6. Band Edge

6.1. Test Equipment

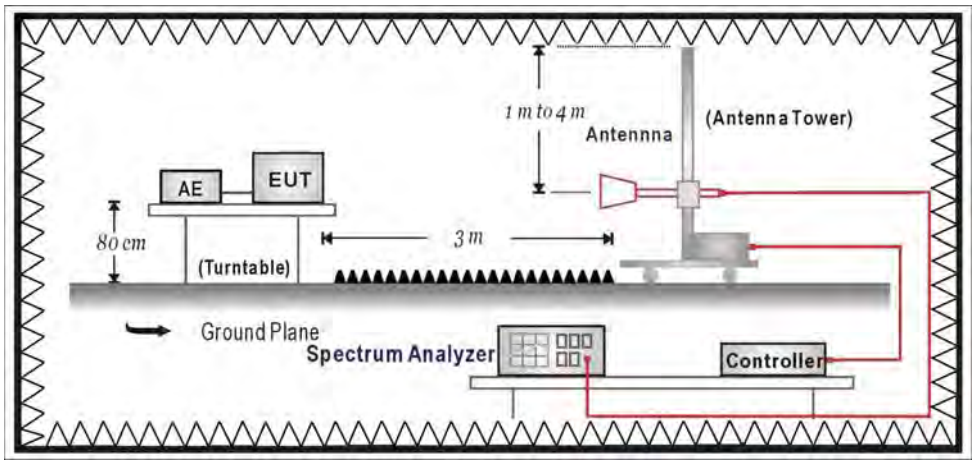
The following test equipments are used during the test:

Band Edge / CB1 (For 2.4G/ 5.8G)

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. 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 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

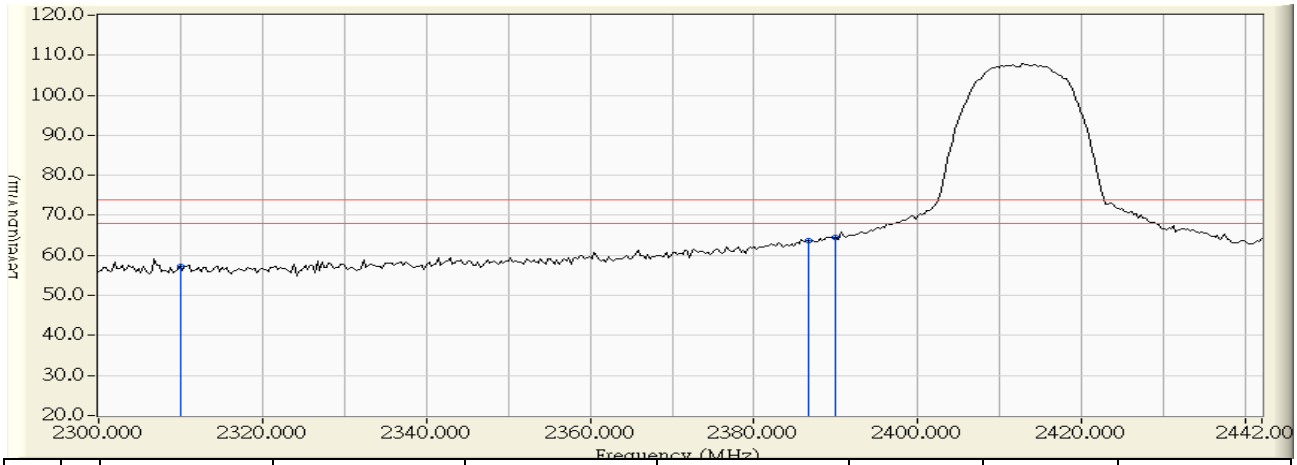
The measurement uncertainty

± 3.9 dB above 1GHz

6.7. Test Result

Radiated is defined as

Site : CB1	**Time : 2013/03/27 - 15:17**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)** **802.11b_2412MHz**

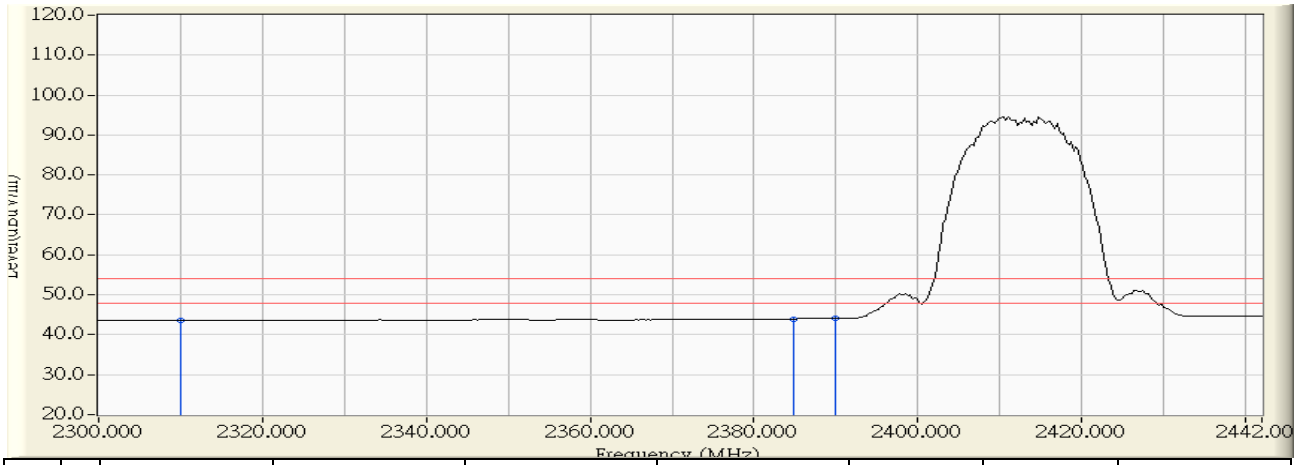


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	27.506	57.285	-16.715	74.000	PEAK
2		2386.620	30.544	33.230	63.774	-10.226	74.000	PEAK
3	*	2390.000	30.578	34.009	64.587	-9.413	74.000	PEAK

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 : 2013/03/27 - 15:18**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11b_2412MHz**

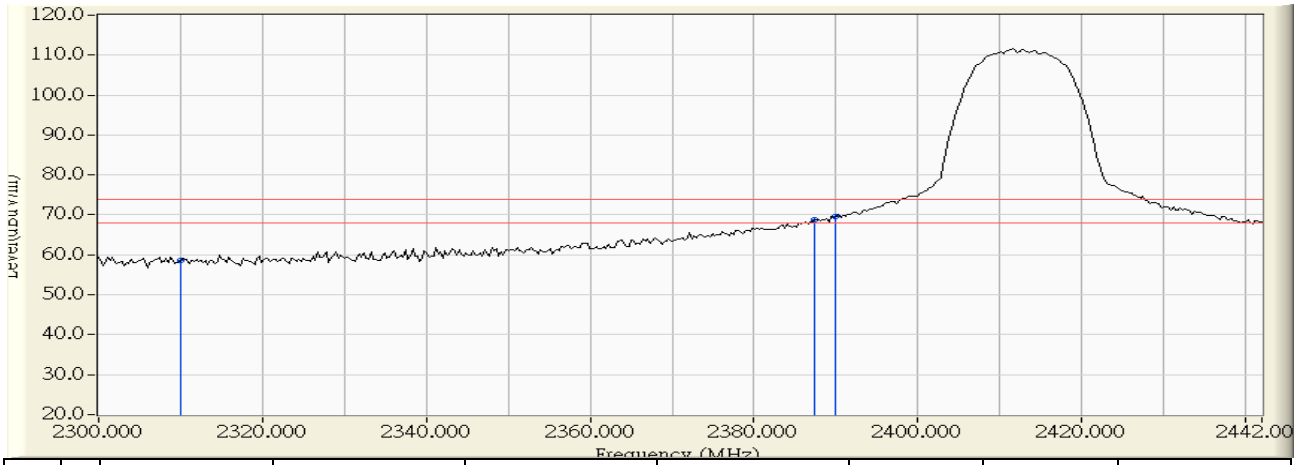


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	13.744	43.523	-10.477	54.000	AVERAGE
2		2384.916	30.527	13.441	43.968	-10.032	54.000	AVERAGE
3	*	2390.000	30.578	13.519	44.097	-9.903	54.000	AVERAGE

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 : 2013/03/27 - 15:21**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)** **802.11b_2412MHz**

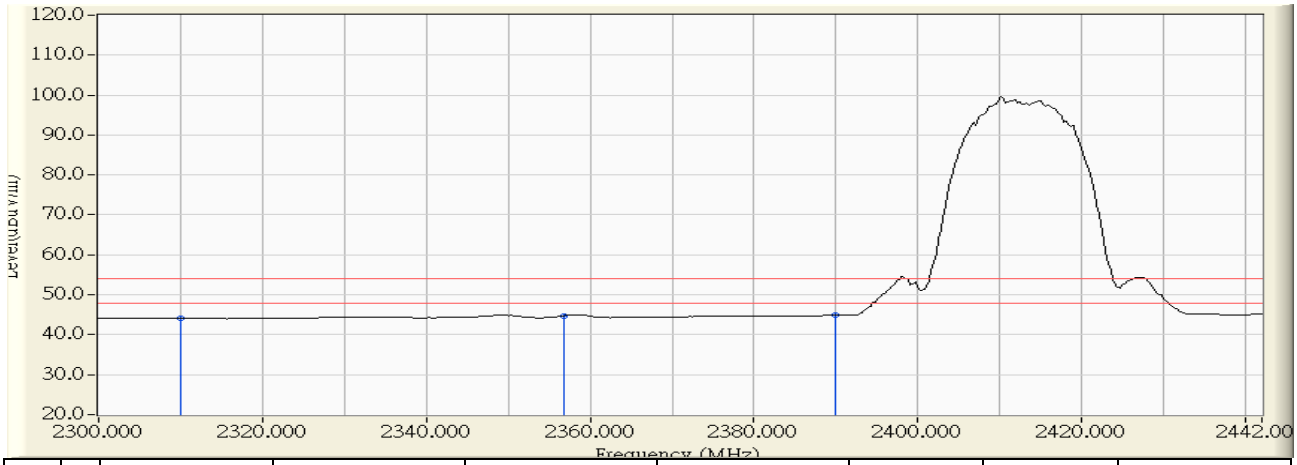


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	28.828	58.607	-15.393	74.000	PEAK
2		2387.472	30.553	38.240	68.793	-5.207	74.000	PEAK
3	*	2390.000	30.578	38.887	69.465	-4.535	74.000	PEAK

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 : 2013/03/27 - 15:22**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11b_2412MHz**

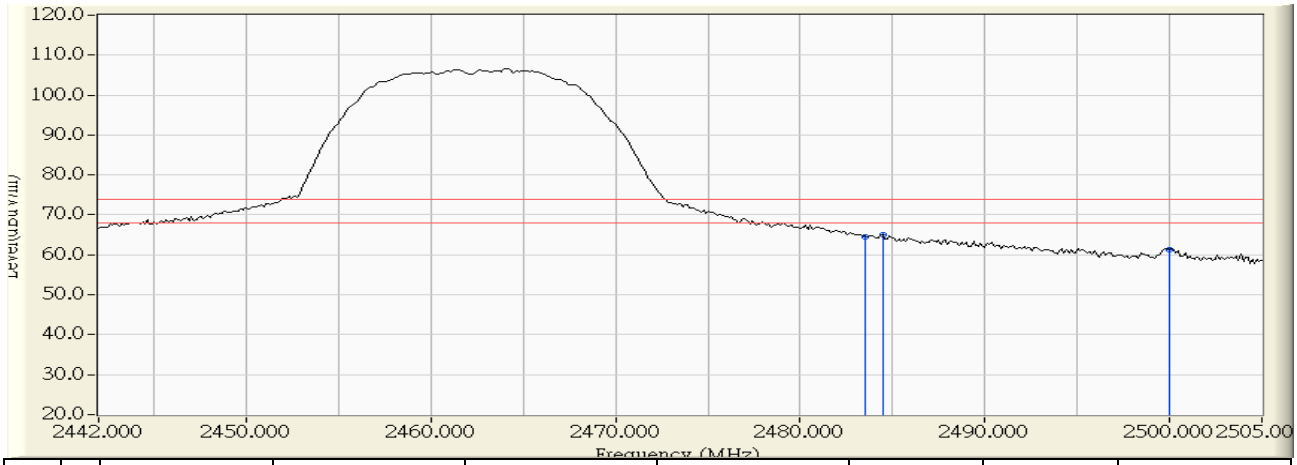


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	14.251	44.030	-9.970	54.000	AVERAGE
2		2356.800	30.247	14.549	44.795	-9.205	54.000	AVERAGE
3	*	2390.000	30.578	14.270	44.848	-9.152	54.000	AVERAGE

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 : 2013/03/27 - 15:06**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11b_2462MHz**

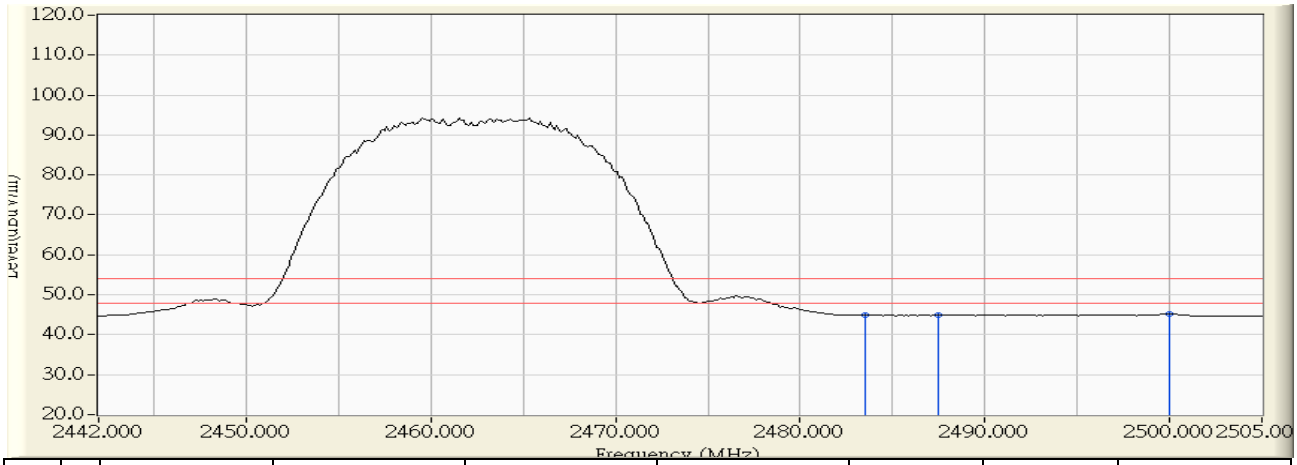


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	33.119	64.631	-9.369	74.000	PEAK
2	*	2484.462	31.521	33.463	64.984	-9.016	74.000	PEAK
3		2500.000	31.638	29.736	61.375	-12.625	74.000	PEAK

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 : 2013/03/27 - 15:07**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11b_2462MHz**

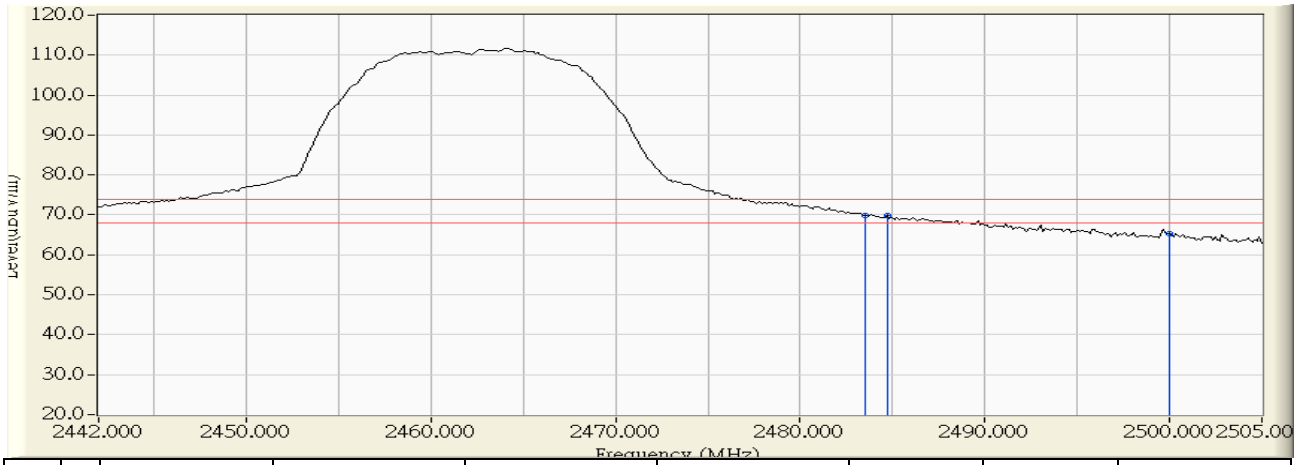


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	13.341	44.853	-9.147	54.000	AVERAGE
2		2487.486	31.552	13.285	44.837	-9.163	54.000	AVERAGE
3	*	2500.000	31.638	13.548	45.187	-8.813	54.000	AVERAGE

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 : 2013/03/27 - 15:09**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11b_2462MHz**

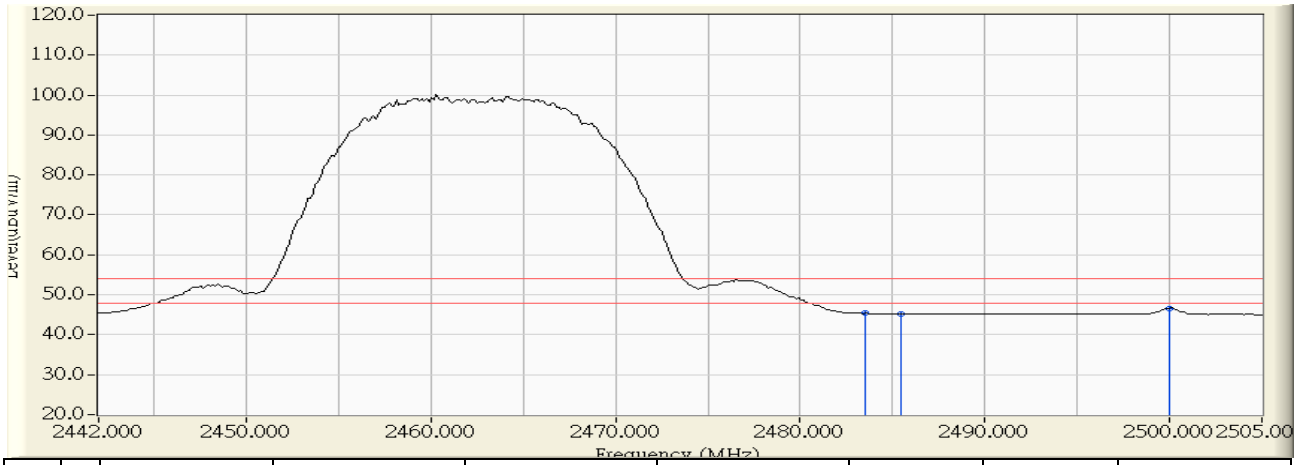


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	38.429	69.941	-4.059	74.000	PEAK
2		2484.714	31.524	38.359	69.883	-4.117	74.000	PEAK
3		2500.000	31.638	33.578	65.217	-8.783	74.000	PEAK

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 : 2013/03/27 - 15:11**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11b_2462MHz**

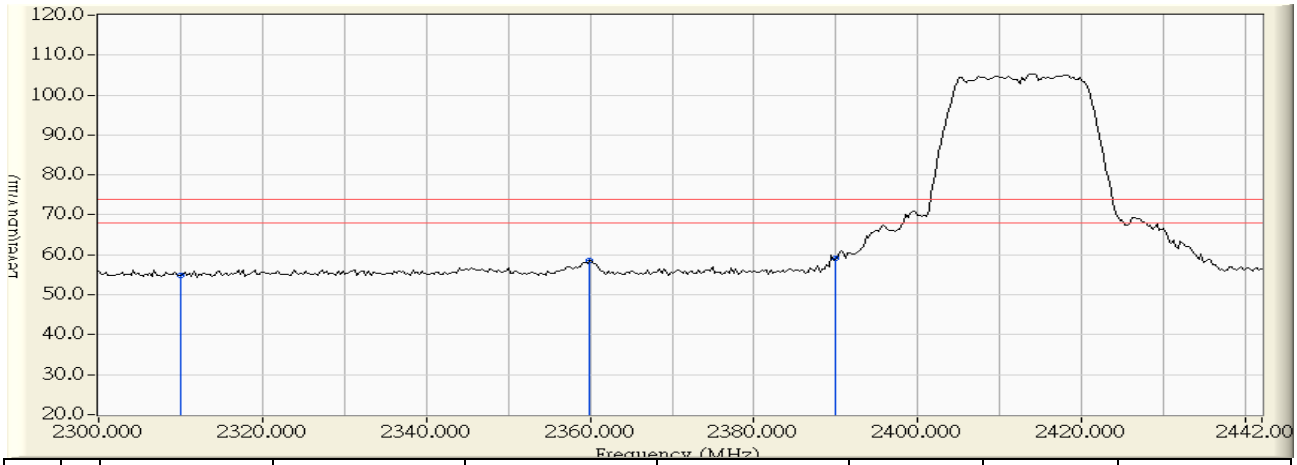


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	13.824	45.336	-8.664	54.000	AVERAGE
2		2485.470	31.531	13.704	45.236	-8.764	54.000	AVERAGE
3	*	2500.000	31.638	14.968	46.607	-7.393	54.000	AVERAGE

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 : 2013/03/27 - 14:49**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11g_2412MHz**

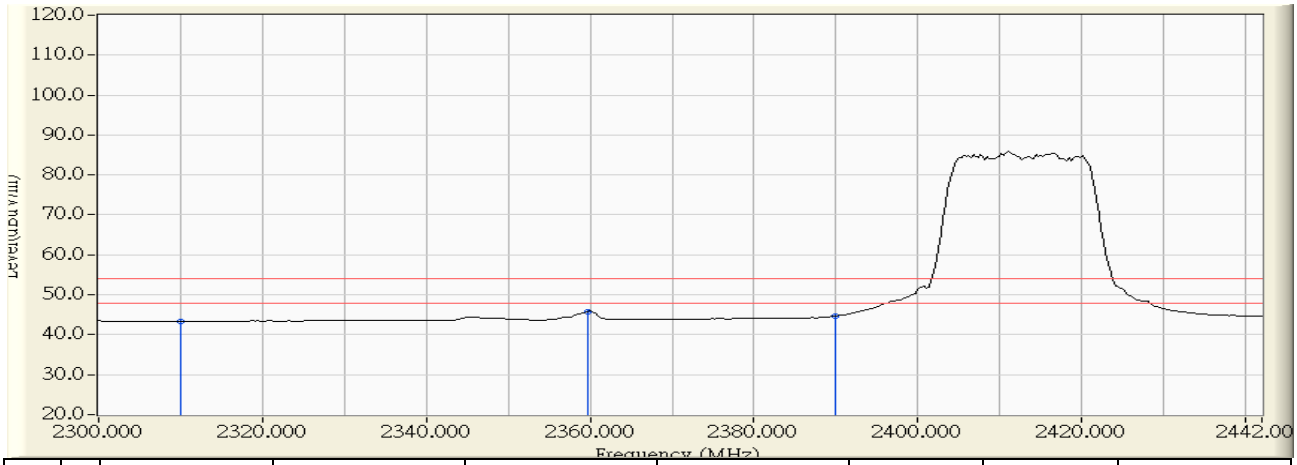


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	25.029	54.808	-19.192	74.000	PEAK
2		2359.924	30.277	28.304	58.582	-15.418	74.000	PEAK
3	*	2390.000	30.578	28.587	59.165	-14.835	74.000	PEAK

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 : 2013/03/27 - 14:51**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11g_2412MHz**

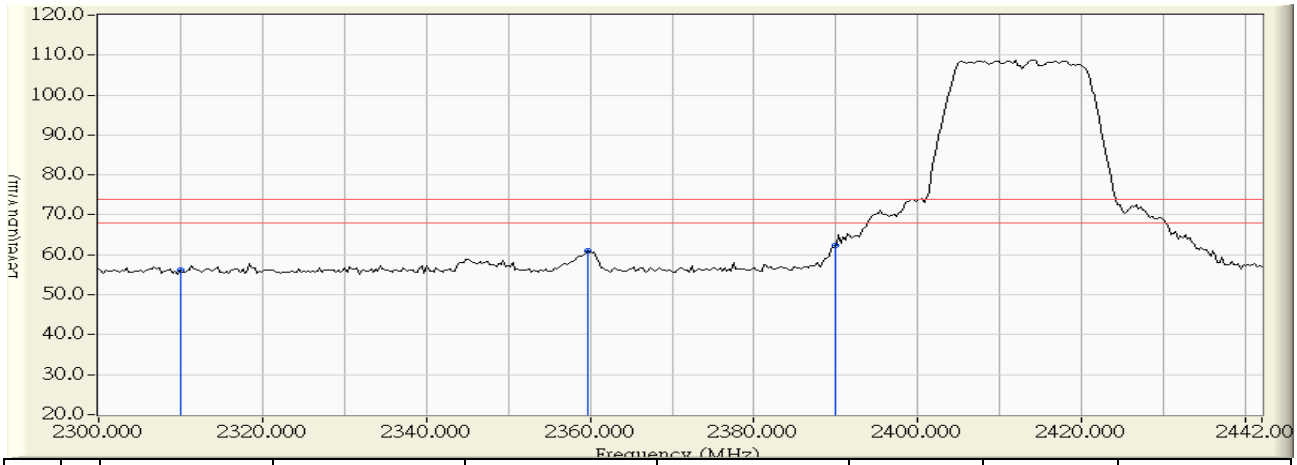


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	13.590	43.369	-10.631	54.000	AVERAGE
2	*	2359.640	30.275	15.528	45.803	-8.197	54.000	AVERAGE
3		2390.000	30.578	14.156	44.734	-9.266	54.000	AVERAGE

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 : 2013/03/27 - 14:53**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11g_2412MHz**

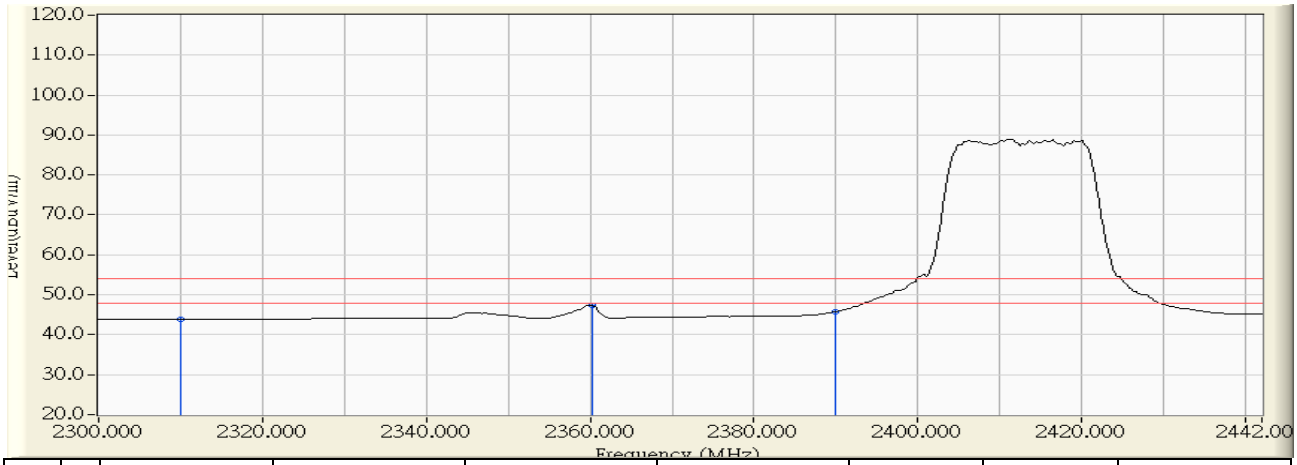


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	26.359	56.138	-17.862	74.000	PEAK
2		2359.640	30.275	30.792	61.067	-12.933	74.000	PEAK
3	*	2390.000	30.578	31.898	62.476	-11.524	74.000	PEAK

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 : 2013/03/27 - 14:54**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11g_2412MHz**

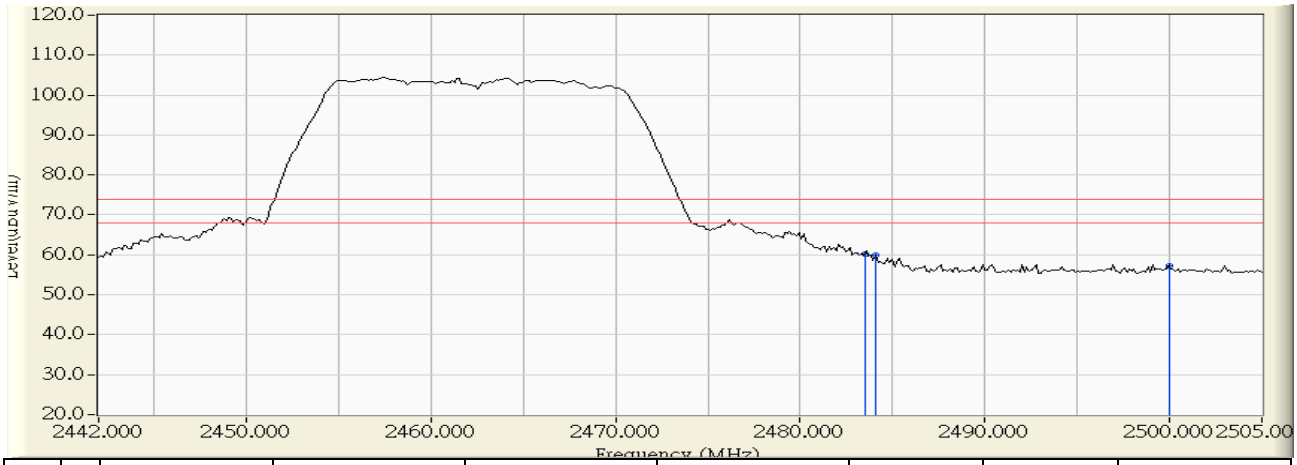


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	14.004	43.783	-10.217	54.000	AVERAGE
2	*	2360.208	30.280	17.018	47.298	-6.702	54.000	AVERAGE
3		2390.000	30.578	15.204	45.782	-8.218	54.000	AVERAGE

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 : 2013/03/27 - 14:58**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11g_2462MHz**

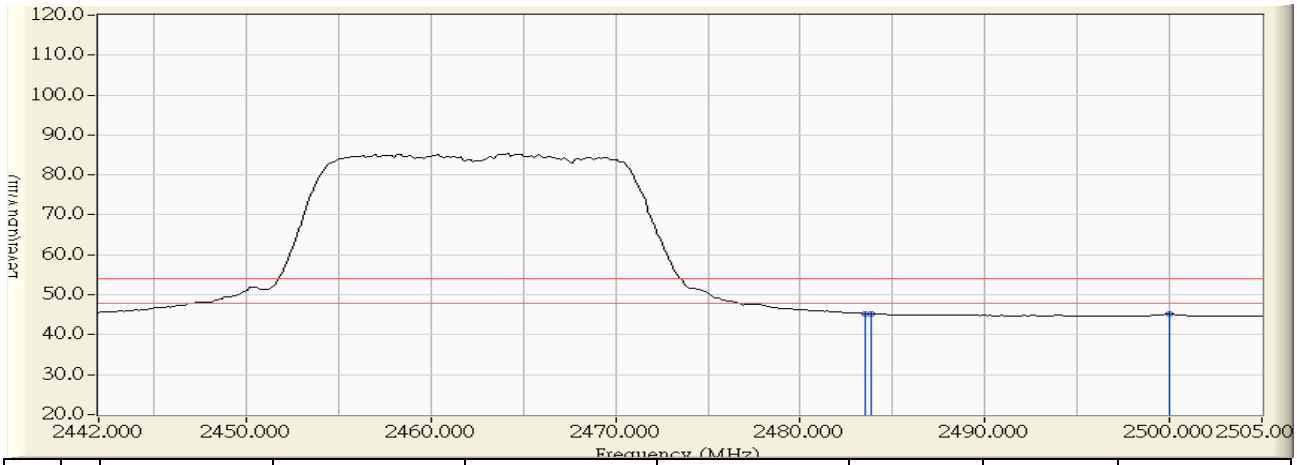


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	28.799	60.311	-13.689	74.000	PEAK
2		2484.084	31.518	28.509	60.027	-13.973	74.000	PEAK
3		2500.000	31.638	25.499	57.138	-16.862	74.000	PEAK

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 : 2013/03/27 - 14:59**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11g_2462MHz**

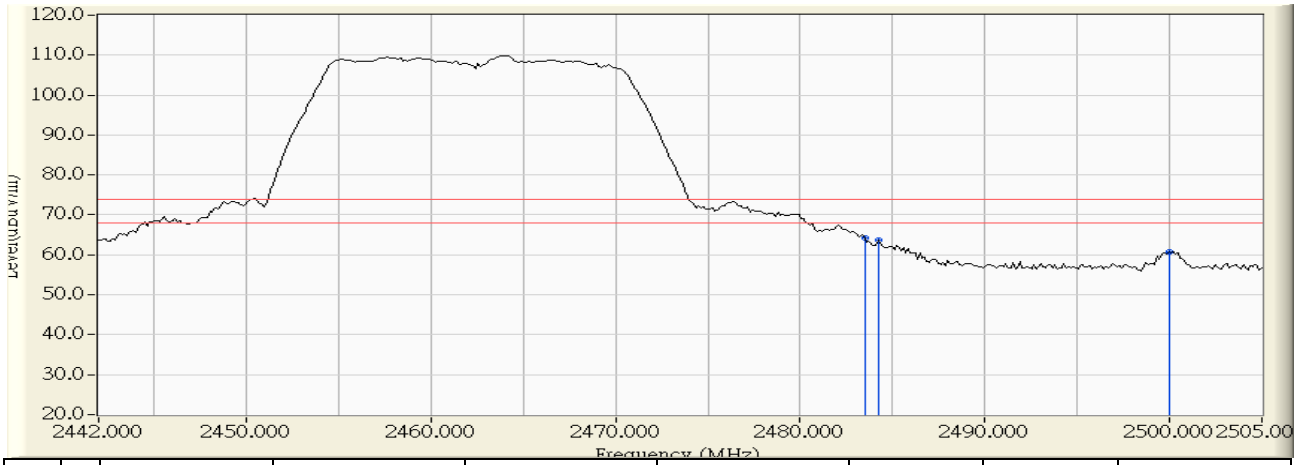


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	13.802	45.314	-8.686	54.000	AVERAGE
2		2483.832	31.515	13.695	45.210	-8.790	54.000	AVERAGE
3		2500.000	31.638	13.465	45.104	-8.896	54.000	AVERAGE

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 : 2013/03/27 - 15:01**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11g_2462MHz**

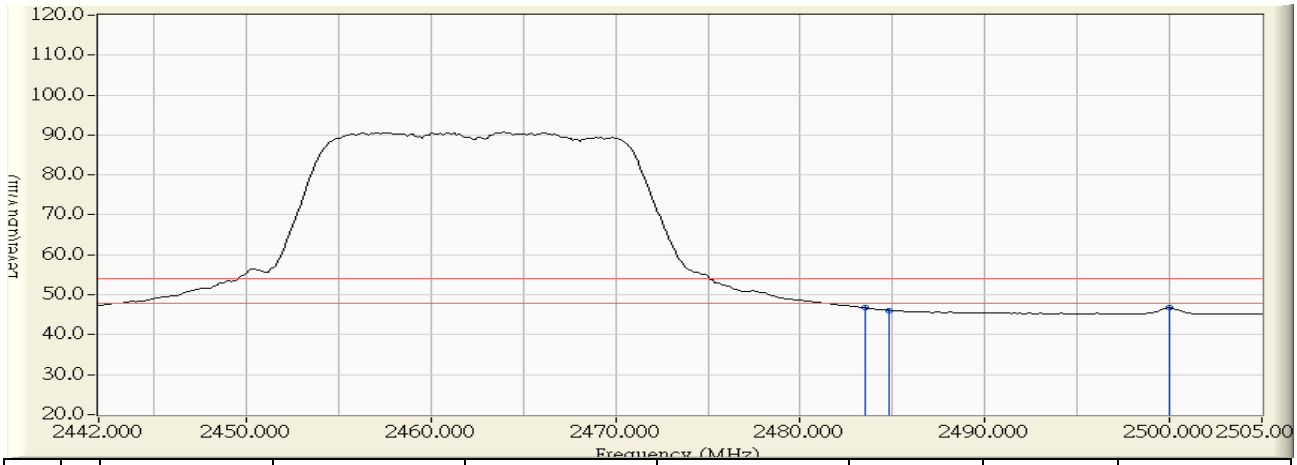


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	32.651	64.163	-9.837	74.000	PEAK
2		2484.210	31.519	32.128	63.647	-10.353	74.000	PEAK
3		2500.000	31.638	29.072	60.711	-13.289	74.000	PEAK

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 : 2013/03/27 - 15:02**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11g_2462MHz**

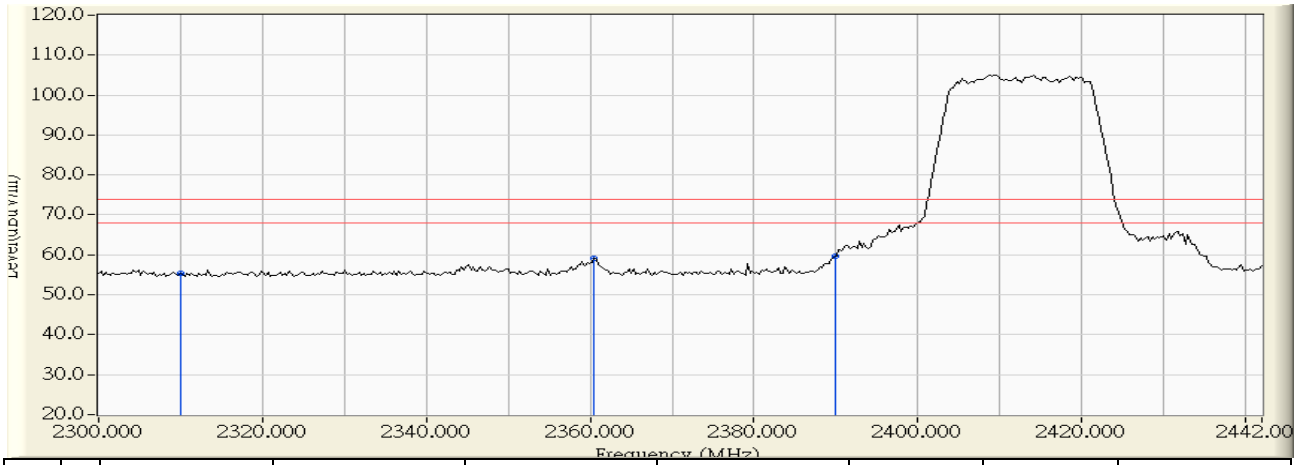


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	15.192	46.704	-7.296	54.000	AVERAGE
2		2484.840	31.526	14.577	46.102	-7.898	54.000	AVERAGE
3	*	2500.000	31.638	15.128	46.767	-7.233	54.000	AVERAGE

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 : 2013/03/27 - 15:26**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n20MHz_2412MHz**

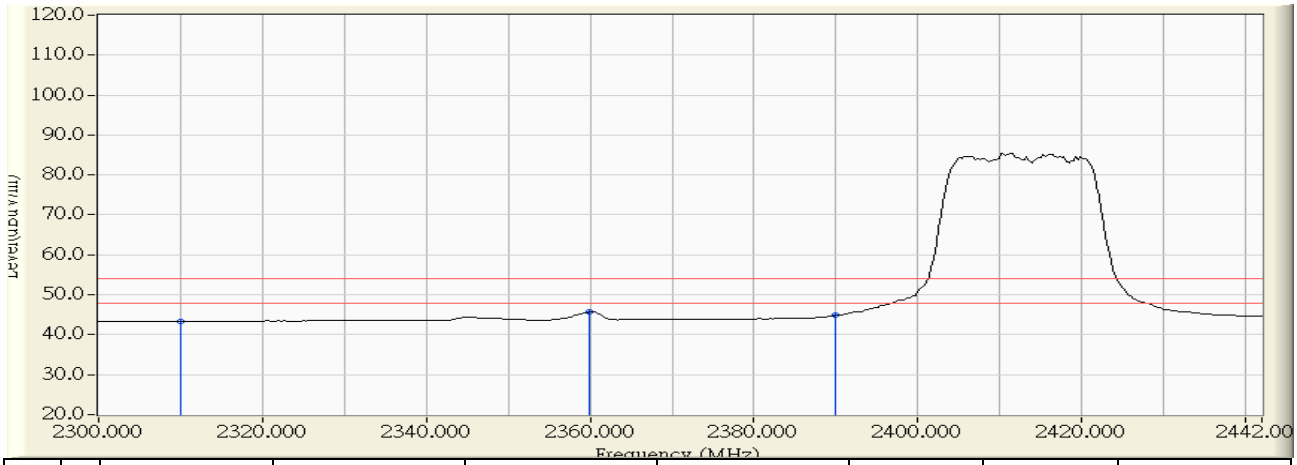


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	25.672	55.451	-18.549	74.000	PEAK
2		2360.492	30.284	28.825	59.108	-14.892	74.000	PEAK
3	*	2390.000	30.578	29.109	59.687	-14.313	74.000	PEAK

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 : 2013/03/27 - 15:27**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n20MHz_2412MHz**

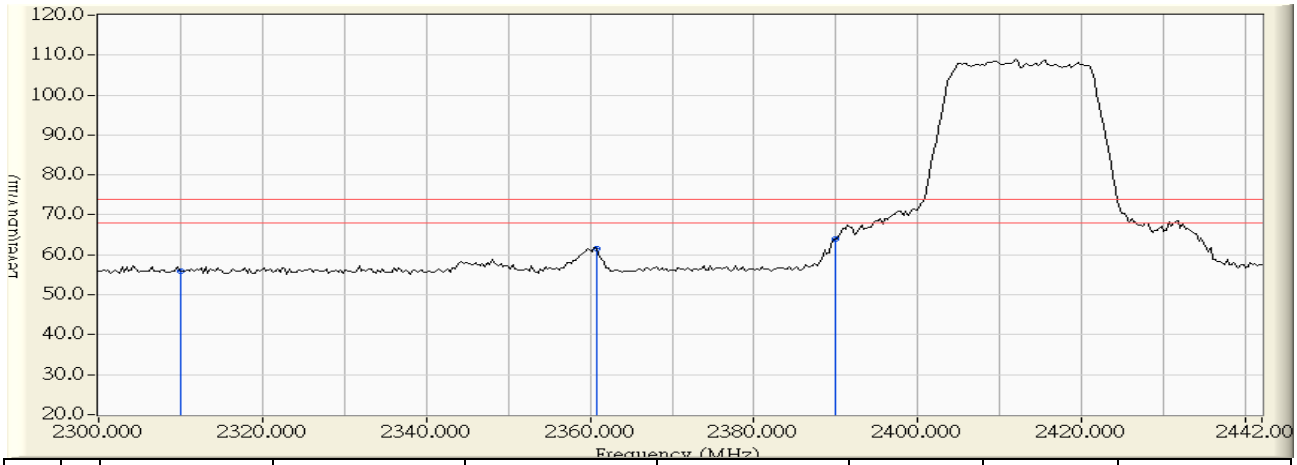


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	13.559	43.338	-10.662	54.000	AVERAGE
2	*	2359.924	30.277	15.372	45.650	-8.350	54.000	AVERAGE
3		2390.000	30.578	14.224	44.802	-9.198	54.000	AVERAGE

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 : 2013/03/27 - 15:29**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n20MHz_2412MHz**

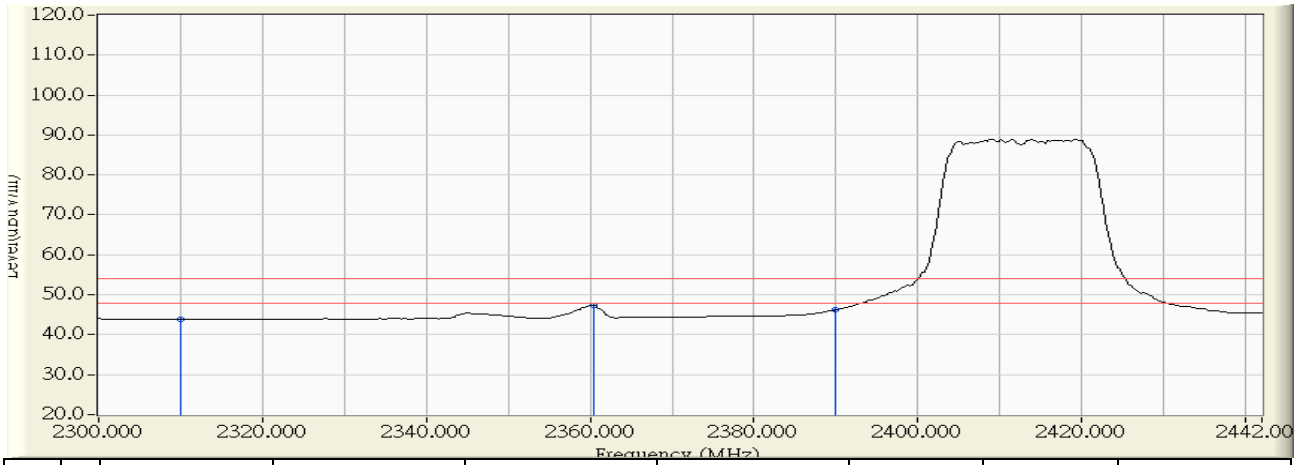


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	26.088	55.867	-18.133	74.000	PEAK
2		2360.776	30.286	31.269	61.555	-12.445	74.000	PEAK
3	*	2390.000	30.578	33.473	64.051	-9.949	74.000	PEAK

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 : 2013/03/27 - 15:30**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n20MHz_2412MHz**

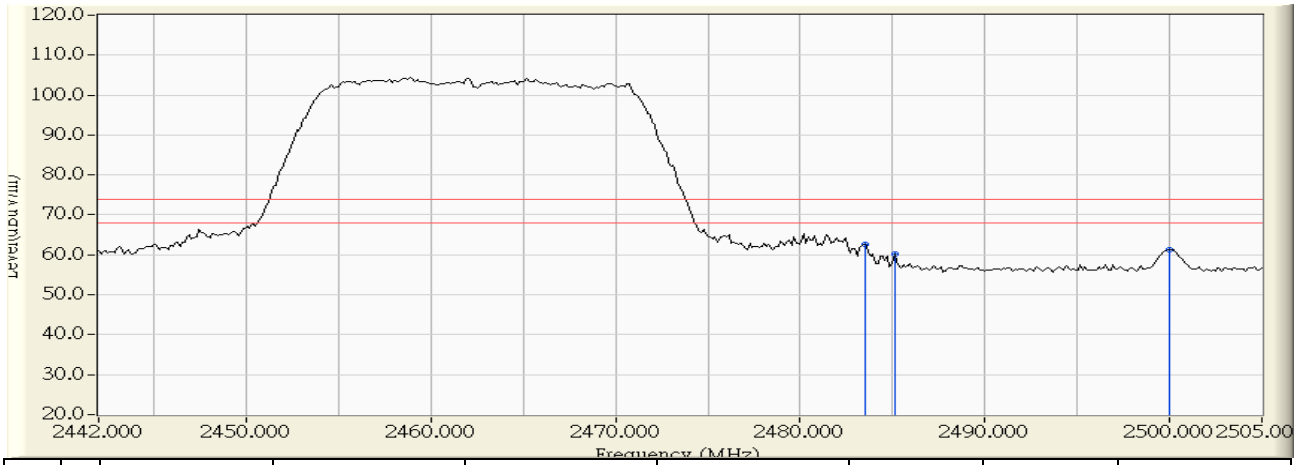


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	14.064	43.843	-10.157	54.000	AVERAGE
2	*	2360.492	30.284	17.106	47.389	-6.611	54.000	AVERAGE
3		2390.000	30.578	15.610	46.188	-7.812	54.000	AVERAGE

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 : 2013/03/27 - 15:34**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)** **802.11n20MHz_2462MHz**

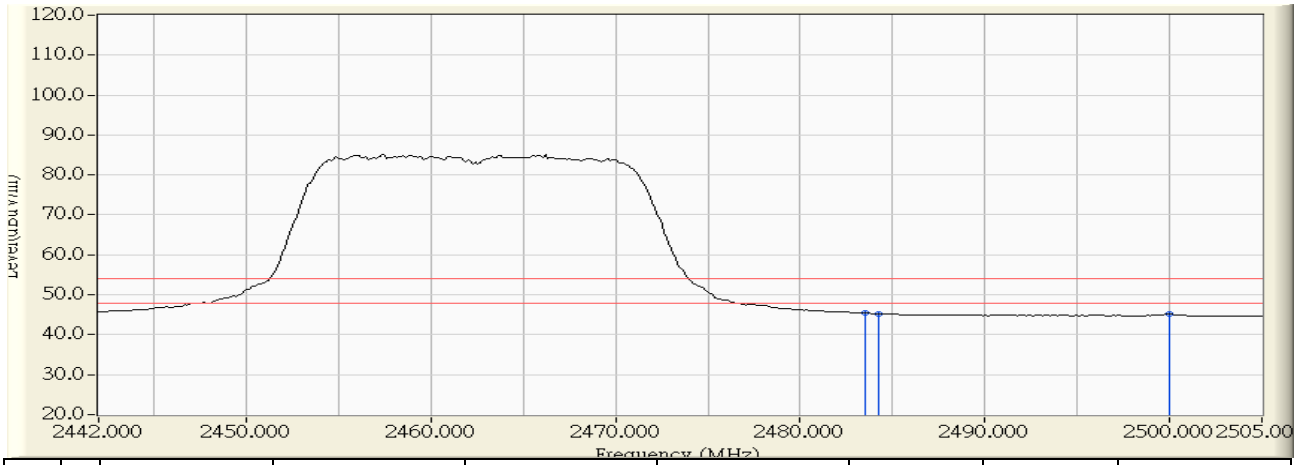


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	31.080	62.592	-11.408	74.000	PEAK
2		2485.092	31.528	28.801	60.329	-13.671	74.000	PEAK
3		2500.000	31.638	29.691	61.330	-12.670	74.000	PEAK

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 : 2013/03/27 - 15:35**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n20MHz_2462MHz**

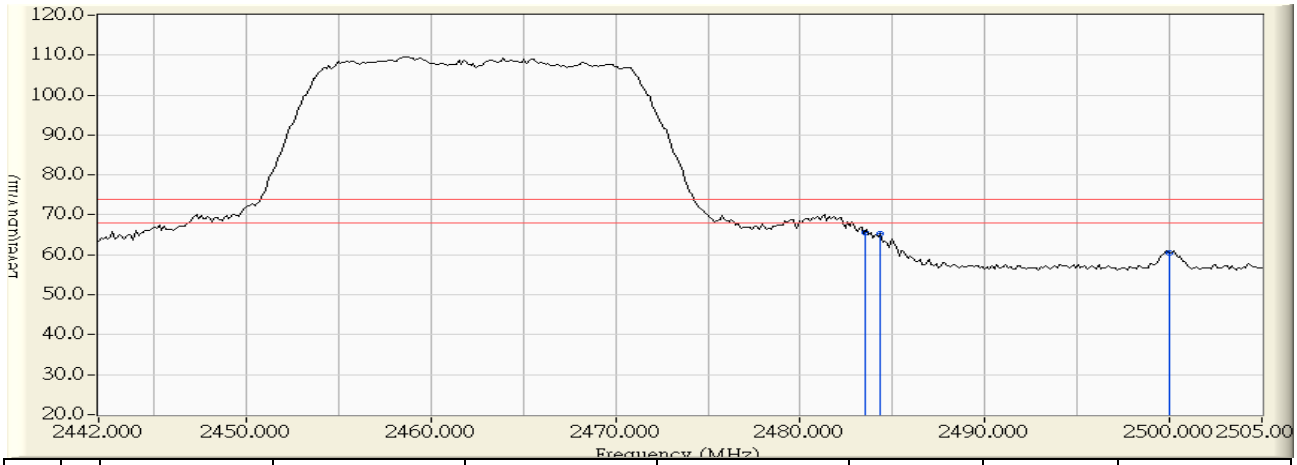


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	13.889	45.401	-8.599	54.000	AVERAGE
2		2484.210	31.519	13.698	45.217	-8.783	54.000	AVERAGE
3		2500.000	31.638	13.441	45.080	-8.920	54.000	AVERAGE

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 : 2013/03/27 - 15:37**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)** **802.11n20MHz_2462MHz**

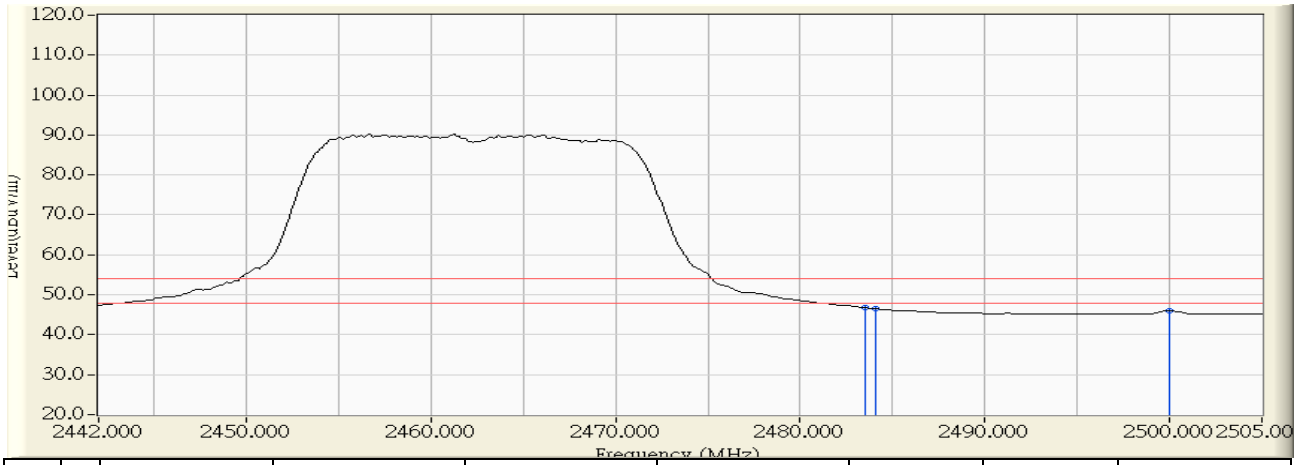


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	34.153	65.665	-8.335	74.000	PEAK
2		2484.336	31.520	33.722	65.242	-8.758	74.000	PEAK
3		2500.000	31.638	28.886	60.525	-13.475	74.000	PEAK

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 : 2013/03/27 - 15:37**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n20MHz_2462MHz**

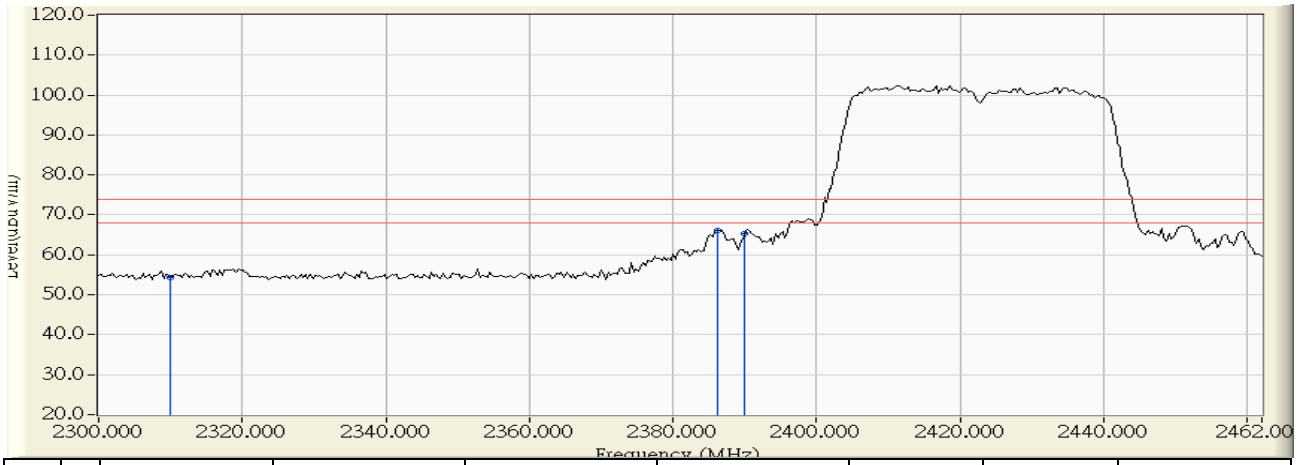


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	15.209	46.721	-7.279	54.000	AVERAGE
2		2484.084	31.518	14.967	46.485	-7.515	54.000	AVERAGE
3		2500.000	31.638	14.451	46.090	-7.910	54.000	AVERAGE

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 : 2013/03/27 - 14:23**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n40MHz_2422MHz**

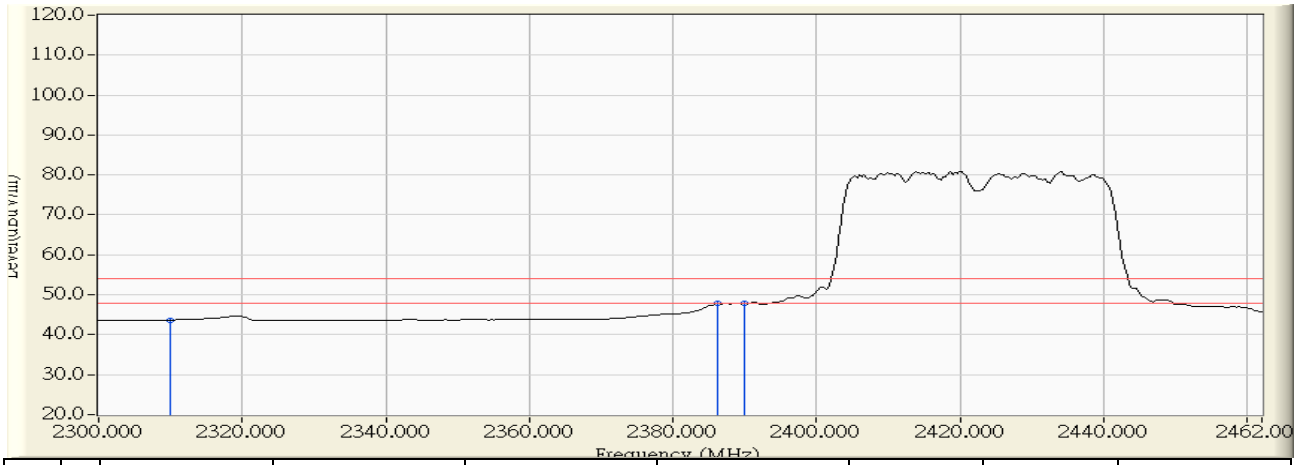


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	24.561	54.340	-19.660	74.000	PEAK
2	*	2386.184	30.540	35.670	66.210	-7.790	74.000	PEAK
3		2390.000	30.578	34.796	65.374	-8.626	74.000	PEAK

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 : 2013/03/27 - 14:23**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n40MHz_2422MHz**

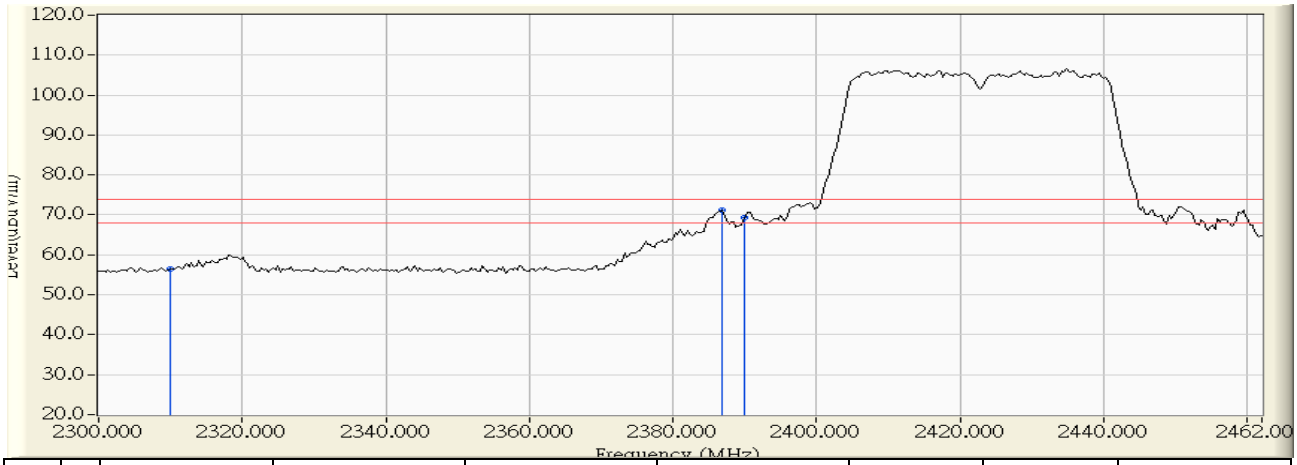


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	13.852	43.631	-10.369	54.000	AVERAGE
2		2386.184	30.540	17.291	47.831	-6.169	54.000	AVERAGE
3	*	2390.000	30.578	17.287	47.865	-6.135	54.000	AVERAGE

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 : 2013/03/27 - 14:44**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)** **802.11n40MHz_2422MHz**

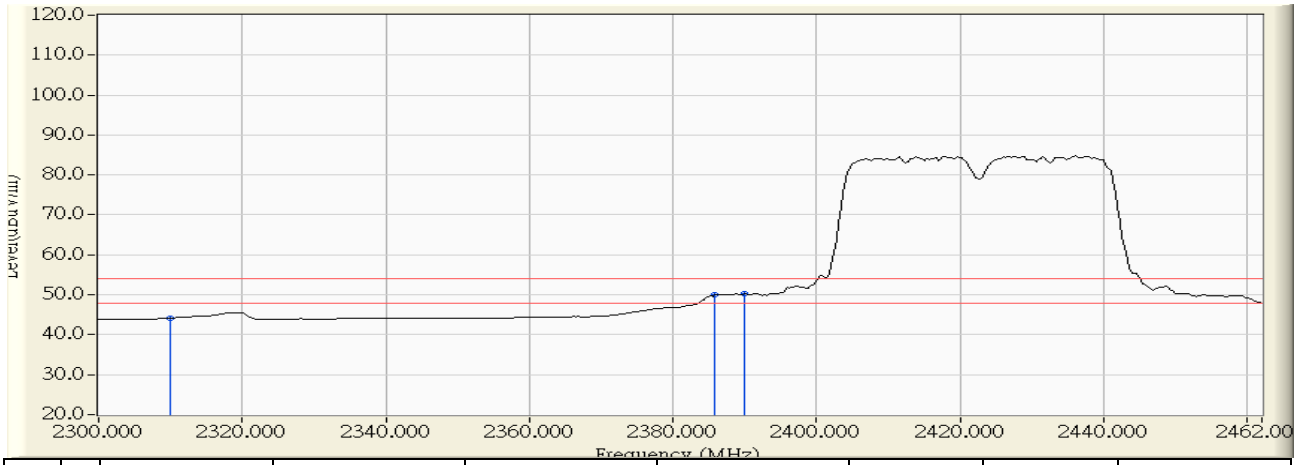


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	26.581	56.360	-17.640	74.000	PEAK
2	*	2386.832	30.546	40.564	71.110	-2.890	74.000	PEAK
3		2390.000	30.578	38.818	69.396	-4.604	74.000	PEAK

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 : 2013/03/27 - 14:45**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n40MHz_2422MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2310.000	29.779	14.325	44.104	-9.896	54.000	AVERAGE
2		2385.860	30.537	19.363	49.900	-4.100	54.000	AVERAGE
3	*	2390.000	30.578	19.637	50.215	-3.785	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.

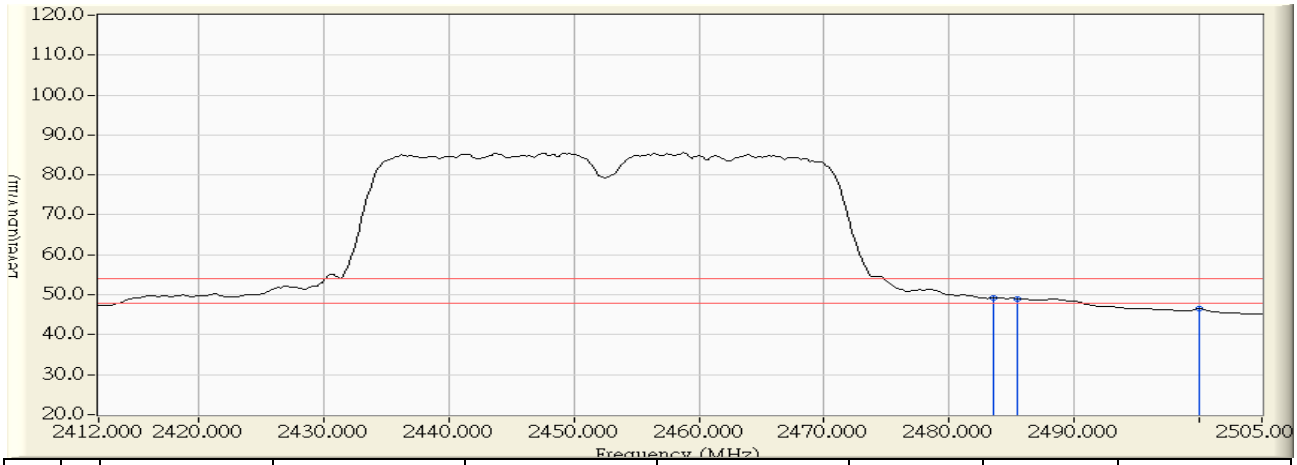
Site : CB1	**Time : 2013/03/27 - 14:35**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)** **802.11n40MHz_2452MHz**

		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	37.308	68.820	-5.180	74.000	PEAK
2	*	2488.818	31.565	39.549	71.114	-2.886	74.000	PEAK
3		2500.000	31.638	31.083	62.722	-11.278	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 : 2013/03/27 - 14:36**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n40MHz_2452MHz**

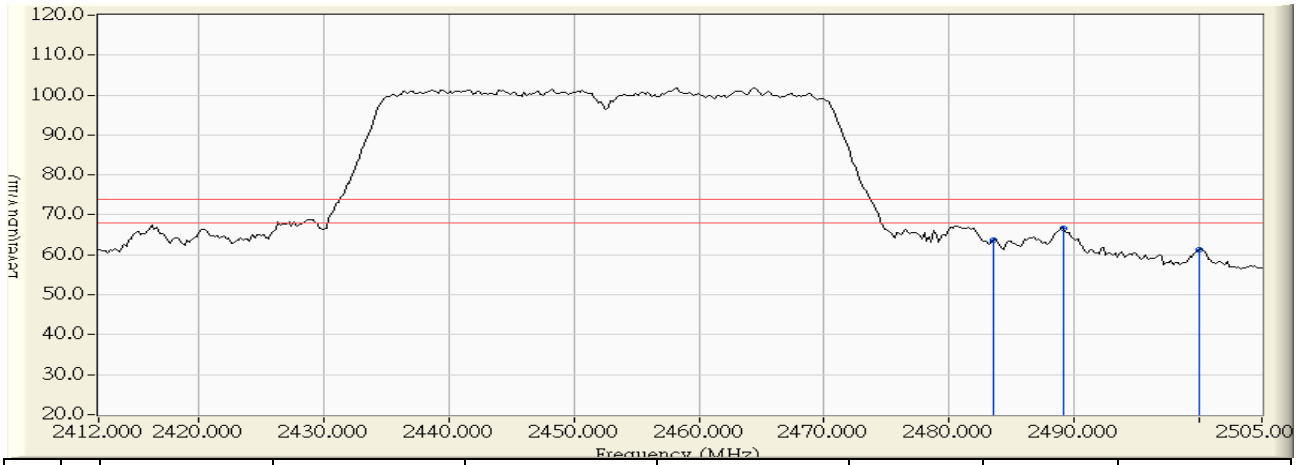


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	2483.500	31.512	17.641	49.153	-4.847	54.000	AVERAGE
2		2485.470	31.531	17.502	49.034	-4.966	54.000	AVERAGE
3		2500.000	31.638	14.796	46.435	-7.565	54.000	AVERAGE

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 : 2013/03/27 - 14:39**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n40MHz_2452MHz**

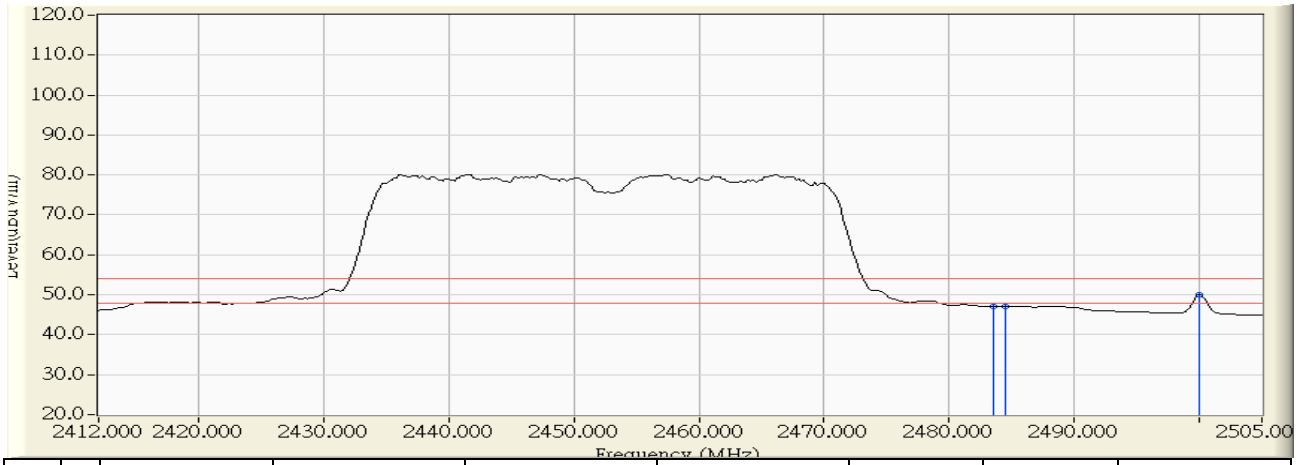


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	32.105	63.617	-10.383	74.000	PEAK
2	*	2489.190	31.569	35.033	66.602	-7.398	74.000	PEAK
3		2500.000	31.638	29.754	61.393	-12.607	74.000	PEAK

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 : 2013/03/27 - 14:40**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21) 802.11n40MHz_2452MHz**

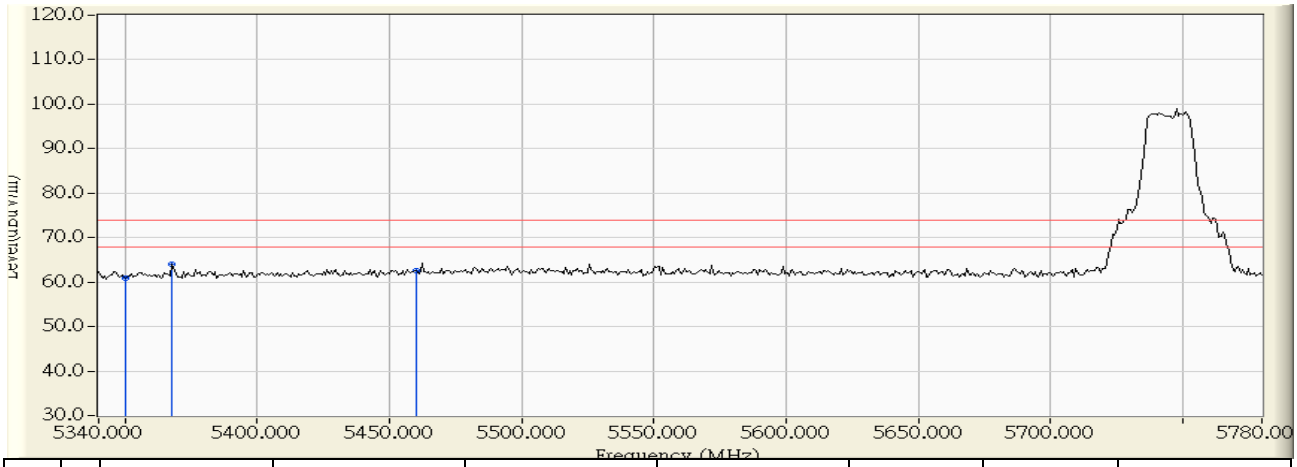


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		2483.500	31.512	15.575	47.087	-6.913	54.000	AVERAGE
2		2484.540	31.522	15.573	47.095	-6.905	54.000	AVERAGE
3	*	2500.000	31.638	18.325	49.964	-4.036	54.000	AVERAGE

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 : 2013/04/29 - 20:33**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11a_5745MHz**

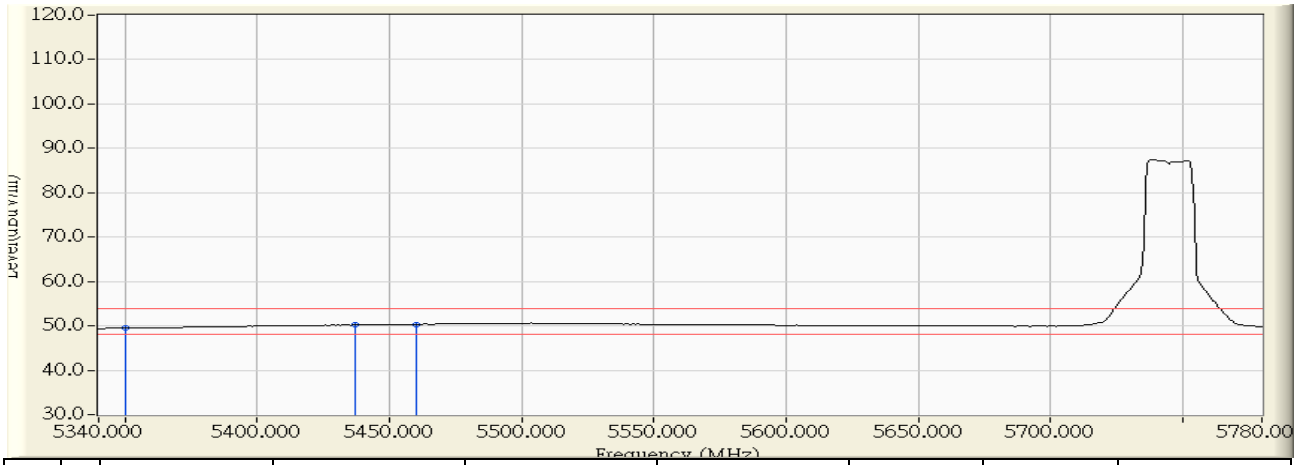


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	23.989	60.953	-13.047	74.000	PEAK
2	*	5367.867	37.107	26.950	64.057	-9.943	74.000	PEAK
3		5460.000	37.845	24.687	62.532	-11.468	74.000	PEAK

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 : 2013/04/29 - 20:34**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11a_5745MHz**

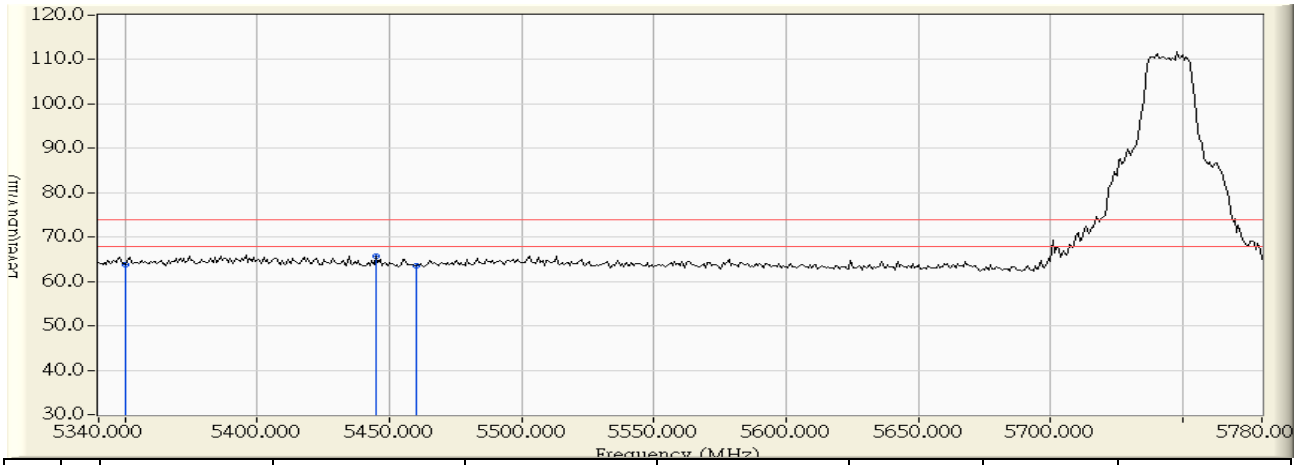


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	12.563	49.527	-4.473	54.000	AVERAGE
2		5436.800	37.659	12.492	50.151	-3.849	54.000	AVERAGE
3	*	5460.000	37.845	12.490	50.335	-3.665	54.000	AVERAGE

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 : 2013/04/29 - 20:37**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11a_5745MHz**

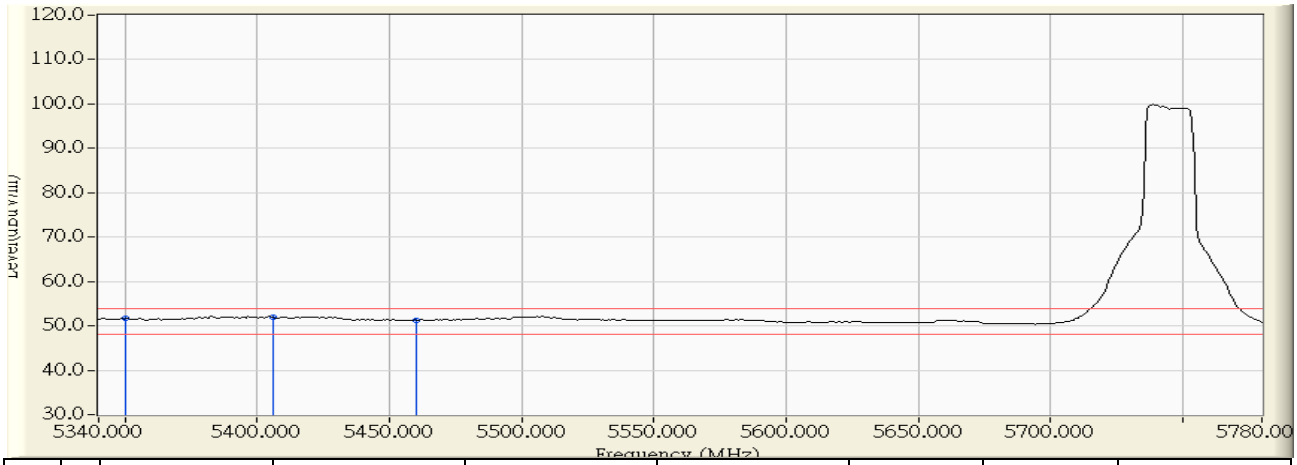


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	26.879	63.843	-10.157	74.000	PEAK
2	*	5444.867	37.724	27.868	65.592	-8.408	74.000	PEAK
3		5460.000	37.845	25.697	63.542	-10.458	74.000	PEAK

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 : 2013/04/29 - 20:38**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11a_5745MHz**

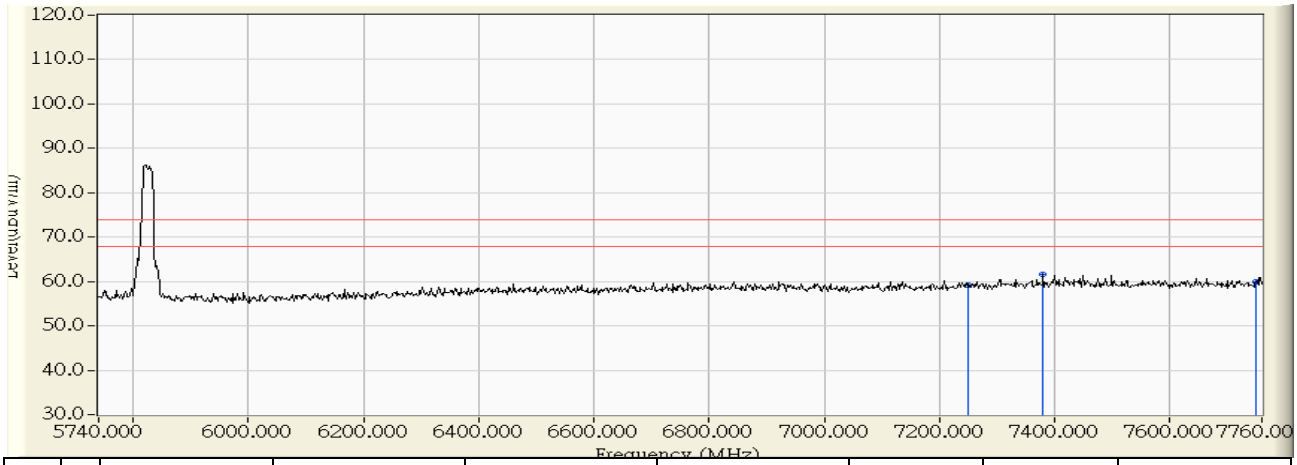


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	14.727	51.691	-2.309	54.000	AVERAGE
2	*	5406.000	37.412	14.551	51.963	-2.037	54.000	AVERAGE
3		5460.000	37.845	13.432	51.277	-2.723	54.000	AVERAGE

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 : 2013/05/02 - 09:59**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11a_5825MHz**

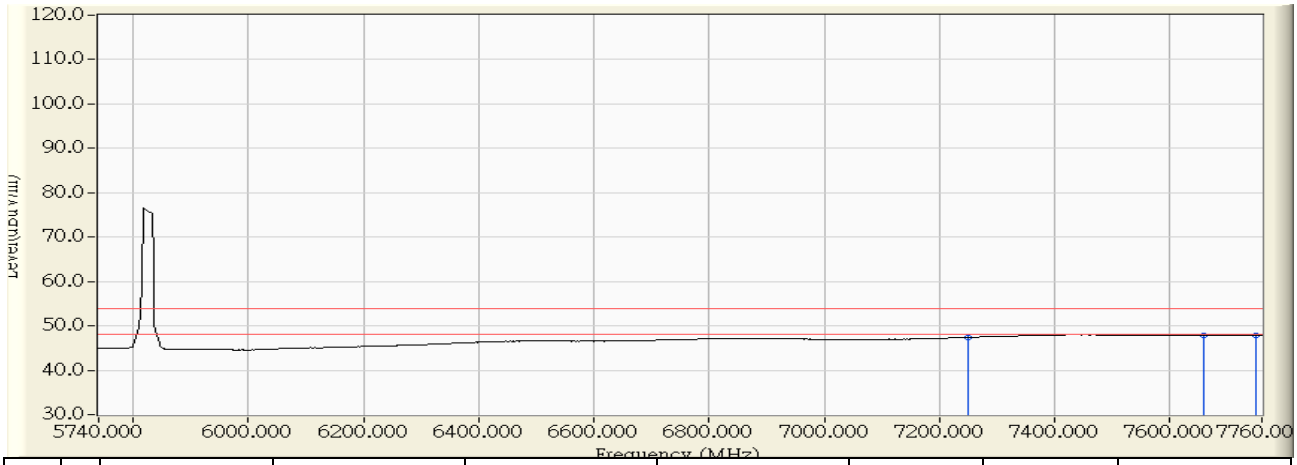


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	18.882	59.162	-14.838	74.000	PEAK
2	*	7380.240	40.620	21.066	61.686	-12.314	74.000	PEAK
3		7750.000	41.393	18.609	60.002	-13.998	74.000	PEAK

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 : 2013/05/02 - 09:58**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11a_5825MHz**

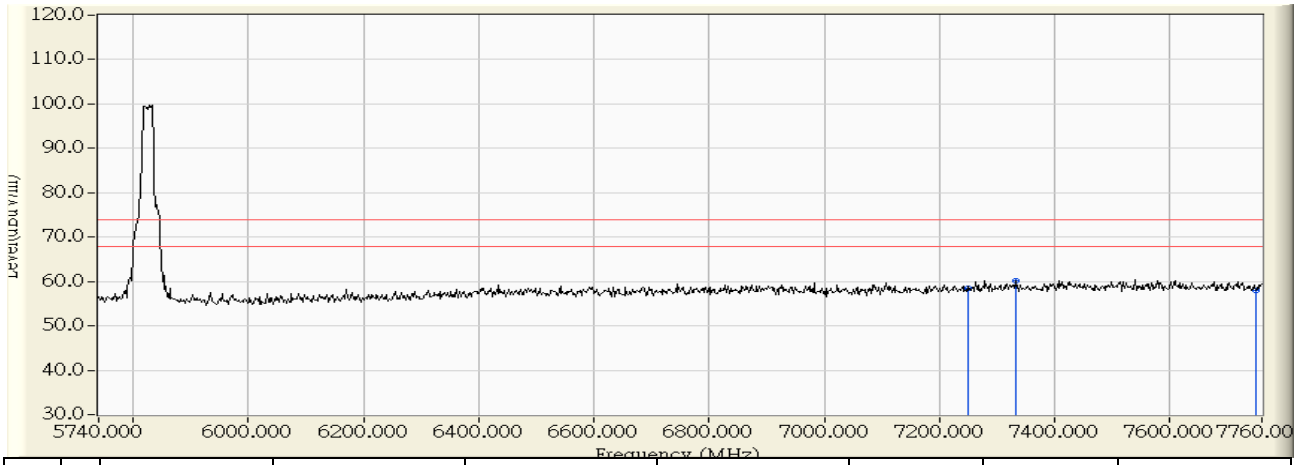


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	7.113	47.393	-6.607	54.000	AVERAGE
2		7659.000	41.226	6.588	47.814	-6.186	54.000	AVERAGE
3	*	7750.000	41.393	6.514	47.907	-6.093	54.000	AVERAGE

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 : 2013/05/02 - 10:03**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11a_5825MHz**

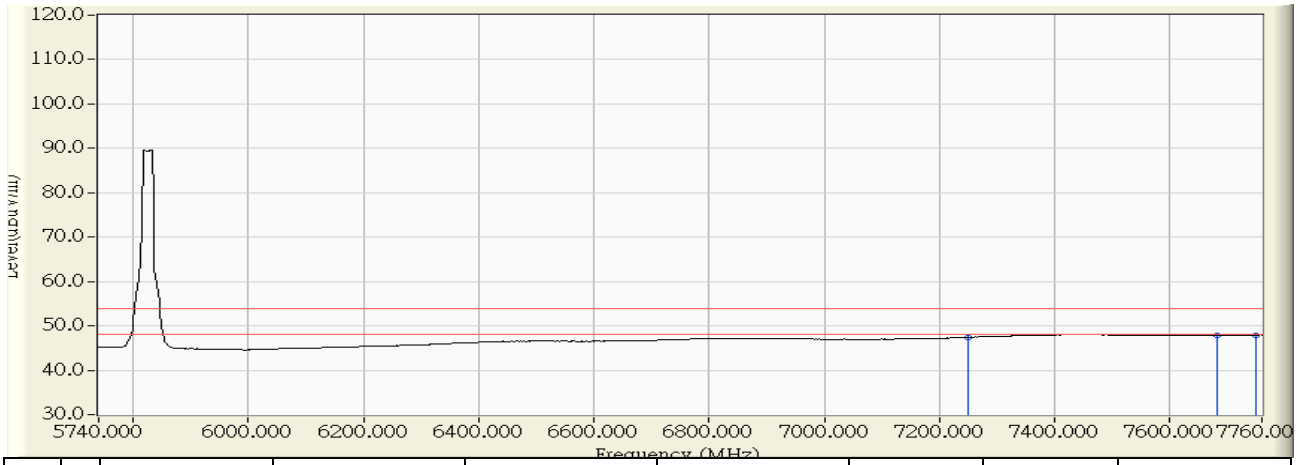


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	18.130	58.410	-15.590	74.000	PEAK
2	*	7331.760	40.494	19.787	60.281	-13.719	74.000	PEAK
3		7750.000	41.393	16.689	58.082	-15.918	74.000	PEAK

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 : 2013/05/02 - 10:07**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11a_5825MHz**

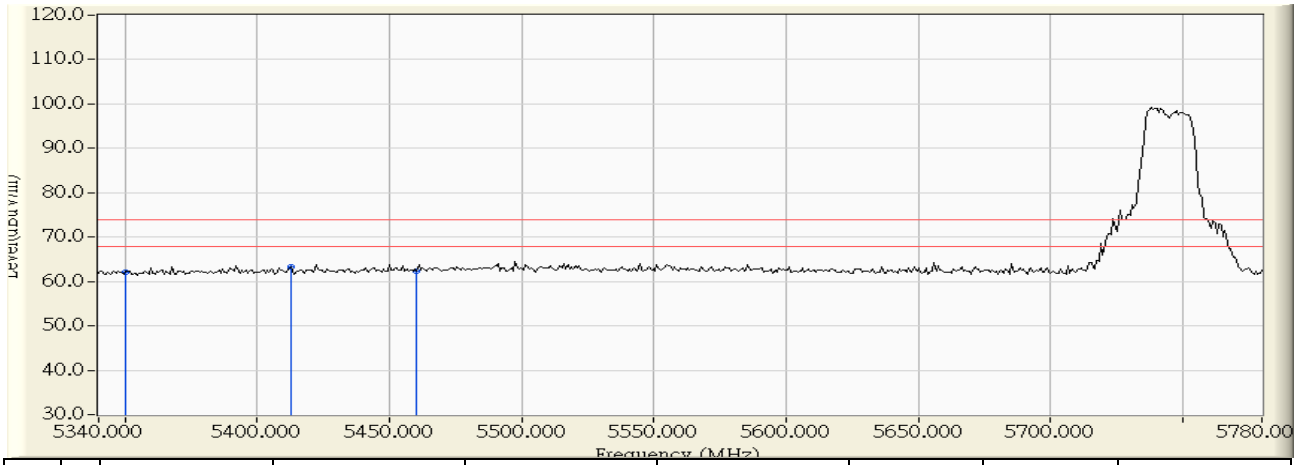


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	7.161	47.441	-6.559	54.000	AVERAGE
2		7681.220	41.266	6.580	47.847	-6.153	54.000	AVERAGE
3	*	7750.000	41.393	6.581	47.974	-6.026	54.000	AVERAGE

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 : 2013/04/29 - 20:41**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n20MHz_5745MHz**

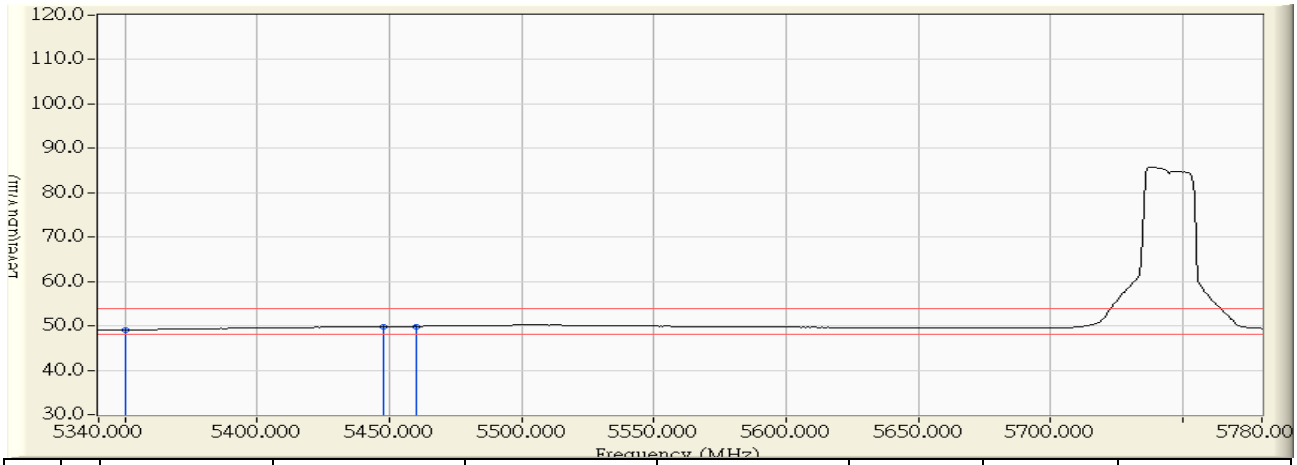


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	25.152	62.116	-11.884	74.000	PEAK
2	*	5412.600	37.465	25.726	63.191	-10.809	74.000	PEAK
3		5460.000	37.845	24.602	62.447	-11.553	74.000	PEAK

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 : 2013/04/29 - 20:44**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n20MHz_5745MHz**

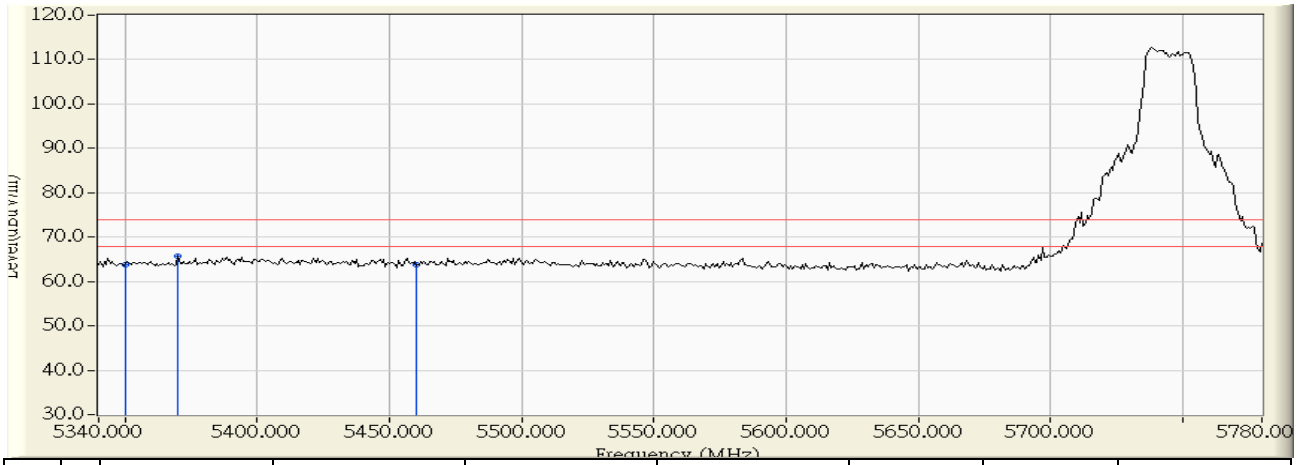


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	12.134	49.098	-4.902	54.000	AVERAGE
2		5447.800	37.748	12.047	49.794	-4.206	54.000	AVERAGE
3	*	5460.000	37.845	12.045	49.890	-4.110	54.000	AVERAGE

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 : 2013/04/29 - 20:46**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n20MHz_5745MHz**

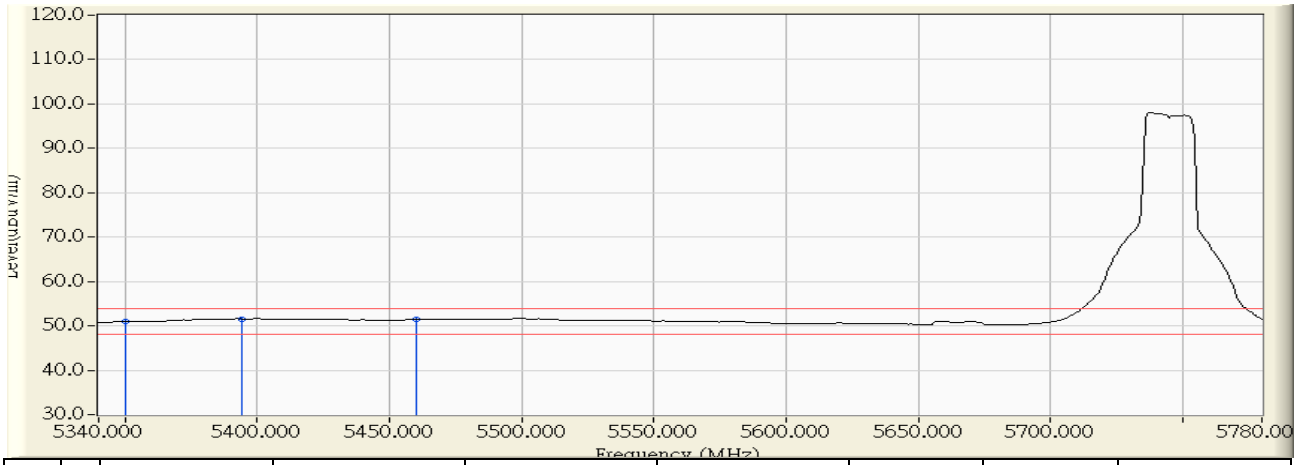


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	26.887	63.851	-10.149	74.000	PEAK
2	*	5370.067	37.124	28.548	65.672	-8.328	74.000	PEAK
3		5460.000	37.845	25.979	63.824	-10.176	74.000	PEAK

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 : 2013/04/29 - 20:49**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n20MHz_5745MHz**

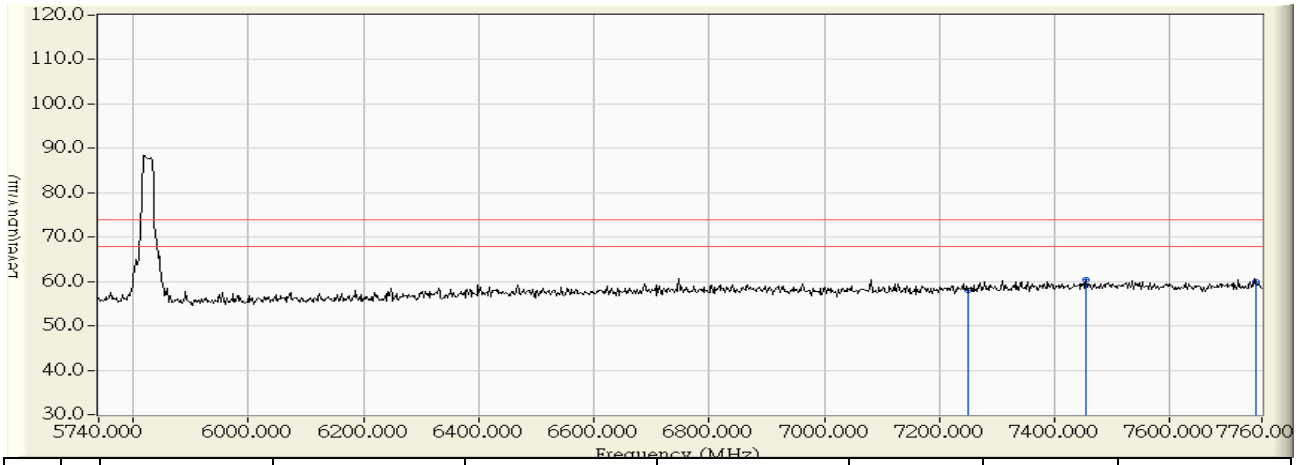


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	14.052	51.016	-2.984	54.000	AVERAGE
2	*	5394.267	37.319	14.266	51.584	-2.416	54.000	AVERAGE
3		5460.000	37.845	13.539	51.384	-2.616	54.000	AVERAGE

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 : 2013/05/02 - 10:13**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n20MHz_5825MHz**

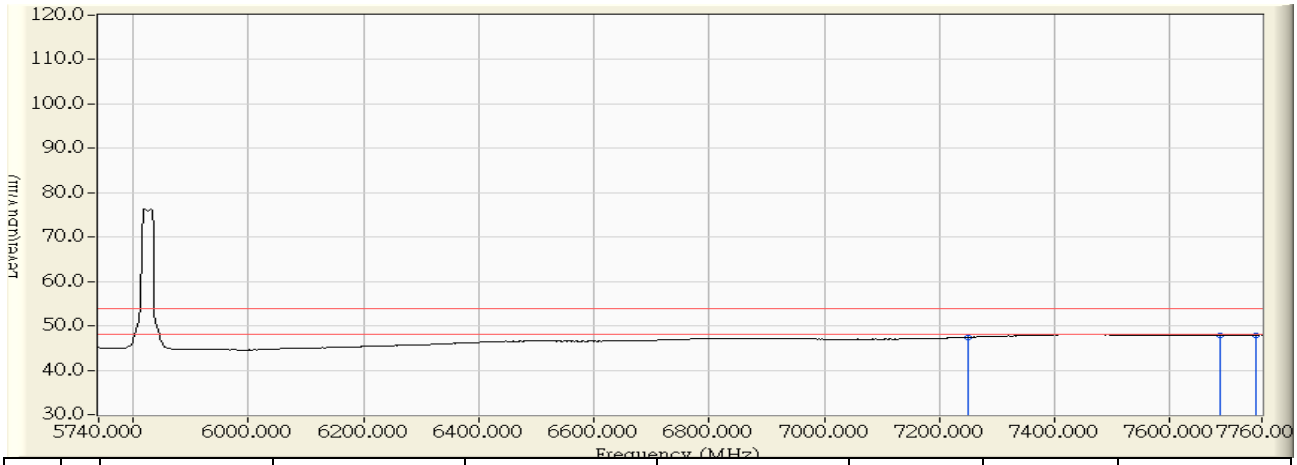


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	17.786	58.066	-15.934	74.000	PEAK
2	*	7454.980	40.816	19.704	60.520	-13.480	74.000	PEAK
3		7750.000	41.393	18.528	59.921	-14.079	74.000	PEAK

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 : 2013/05/02 - 10:16**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n20MHz_5825MHz**

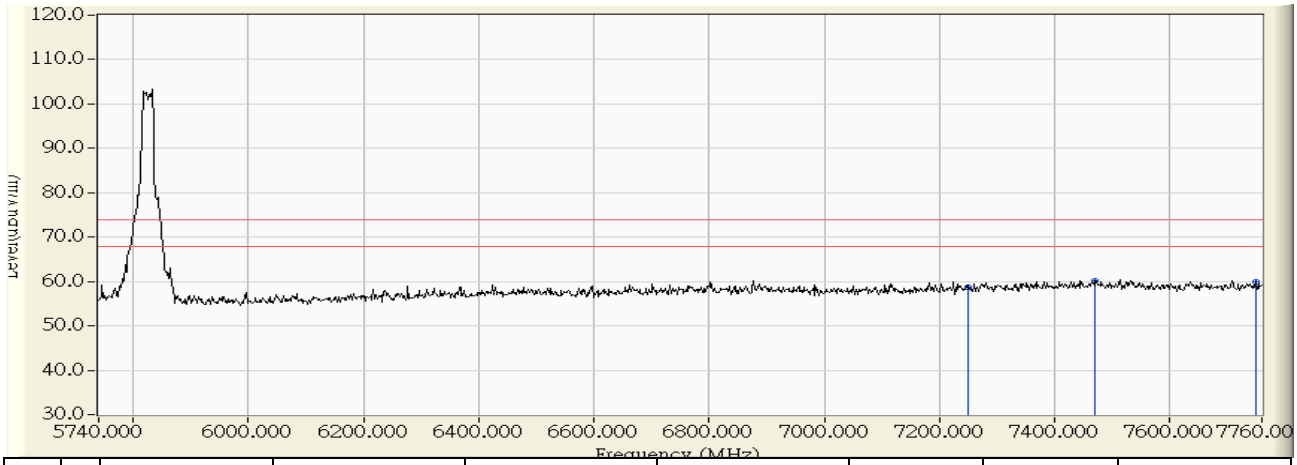


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	7.162	47.442	-6.558	54.000	AVERAGE
2		7687.280	41.278	6.594	47.872	-6.128	54.000	AVERAGE
3	*	7750.000	41.393	6.561	47.954	-6.046	54.000	AVERAGE

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 : 2013/05/02 - 10:20**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n20MHz_5825MHz**

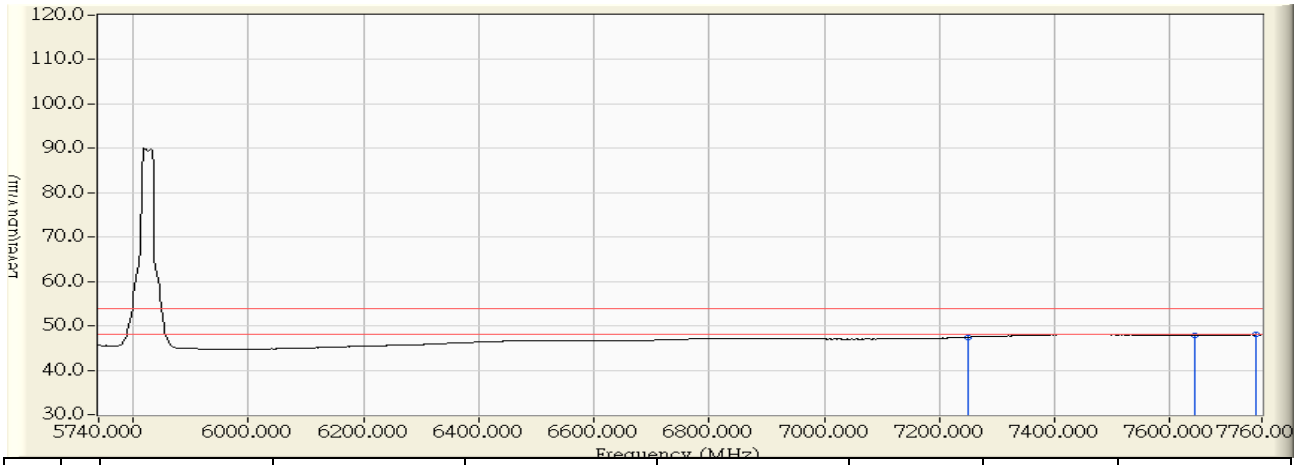


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	18.316	58.596	-15.404	74.000	PEAK
2	*	7469.120	40.852	19.336	60.189	-13.811	74.000	PEAK
3		7750.000	41.393	18.591	59.984	-14.016	74.000	PEAK

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 : 2013/05/02 - 10:25**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n20MHz_5825MHz**

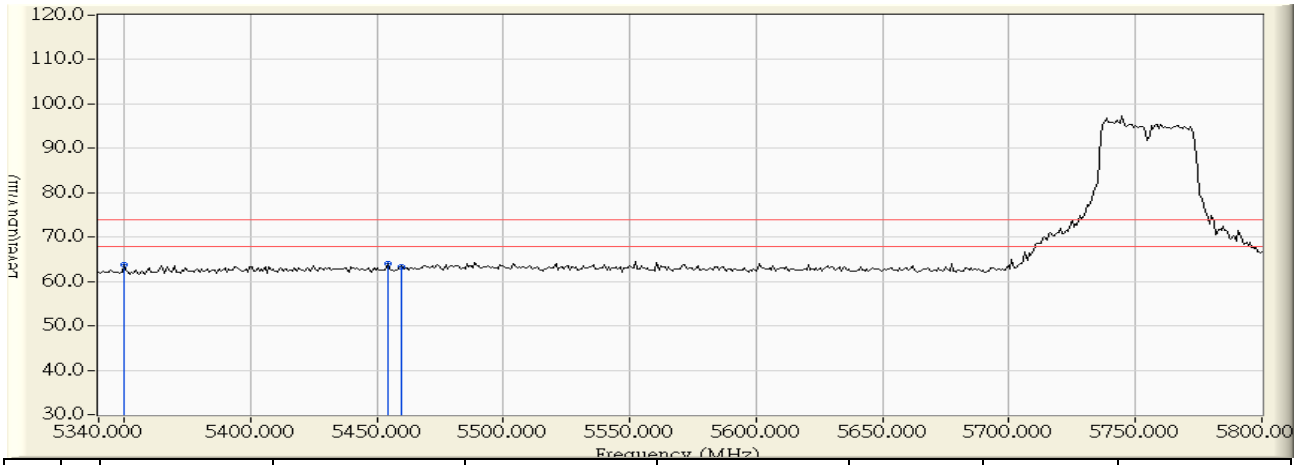


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	7.159	47.439	-6.561	54.000	AVERAGE
2		7642.840	41.196	6.663	47.859	-6.141	54.000	AVERAGE
3	*	7750.000	41.393	6.604	47.997	-6.003	54.000	AVERAGE

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 : 2013/04/29 - 20:56**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n40MHz_5755MHz**

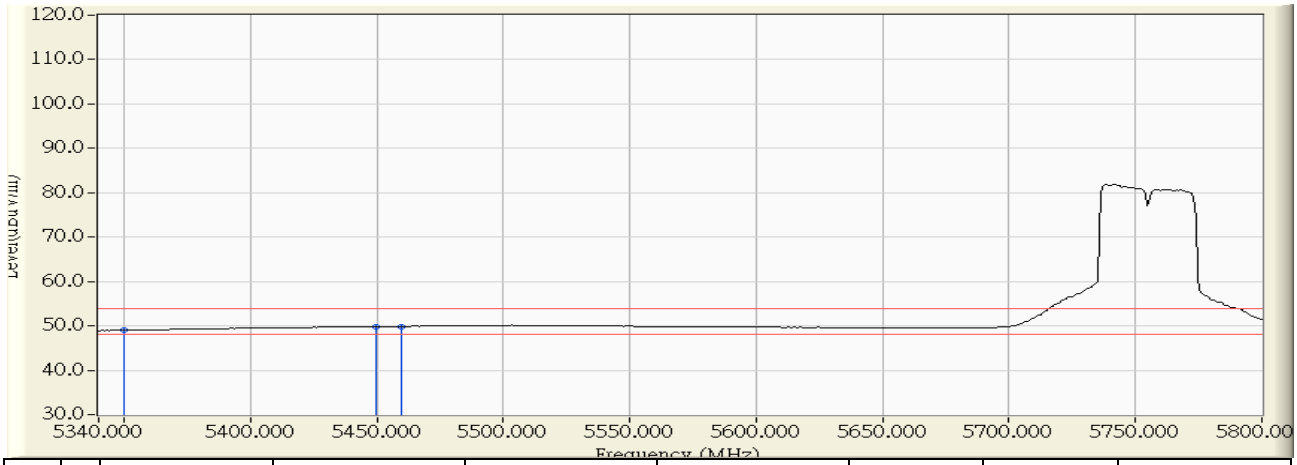


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	26.764	63.728	-10.272	74.000	PEAK
2	*	5454.233	37.799	26.279	64.078	-9.922	74.000	PEAK
3		5460.000	37.845	25.551	63.396	-10.604	74.000	PEAK

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 : 2013/04/29 - 20:58**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n40MHz_5755MHz**

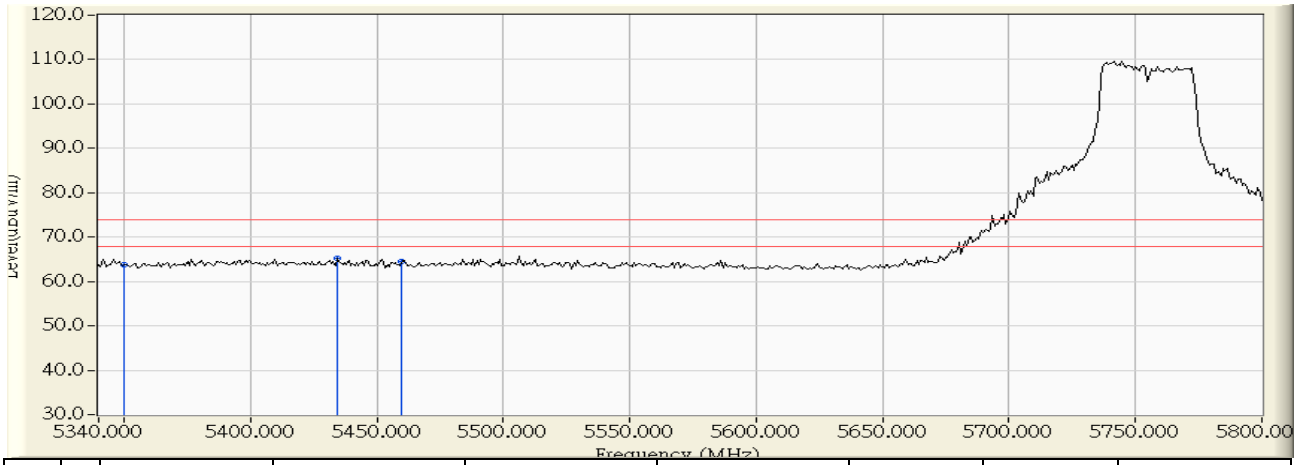


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	12.076	49.040	-4.960	54.000	AVERAGE
2		5449.633	37.762	12.020	49.782	-4.218	54.000	AVERAGE
3	*	5460.000	37.845	12.028	49.873	-4.127	54.000	AVERAGE

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 : 2013/04/29 - 21:01**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n40MHz_5755MHz**

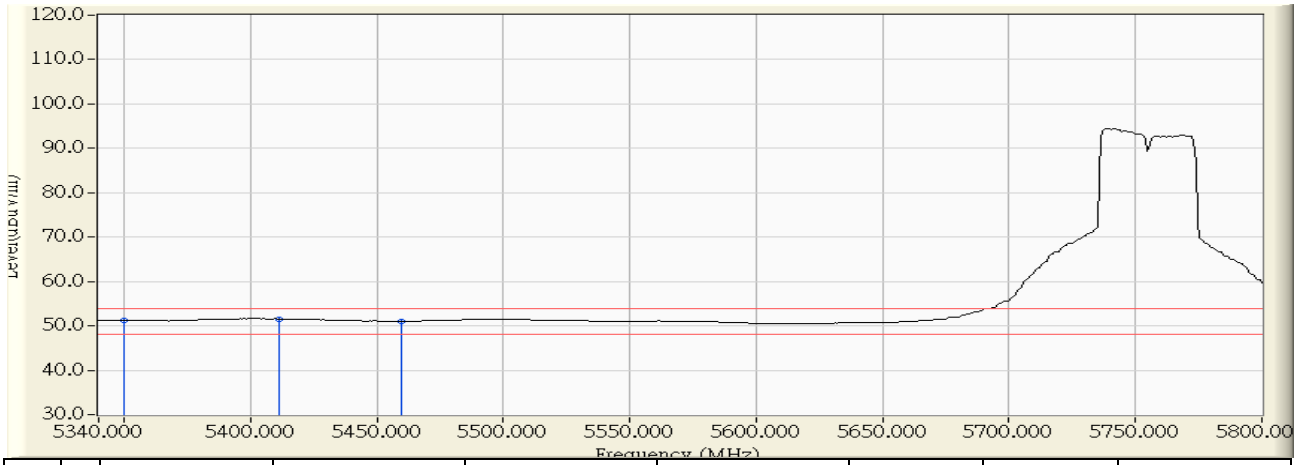


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	26.906	63.870	-10.130	74.000	PEAK
2	*	5434.300	37.639	27.560	65.199	-8.801	74.000	PEAK
3		5460.000	37.845	26.546	64.391	-9.609	74.000	PEAK

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 : 2013/04/29 - 21:04**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n40MHz_5755MHz**

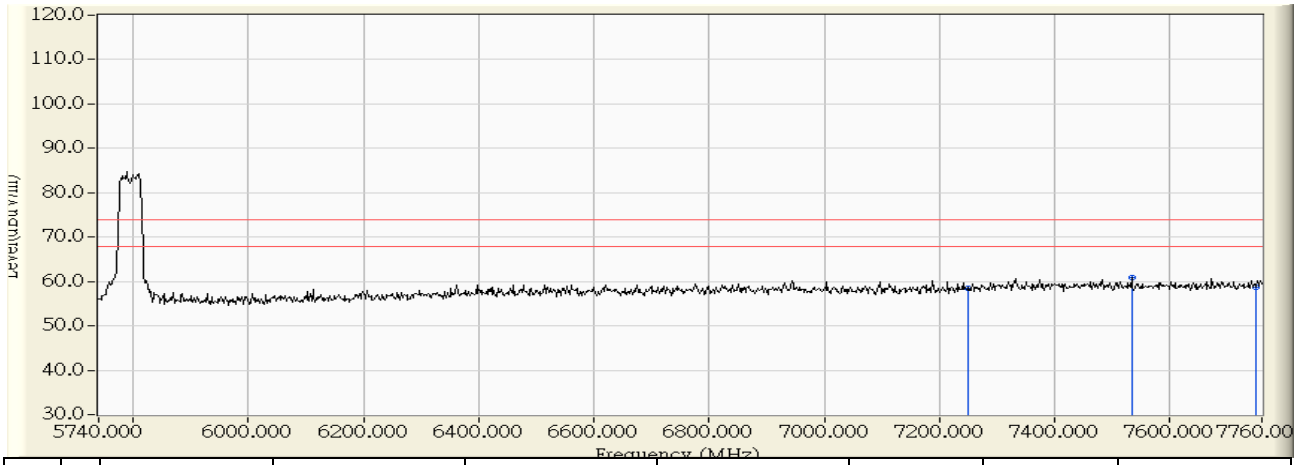


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		5350.000	36.964	14.223	51.187	-2.813	54.000	AVERAGE
2	*	5411.300	37.455	14.124	51.579	-2.421	54.000	AVERAGE
3		5460.000	37.845	13.217	51.062	-2.938	54.000	AVERAGE

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 : 2013/05/02 - 10:41**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n40MHz_5795MHz**

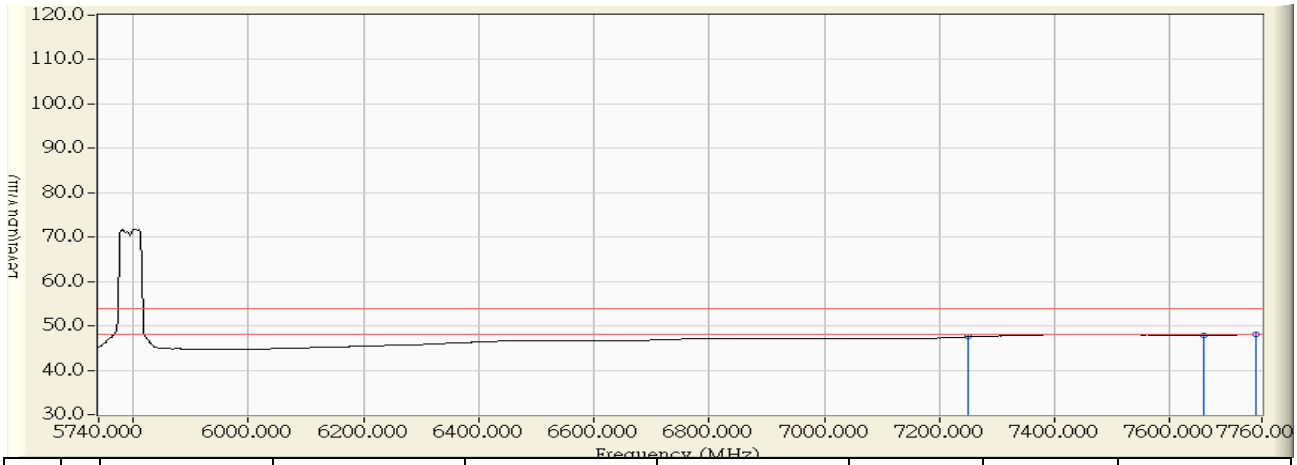


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	18.081	58.361	-15.639	74.000	PEAK
2	*	7533.760	40.996	19.818	60.814	-13.186	74.000	PEAK
3		7750.000	41.393	17.394	58.787	-15.213	74.000	PEAK

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 : 2013/05/02 - 10:55**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - HORIZONTAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n40MHz_5795MHz**

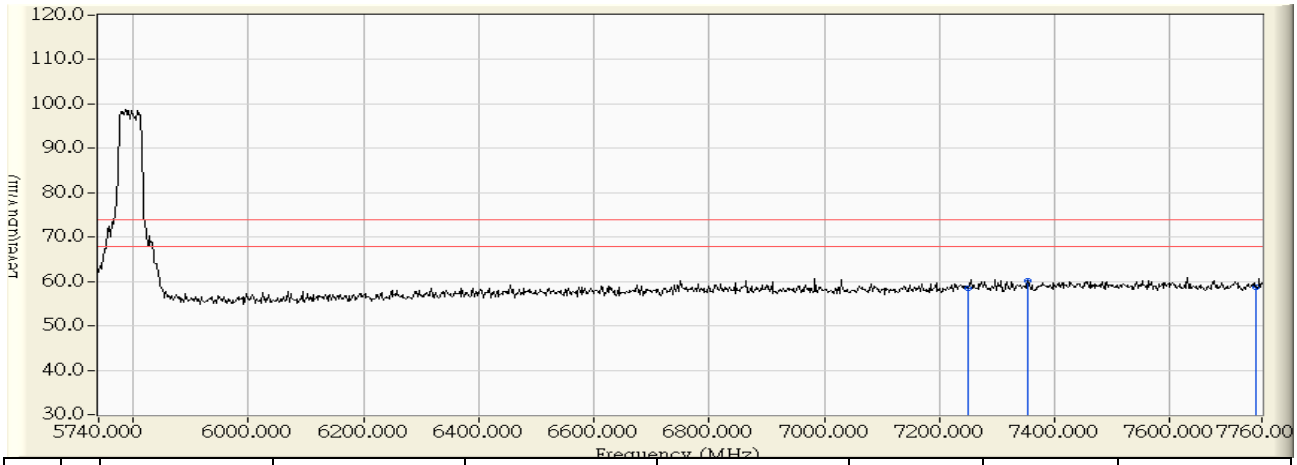


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	7.222	47.502	-6.498	54.000	AVERAGE
2		7659.000	41.226	6.669	47.895	-6.105	54.000	AVERAGE
3	*	7750.000	41.393	6.620	48.013	-5.987	54.000	AVERAGE

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 : 2013/05/02 - 10:59**
Limit : FCC_SpartC_15.209_03M_PK	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n40MHz_5795MHz**

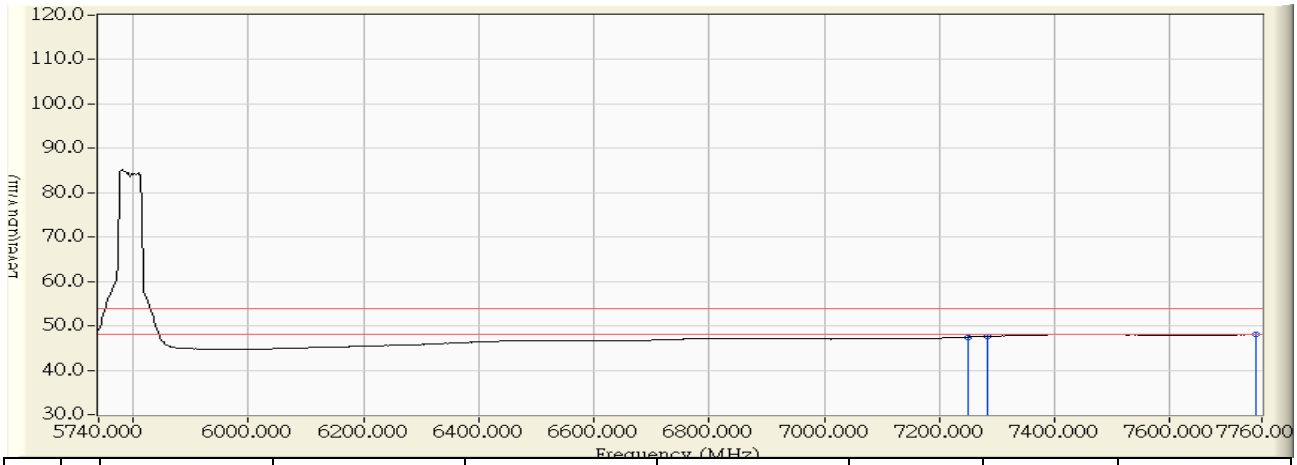


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	18.308	58.588	-15.412	74.000	PEAK
2	*	7353.980	40.552	19.682	60.234	-13.766	74.000	PEAK
3		7750.000	41.393	17.364	58.757	-15.243	74.000	PEAK

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 : 2013/05/02 - 11:03**
Limit : FCC_SpartC_15.209_03M_AV	**Margin : 6**
Probe : CB1_FCC_EFS_1-18G-1_0901 - VERTICAL	**Power : AC 120V/60Hz**
EUT : VDSL2 Security Firewall	**Note : Mode 1: Transmit (Adapter: PA1030-21)802.11n40MHz_5795MHz**



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1		7250.000	40.280	7.206	47.486	-6.514	54.000	AVERAGE
2		7283.280	40.368	7.260	47.627	-6.373	54.000	AVERAGE
3	*	7750.000	41.393	6.634	48.027	-5.973	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 (For 2.4G)

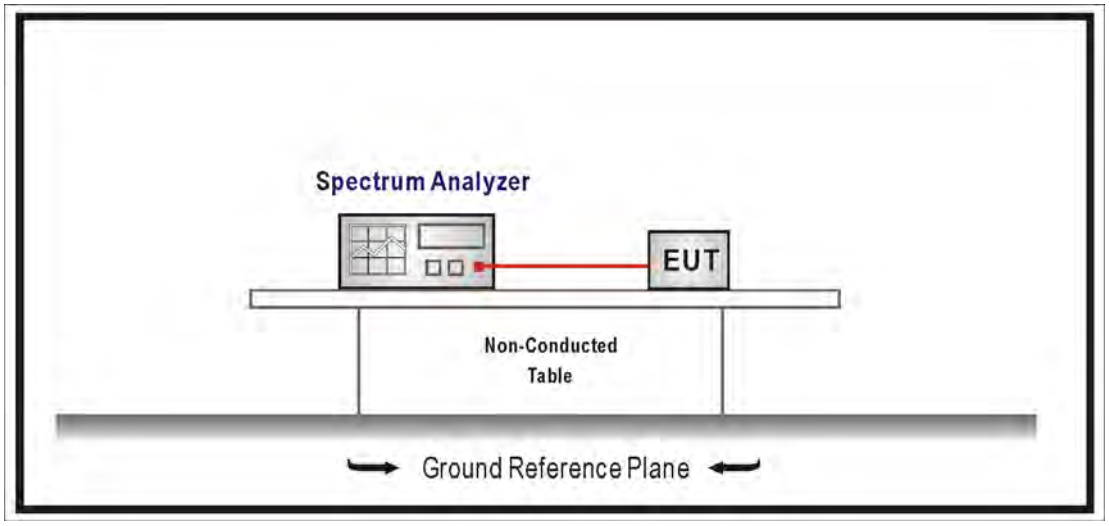
Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2014/08/05

Occupied Bandwidth / SR7 (For 5.8G)

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

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

7.2. Test Setup



7.3. Test Procedures

The EUT was setup according to ANSI C63.4: 2009; tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Span greater than RBW.

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

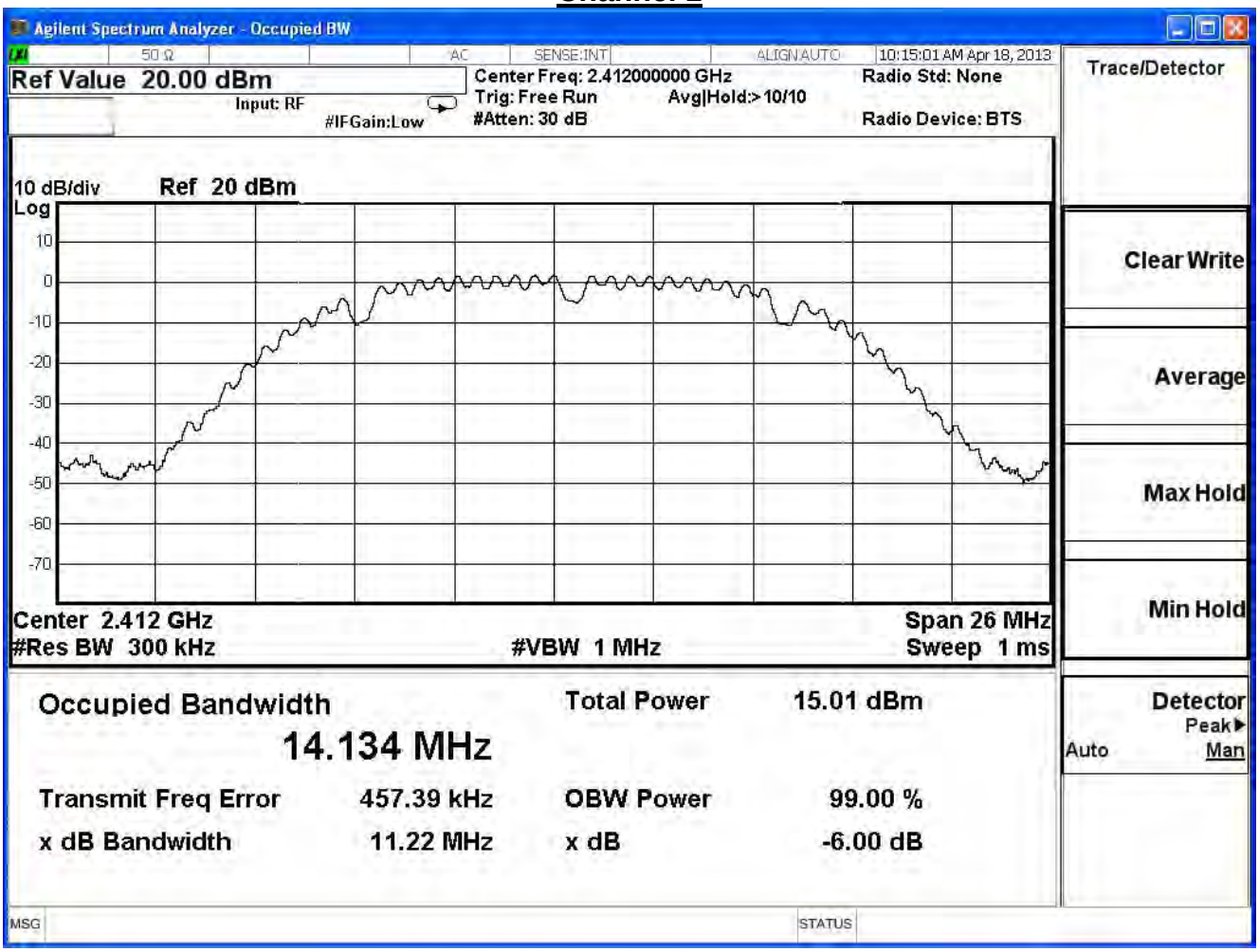
The measurement uncertainty is defined as ±150Hz

7.7. Test Result

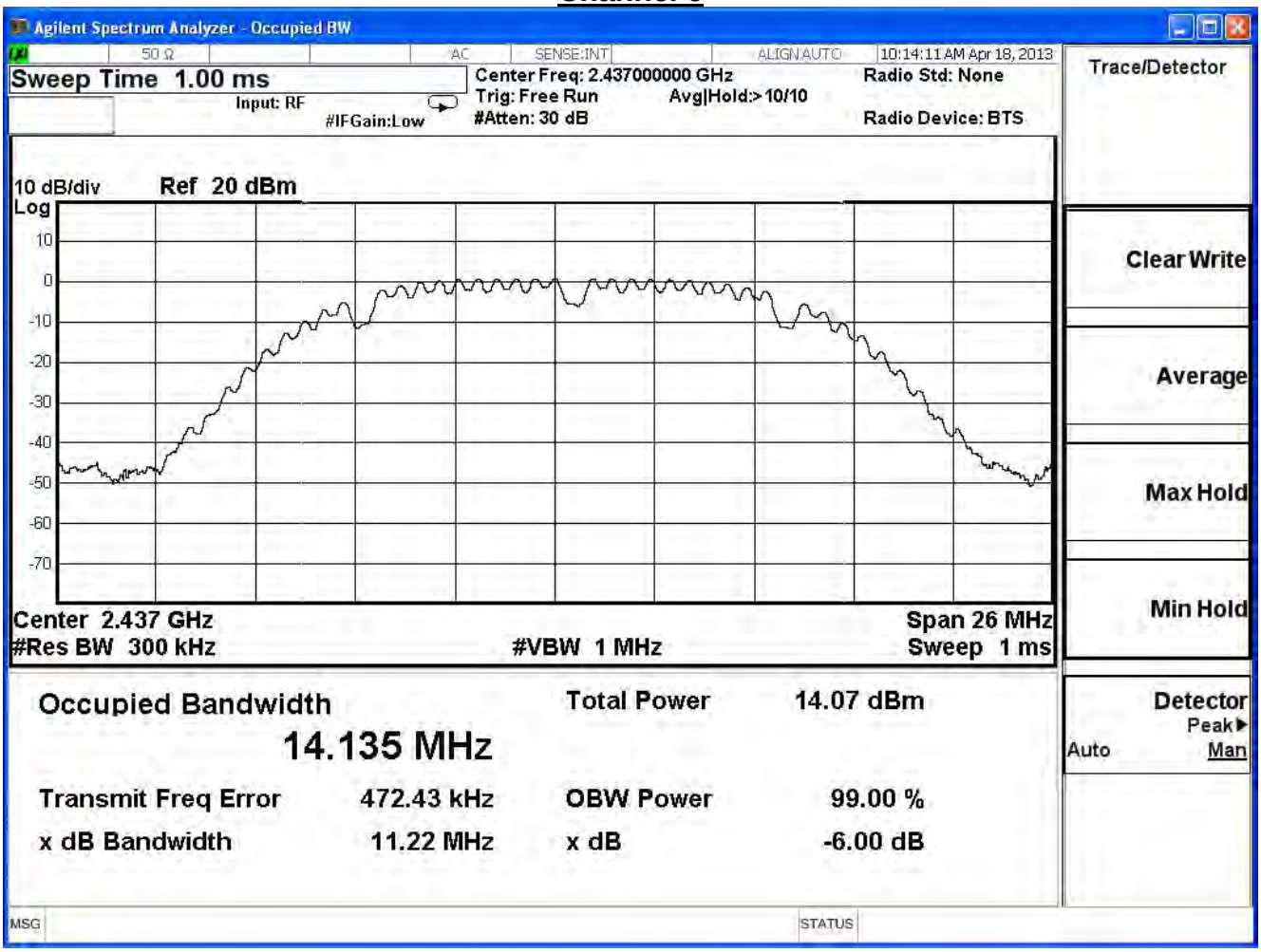
Product	VDSL2 Security Firewall		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2013/06/18	Test Site	SR7

802.11 b				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	11.22	≧0.5	Pass
6	2437	11.22	≧0.5	Pass
11	2462	11.21	≧0.5	Pass

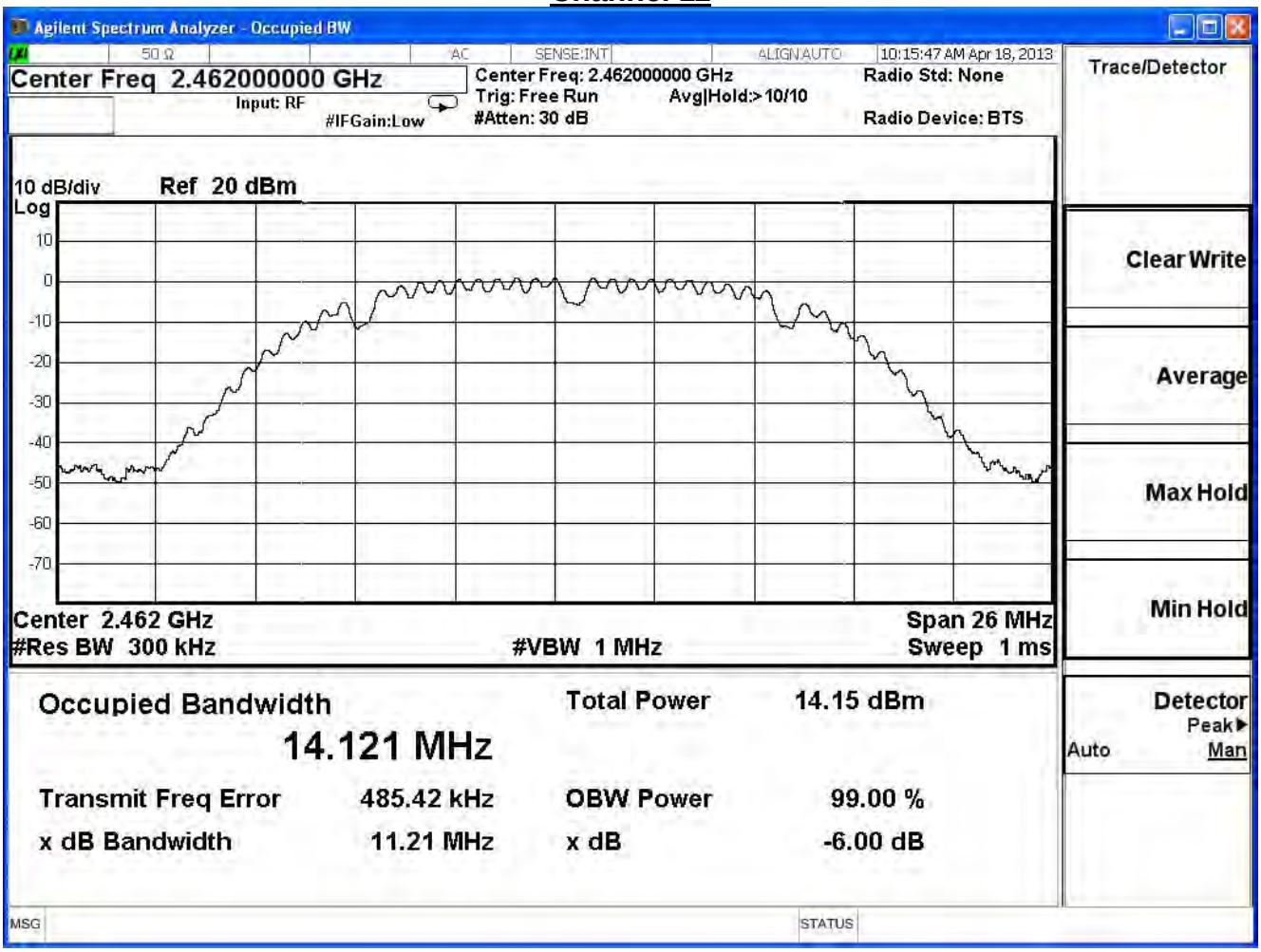
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:14:11 AM Apr 18, 2013
Sweep Time 1.00 ms
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.437 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
14.135 MHz
Total Power 14.07 dBm
Transmit Freq Error 472.43 kHz
OBW Power 99.00 %
x dB Bandwidth 11.22 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

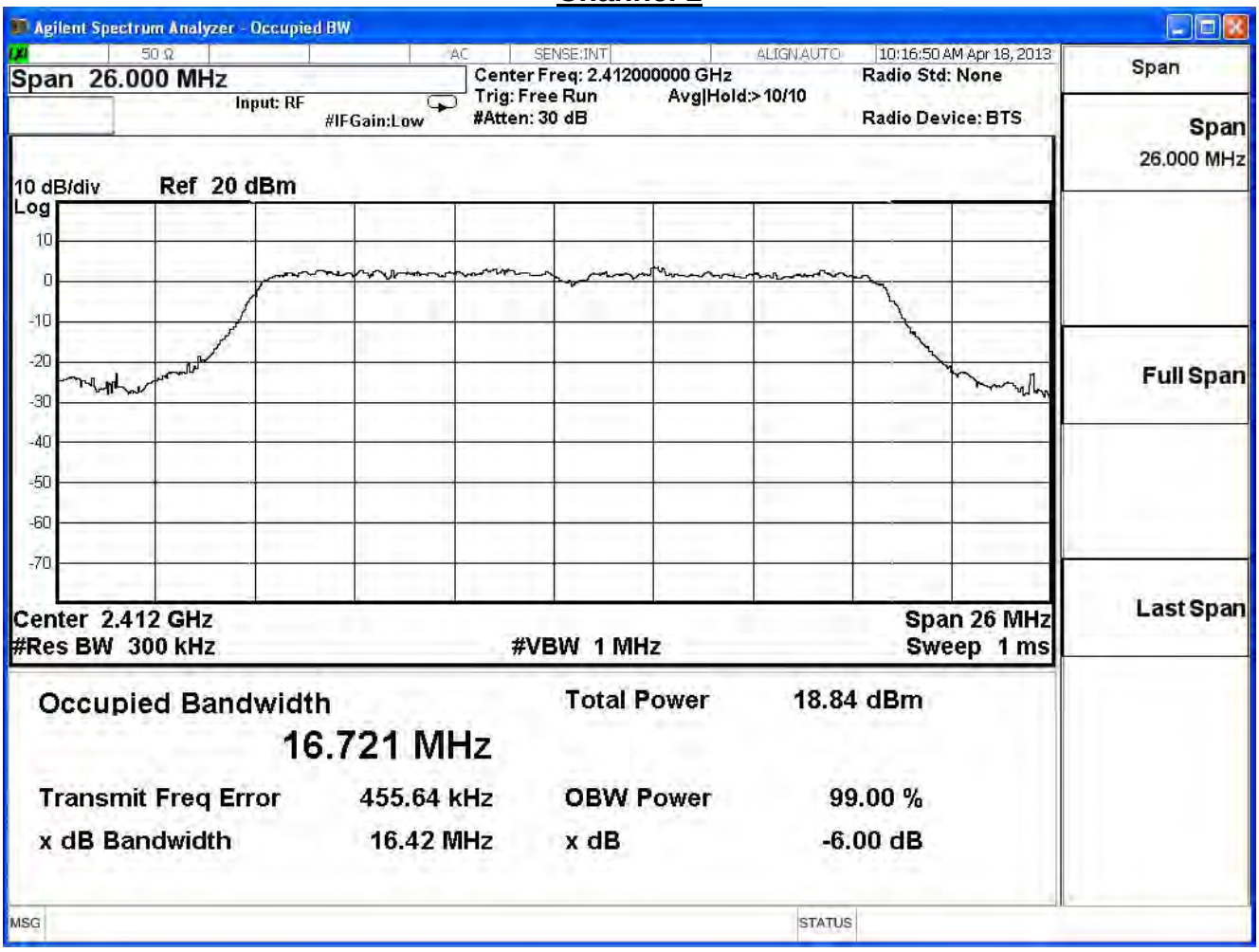
Channel 11


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:15:47 AM Apr 18, 2013
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.462 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
14.121 MHz
Total Power 14.15 dBm
Transmit Freq Error 485.42 kHz
OBW Power 99.00 %
x dB Bandwidth 11.21 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

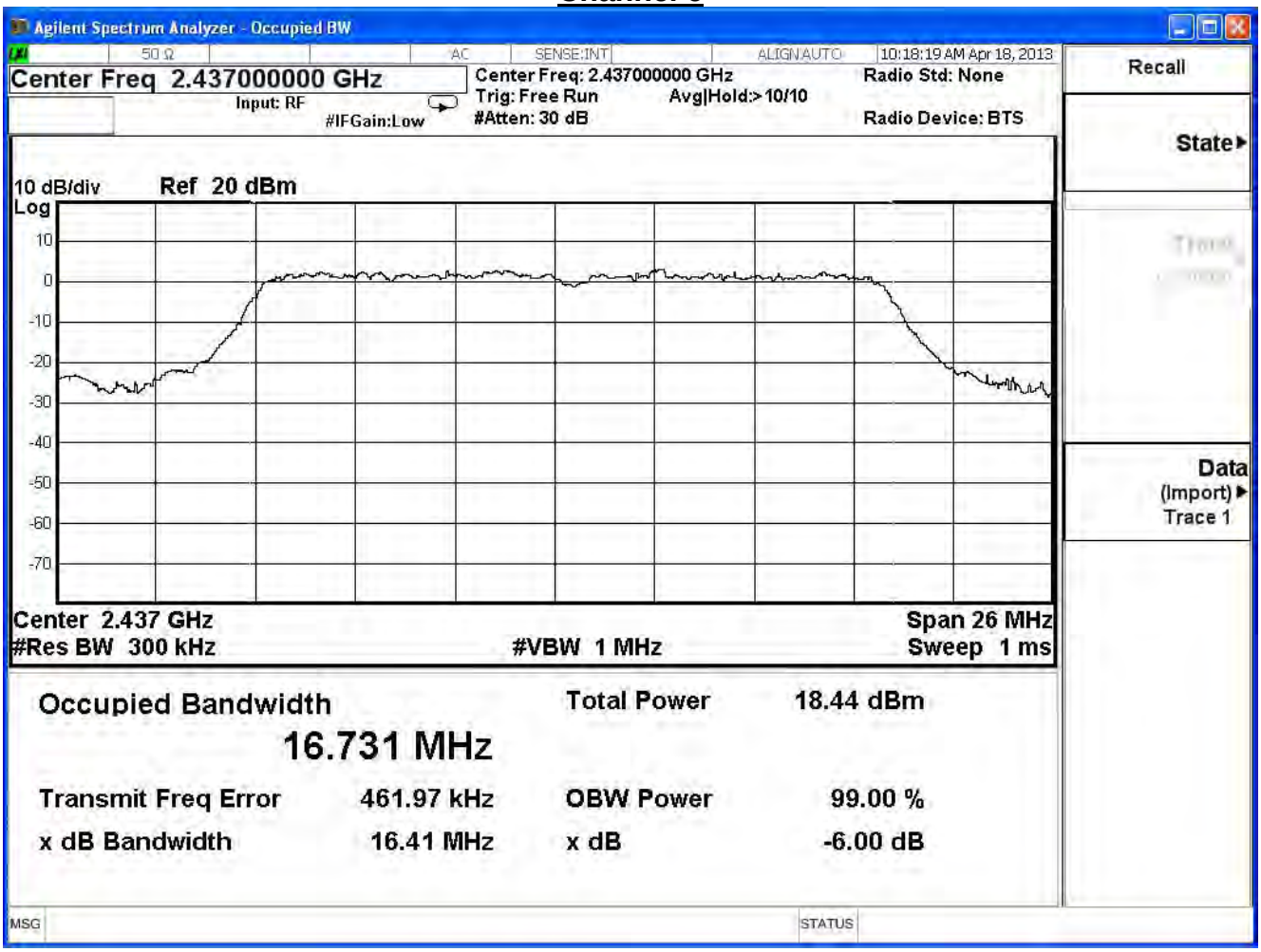
Product	VDSL2 Security Firewall		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2013/06/18	Test Site	SR7

IEEE 802.11g				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	16.42	≧0.5	Pass
6	2437	16.41	≧0.5	Pass
11	2462	16.38	≧0.5	Pass

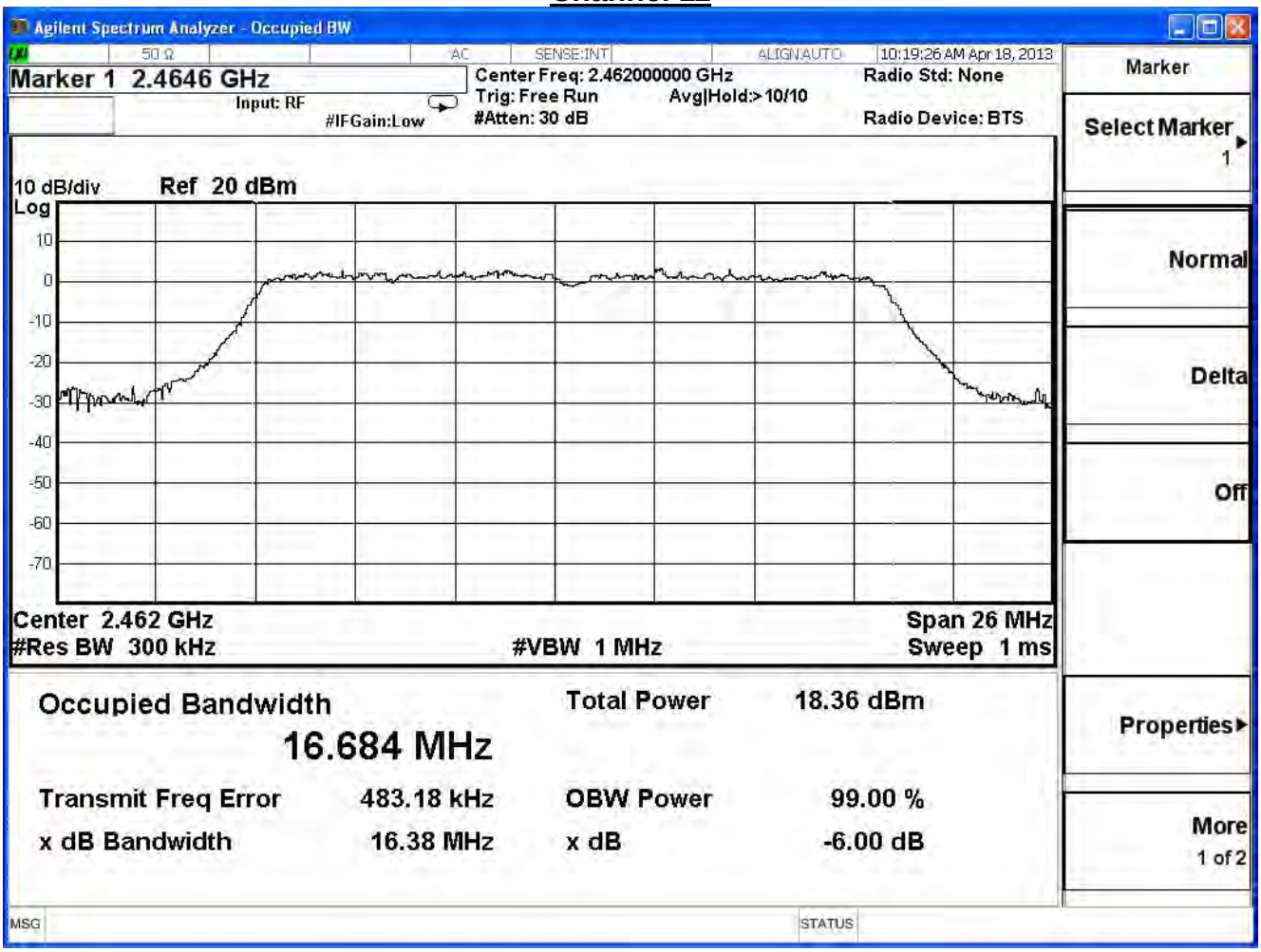
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:18:19 AM Apr 18, 2013
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Recall
State
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Data
(Import)
Trace 1
Center 2.437 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
16.731 MHz
Total Power 18.44 dBm
Transmit Freq Error 461.97 kHz
OBW Power 99.00 %
x dB Bandwidth 16.41 MHz
x dB -6.00 dB
MSG
STATUS

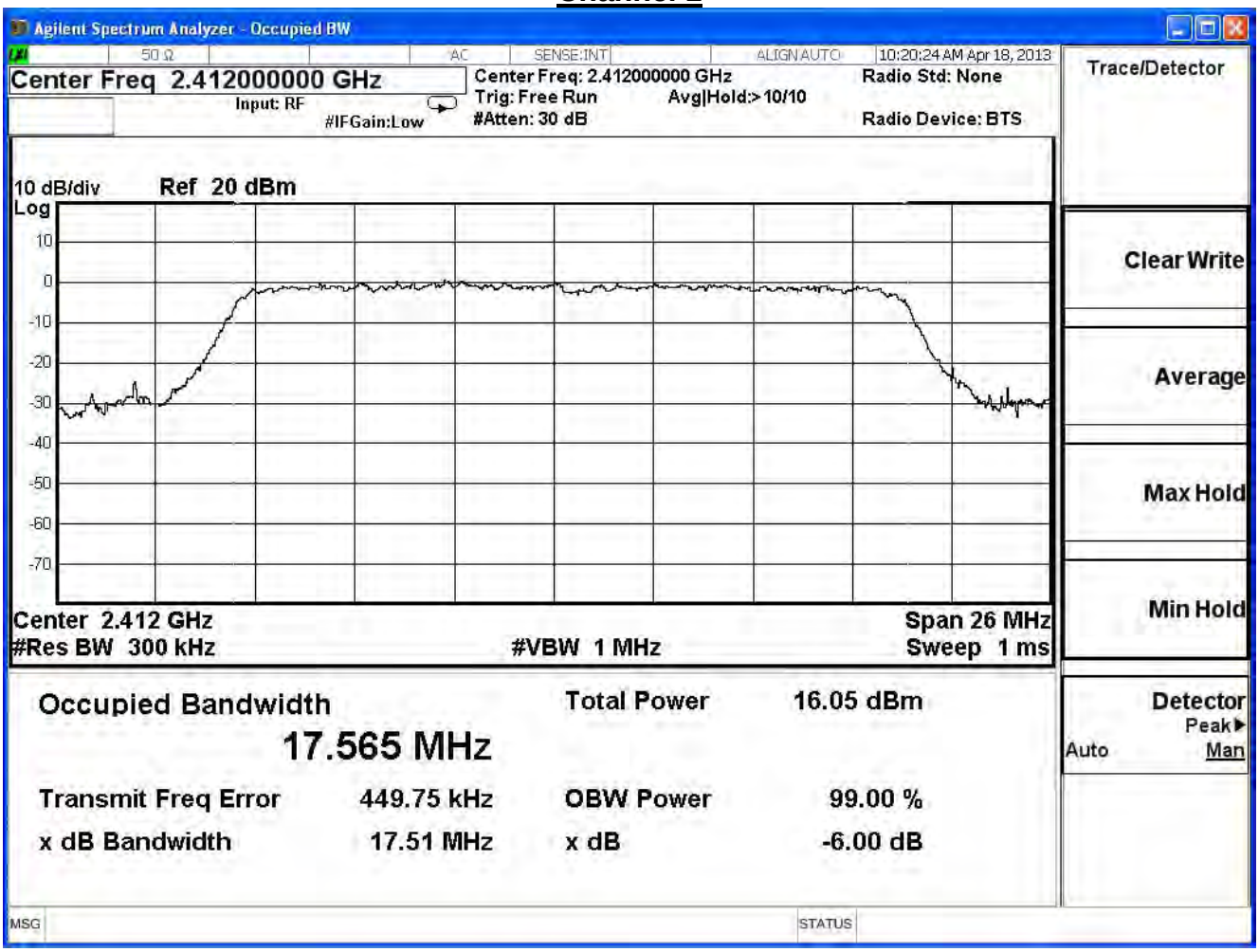
Channel 11


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:19:26 AM Apr 18, 2013
Marker 1 2.4646 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Marker
Select Marker 1
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Normal
Delta
Off
Center 2.462 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
16.684 MHz
Total Power 18.36 dBm
Transmit Freq Error 483.18 kHz
OBW Power 99.00 %
x dB Bandwidth 16.38 MHz
x dB -6.00 dB
Properties
More 1 of 2
MSG
STATUS

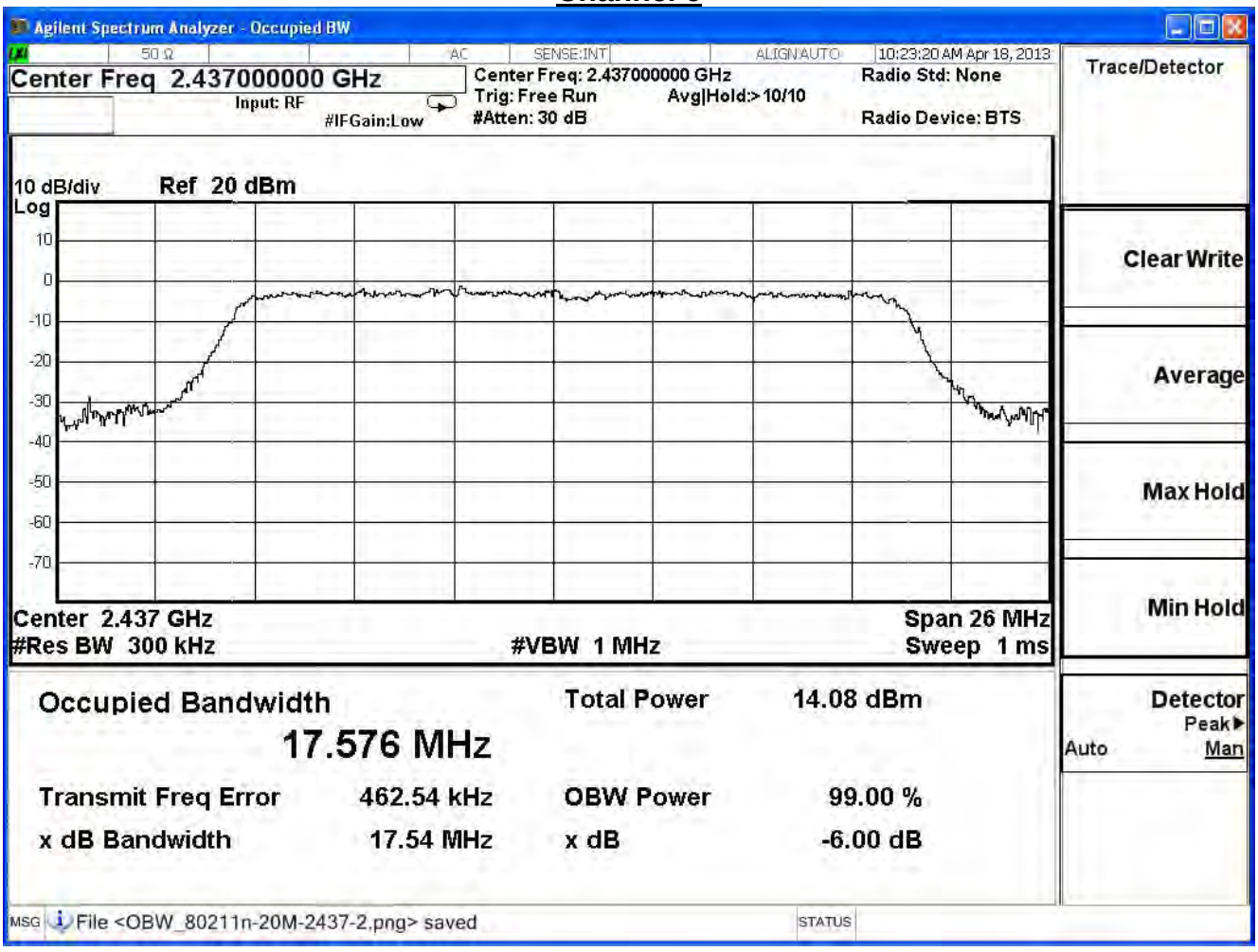
Product	VDSL2 Security Firewall		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2013/06/18	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	17.51	≧0.5	Pass
6	2437	17.54	≧0.5	Pass
11	2462	17.51	≧0.5	Pass

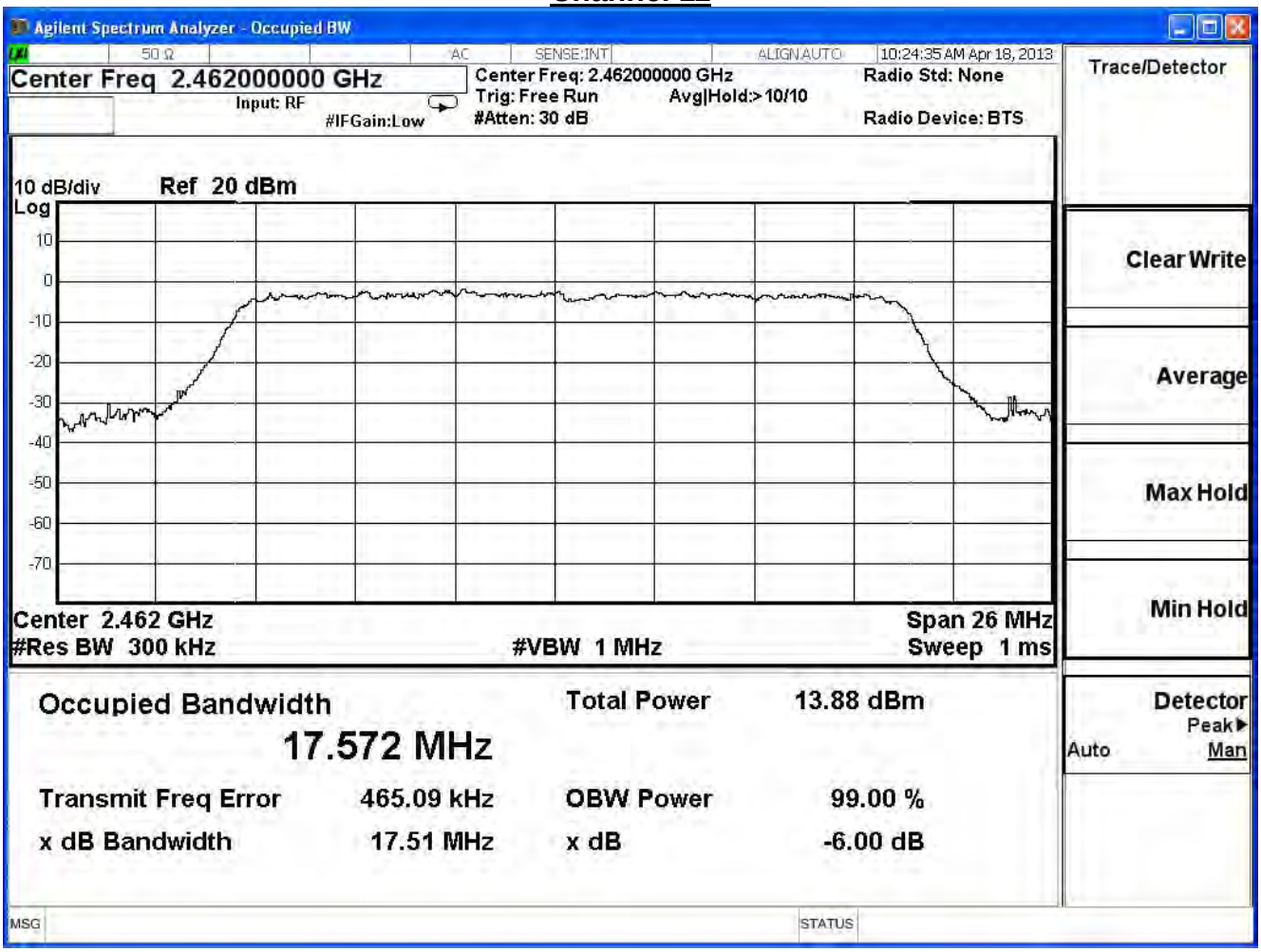
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:23:20 AM Apr 18, 2013
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.437 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
17.576 MHz
Total Power 14.08 dBm
Transmit Freq Error 462.54 kHz
OBW Power 99.00 %
x dB Bandwidth 17.54 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
File <OBW_80211n-20M-2437-2.png> saved
STATUS

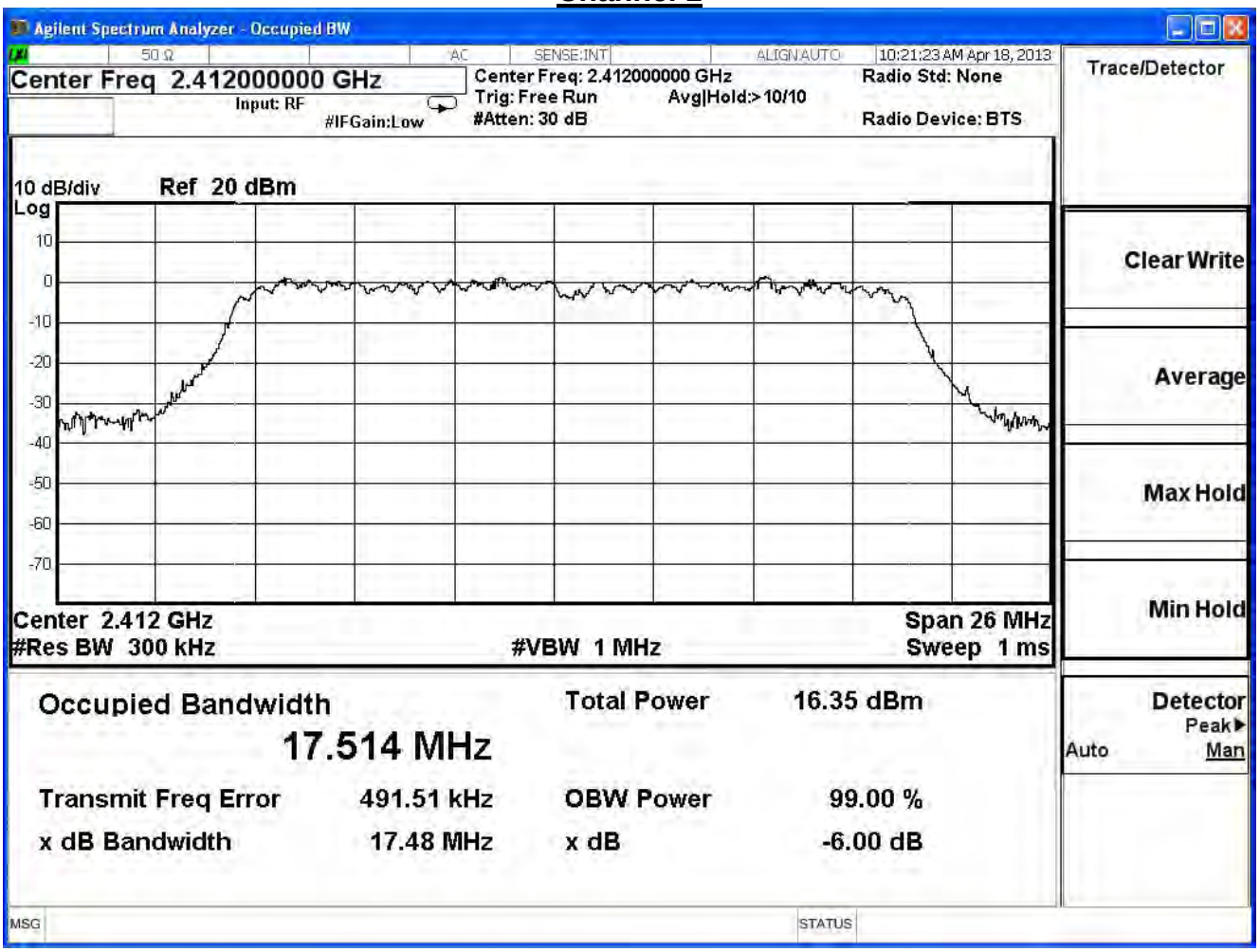
Channel 11


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:24:35 AM Apr 18, 2013
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.462 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
17.572 MHz
Total Power 13.88 dBm
Transmit Freq Error 465.09 kHz
OBW Power 99.00 %
x dB Bandwidth 17.51 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

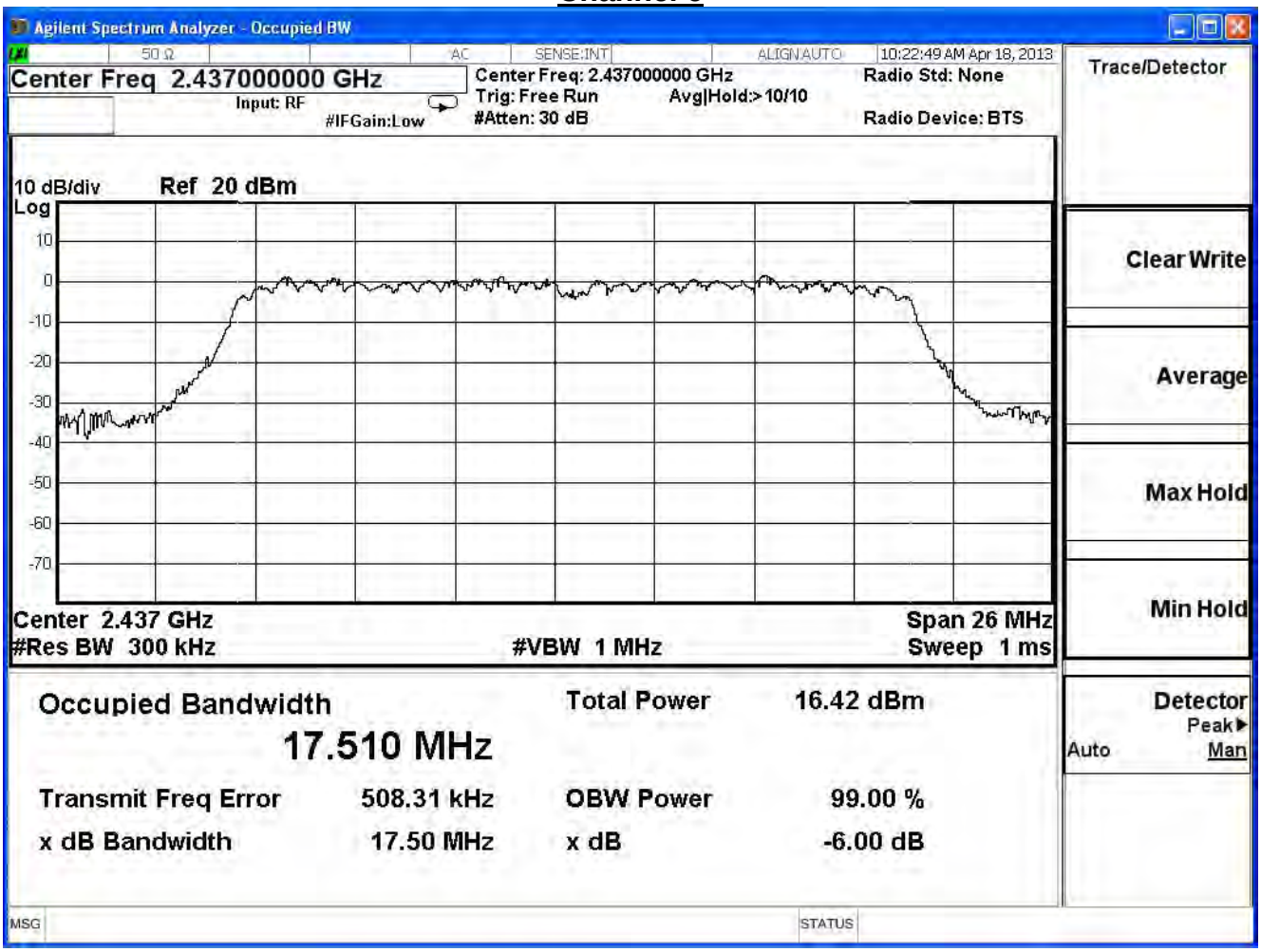
Product	VDSL2 Security Firewall		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2013/06/18	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
1	2412	17.48	≧0.5	Pass
6	2437	17.50	≧0.5	Pass
11	2462	17.52	≧0.5	Pass

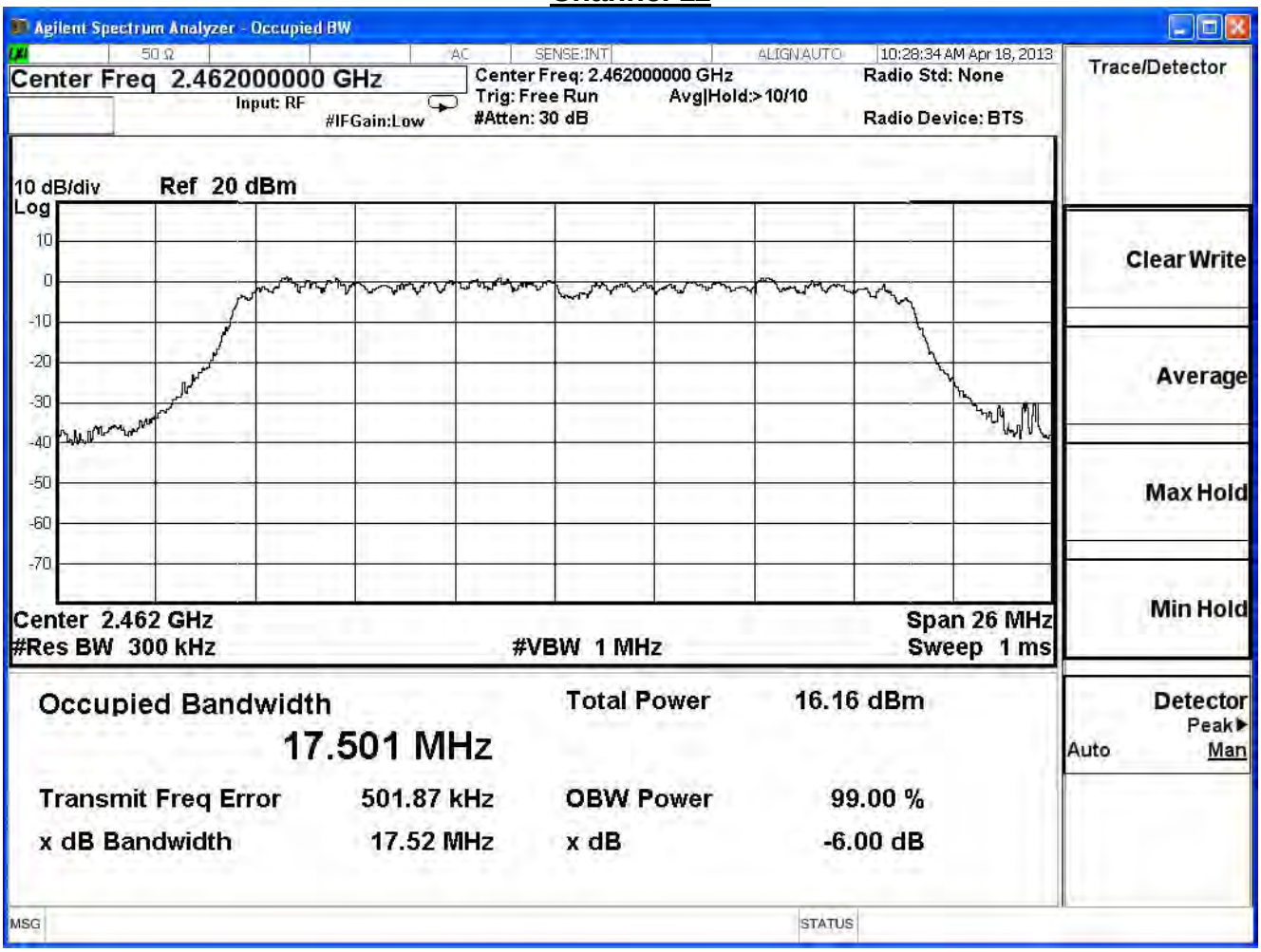
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:22:49 AM Apr 18, 2013
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.437 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
17.510 MHz
Total Power 16.42 dBm
Transmit Freq Error 508.31 kHz
OBW Power 99.00 %
x dB Bandwidth 17.50 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

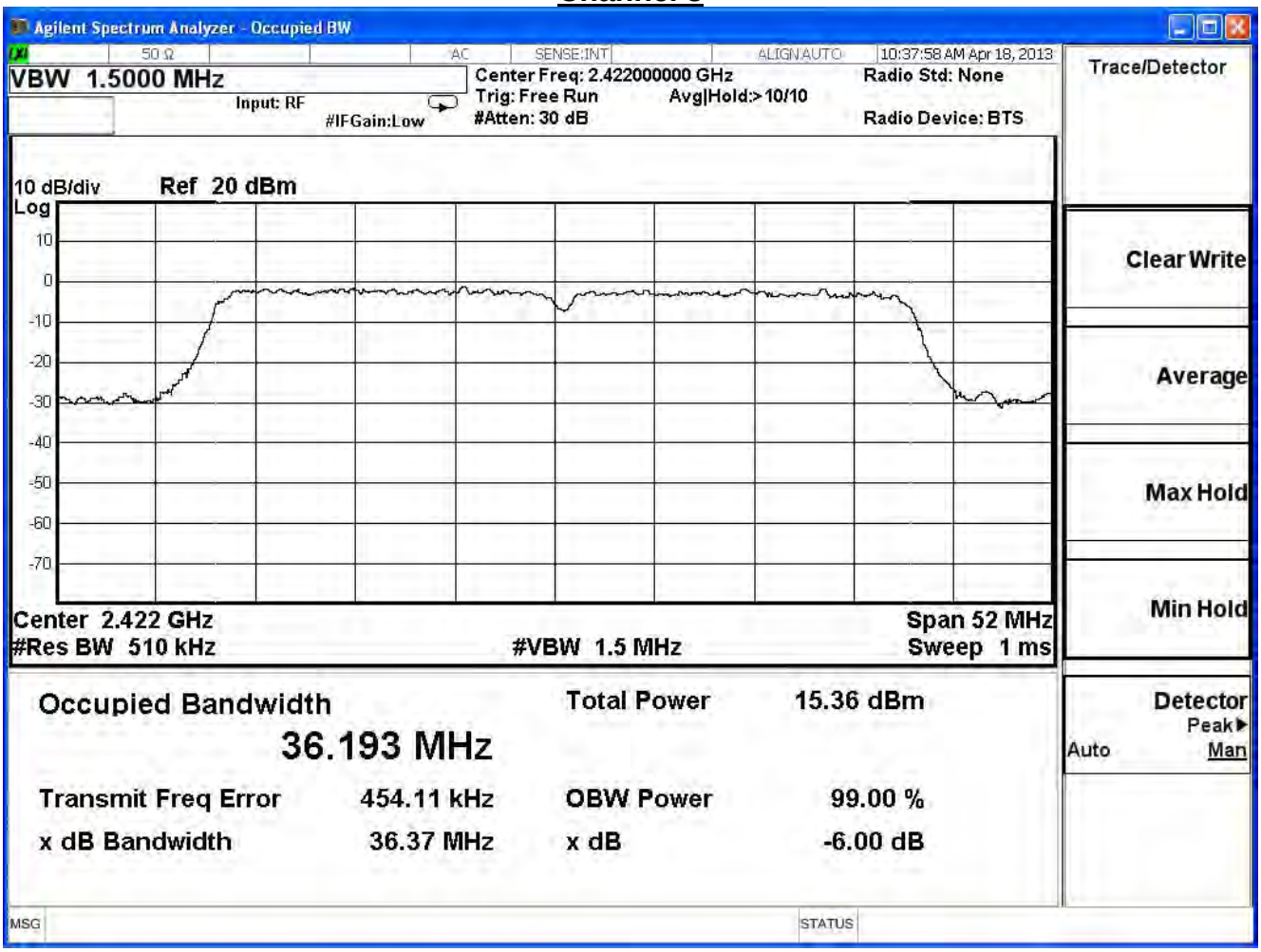
Channel 11


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:28:34 AM Apr 18, 2013
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.462 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
17.501 MHz
Total Power 16.16 dBm
Transmit Freq Error 501.87 kHz
OBW Power 99.00 %
x dB Bandwidth 17.52 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

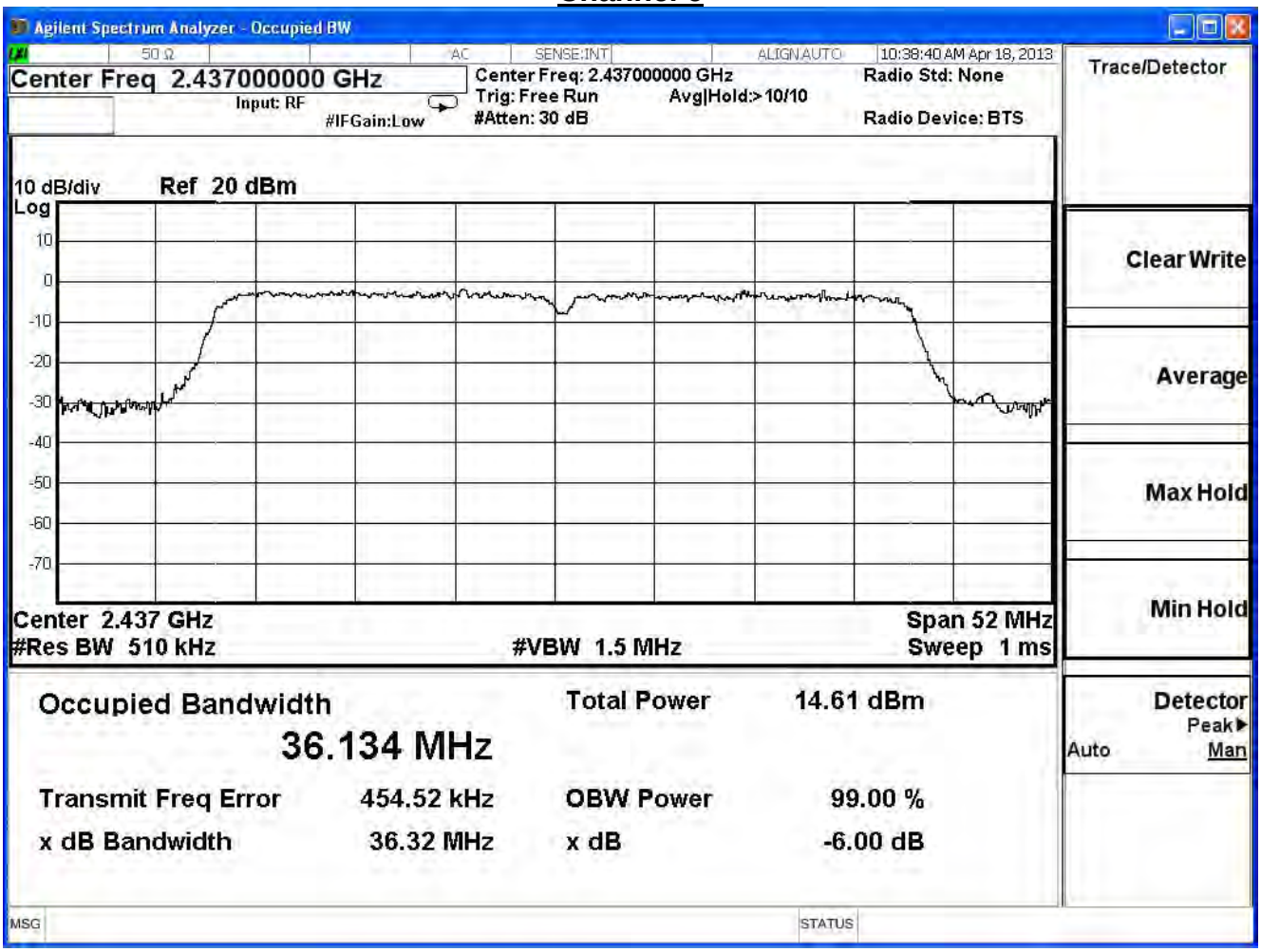
Product	VDSL2 Security Firewall		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2013/06/18	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
3	2422	36.37	≧0.5	Pass
6	2437	36.32	≧0.5	Pass
9	2452	36.36	≧0.5	Pass

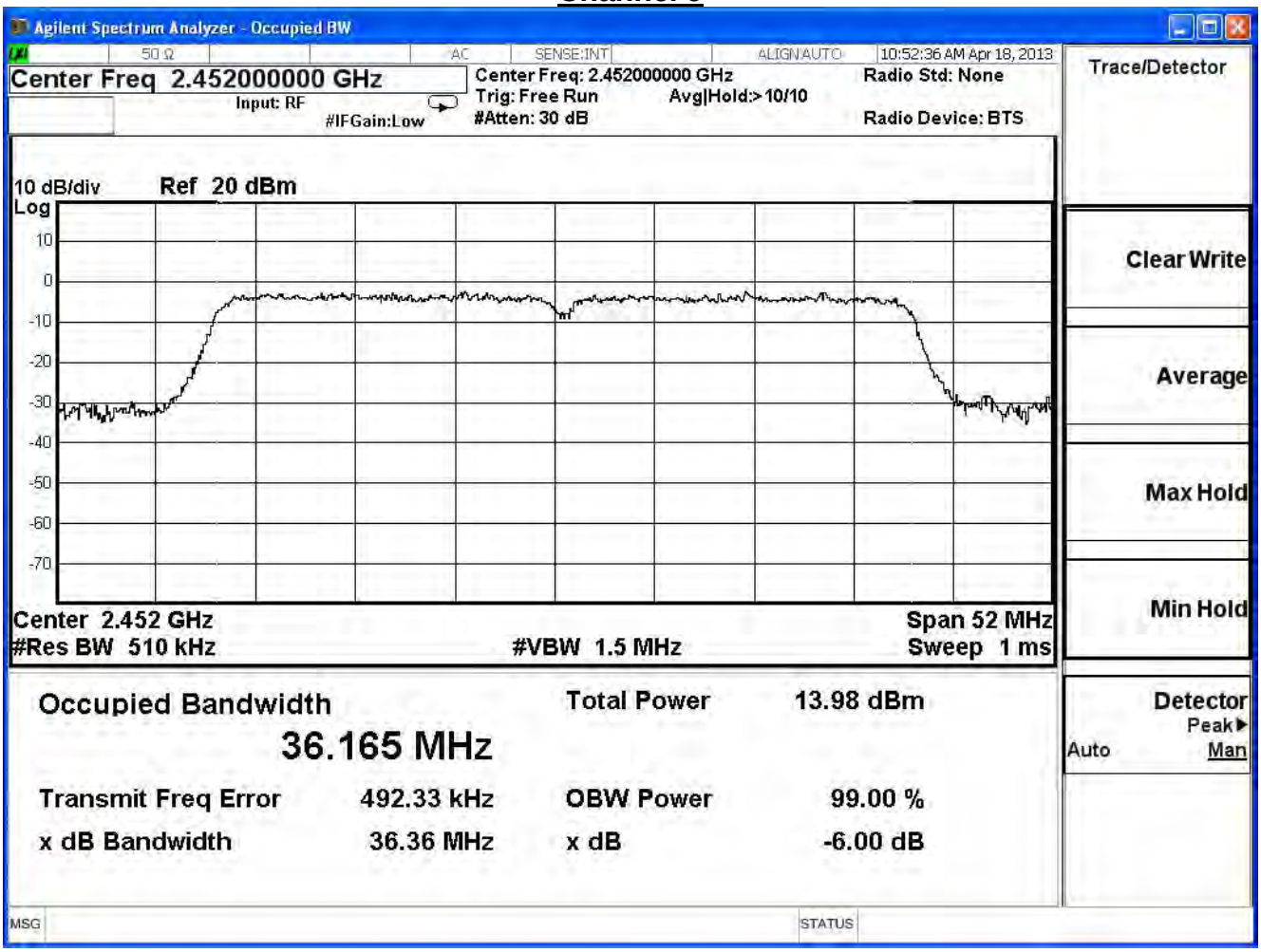
Channel 3


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:37:58 AM Apr 18, 2013
VBW 1.5000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.422000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.422 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 52 MHz
Sweep 1 ms
Occupied Bandwidth
36.193 MHz
Total Power 15.36 dBm
Transmit Freq Error 454.11 kHz
OBW Power 99.00 %
x dB Bandwidth 36.37 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:38:40 AM Apr 18, 2013
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.437 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 52 MHz
Sweep 1 ms
Occupied Bandwidth
36.134 MHz
Total Power 14.61 dBm
Transmit Freq Error 454.52 kHz
OBW Power 99.00 %
x dB Bandwidth 36.32 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

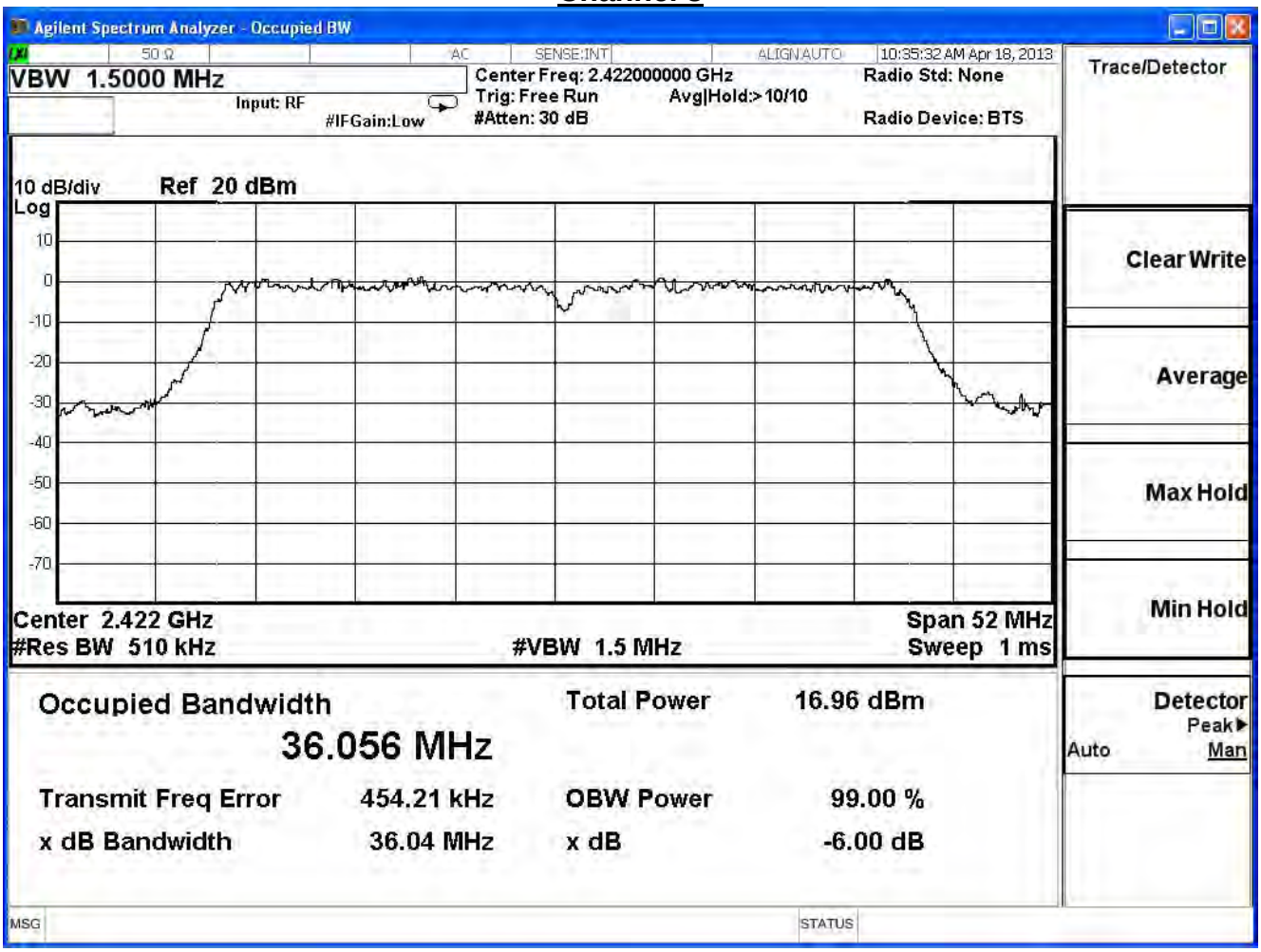
Channel 9


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:52:36 AM Apr 18, 2013
Center Freq 2.452000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.452000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.452 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 52 MHz
Sweep 1 ms
Occupied Bandwidth
36.165 MHz
Total Power 13.98 dBm
Transmit Freq Error 492.33 kHz
OBW Power 99.00 %
x dB Bandwidth 36.36 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

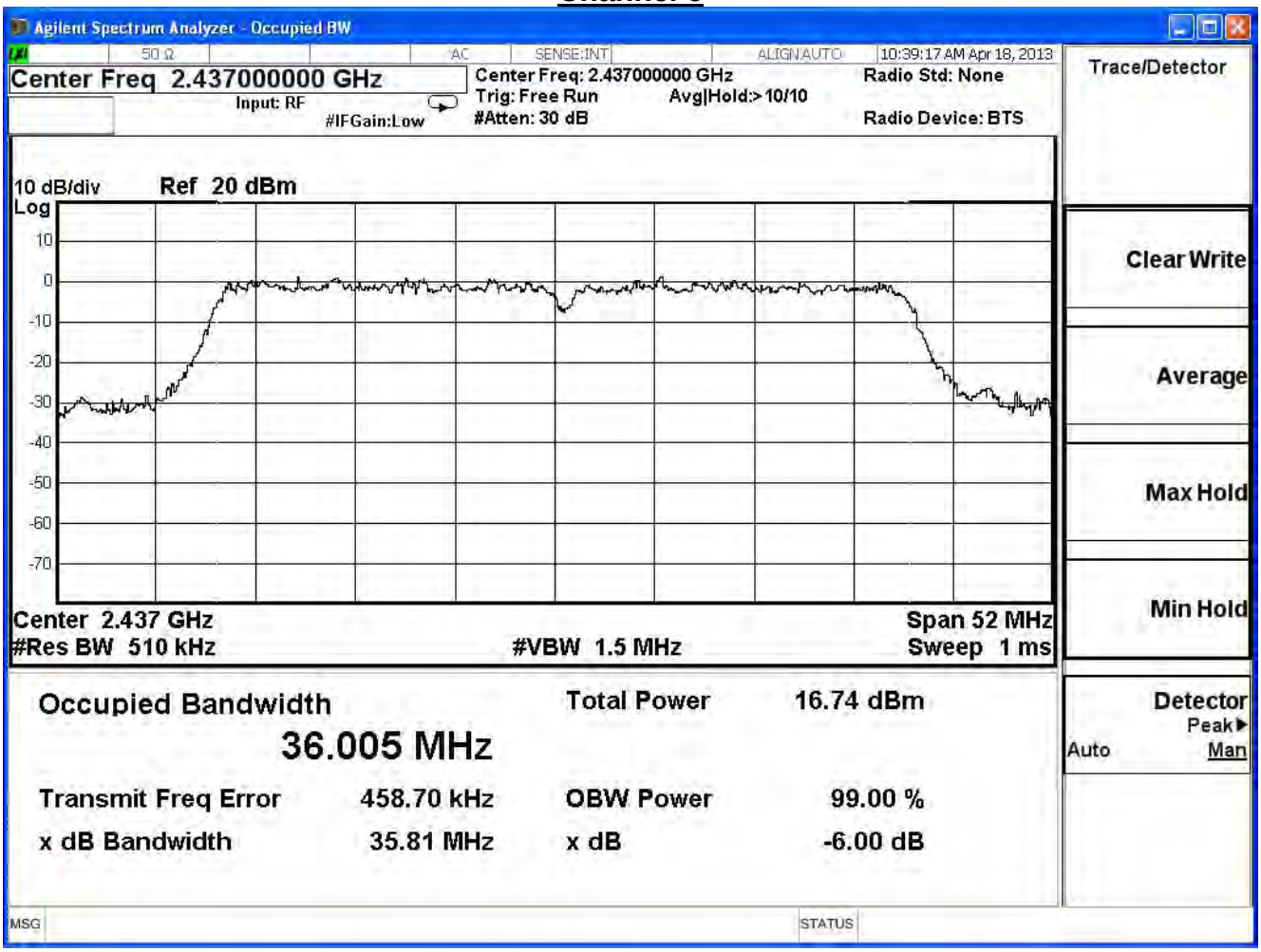
Product	VDSL2 Security Firewall		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2013/06/18	Test Site	SR7

EEE 802.11n (40MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
3	2422	36.04	≧0.5	Pass
6	2437	35.81	≧0.5	Pass
9	2452	35.90	≧0.5	Pass

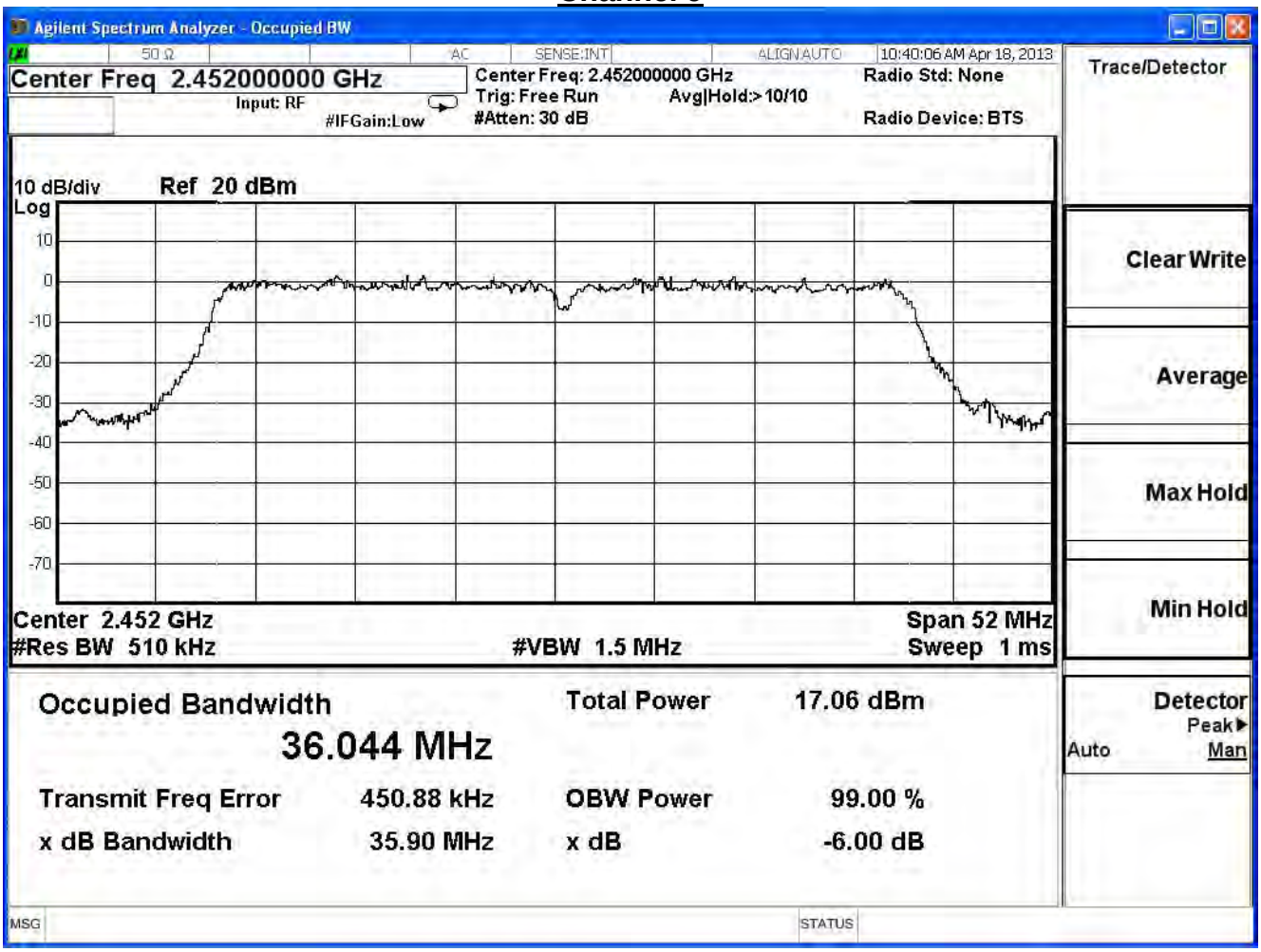
Channel 3


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:35:32 AM Apr 18, 2013
VBW 1.5000 MHz
Input: RF
#IFGain:Low
Center Freq: 2.422000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.422 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 52 MHz
Sweep 1 ms
Occupied Bandwidth
36.056 MHz
Total Power 16.96 dBm
Transmit Freq Error 454.21 kHz
OBW Power 99.00 %
x dB Bandwidth 36.04 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

Channel 6


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:39:17 AM Apr 18, 2013
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.437 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 52 MHz
Sweep 1 ms
Occupied Bandwidth
36.005 MHz
Total Power 16.74 dBm
Transmit Freq Error 458.70 kHz
OBW Power 99.00 %
x dB Bandwidth 35.81 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

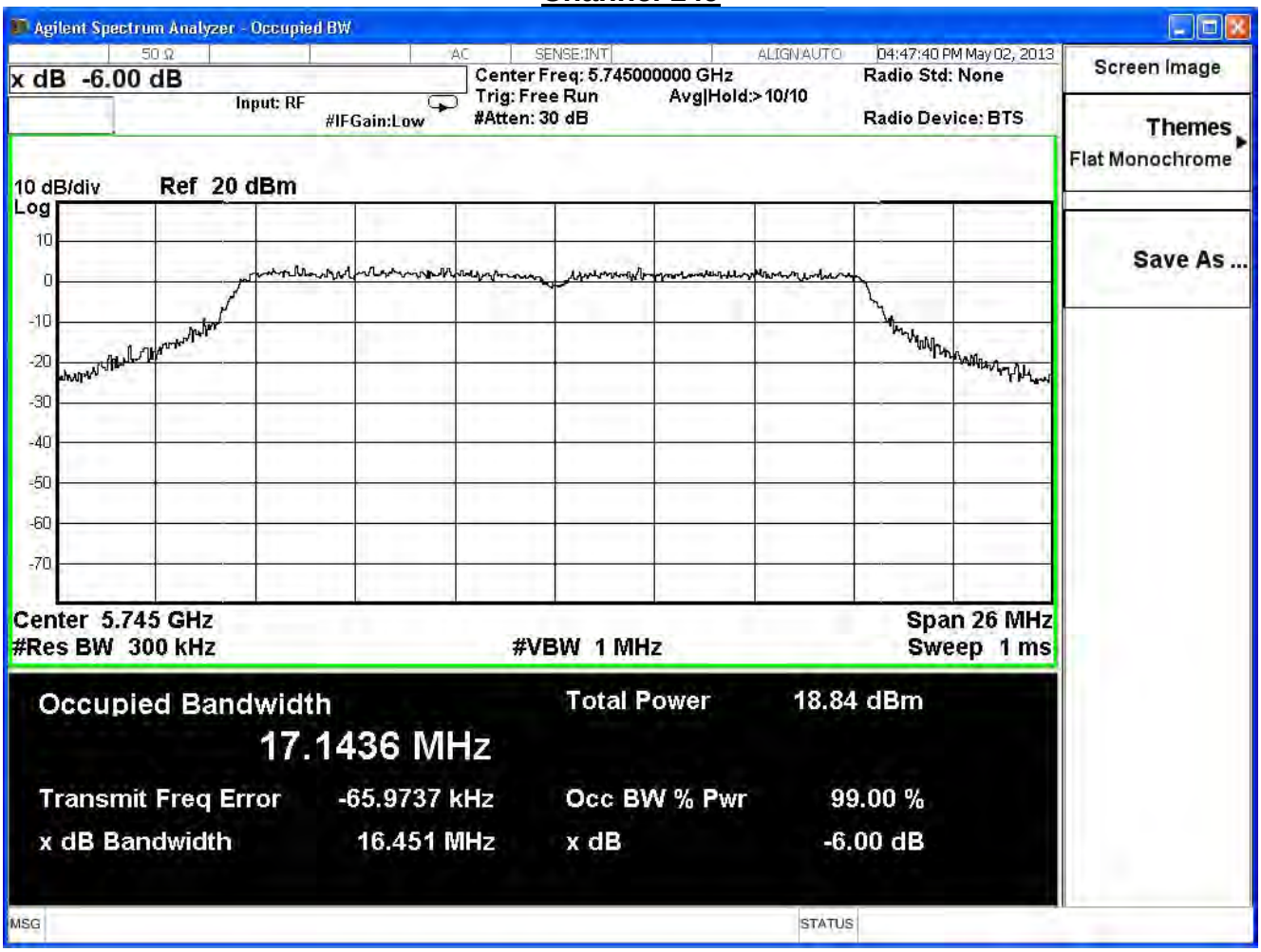
Channel 9


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:40:06 AM Apr 18, 2013
Center Freq 2.452000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Trace/Detector
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Clear Write
Average
Max Hold
Min Hold
Center 2.452 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 52 MHz
Sweep 1 ms
Occupied Bandwidth
36.044 MHz
Total Power 17.06 dBm
Transmit Freq Error 450.88 kHz
OBW Power 99.00 %
x dB Bandwidth 35.90 MHz
x dB -6.00 dB
Detector
Peak
Auto
Man
MSG
STATUS

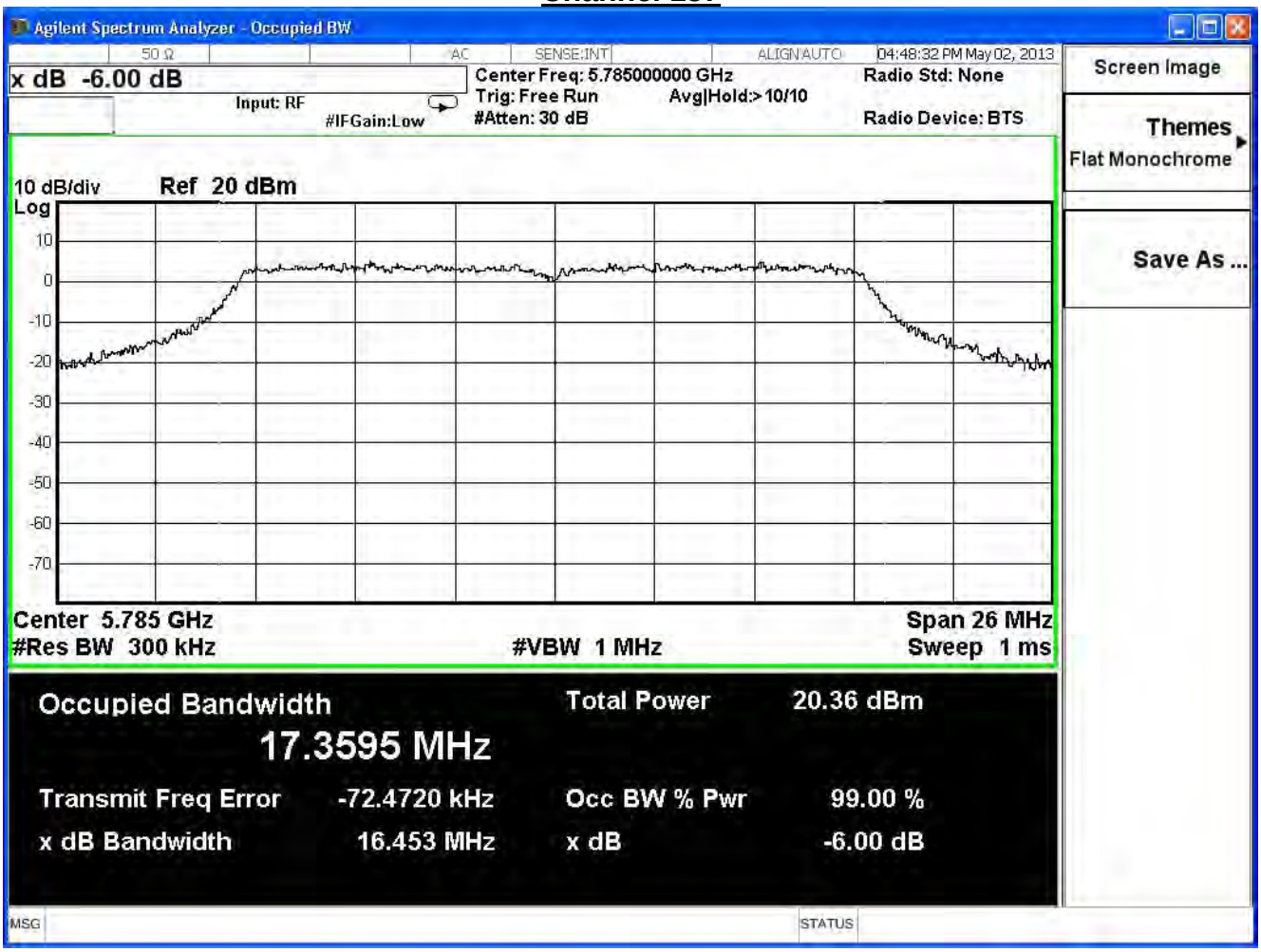
Product	VDSL2 Security Firewall		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

802.11 a				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
149	5745	16.451	≧0.5	Pass
157	5785	16.453	≧0.5	Pass
165	5825	16.482	≧0.5	Pass

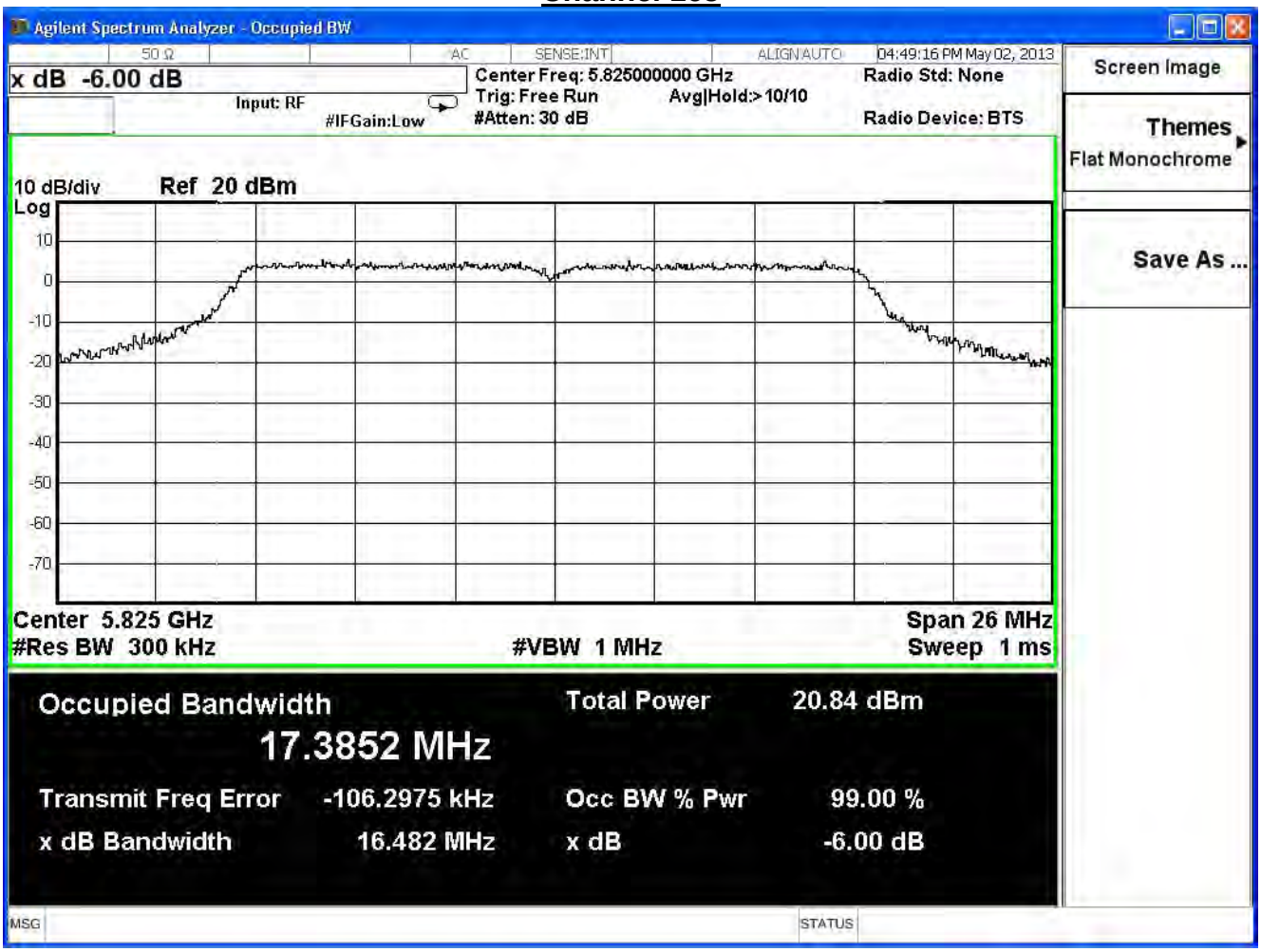
Channel 149


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:47:40 PM May 02, 2013
x dB -6.00 dB
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Input: RF
#IFGain:Low
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Center 5.745 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
17.1436 MHz
Total Power 18.84 dBm
Transmit Freq Error -65.9737 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 16.451 MHz
x dB -6.00 dB
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:48:32 PM May 02, 2013
x dB -6.00 dB
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Input: RF
#IFGain:Low
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Center 5.785 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
17.3595 MHz
Total Power 20.36 dBm
Transmit Freq Error -72.4720 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 16.453 MHz
x dB -6.00 dB
MSG
STATUS

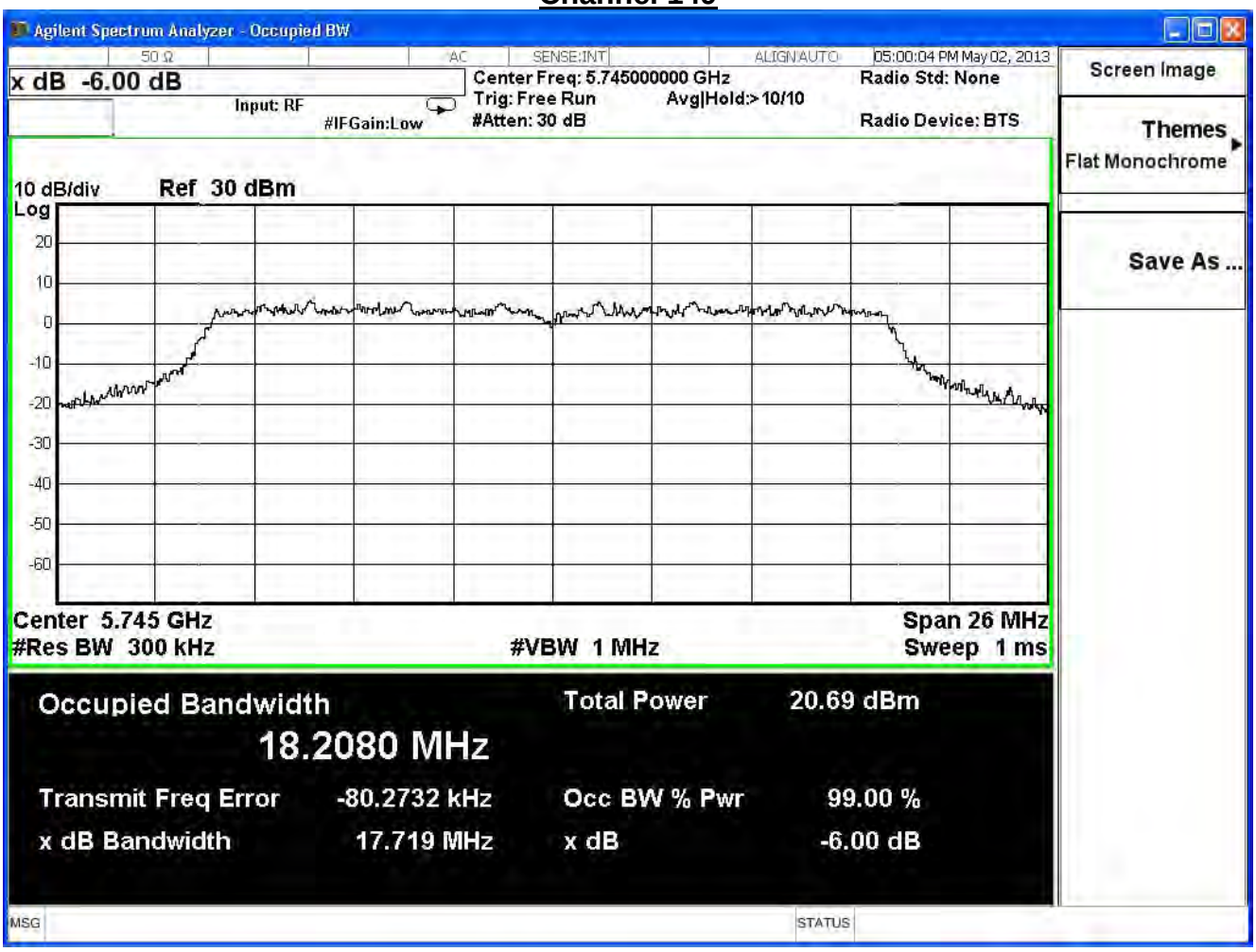
Channel 165


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:49:16 PM May 02, 2013
x dB -6.00 dB
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Input: RF
#IFGain:Low
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Center 5.825 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
17.3852 MHz
Total Power 20.84 dBm
Transmit Freq Error -106.2975 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 16.482 MHz
x dB -6.00 dB
MSG
STATUS

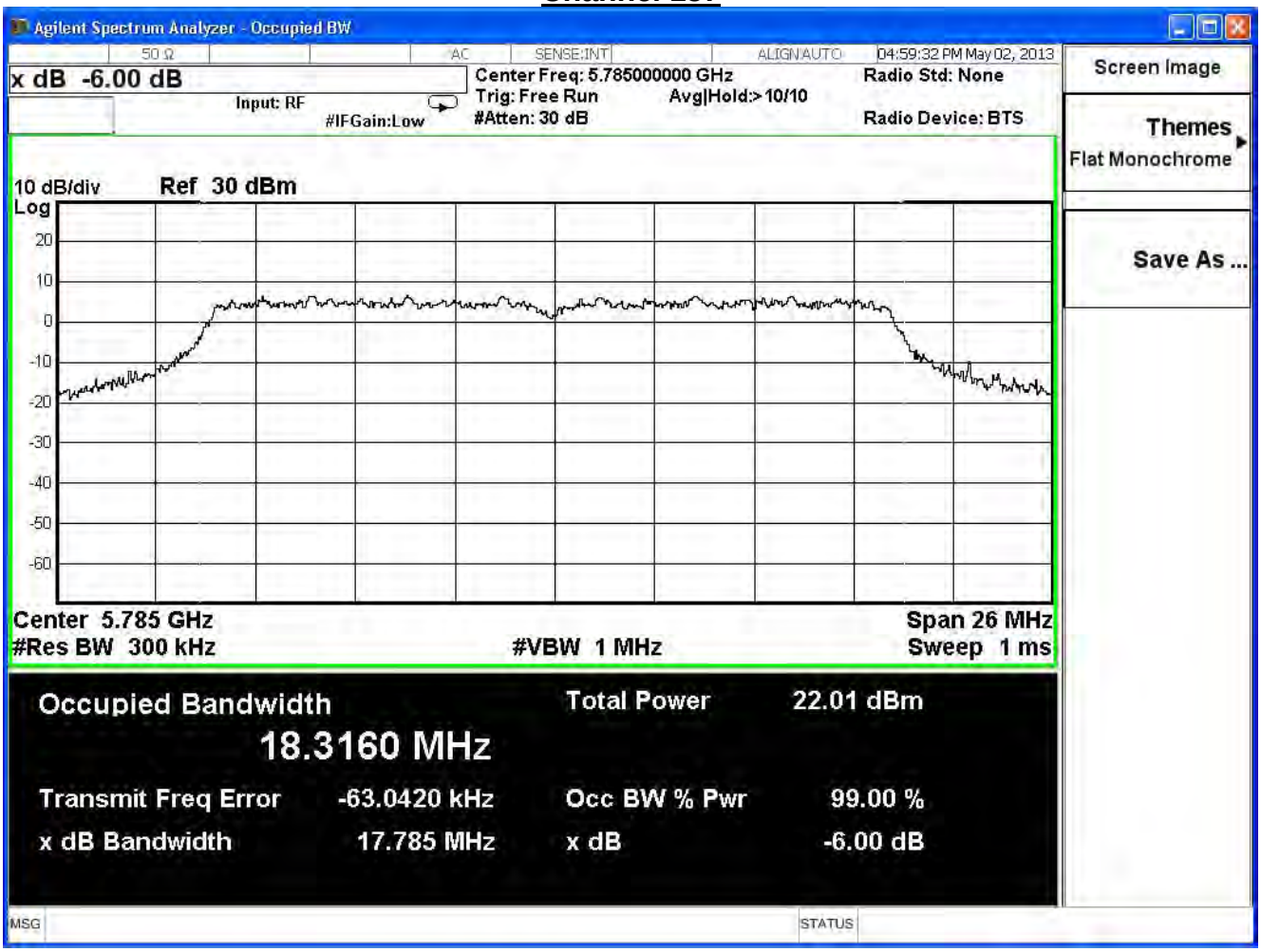
Product	VDSL2 Security Firewall		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
149	5745	17.719	≧0.5	Pass
157	5785	17.785	≧0.5	Pass
165	5825	17.777	≧0.5	Pass

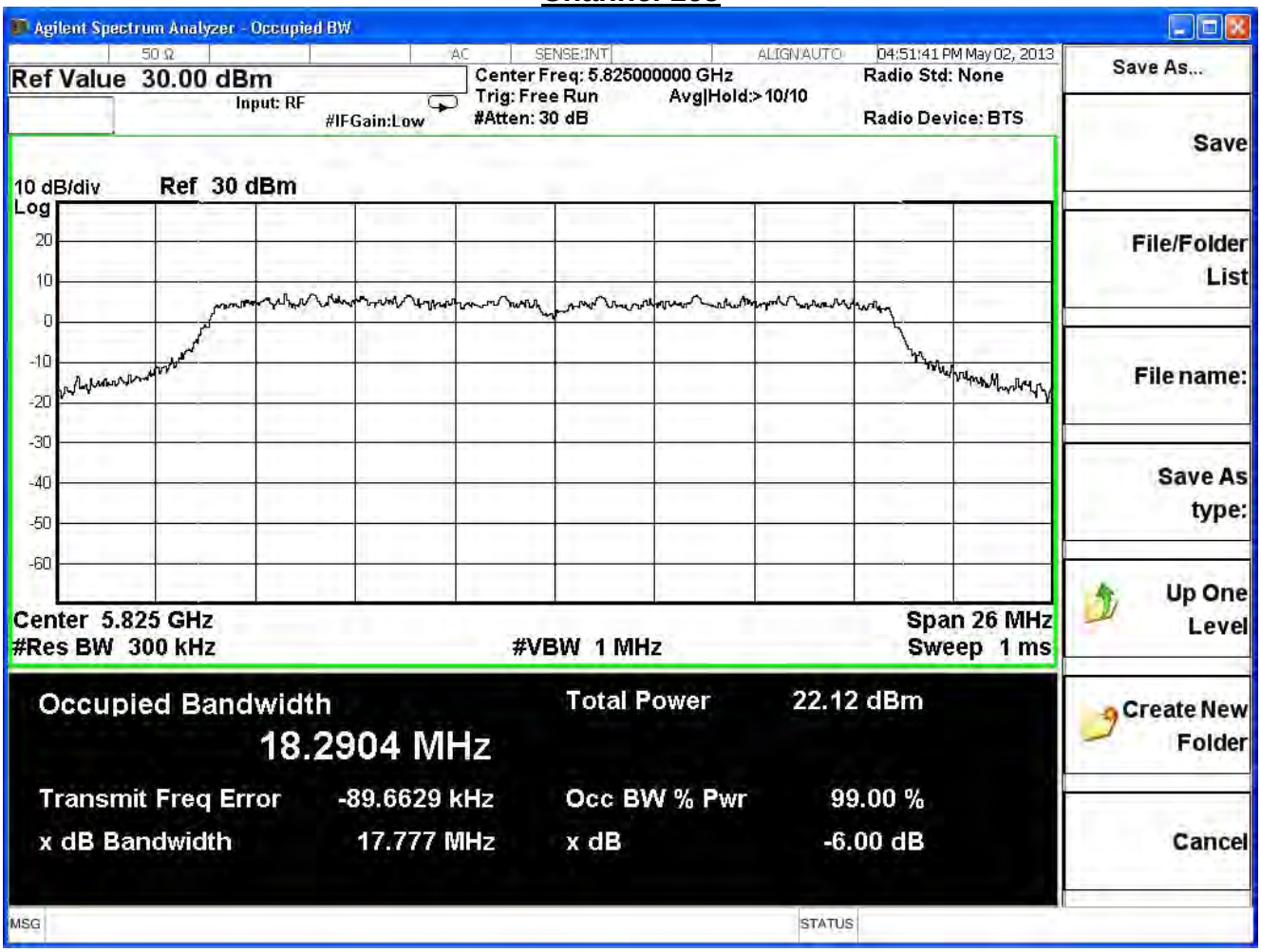
Channel 149


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:00:04 PM May 02, 2013
x dB -6.00 dB
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 30 dBm
Log
20
10
0
-10
-20
-30
-40
-50
-60
Center 5.745 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
18.2080 MHz
Total Power 20.69 dBm
Transmit Freq Error -80.2732 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 17.719 MHz
x dB -6.00 dB
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:59:32 PM May 02, 2013
x dB -6.00 dB
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Input: RF
#IFGain:Low
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 30 dBm
Log
20
10
0
-10
-20
-30
-40
-50
-60
Center 5.785 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
18.3160 MHz
Total Power 22.01 dBm
Transmit Freq Error -63.0420 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 17.785 MHz
x dB -6.00 dB
MSG
STATUS

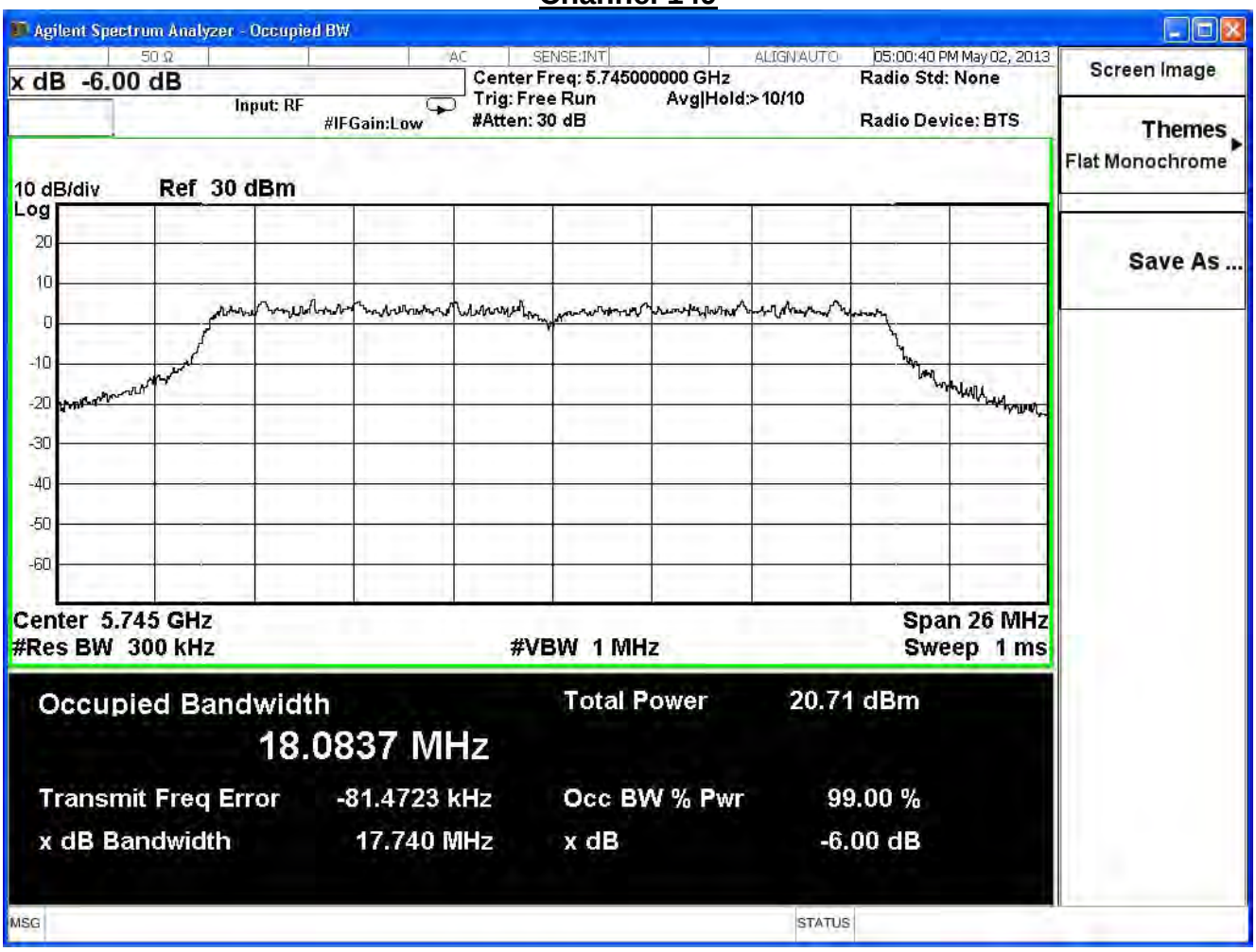
Channel 165


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:51:41 PM May 02, 2013
Ref Value 30.00 dBm
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Ref 30 dBm
Log
20
10
0
-10
-20
-30
-40
-50
-60
Center 5.825 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
18.2904 MHz
Total Power 22.12 dBm
Transmit Freq Error -89.6629 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 17.777 MHz
x dB -6.00 dB
Save As...
Save
File/Folder List
File name:
Save As type:
Up One Level
Create New Folder
Cancel
MSG
STATUS

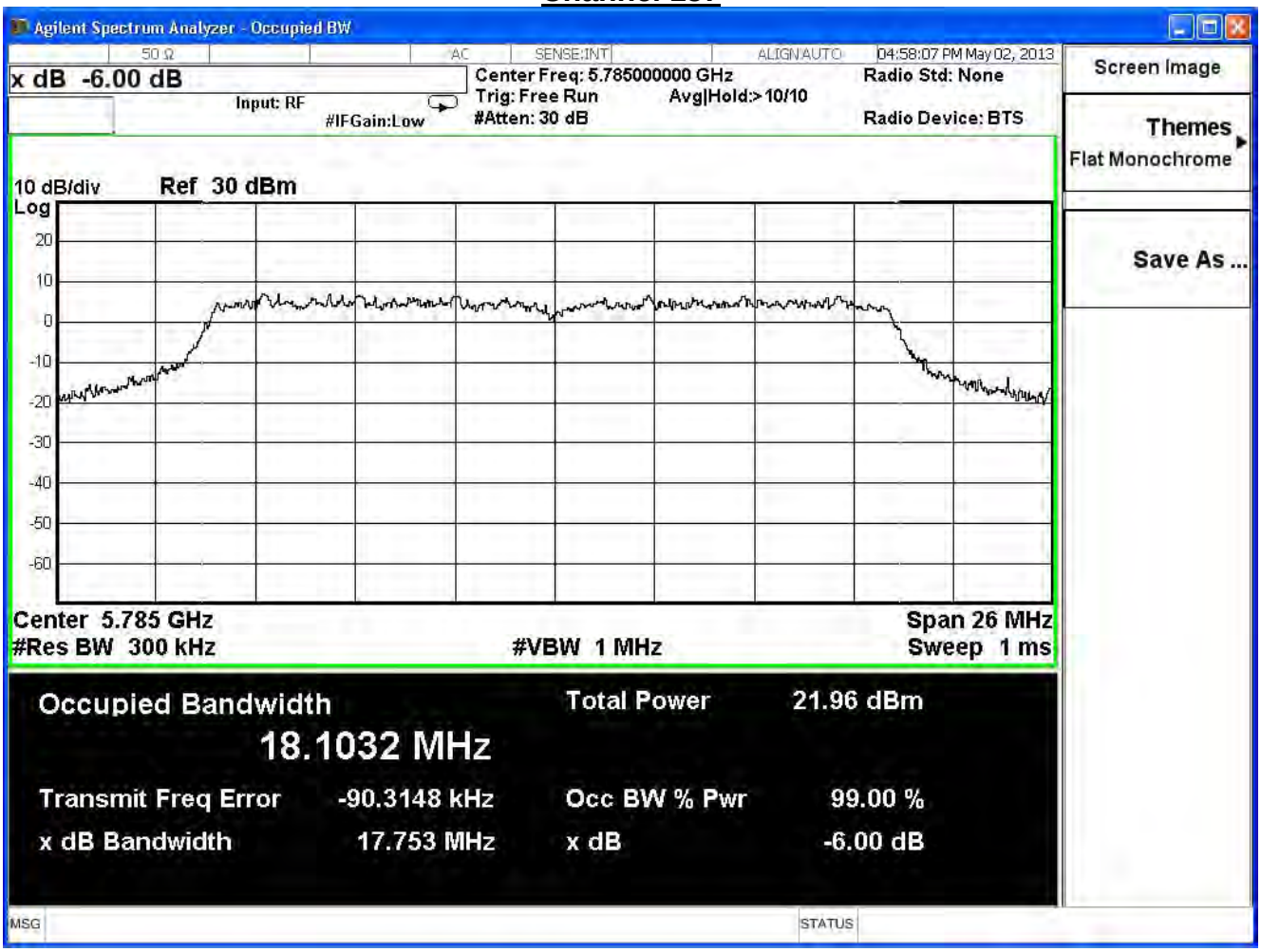
Product	VDSL2 Security Firewall		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
149	5745	17.740	≧0.5	Pass
157	5785	17.753	≧0.5	Pass
165	5825	17.764	≧0.5	Pass

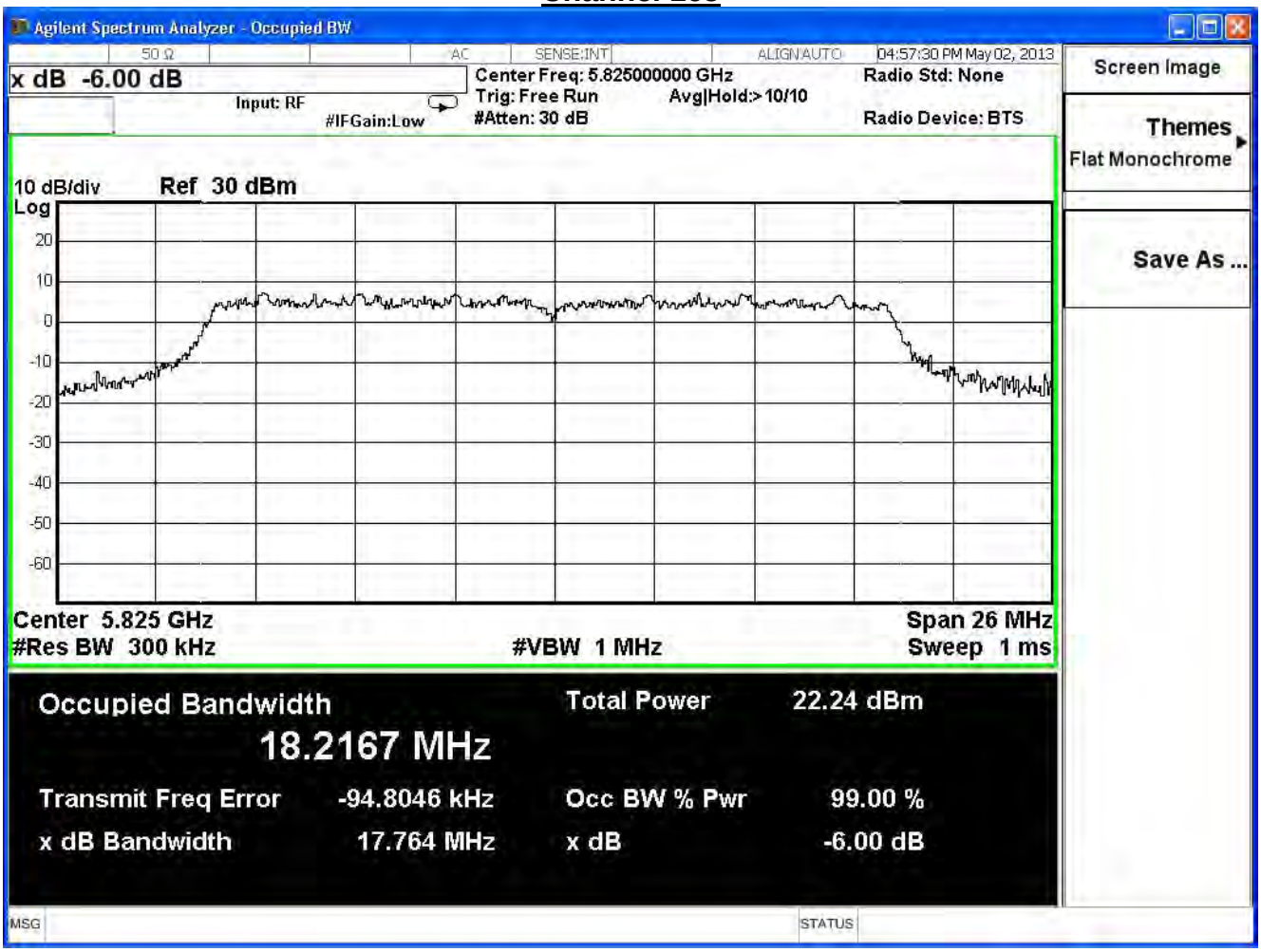
Channel 149


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:00:40 PM May 02, 2013
x dB -6.00 dB
Input: RF
#IFGain:Low
Center Freq: 5.745000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 30 dBm
Log
20
10
0
-10
-20
-30
-40
-50
-60
Center 5.745 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
18.0837 MHz
Total Power 20.71 dBm
Transmit Freq Error -81.4723 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 17.740 MHz
x dB -6.00 dB
MSG
STATUS

Channel 157


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:58:07 PM May 02, 2013
x dB -6.00 dB
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 30 dBm
Log
20
10
0
-10
-20
-30
-40
-50
-60
Center 5.785 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
18.1032 MHz
Total Power 21.96 dBm
Transmit Freq Error -90.3148 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 17.753 MHz
x dB -6.00 dB
MSG
STATUS

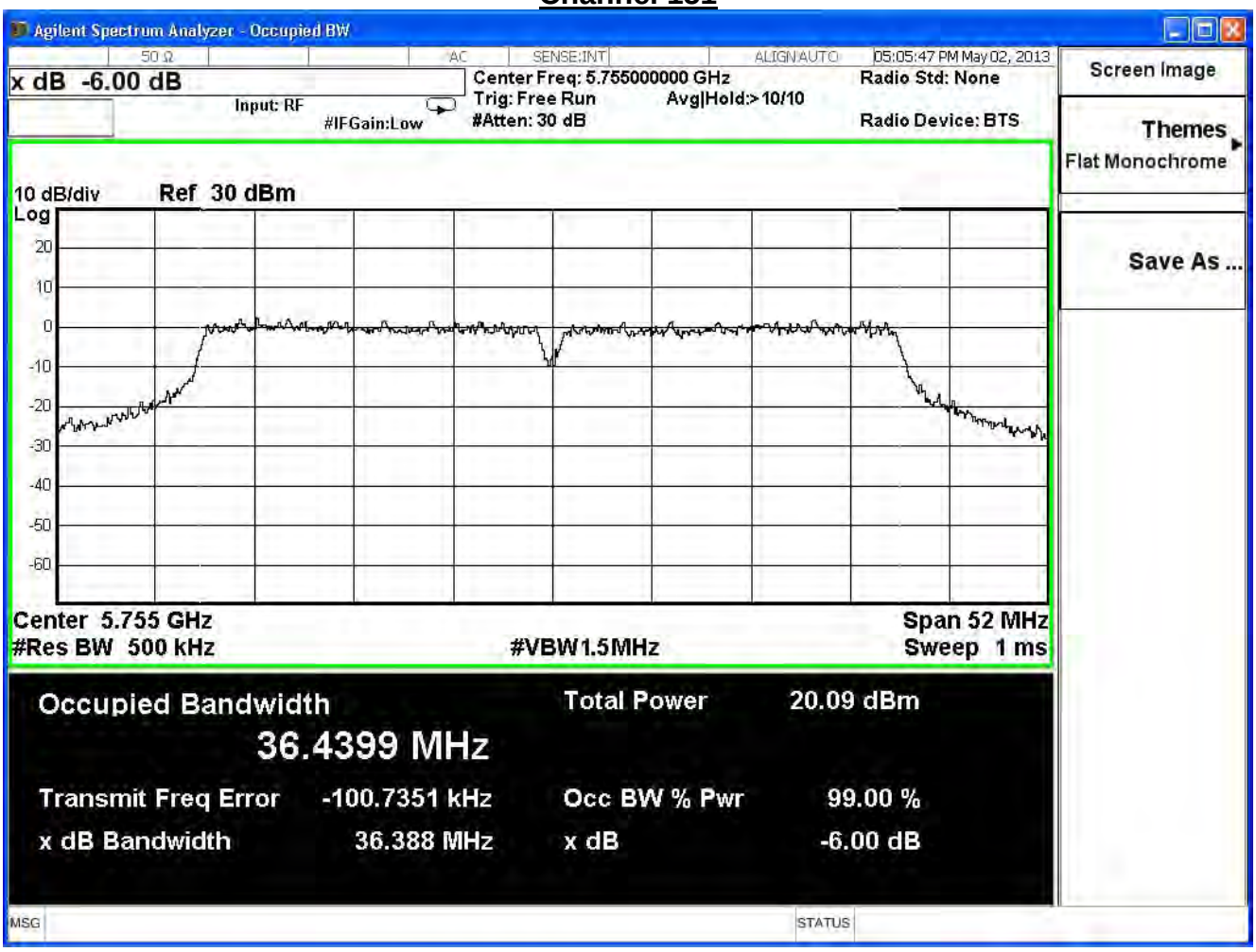
Channel 165


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:57:30 PM May 02, 2013
x dB -6.00 dB
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Input: RF
#IFGain:Low
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 30 dBm
Log
20
10
0
-10
-20
-30
-40
-50
-60
Center 5.825 GHz
#Res BW 300 kHz
#VBW 1 MHz
Span 26 MHz
Sweep 1 ms
Occupied Bandwidth
18.2167 MHz
Total Power 22.24 dBm
Transmit Freq Error -94.8046 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 17.764 MHz
x dB -6.00 dB
MSG
STATUS

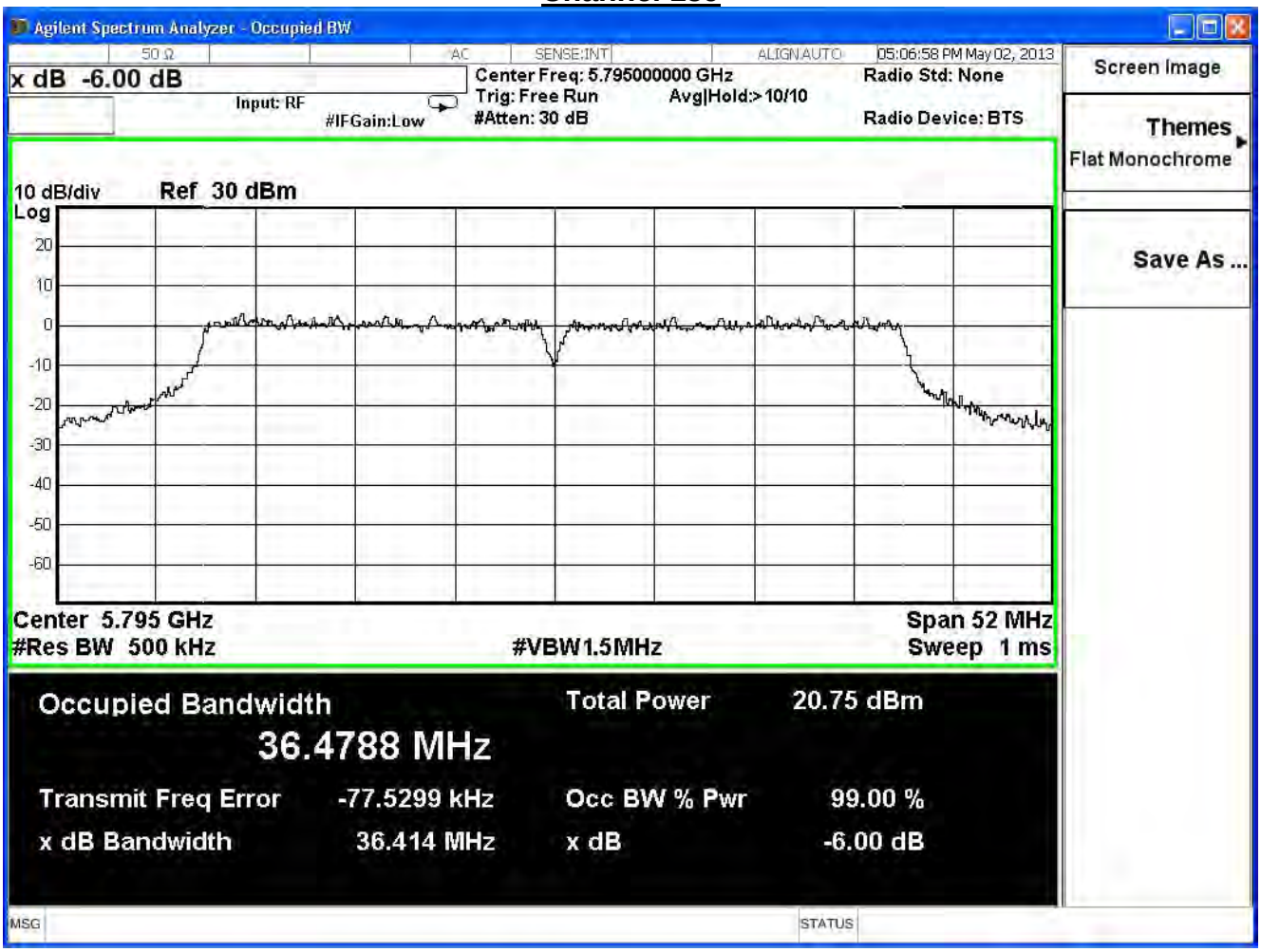
Product	VDSL2 Security Firewall		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
151	5755	36.388	≧0.5	Pass
159	5795	36.414	≧0.5	Pass

Channel 151


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:05:47 PM May 02, 2013
x dB -6.00 dB
Input: RF
#IFGain:Low
Center Freq: 5.755000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 30 dBm
Log
20
10
0
-10
-20
-30
-40
-50
-60
Center 5.755 GHz
#Res BW 500 kHz
#VBW1.5MHz
Span 52 MHz
Sweep 1 ms
Occupied Bandwidth
36.4399 MHz
Total Power 20.09 dBm
Transmit Freq Error -100.7351 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 36.388 MHz
x dB -6.00 dB
MSG
STATUS

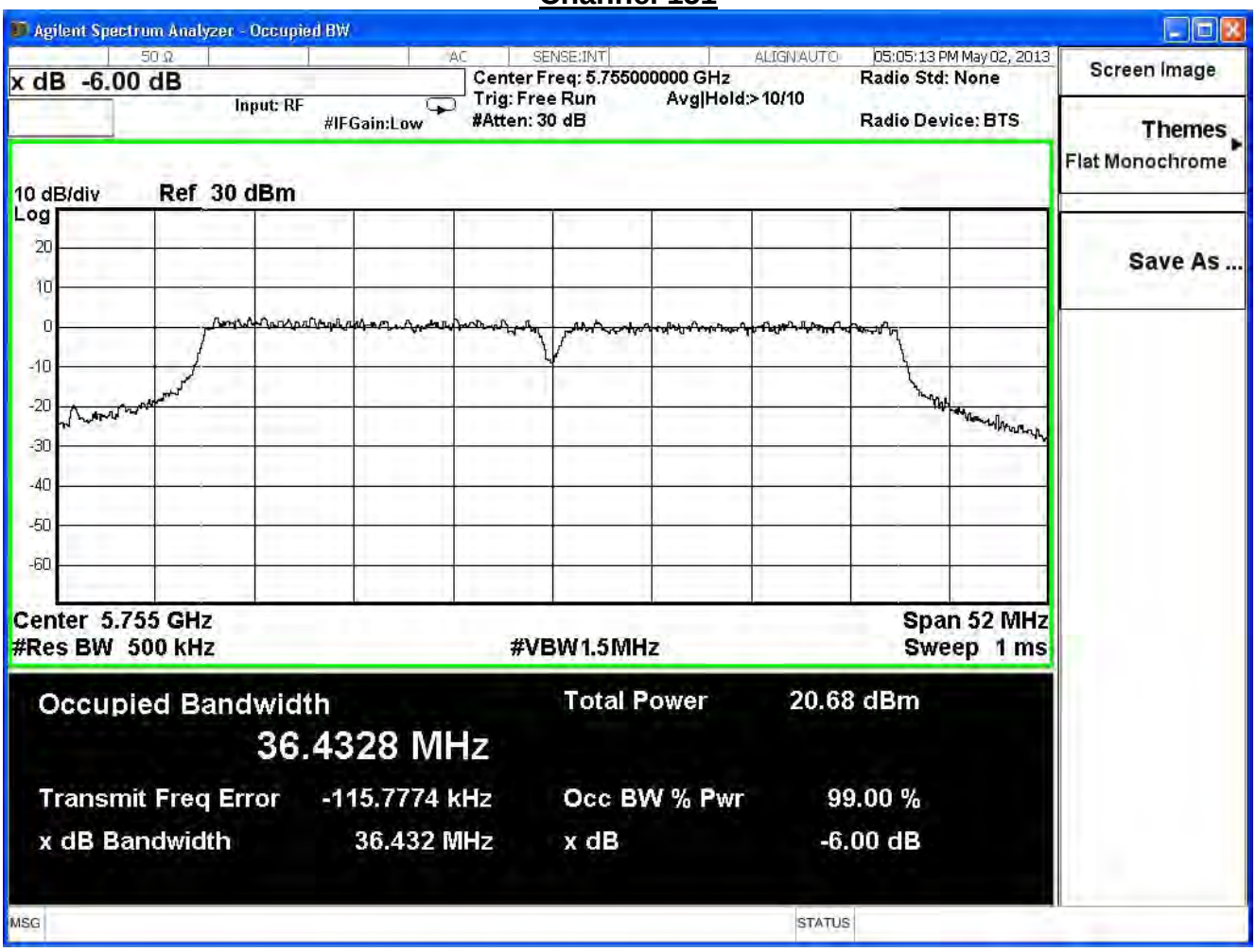
Channel 159


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:06:58 PM May 02, 2013
x dB -6.00 dB
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 30 dBm
Log
20
10
0
-10
-20
-30
-40
-50
-60
Center 5.795 GHz
#Res BW 500 kHz
#VBW1.5MHz
Span 52 MHz
Sweep 1 ms
Occupied Bandwidth
36.4788 MHz
Total Power 20.75 dBm
Transmit Freq Error -77.5299 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 36.414 MHz
x dB -6.00 dB
MSG
STATUS

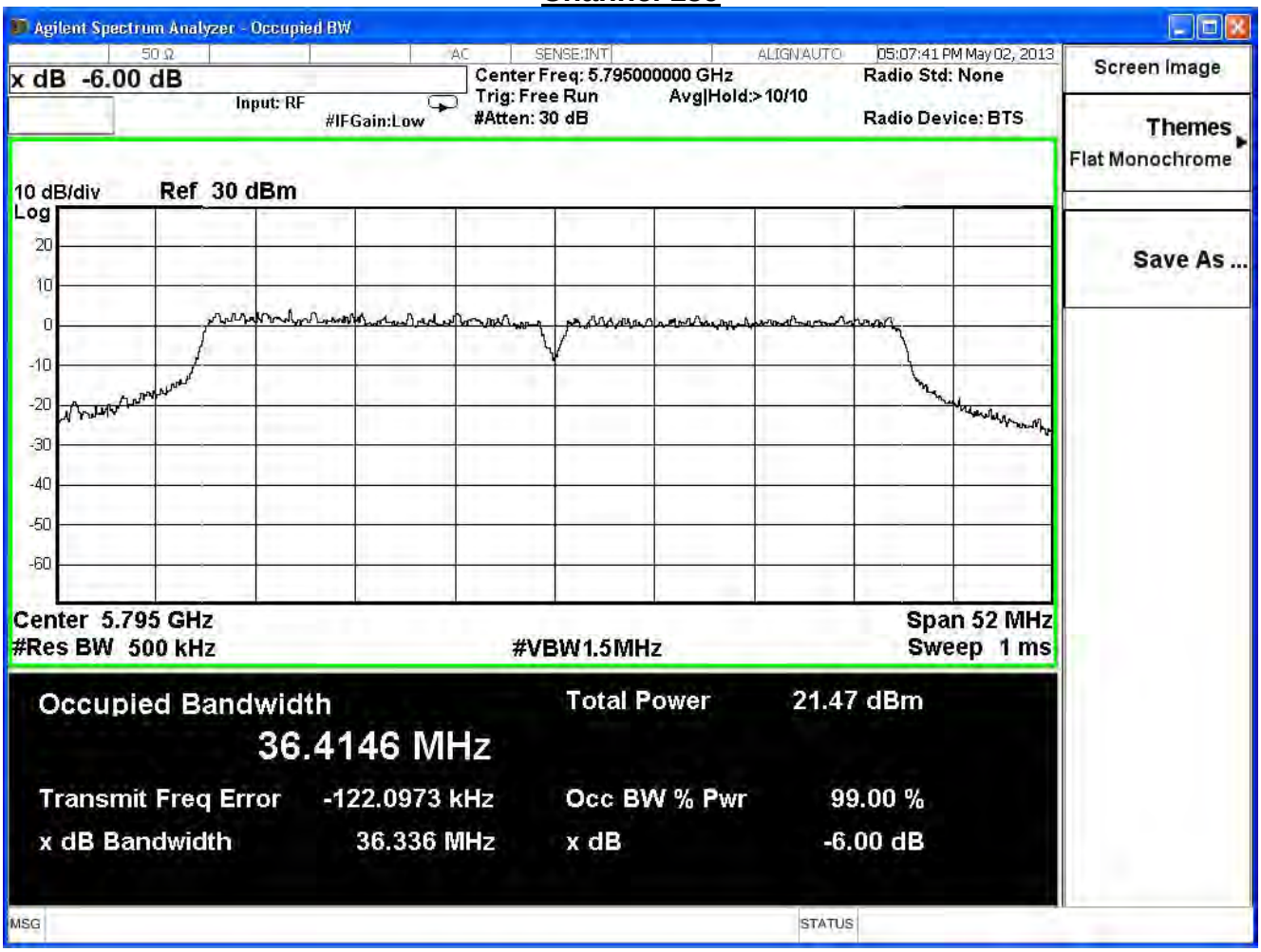
Product	VDSL2 Security Firewall		
Test Item	Occupied Bandwidth		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measurement Level (MHz)	Required Limit (MHz)	Result
151	5755	36.432	≧0.5	Pass
159	5795	36.336	≧0.5	Pass

Channel 151


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:05:13 PM May 02, 2013
x dB -6.00 dB
Input: RF
#IFGain:Low
Center Freq: 5.755000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 30 dBm
Log
20
10
0
-10
-20
-30
-40
-50
-60
Center 5.755 GHz
#Res BW 500 kHz
#VBW1.5MHz
Span 52 MHz
Sweep 1 ms
Occupied Bandwidth
36.4328 MHz
Total Power 20.68 dBm
Transmit Freq Error -115.7774 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 36.432 MHz
x dB -6.00 dB
MSG
STATUS

Channel 159


Agilent Spectrum Analyzer - Occupied BW
50 Ω
AC
SENSE:INT
ALIGN AUTO
05:07:41 PM May 02, 2013
x dB -6.00 dB
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Input: RF
#IFGain:Low
Radio Std: None
Radio Device: BTS
Screen Image
Themes
Flat Monochrome
Save As ...
10 dB/div
Ref 30 dBm
Log
20
10
0
-10
-20
-30
-40
-50
-60
Center 5.795 GHz
#Res BW 500 kHz
#VBW 1.5 MHz
Span 52 MHz
Sweep 1 ms
Occupied Bandwidth
36.4146 MHz
Total Power 21.47 dBm
Transmit Freq Error -122.0973 kHz
Occ BW % Pwr 99.00 %
x dB Bandwidth 36.336 MHz
x dB -6.00 dB
MSG
STATUS

8. Power Density

8.1. Test Equipment

The following test equipment is used during the test:

Power Density / SR7 (For 2.4G)

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

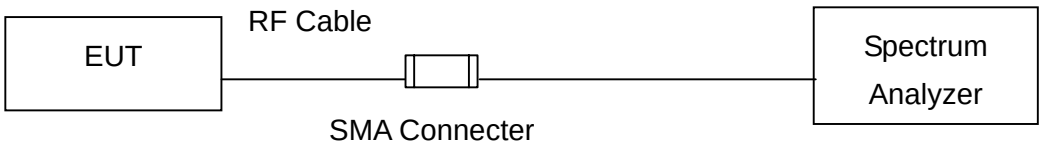
Power Density / SR7 (For 5.8G)

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

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

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 of KDB558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW= 100 kHz, Set VBW= 300 kHz, Sweep time=Auto, Set detector=Peak detector.
Scale the observed power level to an equivalent value in 3 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log (3 kHz/100 kHz = -15.2 dB).

8.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

8.6. Uncertainty

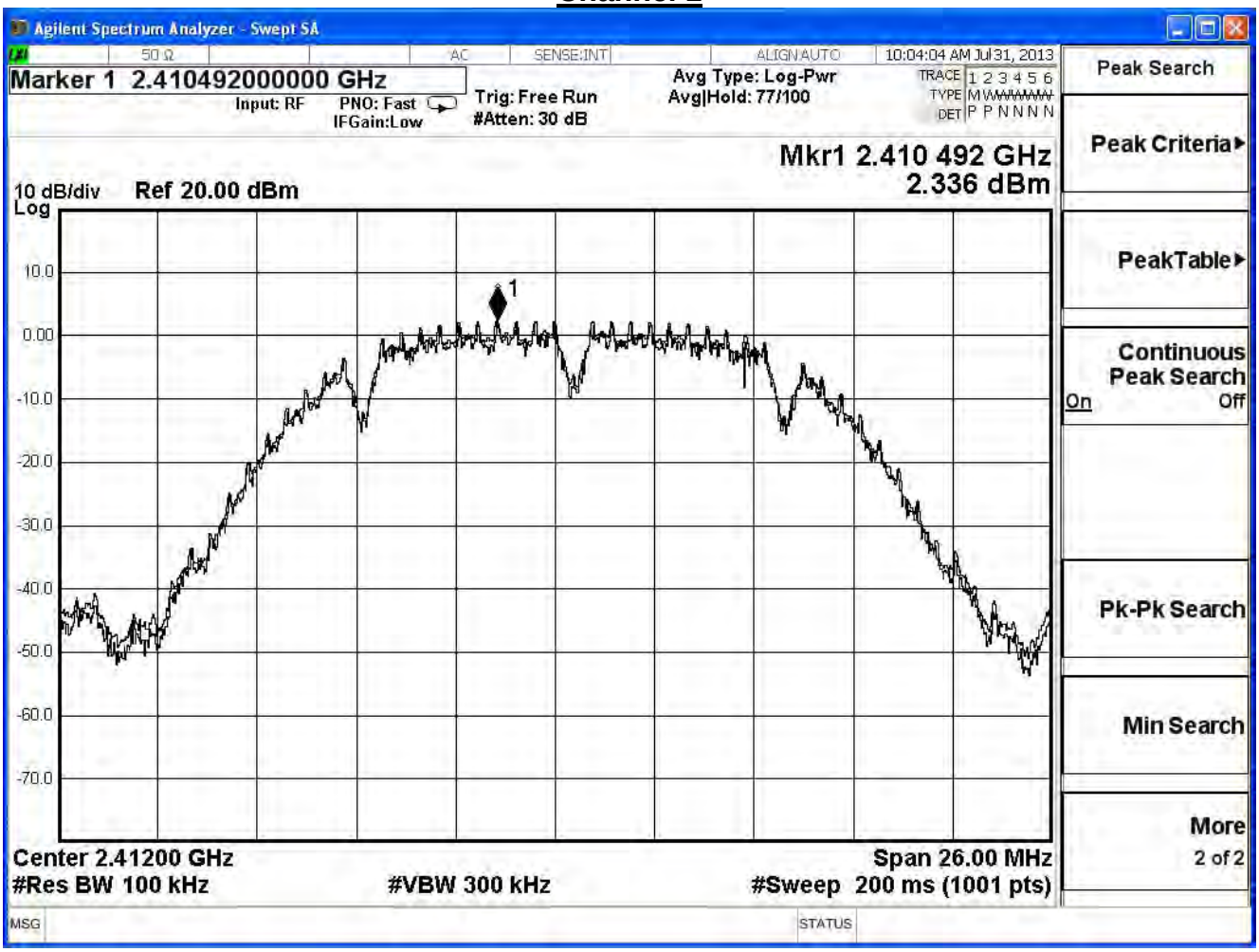
The measurement uncertainty is defined as ±1.27dB.

8.7. Test Result

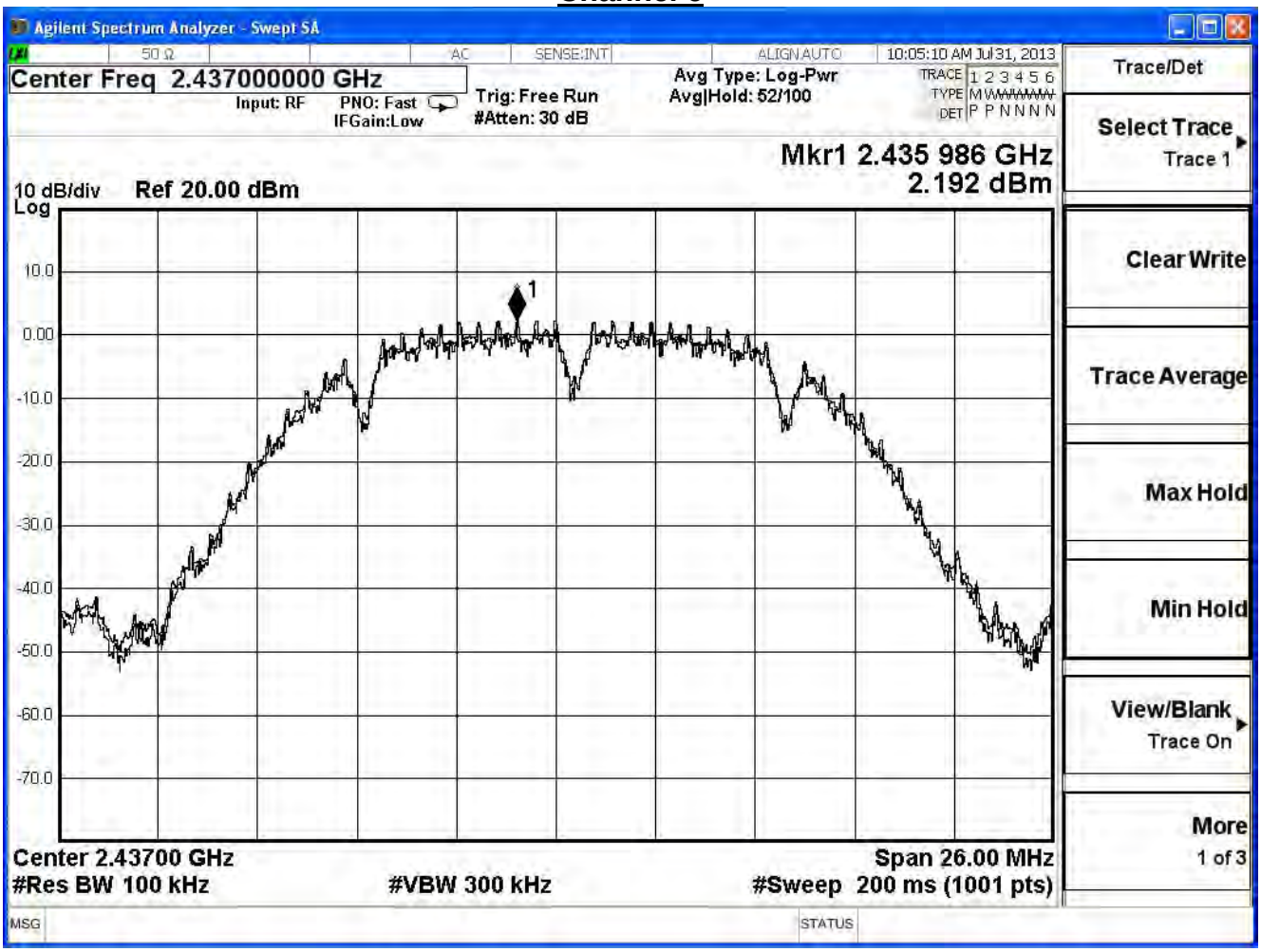
Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/07/31	Test Site	SR7

IEEE 802.11b					
Channel No.	Frequency (MHz)	Reading Level(dBm)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	2.336	-12.864	≦8	Pass
6	2437	2.192	-13.008	≦8	Pass
11	2462	1.430	-13.770	≦8	Pass

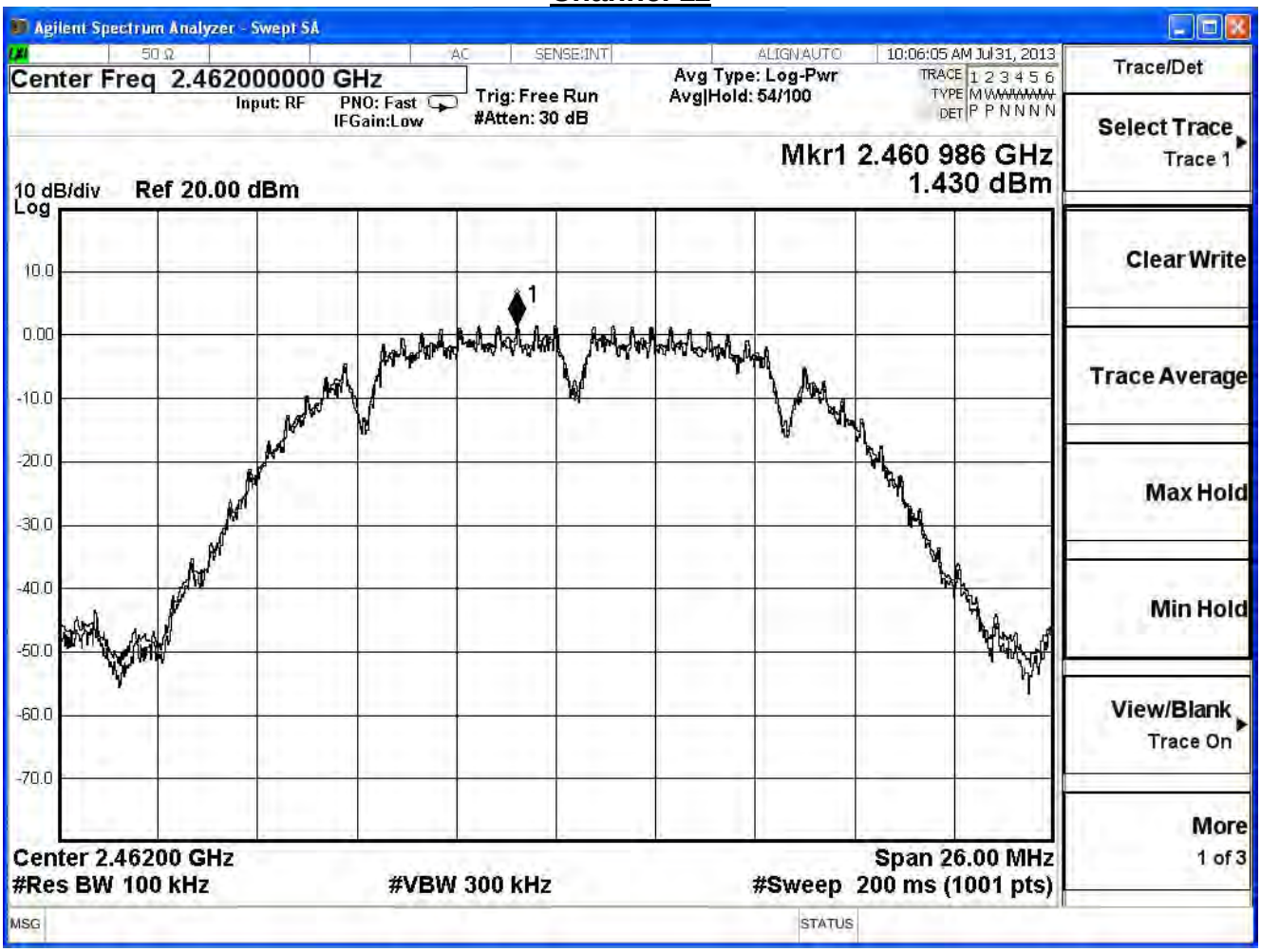
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:05:10 AM Jul 31, 2013
Center Freq 2.437000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 52/100
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.435 986 GHz
2.192 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 100 kHz
#VBW 300 kHz
Span 26.00 MHz
#Sweep 200 ms (1001 pts)
MSG
STATUS
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3

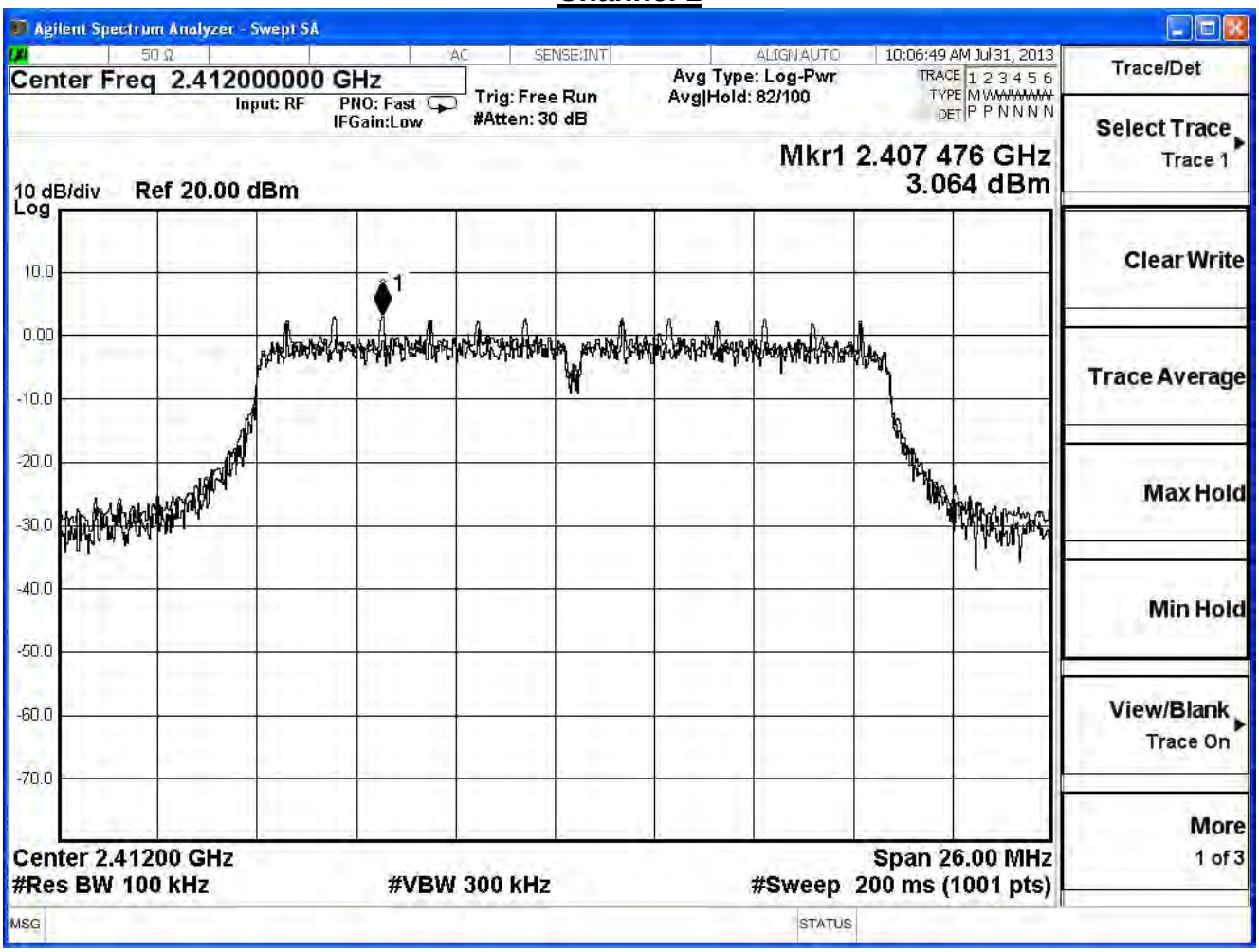
Channel 11


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:06:05 AM Jul 31, 2013
Center Freq 2.462000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 54/100
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.460 986 GHz
1.430 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 100 kHz
#VBW 300 kHz
Span 26.00 MHz
#Sweep 200 ms (1001 pts)
MSG
STATUS
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3

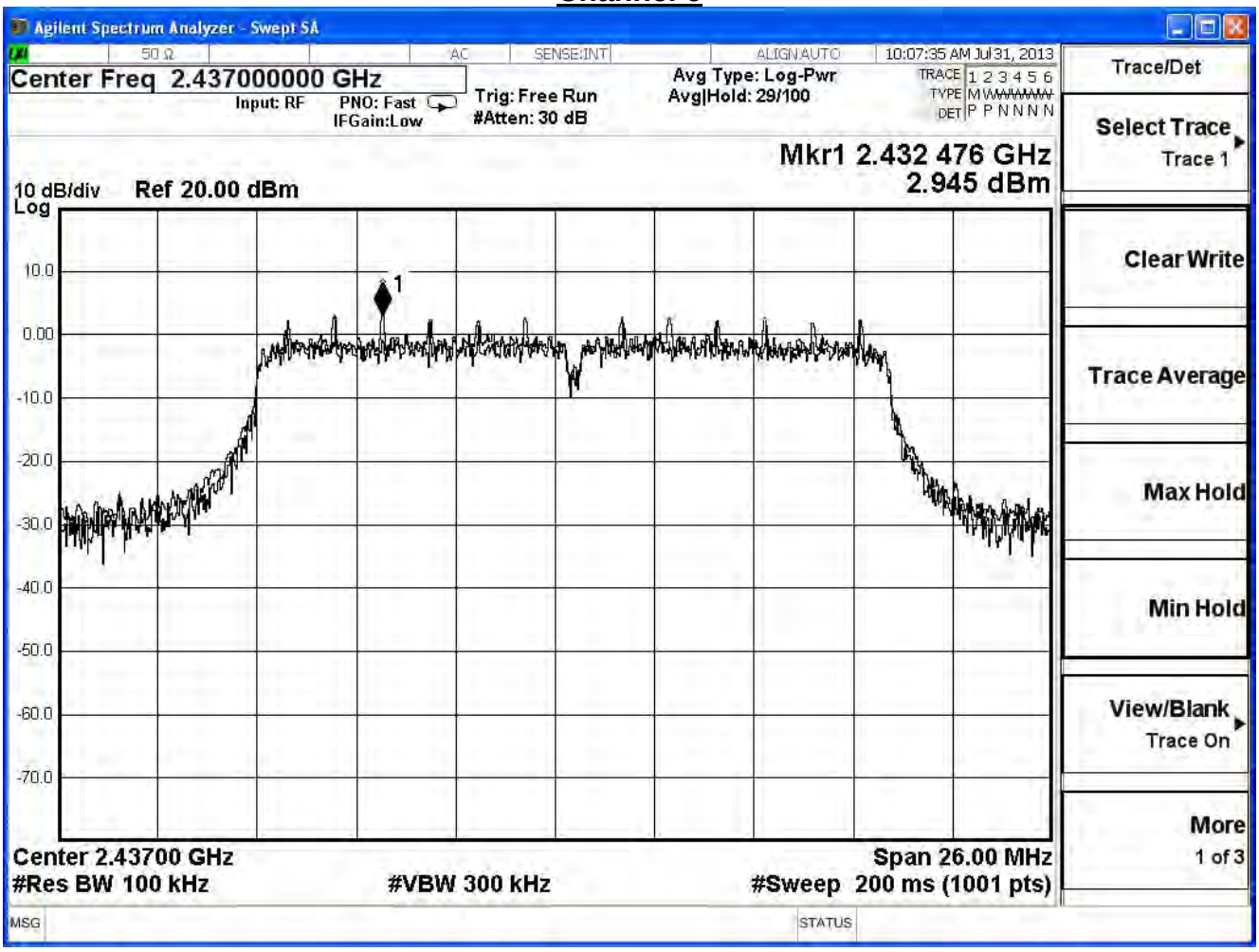
Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/07/31	Test Site	SR7

IEEE 802.11g					
Channel No.	Frequency (MHz)	Reading Level(dBm)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	3.064	-12.136	≦8	Pass
6	2437	2.945	-12.255	≦8	Pass
11	2462	2.281	-12.919	≦8	Pass

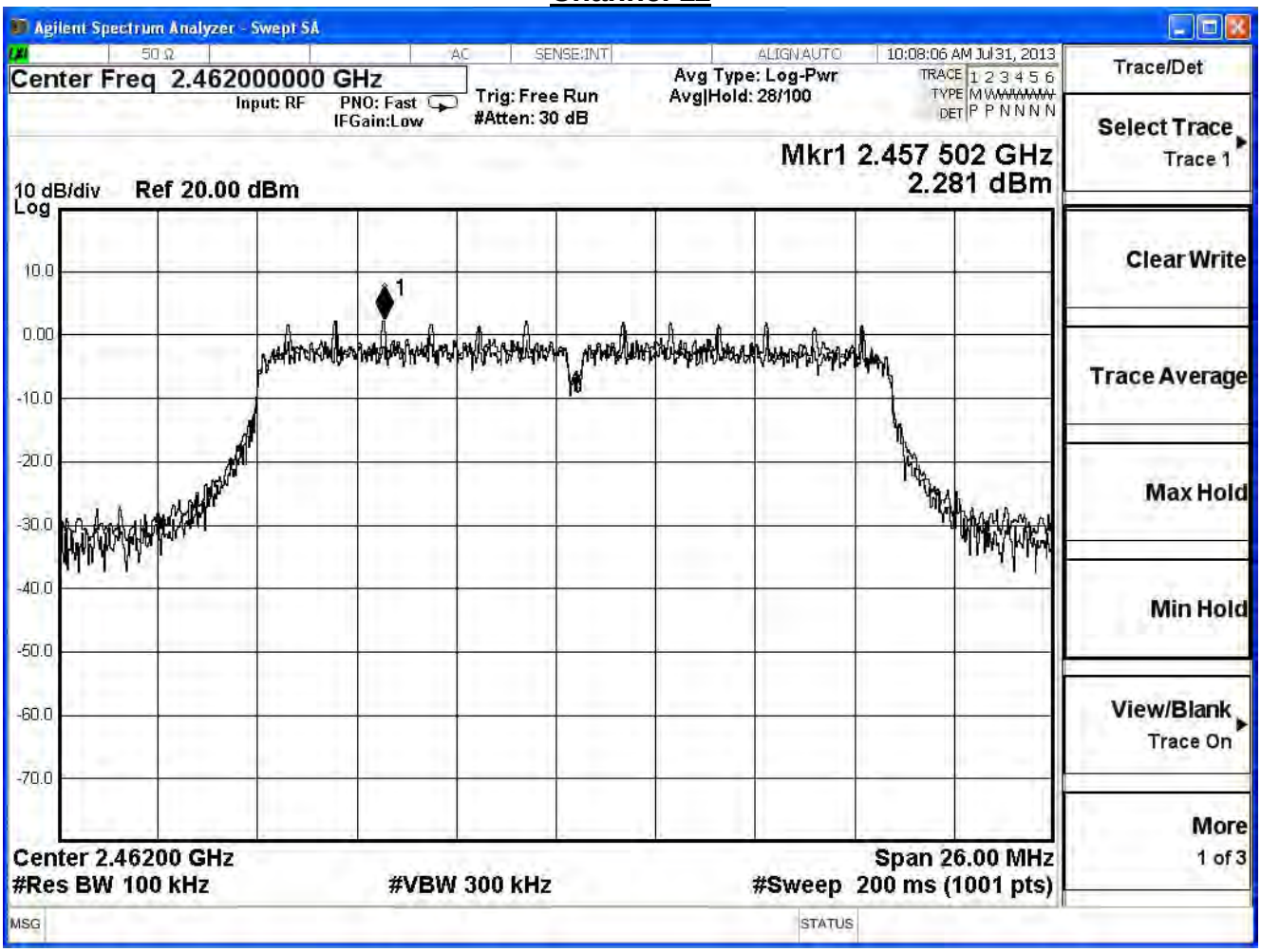
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN:AUTO
10:07:35 AM Jul 31, 2013
Center Freq 2.437000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 29/100
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.432 476 GHz
2.945 dBm
10 dB/div
Ref 20.00 dBm
Log
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 100 kHz
#VBW 300 kHz
Span 26.00 MHz
#Sweep 200 ms (1001 pts)
MSG
STATUS
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3

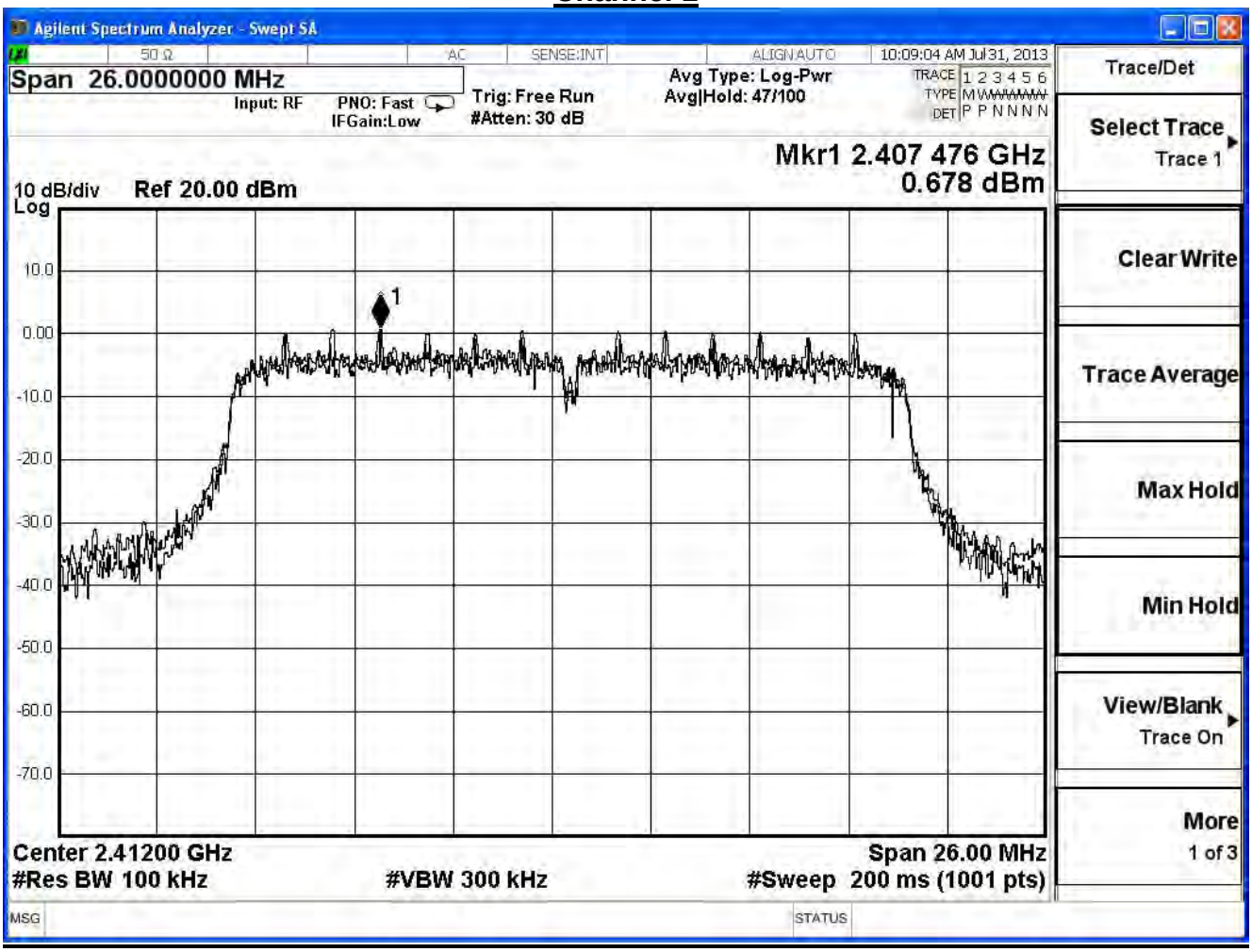
Channel 11


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:08:06 AM Jul 31, 2013
Center Freq 2.462000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 28/100
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.457 502 GHz
2.281 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 100 kHz
#VBW 300 kHz
Span 26.00 MHz
#Sweep 200 ms (1001 pts)
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3
MSG
STATUS

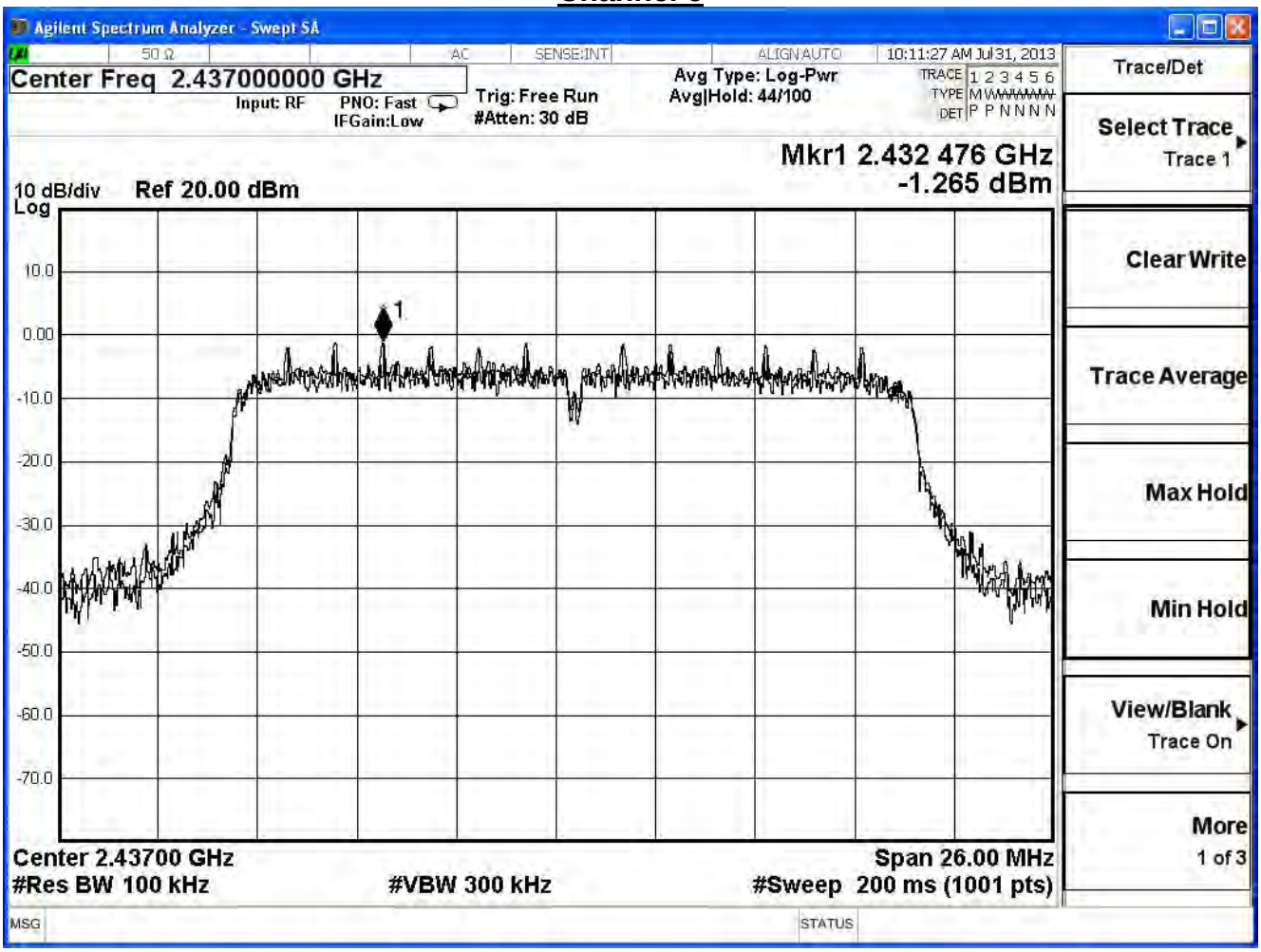
Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/07/31	Test Site	SR7

IEEE802.11n_20MHz_(ANT 0)					
Channel No.	Frequency (MHz)	Reading Level(dBm)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	0.678	-14.522	≦8	Pass
6	2437	-1.265	-16.465	≦8	Pass
11	2462	-2.086	-17.286	≦8	Pass

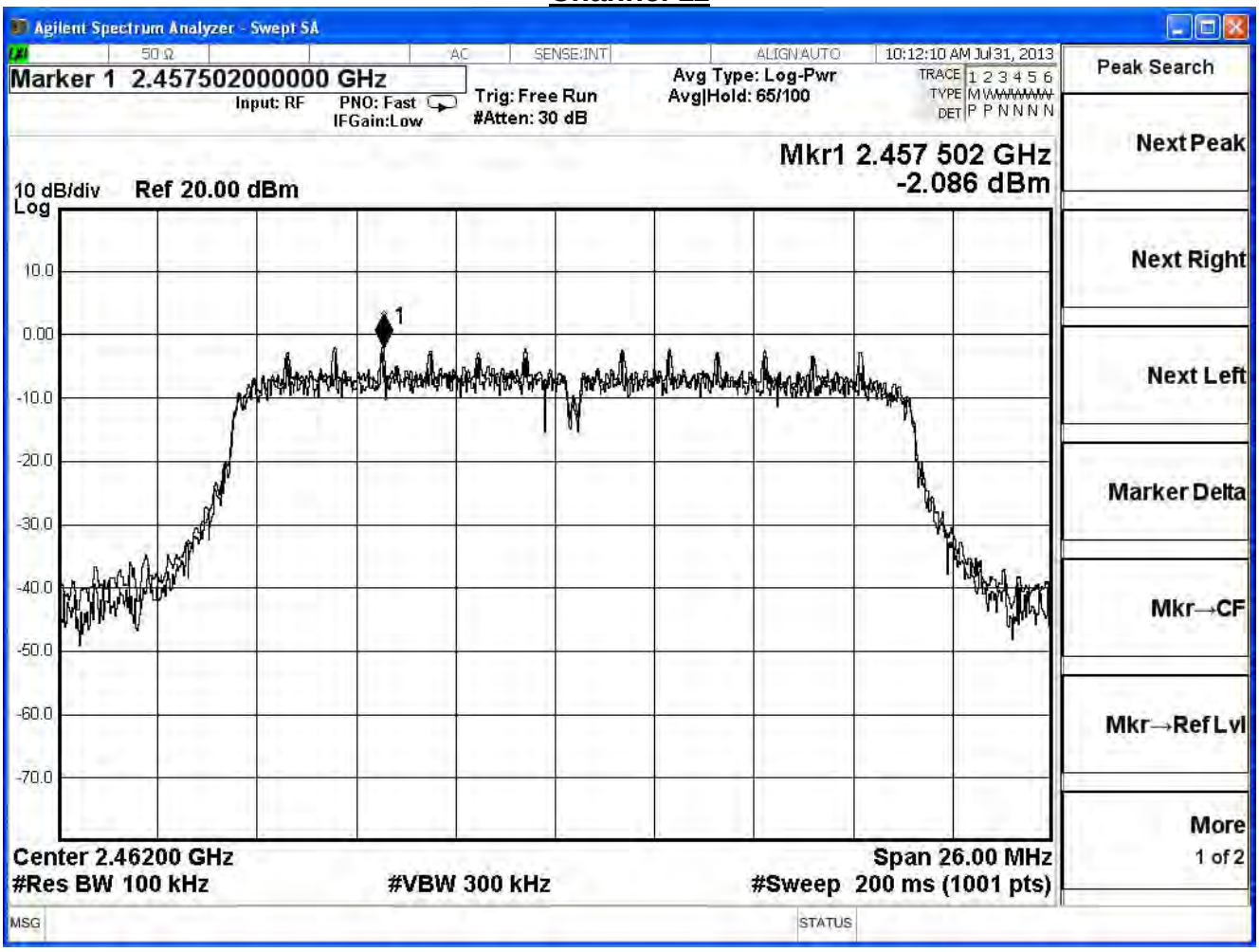
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:11:27 AM Jul 31, 2013
Center Freq 2.437000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 44/100
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.432 476 GHz
-1.265 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 100 kHz
#VBW 300 kHz
Span 26.00 MHz
#Sweep 200 ms (1001 pts)
MSG
STATUS
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3

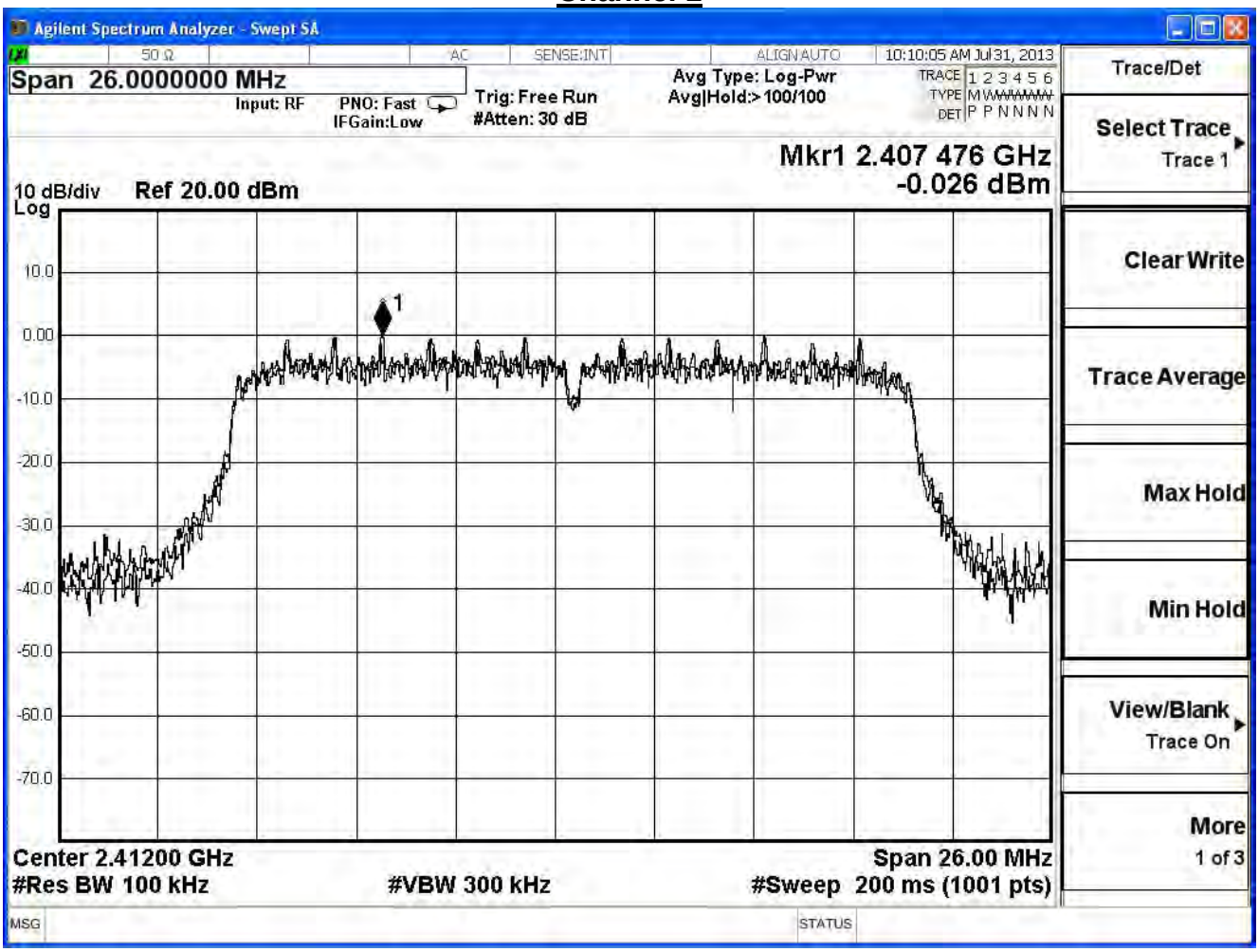
Channel 11


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:12:10 AM Jul 31, 2013
Marker 1 2.457502000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 65/100
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.457 502 GHz
-2.086 dBm
10 dB/div
Ref 20.00 dBm
Log
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 100 kHz
#VBW 300 kHz
Span 26.00 MHz
#Sweep 200 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

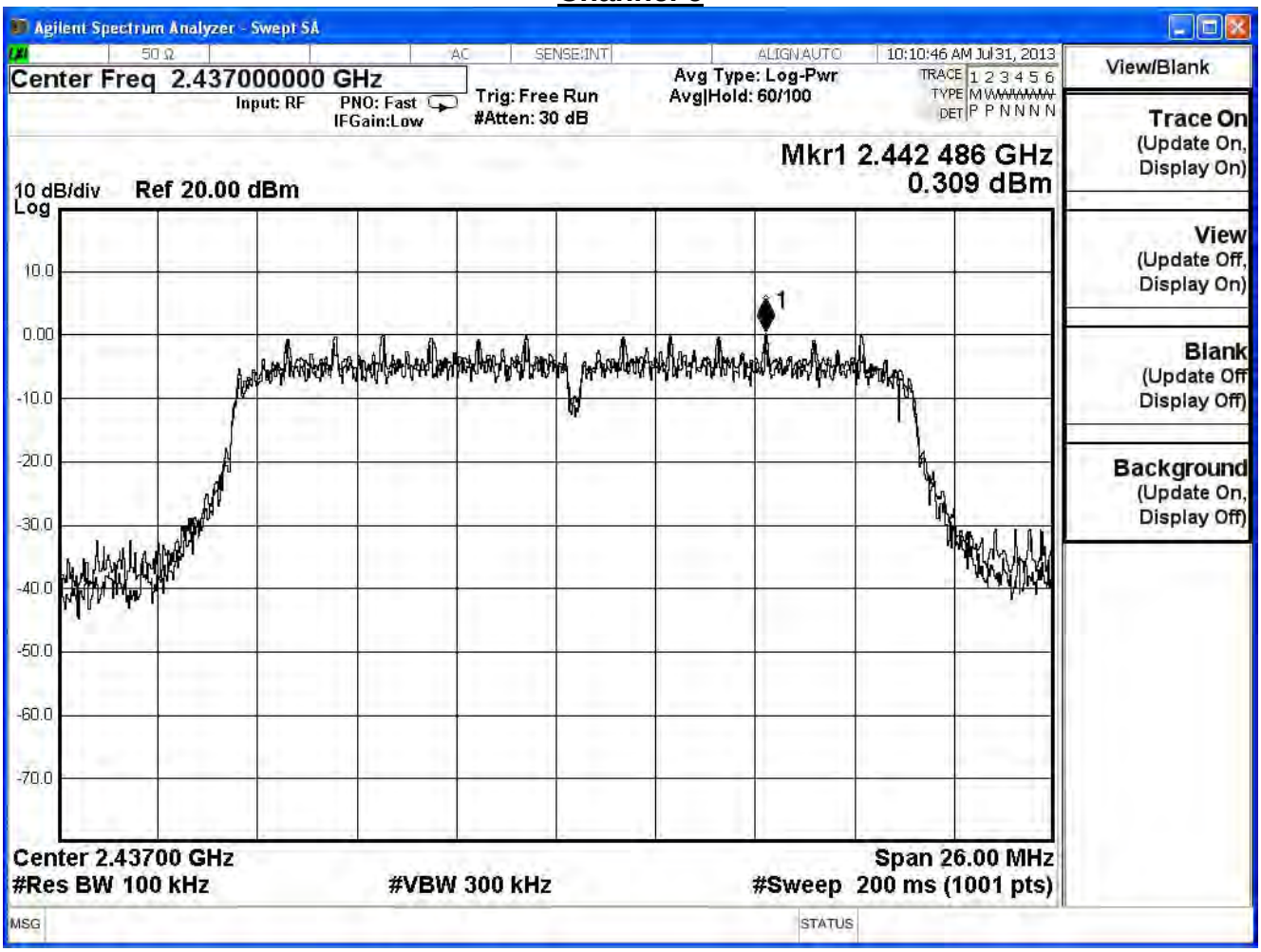
Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/07/31	Test Site	SR7

IEEE802.11n_20MHz_(ANT 1)					
Channel No.	Frequency (MHz)	Reading Level(dBm)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	-0.026	-15.226	≦8	Pass
6	2437	0.309	-14.891	≦8	Pass
11	2462	0.413	-14.787	≦8	Pass

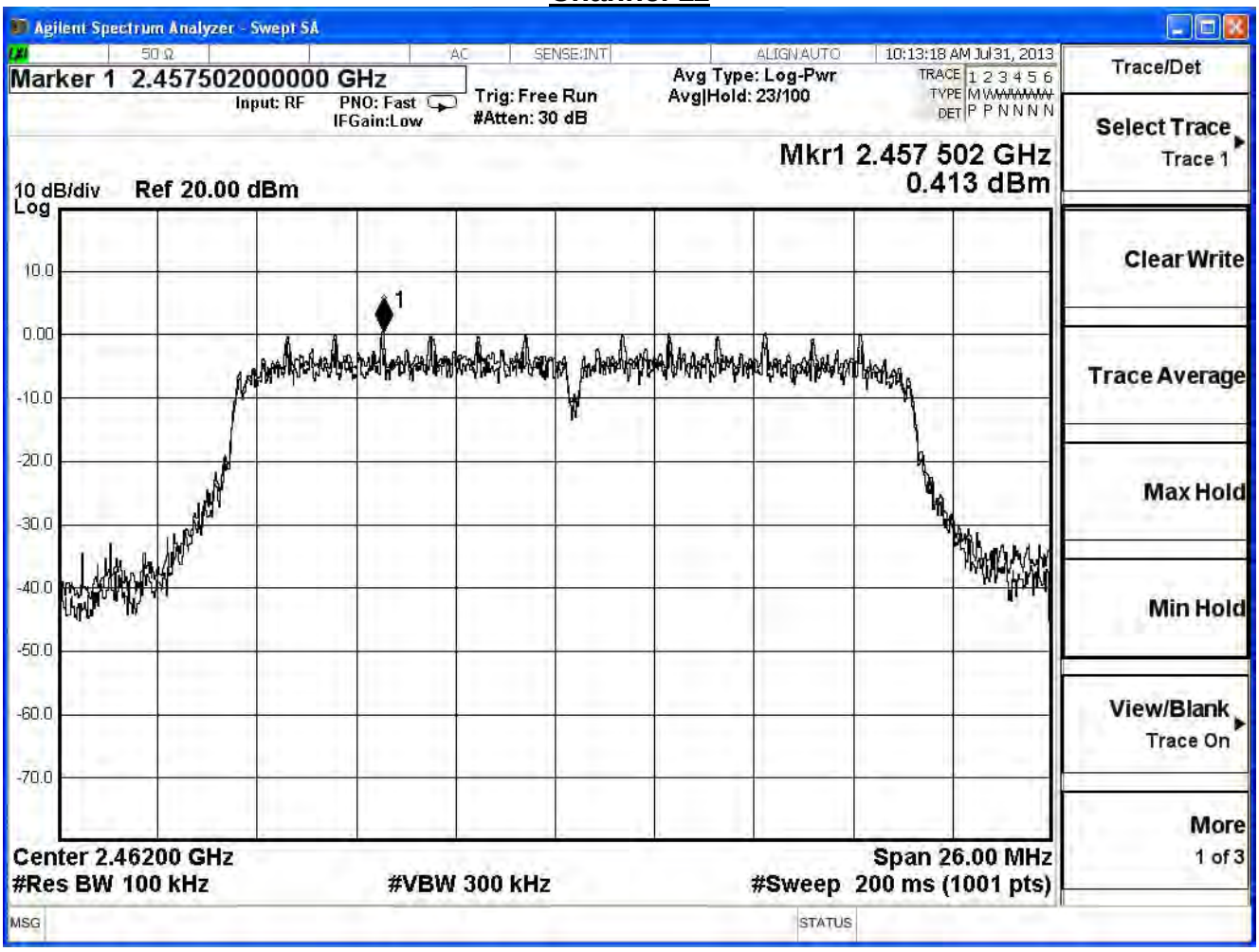
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:10:46 AM Jul 31, 2013
Center Freq 2.437000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 60/100
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
View/Blank
Trace On (Update On, Display On)
View (Update Off, Display On)
Blank (Update Off Display Off)
Background (Update On, Display Off)
Mkr1 2.442 486 GHz
0.309 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 100 kHz
#VBW 300 kHz
Span 26.00 MHz
#Sweep 200 ms (1001 pts)
MSG
STATUS

Channel 11


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:13:18 AM Jul 31, 2013
Marker 1 2.457502000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 23/100
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.457 502 GHz
0.413 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 100 kHz
#VBW 300 kHz
Span 26.00 MHz
#Sweep 200 ms (1001 pts)
MSG
STATUS
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3

Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/07/31	Test Site	SR7

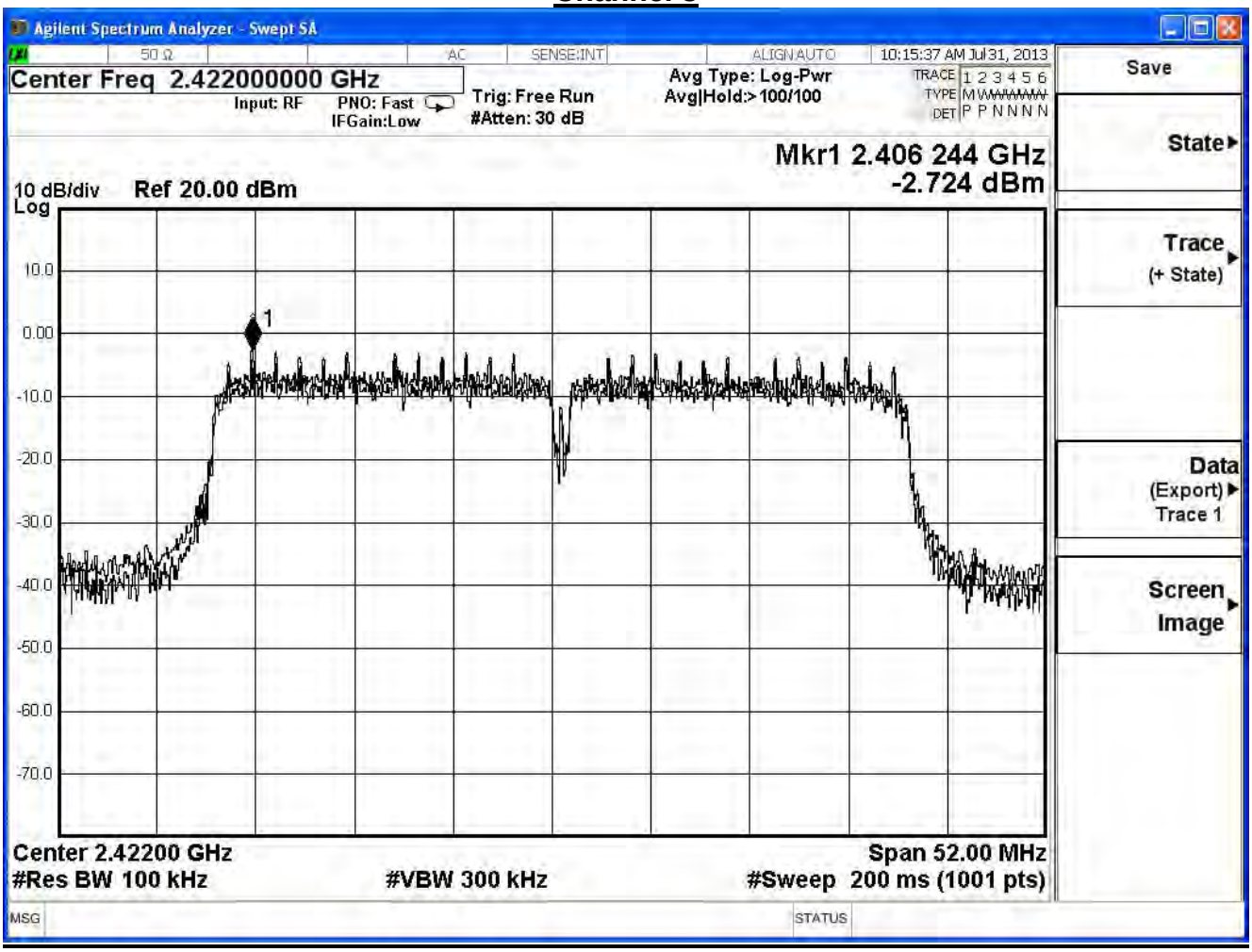
IEEE802.11n20MHz(ANT 0+1)

Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
1	2412	-11.85	≦8	Pass
6	2437	-12.60	≦8	Pass
11	2462	-12.85	≦8	Pass

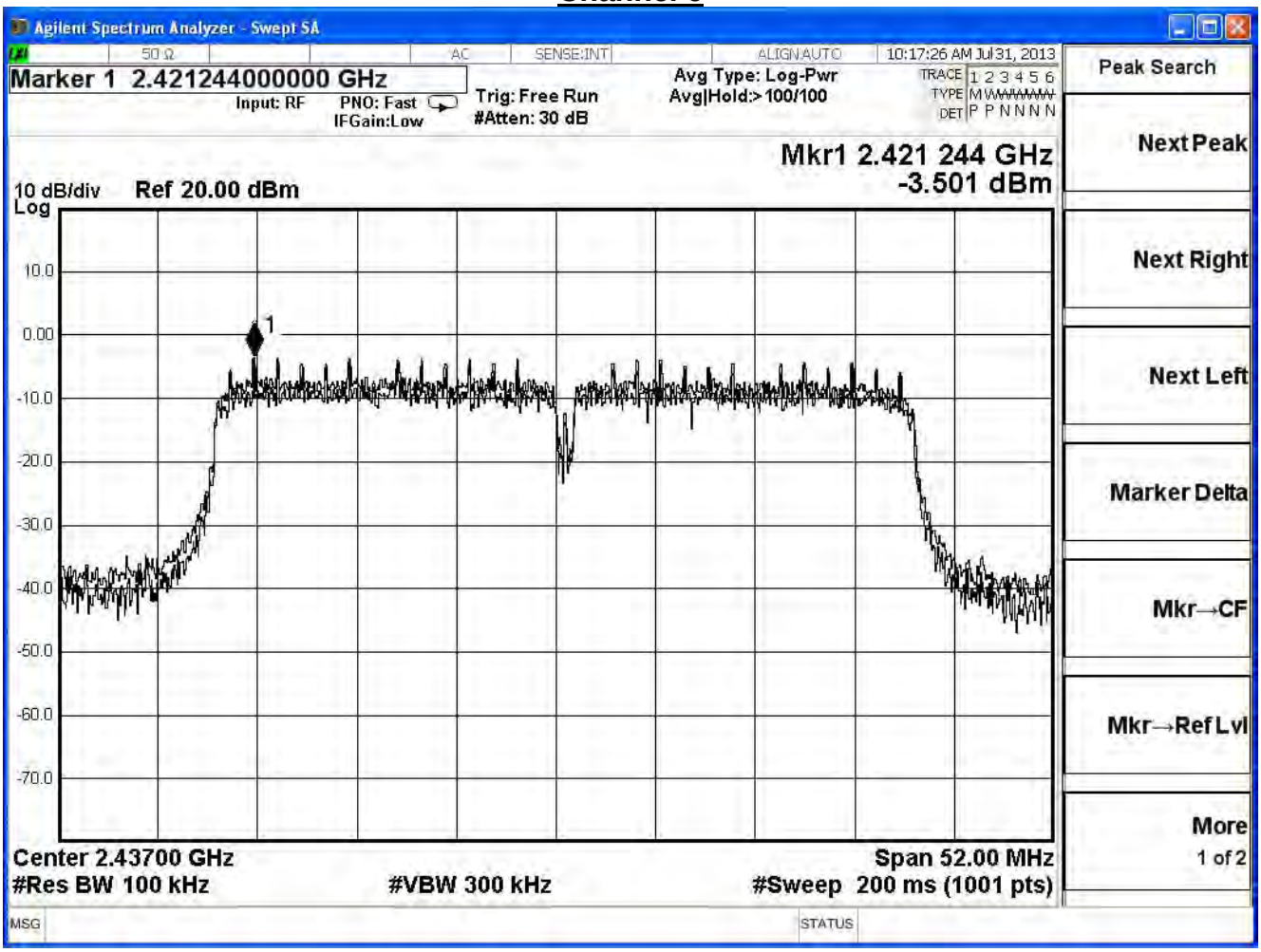
Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/04/26	Test Site	SR7

IEEE 802.11n_40MHz (ANT 0)					
Channel No.	Frequency (MHz)	Reading Level(dBm)	Measure Level(dBm)	Limit (dBm)	Result
3	2422	-2.724	-17.924	≦8	Pass
6	2437	-3.501	-18.701	≦8	Pass
9	2452	-4.359	-19.559	≦8	Pass

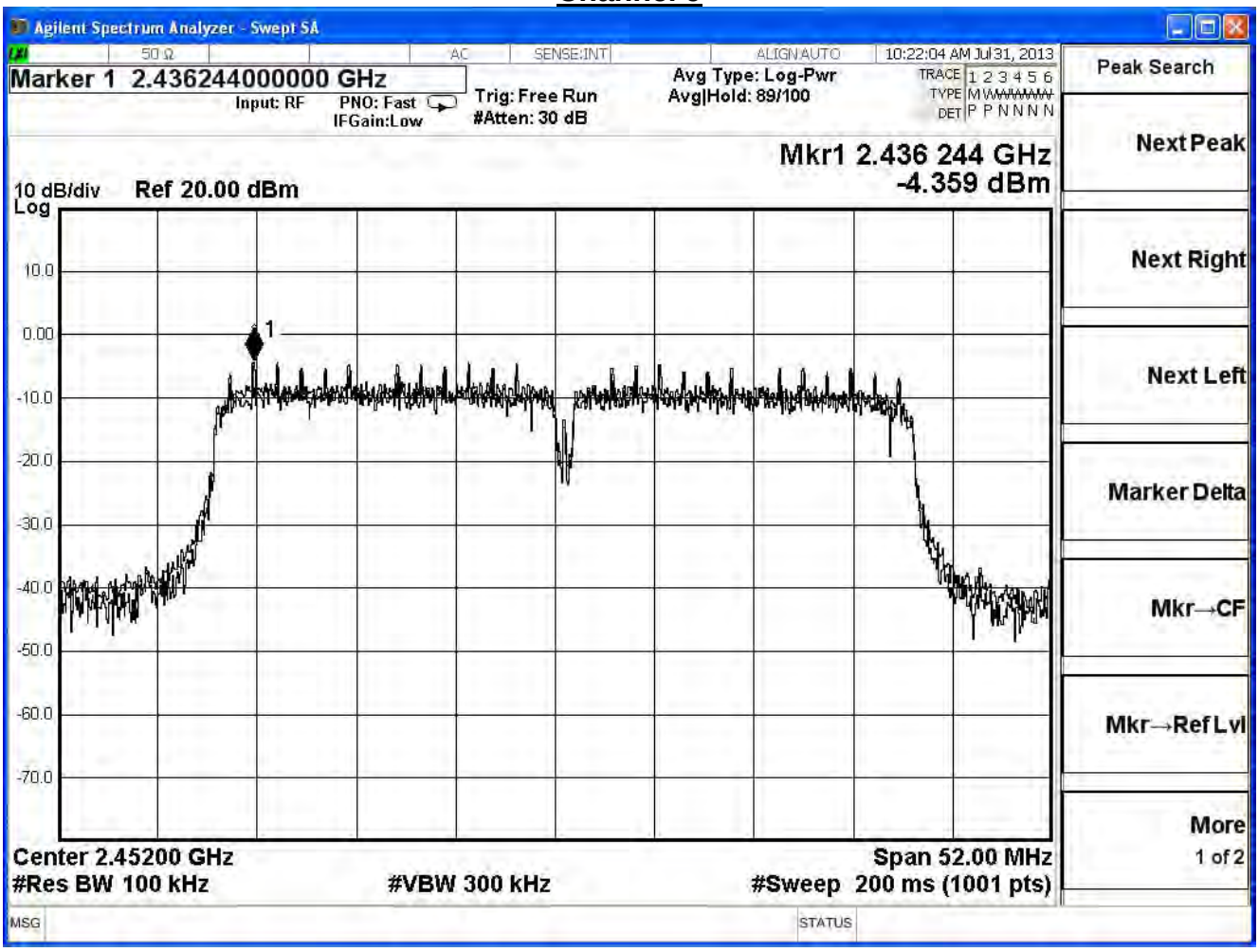
Channel 3



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN:AUTO
10:17:26 AM Jul 31, 2013
Marker 1 2.421244000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
TRACE 1 2 3 4 5 6
TYPE M WWWWWW
DET P P N N N N
Mkr1 2.421 244 GHz
-3.501 dBm
10 dB/div
Ref 20.00 dBm
Log
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 100 kHz
#VBW 300 kHz
Span 52.00 MHz
#Sweep 200 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

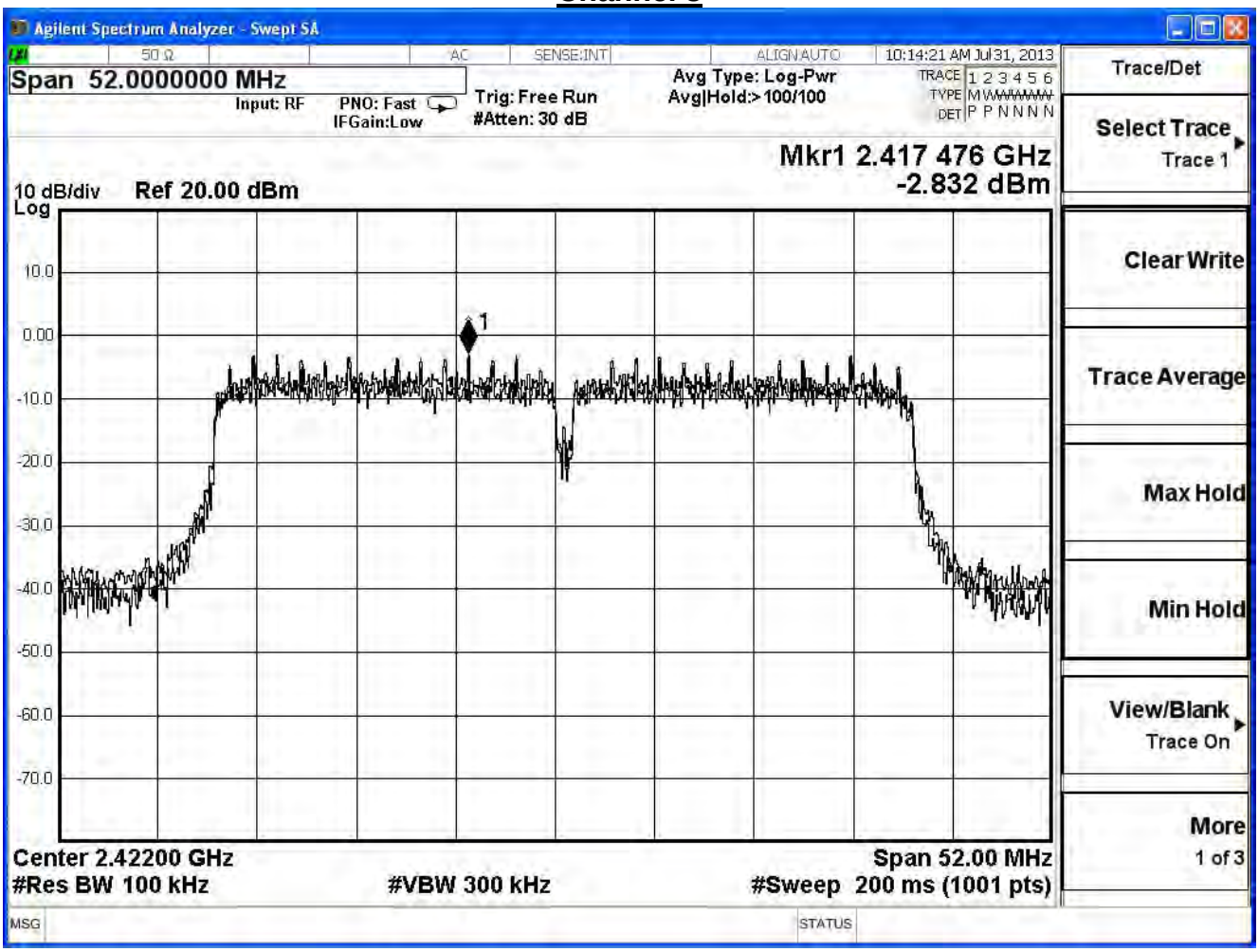
Channel 9


Agilent Spectrum Analyzer - Swept SA
Marker 1 2.436244000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold: 89/100
10:22:04 AM Jul 31, 2013
Mkr1 2.436 244 GHz
-4.359 dBm
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
Center 2.45200 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 52.00 MHz
#Sweep 200 ms (1001 pts)
Peak Search
Next Peak
Next Right
Next Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

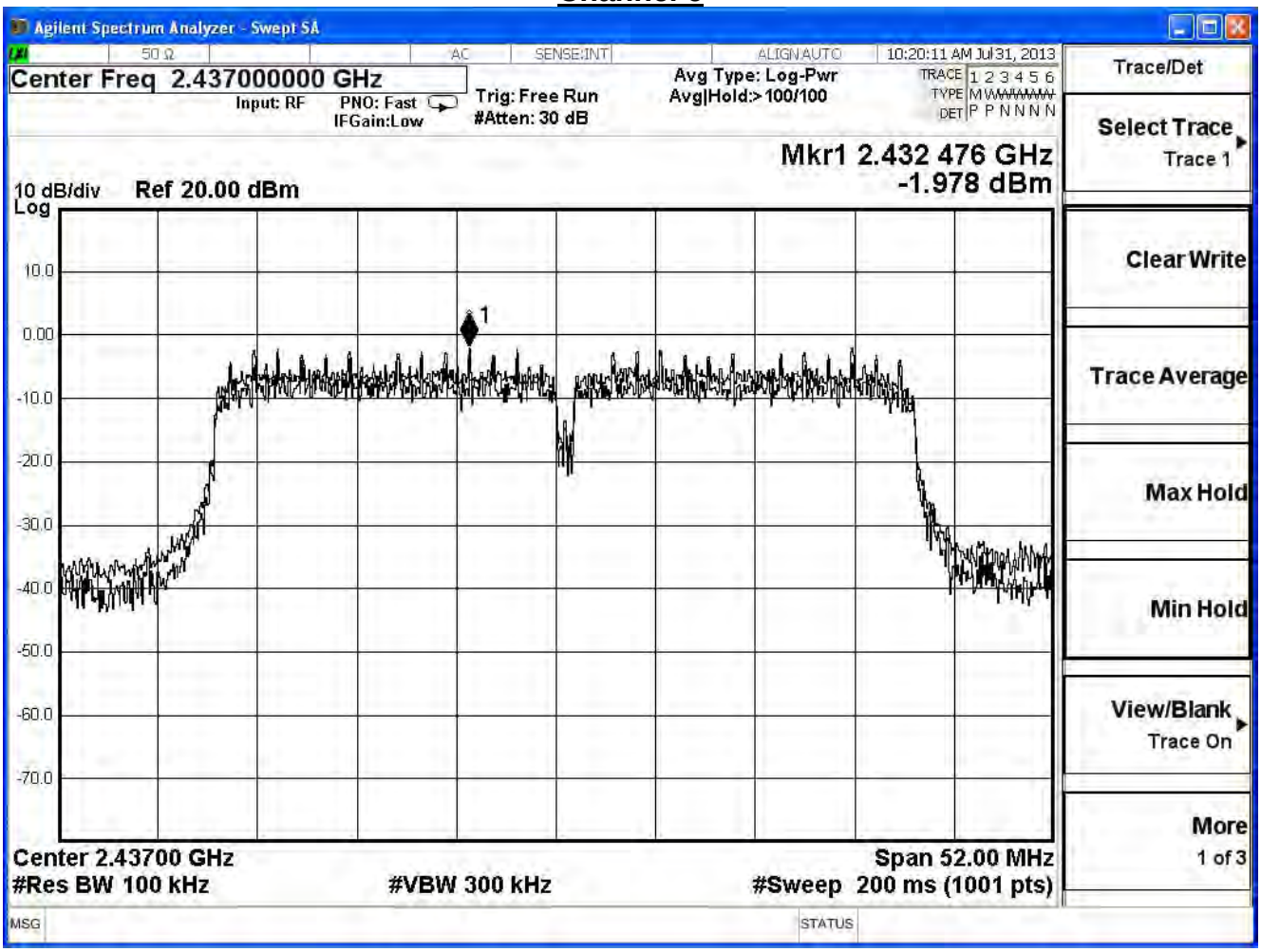
Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/07/31	Test Site	SR7

IEEE 802.11n_40MHz (ANT 1)					
Channel No.	Frequency (MHz)	Reading Level(dBm)	Measure Level(dBm)	Limit (dBm)	Result
3	2422	-2.832	-18.032	≦8	Pass
6	2437	-1.978	-17.178	≦8	Pass
9	2452	-2.593	-17.793	≦8	Pass

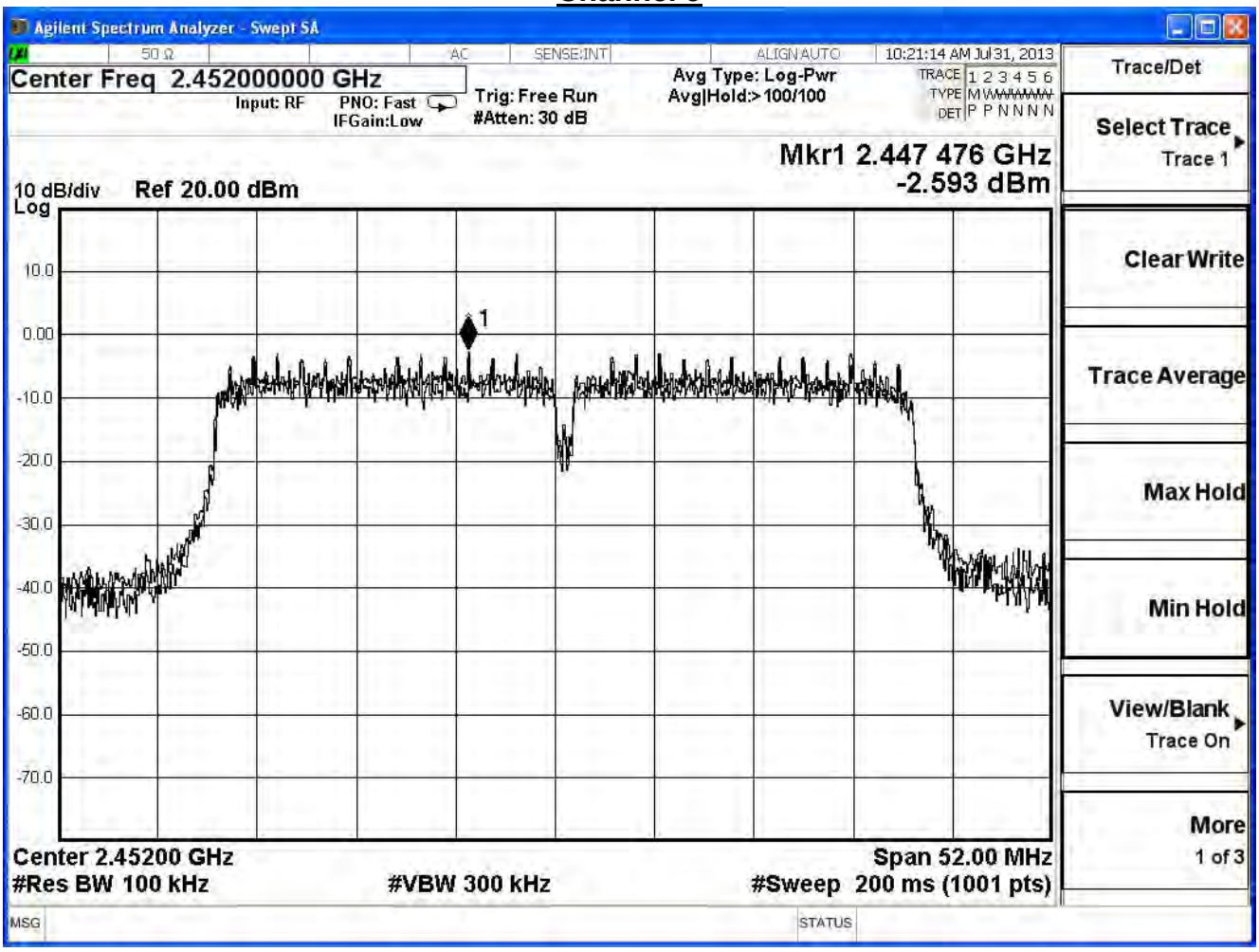
Channel 3



Channel 6


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:20:11 AM Jul 31, 2013
Center Freq 2.437000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
TRACE 1 2 3 4 5 6
TYPE M W W W W W W
DET P P N N N N
Mkr1 2.432 476 GHz
-1.978 dBm
10 dB/div
Ref 20.00 dBm
Log
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 100 kHz
#VBW 300 kHz
Span 52.00 MHz
#Sweep 200 ms (1001 pts)
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3
MSG
STATUS

Channel 9


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:21:14 AM Jul 31, 2013
Center Freq 2.452000000 GHz
Input: RF
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
TRACE 1 2 3 4 5 6
TYPE M
DET P P N N N N
Mkr1 2.447 476 GHz
-2.593 dBm
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 2.45200 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 52.00 MHz
#Sweep 200 ms (1001 pts)
MSG
STATUS
Trace/Det
Select Trace
Trace 1
Clear Write
Trace Average
Max Hold
Min Hold
View/Blank
Trace On
More
1 of 3

Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/07/31	Test Site	SR7

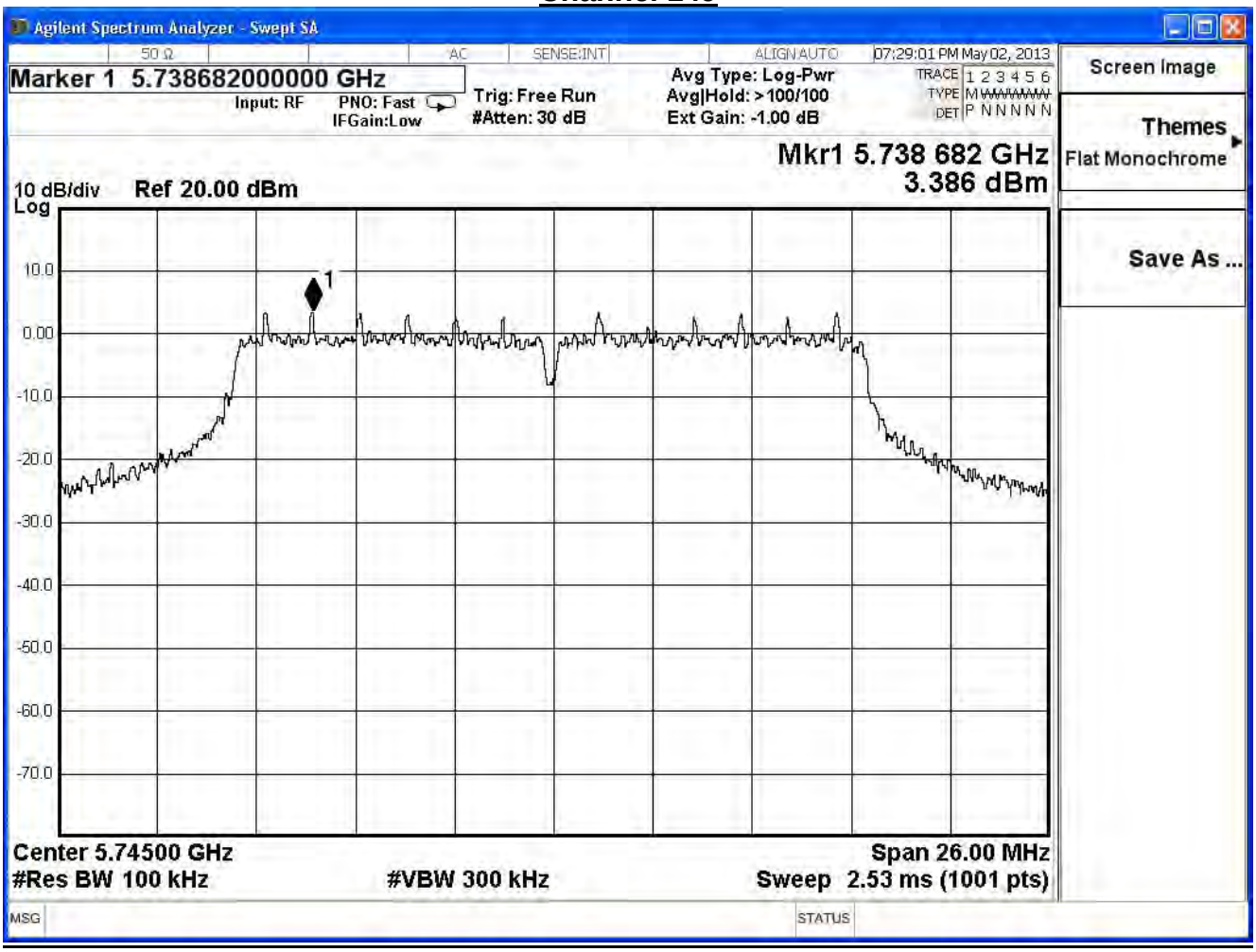
IEEE802.11n40MHz(ANT 0+1)

Channel No.	Frequency (MHz)	Measure Level(dBm)	Limit (dBm)	Result
3	2422	-14.97	≦8	Pass
6	2437	-14.86	≦8	Pass
9	2452	-15.58	≦8	Pass

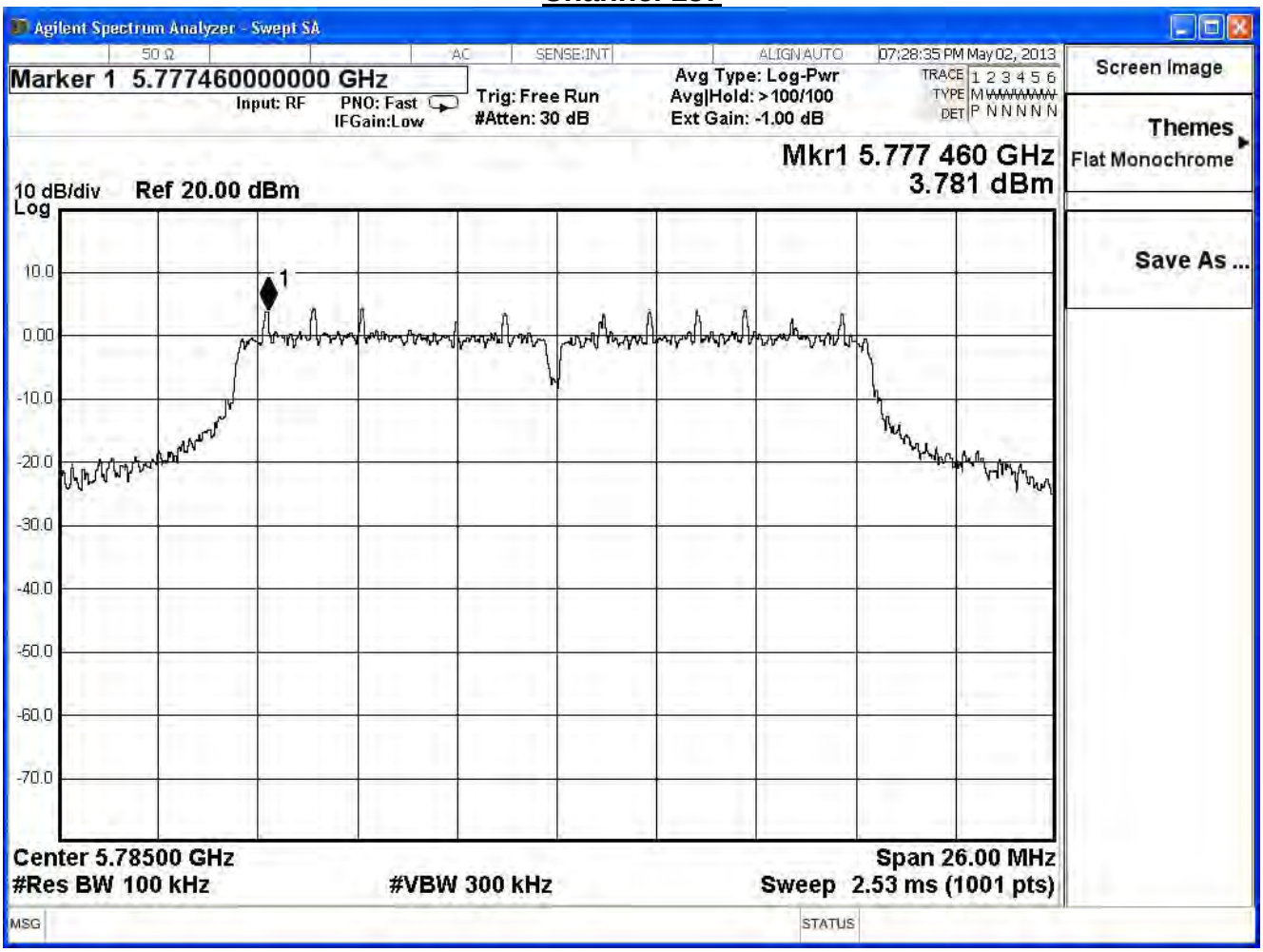
Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

IEEE 802.11a					
Channel No.	Frequency (MHz)	Reading Level(dBm)	Measure Level(dBm)	Limit (dBm)	Result
149	5745	3.386	-11.814	≦8	Pass
157	5785	3.781	-11.419	≦8	Pass
165	5825	4.568	-10.632	≦8	Pass

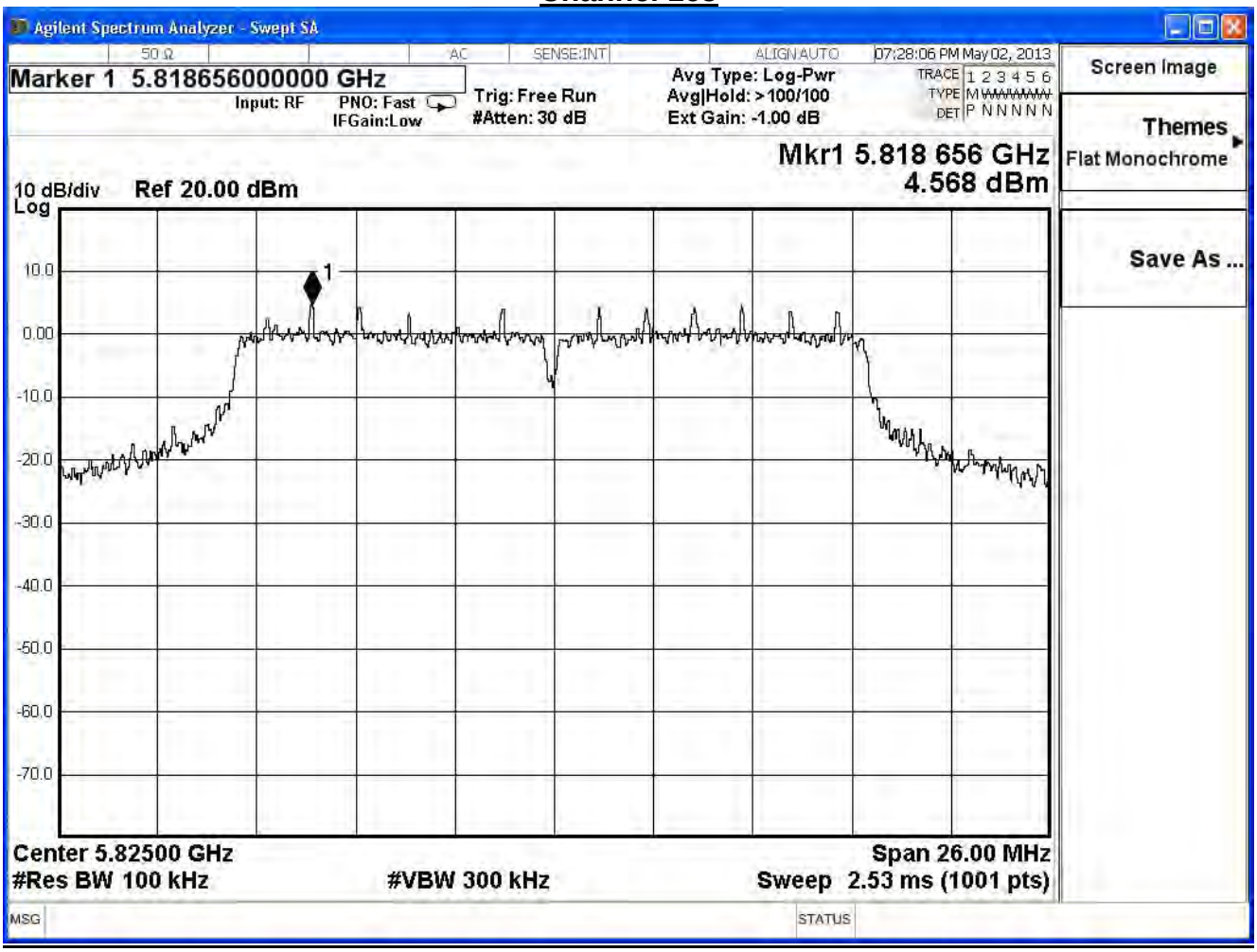
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:28:35 PM May 02, 2013
Marker 1 5.777460000000 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
Screen Image
Themes
Flat Monochrome
Save As ...
Mkr1 5.777 460 GHz
3.781 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 5.78500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
MSG
STATUS

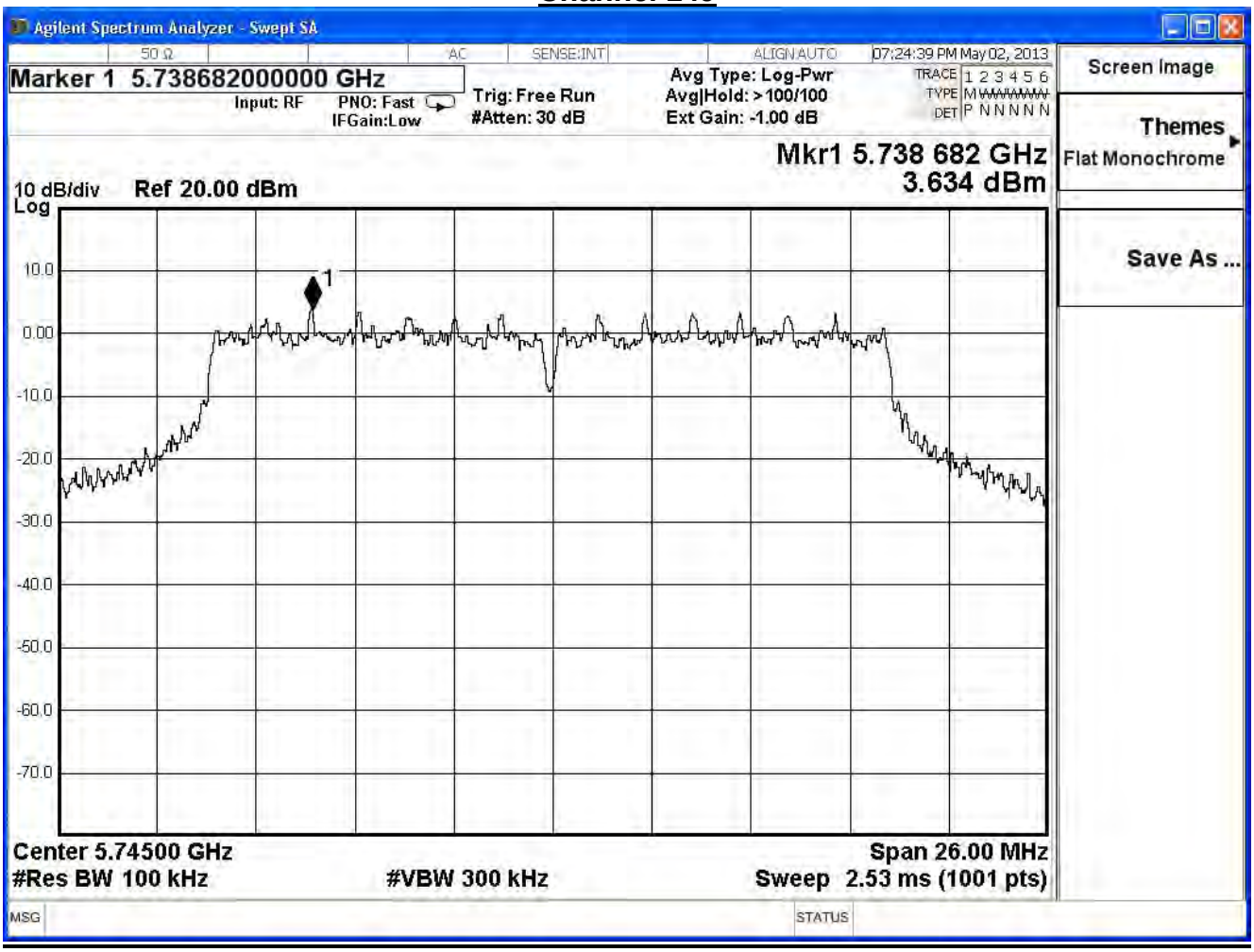
Channel 165


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:28:06 PM May 02, 2013
Marker 1 5.818656000000 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
Screen Image
Themes
Flat Monochrome
Mkr1 5.818 656 GHz
4.568 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
Save As ...
Center 5.82500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
MSG
STATUS

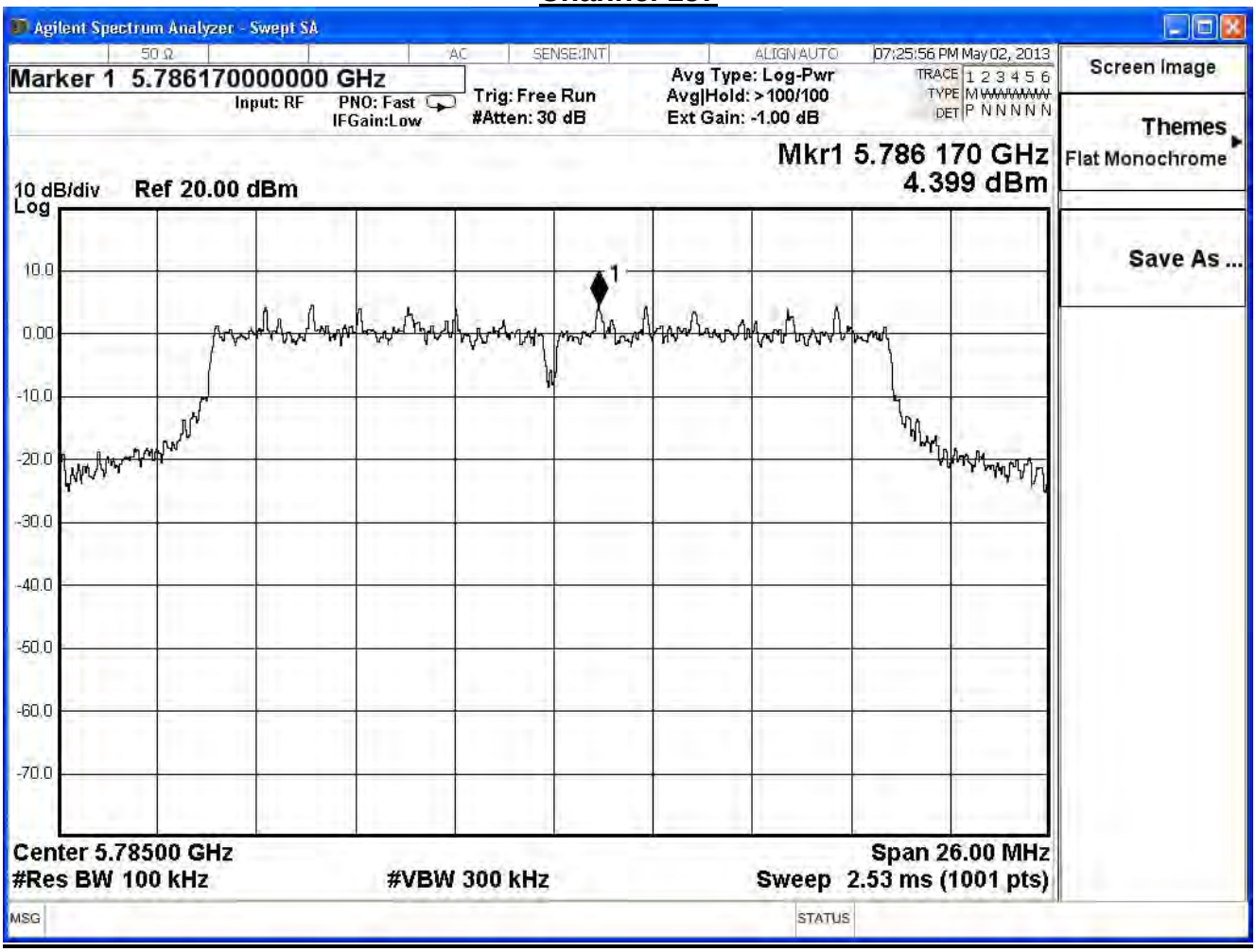
Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

IEEE802.11n_20MHz_(ANT 0)					
Channel No.	Frequency (MHz)	Reading Level(dBm)	Measure Level(dBm)	Limit (dBm)	Result
149	5745	3.634	-11.566	≦8	Pass
157	5785	4.399	-10.801	≦8	Pass
165	5825	5.080	-10.120	≦8	Pass

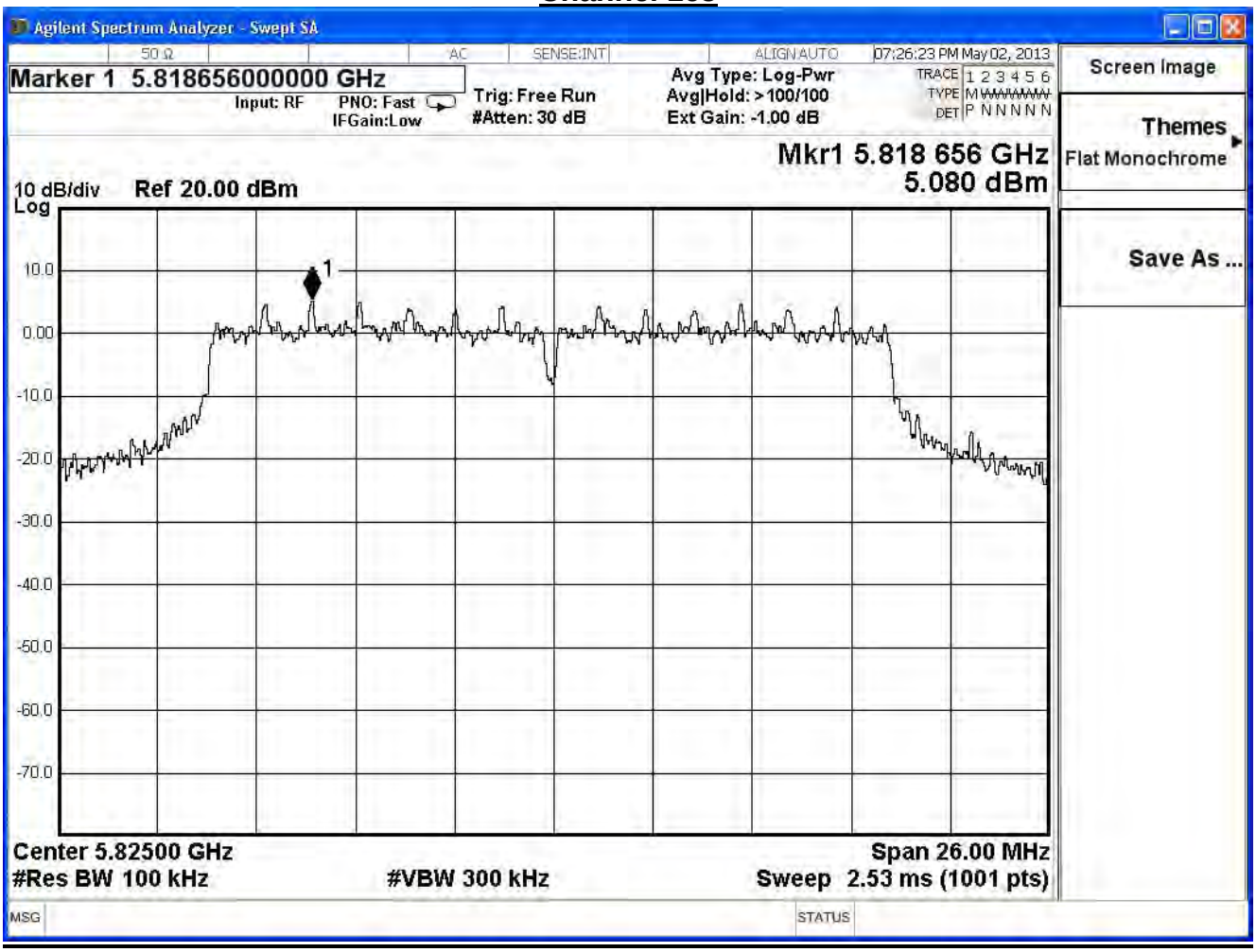
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:25:56 PM May 02, 2013
Marker 1 5.786170000000 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 5.786 170 GHz
4.399 dBm
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 5.78500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
MSG
STATUS
Screen Image
Themes
Flat Monochrome
Save As ...

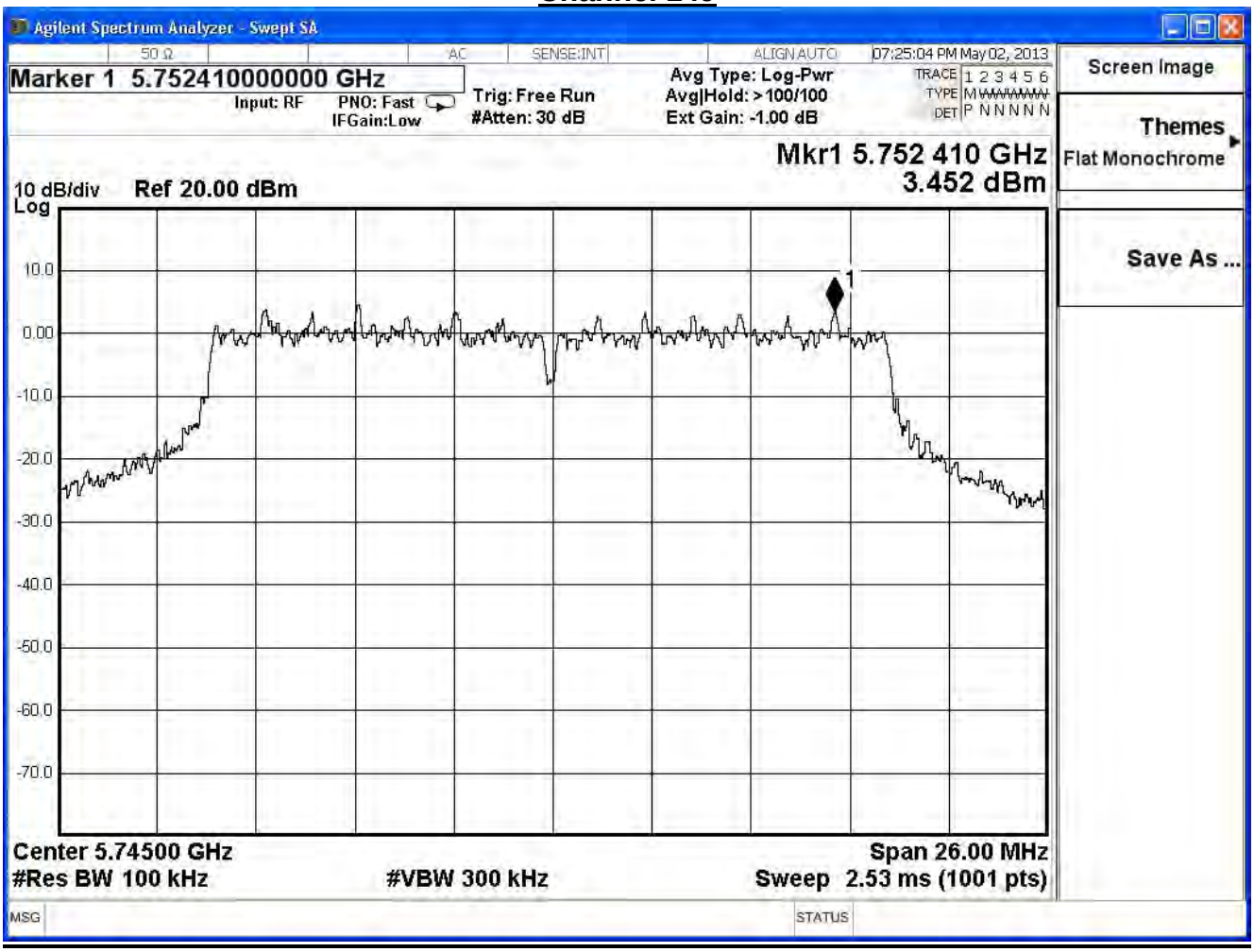
Channel 165


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:26:23 PM May 02, 2013
Marker 1 5.818656000000 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
Screen Image
Themes
Flat Monochrome
Mkr1 5.818 656 GHz
5.080 dBm
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Save As ...
Center 5.82500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
MSG
STATUS

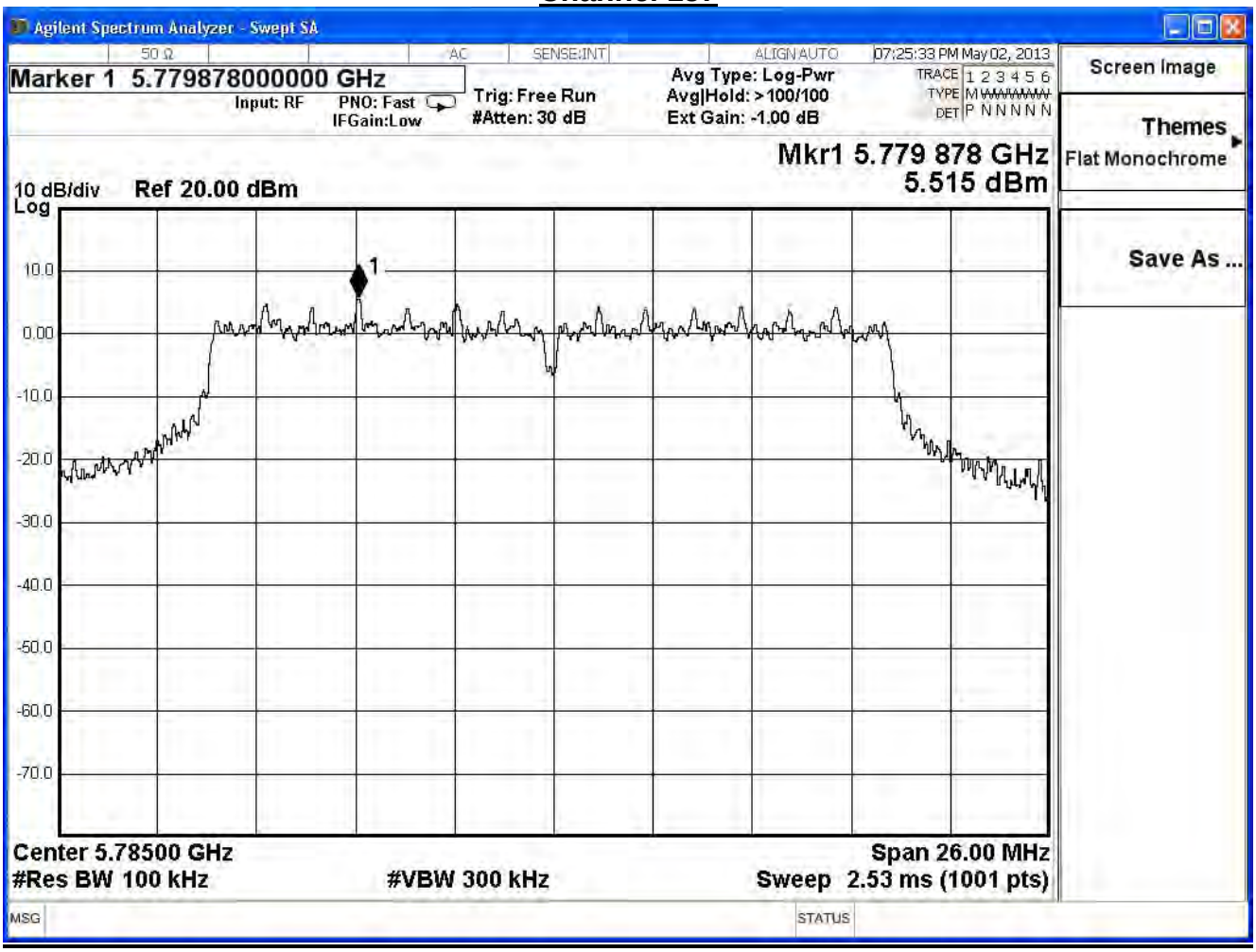
Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

IEEE802.11n_20MHz_(ANT 1)					
Channel No.	Frequency (MHz)	Reading Level(dBm)	Measure Level(dBm)	Limit (dBm)	Result
149	5745	3.452	-11.748	≦8	Pass
157	5785	5.515	-9.685	≦8	Pass
165	5825	5.458	-9.742	≦8	Pass

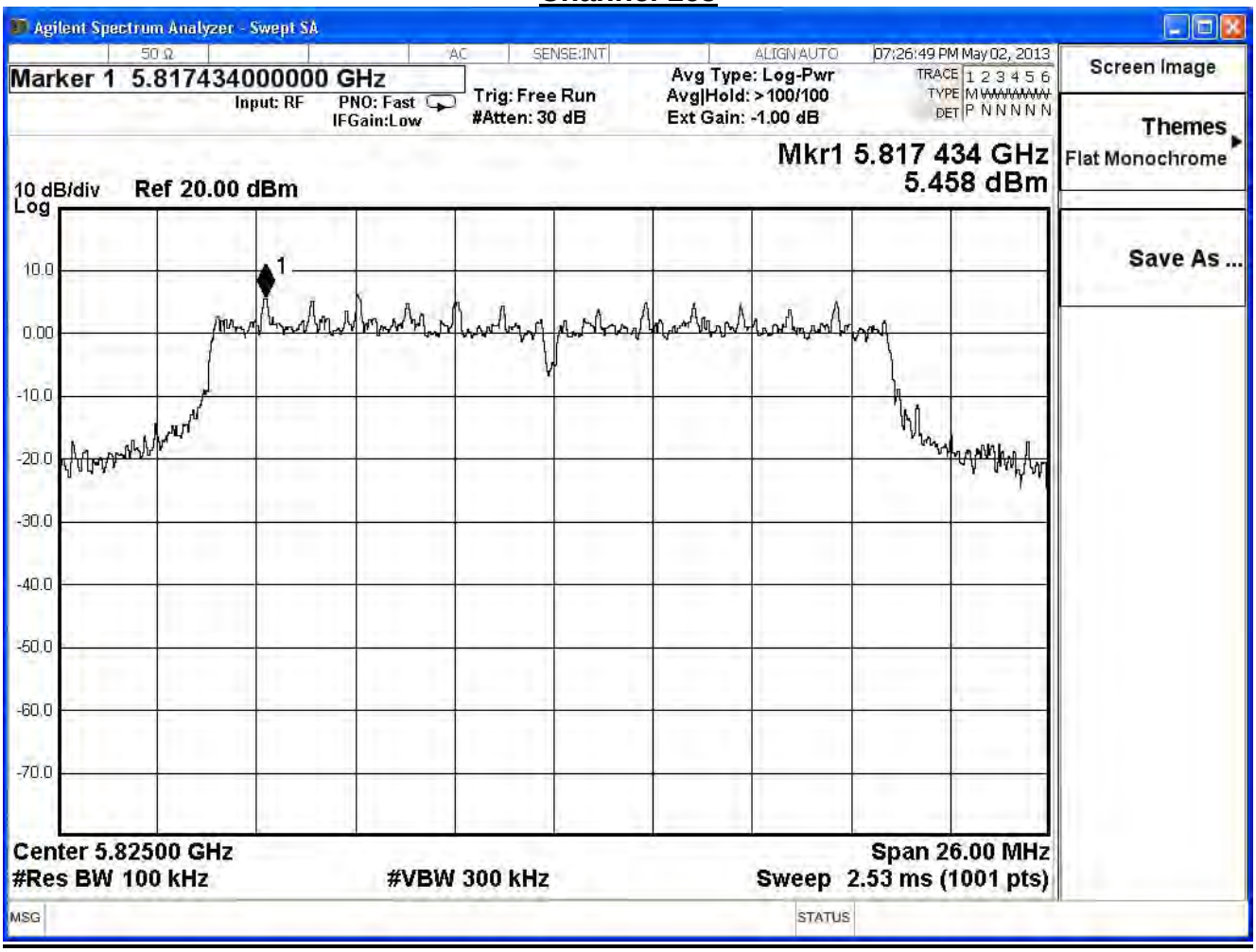
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:25:33 PM May 02, 2013
Marker 1 5.779878000000 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
Screen Image
Themes
Flat Monochrome
Save As ...
Mkr1 5.779 878 GHz
5.515 dBm
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 5.78500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
MSG
STATUS

Channel 165


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:26:49 PM May 02, 2013
Marker 1 5.817434000000 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
Screen Image
Themes
Flat Monochrome
Mkr1 5.817 434 GHz
5.458 dBm
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Save As ...
Center 5.82500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 26.00 MHz
Sweep 2.53 ms (1001 pts)
MSG
STATUS

Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

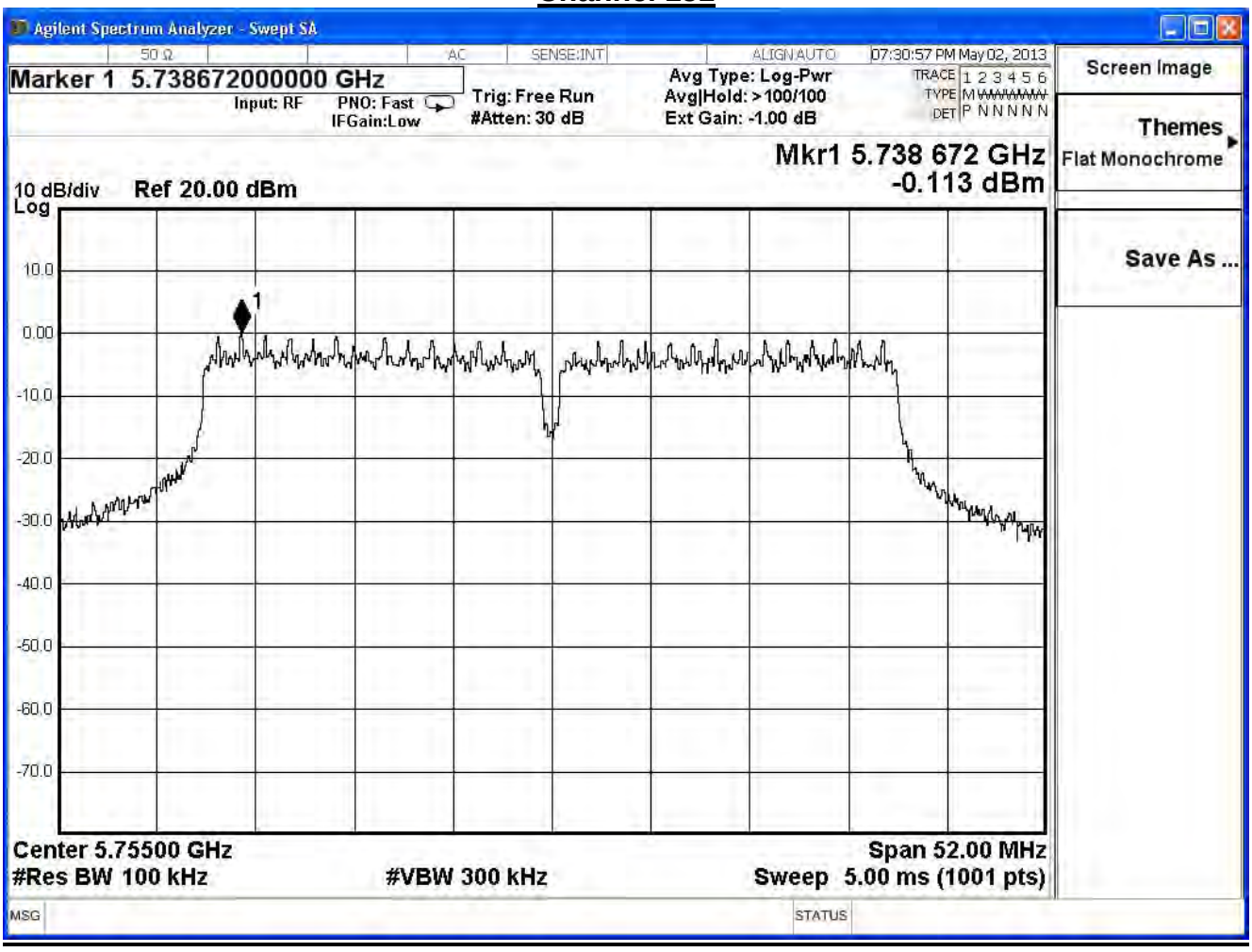
IEEE802.11n20MHz(ANT 0+1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-8.646	≦8	Pass
157	5785	-7.197	≦8	Pass
165	5825	-6.917	≦8	Pass

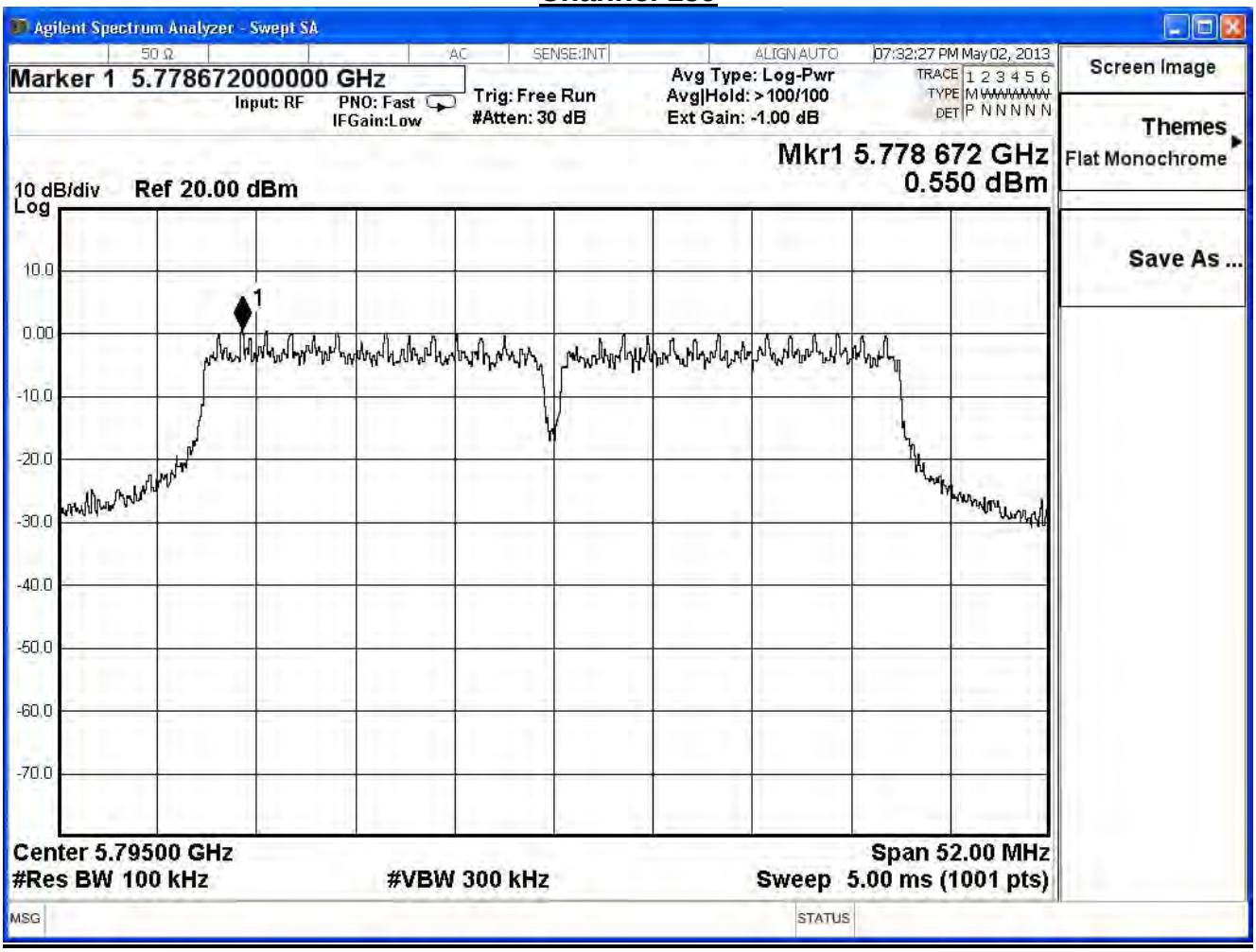
Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

IEEE 802.11n_40MHz (ANT 0)					
Channel No.	Frequency (MHz)	Reading Level(dBm)	Measure Level(dBm)	Limit (dBm)	Result
151	5755	-0.113	-15.313	≦8	Pass
159	5795	0.550	-14.650	≦8	Pass

Channel 151



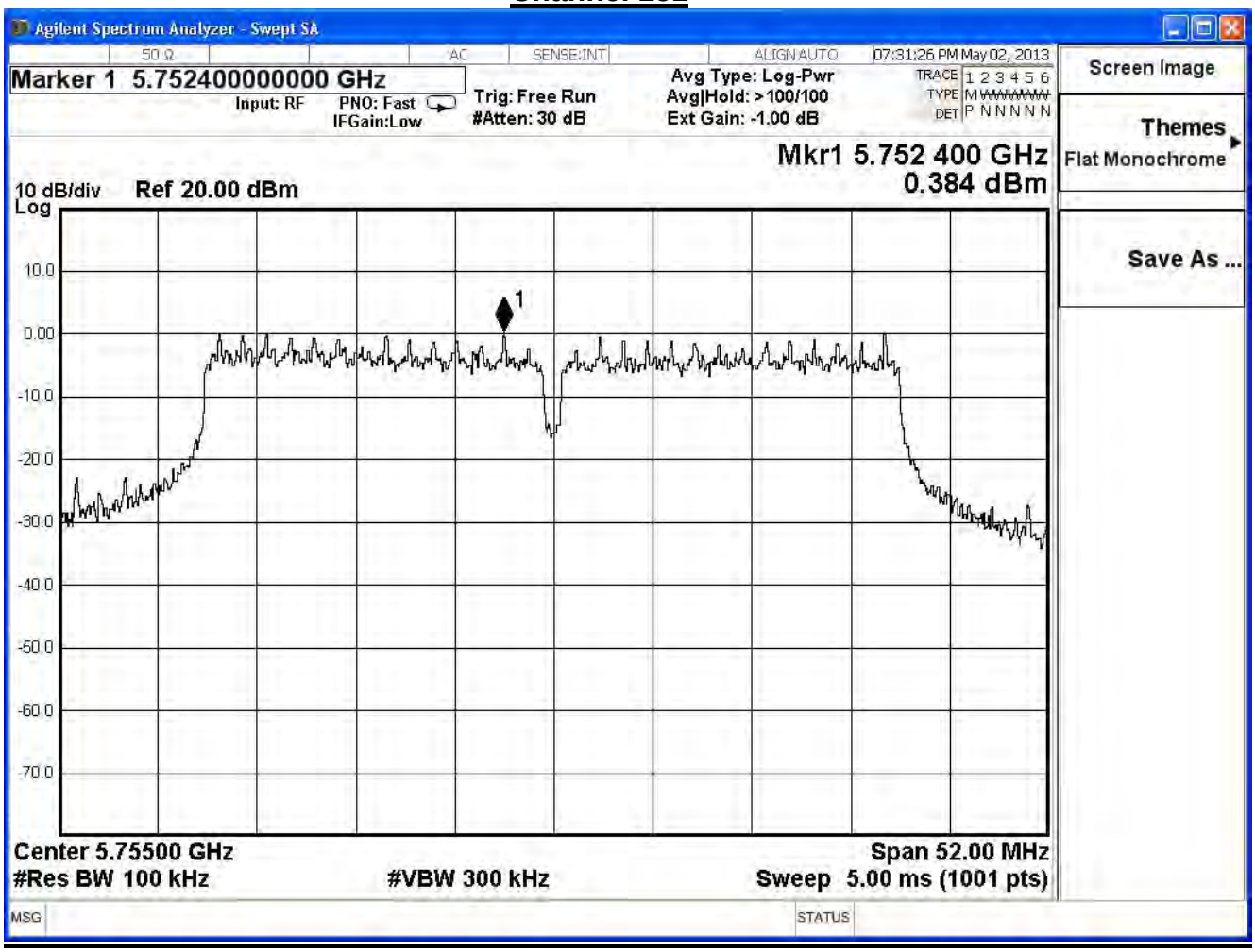
Channel 159


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:32:27 PM May 02, 2013
Marker 1 5.778672000000 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
Screen Image
Themes
Flat Monochrome
Save As ...
Mkr1 5.778 672 GHz
0.550 dBm
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 5.79500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 52.00 MHz
Sweep 5.00 ms (1001 pts)
MSG
STATUS

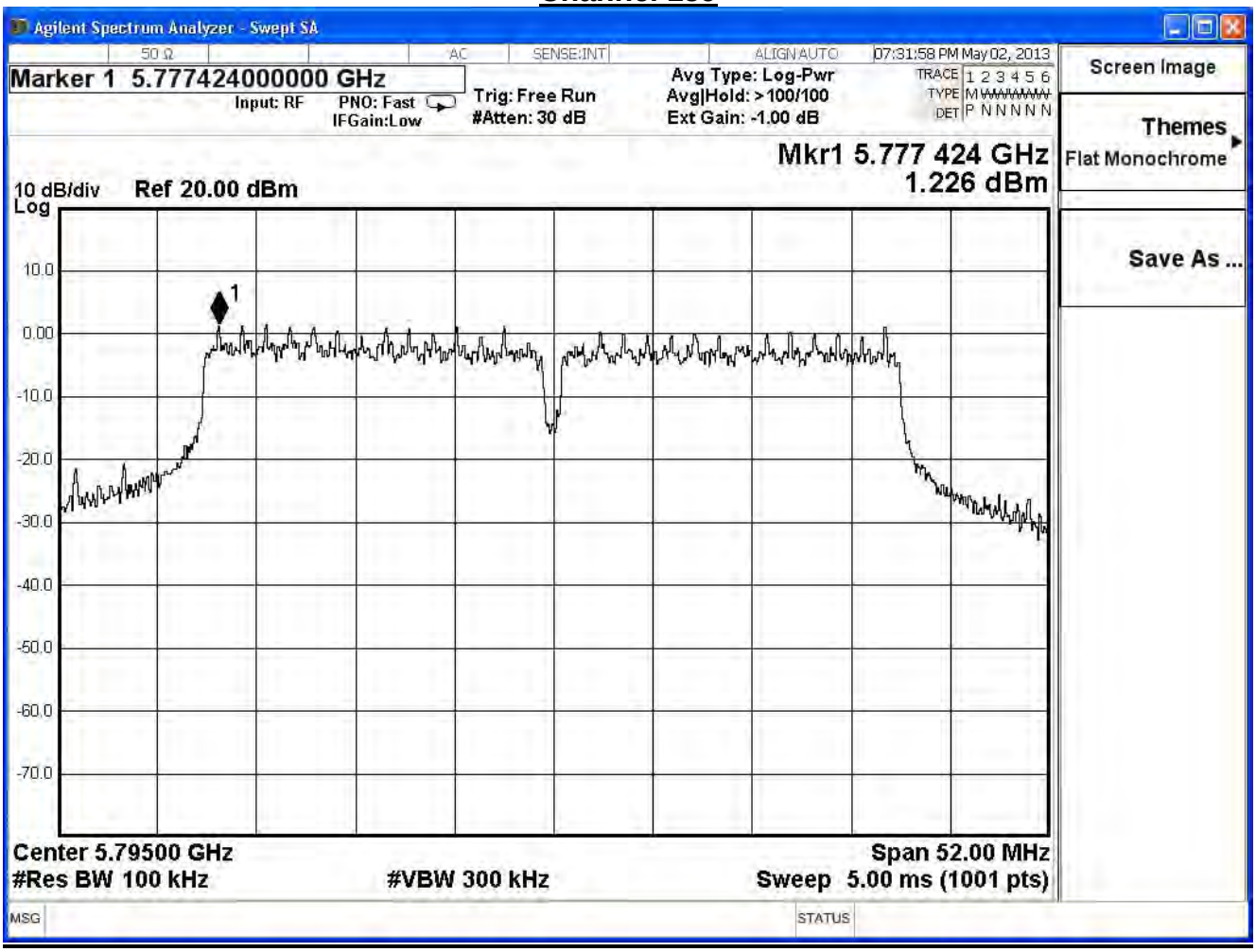
Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

IEEE 802.11n_40MHz (ANT 1)					
Channel No.	Frequency (MHz)	Reading Level(dBm)	Measure Level(dBm)	Limit (dBm)	Result
151	5755	0.384	-14.816	≦8	Pass
159	5795	1.226	-13.974	≦8	Pass

Channel 151



Channel 159


Agilent Spectrum Analyzer - Swept SA
50 Ω
AC
SENSE:INT
ALIGN AUTO
07:31:58 PM May 02, 2013
Marker 1 5.777424000000 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
Screen Image
Themes
Flat Monochrome
Save As ...
Mkr1 5.777 424 GHz
1.226 dBm
10 dB/div
Ref 20.00 dBm
Log
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
1
Center 5.79500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 52.00 MHz
Sweep 5.00 ms (1001 pts)
MSG
STATUS

Product	VDSL2 Security Firewall		
Test Item	Power Density		
Test Mode	Transmit		
Date of Test	2013/05/02	Test Site	SR7

IEEE802.11n40MHz(ANT 0+1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-12.047	≦8	Pass
159	5795	-11.289	≦8	Pass

9. Attachment 1

➢ **Attachment: EUT Detailed Model Number and Detailed Difference**

Mode	Model-name	VDSL2#1 (RJ11)	VDSL2#2 (RJ11)	FXS (RJ11)	FXO (RJ11)	WLAN-1
1	Vigor2860n-plus	V				V (2.4G by RT5392)
2	Vigor2860Vn-plus	V		V	V	V (2.4G by RT5392)
3	Vigor2862n-plus	V	V(dual)			V (2.4G by RT5392)
4	Vigor2862Vn-plus	V	V(dual)	V	V	V (2.4G by RT5392)
5	Vigor2925n-plus					V (2.4G by RT5392)
6	Vigor2925Vn-plus			V	V	V (2.4G by RT5392)
7	Vigor2925Fn-plus					V (2.4G by RT5392)
8	Vigor2925FVn-plus			V	V	V (2.4G by RT5392)
9	Vigor2860Fn-plus	V				V (2.4G by RT5392)
10	Vigor2860FVn-plus	V		V	V	V (2.4G by RT5392)
11	VigorIPPBX2860n-plus	V		V	V	V (2.4G by RT5392)
12	Vigor3220n-plus					V (2.4G by RT5392)
13	Vigor3220Vn-plus			V	V	V (2.4G by RT5392)
14	Vigor3220Fn-plus					V (2.4G by RT5392)
15	Vigor3220FVn-plus			V	V	V (2.4G by RT5392)

Mode	Model-name	WLAN-2	WAN#1	RJ45 Port#1~6	USB 2.0 x 2
1	Vigor2860n-plus	V (5G by WMC-ND07)	RJ45	LAN#1~6(RJ45)	V
2	Vigor2860Vn-plus	V (5G by WMC-ND07)	RJ45	LAN#1~6(RJ45)	V
3	Vigor2862n-plus	V (5G by WMC-ND07)	RJ45	LAN#1~6(RJ45)	V
4	Vigor2862Vn-plus	V (5G by WMC-ND07)	RJ45	LAN#1~6(RJ45)	V
5	Vigor2925n-plus	V (5G by WMC-ND07)	RJ45	WAN#2/LAN#1~5(RJ45)	V
6	Vigor2925Vn-plus	V (5G by WMC-ND07)	RJ45	WAN#2/LAN#1~5(RJ45)	V
7	Vigor2925Fn-plus	V (5G by WMC-ND07)	SFP	WAN#2/LAN#1~5(RJ45)	V
8	Vigor2925FVn-plus	V (5G by WMC-ND07)	SFP	WAN#2/LAN#1~5(RJ45)	V
9	Vigor2860Fn-plus	V (5G by WMC-ND07)	SFP	LAN#1~6(RJ45)	V
10	Vigor2860FVn-plus	V (5G by WMC-ND07)	SFP	LAN#1~6(RJ45)	V
11	VigorIPPBX2860n-plus	V (5G by WMC-ND07)	RJ45	LAN#1~6(RJ45)	V
12	Vigor3220n-plus	V (5G by WMC-ND07)	RJ45	LAN#2/WAN#1~5(RJ45)	V
13	Vigor3220Vn-plus	V (5G by WMC-ND07)	RJ45	LAN#2/WAN#1~5(RJ45)	V
14	Vigor3220Fn-plus	V (5G by WMC-ND07)	SFP	LAN#2/WAN#1~5(RJ45)	V
15	Vigor3220FVn-plus	V (5G by WMC-ND07)	SFP	LAN#2/WAN#1~5(RJ45)	V