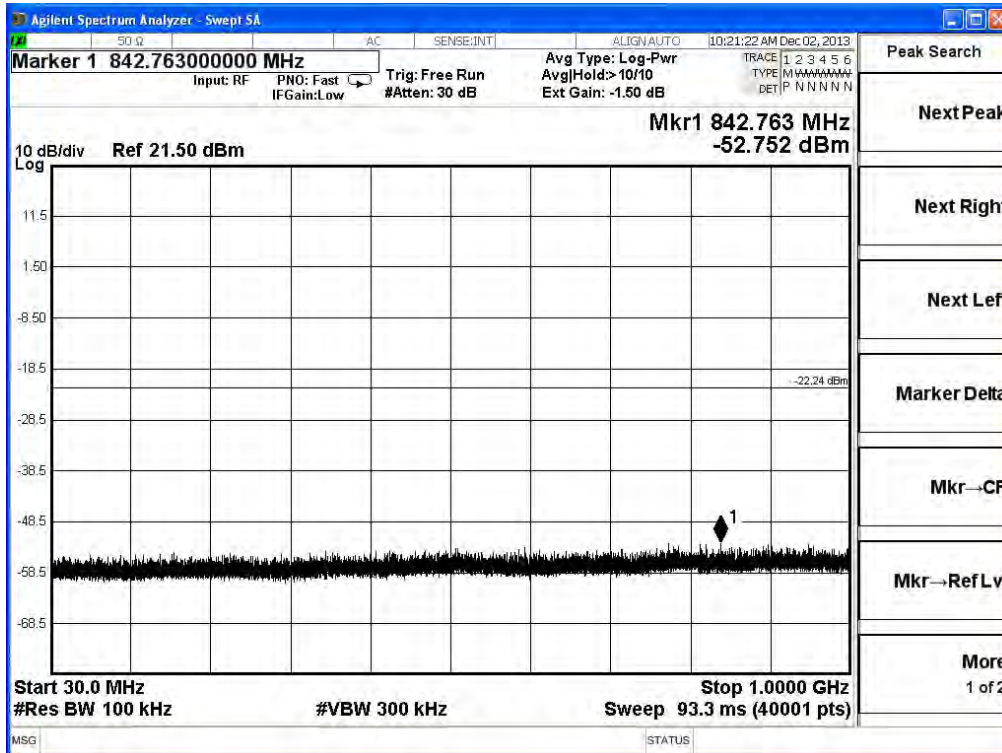
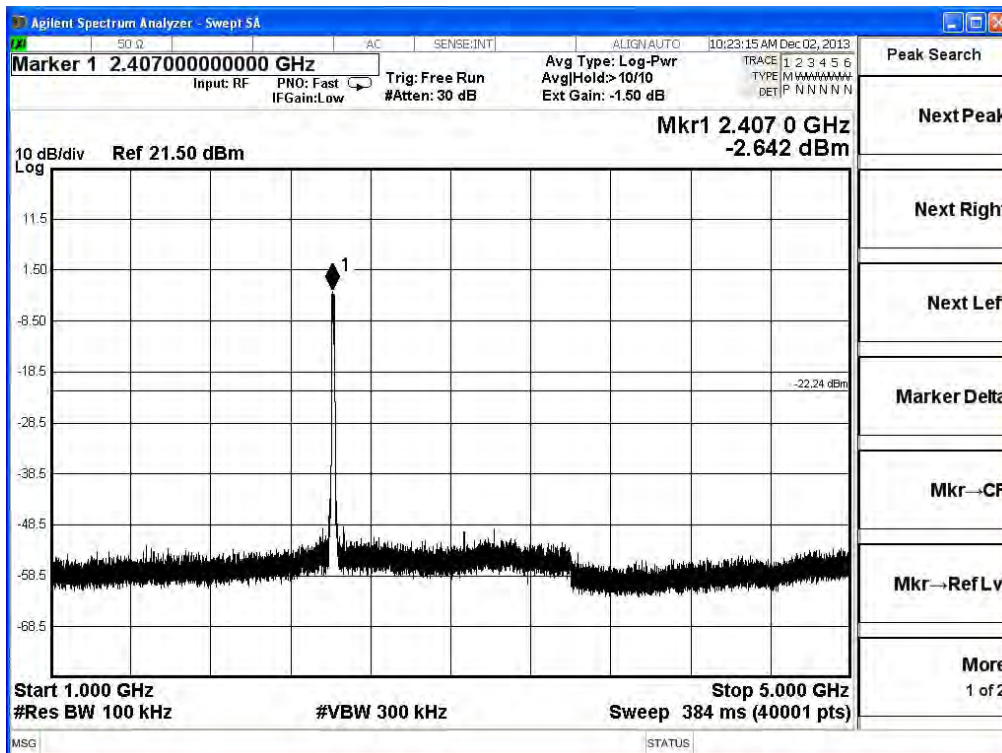


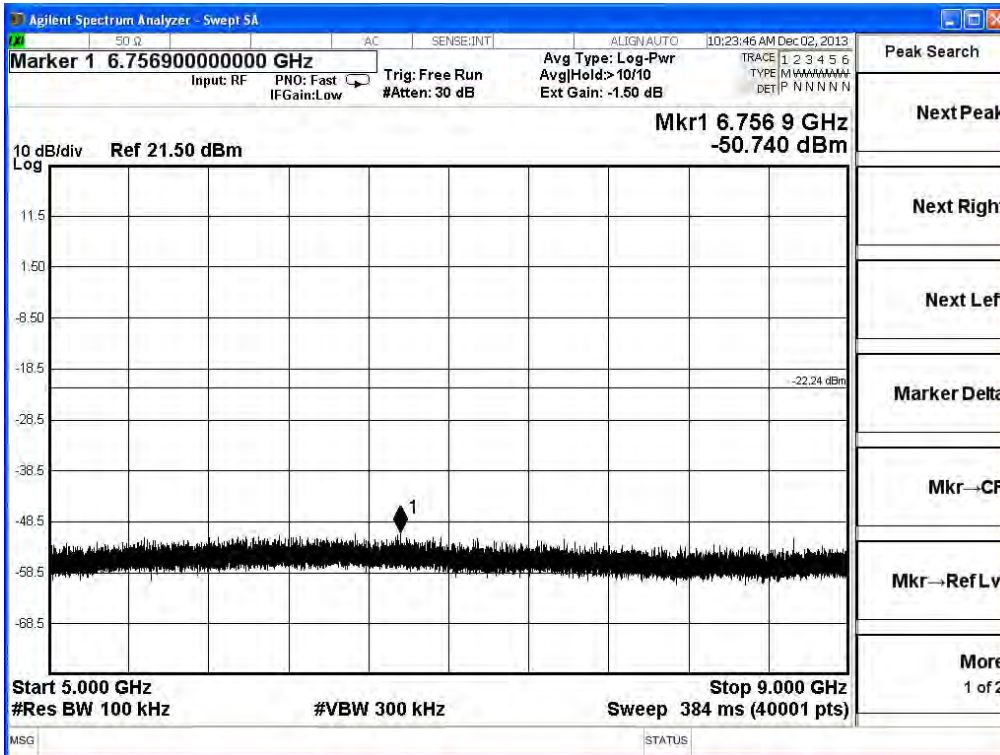
2412MHz (30MHz-1GHz)-802.11n(20MHz) (Ant 0)



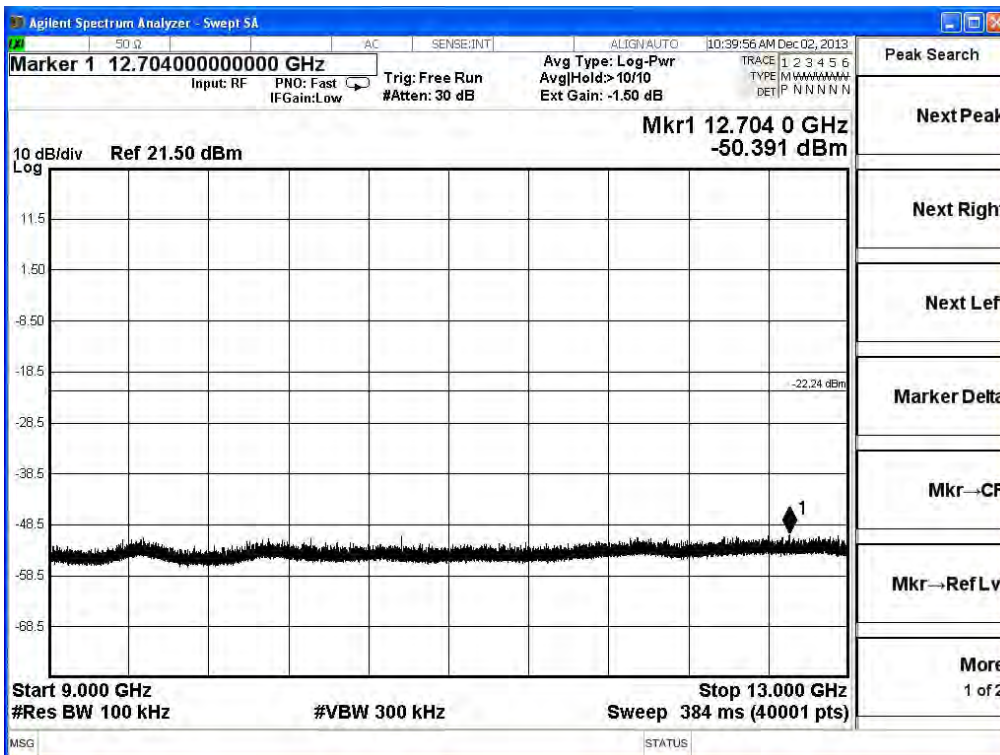
2412MHz (1GHz-5GHz) -802.11n(20MHz) (Ant 0)



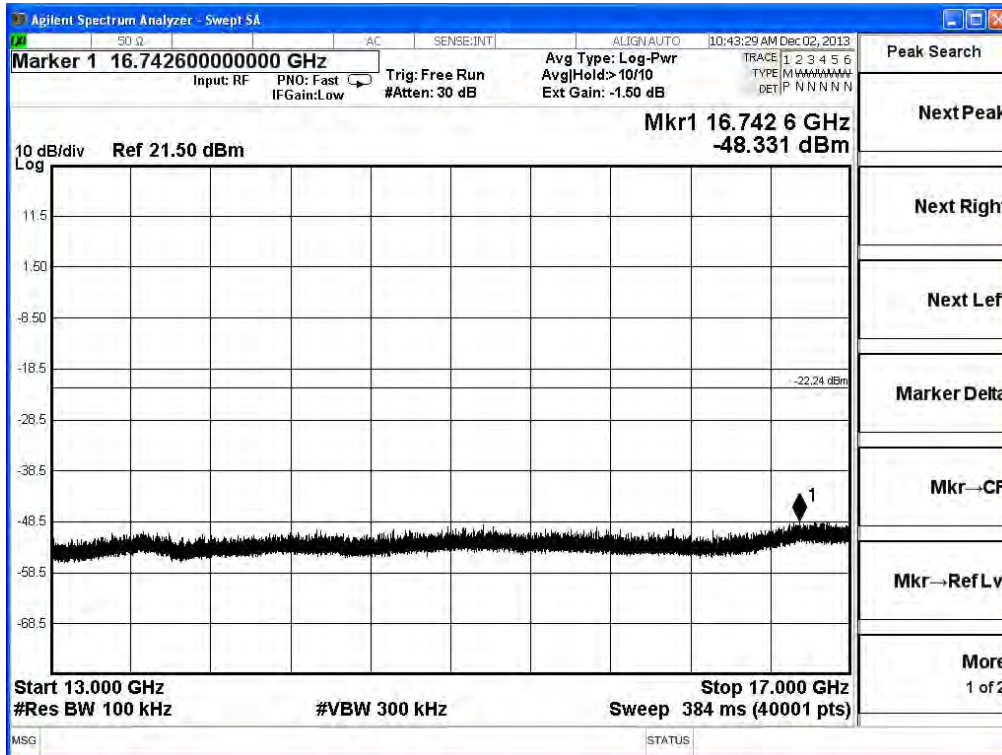
2412MHz (5GHz-9GHz)-802.11n(20MHz) (Ant 0)



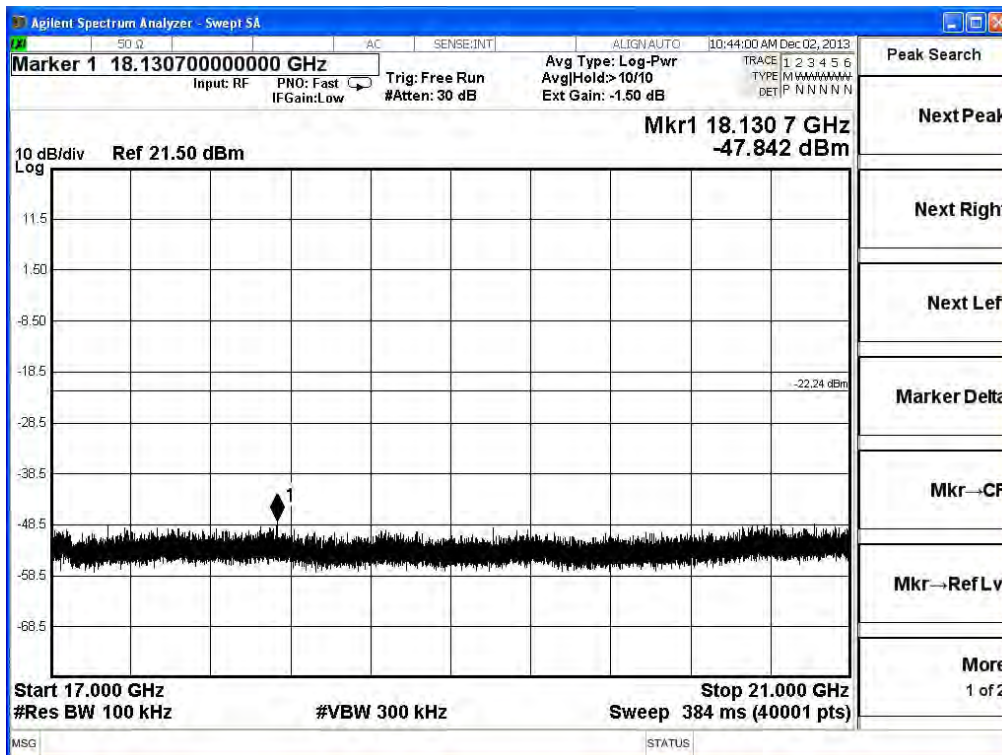
2412MHz (9GHz-13GHz) -802.11n(20MHz) (Ant 0)



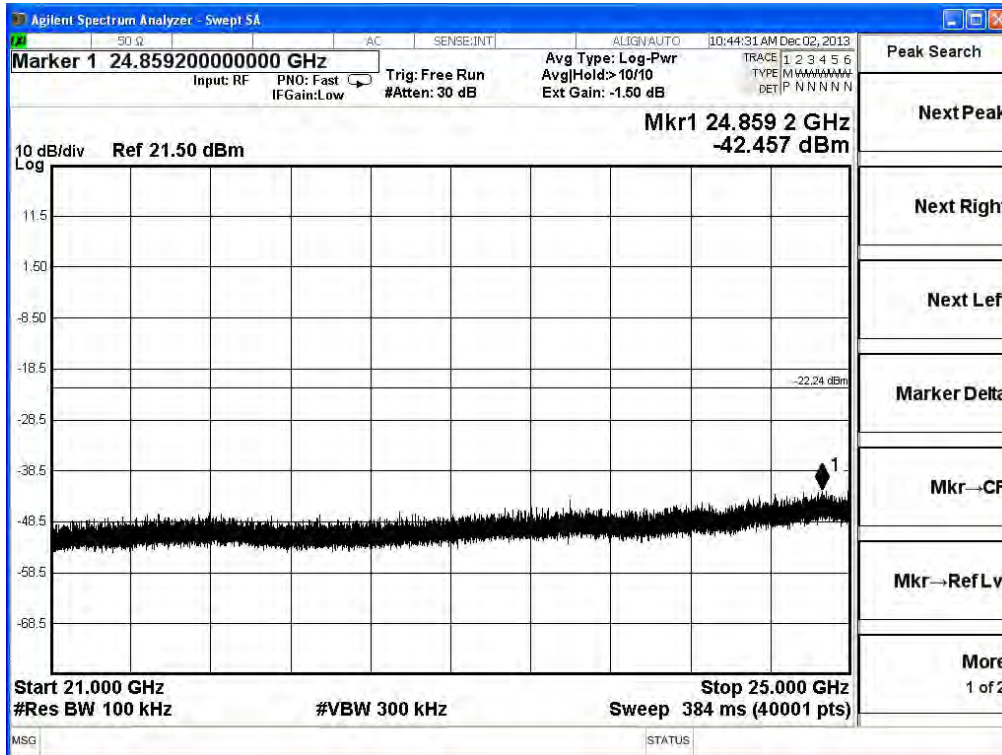
2412MHz (13GHz-17GHz)-802.11n(20MHz) (Ant 0)



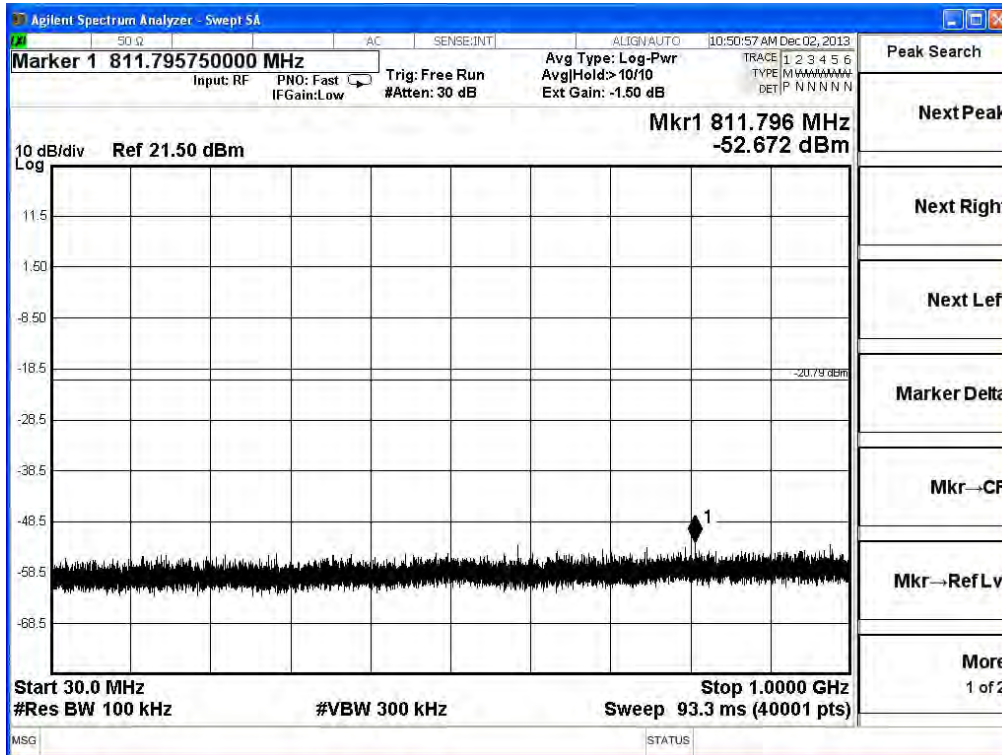
2412MHz (17GHz-21GHz) -802.11n(20MHz) (Ant 0)



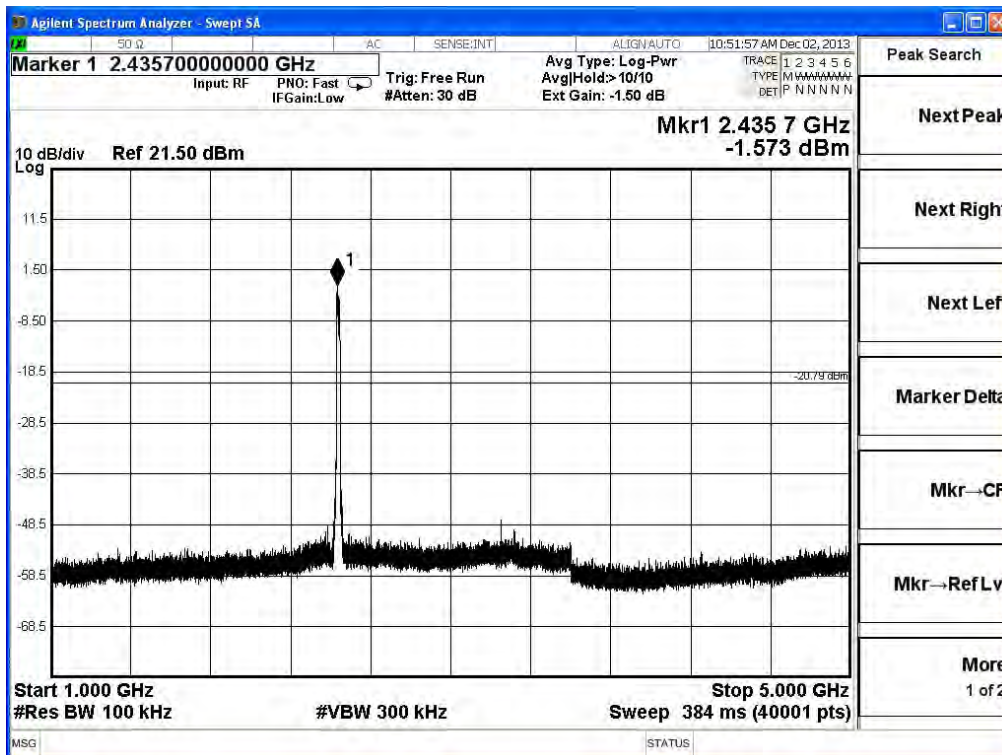
2412MHz (21GHz-25GHz)-802.11n(20MHz) (Ant 0)



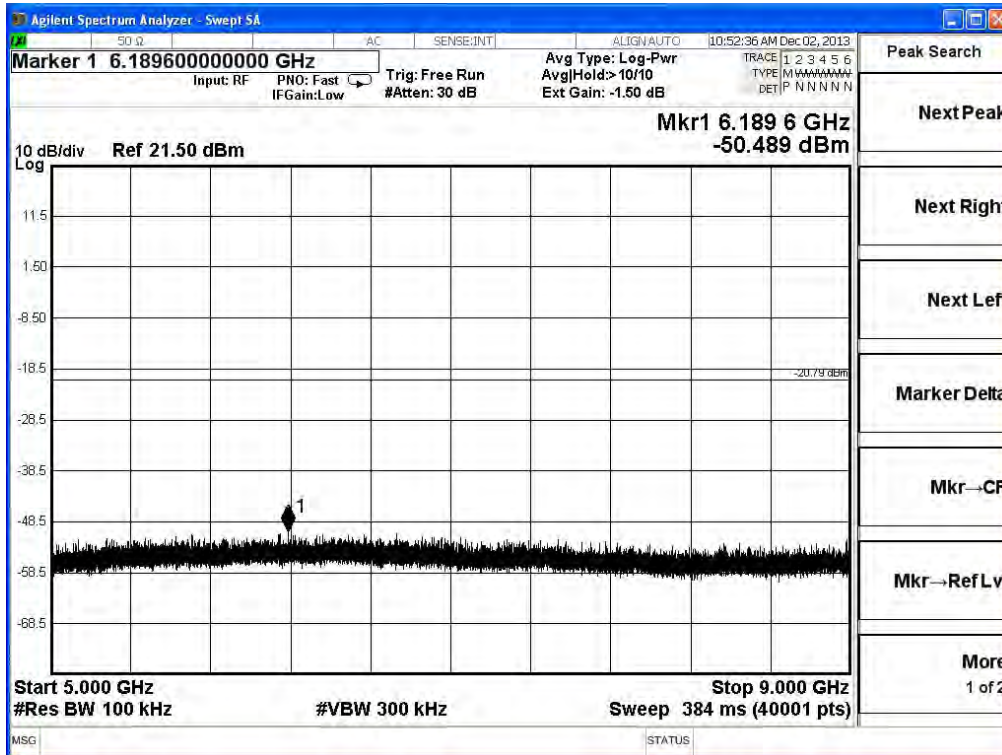
2437MHz (30MHz-1GHz) -802.11n(20MHz) (Ant 0)



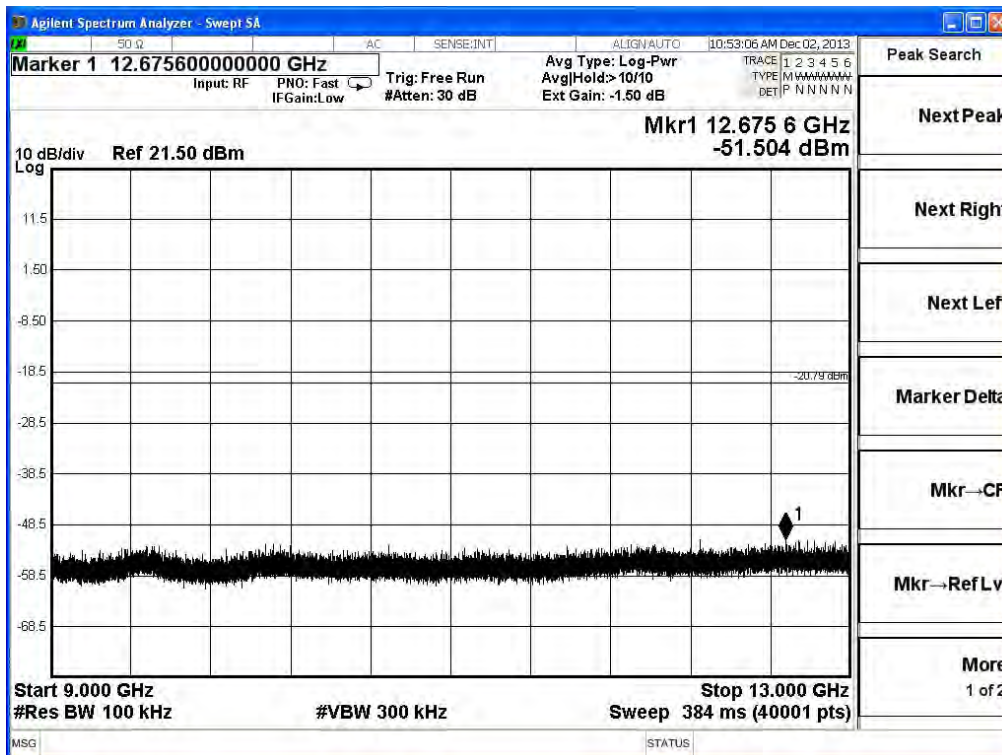
2437MHz (1GHz-5GHz) -802.11n(20MHz) (Ant 0)



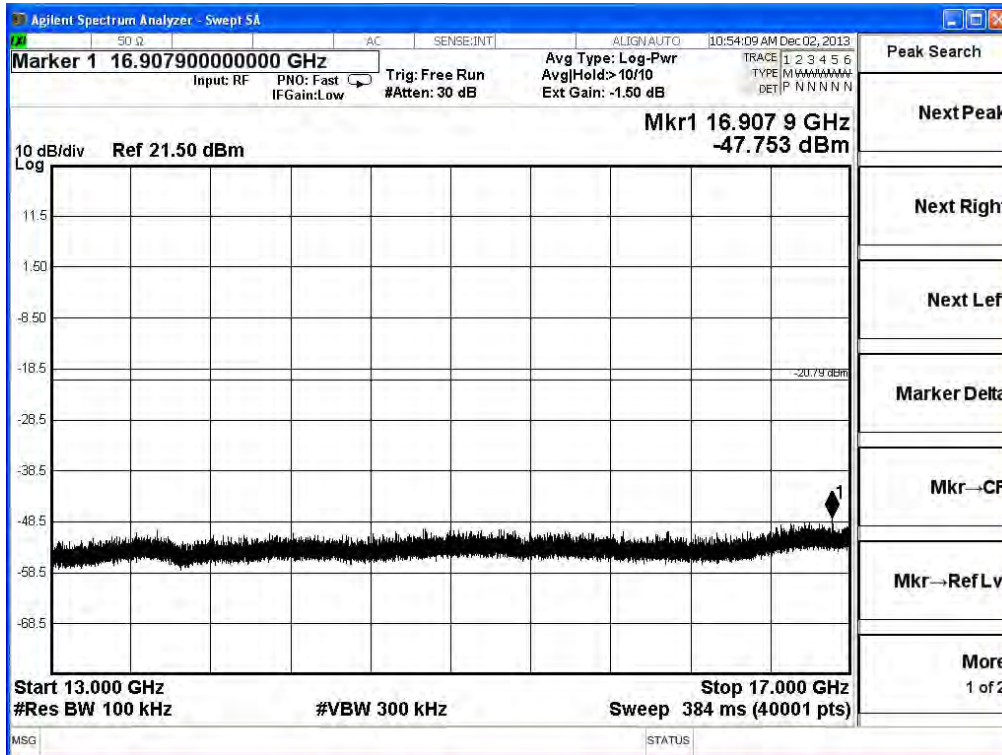
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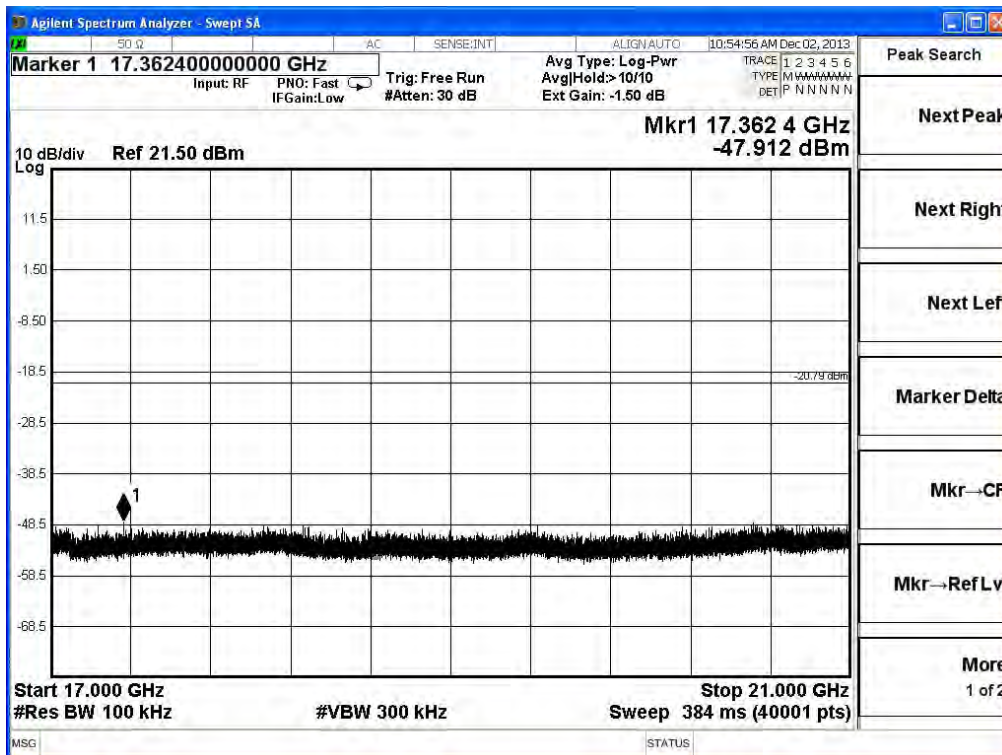
2437MHz (9GHz-13GHz) -802.11n(20MHz) (Ant 0)



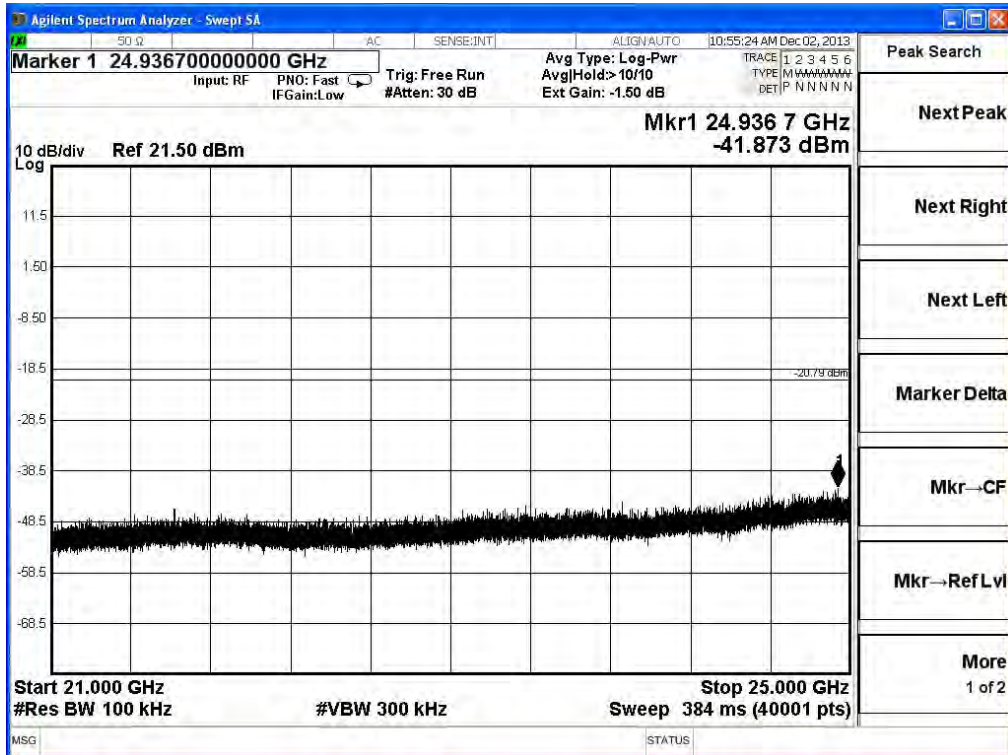
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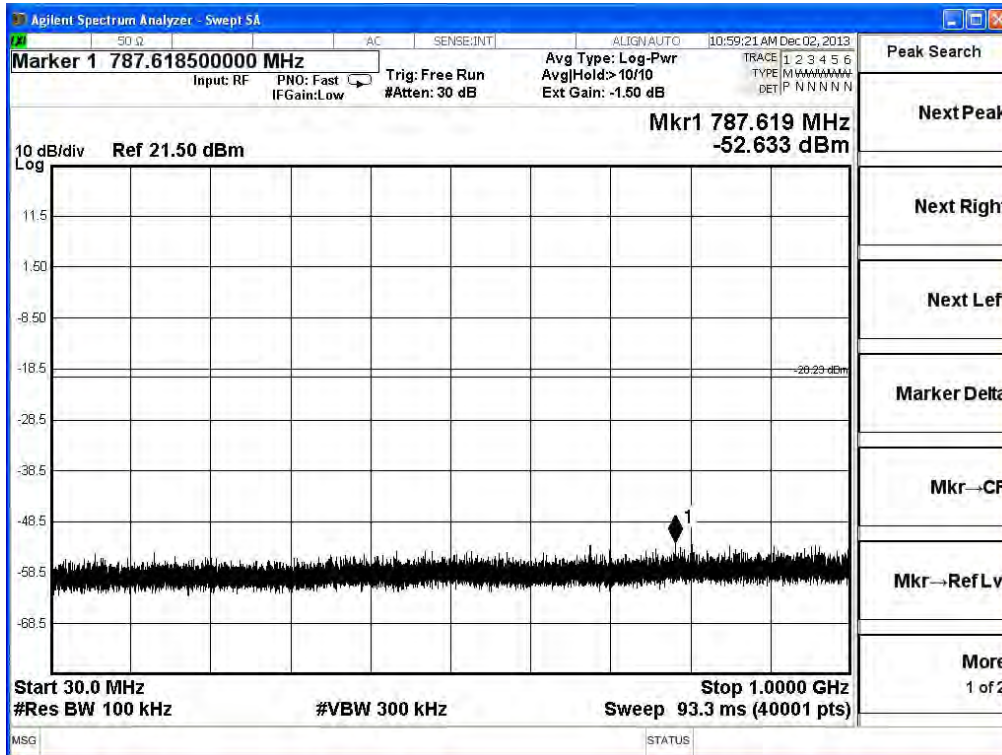
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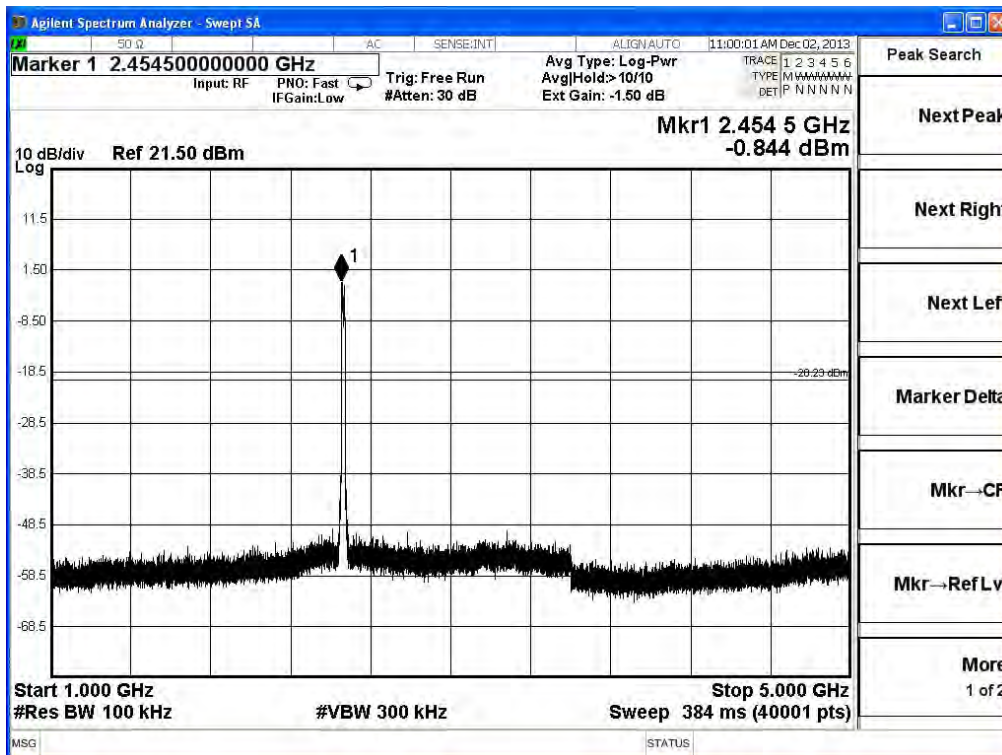
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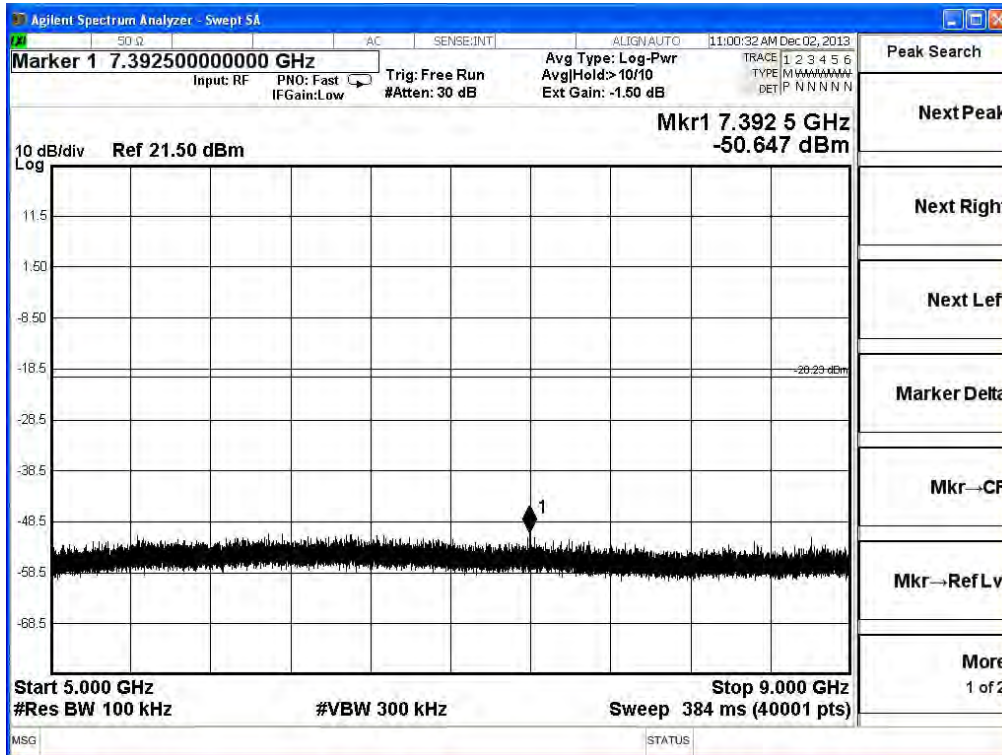
2462MHz (30MHz-1GHz)-802.11n(20MHz) (Ant 0)



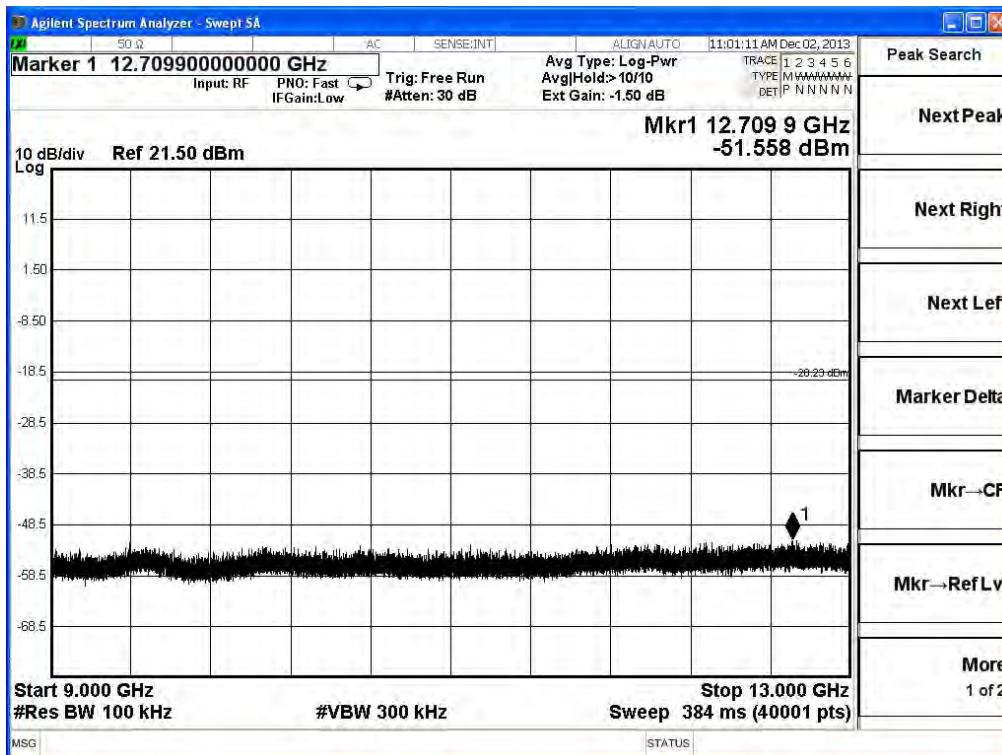
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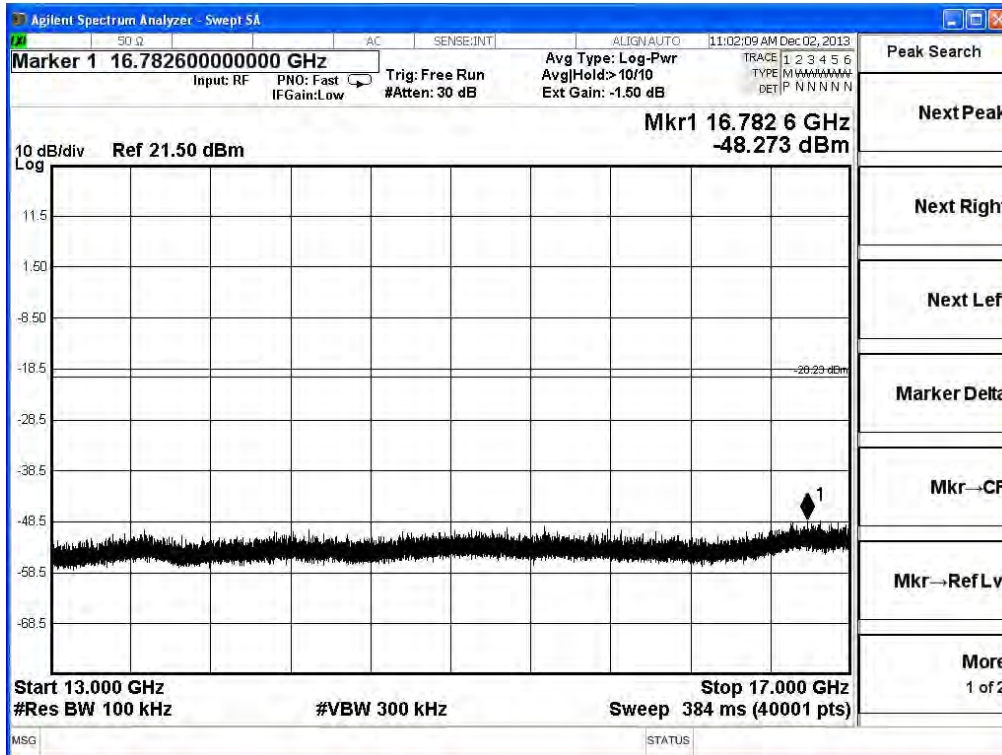
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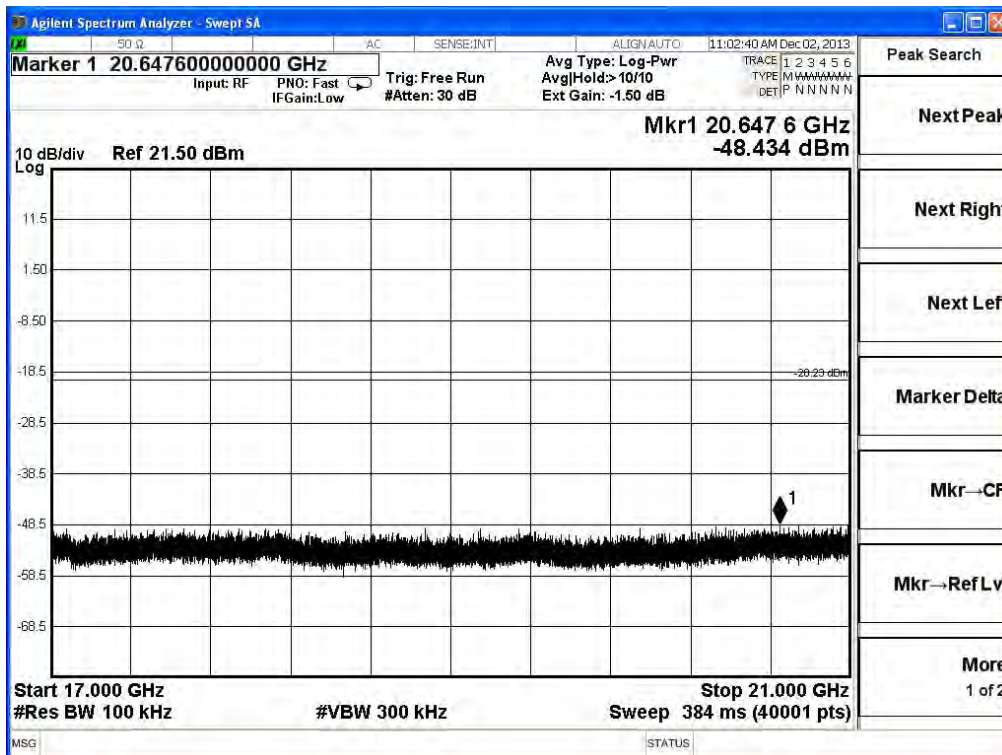
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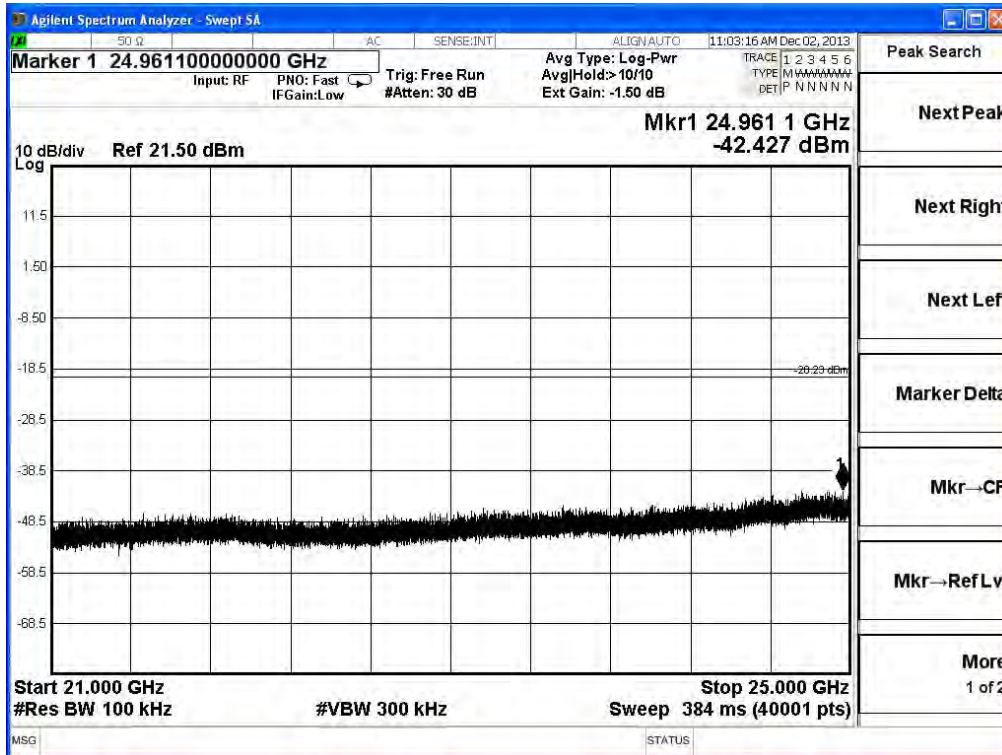
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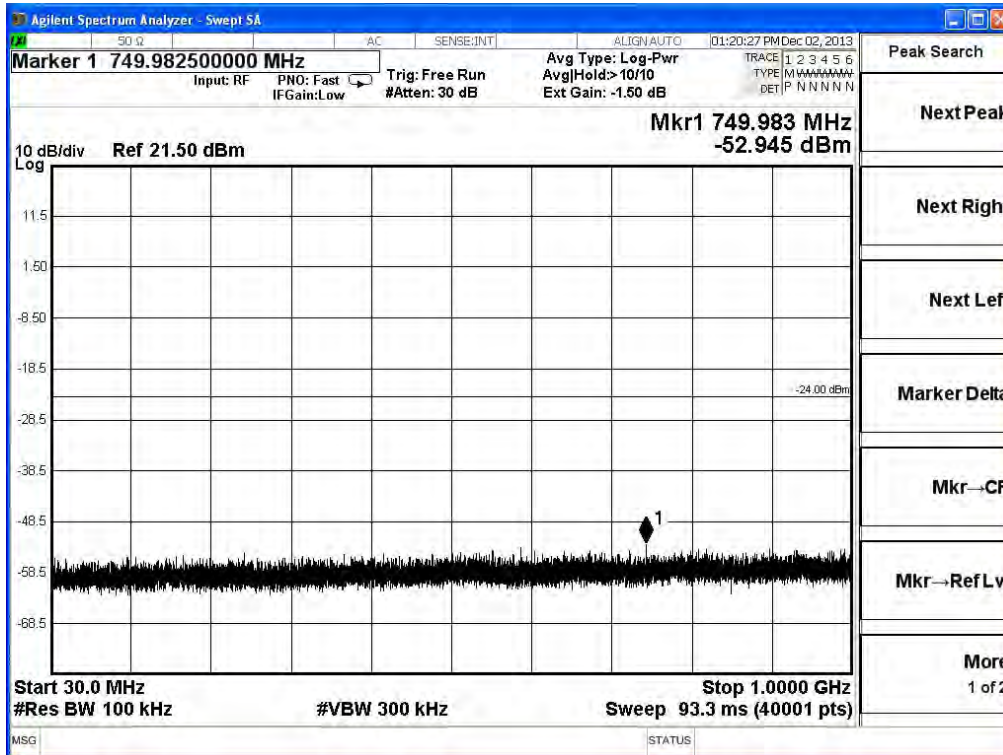
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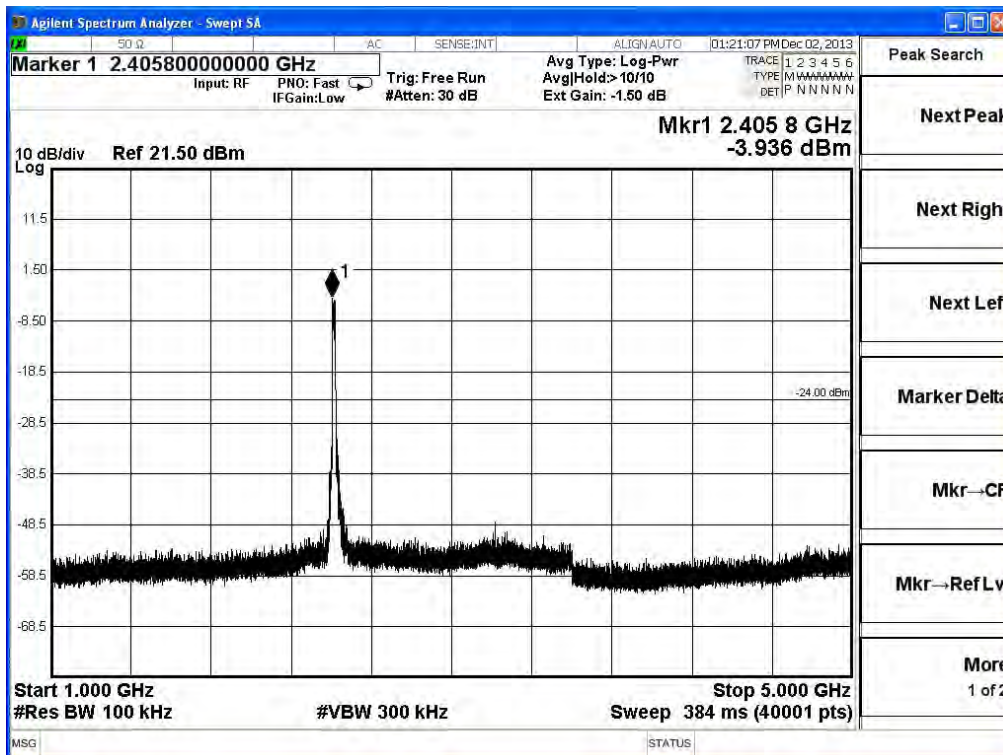
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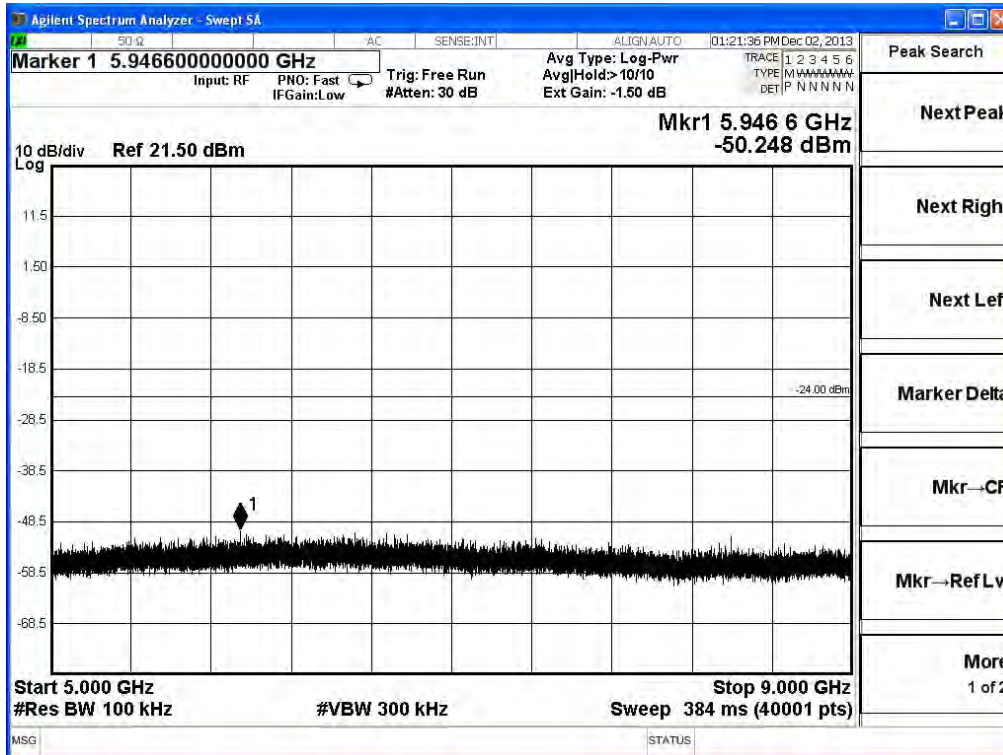
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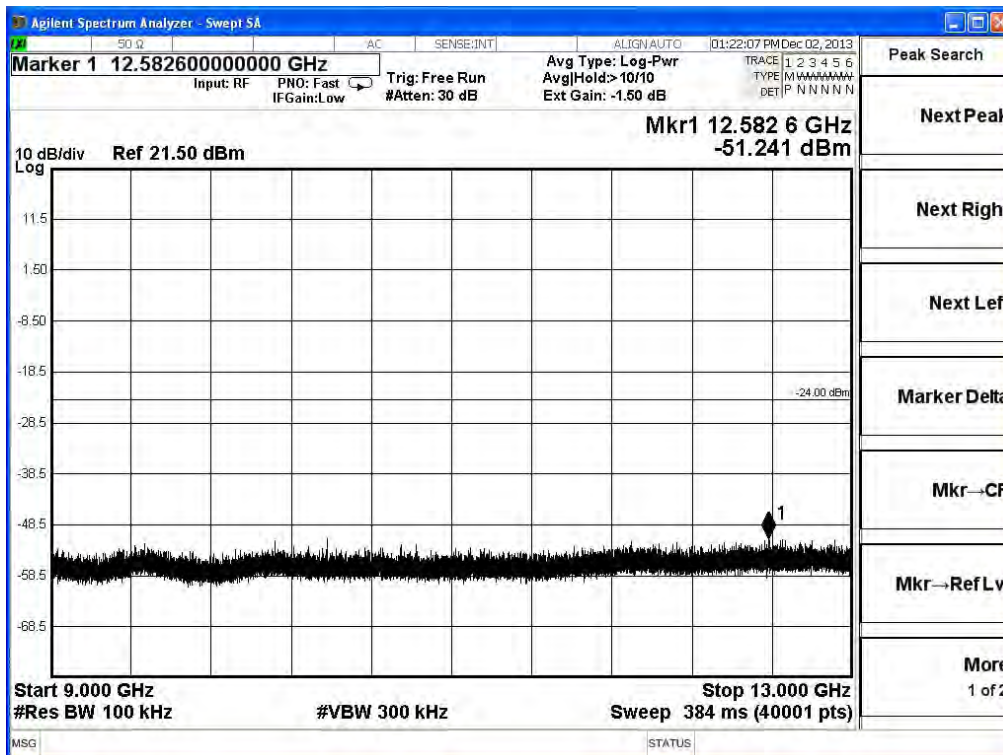
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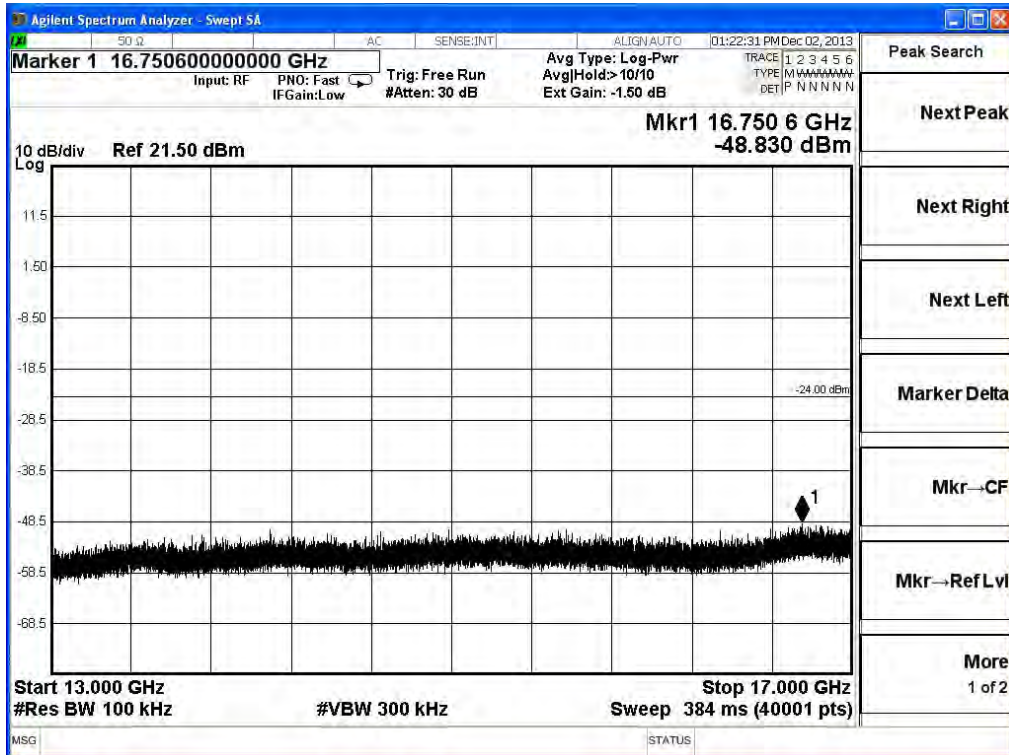
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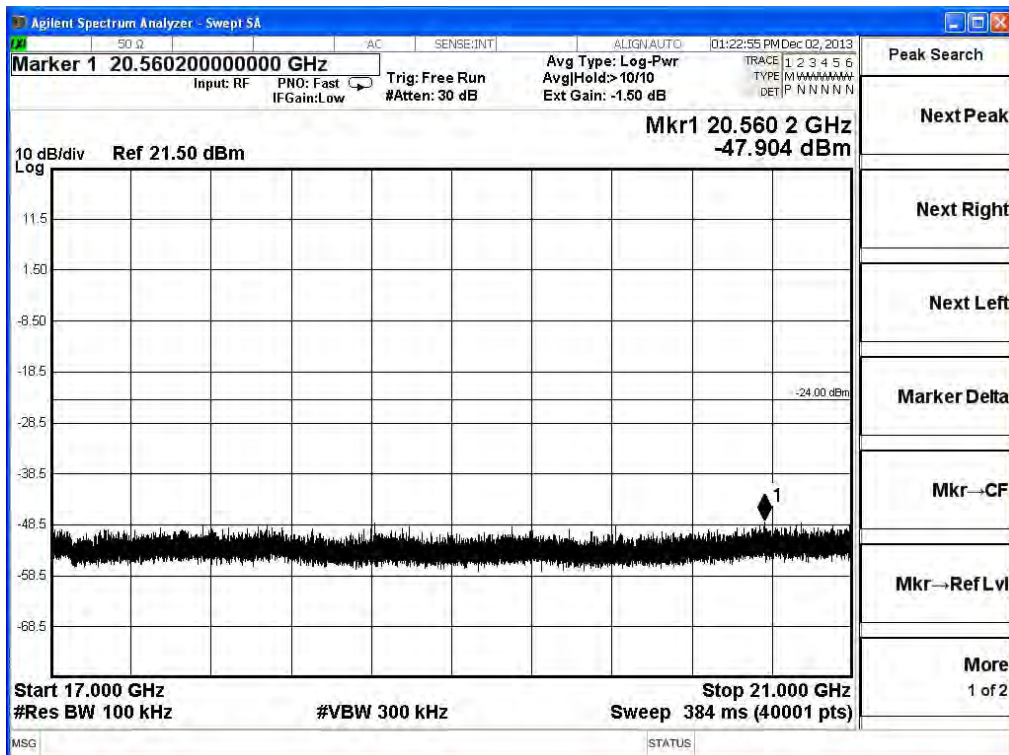
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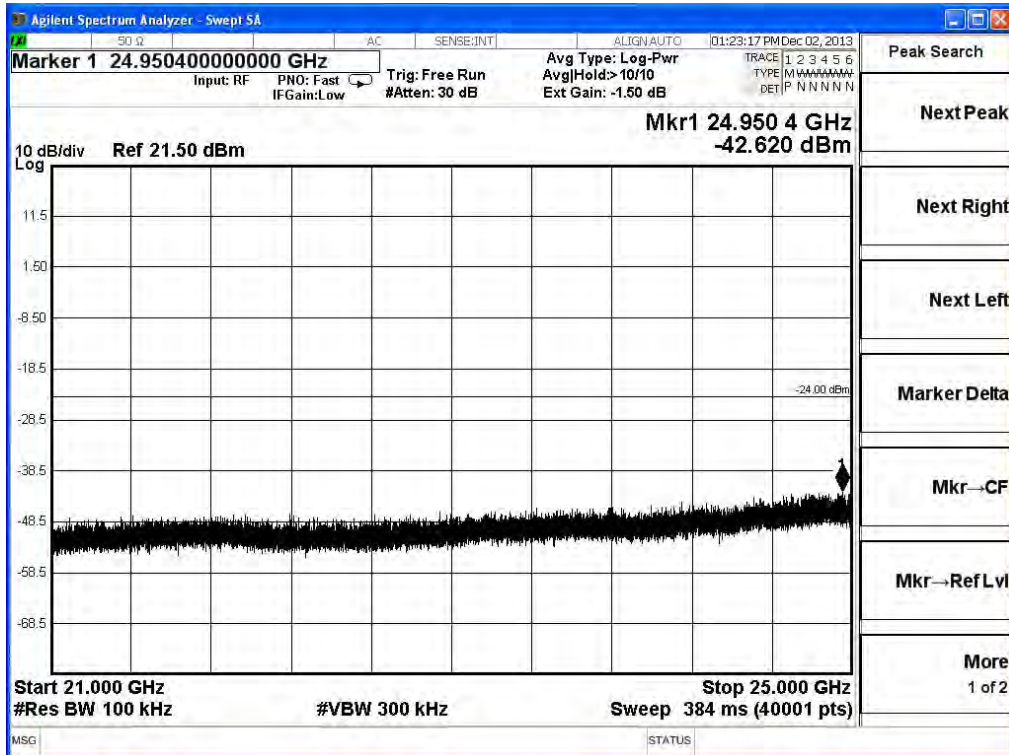
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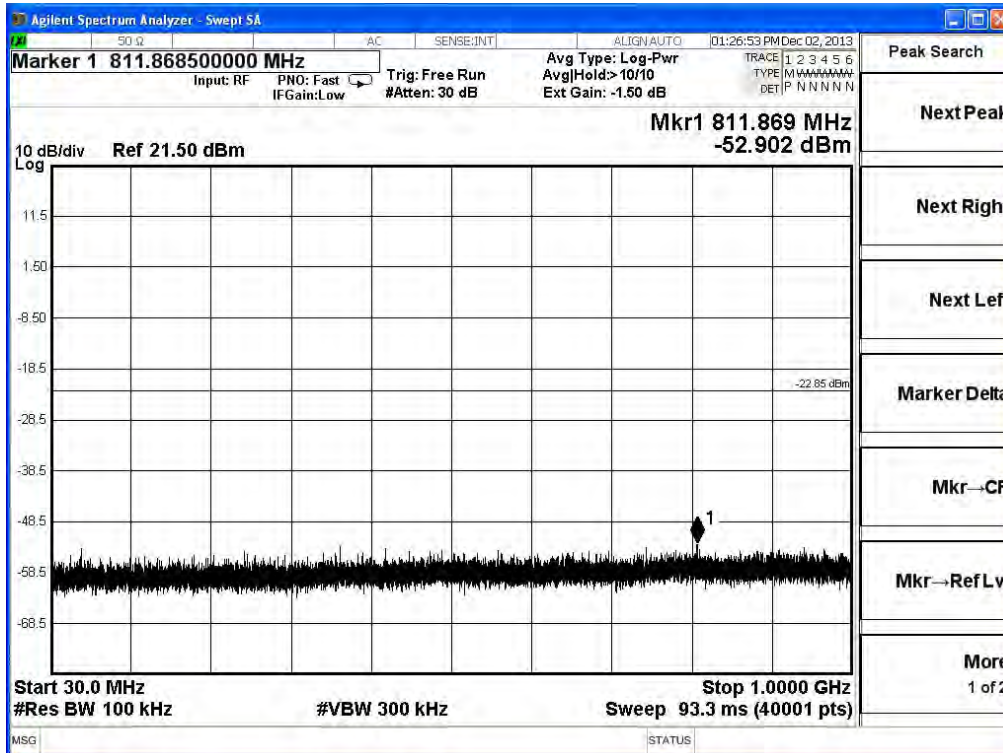
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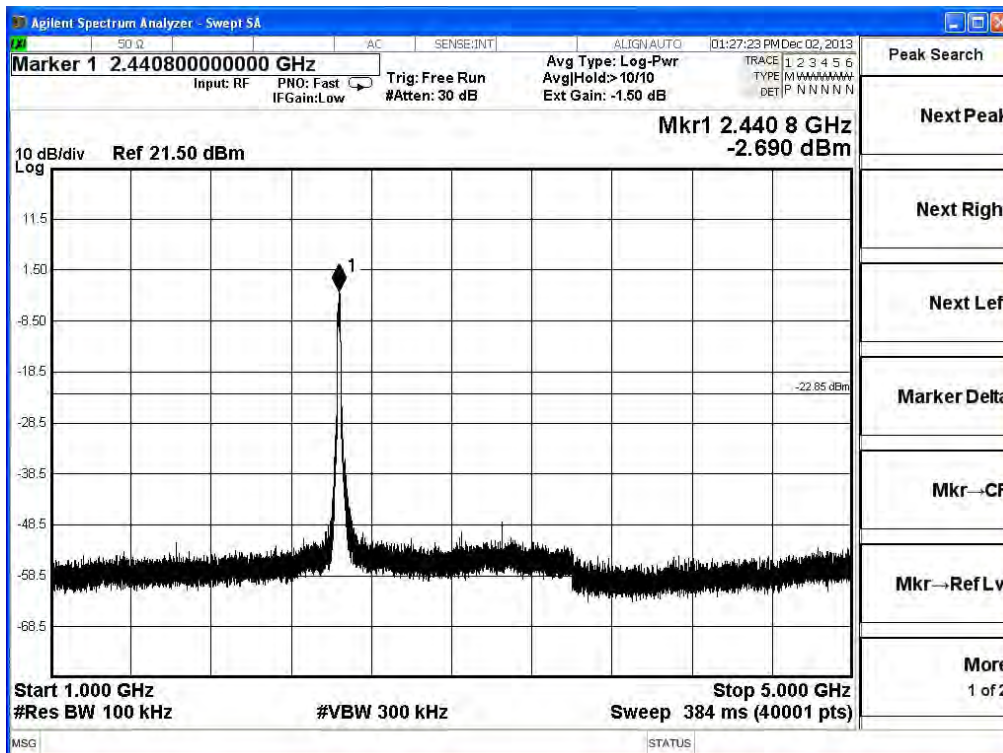
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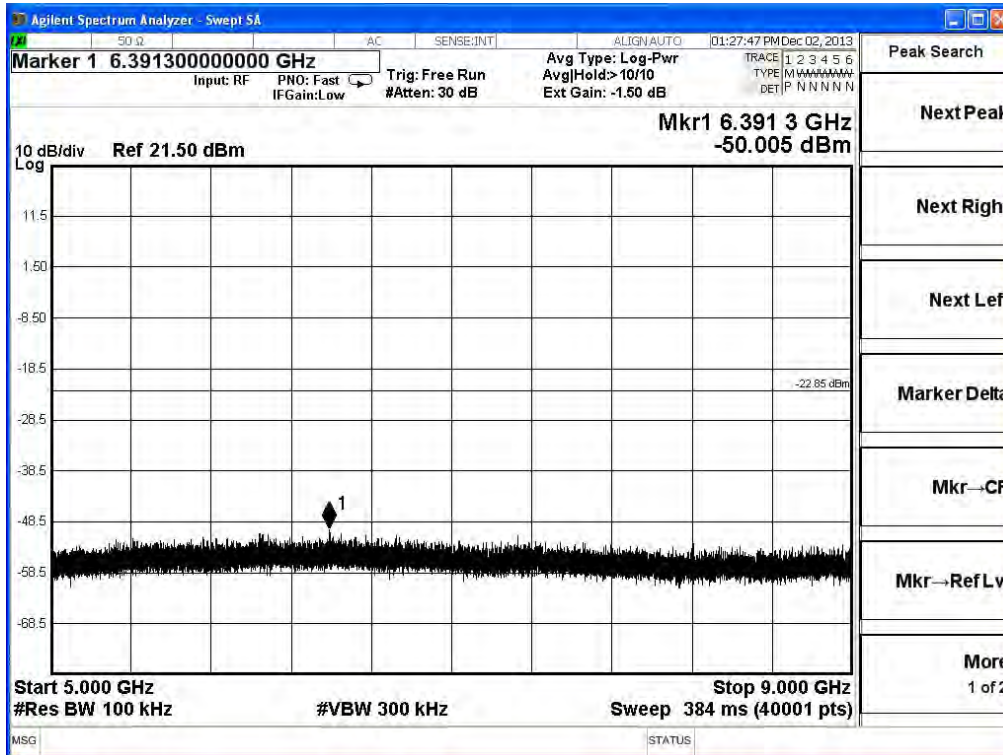
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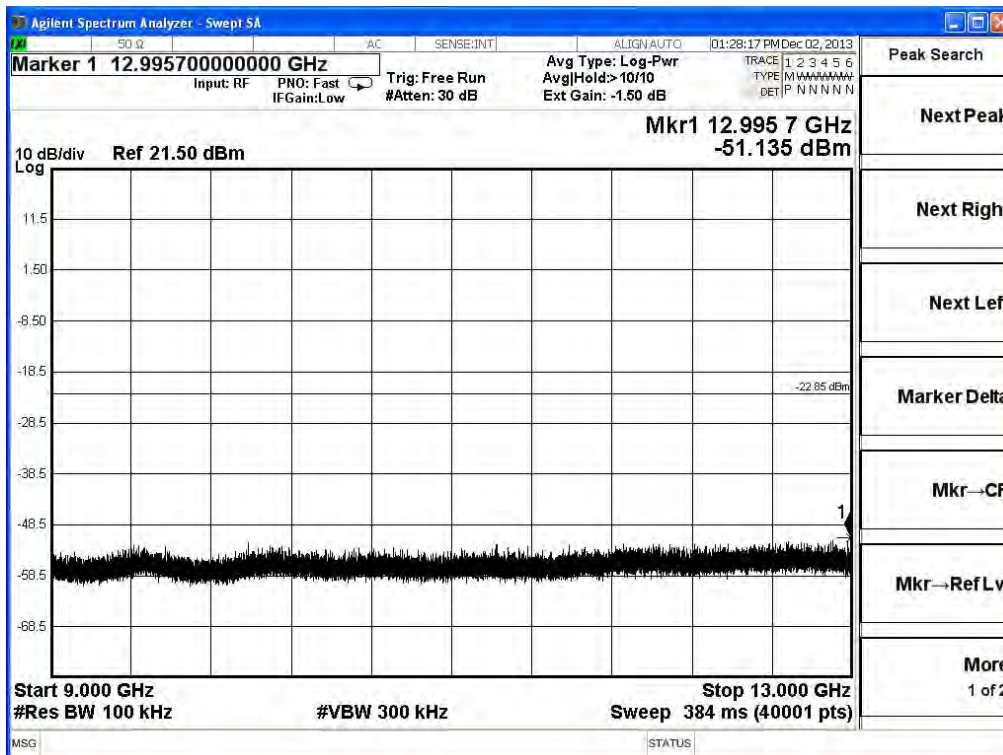
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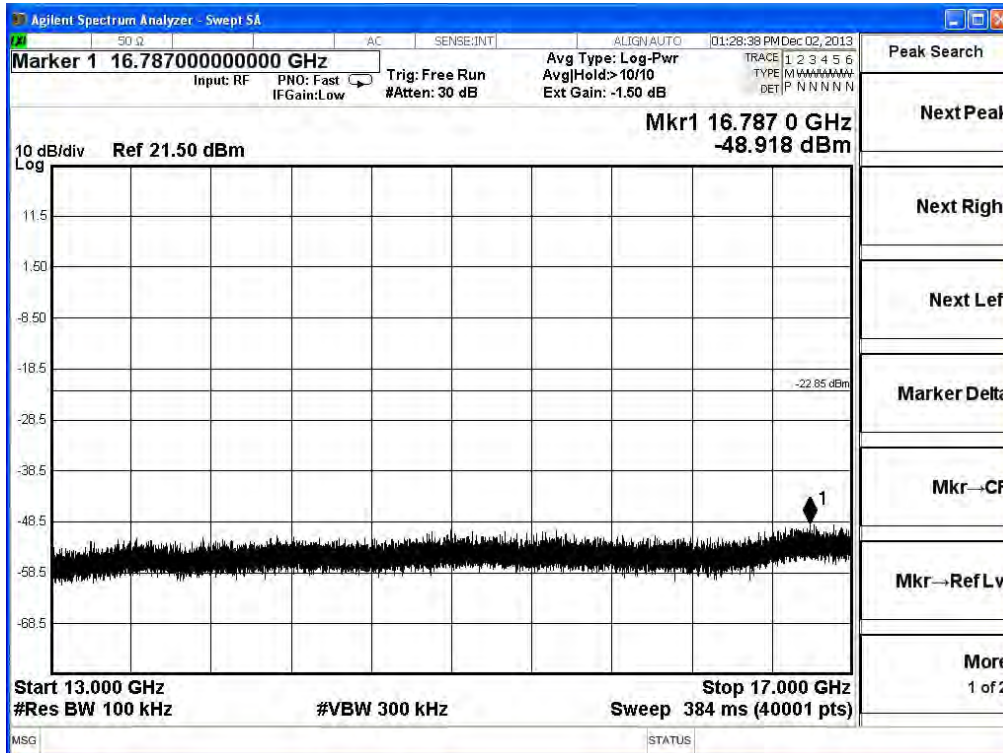
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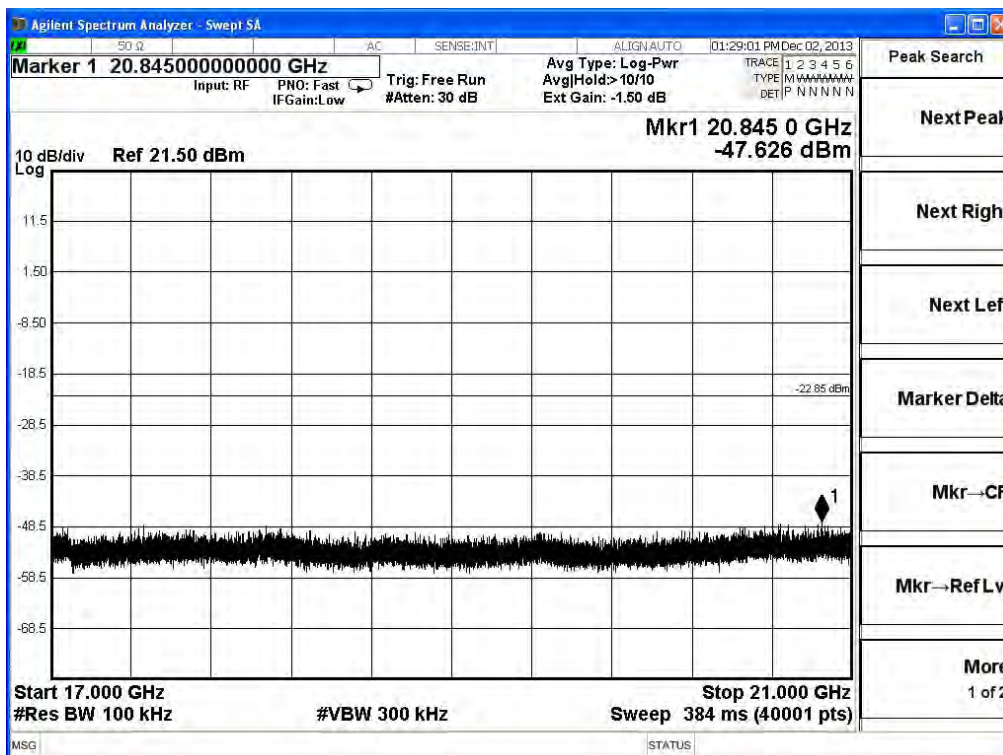
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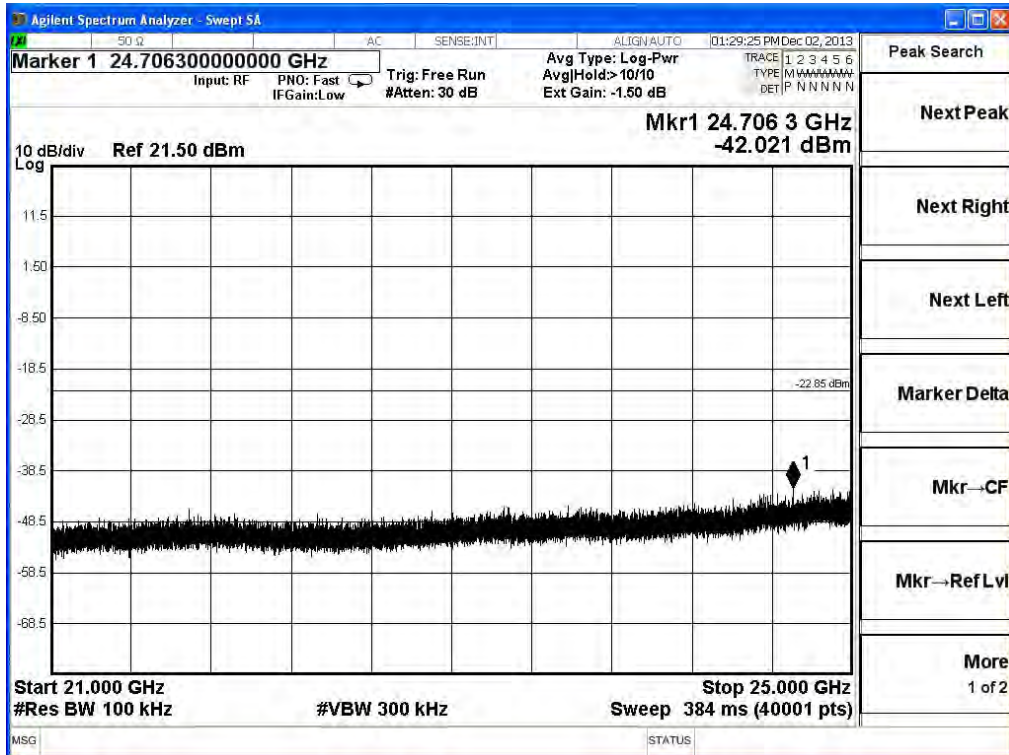
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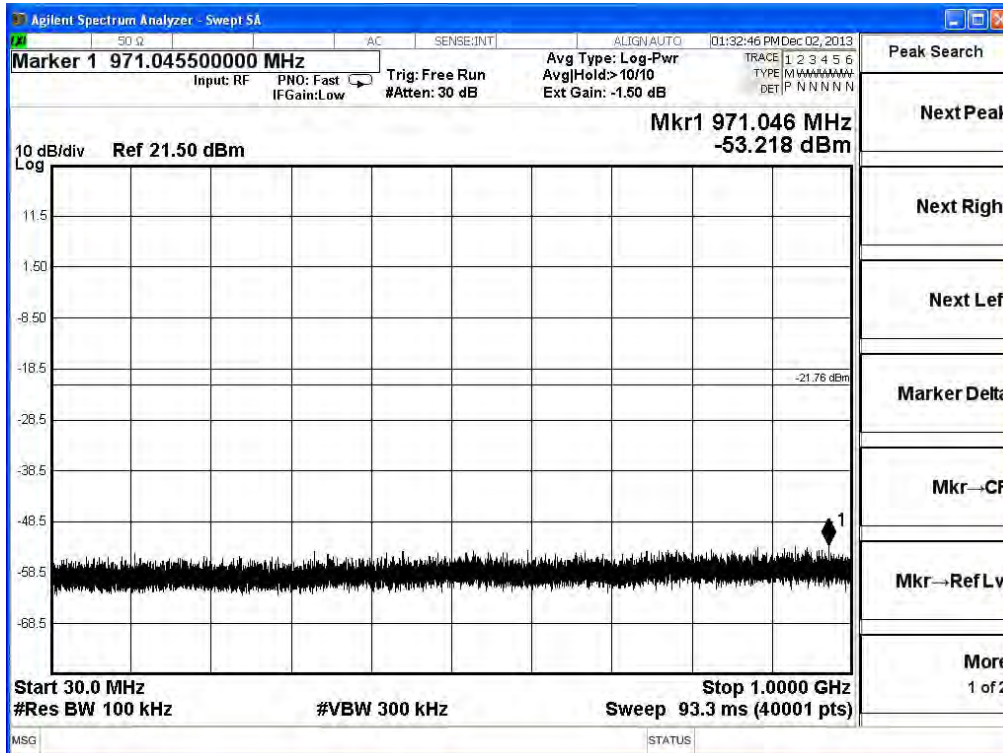
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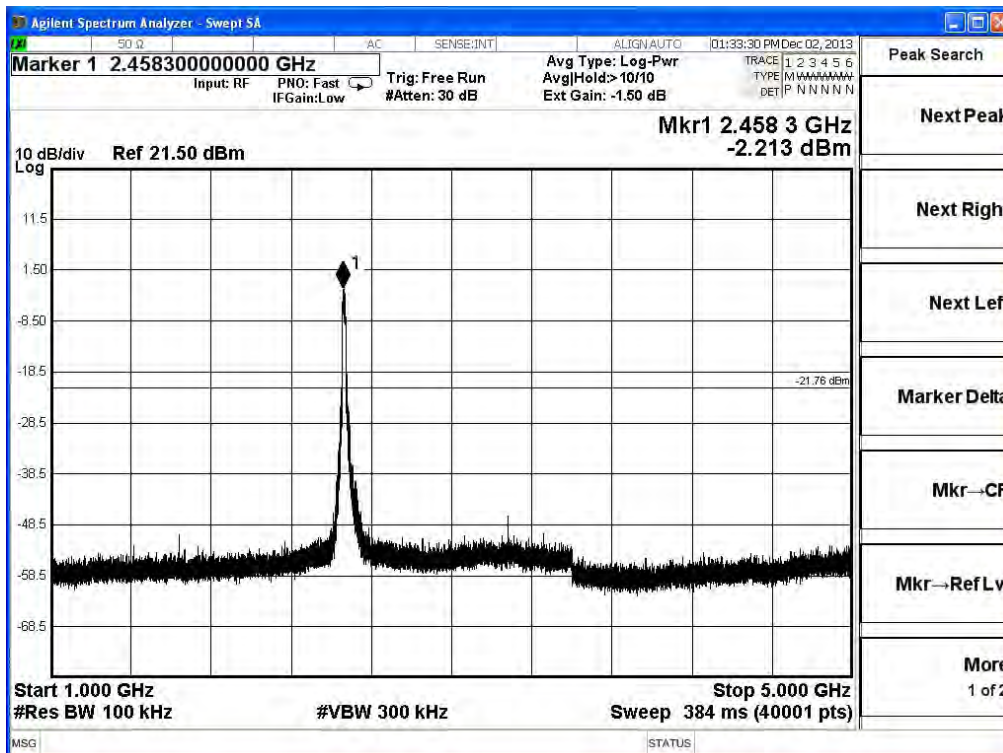
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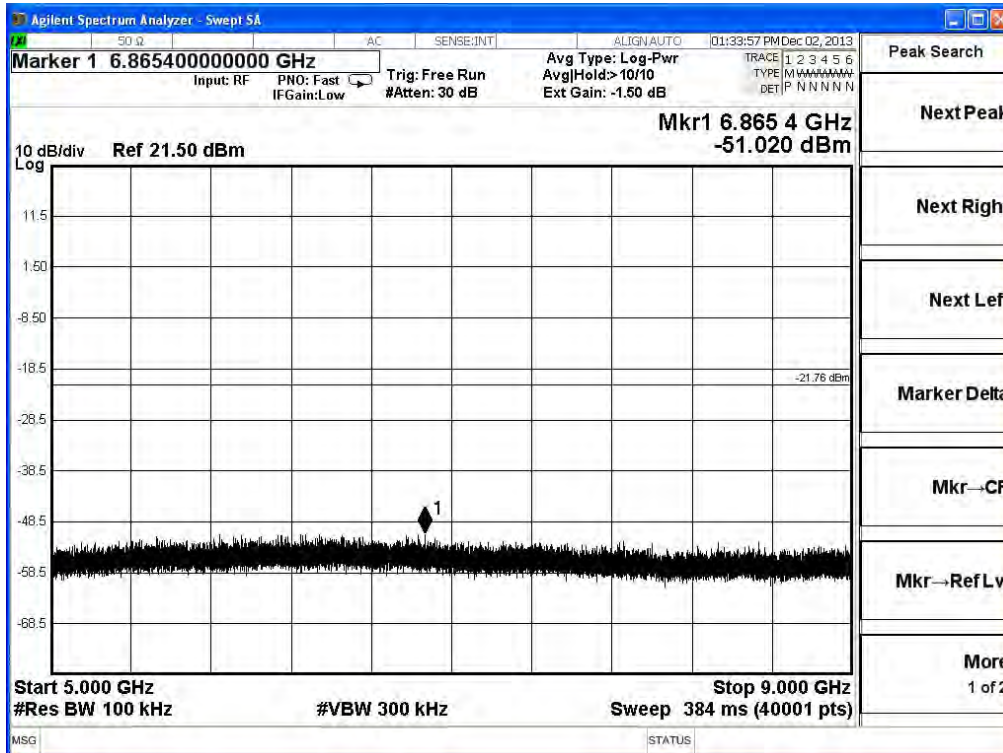
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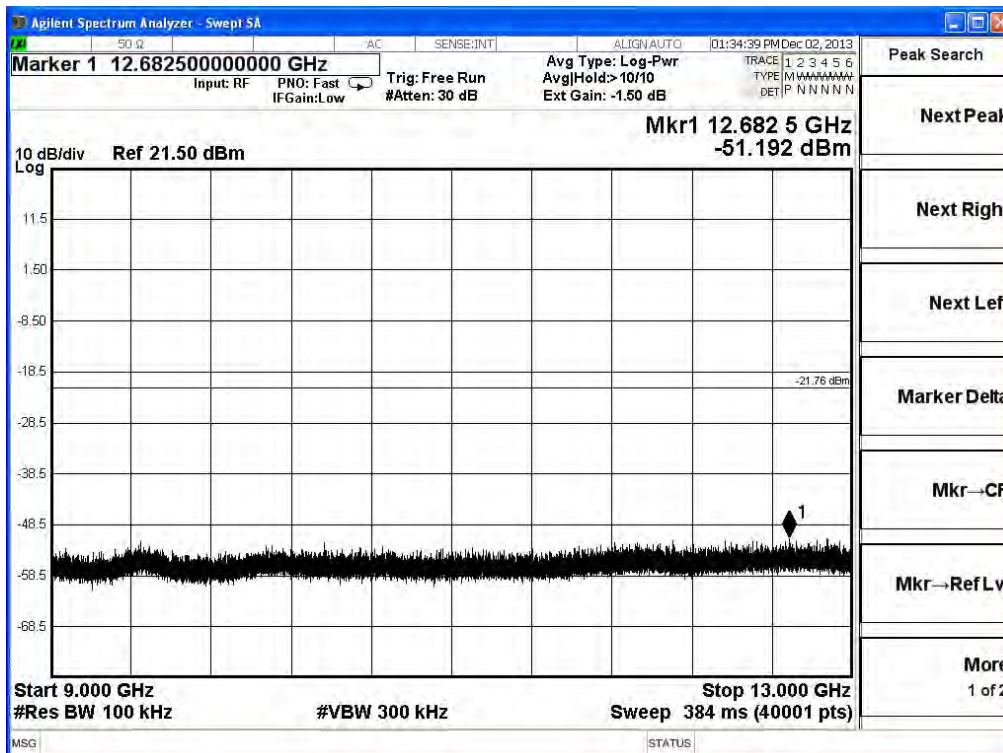
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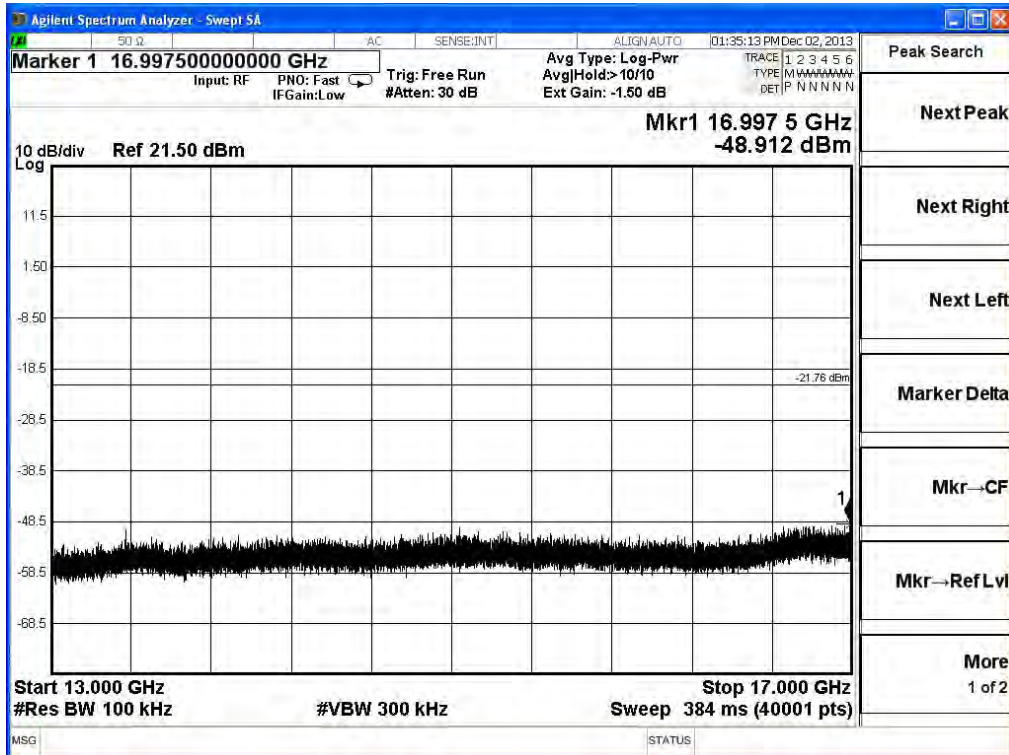
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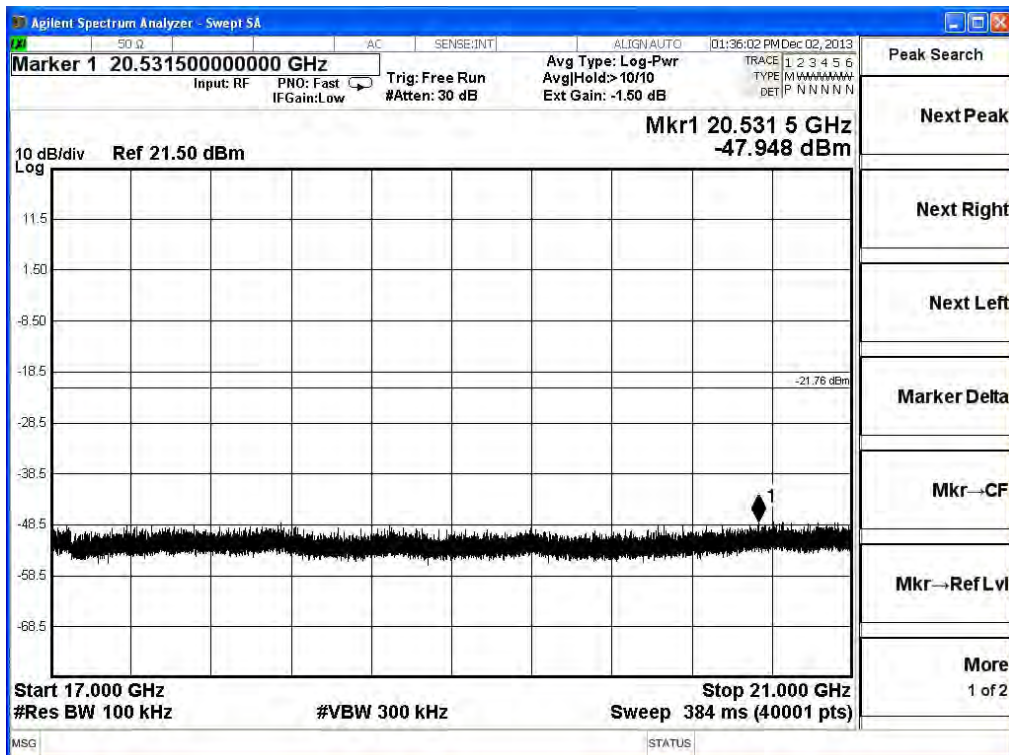
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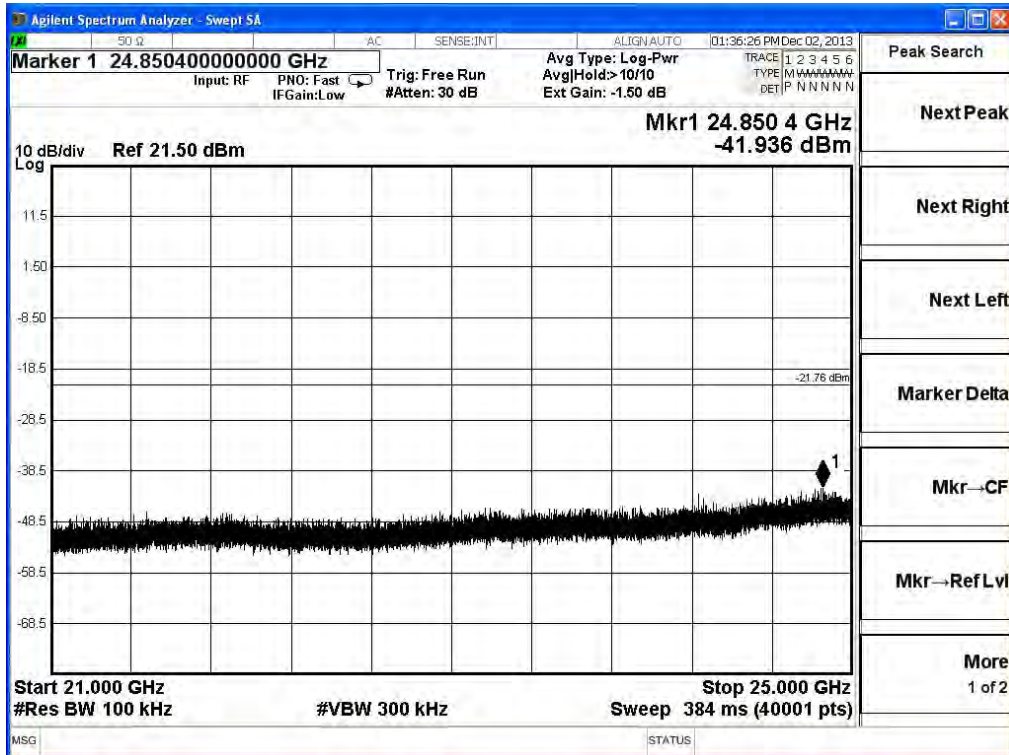
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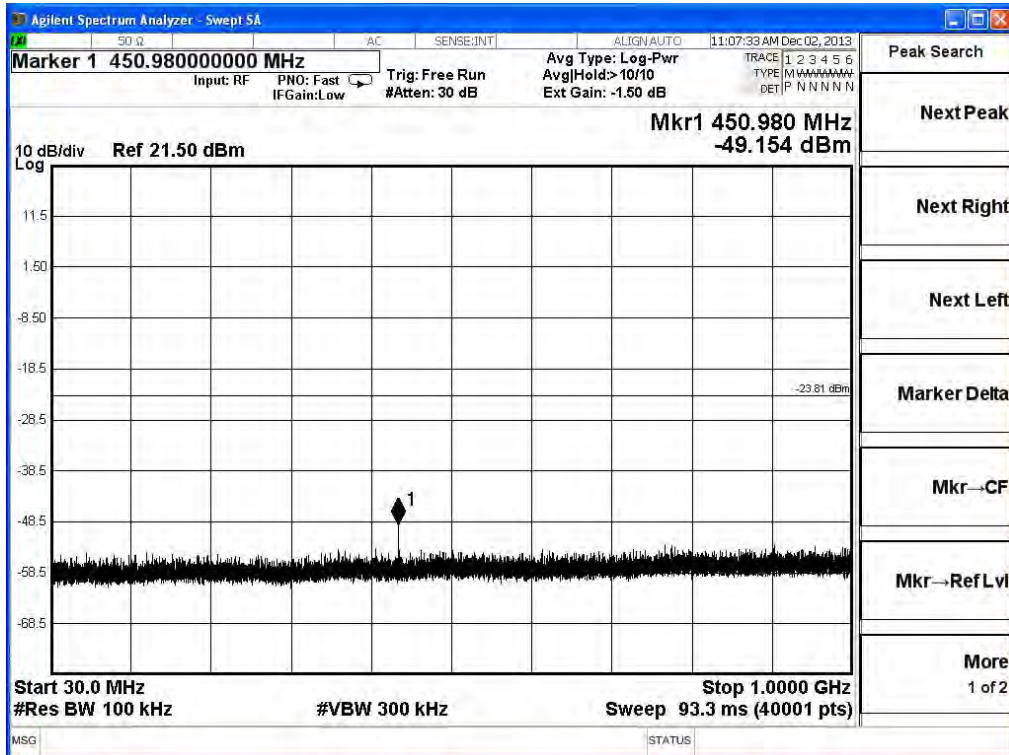
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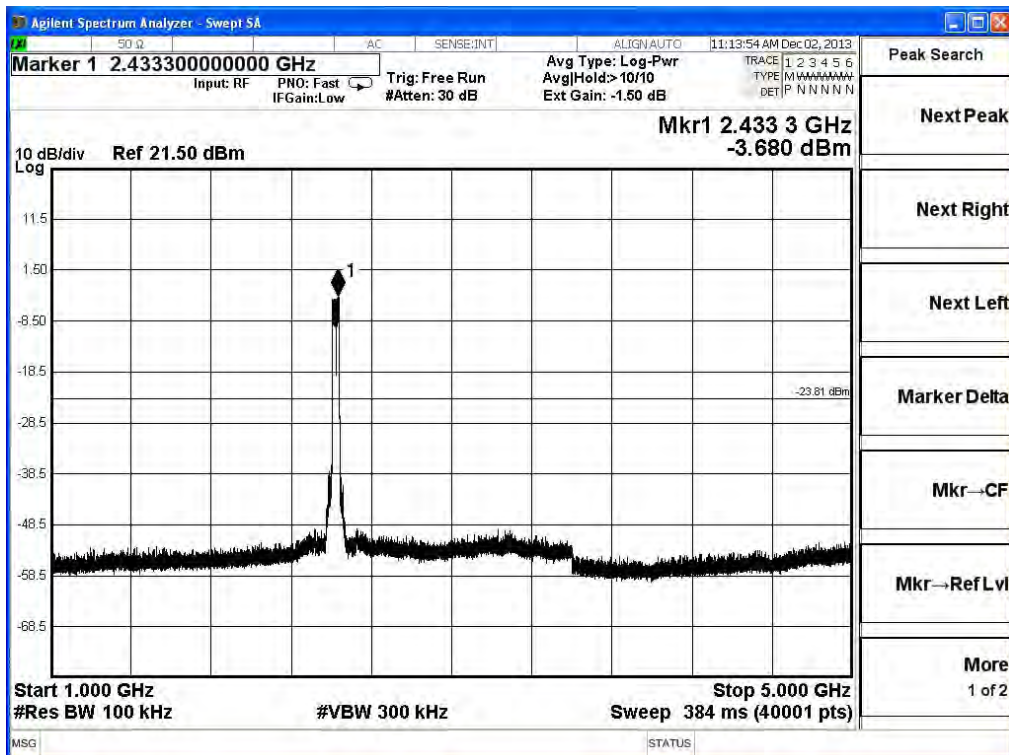
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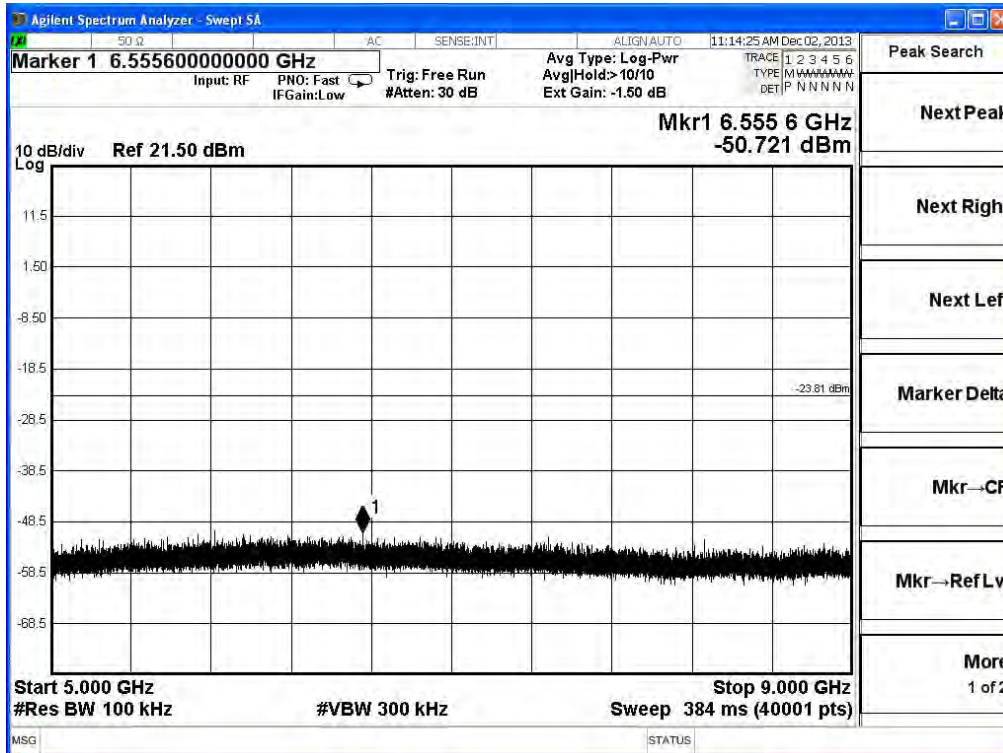
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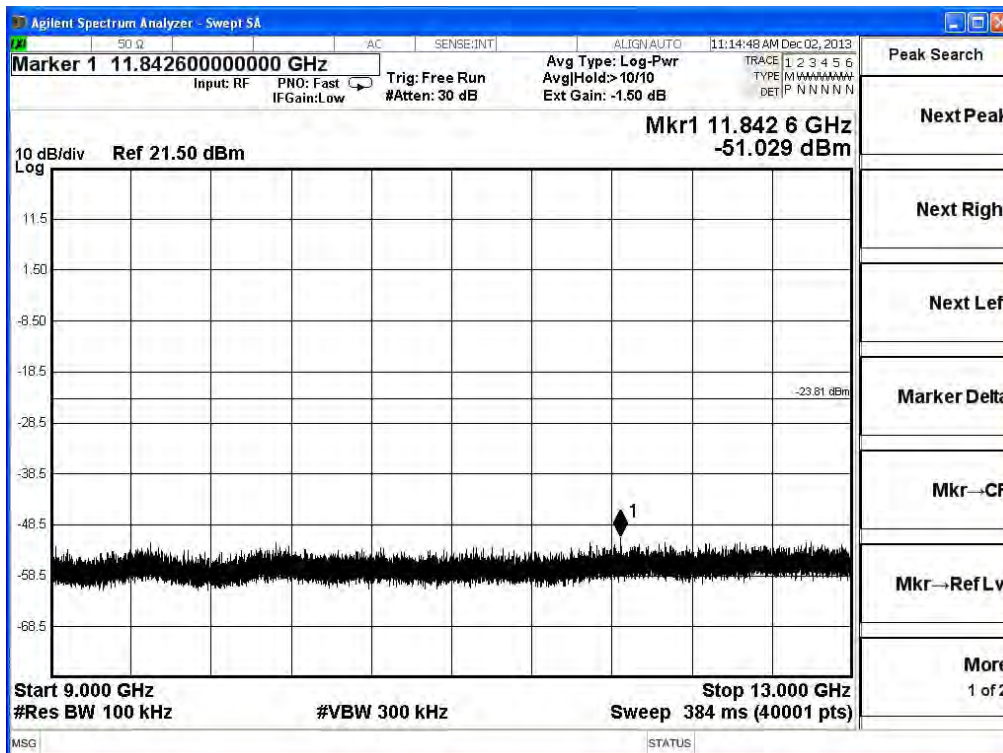
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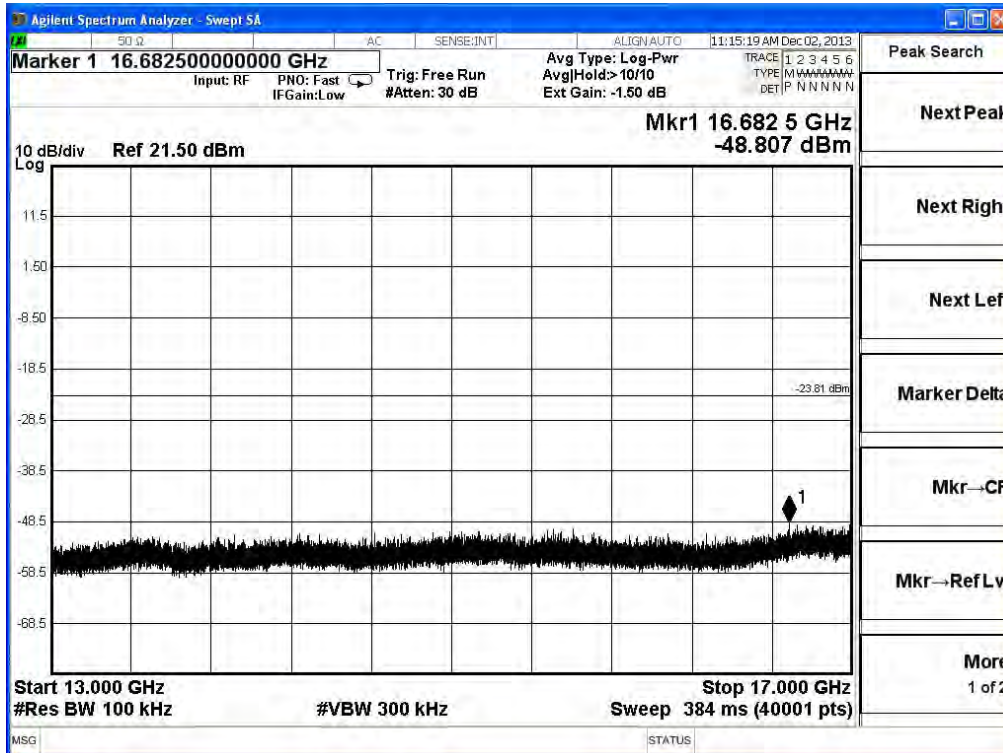
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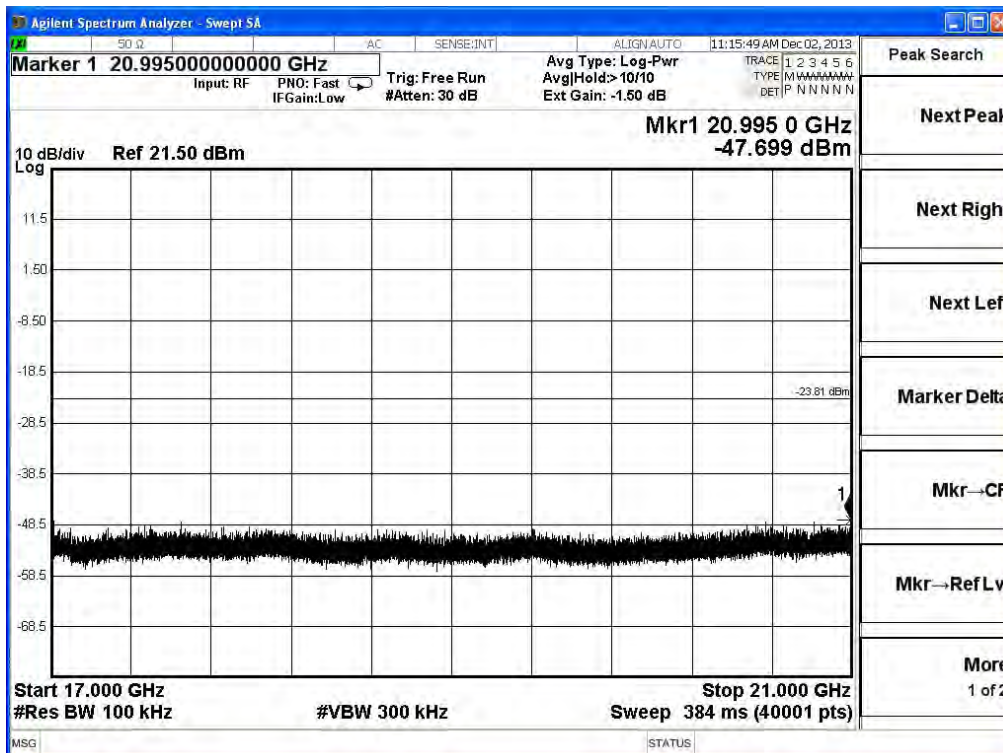
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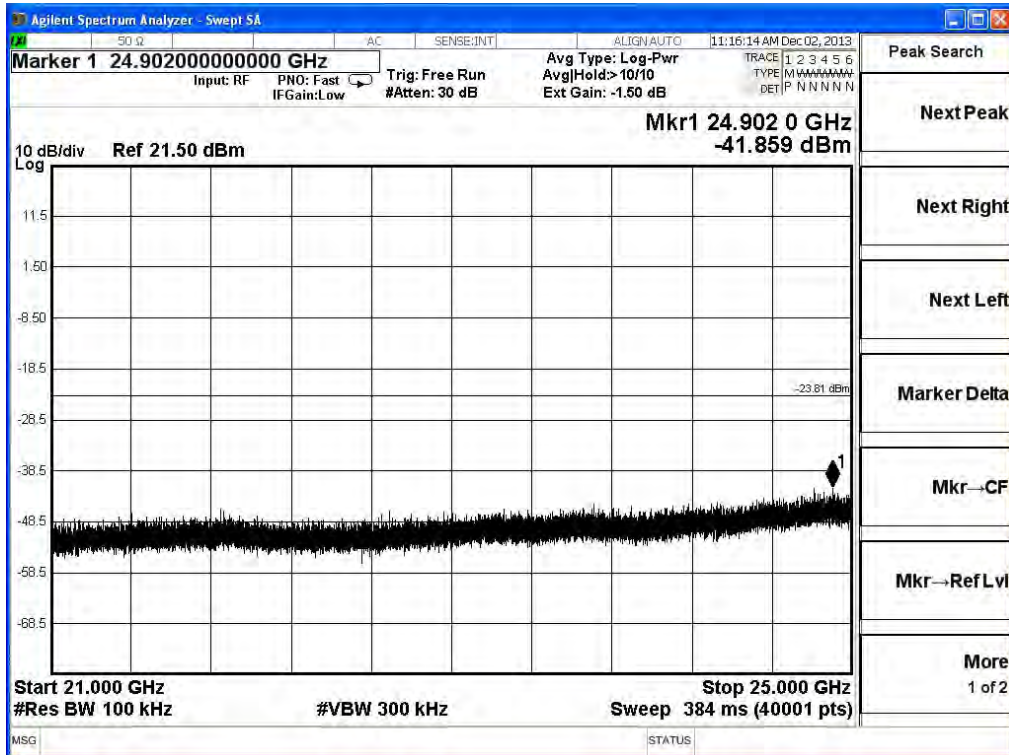
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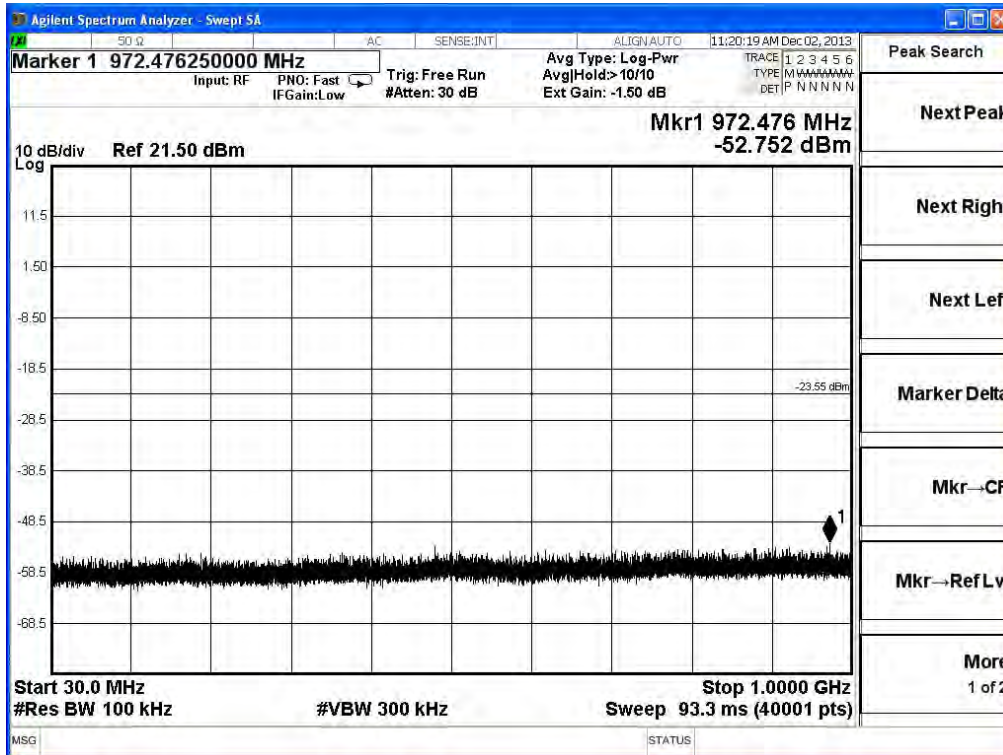
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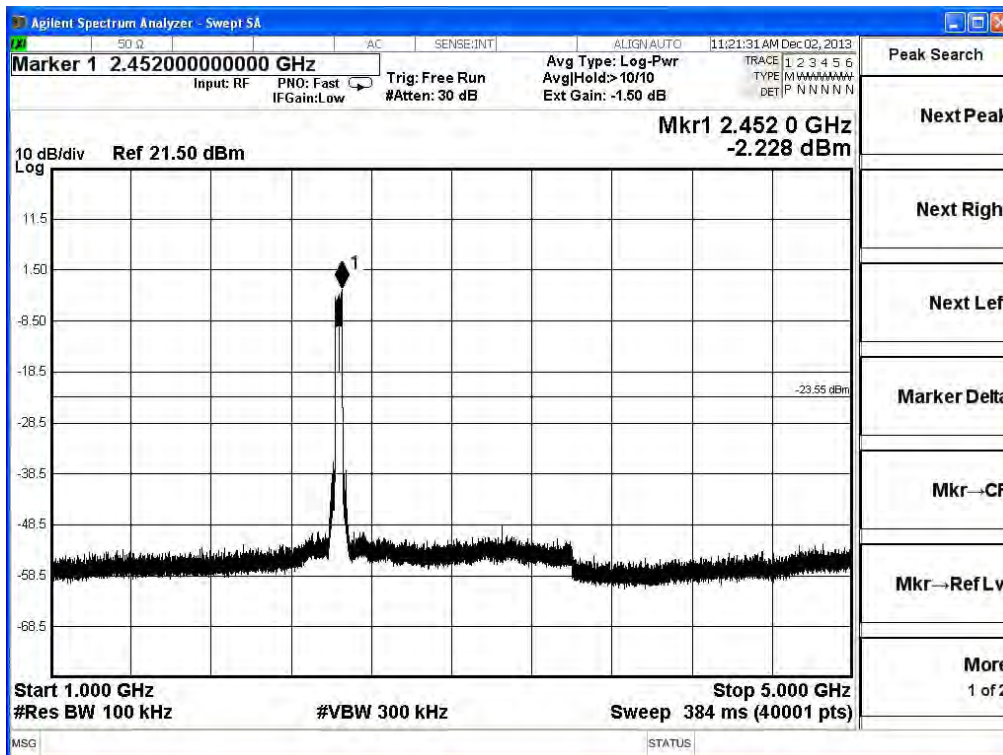
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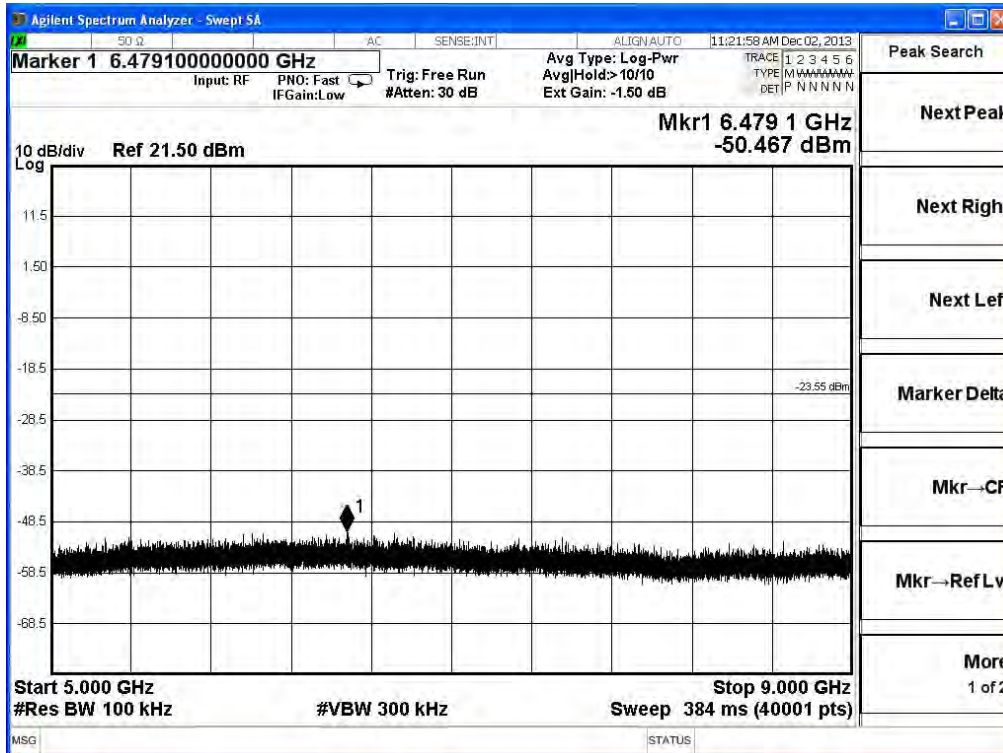
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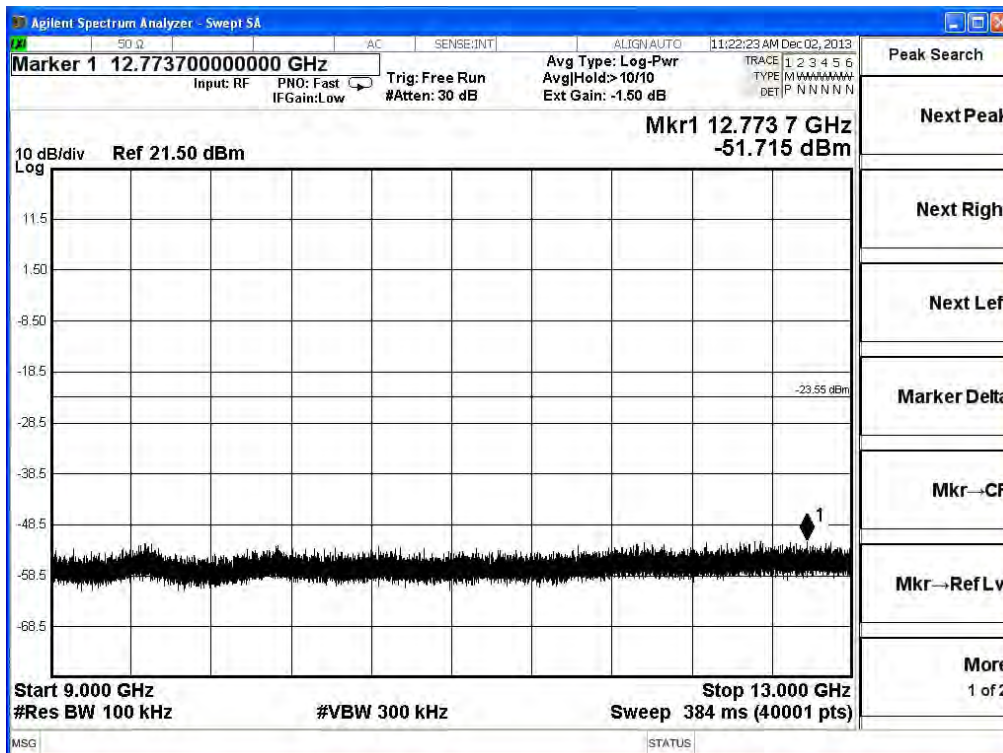
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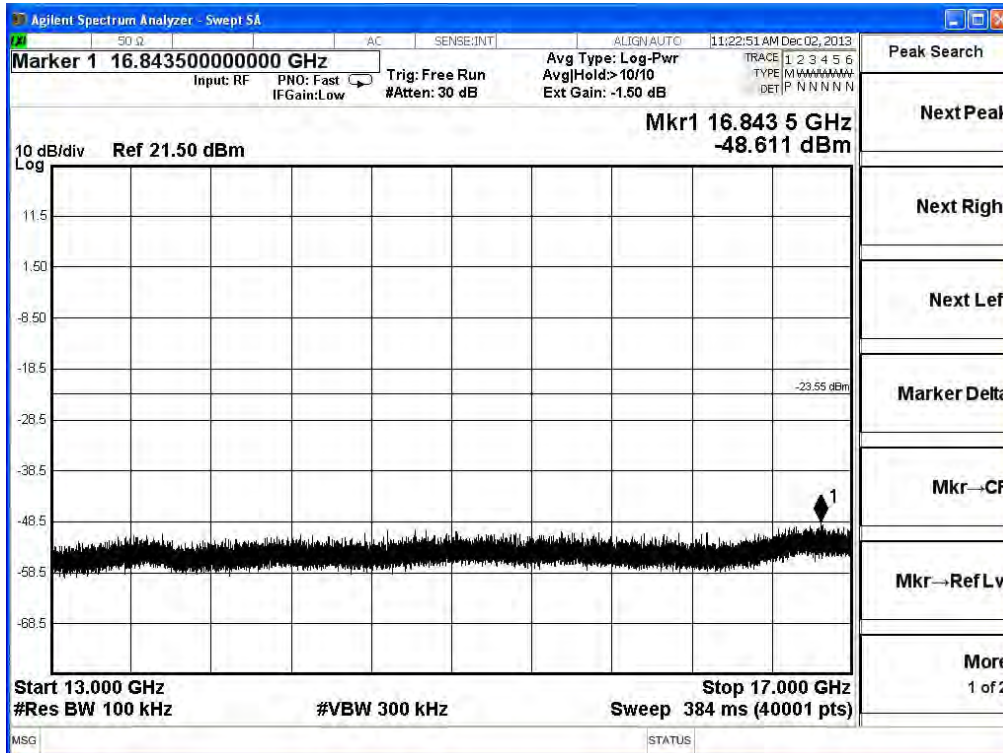
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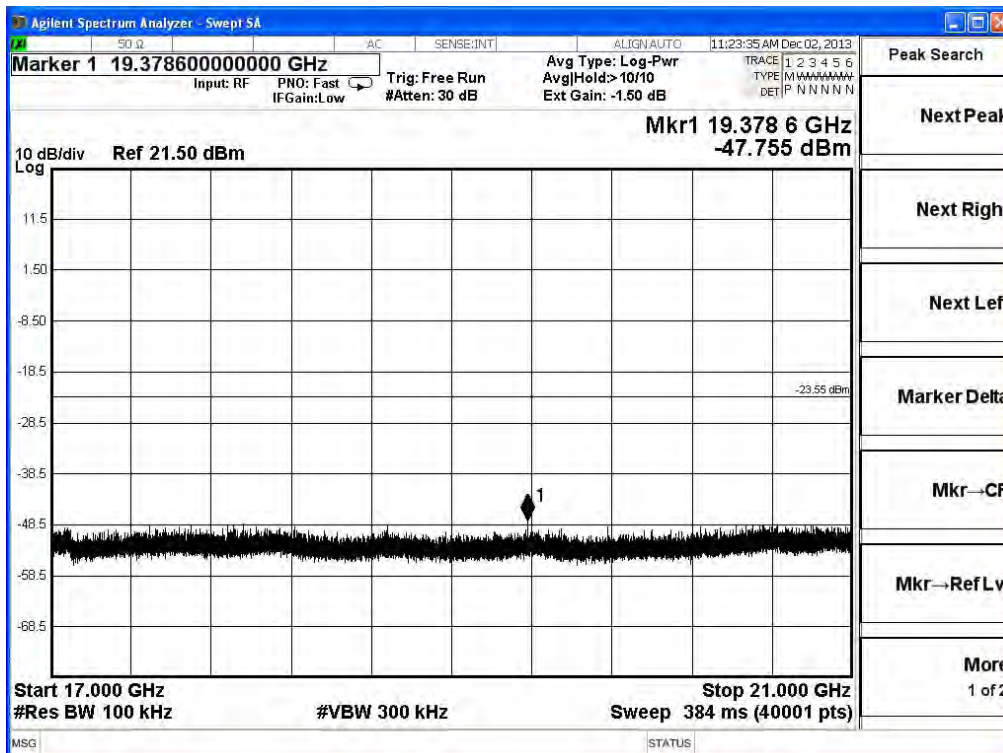
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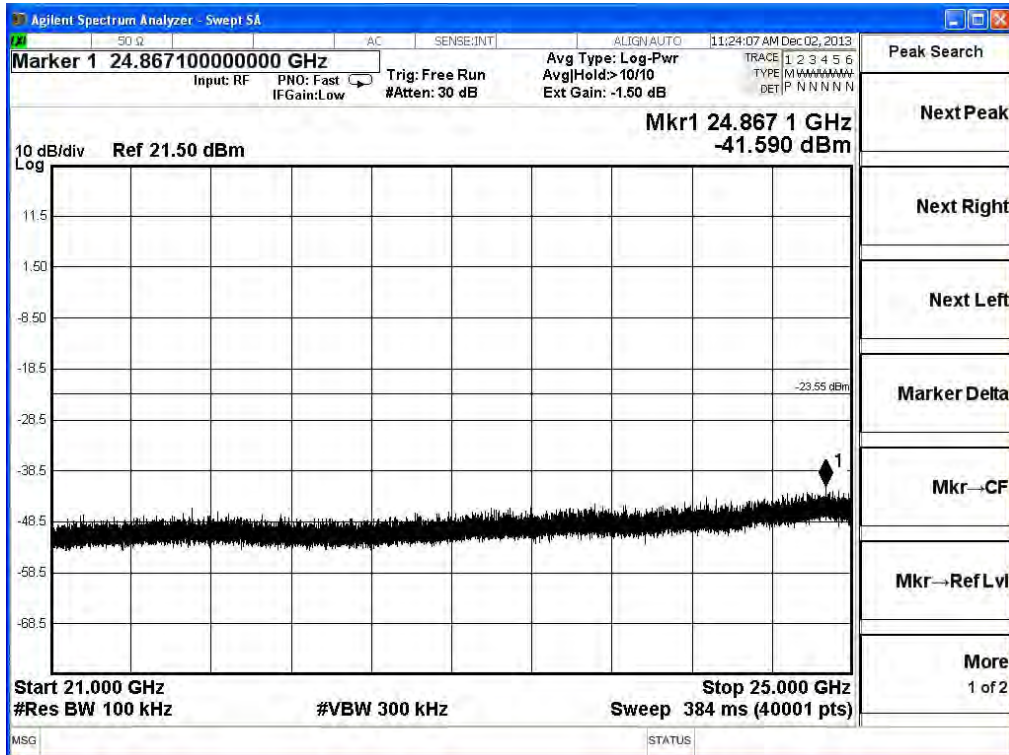
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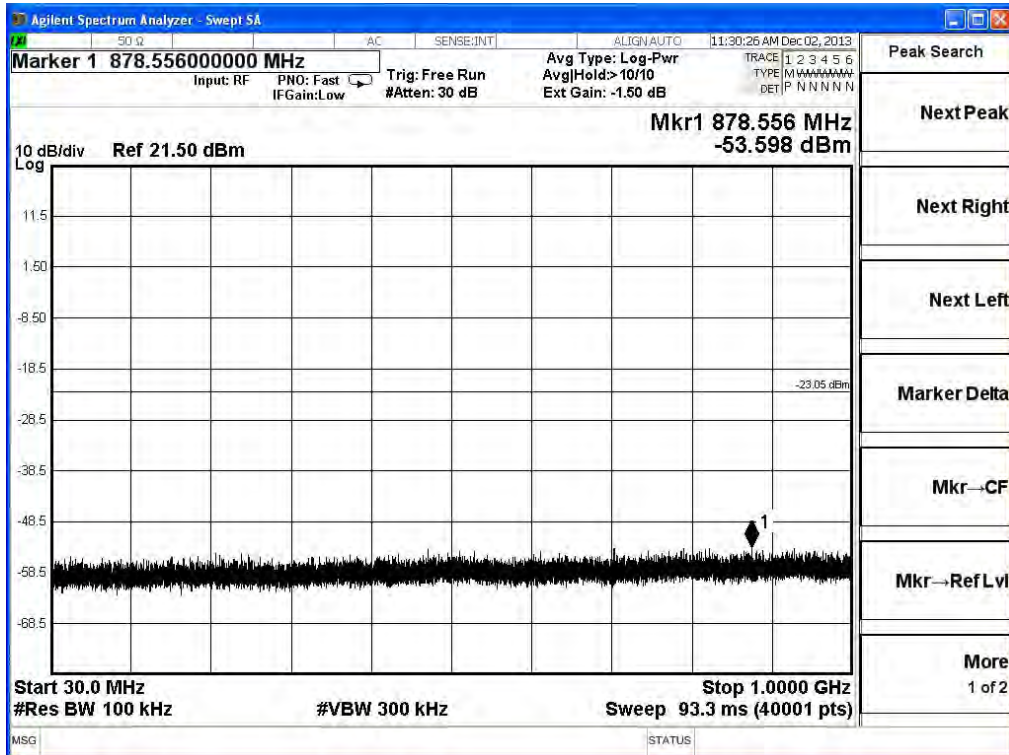
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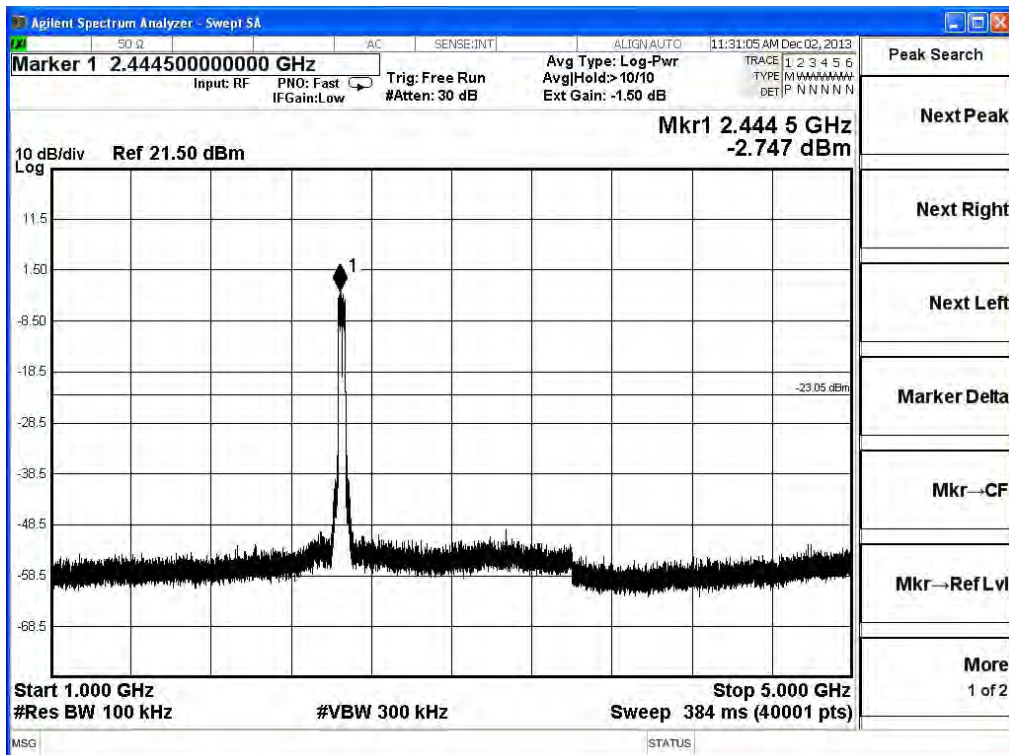
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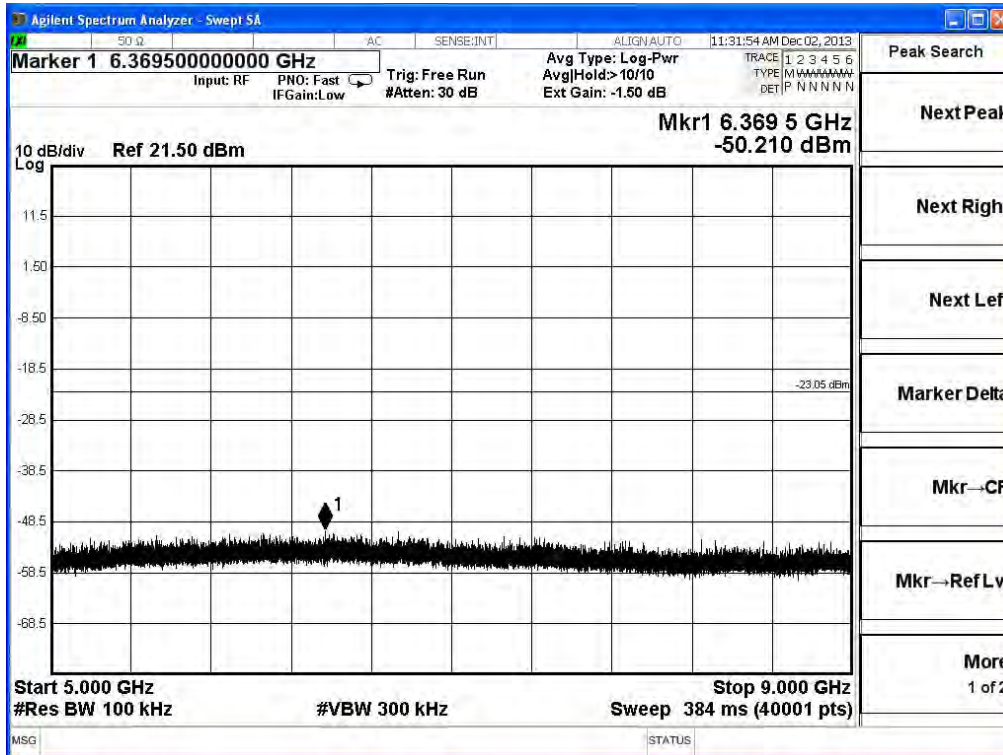
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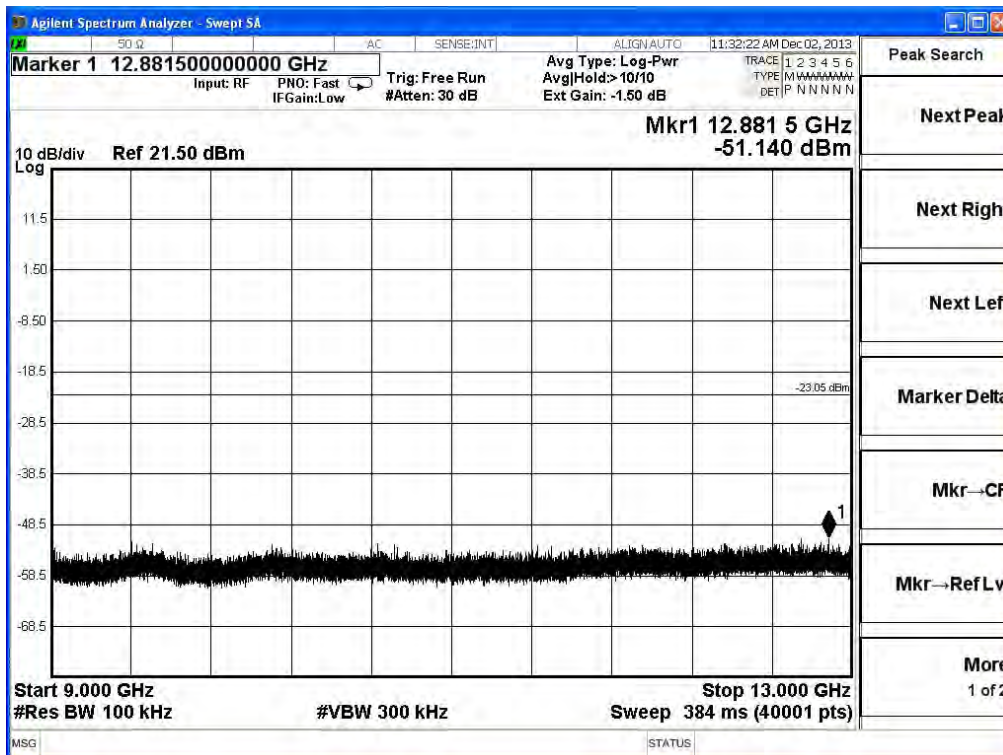
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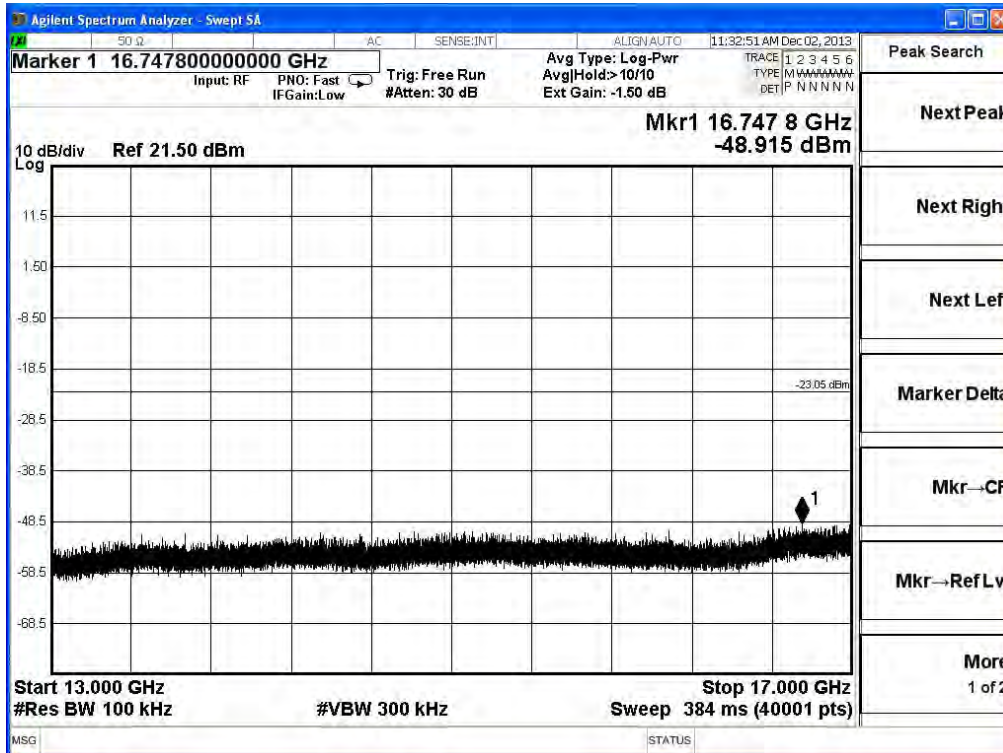
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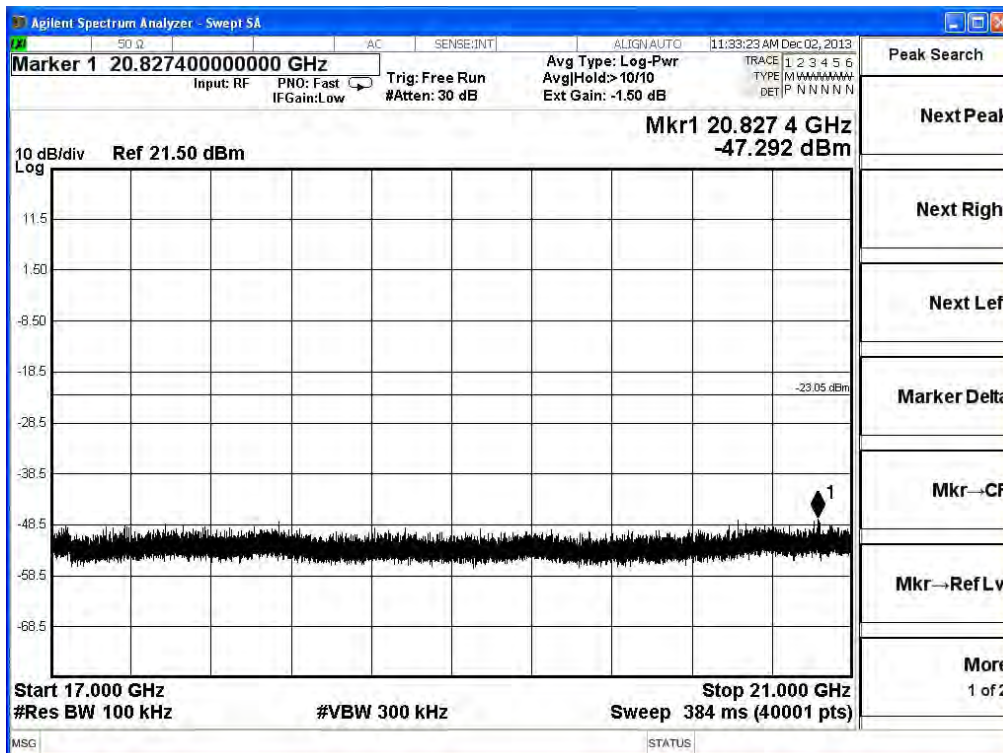
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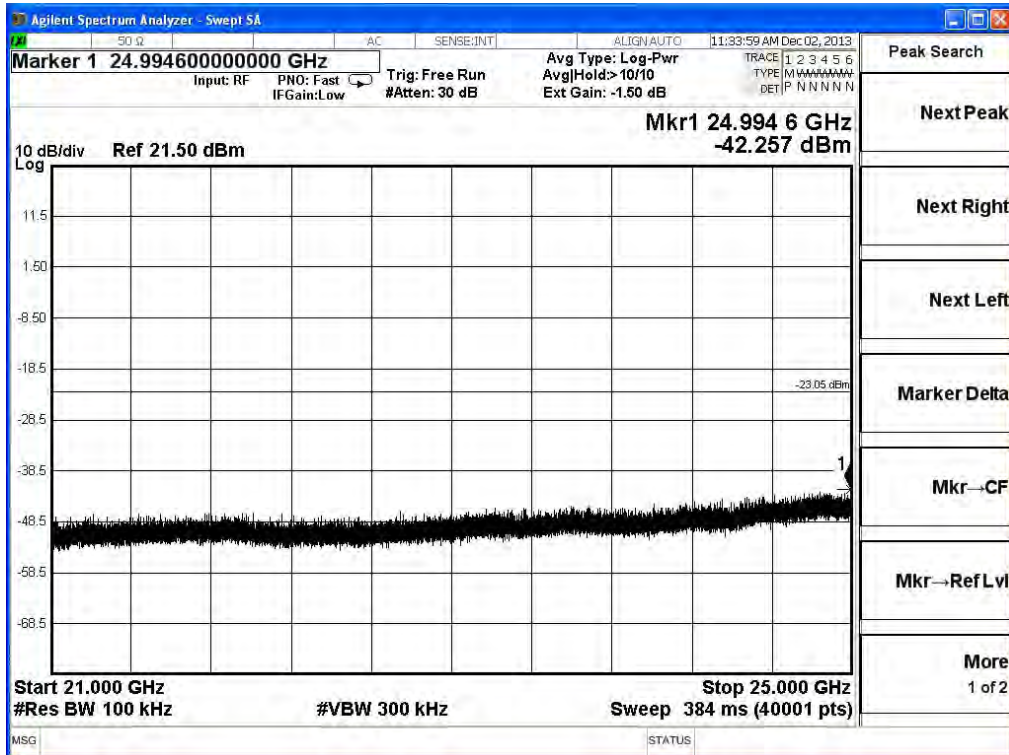
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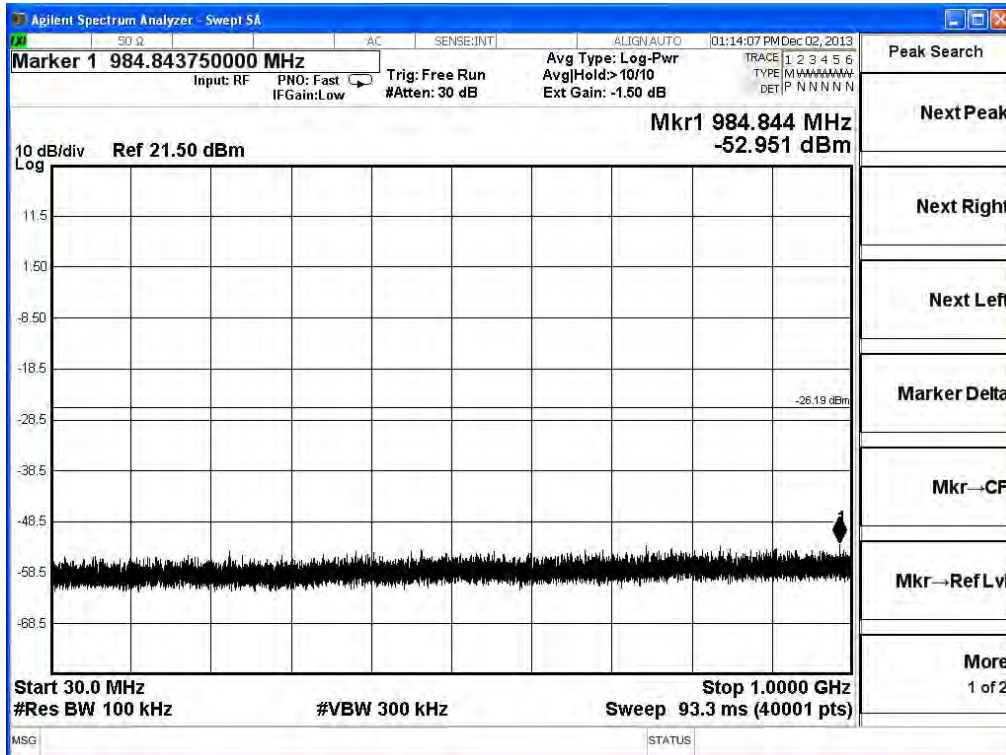
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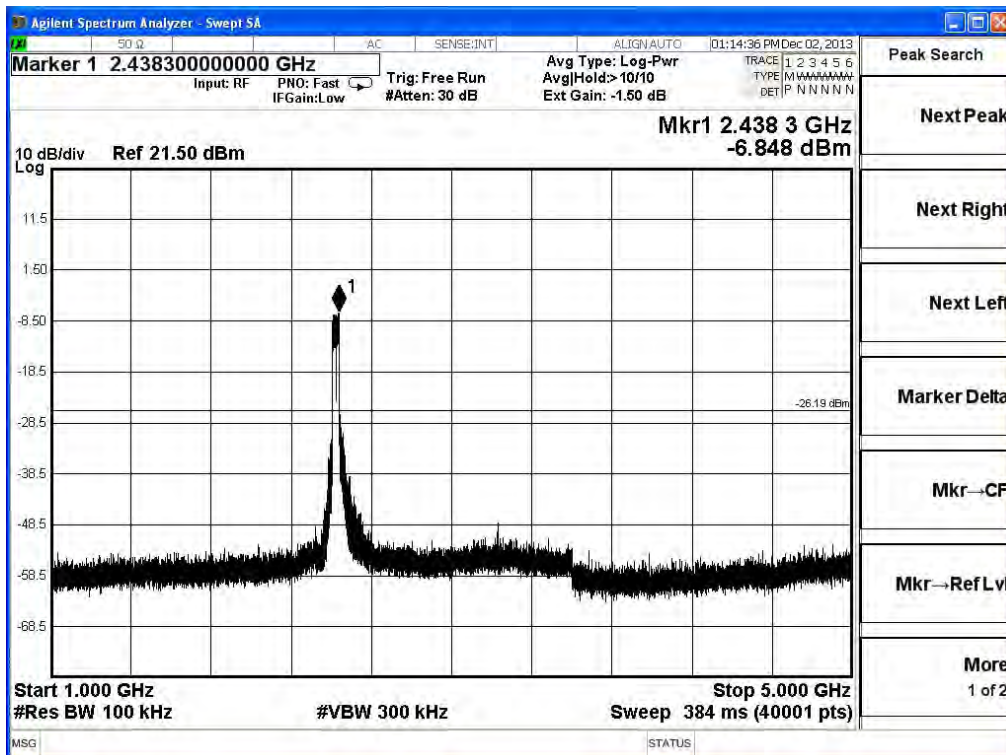
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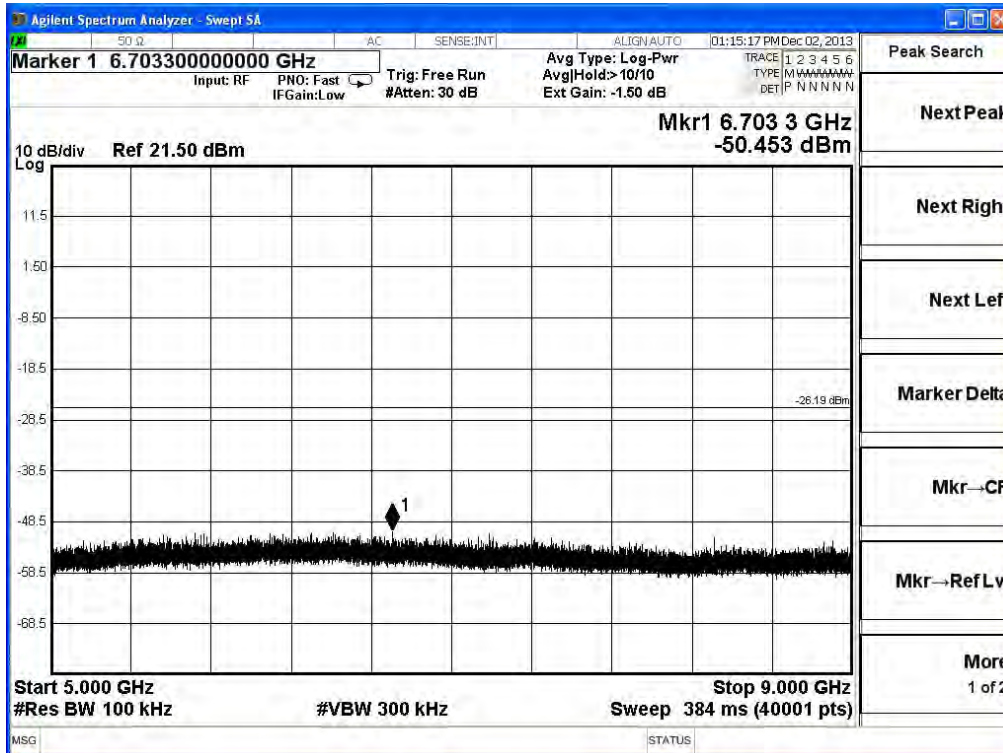
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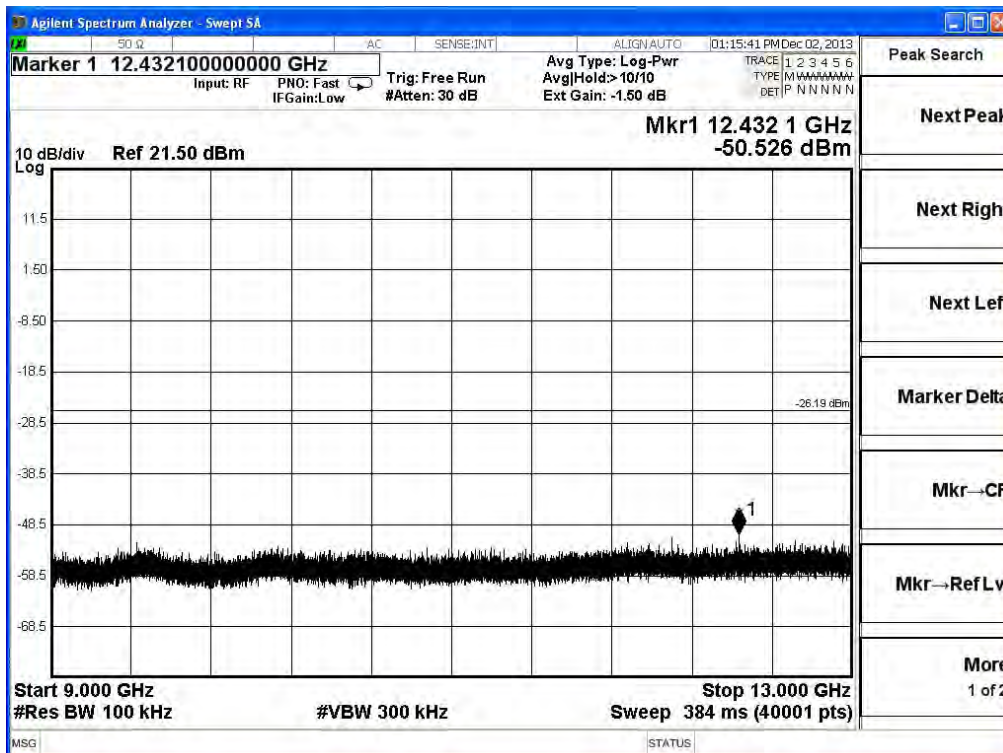
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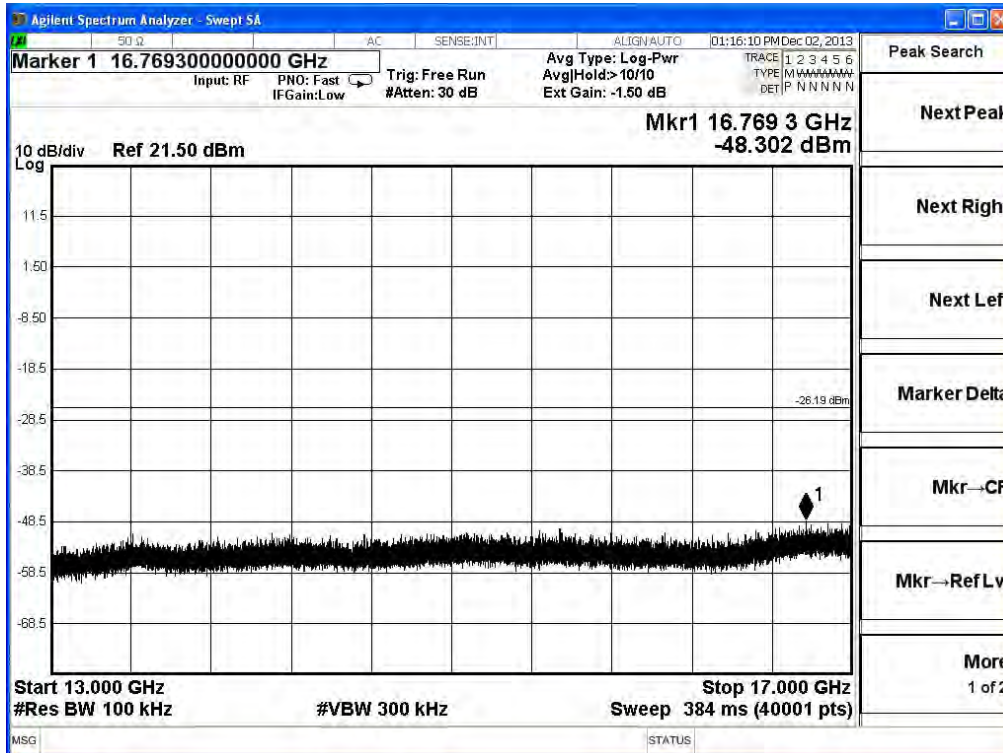
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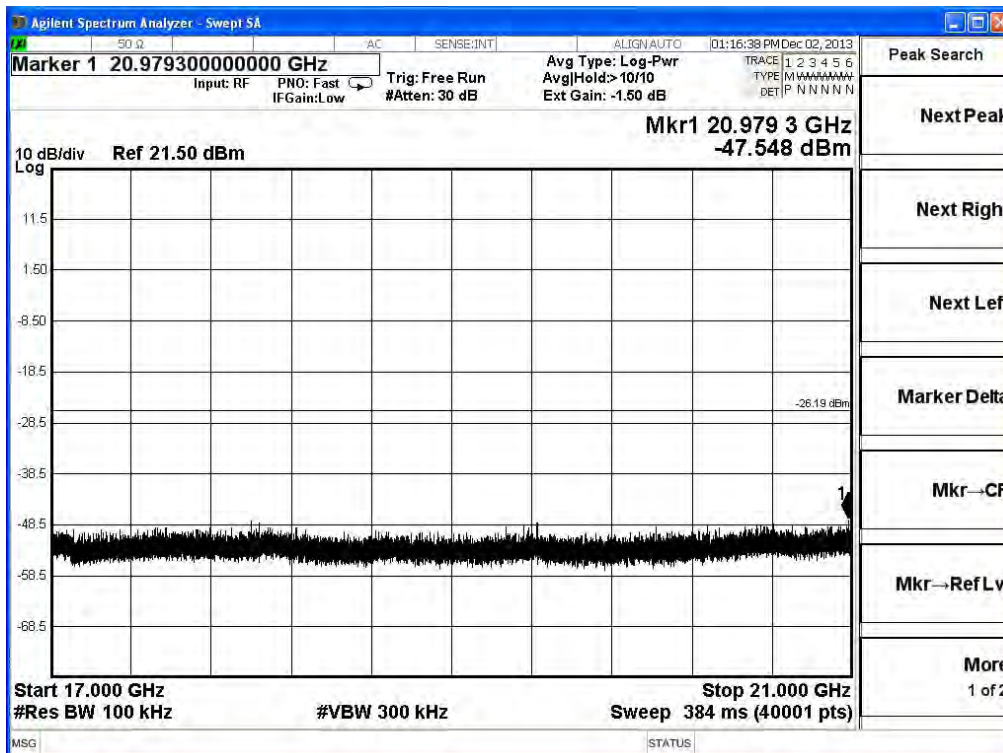
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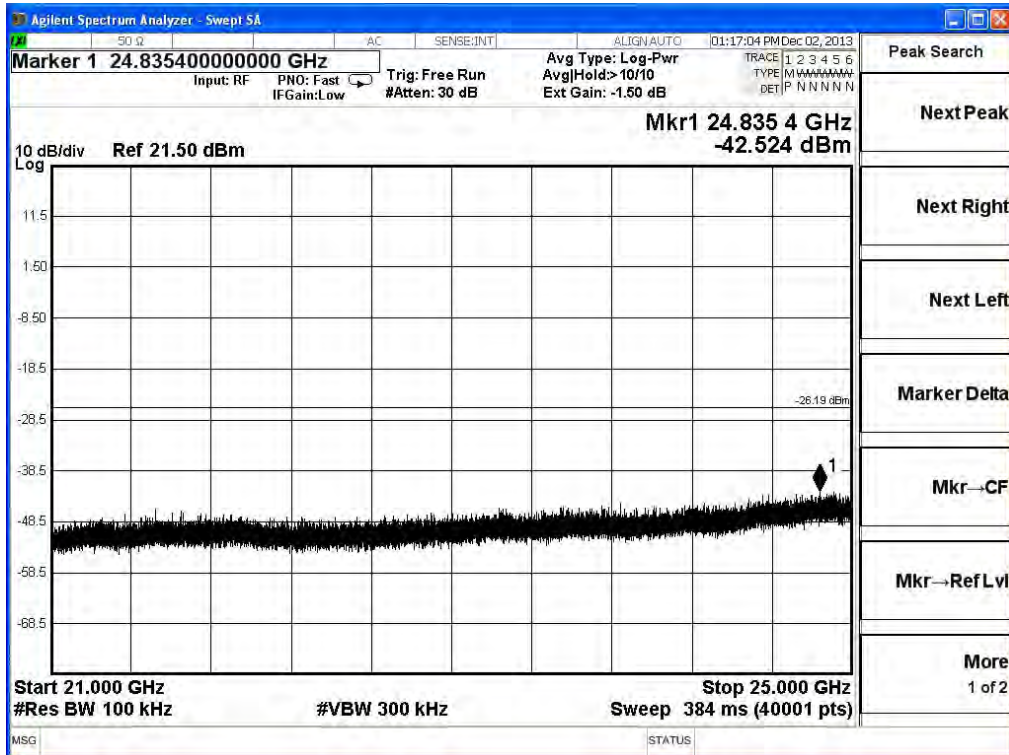
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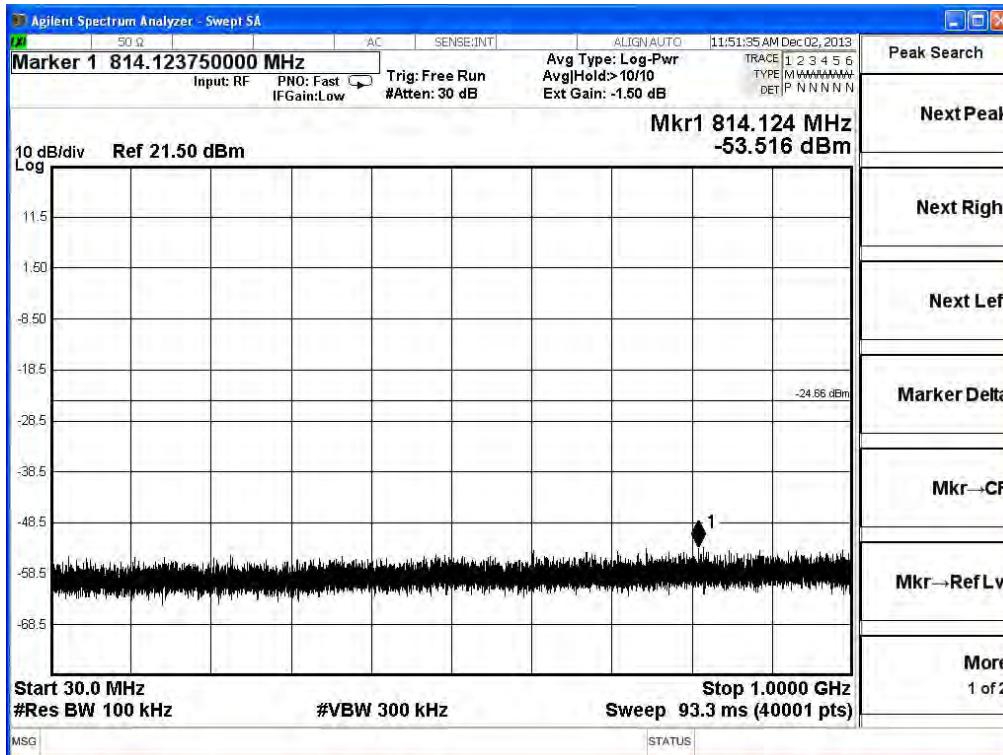
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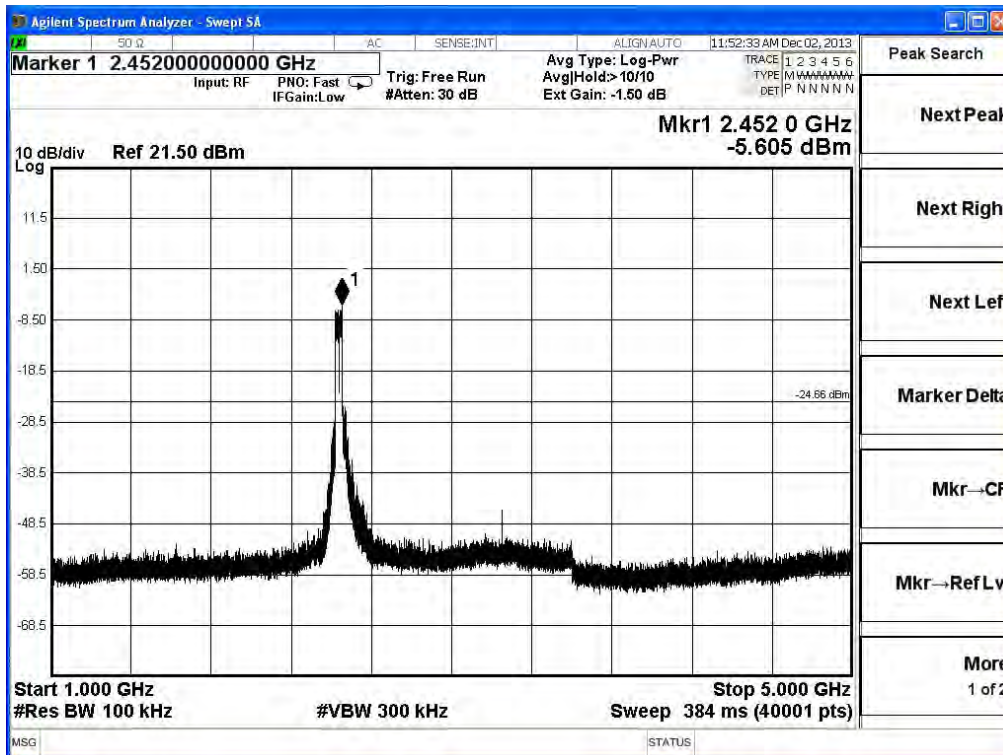
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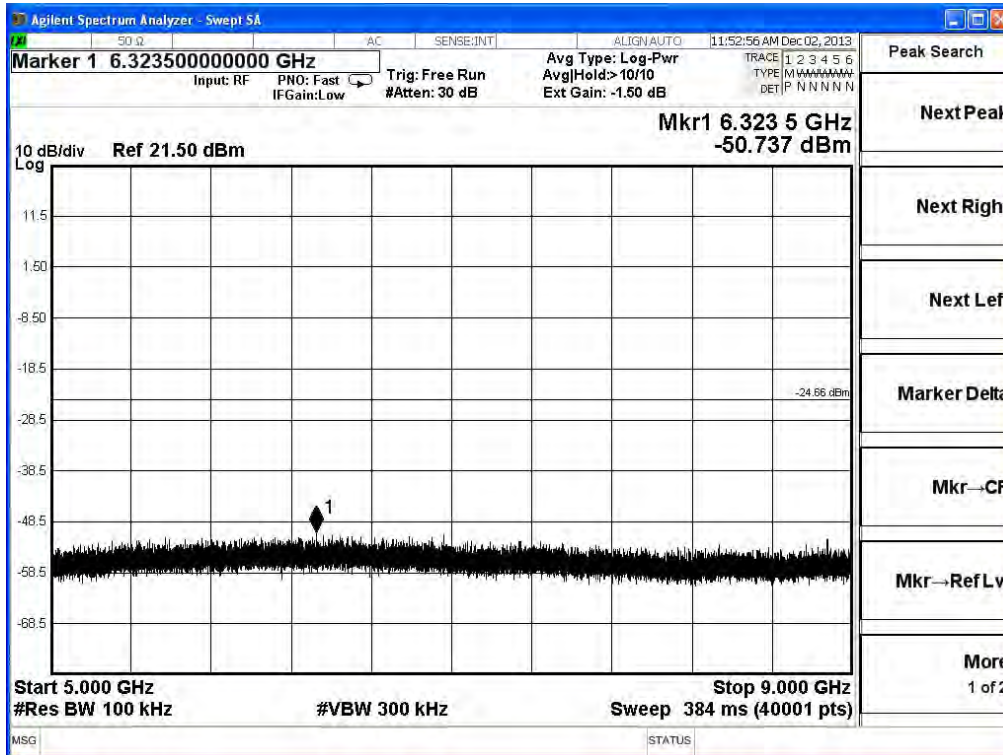
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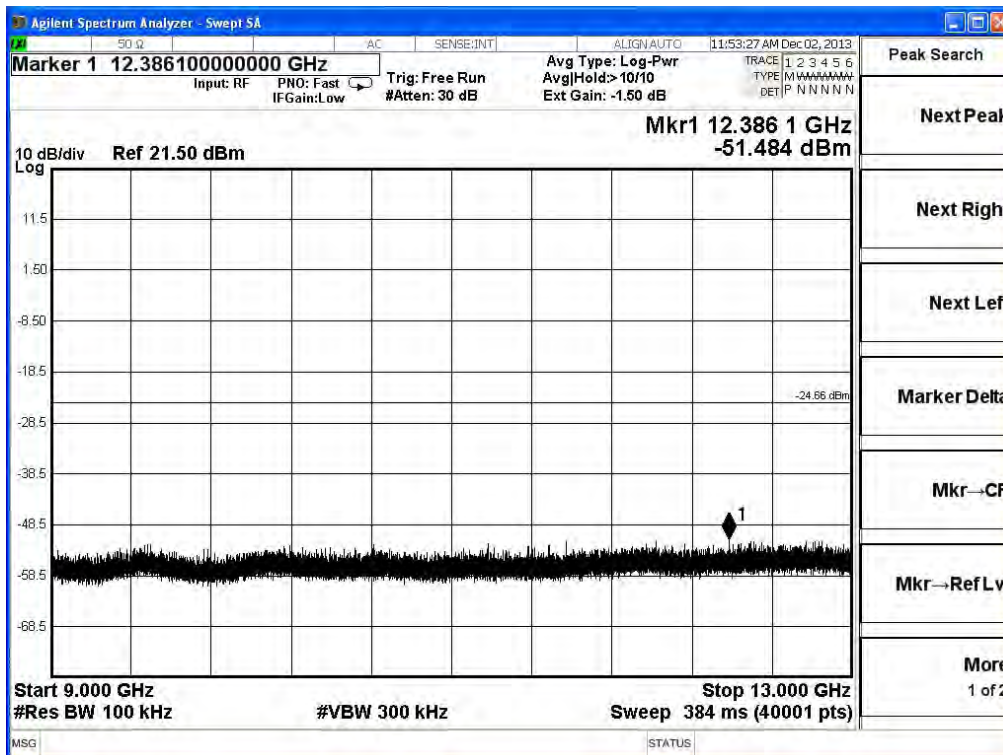
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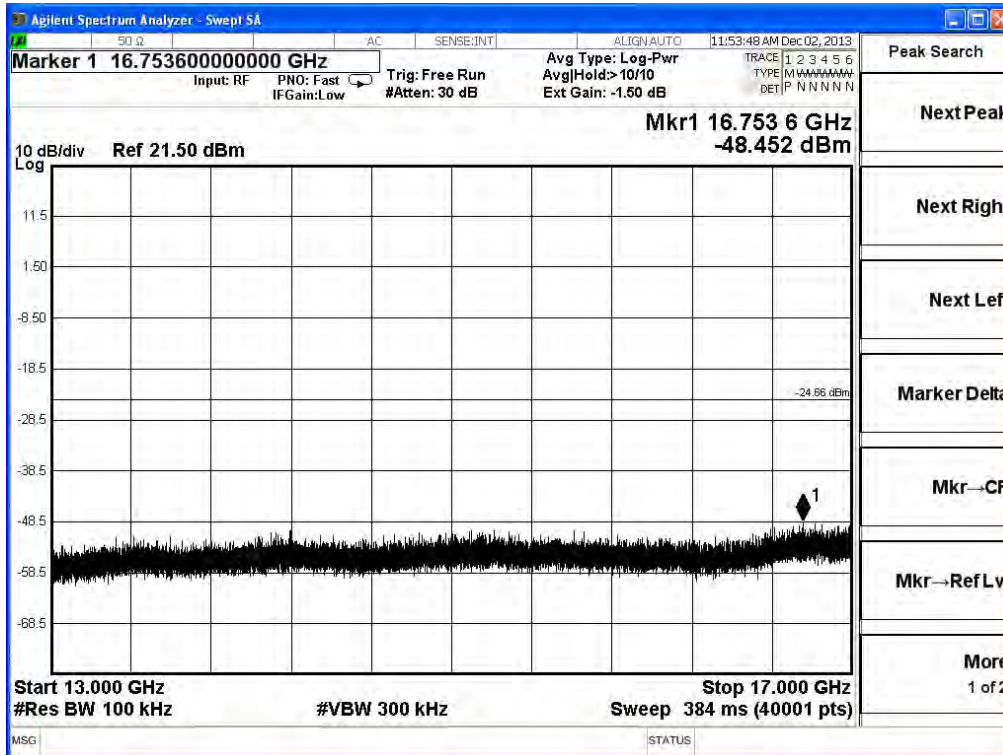
2437MHz (5GHz-9GHz)-802.11n(40MHz) (Ant 1)



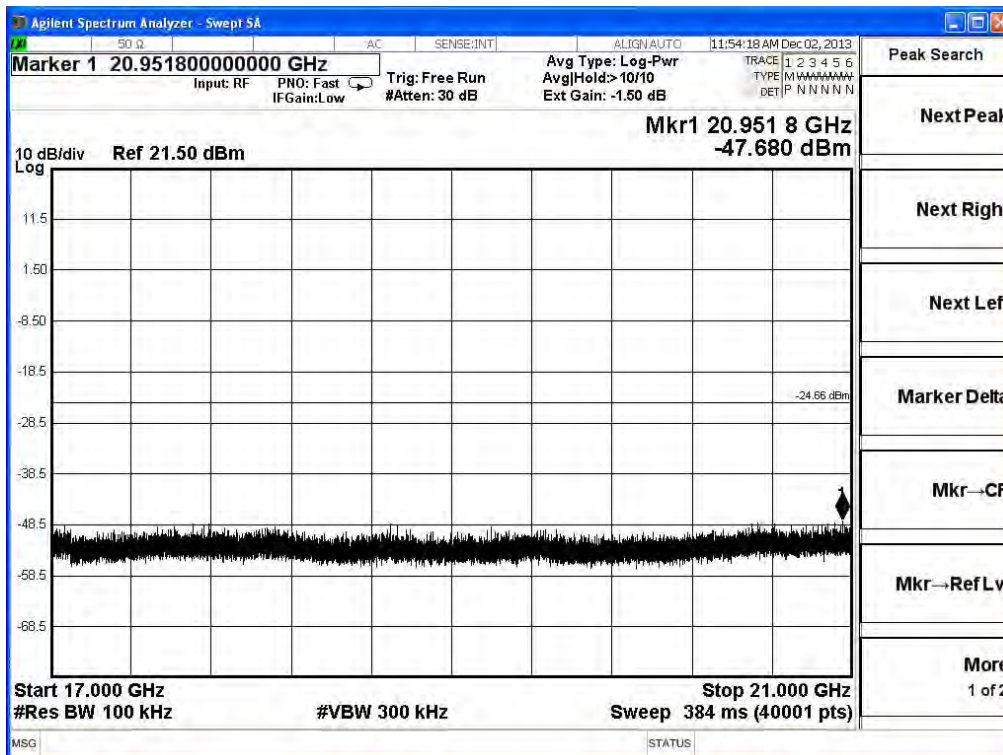
2437MHz (9GHz-13GHz) -802.11n(40MHz) (Ant 1)



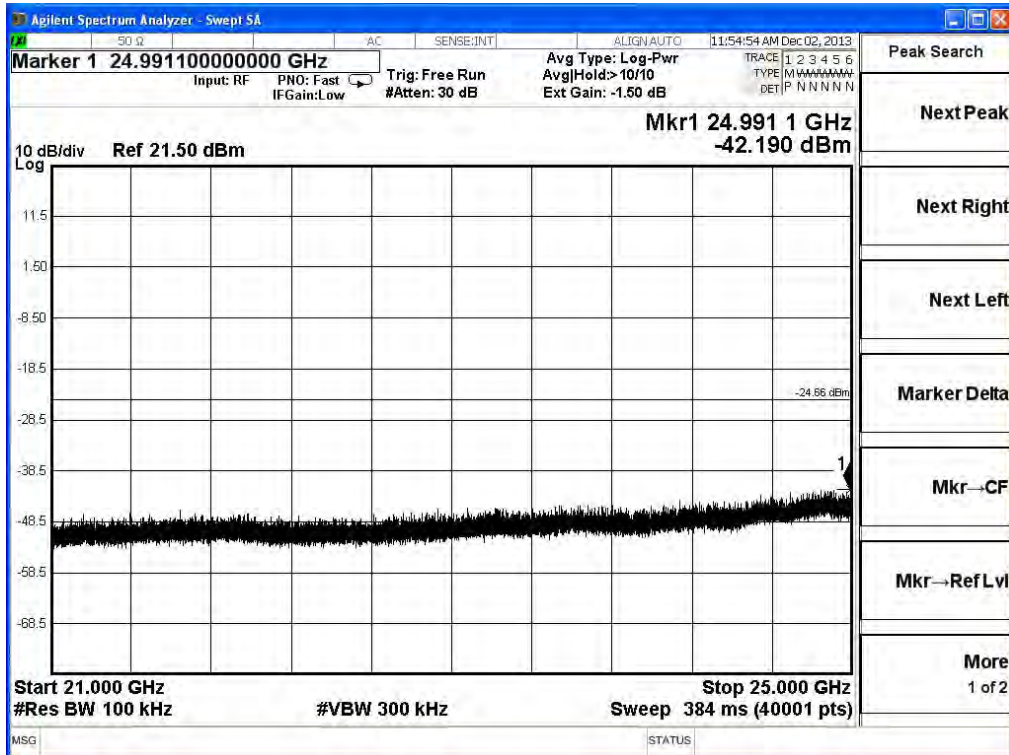
2437MHz (13GHz-17GHz)-802.11n(40MHz) (Ant 1)



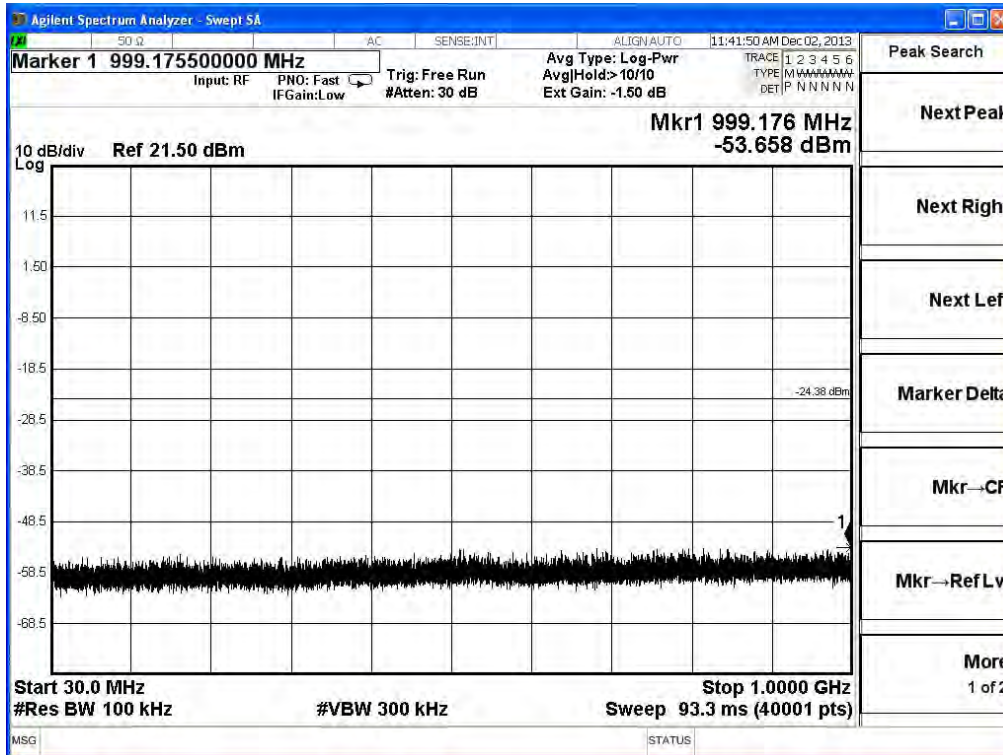
2437MHz (17GHz-21GHz) -802.11n(40MHz) (Ant 1)



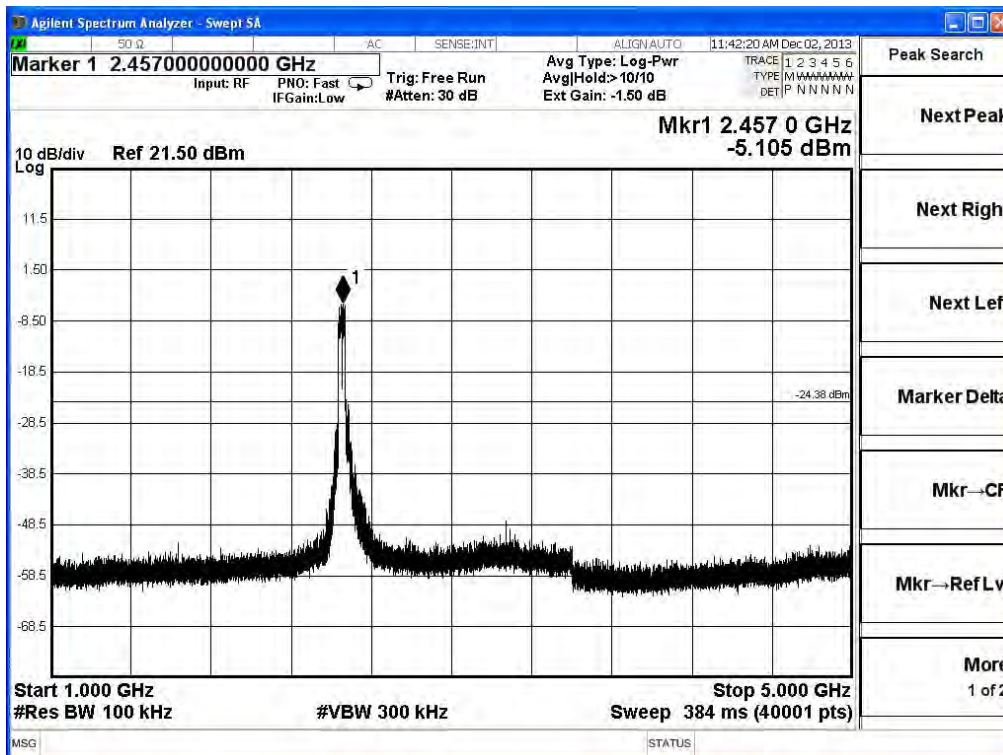
2437MHz (21GHz-25GHz)-802.11n(40MHz) (Ant 1)



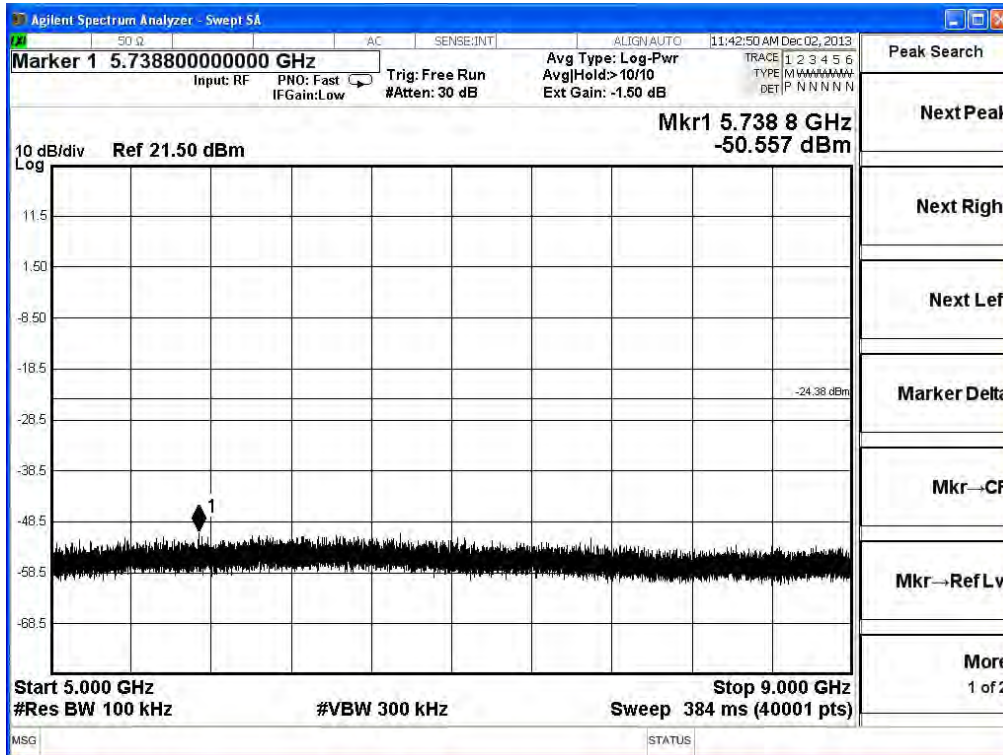
2452MHz (30MHz-1GHz) -802.11n(40MHz) (Ant 1)



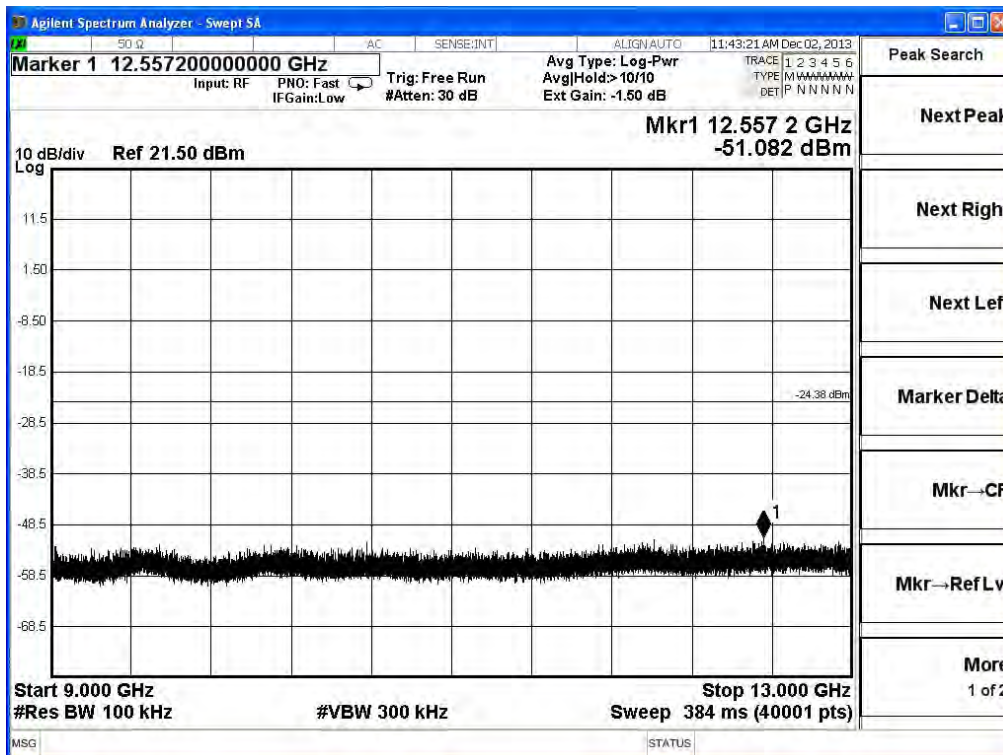
2452MHz (1GHz-5GHz) -802.11n(40MHz) (Ant 1)



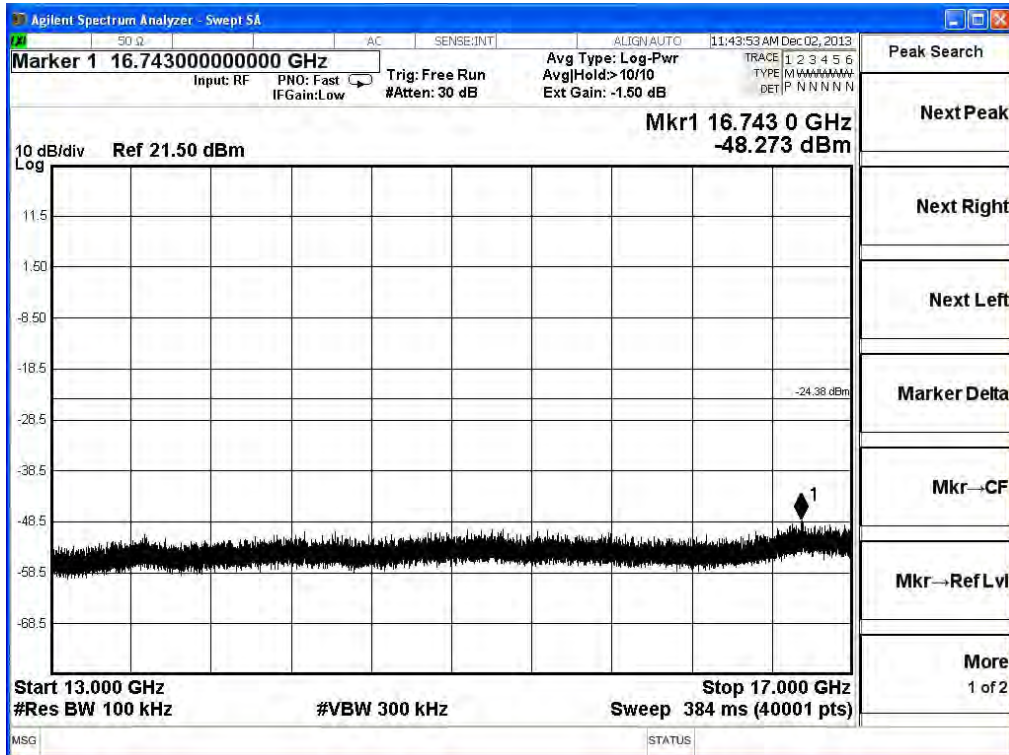
2452MHz (5GHz-9GHz) -802.11n(40MHz) (Ant 1)



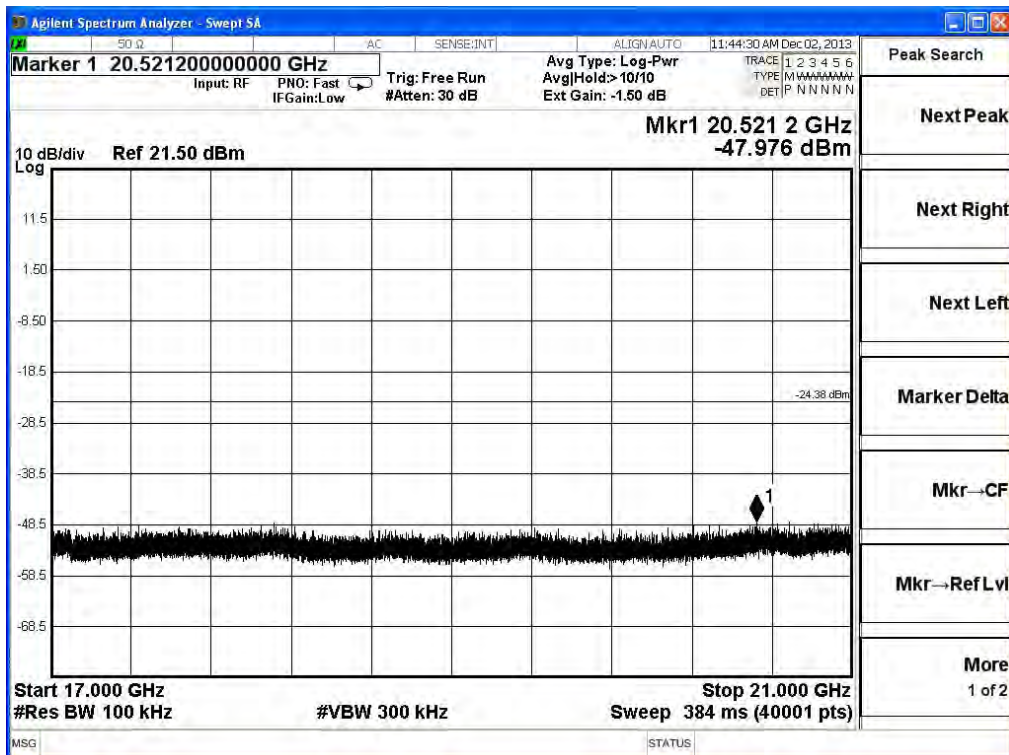
2452MHz (9GHz-13GHz) -802.11n(40MHz) (Ant 1)



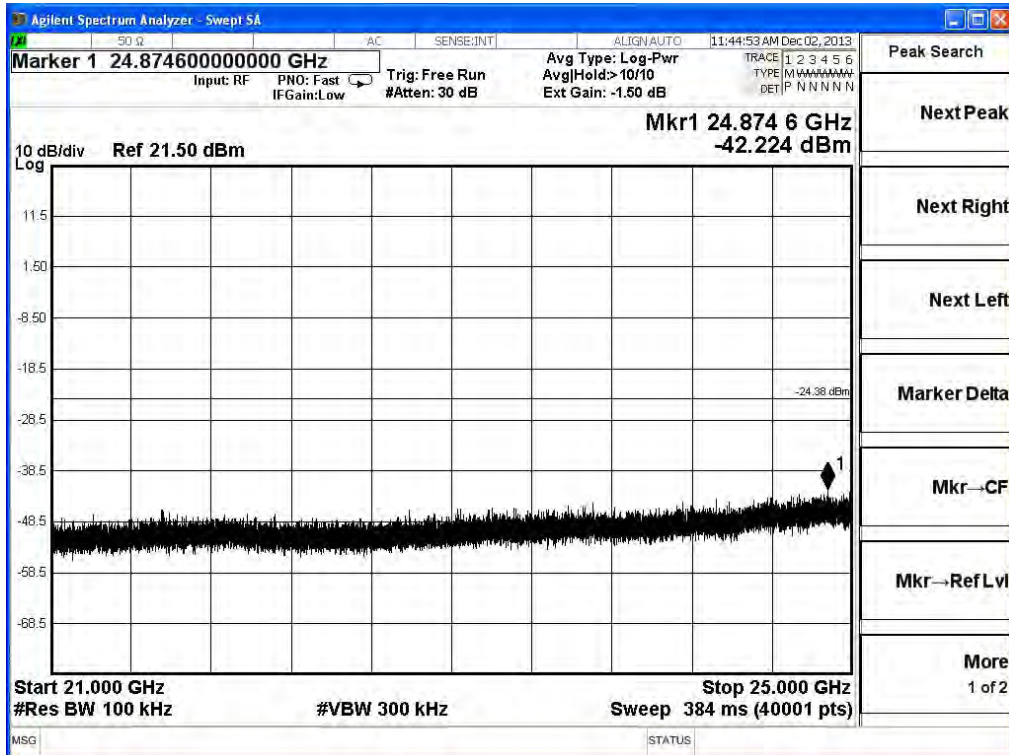
2452MHz (13GHz-17GHz) -802.11n(40MHz) (Ant 1)



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



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



6. Band Edge

6.1. Test Equipment

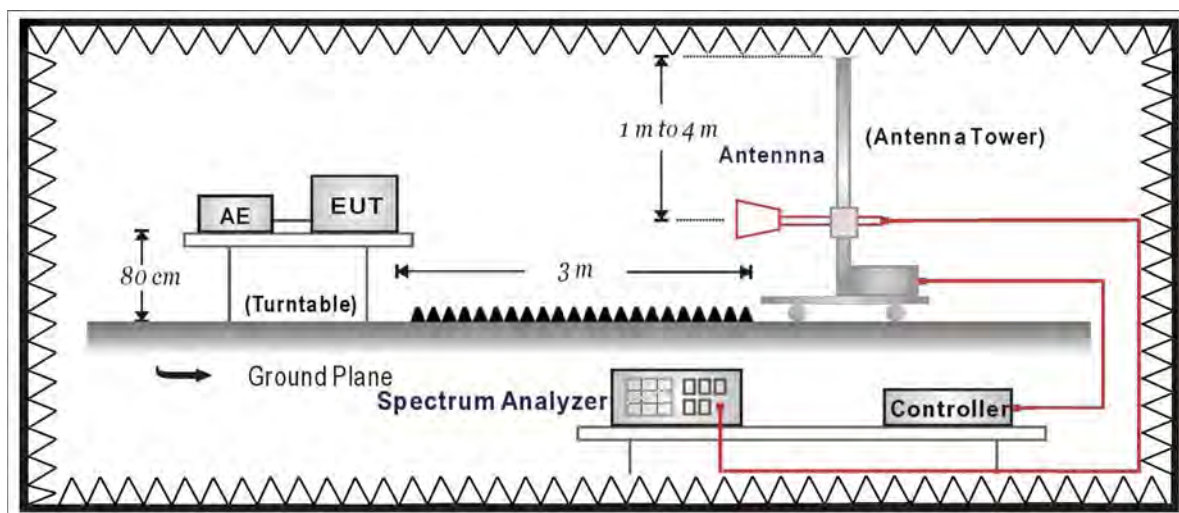
The following test equipments are used during the test:

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	2014/01/27
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. Limit

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 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

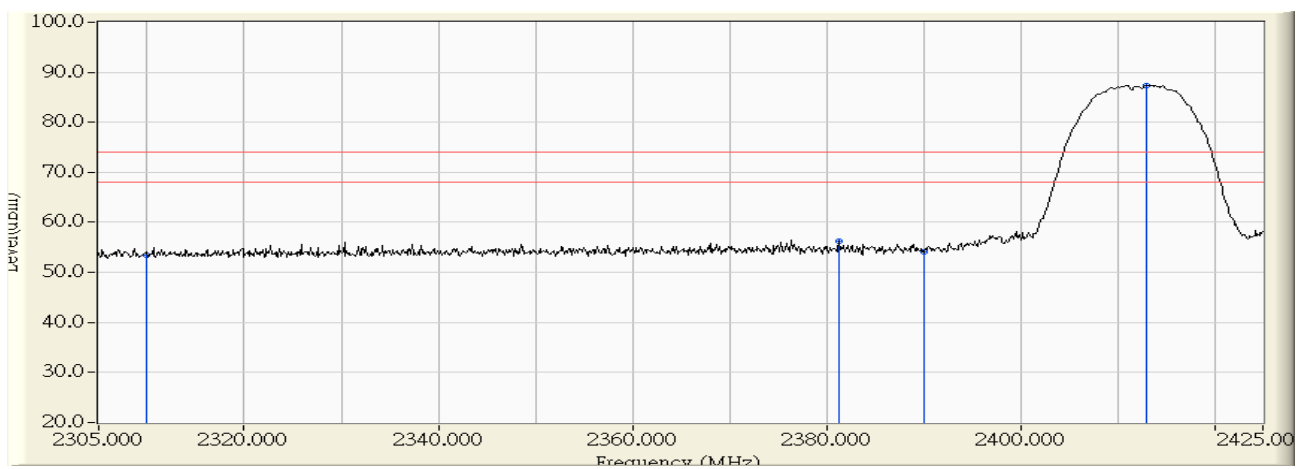
6.6. Uncertainty

The measurement uncertainty
 ± 3.9 dB above 1GHz

6.7. Test Result

Radiated is defined as

Site : CB1	Time : 2013/11/16 - 10:24
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11b_2412MHz

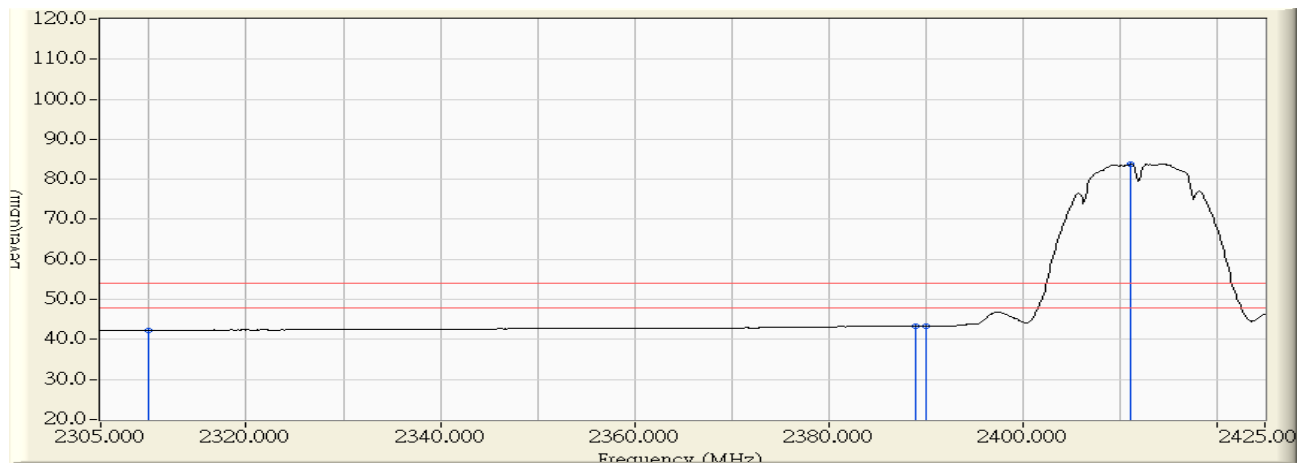


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	2310.000	30.059	23.307	53.366	-20.634	74.000	PEAK
2	2381.320	30.798	25.453	56.251	-17.749	74.000	PEAK
3	2390.000	30.888	23.174	54.062	-19.938	74.000	PEAK
4	* 2413.000	31.127	56.305	87.432	13.432	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 : 2013/11/16 - 10:25
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11b_2412MHz

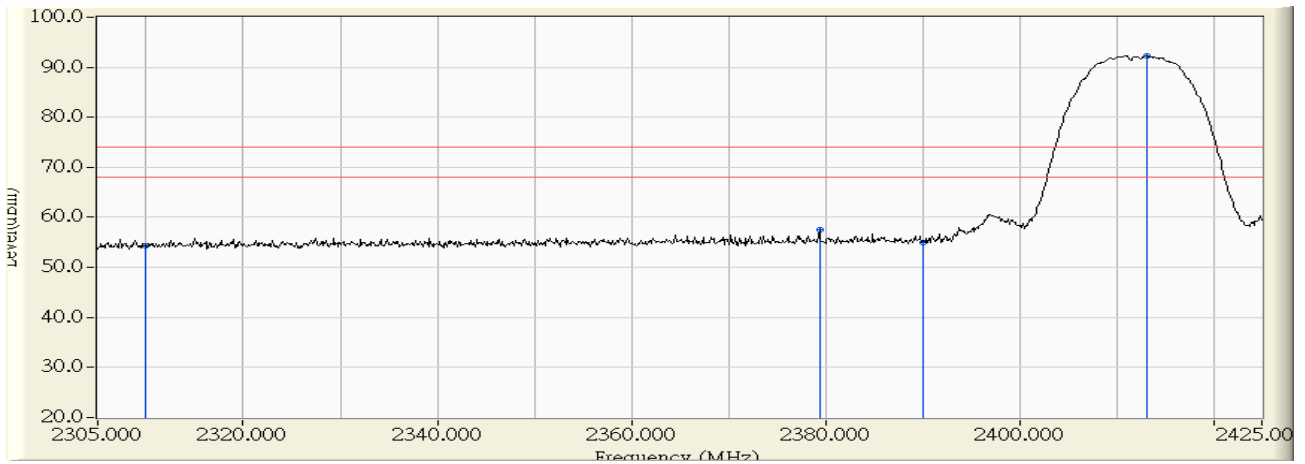


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	12.183	42.242	-11.758	54.000	AVERAGE
2		2389.000	30.878	12.472	43.350	-10.650	54.000	AVERAGE
3		2390.000	30.888	12.433	43.321	-10.679	54.000	AVERAGE
4	*	2411.200	31.108	52.813	83.921	29.921	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 : 2013/11/16 - 11:05
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11b_2412MHz

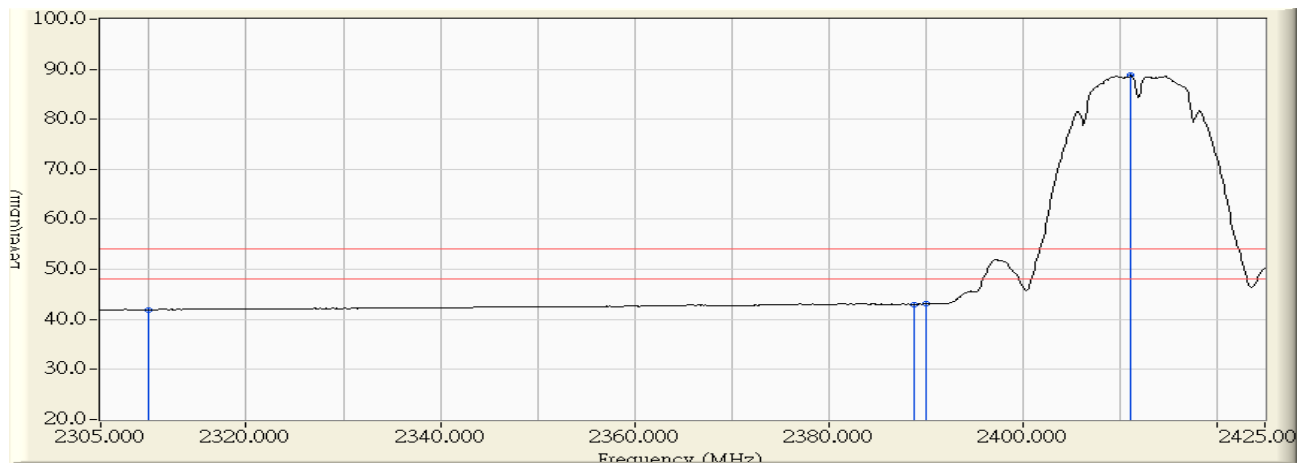


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	24.242	54.301	-19.699	74.000	PEAK
2		2379.400	30.778	26.701	57.479	-16.521	74.000	PEAK
3		2390.000	30.888	24.174	55.062	-18.938	74.000	PEAK
4	*	2413.120	31.128	61.114	92.242	18.242	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 : 2013/11/16 - 11:06
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11b_2412MHz

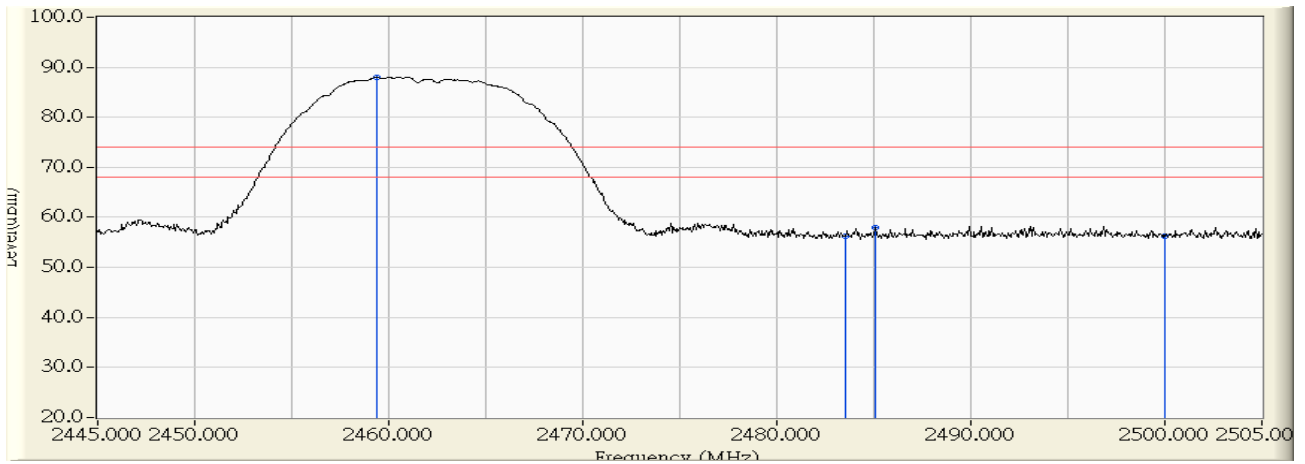


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	11.893	41.952	-12.048	54.000	AVERAGE
2		2388.880	30.877	12.177	43.054	-10.946	54.000	AVERAGE
3		2390.000	30.888	12.175	43.063	-10.937	54.000	AVERAGE
4	*	2411.200	31.108	57.686	88.794	34.794	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 : 2013/11/16 - 11:12
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11b_2462MHz

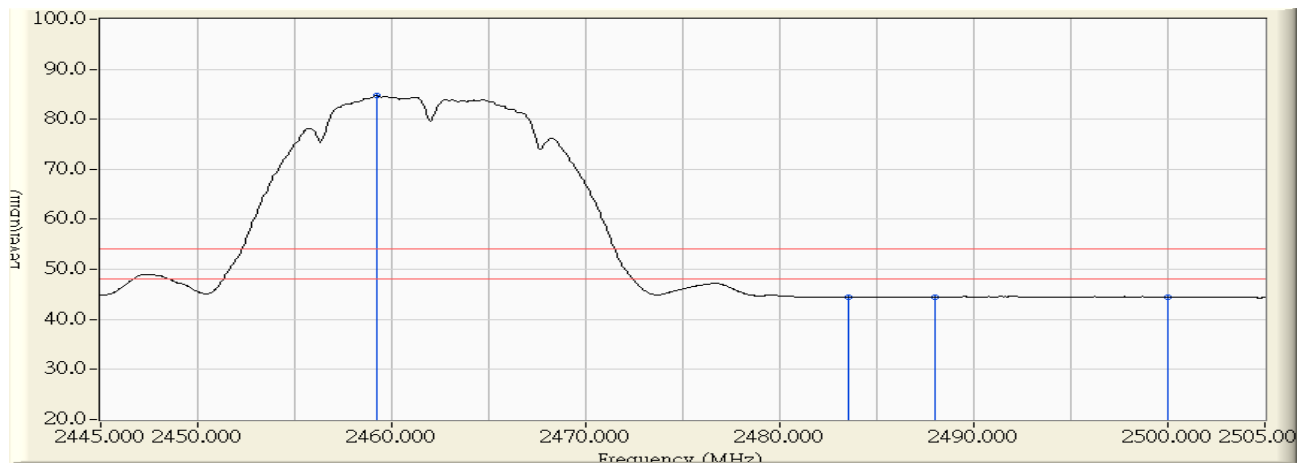


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2459.400	31.608	56.375	87.983	13.983	74.000	PEAK
2		2483.500	31.858	24.388	56.246	-17.754	74.000	PEAK
3		2485.080	31.875	26.128	58.002	-15.998	74.000	PEAK
4		2500.000	31.988	24.278	56.267	-17.733	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 : 2013/11/16 - 11:13
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11b_2462MHz

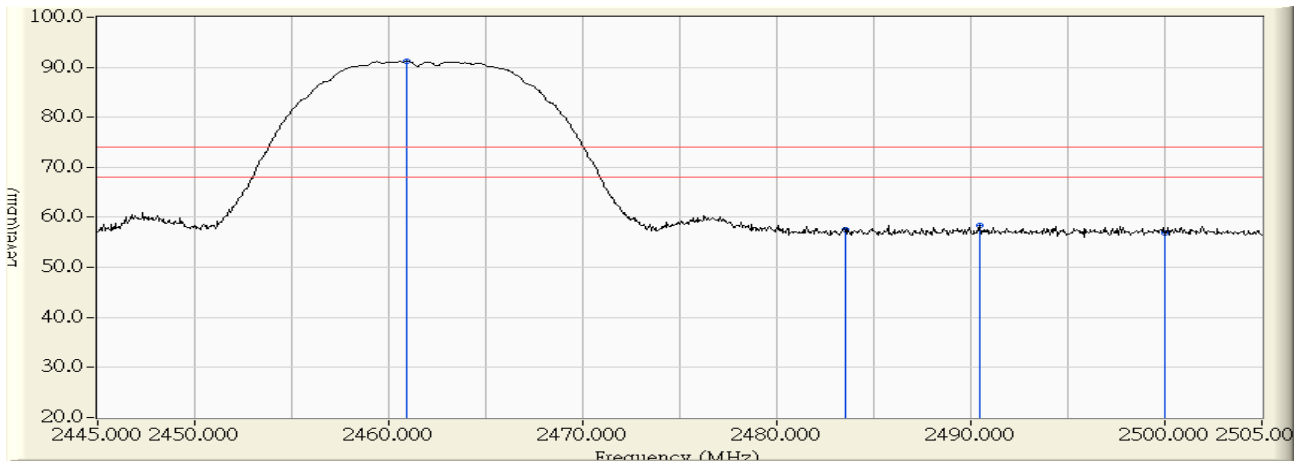


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2459.220	31.606	53.081	84.687	30.687	54.000	AVERAGE
2		2483.500	31.858	12.513	44.371	-9.629	54.000	AVERAGE
3		2488.020	31.905	12.613	44.518	-9.482	54.000	AVERAGE
4		2500.000	31.988	12.504	44.493	-9.507	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 : 2013/11/16 - 11:16
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11b_2462MHz

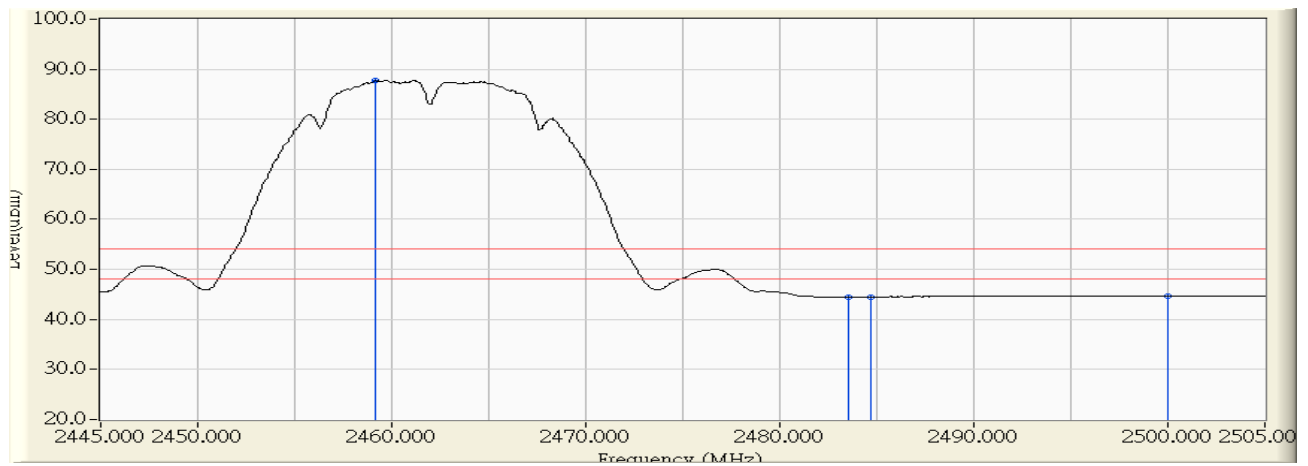


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2460.960	31.624	59.586	91.210	17.210	74.000	PEAK
2		2483.500	31.858	25.775	57.633	-16.367	74.000	PEAK
3		2490.480	31.930	26.382	58.312	-15.688	74.000	PEAK
4		2500.000	31.988	25.000	56.989	-17.011	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 : 2013/11/16 - 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 : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11b_2462MHz

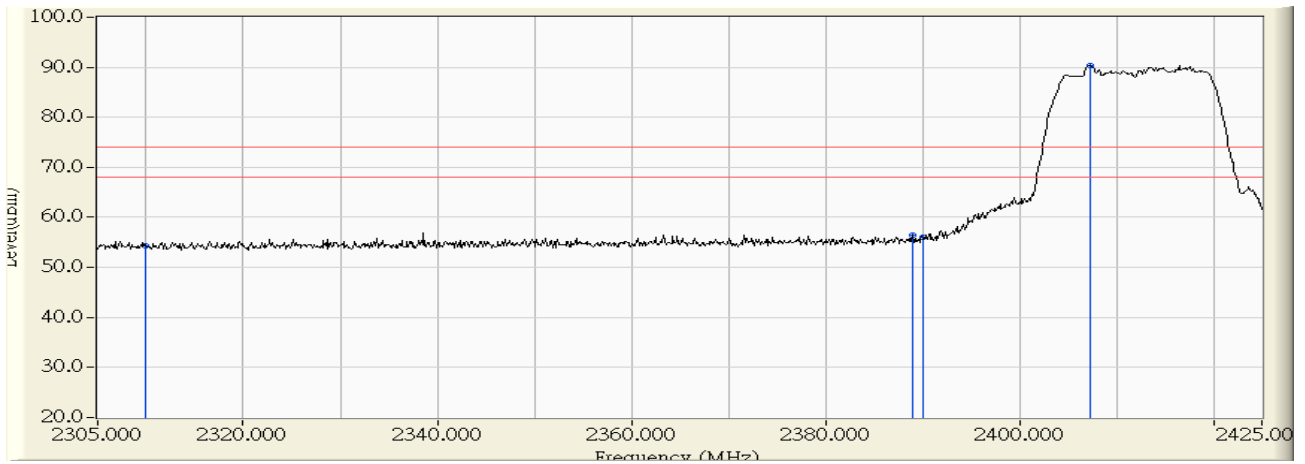


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2459.160	31.605	56.159	87.765	33.765	54.000	AVERAGE
2		2483.500	31.858	12.632	44.490	-9.510	54.000	AVERAGE
3		2484.720	31.870	12.637	44.508	-9.492	54.000	AVERAGE
4		2500.000	31.988	12.660	44.649	-9.351	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 : 2013/11/16 - 11:23
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11g_2412MHz

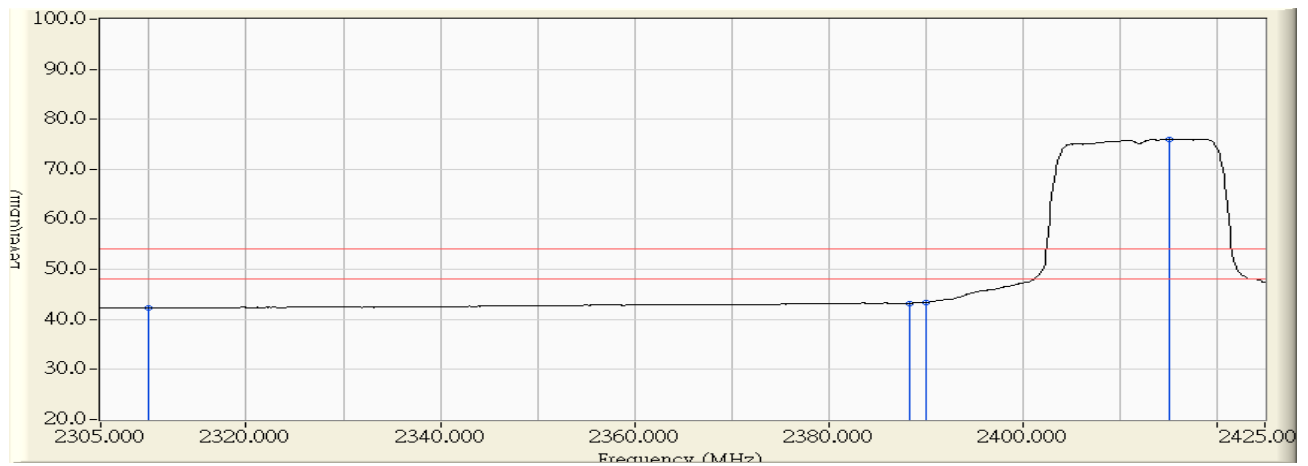


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	24.229	54.288	-19.712	74.000	PEAK
2		2389.000	30.878	25.593	56.471	-17.529	74.000	PEAK
3		2390.000	30.888	25.071	55.959	-18.041	74.000	PEAK
4	*	2407.360	31.069	59.264	90.332	16.332	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 : 2013/11/16 - 11:24
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11g_2412MHz

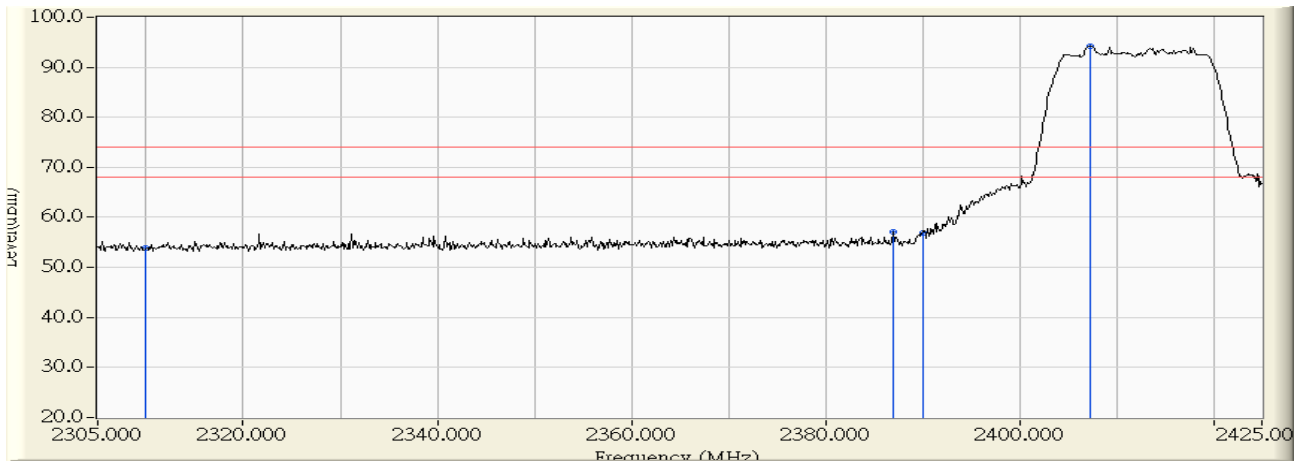


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	12.162	42.221	-11.779	54.000	AVERAGE
2		2388.400	30.871	12.340	43.212	-10.788	54.000	AVERAGE
3		2390.000	30.888	12.513	43.401	-10.599	54.000	AVERAGE
4	*	2415.160	31.149	44.843	75.992	21.992	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 : 2013/11/16 - 11:28
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11g_2412MHz

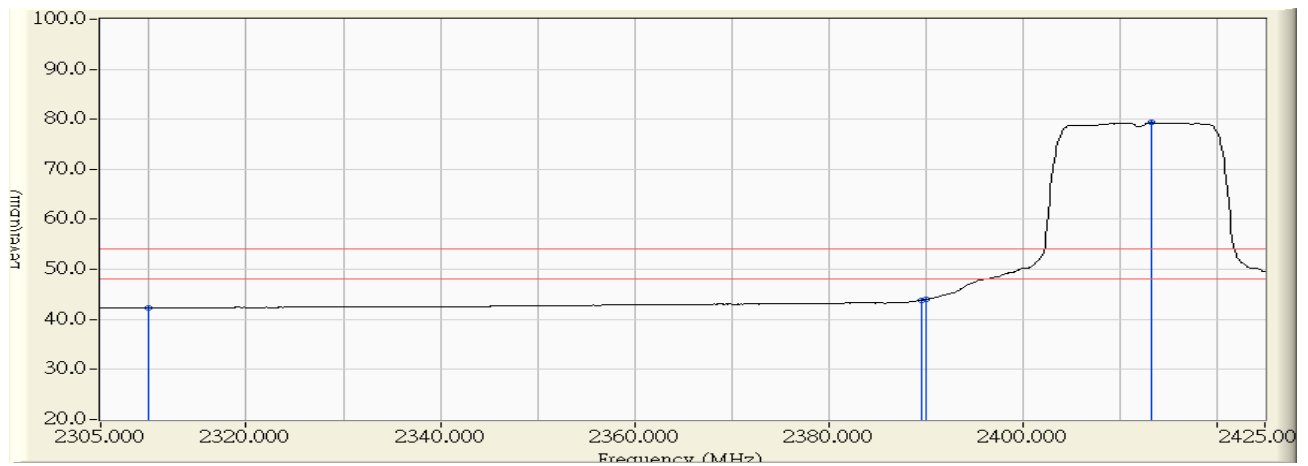


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	23.800	53.859	-20.141	74.000	PEAK
2		2386.960	30.857	26.316	57.173	-16.827	74.000	PEAK
3		2390.000	30.888	26.001	56.889	-17.111	74.000	PEAK
4	*	2407.240	31.067	63.240	94.307	20.307	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 : 2013/11/16 - 11:29
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11g_2412MHz

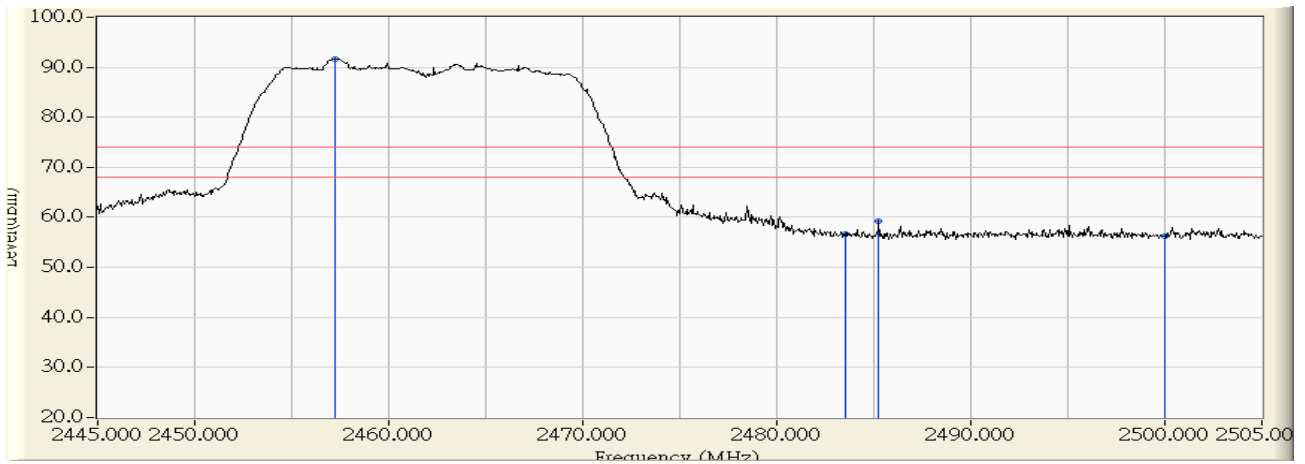


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	2310.000	30.059	12.204	42.263	-11.737	54.000	AVERAGE
2	2389.600	30.884	12.962	43.846	-10.154	54.000	AVERAGE
3	2390.000	30.888	13.073	43.961	-10.039	54.000	AVERAGE
4	* 2413.360	31.131	48.172	79.303	25.303	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 : 2013/11/16 - 11:48
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11g_2462MHz

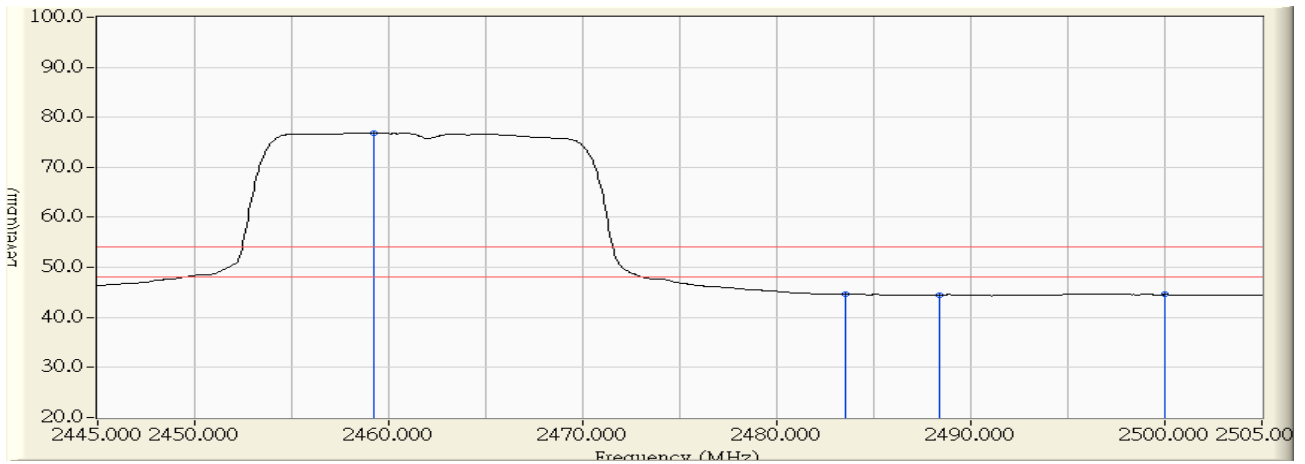


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2457.240	31.586	60.150	91.736	17.736	74.000	PEAK
2		2483.500	31.858	24.832	56.690	-17.310	74.000	PEAK
3		2485.260	31.876	27.406	59.282	-14.718	74.000	PEAK
4		2500.000	31.988	24.305	56.294	-17.706	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 : 2013/11/16 - 11:57
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11g_2462MHz

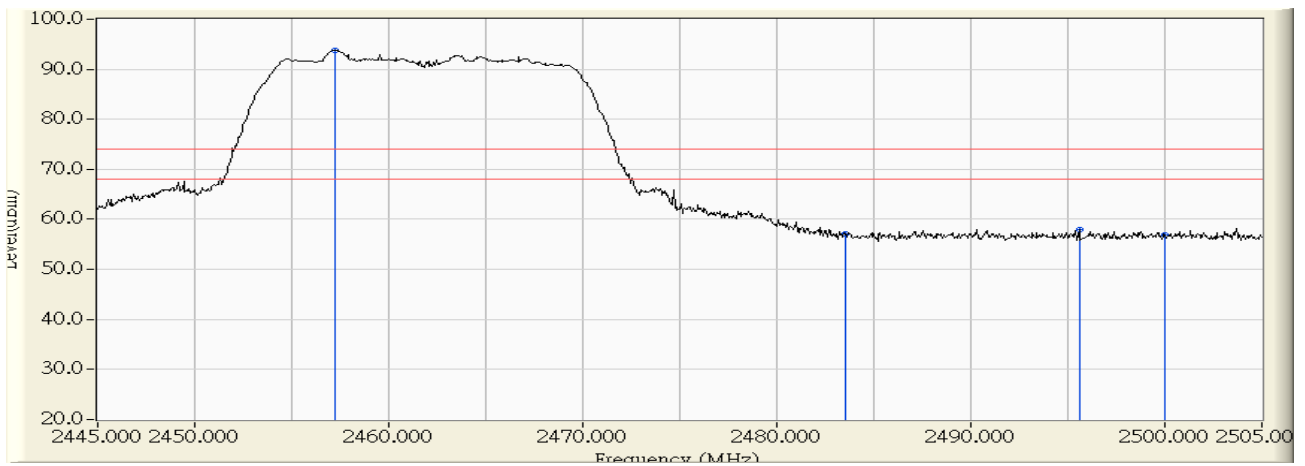


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2459.220	31.606	45.260	76.866	22.866	54.000	AVERAGE
2		2483.500	31.858	12.732	44.590	-9.410	54.000	AVERAGE
3		2488.380	31.908	12.601	44.510	-9.490	54.000	AVERAGE
4		2500.000	31.988	12.580	44.569	-9.431	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 : 2013/11/16 - 13:25
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11g_2462MHz

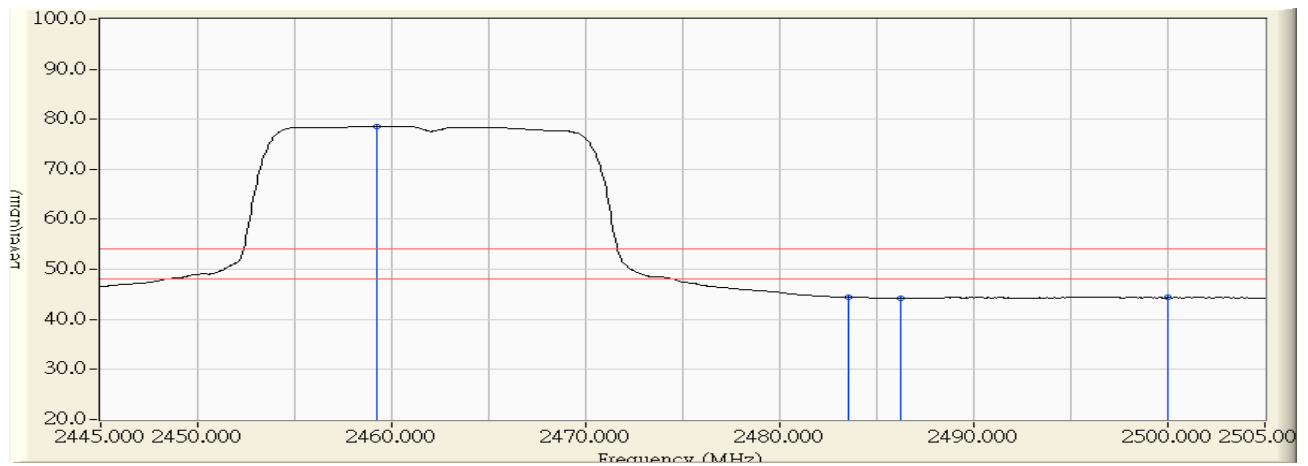


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2457.240	31.586	62.245	93.831	19.831	74.000	PEAK
2		2483.500	31.858	25.295	57.153	-16.847	74.000	PEAK
3		2495.580	31.983	25.889	57.872	-16.128	74.000	PEAK
4		2500.000	31.988	24.927	56.916	-17.084	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 : 2013/11/16 - 13:27
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11g_2462MHz

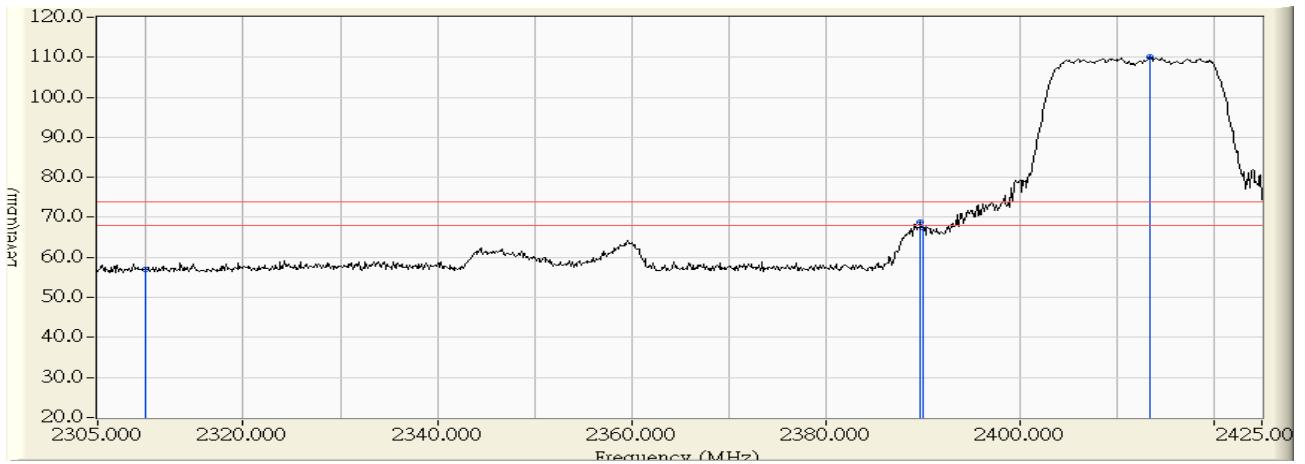


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2459.220	31.606	47.010	78.616	24.616	54.000	AVERAGE
2		2483.500	31.858	12.588	44.446	-9.554	54.000	AVERAGE
3		2486.220	31.886	12.397	44.283	-9.717	54.000	AVERAGE
4		2500.000	31.988	12.357	44.346	-9.654	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 : 2013/11/16 - 14:10
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(20MHz)_2412MHz

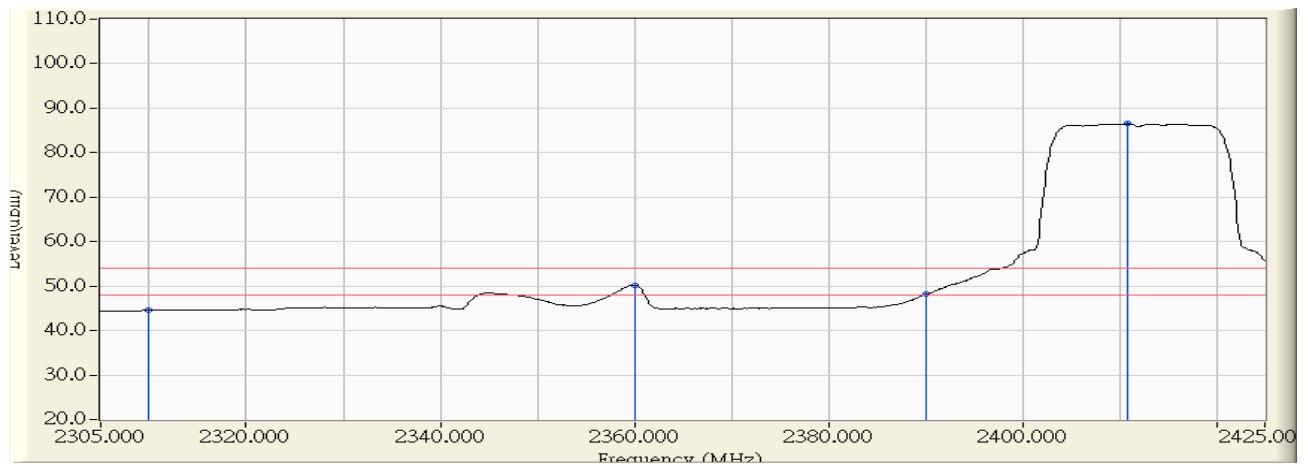


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	26.977	57.036	-16.964	74.000	PEAK
2		2389.840	30.887	37.784	68.671	-5.329	74.000	PEAK
3		2390.000	30.888	36.698	67.586	-6.414	74.000	PEAK
4	*	2413.480	31.132	78.826	109.958	35.958	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 : 2013/11/16 - 14:11
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(20MHz)_2412MHz

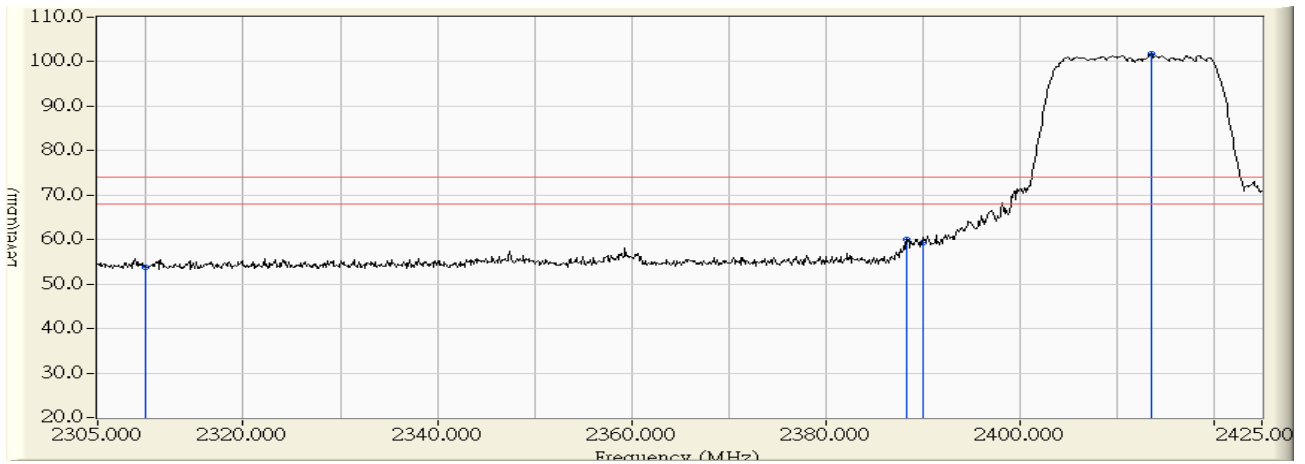


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	14.463	44.522	-9.478	54.000	AVERAGE
2		2360.080	30.578	19.650	50.228	-3.772	54.000	AVERAGE
3		2390.000	30.888	17.233	48.121	-5.879	54.000	AVERAGE
4	*	2410.840	31.105	55.377	86.481	32.481	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 : 2013/11/16 - 14:16
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(20MHz)_2412MHz

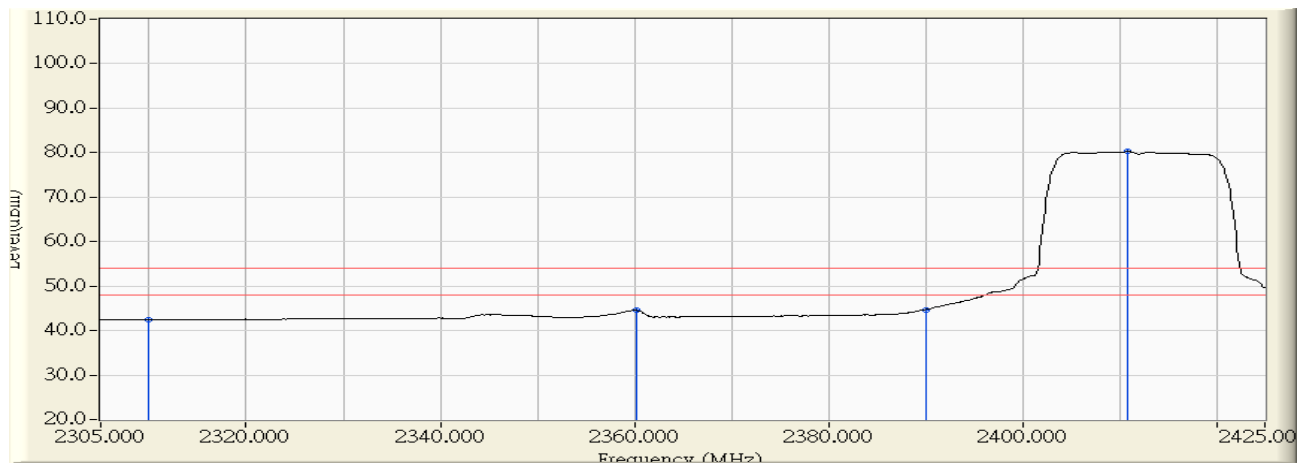


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	23.821	53.880	-20.120	74.000	PEAK
2		2388.400	30.871	29.088	59.960	-14.040	74.000	PEAK
3		2390.000	30.888	28.529	59.417	-14.583	74.000	PEAK
4	*	2413.600	31.133	70.571	101.704	27.704	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 : 2013/11/16 - 14:16
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(20MHz)_2412MHz

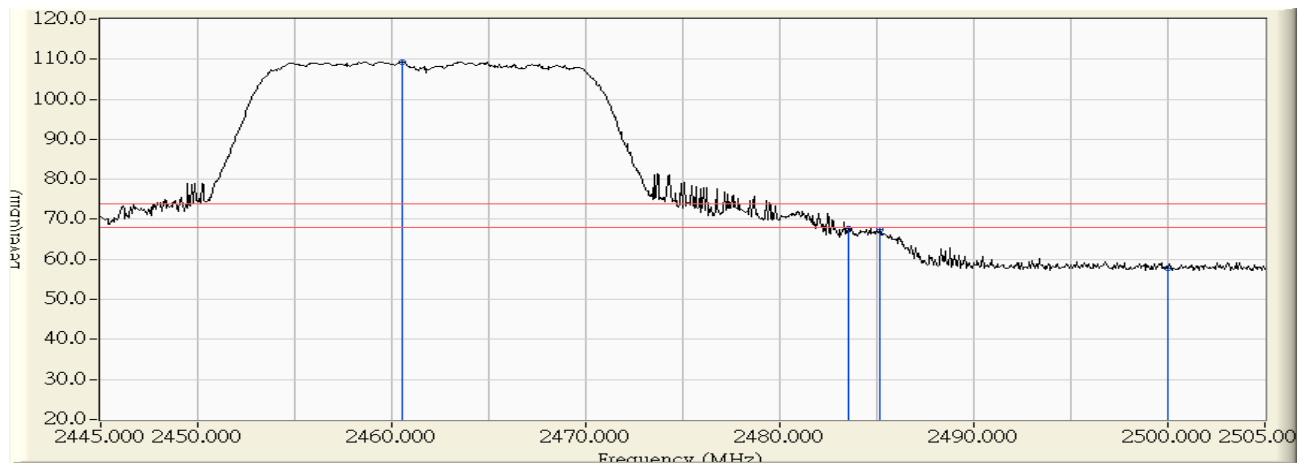


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	12.389	42.448	-11.552	54.000	AVERAGE
2		2360.200	30.579	14.002	44.581	-9.419	54.000	AVERAGE
3		2390.000	30.888	13.824	44.712	-9.288	54.000	AVERAGE
4	*	2410.840	31.105	49.148	80.252	26.252	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 : 2013/11/16 - 14:21
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(20MHz)_2462MHz

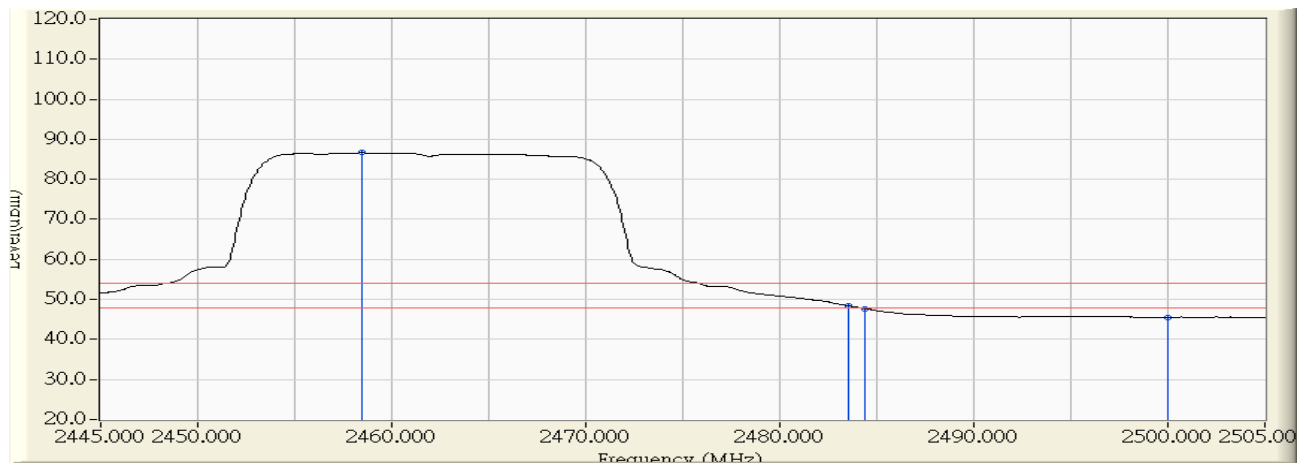


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2460.540	31.620	77.694	109.314	35.314	74.000	PEAK
2		2483.500	31.858	35.741	67.599	-6.401	74.000	PEAK
3		2485.140	31.875	35.571	67.446	-6.554	74.000	PEAK
4		2500.000	31.988	25.755	57.744	-16.256	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 : 2013/11/16 - 14:22
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(20MHz)_2462MHz

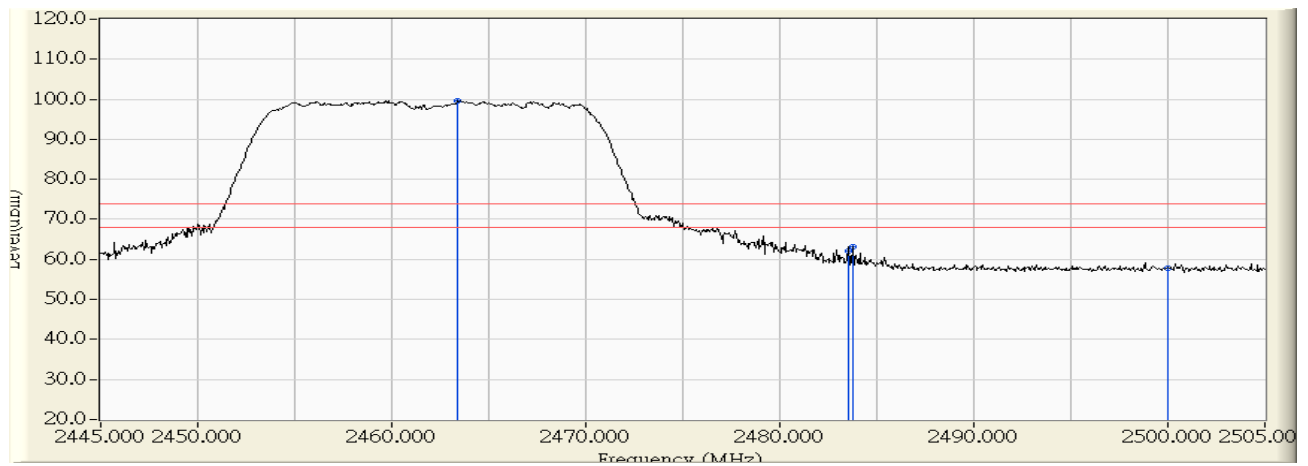


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2458.440	31.598	55.035	86.633	32.633	54.000	AVERAGE
2		2483.500	31.858	16.557	48.415	-5.585	54.000	AVERAGE
3		2484.360	31.867	15.878	47.745	-6.255	54.000	AVERAGE
4		2500.000	31.988	13.588	45.577	-8.423	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 : 2013/11/16 - 14:40
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(20MHz)_2462MHz

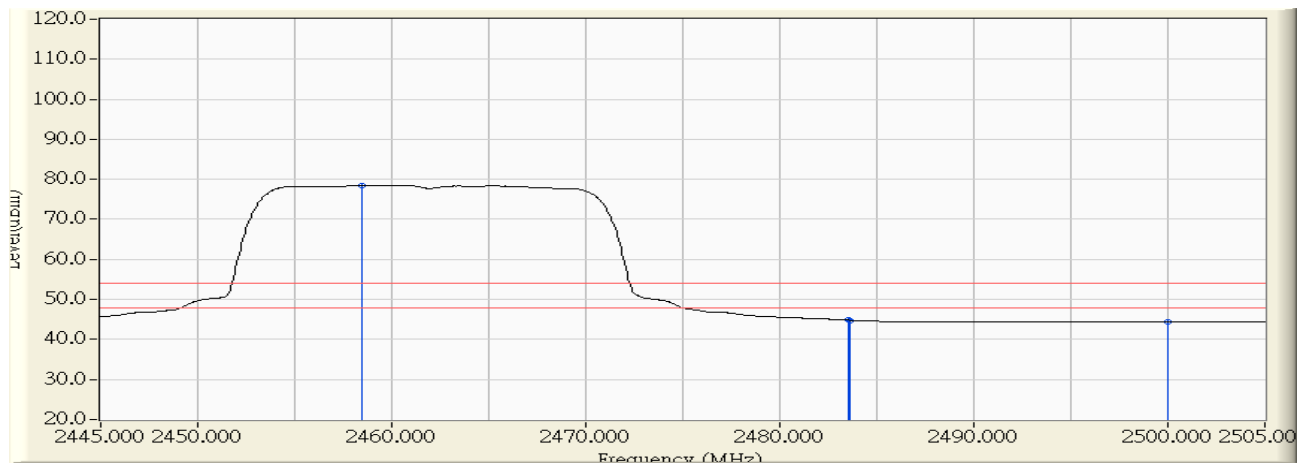


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2463.420	31.649	68.036	99.686	25.686	74.000	PEAK
2		2483.500	31.858	30.218	62.076	-11.924	74.000	PEAK
3		2483.760	31.861	31.349	63.210	-10.790	74.000	PEAK
4		2500.000	31.988	25.875	57.864	-16.136	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 : 2013/11/16 - 14:42
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(20MHz)_2462MHz

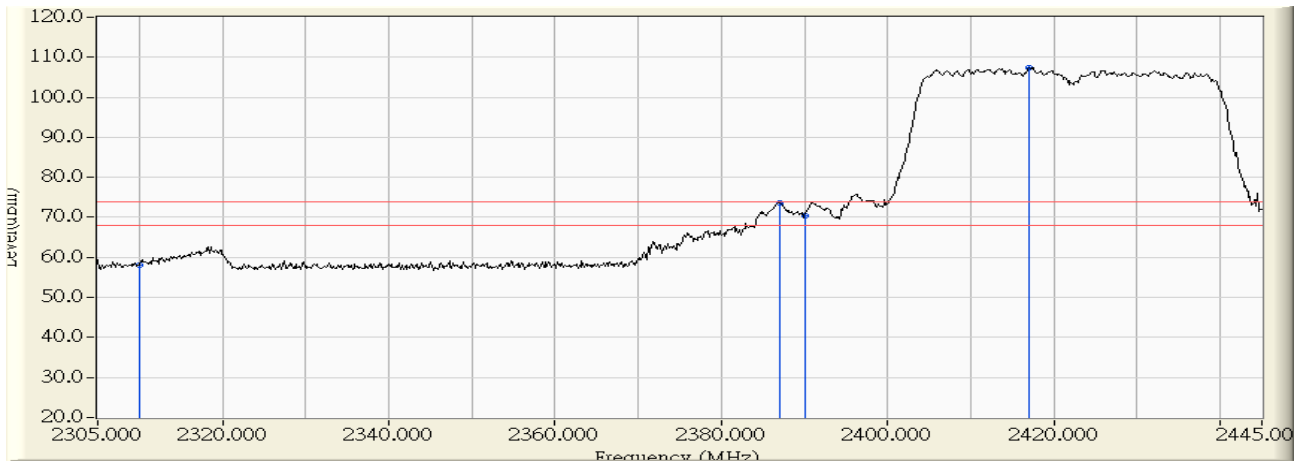


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2458.440	31.598	46.909	78.507	24.507	54.000	AVERAGE
2		2483.500	31.858	12.957	44.815	-9.185	54.000	AVERAGE
3		2483.580	31.859	12.933	44.792	-9.208	54.000	AVERAGE
4		2500.000	31.988	12.418	44.407	-9.593	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 : 2013/11/16 - 14:50
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(40MHz)_2422MHz

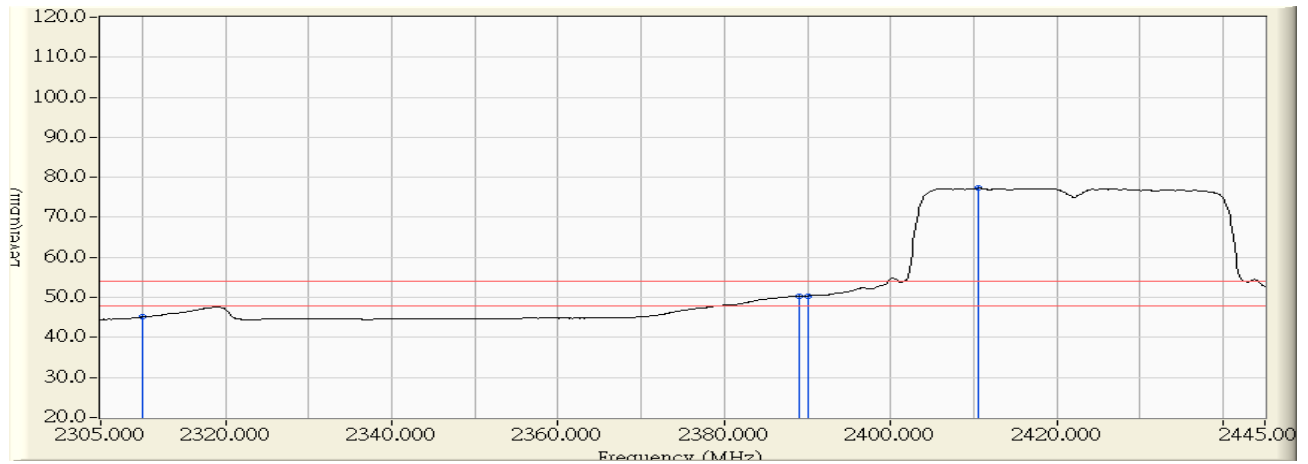


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	28.070	58.129	-15.871	74.000	PEAK
2		2387.040	30.858	42.715	73.573	-0.427	74.000	PEAK
3		2390.000	30.888	39.528	70.416	-3.584	74.000	PEAK
4	*	2417.000	31.168	76.210	107.378	33.378	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 : 2013/11/16 - 14:51
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(40MHz)_2422MHz

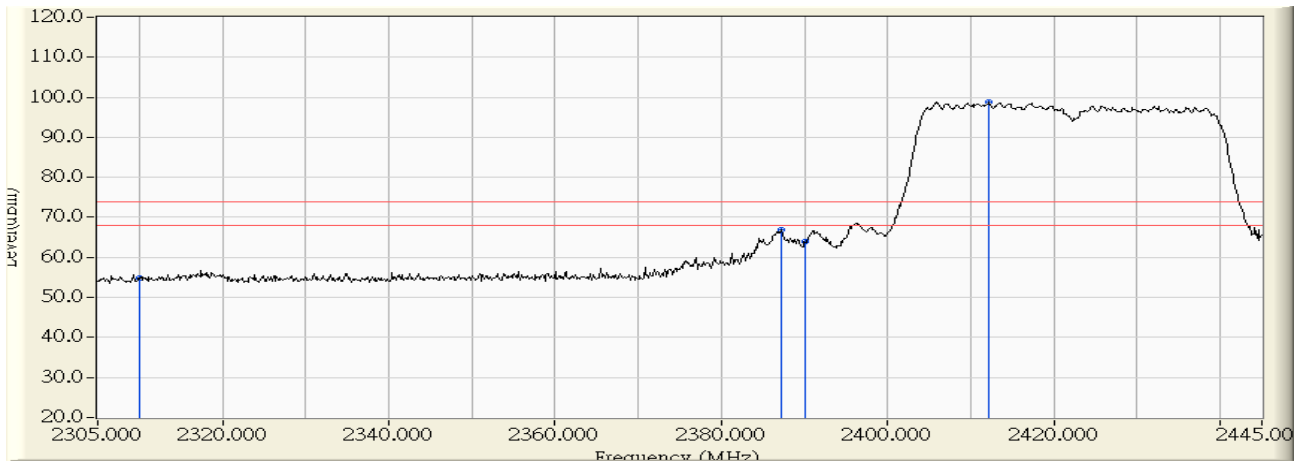


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	15.024	45.083	-8.917	54.000	AVERAGE
2		2389.000	30.878	19.453	50.331	-3.669	54.000	AVERAGE
3		2390.000	30.888	19.518	50.406	-3.594	54.000	AVERAGE
4	*	2410.560	31.101	46.151	77.253	23.253	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 : 2013/11/16 - 14:56
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(40MHz)_2422MHz

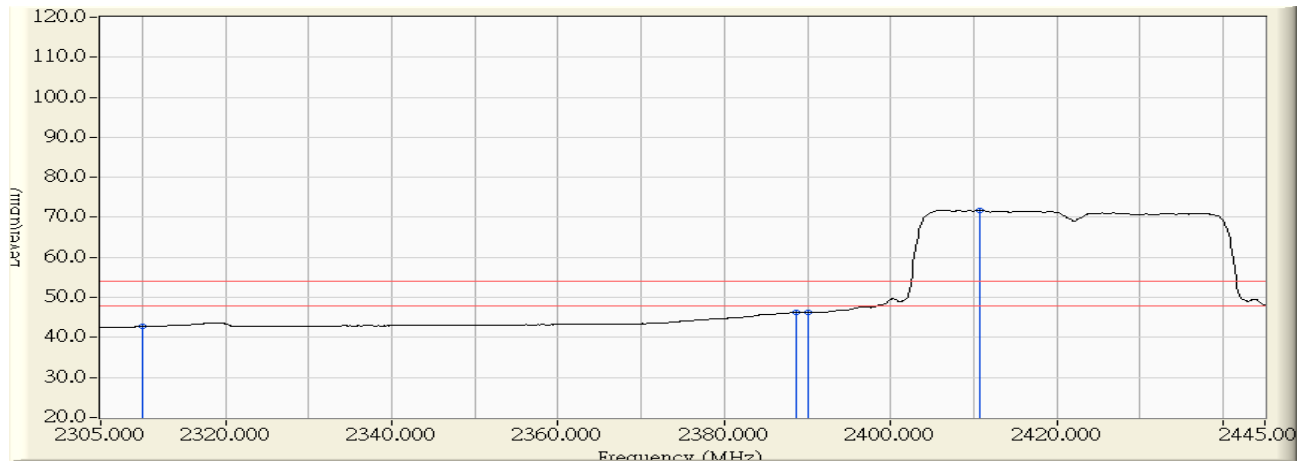


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	24.682	54.741	-19.259	74.000	PEAK
2		2387.180	30.859	35.991	66.850	-7.150	74.000	PEAK
3		2390.000	30.888	32.972	63.860	-10.140	74.000	PEAK
4	*	2412.240	31.119	67.640	98.759	24.759	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 : 2013/11/16 - 14:56
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(40MHz)_2422MHz

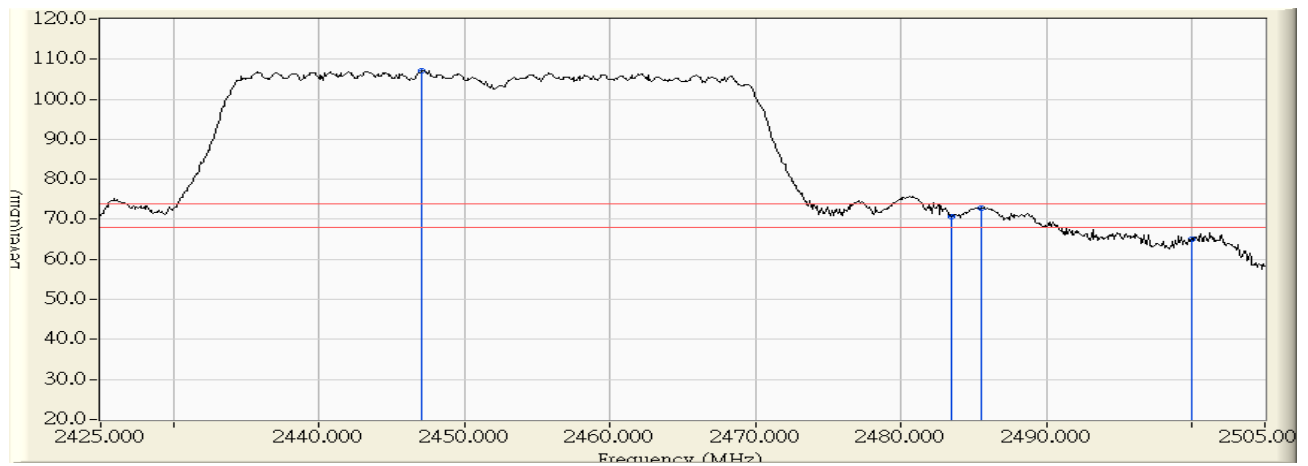


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1		2310.000	30.059	12.629	42.688	-11.312	54.000	AVERAGE
2		2388.580	30.874	15.335	46.209	-7.791	54.000	AVERAGE
3		2390.000	30.888	15.346	46.234	-7.766	54.000	AVERAGE
4	*	2410.700	31.103	40.686	71.789	17.789	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 : 2013/11/16 - 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 : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(40MHz)_2452MHz

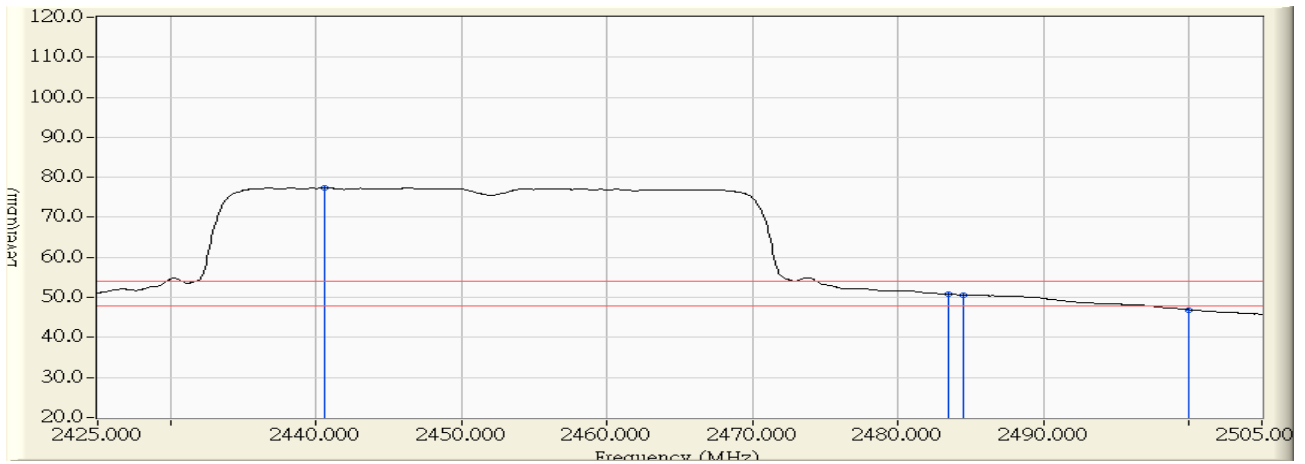


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2447.080	31.480	75.689	107.169	33.169	74.000	PEAK
2		2483.500	31.858	38.885	70.743	-3.257	74.000	PEAK
3		2485.480	31.878	40.884	72.763	-1.237	74.000	PEAK
4		2500.000	31.988	33.046	65.035	-8.965	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 : 2013/11/16 - 15:13
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(40MHz)_2452MHz

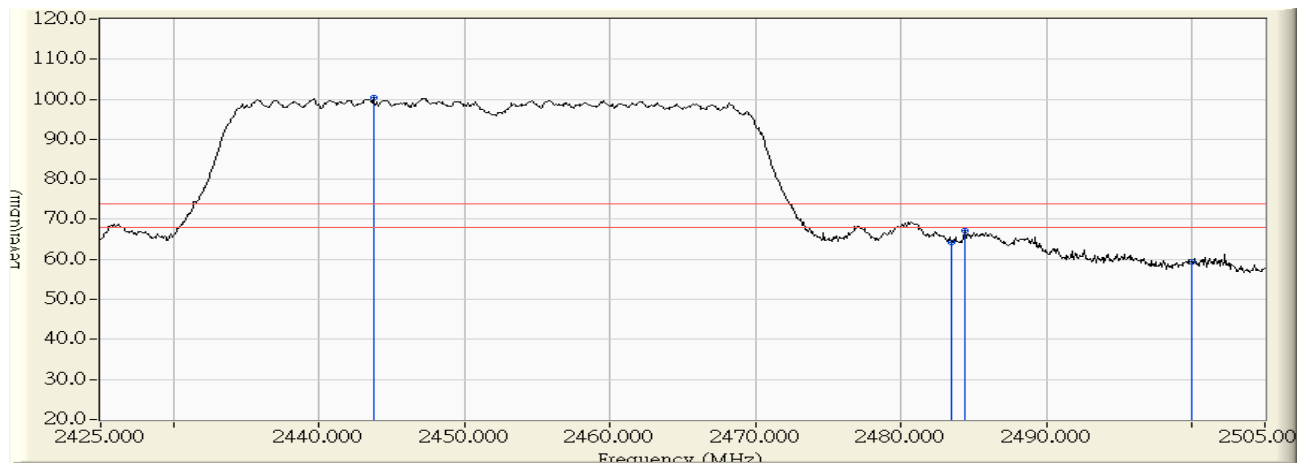


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2440.600	31.414	45.958	77.371	23.371	54.000	AVERAGE
2		2483.500	31.858	19.030	50.888	-3.112	54.000	AVERAGE
3		2484.440	31.868	18.801	50.669	-3.331	54.000	AVERAGE
4		2500.000	31.988	14.947	46.936	-7.064	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 : 2013/11/16 - 15:17
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(40MHz)_2452MHz

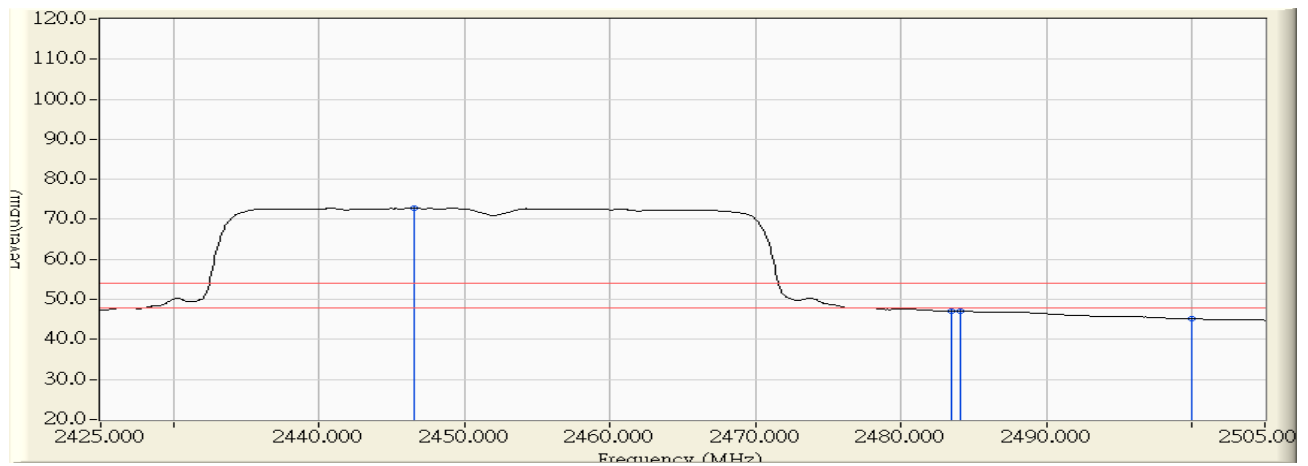


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2443.720	31.445	68.967	100.412	26.412	74.000	PEAK
2		2483.500	31.858	32.462	64.320	-9.680	74.000	PEAK
3		2484.360	31.867	35.205	67.072	-6.928	74.000	PEAK
4		2500.000	31.988	27.307	59.296	-14.704	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 : 2013/11/16 - 15:18
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	Power : AC 120V/60Hz
EUT : Wireless N GPON HGU with 4-port GbE Switch	Note : Mode 1: Transmit (Power Adapter: YINGJU) 802.11n(40MHz)_2452MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBm)	Measure Level (dBm)	Margin (dB)	Limit (dBm)	Detector Type
1	*	2446.520	31.474	41.311	72.785	18.785	54.000	AVERAGE
2		2483.500	31.858	15.239	47.097	-6.903	54.000	AVERAGE
3		2484.040	31.863	15.151	47.015	-6.985	54.000	AVERAGE
4		2500.000	31.988	13.205	45.194	-8.806	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

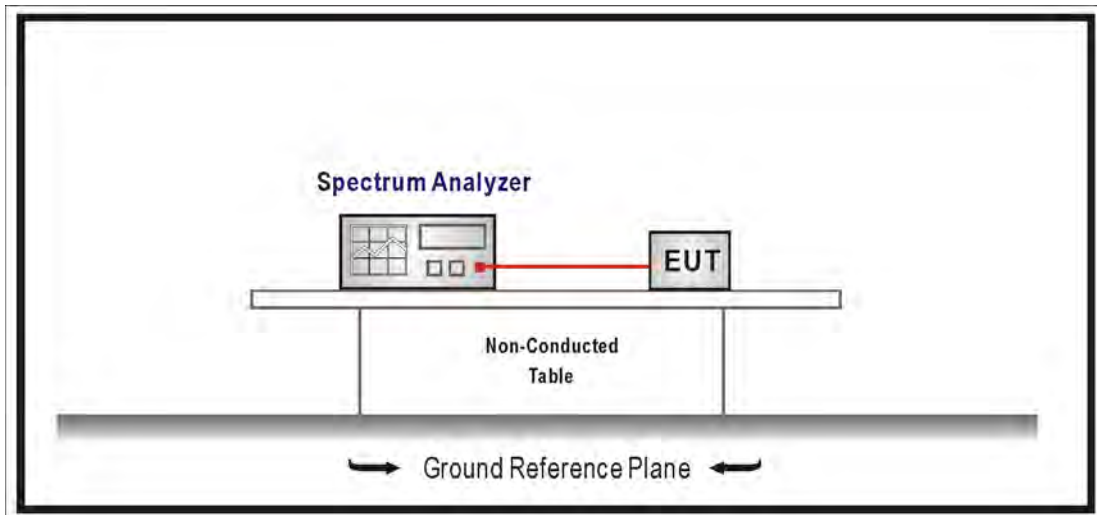
The following test equipments are used during the test:

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. Limit

The 6 dB bandwidth must be greater than 500 kHz.

7.4. Test Procedure

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

7.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

7.6. Uncertainty

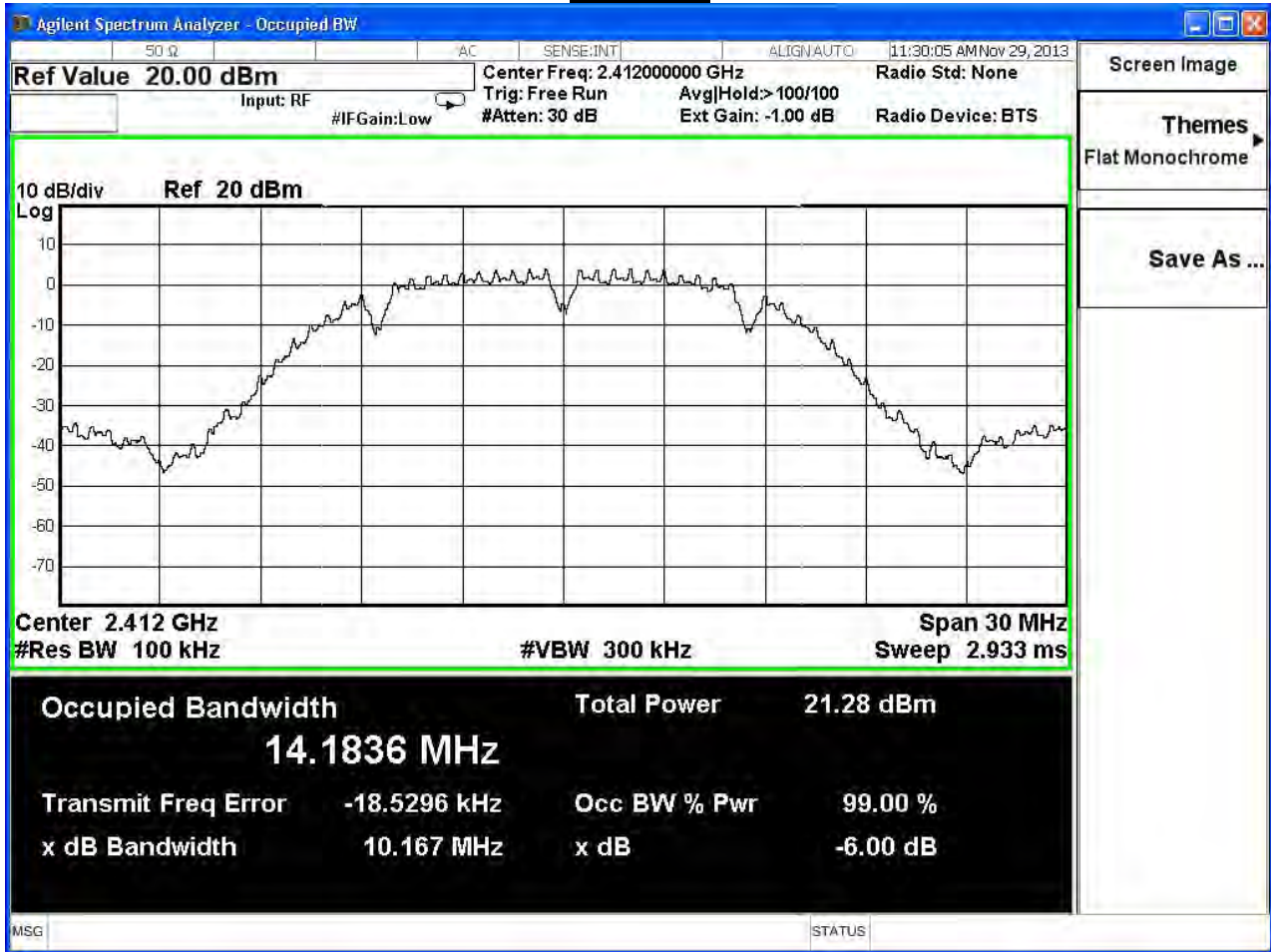
The measurement uncertainty is defined as ± 150 Hz

7.7. Test Result

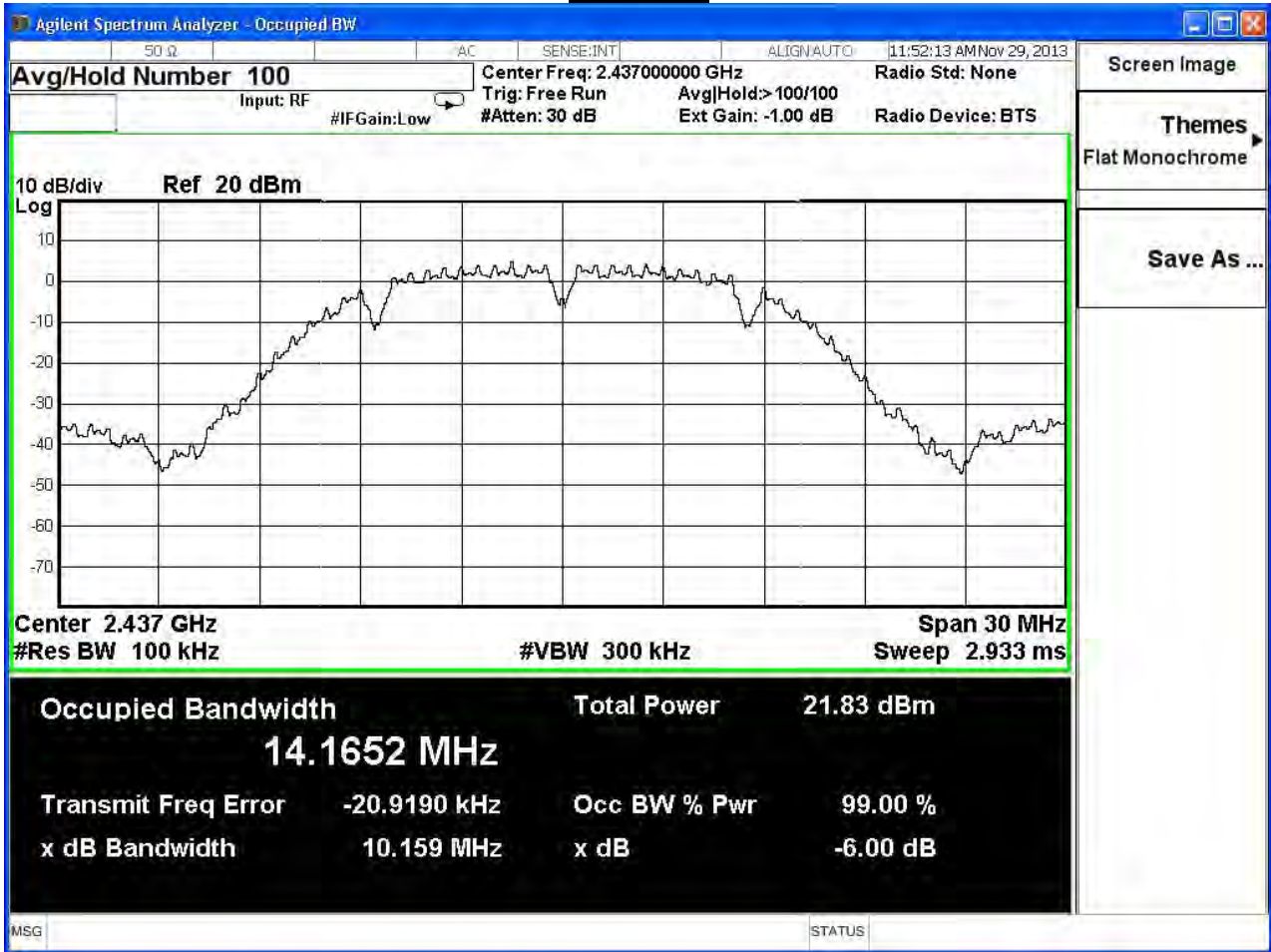
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11b				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	10.17	≥ 0.5	Pass
6	2437	10.16	≥ 0.5	Pass
11	2462	10.18	≥ 0.5	Pass

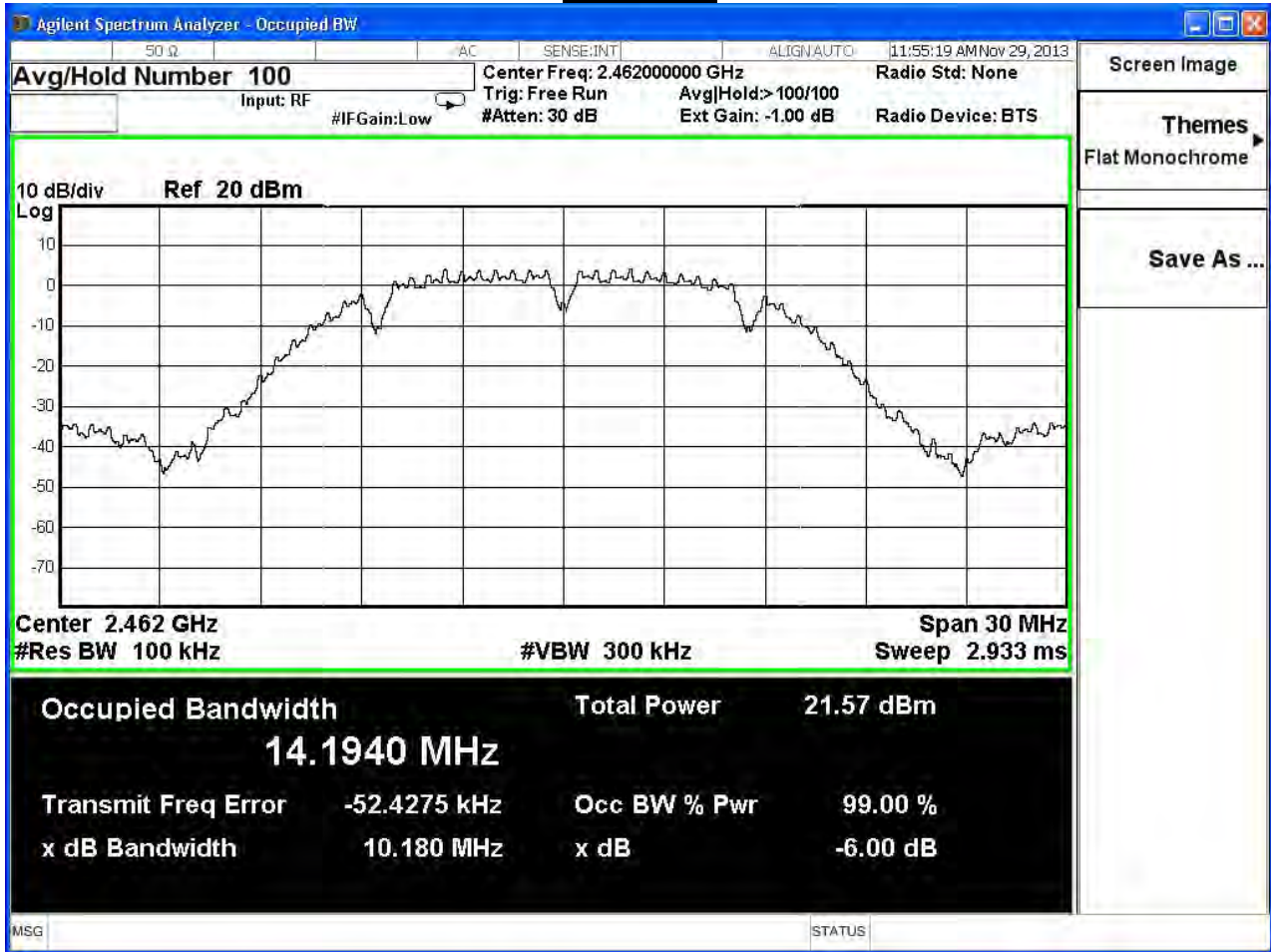
Channel 1



Channel 6



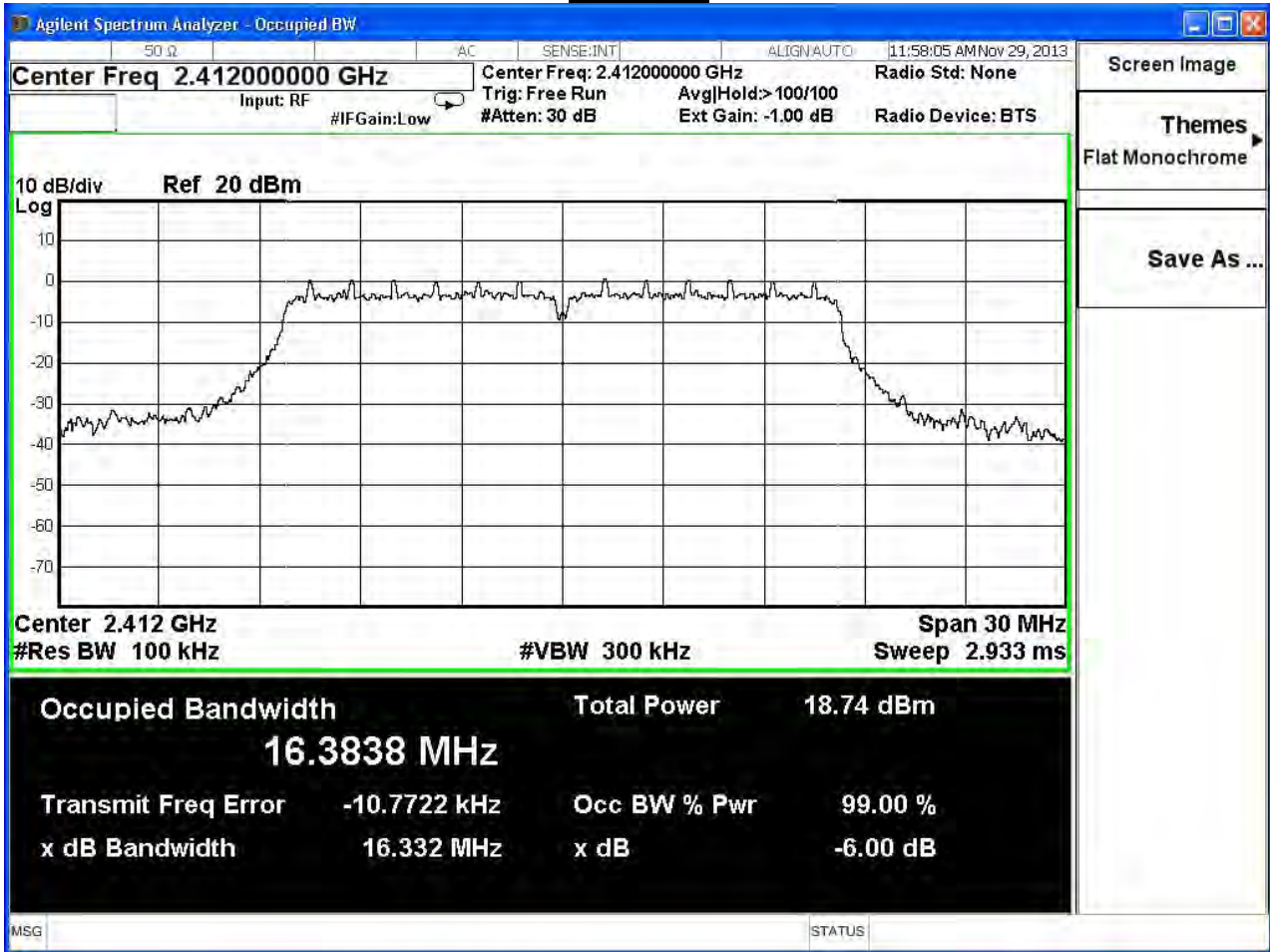
Channel 11



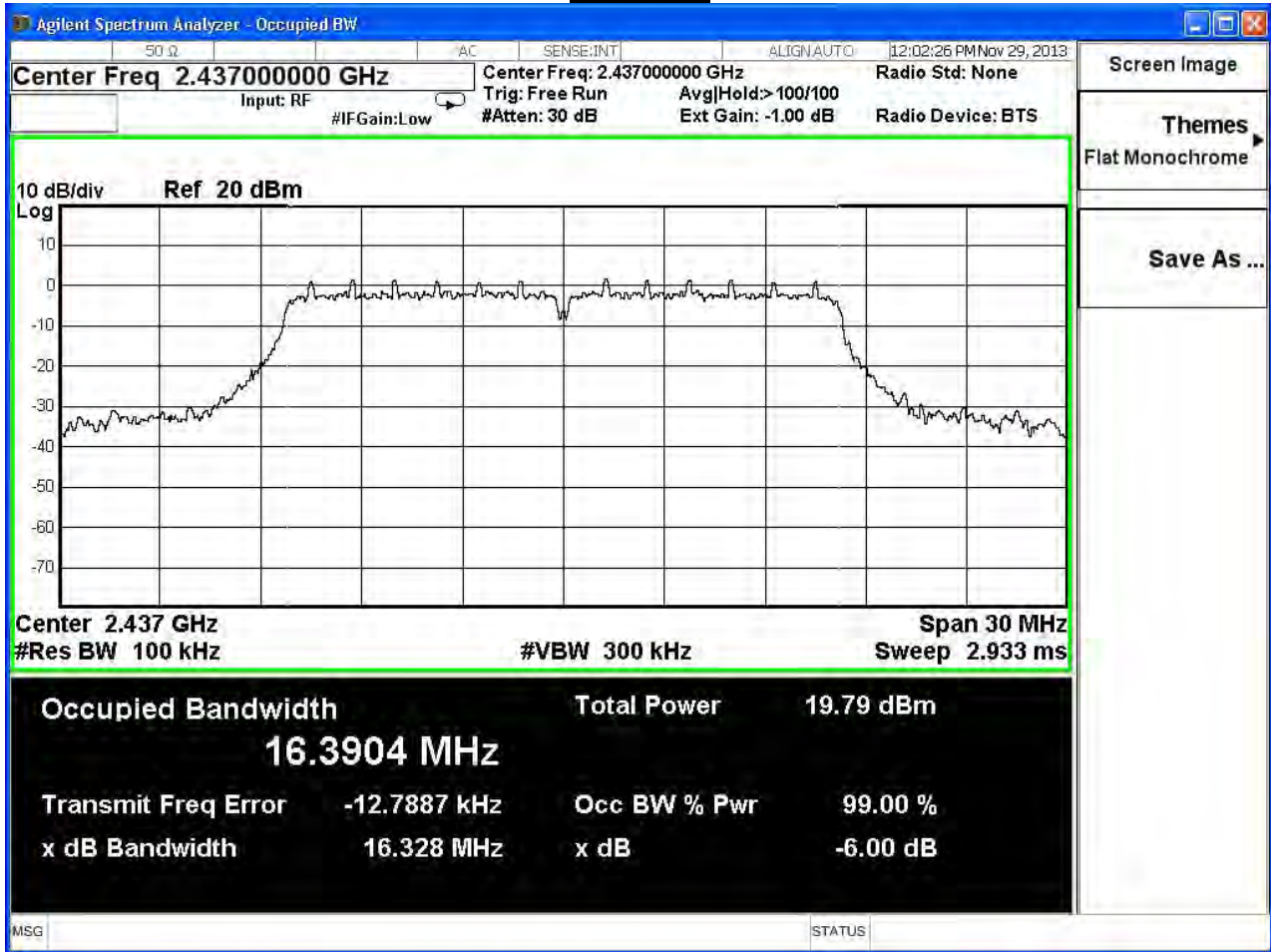
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	16.33	≥ 0.5	Pass
6	2437	16.33	≥ 0.5	Pass
11	2462	16.33	≥ 0.5	Pass

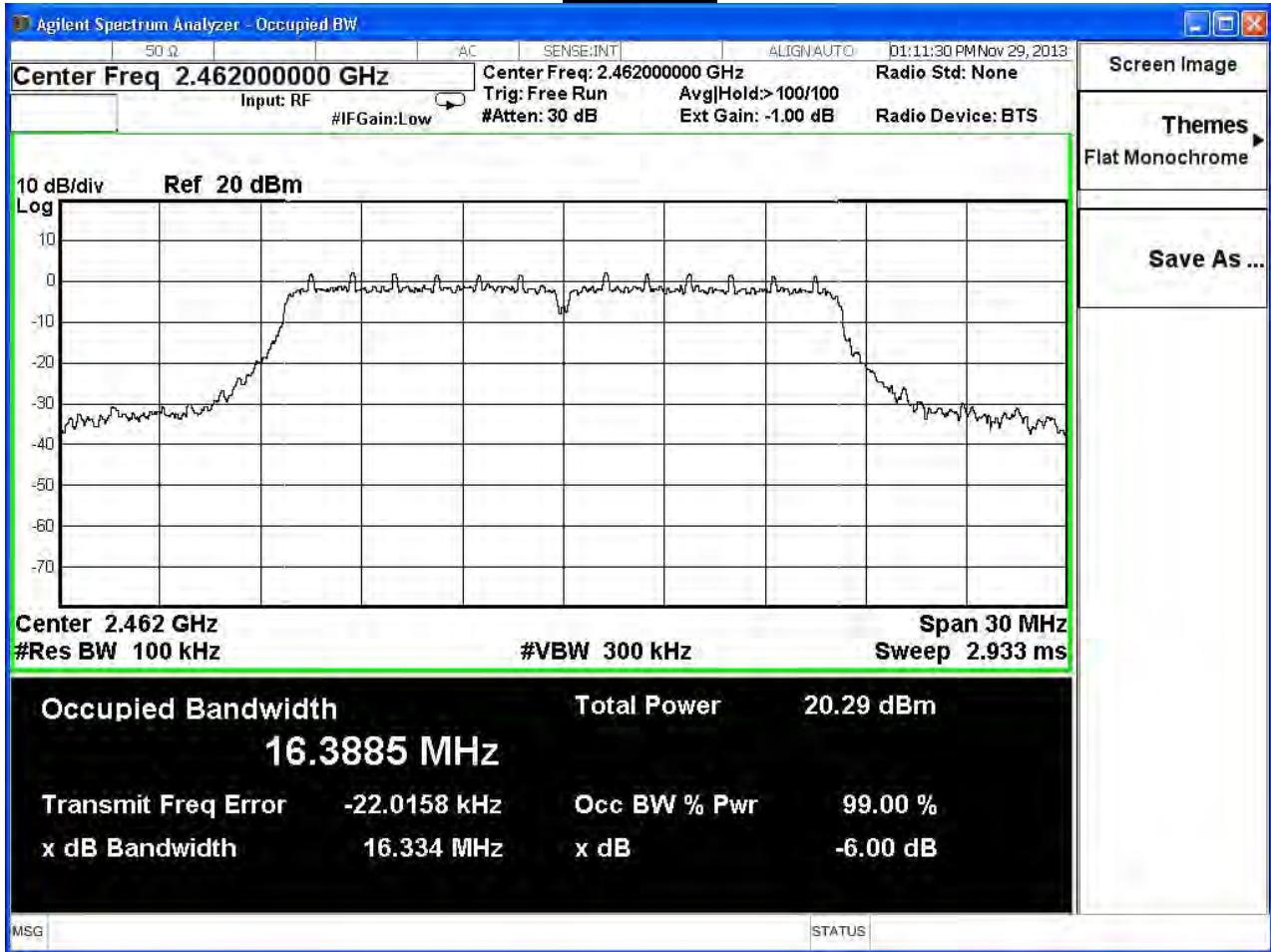
Channel 1



Channel 6



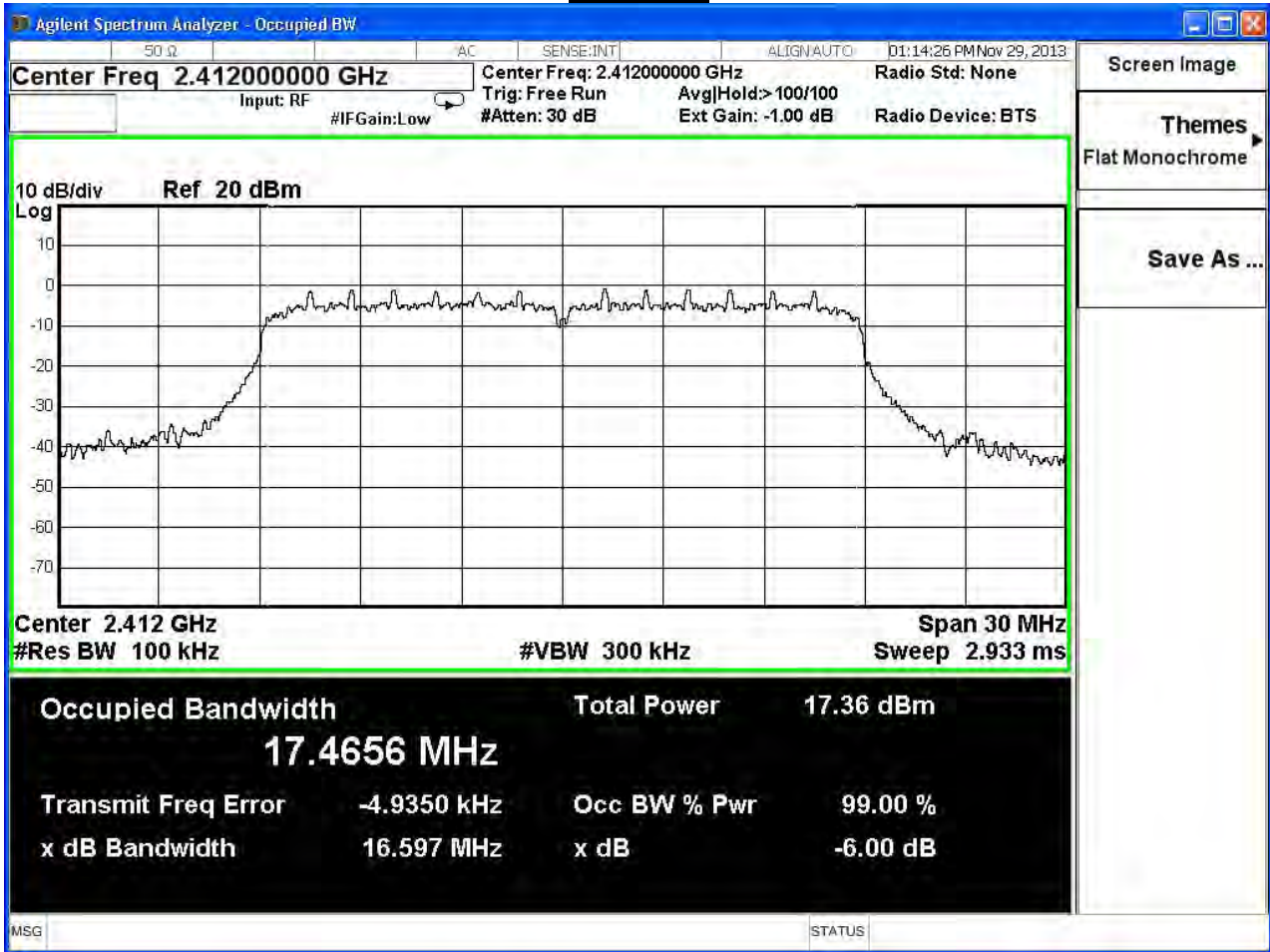
Channel 11



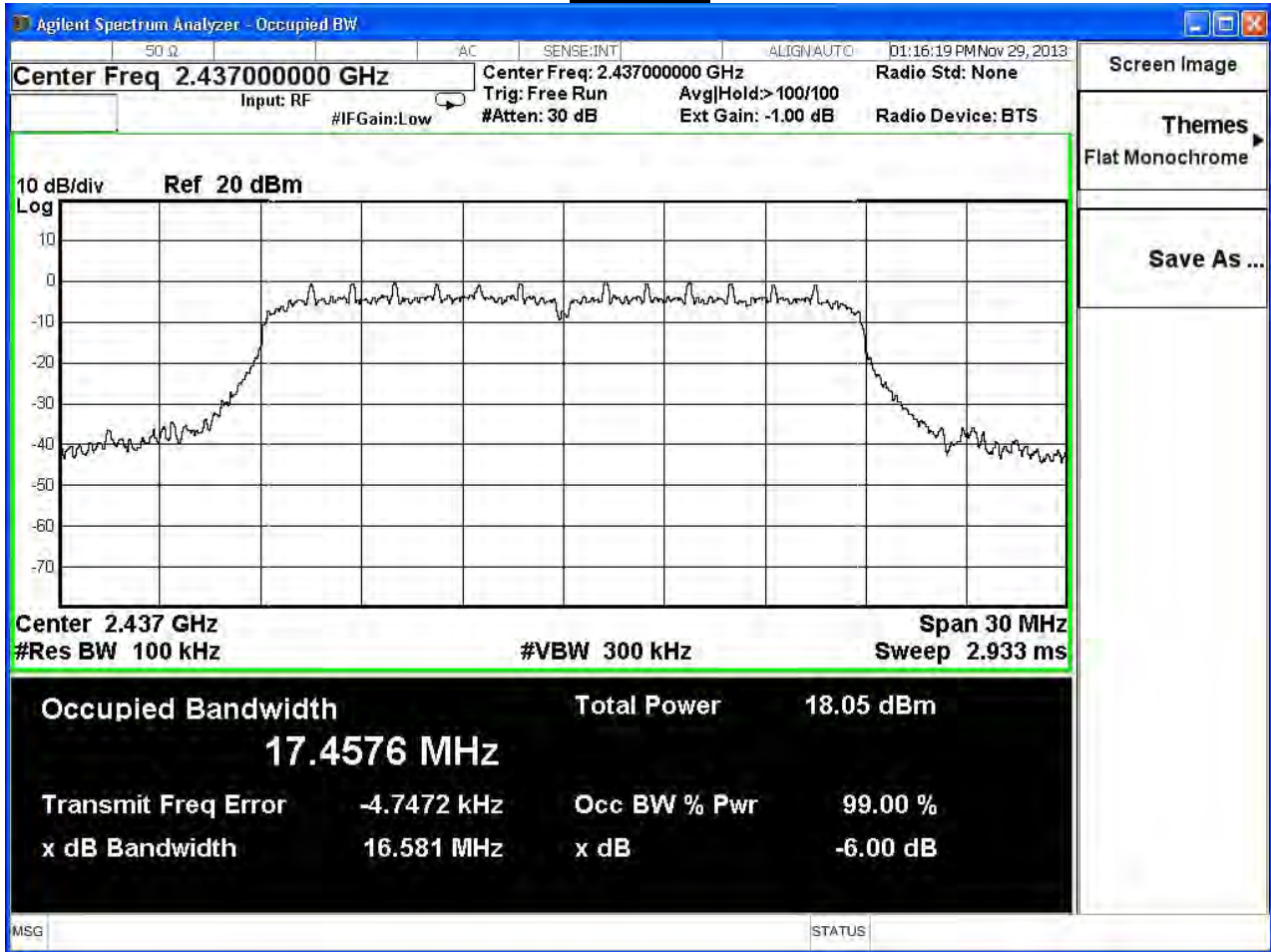
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11n (20MHz) (Ant 0)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	16.60	≥ 0.5	Pass
6	2437	16.58	≥ 0.5	Pass
11	2462	16.90	≥ 0.5	Pass

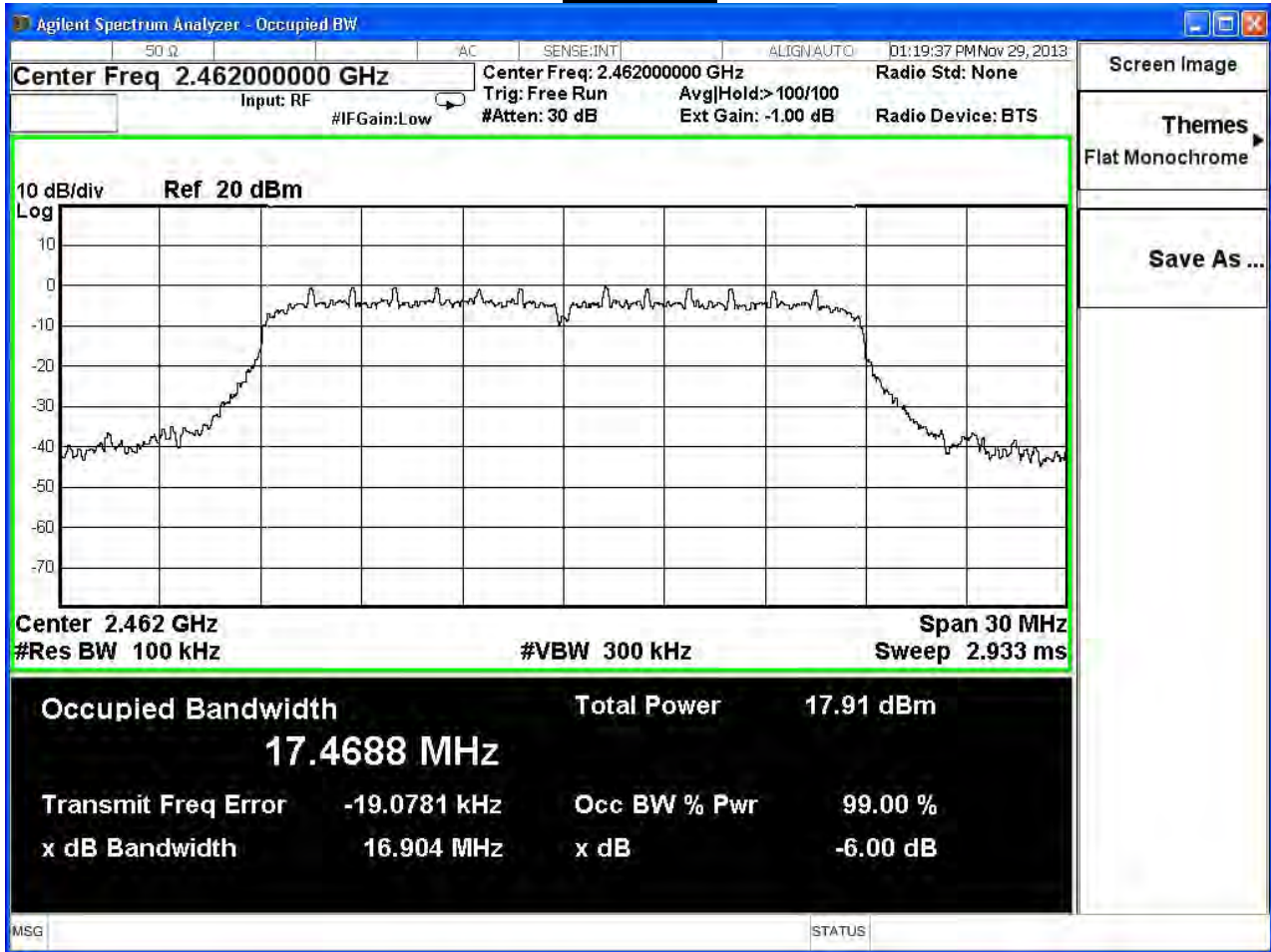
Channel 1



Channel 6



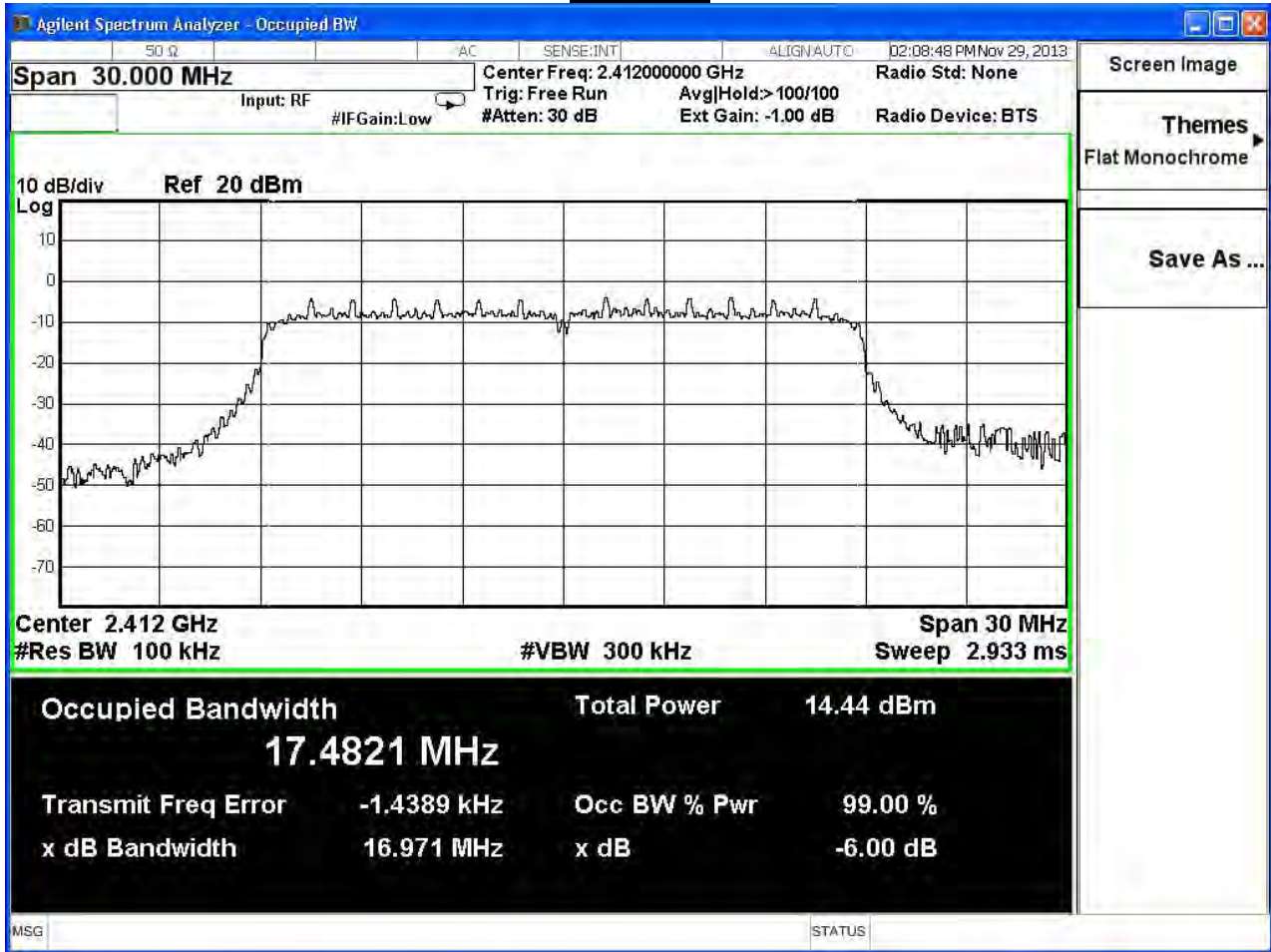
Channel 11



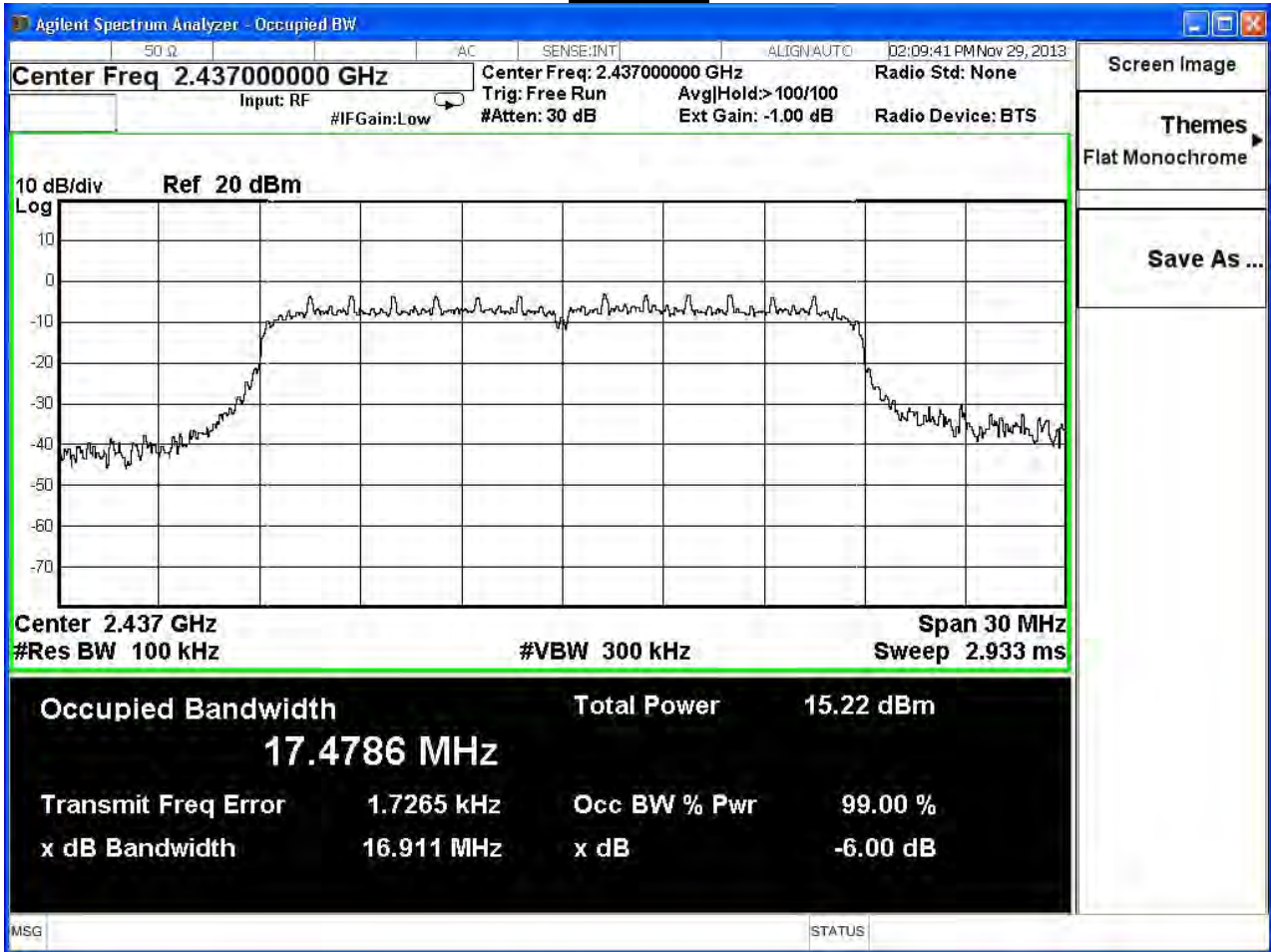
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11n (20MHz) (Ant 1)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	16.97	≥ 0.5	Pass
6	2437	16.91	≥ 0.5	Pass
11	2462	16.96	≥ 0.5	Pass

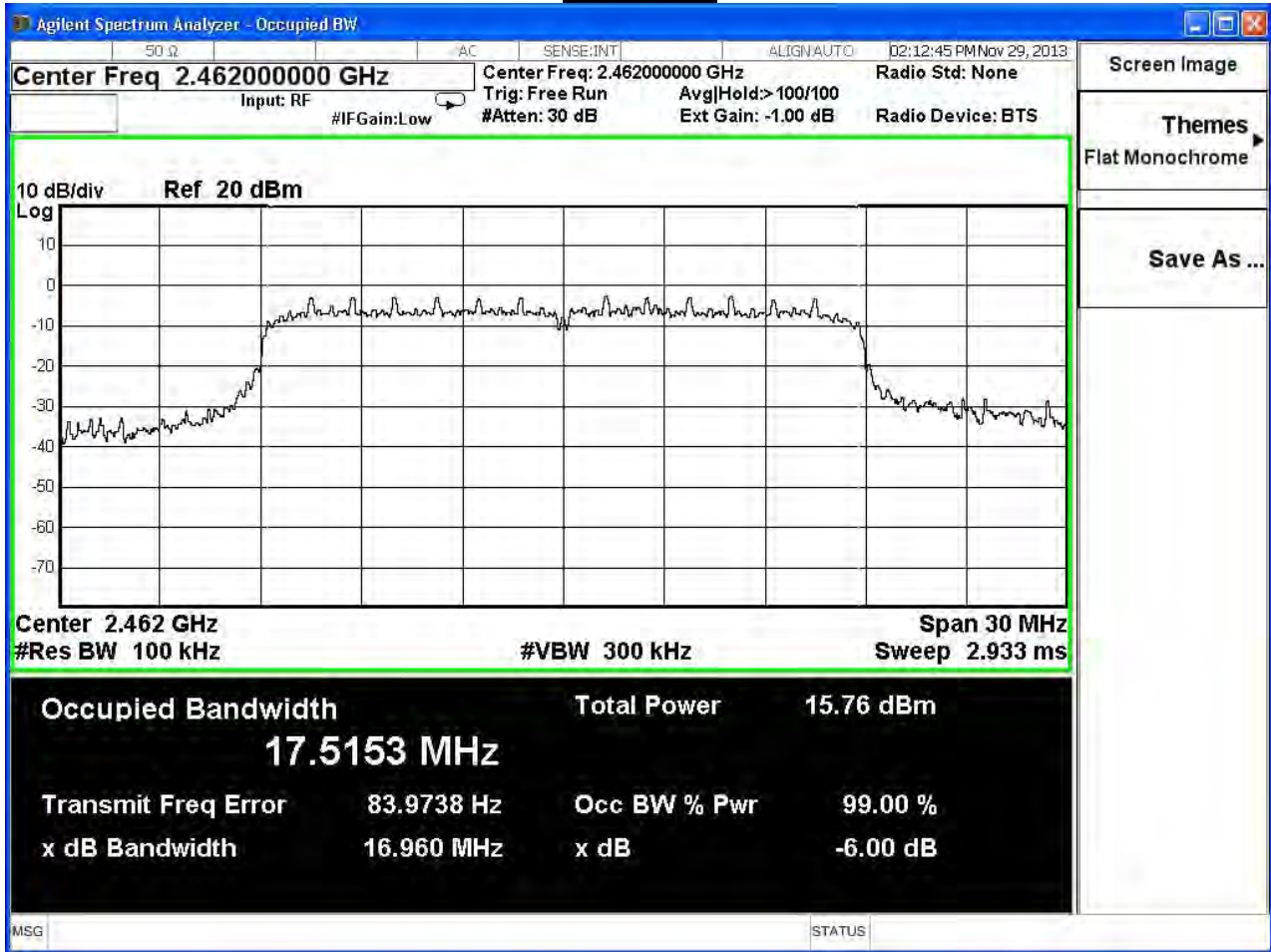
Channel 1



Channel 6



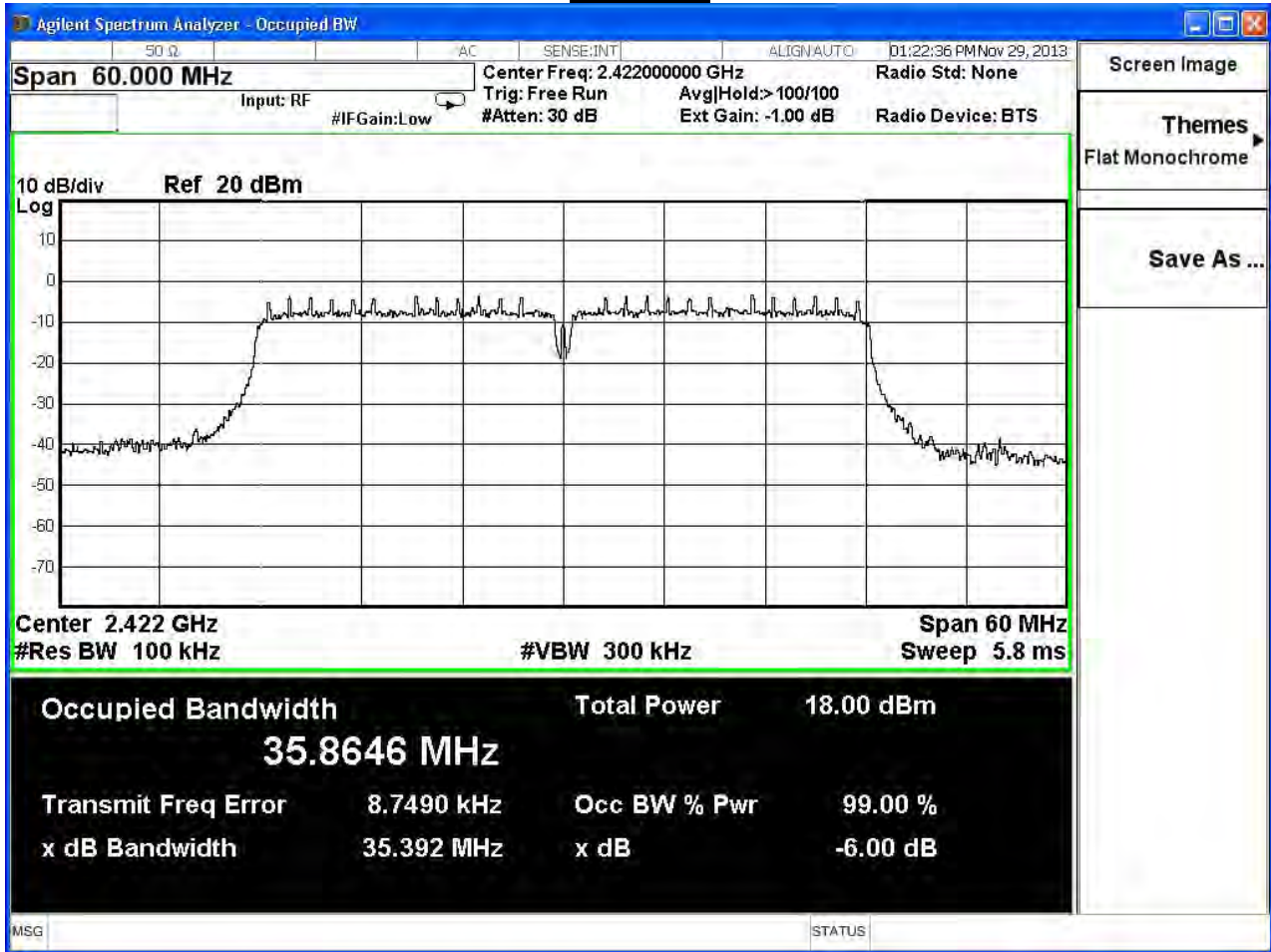
Channel 11



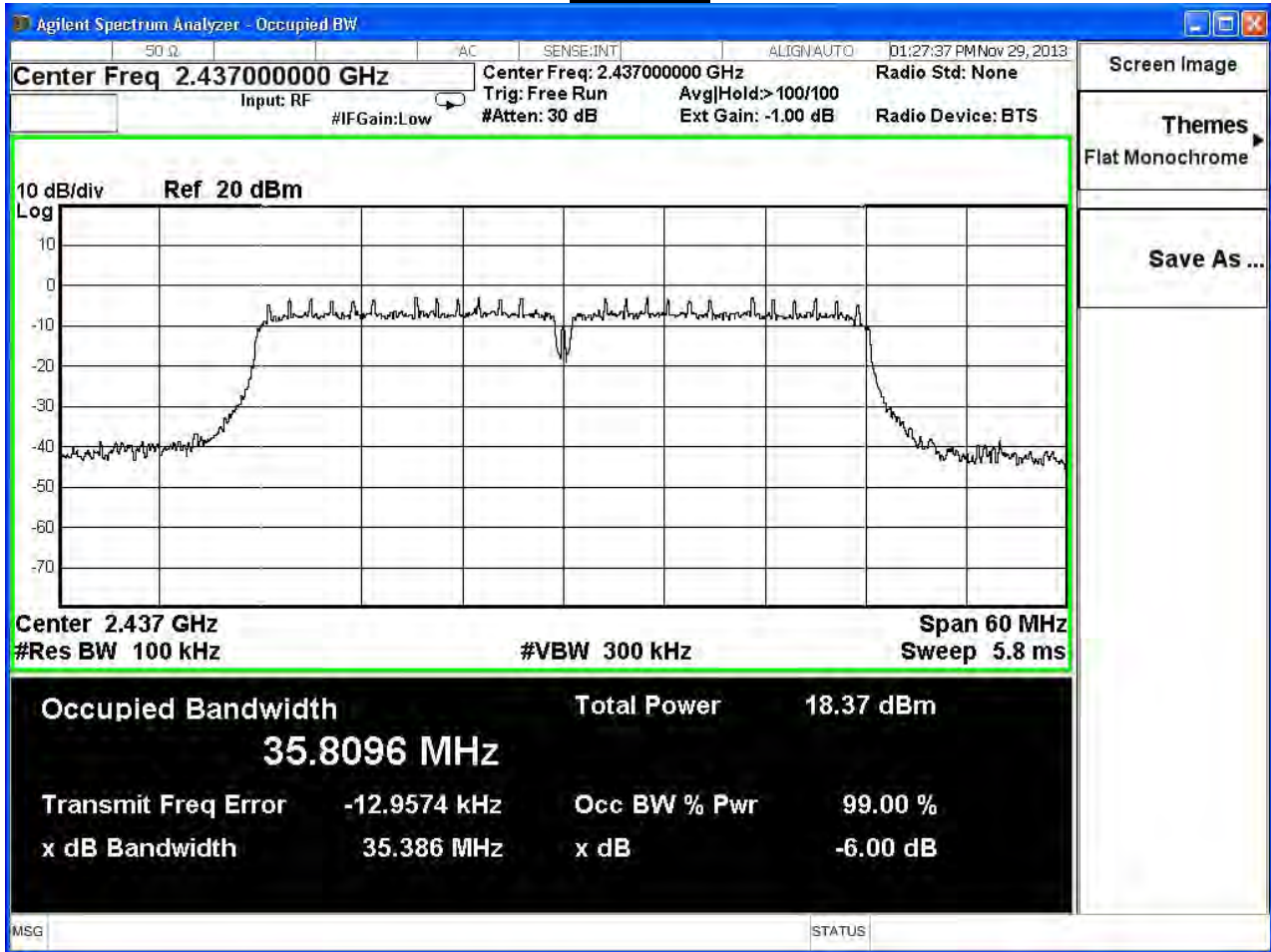
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11n (40MHz) (Ant 0)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
3	2422	35.39	≥ 0.5	Pass
6	2437	35.39	≥ 0.5	Pass
9	2452	35.40	≥ 0.5	Pass

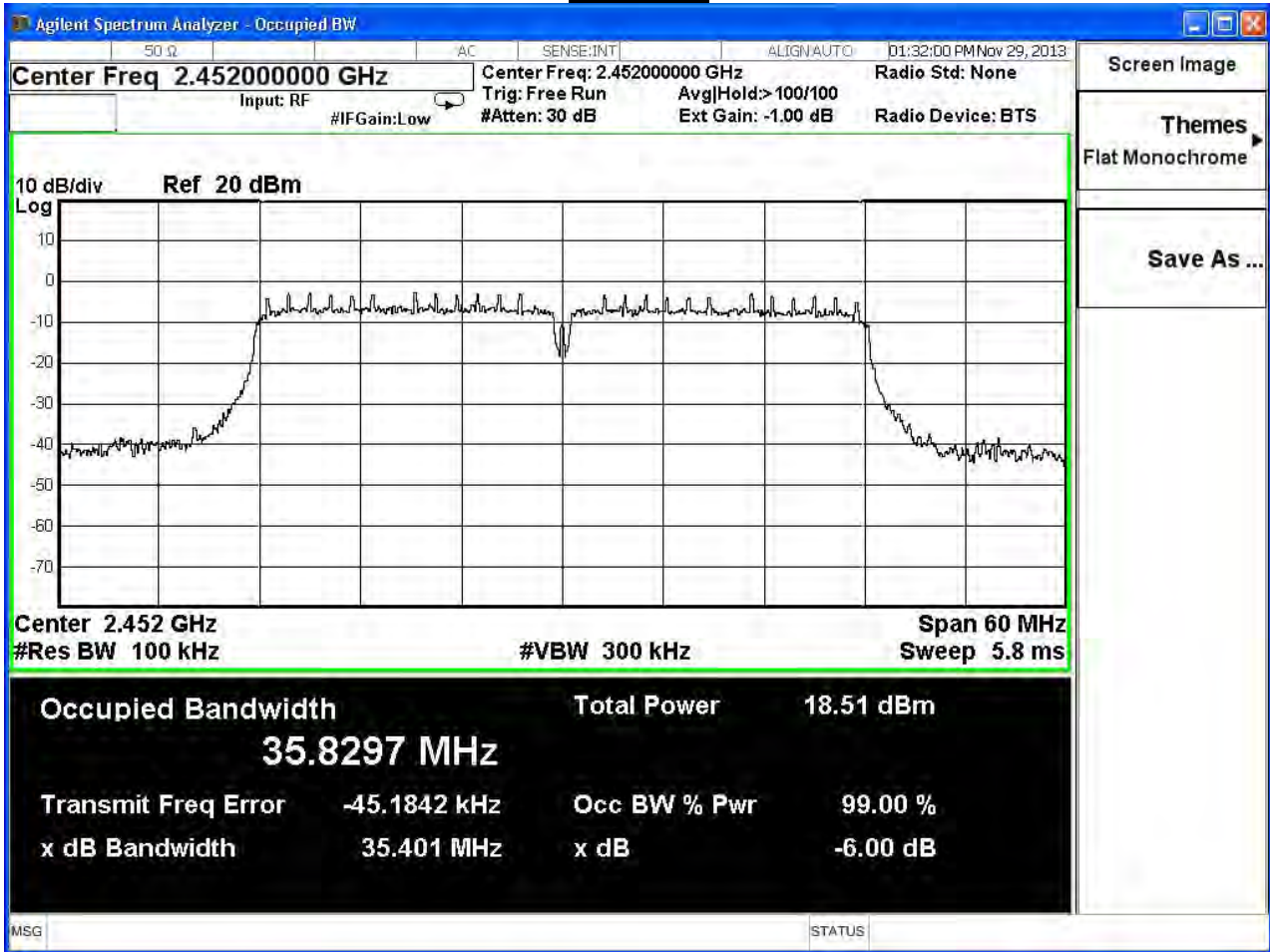
Channel 3



Channel 6



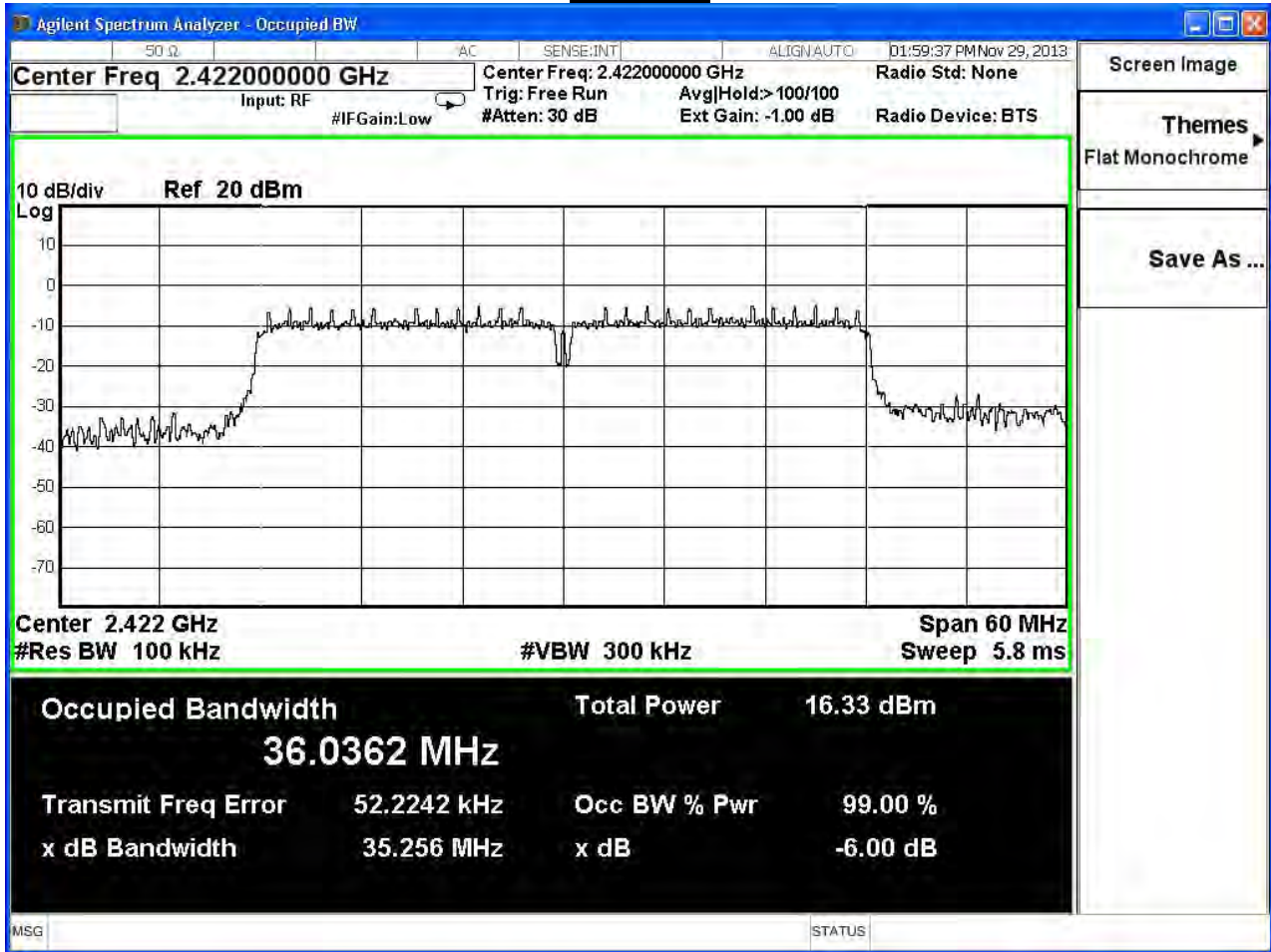
Channel 9



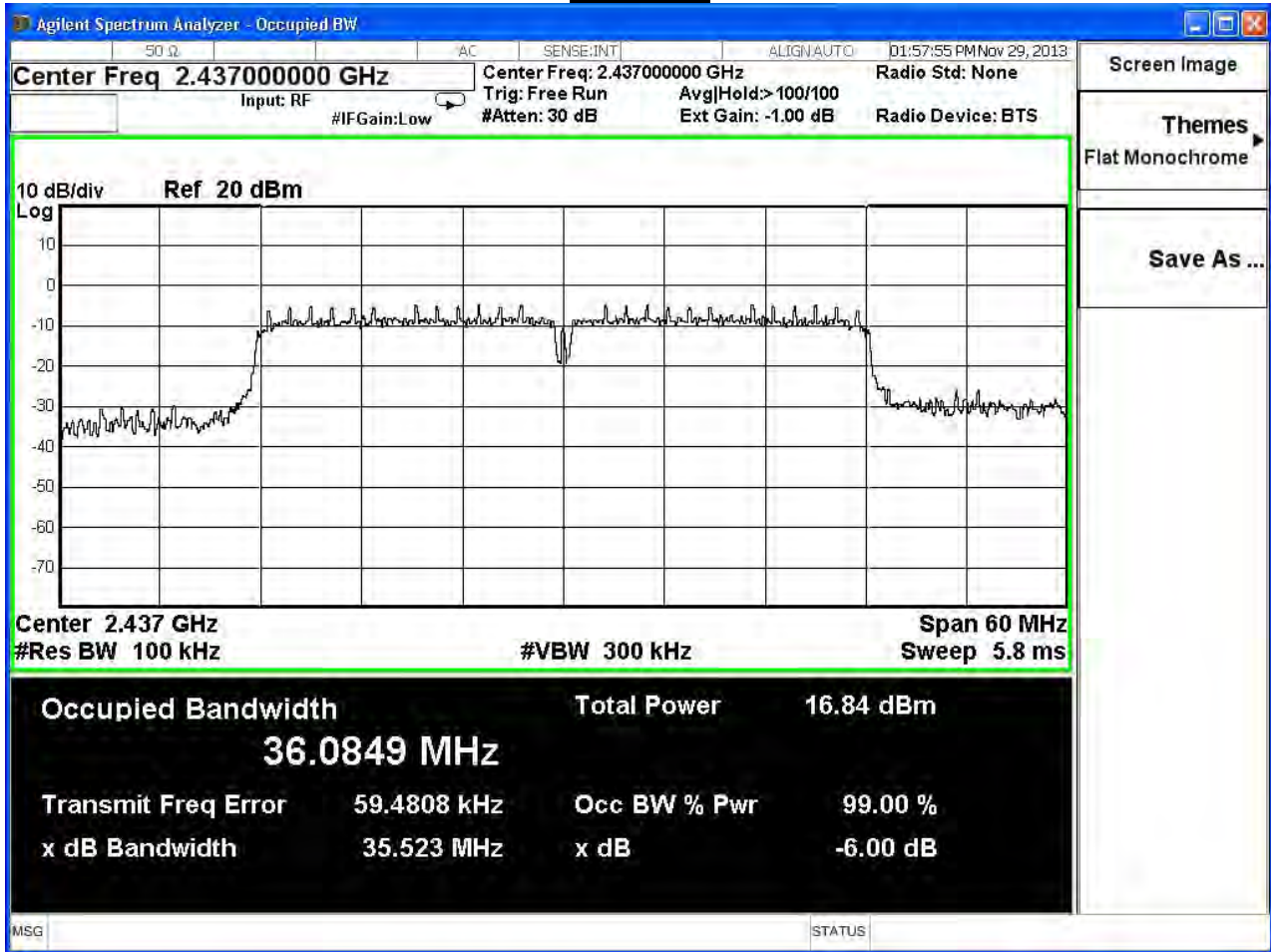
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11n (40MHz) (Ant 1)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
3	2422	35.26	≥ 0.5	Pass
6	2437	35.52	≥ 0.5	Pass
9	2452	35.42	≥ 0.5	Pass

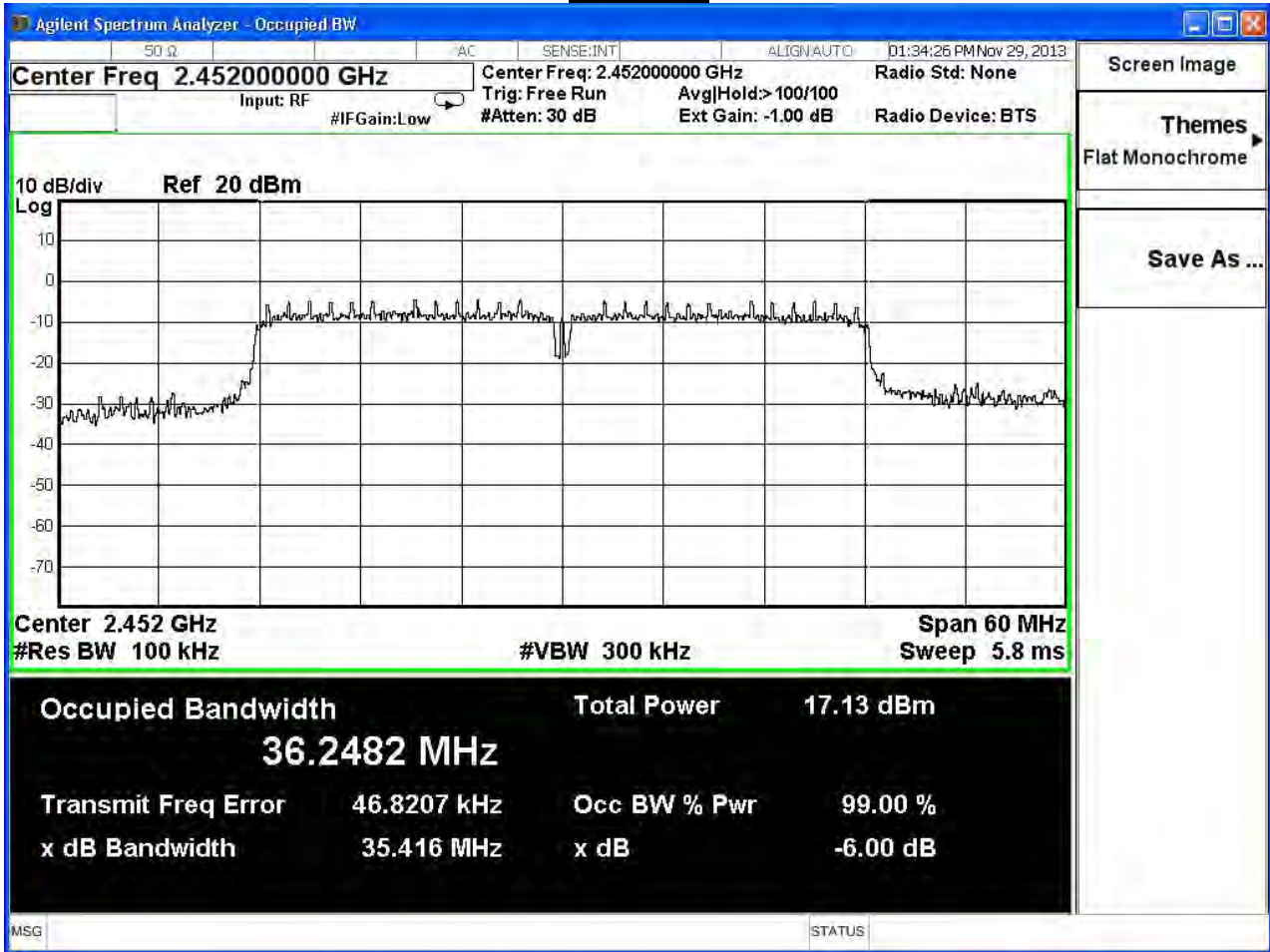
Channel 3



Channel 6



Channel 9



8. Power Density

8.1. Test Equipment

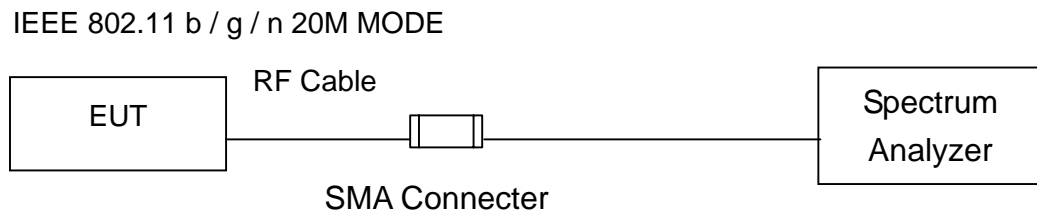
The following test equipments are used during the test:

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



8.3. Limit

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 Procedure

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 \leq RBW \leq 100 kHz, Set VBW \geq 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

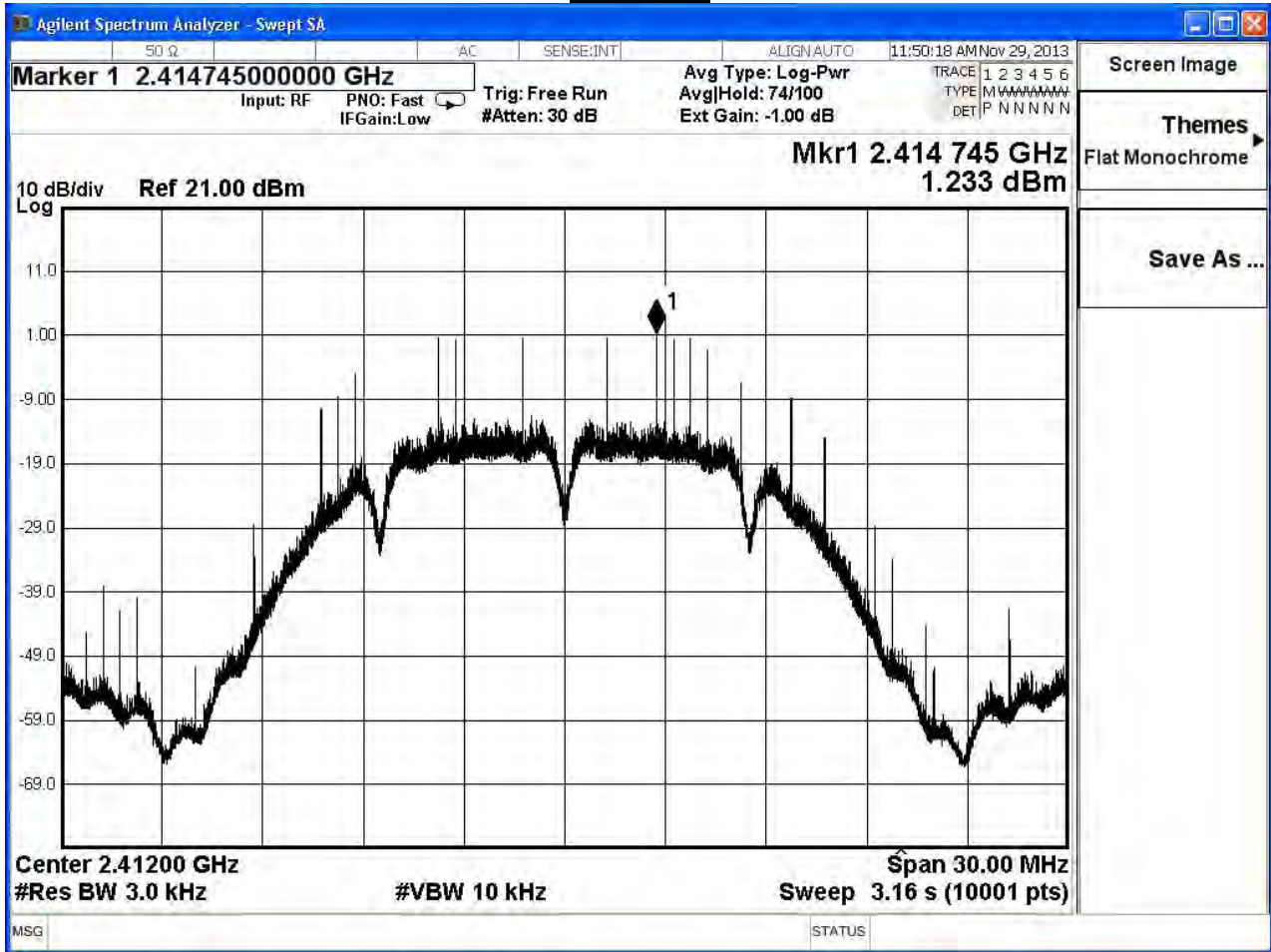
The measurement uncertainty is defined as ± 1.27 dB.

8.7. Test Result

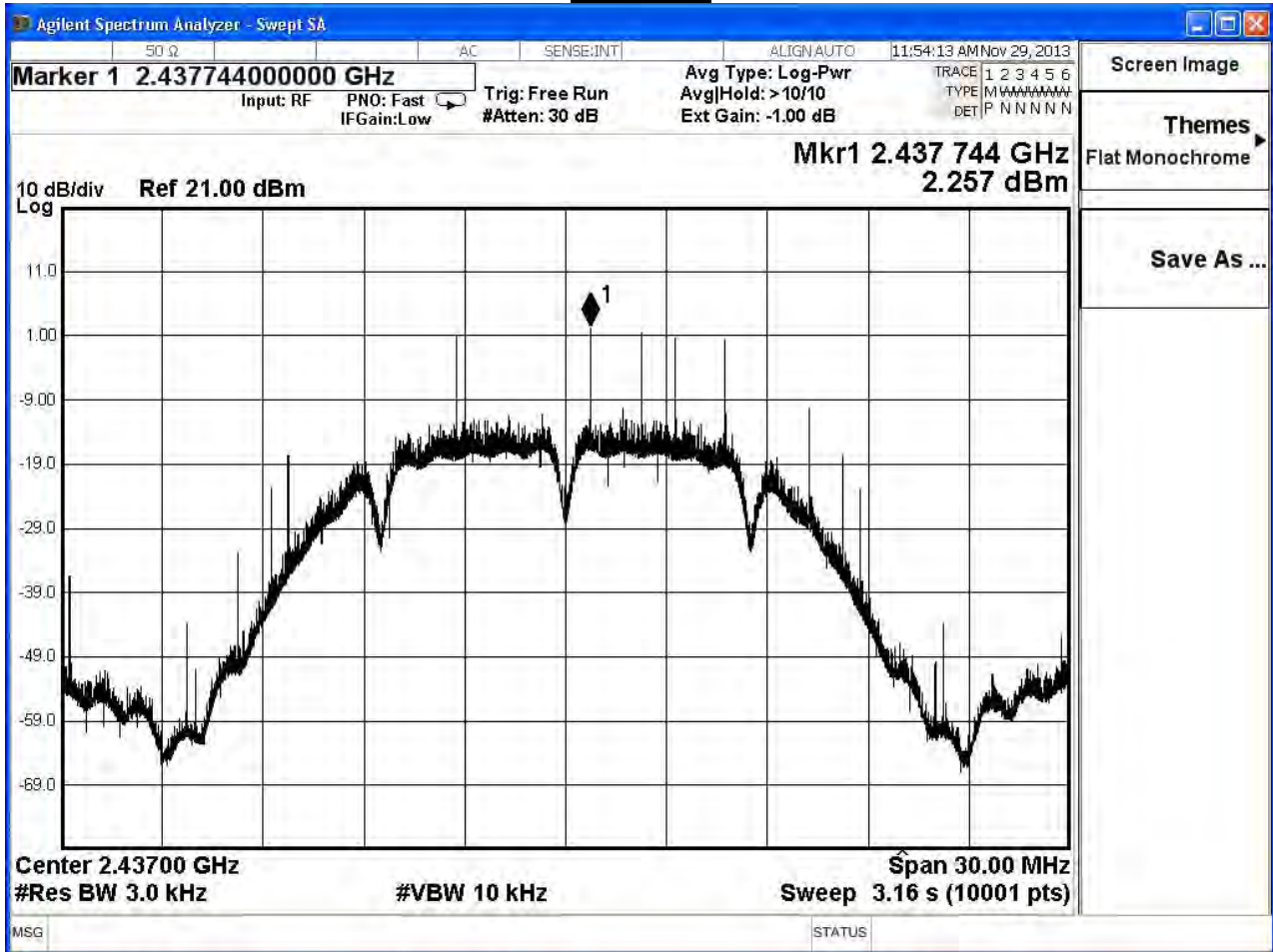
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11b				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
1	2412	1.23	≤ 8	Pass
6	2437	2.26	≤ 8	Pass
11	2462	2.08	≤ 8	Pass

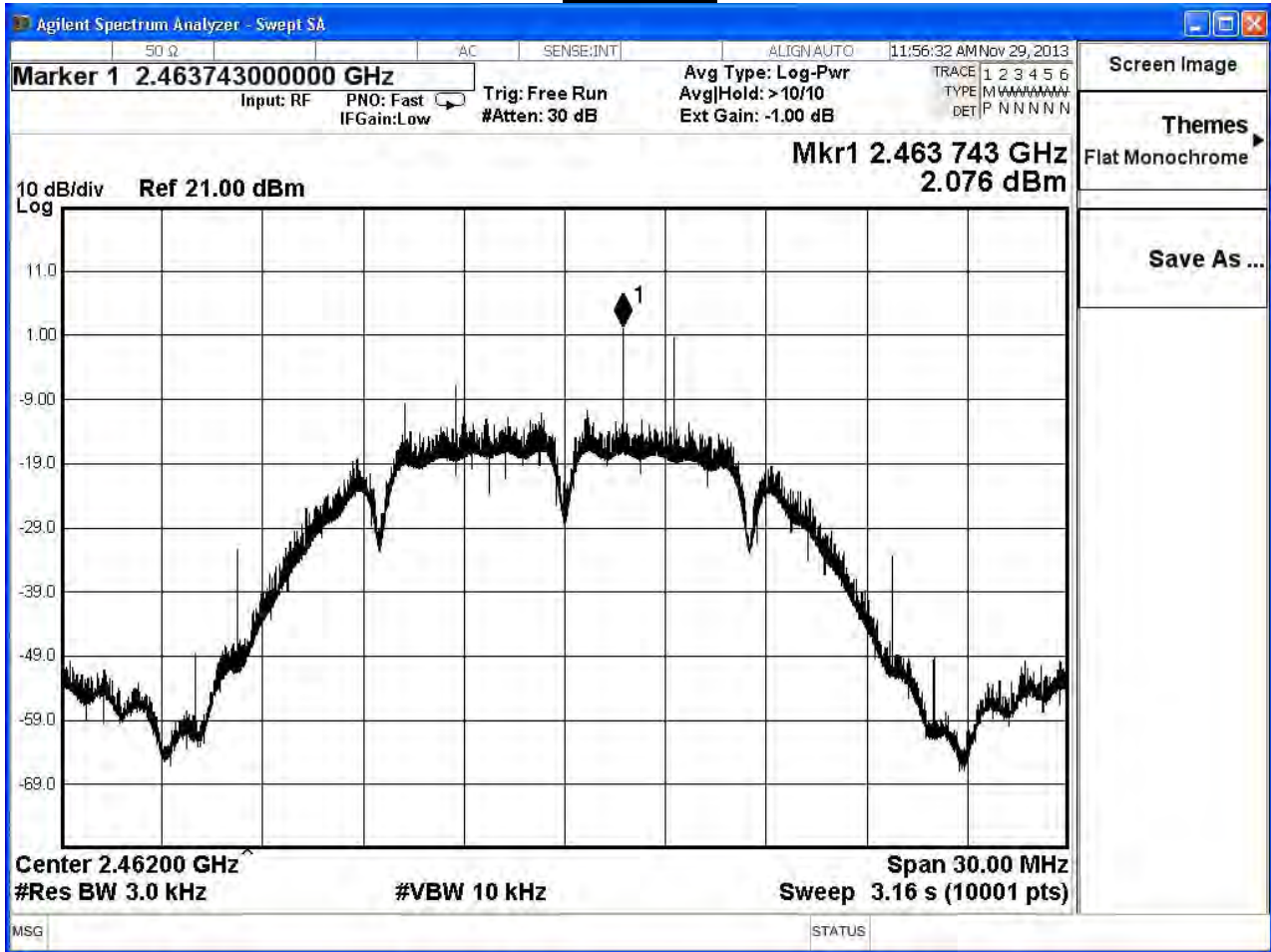
Channel 1



Channel 6



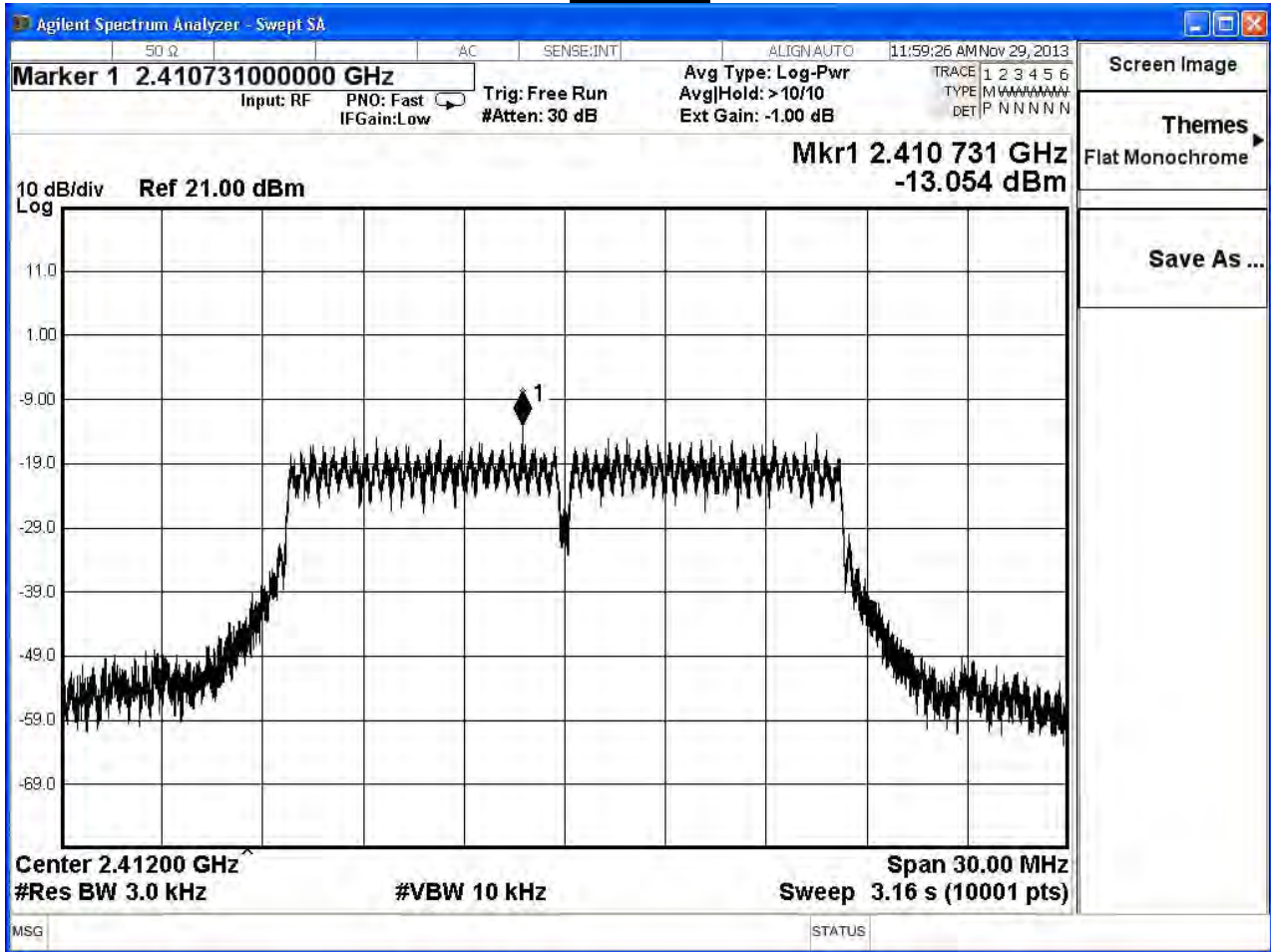
Channel 11



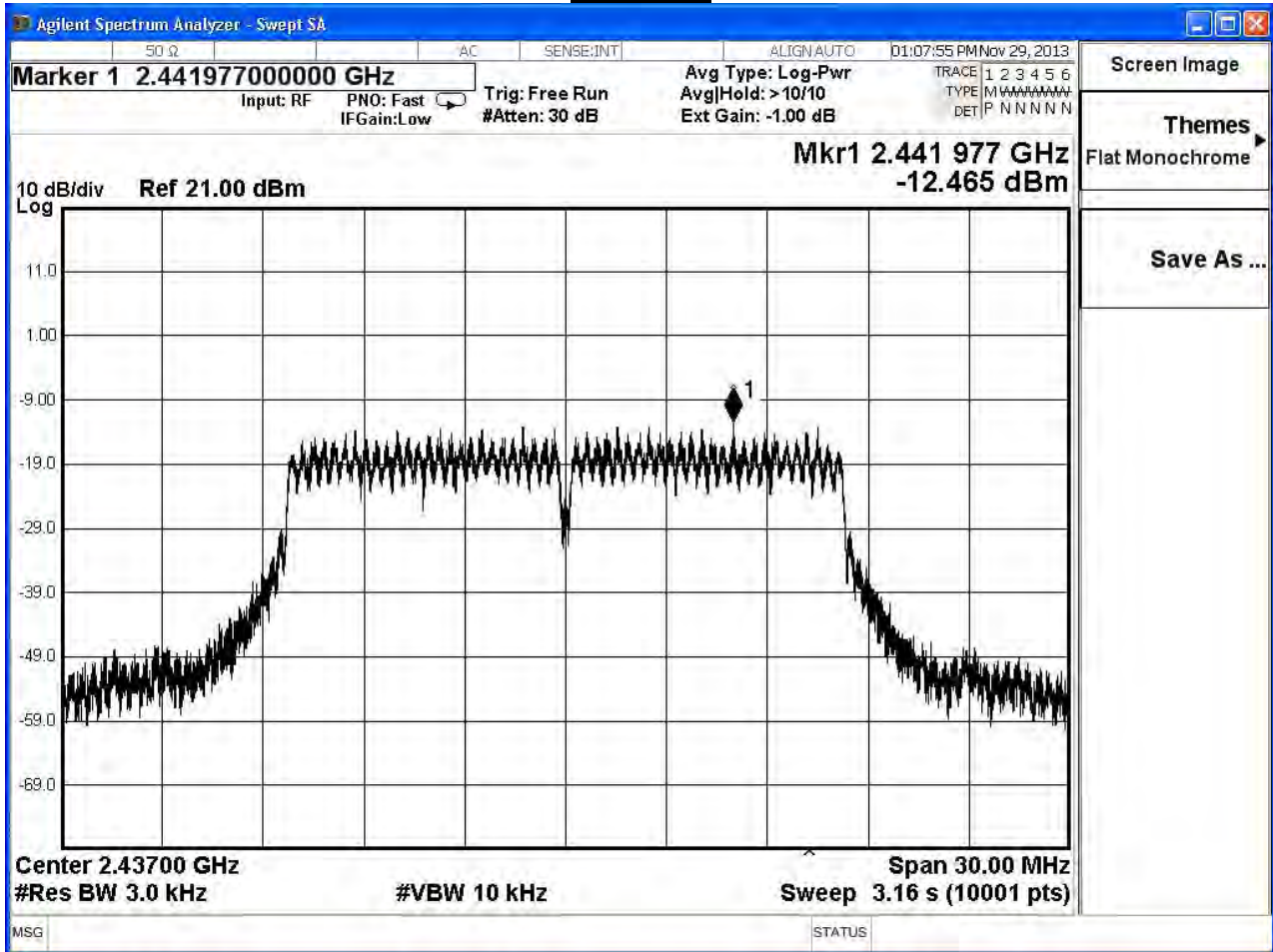
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
1	2412	-13.05	≤ 8	Pass
6	2437	-12.45	≤ 8	Pass
11	2462	-12.78	≤ 8	Pass

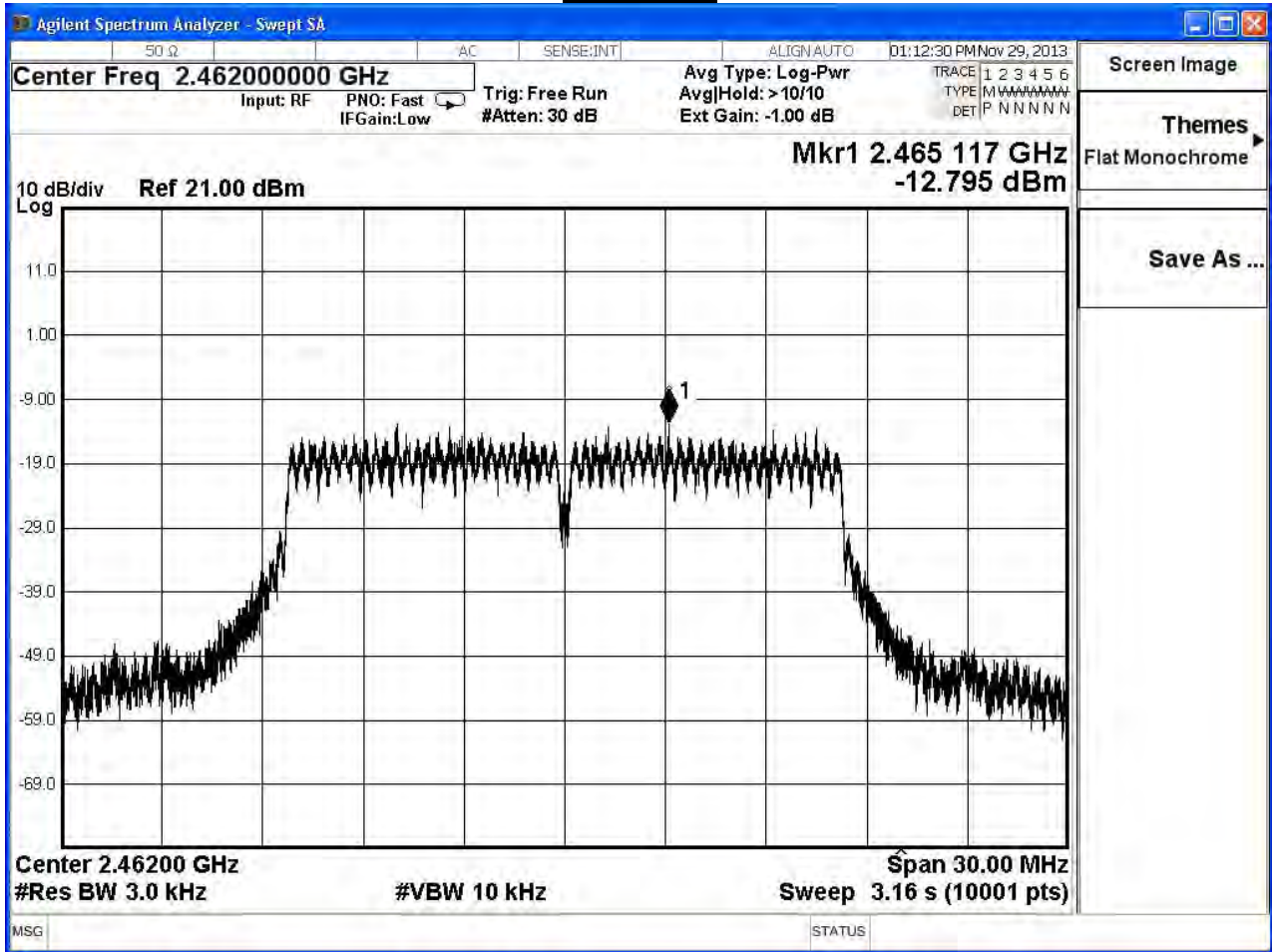
Channel 1



Channel 6



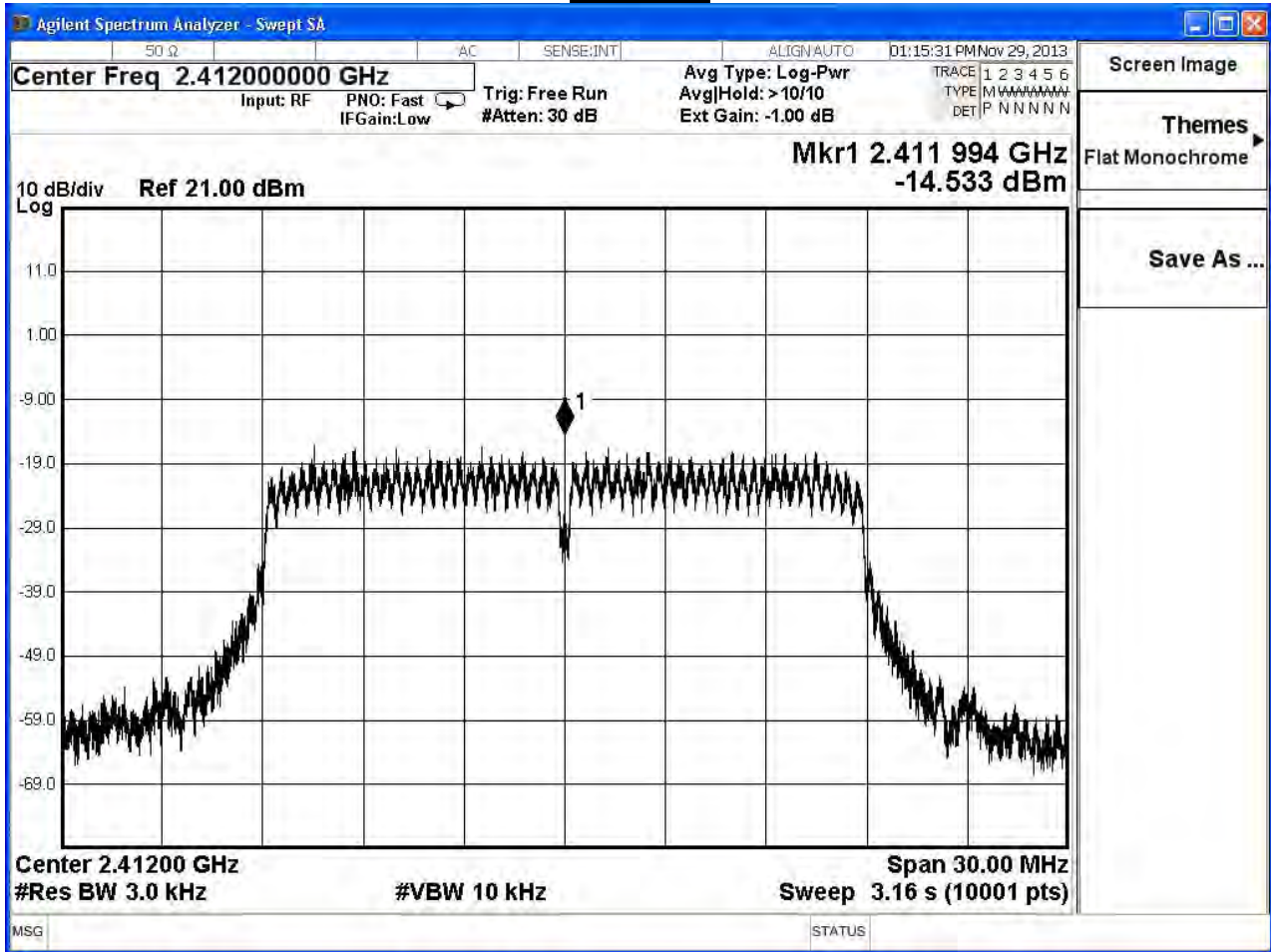
Channel 11



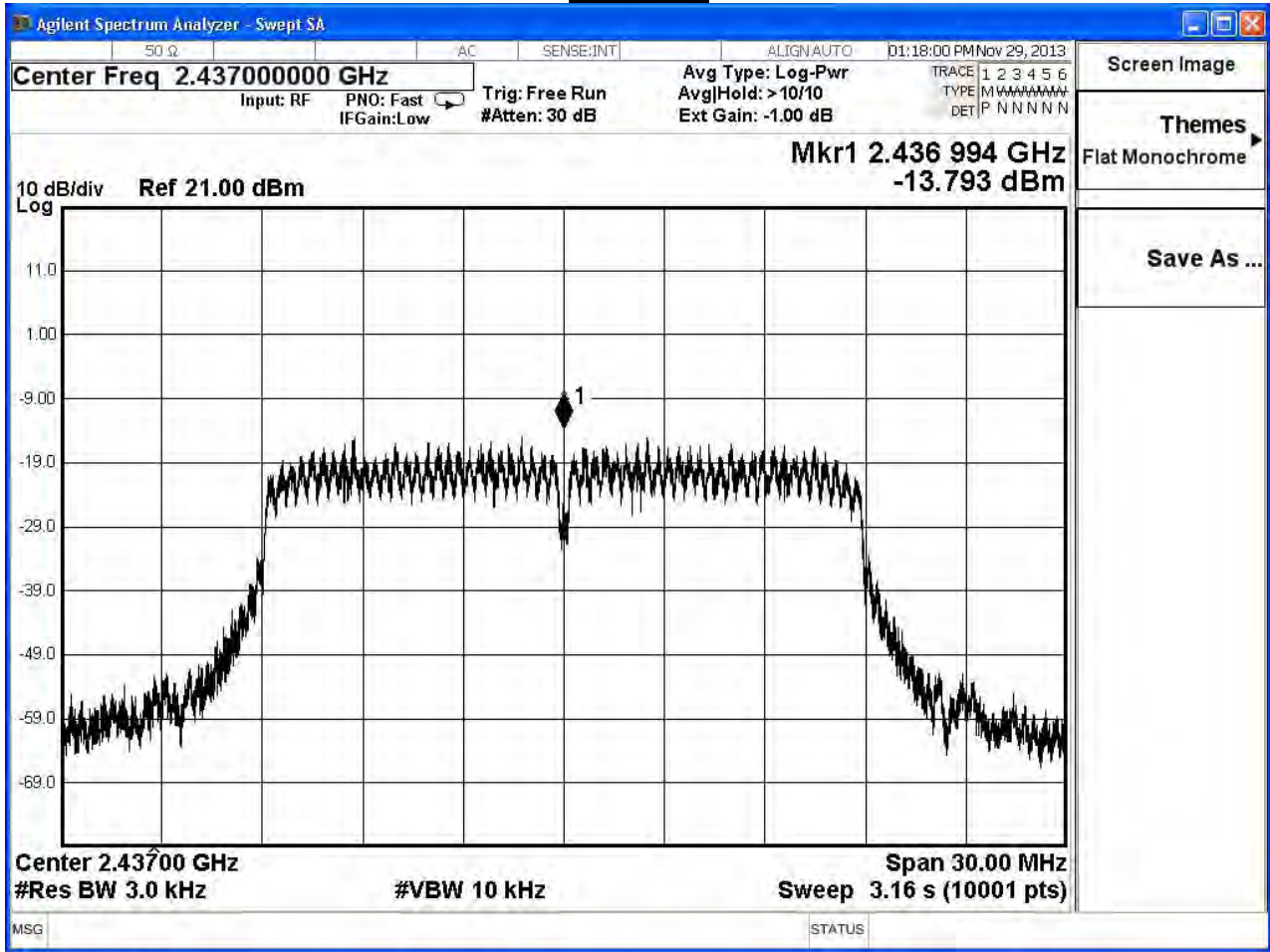
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11n(20MHz) Ant0				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
1	2412	-14.53	≤ 8	Pass
6	2437	-13.79	≤ 8	Pass
11	2462	-14.70	≤ 8	Pass

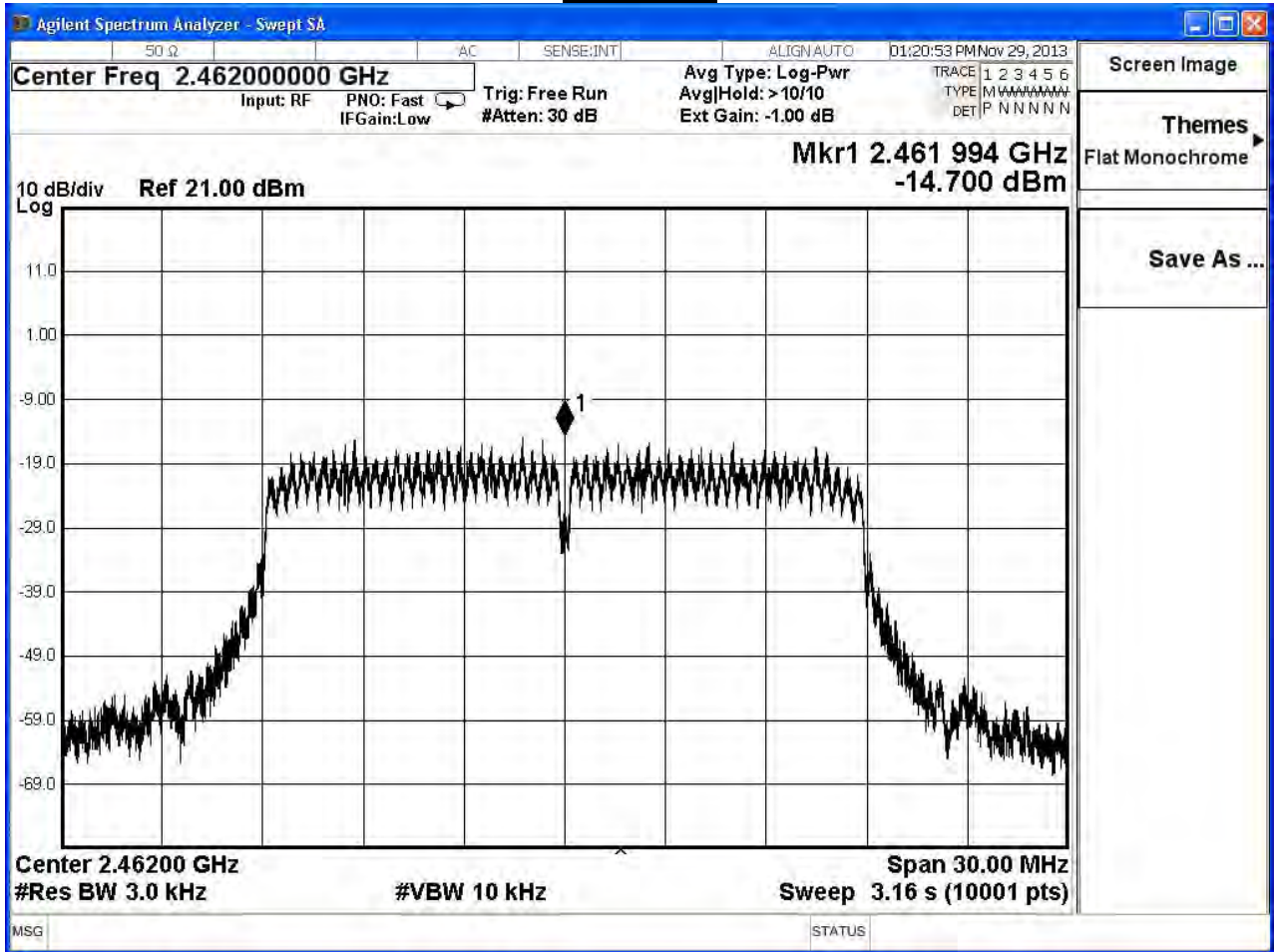
Channel 1



Channel 6



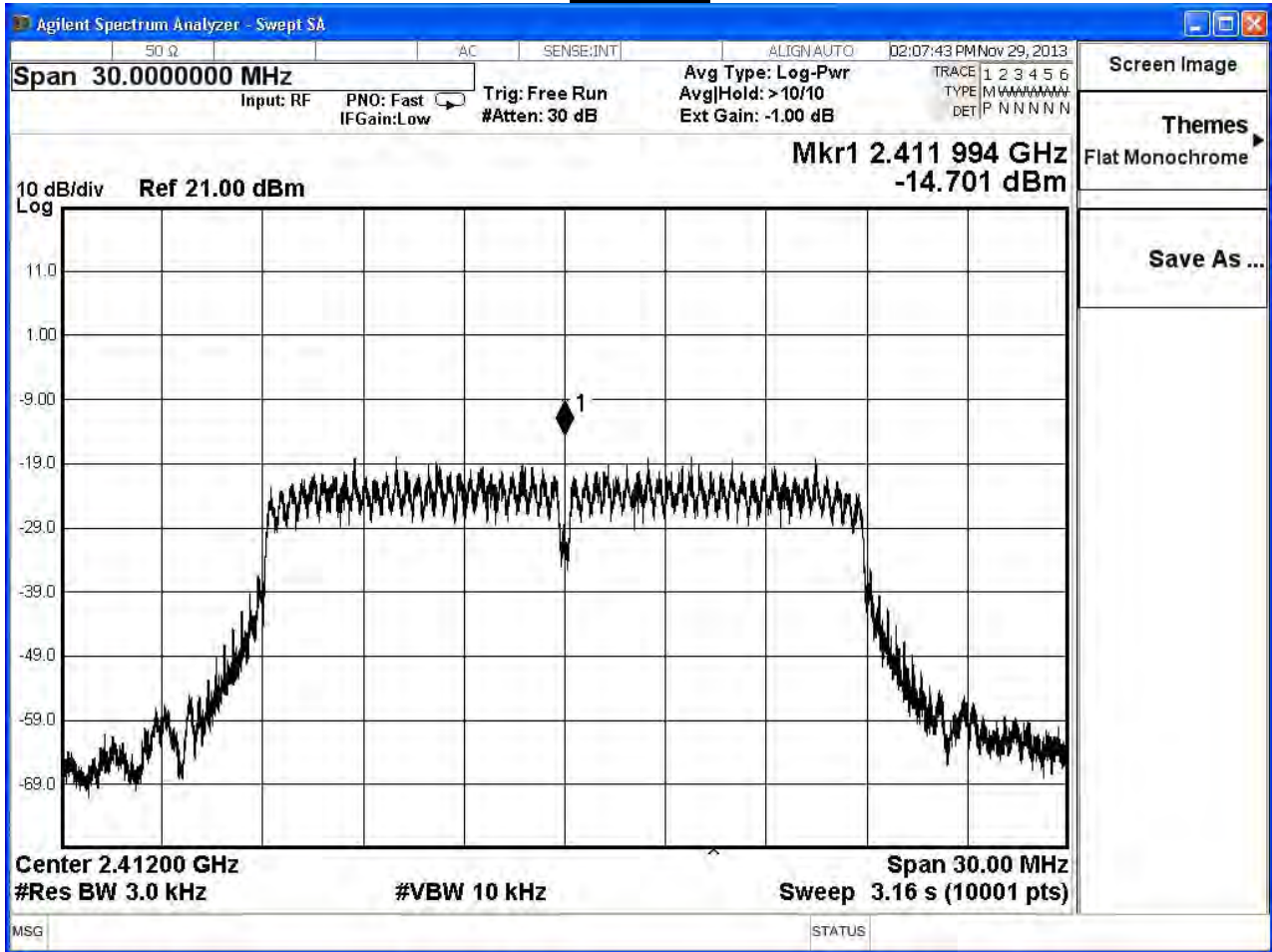
Channel 11



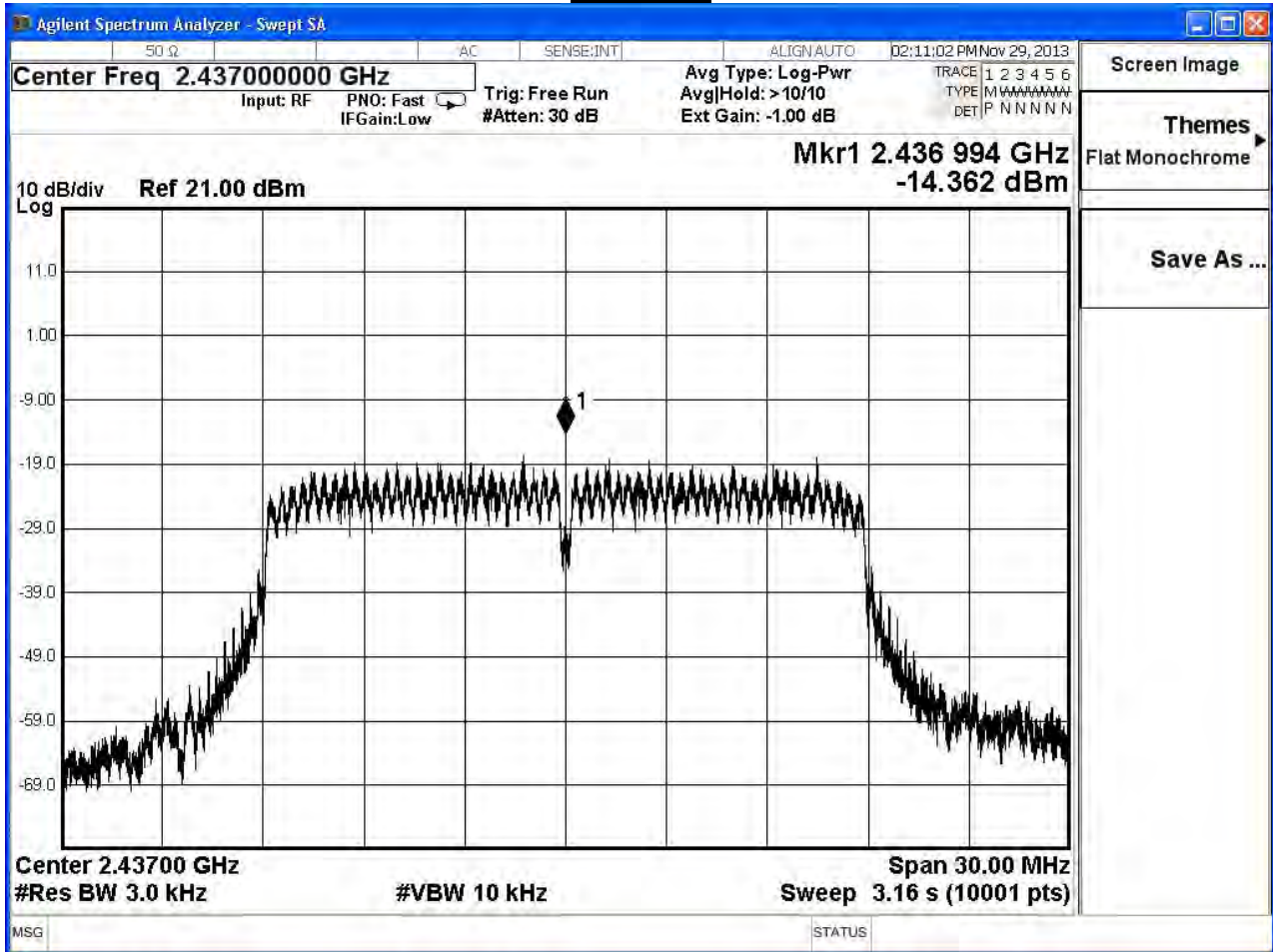
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11n(20MHz) Ant1				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
1	2412	-14.70	≤ 8	Pass
6	2437	-14.36	≤ 8	Pass
11	2462	-12.83	≤ 8	Pass

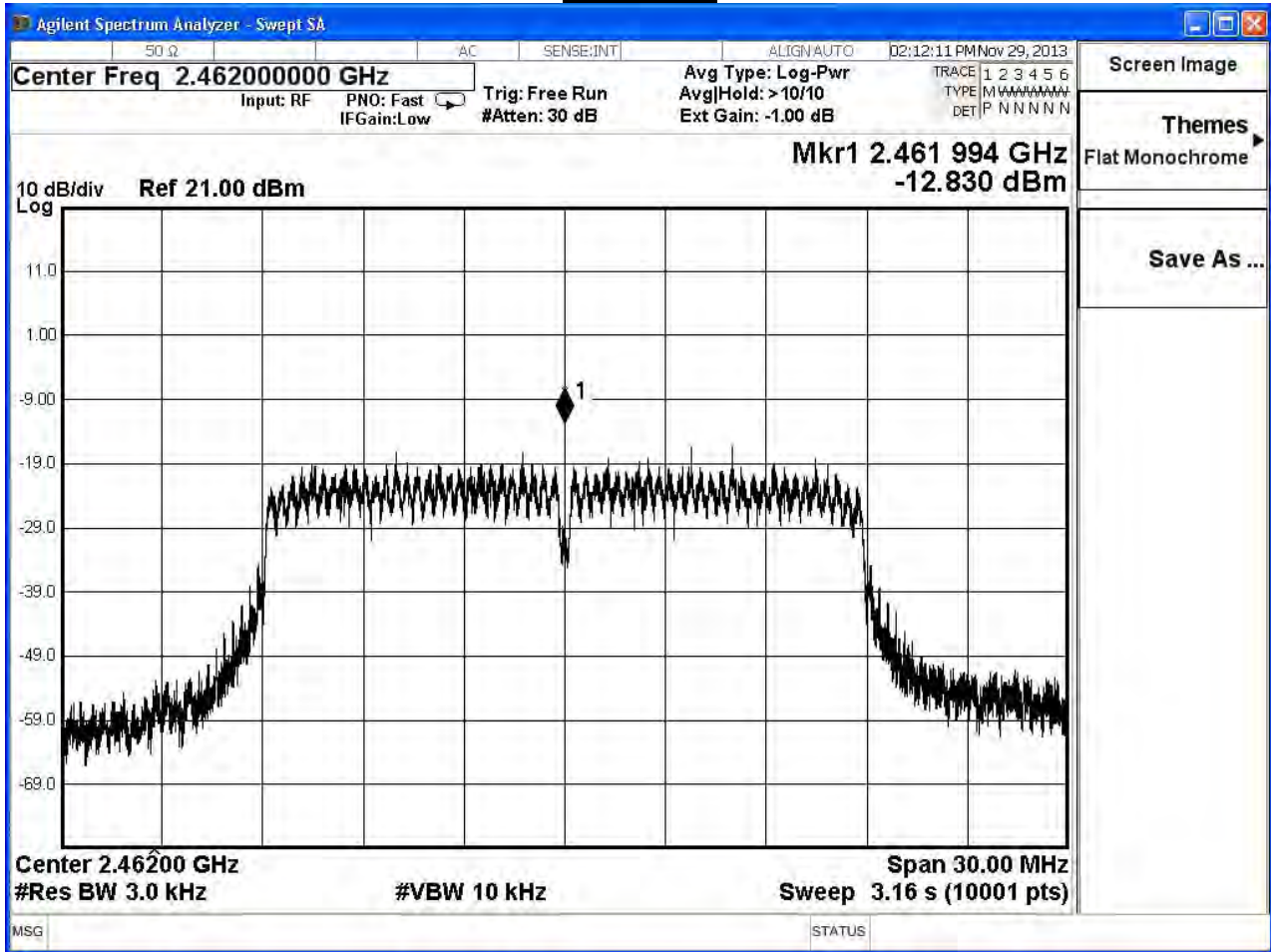
Channel 1



Channel 6



Channel 11



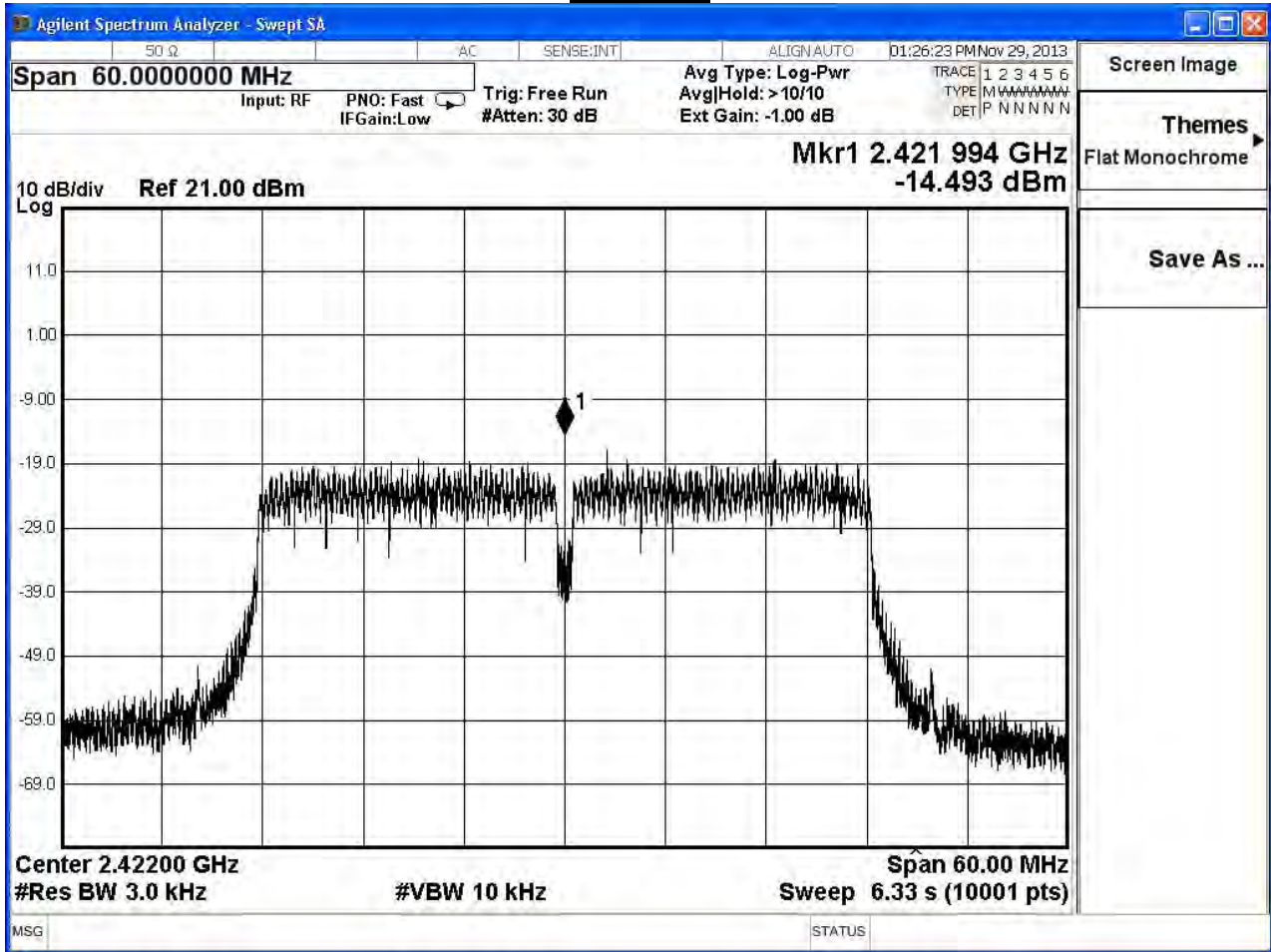
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11n(20MHz) Ant0+1 (Worse Condition+10log(Ant N))=Ant1				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
1	2412	-11.70	≤8	Pass
6	2437	-11.36	≤8	Pass
11	2462	-9.83	≤8	Pass

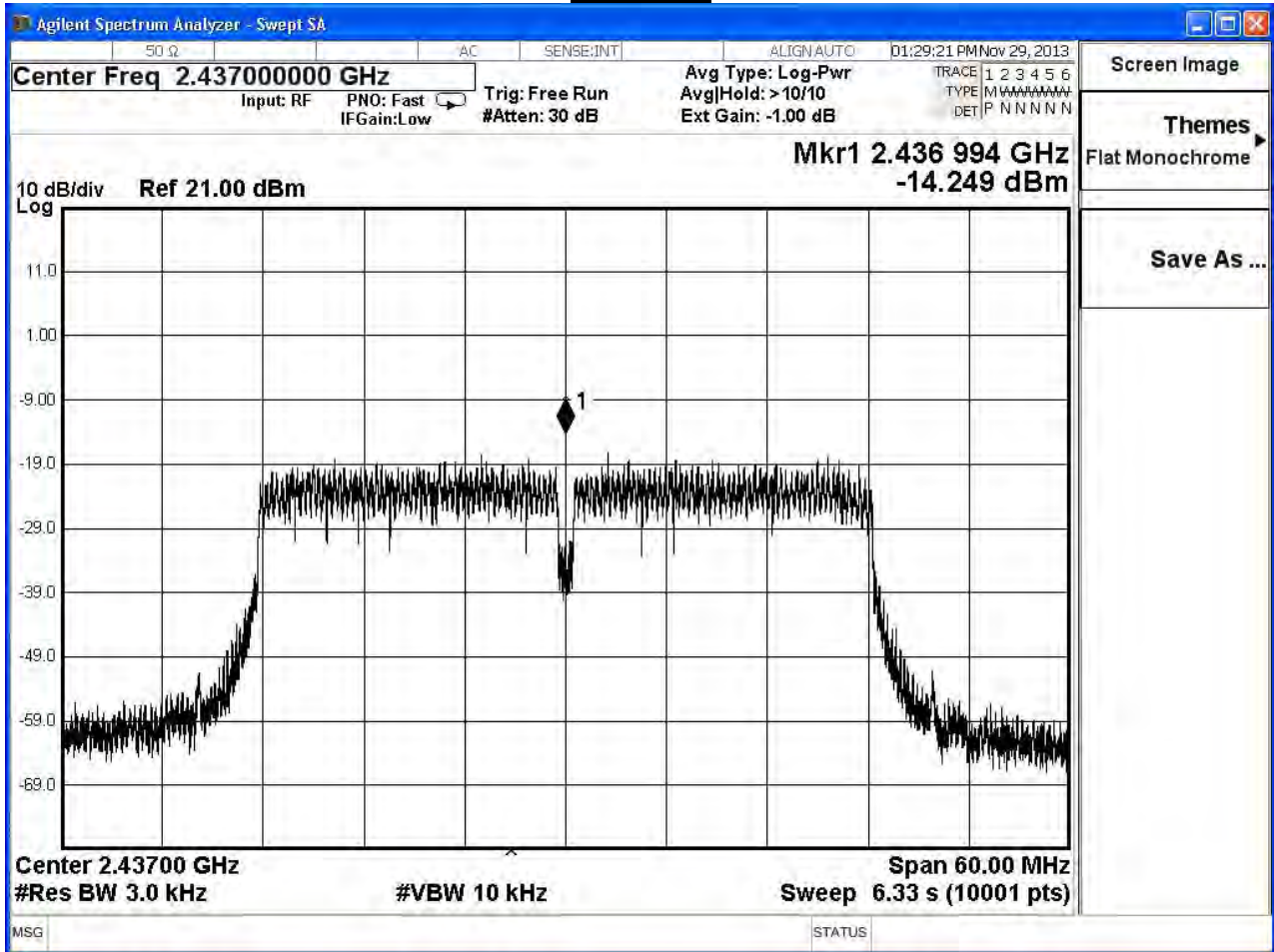
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11n(40MHz) Ant0				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
3	2422	-14.49	≤ 8	Pass
6	2437	-14.23	≤ 8	Pass
9	2452	-14.46	≤ 8	Pass

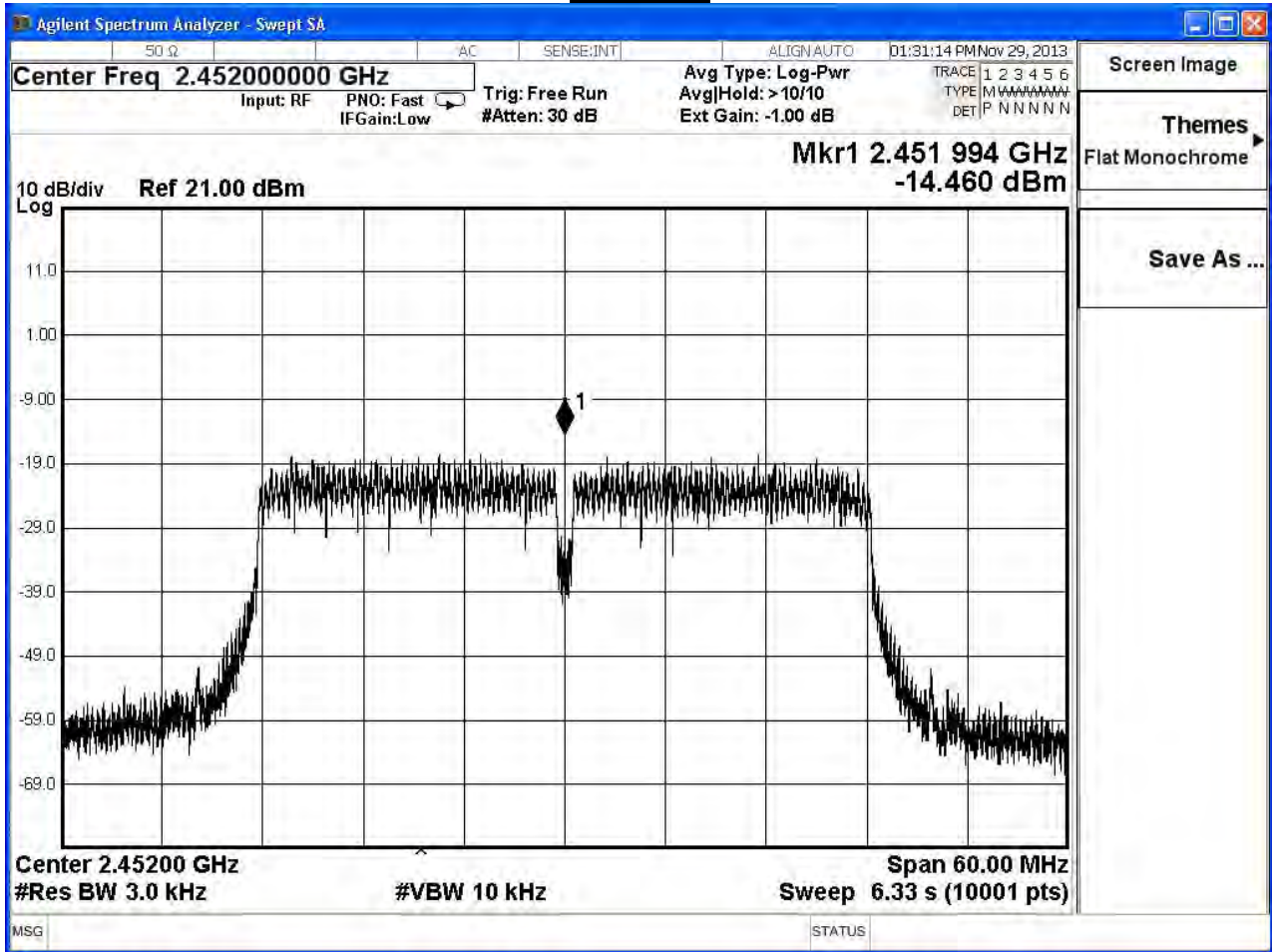
Channel 3



Channel 6



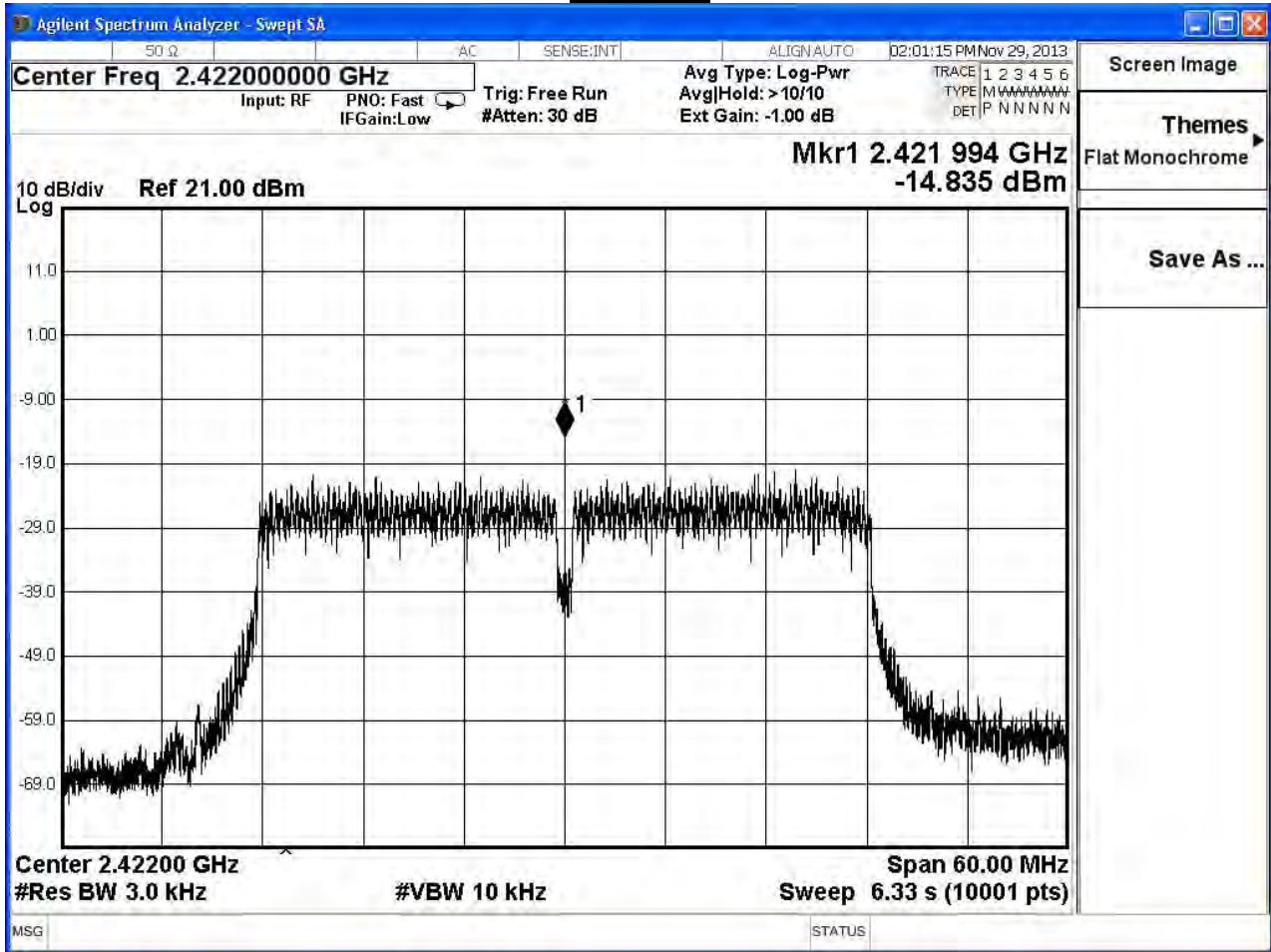
Channel 9



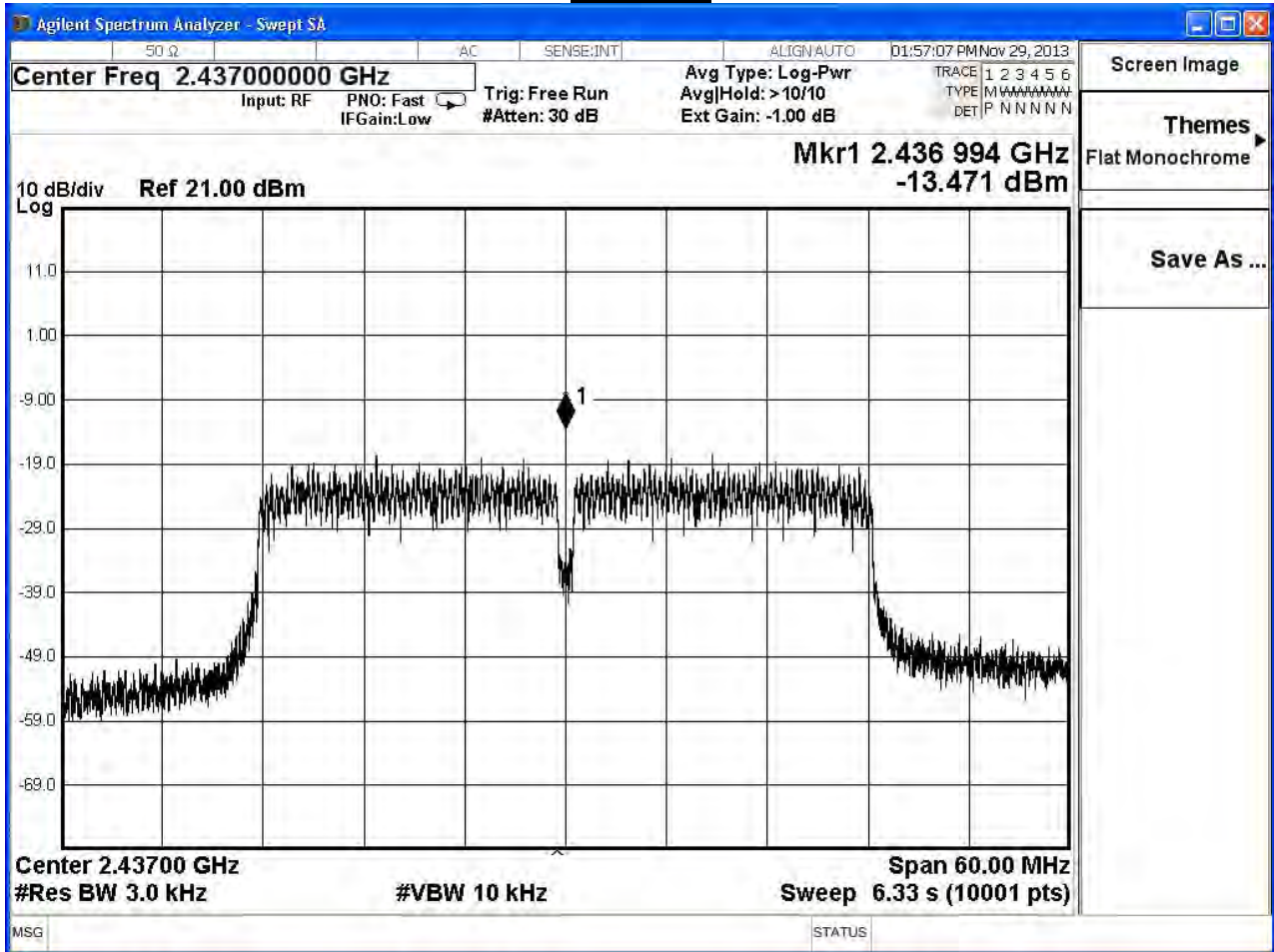
Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11n(40MHz) Ant1				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
3	2422	-14.82	≤ 8	Pass
6	2437	-13.47	≤ 8	Pass
9	2452	-12.32	≤ 8	Pass

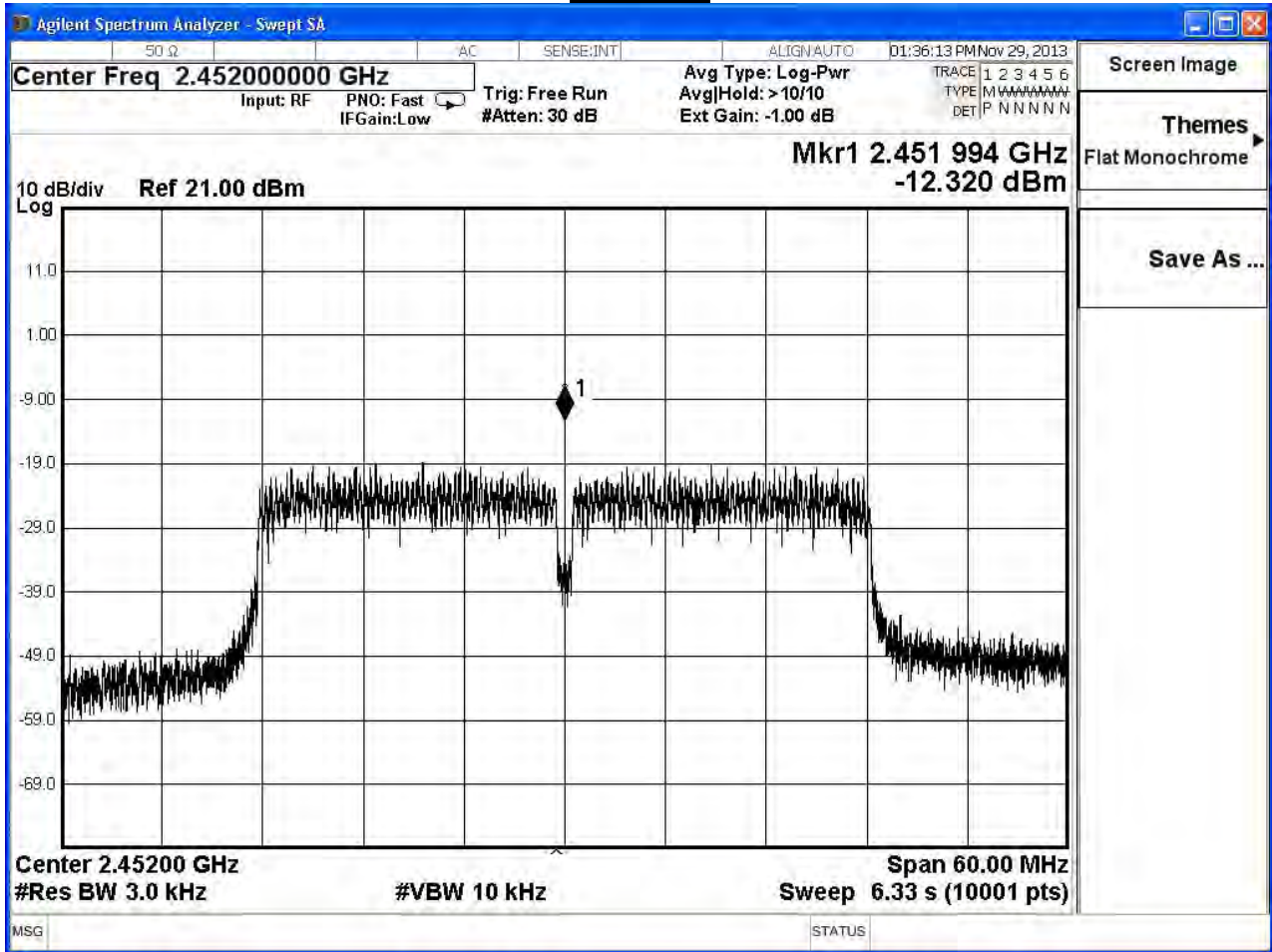
Channel 3



Channel 6



Channel 9



Product	Wireless N GPON HGU with 4-port GbE Switch		
Test Item	Power Density		
Test Mode	Mode 1: Transmit		
Date of Test	2013/11/29	Test Site	SR7

IEEE 802.11n(40MHz) Ant0+1 (Worse Condition+10log(Ant N))=Ant1				
Channel No.	Frequency (MHz)	Measurement (dBm)	Limit (dBm)	Result
3	2422	-11.82	≤8	Pass
6	2437	-10.47	≤8	Pass
9	2452	-9.32	≤8	Pass