

APPLICATION CERTIFICATION FCC Part 15C
On Behalf of
Globalscale Technologies INC

MIRABOX

Model No.:003-MBX001, 003-MBX002, 003-MBX003, 003-MBX004, 003-MBX005,
003-MBX006, 003-MBX007, 003-MBX008, 003-MBX009, 003-MBX0010

FCC ID: YCJ003-MBX001

Prepared for : Globalscale Technologies INC
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Report Number : ATE20122917
Date of Test : Dec 26, 2012- Feb 22, 2013
Date of Report : Feb 22, 2013

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Test Report Certification

Applicant : Globalscale Technologies INC

Manufacturer : Globalscale Technologies INC

EUT Description : MIRABOX

(A) MODEL NO.: 003-MBX001, 003-MBX002, 003-MBX003,
003-MBX004, 003-MBX005, 003-MBX006,
003-MBX006, 003-MBX007, 003-MBX008,
003-MBX009, 003-MBX0010

(B) Brand Name.: N/A

(C) POWER SUPPLY: AC 120V/60Hz (Adapter input)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247

ANSI C63.4: 2009


KDB 558074 D01 DTS Meas Guidance v02

The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test : Dec 26, 2012- Feb 22, 2013

Prepared by : 
(Engineer)

Approved & Authorized Signer : 
(Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT	:	MIRABOX
Model Number	:	003-MBX001, 003-MBX002, 003-MBX003, 003-MBX004, 003-MBX005, 003-MBX006, 003-MBX007, 003-MBX008, 003-MBX008, 003-MBX009, 003-MBX0010
		Note: These models are identical in interior structure, electrical circuits and components, and just model names are different for the marketing requirement. So we prepare 003-MBX001 for test only
Frequency Range	:	802.11b/g/n(20MHz): 2412-2462MHz 802.11n(40MHz): 2422-2452MHz
Number of Channels	:	802.11b/g/n (20MHz):11 802.11n (40MHz): 7
Antenna Gain	:	0dBi
Power Supply Adapter	:	AC 120V/60Hz (Adapter input) Model number: GFP181U-0530B-1 Input: 100-240VAC ~ 50-60Hz 0.35A Output: 5.0V 3A
Data Rate	:	802.11b: 11, 5.5, 2, 1 Mbps 802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps 802.11n: up to 150Mbps
Applicant	:	Globalscale Technologies INC
Address	:	5F, No. 2 Building, Minxing Industrial Park, Minkang Road, Minzhi Street, Baoan District, Shenzhen, Guangdong, China
Manufacturer	:	Globalscale Technologies INC
Address	:	5F, No. 2 Building, Minxing Industrial Park, Minkang Road, Minzhi Street, Baoan District, Shenzhen, Guangdong, China
Date of sample received	:	Dec 26, 2012
Date of Test	:	Dec 26, 2012-Feb 22, 2013

1.2. Carrier Frequency of Channels

802.11b, 802.11g, 802.11n (20MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437	---	---

802.11n (40MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
---	---	07	2442
---	---	08	2447
03	2422	09	2452
04	2427	---	---
05	2432	---	---
06	2437	---	---

1.3. Special Accessory and Auxiliary Equipment

N/A

1.4. Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC
The Registration Number is 752051

Listed by Industry Canada
The Registration Number is 5077A-2

Accredited by China National Accreditation Committee
for Laboratories
The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD
Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.
Science & Industry Park, Nanshan, Shenzhen, Guangdong
P.R. China

1.5. Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty
(9kHz-30MHz) = 3.08dB, k=2

Radiated emission expanded uncertainty
(30MHz-1000MHz) = 4.42dB, k=2

Radiated emission expanded uncertainty
(Above 1GHz) = 4.06dB, k=2

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 12, 2013	Jan. 11, 2014
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 12, 2013	Jan. 11, 2014
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 12, 2013	Jan. 11, 2014
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 12, 2013	Jan. 11, 2014
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Feb. 06, 2013	Feb. 05, 2014
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Feb. 06, 2013	Feb. 05, 2014
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Feb. 06, 2013	Feb. 05, 2014
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1067	Feb. 06, 2013	Feb. 05, 2014
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 12, 2013	Jan. 11, 2014
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 12, 2013	Jan. 11, 2014

3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The mode is used: **802.11b Transmitting mode**

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

802.11g Transmitting mode

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

802.11n (20MHz) Transmitting mode

Low Channel: 2412MHz

Middle Channel: 2437MHz

High Channel: 2462MHz

802.11n (40MHz) Transmitting mode

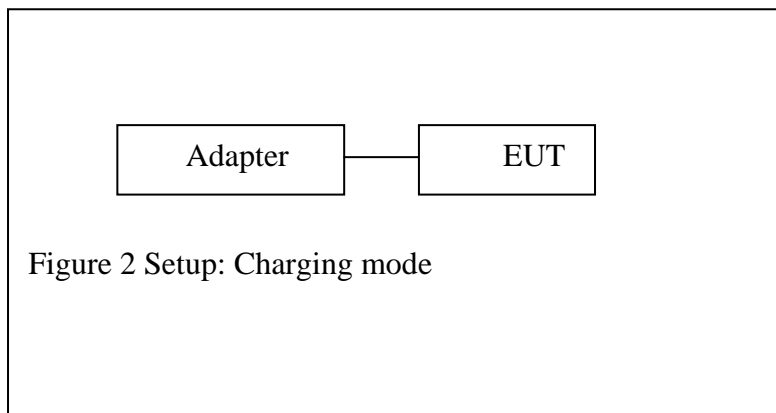
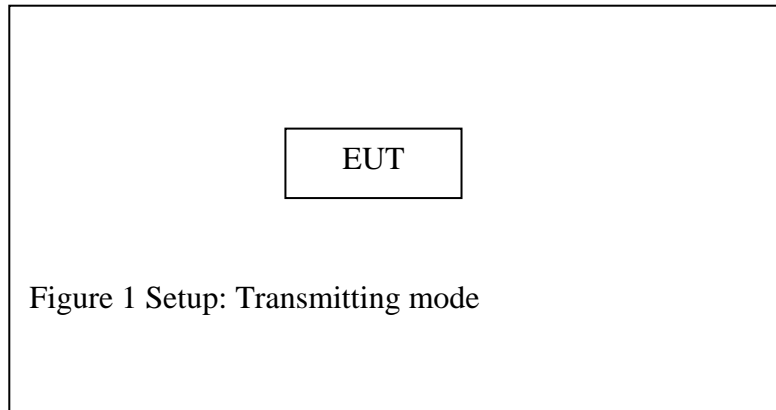
Low Channel: 2422MHz

Middle Channel: 2437MHz

High Channel: 2452MHz

Charging

3.2.Configuration and peripherals

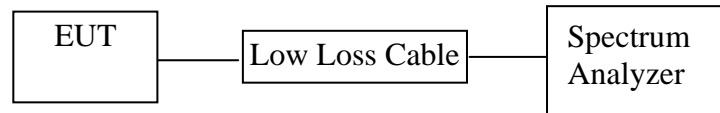


4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.247(a)(2)	6dB Bandwidth Test	Compliant
Section 15.247(e)	Power Spectral Density Test	Compliant
Section 15.247(b)(3)	Maximum Peak Output Power Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.247(d) Section 15.209	Radiated Spurious Emission Test	Compliant
Section 15.247(d)	Conducted Spurious Emission Test	Compliant
Section 15.207	AC Power Line Conducted Emission Test	Compliant
Section 15.203	Antenna Requirement	Compliant

5. 6DB BANDWIDTH MEASUREMENT

5.1. Block Diagram of Test Setup



(EUT: MIRABOX)

5.2. The Requirement For Section 15.247(a)(2)

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

5.3. EUT Configuration on Measurement

The following equipment is installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

5.3.1. MIRABOX (EUT)

Model Number : 003-MBX001
 Serial Number : N/A
 Manufacturer : Globalscale Technologies INC

5.4. Operating Condition of EUT

5.4.1. Setup the EUT and simulator as shown as Section 5.1.

5.4.2. Turn on the power of all equipment.

5.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

5.5. Test Procedure

5.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

5.5.2. Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz.

5.5.3. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

5.6. Test Result

PASS.

Date of Test:	<u>Jan 6, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>MIRABOX</u>	Humidity:	<u>50%</u>
Model No.:	<u>003-MBX001</u>	Power Supply:	<u>AC 120V/60HZ</u>
Test Mode:	<u>TX</u>	Test Engineer:	<u>Allen</u>

The test was performed with 802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	8.12	> 0.5MHz
Middle	2437	8.16	> 0.5MHz
High	2462	8.16	> 0.5MHz

The test was performed with 802.11g

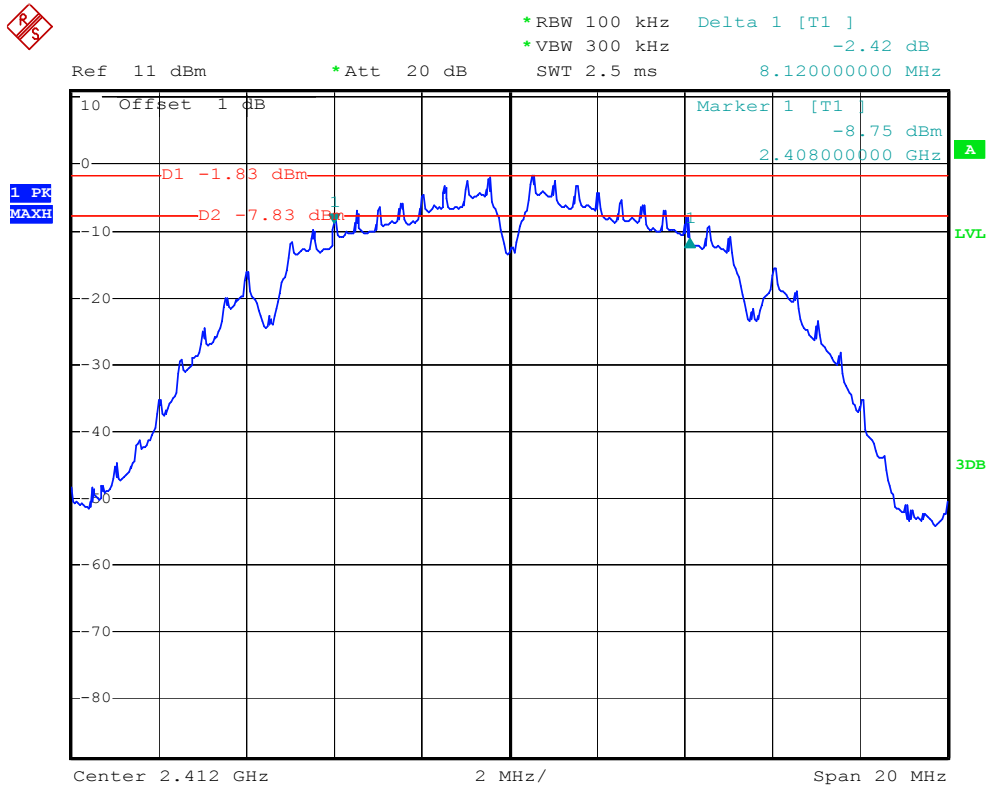
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	15.60	> 0.5MHz
Middle	2437	15.56	> 0.5MHz
High	2462	15.40	> 0.5MHz

The test was performed with 802.11n (Bandwidth: 20 MHz)			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2412	16.08	> 0.5MHz
Middle	2437	16.20	> 0.5MHz
High	2462	16.16	> 0.5MHz

The test was performed with 802.11n (Bandwidth: 40 MHz)			
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
Low	2422	36.00	> 0.5MHz
Middle	2437	36.00	> 0.5MHz
High	2452	36.00	> 0.5MHz

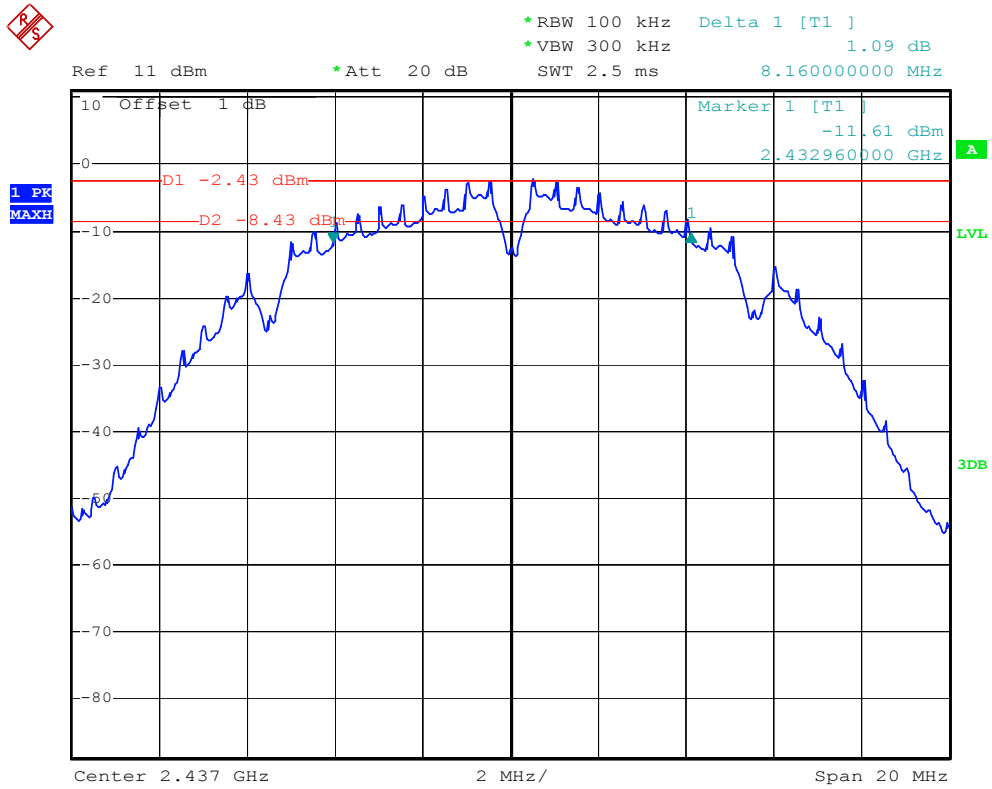
The spectrum analyzer plots are attached as below.

802.11b Channel Low 2412MHz



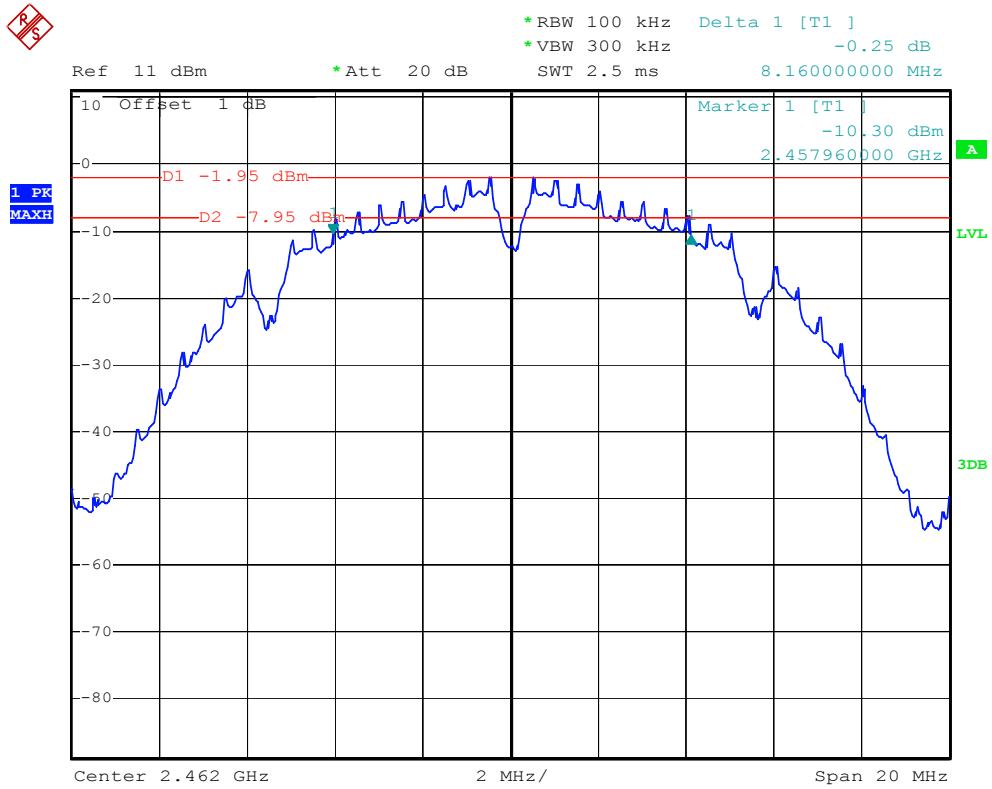
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802.11b Channel Middle 2437MHz



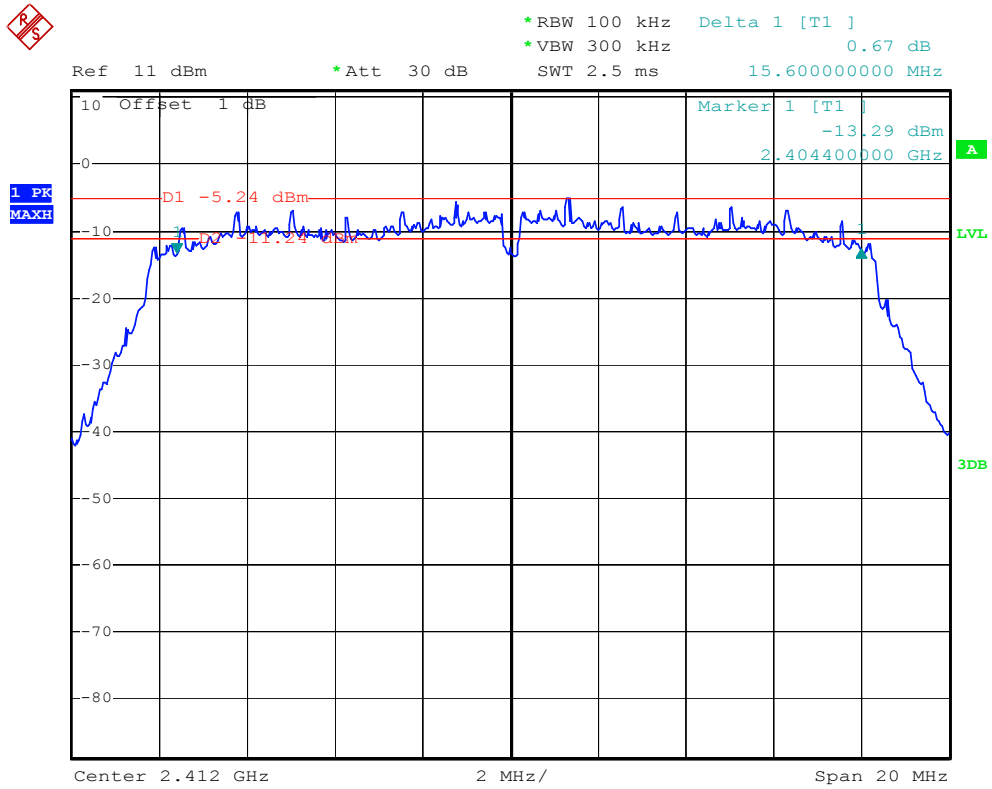
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802.11b Channel High 2462MHz



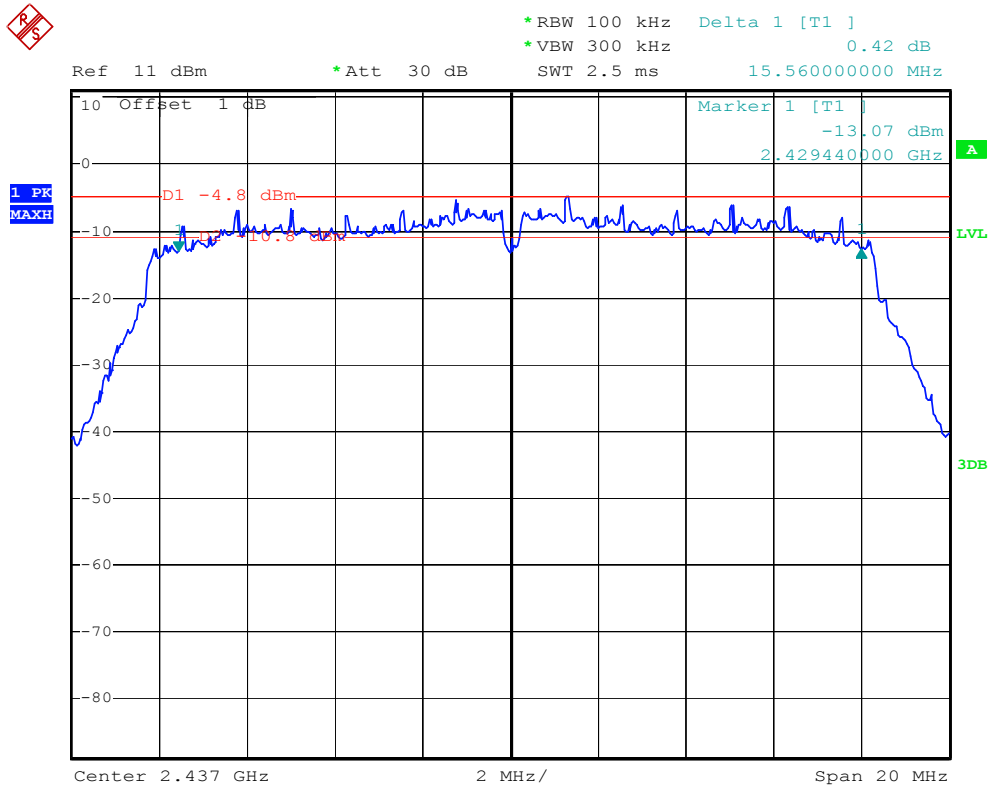
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802.11g Channel Low 2412MHz



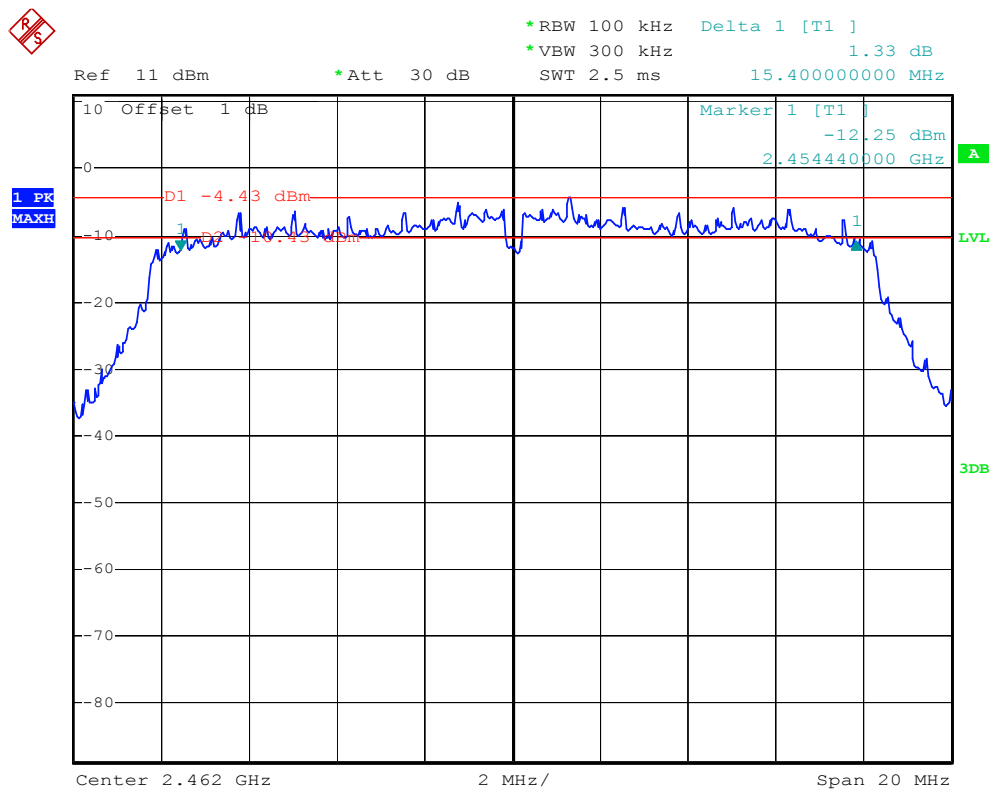
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802.11g Channel Middle 2437MHz



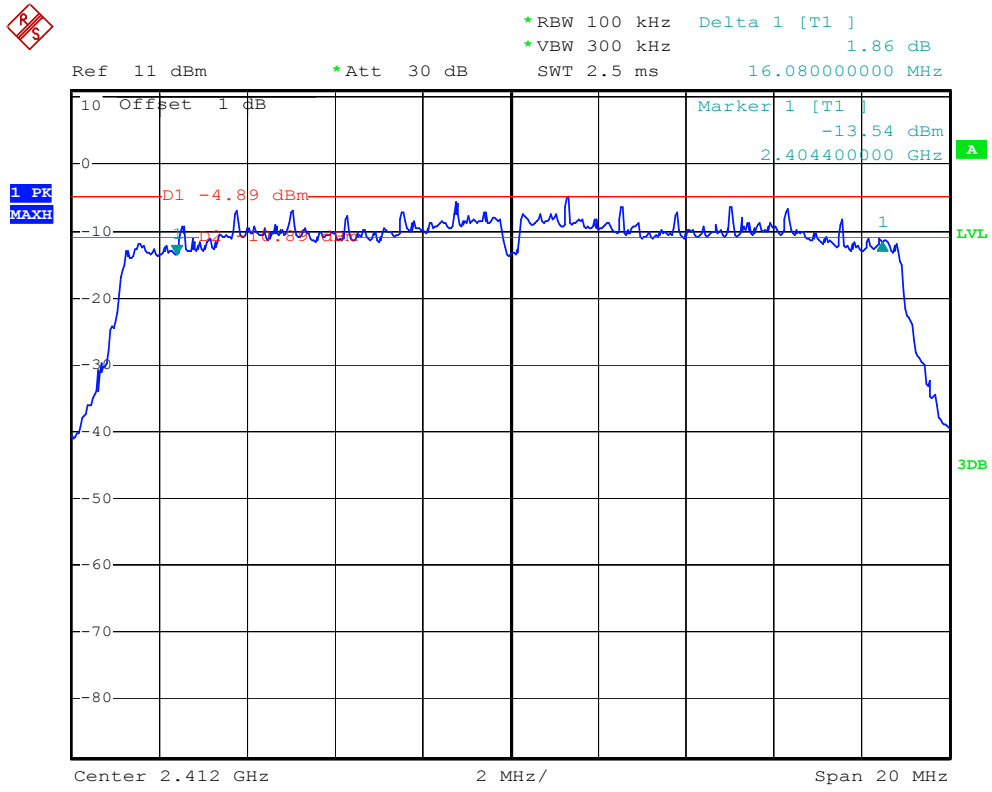
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802.11g Channel High 2462MHz



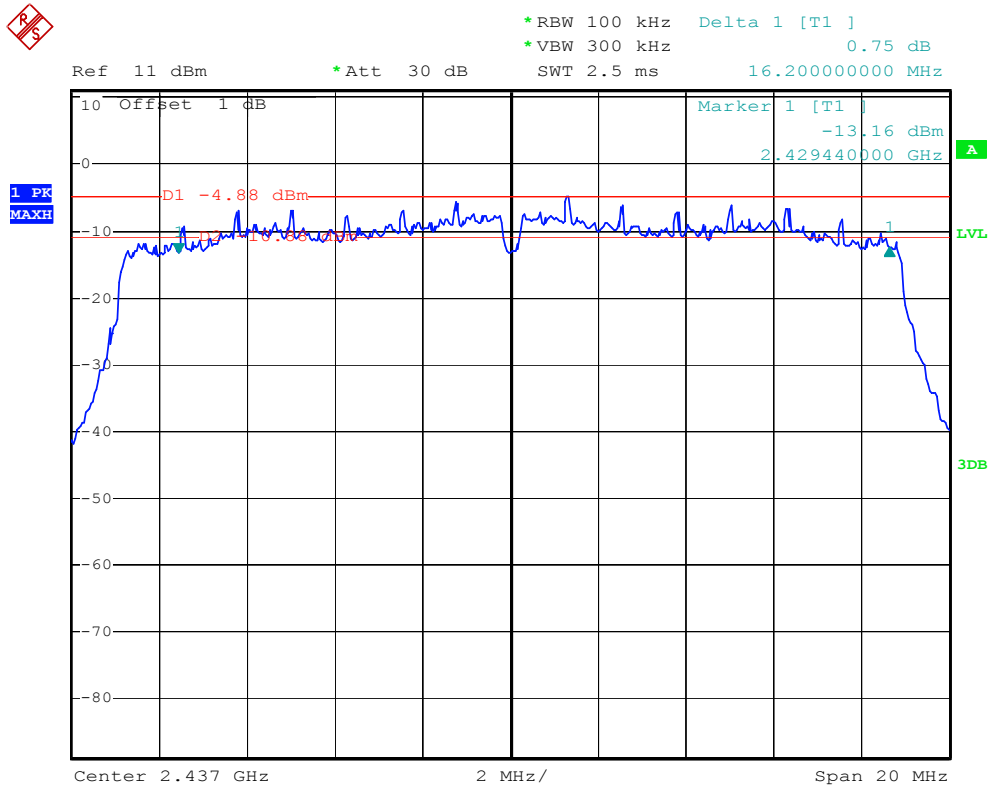
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802.11n Channel Low 2412MHz (20MHz)



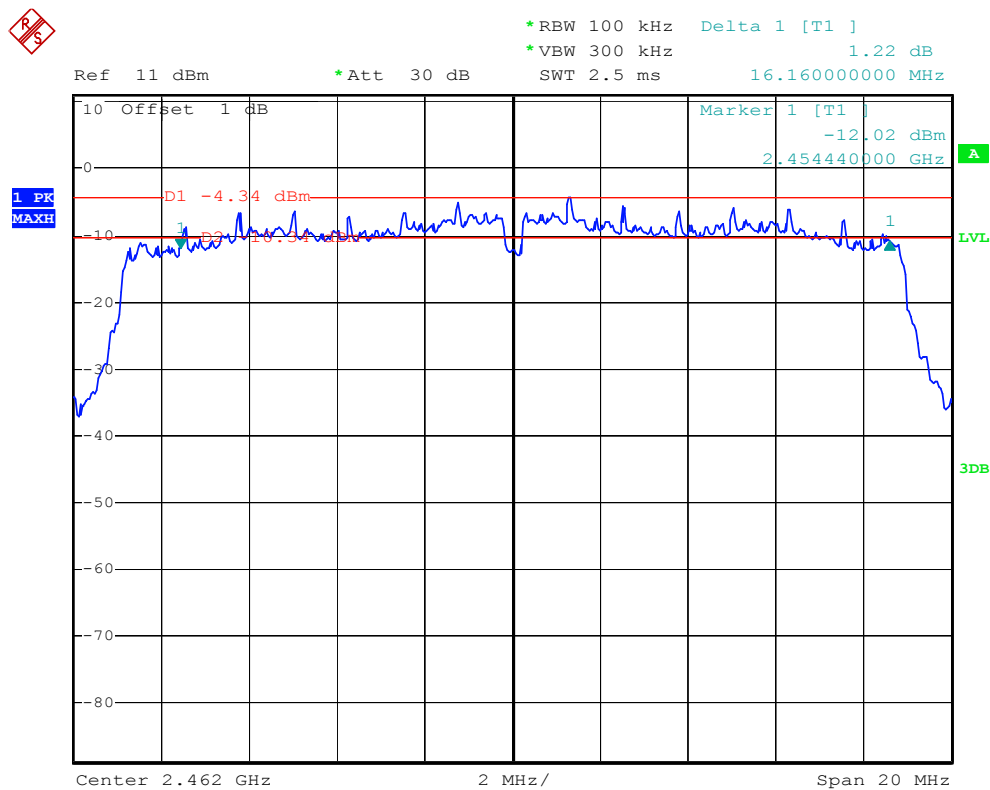
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802.11n Channel Middle 2437MHz (20MHz)



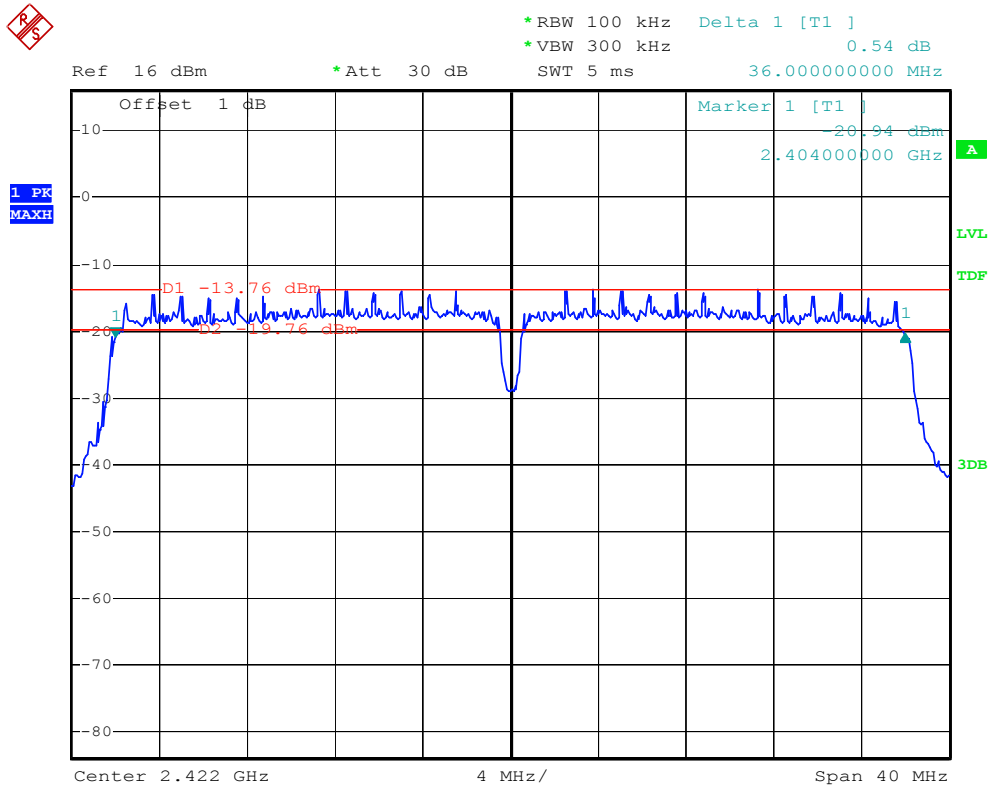
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802.11n Channel High 2462MHz (20MHz)



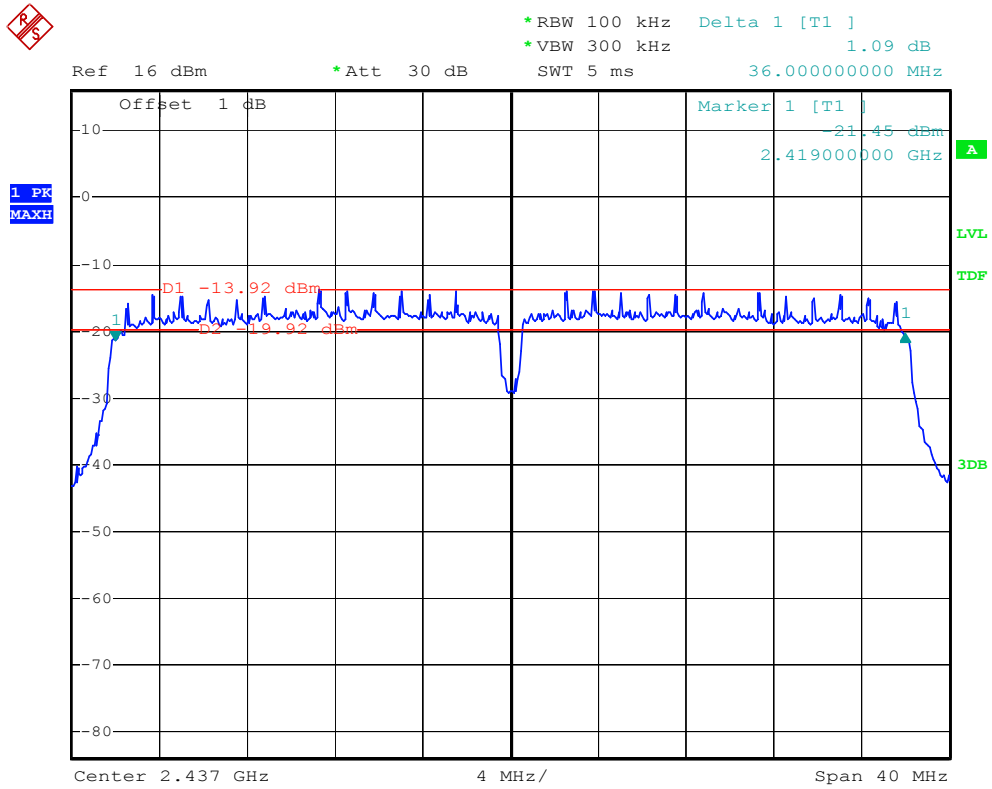
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802.11n Channel Low 2422MHz (40MHz)



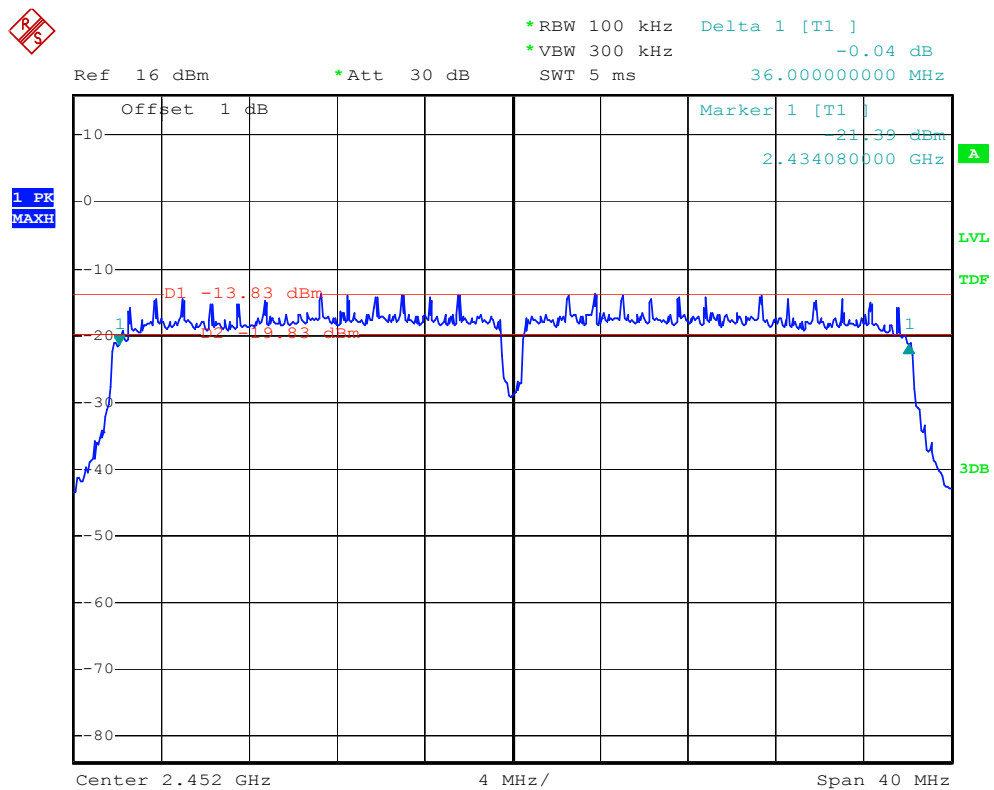
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802.11n Channel Middle 2437MHz (40MHz)



Date: 14.DEC.2012 16:23:08

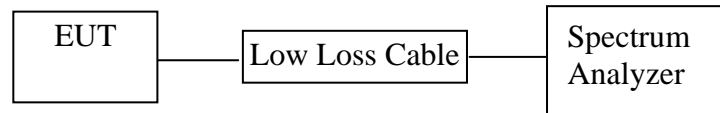
802.11n Channel High 2452MHz (40MHz)



Date: 14.DEC.2012 16:25:03

6. MAXIMUM PEAK OUTPUT POWER

6.1. Block Diagram of Test Setup



(EUT: MIRABOX)

6.2. The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

6.3. EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.3.1. MIRABOX (EUT)

Model Number	:	003-MBX001
Serial Number	:	N/A
Manufacturer	:	Globalscale Technologies INC

6.4. Operating Condition of EUT

6.4.1. Setup the EUT and simulator as shown as Section 6.1.

6.4.2. Turn on the power of all equipment.

6.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

6.5. Test Procedure

6.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

6.5.2. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz.

6.5.3. Measurement the maximum peak output power.

6.6. Test Result

PASS.

Date of Test:	<u>Jan 6, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>MIRABOX</u>	Humidity:	<u>50%</u>
Model No.:	<u>003-MBX001</u>	Power Supply:	<u>AC 120V/60HZ</u>
Test Mode:	<u>TX</u>	Test Engineer:	<u>Allen</u>

The test was performed with 802.11b				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2412	8.13	6.50	30 dBm / 1 W
Middle	2437	9.25	8.41	30 dBm / 1 W
High	2462	8.41	6.93	30 dBm / 1 W

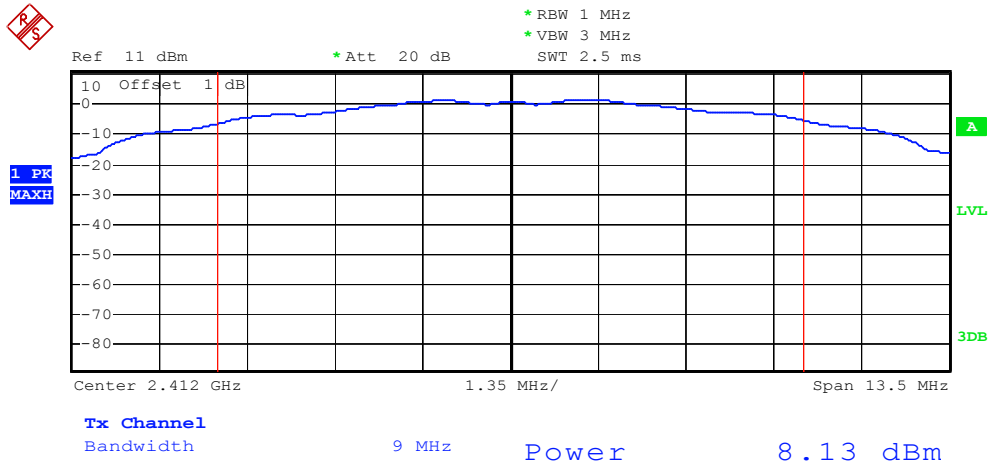
The test was performed with 802.11g				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2412	9.33	8.57	30 dBm / 1 W
Middle	2437	9.07	8.07	30 dBm / 1 W
High	2462	8.53	7.13	30 dBm / 1 W

The test was performed with 802.11n (20MHz)				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2412	9.23	8.38	30 dBm / 1 W
Middle	2437	9.16	8.24	30 dBm / 1 W
High	2462	8.49	7.06	30 dBm / 1 W

The test was performed with 802.11n (40MHz)				
Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2422	8.93	7.82	30 dBm / 1 W
Middle	2437	8.17	6.56	30 dBm / 1 W
High	2452	8.44	6.98	30 dBm / 1 W

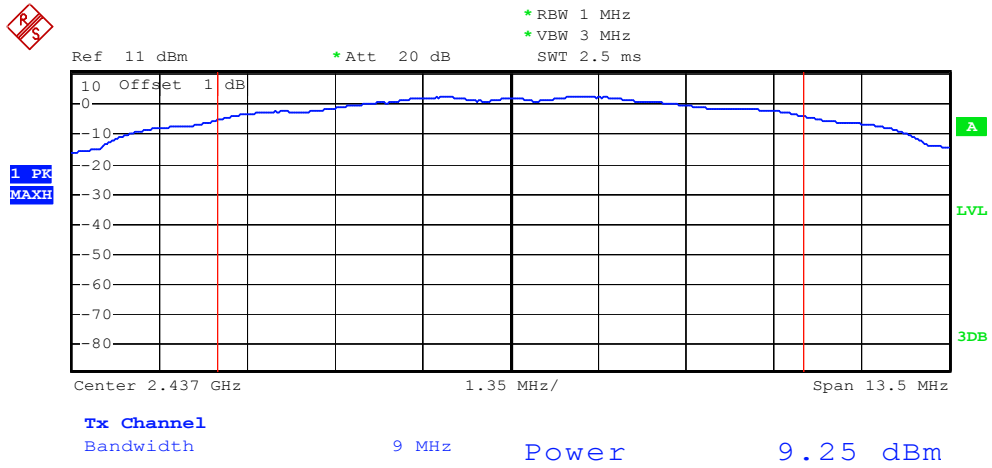
The spectrum analyzer plots are attached as below.

802.11b Channel Low 2412MHz



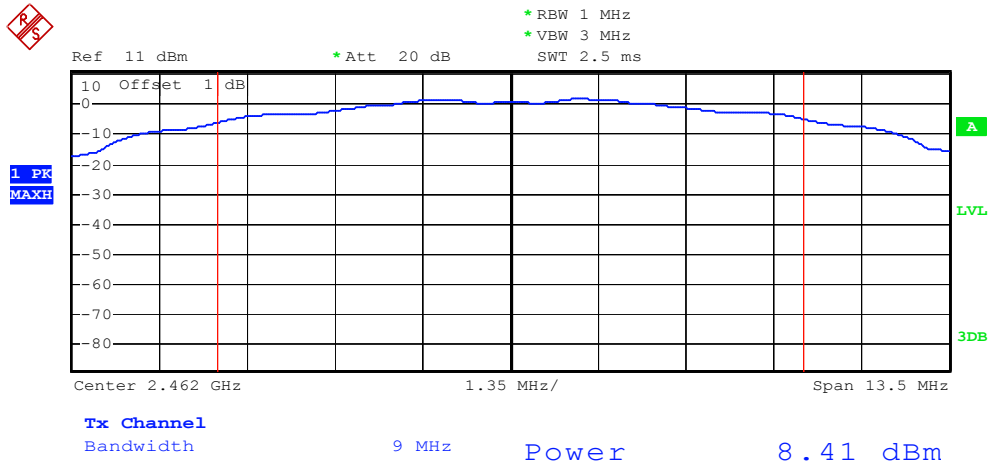
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802.11b Channel Middle 2437MHz



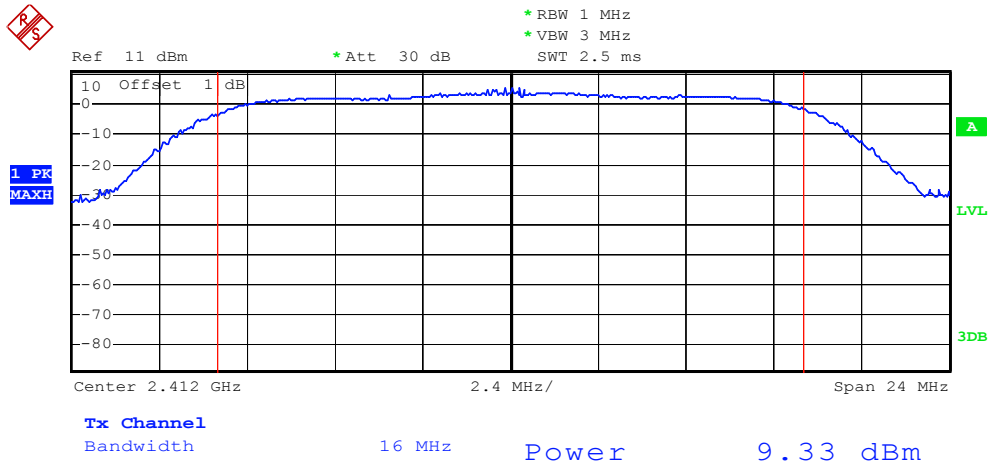
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802.11b Channel High 2462MHz



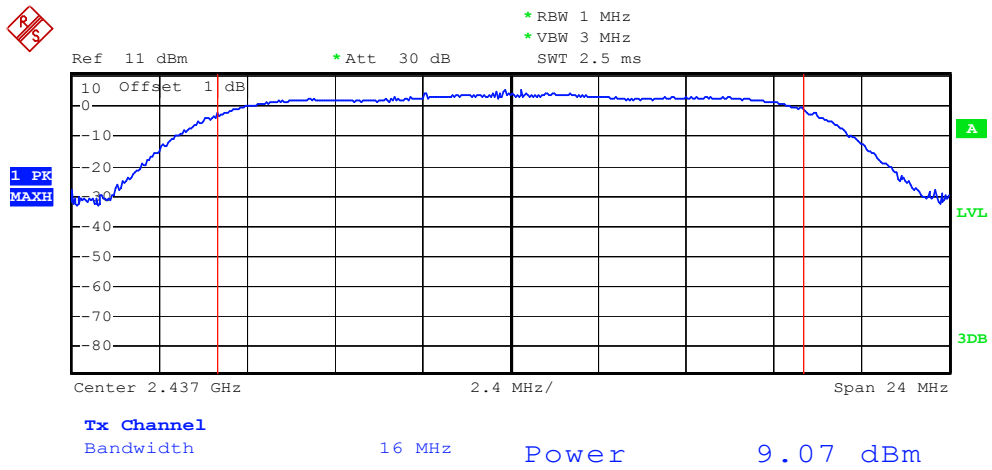
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802.11g Channel Low 2412MHz



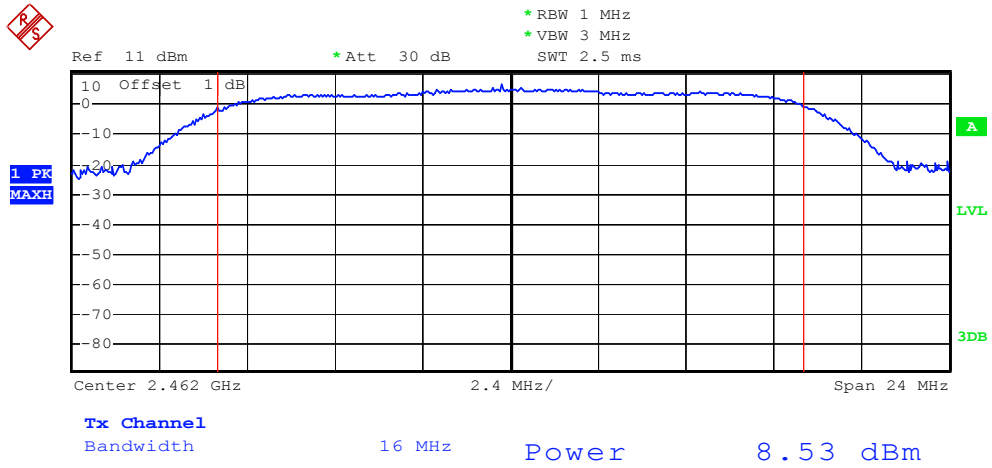
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802.11g Channel Middle 2437MHz



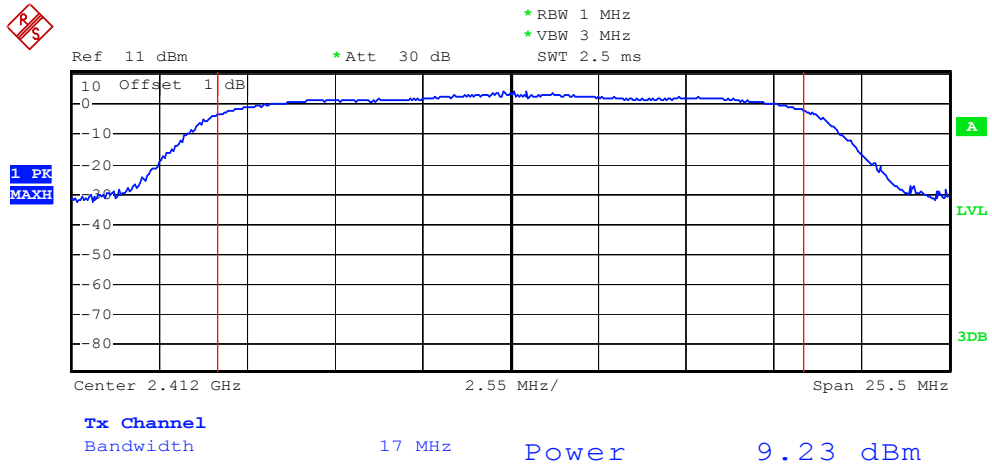
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802.11g Channel High 2462MHz



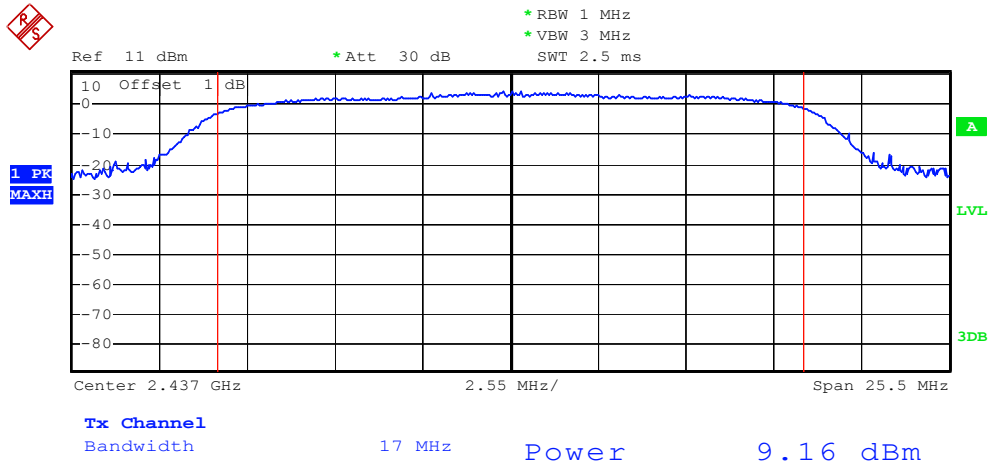
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802.11n Channel Low 2412MHz (20MHz)



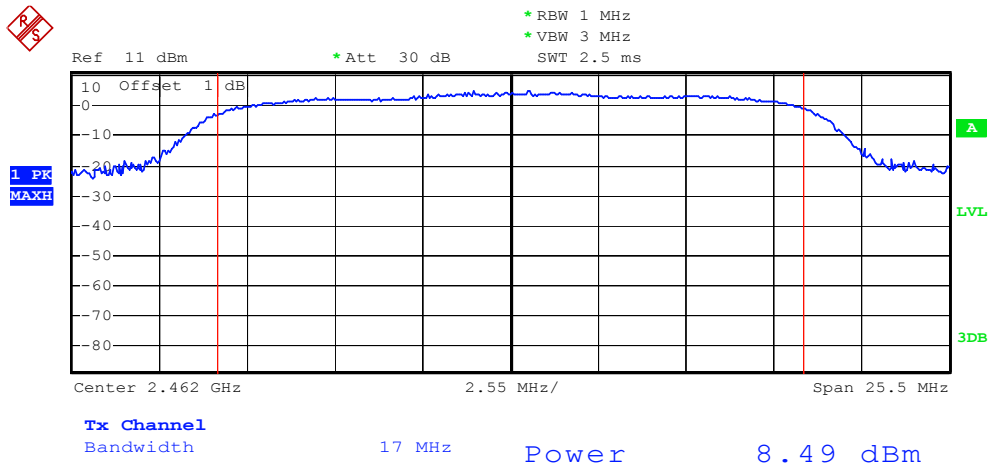
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802.11n Channel Middle 2437MHz (20MHz)



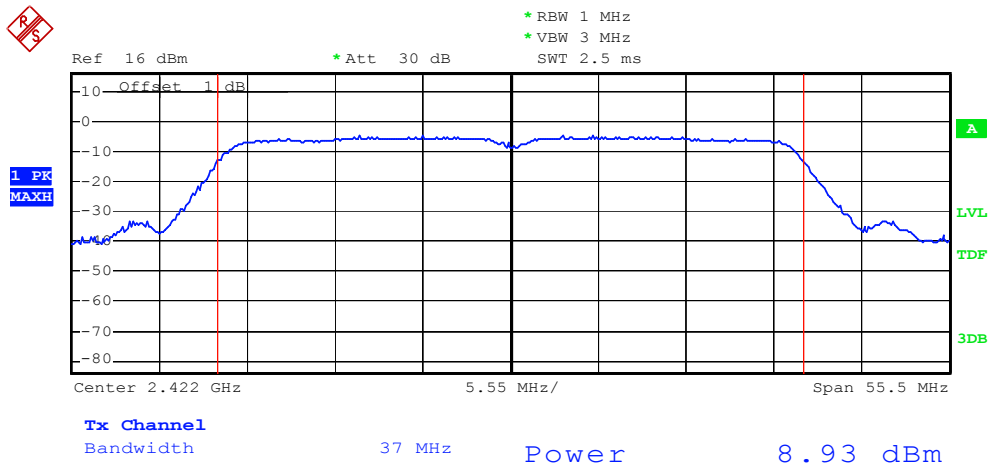
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802.11n Channel High 2462MHz (20MHz)



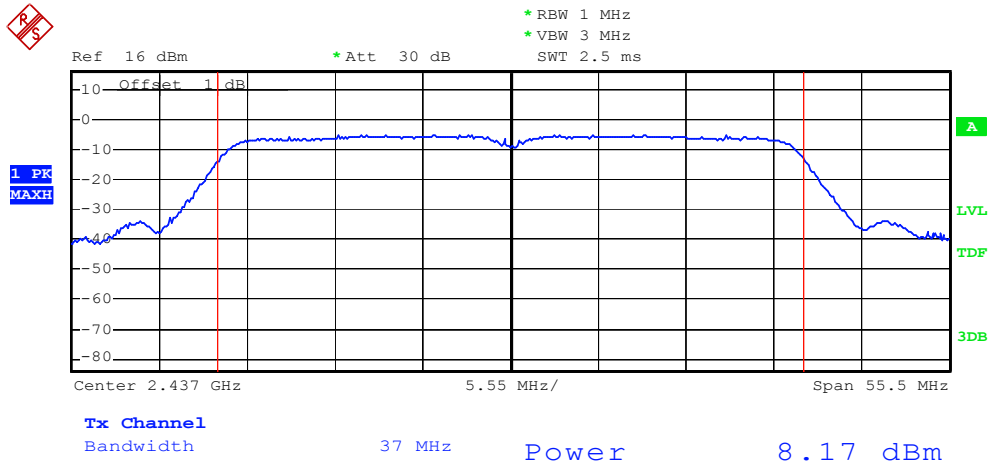
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802.11n Channel Low 2422MHz (40MHz)



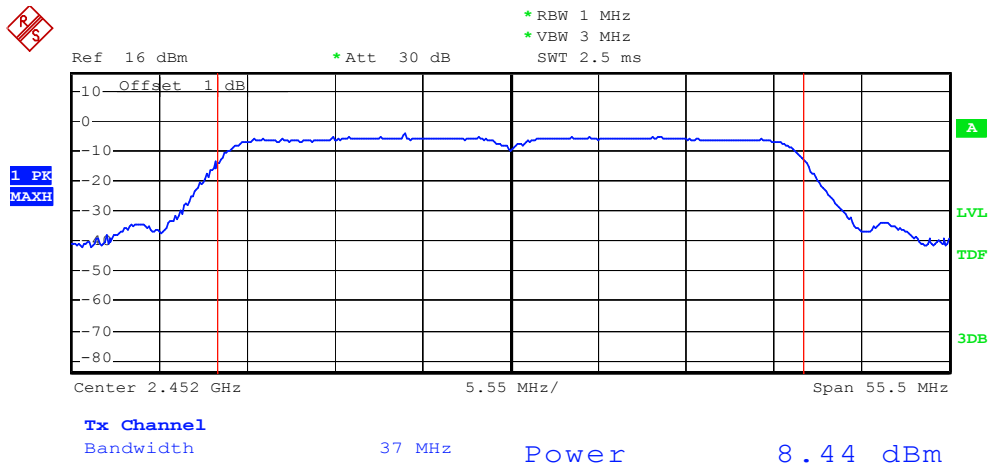
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802.11n Channel Middle 2437MHz (40MHz)



Date: 14.DEC.2012 16:21:14

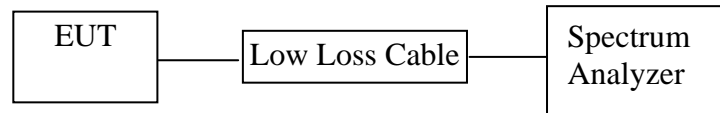
802.11n Channel High 2452MHz (40MHz)



Date: 14.DEC.2012 16:28:44

7. POWER SPECTRAL DENSITY MEASUREMENT

7.1. Block Diagram of Test Setup



(EUT: MIRABOX)

7.2. The Requirement For Section 15.247(e)

Section 15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

7.3. EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.3.1. MIRABOX(EUT)

Model Number : 003-MBX001
 Serial Number : N/A
 Manufacturer : Globalscale Technologies INC

7.4. Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 7.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

7.5. Test Procedure

7.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

7.5.2. Set RBW of spectrum analyzer to 3 kHz and VBW to 10 kHz, sweep time = auto, span \geq 1.5 time EBW.

7.5.3. Measurement the maximum power spectral density.

7.6. Test Result

PASS.

Date of Test:	Jan 6, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
Test Mode:	TX	Test Engineer:	Allen

The test was performed with 802.11b			
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limits (dBm/3kHz)
Low	2412	-15.68	8 dBm
Middle	2437	-16.89	8 dBm
High	2462	-15.96	8 dBm

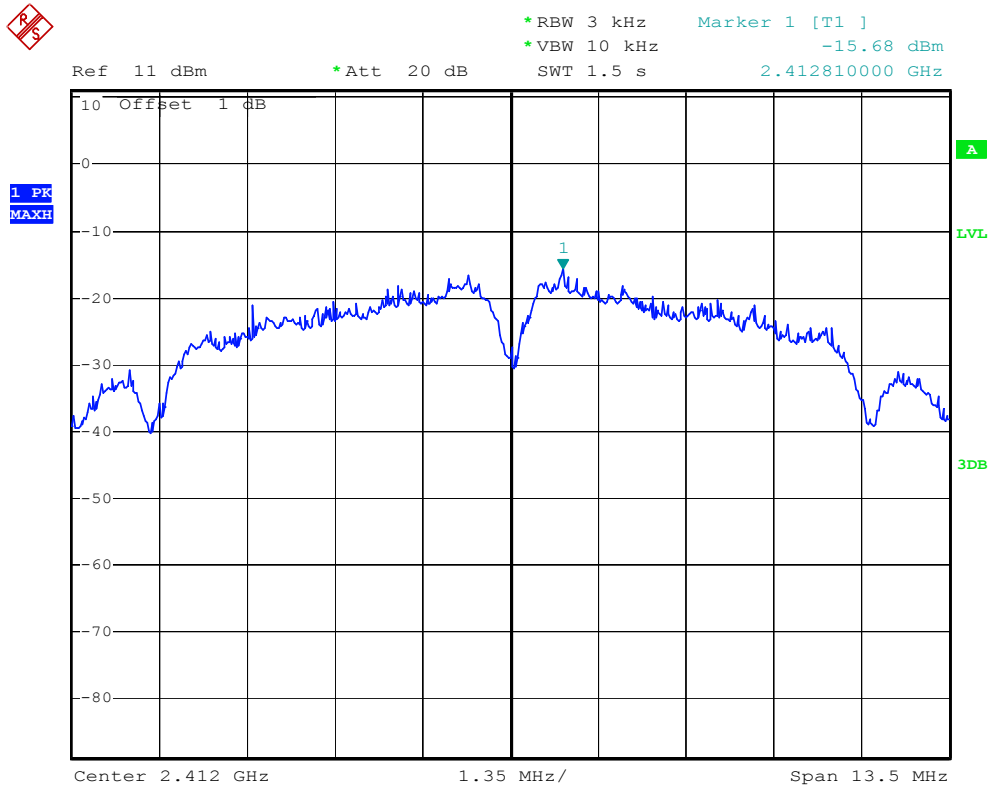
The test was performed with 802.11g			
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limits (dBm)
Low	2412	-18.25	8 dBm
Middle	2437	-18.53	8 dBm
High	2462	-18.56	8 dBm

The test was performed with 802.11n (20MHz)			
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limits (dBm)
Low	2412	-19.49	8 dBm
Middle	2437	-18.85	8 dBm
High	2462	-17.62	8 dBm

The test was performed with 802.11n (40MHz)			
Channel	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limits (dBm)
Low	2422	-28.88	8 dBm
Middle	2437	-27.95	8 dBm
High	2452	-28.45	8 dBm

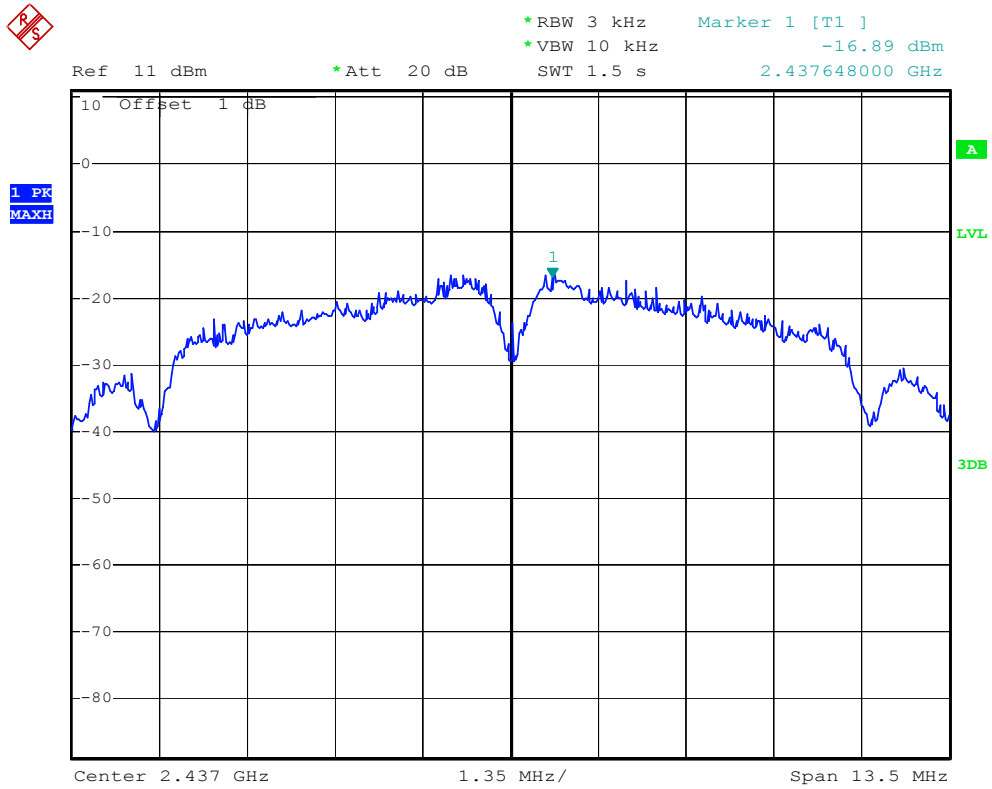
The spectrum analyzer plots are attached as below.

802.11b Channel Low 2412MHz



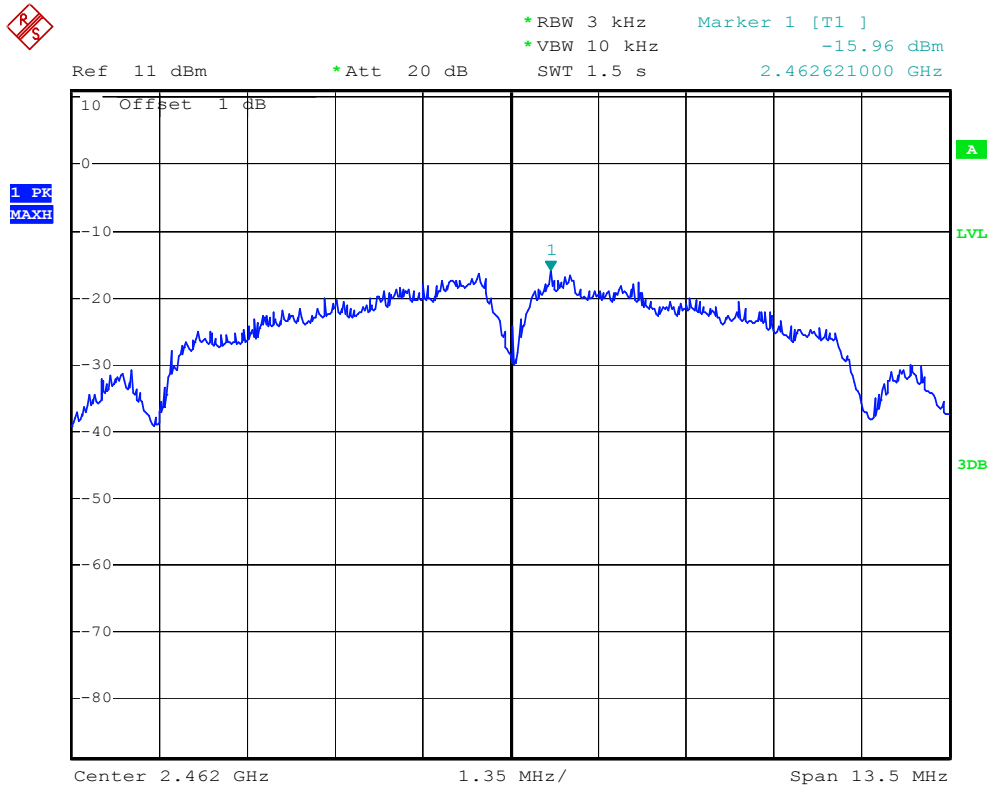
Date: 6.JAN.2013 14:48:35

802.11b Channel Middle 2437MHz



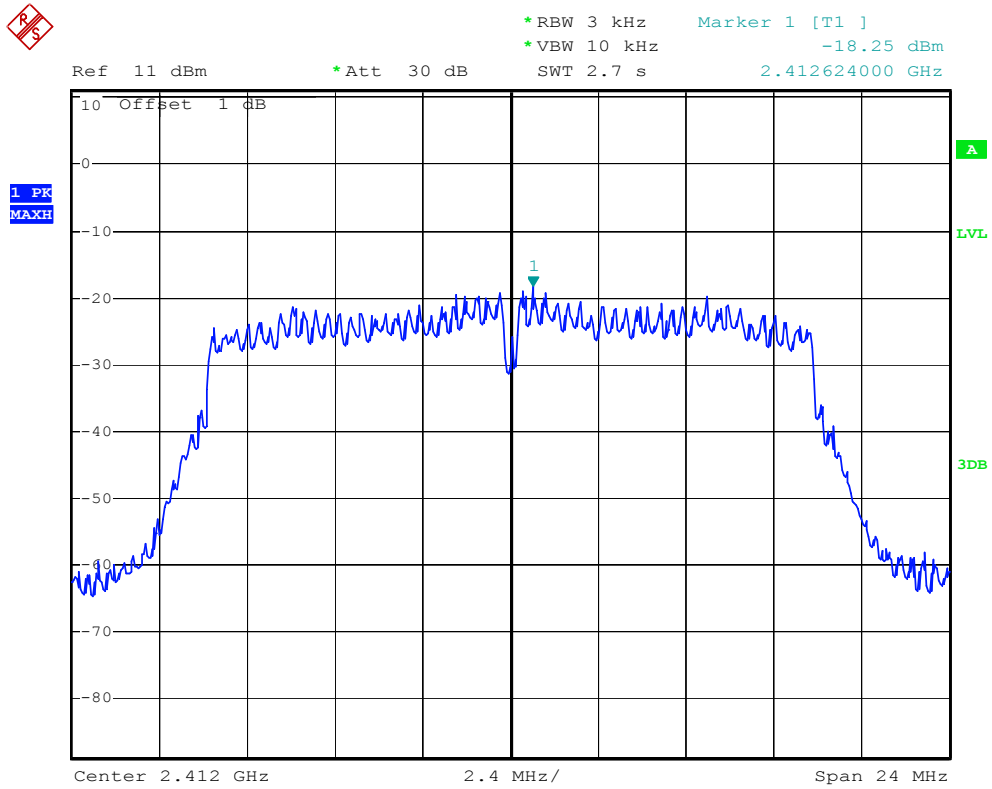
Date: 6.JAN.2013 14:59:36

802.11b Channel High 2462MHz



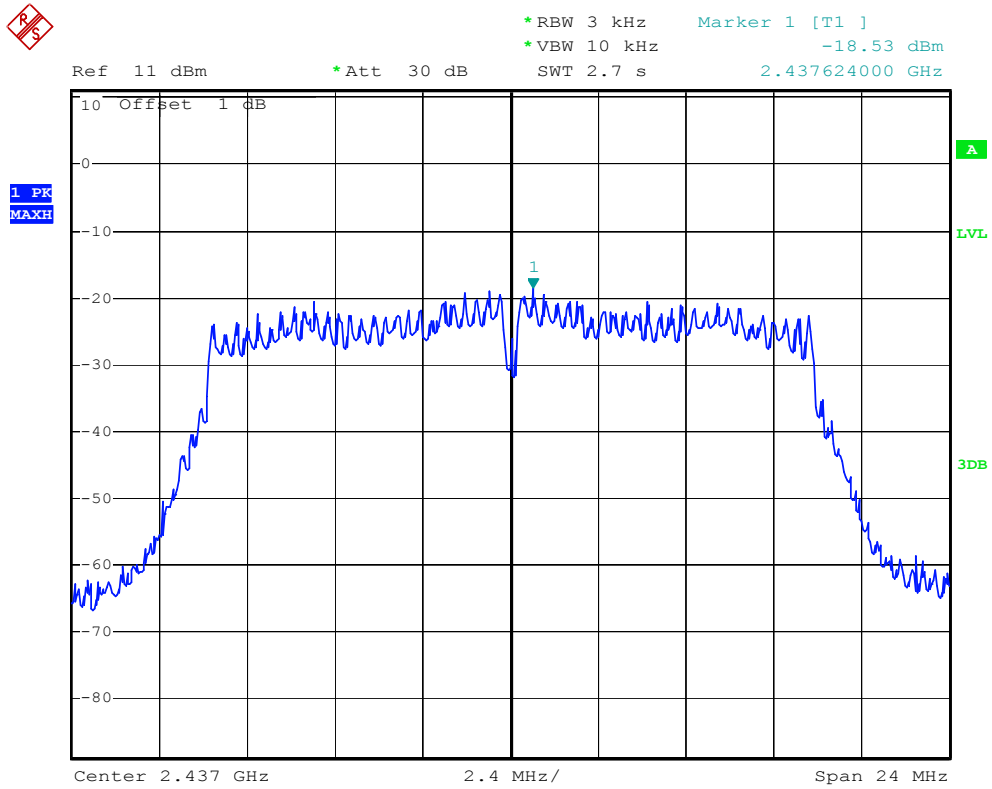
Date: 6.JAN.2013 15:04:37

802.11g Channel Low 2412MHz



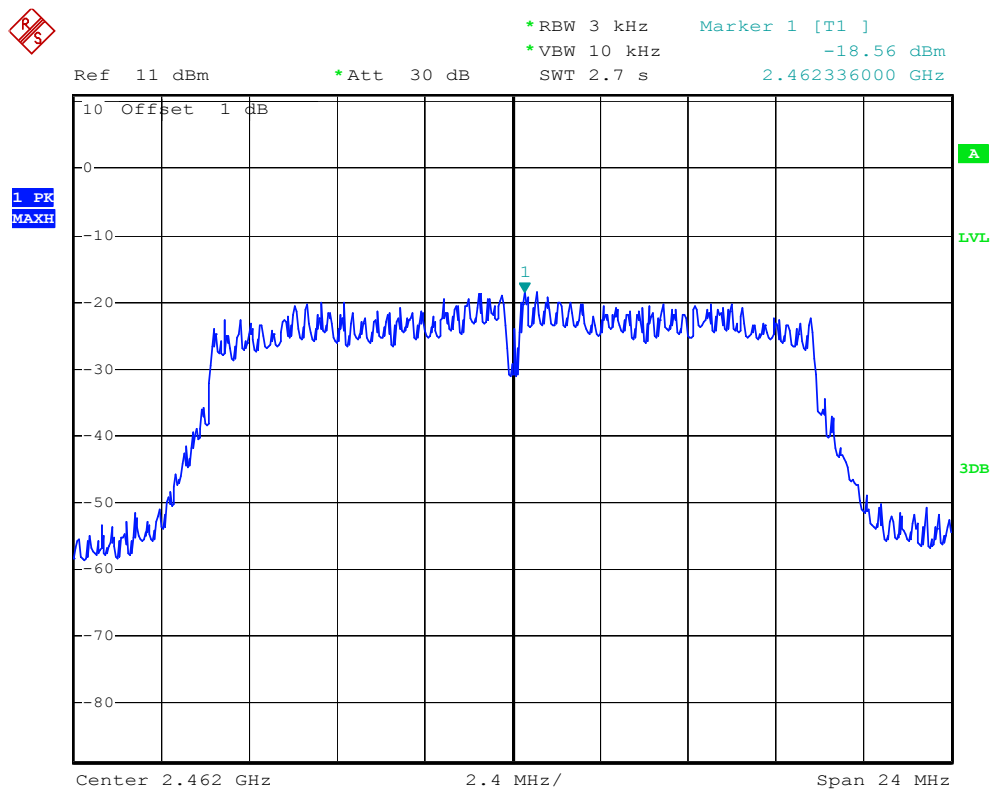
Date: 6.JAN.2013 15:23:26

802.11g Channel Middle 2437MHz



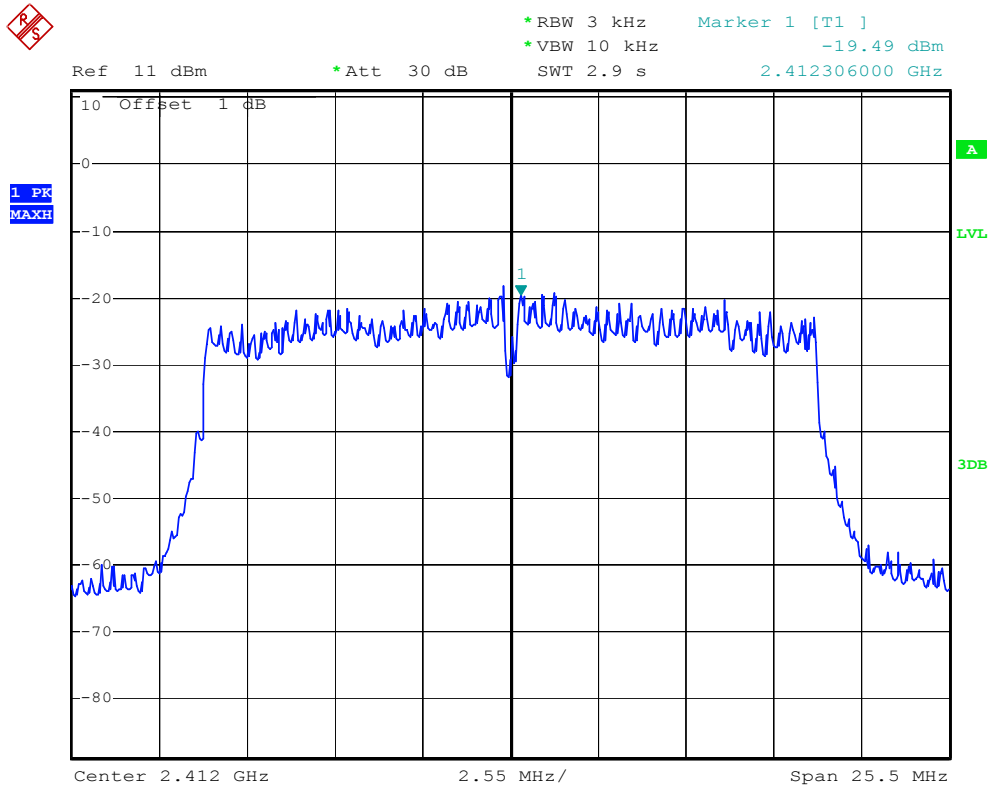
Date: 6.JAN.2013 15:20:24

802.11g Channel High 2462MHz



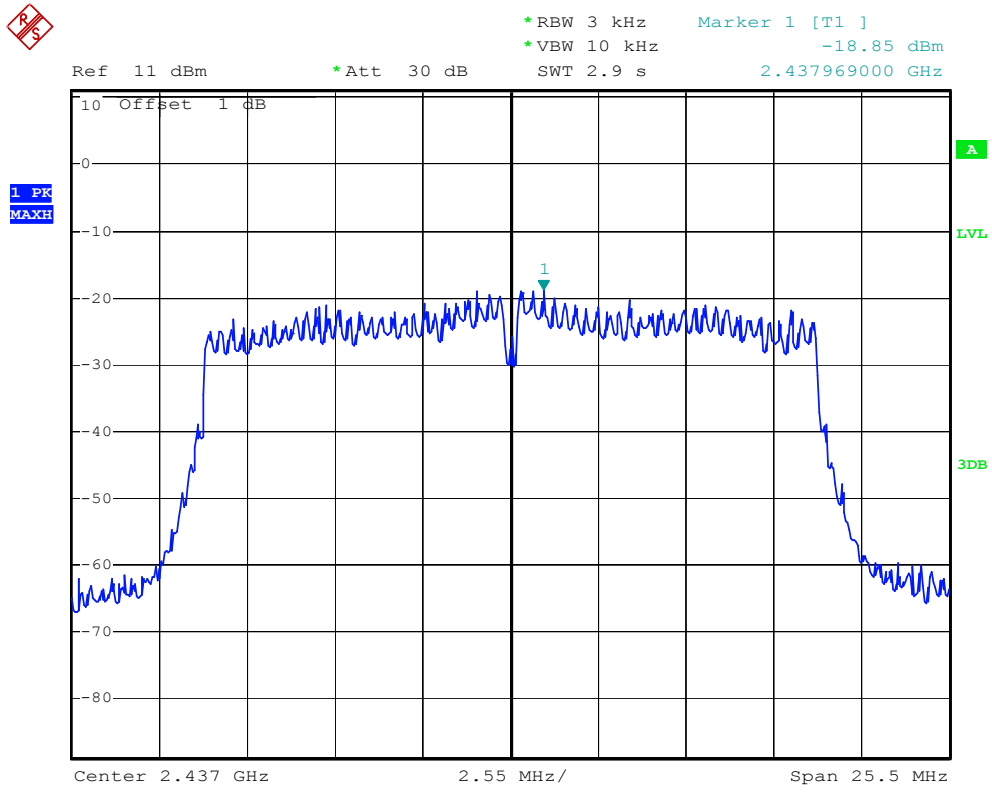
Date: 6.JAN.2013 15:15:33

802.11n Channel Low 2412MHz (20MHz)



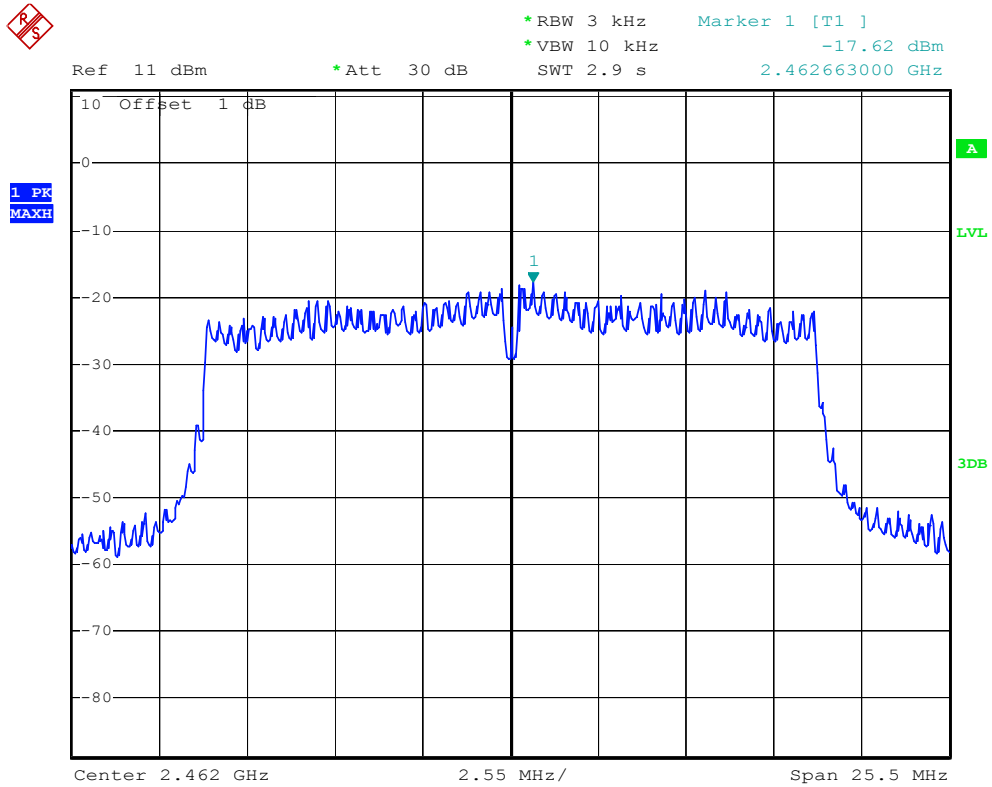
Date: 6.JAN.2013 15:32:46

802.11n Channel Middle 2437MHz (20MHz)



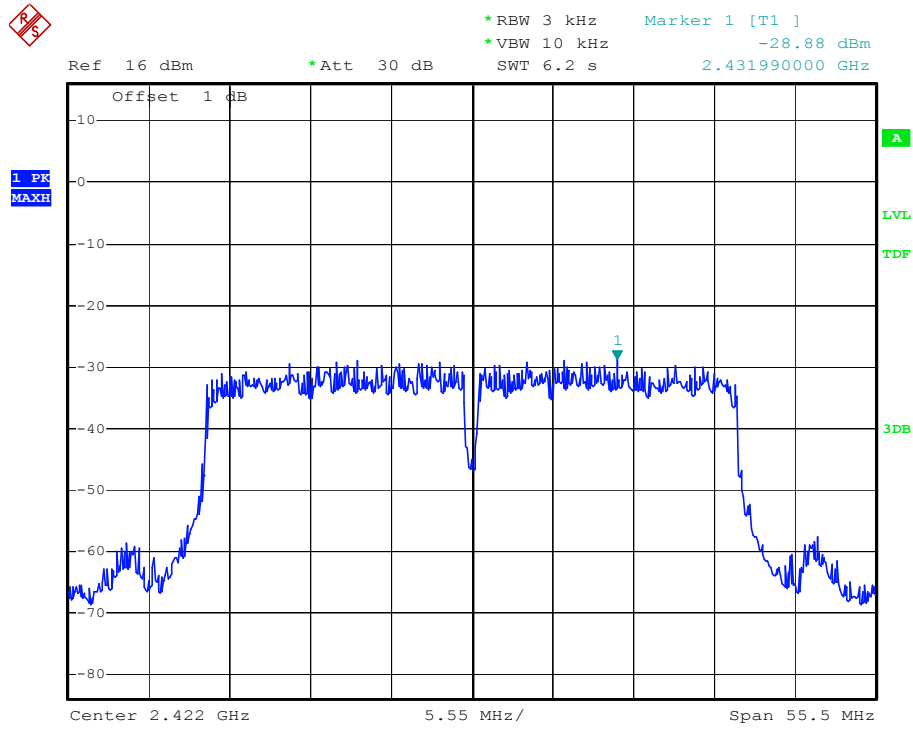
Date: 6.JAN.2013 15:37:04

802.11n Channel High 2462MHz (20MHz)



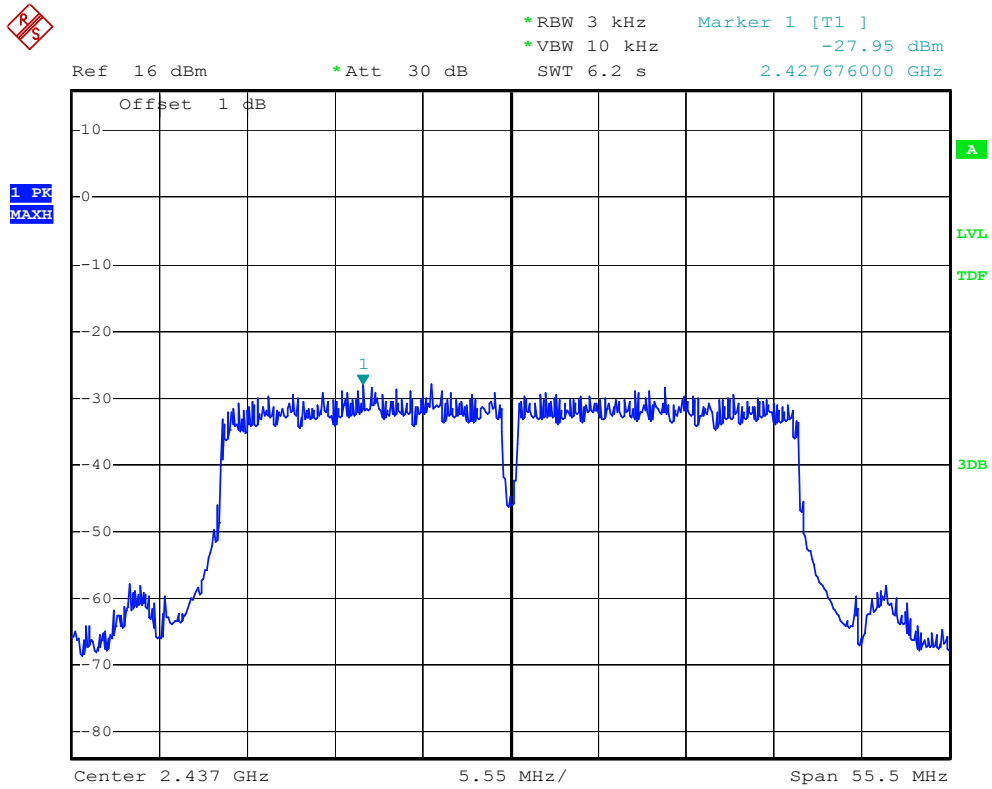
Date: 6.JAN.2013 15:38:27

802.11n Channel Low 2422MHz (40MHz)



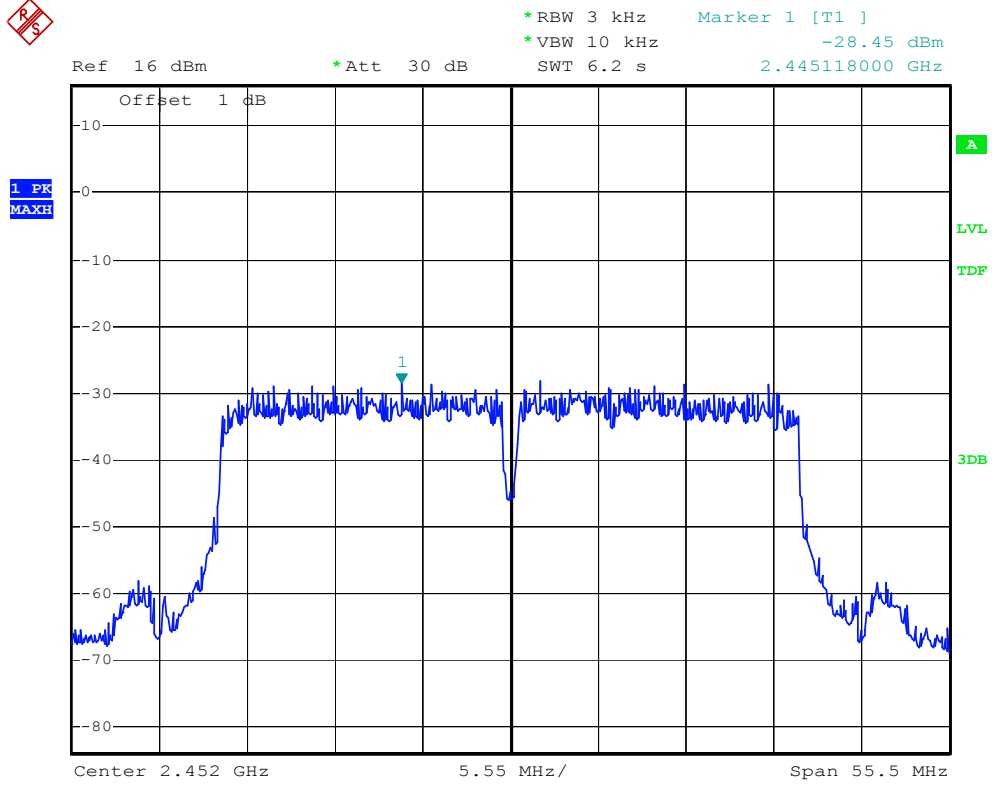
Date: 14.DEC.2012 16:18:15

802.11n Channel Middle 2437MHz (40MHz)



Date: 14.DEC.2012 16:19:57

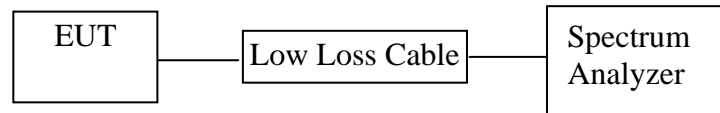
802.11n Channel High 2452MHz (40MHz)



Date: 14.DEC.2012 16:29:35

8. BAND EDGE COMPLIANCE TEST

8.1. Block Diagram of Test Setup



(EUT: MIRABOX)

8.2. The Requirement For Section 15.247(d)

Section 15.247(d): 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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).

8.3. EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

8.3.1. MIRABOX (EUT)

Model Number	:	003-MBX001
Serial Number	:	N/A
Manufacturer	:	Globalscale Technologies INC

8.4. Operating Condition of EUT

8.4.1. Setup the EUT and simulator as shown as Section 8.1.

8.4.2. Turn on the power of all equipment.

8.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz MHz. We select 2412MHz, 2462MHz and 2422MHz, 2452MHz TX frequency to transmit.

8.5. Test Procedure

Conducted Band Edge:

8.5.1. The transmitter output was connected to the spectrum analyzer via a low loss cable.

8.5.2. Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz.

Radiate Band Edge:

8.5.3. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.

8.5.4. The turntable was rotated for 360 degrees to determine the position of maximum emission level.

8.5.5. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

8.5.6. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

RBW=1MHz, VBW=1MHz

8.5.7. The band edges was measured and recorded.

8.6. Test Result

Pass**Conducted test**

Date of Test:	Jan 6, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
Test Mode:	TX	Test Engineer:	Allen

The test was performed with 802.11b

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	50.76	> 20dBc
2462	50.42	> 20dBc

The test was performed with 802.11g

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	39.79	> 20dBc
2462	42.88	> 20dBc

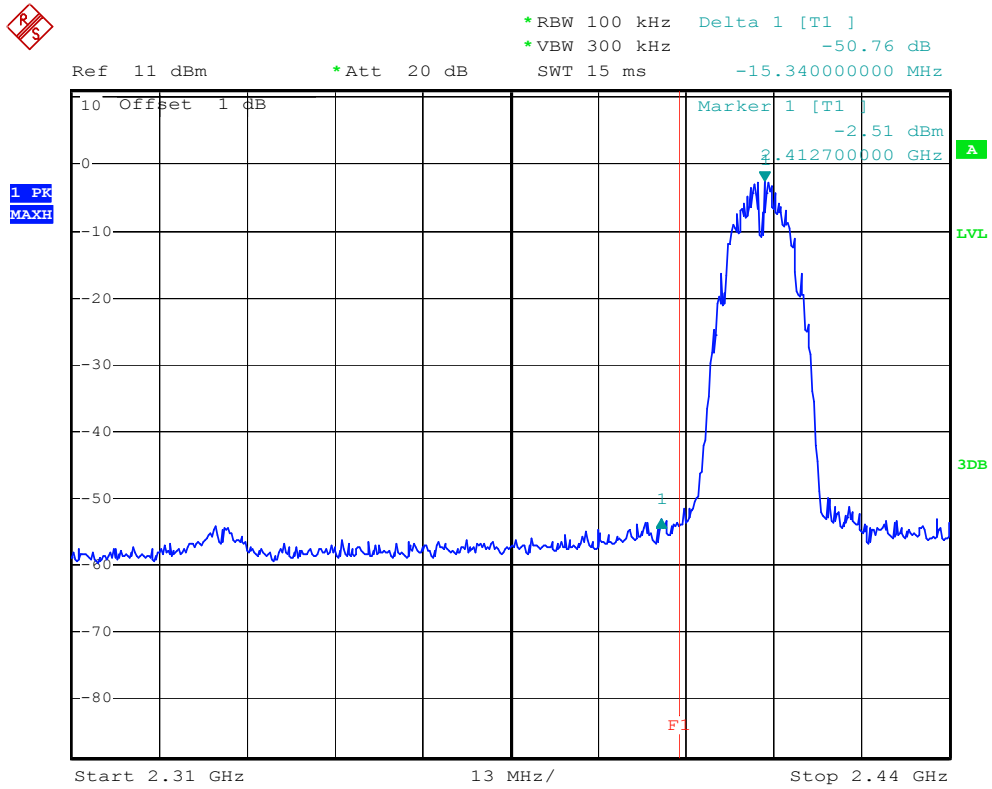
The test was performed with 802.11n (20MHz)

Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2412	39.45	> 20dBc
2462	42.10	> 20dBc

The test was performed with 802.11n (40MHz)

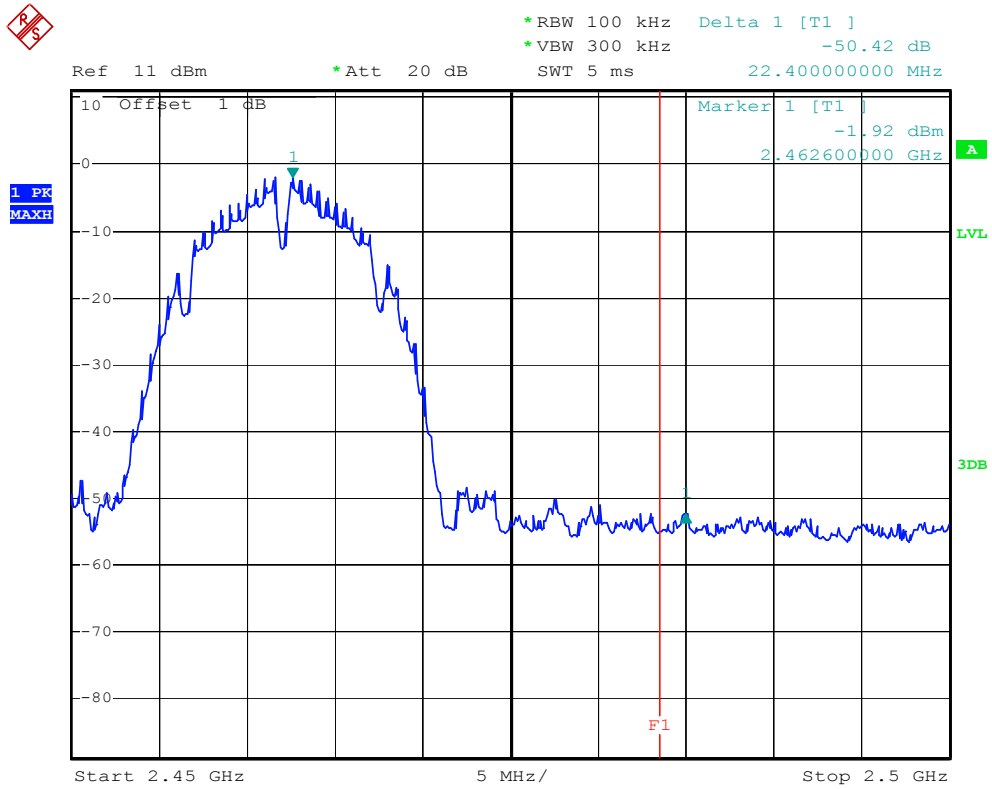
Frequency (MHz)	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
2422	27.11	> 20dBc
2452	35.06	> 20dBc

802.11b Channel Low 2412MHz



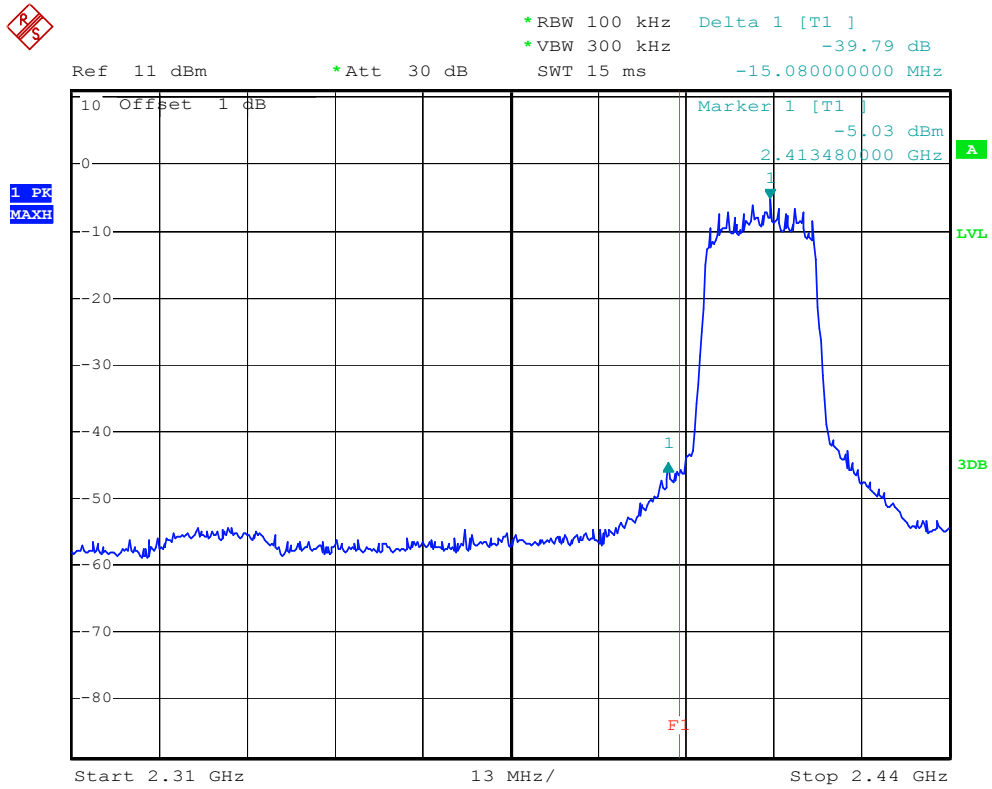
Date: 6.JAN.2013 14:51:03

802.11b Channel High 2462MHz



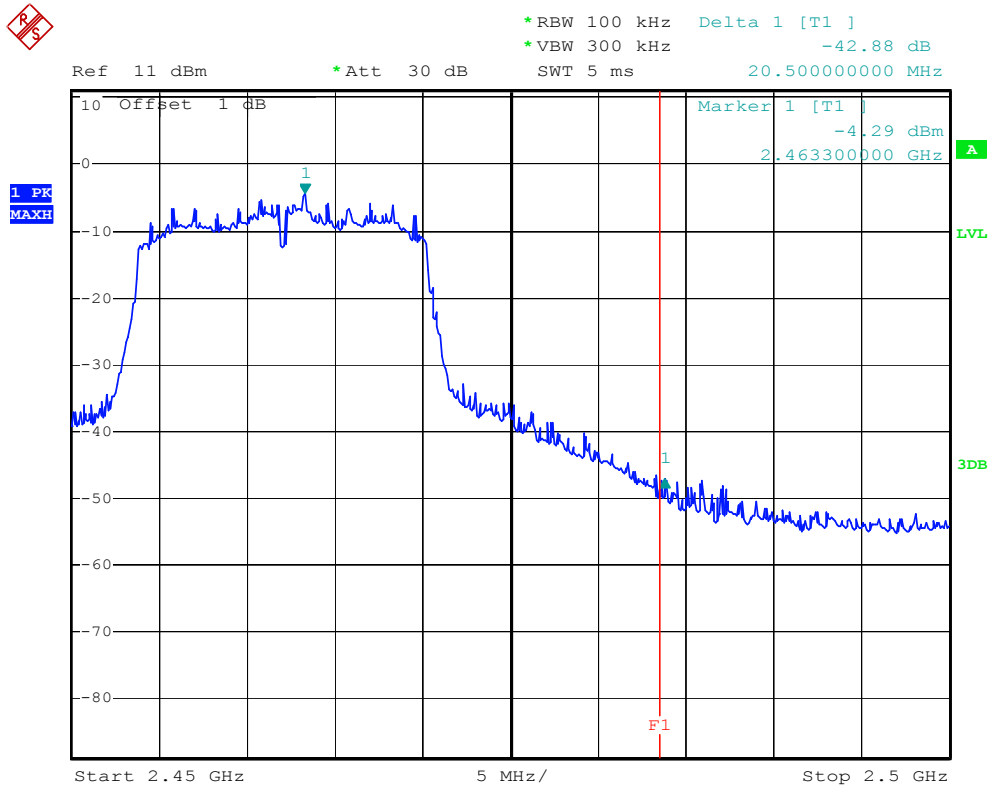
Date: 6.JAN.2013 15:06:12

802.11g Channel Low 2412MHz



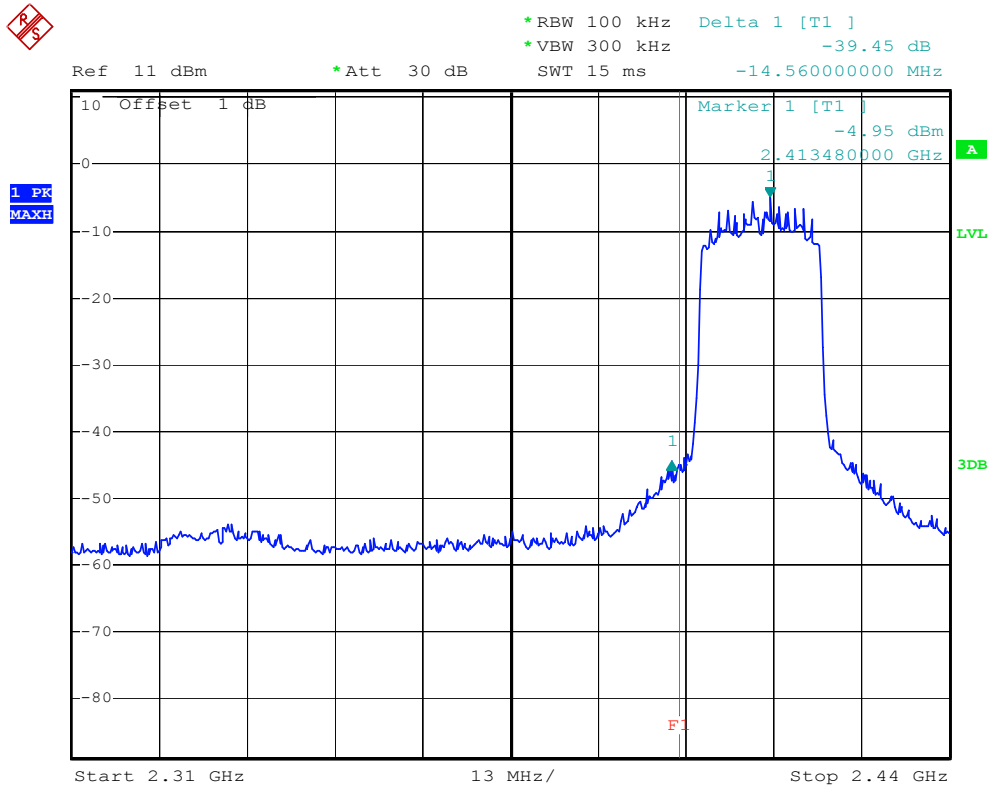
Date: 6.JAN.2013 15:27:10

802.11g Channel High 2462MHz



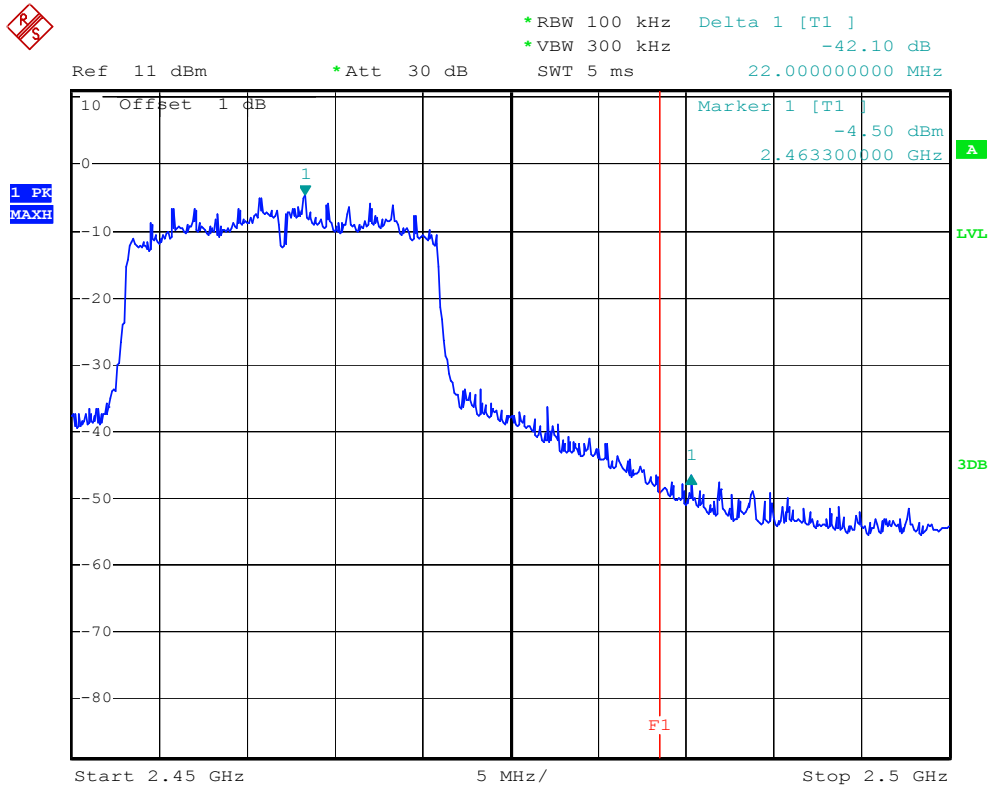
Date: 6.JAN.2013 15:10:30

802.11n Channel Low 2412MHz (20MHz)



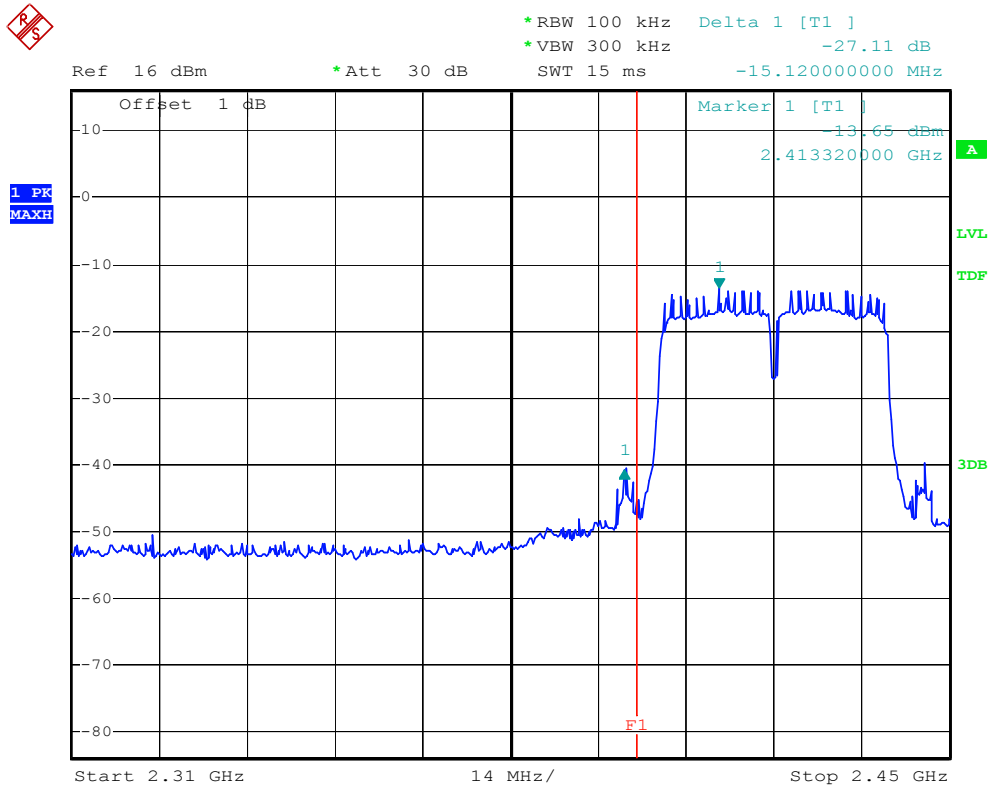
Date: 6.JAN.2013 15:28:43

802.11n Channel High 2462MHz (20MHz)



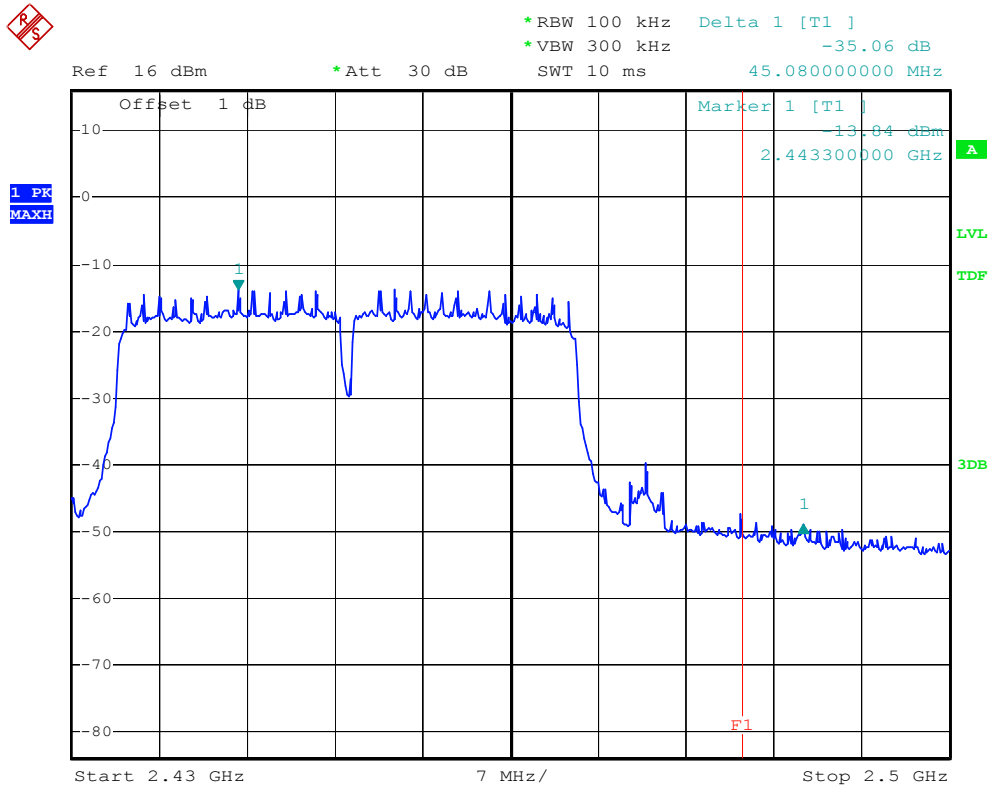
Date: 6.JAN.2013 15:45:09

802.11n Channel Low 2422MHz (40MHz)



Date: 14.DEC.2012 16:14:41

802.11n Channel High 2452MHz (40MHz)



Date: 14.DEC.2012 16:27:28

Radiated Band Edge Result

Date of Test:	<u>Jan 7, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>MIRABOX</u>	Humidity:	<u>50%</u>
Model No.:	<u>003-MBX001</u>	Power Supply:	<u>AC 120V/60HZ</u>
Test Mode:	<u>802.11b Channel Low 2412MHz</u>	Test Engineer:	<u>Allen</u>

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2394.778	45.36	49.87	-7.49	37.87	42.38	54	74	-16.13	-31.62	Vertical
2400.000	51.86	55.86	-7.46	44.40	48.40	54	74	-9.60	-25.60	Vertical
2394.647	45.30	49.38	-7.49	37.81	41.89	54	74	-16.19	-32.11	Horizontal
2400.000	52.04	55.58	-7.46	44.58	48.12	54	74	-9.42	-25.88	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$
3. Display the measurement of peak values.

Date of Test:	<u>Jan 7, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>MIRABOX</u>	Humidity:	<u>50%</u>
Model No.:	<u>003-MBX001</u>	Power Supply:	<u>AC 120V/60HZ</u>
Test Mode:	<u>802.11b Channel High 2462MHz</u>	Test Engineer:	<u>Allen</u>

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2483.500	41.83	45.93	-7.37	34.46	38.56	54	74	-19.54	-35.44	Vertical
2484.893	44.20	48.69	-7.38	36.82	41.31	54	74	-17.18	-32.69	Vertical
2483.500	44.25	48.08	-7.37	36.88	40.71	54	74	-17.25	-33.29	Horizontal
2484.893	45.89	50.42	-7.38	38.51	43.04	54	74	-15.49	-30.96	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:
Result = Reading + Corrected Factor
3. Display the measurement of peak values.

Date of Test:	<u>Jan 7, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>MIRABOX</u>	Humidity:	<u>50%</u>
Model No.:	<u>003-MBX001</u>	Power Supply:	<u>AC 120V/60HZ</u>
Test Mode:	<u>802.11g Channel Low 2412MHz</u>	Test Engineer:	<u>Allen</u>

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2398.855	58.46	63.91	-7.46	51.00	56.45	54	74	-3.00	-17.55	Vertical
2400.000	58.79	66.85	-7.46	51.33	59.39	54	74	-2.67	-14.61	Vertical
2396.618	53.09	57.08	-7.48	45.61	49.60	54	74	-8.39	-24.40	Horizontal
2400.000	58.24	63.99	-7.46	50.78	56.53	54	74	-3.22	-17.47	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$
3. Display the measurement of peak values.

Date of Test:	<u>Jan 7, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>MIRABOX</u>	Humidity:	<u>50%</u>
Model No.:	<u>003-MBX001</u>	Power Supply:	<u>AC 120V/60HZ</u>
Test Mode:	<u>802.11g Channel High 2462MHz</u>	Test Engineer:	<u>Allen</u>

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2483.500	41.89	45.76	-7.37	34.52	38.39	54	74	-19.48	-35.61	Vertical
2485.014	41.86	46.22	-7.38	34.48	38.84	54	74	-19.52	-35.16	Vertical
2483.500	45.39	49.42	-7.37	38.02	42.05	54	74	-15.98	-31.95	Horizontal
2484.954	46.45	50.39	-7.38	39.07	43.01	54	74	-14.93	-30.99	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:
Result = Reading + Corrected Factor
3. Display the measurement of peak values.

Date of Test:	<u>Jan 7, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>MIRABOX</u>	Humidity:	<u>50%</u>
Model No.:	<u>003-MBX001</u>	Power Supply:	<u>AC 120V/60HZ</u>
	<u>802.11n Channel Low 2412MHz</u>		
Test Mode:	<u>(20MHz)</u>	Test Engineer:	<u>Allen</u>

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2398.460	58.56	63.31	-7.47	51.09	55.84	54	74	-2.91	-18.16	Vertical
2400.000	58.26	62.01	-7.46	50.80	54.55	54	74	-3.20	-19.45	Vertical
2398.328	54.16	58.62	-7.47	46.69	51.15	54	74	-7.31	-22.85	Horizontal
2400.000	56.27	62.18	-7.46	48.81	53.72	54	74	-5.19	-20.28	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

3. Display the measurement of peak values.

Date of Test:	<u>Jan 7, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>MIRABOX</u>	Humidity:	<u>50%</u>
Model No.:	<u>003-MBX001</u>	Power Supply:	<u>AC 120V/60HZ</u>
Test Mode:	<u>802.11n Channel High 2462MHz (20MHz)</u>	Test Engineer:	<u>Allen</u>

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2483.500	41.35	44.61	-7.37	33.98	37.24	54	74	-20.02	-36.76	Vertical
2486.406	42.36	47.93	-7.39	34.97	40.54	54	74	-19.03	-33.46	Vertical
2483.500	40.17	43.91	-7.37	32.80	36.54	54	74	-21.20	-37.46	Horizontal
2485.438	42.35	46.21	-7.38	34.97	38.83	54	74	-19.03	-35.172	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:
Result = Reading + Corrected Factor
3. Display the measurement of peak values.

Date of Test:	<u>Jan 7, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>MIRABOX</u>	Humidity:	<u>50%</u>
Model No.:	<u>003-MBX001</u>	Power Supply:	<u>AC 120V/60HZ</u>
	<u>802.11n Channel Low 2422MHz</u>		
Test Mode:	<u>(40MHz)</u>	Test Engineer:	<u>Allen</u>

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2398.591	57.46	60.21	-7.47	49.99	52.74	54	74	-4.01	-21.26	Vertical
2400.000	52.14	55.06	-7.46	44.68	47.60	54	74	-9.32	-26.402	Vertical
2398.328	52.33	55.10	-7.47	44.86	47.63	54	74	-9.14	-26.37	Horizontal
2400.000	48.56	51.69	-7.46	41.09	44.23	54	74	-12.91	-29.77	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

3. Display the measurement of peak values.

Date of Test:	<u>Jan 7, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>MIRABOX</u>	Humidity:	<u>50%</u>
Model No.:	<u>003-MBX001</u>	Power Supply:	<u>AC 120V/60HZ</u>
	<u>802.11n Channel High 2452MHz</u>		
Test Mode:	<u>(40MHz)</u>	Test Engineer:	<u>Allen</u>

Frequency (MHz)	Reading(dBμV/m)		Factor(dB) Corr.	Result(dBμV/m)		Limit(dBμV/m)		Margin(dB)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
2483.500	41.65	45.97	-7.37	34.28	38.60	54	74	-19.72	-35.40	Vertical
2485.861	43.48	47.95	-7.38	36.10	40.57	54	74	-17.90	-33.43	Vertical
2483.500	43.86	47.65	-7.37	36.49	40.28	54	74	-17.51	-33.72	Horizontal
2485.861	44.87	48.90	-7.38	37.49	41.52	54	74	-16.51	-32.48	Horizontal

Note:

1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:
Result = Reading + Corrected Factor
3. Display the measurement of peak values.



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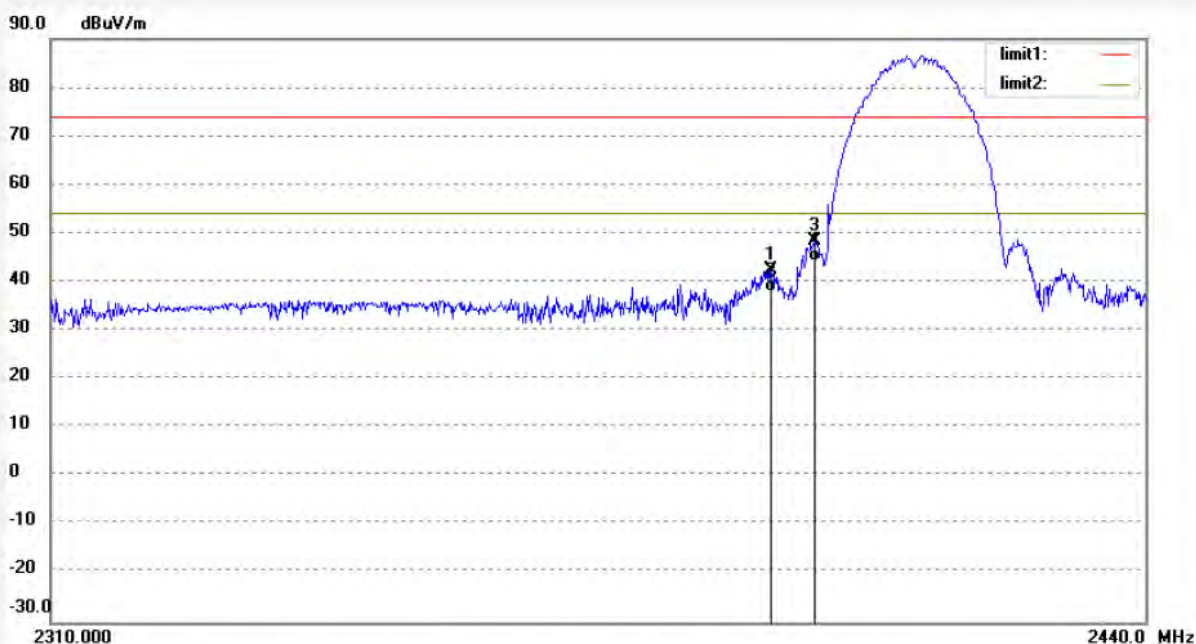
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #739
Standard: FCC 15C
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MIRABOX
Mode: TX Channel 1(802.11b)
Model: 003-MBX001
Manufacturer: Globalscale

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/1/7/
Time: 9/10/35
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2394.778	49.87	-7.49	42.38	74.00	-31.62	peak			
2	2394.778	45.36	-7.49	37.87	54.00	-16.13	AVG			
3	2400.000	55.86	-7.46	48.40	74.00	-25.60	peak			
4	2400.000	51.86	-7.46	44.40	54.00	-9.60	AVG			



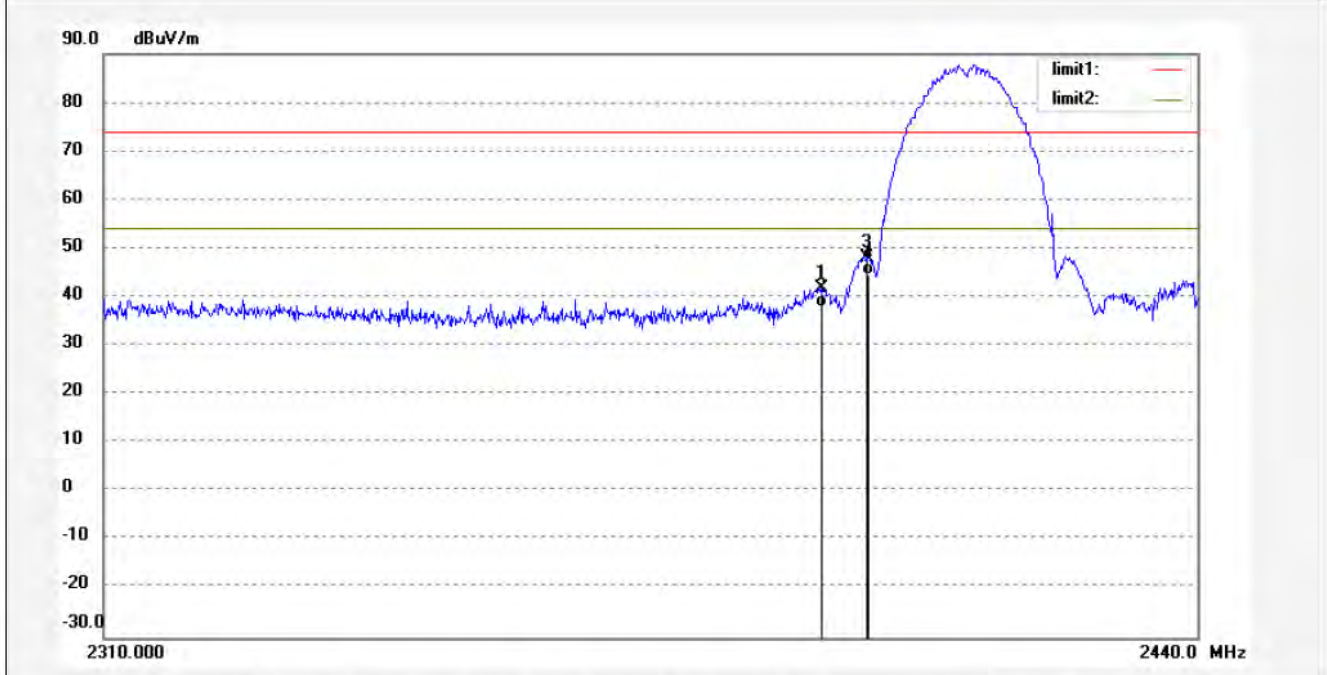
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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #740	Polarization: Horizontal
Standard: FCC 15C	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/1/7/
Temp.(C)/Hum.(%) 23 C / 49 %	Time: 9/11/42
EUT: MIRABOX	Engineer Signature: Ricky
Mode: TX Channel 1(802.11b)	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2394.647	49.38	-7.49	41.89	74.00	-32.11	peak			
2	2394.647	45.30	-7.49	37.81	54.00	-16.19	AVG			
3	2400.000	55.58	-7.46	48.12	74.00	-25.88	peak			
4	2400.000	52.04	-7.46	44.58	54.00	-9.42	AVG			



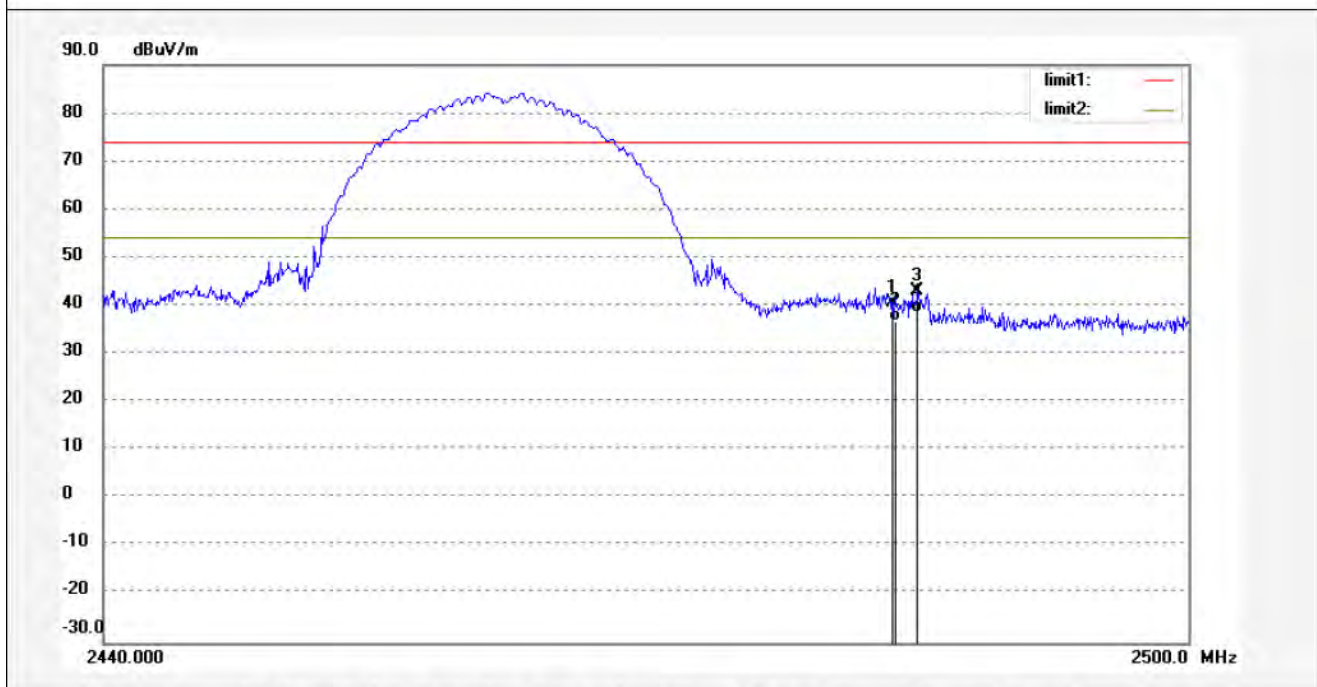
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #741	Polarization: Horizontal
Standard: FCC 15C	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/1/7/
Temp.(C)/Hum.(%) 23 C / 49 %	Time: 9/14/03
EUT: MIRABOX	Engineer Signature: Ricky
Mode: TX Channel 11(802.11b)	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	48.08	-7.37	40.71	74.00	-33.29	peak			
2	2483.500	44.12	-7.37	36.75	54.00	-17.25	AVG			
3	2484.893	50.42	-7.38	43.04	74.00	-30.96	peak			
4	2484.893	45.89	-7.38	38.51	54.00	-15.49	AVG			



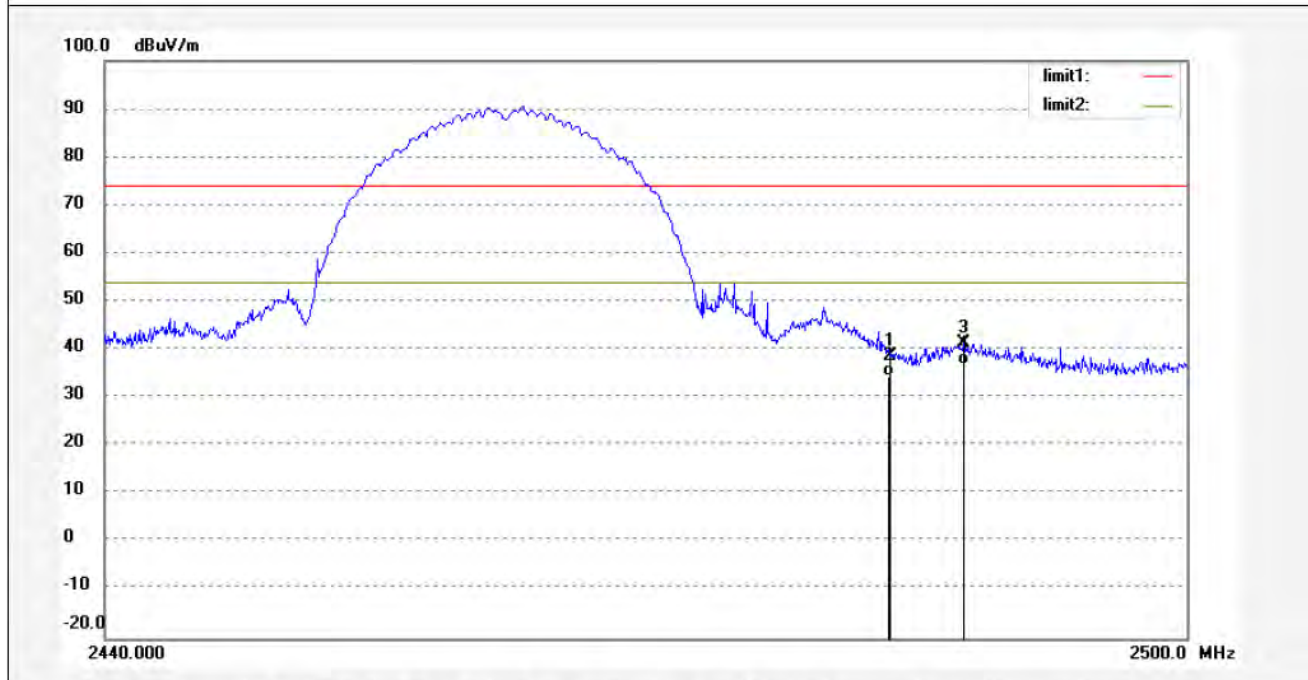
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #742	Polarization: Vertical
Standard: FCC 15C	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/1/7/
Temp.(C)/Hum.(%) 23 C / 49 %	Time: 9/15/14
EUT: MIRABOX	Engineer Signature: Ricky
Mode: TX Channel 11(802.11b)	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	45.93	-7.37	38.56	74.00	-35.44	peak			
2	2483.500	41.83	-7.37	34.46	54.00	-19.54	AVG			
3	2487.556	48.69	-7.38	41.31	74.00	-32.69	peak			
4	2487.556	44.20	-7.38	36.82	54.00	-17.18	AVG			



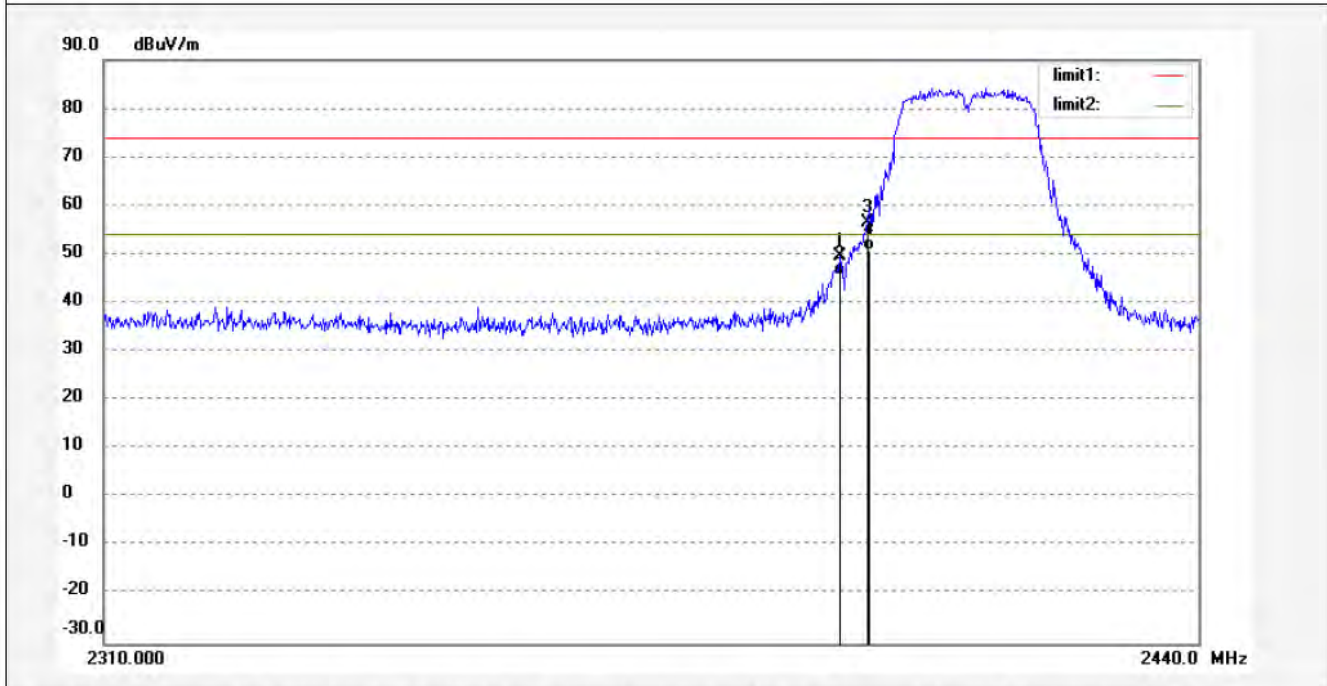
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #745	Polarization: Horizontal
Standard: FCC 15C	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/1/7/
Temp.(C)/Hum.(%) 23 C / 49 %	Time: 9/21/28
EUT: MIRABOX	Engineer Signature: Ricky
Mode: TX Channel 1(802.11g)	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2396.618	57.08	-7.48	49.60	74.00	-24.40	peak			
2	2396.618	53.09	-7.48	45.61	54.00	-8.39	AVG			
3	2400.000	63.99	-7.46	56.53	74.00	-17.47	peak			
4	2400.000	58.24	-7.46	50.78	54.00	-3.22	AVG			



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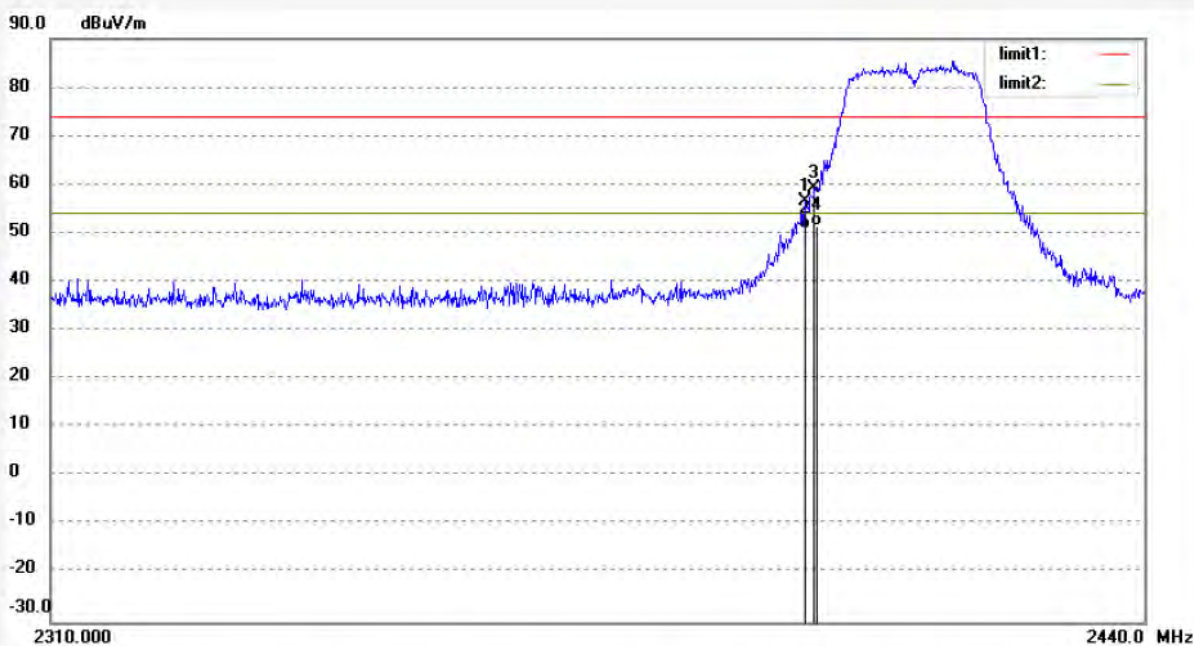
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #746
Standard: FCC 15C
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MIRABOX
Mode: TX Channel 1(802.11g)
Model: 003-MBX001
Manufacturer: Globalscale

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/1/7/
Time: 9/23/02
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.855	63.91	-7.46	56.45	74.00	-17.55	peak			
2	2398.855	58.46	-7.46	51.00	54.00	-3.00	AVG			
3	2400.000	66.85	-7.46	59.39	74.00	-14.61	peak			
4	2400.000	58.79	-7.46	51.33	54.00	-2.67	AVG			



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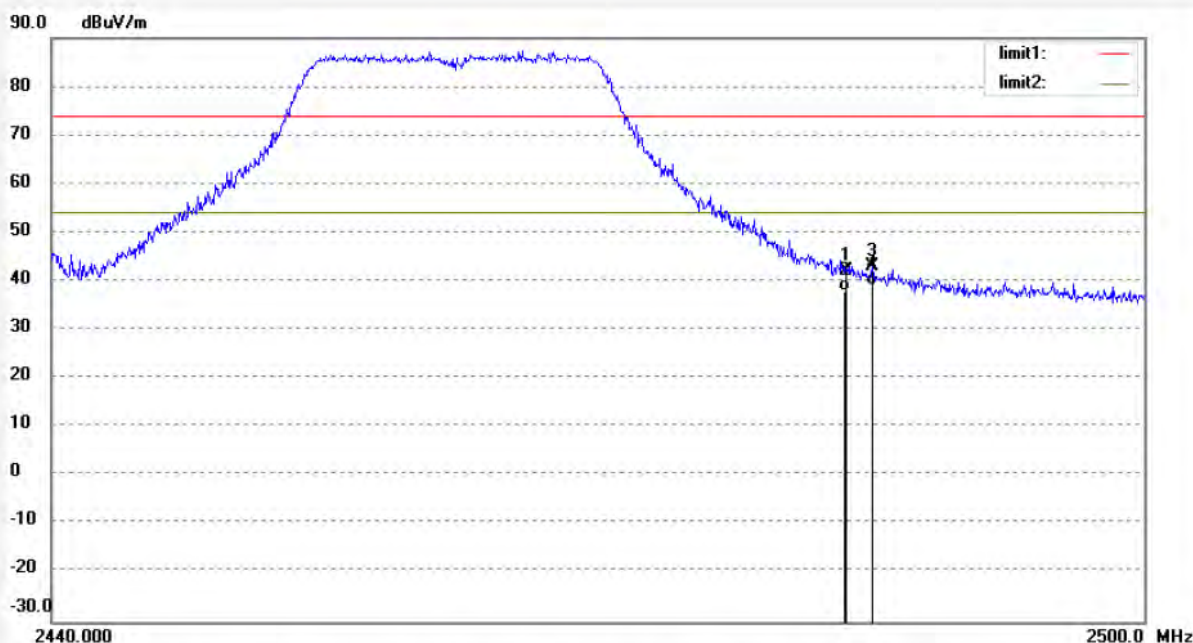
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #743
Standard: FCC 15C
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MIRABOX
Mode: TX Channel 11(802.11g)
Model: 003-MBX001
Manufacturer: Globalscale

Polarization: Horizontal
Power Source: AC 120V/60Hz
Date: 13/1/7/
Time: 9/17/52
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	49.42	-7.37	42.05	74.00	-31.95	peak			
2	2483.500	45.39	-7.37	38.02	54.00	-15.98	AVG			
3	2484.954	50.39	-7.38	43.01	74.00	-30.99	peak			
4	2484.954	46.45	-7.38	39.07	54.00	-14.93	AVG			



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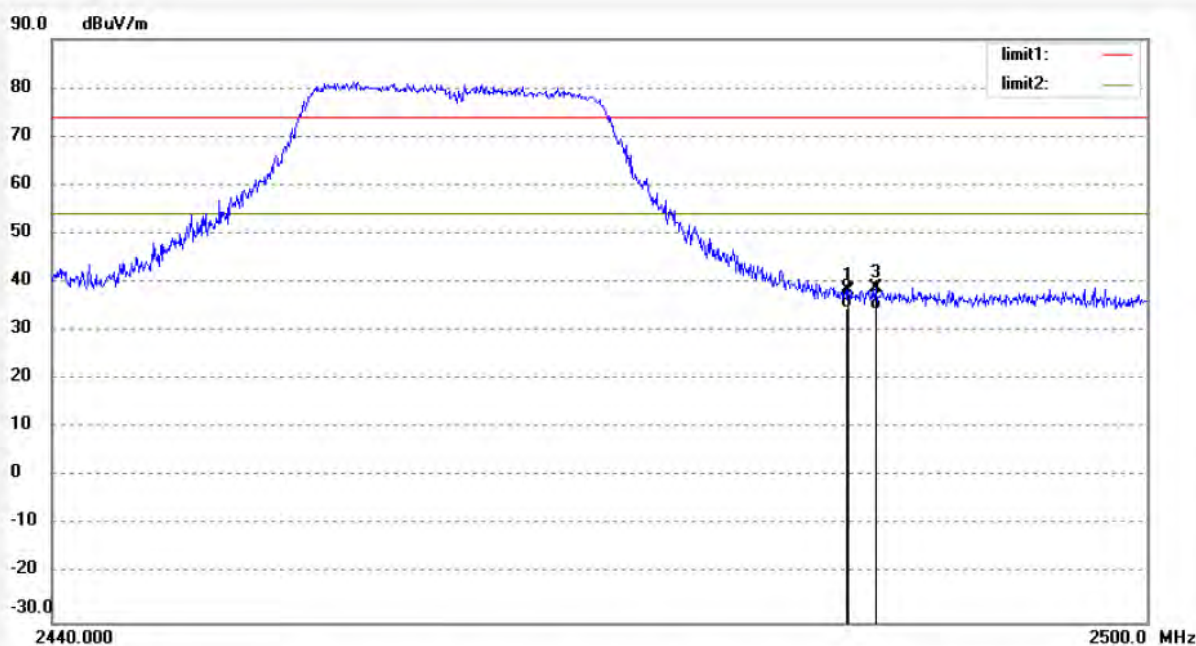
F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #744
Standard: FCC 15C
Test item: Radiation Test
Temp.(C)/Hum.(%) 23 C / 49 %
EUT: MIRABOX
Mode: TX Channel 11(802.11g)
Model: 003-MBX001
Manufacturer: Globalscale

Polarization: Vertical
Power Source: AC 120V/60Hz
Date: 13/1/7/
Time: 9/19/19
Engineer Signature: Ricky
Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	45.76	-7.37	38.39	74.00	-35.61	peak			
2	2483.500	41.89	-7.37	34.52	54.00	-19.48	AVG			
3	2485.014	46.22	-7.38	38.84	74.00	-35.16	peak			
4	2485.014	41.86	-7.38	34.48	54.00	-19.52	AVG			



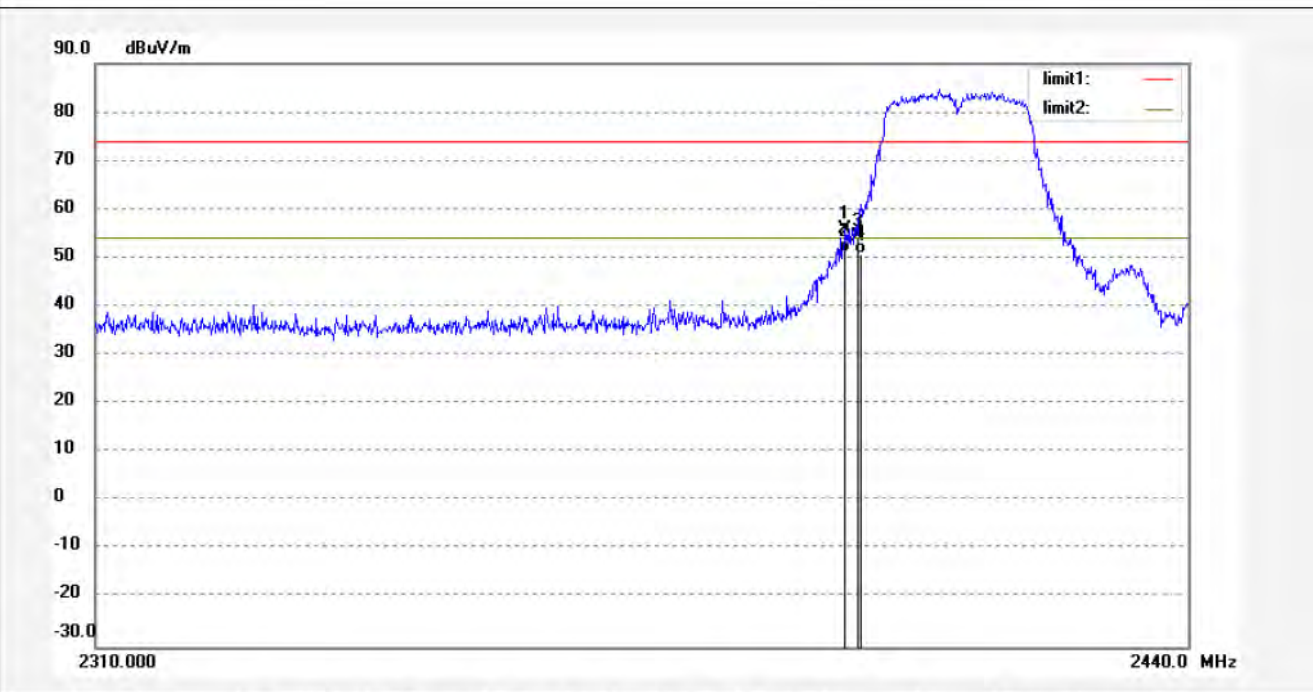
ACCURATE TECHNOLOGY CO., LTD.

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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #747	Polarization: Vertical
Standard: FCC 15C	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/1/7/
Temp.(C)/Hum.(%) 23 C / 49 %	Time: 9/26/49
EUT: MIRABOX	Engineer Signature: Ricky
Mode: TX Channel 1(802.11n)20MHz	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.460	63.31	-7.47	55.84	74.00	-18.16	peak			
2	2398.460	58.56	-7.47	51.09	54.00	-2.91	AVG			
3	2400.000	62.01	-7.46	54.55	74.00	-19.45	peak			
4	2400.000	58.26	-7.46	50.80	54.00	-3.20	AVG			



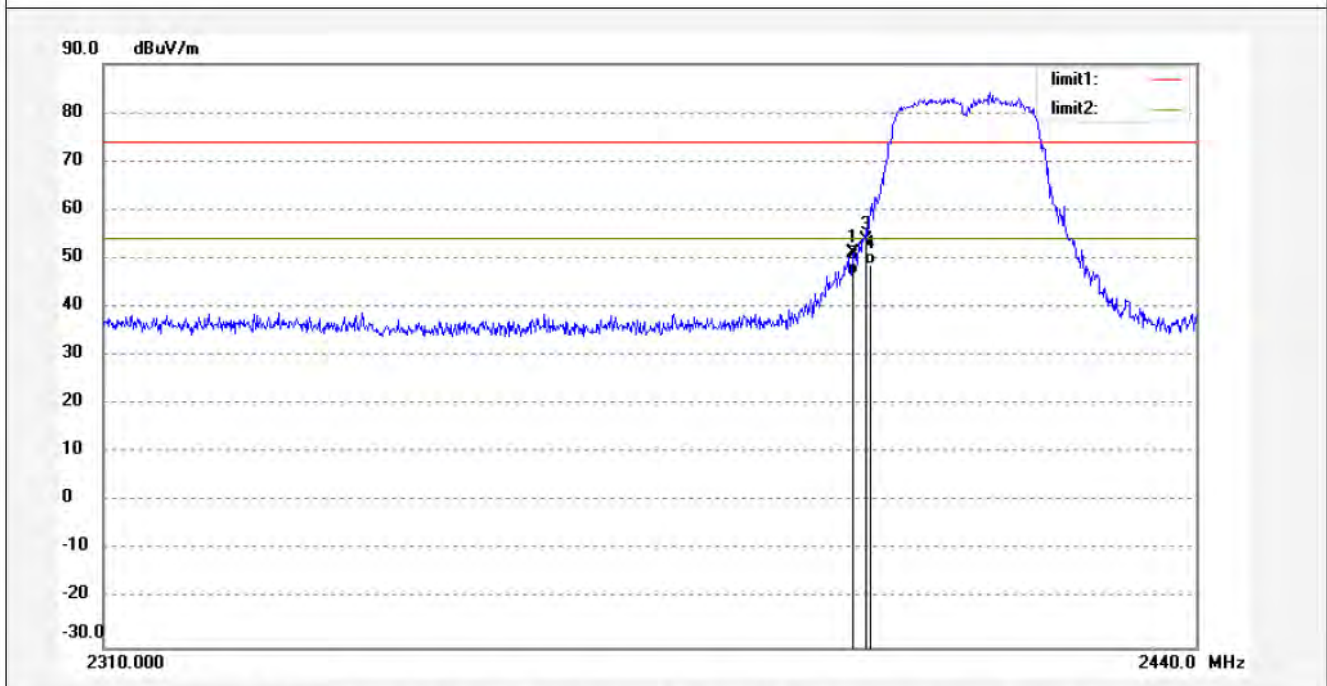
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #748	Polarization: Horizontal
Standard: FCC 15C	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/1/7/
Temp.(C)/Hum.(%) 23 C / 49 %	Time: 9/27/59
EUT: MIRABOX	Engineer Signature: Ricky
Mode: TX Channel 1(802.11n)20MHz	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.328	58.62	-7.47	51.15	74.00	-22.85	peak			
2	2398.328	54.16	-7.47	46.69	54.00	-7.31	AVG			
3	2400.000	61.18	-7.46	53.72	74.00	-20.28	peak			
4	2400.000	56.27	-7.46	48.81	54.00	-5.19	AVG			



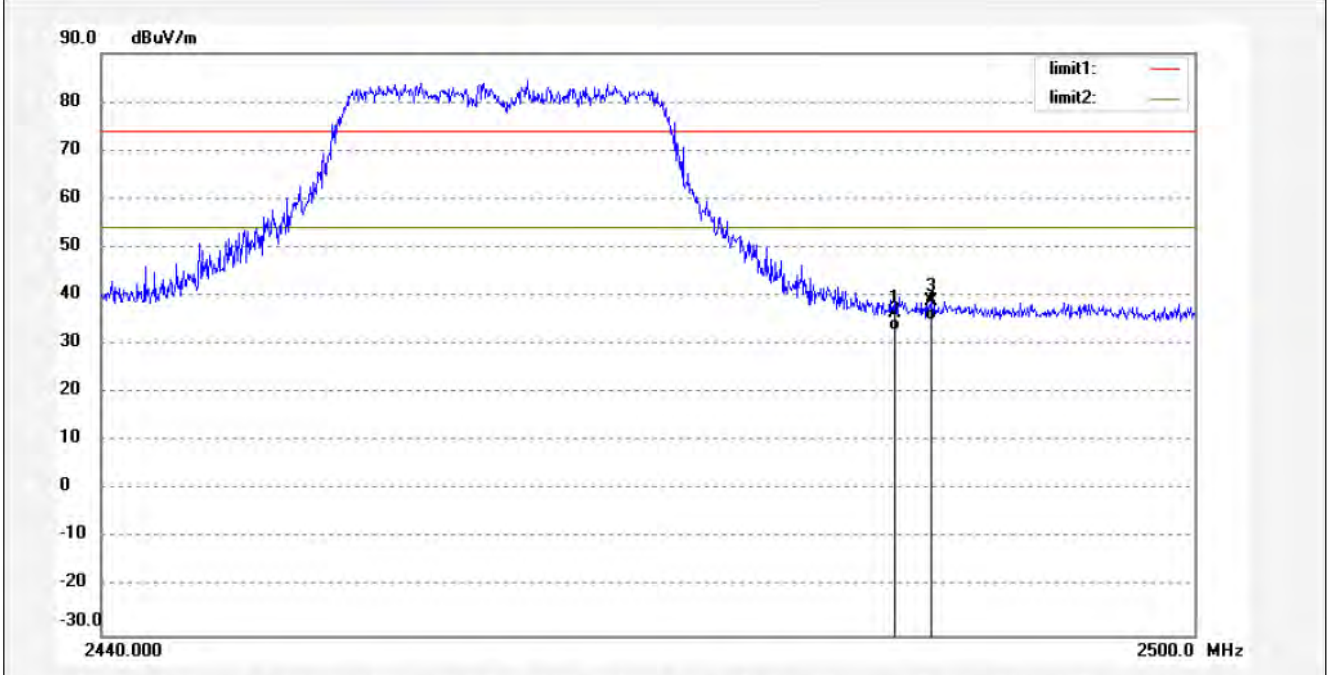
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #749	Polarization: Horizontal
Standard: FCC 15C	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/1/7/
Temp.(C)/Hum.(%) 23 C / 49 %	Time: 9/30/12
EUT: MIRABOX	Engineer Signature: Ricky
Mode: TX Channel 11(802.11n)20MHz	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	43.91	-7.37	36.54	74.00	-37.46	peak			
2	2483.500	40.17	-7.37	32.80	54.00	-21.20	AVG			
3	2485.438	46.21	-7.38	38.83	74.00	-35.17	peak			
4	2485.438	42.35	-7.38	34.97	54.00	-19.03	AVG			



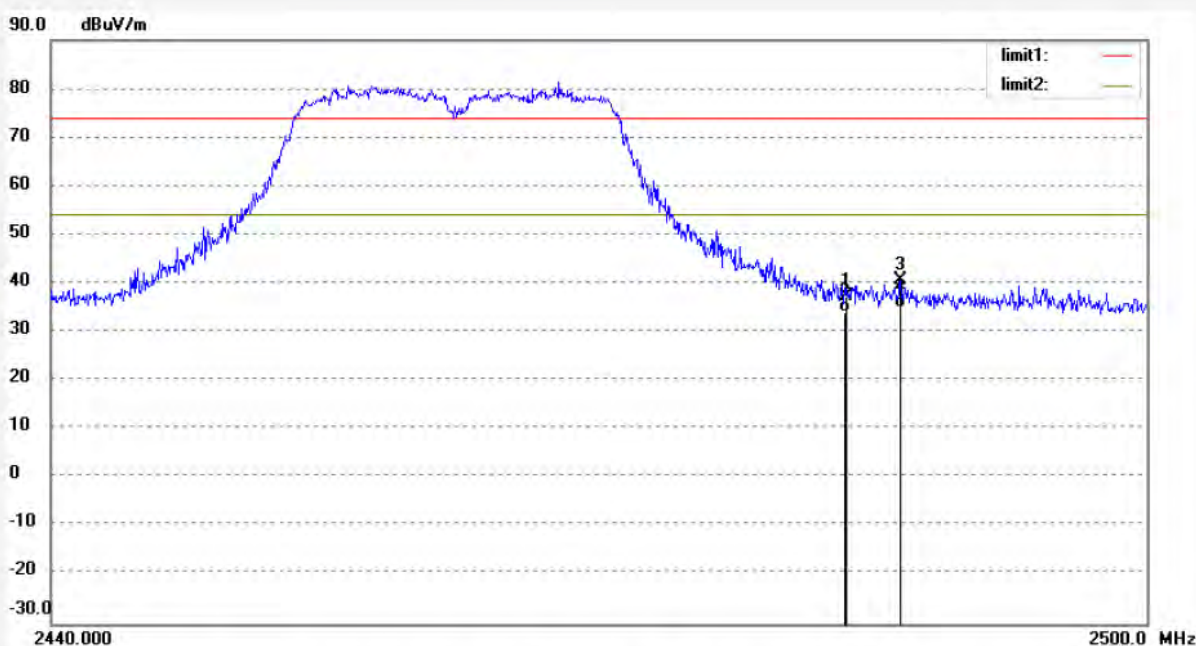
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #750	Polarization: Vertical
Standard: FCC 15C	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/1/7/
Temp.(C)/Hum.(%) 23 C / 49 %	Time: 9/34/16
EUT: MIRABOX	Engineer Signature: Ricky
Mode: TX Channel 11(802.11n)20MHz	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	44.61	-7.37	37.24	74.00	-36.76	peak			
2	2483.500	41.35	-7.37	33.98	54.00	-20.02	AVG			
3	2486.406	47.93	-7.39	40.54	74.00	-33.46	peak			
4	2486.406	42.36	-7.39	34.97	54.00	-19.03	AVG			



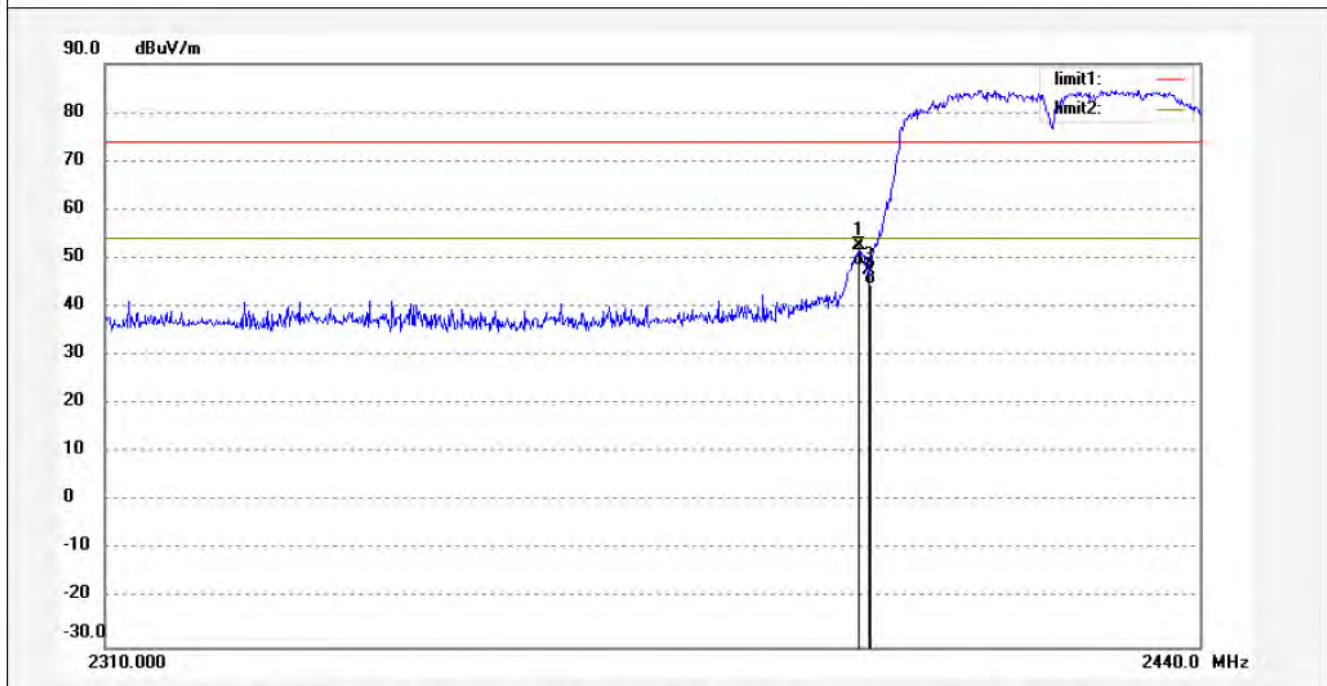
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #754	Polarization: Vertical
Standard: FCC 15C	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/1/7/
Temp.(C)/Hum.(%) 23 C / 49 %	Time: 9/43/03
EUT: MIRABOX	Engineer Signature: Ricky
Mode: TX Channel 3(802.11n)40MHz	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.723	59.98	-7.47	52.51	74.00	-21.49	peak			
2	2398.723	56.01	-7.47	48.54	54.00	-5.46	AVG			
3	2400.000	55.06	-7.46	47.60	74.00	-26.40	peak			
4	2400.000	51.99	-7.46	44.53	54.00	-9.47	AVG			



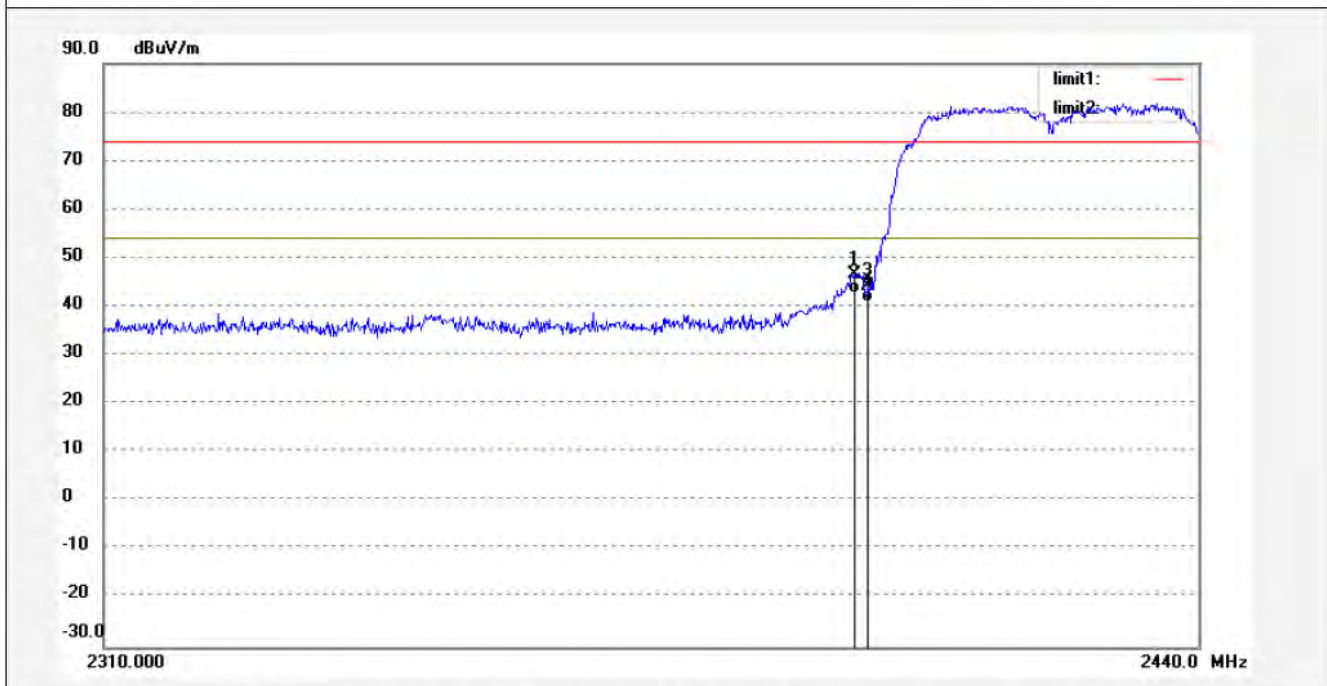
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #753	Polarization: Horizontal
Standard: FCC 15C	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/1/7/
Temp.(C)/Hum.(%) 23 C / 49 %	Time: 9/40/53
EUT: MIRABOX	Engineer Signature: Ricky
Mode: TX Channel 3(802.11n)40MHz	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2398.460	54.27	-7.47	46.80	74.00	-27.20	peak			
2	2398.460	50.32	-7.47	42.85	54.00	-11.15	AVG			
3	2400.000	51.69	-7.46	44.23	74.00	-29.77	peak			
4	2400.000	48.31	-7.46	40.85	54.00	-13.15	AVG			



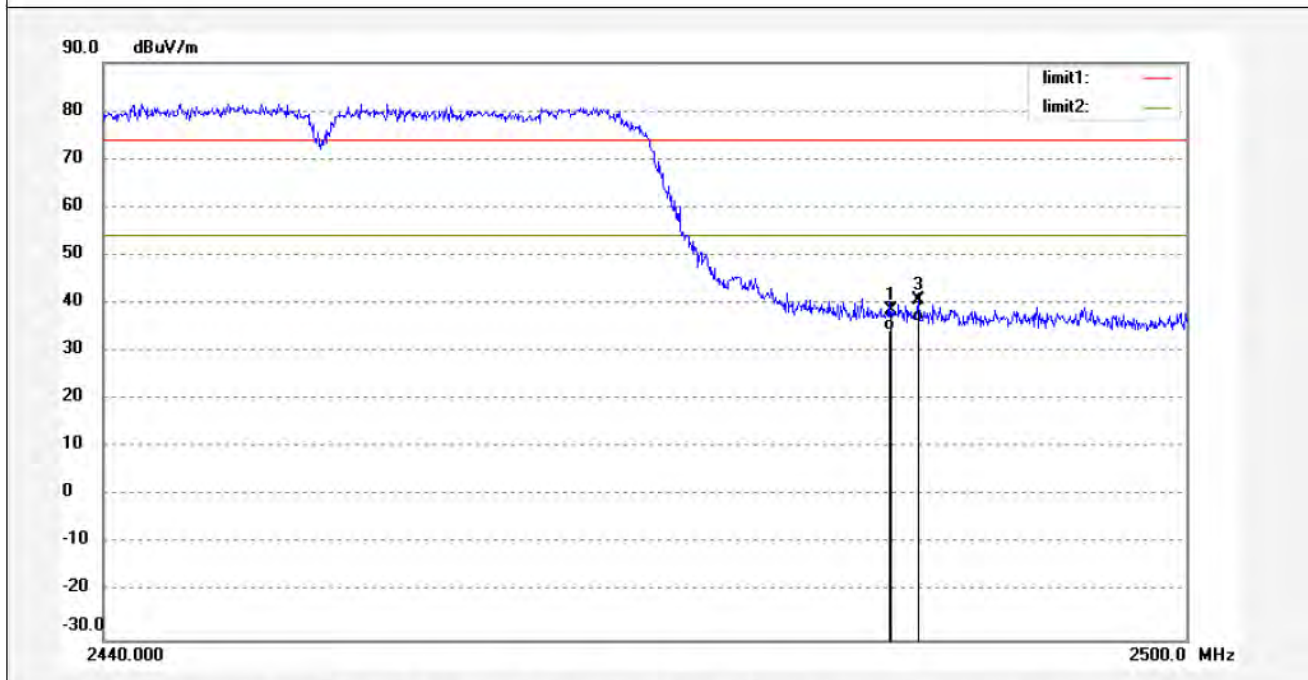
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #752	Polarization: Vertical
Standard: FCC 15C	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/1/7/
Temp.(C)/Hum.(%) 23 C / 49 %	Time: 9/38/49
EUT: MIRABOX	Engineer Signature: Ricky
Mode: TX Channel 9(802.11n)40MHz	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	45.97	-7.37	38.60	74.00	-35.40	peak			
2	2483.500	41.65	-7.37	34.28	54.00	-19.72	AVG			
3	2485.014	47.95	-7.38	40.57	74.00	-33.43	peak			
4	2485.014	43.48	-7.38	36.10	54.00	-17.90	AVG			


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Site: 2# Chamber

Tel:+86-0755-26503290

Fax:+86-0755-26503396

Job No.: ALEN #751

Standard: FCC 15C

Test item: Radiation Test

Temp.(C)/Hum.(%) 23 C / 49 %

EUT: MIRABOX

Mode: TX Channel 9(802.11n)40MHz

Model: 003-MBX001

Manufacturer: Globalscale

Polarization: Horizontal

Power Source: AC 120V/60Hz

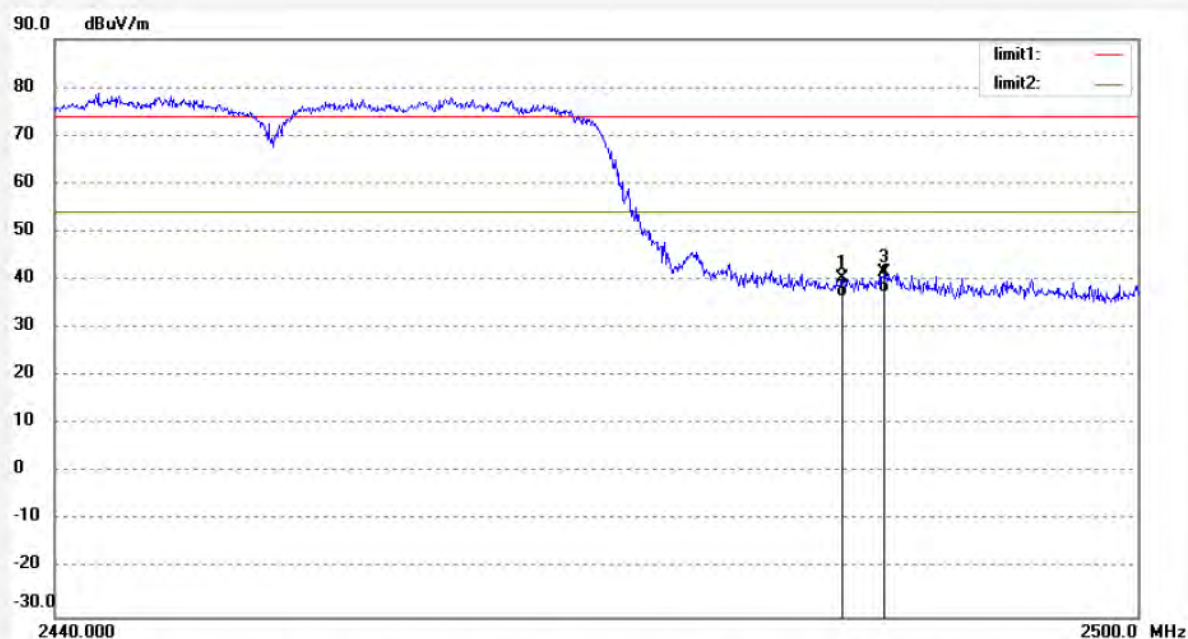
Date: 13/1/16

Time: 9/37/16

Engineer Signature: Ricky

Distance: 3m

Note:

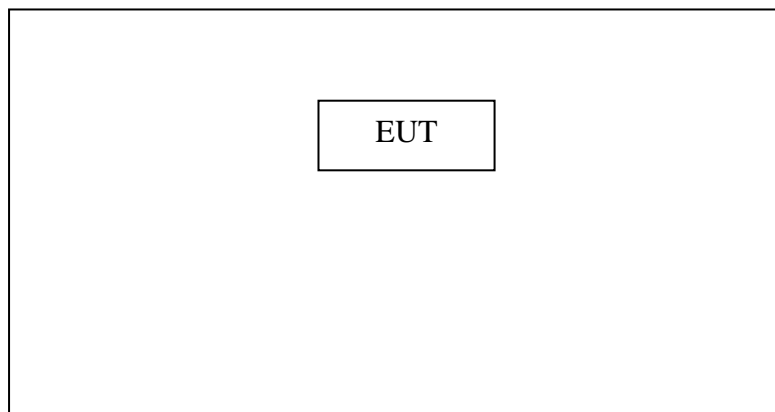


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	47.65	-7.37	40.28	74.00	-33.72	peak			
2	2483.500	43.86	-7.37	36.49	54.00	-17.51	AVG			
3	2485.861	48.90	-7.38	41.52	74.00	-32.48	peak			
4	2485.861	44.87	-7.38	37.49	54.00	-16.51	AVG			

9. RADIATED SPURIOUS EMISSION TEST

9.1. Block Diagram of Test Setup

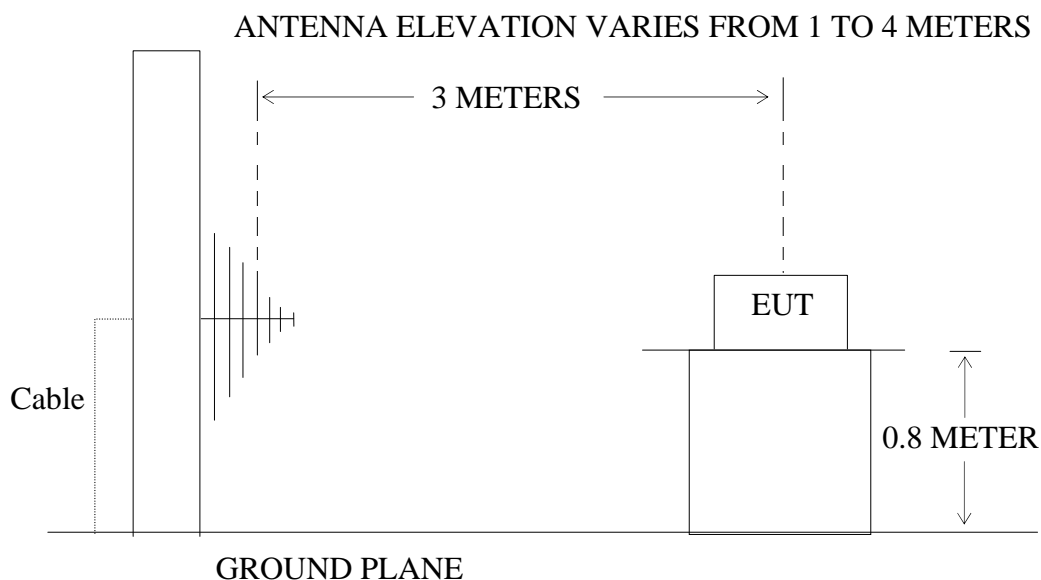
9.1.1. Block diagram of connection between the EUT and peripherals



Setup: Transmitting mode

(EUT: MIRABOX)

9.1.2. Semi-Anechoic Chamber Test Setup Diagram



(EUT: MIRABOX)

9.2.The Limit For Section 15.247(d)

Section 15.247(d): 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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).

9.3.Restricted bands of operation

9.3.1.FCC Part 15.205 Restricted bands of operation

(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	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

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

²Above 38.6

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

9.4. Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

9.4.1. MIRABOX(EUT)

Model Number : 003-MBX001
 Serial Number : N/A
 Manufacturer : Globalscale Technologies INC

9.5. Operating Condition of EUT

9.5.1. Setup the EUT and simulator as shown as Section 9.1.

9.5.2. Turn on the power of all equipment.

9.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2412-2462 and 2422-2452MHz. We select 2412MHz, 2437MHz, 2462MHz and 2422MHz, 2437MHz, 2452MHz TX frequency to transmit.

9.6. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The worst-case data rate for this channel to be 1Mbps for 802.11b mode and 6Mbps for 802.11g mode and 300Mbps for 802.11n mode, based on previous with 802.11 WLAN product design architectures.

The bandwidth of test receiver is set at 9 kHz in below 30MHz. and set at 120 kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The frequency range from 9 kHz to 25GHz is checked.

The final measurement in band 9-90 kHz, 110-490 kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

9.7. The Field Strength of Radiation Emission Measurement Results

PASS.

Date of Test:	Jan 6-21, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
Test Mode:	802.11b Channel Low 2412MHz	Test Engineer:	Allen

For Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
39.2303	16.20	16.40	32.60	40.00	-7.40	Vertical
105.1667	21.93	14.41	36.34	43.50	-7.16	Vertical
134.0192	21.56	14.72	36.28	43.50	-7.22	Vertical
133.0809	12.14	14.76	26.90	43.50	-16.60	Horizontal
250.4859	15.67	17.56	33.23	46.00	-12.77	Horizontal
353.4471	12.78	21.01	33.79	46.00	-12.21	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4824.000	49.76	49.76	-0.31	49.45	49.45	54	74	-4.55	-24.55	Vertical
4824.000	45.61	48.49	-0.31	45.30	48.18	54	74	-8.70	-25.82	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.

3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.

Date of Test:	Jan 6-21, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
Test Mode:	802.11b Channel Middle 2437MHz	Test Engineer:	Allen

For Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
36.6520	18.68	16.58	35.26	40.00	-4.74	Vertical
105.5369	22.95	14.39	37.34	43.50	-6.16	Vertical
134.0192	21.56	14.72	36.28	43.50	-7.22	Vertical
131.2235	11.69	14.85	26.54	43.50	-16.96	Horizontal
213.8535	13.98	16.50	30.48	43.50	-13.02	Horizontal
354.6912	13.64	21.09	34.73	46.00	-11.27	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4874.000	45.36	48.94	-0.08	45.28	48.86	54	74	-8.72	-25.14	Vertical
4874.000	45.69	49.56	-0.08	45.61	49.48	54	74	-8.39	-24.52	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.**2. *: Denotes restricted band of operation.****3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.**

Date of Test:	Jan 6-21, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
Test Mode:	802.11b Channel High 2462MHz	Test Engineer:	Allen

For Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
35.7616	21.21	16.63	37.84	40.00	-2.16	Vertical
105.5369	21.63	14.39	36.02	43.50	-7.48	Vertical
139.7908	22.36	14.50	36.86	43.50	-6.64	Vertical
222.2807	15.36	16.80	32.16	46.00	-13.84	Horizontal
261.2730	14.21	18.62	32.83	46.00	-13.17	Horizontal
355.9397	12.57	21.14	33.71	46.00	-12.29	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4924.000	44.68	48.54	0.30	44.98	48.84	54	74	-9.02	-25.16	Vertical
4924.000	46.21	50.26	0.30	46.51	50.56	54	74	-7.49	-23.44	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.**2. *: Denotes restricted band of operation.****3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.**

Date of Test:	Jan 6-21, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
Test Mode:	802.11g Channel Low 2412MHz	Test Engineer:	Allen

For Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
35.7616	17.89	16.63	34.52	40.00	-5.48	Vertical
105.1667	21.98	14.41	36.39	43.50	-7.11	Vertical
134.9643	21.85	14.67	36.52	43.50	-6.98	Vertical
35.2626	15.30	16.63	31.93	40.00	-8.07	Horizontal
253.1402	15.47	17.74	33.21	46.00	-12.79	Horizontal
352.2075	14.02	20.92	34.94	46.00	-11.06	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4824.000	45.89	49.07	-0.31	45.58	48.76	54	74	-8.42	-25.24	Vertical
4824.000	45.80	48.80	-0.31	45.49	48.49	54	74	-8.51	-25.51	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.

3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.

Date of Test:	Jan 6-21, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
Test Mode:	802.11g Channel Middle 2437MHz	Test Engineer:	Allen

For Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
35.7616	16.56	16.63	33.19	40.00	-6.81	Vertical
105.5369	22.56	14.39	36.95	43.50	-6.55	Vertical
131.2235	21.03	14.85	35.88	43.50	-7.62	Vertical
212.3560	14.02	16.44	30.46	43.50	-13.04	Horizontal
263.1155	13.21	18.64	31.85	46.00	-14.15	Horizontal
355.9397	12.39	21.14	33.53	46.00	-12.47	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4874.000	46.25	49.33	-0.08	46.17	49.25	54	74	-7.83	-24.75	Vertical
4874.000	48.94	48.94	-0.08	48.86	48.86	54	74	-5.14	-25.14	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.**2. *: Denotes restricted band of operation.****3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.**

Date of Test:	Jan 6-21, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
Test Mode:	802.11g Channel High 2462MHz	Test Engineer:	Allen

For Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
36.1405	18.36	16.61	34.97	40.00	-5.03	Vertical
105.1677	23.03	14.41	37.44	43.50	-6.06	Vertical
130.3048	21.36	14.89	36.25	43.50	-7.25	Vertical
213.1035	15.69	16.46	32.15	43.50	-11.35	Horizontal
260.3566	14.65	18.60	33.25	46.00	-12.75	Horizontal
357.1925	13.35	21.17	34.52	46.00	-11.48	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4924.000	45.19	48.21	0.30	45.49	48.51	54	74	-8.51	-25.49	Vertical
4924.000	44.25	47.74	0.30	44.55	48.04	54	74	-9.45	-25.96	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.

3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.

Date of Test:	<u>Jan 6-21, 2013</u>	Temperature:	<u>25°C</u>
EUT:	<u>MIRABOX</u>	Humidity:	<u>50%</u>
Model No.:	<u>003-MBX001</u>	Power Supply:	<u>AC 120V/60HZ</u>
	<u>802.11n Channel Low 2412MHz</u>		
Test Mode:	<u>(20MHz)</u>	Test Engineer:	<u>Allen</u>

For Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
36.1405	17.69	16.61	34.30	40.00	-5.70	Vertical
105.9084	22.89	14.35	37.24	43.50	-6.26	Vertical
142.7692	20.82	14.49	35.31	43.50	-8.19	Vertical
133.5493	11.31	14.74	26.05	43.50	-17.45	Horizontal
214.6063	13.91	16.52	30.43	43.50	-13.07	Horizontal
353.4471	14.63	21.01	35.64	46.00	-10.36	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4824.000	44.54	47.53	-0.31	44.23	47.22	54	74	-9.77	-26.78	Vertical
4824.000	46.35	49.26	-0.31	46.04	48.95	54	74	-7.96	-25.05	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.

3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.

Date of Test:	Jan 6-21, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
	802.11n Channel Middle 2437MHz		
Test Mode:	(20MHz)	Test Engineer:	Allen

For Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
35.6362	17.89	16.65	34.54	40.00	-5.46	Vertical
105.1667	21.65	14.41	36.06	43.50	-7.44	Vertical
130.7632	21.32	14.88	36.20	43.50	-7.30	Vertical
226.2202	16.04	16.91	32.95	46.00	-13.05	Horizontal
259.4433	14.69	18.52	33.21	46.00	-12.79	Horizontal
355.9397	11.97	21.14	33.11	46.00	-12.89	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4874.000	45.87	48.66	-0.08	45.79	48.58	54	74	-8.21	-25.42	Vertical
4874.000	45.24	48.23	-0.08	45.16	48.15	54	74	-8.84	-25.85	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.**2. *: Denotes restricted band of operation.****3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.**

Date of Test:	Jan 6-21, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
	802.11n Channel High 2462MHz		
Test Mode:	(20MHz)	Test Engineer:	Allen

For Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
35.5112	15.63	16.66	32.29	40.00	-7.71	Vertical
51.1756	19.67	14.13	33.80	40.00	-6.20	Vertical
104.4303	25.30	14.37	39.67	43.50	-3.83	Vertical
128.9385	10.63	14.94	25.57	43.50	-17.93	Horizontal
208.6580	13.69	16.30	29.99	43.50	-13.51	Horizontal
354.6912	12.63	21.09	33.72	46.00	-12.28	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4924.000	44.36	47.23	0.30	44.66	47.53	54	74	-9.34	-36.47	Vertical
4924.000	45.36	48.41	0.30	45.66	48.71	54	74	-8.34	-25.29	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.**2. *: Denotes restricted band of operation.****3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.**

Date of Test:	Jan 6-21, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
	802.11n Channel Low 2422MHz		
Test Mode:	(40MHz)	Test Engineer:	Allen

For Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
39.8768	17.99	14.58	32.57	40.00	-7.43	Vertical
61.0041	20.74	12.73	33.47	40.00	-6.53	Vertical
105.1667	24.32	13.93	38.25	43.50	-5.25	Vertical
104.7978	10.23	13.97	24.20	43.50	-19.30	Horizontal
231.8531	17.68	15.12	32.80	46.00	-13.20	Horizontal
349.7411	9.10	18.37	27.47	46.00	-18.53	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4844.000	44.89	47.74	-0.31	44.58	47.43	54	74	-9.42	-26.57	Vertical
4844.000	46.35	49.31	-0.31	46.04	49.00	54	74	-7.96	-25.00	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.

3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.

Date of Test:	Jan 6-21, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
	802.11n Channel Middle 2437MHz		
Test Mode:	(40MHz)	Test Engineer:	Allen

For Below 30MHz

Frequency (MHz)	Reading (dB μ V/m)	Factor(dB) Corr.	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dB μ V/m)	Factor Corr. (dB)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
59.9418	20.10	13.10	33.20	40.00	-6.80	Vertical
90.1025	21.69	13.86	35.55	43.50	-7.95	Vertical
104.7978	22.36	13.97	36.33	43.50	-7.17	Vertical
105.5369	10.87	13.94	24.81	43.50	-18.69	Horizontal
230.2295	18.02	15.04	33.06	46.00	-12.94	Horizontal
372.5747	10.12	18.70	28.82	46.00	-17.18	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dB μ V/m)		Factor Corr. (dB)	Result(dB μ V/m)		Limit(dB μ V/m)		Margin(dB μ V/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4874.000	45.68	48.49	-0.08	45.60	48.41	54	74	-8.40	-25.59	Vertical
4874.000	45.86	48.74	-0.08	45.78	48.66	54	74	-8.22	-25.34	Horizontal

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.**2. *: Denotes restricted band of operation.****3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.**

Date of Test:	Jan 6-21, 2013	Temperature:	25°C
EUT:	MIRABOX	Humidity:	50%
Model No.:	003-MBX001	Power Supply:	AC 120V/60HZ
	802.11n Channel High 2452MHz		
Test Mode:	(40MHz)	Test Engineer:	Allen

For Below 30MHz

Frequency (MHz)	Reading (dBμV/m)	Factor(dB) Corr.	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
-	-	-	-	-	-	X
-	-	-	-	-	-	Y
-	-	-	-	-	-	Z

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading (dBμV/m)	Factor Corr. (dB)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Polarization
	QP		QP	QP	QP	
40.2995	17.89	14.54	32.43	40.00	-7.57	Vertical
105.1667	22.98	13.93	36.91	43.50	-6.59	Vertical
131.2235	20.86	12.85	33.71	43.50	-9.79	Vertical
105.5369	10.72	13.94	24.72	43.50	-18.78	Horizontal
230.2295	19.02	15.04	34.06	46.00	-11.94	Horizontal
372.5747	10.23	18.70	28.93	46.00	-17.07	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency (MHz)	Reading(dBμV/m)		Factor Corr. (dB)	Result(dBμV/m)		Limit(dBμV/m)		Margin(dBμV/m)		Polarization
	AV	PEAK		AV	PEAK	AV	PEAK	AV	PEAK	
4904.000	44.65	47.08	0.30	44.95	47.38	54	74	-9.05	-26.62	Vertical
4904.000	44.69	47.96	0.30	44.99	48.26	54	74	-9.01	-25.74	Horizontal

- Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.**
- 2. *: Denotes restricted band of operation.**
- 3. The fundamental radiated emissions were reduced by 2.4G Band Reject Filter in the attached plots.**



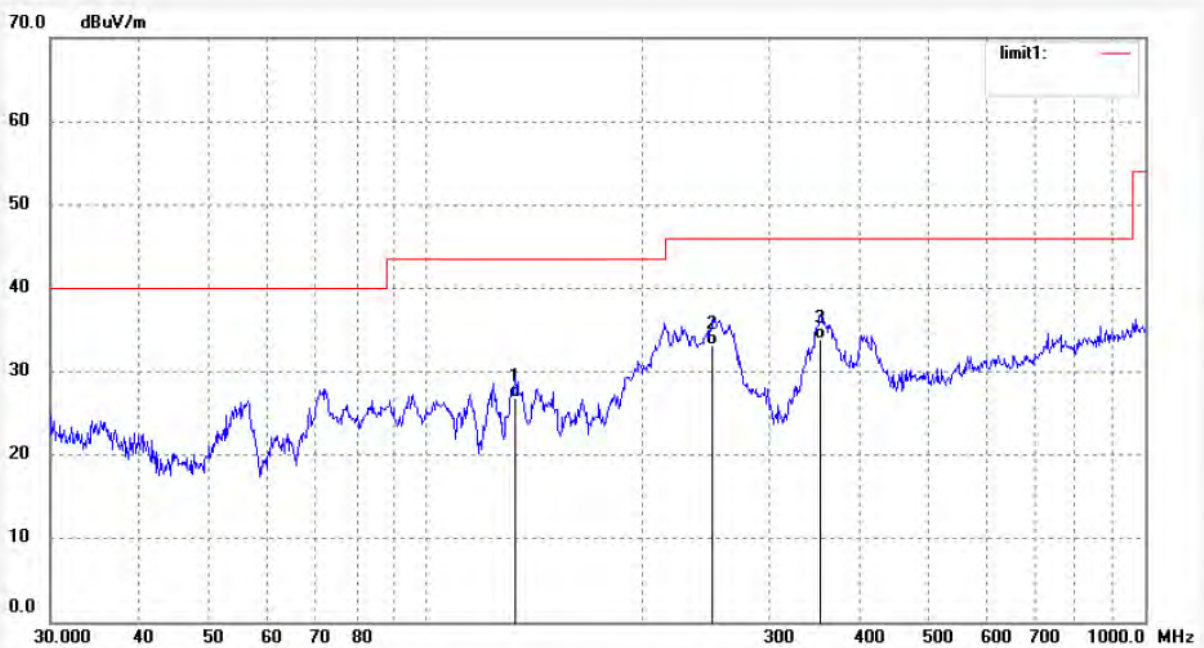
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Site: 2# Chamber
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Job No.: ALEN #616	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 16:54:25
EUT: MIRABOX	Engineer Signature:
Mode: TX 2412MHz(802.11b)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	133.0809	12.14	14.76	26.90	43.50	-16.60	QP			
2	250.4859	15.67	17.56	33.23	46.00	-12.77	QP			
3	353.4471	12.78	21.01	33.79	46.00	-12.21	QP			



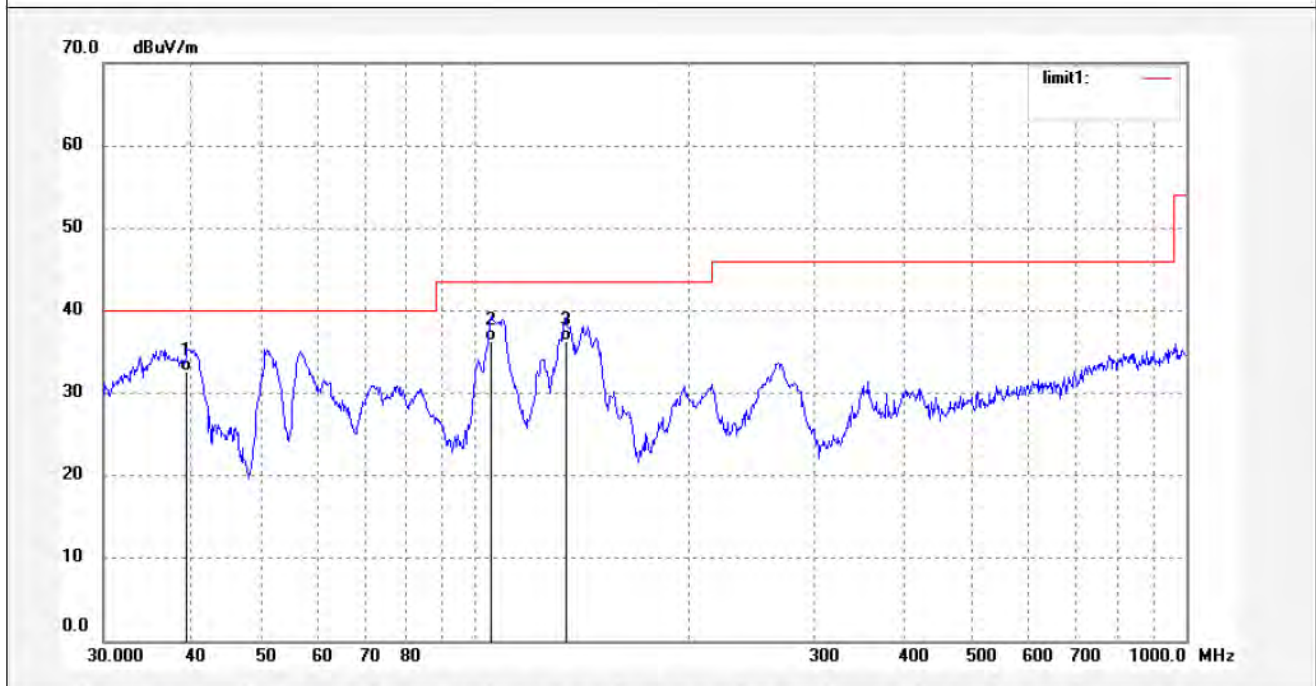
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Job No.: ALEN #615	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 16:53:31
EUT: MIRABOX	Engineer Signature:
Mode: TX 2412MHz(802.11b)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	39.3203	16.20	16.40	32.60	40.00	-7.40	QP			
2	105.1667	21.93	14.41	36.34	43.50	-7.16	QP			
3	134.0192	21.56	14.72	36.28	43.50	-7.22	QP			



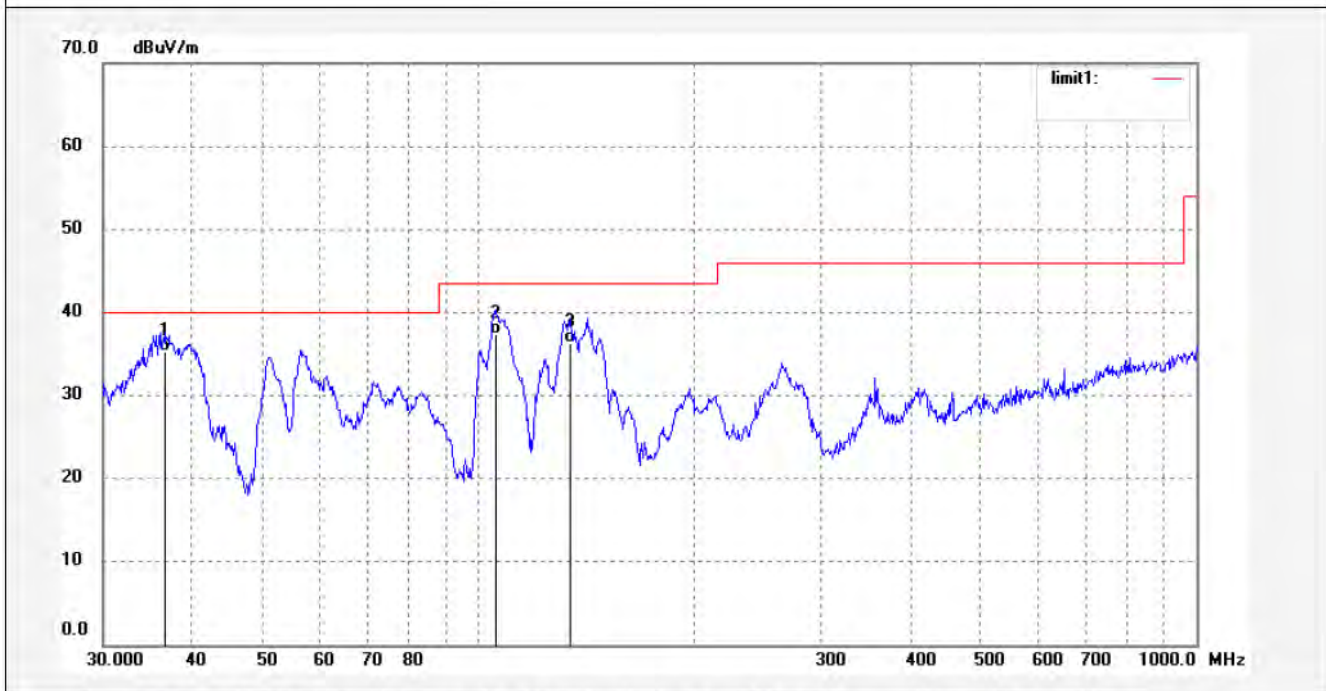
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Job No.: ALEN #619	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 16:55:48
EUT: MIRABOX	Engineer Signature:
Mode: TX 2437MHz(802.11b)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	36.6520	18.68	16.58	35.26	40.00	-4.74	QP			
2	105.5369	22.95	14.39	37.34	43.50	-6.16	QP			
3	134.0192	21.56	14.72	36.28	43.50	-7.22	QP			



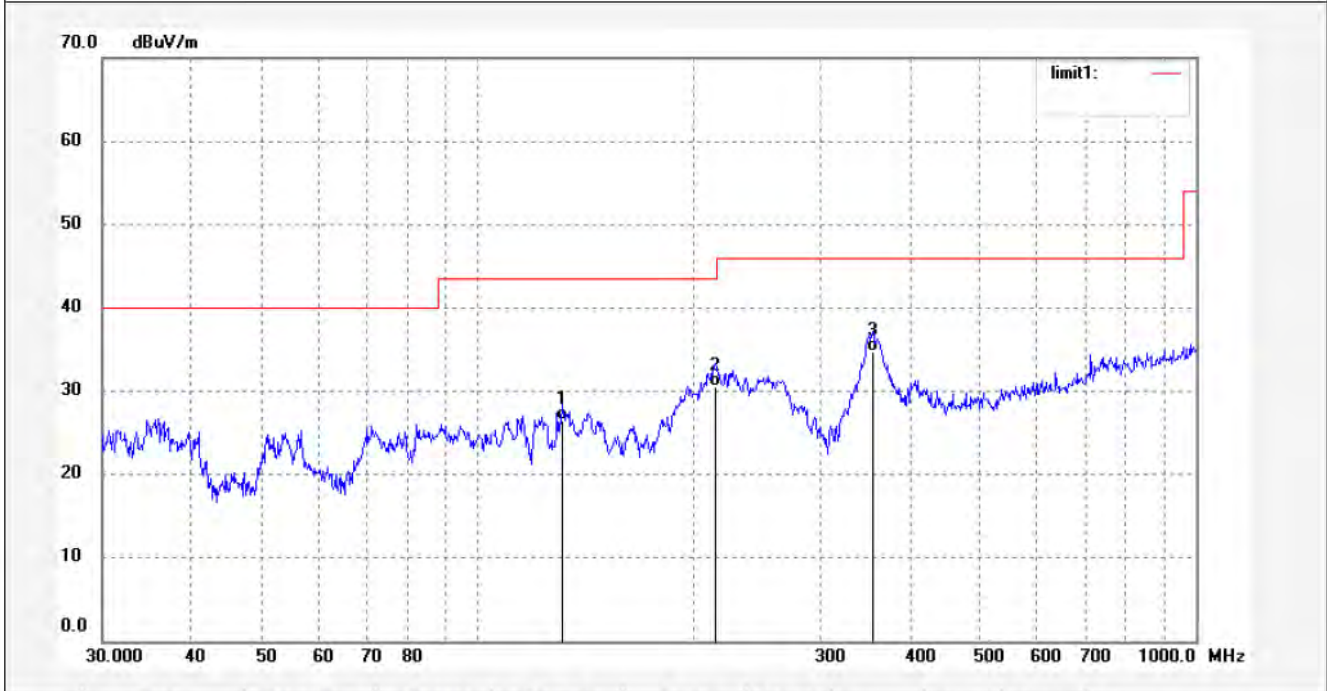
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Job No.: ALEN #620	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 16:56:33
EUT: MIRABOX	Engineer Signature:
Mode: TX 2437MHz(802.11b)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	131.2235	11.69	14.85	26.54	43.50	-16.96	QP			
2	213.8535	13.98	16.50	30.48	43.50	-13.02	QP			
3	354.6912	13.64	21.09	34.73	46.00	-11.27	QP			



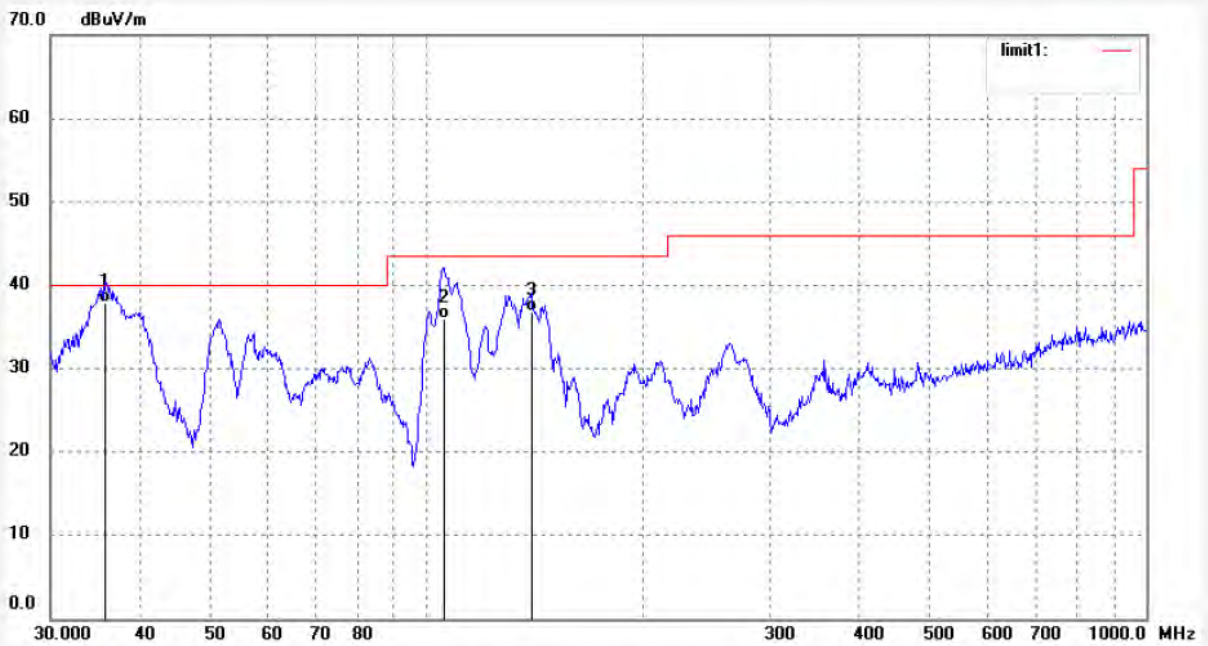
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Job No.: ALEN #629	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 17:08:05
EUT: MIRABOX	Engineer Signature:
Mode: TX 2462MHz(802.11b)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.7616	21.21	16.63	37.84	40.00	-2.16	QP			
2	105.5369	21.63	14.39	36.02	43.50	-7.48	QP			
3	139.7908	22.36	14.50	36.86	43.50	-6.64	QP			



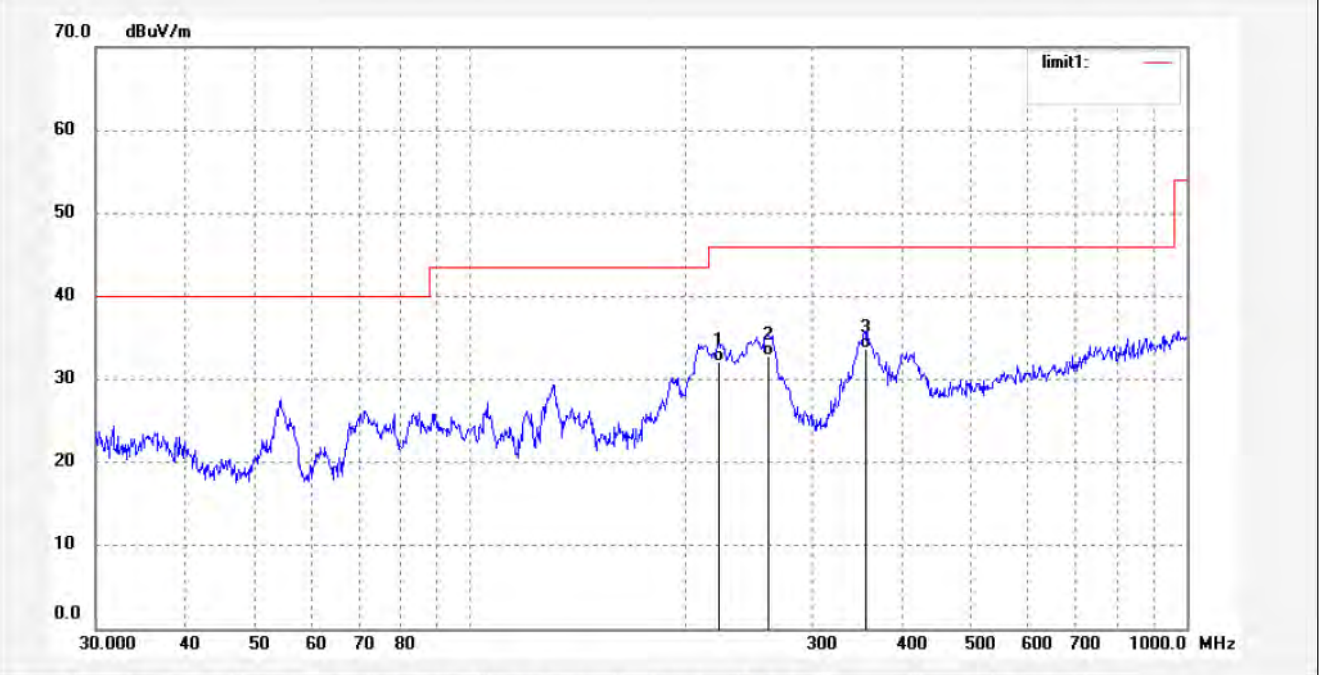
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Job No.: ALEN #630	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 17:08:46
EUT: MIRABOX	Engineer Signature:
Mode: TX 2462MHz(802.11b)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	222.2807	15.36	16.80	32.16	46.00	-13.84	QP			
2	261.2730	14.21	18.62	32.83	46.00	-13.17	QP			
3	355.9397	12.57	21.14	33.71	46.00	-12.29	QP			



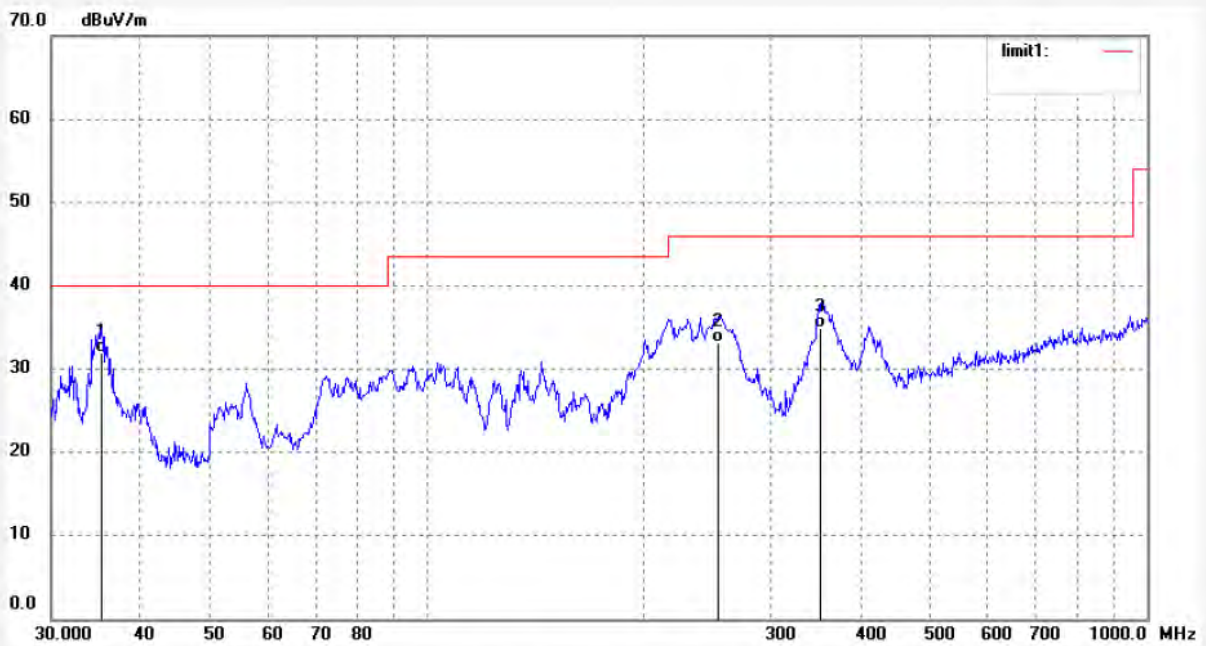
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Job No.: ALEN #613	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 16:51:40
EUT: MIRABOX	Engineer Signature:
Mode: TX 2412MHz(802.11g)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.2626	15.30	16.63	31.93	40.00	-8.07	QP			
2	253.1402	15.47	17.74	33.21	46.00	-12.79	QP			
3	352.2075	14.02	20.92	34.94	46.00	-11.06	QP			



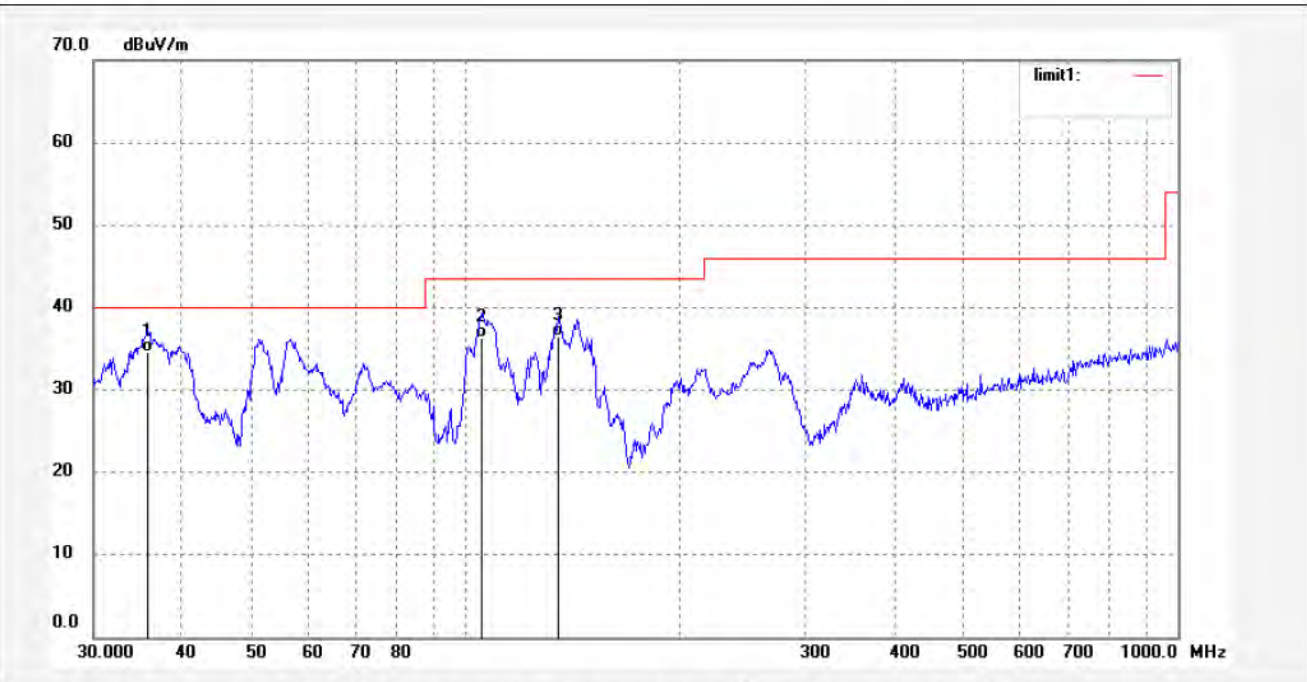
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Job No.: ALEN #614	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 16:52:50
EUT: MIRABOX	Engineer Signature:
Mode: TX 2412MHz(802.11g)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.7616	17.89	16.63	34.52	40.00	-5.48	QP			
2	105.1667	21.98	14.41	36.39	43.50	-7.11	QP			
3	134.9643	21.85	14.67	36.52	43.50	-6.98	QP			



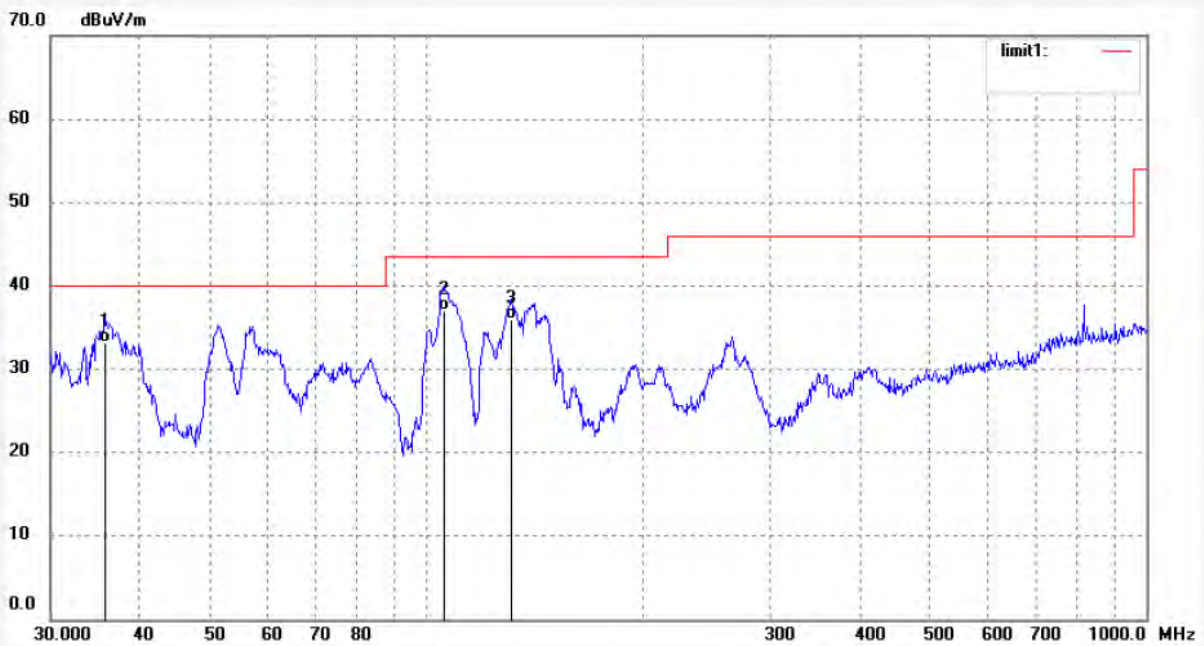
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Job No.: ALEN #623	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 17:03:19
EUT: MIRABOX	Engineer Signature:
Mode: TX 2437MHz(802.11g)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.7616	16.56	16.63	33.19	40.00	-6.81	QP			
2	105.5369	22.56	14.39	36.95	43.50	-6.55	QP			
3	131.2235	21.03	14.85	35.88	43.50	-7.62	QP			



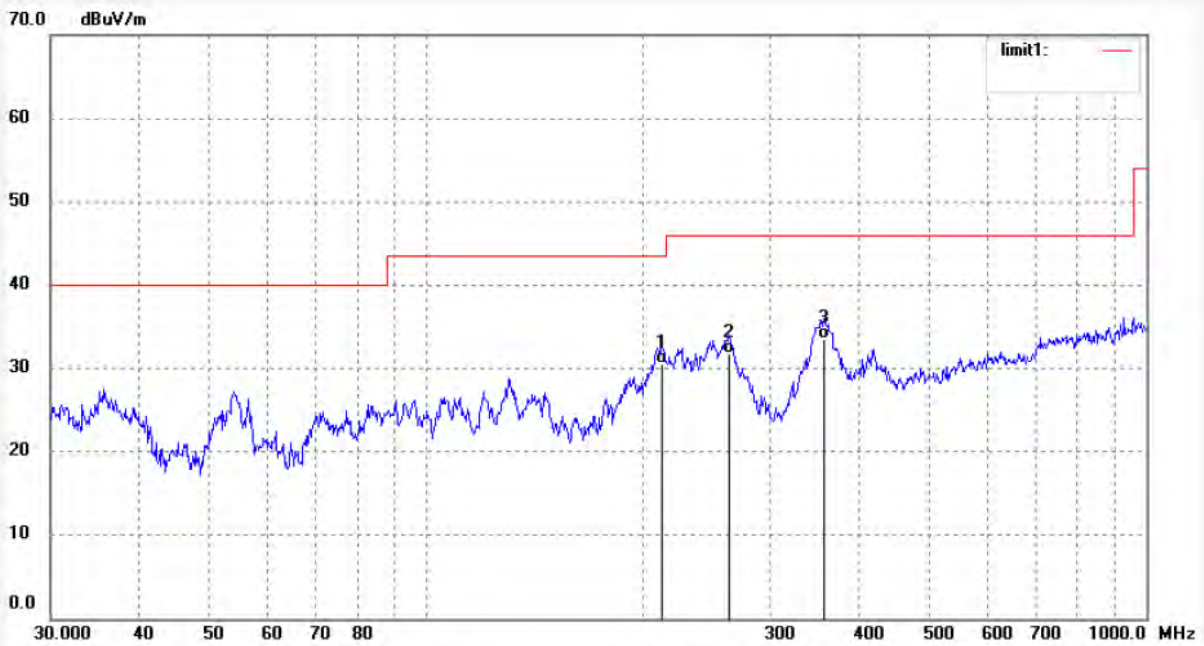
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Site: 2# Chamber
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Job No.: ALEN #624	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 17:04:25
EUT: MIRABOX	Engineer Signature:
Mode: TX 2437MHz(802.11g)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	212.3560	14.02	16.44	30.46	43.50	-13.04	QP			
2	263.1155	13.21	18.64	31.85	46.00	-14.15	QP			
3	355.9397	12.39	21.14	33.53	46.00	-12.47	QP			



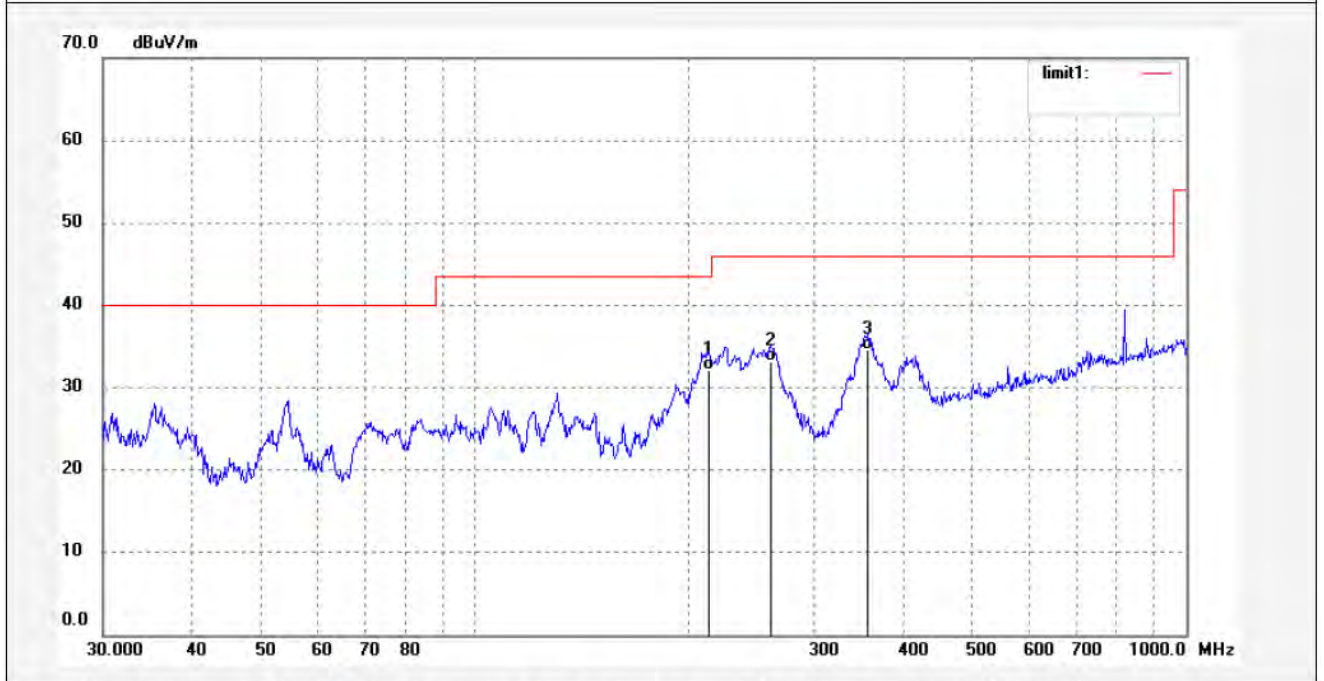
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Job No.: ALEN #625	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 17:05:27
EUT: MIRABOX	Engineer Signature:
Mode: TX 2462MHz(802.11g)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	213.1035	15.69	16.46	32.15	43.50	-11.35	QP			
2	260.3566	14.65	18.60	33.25	46.00	-12.75	QP			
3	357.1925	13.35	21.17	34.52	46.00	-11.48	QP			



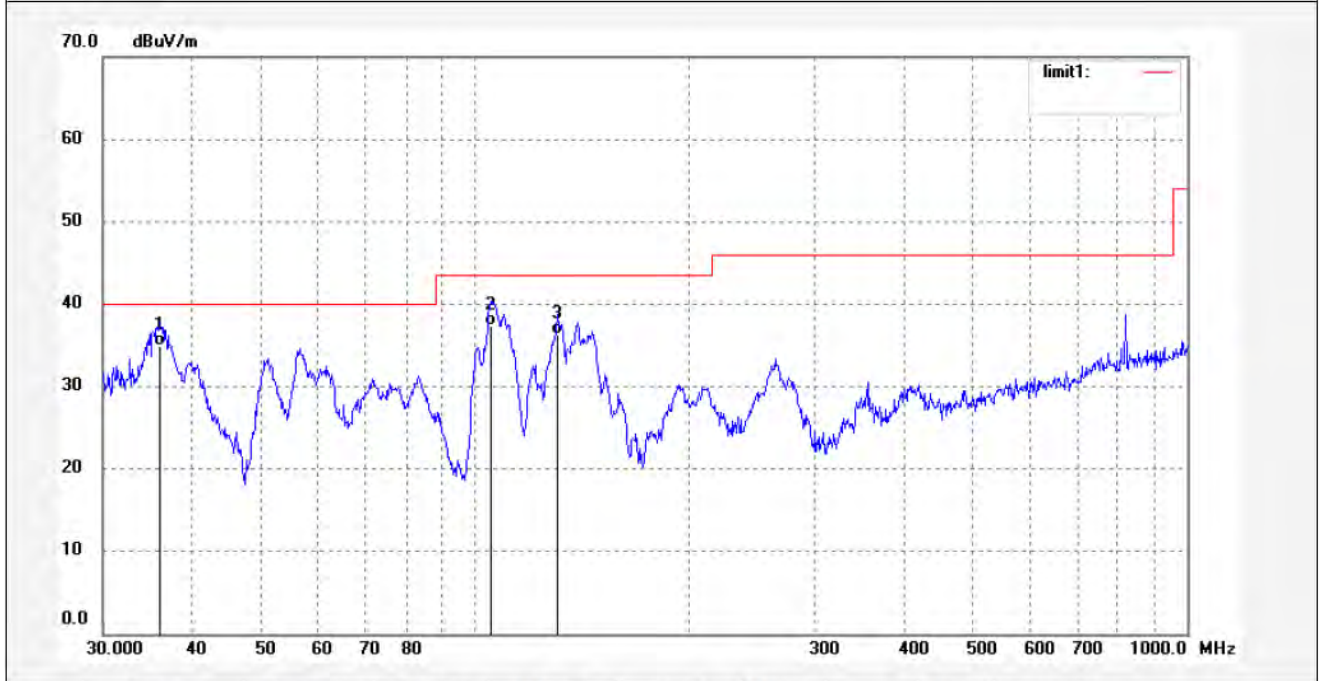
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Job No.: ALEN #626	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 17:05:55
EUT: MIRABOX	Engineer Signature:
Mode: TX 2462MHz(802.11g)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	36.1405	18.36	16.61	34.97	40.00	-5.03	QP			
2	105.1667	23.03	14.41	37.44	43.50	-6.06	QP			
3	130.3048	21.36	14.89	36.25	43.50	-7.25	QP			



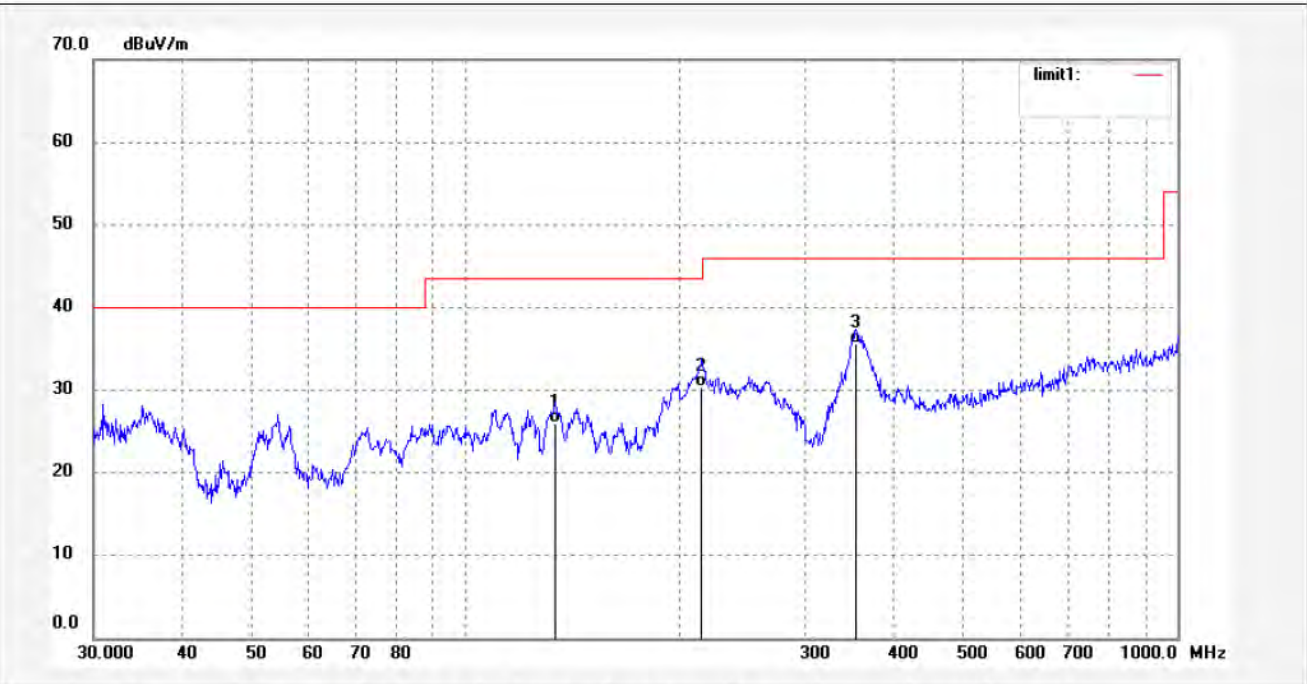
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #617	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 16:54:52
EUT: MIRABOX	Engineer Signature:
Mode: TX 2412MHz(802.11n)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	133.5493	11.31	14.74	26.05	43.50	-17.45	QP			
2	214.6063	13.91	16.52	30.43	43.50	-13.07	QP			
3	353.4471	14.63	21.01	35.64	46.00	-10.36	QP			



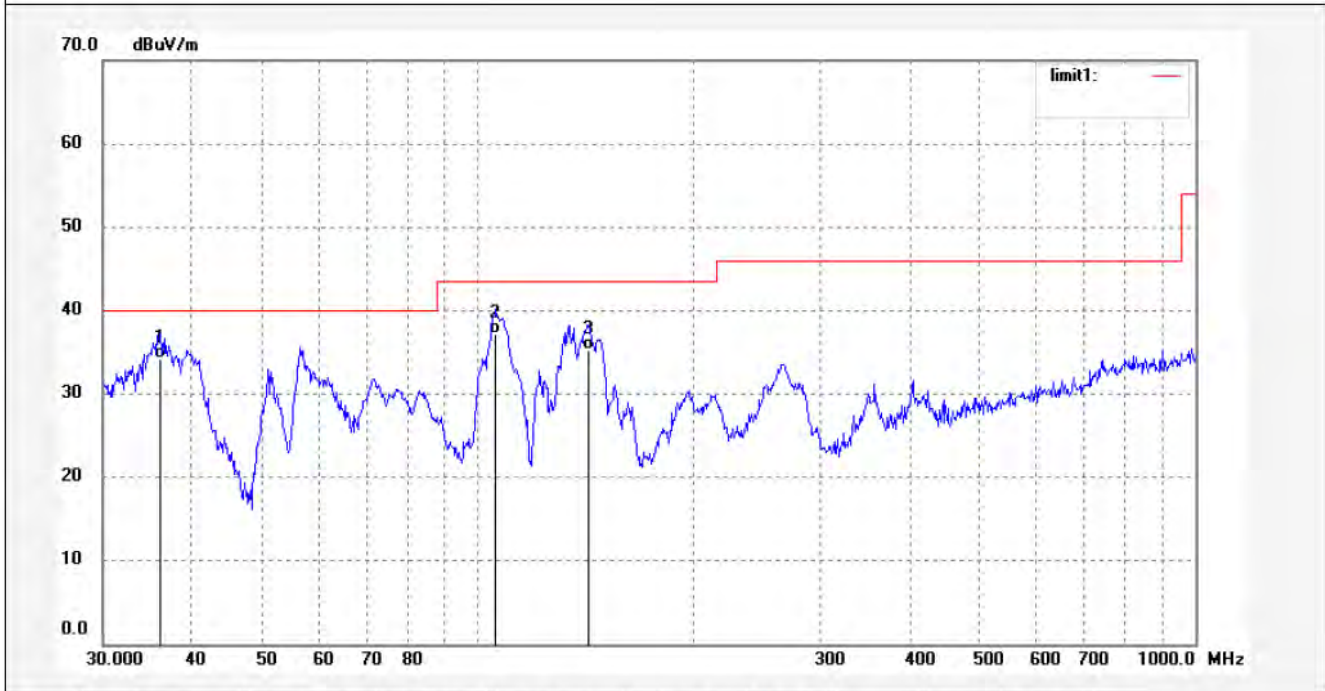
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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #618	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 16:55:24
EUT: MIRABOX	Engineer Signature:
Mode: TX 2412MHz(802.11n)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	36.1405	17.69	16.61	34.30	40.00	-5.70	QP			
2	105.9084	22.89	14.35	37.24	43.50	-6.26	QP			
3	142.7692	20.82	14.49	35.31	43.50	-8.19	QP			



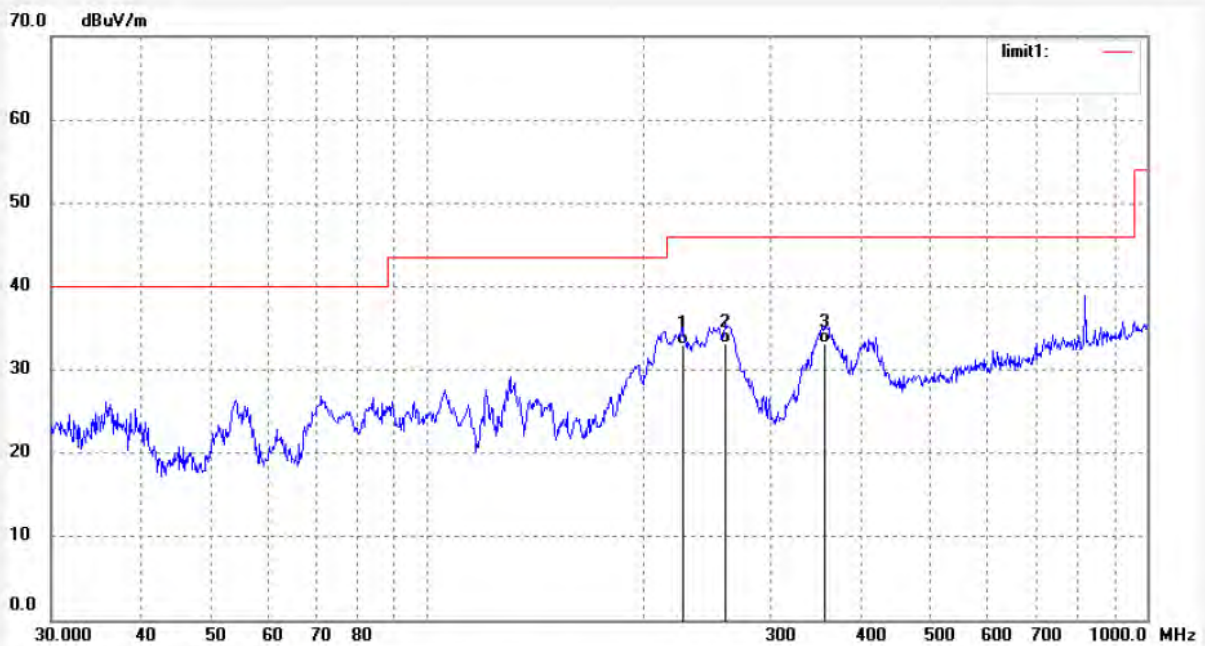
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #621	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 17:01:42
EUT: MIRABOX	Engineer Signature:
Mode: TX 2437MHz(802.11n)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	226.2202	16.04	16.91	32.95	46.00	-13.05	QP			
2	259.4433	14.69	18.52	33.21	46.00	-12.79	QP			
3	355.9397	11.97	21.14	33.11	46.00	-12.89	QP			



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Site: 2# Chamber
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Fax:+86-0755-26503396

Job No.: ALEN #622	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 17:02:42
EUT: MIRABOX	Engineer Signature:
Mode: TX 2437MHz(802.11n)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.6362	17.89	16.65	34.54	40.00	-5.46	QP			
2	105.1667	21.65	14.41	36.06	43.50	-7.44	QP			
3	130.7632	21.32	14.88	36.20	43.50	-7.30	QP			



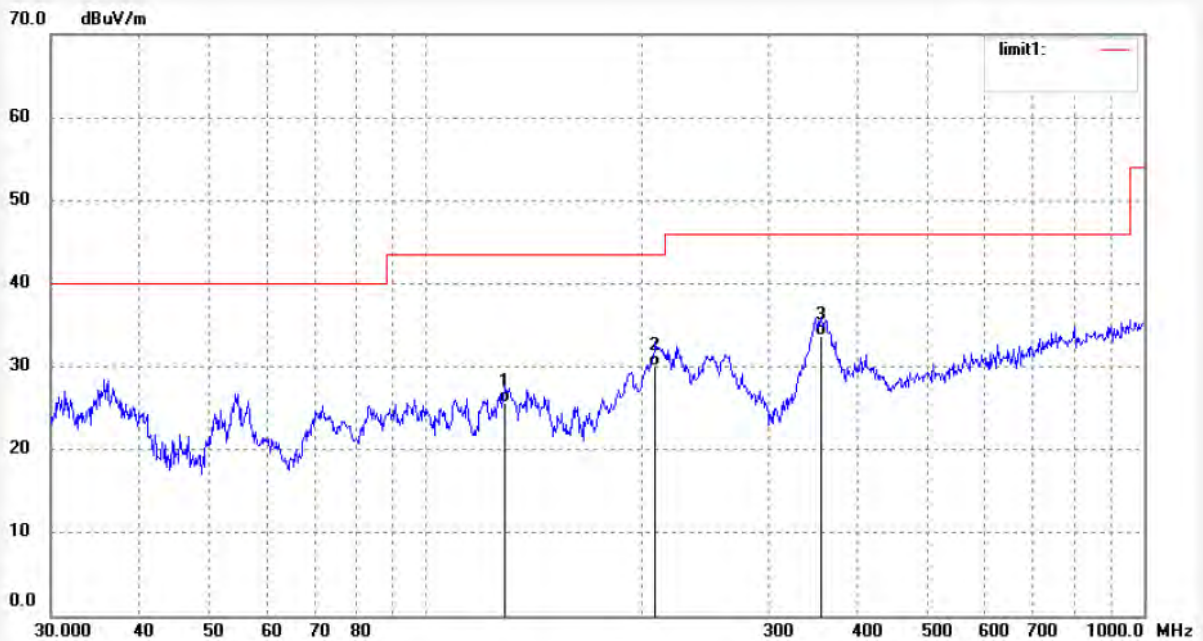
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #627	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 17:07:10
EUT: MIRABOX	Engineer Signature:
Mode: TX 2462MHz(802.11n)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	128.9385	10.63	14.94	25.57	43.50	-17.93	QP			
2	208.6580	13.69	16.30	29.99	43.50	-13.51	QP			
3	354.6912	12.63	21.09	33.72	46.00	-12.28	QP			



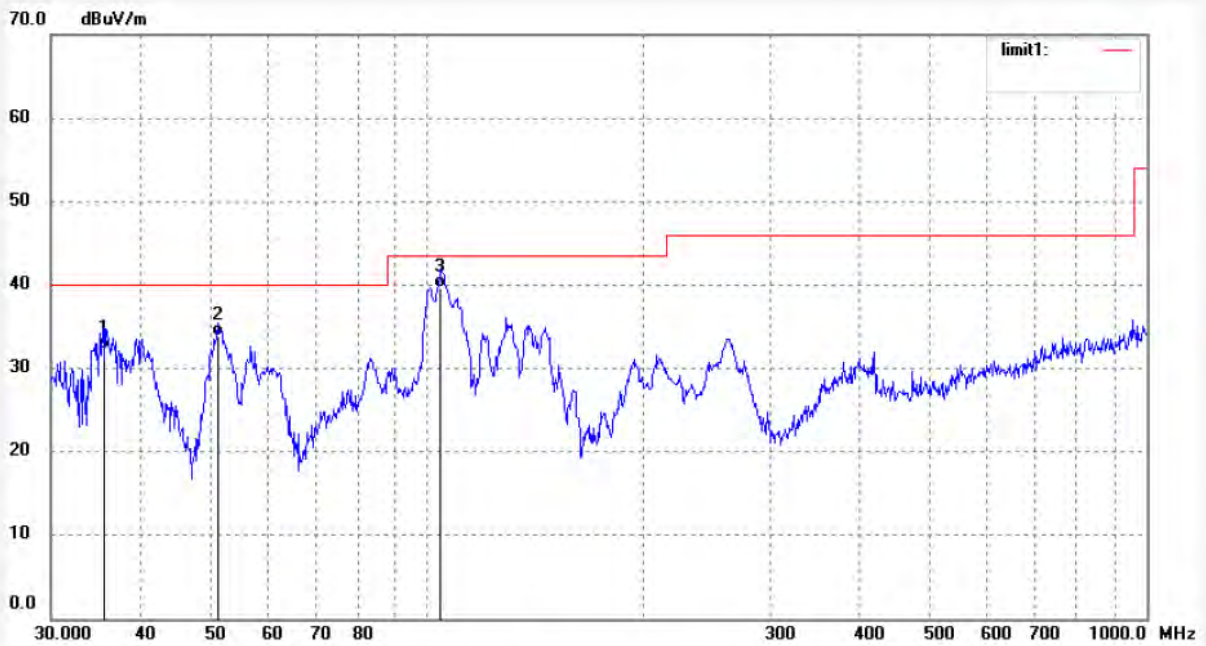
ACCURATE TECHNOLOGY CO., LTD.

F1,Bldg,A,Changyuan New Material Port Keyuan Rd,
Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #628	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 2013-01-21
Temp.(C)/Hum.(%) 25 C / 51 %	Time: 17:07:31
EUT: MIRABOX	Engineer Signature:
Mode: TX 2462MHz(802.11n)	Distance:
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	35.5112	15.63	16.66	32.29	40.00	-7.71	QP			
2	51.1756	19.67	14.13	33.80	40.00	-6.20	QP			
3	104.4303	25.30	14.37	39.67	43.50	-3.83	QP			



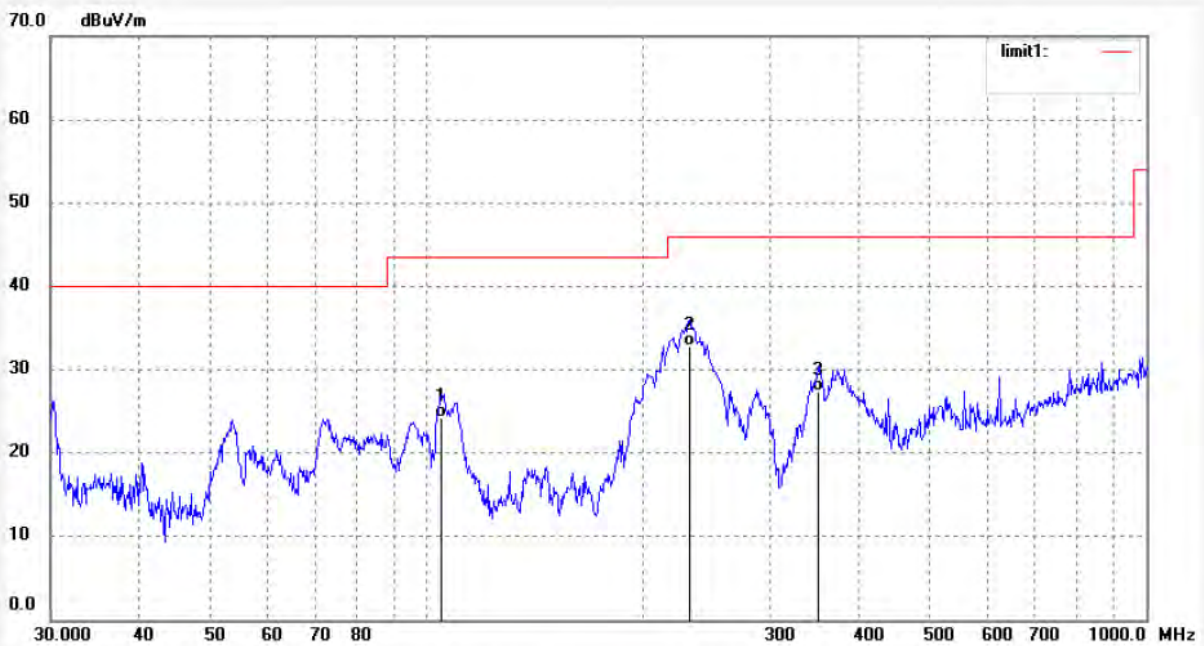
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Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #712	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/01/12/
Temp.(C)/Hum.(%) 26 C / 60 %	Time: 8/44/23
EUT: MIRABOX	Engineer Signature:
Mode: TX 2422MHz(802.11n)(40MHz)	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	104.7978	10.23	13.97	24.20	43.50	-19.30	QP			
2	231.8531	17.68	15.12	32.80	46.00	-13.20	QP			
3	349.7411	9.10	18.37	27.47	46.00	-18.53	QP			



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Site: 2# Chamber
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Fax:+86-0755-26503396

Job No.: ALEN #711	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/01/12/
Temp.(C)/Hum.(%) 26 C / 60 %	Time: 8/43/47
EUT: MIRABOX	Engineer Signature:
Mode: TX 2422MHz(802.11n)(40MHz)	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	39.8768	17.99	14.58	32.57	40.00	-7.43	QP			
2	61.0041	20.74	12.73	33.47	40.00	-6.53	QP			
3	105.1667	24.32	13.93	38.25	43.50	-5.25	QP			



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Site: 2# Chamber
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Job No.: ALEN #710	Polarization: Vertical
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/01/12/
Temp.(C)/Hum.(%) 26 C / 60 %	Time: 8/43/27
EUT: MIRABOX	Engineer Signature:
Mode: TX 2437MHz(802.11n)(40MHz)	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	59.9418	20.10	13.10	33.20	40.00	-6.80	QP			
2	90.1025	21.69	13.86	35.55	43.50	-7.95	QP			
3	104.7978	22.36	13.97	36.33	43.50	-7.17	QP			



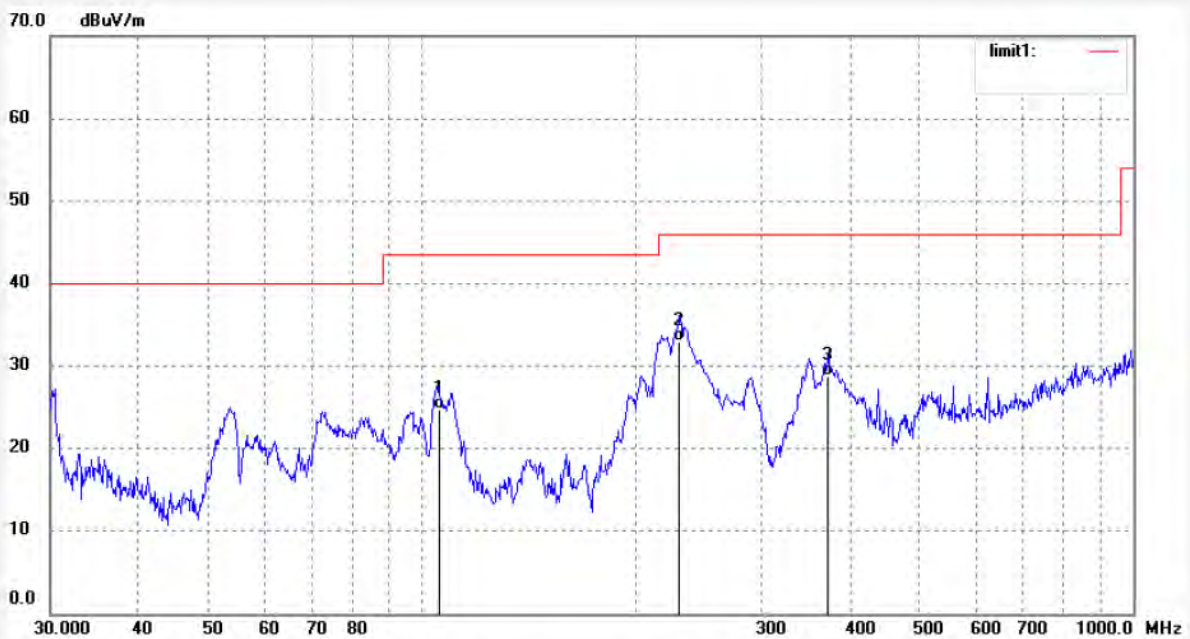
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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 2# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: ALEN #709	Polarization: Horizontal
Standard: FCC Class B 3M Radiated	Power Source: AC 120V/60Hz
Test item: Radiation Test	Date: 13/01/12/
Temp.(C)/Hum.(%) 26 C / 60 %	Time: 8/42/53
EUT: MIRABOX	Engineer Signature:
Mode: TX 2437MHz(802.11n)(40MHz)	Distance: 3m
Model: 003-MBX001	
Manufacturer: Globalscale	

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	105.5369	10.87	13.94	24.81	43.50	-18.69	QP			
2	230.2295	18.02	15.04	33.06	46.00	-12.94	QP			
3	372.5747	10.12	18.70	28.82	46.00	-17.18	QP			


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Site: 2# Chamber

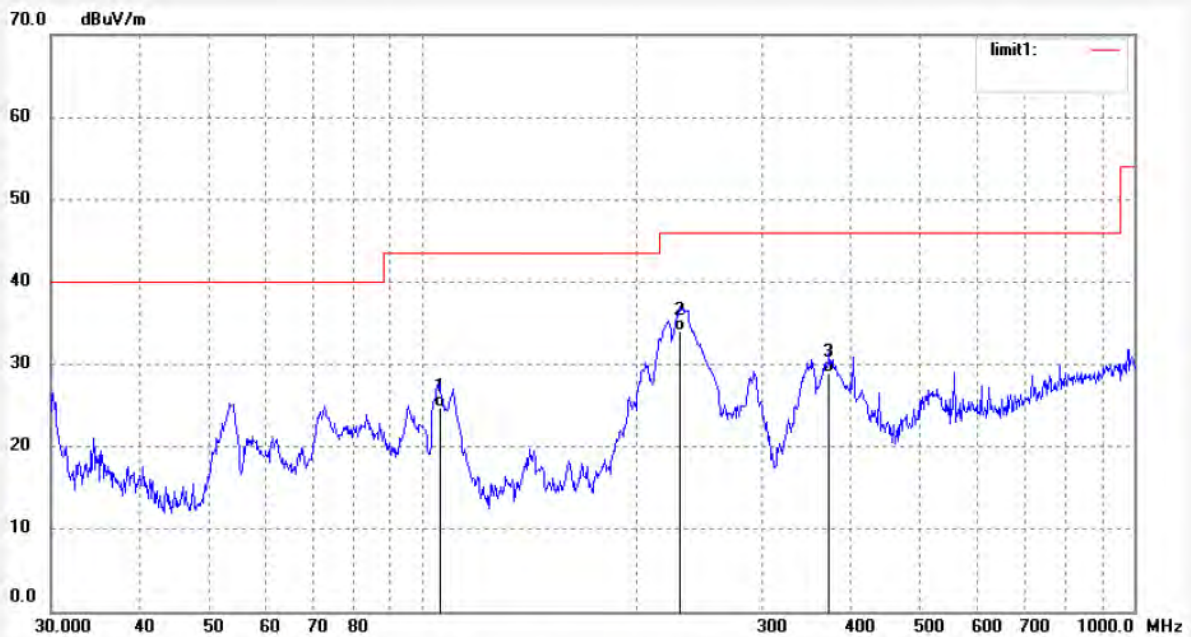
Tel:+86-0755-26503290

Fax:+86-0755-26503396

 Job No.: ALEN #708
 Standard: FCC Class B 3M Radiated
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 26 C / 60 %
 EUT: MIRABOX
 Mode: TX 2452MHz(802.11n)(40MHz)
 Model: 003-MBX001
 Manufacturer: Globalscale

 Polarization: Horizontal
 Power Source: AC 120V/60Hz
 Date: 13/01/12/
 Time: 8/42/36
 Engineer Signature:
 Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	105.5369	10.78	13.94	24.72	43.50	-18.78	QP			
2	230.2295	19.02	15.04	34.06	46.00	-11.94	QP			
3	372.5747	10.23	18.70	28.93	46.00	-17.07	QP			