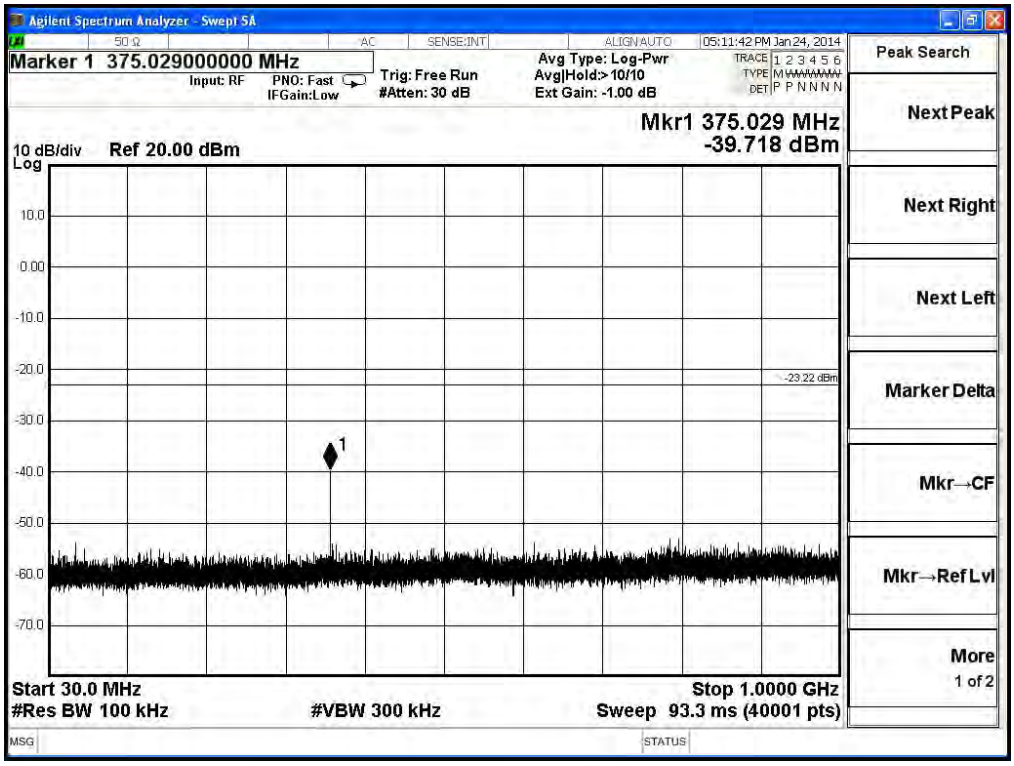
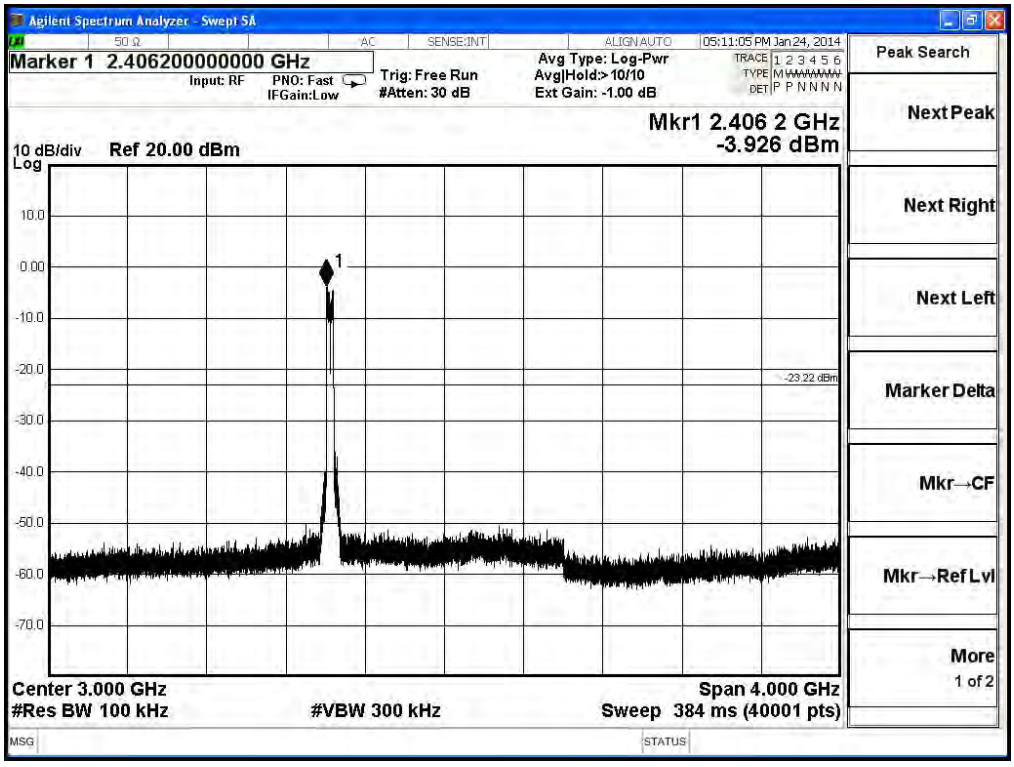
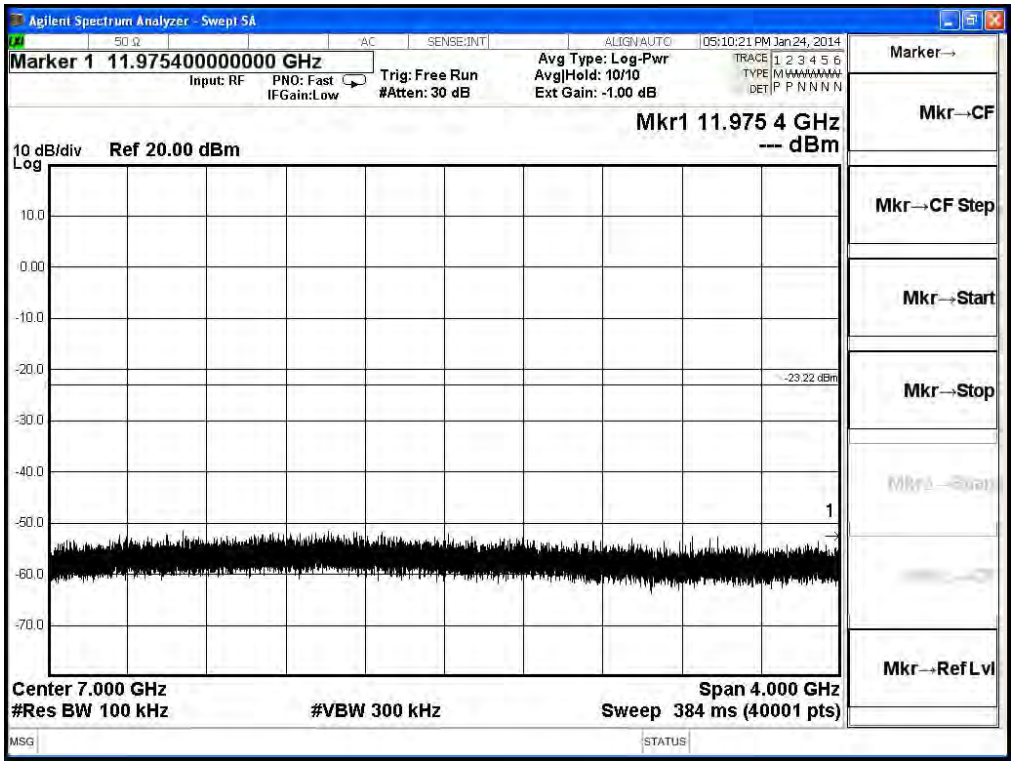
2422MHz (30MHz-1GHz)-802.11n(40MHz) (Ant 0)



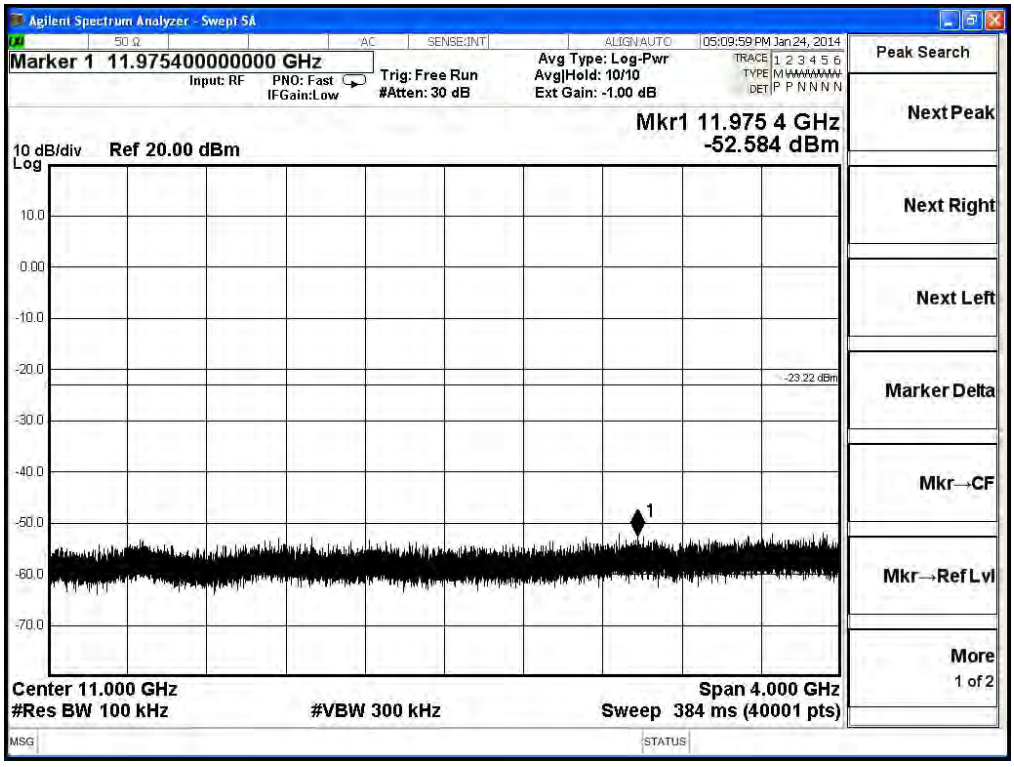
2422MHz (1GHz-5GHz) -802.11n(40MHz) (Ant 0)



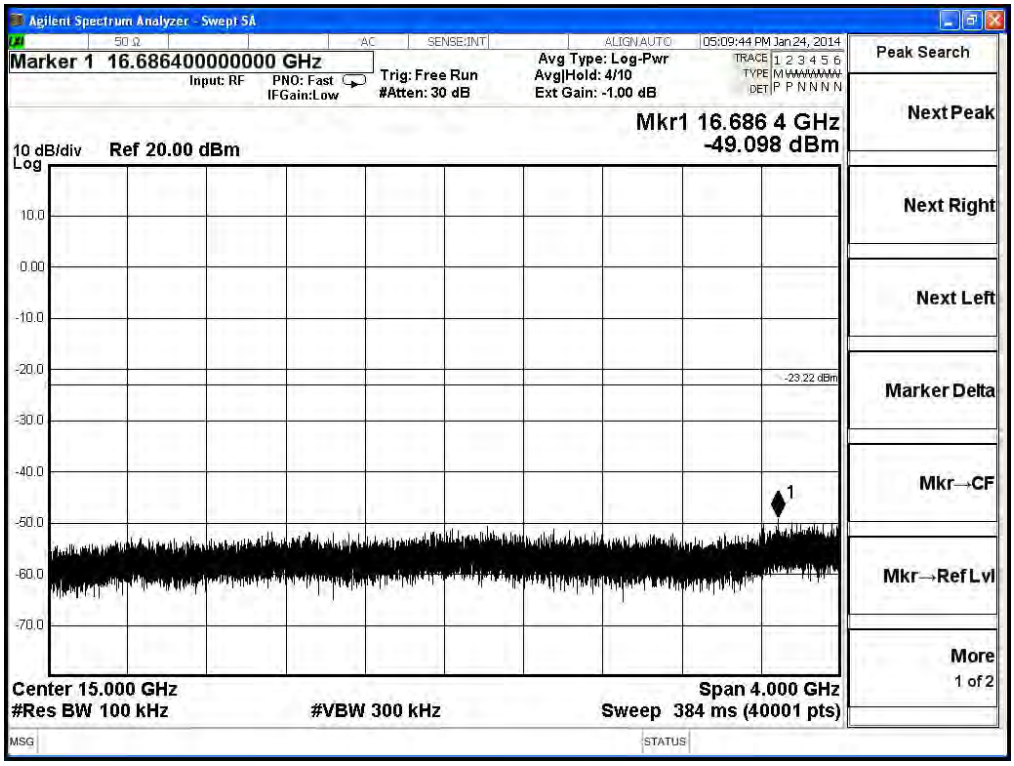
2422MHz (5GHz-9GHz)-802.11n(40MHz) (Ant 0)



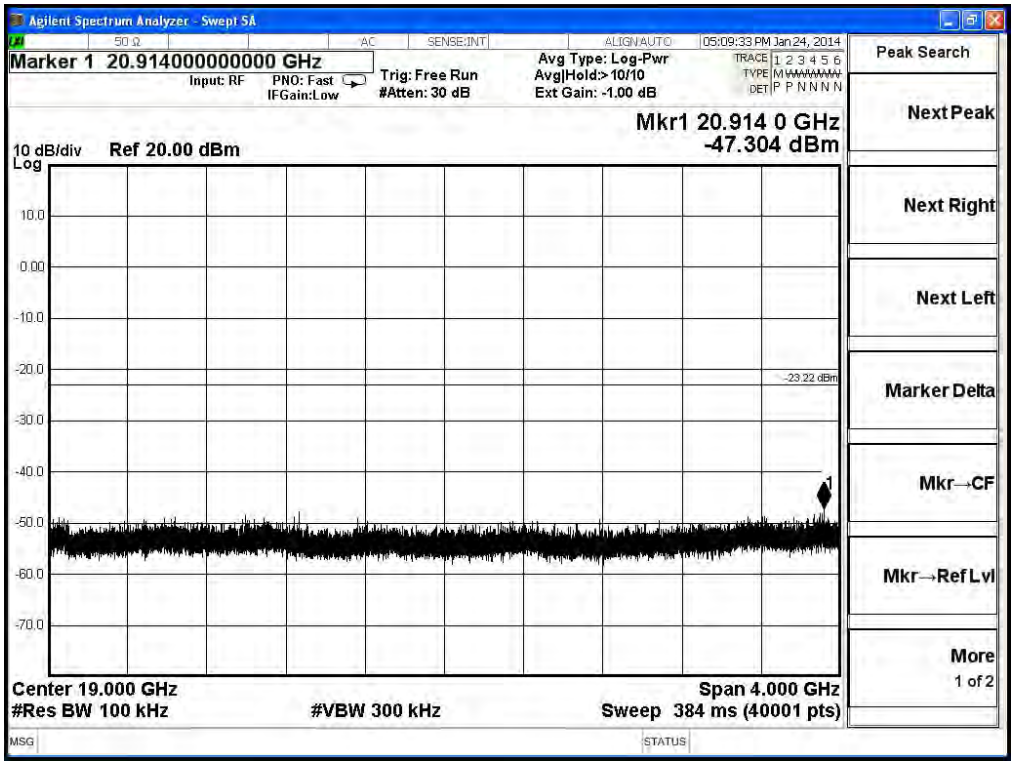
2422MHz (9GHz-13GHz) -802.11n(40MHz) (Ant 0)



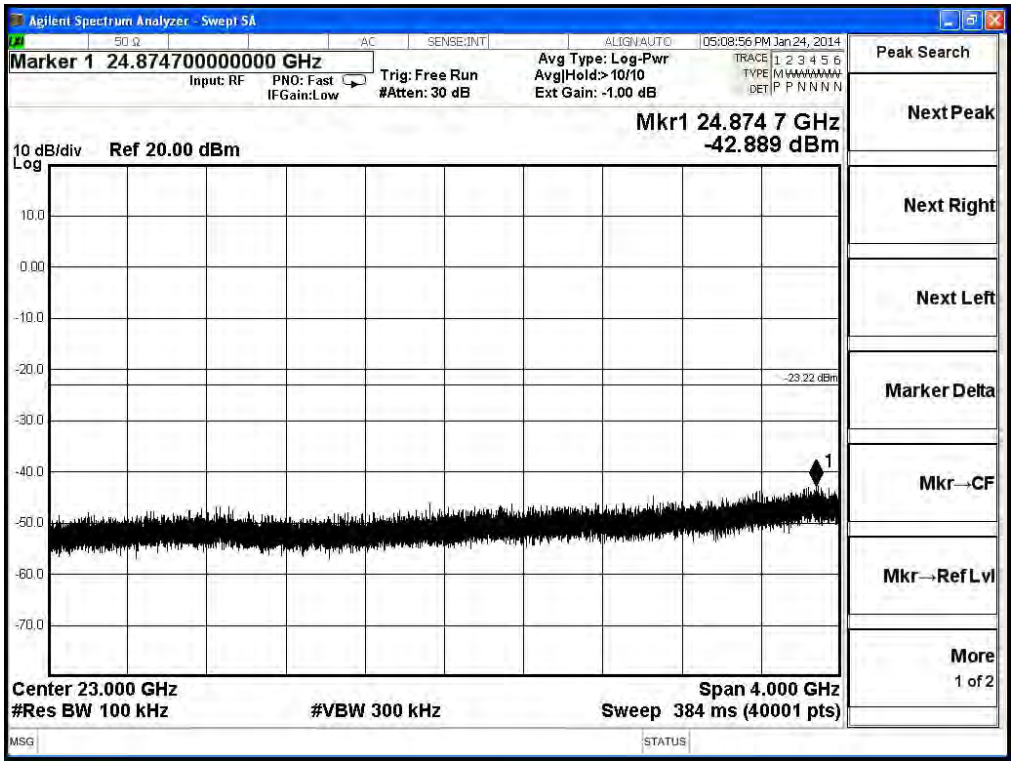
2422MHz (13GHz-17GHz)-802.11n(40MHz) (Ant 0)



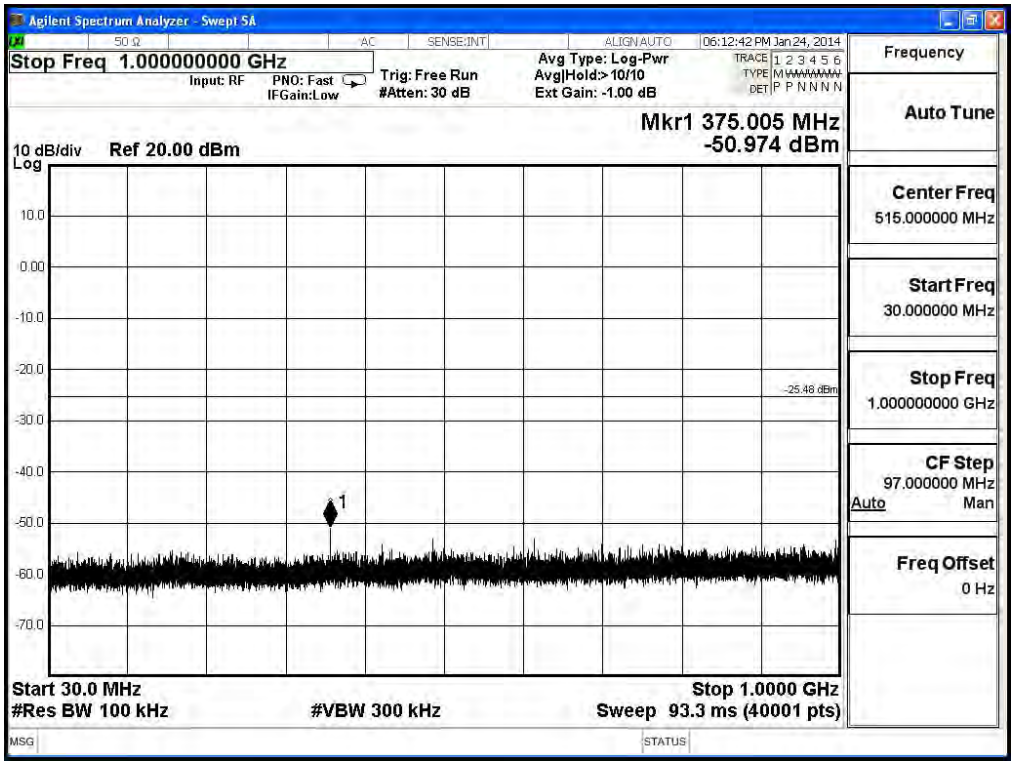
2422MHz (17GHz-21GHz) -802.11n(40MHz) (Ant 0)



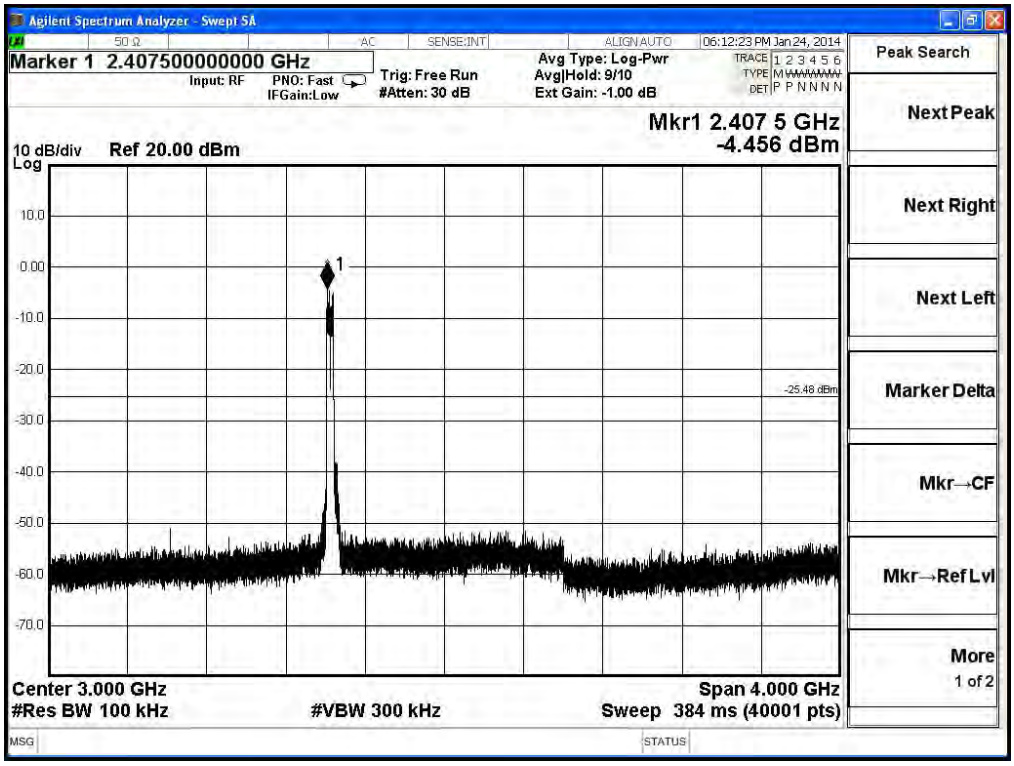
2422MHz (21GHz-25GHz)-802.11n(40MHz) (Ant 0)



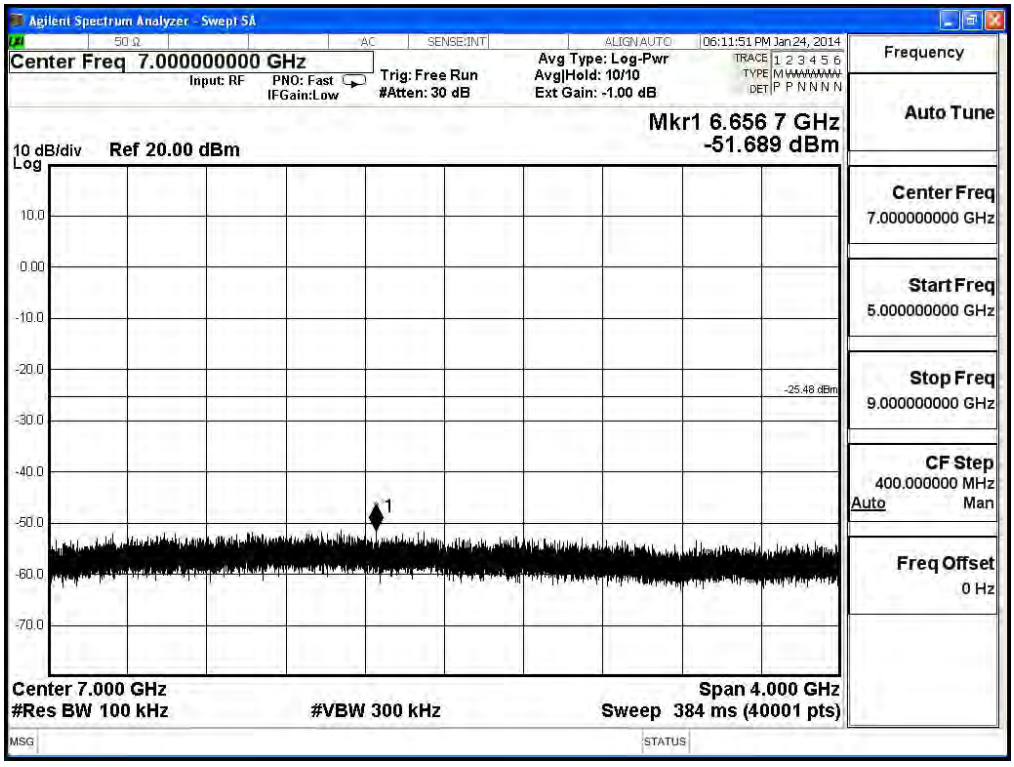
2422MHz (30MHz-1GHz)-802.11n(40MHz) (Ant 1)



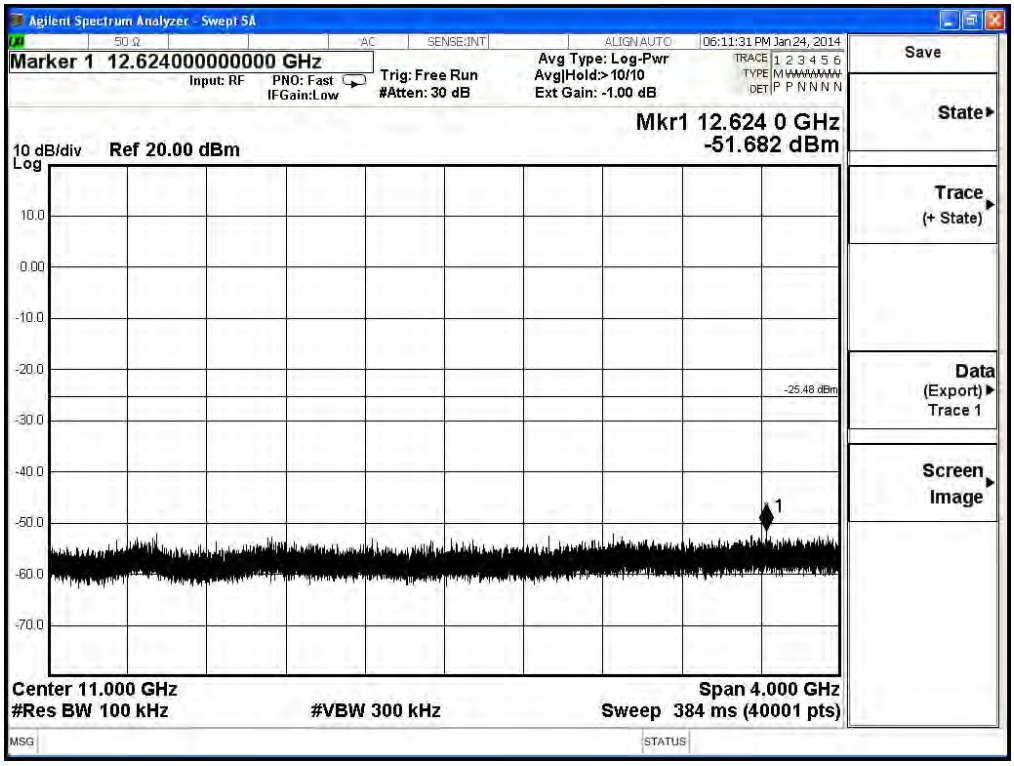
2422MHz (1GHz-5GHz) -802.11n(40MHz) (Ant 1)



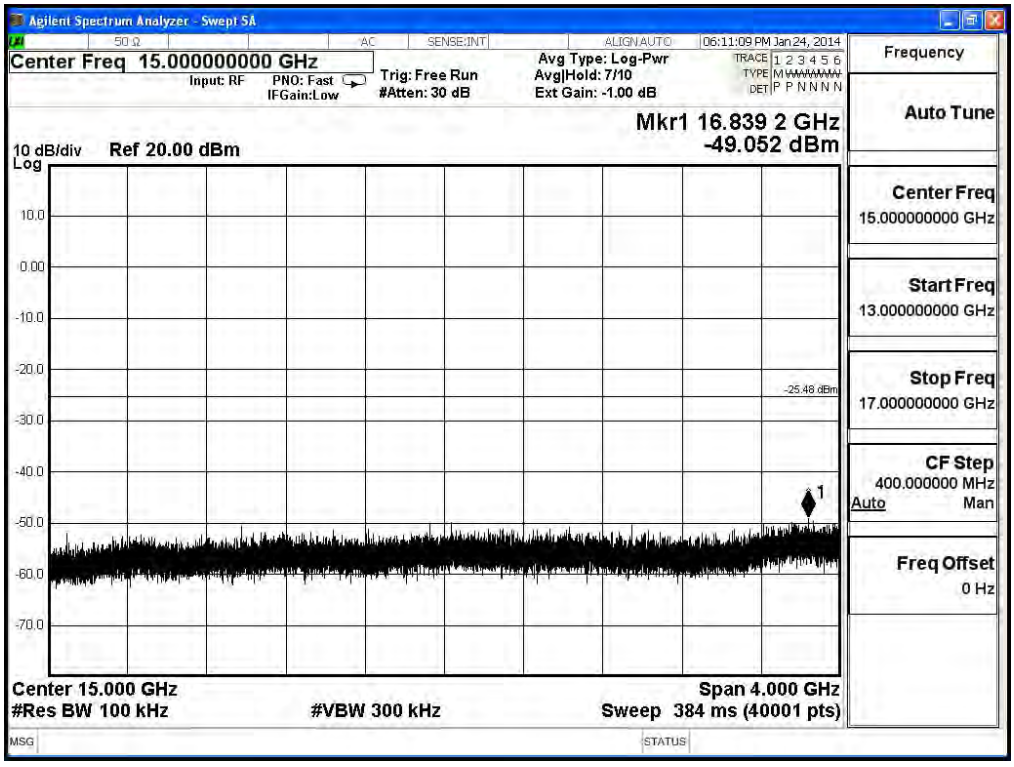
2422MHz (5GHz-9GHz)-802.11n(40MHz) (Ant 1)



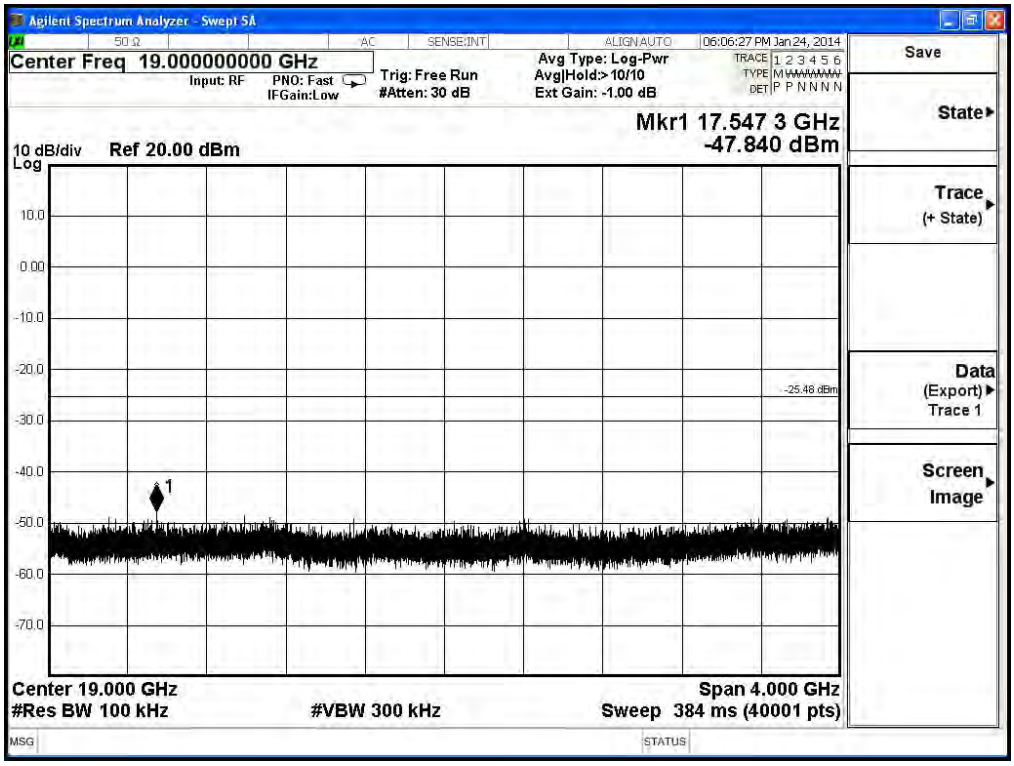
2422MHz (9GHz-13GHz) -802.11n(40MHz) (Ant 1)



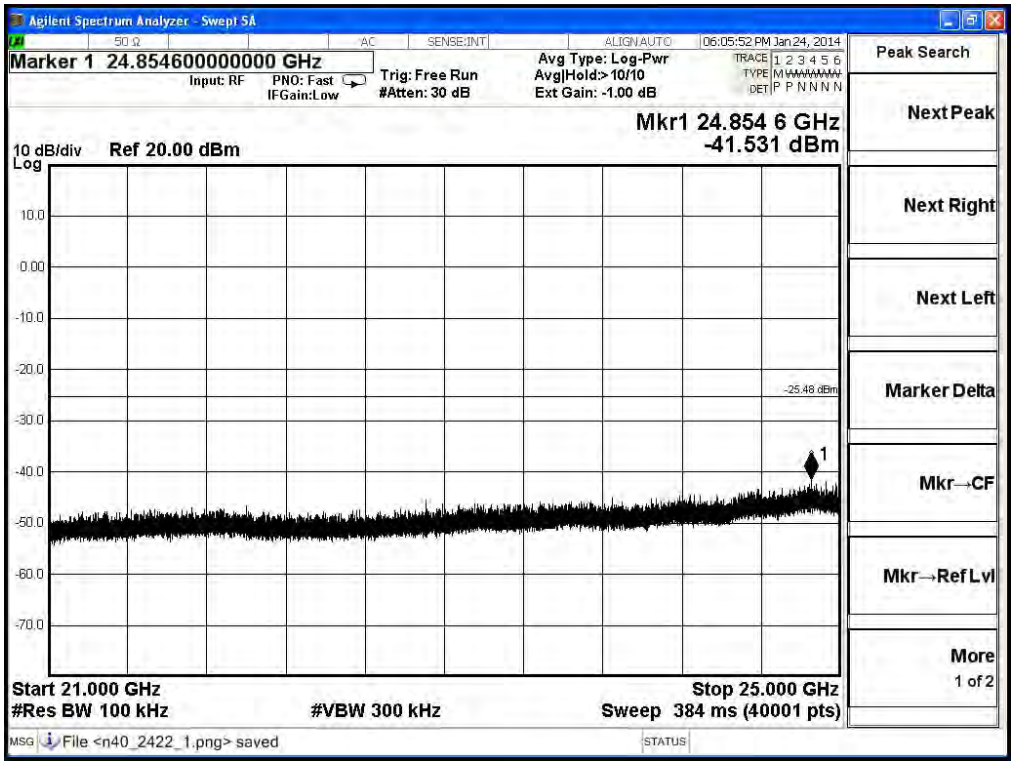
2422MHz (13GHz-17GHz)-802.11n(40MHz) (Ant 1)



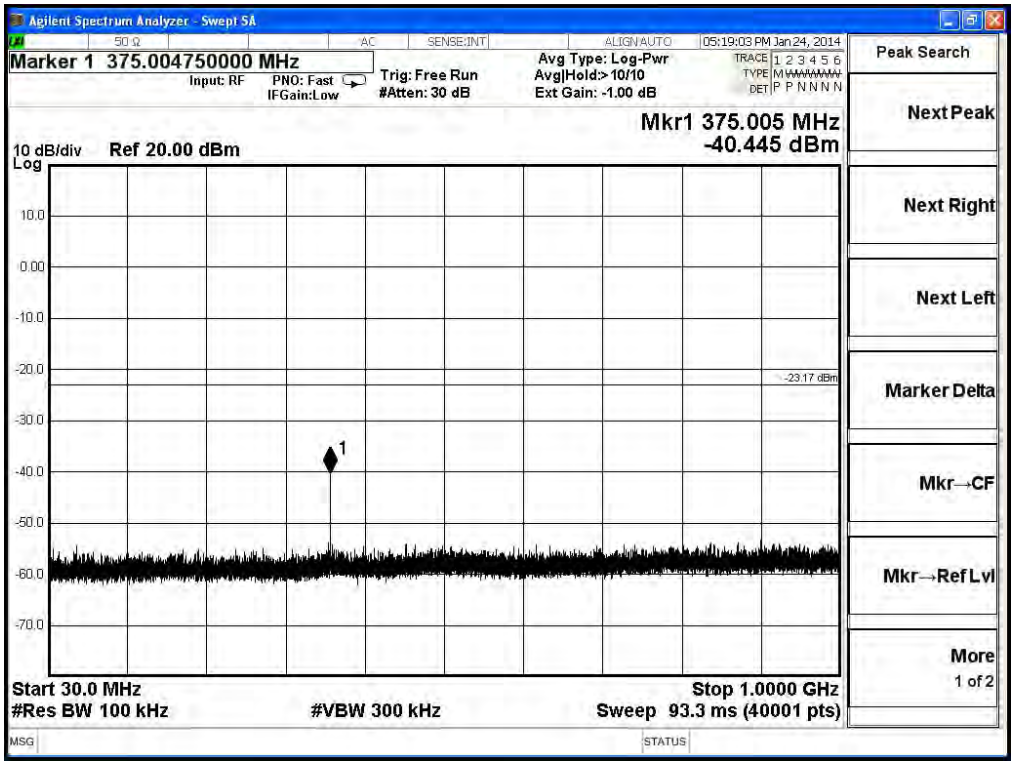
2422MHz (17GHz-21GHz) -802.11n(40MHz) (Ant 1)



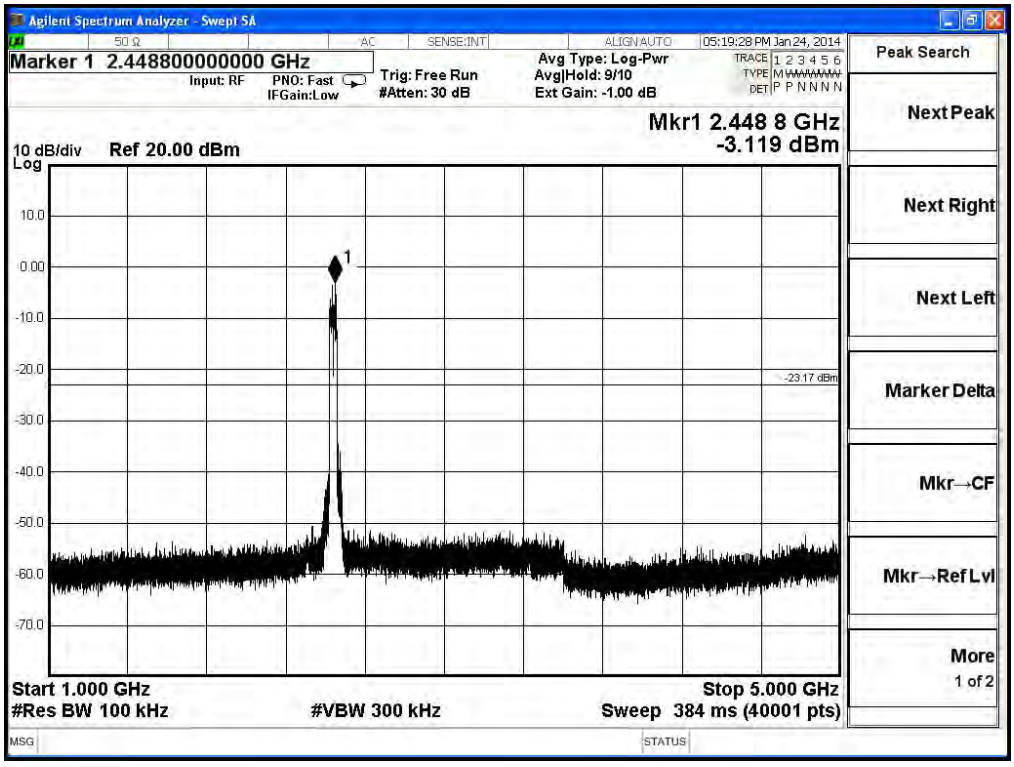
2422MHz (21GHz-25GHz)-802.11n(40MHz) (Ant 1)



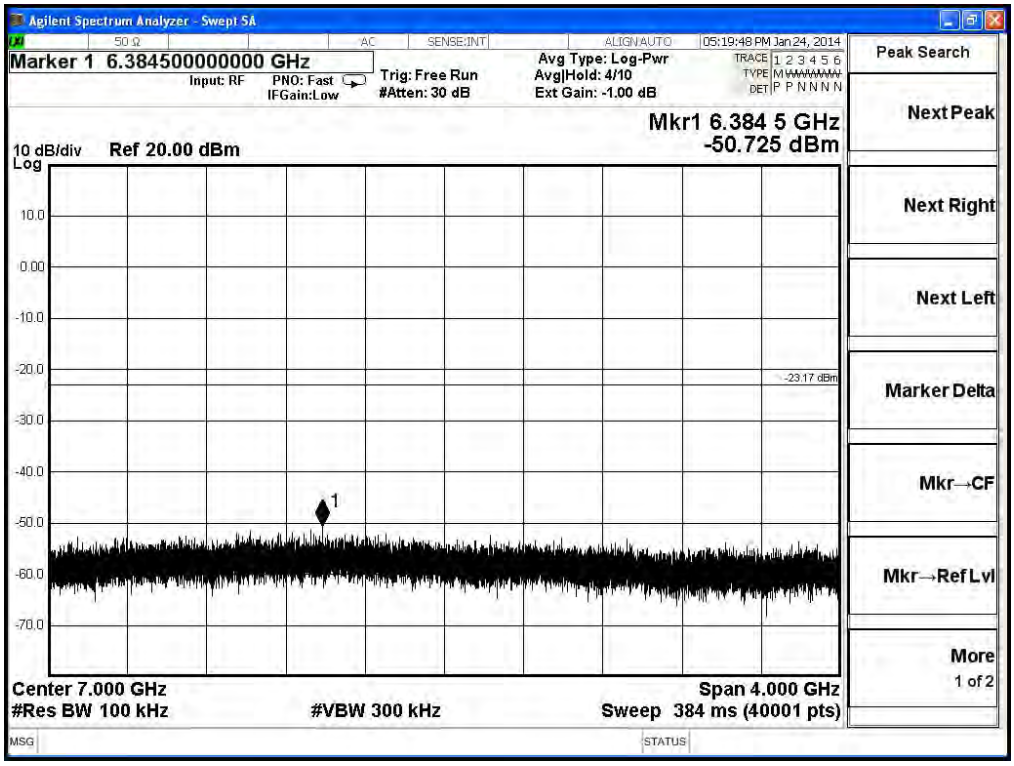
2437MHz (30MHz-1GHz) -802.11n(40MHz) (Ant 0)



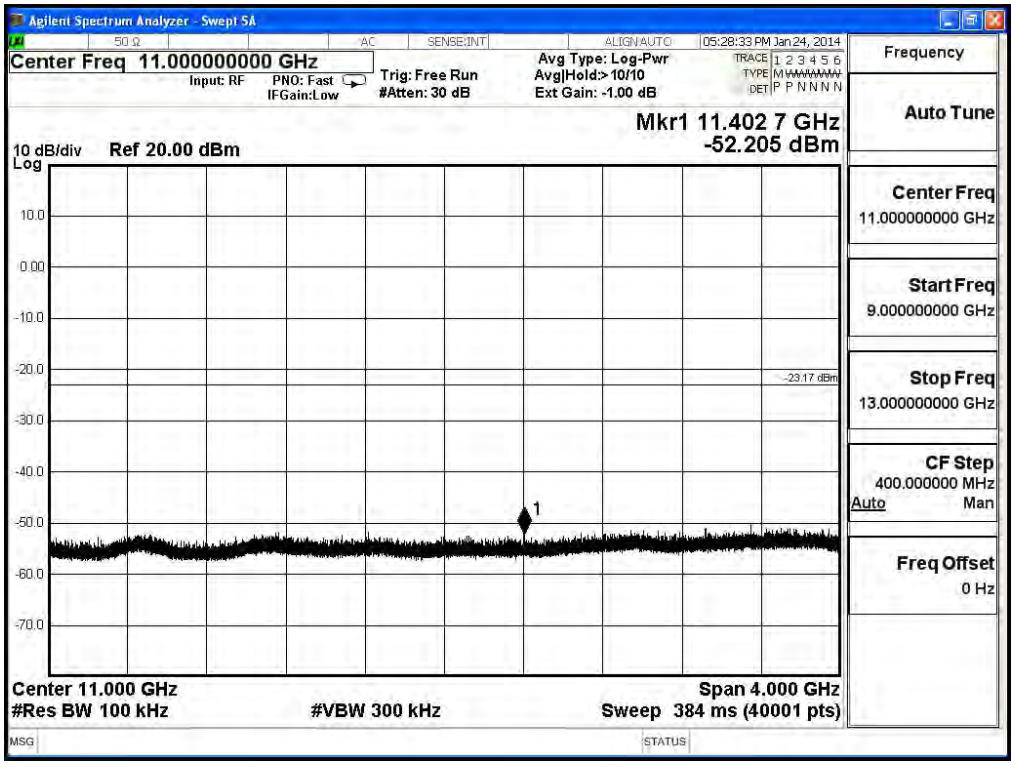
2437MHz (1GHz-5GHz) -802.11n(40MHz) (Ant 0)



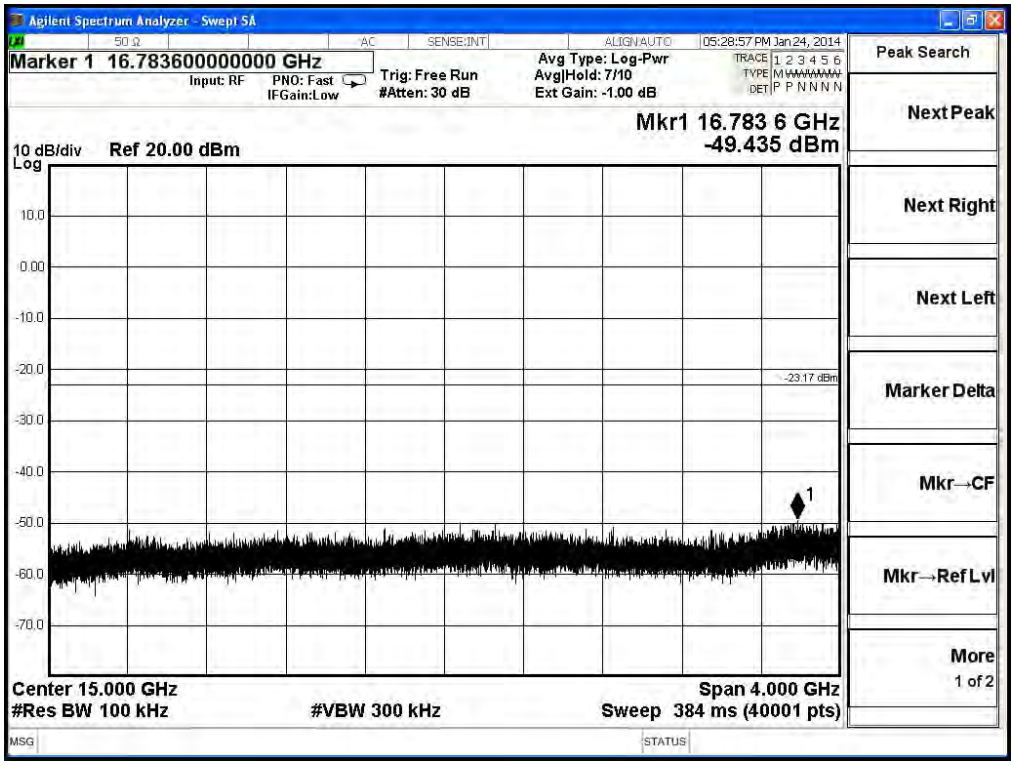
2437MHz (5GHz-9GHz) -802.11n(40MHz) (Ant 0)



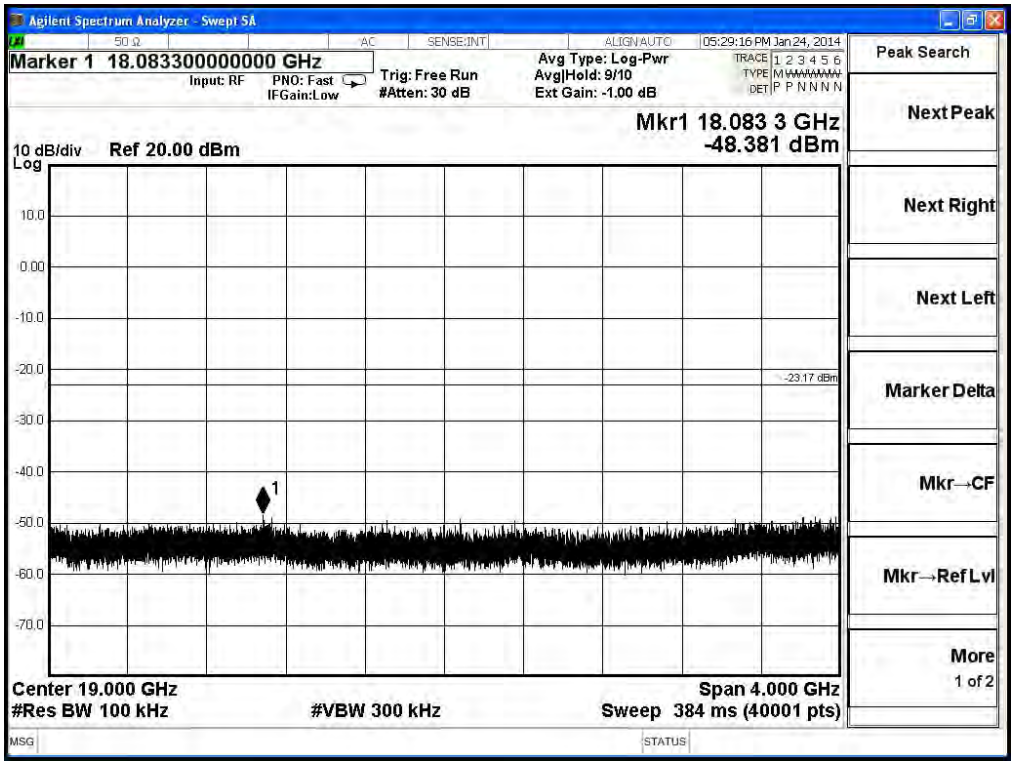
2437MHz (9GHz-13GHz) -802.11n(40MHz) (Ant 0)



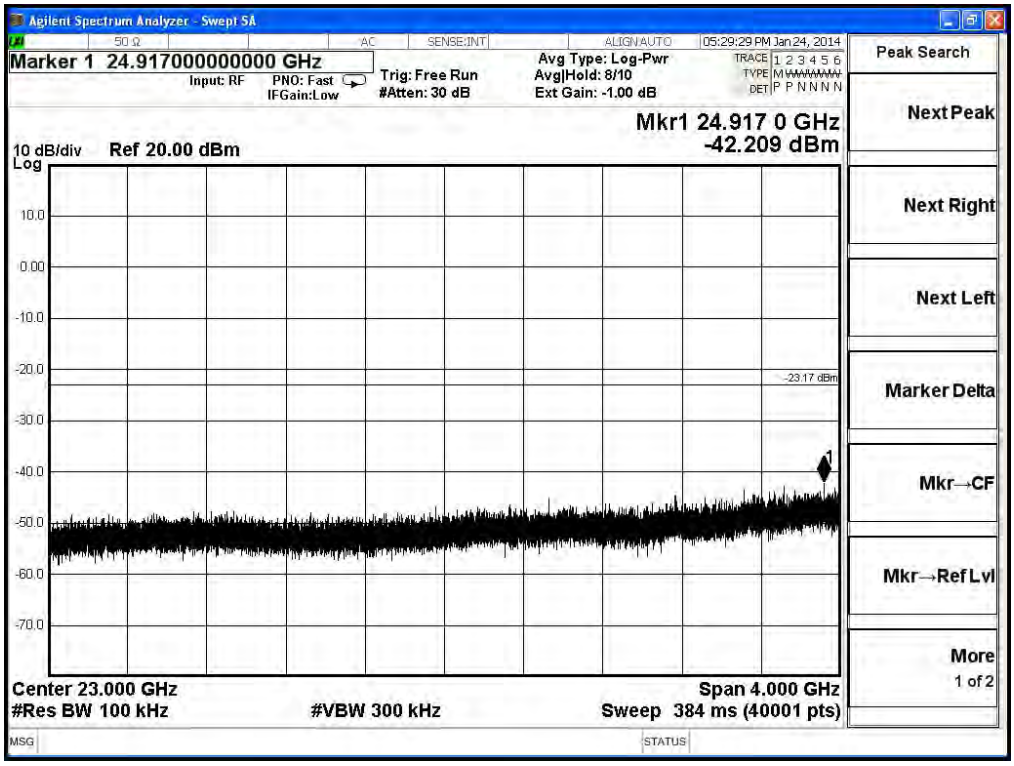
2437MHz (13GHz-17GHz) -802.11n(40MHz) (Ant 0)



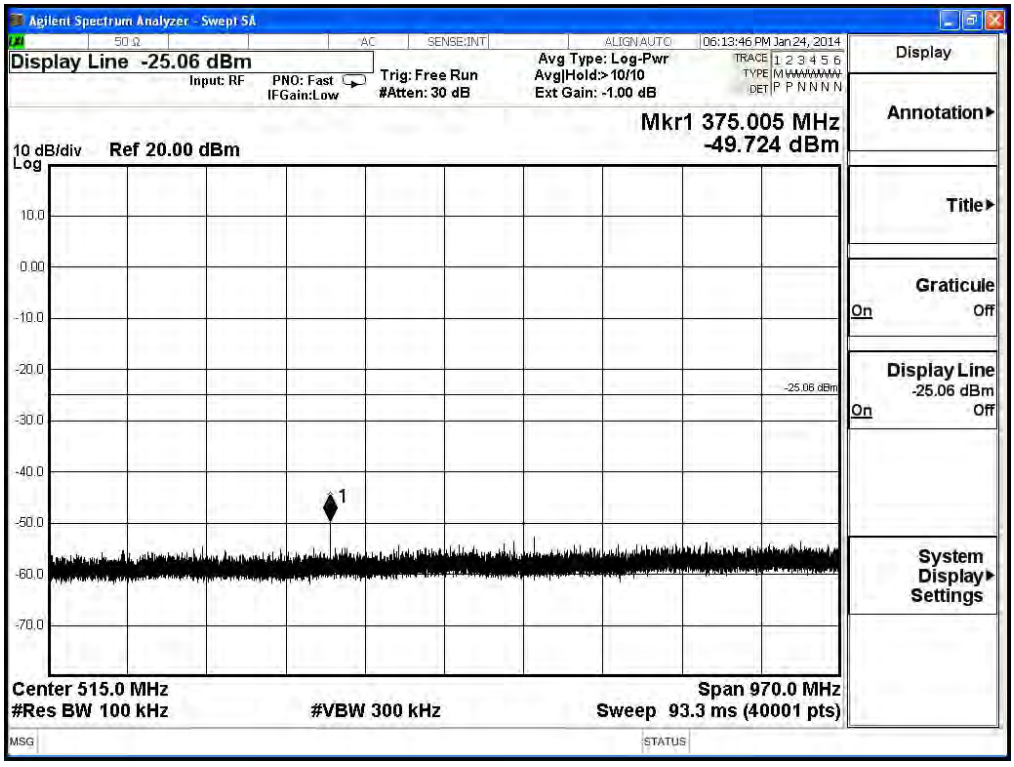
2437MHz (17GHz-21GHz) -802.11n(40MHz) (Ant 0)



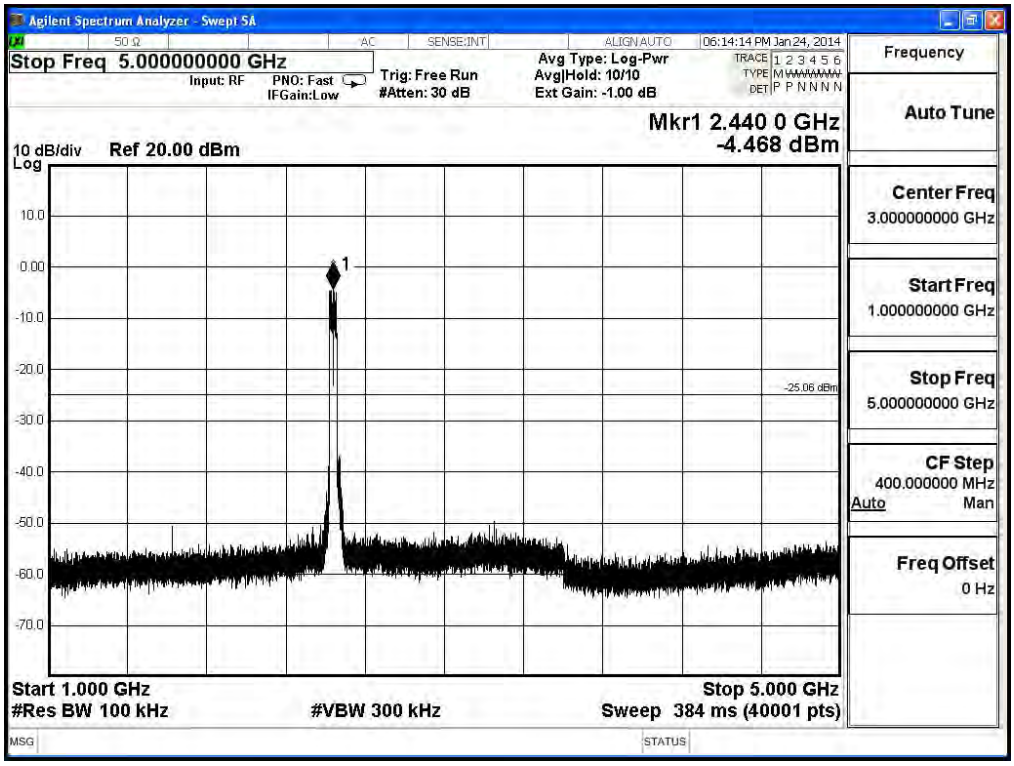
2437MHz (21GHz-25GHz) -802.11n(40MHz) (Ant 0)



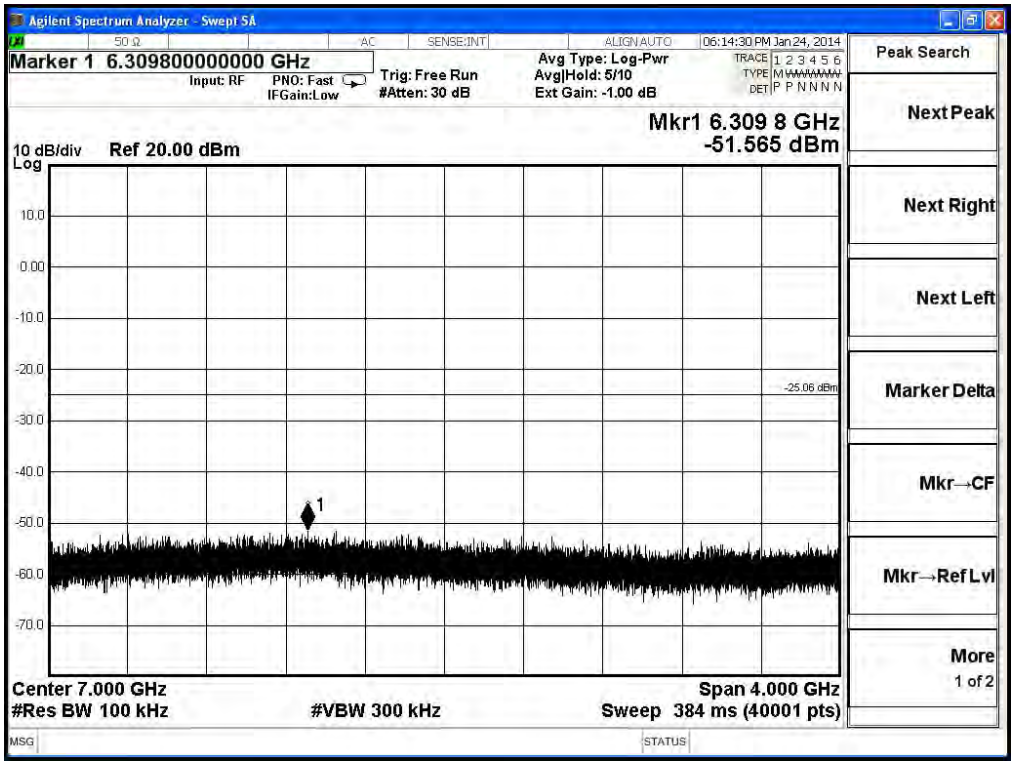
2437MHz (30MHz-1GHz) -802.11n(40MHz) (Ant 1)



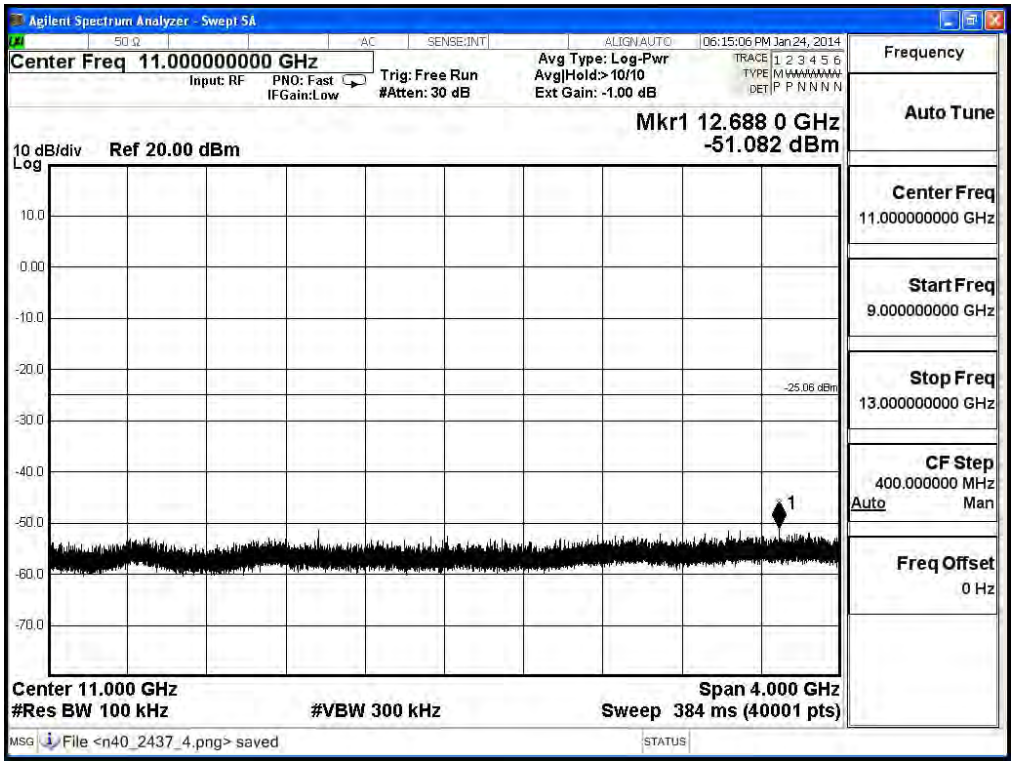
2437MHz (1GHz-5GHz) -802.11n(40MHz) (Ant 1)



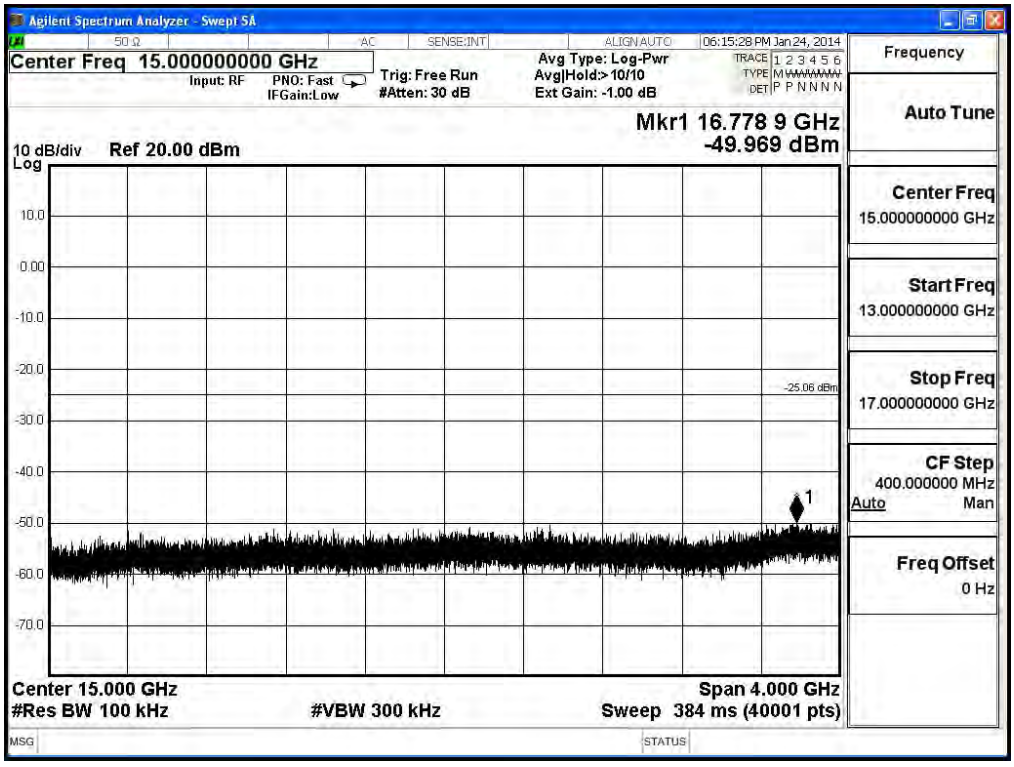
2437MHz (5GHz-9GHz) -802.11n(40MHz) (Ant 1)



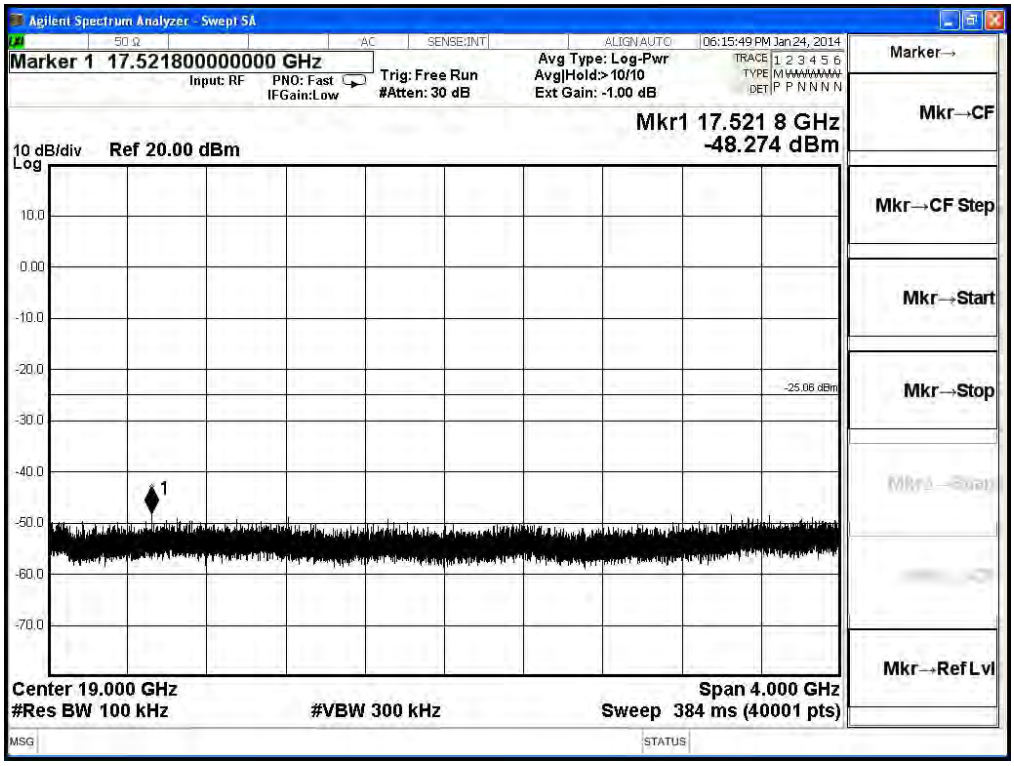
2437MHz (9GHz-13GHz) -802.11n(40MHz) (Ant 1)



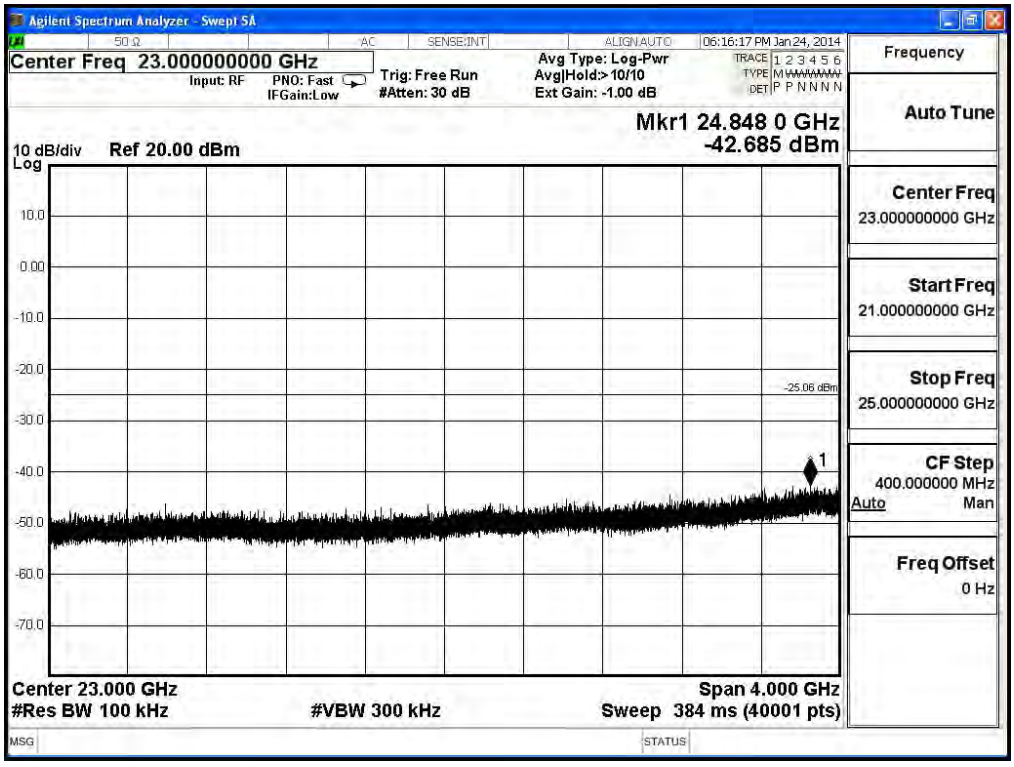
2437MHz (13GHz-17GHz) -802.11n(40MHz) (Ant 1)



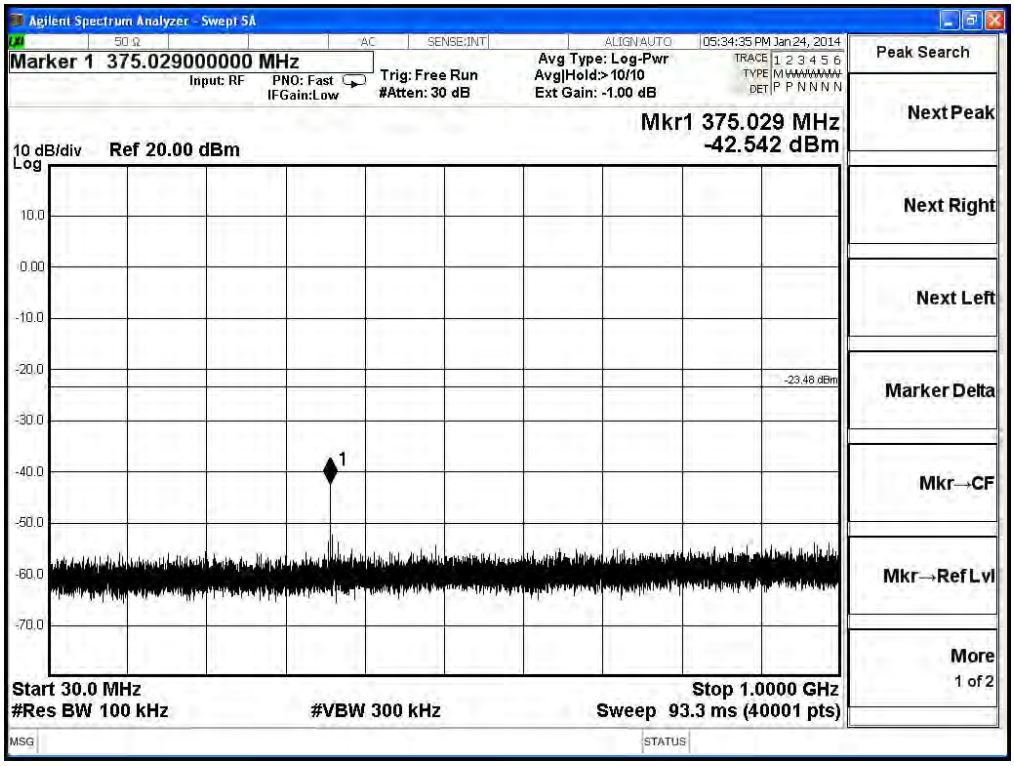
2437MHz (17GHz-21GHz) -802.11n(40MHz) (Ant 1)



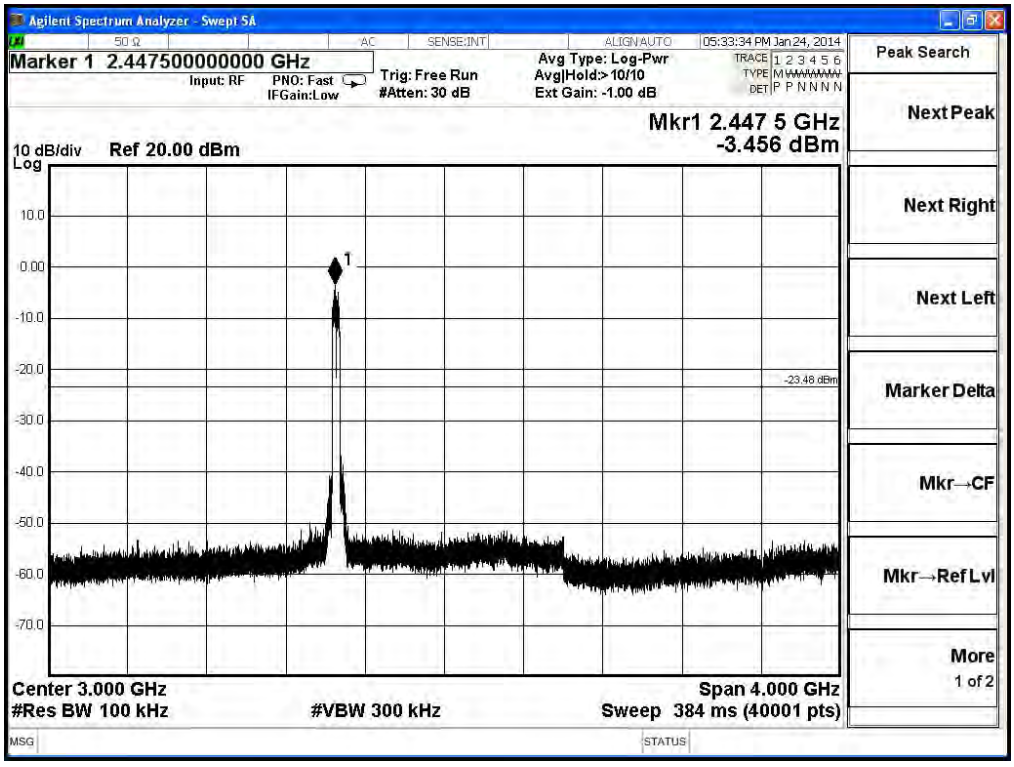
2437MHz (21GHz-25GHz) -802.11n(40MHz) (Ant 1)



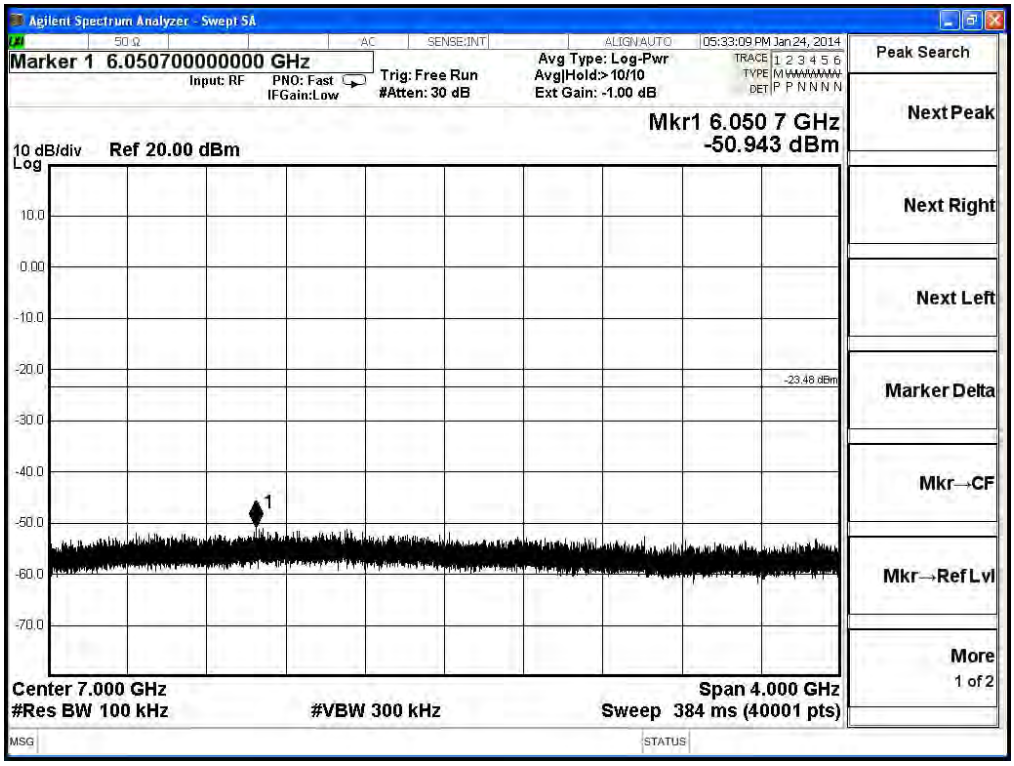
2452MHz (30MHz-1GHz)-802.11n(40MHz) (Ant 0)



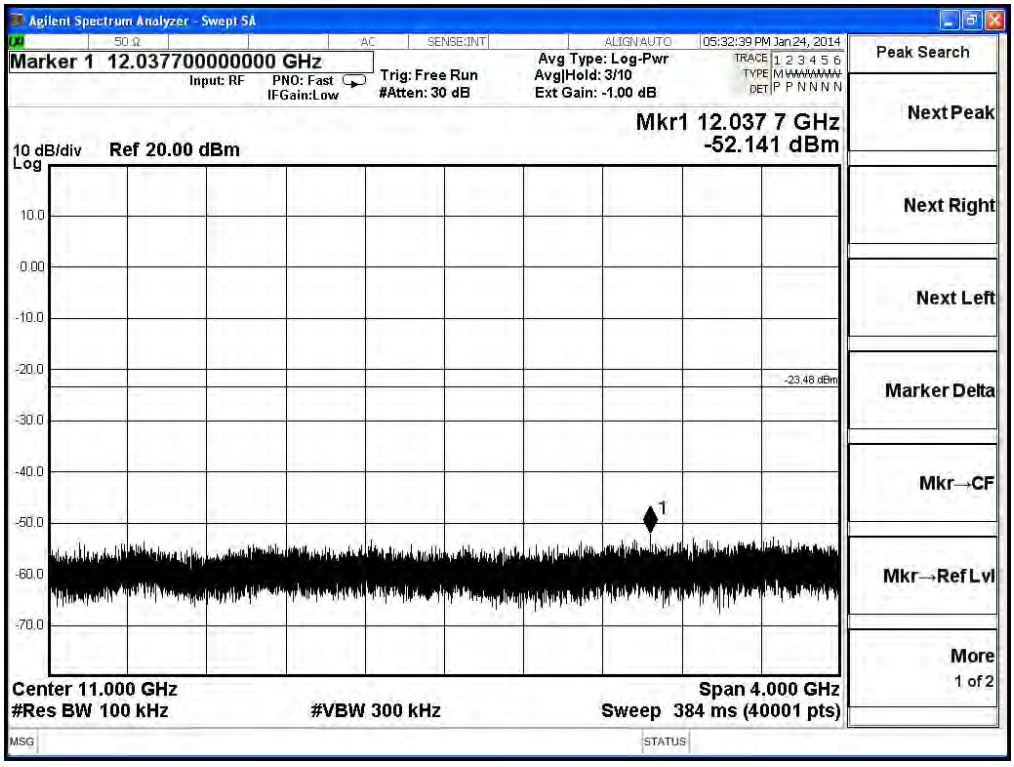
2452MHz (1GHz-5GHz) -802.11n(40MHz) (Ant 0)



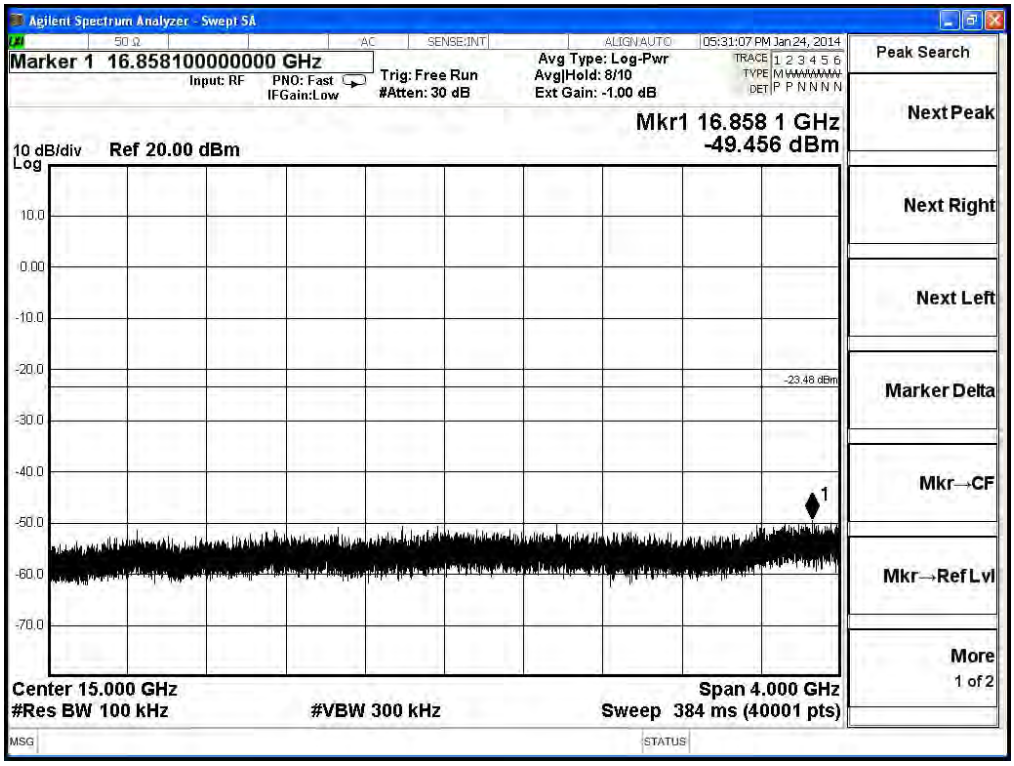
2452MHz (5GHz-9GHz)-802.11n(40MHz) (Ant 0)



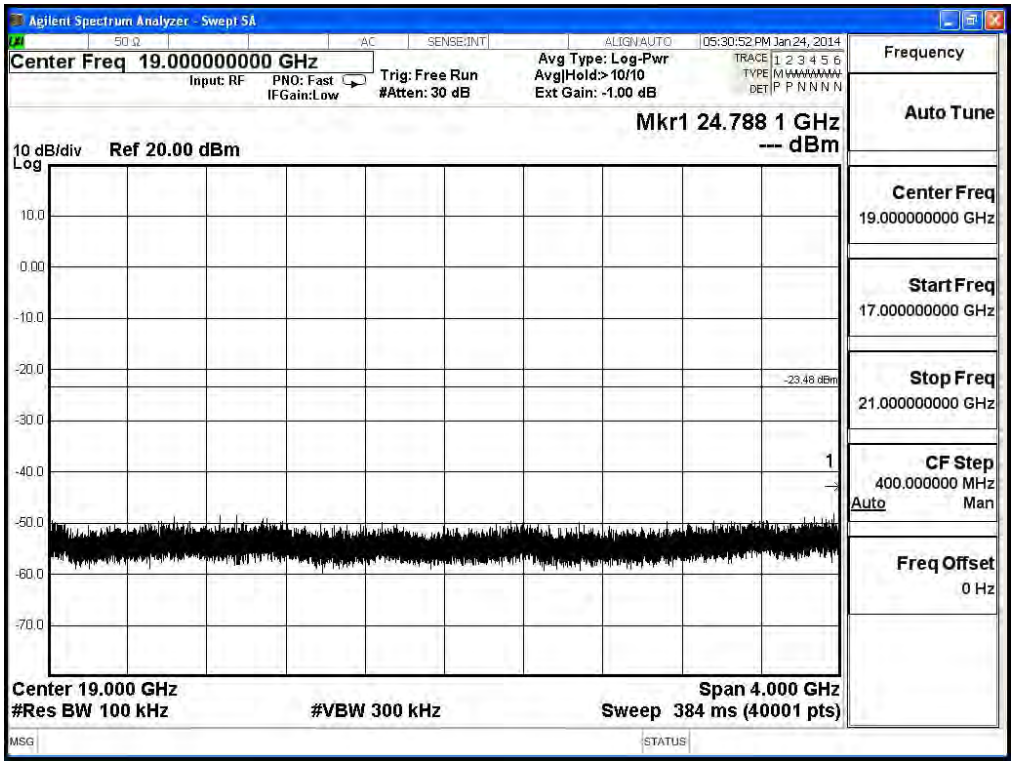
2452MHz (9GHz-13GHz) -802.11n(40MHz) (Ant 0)



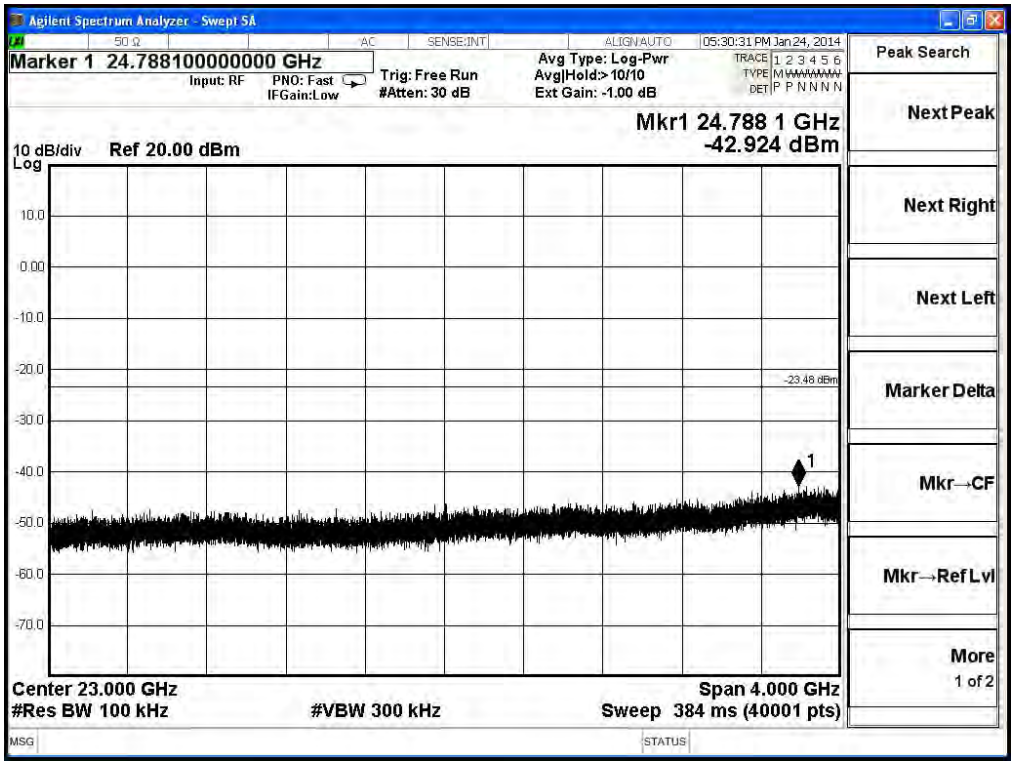
2452MHz (13GHz-17GHz)-802.11n(40MHz) (Ant 0)



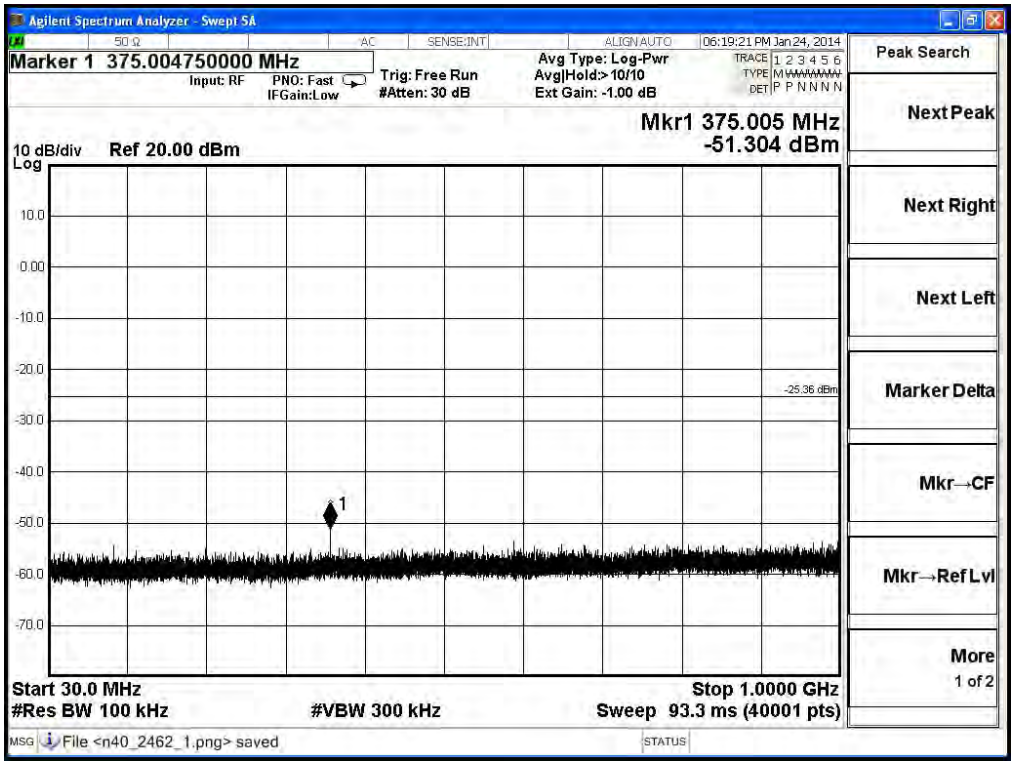
2452MHz (17GHz-21GHz) -802.11n(40MHz) (Ant 0)



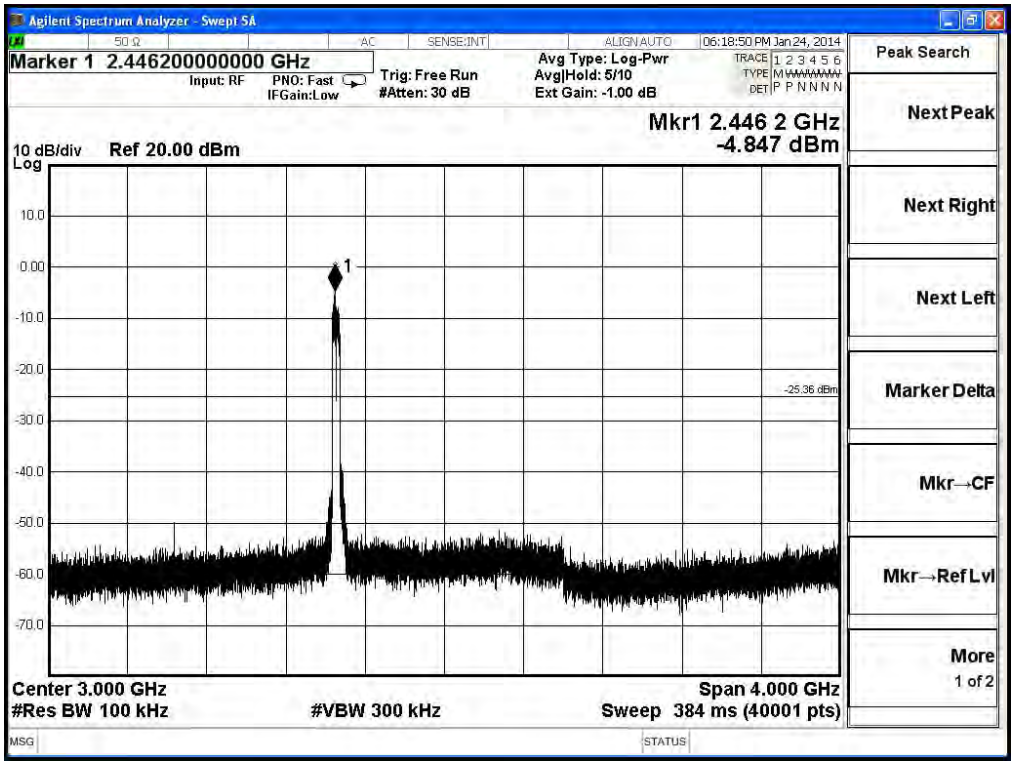
2452MHz (21GHz-25GHz)-802.11n(40MHz) (Ant 0)



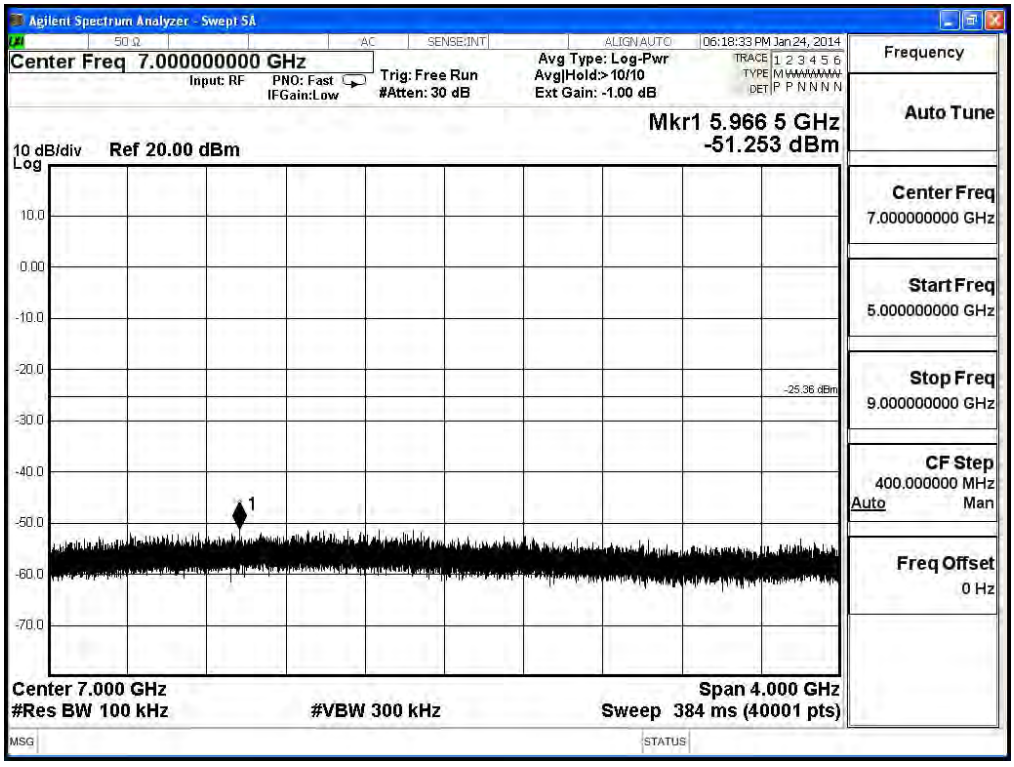
2452MHz (30MHz-1GHz)-802.11n(40MHz) (Ant 1)



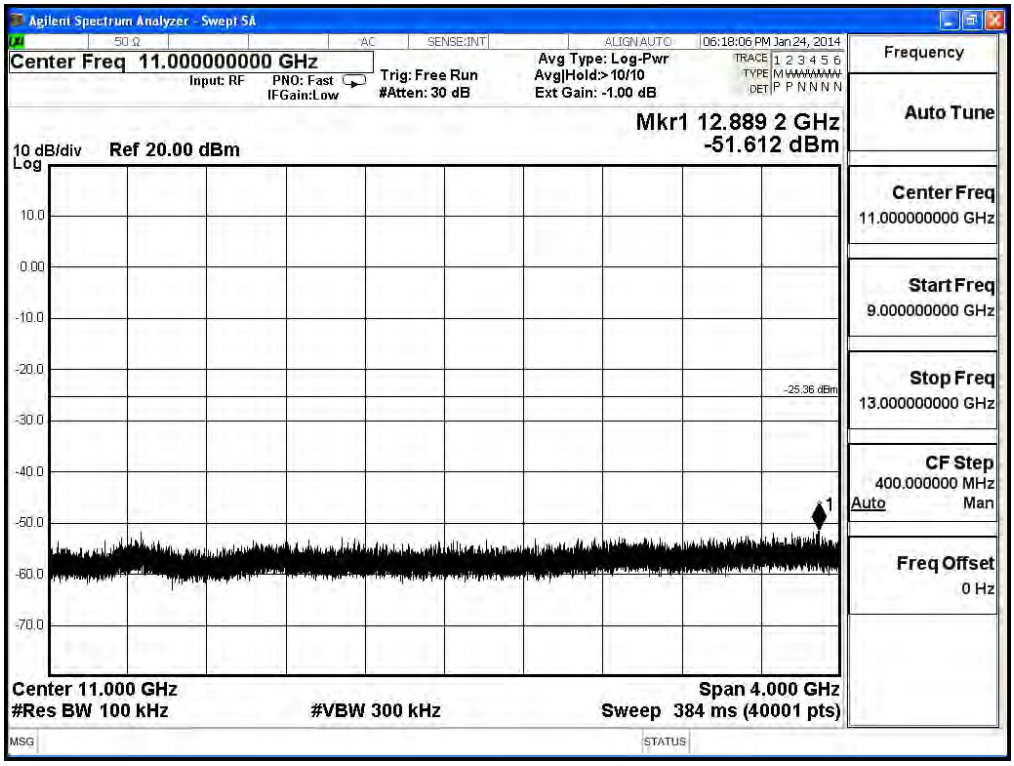
2452MHz (1GHz-5GHz) -802.11n(40MHz) (Ant 1)



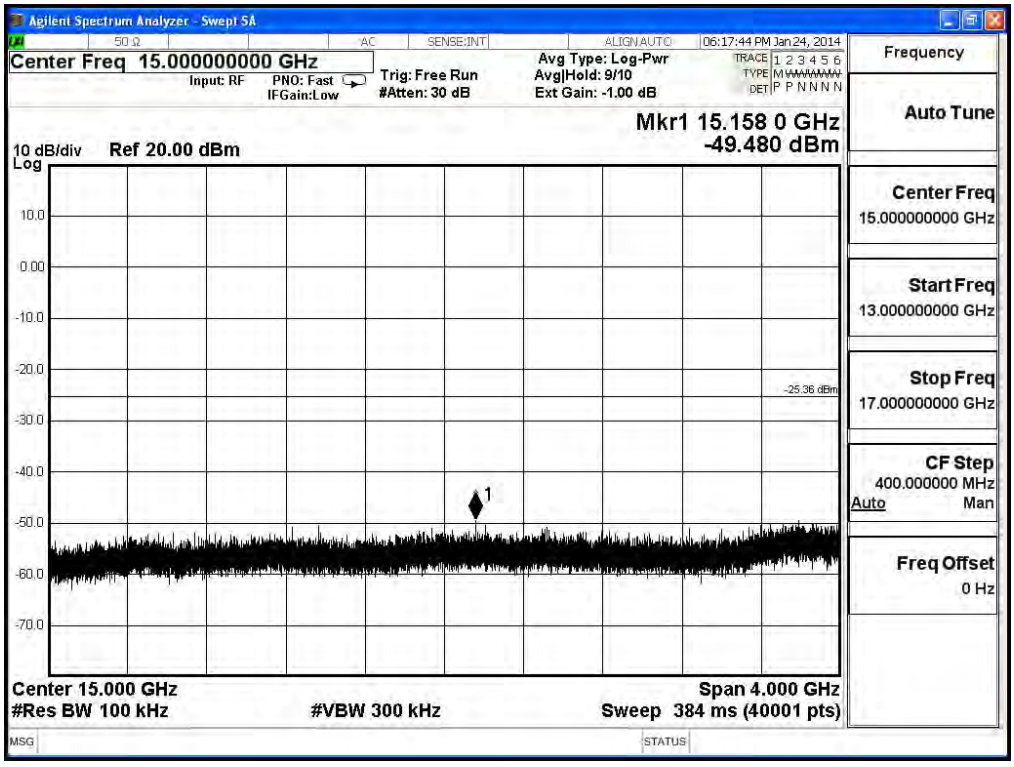
2452MHz (5GHz-9GHz)-802.11n(40MHz) (Ant 1)



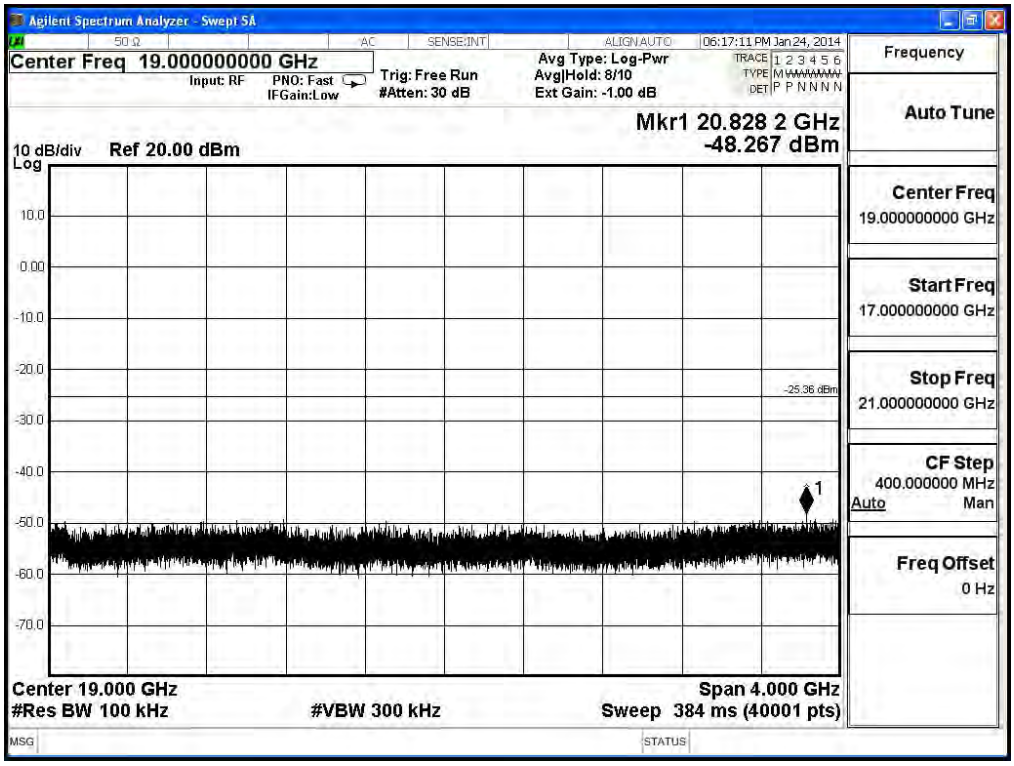
2452MHz (9GHz-13GHz) -802.11n(40MHz) (Ant 1)



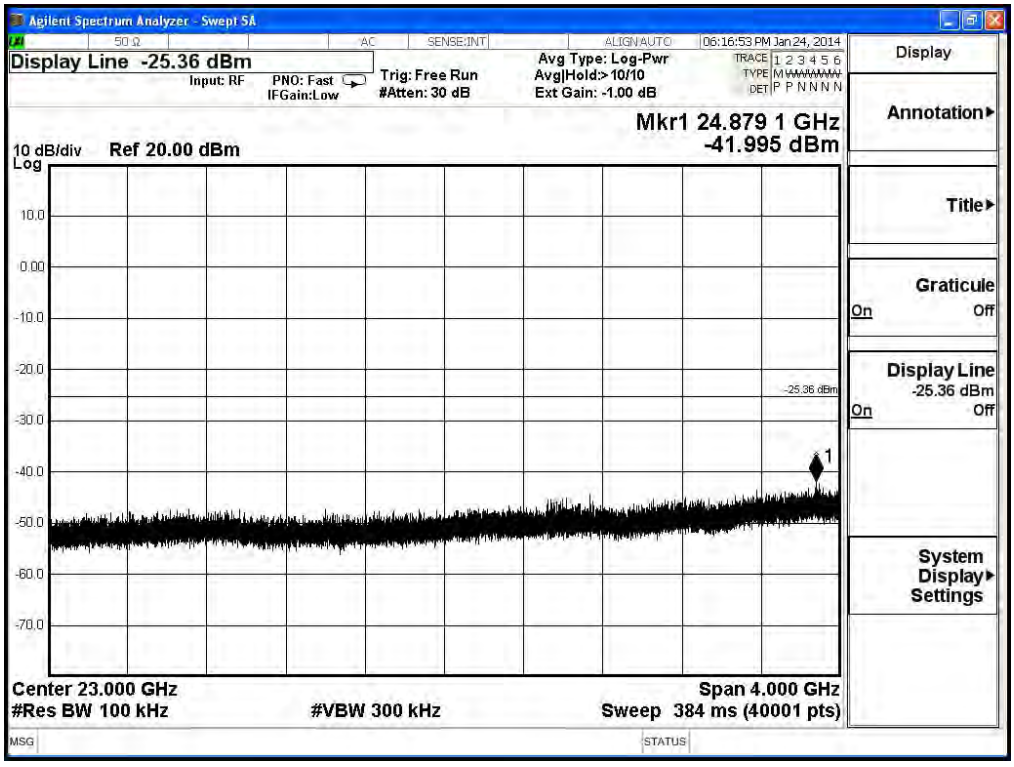
2452MHz (13GHz-17GHz)-802.11n(40MHz) (Ant 1)



2452MHz (17GHz-21GHz) -802.11n(40MHz) (Ant 1)



2452MHz (21GHz-25GHz)-802.11n(40MHz) (Ant 1)



6. Radiated Emission Band Edge

6.1. Test Equipment

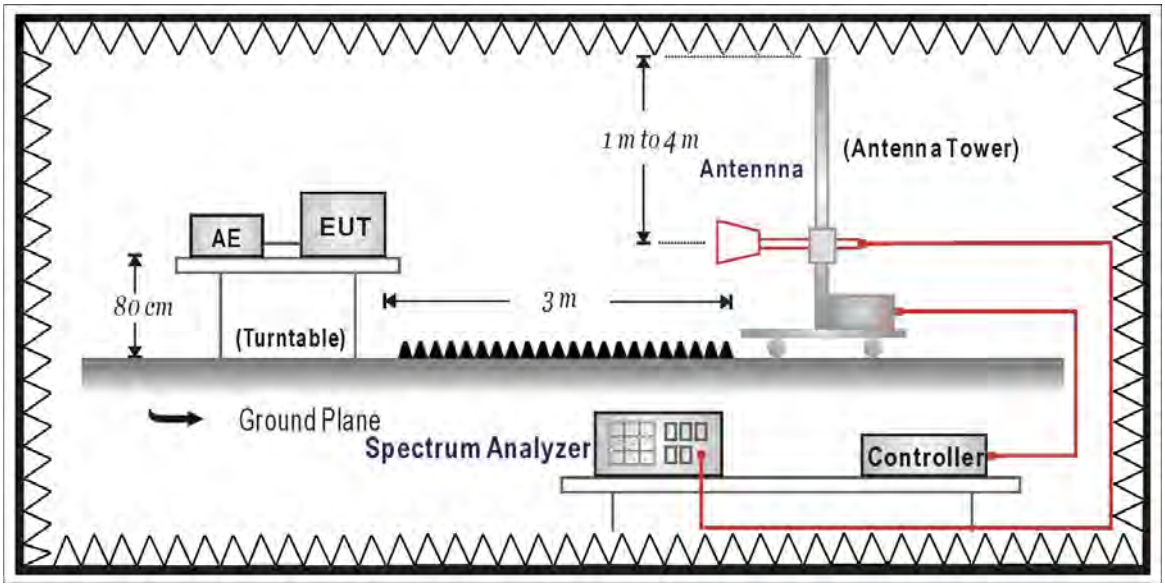
The following test equipments are used during the test:

Radiated Emission Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzback	BBHA 9120	D743	2014/02/17
Spectrum Analyzer	Agilent	E4440A	MY46187335	2015/01/12
k Type Cable	Huber Suhner	Sucoflex 102	25623/2	2014/02/21

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

6.2. Test Setup



6.3. Limits

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

6.4. Test Procedure

The EUT was setup according to ANSI C63.4: 2009 and tested according to DTS test procedure of KDB558074 v03r01 for compliance to FCC 47CFR 15.247 requirements.
The EUT and its simulators are placed on a turn table which is 0.8 meter above ground.
The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2009 on radiated measurement.

6.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

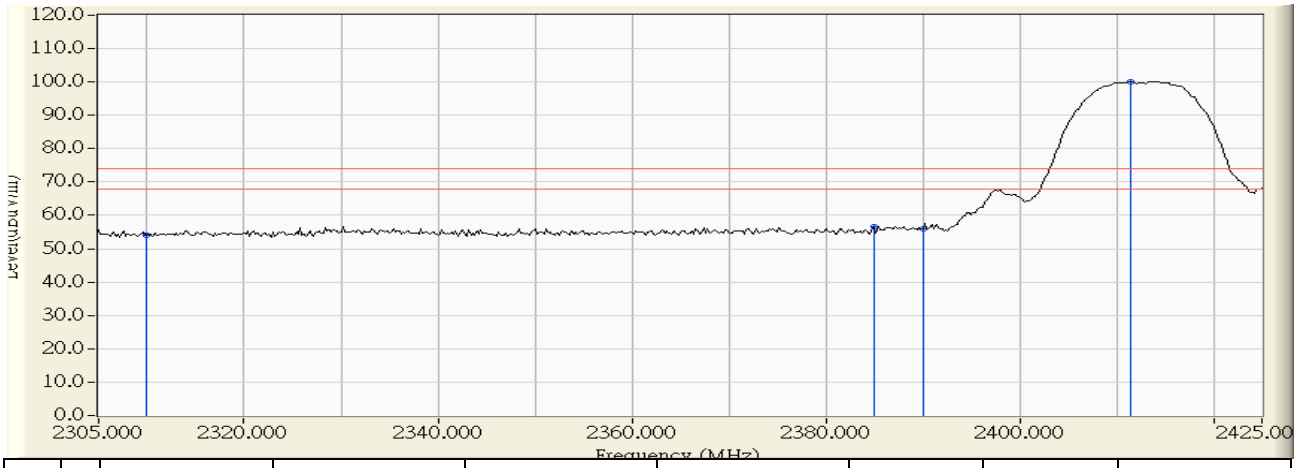
6.6. Uncertainty

The measurement uncertainty
± 3.9 dB above 1GHz

6.7. Test Result

Radiated is defined as

Site : CB1	**Time : 2013/10/16 - 11:06**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11b_2412MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	24.010	54.069	-19.931	74.000	PEAK
2		2385.000	30.836	25.720	56.556	-17.444	74.000	PEAK
3		2390.000	30.888	25.134	56.022	-17.978	74.000	PEAK
4	*	2411.400	31.110	68.999	100.109	26.109	74.000	PEAK

Note:

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

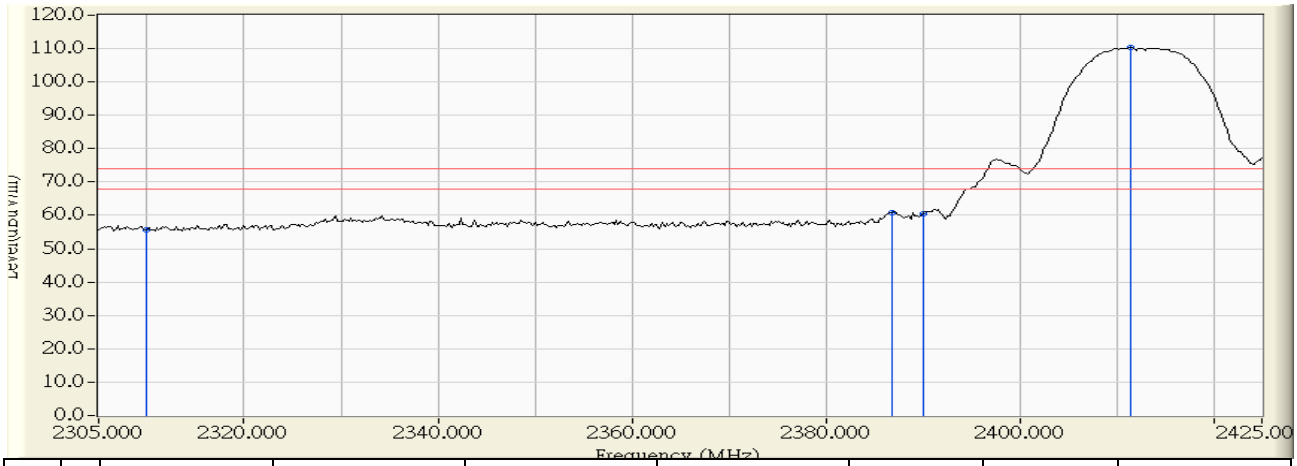
Site : CB1	**Time : 2013/10/16 - 11:06**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11b_2412MHz**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.369	42.428	-11.572	54.000	AVERAGE
2		2386.800	30.856	14.035	44.890	-9.110	54.000	AVERAGE
3		2390.000	30.888	13.711	44.599	-9.401	54.000	AVERAGE
4	*	2411.600	31.113	64.092	95.204	41.204	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 11:01**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11b_2412MHz**

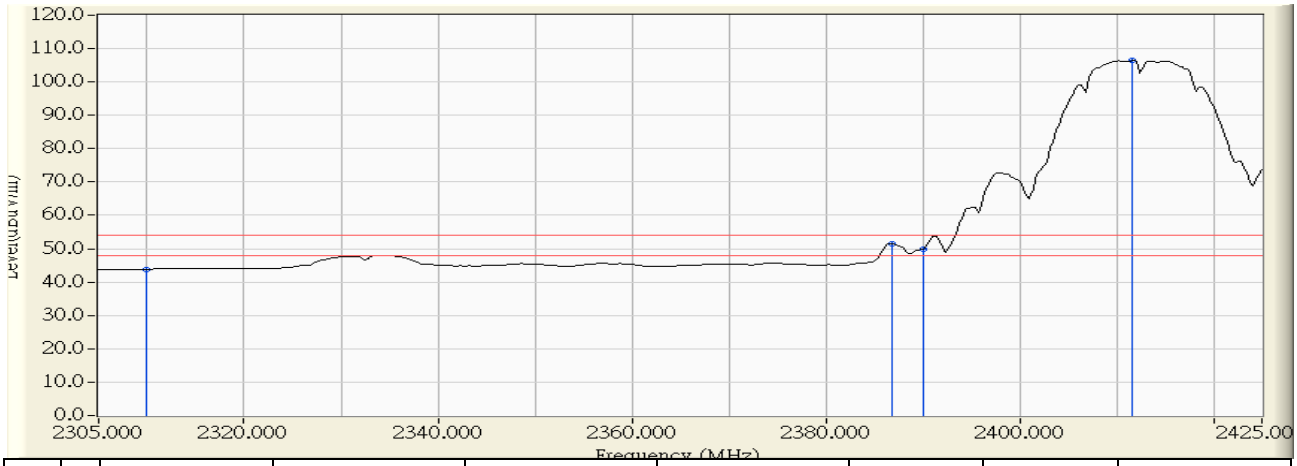


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	25.675	55.734	-18.266	74.000	PEAK
2		2386.800	30.856	29.963	60.818	-13.182	74.000	PEAK
3		2390.000	30.888	29.439	60.327	-13.673	74.000	PEAK
4	*	2411.400	31.110	79.118	110.228	36.228	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 11:00**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11b_2412MHz**

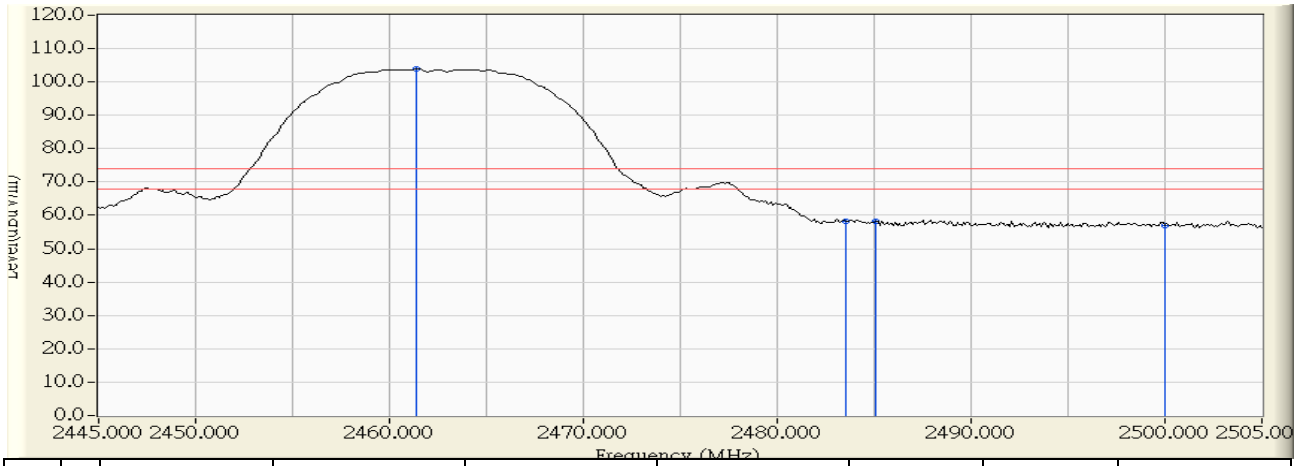


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	13.852	43.911	-10.089	54.000	AVERAGE
2		2386.800	30.856	20.657	51.512	-2.488	54.000	AVERAGE
3		2390.000	30.888	19.038	49.926	-4.074	54.000	AVERAGE
4	*	2411.600	31.113	75.392	106.504	52.504	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 11:28**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11b_2462MHz**

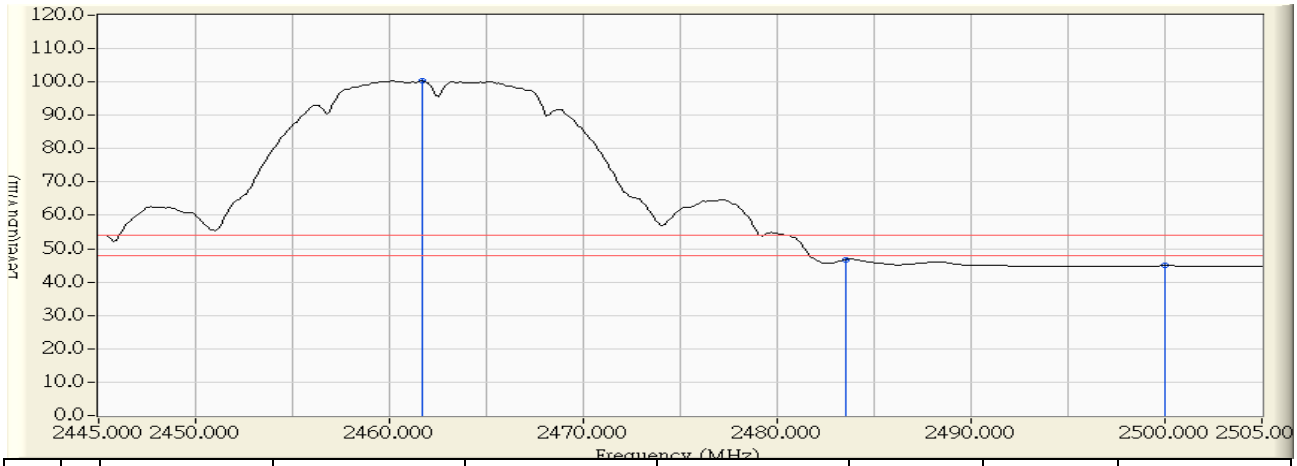


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2461.400	31.629	72.231	103.860	29.860	74.000	PEAK
2		2483.500	31.858	26.448	58.306	-15.694	74.000	PEAK
3		2485.100	31.875	26.443	58.318	-15.682	74.000	PEAK
4		2500.000	31.988	25.092	57.081	-16.919	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 11:29**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11b_2462MHz**

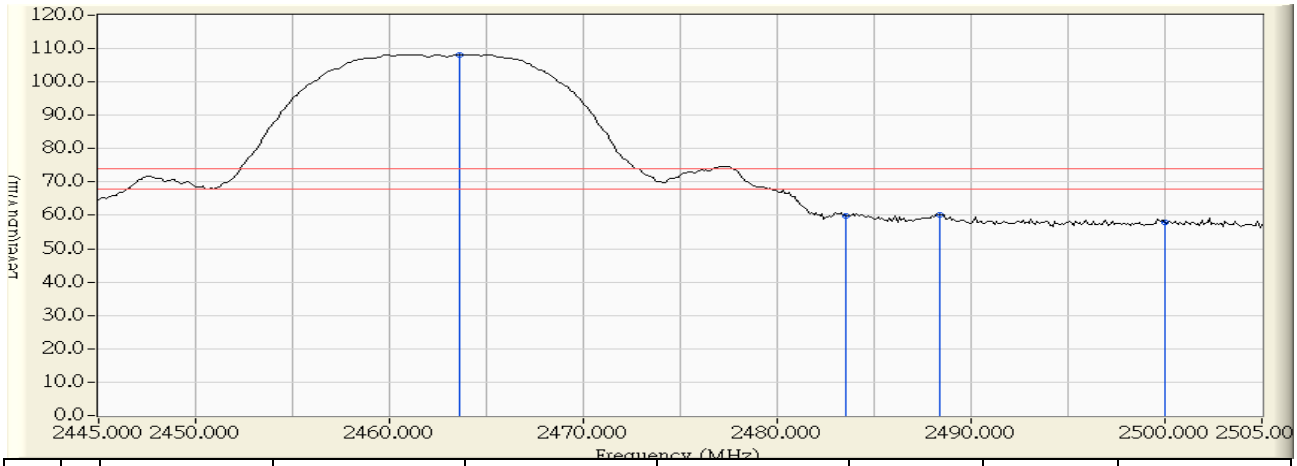


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2461.700	31.632	68.621	100.253	46.253	54.000	AVERAGE
2		2483.500	31.858	14.910	46.768	-7.232	54.000	AVERAGE
3		2500.000	31.988	12.938	44.927	-9.073	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 11:18**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11b_2462MHz**

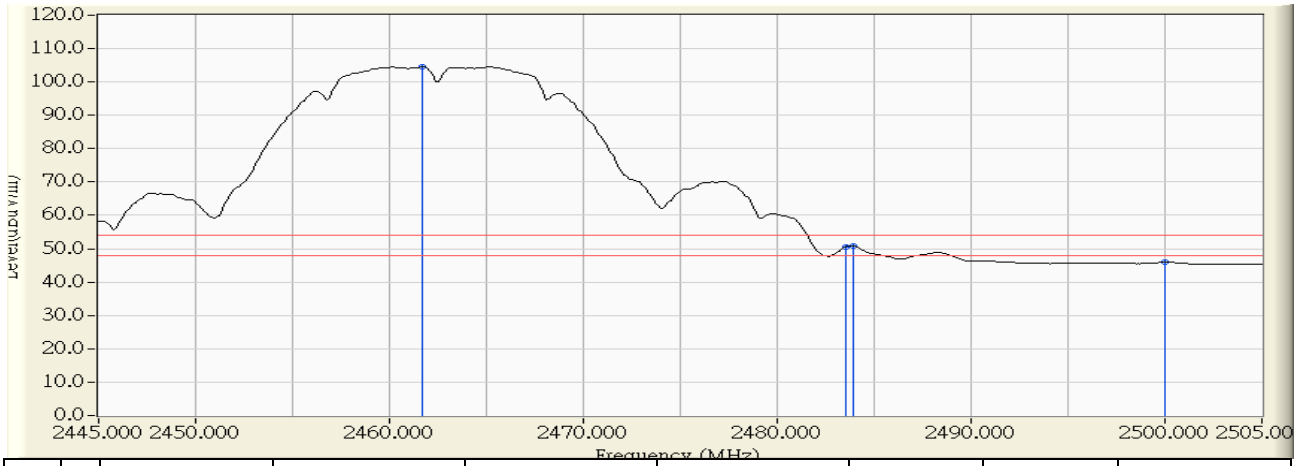


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2463.600	31.651	76.592	108.244	34.244	74.000	PEAK
2		2483.500	31.858	28.108	59.966	-14.034	74.000	PEAK
3		2488.400	31.909	28.378	60.287	-13.713	74.000	PEAK
4		2500.000	31.988	25.940	57.929	-16.071	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 11:17**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11b_2462MHz**

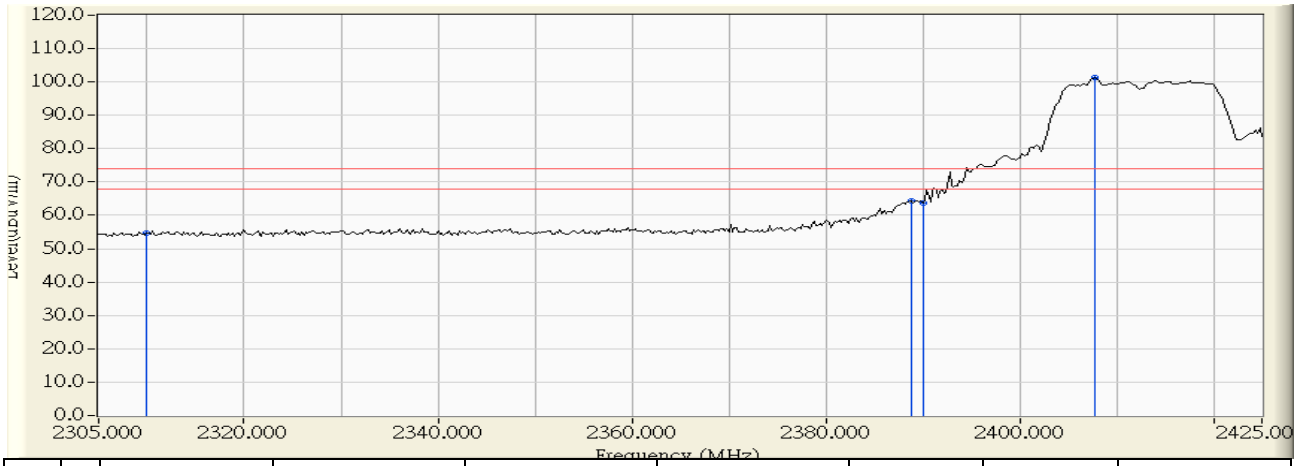


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2461.700	31.632	72.913	104.545	50.545	54.000	AVERAGE
2		2483.500	31.858	18.724	50.582	-3.418	54.000	AVERAGE
3		2483.900	31.862	19.012	50.874	-3.126	54.000	AVERAGE
4		2500.000	31.988	13.998	45.987	-8.013	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 11:40**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11g_2412MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	24.670	54.729	-19.271	74.000	PEAK
2		2388.800	30.876	33.508	64.384	-9.616	74.000	PEAK
3		2390.000	30.888	32.959	63.847	-10.153	74.000	PEAK
4	*	2407.800	31.073	70.189	101.262	27.262	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 11:42**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11g_2412MHz**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.106	42.165	-11.835	54.000	AVERAGE
2		2389.800	30.886	15.891	46.777	-7.223	54.000	AVERAGE
3		2390.000	30.888	16.008	46.896	-7.104	54.000	AVERAGE
4	*	2411.400	31.110	53.201	84.311	30.311	54.000	AVERAGE

Note:

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

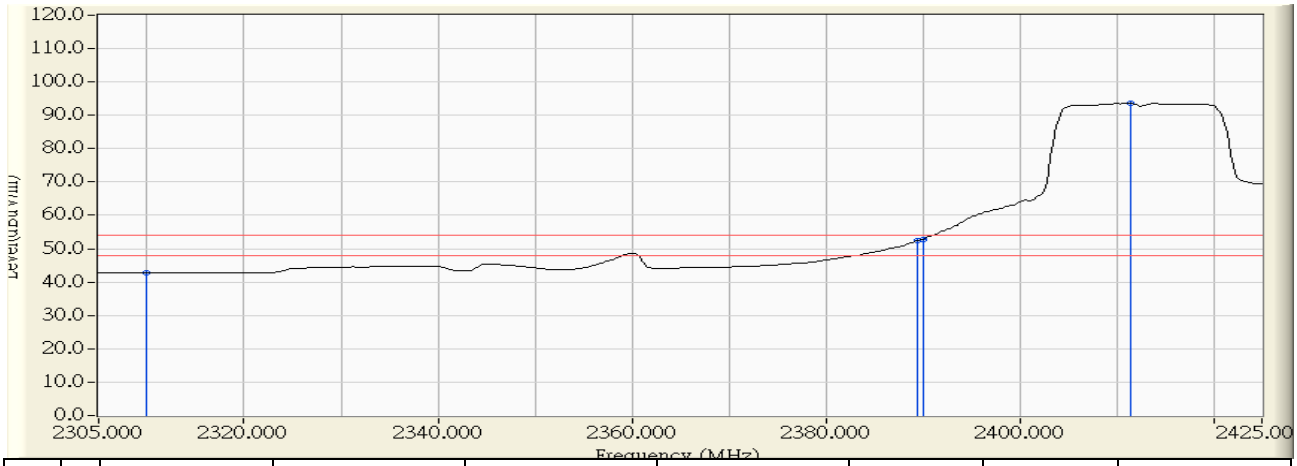
Site : CB1	**Time : 2013/10/16 - 11:36**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11g_2412MHz**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	26.074	56.133	-17.867	74.000	PEAK
2		2389.600	30.884	41.808	72.692	-1.308	74.000	PEAK
3		2390.000	30.888	41.676	72.564	-1.436	74.000	PEAK
4	*	2407.800	31.073	79.837	110.910	36.910	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 11:35**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11g_2412MHz**

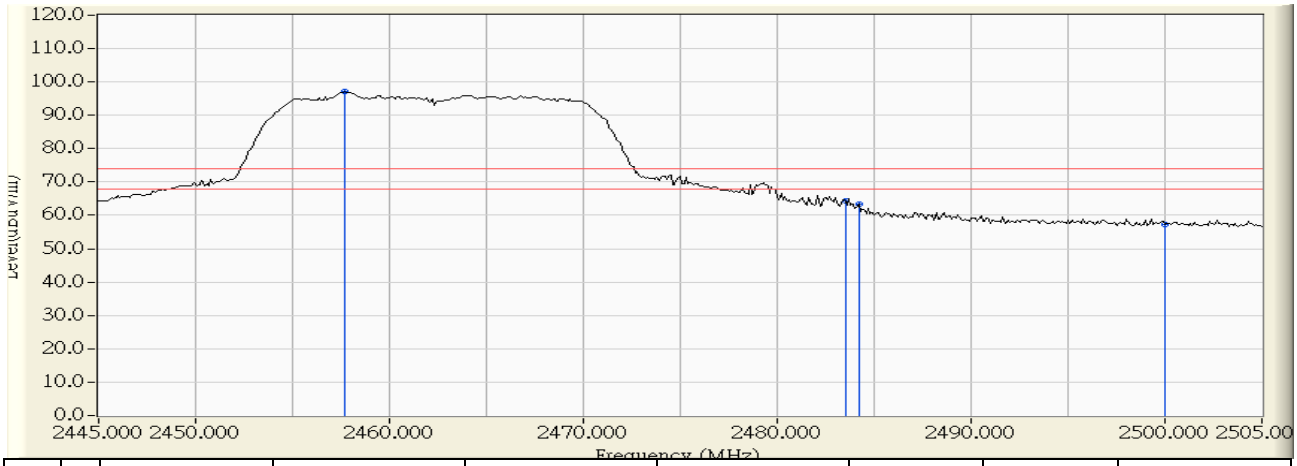


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.702	42.761	-11.239	54.000	AVERAGE
2		2389.400	30.882	21.410	52.292	-1.708	54.000	AVERAGE
3		2390.000	30.888	21.974	52.862	-1.138	54.000	AVERAGE
4	*	2411.400	31.110	62.448	93.558	39.558	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:00**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11g_2462MHz**

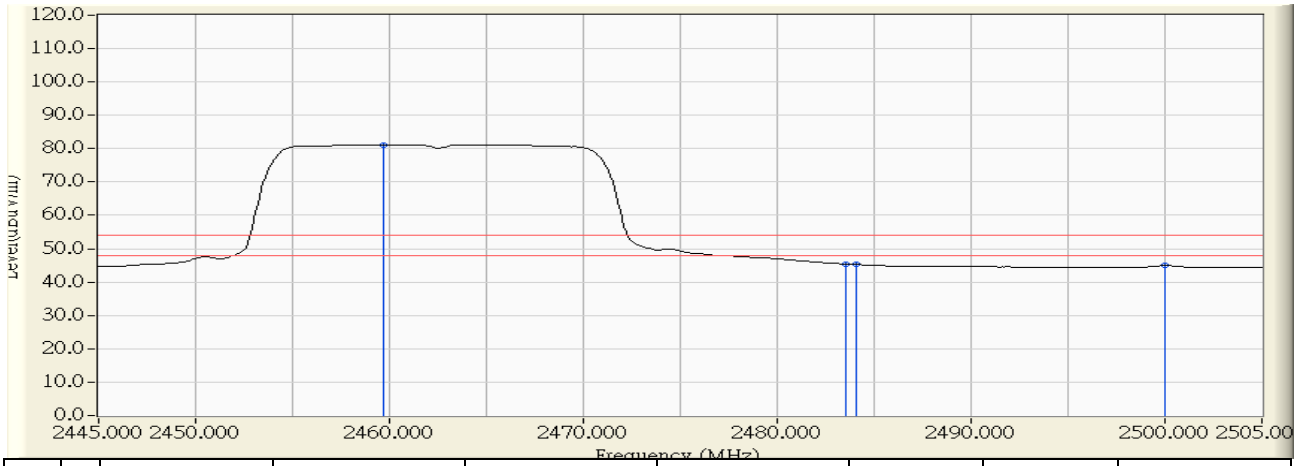


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2457.700	31.591	65.440	97.030	23.030	74.000	PEAK
2		2483.500	31.858	32.539	64.397	-9.603	74.000	PEAK
3		2484.200	31.866	31.542	63.407	-10.593	74.000	PEAK
4		2500.000	31.988	25.371	57.360	-16.640	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:02**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11g_2462MHz**

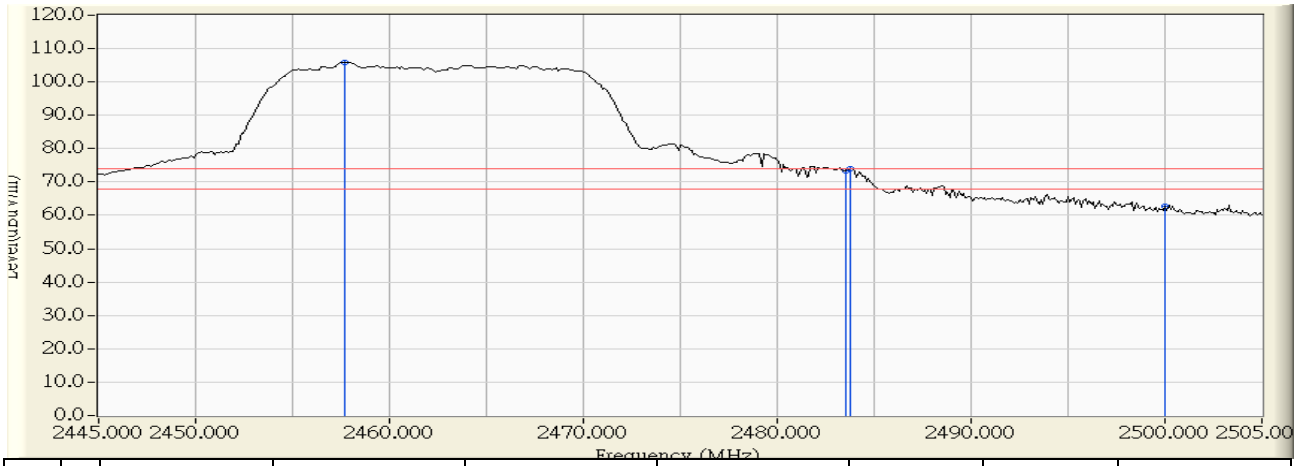


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2459.700	31.611	49.606	81.217	27.217	54.000	AVERAGE
2		2483.500	31.858	13.554	45.412	-8.588	54.000	AVERAGE
3		2484.100	31.864	13.399	45.263	-8.737	54.000	AVERAGE
4		2500.000	31.988	12.973	44.962	-9.038	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 11:55**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11g_2462MHz**

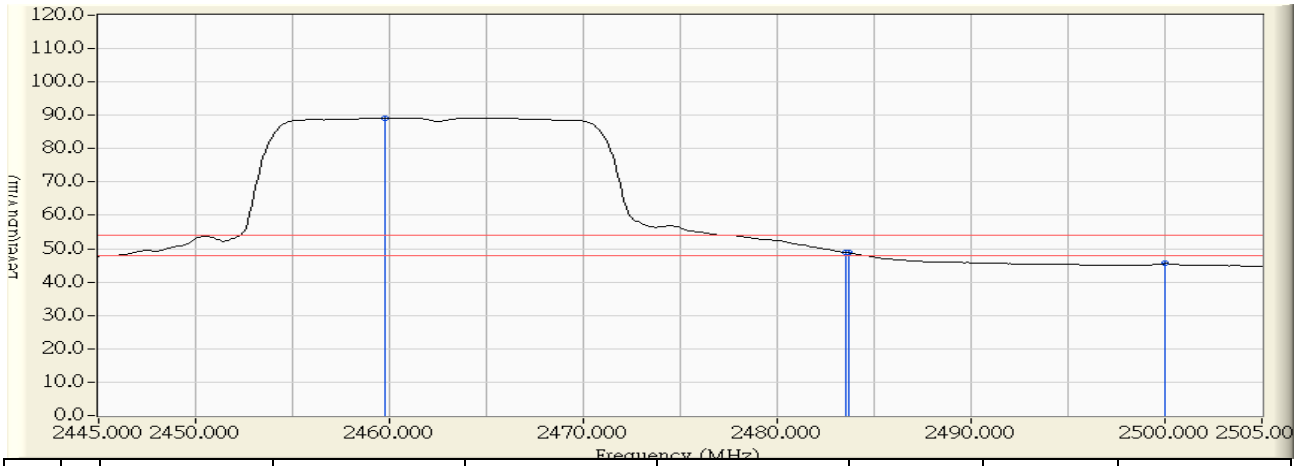


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2457.700	31.591	74.366	105.956	31.956	74.000	PEAK
2		2483.500	31.858	41.625	73.483	-0.517	74.000	PEAK
3		2483.800	31.861	42.029	73.890	-0.110	74.000	PEAK
4		2500.000	31.988	30.664	62.653	-11.347	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 11:57**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11g_2462MHz**

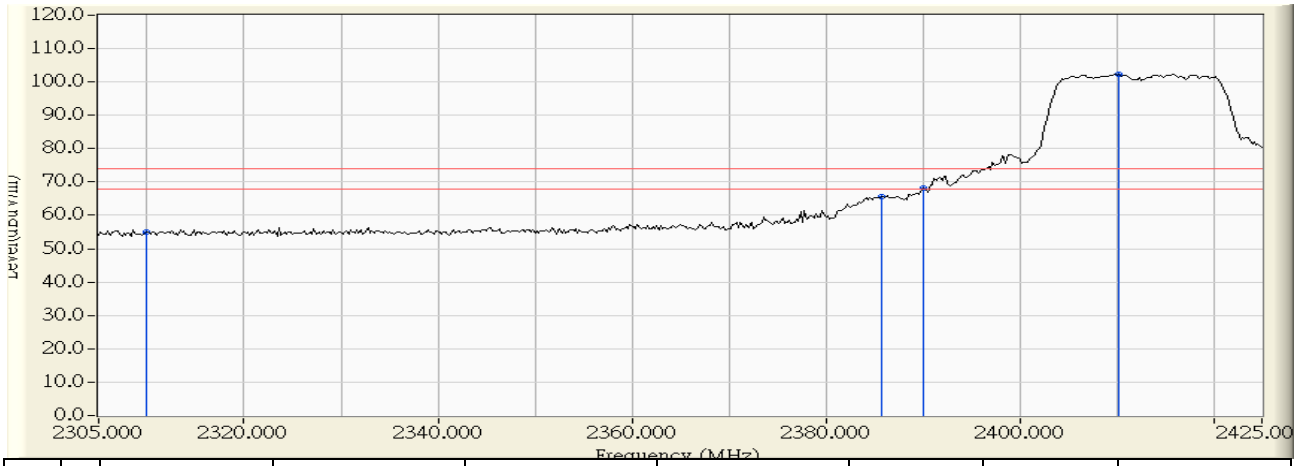


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2459.800	31.612	57.498	89.110	35.110	54.000	AVERAGE
2		2483.500	31.858	17.005	48.863	-5.137	54.000	AVERAGE
3		2483.700	31.860	16.909	48.769	-5.231	54.000	AVERAGE
4		2500.000	31.988	13.539	45.528	-8.472	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:13**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n20M_2412MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	24.961	55.020	-18.980	74.000	PEAK
2		2385.800	30.844	34.936	65.781	-8.219	74.000	PEAK
3		2390.000	30.888	37.182	68.070	-5.930	74.000	PEAK
4	*	2410.200	31.098	71.127	102.225	28.225	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:14**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n20M_2412MHz**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.095	42.154	-11.846	54.000	AVERAGE
2		2389.400	30.882	15.734	46.616	-7.384	54.000	AVERAGE
3		2390.000	30.888	16.281	47.169	-6.831	54.000	AVERAGE
4	*	2411.200	31.108	49.183	80.291	26.291	54.000	AVERAGE

Note:

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

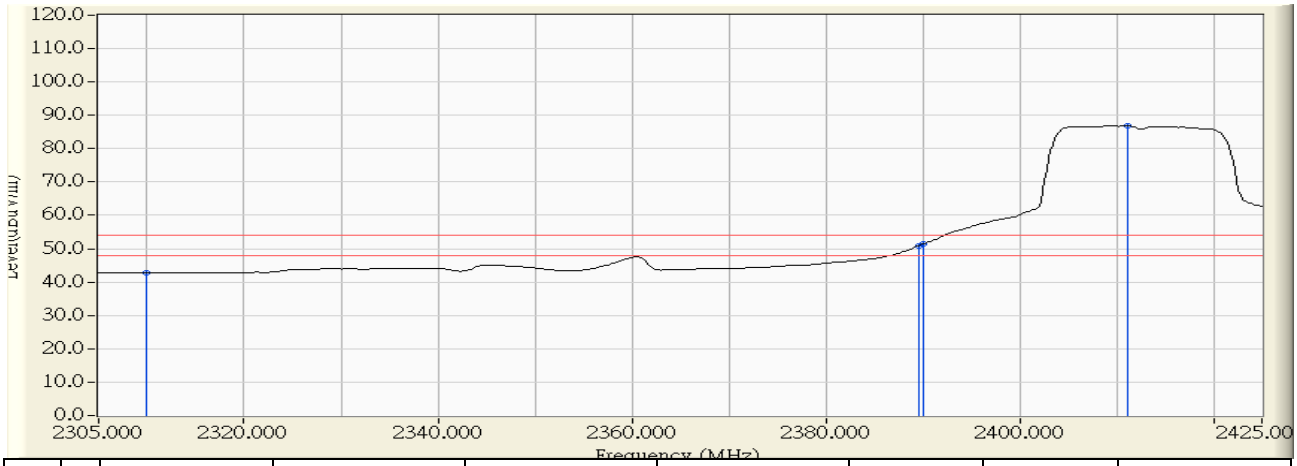
Site : CB1	**Time : 2013/10/16 - 15:08**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n20M_2412MHz**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	25.031	55.090	-18.910	74.000	PEAK
2		2388.200	30.869	42.059	72.929	-1.071	74.000	PEAK
3		2390.000	30.888	42.763	73.651	-0.349	74.000	PEAK
4	*	2415.600	31.154	80.063	111.217	37.217	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:08**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n20M_2412MHz**

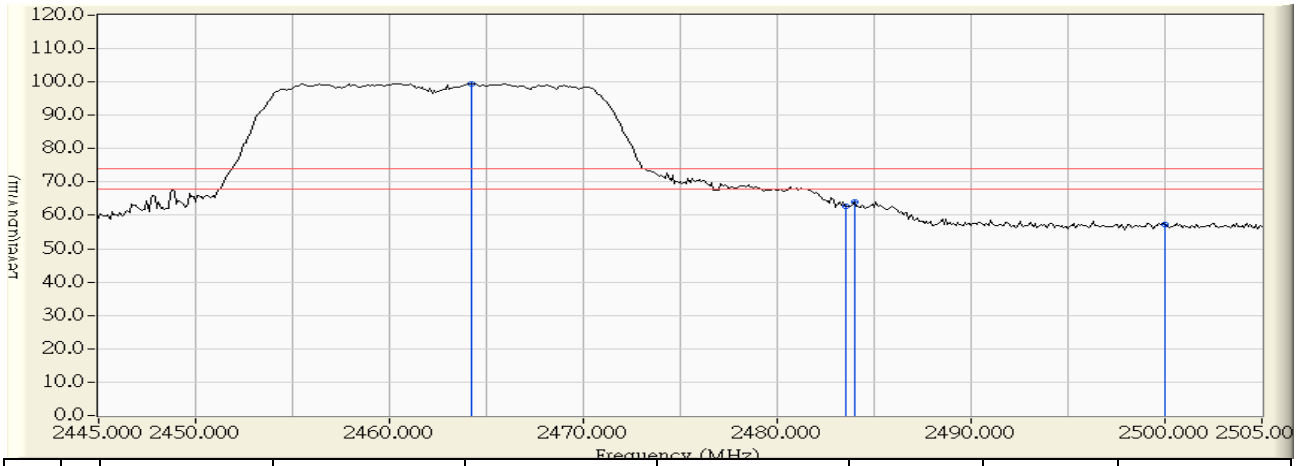


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.693	42.752	-11.248	54.000	AVERAGE
2		2389.600	30.884	20.103	50.987	-3.013	54.000	AVERAGE
3		2390.000	30.888	20.554	51.442	-2.558	54.000	AVERAGE
4	*	2411.200	31.108	55.710	86.818	32.818	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:33**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n20M_2462MHz**

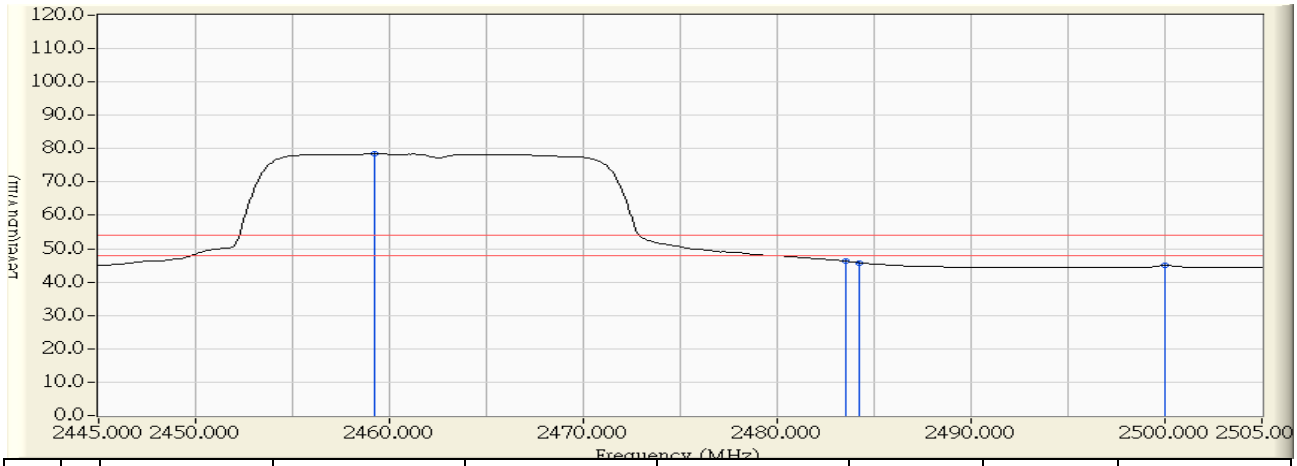


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2464.200	31.658	67.856	99.514	25.514	74.000	PEAK
2		2483.500	31.858	30.754	62.612	-11.388	74.000	PEAK
3		2484.000	31.863	32.050	63.913	-10.087	74.000	PEAK
4		2500.000	31.988	25.348	57.337	-16.663	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:34**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n20M_2462MHz**

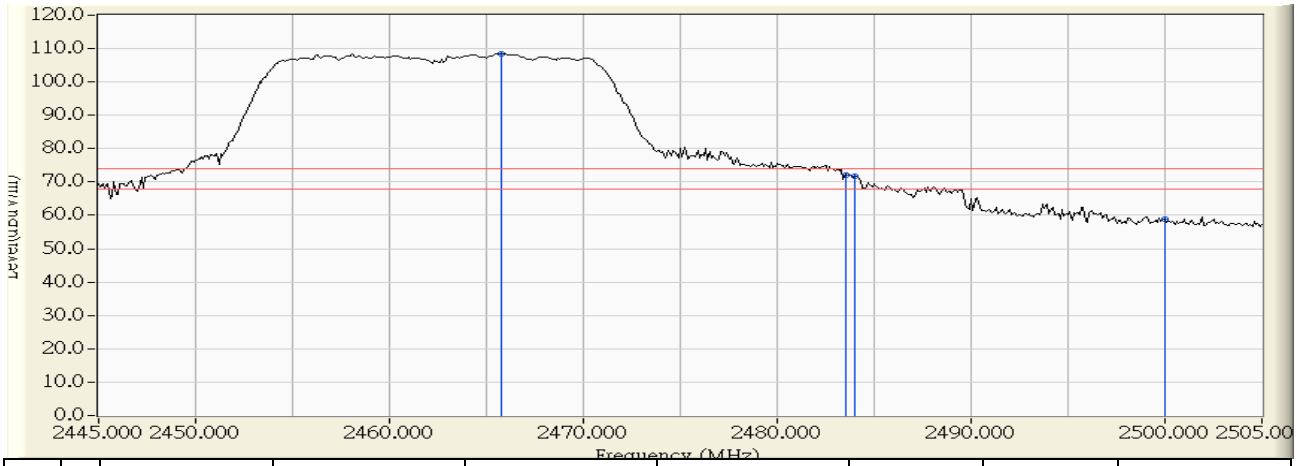


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2459.200	31.606	46.785	78.391	24.391	54.000	AVERAGE
2		2483.500	31.858	14.379	46.237	-7.763	54.000	AVERAGE
3		2484.200	31.866	13.903	45.768	-8.232	54.000	AVERAGE
4		2500.000	31.988	12.992	44.981	-9.019	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:26**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n20M_2462MHz**

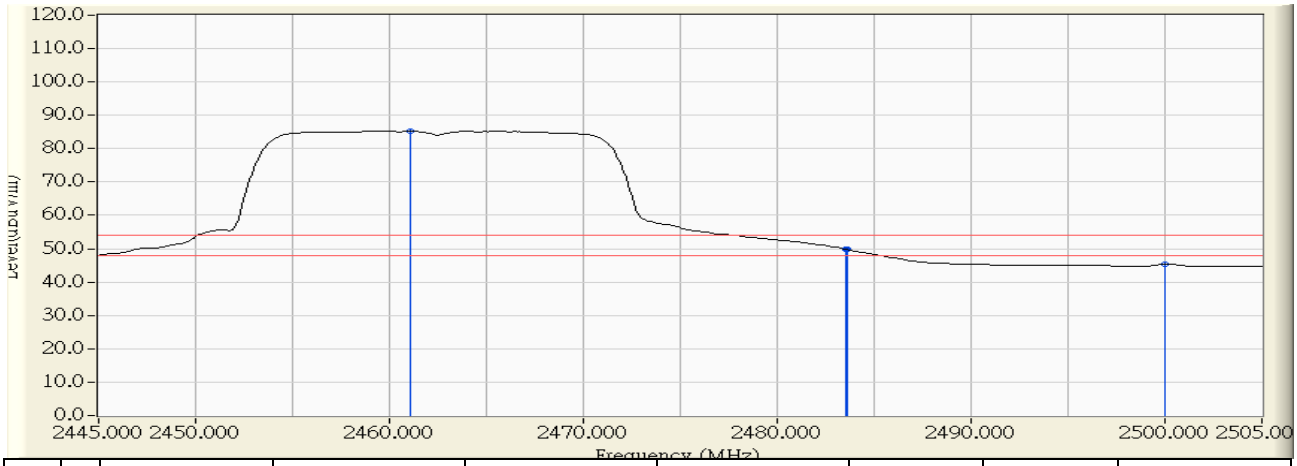


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2465.800	31.674	76.832	108.506	34.506	74.000	PEAK
2		2483.500	31.858	40.070	71.928	-2.072	74.000	PEAK
3		2484.000	31.863	39.948	71.811	-2.189	74.000	PEAK
4		2500.000	31.988	26.994	58.983	-15.017	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:29**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n20M_2462MHz**

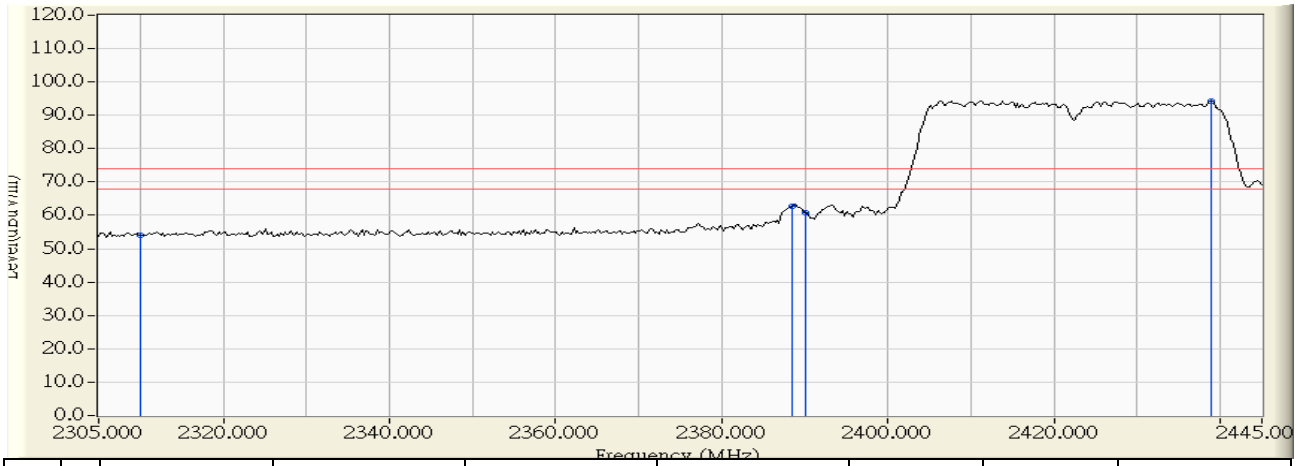


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2461.100	31.626	53.545	85.171	31.171	54.000	AVERAGE
2		2483.500	31.858	18.022	49.880	-4.120	54.000	AVERAGE
3		2483.600	31.859	17.893	49.752	-4.248	54.000	AVERAGE
4		2500.000	31.988	13.387	45.376	-8.624	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:50**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n40M_2422MHz**

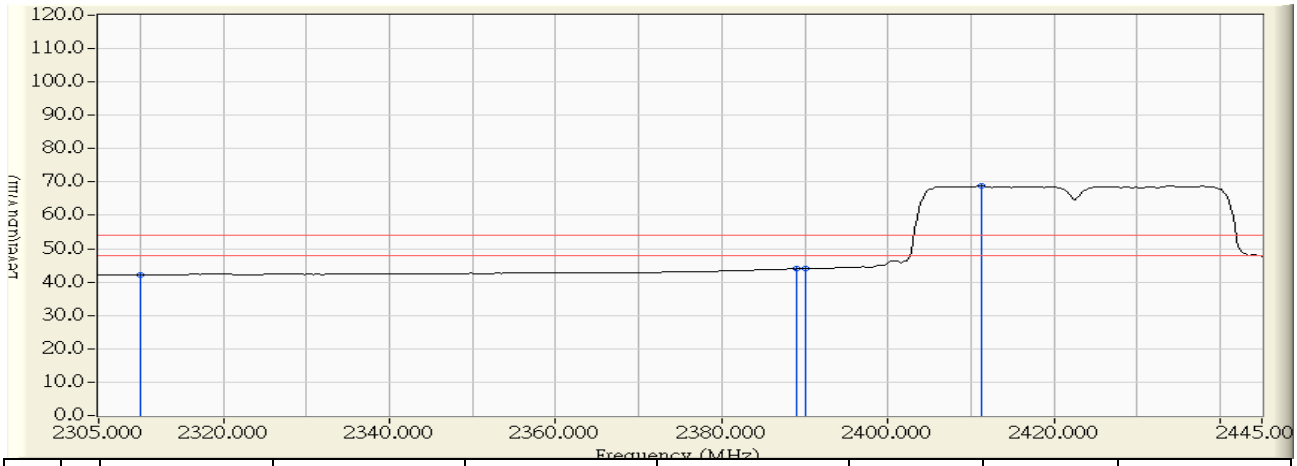


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	24.030	54.089	-19.911	74.000	PEAK
2		2388.533	30.874	31.969	62.842	-11.158	74.000	PEAK
3		2390.000	30.888	29.986	60.874	-13.126	74.000	PEAK
4	*	2438.933	31.396	63.017	94.413	20.413	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:51**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n40M_2422MHz**

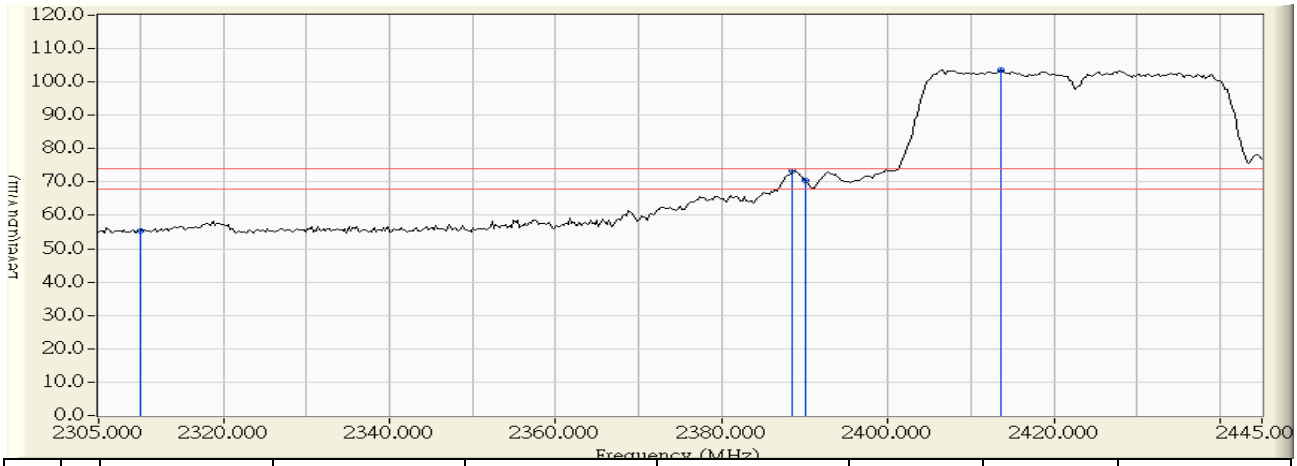


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.023	42.082	-11.918	54.000	AVERAGE
2		2389.000	30.878	13.093	43.971	-10.029	54.000	AVERAGE
3		2390.000	30.888	13.121	44.009	-9.991	54.000	AVERAGE
4	*	2411.167	31.108	37.681	68.789	14.789	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:45**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n40M_2422MHz**

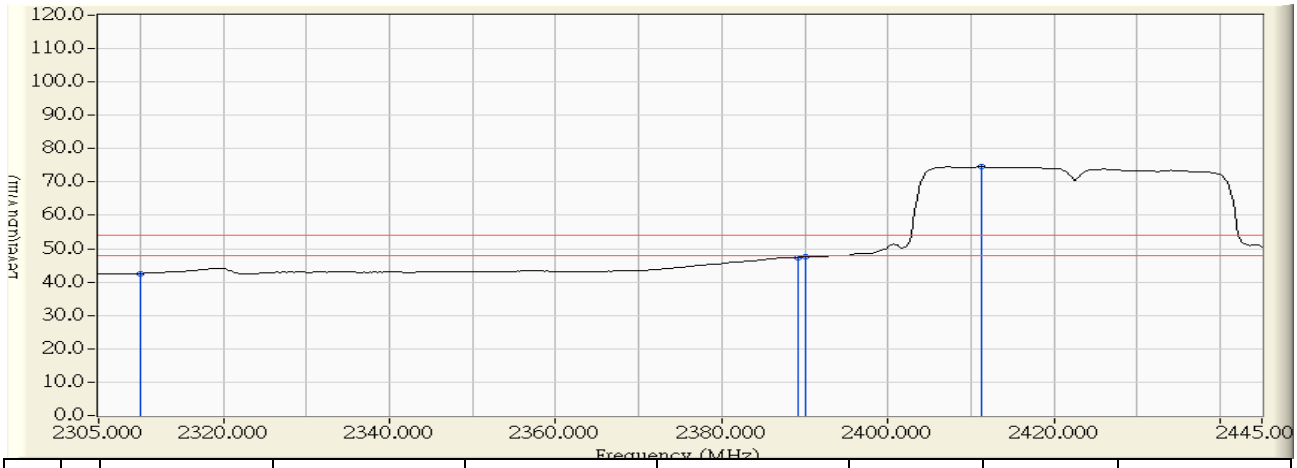


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	25.333	55.392	-18.608	74.000	PEAK
2		2388.533	30.874	42.400	73.273	-0.727	74.000	PEAK
3		2390.000	30.888	39.604	70.492	-3.508	74.000	PEAK
4	*	2413.500	31.132	72.356	103.488	29.488	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:46**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n40M_2422MHz**

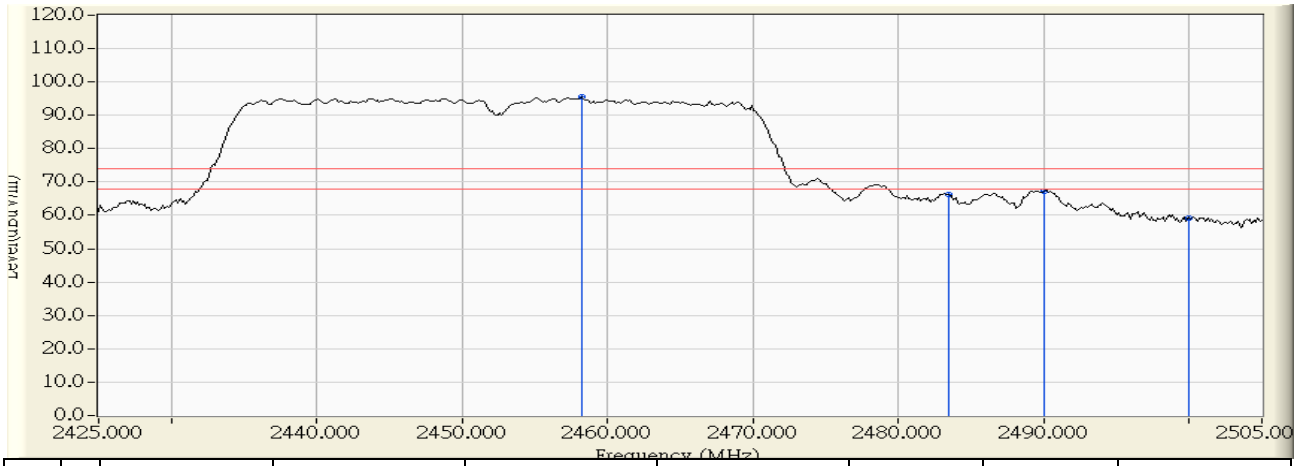


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	30.059	12.532	42.591	-11.409	54.000	AVERAGE
2		2389.233	30.880	16.508	47.388	-6.612	54.000	AVERAGE
3		2390.000	30.888	16.651	47.539	-6.461	54.000	AVERAGE
4	*	2411.167	31.108	43.512	74.620	20.620	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 16:13**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n40M_2452MHz**

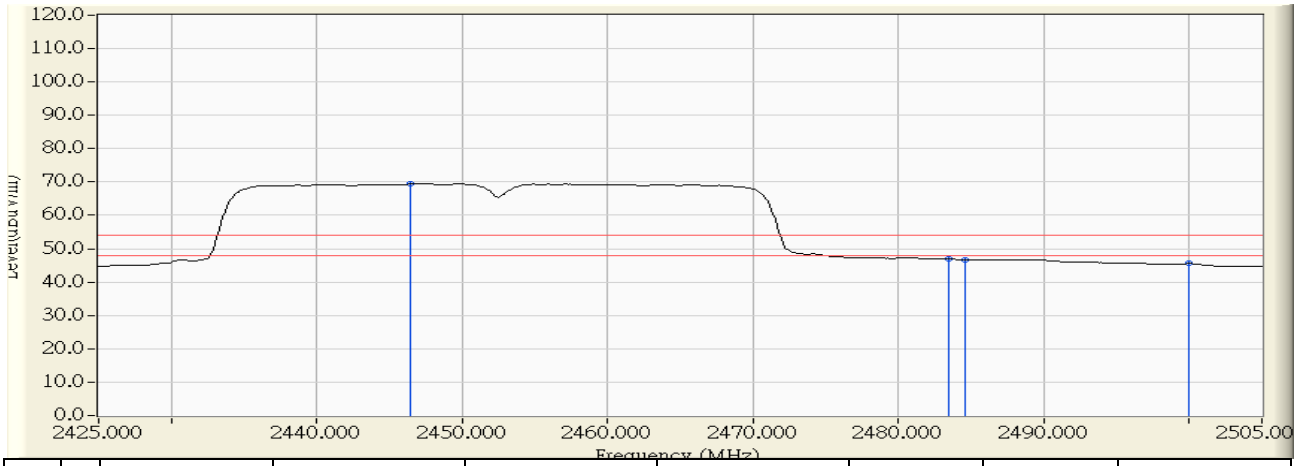


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2458.200	31.595	63.850	95.446	21.446	74.000	PEAK
2		2483.500	31.858	34.273	66.131	-7.869	74.000	PEAK
3		2490.067	31.926	35.385	67.311	-6.689	74.000	PEAK
4		2500.000	31.988	27.080	59.069	-14.931	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 16:13**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n40M_2452MHz**

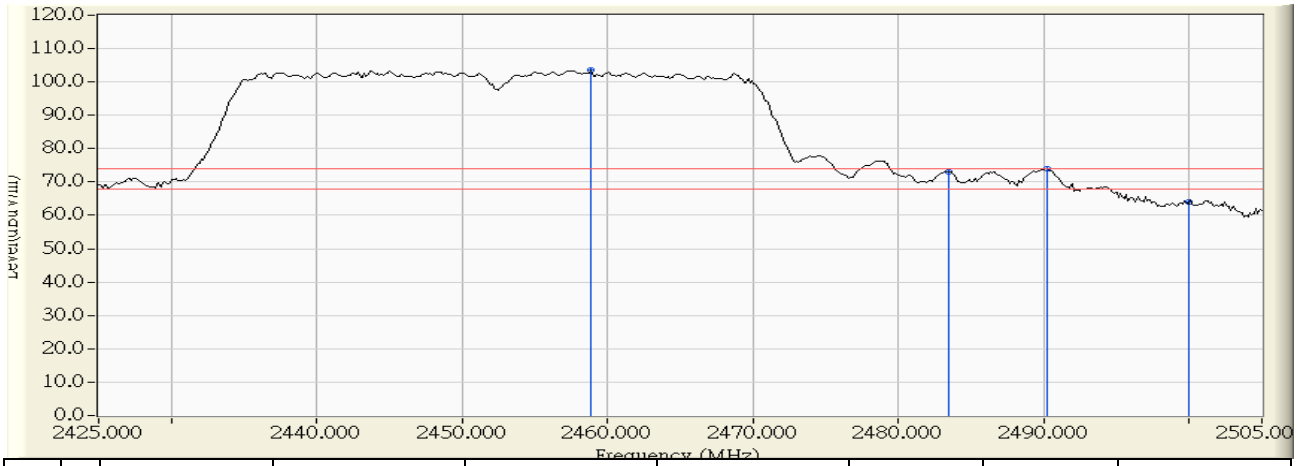


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2446.467	31.473	37.905	69.379	15.379	54.000	AVERAGE
2		2483.500	31.858	15.016	46.874	-7.126	54.000	AVERAGE
3		2484.600	31.869	14.884	46.753	-7.247	54.000	AVERAGE
4		2500.000	31.988	13.556	45.545	-8.455	54.000	AVERAGE

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:56**
Limit : FCC_SpartC_15.247_H_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n40M_2452MHz**

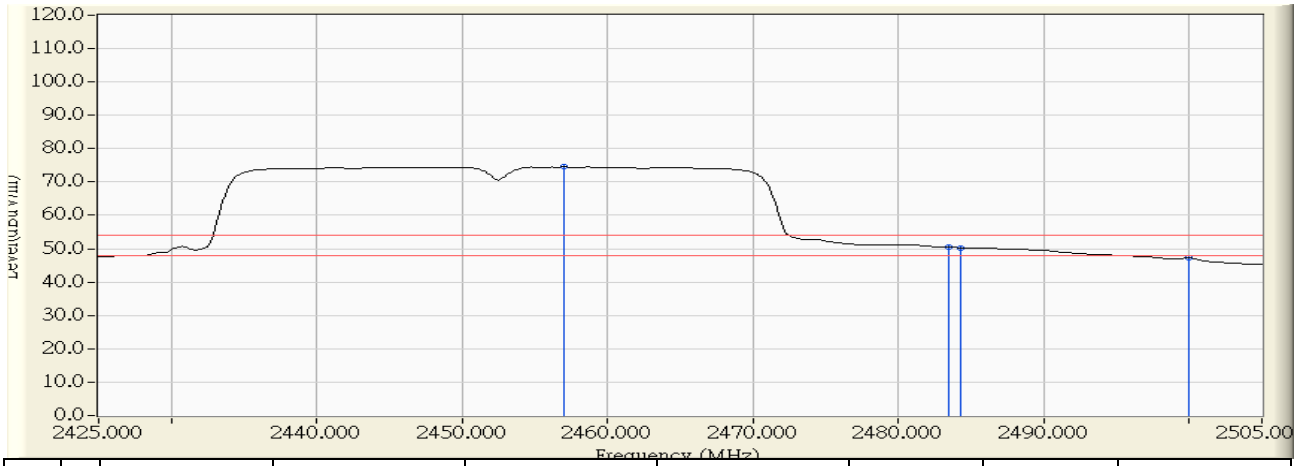


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2458.867	31.603	71.922	103.525	29.525	74.000	PEAK
2		2483.500	31.858	41.116	72.974	-1.026	74.000	PEAK
3		2490.200	31.928	42.002	73.929	-0.071	74.000	PEAK
4		2500.000	31.988	32.177	64.166	-9.834	74.000	PEAK

Note:

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

Site : CB1	**Time : 2013/10/16 - 15:57**
Limit : FCC_SpartC_15.247_H_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : Dual-WAN Security Router	**Note : Mode 1: Transmit_802.11n40M_2452MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2457.000	31.583	42.920	74.503	20.503	54.000	AVERAGE
2		2483.500	31.858	18.605	50.463	-3.537	54.000	AVERAGE
3		2484.333	31.867	18.410	50.277	-3.723	54.000	AVERAGE
4		2500.000	31.988	15.283	47.272	-6.728	54.000	AVERAGE

Note:

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

7. Occupied Bandwidth

7.1. Test Equipment

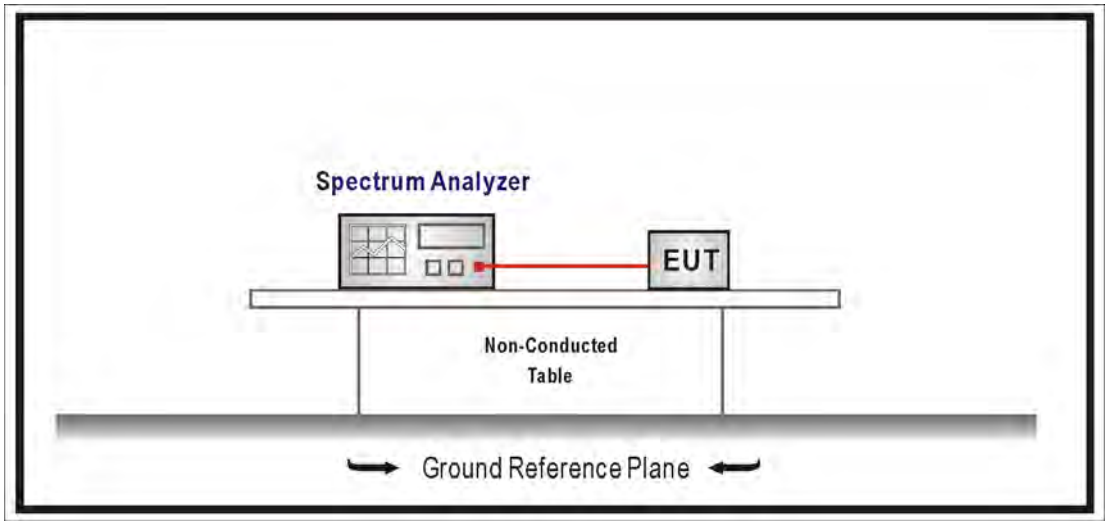
The following test equipments are used during the test:

Occupied Bandwidth / SR7

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

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

7.2. Test Setup



7.3. Test Procedures

The EUT was setup according to ANSI C63.4: 2009; tested according to DTS test procedure section 8.1 of KDB558074 v03r01 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100KHz, VBW≧3xRBW, Sweep time=Auto, Set Peak detector.

7.4. Limits

The 6 dB bandwidth must be greater than 500 kHz.

7.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

7.6. Uncertainty

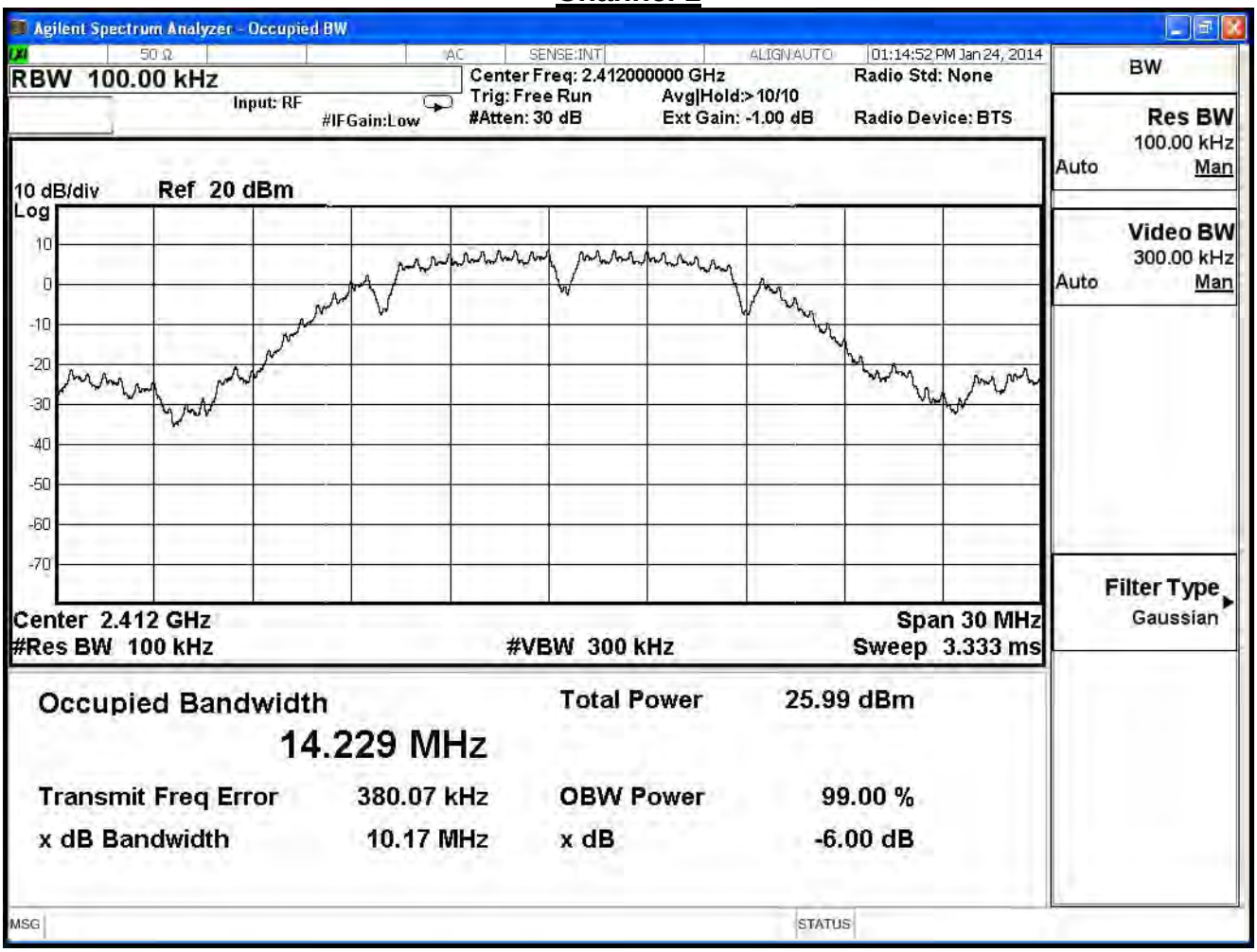
The measurement uncertainty is defined as ±150Hz

7.7. Test Result

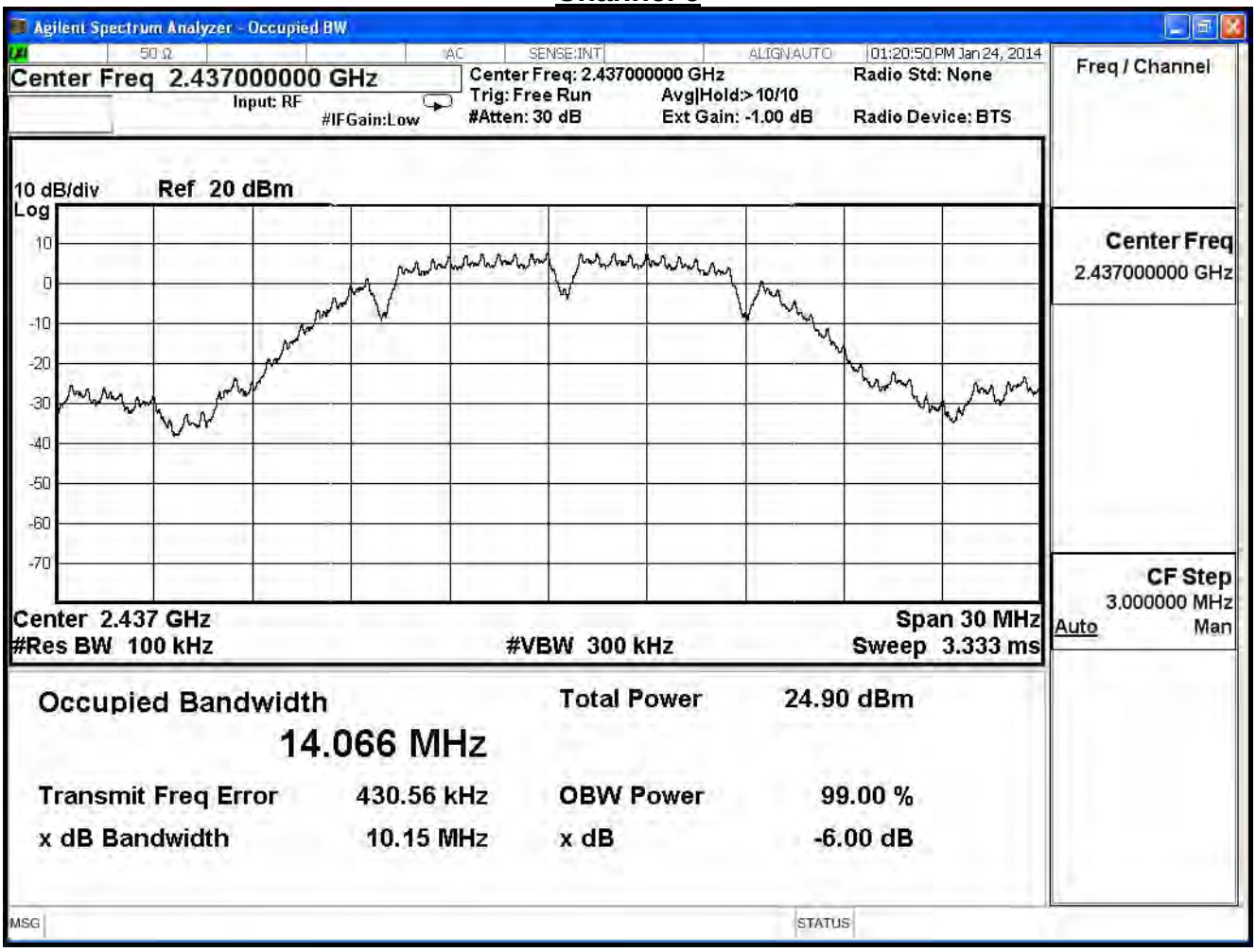
Product	Dual-WAN Security Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

802.11 b				
Channel No.	Frequency (MHz)	Measurement Value (MHz)	Required Limit (MHz)	Result
1	2412	10.170	≧0.5	Pass
6	2437	10.150	≧0.5	Pass
11	2462	10.170	≧0.5	Pass

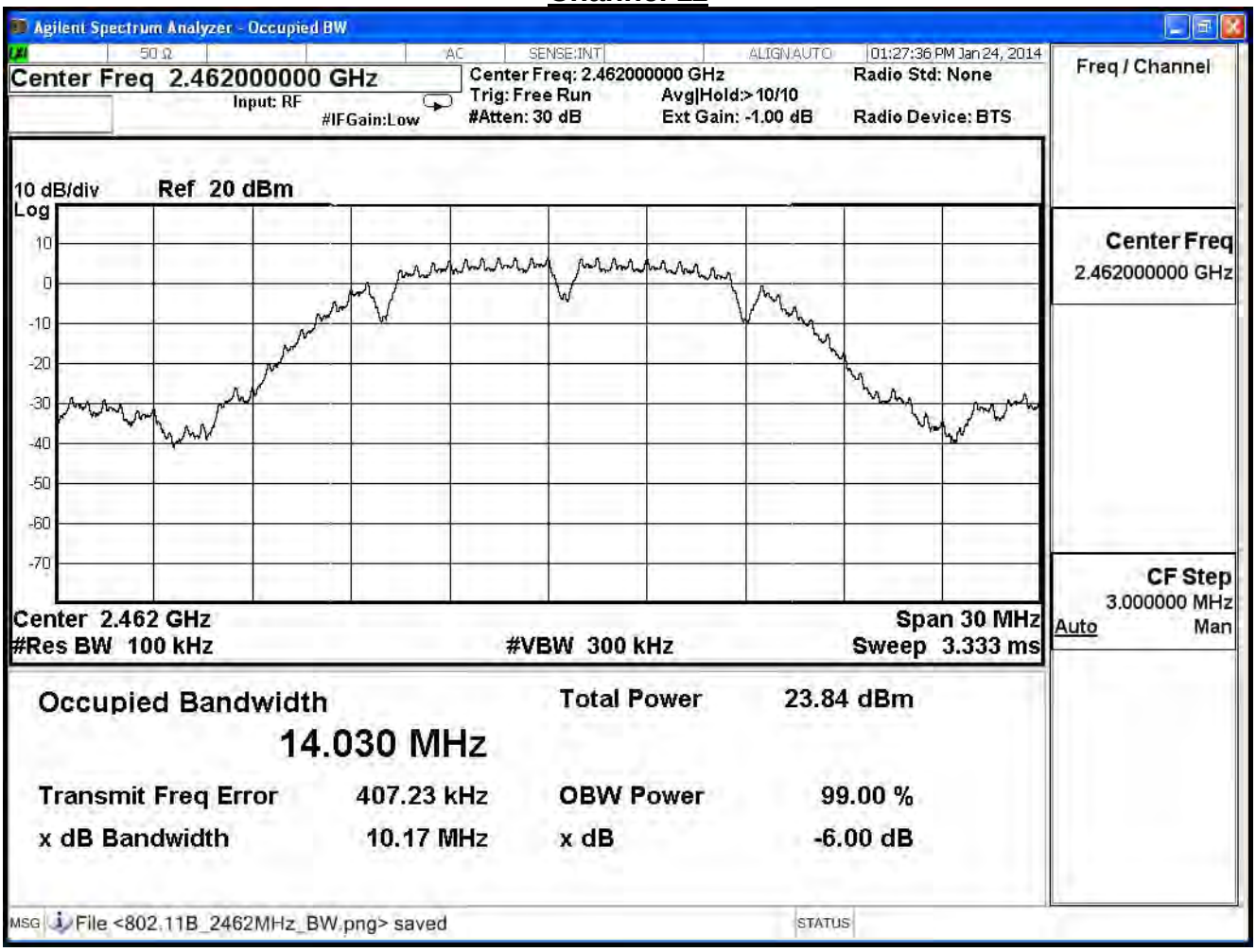
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:20:50 PM Jan 24, 2014
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 30 MHz
Sweep 3.333 ms
Occupied Bandwidth
14.066 MHz
Total Power
24.90 dBm
Transmit Freq Error
430.56 kHz
OBW Power
99.00 %
x dB Bandwidth
10.15 MHz
x dB
-6.00 dB
MSG
STATUS

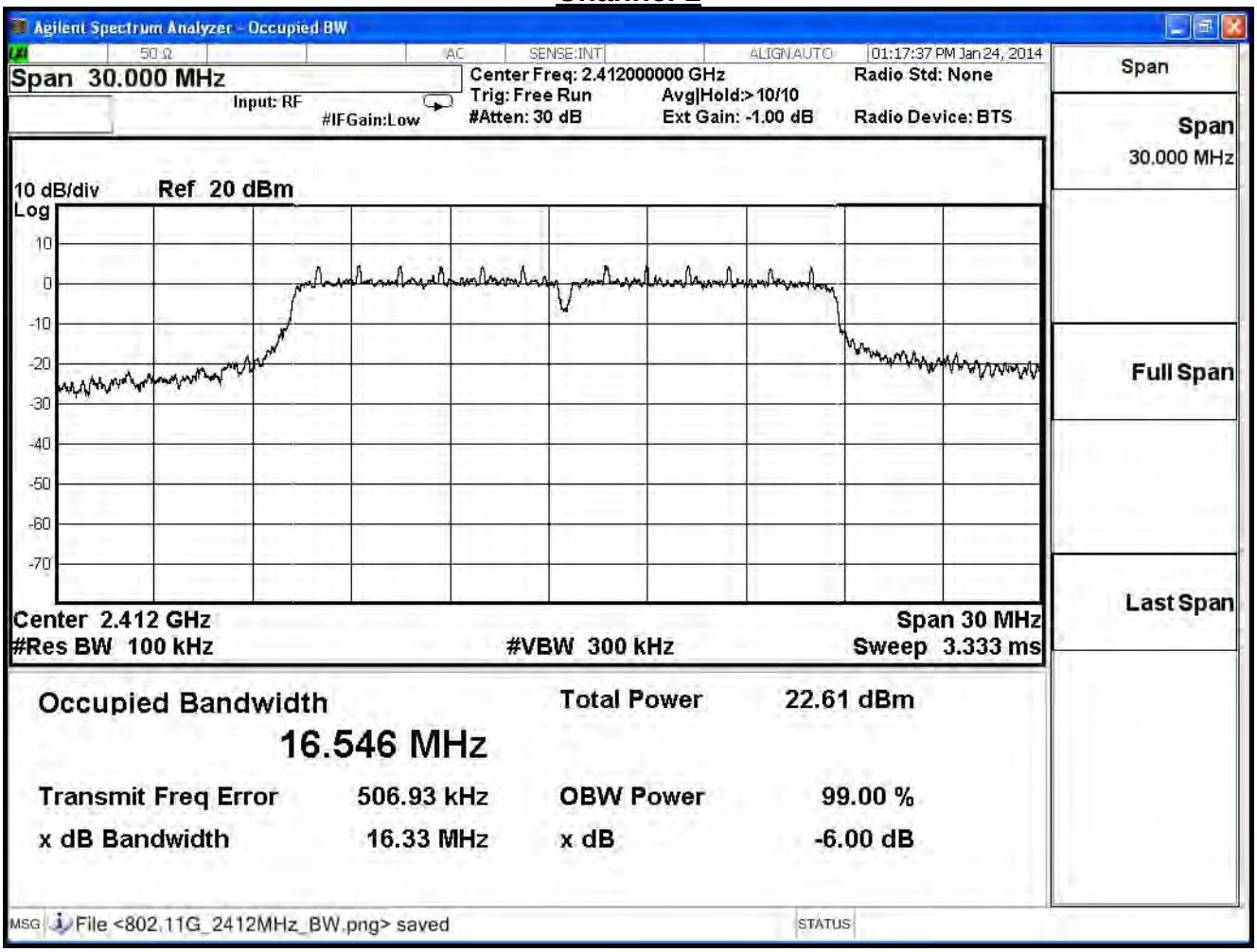
Channel 11


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:27:36 PM Jan 24, 2014
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 2.462 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 30 MHz
Sweep 3.333 ms
Occupied Bandwidth
14.030 MHz
Total Power
23.84 dBm
Transmit Freq Error
407.23 kHz
OBW Power
99.00 %
x dB Bandwidth
10.17 MHz
x dB
-6.00 dB
MSG
File <802.11B_2462MHz_BW.png> saved
STATUS

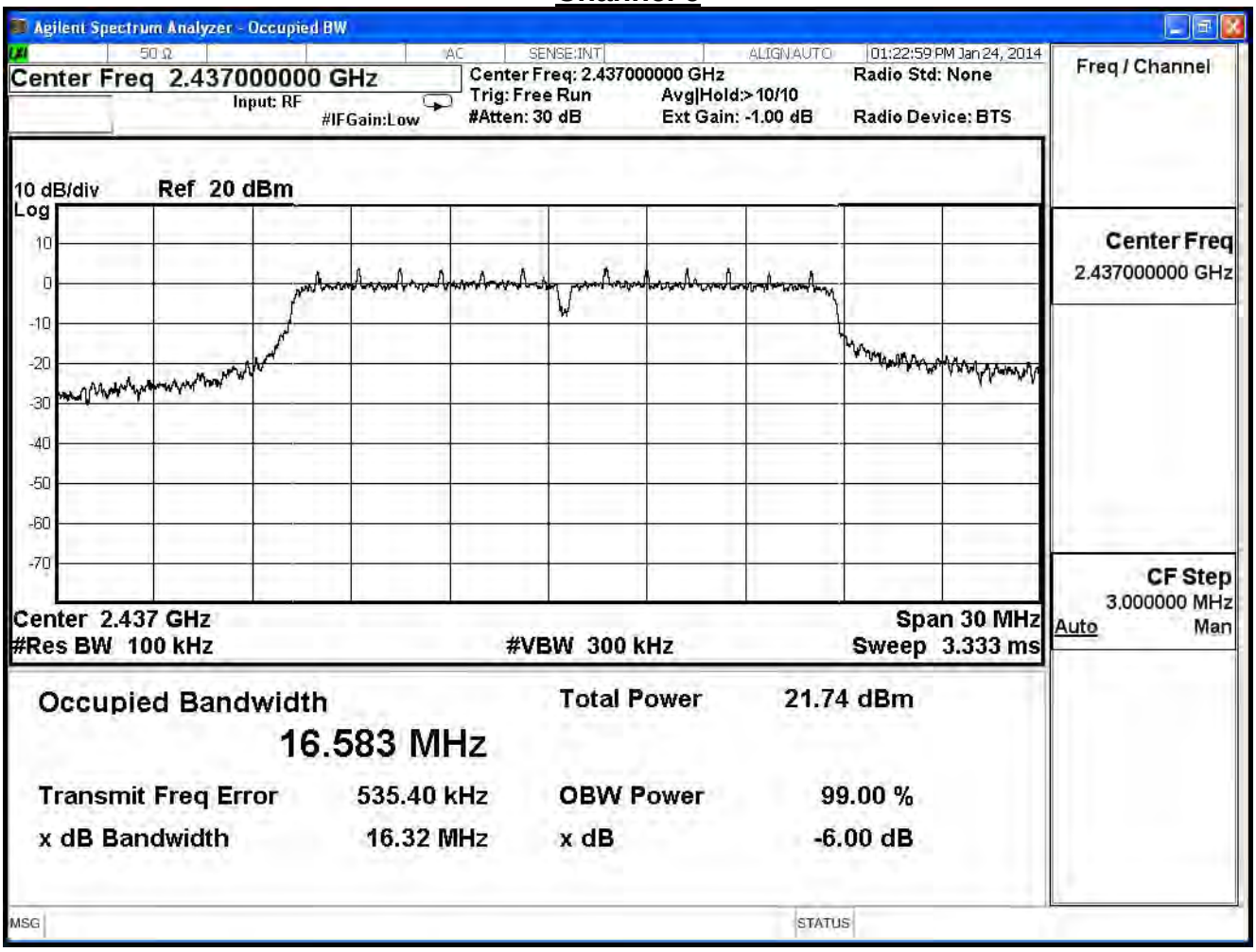
Product	Dual-WAN Security Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measurement Value (MHz)	Required Limit (MHz)	Result
1	2412	16.330	≧0.5	Pass
6	2437	16.320	≧0.5	Pass
11	2462	16.100	≧0.5	Pass

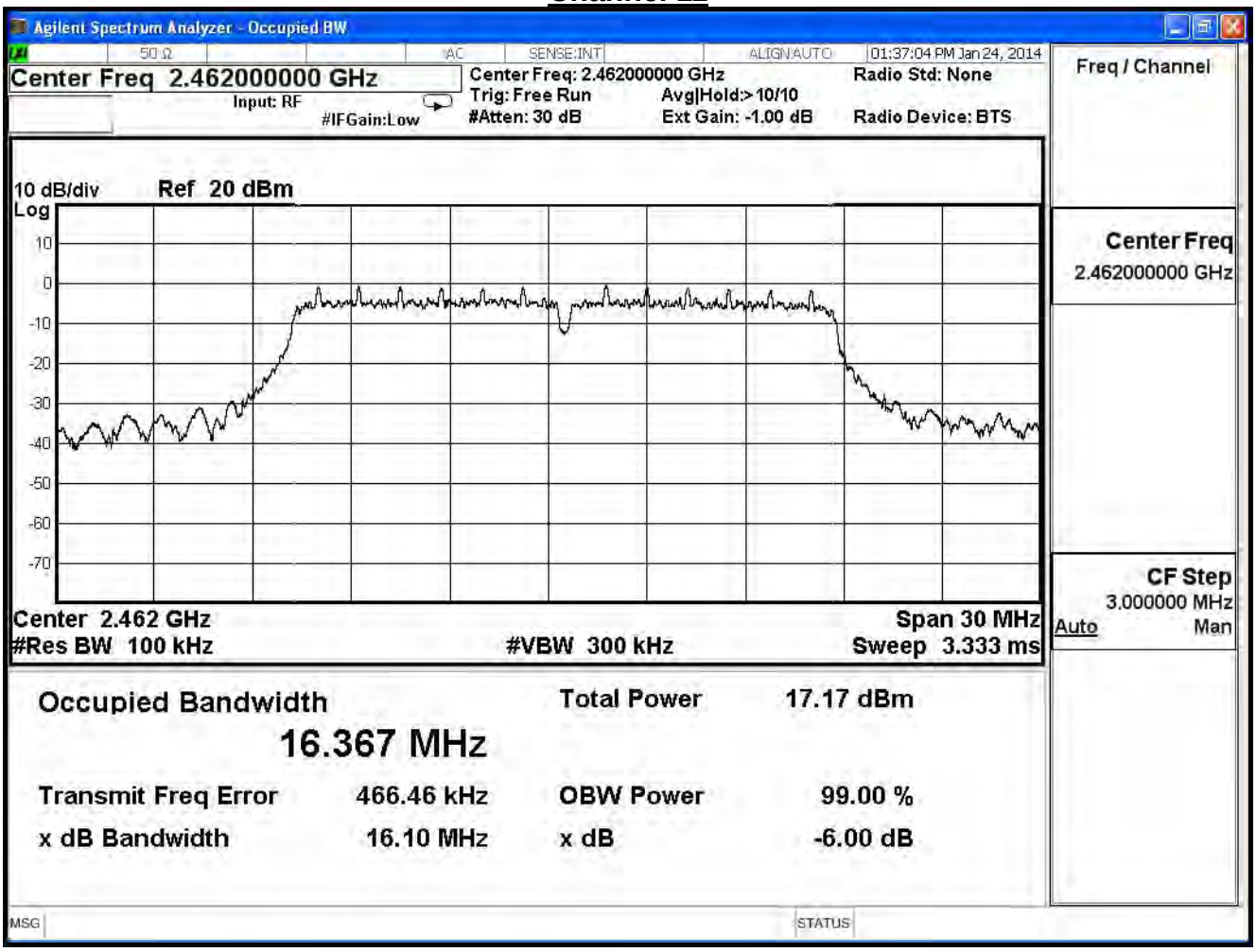
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:22:59 PM Jan 24, 2014
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 30 MHz
Sweep 3.333 ms
Occupied Bandwidth
16.583 MHz
Total Power
21.74 dBm
Transmit Freq Error
535.40 kHz
OBW Power
99.00 %
x dB Bandwidth
16.32 MHz
x dB
-6.00 dB
MSG
STATUS

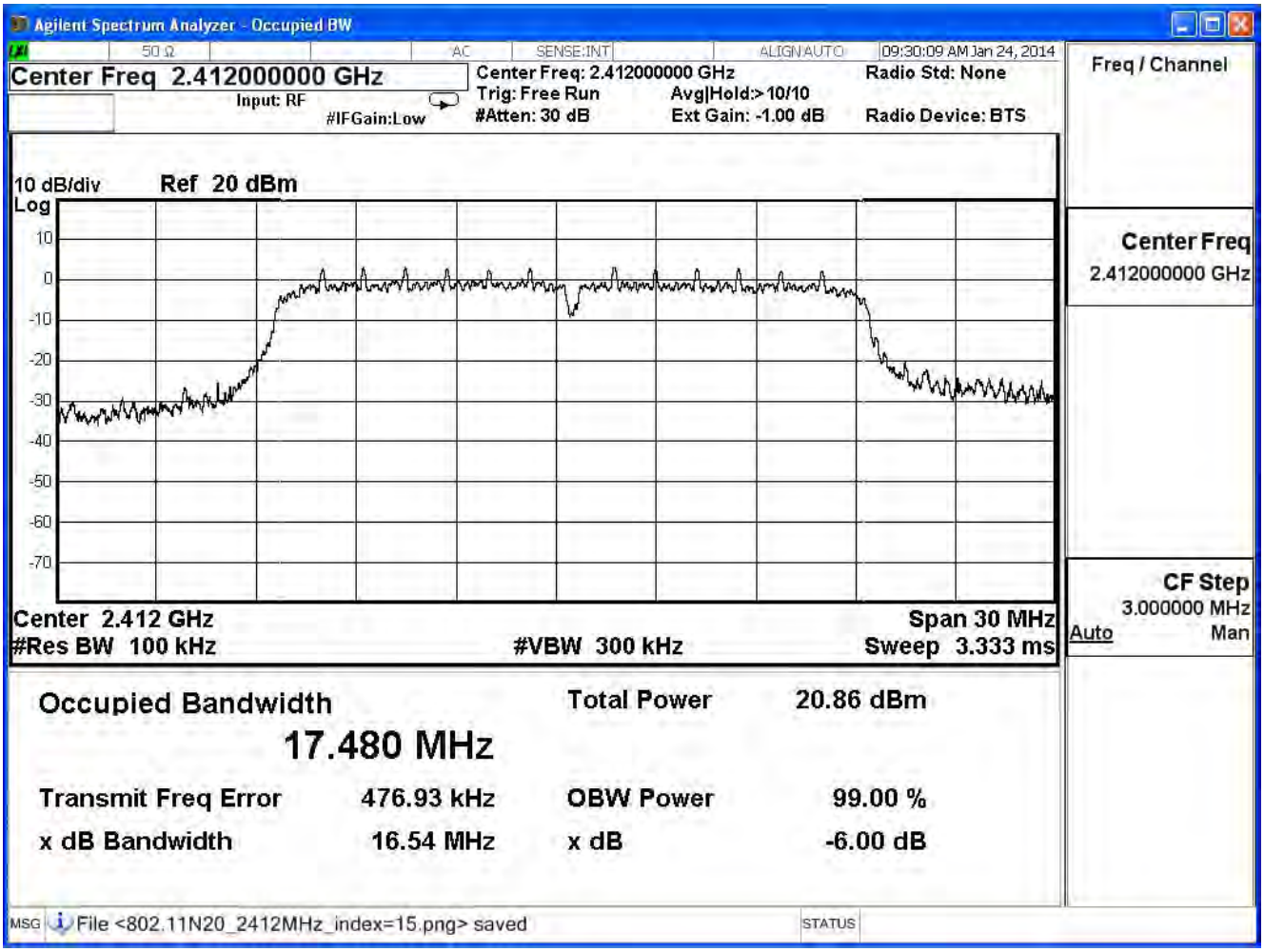
Channel 11


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:37:04 PM Jan 24, 2014
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 2.462 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 30 MHz
Sweep 3.333 ms
Occupied Bandwidth
16.367 MHz
Total Power
17.17 dBm
Transmit Freq Error
466.46 kHz
OBW Power
99.00 %
x dB Bandwidth
16.10 MHz
x dB
-6.00 dB
MSG
STATUS

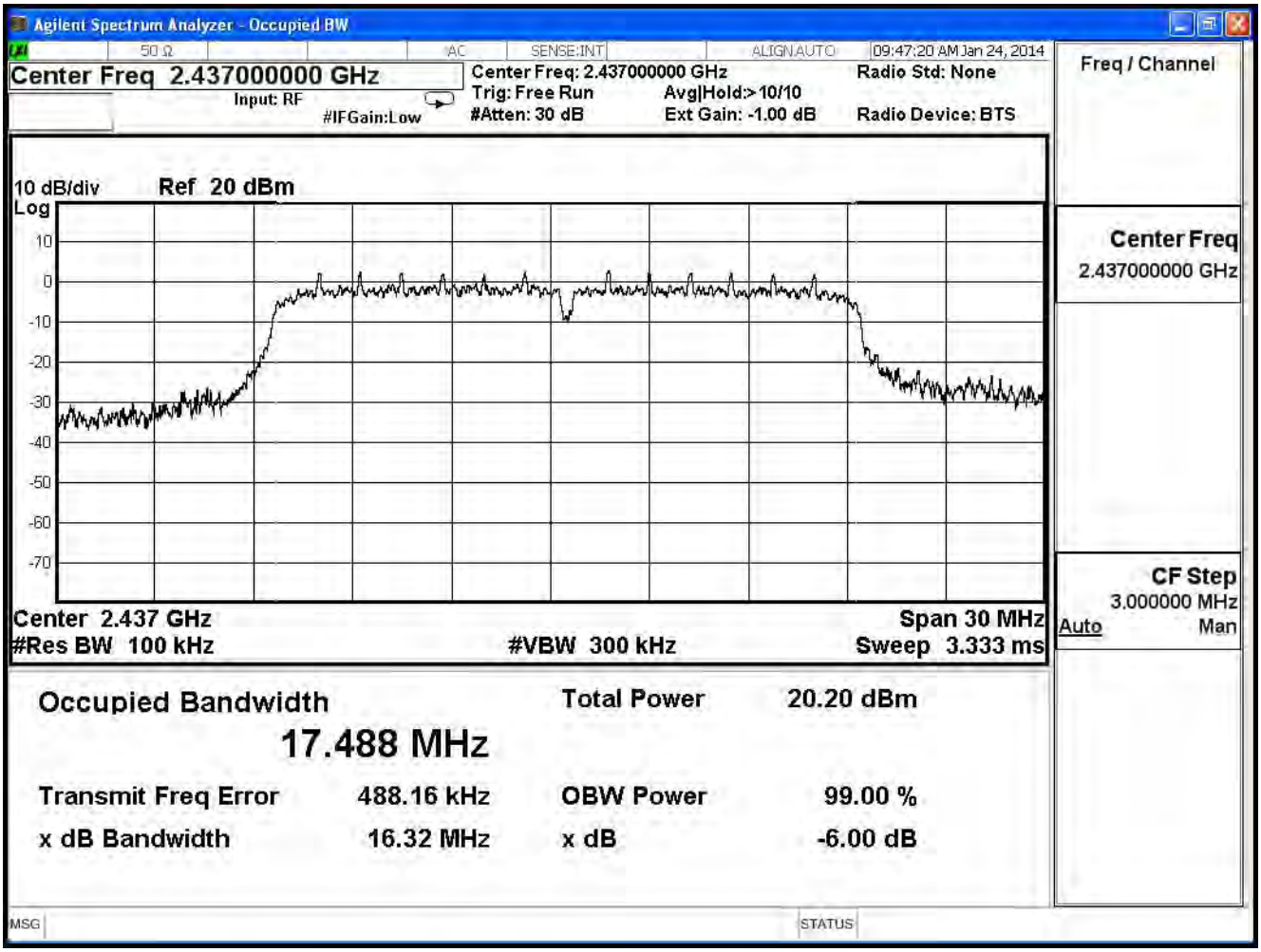
Product	Dual-WAN Security Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE 802.11n (20MHz), ANT 0				
Channel No.	Frequency (MHz)	Measurement Value (MHz)	Required Limit (MHz)	Result
1	2412	16.540	≧0.5	Pass
6	2437	16.320	≧0.5	Pass
11	2462	16.760	≧0.5	Pass

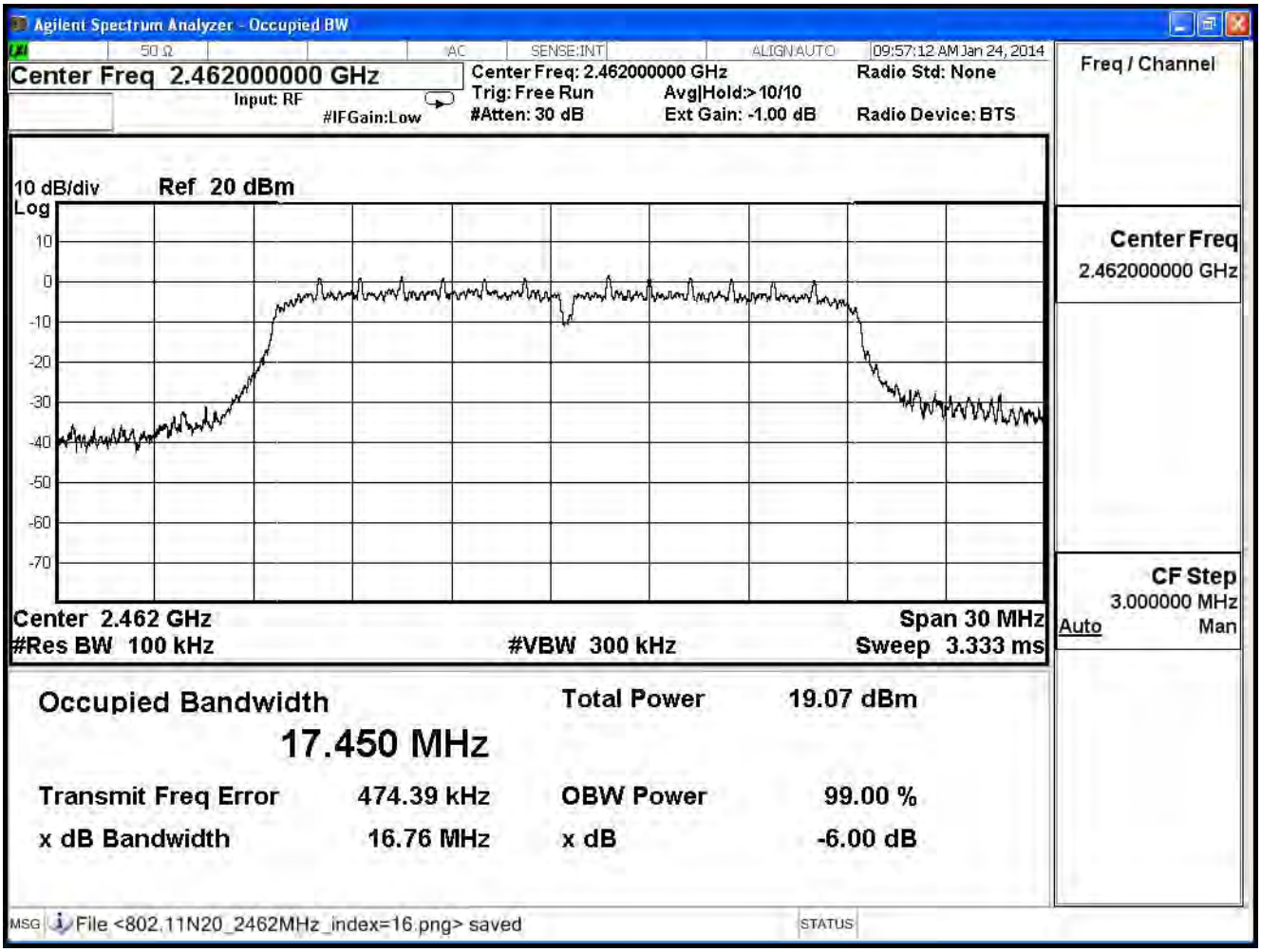
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:47:20 AM Jan 24, 2014
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 30 MHz
Sweep 3.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
17.488 MHz
Total Power
20.20 dBm
Transmit Freq Error
488.16 kHz
OBW Power
99.00 %
x dB Bandwidth
16.32 MHz
x dB
-6.00 dB
MSG
STATUS

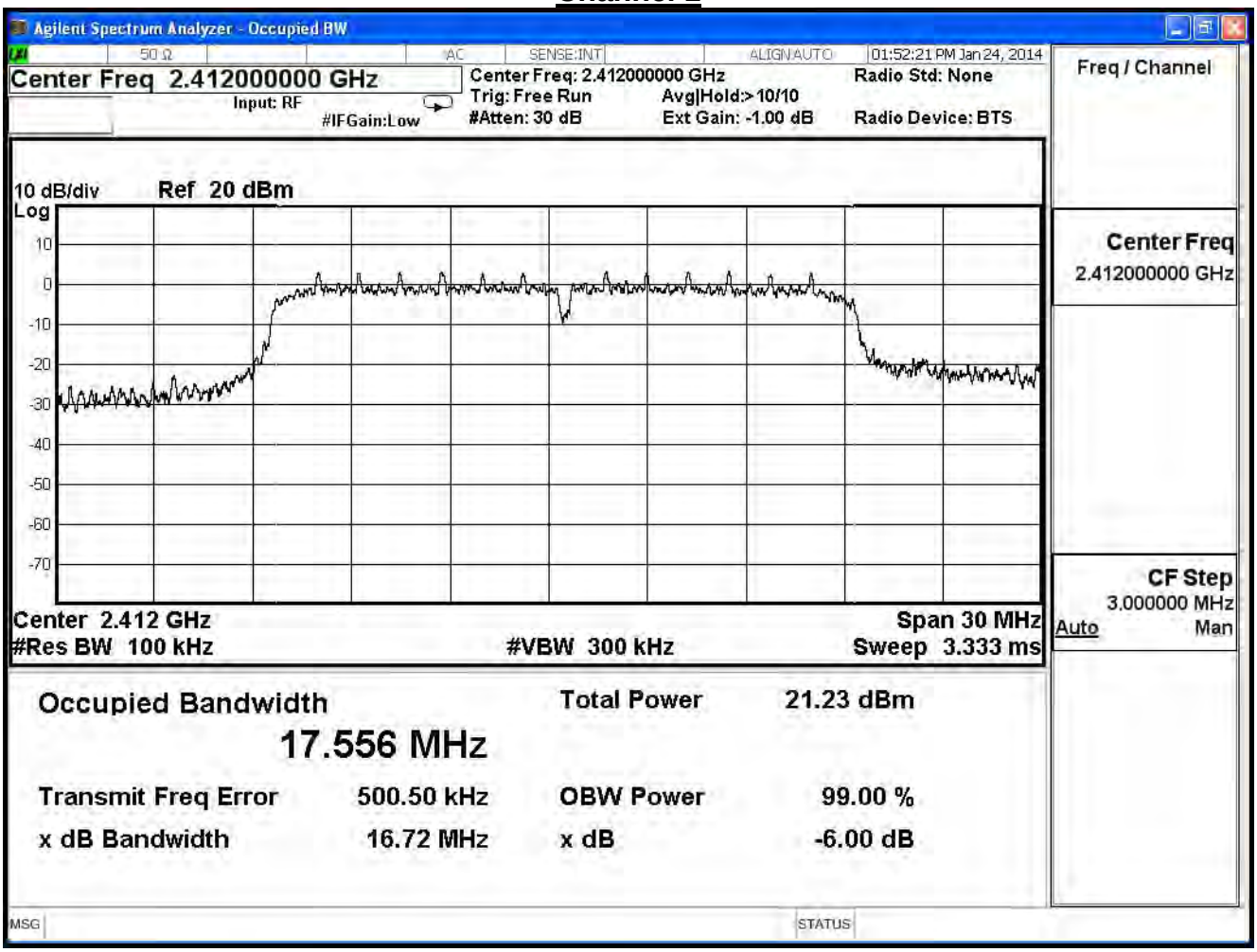
Channel 11


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:57:12 AM Jan 24, 2014
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 30 MHz
Sweep 3.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
17.450 MHz
Total Power
19.07 dBm
Transmit Freq Error
474.39 kHz
OBW Power
99.00 %
x dB Bandwidth
16.76 MHz
x dB
-6.00 dB
MSG
File <802.11N20_2462MHz_index=16.png> saved
STATUS

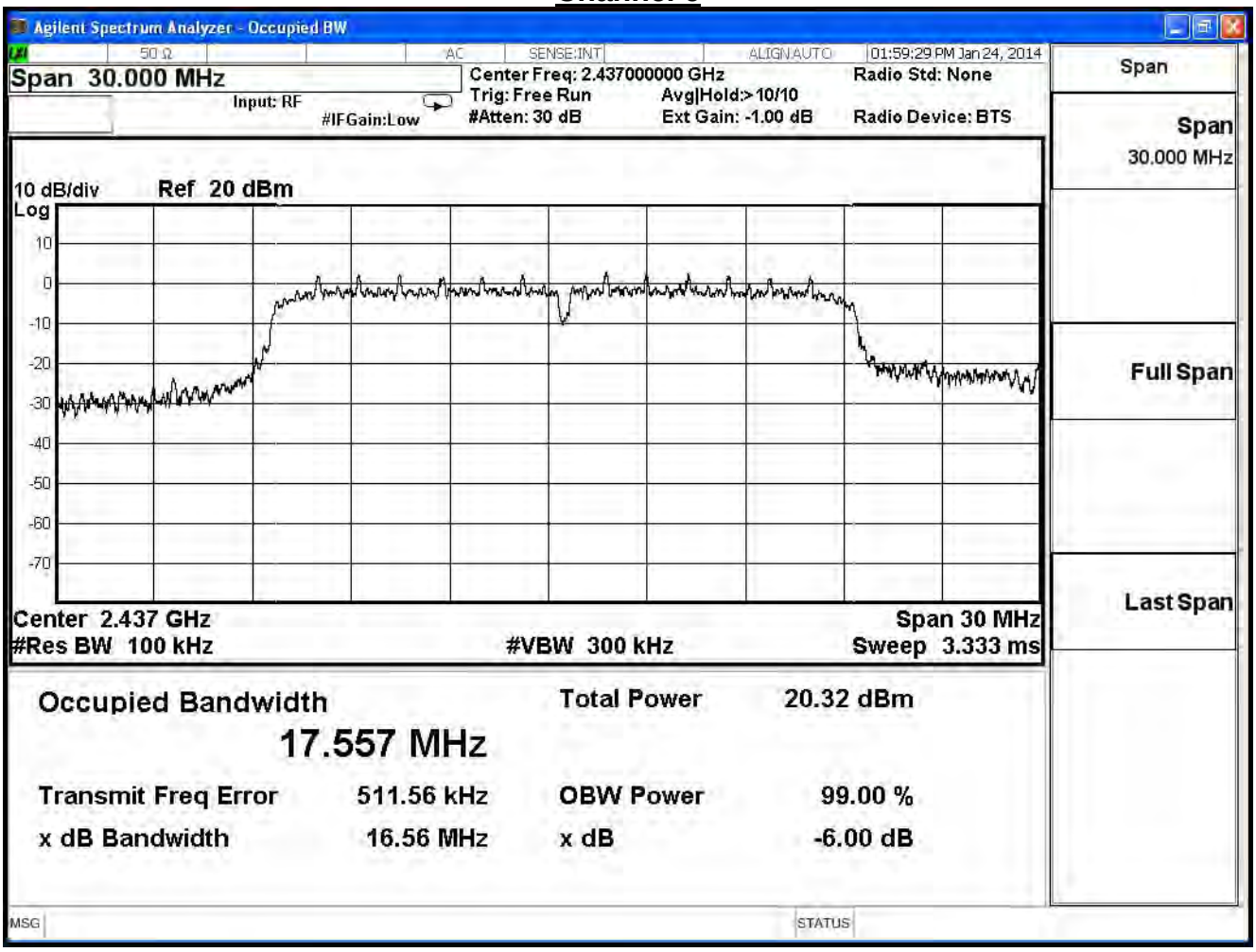
Product	Dual-WAN Security Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE 802.11n (20MHz), ANT 1				
Channel No.	Frequency (MHz)	Measurement Value (MHz)	Required Limit (MHz)	Result
1	2412	16.720	≧0.5	Pass
6	2437	16.560	≧0.5	Pass
11	2462	16.660	≧0.5	Pass

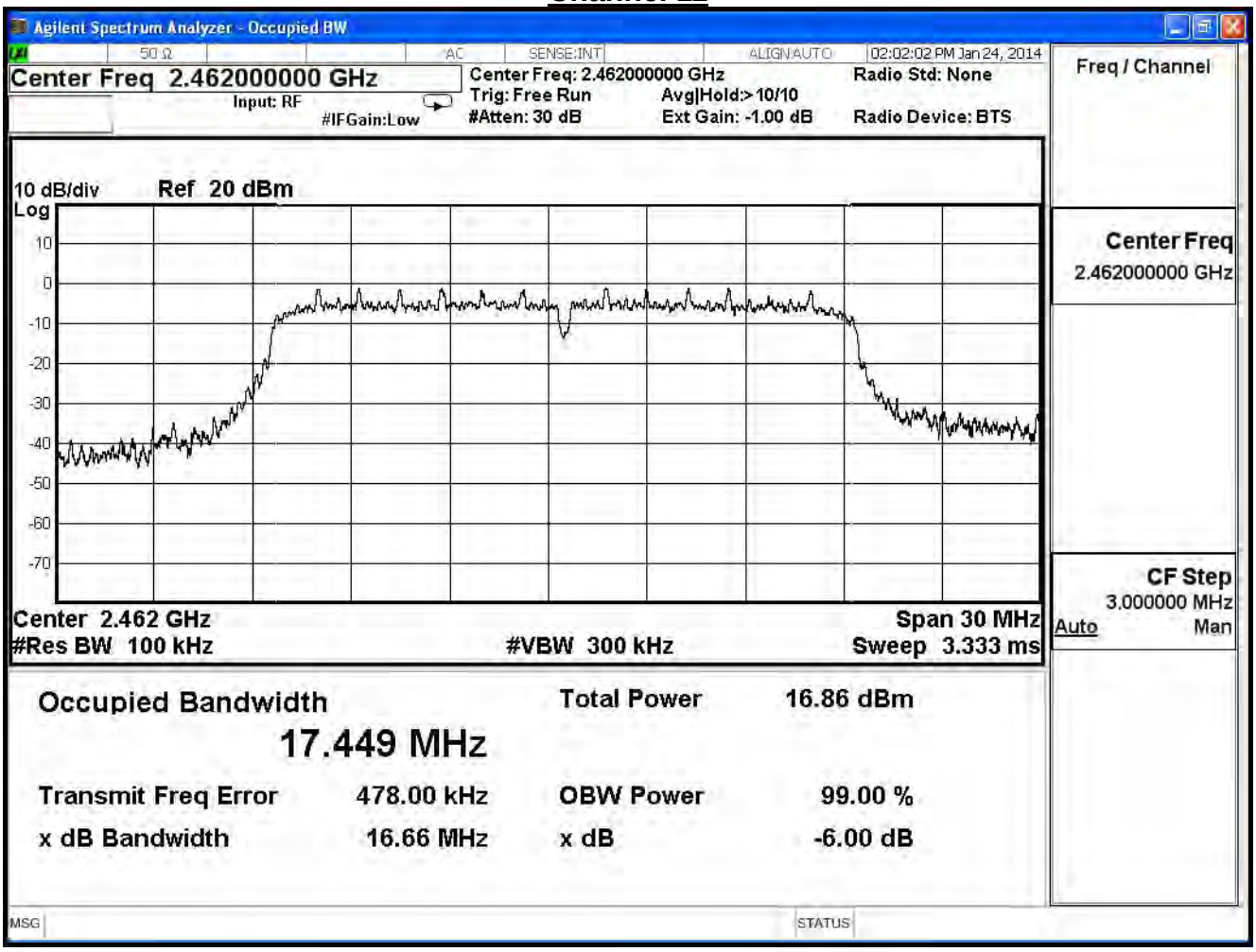
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:59:29 PM Jan 24, 2014
Span 30.000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 30 MHz
Sweep 3.333 ms
Occupied Bandwidth
17.557 MHz
Total Power
20.32 dBm
Transmit Freq Error
511.56 kHz
OBW Power
99.00 %
x dB Bandwidth
16.56 MHz
x dB
-6.00 dB
MSG
STATUS
Span
Span
30.000 MHz
Full Span
Last Span

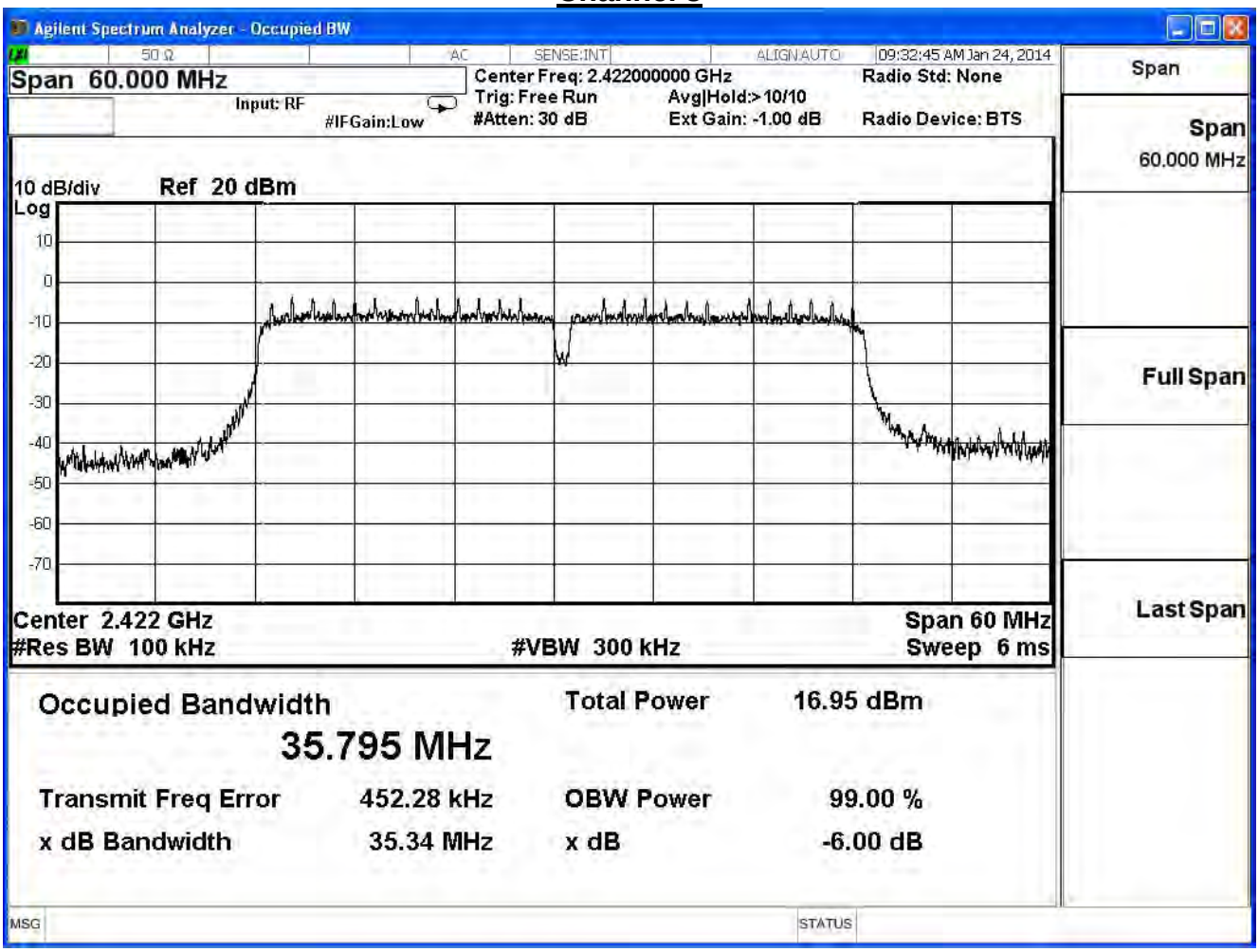
Channel 11


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:02:02 PM Jan 24, 2014
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 2.462 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 30 MHz
Sweep 3.333 ms
Occupied Bandwidth
17.449 MHz
Total Power
16.86 dBm
Transmit Freq Error
478.00 kHz
OBW Power
99.00 %
x dB Bandwidth
16.66 MHz
x dB
-6.00 dB
MSG
STATUS

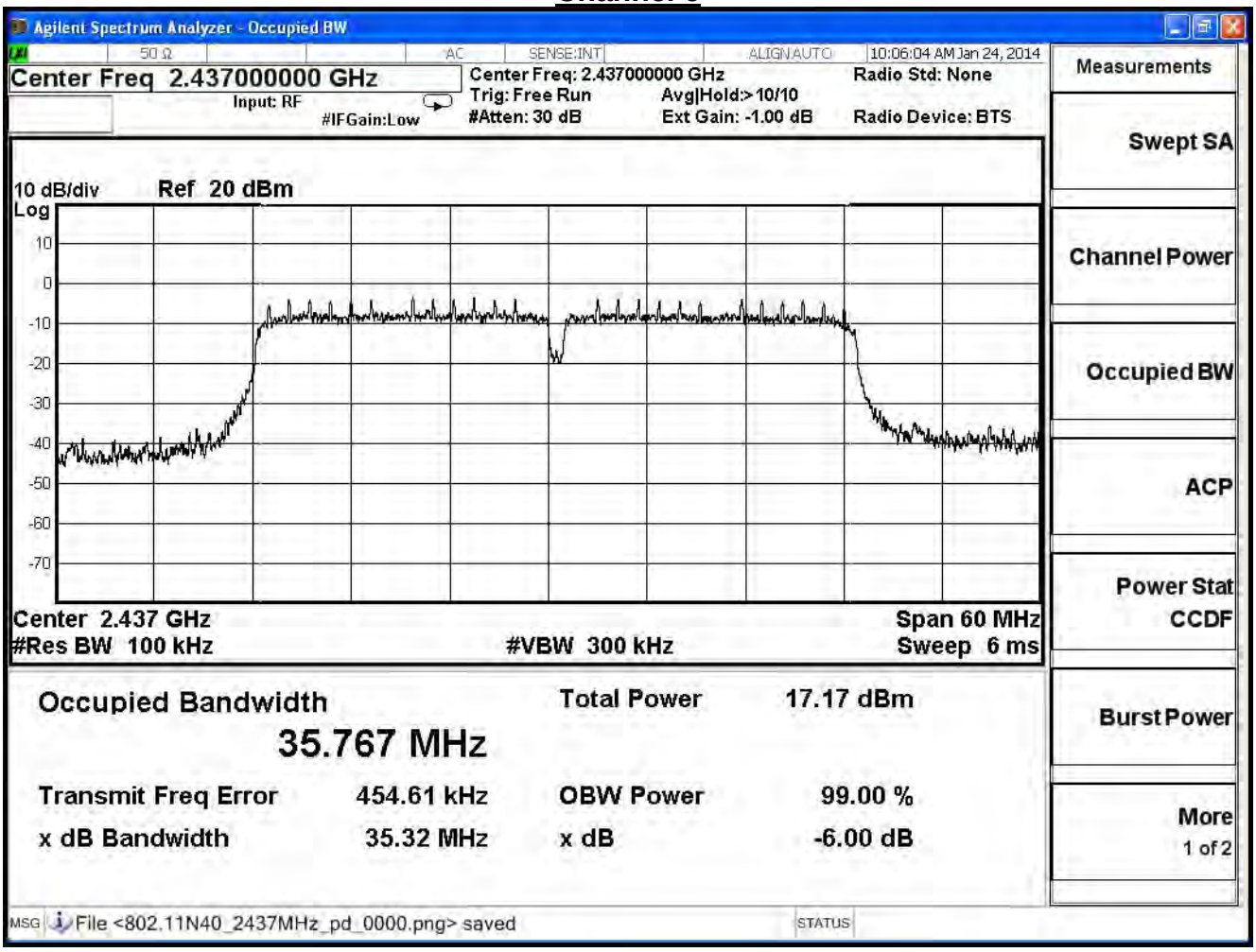
Product	Dual-WAN Security Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE 802.11n (40MHz), ANT 0				
Channel No.	Frequency (MHz)	Measurement Value (MHz)	Required Limit (MHz)	Result
3	2422	35.340	≧0.5	Pass
6	2437	35.320	≧0.5	Pass
9	2452	35.310	≧0.5	Pass

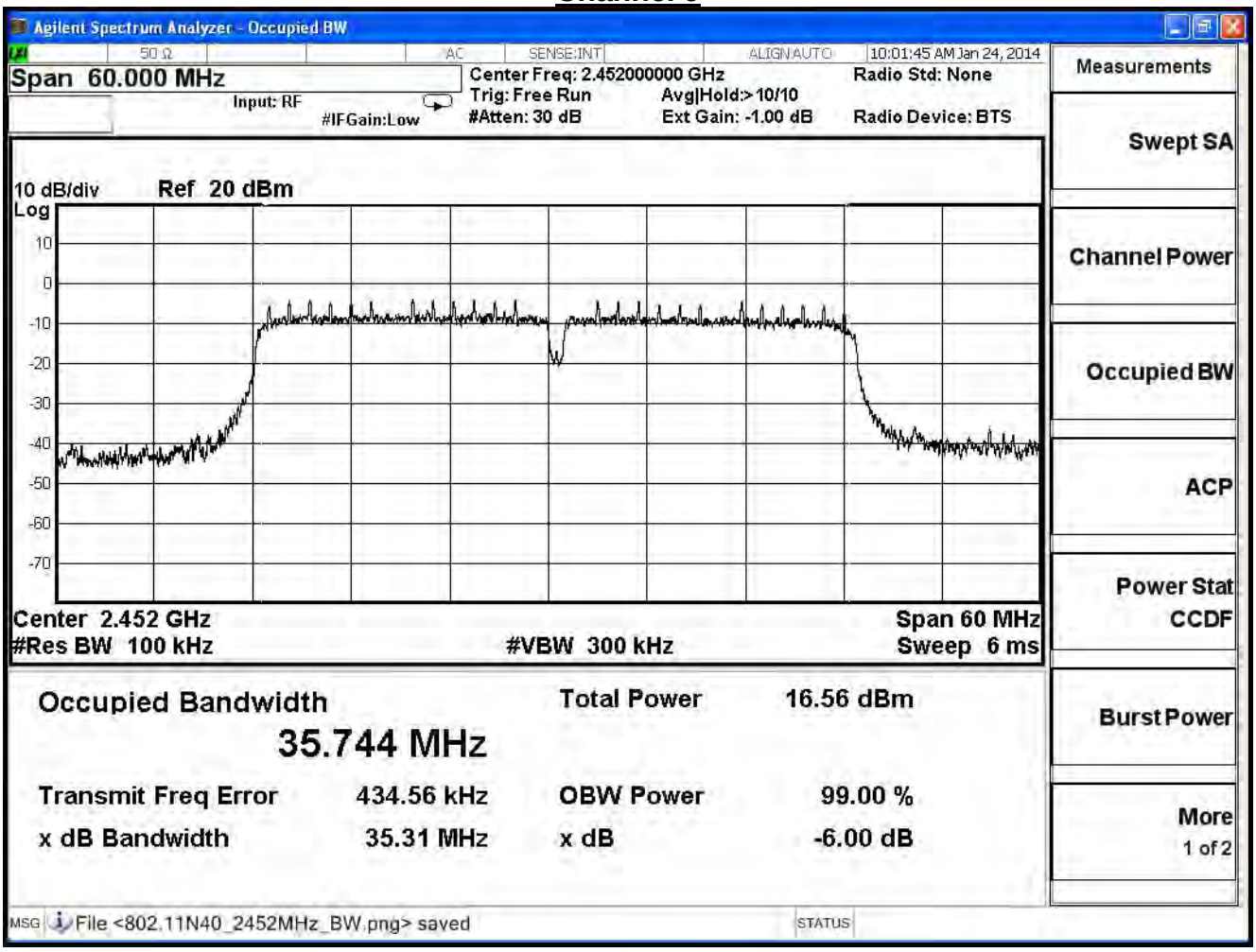
Channel 3



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:06:04 AM Jan 24, 2014
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 60 MHz
Sweep 6 ms
Occupied Bandwidth
35.767 MHz
Total Power
17.17 dBm
Transmit Freq Error
454.61 kHz
OBW Power
99.00 %
x dB Bandwidth
35.32 MHz
x dB
-6.00 dB
MSG
File <802.11N40_2437MHz_pd_0000.png> saved
STATUS
Measurements
Swept SA
Channel Power
Occupied BW
ACP
Power Stat
CCDF
Burst Power
More
1 of 2

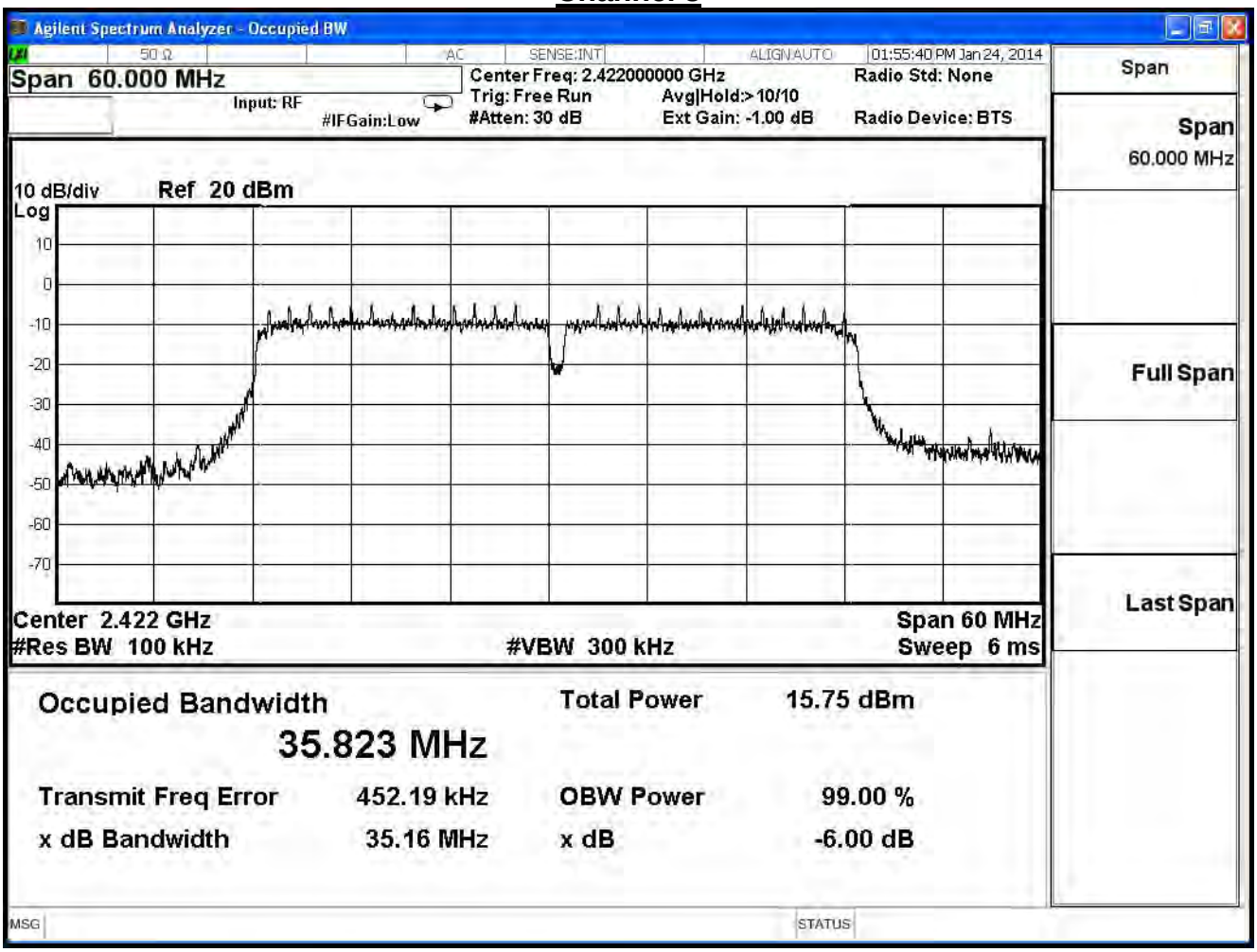
Channel 9


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:01:45 AM Jan 24, 2014
Span 60.000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.452 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 60 MHz
Sweep 6 ms
Occupied Bandwidth
35.744 MHz
Total Power
16.56 dBm
Transmit Freq Error
434.56 kHz
OBW Power
99.00 %
x dB Bandwidth
35.31 MHz
x dB
-6.00 dB
MSG
File <802.11N40_2452MHz_BW.png> saved
STATUS
Measurements
Swept SA
Channel Power
Occupied BW
ACP
Power Stat
CCDF
Burst Power
More
1 of 2

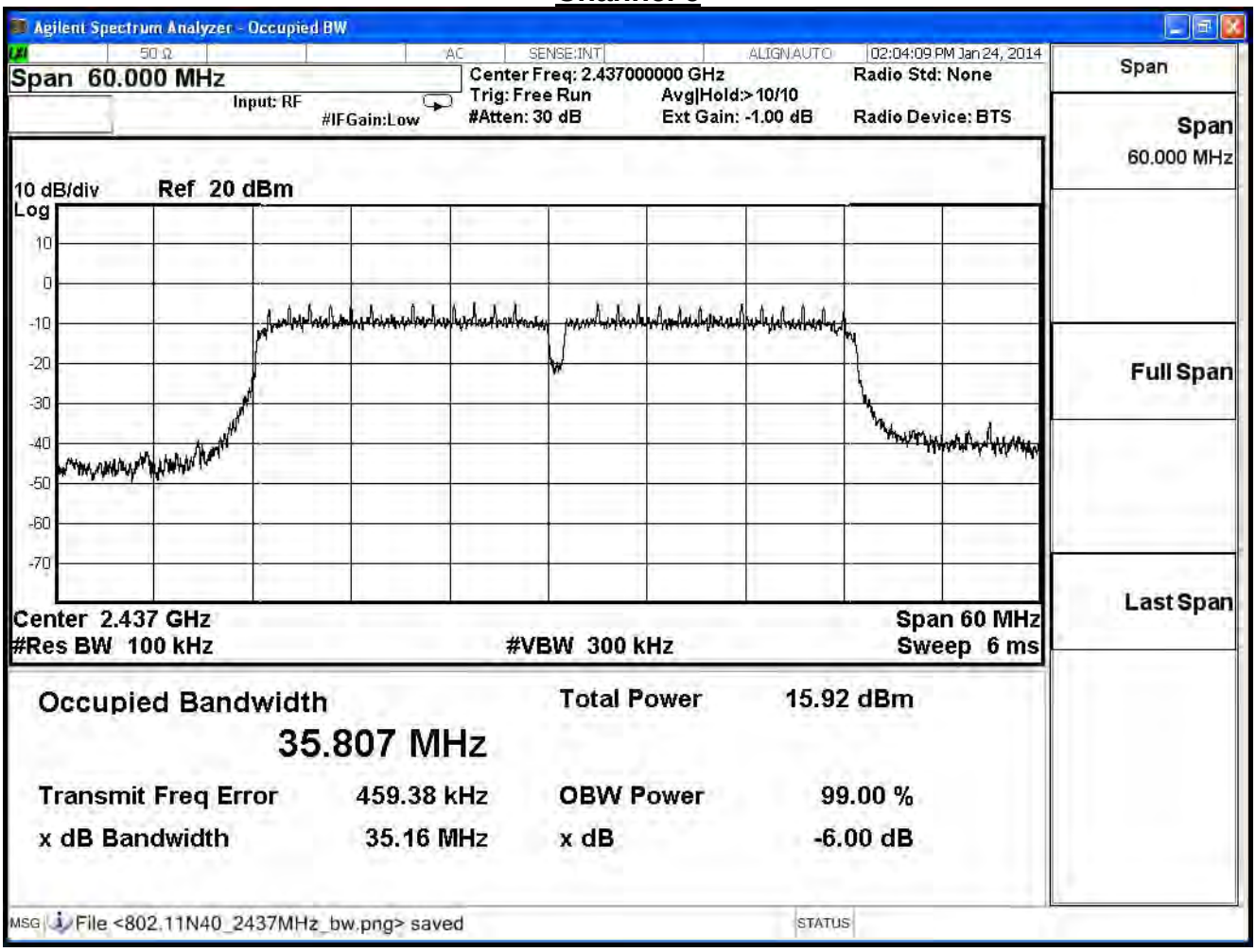
Product	Dual-WAN Security Router		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE 802.11n (40MHz), ANT 1				
Channel No.	Frequency (MHz)	Measurement Value (MHz)	Required Limit (MHz)	Result
3	2422	35.160	≧0.5	Pass
6	2437	35.160	≧0.5	Pass
9	2452	35.160	≧0.5	Pass

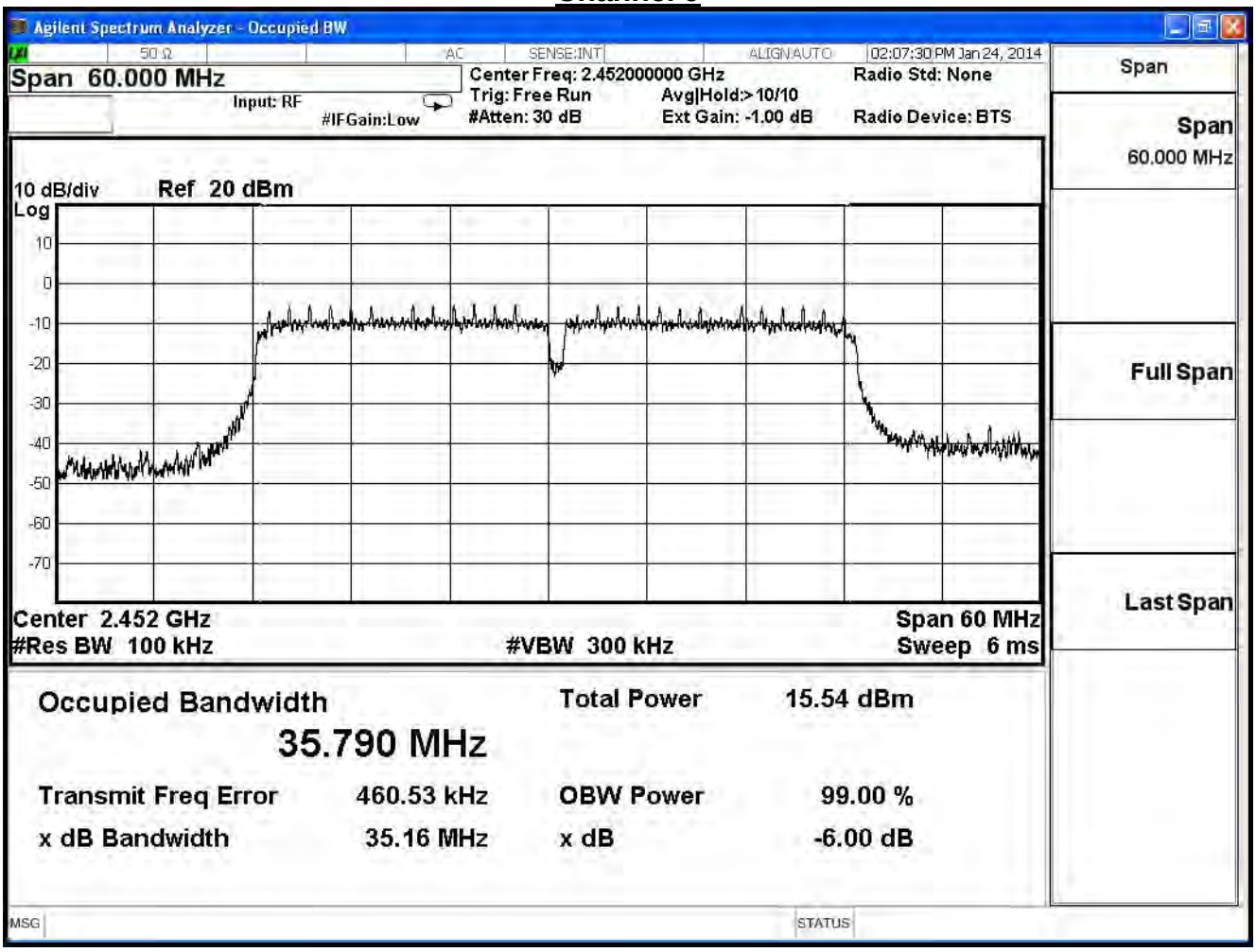
Channel 3



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:04:09 PM Jan 24, 2014
Span 60.000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Span
Span
60.000 MHz
Full Span
Last Span
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 60 MHz
Sweep 6 ms
Occupied Bandwidth
35.807 MHz
Total Power
15.92 dBm
Transmit Freq Error
459.38 kHz
OBW Power
99.00 %
x dB Bandwidth
35.16 MHz
x dB
-6.00 dB
MSG
File <802.11N40_2437MHz_bw.png> saved
STATUS

Channel 9


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:07:30 PM Jan 24, 2014
Span 60.000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center 2.452 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 60 MHz
Sweep 6 ms
Occupied Bandwidth
35.790 MHz
Total Power
15.54 dBm
Transmit Freq Error
460.53 kHz
OBW Power
99.00 %
x dB Bandwidth
35.16 MHz
x dB
-6.00 dB
MSG
STATUS
Span
Span
60.000 MHz
Full Span
Last Span

8. Power Density

8.1. Test Equipment

The following test equipment is used during the test:

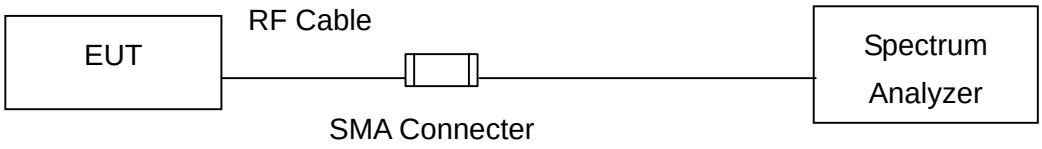
Power Density / SR7

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

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

8.2. Test Setup

IEEE 802.11 b / g / n (20M / 40M) MODE



8.3. Limits

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8dBm in any 3kHz band during any time interval of continuous transmission.

8.4. Test Procedures

The EUT was setup according to ANSI C63.4: 2009; tested according to DTS test procedure section 10.2 of KDB558074 v03r01 for compliance to FCC 47CFR 15.247 requirements.
Set 3KHz ≦RBW≦100 kHz, Set VBW≧3xRBW, Sweep time=Auto, Set Peak detector.
The tested according to section E)c) of KDB662911 v02v01.

8.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

8.6. Uncertainty

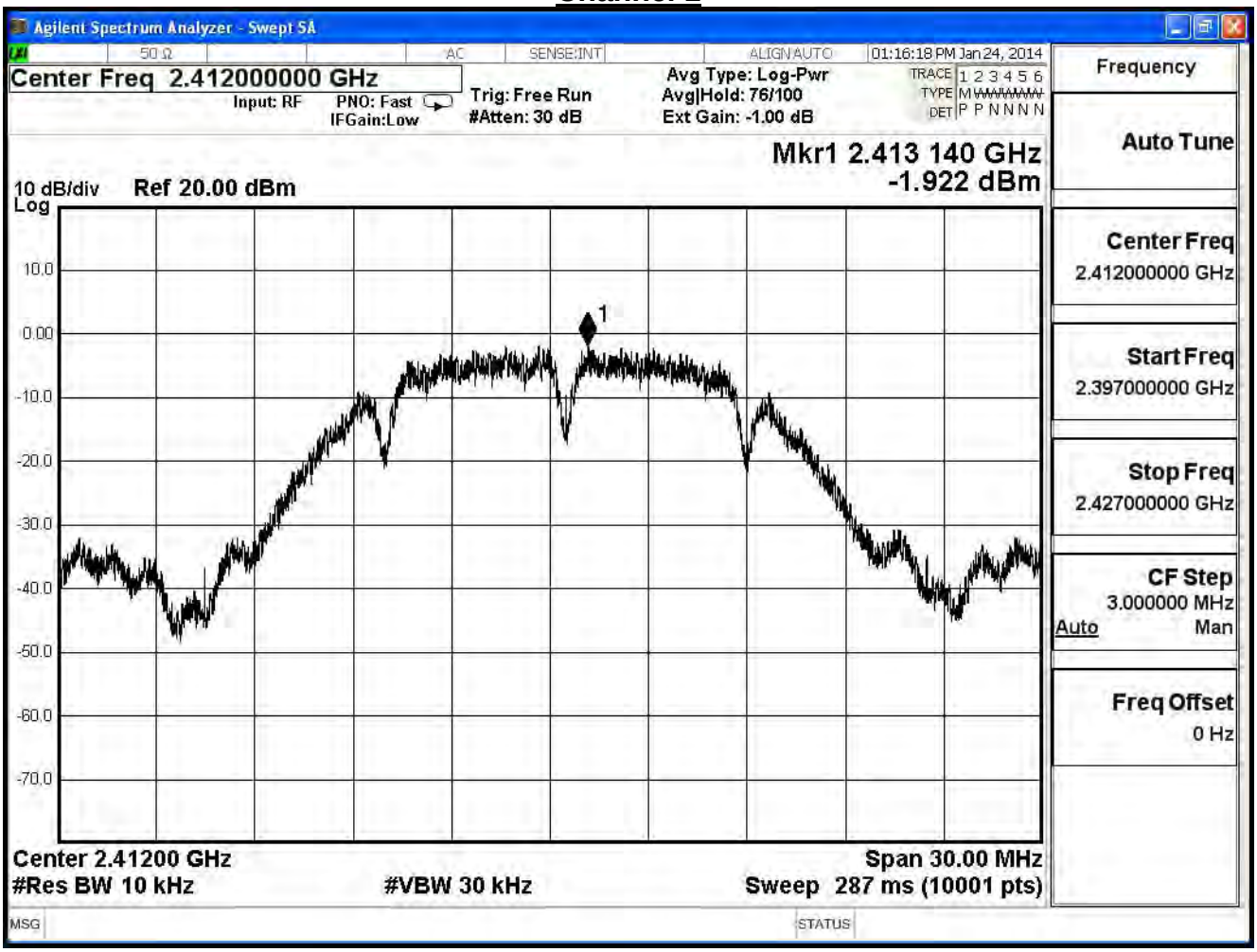
The measurement uncertainty is defined as ±1.27dB.

8.7. Test Result

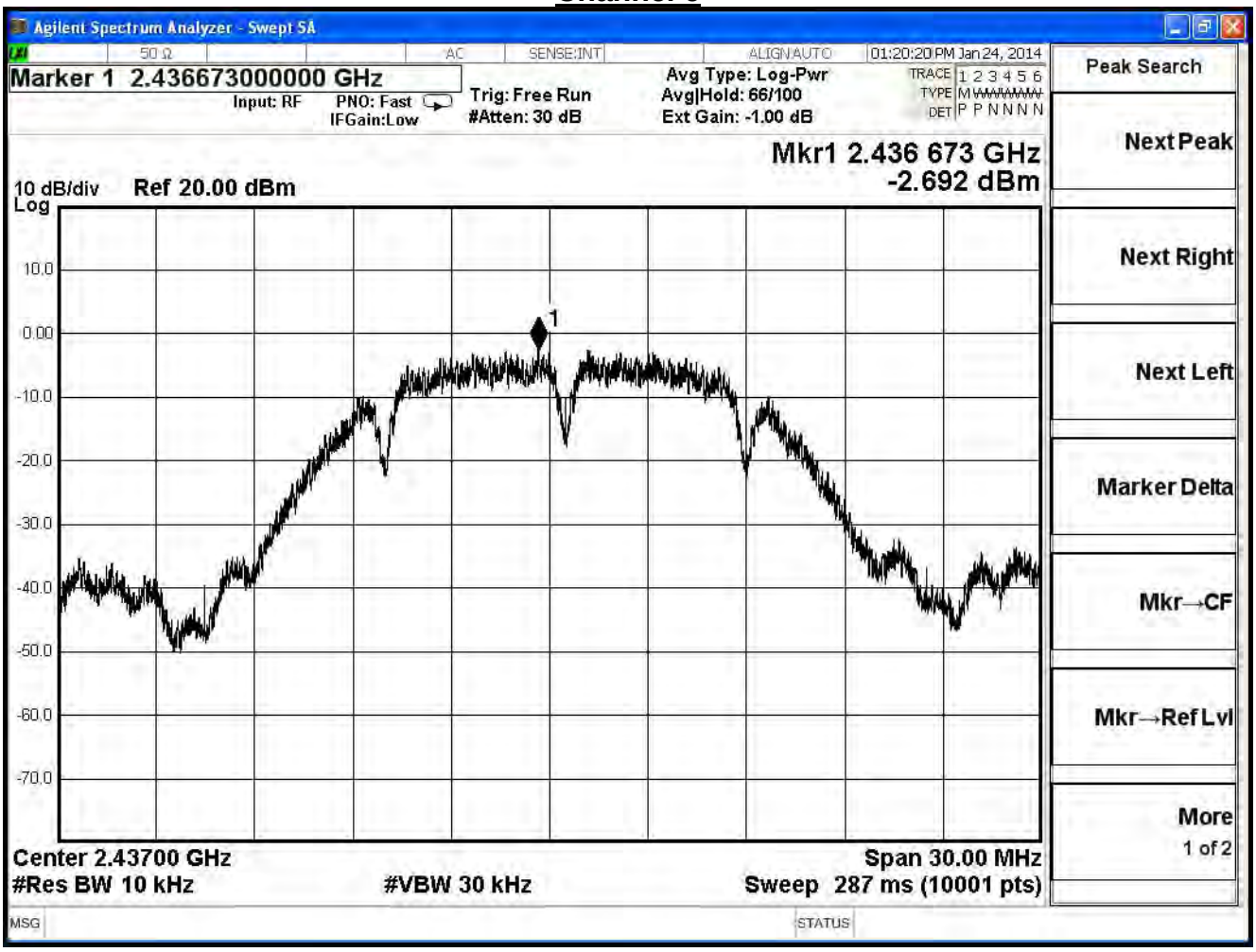
Product	Dual-WAN Security Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE 802.11b				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	-1.922	≦8	Pass
6	2437	-2.692	≦8	Pass
11	2462	-3.796	≦8	Pass

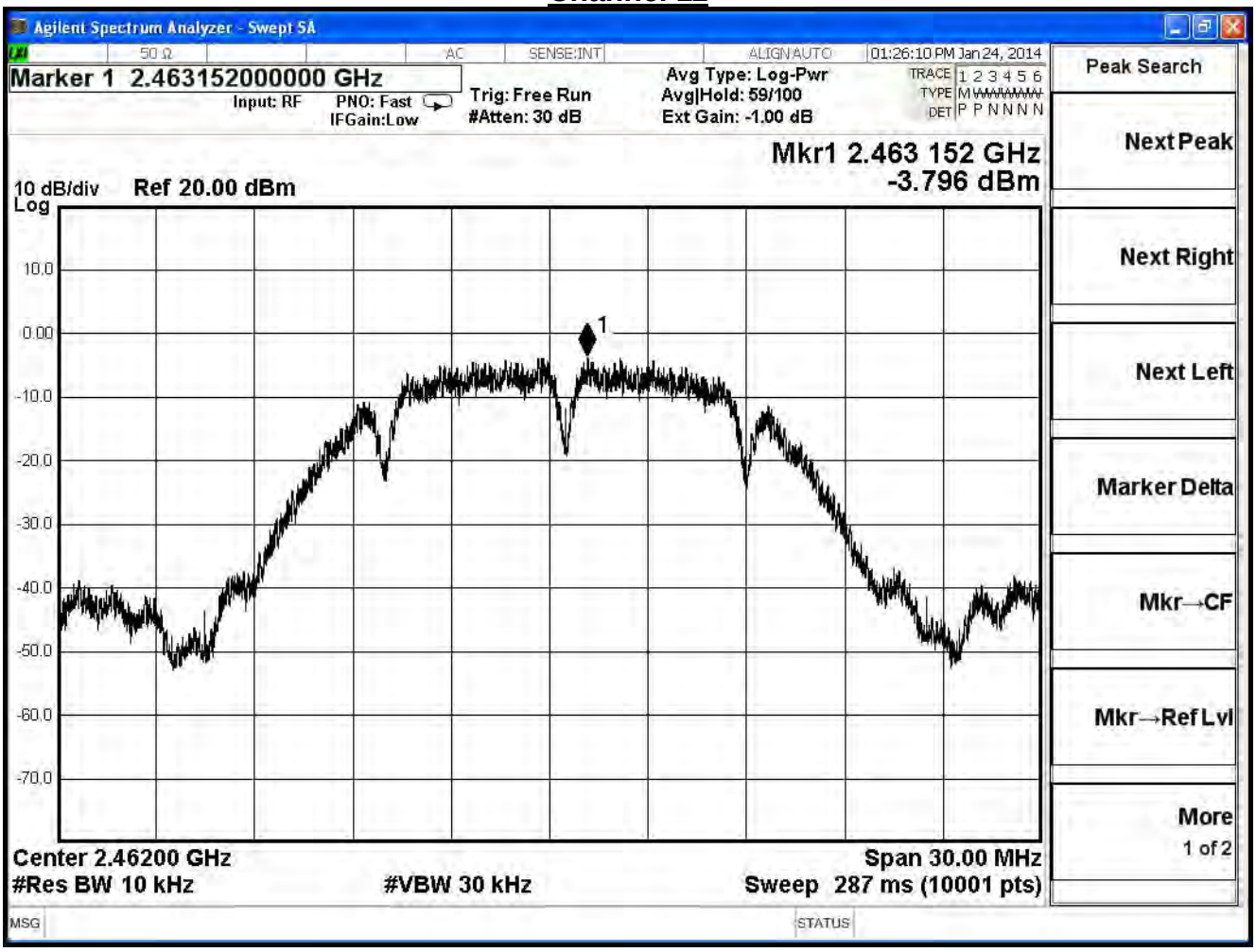
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
Marker 1 2.436673000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 66/100
Ext Gain: -1.00 dB
01:20:20 PM Jan 24, 2014
Mkr1 2.436 673 GHz
-2.692 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 30.00 MHz
Sweep 287 ms (10001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

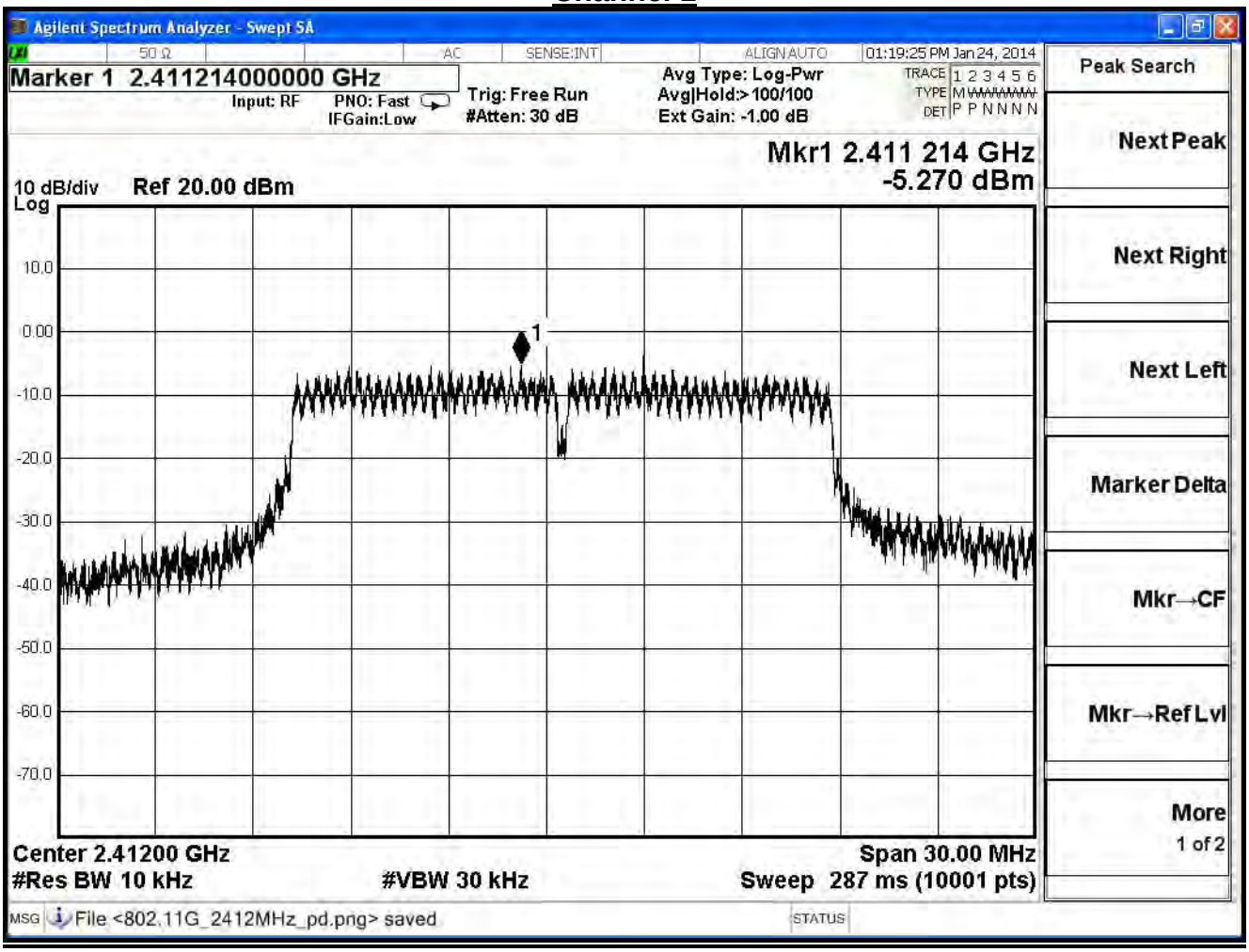
Channel 11


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:26:10 PM Jan 24, 2014
Marker 1 2.463152000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 59/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.463 152 GHz
-3.796 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 30.00 MHz
Sweep 287 ms (10001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

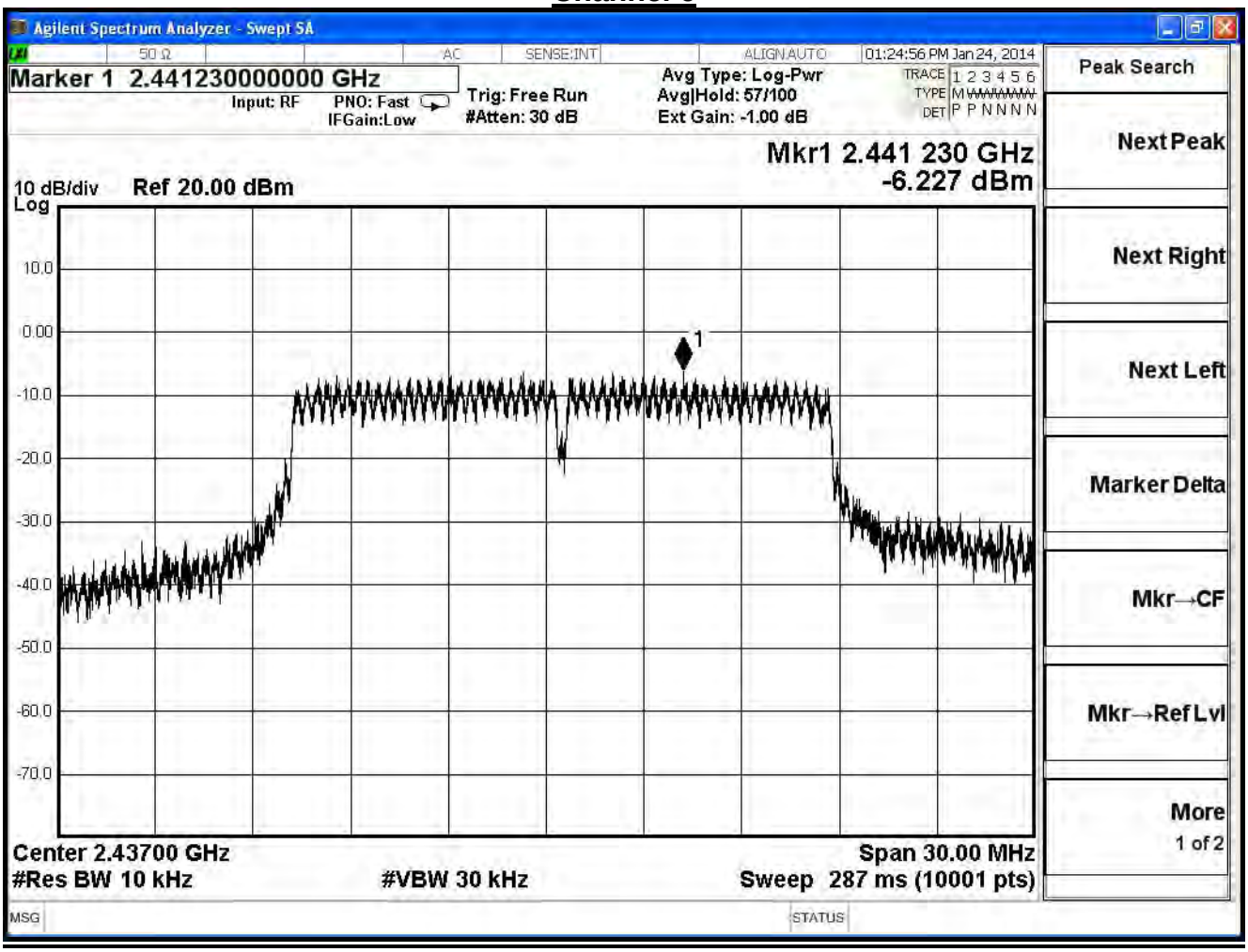
Product	Dual-WAN Security Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	-5.270	≦8	Pass
6	2437	-6.227	≦8	Pass
11	2462	-11.310	≦8	Pass

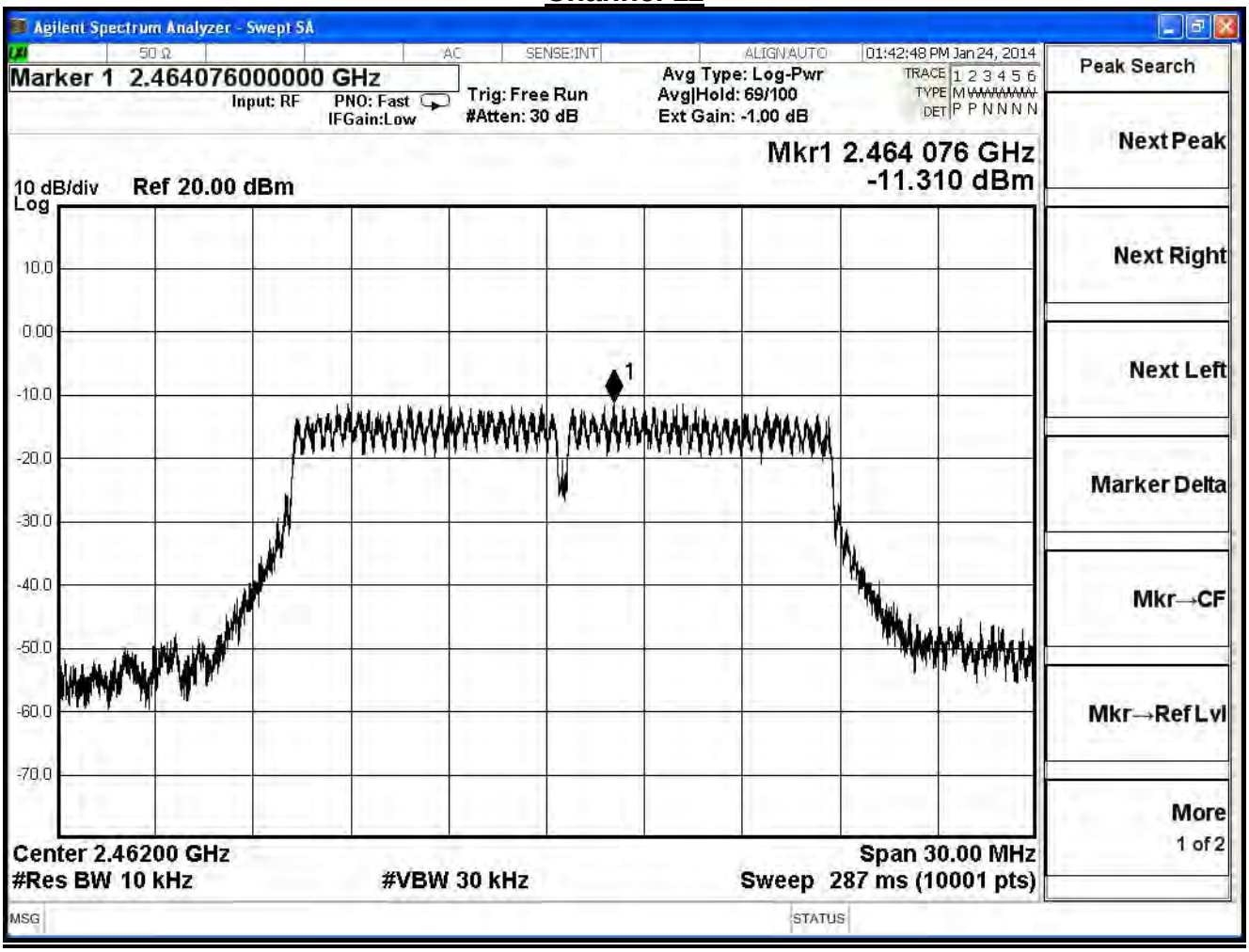
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:24:56 PM Jan 24, 2014
Marker 1 2.441230000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 57/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.441 230 GHz
-6.227 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 30.00 MHz
Sweep 287 ms (10001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

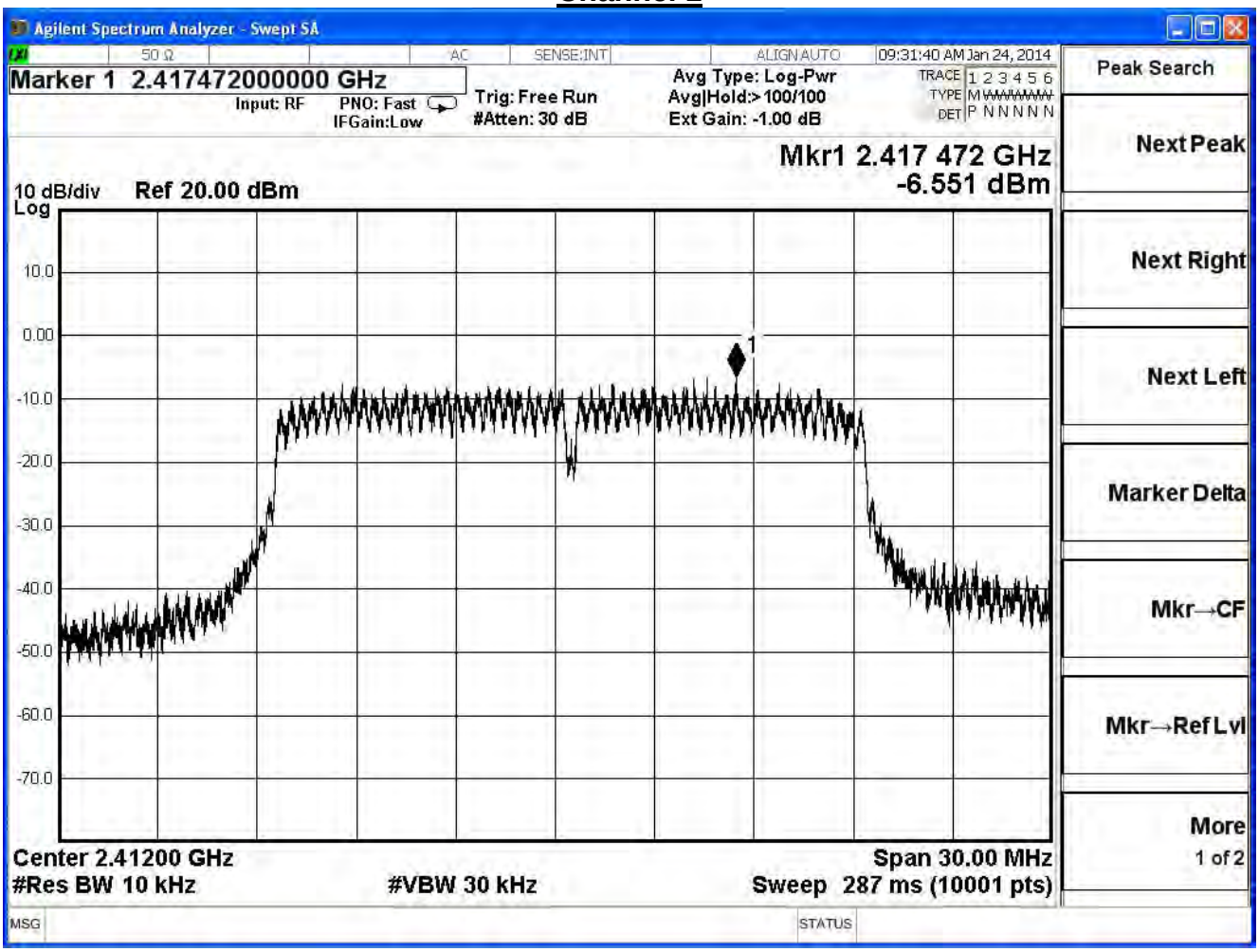
Channel 11


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
01:42:48 PM Jan 24, 2014
Marker 1 2.464076000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 69/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.464 076 GHz
-11.310 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 30.00 MHz
Sweep 287 ms (10001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

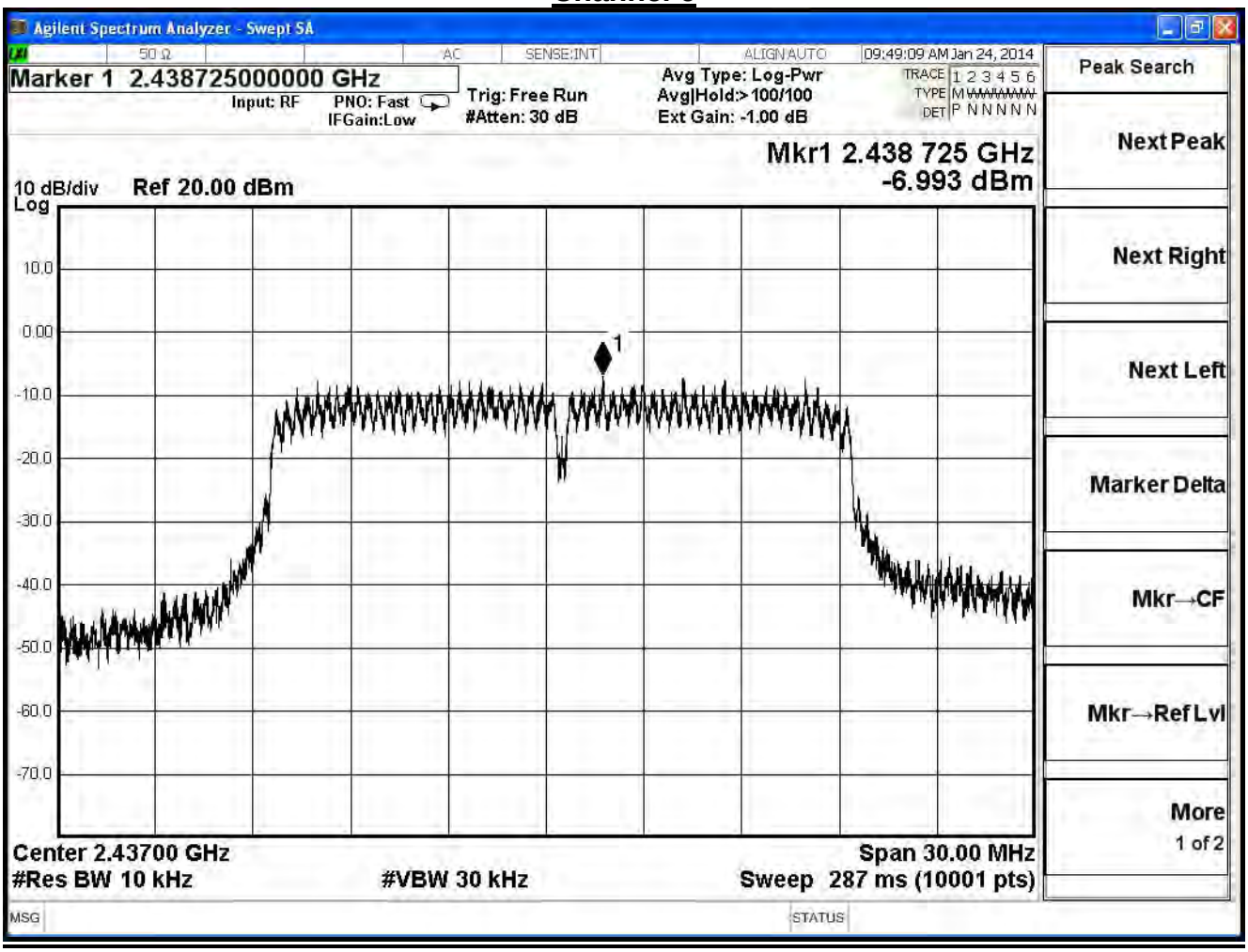
Product	Dual-WAN Security Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE802.11n_20MHz, ANT 0				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	-6.551	≦8	Pass
6	2437	-6.993	≦8	Pass
11	2462	-8.146	≦8	Pass

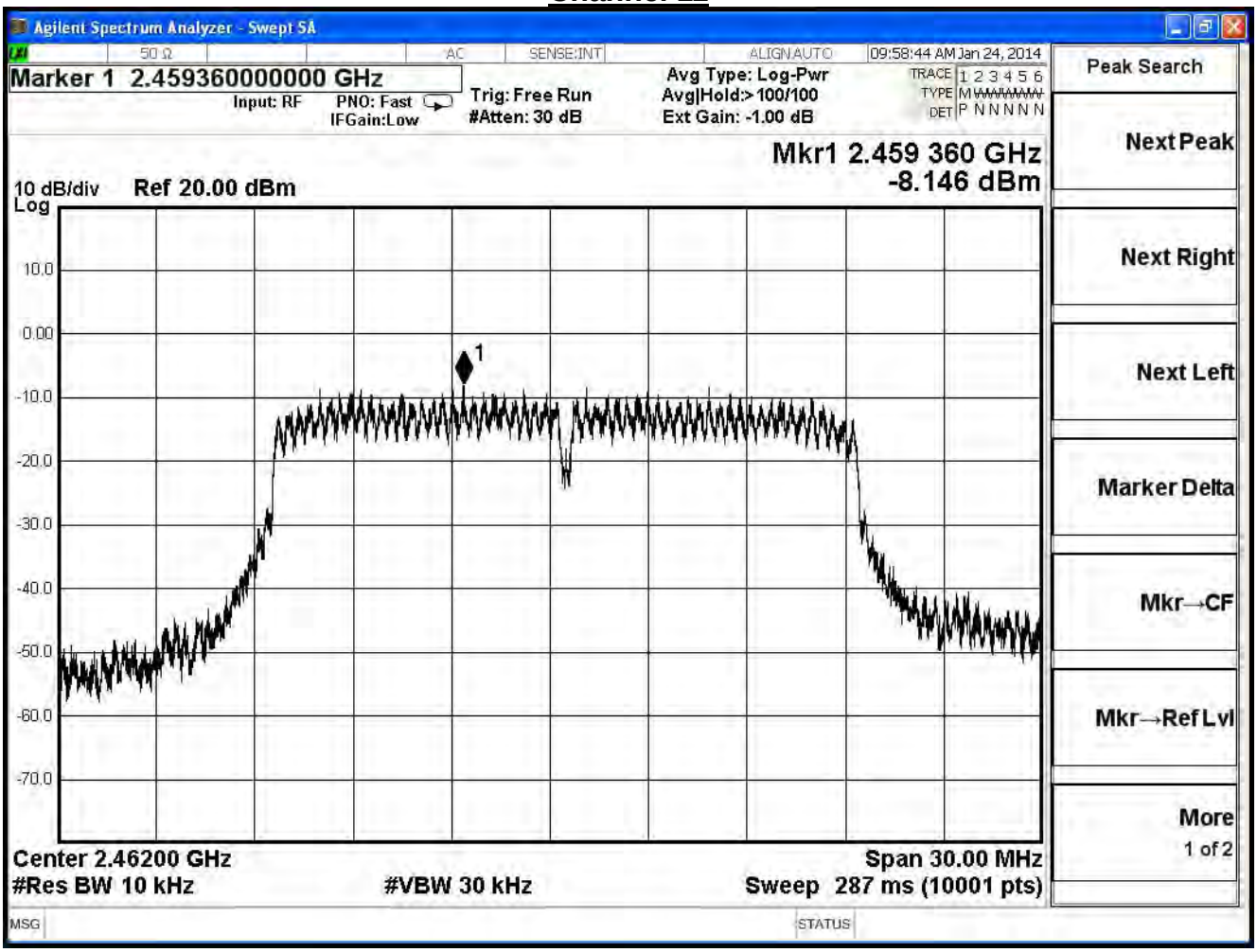
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:49:09 AM Jan 24, 2014
Marker 1 2.438725000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.438 725 GHz
-6.993 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 30.00 MHz
Sweep 287 ms (10001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

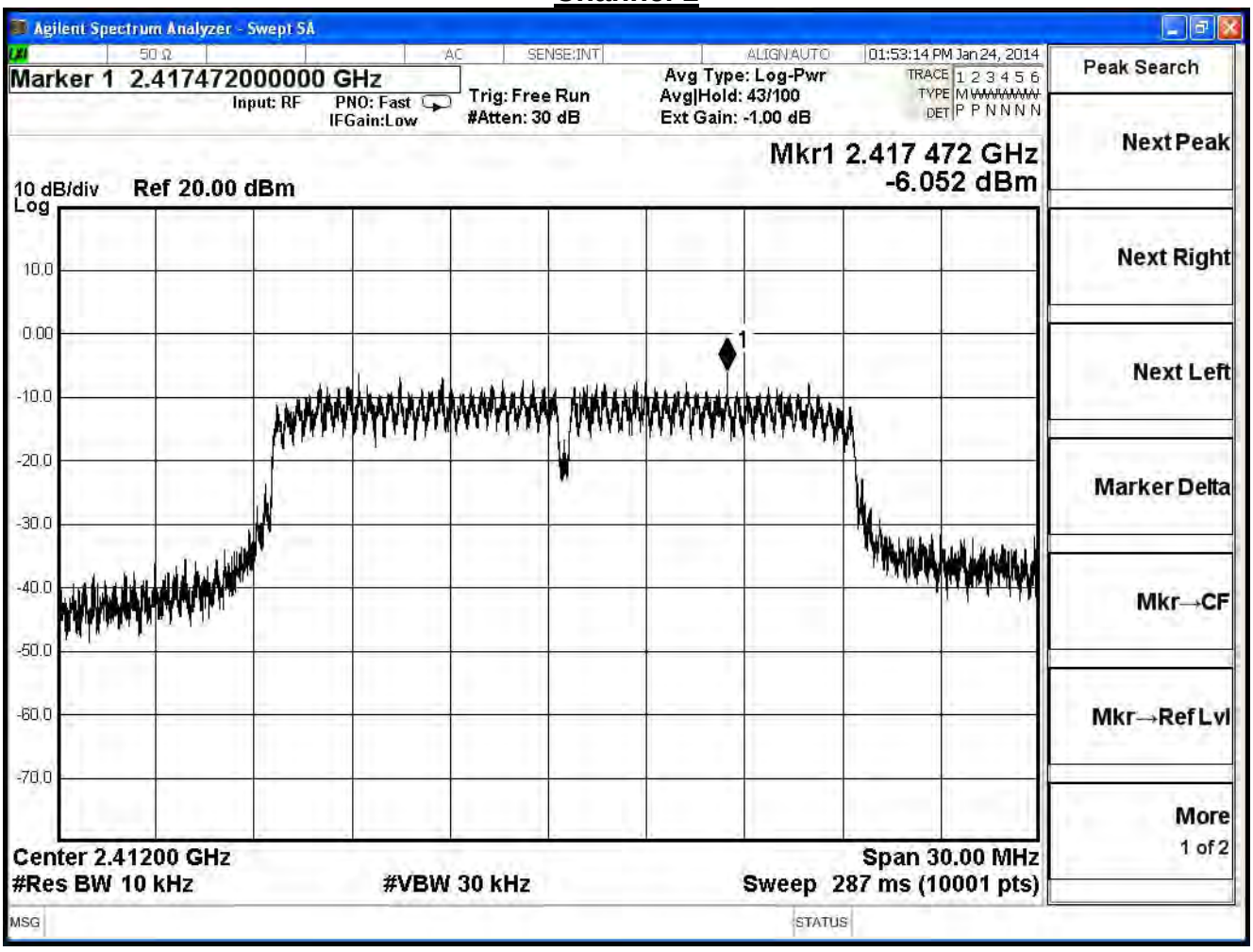
Channel 11


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
09:58:44 AM Jan 24, 2014
Marker 1 2.459360000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.459 360 GHz
-8.146 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 30.00 MHz
Sweep 287 ms (10001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

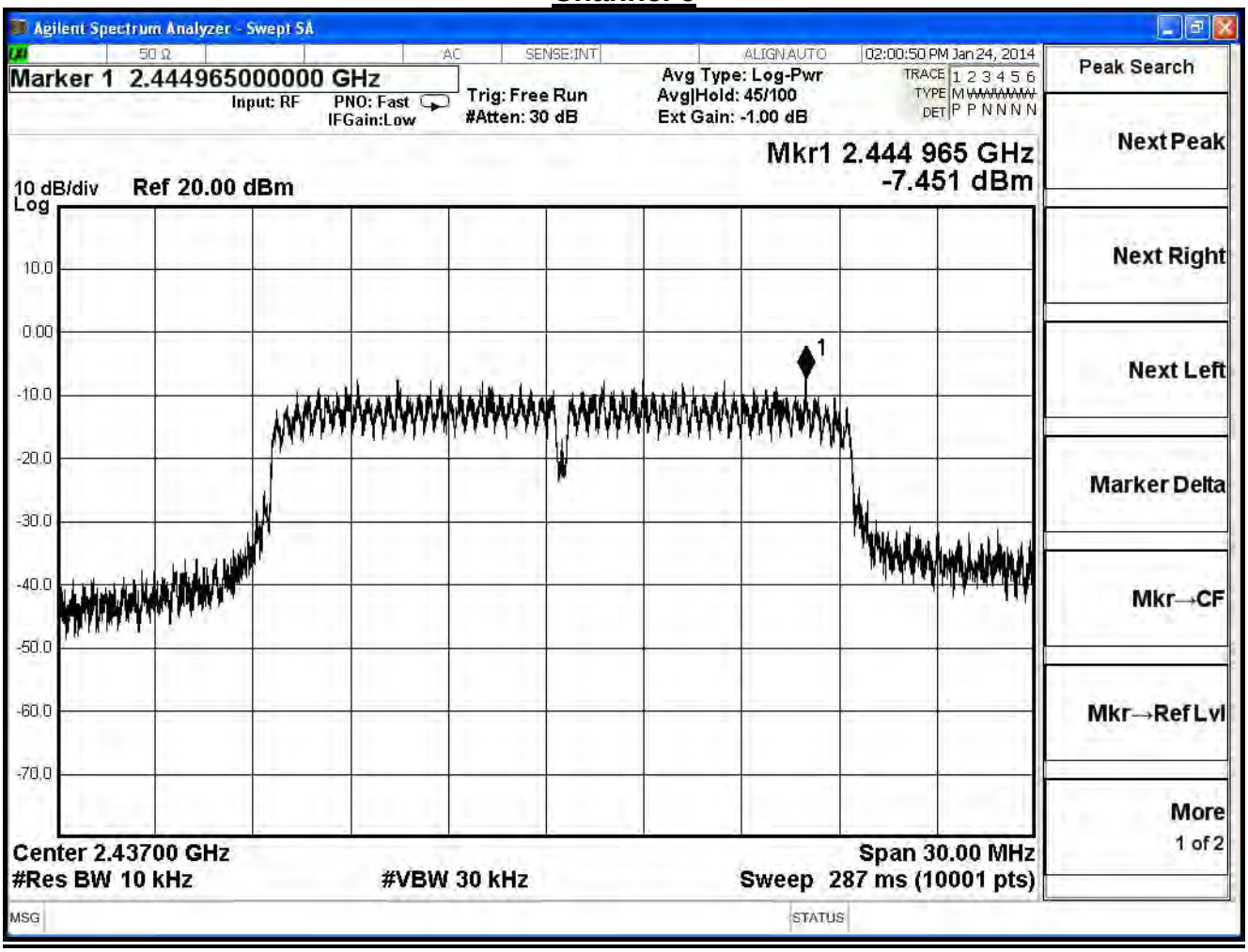
Product	Dual-WAN Security Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE802.11n_20MHz, ANT 1				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	-6.052	≦8	Pass
6	2437	-7.451	≦8	Pass
11	2462	-9.038	≦8	Pass

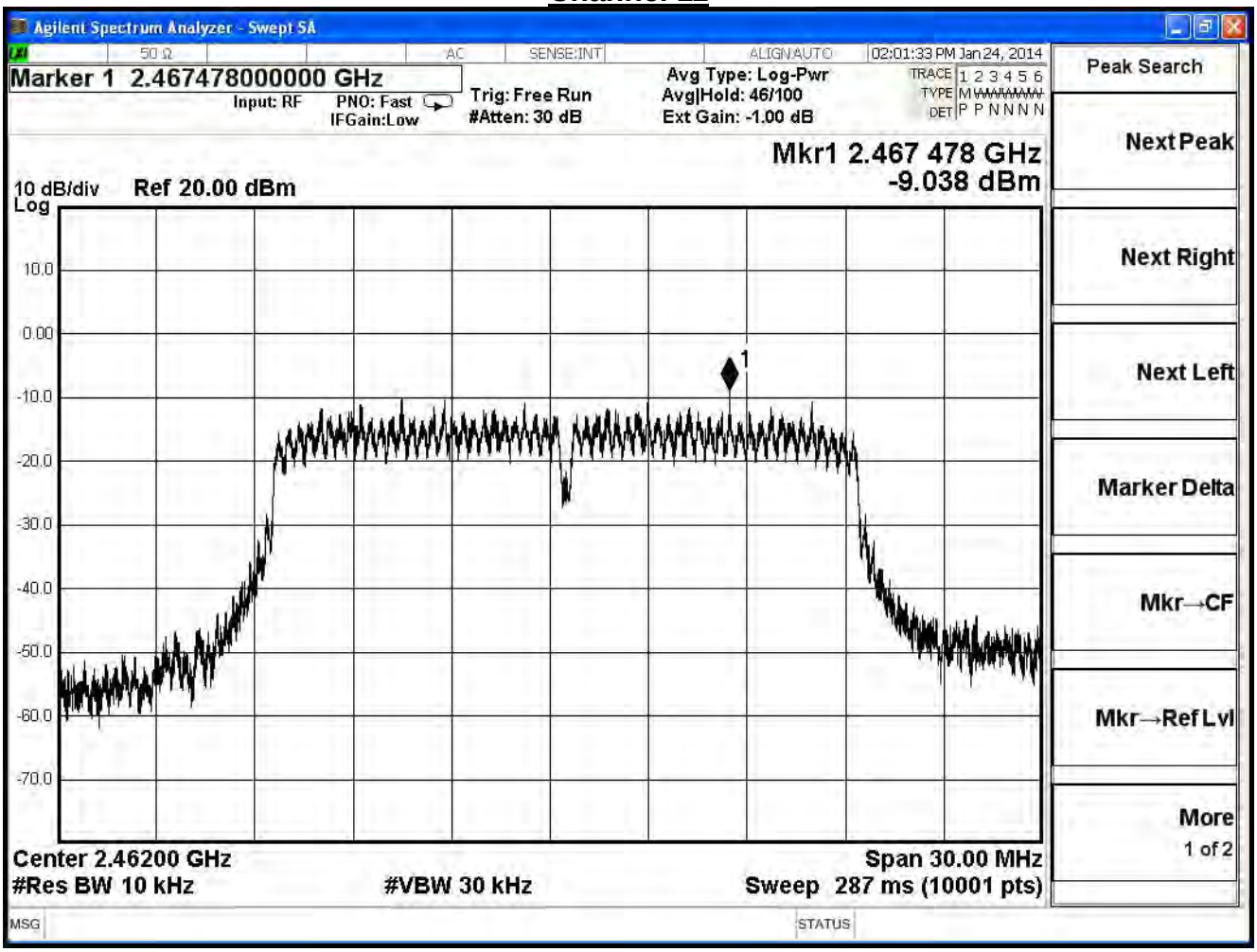
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:00:50 PM Jan 24, 2014
Marker 1 2.444965000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 45/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.444 965 GHz
-7.451 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 30.00 MHz
Sweep 287 ms (10001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

Channel 11


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:01:33 PM Jan 24, 2014
Marker 1 2.467478000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 46/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.467 478 GHz
-9.038 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 30.00 MHz
Sweep 287 ms (10001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

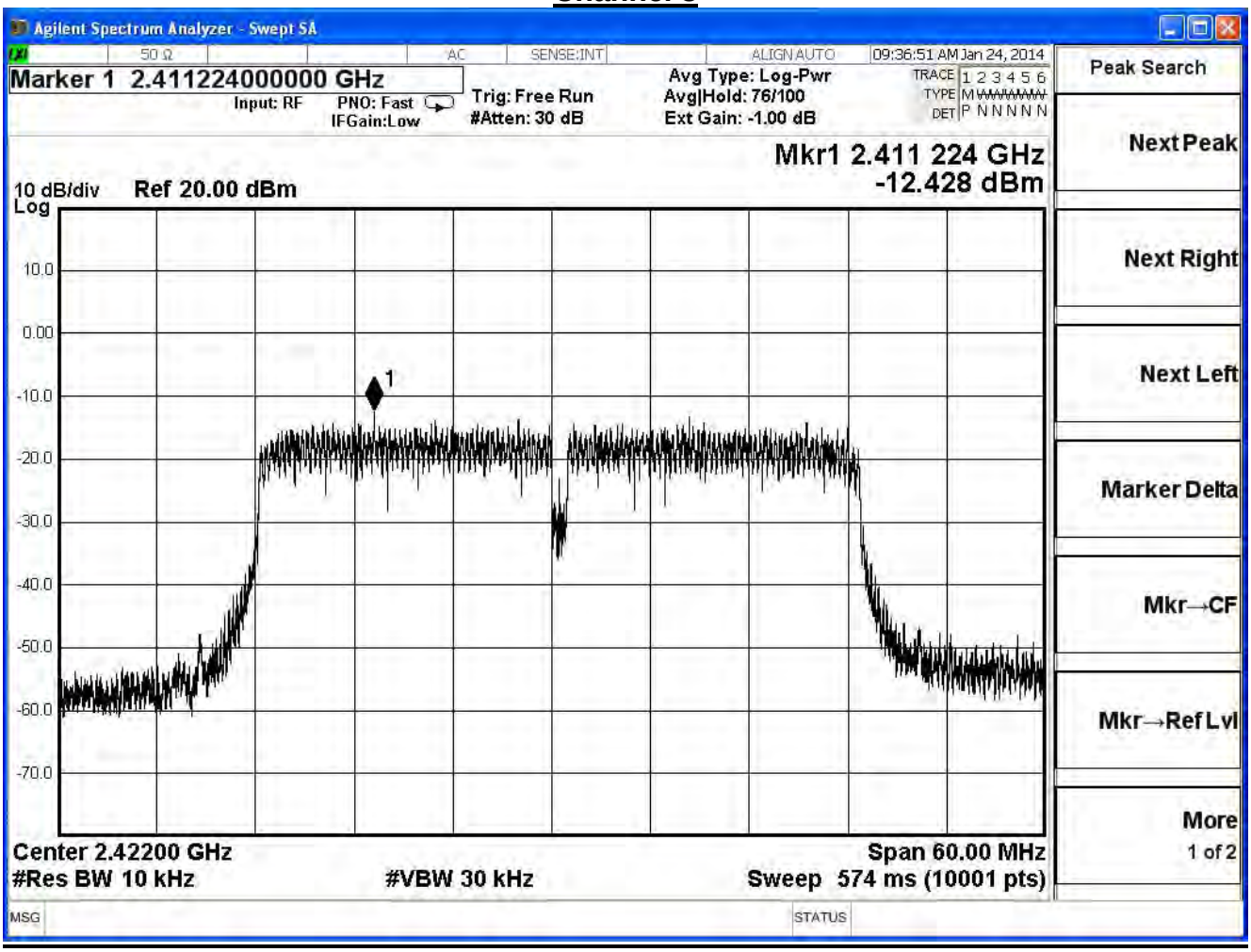
Product	Dual-WAN Security Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE 802.11n(20MHz) (Worse Condition+10log(Ant N))=Ant1				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
3	2422	-3.052	≦8	Pass
6	2437	-4.451	≦8	Pass
9	2452	-6.038	≦8	Pass

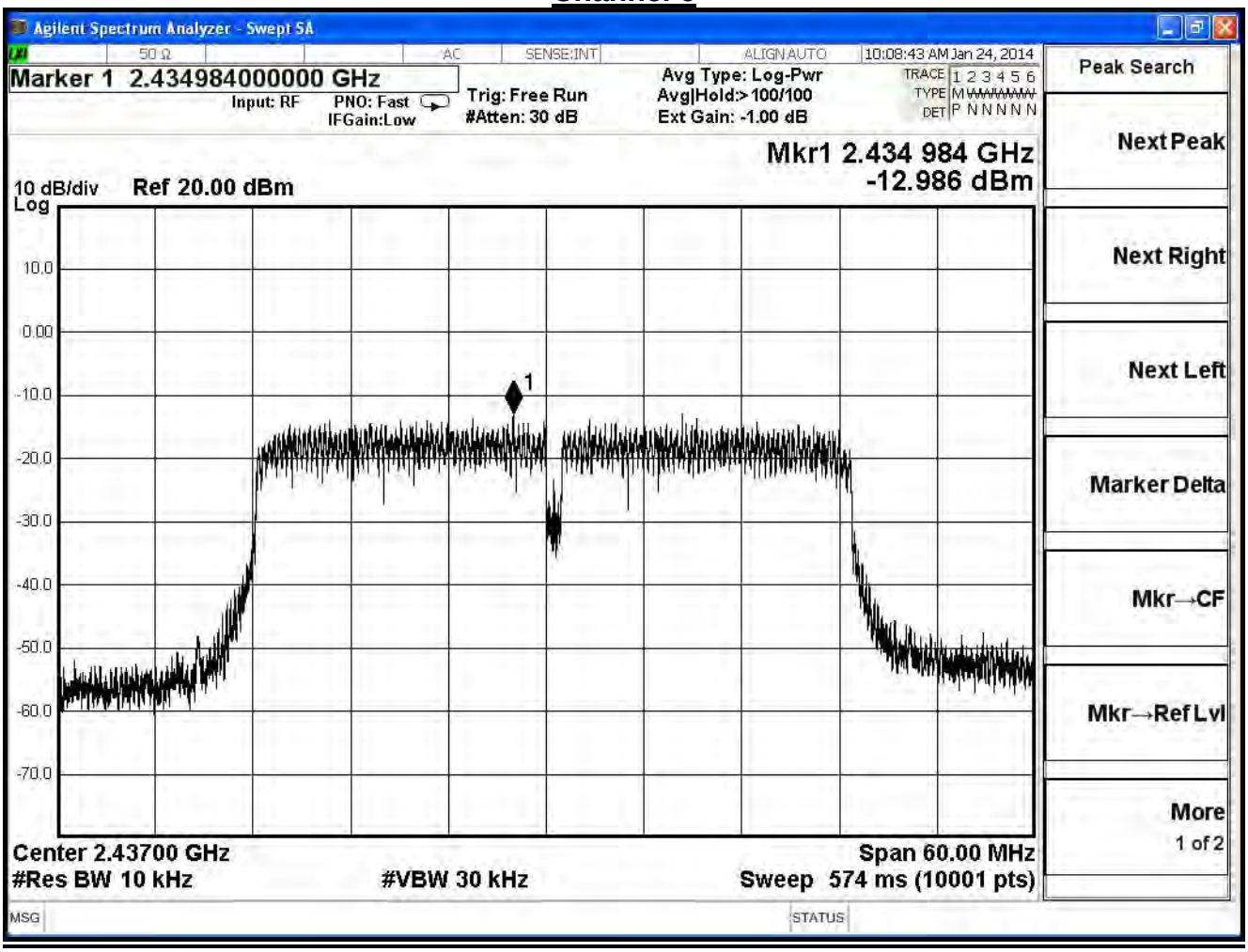
Product	Dual-WAN Security Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE802.11n_40MHz, ANT 0				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
3	2422	-12.428	≦8	Pass
6	2437	-12.986	≦8	Pass
9	2452	-13.073	≦8	Pass

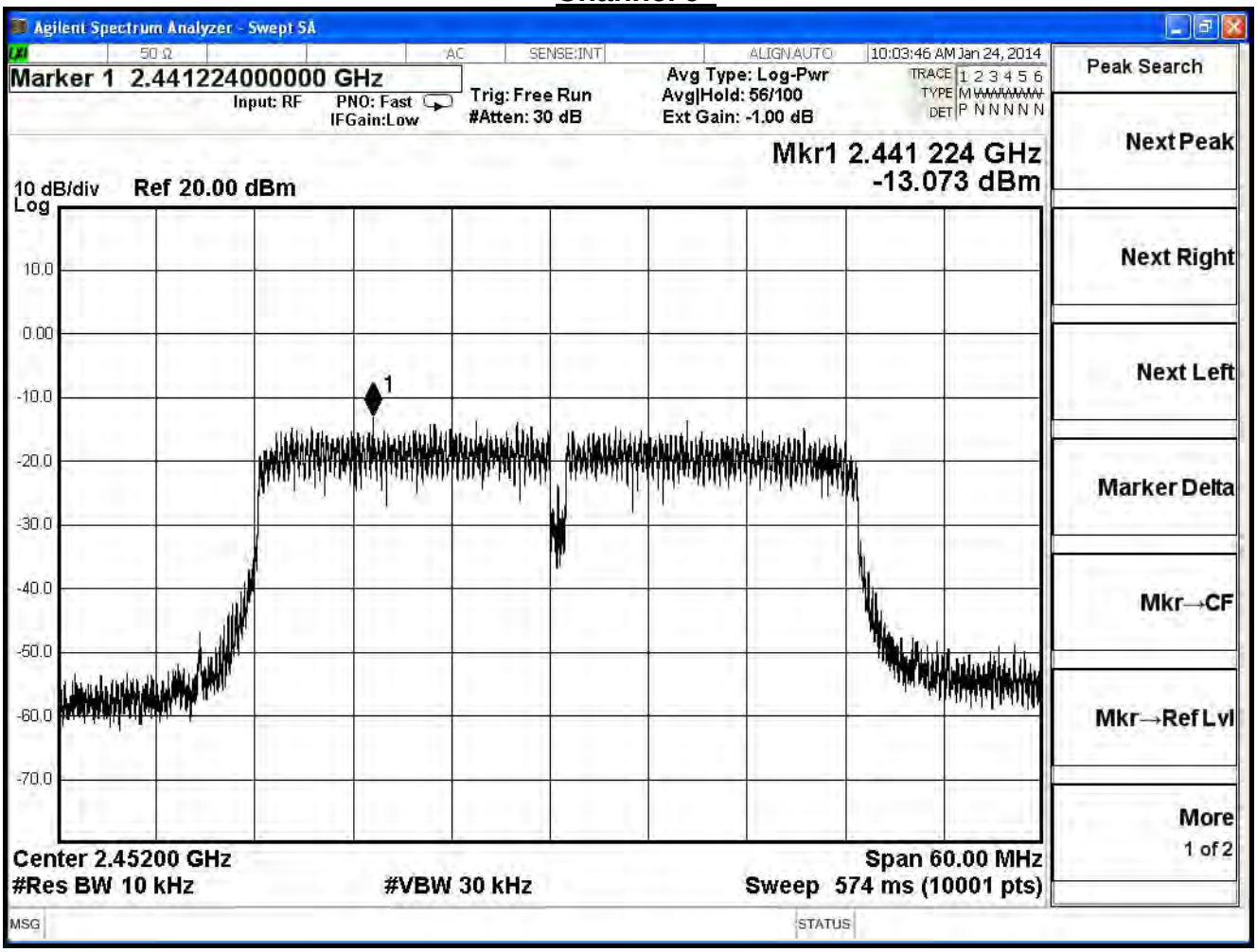
Channel 3



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:08:43 AM Jan 24, 2014
Marker 1 2.434984000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.434 984 GHz
-12.986 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 60.00 MHz
Sweep 574 ms (10001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

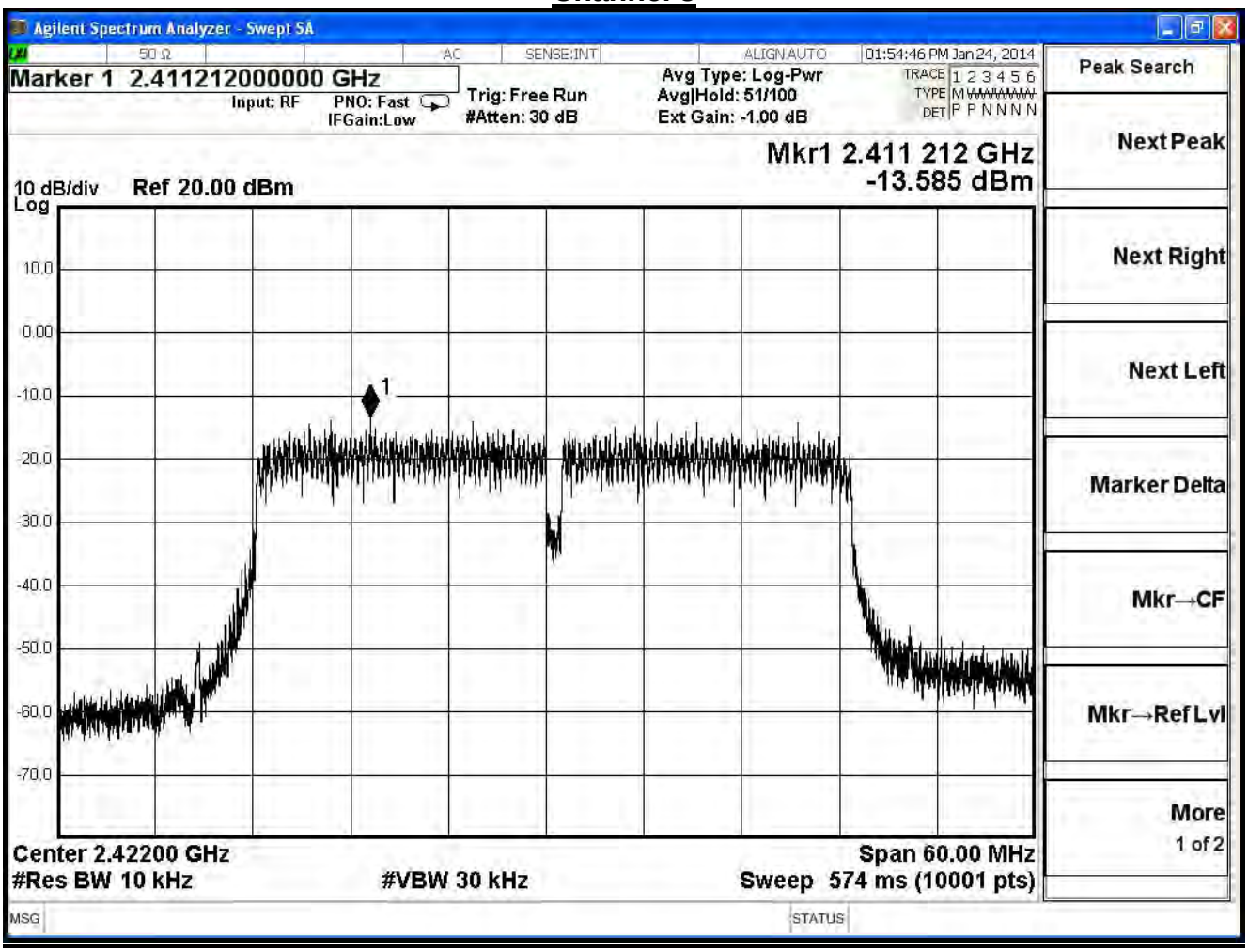
Channel 9


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:03:46 AM Jan 24, 2014
Marker 1 2.441224000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 56/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P N N N N N
Mkr1 2.441 224 GHz
-13.073 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.45200 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 60.00 MHz
Sweep 574 ms (10001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

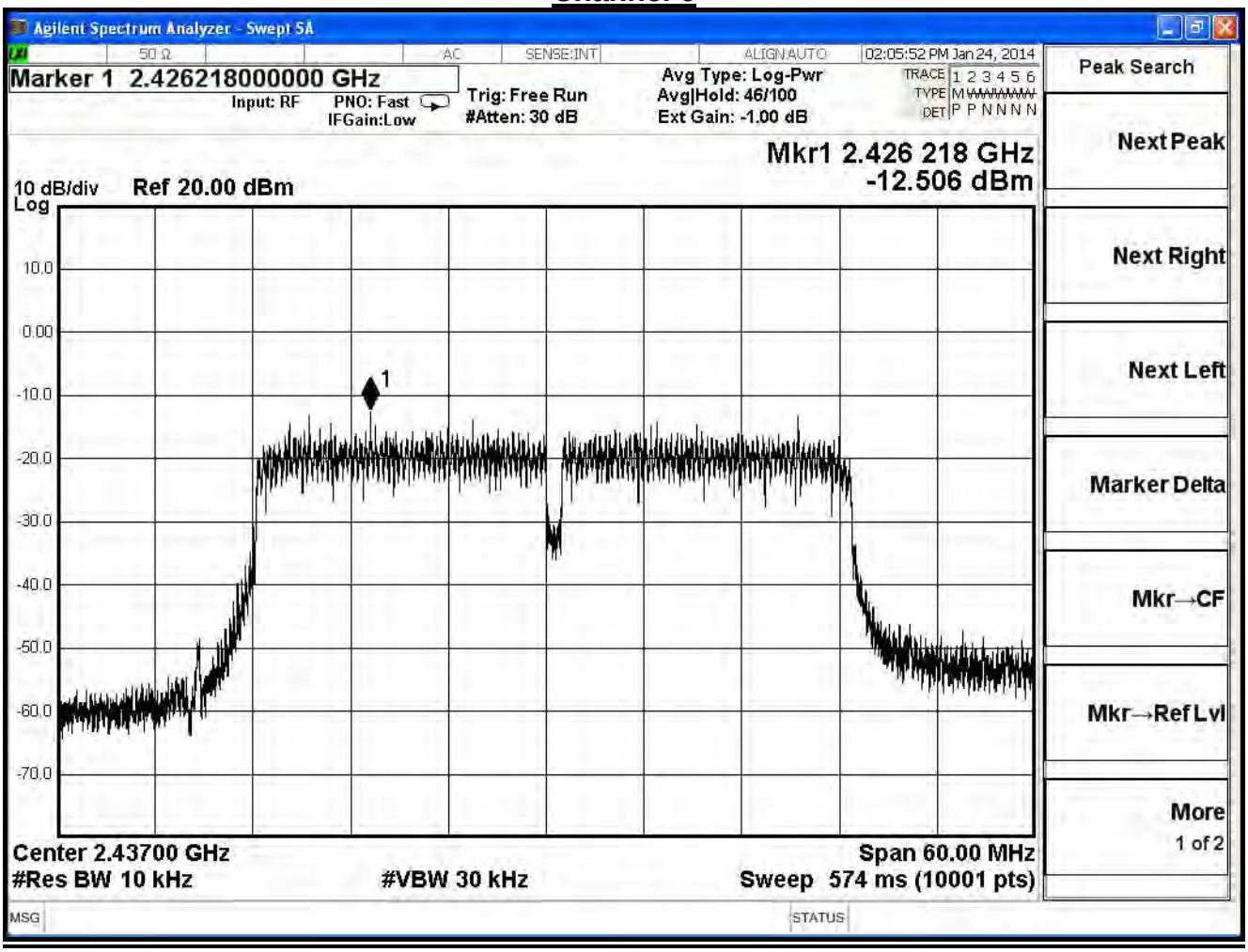
Product	Dual-WAN Security Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE802.11n_40MHz, ANT 1				
Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
3	2422	-13.585	≦8	Pass
6	2437	-12.506	≦8	Pass
9	2452	-12.694	≦8	Pass

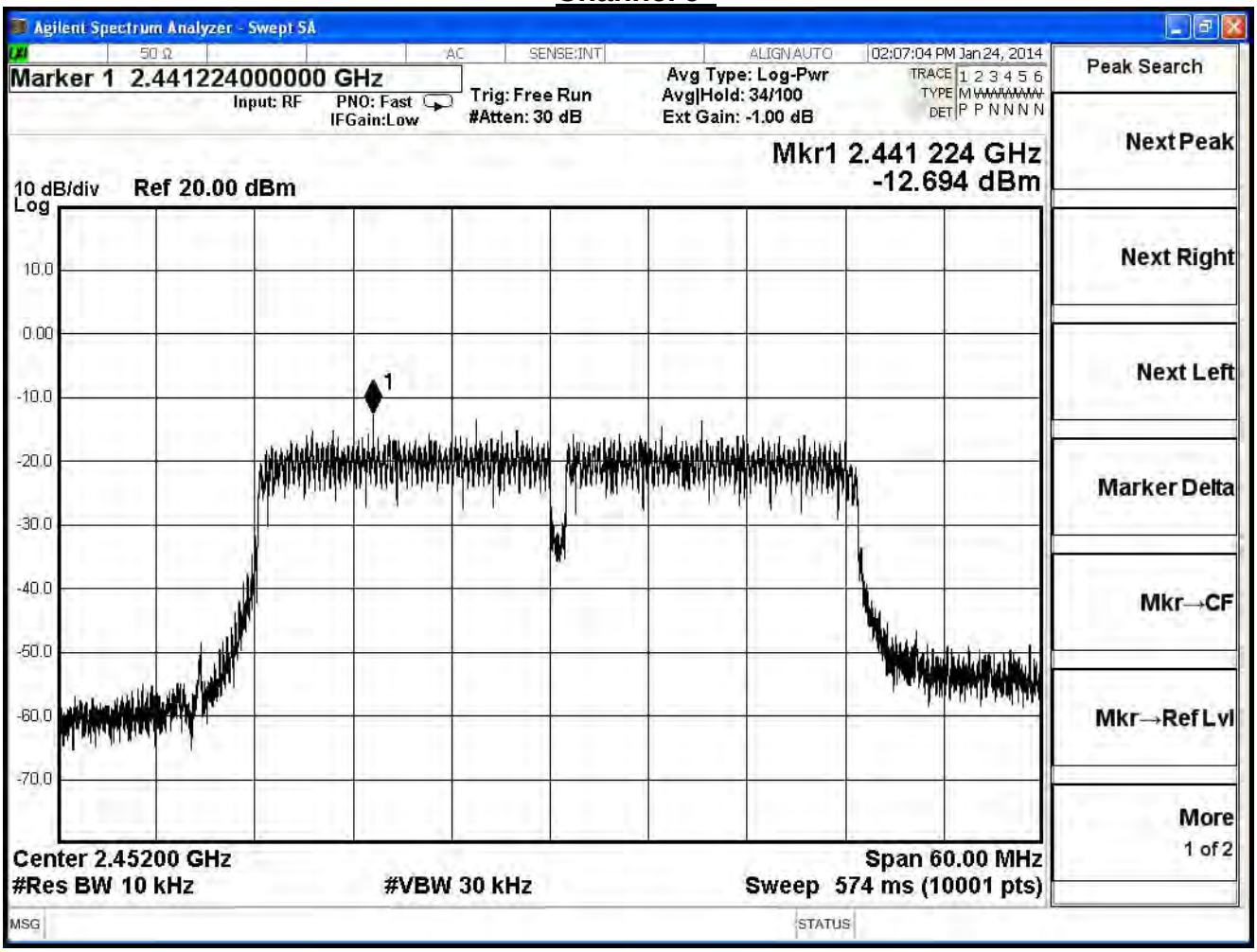
Channel 3



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:05:52 PM Jan 24, 2014
Marker 1 2.426218000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 46/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.426 218 GHz
-12.506 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 60.00 MHz
Sweep 574 ms (10001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

Channel 9


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:07:04 PM Jan 24, 2014
Marker 1 2.441224000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 34/100
Ext Gain: -1.00 dB
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.441 224 GHz
-12.694 dBm
10 dB/div
Log
Ref 20.00 dBm
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.45200 GHz
#Res BW 10 kHz
#VBW 30 kHz
Span 60.00 MHz
Sweep 574 ms (10001 pts)
MSG
STATUS
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

Product	Dual-WAN Security Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2014/01/24	Test Site	SR7

IEEE 802.11n(40MHz) (Worse Condition+10log(Ant N))=Ant0				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
3	2422	-9.428	≦8	Pass
6	2437	-9.986	≦8	Pass
9	2452	-10.073	≦8	Pass