth – Channel 149



99% & 26dB Bandwidth – Channel 157



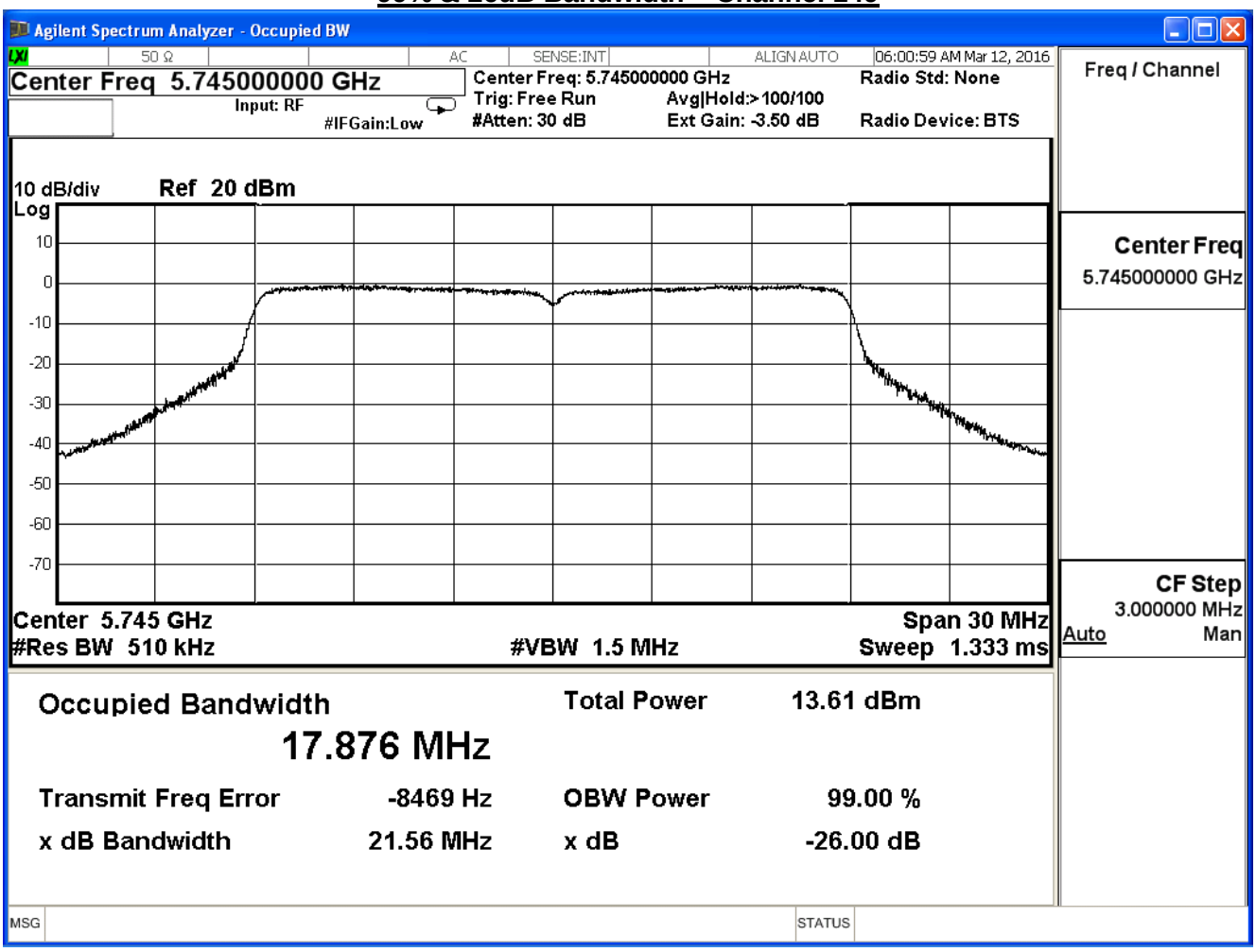
99% & 26dB Bandwidth – Channel 165



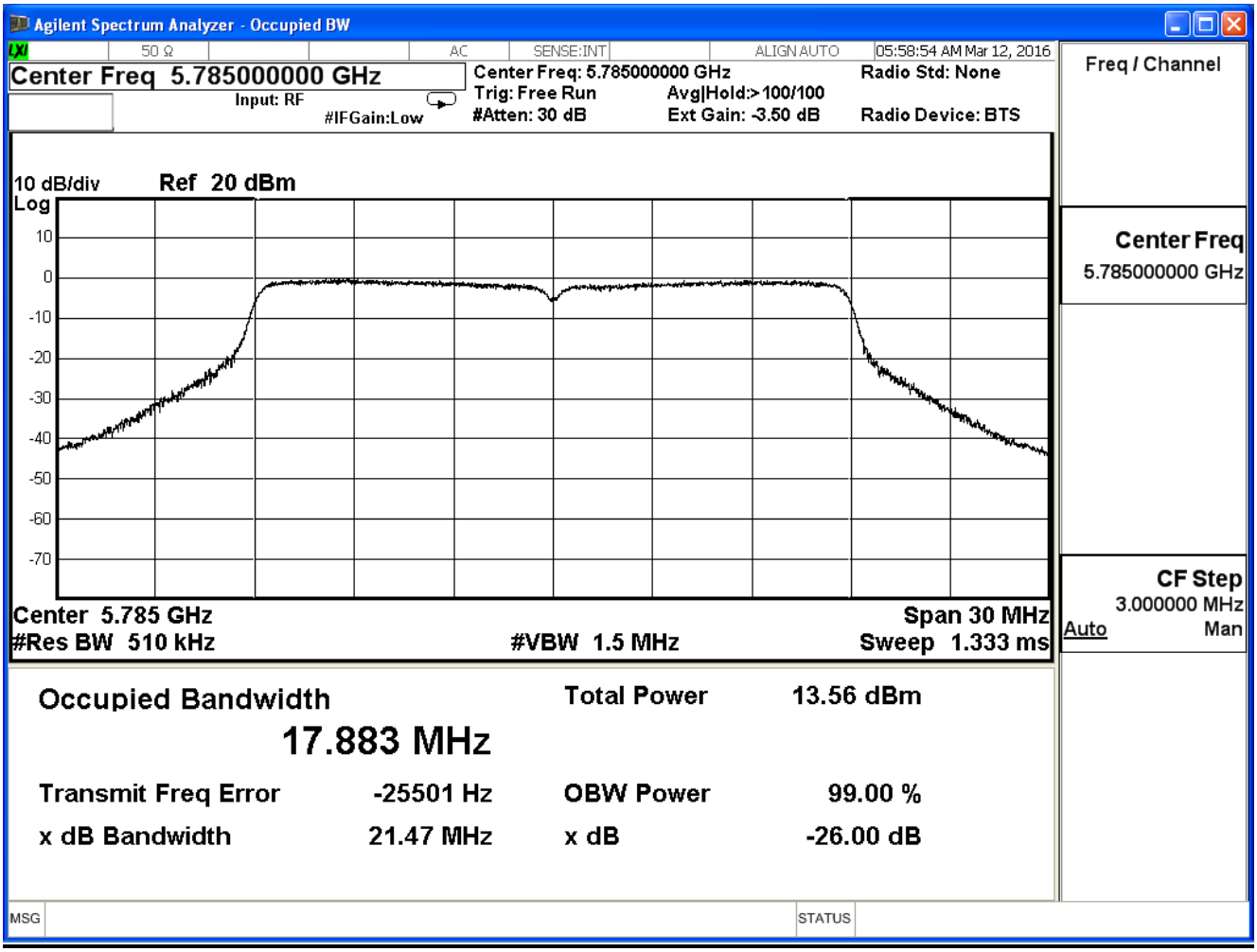
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11n_20M(ANT 1)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
149	5745	21.56	17.876	--	Pass
157	5785	21.47	17.883	--	Pass
165	5825	21.89	17.907	--	Pass

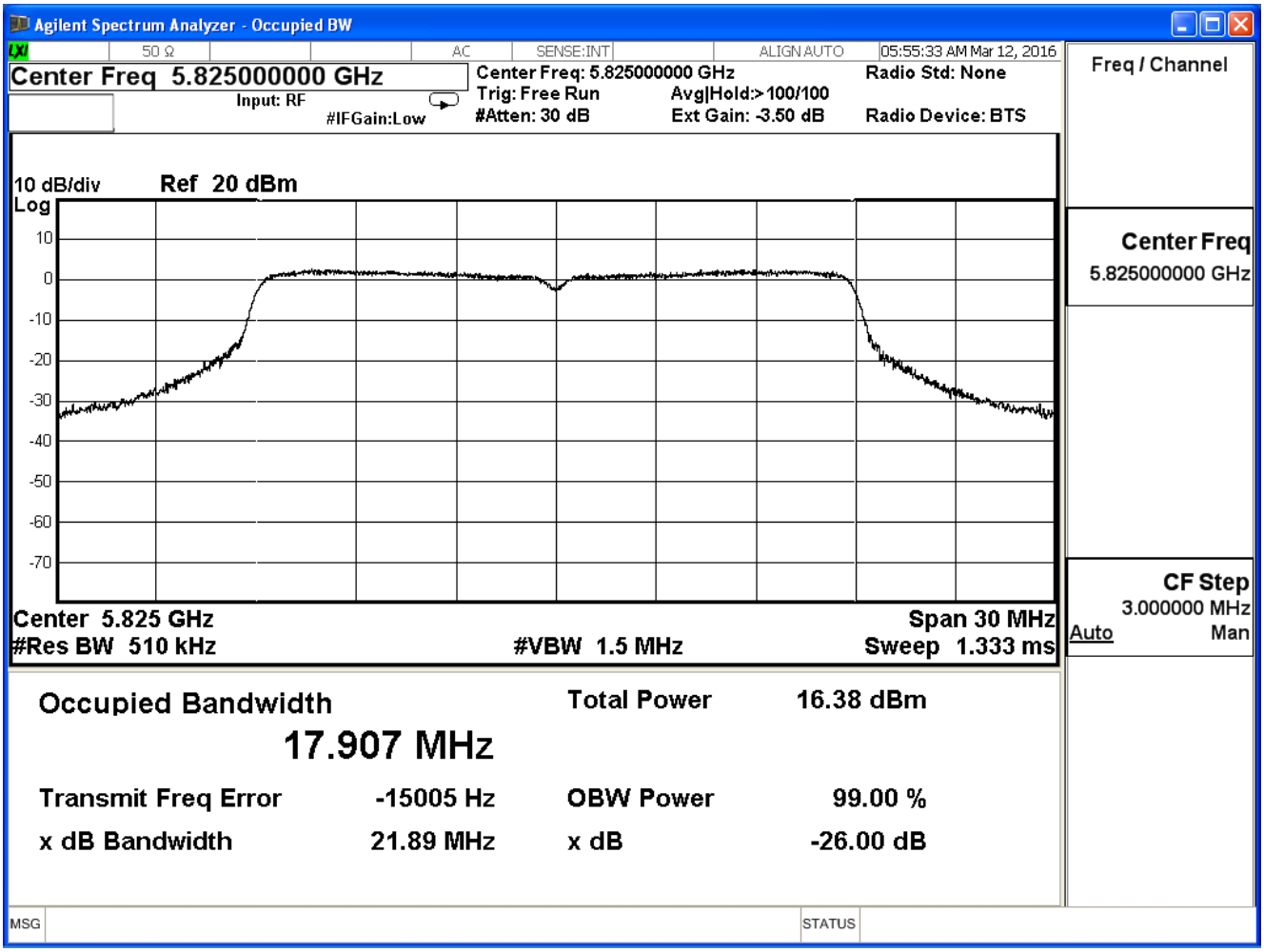
99% & 26dB Bandwidth – Channel 149



99% & 26dB Bandwidth – Channel 157



99% & 26dB Bandwidth – Channel 165

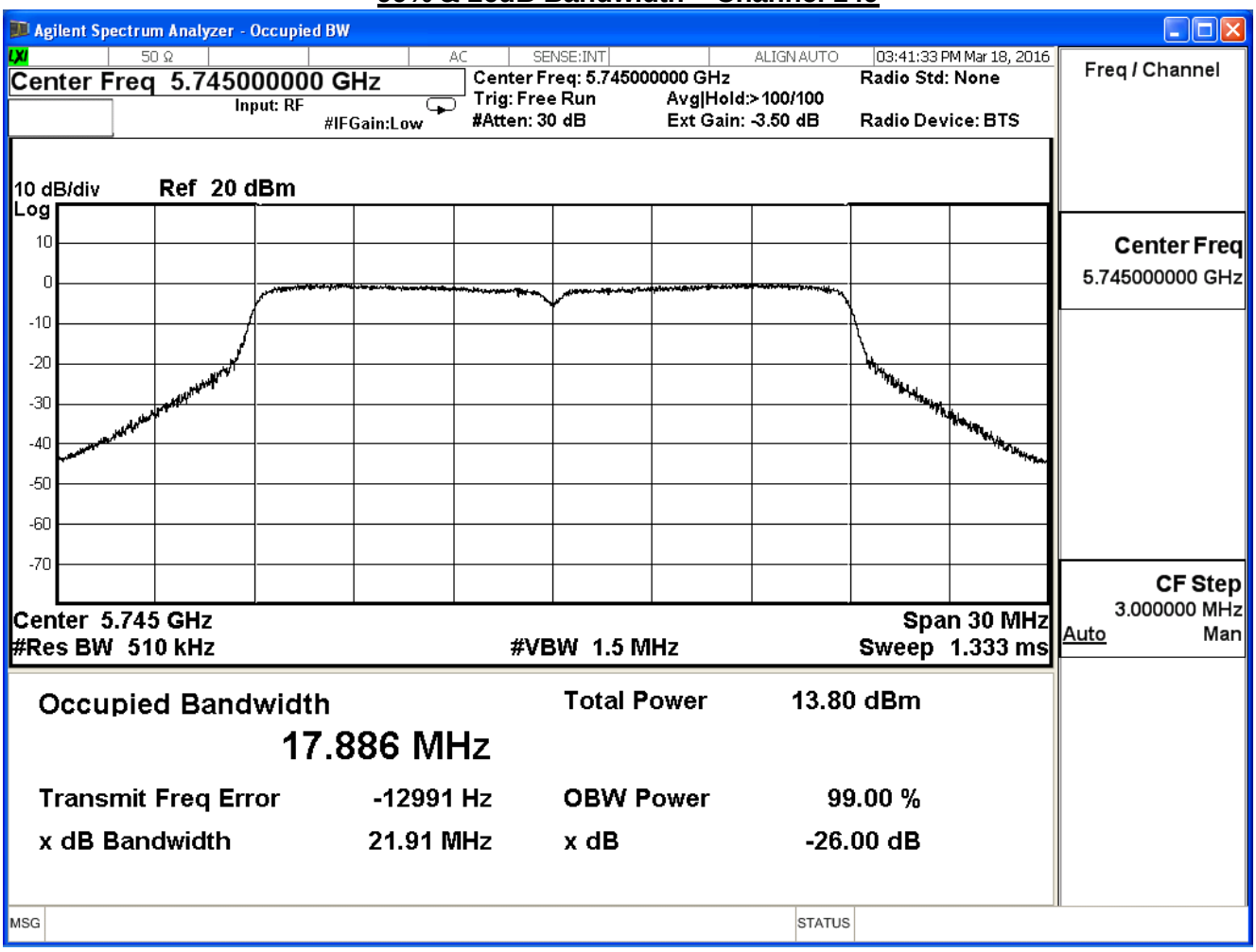


Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/18	Test Site	SR7

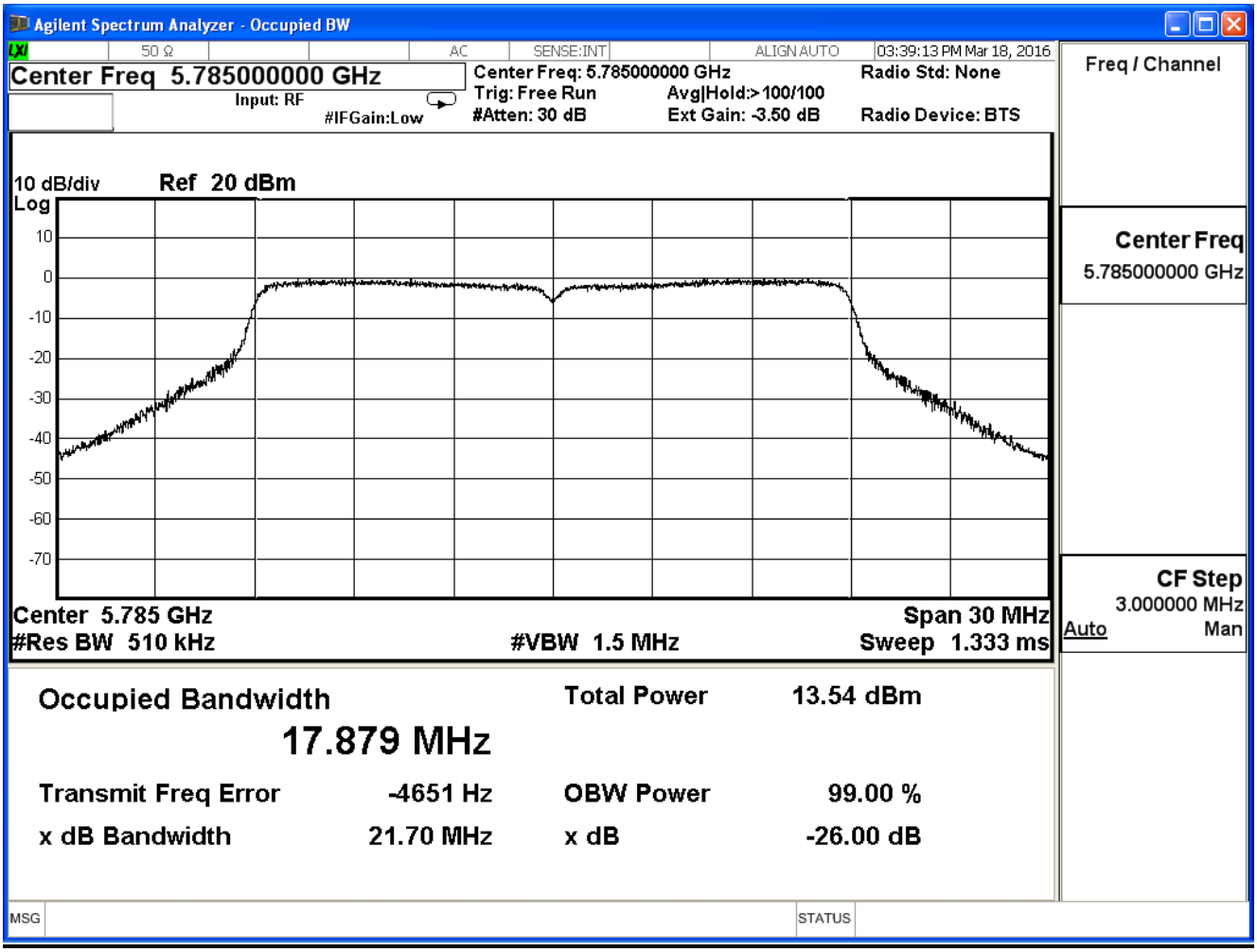
802.11n_20M(ANT 2)

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
149	5745	21.91	17.886	--	Pass
157	5785	21.70	17.879	--	Pass
165	5825	21.57	17.895	--	Pass

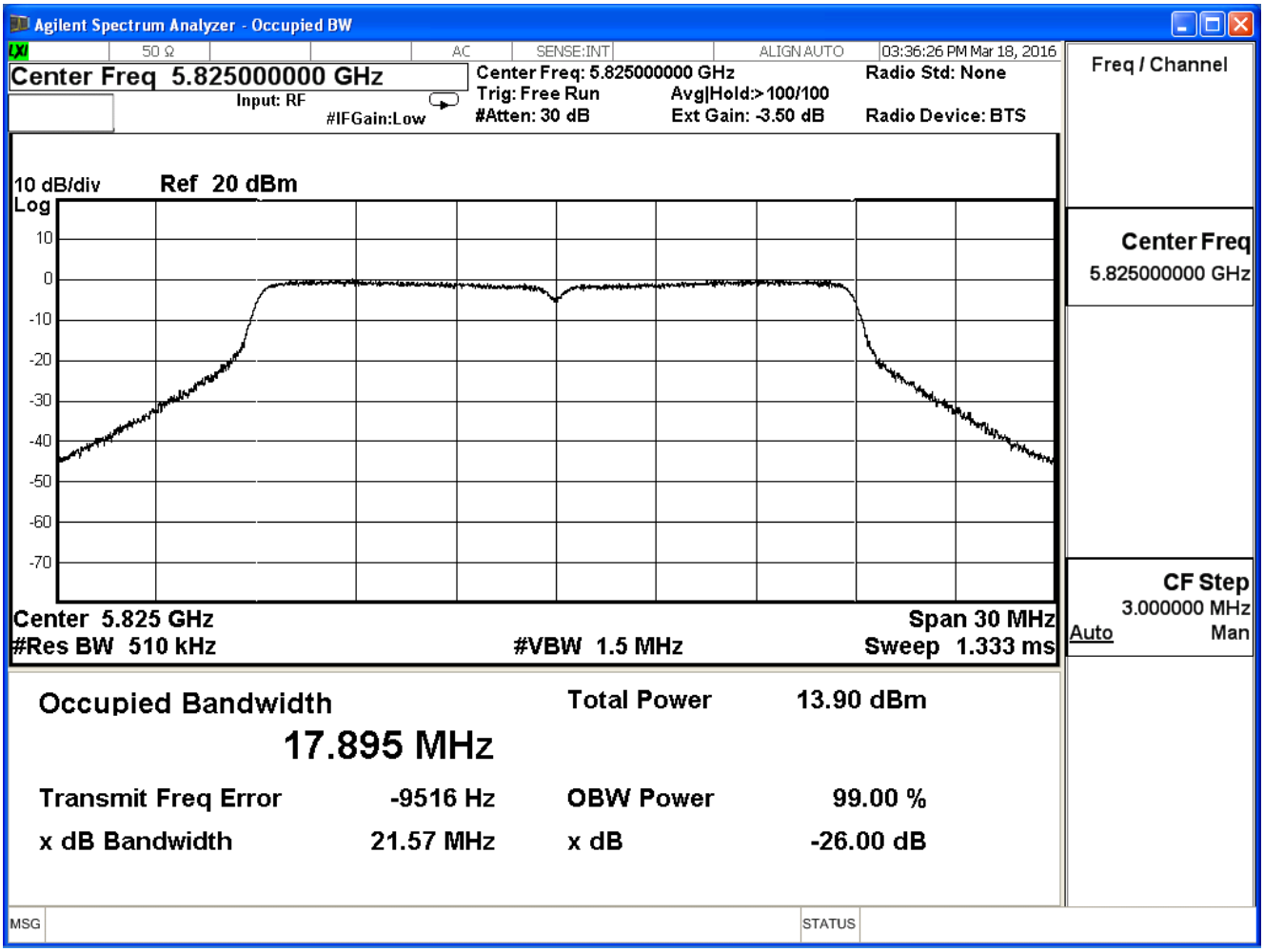
99% & 26dB Bandwidth – Channel 149



99% & 26dB Bandwidth – Channel 157



99% & 26dB Bandwidth – Channel 165

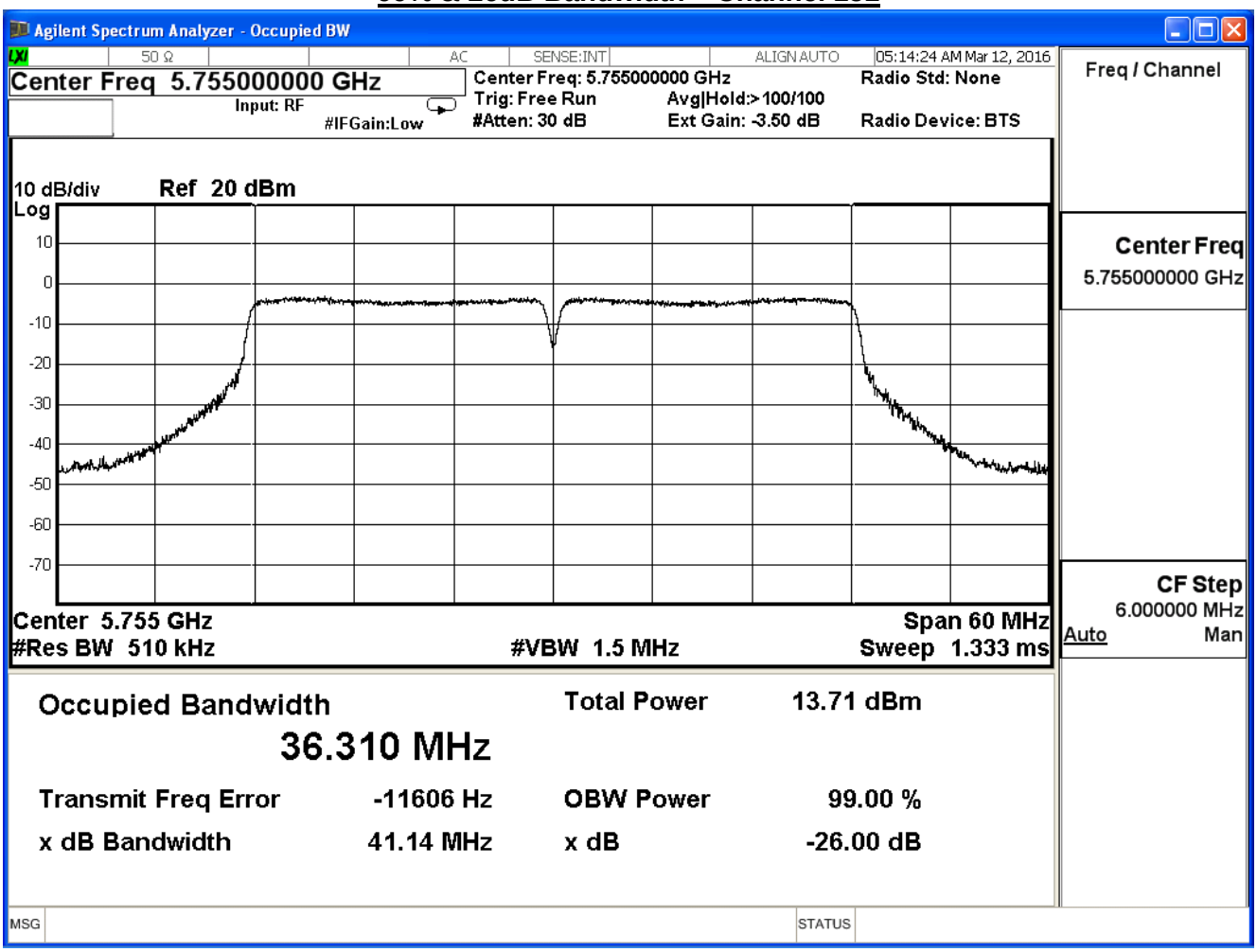


Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

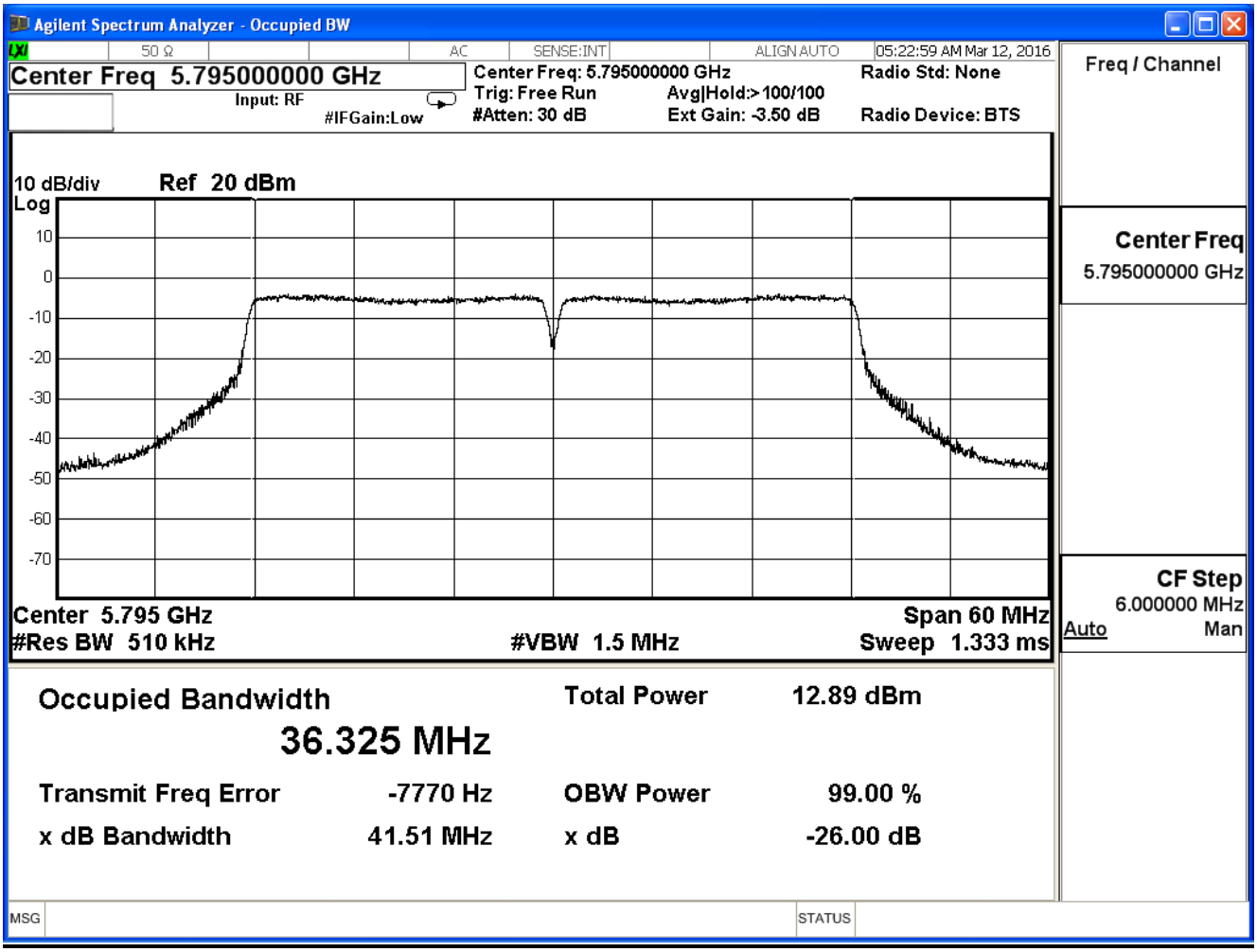
802.11n_40M(ANT 0)

Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
151	5755	41.14	36.310	--	Pass
159	5795	41.51	36.325	--	Pass

99% & 26dB Bandwidth – Channel 151



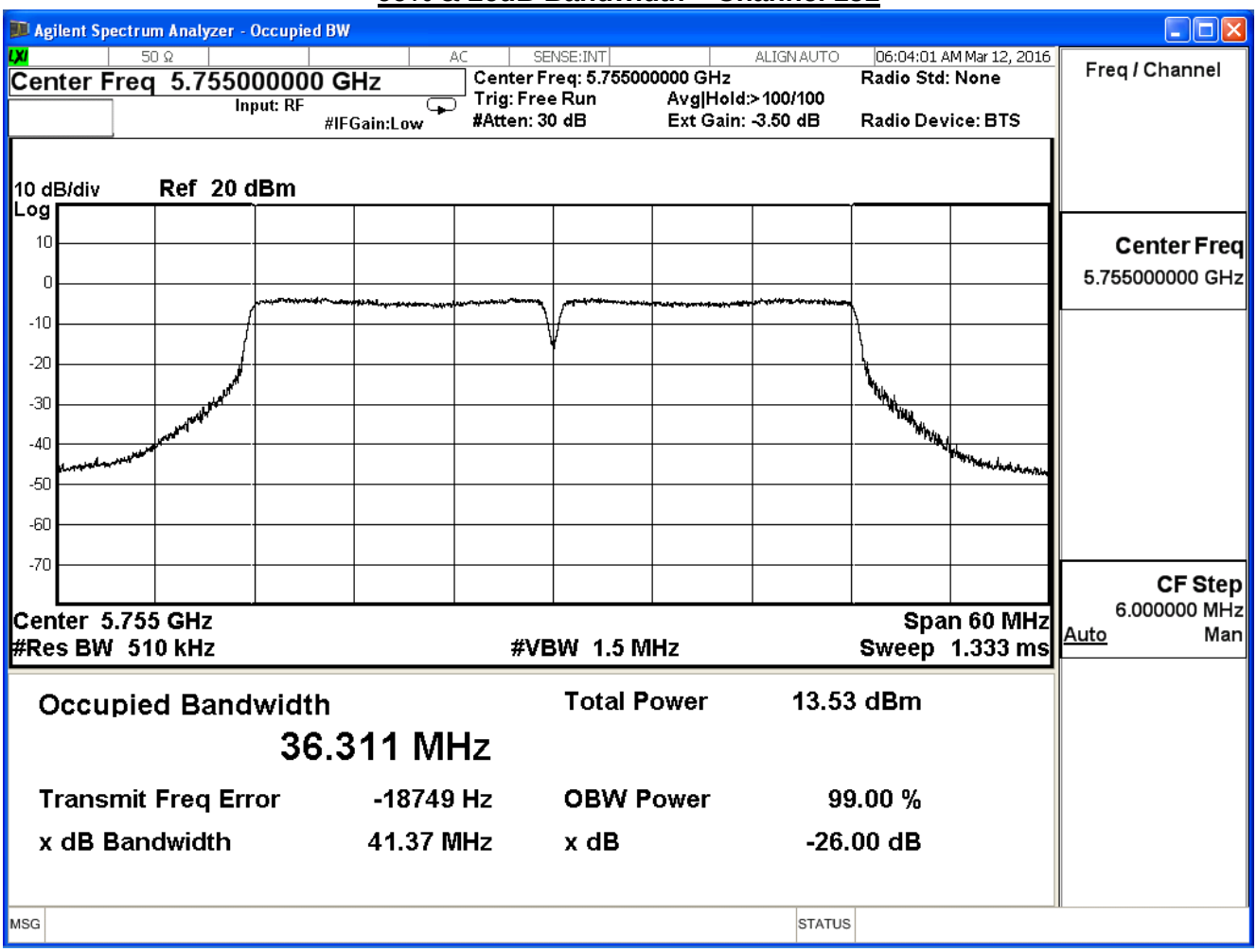
99% & 26dB Bandwidth – Channel 159



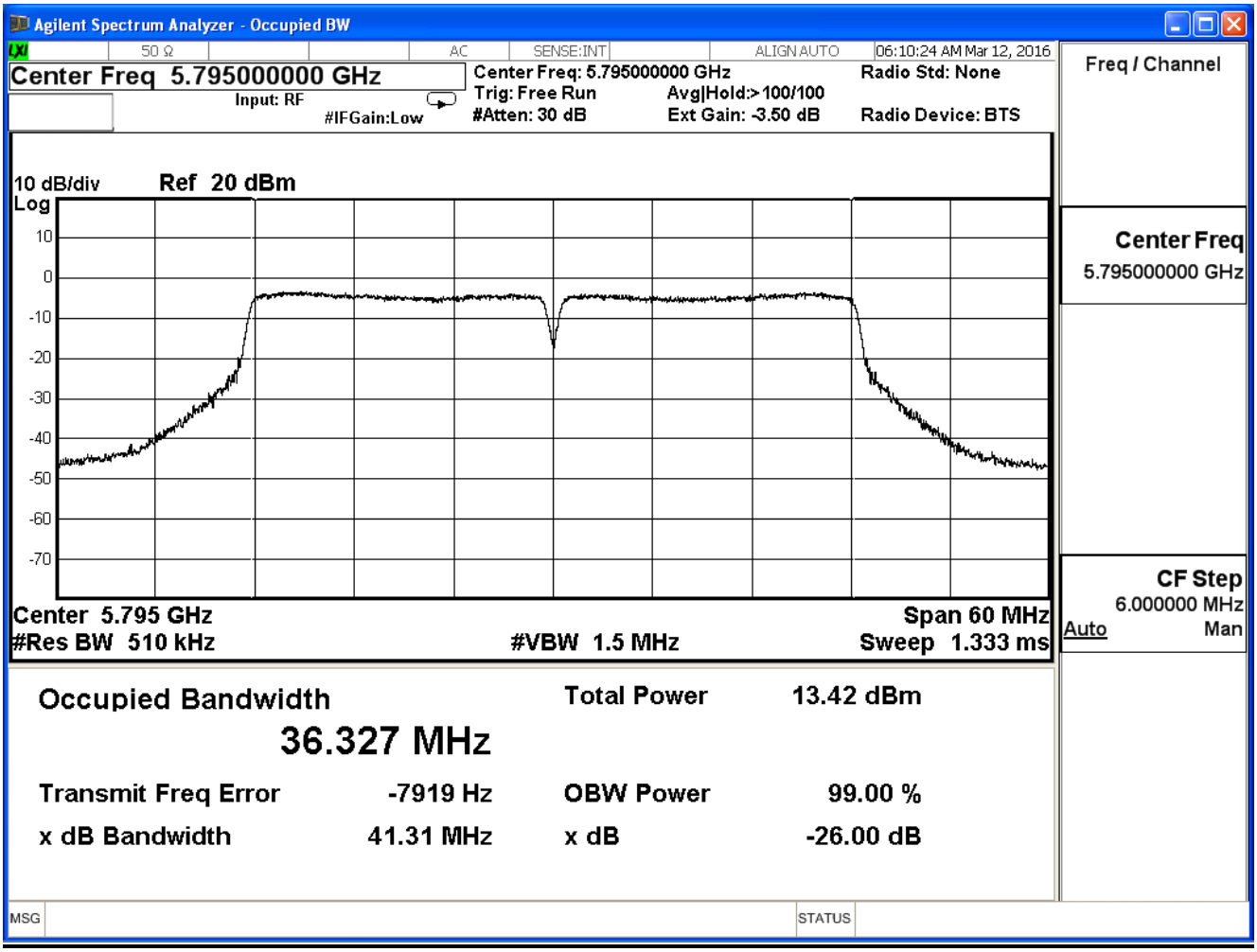
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11n_40M(ANT 1)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
151	5755	41.37	36.311	--	Pass
159	5795	41.31	36.327	--	Pass

99% & 26dB Bandwidth – Channel 151



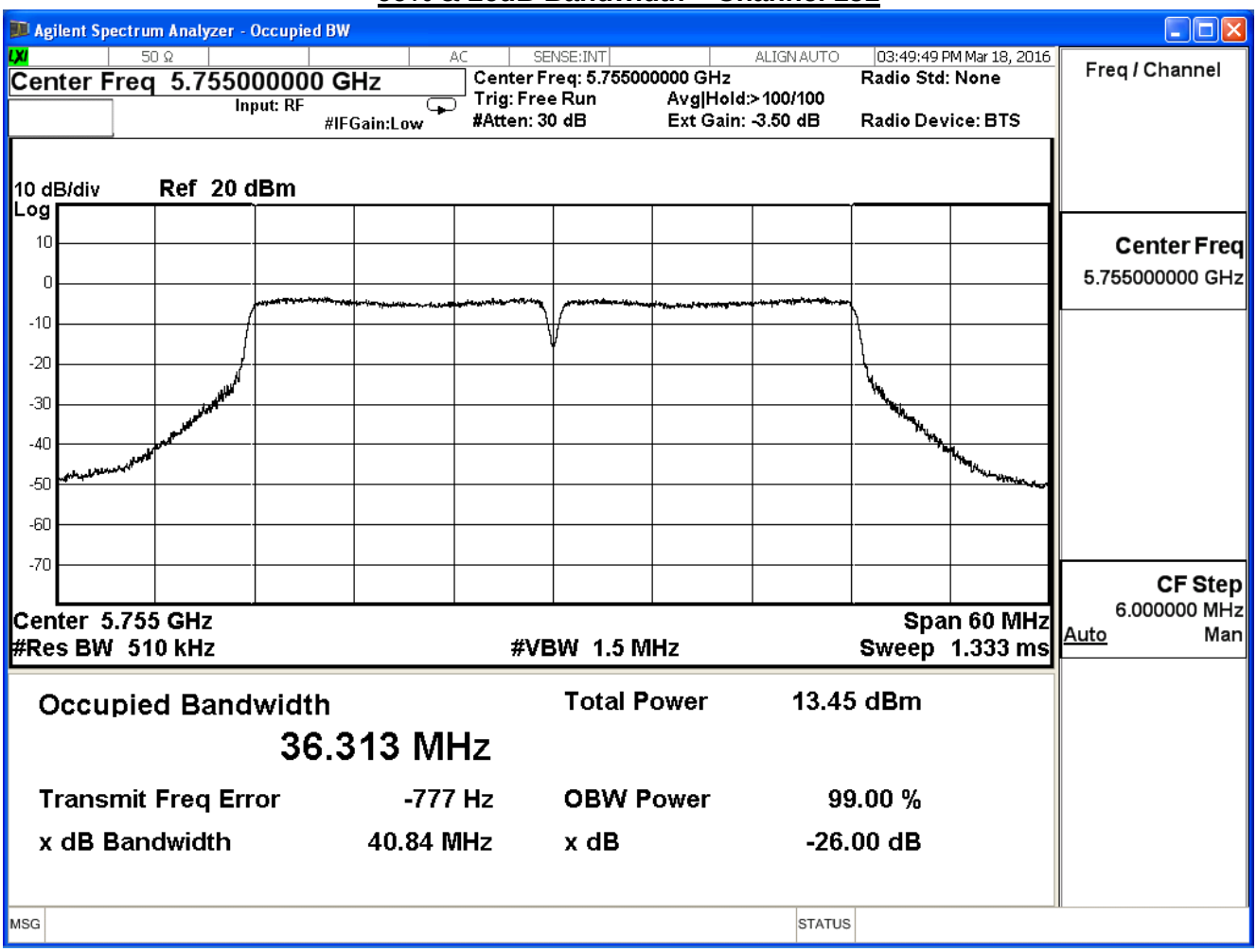
99% & 26dB Bandwidth – Channel 159



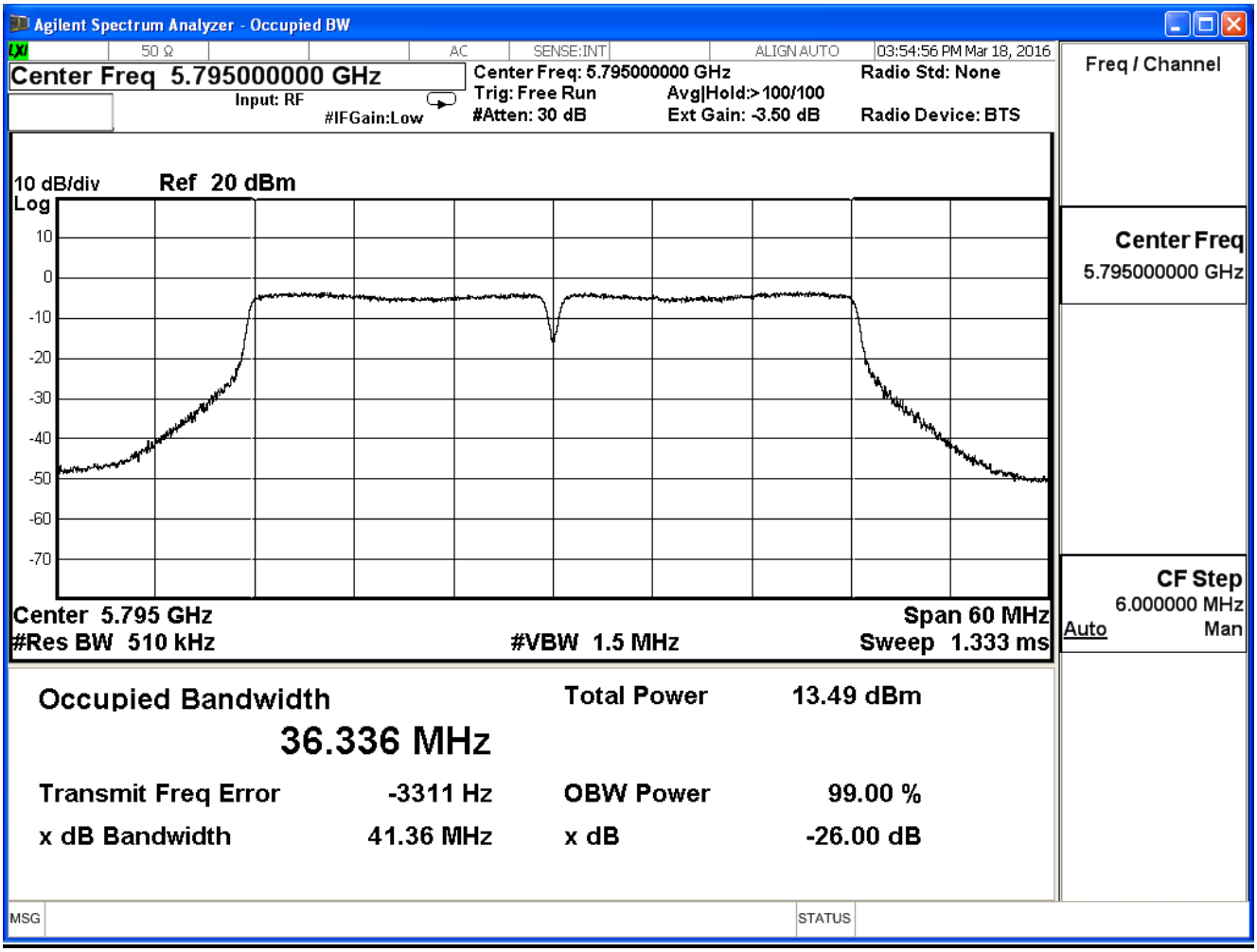
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/18	Test Site	SR7

802.11n_40M(ANT 2)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
151	5755	40.84	36.313	--	Pass
159	5795	41.36	36.336	--	Pass

99% & 26dB Bandwidth – Channel 151



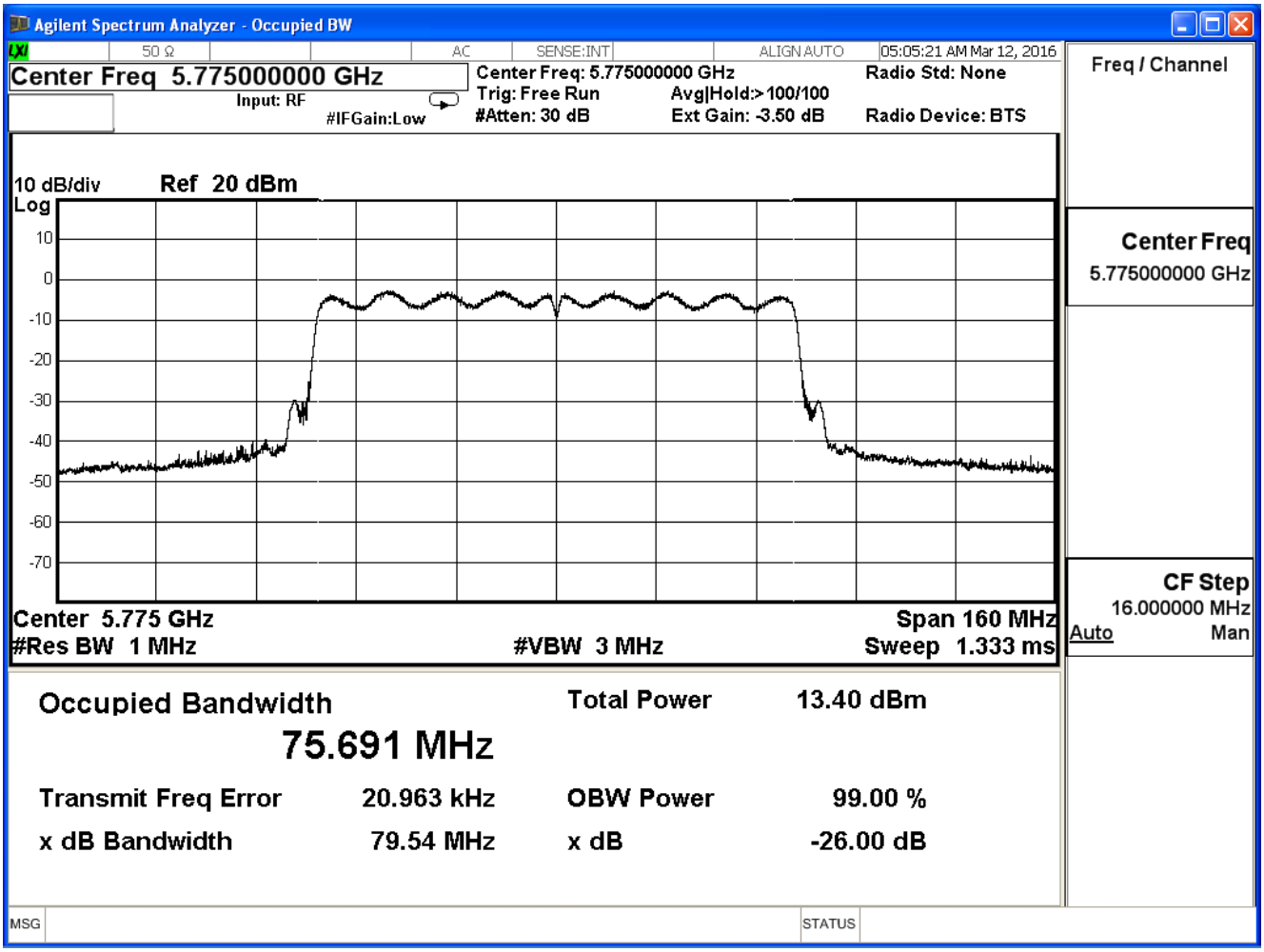
99% & 26dB Bandwidth – Channel 159



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11ac_80M(ANT 0)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
155	5775	79.54	75.691	--	Pass

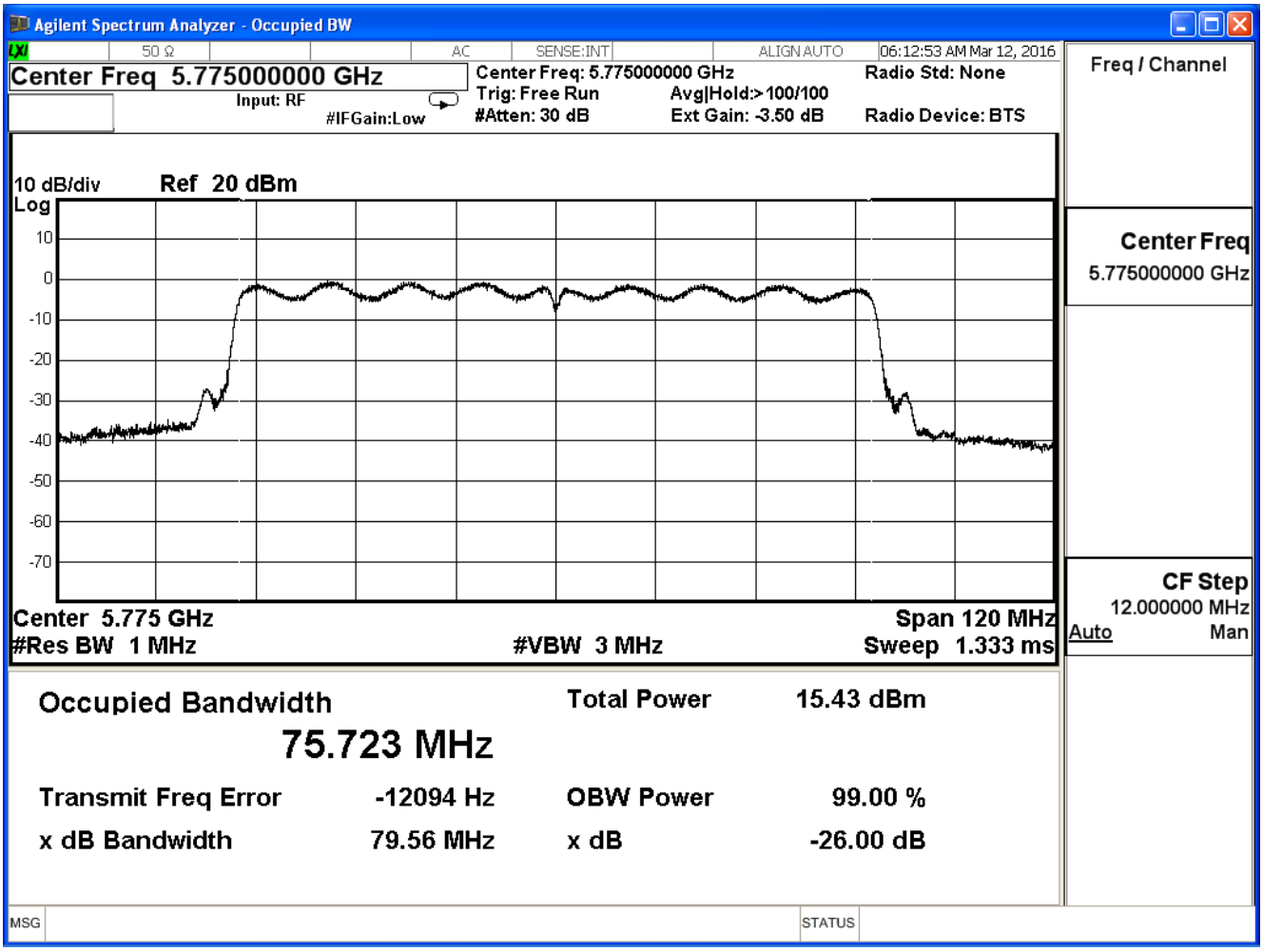
99% & 26dB Bandwidth – Channel 155



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11ac_80M(ANT 1)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
155	5775	79.56	75.723	--	Pass

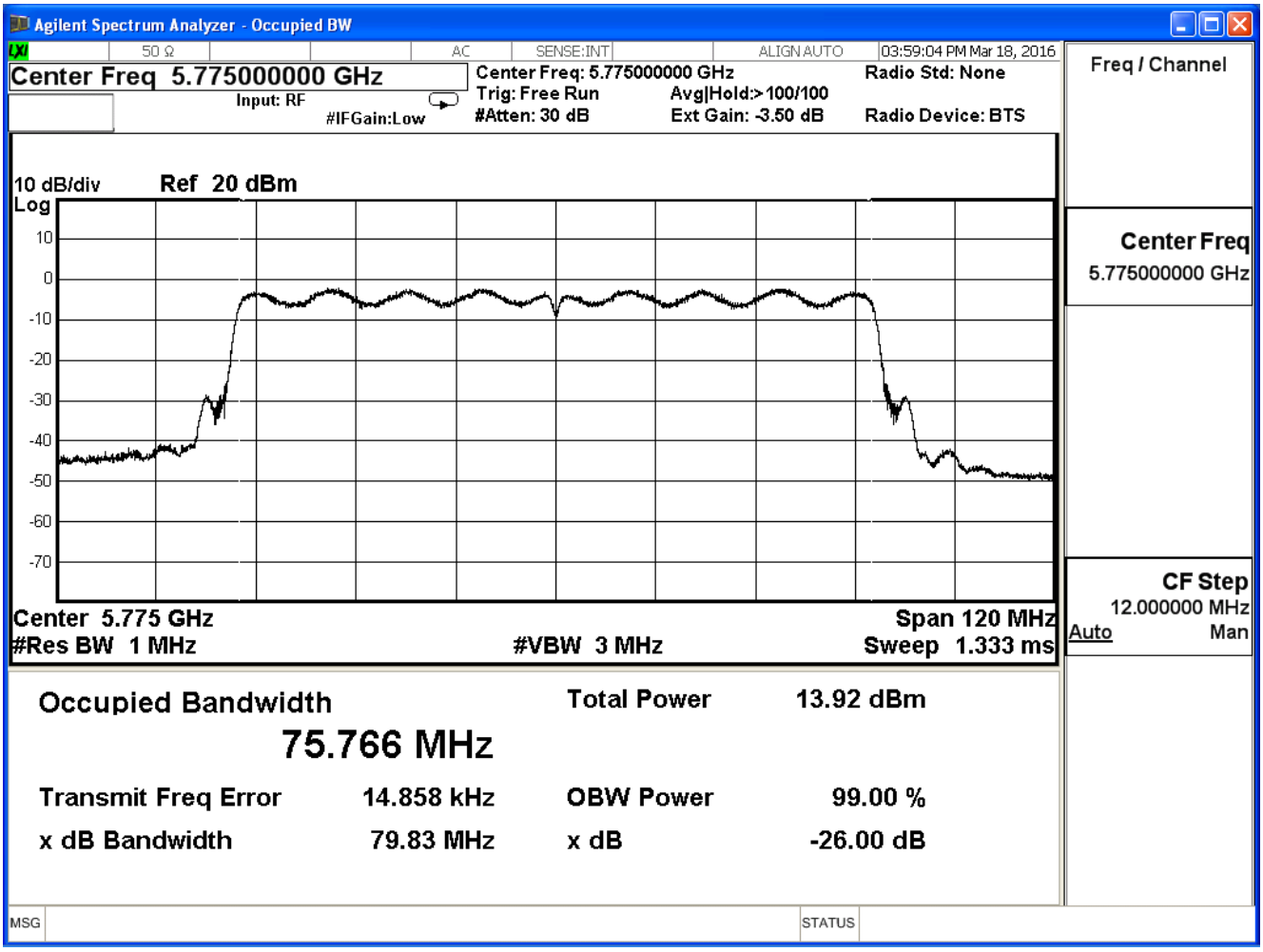
99% & 26dB Bandwidth – Channel 155



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	99% & 26dB Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/18	Test Site	SR7

802.11ac_80M(ANT 2)					
Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Result
155	5775	79.83	75.766	--	Pass

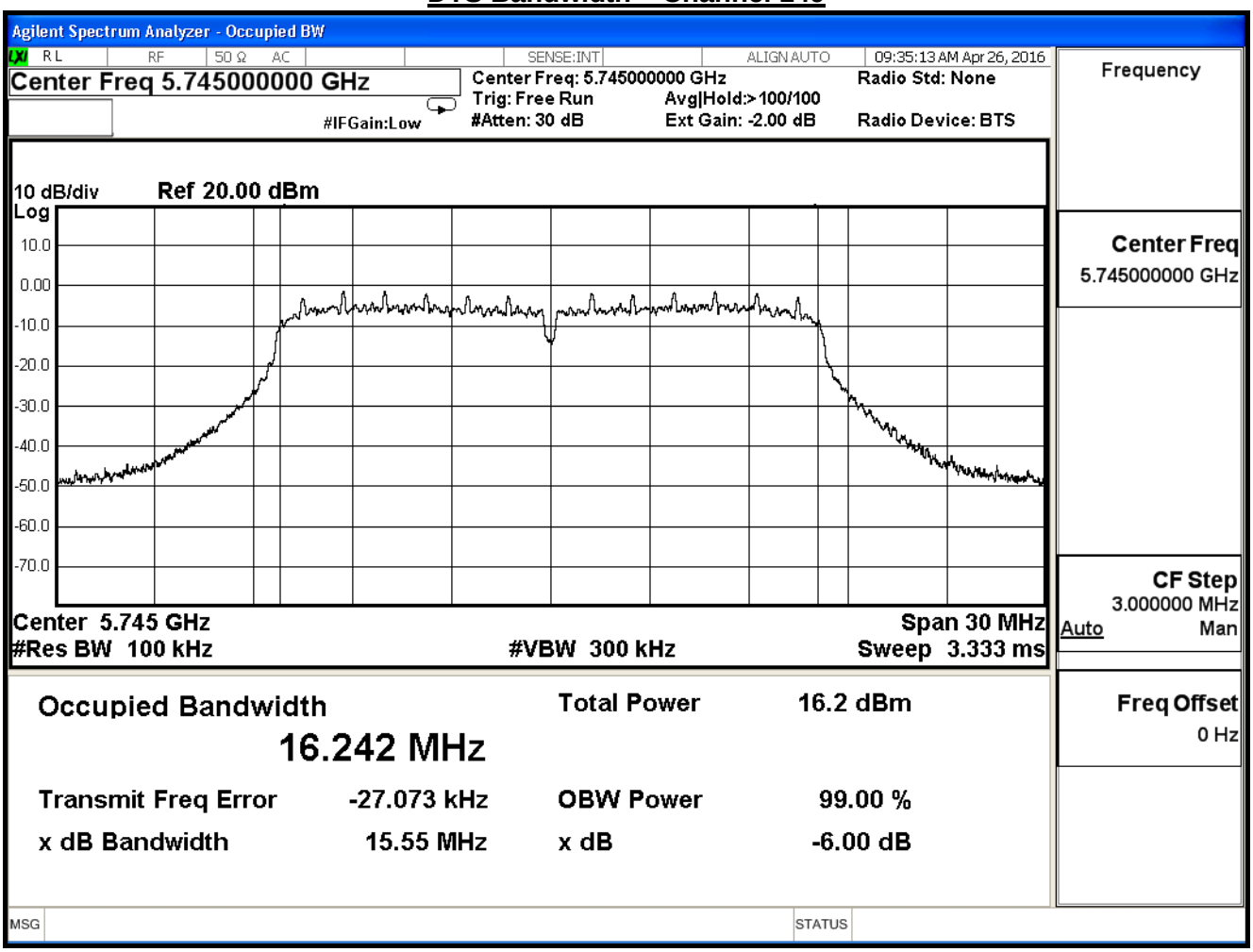
99% & 26dB Bandwidth – Channel 155



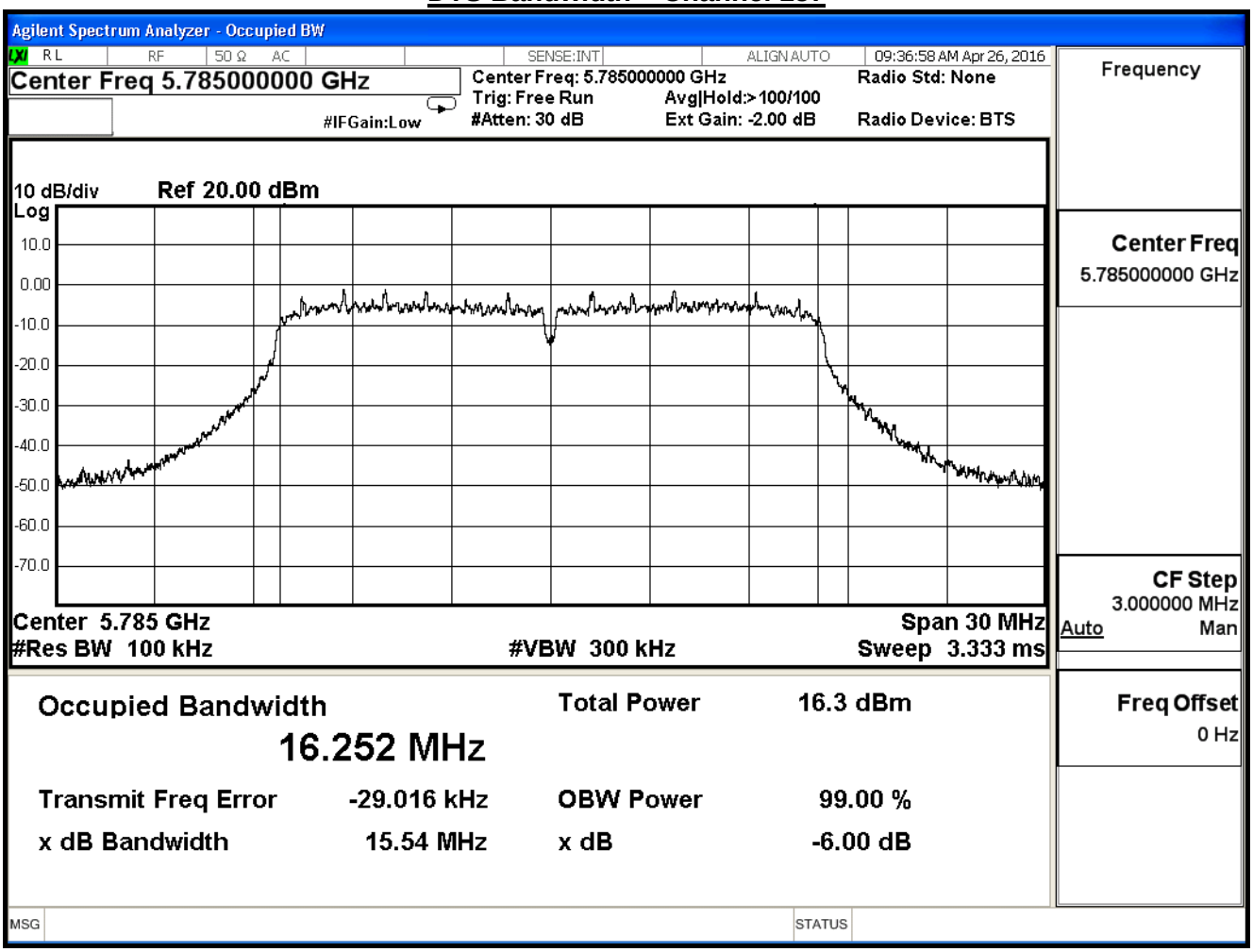
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11a(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	15.55	≧0.5	Pass
157	5785	15.54	≧0.5	Pass
165	5825	15.56	≧0.5	Pass

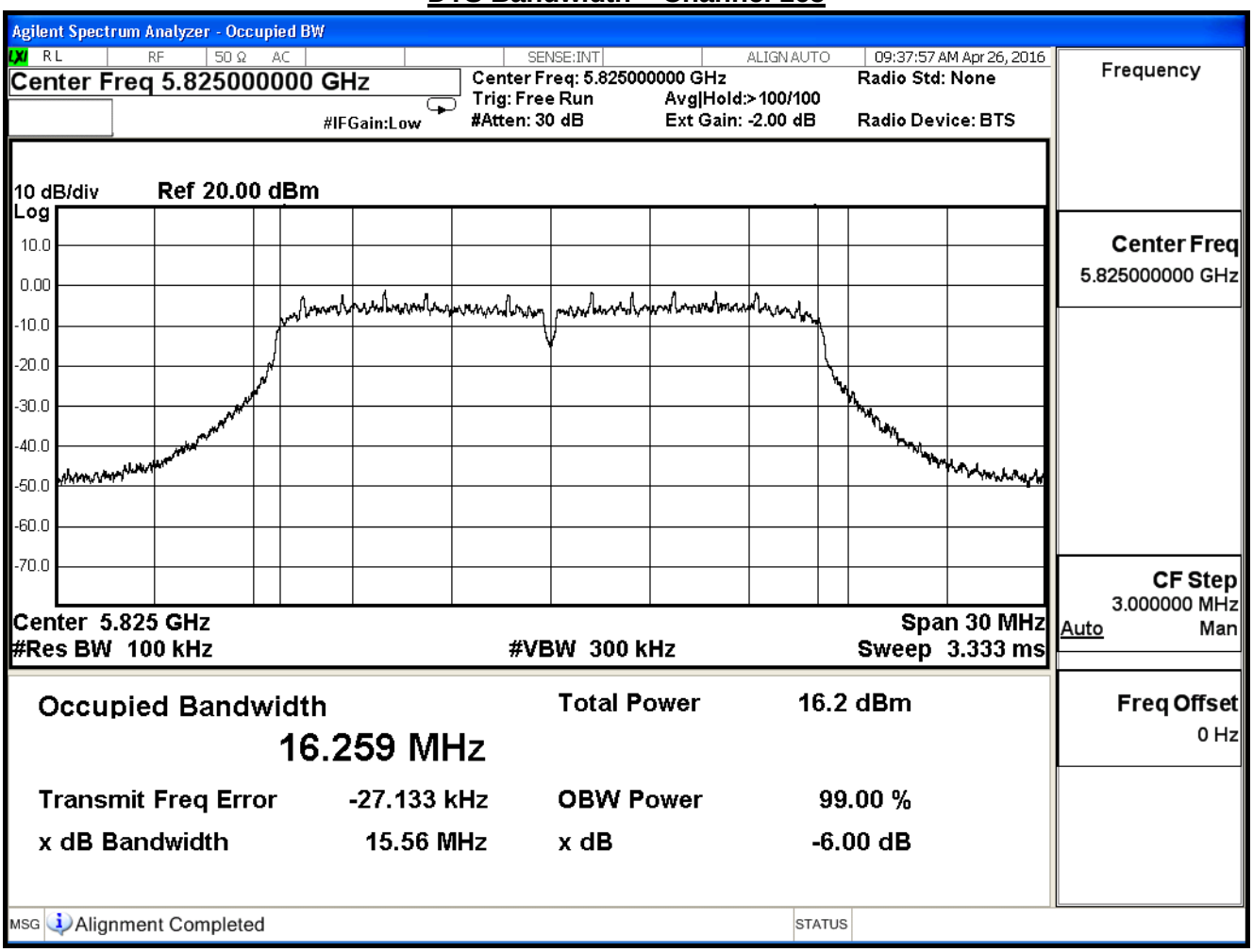
DTS Bandwidth – Channel 149



DTS Bandwidth – Channel 157



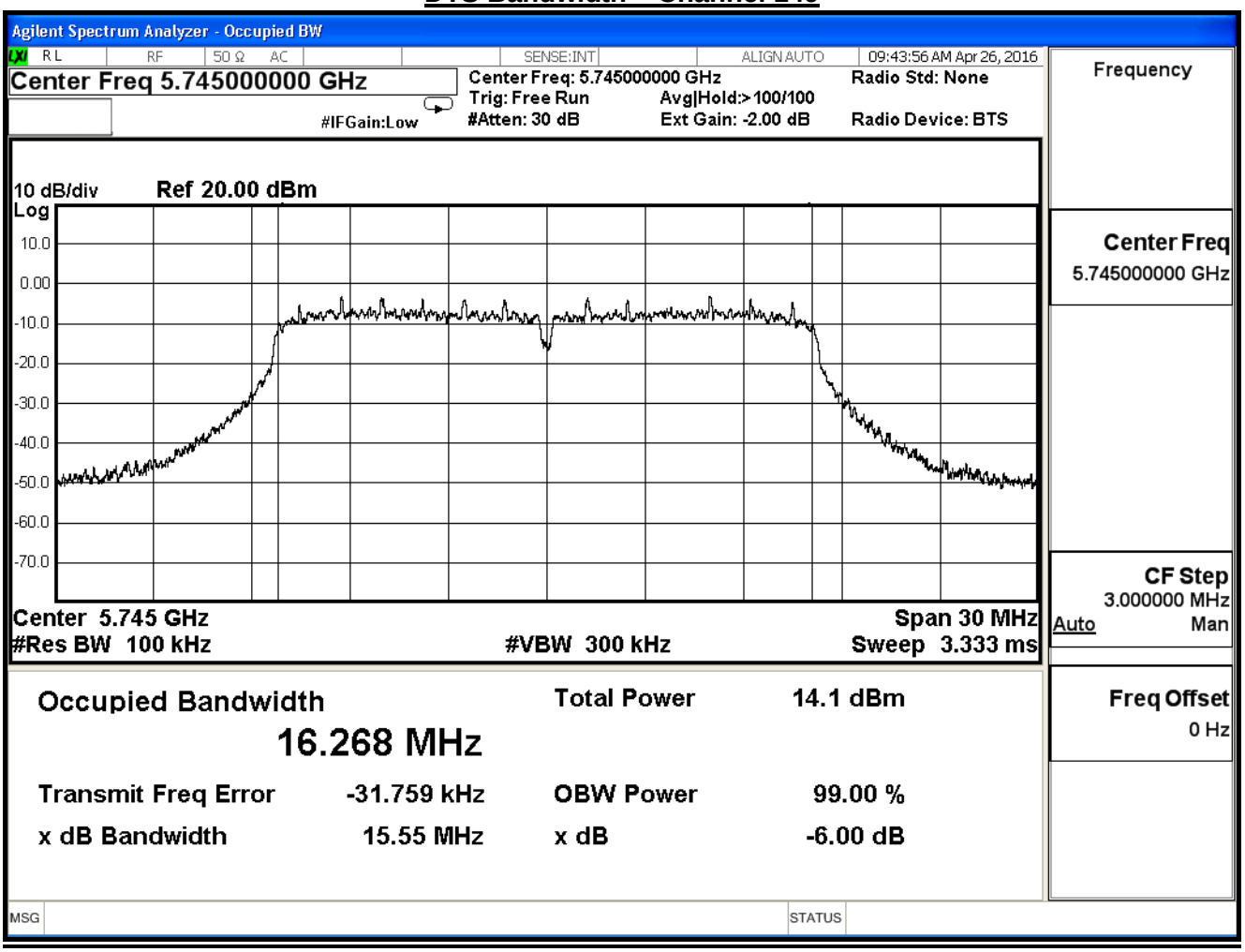
DTS Bandwidth – Channel 165



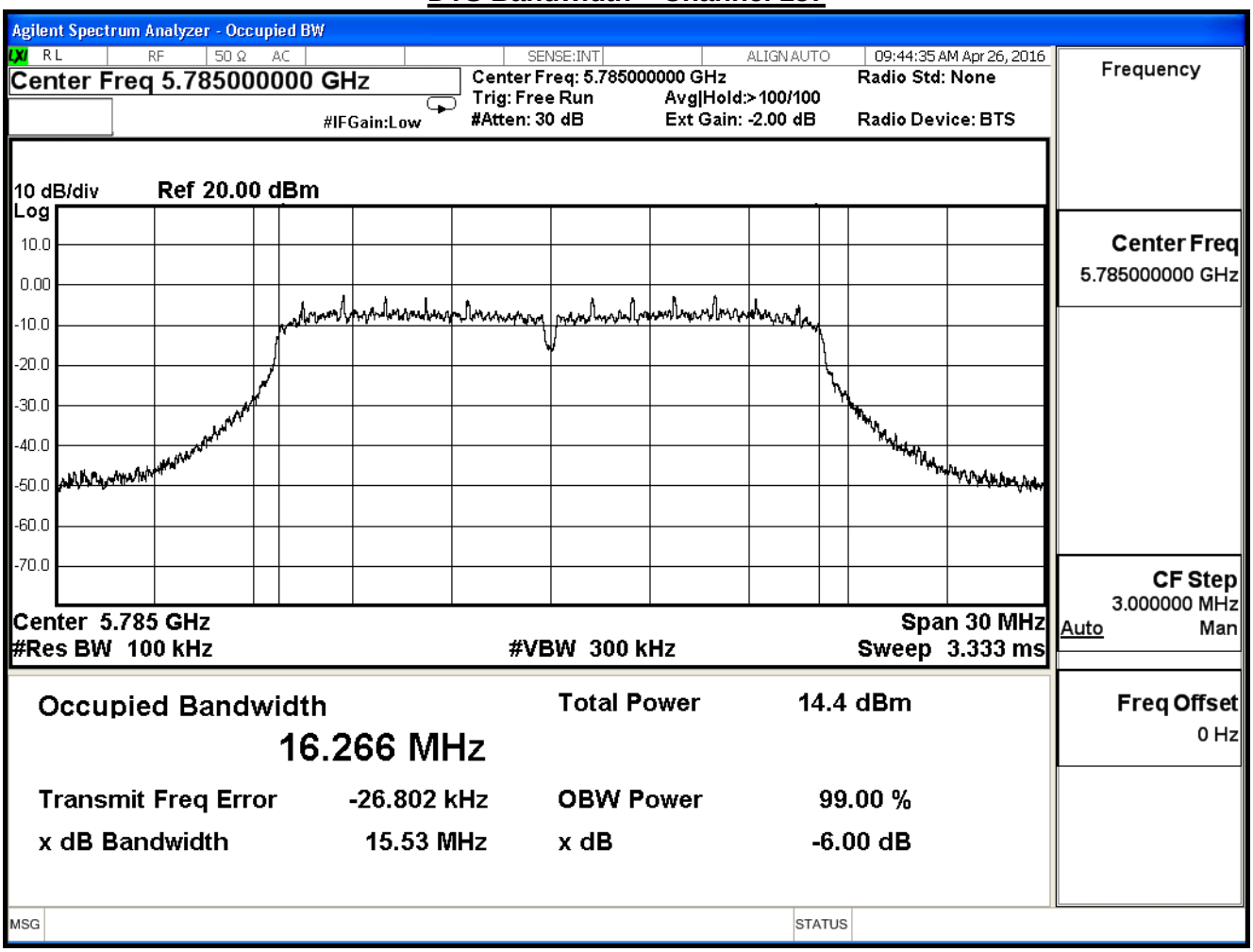
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11a(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	15.55	≧0.5	Pass
157	5785	15.53	≧0.5	Pass
165	5825	15.51	≧0.5	Pass

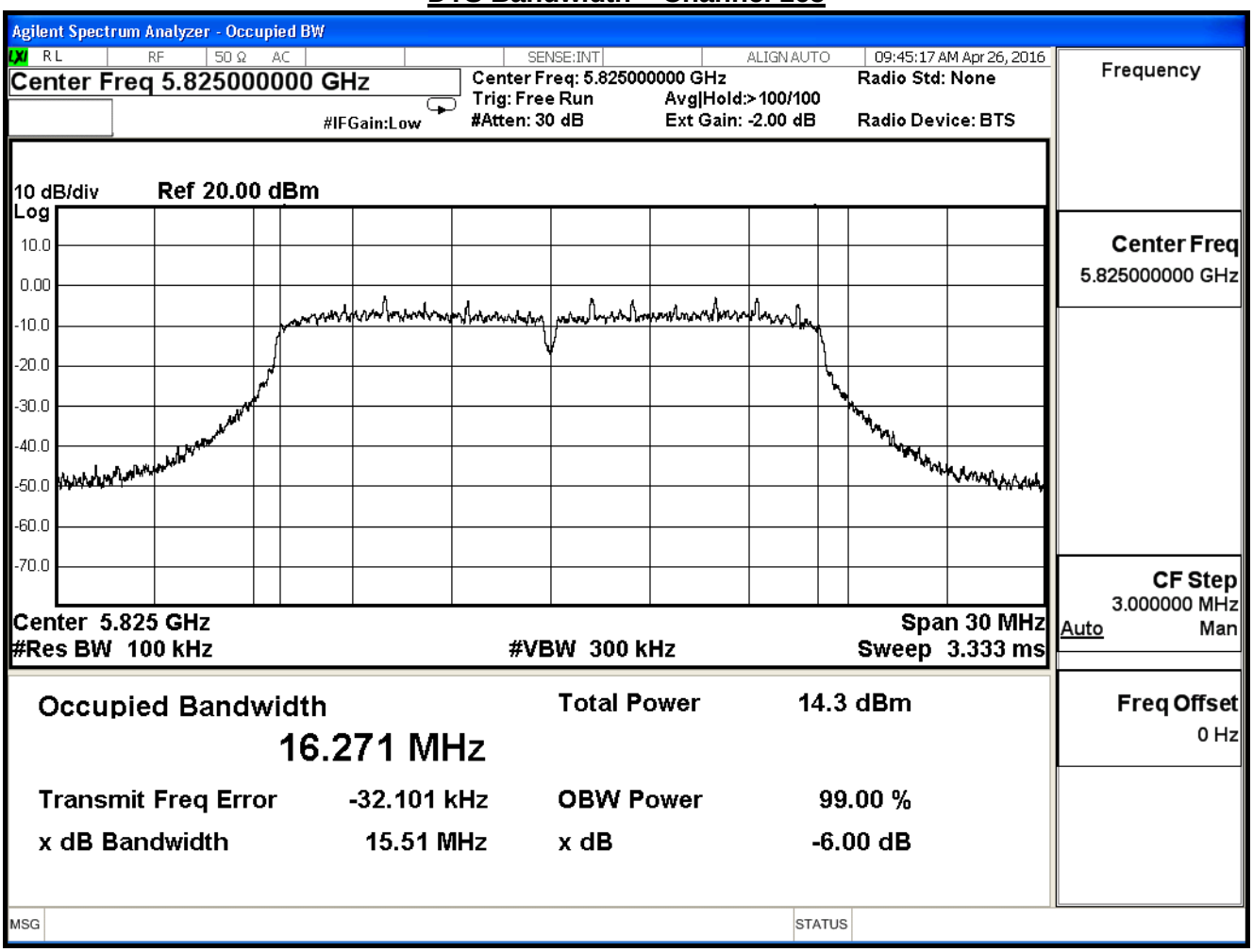
DTS Bandwidth – Channel 149



DTS Bandwidth – Channel 157



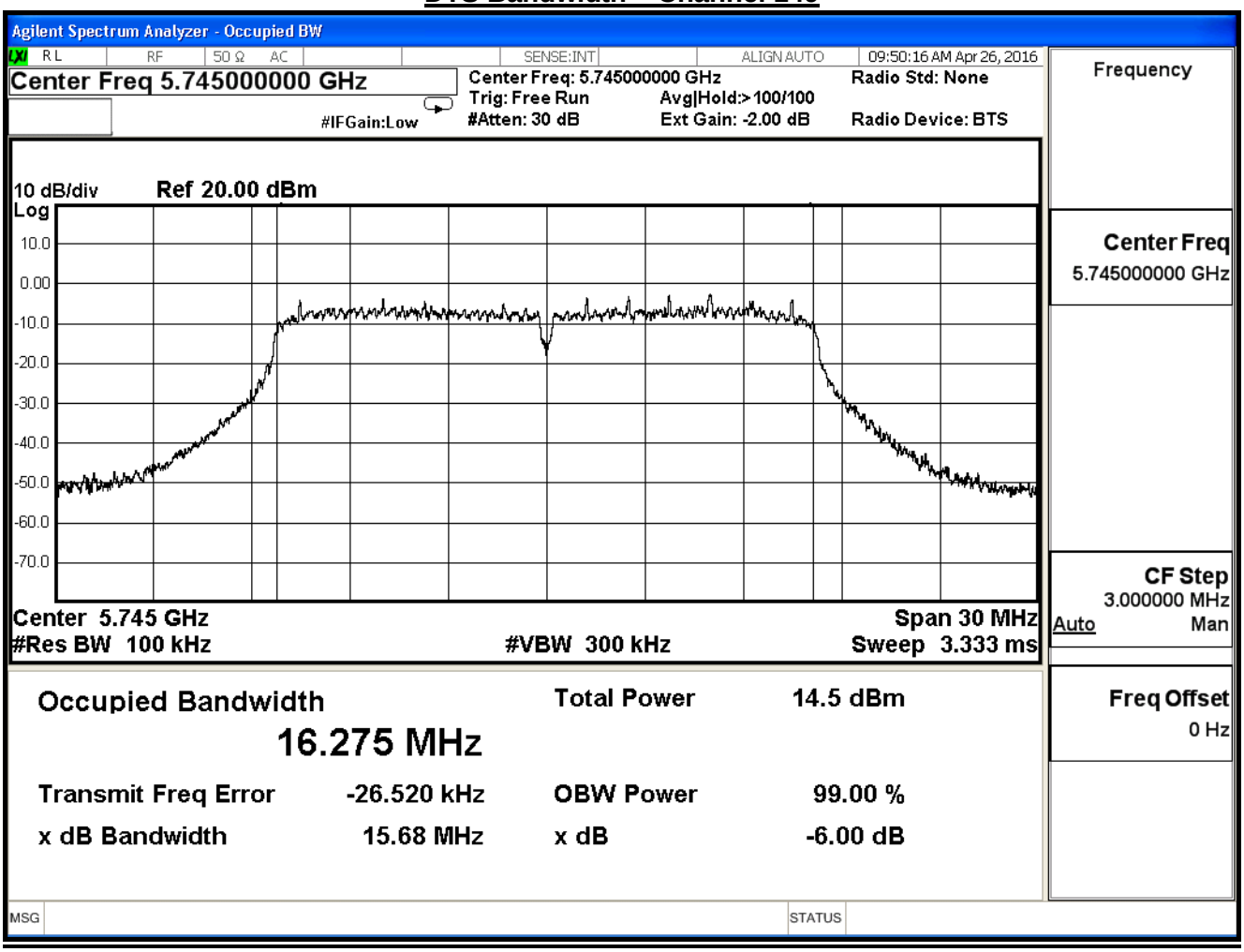
DTS Bandwidth – Channel 165



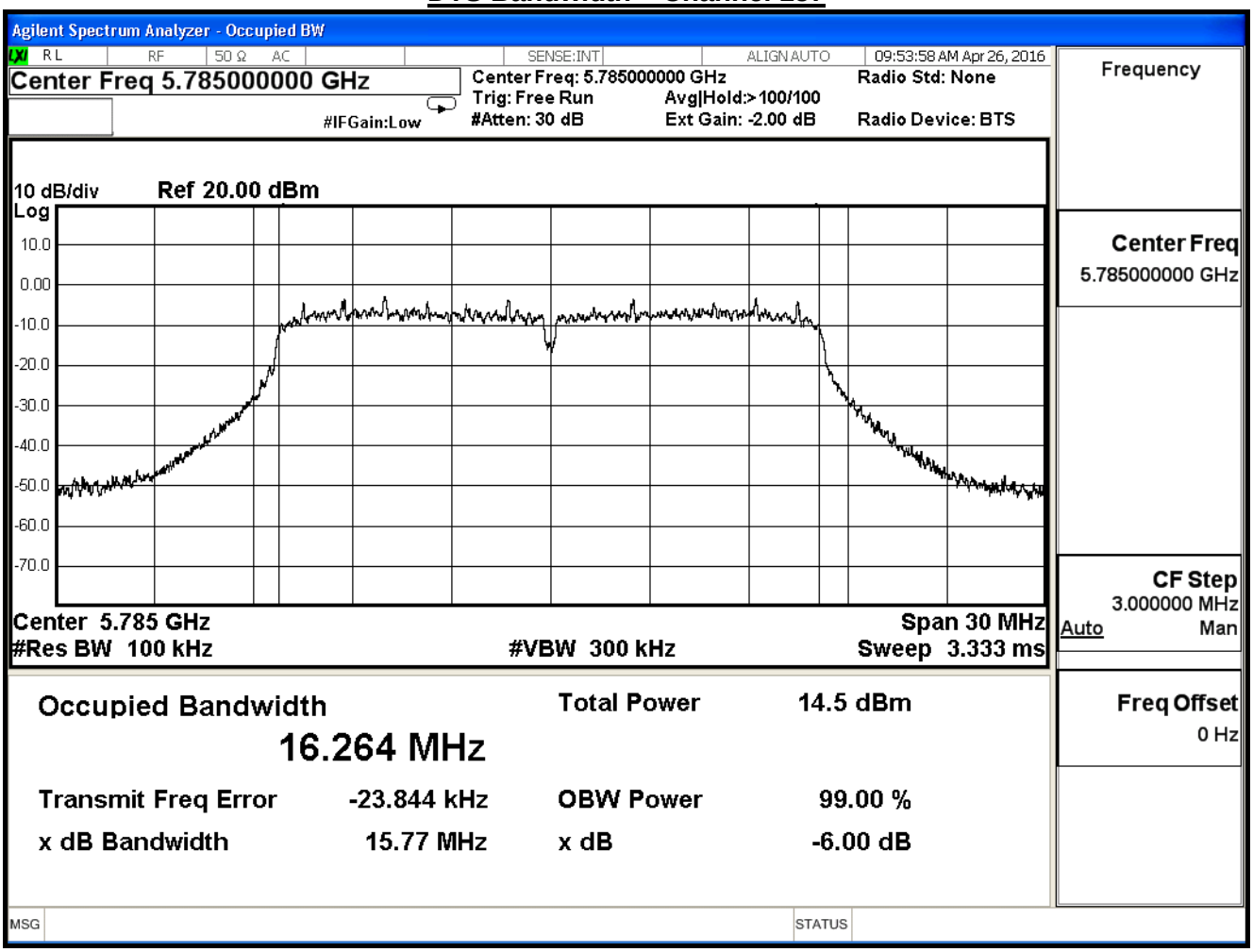
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11a(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	15.68	≧0.5	Pass
157	5785	15.77	≧0.5	Pass
165	5825	15.54	≧0.5	Pass

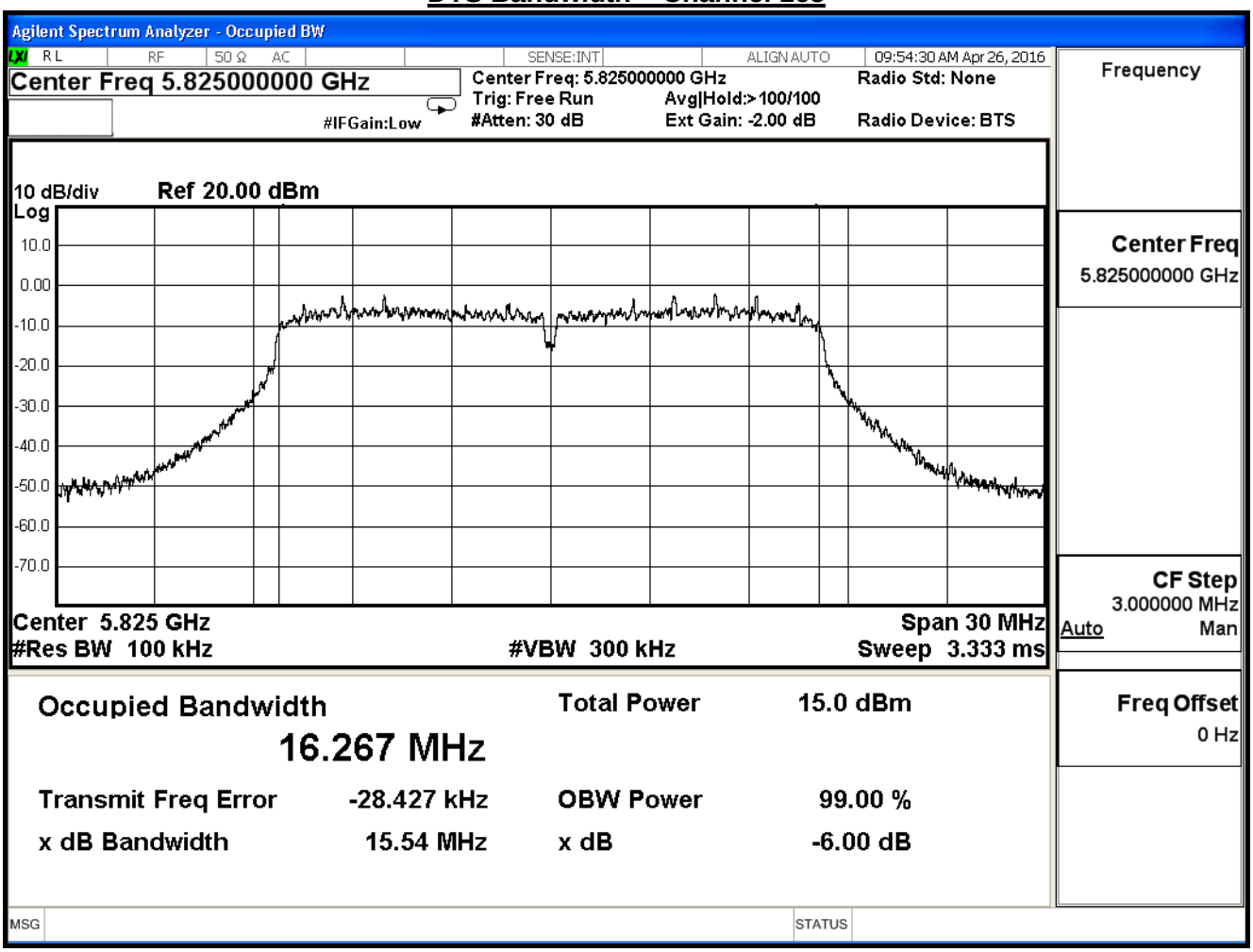
DTS Bandwidth – Channel 149



DTS Bandwidth – Channel 157



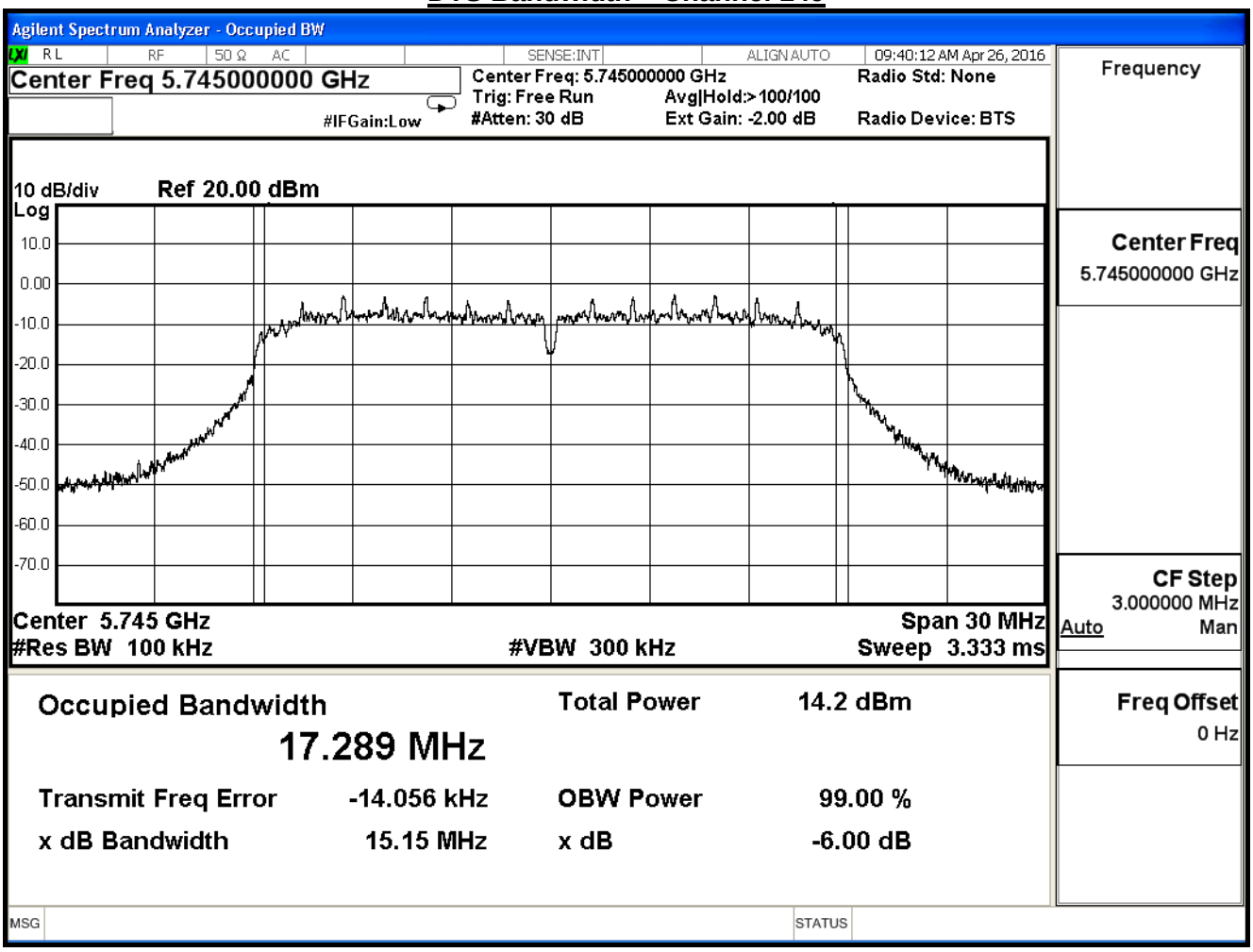
DTS Bandwidth – Channel 165



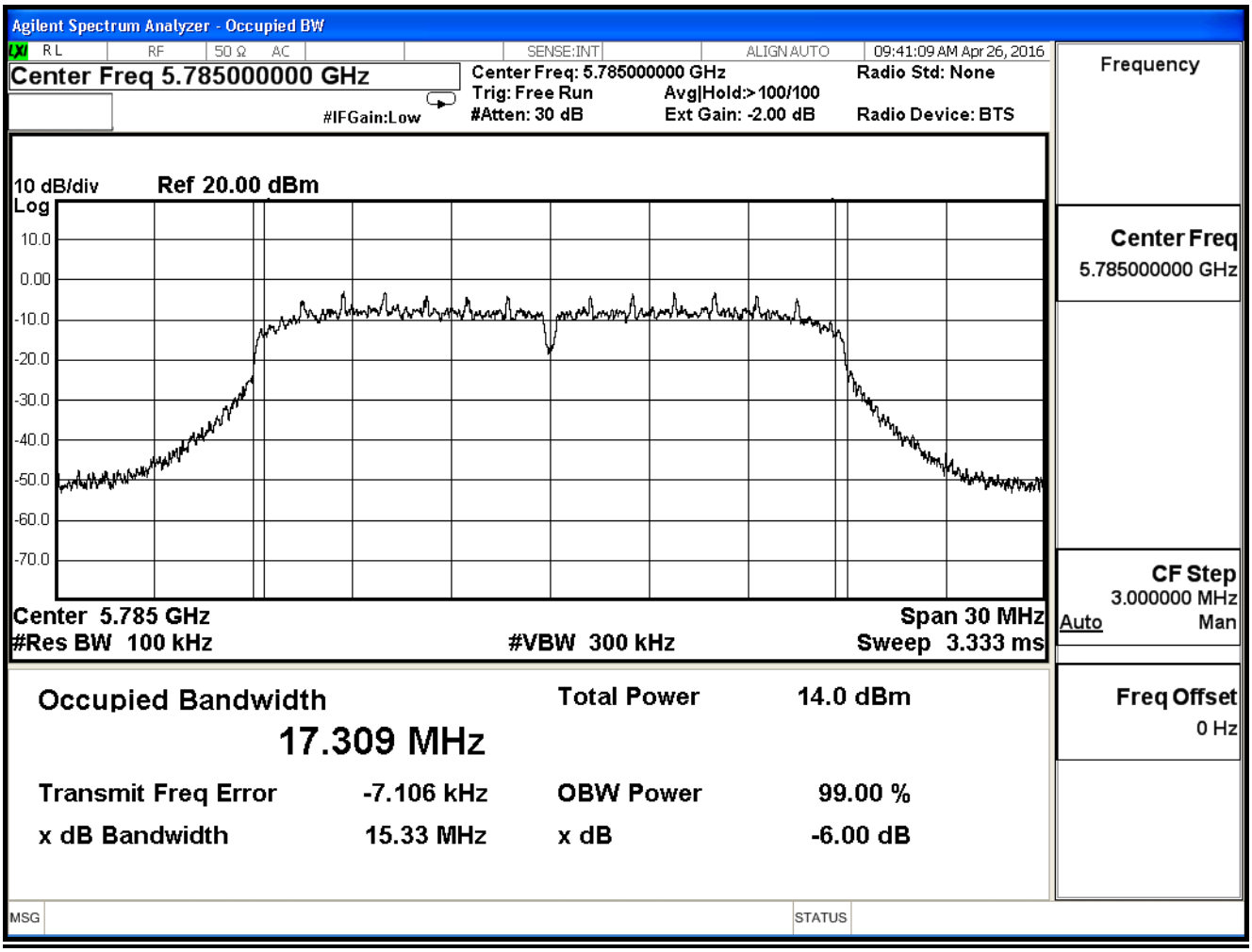
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11n_20M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	15.15	≧0.5	Pass
157	5785	15.33	≧0.5	Pass
165	5825	15.15	≧0.5	Pass

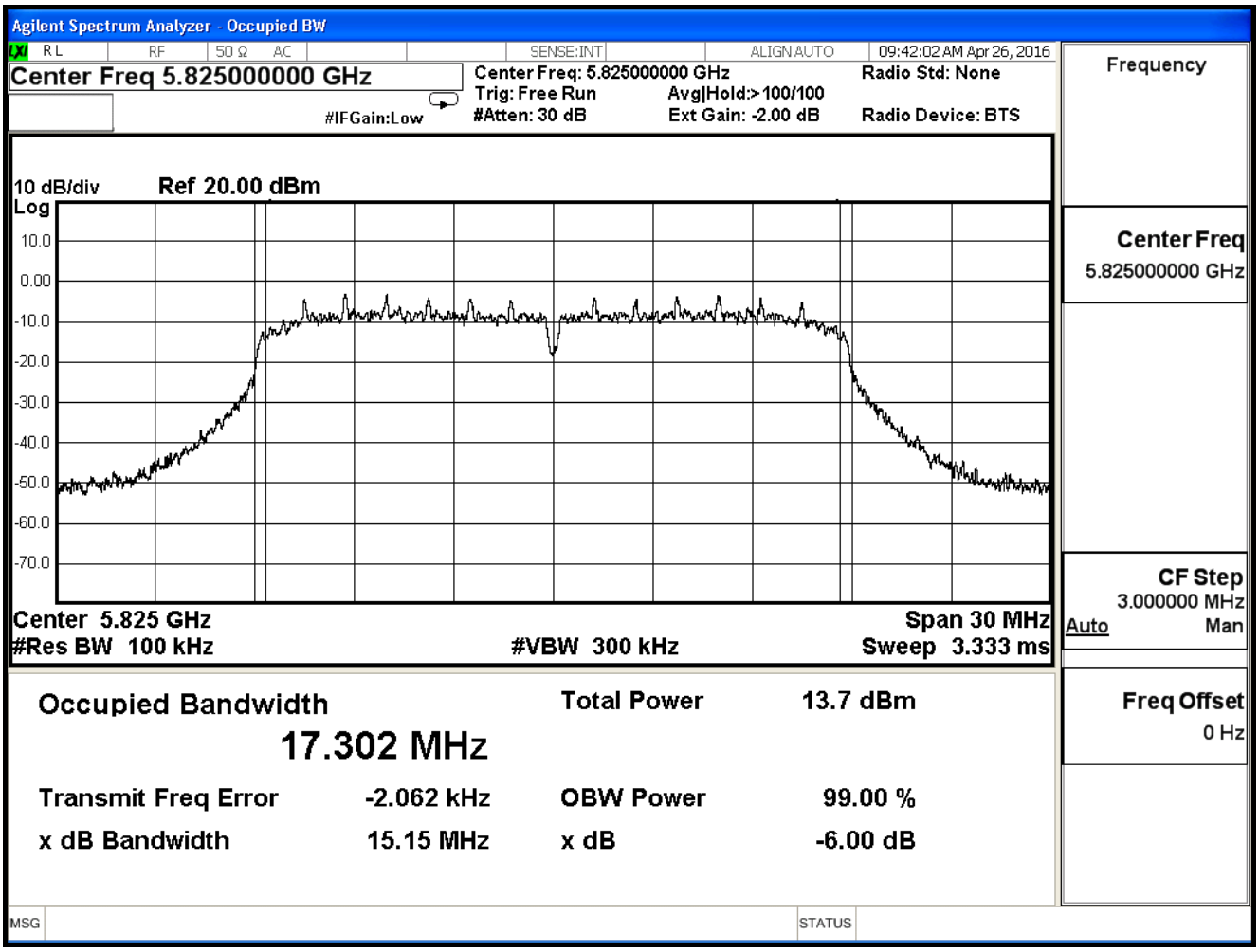
DTS Bandwidth – Channel 149



DTS Bandwidth – Channel 157



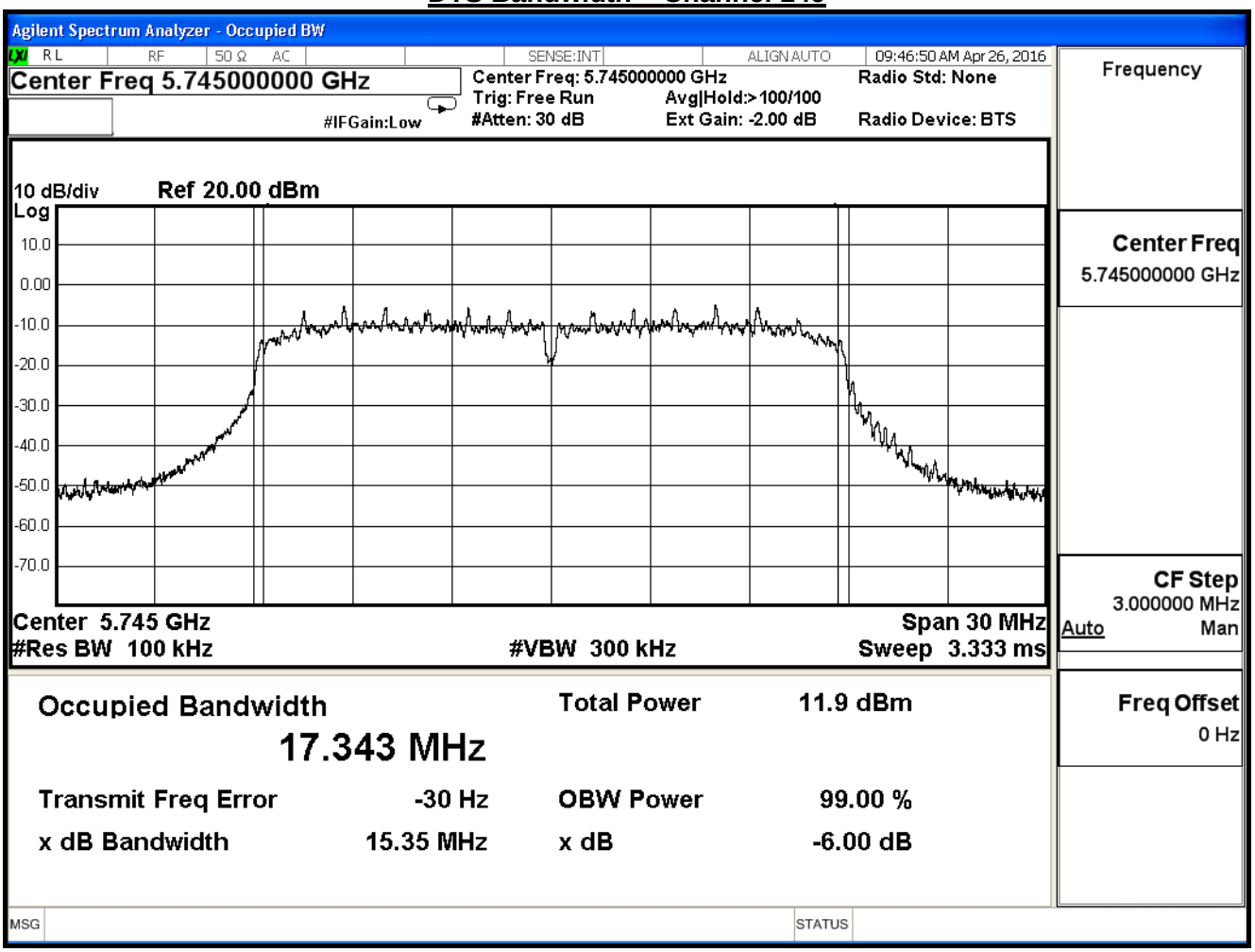
DTS Bandwidth – Channel 165



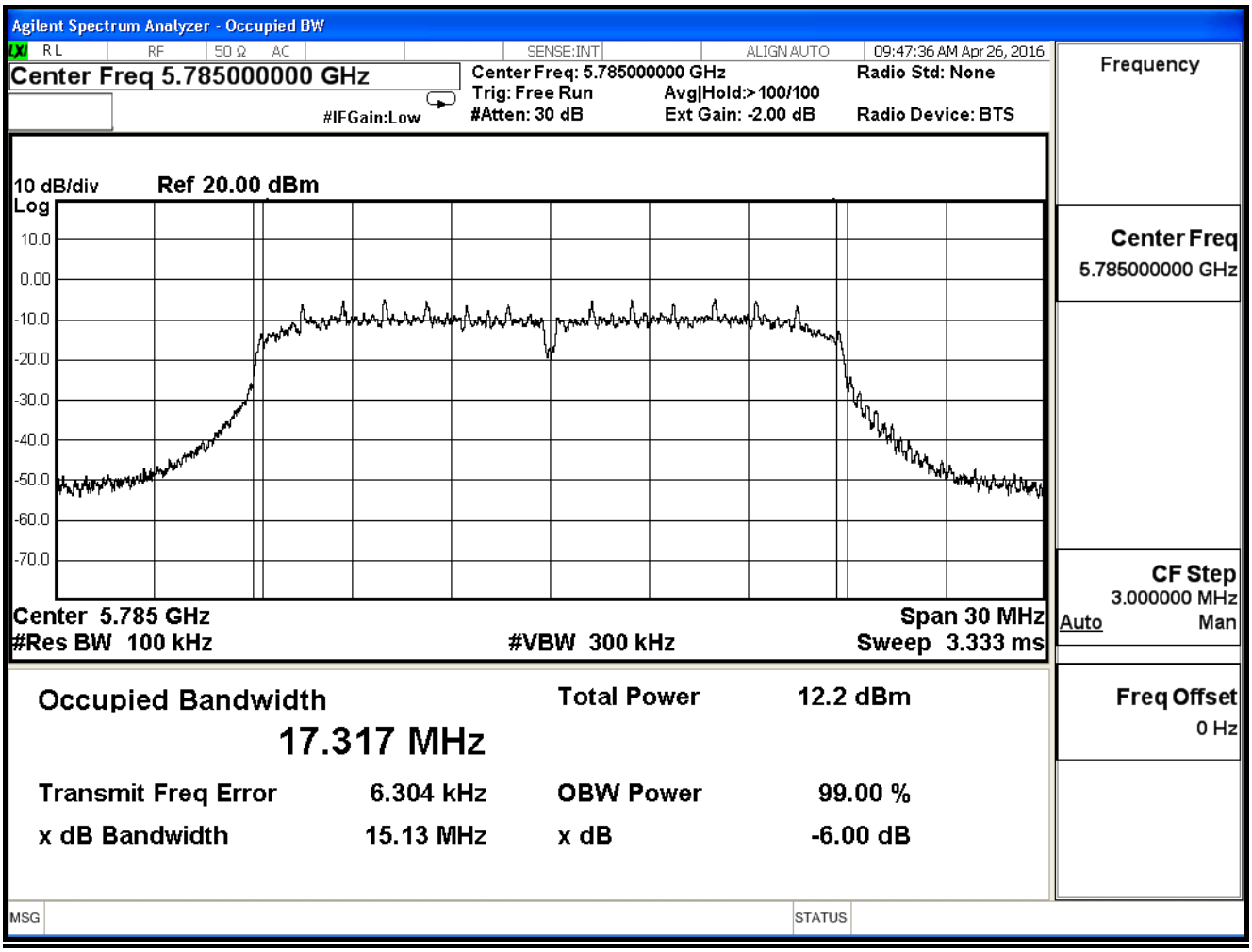
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11n_20M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	15.35	≧0.5	Pass
157	5785	15.13	≧0.5	Pass
165	5825	15.37	≧0.5	Pass

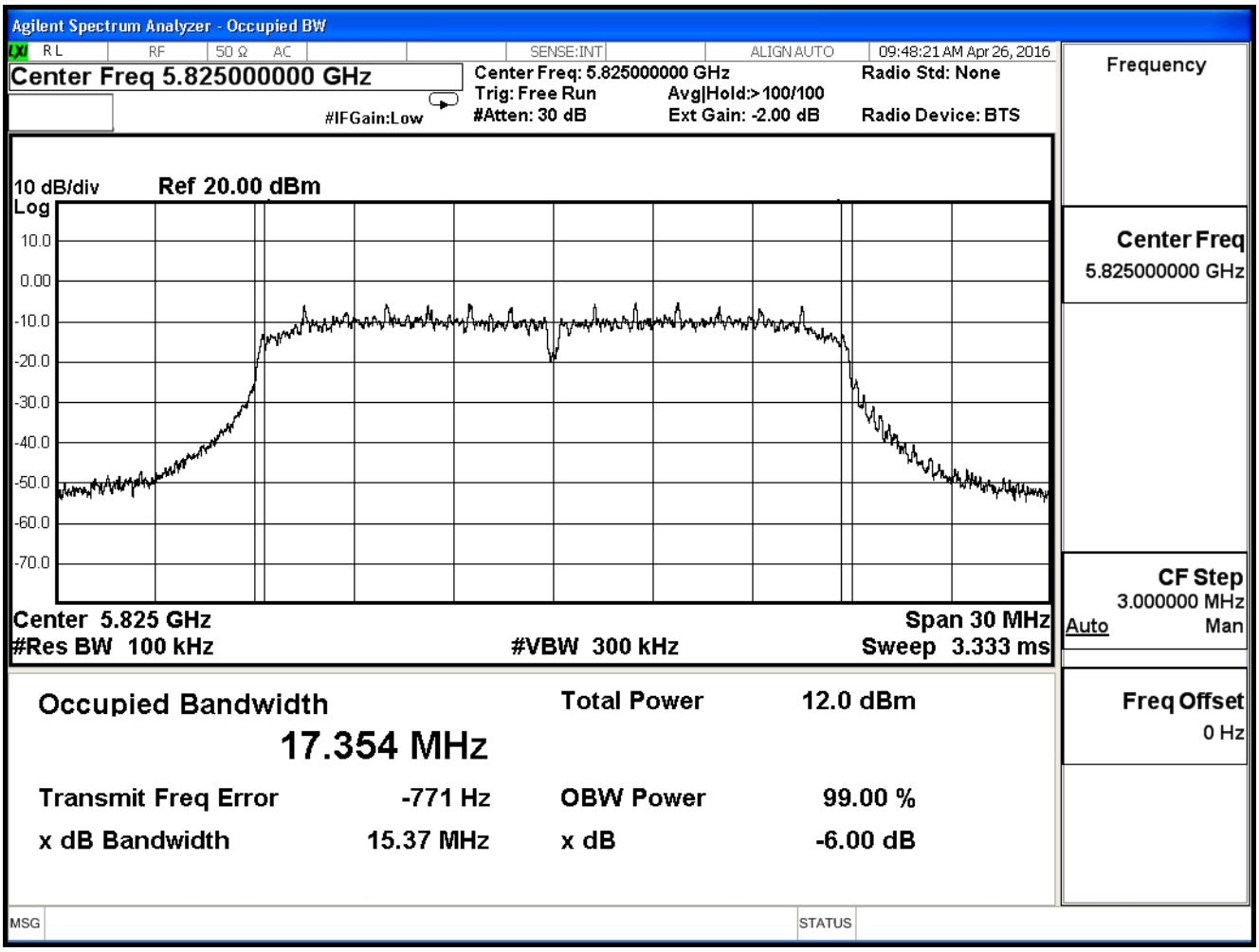
DTS Bandwidth – Channel 149



DTS Bandwidth – Channel 157



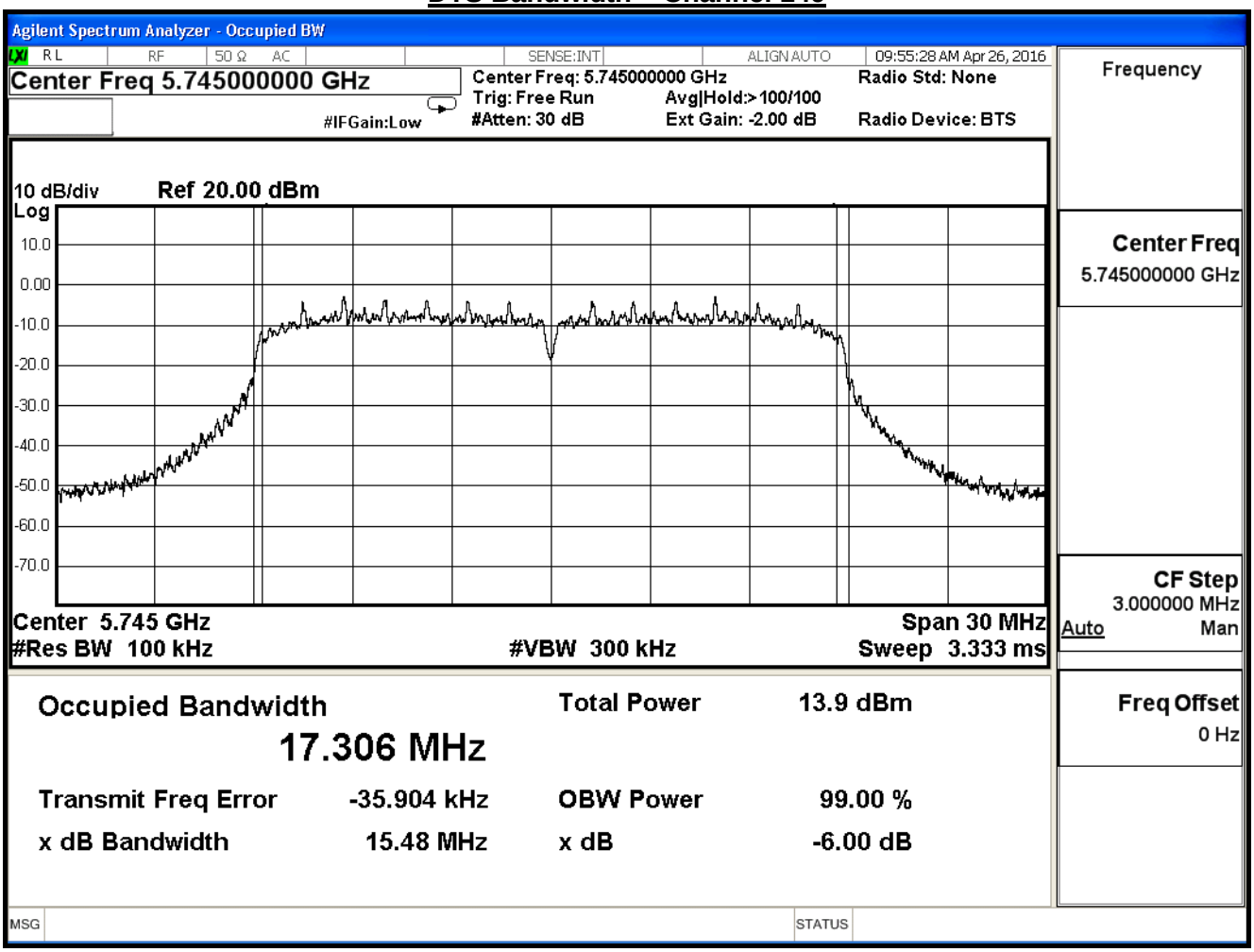
DTS Bandwidth – Channel 165



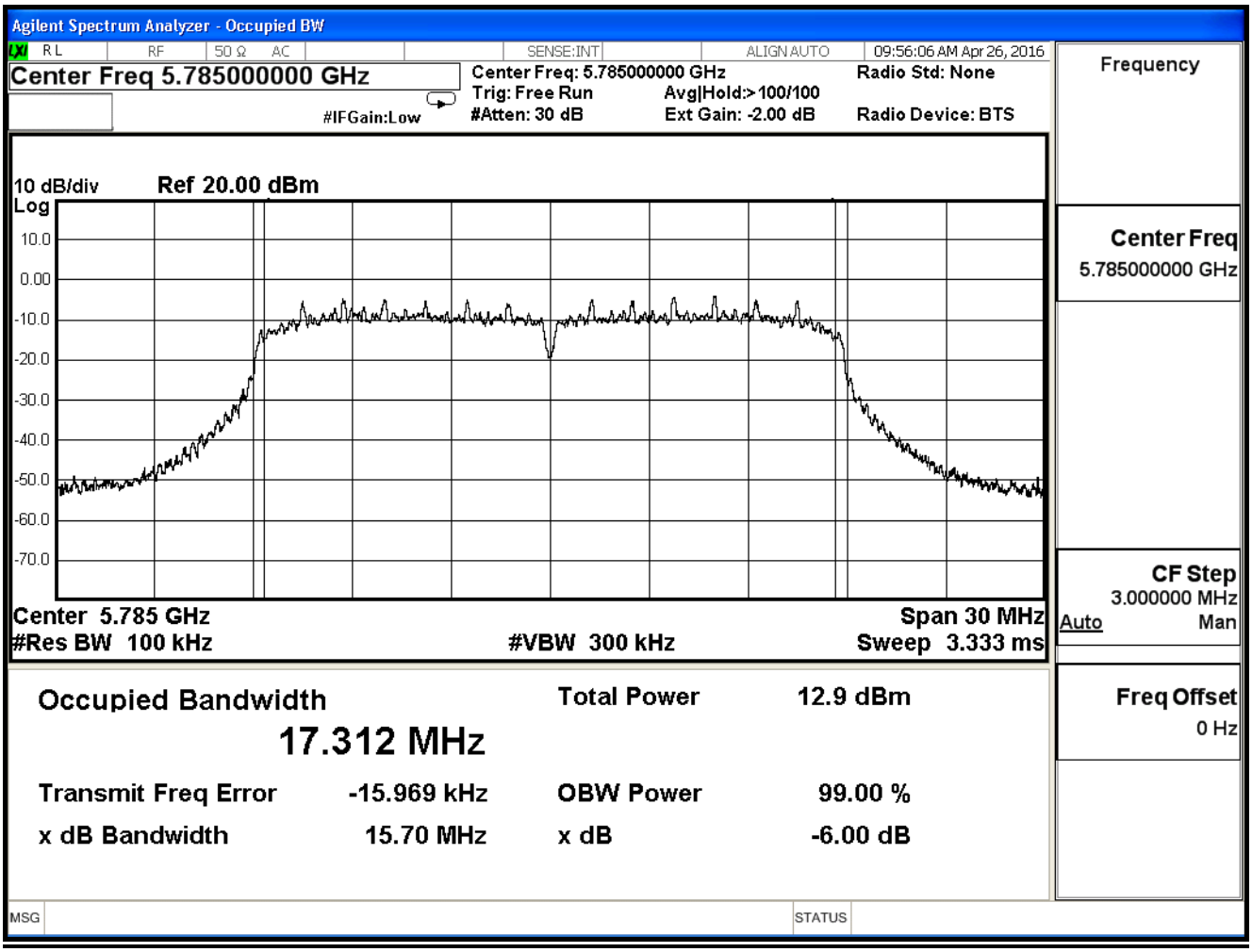
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11n_20M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	15.48	≧0.5	Pass
157	5785	15.70	≧0.5	Pass
165	5825	15.68	≧0.5	Pass

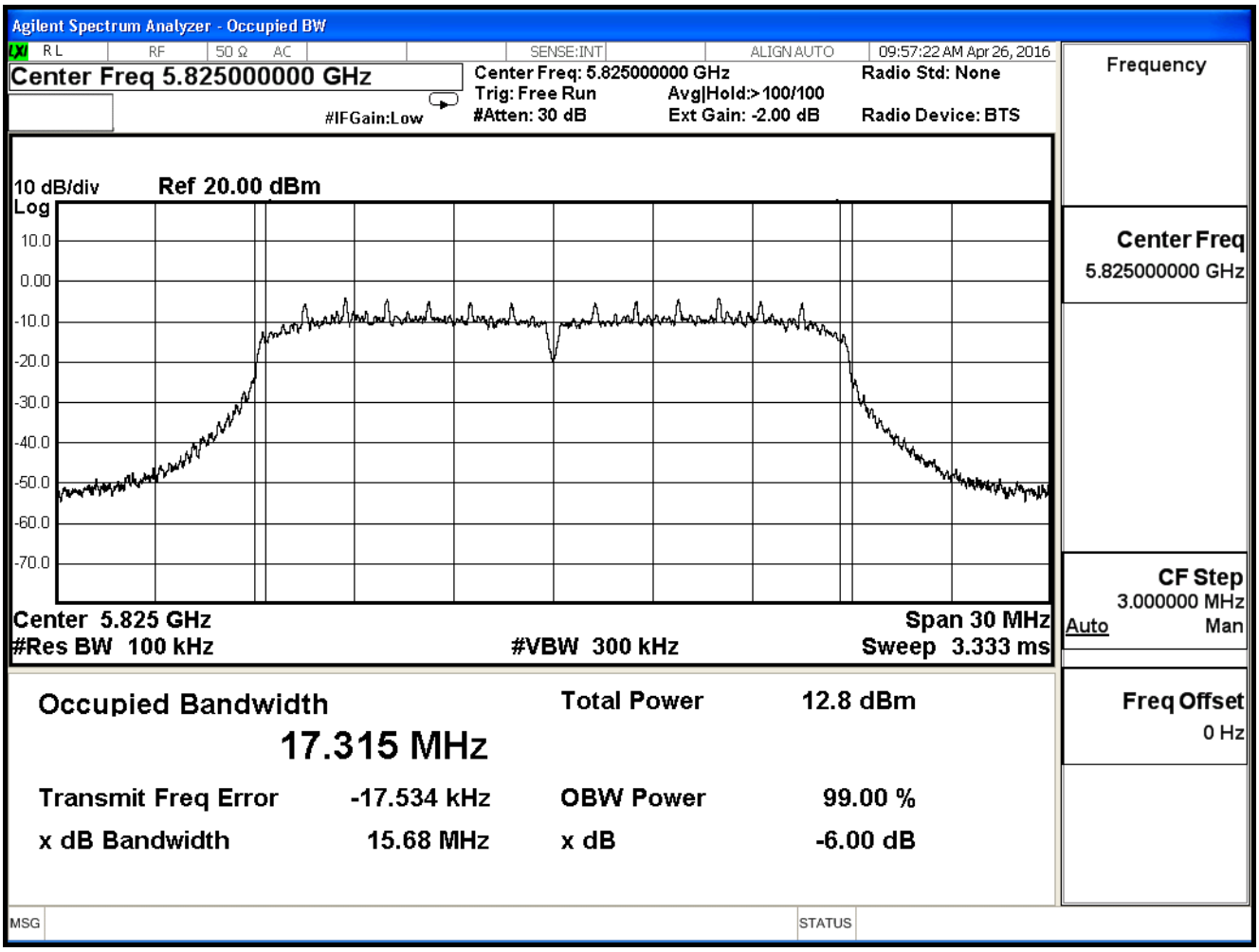
DTS Bandwidth – Channel 149



DTS Bandwidth – Channel 157



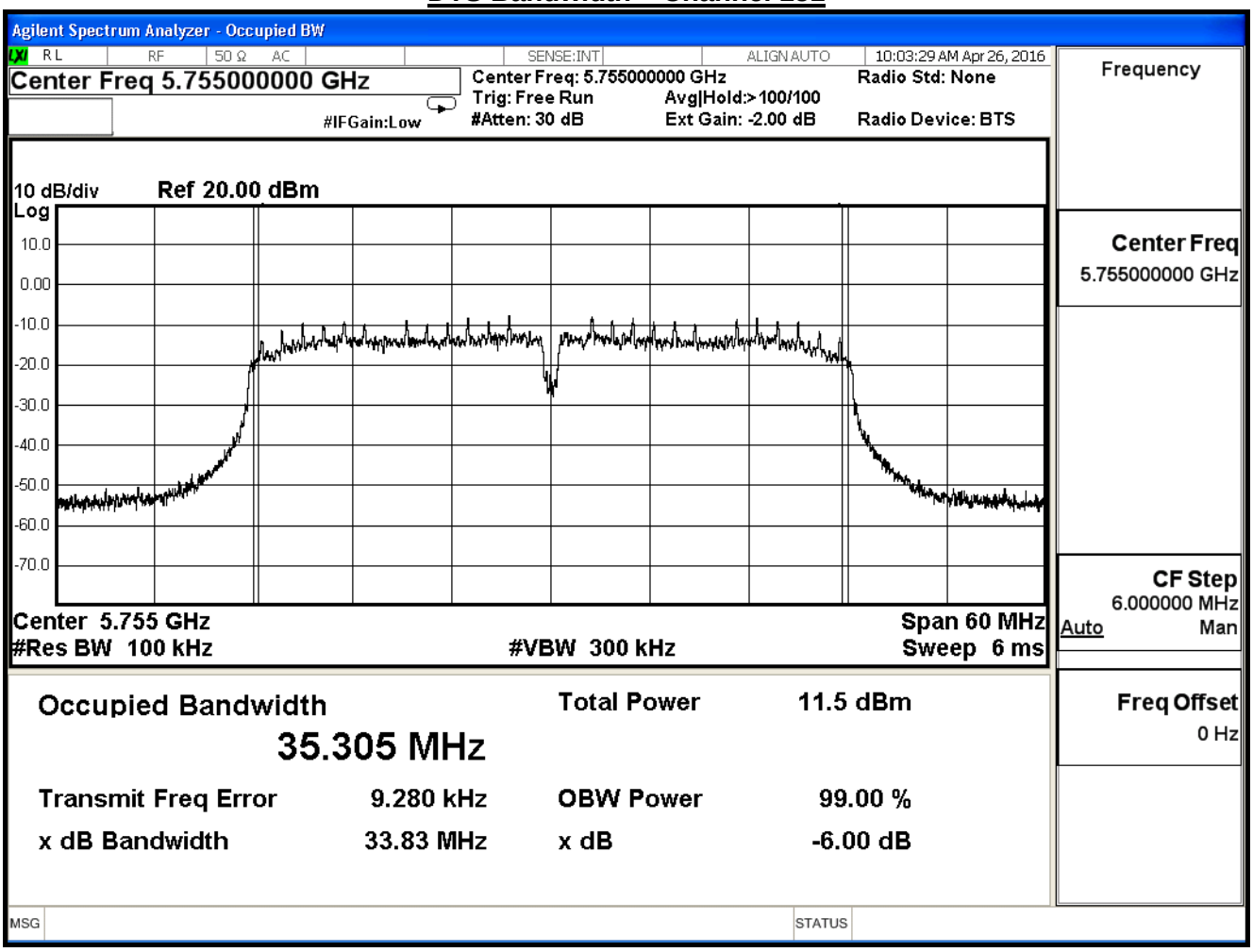
DTS Bandwidth – Channel 165



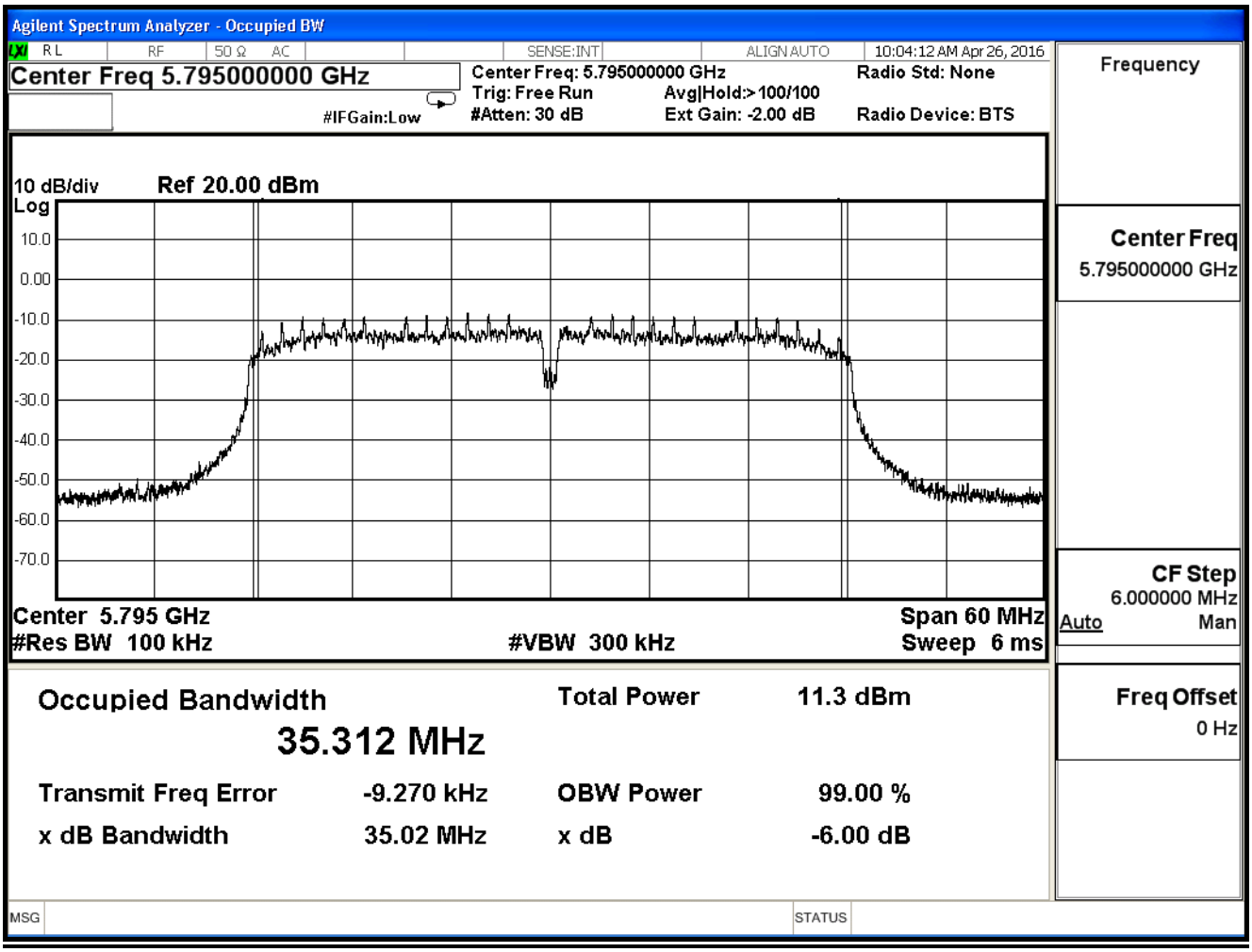
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11n_40M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	33.83	≧0.5	Pass
159	5795	35.02	≧0.5	Pass

DTS Bandwidth – Channel 151



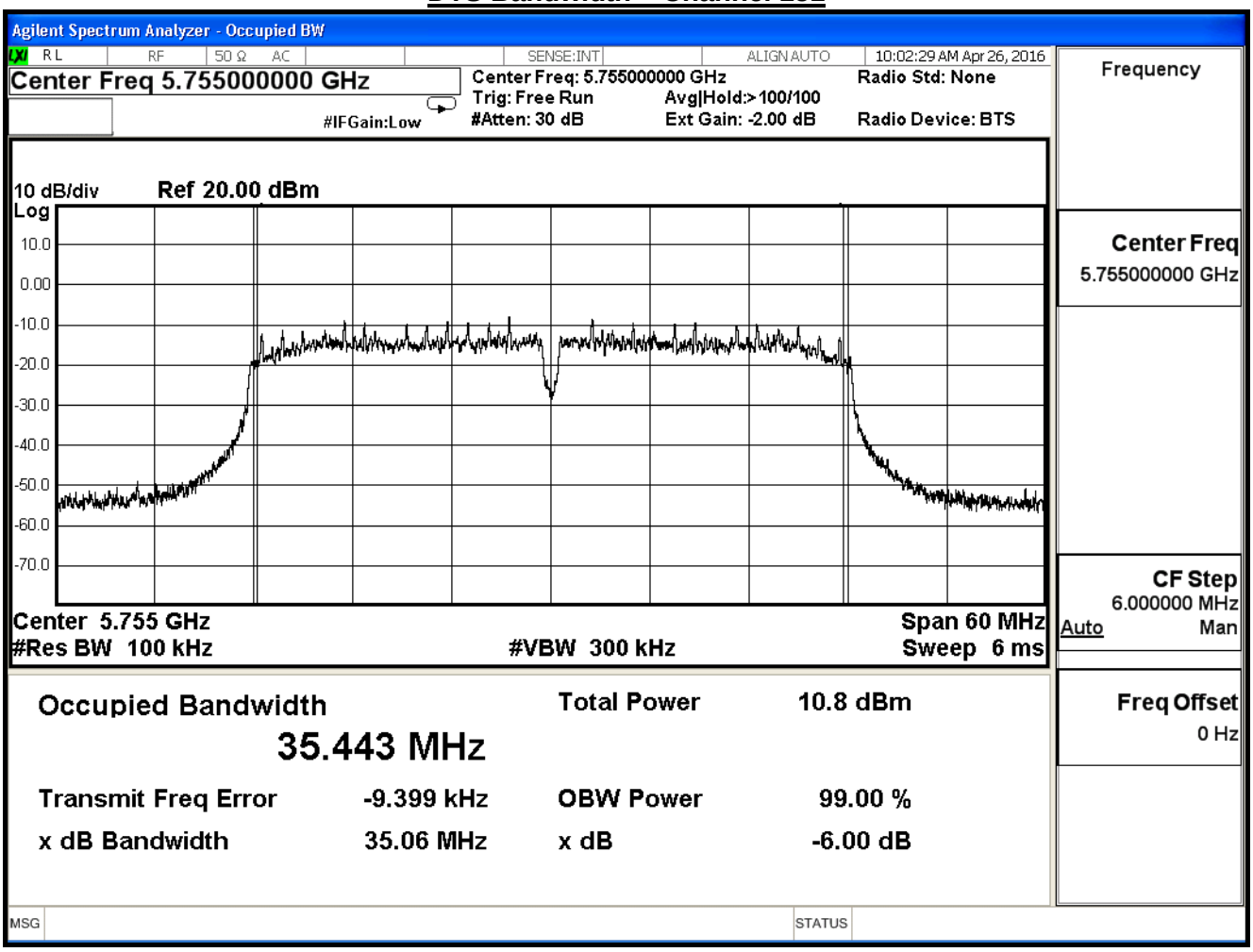
DTS Bandwidth – Channel 159



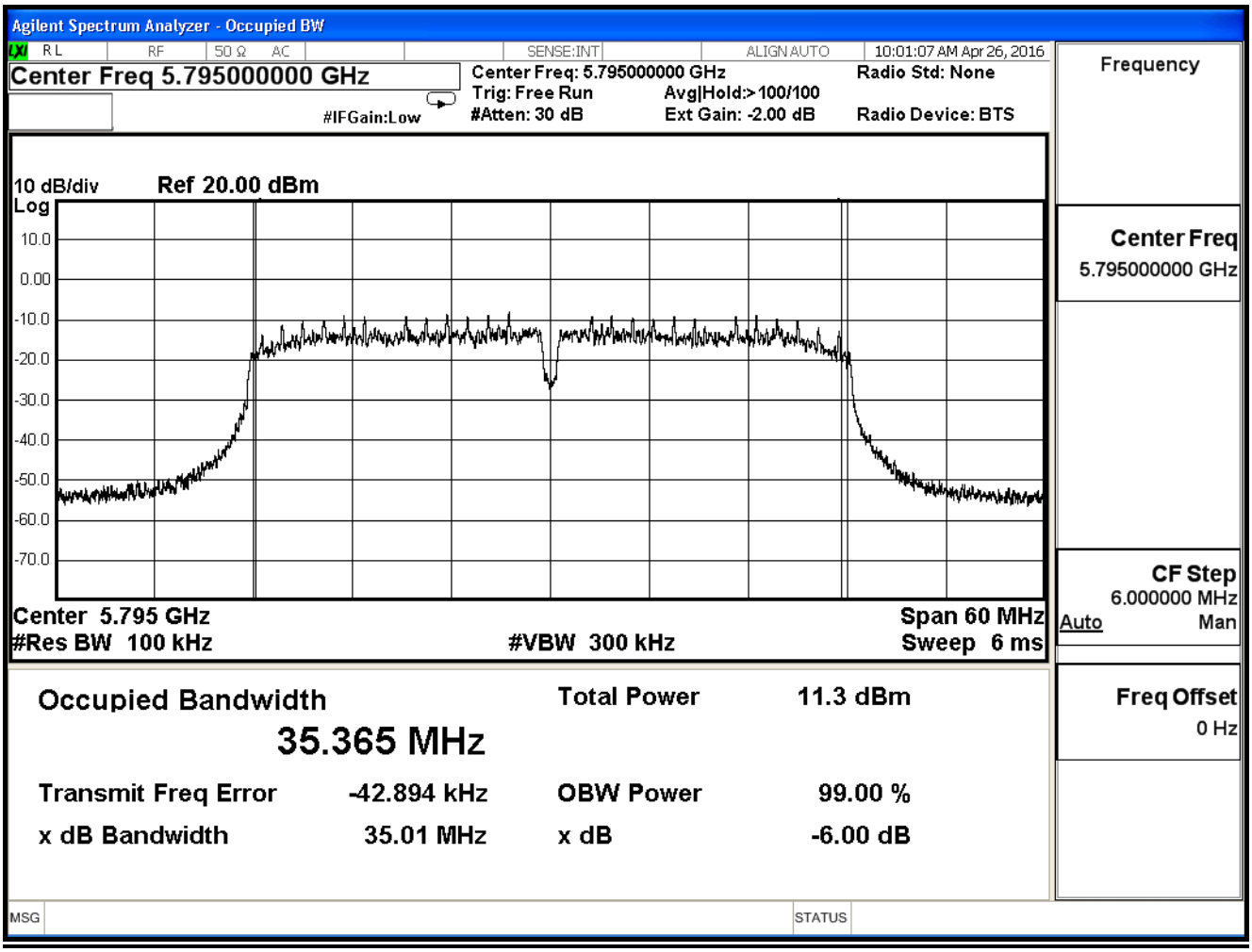
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11n_40M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.06	≧0.5	Pass
159	5795	35.01	≧0.5	Pass

DTS Bandwidth – Channel 151



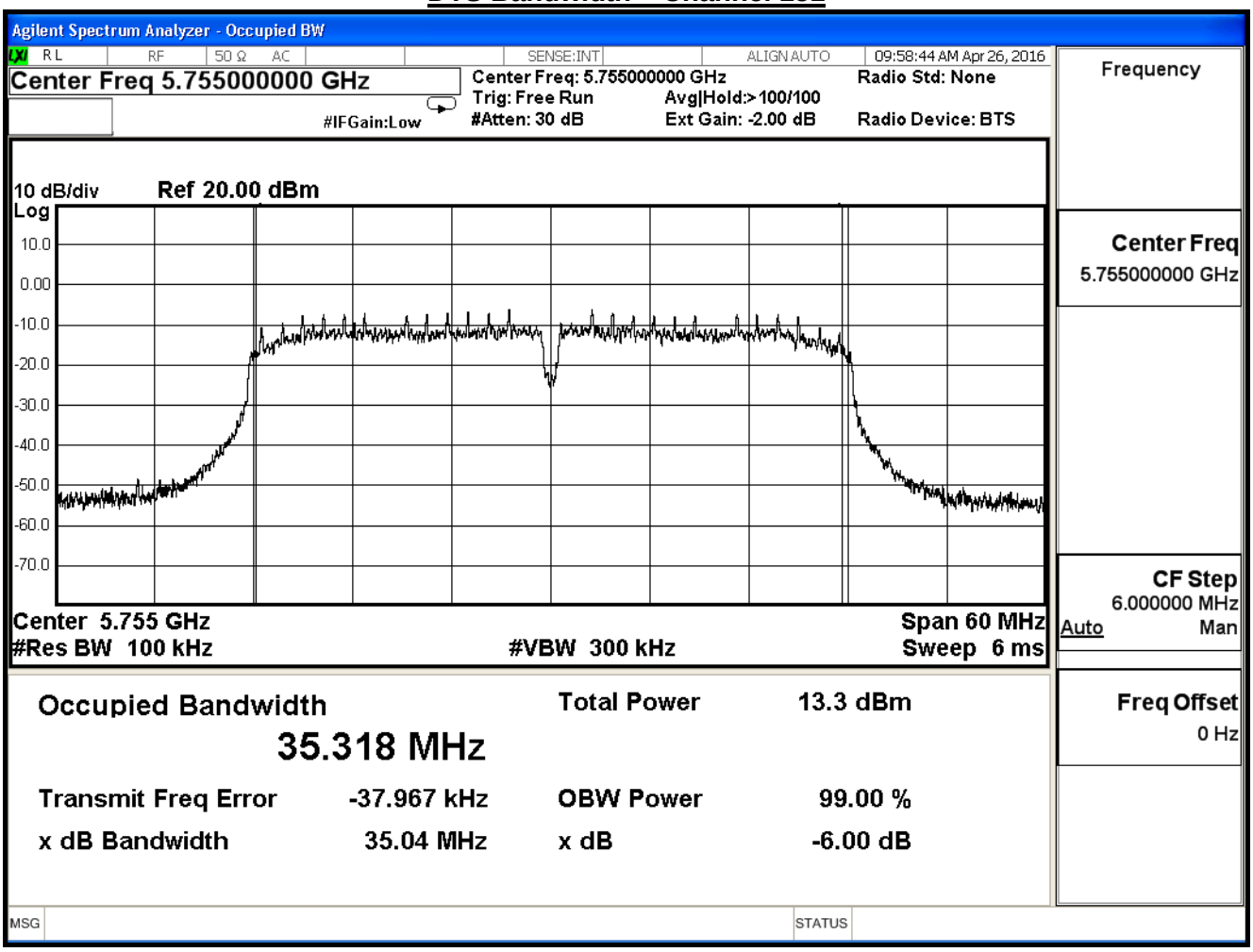
DTS Bandwidth – Channel 159



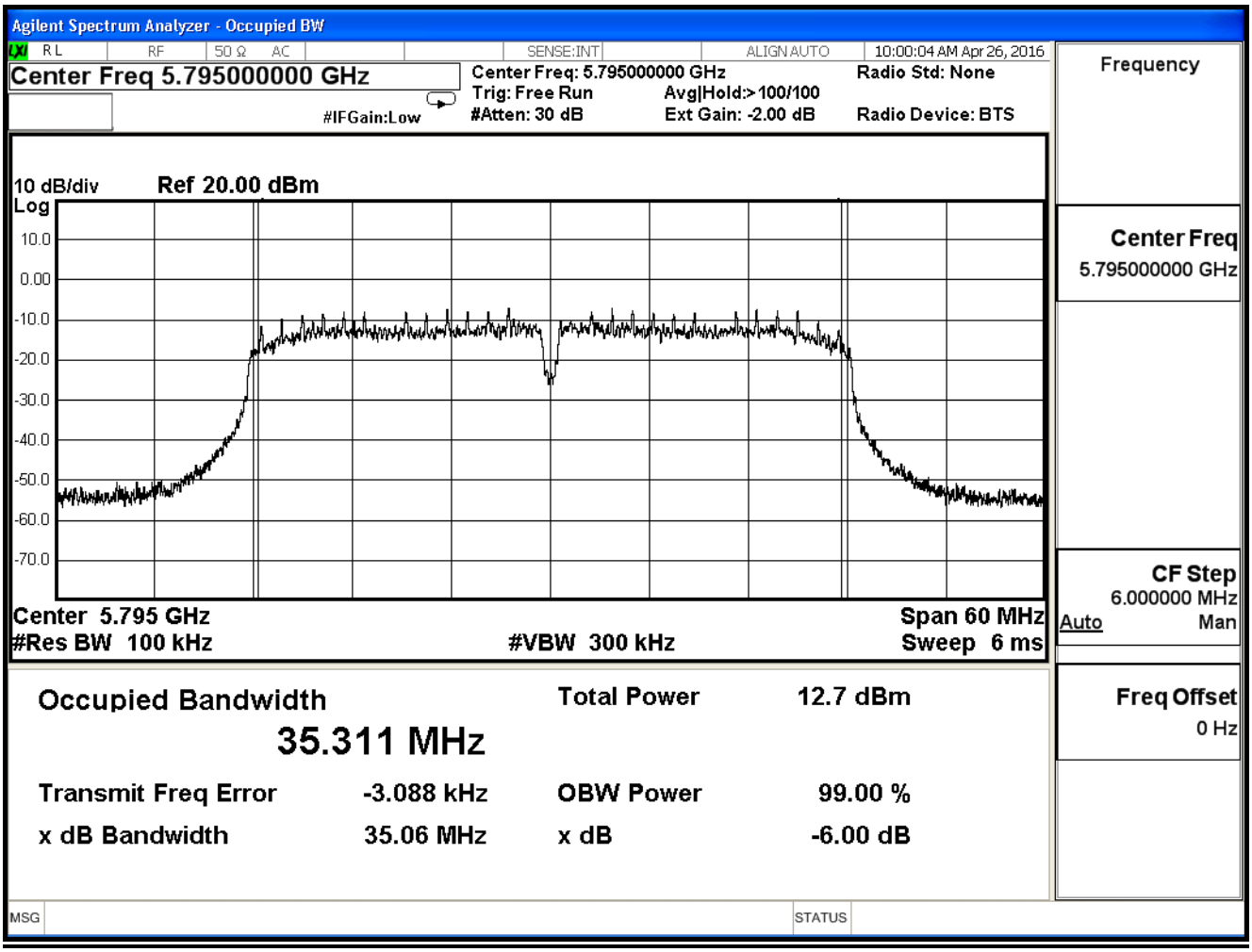
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11n_40M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	35.04	≧0.5	Pass
159	5795	35.06	≧0.5	Pass

DTS Bandwidth – Channel 151



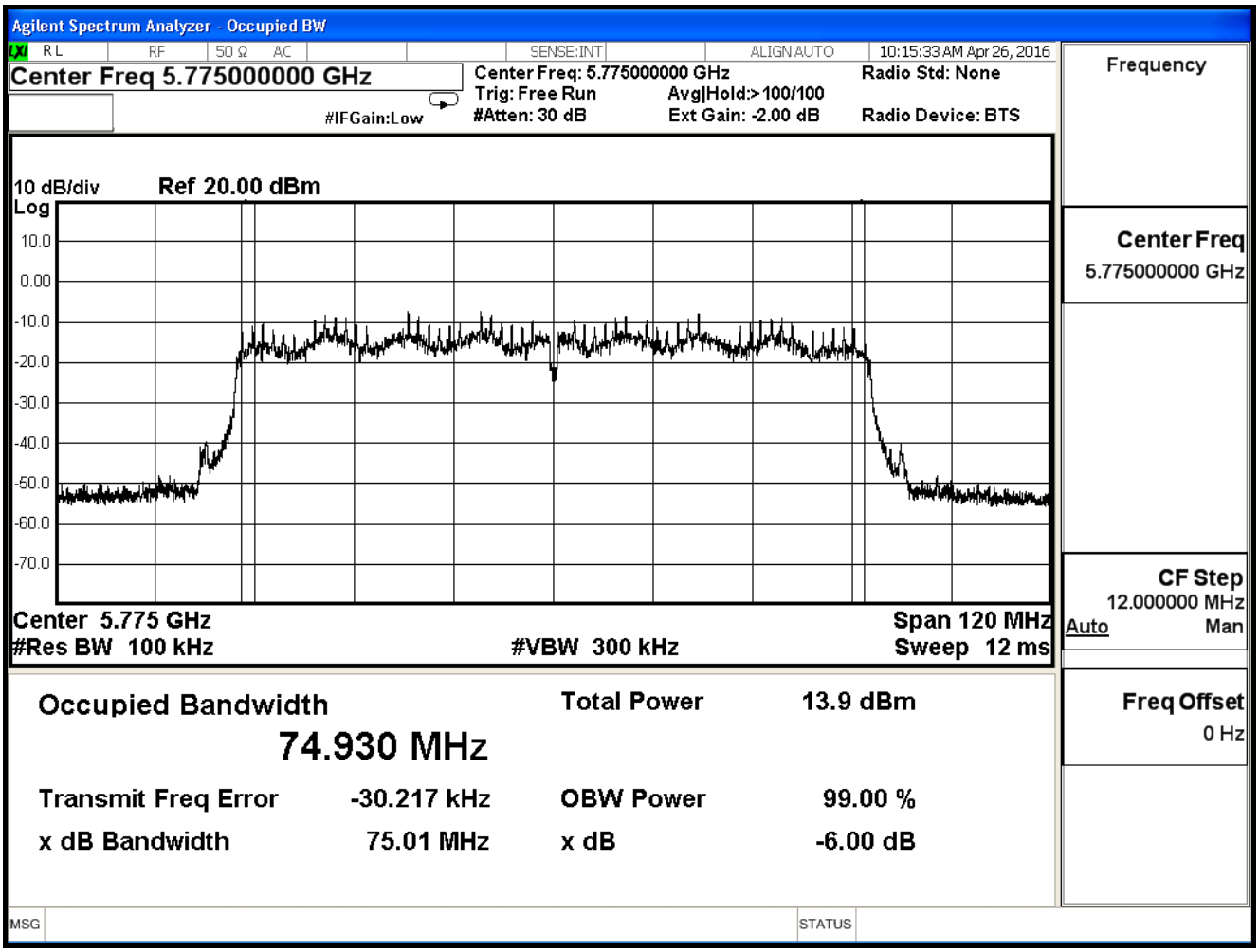
DTS Bandwidth – Channel 159



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11ac_80M(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	75.01	≧0.5	Pass

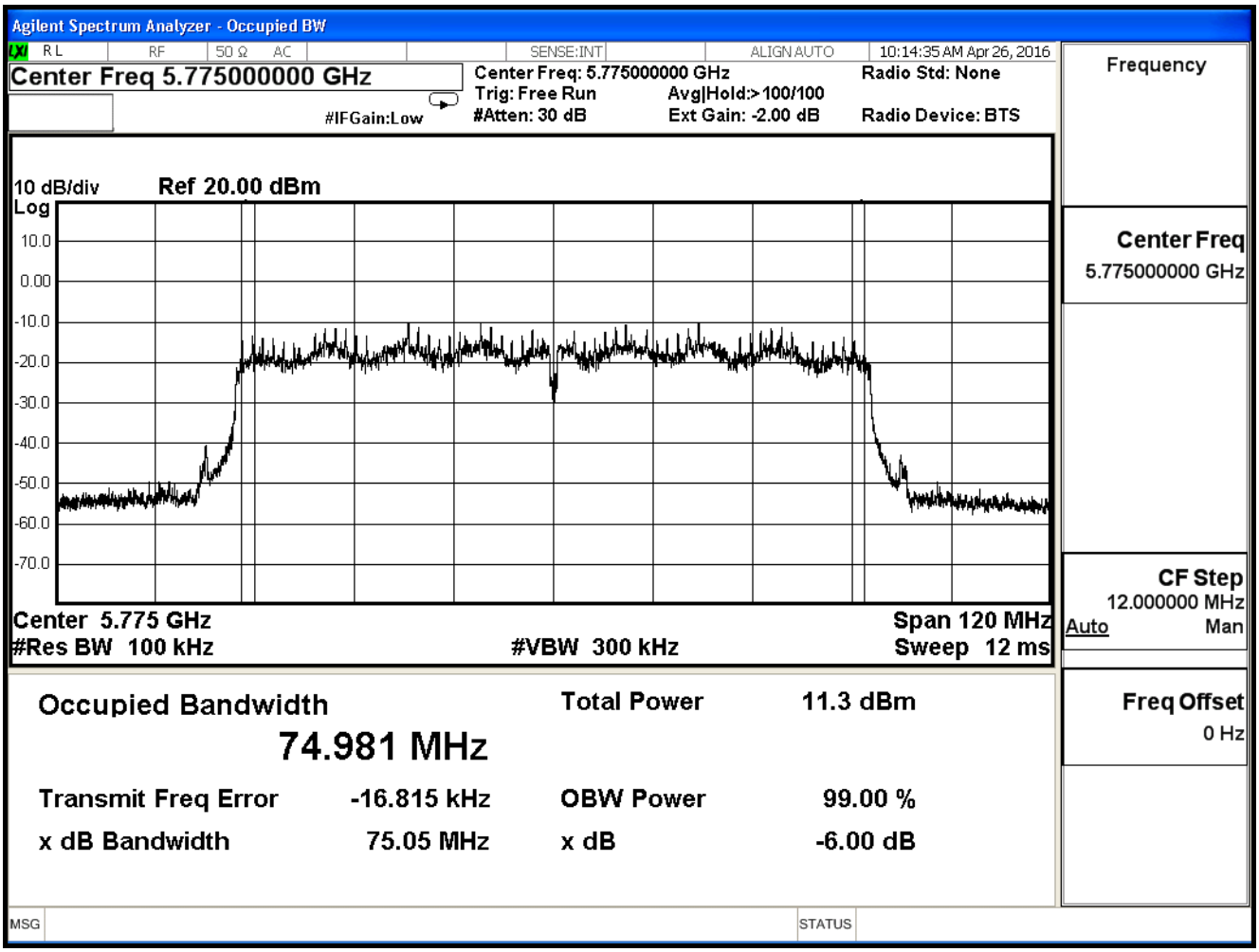
DTS Bandwidth – Channel 155



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11ac_80M(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	75.05	≧0.5	Pass

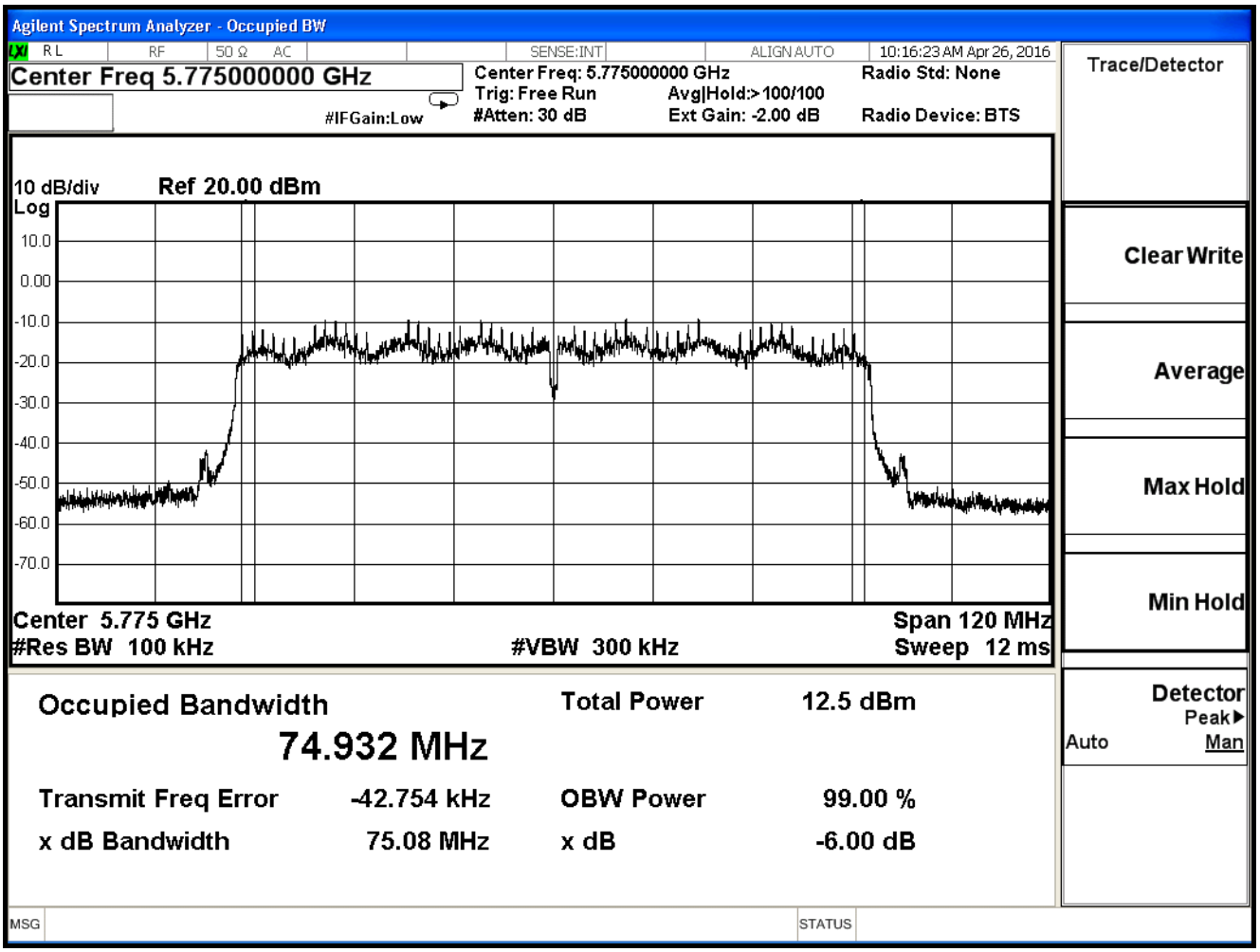
DTS Bandwidth – Channel 155



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	DTS Bandwidth		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/04/26	Test Site	SR7

802.11ac_80M(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	75.08	≧0.5	Pass

DTS Bandwidth – Channel 155



4. Peak Transmit Output

4.1. Test Equipment

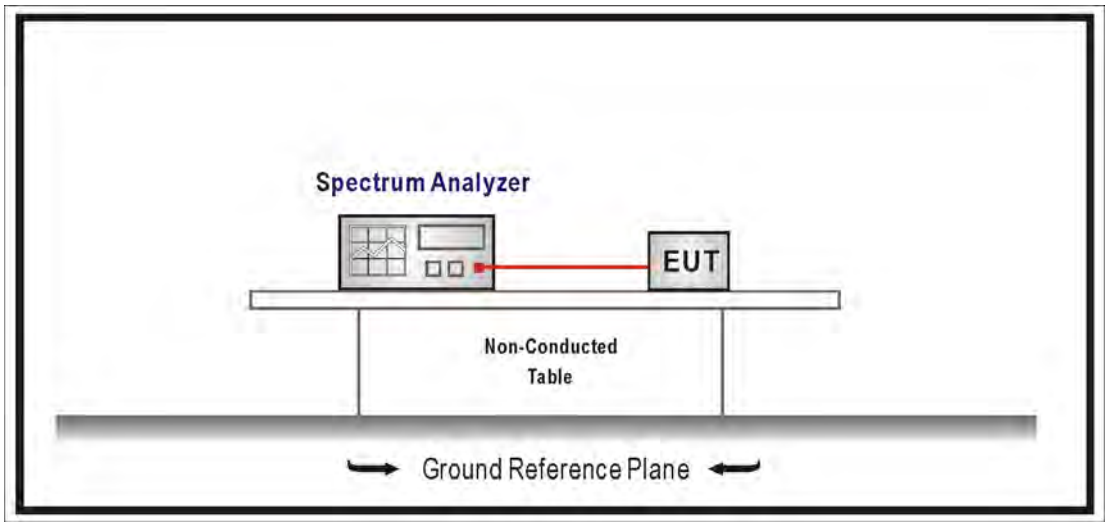
The following test equipments are used during the radiated emission tests:

Peak Transmit Output / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23

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

4.2. Test Setup



4.3. Limits

1. For the band 5.15-5.25 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10log B, where B is the 26dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
2. For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. The maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
3. For the band 5.25-5.35 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10log B, where B is the 26dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.
4. For the band 5.725-5.825 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 1W or 17 dBm + 10log B, where B is the 26dB emission bandwidth in MHz. If transmitting antenna of directional gain greater than 6 dBi are used, the peak transmit power shall be reduced by the amount in dB that directional gain of the antenna exceeds 6 dBi.

4.4. Test Procedure

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

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

4.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

4.6. Test Result

Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/12	Test Site	SR7

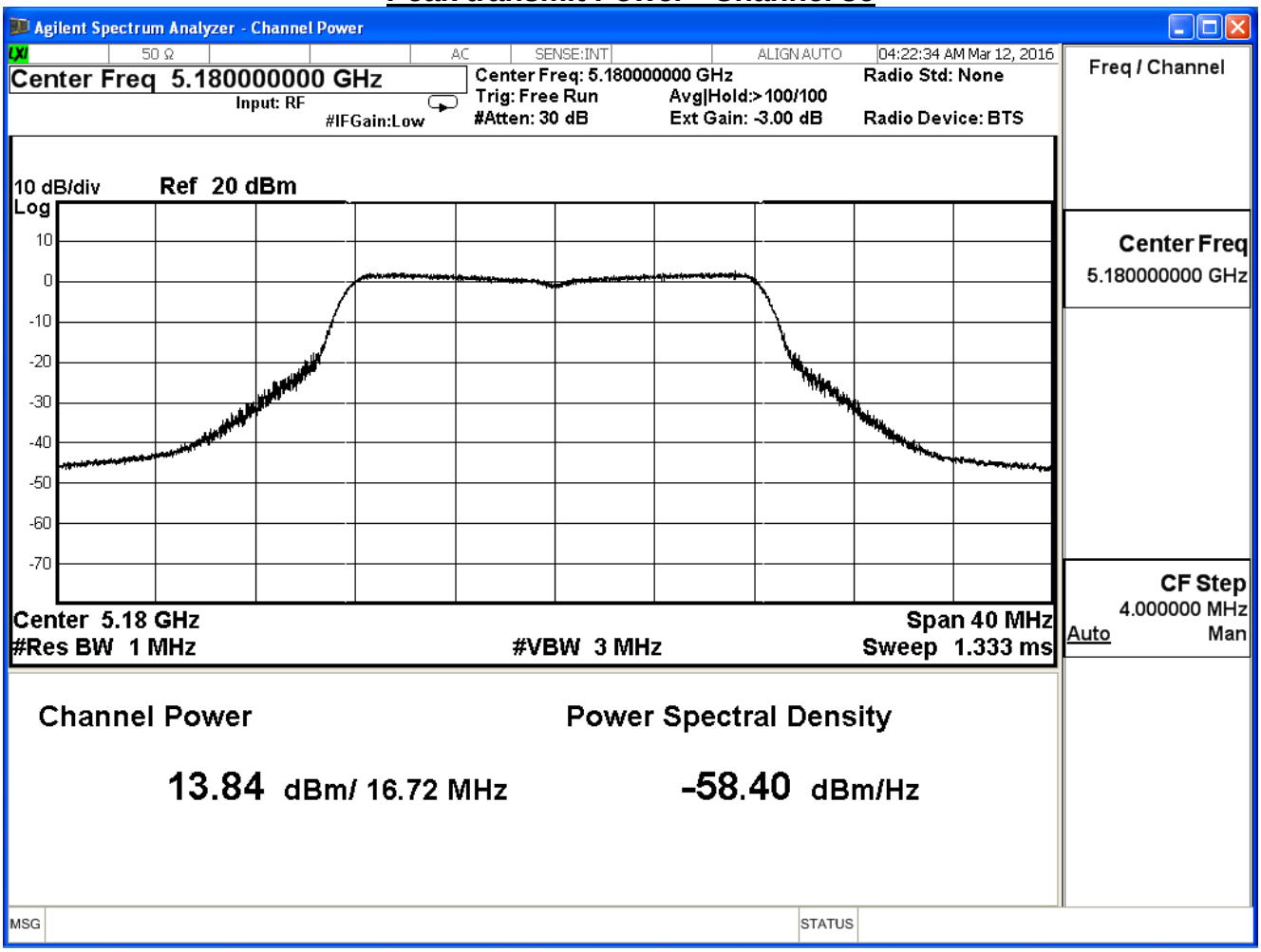
IEEE 802.11a_ANT 0

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	13.84	≤24
44	5220	13.74	≤24
48	5240	13.61	≤24

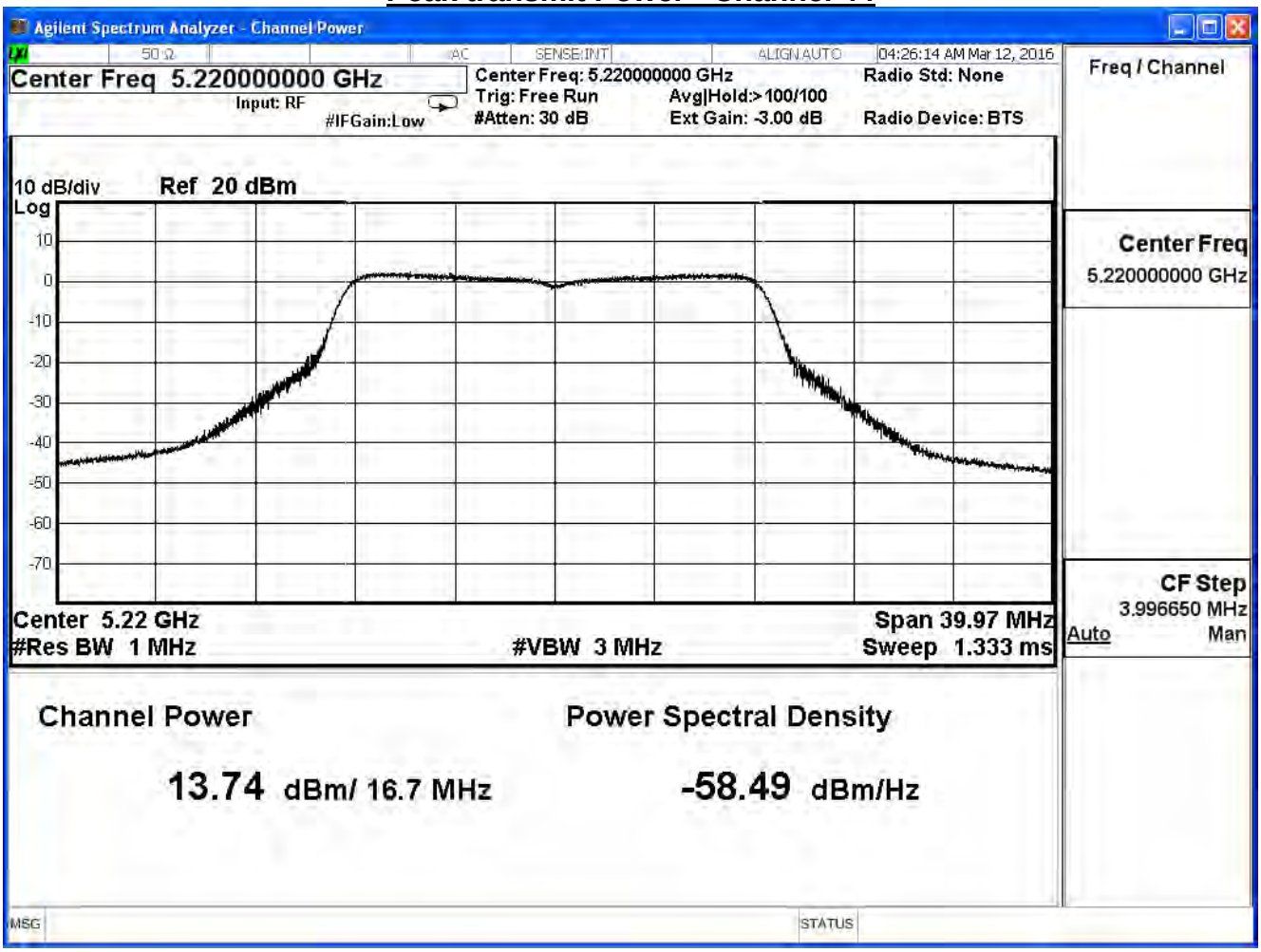
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
36	5180	13.84	--	--	--	--	--	--	≤24dBm
44	5220	13.74	13.70	13.65	13.61	13.57	13.51	13.47	
48	5240	13.61	--	--	--	--	--	--	

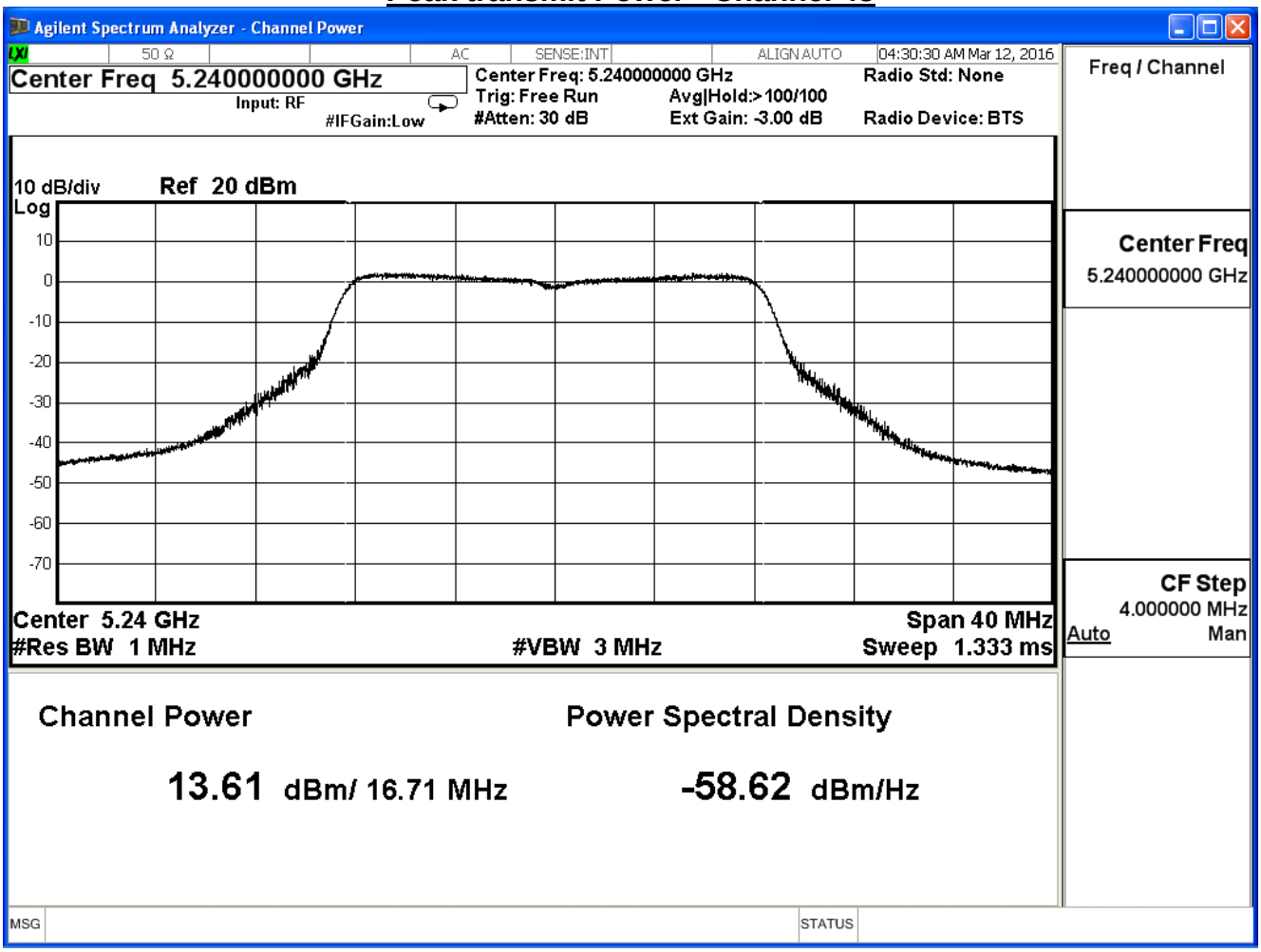
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/12	Test Site	SR7

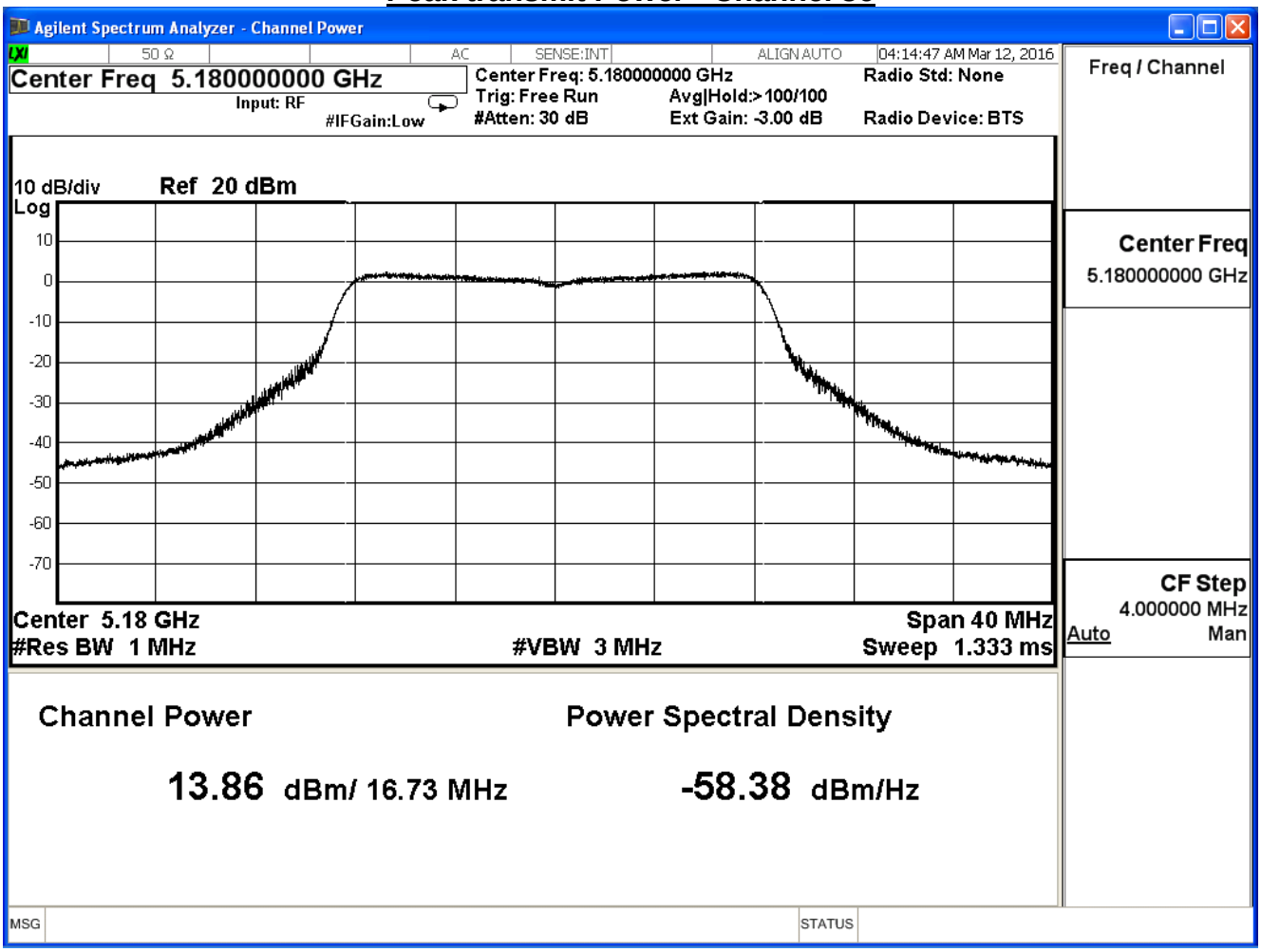
IEEE 802.11a_ANT 1

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	13.86	≤24
44	5220	13.93	≤24
48	5240	13.91	≤24

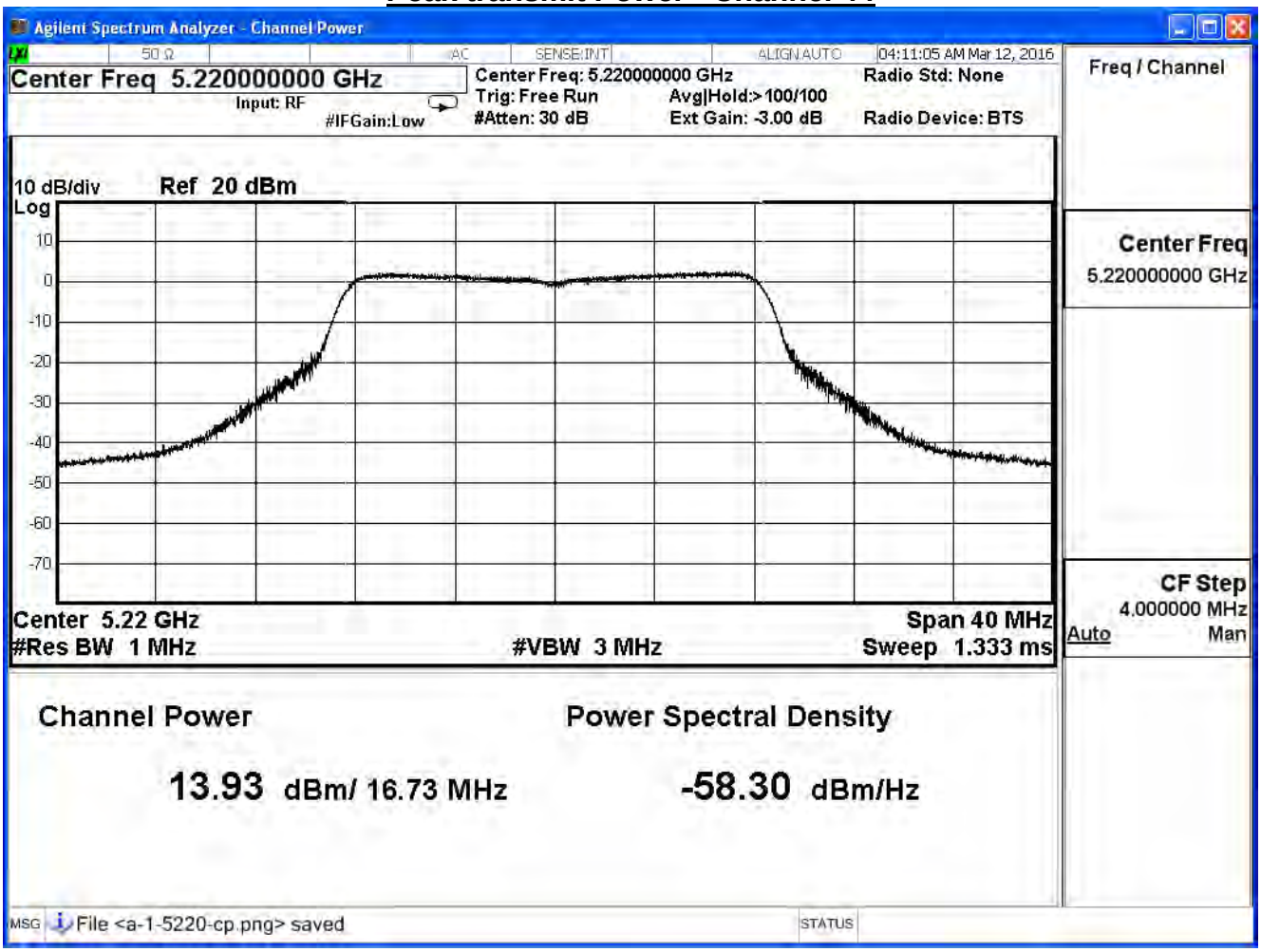
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
36	5180	13.86	--	--	--	--	--	--	≤24dBm
44	5220	13.93	13.88	13.81	13.77	13.74	13.68	13.62	
48	5240	13.91	--	--	--	--	--	--	

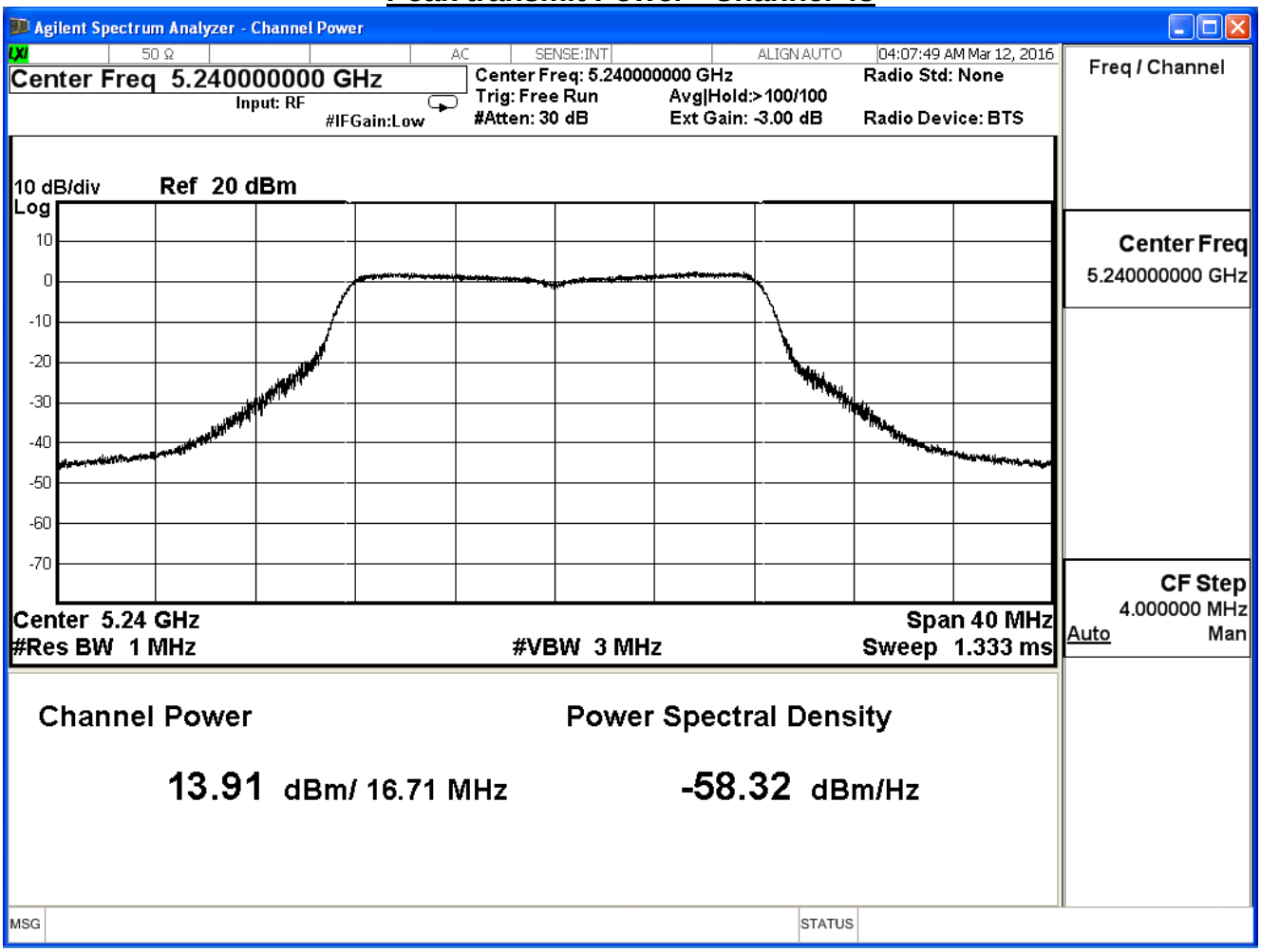
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/12	Test Site	SR7

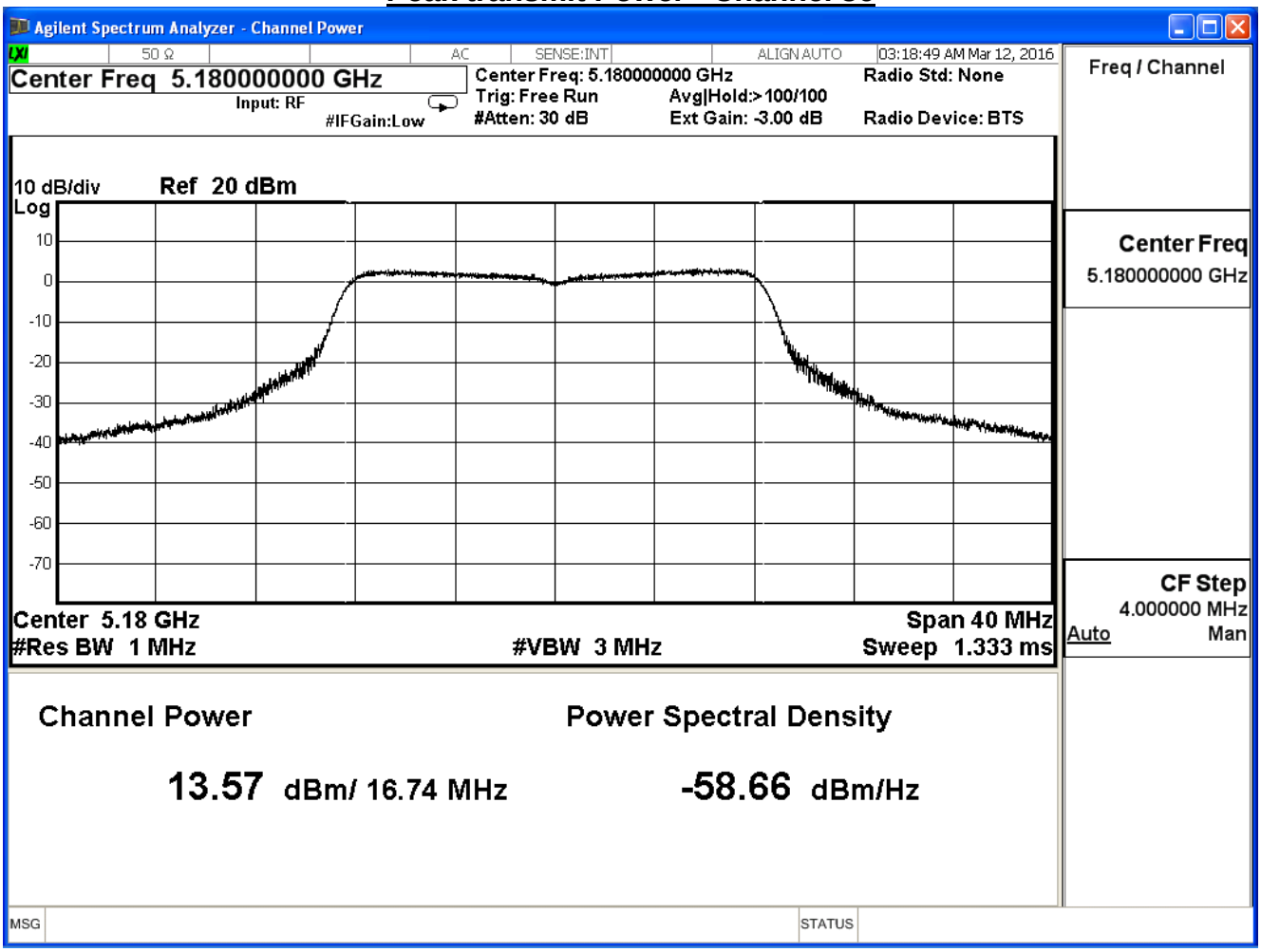
IEEE 802.11a_ANT 2

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	13.57	≤24
44	5220	13.19	≤24
48	5240	13.07	≤24

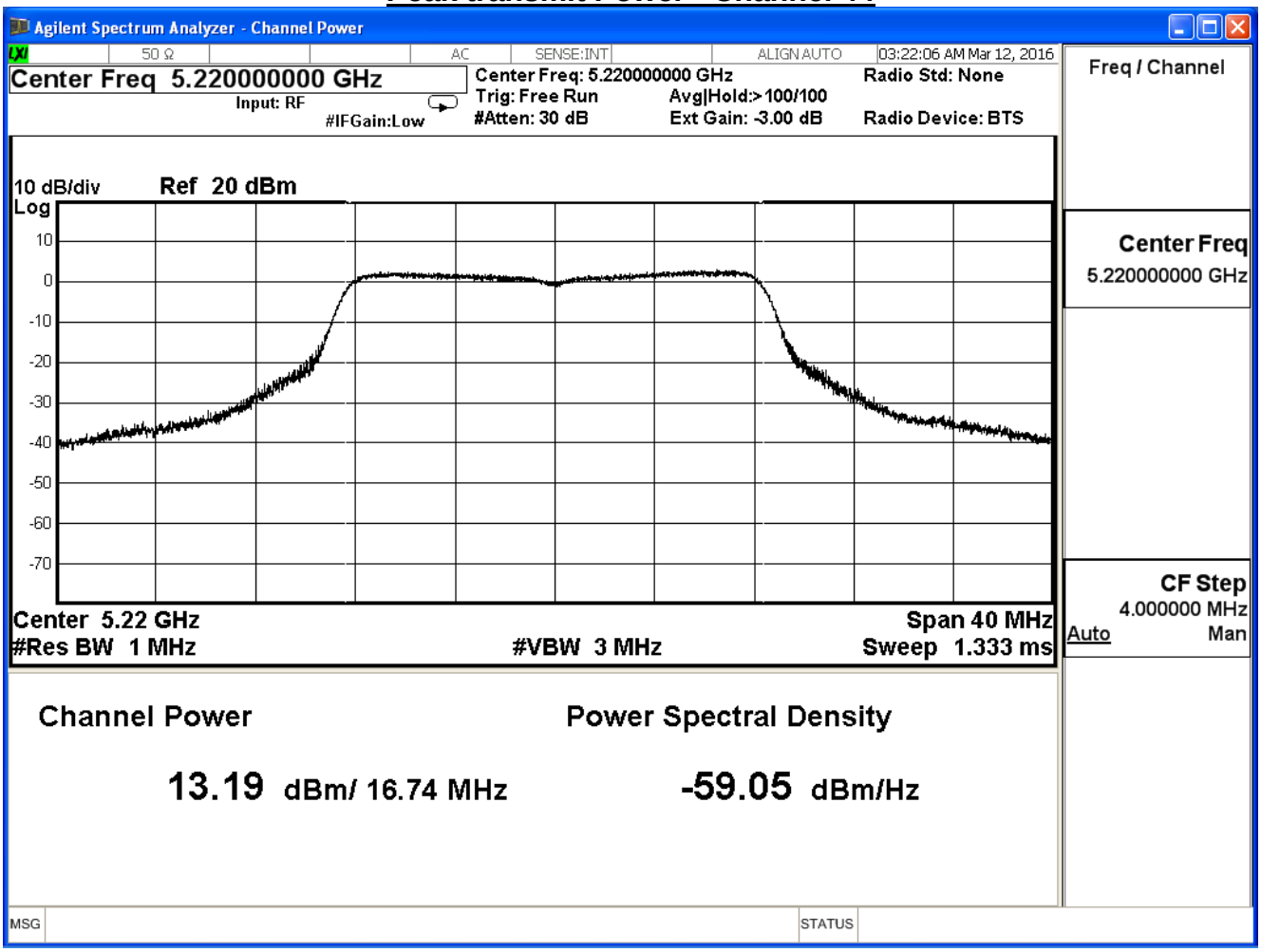
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
36	5180	13.57	--	--	--	--	--	--	≤24dBm
44	5220	13.19	13.15	13.11	13.04	13.00	12.98	12.92	
48	5240	13.07	--	--	--	--	--	--	

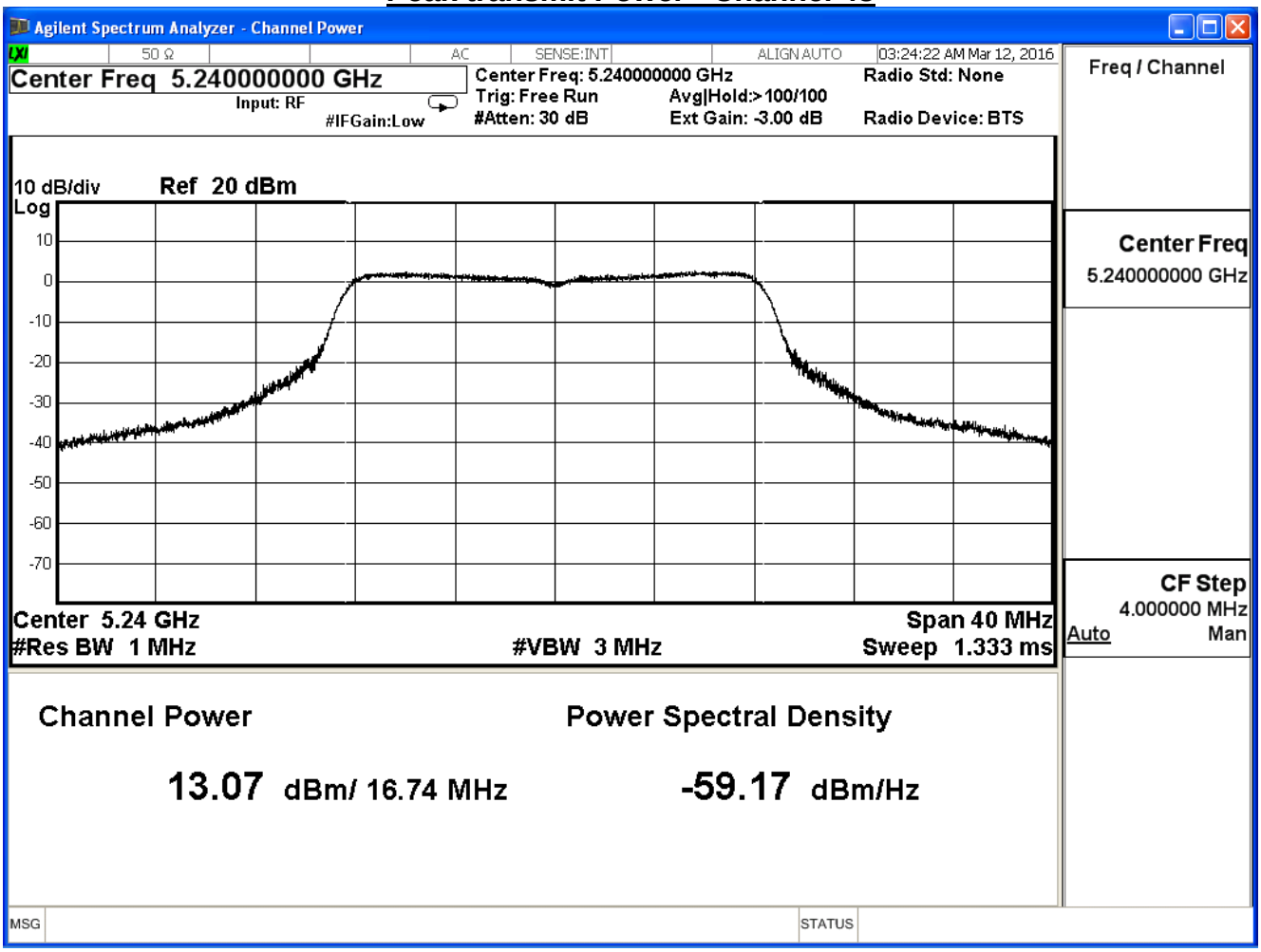
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

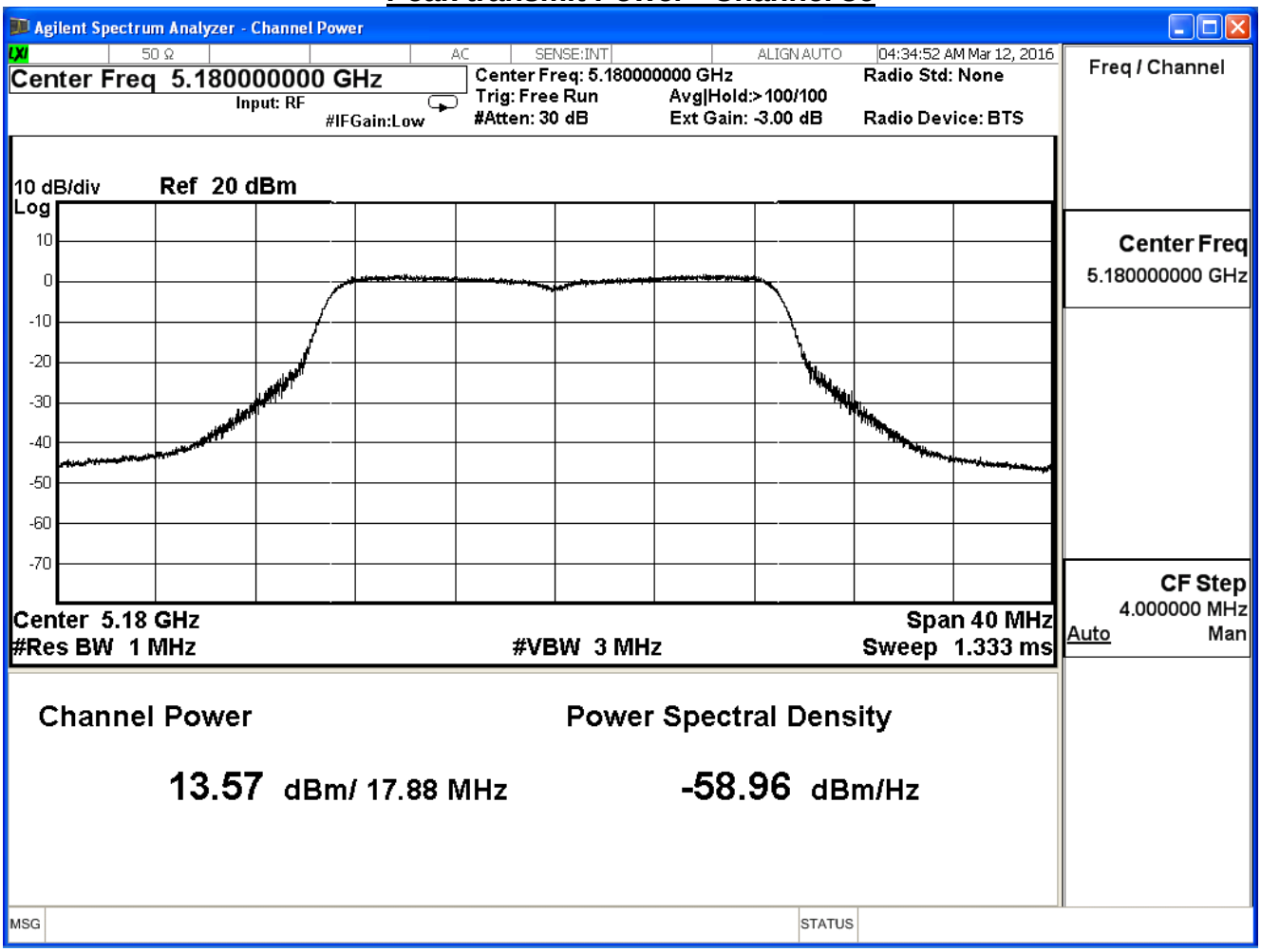
IEEE 802.11n(20MHz)_ANT 0

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	13.57	≤24
44	5220	13.43	≤24
48	5240	13.39	≤24

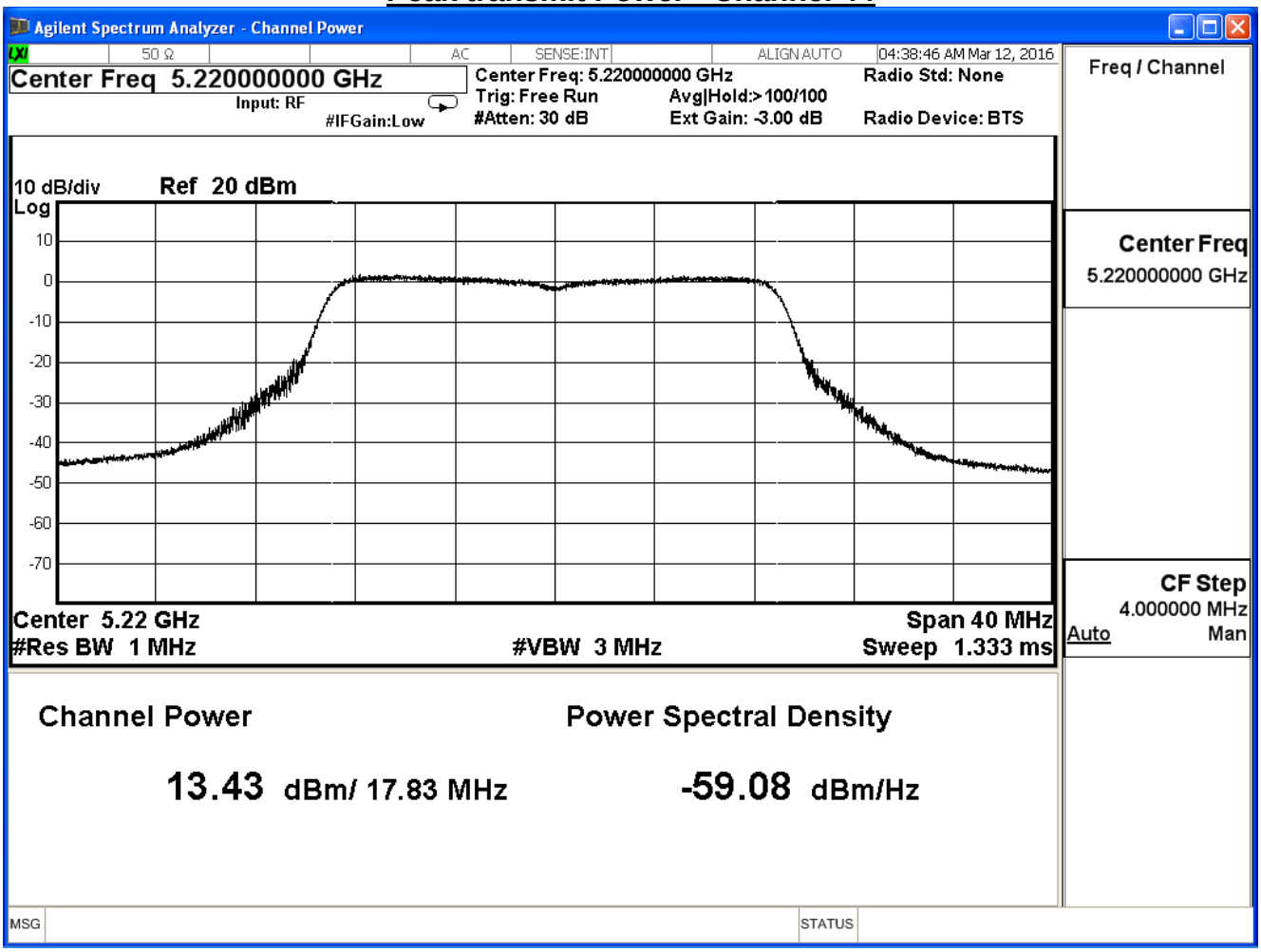
The worst emission of data rate is 19.5 Mbps.

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
36	5180	13.57	--	--	--	--	--	--	--	≤24dBm
44	5220	13.43	13.32	13.12	13.02	12.78	12.54	12.24	12.00	
48	5240	13.39	--	--	--	--	--	--	--	

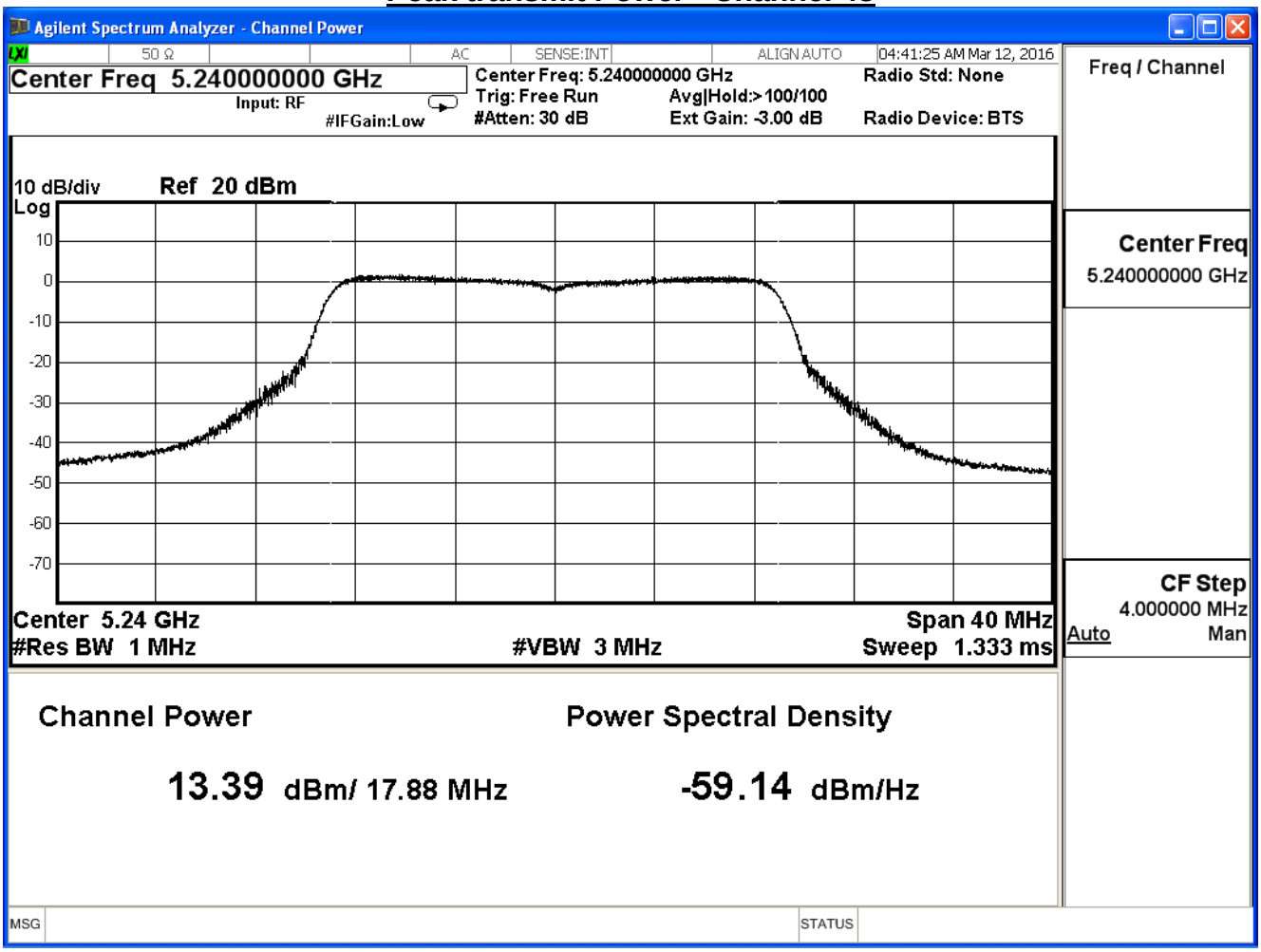
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

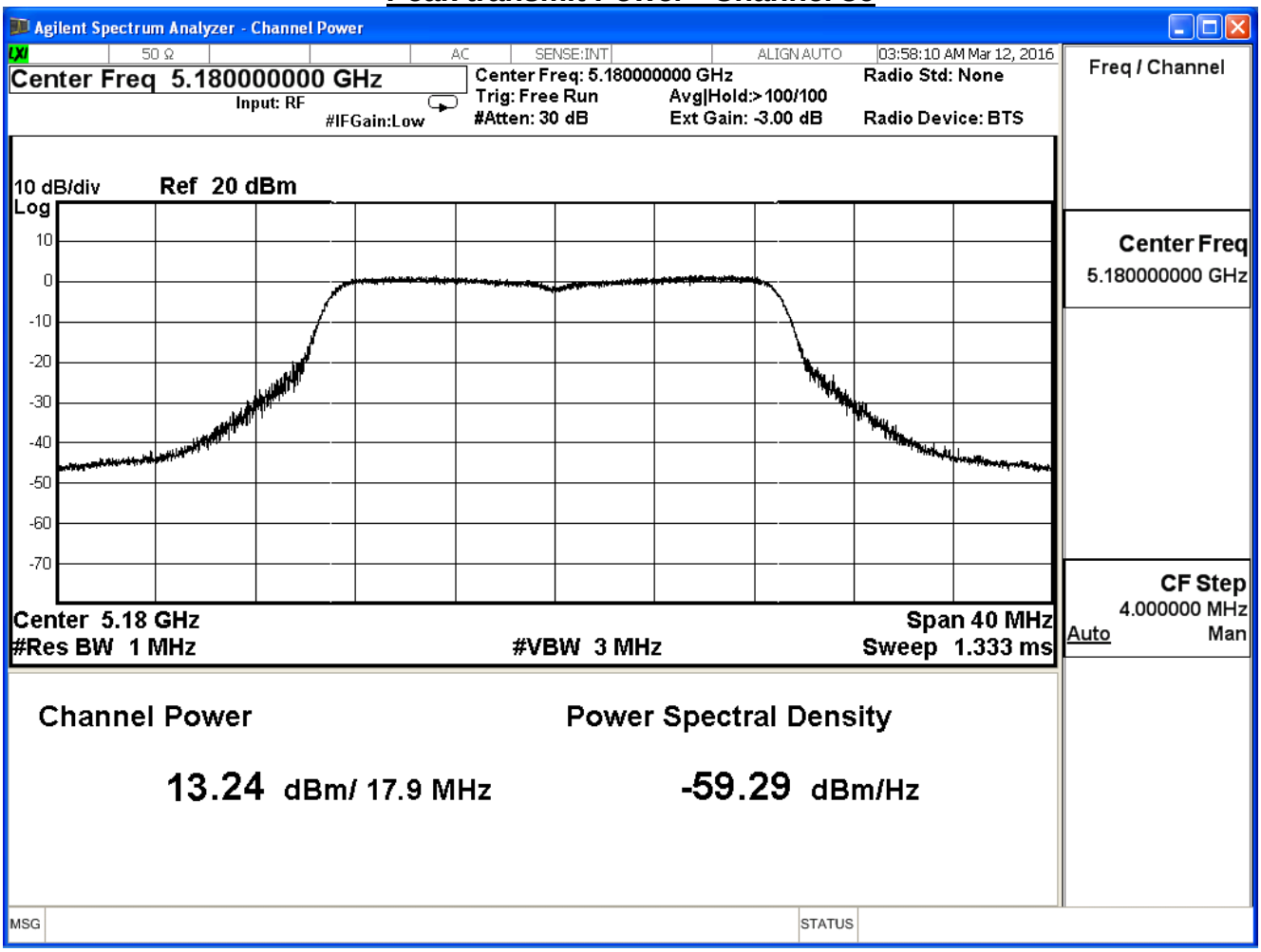
IEEE 802.11n(20MHz)_ANT 1

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	13.24	≤24
44	5220	13.17	≤24
48	5240	13.35	≤24

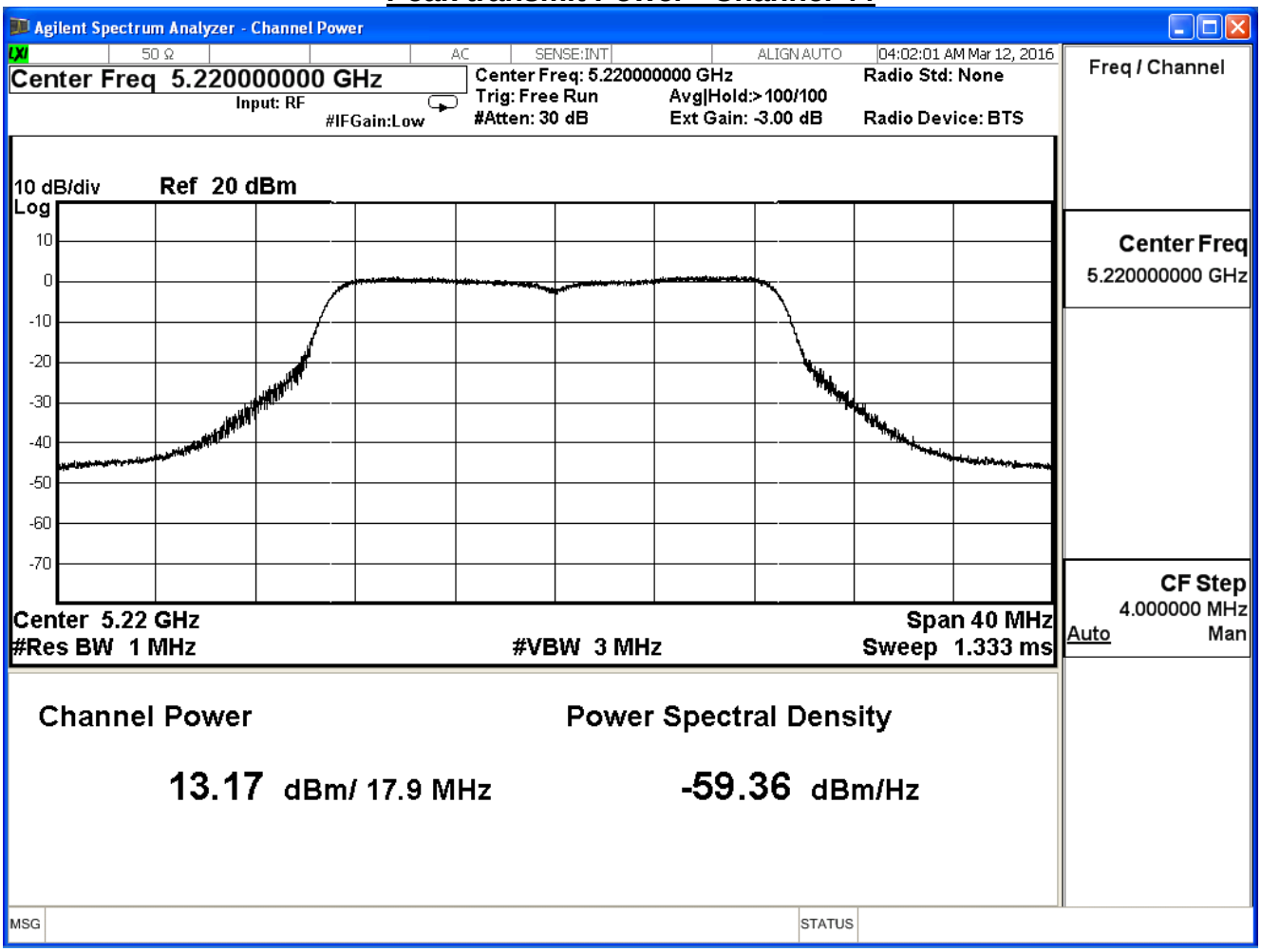
The worst emission of data rate is 16 Mbps.

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
36	5180	13.24	--	--	--	--	--	--	--	≤24dBm
44	5220	13.17	13.07	12.95	12.75	12.65	12.52	12.40	12.16	
48	5240	13.35	--	--	--	--	--	--	--	

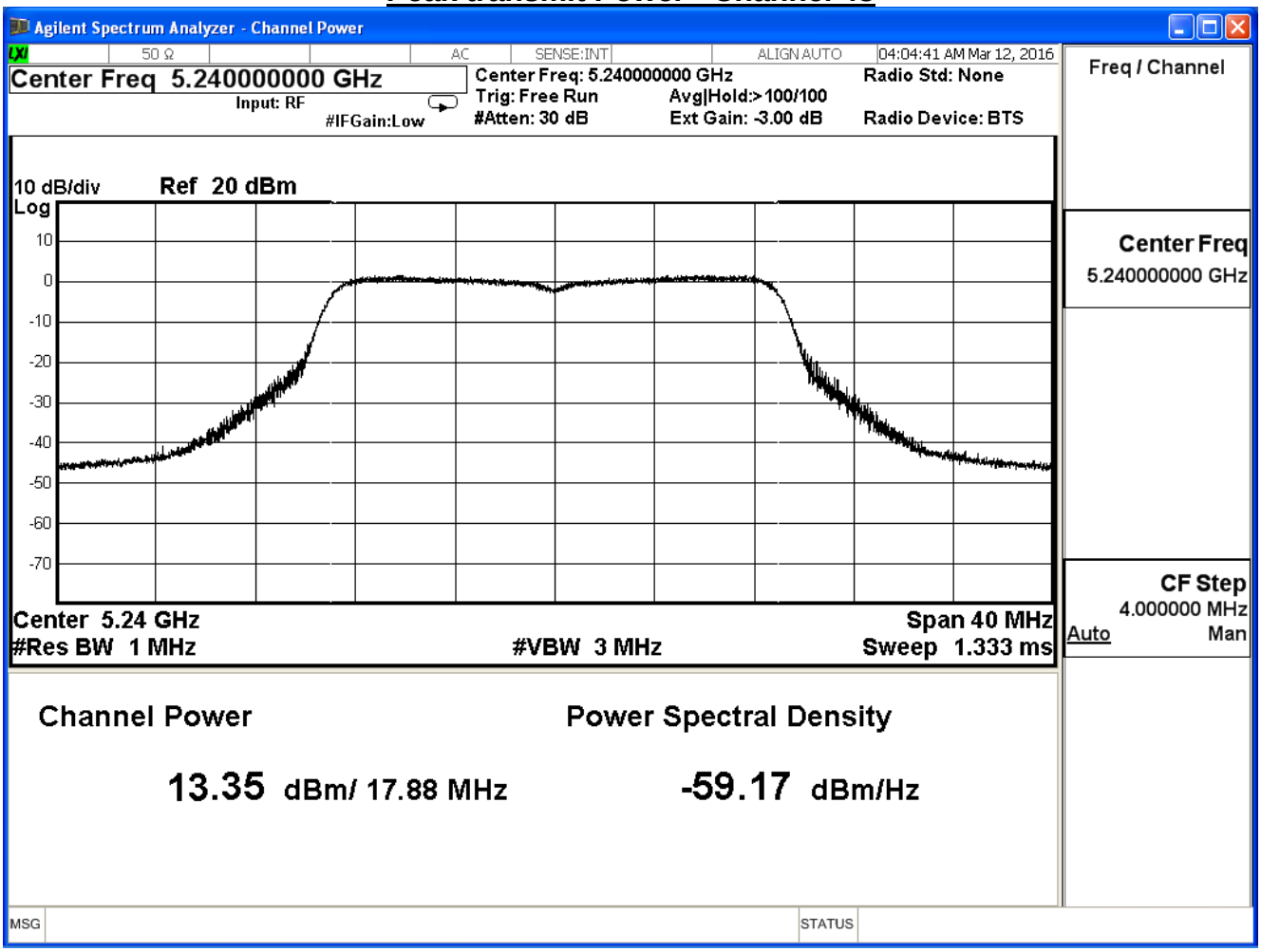
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

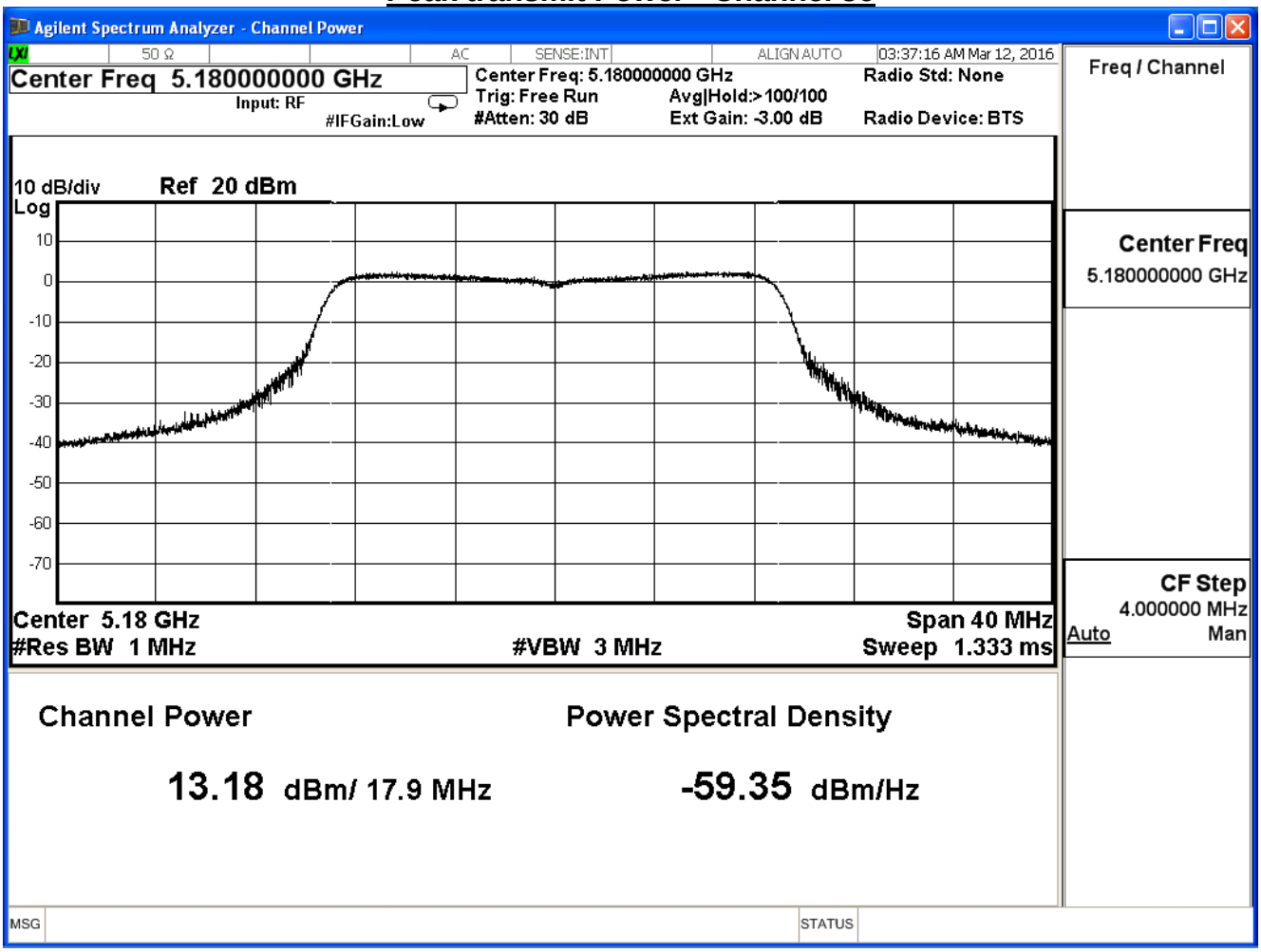
IEEE 802.11n(20MHz)_ANT 2

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	13.18	≤24
44	5220	13.03	≤24
48	5240	13.26	≤24

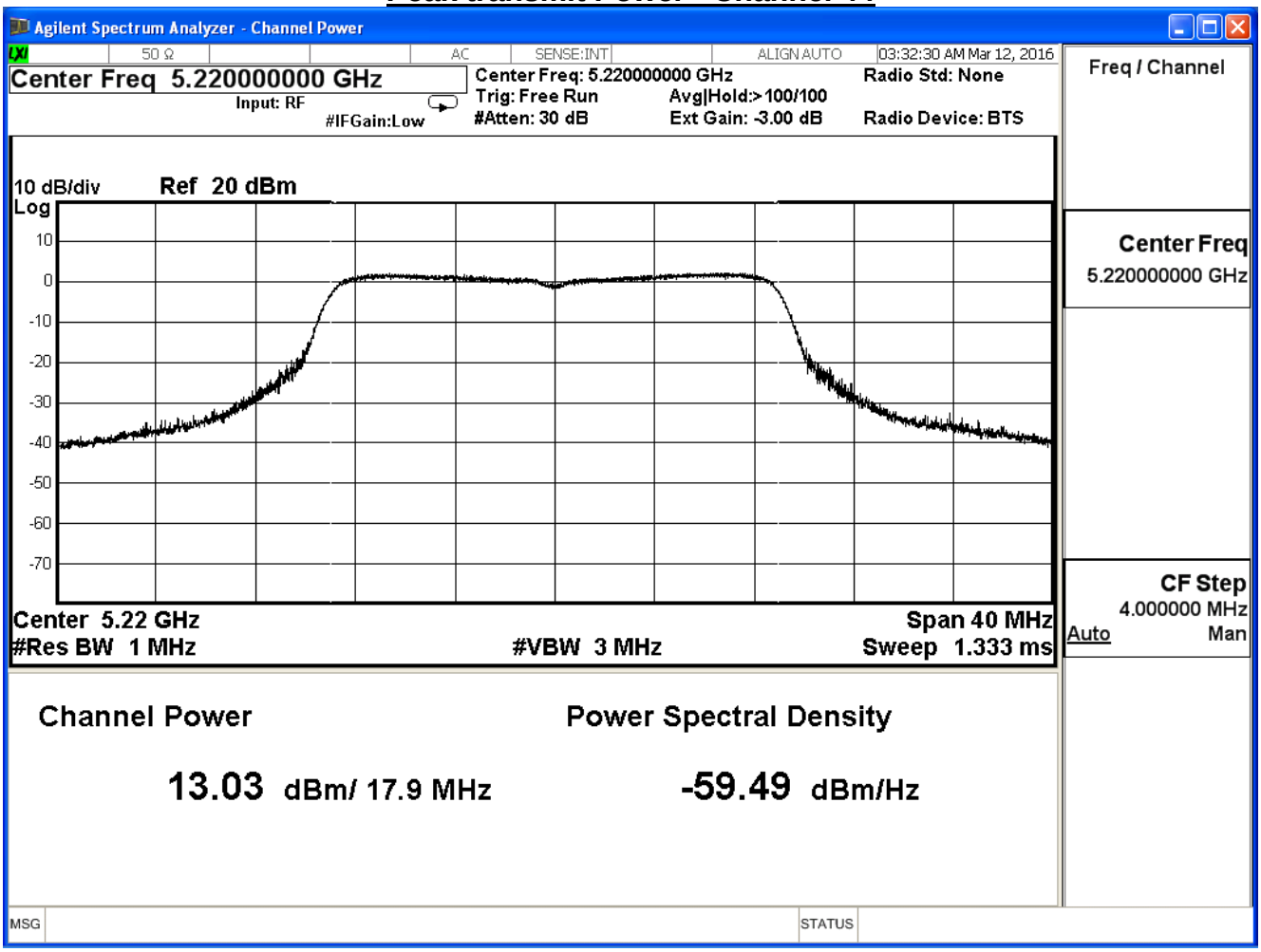
The worst emission of data rate is 19.5 Mbps.

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
36	5180	13.18	--	--	--	--	--	--	--	≤24dBm
44	5220	13.03	12.93	12.83	12.59	12.39	12.27	12.15	12.03	
48	5240	13.26	--	--	--	--	--	--	--	

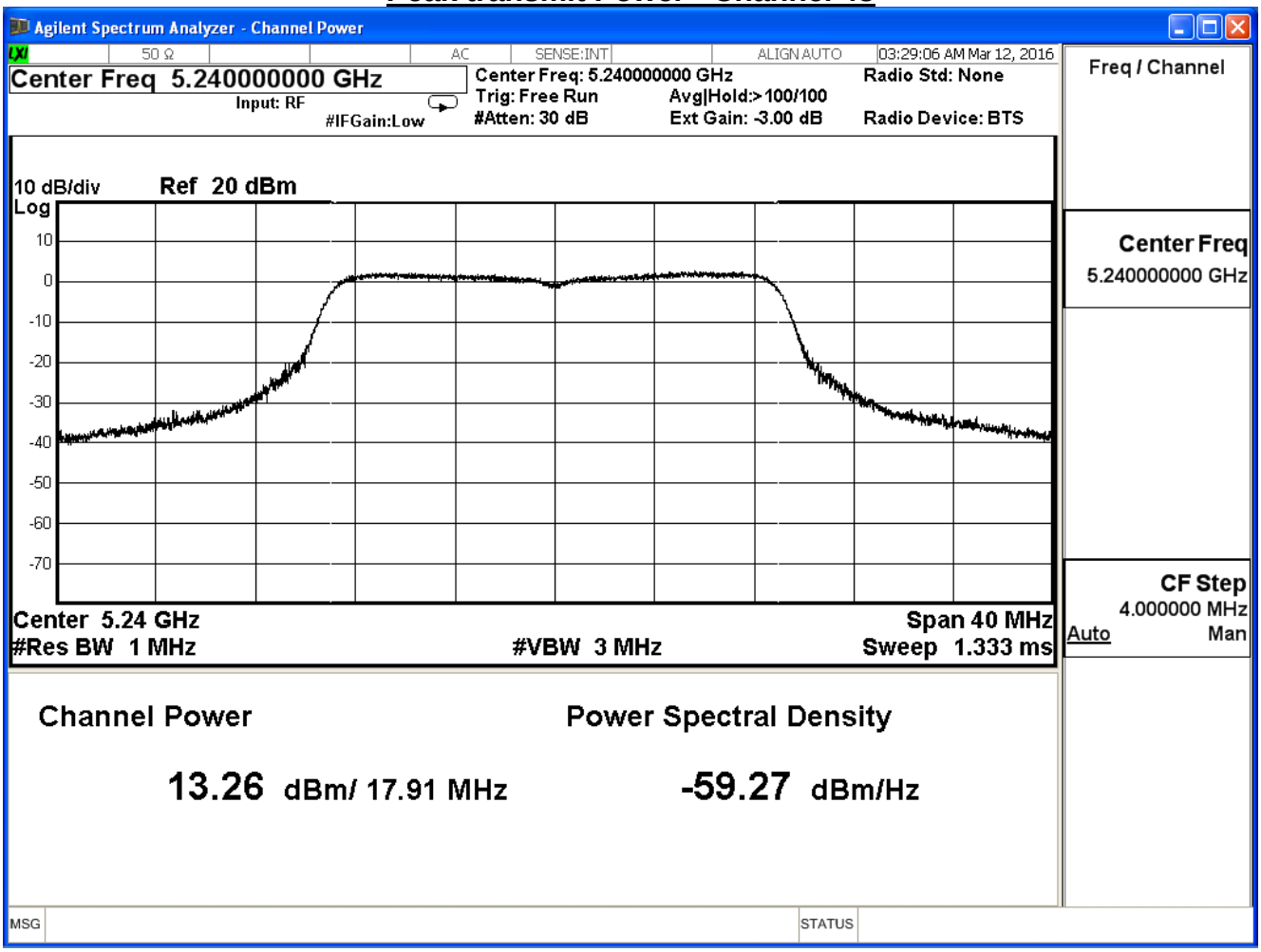
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

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

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	18.10	≤24
44	5220	17.98	≤24
48	5240	18.10	≤24

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	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
36	5180	18.10	--	--	--	--	--	--	--	≤24dBm
44	5220	17.98	17.88	17.74	17.56	17.38	17.22	17.04	16.84	
48	5240	18.10	--	--	--	--	--	--	--	

Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

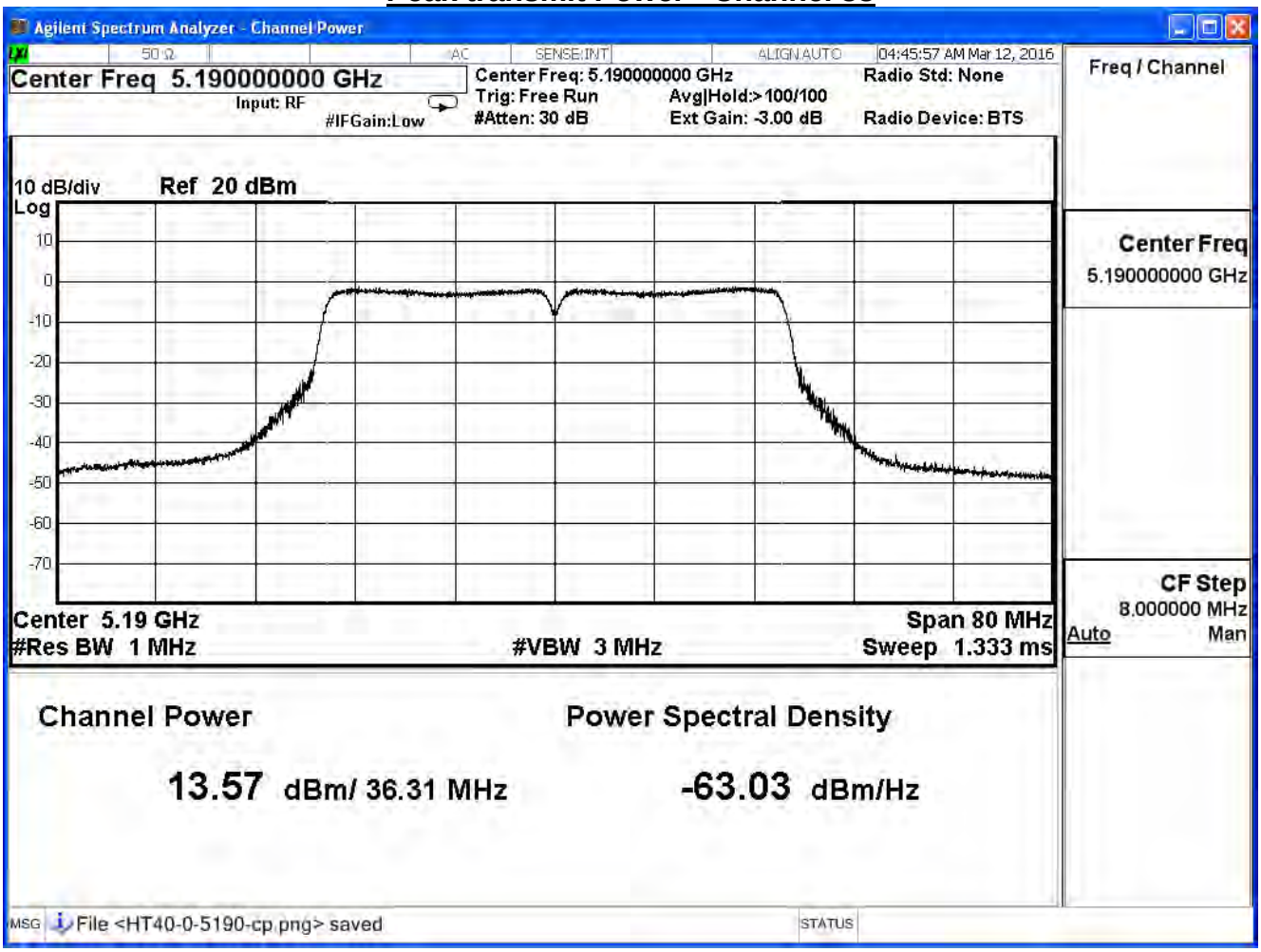
IEEE 802.11n(40MHz)_ANT 0

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
38	5190	13.57	≤24
46	5230	13.55	≤24

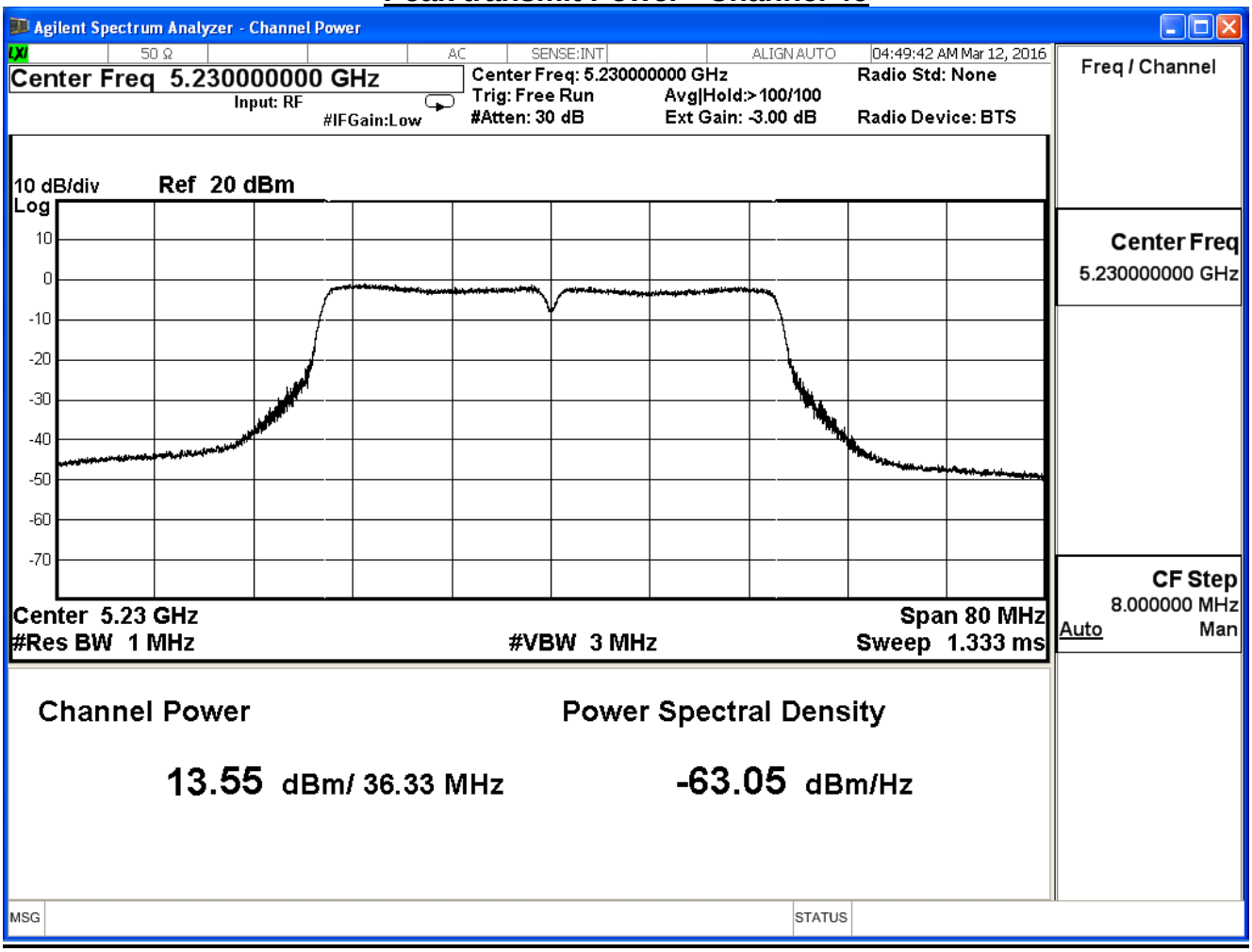
The worst emission of data rate is 40.5 Mbps.

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	
38	5190	13.57	--	--	--	--	--	--	--	≤24dBm
46	5230	13.55	13.35	13.25	13.05	12.95	12.83	12.71	12.59	

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

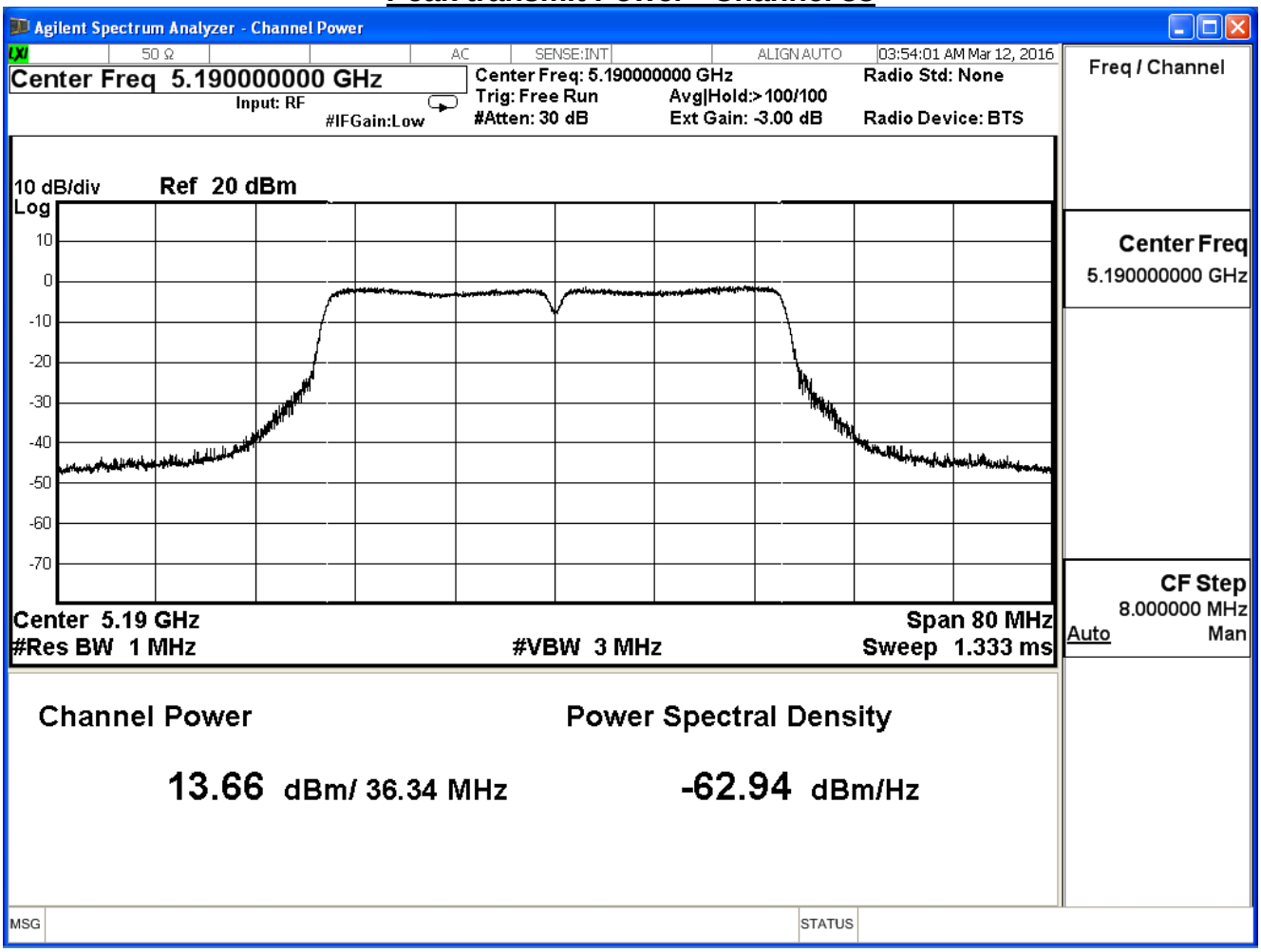
IEEE 802.11n(40MHz)_ANT 1

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
38	5190	13.66	≤24
46	5230	13.84	≤24

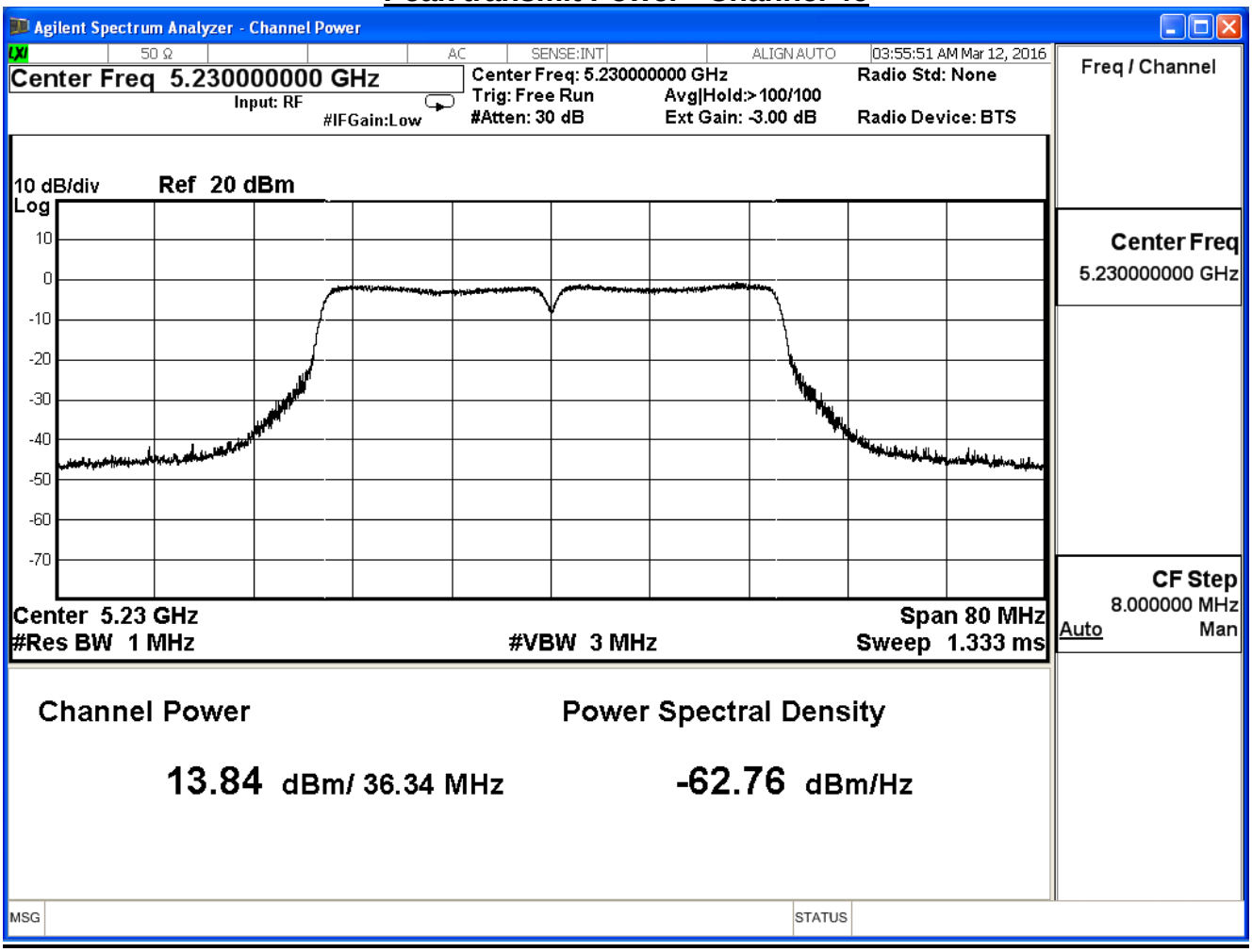
The worst emission of data rate is 40.5 Mbps.

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	
38	5190	13.66	--	--	--	--	--	--	--	≤24dBm
46	5230	13.84	13.74	13.54	13.34	13.14	12.90	12.78	12.66	

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

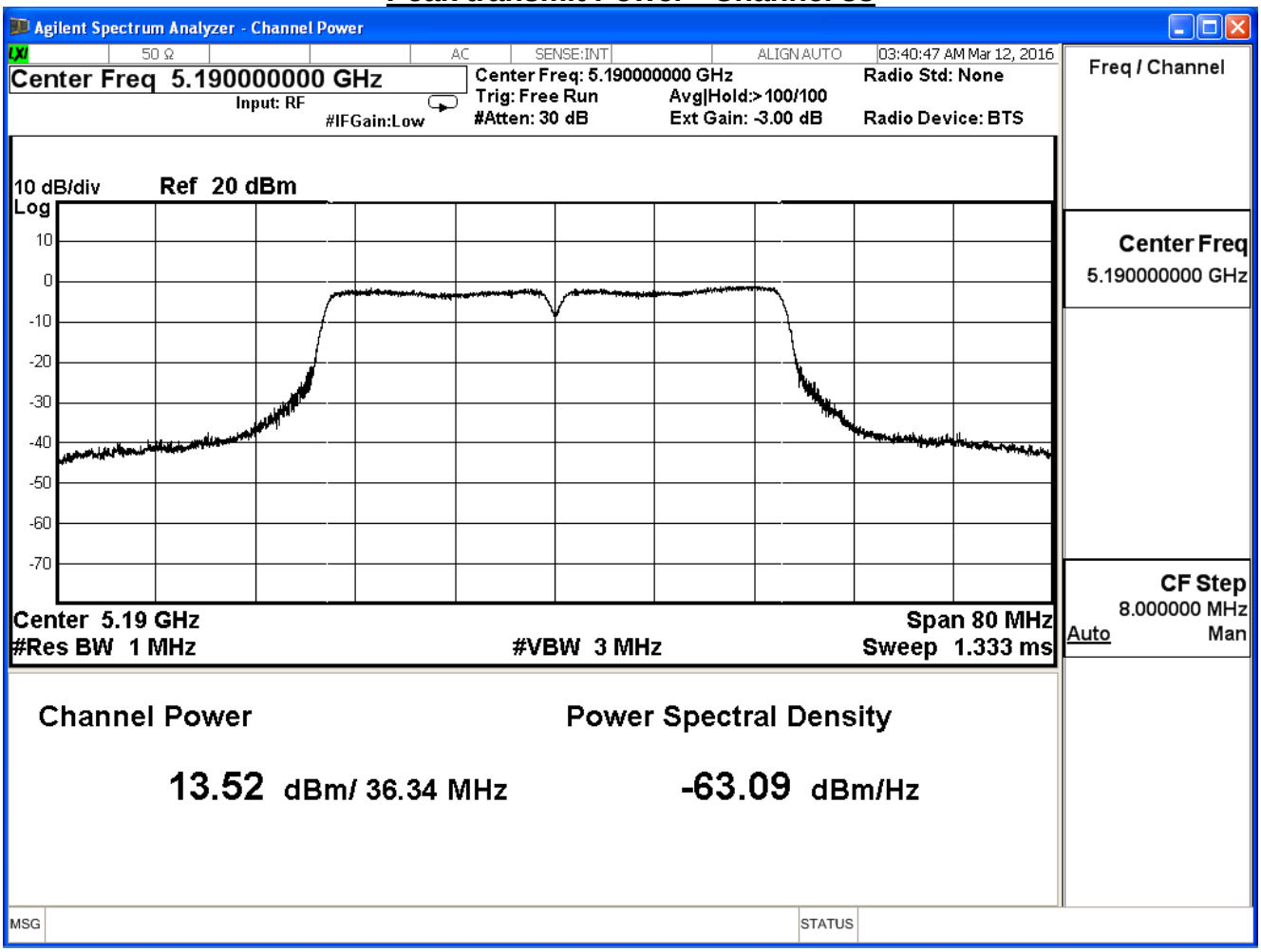
IEEE 802.11n(40MHz)_ANT 2

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
38	5190	13.52	≤24
46	5230	13.93	≤24

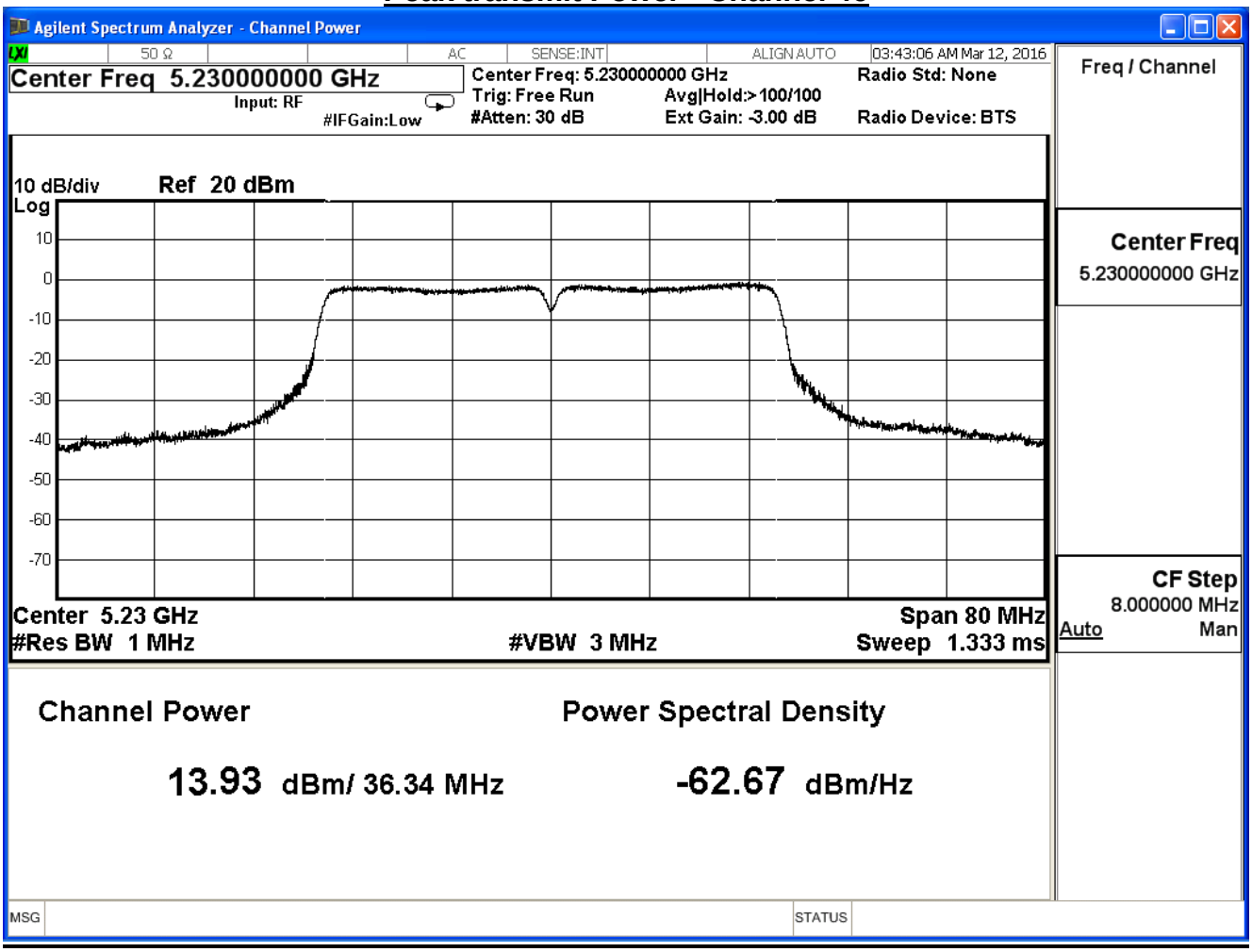
The worst emission of data rate is 40.5 Mbps.

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	
38	5190	13.52	--	--	--	--	--	--	--	≤24dBm
46	5230	13.93	13.83	13.73	13.63	13.43	13.19	13.07	12.83	

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

IEEE 802.11n(40MHz)_ANT 0+1+2

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
38	5190	18.35	≤24
46	5230	18.55	≤24

The worst emission of data rate is 40.5 Mbps.

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	
38	5190	18.35	--	--	--	--	--	--	--	≤24dBm
46	5230	18.55	18.38	18.25	18.09	17.95	17.71	17.55	17.31	

Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/8	Test Site	SR7

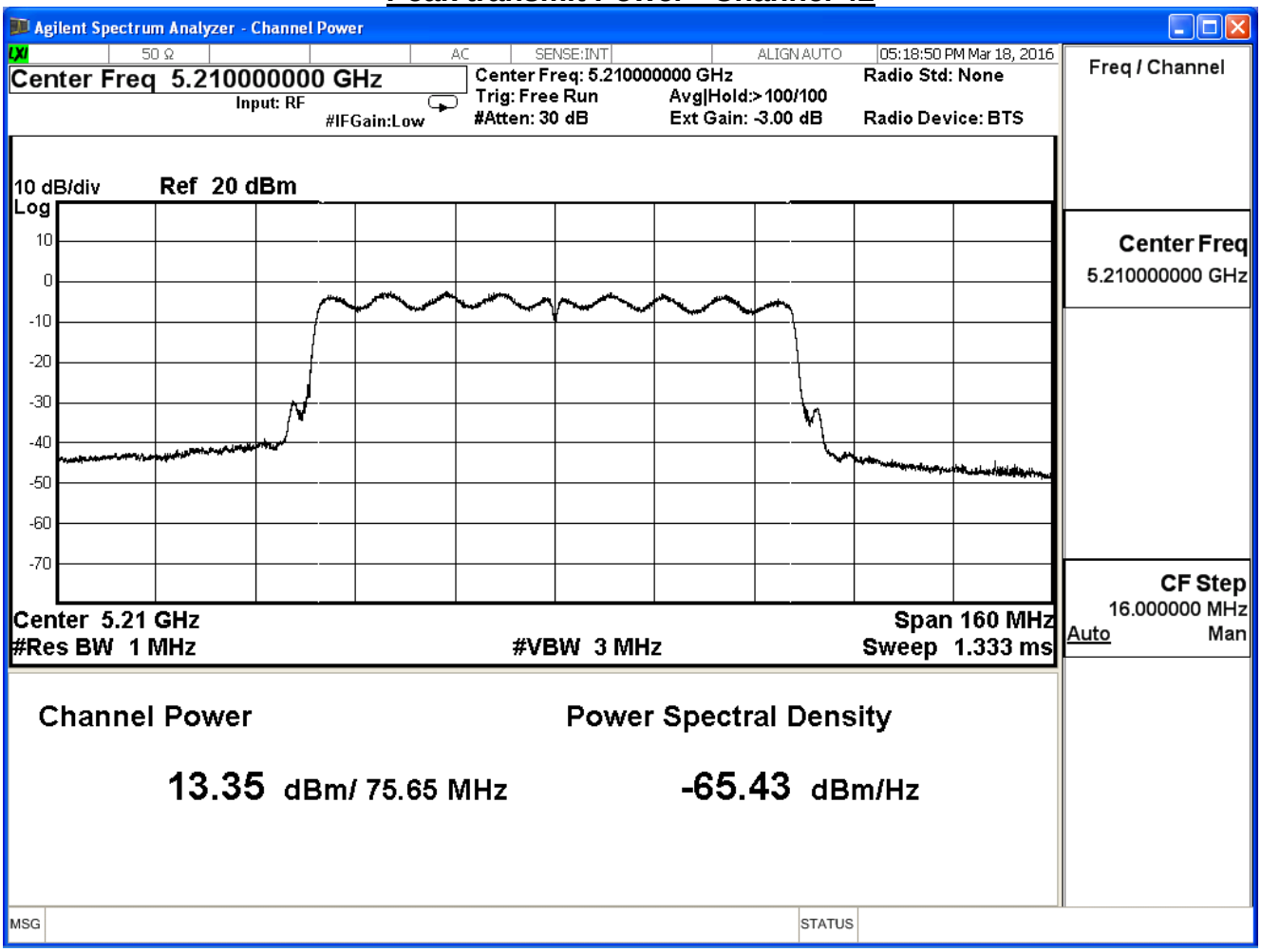
IEEE 802.11ac(80MHz)_ANT 0

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
42	5210	13.35	≤24

The worst emission of data rate is 87.9 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		87.9	175.5	263.4	351	526.5	702	789.9	577.5	1053	1170	≤24dBm
42	5210	13.35	13.25	13.15	13.05	12.95	12.85	12.61	12.37	12.13	11.89	

Peak transmit Power - Channel 42



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/18	Test Site	SR7

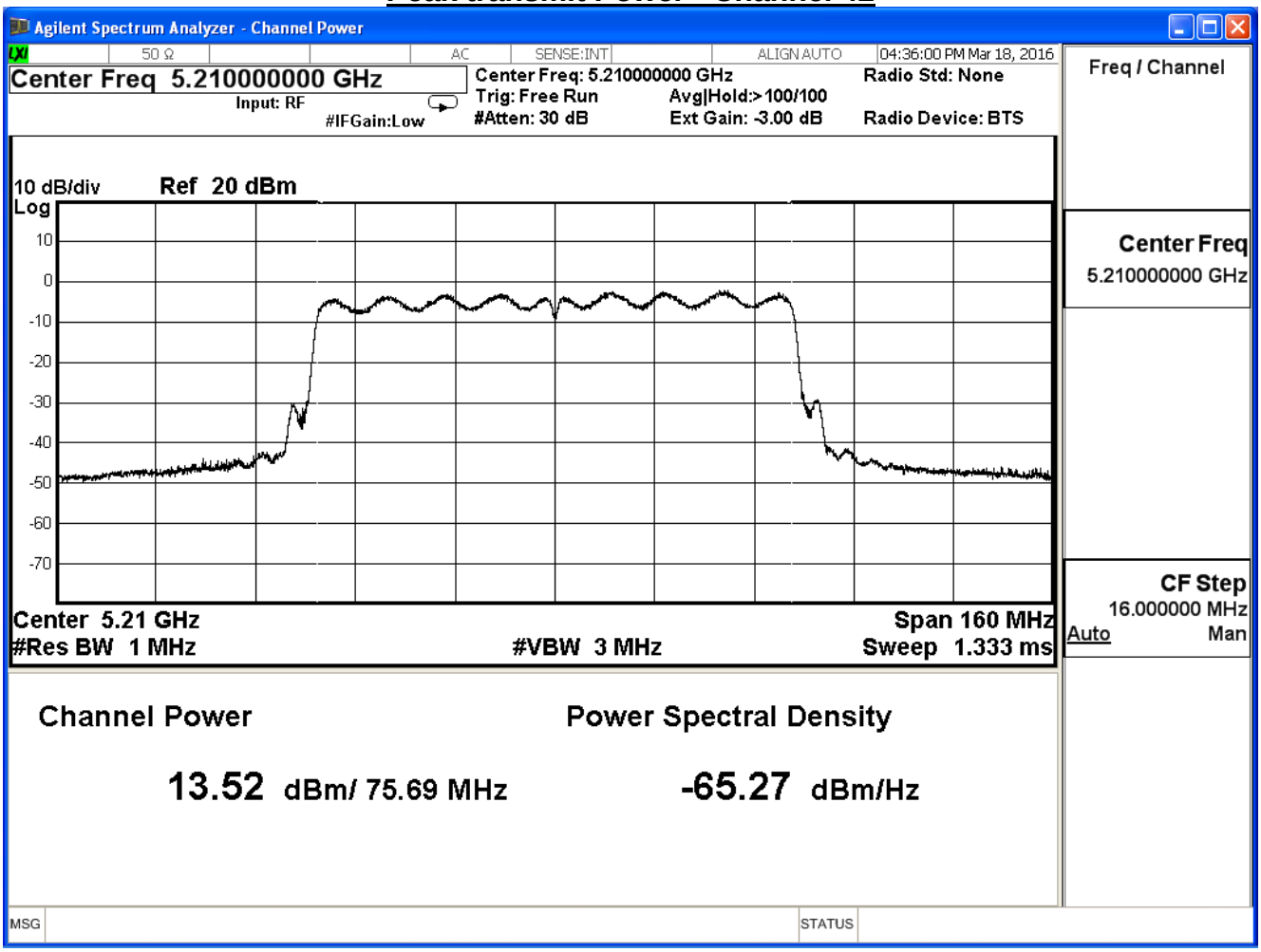
IEEE 802.11ac(80MHz)_ANT 1

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
42	5210	13.52	≤24

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	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		87.9	175.5	263.4	351	526.5	702	789.9	577.5	1053	1170	≤24dBm
42	5210	13.52	13.32	13.22	13.12	13.02	12.82	12.58	12.34	12.22	12.10	

Peak transmit Power - Channel 42



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/18	Test Site	SR7

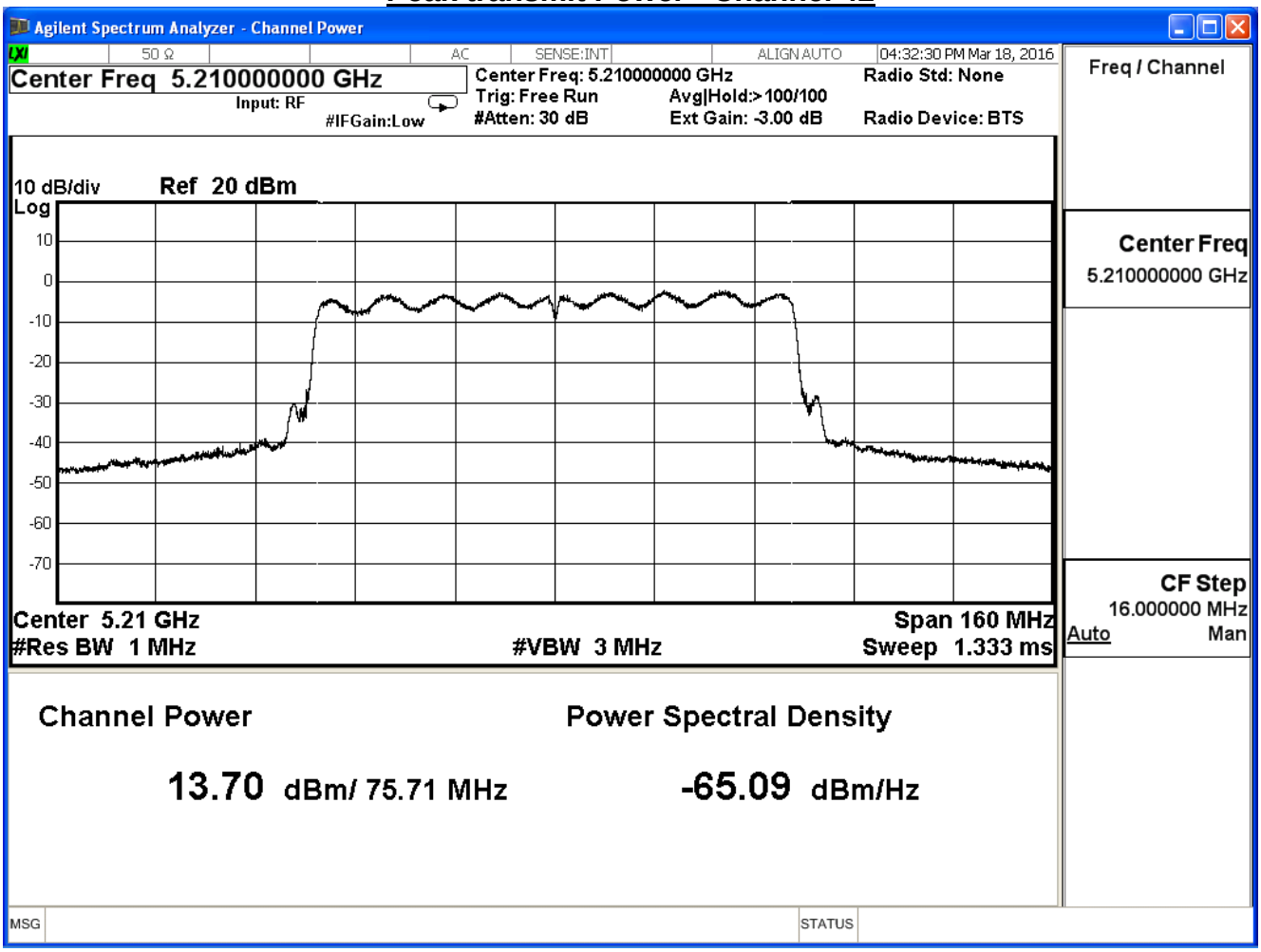
IEEE 802.11ac(80MHz)_ANT 2

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
42	5210	13.70	≤24

The worst emission of data rate is87.9 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		87.9	175.5	263.4	351	526.5	702	789.9	577.5	1053	1170	
42	5210	13.70	13.50	13.30	13.10	12.90	12.70	12.58	12.46	12.34	12.10	≤24dBm

Peak transmit Power - Channel 42



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/18	Test Site	SR7

IEEE 802.11ac(80MHz)_ANT 0+1+2

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
42	5210	18.30	≤24

The worst emission of data rate is 87.9 Mbps

Peak Power Output (dBm)											
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		87.9	175.5	263.4	351	526.5	702	789.9	577.5	1053	1170	≤24dBm
42	5210	18.30	18.13	17.99	17.86	17.73	17.56	17.36	17.16	17.00	16.80	

Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

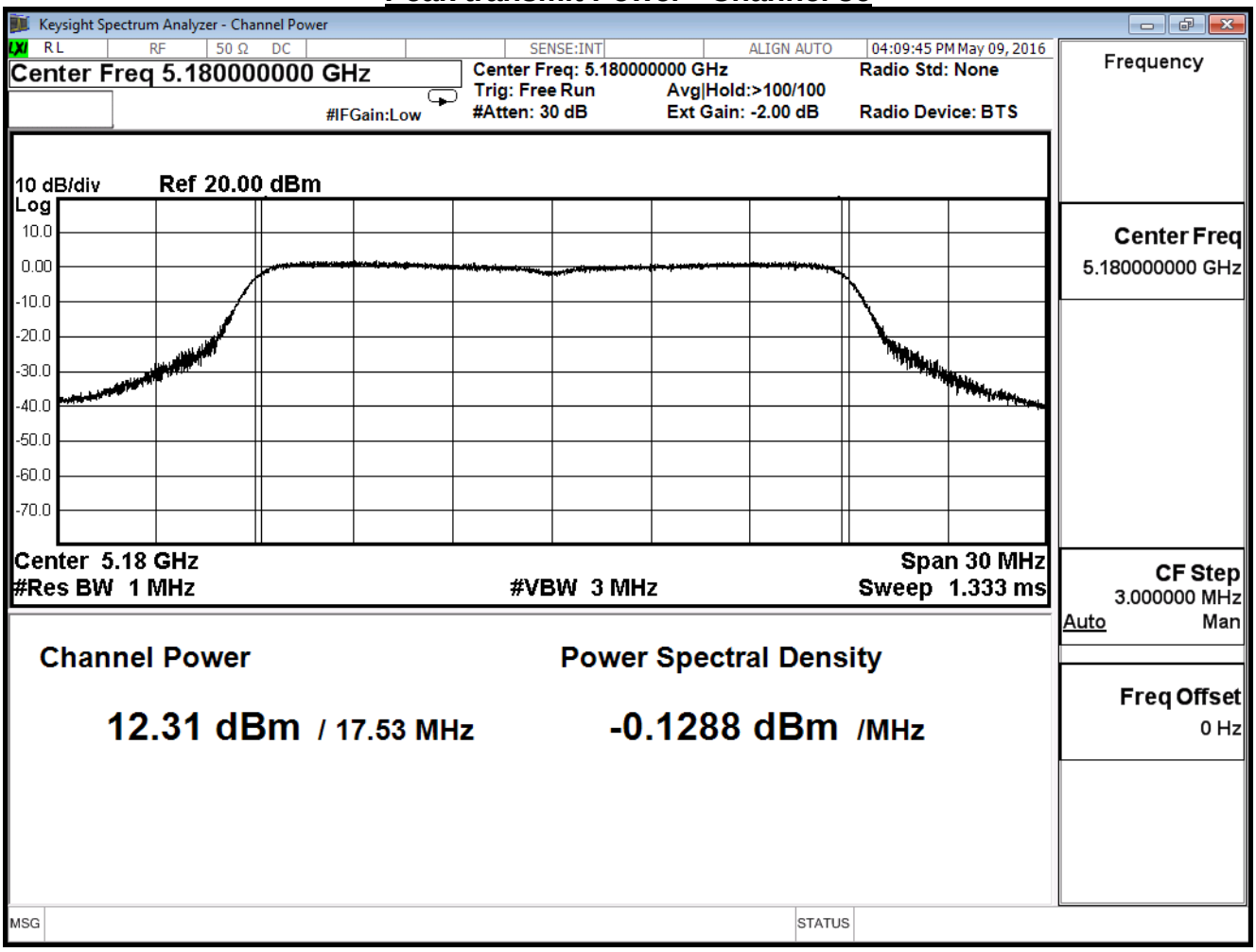
IEEE 802.11n(20MHz)_ANT 0

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	12.31	≤24
44	5220	12.14	≤24
48	5240	12.25	≤24

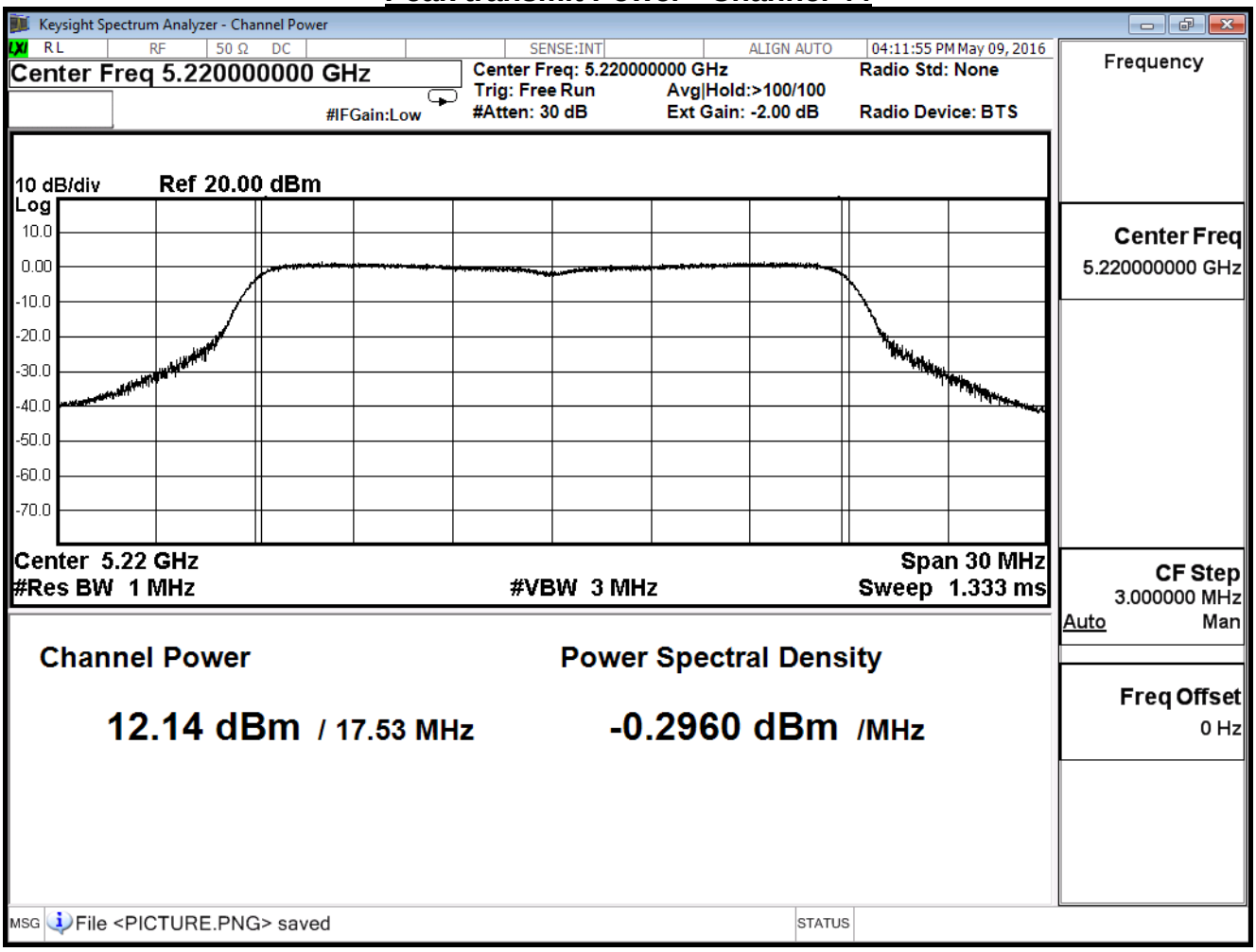
The worst emission of data rate is 19.5 Mbps.

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
36	5180	12.31	--	--	--	--	--	--	--	≤24dBm
44	5220	12.14	11.92	11.72	11.62	11.38	11.26	10.96	10.72	
48	5240	12.25	--	--	--	--	--	--	--	

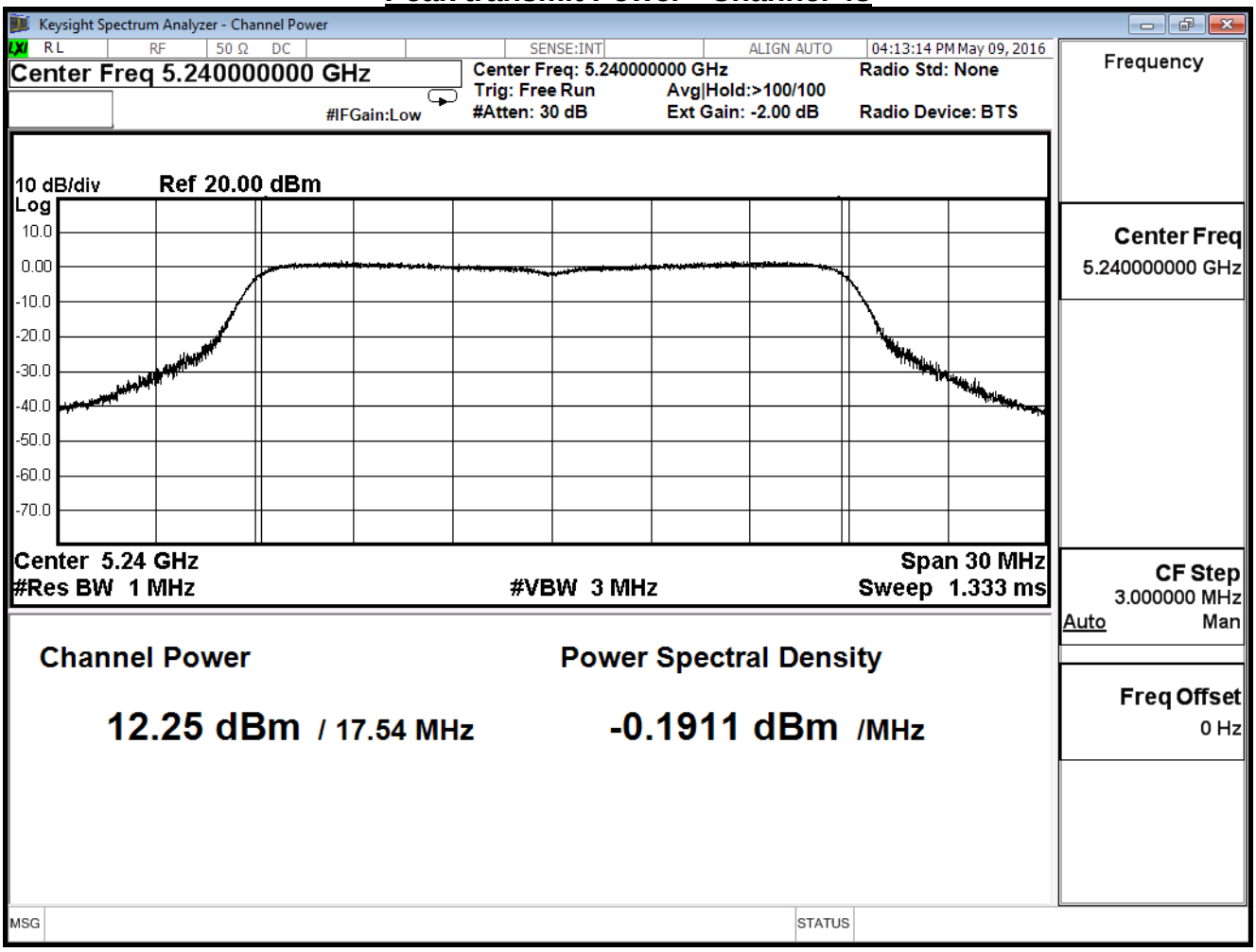
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n(20MHz)_ANT 1

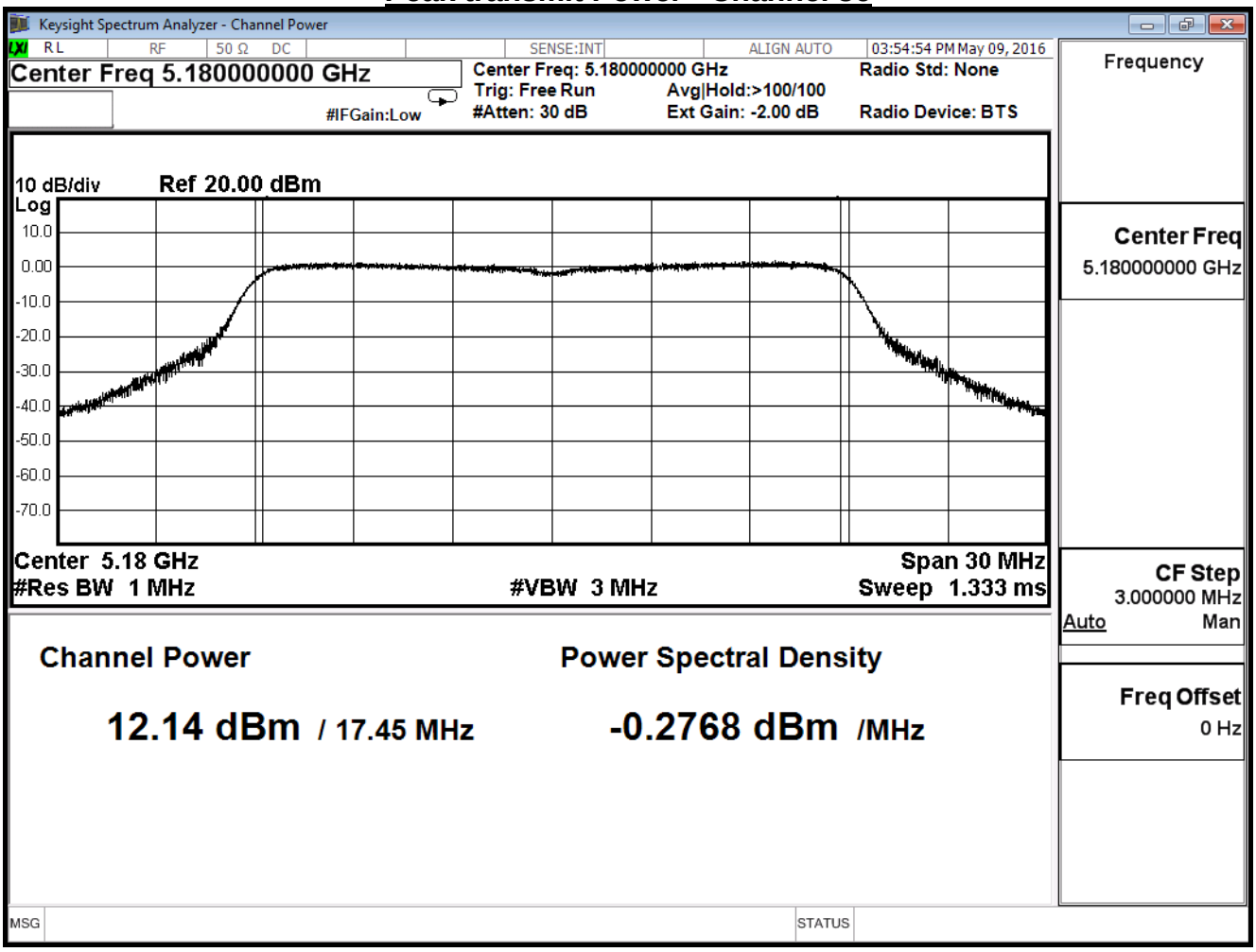
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	12.14	≤21.2
44	5220	12.27	≤21.2
48	5240	12.45	≤21.2

The worst emission of data rate is 19.5 Mbps.

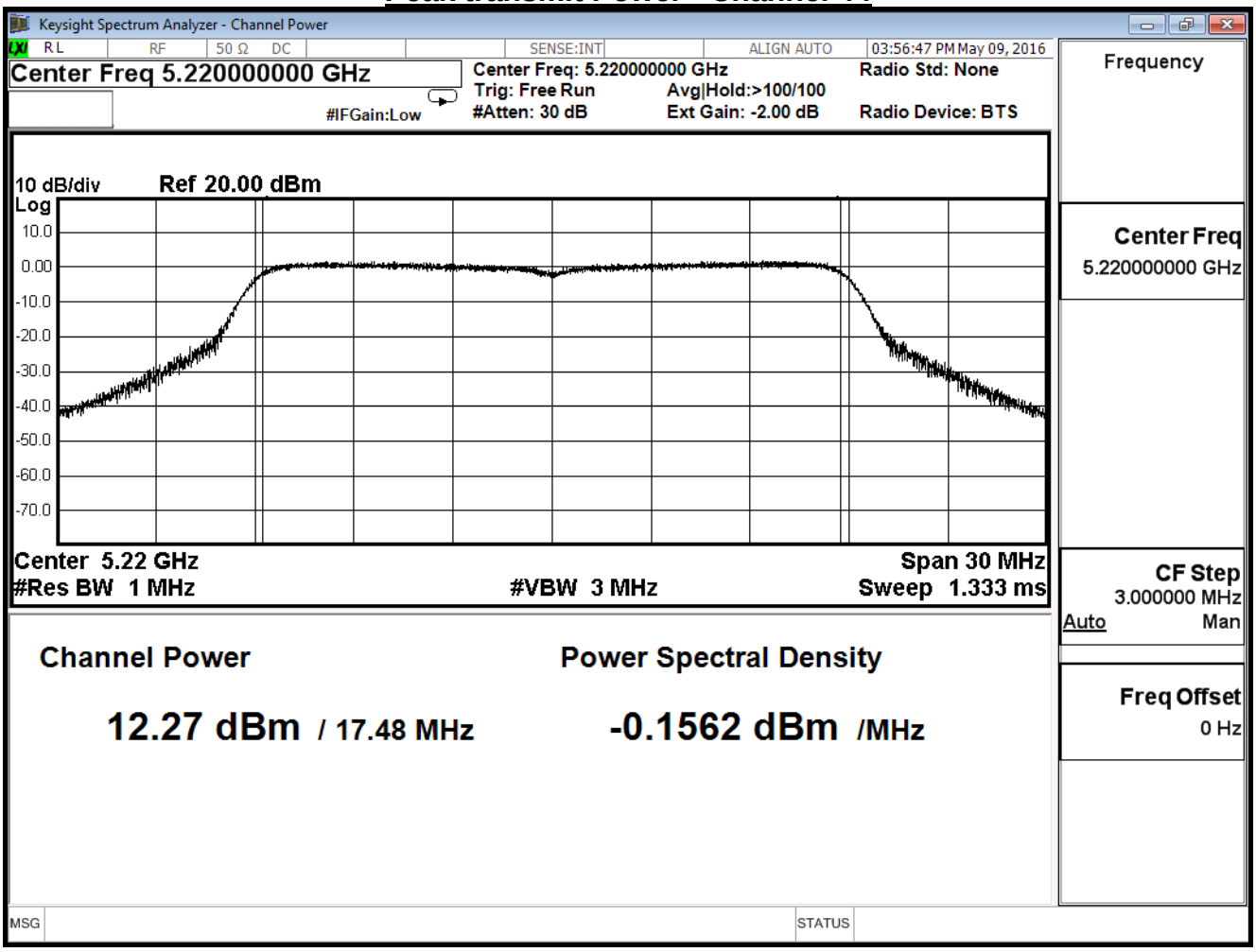
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
36	5180	12.14	--	--	--	--	--	--	--	≤21.2dBm
44	5220	12.27	12.17	11.93	11.73	11.63	11.50	11.26	11.02	
48	5240	12.45	--	--	--	--	--	--	--	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=24-(8.8dBi-6dBi)=21.2dBi

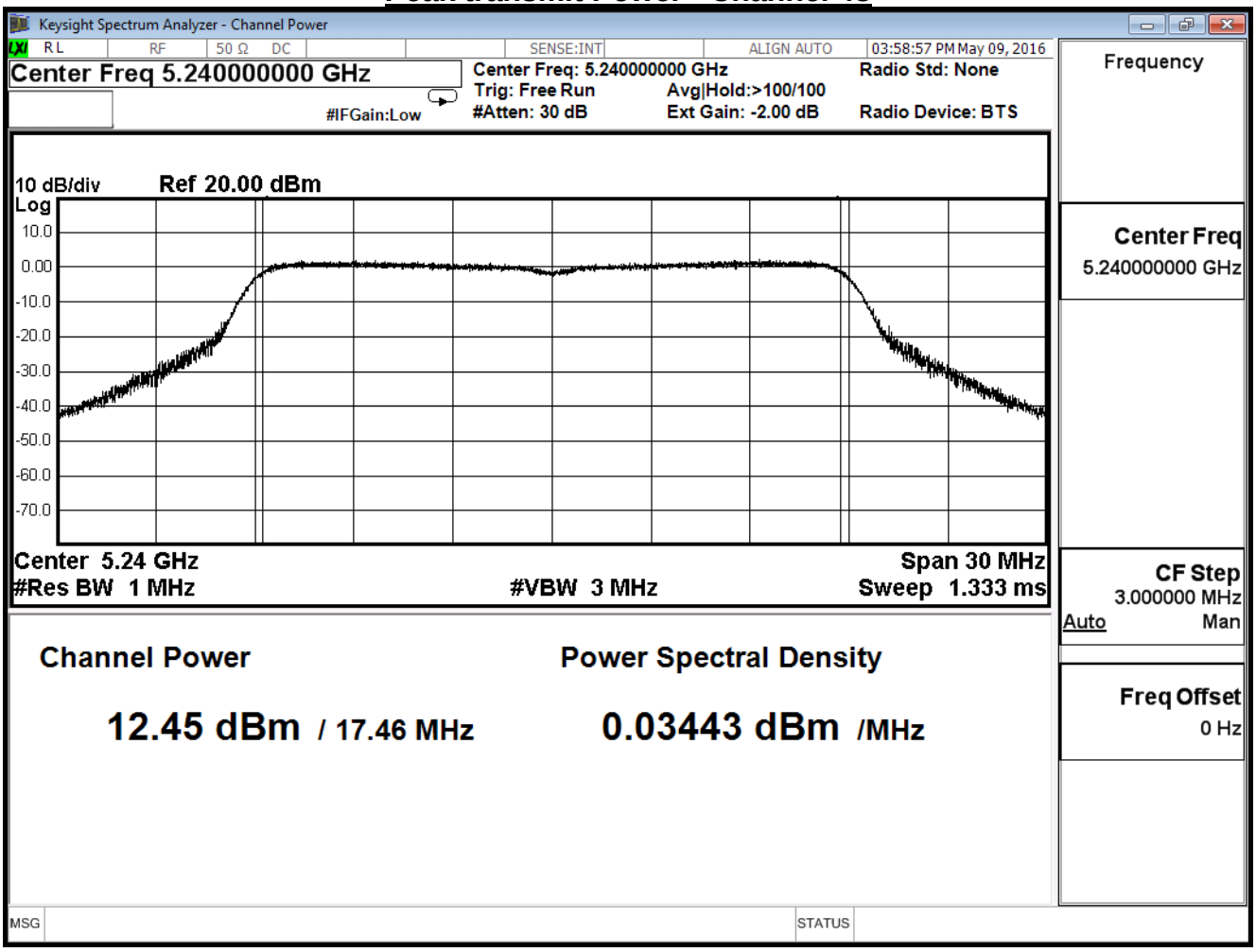
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n(20MHz)_ANT 2

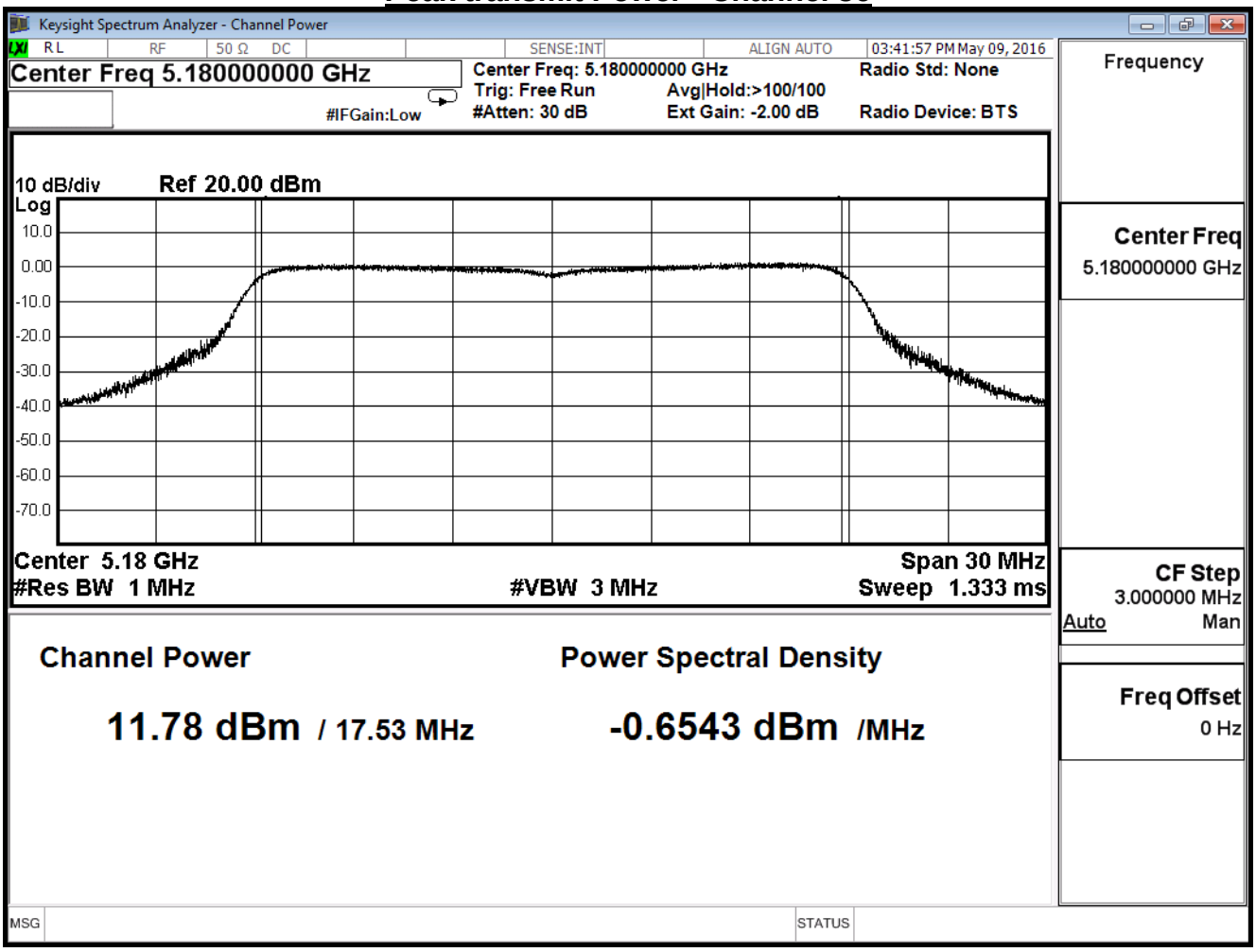
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	11.78	≤21.2
44	5220	12.24	≤21.2
48	5240	12.68	≤21.2

The worst emission of data rate is 19.5 Mbps.

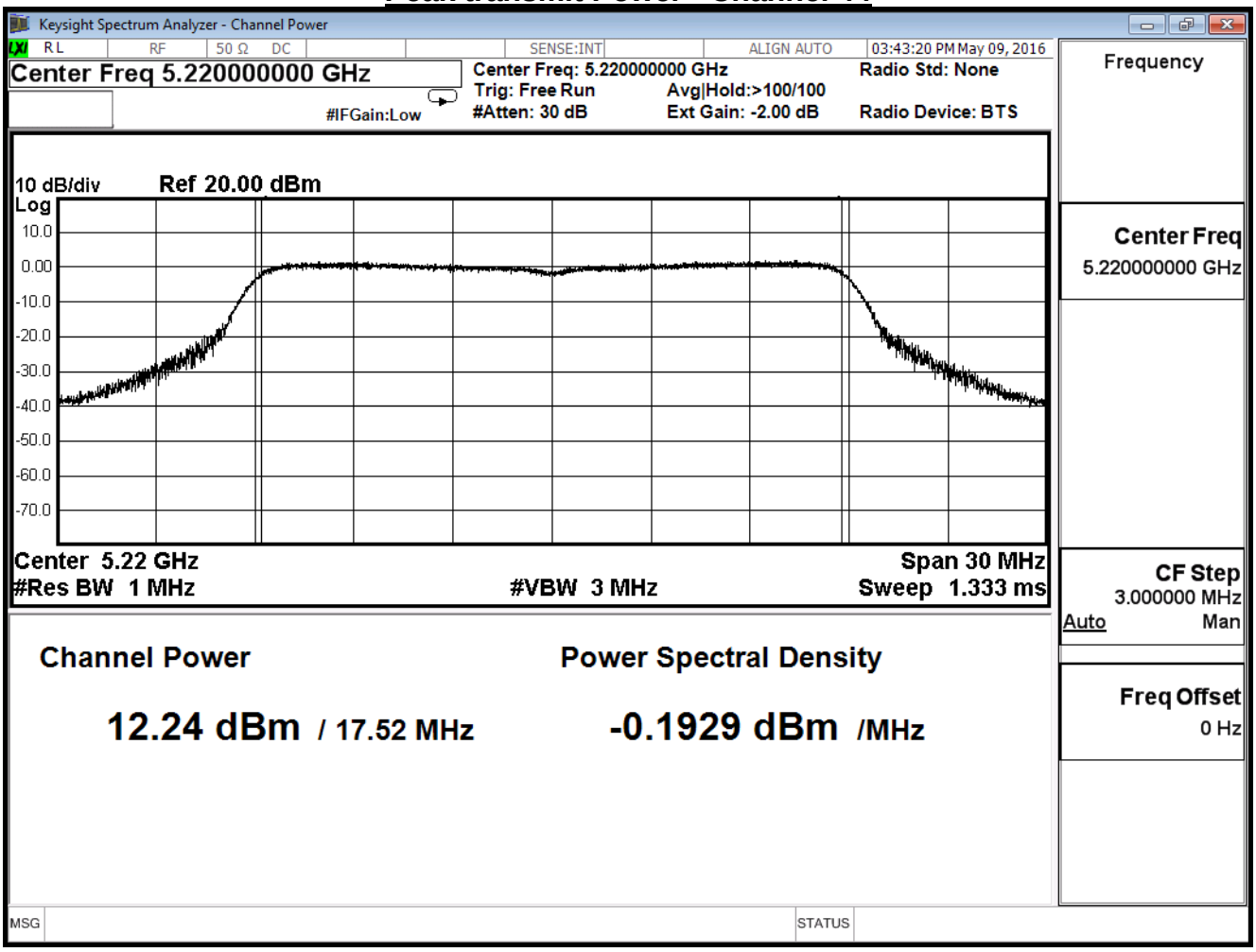
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
36	5180	11.78	--	--	--	--	--	--	--	≤21.2dBm
44	5220	12.24	12.14	12.04	11.92	11.72	11.60	11.48	11.36	
48	5240	12.68	--	--	--	--	--	--	--	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=24-(8.8dBi-6dBi)=21.2dBi

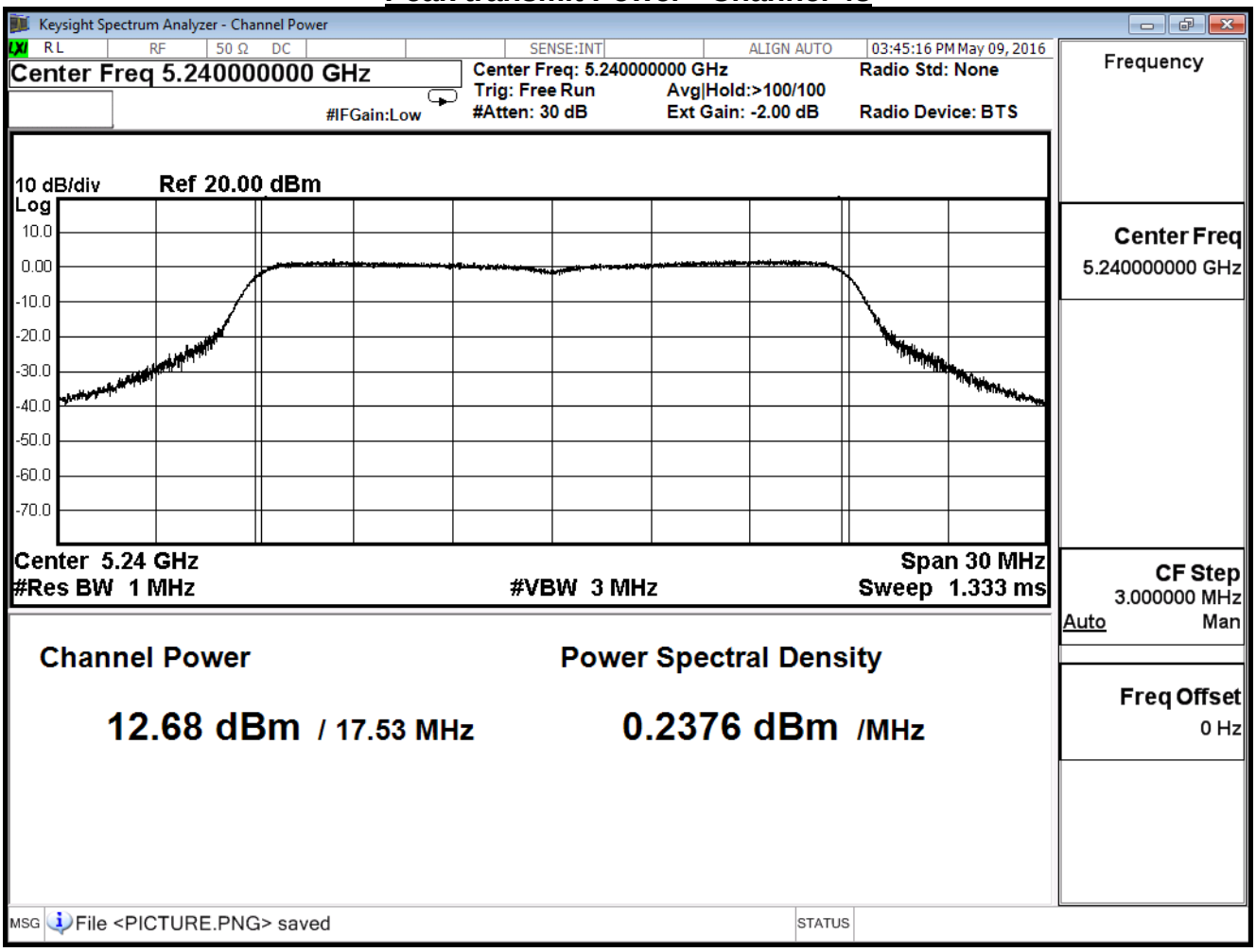
Peak transmit Power - Channel 36



Peak transmit Power - Channel 44



Peak transmit Power - Channel 48



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

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

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
36	5180	16.85	≤21.2
44	5220	16.99	≤21.2
48	5240	17.23	≤21.2

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	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
36	5180	16.85	--	--	--	--	--	--	--	≤21.2dBm
44	5220	16.99	16.85	16.67	16.53	16.35	16.23	16.01	15.81	
48	5240	17.23	--	--	--	--	--	--	--	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=24-(8.8dBi-6dBi)=21.2dBi

Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n(40MHz)_ANT 0

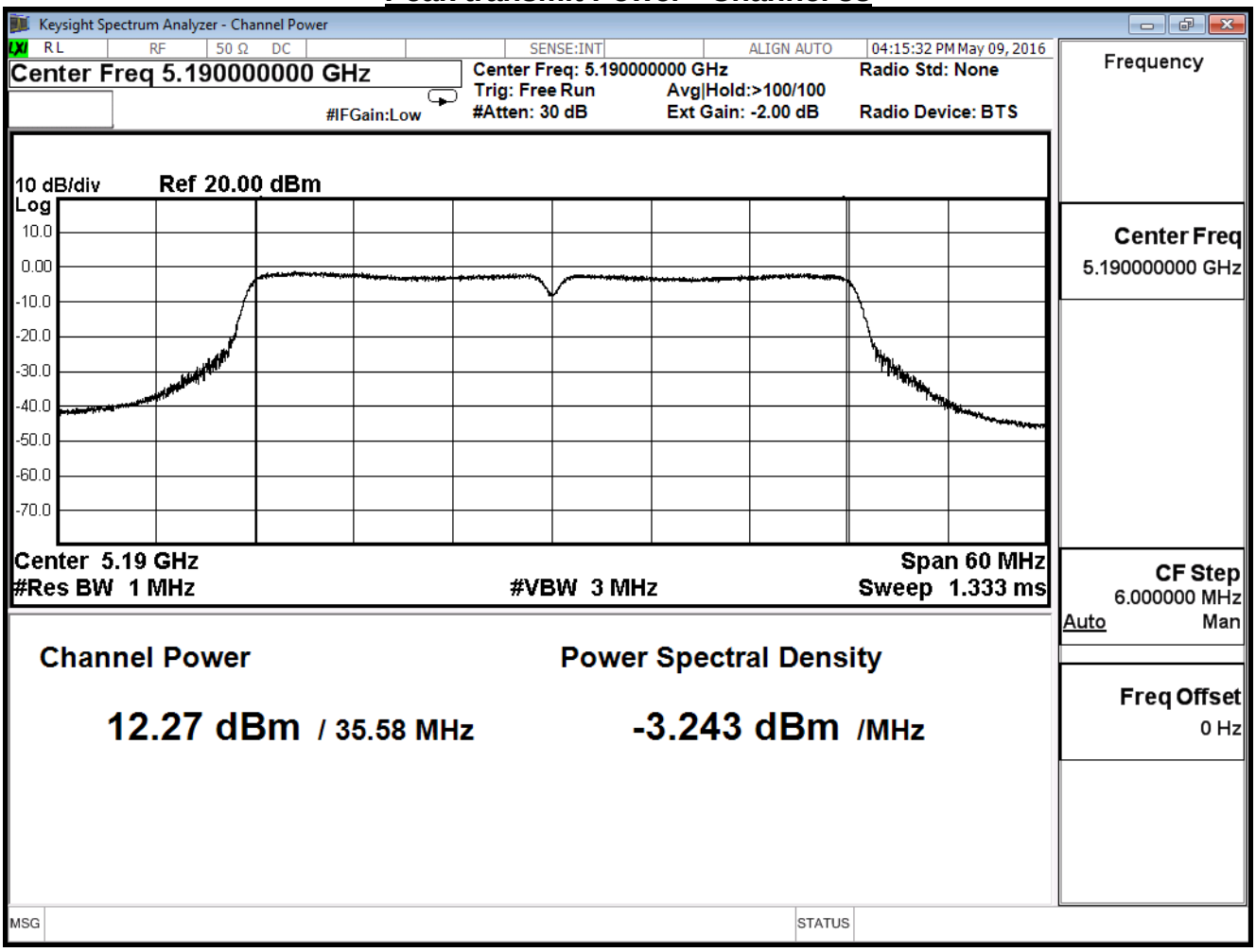
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
38	5190	12.27	≤21.2
46	5230	12.79	≤21.2

The worst emission of data rate is 40.5 Mbps.

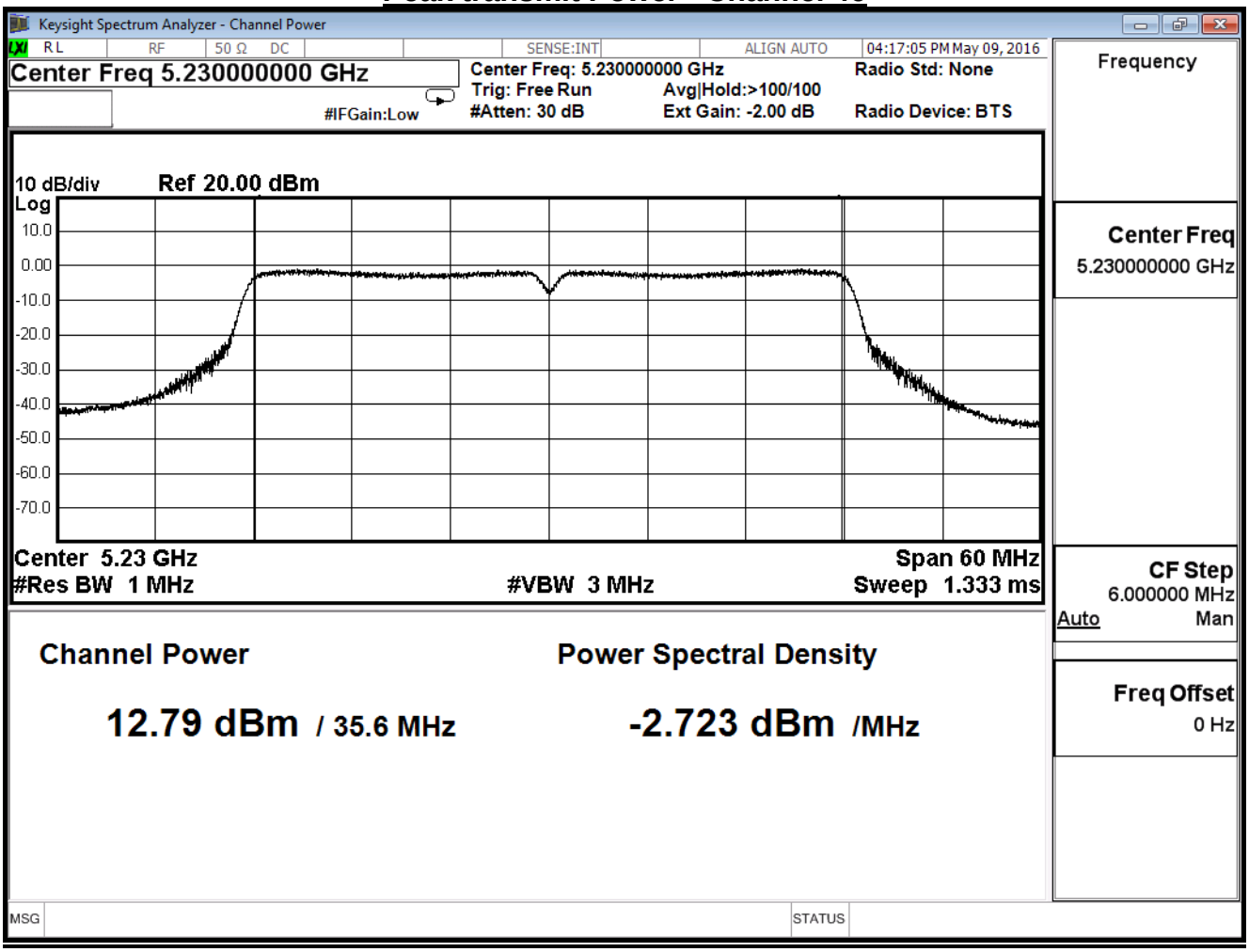
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		40.5	81.0	121.5	162.0	243.0	324.0	364.5	405.0	
38	5190	12.27	--	--	--	--	--	--	--	≤21.2dBm
46	5230	12.79	12.59	12.39	12.29	12.19	11.95	11.71	11.47	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=24-(8.8dBi-6dBi)=21.2dBi

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n(40MHz)_ANT 1

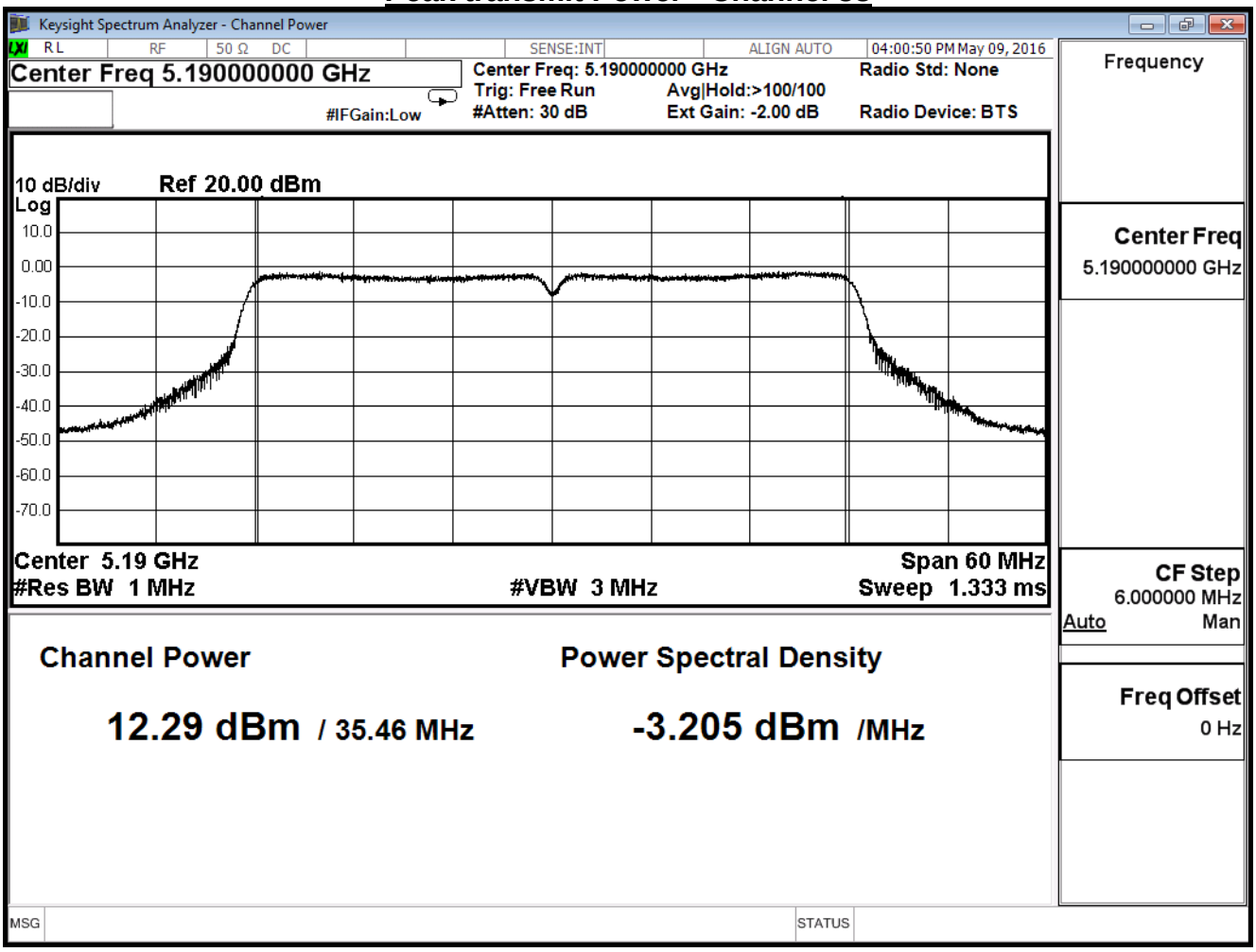
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
38	5190	12.29	≤21.2
46	5230	12.45	≤21.2

The worst emission of data rate is 40.5Mbps.

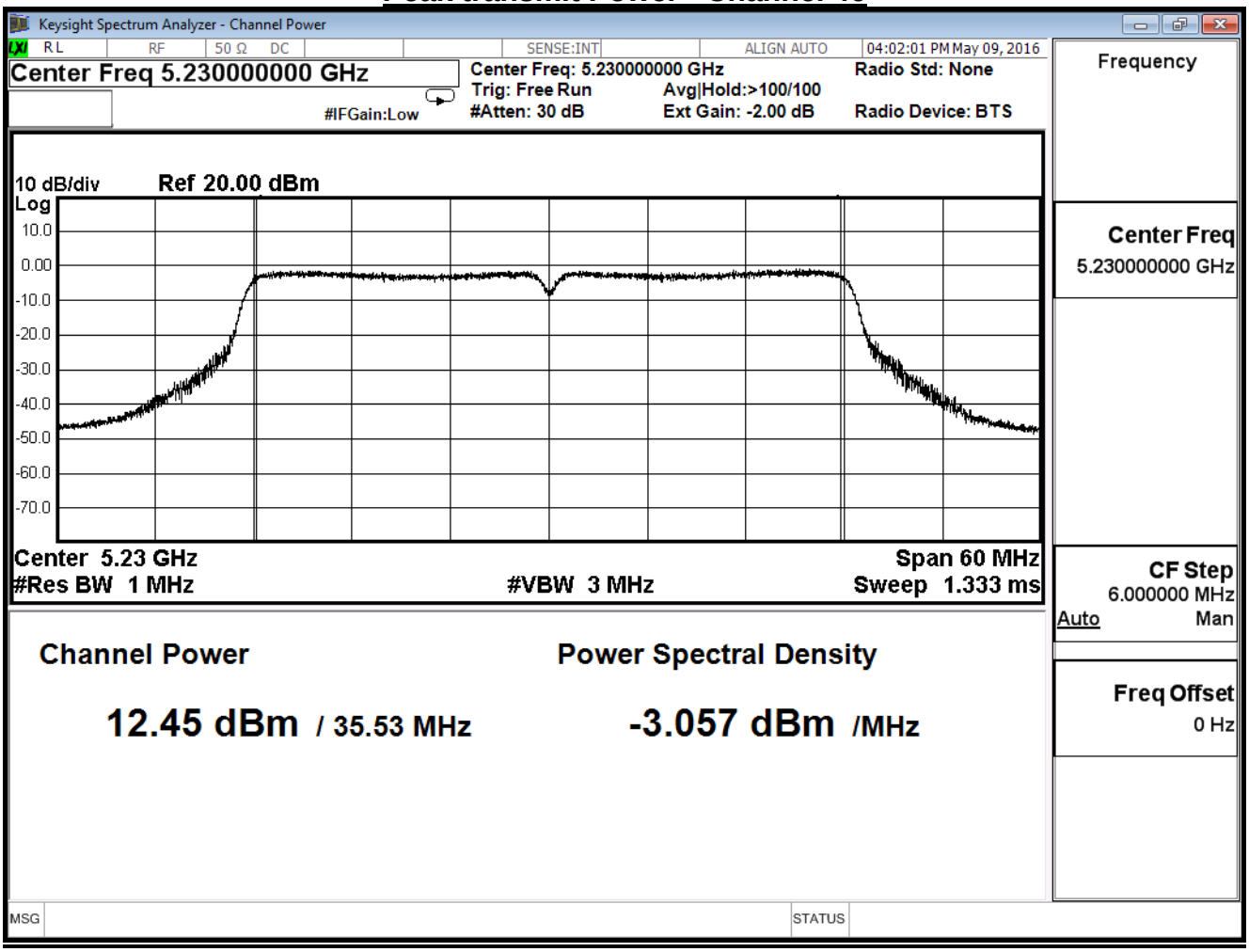
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		40.5	81.0	121.5	162.0	243.0	324.0	364.5	405.0	
38	5190	12.29	--	--	--	--	--	--	--	≤21.2dBm
46	5230	12.45	12.35	12.15	11.95	11.85	11.61	11.37	11.13	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=24-(8.8dBi-6dBi)=21.2dBi

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n(40MHz)_ANT 2

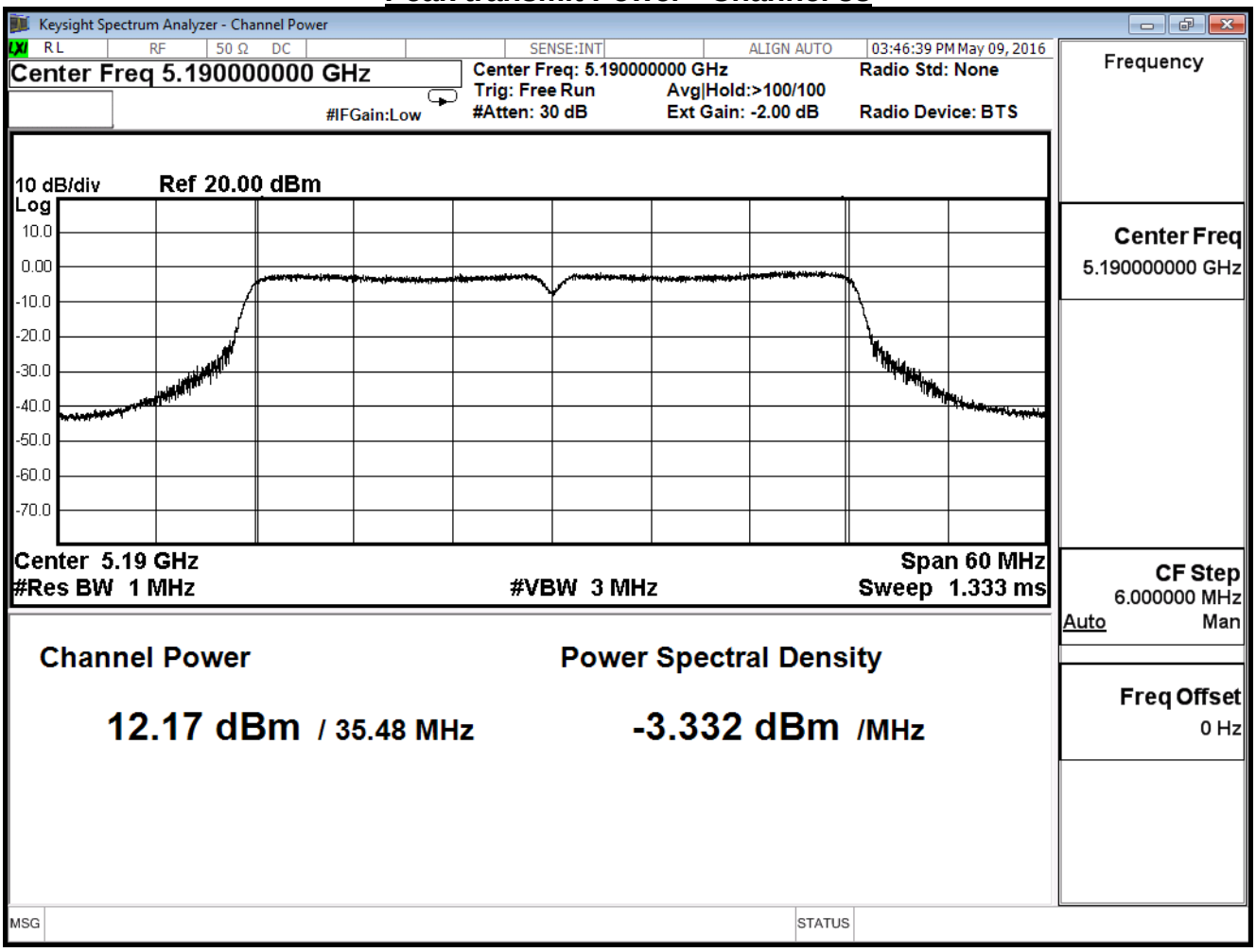
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
38	5190	12.17	≤21.2
46	5230	13.06	≤21.2

The worst emission of data rate is 40.5 Mbps.

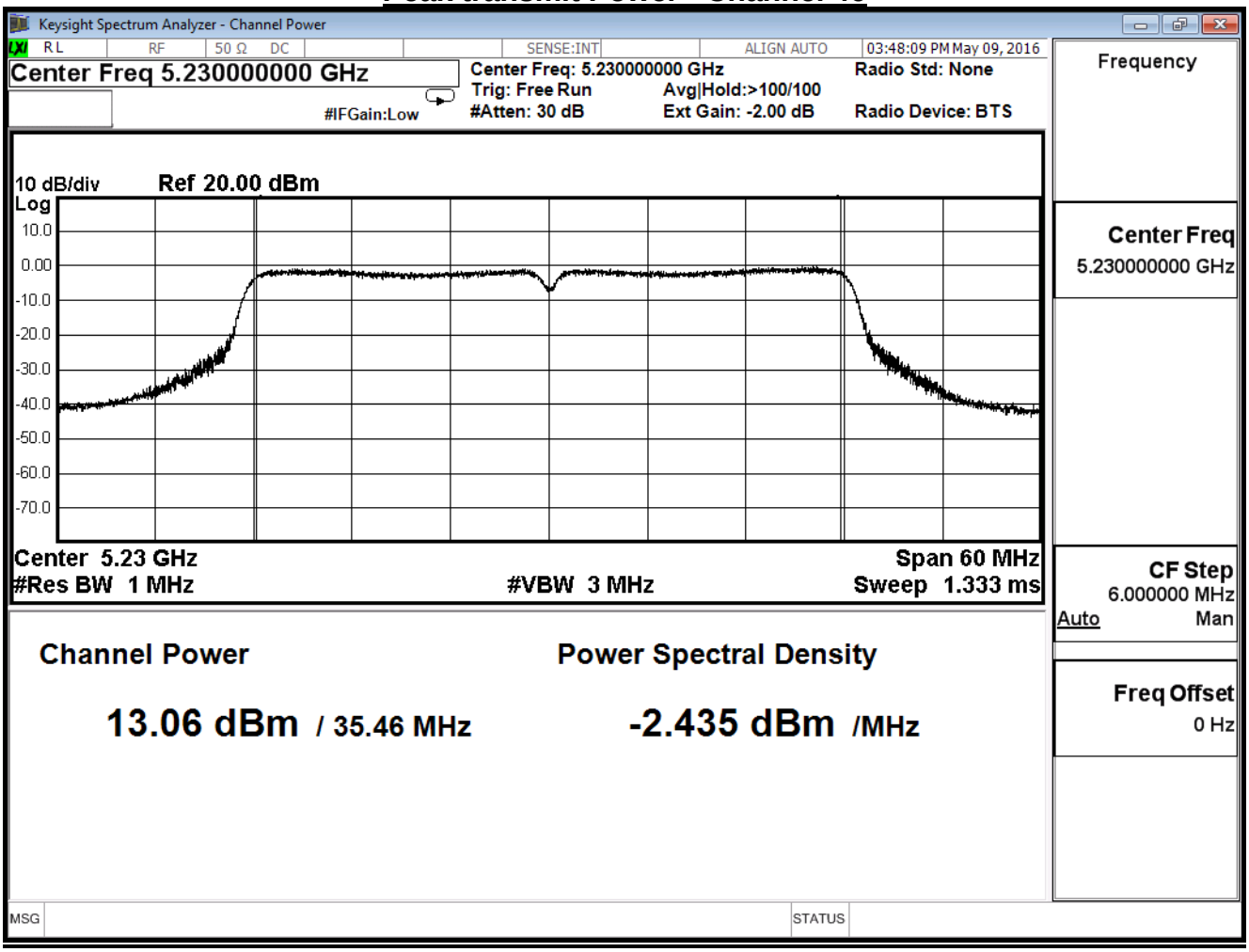
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		40.5	81.0	121.5	162.0	243.0	324.0	364.5	405.0	
38	5190	12.17	--	--	--	--	--	--	--	≤21.2dBm
46	5230	13.06	12.96	12.86	12.66	12.56	12.44	12.20	12.08	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=24-(8.8dBi-6dBi)=21.2dBi

Peak transmit Power - Channel 38



Peak transmit Power - Channel 46



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n(40MHz)_ANT 0+1+2

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
38	5190	17.01	≤21.2
46	5230	17.55	≤21.2

The worst emission of data rate is 40.5 Mbps.

Peak Power Output (dBm)										
MCS Index		0	1	2	3	4	5	6	7	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		40.5	81.0	121.5	162.0	243.0	324.0	364.5	405.0	
38	5190	17.01	--	--	--	--	--	--	--	≤21.2dBm
46	5230	17.55	17.41	17.25	17.08	16.98	16.78	16.54	16.35	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=24-(8.8dBi-6dBi)=21.2dBi

Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11ac(80MHz)_ANT 0

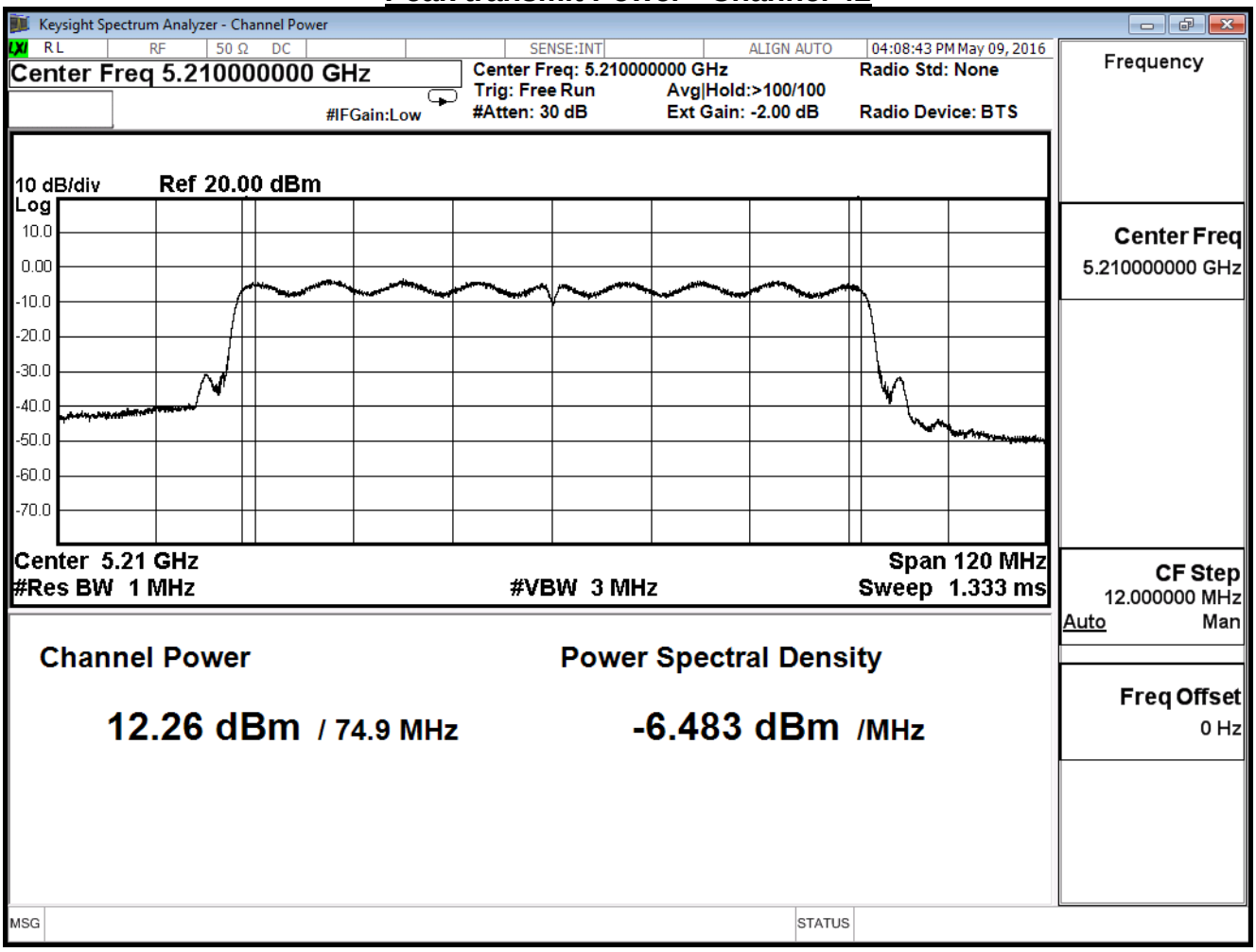
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
42	5210	12.26	≤21.2

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	
42	5210	12.26	12.06	11.86	11.66	11.46	11.36	11.24	11.12	10.88	10.76	≤21.2dBm

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=24-(8.8dBi-6dBi)=21.2dBi

Peak transmit Power - Channel 42



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11ac(80MHz)_ANT 1

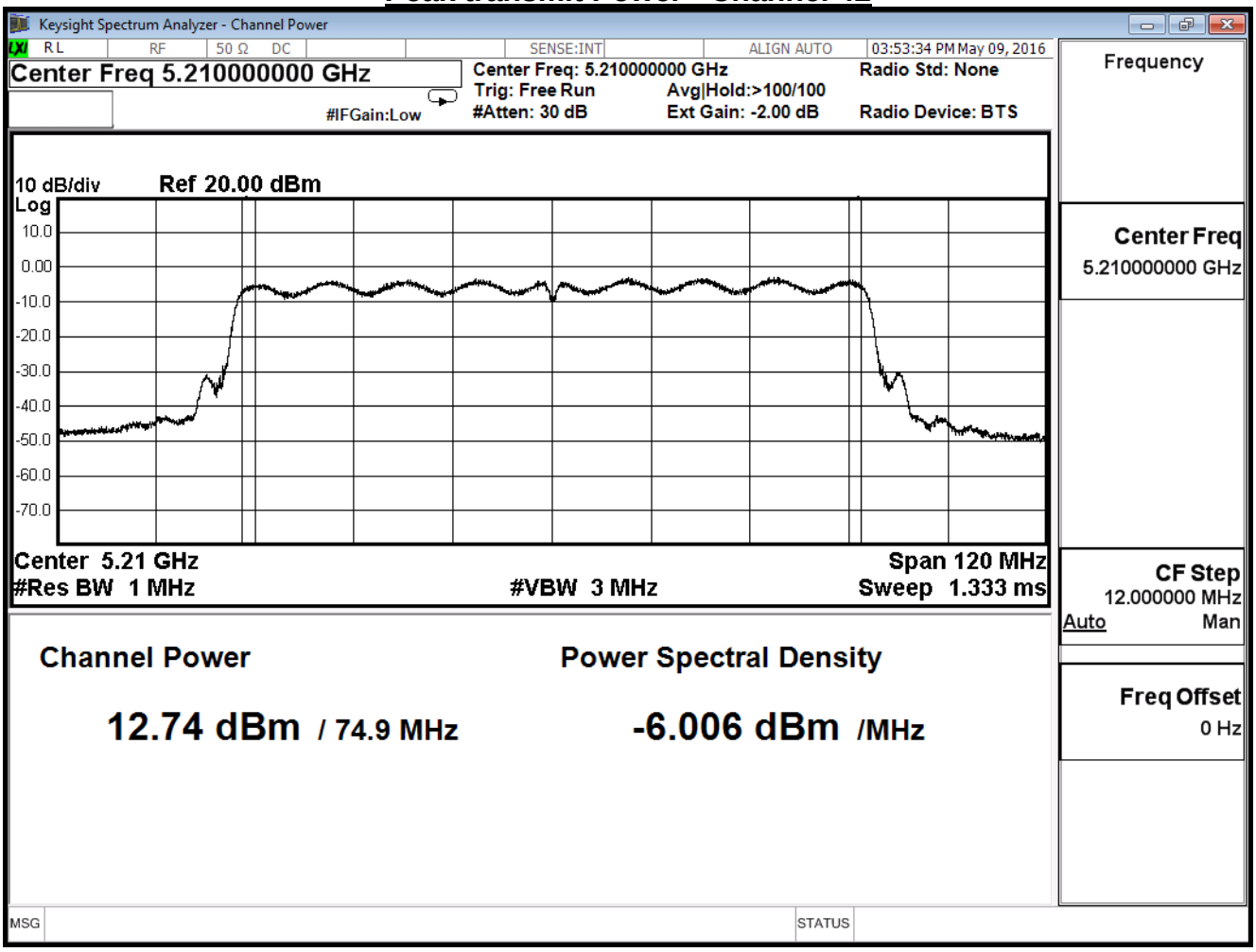
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
42	5210	12.74	≤21.2

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	
42	5210	12.74	12.64	12.54	12.34	12.14	12.04	11.92	11.80	11.68	11.44	≤21.2dBm

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=24-(8.8dBi-6dBi)=21.2dBi

Peak transmit Power - Channel 42



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11ac(80MHz)_ANT 2

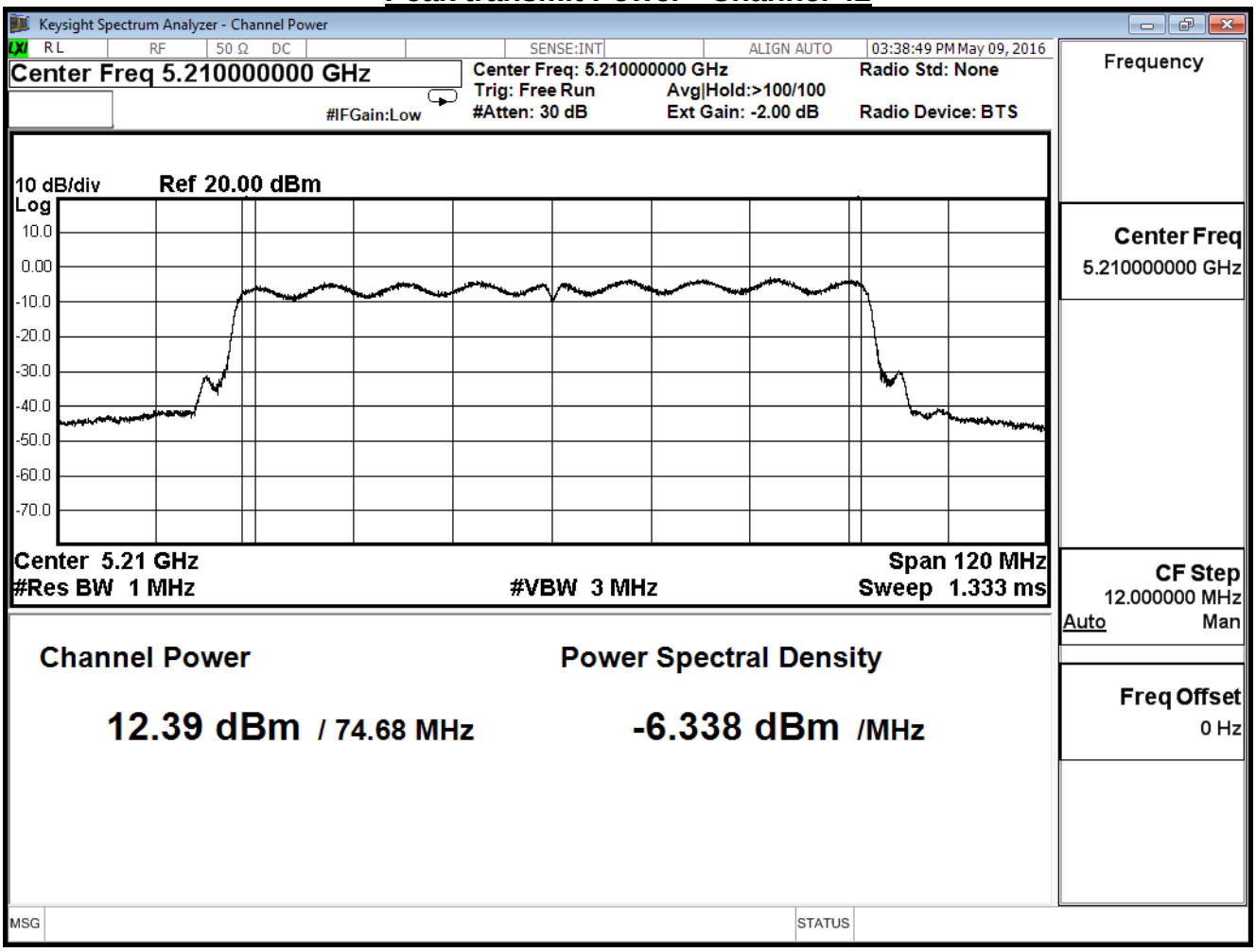
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
42	5210	12.39	≤21.2

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	
42	5210	12.39	12.19	12.09	11.89	11.69	11.59	11.35	11.23	11.11	10.99	≤21.2dBm

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=24-(8.8dBi-6dBi)=21.2dBi

Peak transmit Power - Channel 42



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11ac(80MHz)_ANT 0+1+2

Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
42	5210	17.24	≤21.2

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	
42	5210	17.24	17.08	16.94	16.74	16.54	16.44	16.28	16.16	16.01	15.84	≤21.2dBm

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=24-(8.8dBi-6dBi)=21.2dBi

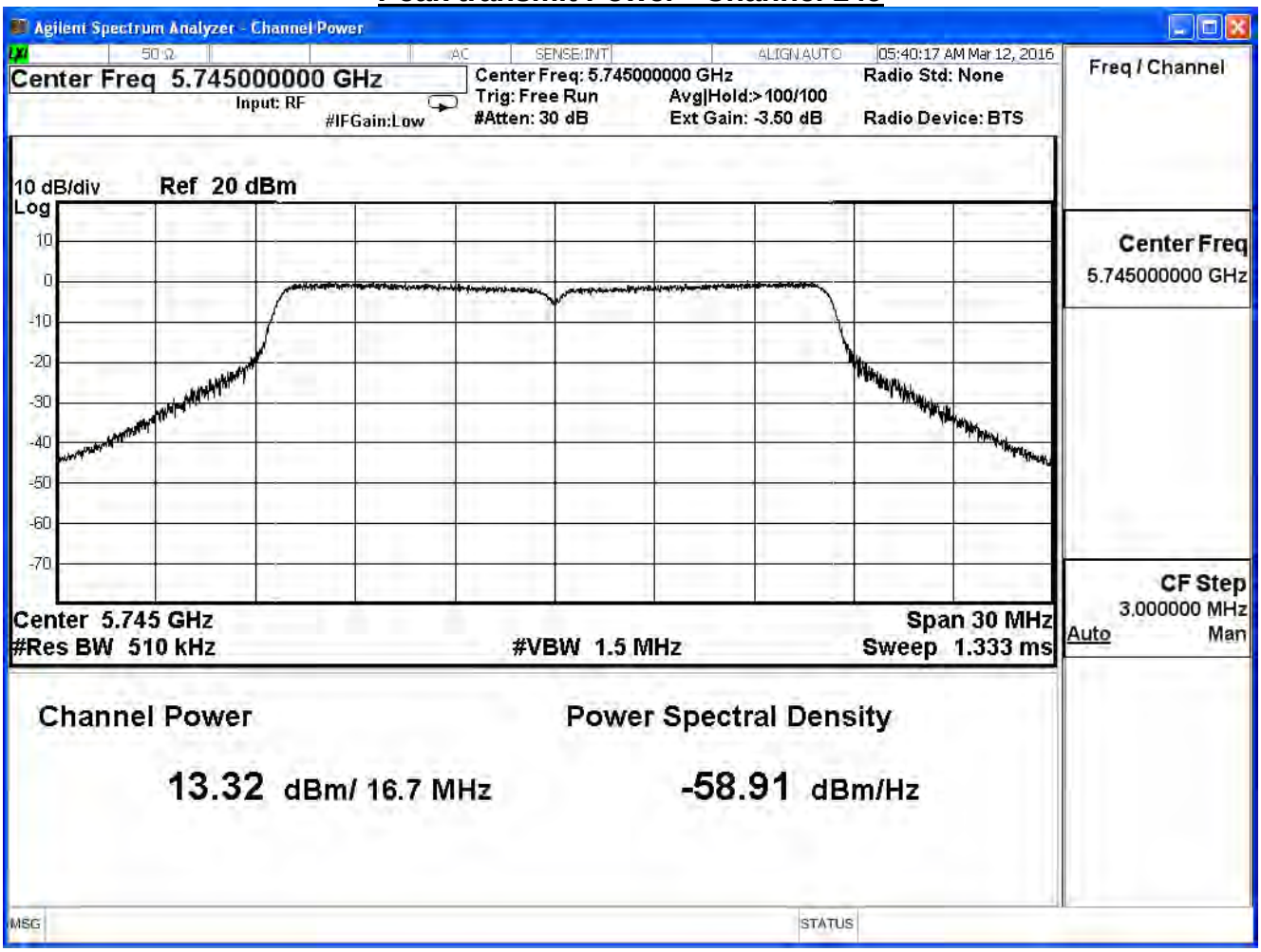
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11a_ANT 0			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	13.32	≤30
157	5785	13.45	≤30
165	5825	13.44	≤30

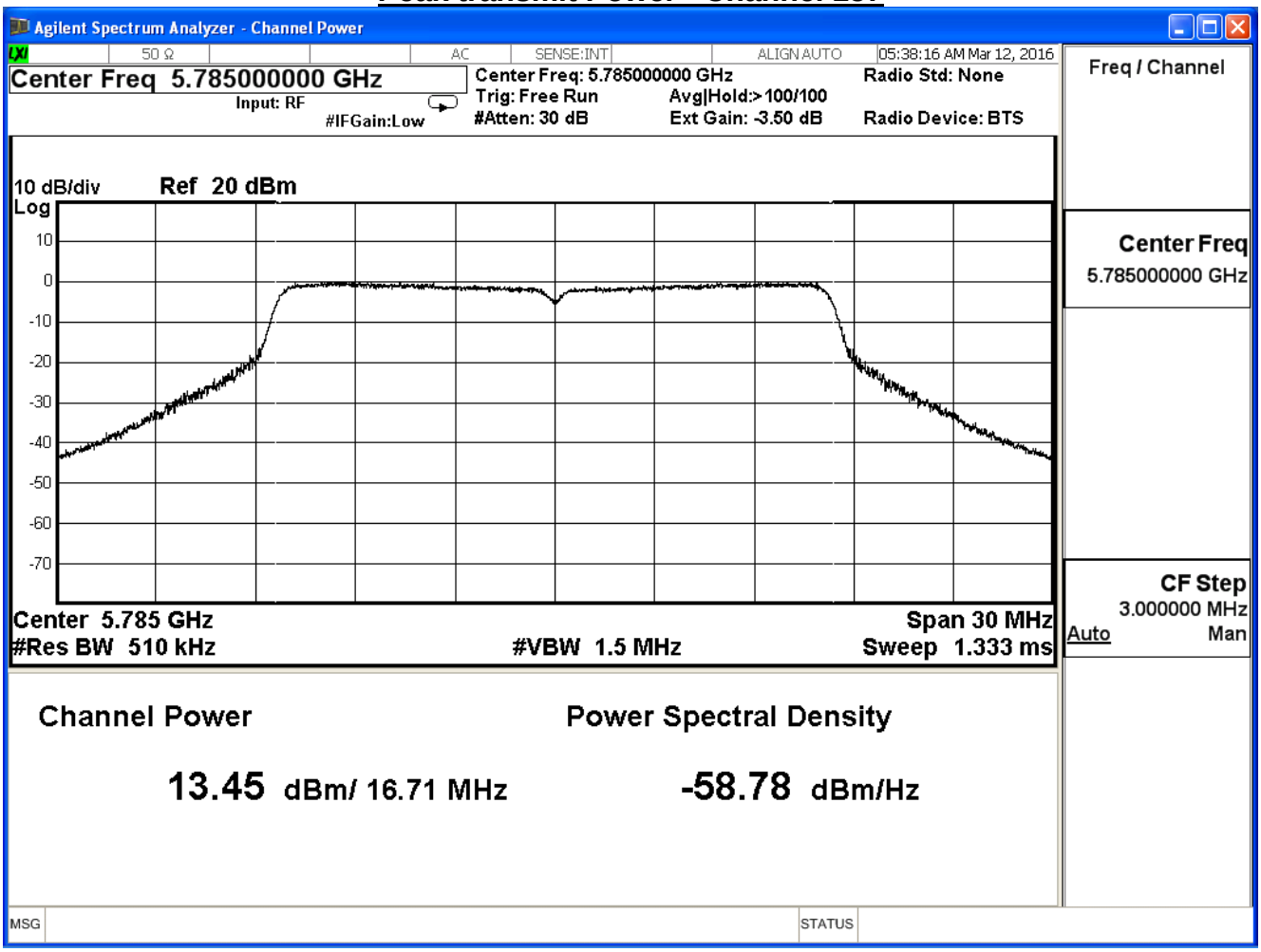
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	13.32	--	--	--	--	--	--	≤30dBm
157	5785	13.45	13.41	13.34	13.28	13.22	13.18	13.11	
165	5825	13.44	--	--	--	--	--	--	

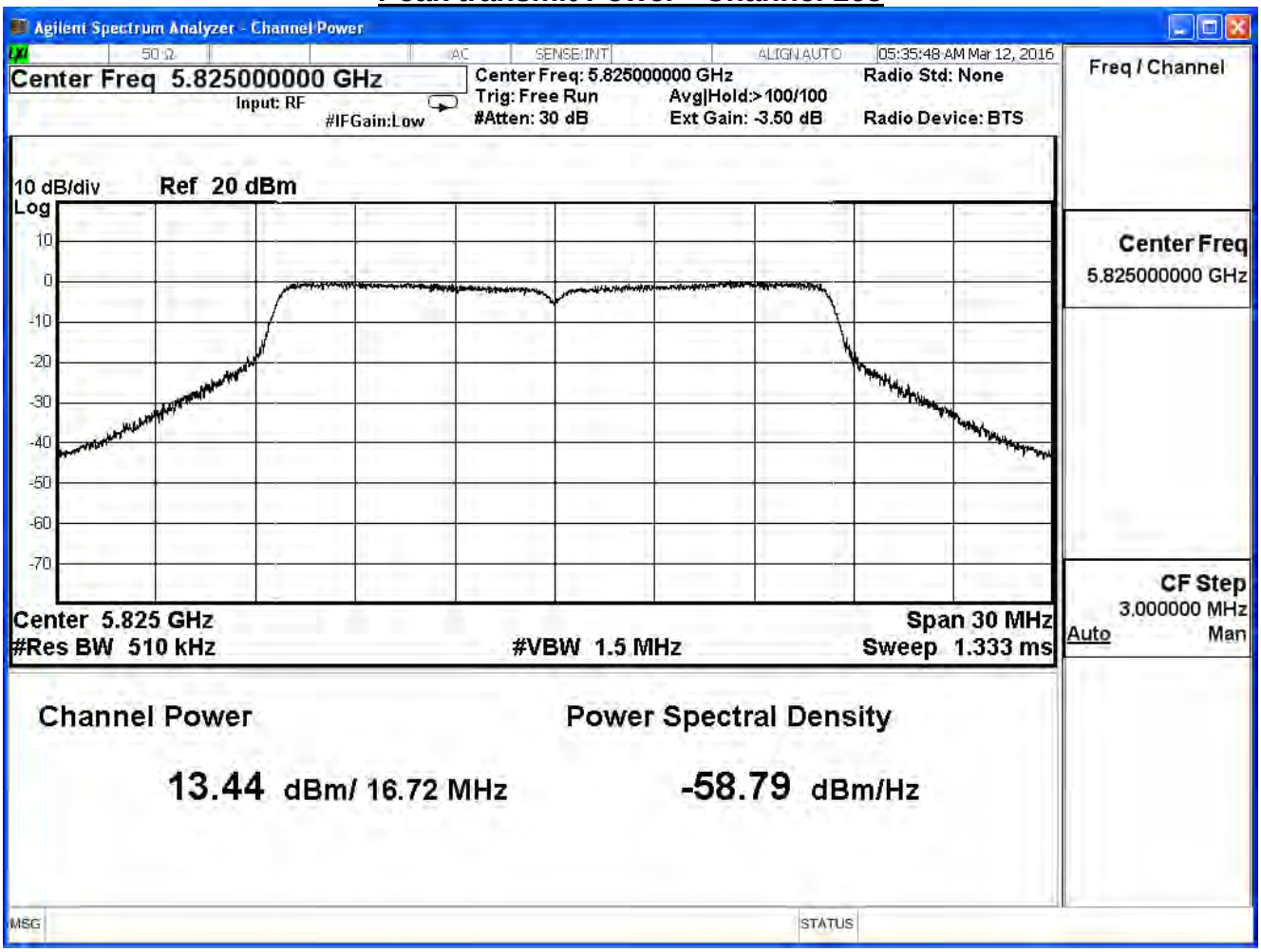
Peak transmit Power - Channel 149



Peak transmit Power - Channel 157



Peak transmit Power - Channel 165



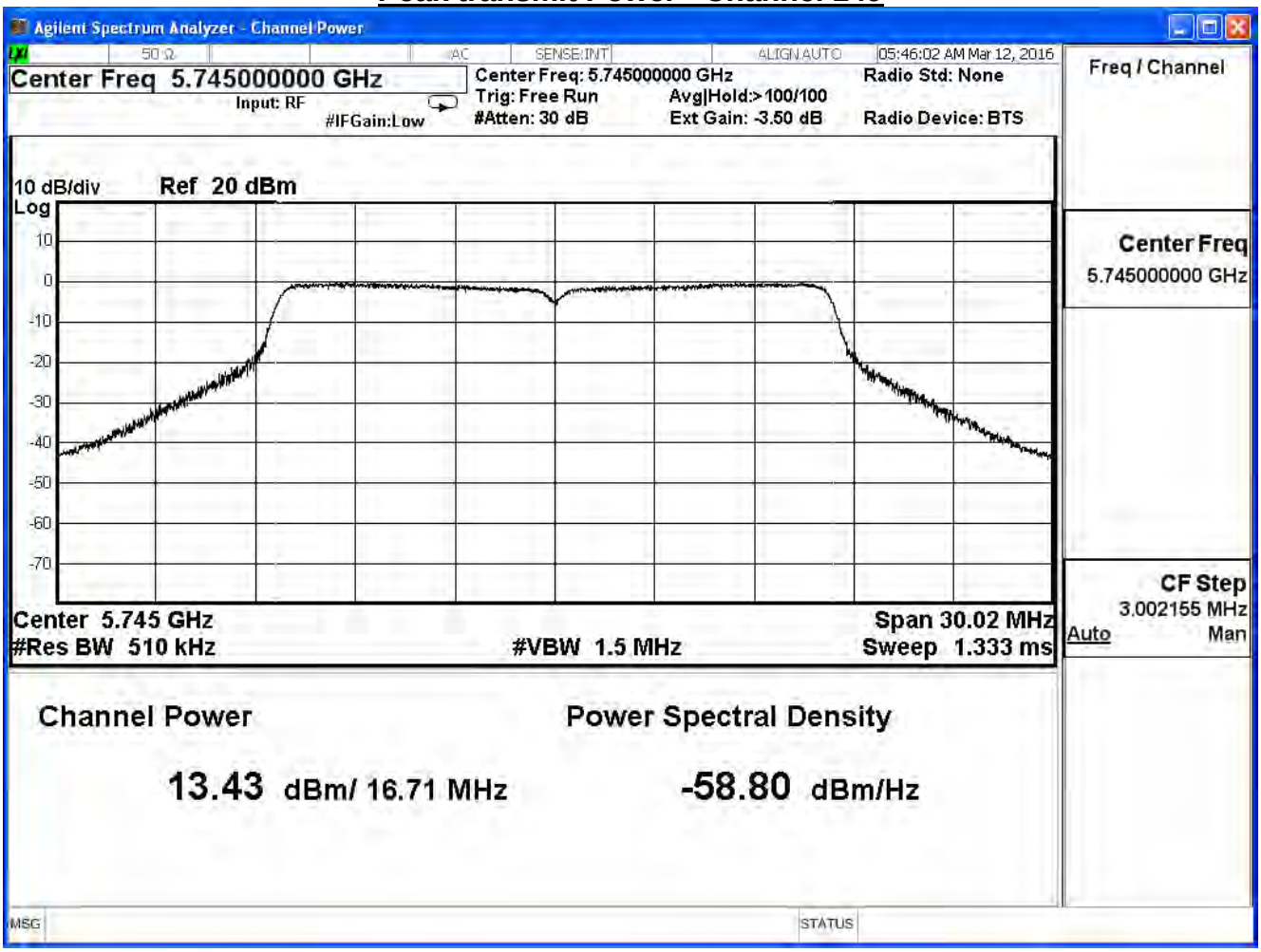
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/12	Test Site	SR7

802.11a_ANT 1			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	13.43	≤30
157	5785	13.42	≤30
165	5825	13.49	≤30

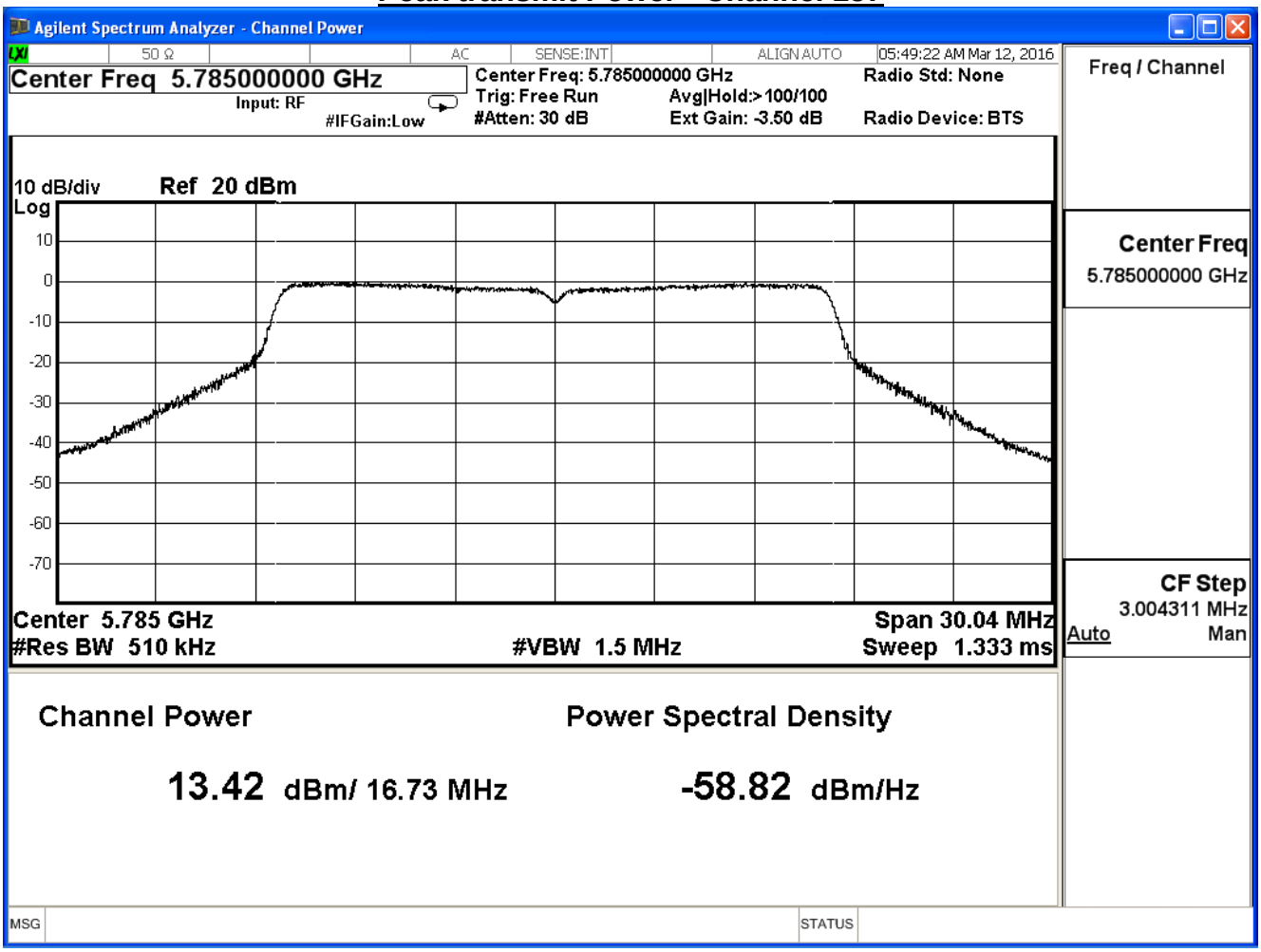
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	13.43	--	--	--	--	--	--	≤30dBm
157	5785	13.42	13.38	13.31	13.28	13.22	13.17	13.11	
165	5825	13.49	--	--	--	--	--	--	

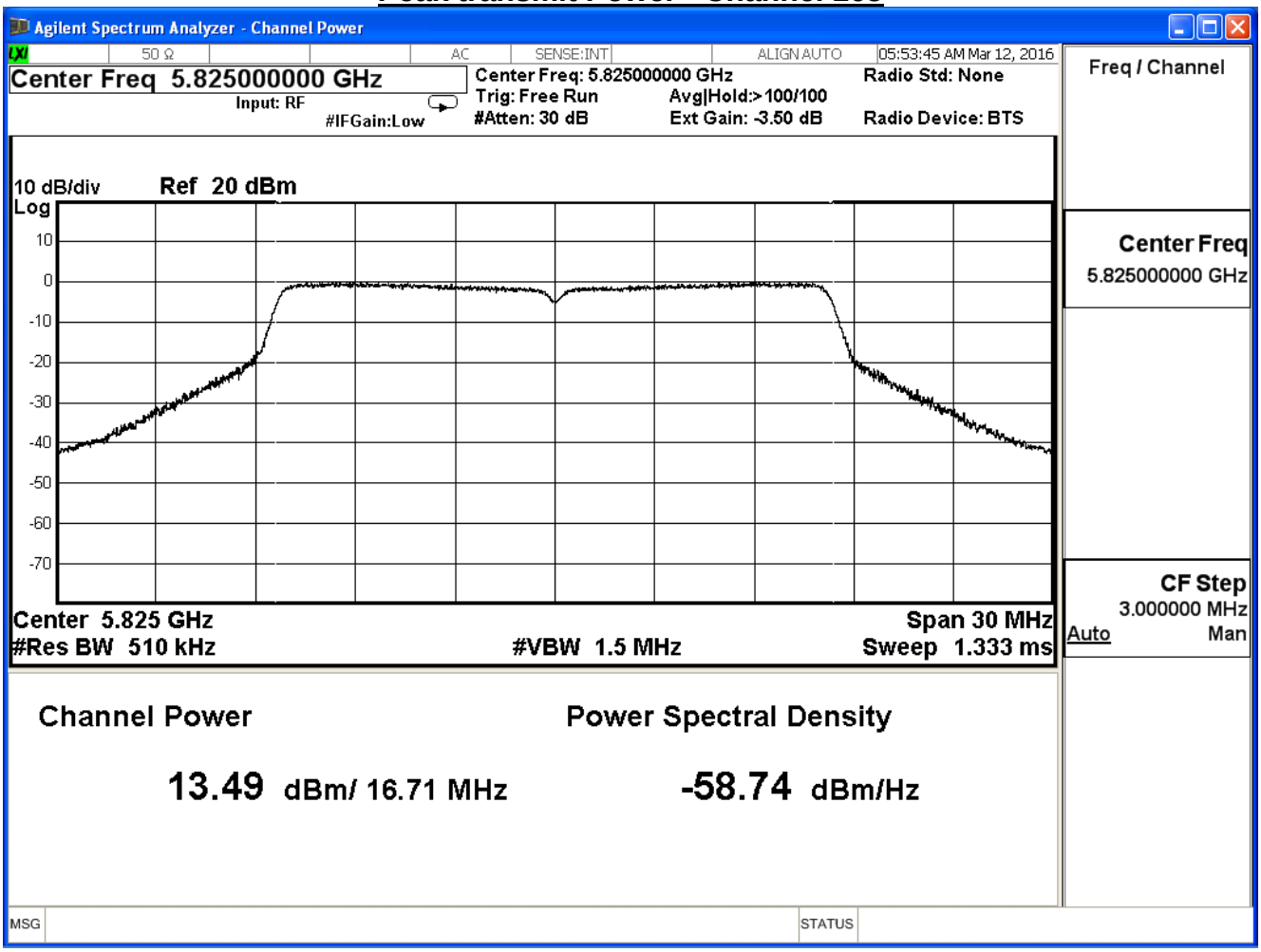
Peak transmit Power - Channel 149



Peak transmit Power - Channel 157



Peak transmit Power - Channel 165



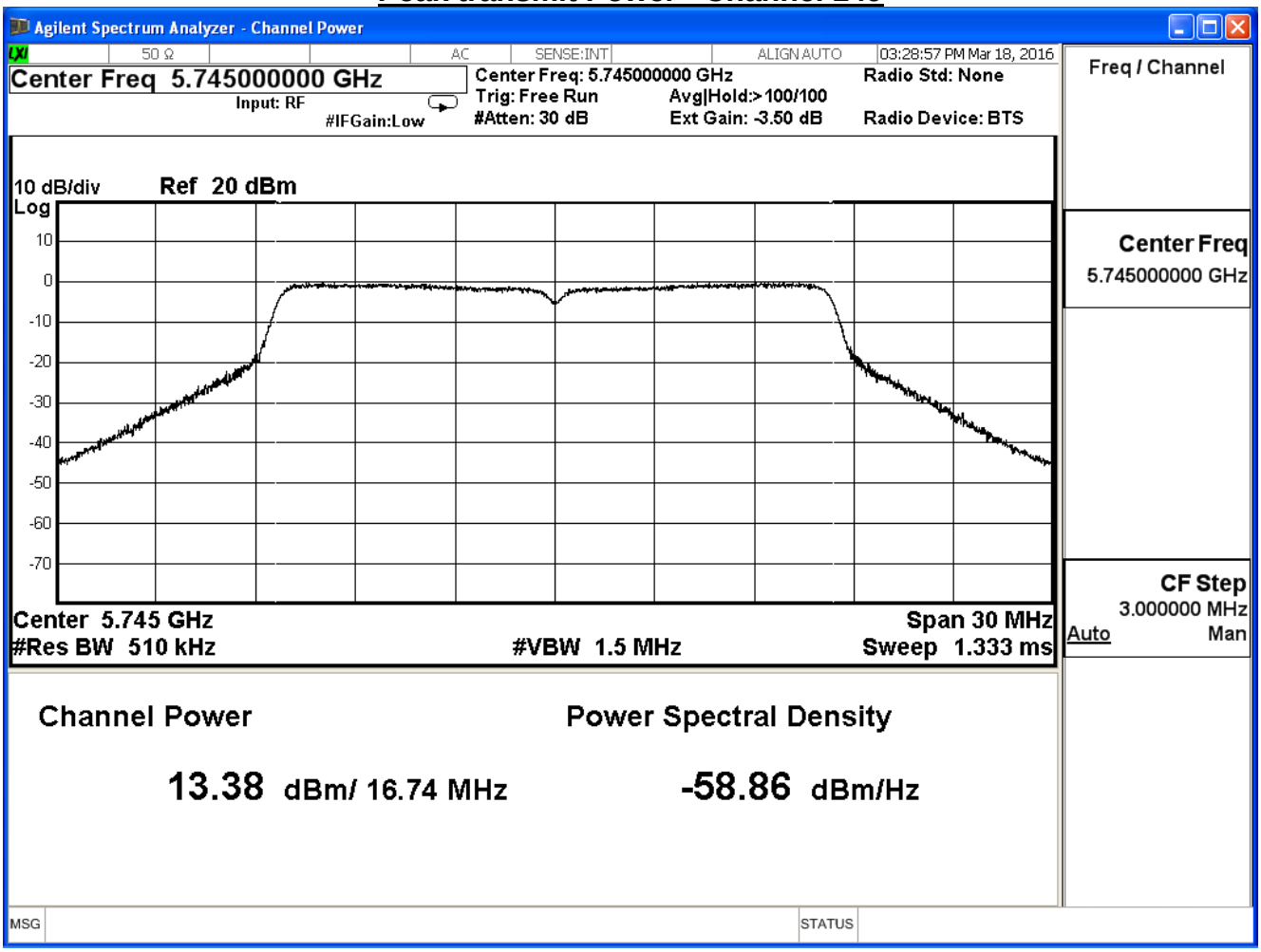
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 1: Transmit_SISO Mode		
Date of Test	2016/03/18	Test Site	SR7

802.11a_ANT 2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	13.38	≤30
157	5785	13.59	≤30
165	5825	13.71	≤30

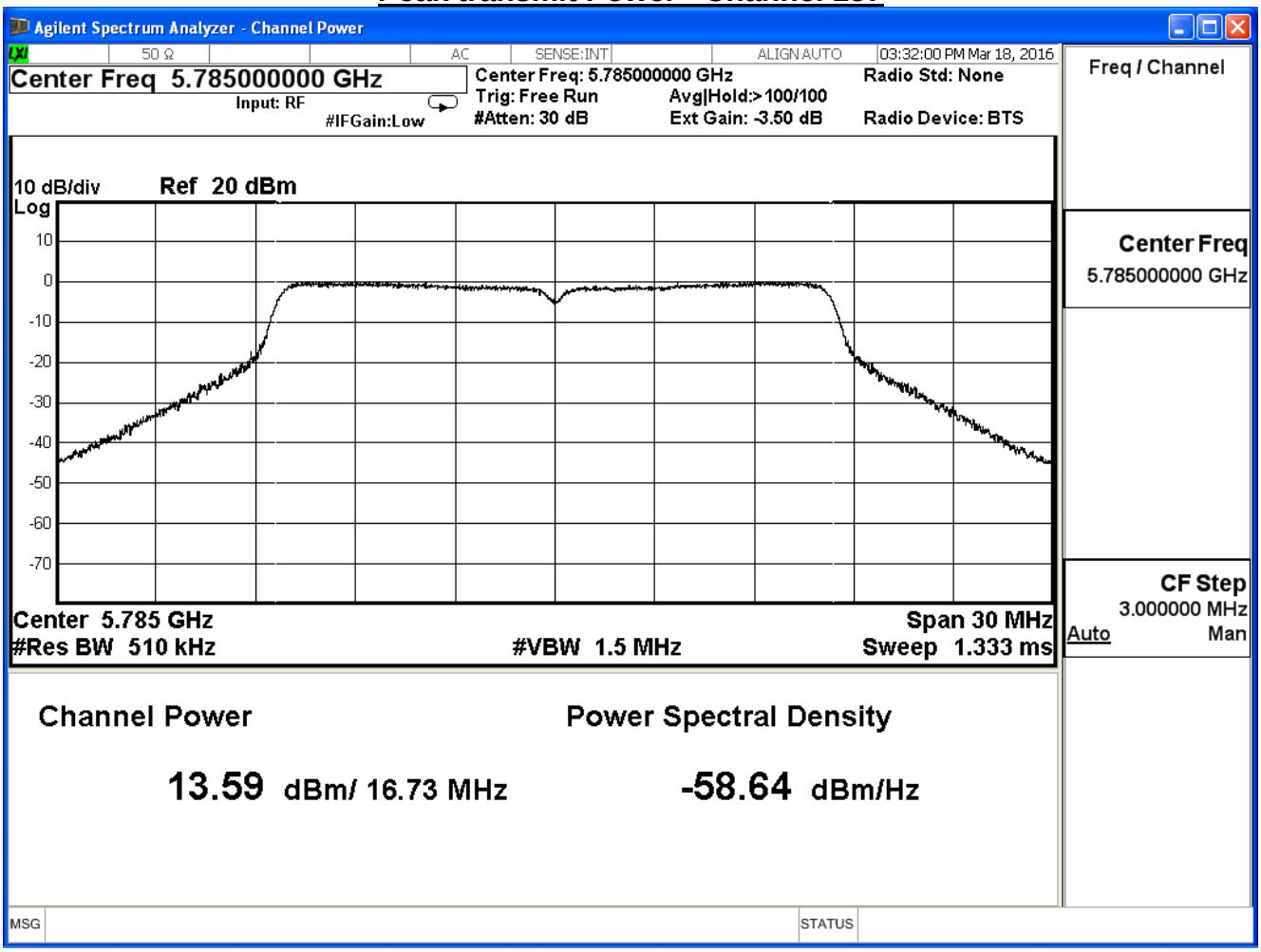
The worst emission of data rate is 6Mbps.

Peak Power Output (dBm)									
Channel No	Frequency (MHz)	Data Rate							Required Limit
		6	12	18	24	36	48	54	
149	5745	13.38	--	--	--	--	--	--	≤30dBm
157	5785	13.59	13.55	13.51	13.47	13.42	13.36	13.30	
165	5825	13.71	--	--	--	--	--	--	

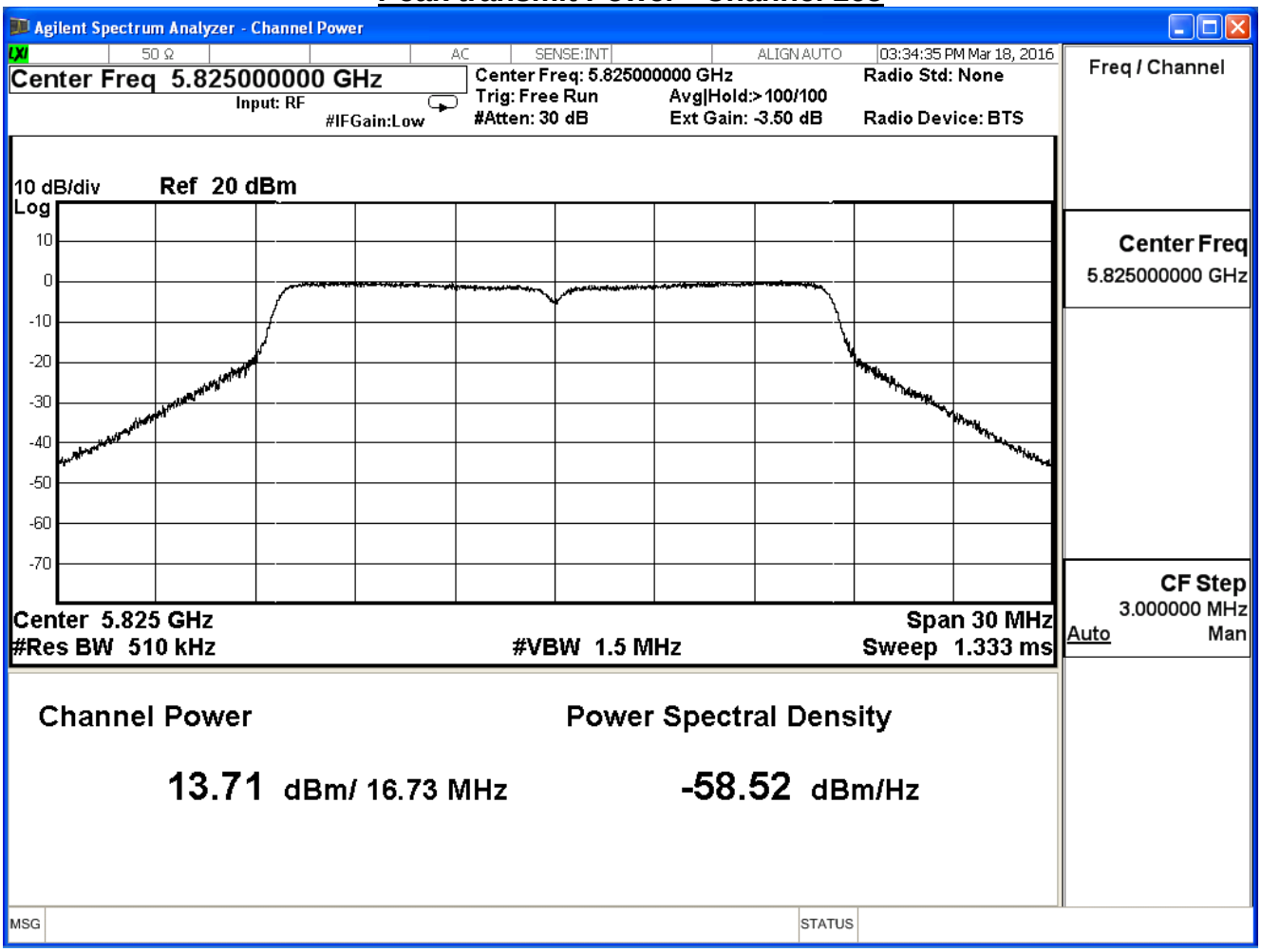
Peak transmit Power - Channel 149



Peak transmit Power - Channel 157



Peak transmit Power - Channel 165



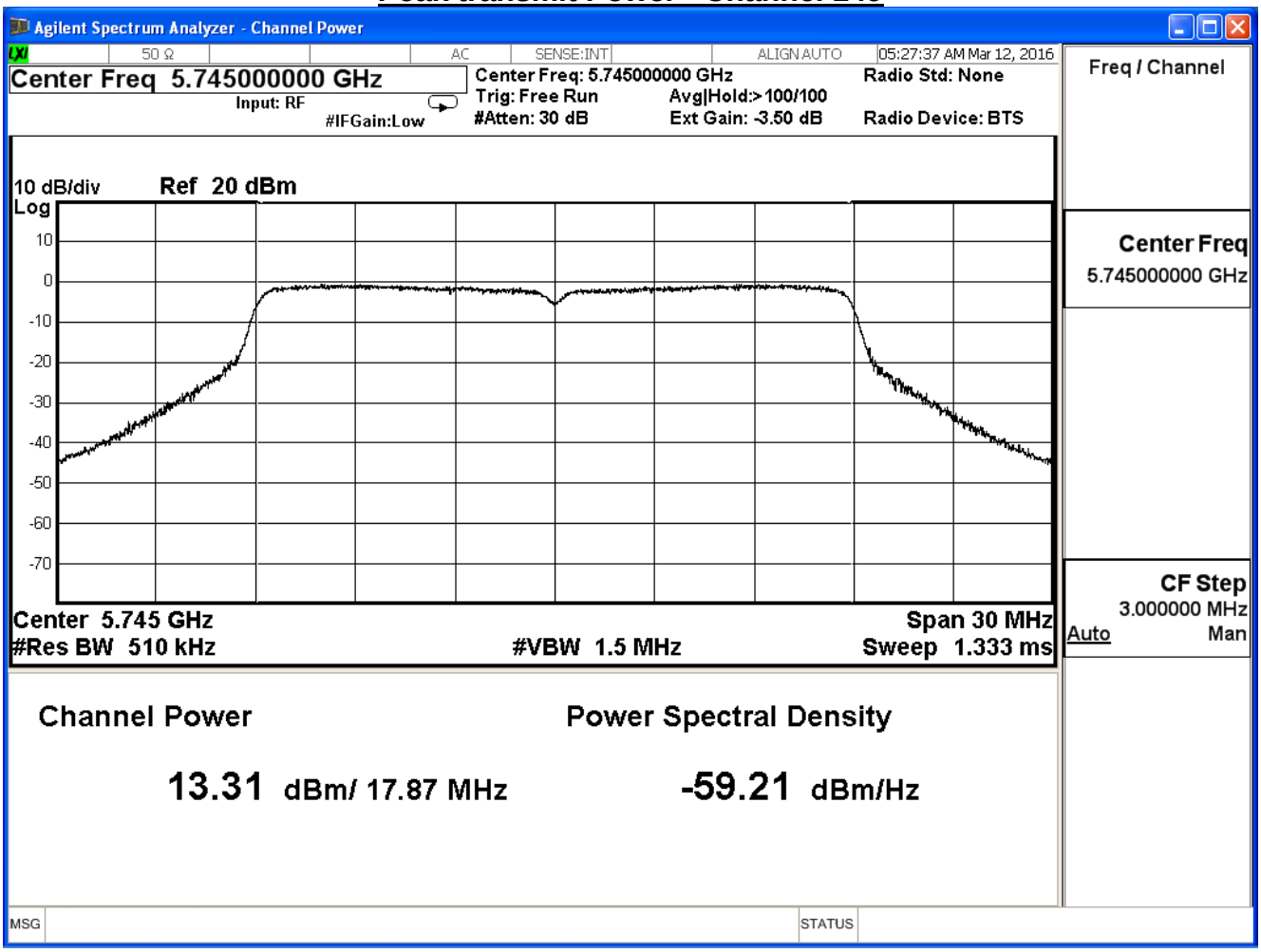
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

IEEE 802.11n(20MHz)_ANT 0			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	13.31	≤30
157	5785	13.48	≤30
165	5825	13.36	≤30

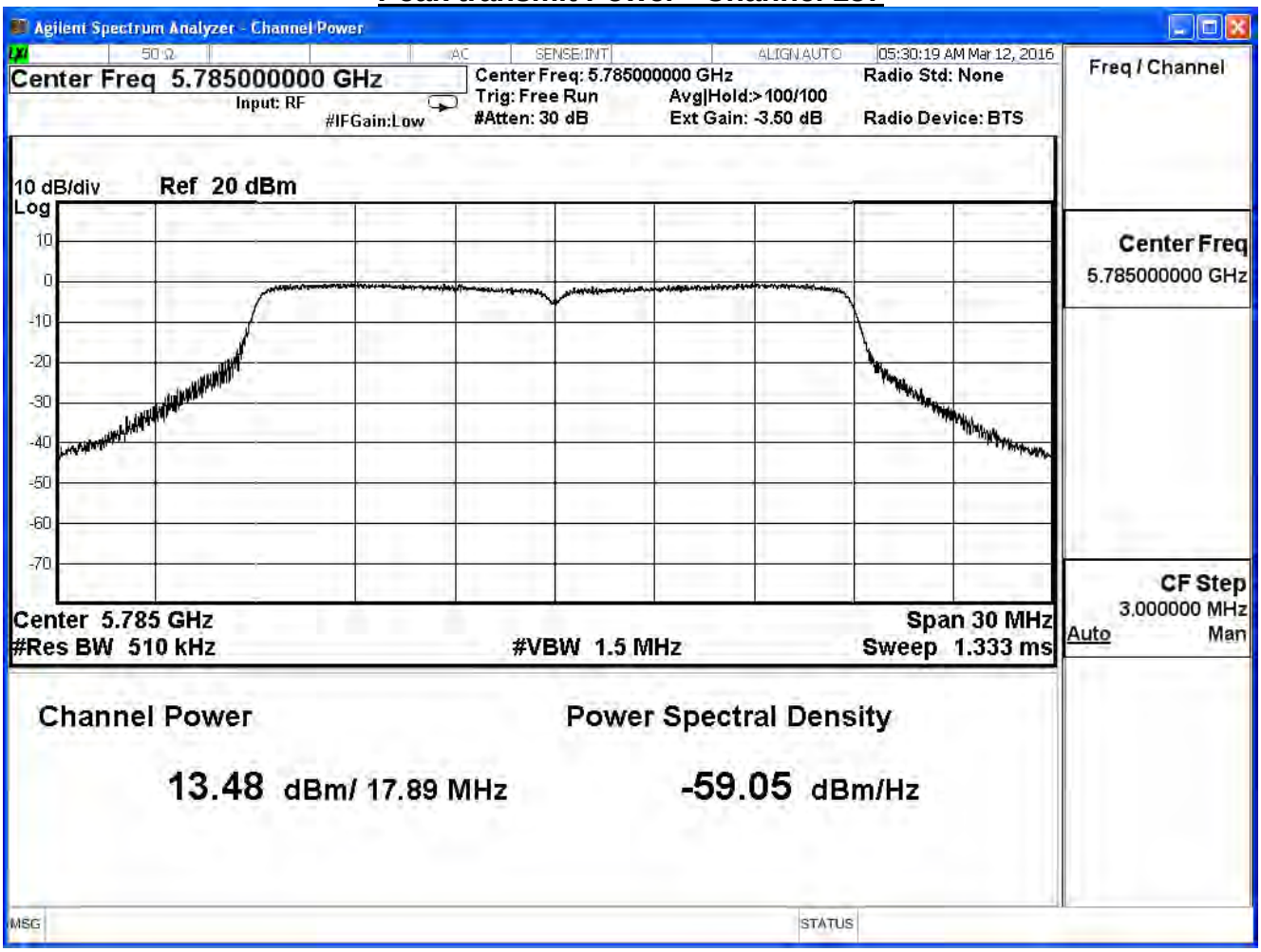
The worst emission of data rate is 19.5 Mbps.

Peak Power Output (dBm)									
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
149	5745	13.31	--	--	--	--	--	--	--	≤30dBm
157	5785	13.48	13.37	13.27	13.17	13.05	12.93	12.63	12.51	
165	5825	13.36	--	--	--	--	--	--	--	

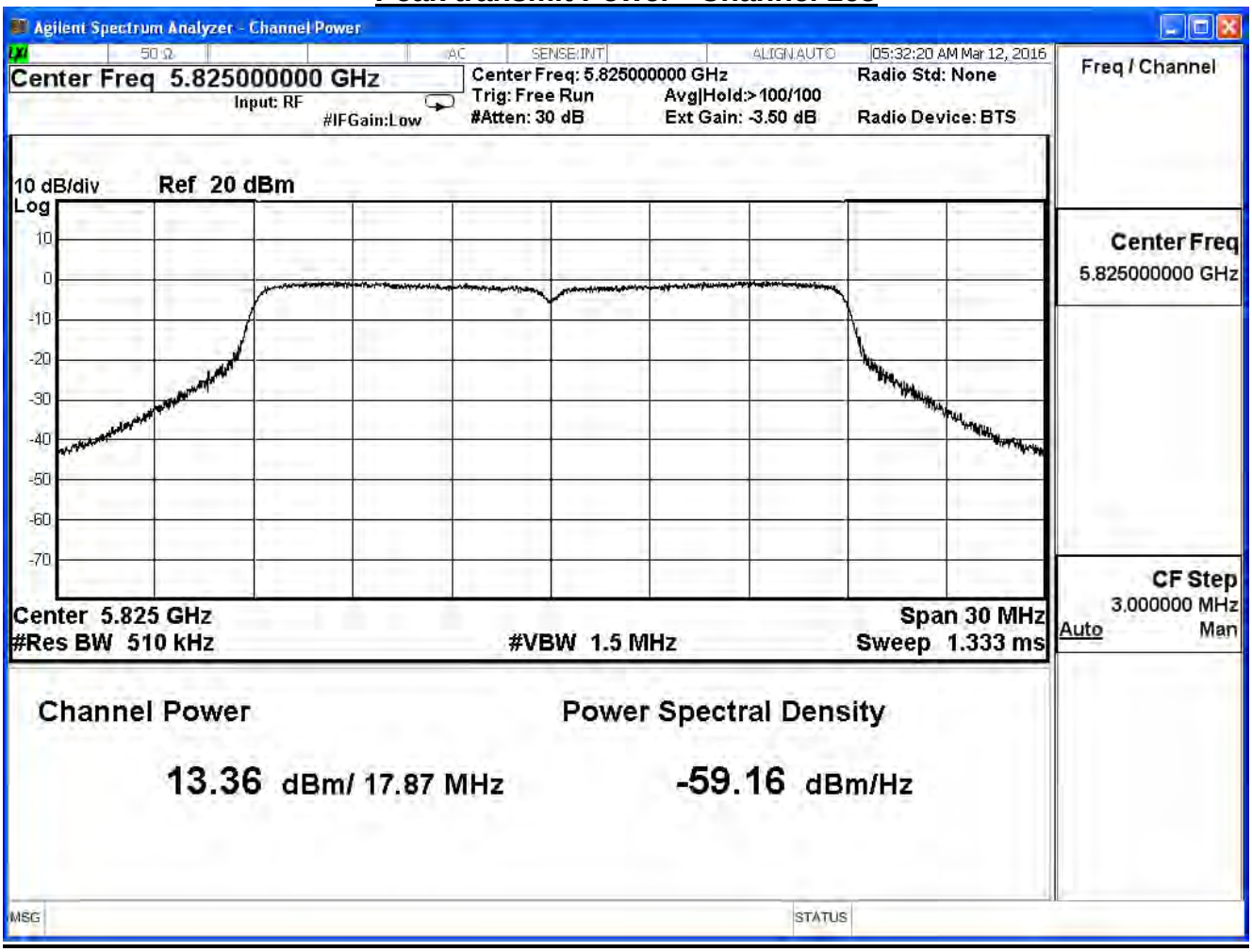
Peak transmit Power - Channel 149



Peak transmit Power - Channel 157



Peak transmit Power - Channel 165



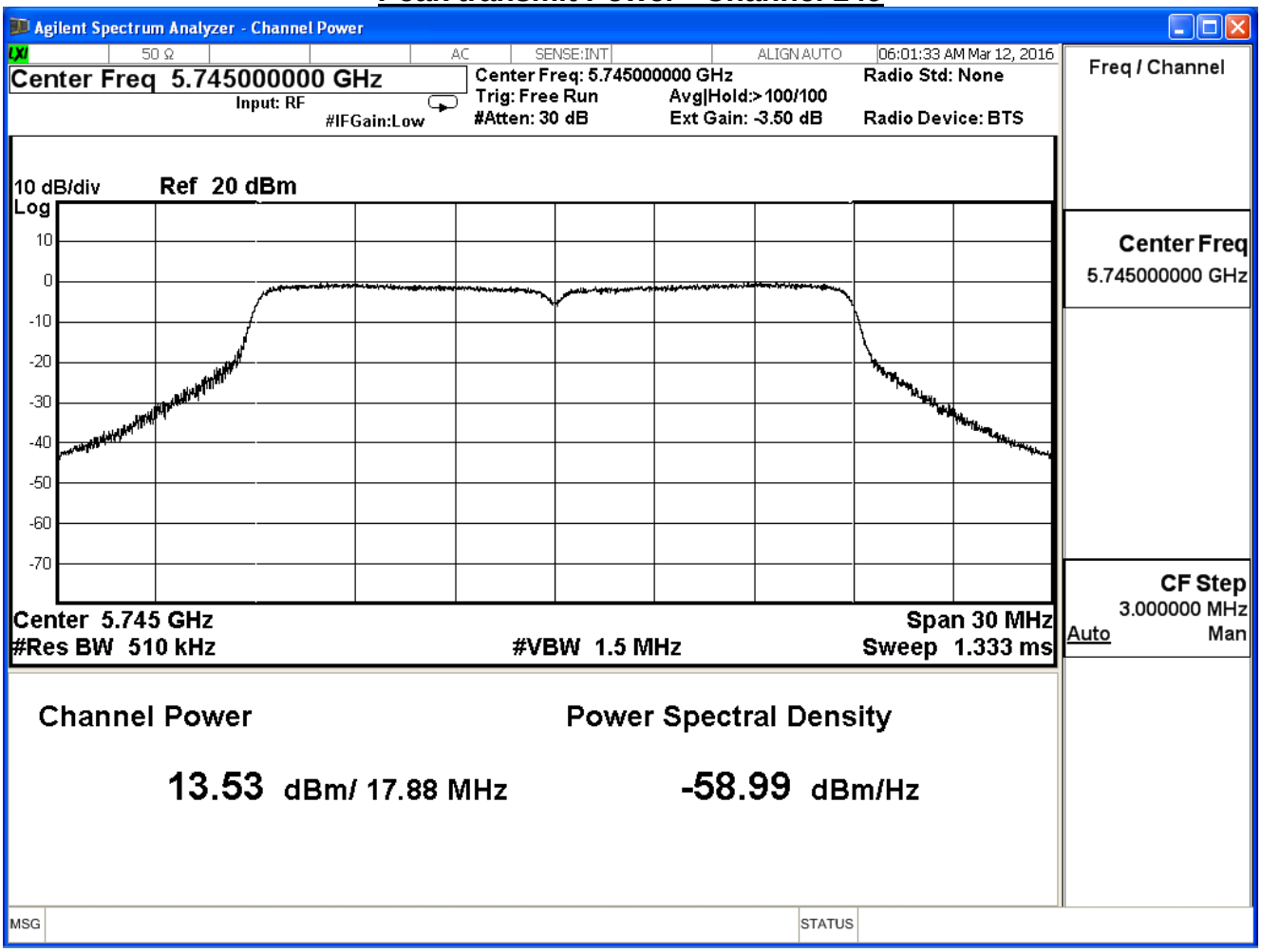
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

IEEE 802.11n(20MHz)_ANT 1			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	13.53	≤30
157	5785	13.45	≤30
165	5825	13.54	≤30

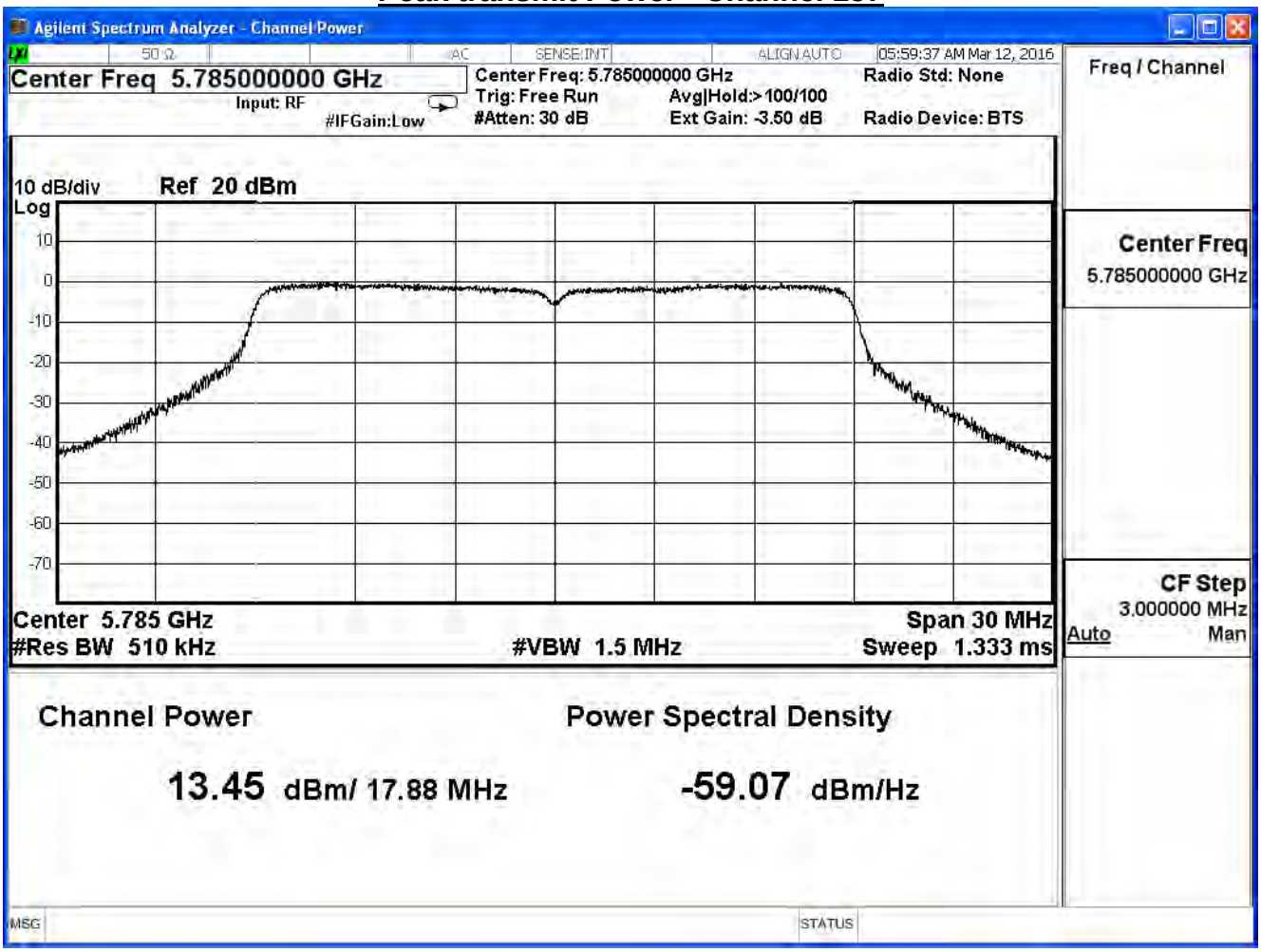
The worst emission of data rate is 19.5Mbps.

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
149	5745	13.53	--	--	--	--	--	--	--	≤30dBm
157	5785	13.45	13.25	13.01	12.81	12.61	12.35	12.23	11.99	
165	5825	13.54	--	--	--	--	--	--	--	

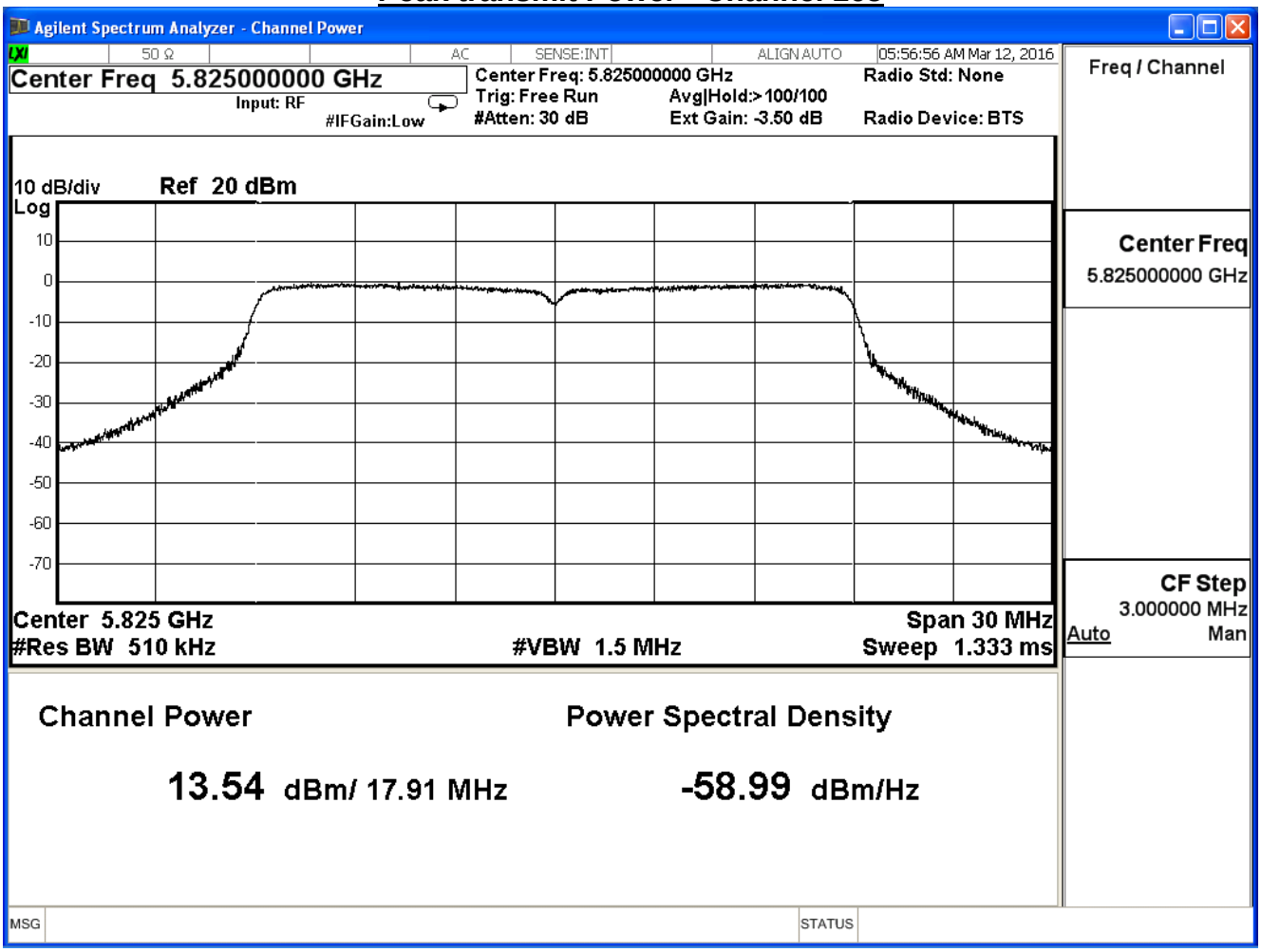
Peak transmit Power - Channel 149



Peak transmit Power - Channel 157



Peak transmit Power - Channel 165



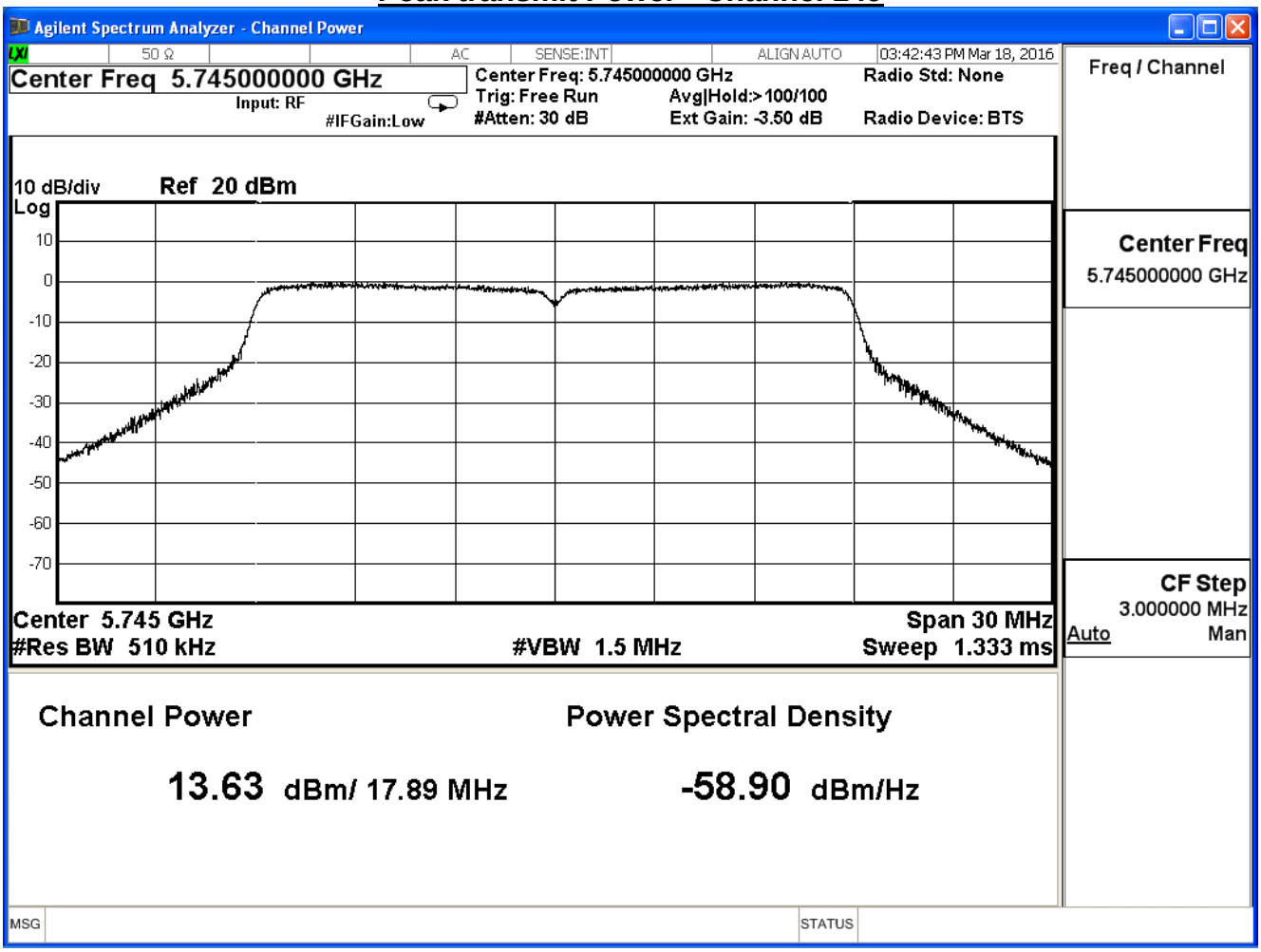
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/18	Test Site	SR7

IEEE 802.11n(20MHz)_ANT 2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	13.63	≤30
157	5785	13.42	≤30
165	5825	13.68	≤30

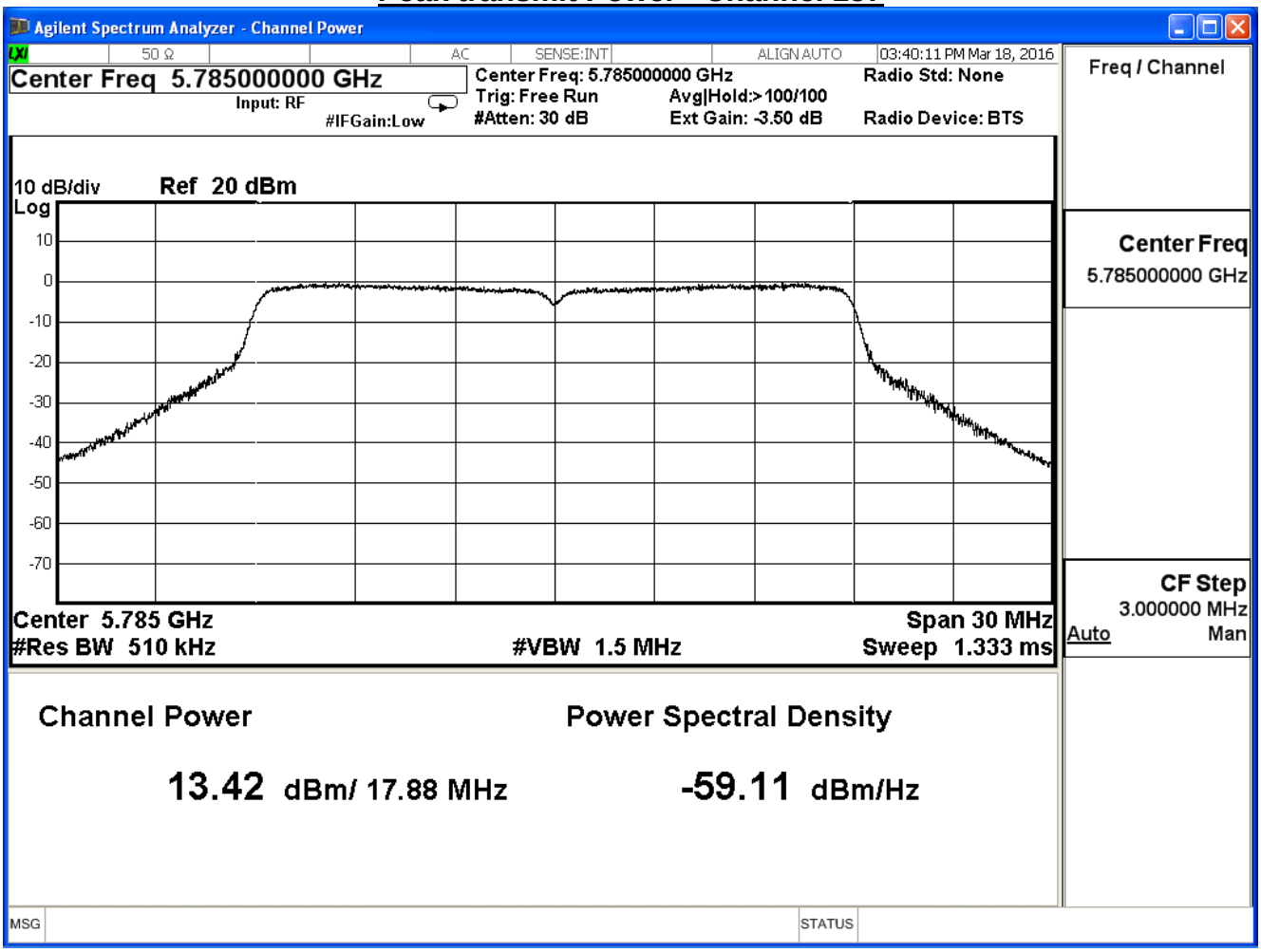
The worst emission of data rate is 19.5 Mbps.

Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
149	5745	13.63	--	--	--	--	--	--	--	≤30dBm
157	5785	13.42	13.22	13.02	12.78	12.68	12.56	12.44	12.32	
165	5825	13.68	--	--	--	--	--	--	--	

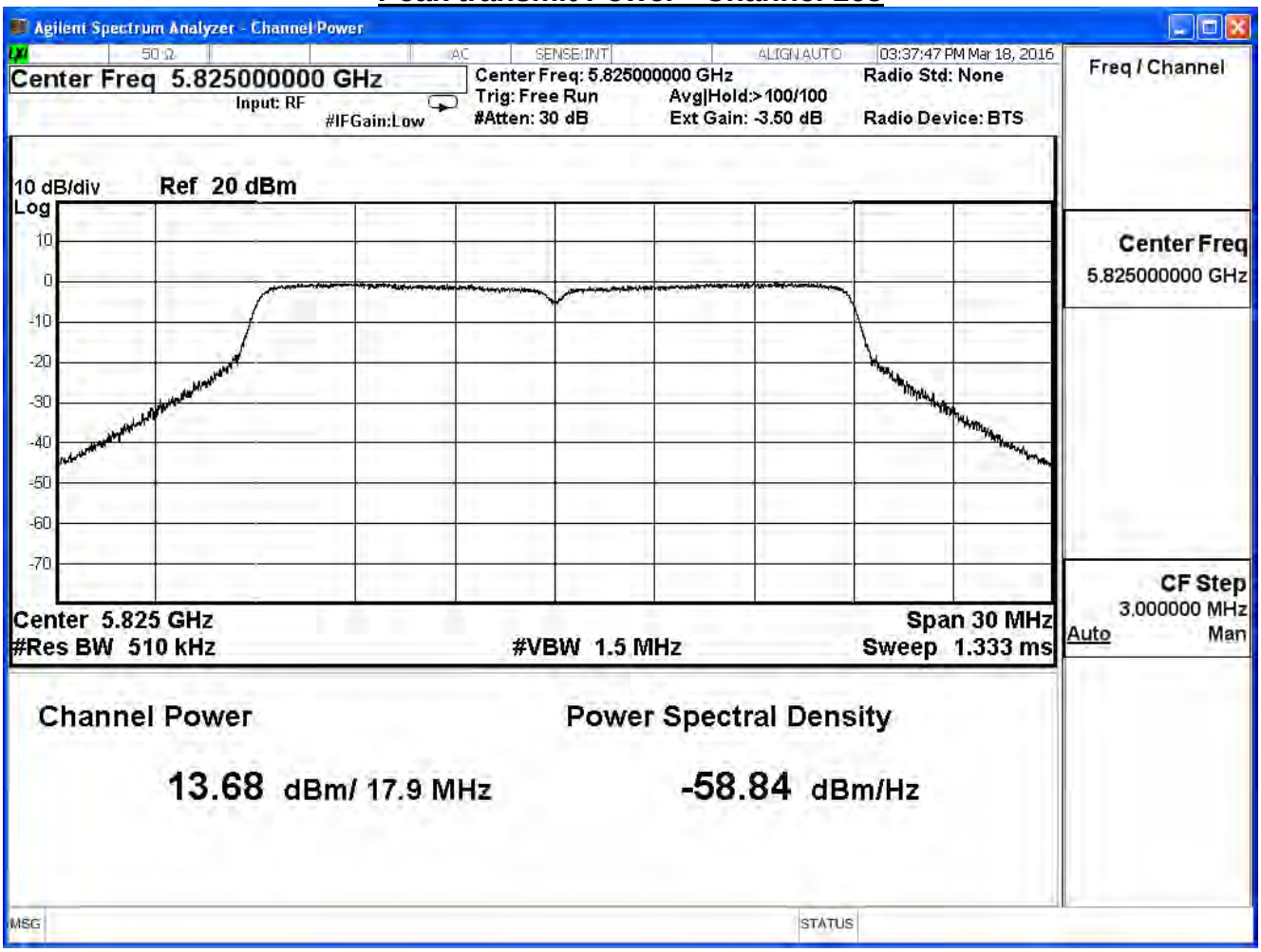
Peak transmit Power - Channel 149



Peak transmit Power - Channel 157



Peak transmit Power - Channel 165



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

IEEE 802.11n(20MHz)_ANT 0+1+2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	18.26	≤30
157	5785	18.22	≤30
165	5825	18.30	≤30

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	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
149	5745	18.26	--	--	--	--	--	--	--	≤30dBm
157	5785	18.22	18.05	17.87	17.69	17.56	17.39	17.21	17.05	
165	5825	18.30	--	--	--	--	--	--	--	

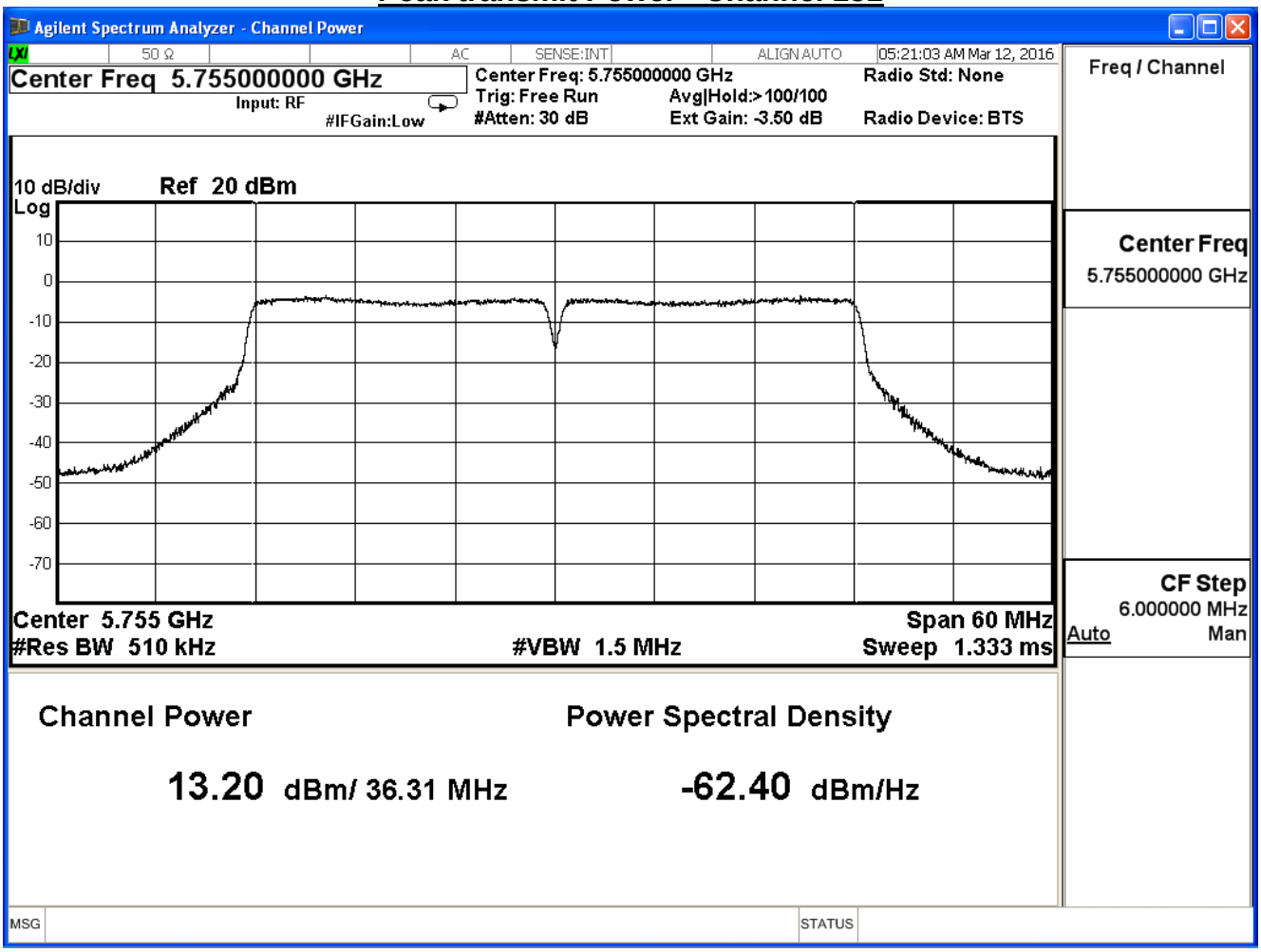
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

IEEE 802.11n(40MHz)_ANT 0			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	13.20	≤30
159	5795	13.32	≤30

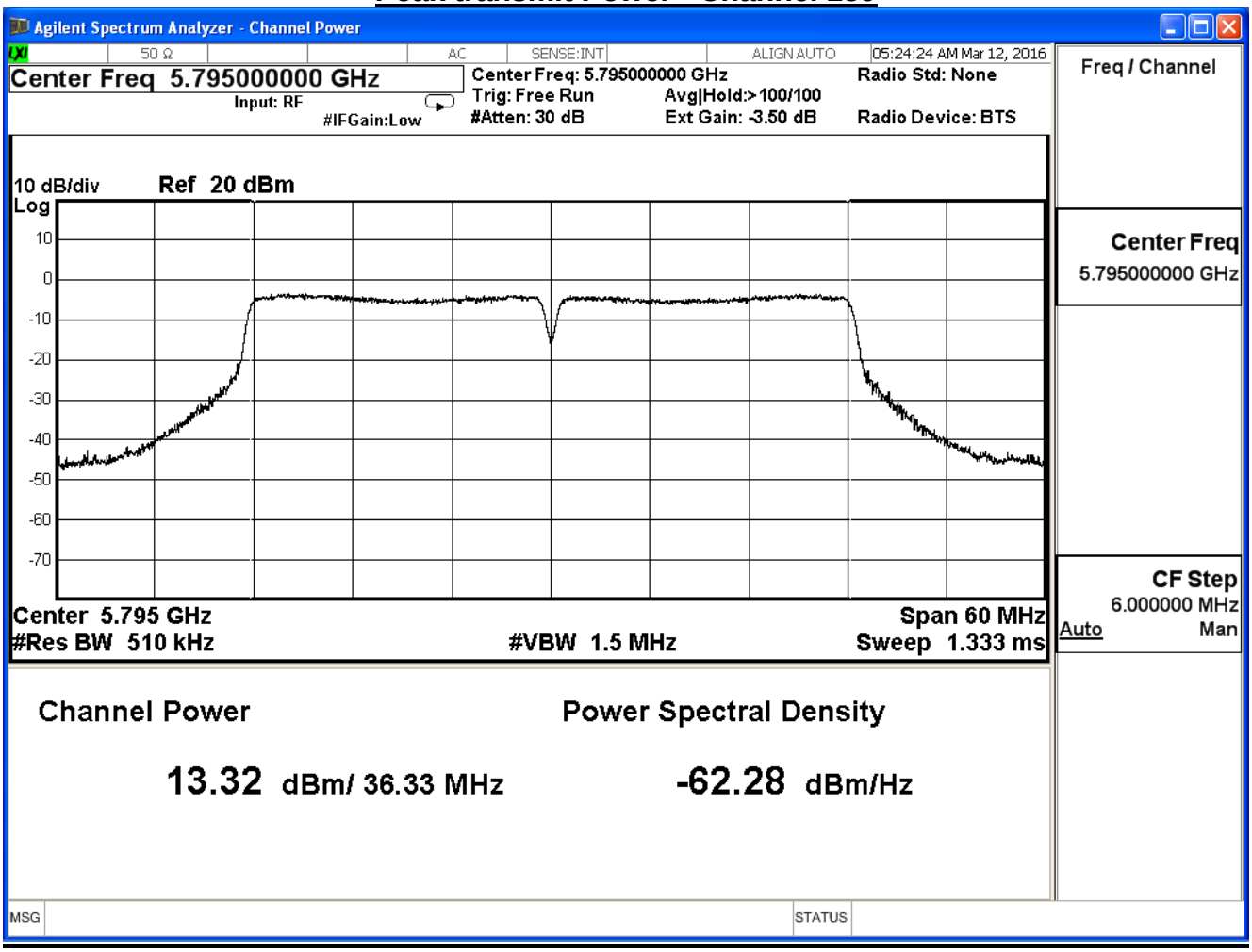
The worst emission of data rate is 40.5 Mbps.

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	13.20	--	--	--	--	--	--	--	≤30dBm
159	5795	13.32	13.12	12.92	12.72	12.52	12.28	12.04	11.80	

Peak transmit Power - Channel 151



Peak transmit Power - Channel 159



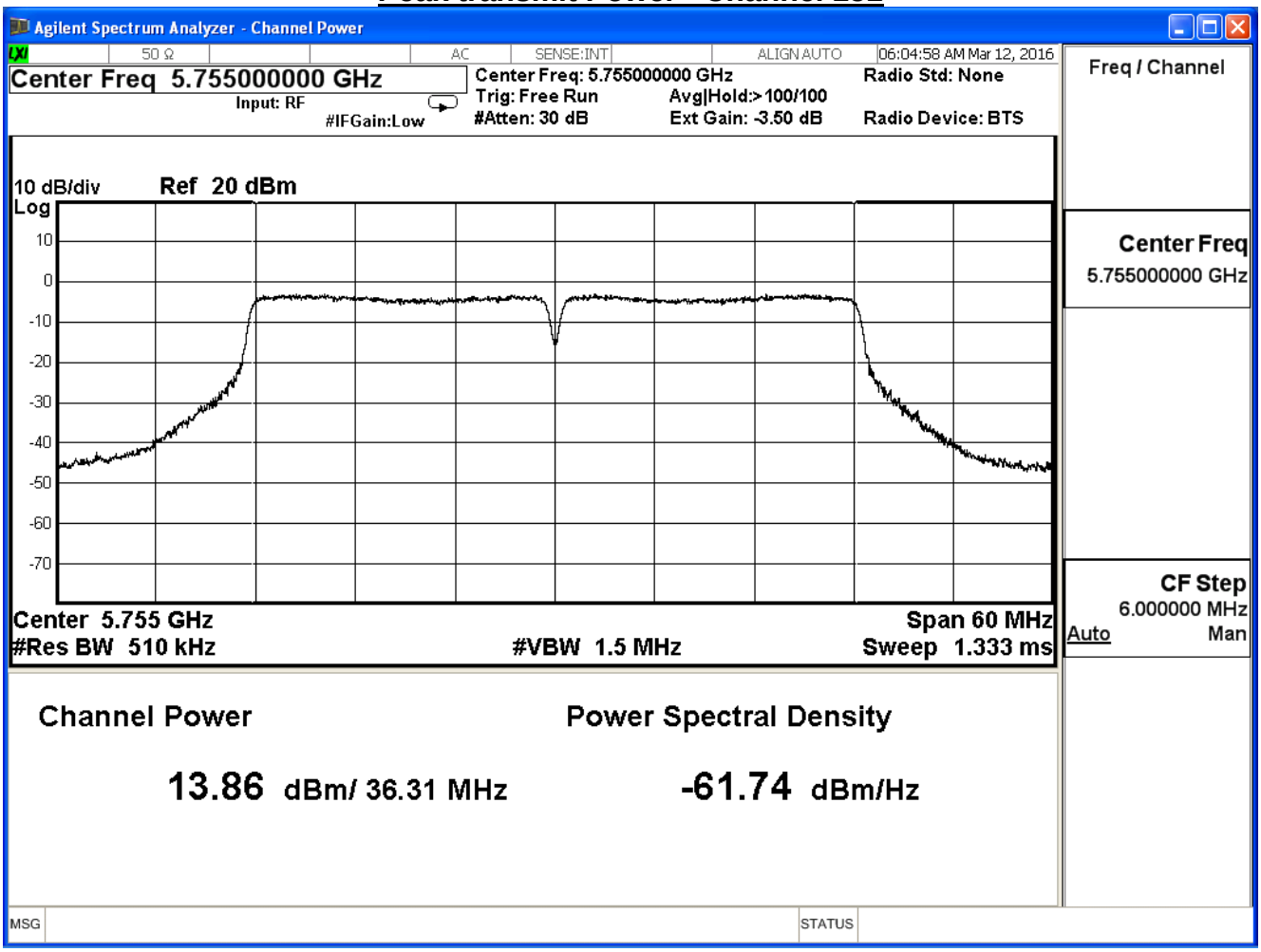
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

IEEE 802.11n(40MHz)_ANT 1			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	13.86	≤30
159	5795	13.28	≤30

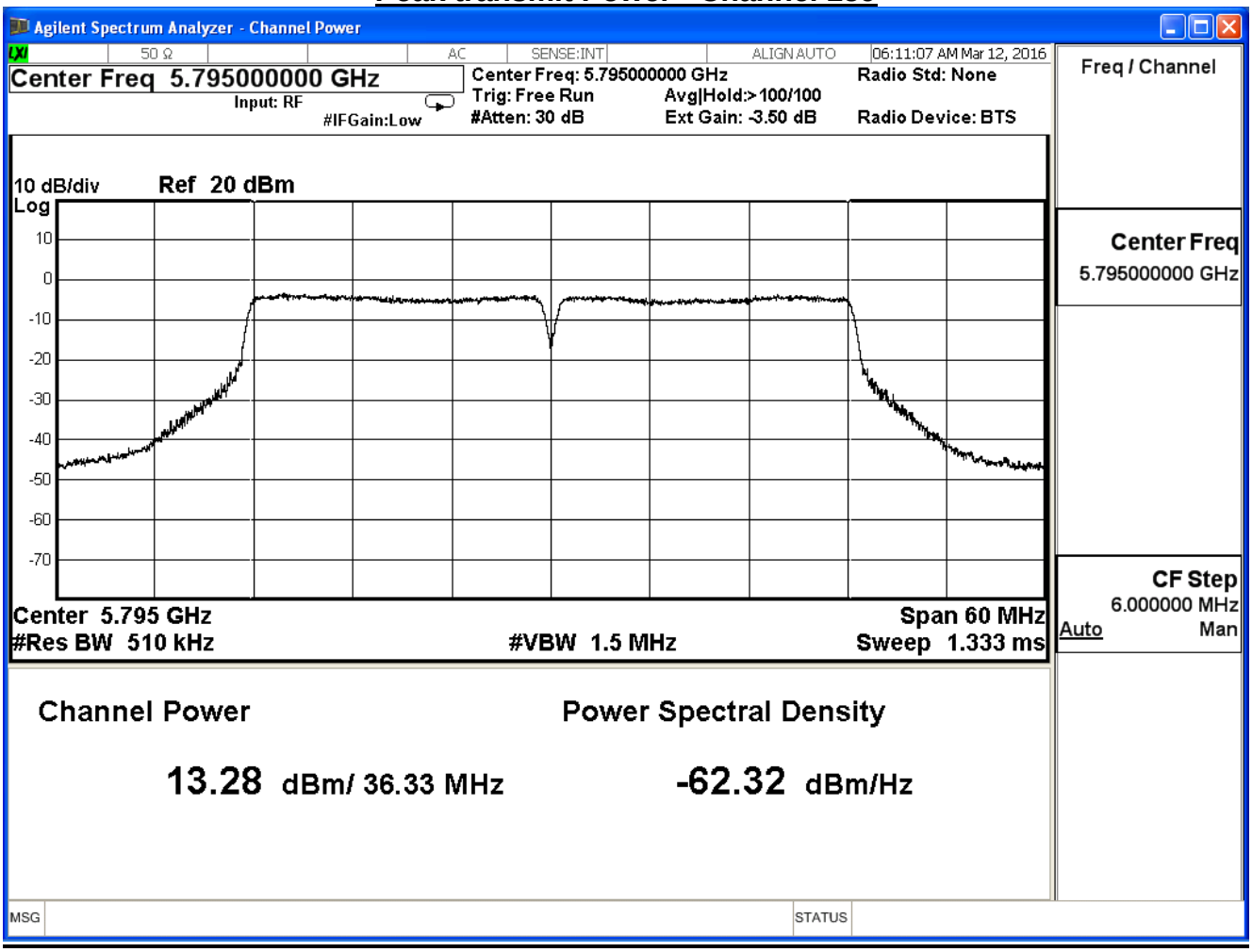
The worst emission of data rate is 40.5 Mbps.

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	13.86	--	--	--	--	--	--	--	≤30dBm
159	5795	13.28	13.08	12.88	12.78	12.68	12.56	12.32	12.08	

Peak transmit Power - Channel 151



Peak transmit Power - Channel 159



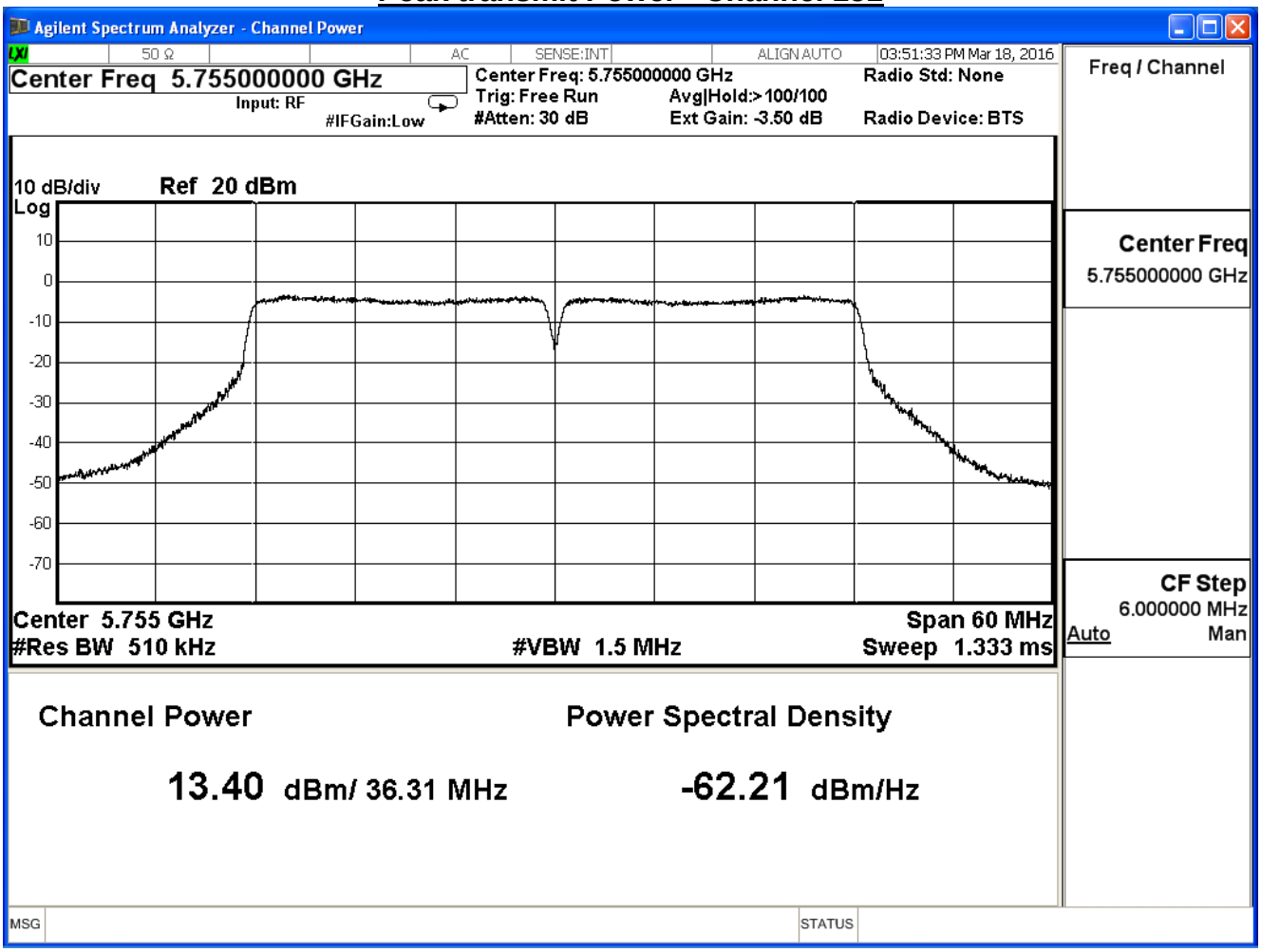
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/18	Test Site	SR7

IEEE 802.11n(40MHz)_ANT 2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	13.40	≤30
159	5795	13.24	≤30

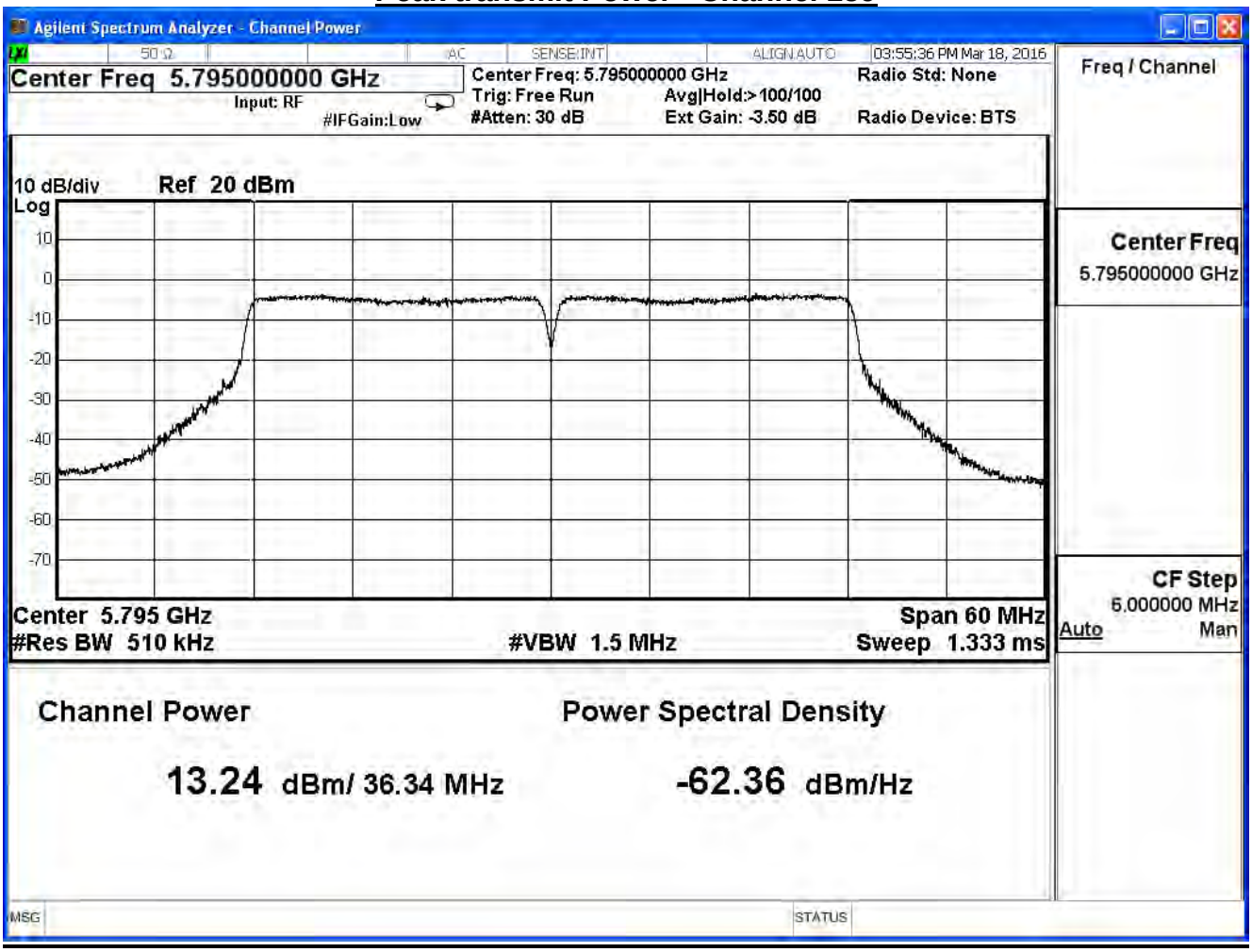
The worst emission of data rate is 40.5 Mbps.

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	13.40	--	--	--	--	--	--	--	≤30dBm
159	5795	13.24	13.14	13.04	12.94	12.84	12.60	12.48	12.36	

Peak transmit Power - Channel 151



Peak transmit Power - Channel 159



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

IEEE 802.11n(40MHz)_ANT 0+1+2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	18.27	≤30
159	5795	18.05	≤30

The worst emission of data rate is 40.5 Mbps.

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	18.27	--	--	--	--	--	--	--	≤30dBm
159	5795	18.05	17.88	17.72	17.59	17.45	17.25	17.06	16.86	

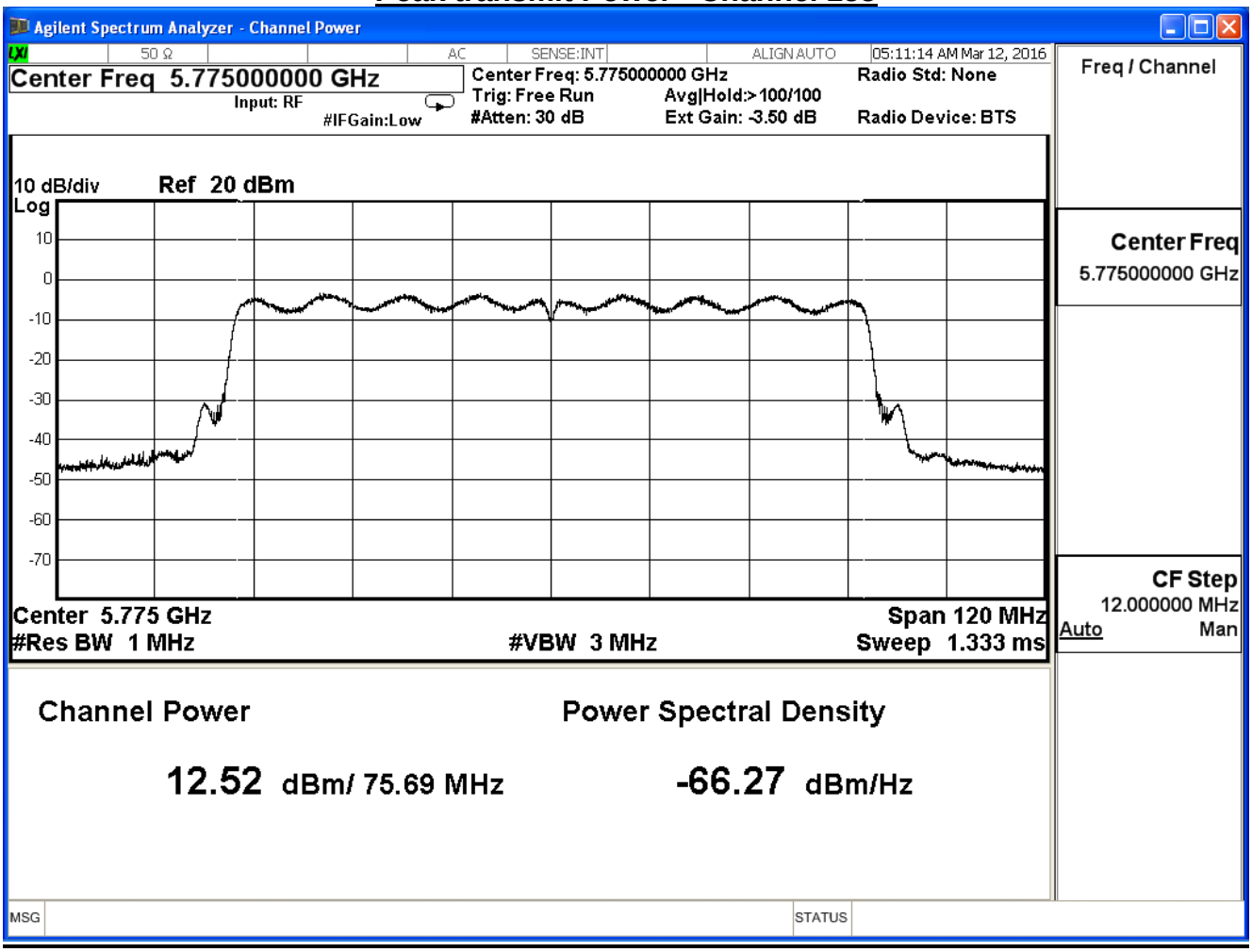
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

IEEE 802.11ac(80MHz)_ANT 0			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	12.52	≤30

The worst emission of data rate is 87.9 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		87.9	175.5	263.4	351	526.5	702	789.9	577.5	1053	1170	≤30dBm
155	5775	12.52	12.42	12.32	12.12	11.92	11.82	11.58	11.46	11.34	11.10	

Peak transmit Power - Channel 155



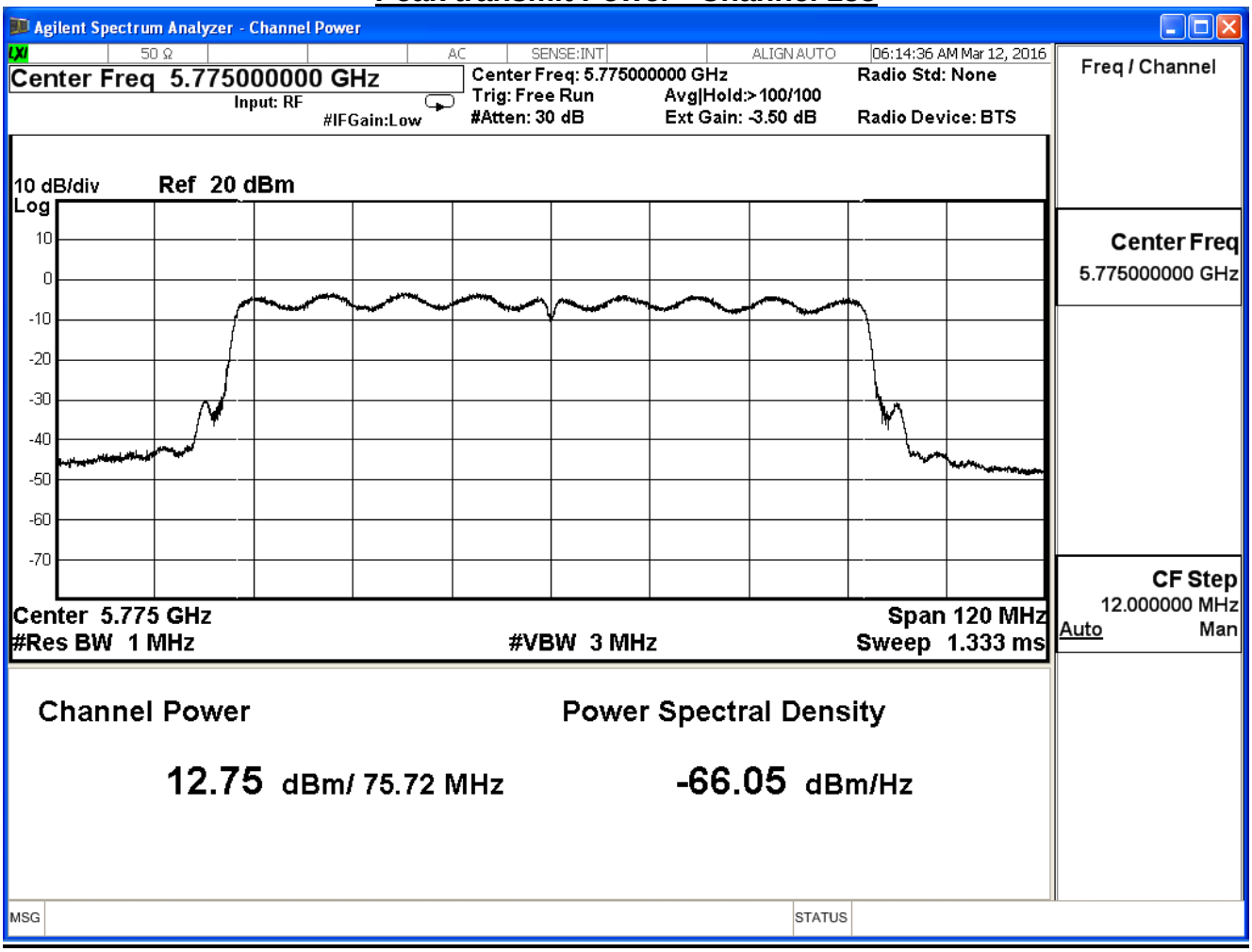
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/12	Test Site	SR7

IEEE 802.11ac(80MHz)_ANT 1			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	12.75	≤30

The worst emission of data rate is 87.9 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		87.9	175.5	263.4	351	526.5	702	789.9	577.5	1053	1170	
155	5775	12.75	12.55	12.45	12.35	12.25	12.15	12.03	11.79	11.67	11.55	≤30dBm

Peak transmit Power - Channel 155



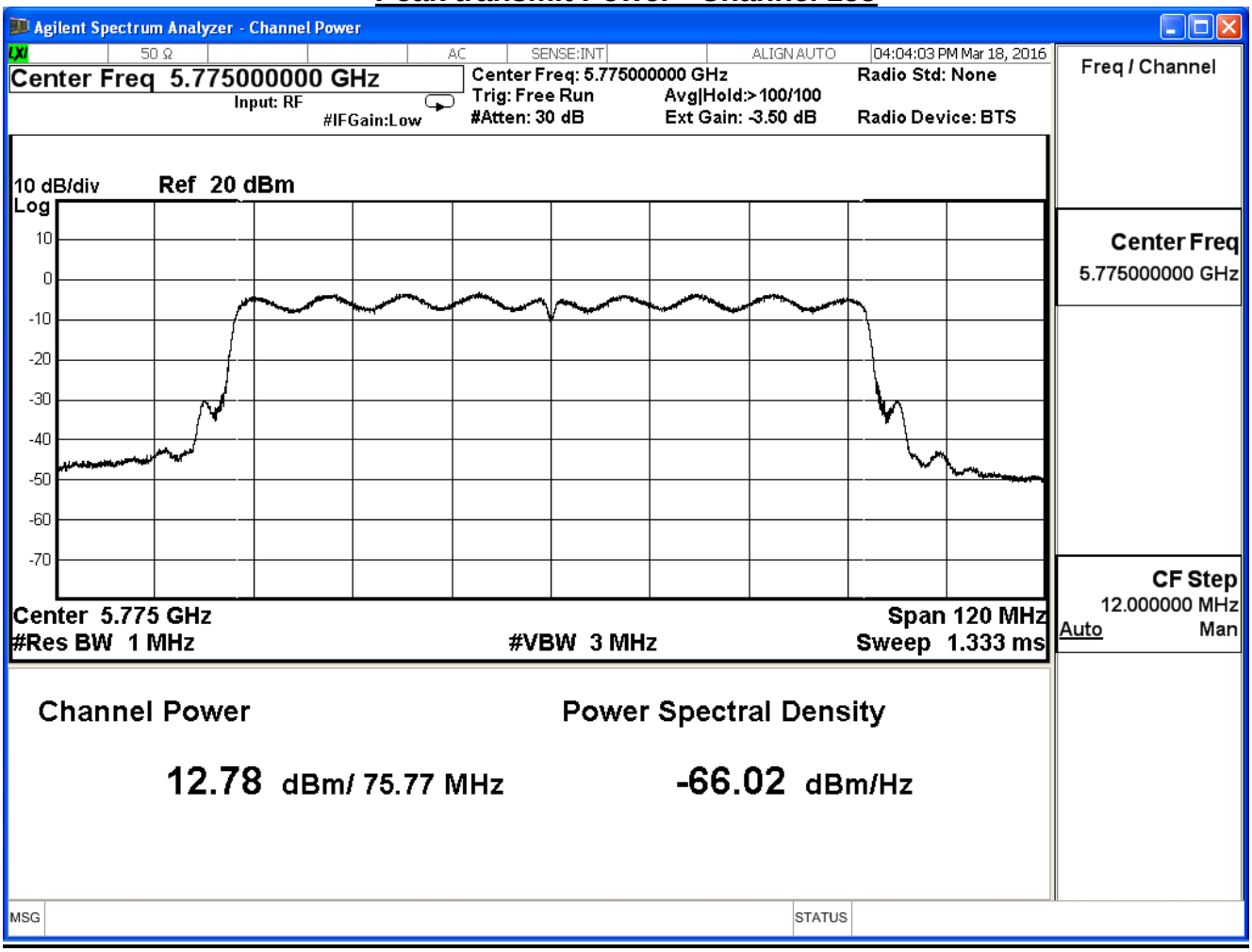
Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/18	Test Site	SR7

IEEE 802.11ac(80MHz)_ANT 2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	12.78	≤30

The worst emission of data rate is 87.9 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		87.9	175.5	263.4	351	526.5	702	789.9	577.5	1053	1170	
155	5775	12.78	12.58	12.48	12.28	12.18	11.98	11.74	11.50	11.38	11.14	≤30dBm

Peak transmit Power - Channel 155



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 2: Transmit_MIMO Mode		
Date of Test	2016/03/18	Test Site	SR7

IEEE 802.11ac(80MHz)_ANT 0+1+2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	17.46	≤30

The worst emission of data rate is 87.9 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		87.9	175.5	263.4	351	526.5	702	789.9	577.5	1053	1170	≤30dBm
155	5775	17.46	17.29	17.19	17.02	16.89	16.76	16.56	16.36	16.24	16.04	

Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

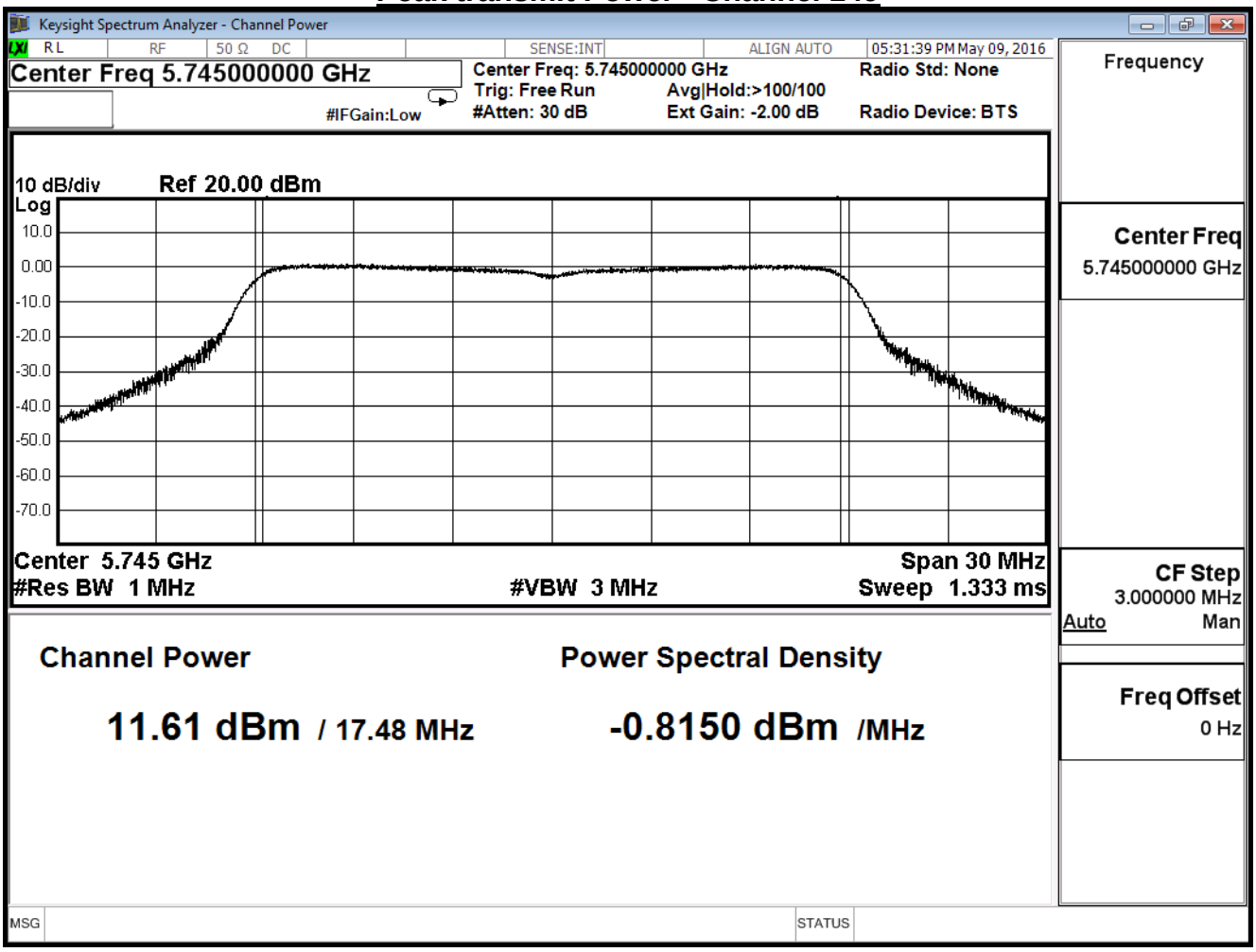
IEEE 802.11n(20MHz)_ANT 0			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	11.61	≤27.2
157	5785	11.95	≤27.2
165	5825	12.01	≤27.2

The worst emission of data rate is 19.5 Mbps.

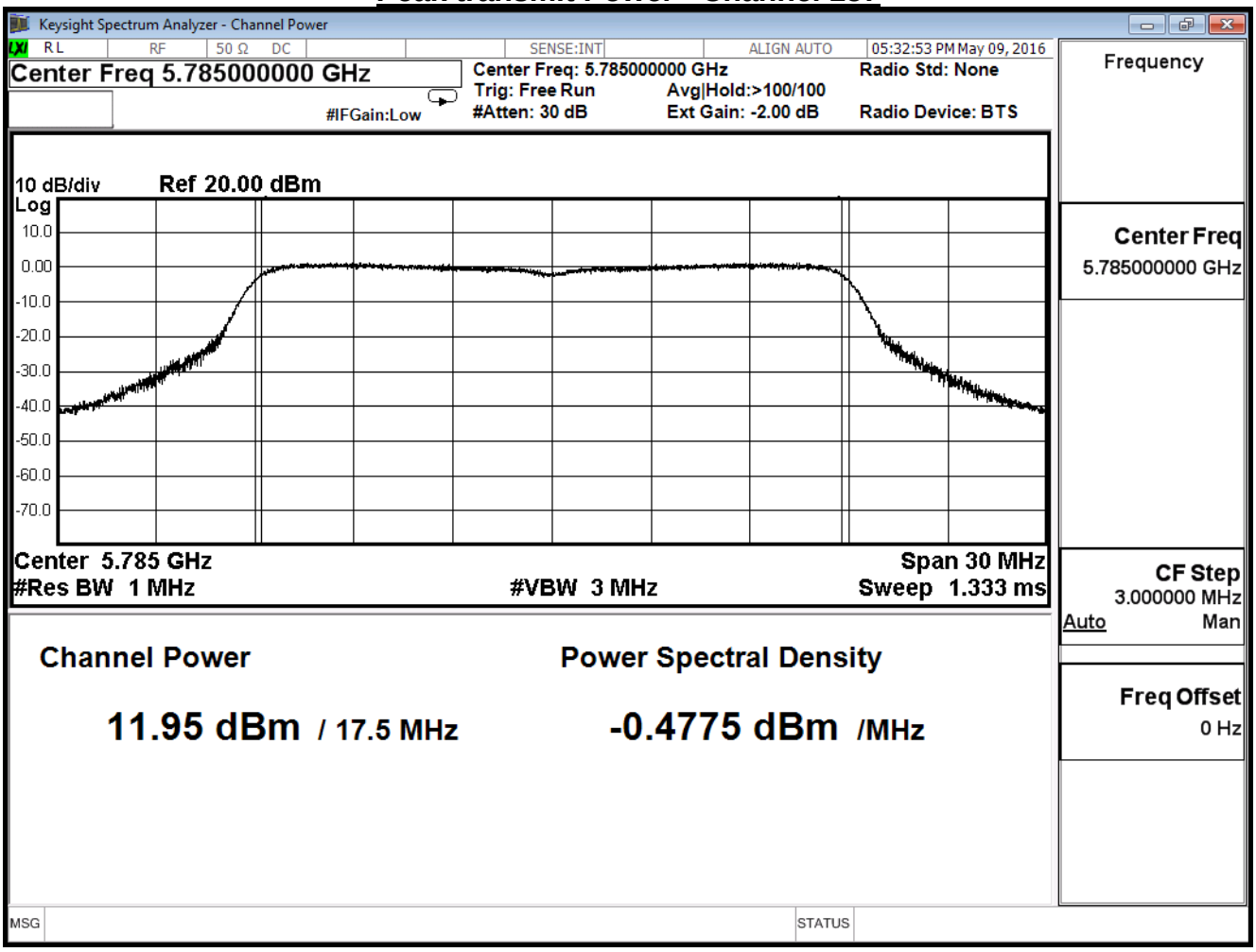
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
149	5745	11.61	--	--	--	--	--	--	--	≤27.2dBm
157	5785	11.95	11.73	11.53	11.43	11.19	10.95	10.65	10.53	
165	5825	12.01	--	--	--	--	--	--	--	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi

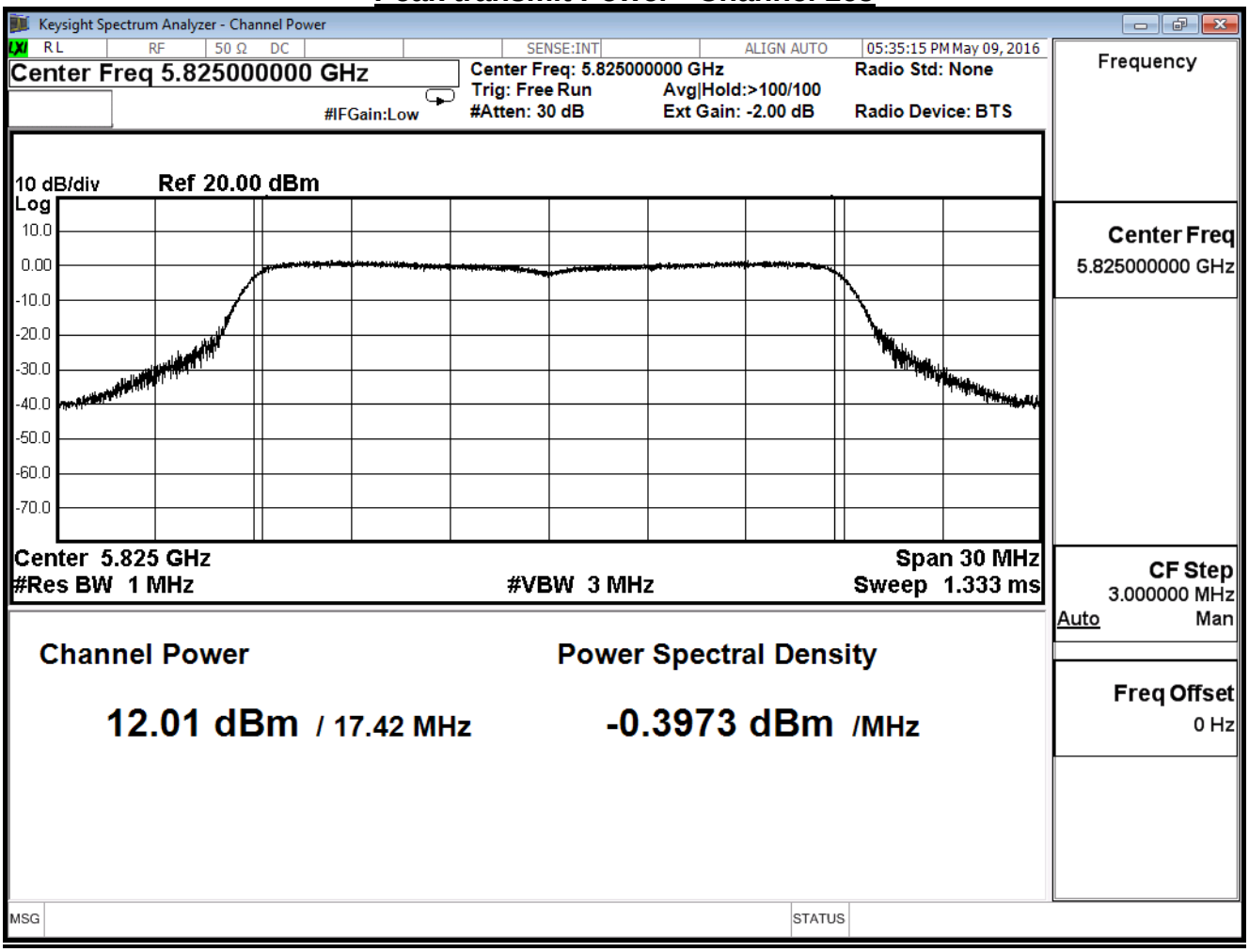
Peak transmit Power - Channel 149



Peak transmit Power - Channel 157



Peak transmit Power - Channel 165



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

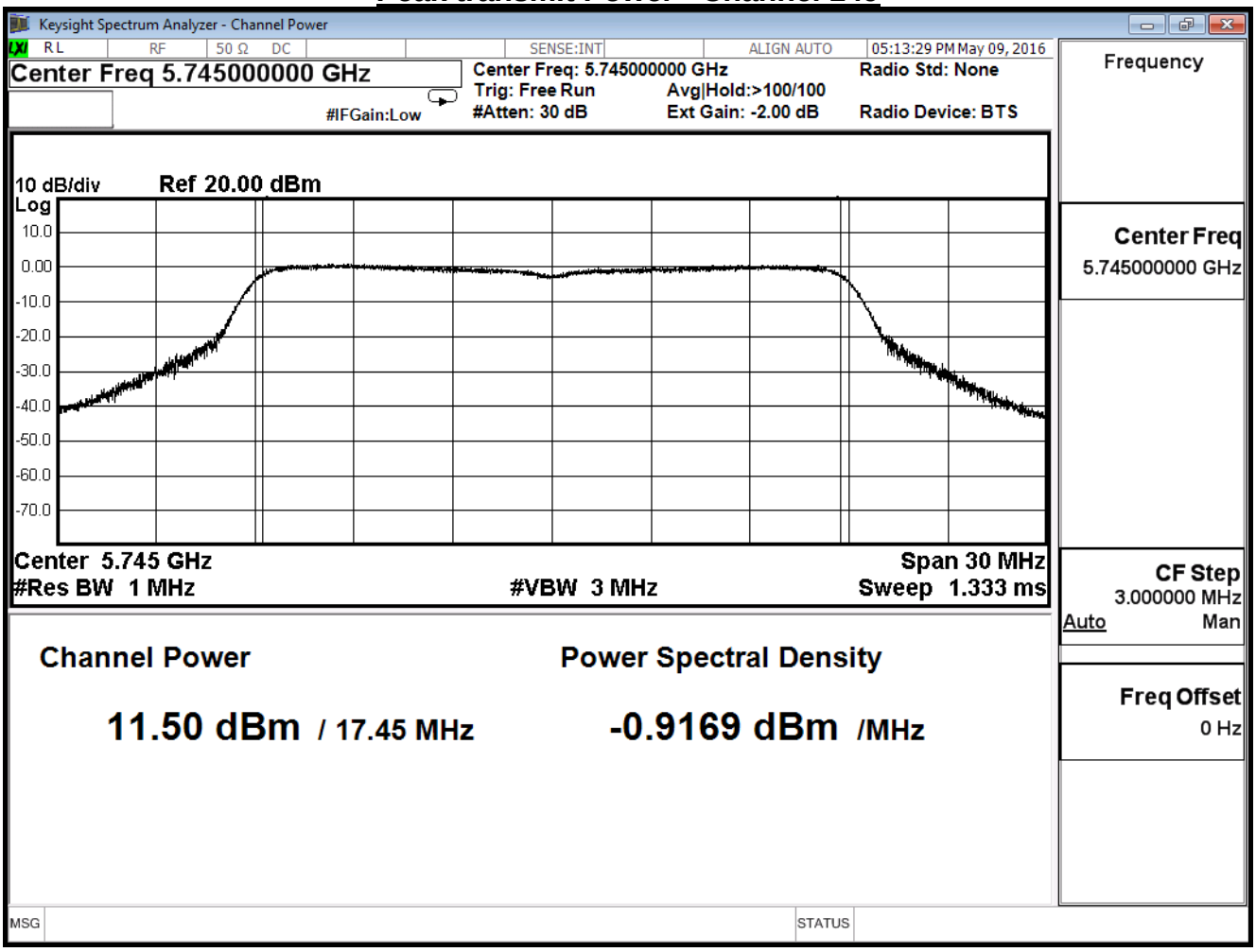
IEEE 802.11n(20MHz)_ANT 1			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	11.50	≤27.2
157	5785	11.20	≤27.2
165	5825	11.65	≤27.2

The worst emission of data rate is 19.5 Mbps.

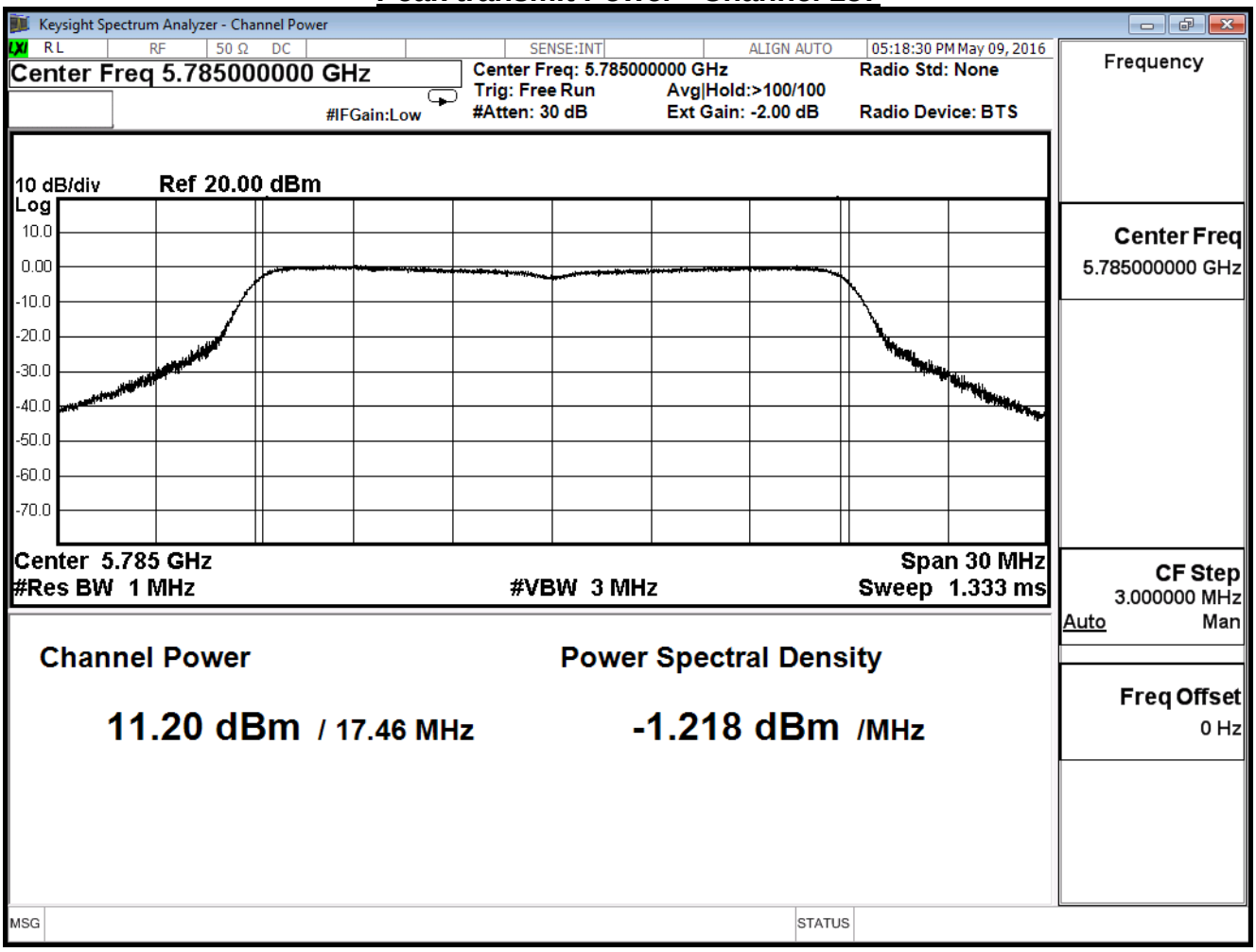
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
149	5745	11.50	--	--	--	--	--	--	--	≤27.2dBm
157	5785	11.20	11.00	10.76	10.56	10.46	10.33	10.09	9.85	
165	5825	11.65	--	--	--	--	--	--	--	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi

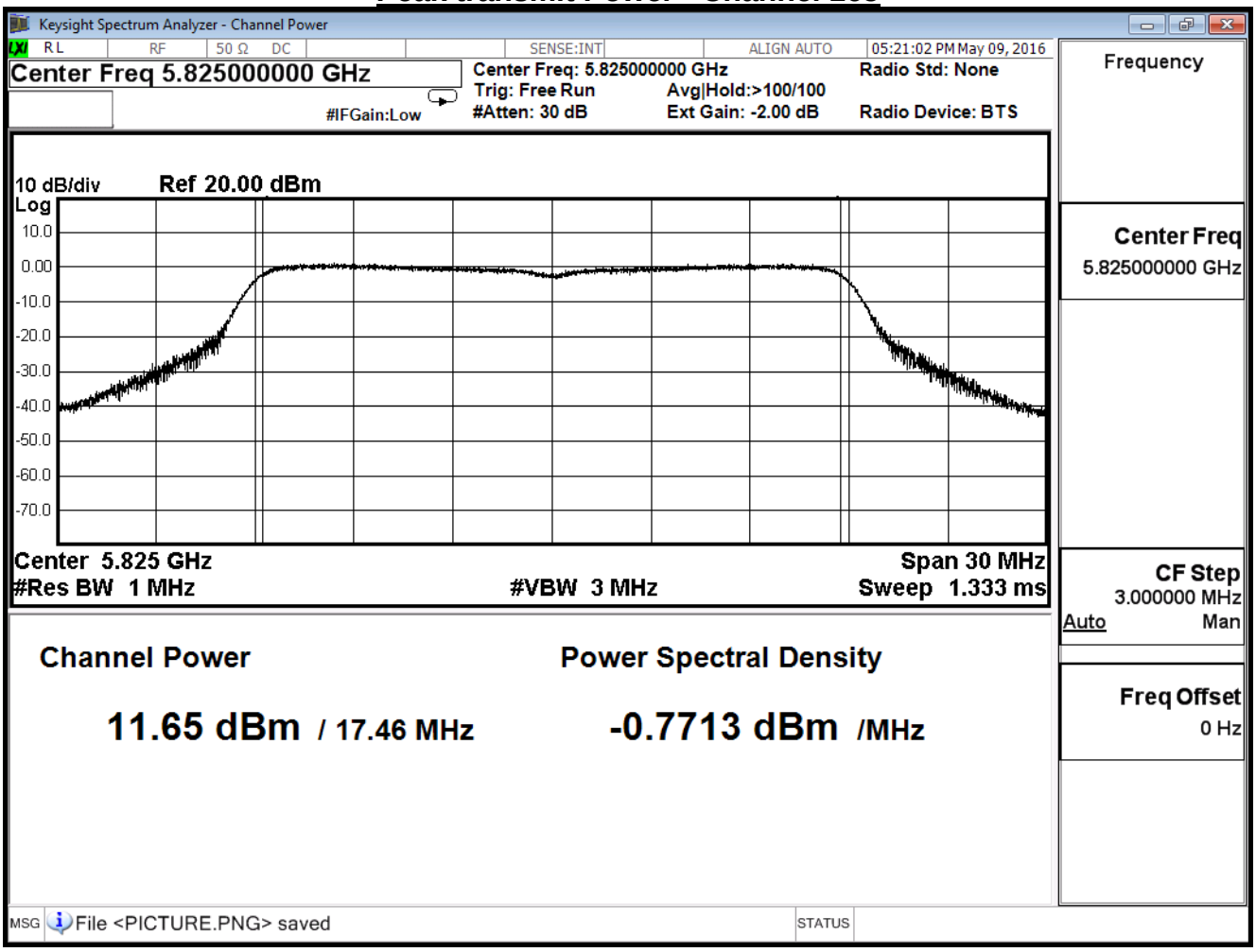
Peak transmit Power - Channel 149



Peak transmit Power - Channel 157



Peak transmit Power - Channel 165



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

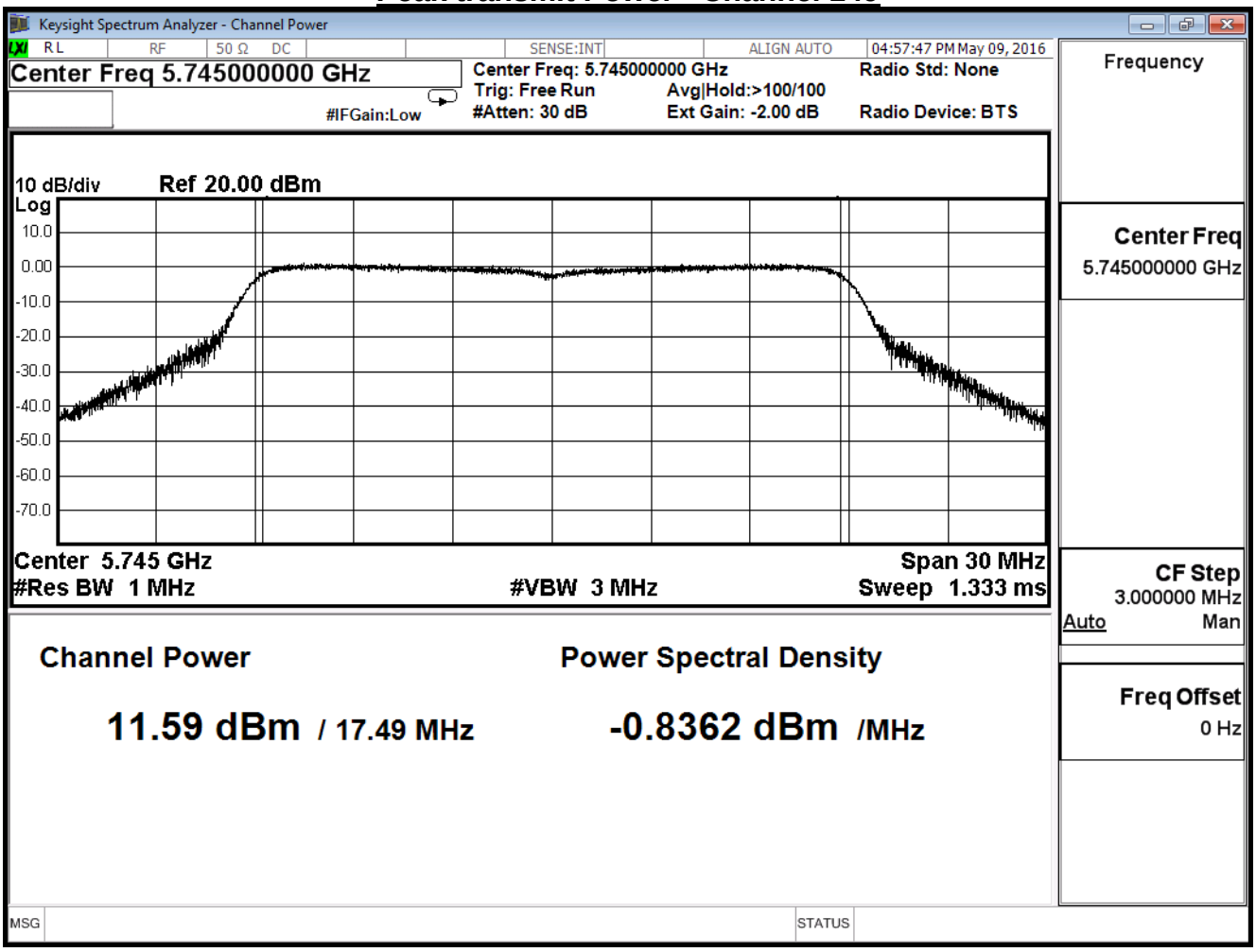
IEEE 802.11n(20MHz)_ANT 2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	11.59	≤27.2
157	5785	11.80	≤27.2
165	5825	11.87	≤27.2

The worst emission of data rate is 19.5 Mbps.

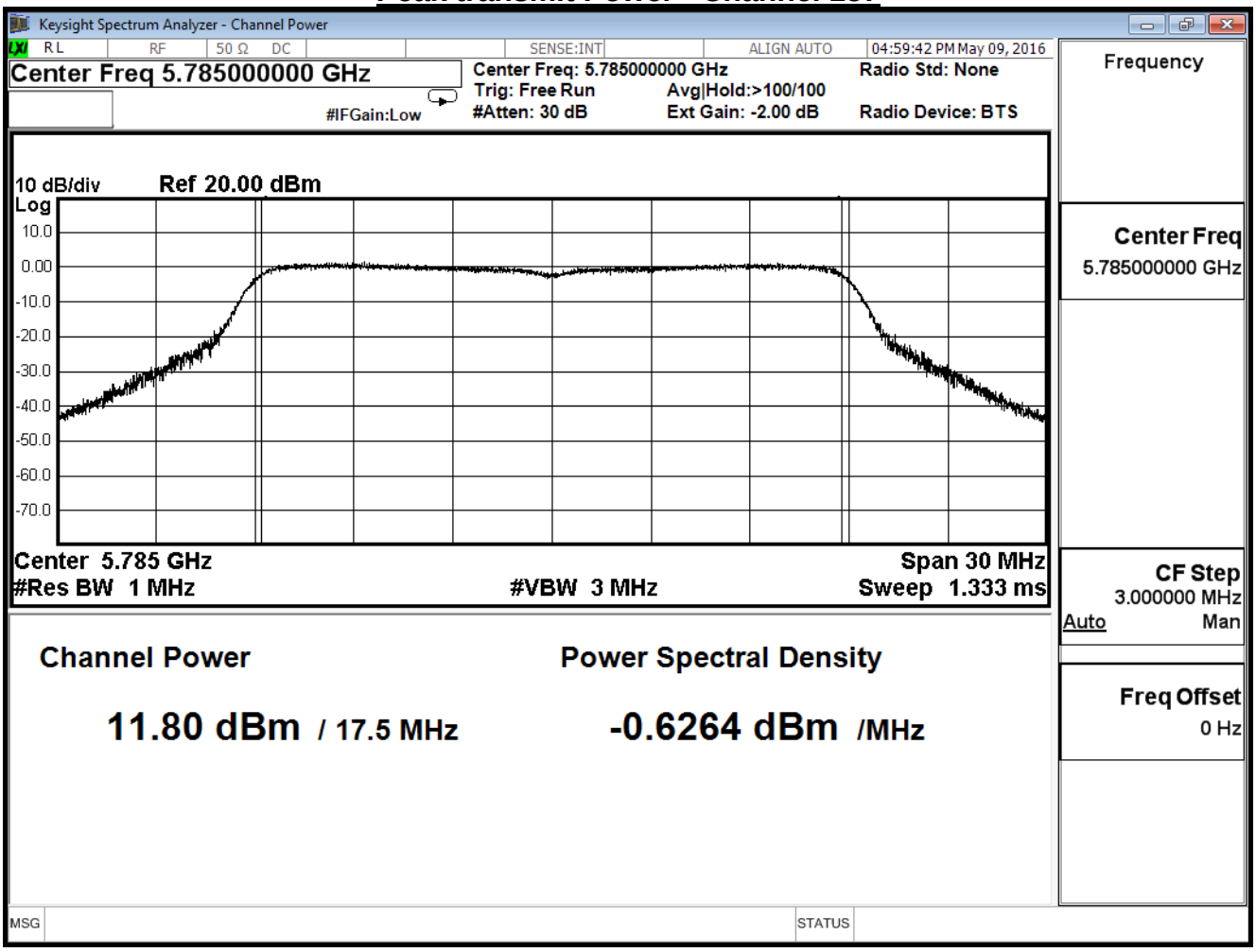
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
149	5745	11.59	--	--	--	--	--	--	--	≤27.2dBm
157	5785	11.80	11.70	11.50	11.26	11.06	10.82	10.58	10.34	
165	5825	11.87	--	--	--	--	--	--	--	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi

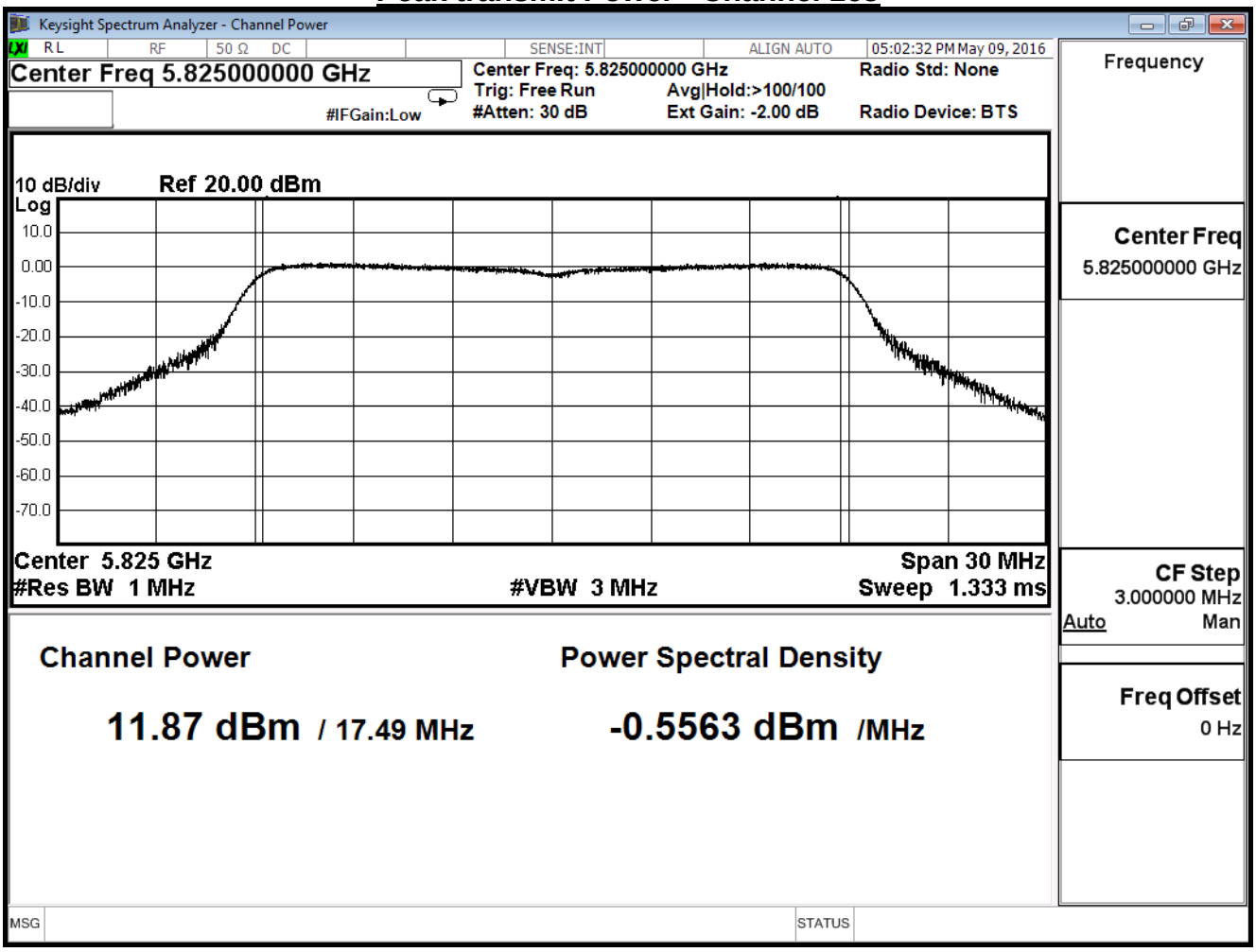
Peak transmit Power - Channel 149



Peak transmit Power - Channel 157



Peak transmit Power - Channel 165



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

IEEE 802.11n(20MHz)_ANT 0+1+2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
149	5745	16.34	≤27.2
157	5785	16.43	≤27.2
165	5825	16.62	≤27.2

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	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
149	5745	16.34	--	--	--	--	--	--	--	≤27.2dBm
157	5785	16.43	16.26	16.05	15.87	15.69	15.48	15.22	15.02	
165	5825	16.62	--	--	--	--	--	--	--	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi

Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

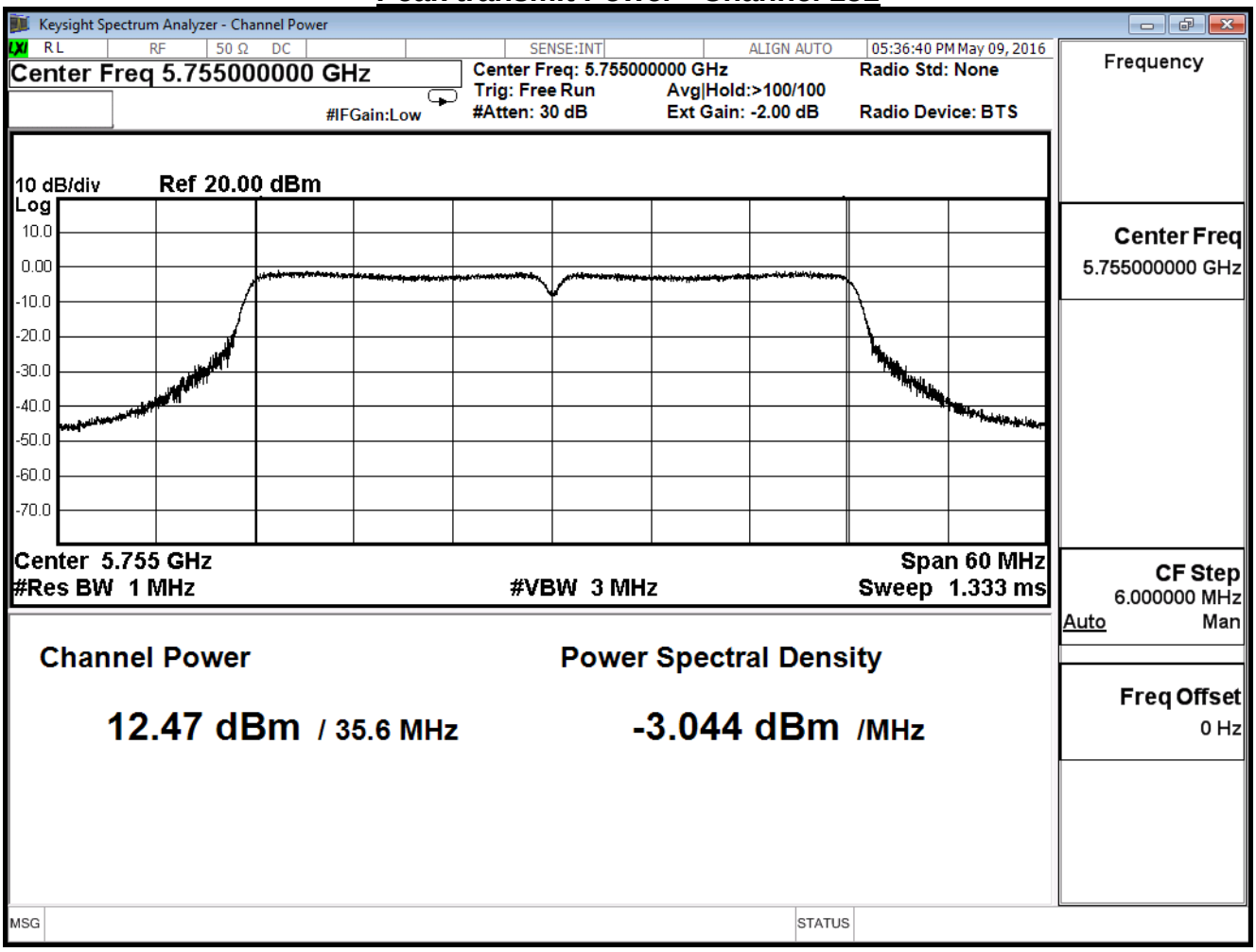
IEEE 802.11n(40MHz)_ANT 0			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	12.47	≤27.2
159	5795	12.82	≤27.2

The worst emission of data rate is 19.5 Mbps.

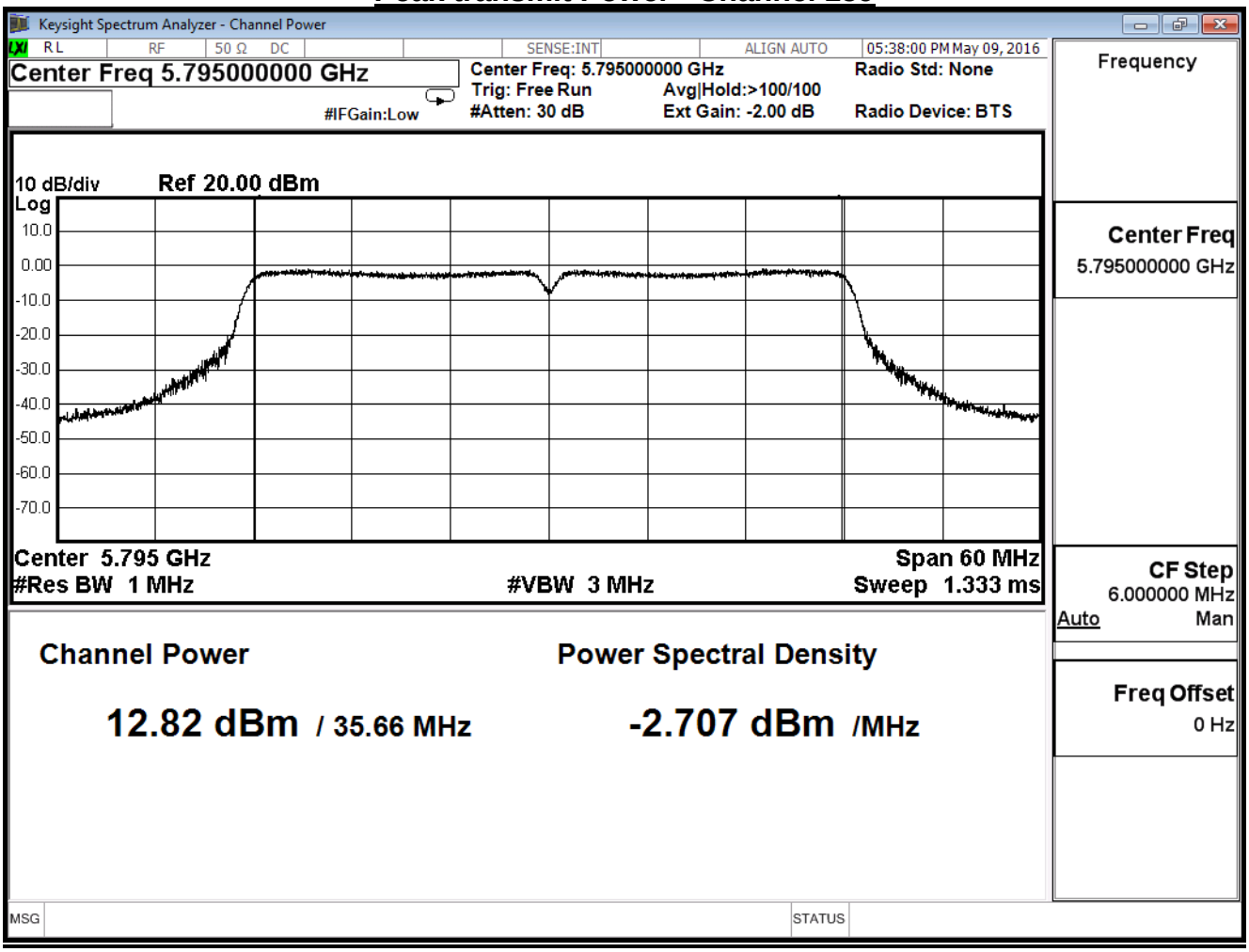
Peak Power Output (dBm)									
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		19.5	39.0	58.5	78.0	117.0	156.0	175.5	195.0	
151	5755	12.47	--	--	--	--	--	--	--	≤27.2dBm
159	5795	12.82	12.62	12.42	12.22	12.12	12.00	11.76	11.64	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi

Peak transmit Power - Channel 151



Peak transmit Power - Channel 159



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

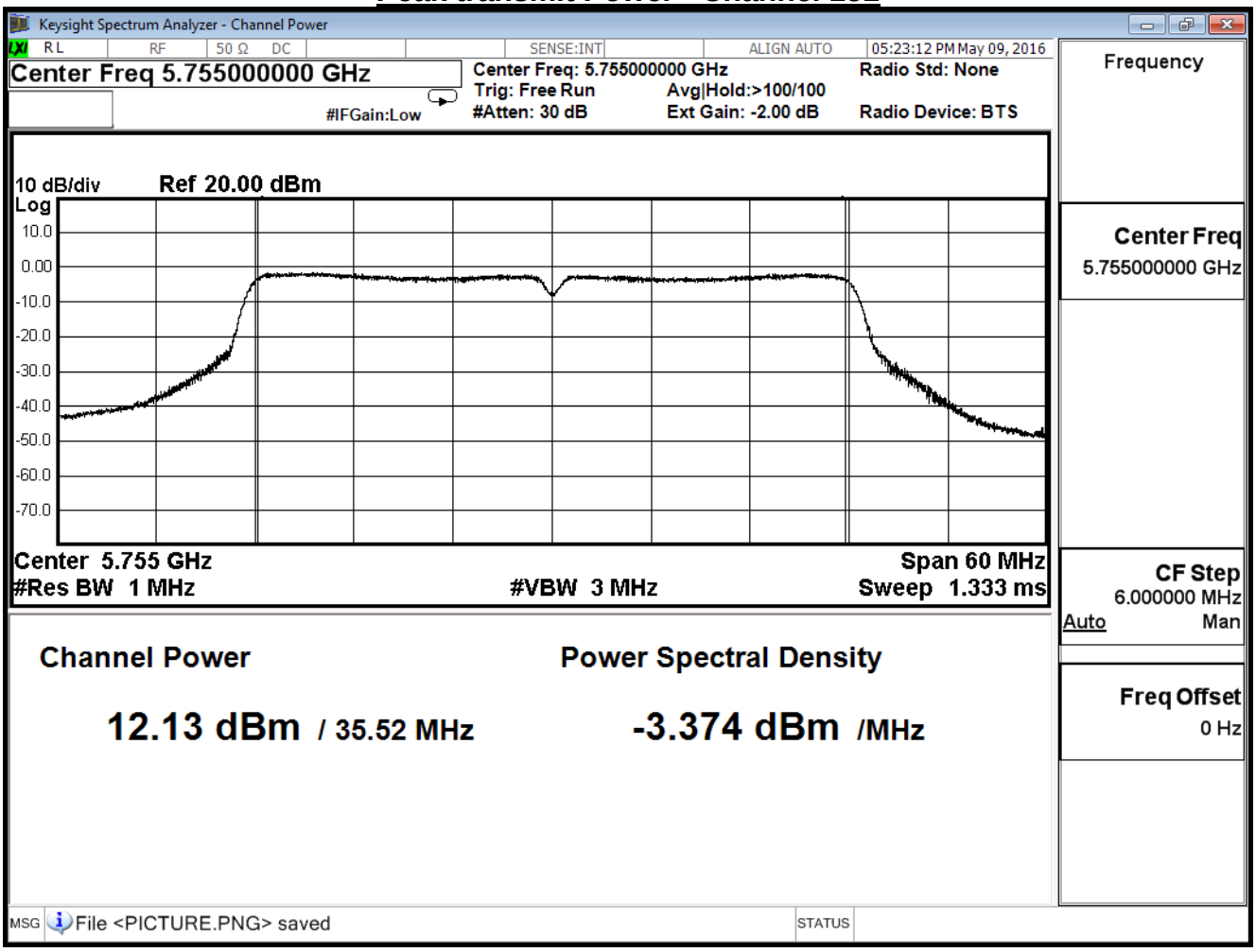
IEEE 802.11n(40MHz)_ANT 1			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	12.13	≤27.2
159	5795	11.92	≤27.2

The worst emission of data rate is 40.5 Mbps.

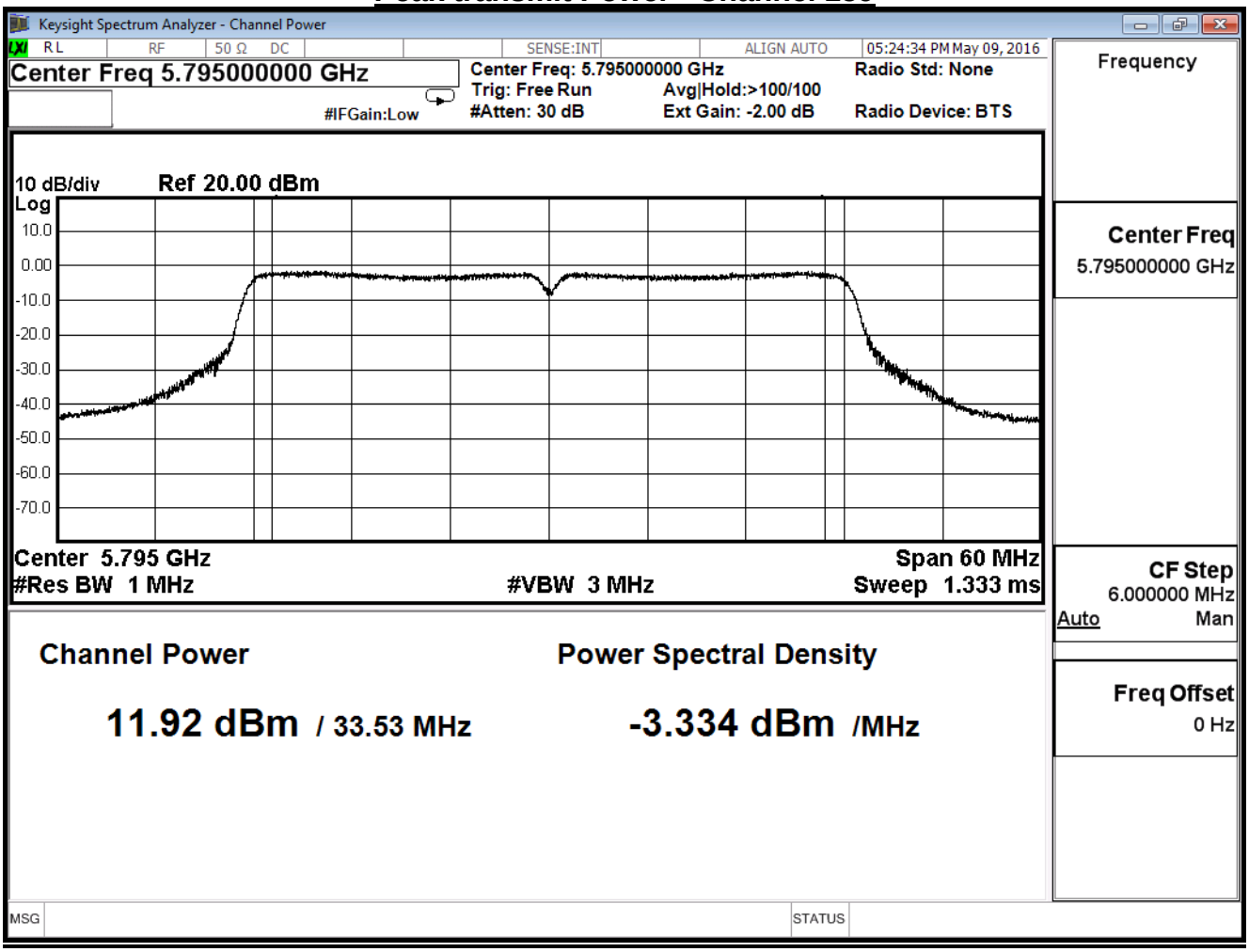
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		40.5	81.0	121.5	162.0	243.0	324.0	364.5	405.0	
151	5755	12.13	--	--	--	--	--	--	--	≤27.2dBm
159	5795	11.92	11.82	11.72	11.62	11.42	11.30	11.06	10.94	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi

Peak transmit Power - Channel 151



Peak transmit Power - Channel 159



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

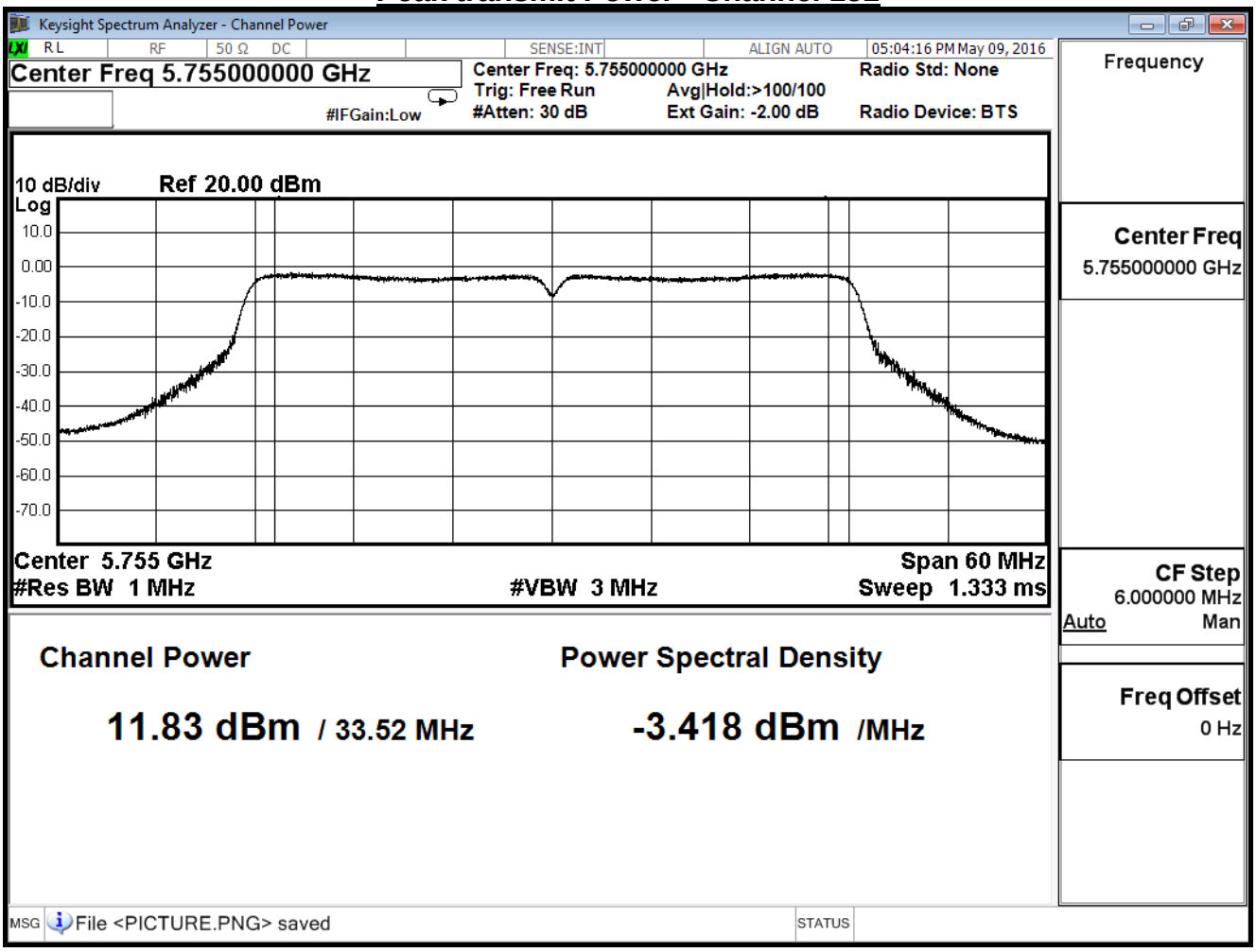
IEEE 802.11n(40MHz)_ANT 2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	11.83	≤27.2
159	5795	11.84	≤27.2

The worst emission of data rate is 40.5 Mbps.

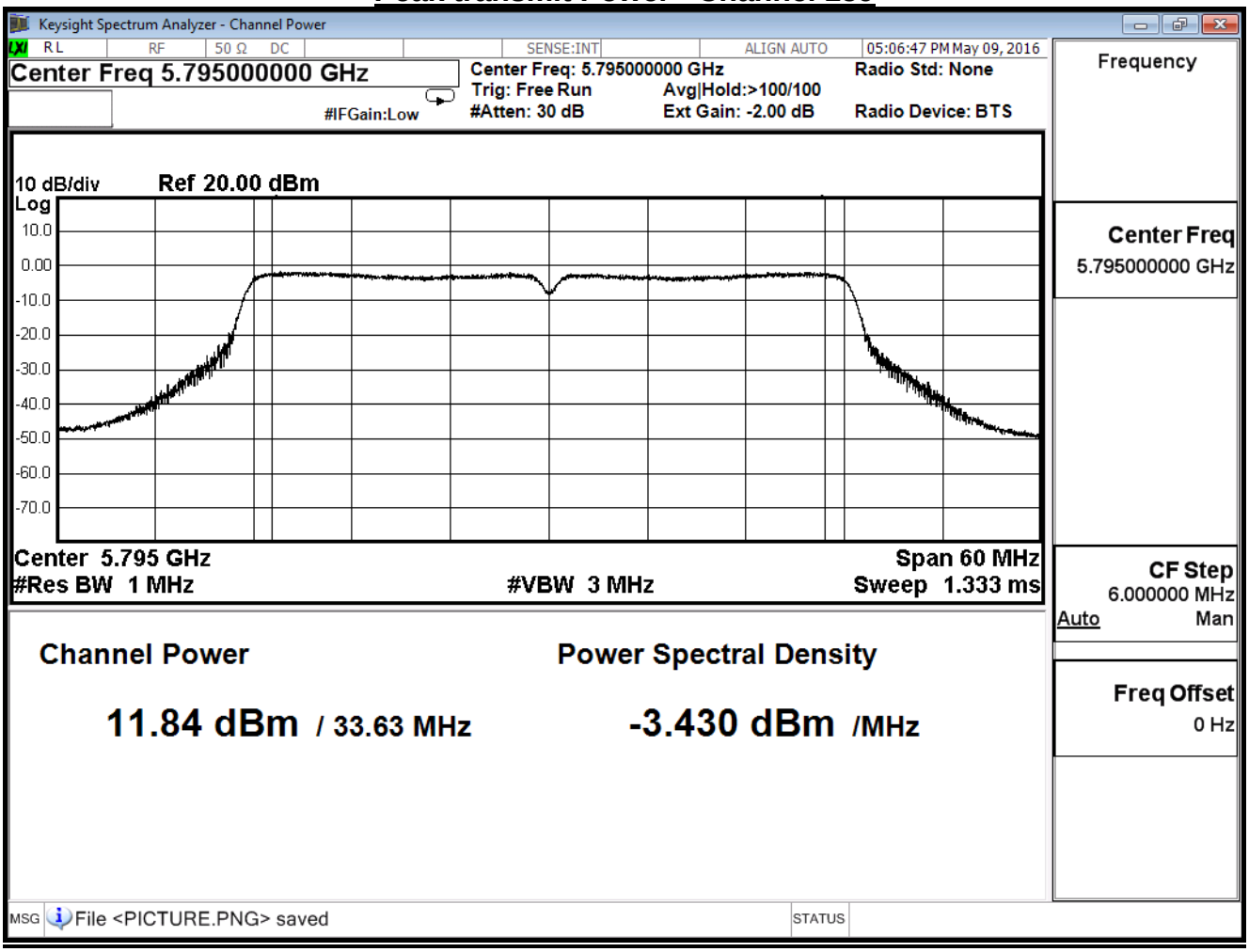
Peak Power Output (dBm)										
MCS Index		16	17	18	19	20	21	22	23	Required Limit
Channel No	Frequency (MHz)	Data Rate								
		40.5	81.0	121.5	162.0	243.0	324.0	364.5	405.0	
151	5755	11.83	--	--	--	--	--	--	--	≤27.2dBm
159	5795	11.84	11.64	11.44	11.34	11.14	11.02	10.78	10.66	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi

Peak transmit Power - Channel 151



Peak transmit Power - Channel 159



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11n(40MHz)_ANT 0+1+2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
151	5755	16.92	≤27.2
159	5795	16.99	≤27.2

The worst emission of data rate is 40.5 Mbps.

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	16.92	--	--	--	--	--	--	--	≤27.2dBm
159	5795	16.99	16.82	16.65	16.51	16.35	16.23	15.99	15.87	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi

Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

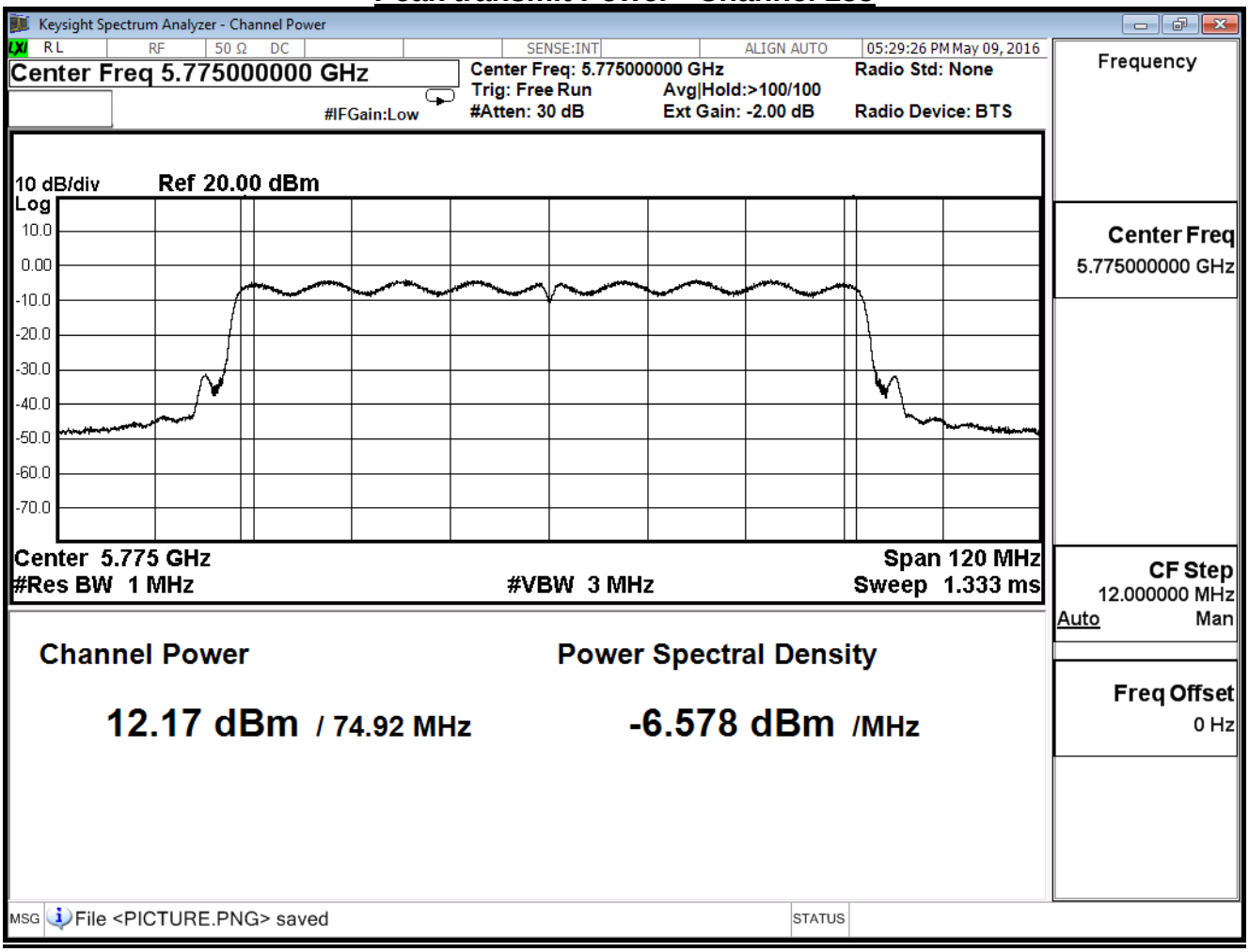
IEEE 802.11ac(80MHz)_ANT 0			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	12.17	≤27.2

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	
155	5775	12.17	11.97	11.87	11.67	11.57	11.37	11.25	11.01	10.77	10.53	≤27.2dBm

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi

Peak transmit Power - Channel 155



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

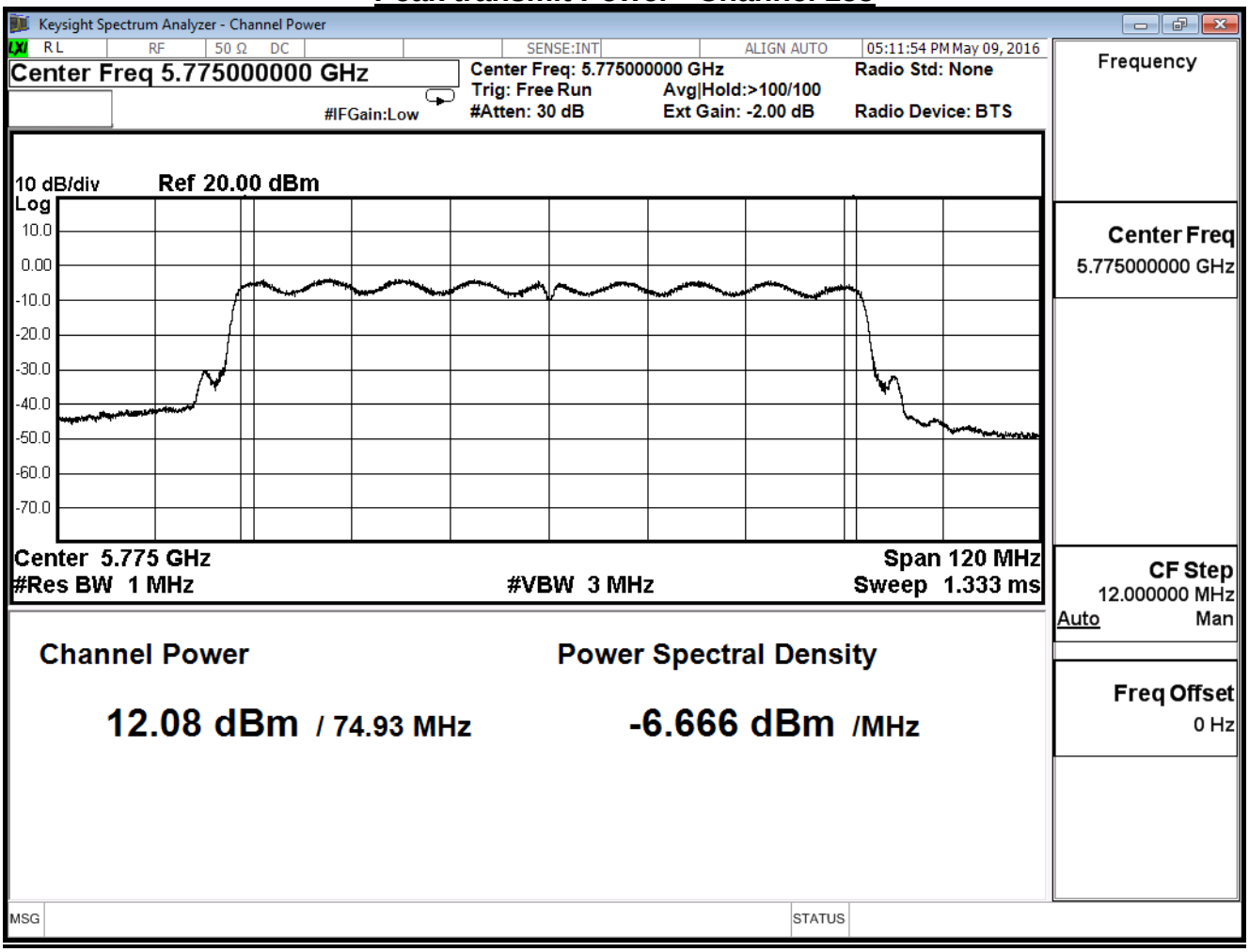
IEEE 802.11ac(80MHz)_ANT 1			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	12.08	≤27.2

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	≤30dBm
155	5775	12.08	11.88	11.78	11.58	11.38	11.28	11.04	10.92	10.80	10.68	

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi

Peak transmit Power - Channel 155



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/09	Test Site	SR7

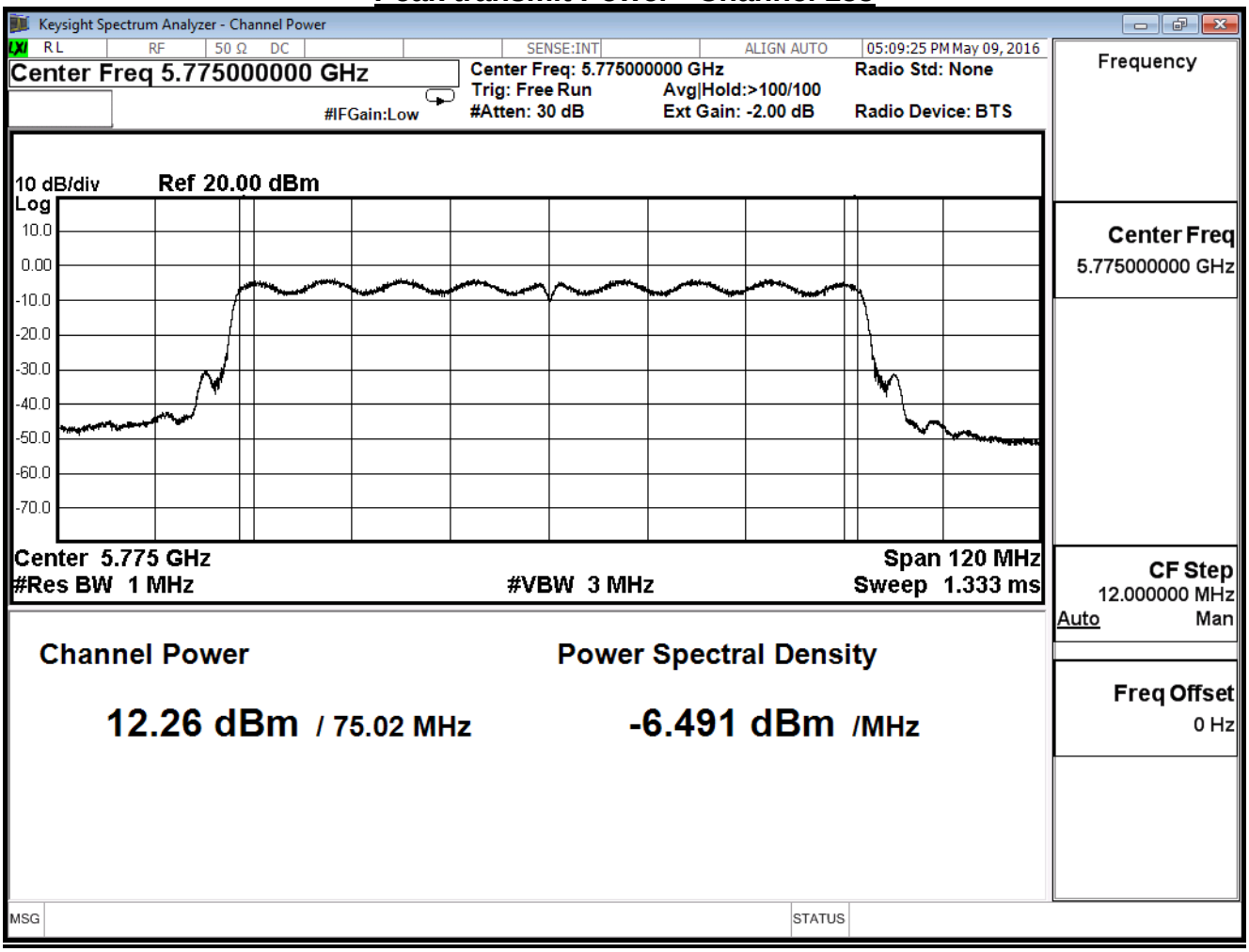
IEEE 802.11ac(80MHz)_ANT 2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	12.26	≤27.2

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	
155	5775	12.26	12.16	11.96	11.76	11.66	11.46	11.34	11.10	10.86	10.74	≤27.2dBm

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi

Peak transmit Power - Channel 155



Product	Dual band AC1900 USB 3.0 Wi-Fi Adapter		
Test Item	Peak Transmit Output		
Test Mode	Mode 3: Transmit_Beamforming Mode		
Date of Test	2016/05/10	Test Site	SR7

IEEE 802.11ac(80MHz)_ANT 0+1+2			
Channel No.	Frequency (MHz)	Output Power (dBm)	Required Limit (dBm)
155	5775	16.94	≤27.2

The worst emission of data rate is 29.3 Mbps

Peak Power Output (dBm)												
MCS Index		0	1	2	3	4	5	6	7	8	9	Required Limit
Channel No	Frequency (MHz)	Data Rate										
		29.3	58.5	87.8	117	175.5	234	263.3	292.5	351	390	
155	5775	16.94	16.78	16.64	16.44	16.31	16.14	15.98	15.78	15.58	15.42	≤27.2dBm

Total Gain: 10log(ANT N)+max Gain=4.03+4.77 = 8.8dBi
Limit=30-(8.8dBi-6dBi)=27.2dBi