NVLAP
Lab Code: 200167-0

BACL
Bay Area Compliance Lab Corp.

FCC PART 15.247

MEASUREMENT AND TEST REPORT

For

Azure Communications Inc.

170 Knowles Drive, Suite 207
Los Gatos, CA 95032, USA

FCC ID: TXDAZ2400
Model: AZ-2400

This Report Concerns:	Product Type:
☒ Original Report	Wi-Fi Wireless Access Point

Test Engineer:	James Ma 2006-10-31
Report No.:	R0610111-20
Report Date:	2006-10-30
Reviewed By:	Test Engineer: Daniel Deng 2006-10-31
Prepared By: (ct)	Bay Area Compliance Laboratories Corp. 1274 Anvilwood Ave. Sunnyvale, CA 94089, USA Tel: (408) 732-9162 Fax: (408) 732 9164

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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The *Azure Communications Inc.,* FCC ID: *TXDAZ2400* or the "EUT" as referred to in this report is a Wi-Fi Wireless CATV Extension Access Point. The EUT is a point-to-multipoint system operating in the unlicensed 2.4 GHz band using the IEEE 802.11b/g standard. The system allows the end user to send/receive "Ethernet data" traffic wirelessly. The wireless access point is made up of an antenna assembly, baseband processor with an IEEE 802.11b/g radio, embedded DOCSIS cable modem, network interface board, and power supply system.

Mechanical Description

Azure Communications Inc., FCC ID: *TXDAZ2400* or the "EUT" as referred to in this report is a Wireless Access Point; it measures approximately ***368.3mmL x 196.8mmW x 107.9mmH and weighs 9kg.***

**The test data gathered are from a typical production sample which is provided by the manufacturer, model number: AZ2400 with the serial number of XG623G65NE06018.*

EUT Photo

EUT Front View

Antenna Front View

Additional photos please refer to Exhibit C

Objective

This type approval report is prepared on behalf of *Azure Communications Inc.* in accordance with Part 2, Subpart J, and Part 15, Subparts A, B and C.

The objective is to determine compliance with FCC rules for Output Power, Antenna Requirements, 6 dB Bandwidth, and power spectral density, 100 kHz Bandwidth of Band Edges Measurement, Spurious Emissions, Conducted and Spurious Radiated Emissions.

Related Submittal(s)/Grant(s)

No Related Submittals.

Test Methodology

All measurements contained in this report were conducted in accordance with ANSI C63.4-2003.

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the values range from $\pm$2.0 for Conducted Emissions tests and $\pm$4.0 dB for Radiated Emissions tests are the most accurate estimates pertaining to uncertainty of EMC measurements at BACL.

Detailed instrumentation measurement uncertainties can be found in BACL report QAP-018.

Test Facility

The Test site used by BACL Corp. to collect measurement data is located at it's facility in Sunnyvale, California, USA.

Test site at BACL has been fully described in reports submitted to the Federal Communication Commission (FCC) and Voluntary Control Council for Interference (VCCI). The details of these reports has been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on February 11 and December 10, 1997 and Article 8 of the VCCI regulations on December 25, 1997. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission, Industry Canada, and Voluntary Control Council for Interference have the reports on file and are listed under FCC file 31040/SIT 1300F2, IC registration number: 3062A, and VCCI Registration No.: C-1298 and R-1234. The test site has been approved by the FCC, IC, and VCCI for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, BACL is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200167-0). The current scope of accreditations can be found at http://ts.nist.gov/ts/htdocs/210/214/scopes/2001670.htm

SYSTEM TEST CONFIGURATION

Justification

The host system was configured for testing according to ANSI C63.4-2003.

The EUT was tested in the normal (native) operating mode to represent *worst*-case results during the final qualification test.

EUT Exercise Software

The EUT exercise program and the following Channel setting were used during the testing:

802.11b	2412 MHZ	2437 MHz	2462 MHz
802.11g	2412 MHZ	2437 MHz	2462 MHz

Special Accessories

N/A

Equipment Modifications

No modifications were made to the EUT.

Interface Ports and Cabling

Cable Description	Cable type (S/Us)	From	To	Length (M)
Ethernet Cable	RJ-45	Dell Lap Top	EUT	1.5

SUMMARY OF TEST RESULTS

Results reported relate only to the product tested.

FCC RULES	DESCRIPTION OF TEST	RESULT
§2.1091 §15.247 (e) (i)	RF Exposure	Compliant
§15.203	Antenna Requirements	Compliant
§ 15.207 (a)	AC Line Conducted Emissions	Compliant
§15.247(d)	Spurious Emissions at Antenna Terminals	Compliant
§15.205, §15.209 (a) & §15.247(d)	Radiated Spurious Emissions	Compliant
§15.247 (a)(2)	6 dB Bandwidth	Compliant
§15.247 (b)(3)	Maximum Peak Output Power	Compliant
§ 15.247 (d)	100 kHz Bandwidth of Band Edge	Compliant
§15.247 (e)	Power Spectral Density	Compliant

§2.1091, §15.247(e)(i) - RF EXPOSURE

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

According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*($180/f^2$)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density

MPE Prediction

Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$S = PG/4\pi R^2$

Where: S = power density
P = power input to antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal: 16.21 (dBm)
Maximum peak output power at antenna input terminal: 41.78 (mW)
Prediction distance: 20 (cm)
Prediction frequency: 2400 (MHz)
Antenna gain (typical): 14 (dBi)
Antenna gain: 25.12 (numeric)
Power density at prediction frequency at 20 cm: 0.2088(mW/cm^2)

MPE limit for uncontrolled exposure at prediction frequency: 1.0 (mW/cm^2)

Test Result

The power density level at 20 cm is 0.2088 mW/cm^2, which is below the uncontrolled exposure limit of 1.0mW/cm^2 at 2400 MHz.

§15.203 - ANTENNA REQUIREMENT

Applicable Standard

According to § 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to § 15.247 (b) (4), if transmitting antennas of directional gain greater than 6 dBi are used the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

The antenna for this device is an integral, non-disconnectable antenna with a gain of 14.0 dBi.

Antenna Description

The antenna subassembly is a single flat panel patch antenna array printed on a circuit board with a female SMA connector. The antenna is vertically polarized and only one is required for both transmitting and receiving. The antenna offers azimuthal beam width of 30 degrees and approximately 60 degrees of elevation beam width. The maximum antenna gain is 14 dBi. In order to ensure that none but the antenna provided by the manufacturer is utilized, it is permanently embedded into the circuit board assembly. Subsequently, attempted removal or replacement would result in destruction of the connector, thus compromising further use of the device.

§15.207 (a) – AC LINE CONDUCTED EMISSIONS

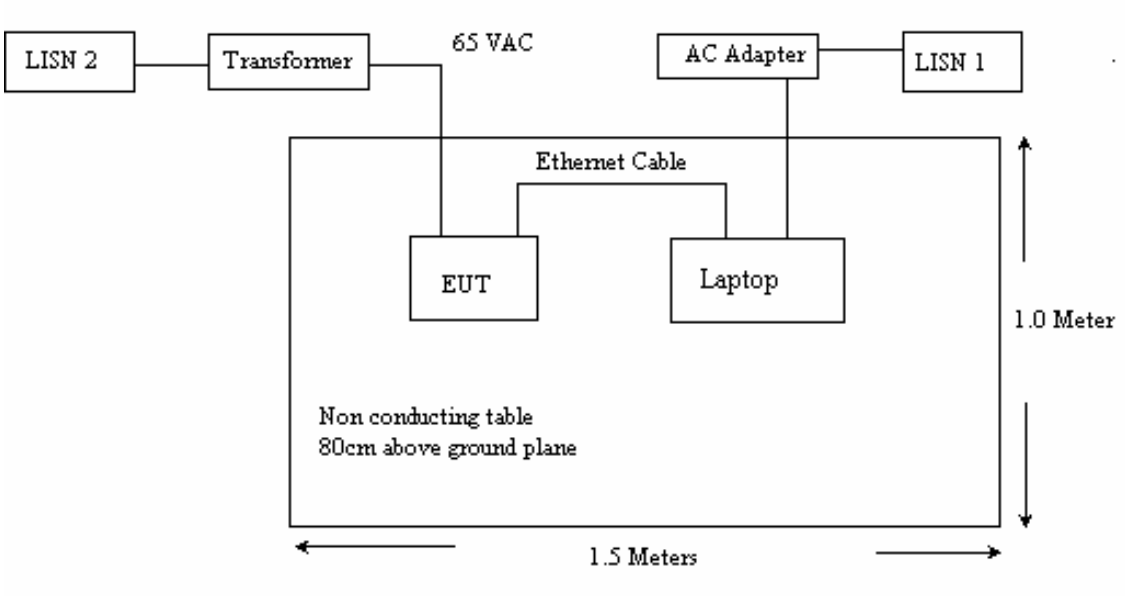
Test Setup

The measurement was performed at shield room, using the same setup per ANSI C63.4 – 2003 measurement procedure. The specification used was FCC Class B limits.

External I/O cables were draped along the edge of the test table and bundle when necessary.

The EUT was connected with LISN-1.

Test Setup Block Diagram



Test Procedure

During the conducted emissions test, the power cord of the EUT was connected to the mains outlet of the LISN-1.

Maximizing procedure was performed on the six (6) highest provided emissions of the EUT.

All the data were recorded in the peak detection mode, quasi-peak and, or, average. Quasi-Peak readings are distinguished with a "QP". Average readings are distinguished with an "Ave".

Environmental Conditions

Temperature:	20° C
Relative Humidity:	56%
ATM Pressure:	1024 mbar

**The testing was performed by James Ma on 2006-10-25.*

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date
R&S	Receiver, EMI Test	ESCS30	100176	2006-03-16
R&S	LISN, Artificial Mains	ESH2-Z5	871884/039	2005-11-14

*** Statement of Traceability: BACL Corp.** attests that all calibrations have been performed per the NVLAP requirements, traceable to the NIST.

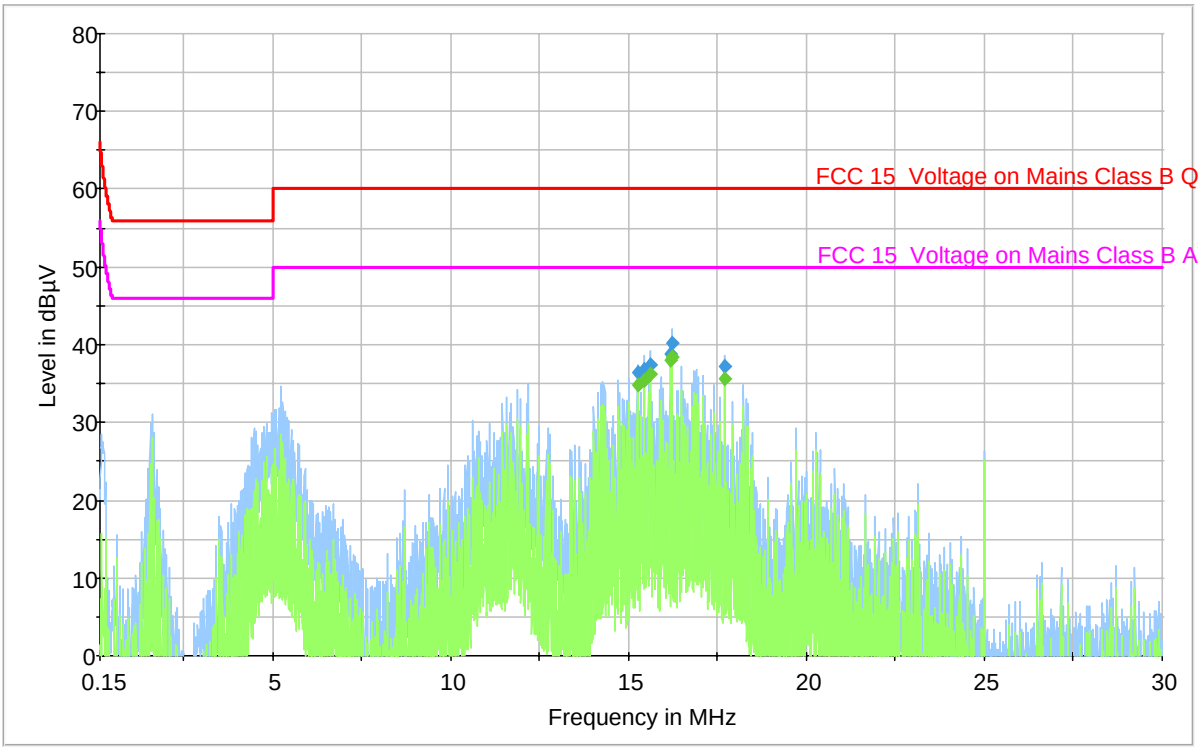
Summary of Test Results

According to the recorded data in following table, the EUT complied with the FCC standard's limits for a Class B device with the *worst* margin reading of:

-11.7 dB at **17.694000MHz** in the **Line** conductor

Conducted Emissions Test plots and Data:

Line:



QP Measurements (please replace all references to “Line” to “conductor”

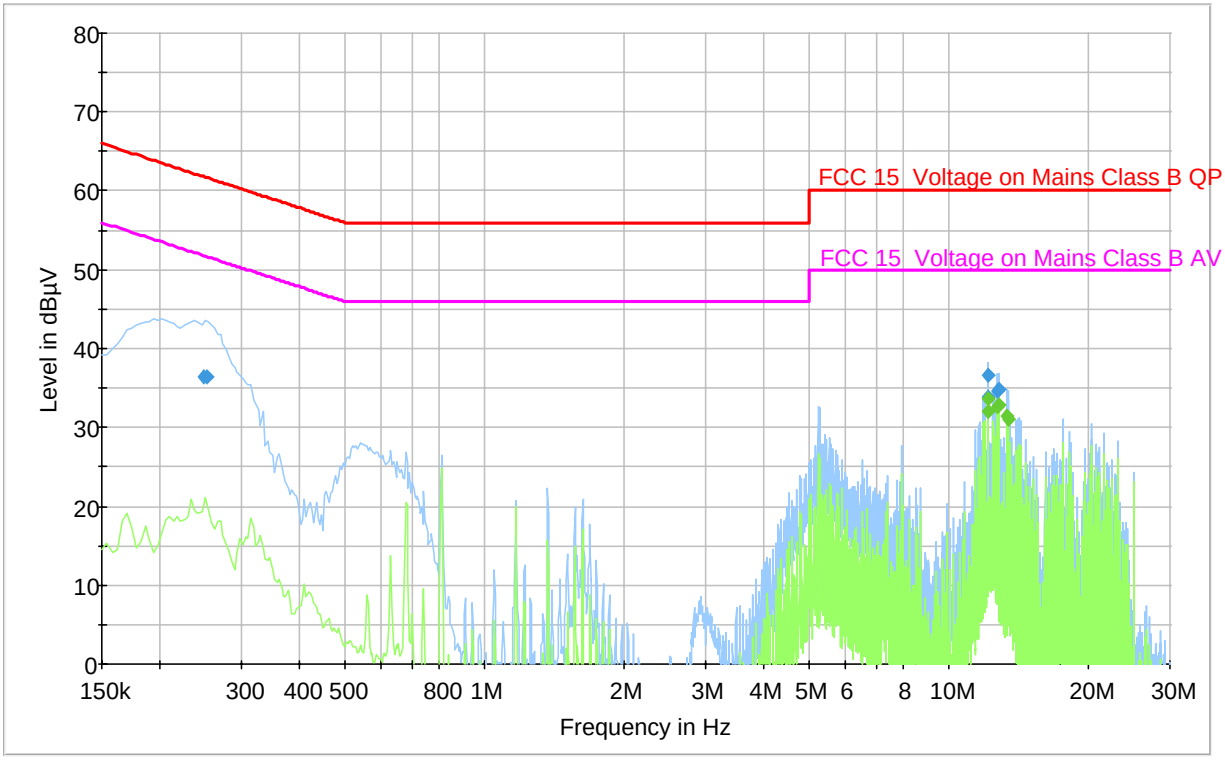
Frequency (MHz)	Quasi-Peak (dBµV)	Line	Corrected Reading (dB)	Limit (dBµV)	Margin (dB)
16.2300	40.2	conductor	0.3	60.0	-19.8
16.1660	38.9	conductor	0.3	60.0	-21.1
15.6180	37.4	conductor	0.3	60.0	-22.6
17.6940	37.2	conductor	0.5	60.0	-22.8
15.4340	36.9	conductor	0.4	60.0	-23.1
15.2500	36.5	conductor	0.4	60.0	-23.5

Average Measurements

Frequency (MHz)	Average (dBµV)	Line	Corrected Reading (dB)	Limit (dBµV)	Margin (dB)
17.6940	35.6	conductor	0.5	50.0	-11.7
16.2300	38.4	conductor	0.3	50.0	-12.0
16.1660	38.0	conductor	0.3	50.0	-13.8
15.6180	36.2	conductor	0.3	50.0	-14.5
15.4340	35.5	conductor	0.4	50.0	-14.5
15.4340	35.5	conductor	0.4	50.0	-15.3

Conducted Emissions Test plots and Data:

Neutral:



QP Measurements

Frequency (MHz)	Quasi-Peak (dBµV)	Line	Corrected Reading (dB)	Limit (dBµV)	Margin (dB)
12.1970	36.6	N	0.4	60.0	-23.4
12.8090	34.9	N	0.4	60.0	-25.1
0.2530	36.4	N	0.2	61.7	-25.3
12.7490	34.7	N	0.4	60.0	-25.3
0.2490	36.4	N	0.2	61.8	-25.4
12.1370	33.8	N	0.4	60.0	-26.2

Average Measurements

Frequency (MHz)	Average (dBµV)	Line	Corrected Reading (dB)	Limit (dBµV)	Margin (dB)
12.1970	33.5	N	0.4	50.0	-16.5
12.8090	32.9	N	0.4	50.0	-17.1
12.7490	32.6	N	0.4	50.0	-17.4
12.1370	32.1	N	0.4	50.0	-17.9
13.3570	31.4	N	0.5	50.0	-18.6
13.4210	31.1	N	0.5	50.0	-18.9

§2.1051 & §15.247(d) - SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Applicable Standard

Requirements: CFR 47, § 2.1051.

The spectrum was to be investigated to the tenth harmonics of the highest fundamental frequency as specified in § 2.1057.

Measurement Procedure

The RF output of the EUT was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 100 kHz. Sufficient scans were taken to show any out of band emissions up to 10^{th} harmonic.

Equipment Lists

Manufacturer	Description	Model	Serial Number	Cal. Date
Agilent	Analyzer, Spectrum	E4446A	US44300386	2006-03-06

*** Statement of Traceability: BACL Corp.** attests that all calibrations have been performed per the NVLAP requirements, traceable to the NIST.

Environmental Conditions

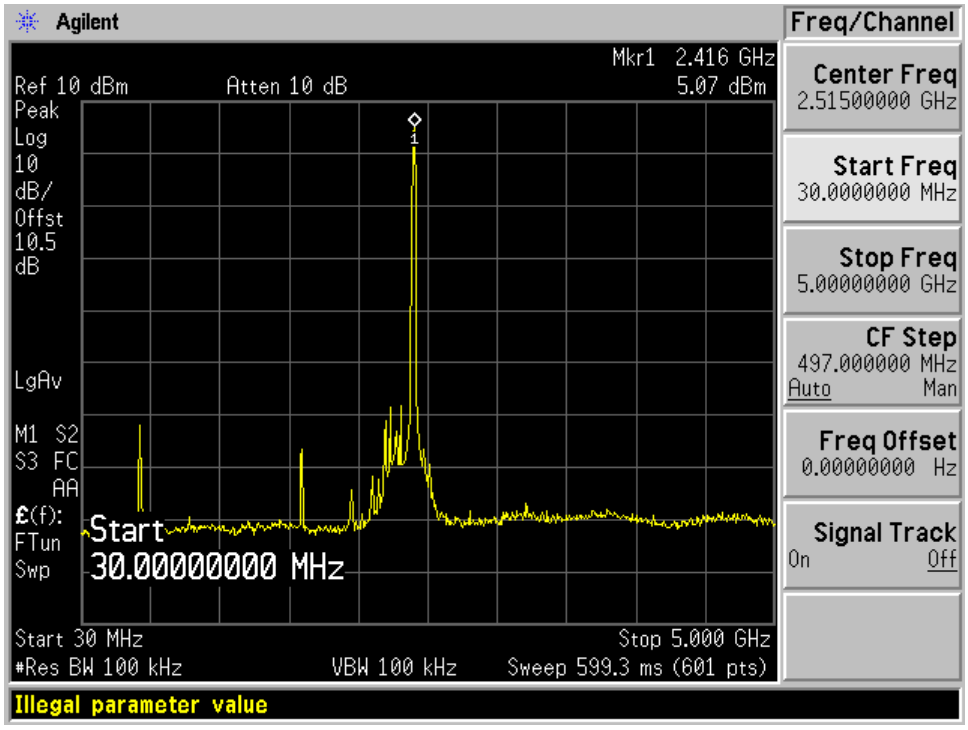
Temperature:	20° C
Relative Humidity:	56%
ATM Pressure:	1024 mbar

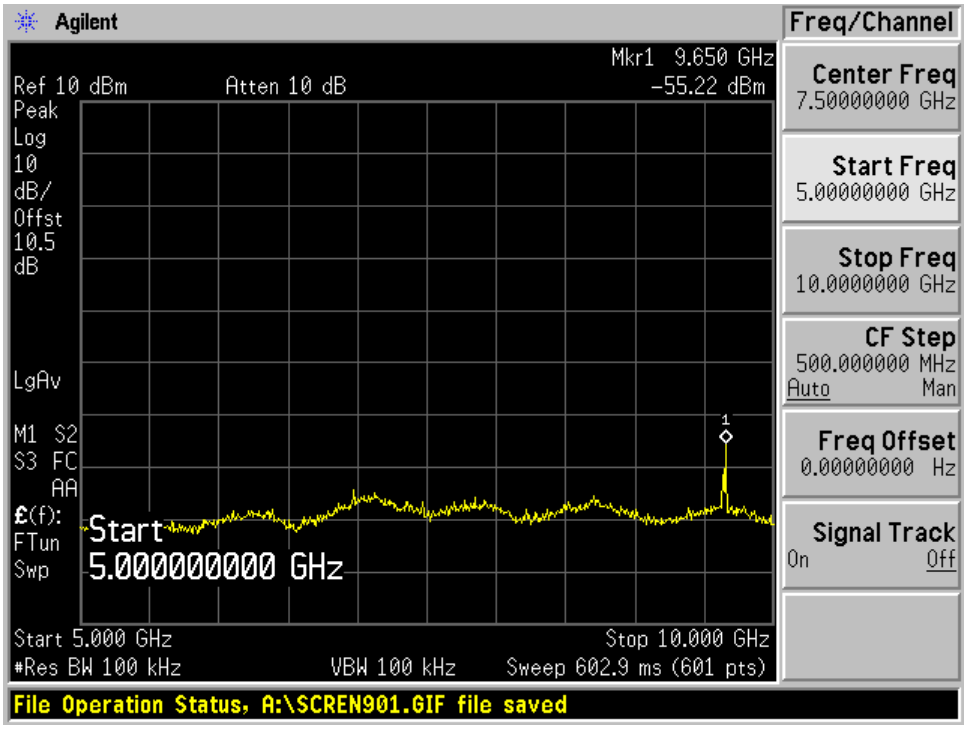
**The testing was performed by James Ma on 2006-10-25.*

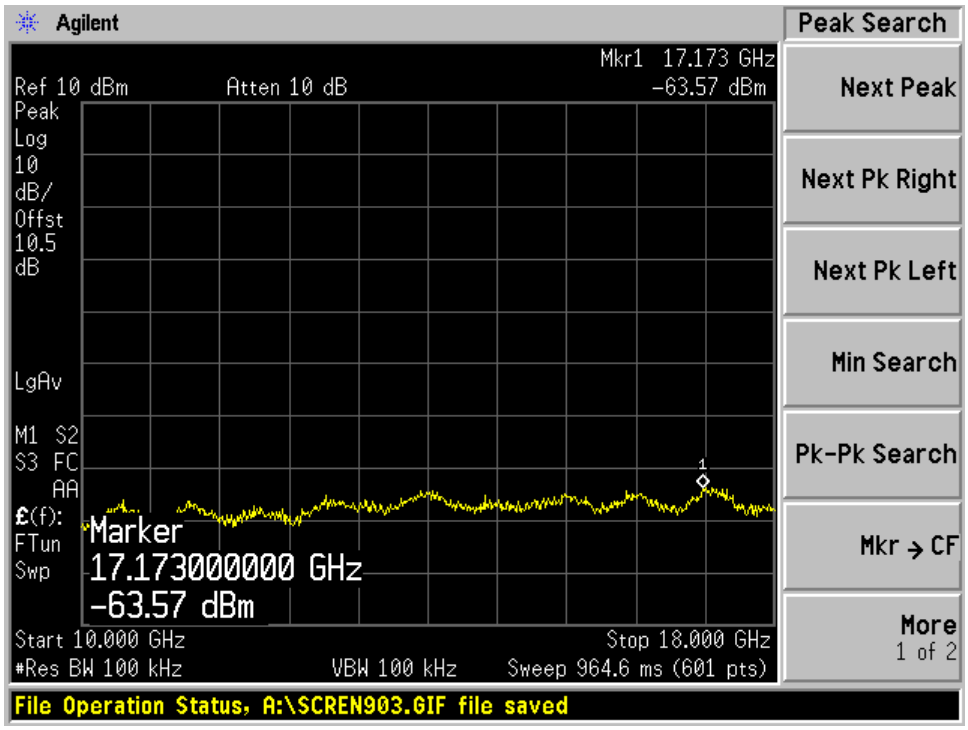
Measurement Results

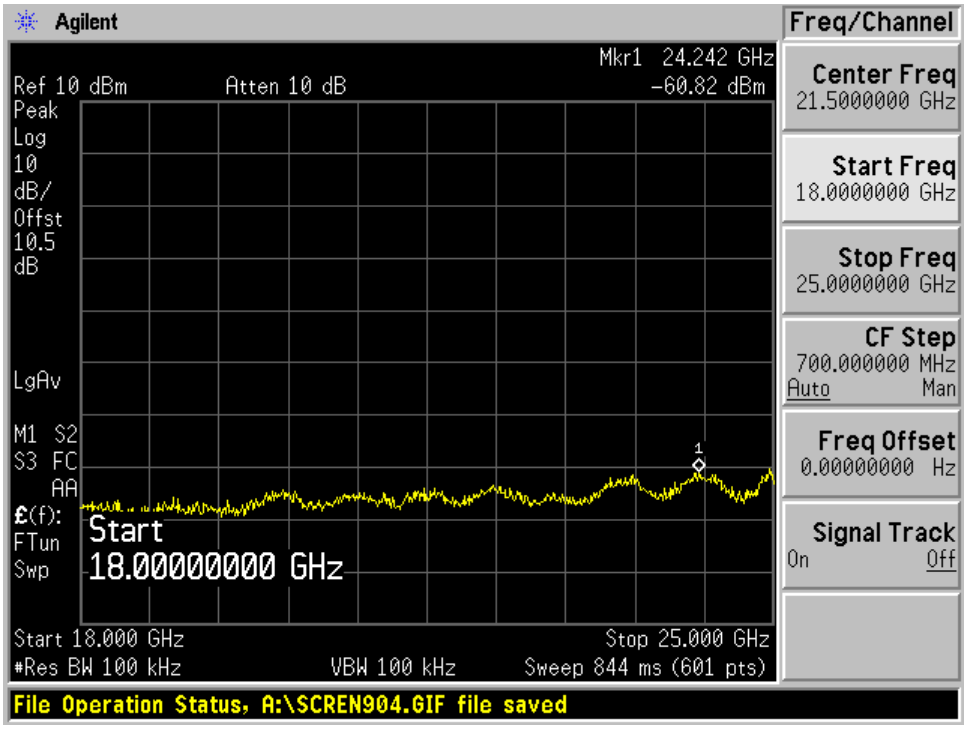
Please refer to following pages for plots of spurious emissions.

802.11b
Low Channel-1

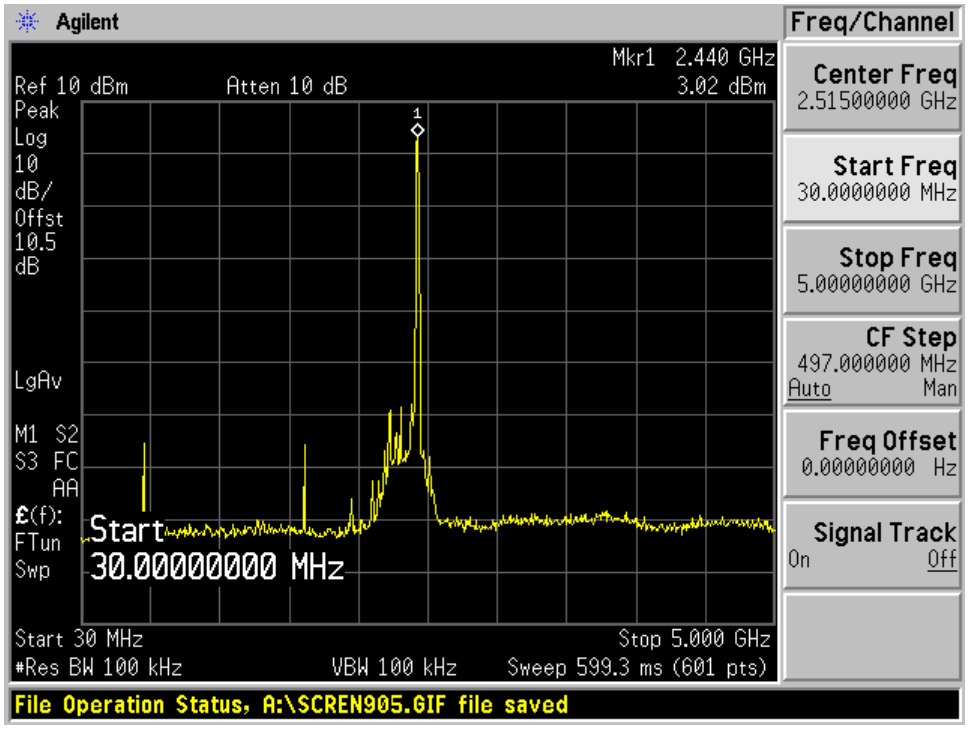


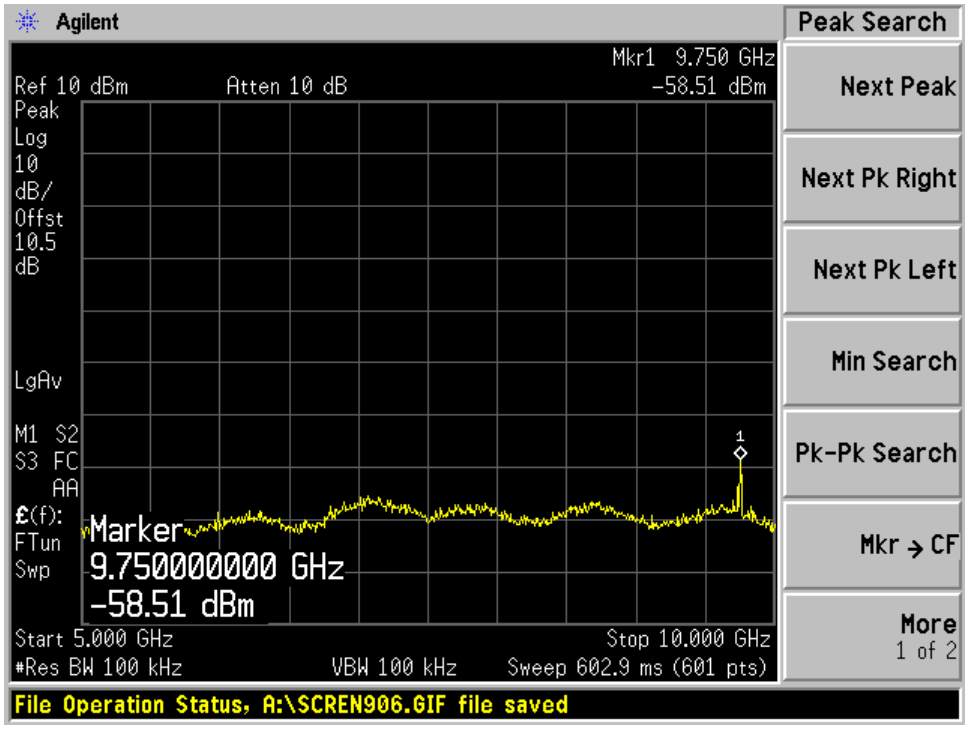


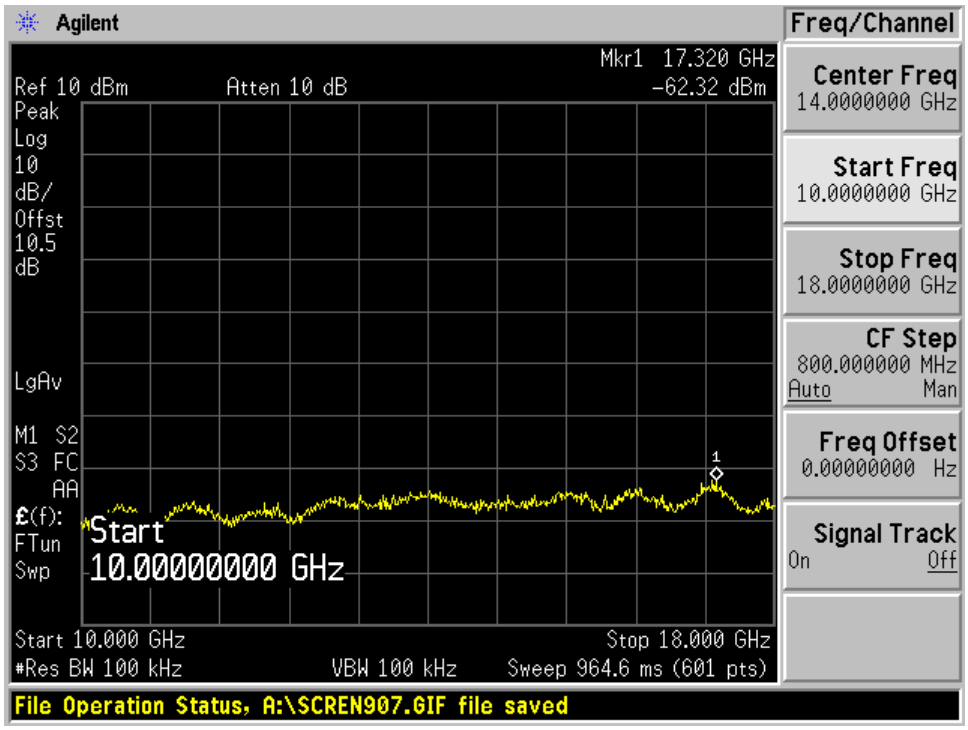

Agilent
Peak Search
Mkr1 17.173 GHz
Ref 10 dBm
Atten 10 dB
-63.57 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Marker
17.173000000 GHz
-63.57 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.000 GHz
Stop 18.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 964.6 ms (601 pts)
File Operation Status, A:\SCREN903.GIF file saved

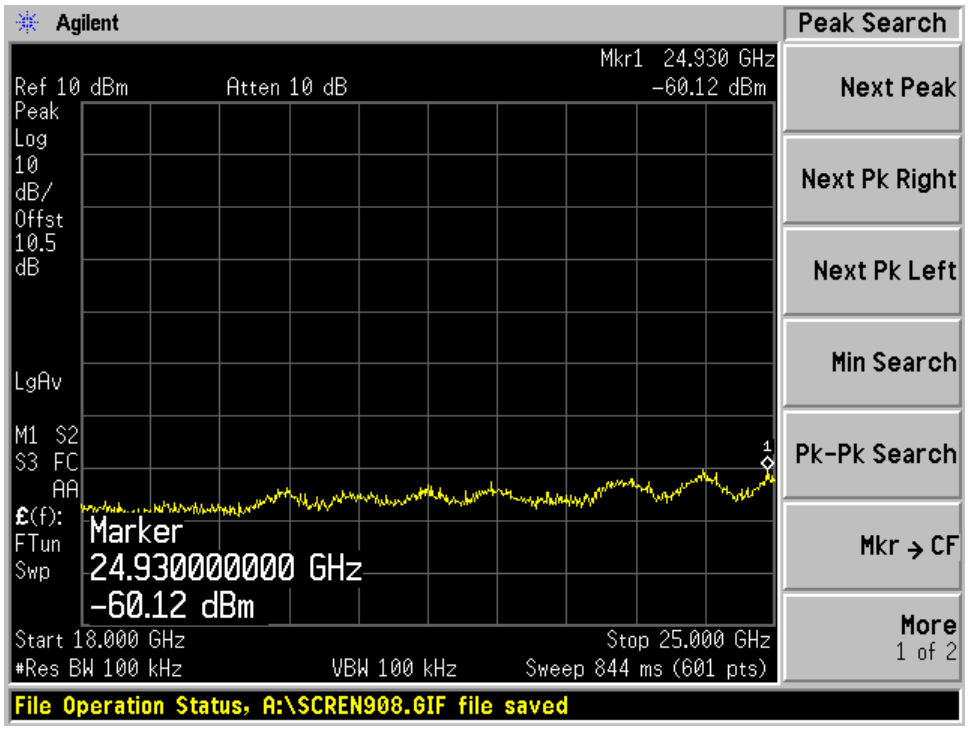

Agilent
Freq/Channel
Mkr1 24.242 GHz
Ref 10 dBm
Atten 10 dB
-60.82 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Start
18.00000000 GHz
Center Freq
21.5000000 GHz
Start Freq
18.0000000 GHz
Stop Freq
25.0000000 GHz
CF Step
700.000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
Start 18.000 GHz
Stop 25.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 844 ms (601 pts)
File Operation Status, A:\SCREN904.GIF file saved

Middle Channel-6

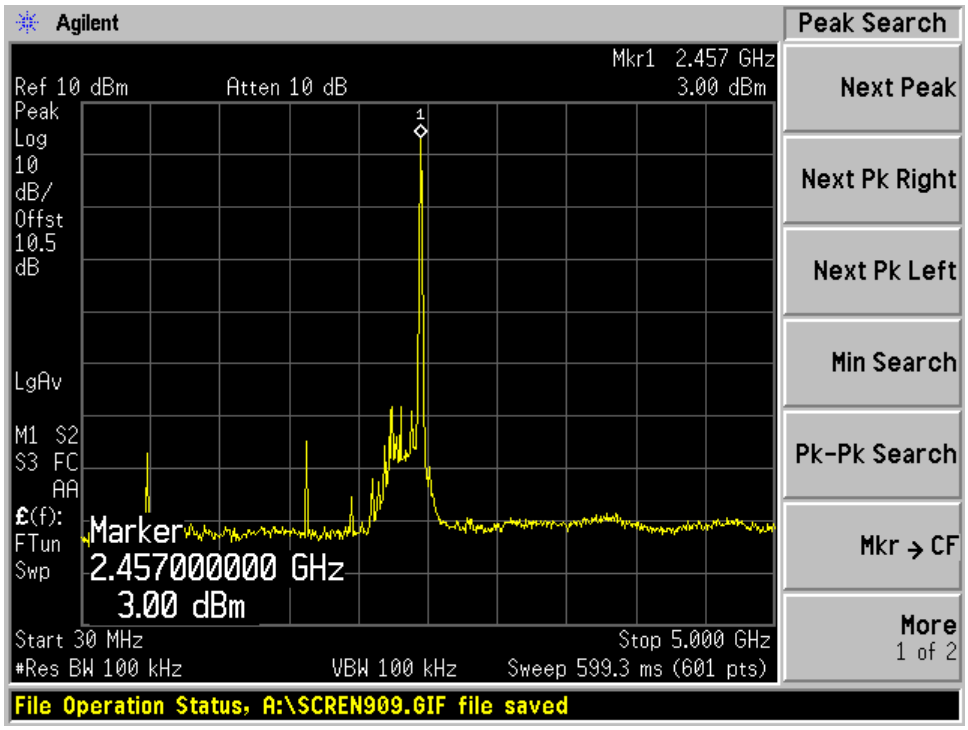


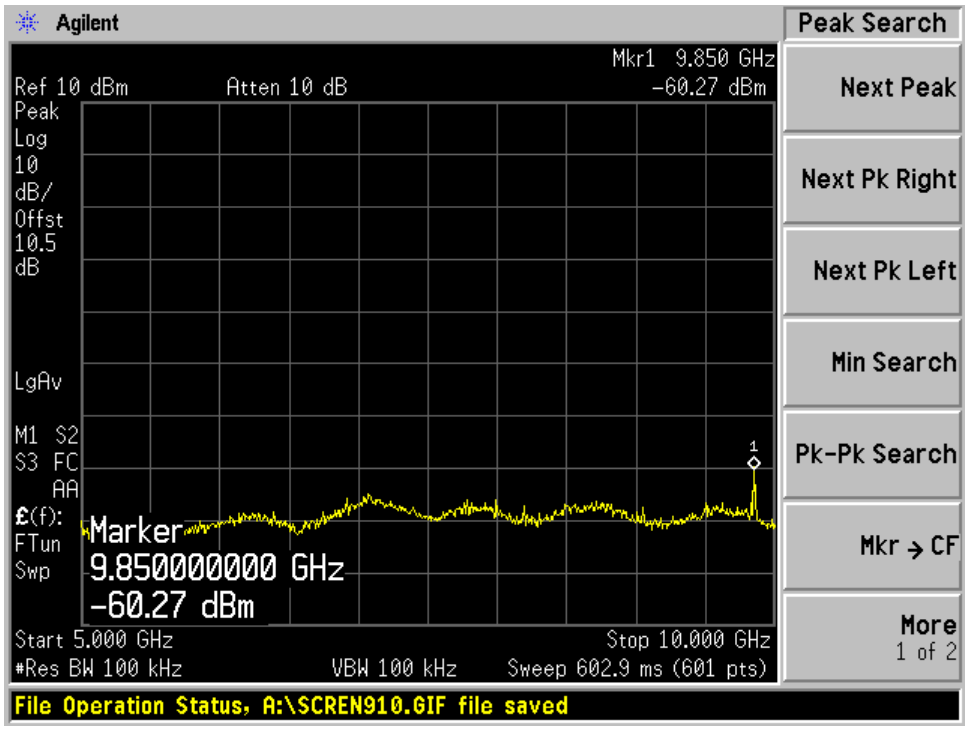


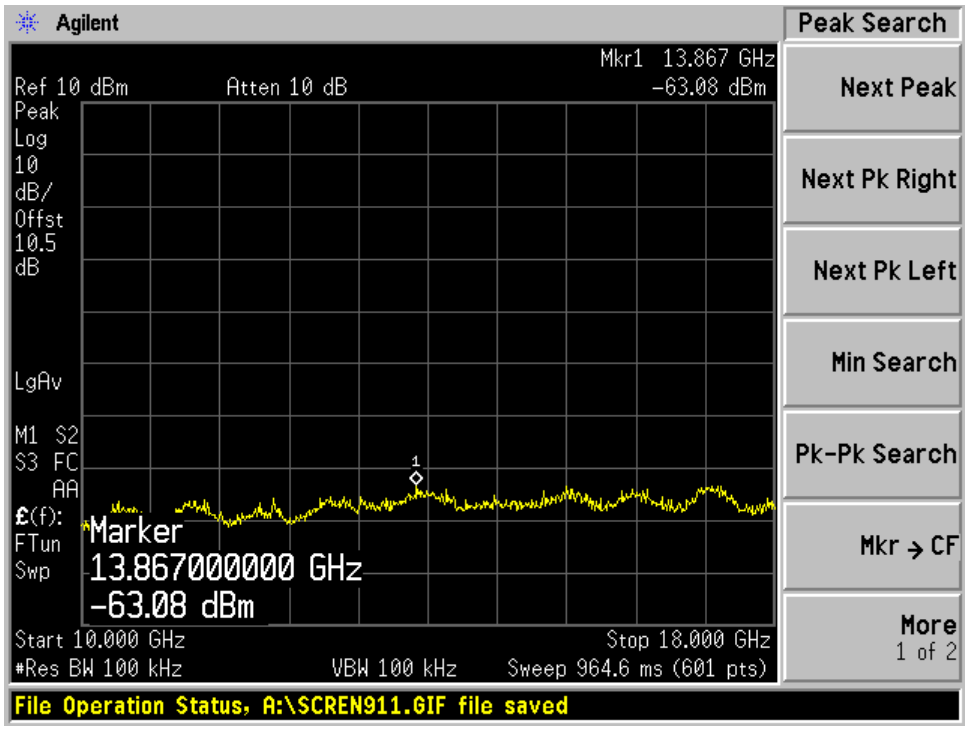

Agilent
Freq/Channel
Mkr1 17.320 GHz
Ref 10 dBm
Atten 10 dB
-62.32 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Start
10.00000000 GHz
Start 10.000 GHz
Stop 18.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 964.6 ms (601 pts)
Center Freq
14.0000000 GHz
Start Freq
10.0000000 GHz
Stop Freq
18.0000000 GHz
CF Step
800.000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
File Operation Status, A:\SCREN907.GIF file saved

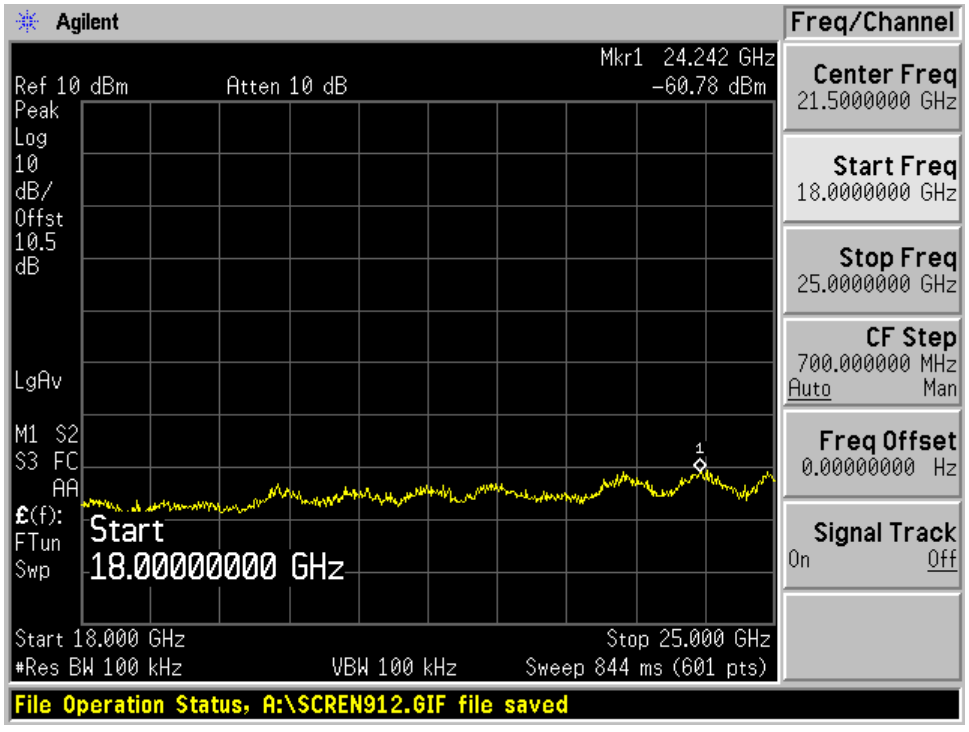

Agilent
Peak Search
Mkr1 24.930 GHz
Ref 10 dBm
Atten 10 dB
-60.12 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Marker
24.930000000 GHz
-60.12 dBm
Start 18.000 GHz
Stop 25.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 844 ms (601 pts)
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
File Operation Status, A:\SCREN908.GIF file saved

High Channel-11

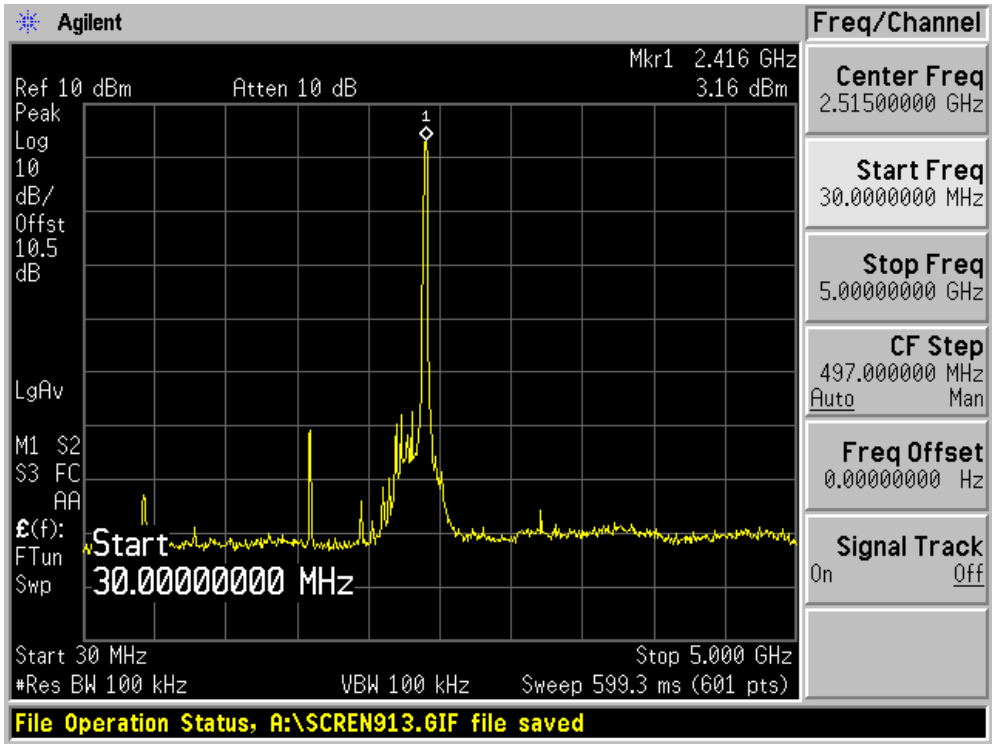


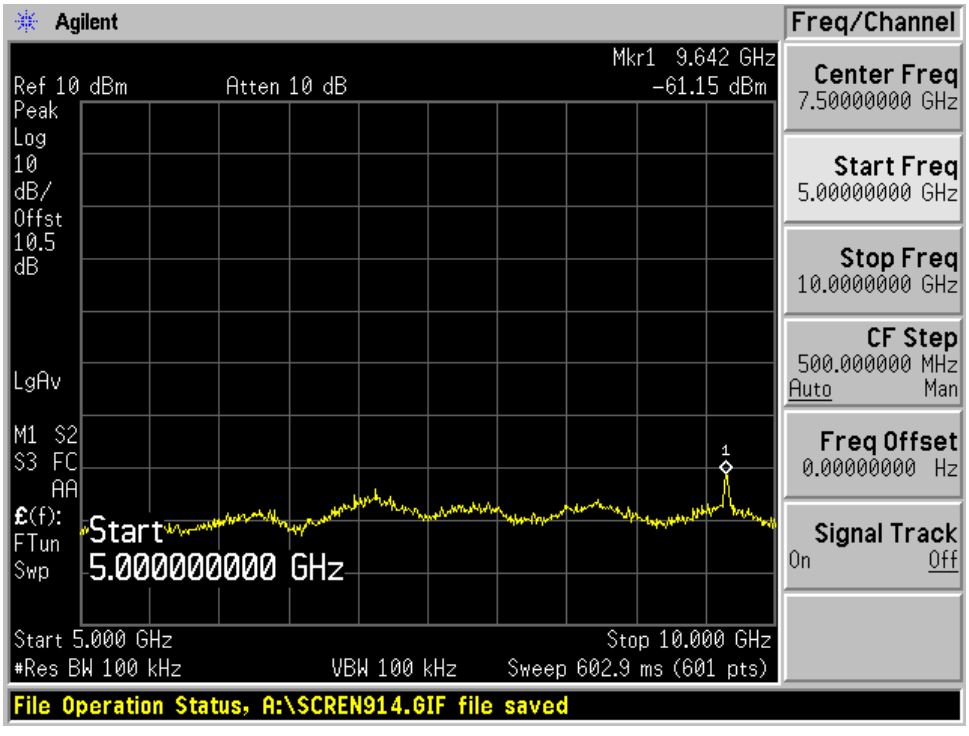


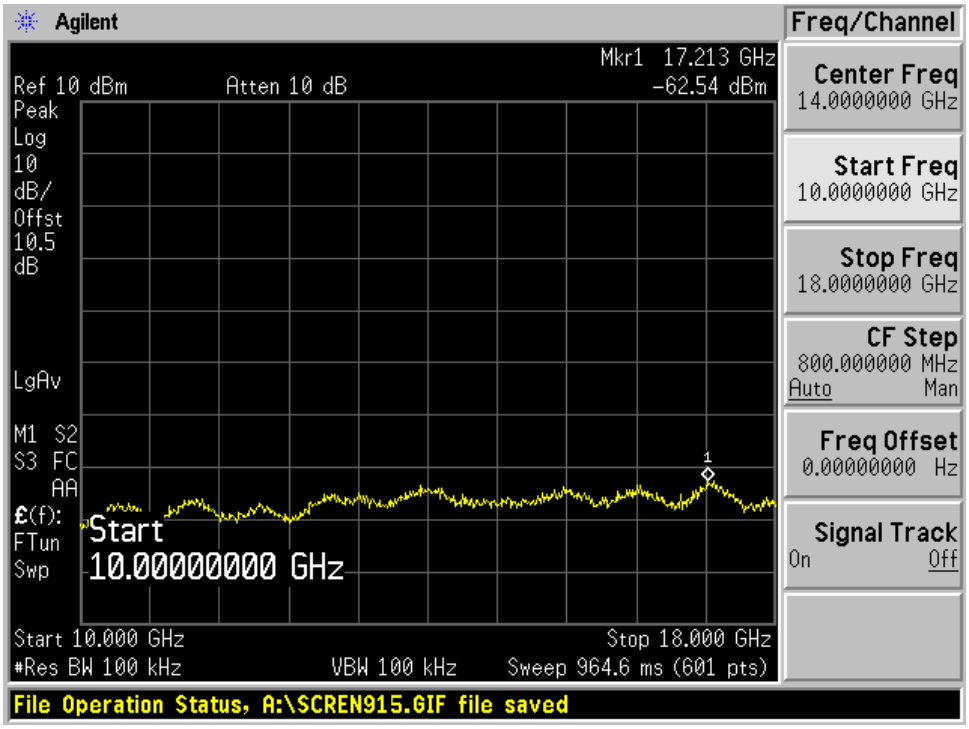

Agilent
Peak Search
Mkr1 13.867 GHz
Ref 10 dBm
Atten 10 dB
-63.08 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Marker
13.867000000 GHz
-63.08 dBm
Start 10.000 GHz
Stop 18.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 964.6 ms (601 pts)
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
File Operation Status, A:\SCREN911.GIF file saved

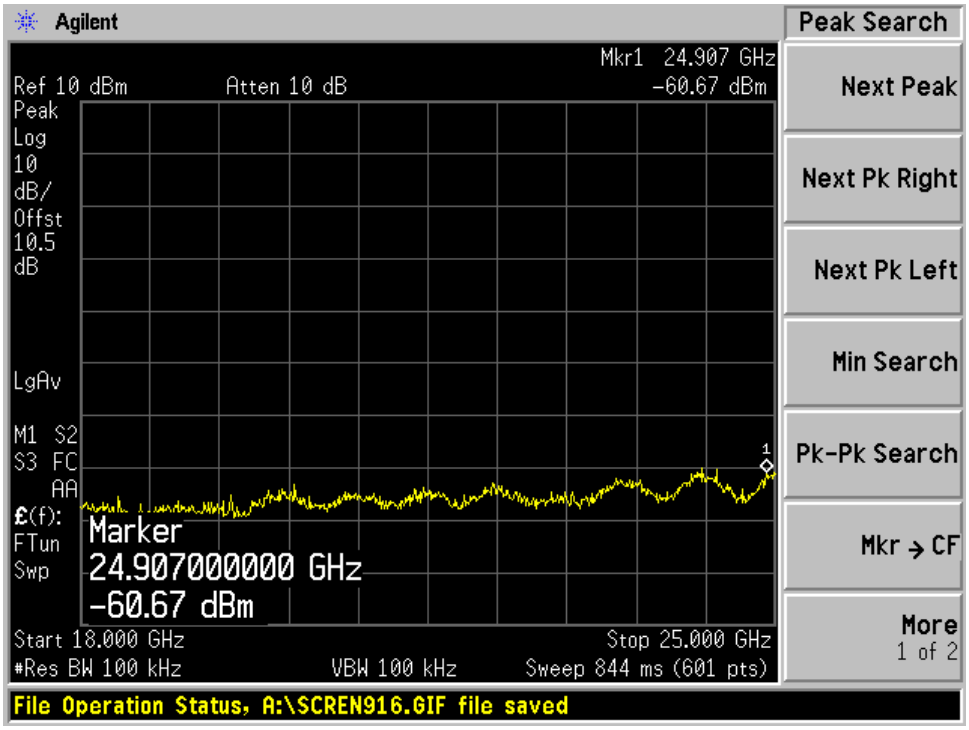

Agilent
Freq/Channel
Mkr1 24.242 GHz
Ref 10 dBm
Atten 10 dB
-60.78 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Start
18.00000000 GHz
Start 18.000 GHz
Stop 25.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 844 ms (601 pts)
Center Freq
21.5000000 GHz
Start Freq
18.0000000 GHz
Stop Freq
25.0000000 GHz
CF Step
700.000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
File Operation Status, A:\SCREN912.GIF file saved

802.11g
Low Channel-1

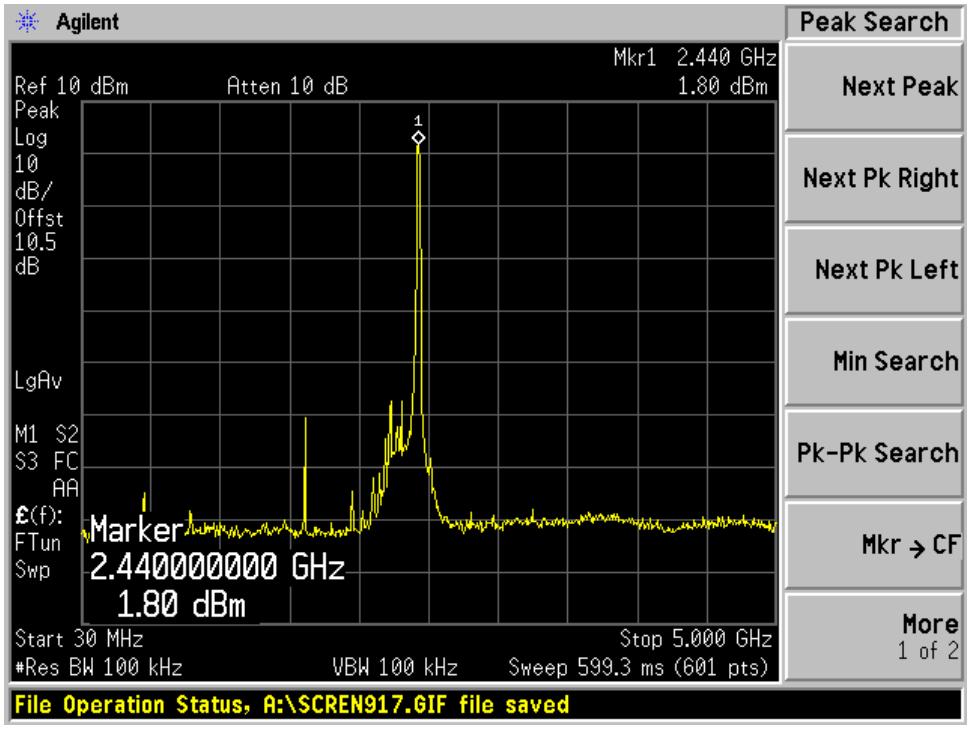


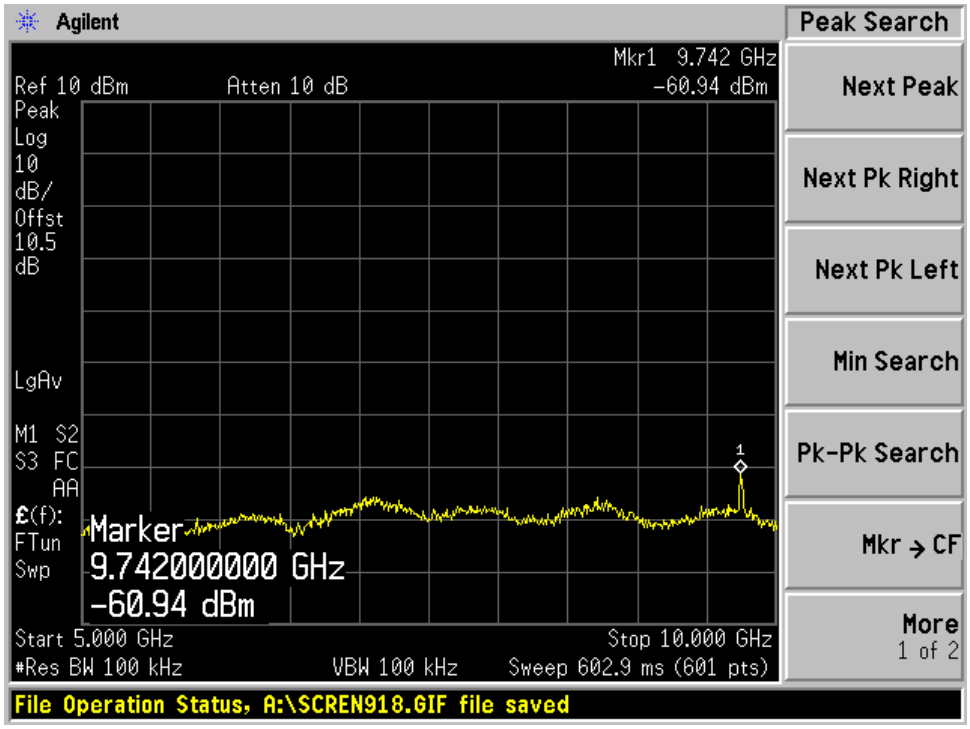


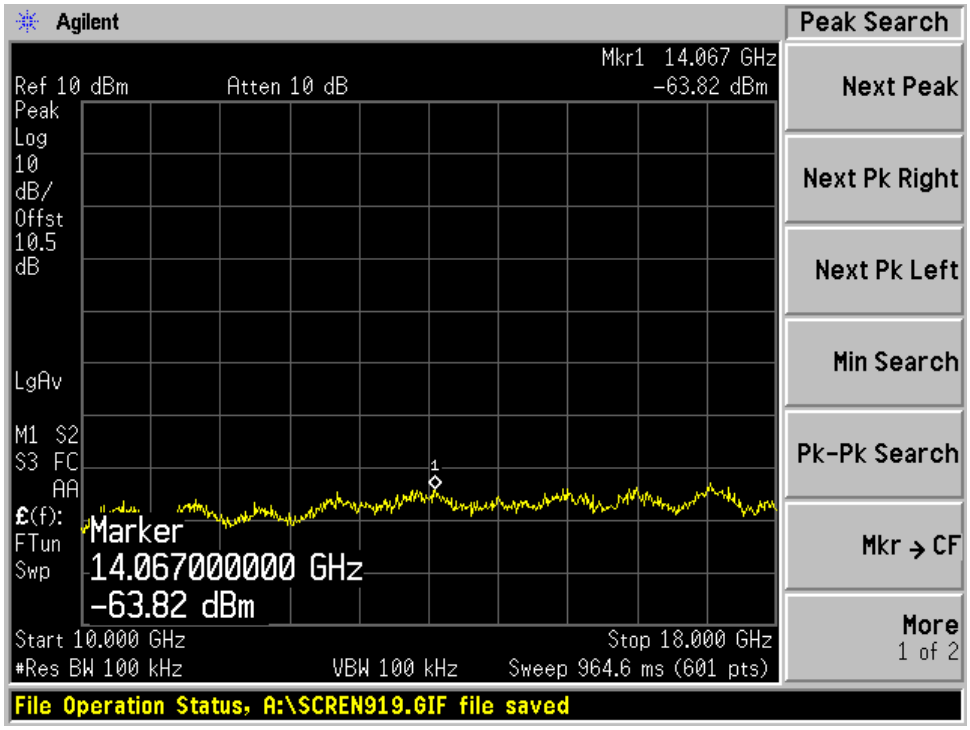

Agilent
Freq/Channel
Mkr1 17.213 GHz
Ref 10 dBm
Atten 10 dB
-62.54 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Start
10.00000000 GHz
Start 10.000 GHz
Stop 18.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 964.6 ms (601 pts)
Center Freq
14.0000000 GHz
Start Freq
10.0000000 GHz
Stop Freq
18.0000000 GHz
CF Step
800.000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
File Operation Status, A:\SCREN915.GIF file saved

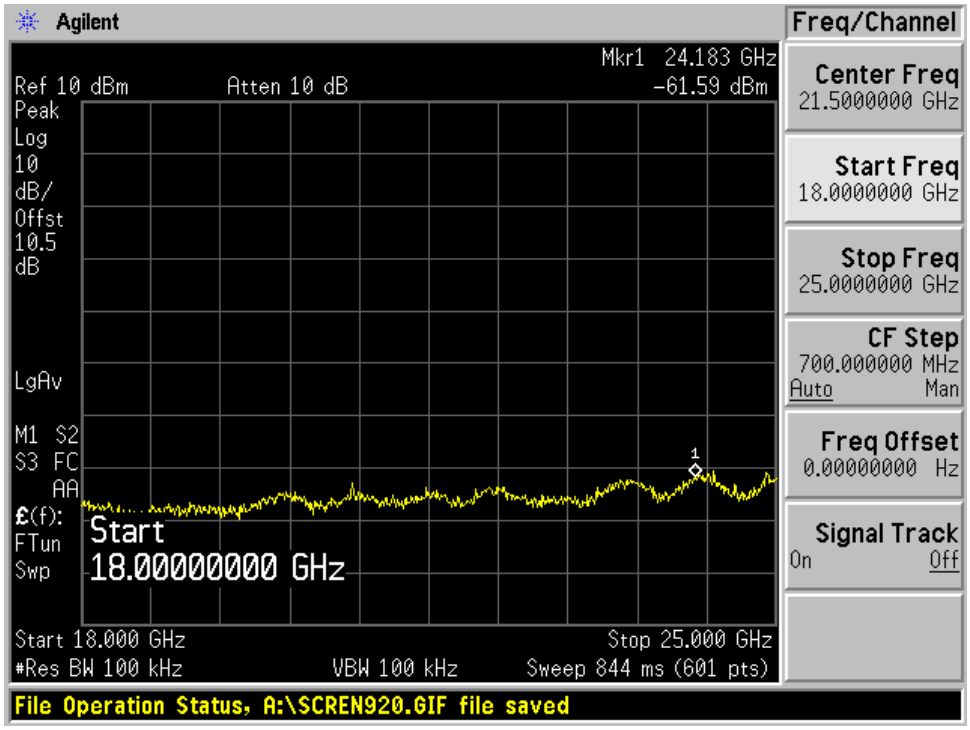

Agilent
Peak Search
Mkr1 24.907 GHz
Ref 10 dBm
Atten 10 dB
-60.67 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Marker
24.907000000 GHz
-60.67 dBm
Start 18.000 GHz
Stop 25.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 844 ms (601 pts)
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
File Operation Status, A:\SCREN916.GIF file saved

Middle Channel-6

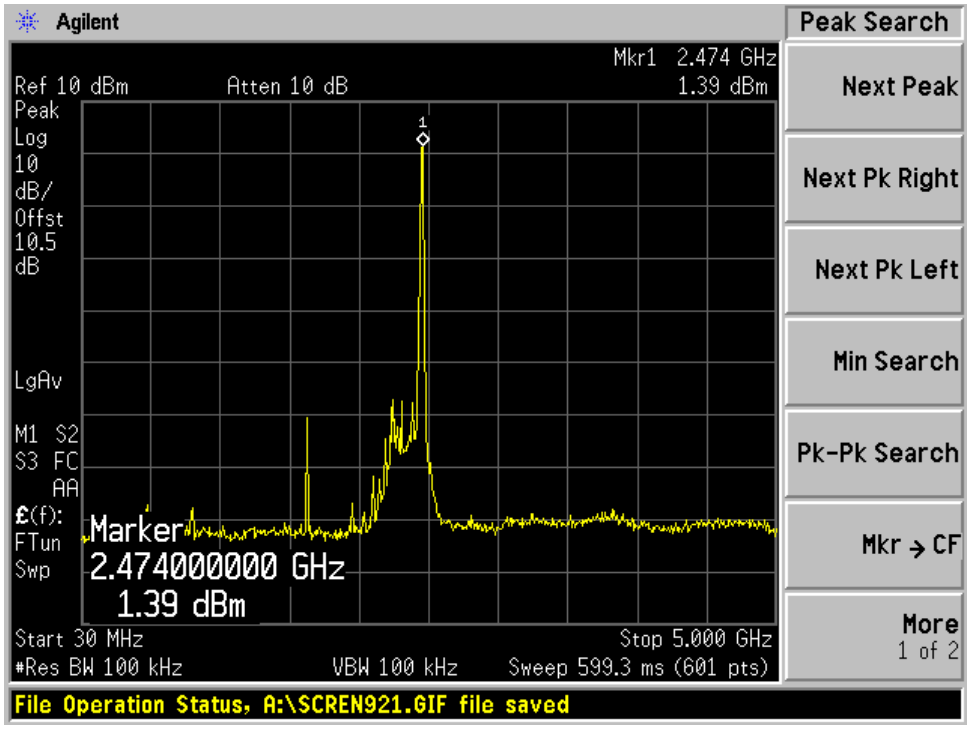


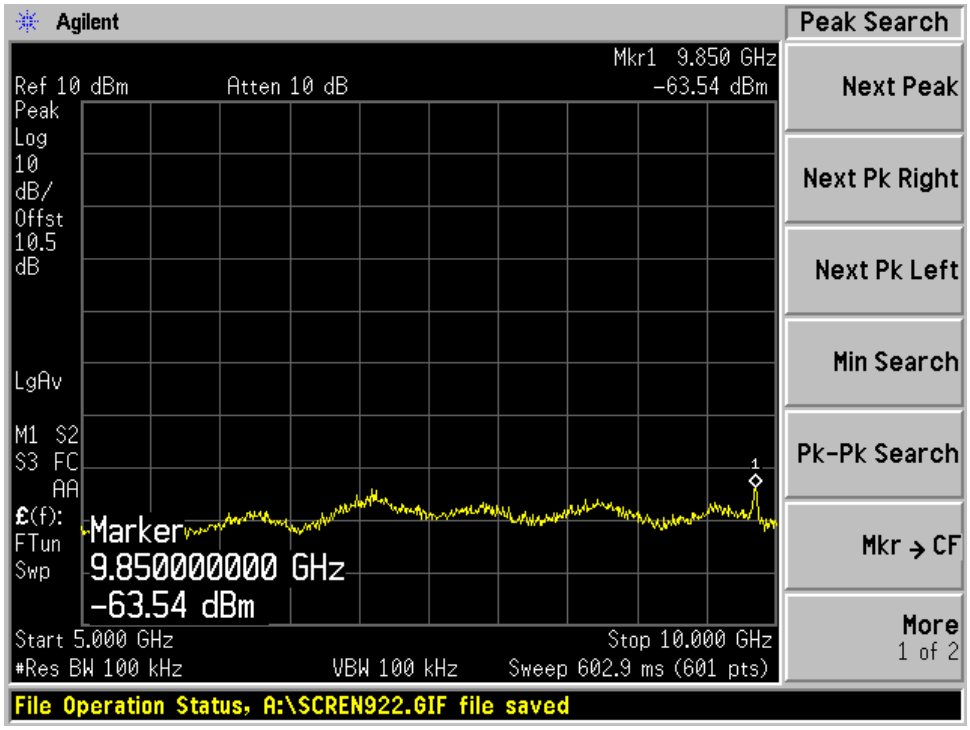


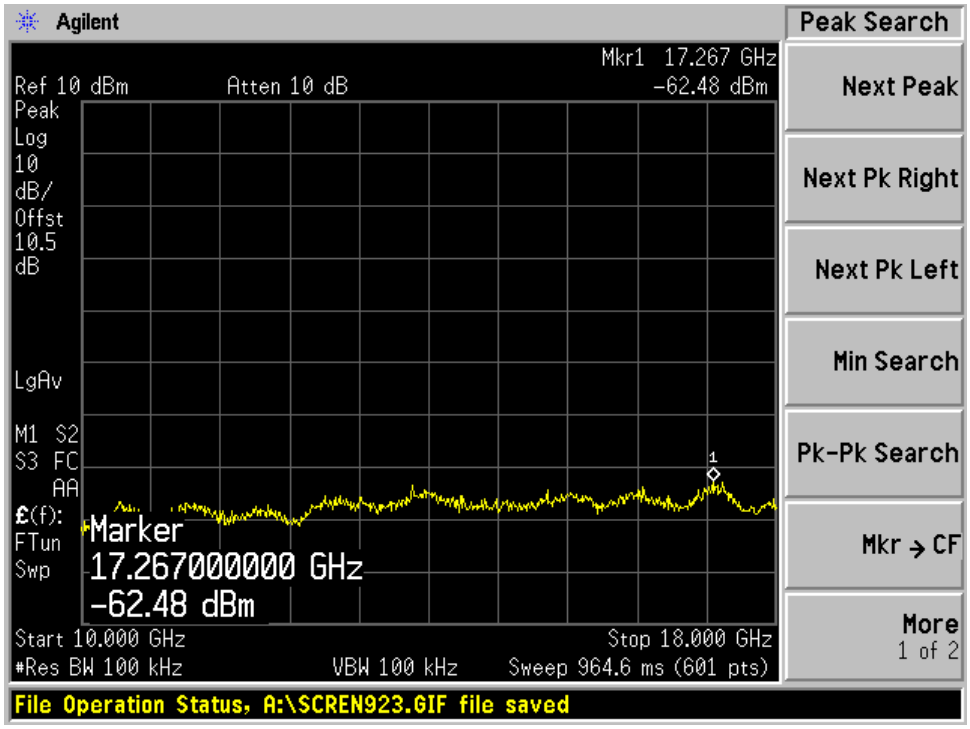

Agilent
Peak Search
Mkr1 14.067 GHz
Ref 10 dBm
Atten 10 dB
-63.82 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Marker
14.067000000 GHz
-63.82 dBm
Start 10.000 GHz
Stop 18.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 964.6 ms (601 pts)
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
File Operation Status, A:\SCREN919.GIF file saved

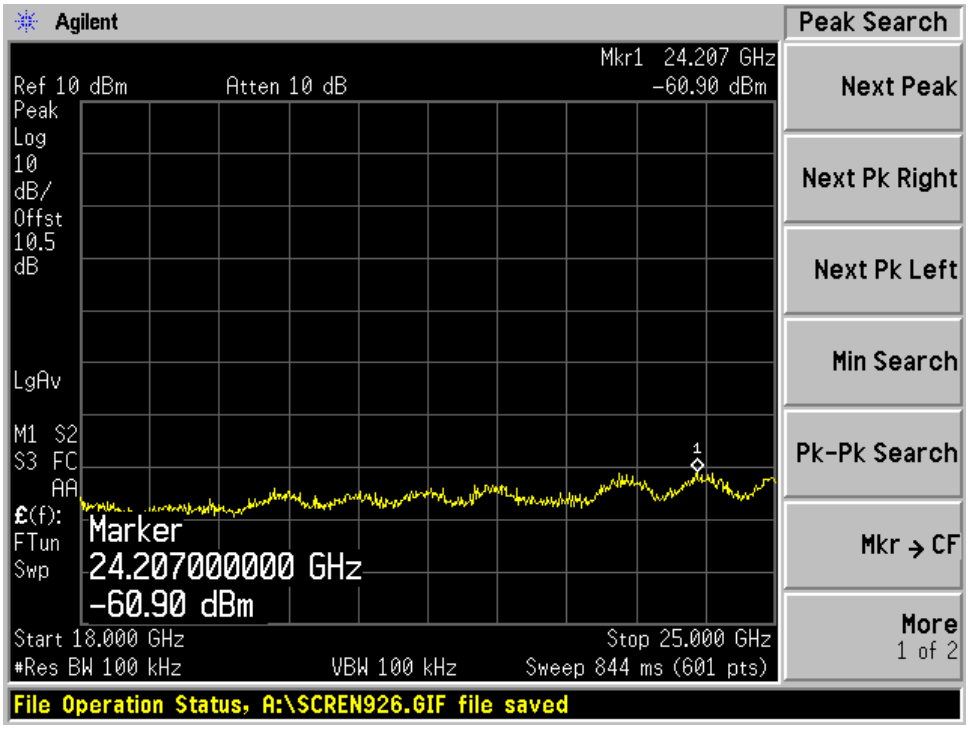

Agilent
Freq/Channel
Mkr1 24.183 GHz
Ref 10 dBm
Atten 10 dB
-61.59 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Start
18.00000000 GHz
Start 18.000 GHz
Stop 25.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 844 ms (601 pts)
Center Freq
21.5000000 GHz
Start Freq
18.0000000 GHz
Stop Freq
25.0000000 GHz
CF Step
700.000000 MHz
Auto
Man
Freq Offset
0.00000000 Hz
Signal Track
On
Off
File Operation Status, A:\SCREN920.GIF file saved

High Channel-11

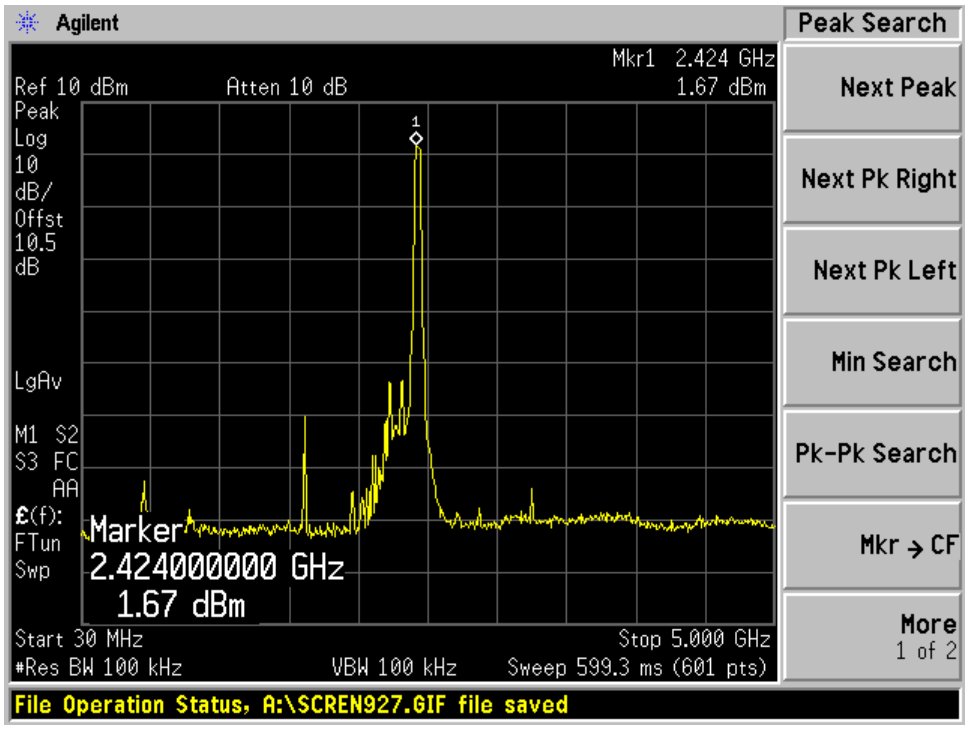


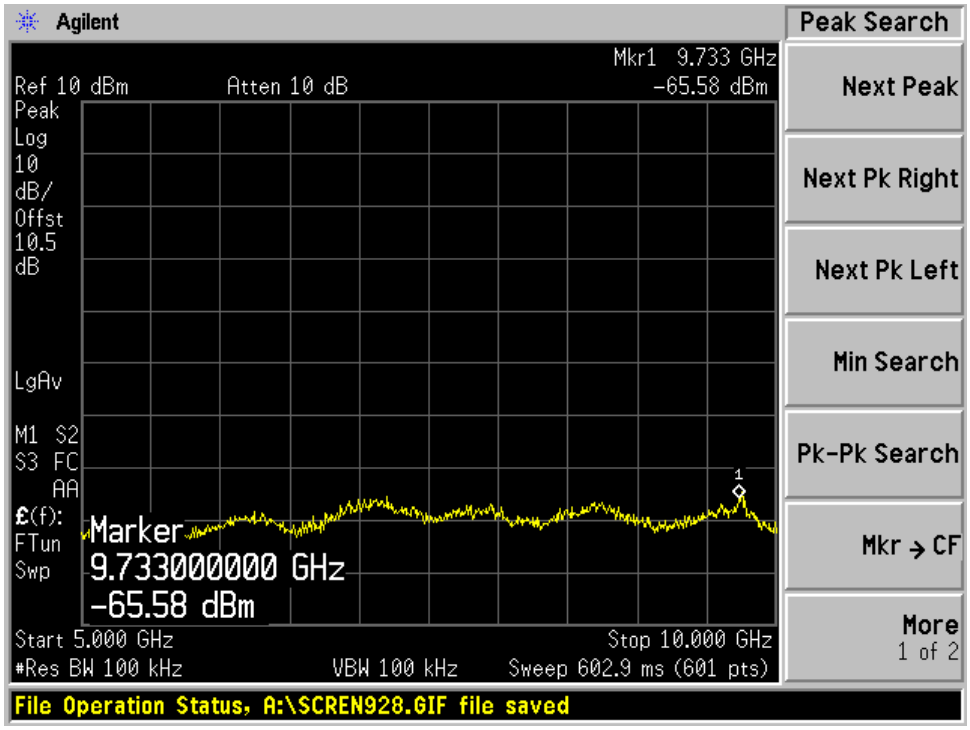


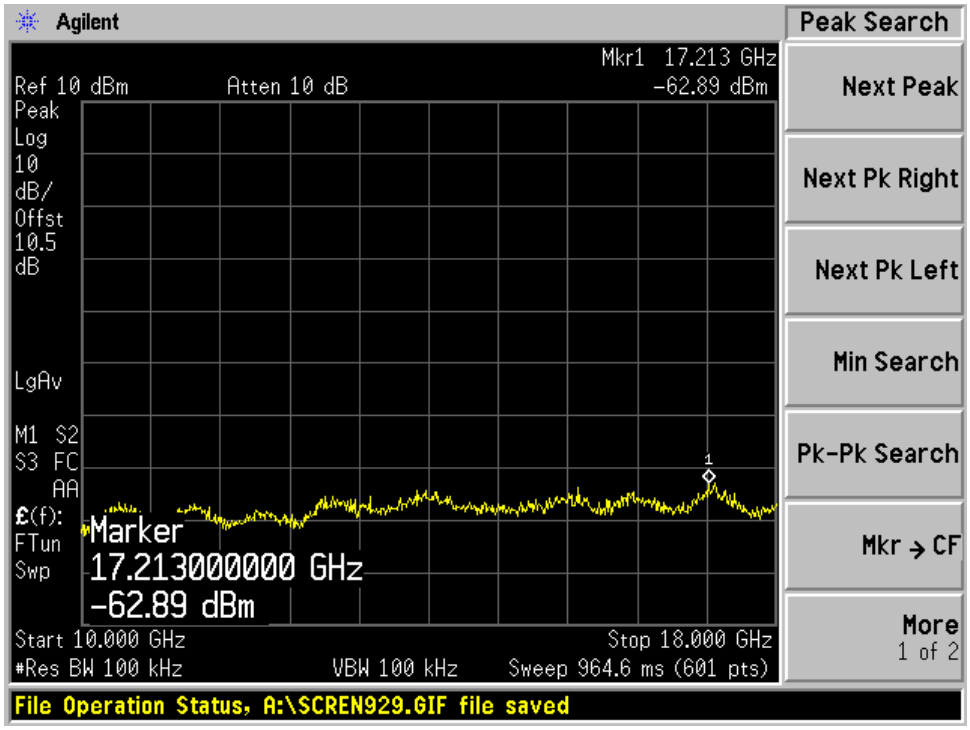

Agilent
Peak Search
Mkr1 17.267 GHz
Ref 10 dBm
Atten 10 dB
-62.48 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Marker
17.267000000 GHz
-62.48 dBm
Start 10.000 GHz
Stop 18.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 964.6 ms (601 pts)
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
File Operation Status, A:\SCREN923.GIF file saved

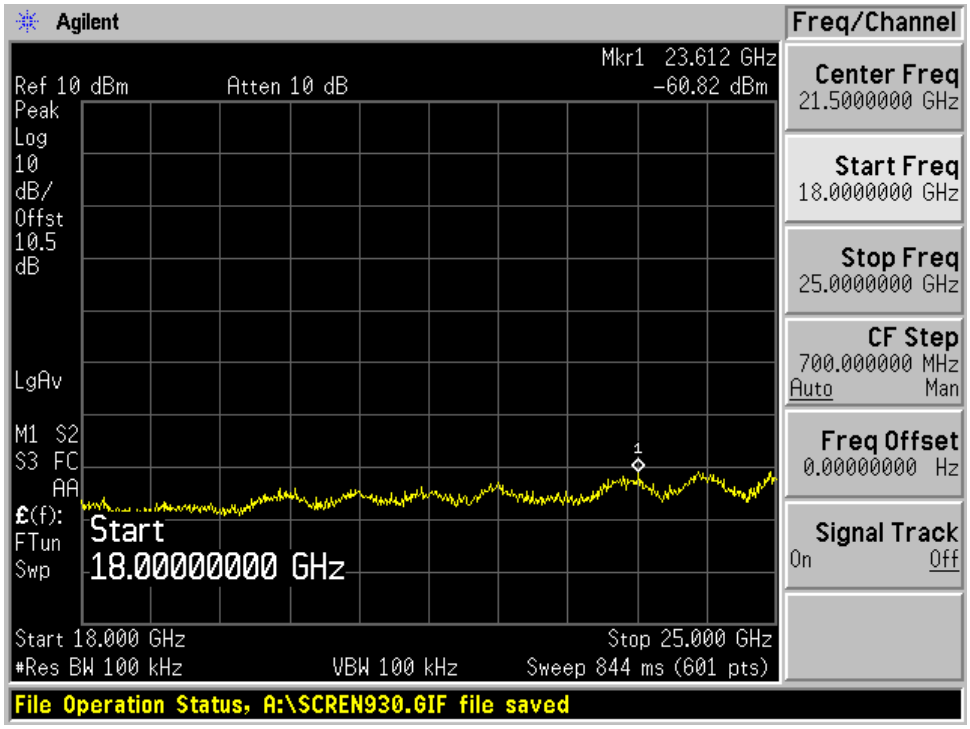

Agilent
Peak Search
Mkr1 24.207 GHz
Ref 10 dBm
Atten 10 dB
-60.90 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Marker
24.207000000 GHz
-60.90 dBm
Start 18.000 GHz
Stop 25.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 844 ms (601 pts)
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
File Operation Status, A:\SCREN926.GIF file saved

Super-G
Middle Channel-6






Agilent
Peak Search
Mkr1 17.213 GHz
Ref 10 dBm
Atten 10 dB
-62.89 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Marker
17.213000000 GHz
-62.89 dBm
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr → CF
More
1 of 2
Start 10.000 GHz
Stop 18.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 964.6 ms (601 pts)
File Operation Status, A:\SCREN929.GIF file saved


Agilent
Freq/Channel
Mkr1 23.612 GHz
Ref 10 dBm
Atten 10 dB
-60.82 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FC
AA
£(f):
FTun
Swp
Start
18.00000000 GHz
Center Freq
21.5000000 GHz
Start Freq
18.0000000 GHz
Stop Freq
25.0000000 GHz
CF Step
700.000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Start 18.000 GHz
Stop 25.000 GHz
#Res BW 100 kHz
VBW 100 kHz
Sweep 844 ms (601 pts)
File Operation Status, A:\SCREN930.GIF file saved

§15.205, §15.209 (a) & §15.247(d) – RADIATED SPURIOUS EMISSIONS

Test Setup

The radiated emissions tests were performed in the 3-meter chamber, using the setup in accordance with ANSI C63.4-2003. The specifications used are the FCC 15 Subpart C limits.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Cal. Date
Sonoma	Amplifier, Pre	317	260408	2006-02-03
Agilent	Analyzer, Spectrum	E4446A	US44300386	2006-03-06
HP	Amplifier, Pre (1 ~ 26.5 GHz)	8449B	3147A00400	2006-08-10
Sunol Sciences	Antenna	JB3	A020106-3/S006628	2006-03-14
A. R.A	Antenna, Horn	DRG-118/A	1132	2005-08-17

*** Statement of Traceability: BACL Corp.** attests that all calibrations have been performed per the NVLAP requirements, traceable to the NIST.

Environmental Conditions

Temperature:	20° C
Relative Humidity:	56%
ATM Pressure:	1024 mbar

**The testing was performed by James Ma on 2006-10-25.*

Test Procedure

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations.

All data were recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limits), and are distinguished with a "**QP**" in the data table.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

Corrected Amplitude = Indicated Reading + Antenna Factor + Cable Factor - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emissions is 7dB below the maximum limit. The equation for margin calculation is as follows:

Margin = Corrected Amplitude – Part 15.247 Limit

Summary of Test Results

According to the data hereinafter, the EUT complied with the FCC Title 47, Part 15, Subpart C, section 15.205, 15.209 and 15.247, and had the worst margin of:

802.11b:

-17.1 dB at **7236.0 MHz** in the **Vertical** polarization, **Low** Channel

-17.5 dB at **7311.0 MHz** in the **Vertical** polarization, **Middle** Channel

-17.8 dB at **7386.0 MHz** in the **Vertical** polarization, **High** Channel

802.11g:

-17.1 dB at **7236.0 MHz** in the **Vertical** polarization, **Low** Channel

-17.8 dB at **7311.0 MHz** in the **Vertical** polarization, **Middle** Channel

-18.4 dB at **7386.0 MHz** in the **Vertical** polarization, **High** Channel

Super-g

-17.8 dB at **7311.0 MHz** in the **Vertical** polarization, **Middle** Channel

Run#1 Radiated Harmonics and Spur Emissions

802.11b Low Channel:

Frequency	Reading	Azimuth	Height	Polarization	Antenna Factor	Cable Loss	Amplifier Gain	Corrected Reading	Limit	Margin	Comments
MHz	dBuV	Degrees	Meters	H / V	dB/m	dB	dB	dBuV/m	dBuV/m	(dB)	
2412.0	119.8	0	1.0	v	28.7	1.5	35.8	114.1			Fund/Peak
2412.0	104.2	90	1.2	h	28.7	1.5	35.8	98.5			Fund/Peak
2412.0	115.0	0	1.2	v	28.7	1.5	35.8	109.3			Ave
2412.0	100.4	90	1.2	h	28.7	1.5	35.8	94.7			Ave
7236.0	30.7	180	2.0	v	36.7	4.2	34.7	36.9	54	-17.1	Ave
7236.0	29.5	90	2.0	h	36.7	4.2	34.7	35.7	54	-18.3	Ave
4824.0	31.1	270	2.4	v	32.5	1.9	34.8	30.7	54	-23.3	Ave
4824.0	30.0	180	2.3	h	32.5	1.9	34.8	29.6	54	-24.4	Ave
7236.0	32.0	90	2.0	v	36.7	4.2	34.7	38.2	74	-35.8	Peak
7236.0	30.0	180	2.0	h	36.7	4.2	34.7	36.2	74	-37.8	Peak
4824.0	32.2	270	2.4	v	32.5	1.9	34.8	31.8	74	-42.2	Peak
4824.0	30.4	180	2.3	h	32.5	1.9	34.8	30.0	74	-44.0	Peak

802.11b Middle Channel:

Frequency	Reading	Azimuth	Height	Polarization	Antenna Factor	Cable Loss	Amplifier Gain	Corrected Reading	Limit	Margin	Comments
MHz	dBuV	Degrees	Meters	H / V	dB/m	dB	dB	dBuV/m	dBuV/m	(dB)	
2437.0	118.2	0	1.3	v	28.7	1.5	35.8	112.5			Fund/Peak
2437.0	103.1	90	1.2	h	28.7	1.5	35.8	97.4			Fund/Peak
2437.0	114.5	0	1.3	v	28.7	1.5	35.8	108.8			Ave
2437.0	100.2	90	1.2	h	28.7	1.5	35.8	94.5			Ave
7311.0	30.3	270	2.4	v	36.7	4.2	34.7	36.5	54	-17.5	Ave
7311.0	30.0	180	2.1	h	36.7	4.2	34.7	36.2	54	-17.8	Ave
4874.0	32.0	270	2.4	v	32.5	1.9	34.8	31.6	54	-22.4	Ave
4874.0	30.0	180	2.2	h	32.5	1.9	34.8	29.6	54	-24.4	Ave
7311.0	32.0	270	2.4	v	36.7	4.2	34.7	38.2	74	-35.8	Peak
7311.0	31.1	180	2.3	h	36.7	4.2	34.7	37.3	74	-36.7	Peak
4874.0	33.0	270	2.4	v	32.5	1.9	34.8	32.6	74	-41.4	Peak
4874.0	31.0	180	2.2	h	32.5	1.9	34.8	30.6	74	-43.4	Peak

802.11b High Channel:

Frequency	Reading	Azimuth	Height	Polarization	Antenna Factor	Cable Loss	Amplifier Gain	Corrected Reading	Limit	Margin	Comments
MHz	dBuV	Degrees	Meters	H / V	dB/m	dB	dB	dBuV/m	dBuV/m	(dB)	
2462.0	118.1	0	1.3	v	28.7	1.5	35.8	112.4			Fund/Peak
2462.0	102.2	90	1.2	h	28.7	1.5	35.8	96.5			Fund/Peak
2462.0	113.6	0	1.3	v	28.7	1.5	35.8	107.9			Fund/Peak
2462.0	99.7	90	1.2	h	28.7	1.5	35.8	94.0			Ave
7386.0	30.0	270	2.4	v	36.7	4.2	34.7	36.2	54	-17.8	Peak
7386.0	30.0	90	2.1	h	36.7	4.2	34.7	36.2	54	-17.8	Peak
4924.0	30.4	270	2.4	v	32.5	1.9	34.8	30.0	54	-24.0	Ave
4924.0	29.2	90	2.1	h	32.5	1.9	34.8	28.8	54	-25.2	Ave
7386.0	31.6	270	2.4	v	36.7	4.2	34.7	37.8	74	-36.2	Ave
7386.0	30.8	90	2.1	h	36.7	4.2	34.7	37.0	74	-37.0	Peak
4924.0	32.2	270	2.4	v	32.5	1.9	34.8	31.8	74	-42.2	Ave
4924.0	30.0	90	2.1	h	32.5	1.9	34.8	29.6	74	-44.4	Ave

802.11g Low Channel:

Frequency	Reading	Azimuth	Height	Polarization	Antenna Factor	Cable Loss	Amplifier Gain	Corrected Reading	Limit	Margin	Comments
MHz	dBuV	Degrees	Meters	H / V	dB/m	dB	dB	dBuV/m	dBuV/m	(dB)	
2412.0	116.2	90	1.0	v	28.7	1.5	35.8	110.5			Fund/Peak
2412.0	102.5	0	1.2	h	28.7	1.5	35.8	96.8			Fund/Peak
2412.0	110.7	180	1.2	v	28.7	1.5	35.8	105.0			Ave
2412.0	96.4	0	1.2	h	28.7	1.5	35.8	90.7			Ave
7236.0	30.7	180	2.0	v	36.7	4.2	34.7	36.9	54	-17.1	Ave
7236.0	29.5	90	2.0	h	36.7	4.2	34.7	35.7	54	-18.3	Ave
4824.0	31.1	270	2.4	v	32.5	1.9	34.8	30.7	54	-23.3	Ave
4824.0	30.0	180	2.3	h	32.5	1.9	34.8	29.6	54	-24.4	Ave
7236.0	32.0	90	2.0	v	36.7	4.2	34.7	38.2	74	-35.8	Peak
7236.0	30.0	180	2.0	h	36.7	4.2	34.7	36.2	74	-37.8	Peak
4824.0	32.2	270	2.4	v	32.5	1.9	34.8	31.8	74	-42.2	Peak
4824.0	30.4	180	2.3	h	32.5	1.9	34.8	30.0	74	-44.0	Peak

802.11g Middle Channel:

Frequency	Reading	Azimuth	Height	Polarization	Antenna Factor	Cable Loss	Amplifier Gain	Corrected Reading	Limit	Margin	Comments
MHz	dBuV	Degrees	Meters	H / V	dB/m	dB	dB	dBuV/m	dBuV/m	(dB)	
2437.0	116.4	180	1.3	v	28.7	1.5	35.8	110.7			Fund/Peak
2437.0	104.1	180	1.2	h	28.7	1.5	35.8	98.4			Fund/Peak
2437.0	111.2	180	1.3	v	28.7	1.5	35.8	105.5			Ave
2437.0	98.3	180	1.2	h	28.7	1.5	35.8	92.6			Ave
7311.0	30.0	270	2.4	v	36.7	4.2	34.7	36.2	54	-17.8	Ave
7311.0	29.1	180	2.1	h	36.7	4.2	34.7	35.3	54	-18.7	Ave
4874.0	30.0	270	2.4	v	32.5	1.9	34.8	29.6	54	-24.4	Ave
4874.0	29.8	180	2.2	h	32.5	1.9	34.8	29.4	54	-24.6	Ave
7311.0	31.0	270	2.4	v	36.7	4.2	34.7	37.2	74	-36.8	Peak
7311.0	30.0	180	2.3	h	36.7	4.2	34.7	36.2	74	-37.8	Peak
4874.0	32.0	270	2.4	v	32.5	1.9	34.8	31.6	74	-42.4	Peak
4874.0	31.1	180	2.2	h	32.5	1.9	34.8	30.7	74	-43.3	Peak

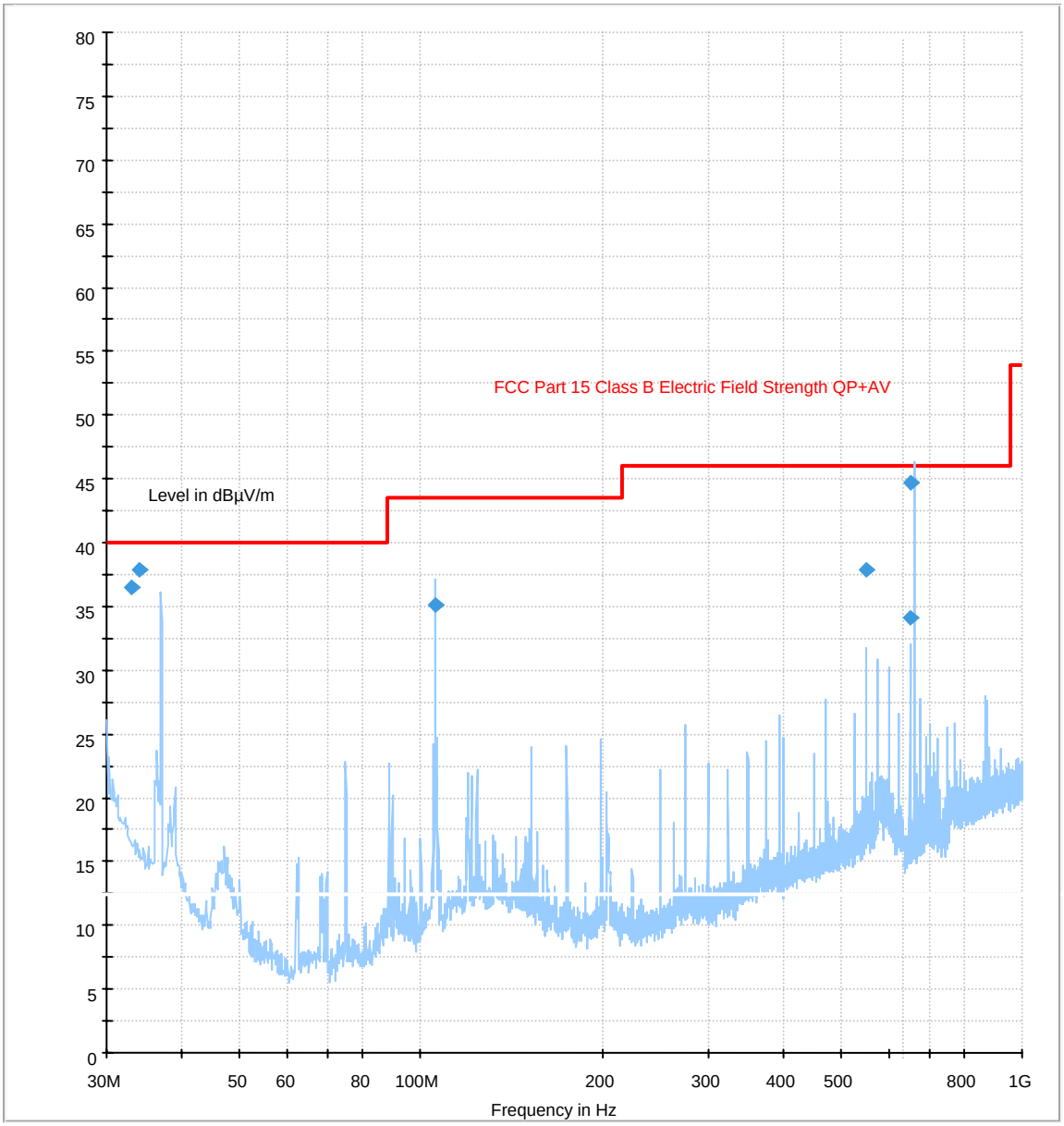
802.11g High Channel:

Frequency	Reading	Azimuth	Height	Polarization	Antenna Factor	Cable Loss	Amplifier Gain	Corrected Reading	Limit	Margin	Comments
MHz	dBuV	Degrees	Meters	H / V	dB/m	dB	dB	dBuV/m	dBuV/m	(dB)	
2462.0	115.7	180	1.3	v	28.7	1.5	35.8	110.0			Fund/Peak
2462.0	103.8	180	1.2	h	28.7	1.5	35.8	98.1			Fund/Peak
2462.0	110.2	180	1.3	v	28.7	1.5	35.8	104.5			Ave
2462.0	98.0	180	1.2	h	28.7	1.5	35.8	92.3			Ave
7386.0	29.4	270	2.4	v	36.7	4.2	34.7	35.6	54	-18.4	Ave
7386.0	29.2	90	2.1	h	36.7	4.2	34.7	35.4	54	-18.6	Ave
4924.0	30.0	270	2.4	v	32.5	1.9	34.8	29.6	54	-24.4	Ave
4924.0	29.5	90	2.1	h	32.5	1.9	34.8	29.1	54	-24.9	Ave
7386.0	31.1	270	2.4	v	36.7	4.2	34.7	37.3	74	-36.7	Peak
7386.0	30.0	90	2.1	h	36.7	4.2	34.7	36.2	74	-37.8	Peak
4924.0	31.5	270	2.4	v	32.5	1.9	34.8	31.1	74	-42.9	Peak
4924.0	31.1	90	2.1	h	32.5	1.9	34.8	30.7	74	-43.3	Peak

Super-g - Mid Channel:

Frequency	Reading	Azimuth	Height	Polarization	Antenna Factor	Cable Loss	Amplifier Gain	Corrected Reading	Limit	Margin	Comments
MHz	dBuV	Degrees	Meters	H / V	dB/m	dB	dB	dBuV/m	dBuV/m	(dB)	
2437.0	115.3	180	1.3	v	28.7	1.5	35.8	109.6			Fund/Peak
2437.0	103.5	180	1.2	h	28.7	1.5	35.8	97.8			Fund/Peak
2437.0	110.1	180	1.3	v	28.7	1.5	35.8	104.4			Ave
2437.0	97.5	180	1.2	h	28.7	1.5	35.8	91.8			Ave
7311.0	30.0	270	2.4	v	36.7	4.2	34.7	36.2	54	-17.8	Ave
7311.0	29.5	180	2.1	h	36.7	4.2	34.7	35.7	54	-18.3	Ave
4874.0	30.0	270	2.4	v	32.5	1.9	34.8	29.6	54	-24.4	Ave
4874.0	29.8	180	2.2	h	32.5	1.9	34.8	29.4	54	-24.6	Ave
7311.0	31.0	270	2.4	v	36.7	4.2	34.7	37.2	74	-36.8	Peak
7311.0	30.0	180	2.3	h	36.7	4.2	34.7	36.2	74	-37.8	Peak
4874.0	31.6	270	2.4	v	32.5	1.9	34.8	31.2	74	-42.8	Peak
4874.0	30.7	180	2.2	h	32.5	1.9	34.8	30.3	74	-43.7	Peak

Unwanted Emissions @ 3 meter
30 MHz to 1 GHz



Frequency (MHz)	QuasiPeak (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
33.000000	36.4	120.0	V	0.0	-17.7	3.6	40.0
33.991250	37.9	118.0	V	359.0	-18.4	2.1	40.0
105.620000	35.1	118.0	V	328.0	-24.5	8.4	43.5
550.001250	37.9	124.0	V	359.0	-17.7	8.1	46.0
650.032500	34.1	100.0	V	354.0	-16.0	11.9	46.0
659.975000	44.5	100.0	V	0.0	-16.0	1.5	46.0

§15.247(a) (2) – 6 dB BANDWIDTH

Applicable Standard

According to §15.247(a)(2), for digital modulation techniques, the minimum 6dB bandwidth shall be at least 500 kHz.

Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 6 dB from the reference level. Record the frequency difference as the emissions bandwidth. (6 dB bandwidth for DTS)
4. Repeat above procedures until all frequencies measured were complete.

Equipment Lists

Manufacturer	Description	Model	Serial Number	Cal. Date
Agilent	Analyzer, Spectrum	E4446A	US44300386	2006-03-06

*** Statement of Traceability: BACL Corp.** attests that all calibrations have been performed per the NVLAP requirements, traceable to the NIST.

Environmental Conditions

Temperature:	20° C
Relative Humidity:	56%
ATM Pressure:	1024 mbar

**The testing was performed by James Ma on 2006-10-25.*

Measurement Result

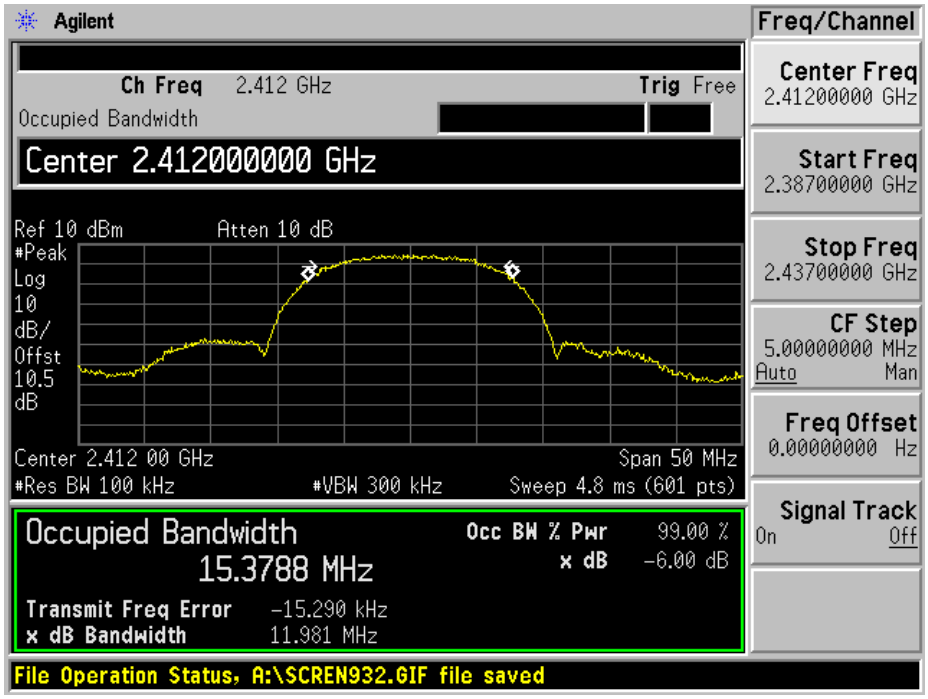
Channel 802.11b	Frequency MHz	Channel Bandwidth (KHz)	Limit KHz
Low	2412	11981	>500
Mid	2437	11053	>500
High	2462	11856	>500

Channel 802.11g	Frequency MHz	Channel Bandwidth (KHz)	Limit KHz
Low	2412	16529	>500
Mid	2437	16486	>500
High	2462	16485	>500

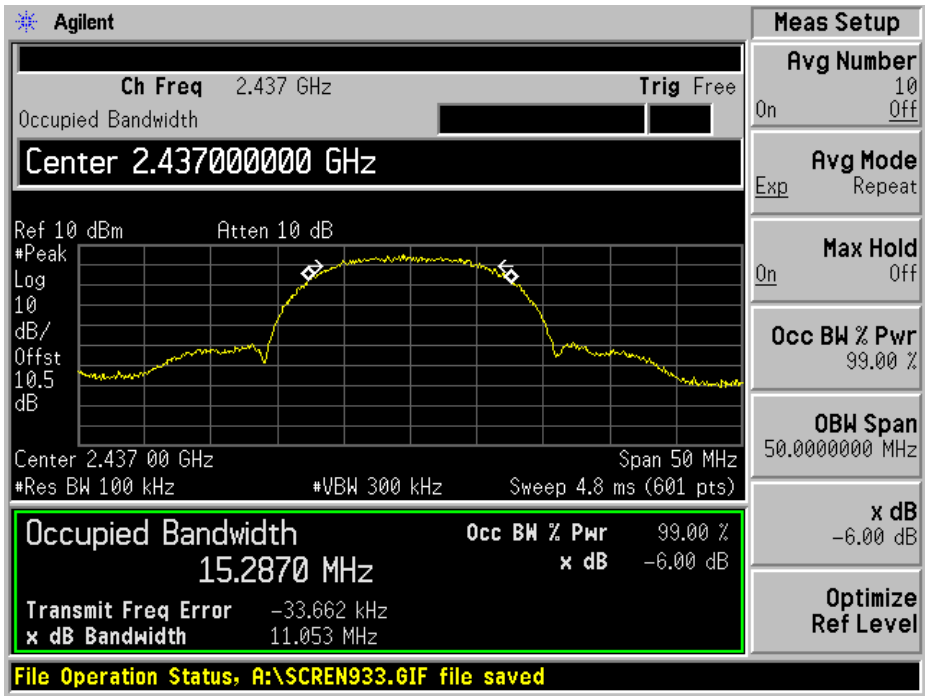
Channel Super-G	Frequency MHz	Channel Bandwidth (KHz)	Limit KHz
Mid	2437	31602	>500

802.11 b mode:

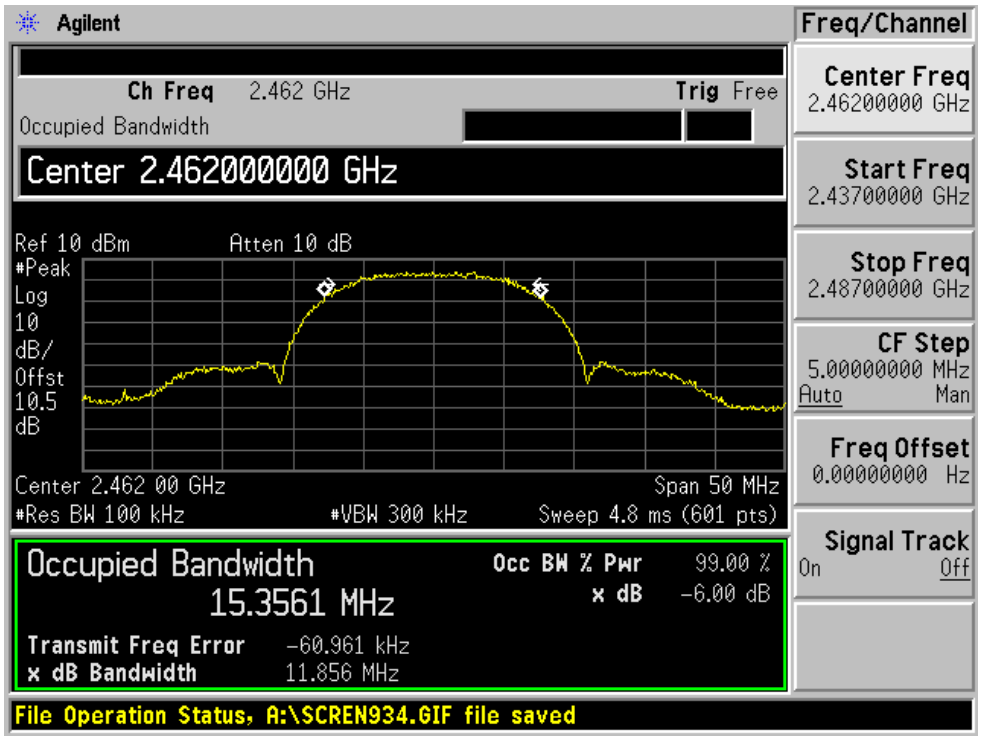
Low Channel



Middle Channel

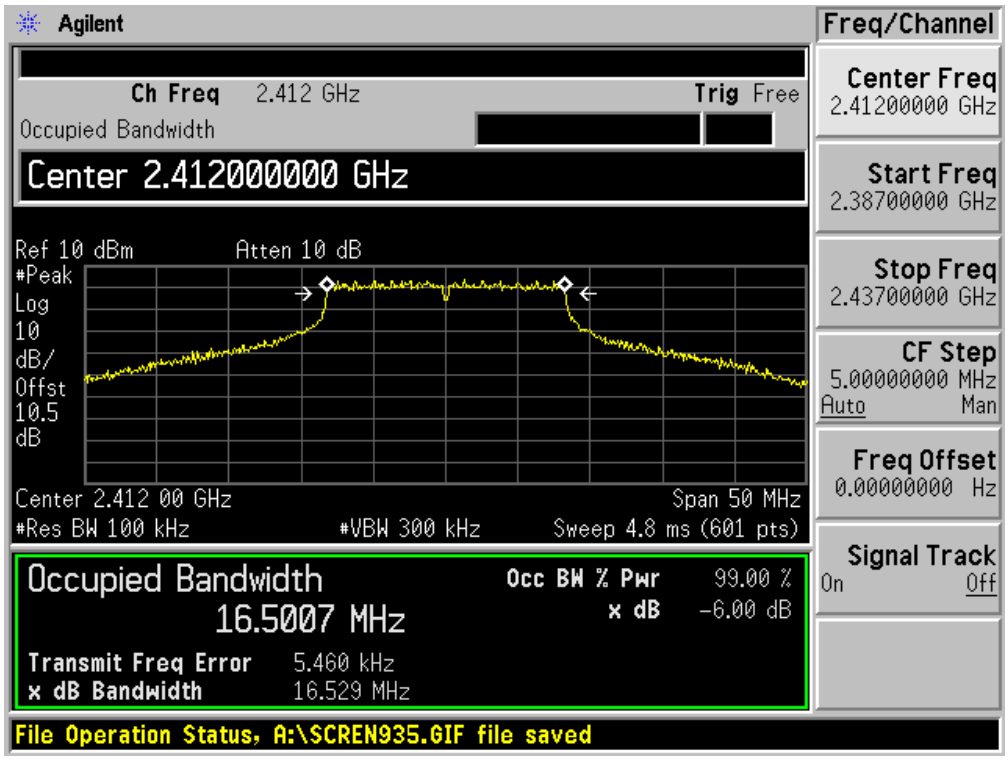


High Channel

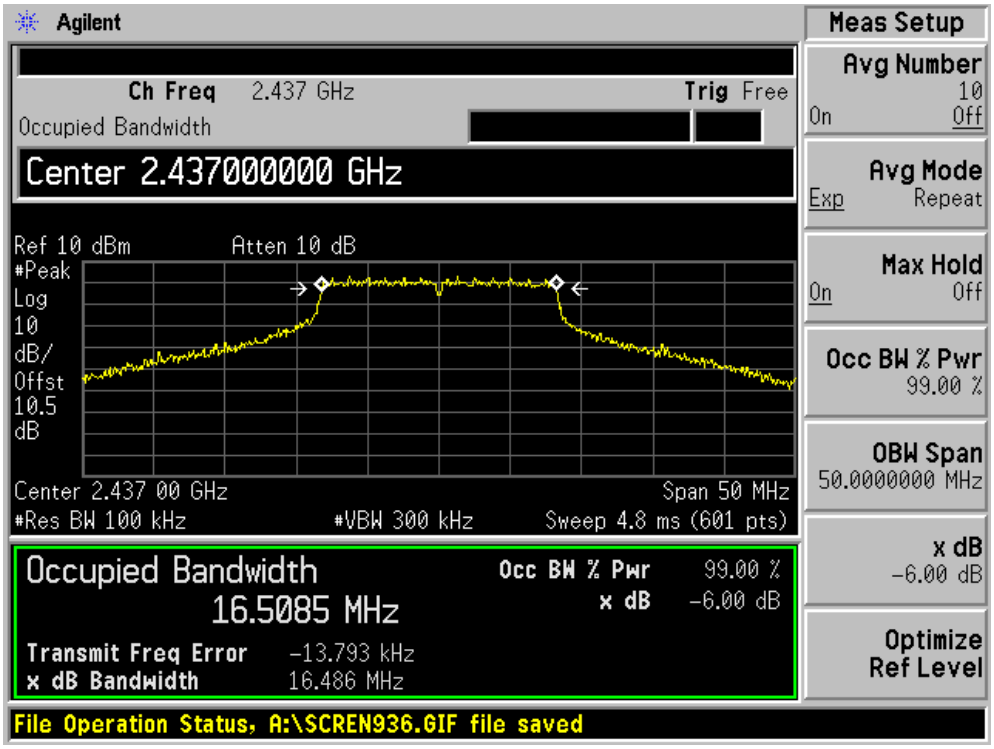


802.11g mode:

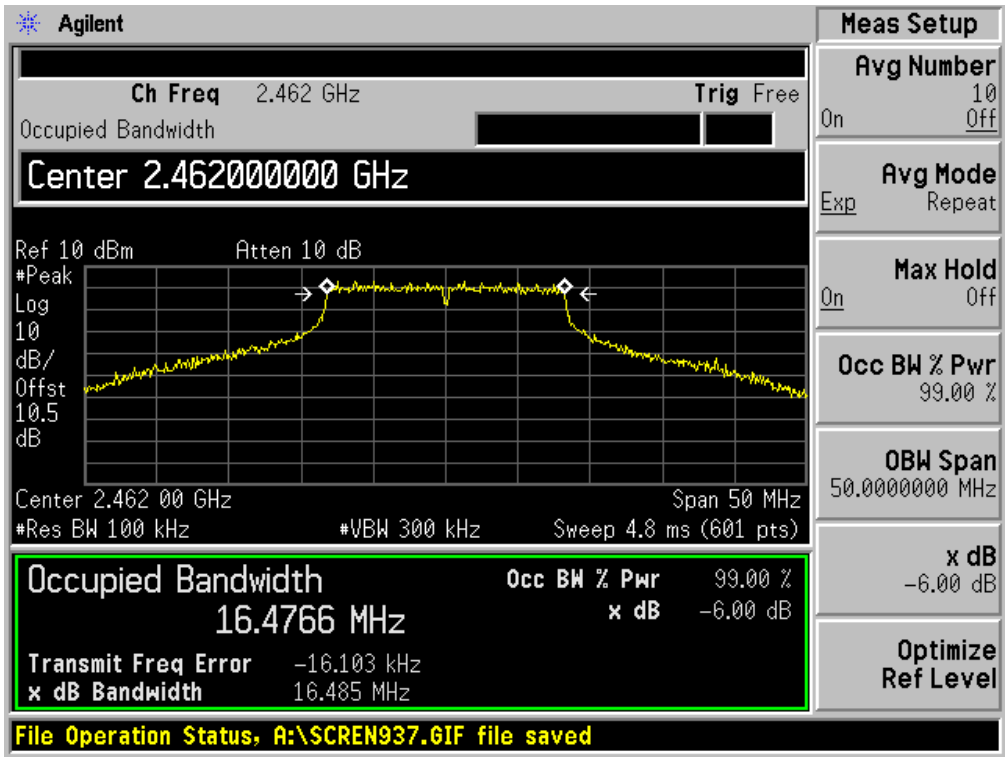
Low Channel



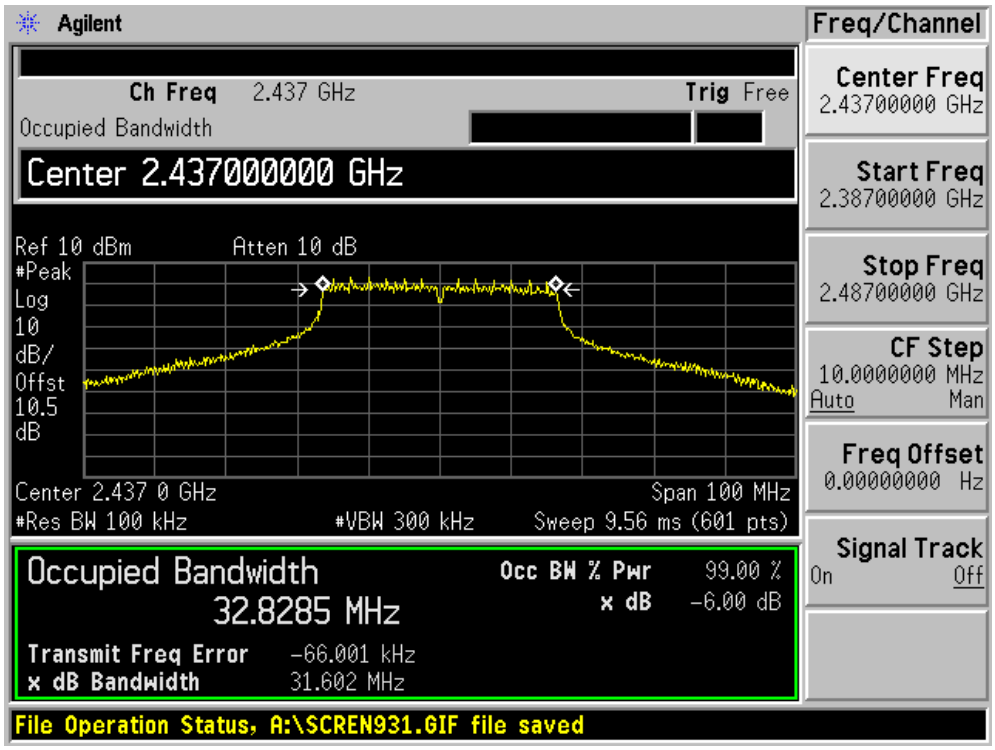
Middle Channel



High Channel



Super- G mode:


Agilent
Freq/Channel
Ch Freq 2.437 GHz
Trig Free
Occupied Bandwidth
Center 2.437000000 GHz
Ref 10 dBm
Atten 10 dB
#Peak
Log
10
dB/
Offst
10.5
dB
Center 2.437 0 GHz
Span 100 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 9.56 ms (601 pts)
Occupied Bandwidth
32.8285 MHz
Occ BW % Pwr 99.00 %
x dB -6.00 dB
Transmit Freq Error -66.001 kHz
x dB Bandwidth 31.602 MHz
Center Freq
2.43700000 GHz
Start Freq
2.38700000 GHz
Stop Freq
2.48700000 GHz
CF Step
10.0000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
File Operation Status, A:\SCREN931.GIF file saved

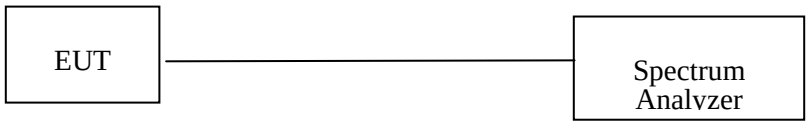
§15.247(b) (3) – MAXIMUM PEAK OUTPUT POWER

Applicable Standard

According to §15.247(b) (3), for systems using digital modulation in 2400-2483.5 MHz: 1 Watt

Measurement Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to a spectrum analyzer.
3. Add a correction factor to the display.



Equipment Lists

Manufacturer	Description	Model	Serial Number	Cal. Date
Agilent	Analyzer, Spectrum	E4446A	US44300386	2006-03-06

*** Statement of Traceability: BACL Corp.** attests that all calibrations have been performed per the NVLAP requirements, traceable to the NIST.

Environmental Conditions

Temperature:	20° C
Relative Humidity:	56%
ATM Pressure:	1024 mbar

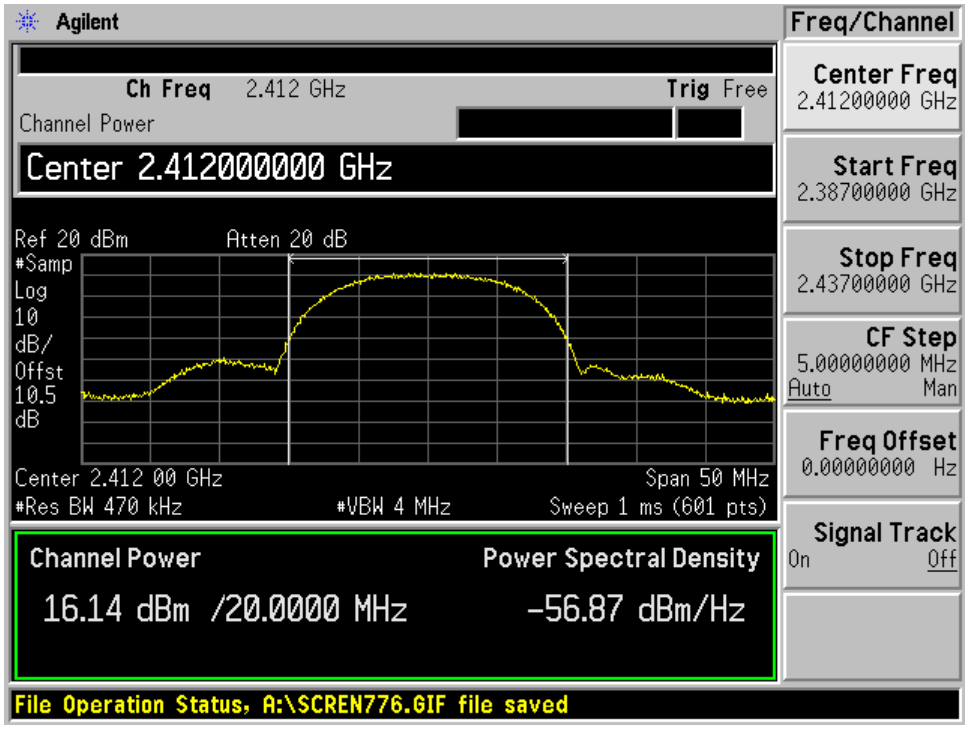
**The testing was performed by James Ma on 2006-10-25.*

Measurement Result

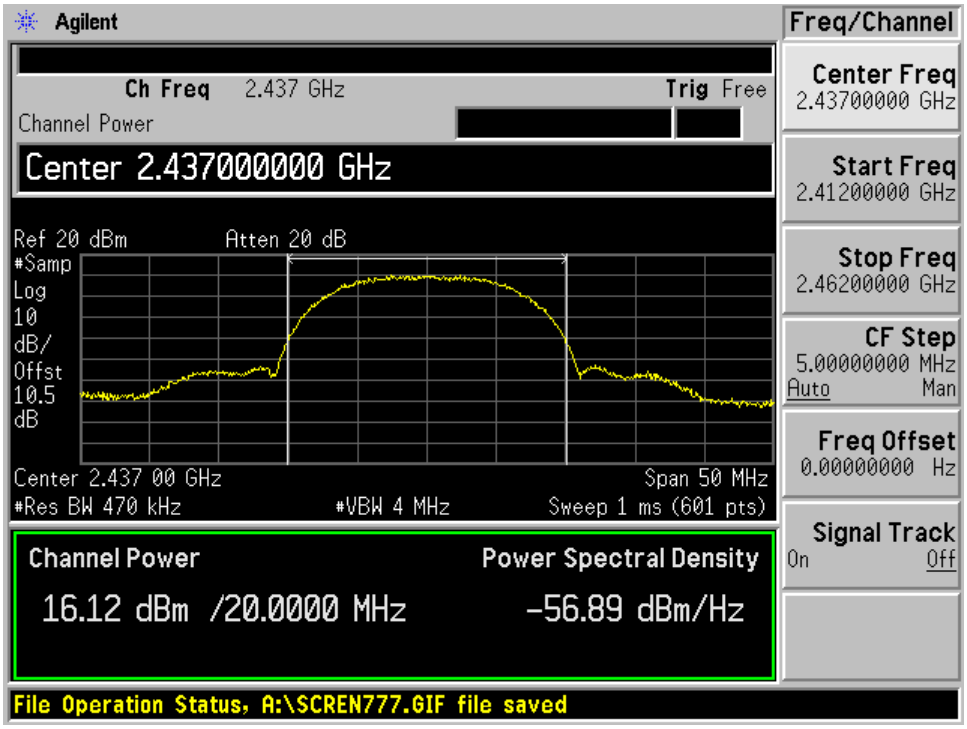
Frequency (MHz)	RF Power (dBm)			Limit (dBm) Due to 14 dbi Antenna Gain
	802.11b	802.11g	Super-G	
2412	16.14	16.17	-	22
2437	16.12	16.21	15.34	22
2462	15.51	15.28	-	22

802.11b mode:

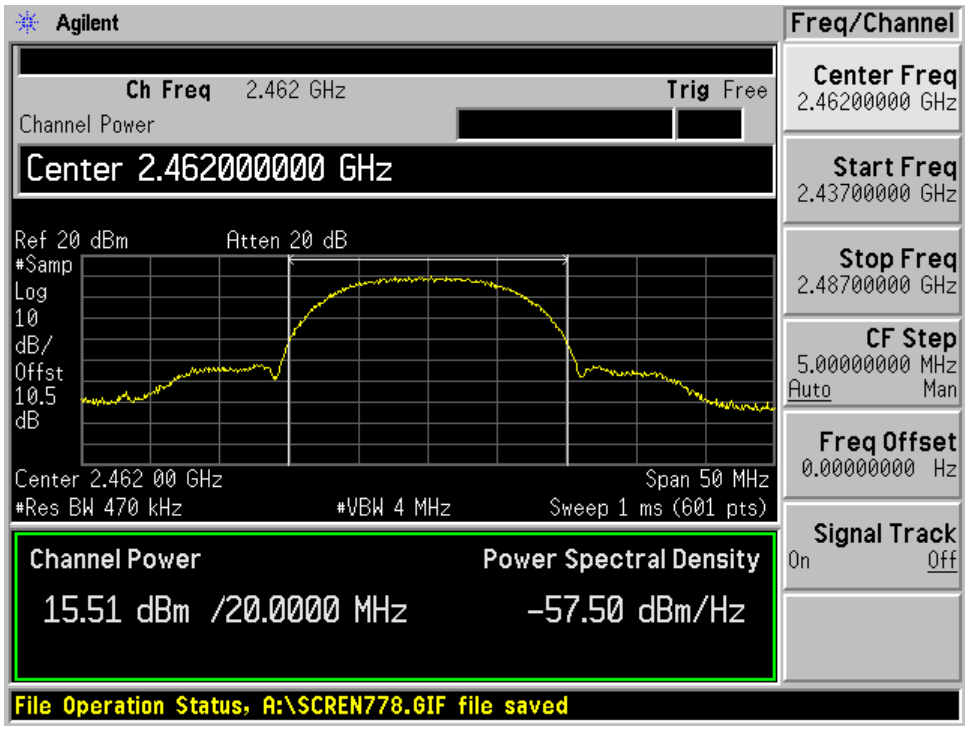
Low Channel



Middle Channel

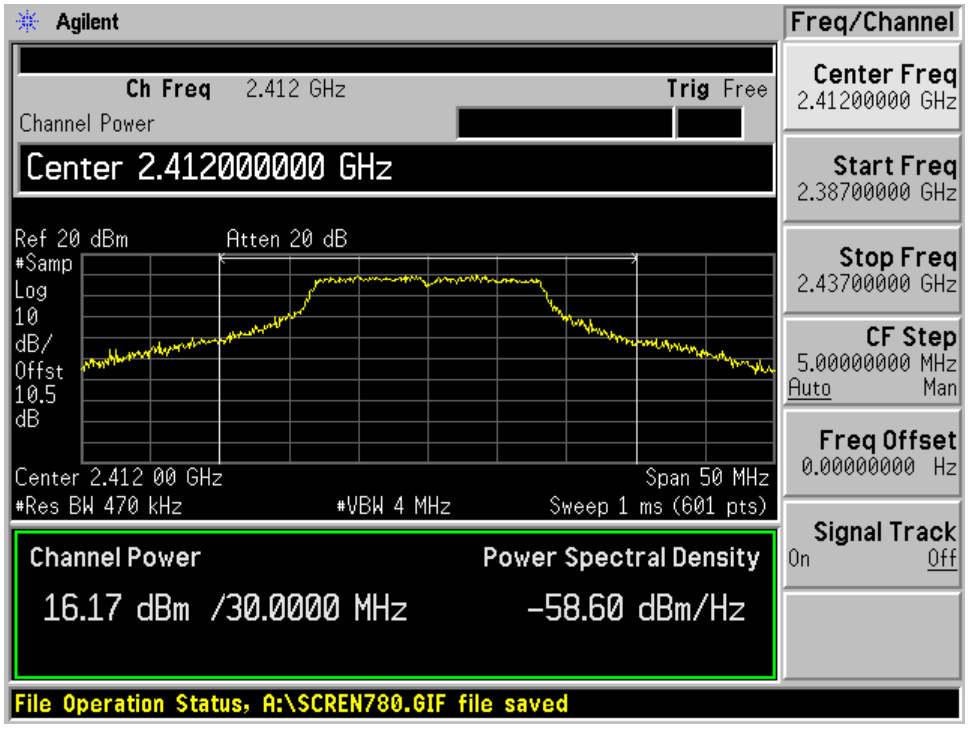


High Channel

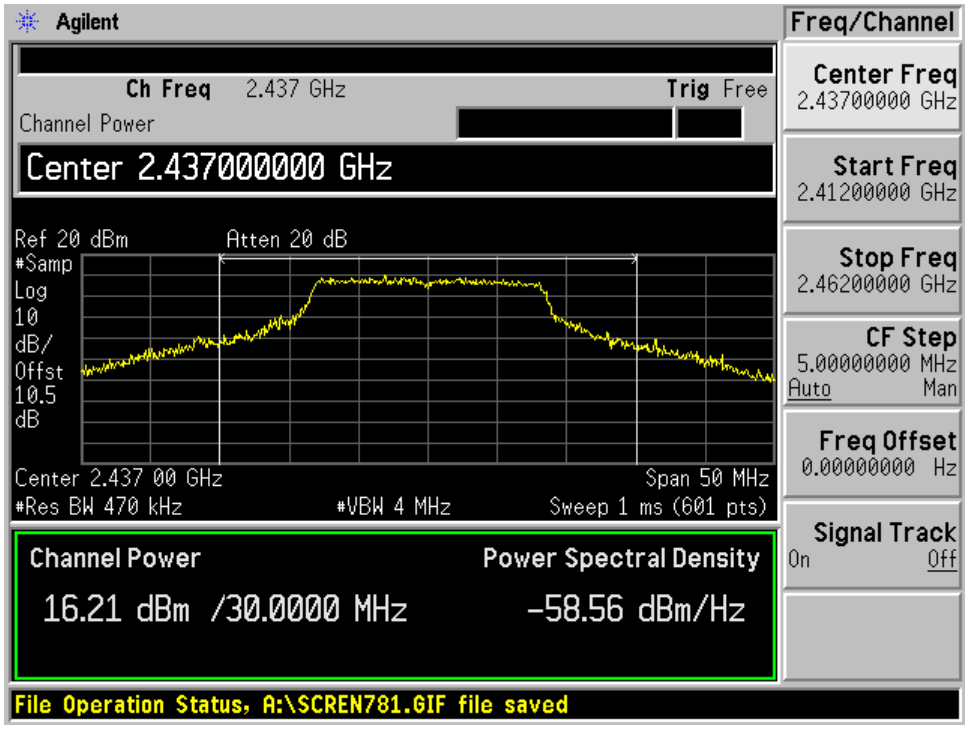


802.11g mode:

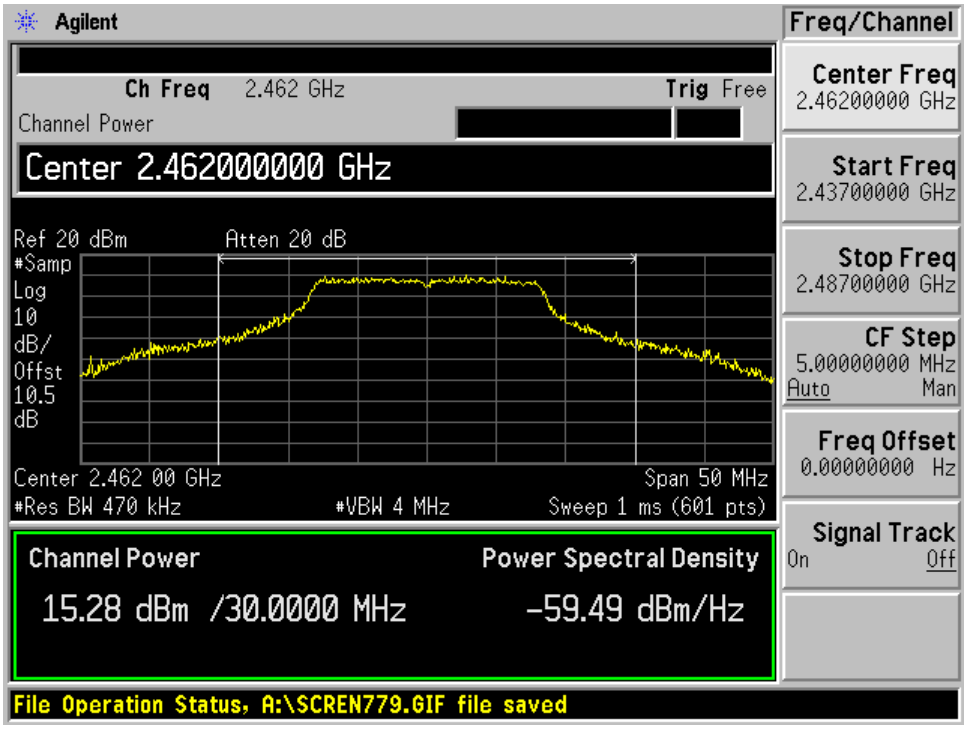
Low Channel



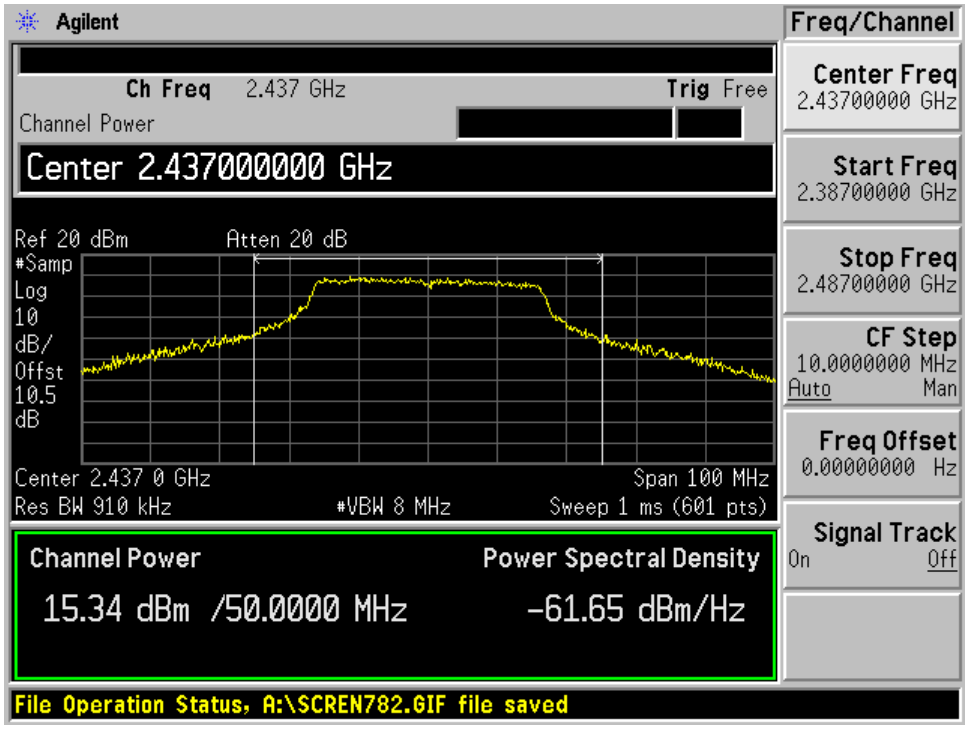
Middle Channel



High Channel



Super-G mode:


Agilent
Freq/Channel
Ch Freq 2.437 GHz
Trig Free
Channel Power
Center 2.437000000 GHz
Ref 20 dBm
Atten 20 dB
#Samp
Log
10
dB/
Offst
10.5
dB
Center 2.437 0 GHz
Span 100 MHz
Res BW 910 kHz
#VBW 8 MHz
Sweep 1 ms (601 pts)
Channel Power
15.34 dBm /50.0000 MHz
Power Spectral Density
-61.65 dBm/Hz
Center Freq
2.43700000 GHz
Start Freq
2.38700000 GHz
Stop Freq
2.48700000 GHz
CF Step
10.0000000 MHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
File Operation Status, A:\SCREN782.GIF file saved

§15.247(d) - 100 KHZ BANDWIDTH FROM BAND EDGES

Applicable Standard

According to §15.247(d), in *any* 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 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. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emissions limits specified in §15.209(a) see §15.205(c)).

Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Equipment Lists

Manufacturer	Description	Model	Serial Number	Cal. Date
Agilent	Analyzer, Spectrum	E4446A	US44300386	2006-03-06

*** Statement of Traceability: BACL Corp.** attests that all calibrations have been performed per the NVLAP requirements, traceable to the NIST.

Environmental Conditions

Temperature:	20° C
Relative Humidity:	56%
ATM Pressure:	1024 mbar

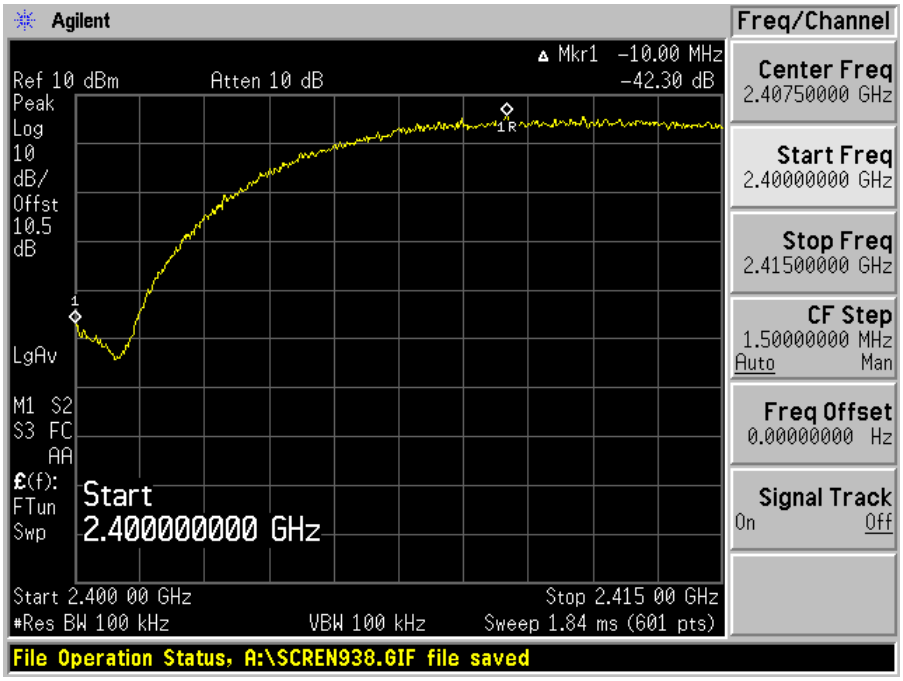
**The testing was performed by James Ma on 2006-10-25.*

Measurement Result:

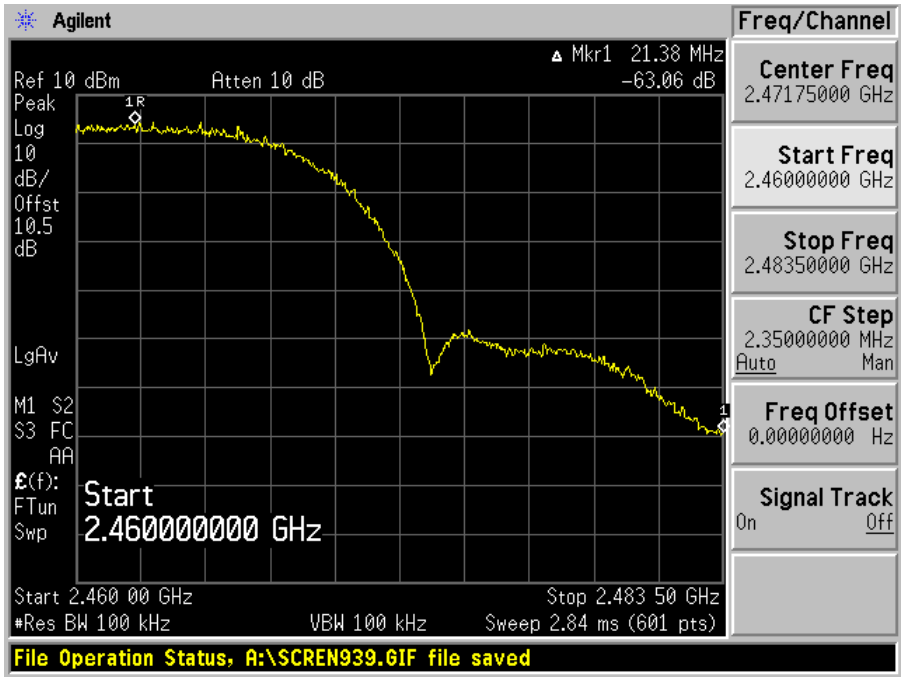
Please refer to following pages for plots of band edge.

802.11b mode:

Low Channel

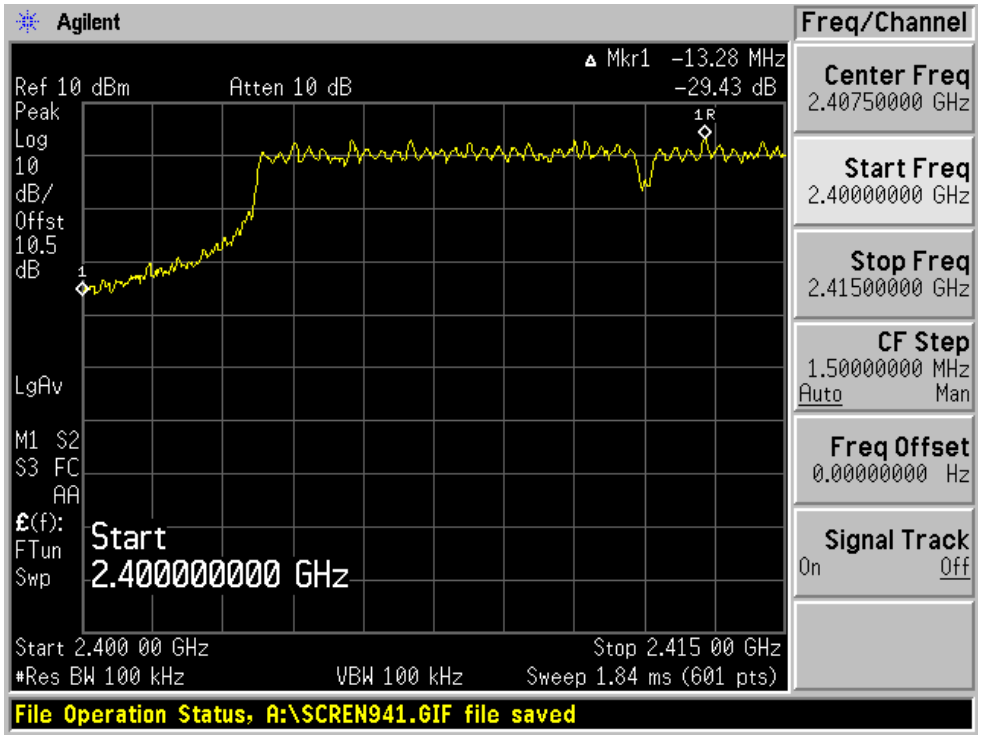


High Channel

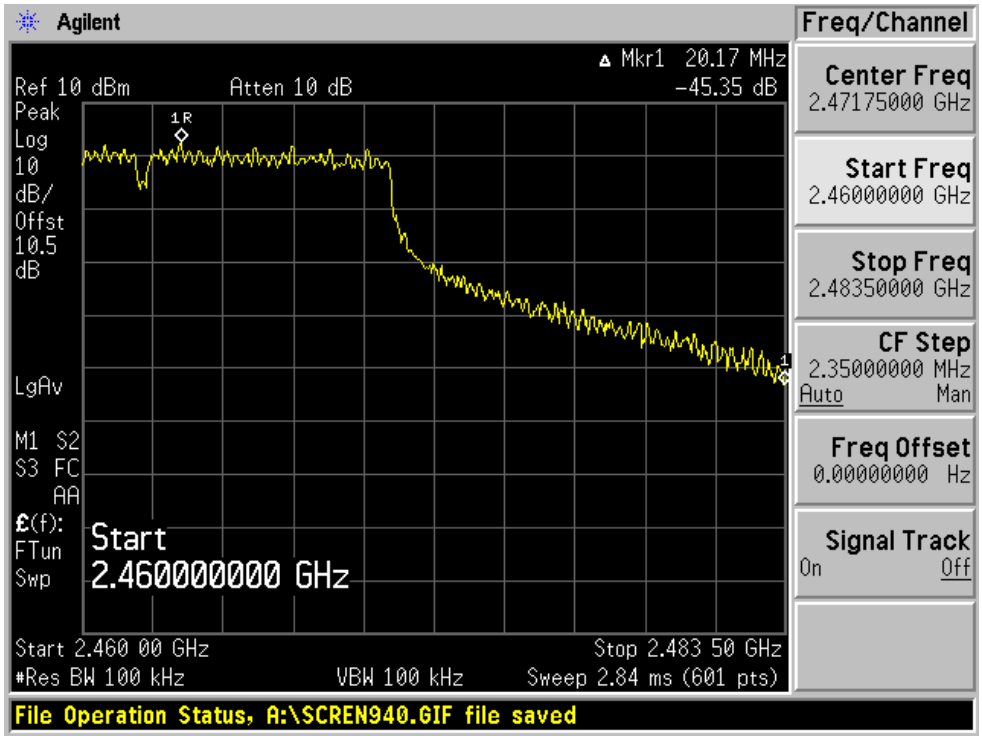


802.11g mode:

Low Channel



High Channel



§15.247(e) - POWER SPECTRAL DENSITY

Applicable Standard

According to §15.247 (d), for direct sequence systems, the peak 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.

Measurement Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Adjust the center frequency of SA on any frequency be measured and set SA to 1.5MHz span mode. And then, set RBW and VBW of spectrum analyzer to proper value. (DTS)
4. Repeat above procedures until all frequencies measured were complete.

Equipment Lists

Manufacturer	Description	Model	Serial Number	Cal. Date
Agilent	Analyzer, Spectrum	E4446A	US44300386	2006-03-06

*** Statement of Traceability: BACL Corp.** attests that all calibrations have been performed per the NVLAP requirements, traceable to the NIST.

Environmental Conditions

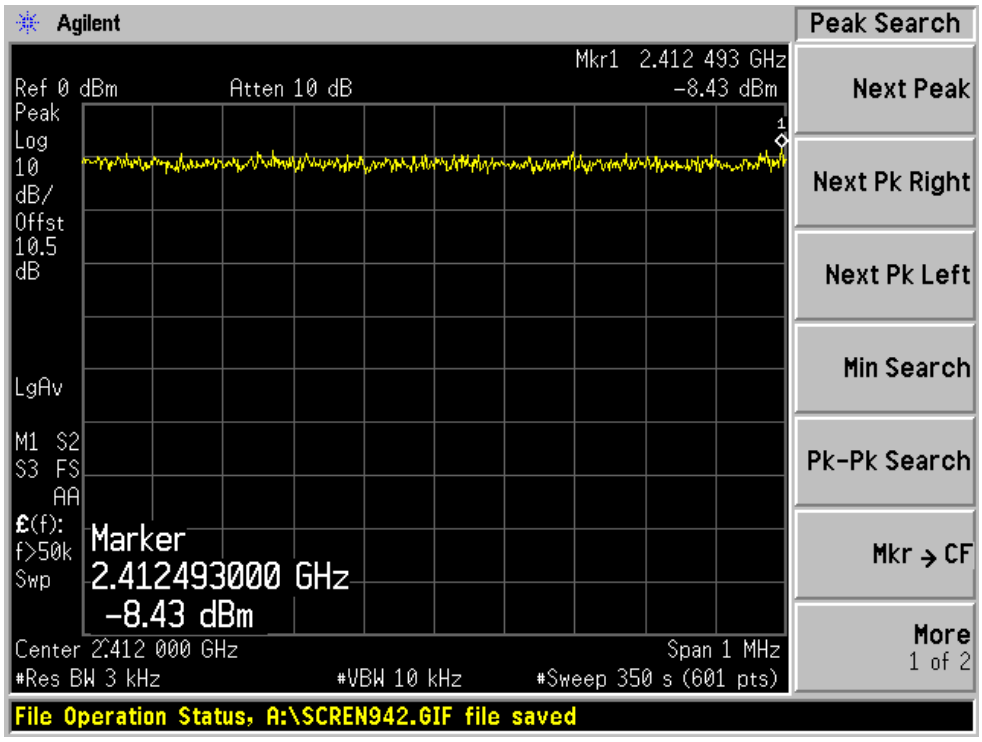
Temperature:	20° C
Relative Humidity:	56%
ATM Pressure:	1024 mbar

**The testing was performed by James Ma on 2006-10-25.*

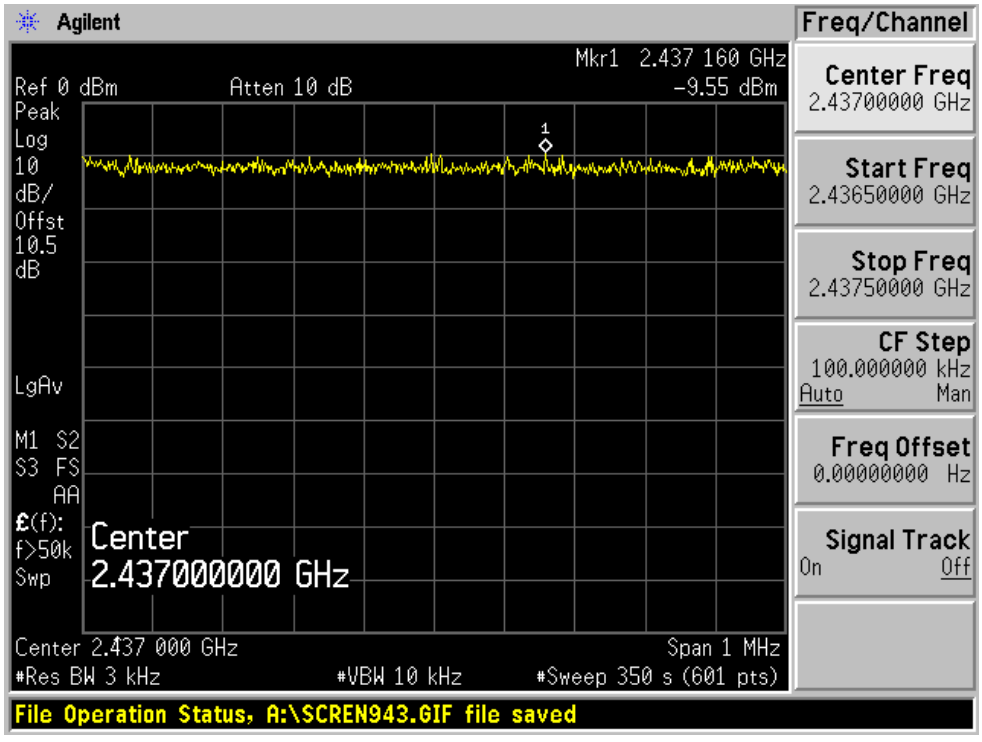
Measurement Result

Channel	Power Spectral Density (dBm/3KHz)			Limit (dBm/3KHz)
	802.11b	802.11g	Super-G	
Low	-8.43	-10.31	-	8
Mid	-9.55	-11.20	-15.69	8
High	-10.11	-11.61	-	8

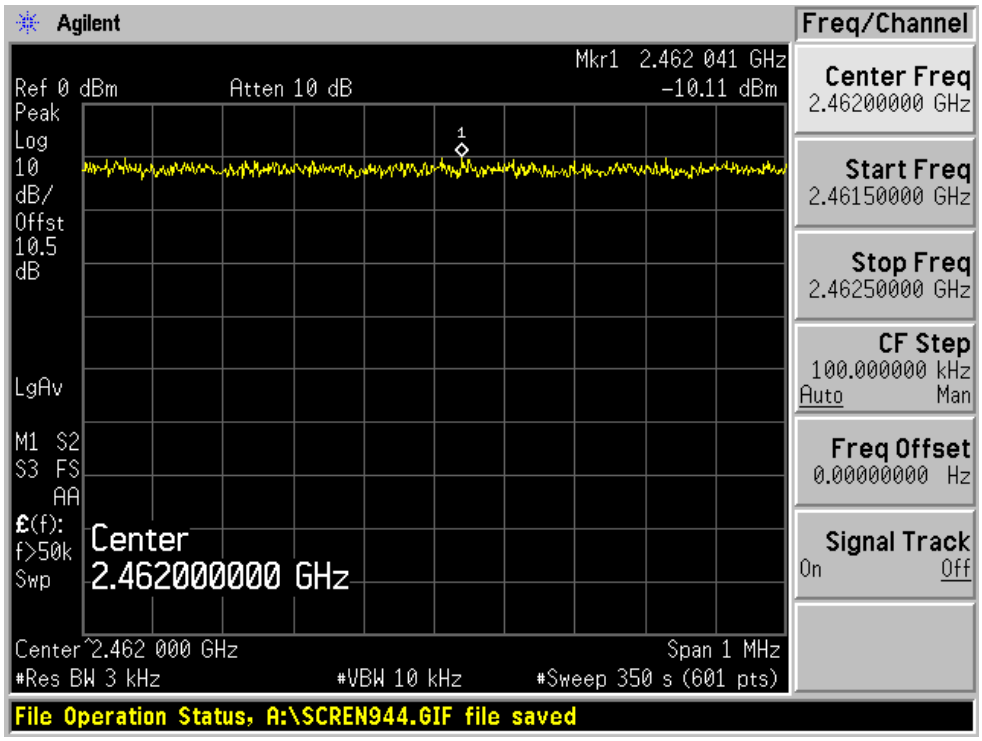
802.11b, Low Channel



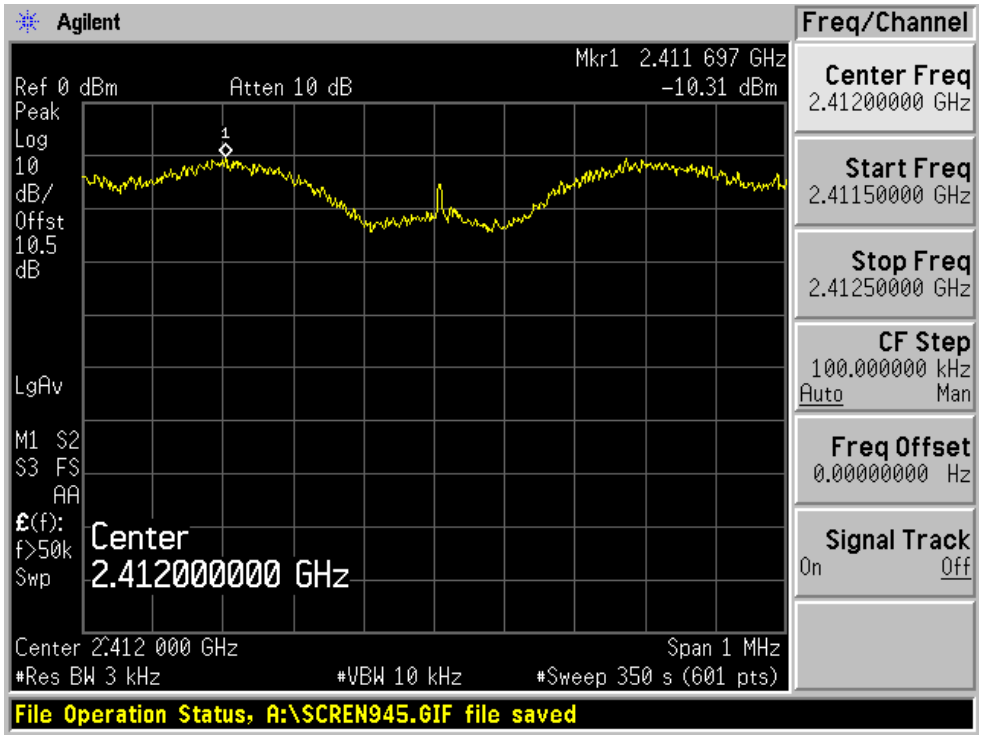
802.11b, Mid. Channel



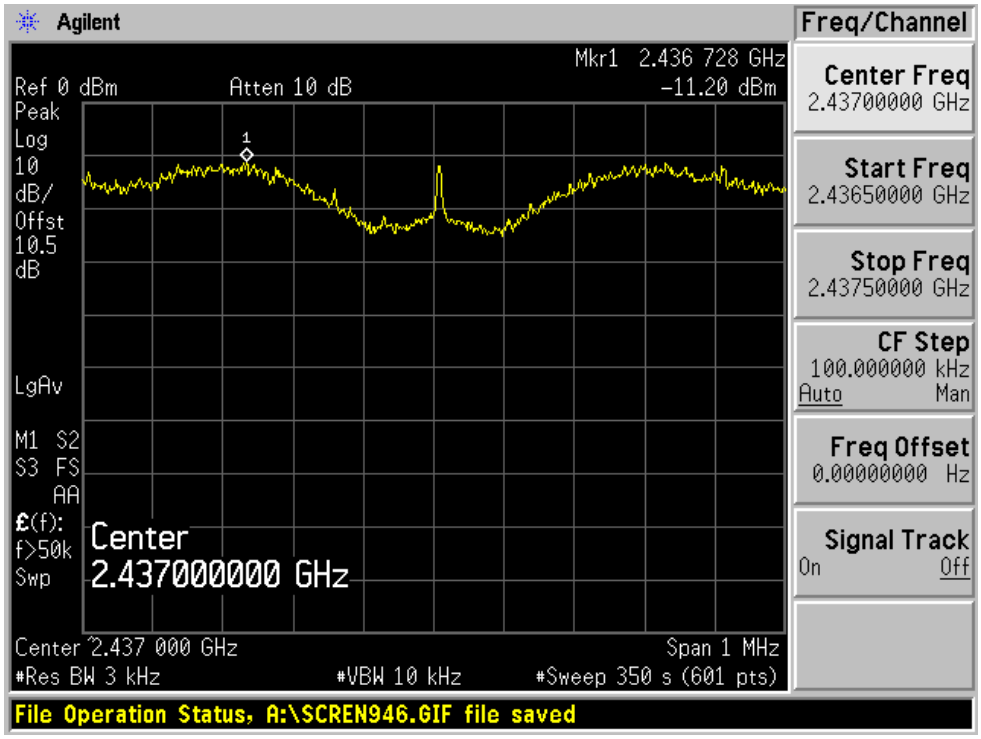
802.11b, High Channel



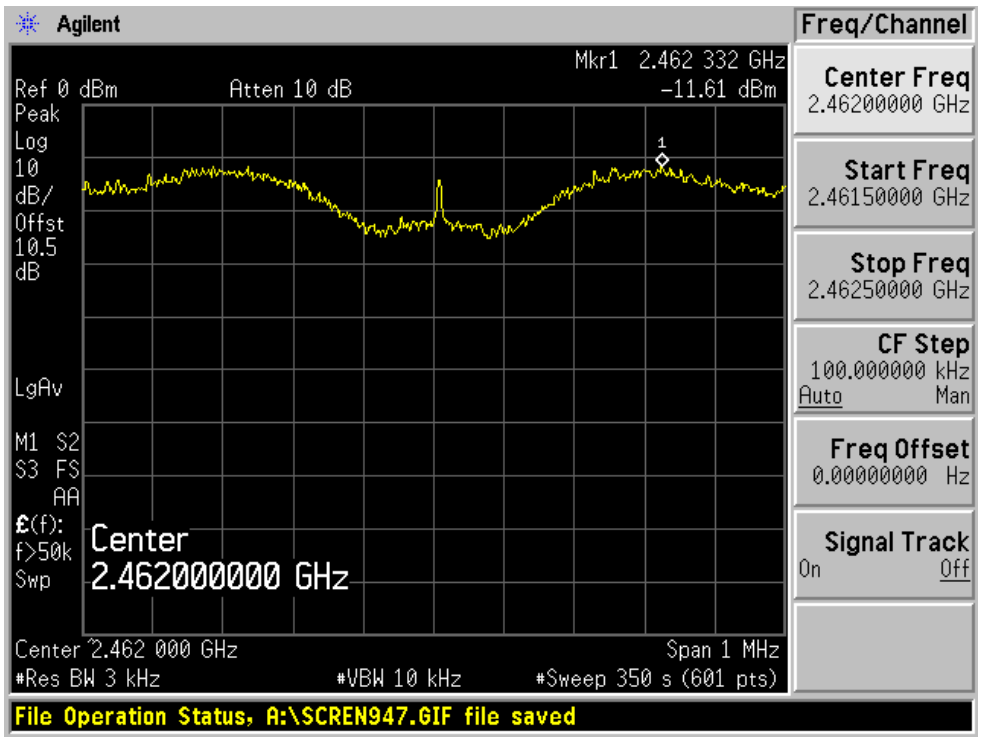
802.11g, Low Channel



802.11g, Mid Channel



802.11g, High Channel



Super-G

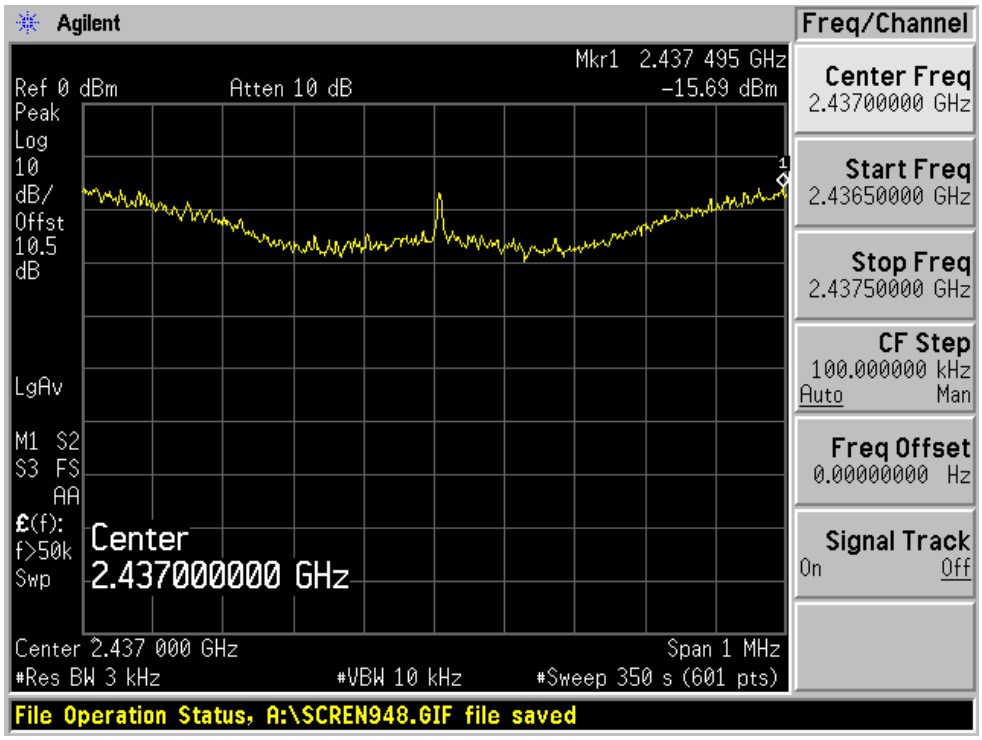
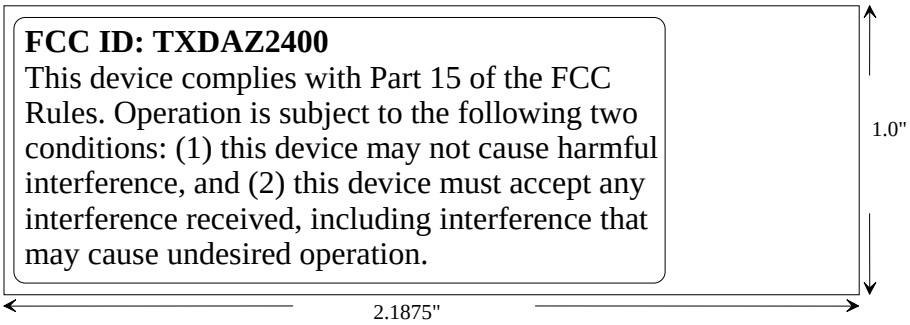

Agilent
Freq/Channel
Mkr1 2.437 495 GHz
Ref 0 dBm
Atten 10 dB
-15.69 dBm
Peak
Log
10
dB/
Offst
10.5
dB
LgAv
M1 S2
S3 FS
AA
£(f):
f>50k
Swp
Center
2.437000000 GHz
Center Freq
2.43700000 GHz
Start Freq
2.43650000 GHz
Stop Freq
2.43750000 GHz
CF Step
100.000000 kHz
Auto Man
Freq Offset
0.00000000 Hz
Signal Track
On Off
Center 2.437 000 GHz
Span 1 MHz
#Res BW 3 kHz
#VBW 10 kHz
#Sweep 350 s (601 pts)
File Operation Status, A:\SCREN948.GIF file saved

EXHIBIT A – FCC PRODUCT LABELING AND WARNING STATEMENT

FCC ID Label

The FCC labels should contain FCC statement in FCC 15.19 paragraph (3). A sample of the statement is presented hereinafter as reference.

Also, as per FCC §15.19 a(4) Where a device is constructed in two or more sections connected by wires and marketed together, the statement specified above is required to be affixed only to the main control unit. If the EUT is integrated within another device then a label affixed to the host shall also state, "Contains FCC ID: TXDAZ2400 "



Proposed Label Location on EUT

Back View of EUT / Proposed FCC ID Location

As per FCC §15.19 (b)(4), the label shall not be a stick-on, paper label. The label on these products shall be permanently affixed to the product and shall be readily visible to the purchaser at the time of purchase, as described in Section 2.925(d) of this chapter. "Permanently affixed" means that the label is etched, engraved, stamped, silk-screened, indelibly printed, or otherwise permanently marked on a permanently attached part of the equipment or on a nameplate of metal, plastic, or other material fastened to the equipment by welding, riveting, or a permanent adhesive. The label must be designed to last the expected lifetime of the equipment in the environment in which the equipment may be operated and must not be readily detachable.

EXHIBIT B - TEST SETUP PHOTOGRAPHS

Conducted Emissions – Front View

Conducted Emissions – Side View

Radiated Emissions – Front View

Radiated Emissions – Rear View

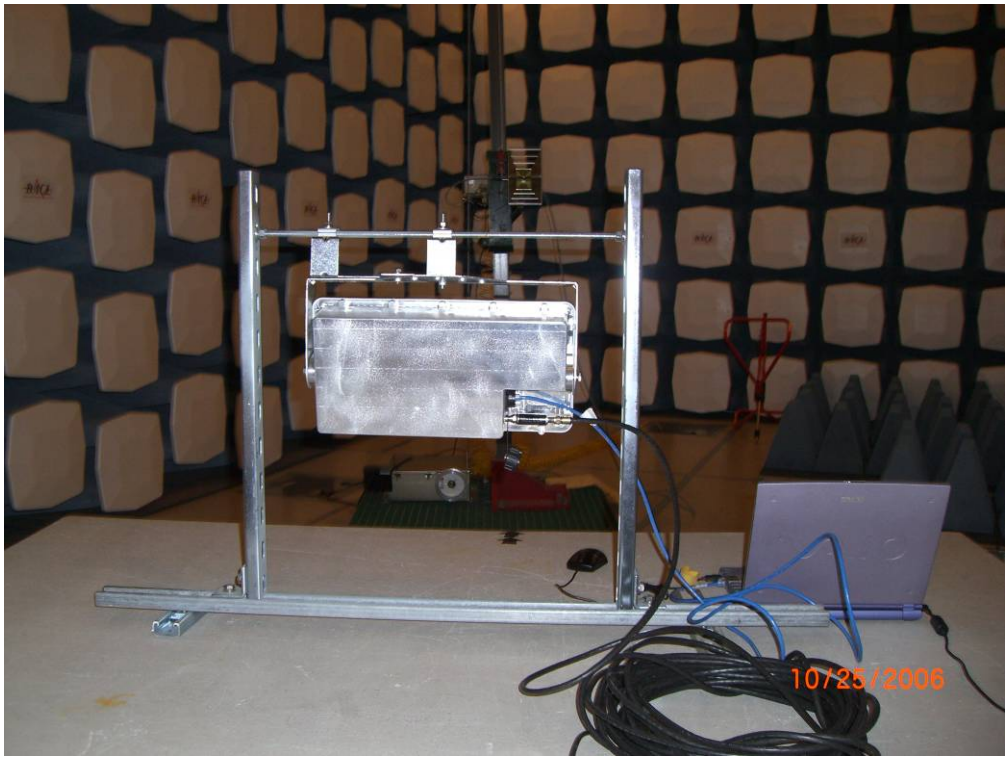


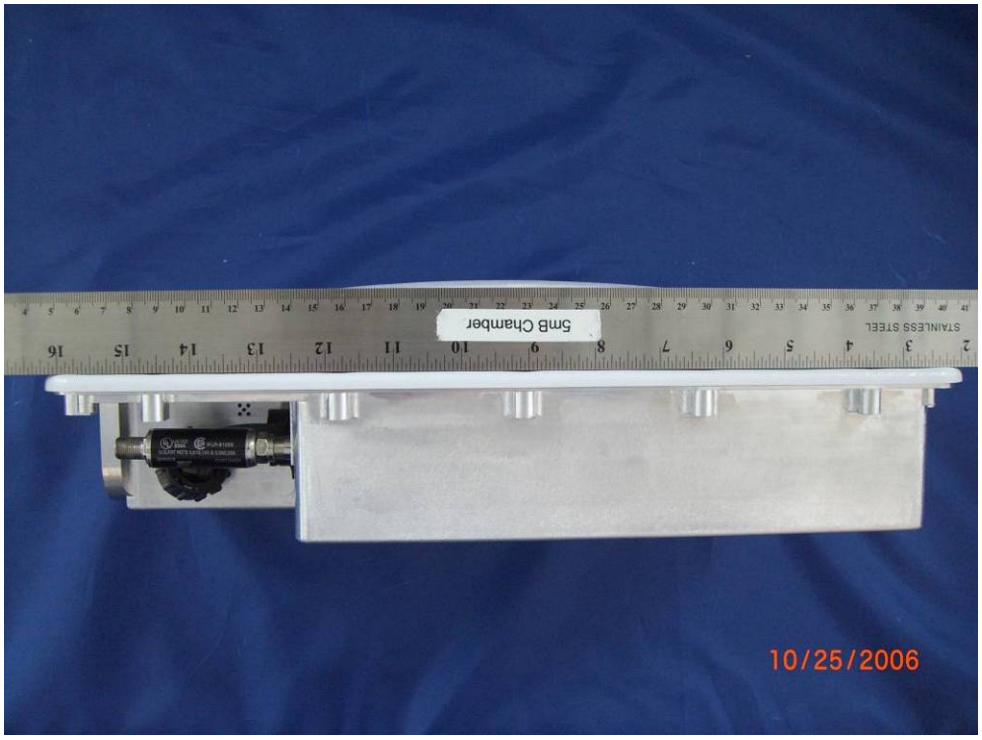
EXHIBIT C - EUT PHOTOGRAPHS

EUT – Front View

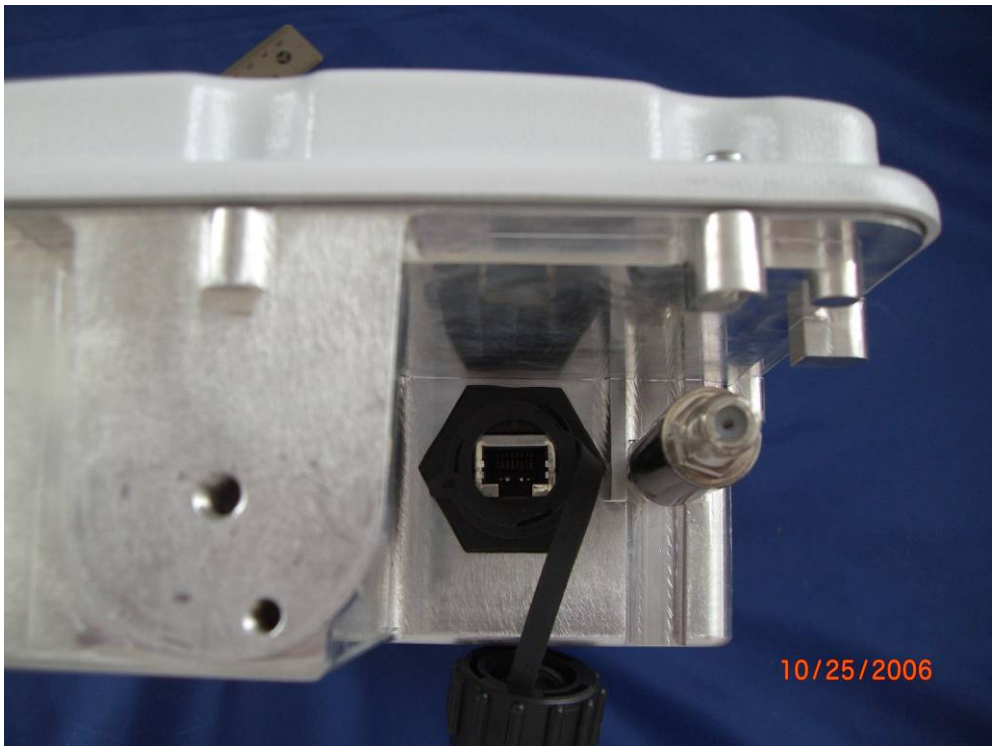
EUT – Rear View

EUT – Side View 1

EUT- Side View 2



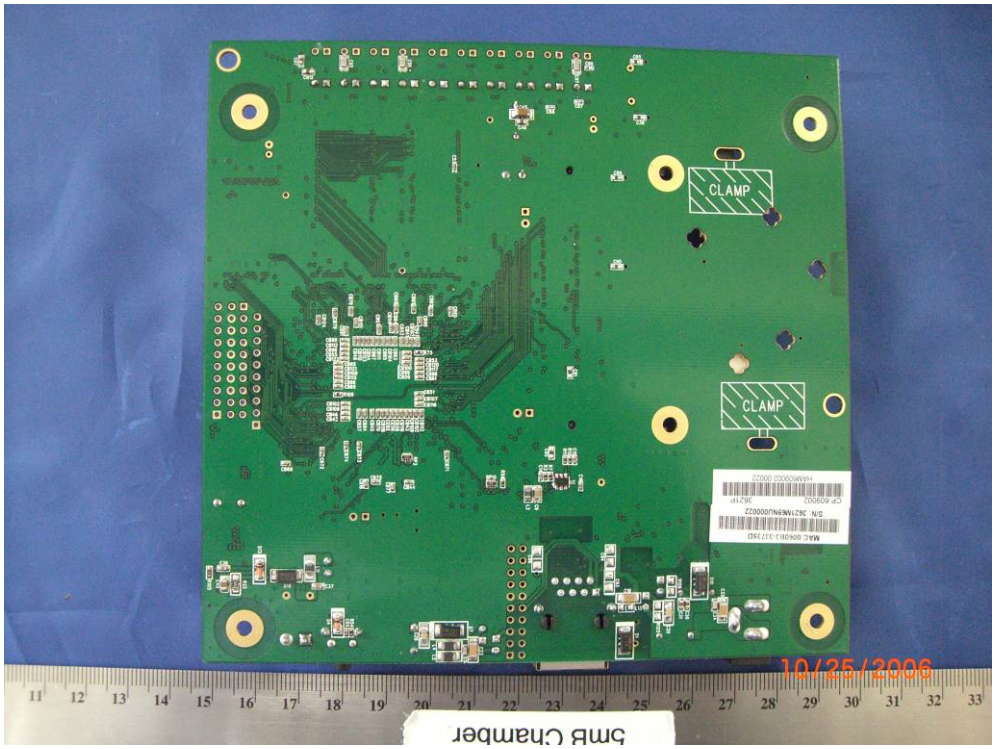
EUT – Port View



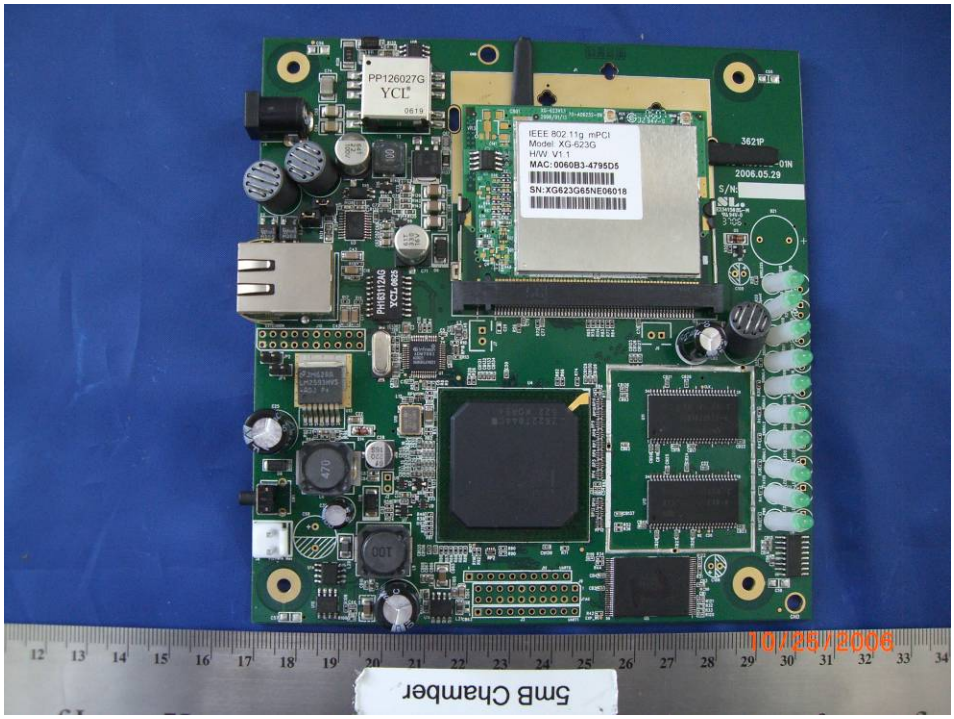
EUT –Cover off Front View

EUT – PCB1 Front View

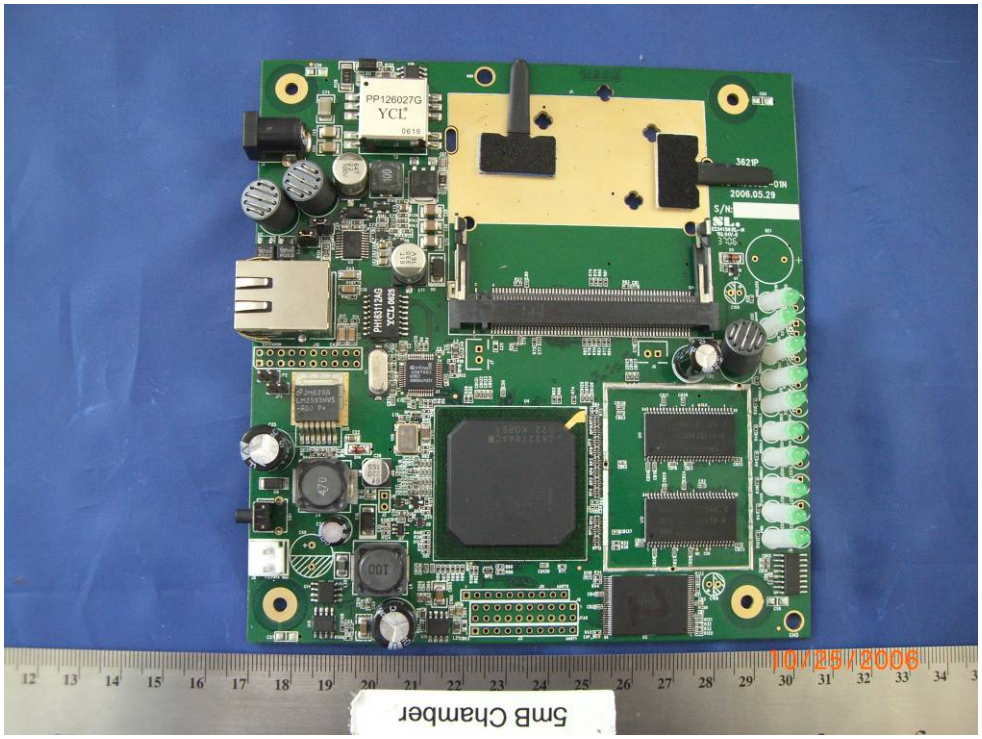
EUT – PCB1 Rear View



EUT – PCB1 with RF Board Front View

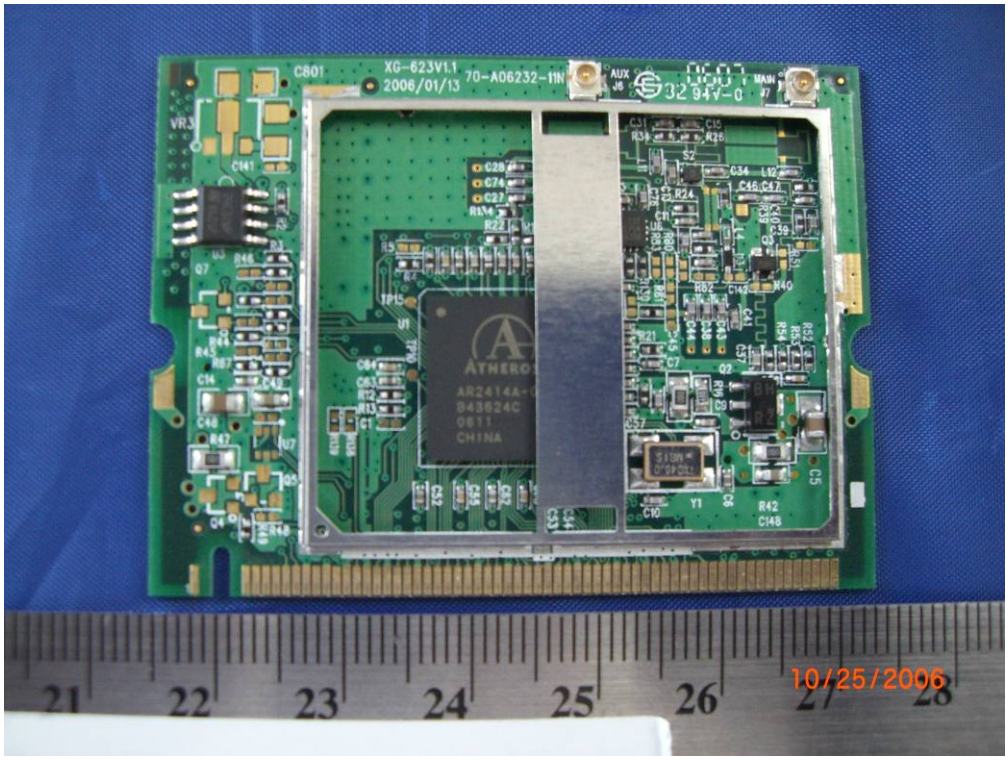


EUT - PCB1 without RF Board Front View



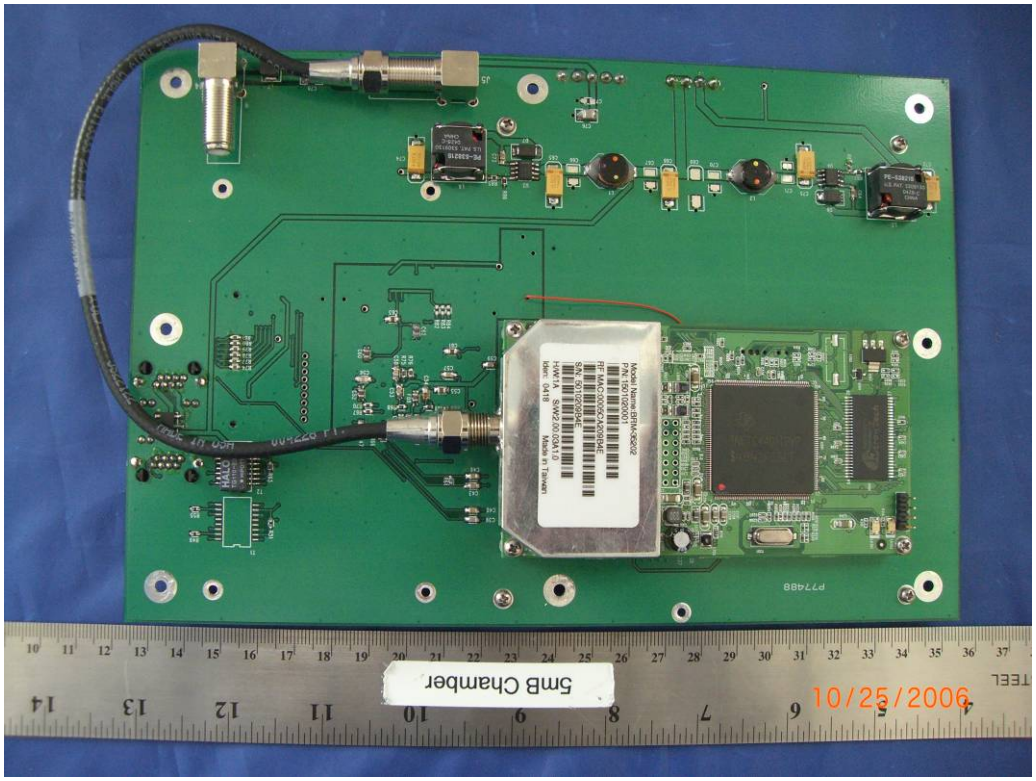
EUT – RF Board with Shield On - Front

EUT - RF Board with Shield Off- Front

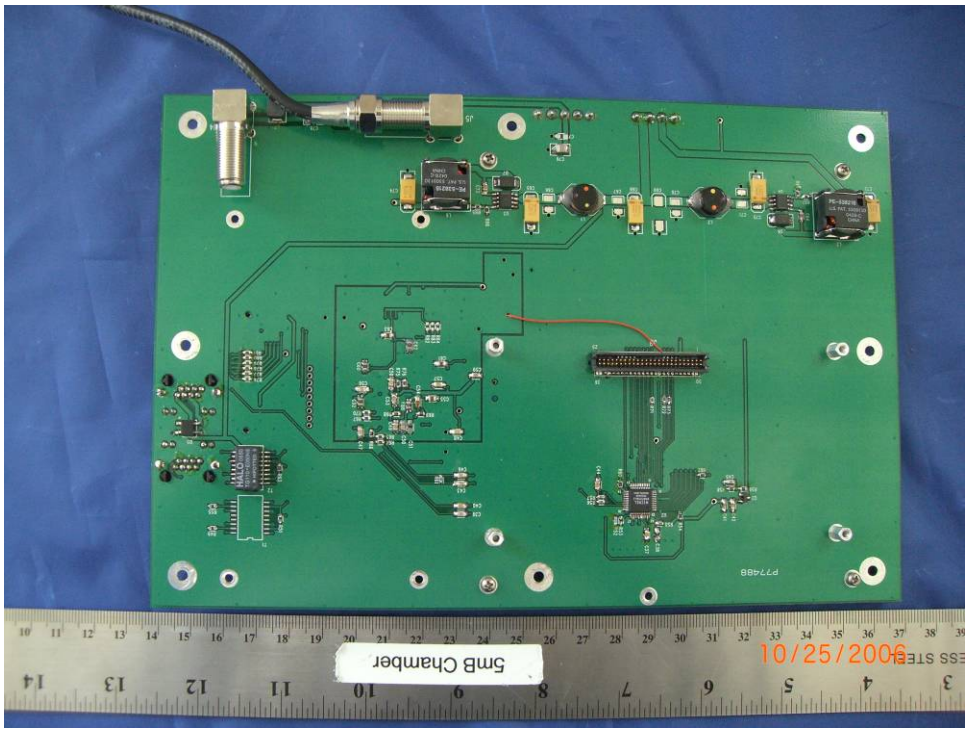


EUT - RF Board - Back View

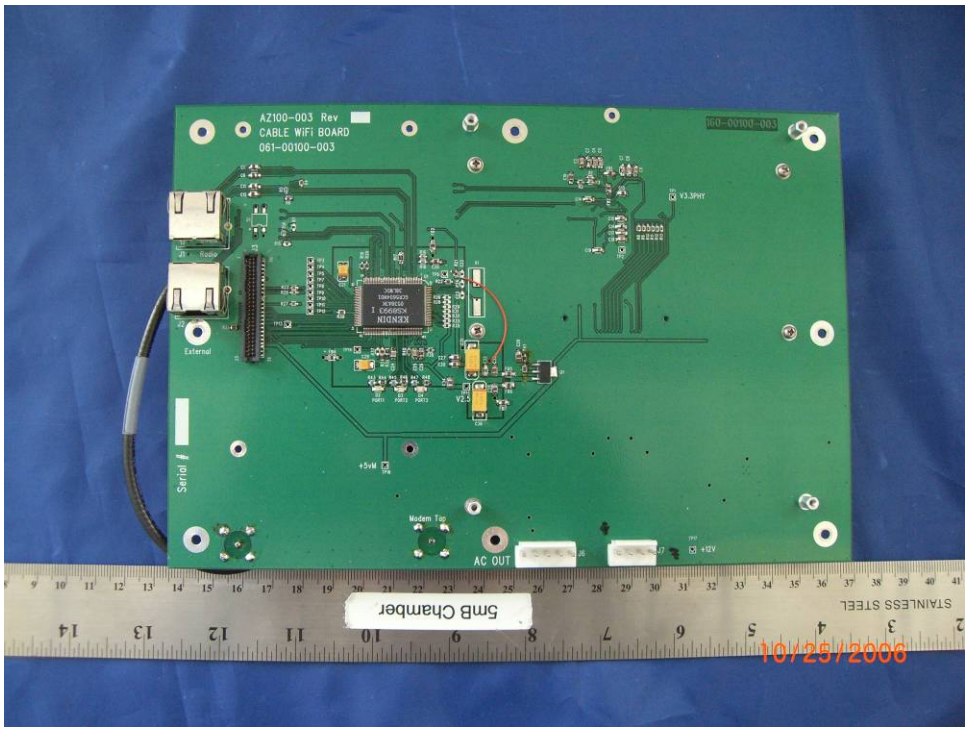
EUT - PCB2 with Sub Board - Front



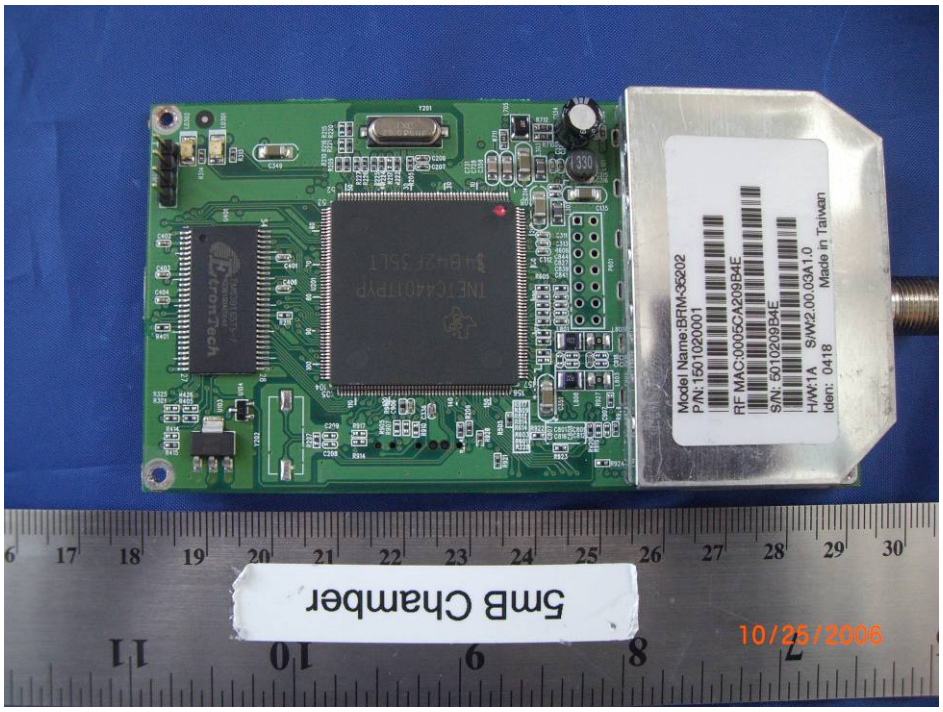
PCB2 without Sub Board - Front



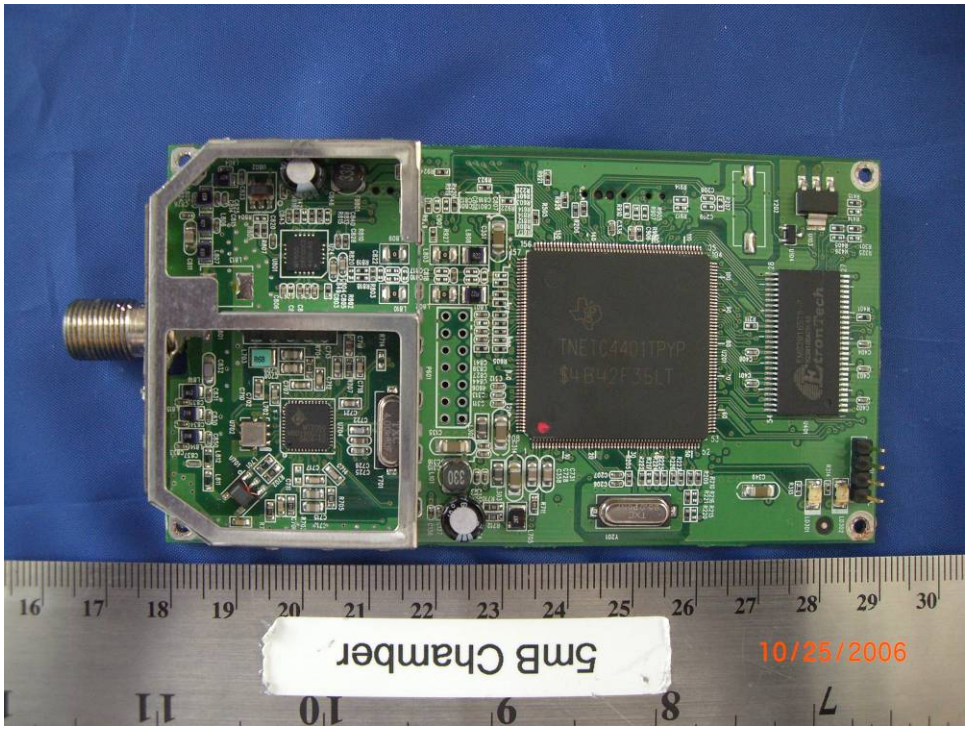
EUT - PCB2 - Back View



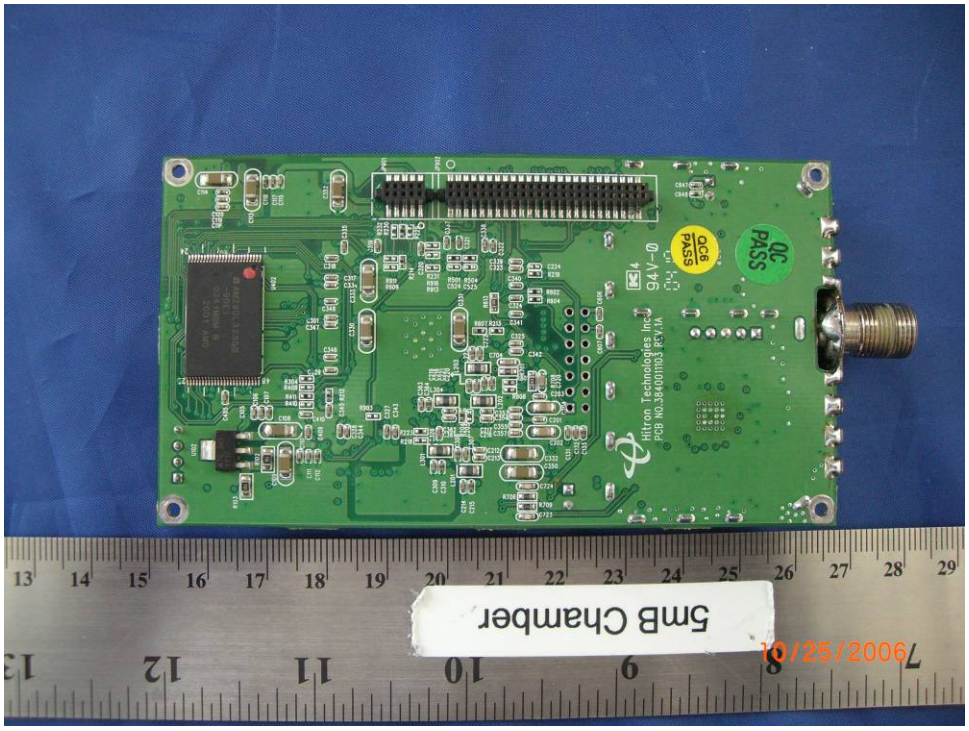
EUT - Sub Board with Shield on – Front View



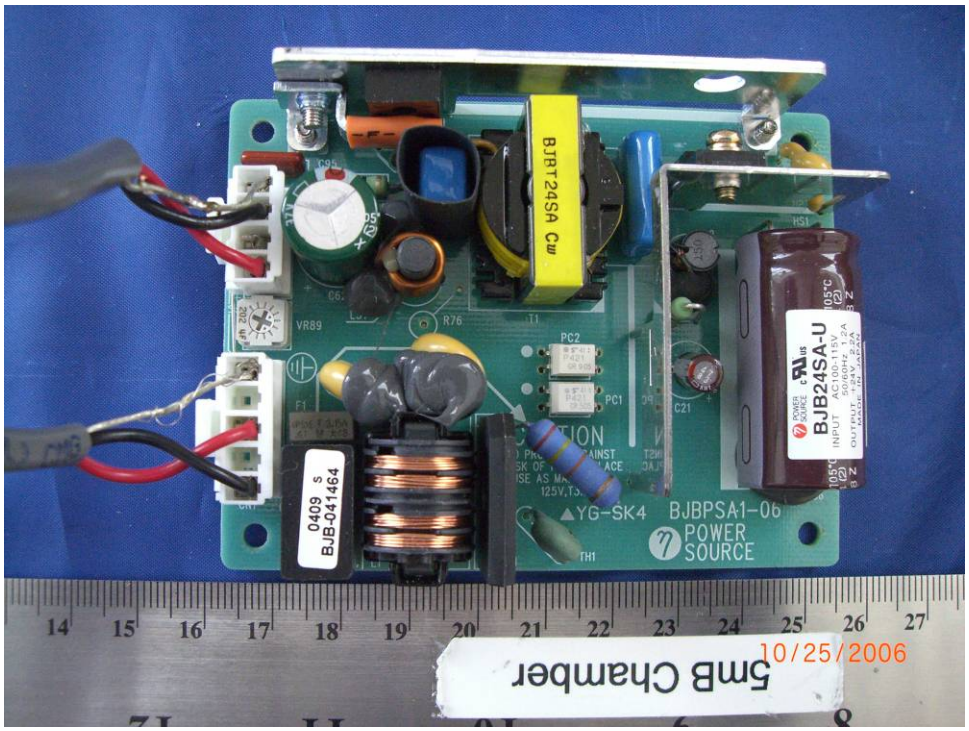
EUT - Sub board with Shield Off – Front View



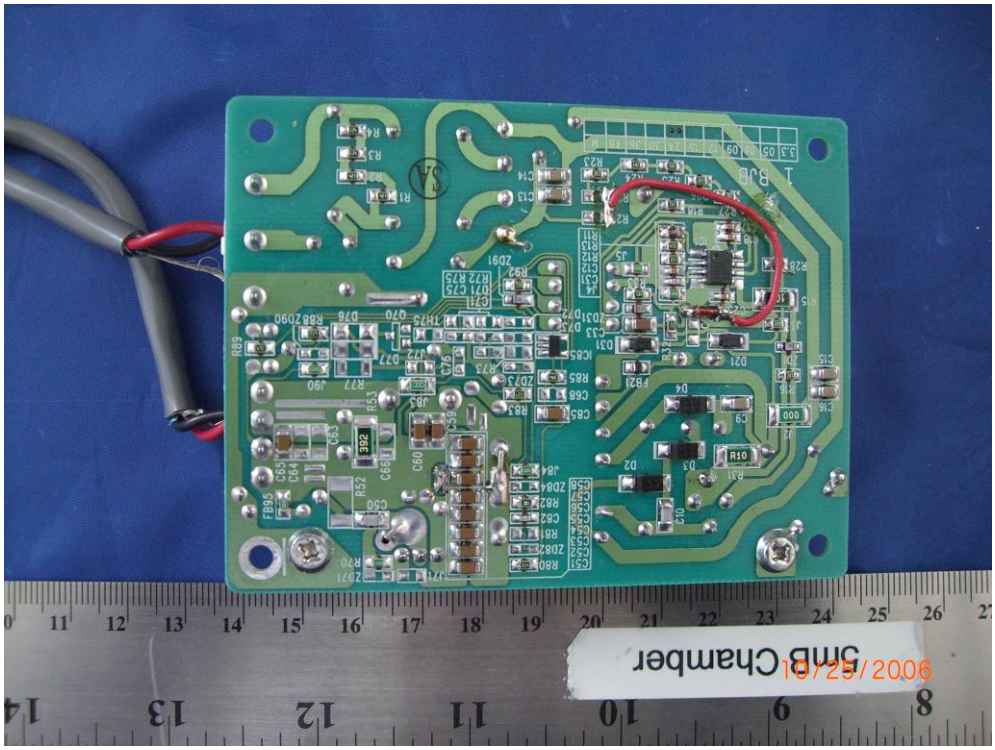
EUT - Sub Board - Back View



EUT - PCB3 – Front View



EUT - PCB3 – Back View



EUT - Antenna – Front View

EUT - Antenna – Rear View

END OF REPORT