FCC 15.407 NII Report

APPLICATION FOR CERTIFICATION
On Behalf of

Sony Corporation

Digital Media Player

Model No.: NW-ZX2

FCC ID: AK8NWZX2

Brand: SONY

Prepared for : Sony Corporation
1-7-1 Konan Minato-ku, Tokyo,
Japan 108-0075

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File Number	:	C1M1410080
Report Number	:	EM-F140659
Date of Test	:	2014. 10. 14 ~ 31
Date of Report	:	2014. 10. 31

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TEST REPORT CERTIFICATION

Applicant	:	Sony Corporation
EUT Description	:	Digital Media Player
FCC ID	**:**	**AK8NWZX2**
	(A) Model No.	: NW-ZX2
	(B) Serial No.	: N/A
	(C) Brand	: SONY
	(D) Power Supply	: DC 3.7V (Battery)
	(E) Test Voltage	: (1)AC 120/60Hz (Via Notebook PC) (2)DC 3.7V (Via Battery)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C & E, Oct. 2013
(FCC CFR 47 Part 15C & E, §15.205, §15.207, §15.209 and 15.407)
AND ANSI C63.4:2003
FCC 14-30

The device described above was tested by AUDIX Technology Corporation to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart C & E limits.

The measurement results are contained in this test report and AUDIX Technology Corporation is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the requirements of CC Part 15 standard.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX Technology Corporation.

Date of Test: 2014. 10. 14 ~ 31 Date of Report: 2014. 10. 31

Producer: Annie Yu
(Annie Yu/Administrator)

Signatory: Ben Cheng
(Ben Cheng/Manager)

1. DESCRIPTION OF REVISION HISTORY

Edition No.	Date of Revision	Revision Summary	Report Number
0	2014. 10. 31	Original Report.	EM-F140659

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product	Digital Media Player
Model Number	NW-ZX2
Serial Number	N/A
Brand Name	SONY
Applicant	Sony Corporation 1-7-1 Konan Minato-ku, Tokyo, Japan 108-0075
Country of Mass-production	Malaysia
FCC ID	AK8NWZX2
Fundamental Range	802.11b/g/n-HT20: 2412MHz ~ 2462MHz 802.11a: 5180MHz ~ 5240MHz (UNII Band I) and 5260MHz ~ 5320MHz (UNII Band II-2A) and 5500MHz ~ 5700MHz (UNII Band II-2C) and 5745MHz ~ 5825MHz (UNII Band III) UNII Band II (DFS Function, Slave/no In service monitor, no Ad-Hoc mode) 802.11n-HT20: 5180MHz ~ 5240MHz (UNII Band I) and 5260MHz ~ 5320MHz (UNII Band II-2A) and 5500MHz ~ 5700MHz (UNII Band II-2C) and 5745MHz ~ 5825MHz (UNII Band III) UNII Band II (DFS Function, Slave/no In service monitor, no Ad-Hoc mode) 802.11n-HT40: 5190MHz ~ 5230MHz (UNII Band I) and 5270MHz ~ 5310MHz (UNII Band II-2A) and 5510MHz ~ 5670MHz (UNII Band II-2C) and 5755MHz ~ 5795MHz (UNII Band III) UNII Band II (DFS Function, Slave/no In service monitor, no Ad-Hoc mode) Bluetooth: 2402MHz ~ 2480MHz NFC: 13.56MHz GPS: 1575.42MHz

Frequency Channel	802.11b/g/n-HT20: 11 channels 802.11a: UNII Band I: 4 channels UNII Band II-2A: 4 channels UNII Band II-2C: 8 channels UNII Band III: 5 channels 802.11n-HT20: UNI Band I: 4channels UNII Band II-2A: 4 channels UNII Band II-2C: 8 channels UNII Band III: 5 channels 802.11n-HT40: UNII Band I: 2 channels UNII Band II-2A: 2 channels UNII Band II-2C: 3 channels UNII Band III: 2 channels Bluetooth: 79 channels NFC: 1 Channel
Radio Technology	802.11b: DSSS Modulation (DBPSK/DQPSK/CCK) 802.11g: OFDM Modulation (BPSK/QPSK/16QAM/64QAM) 802.11a: OFDM Modulation (BPSK/QPSK/16QAM/64QAM) 802.11n: OFDM Modulation (BPSK/QPSK/16QAM/64QAM) Bluetooth: FHSS (GFSK,π/4DQPSK, 8-DPSK) NFC: ASK
Data Transfer Rate	802.11b: 1/2/5.5/11Mbps 802.11a/g: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 150Mbps BT: 1/2/3Mbps
USB Cable	Shielded, Detachable, 1.0m
Date of Receipt of Sample	2014. 10. 09
Date of Test	2014. 10. 14 ~ 31

2.2. Antenna Information

Manufacture	Antenna Type	Usage	Frequency	Peak Gain
Shanghai Amphenol Airwave Communication Electronics Co., Ltd.	Inverted F (LDS)	BT/WLAN	2.4GHz	1dBi
		WLAN	5GHz	-1dBi
		GPS	1.5GHz	-1dBi
	Loop (pattern)	NFC	13.56MHz	---

2.3. Data Rate Relative to Output Power

802.11a (UNII Band I)			
Channel	Modulation	Date Rate (Mbps)	Power (dBm)
36	BPSK	6	**9.28**
36	BPSK	9	**9.26**
36	QPSK	12	**9.24**
36	QPSK	18	**9.11**
36	16-QAM	24	**9.10**
36	16-QAM	36	**9.05**
36	64-QAM	48	**9.02**
36	64-QAM	54	**9.01**

NII 802.11n-HT20 (UNII Band I)				NII 802.11n-HT40 (UNII Band I)			
Channel	Modulation	Date Rate (Mbps)	Power (dBm)	Channel	Modulation	Date Rate (Mbps)	Power (dBm)
36	BPSK	MCS0	**9.03**	62	BPSK	MCS0	**8.57**
36	QPSK	MCS1	**9.02**	62	QPSK	MCS1	**8.55**
36	QPSK	MCS2	**8.98**	62	QPSK	MCS2	**8.56**
36	16-QAM	MCS3	**8.96**	62	16-QAM	MCS3	**8.52**
36	16-QAM	MCS4	**8.94**	62	16-QAM	MCS4	**8.51**
36	64-QAM	MCS5	**8.91**	62	64-QAM	MCS5	**8.48**
36	64-QAM	MCS6	**8.85**	62	64-QAM	MCS6	**8.48**
36	64-QAM	MCS7	**8.82**	62	64-QAM	MCS7	**8.43**

2.4. Duty Cycle

	802.11a/n-HT20	802.11n-HT40
Duty Cycle (%)	92	86
10*log(1/x) (dB)	0.36	0.65

The value 10*log(1/x) has been offset into power measurement result.

2.5. Test Configuration for Each Test Item

Test Item	802.11a	802.11n-HT20	802.11n-HT40
	Data Rate for Test(Mbps)		
26dB Bandwidth	6	MCS0	MCS0
Emission Limitations	6	MCS0	MCS0
Maximum peak output power	6	MCS0	MCS0
Power spectral density	6	MCS0	MCS0
Peak power Excursion	6	MCS0	MCS0
Frequency Stability	6	MCS0	MCS0

2.6. Tested Supporting System Details

2.6.1. Support Peripheral Unit

No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	PC System	ASUS	U5F	6CN0AG047651	By DoC

2.6.2. Cable Lists

No.	Signal Cable Description Of The Above Support Units
1.	Adapter: DELTA, M/N SADP-65KB B, Cord: Non-Shielded, Detachable, 1.8m Power Cord: Non-Shielded, Undetachable, 1.8m

2.7. Description of Test Facility

Name of Firm : **AUDIX Technology Corporation**
EMC Department
No. 53-11, Dingfu, Linkou Dist.,
New Taipei City 244, Taiwan, R.O.C.

Test Site (C7/Semi-AC) : **No. 7 Shielded Room &**
No. 53-11, Dingfu, Linkou Dist.,
New Taipei City 244, Taiwan, R.O.C.

Semi-Anechoic Chamber
No. 53-11, Dingfu, Linkou Dist.,
New Taipei City 244, Taiwan, R.O.C.

May 11, 2012 Renewal on
Federal Communication Commission
Registration Number: 90993

NVLAP Lab. Code : 200077-0

TAF Accreditation No : 1724

2.8. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty
Conduction Test	150kHz~30MHz	± 3.43dB
Radiation Test (Distance: 3m)	30MHz~300MHz	± 2.91dB
	300MHz~1000MHz	± 2.74dB
	Above 1GHz	± 5.02dB

Remark：Uncertainty = $ku_c(y)$

Test Item	Uncertainty
Bandwidth	± 0.2kHz
Maximum peak output power	± 0.33dBm
Power spectral density	± 0.13dB
Peak power Excursion	± 0.14dB
Occupied Bandwidth 99% Power	± 1kHz

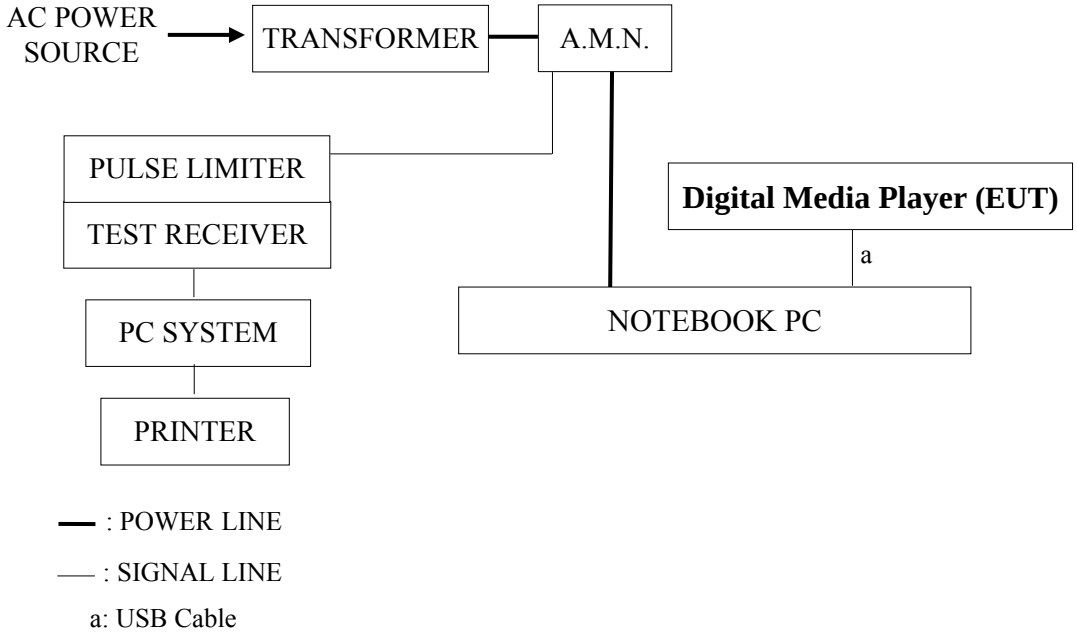
3. CONDUCTED EMISSION MEASUREMENT

3.1. Test Equipment

The following test equipment was used during the powerline conducted emission measurement: (No. 7 Shielded Room)

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1	Test Receiver	R&S	ESCI	101276	2014. 06. 18	1 Year
2	A.M.N.	R&S	ENV4200	100169	2014. 05. 30	1 Year
3	L.I.S.N.	Kyoritsu	KNW-407	8-881-13	2014. 01. 15	1 Year
4	Pulse Limiter	R&S	ESH3-Z2	101495	2014. 01. 18	1 Year

3.2. Block Diagram of Test Setup



3.3. Powerline Conducted Emission Limit (§15.207)

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dBμV	56 ~ 46 dBμV
500kHz ~ 5MHz	56 dBμV	46 dBμV
5MHz ~ 30MHz	60 dBμV	50 dBμV

Remark: 1. If the average limit is met when using a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.
2. The lower limit applies at the band edges.

3.4. Operating Condition of EUT

3.4.1. Setup the EUT as shown on 3.2.

3.4.2. During testing, the EUT was linked to notebook PC and charging through USB cable.

3.5. Test Procedure

The EUT was placed on the table which was above the ground by 80cm and notebook PC's power cord was connected to the AC mains through an Artificial Mains Network (A.M.N.). The peripheral devices power cord connected to the power mains through another line impedance stabilization network (L.I.S.N.). This provided a 50 ohm coupling impedance for the measuring equipment. (Please refer to the block diagram of the test setup and photographs.)
Both sides of A.C. line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions simulators of the interface cables should be manipulated according to ANSI C63.4-2003 regulation during conducted measurement.

The bandwidth of the R&S Test Receiver ESCI was set at 9kHz.

The frequency range from 150kHz to 30MHz was checked.

All the final readings from Test Receiver were measured with the Quasi-Peak detector and Average detector. Remark: If the Average limit is met when using a Quasi-Peak detector, the Average detector is unnecessary)

3.6. Powerline Conducted Emission Measurement Results

PASSED.
(All the emissions not reported below are too low against the prescribed limits.)

EUT was performed during this section testing and all the test results are attached in next pages.

EUT：Digital Media Player M/N：NW-ZX2

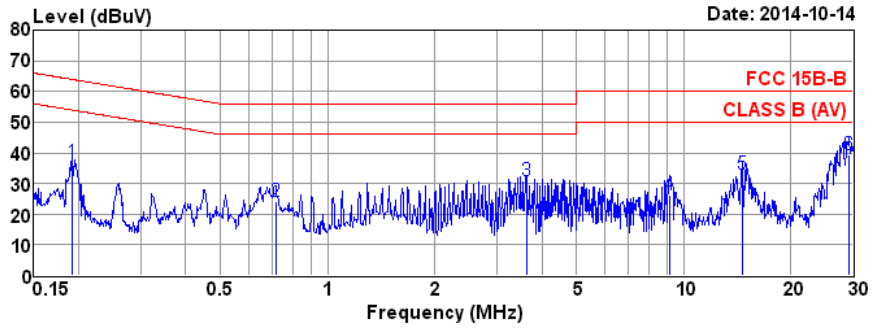
Test Date**:** 2014. 10. 14 Temperature**:** 25℃ Humidity: 54%

The details are as follows：

Mode	Reference Test Data	
	Neutral	Line
1.	# 2	# 1

AUDIX TECHNOLOGY Corp. EMC Department
No.53-11, Dingfu, Linkou Dist.,New Taipei City
244, Taiwan R.O.C.
Tel:+886-2-26092133 Fax:+886-2-26099303
Email:emc@audixtech.com

Data: 2 File: D:\test data\REPORT\2014\C1M1410XXX\C1M1410080-C-D(rf).EM6 (2)



Site no. : No.7 Shielded Room Data no. : 2
Condition : ENV4200 100169 Phase : NEUTRAL
Limit : FCC 15B-B
Env. / Ins. : 25*C / 54% ESCI (1276) Engineer : Hank
EUT : NW-ZX2
Power Rating : 120Vac/60Hz
Test Mode : CHARGE

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.192	10.60	0.03	9.85	16.17	36.65	63.93	27.28	QP
2	0.716	10.46	0.04	9.84	3.69	24.03	56.00	31.97	QP
3	3.623	10.58	0.08	9.86	10.61	31.13	56.00	24.87	QP
4	9.156	11.18	0.13	9.89	5.11	26.31	60.00	33.69	QP
5	14.672	12.39	0.17	9.92	10.47	32.95	60.00	27.05	QP
6	29.216	15.84	0.26	10.01	13.46	39.57	60.00	20.43	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.
2. If the average limit is met when useing a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

AUDIX TECHNOLOGY Corp. EMC Department
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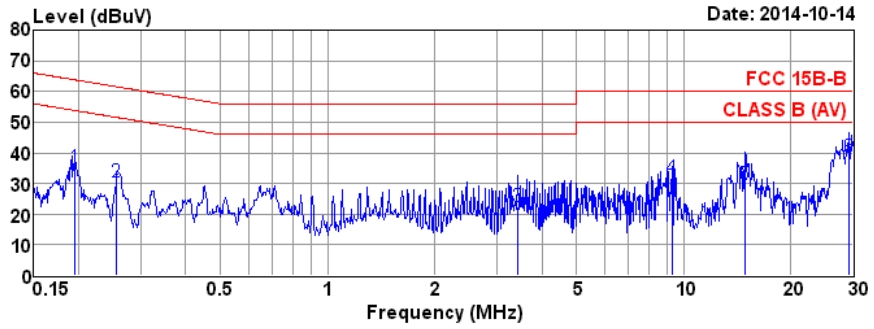
Email:emc@audixtech.com

Data: 1 File: D:\test data\REPORT\2014\C1M1410XXX\C1M1410080-C-D(rf).EM6 (2)



Site no. : No.7 Shielded Room Data no. : 1
Condition : ENV4200 100169 Phase : LINE
Limit : FCC 15B-B
Env. / Ins. : 25*C / 54% ESCI (1276) Engineer : Hank
EUT : NW-ZX2
Power Rating : 120Vac/60Hz
Test Mode : CHARGE

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.195	10.60	0.03	9.85	14.72	35.20	63.80	28.60	QP
2	0.256	10.56	0.03	9.86	9.91	30.36	61.56	31.20	QP
3	3.436	10.58	0.08	9.86	1.88	22.40	56.00	33.60	QP
4	9.302	11.16	0.13	9.89	10.75	31.93	60.00	28.07	QP
5	14.828	12.34	0.17	9.92	7.41	29.84	60.00	30.16	QP
6	29.216	15.72	0.26	10.01	12.53	38.52	60.00	21.48	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.
2. If the average limit is met when useing a quasi-peak detector, the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

4. RADIATED EMISSION MEASUREMENT

4.1. Test Equipment

The following test equipment was used during the radiated emission measurement:

4.1.1. For Frequency Range 30MHz~1000MHz (at Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1	Spectrum Analyzer	Agilent	N9010A-503	MY52220119	2014. 06. 25	1 Year
2	Test Receiver	R & S	ESCS30	100338	2014. 06. 24	1 Year
3	Amplifier	HP	8447D	2944A06305	2014. 02. 19	1 Year
4	Bilog Antenna	TESEQ	CBL6112D	33821	2014. 08. 02	1 Year

4.1.2. For Frequency Above 1GHz (at Semi-Anechoic Chamber)

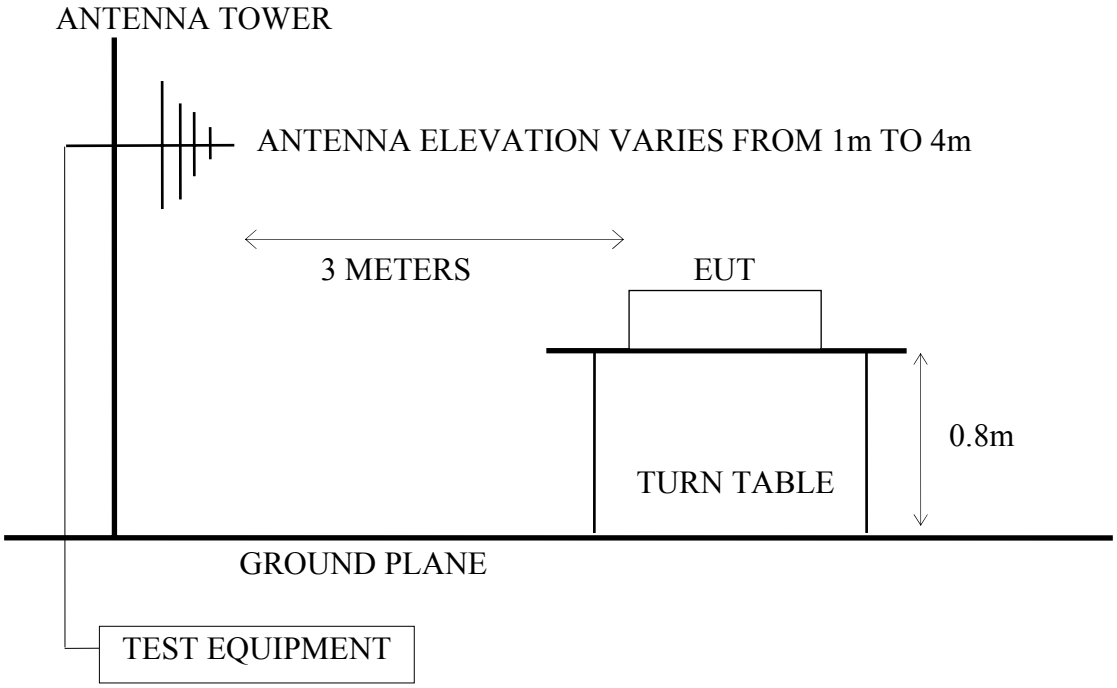
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1	Spectrum Analyzer	Agilent	N9030A-544	US51350140	2014. 06. 25	1 Year
2	Test Receiver	R & S	ESCS30	100338	2014. 06. 24	1 Year
3	Amplifier	Agilent	8449B	3008A02676	2014. 02. 21	1 Year
4	5G Notch Filter	Microware Circuits	N0452502	459775	2014. 01. 11	1 Year
5	5G Notch Filter	Microware Circuits	N0555983	459481	2014. 01. 11	1 Year
6	5G Notch Filter	Microware Circuits	N0258771	459776	2014. 01. 11	1 Year
7	Horn Antenna	EMCO	3115	9609-4927	2014. 06. 17	1 Year
8	Horn Antenna	EMCO	3116	2653	2014. 10. 10	1 Year

4.2. Test Setup

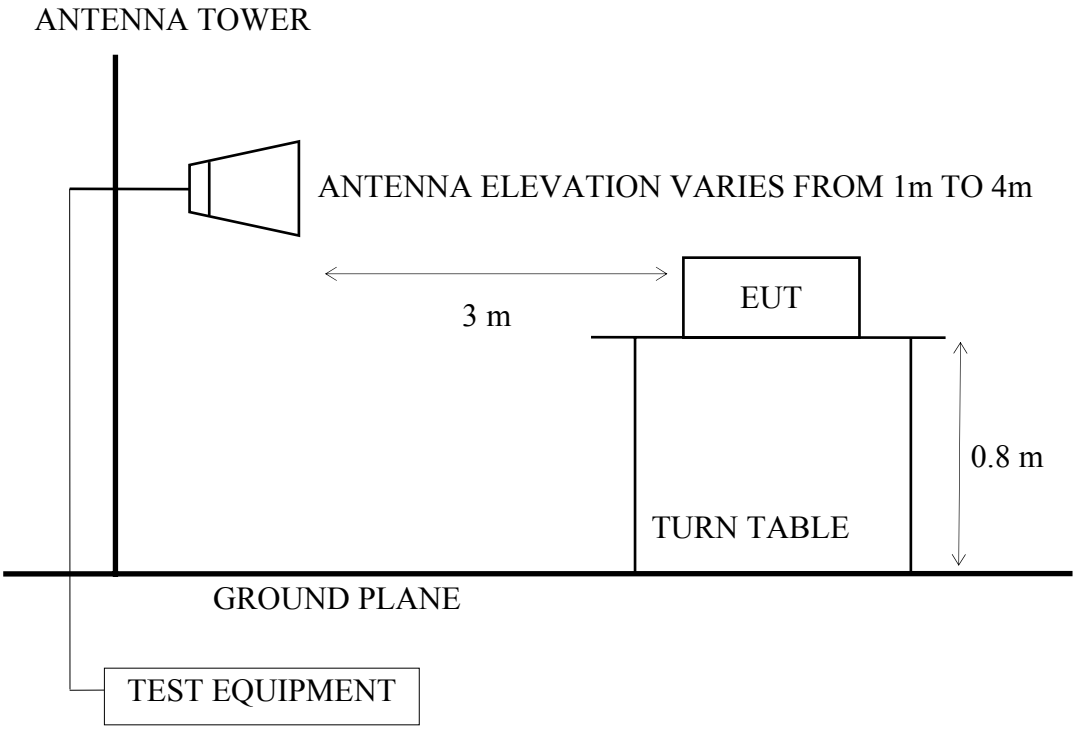
4.2.1. Block Diagram of connection between EUT and simulators

DIGITAL MEDIA PLAYER (EUT)

4.2.2. Semi-Anechoic Chamber (3m) Setup Diagram for 30-1000MHz



4.2.3. Semi-Anechoic Chamber (3m) Setup Diagram for above 1GHz



4.3. Radiated Emission Limits (§15.209)

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMITS	
		μV/m	dBμV/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0
Above 1000	3	74.0 dBμV/m (Peak) 54.0 dBμV/m (Average)	

Remark：(1) Emission level (dBμV/m) = 20 log Emission level (μV/m)
(2) The tighter limit applies at the edge between two frequency bands.
(3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
(4) The limits in this table are based on CFR 47 Part 15.205(a)(b) and Part 15.209 (a).
(5) The over 1GHz limit, FCC limit is used based on CFR 47 Part 15.35 (b) and Part 15.205(b) & Part 15.209(e) and Part 15.207(c).

4.4. Operating Condition of EUT

4.4.1. Set up the EUT as shown on 4.2.

4.4.2. The EUT was running test program "Diag Test Mode" for WLAN test.

4.4.3. The EUT supports 802.11a/n-HT20/n-HT40 modes, we performed pre-scan high, middle, low channels for each mode for spurious emission and listed the worst channel of each mode in test report.

The worst channel of each mode as following:

Mode	Type of Network	UNII Band	Channel
1.	802.11a	UNII Band I	CH 36
2.		UNII Band II-2A	CH 52
3.		UNII Band II-2C	CH 116
4.		UNII Band III	CH 149
5.	802.11n-HT20	UNII Band I	CH 36
6.		UNII Band II-2A	CH 52
7.		UNII Band II-2C	CH 116
8.		UNII Band III	CH 149
9.	802.11n-HT40	UNII Band I	CH 46
10.		UNII Band II-2A	CH 54
11.		UNII Band II-2C	CH 118
12.		UNII Band III	CH 151

4.5. Test Procedure

The EUT and its simulators were placed on a turn table which was 0.8 meter above the ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set 3 meters away from the receiving antenna which was mounted on antenna tower. The antenna moved up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna such as calibrated bi-conical and log-periodical antenna or horn antenna were used as a receiving antenna. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4-2003 regulation.

The bandwidth of the R&S Test Receiver was set at 120KHz. (For 30MHz to 1000MHz)

The resolution bandwidth and video bandwidth of test spectrum analyzer is 1MHz for peak detection (PK) at frequency above 1GHz.

The resolution bandwidth of test spectrum analyzer is 1MHz and the video bandwidth is 10Hz for average detection (AV) at frequency above 1GHz.

The frequency range from 30MHz to 40GHz (Up to 10th harmonics from fundamental frequency) was checked. 30MHz to 1000MHz was measured with Quasi-Peak detector. Pursuant to ANSI 63.4: 4.2, peak detector is an alternate option for frequency from 30MHz to 1000MHz.

Above 1GHz was measured with peak and average detector. For frequency from 1GHz to 40GHz, we checked it in 1 meter distance and with a shorter cable 2 meter instead of originals'. There is no signal exist.

Pursuant to ANSI C63.4 8.3.1.2, when peak value complies with the average limit, we didn't perform measurement in average detector.

4.6. Test Results

PASSED.
(All emissions not reported below are too low against the prescribed limits.)

EUT：Digital Media Player M/N：NW-ZX2

Test Date：2014. 10. 28 Temperature：24℃ Humidity：47%

For Frequency Range 30MHz~1000MHz:

The EUT emitted the fundamental frequency with data code at the stand, side and lying conditions.

The EUT select **worst position "lying"** and power by battery and with following test modes was performed during this section testing and all the test results are listed in section 4.6.1.

802.11a:

Mode	UNII Band	Channel	Frequency	Test Mode	Reference Test Data	
					Horizontal	Vertical
1.	UNII Band I	CH 36	5180MHz	Transmit	# 14	# 13
2.	UNII Band II-2A	CH 52	5260MHz	Transmit	# 14	# 13
3.	UNII Band II-2C	CH 116	5580MHz	Transmit	# 14	# 13
4.	UNII Band III	CH 149	5745MHz	Transmit	# 14	# 13

802.11n-HT20:

Mode	UNII Band	Channel	Frequency	Test Mode	Reference Test Data	
					Horizontal	Vertical
5.	UNII Band I	CH 36	5180MHz	Transmit	# 14	# 13
6.	UNII Band II-2A	CH 52	5260MHz	Transmit	# 2	# 1
7.	UNII Band II-2C	CH 116	5580MHz	Transmit	# 14	# 13
8.	UNII Band III	CH 149	5745MHz	Transmit	# 14	# 13

802.11n-H40:

Mode	UNII Band	Channel	Frequency	Test Mode	Reference Test Data	
					Horizontal	Vertical
9.	UNII Band I	CH 46	5230MHz	Transmit	# 2	# 1
10.	UNII Band II-2A	CH 54	5270MHz	Transmit	# 14	# 13
11.	UNII Band II-2C	CH 118	5590MHz	Transmit	# 14	# 13
12.	UNII Band III	CH 151	5755MHz	Transmit	# 14	# 13

* Above all final readings were measured with Quasi-Peak detector.

For Frequency above 1GHz:

The emissions (up to 40GHz) not reported are too low to be measured.

For Restricted Bands:

The EUT select **worst position "lying"** and power by battery and with following test modes was performed during this section testing and all the test results are listed in section 4.6.2. (The restricted bands defined in part 15.205(a))

802.11a:

Mode	UNII Band	Channel	Frequency	Test Mode	Reference Test Data	
					Horizontal	Vertical
1.	UNII Band I	CH 36	5180MHz	Transmit	# 3, # 4	# 1, # 2
2.	UNII Band II-2A	CH 64	5320MHz	Transmit	# 7, # 8	# 5, # 6
3.	UNII Band II-2C	CH 100	5500MHz	Transmit	# 11, # 12	# 9, # 10

802.11n-HT20:

Mode	UNII Band	Channel	Frequency	Test Mode	Reference Test Data	
					Horizontal	Vertical
4.	UNII Band I	CH 36	5180MHz	Transmit	# 3, # 4	# 1, # 2
5.	UNII Band II-2A	CH 64	5320MHz	Transmit	# 7, # 8	# 5, # 6
6.	UNII Band II-2C	CH 100	5500MHz	Transmit	# 11, # 12	# 9, # 10

802.11n-H40:

Mode	UNII Band	Channel	Frequency	Test Mode	Reference Test Data	
					Horizontal	Vertical
7.	UNII Band I	CH 38	5190MHz	Transmit	# 3, # 4	# 1, # 2
8.	UNII Band II-2A	CH 62	5310MHz	Transmit	# 7,# 8	# 5, # 6
9.	UNII Band II-2C	CH 102	5510MHz	Transmit	# 11, # 12	# 9, # 10

4.6.1. Frequency Range 30-1000MHz

802.11a (UNII Band I), Frequency: 5180MHz

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5180MHz

Data no. : 14
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	10.13	22.97	43.50	20.53	Peak
2	101.78	11.03	3.23	8.31	22.57	43.50	20.93	Peak
3	435.46	16.09	5.96	2.30	24.35	46.00	21.65	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5180MHz

Data no. : 13
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	199.75	9.27	3.98	11.83	25.08	43.50	18.42	Peak
2	262.80	12.60	4.42	6.36	23.38	46.00	22.62	Peak
3	296.75	13.09	4.64	9.78	27.51	46.00	18.49	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

802.11a (UNII Band II-2A), Frequency: 5260MHz

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5260MHz

Data no. : 14
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	10.09	22.93	43.50	20.57	Peak
2	101.78	11.03	3.23	8.20	22.46	43.50	21.04	Peak
3	501.42	16.98	6.44	1.69	25.11	46.00	20.89	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5260MHz

Data no. : 13
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	137.67	11.35	3.51	3.85	18.71	43.50	24.79	Peak
2	474.26	16.62	6.25	2.76	25.63	46.00	20.37	Peak
3	580.96	18.08	6.49	2.28	26.85	46.00	19.15	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

802.11a (UNII Band II-2C), Frequency: 5580MHz

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5580MHz

Data no. : 14
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	10.09	22.93	43.50	20.57	Peak
2	101.78	11.03	3.23	8.20	22.46	43.50	21.04	Peak
3	609.09	18.37	6.53	1.65	26.55	46.00	19.45	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5580MHz

Data no. : 13
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	189.08	9.19	3.90	7.04	20.13	43.50	23.37	Peak
2	254.07	12.46	4.36	7.11	23.93	46.00	22.07	Peak
3	389.87	15.32	5.56	5.14	26.02	46.00	19.98	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

802.11a (UNII Band III), Transmit, Frequency: 5745MHz

Site no. : Audix NO.1 Chamber Data no. : 14
Dis. / Ant. : 3m CBL6112D 33821 Ant. pol. : HORIZONTAL
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A Engineer : Johnny_Hsueh
EUT : NW-Z2
Power Rating : DC 3.7V
Test Mode : 802.11a 5745MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	10.54	23.38	43.50	20.12	Peak
2	101.78	11.03	3.23	8.72	22.98	43.50	20.52	Peak
3	296.75	13.09	4.64	4.16	21.89	46.00	24.11	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber Data no. : 13
Dis. / Ant. : 3m CBL6112D 33821 Ant. pol. : VERTICAL
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A Engineer : Johnny_Hsueh
EUT : NW-Z2
Power Rating : DC 3.7V
Test Mode : 802.11a 5745MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	212.36	10.10	4.07	5.15	19.32	43.50	24.18	Peak
2	266.68	12.65	4.44	12.51	29.60	46.00	16.40	Peak
3	296.75	13.09	4.64	5.63	23.36	46.00	22.64	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

802.11n-HT20 (UNII Band I), Frequency: 5180MHz

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5180MHz

Data no. : 14
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	9.50	22.34	43.50	21.16	Peak
2	101.78	11.03	3.23	8.18	22.44	43.50	21.06	Peak
3	415.09	15.78	5.78	2.26	23.82	46.00	22.18	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5180MHz

Data no. : 13
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	4.47	17.31	43.50	26.19	Peak
2	100.81	10.98	3.23	3.78	17.99	43.50	25.51	Peak
3	415.09	15.78	5.78	1.83	23.39	46.00	22.61	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

802.11n-HT20 (UNII Band II-2A), Frequency: 5260MHz

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5260MHz

Data no. : 2
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	10.12	22.96	43.50	20.54	Peak
2	101.78	11.03	3.23	8.72	22.98	43.50	20.52	Peak
3	458.74	16.42	6.14	2.03	24.59	46.00	21.41	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5260MHz

Data no. : 1
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	100.81	10.98	3.23	3.40	17.61	43.50	25.89	Peak
2	233.70	11.42	4.22	11.93	27.57	46.00	18.43	Peak
3	296.75	13.09	4.64	8.13	25.86	46.00	20.14	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

802.11n-HT20 (UNII Band II-2C), Frequency: 5580MHz

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5580MHz

Data no. : 14
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	10.14	22.98	43.50	20.52	Peak
2	101.78	11.03	3.23	8.41	22.67	43.50	20.83	Peak
3	387.93	15.29	5.55	1.84	22.68	46.00	23.32	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5580MHz

Data no. : 13
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	114.39	11.95	3.33	9.14	24.42	43.50	19.08	Peak
2	243.40	12.01	4.29	1.79	18.09	46.00	27.91	Peak
3	415.09	15.78	5.78	2.40	23.96	46.00	22.04	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

802.11n-HT20 (UNII Band III), Transmit, Frequency: 5745MHz

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5745MHz

Data no. : 14
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	9.92	22.76	43.50	20.74	Peak
2	101.78	11.03	3.23	8.54	22.80	43.50	20.70	Peak
3	429.64	16.00	5.91	2.08	23.99	46.00	22.01	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5745MHz

Data no. : 13
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	200.72	9.32	3.99	5.52	18.83	43.50	24.67	Peak
2	296.75	13.09	4.64	7.32	25.05	46.00	20.95	Peak
3	364.65	14.76	5.33	15.01	35.10	46.00	10.90	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

802.11n-HT40 (UNII Band I), Frequency: 5230MHz

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5230MHz

Data no. : 2
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	10.07	22.91	43.50	20.59	Peak
2	101.78	11.03	3.23	8.88	23.14	43.50	20.36	Peak
3	406.36	15.65	5.71	1.46	22.82	46.00	23.18	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5230MHz

Data no. : 1
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	176.47	9.26	3.80	5.90	18.96	43.50	24.54	Peak
2	321.97	13.72	4.90	1.56	20.18	46.00	25.82	Peak
3	424.79	15.94	5.87	1.42	23.23	46.00	22.77	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

802.11n-HT40 (UNII Band II-2A), Frequency: 5270MHz

Site no. : Audix NO.1 Chamber Data no. : 14
Dis. / Ant. : 3m CBL6112D 33821 Ant. pol. : HORIZONTAL
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A Engineer : Johnny_Hsueh
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5270MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	10.02	22.86	43.50	20.64	Peak
2	101.78	11.03	3.23	8.59	22.85	43.50	20.65	Peak
3	225.94	10.98	4.17	7.33	22.48	46.00	23.52	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber Data no. : 13
Dis. / Ant. : 3m CBL6112D 33821 Ant. pol. : VERTICAL
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A Engineer : Johnny_Hsueh
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5270MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	124.09	12.06	3.40	8.53	23.99	43.50	19.51	Peak
2	182.29	9.14	3.85	13.53	26.52	43.50	16.98	Peak
3	193.93	9.23	3.93	11.50	24.66	43.50	18.84	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

802.11n-HT40 (UNII Band II-2C), Frequency: 5590MHz

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5590MHz

Data no. : 14
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	9.69	22.53	43.50	20.97	Peak
2	101.78	11.03	3.23	8.07	22.33	43.50	21.17	Peak
3	344.28	14.29	5.14	1.94	21.37	46.00	24.63	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m CBL6112D 33821
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5590MHz

Data no. : 13
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	87.23	8.62	3.10	7.63	19.35	40.00	20.65	Peak
2	138.64	11.30	3.51	5.10	19.91	43.50	23.59	Peak
3	318.09	13.60	4.86	1.77	20.23	46.00	25.77	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

802.11n-HT40 (UNII Band III), Transmit, Frequency: 5755MHz

Site no. : Audix NO.1 Chamber Data no. : 14
Dis. / Ant. : 3m CBL6112D 33821 Ant. pol. : HORIZONTAL
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A Engineer : Johnny_Hsueh
EUT : NW-ZX2
Power Rating : DC 3.8V
Test Mode : 802.11n40 5755MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	9.99	22.83	43.50	20.67	Peak
2	114.39	11.95	3.33	13.62	28.90	43.50	14.60	Peak
3	460.68	16.44	6.16	1.89	24.49	46.00	21.51	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Site no. : Audix NO.1 Chamber Data no. : 13
Dis. / Ant. : 3m CBL6112D 33821 Ant. pol. : VERTICAL
Limit : 30M-1G
Env. / Ins. : 24*C / 47% N9010A Engineer : Johnny_Hsueh
EUT : NW-ZX2
Power Rating : DC 3.8V
Test Mode : 802.11n40 5755MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	93.05	9.67	3.17	4.55	17.39	43.50	26.11	Peak
2	342.34	14.23	5.11	6.79	26.13	46.00	19.87	Peak
3	579.02	18.06	6.49	1.04	25.59	46.00	20.41	Peak

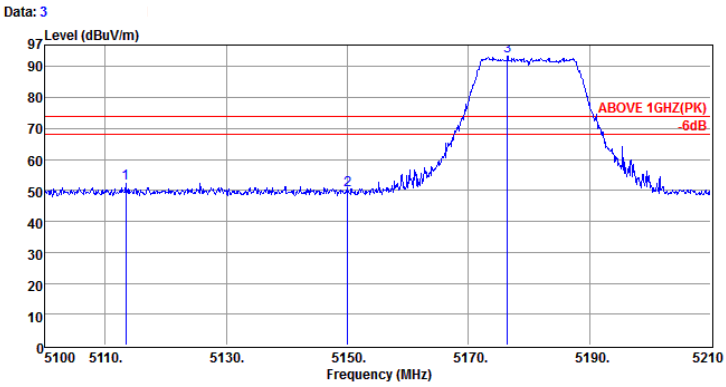
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

4.6.2. Restricted Bands Measurement Results

Date of Test: 2014. 10. 28 Temperature：24℃

EUT: Digital Media Player Humidity：47%

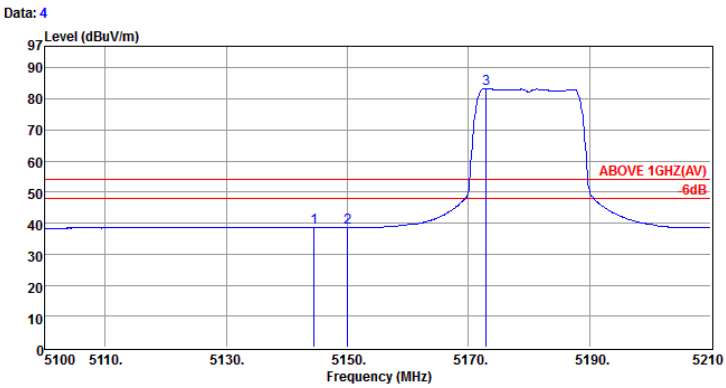
Test Mode: 802.11a (UNII Band I), Frequency: 5180MHz



Site no. : Audix NO.1 Chamber Data no. : 3
Dis. / Ant. : 3m 3115(4927) Ant. pol. : HORIZONTAL
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A Engineer : Johnny_Hsueh
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5180MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5113.42	33.59	9.41	9.18	52.18	74.00	21.82	Peak
2	5150.05	33.64	9.43	6.89	49.96	74.00	24.04	Peak
3	5176.45	33.69	9.46	50.26	93.41	74.00	-19.41	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

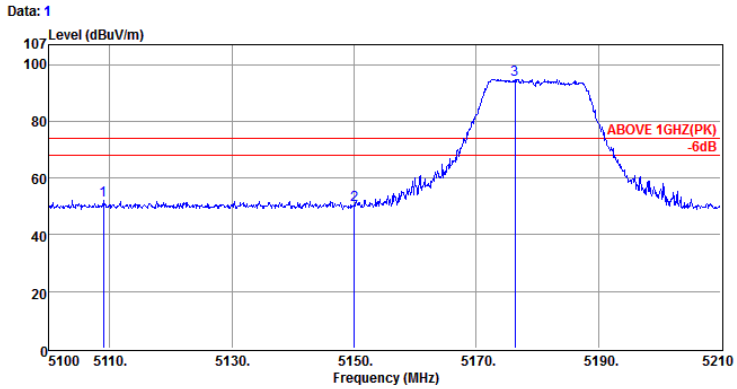


Site no. : Audix NO.1 Chamber Data no. : 4
Dis. / Ant. : 3m 3115(4927) Ant. pol. : HORIZONTAL
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A Engineer : Johnny_Hsueh
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5180MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5144.55	33.64	9.43	-4.39	38.68	54.00	15.32	Average
2	5150.05	33.64	9.43	-4.49	38.58	54.00	15.42	Average
3	5172.93	33.67	9.46	40.30	83.43	54.00	-29.43	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11a (UNII Band I), Frequency: 5180MHz		

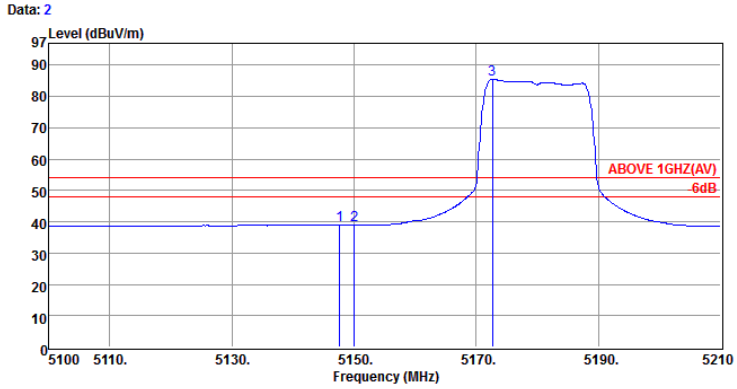


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5180MHz

Data no. : 1
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5109.02	33.59	9.39	9.23	52.21	74.00	21.79	Peak
2	5150.05	33.64	9.43	7.30	50.37	74.00	23.63	Peak
3	5176.34	33.69	9.46	51.65	94.80	74.00	-20.80	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



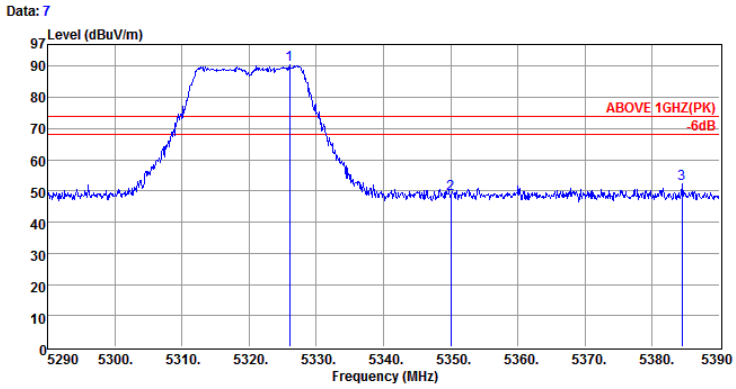
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5180MHz

Data no. : 2
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5147.63	33.64	9.43	-4.12	38.95	54.00	15.05	Average
2	5150.05	33.64	9.43	-4.27	38.80	54.00	15.20	Average
3	5172.71	33.67	9.46	42.38	85.51	54.00	-31.51	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11a (UNII Band II-2A), Frequency: 5320MHz		

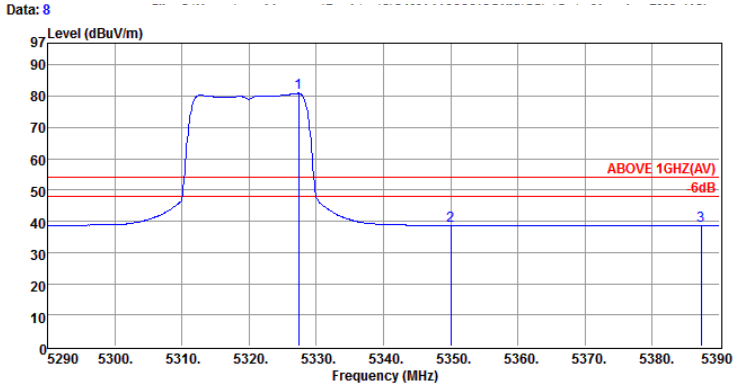


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5320MHz

Data no. : 7
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5326.00	33.91	9.59	47.00	90.50	74.00	-16.50	Peak
2	5350.00	33.96	9.62	5.64	49.22	74.00	24.78	Peak
3	5384.40	34.01	9.65	8.47	52.13	74.00	21.87	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



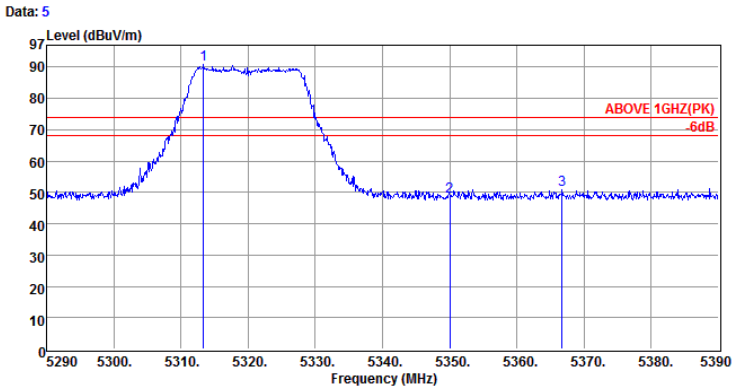
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5320MHz

Data no. : 8
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5327.40	33.93	9.59	37.45	80.97	54.00	-26.97	Average
2	5350.00	33.96	9.62	-4.95	38.63	54.00	15.37	Average
3	5387.30	34.01	9.65	-4.90	38.76	54.00	15.24	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11a (UNII Band II-2A), Frequency: 5320MHz		

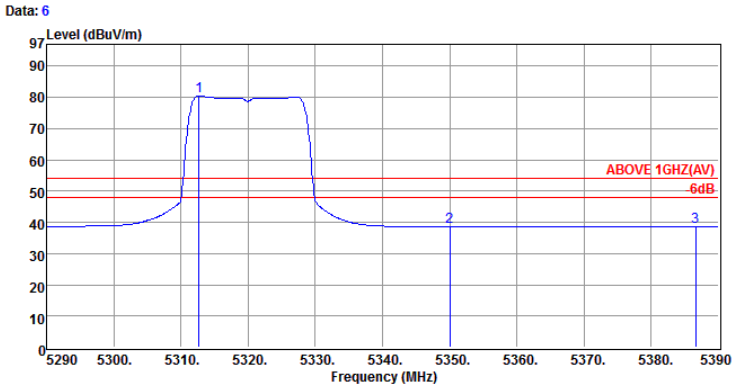


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5320MHz

Data no. : 5
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5313.40	33.91	9.59	47.48	90.98	74.00	-16.98	Peak
2	5350.00	33.96	9.62	5.10	48.68	74.00	25.32	Peak
3	5366.70	33.99	9.64	7.28	50.91	74.00	23.09	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



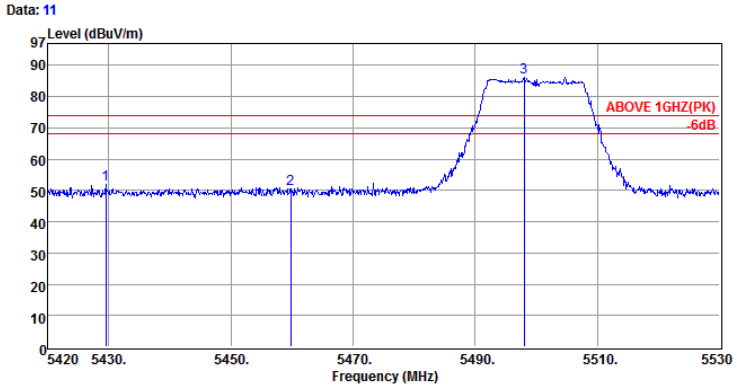
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5320MHz

Data no. : 6
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5312.70	33.91	9.58	37.03	80.52	54.00	-26.52	Average
2	5350.00	33.96	9.62	-5.04	38.54	54.00	15.46	Average
3	5386.60	34.01	9.65	-4.98	38.68	54.00	15.32	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11a (UNII Band II-2C), Frequency: 5500MHz		

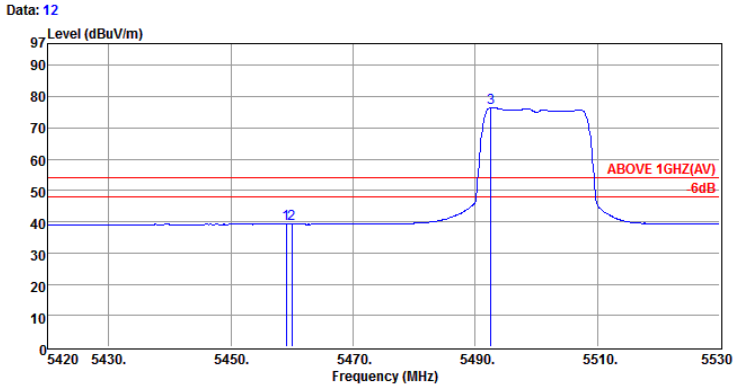


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5500MHz

Data no. : 11
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5429.57	34.09	9.69	8.28	52.06	74.00	21.94	Peak
2	5459.82	34.12	9.72	6.49	50.33	74.00	23.67	Peak
3	5497.99	34.20	9.74	42.27	86.21	74.00	-12.21	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



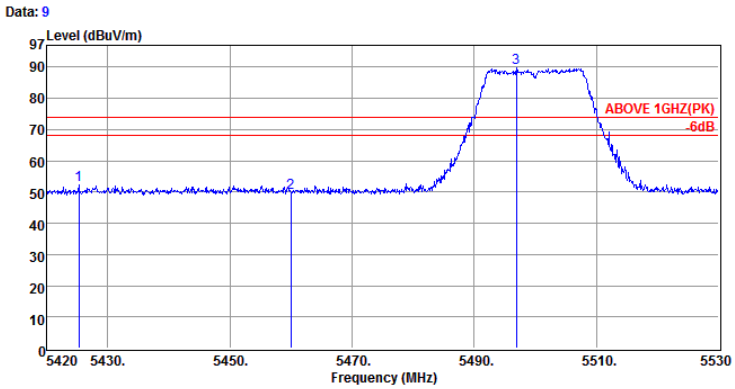
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5500MHz

Data no. : 12
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5459.05	34.12	9.72	-4.56	39.28	54.00	14.72	Average
2	5460.04	34.12	9.72	-4.62	39.22	54.00	14.78	Average
3	5492.60	34.17	9.74	32.71	76.62	54.00	-22.62	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11a (UNII Band II-2C), Frequency: 5500MHz		

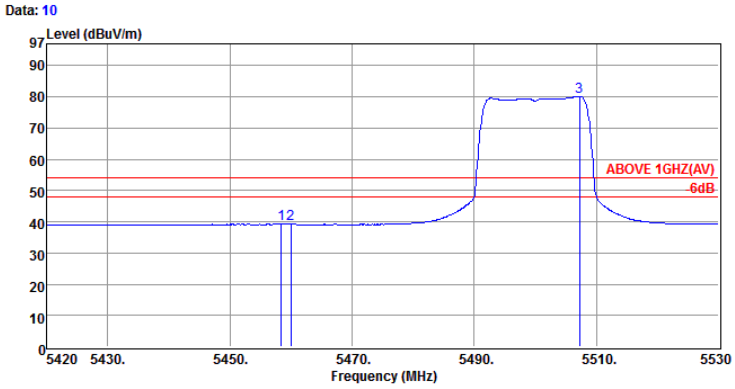


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5500MHz

Data no. : 9
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5425.28	34.07	9.68	8.50	52.25	74.00	21.75	Peak
2	5460.04	34.12	9.72	5.88	49.72	74.00	24.28	Peak
3	5496.89	34.20	9.74	45.94	89.88	74.00	-15.88	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



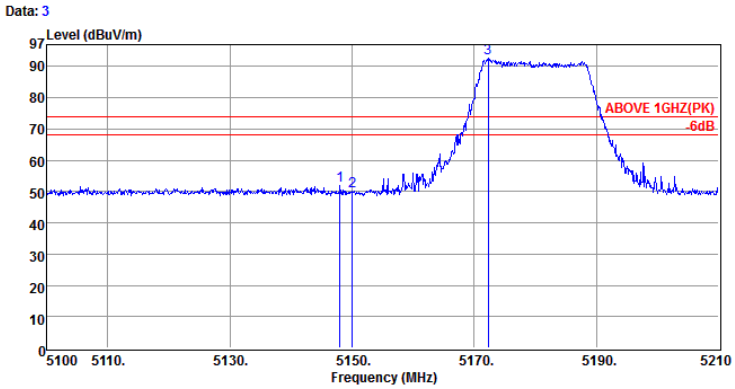
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11a 5500MHz

Data no. : 10
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5458.39	34.12	9.72	-4.63	39.21	54.00	14.79	Average
2	5460.04	34.12	9.72	-4.70	39.14	54.00	14.86	Average
3	5507.23	34.20	9.74	36.19	80.13	54.00	-26.13	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11n-HT20 (UNII Band I), Frequency: 5180MHz		

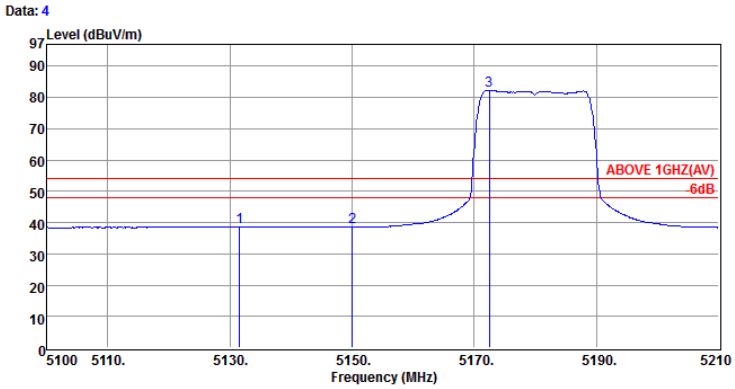


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5180MHz

Data no. : 3
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5148.07	33.64	9.43	8.85	51.92	74.00	22.08	Peak
2	5150.05	33.64	9.43	6.89	49.96	74.00	24.04	Peak
3	5172.27	33.67	9.46	49.47	92.60	74.00	-18.60	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



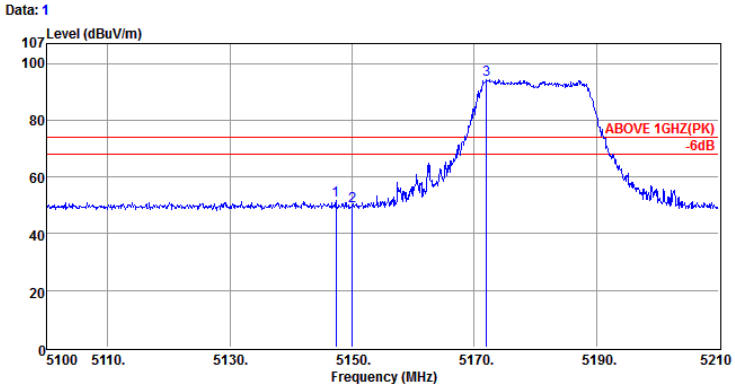
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5180MHz

Data no. : 4
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5131.57	33.61	9.42	-4.37	38.66	54.00	15.34	Average
2	5150.05	33.64	9.43	-4.51	38.56	54.00	15.44	Average
3	5172.49	33.67	9.46	39.21	82.34	54.00	-28.34	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11n-HT20 (UNII Band I), Frequency: 5180MHz		

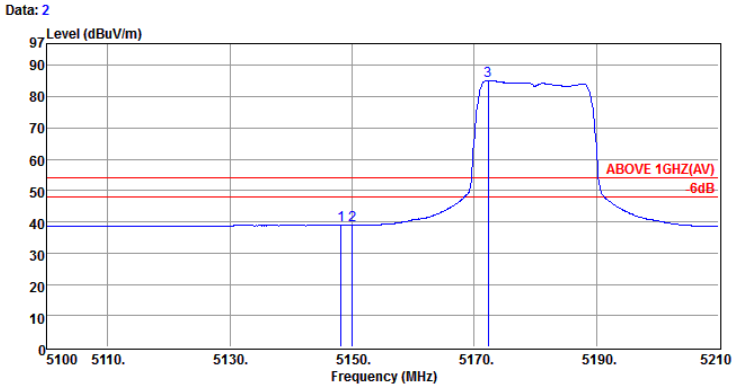


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5180MHz

Data no. : 1
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5147.41	33.64	9.43	8.47	51.54	74.00	22.46	Peak
2	5150.05	33.64	9.43	6.71	49.78	74.00	24.22	Peak
3	5172.05	33.67	9.46	51.07	94.20	74.00	-20.20	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



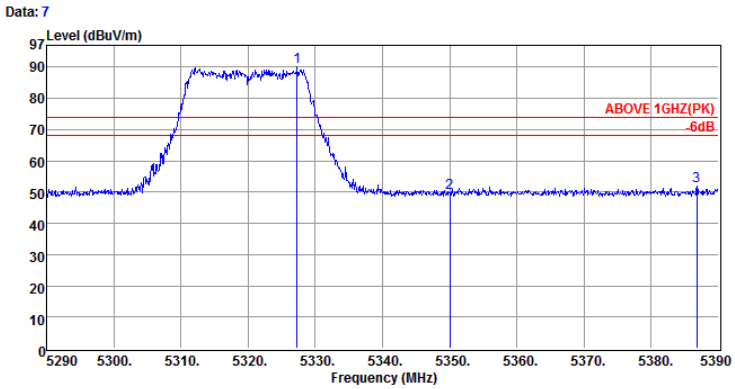
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5180MHz

Data no. : 2
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5148.18	33.64	9.43	-4.06	39.01	54.00	14.99	Average
2	5150.05	33.64	9.43	-4.21	38.86	54.00	15.14	Average
3	5172.27	33.67	9.46	42.13	85.26	54.00	-31.26	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11n-HT20 (UNII Band II-2A), Frequency: 5320MHz		

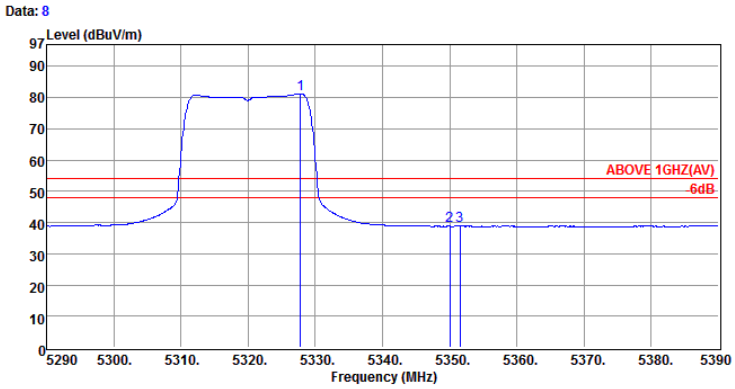


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5320MHz

Data no. : 7
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5327.30	33.93	9.59	46.52	90.04	74.00	-16.04	Peak
2	5350.00	33.96	9.62	6.32	49.90	74.00	24.10	Peak
3	5386.80	34.01	9.65	8.34	52.00	74.00	22.00	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



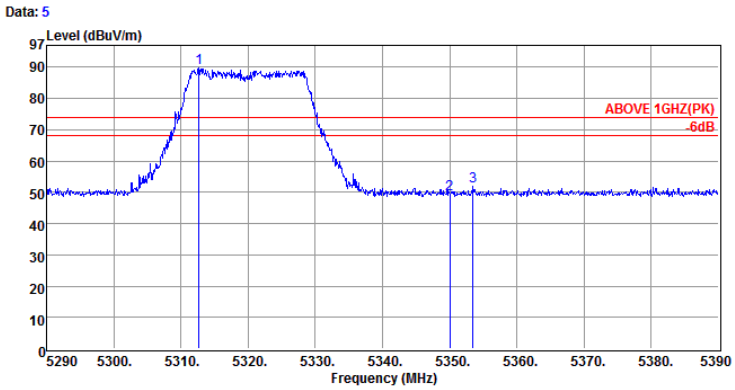
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5320MHz

Data no. : 8
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5327.80	33.93	9.59	37.65	81.17	54.00	-27.17	Average
2	5350.00	33.96	9.62	-4.81	38.77	54.00	15.23	Average
3	5351.50	33.96	9.62	-4.72	38.86	54.00	15.14	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11n-HT20 (UNII Band II-2A), Frequency: 5320MHz		

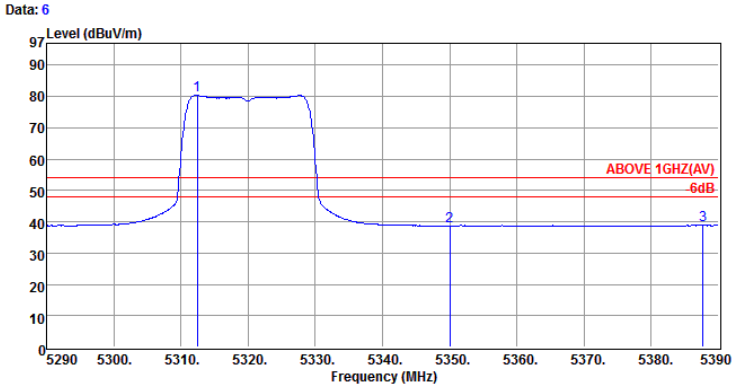


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5320MHz

Data no. : 5
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5312.70	33.91	9.58	46.34	89.83	74.00	-15.83	Peak
2	5350.00	33.96	9.62	5.98	49.56	74.00	24.44	Peak
3	5353.50	33.96	9.62	8.38	51.96	74.00	22.04	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



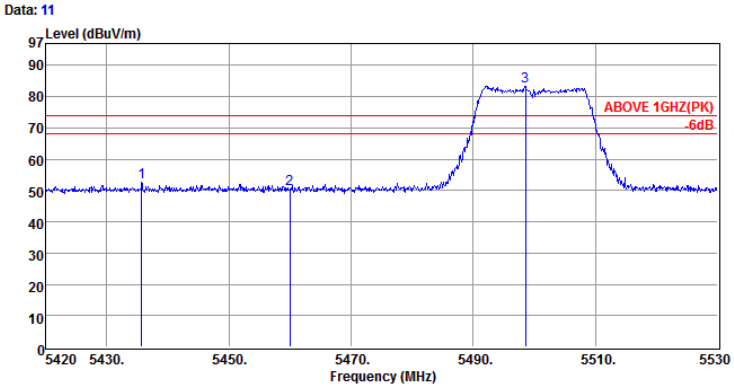
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5320MHz

Data no. : 6
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5312.40	33.91	9.58	36.82	80.31	54.00	-26.31	Average
2	5350.00	33.96	9.62	-4.85	38.73	54.00	15.27	Average
3	5387.70	34.01	9.65	-4.83	38.83	54.00	15.17	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11n-HT20 (UNII Band II-2C), Frequency: 5500MHz		

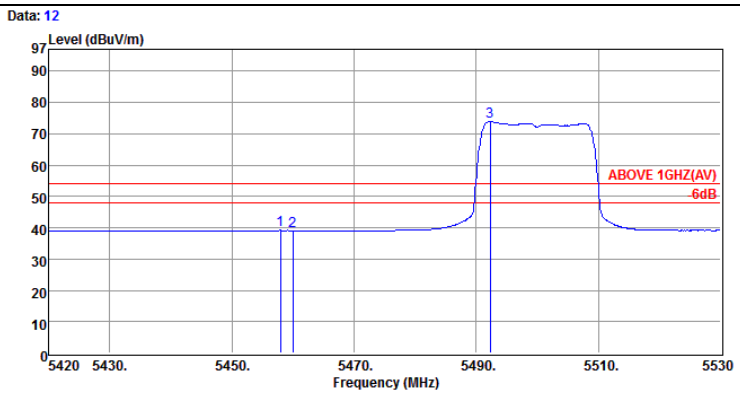


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5500MHz

Data no. : 11
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5435.73	34.09	9.69	8.88	52.66	74.00	21.34	Peak
2	5460.04	34.12	9.72	6.60	50.44	74.00	23.56	Peak
3	5498.54	34.20	9.74	39.30	83.24	74.00	-9.24	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



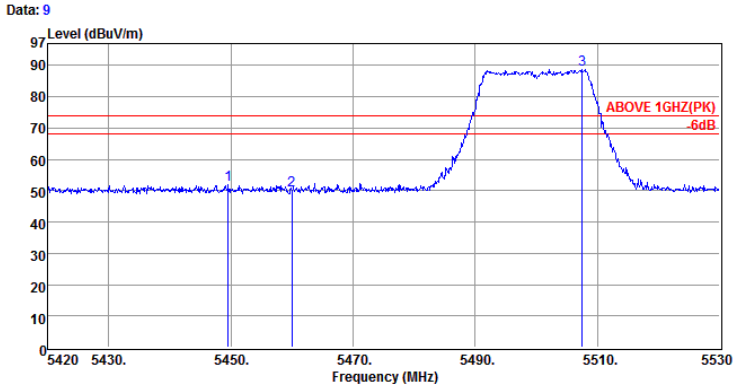
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5500MHz

Data no. : 12
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5457.95	34.12	9.71	-4.69	39.14	54.00	14.86	Average
2	5460.04	34.12	9.72	-4.77	39.07	54.00	14.93	Average
3	5492.27	34.17	9.74	29.97	73.88	54.00	-19.88	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11n-HT20 (UNII Band II-2C), Frequency: 5500MHz		

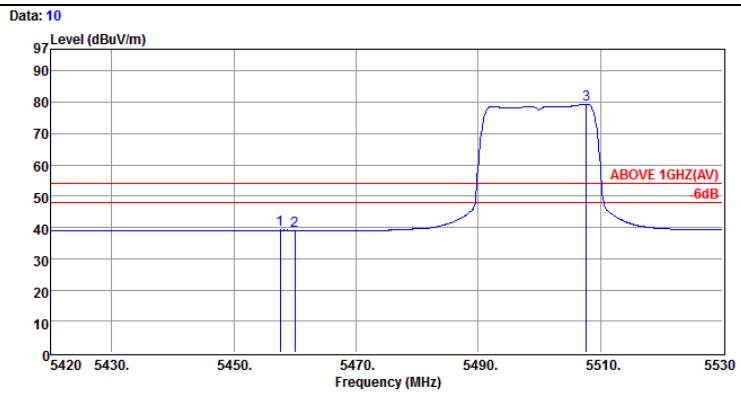


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5500MHz

Data no. : 9
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5449.59	34.12	9.71	8.04	51.87	74.00	22.13	Peak
2	5460.04	34.12	9.72	6.12	49.96	74.00	24.04	Peak
3	5507.56	34.20	9.78	44.87	88.85	74.00	-14.85	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



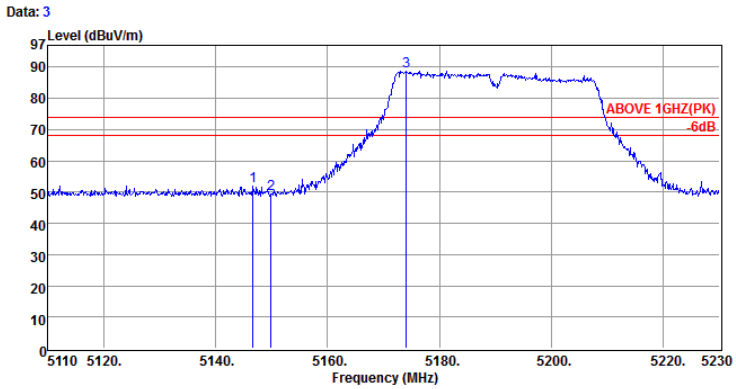
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n20 5500MHz

Data no. : 10
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5457.62	34.12	9.71	-4.70	39.13	54.00	14.87	Average
2	5460.04	34.12	9.72	-4.72	39.12	54.00	14.88	Average
3	5507.67	34.20	9.78	35.50	79.48	54.00	-25.48	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11n-HT40 (UNII Band I), Frequency: 5190MHz		

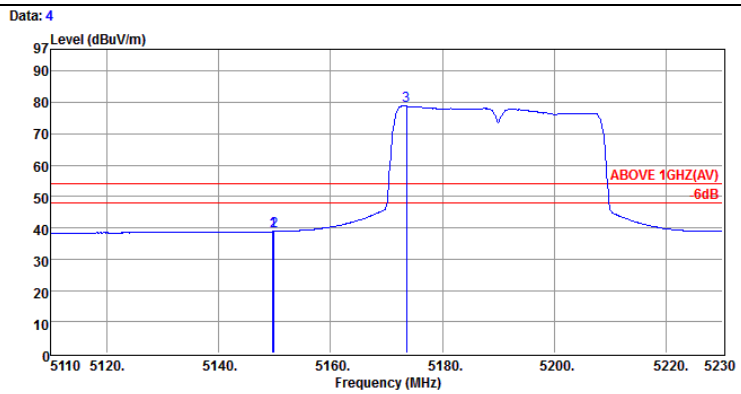


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5190MHz

Data no. : 3
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5146.72	33.64	9.43	8.71	51.78	74.00	22.22	Peak
2	5149.96	33.64	9.43	6.46	49.53	74.00	24.47	Peak
3	5174.08	33.69	9.46	45.68	88.83	74.00	-14.83	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



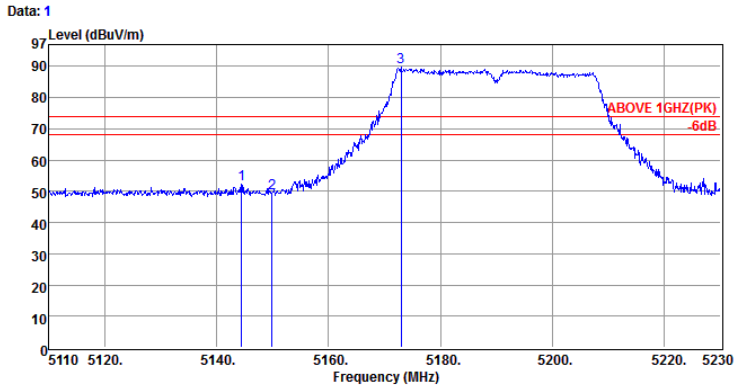
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5190MHz

Data no. : 4
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5149.72	33.64	9.43	-4.28	38.79	54.00	15.21	Average
2	5149.96	33.64	9.43	-4.28	38.79	54.00	15.21	Average
3	5173.60	33.69	9.46	35.70	78.85	54.00	-24.85	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11n-HT40 (UNII Band I), Frequency: 5190MHz		

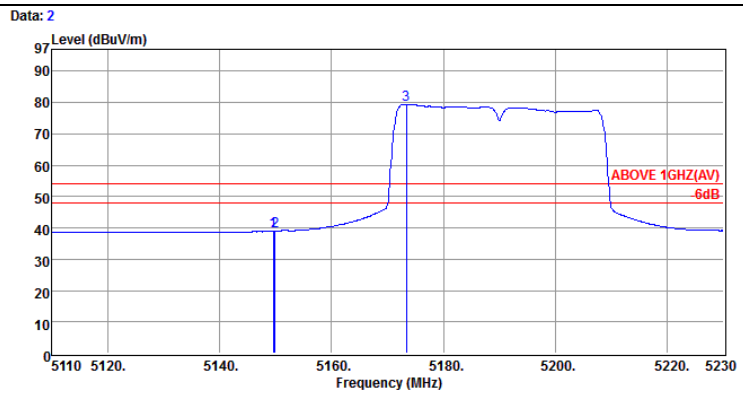


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5190MHz

Data no. : 1
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5144.44	33.64	9.43	9.27	52.34	74.00	21.66	Peak
2	5149.96	33.64	9.43	6.31	49.38	74.00	24.62	Peak
3	5173.00	33.67	9.46	46.77	89.90	74.00	-15.90	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



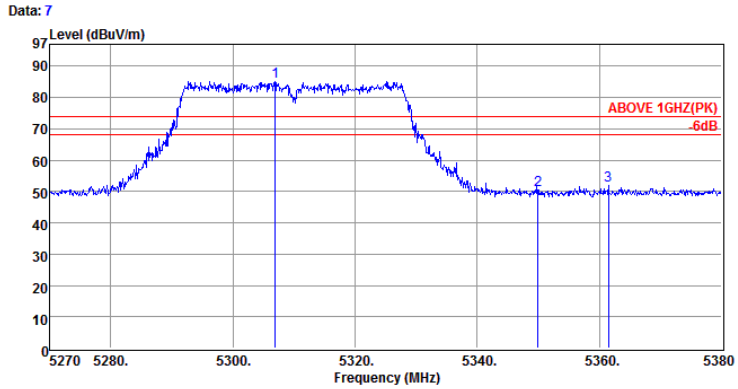
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5190MHz

Data no. : 2
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5149.60	33.64	9.43	-4.12	38.95	54.00	15.05	Average
2	5149.96	33.64	9.43	-4.11	38.96	54.00	15.04	Average
3	5173.36	33.67	9.46	36.31	79.44	54.00	-25.44	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11n-HT40 (UNII Band II-2A), Frequency: 5310MHz		

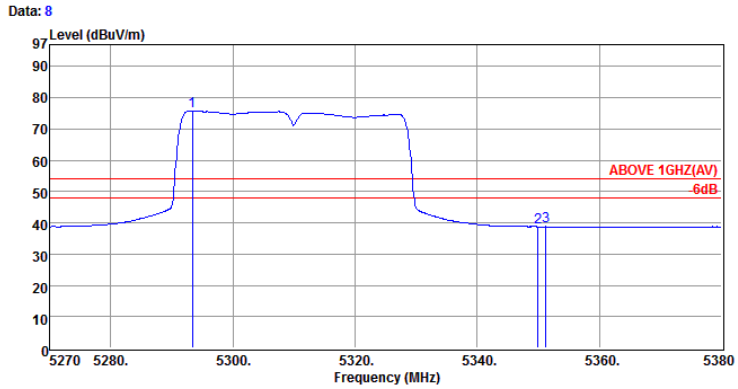


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5310MHz

Data no. : 7
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5306.96	33.88	9.58	41.76	85.22	74.00	-11.22	Peak
2	5349.97	33.96	9.62	7.07	50.65	74.00	23.35	Peak
3	5361.52	33.99	9.64	8.21	51.84	74.00	22.16	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



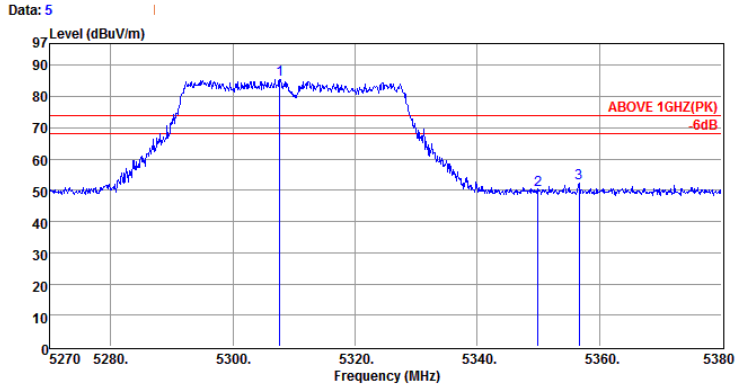
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5310MHz

Data no. : 8
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5293.43	33.88	9.56	32.35	75.79	54.00	-21.79	Average
2	5349.97	33.96	9.62	-4.87	38.71	54.00	15.29	Average
3	5351.29	33.96	9.62	-4.81	38.77	54.00	15.23	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11n-HT40 (UNII Band II-2A), Frequency: 5310MHz		

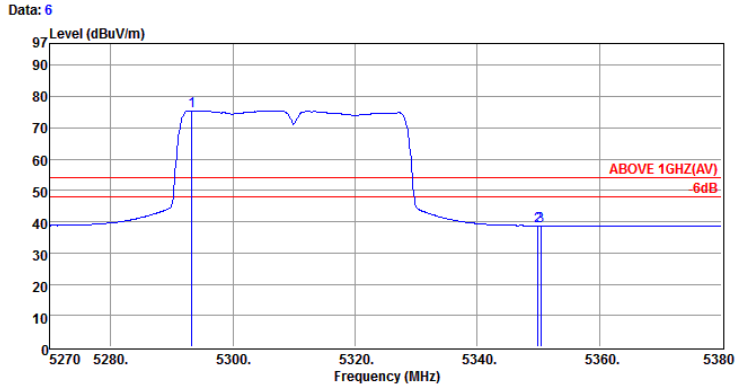


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5310MHz

Data no. : 5
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5307.73	33.88	9.58	42.16	85.62	74.00	-11.62	Peak
2	5349.97	33.96	9.62	6.53	50.11	74.00	23.89	Peak
3	5356.68	33.96	9.62	8.70	52.28	74.00	21.72	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



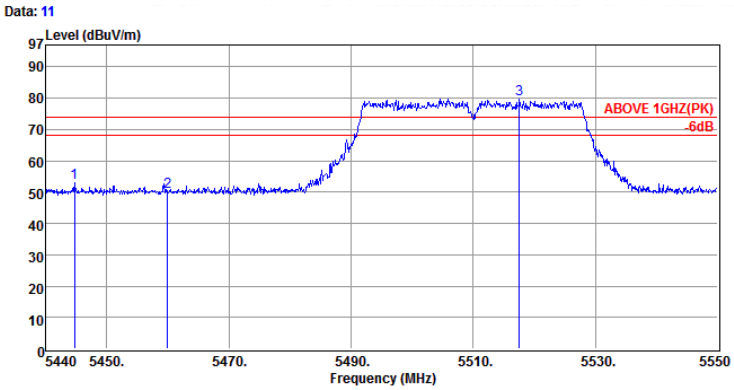
Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5310MHz

Data no. : 6
Ant. pol. : VERTICAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5293.32	33.88	9.56	32.10	75.54	54.00	-21.54	Average
2	5349.97	33.96	9.62	-4.94	38.64	54.00	15.36	Average
3	5350.41	33.96	9.62	-4.87	38.71	54.00	15.29	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test:	2014. 10. 28	Temperature：	24℃
EUT:	Digital Media Player	Humidity：	47%
Test Mode:	802.11n-HT40 (UNII Band II-2C), Frequency: 5510MHz		

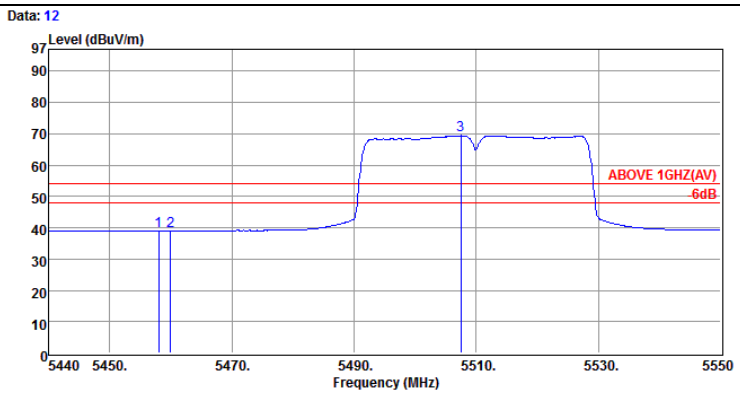


Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5510MHz

Data no. : 11
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5444.73	34.09	9.71	9.15	52.95	74.00	21.05	Peak
2	5460.02	34.12	9.72	6.30	50.14	74.00	23.86	Peak
3	5517.55	34.21	9.78	35.83	79.82	74.00	-5.82	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : Audix NO.1 Chamber
Dis. / Ant. : 3m 3115(4927)
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5510MHz

Data no. : 12
Ant. pol. : HORIZONTAL
Engineer : Johnny_Hsueh

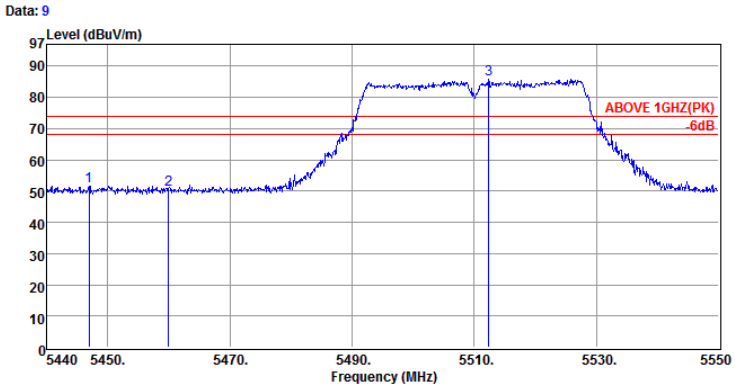
	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5458.04	34.12	9.72	-4.72	39.12	54.00	14.88	Average
2	5460.02	34.12	9.72	-4.76	39.08	54.00	14.92	Average
3	5507.54	34.20	9.78	25.44	69.42	54.00	-15.42	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

Date of Test: 2014. 10. 28 Temperature： 24℃

EUT: Digital Media Player Humidity： 47%

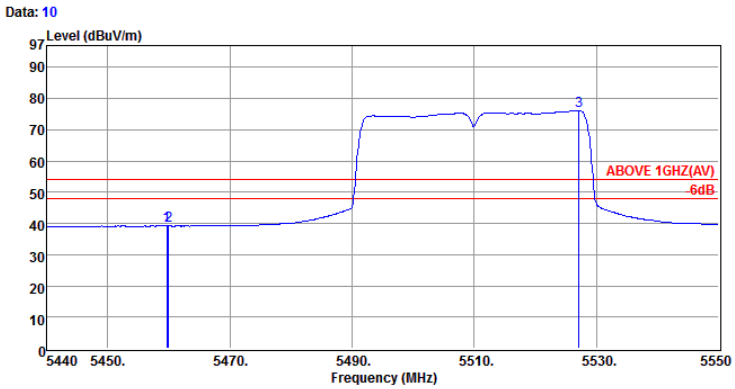
Test Mode: 802.11n-HT40 (UNII Band II-2C), Frequency: 5510MHz



Site no. : Audix NO.1 Chamber Data no. : 9
Dis. / Ant. : 3m 3115(4927) Ant. pol. : VERTICAL
Limit : ABOVE 1GHZ(PK)
Env. / Ins. : 24*C / 47% N9010A Engineer : Johnny_Hsueh
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5510MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5446.93	34.12	9.71	7.87	51.70	74.00	22.30	Peak
2	5460.02	34.12	9.72	6.79	50.63	74.00	23.37	Peak
3	5512.38	34.20	9.78	42.01	85.99	74.00	-11.99	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : Audix NO.1 Chamber Data no. : 10
Dis. / Ant. : 3m 3115(4927) Ant. pol. : VERTICAL
Limit : ABOVE 1GHZ(AV)
Env. / Ins. : 24*C / 47% N9010A Engineer : Johnny_Hsueh
EUT : NW-ZX2
Power Rating : DC 3.7V
Test Mode : 802.11n40 5510MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Remark
1	5459.69	34.12	9.72	-4.66	39.18	54.00	14.82	Average
2	5460.02	34.12	9.72	-4.67	39.17	54.00	14.83	Average
3	5527.12	34.21	9.79	32.17	76.17	54.00	-22.17	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
2. The emission levels that are 20dB below the official limit are not reported.

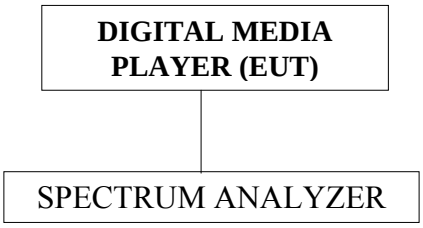
5. EMISSION BANDWIDTH MEASUREMENT

5.1. Test Equipment

The following test equipment was used during the Emission Bandwidth measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1	Spectrum Analyzer	Agilent	N9030A-526	MY53310269	2014. 09. 19	1 Year

5.2. Block Diagram of Test Setup



5.3. Operating Condition of EUT

The EUT was running test program "Diag Test Mode" for WLAN test, and enable to transmit data at different channel frequency individually.

5.4. Test Procedure

5.4.1. For 26dB & 99% Occupied Bandwidth

1. Set RBW=approximately 1% of the emission bandwidth.
2. Set the VBW>RBW
3. Detector=Peak.
4. Trace mode = max hold.
5. Measure the maximum width of the emission that is 26dB down from the peak of the emission. Compare this with RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

The measurement guideline was according to KDB789033 D02 v01.

5.4.2. For 6dB Bandwidth

The transmitter output was connected to the spectrum analyzer. The bandwidth of the fundamental frequency was measure by spectrum analyzer with 1.5% EBW, VBW≥3xRBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.
The measurement guideline was according to KDB789033 D02 v01.

5.5. Test Results

PASSED. All the test results are attached in next pages.

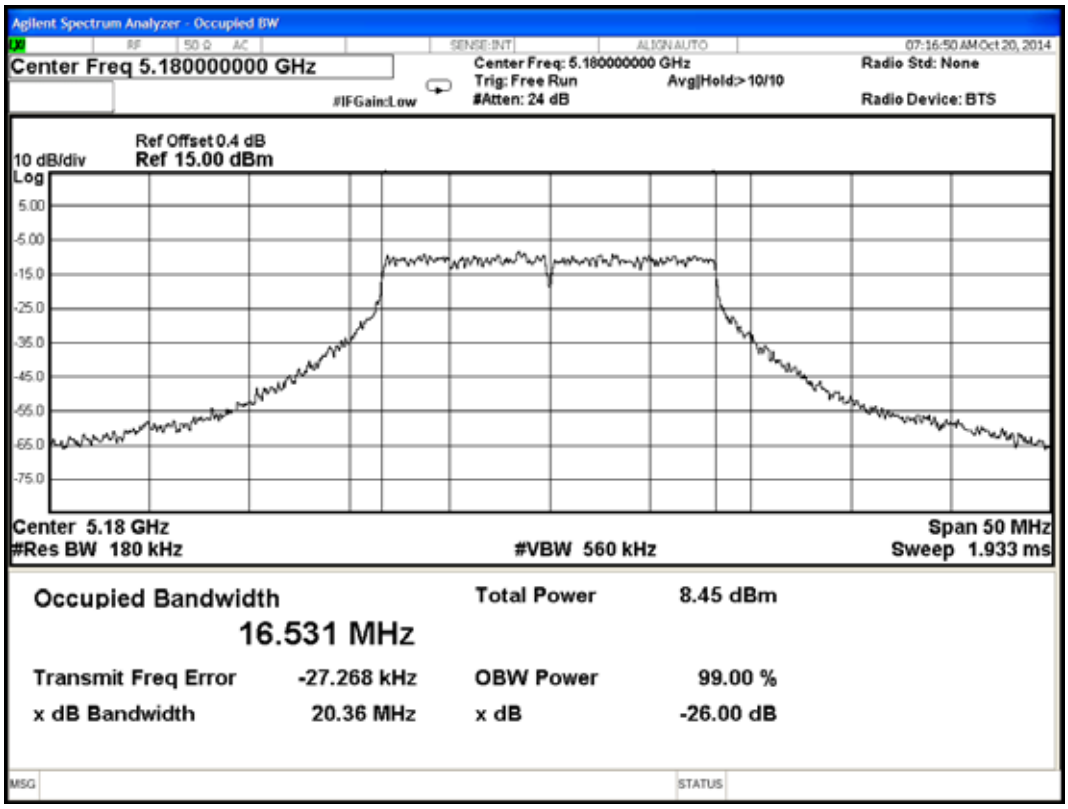
Test Date : 2014. 10. 20 Temperature : 25℃ Humidity : 50%
Test Date : 2014. 10. 23 Temperature : 24℃ Humidity : 50%

5.5.1. For 802.11a

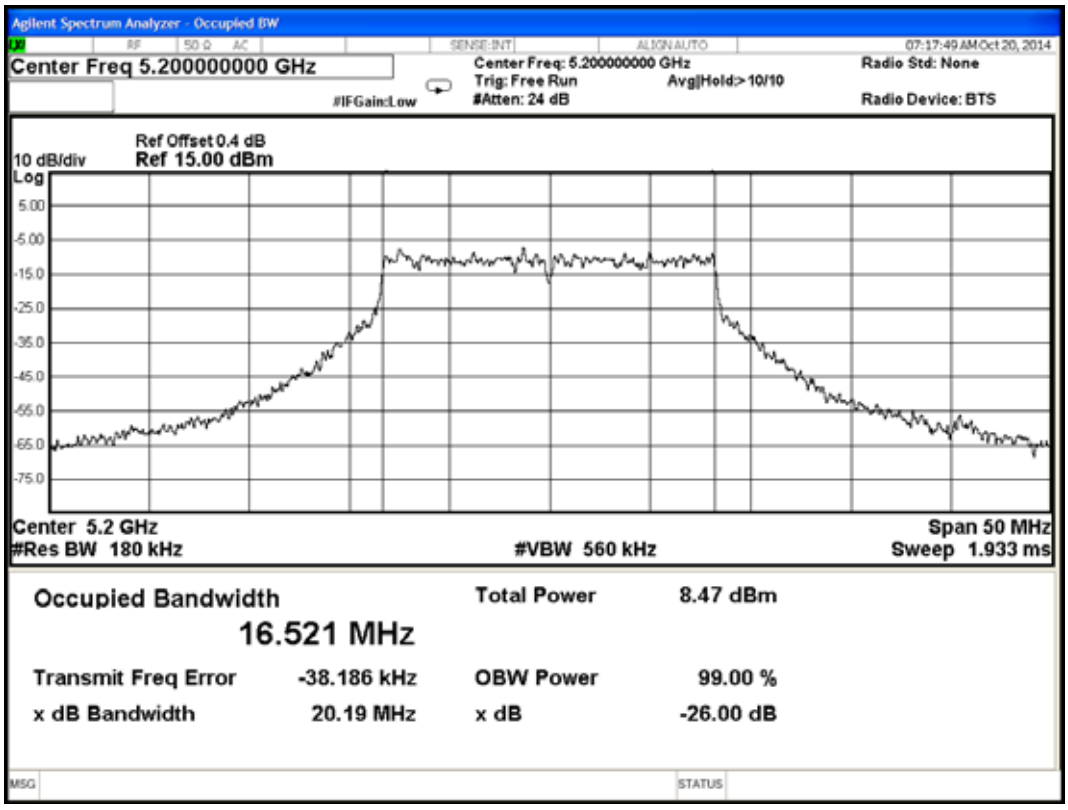
Mode	UNII Band	Channel	Frequency (MHz)	**26dB Bandwidth (MHz)**	**99% Occupied Bandwidth (MHz)**
1.	UNII Band I	CH 36	5180	**20.36**	**16.531**
2.		CH 40	5200	**20.19**	**16.521**
3.		CH 48	5240	**20.43**	**16.509**
4.	UNII Band II-2A	CH 52	5260	**20.45**	**16.469**
5.		CH 56	5280	**20.02**	**16.521**
6.		CH 64	5320	**20.70**	**16.535**
7.	UNII Band II-2C	CH 100	5500	**20.13**	**16.535**
8.		CH 116	5580	**20.50**	**16.522**
9.		CH 140	5700	**20.03**	**16.531**

Mode	UNII Band	Channel	Frequency (MHz)	**6dB Bandwidth (MHz)**
10.	UNII Band III	CH 149	5745	**16.55**
11.		CH 157	5785	**16.55**
12.		CH 165	5825	**16.55**

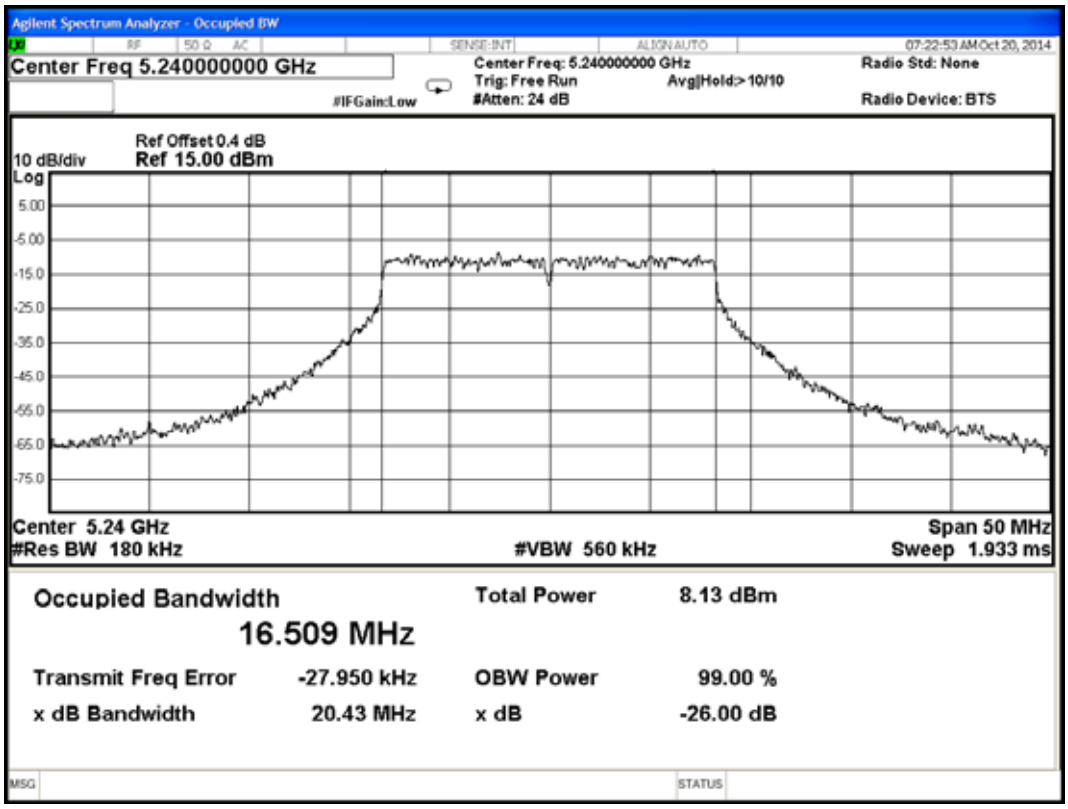
802.11a (UNII Band I), Frequency: 5180MHz



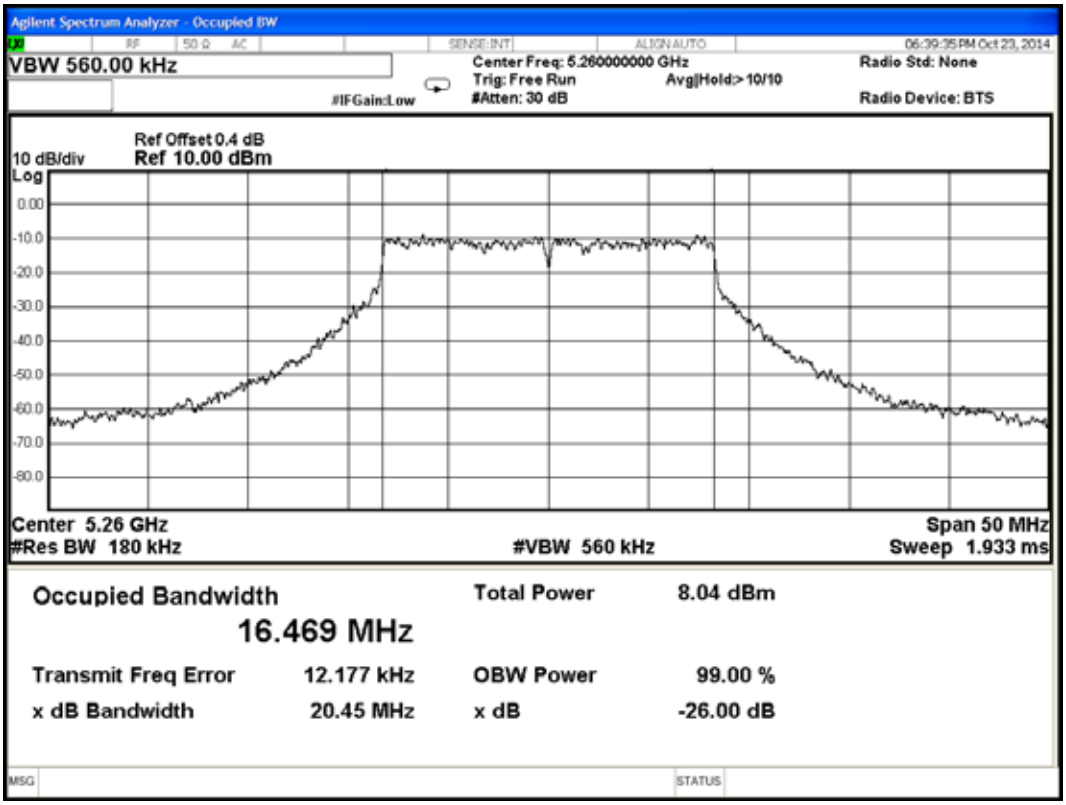
802.11a (UNII Band I), Frequency: 5200MHz



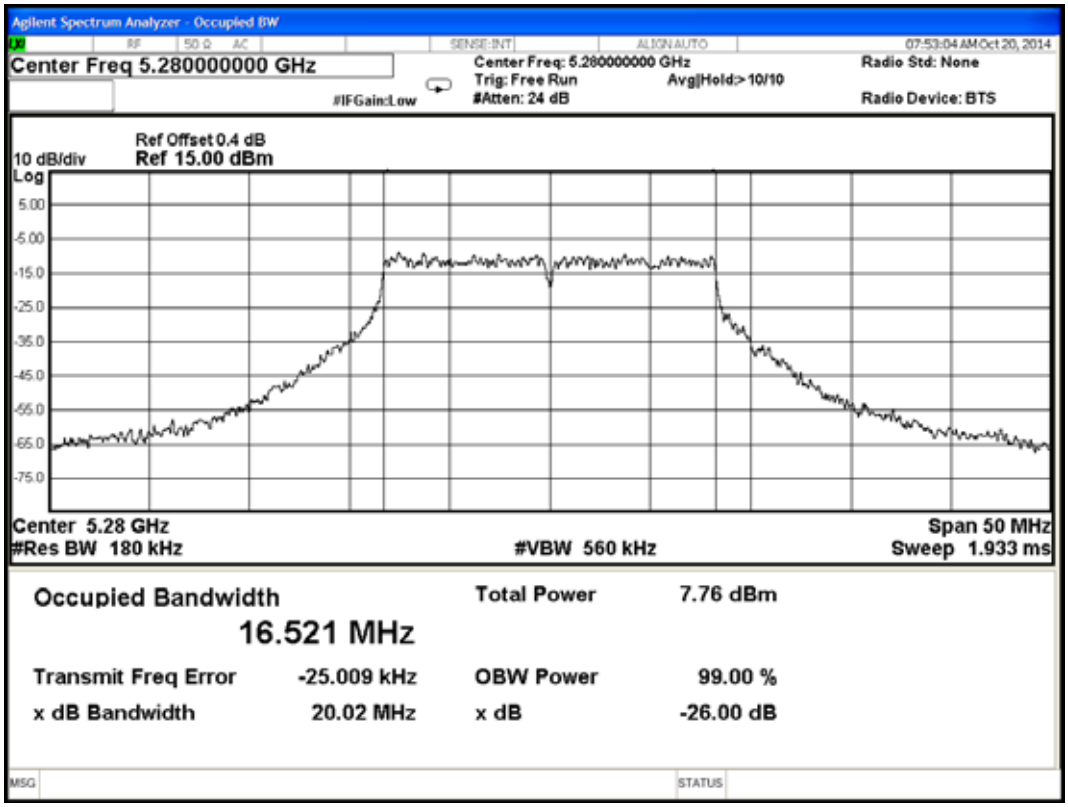
802.11a (UNII Band I), Frequency: 5240MHz



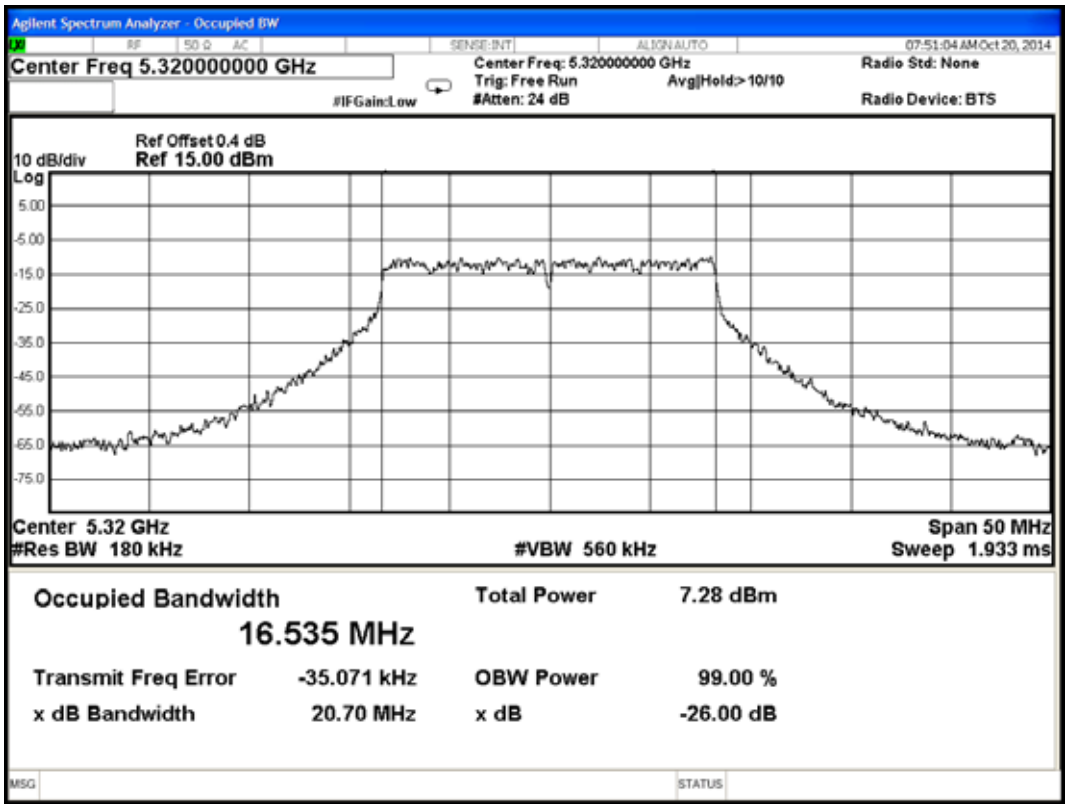
802.11a (UNII Band II-2A), Frequency: 5260MHz



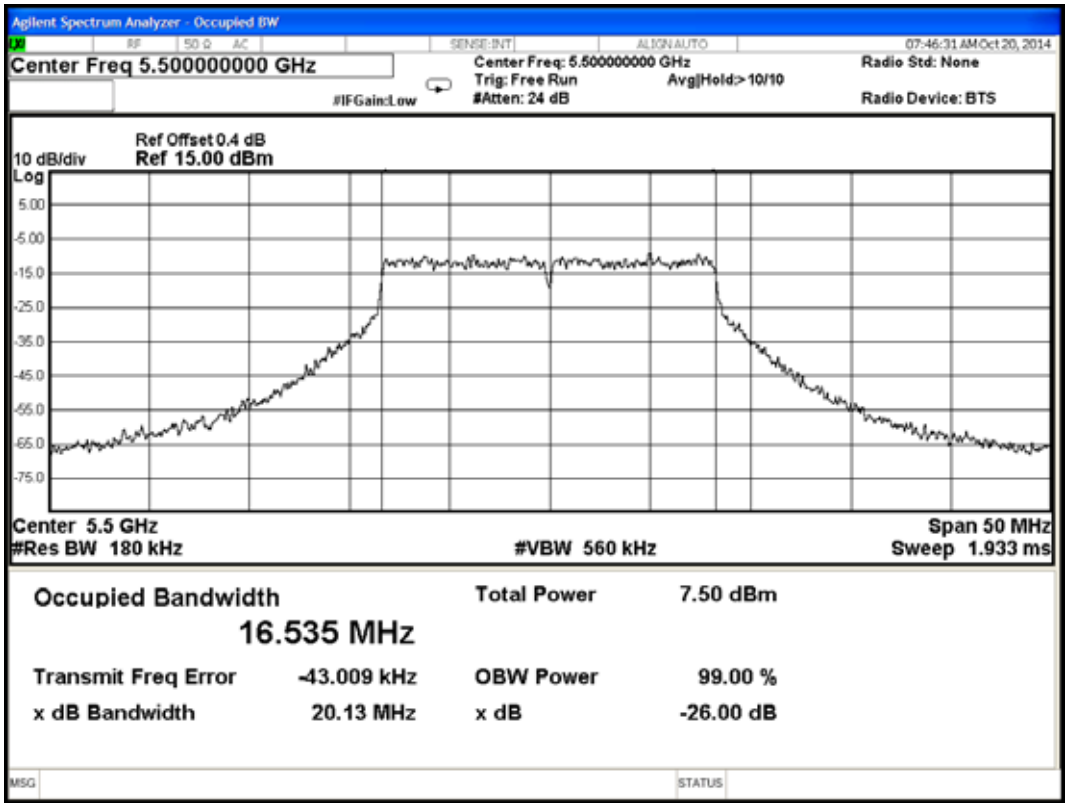
802.11a (UNII Band II-2A), Frequency: 5280MHz



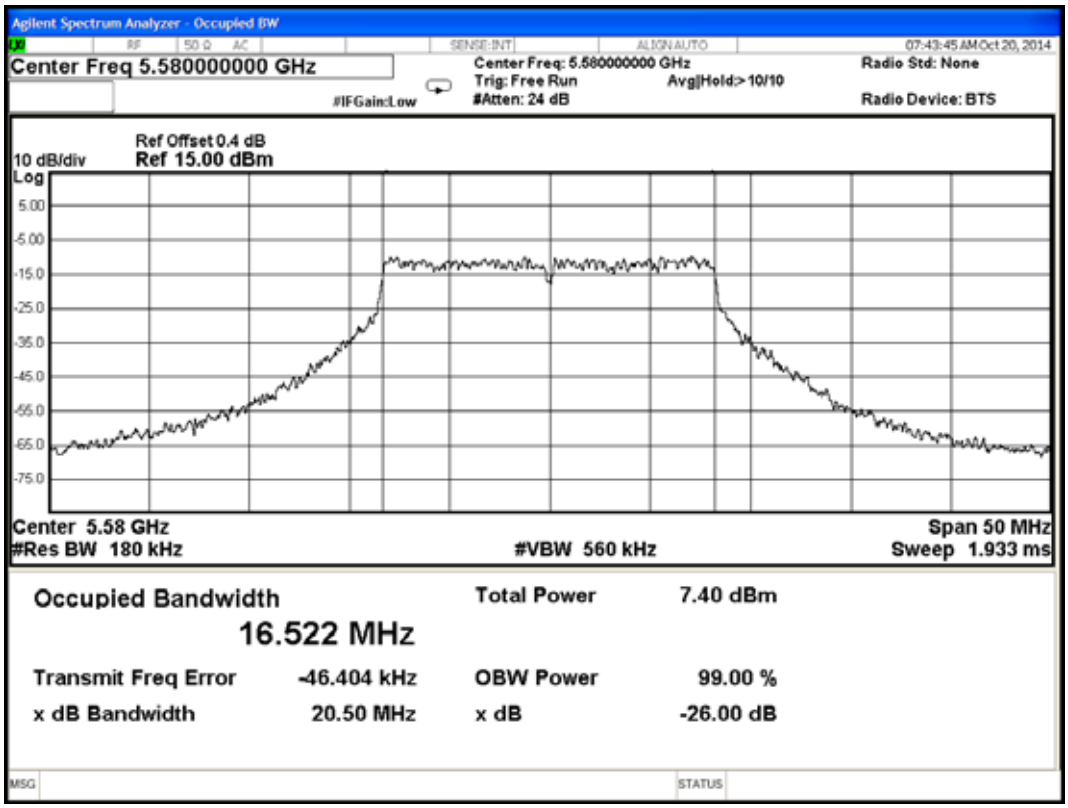
802.11a (UNII Band II-2A), Frequency: 5320MHz



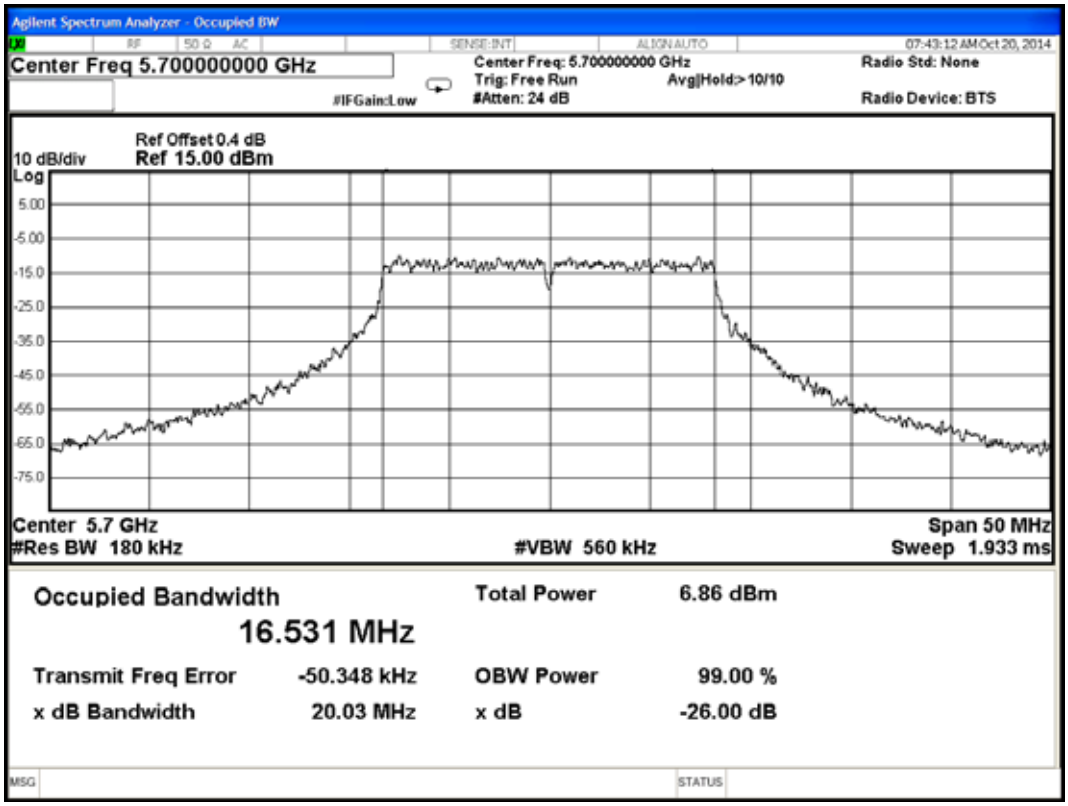
802.11a (UNII Band II-2C), Frequency: 5500MHz



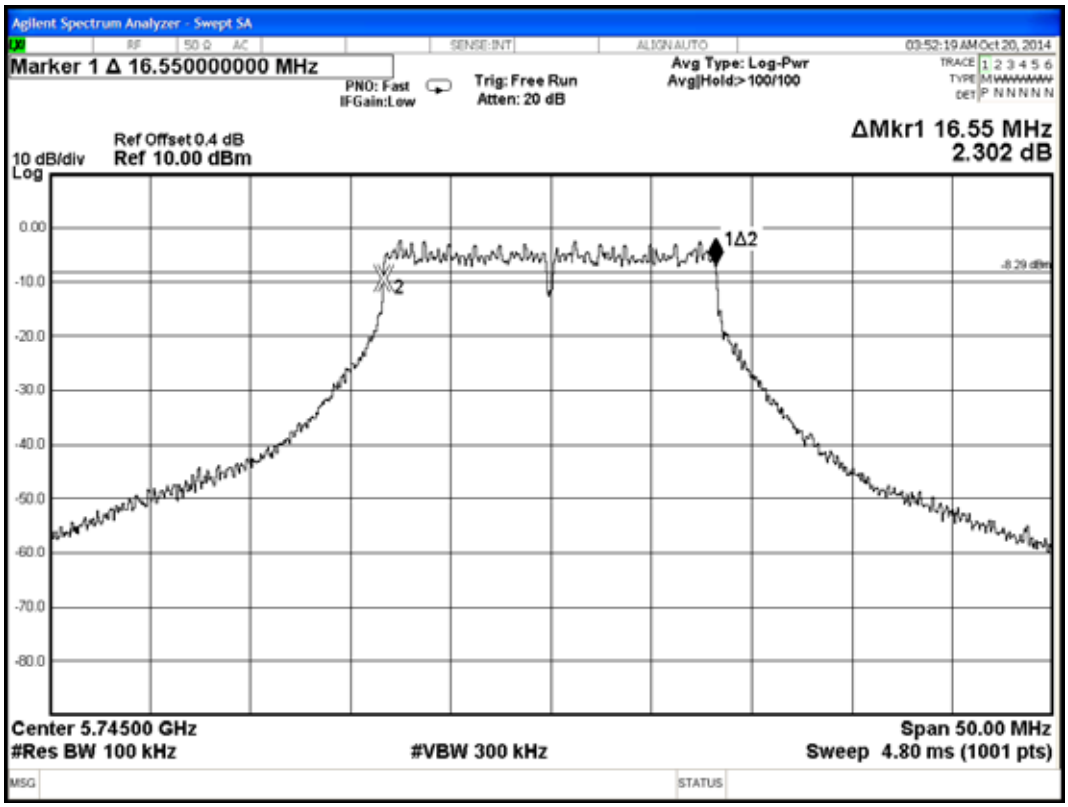
802.11a (UNII Band II-2C), Frequency: 5580MHz



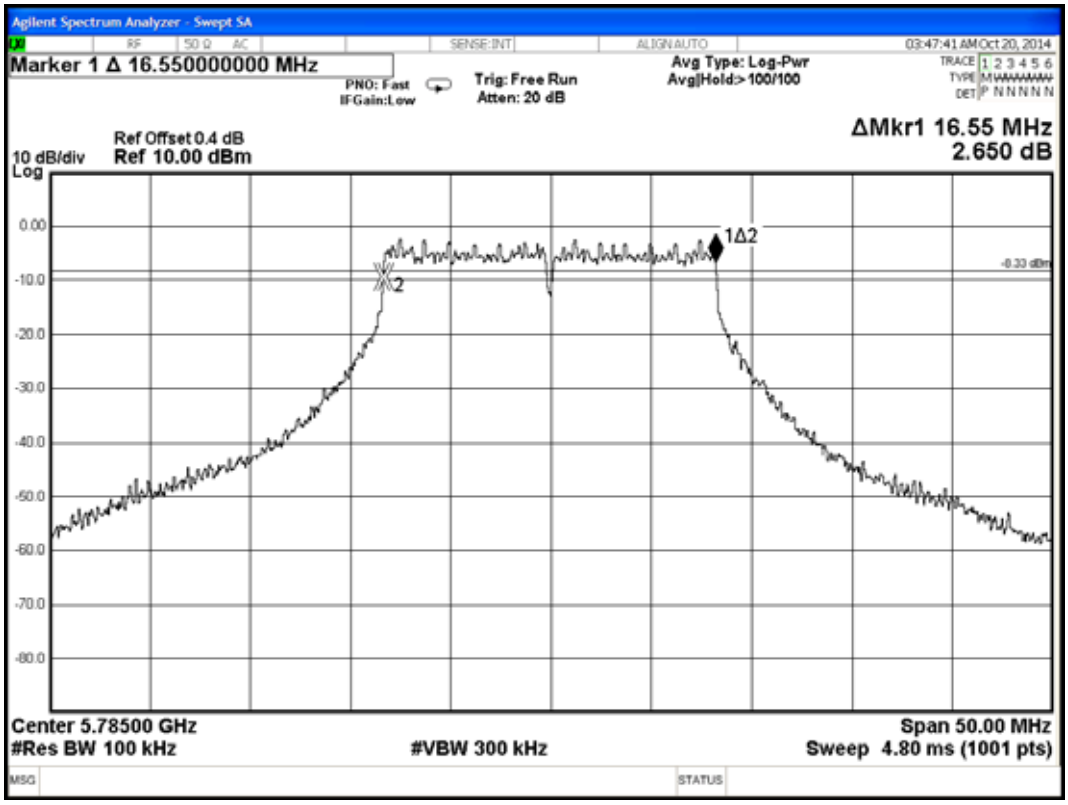
802.11a (UNII Band II-2C), Frequency: 5700MHz



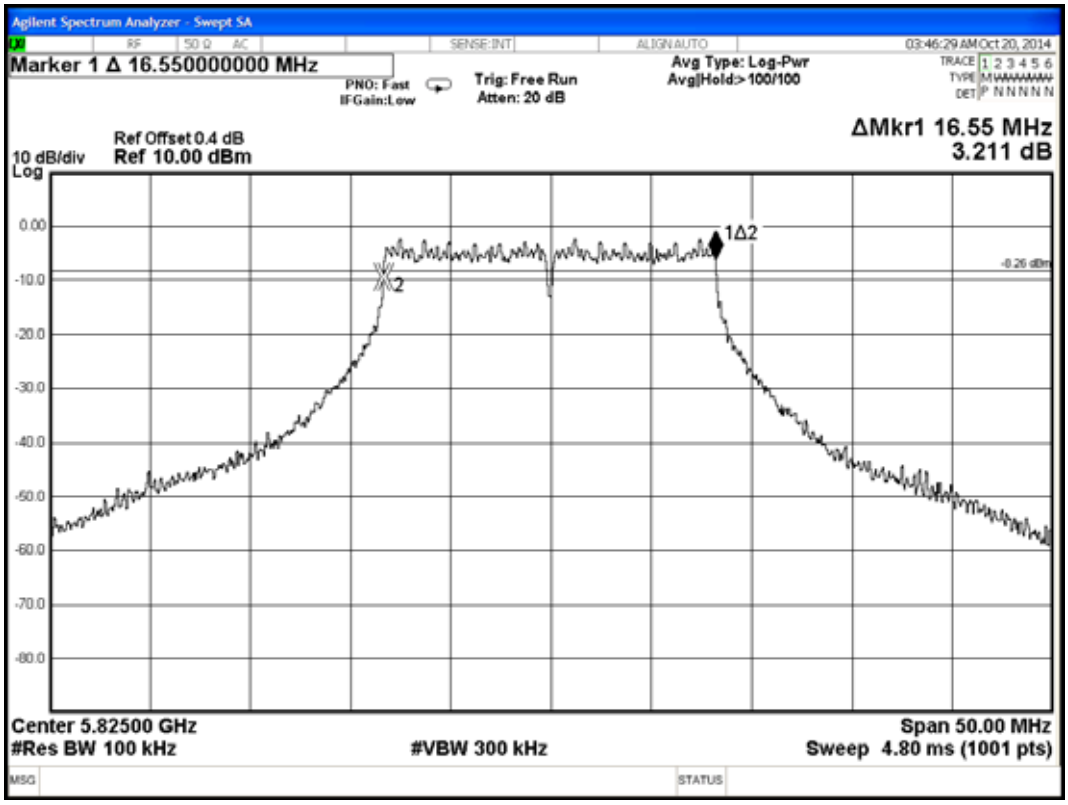
802.11a (UNII Band III), Frequency: 5745MHz



802.11a (UNII Band III), Frequency: 5785MHz



802.11a (UNII Band III), Frequency: 5825MHz

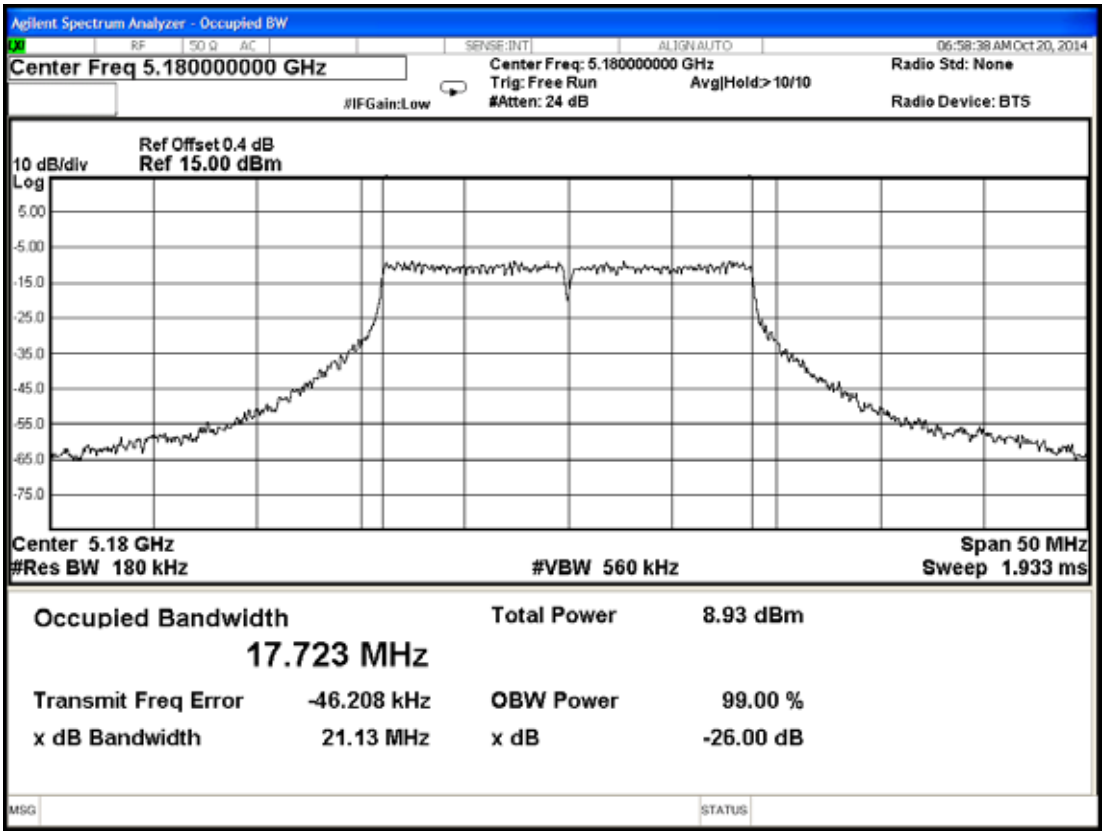


5.5.2. For 802.11n-HT20

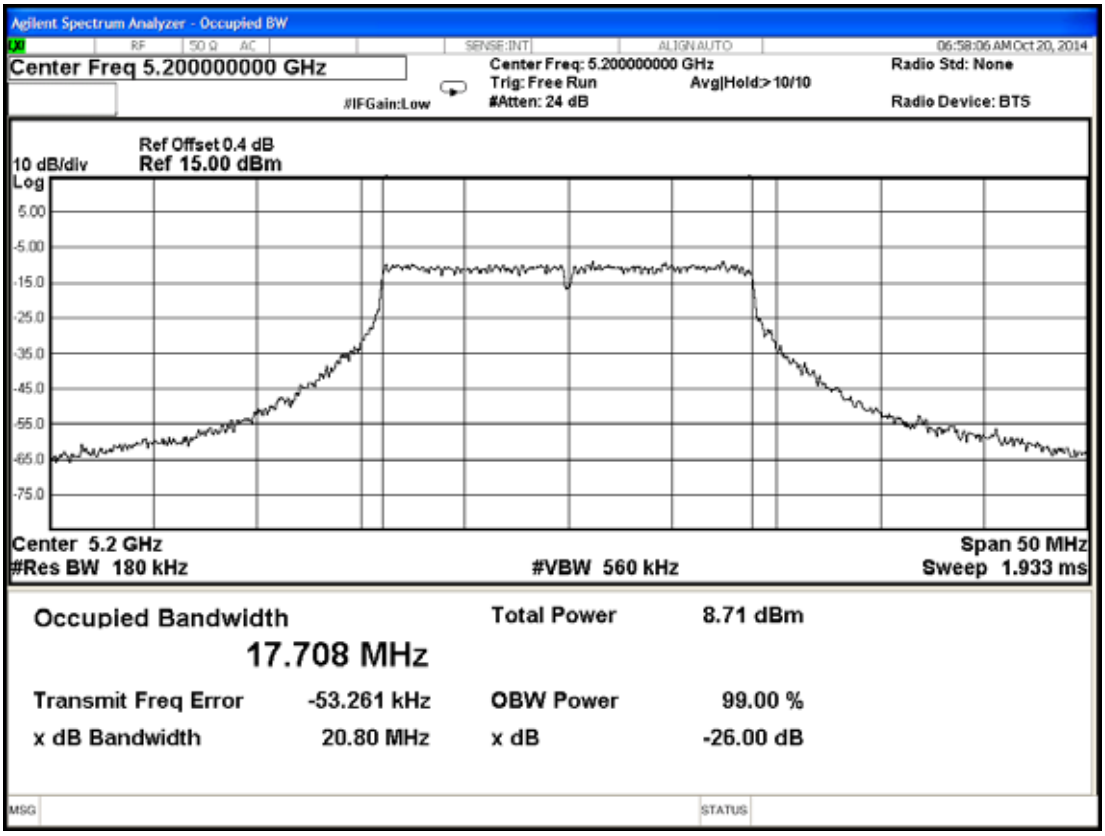
Mode	UNII Band	Channel	Frequency (MHz)	**26dB Bandwidth (MHz)**	**99% Occupied Bandwidth (MHz)**
1.	UNII Band I	CH 36	5180	**21.13**	**17.723**
2.		CH 40	5200	**20.80**	**17.708**
3.		CH 48	5240	**21.29**	**17.741**
4.	UNII Band II-2A	CH 52	5260	**21.16**	**17.758**
5.		CH 56	5280	**21.26**	**17.734**
6.		CH 64	5320	**21.18**	**17.722**
7.	UNII Band II-2C	CH 100	5500	**21.49**	**17.728**
8.		CH 116	5580	**20.87**	**17.732**
9.		CH 140	5700	**21.65**	**17.713**

Mode	UNII Band	Channel	Frequency (MHz)	**6dB Bandwidth (MHz)**
10.	UNII Band III	CH 149	5745	**17.70**
11.		CH 157	5785	**17.75**
12.		CH 165	5825	**17.70**

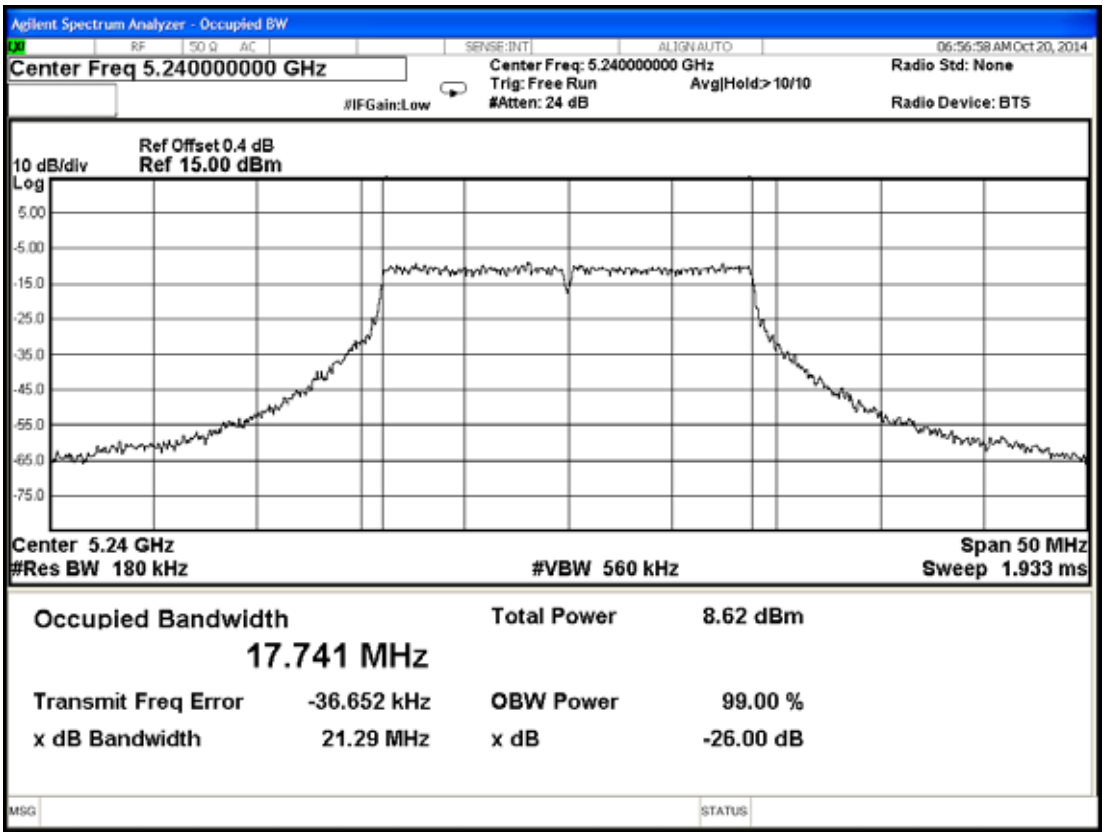
802.11n-HT20 (UNII Band I), Frequency: 5180MHz



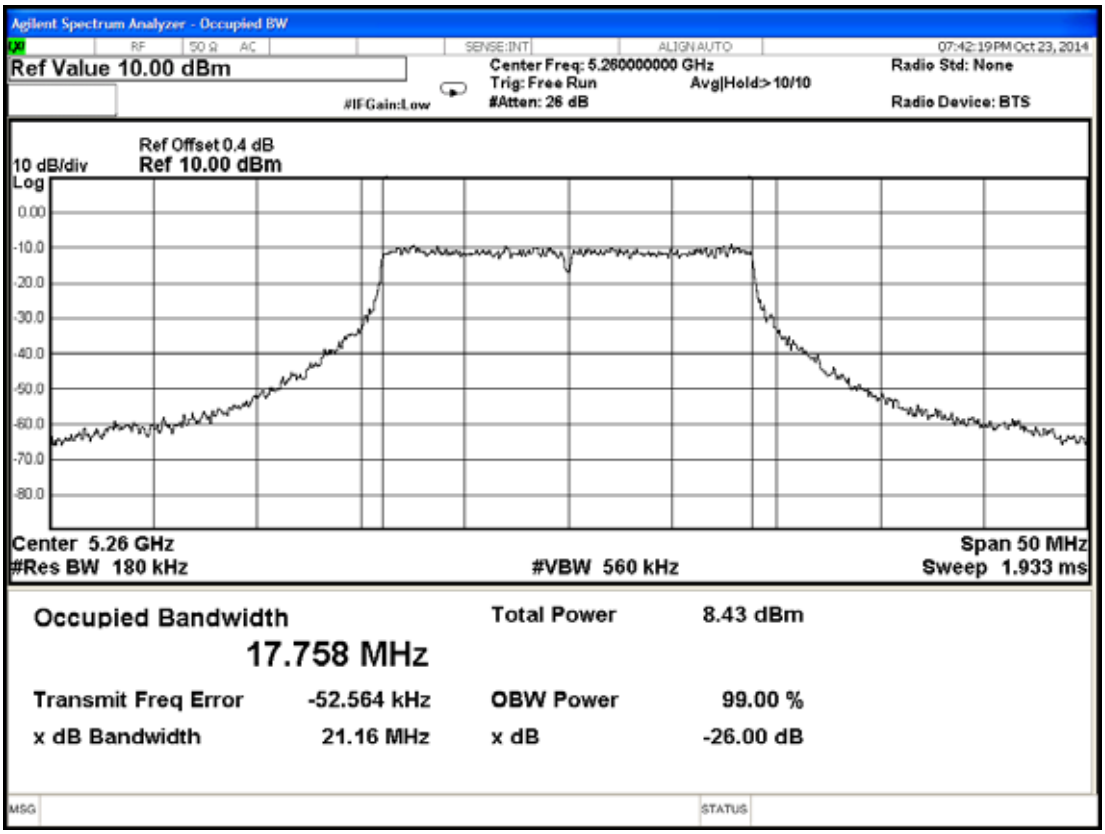
802.11n-HT20 (UNII Band I), Frequency: 5200MHz



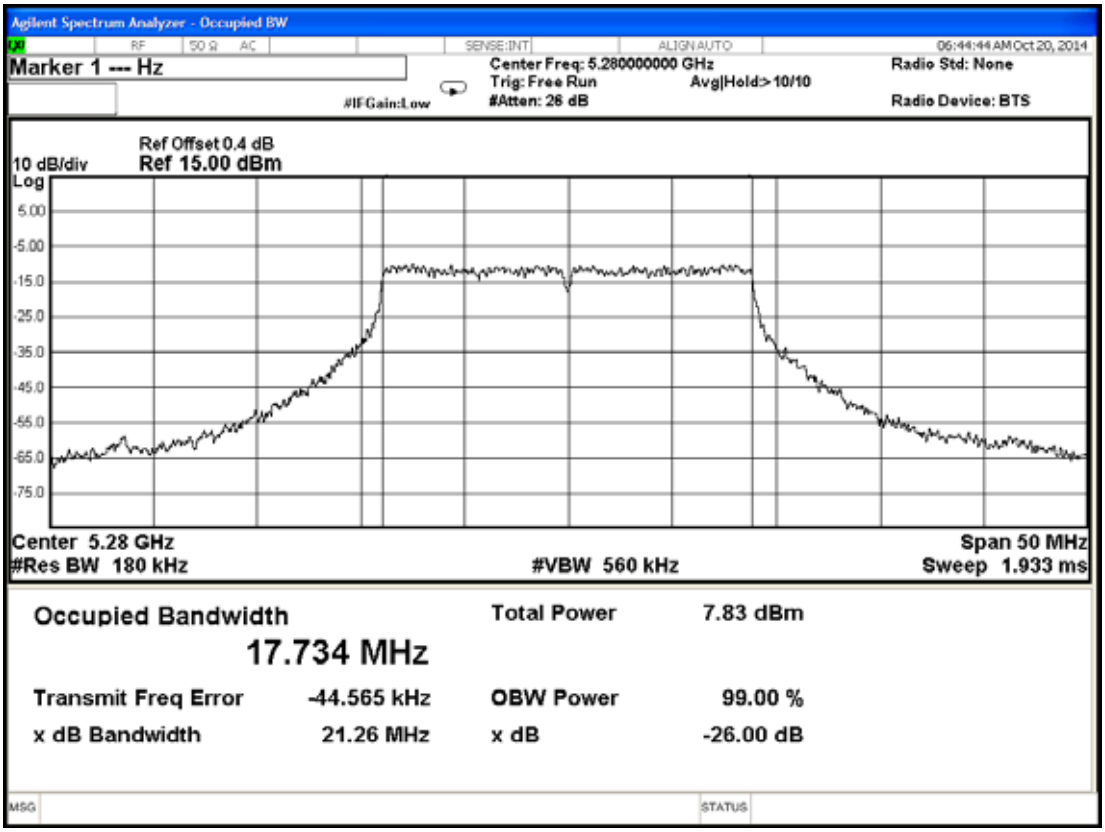
802.11n-HT20 (UNII Band I), Frequency: 5240MHz



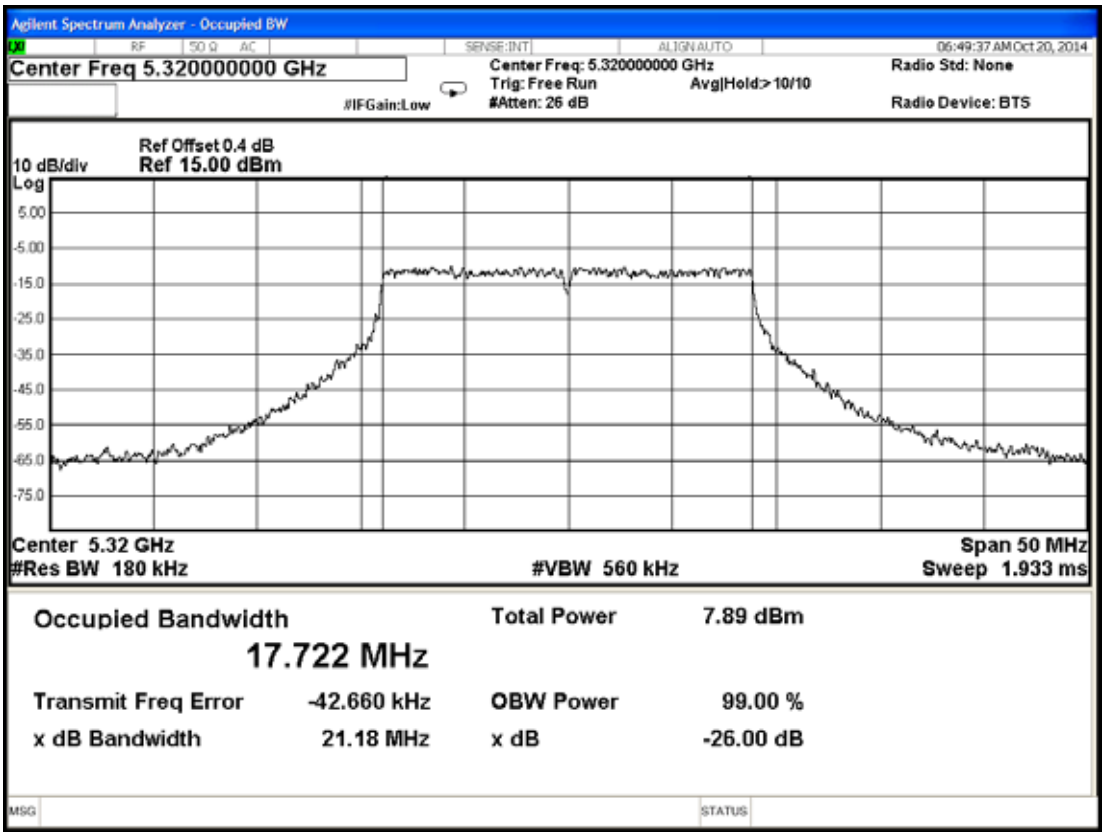
802.11n-HT20 (UNII Band II-2A), Frequency: 5260MHz



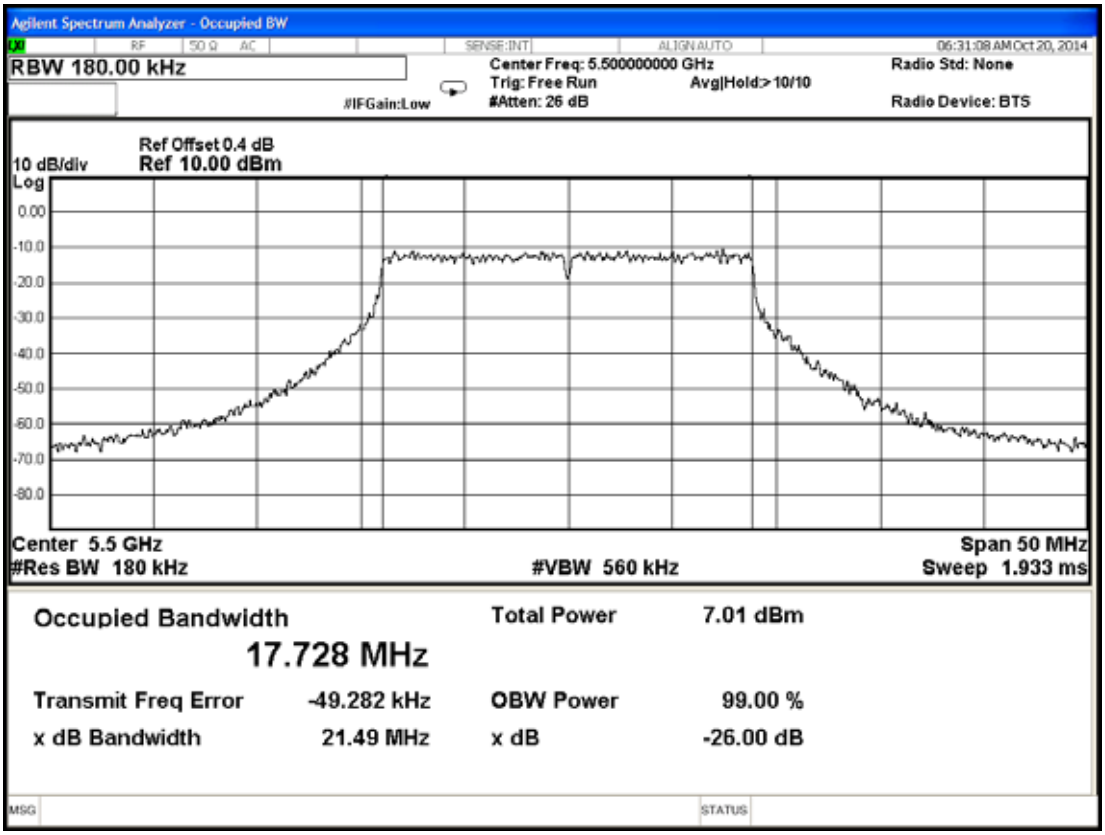
802.11n-HT20 (UNII Band II-2A), Frequency: 5280MHz



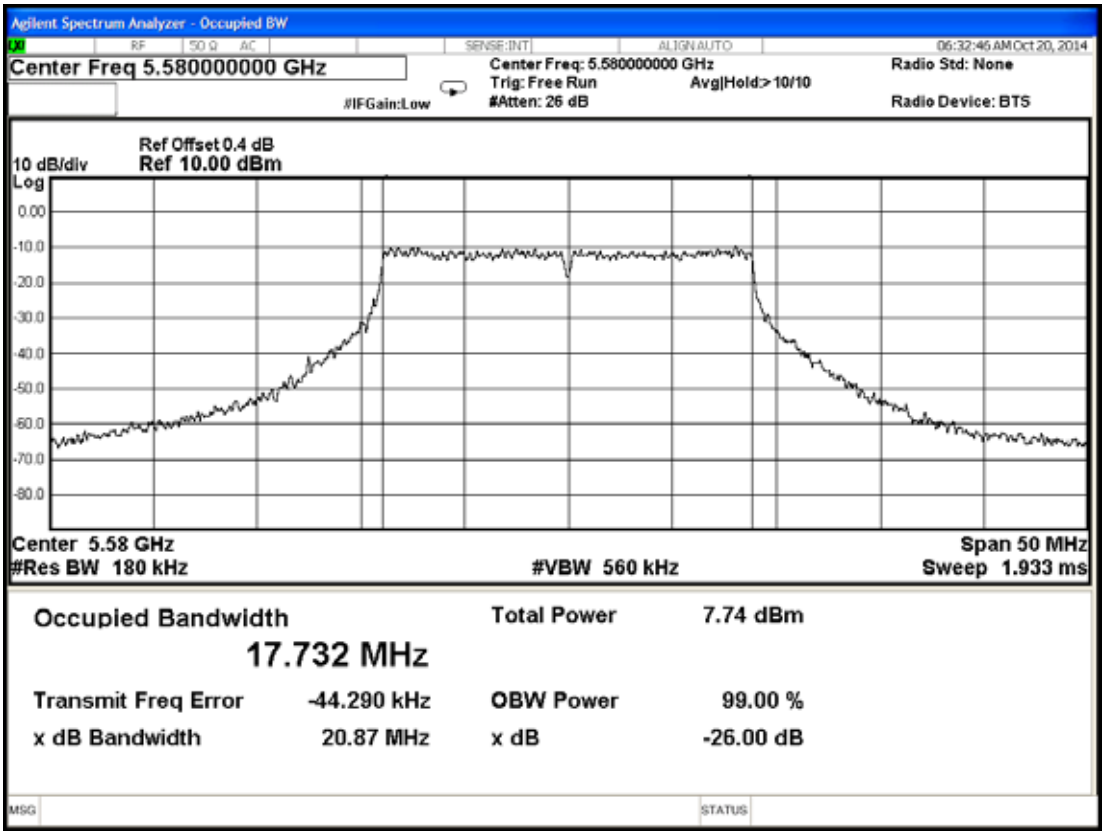
802.11n-HT20 (UNII Band II-2A), Frequency: 5320MHz



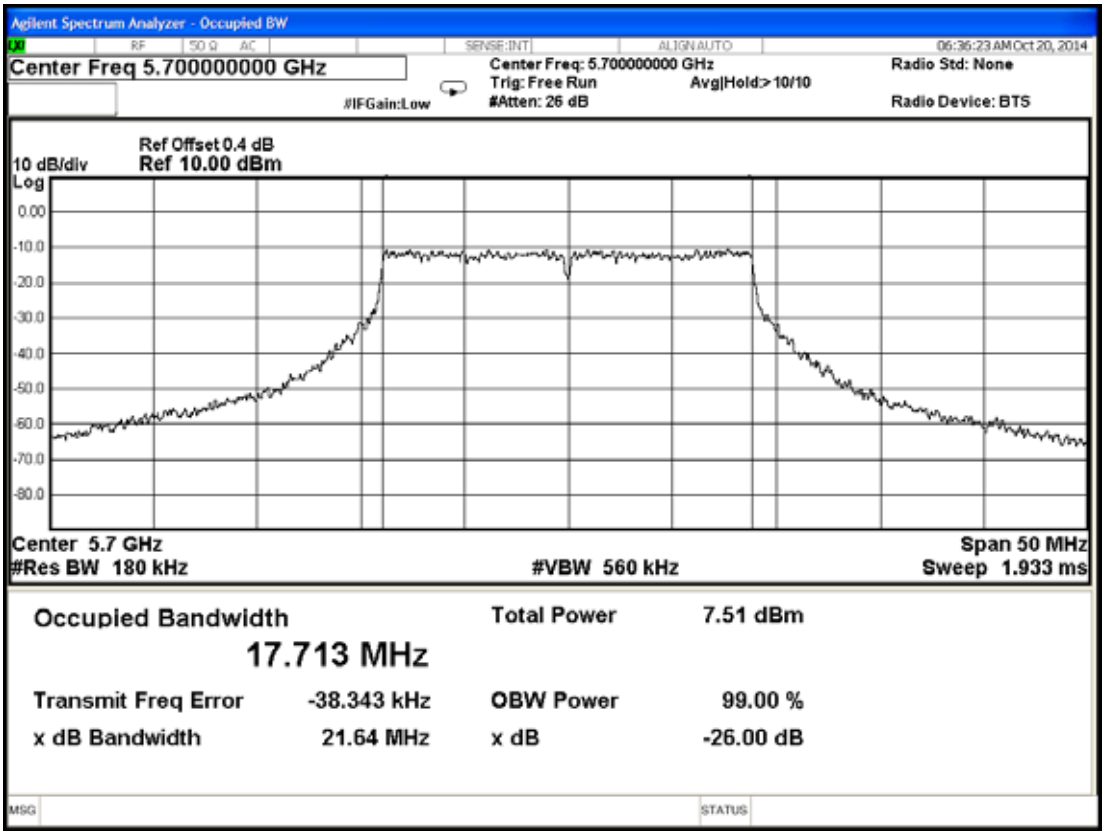
802.11n-HT20 (UNII Band II-2C), Frequency: 5500MHz



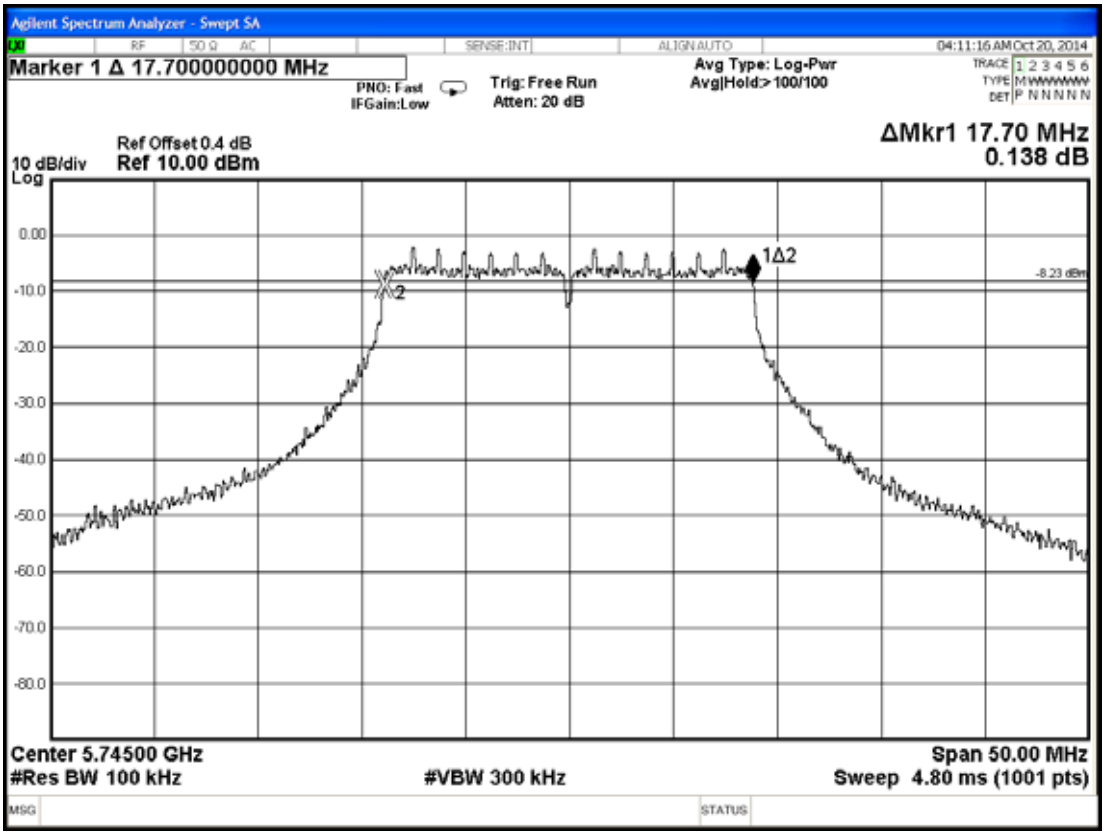
802.11n-HT20 (UNII Band II-2C), Frequency: 5580MHz



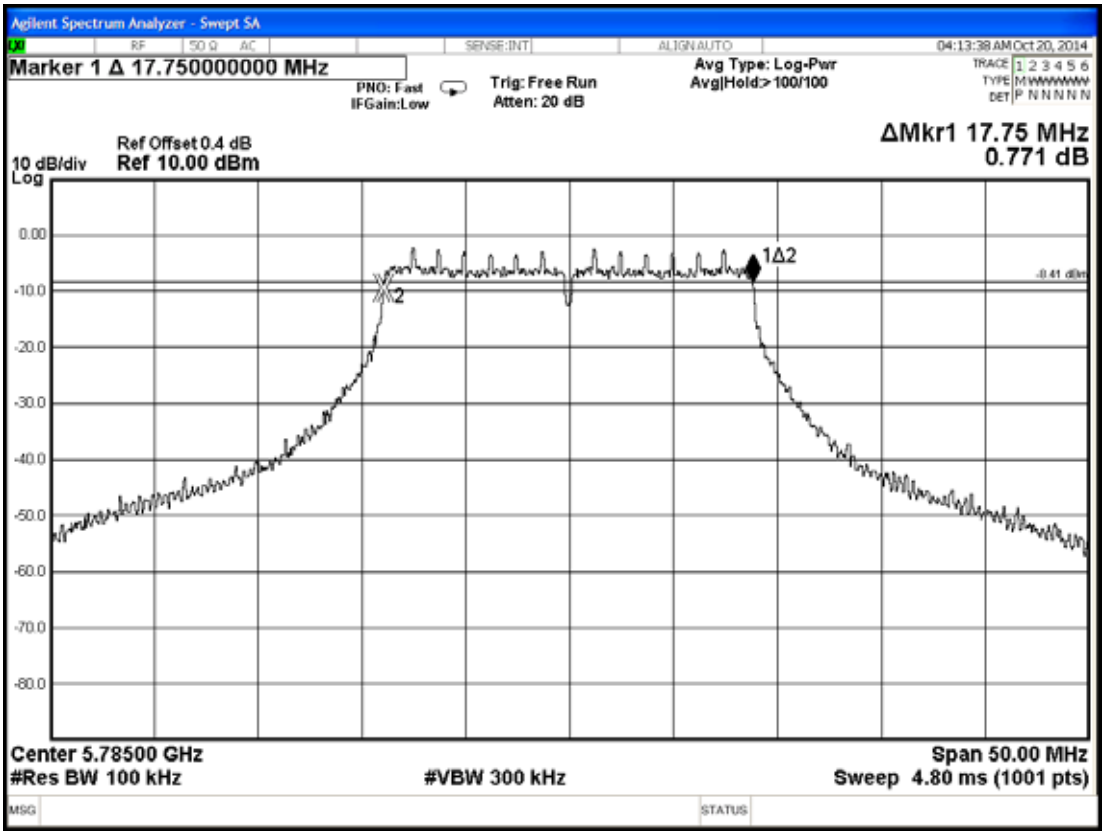
802.11n-HT20 (UNII Band II-2C), Frequency: 5700MHz



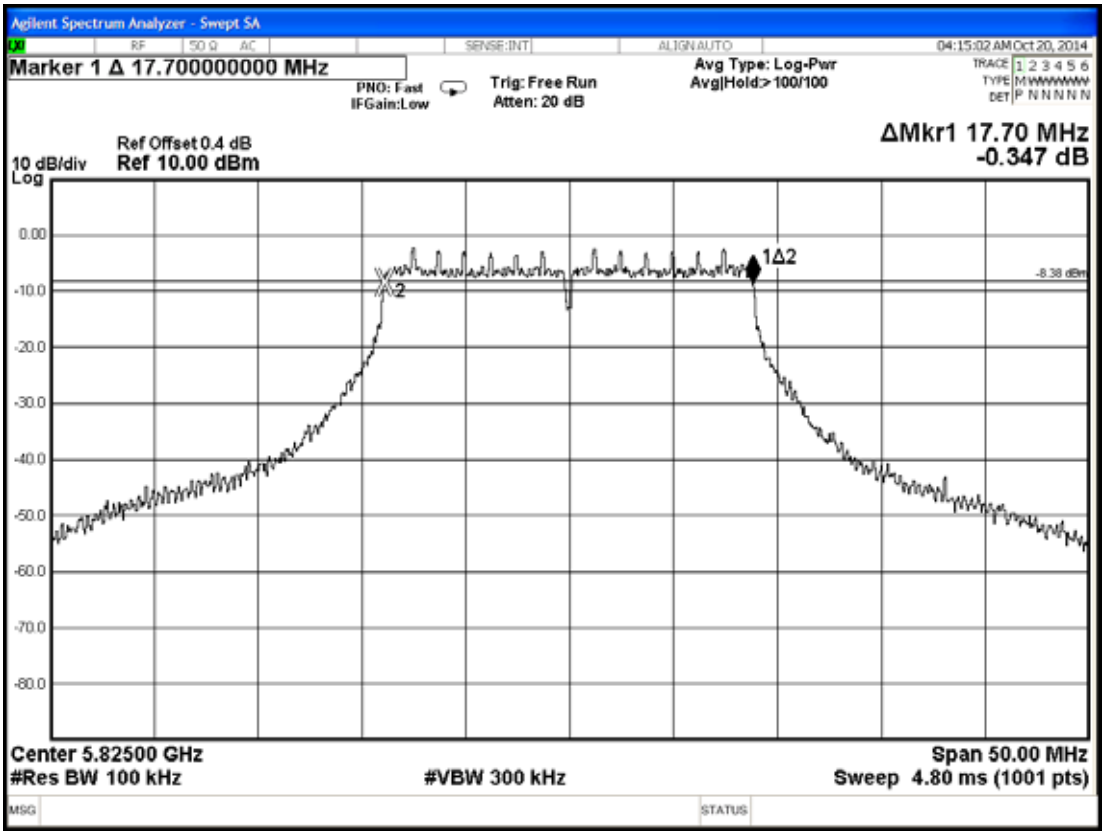
802.11n-HT20 (UNII Band III), Frequency: 5745MHz



802.11n-HT20 (UNII Band III), Frequency: 5785MHz



802.11n-HT20 (UNII Band III), Frequency: 5825MHz

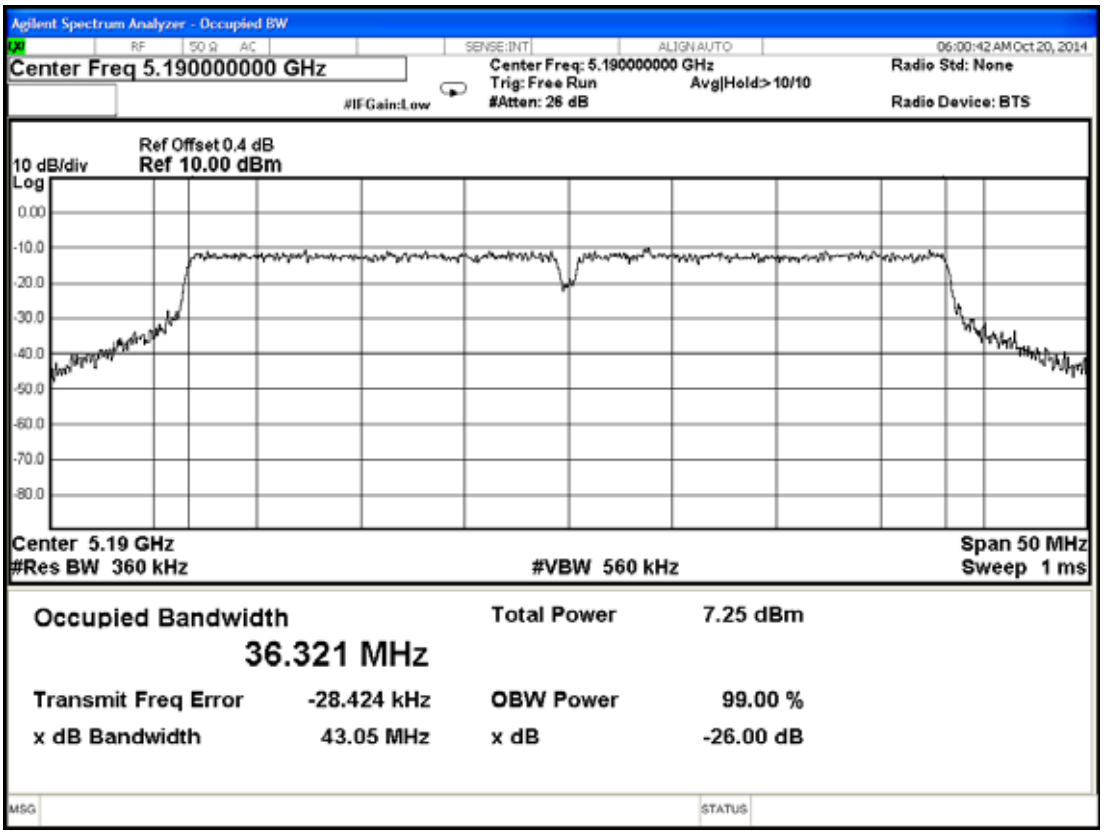


5.5.3. For 802.11n-HT40

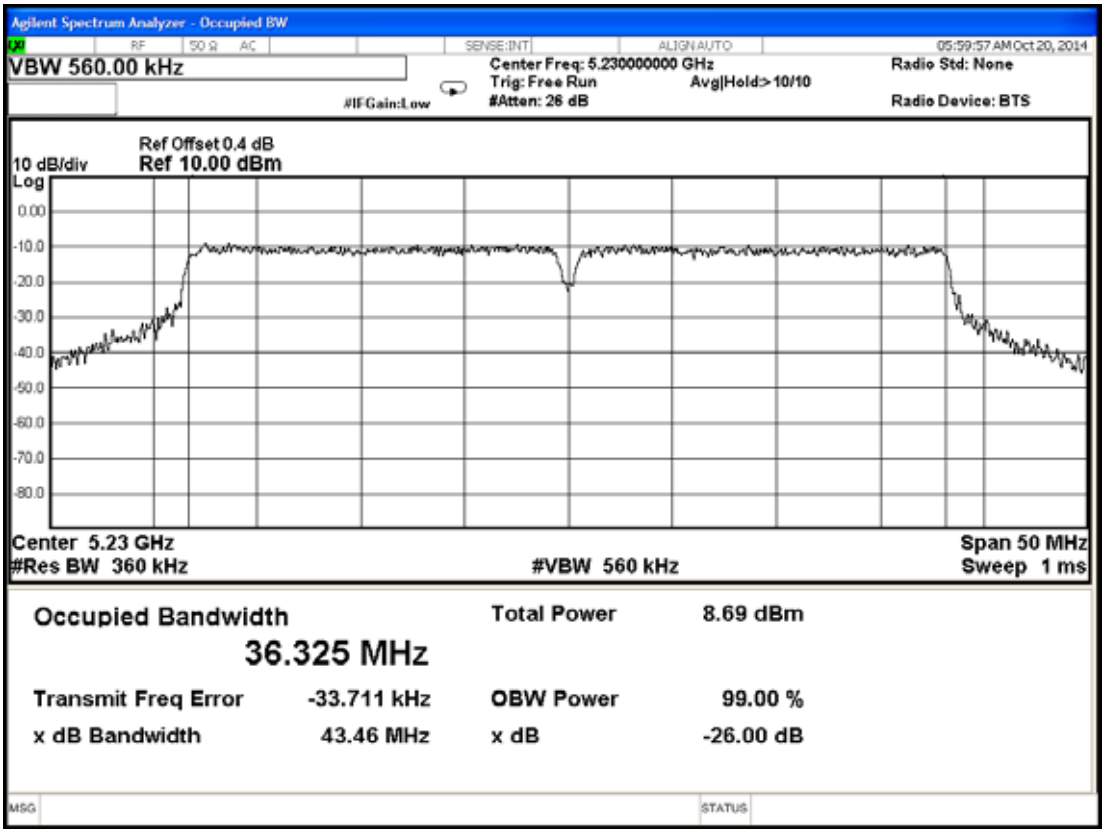
Mode	UNII Band	Channel	Frequency (MHz)	**26dB Bandwidth (MHz)**	**99% Occupied Bandwidth (MHz)**
1.	UNII Band I	CH 38	5190	**43.05**	**36.321**
2.		CH 46	5230	**43.46**	**36.325**
3.	UNII Band II-2A	CH 54	5270	**44.08**	**36.356**
4.		CH 62	5310	**42.75**	**36.334**
5.	UNII Band II-2C	CH 102	5510	**43.68**	**36.320**
6.		CH 118	5590	**43.89**	**36.367**
7.		CH 134	5670	**42.53**	**36.345**

Mode	UNII Band	Channel	Frequency (MHz)	**6dB Bandwidth (MHz)**
10.	UNII Band III	CH 151	5755	**36.50**
11.		CH 159	5795	**36.50**

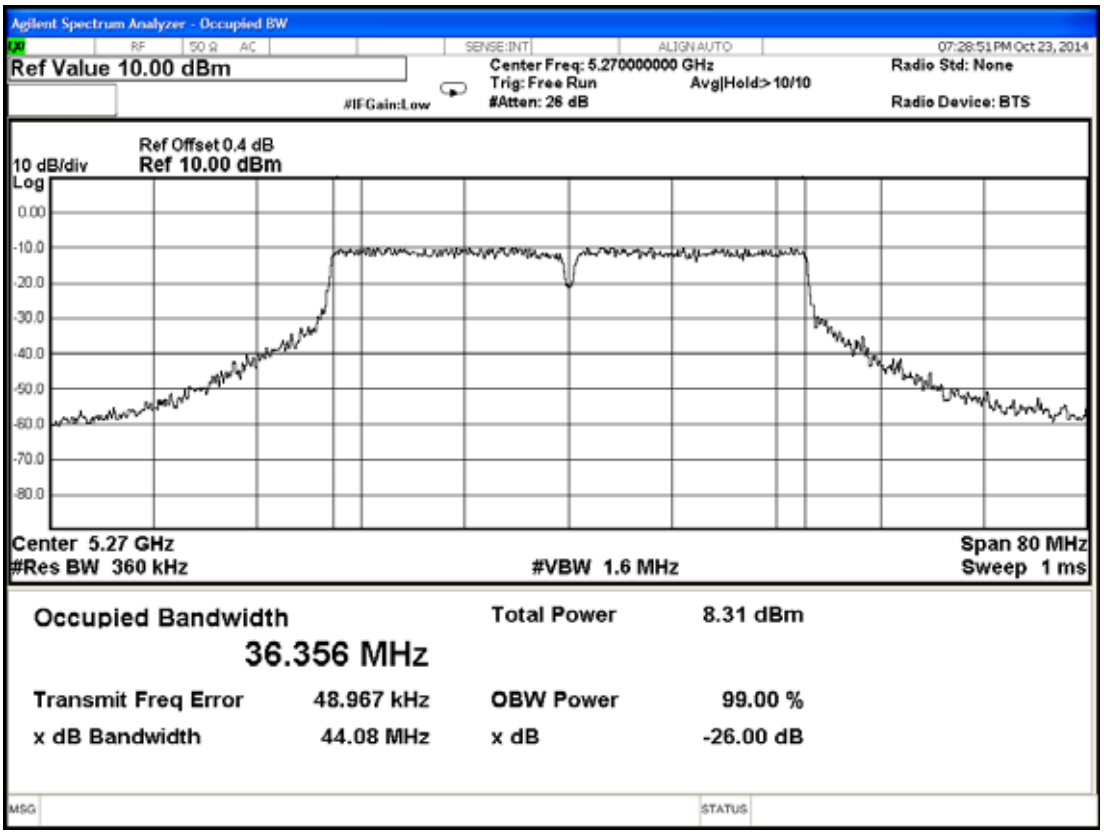
802.11n-HT40 (UNII Band I), Frequency: 5190MHz



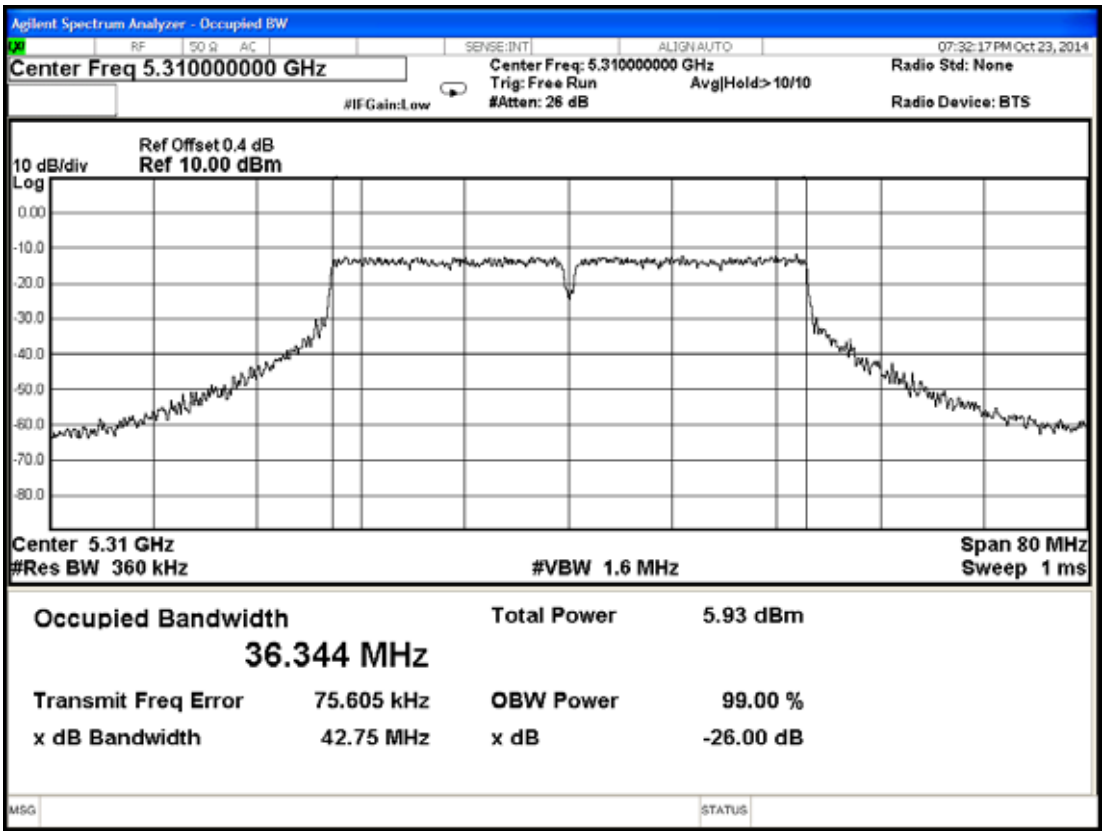
802.11n-HT40 (UNII Band I), Frequency: 5230MHz



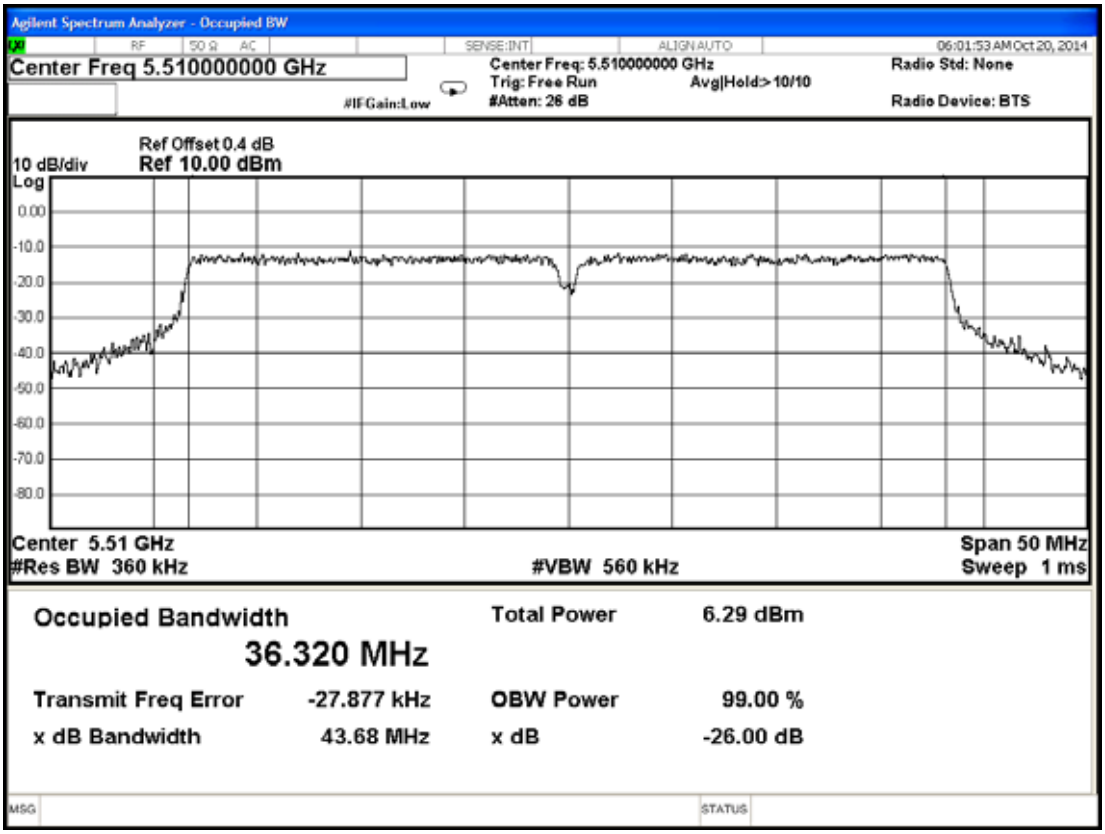
802.11n-HT40 (UNII Band II-2A), Frequency: 5270MHz



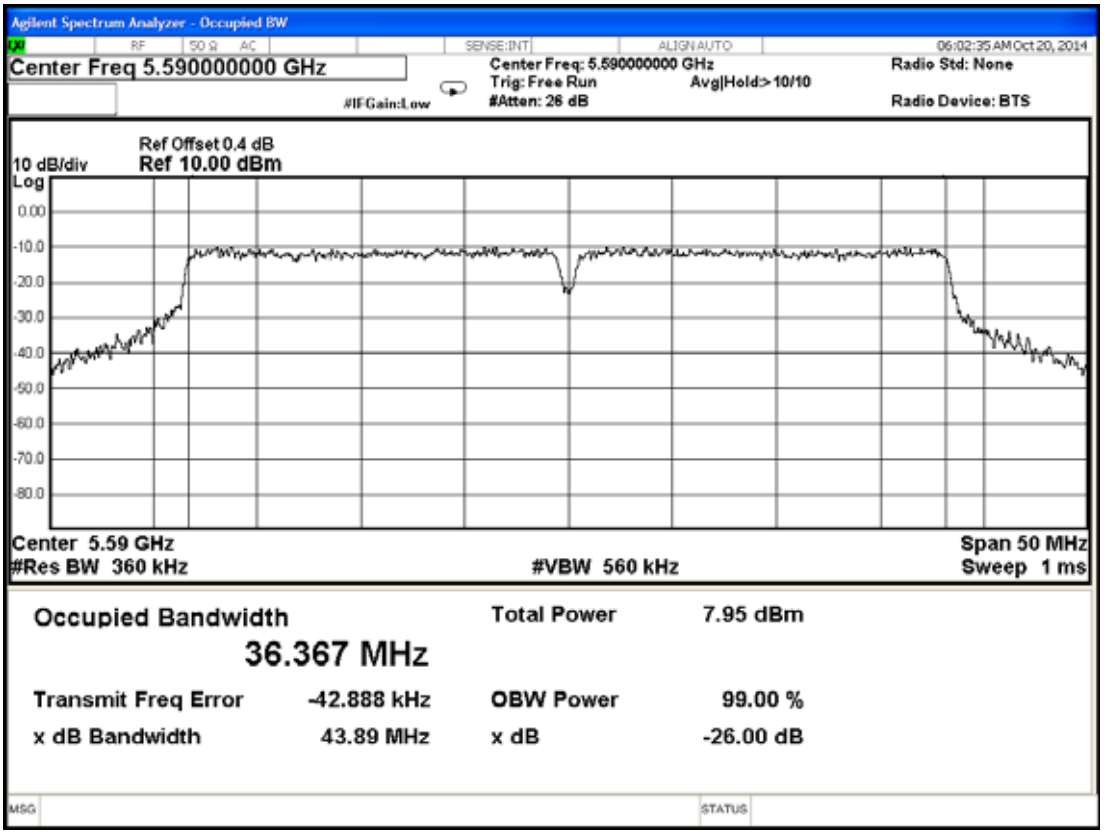
802.11n-HT40 (UNII Band II-2A), Frequency: 5310MHz



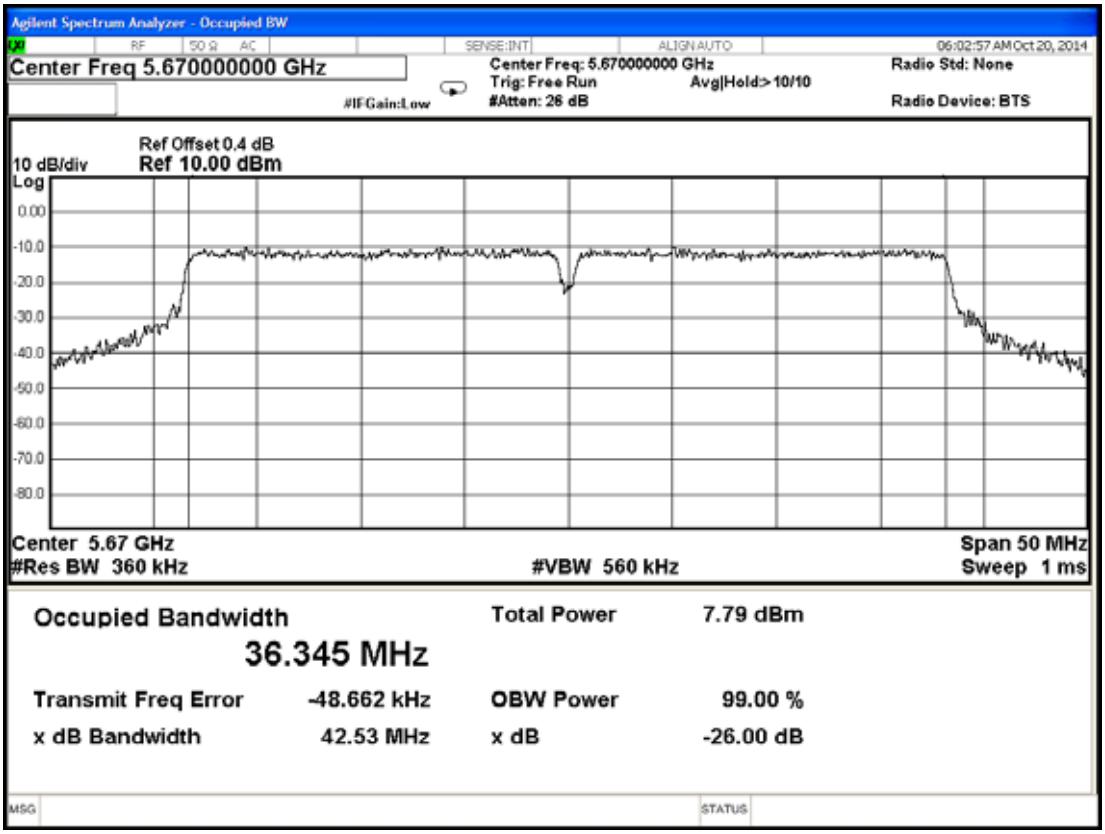
802.11n-HT40 (UNII Band II-2C), Frequency: 5510MHz



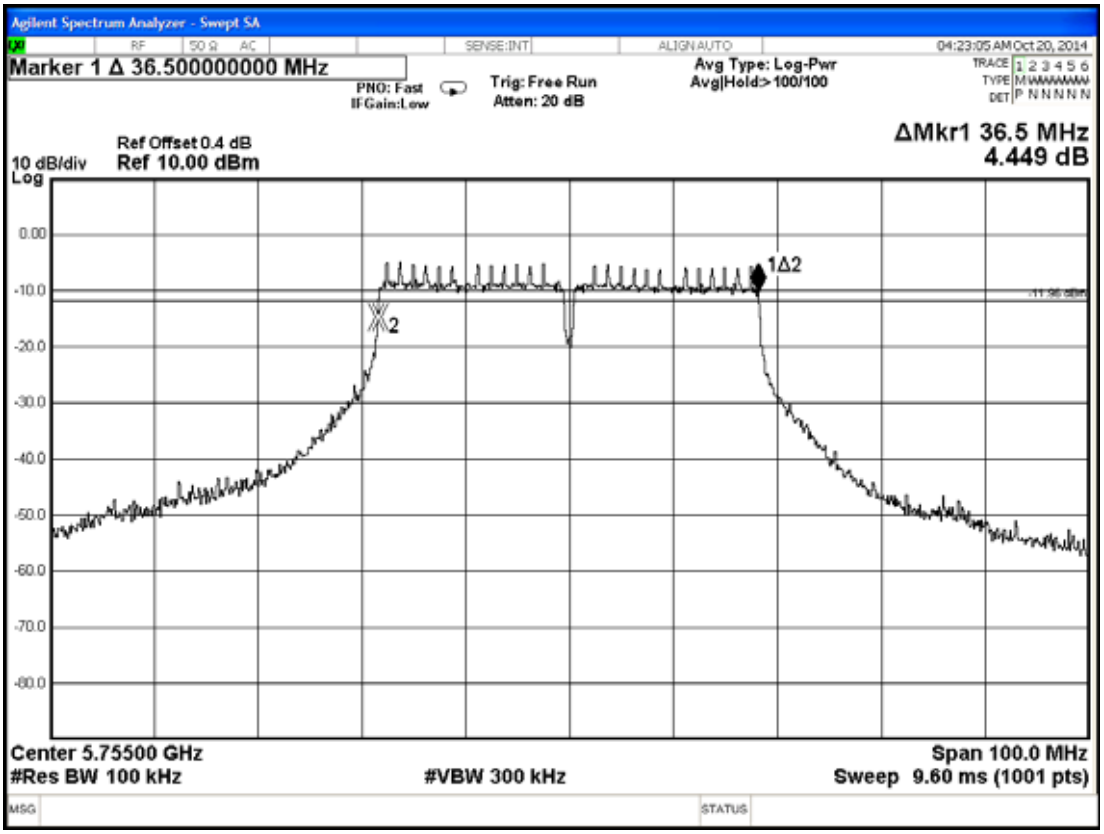
802.11n-HT40 (UNII Band II-2C), Frequency: 5590MHz



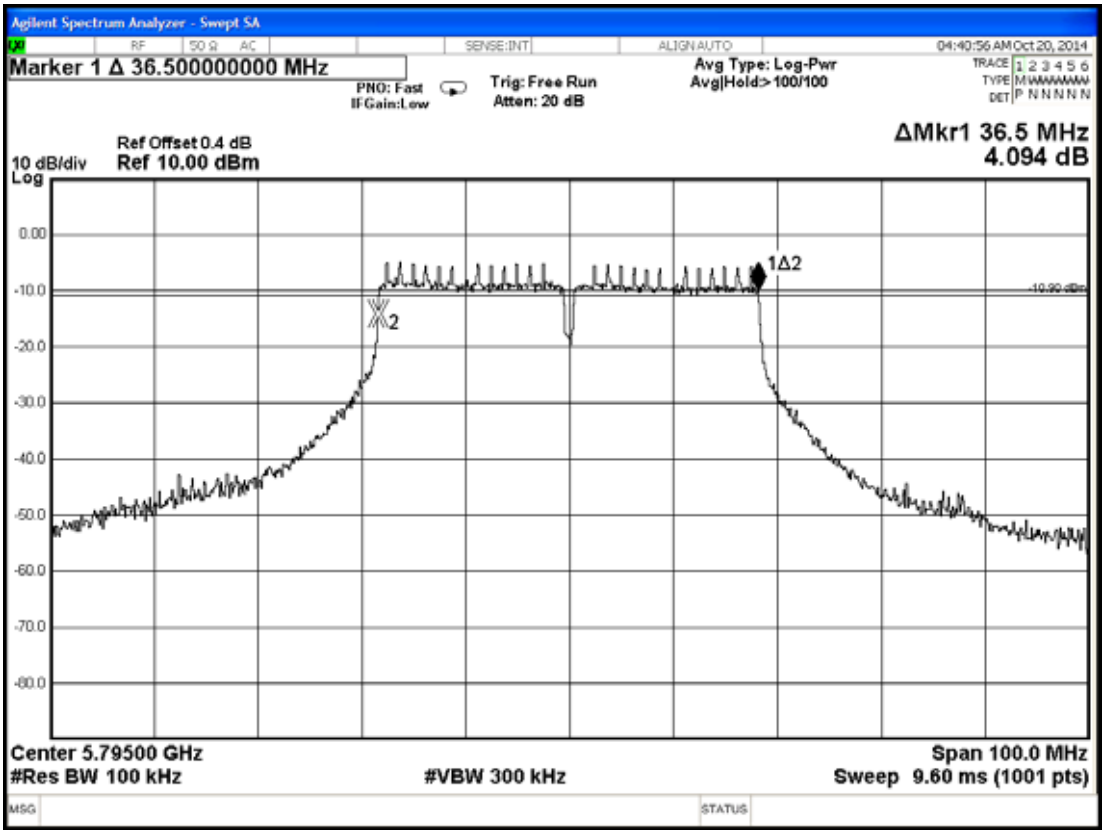
802.11n-HT40 (UNII Band II-2C), Frequency: 5670MHz



802.11n-HT40 (UNII Band III), Frequency: 5755MHz



802.11n-HT40 (UNII Band III), Frequency: 5795MHz



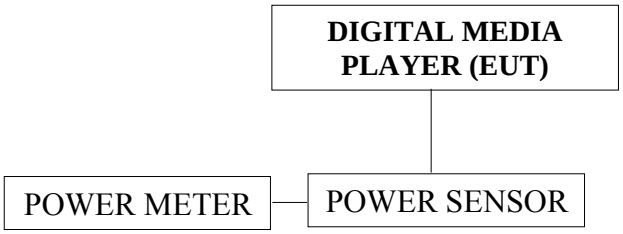
6. MAXIMUM OUTPUT POWER MEASUREMENT

6.1. Test Equipment

The following test equipment was used during the maximum peak output power measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1	Power Meter	Anritsu	ML2495A	1145008	2013. 10. 23	1 Year
2.	Power Sensor	Anritsu	MA2411B	1126096	2013. 10. 23	1 Year

6.2. Block Diagram of Test Setup



6.3. Specification Limits [§15.407(a)-(1)(2)(3)]

Frequency	Limit
5150~5250MHz	250mW (24dBm)
5250~5350MHz	250mW (24dBm)
5470~5725MHz	250mW (24dBm)
5725~5850MHz	1W. (30dBm)

6.4. Operating Condition of EUT

The EUT was running test program “Diag Test Mode” for WLAN test, and enable to transmit data at different channel frequency individually.

6.5. Test Procedure

The EUT connected to power meter and sensor and record the average value

The measurement guideline was according to KDB789033 D02 v01.

6.6. Test Results

PASSED. All the test results are listed below.

Test Date: 2014. 10. 23 Temperature: 24℃ Humidity: 50%

6.6.1. For 802.11a

UNII Band	Channel	Frequency (MHz)	Maximum Output Power (dBm)
UNII Band I	CH 36	5180	**9.28**
	CH 40	5200	**9.21**
	CH 48	5240	**8.45**
UNII Band II-2A	CH 52	5260	**8.92**
	CH 56	5280	**8.75**
	CH 64	5320	**8.68**
UNII Band II-2C	CH 100	5500	**9.01**
	CH 116	5580	**9.43**
	CH 140	5700	**8.81**
UNII Band III	CH 149	5745	**8.81**
	CH 157	5785	**9.22**
	CH 165	5825	**9.56**

6.6.2. For 802.11n-HT20

UNII Band	Channel	Frequency (MHz)	Maximum Output Power (dBm)
UNII Band I	CH 36	5180	**9.03**
	CH 40	5200	**8.46**
	CH 48	5240	**8.66**
UNII Band II-2A	CH 52	5260	**8.59**
	CH 56	5280	**8.33**
	CH 64	5320	**8.31**
UNII Band II-2C	CH 100	5500	**8.61**
	CH 116	5580	**9.32**
	CH 140	5700	**8.28**
UNII Band III	CH 149	5745	**9.56**
	CH 157	5785	**9.31**
	CH 165	5825	**9.42**

6.6.3. For 802.11n-HT40

UNII Band	Channel	Frequency (MHz)	Maximum Output Power (dBm)
UNII Band I	CH 38	5190	**9.35**
	CH 46	5230	**8.57**
UNII Band II-2A	CH 54	5270	**8.93**
	CH 62	5310	**6.25**
UNII Band II-2C	CH 102	5510	**7.72**
	CH 110	5550	**9.71**
	CH 134	5670	**9.61**
UNII Band III	CH 151	5755	**9.01**
	CH 159	5795	**9.36**

7. EMISSION LIMITATIONS MEASUREMENT

7.1. Test Equipment

The following test equipment was used during the emission limitations test：

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1	Spectrum Analyzer	Agilent	N9030A-526	MY53310269	2014. 09. 19	1 Year

7.2. Block Diagram of Test Setup

The same as section.5.2

7.3. Specification Limits [§15.407(b)]

7.3.1. For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p.of -27 dBm/MHz.

7.3.2. For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

7.3.3. For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p.of −27 dBm/MHz.

7.3.4. For transmitters operating in the 5.725-5.85GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p.of-17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p.of -27 dBm/MHz.

7.4. Operating Condition of EUT

The EUT was running test program “Diag Test Mode” for WLAN test, and enable to transmit data at different channel frequency individually.

7.5. Test Procedure

The RF output of EUT was connected to the spectrum analyzer. The bandwidth of the fundamental frequency was measure by spectrum analyzer with 1MHz RBW and 1MHz VBW.

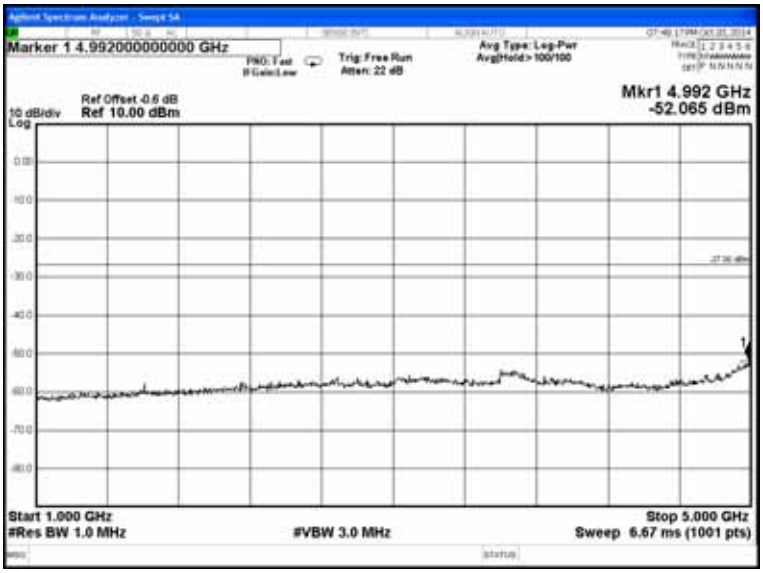
The measurement guideline was according to KDB789033 D02 v01.

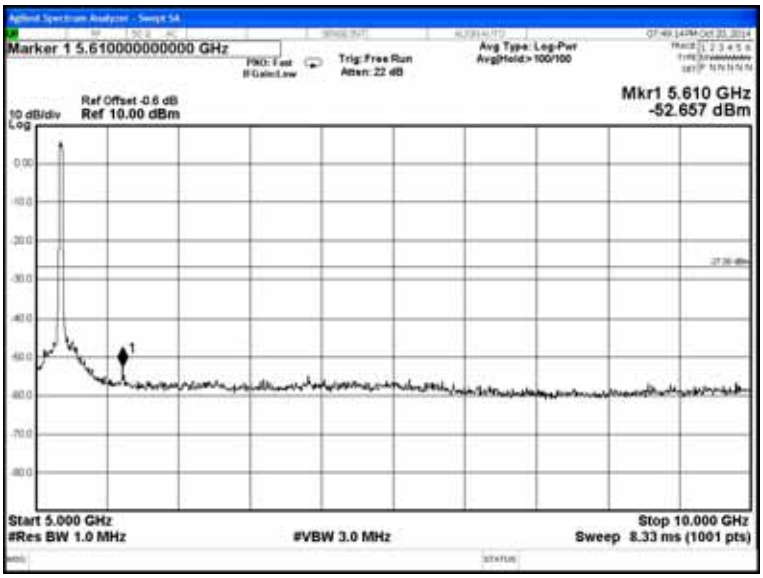
7.6. Test Results

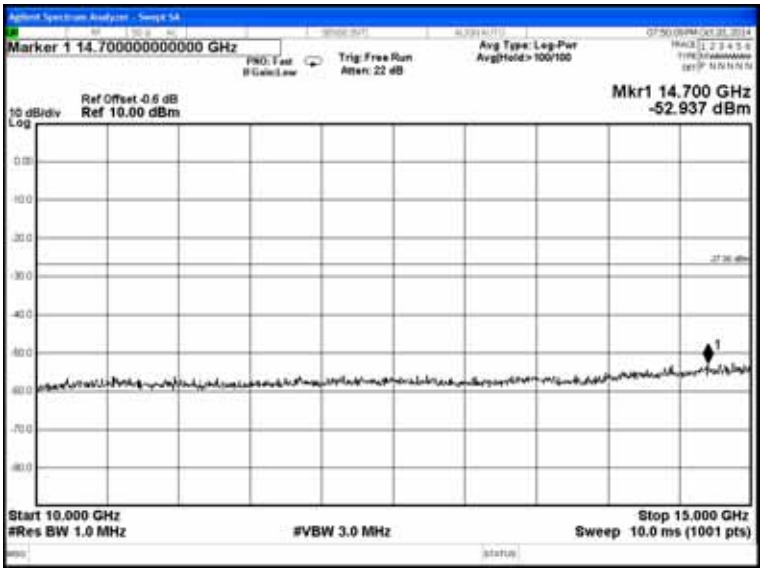
PASSED. The testing data was attached in the next pages.

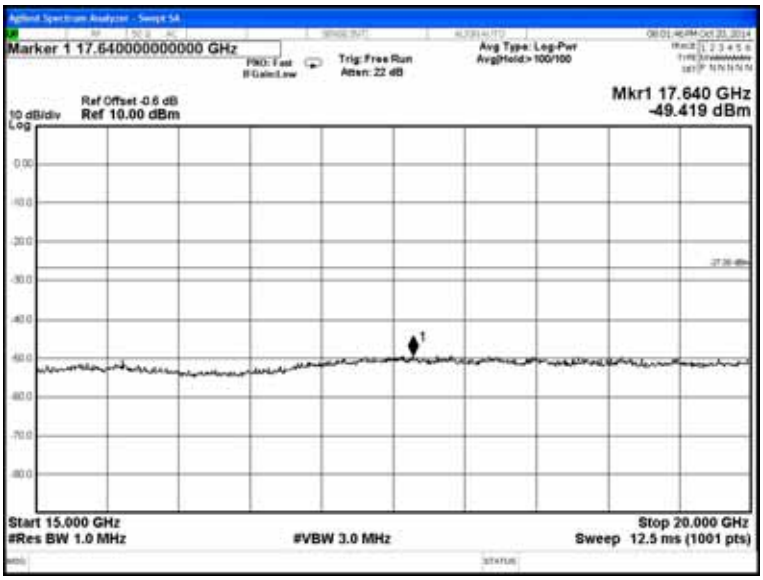
Test Date : 2014. 10. 20 Temperature : 25℃ Humidity : 50%
Test Date : 2014. 10. 21 Temperature : 25℃ Humidity : 45%
Test Date : 2014. 10. 23 Temperature : 24℃ Humidity : 50%
Test Date : 2014. 10. 31 Temperature : 25℃ Humidity : 55%

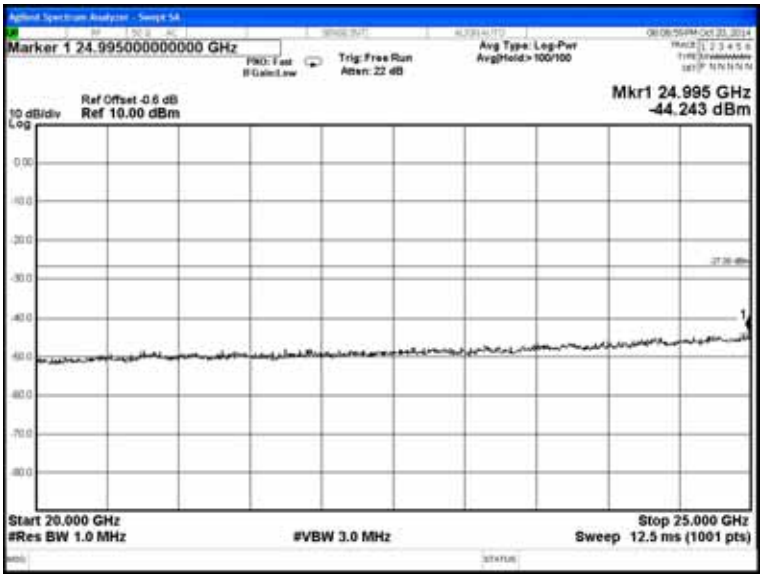
802.11a (UNII Band I), Frequency: 5180MHz

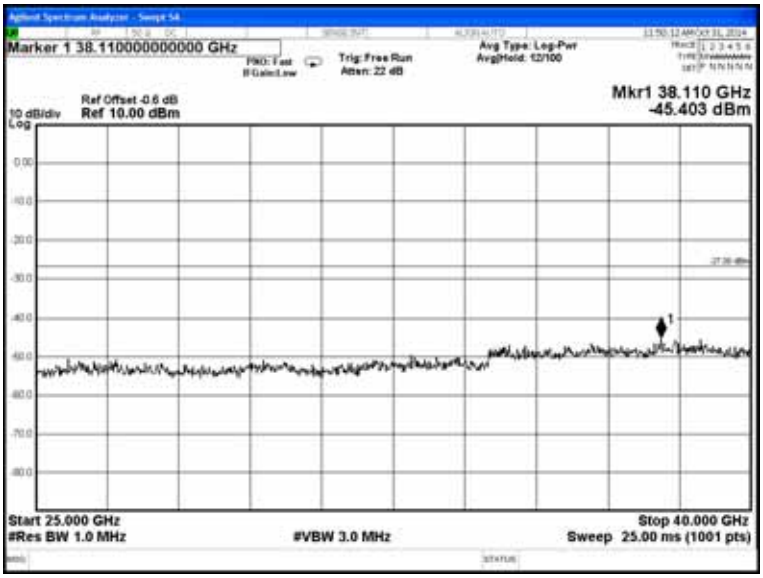




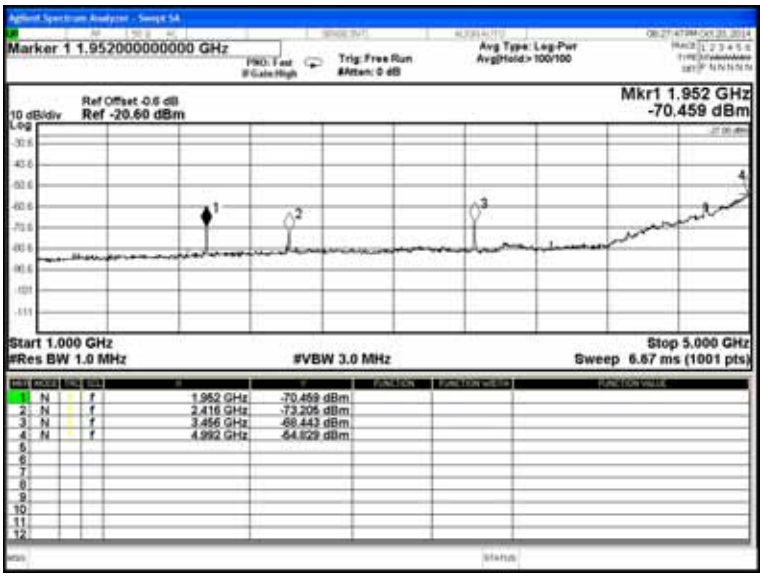


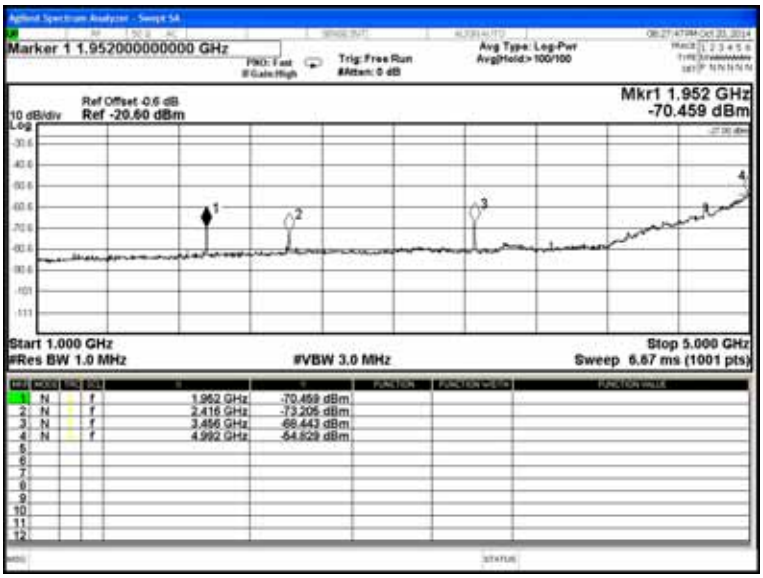

Agilent Spectrum Analyzer - Swept SA
Marker 1 17.640000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 17.640 GHz
-49.419 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

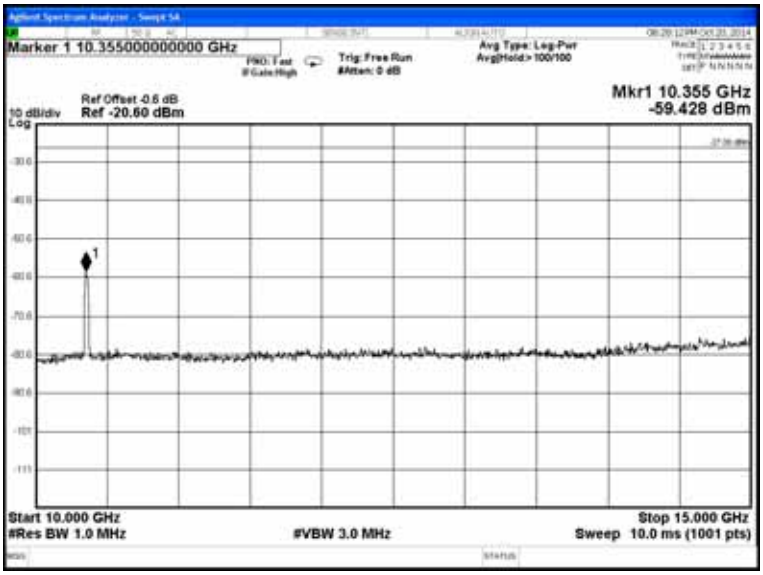

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.995000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.995 GHz
-44.243 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

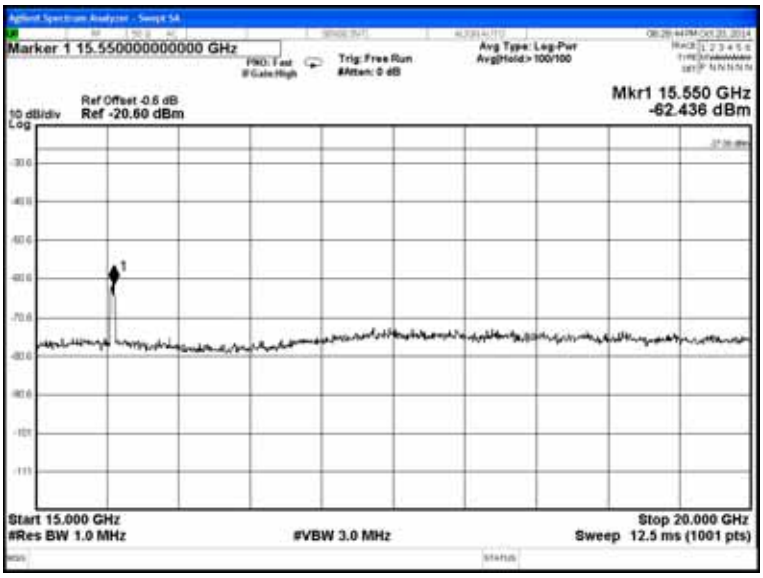

Agilent Spectrum Analyzer - Swept SA
Marker 1 38.110000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 12/100
Mkr1 38.110 GHz
-45.403 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 25.00 ms (1001 pts)

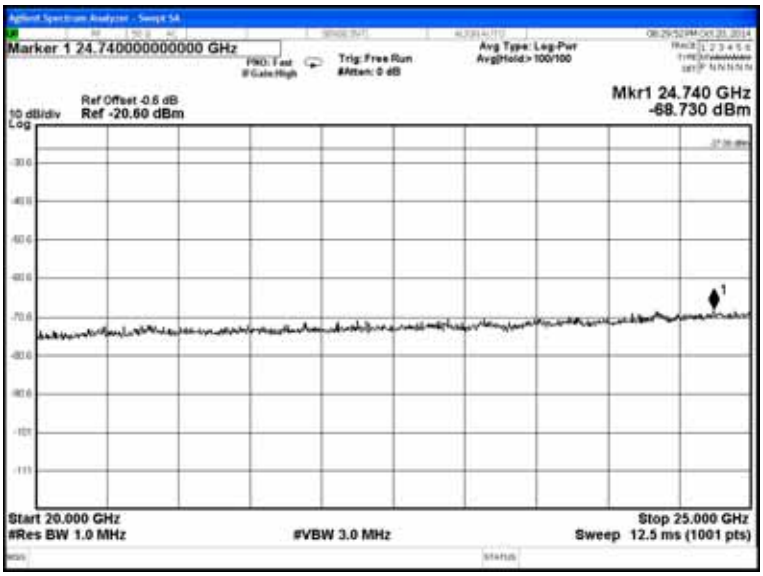
802.11a (UNII Band I), Frequency: 5200MHz

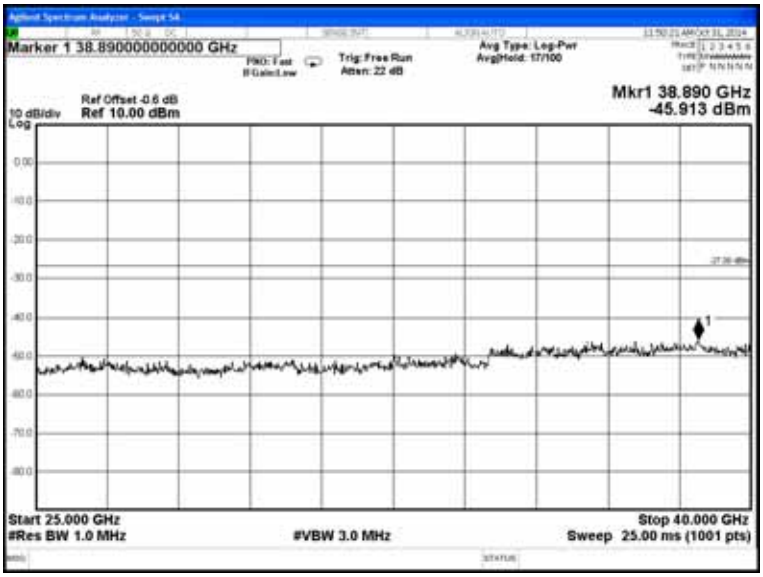




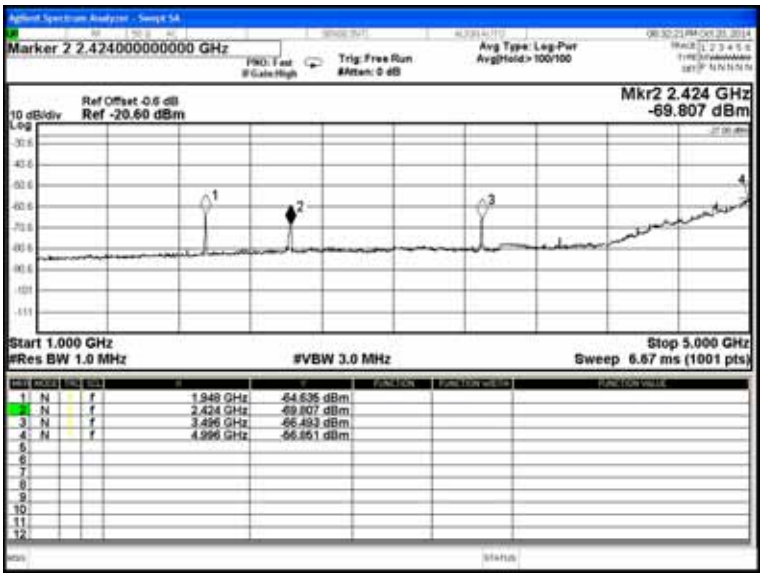


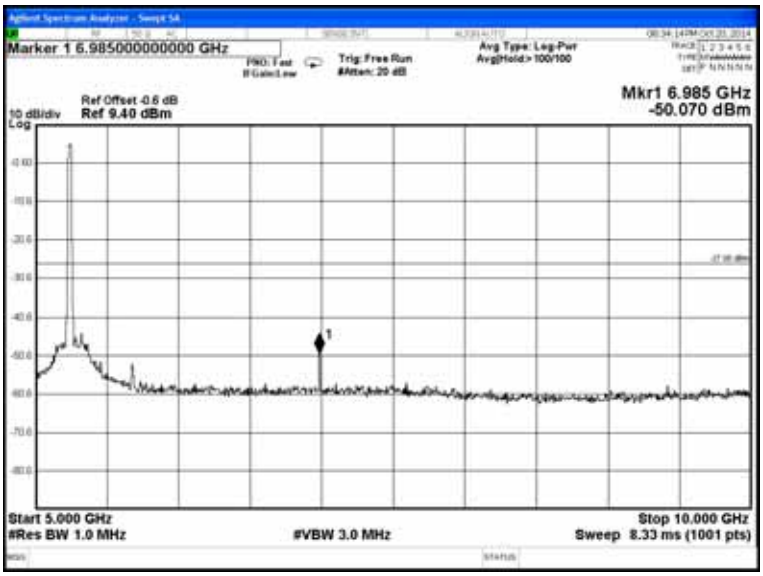

Agilent Spectrum Analyzer - Swept SA
Marker 1 15.550000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 15.550 GHz
-62.436 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

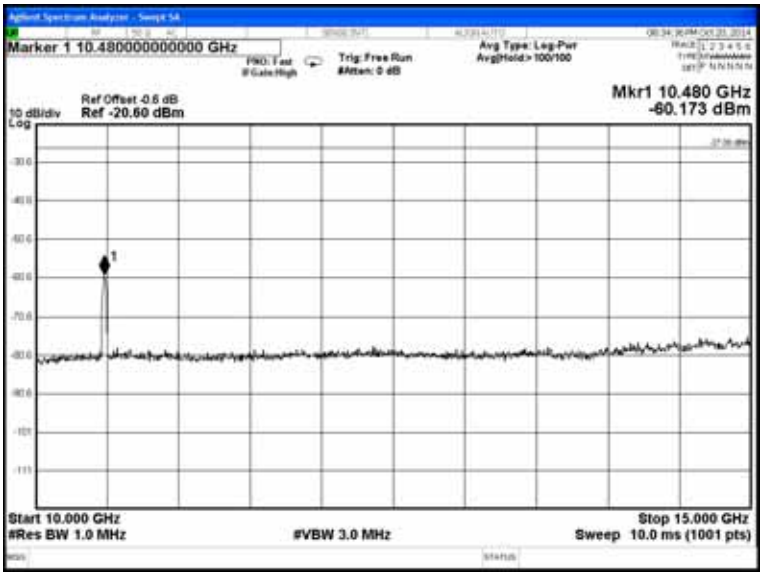

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.740000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.740 GHz
-68.730 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

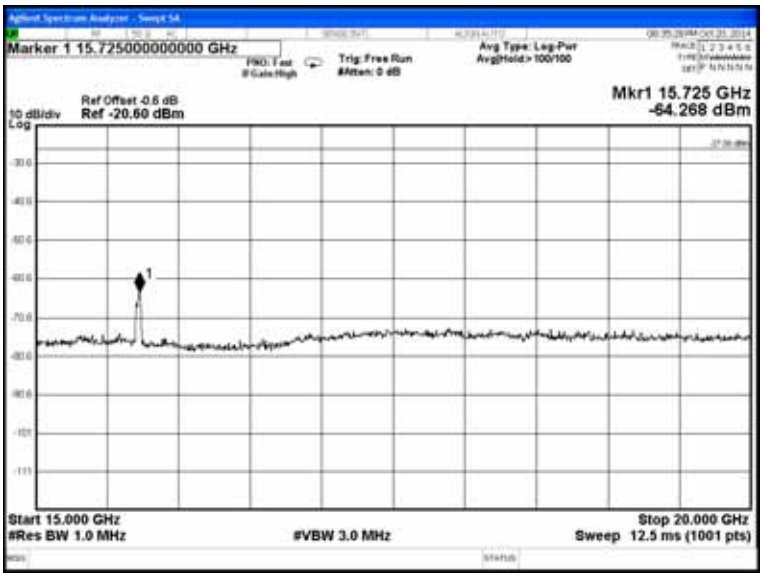

Agilent Spectrum Analyzer - Swept SA
Marker 1 38.890000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 17/100
Mkr1 38.890 GHz
-45.913 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 25.00 ms (1001 pts)

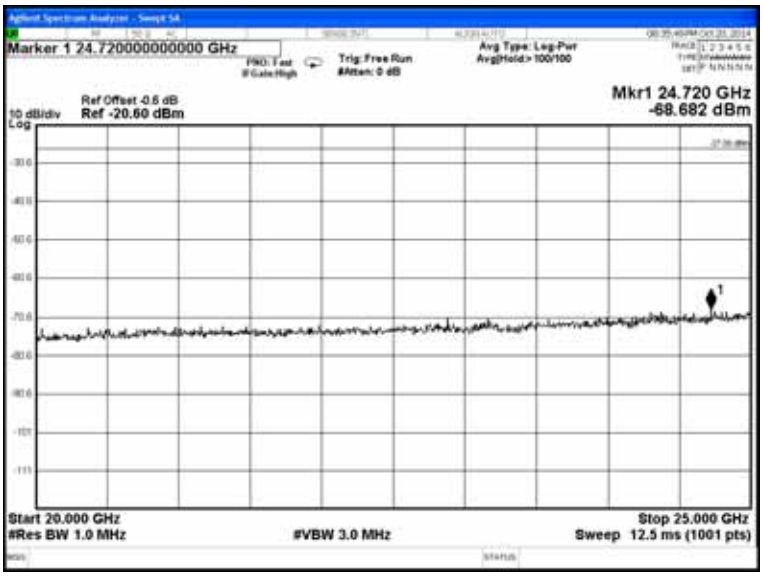
802.11a (UNII Band I), Frequency: 5240MHz





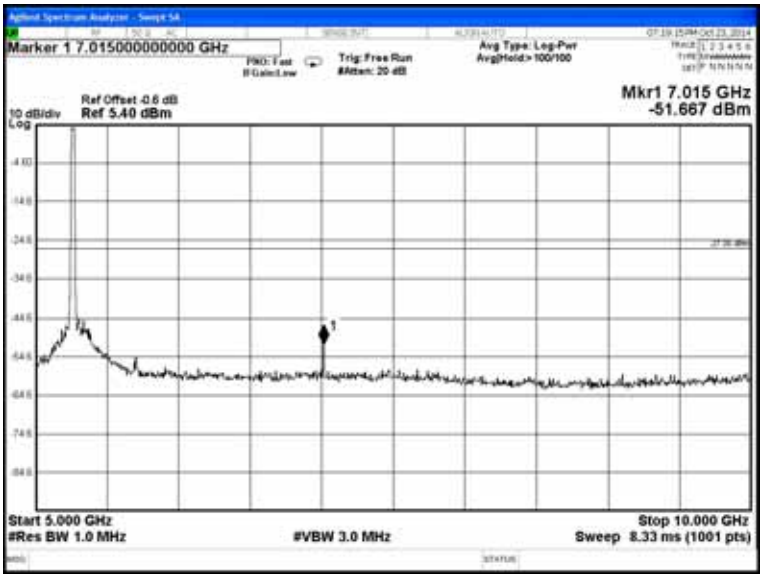


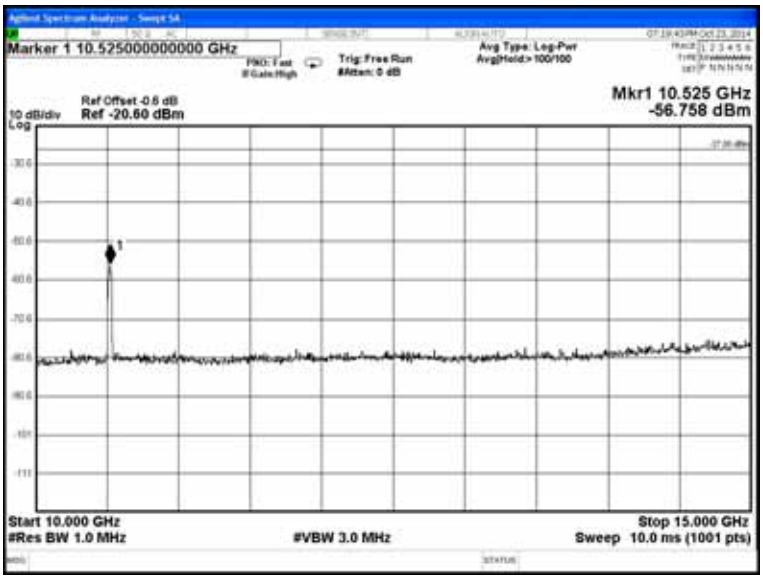

Agilent Spectrum Analyzer - Swept SA
Marker 1 15.725000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 15.725 GHz
-64.268 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

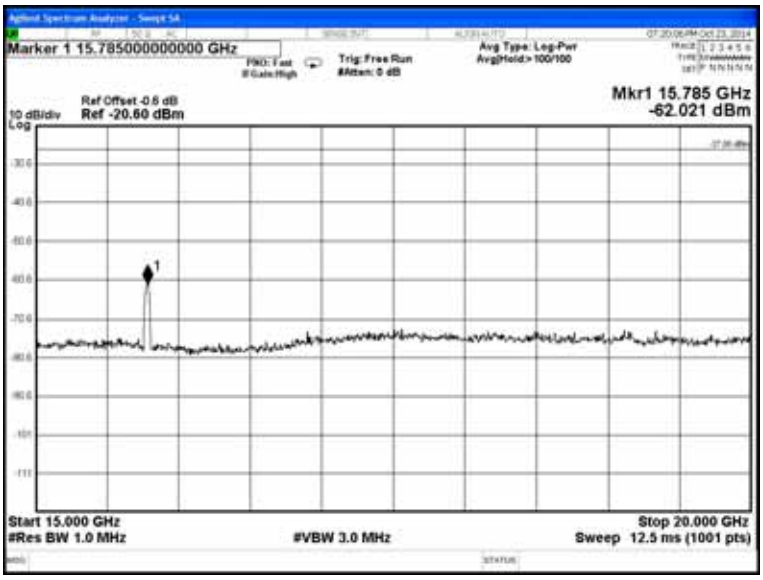

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.720000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.720 GHz
-68.682 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

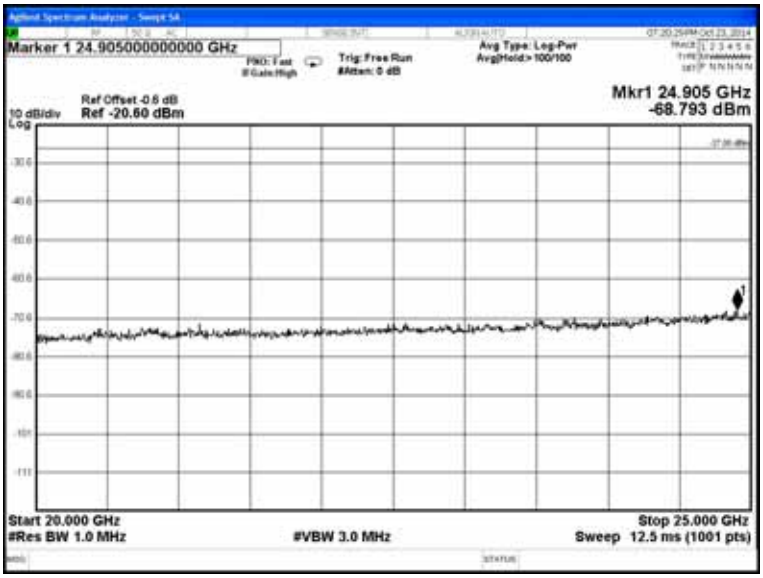
Agilent Spectrum Analyzer - Swept SA
Marker 1 38.890000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 10/100
Mkr1 38.890 GHz
-45.225 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 25.00 ms (1001 pts)

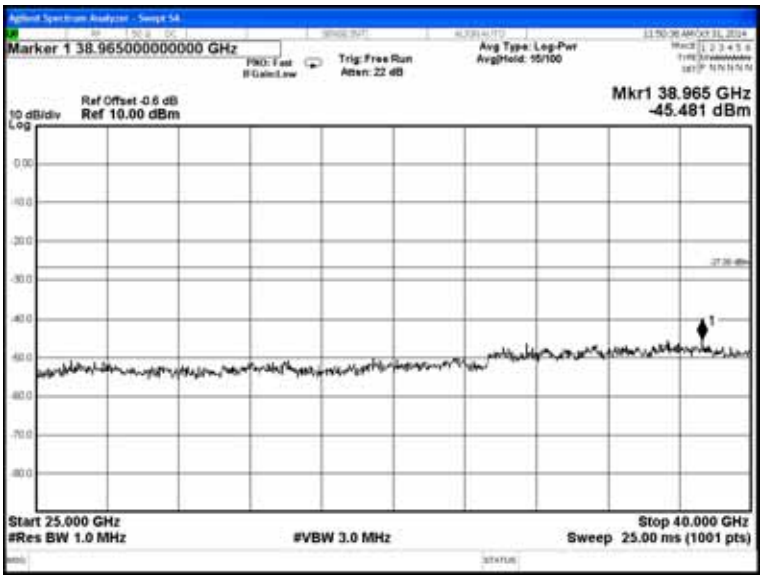
802.11a (UNII Band II-2A), Frequency: 5260MHz



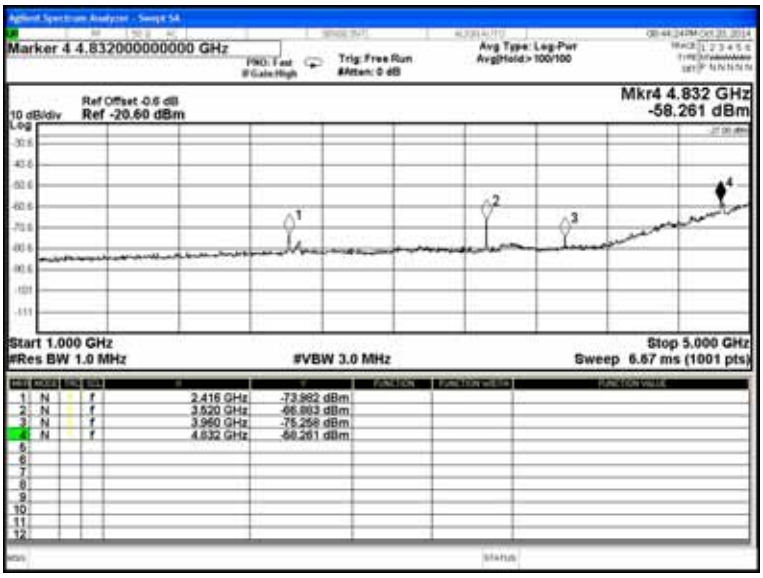


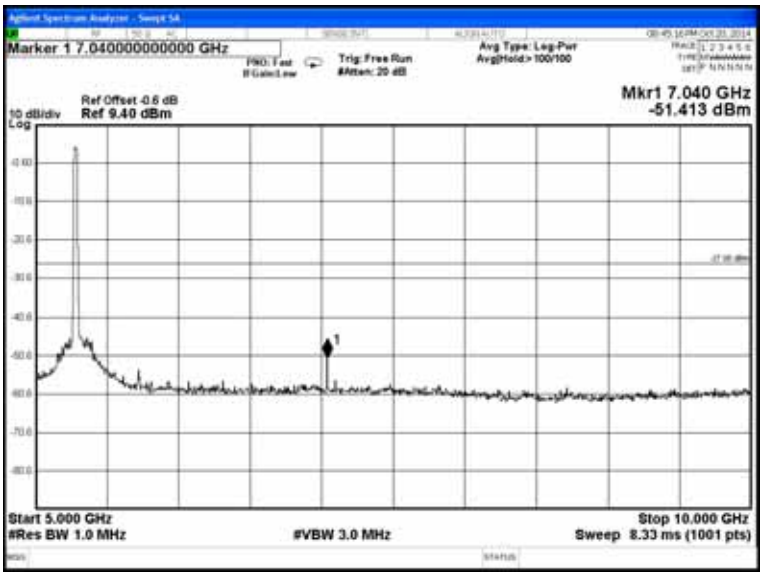

Agilent Spectrum Analyzer - Swept SA
Marker 1 15.785000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 15.785 GHz
-62.021 dBm
Ref Offset -0.6 dB
10 dB/div
Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

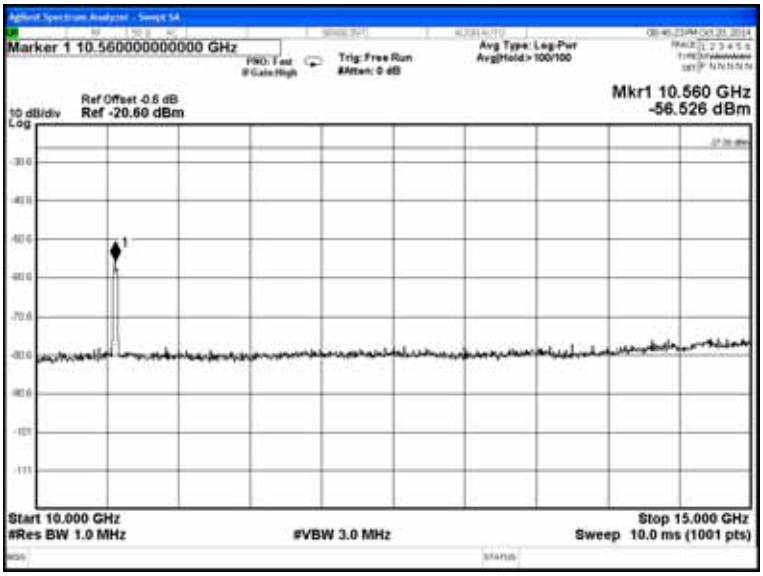

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.905000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.905 GHz
-68.793 dBm
Ref Offset -0.6 dB
10 dB/div
Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

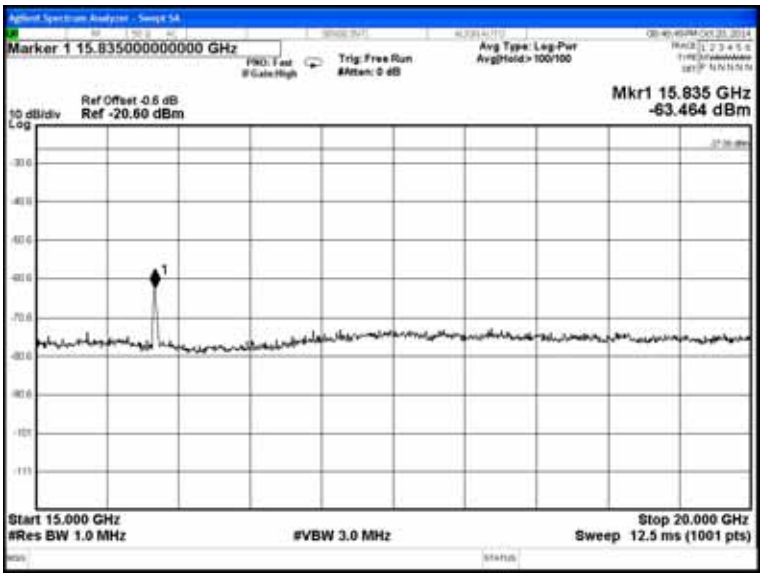

Agilent Spectrum Analyzer - Swept SA
Marker 1 38.965000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 55/100
Mkr1 38.965 GHz
-45.481 dBm
Ref Offset -0.6 dB
10 dB/div
Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 25.00 ms (1001 pts)

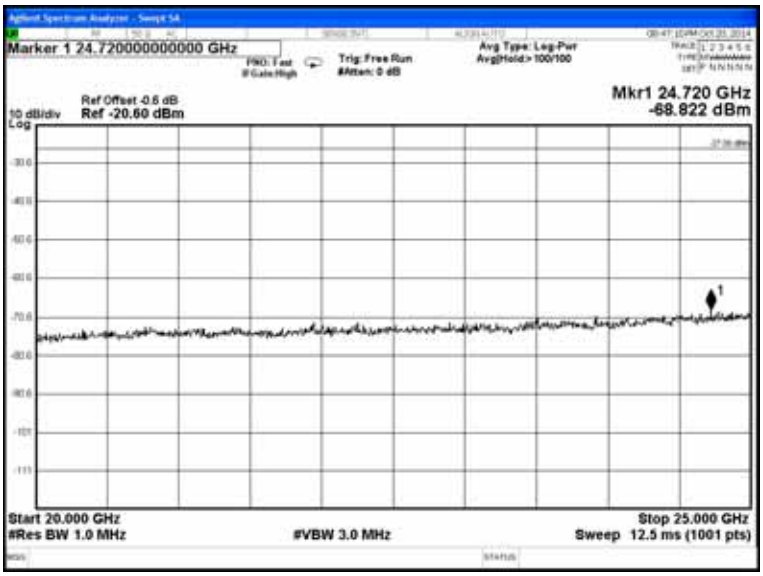
802.11a (UNII Band II-2A), Frequency: 5280MHz

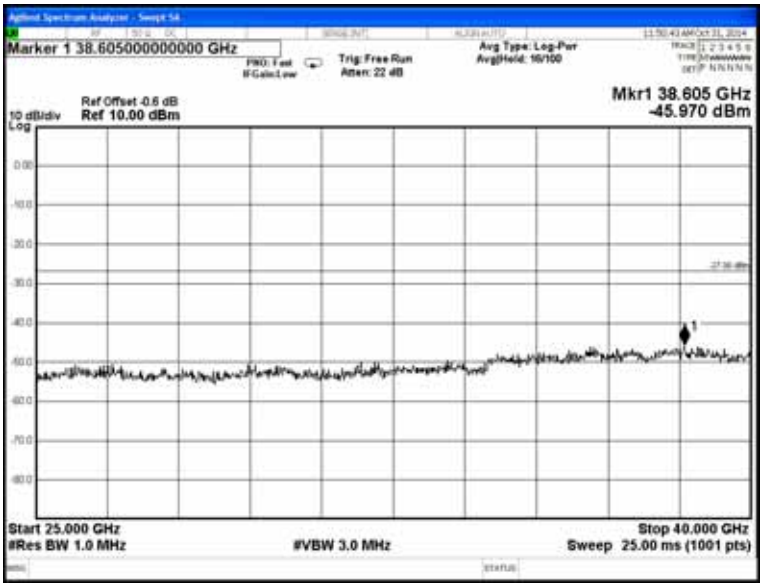




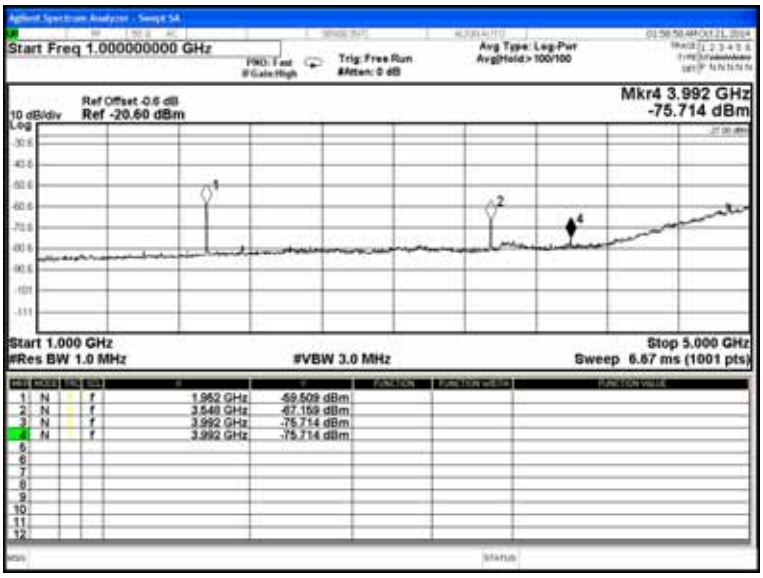


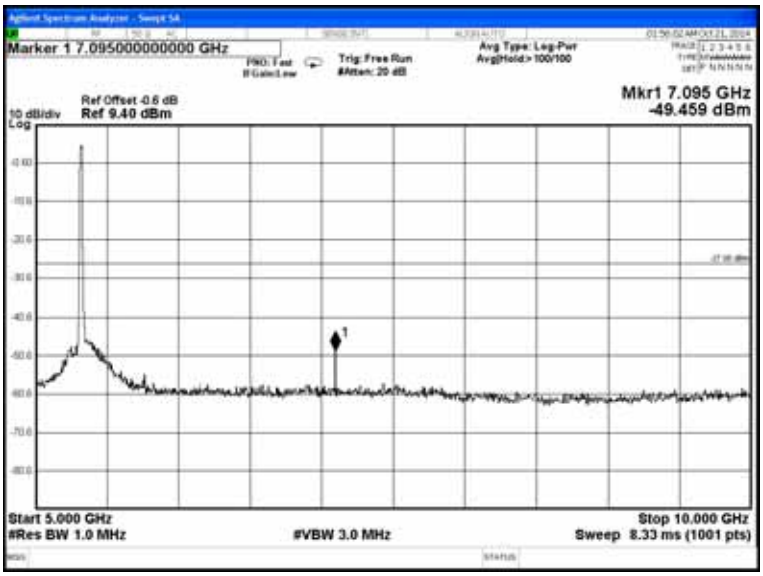

Agilent Spectrum Analyzer - Swept SA
Marker 1 15.835000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 15.835 GHz
-63.464 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

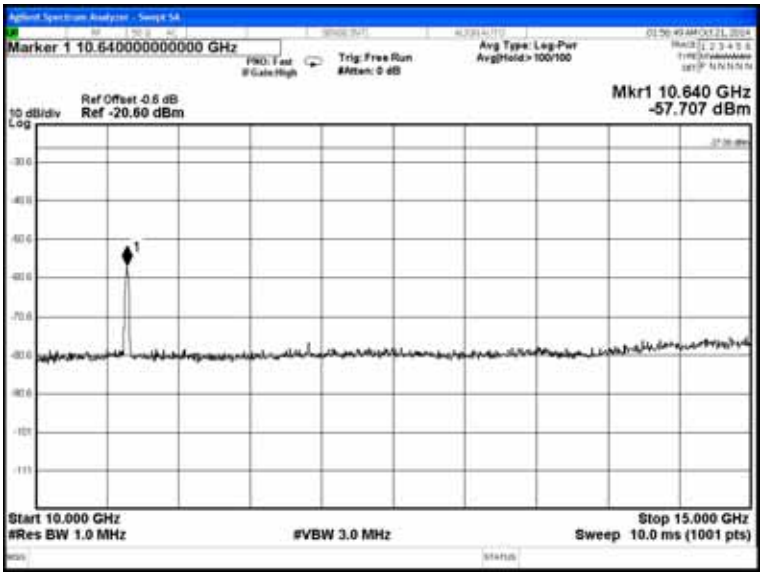

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.720000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.720 GHz
-68.822 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

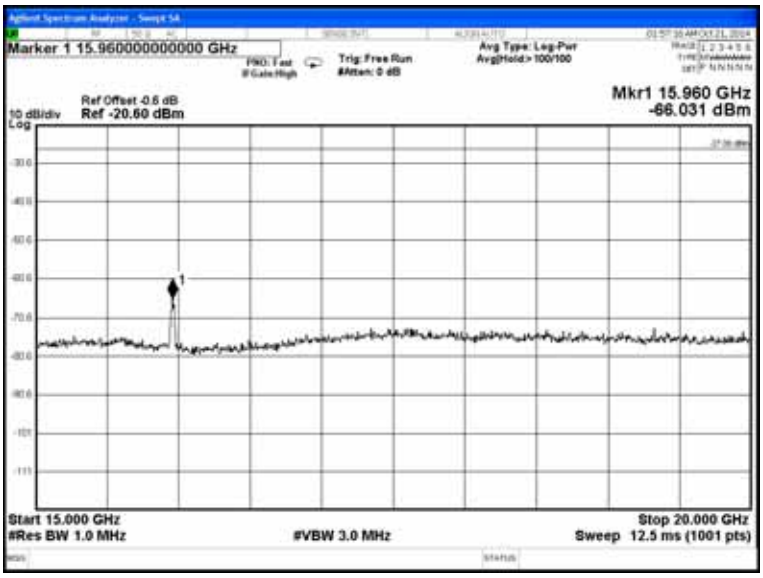

Agilent Spectrum Analyzer - Swept SA
Marker 1 38.605000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 16/100
Mkr1 38.605 GHz
-45.970 dBm
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 25.00 ms (1001 pts)

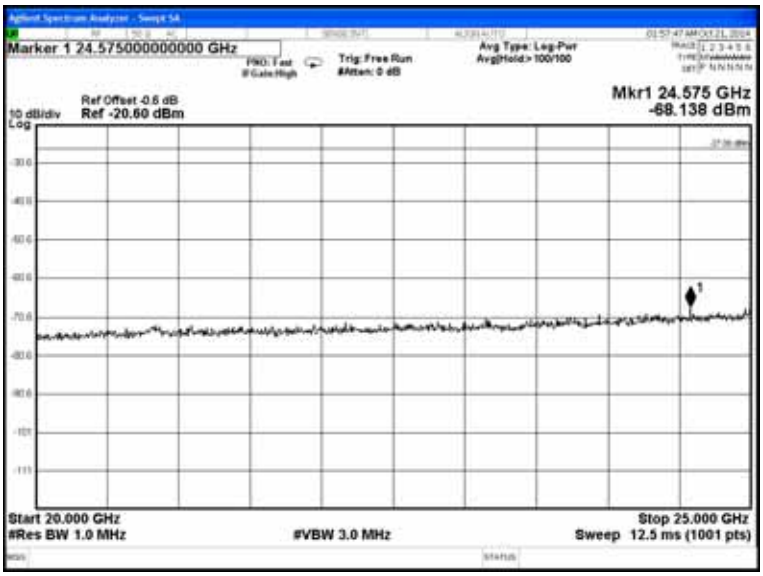
802.11a (UNII Band II-2A), Frequency: 5320MHz

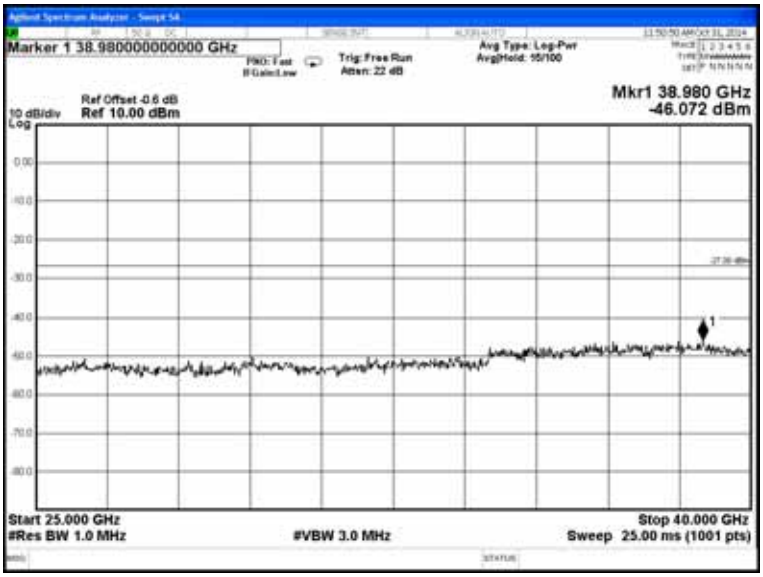




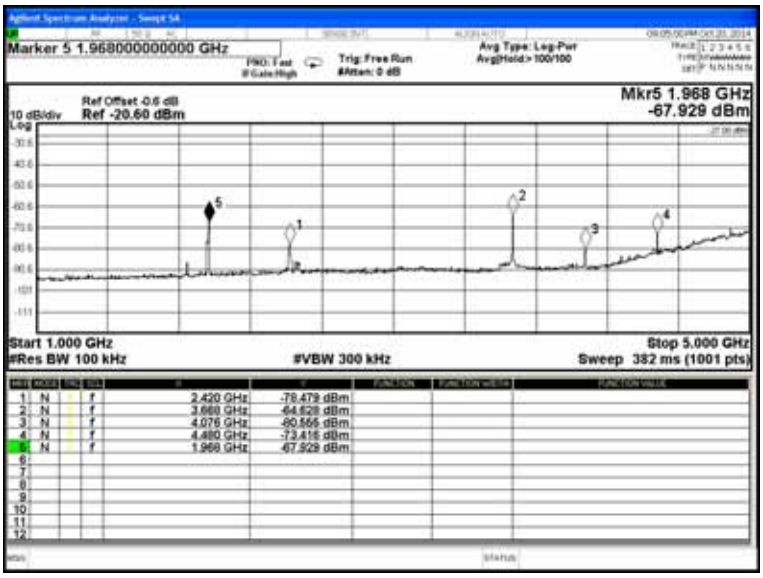


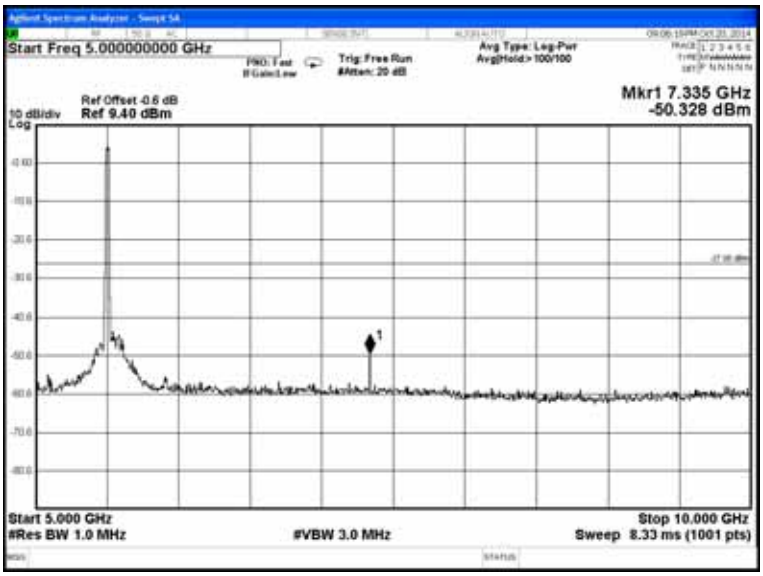

Agilent Spectrum Analyzer - Swept SA
Marker 1 15.960000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Mkr1 15.960 GHz
-66.031 dBm
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

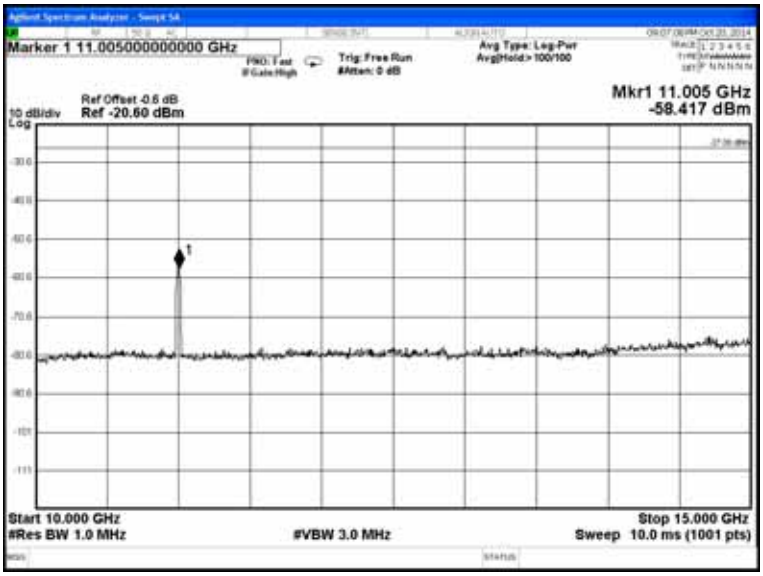

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.575000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Mkr1 24.575 GHz
-68.138 dBm
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

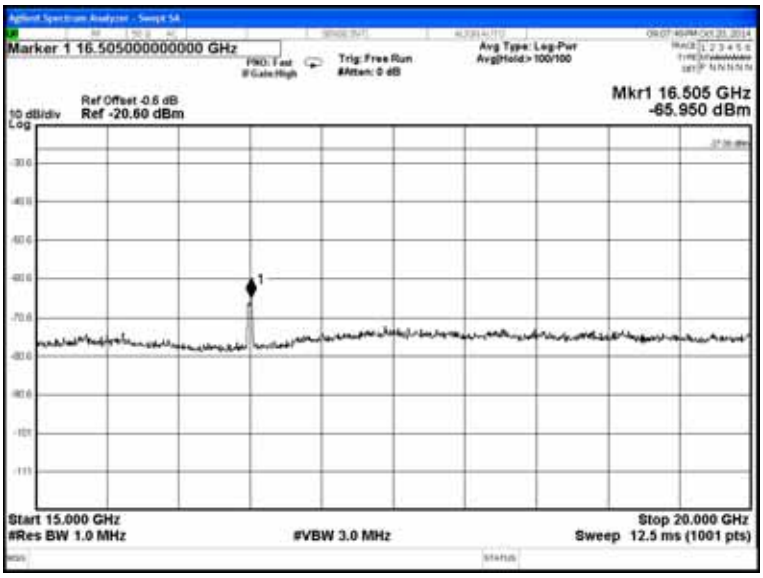

Agilent Spectrum Analyzer - Swept SA
Marker 1 38.980000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 10/100
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Mkr1 38.980 GHz
-46.072 dBm
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 25.00 ms (1001 pts)

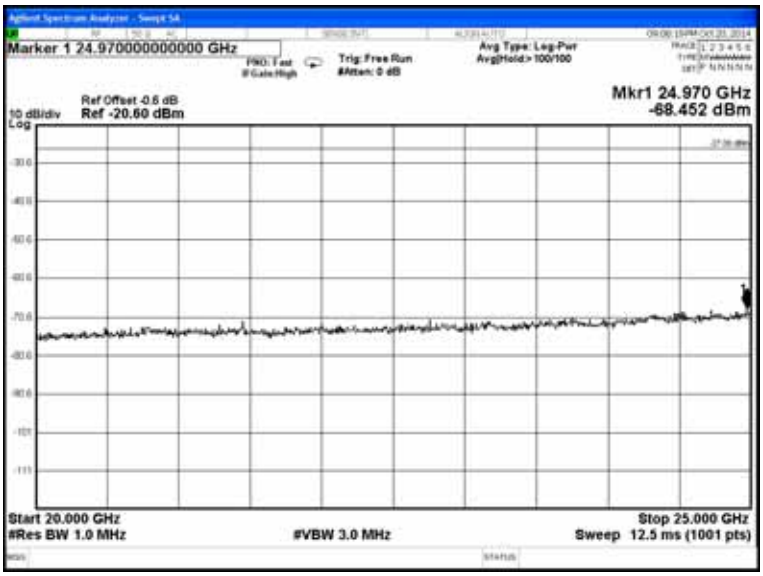
802.11a (UNII Band II-2C), Frequency: 5500MHz

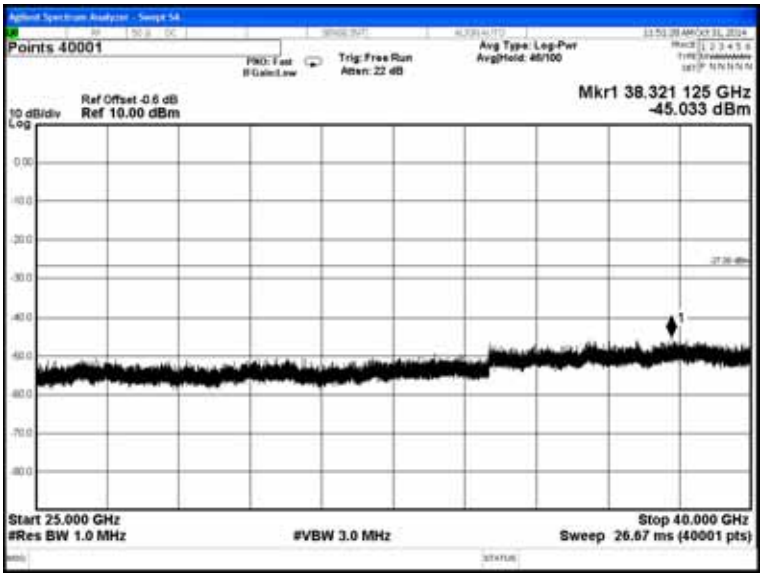




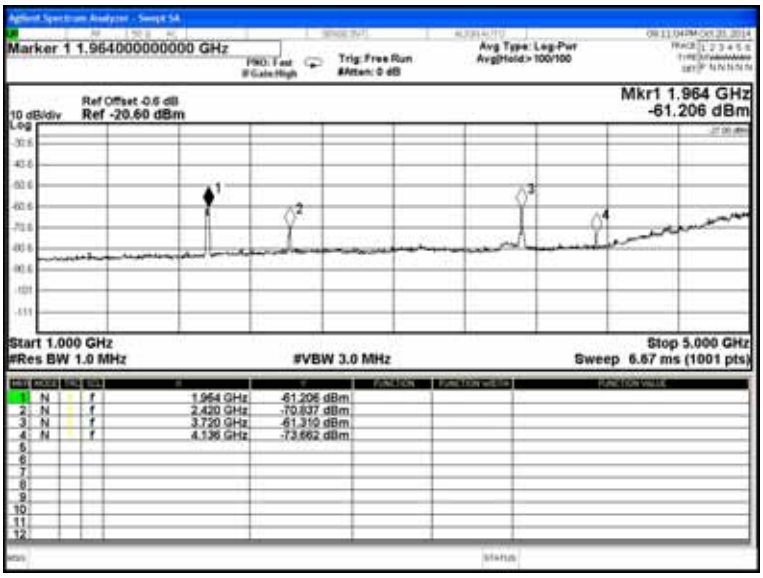


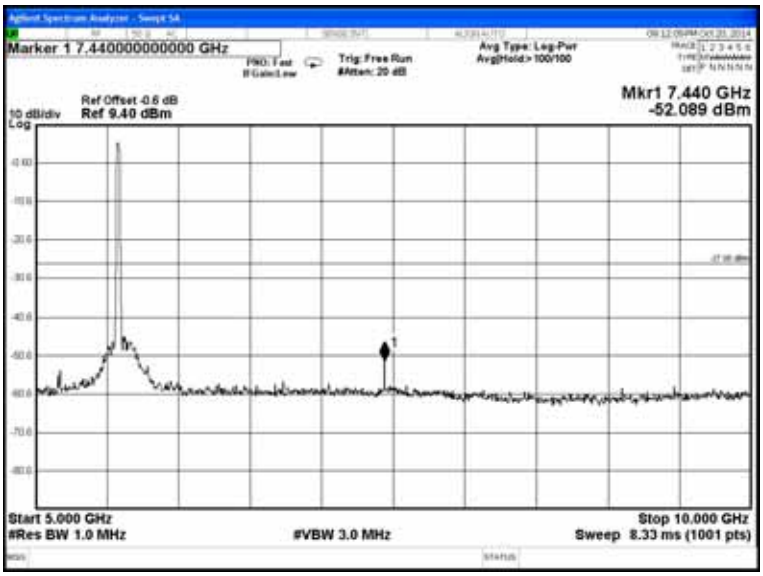

Agilent Spectrum Analyzer - Swept SA
Marker 1 16.505000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 16.505 GHz
-65.950 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

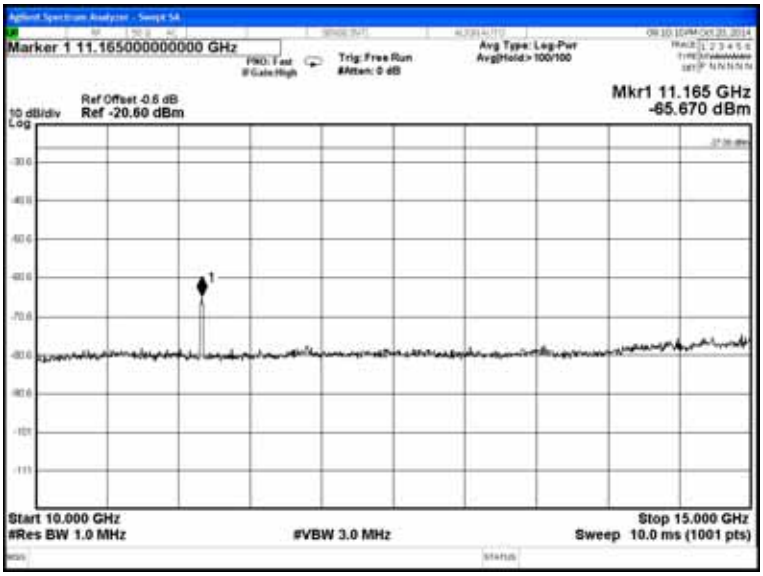

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.970000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.970 GHz
-68.452 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

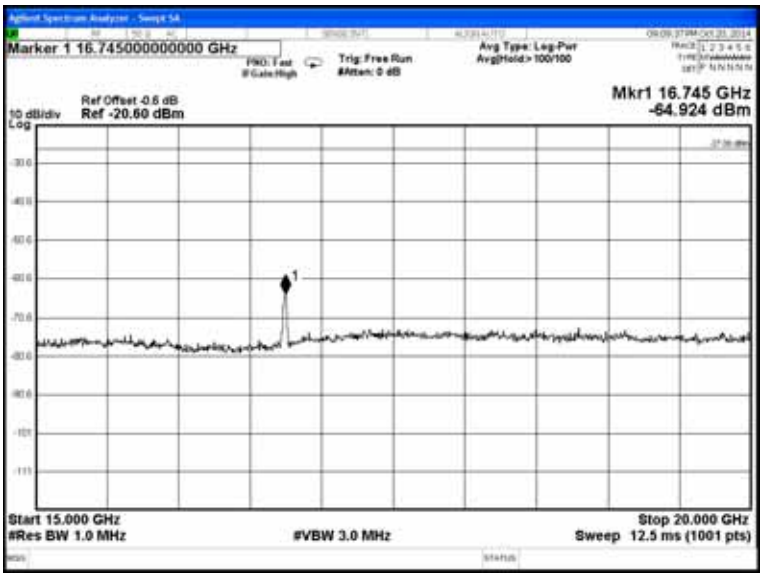

Agilent Spectrum Analyzer - Swept SA
Points 40001
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 46/100
Mkr1 38.321 125 GHz
-45.033 dBm
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

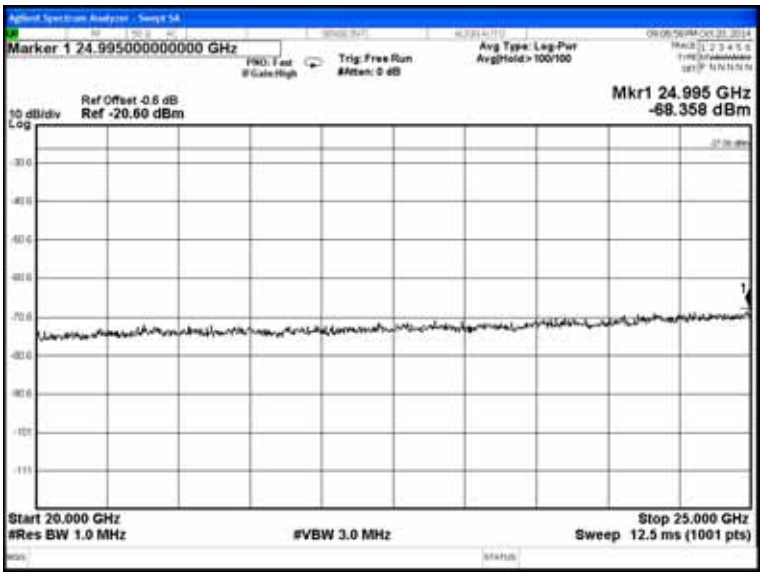
802.11a (UNII Band II-2C), Frequency: 5580MHz

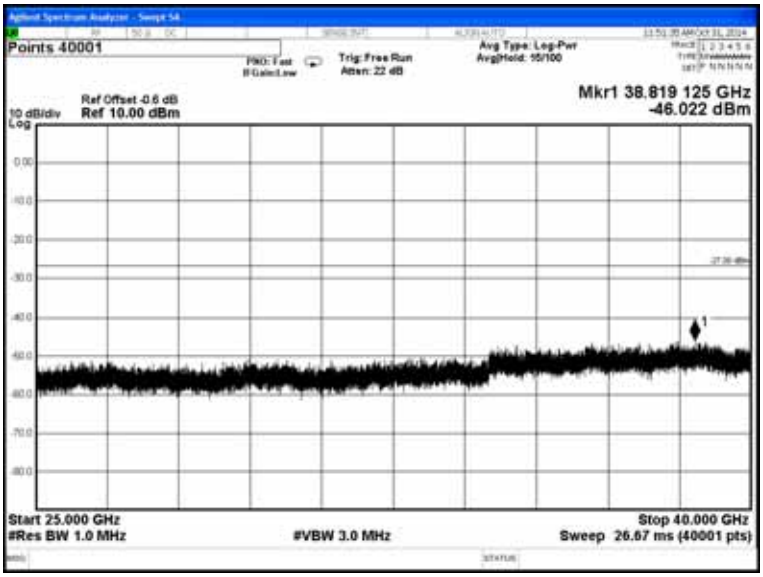




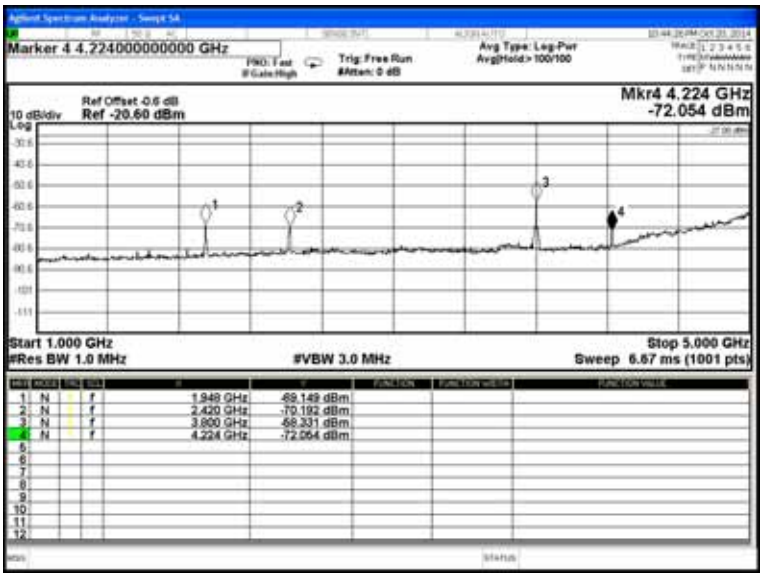


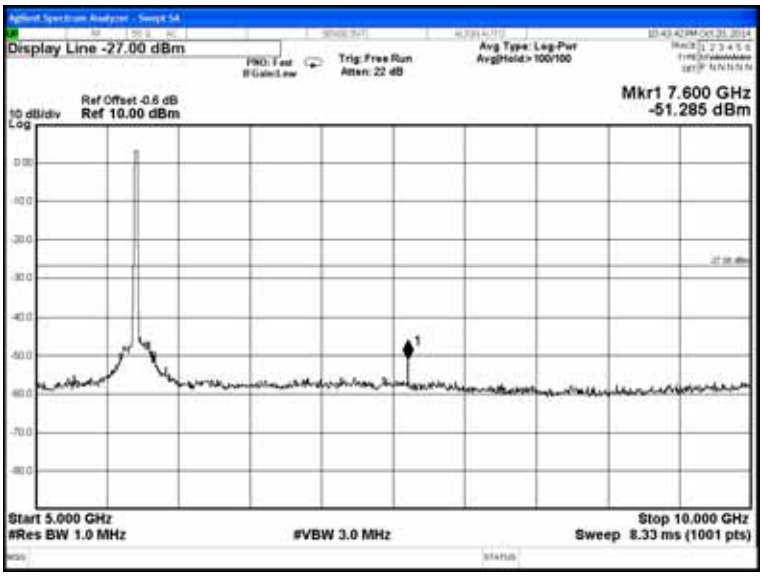

Agilent Spectrum Analyzer - Swept SA
Marker 1 16.745000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 16.745 GHz
-64.924 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

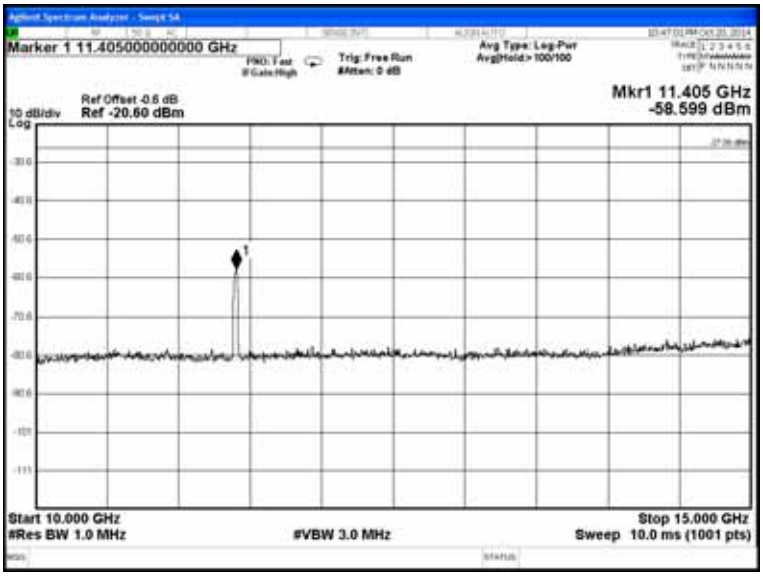

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.995000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.995 GHz
-68.358 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

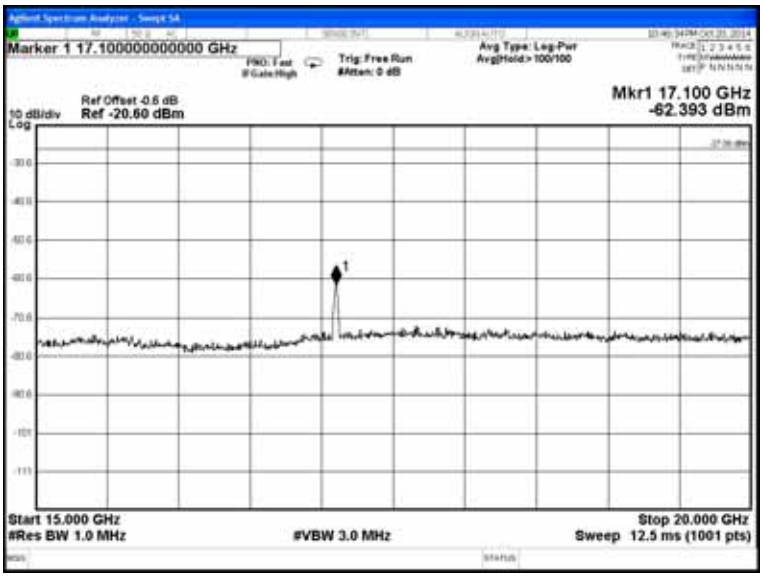

Agilent Spectrum Analyzer - Swept SA
Points 40001
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 10/100
Mkr1 38.819 125 GHz
-46.022 dBm
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

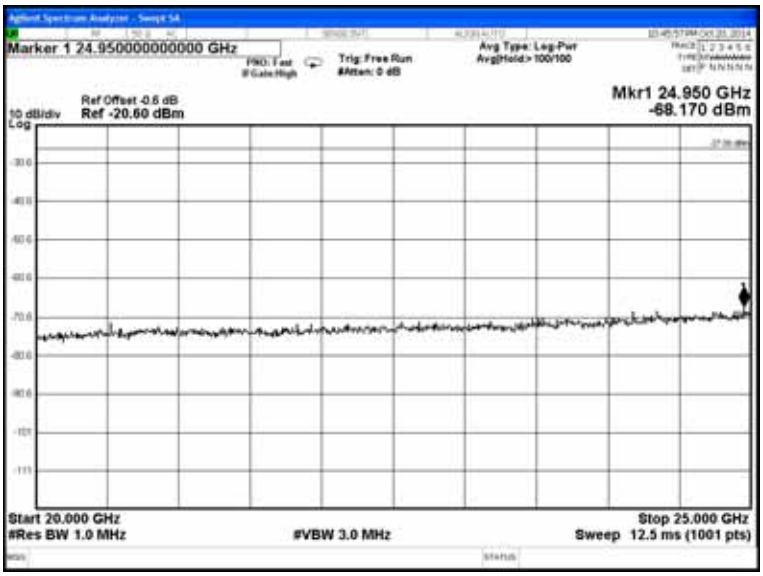
802.11a (UNII Band II-2C), Frequency: 5700MHz

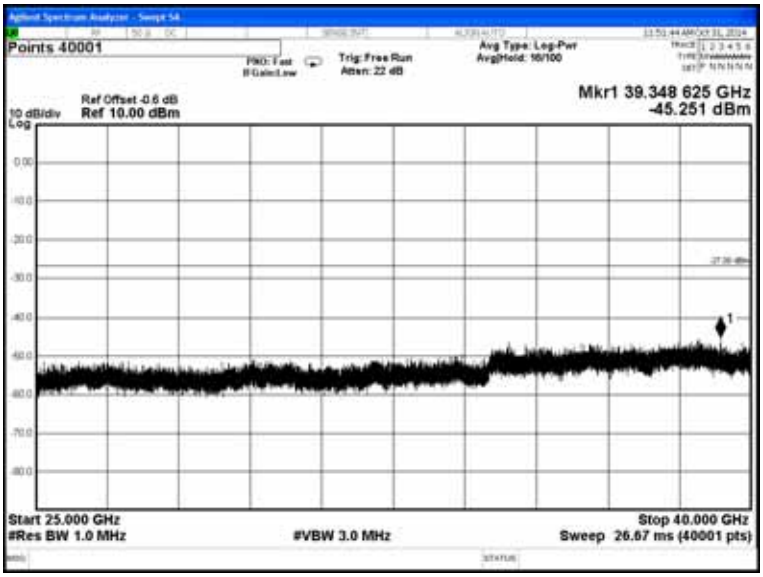




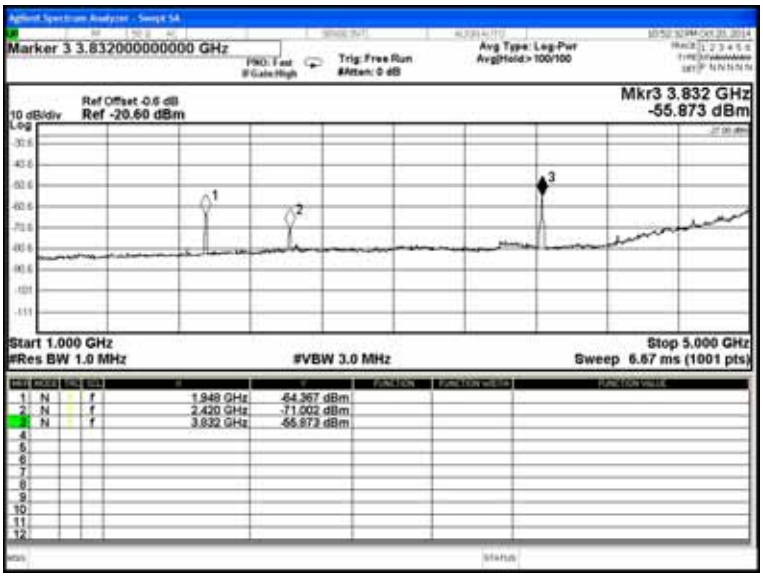


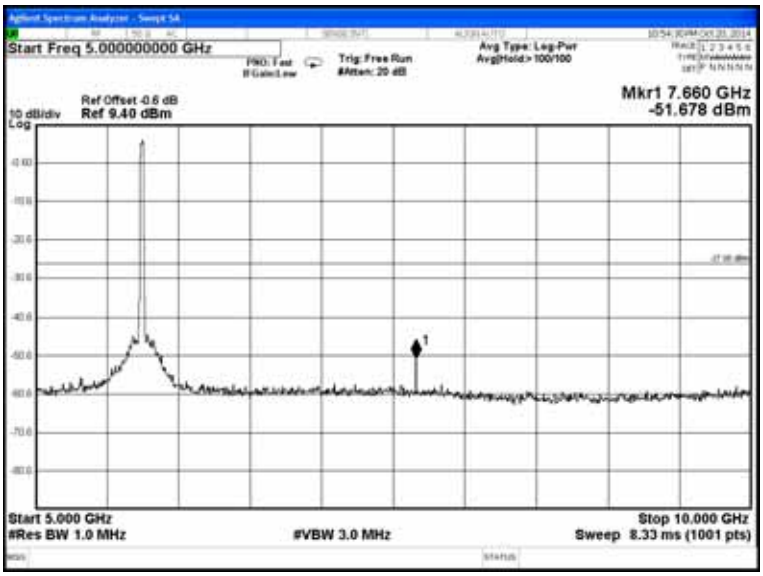

Agilent Spectrum Analyzer - Swept SA
Marker 1 17.100000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 17.100 GHz
-62.393 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

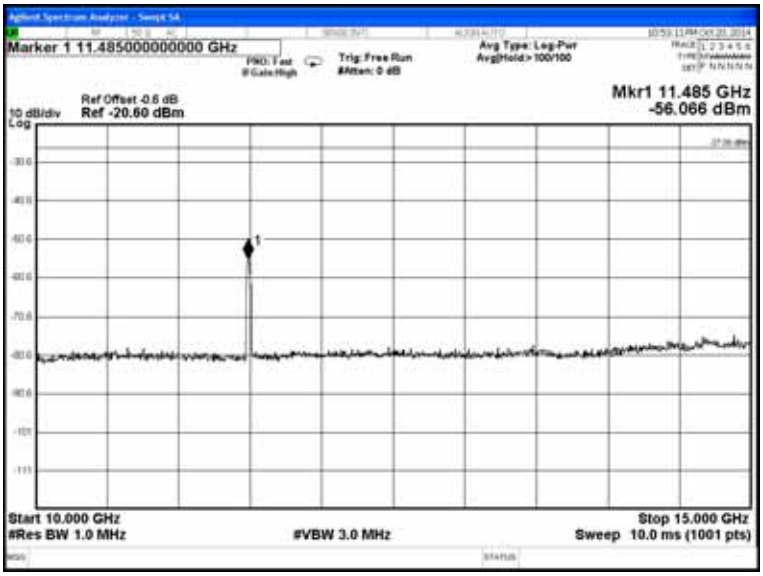

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.950000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.950 GHz
-68.170 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

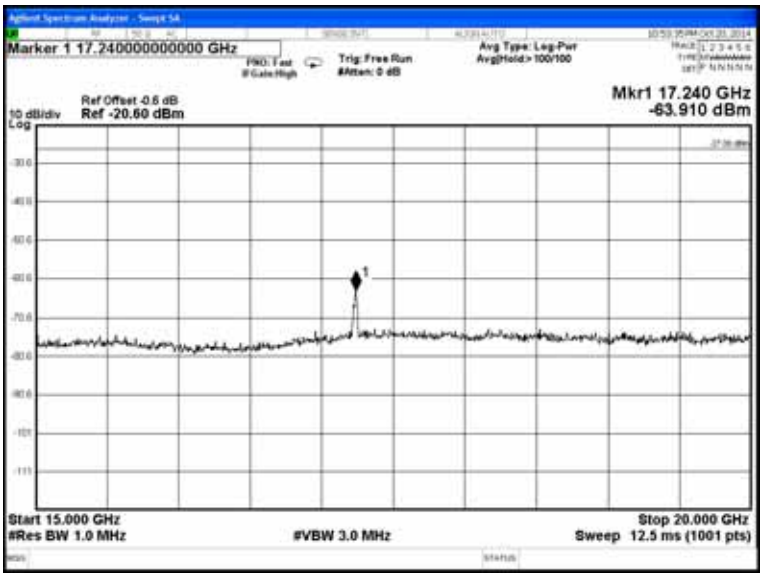

Agilent Spectrum Analyzer - Swept SA
Points 40001
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 10/100
Mkr1 39.348 625 GHz
-45.251 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

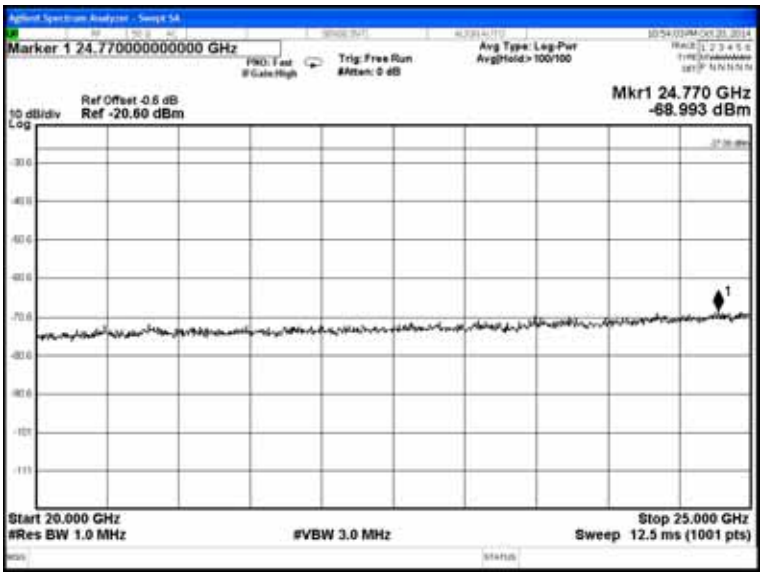
802.11a (UNII Band III), Frequency: 5745MHz

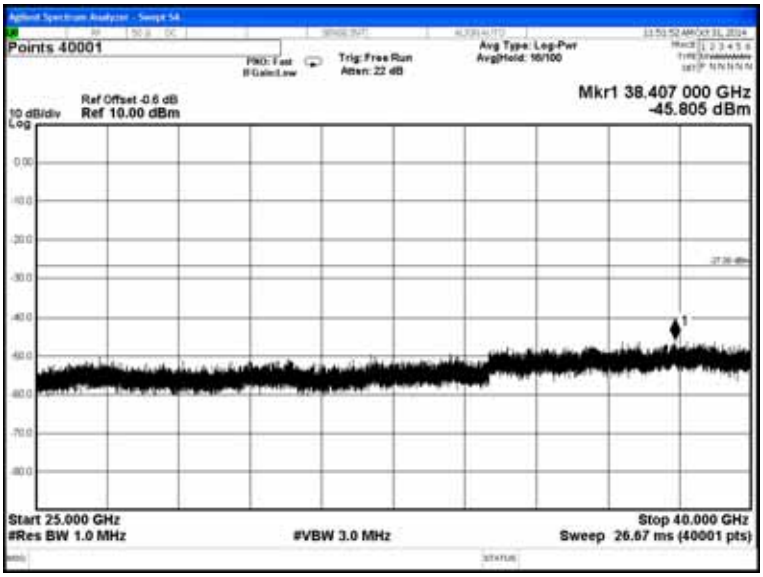




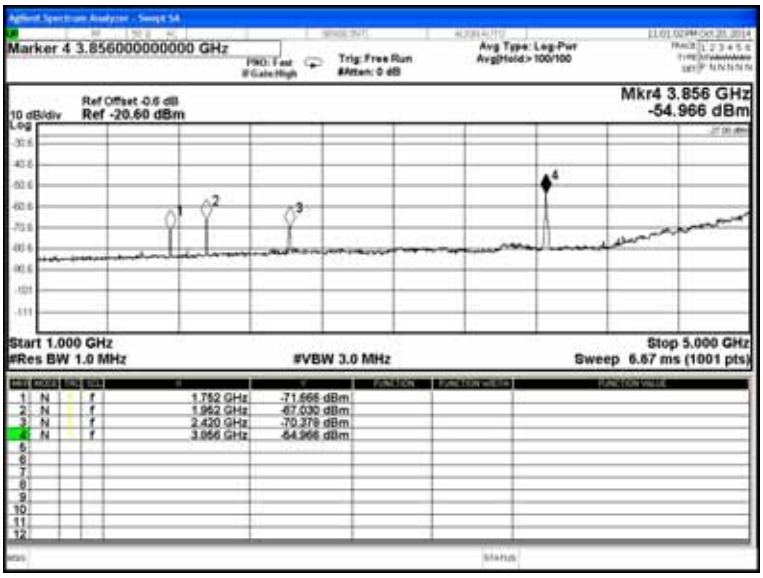


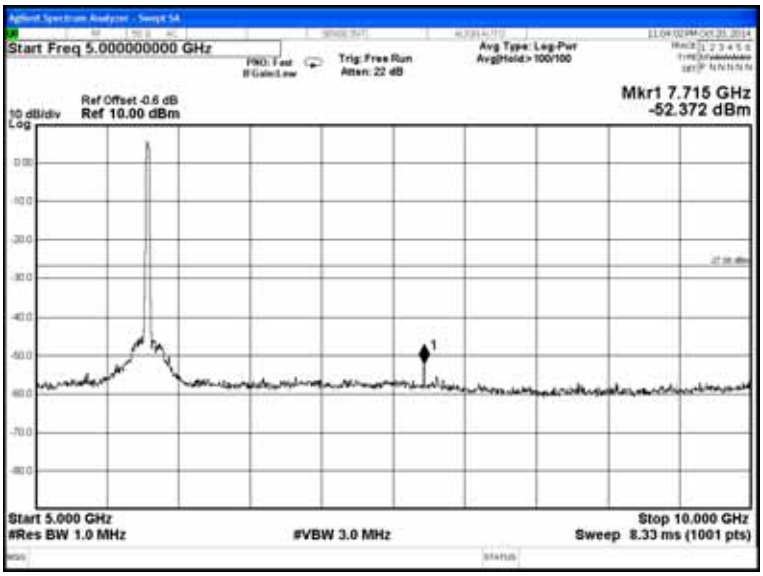

Agilent Spectrum Analyzer - Swept SA
Marker 1 17.240000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 17.240 GHz
-63.910 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

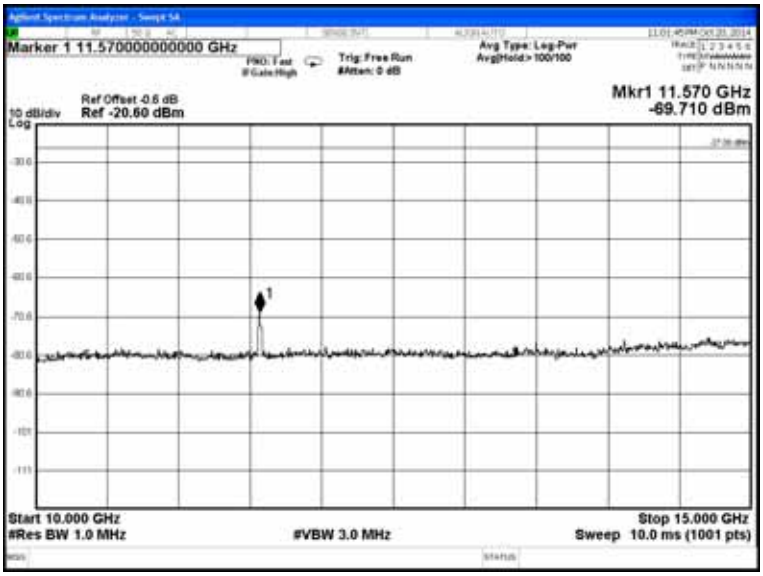

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.770000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.770 GHz
-68.993 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

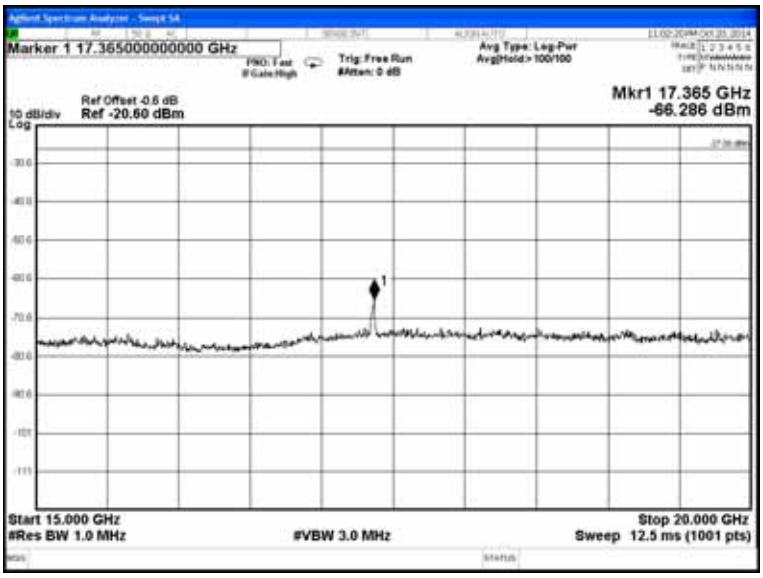

Agilent Spectrum Analyzer - Swept SA
Points 40001
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 10/100
Mkr1 38.407 000 GHz
-45.805 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

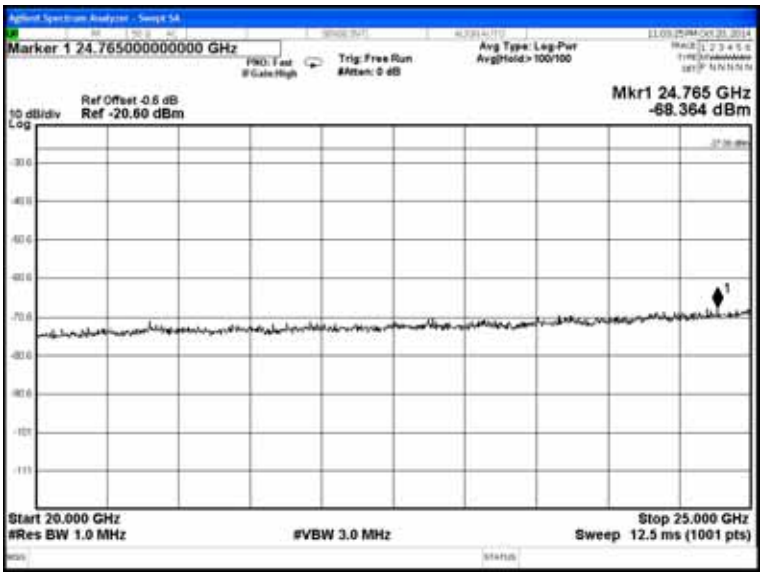
802.11a (UNII Band III), Frequency: 5785MHz

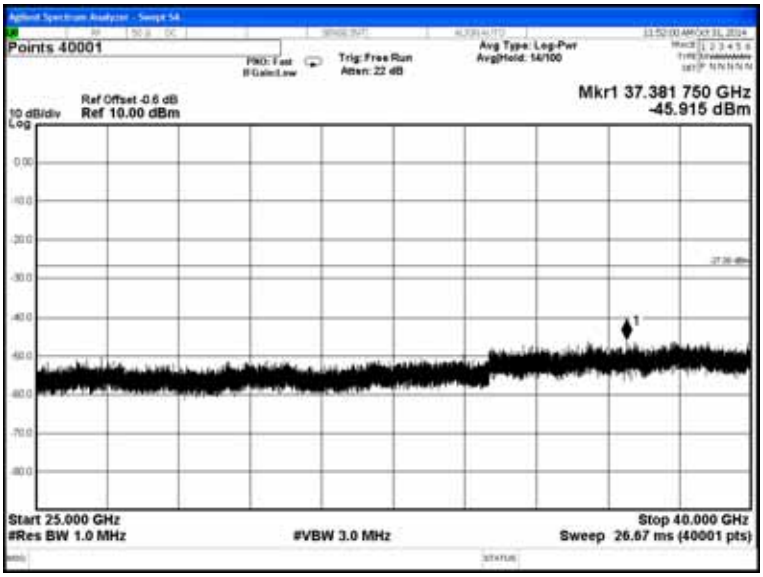




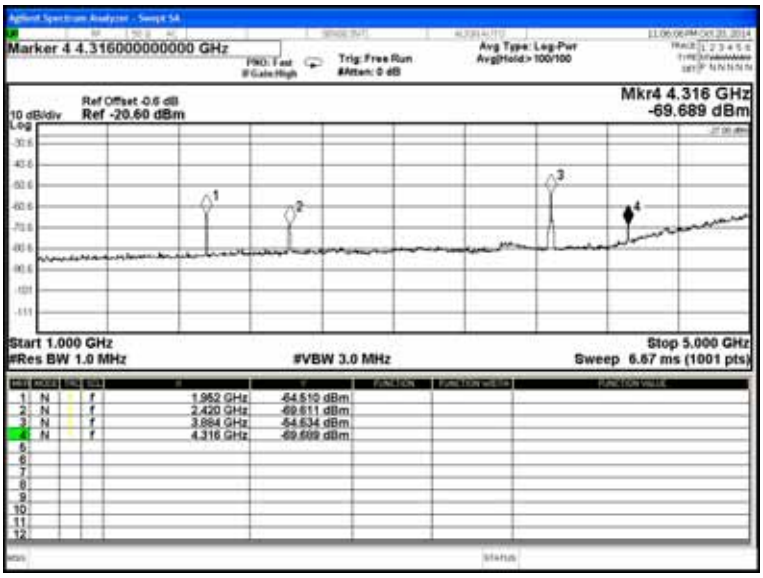


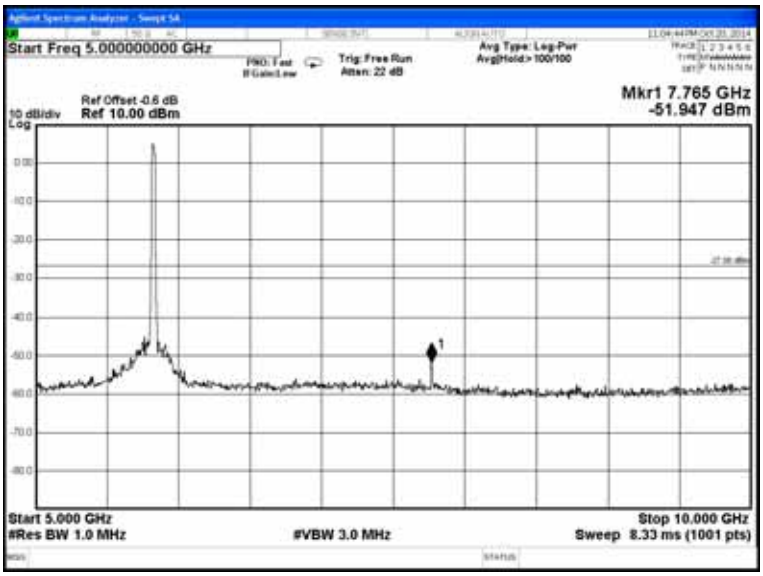

Agilent Spectrum Analyzer - Swept SA
Marker 1 17.365000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 17.365 GHz
-66.286 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

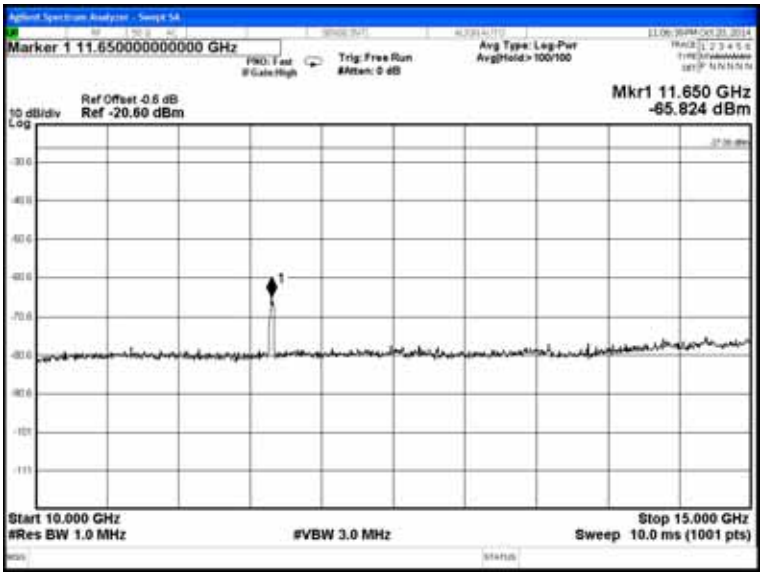

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.765000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.765 GHz
-68.364 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

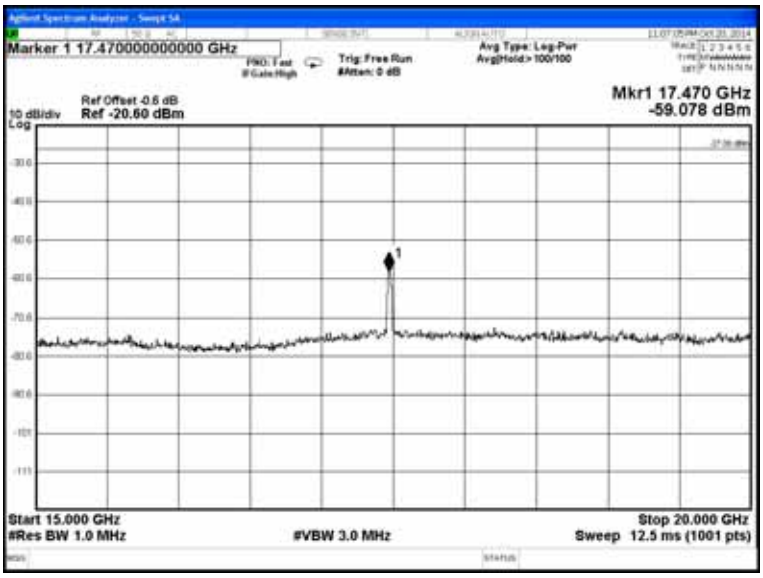

Agilent Spectrum Analyzer - Swept SA
Points 40001
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 16/100
Mkr1 37.381 750 GHz
-45.915 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

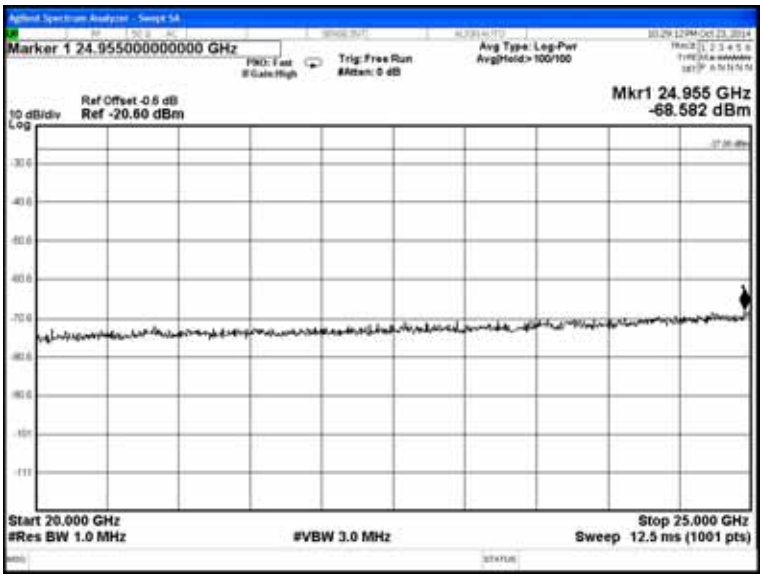
802.11a (UNII Band III), Frequency: 5825MHz

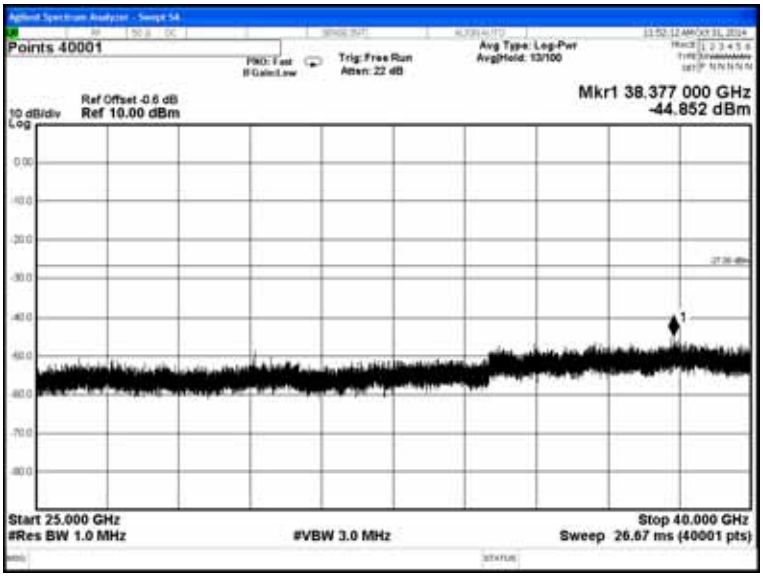




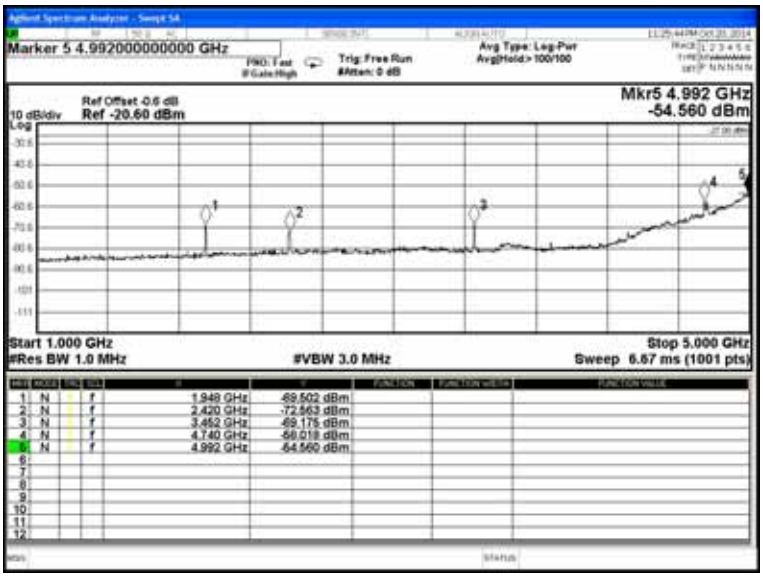


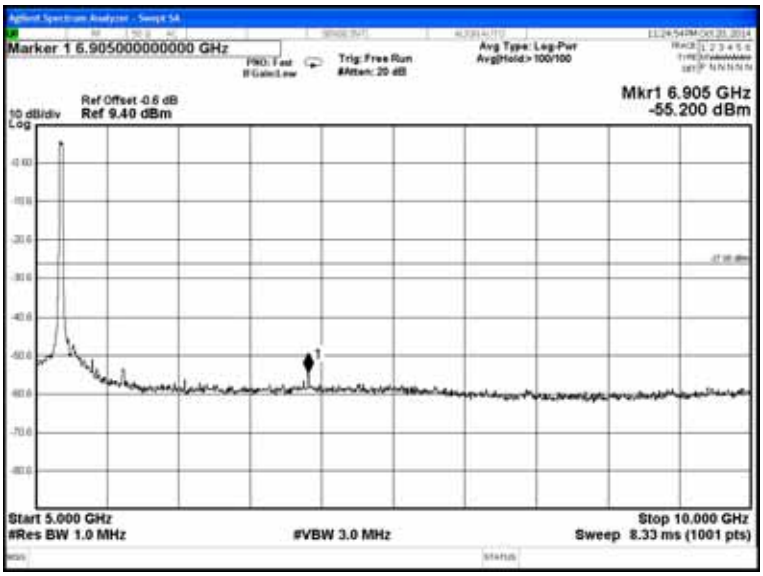

Agilent Spectrum Analyzer - Swept SA
Marker 1 17.470000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 17.470 GHz
-59.078 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

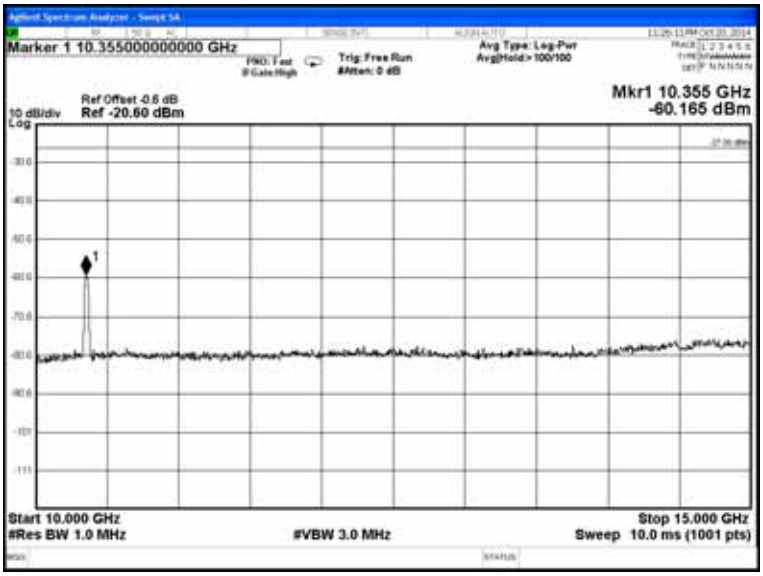

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.955000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.955 GHz
-68.582 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

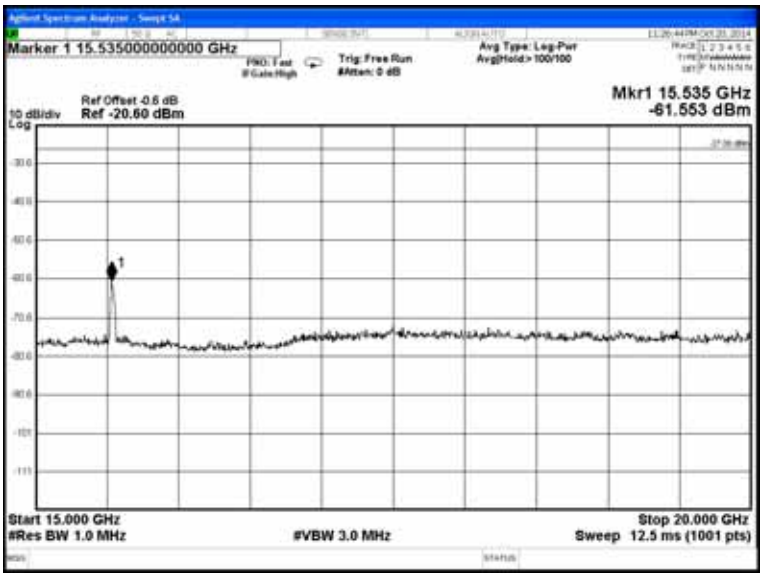

Agilent Spectrum Analyzer - Swept SA
Points 40001
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 13/100
Mkr1 38.377 000 GHz
-44.852 dBm
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

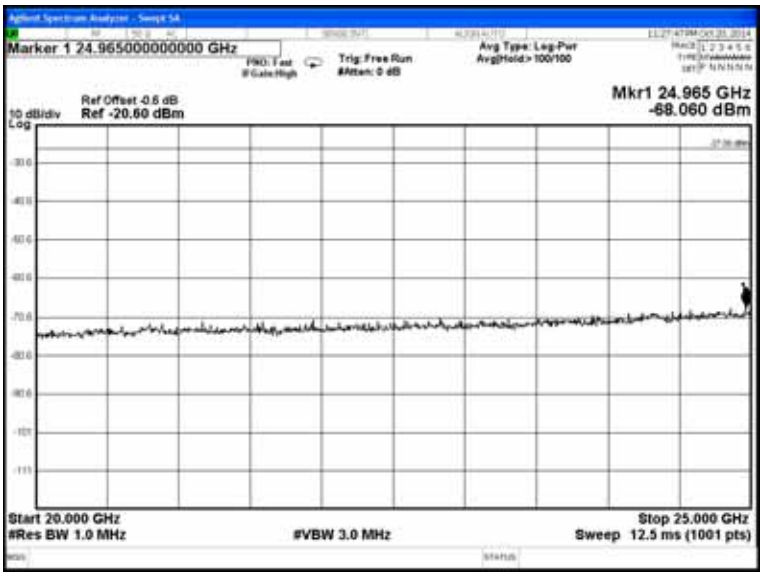
802.11n-HT20 (UNII Band I), Frequency: 5180MHz

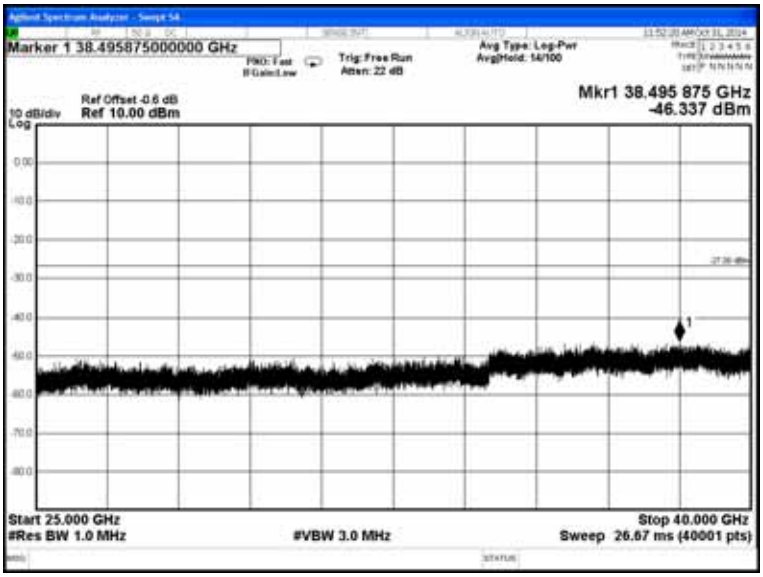




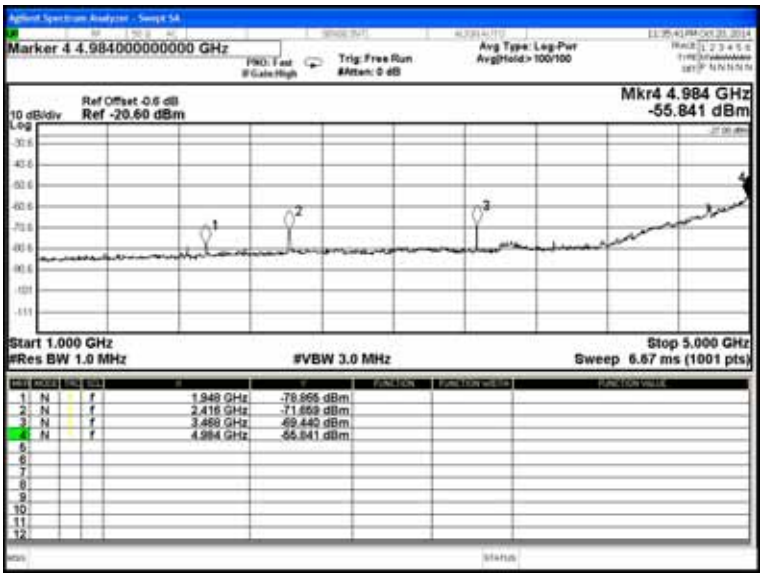


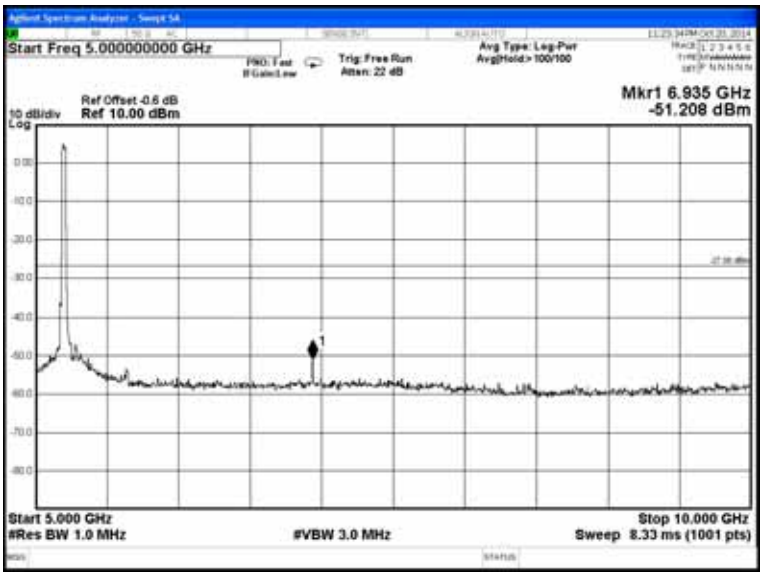

Agilent Spectrum Analyzer - Swept SA
Marker 1 15.535000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 15.535 GHz
-61.553 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

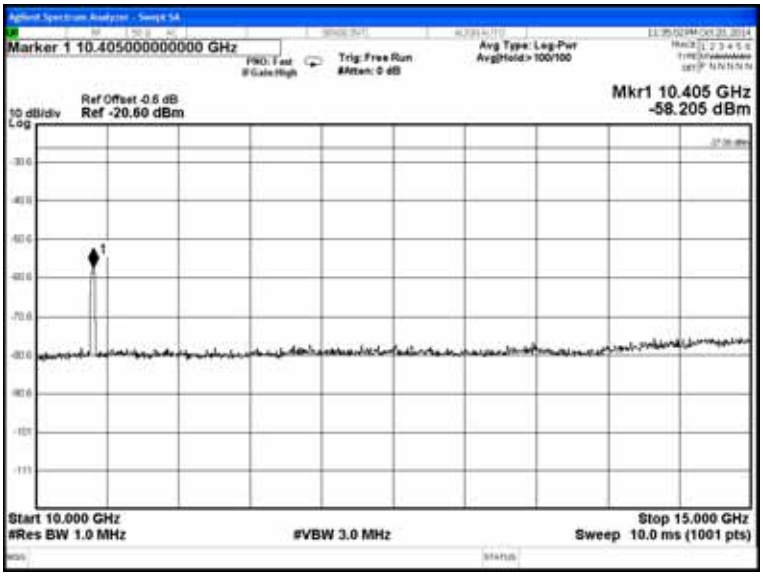

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.965000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.965 GHz
-68.060 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

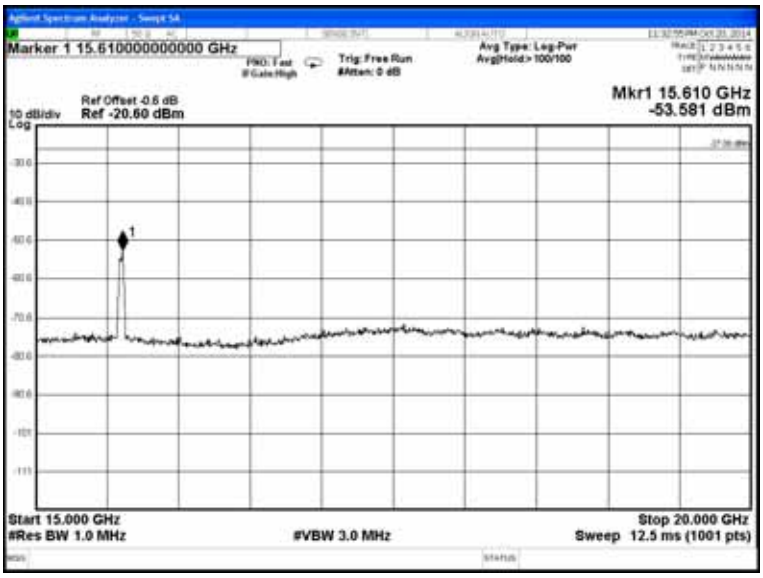

Agilent Spectrum Analyzer - Swept SA
Marker 1 38.495875000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 16/100
Mkr1 38.495 875 GHz
-46.337 dBm
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

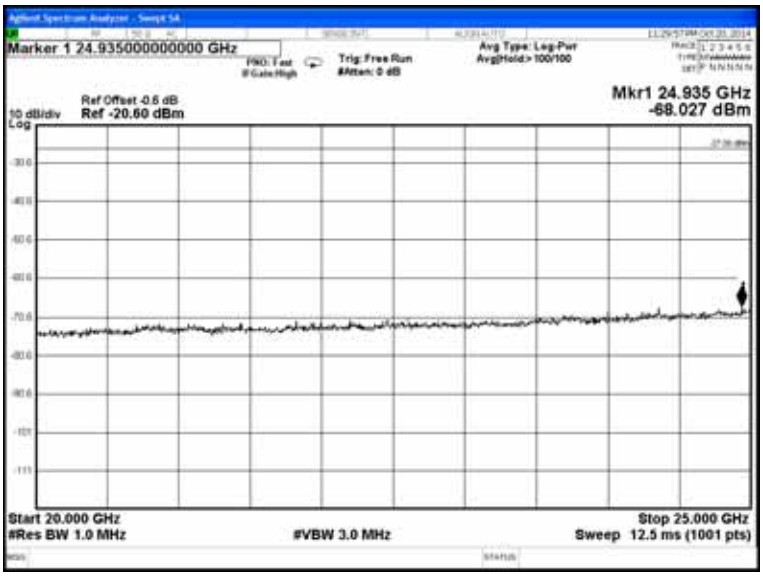
802.11n-HT20 (UNII Band I), Frequency: 5200MHz

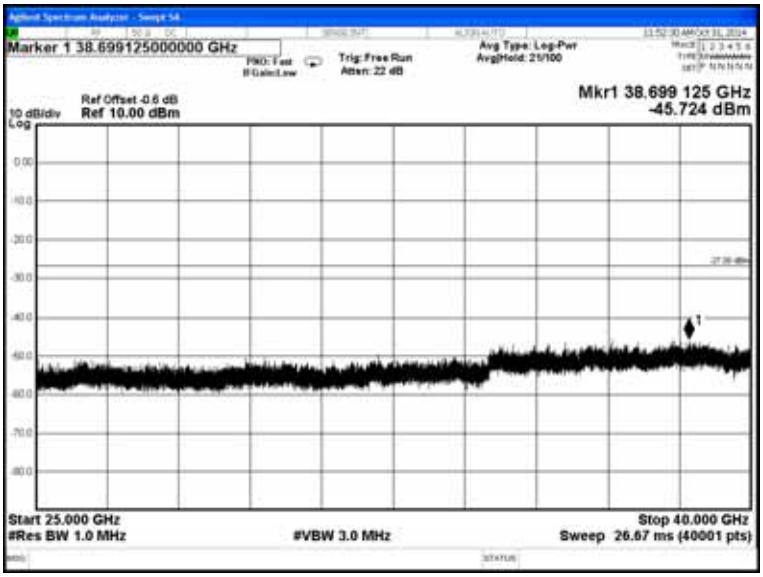




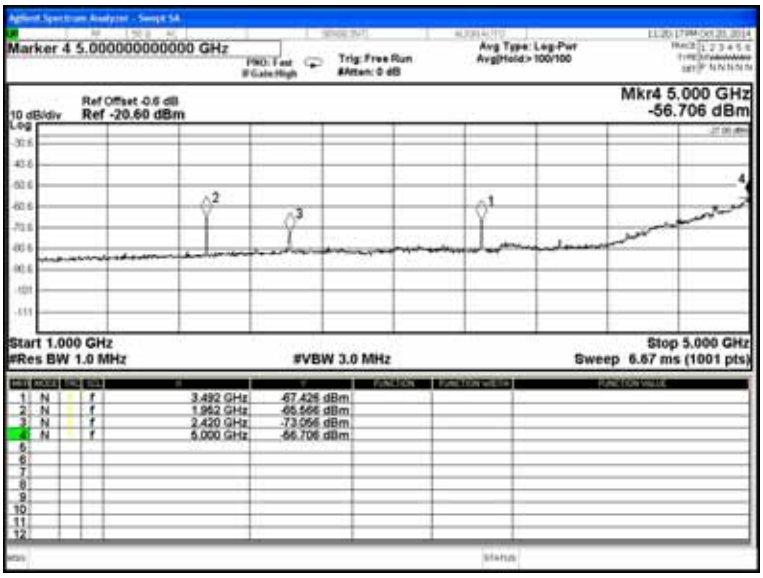


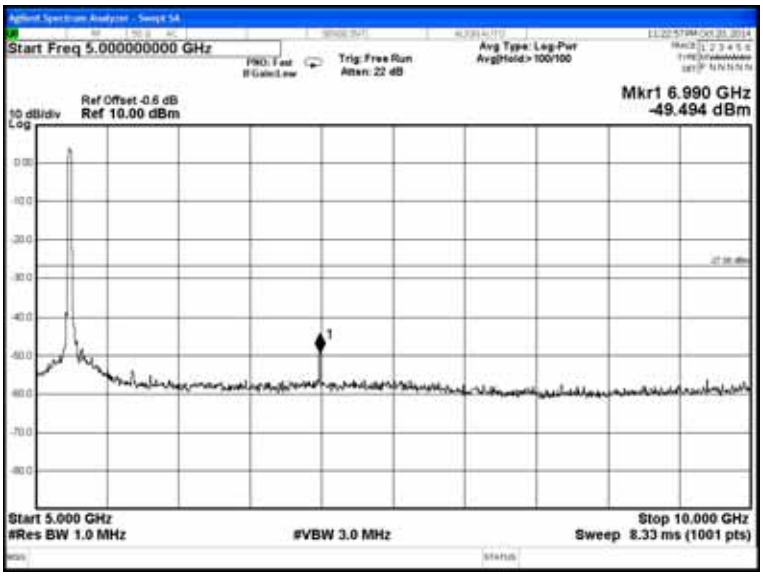

Agilent Spectrum Analyzer - Swept SA
Marker 1 15.610000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 15.610 GHz
-53.581 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

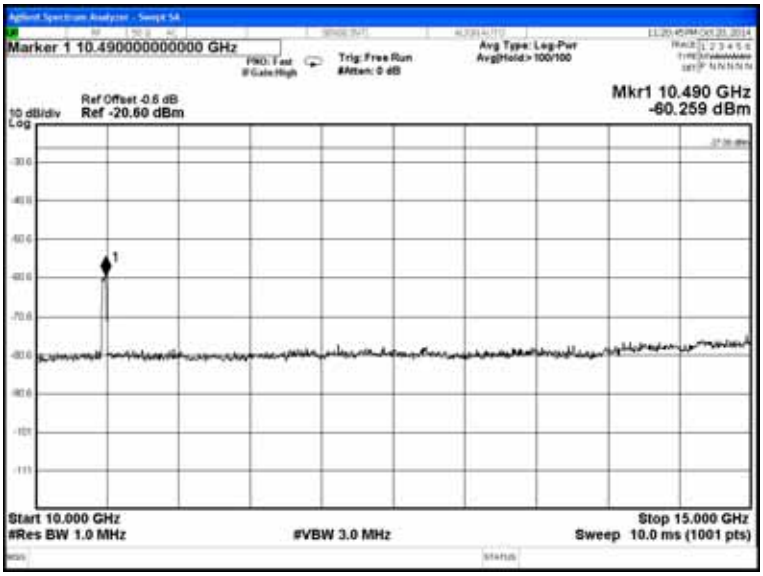

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.935000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.935 GHz
-68.027 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

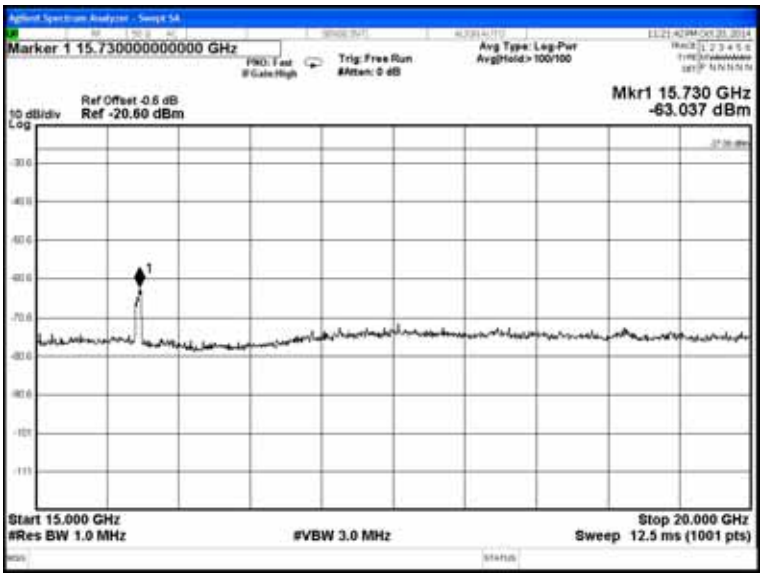

Agilent Spectrum Analyzer - Swept SA
Marker 1 38.699125000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 21/100
Mkr1 38.699 125 GHz
-45.724 dBm
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

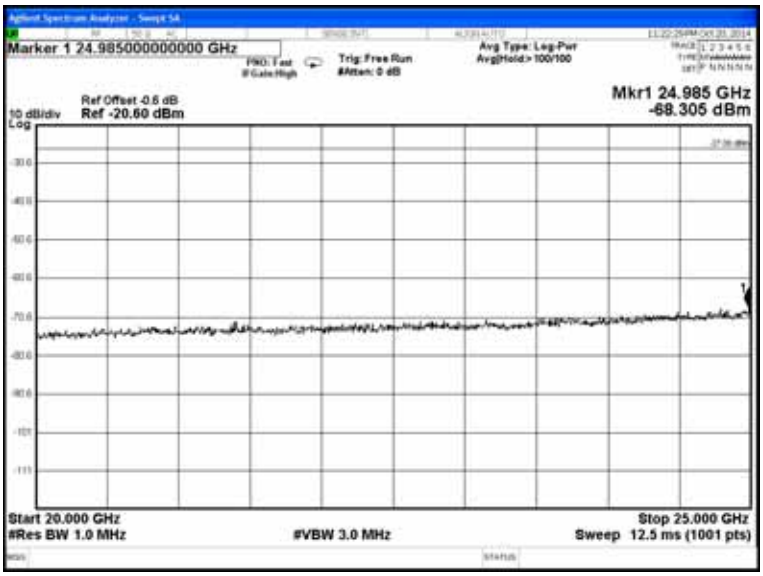
802.11n-HT20 (UNII Band I), Frequency: 5240MHz

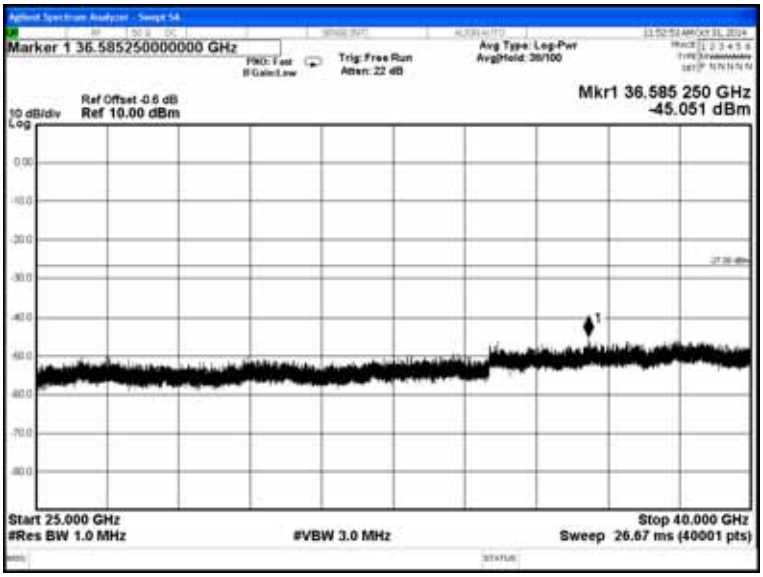




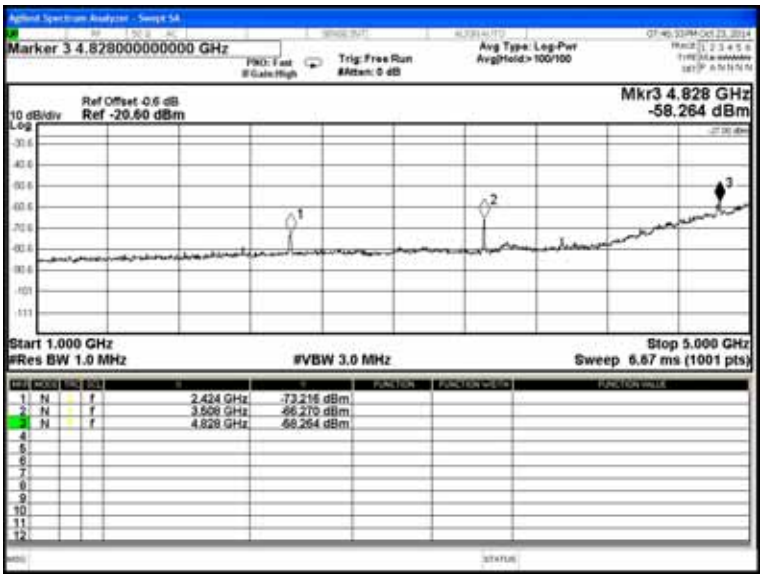


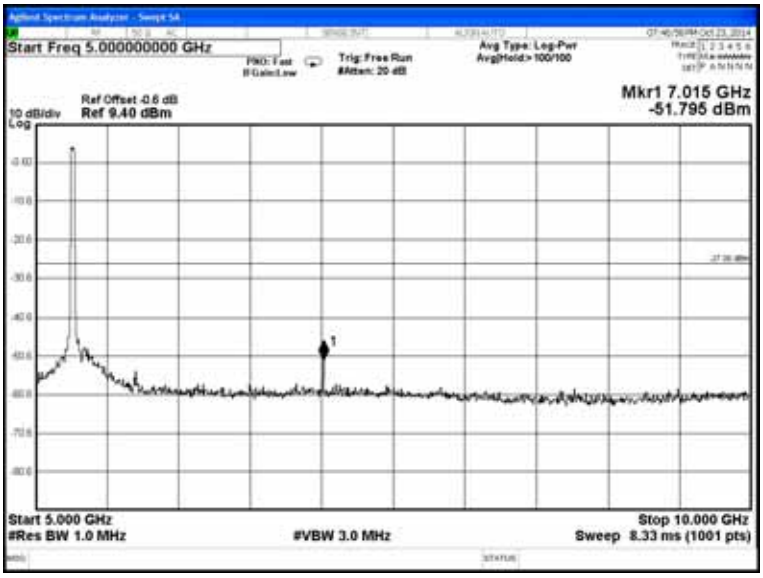

Agilent Spectrum Analyzer - Swept SA
Marker 1 15.730000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 15.730 GHz
-63.037 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

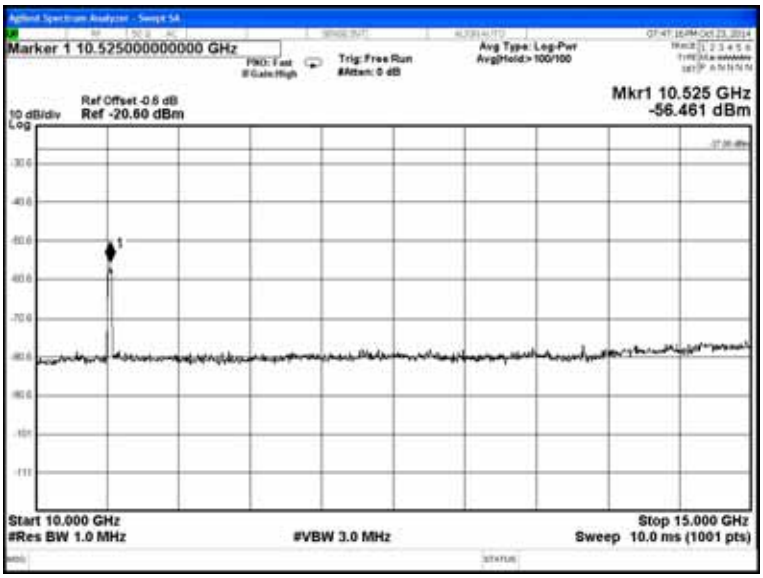

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.985000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.985 GHz
-68.305 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

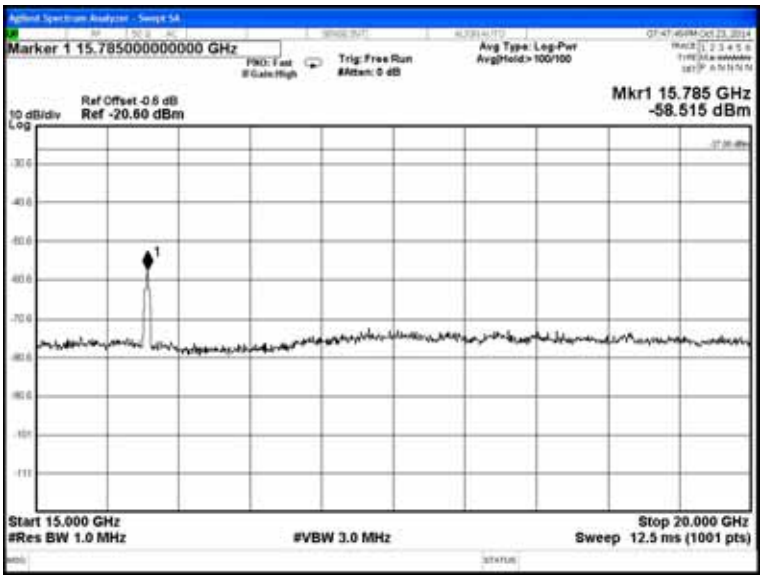

Agilent Spectrum Analyzer - Swept SA
Marker 1 36.585250000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 38/100
Mkr1 36.585 250 GHz
-45.051 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

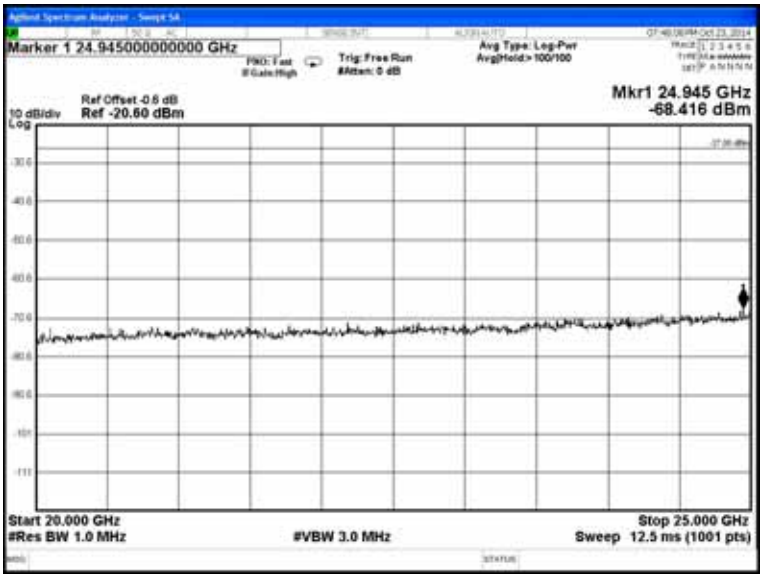
802.11n-HT20 (UNII Band II-2A), Frequency: 5260MHz

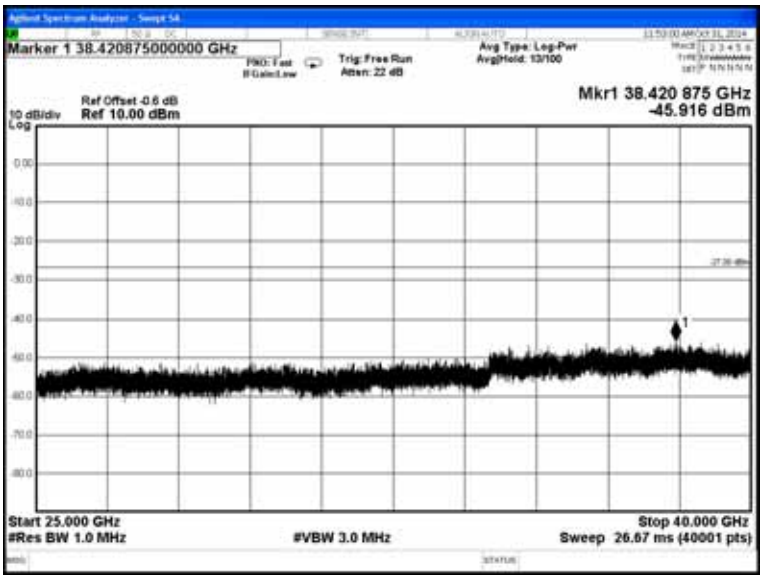




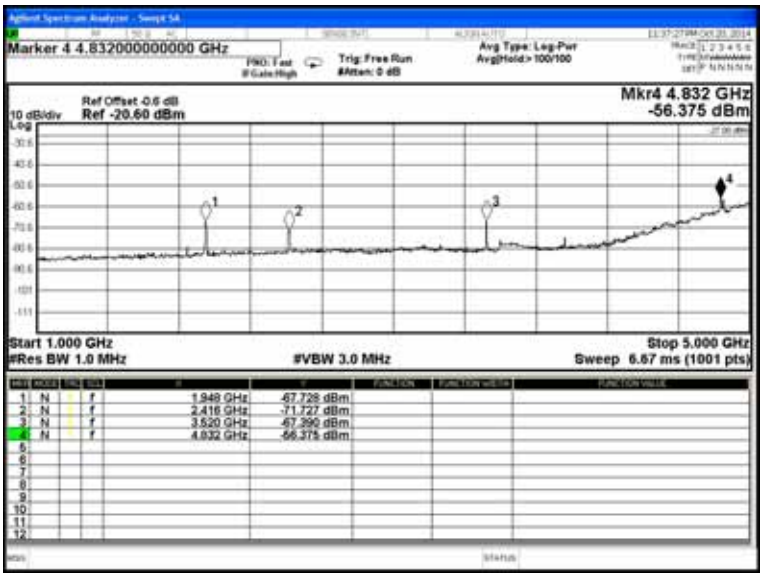


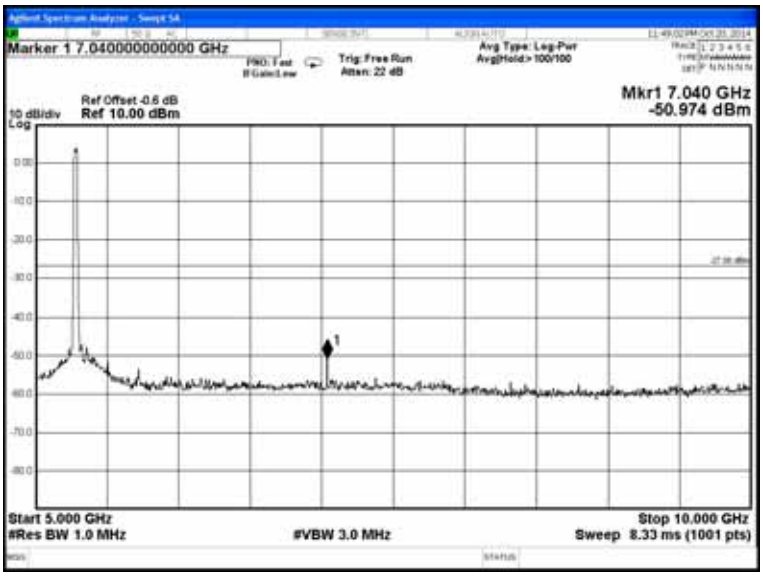

Agilent Spectrum Analyzer - Swept SA
Marker 1 15.785000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 15.785 GHz
-58.515 dBm
Ref Offset -0.6 dB
10 dB/div
Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

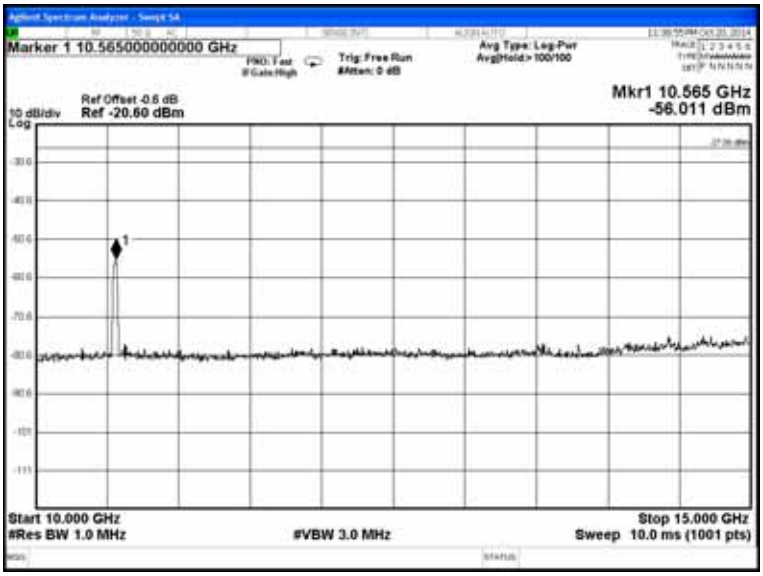

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.945000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.945 GHz
-68.416 dBm
Ref Offset -0.6 dB
10 dB/div
Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

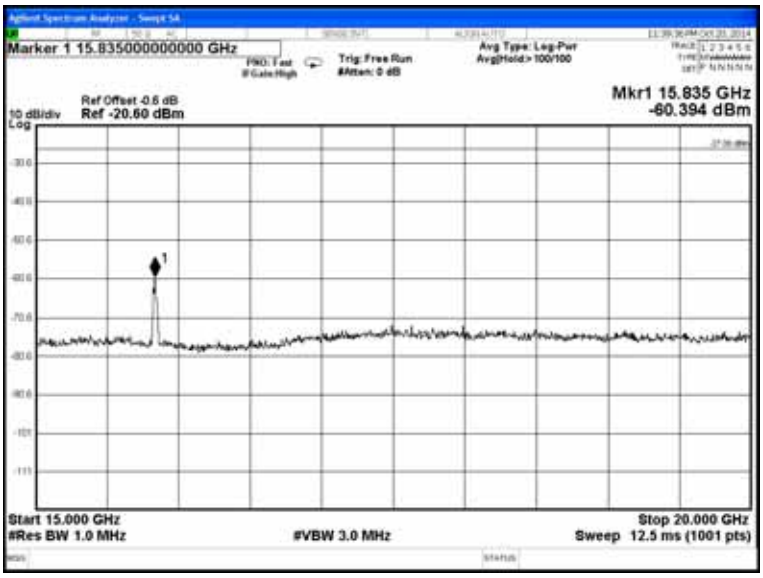

Agilent Spectrum Analyzer - Swept SA
Marker 1 38.420875000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 13/100
Mkr1 38.420 875 GHz
-45.916 dBm
Ref Offset -0.6 dB
10 dB/div
Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

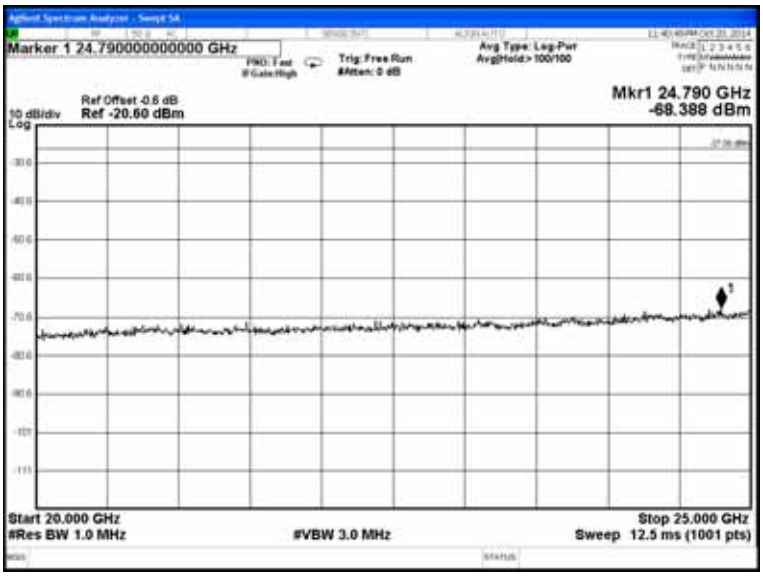
802.11n-HT20 (UNII Band II-2A), Frequency: 5280MHz

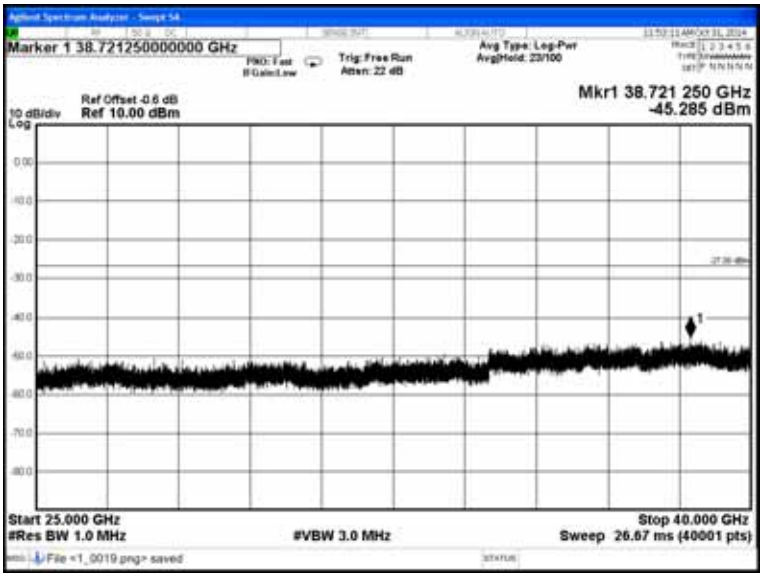




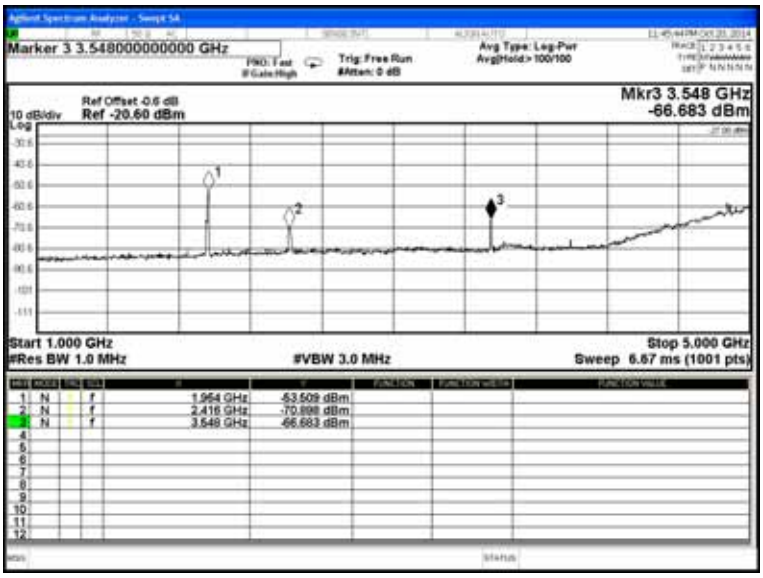


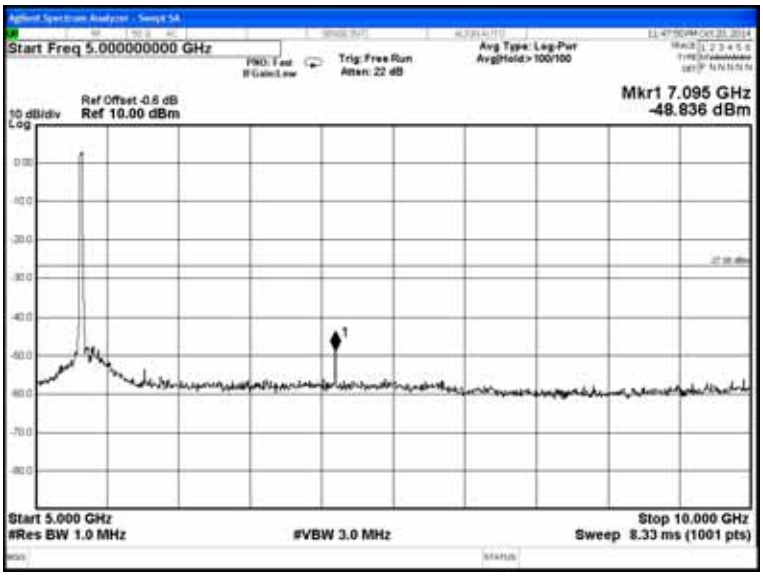

Marker 1 15.835000000000 GHz
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 15.835 GHz
-60.394 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

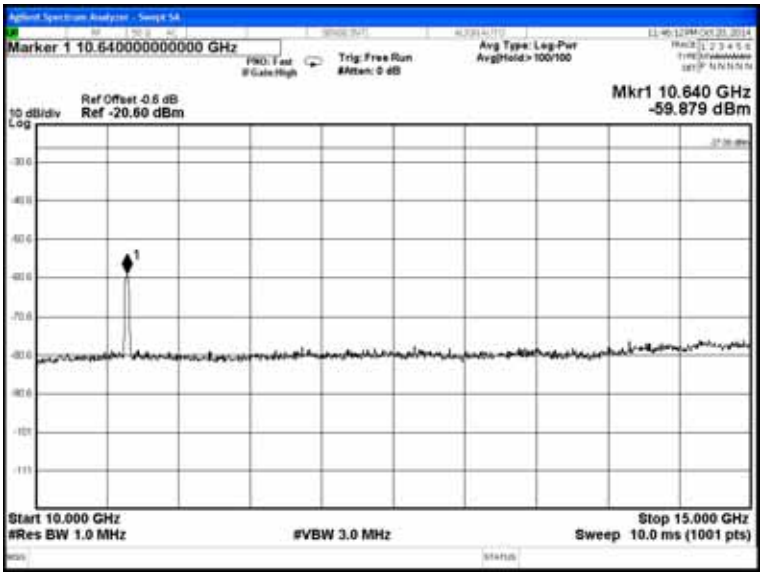

Marker 1 24.790000000000 GHz
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.790 GHz
-68.388 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

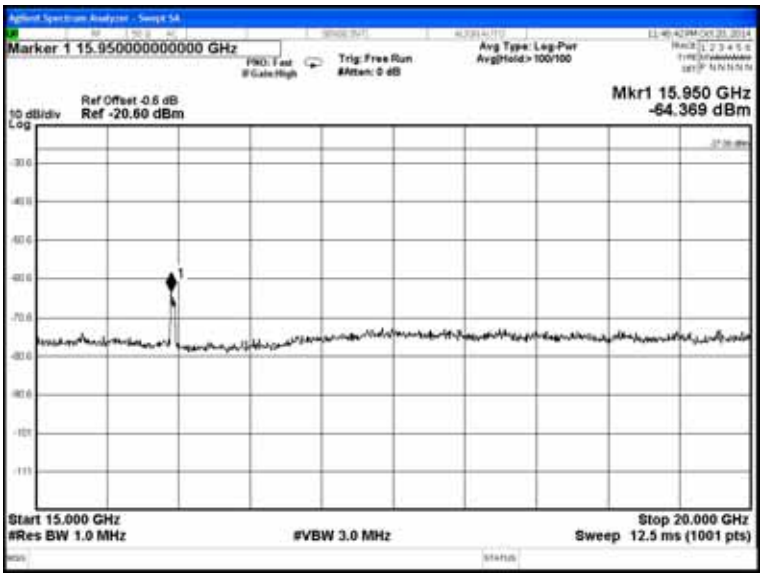

Marker 1 38.721250000000 GHz
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 23/100
Mkr1 38.721 250 GHz
-45.285 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

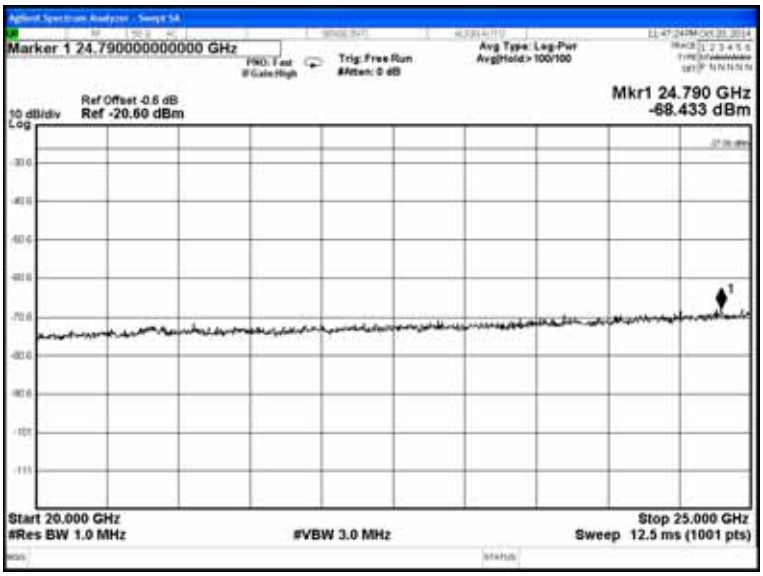
802.11n-HT20 (UNII Band II-2A), Frequency: 5320MHz

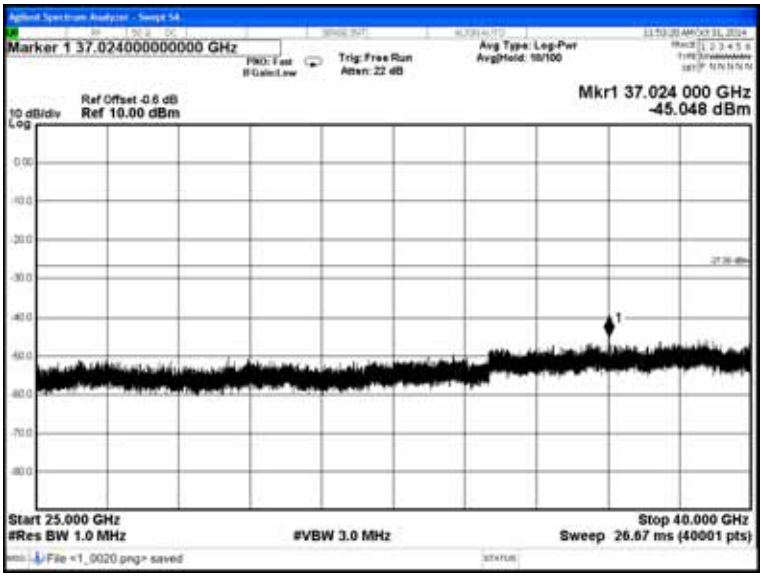




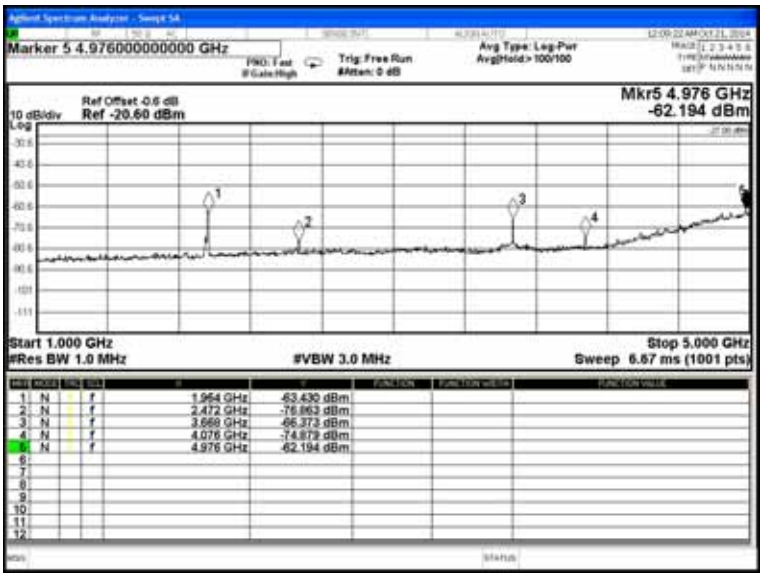


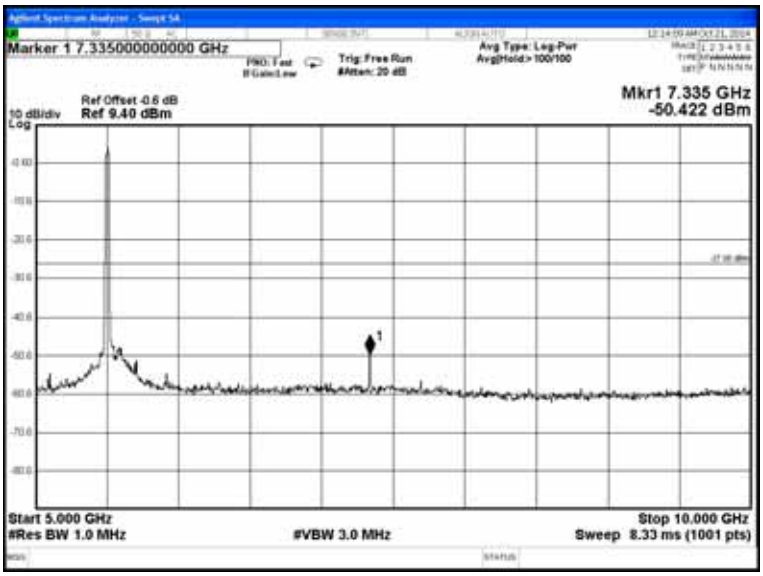

Agilent Spectrum Analyzer - Swept SA
Marker 1 15.950000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 15.950 GHz
-64.369 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

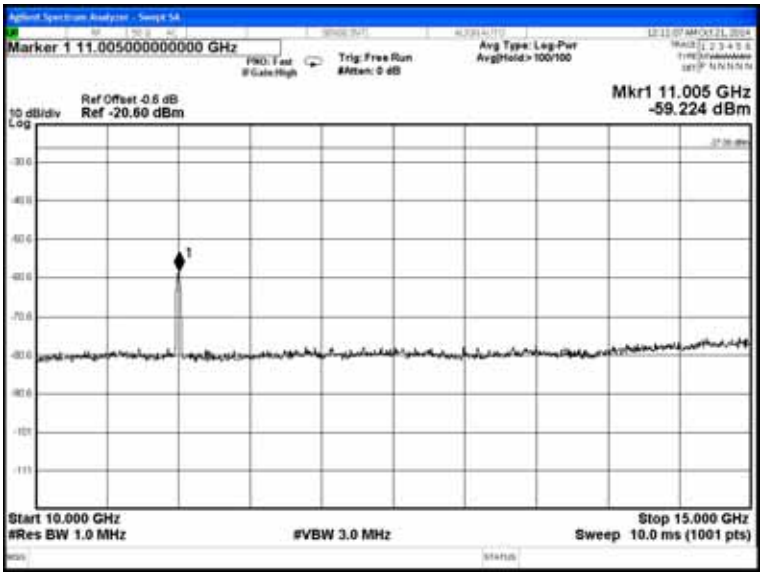

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.790000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.790 GHz
-68.433 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

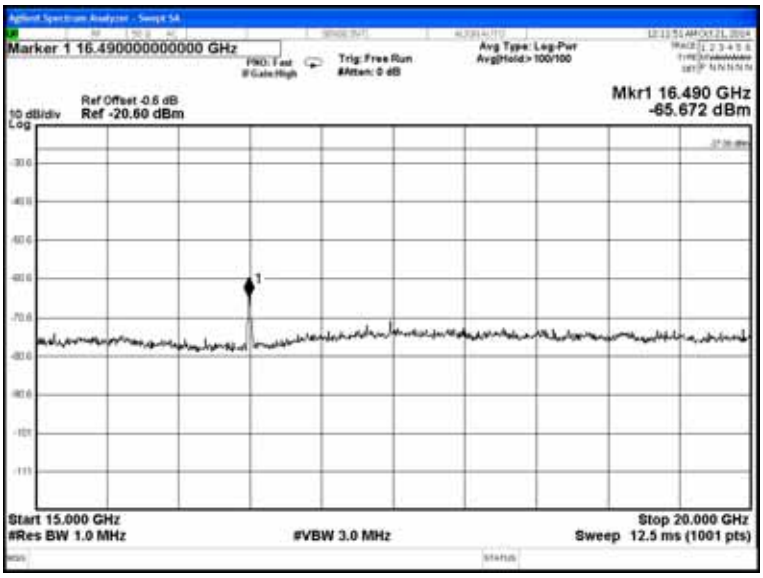

Agilent Spectrum Analyzer - Swept SA
Marker 1 37.024000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 10/100
Mkr1 37.024 000 GHz
-45.048 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)
File <1_0020.png> saved

802.11n-HT20 (UNII Band II-2C), Frequency: 5500MHz

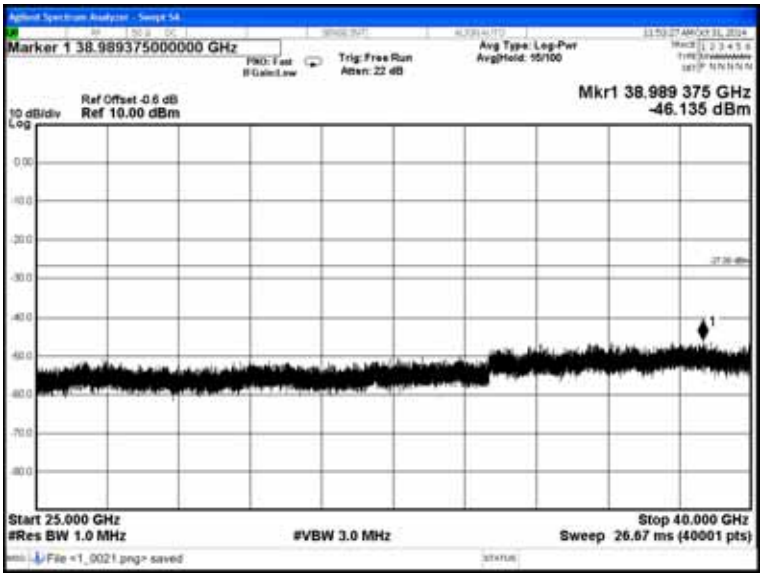




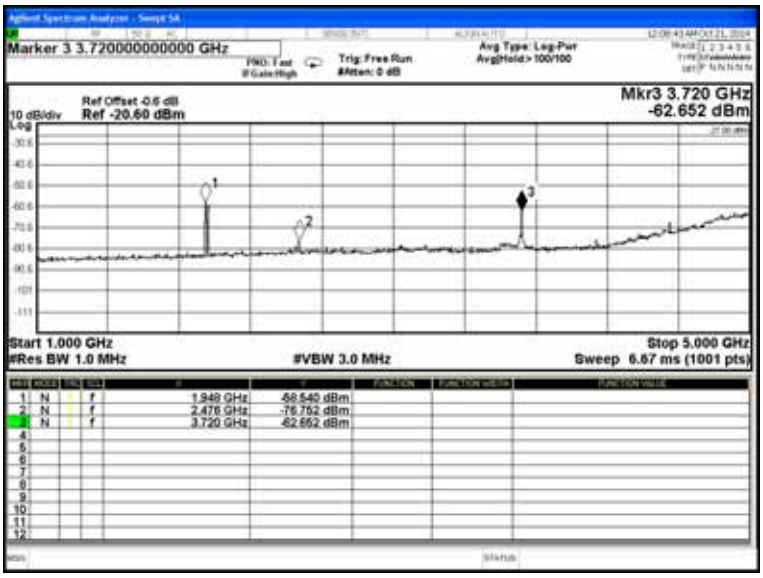


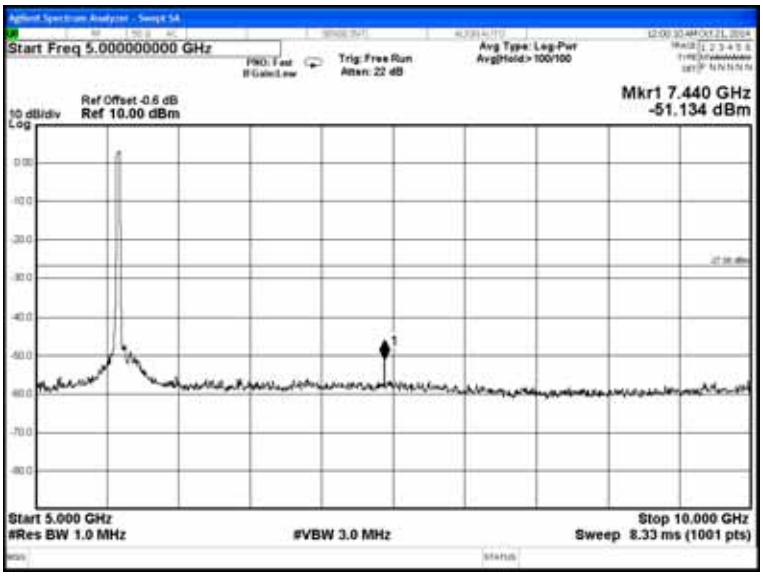

Agilent Spectrum Analyzer - Swept SA
Marker 1 16.490000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 16.490 GHz
-65.672 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

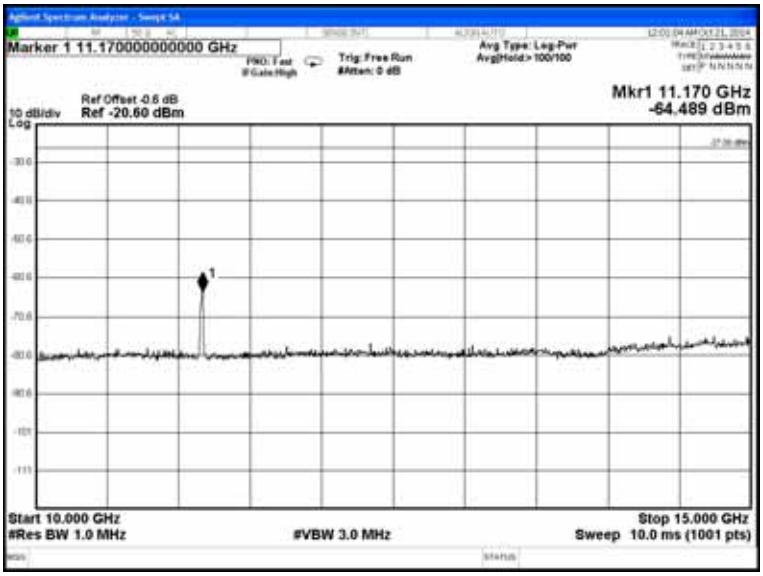
Agilent Spectrum Analyzer - Swept SA
Marker 1 24.820000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.820 GHz
-68.480 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

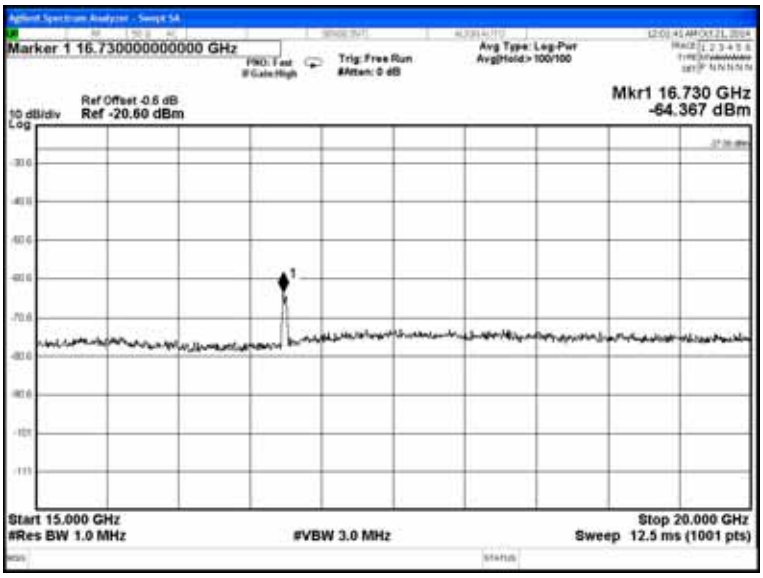

Agilent Spectrum Analyzer - Swept SA
Marker 1 38.989375000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 16/100
Mkr1 38.989 375 GHz
-46.135 dBm
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)
File <1_0021.png> saved

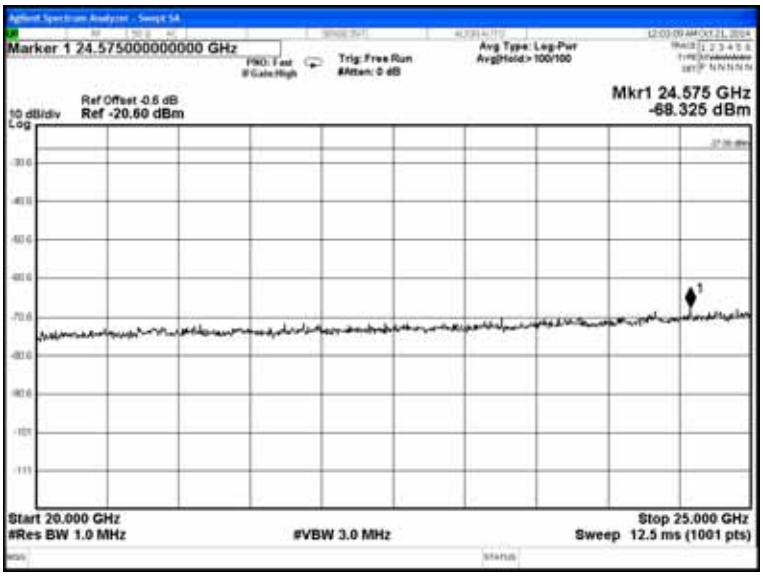
802.11n-HT20 (UNII Band II-2C), Frequency: 5580MHz

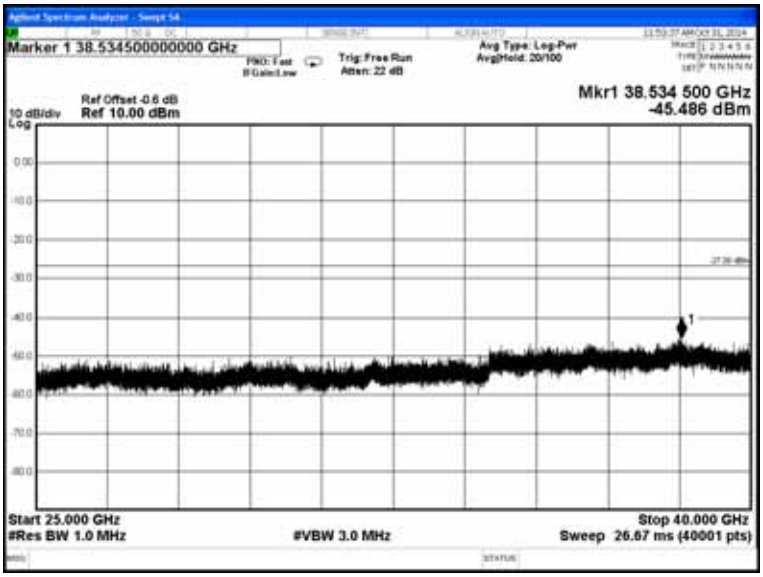




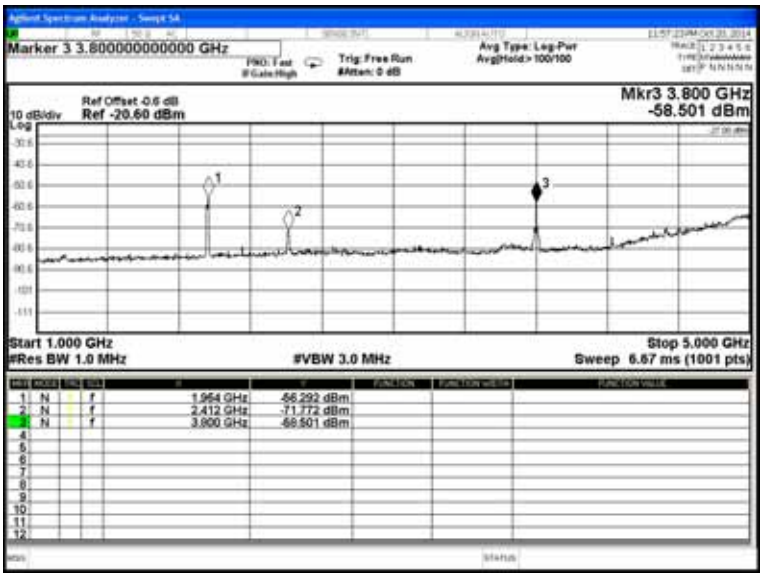


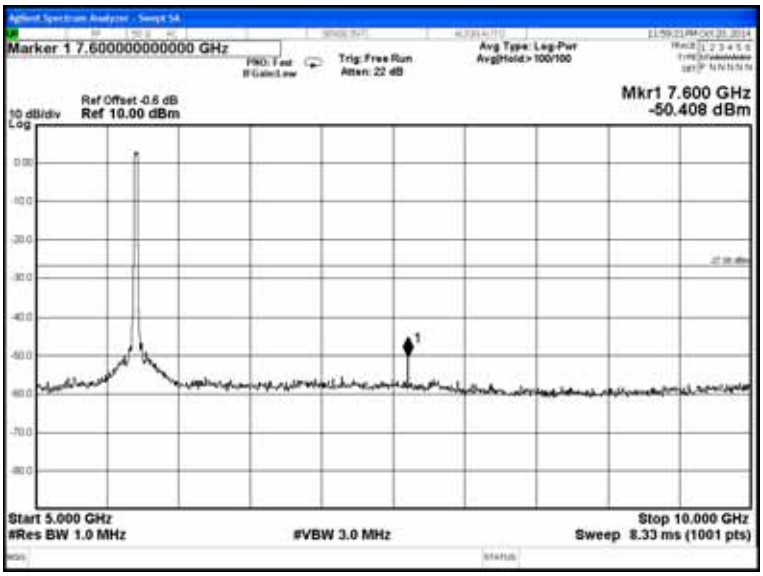

Agilent Spectrum Analyzer - Swept SA
Marker 1 16.730000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 16.730 GHz
-64.367 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

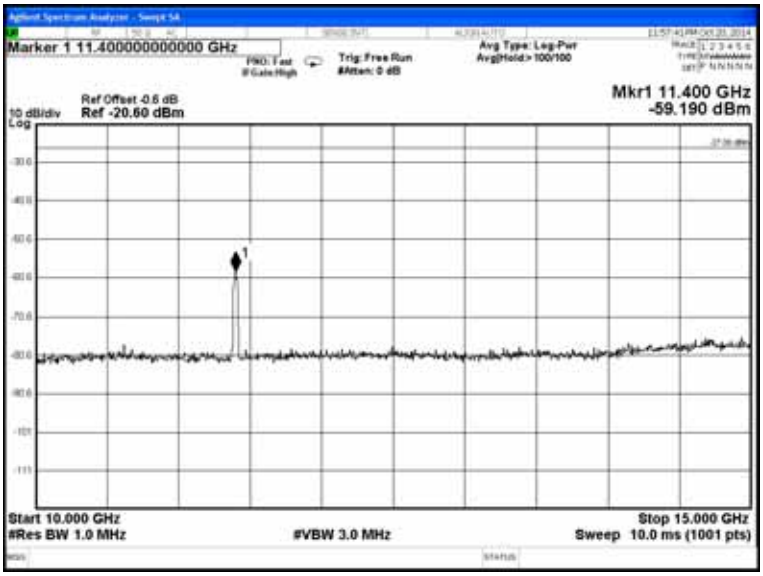

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.575000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.575 GHz
-68.325 dBm
Ref Offset -0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

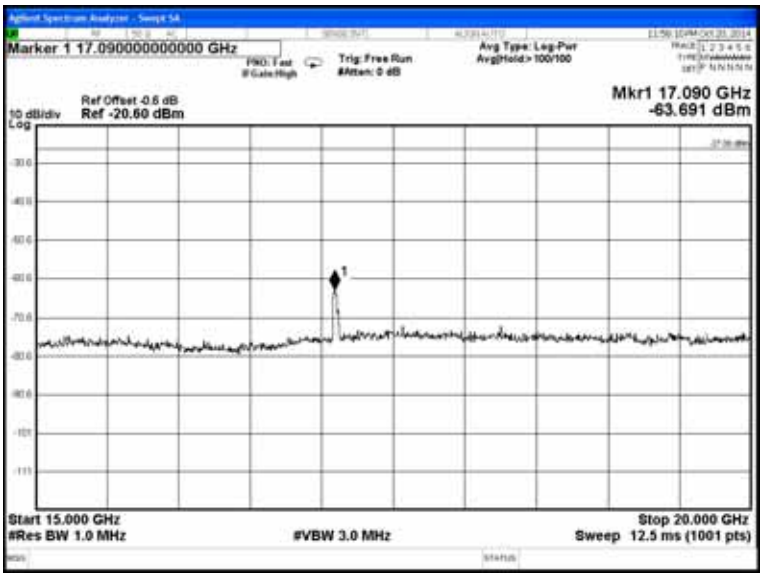

Agilent Spectrum Analyzer - Swept SA
Marker 1 38.534500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 20/100
Mkr1 38.534 500 GHz
-45.486 dBm
Ref Offset -0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

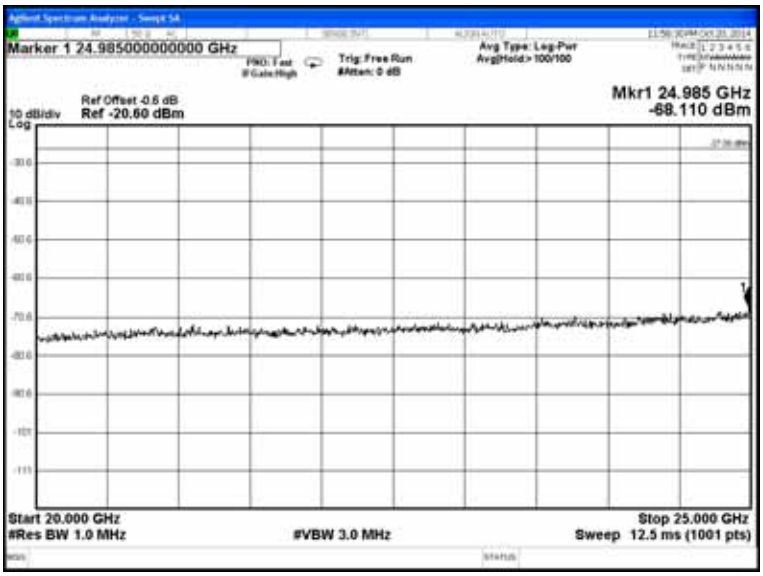
802.11n-HT20 (UNII Band II-2C), Frequency: 5700MHz

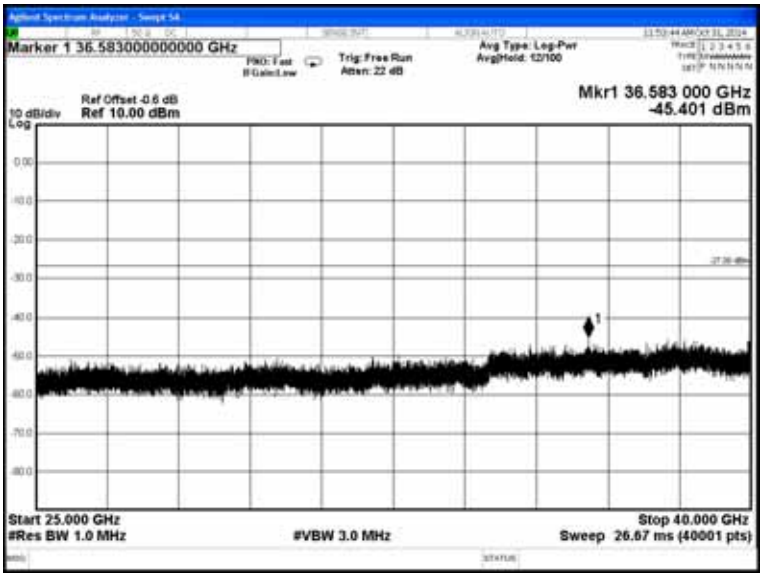




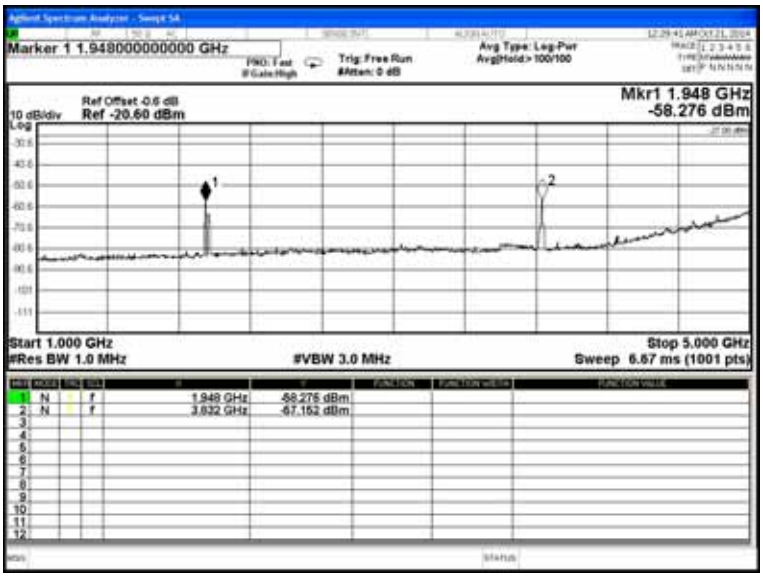


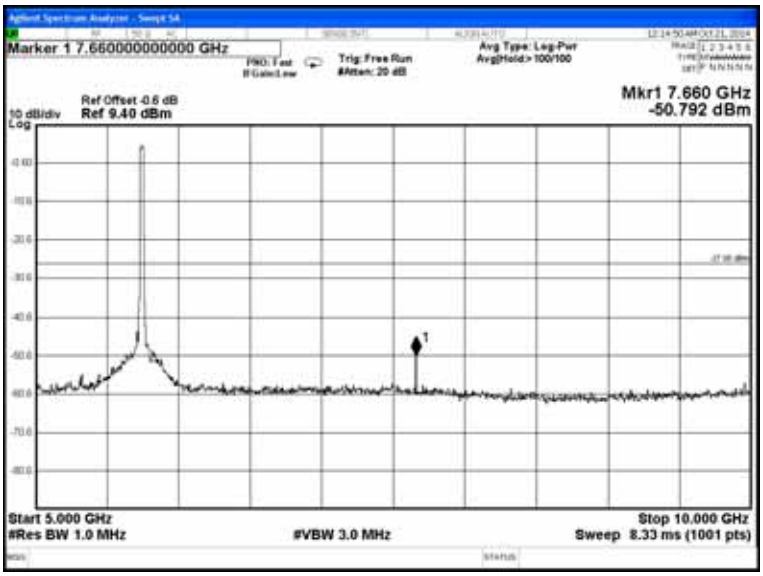

Agilent Spectrum Analyzer - Swept SA
Marker 1 17.090000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 17.090 GHz
-63.691 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

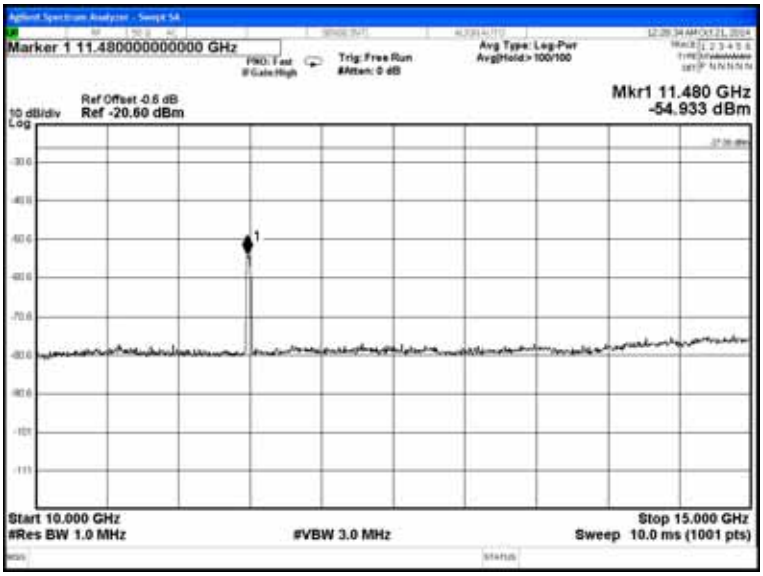

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.985000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.985 GHz
-68.110 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

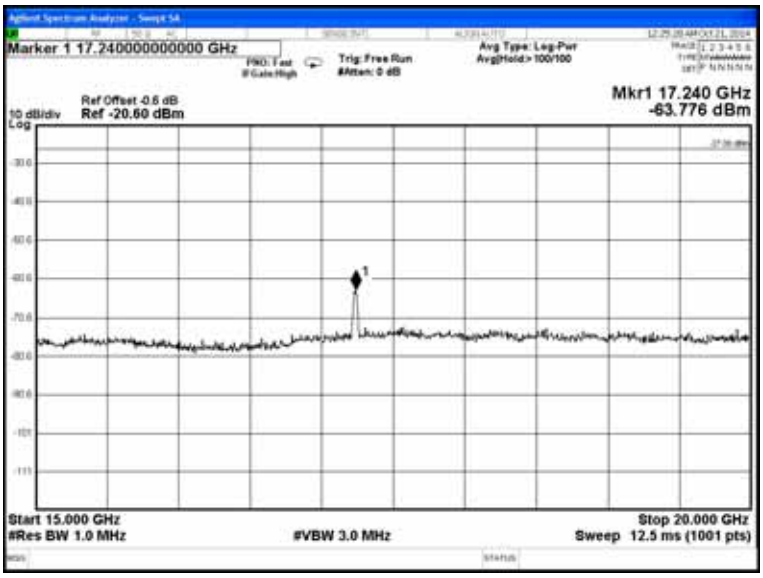

Agilent Spectrum Analyzer - Swept SA
Marker 1 36.583000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 12/100
Mkr1 36.583 000 GHz
-45.401 dBm
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

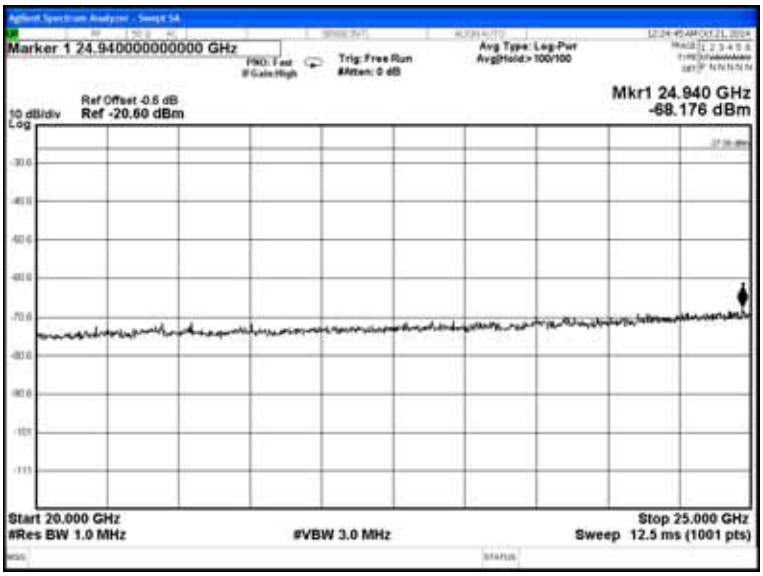
802.11n-HT20 (UNII Band III), Frequency: 5745MHz

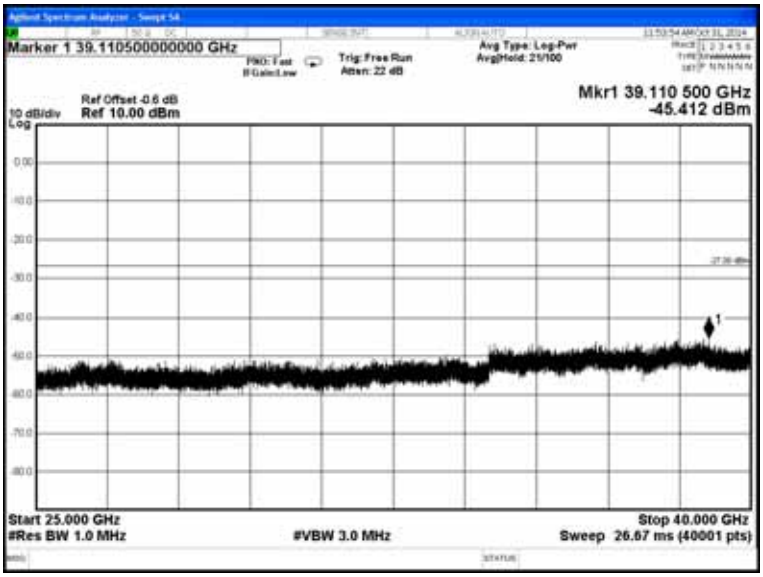




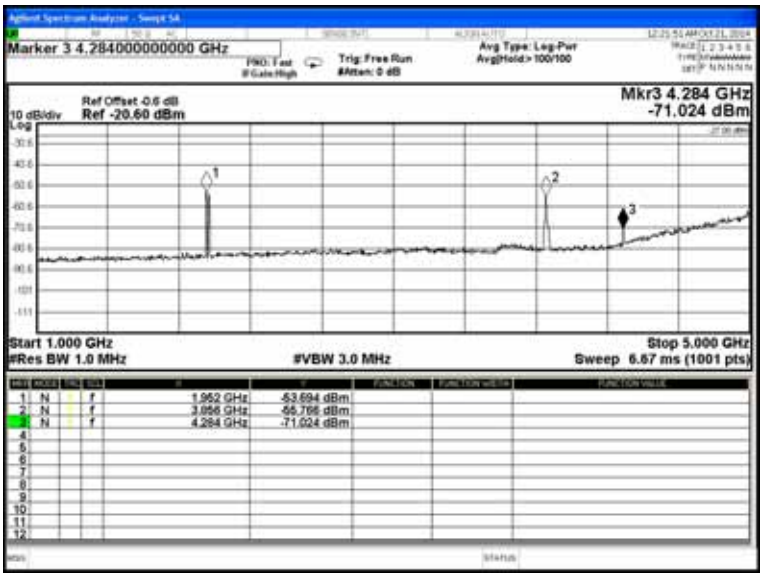


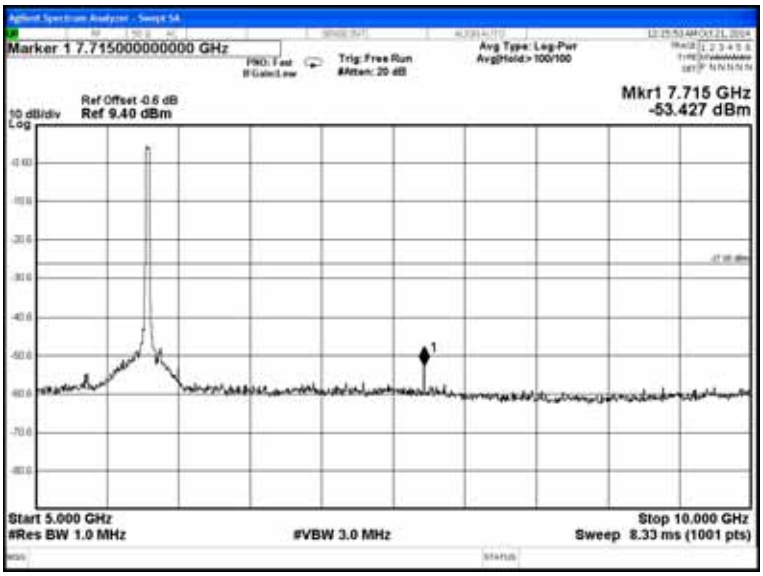

Agilent Spectrum Analyzer - Swept SA
Marker 1 17.240000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 17.240 GHz
-63.776 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

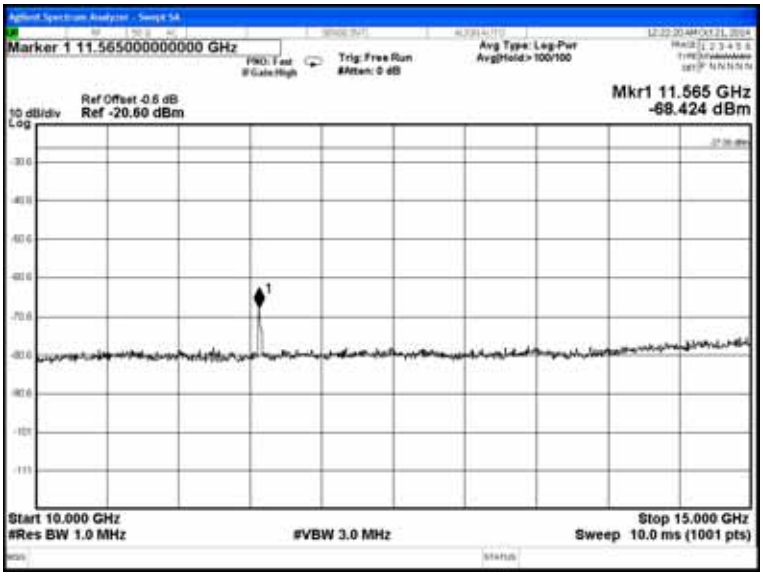

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.940000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.940 GHz
-68.176 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

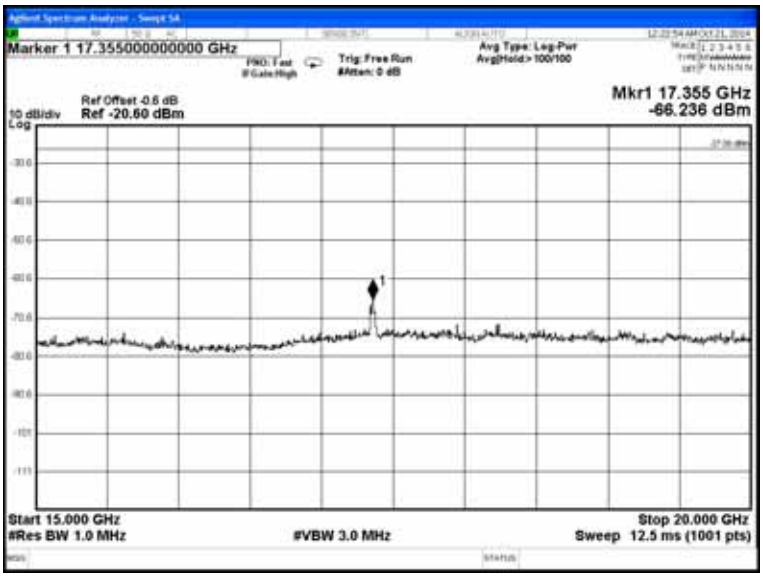

Agilent Spectrum Analyzer - Swept SA
Marker 1 39.110500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 21/100
Mkr1 39.110 500 GHz
-45.412 dBm
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

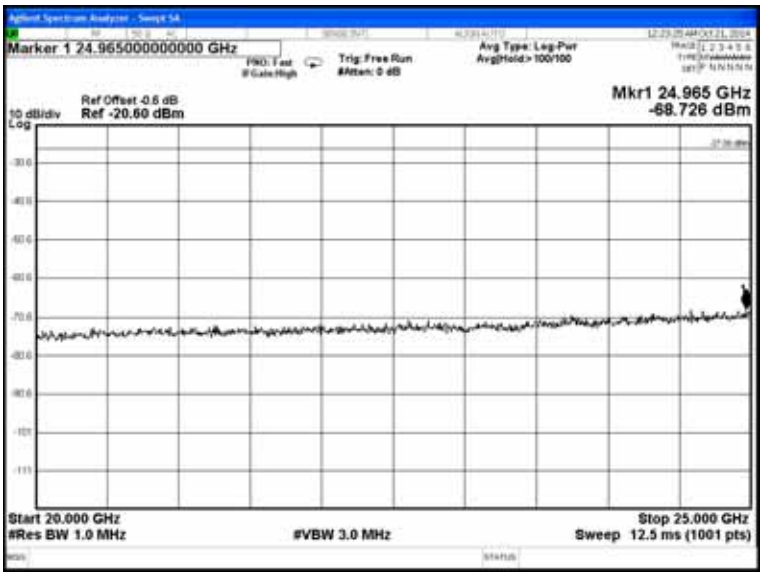
802.11n-HT20 (UNII Band III), Frequency: 5785MHz

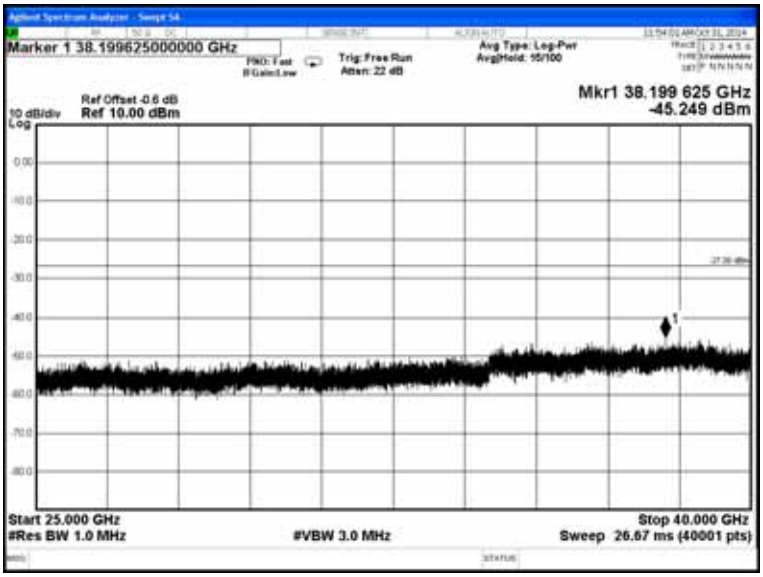




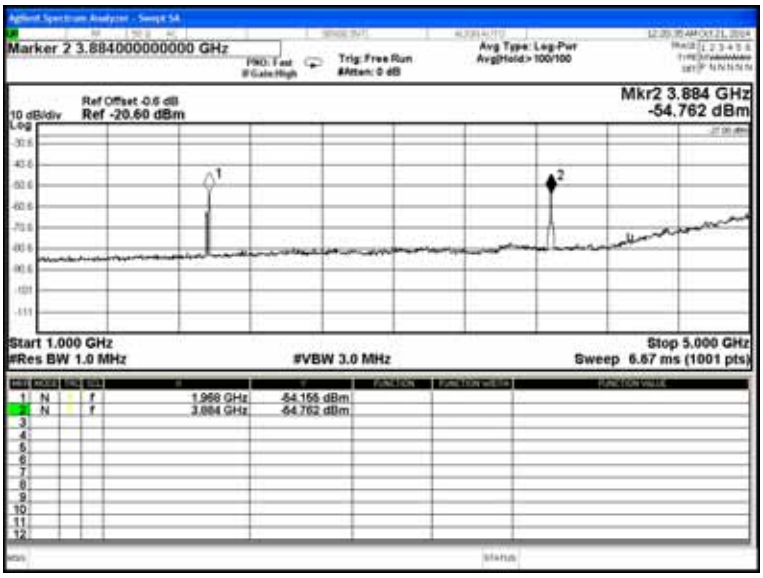


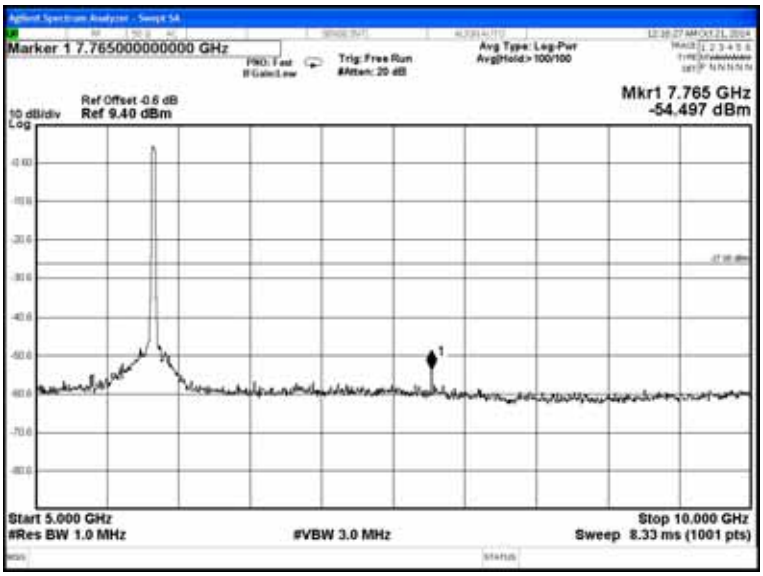

Agilent Spectrum Analyzer - Swept SA
Marker 1 17.355000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 17.355 GHz
-66.236 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)

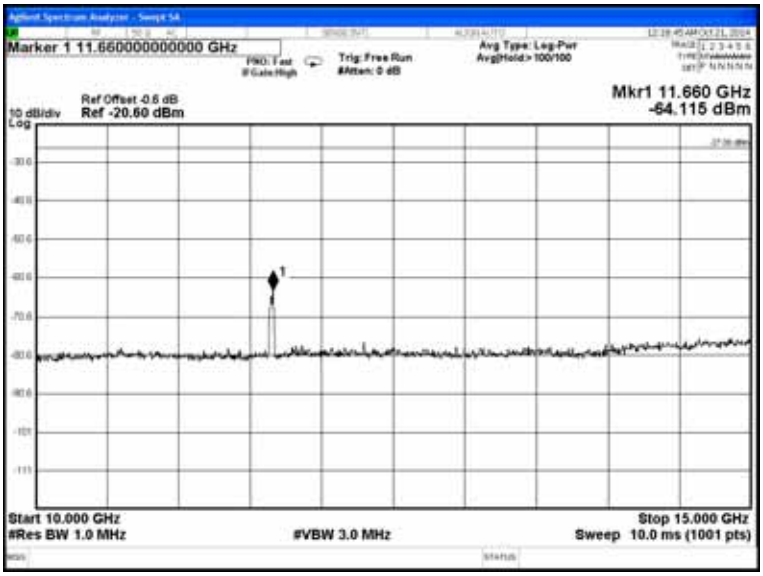

Agilent Spectrum Analyzer - Swept SA
Marker 1 24.965000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.965 GHz
-68.726 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)

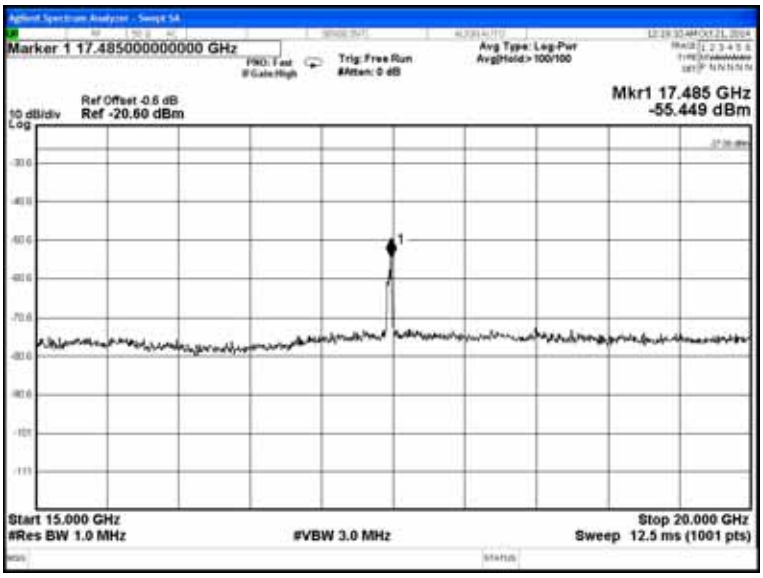

Agilent Spectrum Analyzer - Swept SA
Marker 1 38.199625000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 10/100
Mkr1 38.199 625 GHz
-45.249 dBm
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)

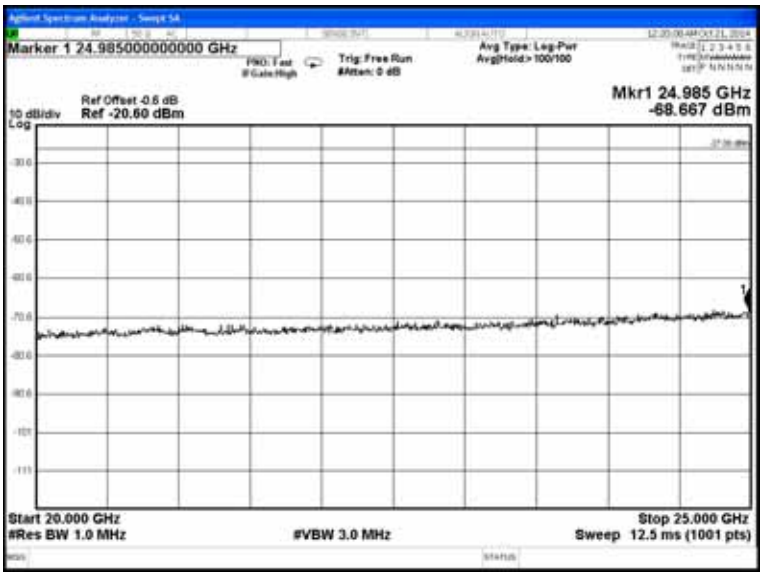
802.11n-HT20 (UNII Band III), Frequency: 5825MHz

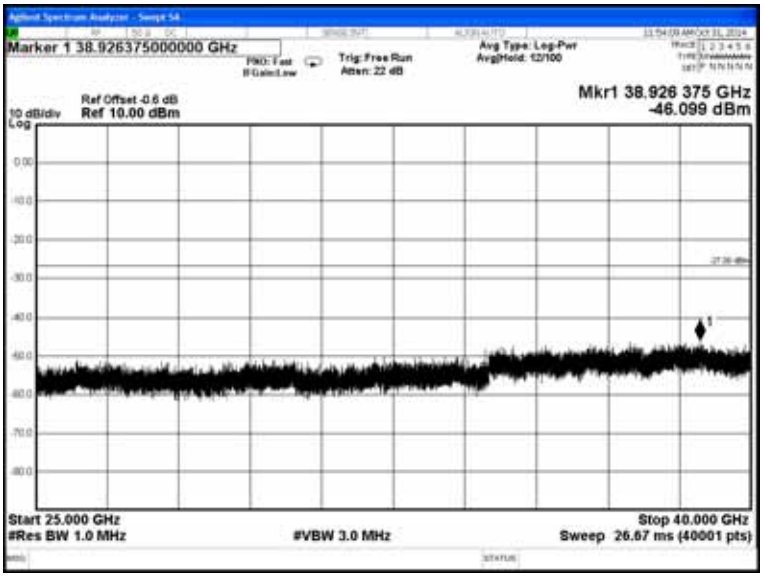







Agilent Spectrum Analyzer - Swept SA
Marker 1 17.485000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 17.485 GHz
-55.449 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 15.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 20.000 GHz
Sweep 12.5 ms (1001 pts)


Agilent Spectrum Analyzer - Swept SA
Marker 1 24.985000000000 GHz
PNO: Fast
IFGain:High
Trig: Free Run
#Atten: 0 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 24.985 GHz
-68.667 dBm
Ref Offset 0.6 dB
10 dB/div Ref -20.60 dBm
Log
Start 20.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 25.000 GHz
Sweep 12.5 ms (1001 pts)


Agilent Spectrum Analyzer - Swept SA
Marker 1 38.926375000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 22 dB
Avg Type: Log-Pwr
Avg|Hold: 12/100
Mkr1 38.926 375 GHz
-46.099 dBm
Ref Offset 0.6 dB
10 dB/div Ref 10.00 dBm
Log
Start 25.000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 40.000 GHz
Sweep 26.67 ms (40001 pts)