



FCC 47 CFR PART 15 SUBPART C TEST REPORT

For

Product Name: MOBILE PHONE

Brand Name: ALVO

Model No.: ALVO XERO

Series Model: N/A

Test Report Number:

KS120424A01-RPB

Issued for

DELTA NETWORK PTE. LTD.

21 Bukit Batok Crescent #23-72, Wcega Tower Singapore 658065

Issued by

Compliance Certification Services Inc.

Kun shan Laboratory

**No.10 Weiye Rd., Innovation park, Eco&Tec,
Development Zone, Kunshan City, Jiangsu, China**

TEL: 86-512-57355888

FAX: 86-512-57370818



TESTING CERT #2541.01

Note: This report shall not be reproduced except in full, without the written approval of Compliance Certification Services Inc. This document may be altered or revised by Compliance Certification Services Inc. personnel only, and shall be noted in the revision section of the document. The client should not use it to claim product endorsement by A2LA or any government agencies. The test results in the report only apply to the tested sample.



TABLE OF CONTENTS

1	TEST RESULT CERTIFICATION	3
2	EUT DESCRIPTION	4
3	TEST METHODOLOGY	5
3.1.	EUT CONFIGRUATIIION	5
3.2.	EUT EXERCISE	5
3.3.	GENERAL TEST PROCEDURES	5
3.4.	MODIFICATION	5
3.5.	FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS	6
3.6.	DESCRIPTION OF TEST MODES	6
4	FACILITIES AND ACCREDITATIONS	7
4.1.	FACILITIES	7
4.2.	EQUIPMENT	7
4.3.	ACCREDITATIONS	7
4.4.	LIST OF MEASURING EQUIPMENT	8
5	SETUP OF EQUIPMENT UNDER TEST	9
5.1.	SETUP CONFIGURATION OF EUT	9
5.2.	SUPPORT EQUIPMENT	9
6	FCC PART 15.247 REQUIREMENTS	10
6.1.	6DB BANDWIDTH MEASUREMENT	10
6.2.	PEAK POWER	14
6.3.	BAND EDGES MEASUREMENT	16
6.4.	PEAK POWER SPECTRAL DENSITY	26
6.5.	SPURIOUS EMISSIONS	30
6.6.	RADIATED EMISSIONS	34
6.7.	POWERLINE CONDUCTED EMISSIONS	44
6.8.	APPENDIX I RADIO FREQUENCY EXPOSURE	47



1 TEST RESULT CERTIFICATION

Product Name:	MOBILE PHONE
Trade Name:	ALVO
Model Name.:	ALVO XERO
Series Model:	N/A
Applicant Discrepancy:	Initial
Device Category:	PORTABLE DEVICES
Exposure Category:	GENERAL POPULATION/UNCONTROLLED EXPOSURE
Date of Test:	May 4, 2012
Applicant:	DELTA NETWORK PTE. LTD. 21 Bukit Batok Crescent #23-72, Wcega Tower Singapore 658065
Manufacturer:	SHENZHEN UNITED TIME TECHNOLOGY CO.,LTD. Room 1001 Microprofit Building,6 Gaoxin south Road, High-Tech Park, Nanshan district ,Shenzhen, P.R. China
Application Type:	Certification

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 15 Subpart C	No non-compliance noted

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2003 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247.

The test results of this report relate only to the tested sample EUT identified in this report.

Approved by:

Hadiif Hoo
RF Manager
Compliance Certification Services Inc.

Tested by:

Sean Yu
Test Engineer
Compliance Certification Services Inc.



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

2 EUT DESCRIPTION

Product Name:	MOBILE PHONE
Brand Name:	ALVO
Model Name:	ALVO XERO
Series Model:	N/A
Model Discrepancy:	N/A
Power Supply:	Power supply and ADP (rating) : Model:COOL Input:100-240V-50/60HZ Output:DC5V 500mA Battery (rating): Capacidad :XERO 3.7Vcc 1100mAh
Frequency Range	Wifi b/g: 2412 ~ 2462 MHz Bluetooth :2402 ~ 2480 MHz GSM/GPRS 850: 824.20 ~ 848.80 MHz GSM/GPRS 1900: 1850.20 ~ 1909.80 MHz
Transmit Power	IEEE 802.11b: 15.92dBm IEEE 802.11g: 15.13dBm
Modulation Technique	IEEE 802.11b: DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g: DSSS (CCK, DQPSK, DBPSK) + OFDM (QPSK, BPSK, 16-QAM, 64-QAM)
Transmit Data Rate	IEEE 802.11b: 11, 5.5, 2, 1 Mbps IEEE 802.11g: 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps
Number of Channels	IEEE 802.11b , IEEE 802.11g :11 Channels
Antenna Specification	0.78 dBi gain (Max)

Remark: This submittal(s) (test report) is intended for **FCC ID: Z6PALVOXERO** to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.



3 TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4 and FCC CFR 47 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057, 15.207, 15.209 and 15.247.

3.1. EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2. EUT EXERCISE

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

3.3. GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4.

3.4. MODIFICATION

N/A



3.5. FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.50 - 5.15
0.495 - 0.505 ⁽¹⁾	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960.0 - 1240	7.25 - 7.75
4.125 - 4.128	25.50 - 25.67	1300 - 1427	8.025 - 8.500
4.17725 - 4.17775	37.50 - 38.25	1435.0 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73.00 - 74.60	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.80 - 75.20	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108.00 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.90 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500.0	17.7 - 21.4
8.37625 - 8.38675	156.70 - 156.90	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.1700	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.20	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358.0	36.43 - 36.5 ⁽²⁾
12.57675 - 12.57725	322.0- 335.4	3600 - 4400	
13.36 - 13.41			

¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

² Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

3.6. DESCRIPTION OF TEST MODES

The EUT had been tested under operating condition.

Software used to control the EUT for staying in continuous transmitting mode was programmed.

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz, which worst case was in normal link mode only.

IEEE802.11b: Channel low(2412MHz), Channel middle(2437MHz) and Channel high (2462MHz) with preliminary test 11, 5.5, 2, and 1, After the preliminary scan , the following test mode 11Mbps highest data rate (the worst case) are chosen for the final testing.

IEEE802.11g: Channel low(2412MHz), Channel middle(2437MHz) and Channel high(2462MHz) with preliminary test 54/48/36/24/18/12/9/6, After the preliminary scan , the following test mode 6Mbps data rate (the worst case) are chosen for the final testing.



4 FACILITIES AND ACCREDITATIONS

4.1. FACILITIES

- No.10Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22.

4.2. EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

4.3. ACCREDITATIONS

Our laboratories are accredited and approved by the following accreditation body according to ISO/IEC 17025.

USA	A2LA
China	CNAS

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada	Industry Canada
Japan	VCCI
Taiwan	BSMI
USA	FCC

Copies of granted accreditation certificates are available for downloading from our web site, <http://www.ccsrf.com>



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

4.4. LIST OF MEASURING EQUIPMENT

Conducted Emissions Test Site				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY44020154	2012-05-13
DETECTOR NEGATIVE	Agilent	8473B	MY42240176	2012-05-13
OSCILLOSCOPE	Agilent	DSO6104A	MY44002585	2013-3-24
Peak and Avg Power Sensor	Agilent	E9327A	US40441788	2013-03-24
EPM-P Series Power Meter	Agilent	E4416A	GB41292714	2012-05-13
Power SPLITTER	Mini-Circuits	ZN2PD-9G	SF078500430	2012-05-13
DC POWER SUPPLY	GW instek	GPS-3303C	E903131	2012-05-13
Temp. / Humidity Chamber	Kingson	THS-M1	242	2013-03-13
Test Software	EZ-EMC			

977 Chamber				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY44020154	2012-05-13
EMI Test Receiver	R&S	ESPI3	101026	2013-03-16
Pre-Amplifier	MINI	ZFL-1000VH2	d041703	2012-06-30
Pre-Amplifier	Miteq	NSP4000-NF	870629	2012-06-30
Bilog Antenna	Sunol	JB1	A110204-2	2012-06-24
Horn-antenna	SCHWARZBECK	BBHA9120D	D:266	2012-05-13
Turn Table	CT	CT123	4165	N.C.R
Antenna Tower	CT	CTERG23	3256	N.C.R
Controller	CT	CT100	95637	N.C.R
Test Software	EZ-EMC			

Conducted Emission				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EMI TEST RECEIVER	R&S	ESCI3	100781	2013-03-16
V (V-LISN)	Schwarzbeck	NNLK 8129	8129-143	2013-03-16
LISN (EUT)	FCC	FCC-LISN-50/250-50-2-02	SN:05012	2013-03-16
TRANSIENT LIMITER	SCHAFFNER	CFL9206	1710	2013-4-09
Test Software	EZ-EMC			

Remark: Each piece of equipment is scheduled for calibration once a year.



5 SETUP OF EQUIPMENT UNDER TEST

5.1. SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

5.2. SUPPORT EQUIPMENT

No.	Equipment	Model No.	Serial No.	FCC ID	Trade Name	Data Cable	Power Cord
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Remark:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.



6 FCC PART 15.247 REQUIREMENTS

6.1. 6DB BANDWIDTH MEASUREMENT

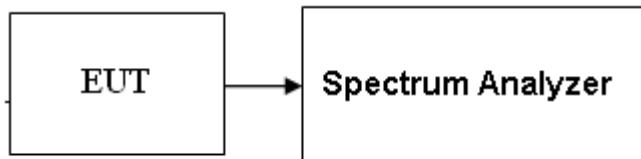
LIMITS

According to §15.247(a)(2), systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURES (please refer to measurement standard)

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW = 100kHz, VBW = RBW, Span = 20MHz, Sweep = auto.
4. Mark the peak frequency and -6dB (upper and lower) frequency.
5. Repeat until all the rest channels are investigated.

TEST SETUP



TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	11.142	>500	PASS
Mid	2437	11.254		PASS
High	2462	11.527		PASS

Test Data

Test mode: IEEE 802.11g

Channel	Frequency (MHz)	Bandwidth (kHz)	Limit (kHz)	Test Result
Low	2412	16.407	>500	PASS
Mid	2437	16.409		PASS
High	2462	16.427		PASS



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

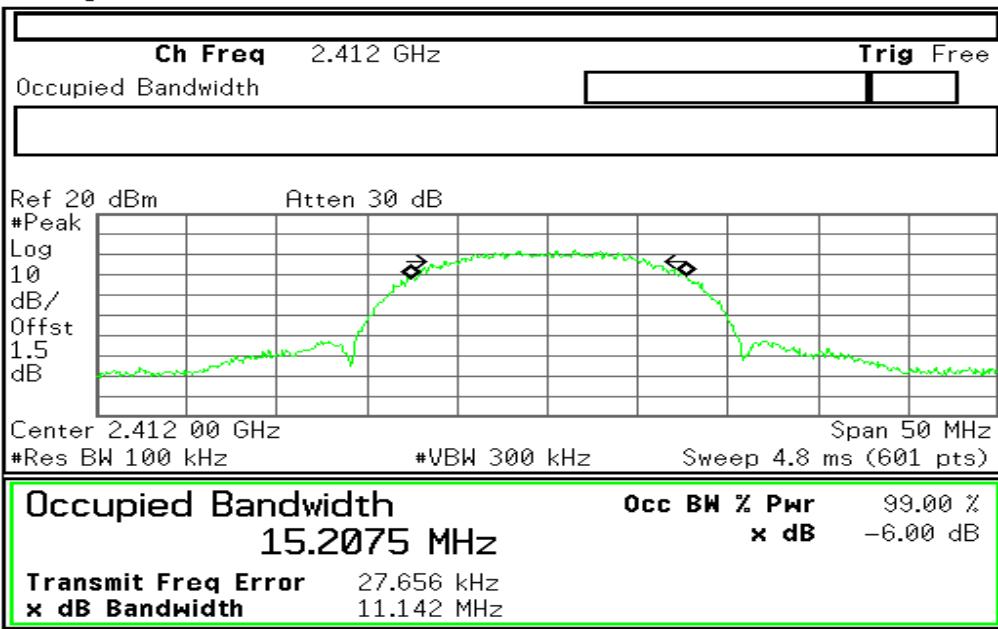
FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

Test Plot (IEEE 802.11b mode)

6dB Bandwidth (CH Low)

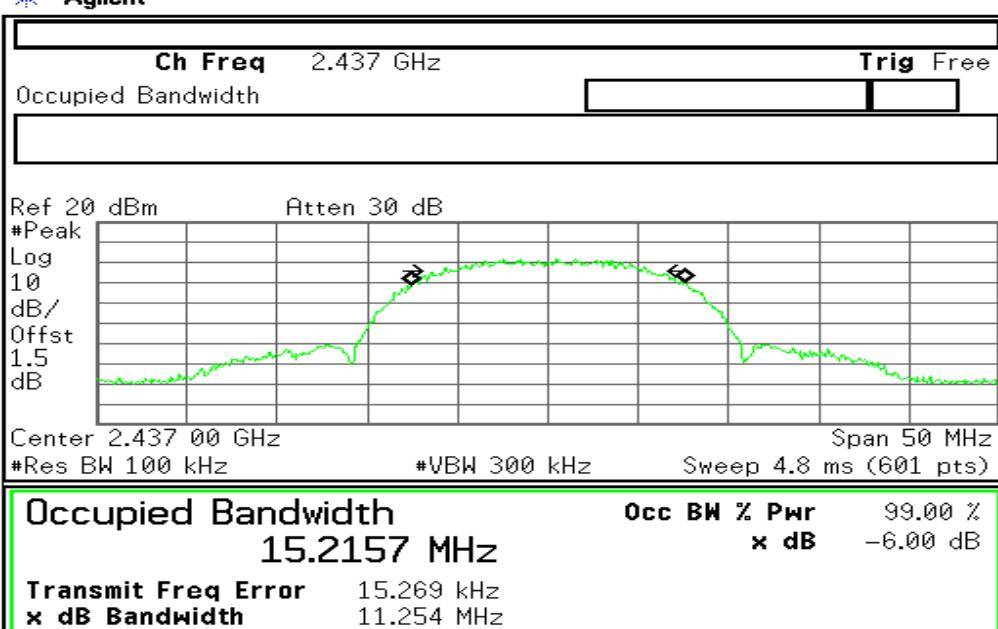
* Agilent



Meas Setup
Avg Number
10
On
Off
Avg Mode
Exp
Repeat
Max Hold
On
Off
Occ BW % Pwr
99.00 %
OBW Span
50.0000000 MHz
x dB
-6.00 dB
Optimize Ref Level

6dB Bandwidth (CH Mid)

* Agilent



Freq/Channel
Center Freq
2.43700000 GHz
Start Freq
2.41200000 GHz
Stop Freq
2.46200000 GHz
CF Step
5.000000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off



Compliance Certification Services Inc.

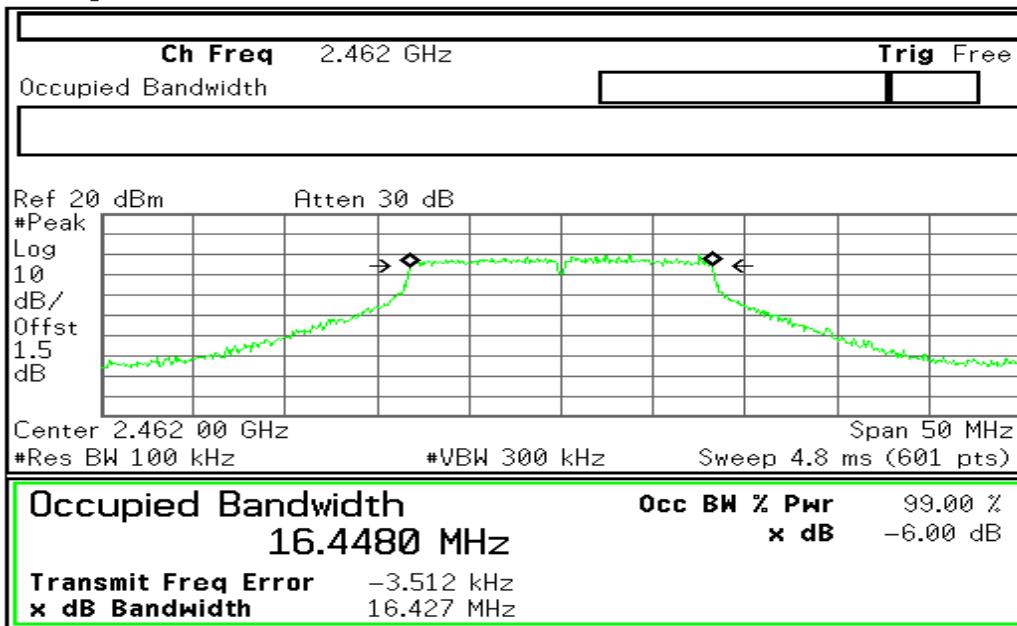
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

6dB Bandwidth (CH High)

* Agilent



Freq/Channel

Center Freq 2.46200000 GHz

Start Freq 2.43700000 GHz

Stop Freq 2.48700000 GHz

CF Step 5.00000000 MHz Auto

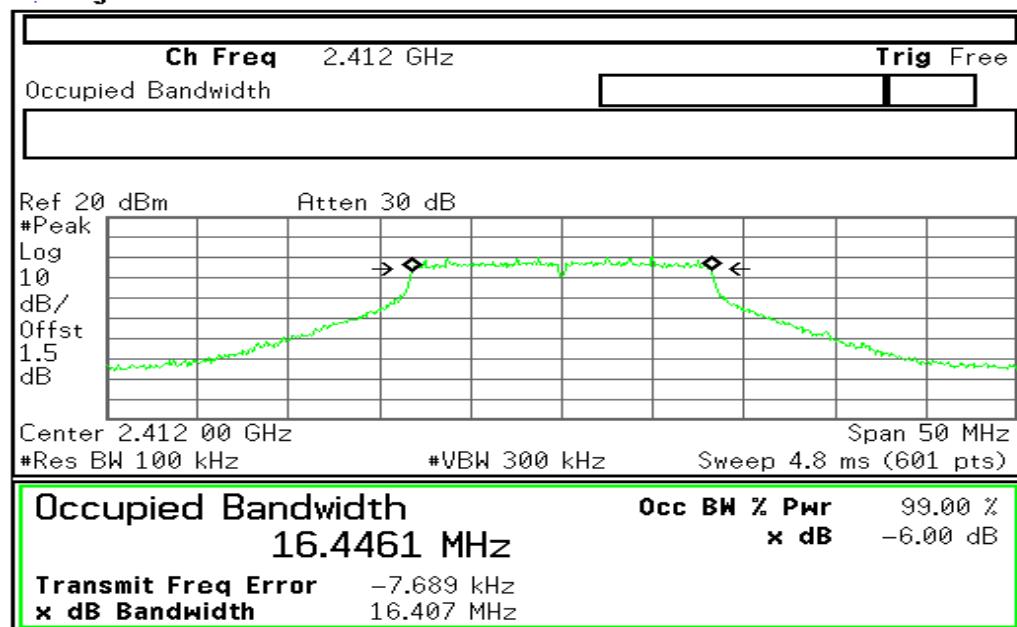
Freq Offset 0.00000000 Hz

Signal Track On Off

Test Plot (IEEE 802.11g mode)

6dB Bandwidth (CH Low)

* Agilent



Freq/Channel

Center Freq 2.41200000 GHz

Start Freq 2.38700000 GHz

Stop Freq 2.43700000 GHz

CF Step 5.00000000 MHz Auto

Freq Offset 0.00000000 Hz

Signal Track On Off



Compliance Certification Services Inc.

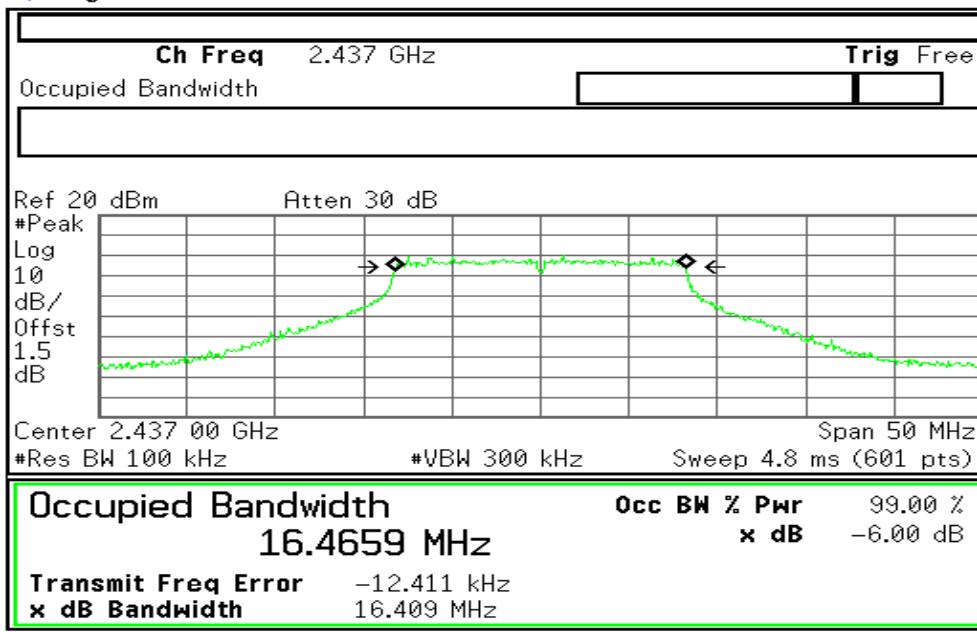
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

6dB Bandwidth (CH Mid)

Agilent



Freq/Channel

Center Freq 2.43700000 GHz

Start Freq 2.41200000 GHz

Stop Freq 2.46200000 GHz

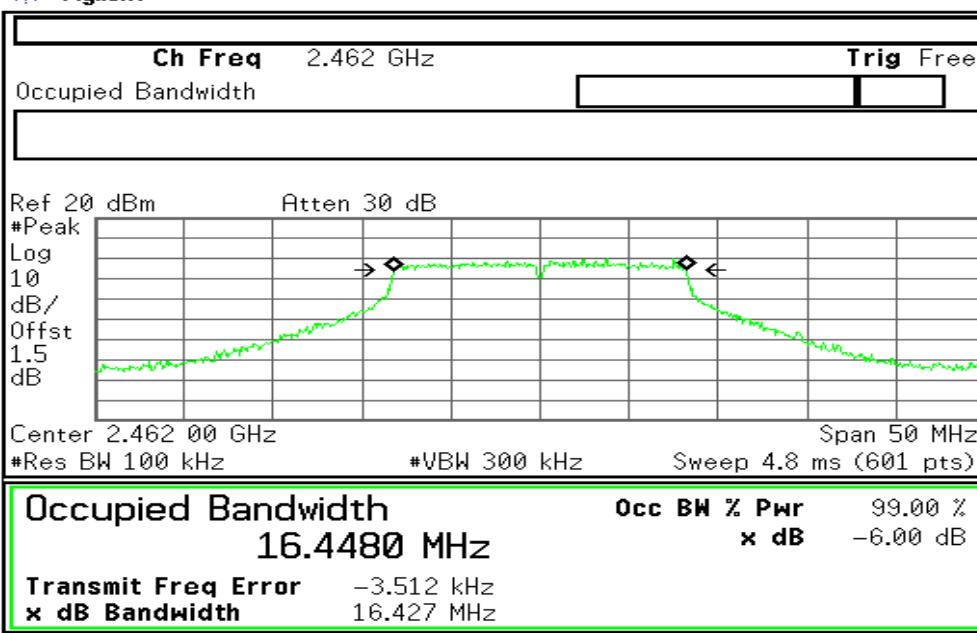
CF Step 5.00000000 MHz Auto Man

Freq Offset 0.00000000 Hz

Signal Track On Off

6dB Bandwidth (CH High)

Agilent



Freq/Channel

Center Freq 2.46200000 GHz

Start Freq 2.43700000 GHz

Stop Freq 2.48700000 GHz

CF Step 5.00000000 MHz Auto Man

Freq Offset 0.00000000 Hz

Signal Track On Off



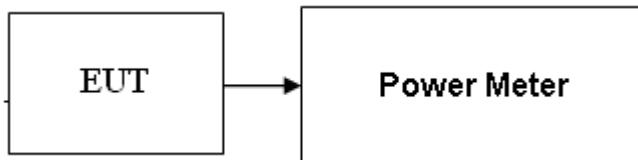
6.2. PEAK POWER

LIMIT

The maximum peak output power of the intentional radiator shall not exceed the following:

1. According to §15.247(a)(1), Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.
2. According to §15.247(b)(3), for systems using digital modulation in the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz: 1 Watt.
3. According to §15.247(b)(4), the conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Configuration



TEST PROCEDURE

The transmitter output is connected to the Power Meter.



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

TEST RESULTS

No non-compliance noted

Test Data

Test mode: IEEE 802.11b mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	15.92	0.0391	1.00	PASS
Mid	2437	15.26	0.0336		PASS
High	2462	15.29	0.0338		PASS

Test mode: IEEE 802.11g mode

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	Limit (W)	Result
Low	2412	15.05	0.0319	1.00	PASS
Mid	2437	15.10	0.0323		PASS
High	2462	15.13	0.0326		PASS

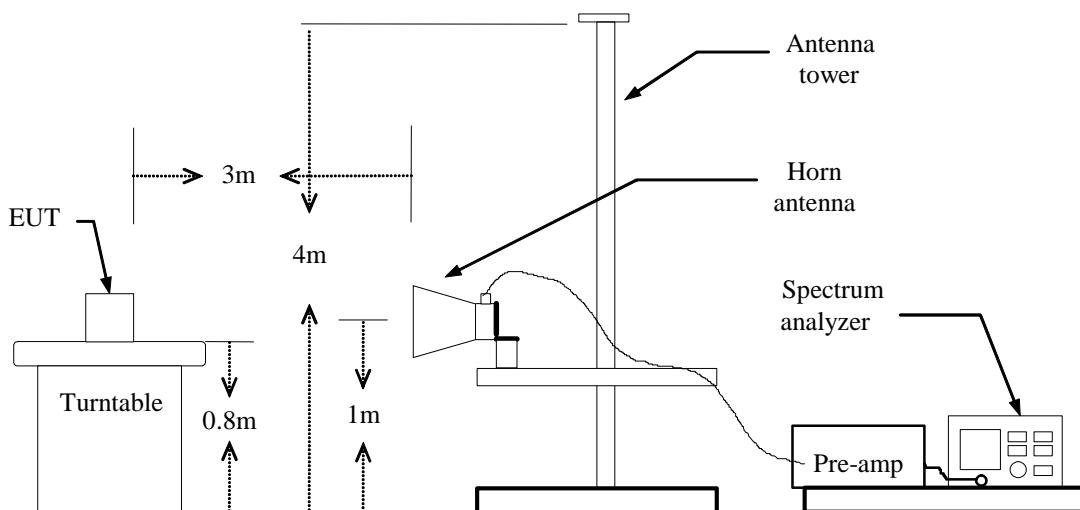


6.3. BAND EDGES MEASUREMENT

LIMIT

According to §15.247(c), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

Test Configuration



TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above the ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
5. Repeat the procedures until all the PEAK and AVERAGE versus POLARIZATION are measured.

TEST RESULTS



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

Test Data

Test Plot (IEEE 802.11b mode)

Test Data

Test Plot (IEEE 802.11g mode)



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

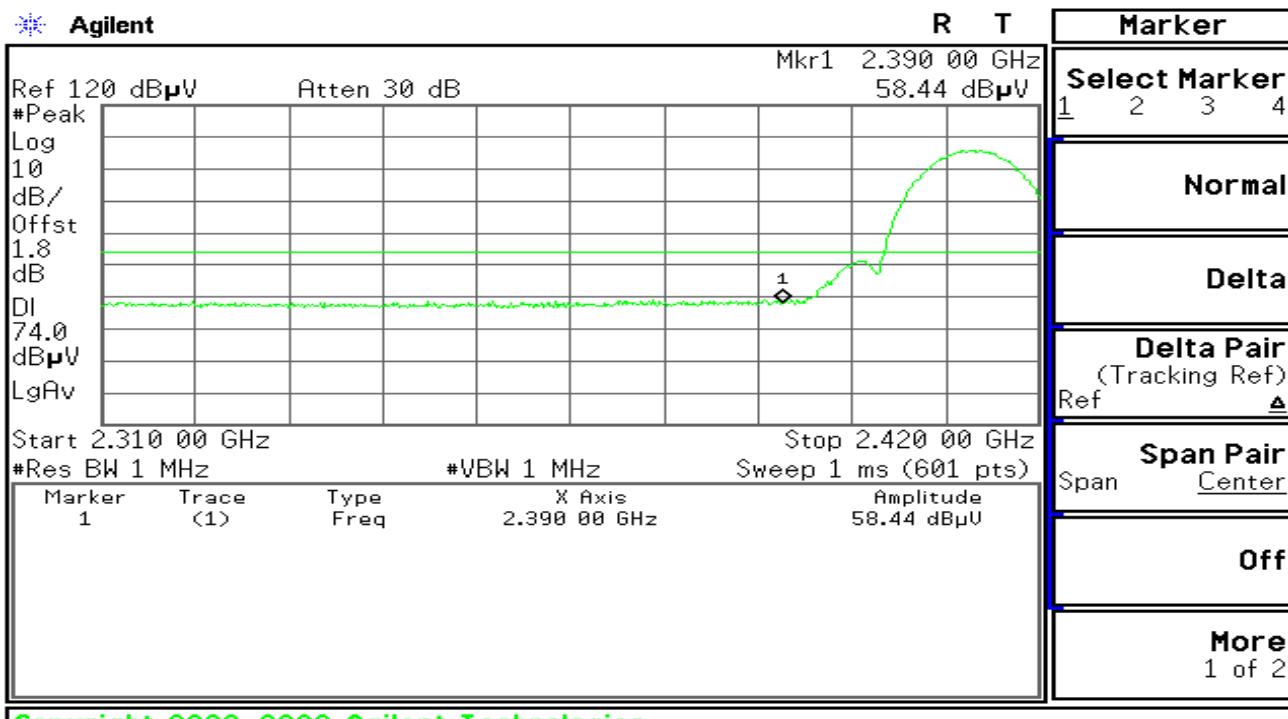
Date of Issue :May 9, 2012

Test Plot (IEEE 802.11b mode)

Band Edges (CH Low)

Detector mode: Peak

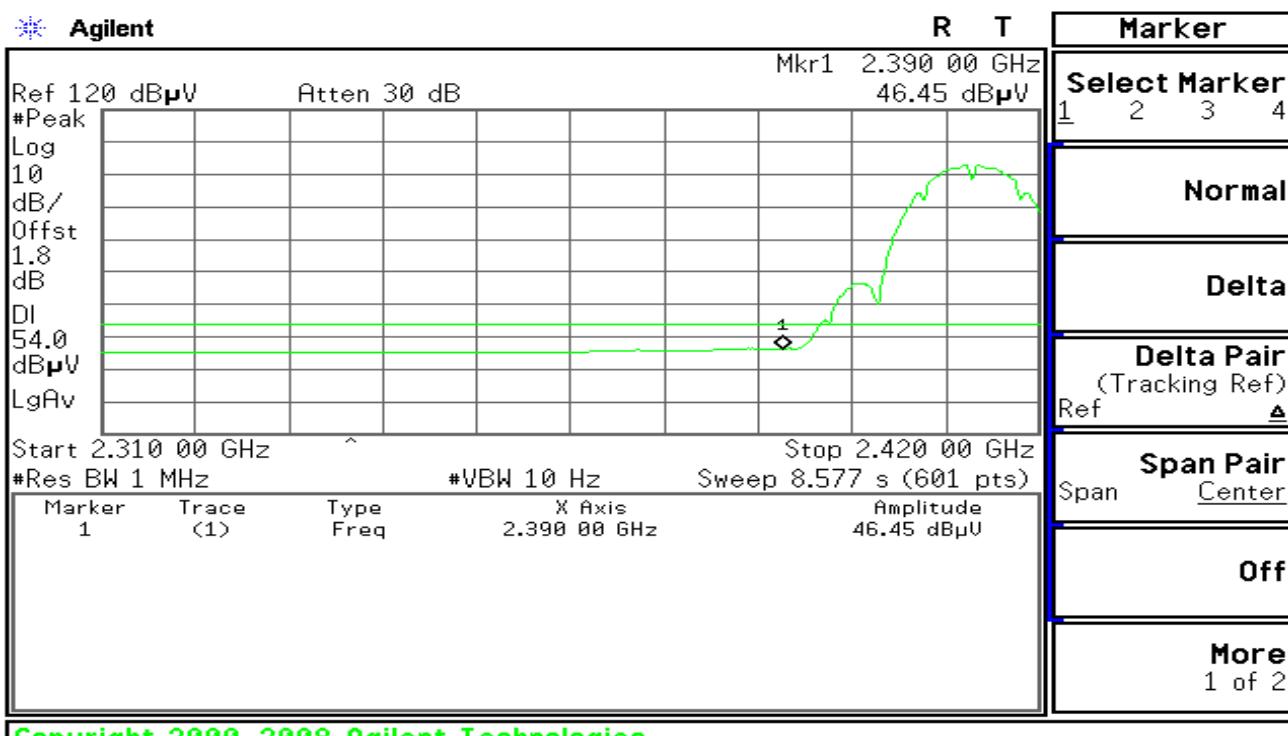
Polarity: Vertical



Copyright 2000-2008 Agilent Technologies

Detector mode: Average

Polarity: Vertical



Copyright 2000-2008 Agilent Technologies



Compliance Certification Services Inc.

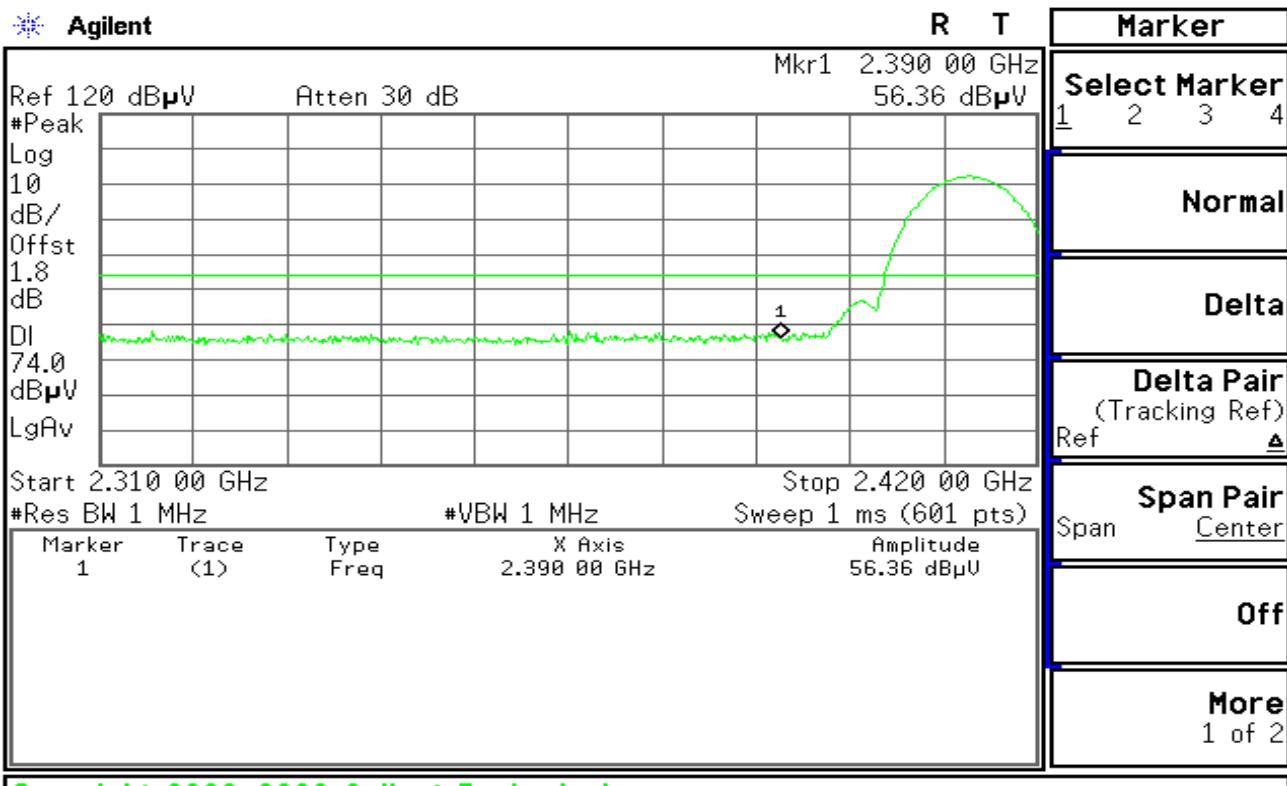
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

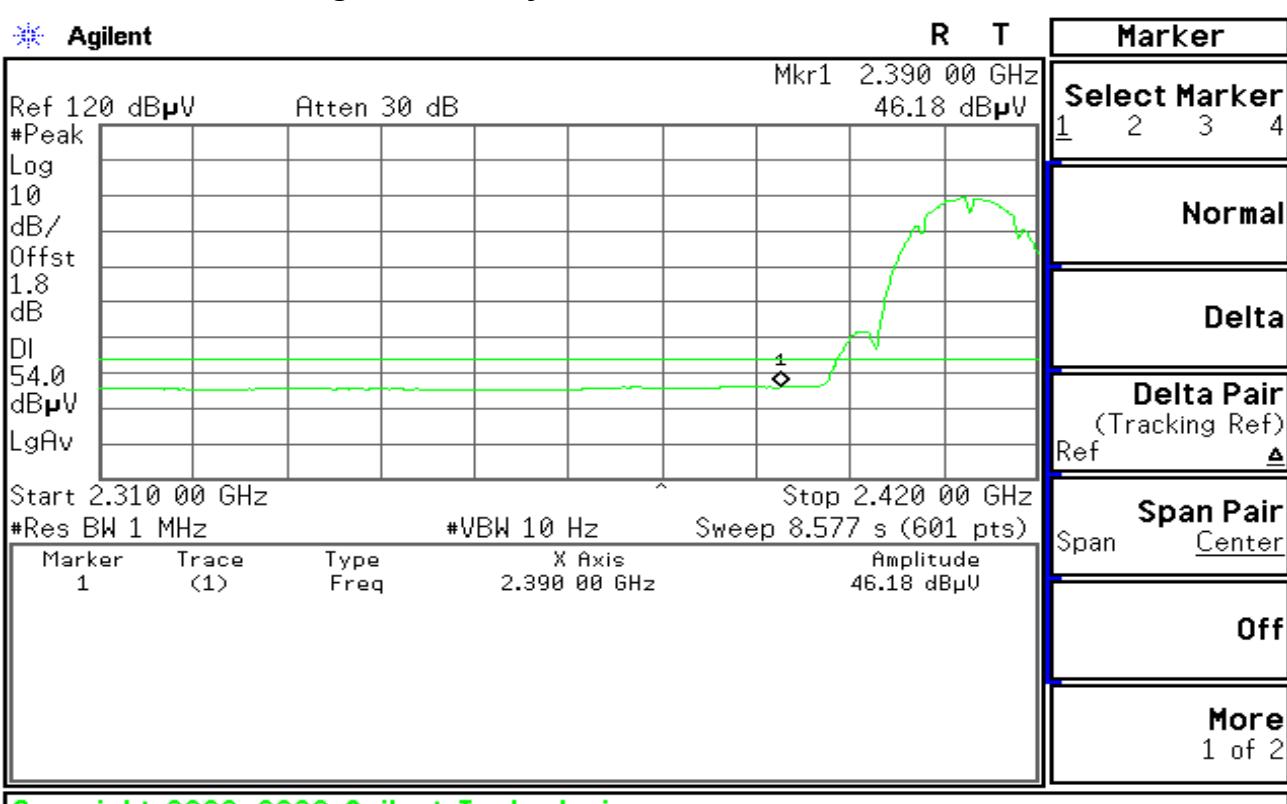
Detector mode: Peak

Polarity: Horizontal



Detector mode: Average

Polarity: Horizontal





Compliance Certification Services Inc.

Report No: KS120424A01-RPB

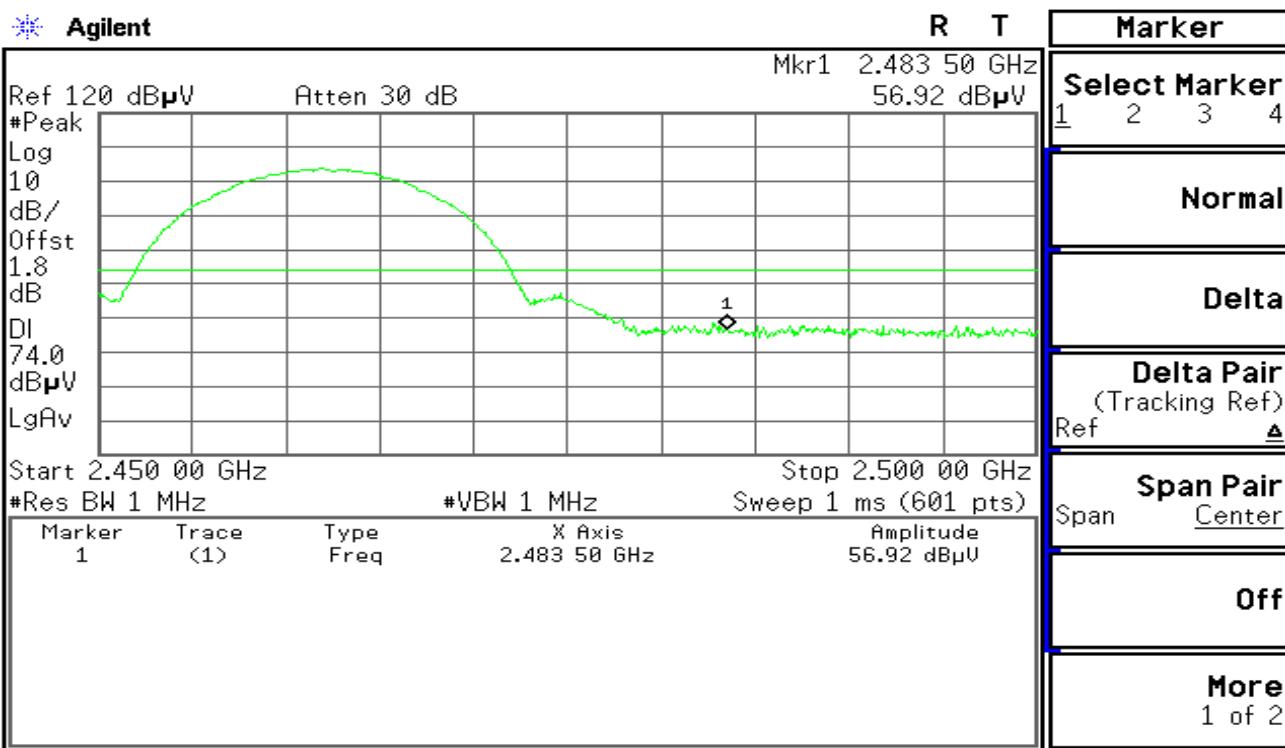
FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

Band Edges (CH High)

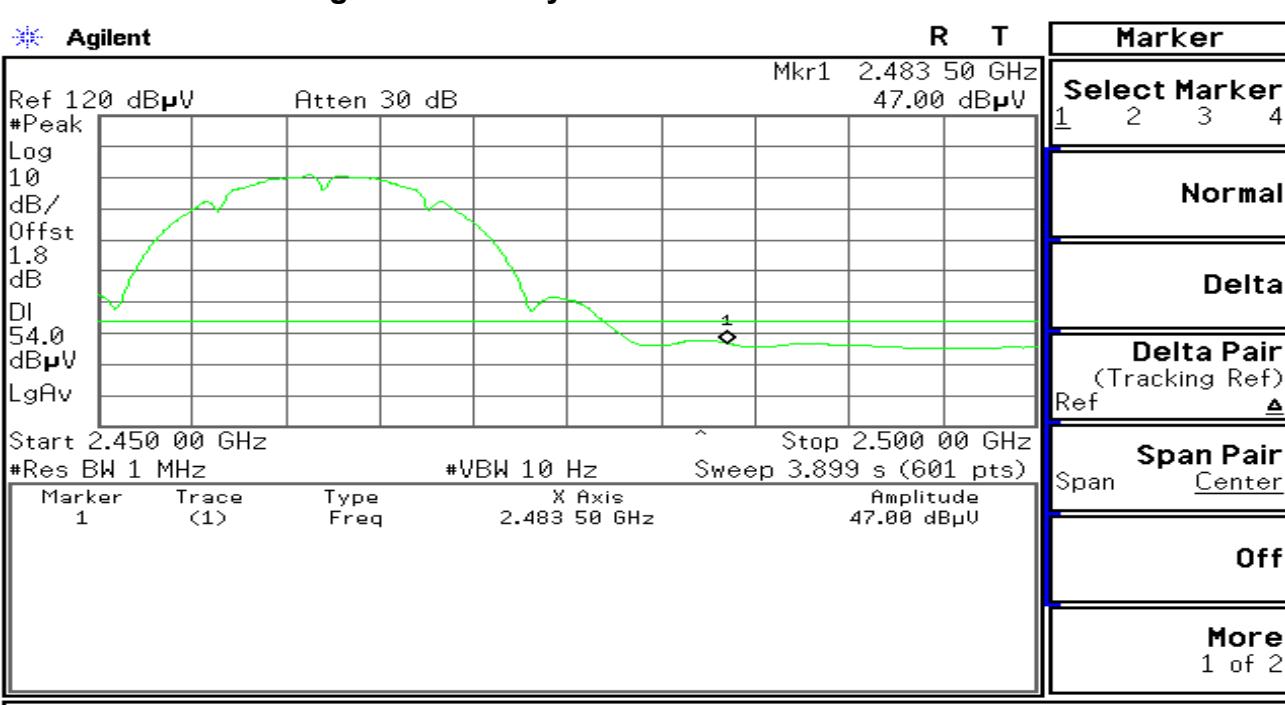
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical





Compliance Certification Services Inc.

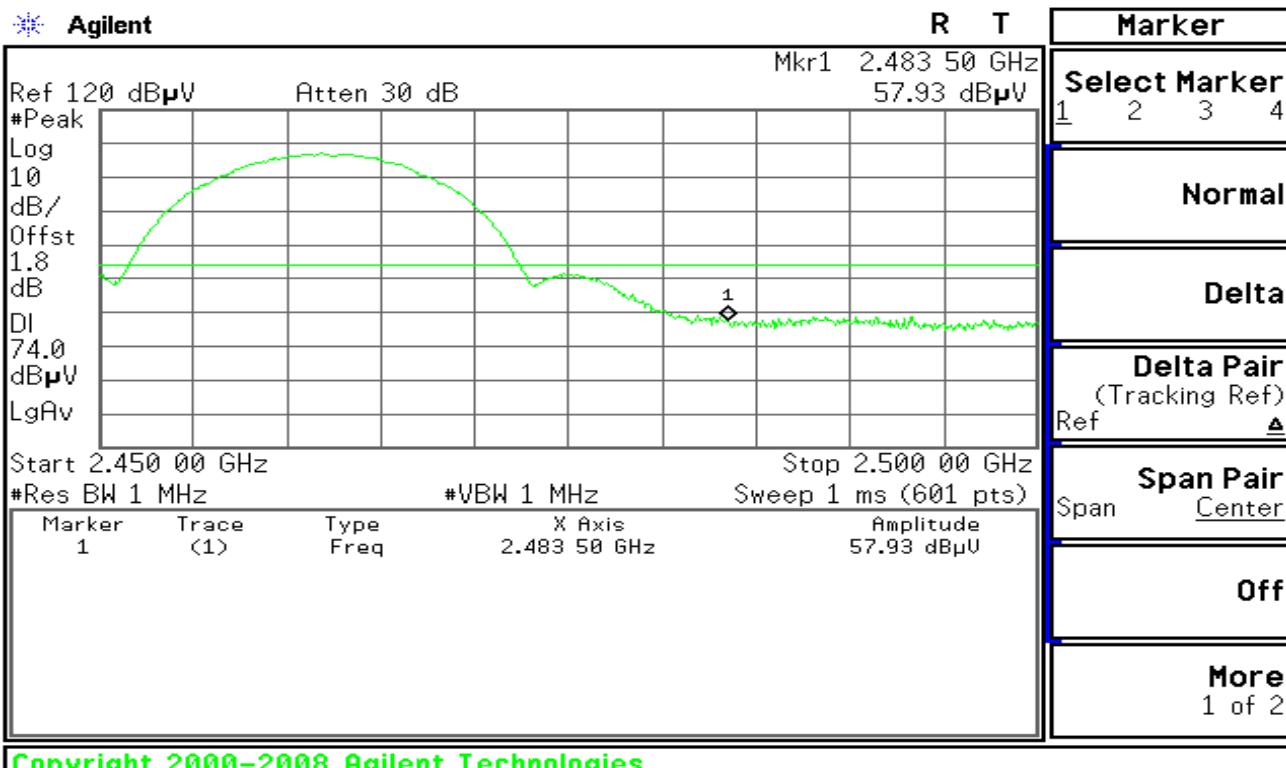
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

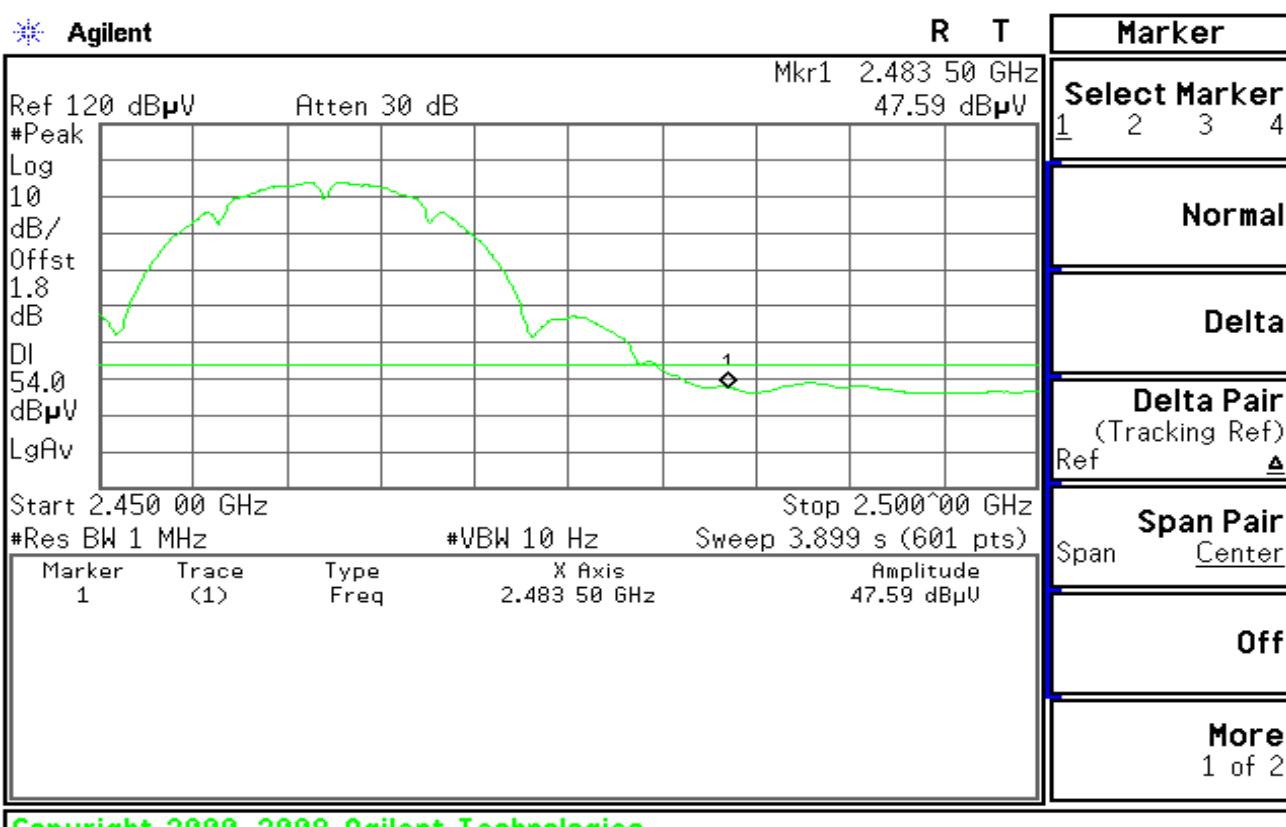
Date of Issue :May 9, 2012

Detector mode: Peak

Polarity: Horizontal



Detector mode: Average Polarity: Horizontal





Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

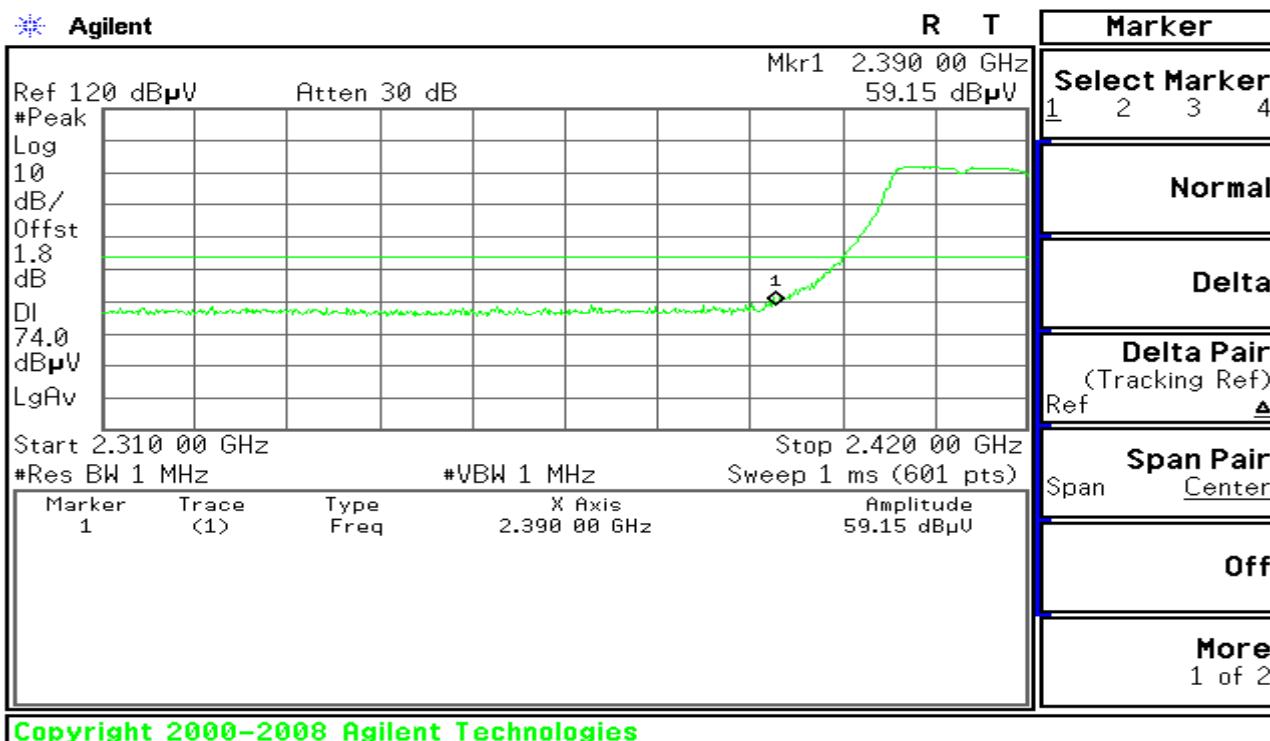
Date of Issue :May 9, 2012

Test Plot (IEEE 802.11g mode)

Band Edges (CH Low)

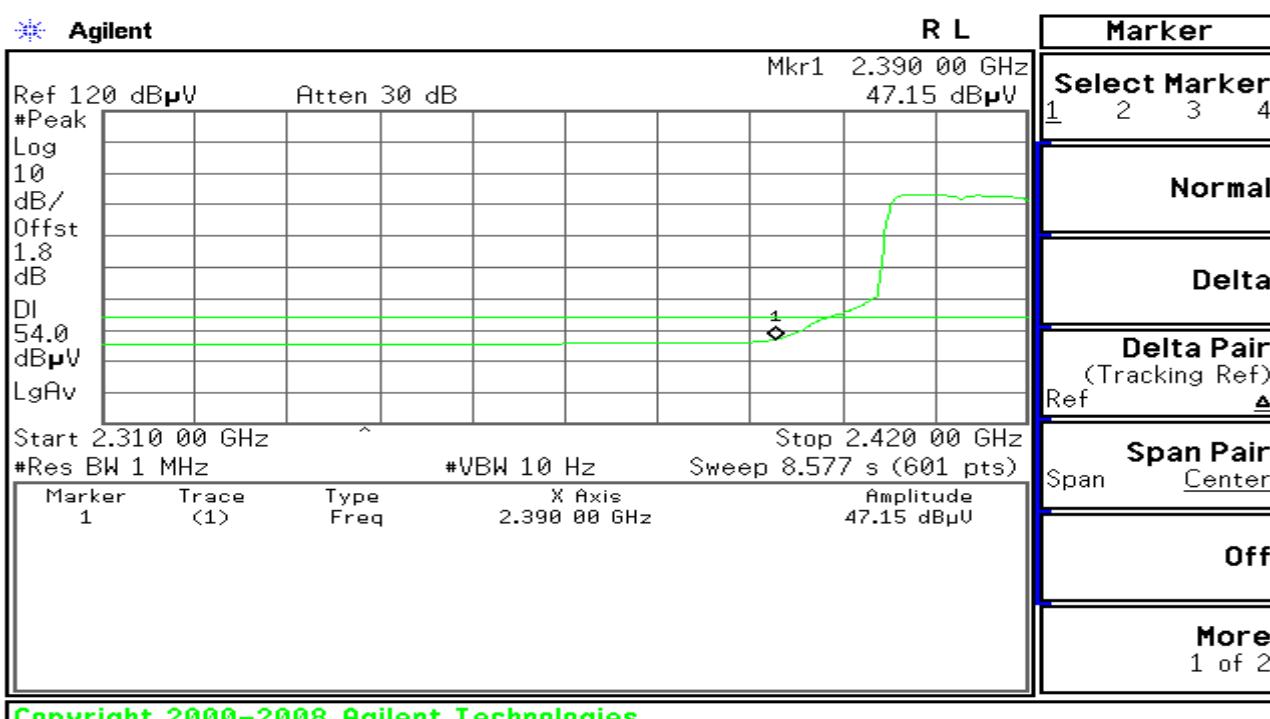
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical





Compliance Certification Services Inc.

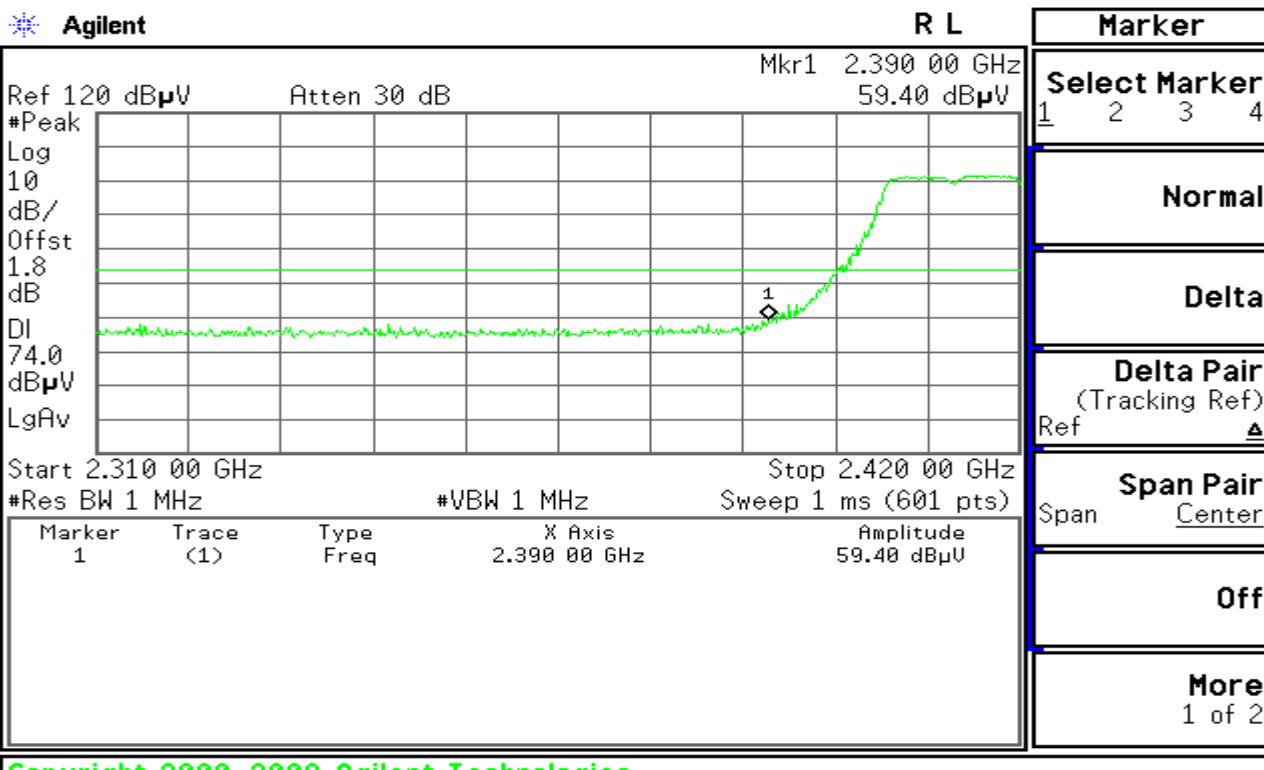
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

Detector mode: Peak

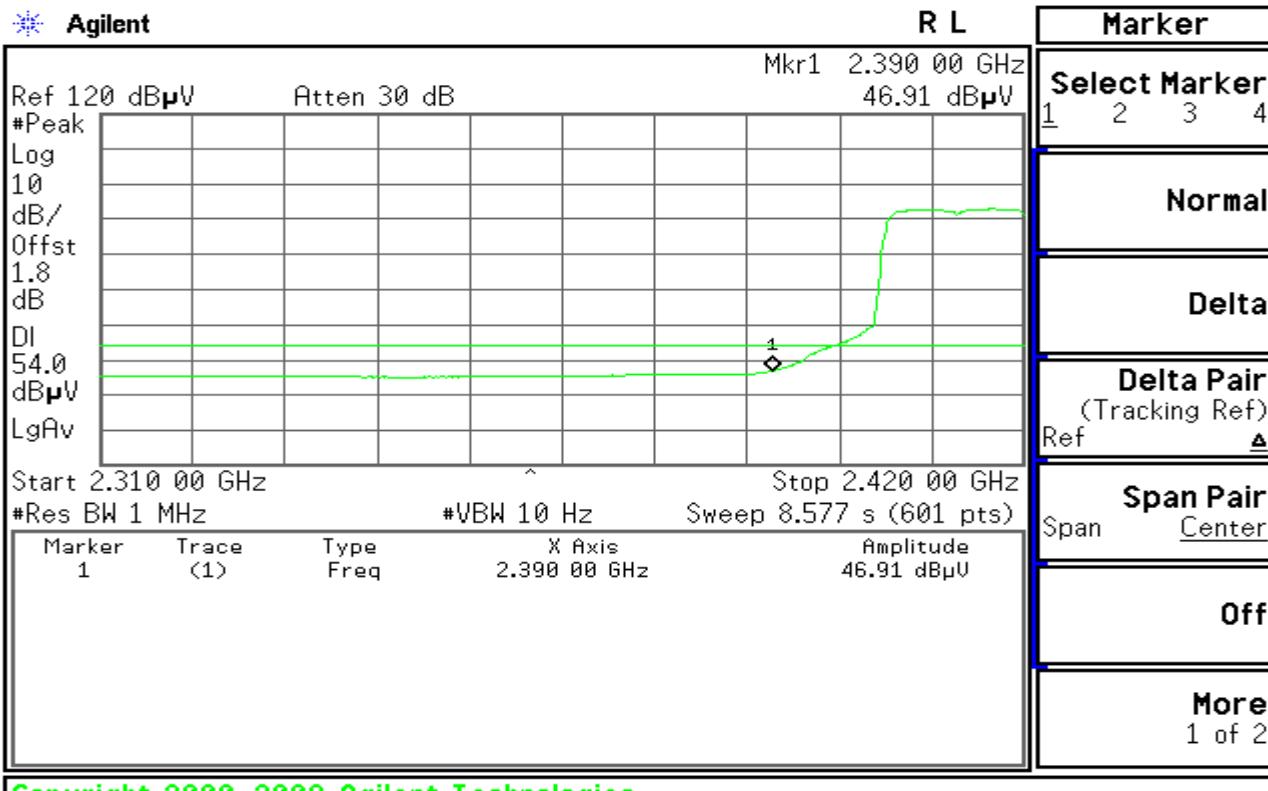
Polarity: Horizontal



Copyright 2000-2008 Agilent Technologies

Detector mode: Average

Polarity: Horizontal



Copyright 2000-2008 Agilent Technologies



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

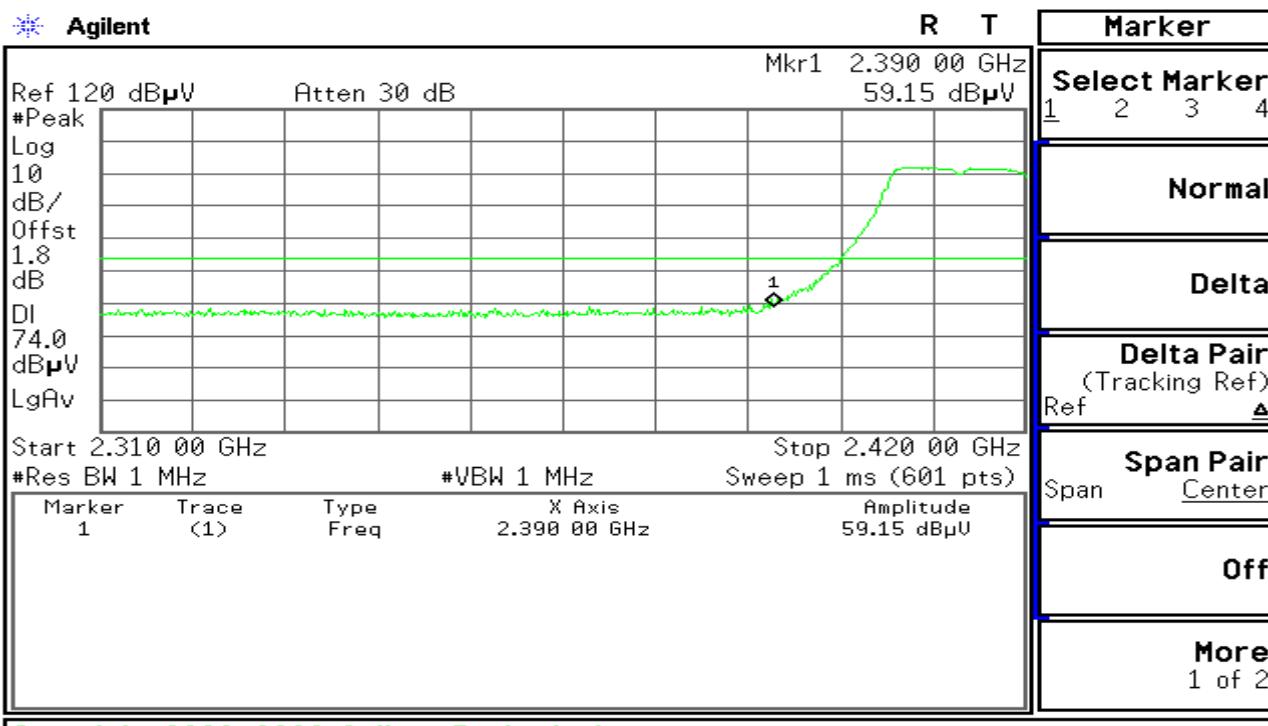
FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

Band Edges (CH High)

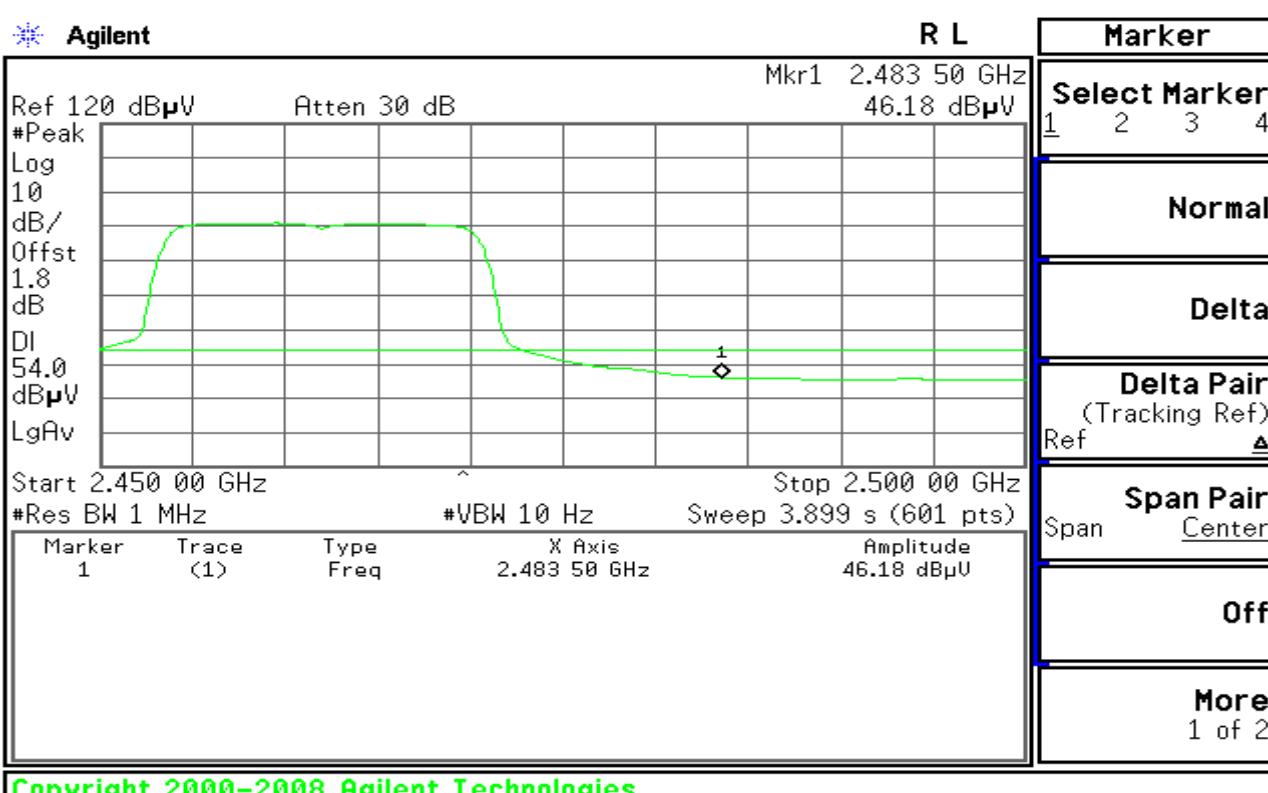
Detector mode: Peak

Polarity: Vertical



Detector mode: Average

Polarity: Vertical





Compliance Certification Services Inc.

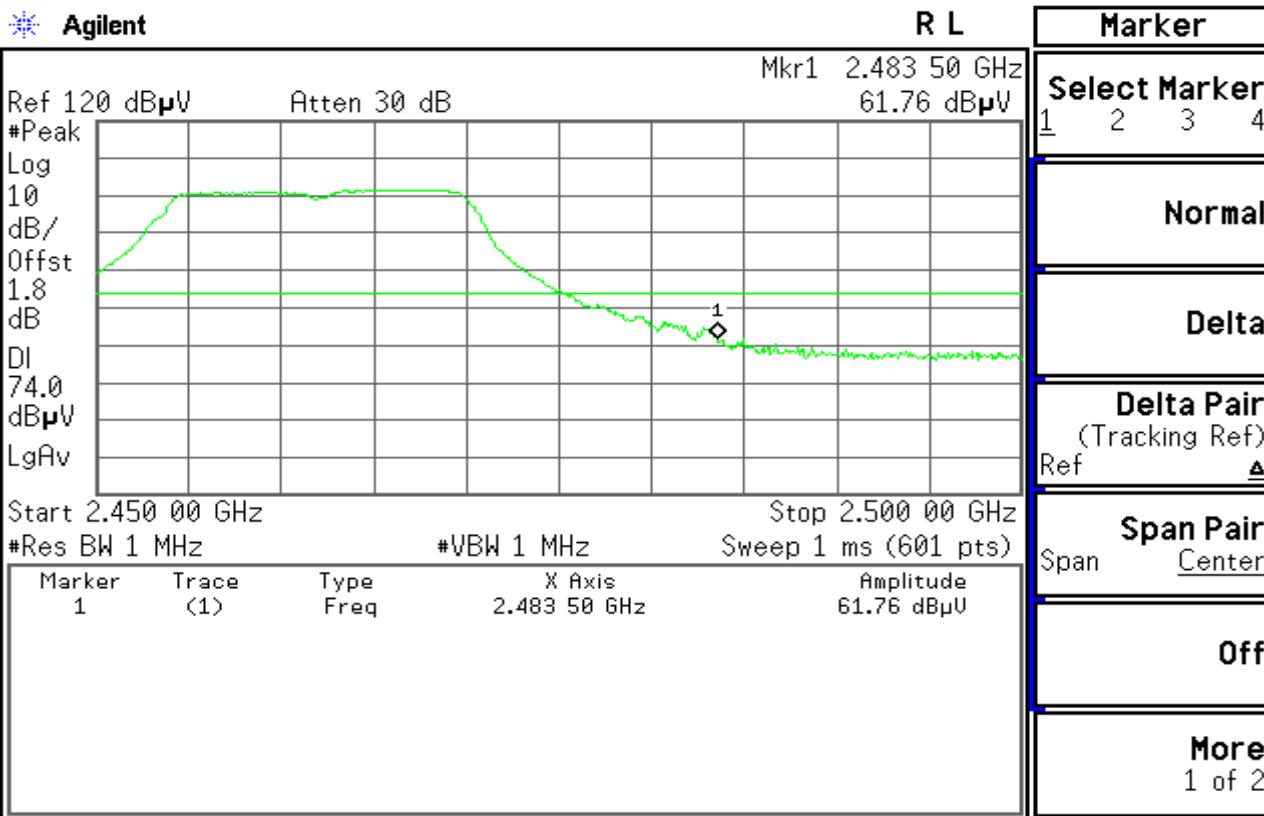
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

Detector mode: Peak

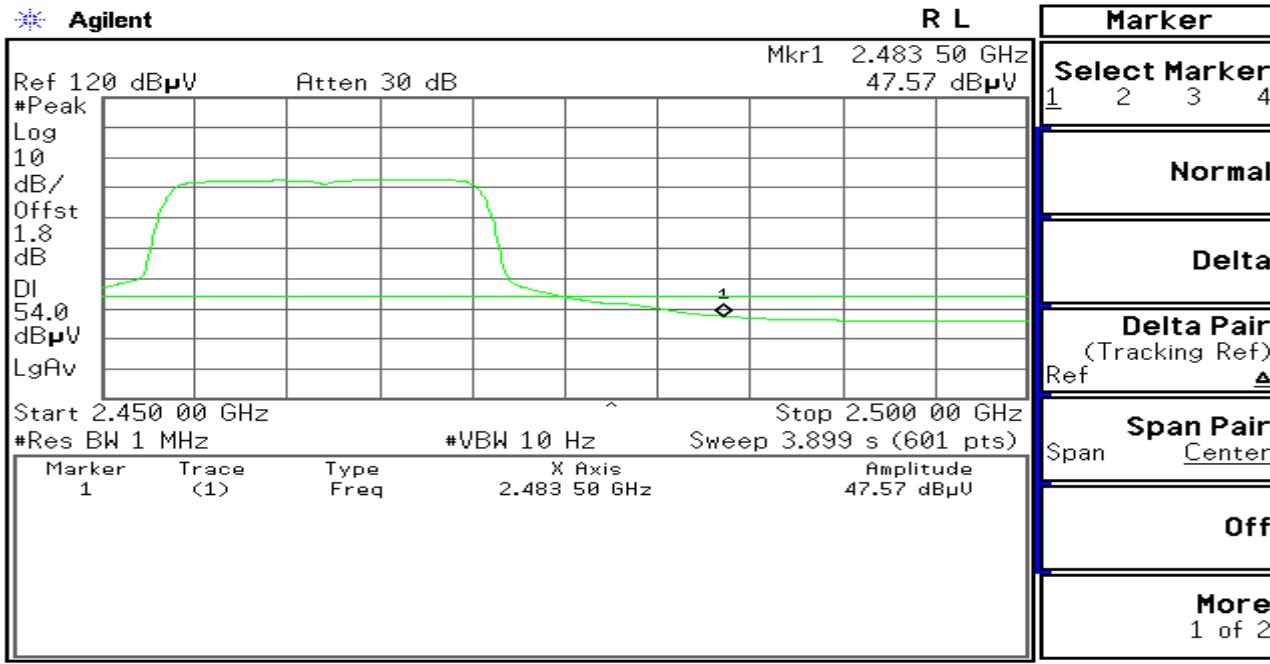
Polarity: Horizontal



Copyright 2000-2008 Agilent Technologies

Detector mode: Average

Polarity: Horizontal



Copyright 2000-2008 Agilent Technologies

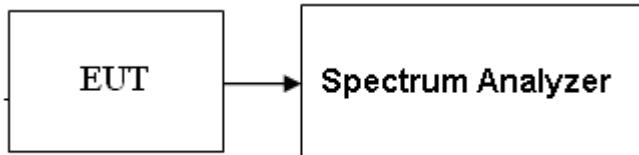


6.4. PEAK POWER SPECTRAL DENSITY

limit

1. For direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.
2. The direct sequence operating of the hybrid system, with the frequency hopping operation turned off, shall comply with the power density requirements of paragraph (d) of this section.

Test Configuration



TEST PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW = 3kHz, VBW = 10kHz, Span = 300kHz, Sweep=100s
4. Record the max. reading.
5. Repeat the above procedure until the measurements for all frequencies are completed.

TEST RESULTS

Test Data

Test mode: IEEE 802.11b mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-8.96	8.00	PASS
Mid	2437	-8.92	8.00	PASS
High	2462	-8.84	8.00	PASS

Test mode: IEEE 802.11g mode

Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Result
Low	2412	-5.41	8.00	PASS
Mid	2437	-5.34	8.00	PASS
High	2462	-5.20	8.00	PASS



Compliance Certification Services Inc.

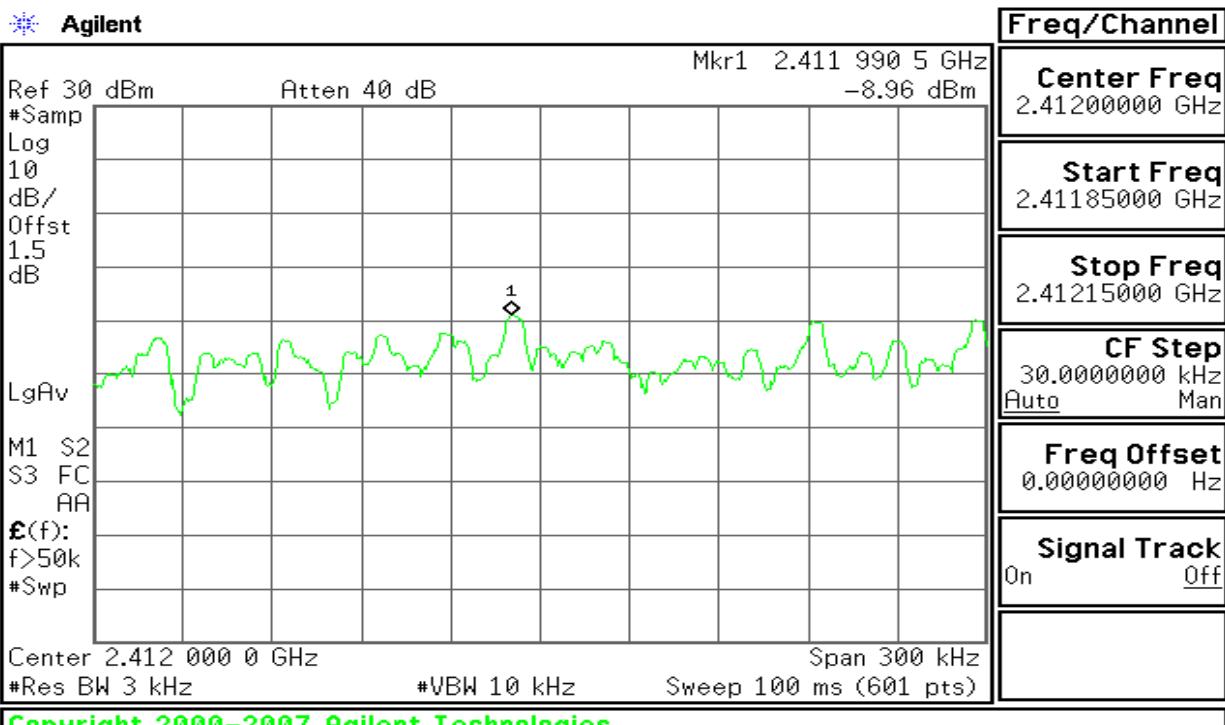
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

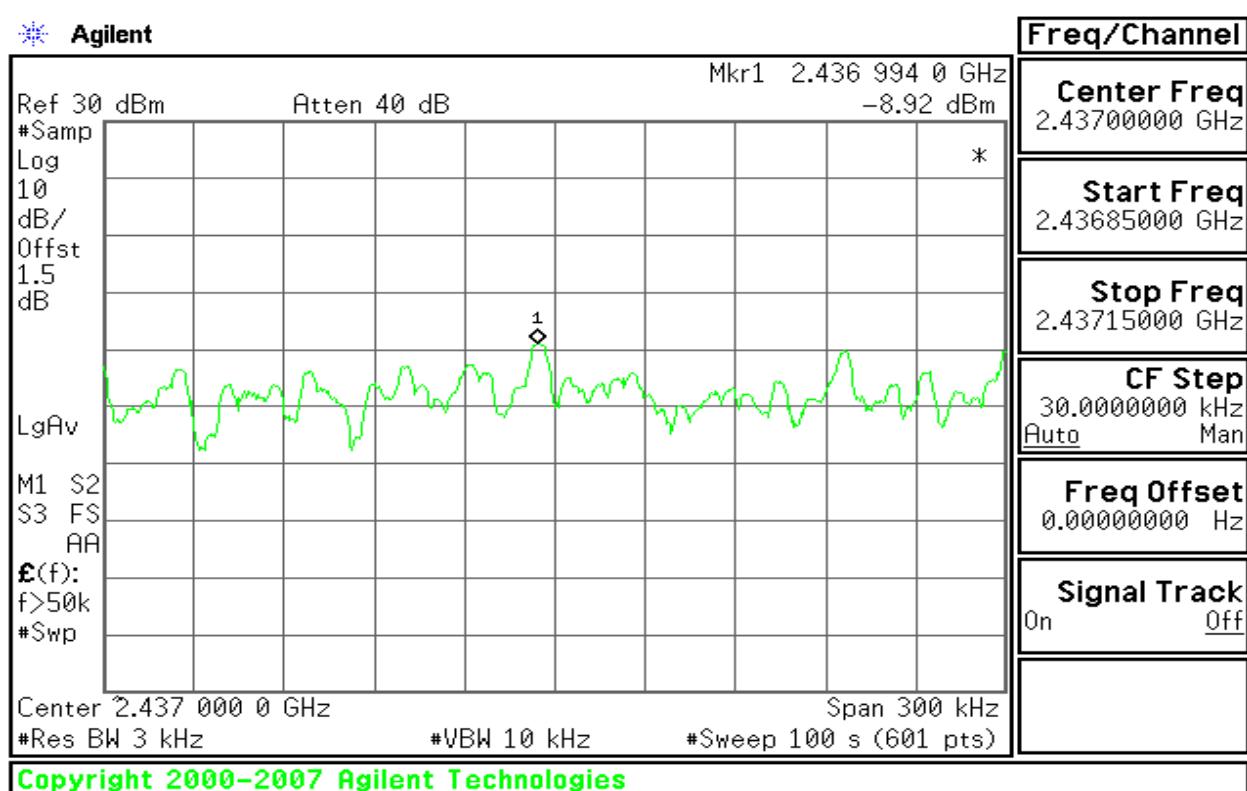
Date of Issue :May 9, 2012

Test Plot (IEEE 802.11b mode)

PPSD (CH Low)



PPSD (CH Mid)





Compliance Certification Services Inc.

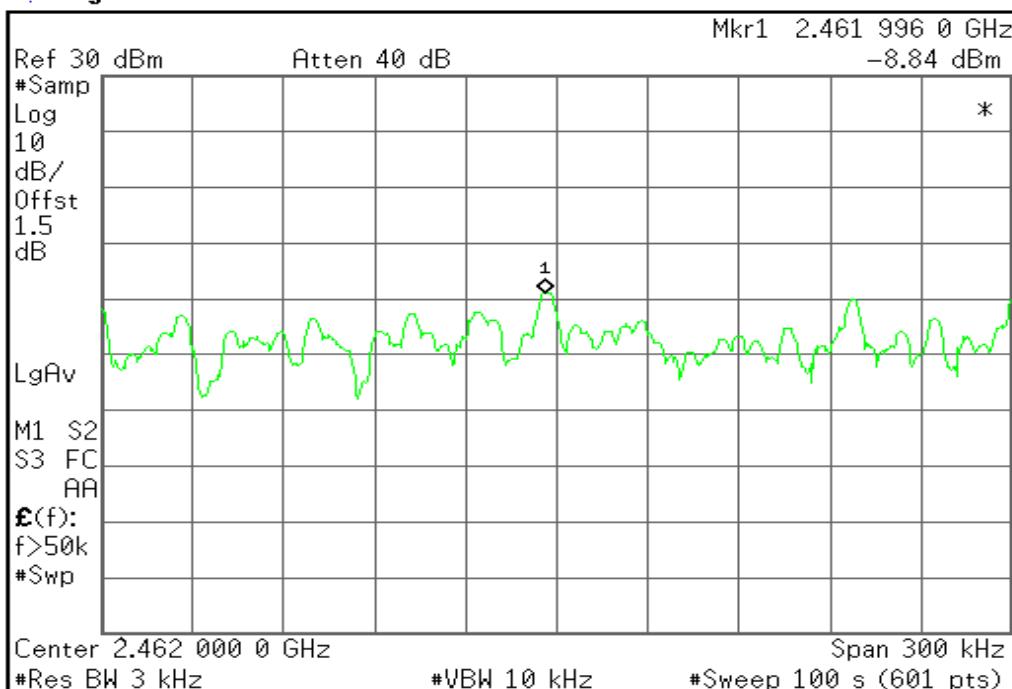
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

PPSD (CH High)

* Agilent



Freq/Channel

Center Freq 2.46200000 GHz

Start Freq 2.46185000 GHz

Stop Freq 2.46215000 GHz

CF Step 30.00000000 kHz
Auto Man

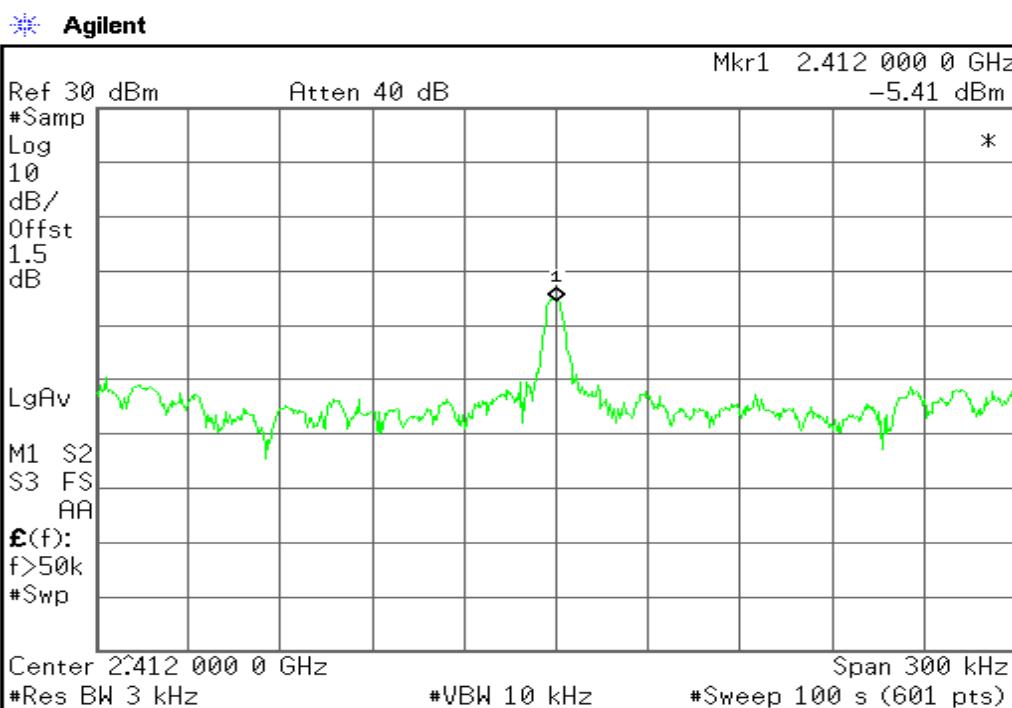
Freq Offset 0.00000000 Hz

Signal Track On Off

Copyright 2000-2007 Agilent Technologies

Test Plot (IEEE 802.11g mode)

PPSD (CH Low)



Freq/Channel

Center Freq 2.41200000 GHz

Start Freq 2.41185000 GHz

Stop Freq 2.41215000 GHz

CF Step 30.00000000 kHz
Auto Man

Freq Offset 0.00000000 Hz

Signal Track On Off

Copyright 2000-2007 Agilent Technologies



Compliance Certification Services Inc.

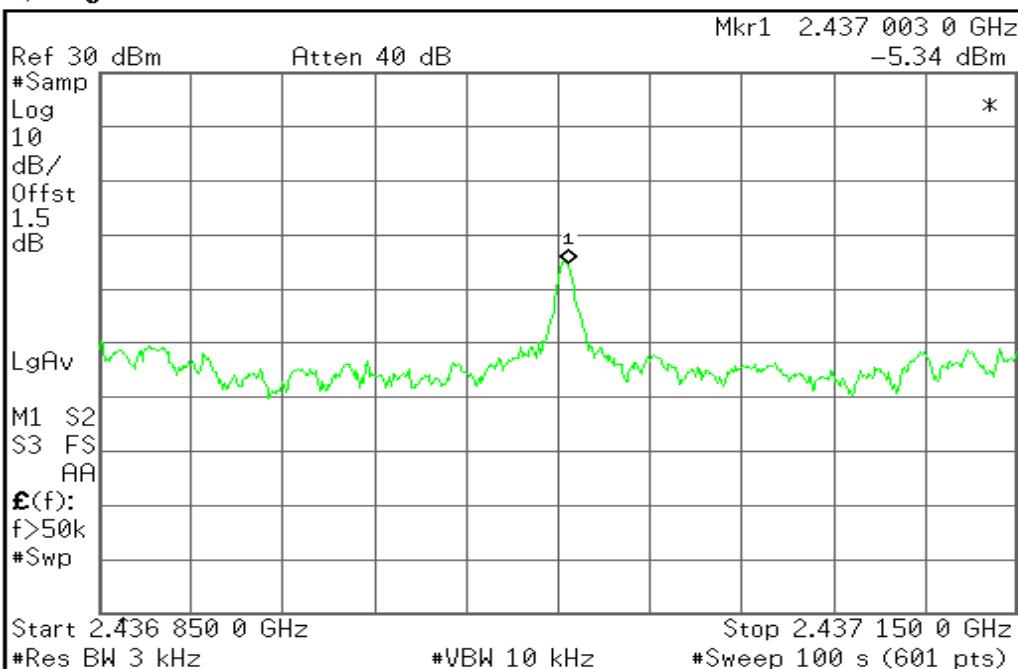
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

PPSD (CH Mid)

* Agilent

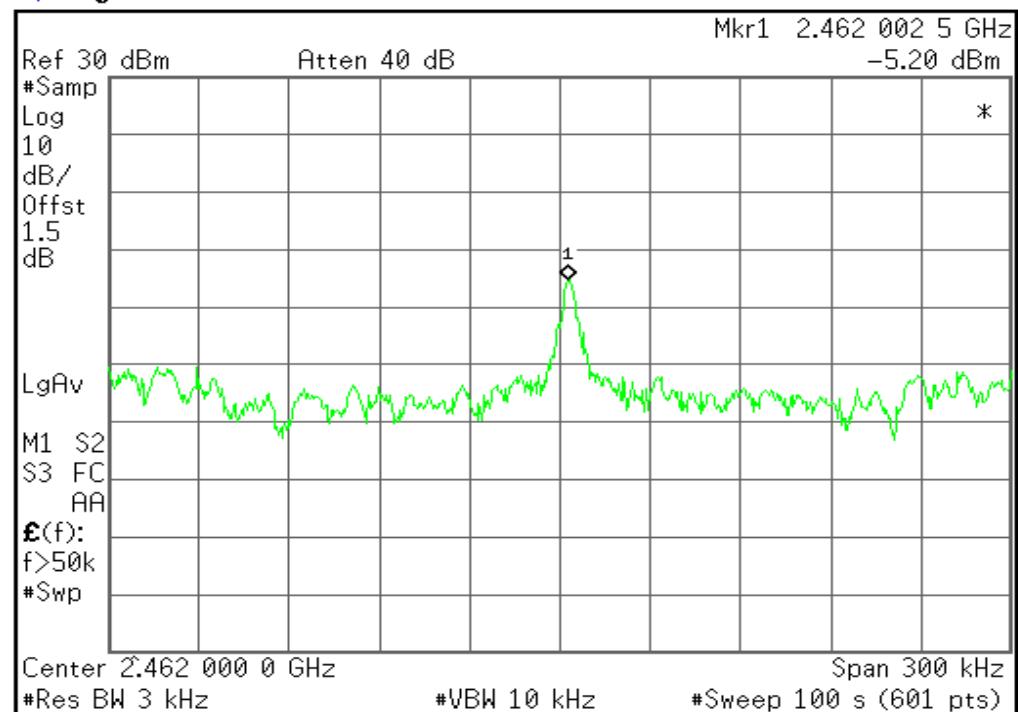


Freq/Channel	
Center Freq	2.43700000 GHz
Start Freq	2.43685000 GHz
Stop Freq	2.43715000 GHz
CF Step	30.00000000 kHz
	Auto Man
Freq Offset	0.00000000 Hz
Signal Track	On Off

Copyright 2000-2007 Agilent Technologies

PPSD (CH High)

* Agilent



Freq/Channel	
Center Freq	2.46200000 GHz
Start Freq	2.46185000 GHz
Stop Freq	2.46215000 GHz
CF Step	30.00000000 kHz
	Auto Man
Freq Offset	0.00000000 Hz
Signal Track	On Off

Copyright 2000-2007 Agilent Technologies



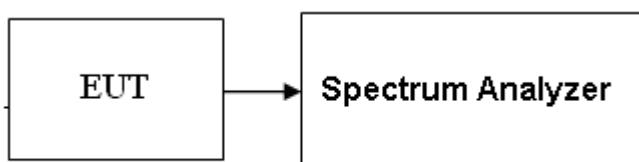
6.5. SPURIOUS EMISSIONS

CONDUCTED MEASUREMENT

LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Test Configuration



TEST PROCEDURE

Conducted RF measurements of the transmitter output were made to confirm that the EUT antenna port conducted emissions meet the specified limit and to identify any spurious signals that require further investigation or measurements on the radiated emissions site.

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 KHz. The video bandwidth is set to 100 KHz.

Measurements are made over the 30MHz to 26GHz range with the transmitter set to the lowest, middle, and highest channels.

TEST RESULTS

No non-compliance noted



Compliance Certification Services Inc.

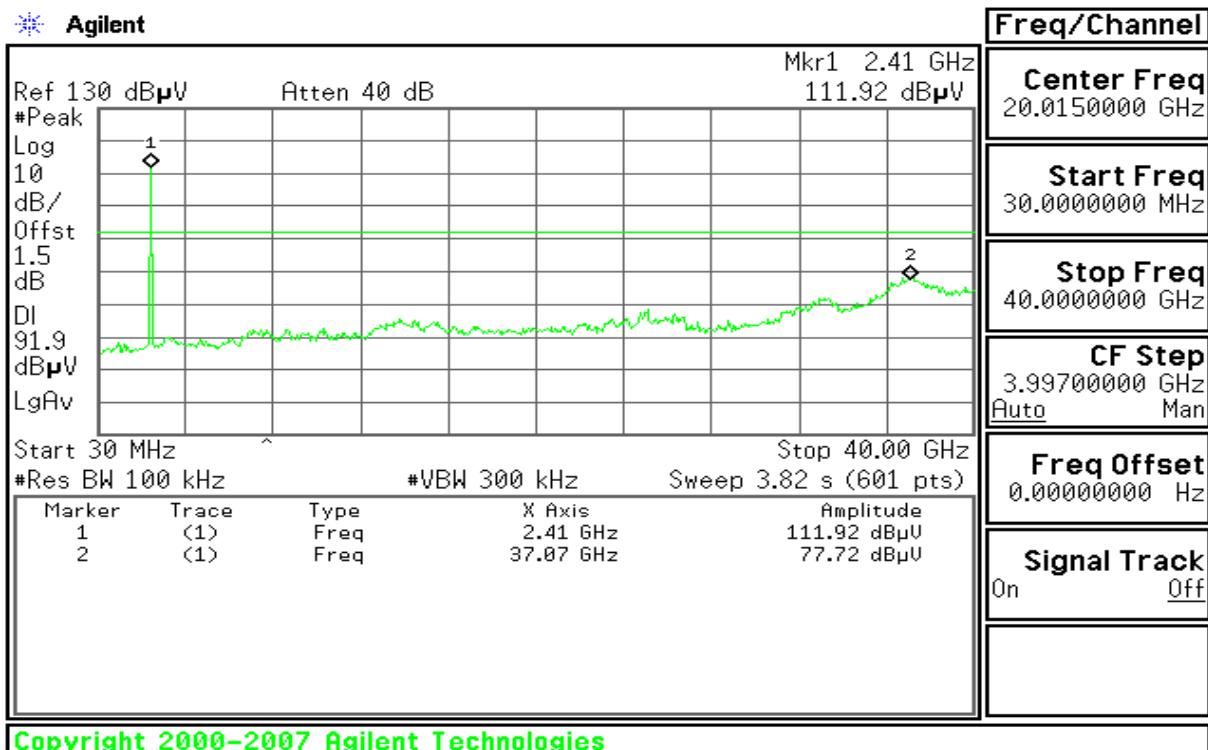
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

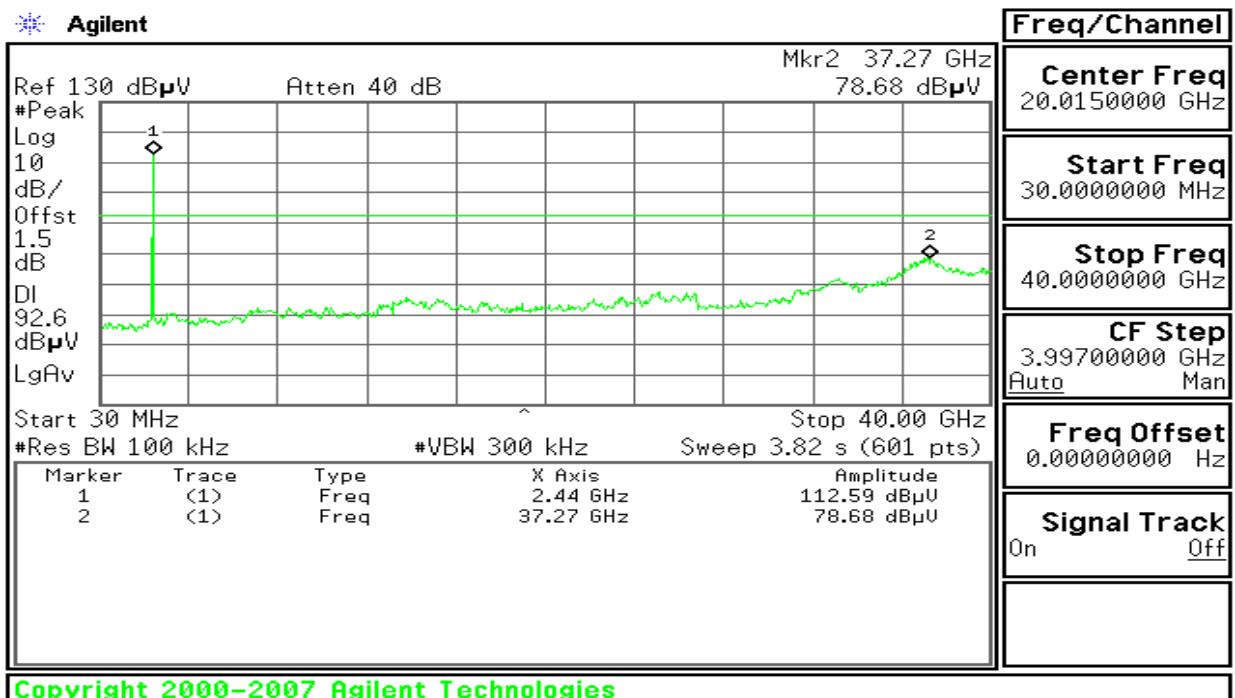
Date of Issue :May 9, 2012

Test Plot (IEEE 802.11b mode)

CH Low



CH Mid





Compliance Certification Services Inc.

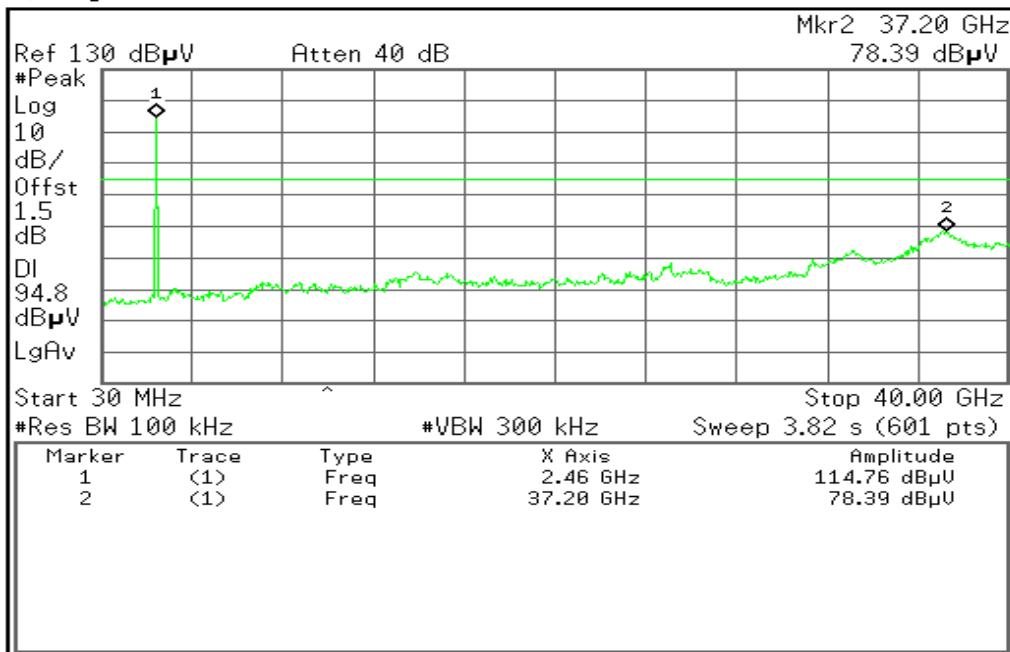
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

CH High

Agilent



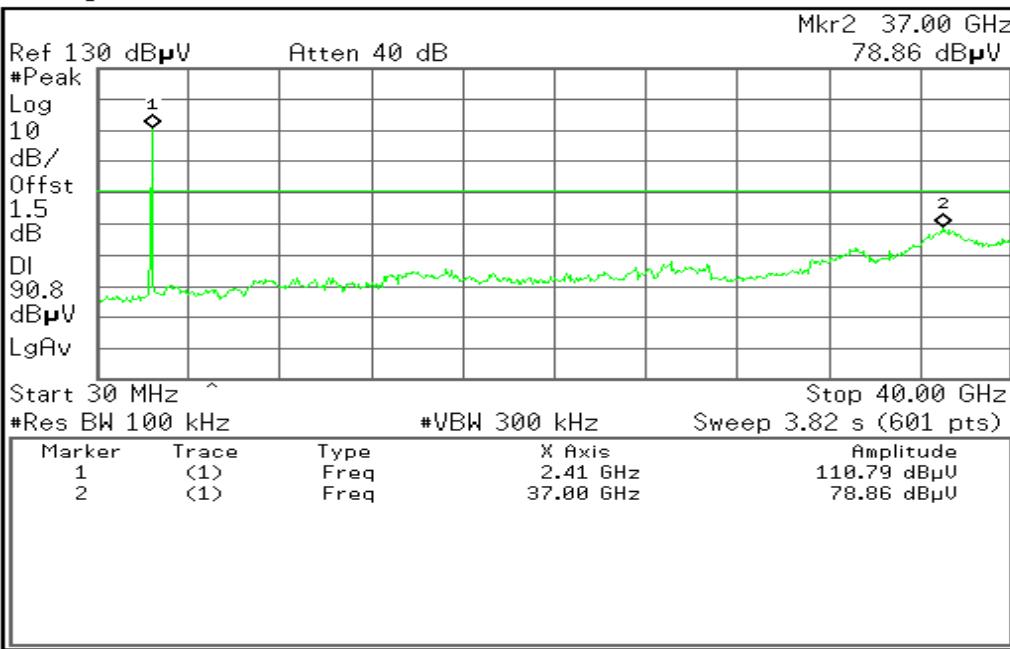
Freq/Channel	
Center Freq	20.0150000 GHz
Start Freq	30.0000000 MHz
Stop Freq	40.0000000 GHz
CF Step	3.997000000 GHz
Freq Offset	0.000000000 Hz
Signal Track	On Off

Copyright 2000-2007 Agilent Technologies

Test Plot (IEEE 802.11g mode)

CH Low

Agilent



Freq/Channel	
Center Freq	20.0150000 GHz
Start Freq	30.0000000 MHz
Stop Freq	40.0000000 GHz
CF Step	3.997000000 GHz
Freq Offset	0.000000000 Hz
Signal Track	On Off

Copyright 2000-2007 Agilent Technologies



Compliance Certification Services Inc.

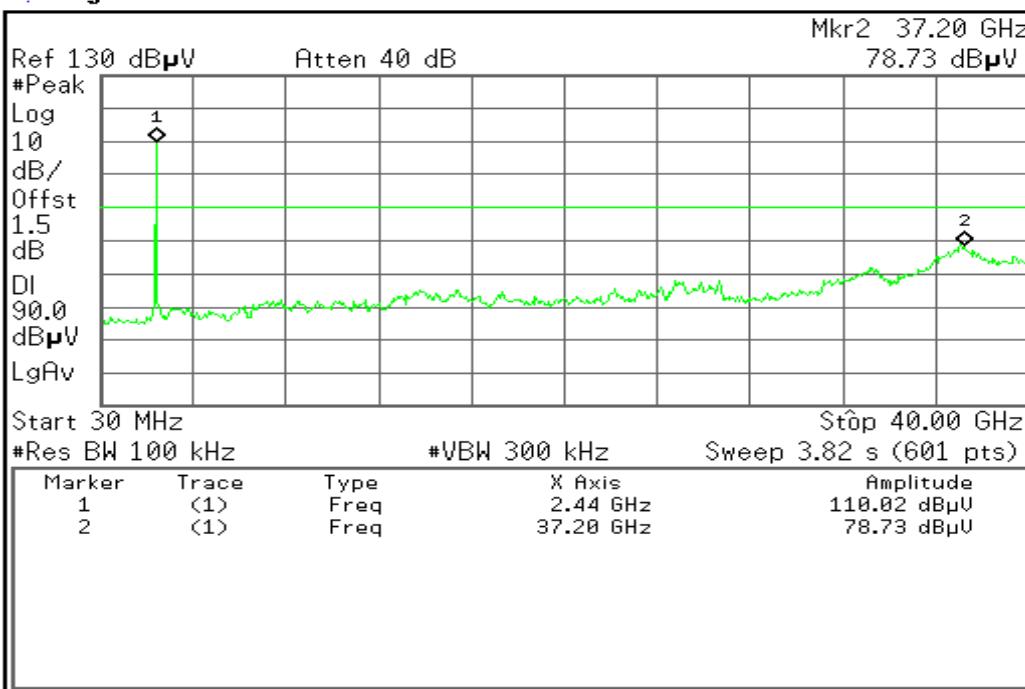
Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

CH Mid

* Agilent

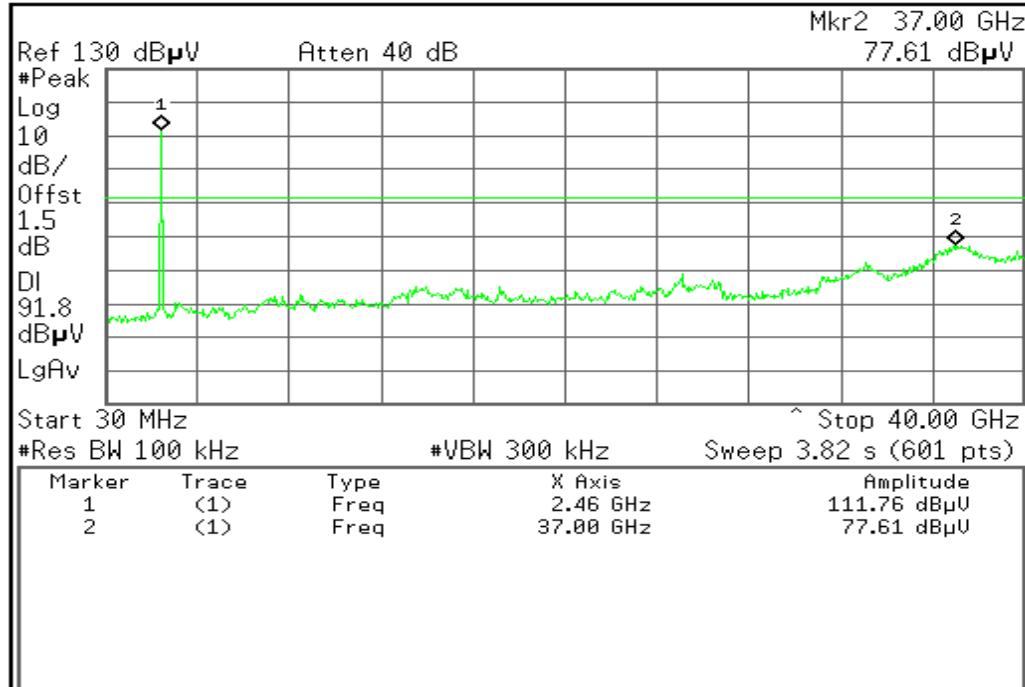


Freq/Channel	
Center Freq	20.0150000 GHz
Start Freq	30.00000000 MHz
Stop Freq	40.00000000 GHz
CF Step	3.997000000 GHz
	Auto Man
Freq Offset	0.000000000 Hz
Signal Track	On Off

Copyright 2000-2007 Agilent Technologies

CH High

* Agilent



Freq/Channel	
Center Freq	20.0150000 GHz
Start Freq	30.00000000 MHz
Stop Freq	40.00000000 GHz
CF Step	3.997000000 GHz
	Auto Man
Freq Offset	0.000000000 Hz
Signal Track	On Off

Copyright 2000-2007 Agilent Technologies



6.6. RADIATED EMISSIONS

LIMIT

1. Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (mV/m)	Measurement Distance (m)
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

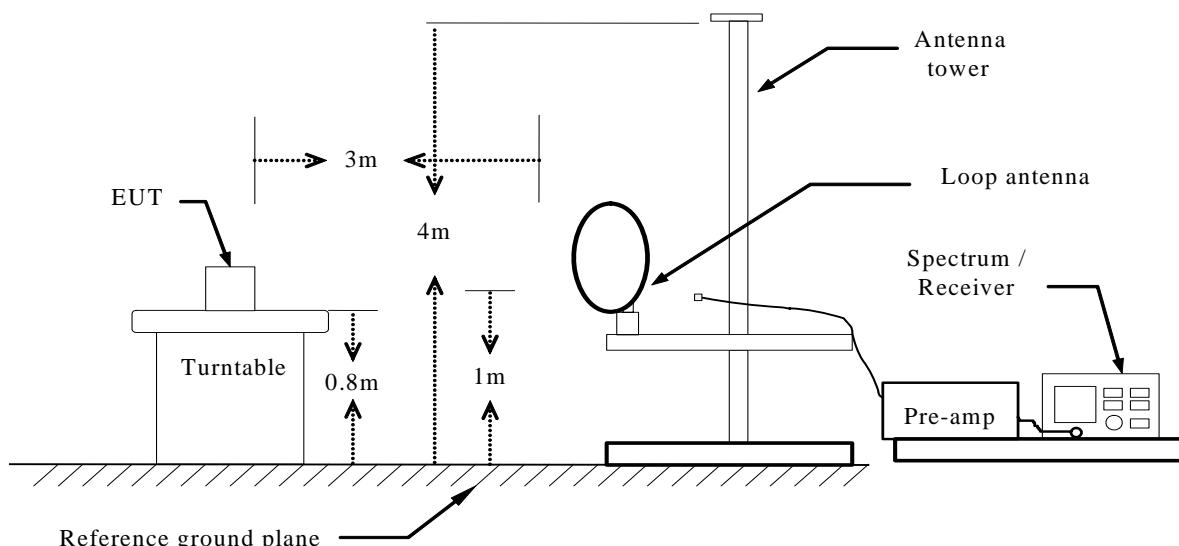
Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

2. In the above emission table, the tighter limit applies at the band edges.

Frequency (Hz)	Field Strength (μ V/m at 3-meter)	Field Strength (dB μ V/m at 3-meter)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

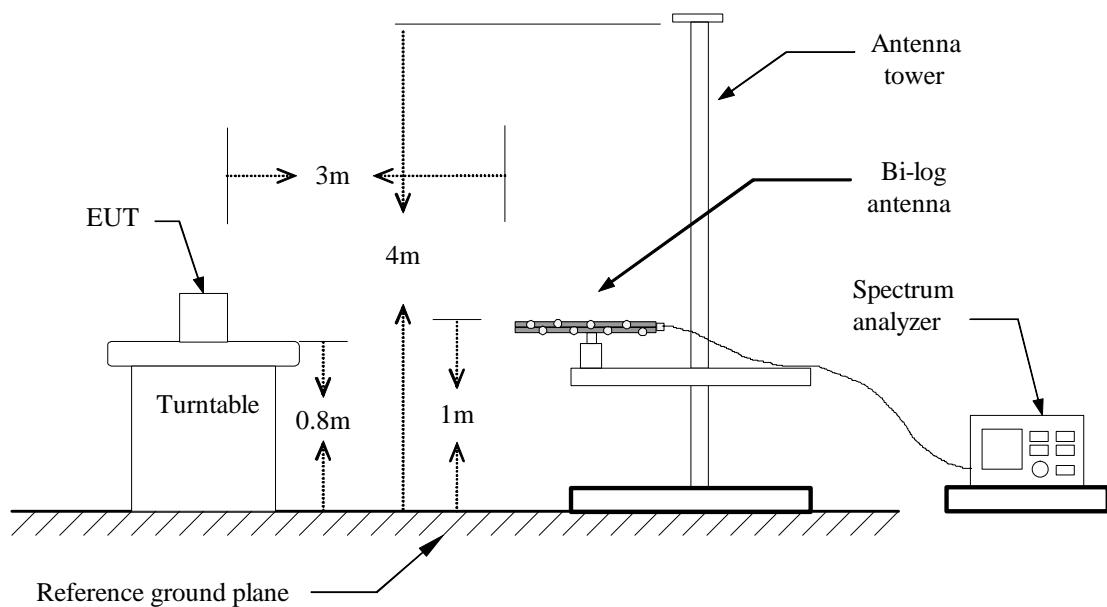
Test Configuration

Below 30MHz

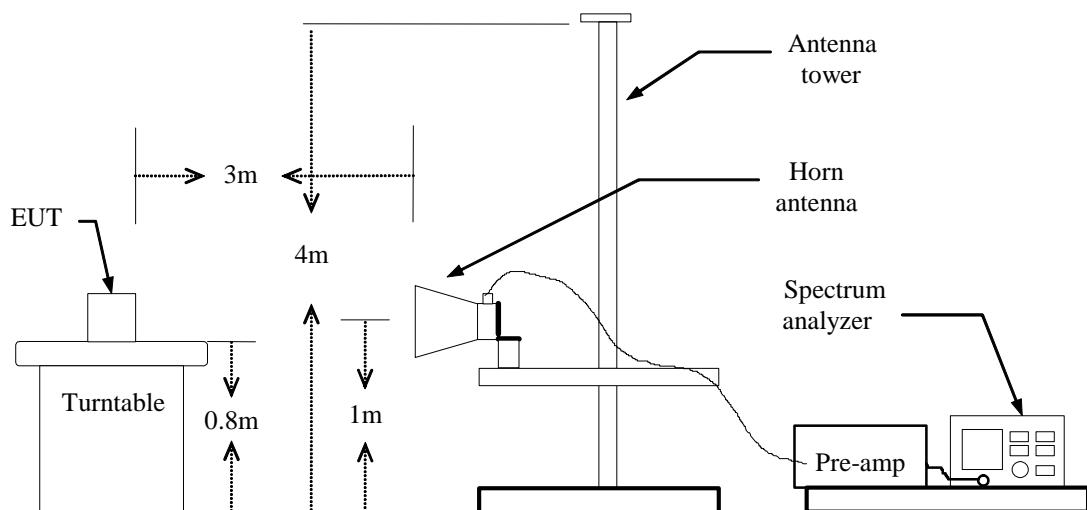




Below 1 GHz



Above 1 GHz





TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:

Below 1GHz:

RBW=100kHz / VBW=300kHz / Sweep=AUTO

Above 1GHz:

- (a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
- (b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO

7. Repeat above procedures until the measurements for all frequencies are complete.



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

TEST RESULTS

Below 1 GHz

Operation Mode:	Normal Link	Test Date:	May 4,2012
Temperature:	24°C	Tested by:	Sean Yu
Humidity:	52 % RH	Polarity:	Ver. / Hor.

Freq. (MHz)	Ant.Pol. H/V	Detector Mode (PK/QP)	Reading (dBuV)	Factor (dB)	Actual FS (dBuV/m)	Limit 3m (dBuV/m)	Safe Margin (dB)
40.26	V	Peak	34.12	-8.2	25.92	40.0	-14.08
72.83	V	Peak	39.26	-13.7	25.56	40.0	-14.44
132.66	V	Peak	30.15	-7.03	23.12	43.5	-20.38
265.45	V	Peak	30.75	-7.19	23.56	46.0	-22.44
667.34	V	Peak	25.45	2.18	27.63	46.0	-18.37
731.25	V	Peak	25.14	2.95	28.09	46.0	-17.91
<hr/>							
71.56	H	Peak	31.25	-13.67	17.58	43.5	-25.92
136.59	H	Peak	25.42	-7.13	18.29	43.5	-25.21
221.43	H	Peak	29.13	-8.73	20.4	46.0	-25.6
825.64	H	Peak	25.43	4.12	29.55	46.0	-16.45
934.56	H	Peak	24.76	6.42	31.18	46.0	-14.82
980.15	H	Peak	24.05	6.98	31.03	54.0	-22.97

Notes:

1. Measuring frequencies from 9 KHz to the 1GHz, No emission found between lowest internal used/generated frequency to 30 MHz.
2. Radiated emissions measured in frequency range from 9 KHz to 1000MHz were made with an instrument using Peak detector mode.
3. Data of measurement within this frequency range shown “ --- ” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
4. The IF bandwidth of SPA between 30MHz to 1GHz was 100kHz.



Above 1 GHz

1M

Operation Mode:	TX/ CH Low	Test Date:	May 4,2012
Temperature:	24°C	Tested by:	Sean Yu
Humidity:	52 % RH	Polarity:	Ver. / Hor.

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Spectrum setting:
 - a. Peak Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 1MHz, Sweep time = Auto.
 - b. AV Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

Operation Mode:	TX/ CH Mid	Test Date:	May 4,2012
Temperature:	24°C	Tested by:	Sean Yu
Humidity:	52 % RH	Polarity:	Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4885.00	V	43.66	25.84	11.26	54.92	37.1	74	54	-16.9	average
7235.85	V	42.73	24.61	19.28	62.01	43.89	74	54	-10.11	average
4885.00	H	44.85	26.33	11.26	56.11	37.59	74	54	-16.41	average
7236.67	H	43.25	25.8	19.28	62.53	45.08	74	54	-8.92	average

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Spectrum setting:
 - a. Peak Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 1MHz, Sweep time = Auto.
 - b. AV Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

Operation Mode:	TX/ CH High	Test Date:	May 4,2012
Temperature:	24°C	Tested by:	Sean Yu
Humidity:	52 % RH	Polarity:	Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4958.33	V	44.26	30.12	11.32	55.58	41.44	74	54	-12.56	average
7325.67	V	42.58	24.96	19.56	62.14	44.52	74	54	-9.48	average
4958.68	H	46.82	31.69	11.32	58.14	43.01	74	54	-10.99	average
7326.33	H	41.57	25.09	19.56	61.13	44.65	74	54	-9.35	average

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Spectrum setting:
 - a. Peak Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 1MHz, Sweep time = Auto.
 - b. AV Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

3M

Operation Mode:	TX/ CH Low	Test Date:	May 4,2012
Temperature:	24°C	Tested by:	Sean Yu
Humidity:	52 % RH	Polarity:	Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual FS		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4805.22	V	42.16	27.51	10.85	53.01	38.36	74	54	-15.64	average
7205.13	V	41.89	26.33	18.37	60.26	44.70	74	54	-9.30	average
4804.77	H	43.29	27.68	10.85	54.14	38.53	74	54	-15.47	average
7206.33	H	42.61	26.85	18.37	60.98	45.22	74	54	-8.78	average

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Spectrum setting:
 - a. Peak Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 1MHz, Sweep time = Auto.
 - b. AV Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

Operation Mode:	TX/ CH Mid	Test Date:	May 4,2012
Temperature:	24°C	Tested by:	Sean Yu
Humidity:	52 % RH	Polarity:	Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4884.76	V	43.29	26.85	11.26	54.55	38.11	74	54	-15.89	average
7325.92	V	41.11	25.01	19.28	60.39	44.29	74	54	-9.71	average
4885.12	H	44.26	27.45	11.26	55.52	38.71	74	54	-15.29	average
7326.16	H	41.68	25.81	19.28	60.96	45.09	74	54	-8.91	average

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Spectrum setting:
 - a. Peak Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 1MHz, Sweep time = Auto.
 - b. AV Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

Operation Mode:	TX/ CH High	Test Date:	May 4,2012
Temperature:	24°C	Tested by:	Sean Yu
Humidity:	52 % RH	Polarity:	Ver. / Hor.

Freq. (MHz)	Ant. Pol H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Ant. / CL CF (dB)	Actual Fs		Peak Limit (dBuV/m)	AV Limit (dBuV/m)	Margin (dB)	Remark
					Peak (dBuV/m)	AV (dBuV/m)				
4958.22	V	43.26	28.77	11.32	54.58	40.09	74	54	-13.91	average
7324.16	V	39.89	25.14	19.56	59.45	44.7	74	54	-9.3	average
4959.01	H	44.65	29.52	11.32	55.97	40.84	74	54	-13.16	average
7325.13	H	40.16	25.78	19.56	59.72	45.34	74	54	-8.66	average

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
4. Spectrum setting:
 - a. Peak Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 1MHz, Sweep time = Auto.
 - b. AV Setting 1GHz to 10th harmonics of fundamental, RBW = 1MHz, VBW = 10Hz, Sweep time = Auto.



6.7. POWERLINE CONDUCTED EMISSIONS

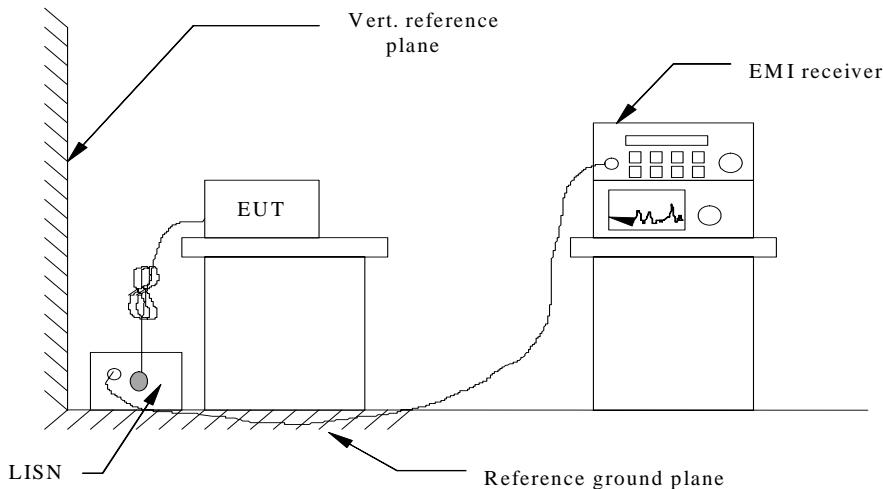
LIMIT

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration



See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.



Compliance Certification Services Inc.

Report No: KS120424A01-RPB

FCC ID: Z6PALVOXERO

Date of Issue :May 9, 2012

Test Data

Operation Mode:	Normal Link	Test Date:	May 4,2012
Temperature:	24°C	Tested by:	Sean Yu
Humidity:	52 % RH	Polarity:	Ver. / Hor.

L1

No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1544	36.95	25.87	10.05	47.00	35.92	65.76	55.76	-18.76	-19.84	Pass
2	0.4634	28.96	20.92	10.67	39.63	31.59	56.63	46.63	-17.00	-15.04	Pass
3*	0.6175	30.77	22.52	10.89	41.66	33.41	56.00	46.00	-14.34	-12.59	Pass
4	1.1577	31.02	21.26	11.03	42.05	32.29	56.00	46.00	-13.95	-13.71	Pass
5	1.7001	30.97	20.18	11.07	42.04	31.25	56.00	46.00	-13.96	-14.75	Pass
6	2.2410	29.62	17.78	11.10	40.72	28.88	56.00	46.00	-15.28	-17.12	Pass

L2

No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1*	0.1538	39.65	26.05	10.15	49.80	36.20	65.79	55.79	-15.99	-19.59	Pass
2	0.2307	34.62	21.00	10.17	44.79	31.17	62.42	52.42	-17.63	-21.25	Pass
3	0.5430	28.87	17.17	10.14	39.01	27.31	56.00	46.00	-16.99	-18.69	Pass
4	1.1488	28.26	10.61	10.26	38.52	20.87	56.00	46.00	-17.48	-25.13	Pass
5	1.6880	29.00	11.83	10.46	39.46	22.29	56.00	46.00	-16.54	-23.71	Pass
6	2.3341	26.60	8.76	10.63	37.23	19.39	56.00	46.00	-18.77	-26.61	Pass

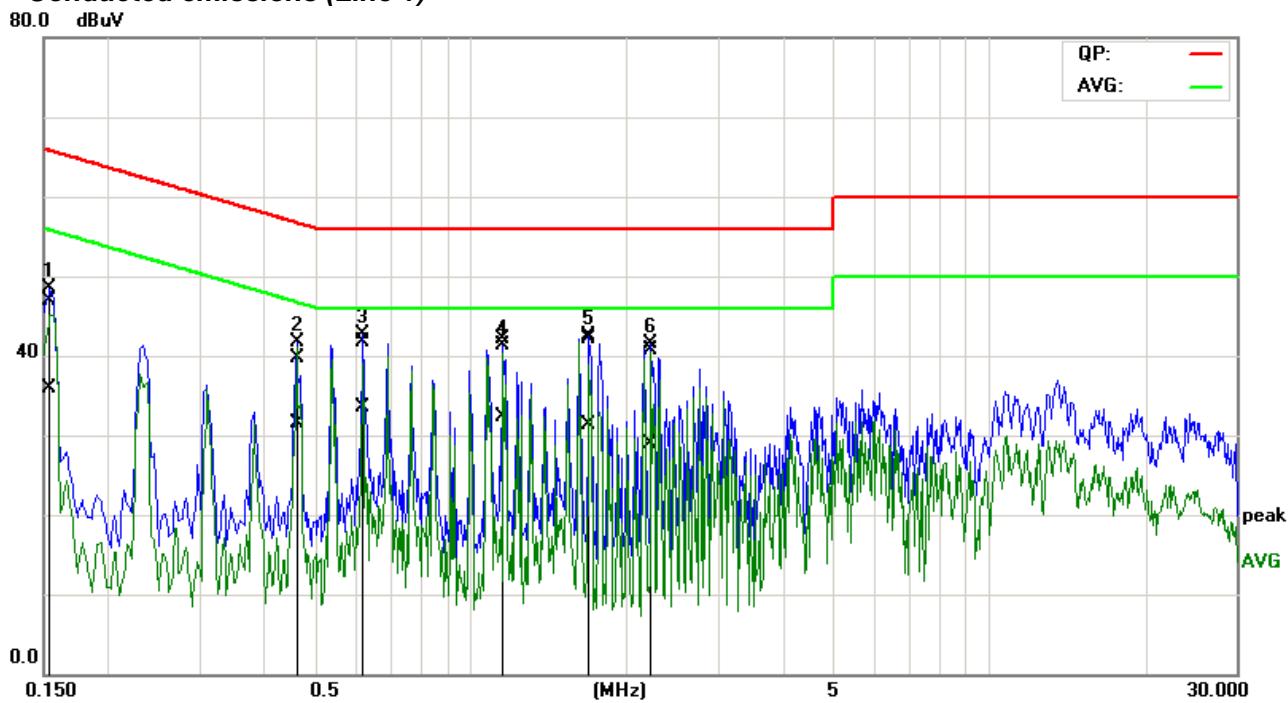
Remark:

1. The measuring frequencies range between 0.15 MHz and 30 MHz.
2. The emissions measured in the frequency range between 0.15 MHz and 30MHz were made with an instrument using Quasi-peak detector and Average detector.
3. “--” denotes the emission level was or more than 2dB below the Average limit, and no re-check was made.
4. The IF bandwidth of SPA between 0.15MHz and 30MHz was 10KHz. The IF bandwidth of Test Receiver between 0.15MHz and 30MHz was 9kHz.



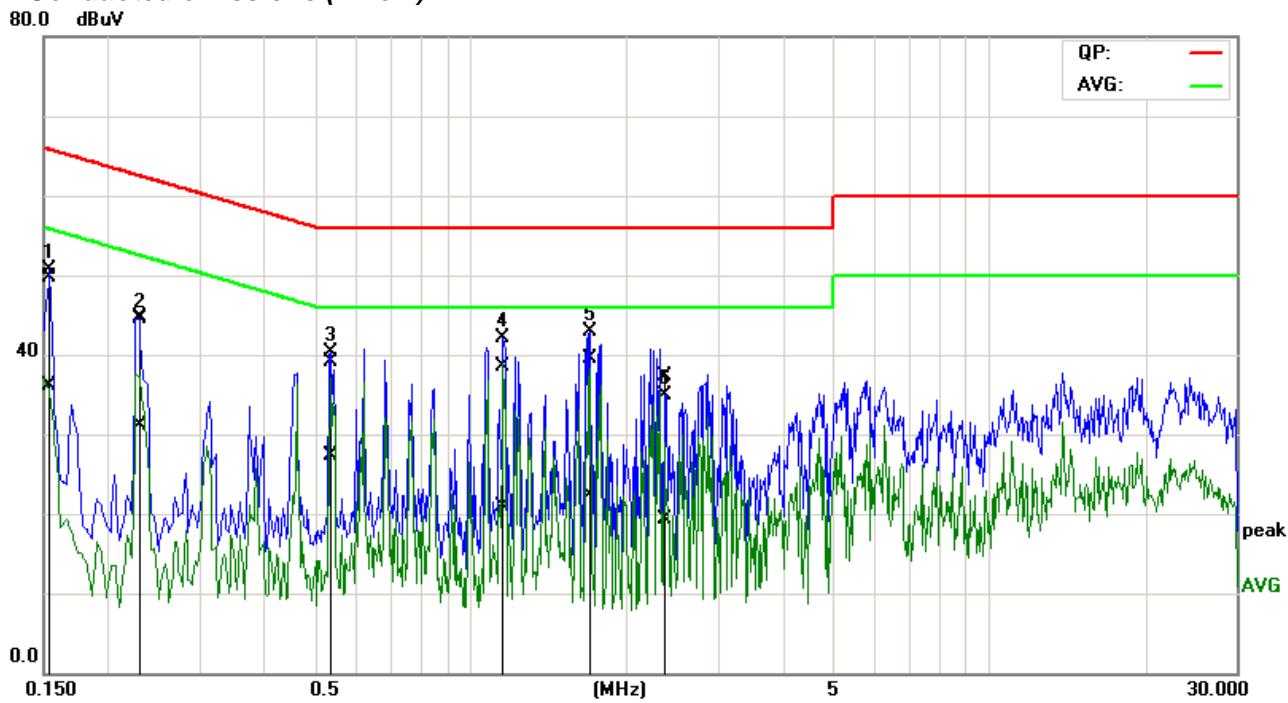
Test Plot

Conducted emissions (Line 1)



Test Plot

Conducted emissions (Line 2)





6.8. APPENDIX I RADIO FREQUENCY EXPOSURE

LIMIT

According to §15.247(i), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.

EUT Specification

EUT	GSM/WCDMA Mobile Phone
Frequency band (Operating)	<input checked="" type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz <input type="checkbox"/> WLAN: 5.18GHz ~ 5.32GHz / 5.50GHz ~ 5.70GHz <input type="checkbox"/> Bluetooth: 2.402GHz ~ 2.480 GHz
Device category	<input checked="" type="checkbox"/> Portable (<20cm separation) <input type="checkbox"/> Mobile (>20cm separation)
Exposure classification	<input type="checkbox"/> Occupational/Controlled exposure ($S = 5\text{mW/cm}^2$) <input type="checkbox"/> General Population/Uncontrolled exposure ($S=1\text{mW/cm}^2$)
Antenna diversity	<input checked="" type="checkbox"/> Single antenna <input type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input checked="" type="checkbox"/> Tx/Rx diversity
Max. output power	IEEE 802.11b: 15.92dBm(39.1 mW) IEEE 802.11g: 15.13dBm(32.6 mW)
Antenna gain (Max)	0.78dBi (Numeric gain: 1.196)
Evaluation applied	<input type="checkbox"/> MPE Evaluation* <input checked="" type="checkbox"/> SAR Evaluation <input type="checkbox"/> N/A

Remark:

1. The maximum output power is 15.92dBm(39.1mW) at 2412MHz (with 1.196 numeric antenna gain.)
2. DTS device is not subject to routine RF evaluation; MPE estimate is used to justify the compliance.
3. For mobile or fixed location transmitters, no SAR consideration applied. The maximum power density is 1.0 mW/cm^2 even if the calculation indicates that the power density would be larger.

END OF REPORT