Test Report

FCC Part15 Subpart C

Product Name	:	Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB
Model No.	:	DSL-401HNU-B1B v5, VMG1312-B10C DSL-401HNU-B3B v5, VMG1312-B30C DSL-401HN-B1B v5, VMG1302-B10C
FCC ID	:	I88VMG1312B10C

Applicant	:	ZyXEL Communications Corporation
Address	:	No.2, Gongye E. 9th Road, Hsinchu Science Park, Hsinchu, Taiwan

Date of Receipt	:	Jun. 13, 2014
Test Date	:	Jun.13, 2014~Aug. 04, 2014
Issued Date	:	Aug. 29, 2014
Report No.	:	1460406R-RF-US-P05V01
Report Version	:	V1.2

Test Report Certification

Issued Date : Aug. 05, 2014
Report No. : 1460406R-RF-US-P05V01

Product Name	:	Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB
Applicant	:	ZyXEL Communications Corporation
Address	:	No.2, Gongye E. 9th Road, Hsinchu Science Park, Hsinchu, Taiwan
Manufacturer	:	Wuxi MitraStar Technology Co.Ltd
Address	:	Wuxi New District Minshan road 60#-E Jiangsu PRC
Model No.	:	DSL-401HNU-B1B v5, VMG1312-B10C DSL-401HNU-B3B v5, VMG1312-B30C DSL-401HN-B1B v5, VMG1302-B10C
FCC ID	:	I88VMG1312B10C
EUT Voltage	:	AC 100-240V / 50-60Hz
Brand Name	:	ZyXEL
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C: 2012 ANSI C63.4: 2009; ANSI C63.10: 2009; KDB 558074
Test Result	:	Complied
Performed Location	:	Suzhou EMC Laboratory No.99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., Suzhou, China TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098 FCC Registration Number: 800392

Documented By	:	Alice Ni
Reviewed By	:	Dream Cao
Approved By	:	Jeff Chen

Laboratory Information

We, **QuieTek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

Taiwan R.O.C.	**:**	**BSMI, NCC, TAF**
Germany	**:**	**TUV Rheinland**
Norway	**:**	**Nemko, DNV**
USA	**:**	**FCC**
Japan	**:**	**VCCI**
China	**:**	**CNAS**

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

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TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com

LinKou Testing Laboratory :
No.5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan, R.O.C.
TEL : 886-2-8601-3788 / FAX : 886-2-8601-3789 E-Mail : service@quietek.com

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
1460406R-RF-US-P05V01	V1.0	Initial Issued Report	Aug. 05, 2014
1460406R-RF-US-P05V01	V1.1	Update the applicant's address	Aug. 29, 2014
1460406R-RF-US-P05V01	V1.2	Update according to TCB's comments	Sep. 17, 2014

1. General Information

1.1. EUT Description

Product Name	Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB
Brand Name	ZyXEL
Model No.	DSL-401HNU-B1B v5, VMG1312-B10C DSL-401HNU-B3B v5, VMG1312-B30C DSL-401HN-B1B v5, VMG1302-B10C
EUT Voltage	AC 100-240V
Frequency Range	**For 2.4GHz Band** 802.11b/g/n(20MHz): 2412~2462MHz 802.11n(40MHz): 2422~2452MHz
Channel Number	For 2.4GHz Band 802.11b/g/n(20MHz): 11 802.11n(40MHz): 7
Type of Modulation	802.11b: DSSS
	802.11g/n: OFDM
Data Rate	802.11g: 6/9/12/18/24/36/48/54 Mbps
	802.11b: 1/2/5.5/11 Mbps
	802.11n: up to 300 Mbps
Channel Control	Auto
Antenna Delivery	2*Tx + 2*Rx for 2.4GHz
Antenna Type	PCB Antenna
Peak Antenna Gain	Ant 1: 3.5dBi Ant 2: 1.7dBi
Component	
AC Adapter #1	Manufacturer: Atech OEM Inc. M/N: ADS012PM-W 120100 Input: AC 100-240V~50-60Hz, 0.5A Output: DC 12V, 1.0A
AC Adapter #2	Manufacturer: MOSO M/N: MSP-C1000IC12.0-12B-US Input: AC 100-240V~50-60Hz, 0.5A max Output: DC 12.0V, 1A

For 2.4GHz Band

802.11b/g/n(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz	04	2427 MHz
05	2432 MHz	06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	10	2457 MHz	11	2462 MHz	N/A	N/A
802.11n(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
03	2422 MHz	04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz	N/A	N/A

. Power Parameter Value of the test software

Test Mode	Test Channel	Ant1	Ant2	Ant1+2
802.11b	2412	65	65	×
	2437	65	65	×
	2462	65	65	×
802.11g	2412	72	70	×
	2437	85	80	×
	2462	70	68	×
802.11n(20MHz)	2412	72	71	71
	2437	85	80	71
	2462	71	70	63
802.11n(40MHz)	2422	35	44	35
	2437	45	50	45
	2452	39	31	31

The test mode of the test software can support.

Test Mode	Ant0	Ant1	Ant0+1
802.11b	√	√	×
	√	√	×
	√	√	×
802.11g	√	√	×
	√	√	×
	√	√	×
802.11n (20MHz)	√	√	√
	√	√	√
	√	√	√
802.11n (40MHz)	√	√	√
	√	√	√
	√	√	√

Duty Cycle

2.4GHz Band

Test Mode	Duty Cycle
802.11b	99%
802.11g	98%
802.11n(20MHz)	98%
802.11n(40MHz)	96%

1.2. Mode of Operation

QuieTek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: Transmit by 802.11b
Mode 2: Transmit by 802.11g
Mode 3: Transmit by 802.11n(20MHz)
Mode 4: Transmit by 802.11n(40MHz)

Note:

Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.

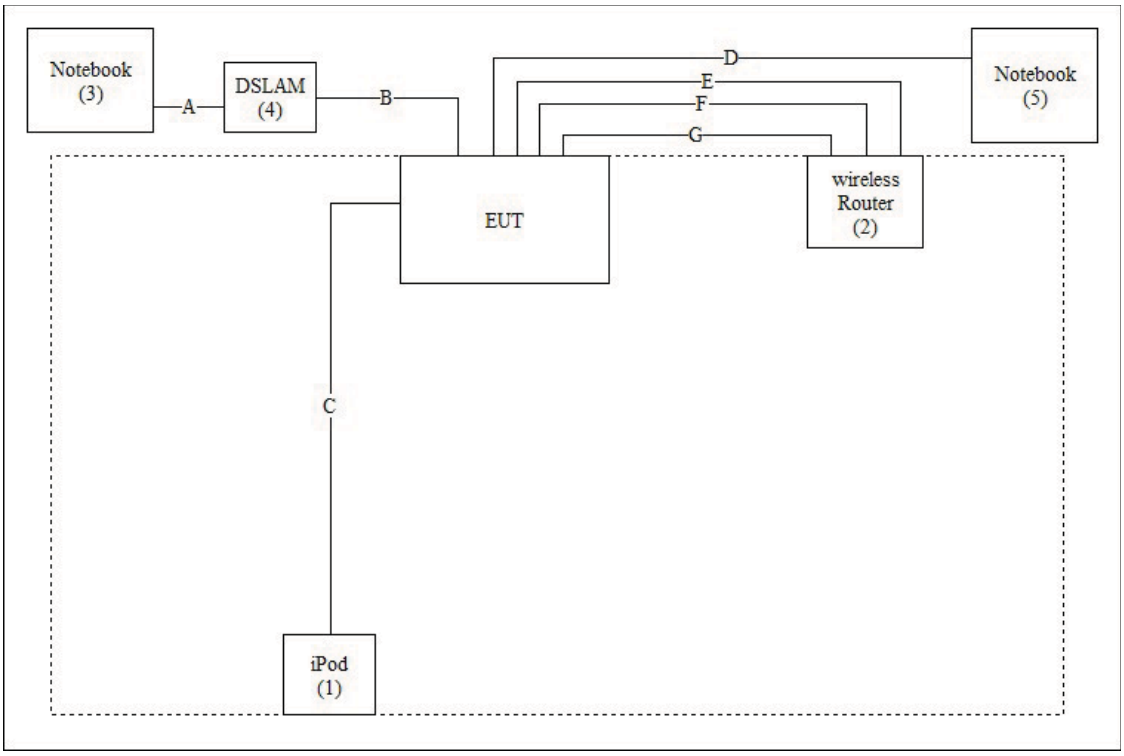
1.3. Tested System Details

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

Product		Manufacturer	Model No.	Serial No.	Power Cord	FCC Certification
1	iPod	Apple	A1199	7J71085BVQ5	Power by EUT	DoC approved
2	Wireless Router	D-Link	DSL-2730B	7004GK83LFA9000088	Power by adapter	FCC ID: KA2SL2730BT1
3	Notebook	DELL	VOSTRO V131	0GX50K	Power by adapter	DoC approved
4	DSLAM	ZyXEL	VES-1624F-55A	S030751009401	Non-Shielded, 1.8m	VoC approved
5	Notebook	DELL	VOSTRO V131	N/A	Power by adapter	DoC approved

1.4. Configuration of Tested System

Connection Diagram



Signal Cable Type		Signal cable Description
A	CAT5e LAN Cable	Non-Shielded, 1.2m
B	Telecom Cable	Non-Shielded, >10m
C	USB Cable	Shielded, 1.0m
D	CAT5e LAN Cable	Non-Shielded, >10m
E	CAT5e LAN Cable	Non-Shielded, 1.2m
F	CAT5e LAN Cable	Non-Shielded, 1.2m
G	CAT5e LAN Cable	Non-Shielded, 1.2m

1.5. EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of equipment.
3	Run the RF test software, and set the test mode and channel, then press OK to start continue Transmit or receive.

2. Technical Test

2.1. Summary of Test Result

☒ No deviations from the test standards

☐ Deviations from the test standards as below description:

Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC CFR Title 47 Part 15 Subpart C: 2012 Section 15.207	Yes	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart C: 2012 Section 15.209	Yes	No
RF Antenna Conducted Spurious	FCC CFR Title 47 Part 15 Subpart C: 2012 Section 15.247(d)	Yes	No
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart C: 2012 15.247(d)	Yes	No
Operation Frequency Range of 20dB Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2012 15.215(c)	Yes	No
Occupied Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2012 Section 15.247(a)(2)	Yes	No
Power Output	FCC CFR Title 47 Part 15 Subpart C: 2012 Section 15.247(b)(3)	Yes	No
Power Spectral Density	FCC CFR Title 47 Part 15 Subpart C: 2012 Section 15.247(e)	Yes	No

2.2. Test Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	21
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

3. Conducted Emission

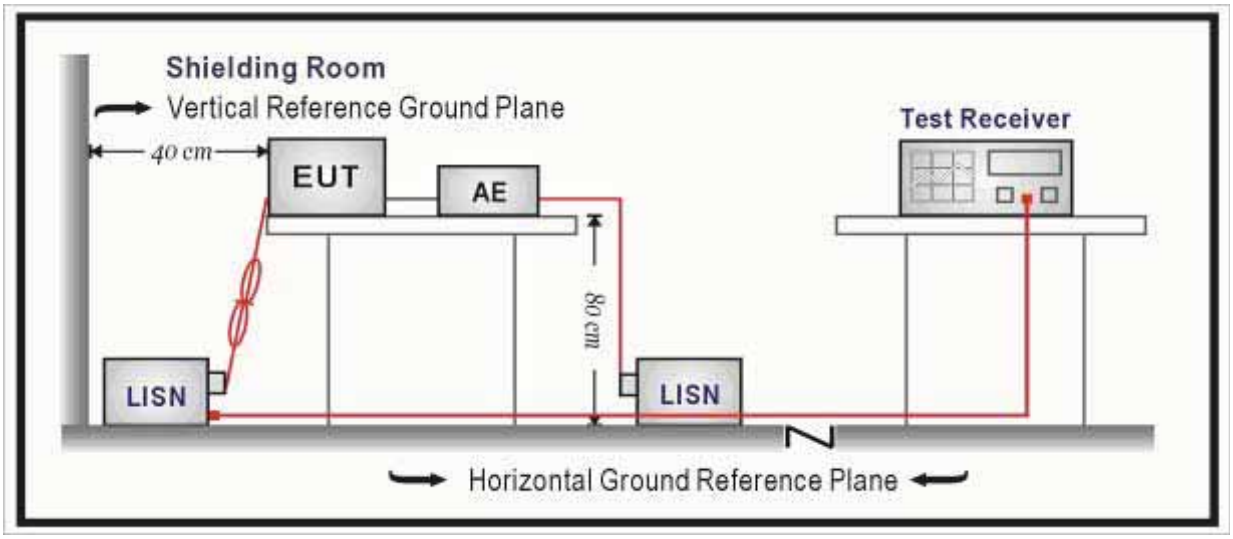
3.1. Test Equipment

Conducted Emission / TR-1

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
EMI Test Receiver	R&S	ESCI	100906	2015.01.07
Two-Line V-Network	R&S	ENV216	101043	2015.03.28
Two-Line V-Network	R&S	ENV216	101044	2014.09.16
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2015.03.01
50ohm Termination	SHX	TF2	07081401	2014.09.16
Temperature/Humidity Meter	zhicheng	ZC1-2	TR1-TH	2015.01.08

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

3.2. Test Setup



3.3. Limit

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

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

3.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to ANSI C63.10: 2009 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

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

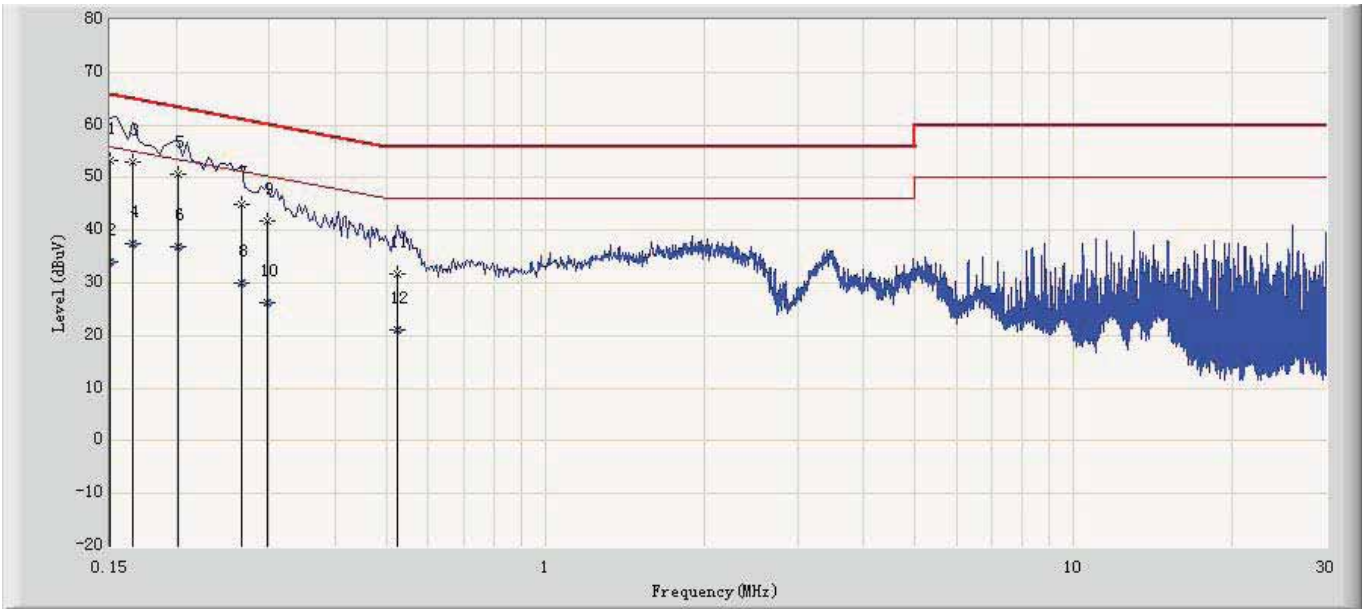
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

3.5. Uncertainty

The measurement uncertainty is defined as ± 2.02 dB

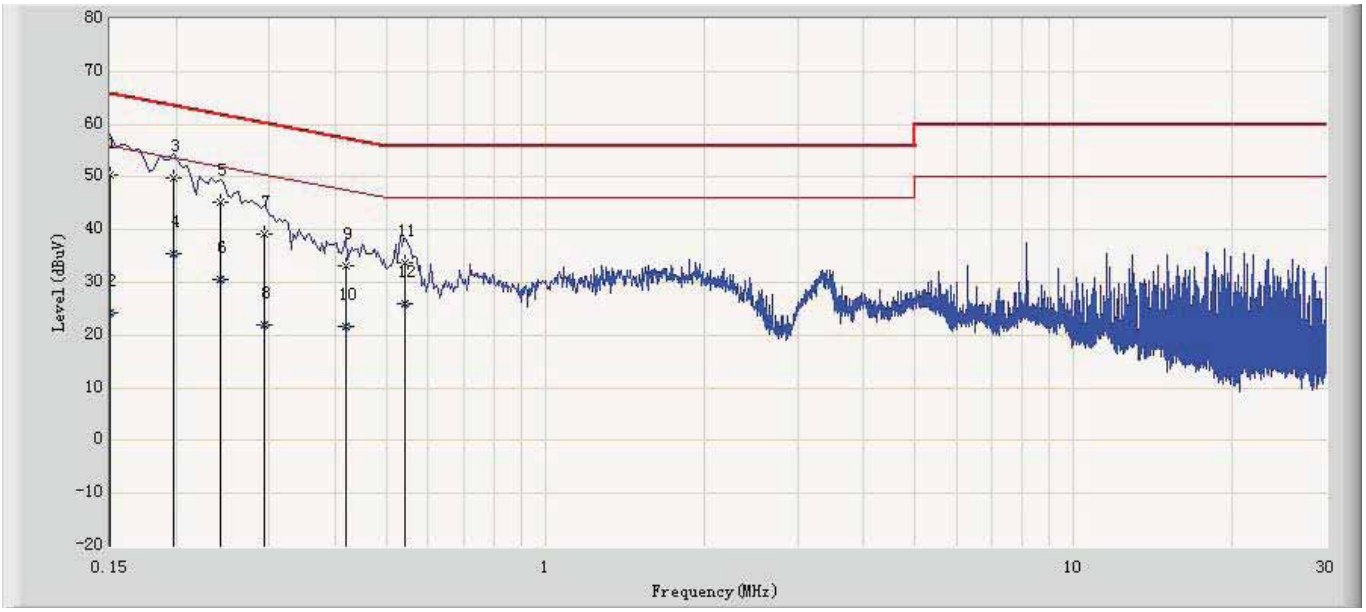
3.6. Test Result

Engineer: Stan	
Site: TR1	Time: 2014/06/14 - 00:33
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101044(0.009-30MHz)	Polarity: Line
EUT: Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB	Power: AC 120V/60Hz
Note: Mode 1 with adapter #1	



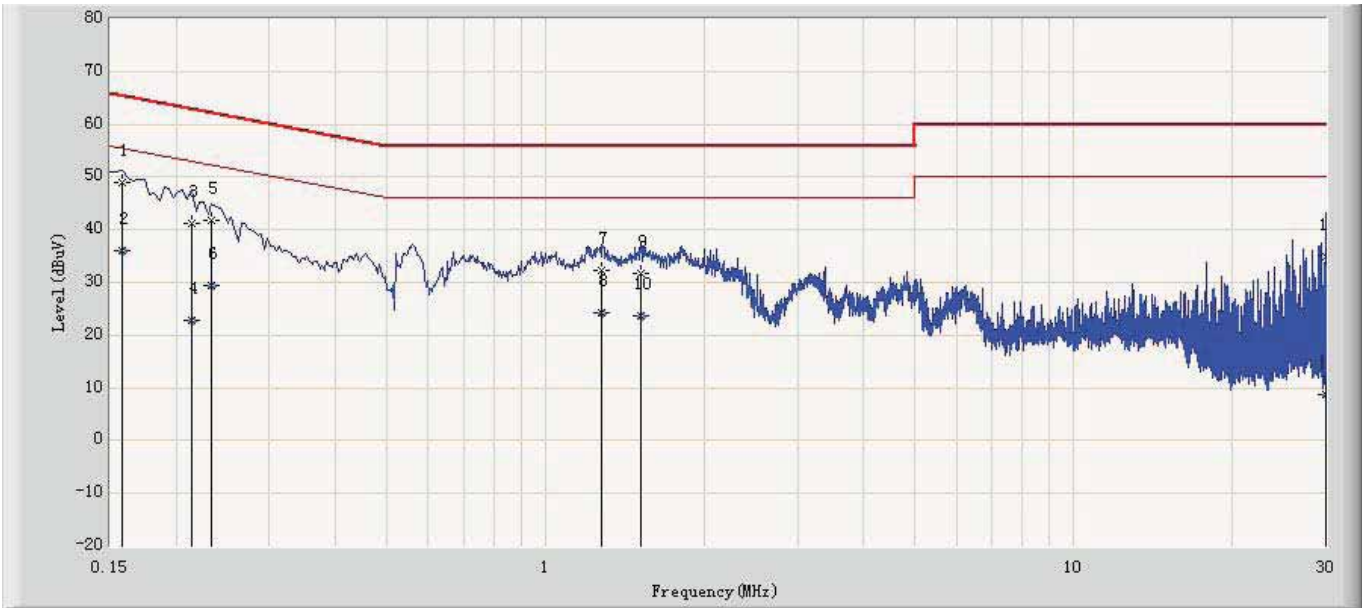
No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.150	53.278	43.430	-12.722	66.000	9.848	QP
2		0.150	33.958	24.110	-22.042	56.000	9.848	AV
3	*	0.166	53.112	43.263	-12.046	65.158	9.849	QP
4		0.166	37.528	27.679	-17.630	55.158	9.849	AV
5		0.202	50.797	40.937	-12.731	63.528	9.860	QP
6		0.202	36.968	27.108	-16.560	53.528	9.860	AV
7		0.266	44.887	35.018	-16.355	61.242	9.869	QP
8		0.266	30.049	20.180	-21.193	51.242	9.869	AV
9		0.298	41.706	31.833	-18.592	60.298	9.873	QP
10		0.298	26.238	16.365	-24.060	50.298	9.873	AV
11		0.526	31.715	21.814	-24.285	56.000	9.901	QP
12		0.526	21.200	11.299	-24.800	46.000	9.901	AV

Engineer: Stan	
Site: TR1	Time: 2014/06/14 - 00:43
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101044(0.009-30MHz)	Polarity: Neutral
EUT: Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB	Power: AC 120V/60Hz
Note: Mode 1 with adapter #1	



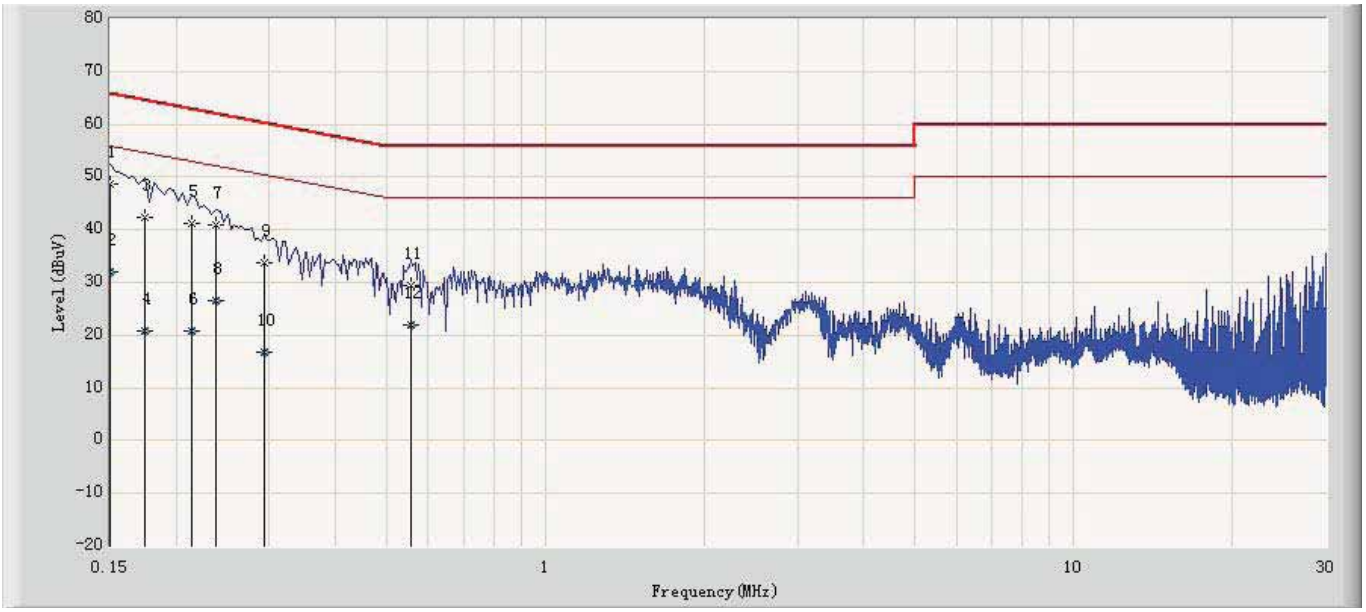
No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.150	50.462	40.487	-15.538	66.000	9.975	QP
2		0.150	24.208	14.233	-31.792	56.000	9.975	AV
3	*	0.198	49.960	40.038	-13.734	63.694	9.922	QP
4		0.198	35.381	25.459	-18.313	53.694	9.922	AV
5		0.242	45.350	35.429	-16.677	62.027	9.921	QP
6		0.242	30.495	20.574	-21.532	52.027	9.921	AV
7		0.294	39.277	29.330	-21.134	60.411	9.947	QP
8		0.294	22.014	12.067	-28.397	50.411	9.947	AV
9		0.418	33.068	23.049	-24.420	57.488	10.019	QP
10		0.418	21.711	11.692	-25.777	47.488	10.019	AV
11		0.542	33.864	23.842	-22.136	56.000	10.022	QP
12		0.542	26.033	16.011	-19.967	46.000	10.022	AV

Engineer: Stan	
Site: TR1	Time: 2014/06/14 - 01:14
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101044(0.009-30MHz)	Polarity: Line
EUT: Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB	Power: AC 120V/60Hz
Note: Mode 1 with adapter #2	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1	*	0.158	49.084	39.238	-16.484	65.568	9.846	QP
2		0.158	35.985	26.139	-19.583	55.568	9.846	AV
3		0.214	41.167	31.305	-21.882	63.049	9.862	QP
4		0.214	22.763	12.901	-30.286	53.049	9.862	AV
5		0.234	41.775	31.910	-20.532	62.307	9.865	QP
6		0.234	29.53	19.665	-22.777	52.307	9.865	AV
7		1.278	32.159	22.360	-23.841	56.000	9.799	QP
8		1.278	24.381	14.582	-21.619	46.000	9.799	AV
9		1.514	31.676	21.876	-24.324	56.000	9.800	QP
10		1.514	23.67	13.870	-22.330	46.000	9.800	AV
11		29.982	34.867	24.247	-25.133	60.000	10.620	QP
12		29.982	8.783	-1.837	-41.217	50.000	10.620	AV

Engineer: Stan	
Site: TR1	Time: 2014/06/14 - 01:16
Limit: FCC_Part15.107_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101044(0.009-30MHz)	Polarity: Neutral
EUT: Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB	Power: AC 120V/60Hz
Note: Mode 1 with adapter #2	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1	*	0.150	48.646	38.671	-17.354	66.000	9.975	QP
2		0.150	32.130	22.155	-23.870	56.000	9.975	AV
3		0.174	42.379	32.418	-22.388	64.767	9.961	QP
4		0.174	20.700	10.739	-34.067	54.767	9.961	AV
5		0.214	41.070	31.158	-21.979	63.049	9.912	QP
6		0.214	20.664	10.752	-32.385	53.049	9.912	AV
7		0.238	40.930	31.011	-21.236	62.166	9.919	QP
8		0.238	26.685	16.766	-25.481	52.166	9.919	AV
9		0.294	33.611	23.665	-26.799	60.411	9.947	QP
10		0.294	16.655	6.709	-33.756	50.411	9.947	AV
11		0.558	29.568	19.560	-26.432	56.000	10.008	QP
12		0.558	21.961	11.953	-24.039	46.000	10.008	AV

4. Radiated Emission

4.1. Test Equipment

Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
EMI Test Receiver	R&S	ESCI	100573	2015.03.28
Loop Antenna	R&S	HFH2-Z2	833799/003	2015.11.25
Bilog Chainenna	Teseq GmbH	CBL6112D	27611	2014.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2015.03.01
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC2-TH	2015.01.08

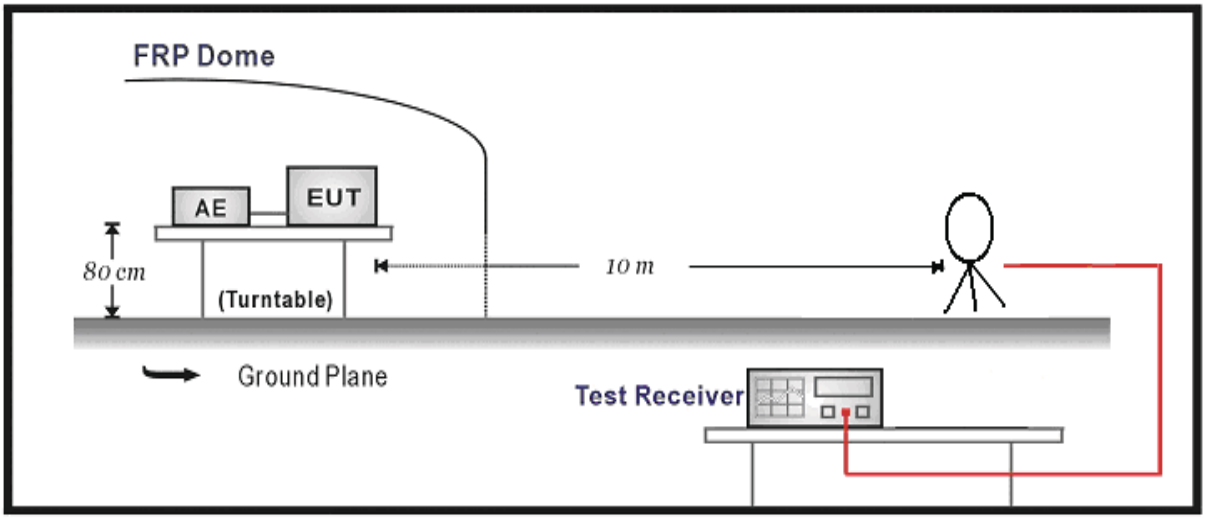
Radiated Emission / AC-5

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
Spectrum Analyzer	Agilent	N9020A	MY49100159	2015.03.28
Spectrum Analyzer	Agilent	E4446A	MY45300103	2015.01.07
Preamplifier	Miteq	NSP1800-25	1364185	2015.05.03
Preamplifier	QuieTek	AP-040G	CHM-0906001	2015.05.03
DRG Horn	ETS-Lindgren	3117	00123988	2015.01.07
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2016.04.10
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2015.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2015.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2015.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2015.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2015.01.08

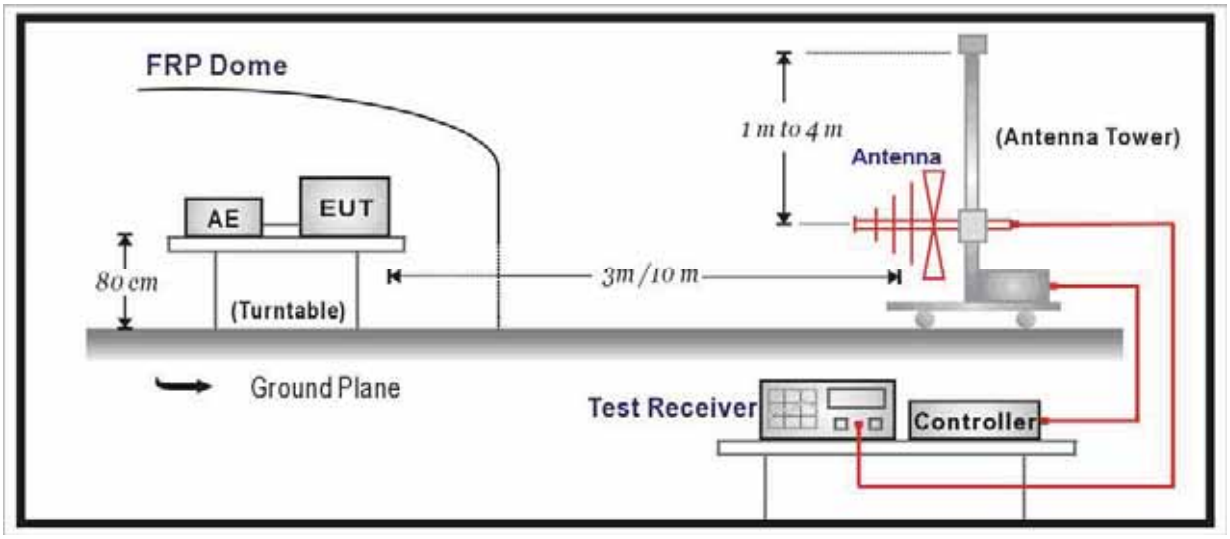
Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

4.2. Test Setup

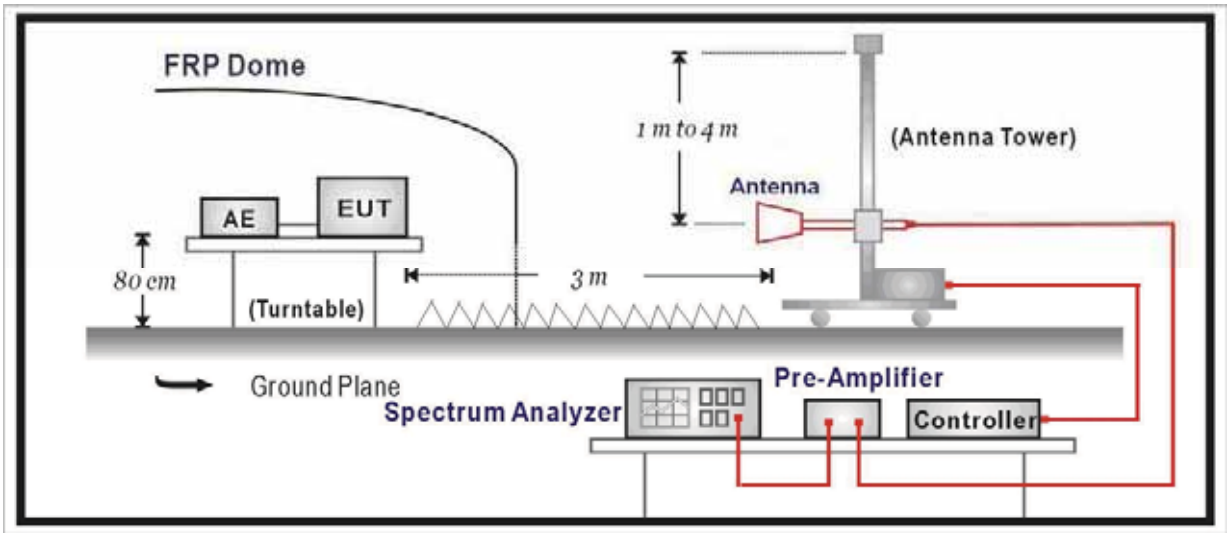
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limit

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Distance (m)	Level (dBuV/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument Antenna and the closed point of any part of the device or system.

Note 3: E field strength (dBuV/m) = 20 log E field strength (uV/m)

4.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 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 is scanned from 1 meter to 4 meters to find out the maximum emission level. This

is repeated for both horizontal and vertical polarization of the Antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2009 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

The frequency range from 30MHz to 10th harmonic is checked.

Note: When doing emission measurement above 1GHz, the horn Antenna will be bended down a little (as horn Antenna has the narrow beamwidth) in order to keeping the Antenna in the “cone of radiation” of EUT. The 3dB beamwidth is 10~60 degrees for H-plane and 10~90 degrees for E-plane.

4.5. Uncertainty

The measurement uncertainty above 1G is defined as ± 3.9 dB

below 1G is defined as ± 3.8 dB

4.6. Test Result

All of the test result shown indicates the worst case, and spectrum analyzer parameters setting as shown below:

Peak detector: RBW = 1MHz, VBW = 3MHz, sweep time = 200ms;

Average detector: RMS detector RBW = 1MHz, VBW = 3MHz, sweep time = auto.

Measure Level = Reading Level + Cable Loss + Antenna Factor - Preamplifier Gain

Mode1: Transmit by 802.11b

Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
Ant 1	1	H	4824.1	45.9	9.5	55.4	74	-18.6	PK
		H	4824.1	43.4	9.5	52.9	54	-1.1	AV
		H	7239.0	38.8	11.6	50.4	54(note3)	-3.6	PK
		H	9648.0	30.5	13.5	44.0	54(note3)	-10.0	PK
		V	4825.0	46.3	9.4	55.7	74	-18.3	PK
		V	4825.0	43.2	9.4	52.6	54	-1.4	AV
		V	7230.5	36.3	11.6	47.9	54(note3)	-6.1	PK
		V	9648.0	31.1	13.6	44.7	54(note3)	-9.3	PK
	6	H	4876.0	46.2	9.8	56.0	74	-18.0	PK
		H	4874.1	42.4	9.8	52.2	54	-1.8	AV
		H	7307.0	36.1	11.7	47.8	54(note3)	-6.2	PK
		H	9748.0	30.0	13.6	43.6	54(note3)	-10.4	PK
		V	4876.0	44.7	9.8	54.5	74	-19.5	PK
		V	4874.0	42.7	9.8	52.5	54	-1.5	AV
		V	7307.0	35.3	11.7	47.0	54(note3)	-7.0	PK
		V	9748.0	30.3	13.7	44.0	54(note3)	-10.0	PK
	11	H	4927.0	44.7	10.0	54.7	74	-19.3	PK
		H	4924.1	42.0	10.0	52.0	54	-2.0	AV
		H	7383.5	34.0	11.8	45.8	54(note3)	-8.2	PK
		H	9848.0	29.8	13.7	43.5	54(note3)	-10.5	PK
		V	4927.0	45.5	10.1	55.6	74	-18.4	PK
		V	4924.1	42.8	10.1	52.9	54	-1.1	AV
		V	7386.0	31.5	11.8	43.3	54(note3)	-10.7	PK
		V	9848.0	30.1	13.8	43.9	54(note3)	-10.1	PK

Ant 2	1	H	4825.0	46.1	9.8	55.9	74	-18.1	PK
		H	4824.0	41.9	9.8	51.7	54	-2.3	AV
		H	7239.0	34.1	11.9	46.0	54(note3)	-8.0	PK
		H	9648.0	30.7	14.0	44.7	54(note3)	-9.3	PK
		V	4825.0	40.4	9.8	50.2	54(note3)	-3.8	PK
		V	7236.0	31.0	11.9	42.9	54(note3)	-11.1	PK
		V	9648.0	30.1	14.0	44.1	54(note3)	-9.9	PK
	6	H	4876.0	45.0	10.2	55.2	74	-18.8	PK
		H	4874.1	41.6	10.2	51.8	54	-2.2	AV
		H	7315.5	33.6	12.0	45.6	54(note3)	-8.4	PK
		H	9750.0	30.2	14.1	44.3	54(note3)	-9.7	PK
		V	4876.0	38.6	10.2	48.8	54(note3)	-5.2	PK
		V	7313.0	31.4	12.0	43.4	54(note3)	-10.6	PK
		V	9750.0	30.1	14.1	44.2	54(note3)	-9.8	PK
	11	H	4927.0	45.0	10.4	55.4	74	-18.6	PK
		H	4924.1	41.5	10.4	51.9	54	-2.1	AV
		H	7383.5	32.8	12.1	44.9	54(note3)	-9.1	PK
		H	9848.0	31.0	14.2	45.2	54(note3)	-8.8	PK
		V	4927.0	38.4	10.4	48.8	54(note3)	-5.2	PK
		V	7386.0	31.7	12.1	43.8	54(note3)	-10.2	PK
		V	9848.0	30.2	14.2	44.4	54(note3)	-9.6	PK

Note: 1. Measure Level = Reading Level + Factor.

2. The test trace is same as the ambient noise (the test frequency range: 9kHz~30MHz, 18GHz~25GHz), therefore no data appear in the report.

3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Mode2: Transmit by 802.11g

Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
Ant 1	1	H	4825.0	45.7	9.5	55.2	74	-18.8	PK
		H	4824.2	32.4	9.5	41.9	54	-12.1	AV
		H	7230.5	37.0	11.6	48.6	54(note3)	-5.4	PK
		H	9648.0	30.3	13.5	43.8	54(note3)	-10.2	PK
		V	4816.5	45.9	9.3	55.2	74	-18.8	PK
		V	4824.1	32.8	9.4	42.2	54	-11.8	AV
		V	7239.0	34.9	11.6	46.5	54(note3)	-7.5	PK
		V	9648.0	30.7	13.6	44.3	54(note3)	-9.7	PK
	6	H	4876.0	55.3	9.8	65.1	74	-8.9	PK
		H	4873.3	41.8	9.8	51.6	54	-2.4	AV
		H	7307.0	43.0	11.7	54.7	74	-19.3	PK
		H	7310.5	30.6	11.7	42.3	54	-11.7	AV
		H	9748.0	31.0	13.6	44.6	54(note3)	-9.4	PK
		V	4876.0	56.3	9.8	66.1	74	-7.9	PK
		V	4873.2	42.5	9.8	52.3	54	-1.7	AV
		V	7315.5	39.3	11.7	51.0	54(note3)	-3.0	PK
		V	9748.0	32.5	13.7	46.2	54(note3)	-7.8	PK
	11	H	4927.0	46.9	10.0	56.9	74	-17.1	PK
		H	4925.1	31.8	10.0	41.8	54	-12.2	AV
		H	7383.5	36.1	11.8	47.9	54(note3)	-6.1	PK
		H	9848.0	29.5	13.7	43.2	54(note3)	-10.8	PK
		V	4927.0	49.7	10.1	59.8	74	-14.2	PK
		V	4923.7	33.8	10.1	43.9	54	-10.1	AV
		V	7400.5	35.1	11.8	46.9	54(note3)	-7.1	PK
		V	9848.0	30.1	13.8	43.9	54(note3)	-10.1	PK

Ant 2	1	H	4825.0	47.6	9.8	57.4	74	-16.6	PK
		H	4824.3	32.4	9.8	42.2	54	-11.8	PK
		H	7239.0	37.4	11.9	49.3	54(note3)	-4.7	AV
		H	9648.0	30.8	14.0	44.8	54(note3)	-9.2	PK
		V	4825.0	42.2	9.8	52.0	54(note3)	-2.0	PK
		V	7236.0	32.4	11.9	44.3	54(note3)	-9.7	PK
		V	9648.0	30.3	14.0	44.3	54(note3)	-9.7	PK
	6	H	4867.5	49.9	10.1	60.0	74	-14.0	PK
		H	4872.7	34.3	10.2	44.5	54	-9.5	AV
		H	7315.5	40.6	12.0	52.6	54(note3)	-1.4	PK
		H	9746.5	32.6	14.1	46.7	54(note3)	-7.3	PK
		V	4876.0	43.6	10.2	53.8	54(note3)	-0.2	PK
		V	7315.5	35.4	12.0	47.4	54(note3)	-6.6	PK
		V	9748.0	30.5	14.1	44.6	54(note3)	-9.4	PK
	11	H	4918.5	45.3	10.4	55.7	74	-18.3	PK
		H	4924.1	31.0	10.4	41.4	54	-12.6	AV
		H	7383.5	33.4	12.1	45.5	54(note3)	-8.5	PK
		H	9848.0	31.7	14.2	45.9	54(note3)	-8.1	PK
		V	4927.0	39.0	10.4	49.4	54(note3)	-4.6	PK
		V	7386.0	31.1	12.1	43.2	54(note3)	-10.8	PK
		V	9848.0	29.6	14.2	43.8	54(note3)	-10.2	PK

Note: 1. Measure Level = Reading Level + Factor.

2. The test trace is same as the ambient noise (the test frequency range: 9kHz~30MHz, 18GHz~25GHz), therefore no data appear in the report.

3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Mode3: Transmit by 802.11n(20MHz)

Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
Ant 1	1	H	4825.0	46.8	9.5	56.3	74	-17.7	PK
		H	4824.0	32.6	9.5	42.1	54	-11.9	AV
		H	7239.0	36.7	11.6	48.3	54(note3)	-5.7	PK
		H	9648.0	29.9	13.5	43.4	54(note3)	-10.6	PK
		V	4825.0	46.8	9.4	56.2	74	-17.8	PK
		V	4824.1	32.8	9.4	42.2	54	-11.8	AV
		V	7239.0	35.3	11.6	46.9	54(note3)	-7.1	PK
		V	9648.0	31.0	13.6	44.6	54(note3)	-9.4	PK
	6	H	4876.0	55.4	9.8	65.2	74	-8.8	PK
		H	4872.9	42.8	9.8	52.6	54	-1.4	AV
		H	7315.5	43.3	11.7	55.0	74	-19.0	PK
		H	7315.3	31.2	11.7	42.9	54	-11.1	AV
		H	9748.0	31.0	13.6	44.6	54(note3)	-9.4	PK
		V	4876.0	56.2	9.8	66.0	74	-8.0	PK
		V	4872.9	42.8	9.8	52.6	54	-1.4	AV
		V	7315.5	40.2	11.7	51.9	54(note3)	-2.1	PK
		V	9748.0	32.2	13.7	45.9	54(note3)	-8.1	PK
	11	H	4918.5	47.6	10.0	57.6	74	-16.4	PK
		H	4923.7	32.0	10.0	42.0	54	-12.0	AV
		H	7375.0	36.6	11.8	48.4	54(note3)	-5.6	PK
		H	9848.0	30.2	13.7	43.9	54(note3)	-10.1	PK
		V	4927.0	49.3	10.1	59.4	74	-14.6	PK
		V	4923.5	34.0	10.1	44.1	54	-9.9	AV
		V	7383.5	34.3	11.8	46.1	54(note3)	-7.9	PK
		V	9848.0	29.9	13.8	43.7	54(note3)	-10.3	PK

Ant 2	1	H	4825.0	46.7	9.8	56.5	74	-17.5	PK
		H	4823.5	32.5	9.8	42.3	54	-11.7	AV
		H	7239.0	37.2	11.9	49.1	54(note3)	-4.9	PK
		H	9648.0	30.7	14.0	44.7	54(note3)	-9.3	PK
		V	4825.0	41.4	9.8	51.2	54(note3)	-2.8	PK
		V	7239.0	33.2	11.9	45.1	54(note3)	-8.9	PK
		V	9848.0	29.4	14.2	43.6	54(note3)	-10.4	PK
	6	H	4867.5	49.3	10.1	59.4	74	-14.6	PK
		H	4873.9	34.8	10.2	45.0	54	-9.0	AV
		H	7307.0	39.8	12.0	51.8	54(note3)	-2.2	PK
		H	9748.0	31.0	14.1	45.1	54(note3)	-8.9	PK
		V	4876.0	42.7	10.2	52.9	54(note3)	-1.1	PK
		V	7307.0	35.2	12.0	47.2	54(note3)	-6.8	PK
		V	9748.0	29.7	14.1	43.8	54(note3)	-10.2	PK
	11	H	4927.0	44.9	10.4	55.3	74	-18.7	PK
		H	4927.0	30.0	10.4	40.4	54	-13.6	AV
		H	7392.0	33.5	12.1	45.6	54(note3)	-8.4	PK
		H	9848.0	30.9	14.2	45.1	54(note3)	-8.9	PK
		V	4918.5	38.9	10.4	49.3	54(note3)	-4.7	PK
		V	7383.5	33.2	12.1	45.3	54(note3)	-8.7	PK
		V	9848.0	30.6	14.2	44.8	54(note3)	-9.2	PK

Ant 1+2 (Keeping MIMO Transmitting mode)	1	H	4825.0	48.0	9.8	57.8	74	-16.2	PK
		H	4823.9	32.4	9.8	42.2	54	-11.8	AV
		H	7239.0	39.3	11.9	51.2	54(note3)	-2.8	PK
		H	9648.0	30.5	14.0	44.5	54(note3)	-9.5	PK
		V	4825.0	41.3	9.8	51.1	54(note3)	-2.9	PK
		V	7236.0	31.8	11.9	43.7	54(note3)	-10.3	PK
		V	9648.0	29.7	14.0	43.7	54(note3)	-10.3	PK
	6	H	4876.0	45.7	10.2	55.9	74	-18.1	PK
		H	4876.0	31.0	10.2	41.2	54	-12.8	AV
		H	7307.0	35.6	12.0	47.6	54(note3)	-6.4	PK
		H	9748.0	30.9	14.1	45.0	54(note3)	-9.0	PK
		V	4867.5	39.2	10.1	49.3	54(note3)	-4.7	PK
		V	7311.0	32.8	12.0	44.8	54(note3)	-9.2	PK
		V	9748.0	29.6	14.1	43.7	54(note3)	-10.3	PK
	11	H	4918.5	49.1	10.4	59.5	74	-14.5	PK
		H	4922.7	35.8	10.4	46.2	54	-7.8	AV
		H	7383.5	41.1	12.1	53.2	54(note3)	-0.8	PK
		H	9848.0	32.2	14.2	46.4	54(note3)	-7.6	PK
		V	4927.0	43.9	10.4	54.3	74	-19.7	PK
		V	4927.2	30.8	10.4	41.2	54	-12.8	AV
		V	7392.0	34.1	12.1	46.2	54(note3)	-7.8	PK
		V	9848.0	30.9	14.2	45.1	54(note3)	-8.9	PK

Note: 1. Measure Level = Reading Level + Factor.

2. The test trace is same as the ambient noise (the test frequency range: 9kHz~30MHz, 18GHz~25GHz), therefore no data appear in the report.

3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

Mode4: Transmit by 802.11n(40MHz)

Chain	CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
Ant 1	3	H	4844.0	34.1	9.6	43.7	54(note3)	-10.3	PK
		H	7266.0	30.4	11.6	42.0	54(note3)	-12.0	PK
		H	9688.0	29.7	13.6	43.3	54(note3)	-10.7	PK
		V	4844.0	33.6	9.6	43.2	54(note3)	-10.8	PK
		V	7266.0	30.5	11.6	42.1	54(note3)	-11.9	PK
		V	9688.0	30.2	13.6	43.8	54(note3)	-10.2	PK
	6	H	4867.5	42.6	10.1	52.7	54(note3)	-1.3	PK
		H	7311.0	31.3	12.0	43.3	54(note3)	-10.7	PK
		H	9748.0	32.6	14.1	46.7	54(note3)	-7.3	PK
		V	4876.0	36.7	10.2	46.9	54(note3)	-7.1	PK
		V	7311.0	31.4	12.0	43.4	54(note3)	-10.6	PK
		V	9748.0	30.7	14.1	44.8	54(note3)	-9.2	PK
	9	H	4904.0	35.2	9.9	45.1	54(note3)	-8.9	PK
		H	7356.0	30.7	11.7	42.4	54(note3)	-11.6	PK
		H	9808.0	30.0	13.7	43.7	54(note3)	-10.3	PK
		V	4904.0	33.9	10.0	43.9	54(note3)	-10.1	PK
		V	7356.0	31.2	11.7	42.9	54(note3)	-11.1	PK
		V	9808.0	29.2	13.8	43.0	54(note3)	-11.0	PK

Ant 2	3	H	4842.0	42.0	10.0	52.0	54(note3)	-2.0	PK
		H	7264.5	33.5	11.9	45.4	54(note3)	-8.6	PK
		H	9687.0	33.2	14.0	47.2	54(note3)	-6.8	PK
		V	4842.0	38.4	10.0	48.4	54(note3)	-5.6	PK
		V	7266.0	29.9	11.9	41.8	54(note3)	-12.2	PK
		V	9688.0	30.4	14.0	44.4	54(note3)	-9.6	PK
	6	H	4876.0	43.6	10.2	53.8	54(note3)	-0.2	PK
		H	7298.5	35.4	12.0	47.4	54(note3)	-6.6	PK
		H	9748.0	31.4	14.1	45.5	54(note3)	-8.5	PK
		V	4876.0	40.2	10.2	50.4	54(note3)	-3.6	PK
		V	7311.0	31.0	12.0	43.0	54(note3)	-11.0	PK
		V	9748.0	29.8	14.1	43.9	54(note3)	-10.1	PK
	9	H	4927.0	38.0	10.4	48.4	54(note3)	-5.6	PK
		H	7356.0	31.1	12.0	43.1	54(note3)	-10.9	PK
		H	9808.0	29.7	14.1	43.8	54(note3)	-10.2	PK
		V	4927.0	35.5	10.4	45.9	54(note3)	-8.1	PK
		V	7356.0	31.4	12.0	43.4	54(note3)	-10.6	PK
		V	9808.0	29.8	14.1	43.9	54(note3)	-10.1	PK

Ant 1+2 (Keeping MIMO Transmitting mode)	3	H	4844.0	33.4	10.0	43.4	54(note3)	-10.6	PK
		H	7266.0	29.9	11.9	41.8	54(note3)	-12.2	PK
		H	9688.0	28.9	14.0	42.9	54(note3)	-11.1	PK
		V	4844.0	33.7	10.0	43.7	54(note3)	-10.3	PK
		V	7266.0	30.6	11.9	42.5	54(note3)	-11.5	PK
		V	9688.0	29.3	14.0	43.3	54(note3)	-10.7	PK
	6	H	4884.5	41.1	10.2	51.3	54(note3)	-2.7	PK
		H	7311.0	32.0	12.0	44.0	54(note3)	-10.0	PK
		H	9748.0	30.7	14.1	44.8	54(note3)	-9.2	PK
		V	4876.0	37.1	10.2	47.3	54(note3)	-6.7	PK
		V	7311.0	31.1	12.0	43.1	54(note3)	-10.9	PK
		V	9748.0	31.1	14.1	45.2	54(note3)	-8.8	PK
	9	H	4904.0	32.6	10.4	43.0	54(note3)	-11.0	PK
		H	7356.0	31.6	12.0	43.6	54(note3)	-10.4	PK
		H	9808.0	29.6	14.1	43.7	54(note3)	-10.3	PK
		V	4904.0	32.5	10.4	42.9	54(note3)	-11.1	PK
		V	7356.0	31.1	12.0	43.1	54(note3)	-10.9	PK
		V	9808.0	29.2	14.1	43.3	54(note3)	-10.7	PK

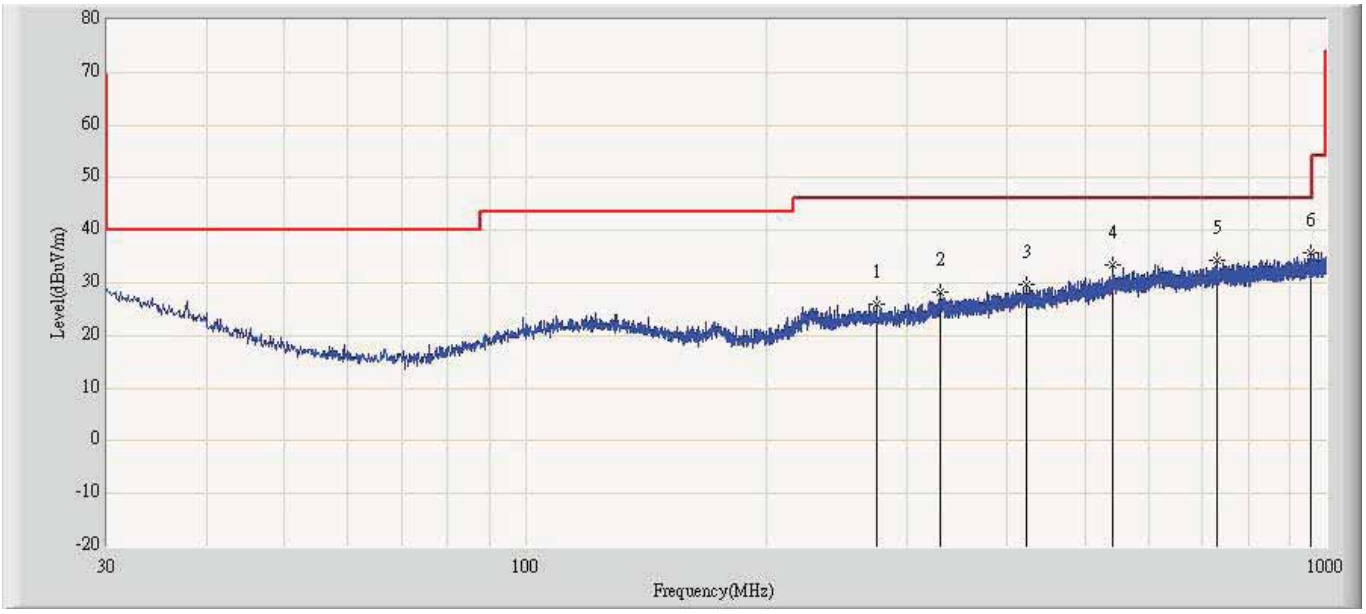
Note: 1. Measure Level = Reading Level + Factor.

2. The test trace is same as the ambient noise (the test frequency range: 9kHz~30MHz, 18GHz~25GHz), therefore no data appear in the report.

3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

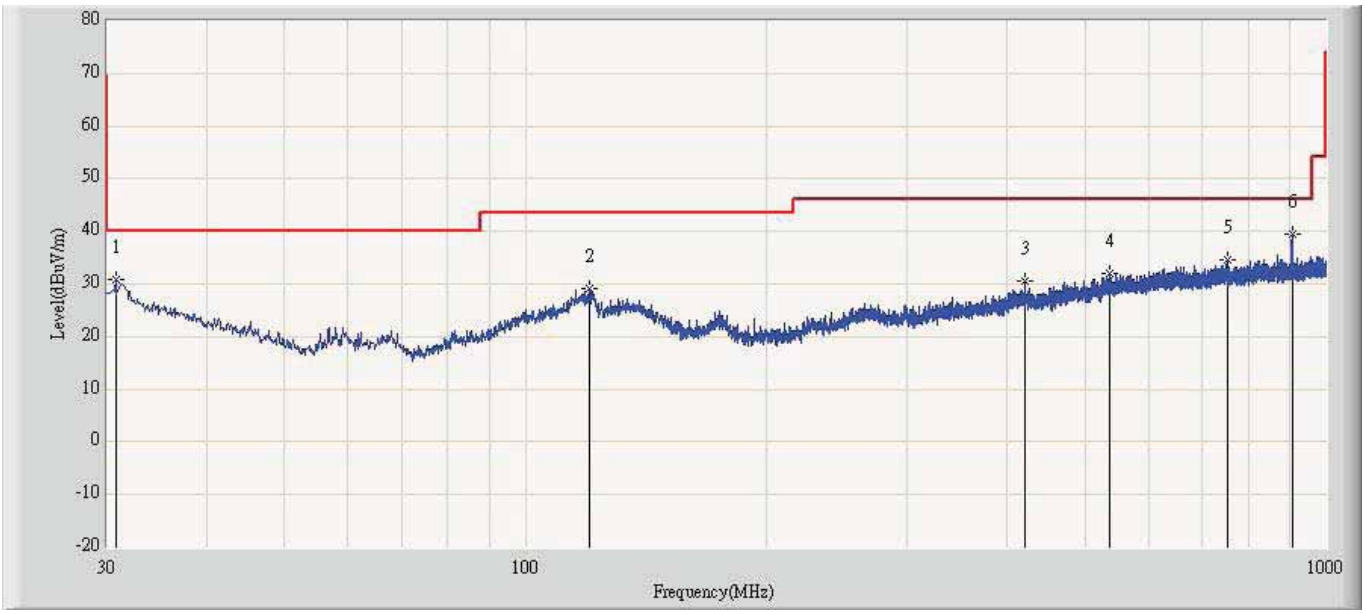
The worst case of Radiated Emission below 1GHz:

Site: AC2	Time: 2013/09/22 - 21:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: CBL6112D_27611(30-1000MHz)	Polarity: Horizontal
EUT: Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB	Power: AC 120V/60Hz
Note: Mode2: Transmit at channel 2437MHz by 802.11g	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		274.925	25.946	6.051	-20.054	46.000	19.895	QP
2		329.730	28.241	6.761	-17.759	46.000	21.480	QP
3		423.214	29.674	5.238	-16.326	46.000	24.436	QP
4		541.917	33.523	6.968	-12.477	46.000	26.555	QP
5		729.612	34.197	5.772	-11.803	46.000	28.425	QP
6	*	958.532	35.770	5.870	-10.230	46.000	29.900	QP

Site: AC2	Time: 2013/09/22 - 21:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: CBL6112D_27611(30-1000MHz)	Polarity: Vertical
EUT: Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB	Power: AC 120V/60Hz
Note: Mode2: Transmit at channel 2437MHz by 802.11g	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		30.728	30.726	6.788	-9.274	40.000	23.938	QP
2		120.331	29.016	10.266	-14.484	43.500	18.750	QP
3		420.425	30.541	6.051	-15.459	46.000	24.490	QP
4		536.825	31.937	5.642	-14.063	46.000	26.295	QP
5		754.469	34.575	6.003	-11.425	46.000	28.572	QP
6	*	907.486	39.527	10.237	-6.473	46.000	29.290	QP

5. RF Antenna Conducted Spurious

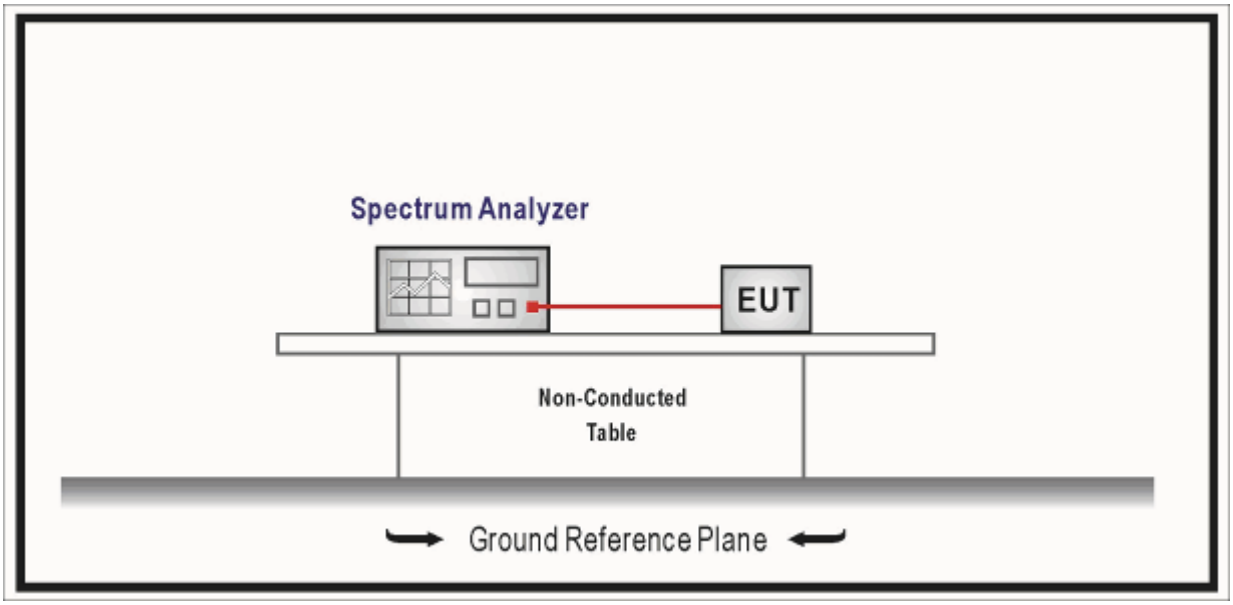
5.1. Test Equipment

RF Antenna Conducted Spurious / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2015.01.07
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2015.04.09

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

5.2. Test Setup



5.3. Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

5.4. Test Procedure

The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

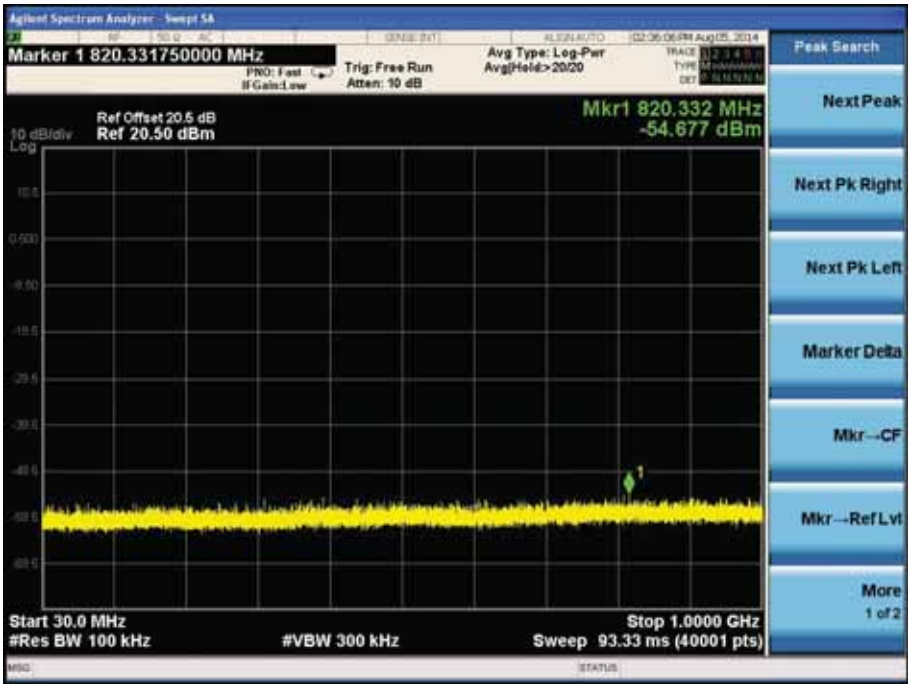
5.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

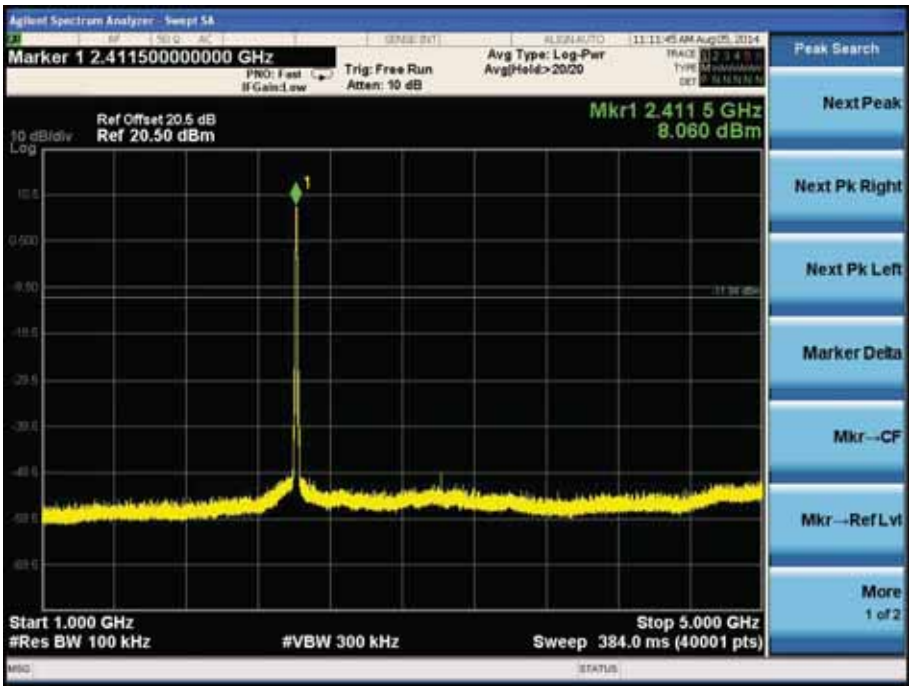
5.6. Test Result

Product	:	Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11b (Ant 1)

Channel 01 (2412MHz)-1

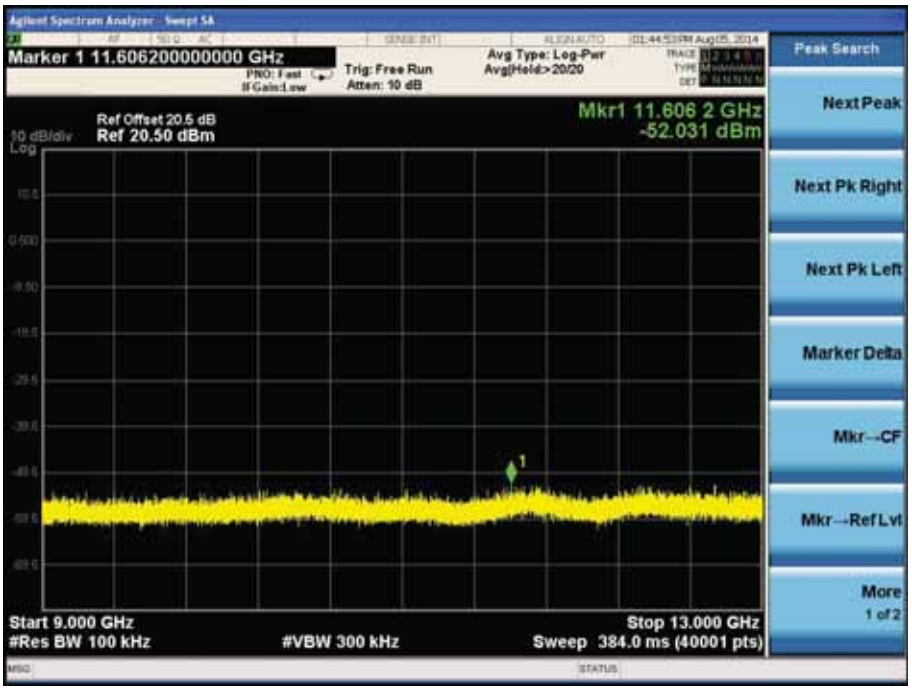


Channel 01 (2412MHz)-2



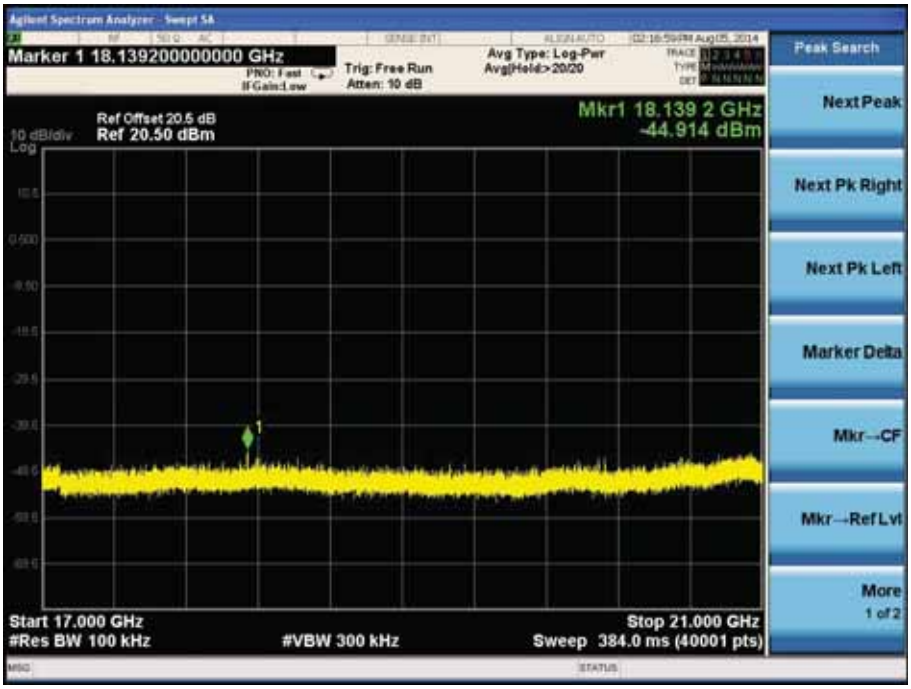
Channel 01 (2412MHz)-3

Channel 01 (2412MHz)-4



Channel 01 (2412MHz)-5

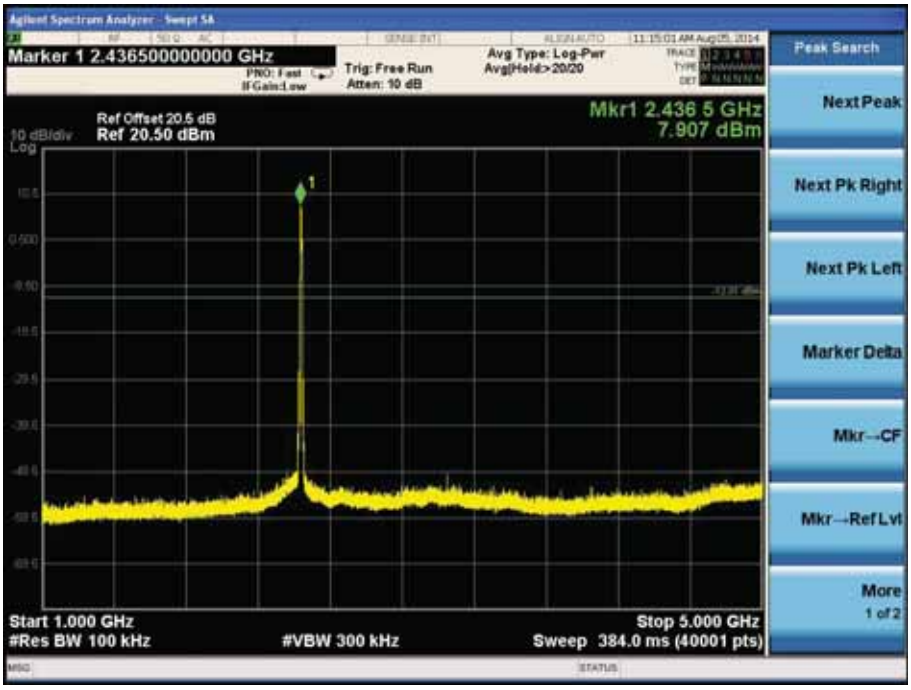
Channel 01 (2412MHz)-6



Channel 01 (2412MHz)-7

Channel 06 (2437MHz)-1

Channel 06 (2437MHz)-2

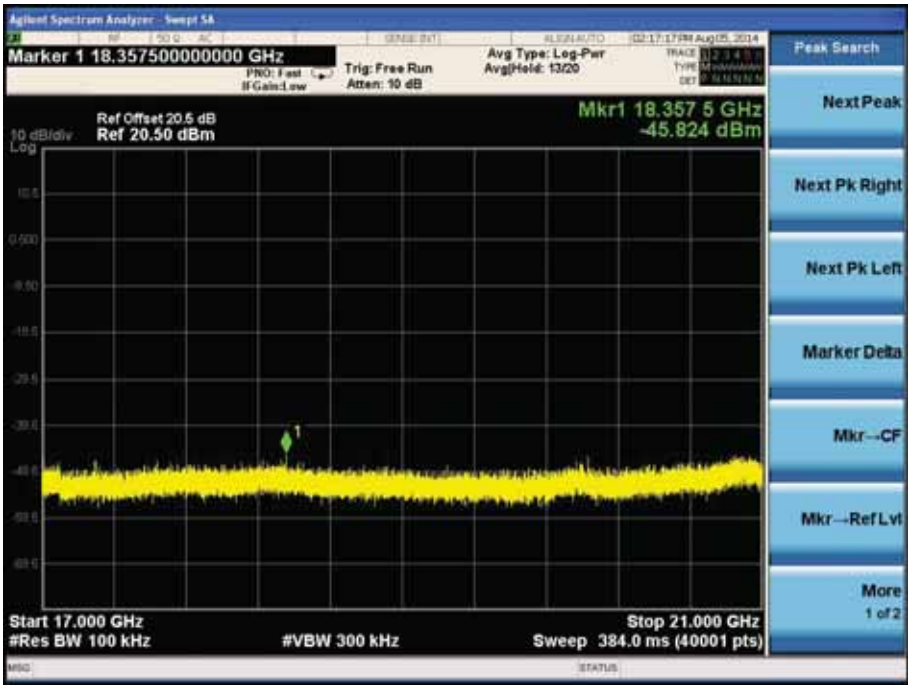


Channel 06 (2437MHz)-3

Channel 06 (2437MHz)-4

Channel 06 (2437MHz)-5

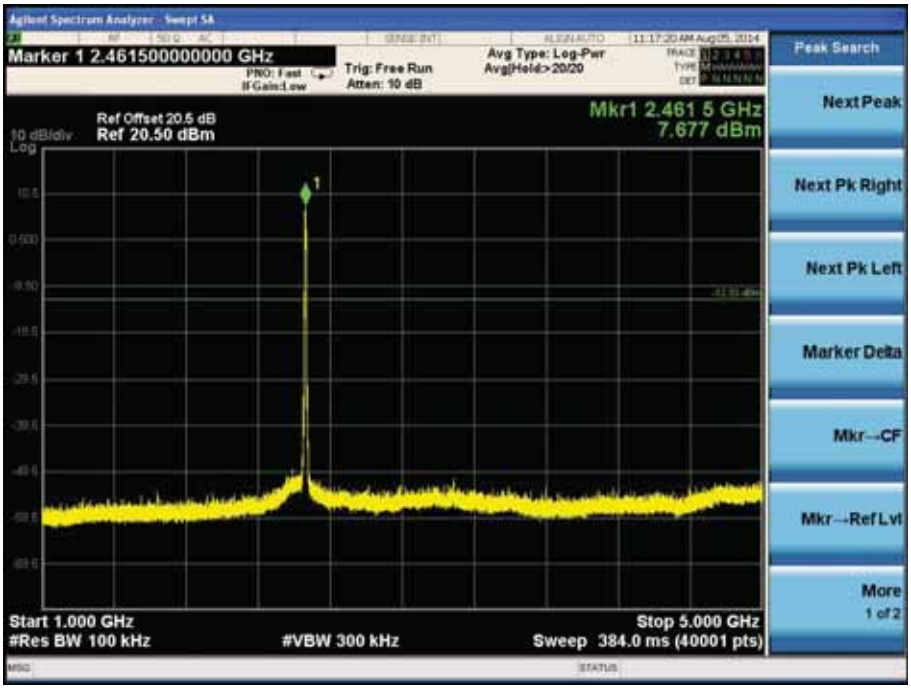
Channel 06 (2437MHz)-6



Channel 06 (2437MHz)-7

Channel 11 (2462MHz)-1

Channel 11 (2462MHz)-2

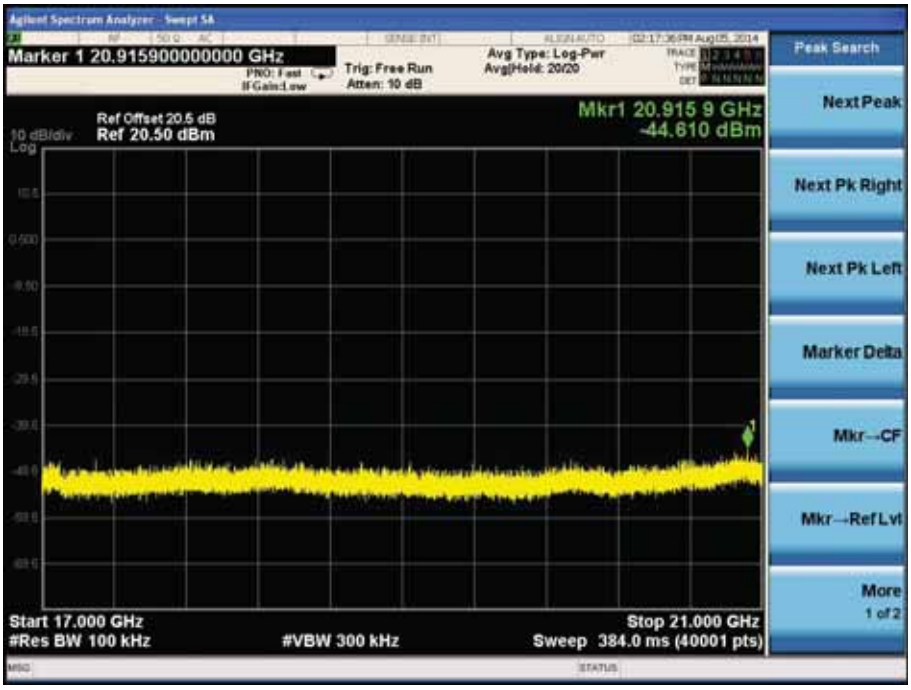


Channel 11 (2462MHz)-3

Channel 11 (2462MHz)-4

Channel 11 (2462MHz)-5

Channel 11 (2462MHz)-6

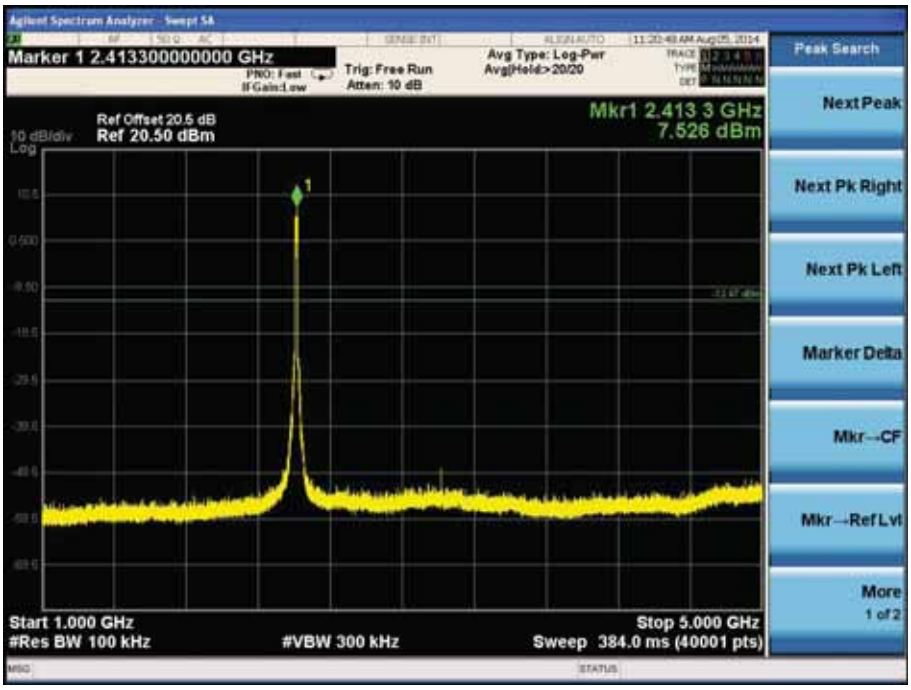


Channel 11 (2462MHz)-7

Product	:	Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11g (Ant 1)

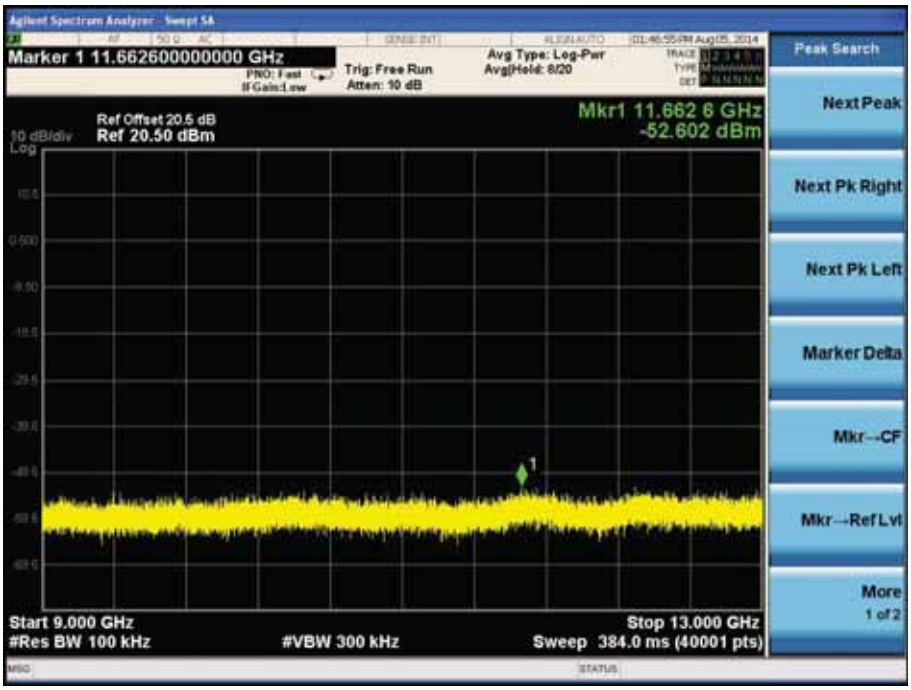
Channel 01 (2412MHz)-1

Channel 01 (2412MHz)-2



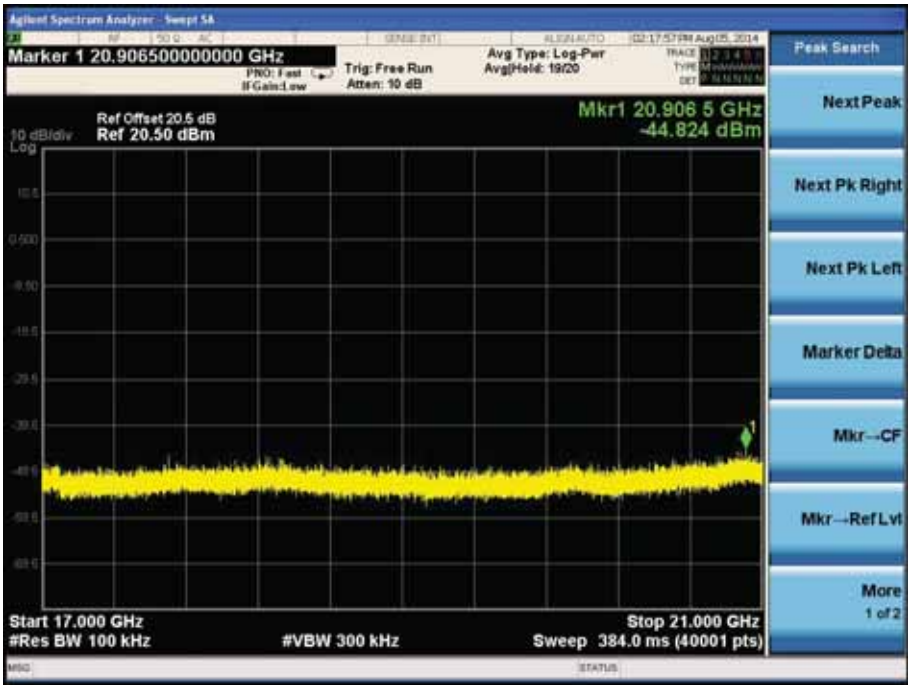
Channel 01 (2412MHz)-3

Channel 01 (2412MHz)-4



Channel 01 (2412MHz)-5

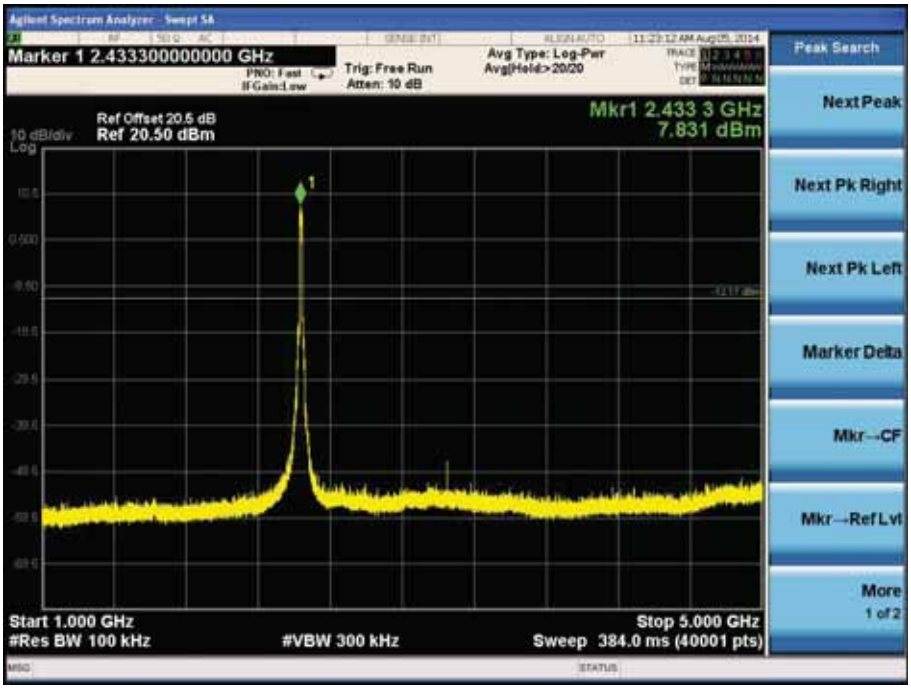
Channel 01 (2412MHz)-6



Channel 01 (2412MHz)-7

Channel 06 (2437MHz)-1

Channel 06 (2437MHz)-2

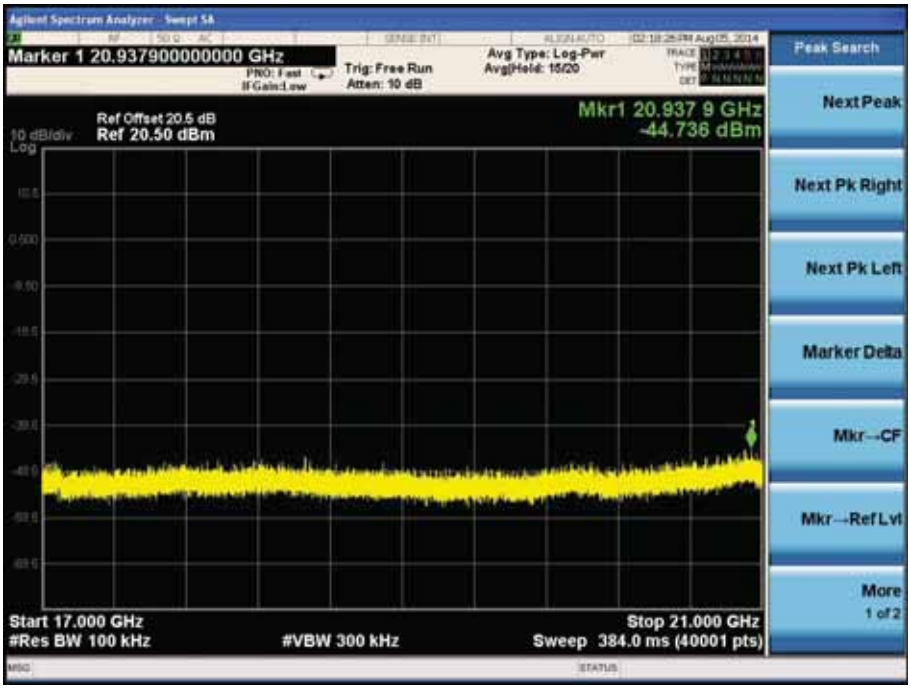


Channel 06 (2437MHz)-3

Channel 06 (2437MHz)-4

Channel 06 (2437MHz)-5

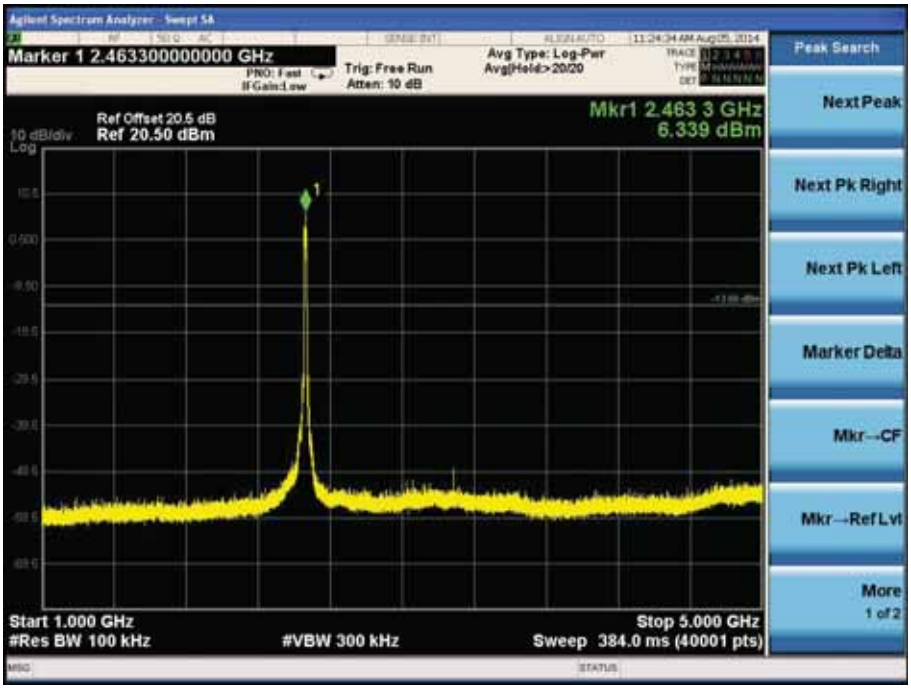
Channel 06 (2437MHz)-6



Channel 06 (2437MHz)-7

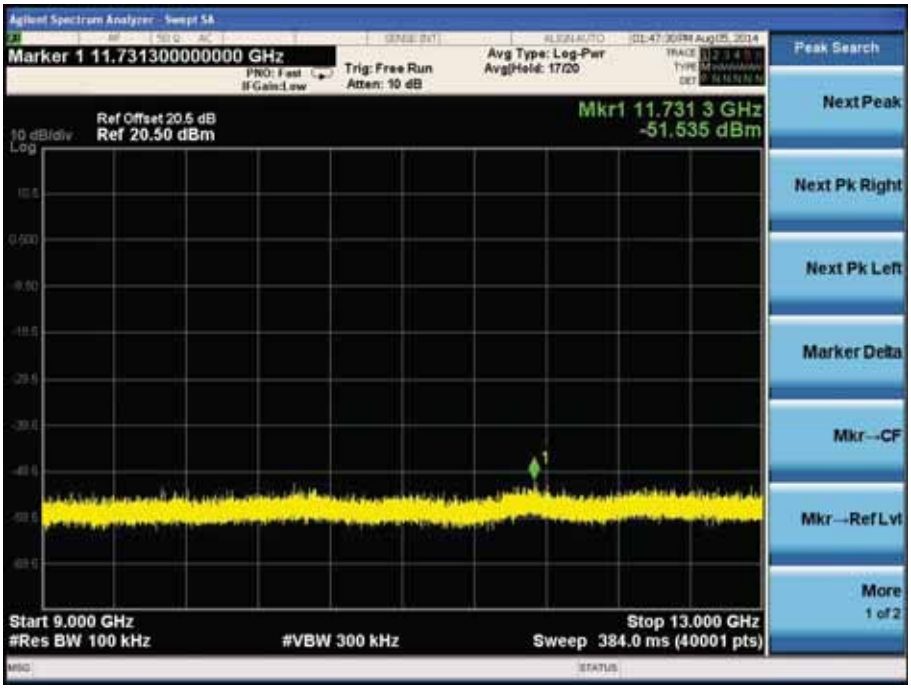
Channel 11 (2462MHz)-1

Channel 11 (2462MHz)-2



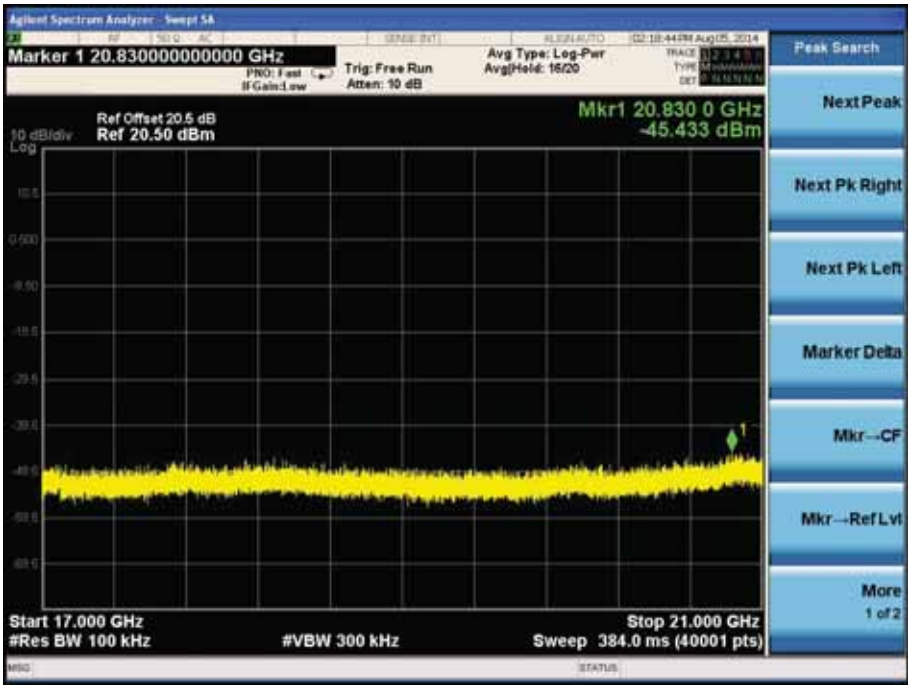
Channel 11 (2462MHz)-3

Channel 11 (2462MHz)-4



Channel 11 (2462MHz)-5

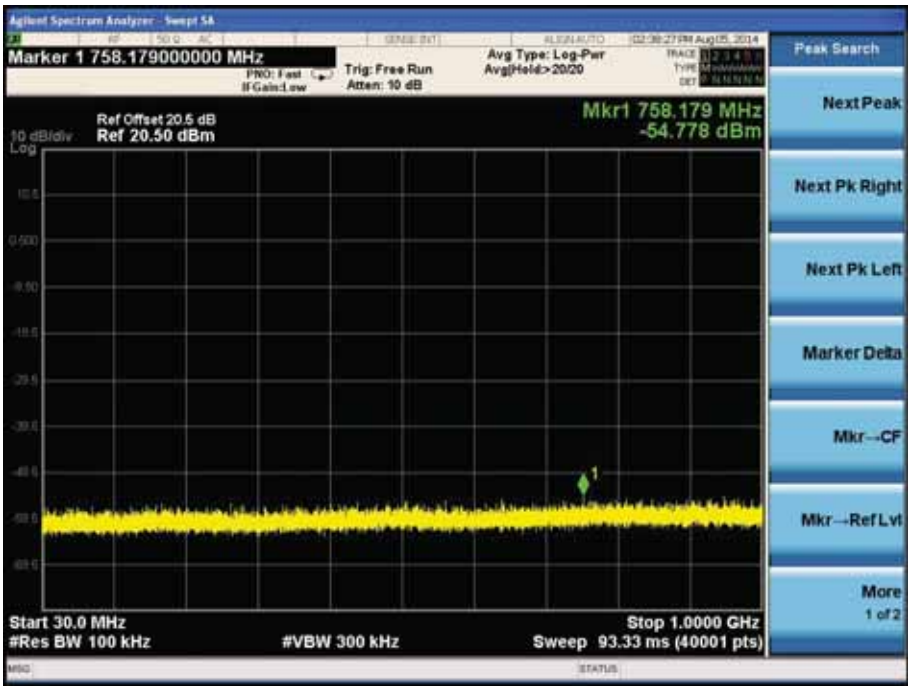
Channel 11 (2462MHz)-6



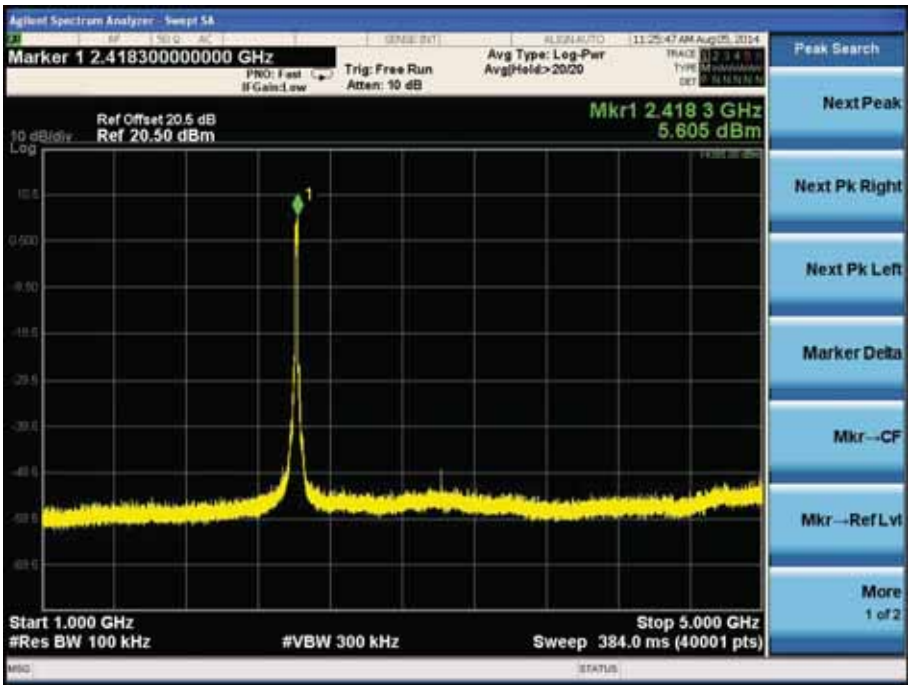
Channel 11 (2462MHz)-7

Product	:	Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n20 (Ant 1)

Channel 01 (2412MHz)-1

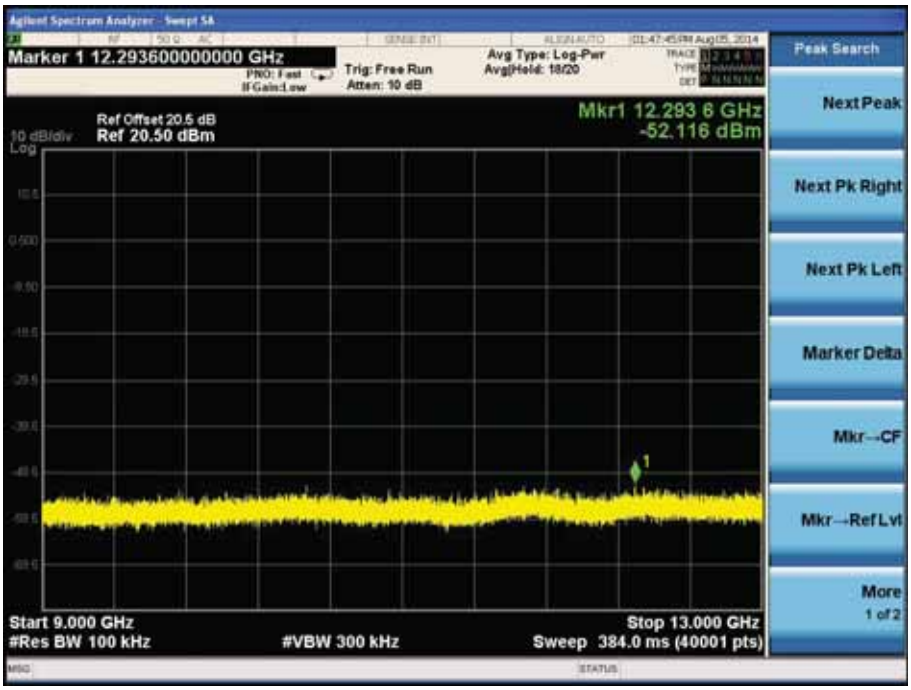


Channel 01 (2412MHz)-2



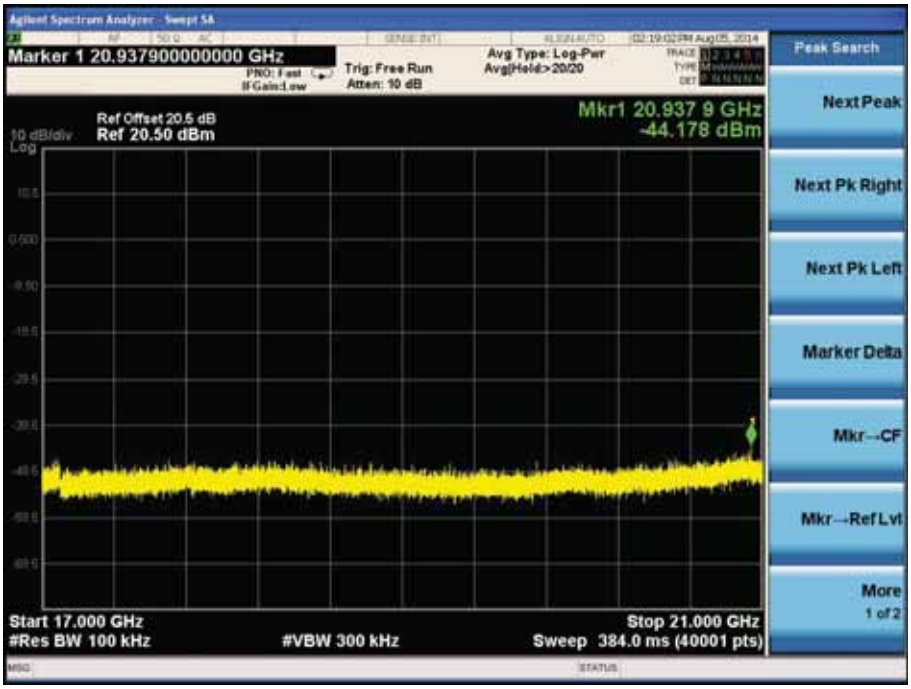
Channel 01 (2412MHz)-3

Channel 01 (2412MHz)-4

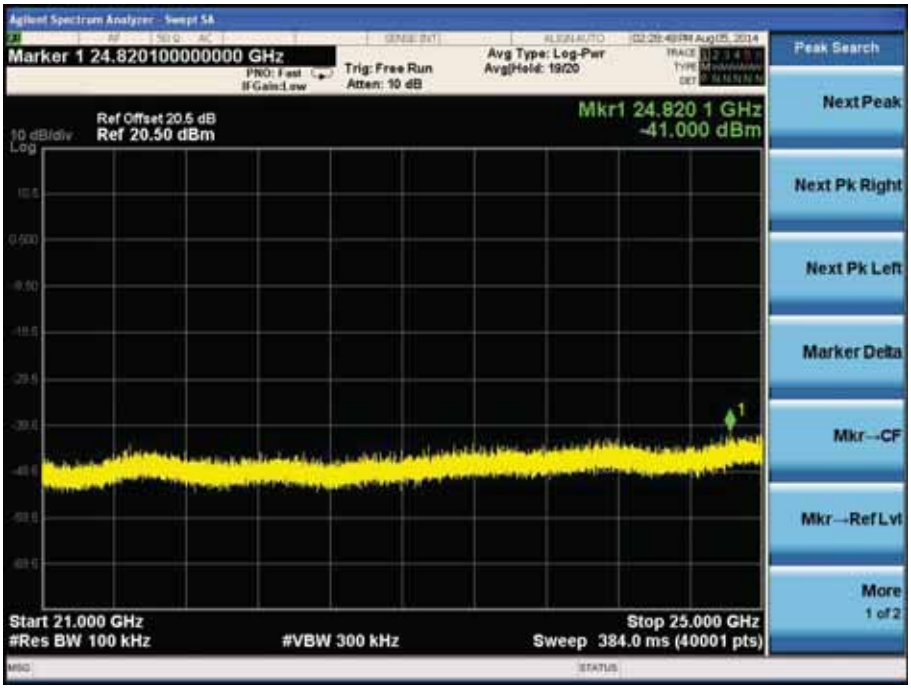


Channel 01 (2412MHz)-5

Channel 01 (2412MHz)-6

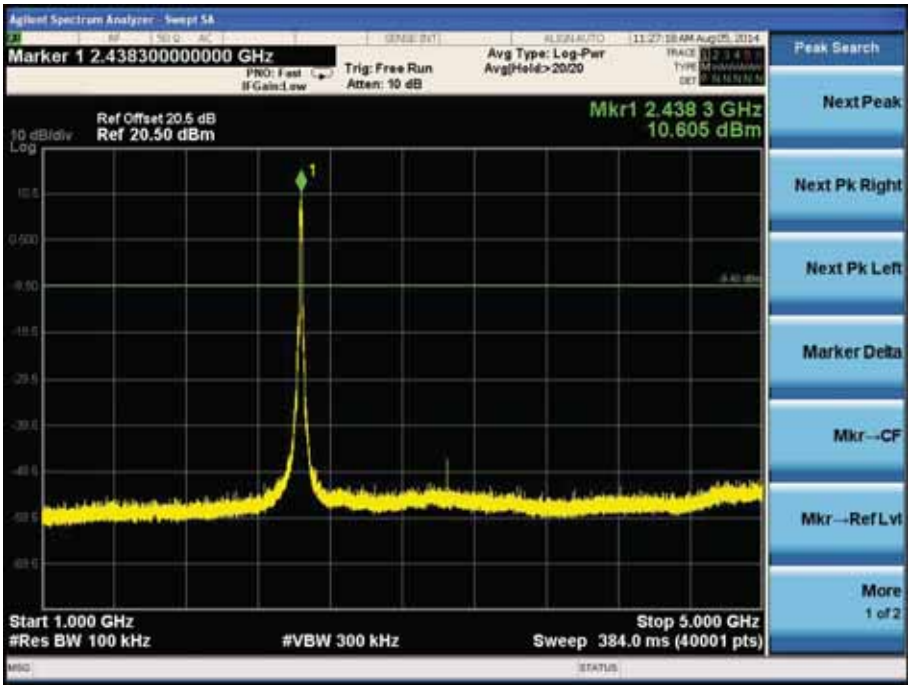


Channel 01 (2412MHz)-7



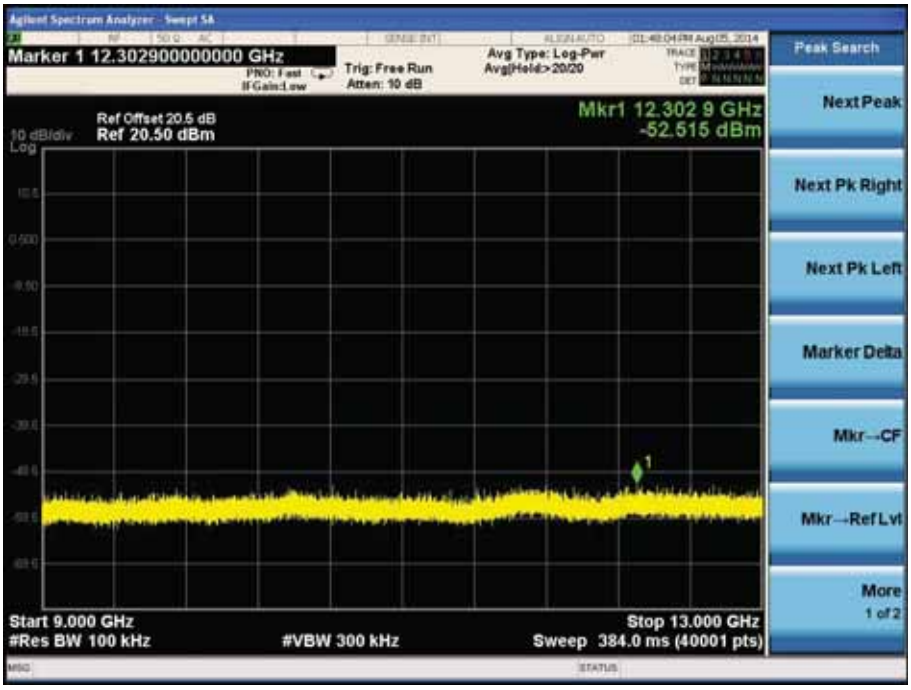
Channel 06 (2437MHz)-1

Channel 06 (2437MHz)-2



Channel 06 (2437MHz)-3

Channel 06 (2437MHz)-4

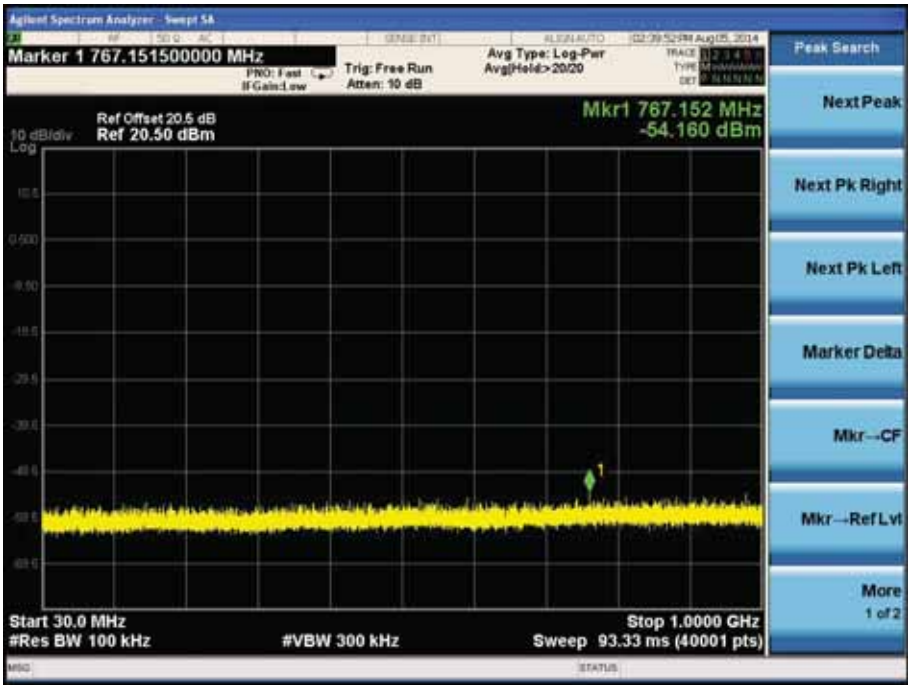


Channel 06 (2437MHz)-5

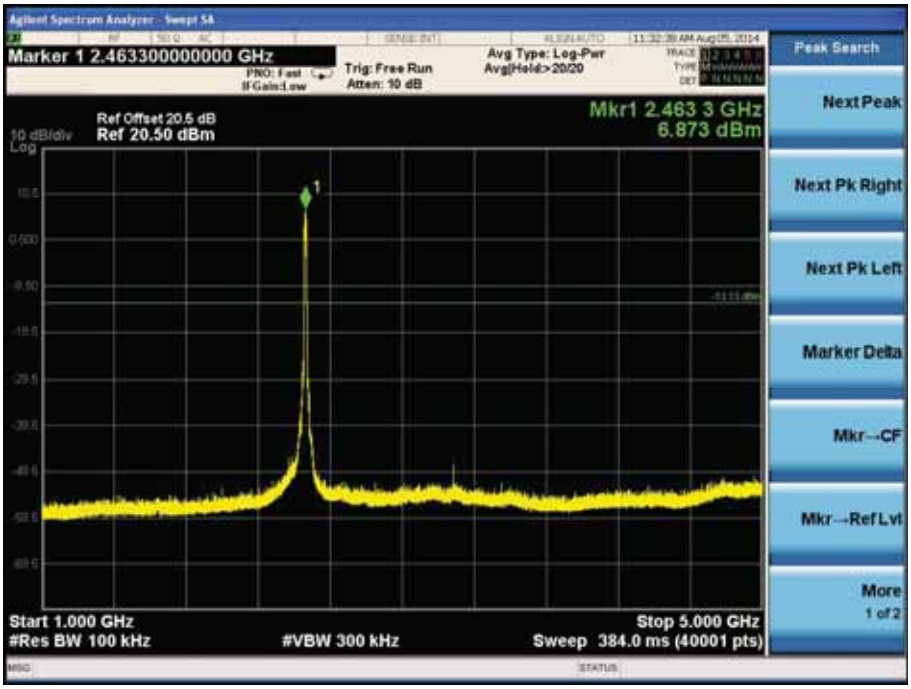
Channel 06 (2437MHz)-6

Channel 06 (2437MHz)-7

Channel 11 (2462MHz)-1

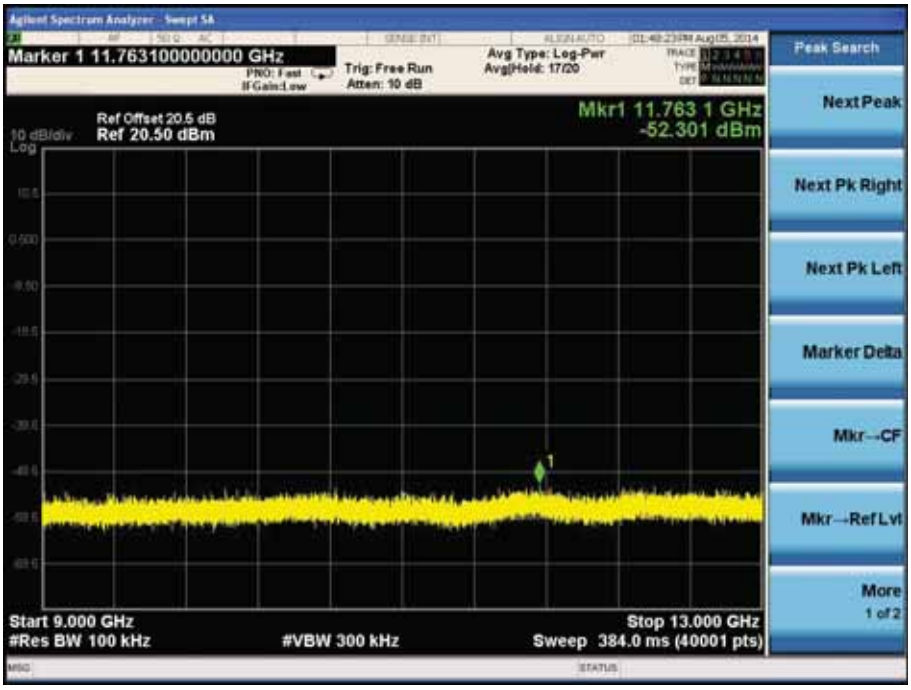


Channel 11 (2462MHz)-2



Channel 11 (2462MHz)-3

Channel 11 (2462MHz)-4



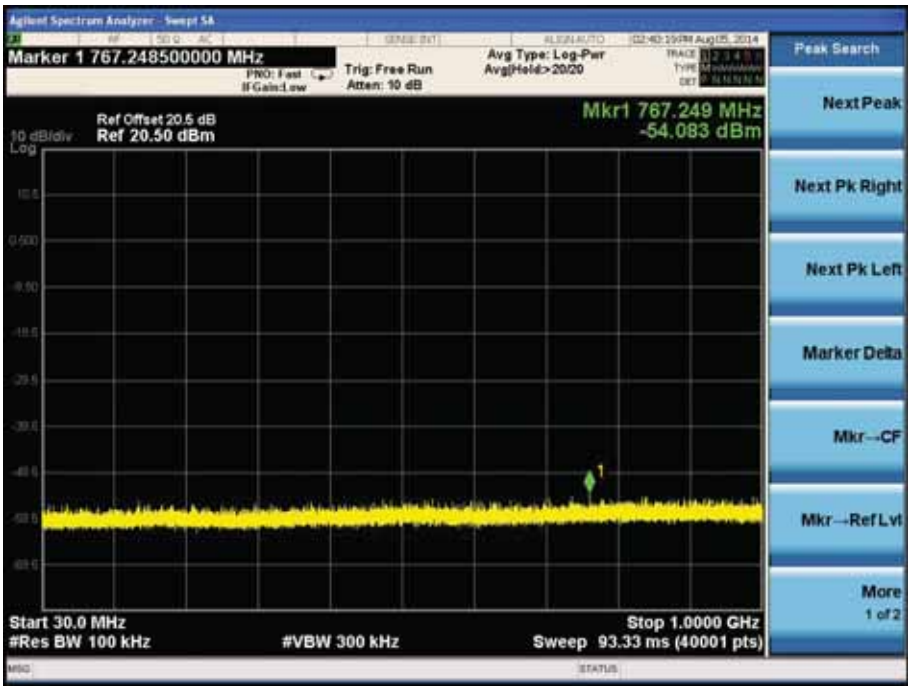
Channel 11 (2462MHz)-5

Channel 11 (2462MHz)-6

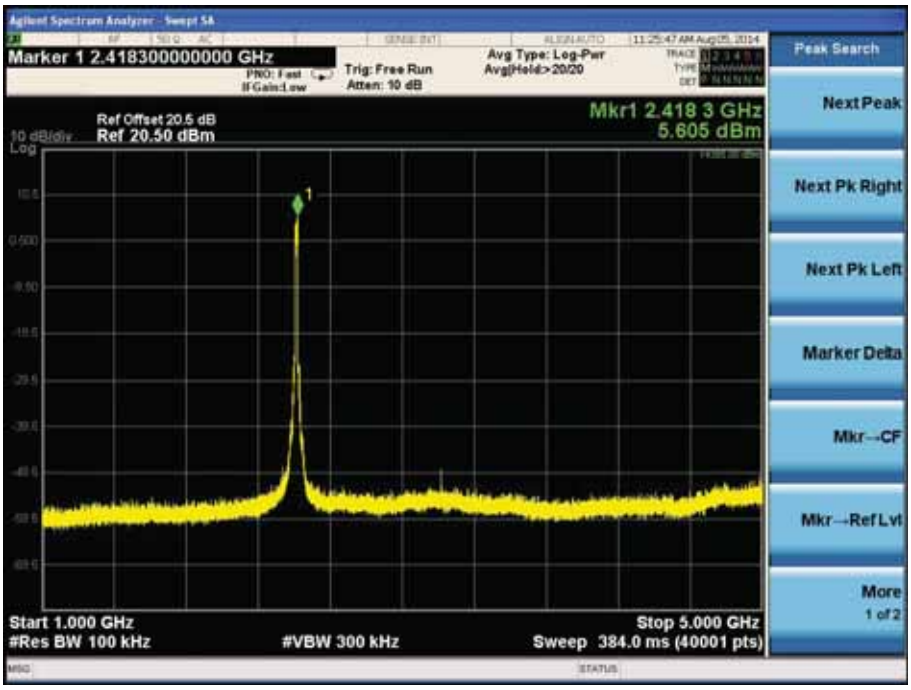
Channel 11 (2462MHz)-7

Product	:	Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11n40 (Ant 1)

Channel 03 (2422MHz)-1

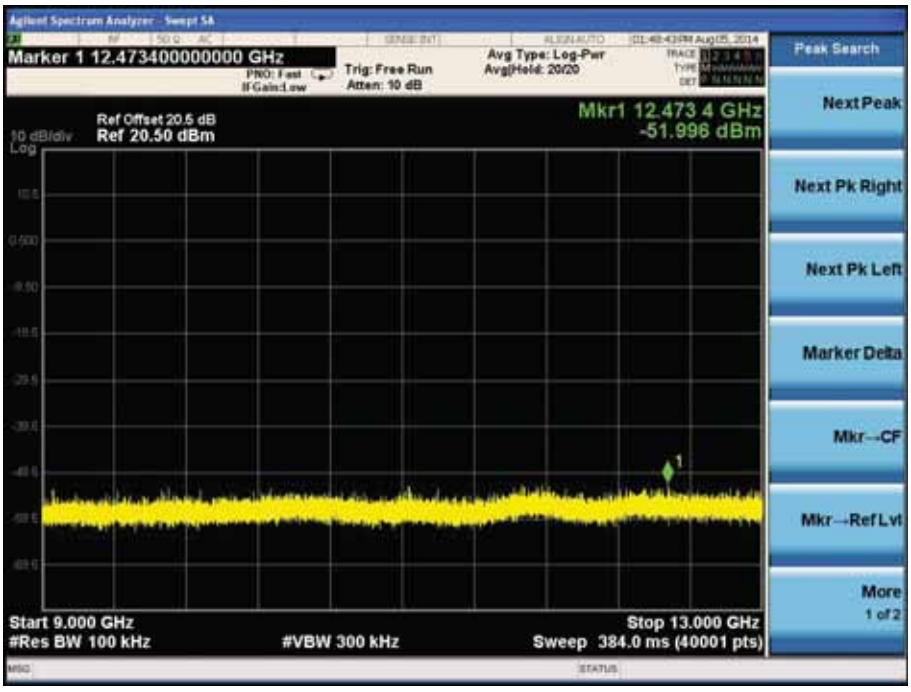


Channel 03 (2422MHz)-2



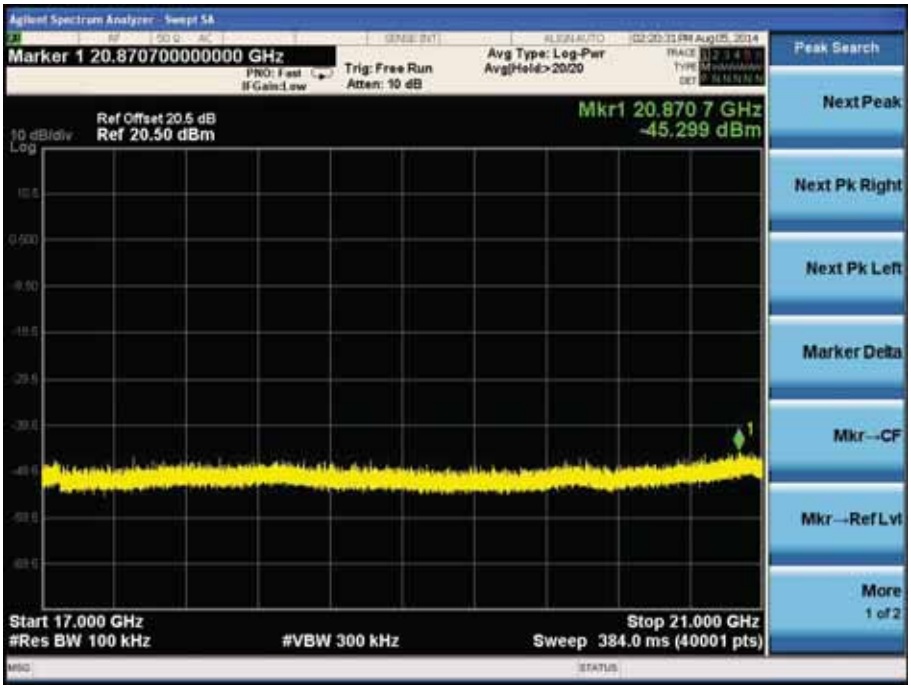
Channel 03 (2422MHz)-3

Channel 03 (2422MHz)-4



Channel 03 (2422MHz)-5

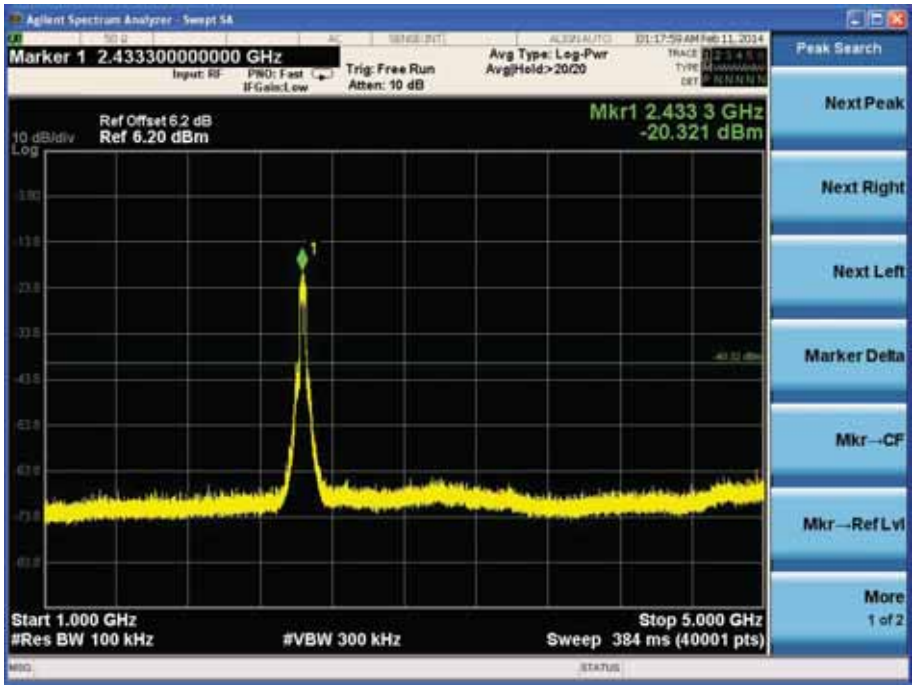
Channel 03 (2422MHz)-6



Channel 03 (2422MHz)-7

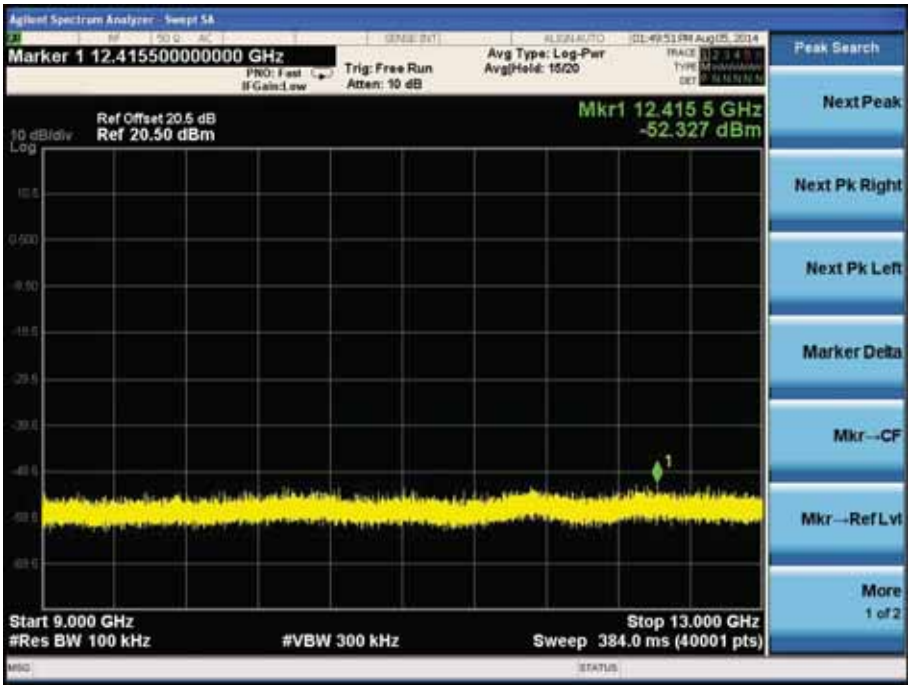
Channel 06 (2437MHz)-1

Channel 06 (2437MHz)-2



Channel 06 (2437MHz)-3

Channel 06 (2437MHz)-4



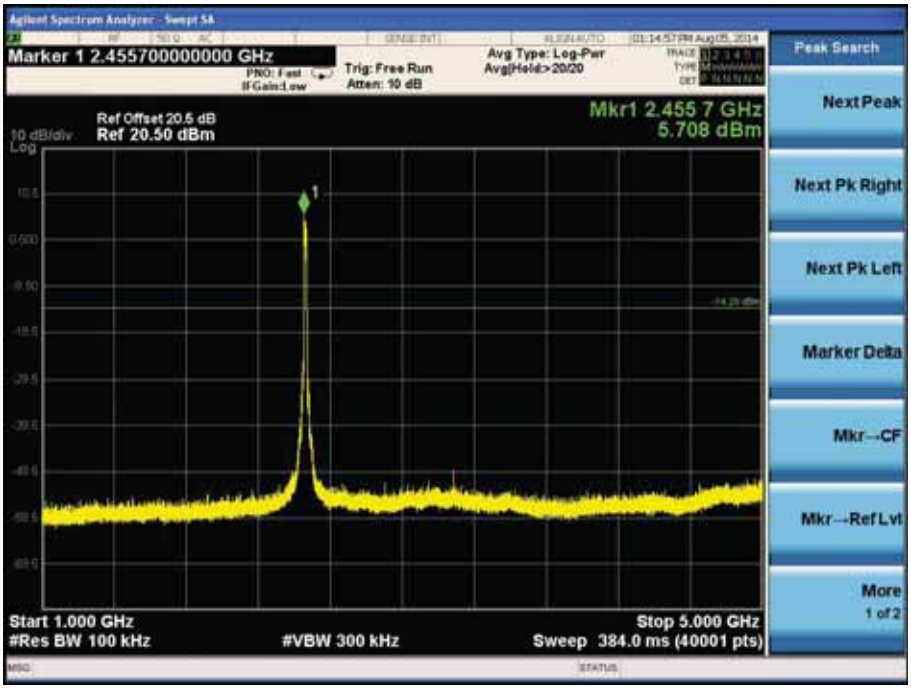
Channel 06 (2437MHz)-5

Channel 06 (2437MHz)-6

Channel 06 (2437MHz)-7

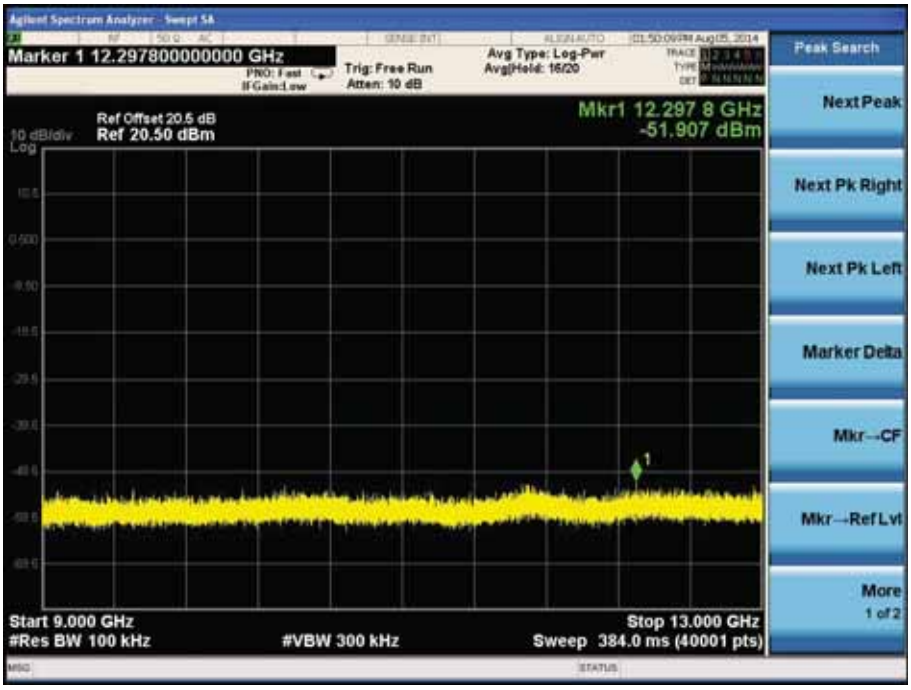
Channel 09 (2452MHz)-1

Channel 09 (2452MHz)-2



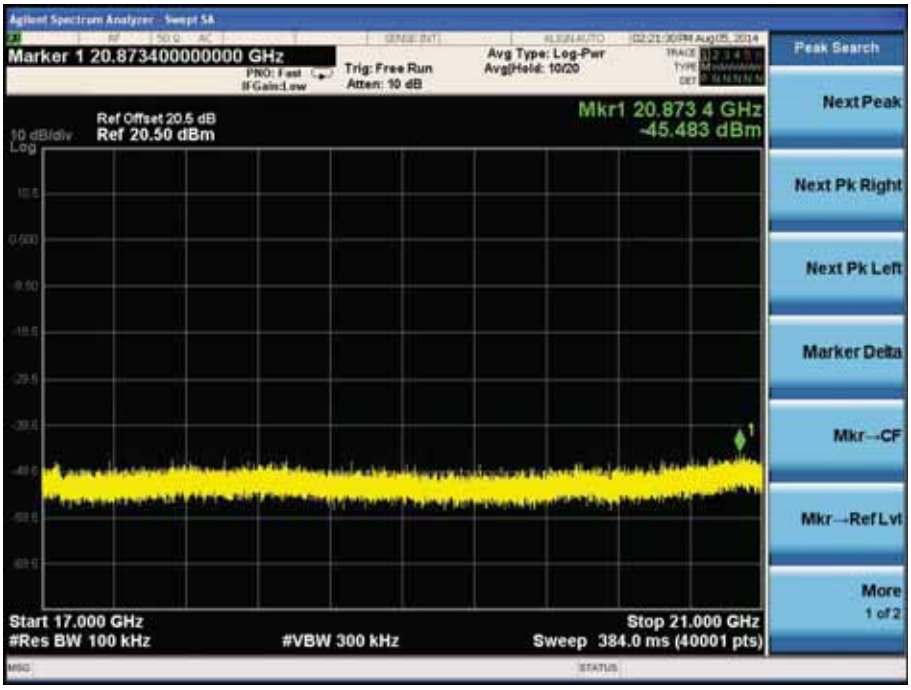
Channel 09 (2452MHz)-3

Channel 09 (2452MHz)-4



Channel 09 (2452MHz)-5

Channel 09 (2452MHz)-6

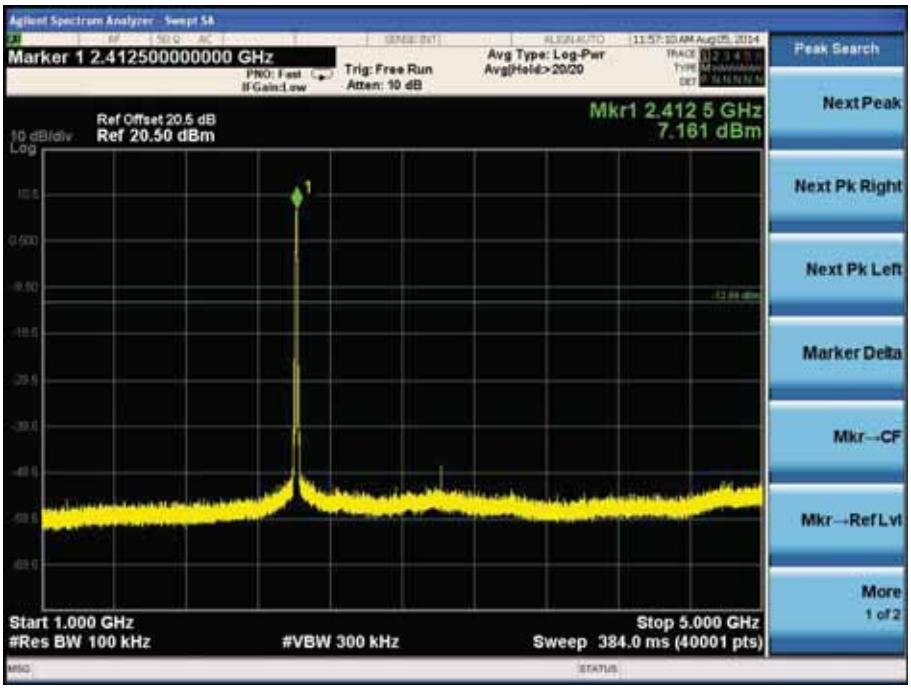


Channel 09 (2452MHz)-7

Product	:	Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11b (Ant 2)

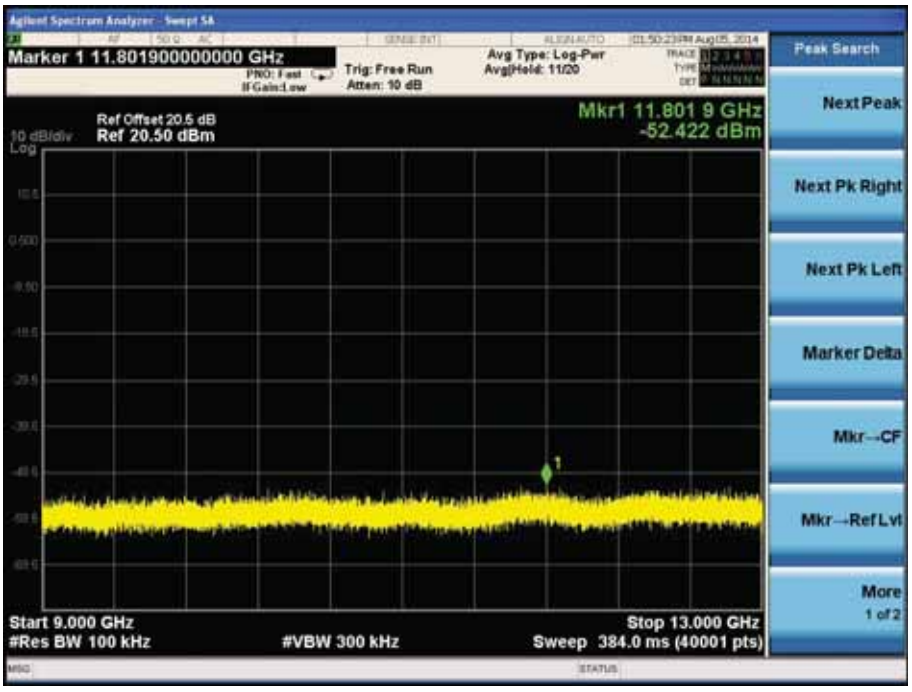
Channel 01 (2412MHz)-1

Channel 01 (2412MHz)-2



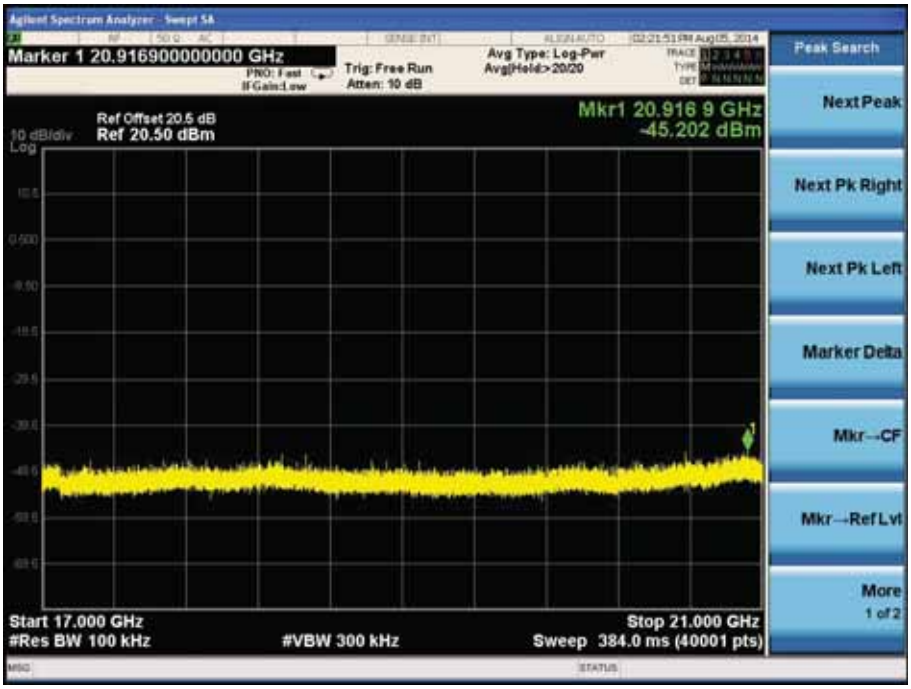
Channel 01 (2412MHz)-3

Channel 01 (2412MHz)-4

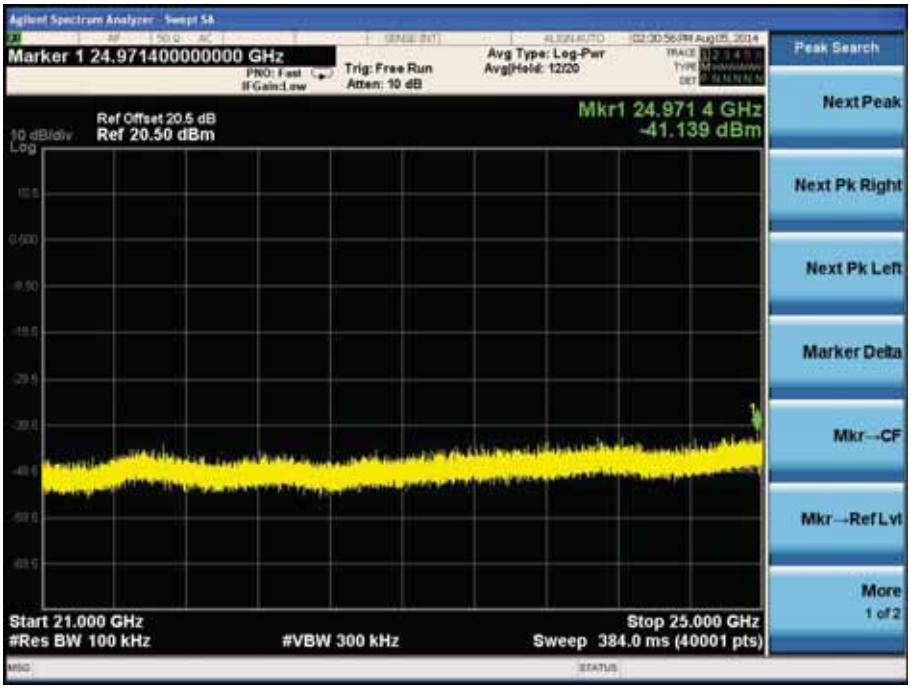


Channel 01 (2412MHz)-5

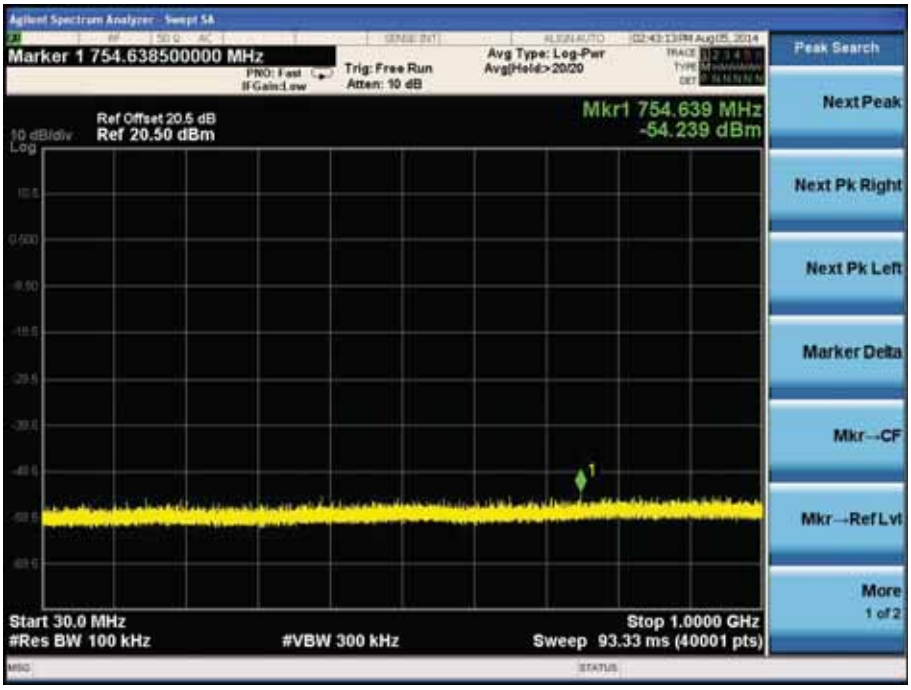
Channel 01 (2412MHz)-6



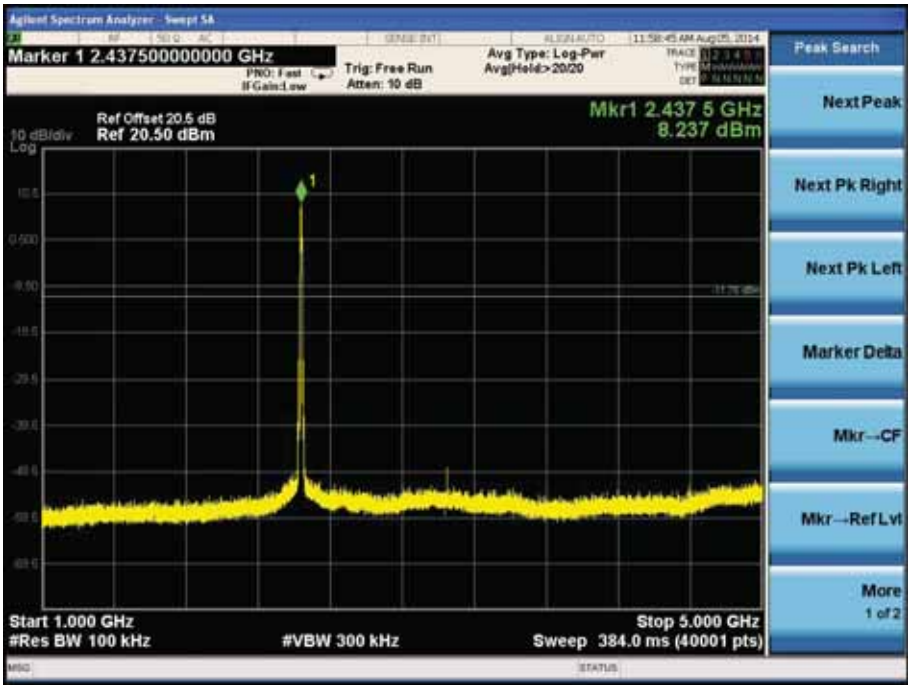
Channel 01 (2412MHz)-7



Channel 06 (2437MHz)-1

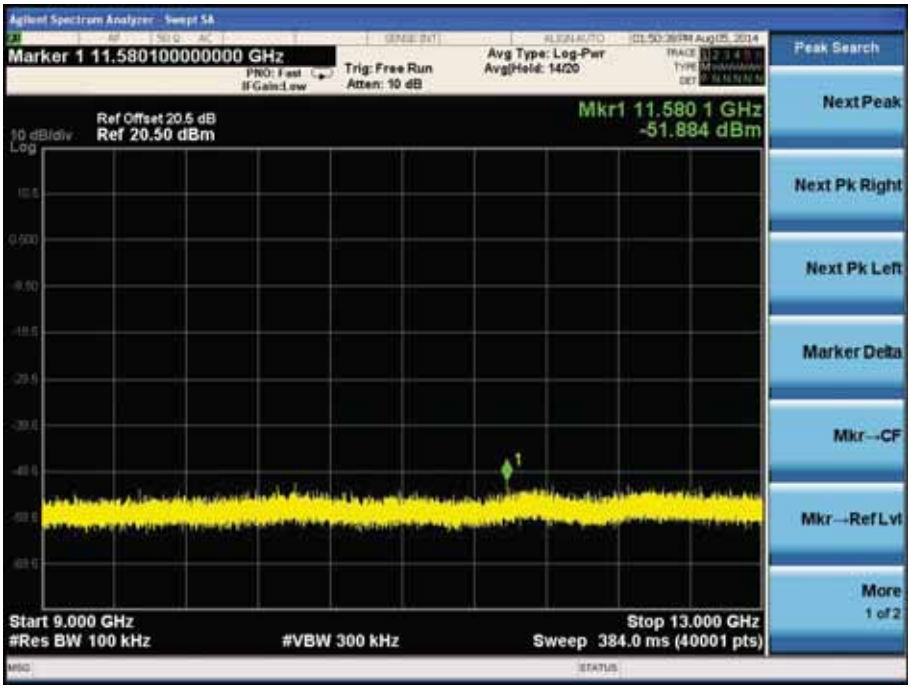


Channel 06 (2437MHz)-2

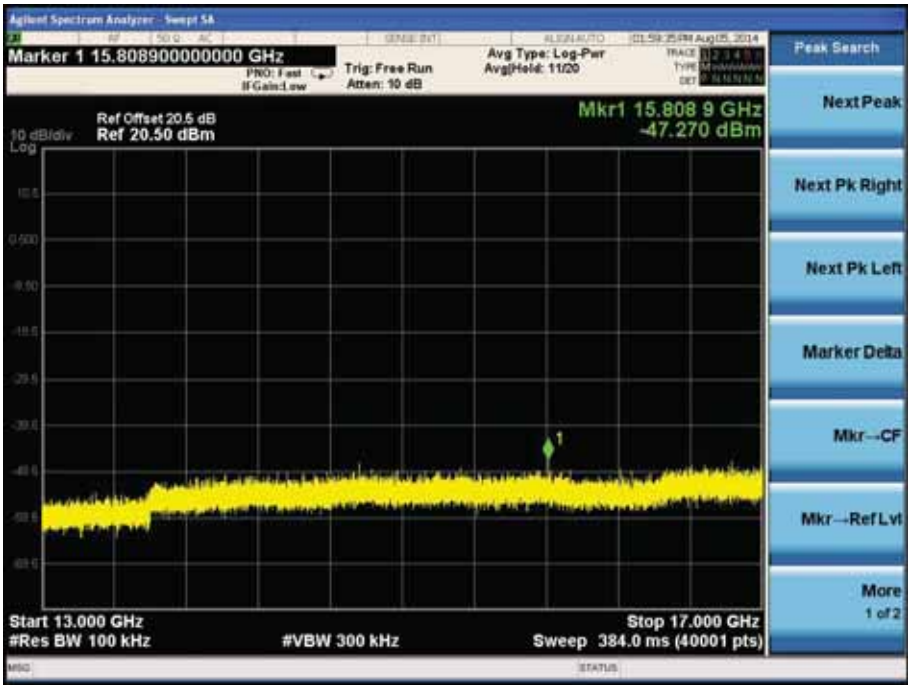


Channel 06 (2437MHz)-3

Channel 06 (2437MHz)-4

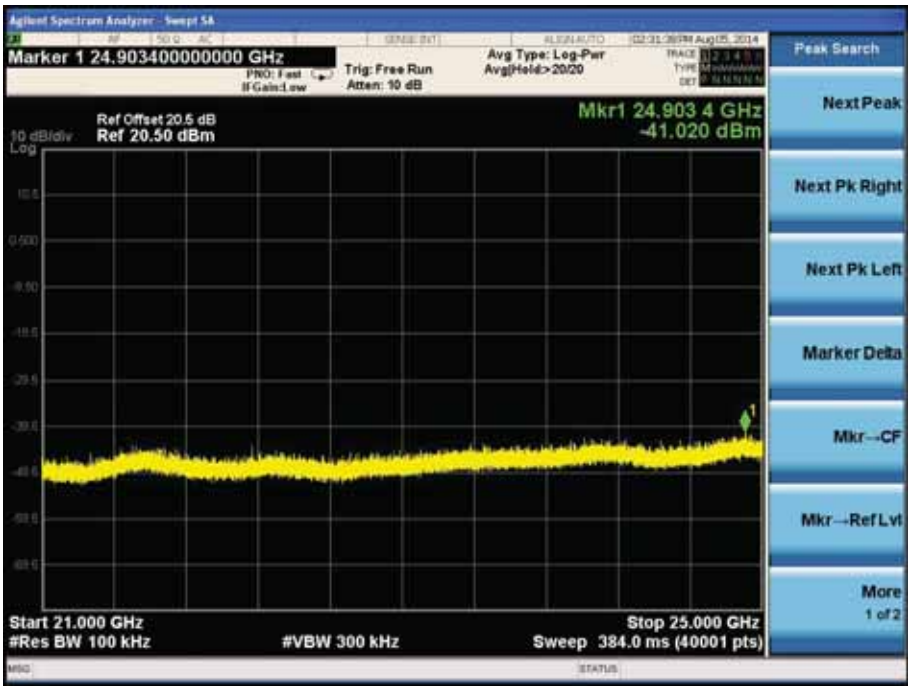


Channel 06 (2437MHz)-5

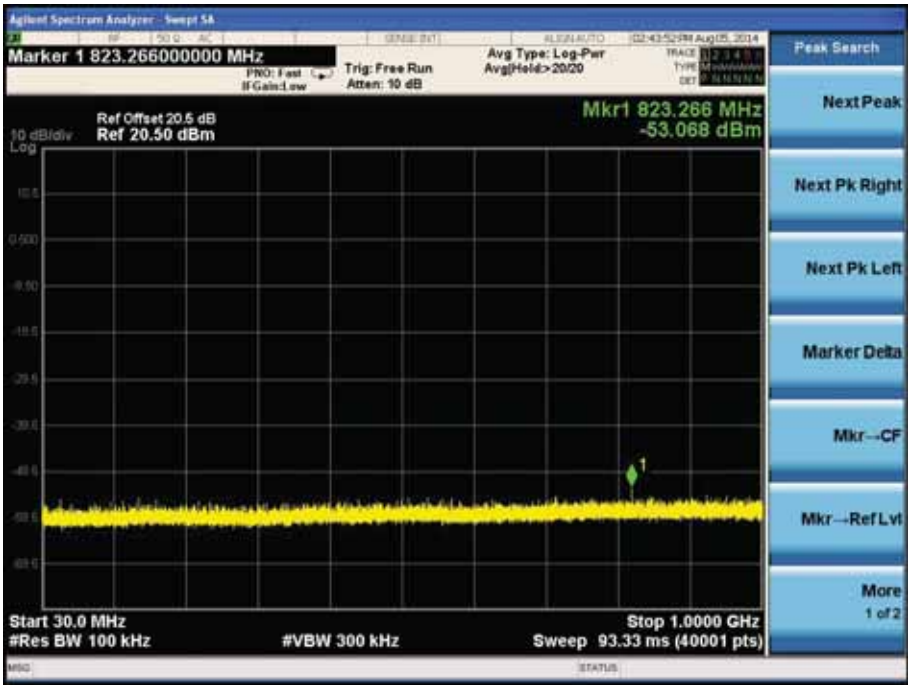


Channel 06 (2437MHz)-6

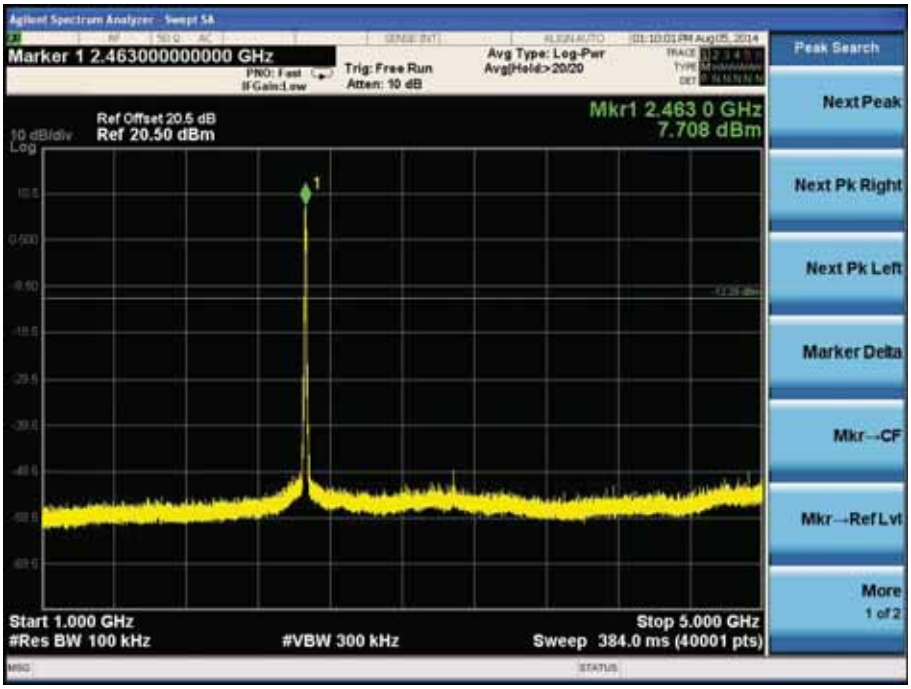
Channel 06 (2437MHz)-7



Channel 11 (2462MHz)-1

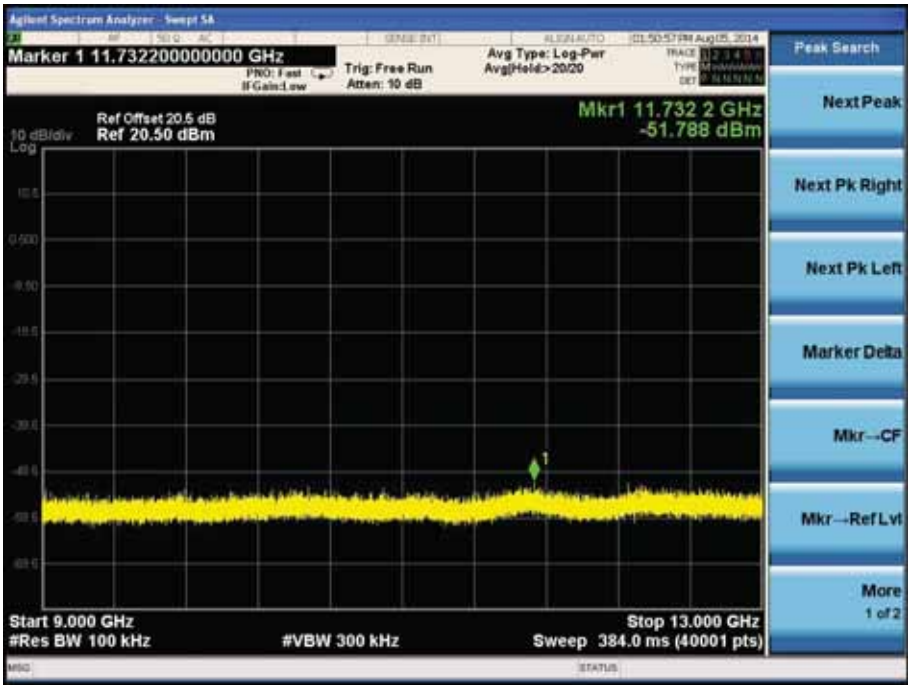


Channel 11 (2462MHz)-2

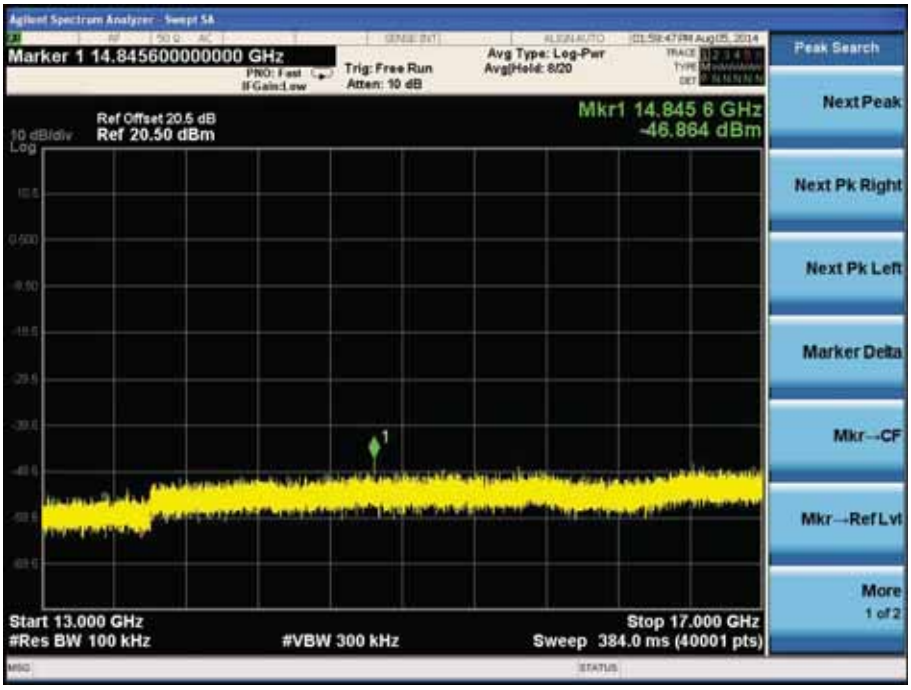


Channel 11 (2462MHz)-3

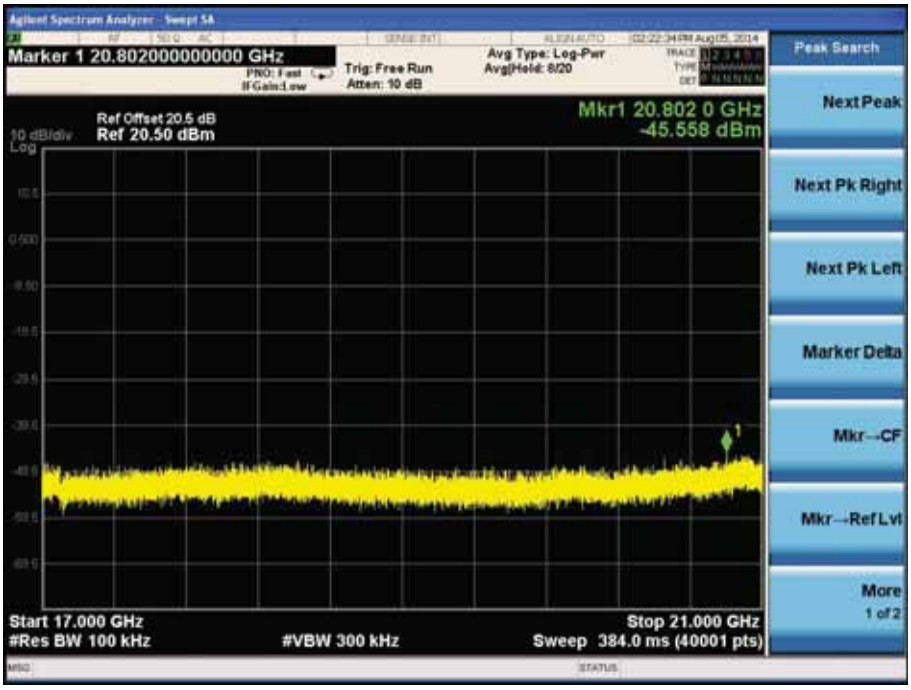
Channel 11 (2462MHz)-4



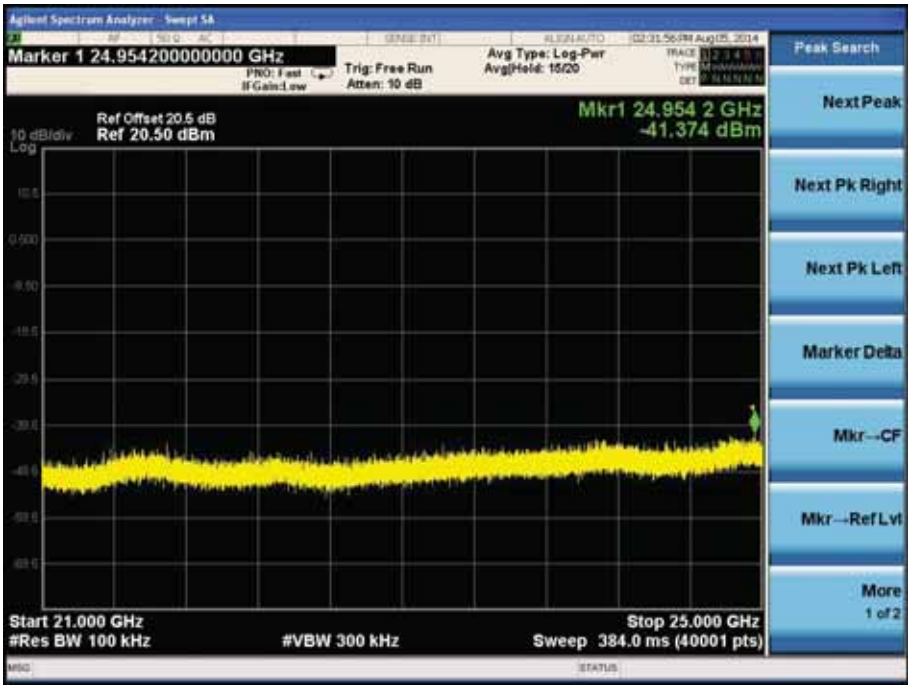
Channel 11 (2462MHz)-5



Channel 11 (2462MHz)-6

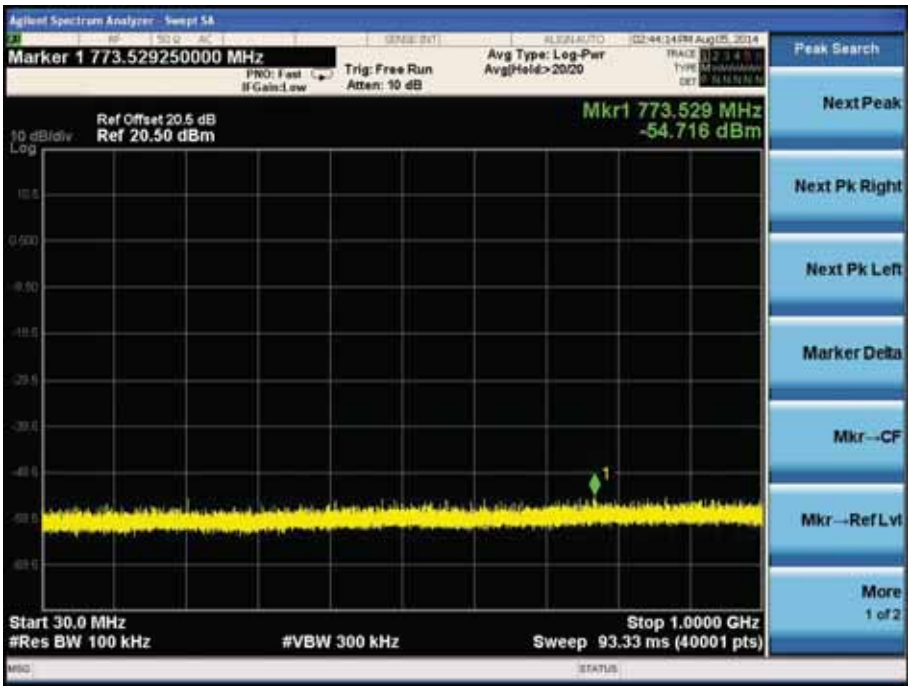


Channel 11 (2462MHz)-7

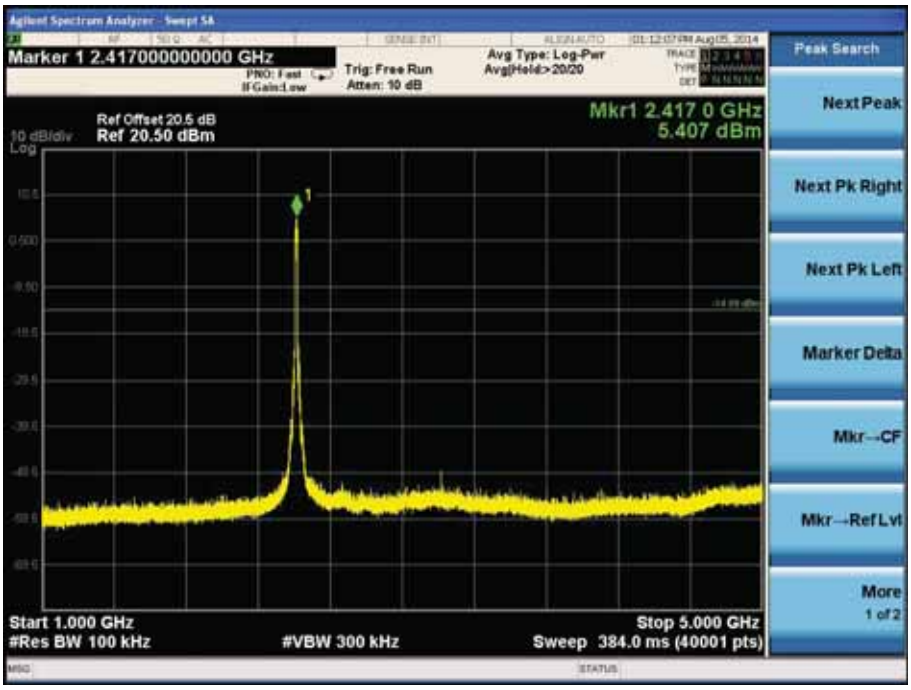


Product	:	Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11g (Ant 2)

Channel 01 (2412MHz)-1



Channel 01 (2412MHz)-2

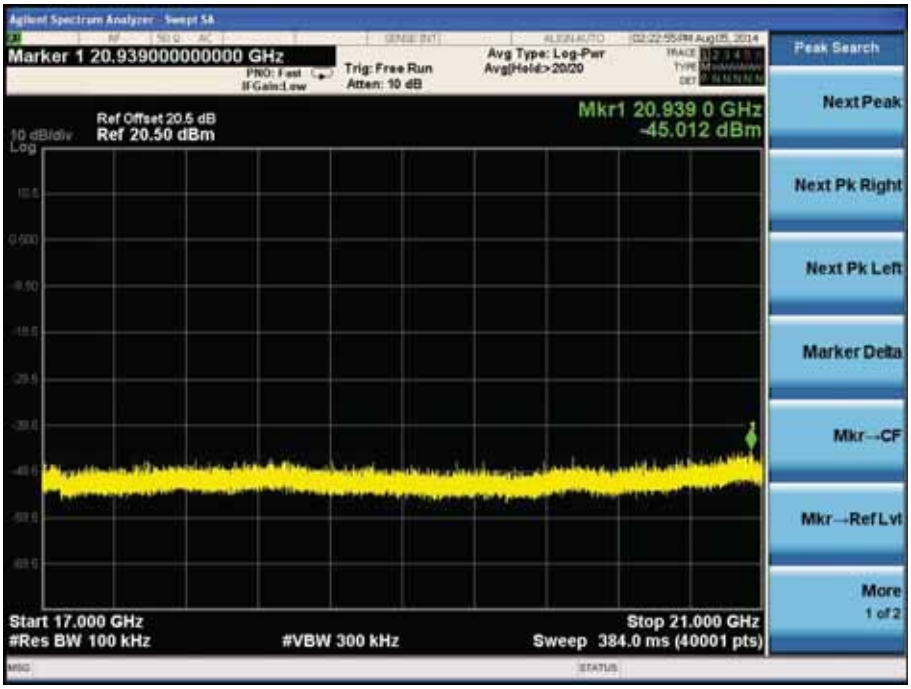


Channel 01 (2412MHz)-3

Channel 01 (2412MHz)-4

Channel 01 (2412MHz)-5

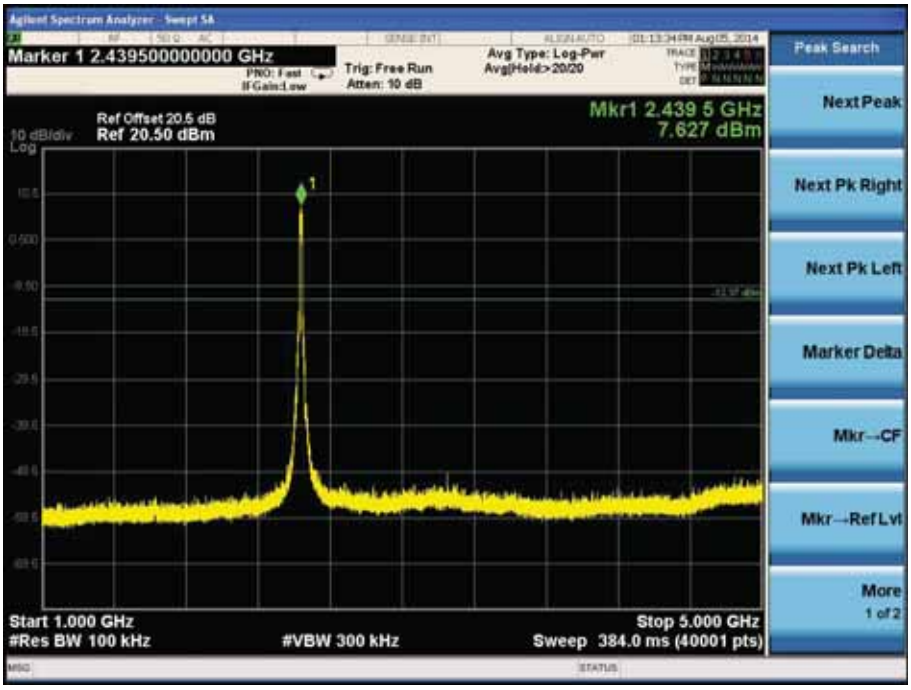
Channel 01 (2412MHz)-6



Channel 01 (2412MHz)-7

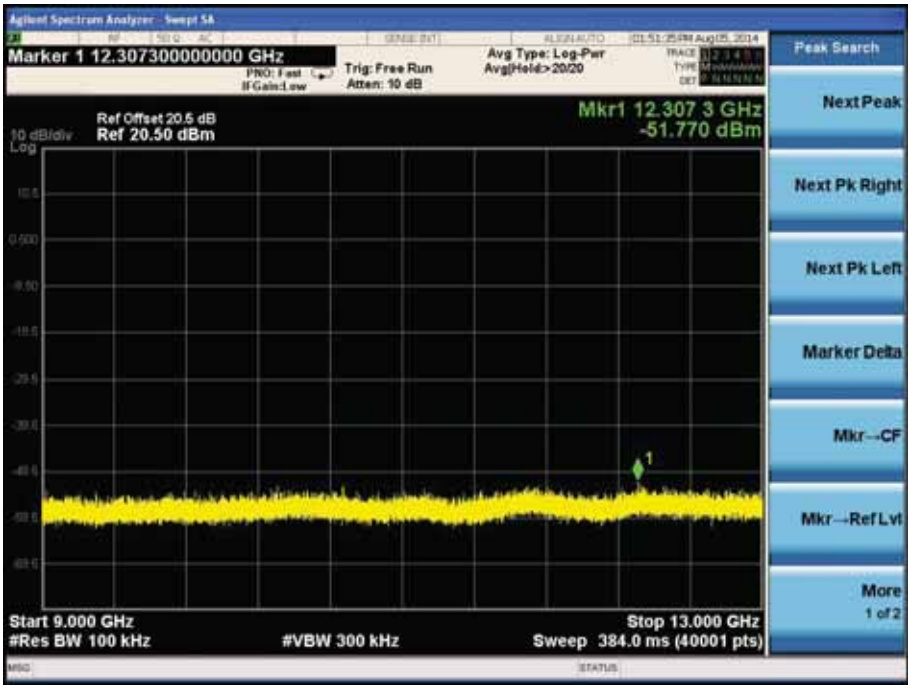
Channel 06 (2437MHz)-1

Channel 06 (2437MHz)-2



Channel 06 (2437MHz)-3

Channel 06 (2437MHz)-4

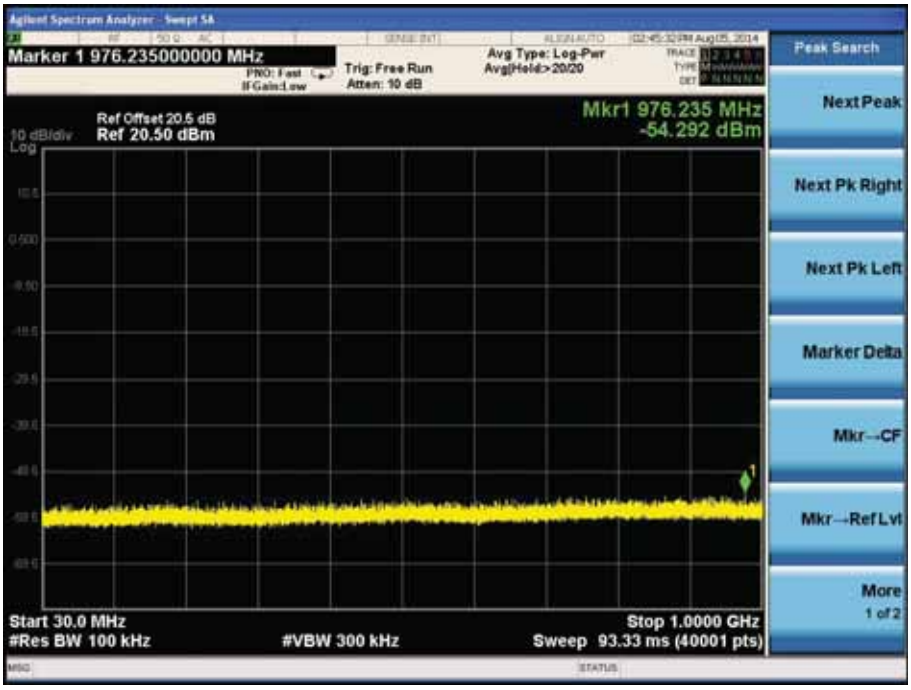


Channel 06 (2437MHz)-5

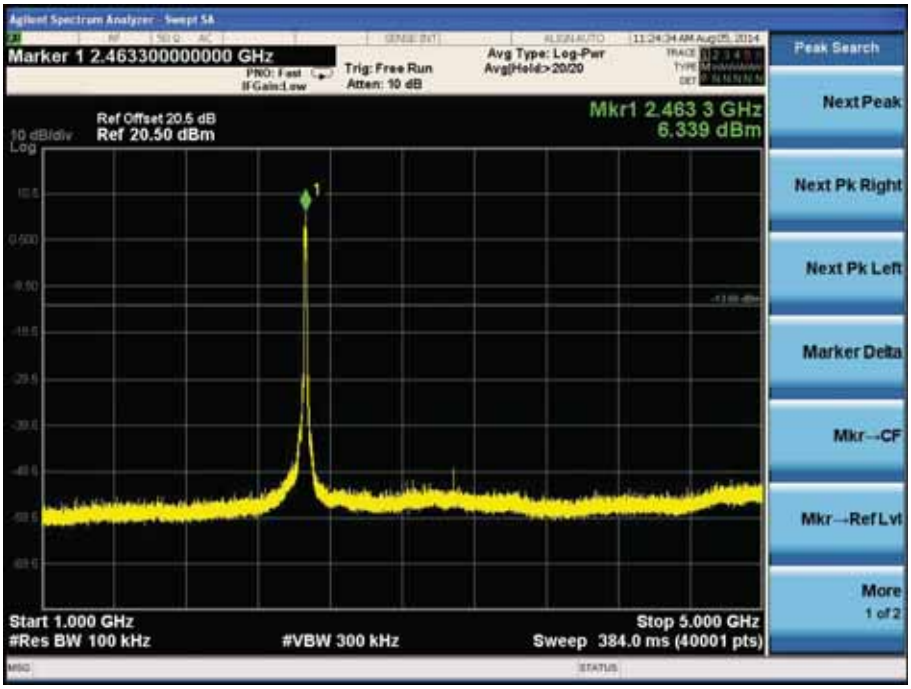
Channel 06 (2437MHz)-6

Channel 06 (2437MHz)-7

Channel 11 (2462MHz)-1

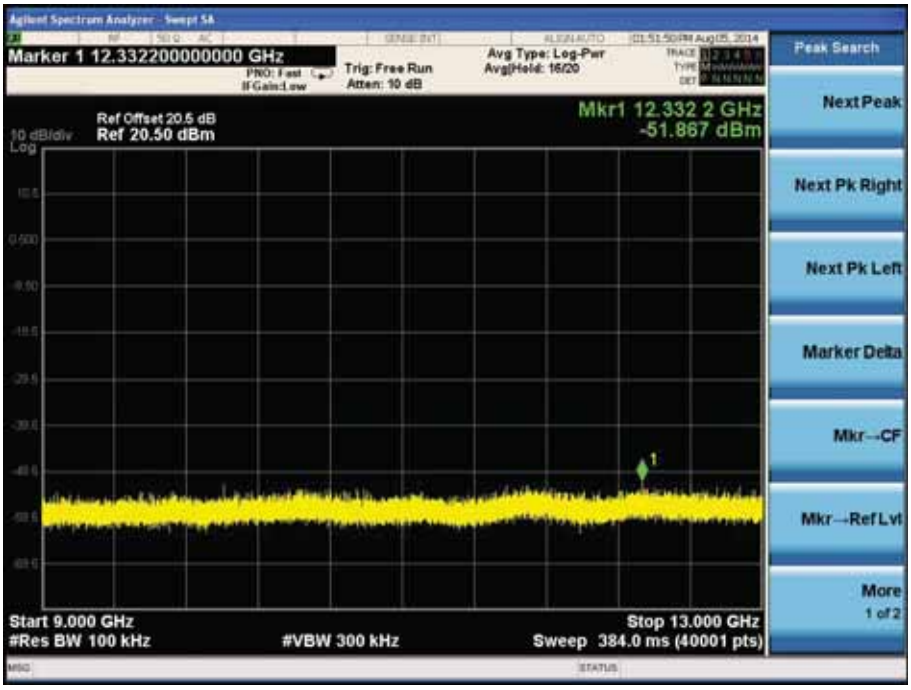


Channel 11 (2462MHz)-2



Channel 11 (2462MHz)-3

Channel 11 (2462MHz)-4



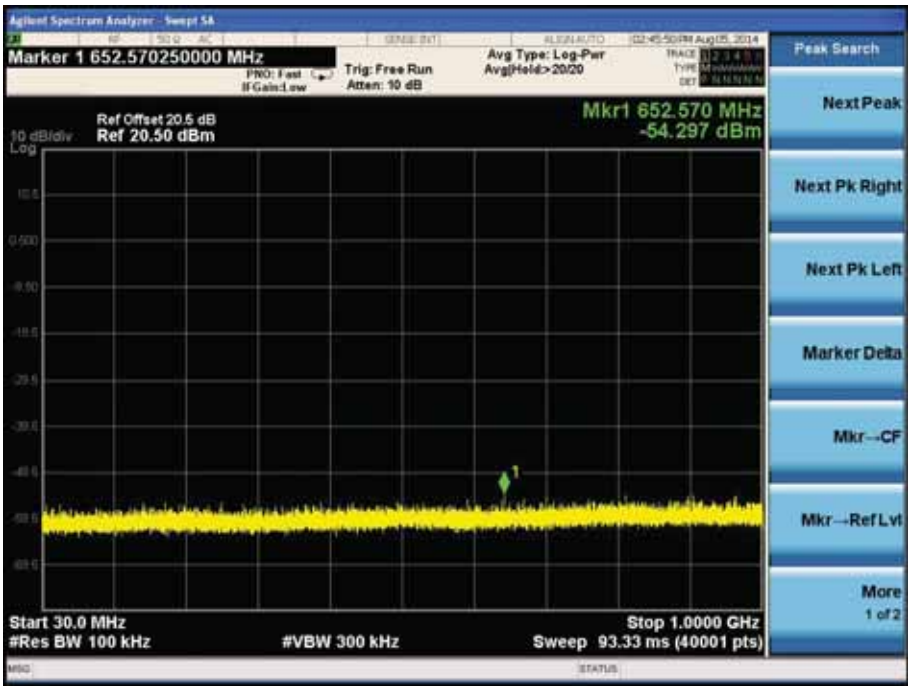
Channel 11 (2462MHz)-5

Channel 11 (2462MHz)-6

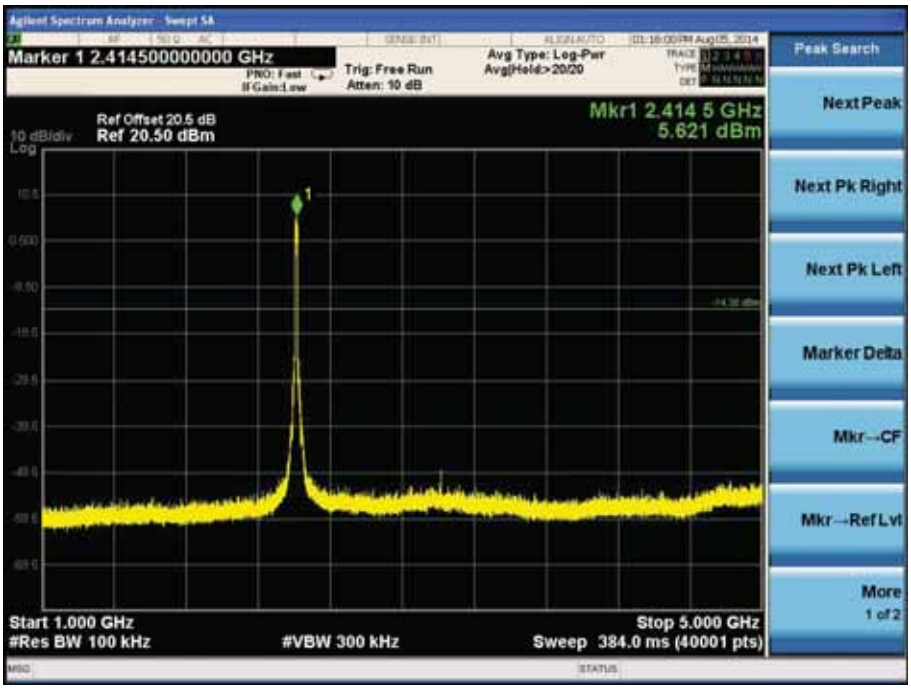
Channel 11 (2462MHz)-7

Product	:	Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n20 (Ant 2)

Channel 01 (2412MHz)-1

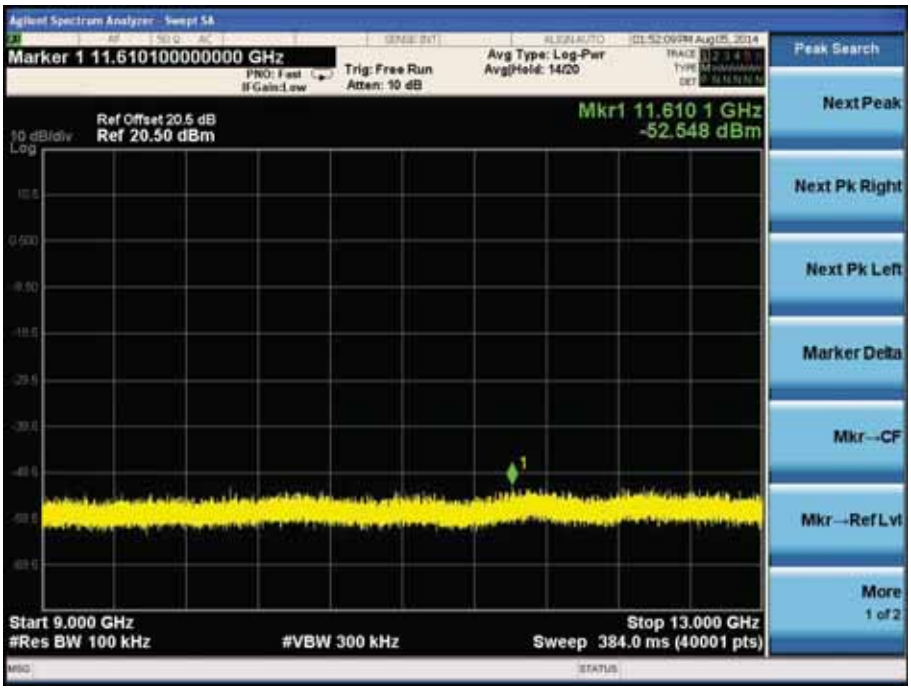


Channel 01 (2412MHz)-2



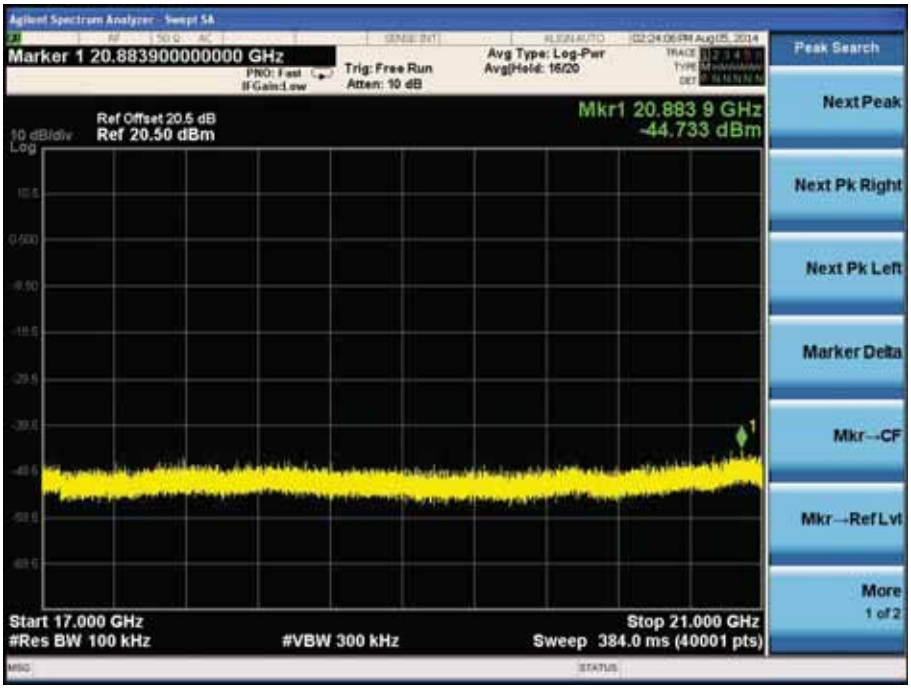
Channel 01 (2412MHz)-3

Channel 01 (2412MHz)-4



Channel 01 (2412MHz)-5

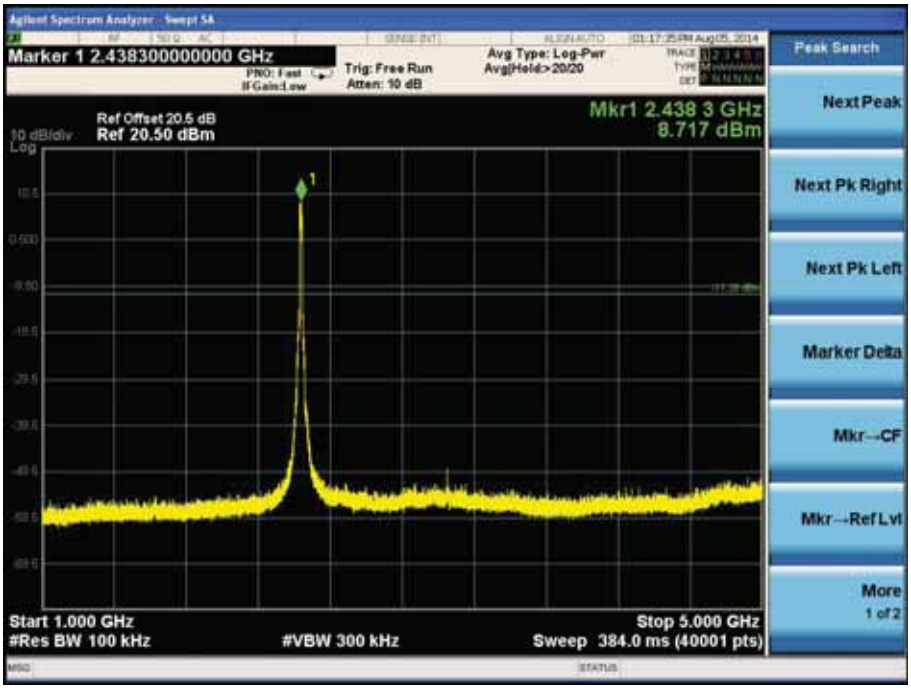
Channel 01 (2412MHz)-6



Channel 01 (2412MHz)-7

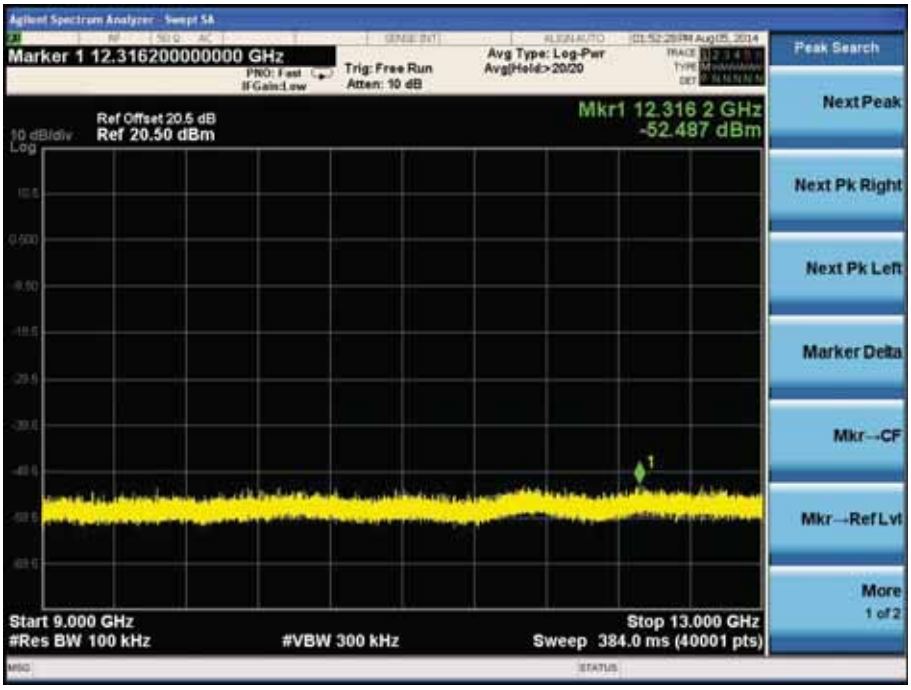
Channel 06 (2437MHz)-1

Channel 06 (2437MHz)-2

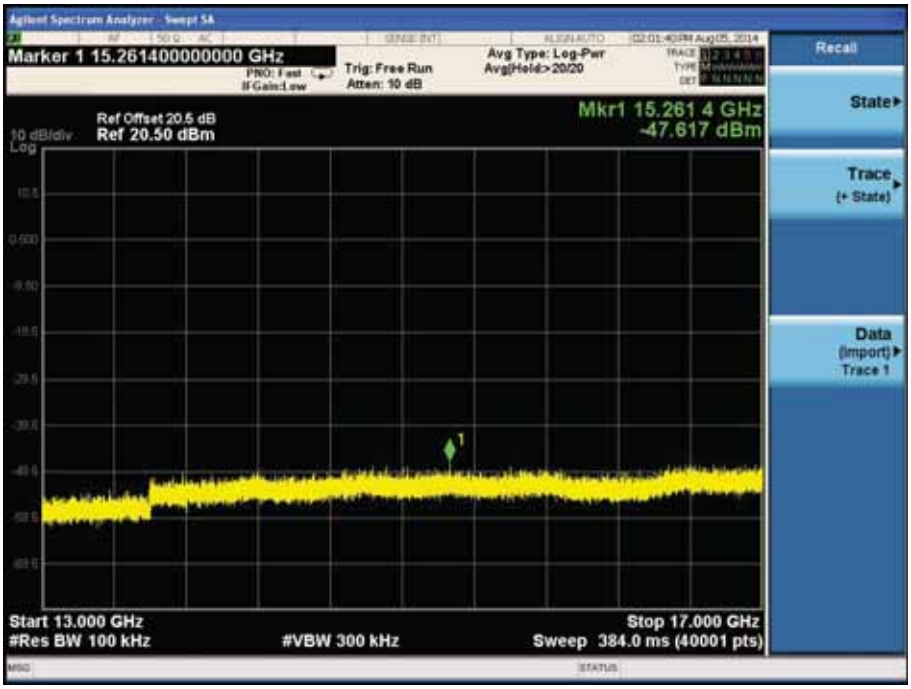


Channel 06 (2437MHz)-3

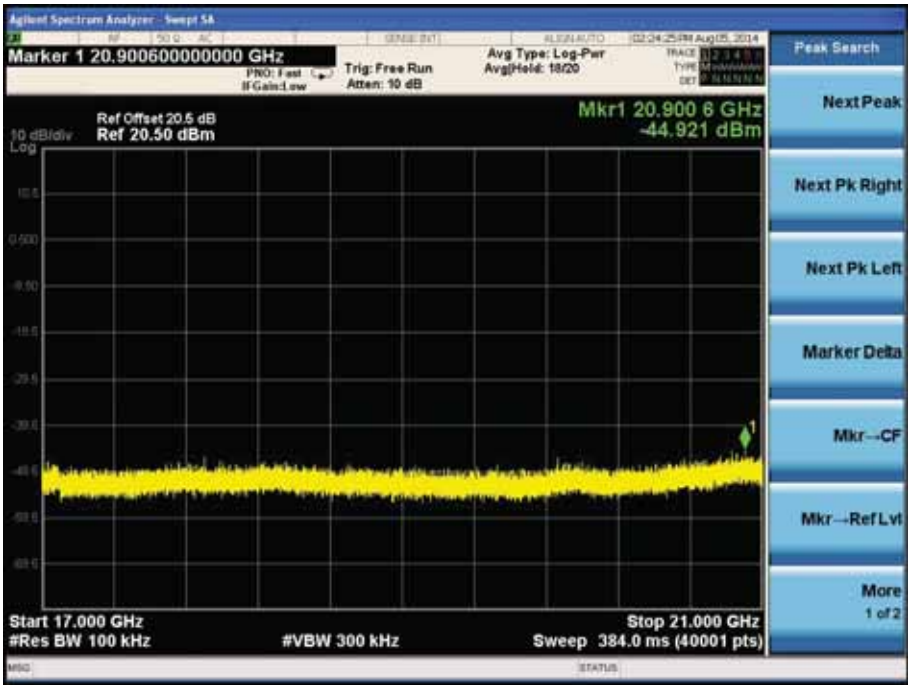
Channel 06 (2437MHz)-4



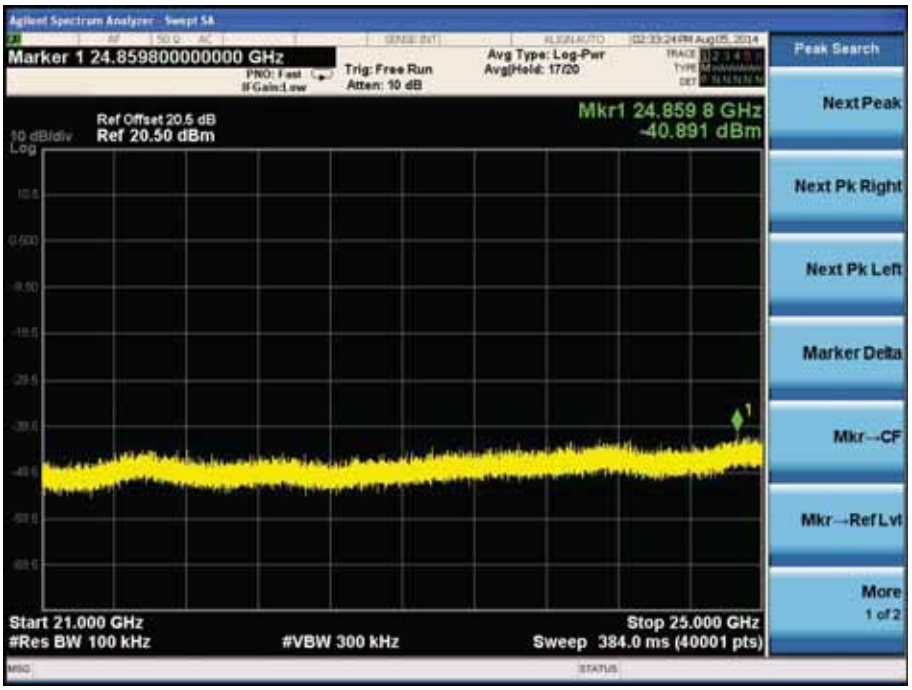
Channel 06 (2437MHz)-5



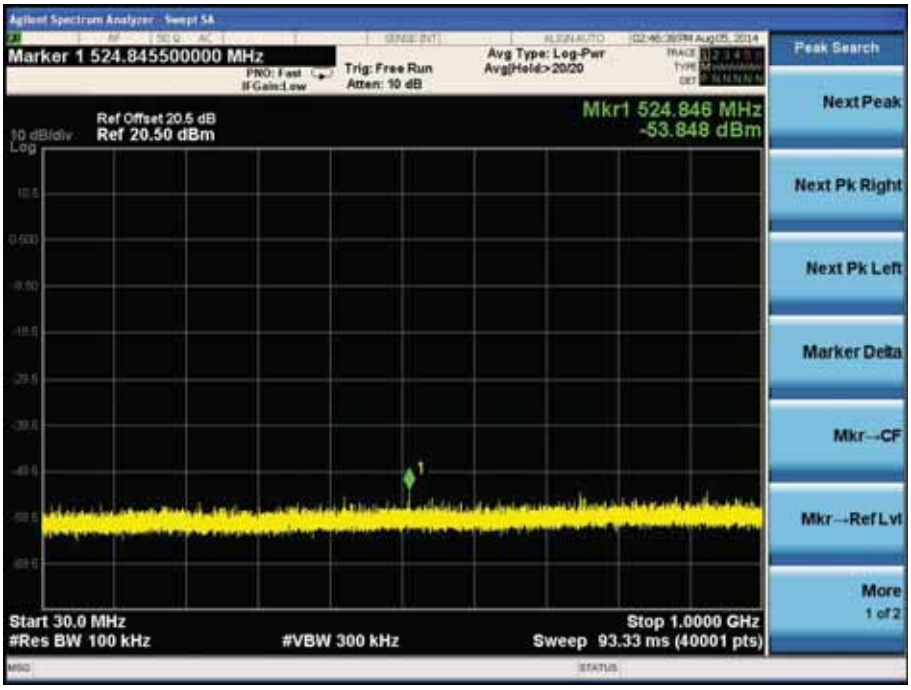
Channel 06 (2437MHz)-6



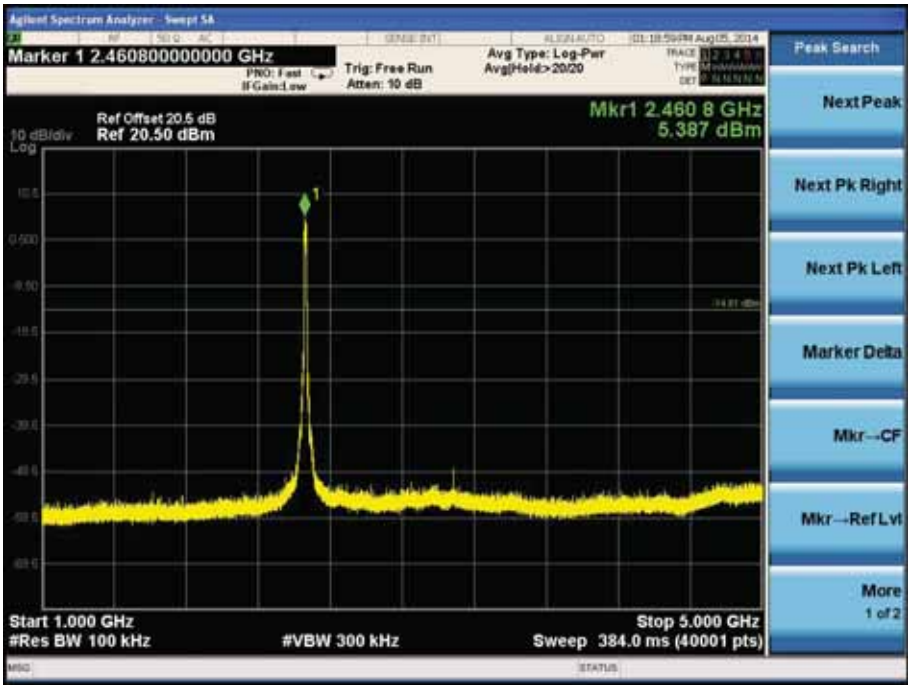
Channel 06 (2437MHz)-7



Channel 11 (2462MHz)-1

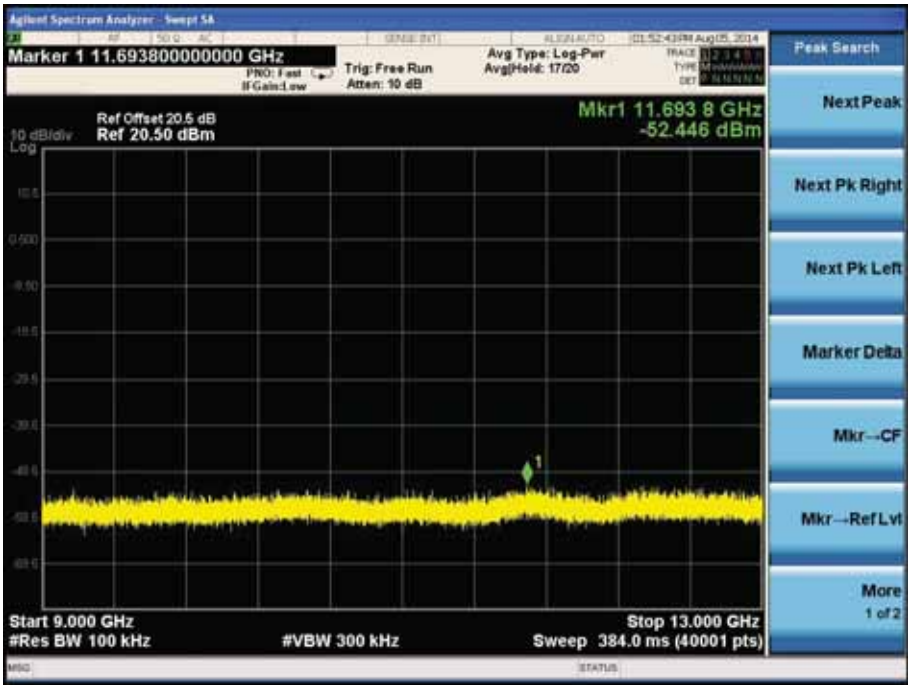


Channel 11 (2462MHz)-2



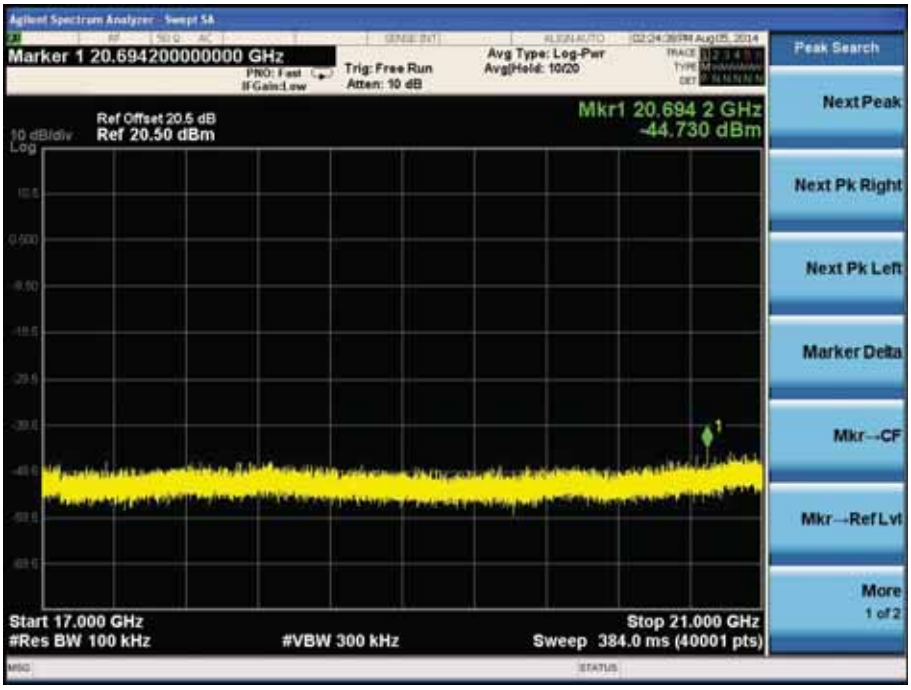
Channel 11 (2462MHz)-3

Channel 11 (2462MHz)-4



Channel 11 (2462MHz)-5

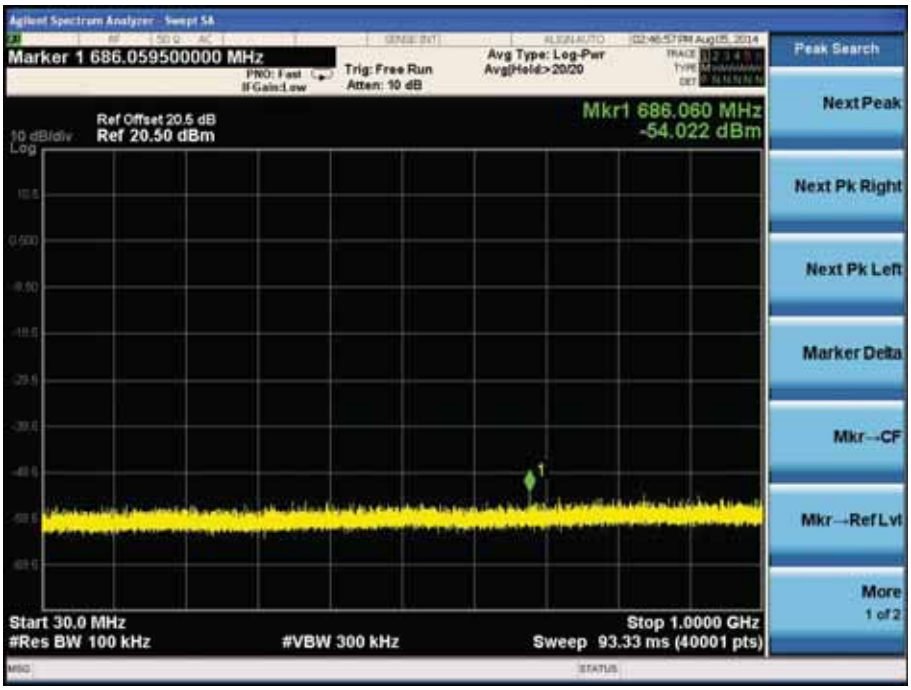
Channel 11 (2462MHz)-6



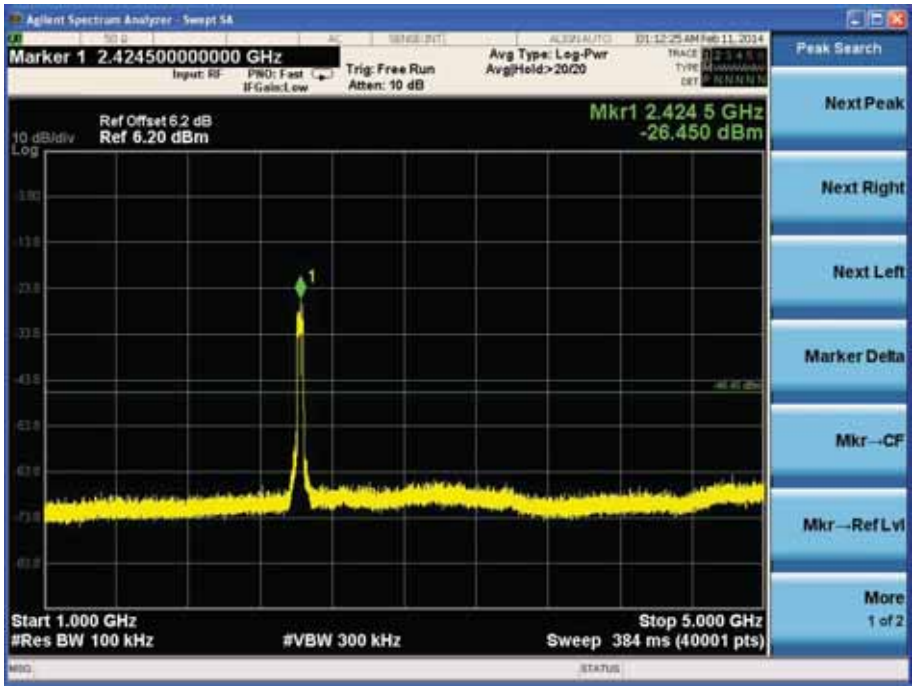
Channel 11 (2462MHz)-7

Product	:	Wireless N VDSL2 4-ports Gateway with USB, Wireless N VDSL2 4-ports Gateway without USB
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11n40 (Ant 2)

Channel 03 (2422MHz)-1



Channel 03 (2422MHz)-2



Channel 03 (2422MHz)-3

Channel 03 (2422MHz)-4