Test Report

FCC Part15 Subpart C

Product Name	:	GPON ONT
Model No.	:	T077G, T073G
FCC ID	:	2ABLK-T077GT073G

Applicant	:	Calix Inc.
Address	:	1035 N. McDowell Blvd. Petaluma, CA 94954 U.S.A.

Date of Receipt	:	Nov. 22, 2013
Test Date	:	Nov. 22, 2013~Dec. 13, 2013
Issued Date	:	Dec. 18, 2013
Report No.	:	13B0453R-RF-US-P05V01
Report Version	:	V1.0

Test Report Certification

Issued Date : Dec. 18, 2013
Report No. : 13B0453R-RF-US-P05V01

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Applicant	:	Calix Inc.
Address	:	1035 N. McDowell Blvd. Petaluma, CA 94954 U.S.A.
Manufacturer	:	Calix Inc.
Address	:	1035 N. McDowell Blvd. Petaluma, CA 94954 U.S.A.
Model No.	:	T077G, T073G
FCC ID	:	2ABLK-T077GT073G
EUT Voltage	:	DC 12V, 2A
Brand Name	:	Calix
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C: 2012 ANSI C63.4: 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	:	Jamie Yuan
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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1. General Information

1.1. EUT Description

Product Name	GPON ONT
Brand Name	Calix
Model No.	T077G, T073G
EUT Voltage	DC 12V
Frequency Range	802.11b/g/n(20MHz): 2412~2462MHz 802.11n(40MHz): 2422~2452MHz
Channel Number	802.11b/g/n(20MHz): 11 802.11n(40MHz): 7
Type of Modulation	802.11b: DSSS
	802.11g/n: OFDM
Data Rate	802.11b: 1/2/5.5/11 Mbps
	802.11g: 6/9/12/18/24/36/48/54 Mbps
	802.11n: up to 300 Mbps
Channel Control	Auto
Antenna Delivery	2*Tx + 2*Rx
Antenna Type	Dipole Antenna
Peak Antenna Gain	Both 2dBi for 2.4GHz

Note: The EUT includes three models, the difference of them as show bellow:

	T077G	T073G
LAN Port*4	Yes	Yes
ADSL Port*1	Yes	Yes
RF Port*1	Yes	No
USB*1	Yes	Yes
WiFi	Yes	Yes

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

Duty Cycle

Test Mode	Duty Cycle
802.11b	100%
802.11g	100%
802.11n(20MHz)	100%
802.11n(40MHz)	100%

Power Parameter Value of the test software

Test Mode	Test Channel	Ant A	Ant B	Ant A+B	
802.11b	2412	56	53		
	2437	54	54		
	2462	49	54		
802.11g	2412	63	63		
	2437	63	63		
	2462	62	62		
802.11n(20MHz)	2412	63	63	56	56
	2437	63	63	56	56
	2462	61	61	56	56
802.11n(40MHz)	2422	63	63	56	56
	2437	63	63	56	56
	2452	59	61	56	56

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:

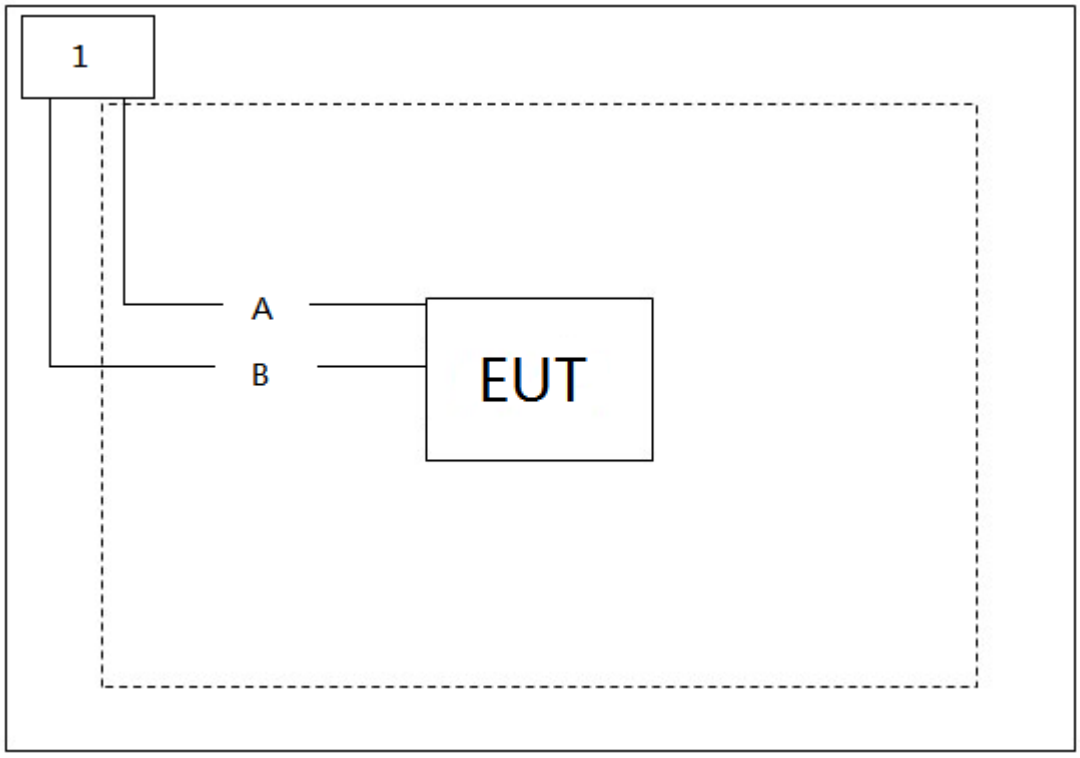
1. Regards to the frequency band operation: the lowest、middle and highest frequency of channel were selected to perform the test, then shown on this report.
2. This device is a composite device in accordance with Part 15 Subpart B regulations. The function for the receiver was measured and made a test report that the report number is 13B0453R-RF-US-P01V02.

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
1	PC	Thinkpad	X220	SUA0600195	Non-Shielded, 1.8m

1.4. Configuration of Tested System

Connection Diagram


Signal Cable Type		Signal cable Description
A	Control Cable	N/A
B	LAN Cable	Non-shielded, 1.5m

1.5. EUT Exercise Software

1	Setup the EUT and simulators as shown on above.
2	Turn on the power of equipment.
3	Execute some commands on the PC provided by applicant.
4	Run the RF test software “MP_Test”, 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

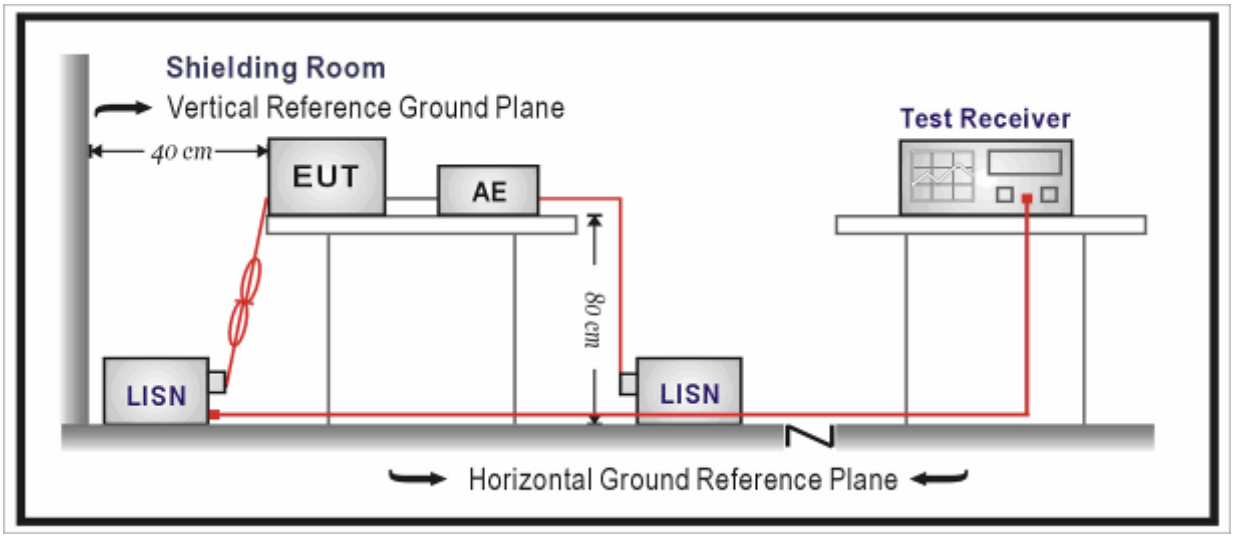
3.1. Test Equipment

Conducted Emission / TR-1

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
EMI Test Receiver	R&S	ESCI	100726	2014.01.07
Two-Line V-Network	R&S	ENV216	100043	2014.03.30
Two-Line V-Network	R&S	ENV216	100044	2014.09.16
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2014.03.01
50ohm Termination	SHX	TF2	07081401	2014.09.16
Temperature/Humidity Meter	zhicheng	ZC1-2	TR1-TH	2014.01.10

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.

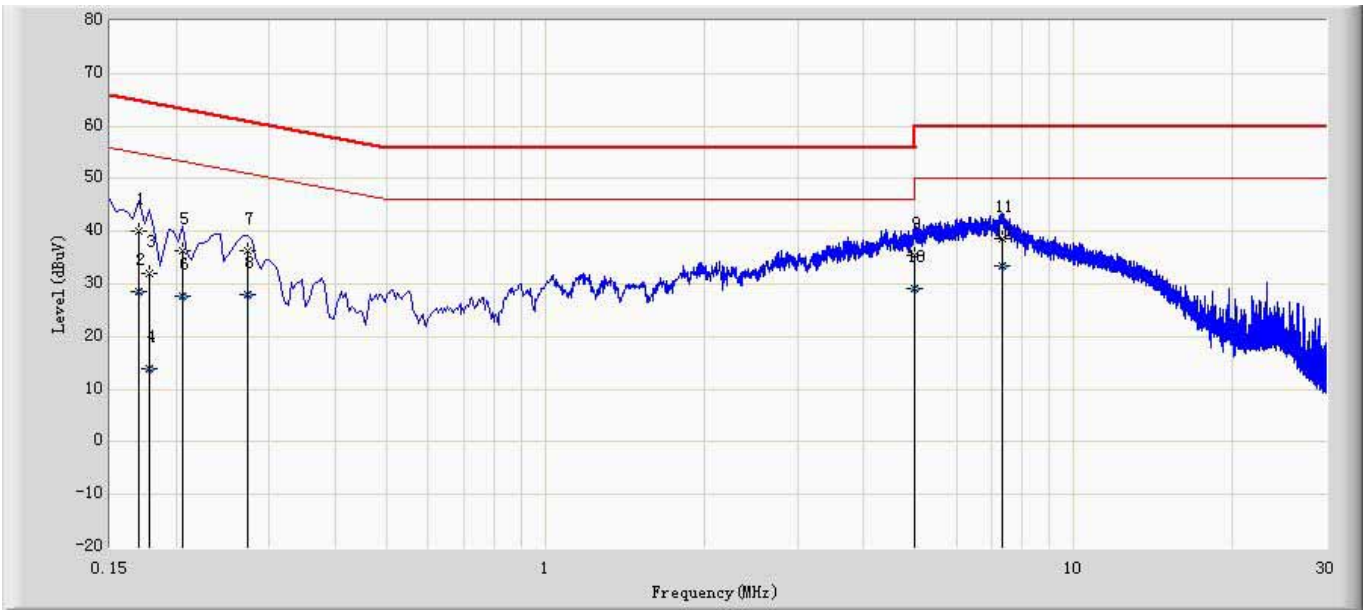
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

3.5. Uncertainty

The measurement uncertainty is defined as ± 2.02 dB

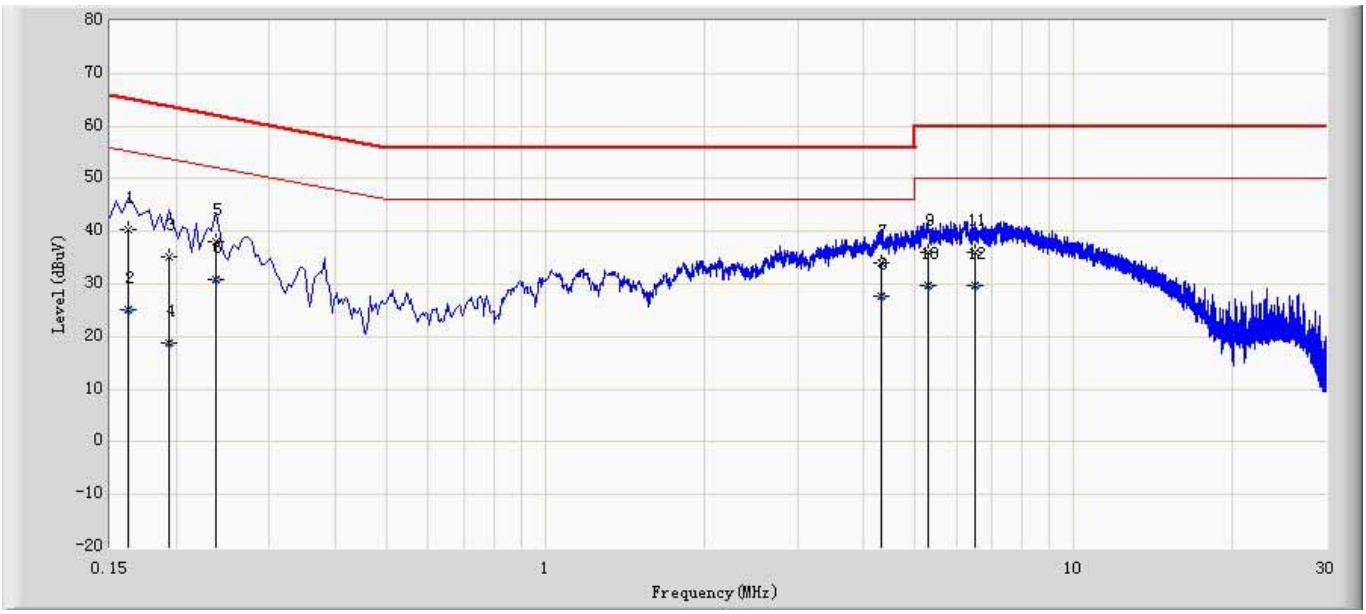
3.6. Test Result

Engineer: Jack	
Site: TR1	Time: 2013/12/12 - 10:57
Limit: FCC_Part15.207_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101044(0.009-30MHz)	Polarity: Line
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Normal Operation	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.170	40.038	30.187	-24.923	64.960	9.851	QP
2		0.170	28.447	18.596	-26.514	54.960	9.851	AV
3		0.178	32.053	22.198	-32.525	64.578	9.855	QP
4		0.178	13.786	3.930	-40.793	54.578	9.855	AV
5		0.206	36.228	26.367	-27.137	63.365	9.861	QP
6		0.206	27.759	17.898	-25.606	53.365	9.861	AV
7		0.274	36.461	26.591	-24.534	60.996	9.870	QP
8		0.274	28.099	18.229	-22.897	50.996	9.870	AV
9		4.994	35.523	25.663	-20.477	56.000	9.860	QP
10		4.994	29.223	19.363	-16.777	46.000	9.860	AV
11		7.338	38.699	28.759	-21.301	60.000	9.940	QP
12	*	7.338	33.565	23.625	-16.435	50.000	9.940	AV

Engineer: Jack	
Site: TR1	Time: 2013/12/12 - 11:01
Limit: FCC_Part15.207_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101044(0.009-30MHz)	Polarity: Neutral
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Normal Operation	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.162	40.287	30.302	-25.074	65.361	9.986	QP
2		0.162	25.029	15.043	-30.332	55.361	9.986	AV
3		0.194	35.061	25.138	-28.802	63.864	9.924	QP
4		0.194	18.726	8.802	-35.138	53.864	9.924	AV
5		0.238	38.119	28.201	-24.047	62.166	9.919	QP
6		0.238	30.781	20.862	-21.385	52.166	9.919	AV
7		4.314	34.163	24.094	-21.837	56.000	10.070	QP
8	*	4.314	27.659	17.590	-18.341	46.000	10.070	AV
9		5.318	36.034	25.910	-23.966	60.000	10.124	QP
10		5.318	29.696	19.572	-20.304	50.000	10.124	AV
11		6.490	36.018	25.821	-23.982	60.000	10.197	QP
12		6.490	29.770	19.573	-20.230	50.000	10.197	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	2014.03.30
Loop Antenna	R&S	HFH2-Z2	833799/003	2014.11.22
Bilog Chainenna	Teseq GmbH	CBL6112D	27611	2014.10.15
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2014.03.01
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC2-TH	2014.01.09

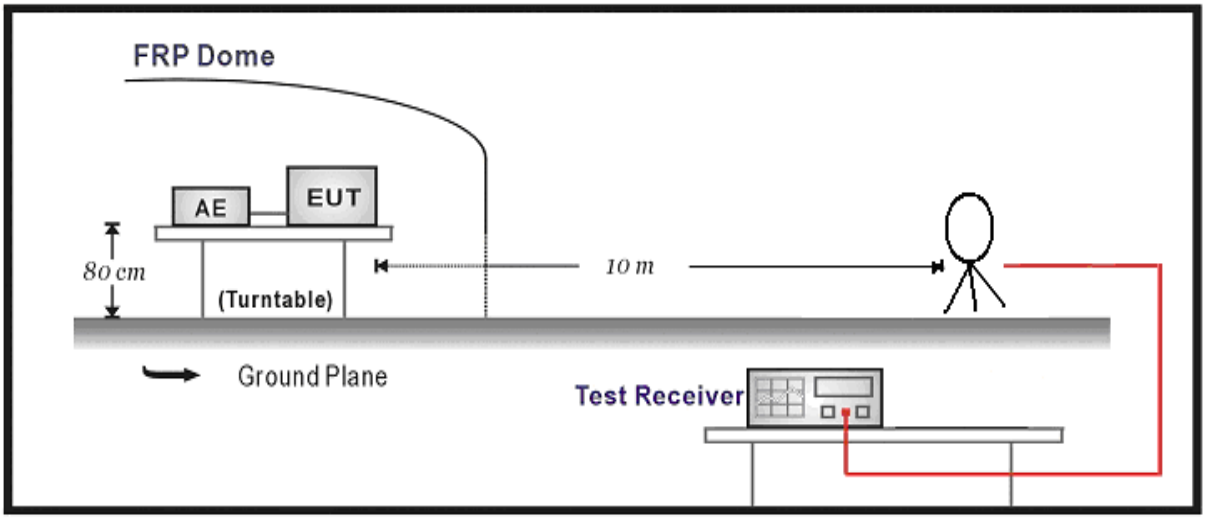
Radiated Emission / AC-5

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
Spectrum Analyzer	Agilent	N9020A	MY49100159	2014.03.30
Spectrum Analyzer	Agilent	E4446A	MY45300103	2014.01.21
Preamplifier	Miteq	NSP1800-25	1364185	2014.05.04
Preamplifier	QuieTek	AP-040G	CHM-0906001	2014.05.04
DRG Horn	ETS-Lindgren	3117	00123988	2014.01.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2014.11.24
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2014.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2014.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2014.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2014.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2014.01.11

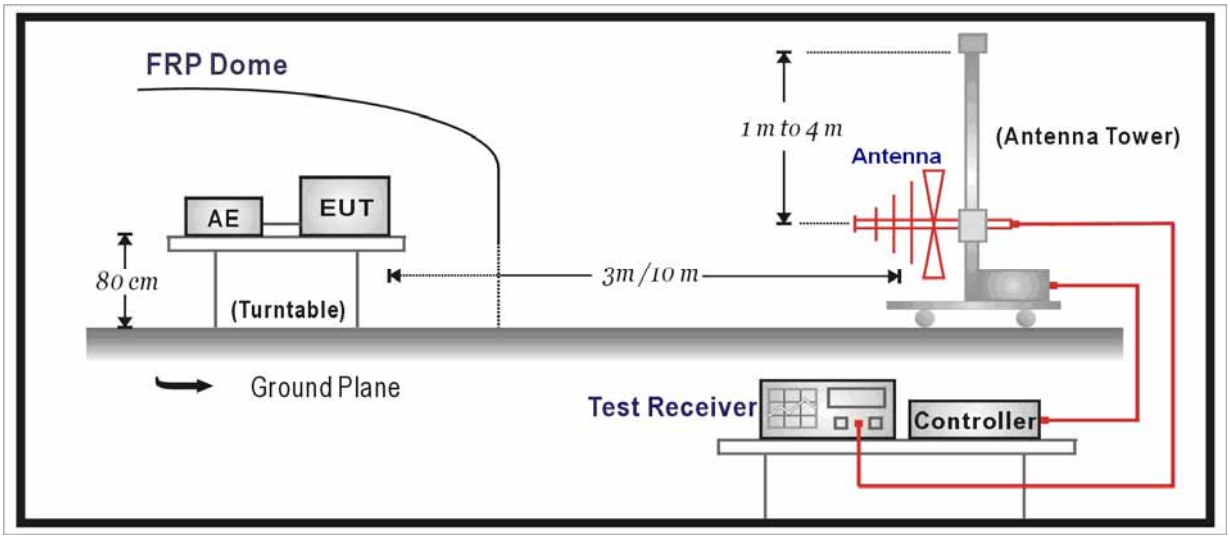
Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

4.2. Test Setup

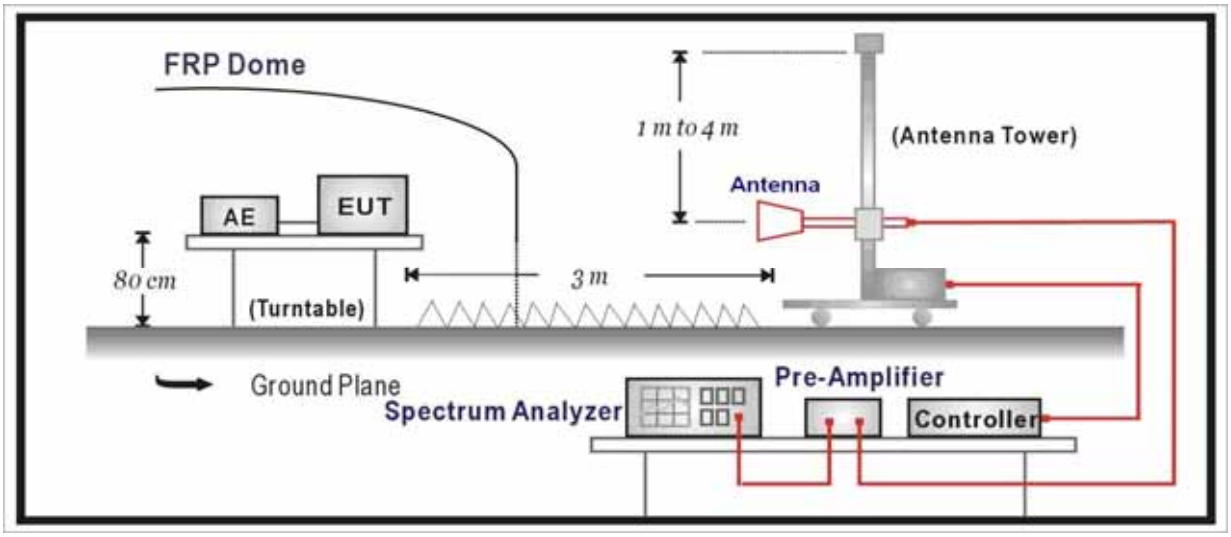
Below 30MHz Test Setup:



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: RBW = 1MHz, VBW = 10Hz, sweep time = auto.

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

Mode1: Transmit at 802.11b

ANT	CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
ANT A	1	H	4825.0	53.3	-6.2	47.1	54(Note3)	-6.9	PK
		V	4825.0	61.1	-6.2	54.9	74	-19.1	PK
		V	4825.0	59.5	-6.2	53.3	54	-0.7	AV
		H	7239.0	42.1	-1.6	40.5	54(Note3)	-13.5	PK
		V	7239.0	49.2	-1.6	47.6	54(Note3)	-6.4	PK
		H	9648.0	35.9	4.9	40.8	54(Note3)	-13.2	PK
		V	9644.5	39.4	4.9	44.3	54(Note3)	-9.7	PK
	6	H	4876.0	56.6	-6.2	50.4	54(Note3)	-3.6	PK
		V	4876.0	64.6	-6.2	58.4	74	-15.6	PK
		V	4876.1	59.5	-6.2	53.3	54	-0.7	AV
		H	7307.0	43.1	-1.4	41.7	54(Note3)	-12.3	PK
		V	7307.0	50.7	-1.4	49.3	54(Note3)	-4.7	PK
		H	9746.5	37.7	5.0	42.7	54(Note3)	-11.3	PK
		V	9746.5	41.2	5.1	46.3	54(Note3)	-7.7	PK
	11	H	4927.0	53.4	-6.2	47.2	54(Note3)	-6.8	PK
		V	4927.0	61.7	-6.1	55.6	74	-18.4	PK
		V	4923.9	58.8	-6.1	52.7	54	-1.3	AV
		H	7386.0	41.2	-1.0	40.2	54(Note3)	-13.8	PK
		V	7383.5	49.0	-1.1	47.9	54(Note3)	-6.1	PK
		H	9848.0	35.1	5.2	40.3	54(Note3)	-13.7	PK
		V	9848.5	37.4	5.3	42.7	54(Note3)	-11.3	PK
ANT B	1	H	4825.0	51.9	-6.2	45.7	54(Note3)	-8.3	PK
		V	4825.0	61.0	-6.2	54.8	74	-19.2	PK
		V	4823.9	58.7	-6.2	52.5	54	-1.5	AV
		H	7236.0	41.2	-1.6	39.6	54(Note3)	-14.4	PK
		V	7239.0	47.6	-1.6	46.0	54(Note3)	-8.0	PK
		H	9648.0	36.1	4.9	41.0	54(Note3)	-13.0	PK

		V	9618.0	35.7	4.9	40.6	54(Note3)	-13.4	PK
	6	H	4876.0	51.8	-6.2	45.6	54(Note3)	-8.4	PK
		V	4876.0	61.8	-6.2	55.6	74	-18.4	PK
		V	4873.9	59.3	-6.2	53.1	54	-0.9	AV
		H	7315.5	44.5	-1.4	43.1	54(Note3)	-10.9	PK
		V	7307.0	50.1	-1.4	48.7	54(Note3)	-5.3	PK
		H	9748.0	34.6	5.0	39.6	54(Note3)	-14.4	PK
		V	9746.5	38.7	5.1	43.8	54(Note3)	-10.2	PK
	11	H	4927.0	49.6	-6.2	43.4	54(Note3)	-10.6	PK
		V	4927.0	60.2	-6.1	54.1	74	-19.9	PK
		V	4924.0	58.6	-6.1	52.5	54	-1.5	AV
		H	7383.5	43.1	-1.1	42.0	54(Note3)	-12.0	PK
		V	7383.5	46.0	-1.1	44.9	54(Note3)	-9.1	PK
		H	9848.0	32.8	5.2	38.0	54(Note3)	-16.0	PK
		V	9848.0	34.0	5.3	39.3	54(Note3)	-14.7	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.

Mode2: Transmit at 802.11g

ANT	CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
ANT A	1	H	4825.0	52.5	-6.2	46.3	54(Note3)	-7.7	PK
		V	4816.5	58.9	-6.3	52.6	54(Note3)	-1.4	PK
		H	7230.5	46.2	-1.6	44.6	54(Note3)	-9.4	PK
		V	7239.0	48.9	-1.6	47.3	54(Note3)	-6.7	PK
		H	9648.0	36.9	4.9	41.8	54(Note3)	-12.2	PK
		V	9653.0	40.6	5.0	45.6	54(Note3)	-8.4	PK
	6	H	4876.0	54.8	-6.2	48.6	54(Note3)	-5.4	PK
		V	4876.0	63.7	-6.2	57.5	74	-16.5	PK
			4874.2	48.4	-6.2	42.2	54	-11.8	AV
		H	7307.0	44.6	-1.4	43.2	54(Note3)	-10.8	PK
		V	7307.0	52.5	-1.4	51.1	54(Note3)	-2.9	PK
		H	9746.5	39.9	5.0	44.9	54(Note3)	-9.1	PK
		V	9755.0	42.5	5.2	47.7	54(Note3)	-6.3	PK
	11	H	4918.5	56.0	-6.2	49.8	54(Note3)	-4.2	PK
		V	4927.0	66.2	-6.1	60.1	74	-13.9	PK
			4922.4	47.9	-6.1	41.8	54	-12.2	AV
		H	7383.5	46.7	-1.1	45.6	54(Note3)	-8.4	PK
		V	7383.5	54.1	-1.1	53.0	54(Note3)	-1.0	PK
		H	9848.0	35.5	5.2	40.7	54(Note3)	-13.3	PK
		V	9840.0	41.3	5.2	46.5	54(Note3)	-7.5	PK
ANT B	1	H	4825.0	49.0	-6.2	42.8	54(Note3)	-11.2	PK
		V	4825.0	57.1	-6.2	50.9	54(Note3)	-3.1	PK
		H	7236.0	41.0	-1.6	39.4	54(Note3)	-14.6	PK
		V	7239.0	49.0	-1.6	47.4	54(Note3)	-6.6	PK
		H	9648.0	36.5	4.9	41.4	54(Note3)	-12.6	PK
		V	9653.0	42.5	5.0	47.5	54(Note3)	-6.5	PK
	6	H	4876.0	47.6	-6.2	41.4	54(Note3)	-12.6	PK
		V	4876.0	57.5	-6.2	51.3	54(Note3)	-2.7	PK
		H	7324.0	43.2	-1.4	41.8	54(Note3)	-12.2	PK
		V	7307.0	50.0	-1.4	48.6	54(Note3)	-5.4	PK
		H	9748.0	35.0	5.0	40.0	54(Note3)	-14.0	PK
		V	9746.5	41.4	5.1	46.5	54(Note3)	-7.5	PK
	11	H	4918.5	59.8	-6.2	53.6	54(Note3)	-0.4	PK

		V	4918.5	59.8	-6.1	53.7	74	-20.3	PK
		H	7383.5	51.0	-1.1	49.9	54(Note3)	-4.1	PK
		V	7383.5	51.0	-1.1	49.9	54(Note3)	-4.1	PK
		H	9848.0	37.4	5.2	42.6	54(Note3)	-11.4	PK
		V	9848.0	37.4	5.3	42.7	54(Note3)	-11.3	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 at 802.11n(20MHz)

ANT	CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
ANT A	1	H	4816.5	59.3	-6.2	53.1	54(Note3)	-0.9	PK
		V	4825.0	60.1	-6.2	53.9	54(Note3)	-0.1	PK
		H	7247.5	50.0	-1.6	48.4	54(Note3)	-5.6	PK
		V	7230.5	48.6	-1.6	47.0	54(Note3)	-7.0	PK
		H	9661.5	39.8	4.9	44.7	54(Note3)	-9.3	PK
		V	9661.5	41.3	5.0	46.3	54(Note3)	-7.7	PK
	6	H	4884.5	56.2	-6.2	50.0	54(Note3)	-4.0	PK
		V	4876.0	63.2	-6.2	57.0	74	-17.0	PK
		H	4876.2	48.1	-6.2	41.9	54	-12.1	AV
		V	7315.5	44.3	-1.4	42.9	54(Note3)	-11.1	PK
		H	7324.0	52.4	-1.4	51.0	54(Note3)	-3.0	PK
		V	9755.0	40.5	5.1	45.6	54(Note3)	-8.4	PK
			9746.5	43.9	5.1	49.0	54(Note3)	-5.0	PK
	11	H	4927.0	55.4	-6.2	49.2	54(Note3)	-4.8	PK
		V	4935.5	63.8	-6.1	57.7	74	-16.3	PK
		H	4935.0	46.6	-6.1	40.5	54	-13.5	AV
		V	7400.5	44.9	-1.0	43.9	54(Note3)	-10.1	PK
		H	7375.0	49.2	-1.1	48.1	54(Note3)	-5.9	PK
		V	9848.0	37.0	5.2	42.2	54(Note3)	-11.8	PK
			9848.5	41.0	5.3	46.3	54(Note3)	-7.7	PK
ANT B	1	H	4825.0	49.9	-6.2	43.7	54(Note3)	-10.3	PK
		V	4825.0	58.5	-6.2	52.3	54(Note3)	-1.7	PK
		H	7236.0	42.5	-1.6	40.9	54(Note3)	-13.1	PK
		V	7222.0	50.6	-1.7	48.9	54(Note3)	-5.1	PK
		H	9648.0	35.8	4.9	40.7	54(Note3)	-13.3	PK
		V	9644.5	43.1	4.9	48.0	54(Note3)	-6.0	PK
	6	H	4876.0	48.5	-6.2	42.3	54(Note3)	-11.7	PK
		V	4876.0	59.2	-6.2	53.0	54(Note3)	-1.0	PK
		H	7307.0	45.2	-1.4	43.8	54(Note3)	-10.2	PK
		V	7315.5	51.3	-1.4	49.9	54(Note3)	-4.1	PK
		H	9748.0	35.4	5.0	40.4	54(Note3)	-13.6	PK
		V	9746.5	42.6	5.1	47.7	54(Note3)	-6.3	PK
	11	H	4927.0	48.4	-6.2	42.2	54(Note3)	-11.8	PK

		V	4927.0	59.2	-6.1	53.1	54(Note3)	-0.9	PK
		H	7392.0	48.4	-1.0	47.4	54(Note3)	-6.6	PK
		V	7383.5	51.4	-1.1	50.3	54(Note3)	-3.7	PK
		H	9848.0	33.9	5.2	39.1	54(Note3)	-14.9	PK
		V	9848.5	37.9	5.3	43.2	54(Note3)	-10.8	PK
ANT A+B	1	H	4825.0	45.4	-6.2	39.2	54(Note3)	-14.8	PK
		V	4816.5	53.4	-6.3	47.1	54(Note3)	-6.9	PK
		H	7236.0	39.7	-1.6	38.1	54(Note3)	-15.9	PK
		V	7230.5	44.2	-1.6	42.6	54(Note3)	-11.4	PK
		H	9648.0	35.0	4.9	39.9	54(Note3)	-14.1	PK
		V	9593.5	37.6	4.9	42.5	54(Note3)	-11.5	PK
	6	H	4825.0	45.4	-6.2	39.2	54(Note3)	-14.8	PK
		V	4816.5	53.4	-6.3	47.1	54(Note3)	-6.9	PK
		H	7236.0	39.7	-1.6	38.1	54(Note3)	-15.9	PK
		V	7230.5	44.2	-1.6	42.6	54(Note3)	-11.4	PK
		H	9648.0	35.0	4.9	39.9	54(Note3)	-14.1	PK
		V	9593.5	37.6	4.9	42.5	54(Note3)	-11.5	PK
	11	H	4927.0	47.7	-6.2	41.5	54(Note3)	-12.5	PK
		V	4927.0	58.1	-6.1	52.0	54(Note3)	-2.0	PK
		H	7386.0	41.9	-1.0	40.9	54(Note3)	-13.1	PK
		V	7392.0	48.5	-1.0	47.5	54(Note3)	-6.5	PK
		H	9848.0	33.8	5.2	39.0	54(Note3)	-15.0	PK
		V	9848.0	34.6	5.3	39.9	54(Note3)	-14.1	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 at 802.11n(40MHz)

ANT	CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
ANT A	3	H	4859.0	48.3	-6.1	42.2	54(Note3)	-11.8	PK
		V	4842.0	55.2	-6.2	49.0	54(Note3)	-5.0	PK
		H	7266.0	41.4	-1.6	39.9	54(Note3)	-14.1	PK
		V	7281.5	44.1	-1.5	42.7	54(Note3)	-11.3	PK
		H	9688.0	35.9	5.0	40.9	54(Note3)	-13.1	PK
		V	9688.0	36.4	5.1	41.4	54(Note3)	-12.6	PK
	6	H	4876.0	50.8	-6.2	44.6	54(Note3)	-9.4	PK
		V	4876.0	58.2	-6.2	52.0	54(Note3)	-2.0	PK
		H	7311.0	41.4	-1.4	40.0	54(Note3)	-14.0	PK
		V	7324.0	46.8	-1.4	45.4	54(Note3)	-8.6	PK
		H	9733.0	35.5	5.0	40.5	54(Note3)	-13.5	PK
		V	9755.0	38.5	5.2	43.7	54(Note3)	-10.3	PK
	9	H	4901.5	48.5	-6.2	42.3	54(Note3)	-11.7	PK
		V	4910.0	55.4	-6.1	49.2	54(Note3)	-4.8	PK
		H	7356.0	39.4	-1.2	38.2	54(Note3)	-15.8	PK
		V	7349.5	45.5	-1.2	44.3	54(Note3)	-9.7	PK
		H	9808.0	35.3	5.1	40.4	54(Note3)	-13.6	PK
		V	9808.0	36.2	5.2	41.5	54(Note3)	-12.5	PK
ANT B	3	H	4844.0	45.0	-6.1	38.9	54(Note3)	-15.1	PK
		V	4842.0	53.5	-6.2	47.3	54(Note3)	-6.7	PK
		H	7266.0	41.0	-1.6	39.4	54(Note3)	-14.6	PK
		V	7264.5	44.8	-1.6	43.3	54(Note3)	-10.7	PK
		H	9688.0	35.4	5.0	40.4	54(Note3)	-13.6	PK
		V	9688.0	37.6	5.1	42.7	54(Note3)	-11.3	PK
	6	H	4874.0	45.2	-6.2	39.0	54(Note3)	-15.0	PK
		V	4884.5	55.0	-6.2	48.8	54(Note3)	-5.2	PK
		H	7311.0	40.1	-1.4	38.7	54(Note3)	-15.3	PK
		V	7324.0	47.7	-1.4	46.4	54(Note3)	-7.6	PK
		H	9748.0	34.9	5.0	39.9	54(Note3)	-14.1	PK
		V	9748.0	35.9	5.1	41.1	54(Note3)	-12.9	PK
	9	H	4910.0	54.2	-6.2	48.0	54(Note3)	-6.0	PK
		V	4910.0	54.2	-6.1	48.0	54(Note3)	-6.0	PK
		H	7349.5	47.1	-1.2	45.9	54(Note3)	-8.1	PK

		V	7349.5	47.1	-1.2	45.9	54(Note3)	-8.1	PK
		H	9808.0	35.1	5.1	40.3	54(Note3)	-13.7	PK
		V	9808.0	35.1	5.2	40.4	54(Note3)	-13.6	PK
ANT A+B	3	H	4844.0	44.0	-6.1	37.9	54(Note3)	-16.1	PK
		V	4859.0	48.8	-6.2	42.7	54(Note3)	-11.3	PK
		H	7266.0	38.7	-1.6	37.1	54(Note3)	-16.9	PK
		V	7266.0	41.2	-1.6	39.7	54(Note3)	-14.3	PK
		H	9688.0	34.6	5.0	39.6	54(Note3)	-14.4	PK
		V	9688.0	36.2	5.1	41.3	54(Note3)	-12.7	PK
	6	H	4876.0	49.5	-6.2	43.3	54(Note3)	-10.7	PK
		V	4876.0	49.5	-6.2	43.3	54(Note3)	-10.7	PK
		H	7311.0	42.3	-1.4	40.9	54(Note3)	-13.1	PK
		V	7311.0	42.3	-1.4	40.9	54(Note3)	-13.1	PK
		H	9748.0	34.2	5.0	39.2	54(Note3)	-14.8	PK
		V	9748.0	34.2	5.1	39.3	54(Note3)	-14.7	PK
	9	H	4904.0	44.0	-6.2	37.8	54(Note3)	-16.2	PK
		V	4901.5	49.5	-6.1	43.4	54(Note3)	-10.6	PK
		H	7356.0	39.2	-1.2	38.1	54(Note3)	-15.9	PK
		V	7356.0	42.4	-1.2	41.2	54(Note3)	-12.8	PK
		H	9808.0	34.9	5.1	40.1	54(Note3)	-13.9	PK
		V	9808.0	34.1	5.2	39.3	54(Note3)	-14.7	PK

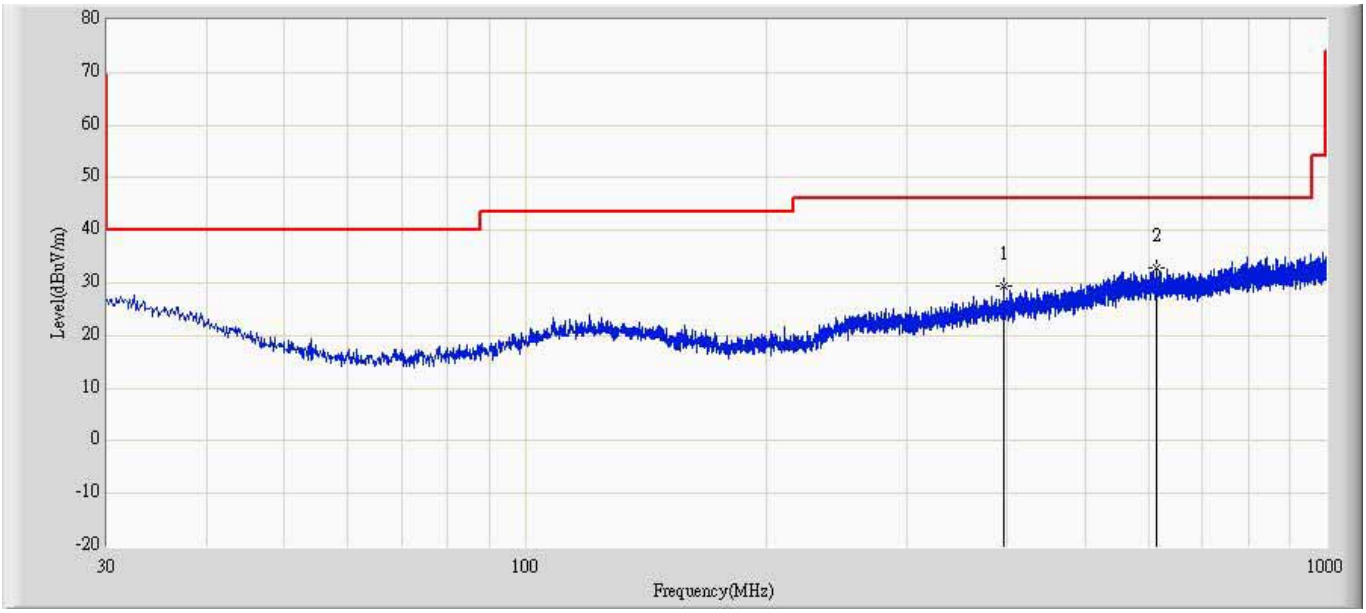
Note: 1. Measure Level = Reading Level + Factor.

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.

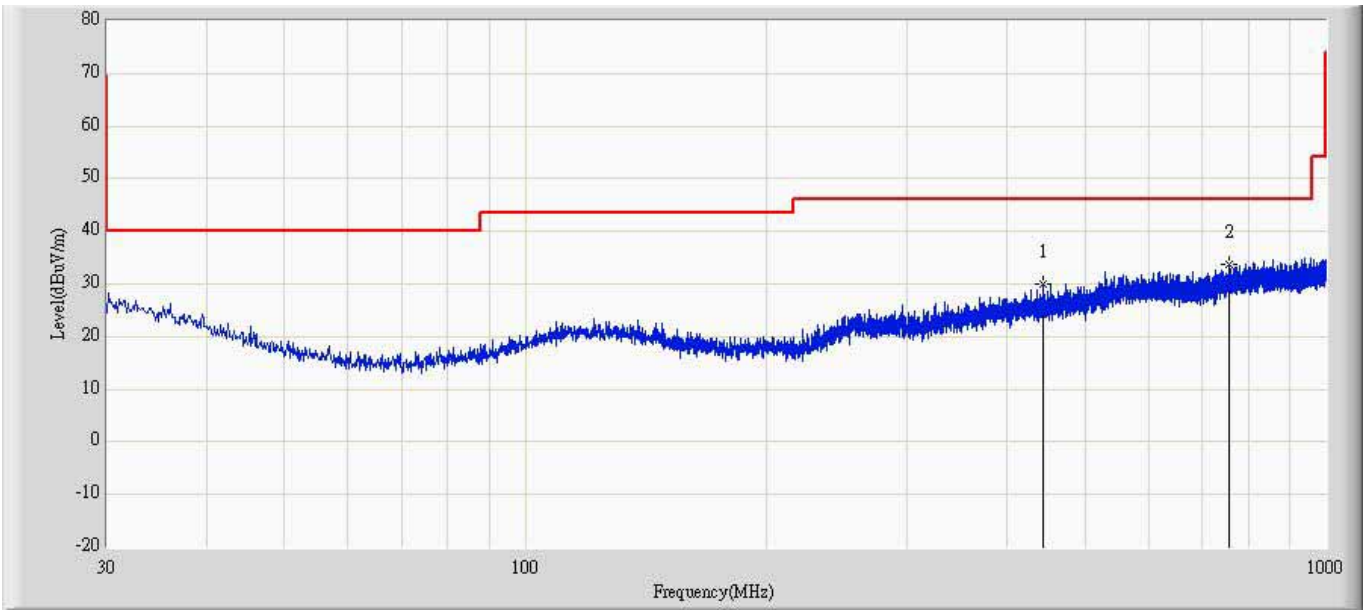
The worst case of Radiated Emission below 1GHz:

Engineer: Jack	
Site: AC2	Time: 2013/12/13 - 09:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: CBL6112D_27613(30-1000MHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			396.418	29.441	5.630	-16.559	46.000	23.811	QP
2		*	615.638	32.960	5.285	-13.040	46.000	27.675	QP

Engineer: Jack	
Site: AC2	Time: 2013/12/13 - 09:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: CBL6112D_27613(30-1000MHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			442.735	30.030	5.498	-15.970	46.000	24.532	QP
2		*	755.924	33.758	5.000	-12.242	46.000	28.757	QP

5. RF Antenna Conducted Spurious

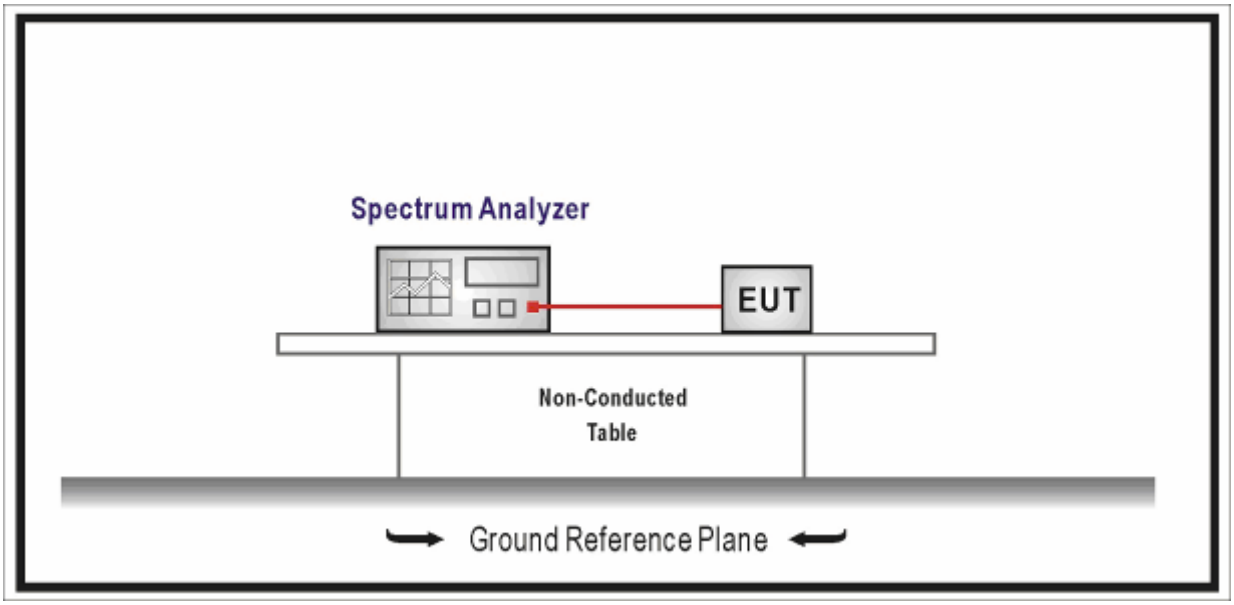
5.1. Test Equipment

RF Antenna Conducted Spurious / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2014.03.30
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2014.05.08

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.

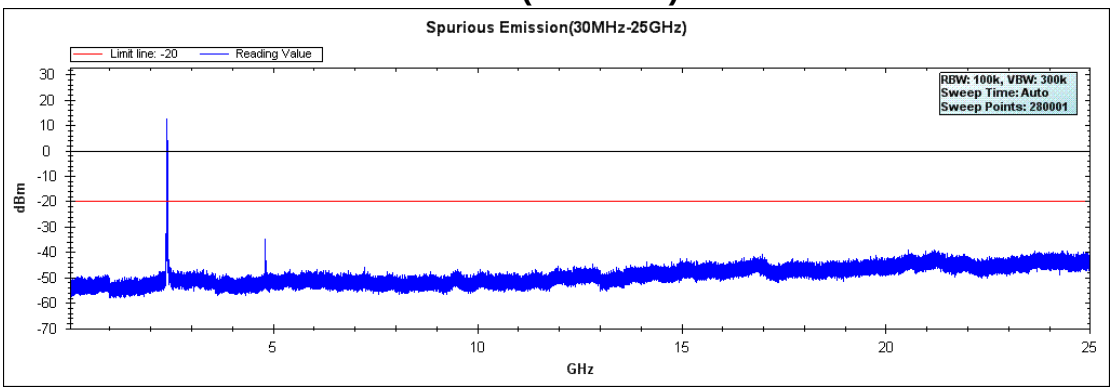
5.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

5.6. Test Result

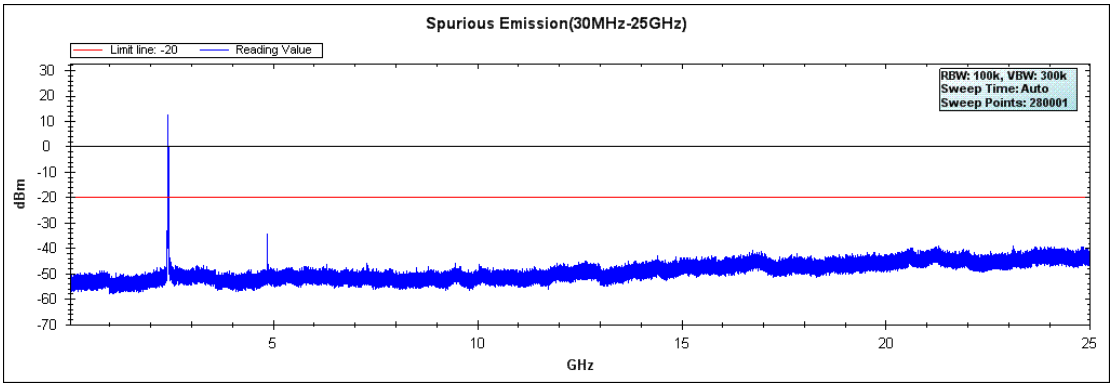
Product	:	GPON ONT
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11b

Channel 01 (2412MHz) Ant A



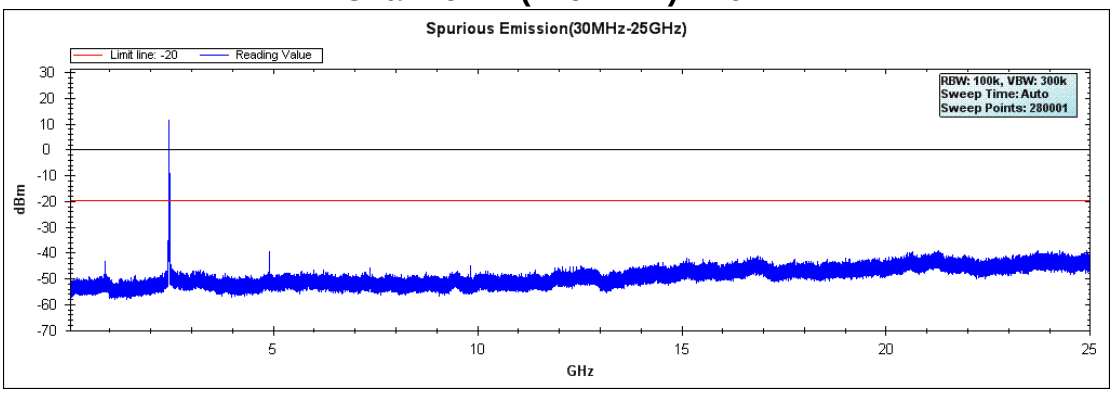
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 06 (2437MHz) Ant A



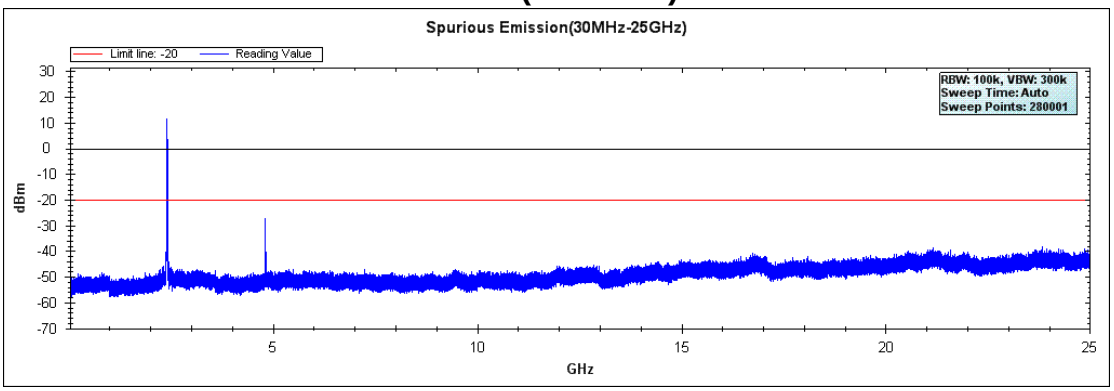
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 11 (2462MHz) Ant A



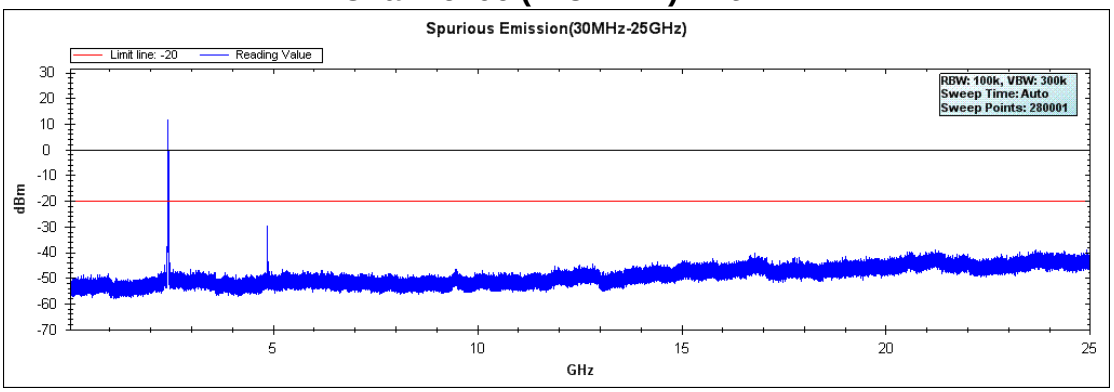
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 01 (2412MHz) Ant B



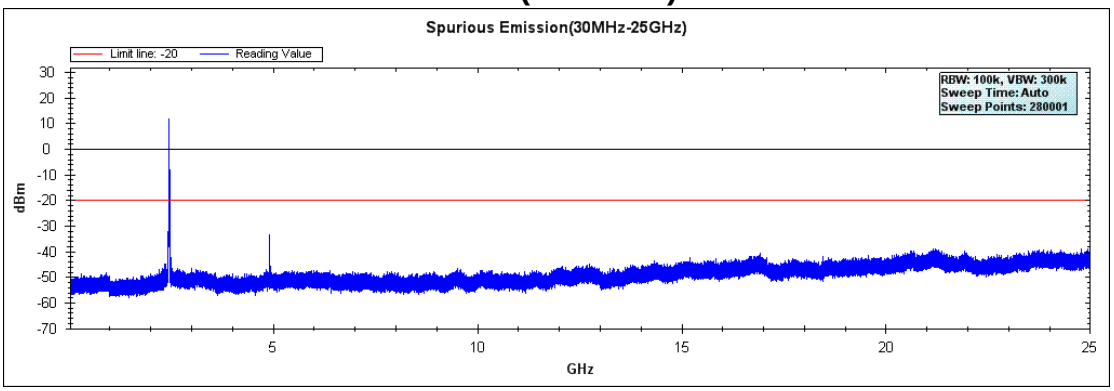
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 06 (2437MHz) Ant B



Note: The above test pattern is synthesized by multiple of the frequency range.

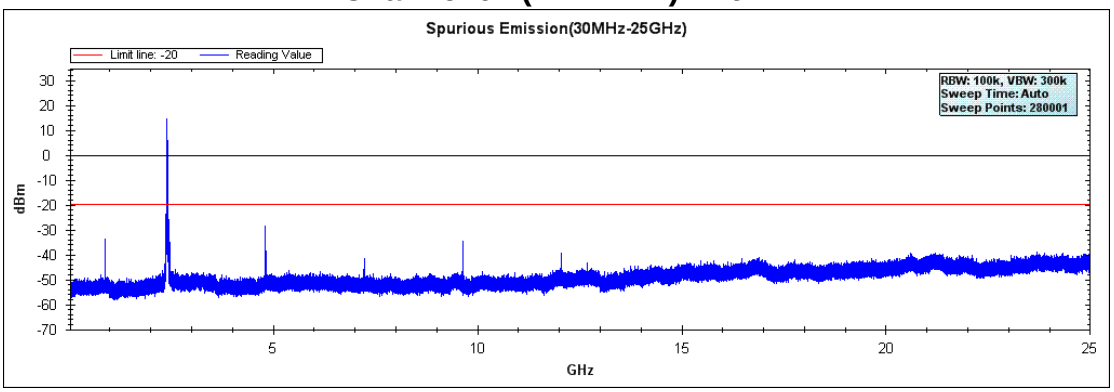
Channel 11 (2462MHz) Ant B



Note: The above test pattern is synthesized by multiple of the frequency range.

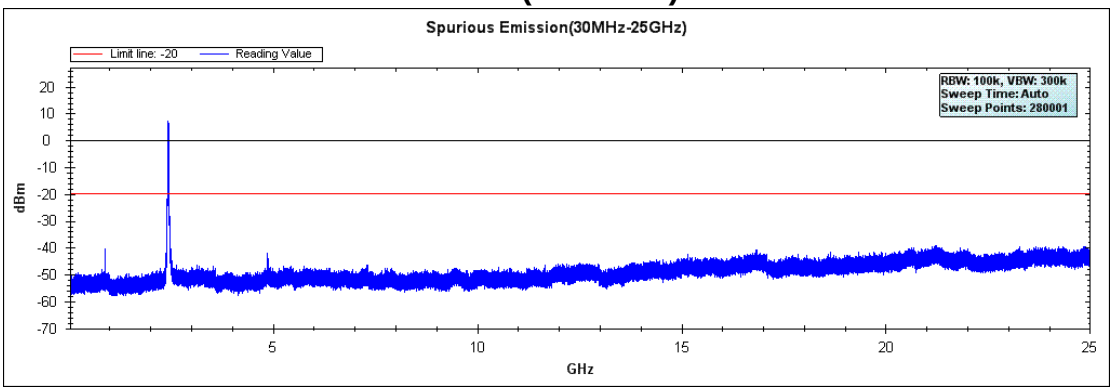
Product	:	GPON ONT
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11g

Channel 01 (2412MHz) Ant A



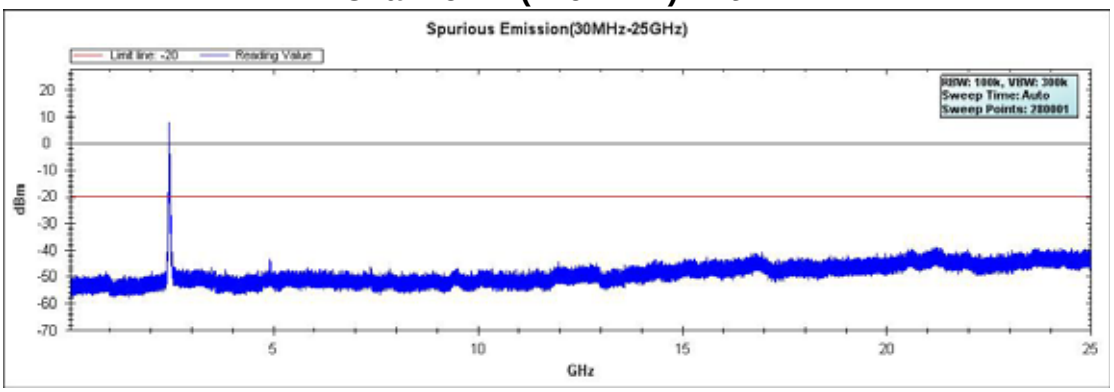
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 06 (2437MHz) Ant A



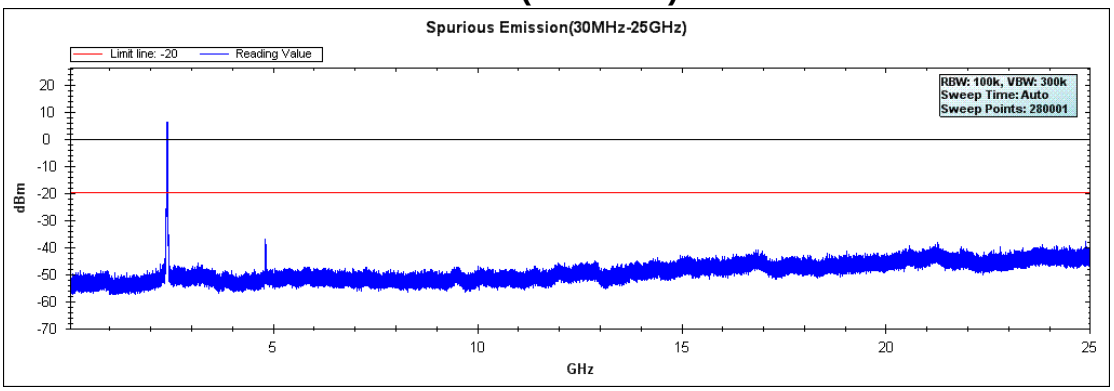
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 11 (2462MHz) Ant A



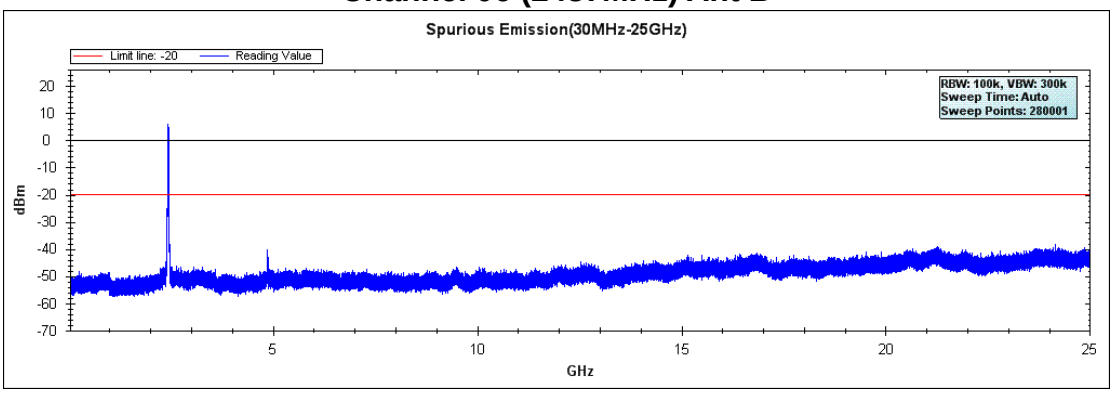
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 01 (2412MHz) Ant B



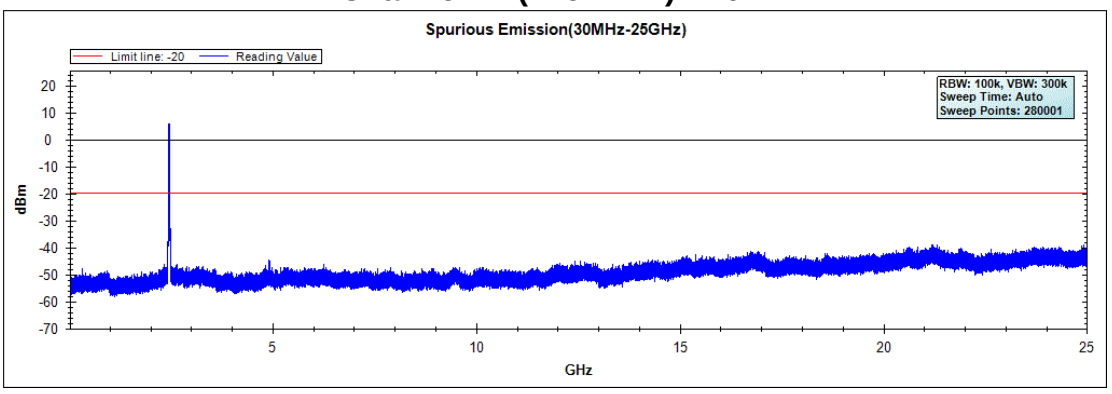
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 06 (2437MHz) Ant B



Note: The above test pattern is synthesized by multiple of the frequency range.

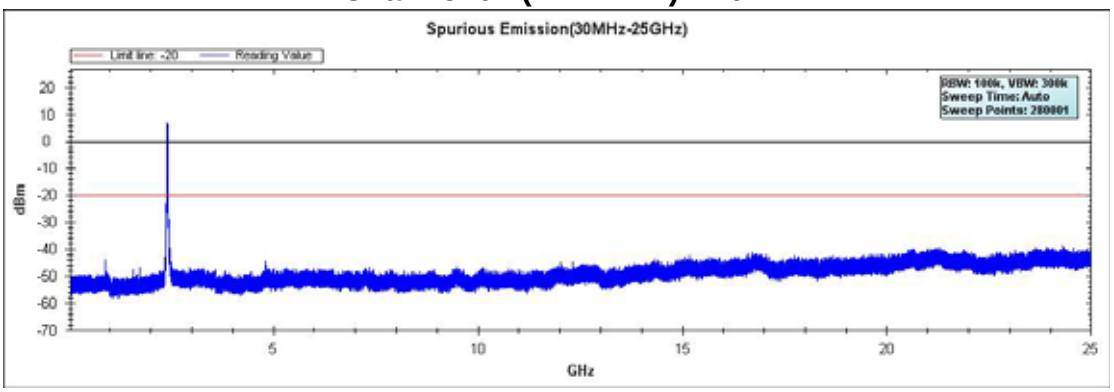
Channel 11 (2462MHz) Ant B



Note: The above test pattern is synthesized by multiple of the frequency range.

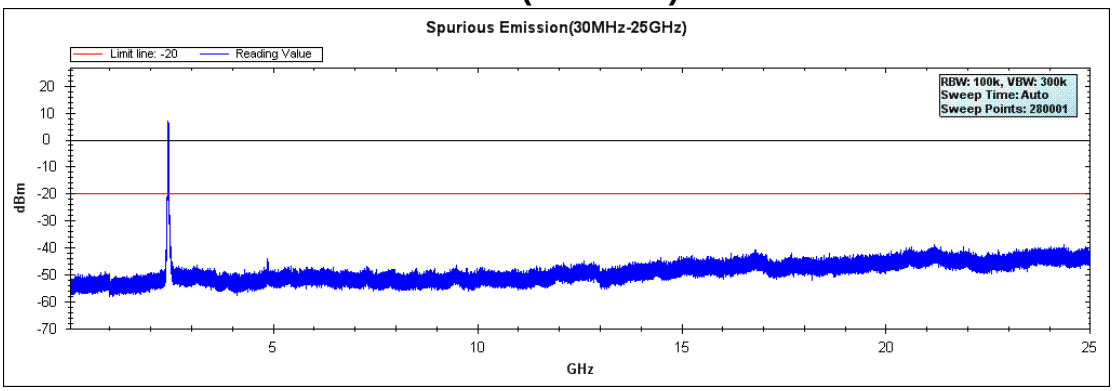
Product	:	GPON ONT
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz)

Channel 01 (2412MHz) Ant A



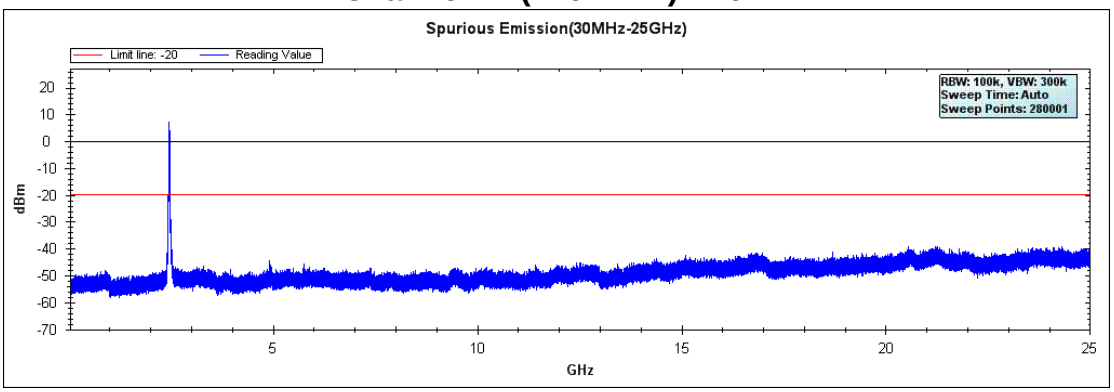
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 06 (2437MHz) Ant A



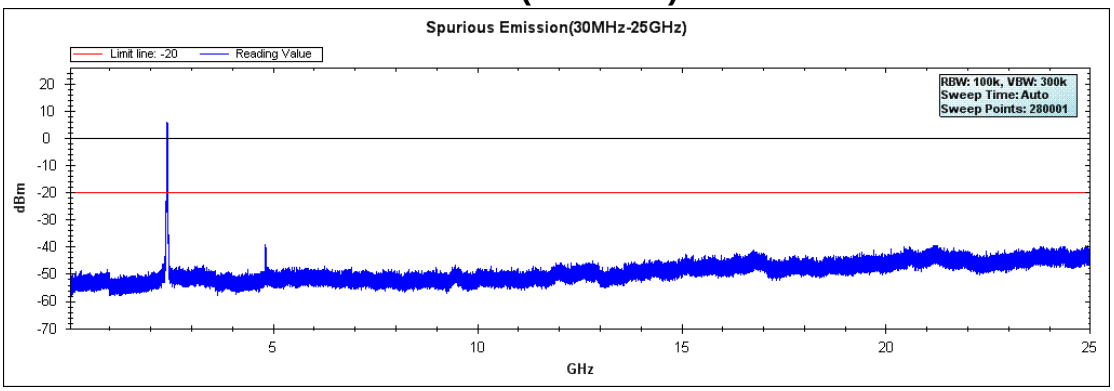
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 11 (2462MHz) Ant A



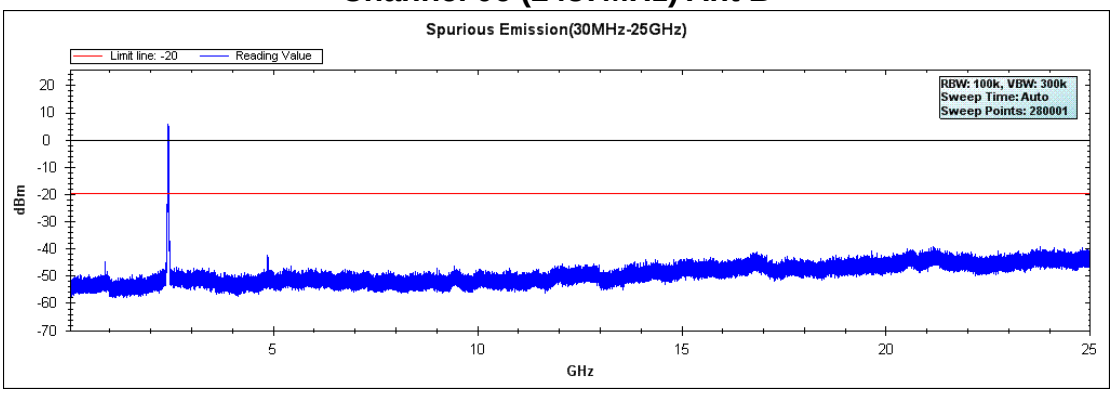
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 01 (2412MHz) Ant B



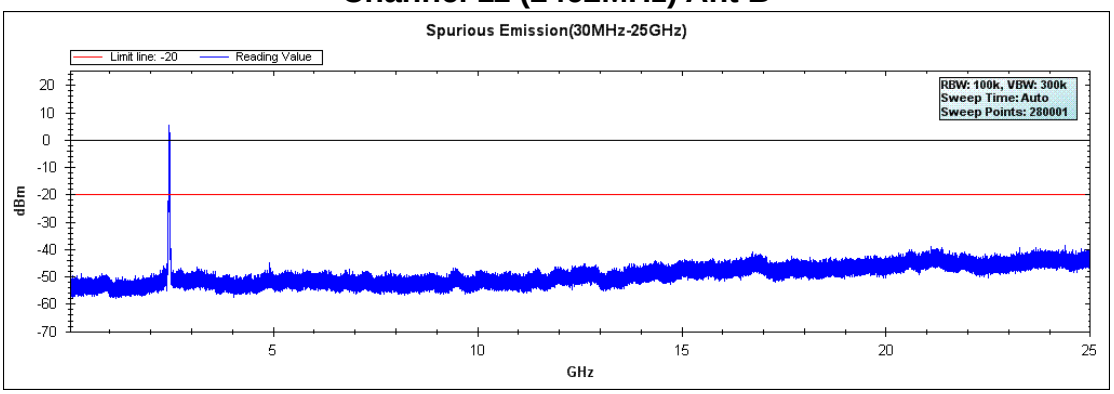
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 06 (2437MHz) Ant B



Note: The above test pattern is synthesized by multiple of the frequency range.

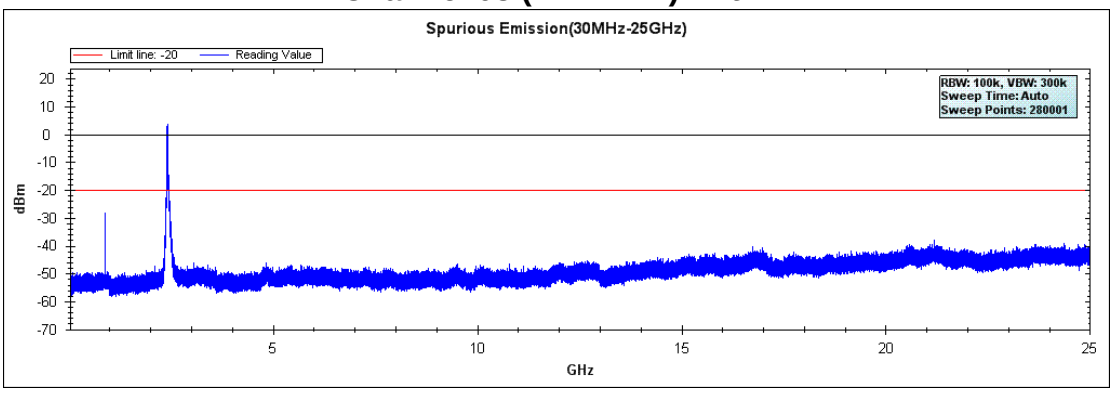
Channel 11 (2462MHz) Ant B



Note: The above test pattern is synthesized by multiple of the frequency range.

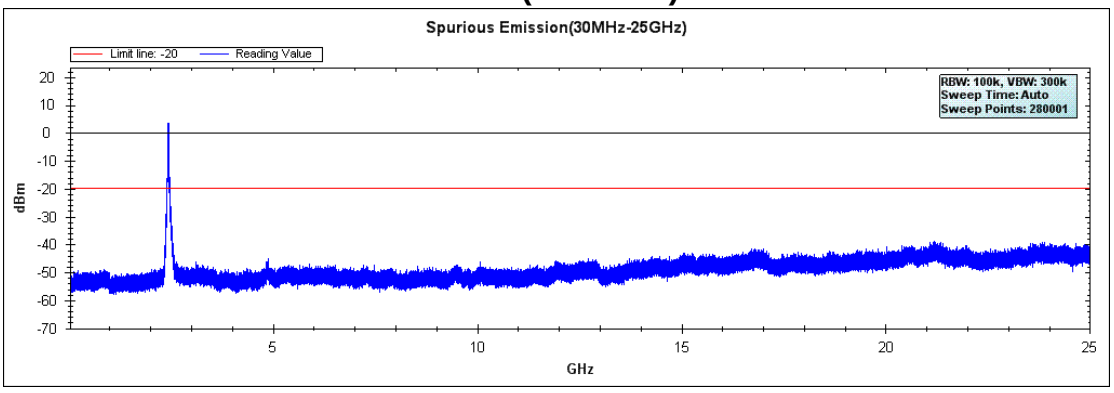
Product	:	GPON ONT
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz)

Channel 03 (2422MHz) Ant A



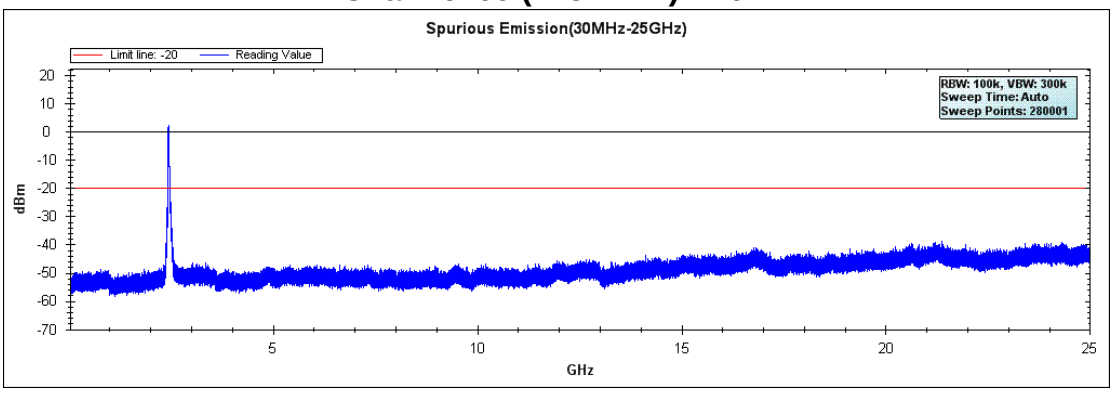
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 06 (2437MHz) Ant A



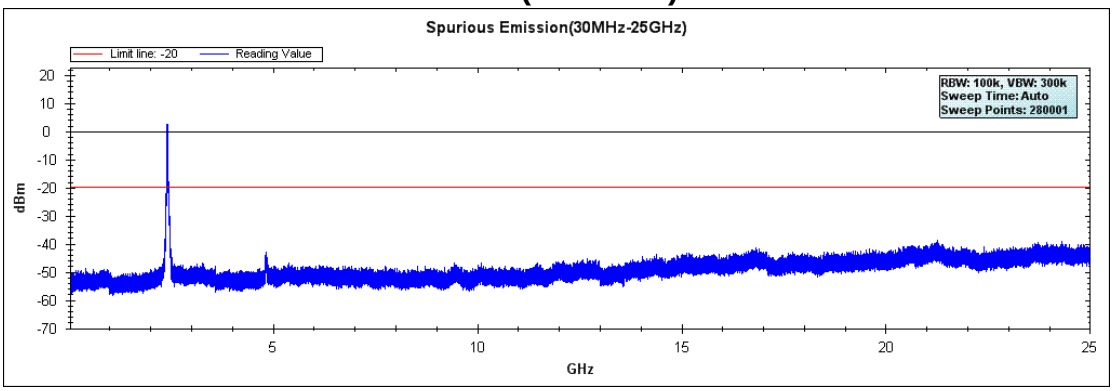
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 09 (2452MHz) Ant A



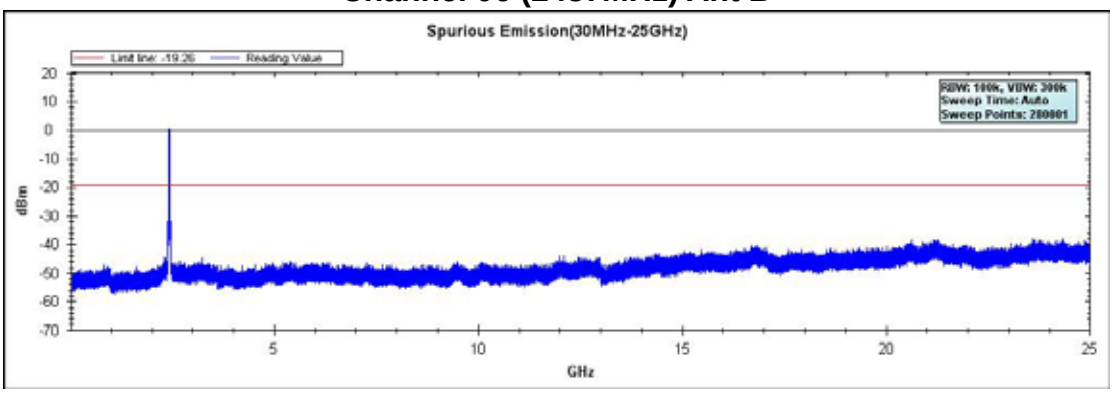
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 03 (2422MHz) Ant B



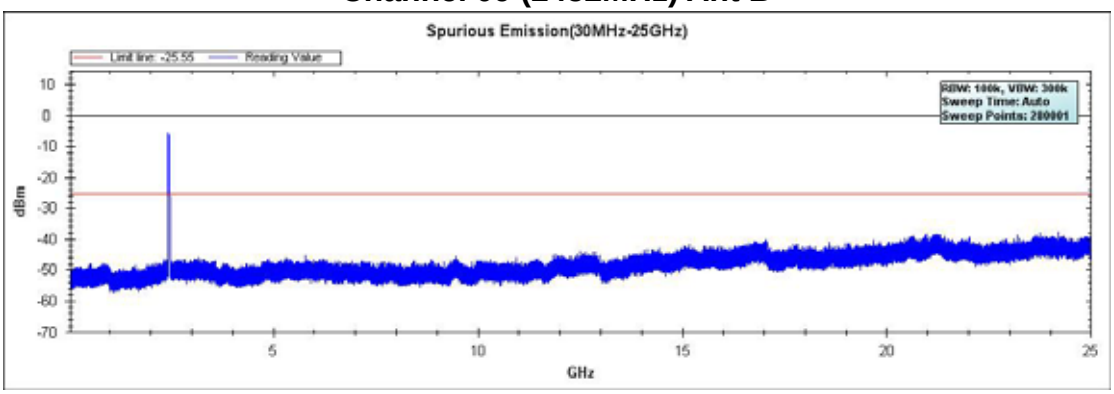
Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 06 (2437MHz) Ant B



Note: The above test pattern is synthesized by multiple of the frequency range.

Channel 09 (2452MHz) Ant B



Note: The above test pattern is synthesized by multiple of the frequency range.

6. Radiated Emission Band Edge

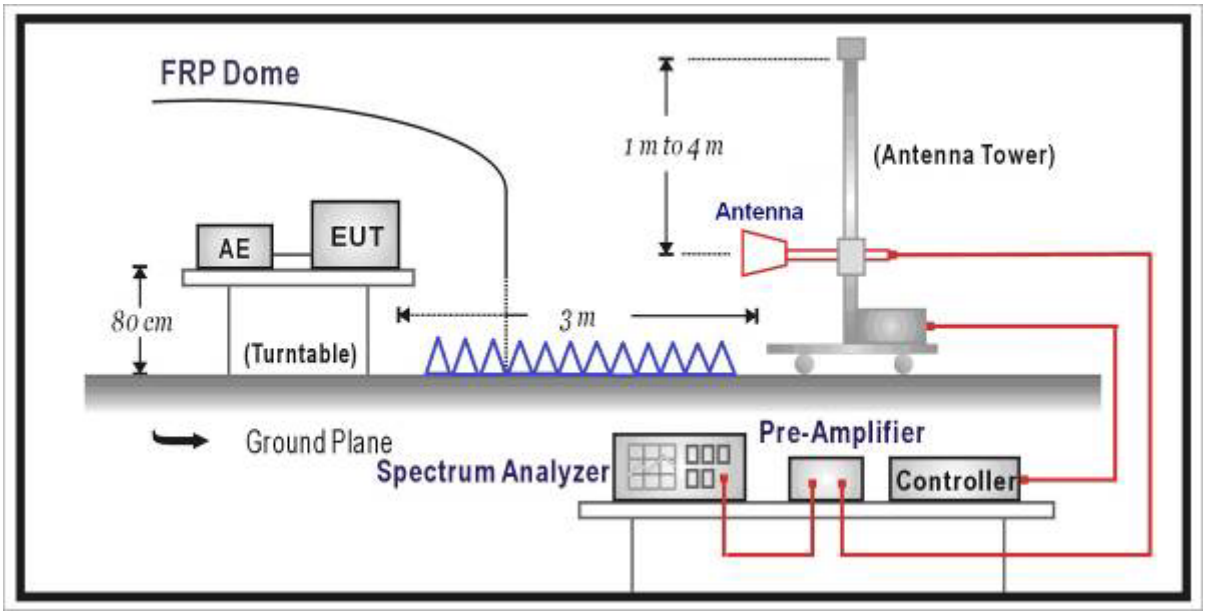
6.1. Test Equipment

☒Radiated Emission Band Edge / AC-5

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
Spectrum Analyzer	Agilent	N9020A	MY49100159	2014.03.30
Preamplifier	Miteq	NSP1800-25	1364185	2014.05.04
Preamplifier	QuieTek	AP-040G	CHM-0906001	2014.05.04
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2014.10.15
DRG Horn	ETS-Lindgren	3117	00123988	2014.01.21
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2014.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2014.03.01
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	AC5-C3	2014.03.01
EMI Receiver	Agilent	N9038A	MY51210196	2014.06.09
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2014.01.11

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

6.2. Test Setup



6.3. Limit

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

6.4. 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.

6.5. Uncertainty

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

6.6. Test Result

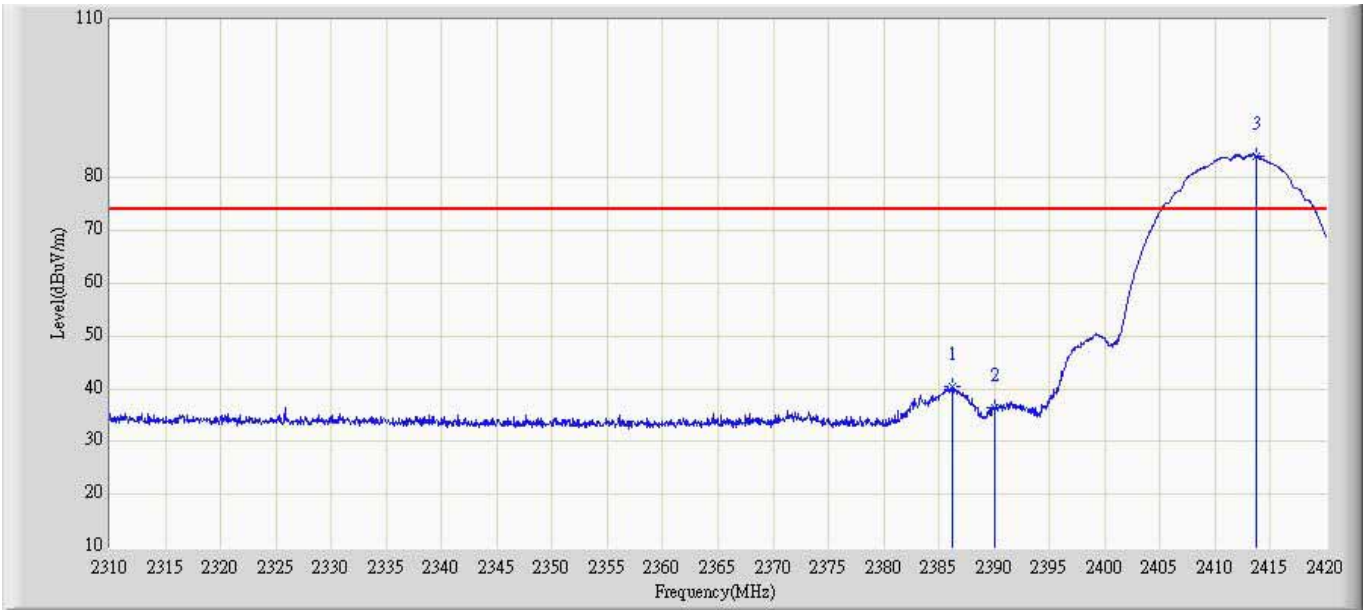
All of the test result shown indicates the worst case, and spectrum analyzer parameters setting as shown below:

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

Average detector: RBW = 1MHz, VBW = 1/T(≧10Hz), sweep time = auto.

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

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b Ant A	

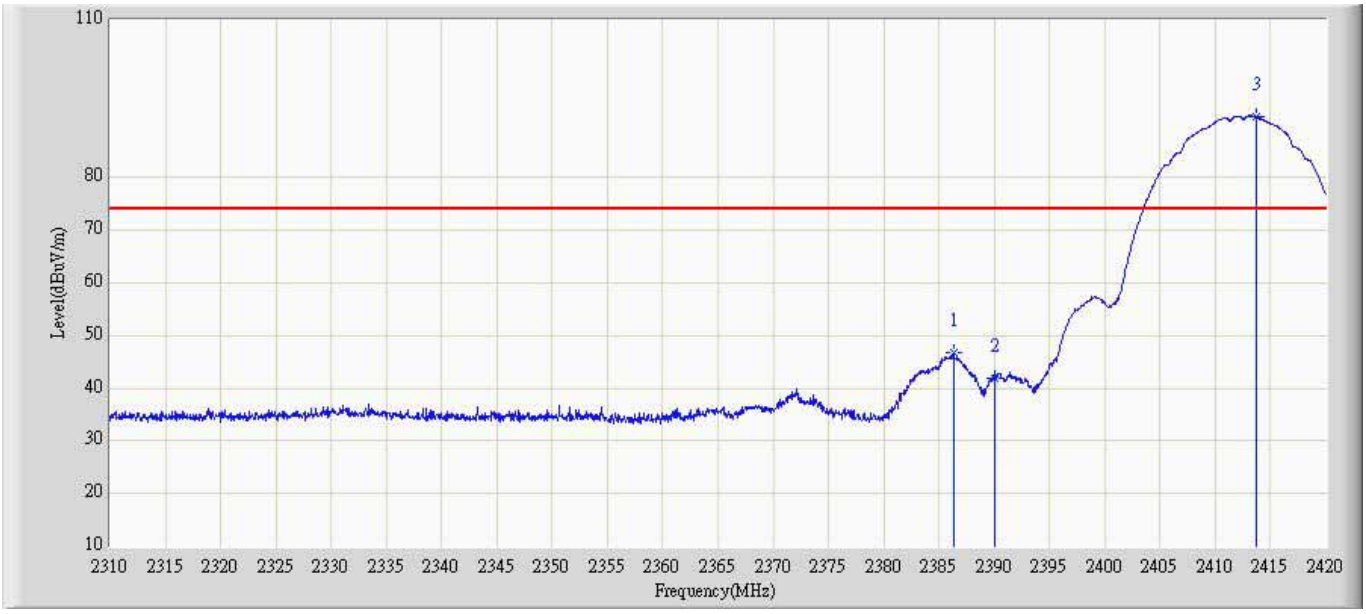


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.175	40.339	30.921	-33.661	74.000	9.418	PK
2		2390.000	36.305	26.871	-37.695	74.000	9.434	PK
3	*	2413.730	84.178	74.694	N/A	N/A	9.483	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.120	32.573	23.155	-21.427	54.000	9.418	AV
2		2390.000	25.776	16.342	-28.224	54.000	9.434	AV
3	*	2411.310	80.048	70.564	N/A	N/A	9.484	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b Ant A	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.285	46.645	37.786	-27.355	74.000	8.859	PK
2		2390.000	41.775	32.967	-32.225	74.000	8.808	PK
3	*	2413.730	91.615	82.131	N/A	N/A	9.483	PK

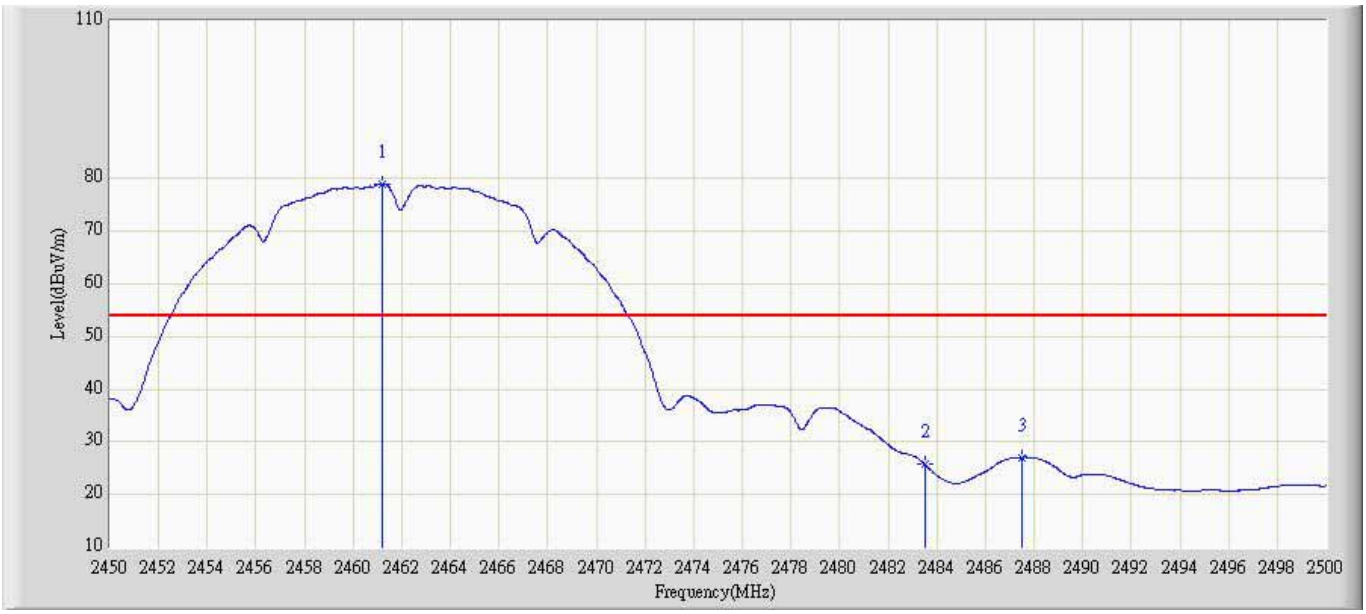
Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.560	38.456	29.601	-15.544	54.000	8.855	AV
2		2390.000	31.160	22.352	-22.840	54.000	8.808	AV
3	*	2413.235	87.983	78.499	N/A	N/A	9.484	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b Ant A	

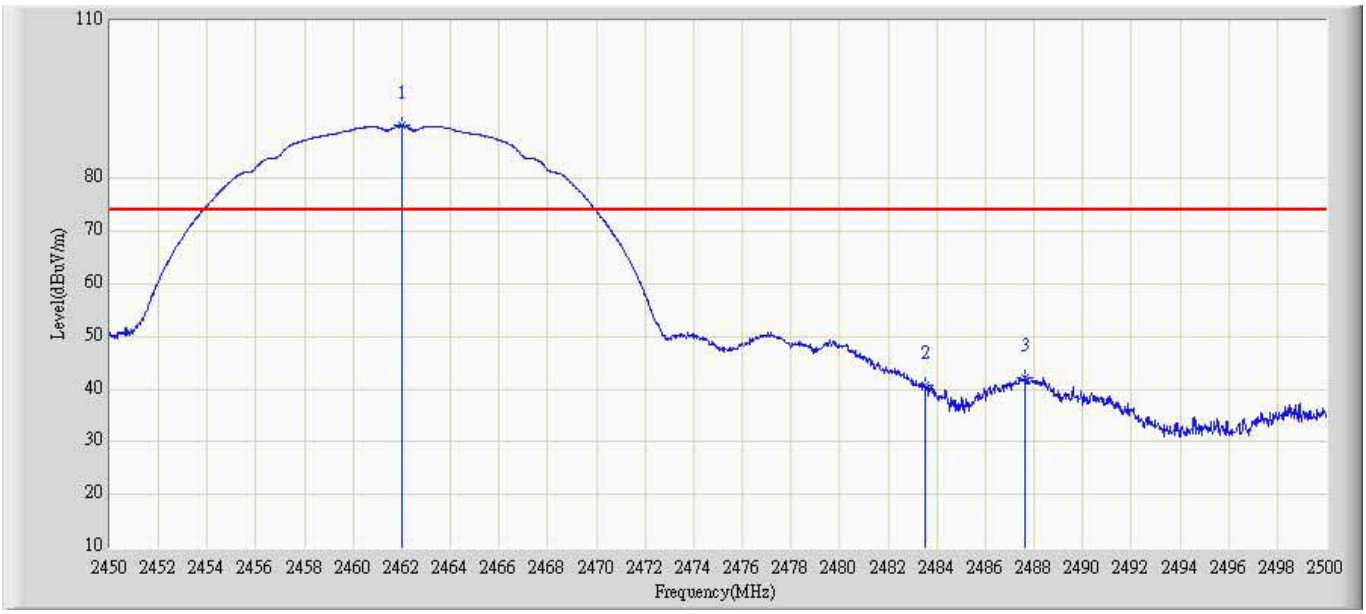
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.025	82.705	73.335	N/A	N/A	9.370	PK
2		2483.500	36.225	27.060	-37.775	74.000	9.165	PK
3		2487.975	37.887	28.767	-36.113	74.000	9.120	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b Ant A	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.175	79.033	69.657	N/A	N/A	9.376	AV
2		2483.500	25.783	16.618	-28.217	54.000	9.165	AV
3		2487.525	27.071	17.946	-26.929	54.000	9.125	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b Ant A	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.025	90.034	80.719	N/A	N/A	9.315	PK
2		2483.500	40.860	31.966	-33.140	74.000	8.894	PK
3		2487.600	42.164	33.351	-31.836	74.000	8.813	PK

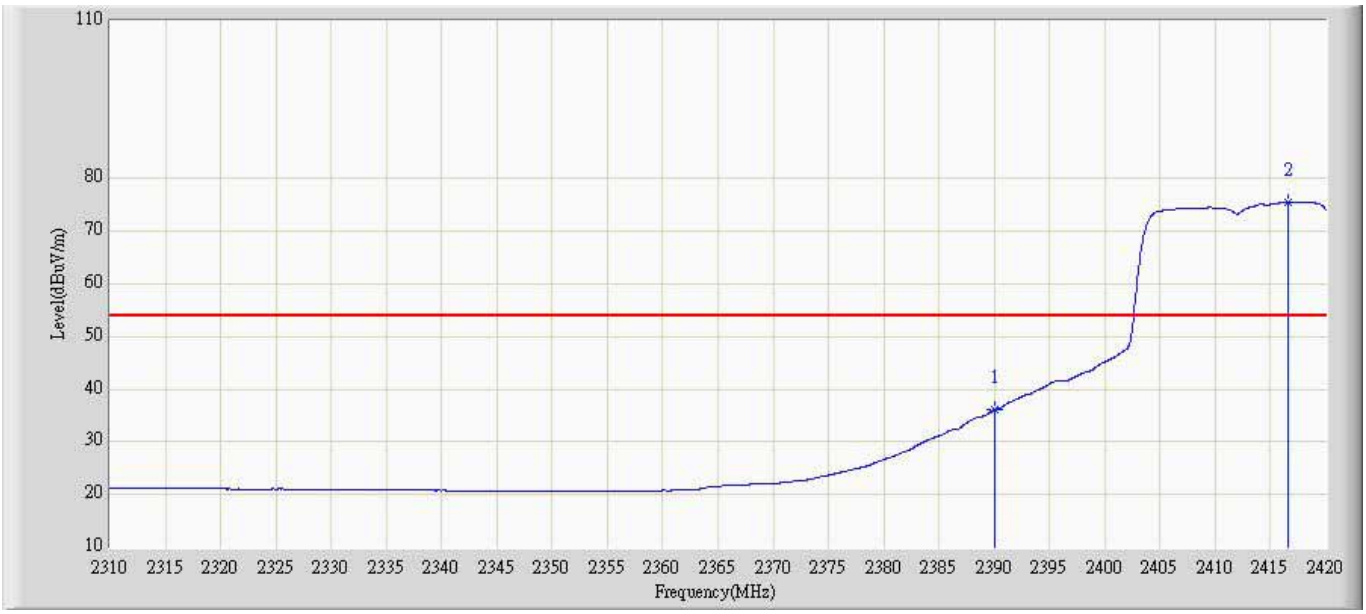
Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.175	86.564	77.242	N/A	N/A	9.322	AV
2		2483.500	33.369	24.475	-20.631	54.000	8.894	AV
3		2487.700	35.384	26.573	-18.616	54.000	8.811	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 16:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2412MHz by 802.11g Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.557	42.123	-22.443	74.000	9.434	PK
2	*	2417.250	85.331	75.848	N/A	N/A	9.483	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 16:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2412MHz by 802.11g Ant A	

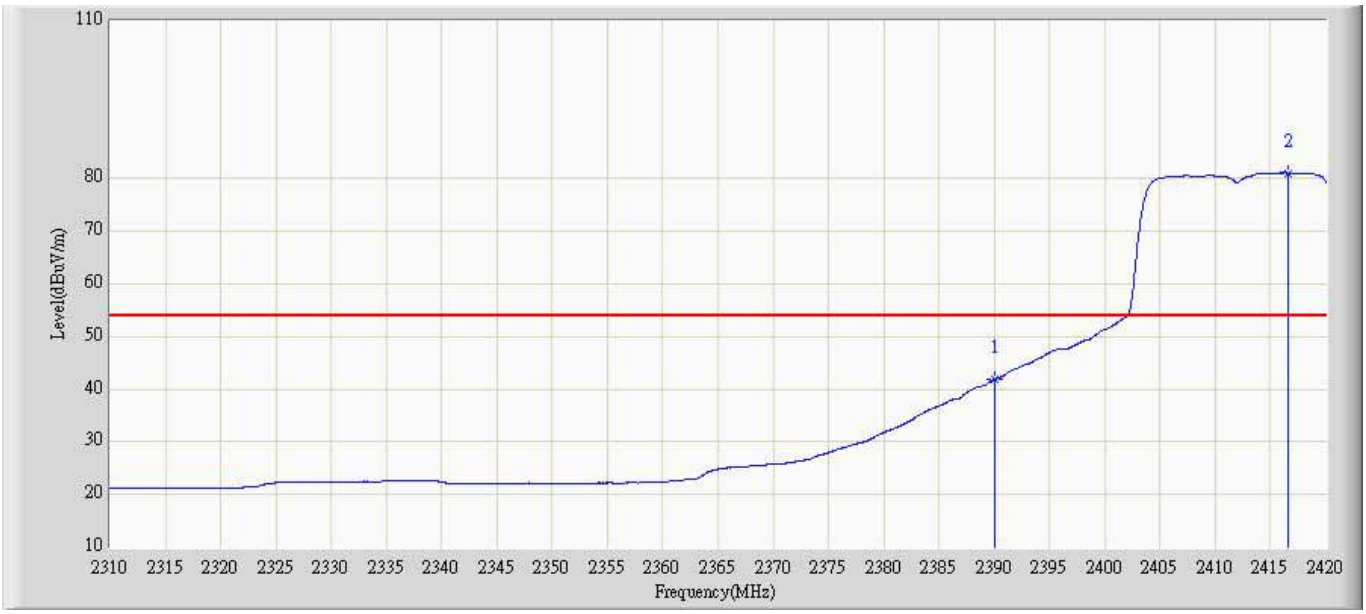


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	36.107	26.673	-17.893	54.000	9.434	AV
2	*	2416.645	75.432	65.949	N/A	N/A	9.483	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 16:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2412MHz by 802.11g Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	57.887	49.079	-16.113	74.000	8.808	PK
2	*	2418.130	91.558	82.570	N/A	N/A	8.988	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 16:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2412MHz by 802.11g Ant A	

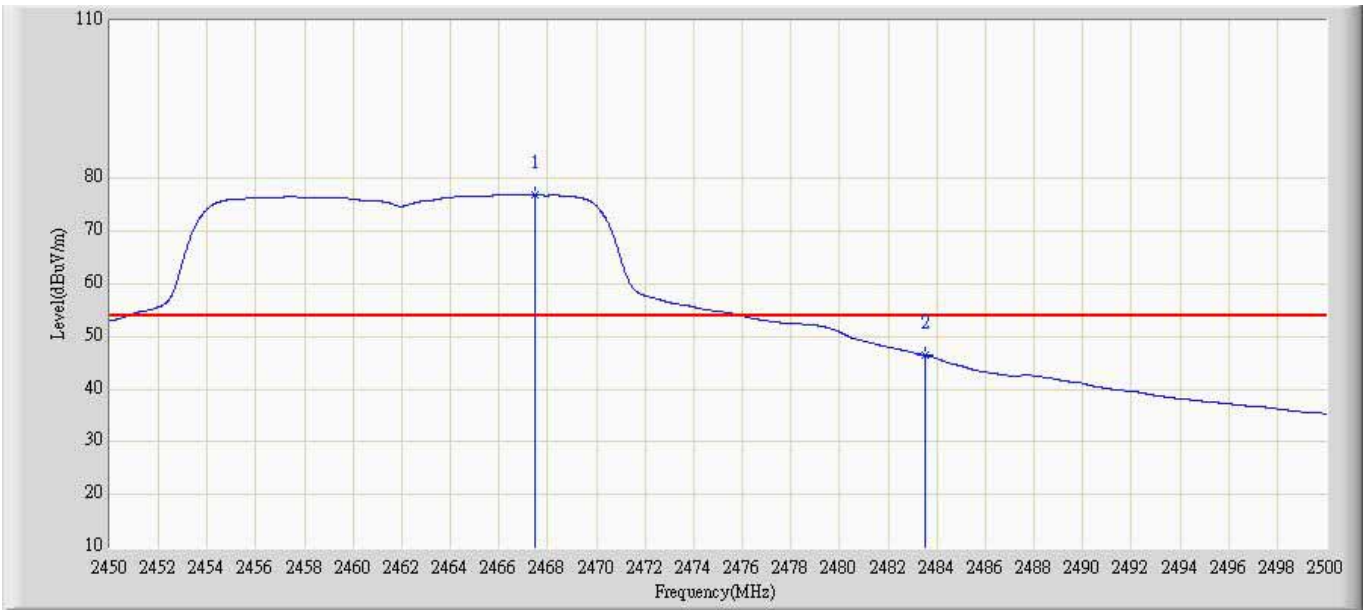


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.902	33.094	-12.098	54.000	8.808	AV
2	*	2416.645	81.093	72.131	N/A	N/A	8.962	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:25
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2462MHz by 802.11g Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2468.350	87.216	77.906	N/A	N/A	9.310	PK
2		2483.500	60.659	51.494	-13.341	74.000	9.165	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2462MHz by 802.11g Ant A	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.500	76.853	67.535	N/A	N/A	9.318	AV
2		2483.500	46.516	37.351	-7.484	54.000	9.165	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:25
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2462MHz by 802.11g Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2468.275	92.946	83.754	N/A	N/A	9.192	PK
2		2483.500	66.528	57.634	-7.472	74.000	8.894	PK

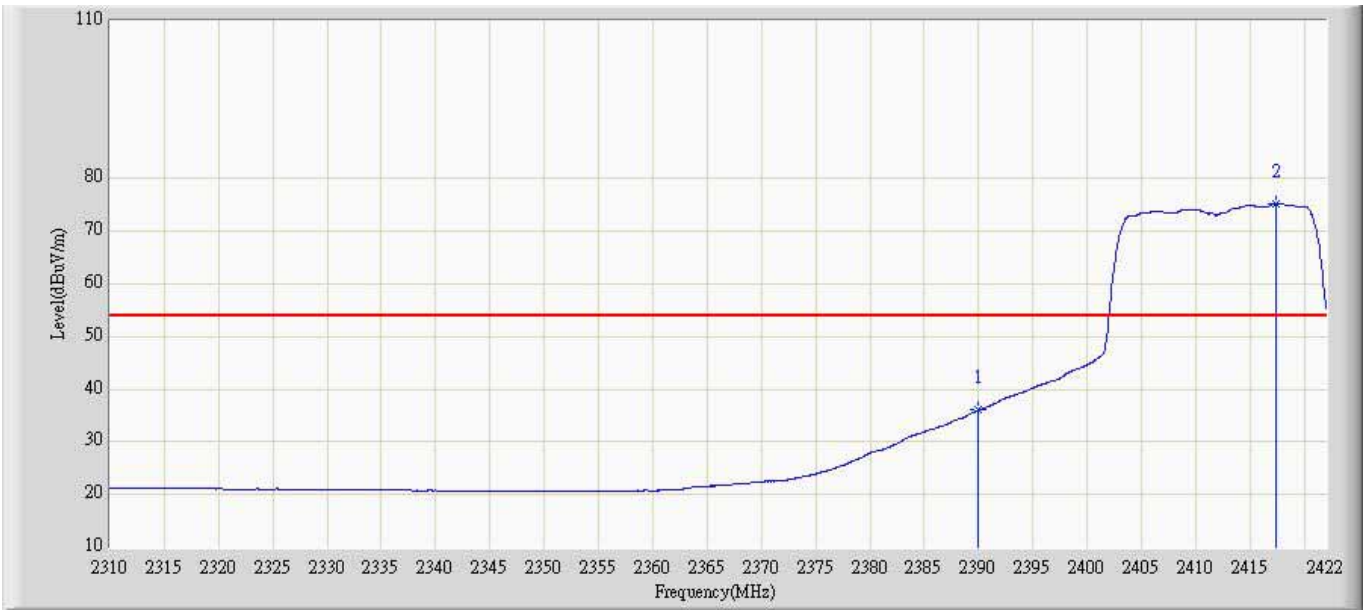
Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2462MHz by 802.11g Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.425	82.631	73.422	N/A	N/A	9.209	AV
2		2483.500	52.598	43.704	-1.402	54.000	8.894	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	56.979	47.545	-17.021	74.000	9.434	PK
2	*	2417.184	85.102	75.619	N/A	N/A	9.483	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant A	

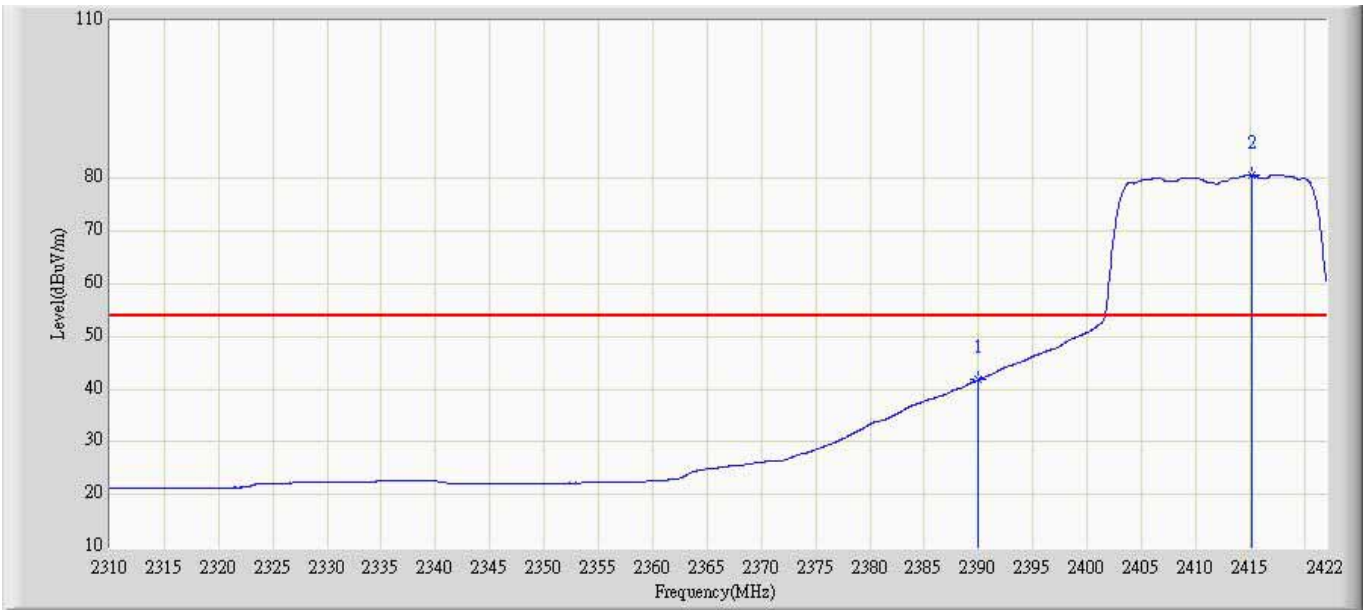


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	36.037	26.603	-17.963	54.000	9.434	AV
2	*	2417.408	75.264	65.781	N/A	N/A	9.483	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	63.009	54.201	-10.991	74.000	8.808	PK
2	*	2417.184	91.056	82.084	N/A	N/A	8.972	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant A	

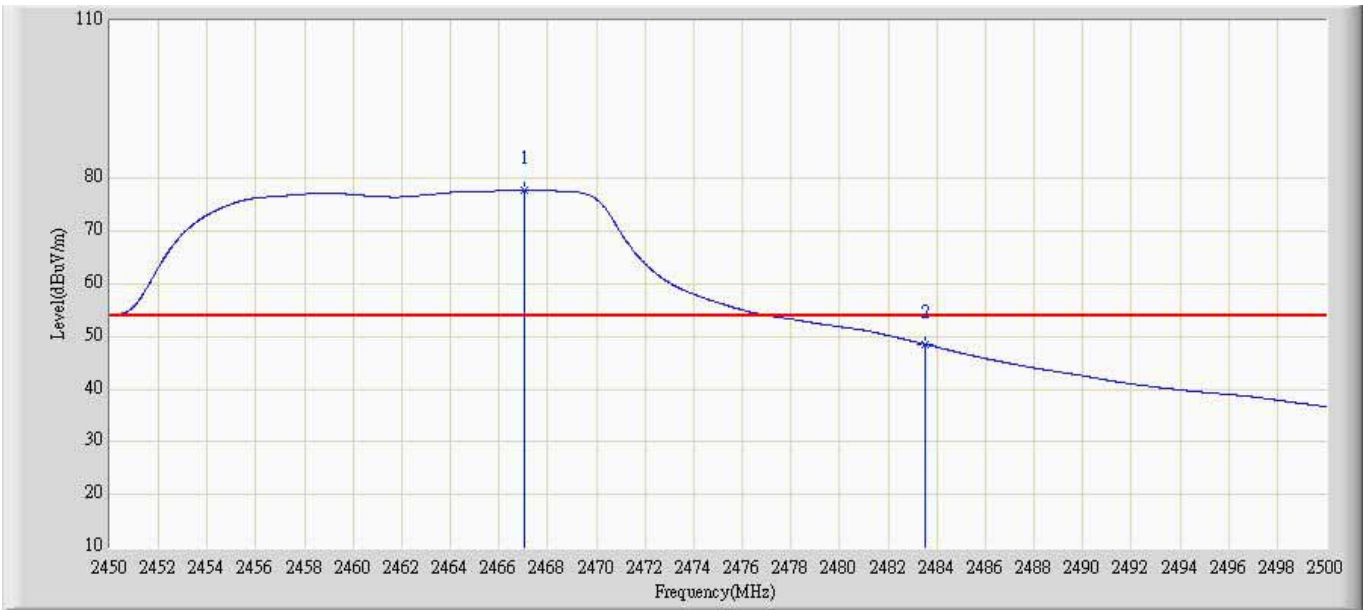


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.859	33.051	-12.141	54.000	8.808	AV
2	*	2415.112	80.790	71.855	N/A	N/A	8.936	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2466.475	86.101	76.773	N/A	N/A	9.328	PK
2		2483.500	63.276	54.111	-10.724	74.000	9.165	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant A	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.025	77.927	68.604	N/A	N/A	9.323	AV
2		2483.500	48.589	39.424	-5.411	54.000	9.165	AV

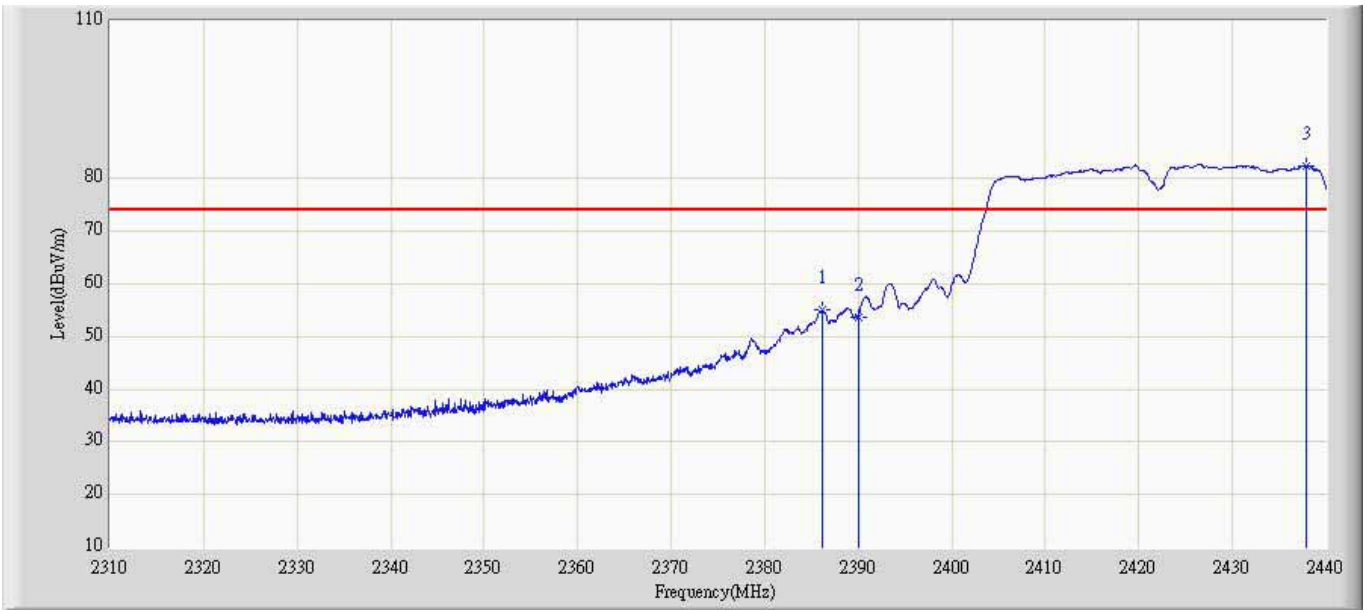
Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant A	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2466.400	91.888	82.659	N/A	N/A	9.229	PK
2		2483.500	69.366	60.472	-4.634	74.000	8.894	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant A	

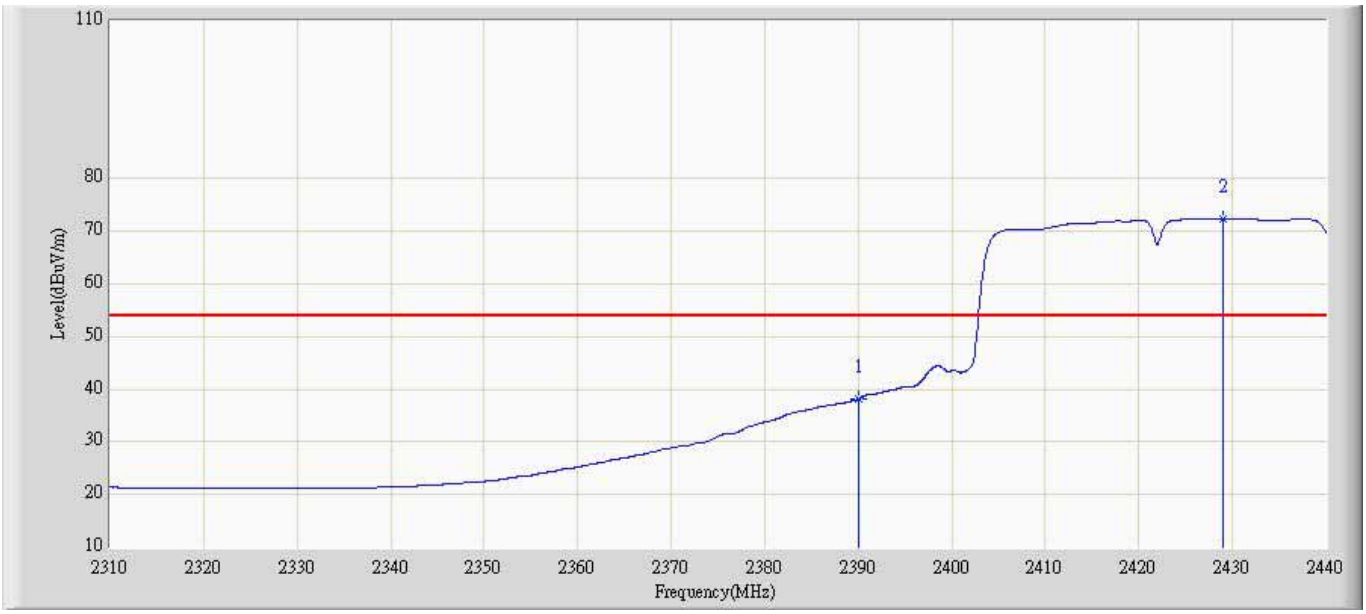
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.500	82.130	72.923	N/A	N/A	9.207	AV
2		2483.500	52.518	43.624	-1.482	54.000	8.894	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant A	



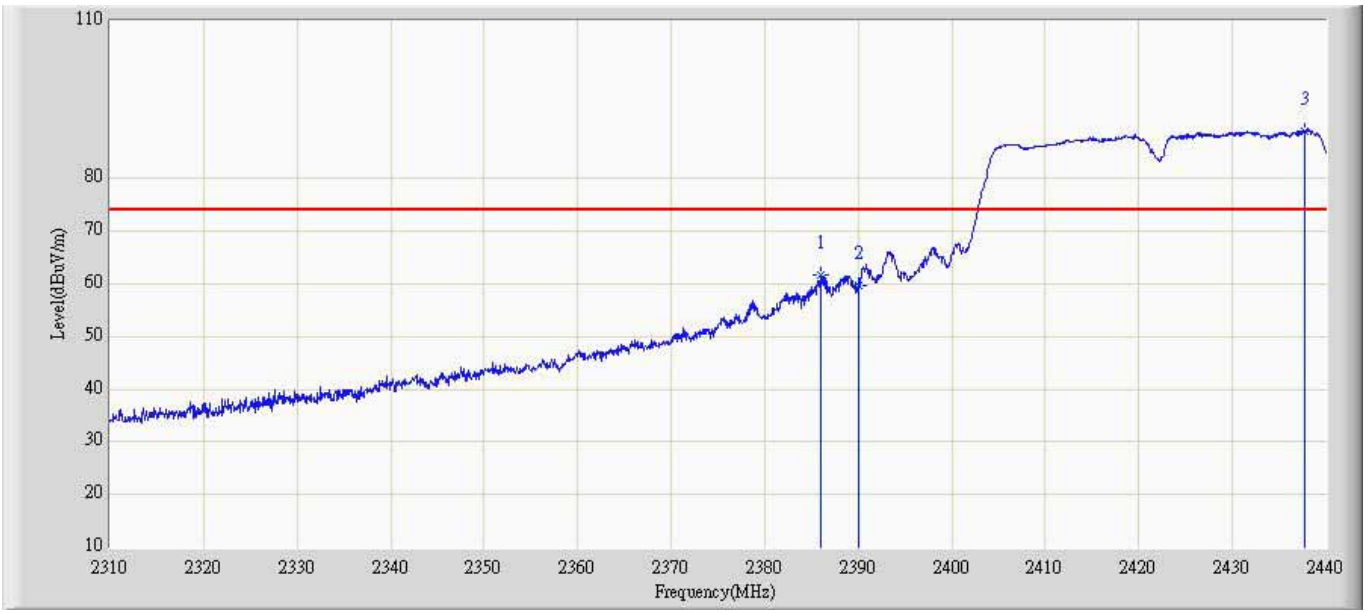
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.115	55.087	45.669	-18.913	74.000	9.418	PK
2		2390.000	53.574	44.140	-20.426	74.000	9.434	PK
3	*	2437.920	82.397	72.912	N/A	N/A	9.485	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 17:58
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant A	



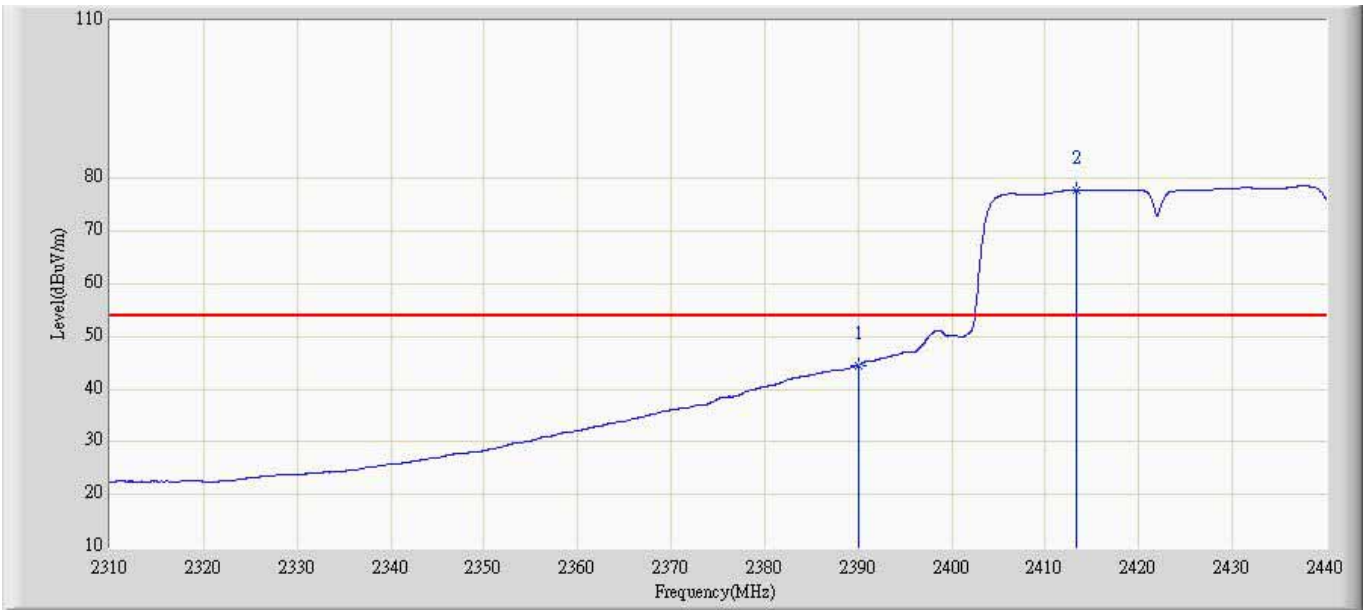
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	38.143	28.709	-15.857	54.000	9.434	AV
2	*	2428.950	72.398	62.917	N/A	N/A	9.481	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 18:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant A	



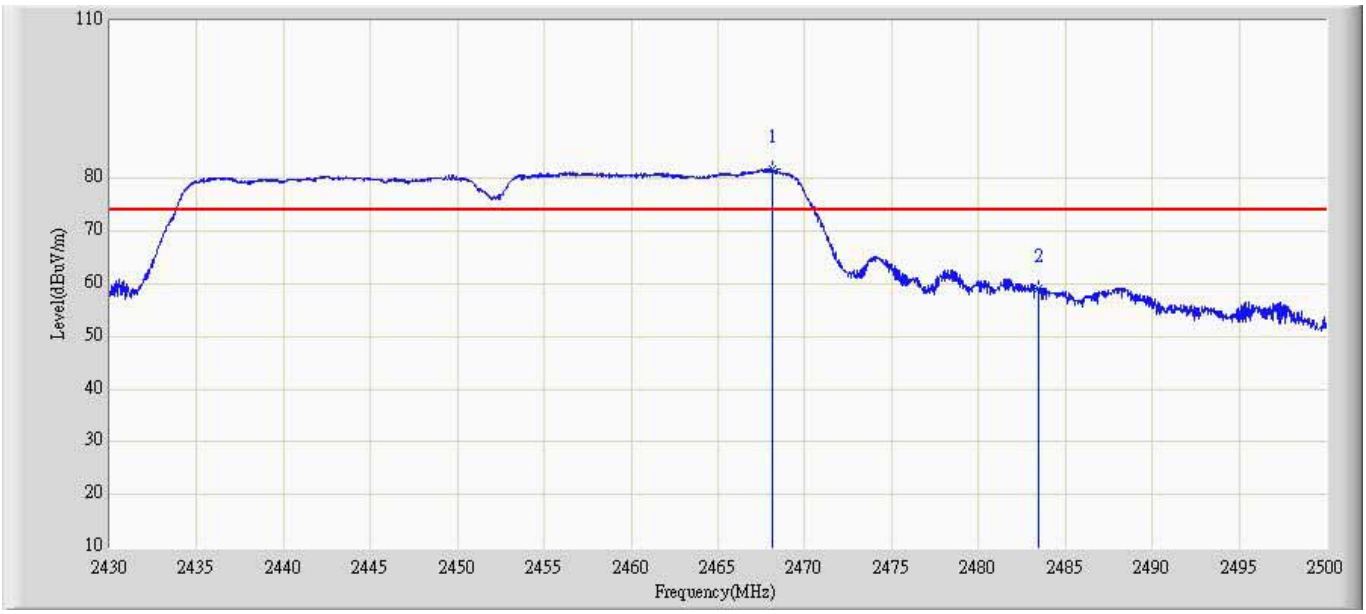
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.050	61.613	52.751	-12.387	74.000	8.862	PK
2		2390.000	59.630	50.822	-14.370	74.000	8.808	PK
3	*	2437.725	89.115	79.781	N/A	N/A	9.334	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 18:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant A	



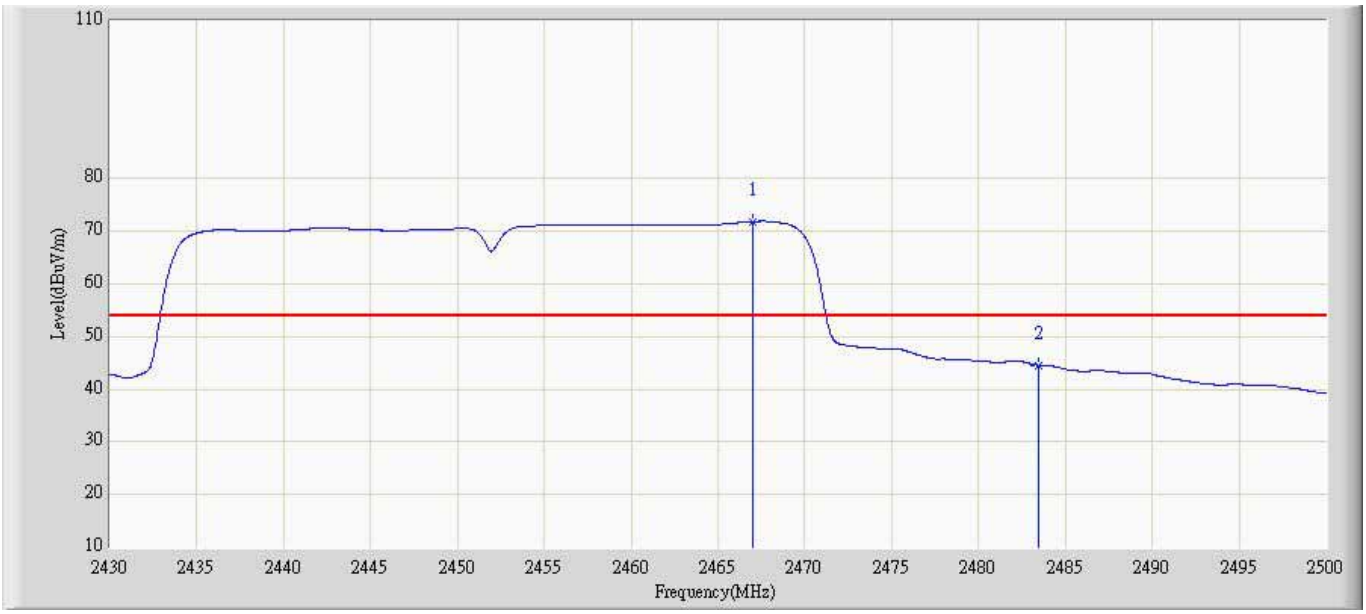
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	44.513	35.079	-9.487	54.000	9.434	AV
2	*	2413.285	77.877	68.393	N/A	N/A	9.484	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 18:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant A	



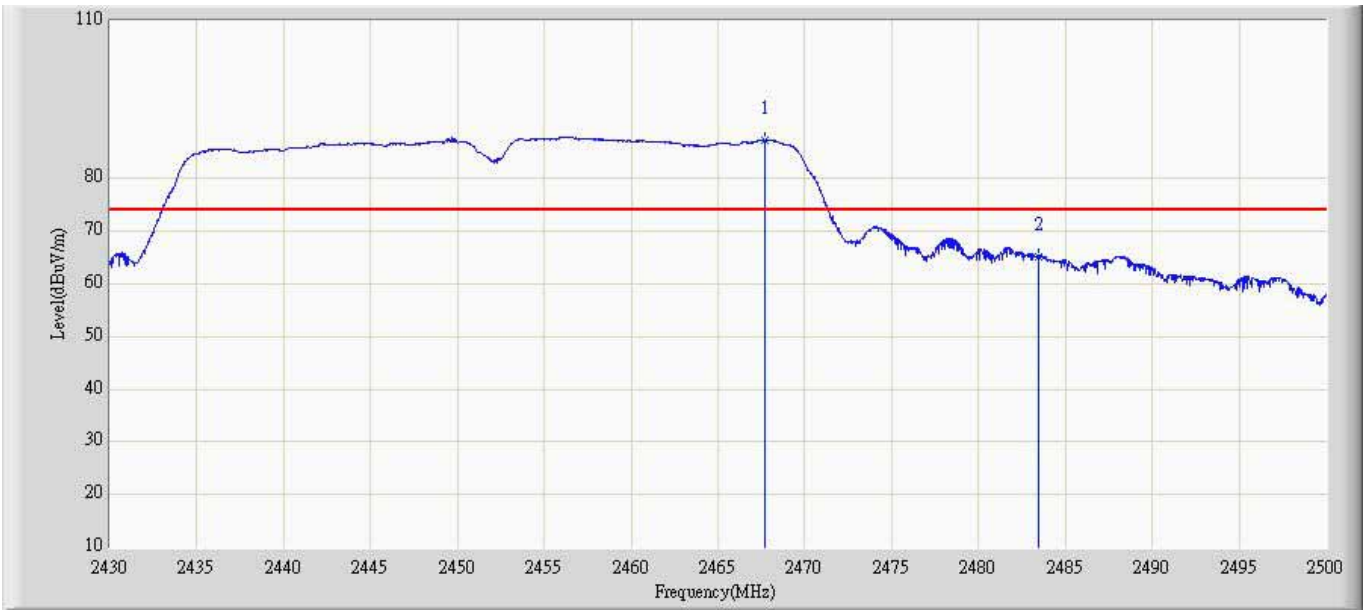
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2468.115	81.718	72.406	N/A	N/A	9.312	PK
2		2483.500	59.174	50.009	-14.826	74.000	9.165	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 18:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant A	



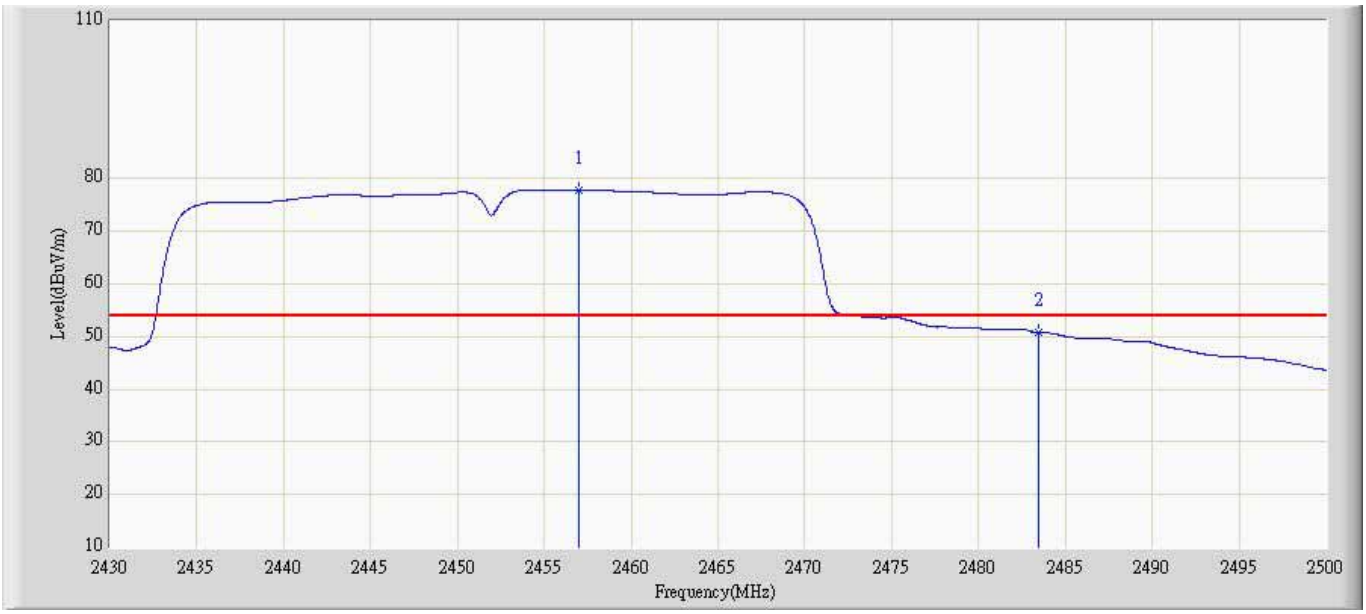
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2466.995	71.881	62.558	N/A	N/A	9.323	AV
2		2483.500	44.593	35.428	-9.407	54.000	9.165	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 18:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant A	



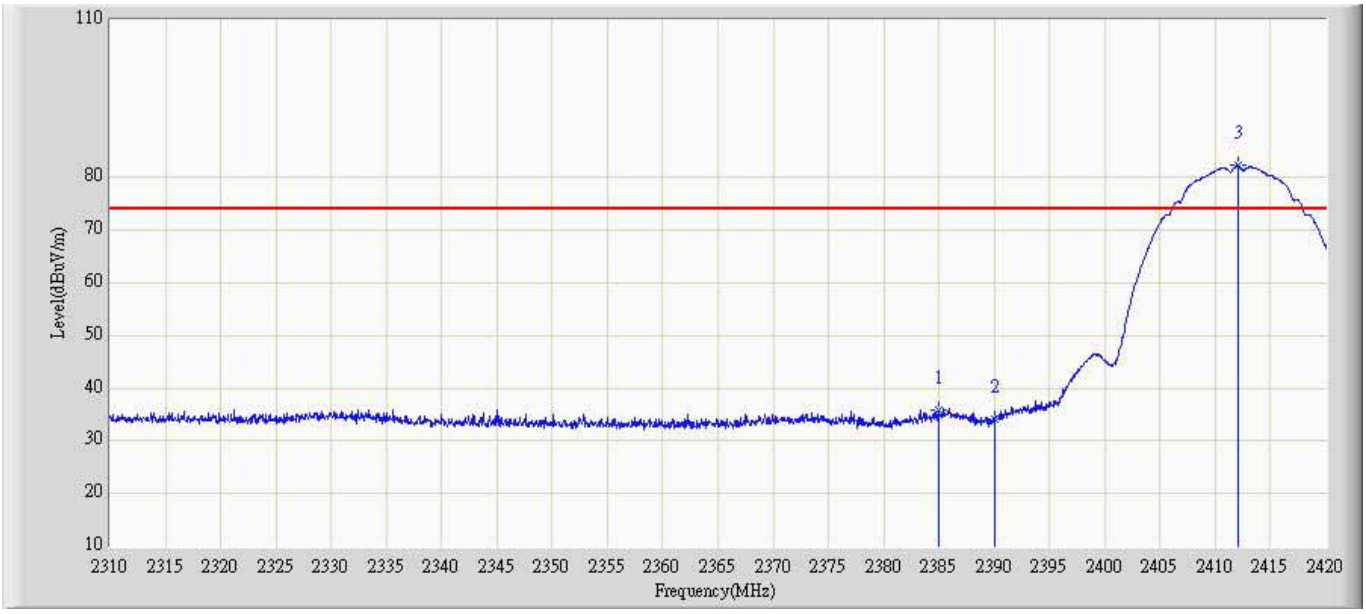
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.660	87.225	78.021	N/A	N/A	9.204	PK
2		2483.500	65.241	56.347	-8.759	74.000	8.894	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/06 - 18:10
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant A	



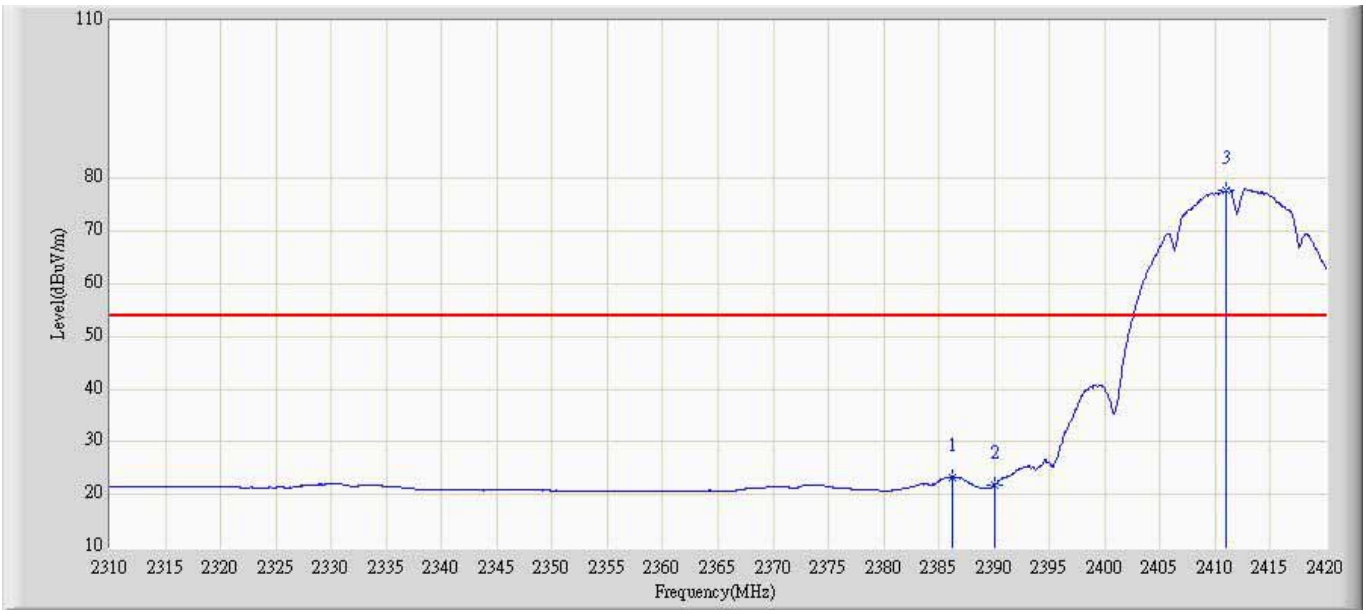
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2457.020	77.872	68.514	N/A	N/A	9.358	AV
2		2483.500	50.785	41.891	-3.215	54.000	8.894	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:44
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b Ant B	



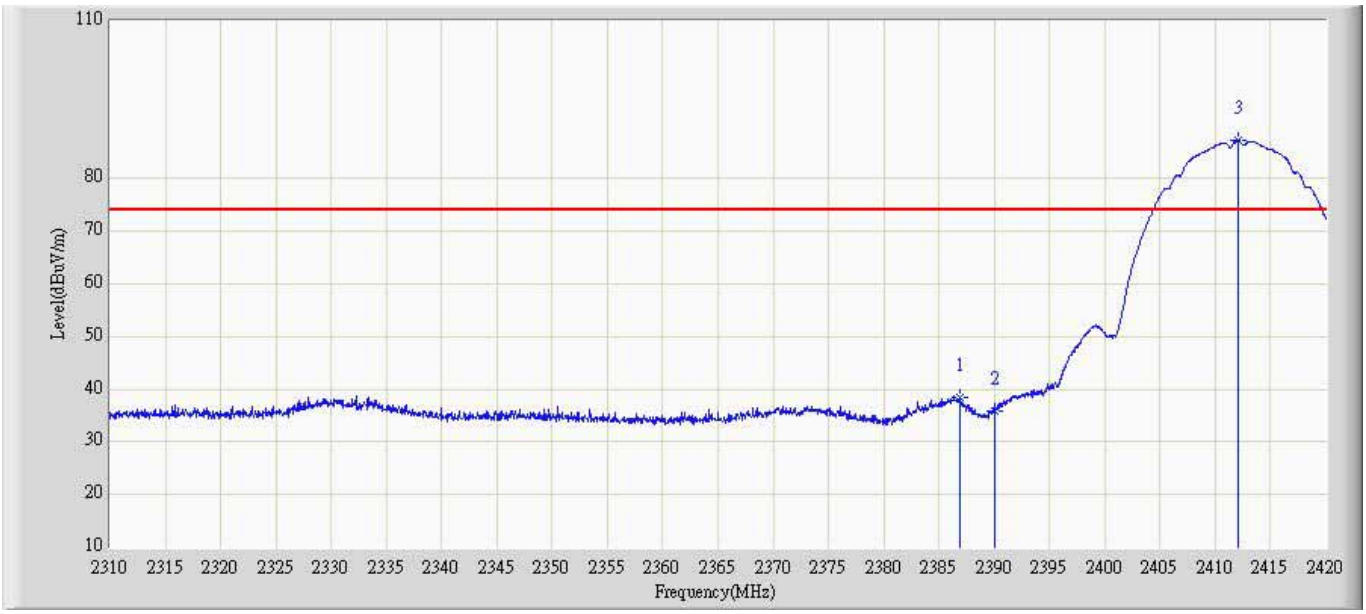
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2385.020	35.965	26.552	-38.035	74.000	9.413	PK
2		2390.000	34.102	24.668	-39.898	74.000	9.434	PK
3	*	2412.025	82.374	72.890	N/A	N/A	9.483	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b Ant B	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.175	23.343	13.925	-30.657	54.000	9.418	AV
2		2390.000	21.910	12.476	-32.090	54.000	9.434	AV
3	*	2411.035	77.949	68.465	N/A	N/A	9.484	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b Ant B	

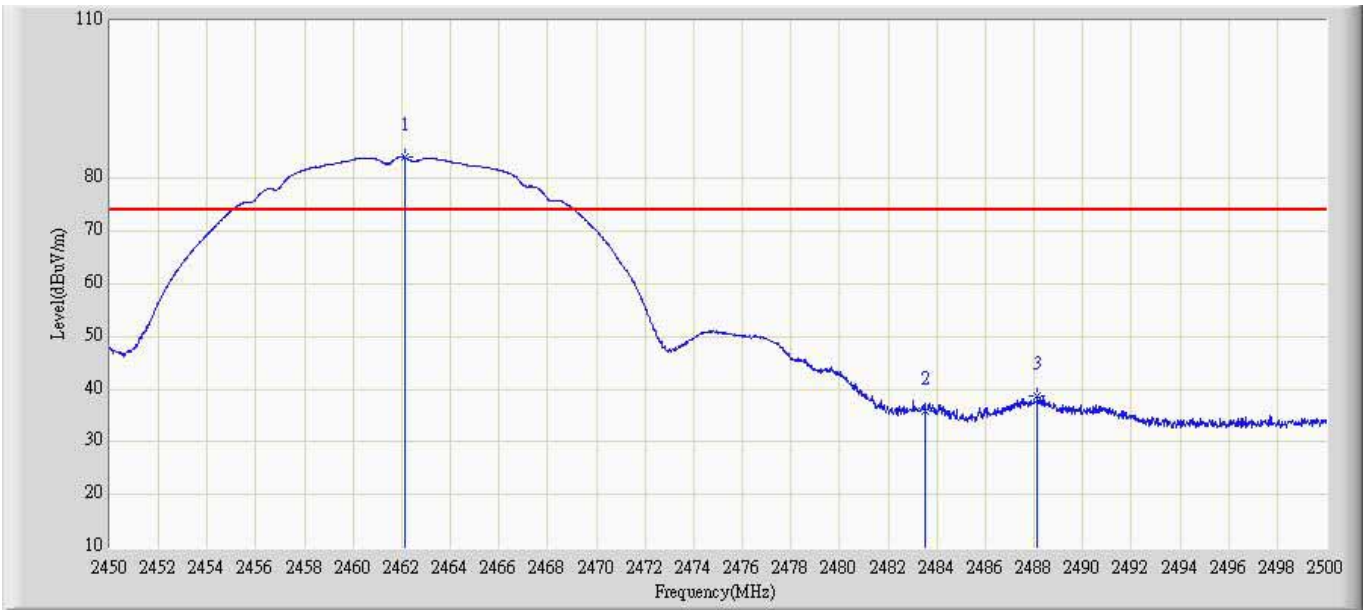


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.835	38.445	29.594	-35.555	74.000	8.851	PK
2		2390.000	35.874	27.066	-38.126	74.000	8.808	PK
3	*	2412.025	87.293	78.412	N/A	N/A	8.881	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b Ant B	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.395	29.175	20.318	-24.825	54.000	8.857	AV
2		2390.000	25.446	16.638	-28.554	54.000	8.808	AV
3	*	2411.310	83.310	74.442	N/A	N/A	8.868	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b Ant B	

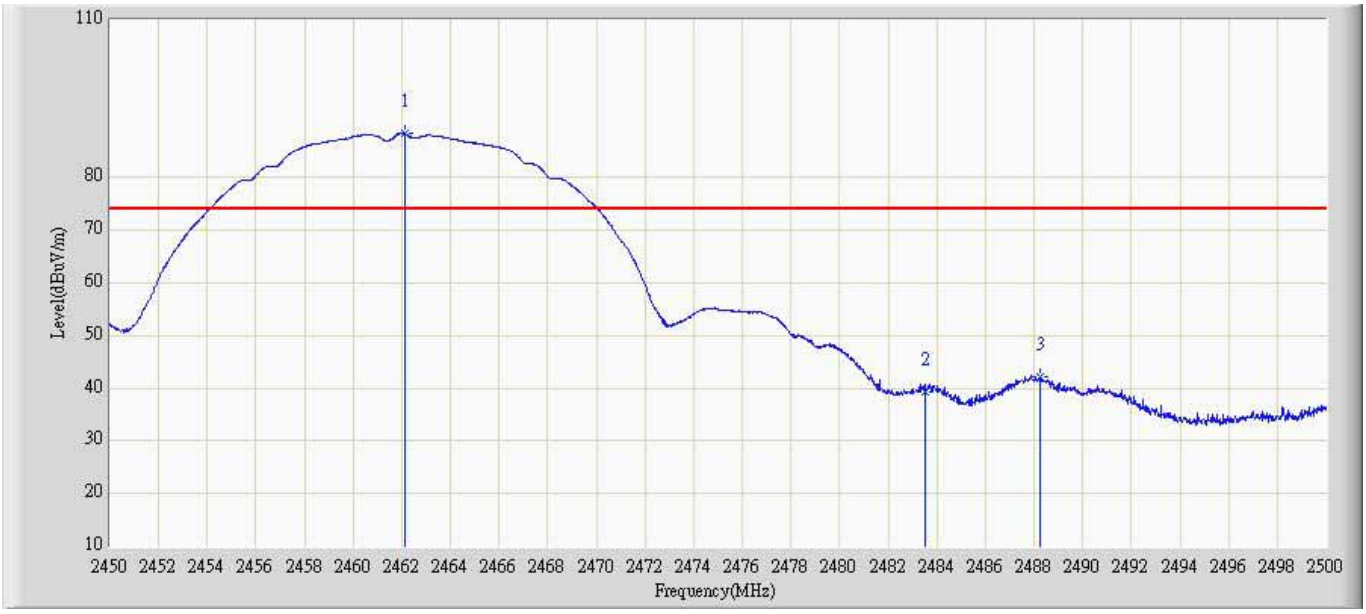


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.100	84.106	74.737	N/A	N/A	9.369	PK
2		2483.500	35.913	26.748	-38.087	74.000	9.165	PK
3		2488.125	38.597	29.478	-35.403	74.000	9.119	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b Ant B	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.250	78.334	68.959	N/A	N/A	9.375	AV
2		2483.500	24.203	15.038	-29.797	54.000	9.165	AV
3		2488.075	26.785	17.666	-27.215	54.000	9.119	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b Ant B	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.100	88.330	79.017	N/A	N/A	9.313	PK
2		2483.500	39.393	30.499	-34.607	74.000	8.894	PK
3		2488.275	42.167	33.367	-31.833	74.000	8.800	PK

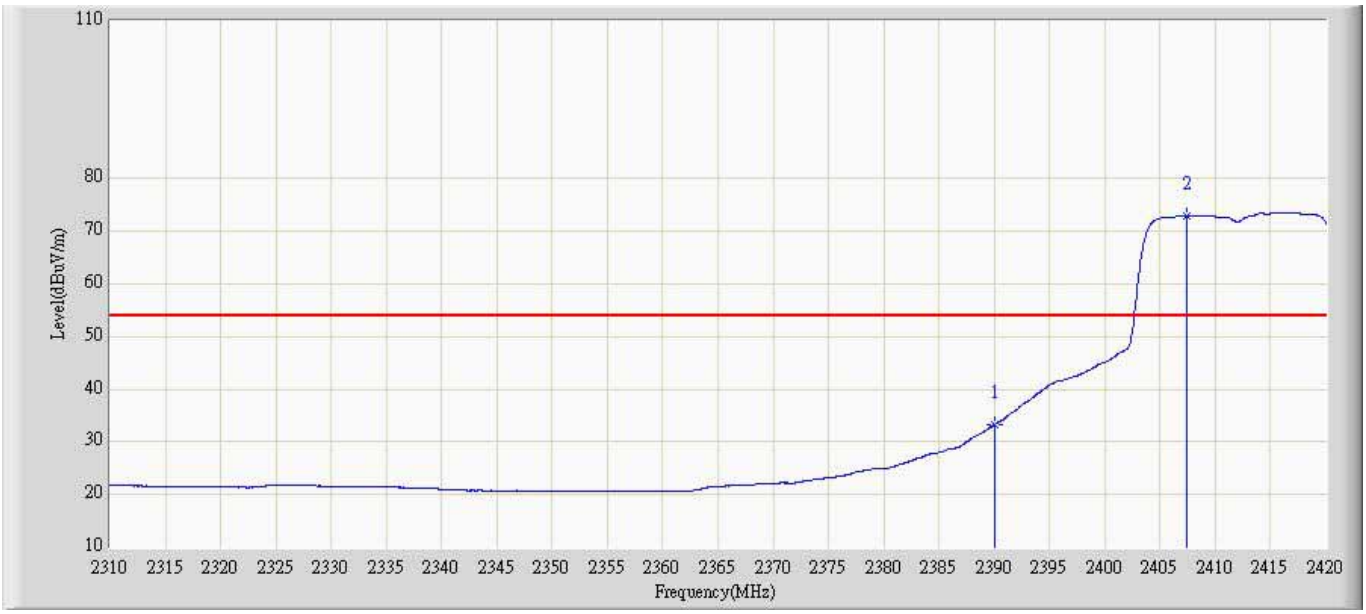
Engineer: Jack	
Site: AC5	Time: 2013/12/12 - 10:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b Ant B	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.800	83.806	74.507	N/A	N/A	9.299	AV
2		2483.500	30.309	21.415	-23.691	54.000	8.894	AV
3		2488.400	33.150	24.353	-20.850	54.000	8.797	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2412MHz by 802.11g Ant B	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.293	41.859	-22.707	74.000	9.434	PK
2	*	2409.275	83.170	73.689	N/A	N/A	9.481	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2412MHz by 802.11g Ant B	

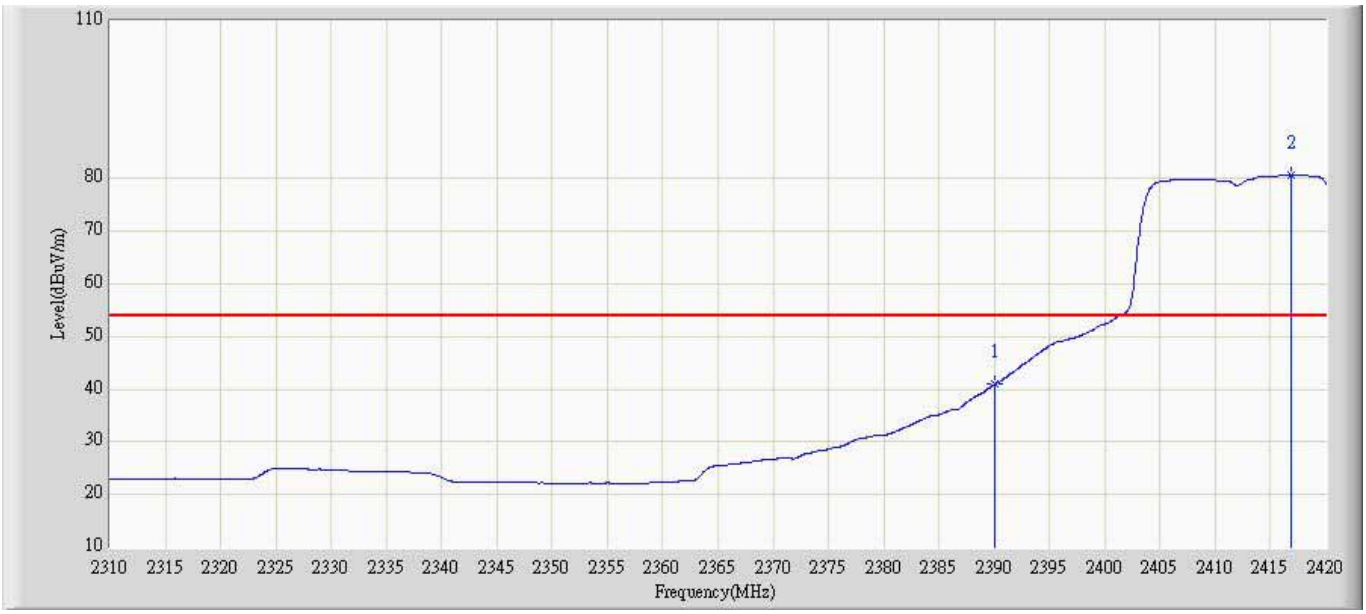


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	33.312	23.878	-20.688	54.000	9.434	AV
2	*	2407.350	72.915	63.438	N/A	N/A	9.477	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2412MHz by 802.11g Ant B	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	59.188	50.380	-14.812	74.000	8.808	PK
2	*	2418.405	90.782	81.789	N/A	N/A	8.993	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2412MHz by 802.11g Ant B	

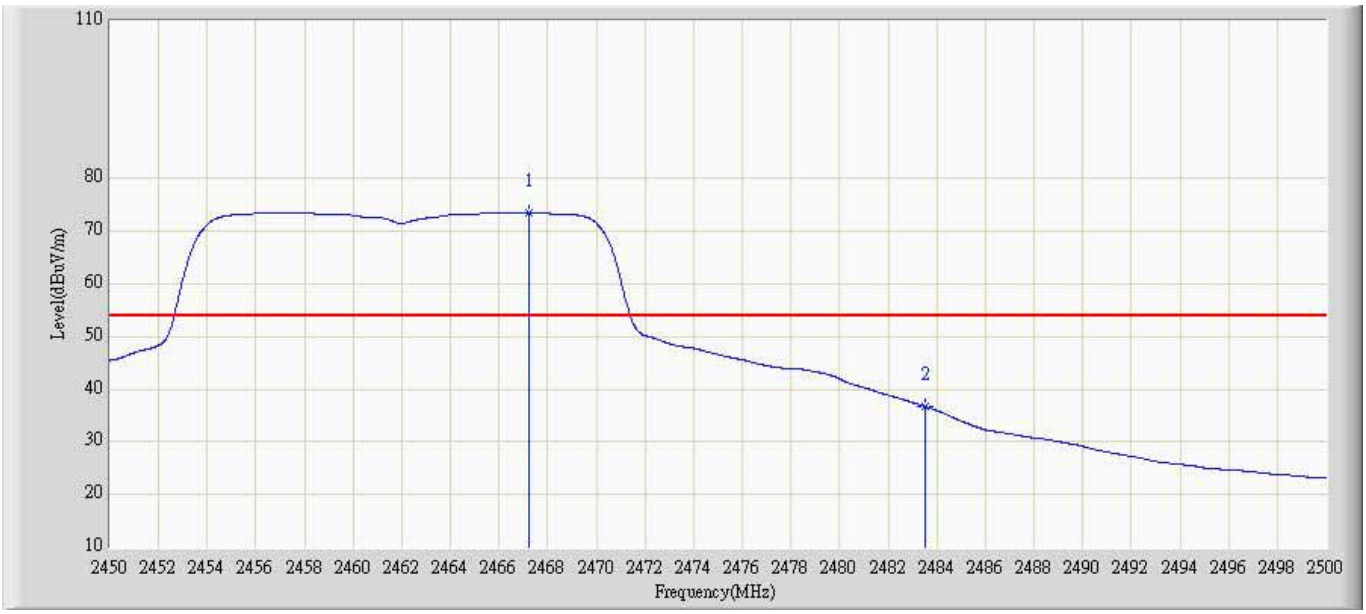


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	40.925	32.117	-13.075	54.000	8.808	AV
2	*	2416.865	80.610	71.644	N/A	N/A	8.966	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2462MHz by 802.11g Ant B	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2459.200	83.147	73.758	N/A	N/A	9.390	PK
2		2483.500	51.873	42.708	-22.127	74.000	9.165	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:34
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2462MHz by 802.11g Ant B	

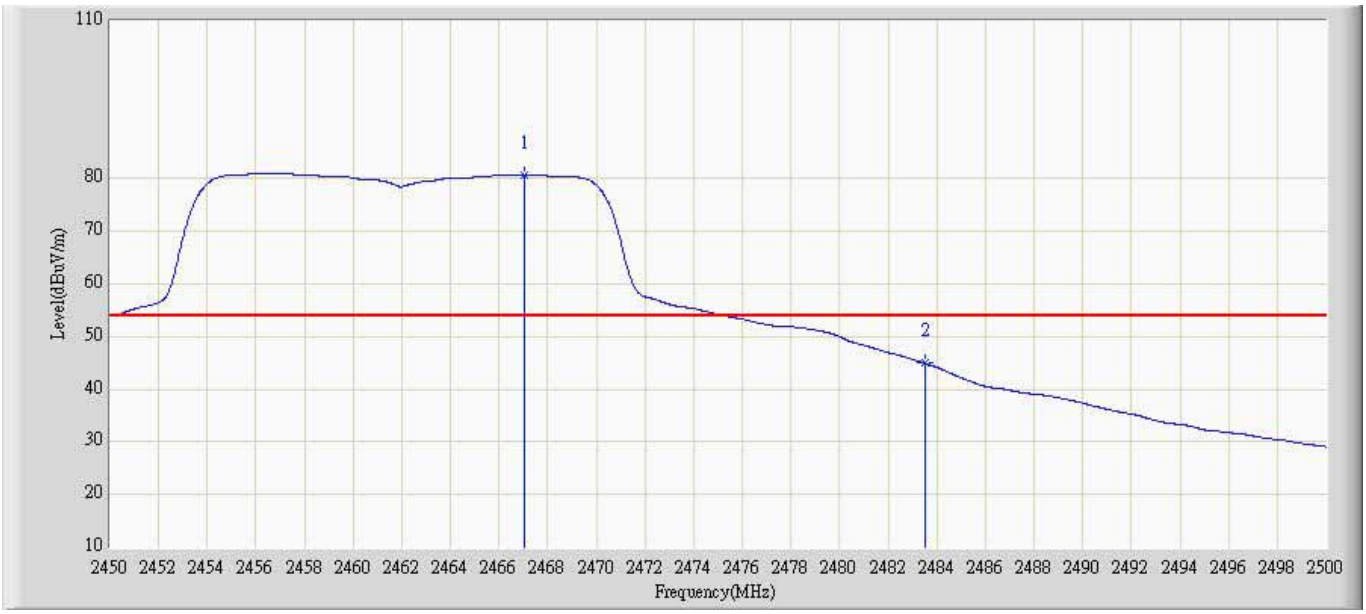


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.200	73.591	64.270	N/A	N/A	9.321	AV
2		2483.500	36.774	27.609	-17.226	54.000	9.165	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2462MHz by 802.11g Ant B	

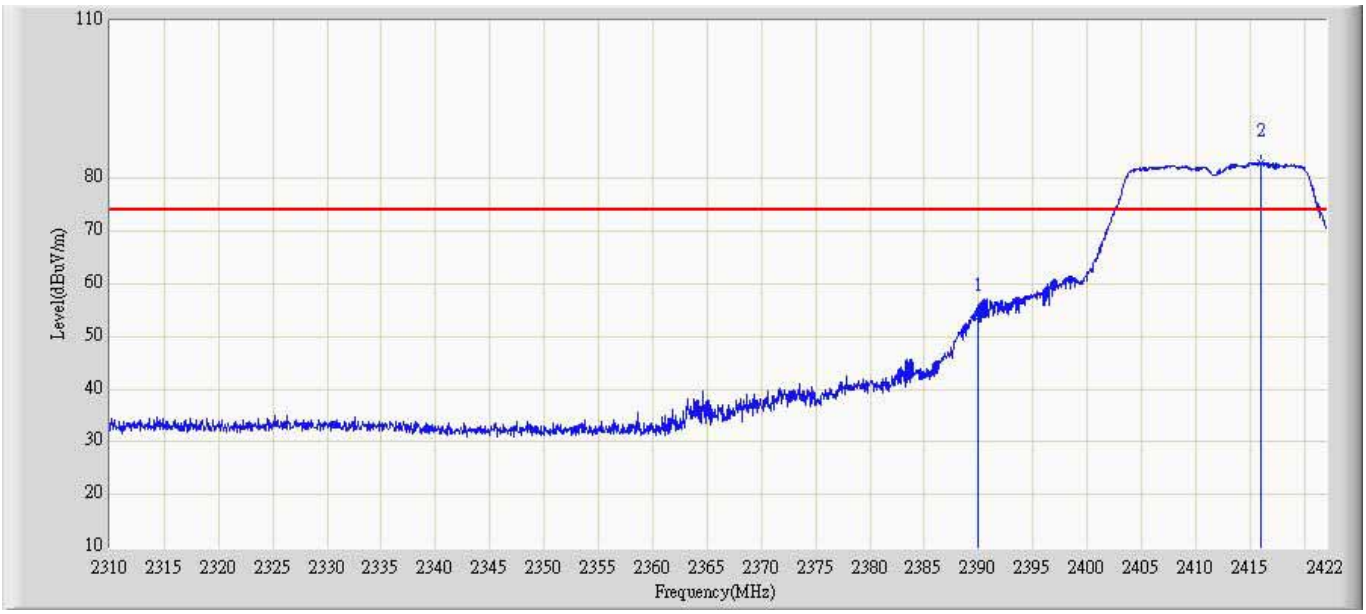
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2468.150	91.005	81.810	N/A	N/A	9.195	PK
2		2483.500	60.630	51.736	-13.370	74.000	8.894	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 2: Transmit at channel 2462MHz by 802.11g Ant B	



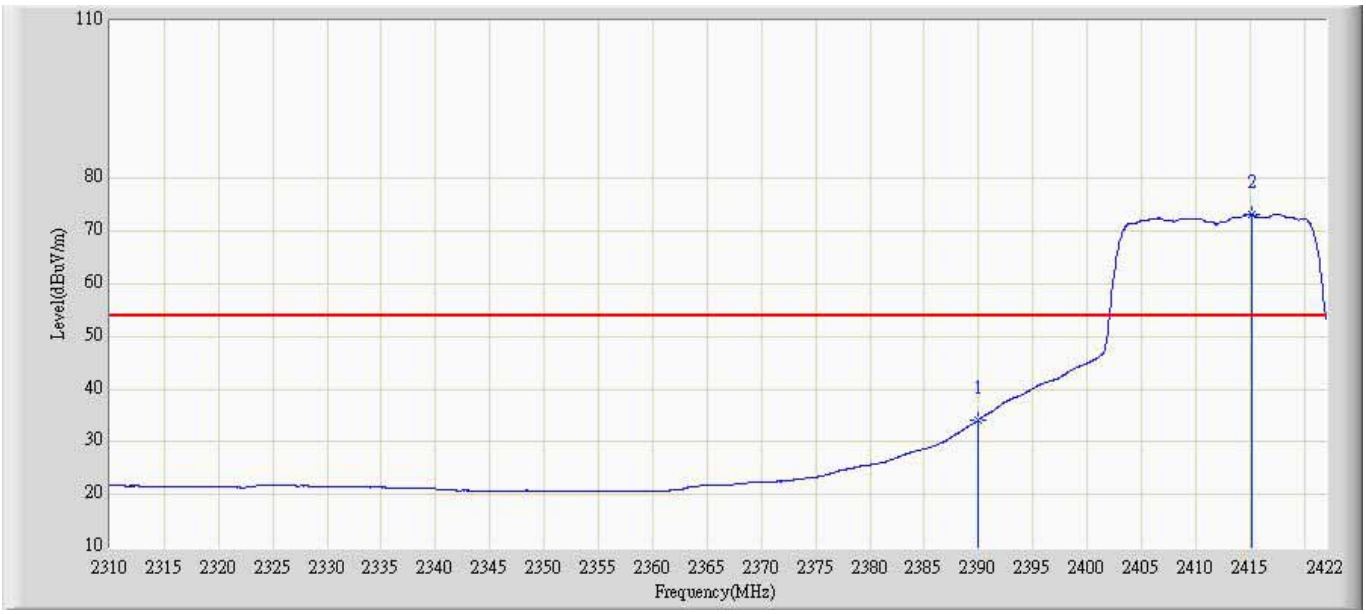
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.025	80.690	71.473	N/A	N/A	9.217	AV
2		2483.500	44.972	36.078	-9.028	54.000	8.894	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant B	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.684	44.250	-20.316	74.000	9.434	PK
2	*	2416.008	82.897	73.414	N/A	N/A	9.483	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant B	

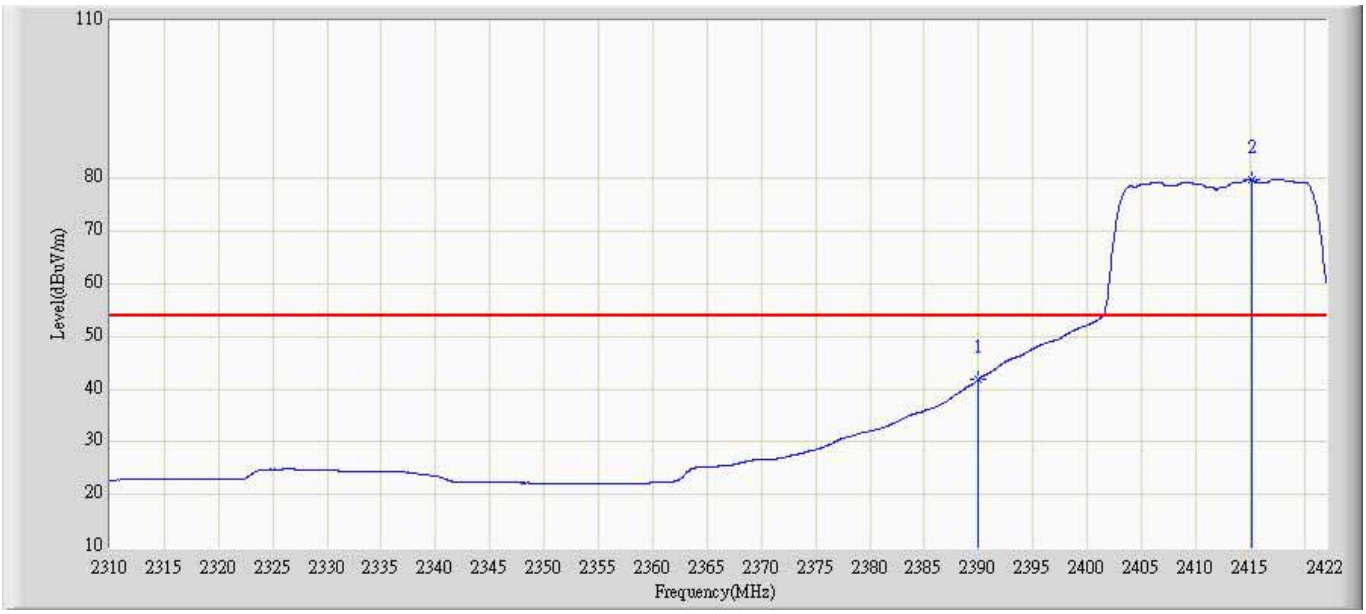


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	34.197	24.763	-19.803	54.000	9.434	AV
2	*	2415.112	73.212	63.729	N/A	N/A	9.484	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:48
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant B	

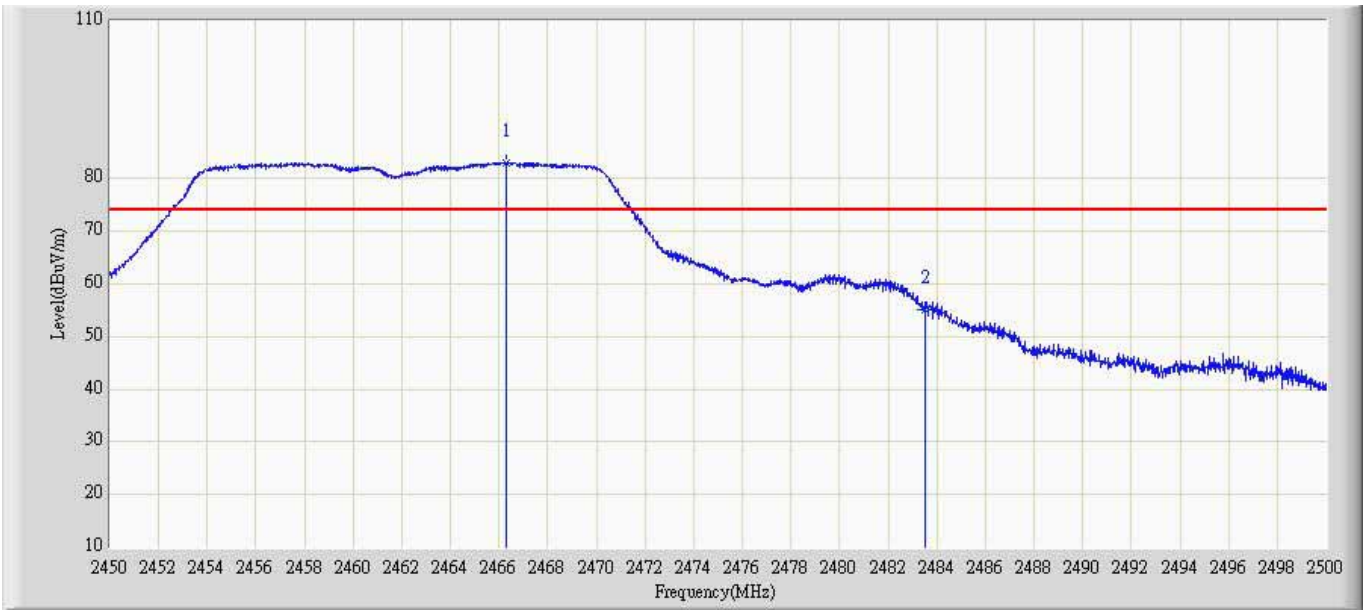
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	63.734	54.926	-10.266	74.000	8.808	PK
2	*	2416.176	90.004	81.050	N/A	N/A	8.954	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant B	



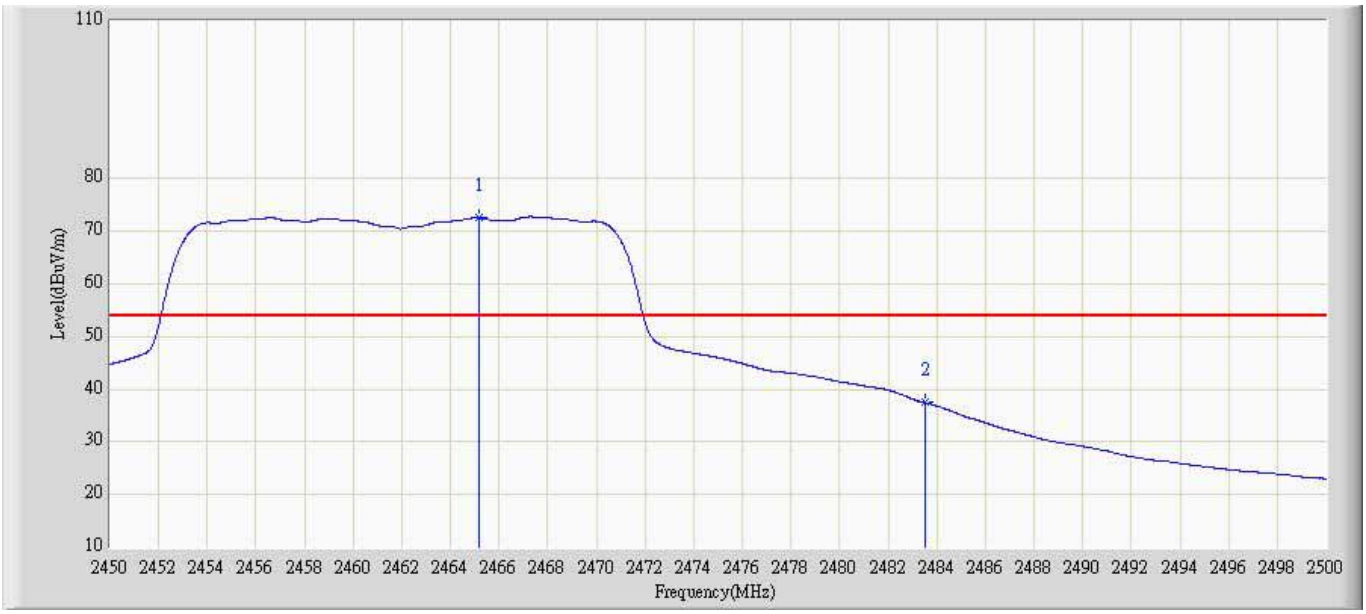
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	41.793	32.985	-12.207	54.000	8.808	AV
2	*	2415.112	79.847	70.912	N/A	N/A	8.936	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant B	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2466.275	83.084	73.754	N/A	N/A	9.330	PK
2		2483.500	55.147	45.982	-18.853	74.000	9.165	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant B	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2465.150	72.588	63.248	N/A	N/A	9.340	AV
2		2483.500	37.499	28.334	-16.501	54.000	9.165	AV

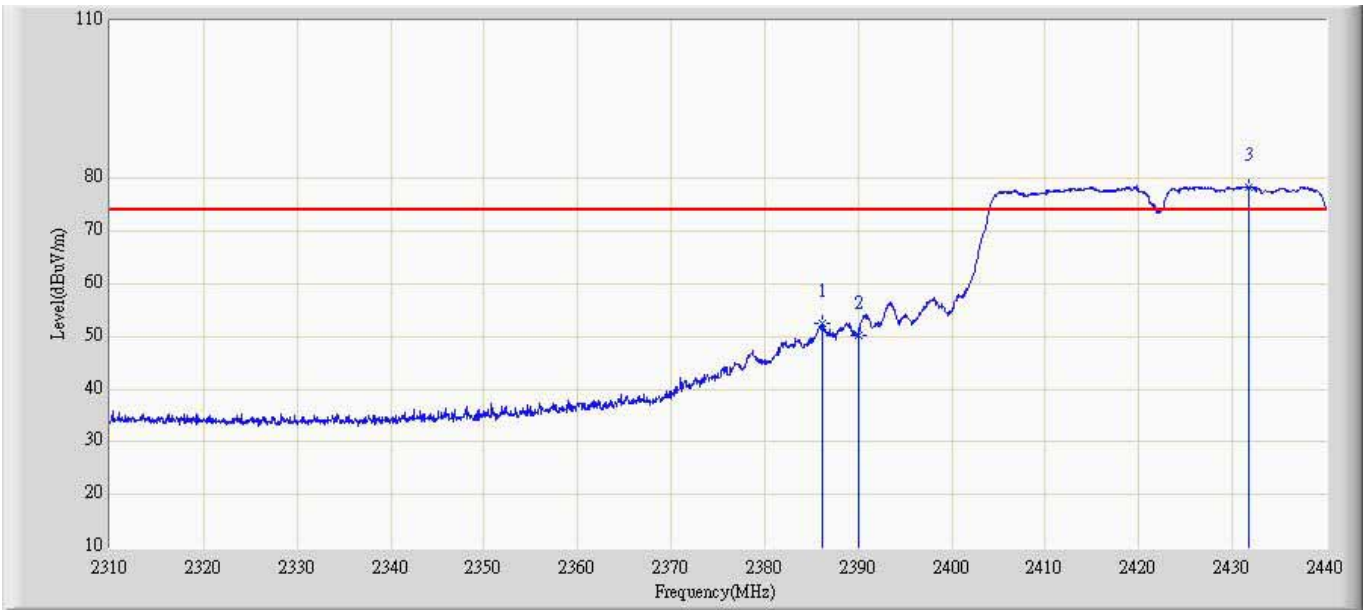
Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant B	

No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.575	90.000	80.794	N/A	N/A	9.206	PK
2		2483.500	63.284	54.390	-10.716	74.000	8.894	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant B	

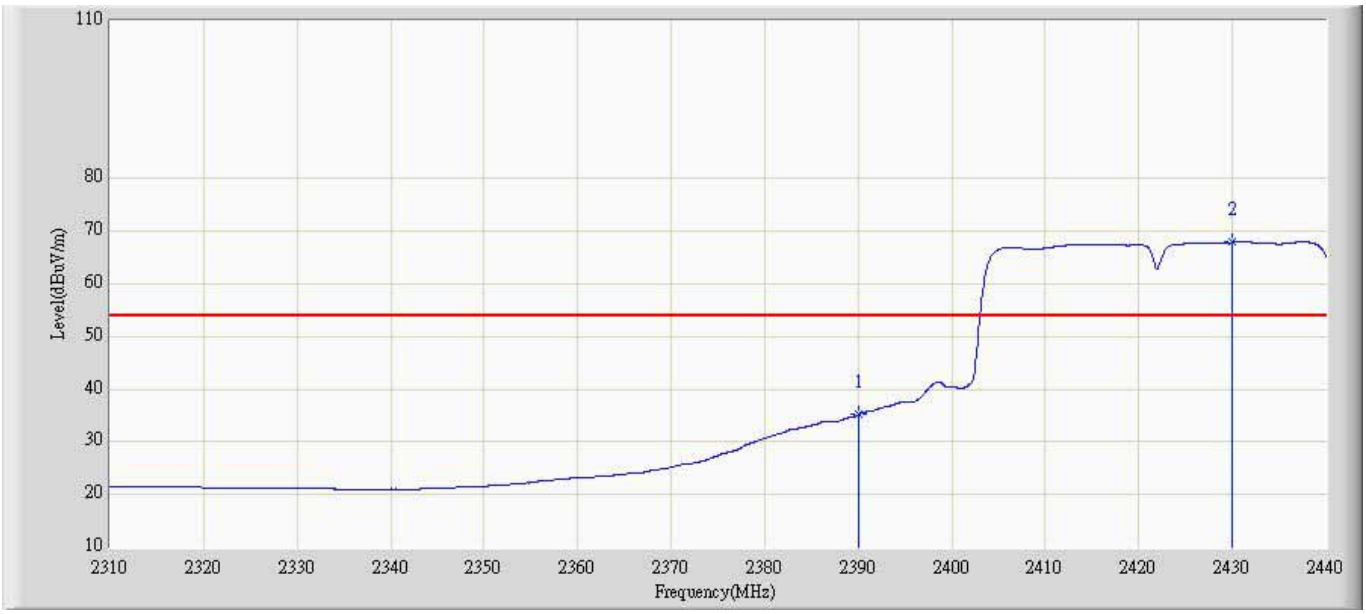
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.525	80.032	70.825	N/A	N/A	9.207	AV
2		2483.500	46.030	37.136	-7.970	54.000	8.894	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant B	



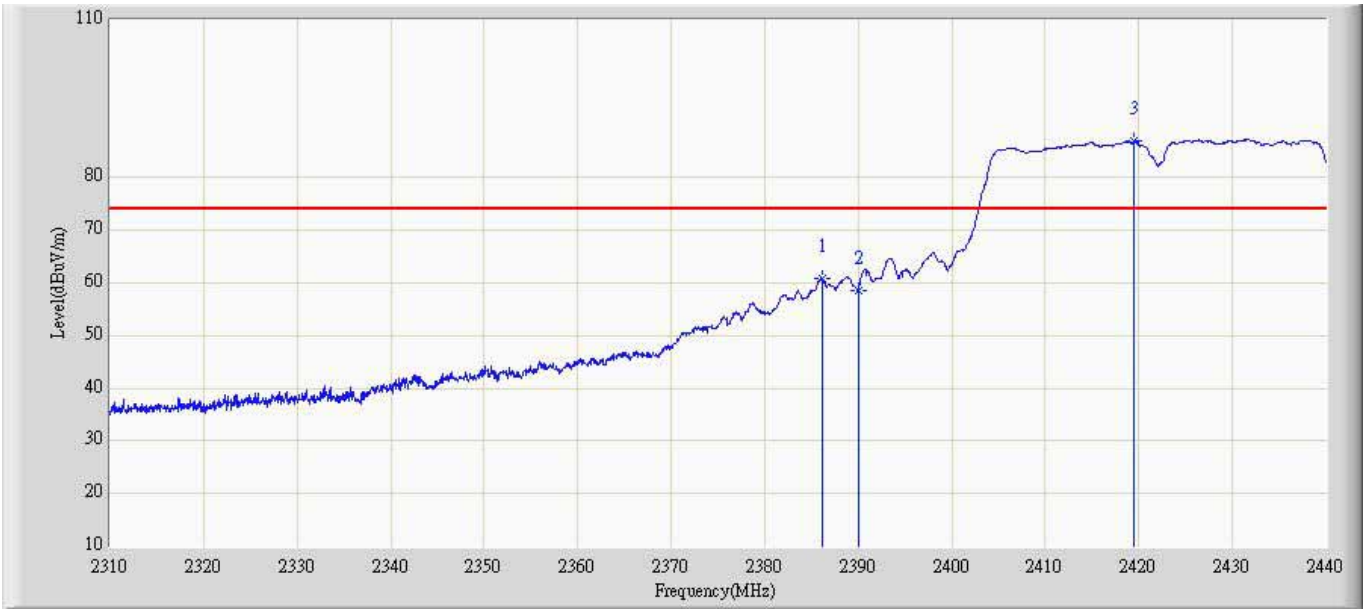
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.115	52.430	43.012	-21.570	74.000	9.418	PK
2		2390.000	50.314	40.880	-23.686	74.000	9.434	PK
3	*	2431.680	78.526	69.043	N/A	N/A	9.483	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant B	



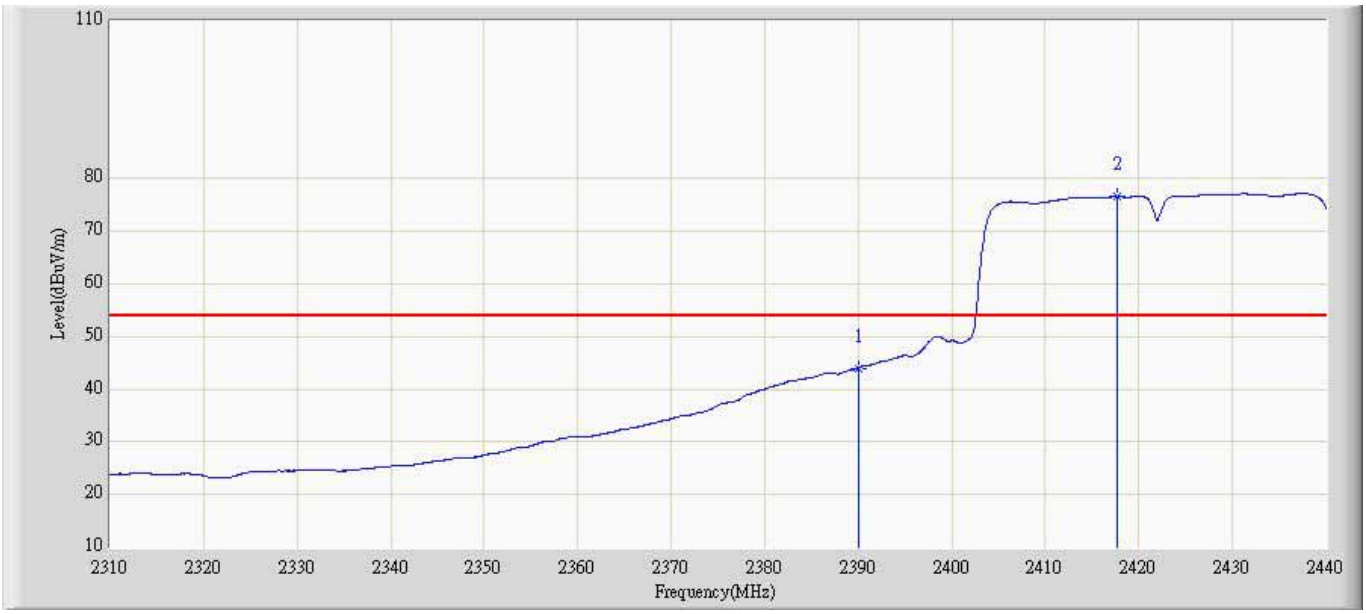
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	35.153	25.719	-18.847	54.000	9.434	AV
2	*	2429.990	67.925	58.443	N/A	N/A	9.482	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant B	



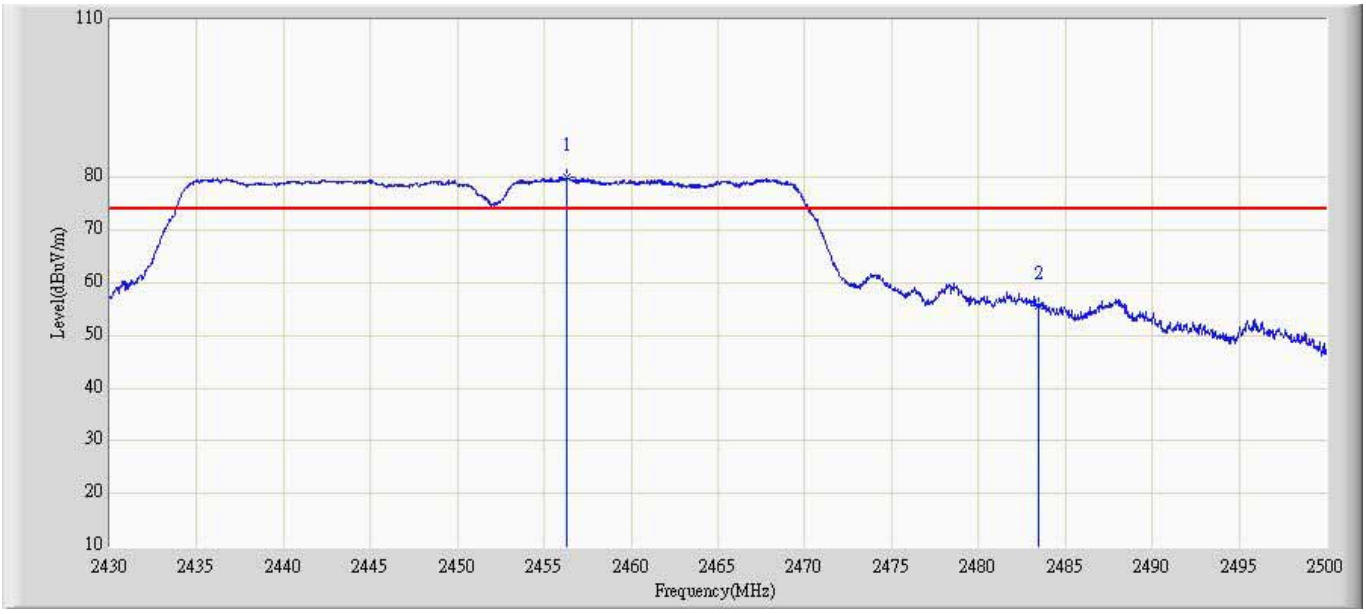
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2386.115	60.825	51.964	-13.175	74.000	8.861	PK
2		2390.000	58.674	49.866	-15.326	74.000	8.808	PK
3	*	2419.460	87.010	77.998	N/A	N/A	9.011	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant B	



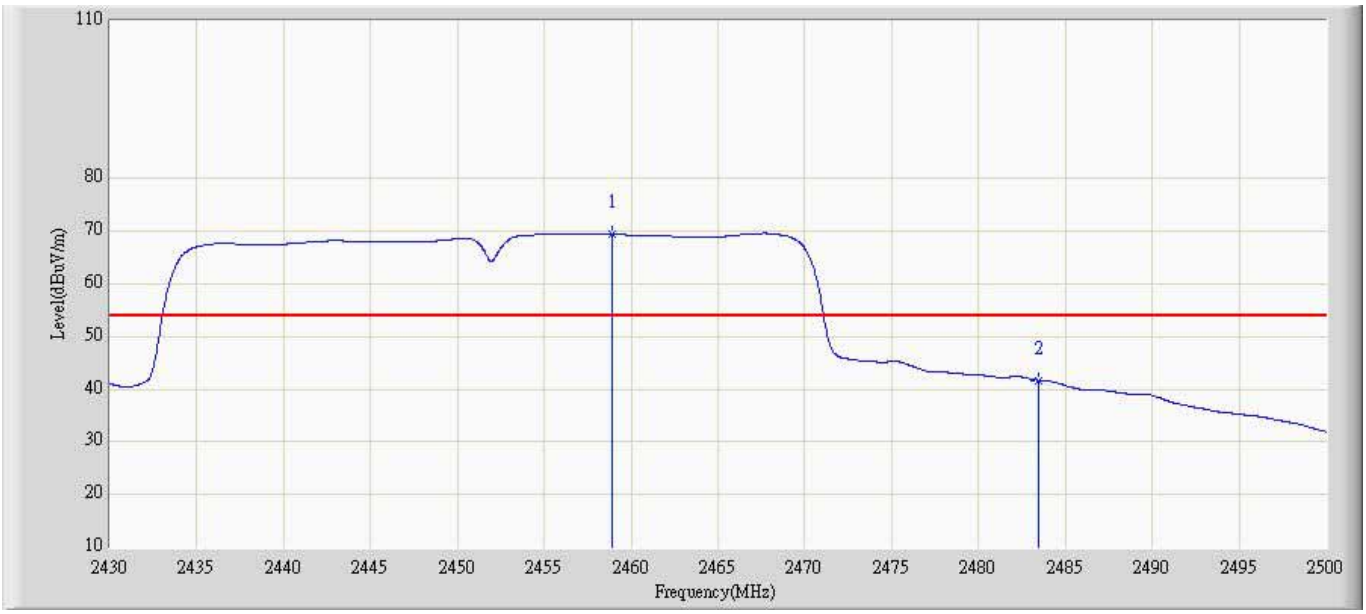
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	44.028	35.220	-9.972	54.000	8.808	AV
2	*	2417.640	76.617	67.637	N/A	N/A	8.980	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 11:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant B	



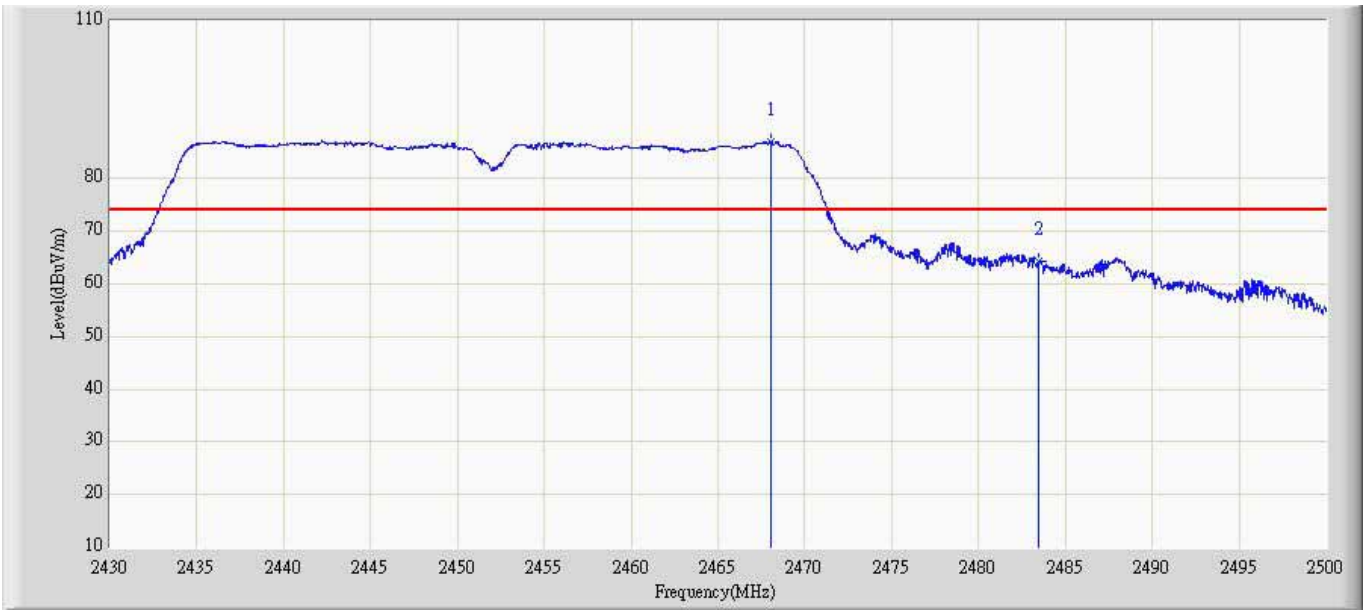
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2456.320	80.054	70.645	N/A	N/A	9.409	PK
2		2483.500	55.662	46.497	-18.338	74.000	9.165	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant B	



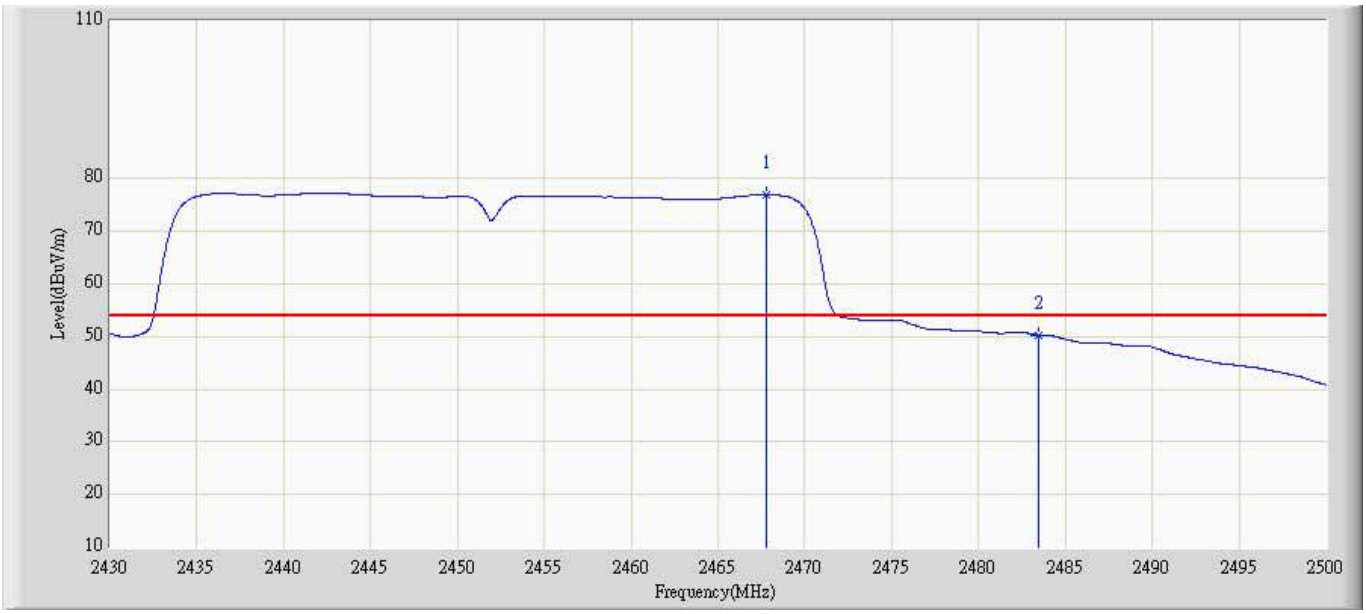
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2458.875	69.474	60.082	N/A	N/A	9.392	AV
2		2483.500	41.689	32.524	-12.311	54.000	9.165	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:29
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant B	



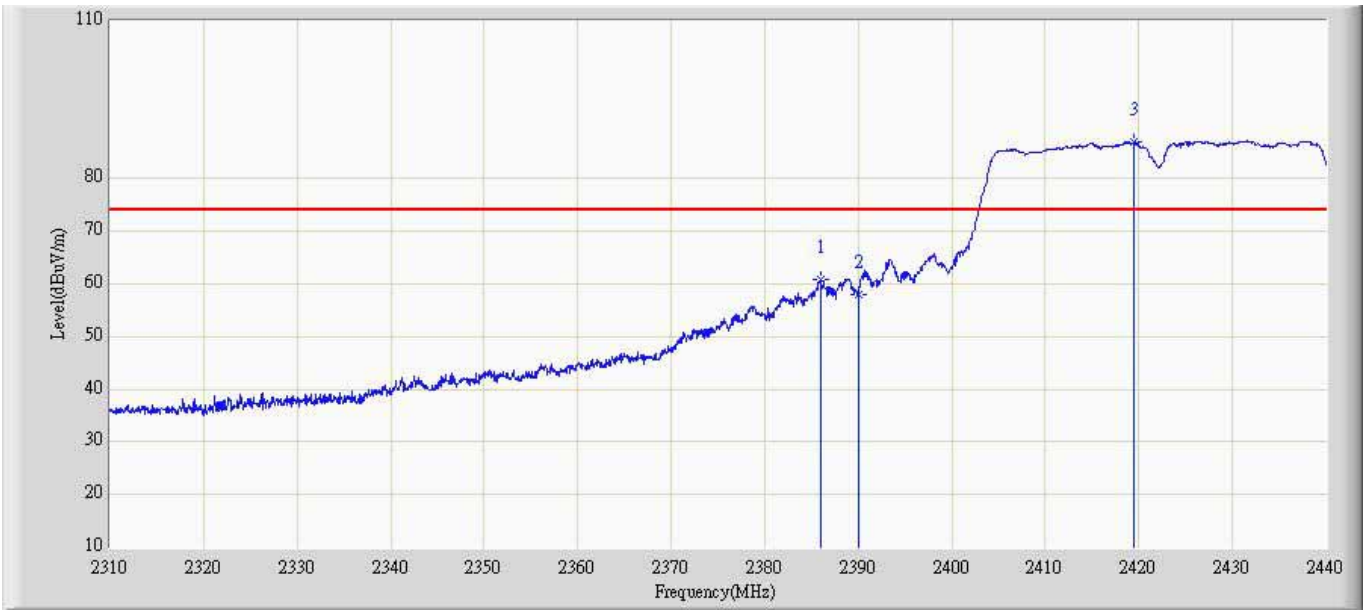
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2468.080	86.876	77.680	N/A	N/A	9.196	PK
2		2483.500	64.307	55.413	-9.693	74.000	8.894	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant B	



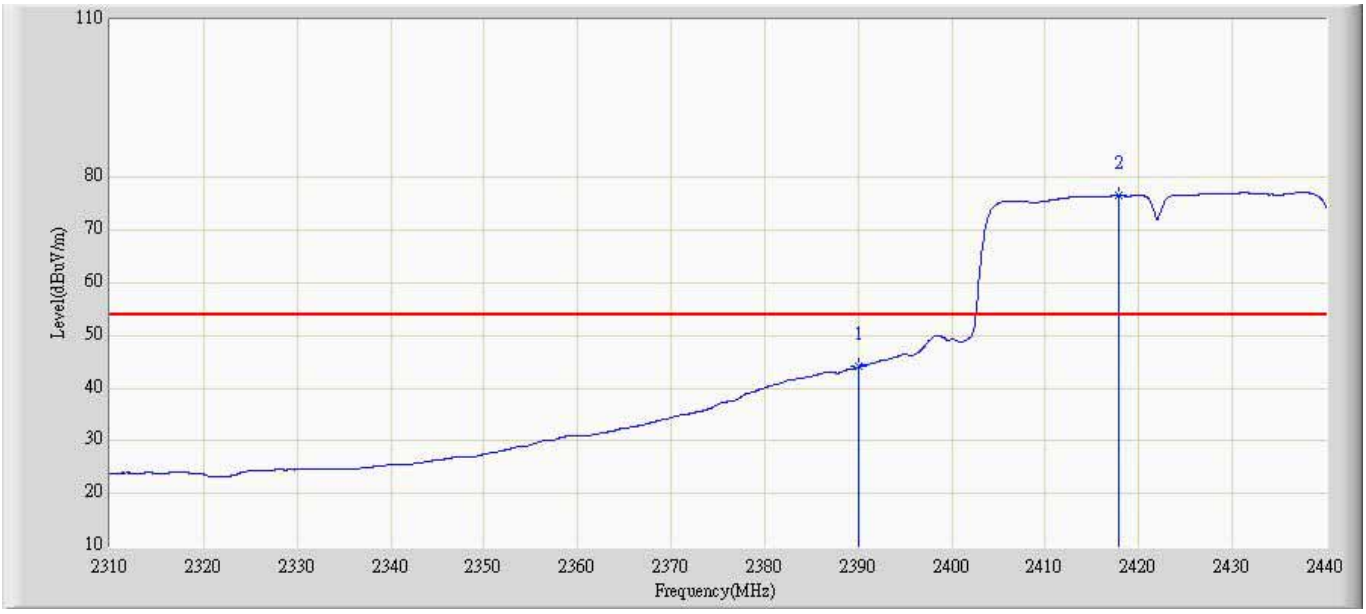
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.765	77.046	67.844	N/A	N/A	9.202	AV
2		2483.500	50.310	41.416	-3.690	54.000	8.894	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant B	



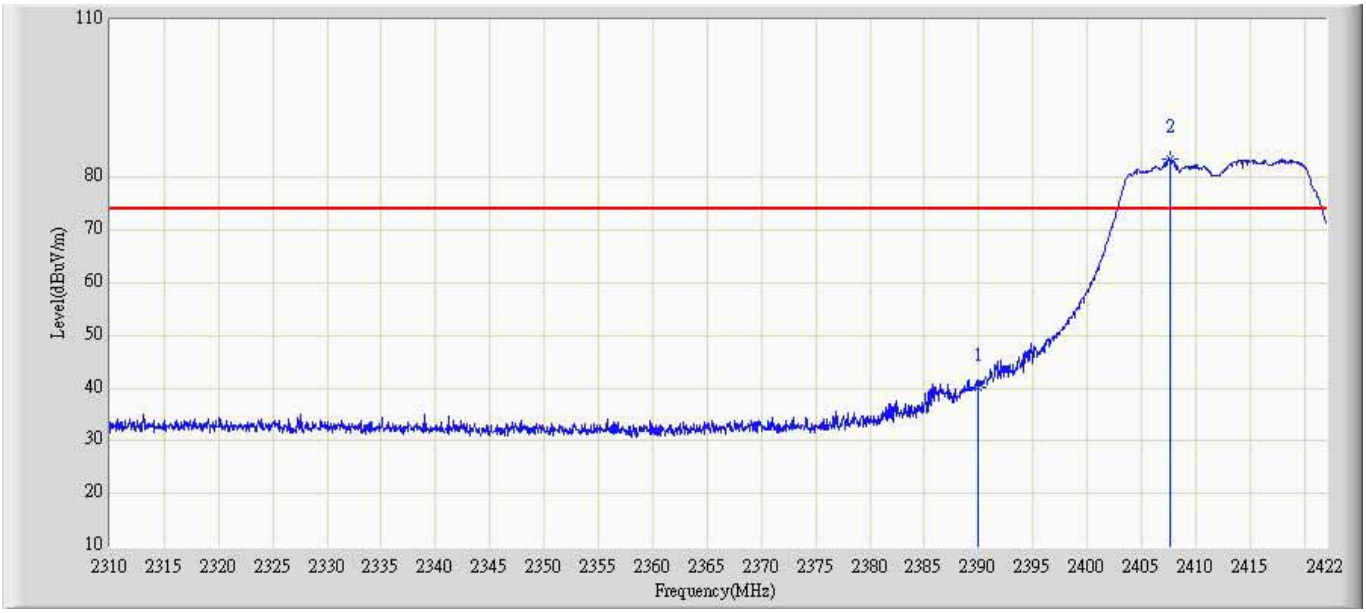
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2385.985	60.782	51.919	-13.218	74.000	8.863	PK
2		2390.000	57.902	49.094	-16.098	74.000	8.808	PK
3	*	2419.525	87.122	78.109	N/A	N/A	9.013	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant B	



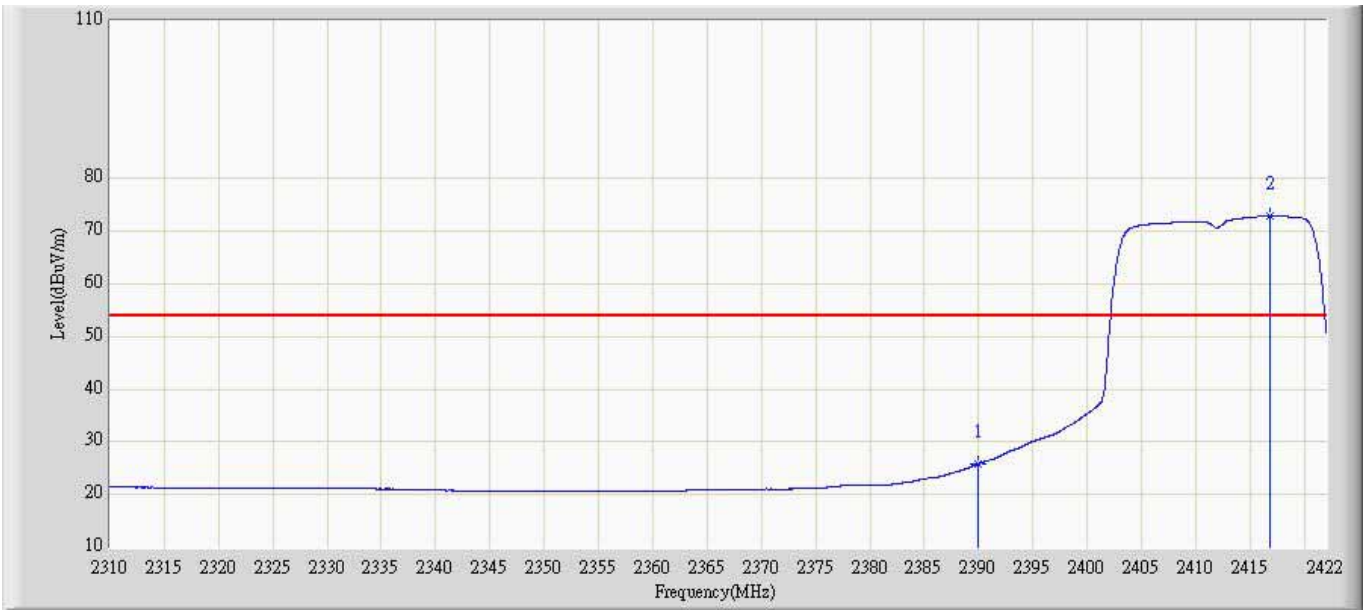
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	44.053	35.245	-9.947	54.000	8.808	AV
2	*	2417.770	76.621	67.639	N/A	N/A	8.982	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 13:04
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant A+B	



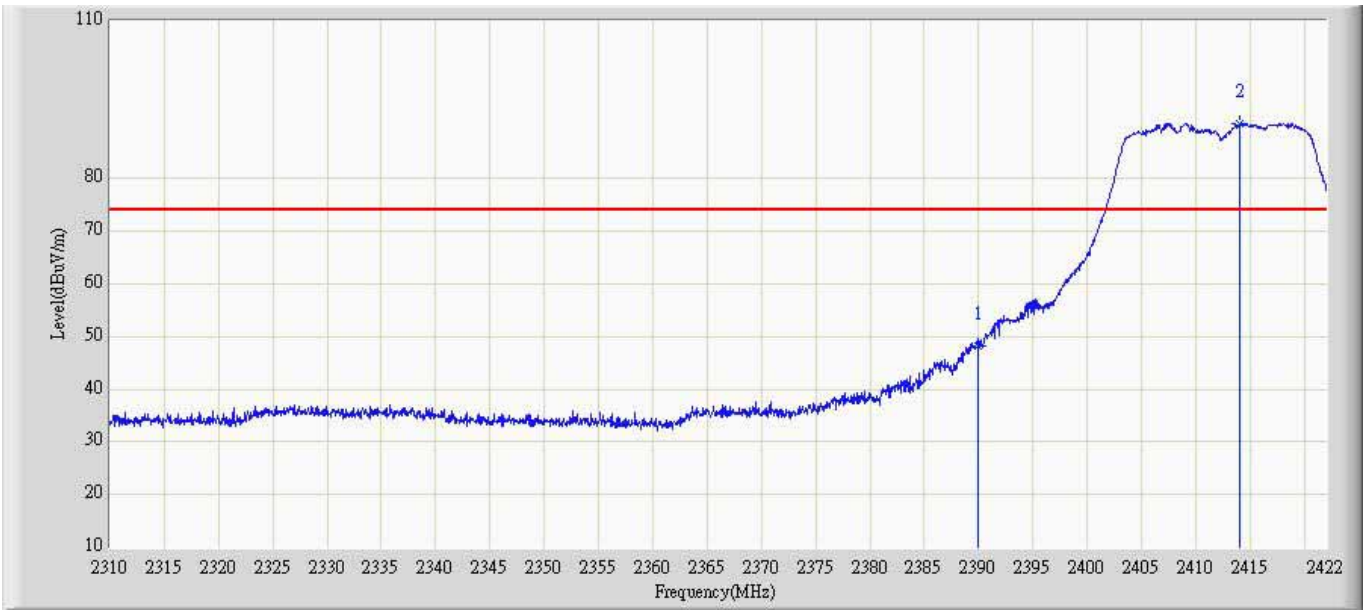
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	40.312	30.878	-33.688	74.000	9.434	PK
2	*	2407.720	83.447	73.970	N/A	N/A	9.477	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 13:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant A+B	



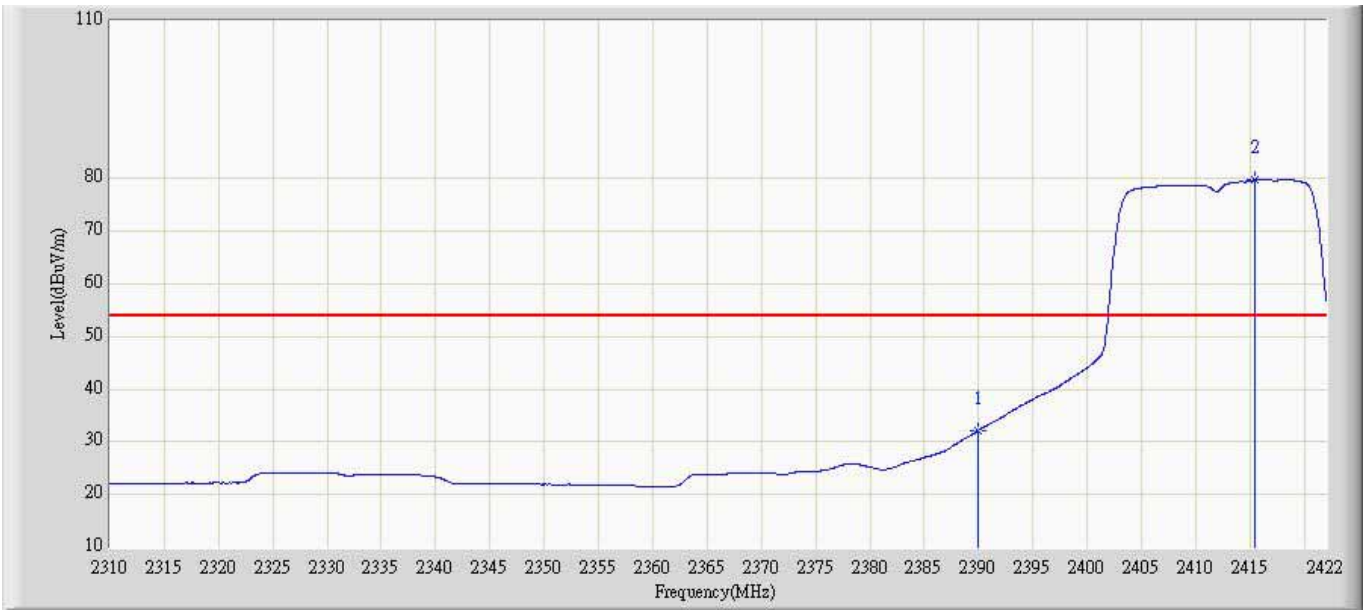
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	25.865	16.431	-28.135	54.000	9.434	AV
2	*	2416.848	72.920	63.437	N/A	N/A	9.483	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 13:06
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant A+B	



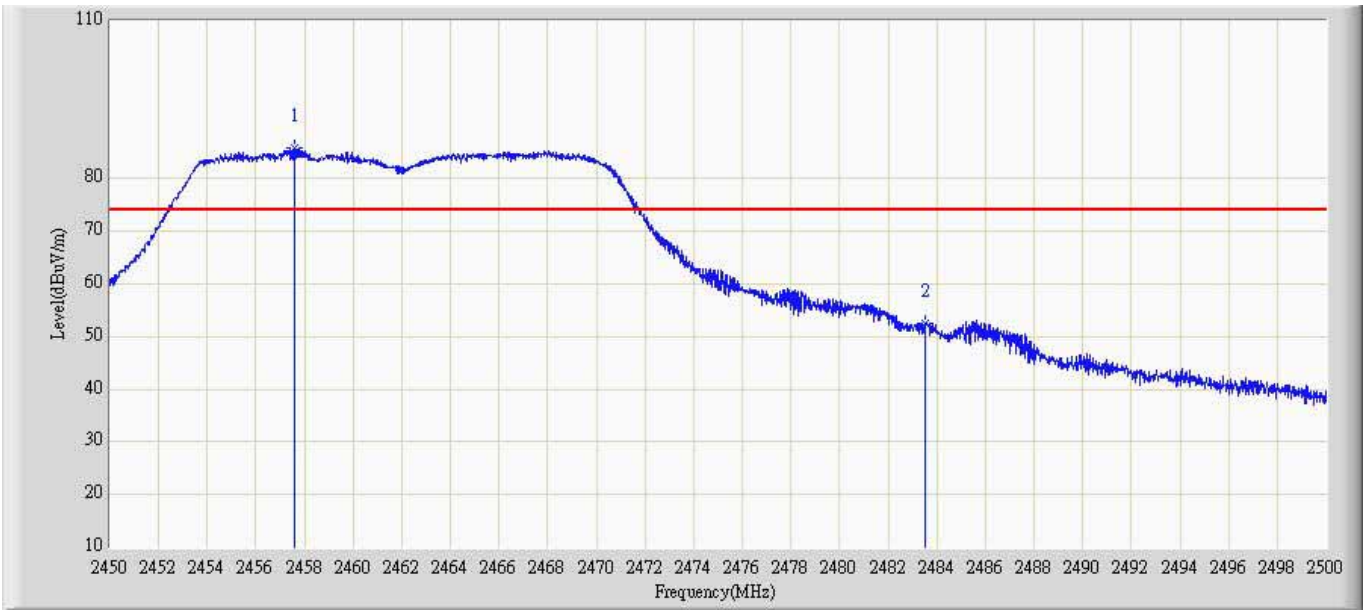
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.147	39.339	-25.853	74.000	8.808	PK
2	*	2414.048	90.355	81.438	N/A	N/A	8.916	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 13:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz) Ant A+B	



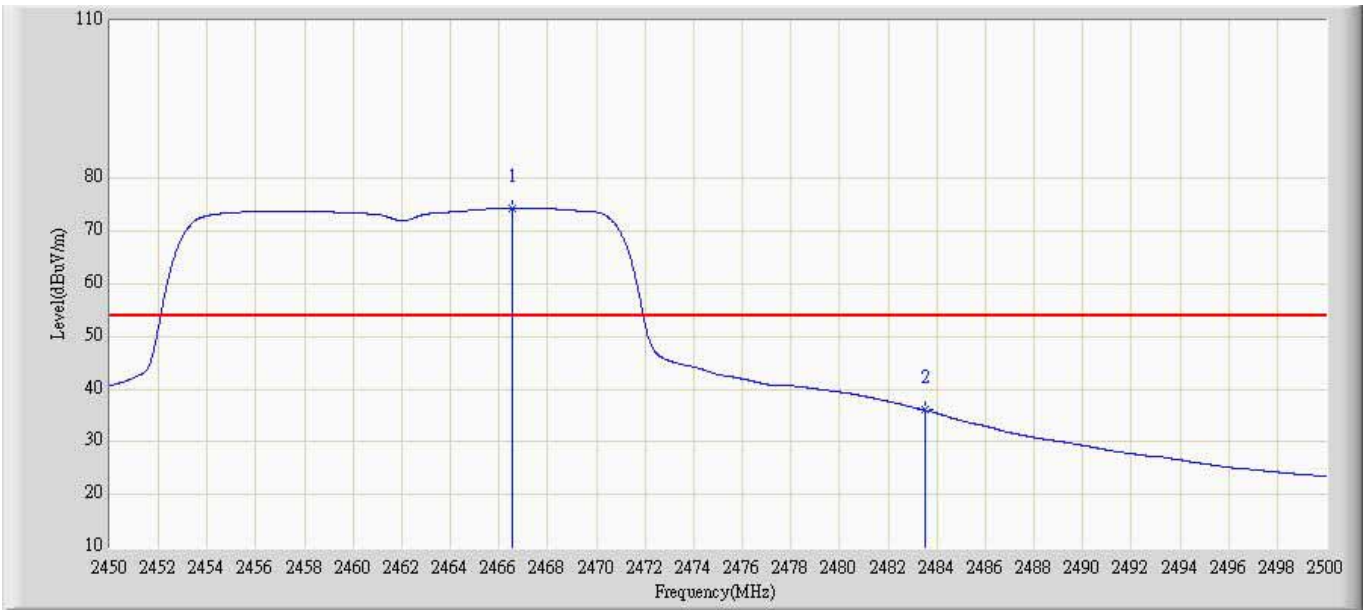
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	32.212	23.404	-21.788	54.000	8.808	AV
2	*	2415.392	79.736	70.796	N/A	N/A	8.940	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 13:03
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant A+B	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2457.600	85.723	76.322	N/A	N/A	9.400	PK
2		2483.500	52.615	43.450	-21.385	74.000	9.165	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 13:04
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant A+B	

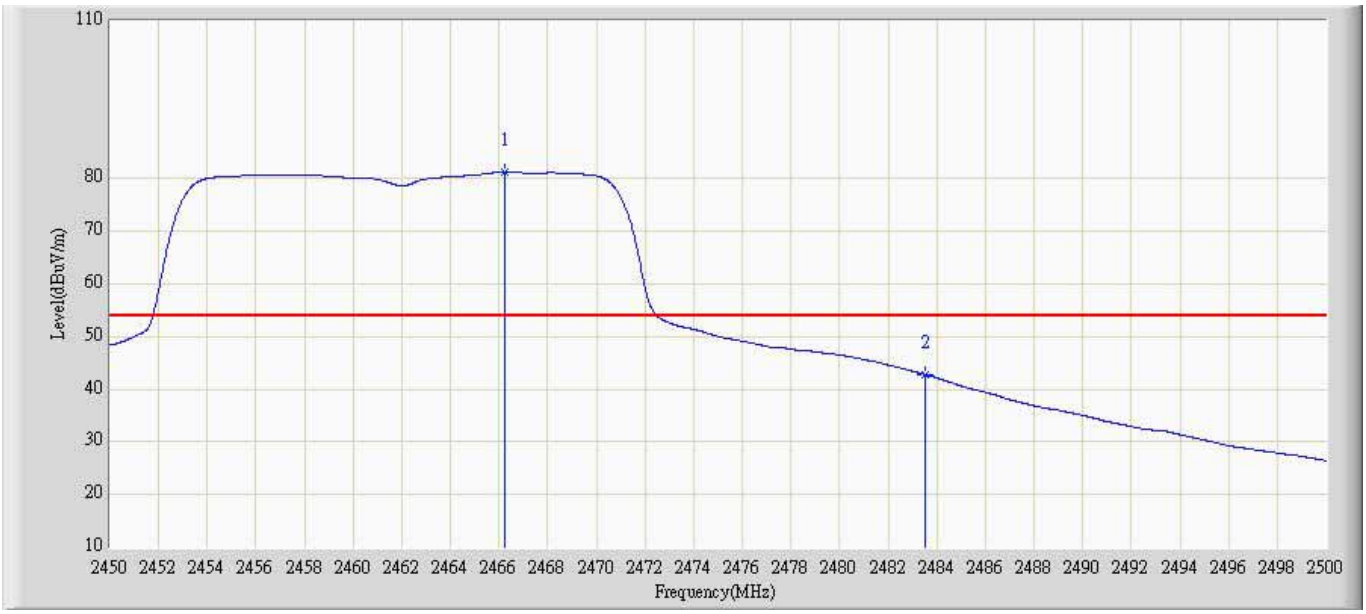


No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2466.550	74.387	65.060	N/A	N/A	9.327	AV
2		2483.500	36.057	26.892	-17.943	54.000	9.165	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 13:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant A+B	

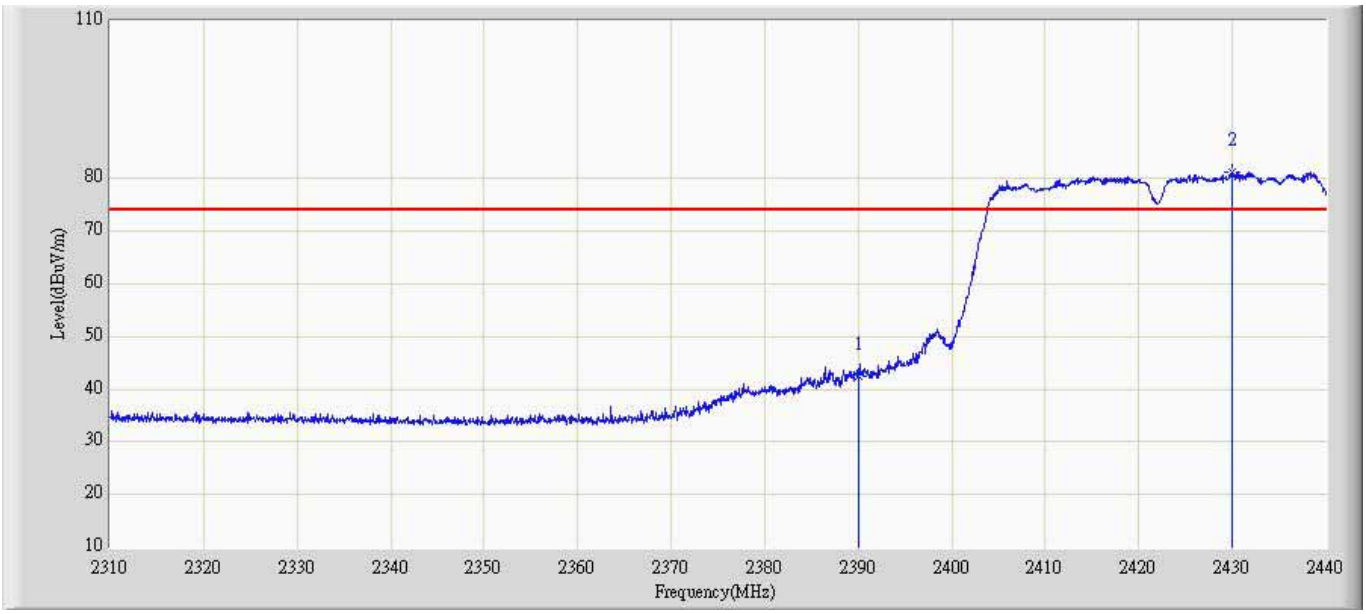
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2457.400	92.688	83.333	N/A	N/A	9.354	PK
2		2483.500	58.251	49.357	-15.749	74.000	8.894	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 13:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz) Ant A+B	



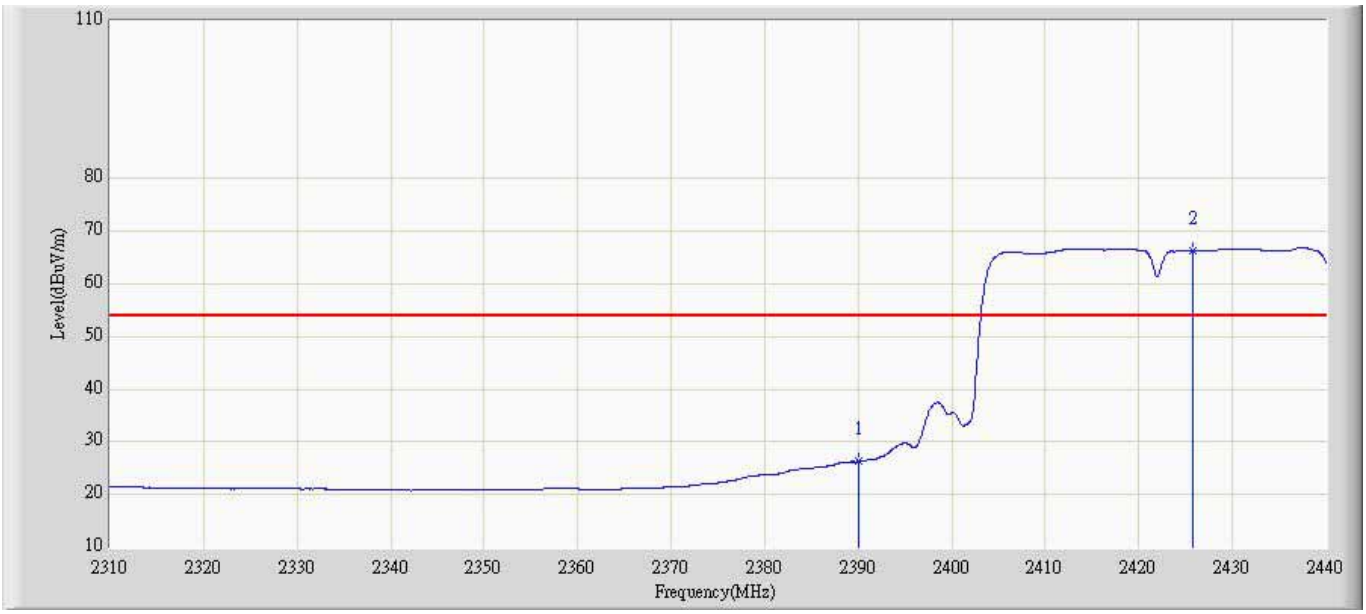
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2466.250	81.275	72.043	N/A	N/A	9.232	AV
2		2483.500	42.820	33.926	-11.180	54.000	8.894	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant A+B	



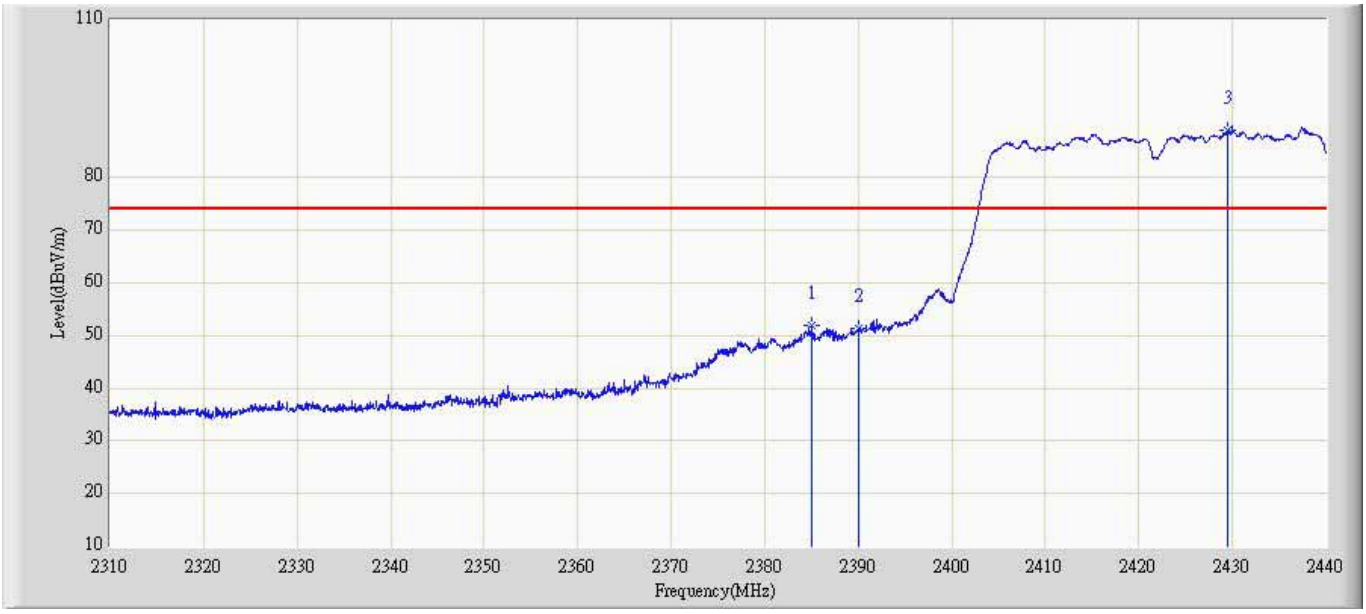
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	42.403	32.969	-31.597	74.000	9.434	PK
2	*	2429.925	81.136	71.654	N/A	N/A	9.482	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:53
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant A+B	



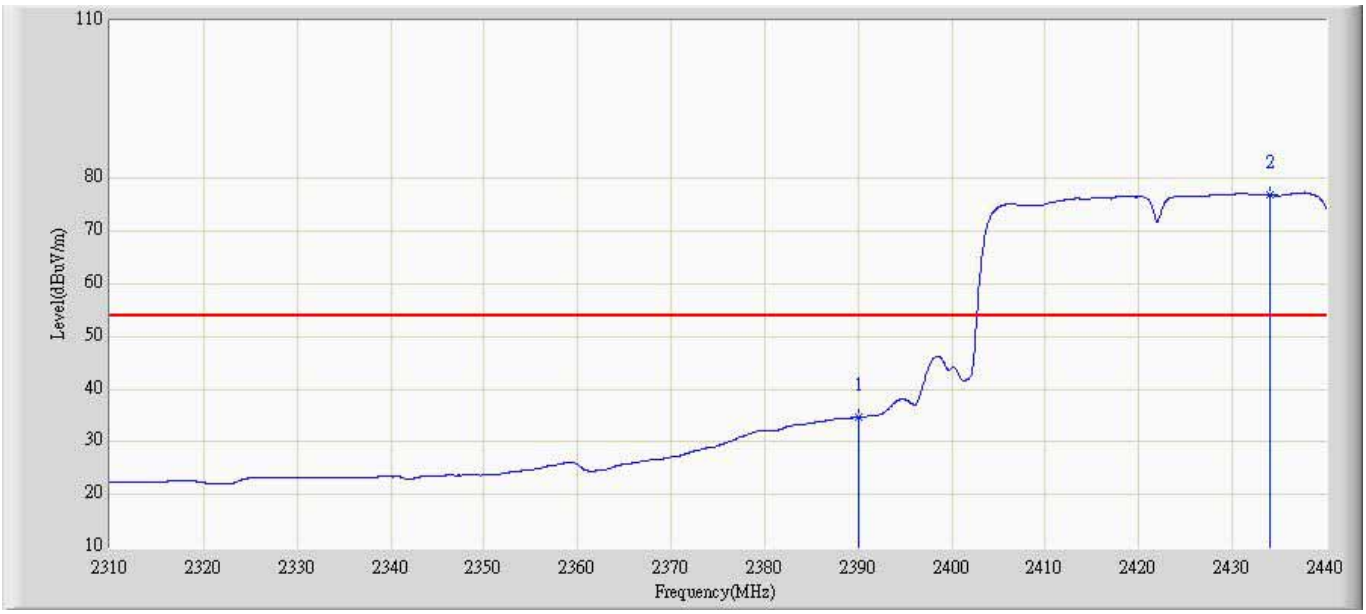
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	26.270	16.836	-27.730	54.000	9.434	AV
2	*	2425.700	66.377	56.896	N/A	N/A	9.481	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant A+B	



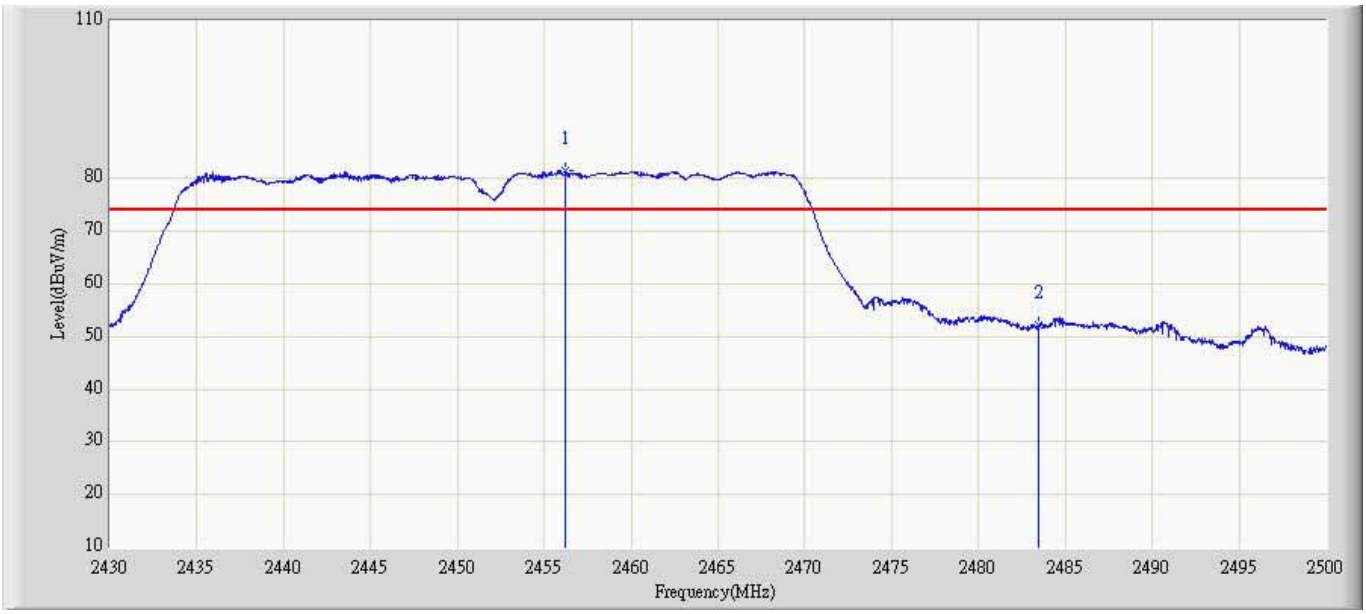
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2384.945	51.941	43.064	-22.059	74.000	8.877	PK
2		2390.000	51.377	42.569	-22.623	74.000	8.808	PK
3	*	2429.535	89.126	79.937	N/A	N/A	9.189	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz) Ant A+B	



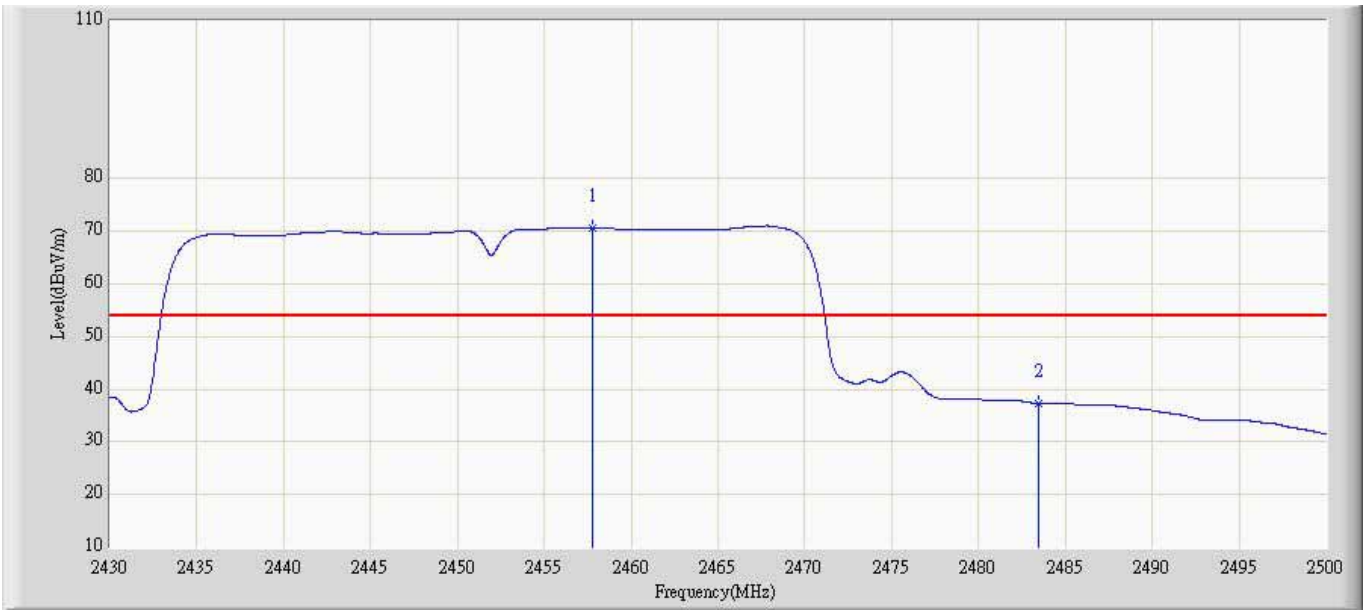
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	34.755	25.947	-19.245	54.000	8.808	AV
2	*	2434.020	76.972	67.704	N/A	N/A	9.268	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant A+B	



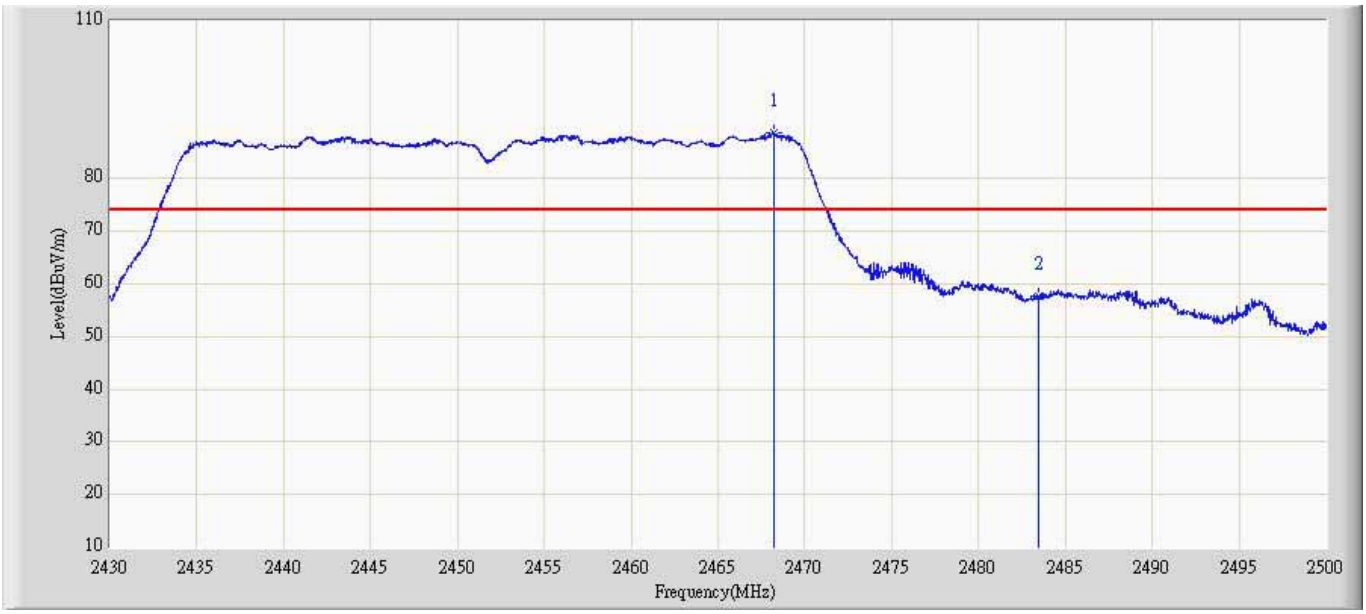
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2456.215	81.461	72.051	N/A	N/A	9.410	PK
2		2483.500	52.209	43.044	-21.791	74.000	9.165	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 12:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Horizontal
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant A+B	



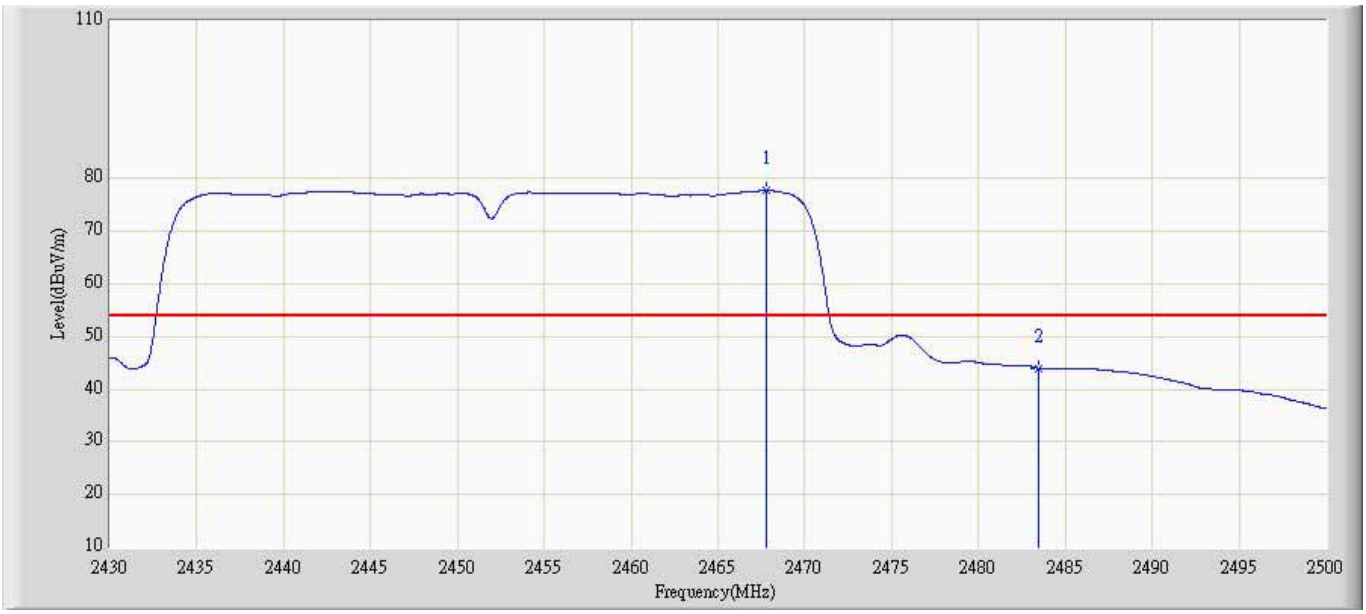
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2457.790	70.589	61.190	N/A	N/A	9.400	AV
2		2483.500	37.236	28.071	-16.764	54.000	9.165	AV

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 13:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant A+B	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2468.255	88.734	79.542	N/A	N/A	9.192	PK
2		2483.500	57.753	48.859	-16.247	74.000	8.894	PK

Engineer: Jack	
Site: AC5	Time: 2013/12/07 - 13:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: Horn_3117_988(1-18GHz)	Polarity: Vertical
EUT: GPON ONT	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz) Ant A+B	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2467.765	77.780	68.578	N/A	N/A	9.202	AV
2		2483.500	43.991	35.097	-10.009	54.000	8.894	AV

7. Operation Frequency Range of 20dB Bandwidth

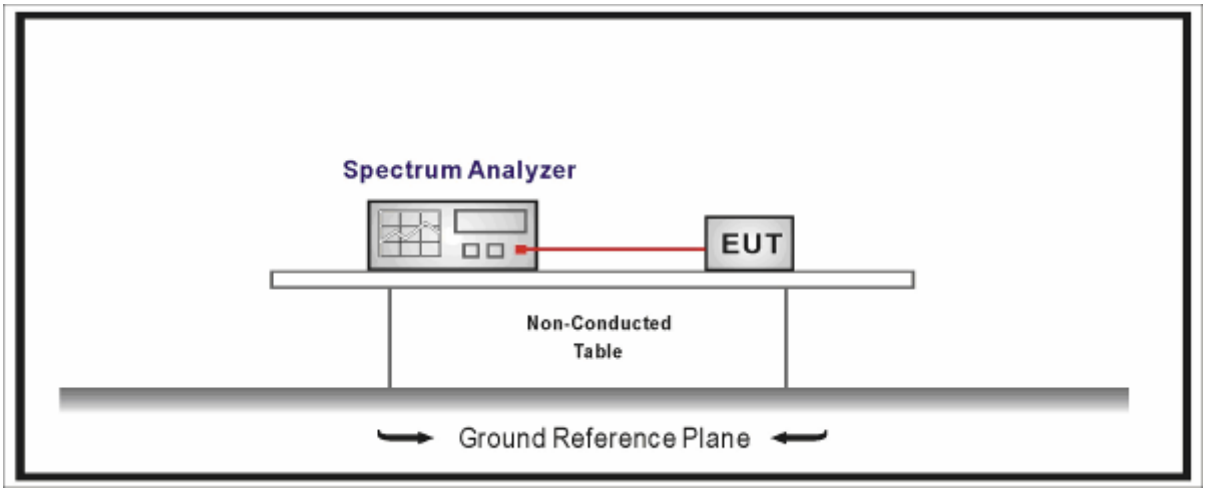
7.1. Test Equipment

Operation Frequency Range of 20dB Bandwidth / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2014.01.21
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2014.05.08

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

7.2. Test Setup



7.3. Limit

20 dB bandwidth of the emission is contained within the operation frequency band.

7.4. Test Procedure

The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Span greater than RBW.

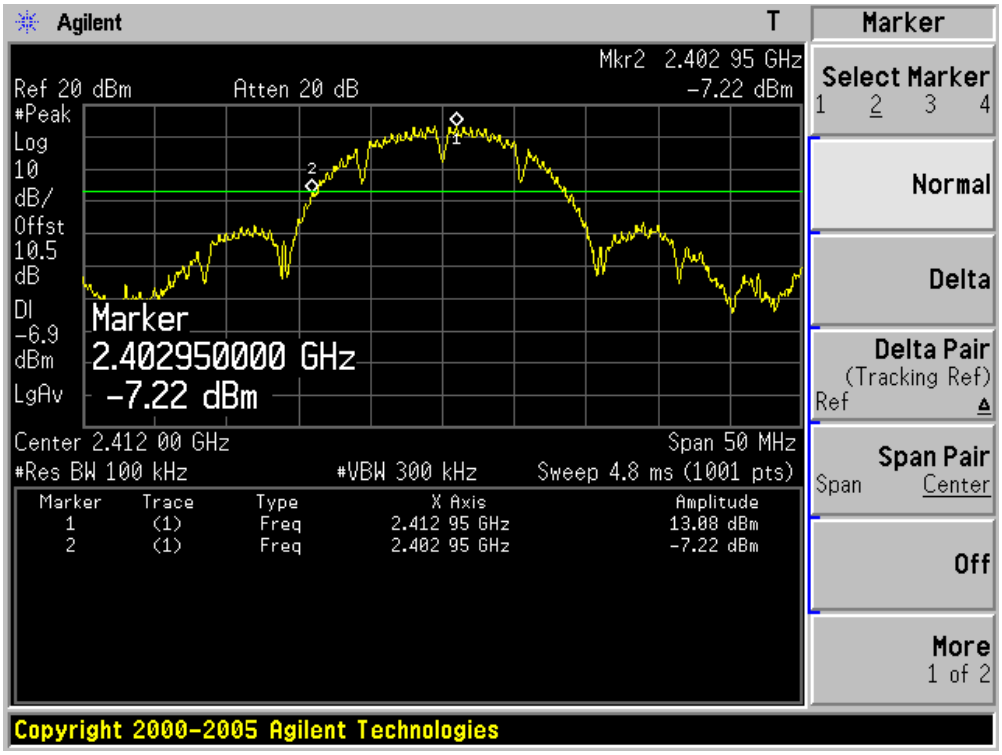
7.5. Uncertainty

The measurement uncertainty is defined as ± 1 kHz

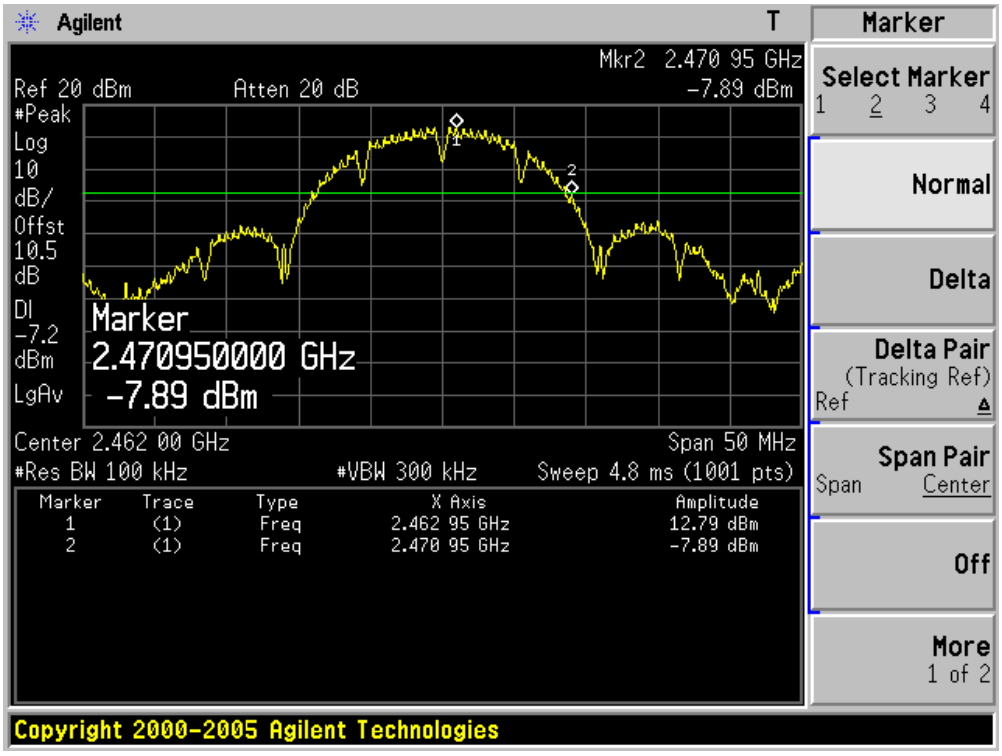
7.6. Test Result

Product	:	GPON ONT
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11b (Ant A)

Channel 01 (2412MHz)

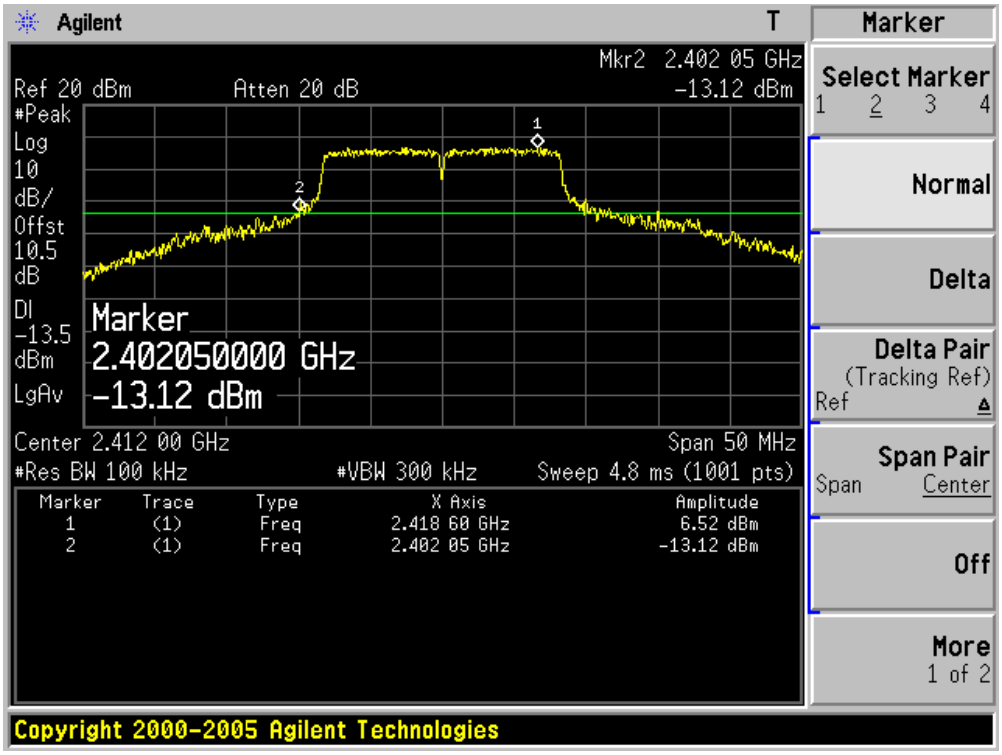


Channel 11 (2462MHz)

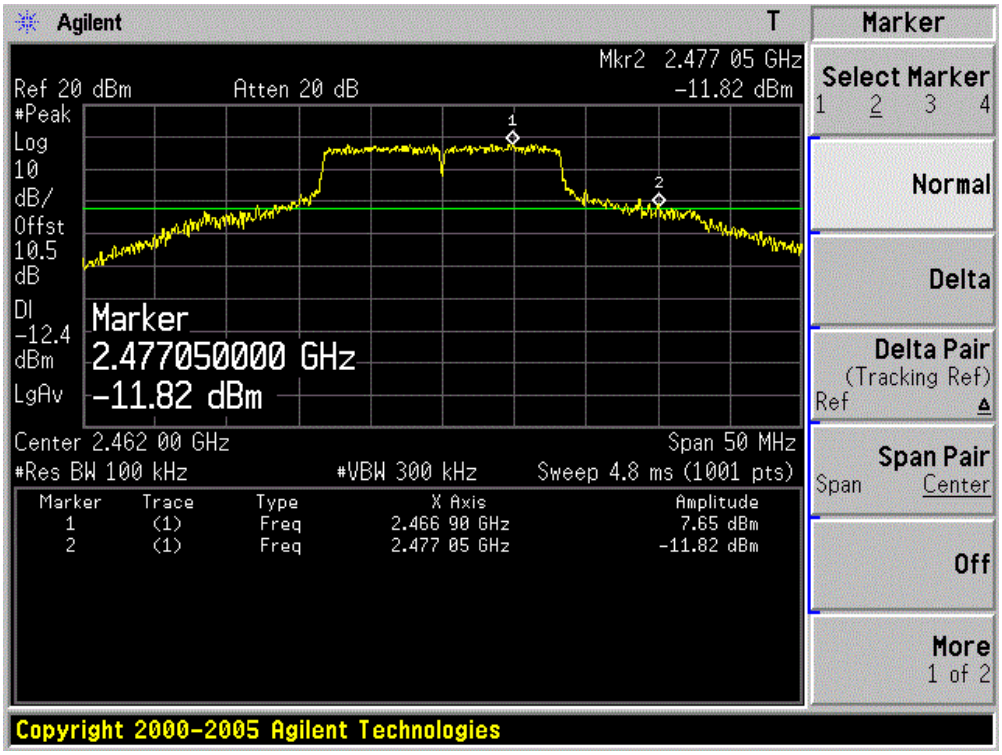


Product	:	GPON ONT
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11g (Ant A)

Channel 01 (2412MHz)

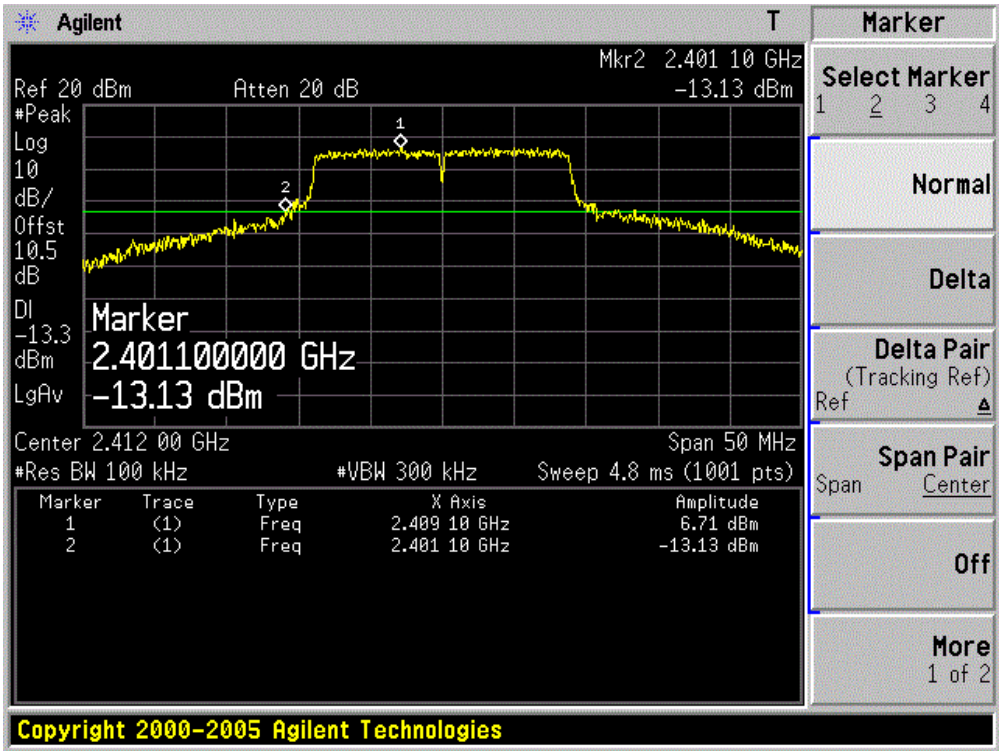


Channel 11 (2462MHz)

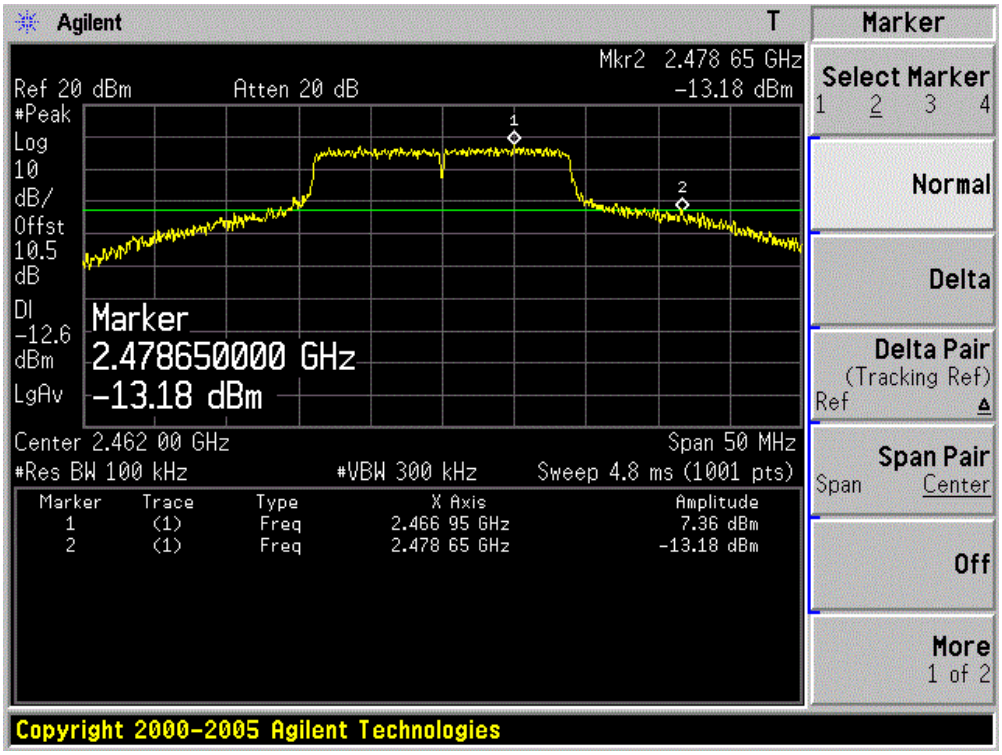


Product	:	GPON ONT
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) (Ant A)

Channel 01 (2412MHz)

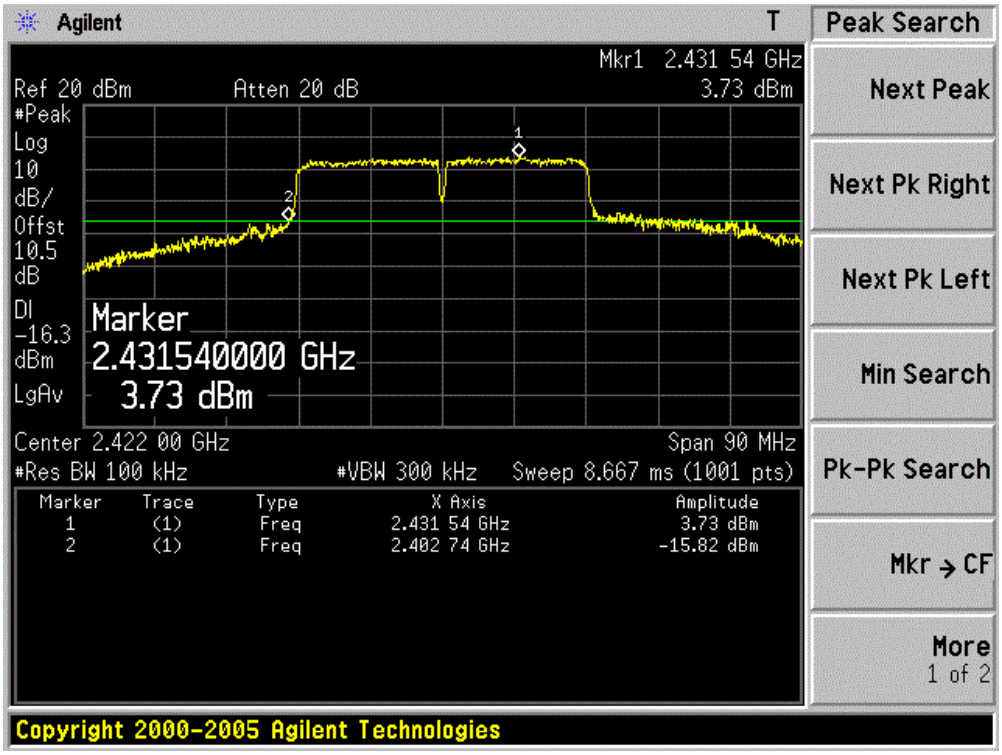


Channel 11 (2462MHz)

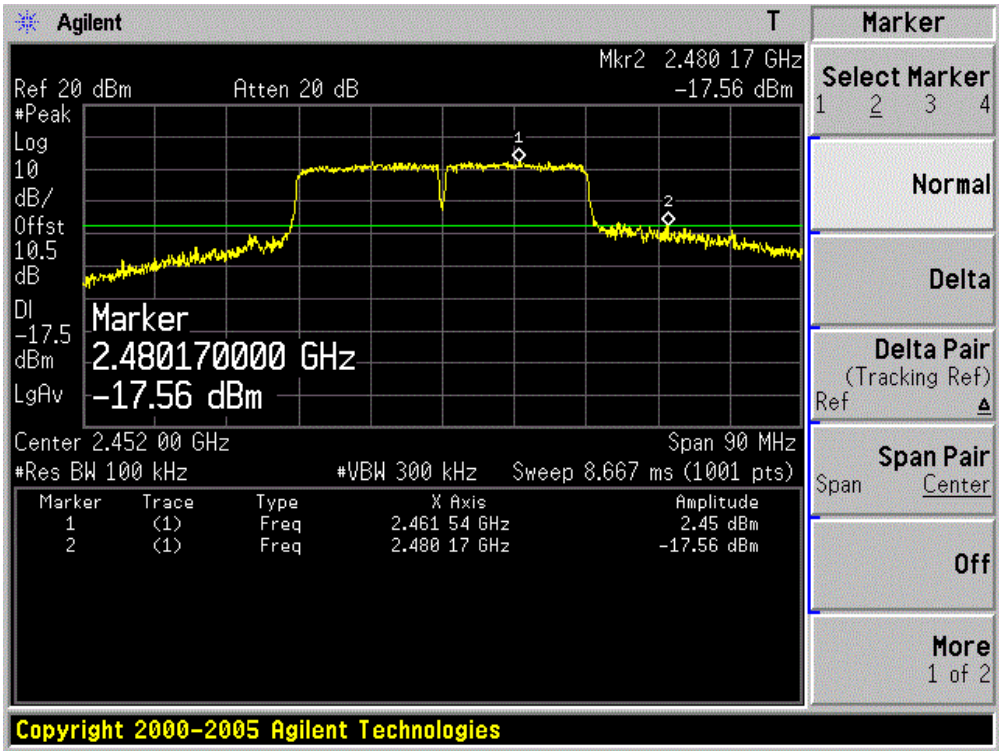


Product	:	GPON ONT
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) (Ant A)

Channel 03 (2422MHz)

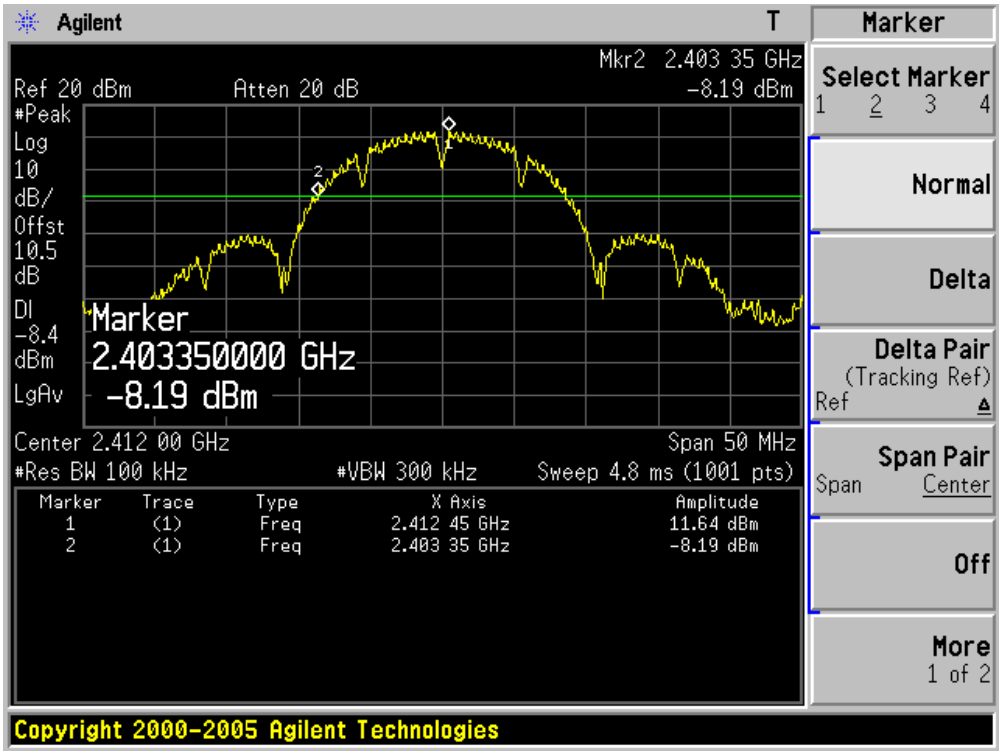


Channel 09 (2452MHz)

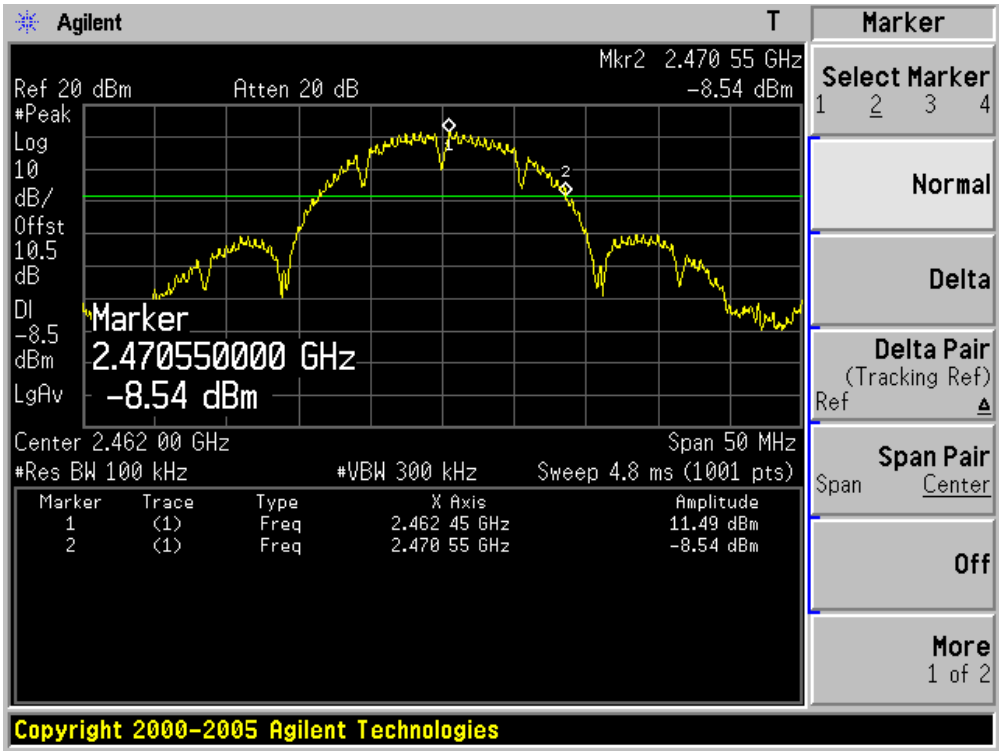


Product	:	GPON ONT
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11b (Ant B)

Channel 01 (2412MHz)

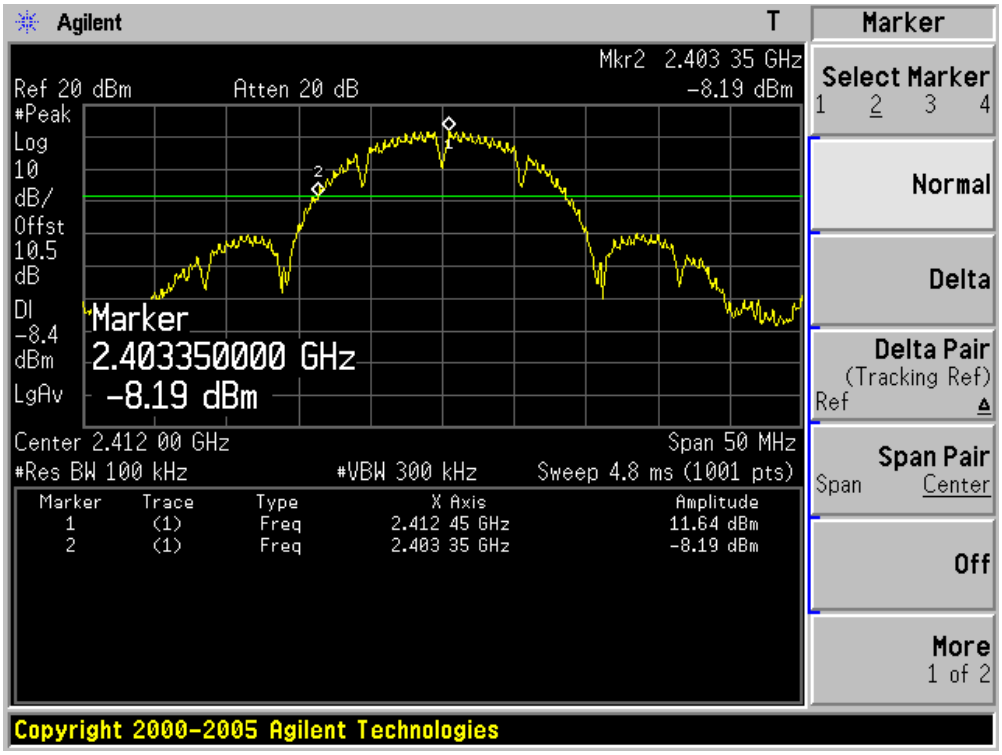


Channel 11 (2462MHz)

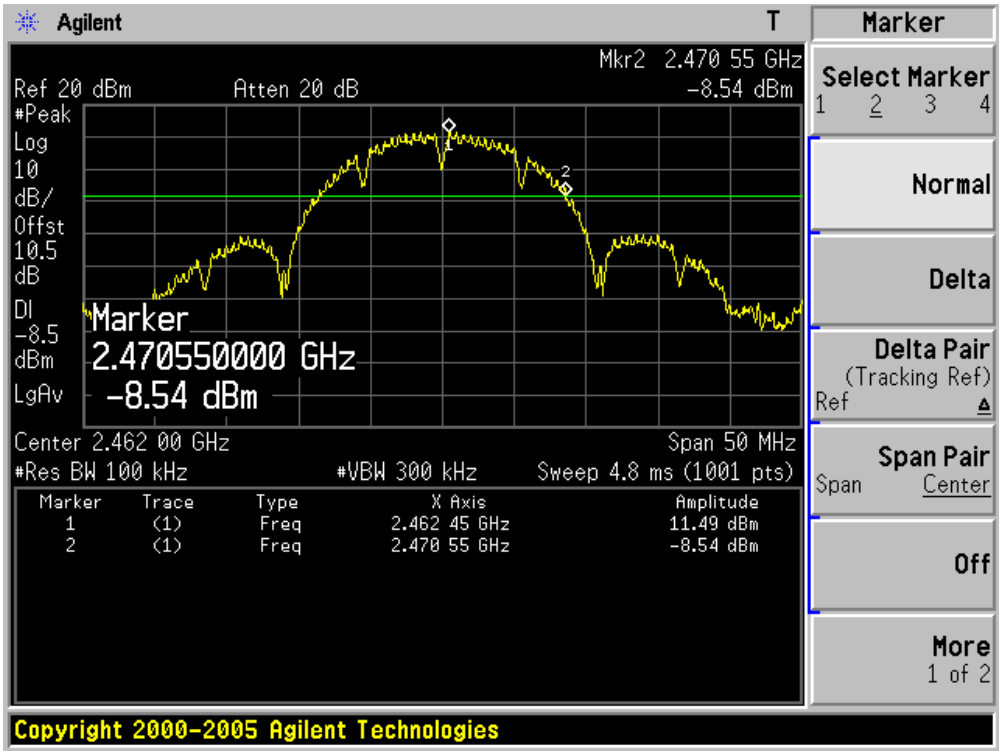


Product	:	GPON ONT
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11g (Ant B)

Channel 01 (2412MHz)

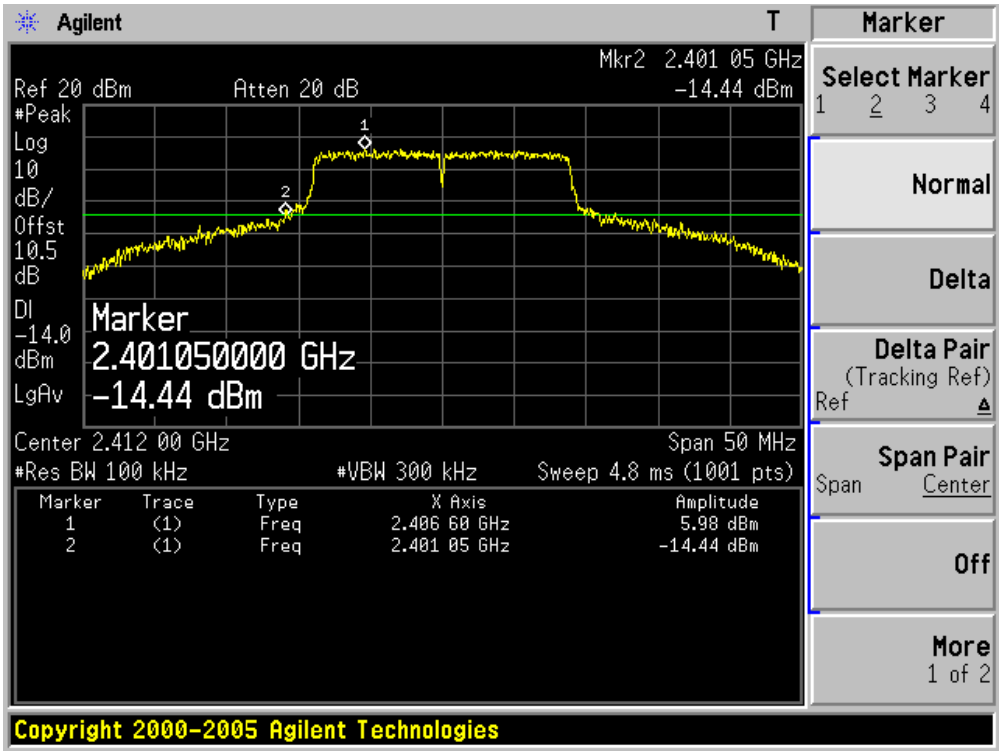


Channel 11 (2462MHz)

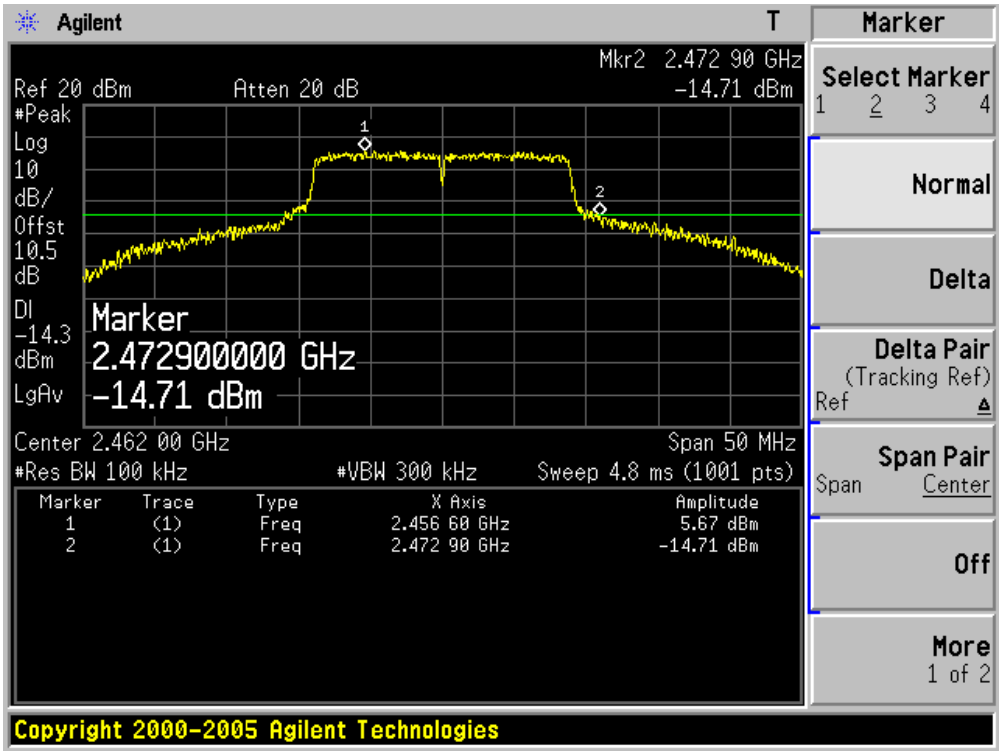


Product	:	GPON ONT
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) (Ant B)

Channel 01 (2412MHz)

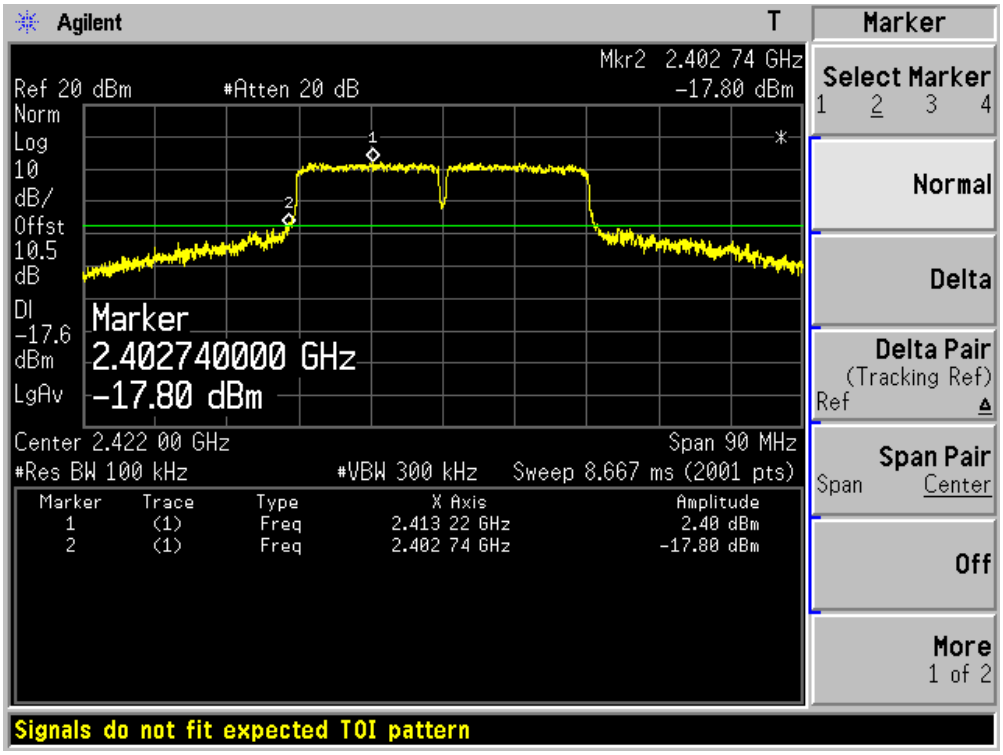


Channel 11 (2462MHz)

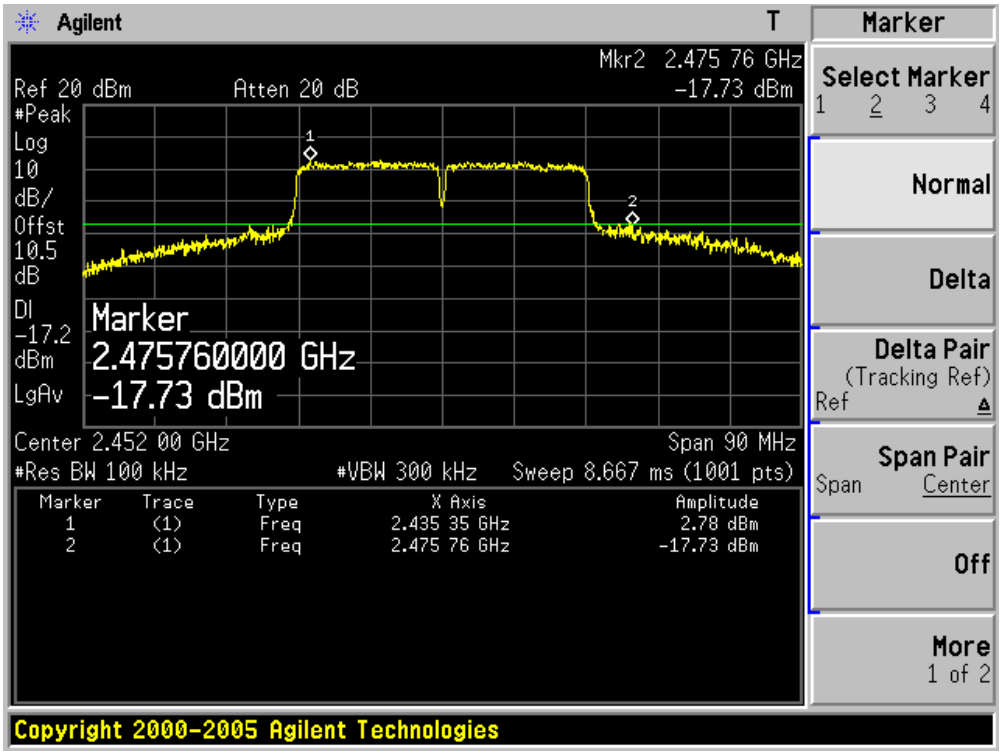


Product	:	GPON ONT
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) (Ant B)

Channel 03 (2422MHz)



Channel 09 (2452MHz)



8. Occupied Bandwidth

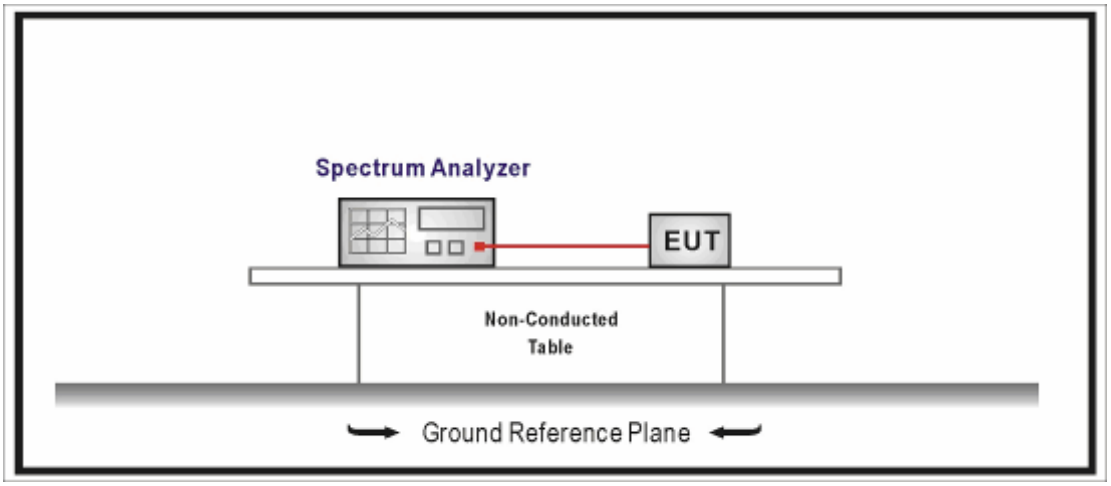
8.1. Test Equipment

Occupied Bandwidth / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2014.01.21
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2014.05.08

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

8.2. Test Setup



8.3. Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

8.4. Test Procedure

The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 100 kHz, Span greater than RBW.

8.5. Uncertainty

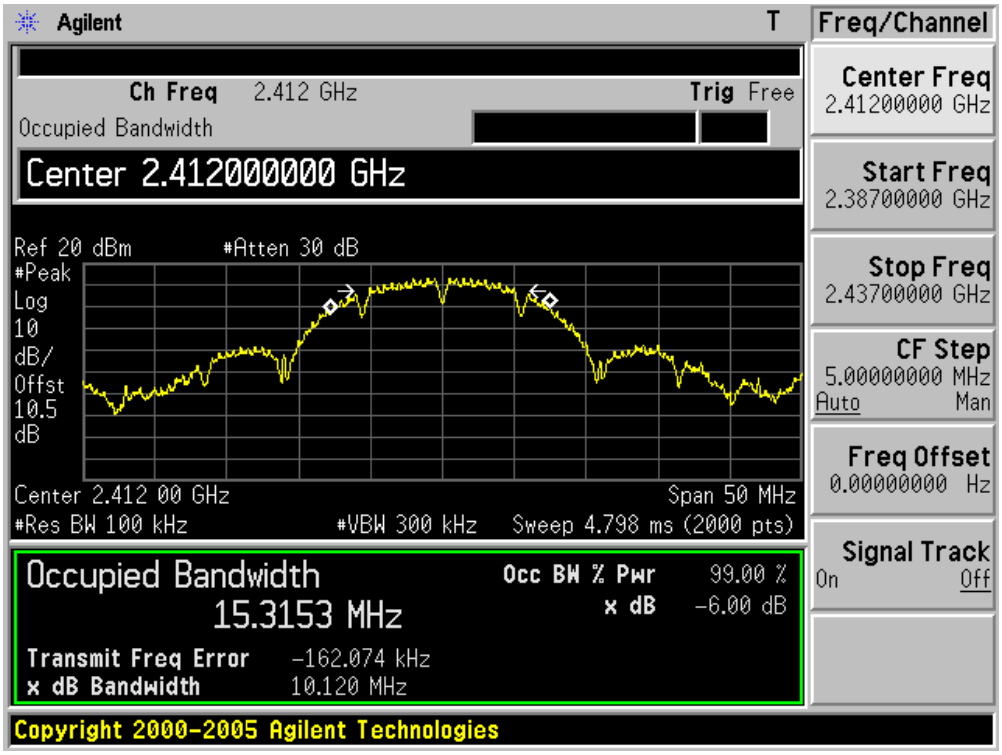
The measurement uncertainty is defined as ± 1 kHz

8.6. Test Result

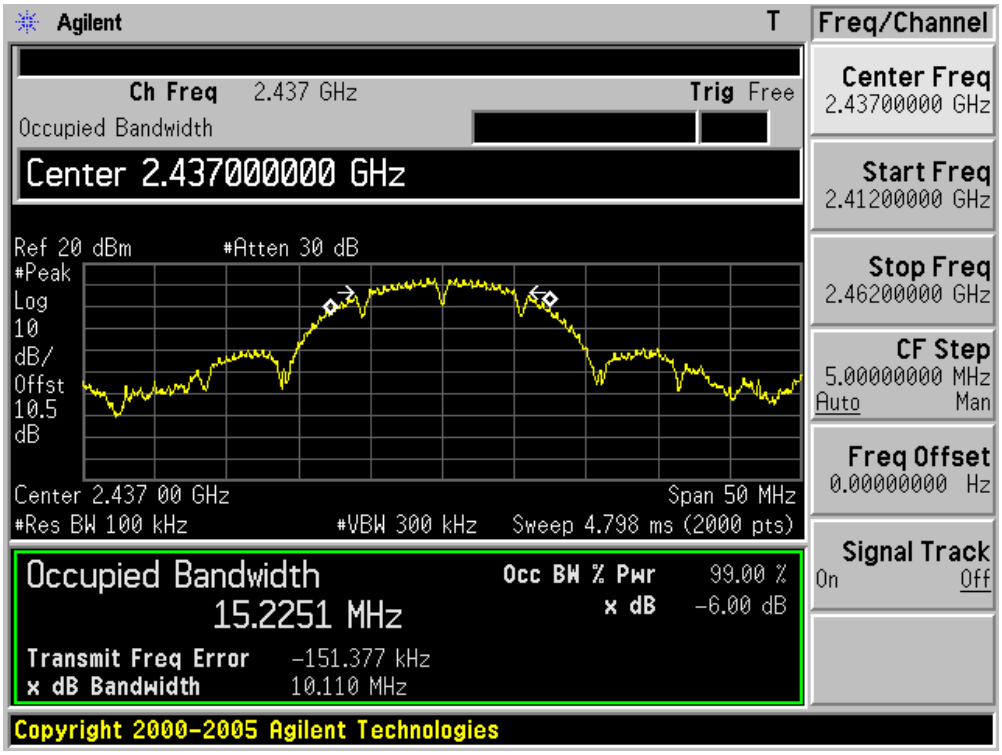
Product	:	GPON ONT
Test Item	:	6dB Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11b (Ant A)

Channel No.	Frequency (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result	99% Bandwidth (kHz)
01	2412	10120.0	500	Pass	15315.3
06	2437	10110.0	500	Pass	15225.1
11	2462	10075.0	500	Pass	14067.1

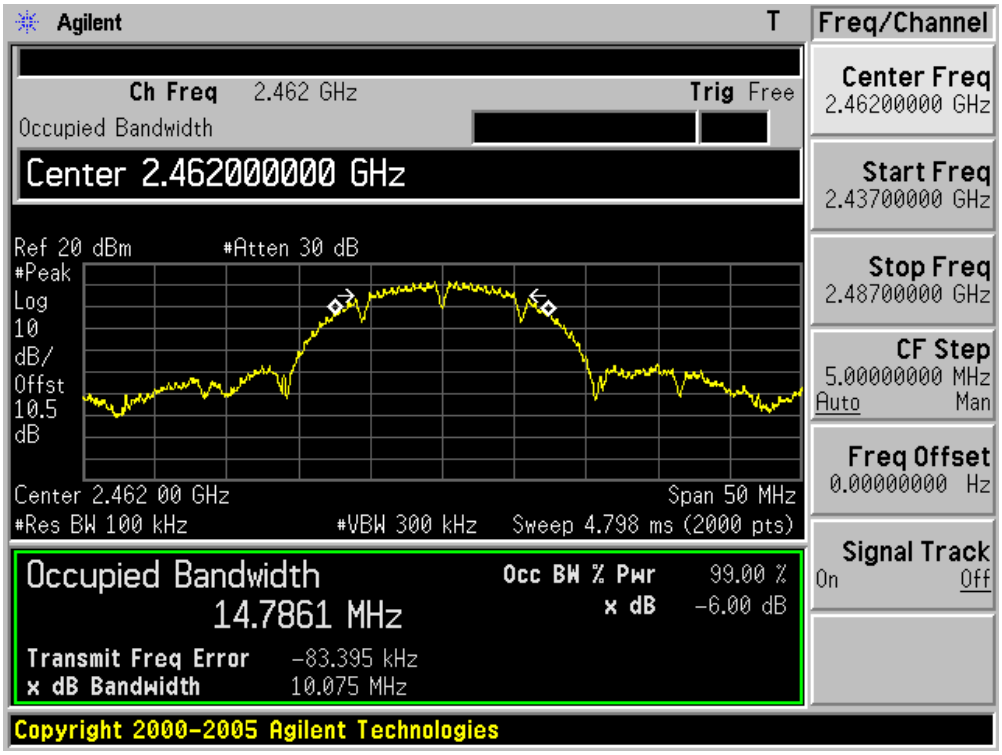
Channel 01 (2412MHz)



Channel 06 (2437MHz)



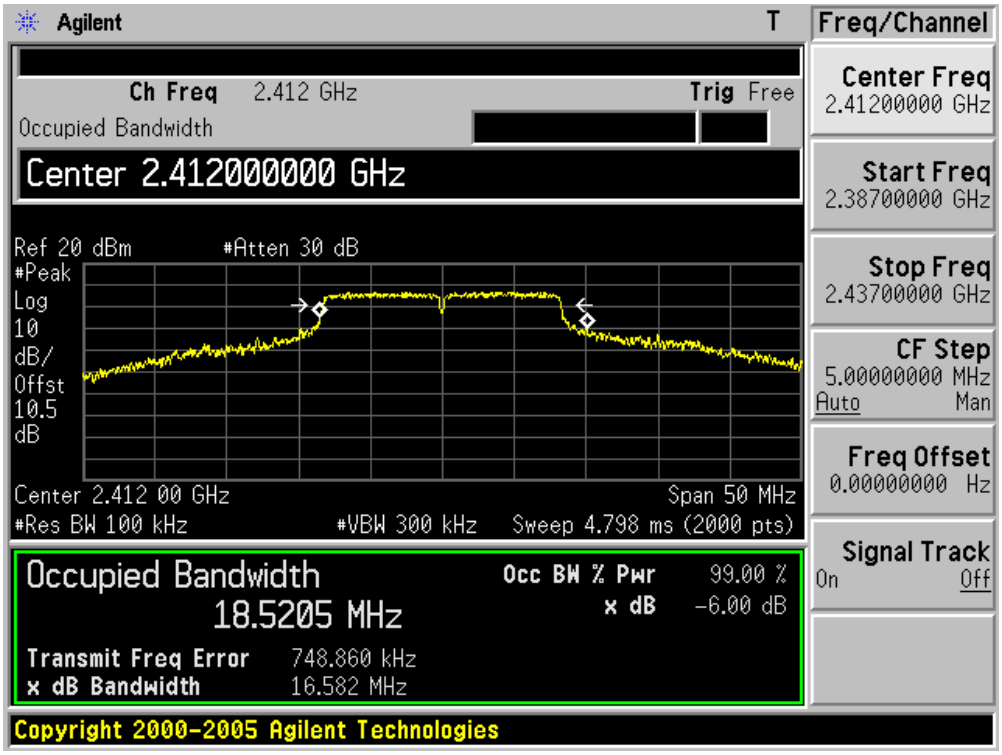
Channel 11 (2462MHz)



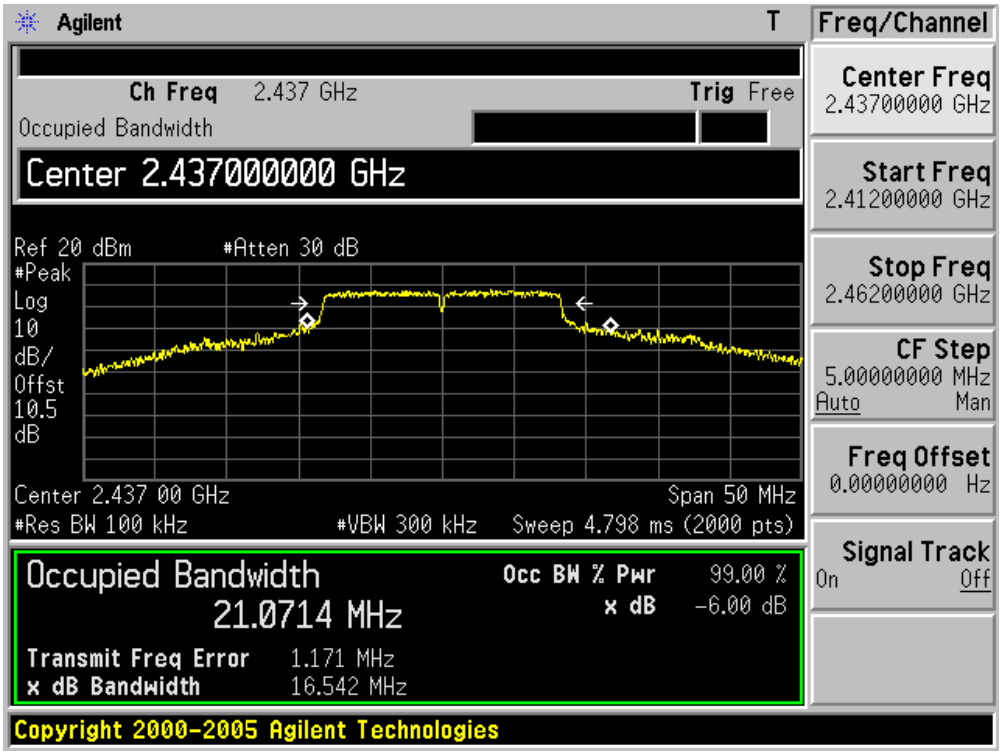
Product	:	GPON ONT
Test Item	:	6dB Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11g (Ant A)

Channel No.	Frequency (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result	99% Bandwidth (kHz)
01	2412	16582.0	500	Pass	18520.5
06	2437	16542.0	500	Pass	21071.4
11	2462	16498.0	500	Pass	22472.6

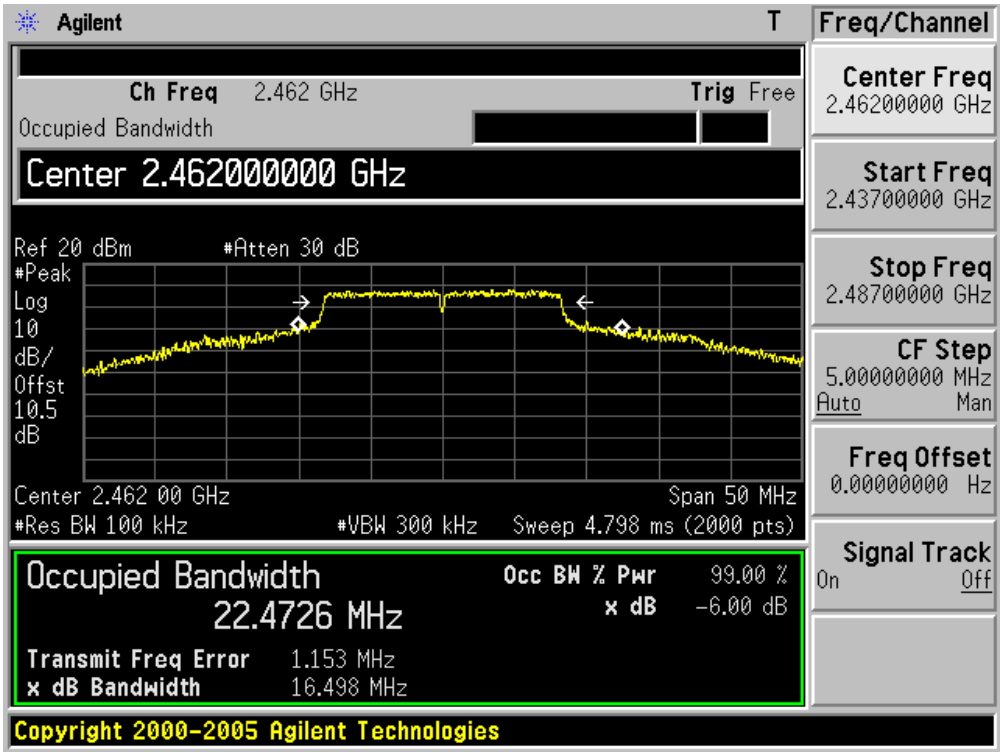
Channel 01 (2412MHz)



Channel 06 (2437MHz)



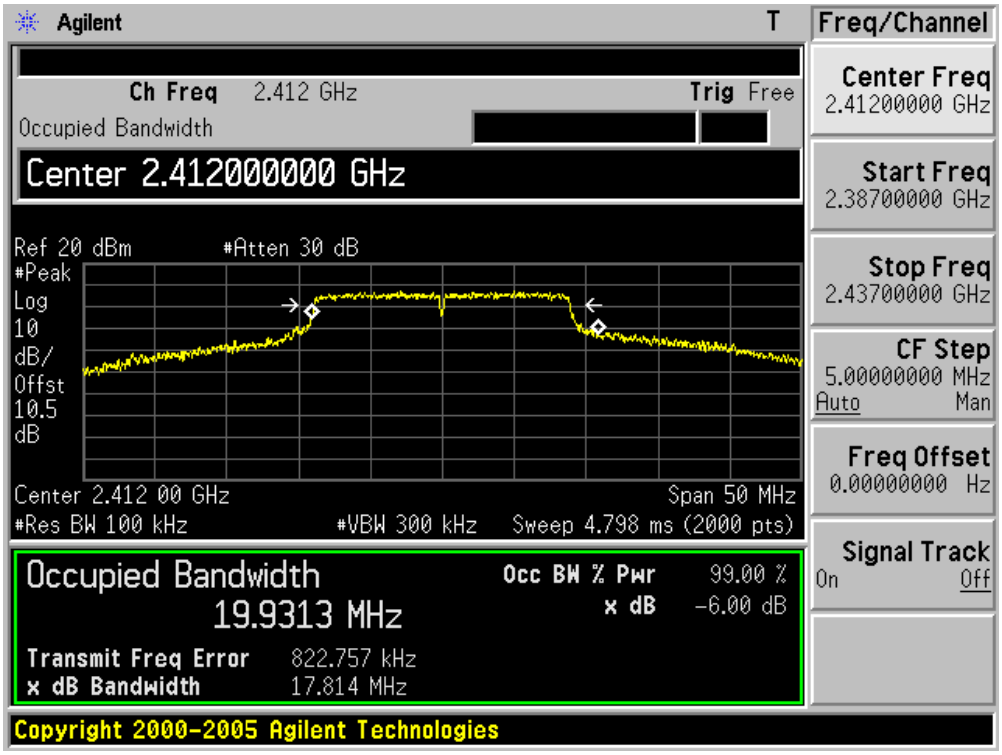
Channel 11 (2462MHz)



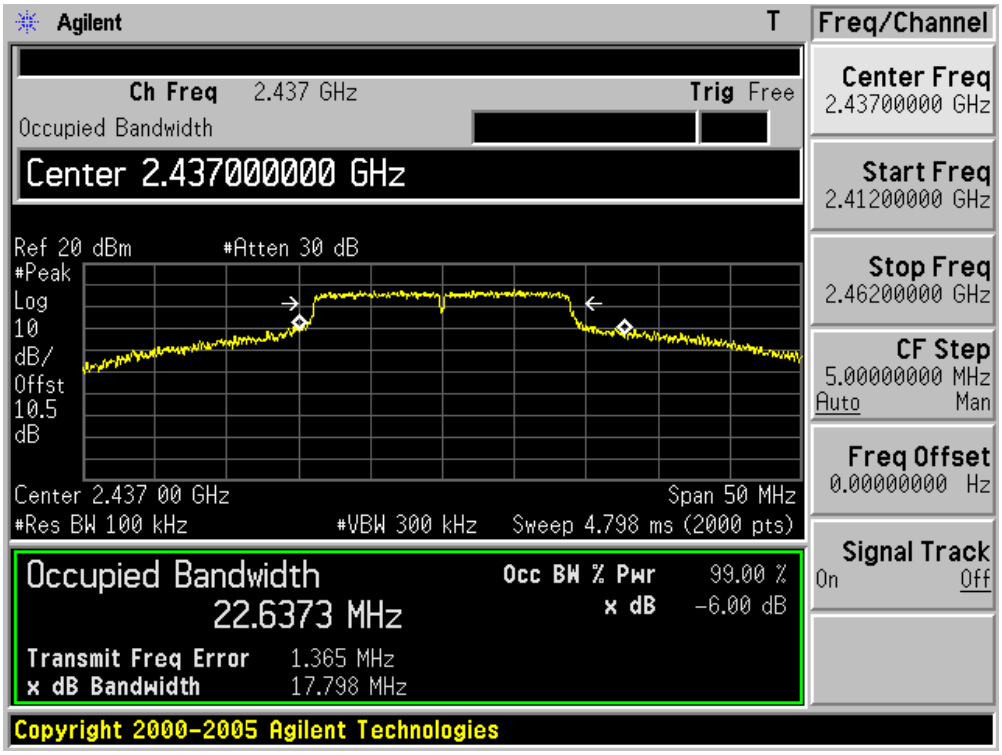
Product	:	GPON ONT
Test Item	:	6dB Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) (Ant A)

Channel No.	Frequency (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result	99% Bandwidth (kHz)
01	2412	17814.0	500	Pass	19931.3
06	2437	17798.0	500	Pass	22637.3
11	2462	17819.0	500	Pass	22606.9

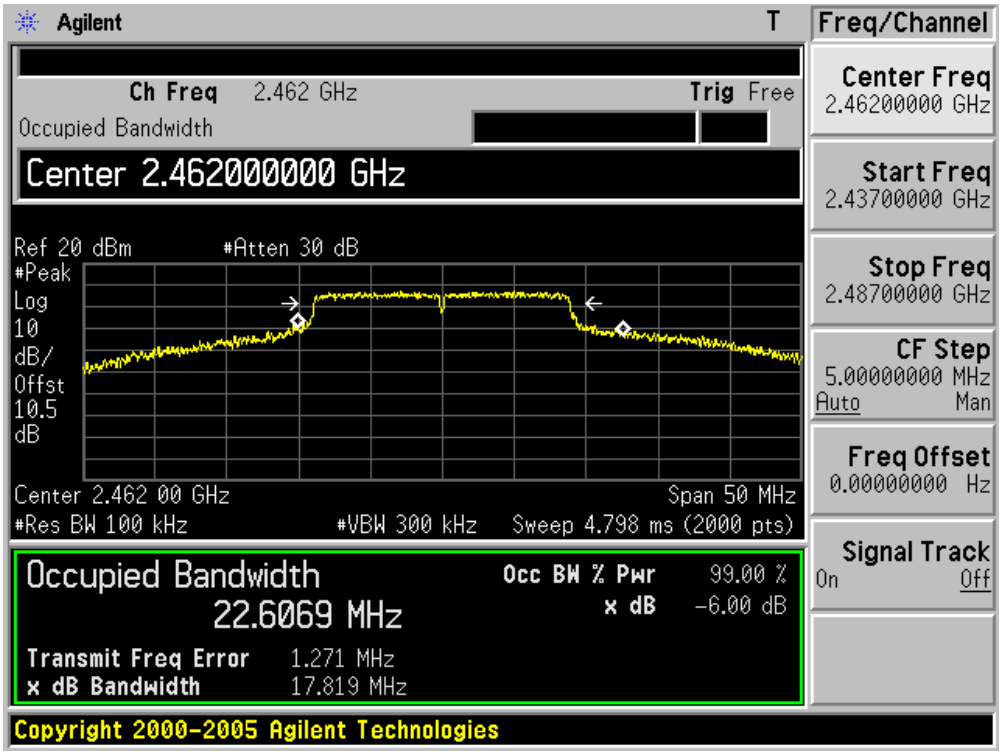
Channel 01 (2412MHz)



Channel 06 (2437MHz)



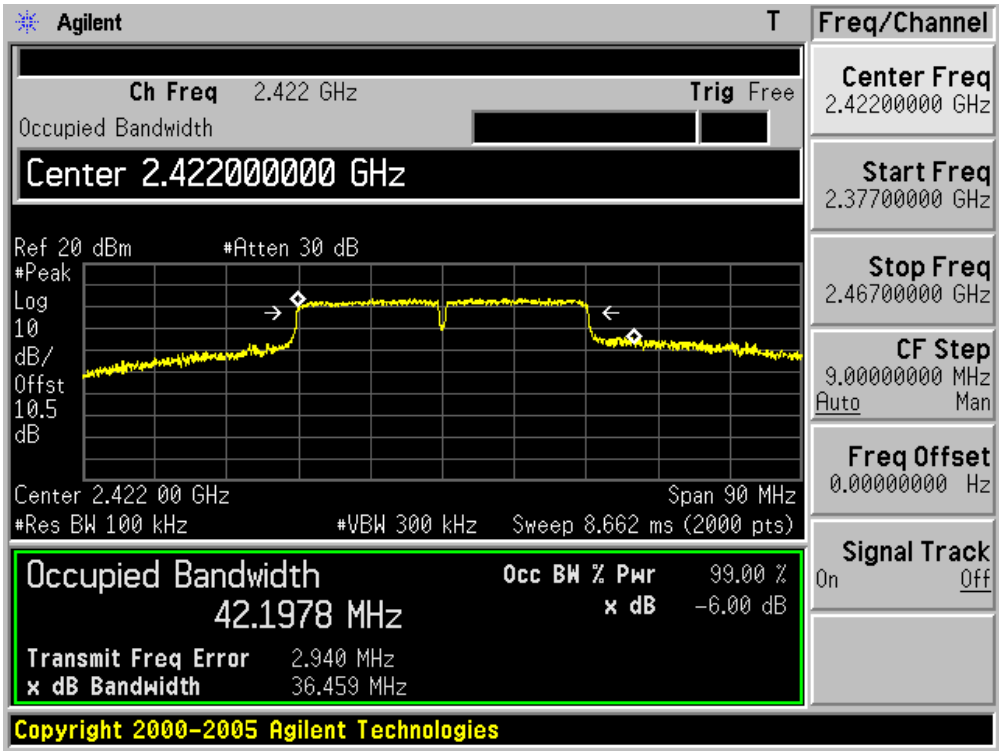
Channel 11 (2462MHz)



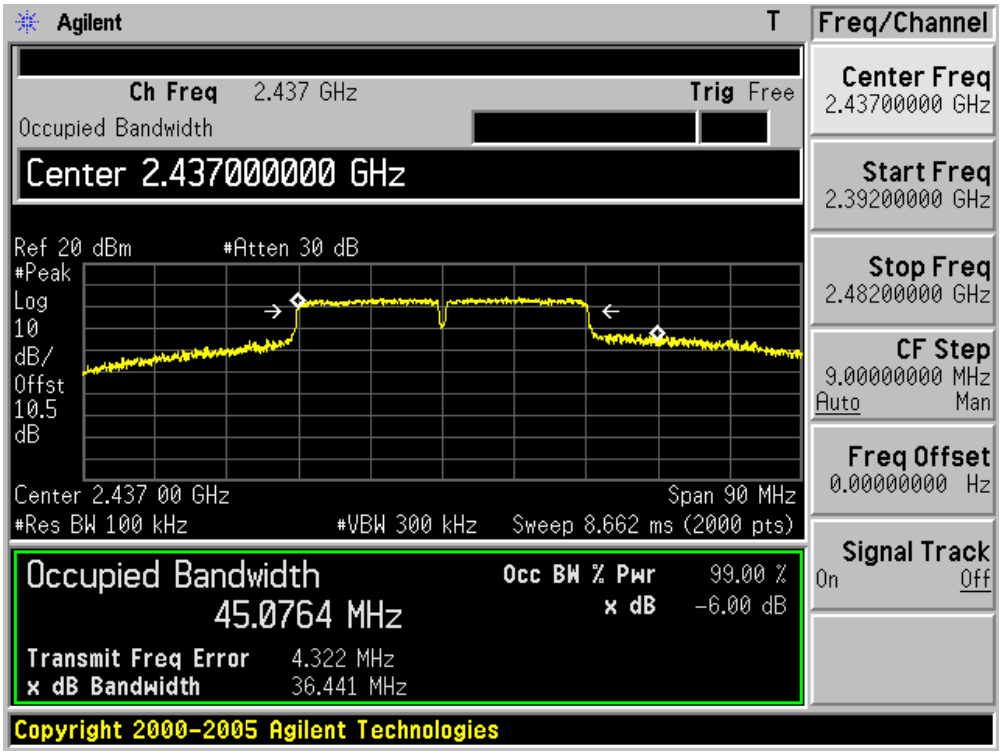
Product	:	GPON ONT
Test Item	:	6dB Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) (Ant A)

Channel No.	Frequency (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result	99% Bandwidth (kHz)
03	2422	36459.0	500	Pass	42197.8
06	2437	36441.0	500	Pass	45076.4
09	2452	36441.0	500	Pass	37366.9

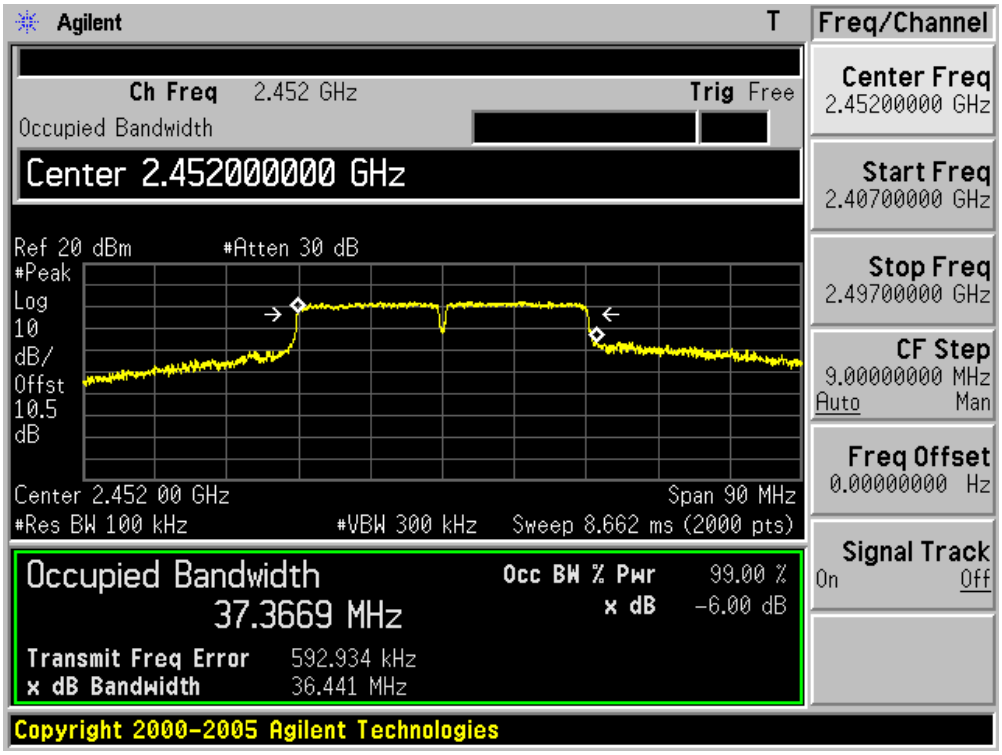
Channel 03 (2422MHz)



Channel 06 (2437MHz)



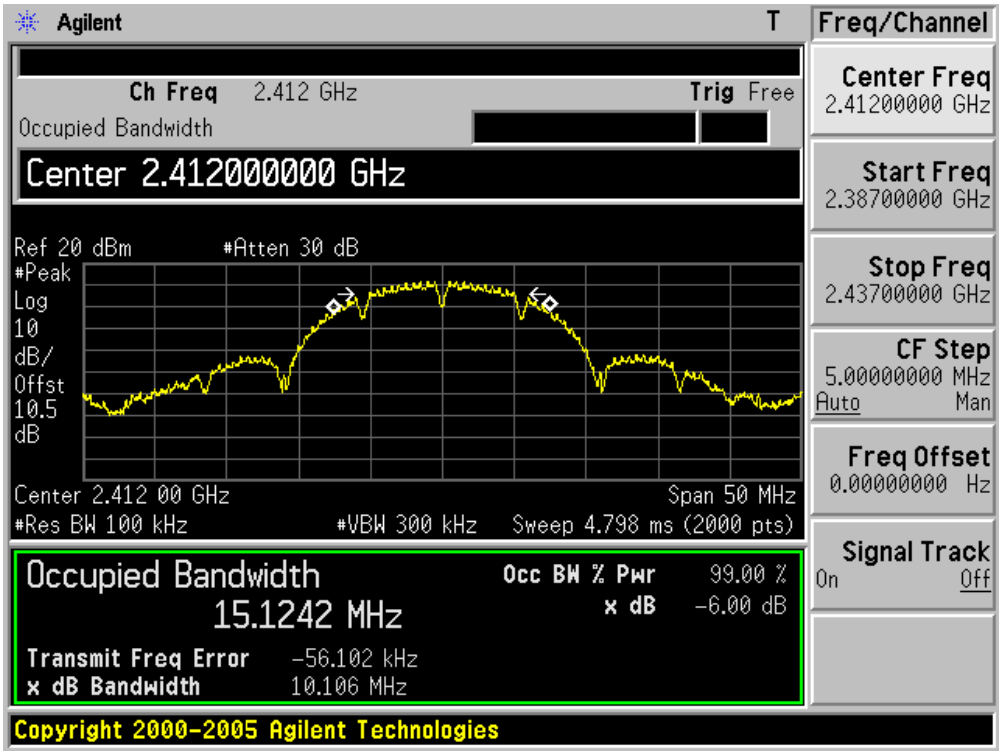
Channel 09 (2452MHz)



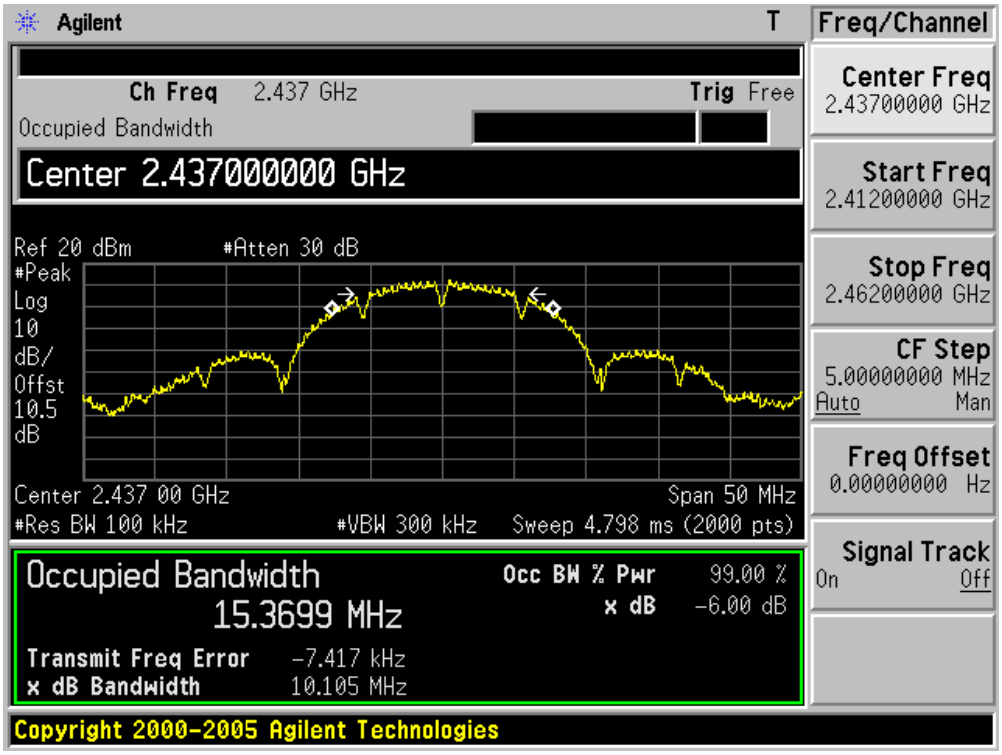
Product	:	GPON ONT
Test Item	:	6dB Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11b (Ant B)

Channel No.	Frequency (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result	99% Bandwidth (kHz)
01	2412	10106.0	500	Pass	15124.2
06	2437	10105.0	500	Pass	15369.9
11	2462	10109.0	500	Pass	15351.8

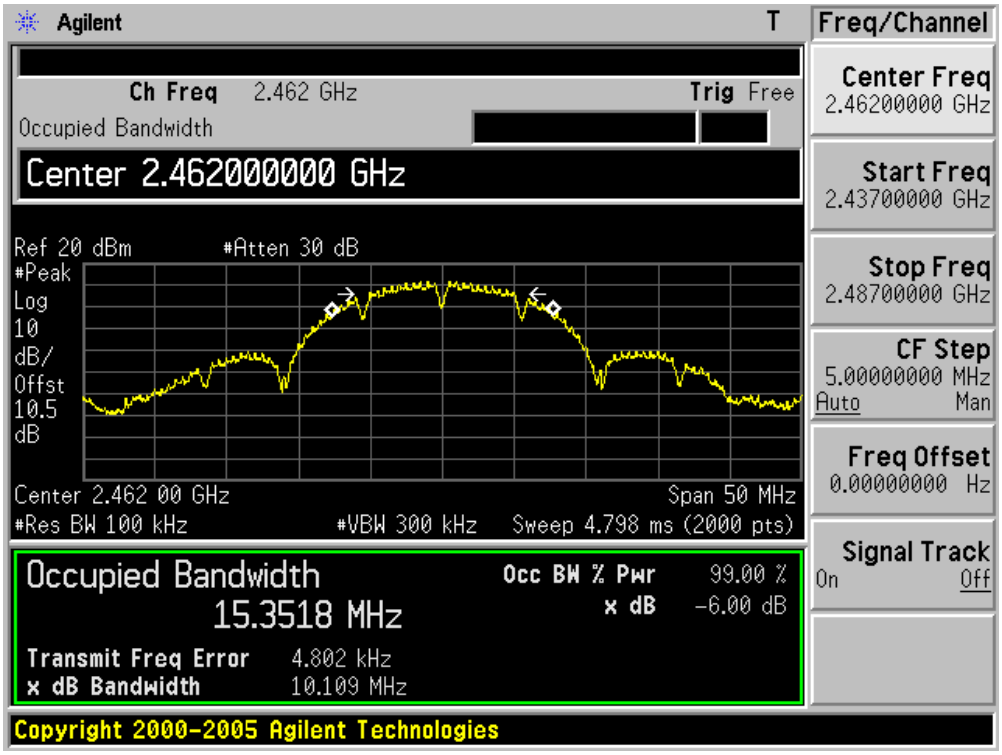
Channel 01 (2412MHz)



Channel 06 (2437MHz)



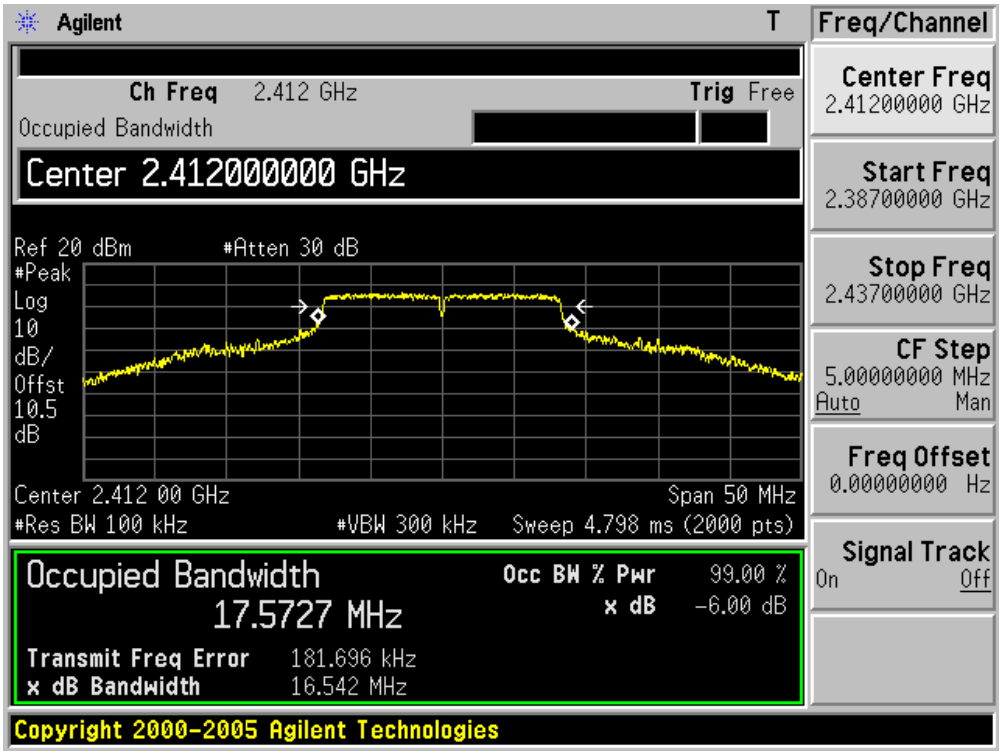
Channel 11 (2462MHz)



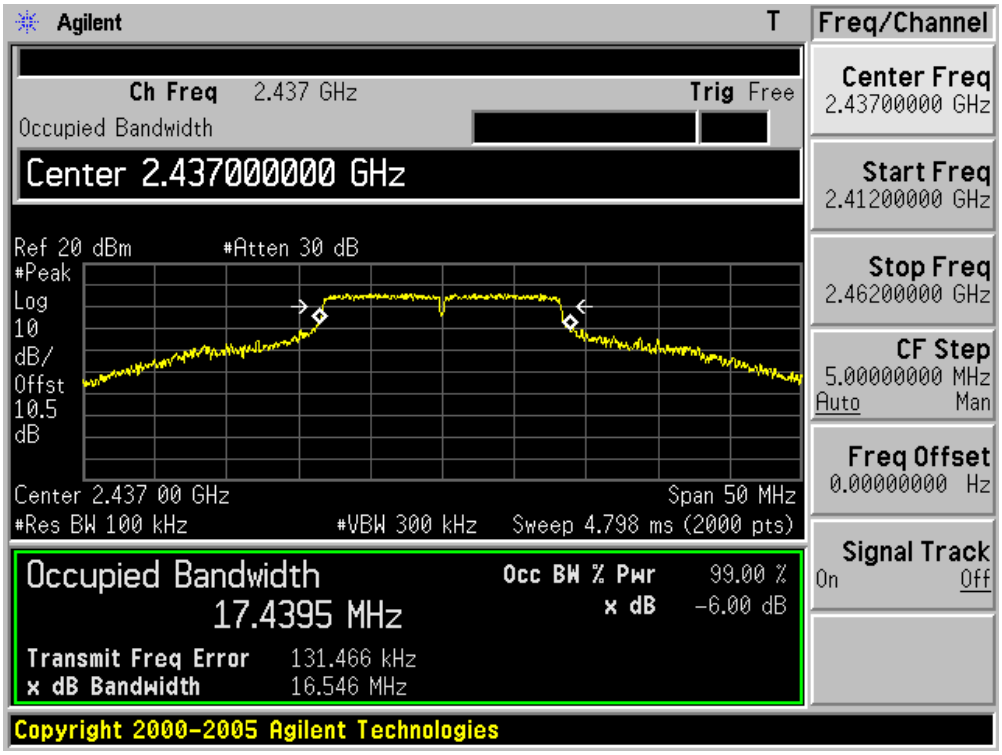
Product	:	GPON ONT
Test Item	:	6dB Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11g (Ant B)

Channel No.	Frequency (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result	99% Bandwidth (kHz)
01	2412	16542.0	500	Pass	17572.7
06	2437	16546.0	500	Pass	17439.5
11	2462	16556.0	500	Pass	17498.3

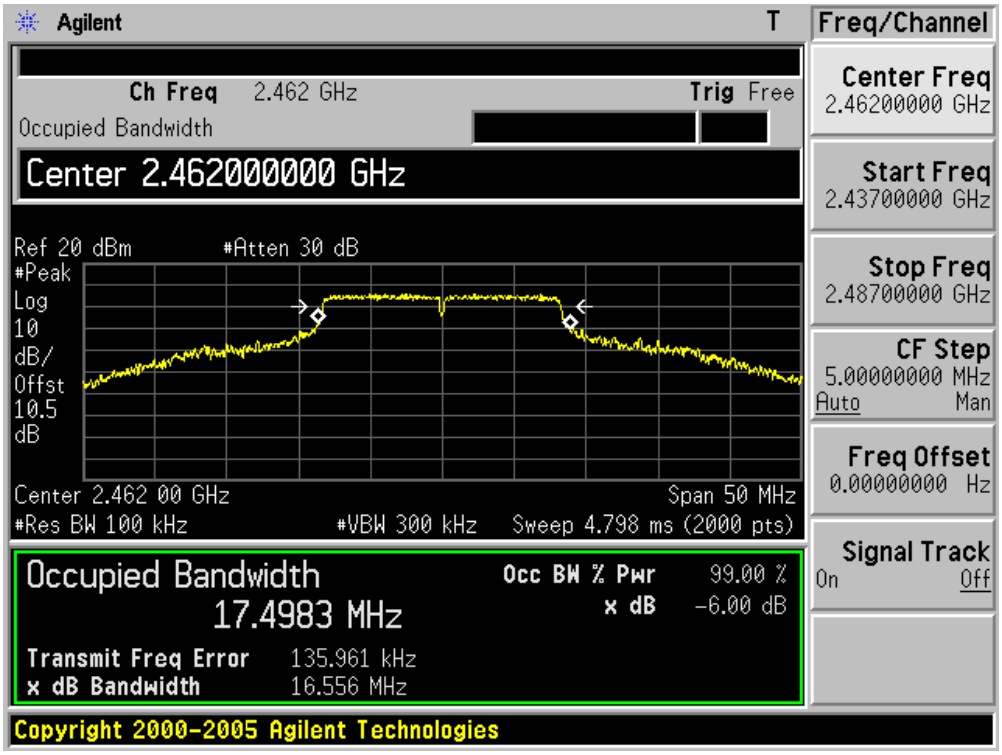
Channel 01 (2412MHz)



Channel 06 (2437MHz)



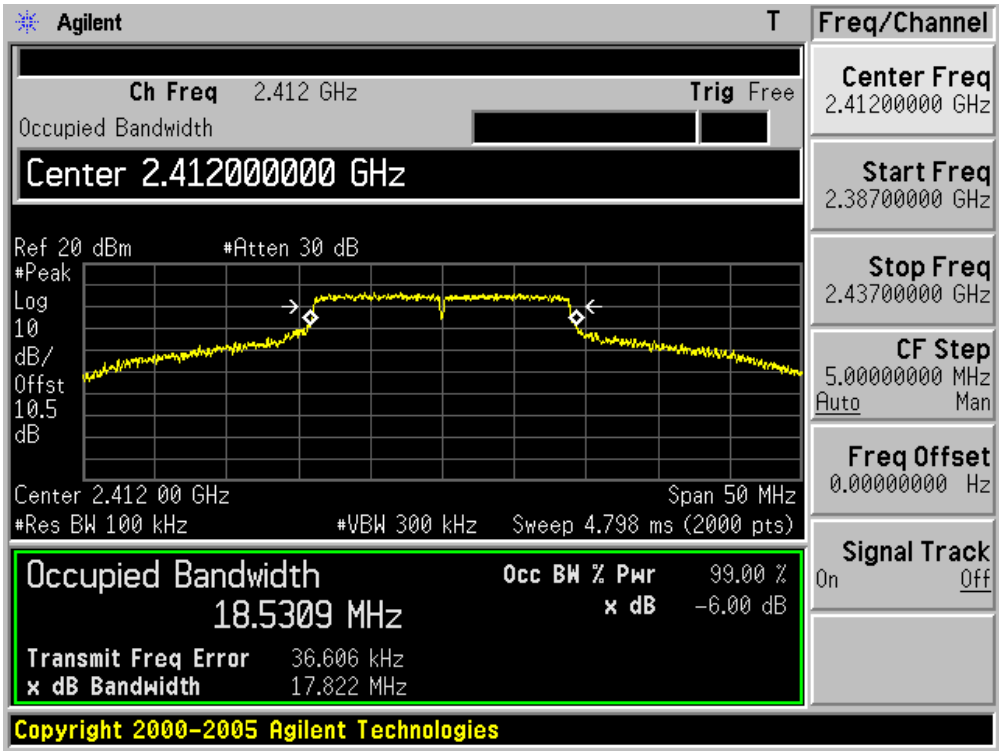
Channel 11 (2462MHz)



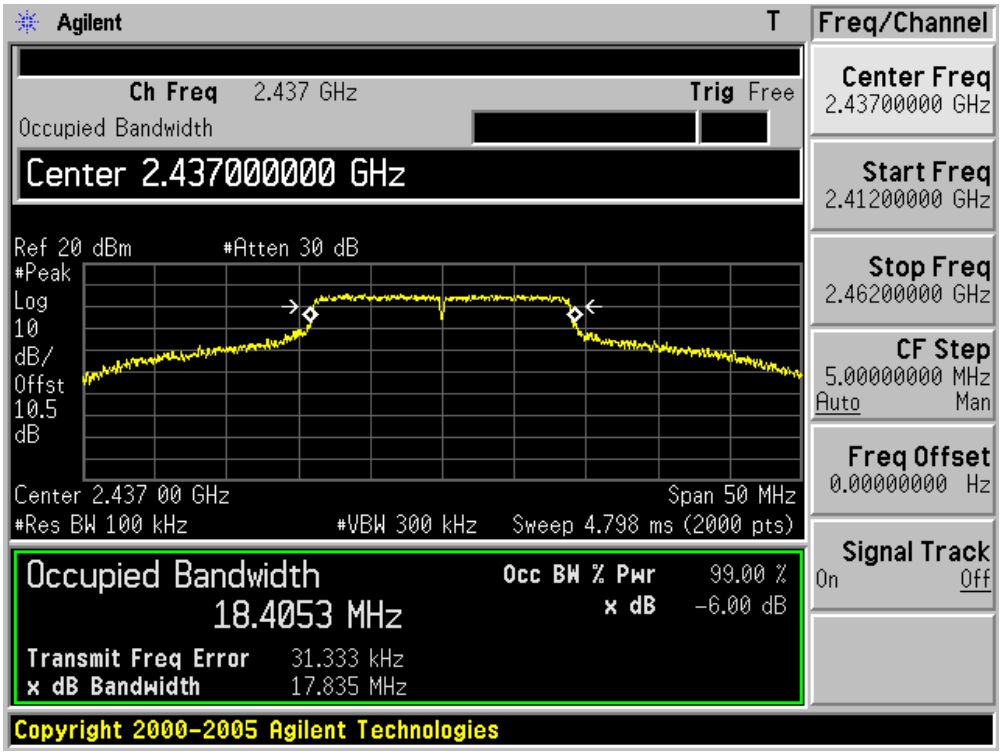
Product	:	GPON ONT
Test Item	:	6dB Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) (Ant B)

Channel No.	Frequency (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result	99% Bandwidth (kHz)
01	2412	17822.0	500	Pass	18530.9
06	2437	17835.0	500	Pass	18405.3
11	2462	17826.0	500	Pass	18261.2

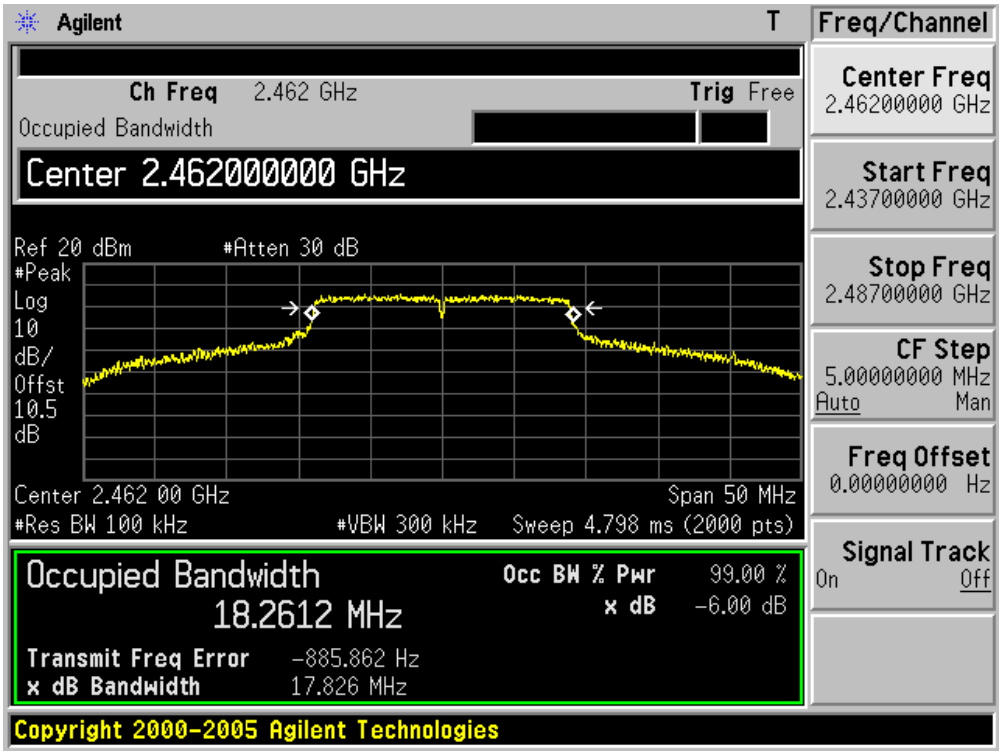
Channel 01 (2412MHz)



Channel 06 (2437MHz)



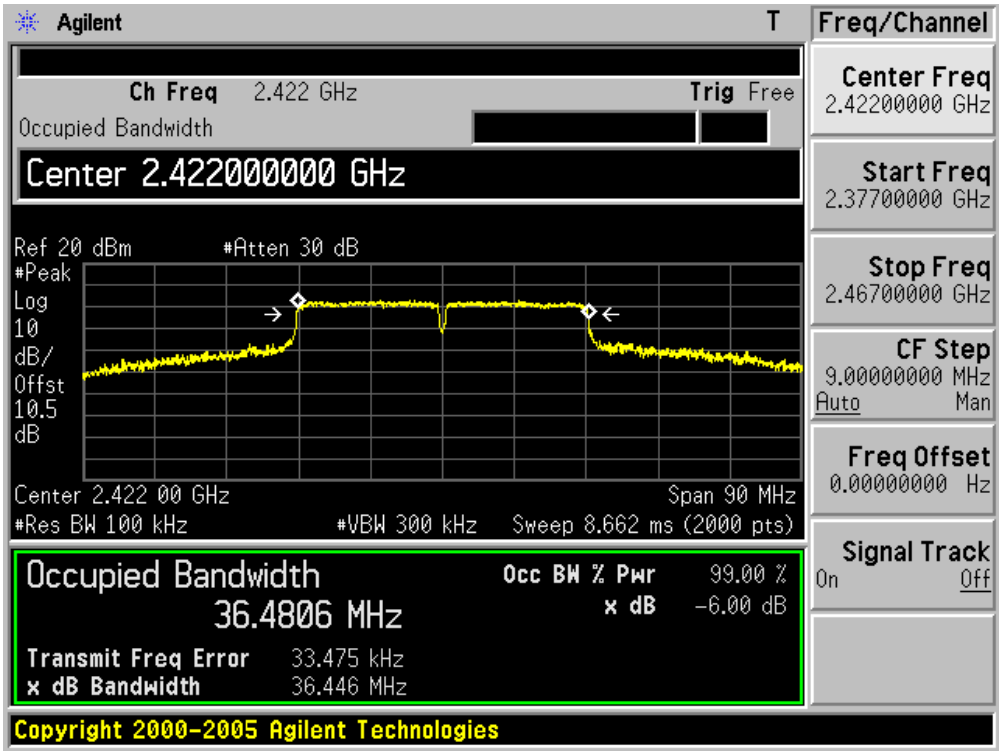
Channel 11 (2462MHz)



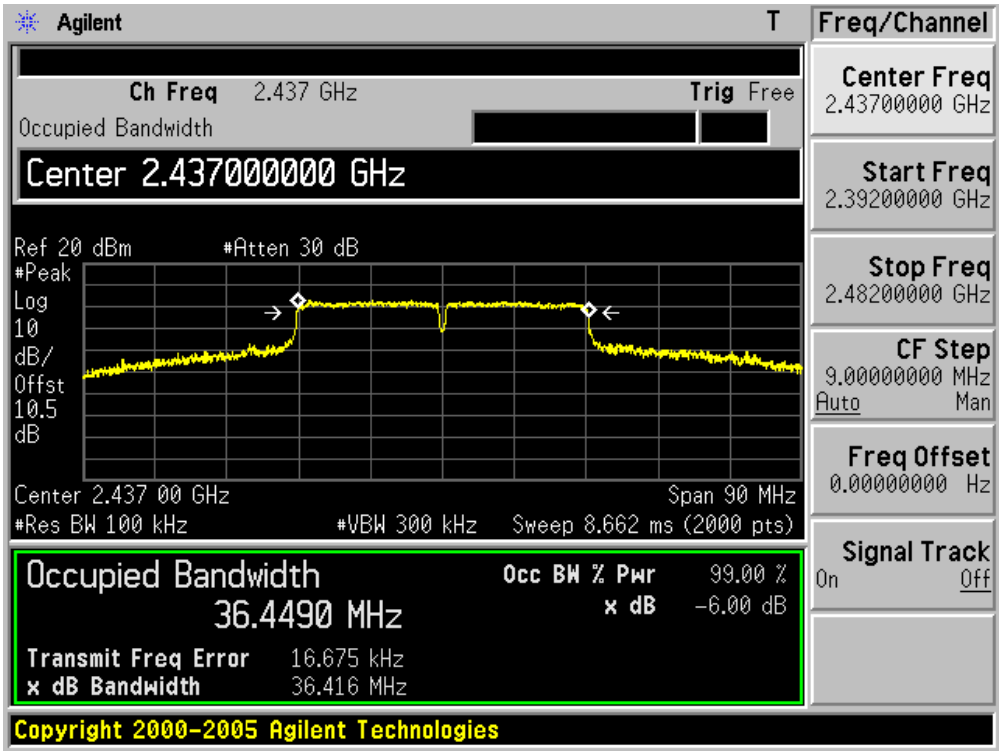
Product	:	GPON ONT
Test Item	:	6dB Occupied Bandwidth
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) (Ant B)

Channel No.	Frequency (MHz)	6dB Occupied Bandwidth (kHz)	Limit (kHz)	Result	99% Bandwidth (kHz)
03	2422	36446.0	500	Pass	36480.6
06	2437	36449.0	500	Pass	36416.0
09	2452	36413.3	500	Pass	36443.0

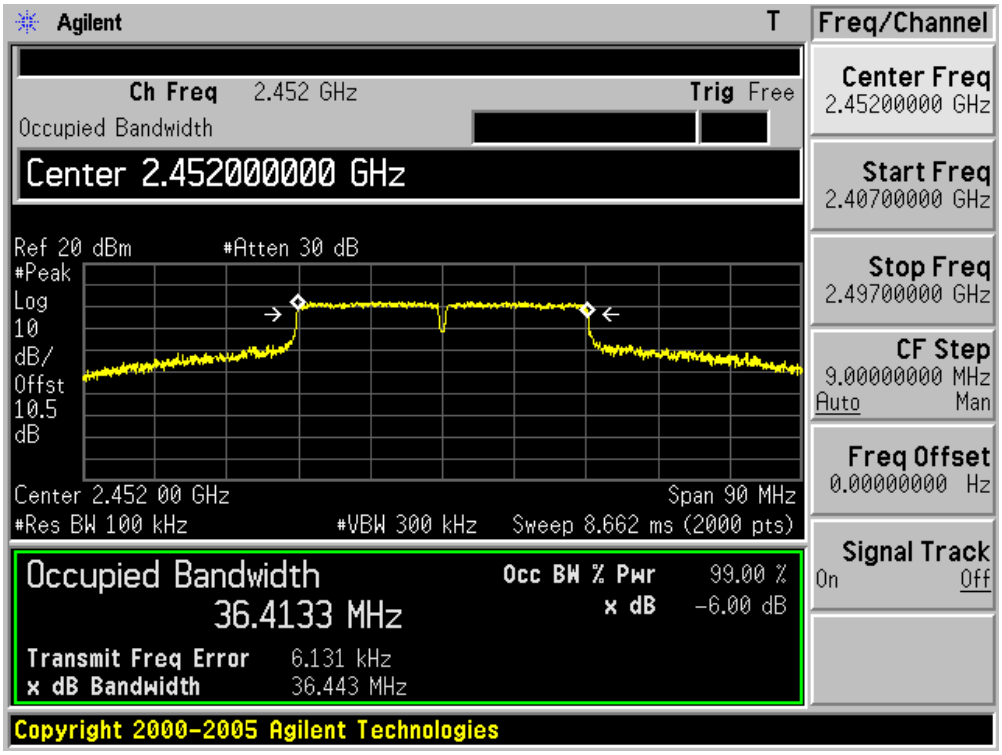
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



9. Power Output

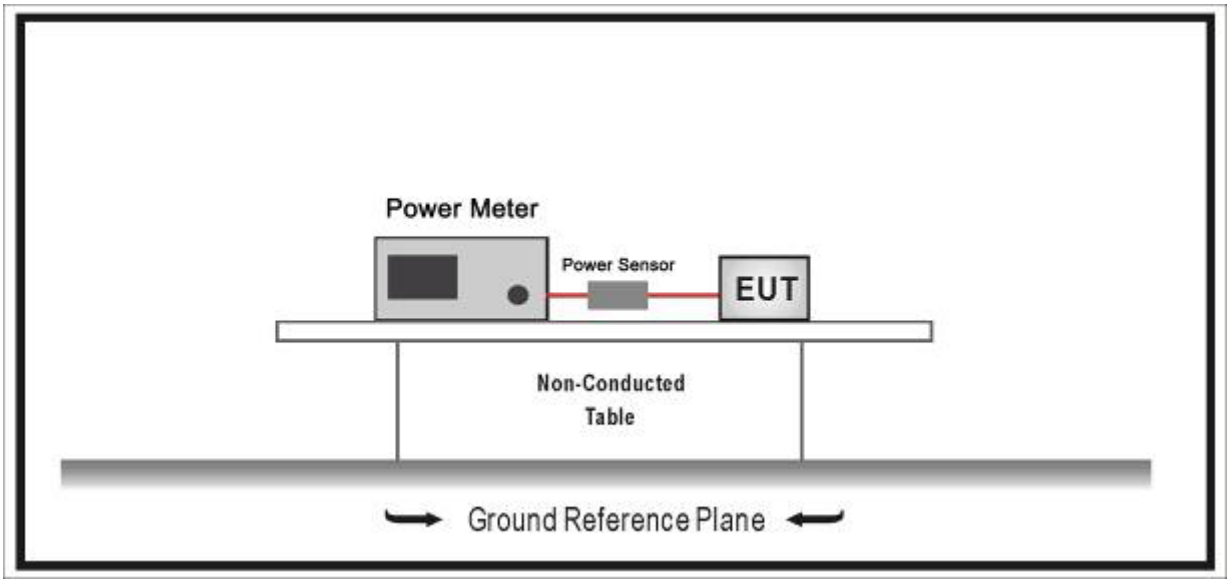
9.1. Test Equipment

Power Output / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
Wideband Peak Power Meter	Anritsu	ML2495A	0905006	2014.11.01
Power Sensor	Anritsu	MA2411B	0846014	2014.11.01
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2014.05.08

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

9.2. Test Setup



9.3. Limit

The maximum peak power shall be less 1 Watt (30dBm).

Note: the conducted output power limit specified above is based on the use the antennas with directional gains that do not exceed 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values above, as appropriate, by the amount in dB that the directional gain of antenna exceeds 6 dBi.

9.4. Test Procedure

The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.

Use the broadband peak RF power meter to test peak power and record the result.

9.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

9.6. Test Result

Power output test was verified over all data rates of each mode, and then choose the maximum power output (blue marker) for final test of each channel.

MCS Index for 802.11n	Spatial Streams	Data Rate (Mbps)					
		802.11b	802.11g	20MHz Bandwidth		40MHz Bandwidth	
				800ns GI	400ns GI	800ns GI	400ns GI
0	1	1	6	6.5	7.2	13.5	15.0
1	1	2	9	13.0	14.4	27.0	30.0
2	1	5.5	12	19.5	21.7	40.5	45.0
3	1	11	18	26.0	28.9	54.0	60.0
4	1	---	24	39.0	43.3	81.0	90.0
5	1	---	36	52.0	57.8	108.0	120.0
6	1	---	48	58.5	65.0	121.5	135.0
7	1	---	54	65.0	72.2	135.0	150.0
8	2	---	---	13.0	14.4	27.0	30.0
9	2	---	---	26.0	28.9	54.0	60.0
10	2	---	---	39.0	43.3	81.0	90.0
11	2	---	---	52.0	57.8	108.0	120.0
12	2	---	---	78.0	86.7	162.0	180.0
13	2	---	---	104.0	115.6	216.0	240.0
14	2	---	---	117.0	130.0	243.0	270.0
15	2	---	---	130.0	144.0	270.0	300.0

Product	:	GPON ONT
Test Item	:	Power Output
Test Site	:	TR8
Test Mode	:	Mode 1: Transmit by 802.11b (Ant A)

Channel No.	Frequency (MHz)	Average Power Output Value (dBm)			Peak Power Output Value (dBm)	Limit (dBm)	Result
		Data Rate					
		1M	5.5M	11M			
1	2412	22.67	/	/	24.62	30	Pass
6	2437	22.45	21.44	21.12	24.43	30	Pass
11	2462	20.79	/	/	23.07	30	Pass

Product	:	GPON ONT
Test Item	:	Power Output
Test Site	:	TR8
Test Mode	:	Mode 2: Transmit by 802.11g (Ant A)

Channel No.	Frequency (MHz)	Average Power Output Value (dBm)			Peak Power Output Value (dBm)	Limit (dBm)	Result
		Data Rate					
		6M	24M	54M			
1	2412	20.78	/	/	26.18	30	Pass
6	2437	21.37	21.19	21.01	26.23	30	Pass
11	2462	21.41	/	/	25.97	30	Pass

Product	:	GPON ONT
Test Item	:	Power Output
Test Site	:	TR8
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) (Ant A)

Channel No.	Frequency (MHz)	Average Power Output Value (dBm)			Peak Power Output Value (dBm)	Limit (dBm)	Result
		Data Rate					
		MCS0	MCS4	MCS7			
1	2412	20.82	/	/	26.04	30	Pass
6	2437	21.42	21.05	20.88	26.18	30	Pass
11	2462	20.89	/	/	25.81	30	Pass

Product	:	GPON ONT
Test Item	:	Power Output
Test Site	:	TR8
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) (Ant A)

Channel No.	Frequency (MHz)	Average Power Output Value (dBm)			Peak Power Output Value (dBm)	Limit (dBm)	Result
		Data Rate					
		MCS0	MCS4	MCS7			
3	2422	21.05	/	/	26.05	30	Pass
6	2437	20.94	20.77	20.46	26.09	30	Pass
9	2452	19.57	/	/	25.78	30	Pass

Product	:	GPON ONT
Test Item	:	Power Output
Test Site	:	TR8
Test Mode	:	Mode 1: Transmit by 802.11b (Ant B)

Channel No.	Frequency (MHz)	Average Power Output Value (dBm)			Peak Power Output Value (dBm)	Limit (dBm)	Result
		Data Rate					
		1M	5.5M	11M			
1	2412	21.19	/	/	23.14	30	Pass
6	2437	21.51	19.88	19.76	23.45	30	Pass
11	2462	21.36	/	/	23.29	30	Pass

Product	:	GPON ONT
Test Item	:	Power Output
Test Site	:	TR8
Test Mode	:	Mode 2: Transmit by 802.11g (Ant B)

Channel No.	Frequency (MHz)	Average Power Output Value (dBm)			Peak Power Output Value (dBm)	Limit (dBm)	Result
		Data Rate					
		6M	24M	54M			
1	2412	20.31	/	/	25.10	30	Pass
6	2437	20.10	19.87	19.63	25.13	30	Pass
11	2462	19.79	/	/	24.98	30	Pass

Product	:	GPON ONT
Test Item	:	Power Output
Test Site	:	TR8
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) (Ant B)

Channel No.	Frequency (MHz)	Average Power Output Value (dBm)			Peak Power Output Value (dBm)	Limit (dBm)	Result
		Data Rate					
		MCS0	MCS4	MCS7			
1	2412	20.42	/	/	25.04	30	Pass
6	2437	20.06	19.49	19.21	25.08	30	Pass
11	2462	19.78	/	/	24.99	30	Pass

Product	:	GPON ONT
Test Item	:	Power Output
Test Site	:	TR8
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) (Ant B)

Channel No.	Frequency (MHz)	Average Power Output Value (dBm)			Peak Power Output Value (dBm)	Limit (dBm)	Result
		Data Rate					
		MCS0	MCS4	MCS7			
3	2422	20.03	/	/	25.06	30	Pass
6	2437	19.84	19.55	19.18	24.98	30	Pass
9	2452	19.15	/	/	23.55	30	Pass

Product	:	GPON ONT
Test Item	:	Power Output
Test Site	:	TR8
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) (Ant A+B)

Channel No.	Frequency (MHz)	Average Power Output Value (dBm)			Peak Power Output Value (dBm)	Limit (dBm)	Result
		Data Rate					
		MCS8	MCS12	MCS15			
1	2412	20.75	/	/	27.51	30	Pass
6	2437	20.96	20.35	20.11	27.61	30	Pass
11	2462	21.08	/	/	27.57	30	Pass

Product	:	GPON ONT
Test Item	:	Power Output
Test Site	:	TR8
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) (Ant A+B)

Channel No.	Frequency (MHz)	Average Power Output Value (dBm)			Peak Power Output Value (dBm)	Limit (dBm)	Result
		Data Rate					
		MCS8	MCS12	MCS15			
3	2422	20.75	/	/	27.38	30	Pass
6	2437	20.96	20.21	19.98	27.49	30	Pass
9	2452	20.48	/	/	27.46	30	Pass

10. Power Spectral Density

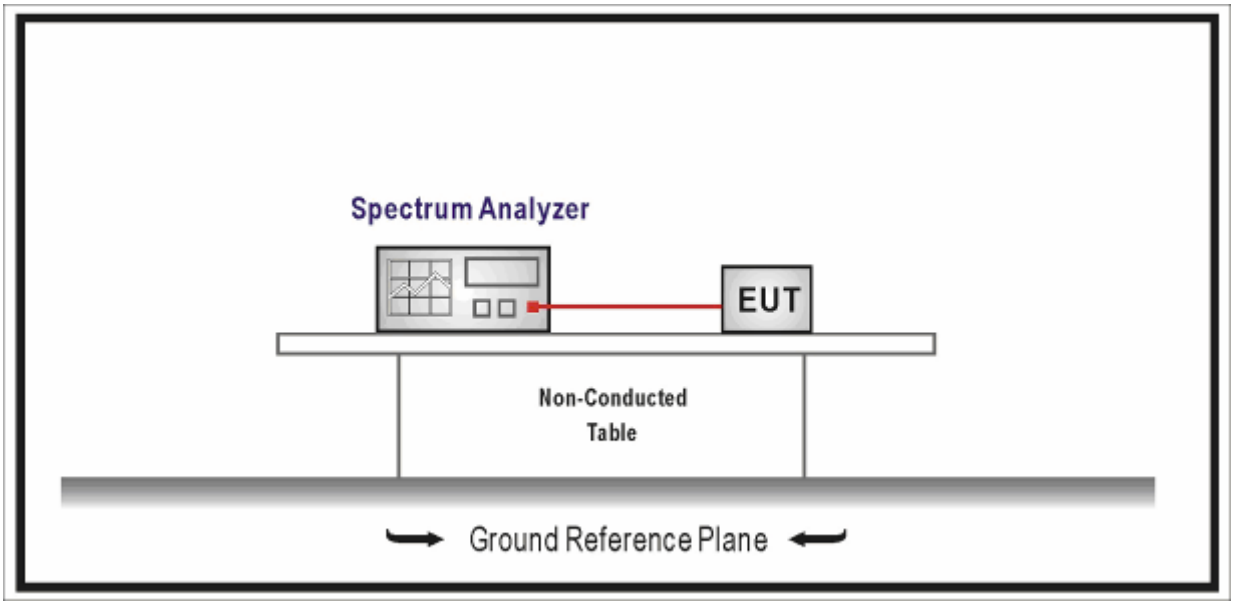
10.1. Test Equipment

Power Spectral Density / TR-8

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2014.01.21
Temperature/Humidity Meter	zhicheng	ZC1-2	TR8-TH	2014.05.08

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

10.2. Test Setup



10.3. Limit

For digitally modulated systems, the 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.

10.4. Test Procedure

The EUT was tested according to KDB 558074 for compliance to FCC 47CFR 15.247 requirements.
Set analyzer center frequency to DTS channel center frequency, the span to 1.5 times the DTS channel bandwidth, Set 100 kHz ≧RBW ≧ 3 kHz, Set VBW ≧ 3 * RBW, Sweep time = auto couple, Detector = peak, Trace mode = max hold, Allow trace to fully stabilize, use the peak marker function to determine the maximum amplitude level. If measured value exceed limit reduce RBW (no less than 3kHz) and repeat.

10.5. Uncertainty

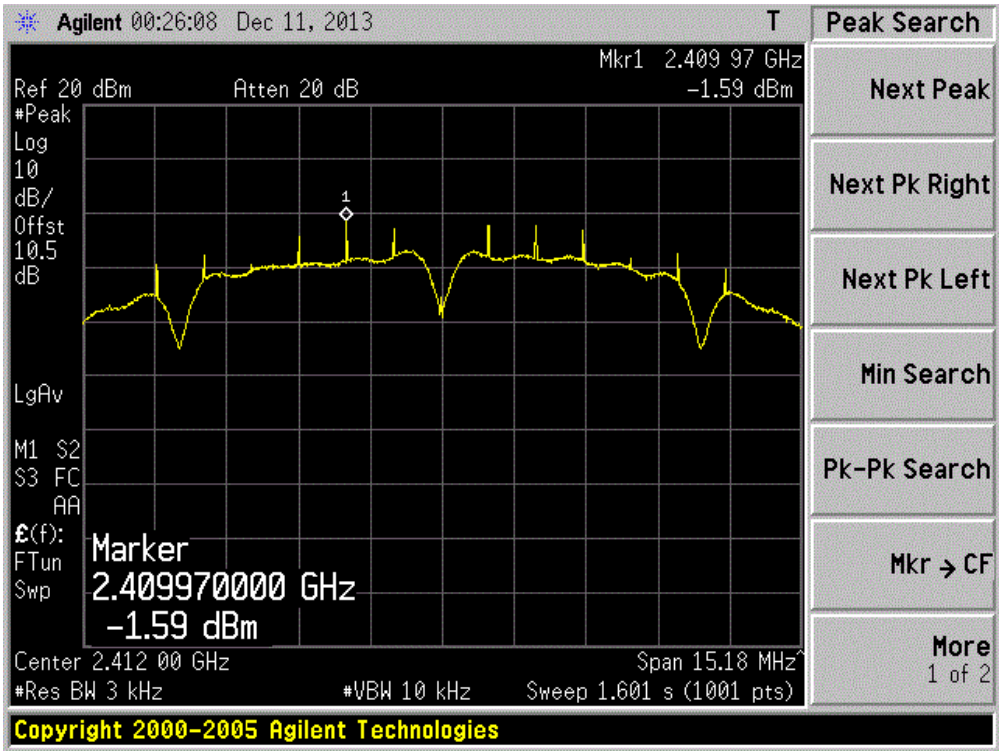
The measurement uncertainty is defined as ± 1.27 dB

10.6. Test Result

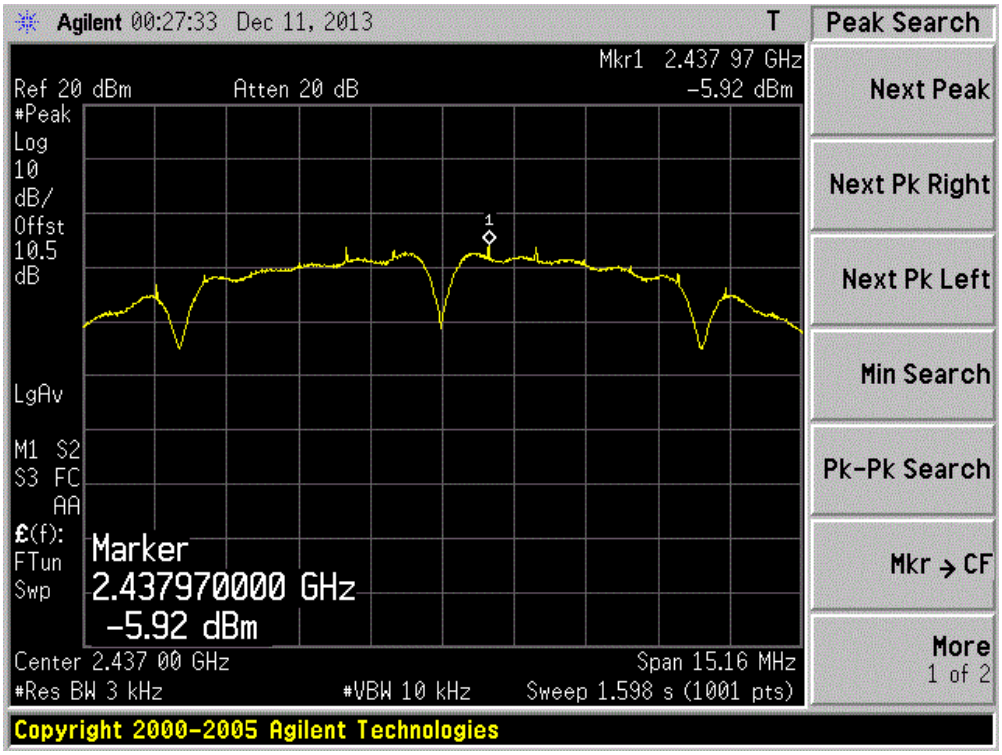
Product	:	GPON ONT
Test Item	:	Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11b (Ant A)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Result
01	2412	-1.59	-1.59	8	Pass
06	2437	-5.92	-5.92	8	Pass
11	2462	-6.24	-6.24	8	Pass

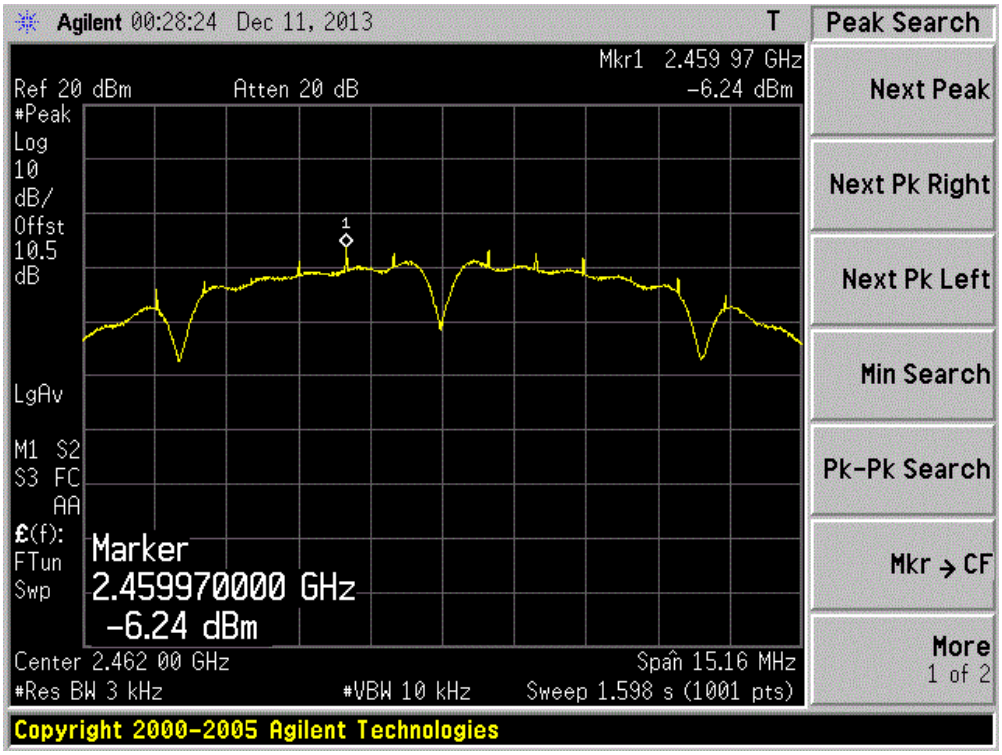
Channel 01 (2412MHz)-Ant A



Channel 06 (2437MHz)-Ant A



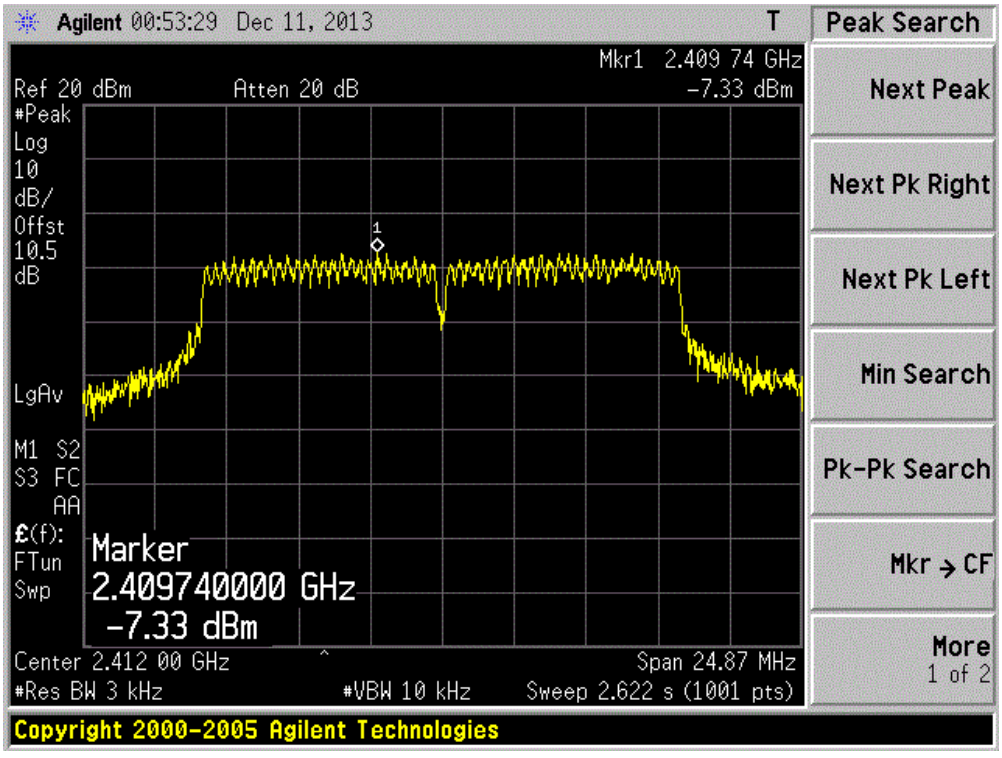
Channel 11 (2462MHz) -Ant A



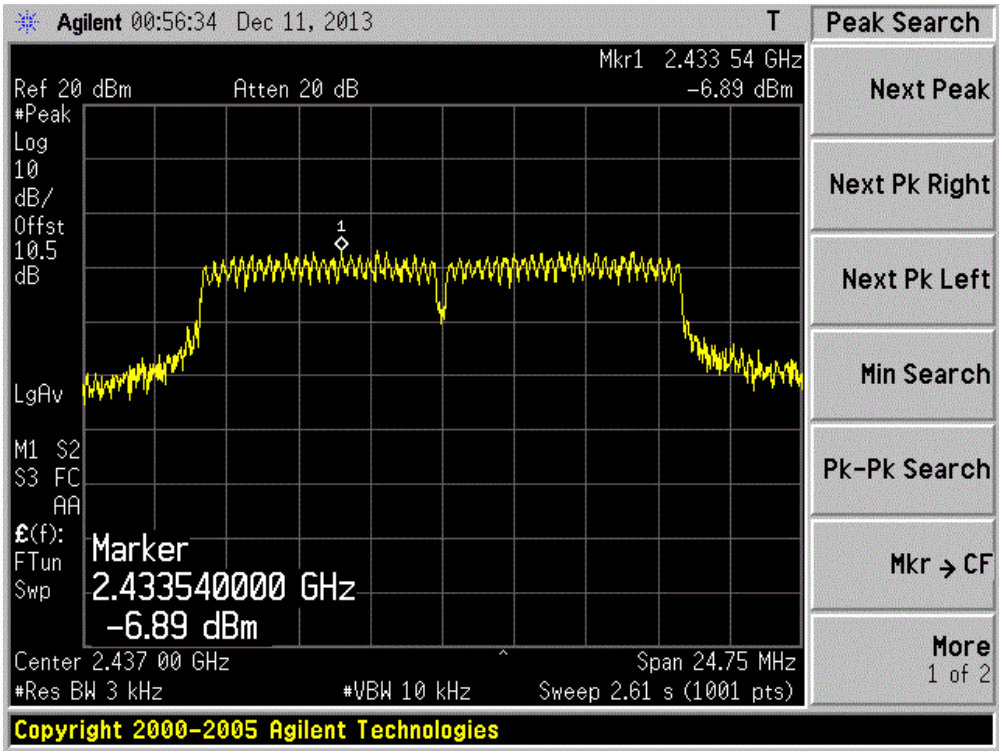
Product	:	GPON ONT
Test Item	:	Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11g (Ant A)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Result
01	2412	-7.33	-7.33	8	Pass
06	2437	-6.89	-6.89	8	Pass
11	2462	-6.29	-6.29	8	Pass

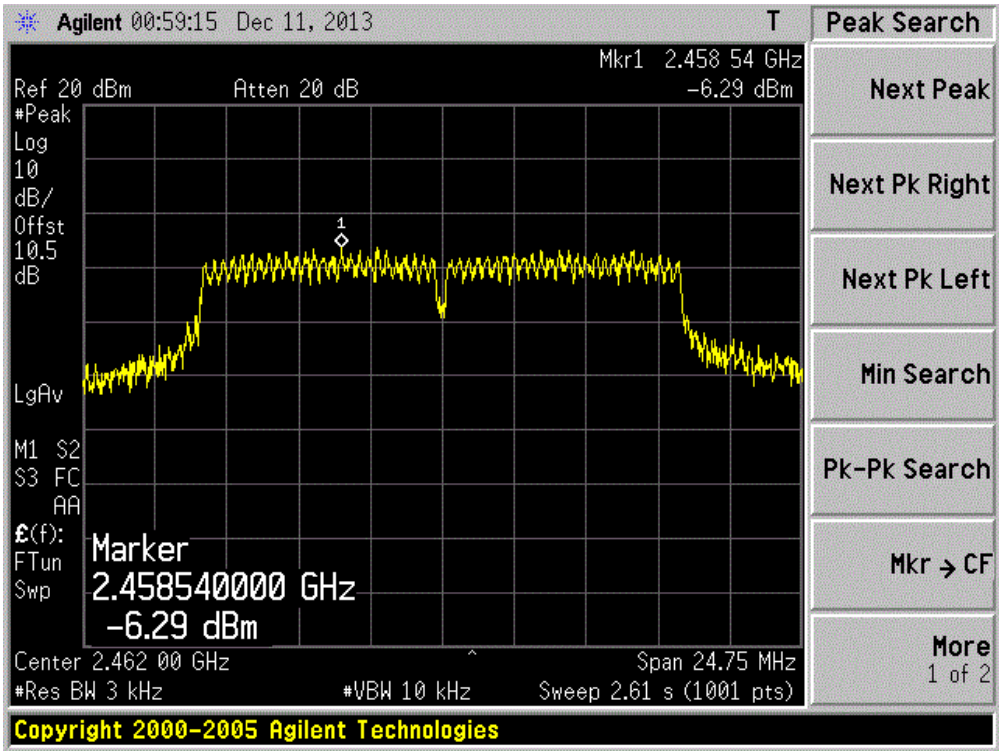
Channel 01 (2412MHz)-Ant A



Channel 06 (2437MHz)-Ant A



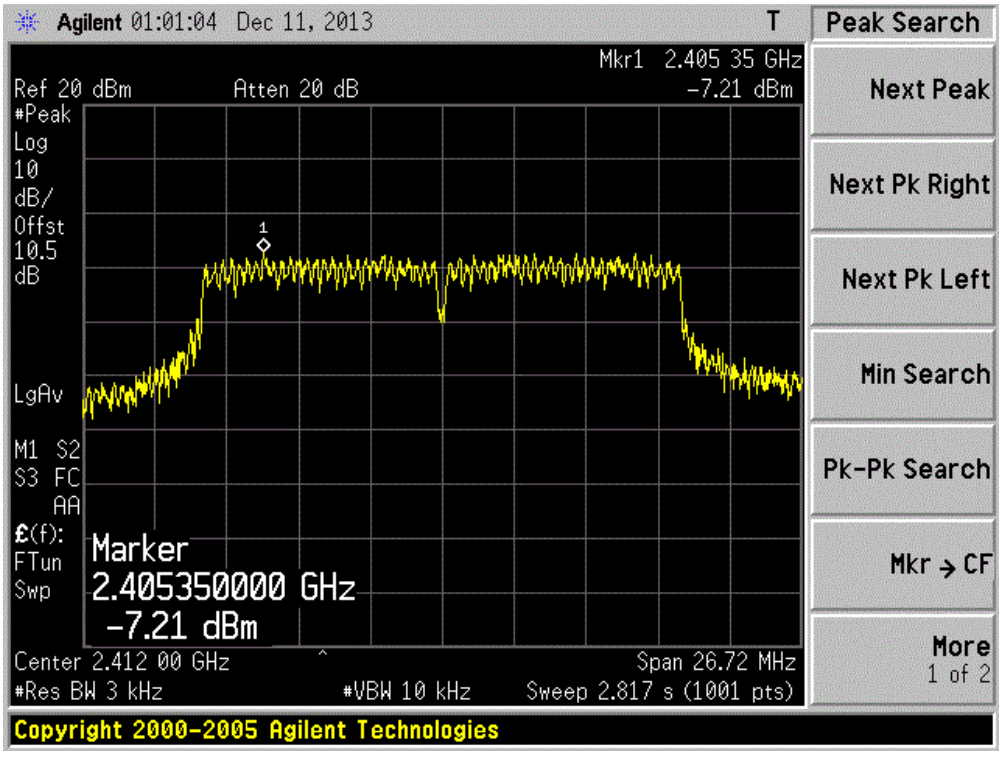
Channel 11 (2462MHz) -Ant A



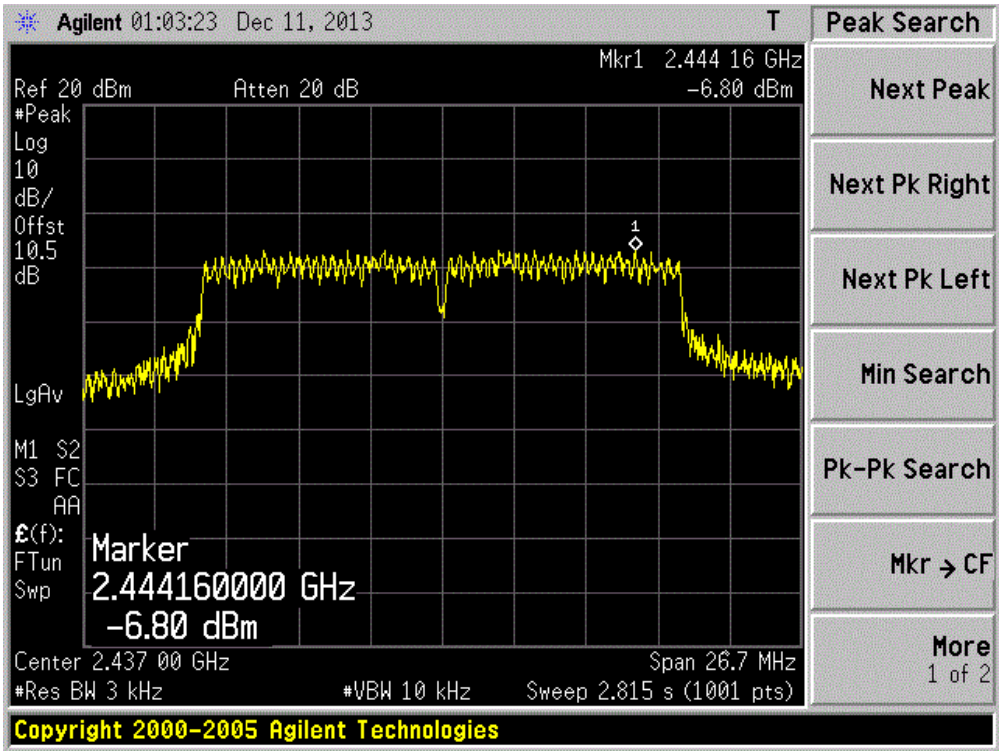
Product	:	GPON ONT
Test Item	:	Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) (Ant A)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Result
01	2412	-7.21	-7.21	8	Pass
06	2437	-6.80	-6.80	8	Pass
11	2462	-7.01	-7.01	8	Pass

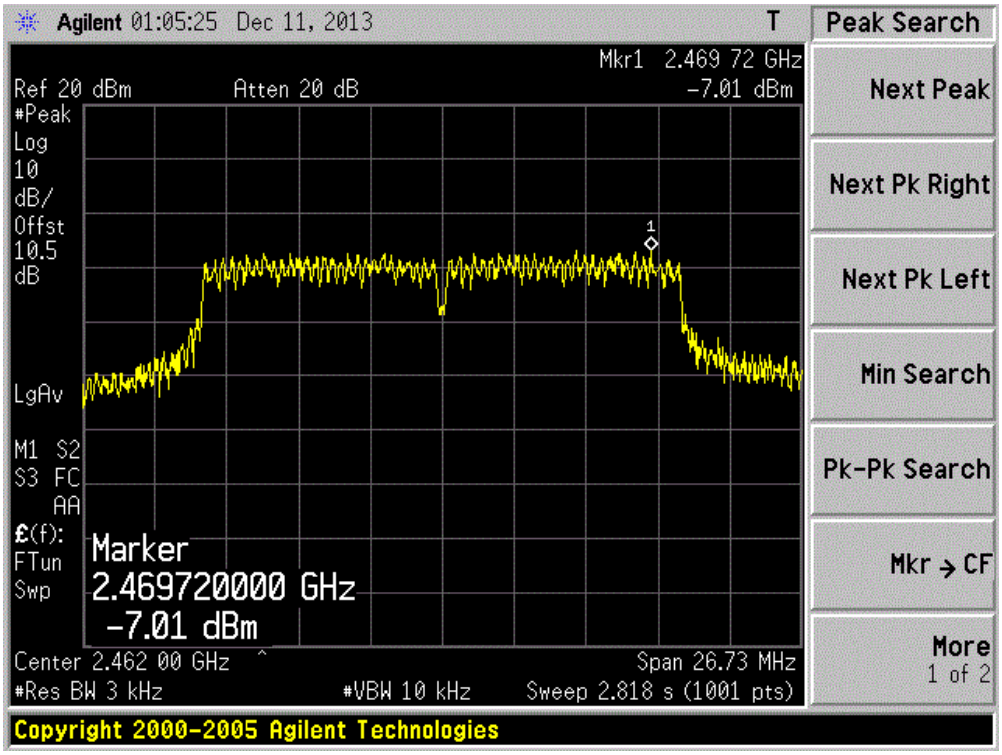
Channel 01 (2412MHz)-Ant A



Channel 06 (2437MHz)-Ant A



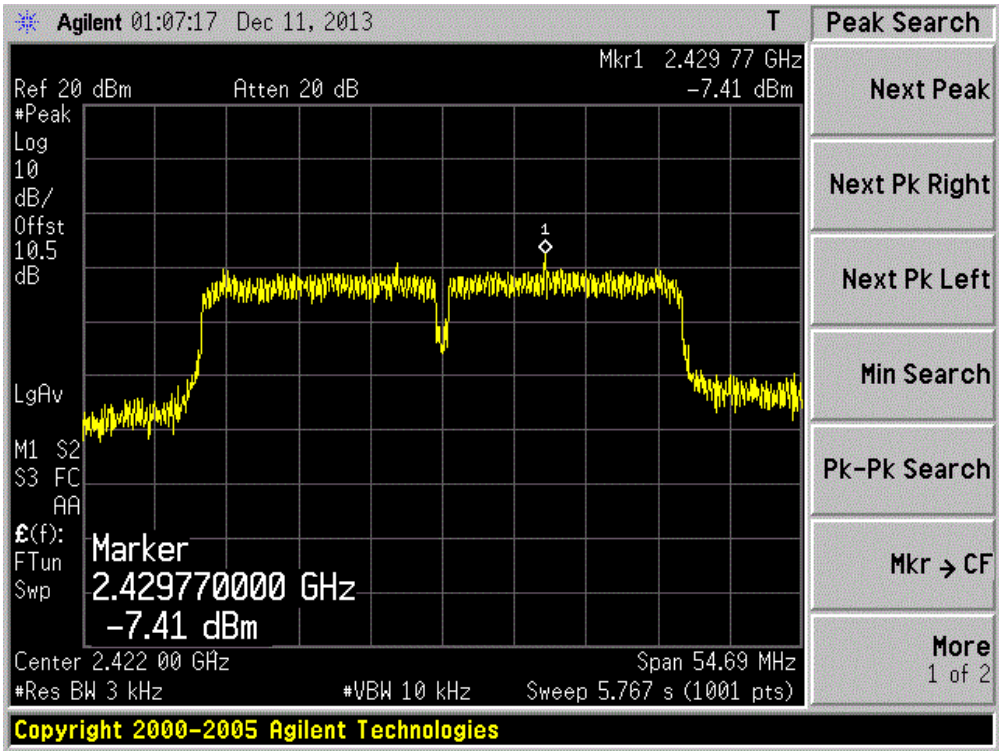
Channel 11 (2462MHz) -Ant A



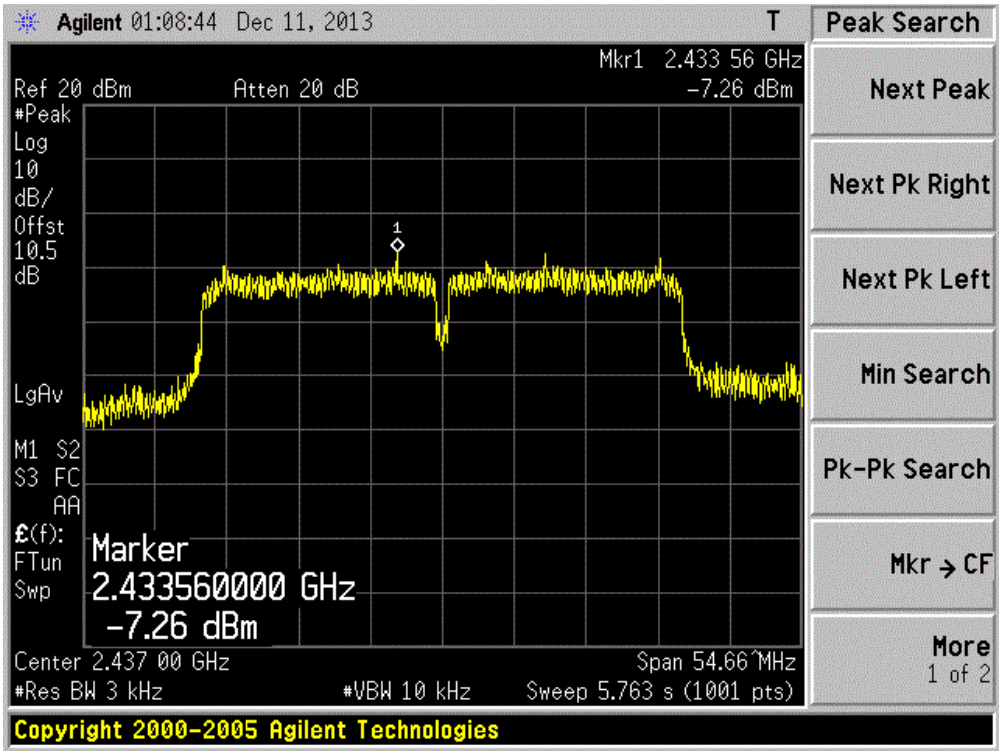
Product	:	GPON ONT
Test Item	:	Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) (Ant A)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Result
03	2422	-7.41	-7.41	8	Pass
06	2437	-7.26	-7.26	8	Pass
09	2452	-8.86	-8.86	8	Pass

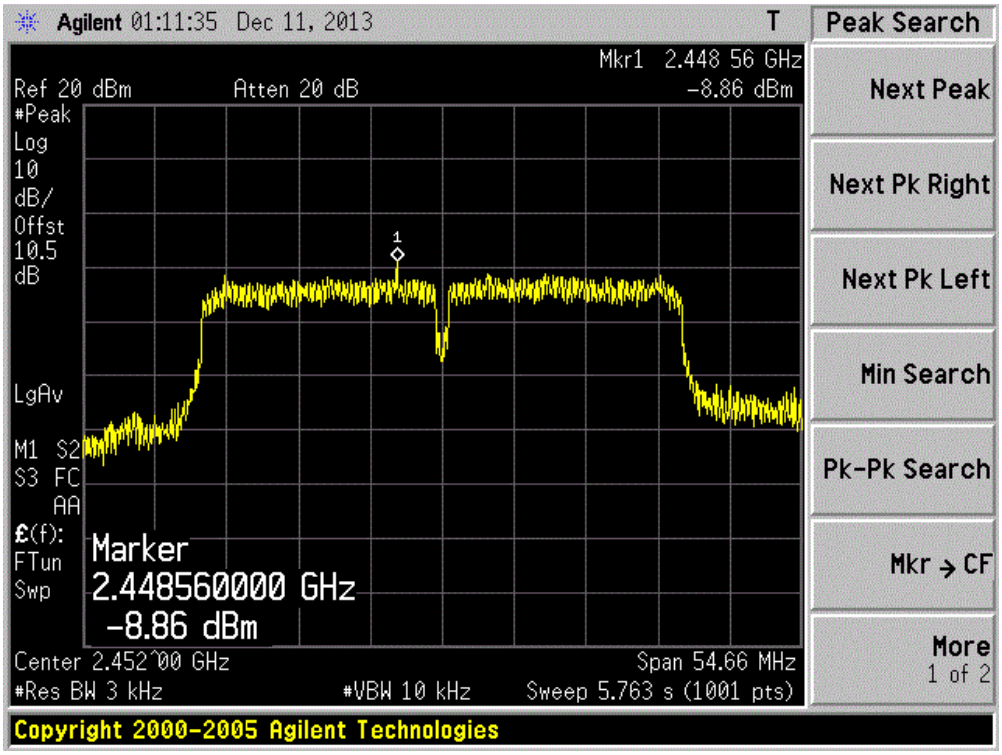
Channel 03 (2422MHz)-Ant A



Channel 06 (2437MHz)-Ant A



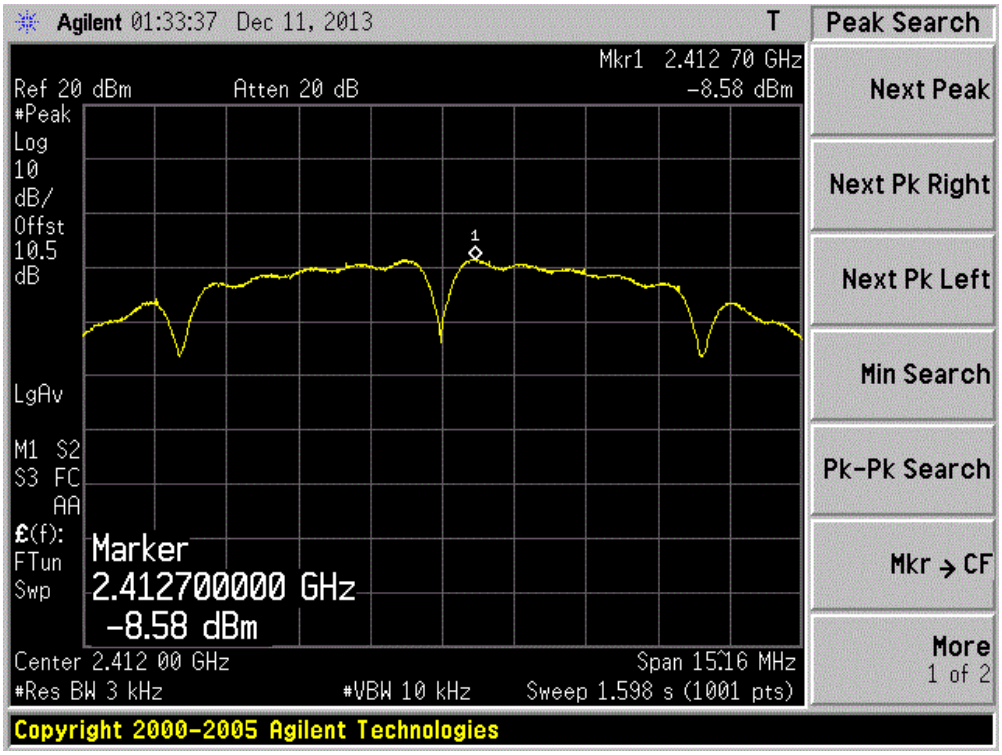
Channel 09 (2452MHz) -Ant A



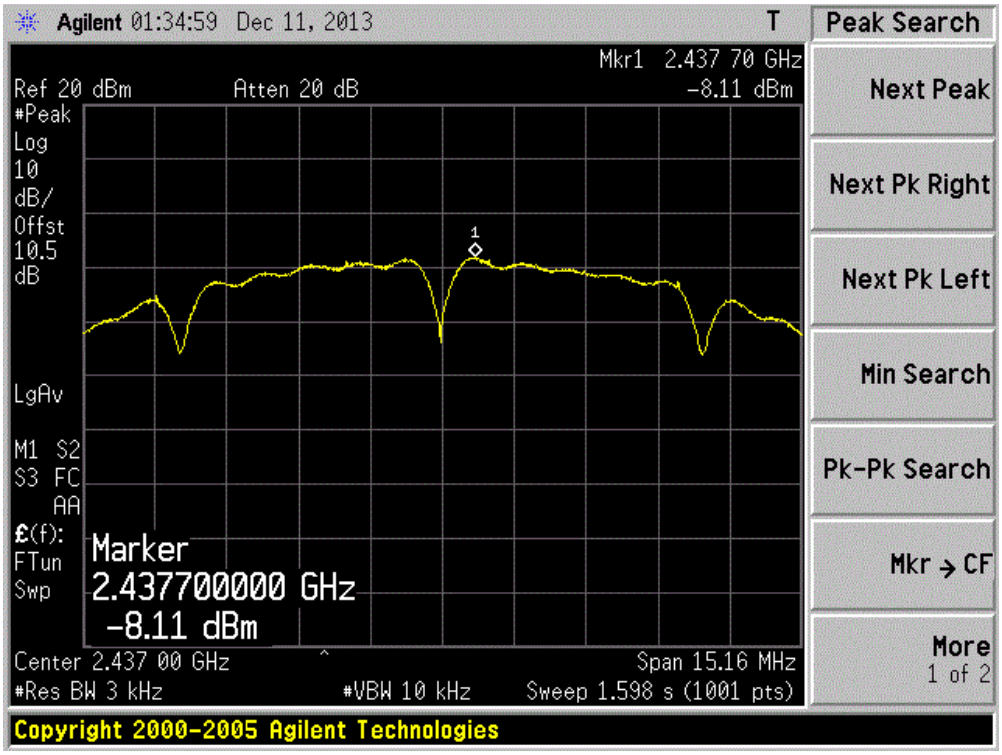
Product	:	GPON ONT
Test Item	:	Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 1: Transmit by 802.11b (Ant B)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Result
01	2412	-8.58	-8.58	8	Pass
06	2437	-8.11	-8.11	8	Pass
11	2462	-8.46	-8.46	8	Pass

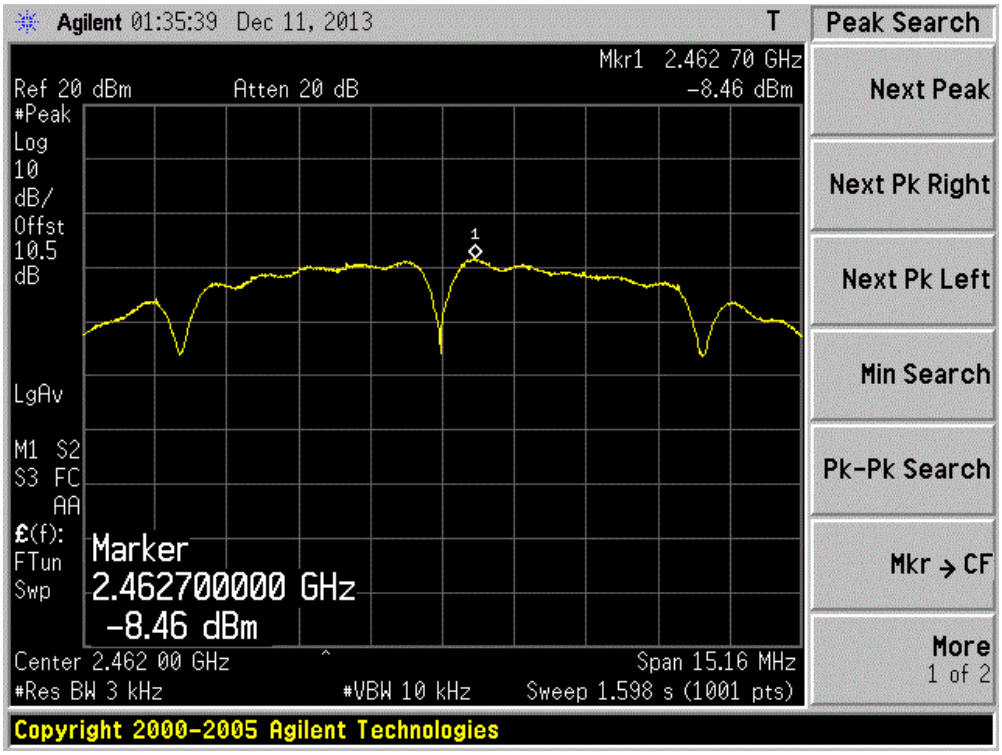
Channel 01 (2412MHz)-Ant B



Channel 06 (2437MHz)-Ant B



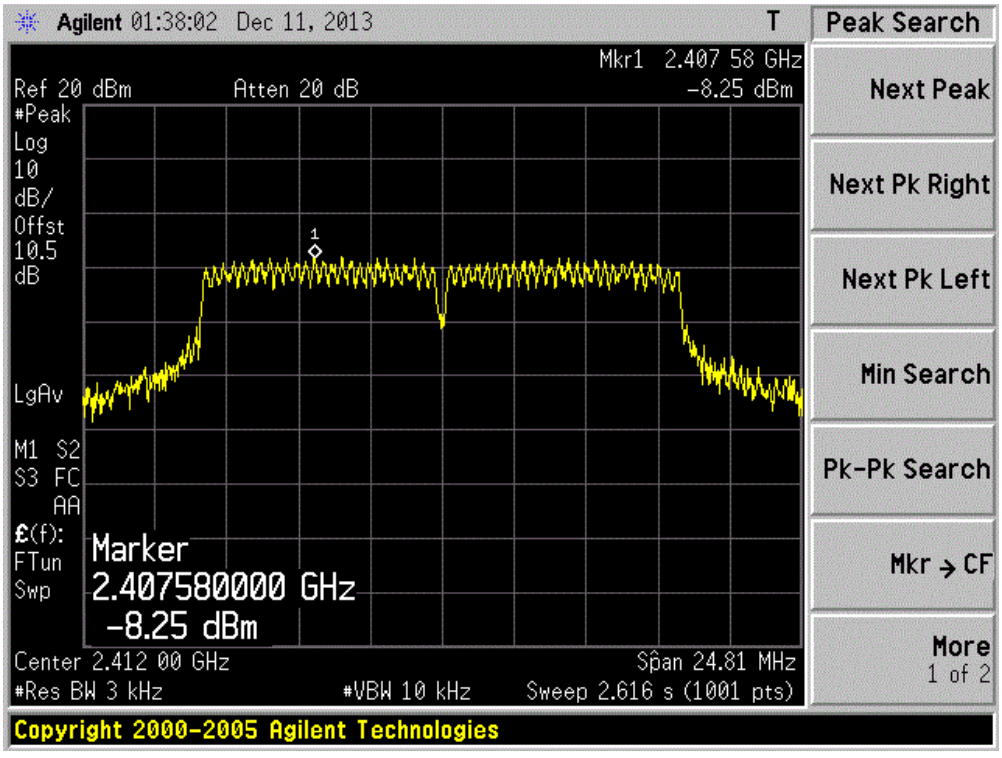
Channel 11 (2462MHz) -Ant B



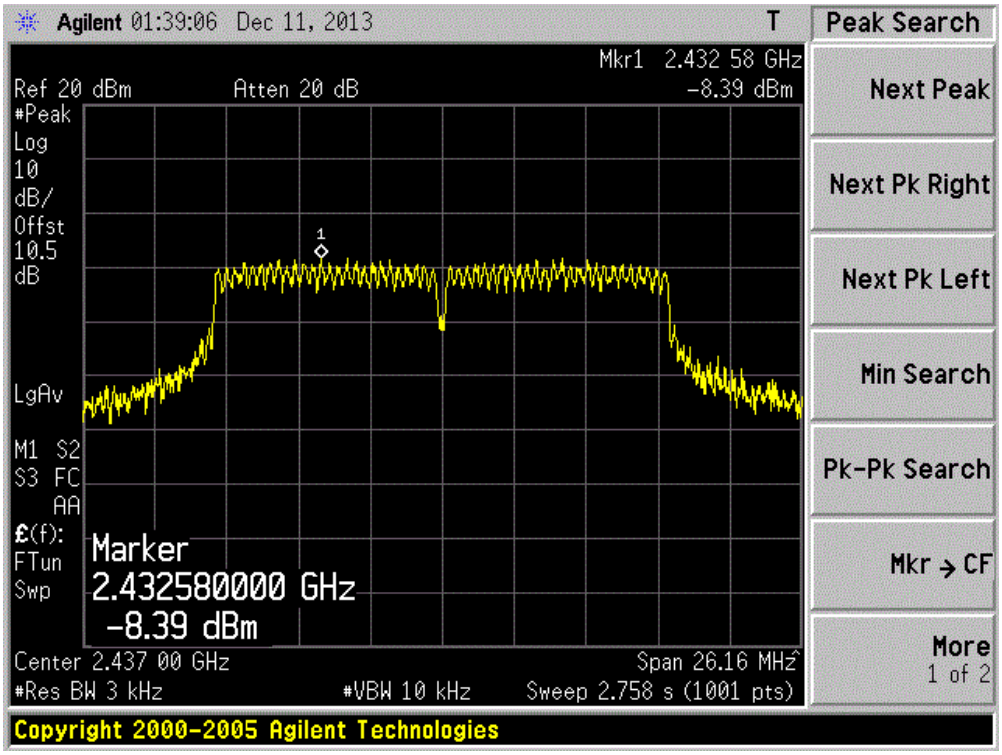
Product	:	GPON ONT
Test Item	:	Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 2: Transmit by 802.11g (Ant B)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Result
01	2412	-8.25	-8.25	8	Pass
06	2437	-8.39	-8.39	8	Pass
11	2462	-8.36	-8.36	8	Pass

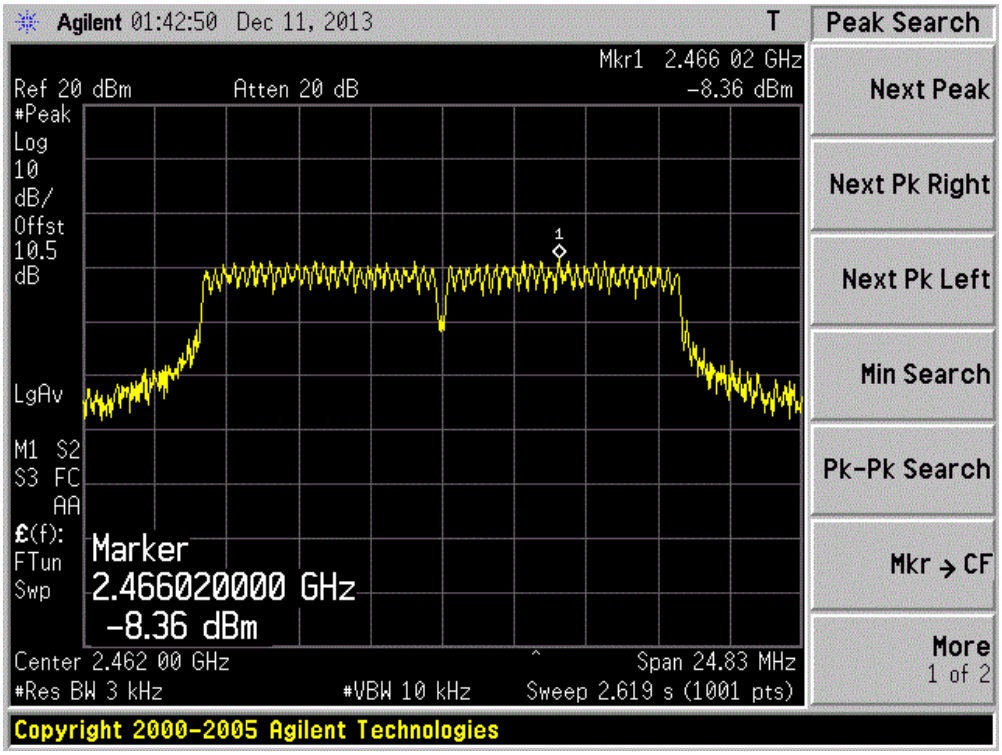
Channel 01 (2412MHz)-Ant B



Channel 06 (2437MHz)-Ant B



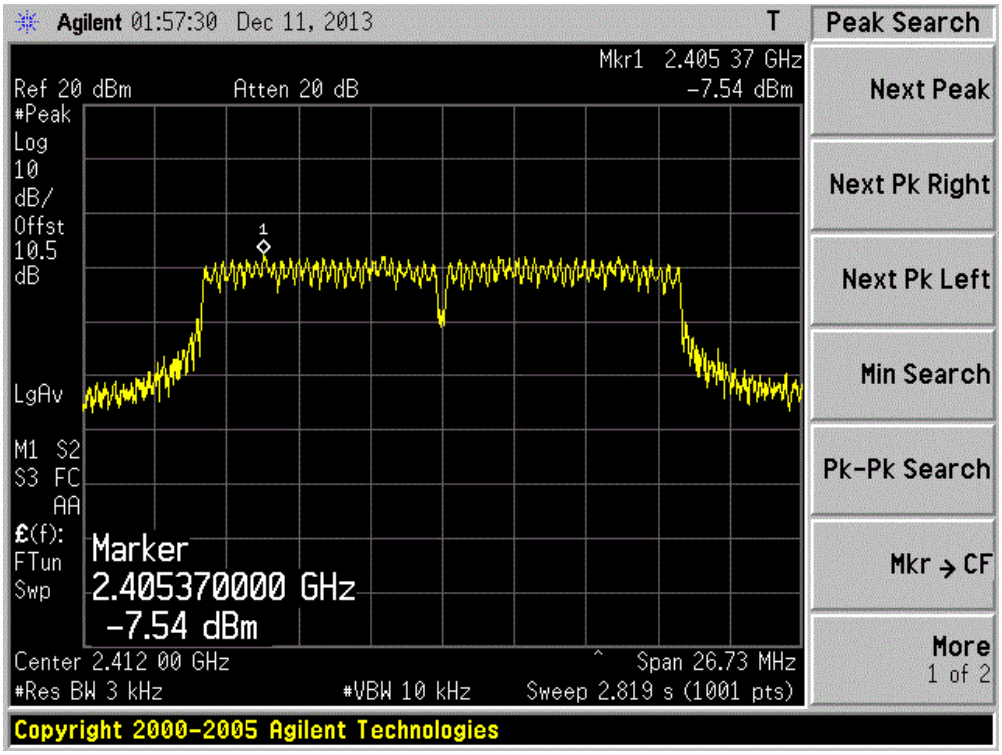
Channel 11 (2462MHz) -Ant B



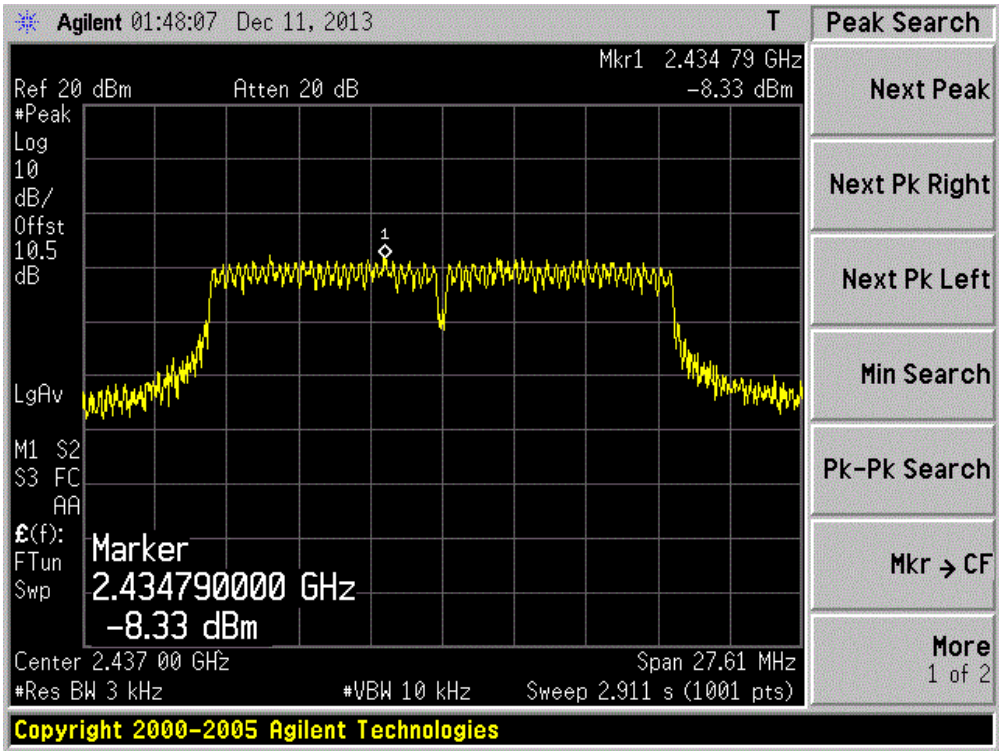
Product	:	GPON ONT
Test Item	:	Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) (Ant B)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Result
01	2412	-7.54	-7.54	8	Pass
06	2437	-8.33	-8.33	8	Pass
11	2462	-8.02	-8.02	8	Pass

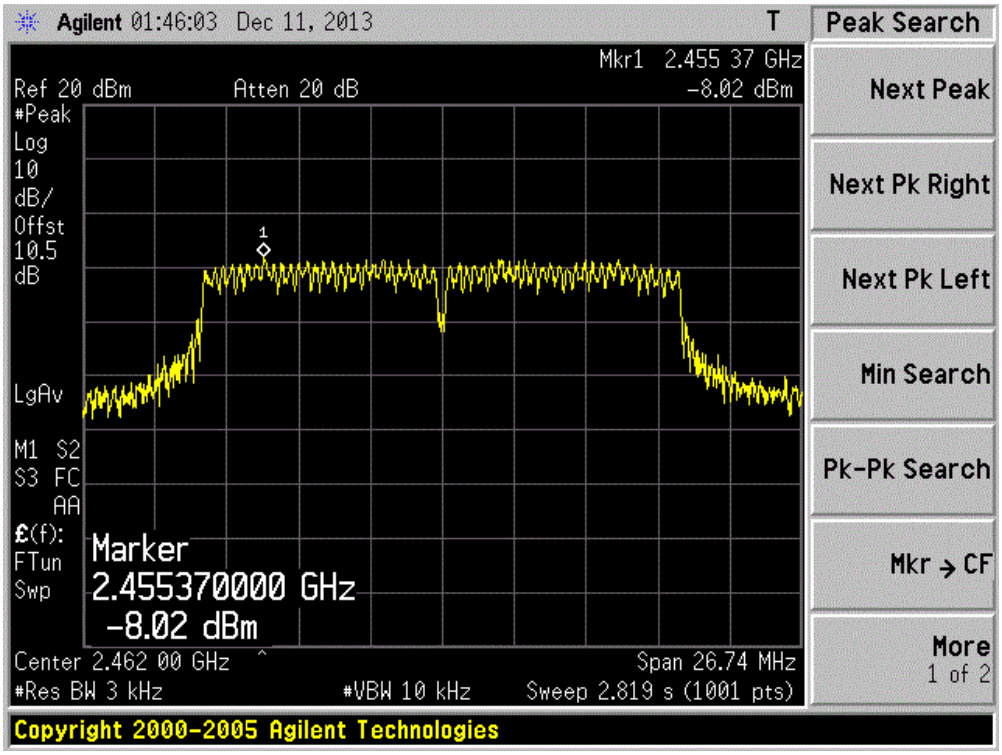
Channel 01 (2412MHz)-Ant B



Channel 06 (2437MHz)-Ant B



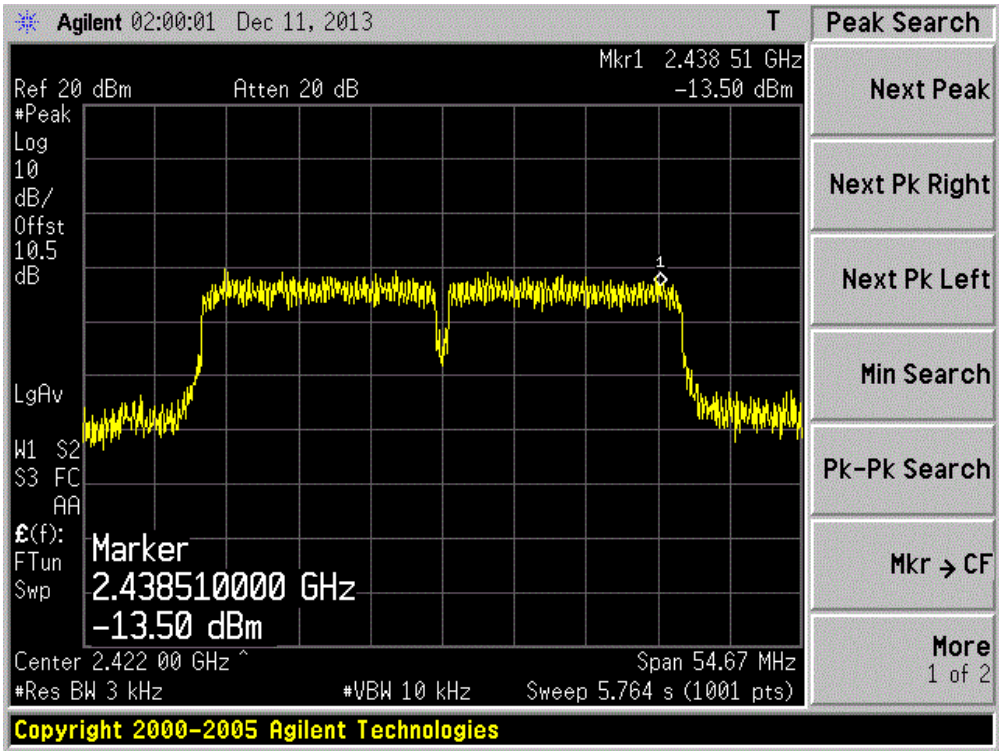
Channel 11 (2462MHz) -Ant B



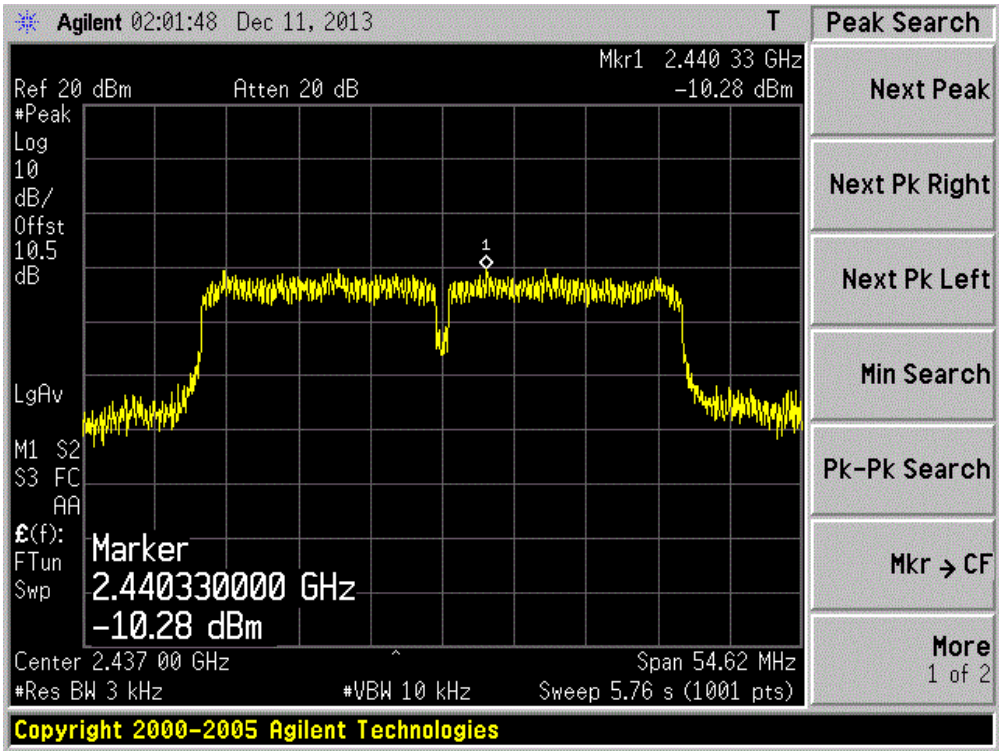
Product	:	GPON ONT
Test Item	:	Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) (Ant B)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)	Result
03	2422	-13.50	-13.50	8	Pass
06	2437	-10.28	-10.28	8	Pass
09	2452	-8.04	-8.04	8	Pass

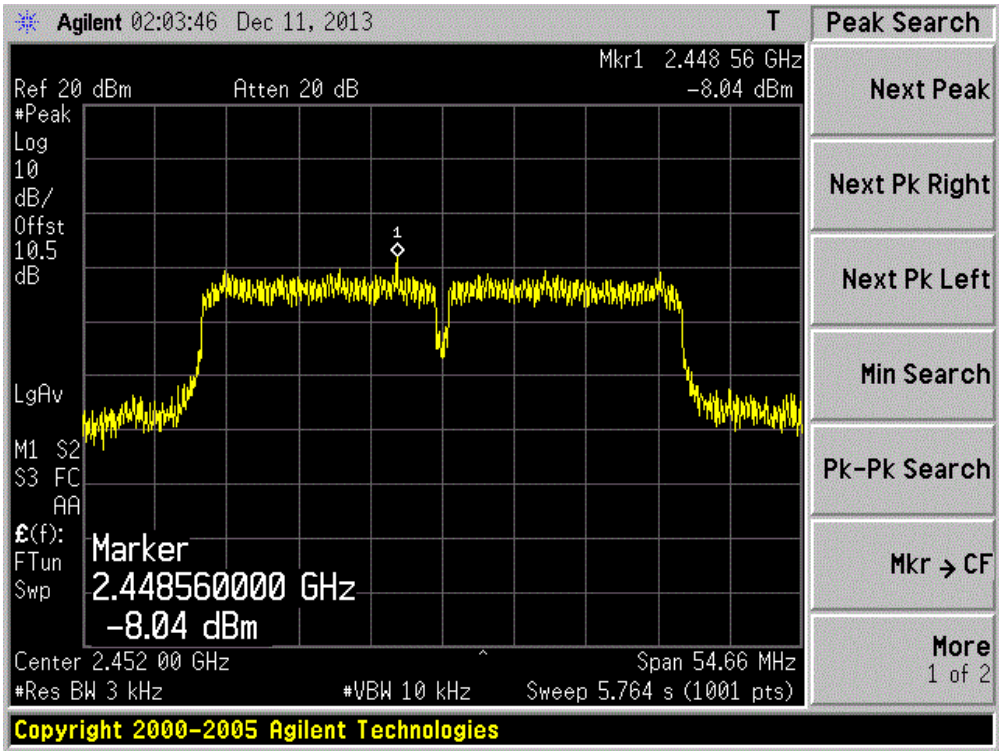
Channel 03 (2422MHz)-Ant B



Channel 06 (2437MHz)-Ant B



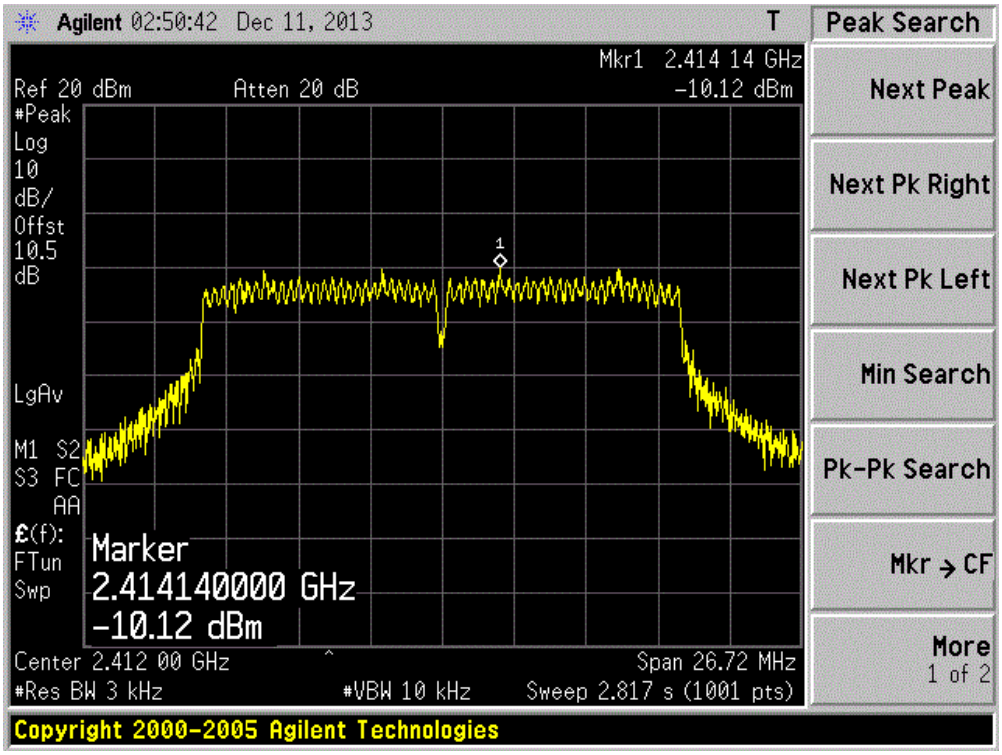
Channel 09 (2452MHz) -Ant B



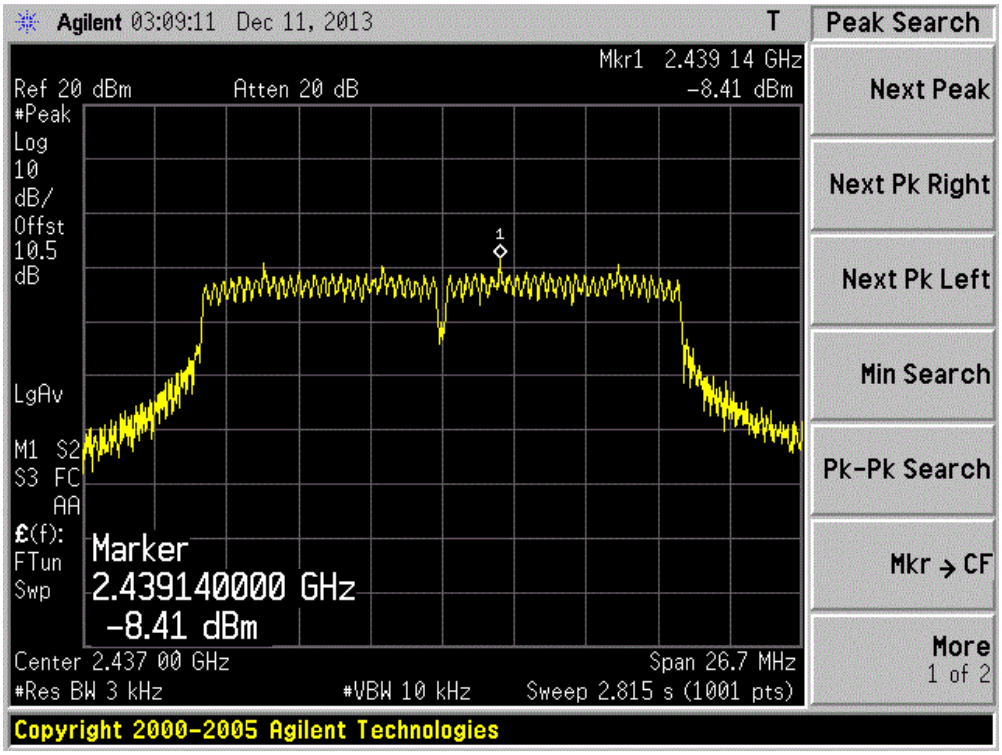
Product	:	GPON ONT
Test Item	:	Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 3: Transmit by 802.11n(20MHz) (Ant A+B)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm)		Total PPSD (dBm)	Limit (dBm)	Result
		Ant A	Ant B			
01	2412	-10.12	-10.03	-7.06	8	Pass
06	2437	-8.41	-10.83	-6.44	8	Pass
11	2462	-7.67	-10.35	-5.80	8	Pass

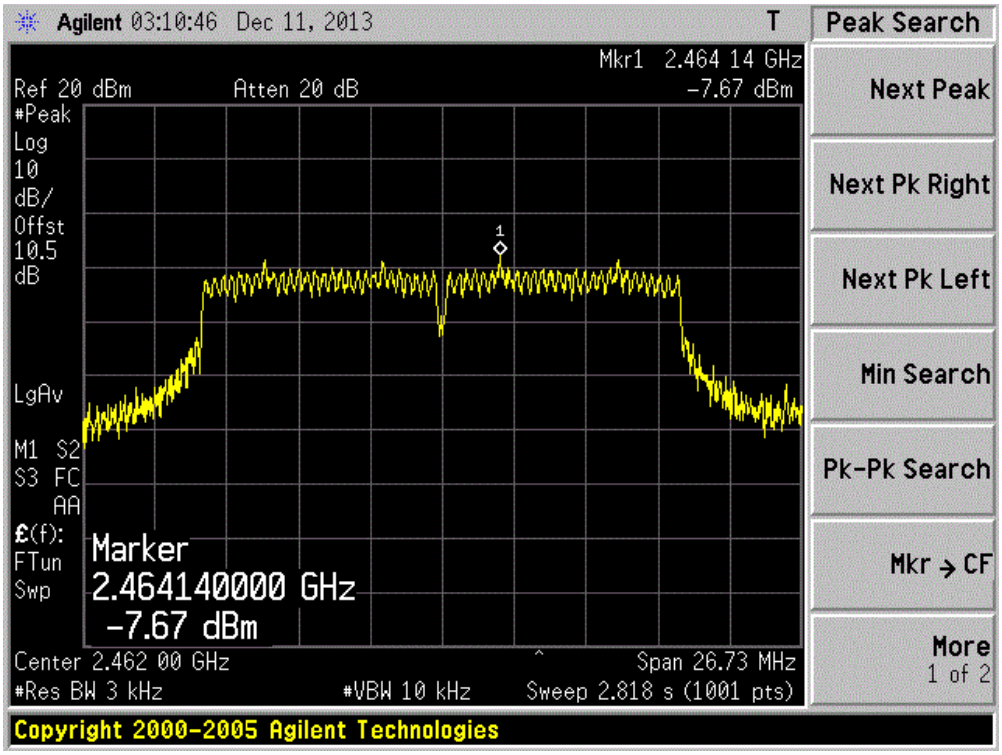
Channel 01 (2412MHz)-Ant A



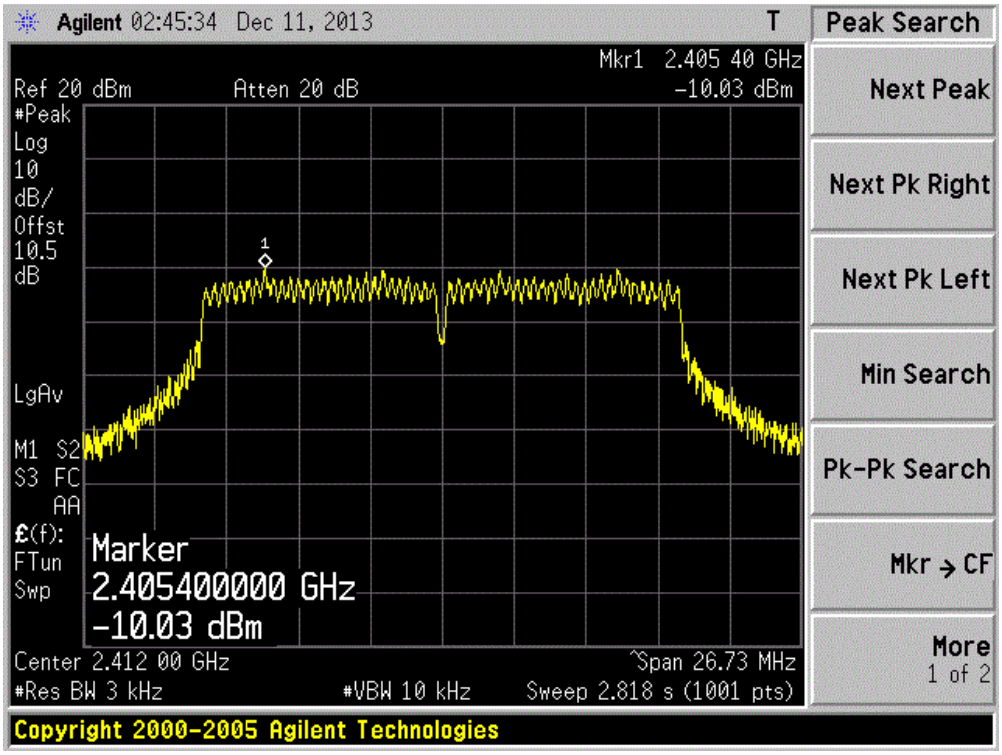
Channel 06 (2437MHz)-Ant A



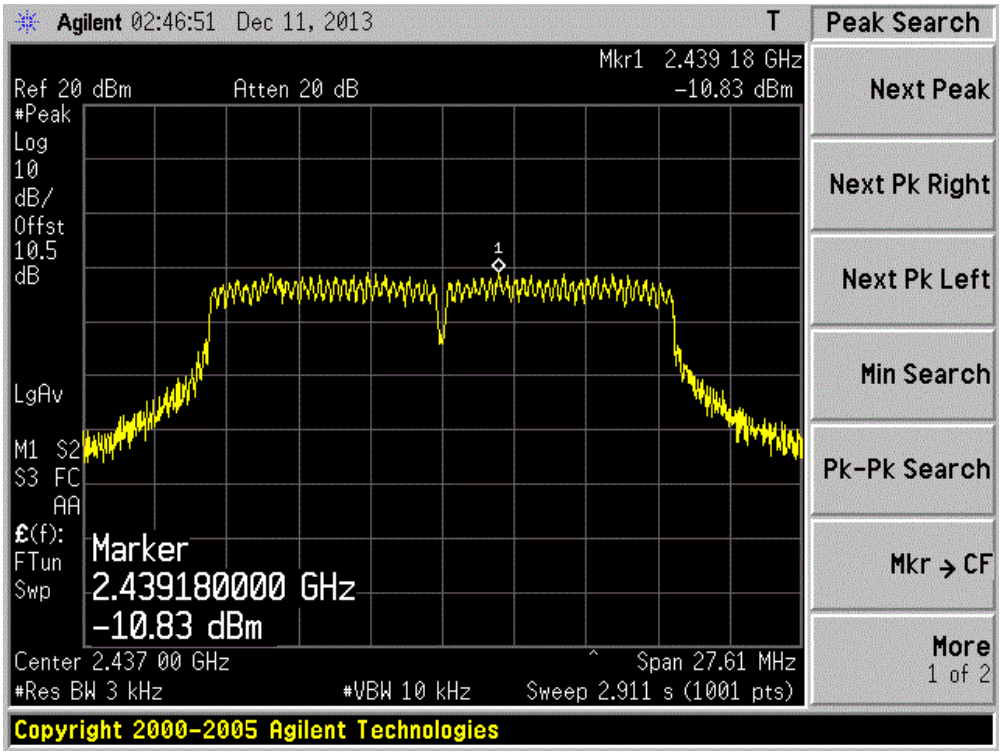
Channel 11 (2462MHz) -Ant A



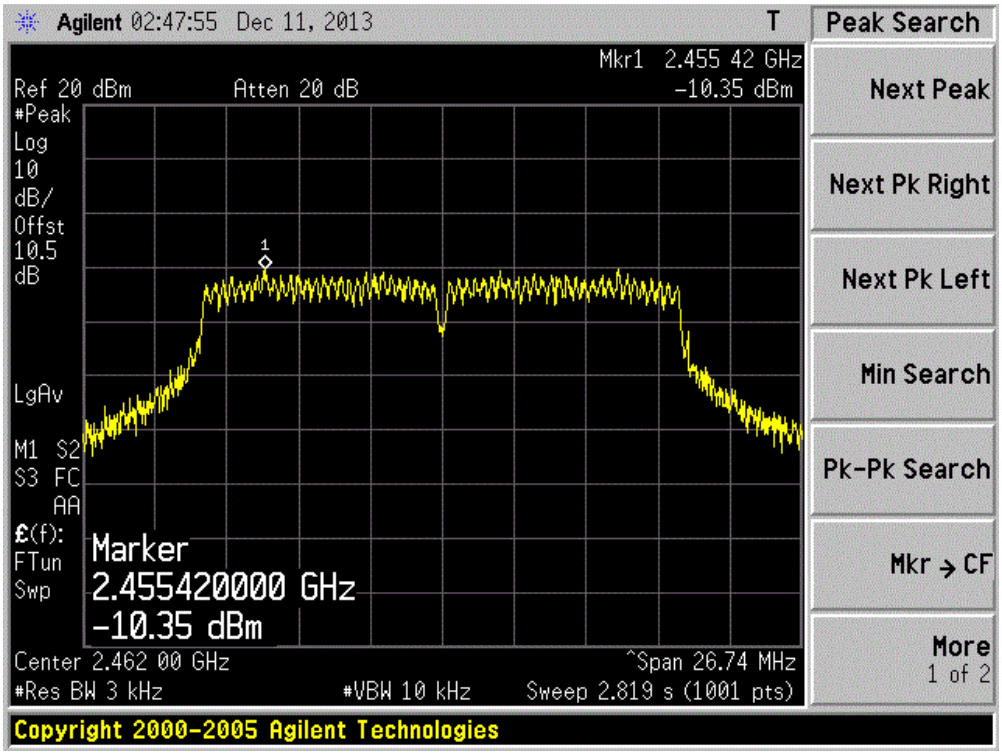
Channel 01 (2412MHz)-Ant B



Channel 06 (2437MHz)-Ant B



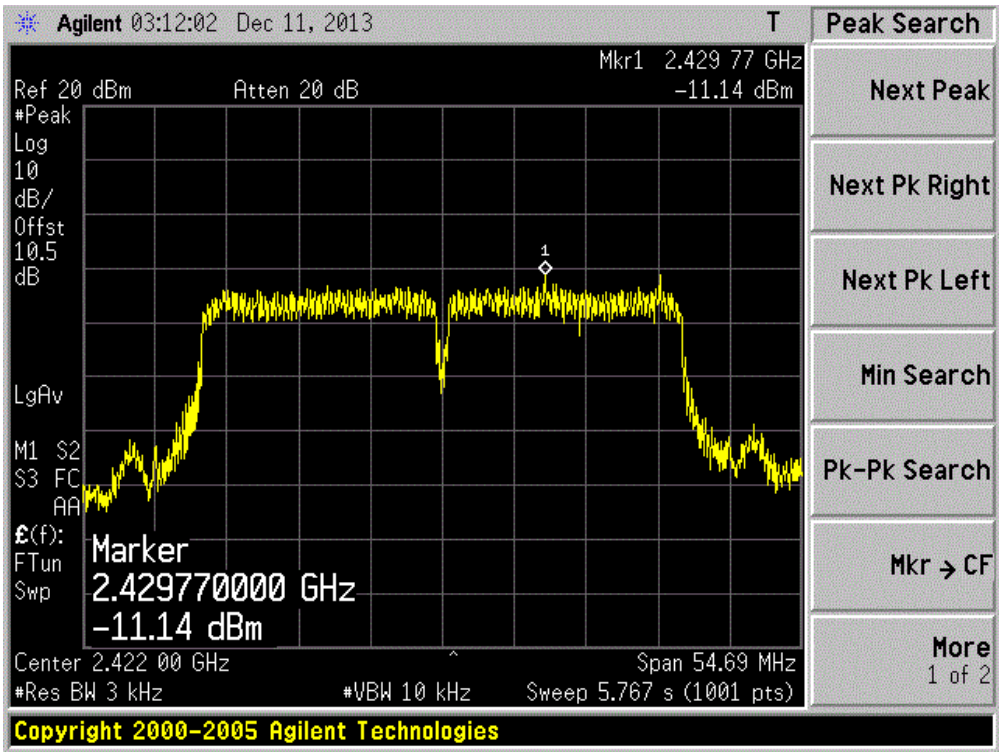
Channel 11 (2462MHz) -Ant B



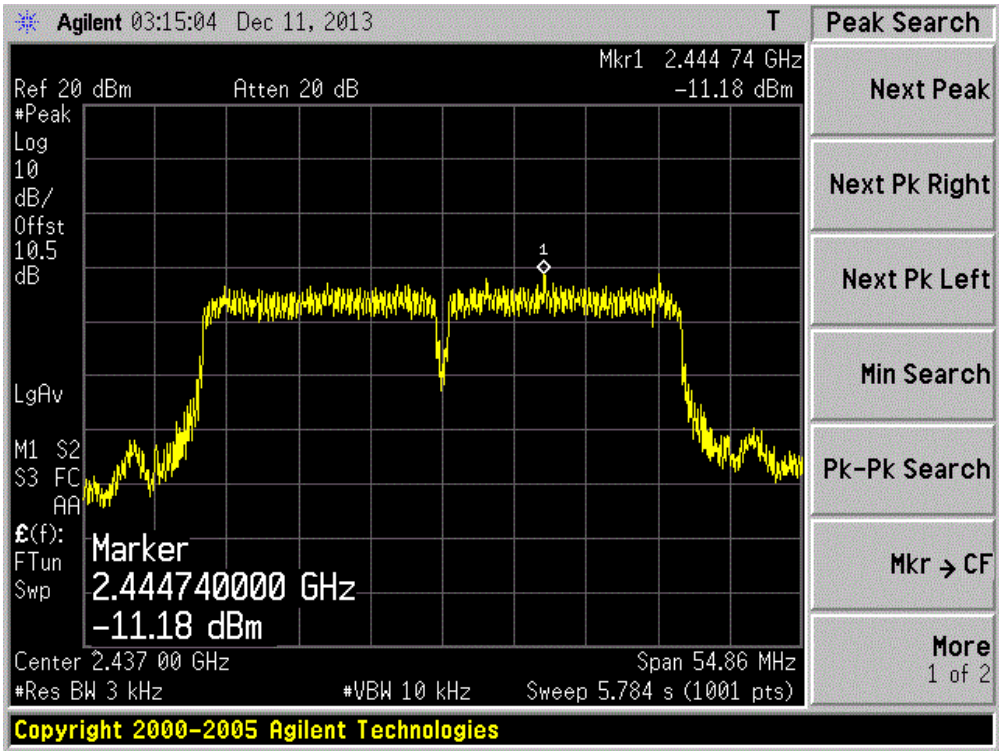
Product	:	GPON ONT
Test Item	:	Power Spectral Density
Test Site	:	TR-8
Test Mode	:	Mode 4: Transmit by 802.11n(40MHz) (Ant A+B)

Channel No.	Frequency (MHz)	Measurement PPSD (dBm)		Total PPSD (dBm)	Limit (dBm)	Result
		Ant A	Ant B			
03	2422	-11.14	-13.52	-9.16	8	Pass
06	2437	-11.18	-13.61	-9.22	8	Pass
09	2452	-10.84	-13.99	-9.13	8	Pass

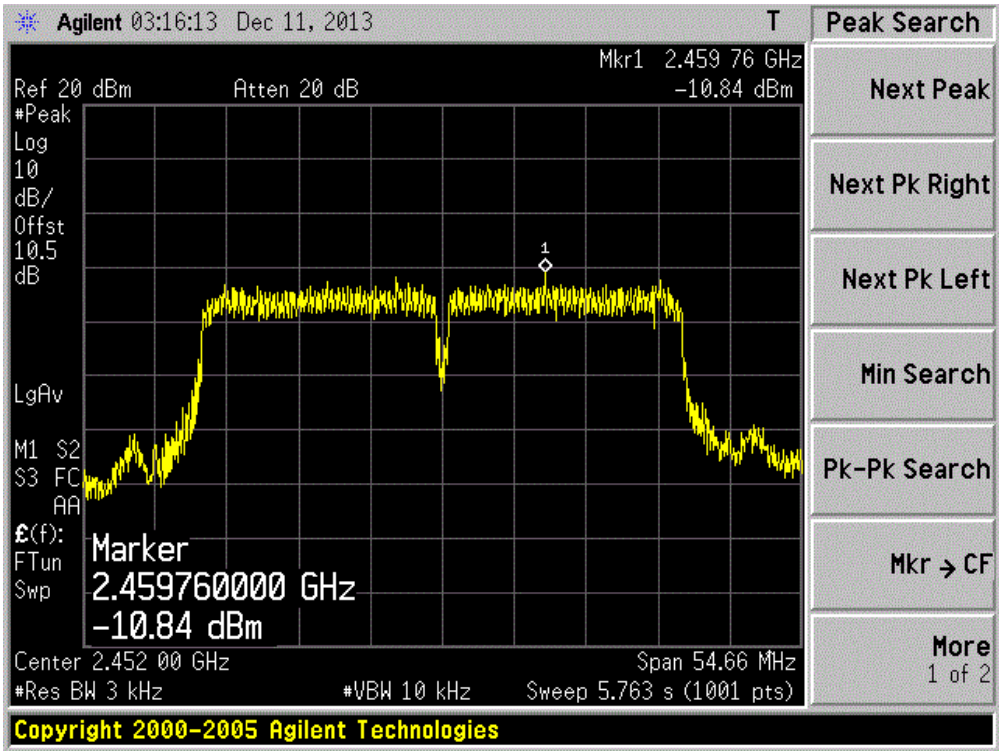
Channel 03 (2422MHz)-Ant A



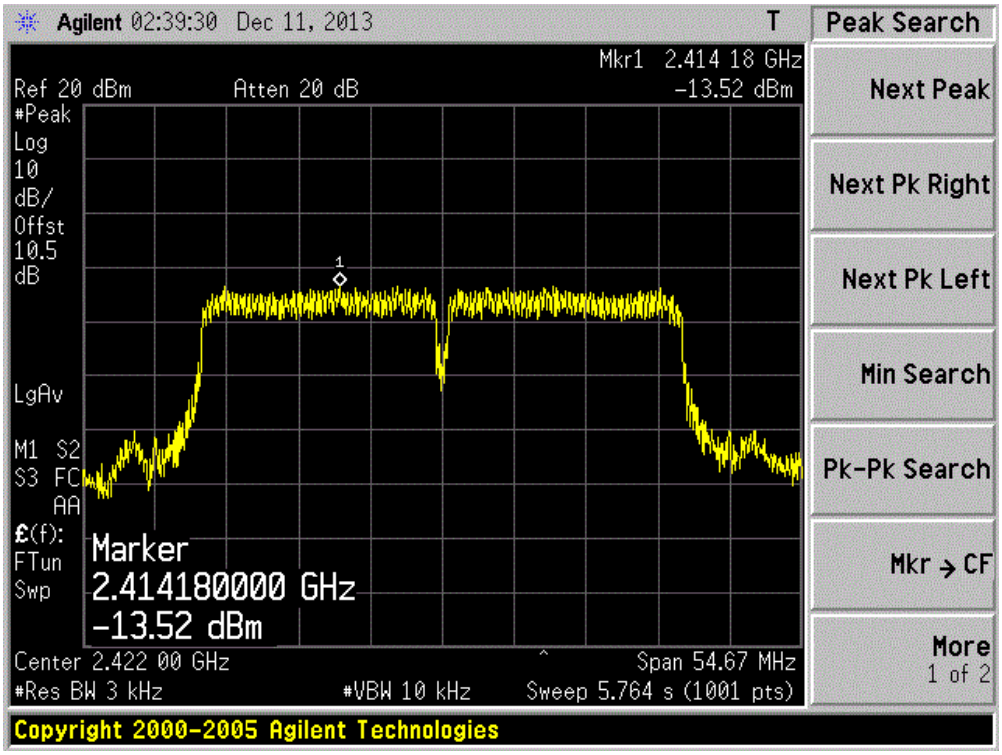
Channel 06 (2437MHz)-Ant A



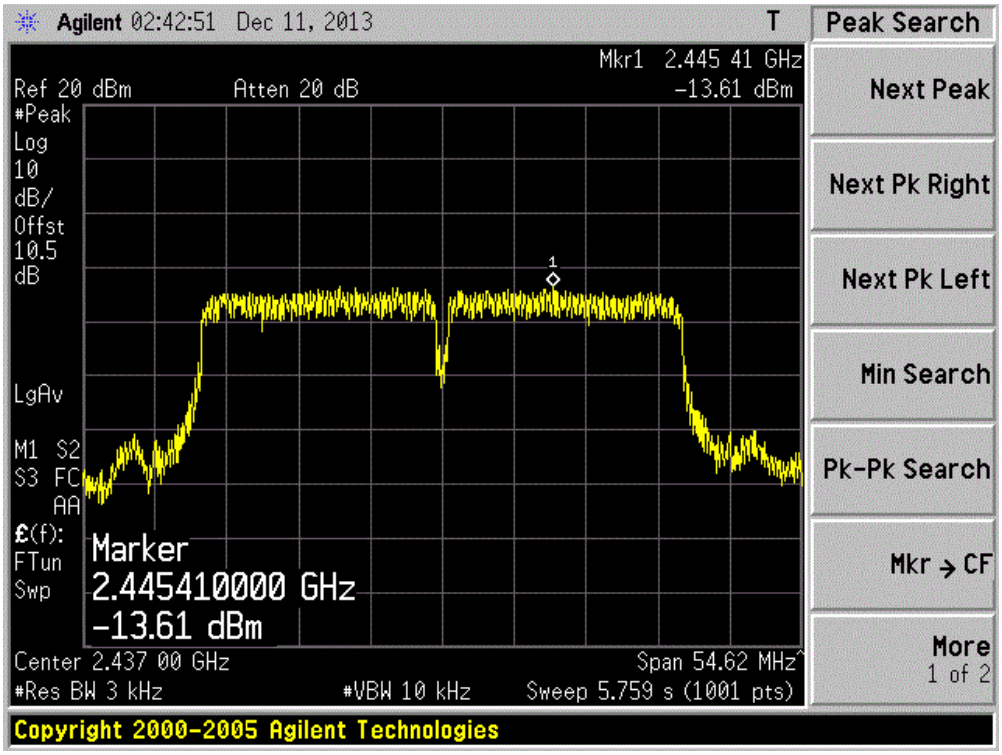
Channel 09 (2452MHz) -Ant A



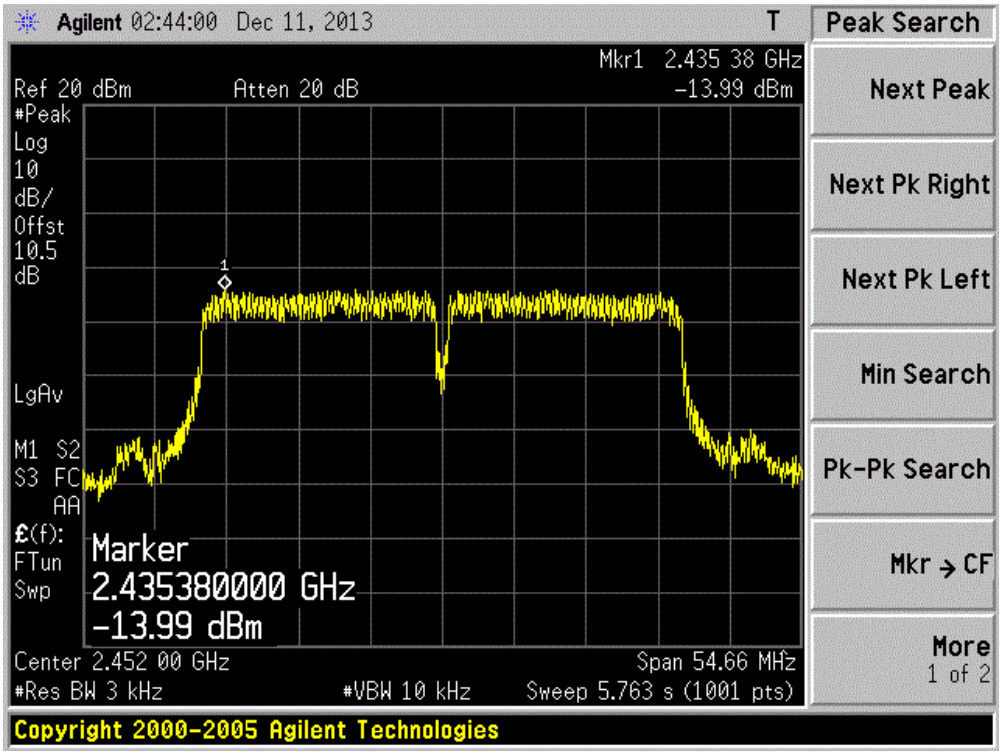
Channel 03 (2422MHz)-Ant B



Channel 06 (2437MHz)-Ant B



Channel 09 (2452MHz) -Ant B



The End