FCC CFR47 PART 15/ INDUSTRY CANADA RSS-210

Test Report

2.4 GHz Transceiver

Model Number: ZE10F

FCC ID: YRIPLF01
IC: 9041A - PLF01

Report Number: 10PRO018 REV1

Issue Date: 1 September 2010

Prepared for

Zelfy
4655 Old Ironsides Dr #200
Santa Clara, CA 95054

Prepared by

T.N. Cokenias Consulting
P.O. Box 1086
El Granada CA 94018

EMISSIONS TEST REPORT FOR A LOW POWER TRANSMITTER

I. GENERAL INFORMATION

Requirement:	FCC, IC
Test Requirements:	FCC Part 15, RSS-210, RSS-Gen
Applicant:	Zelfy 4655 Old Ironsides Dr #200 Santa Clara, CA 95054
FCC ID:	YRIPLF01
IC:	9041A - PLF01
Model No.:	ZE10F

II. DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)

The Zelfy Node product contains a 2.4 GHz radio and is used as part of a system to control and program entertainment devices remotely via internet and cell phone.

III. TEST DATES AND TEST LOCATION

Testing was performed 11-12 August 2010. All tests were performed at

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538

T.N. Cokenias 15 August 2010
EMC Consultant/Agent for Zelfy

15.203 Antenna connector requirement

The EUT uses a custom permanently attached internal monopole antenna

Antenna description	Mfr.	Model No.	Gain
Built-in monopole	Zelfy	n/a	0 dBi maximum

TEST PROCEDURES

All tests were performed in accordance with the applicable procedures called out in the following documents, unless otherwise noted:

FCC 47CFR15

RSS-210 Issue 7: Low power license exempt radio frequency devices (July 2007)
RSS-212: Test Facilities and Test Methods for Radio Equipment

ANSI C63.4 – 2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

KDB Publication Number: 558074 DTS Measurement Procedures

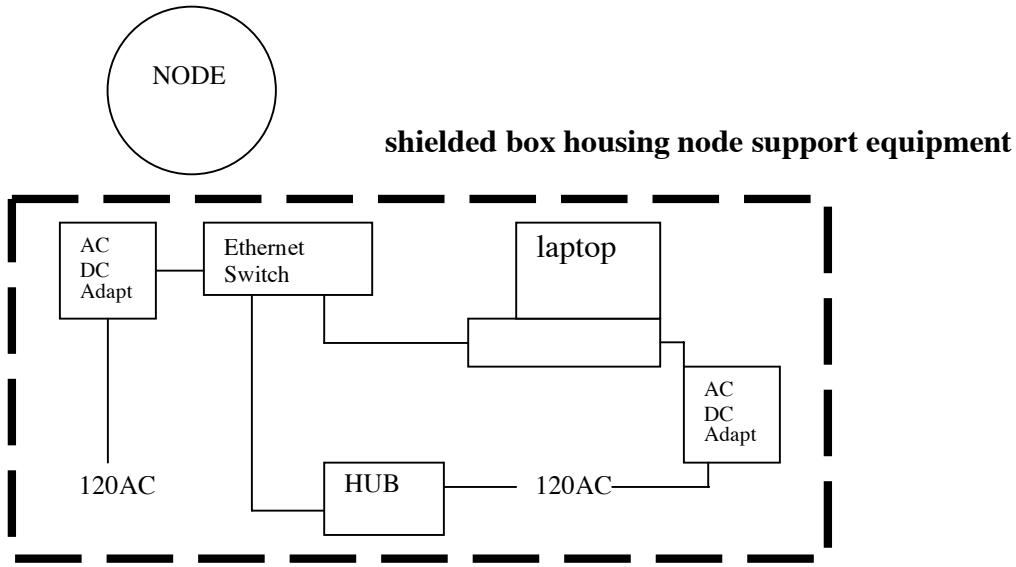
For each radio, tests were performed at three frequencies:

Channel 11 (LOW) – 2405.8 MHz
Channel 18 (MID) – 2440.8 MHz
Channel 26 (HIGH) – 2480.9 MHz

Test Equipment

TEST EQUIPMENT LIST					
Description	**Manufacturer**	**Model**	**Asset**	**Cal Date**	**Cal Due**
Antenna, Bilog, 2 GHz	*Sunol Sciences*	*JB1*	*C01011*	*01/14/09*	*12/18/10*
Preamplifier, 1300 MHz	*Agilent / HP*	*8447D*	*C00885*	*03/31/09*	*12/19/10*
PSA Series Spectrum Analyzer	*Agilent / HP*	*E4446A*	*C01069*	*01/05/10*	*04/05/11*
Power Meter	*HP*	*438A*	*C01068*	*12/06/09*	*06/16/11*
Power sensor	*HP*	*8482A*	*2349A08568*	*04/14/09*	*04/14/11*
Antenna, Horn, 18 GHz	*EMCO*	*3115*	*C00945*	*04/22/09*	*12/18/10*
Preamplifier, 26.5 GHz	*Agilent / HP*	*8449B*	*C01052*	*08/05/09*	*12/17/10*
LISN, 30 MHz	*FCC*	*LISN-50/250-25-2*	*N02625*	*10/29/09*	*10/29/10*
LISN, 10 kHz ~ 30 MHz	*Solar*	*8012-50-R-24-BNC*	*N02481*	*10/29/09*	*10/29/10*
EMI Receiver	*R & S*	*ESHS 20*	*N02396*	*06/08/09*	*05/06/11*

Test Set-up Diagram



Support Equipment

Equipment	Mfr	Model	Asset No.
Laptop PC	HP	Pavillion	X11-45371
AC/DC adapter	HP	DC359A	Q031514
Ethernet switch	Netgear	FS105	1D5178937048A
Ethernet Switch AC/DC	Netgear	DSA-9R-05-AUS	

Test control software: ZELFY guiHubNodeTest-FCC

TEST RESULTS

Radiated Test Set-up, 30-25 GHz

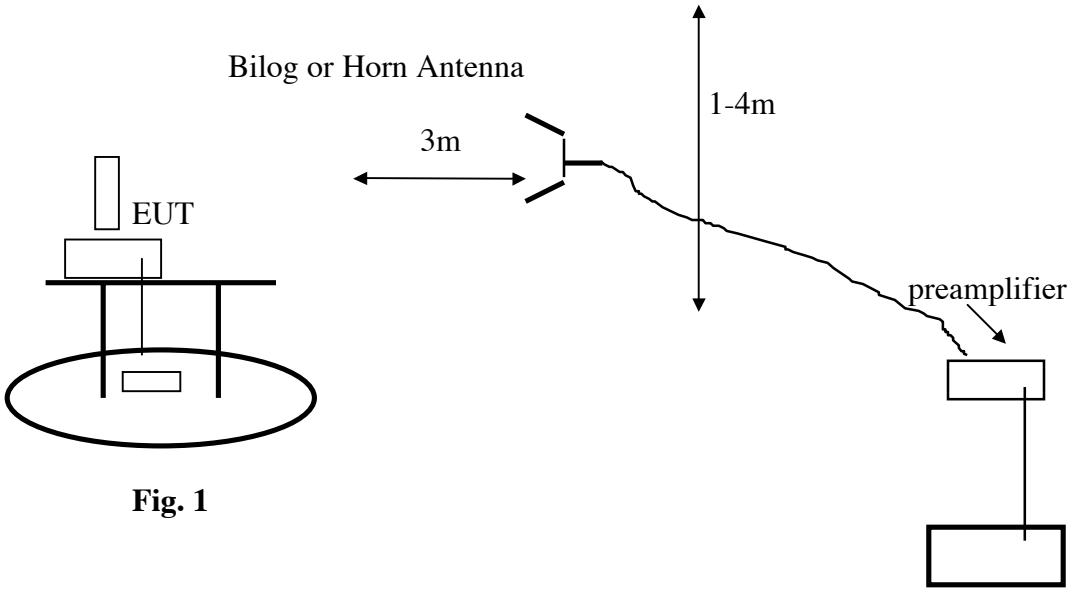


Fig. 1

Test Procedures

Radiated emissions generated by the transmitter portion of the EUT were measured.

1. The EUT was placed on a wooden table resting on a turntable on the test site. The search antenna was placed 3m from the EUT. The EUT antenna was mounted in the with the EUT TX antenna pointed directly to the search antenna.

2. The turntable was slowly rotated to locate the direction of maximum emission at each emission falling in the restricted bands of 15.205.

3. Emissions were investigated to the 10^{th} harmonic of the fundamental.

4. Once maximum direction was determined, the search antenna was raised and lowered in both vertical and horizontal polarizations. The maximum readings so obtained are recorded in the data listed below.

Test Results: Worst-case results are presented. Refer to data sheets below. Restricted band emissions meet 54 dBuV/m. Other undesired emissions from the transmitter meet

the -20 dBc requirement in 15.247(d).

15.205 Restricted Frequency Bands

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
0.495 - 0.505 (1)	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 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 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	
13.36 - 13.41	322 - 335.4		

15.209 General Field Strength Limits

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30.0	30	30
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

Industry Canada RSS-210 Restricted Bands and General Field Strength Limits

Table 1: Restricted Frequency Bands (Note)

MHz
0.090-0.110
2.1735-2.1905
3.020-3.026
4.125-4.128
4.17725-4.17775
4.20725-4.20775
5.677-5.683
6.215-6.218
6.26775-6.26825
6.31175-6.31225
8.291-8.294
8.362-8.366
8.37625-8.38675
8.41425-8.41475
12.29-12.293
12.51975-12.52025
12.57675-12.57725
13.36-13.41
16.42-16.423
16.69475-16.69525
16.80425-16.80475
25.5-25.67
37.5-38.25

MHz
73-74.6
74.8-75.2
108-138
156.52475-156.52525
156.7-156.9
240-285
322-335.4
399.9-410
608-614
960-1427
1435-1626.5
1645.5-1646.5
1660-1710
1718.8-1722.2
2200-2300
2310-2390
2655-2900
3260-3267
3332-3339
3345.8-3358
3500-4400
4500-5150
5350-5460

MHz
7250-7750
8025-8500

GHz
9.0-9.2
9.3-9.5
10.6-12.7
13.25-13.4
14.47-14.5
15.35-16.2
17.7-21.4
22.01-23.12
23.6-24.0
31.2-31.8
36.43-36.5
Above 38.6

Note: Certain frequency bands listed in Table 1 and above 38.6 GHz are designated for low-power licence-exempt applications. These frequency bands and the requirements that apply to the devices are set out in this Standard as well as in RSS-310.

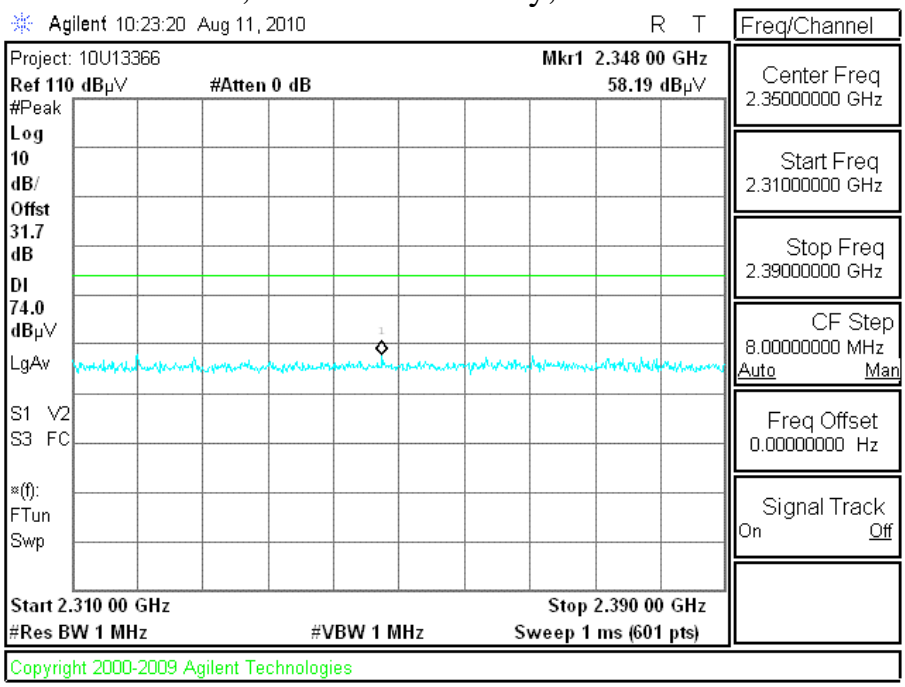
Table 2: General Field Strength Limits for Transmitters and Receivers at Frequencies Above 30 MHz (Note)

Frequency (MHz)	Field Strength microvolts/m at 3 metres (watts, e.i.r.p.)	
	Transmitters	Receivers
30-88	100 (3 nW)	100 (3 nW)
88-216	150 (6.8 nW)	150 (6.8 nW)
216-960	200 (12 nW)	200 (12 nW)
Above 960	500 (75 nW)	500 (75 nW)

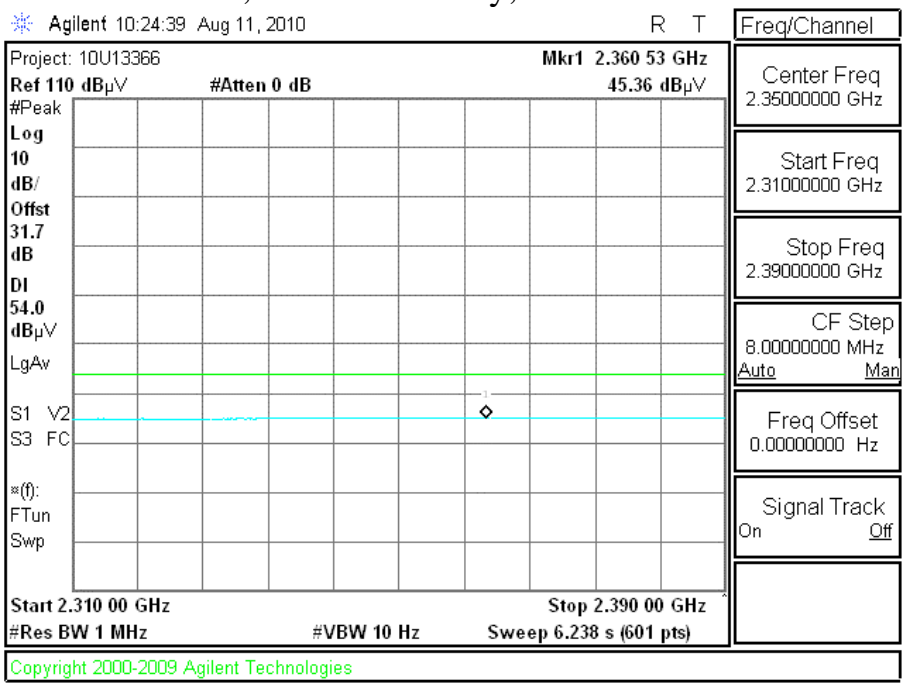
Note: Transmitting devices are not permitted in Table 1 bands or in TV bands (54-72 MHz, 76-88 MHz, 174-216 MHz, 470-608 MHz, and 614-806 MHz). Prohibition of operation in TV bands does not apply to momentary devices, or to medical telemetry devices in the band 174-216 MHz, and to perimeter protection systems in the bands 54-72 and 76-88 MHz. The perimeter protection devices are to meet Table 3 field strengths limits.

Radiated Band edge Emissions in Restricted Bands

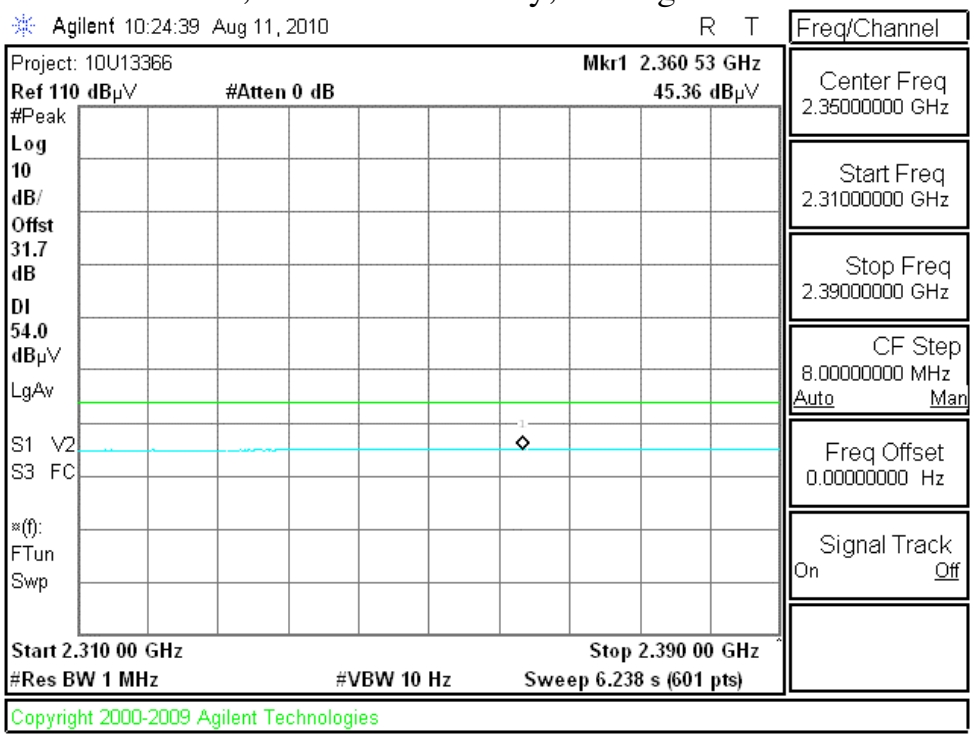
Low channel 11, Horizontal Polarity, Peak detector



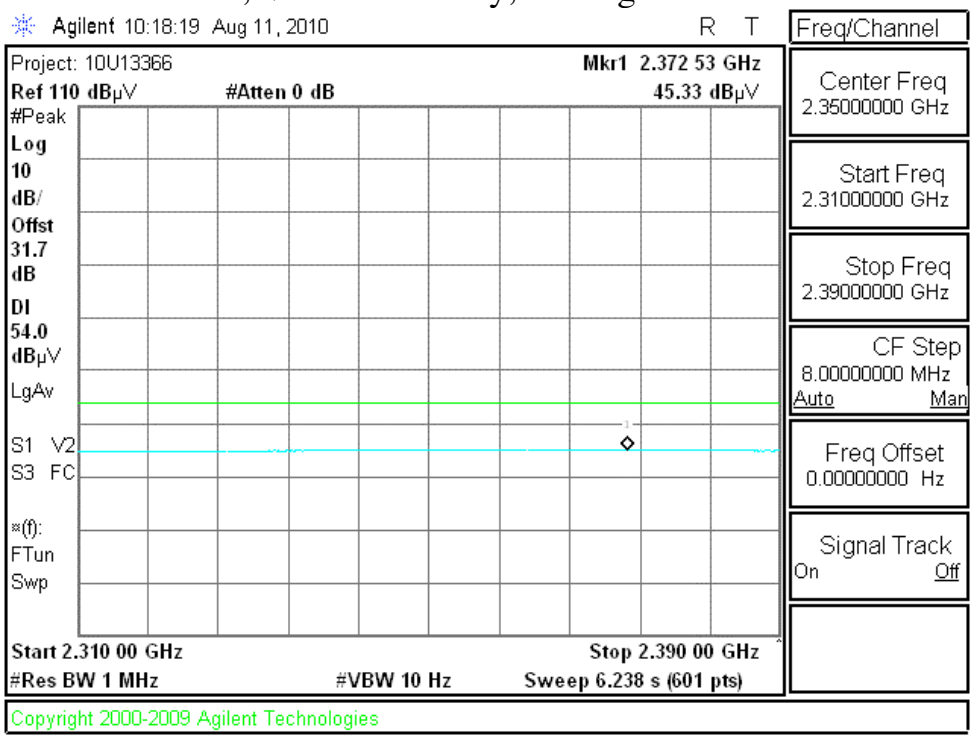
Low channel 11, Vertical Polarity, Peak detector



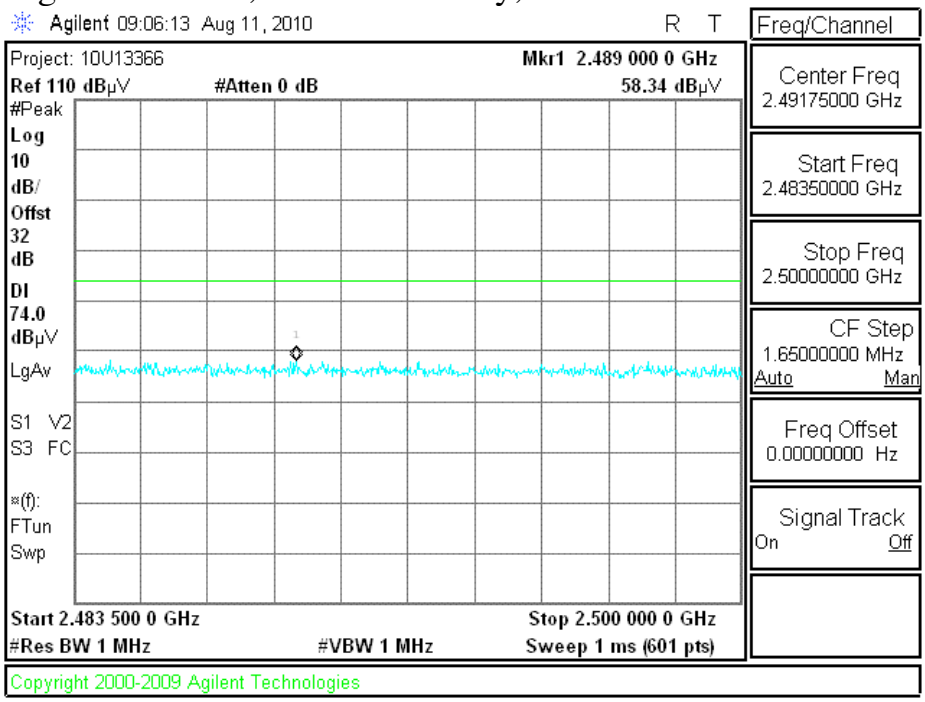
Low channel 11, Horizontal Polarity, Average detector



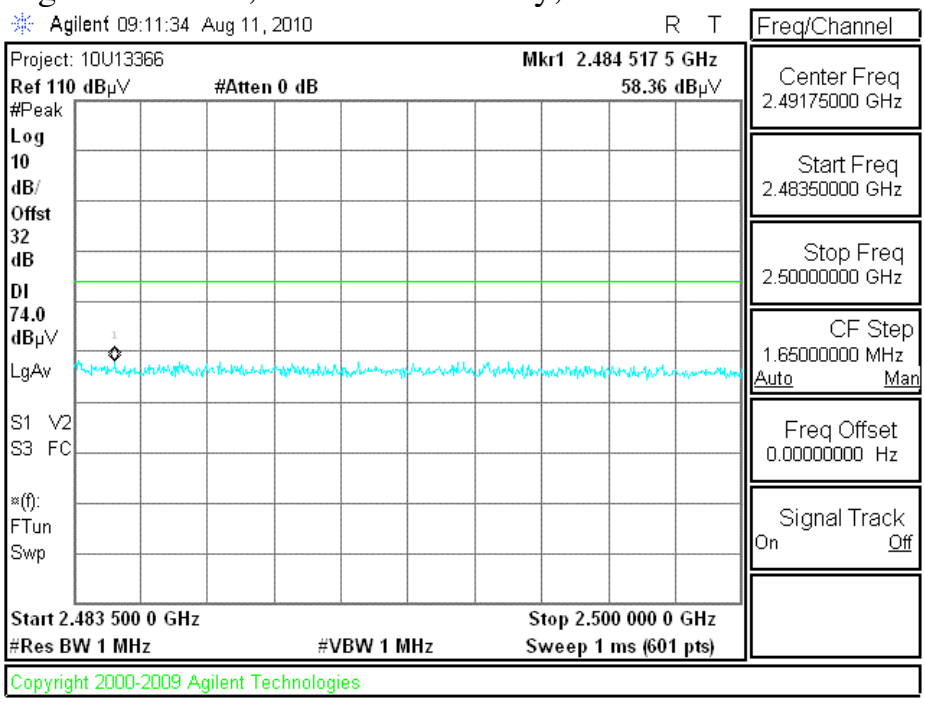
Low channel 11, Vertical Polarity, Average detector



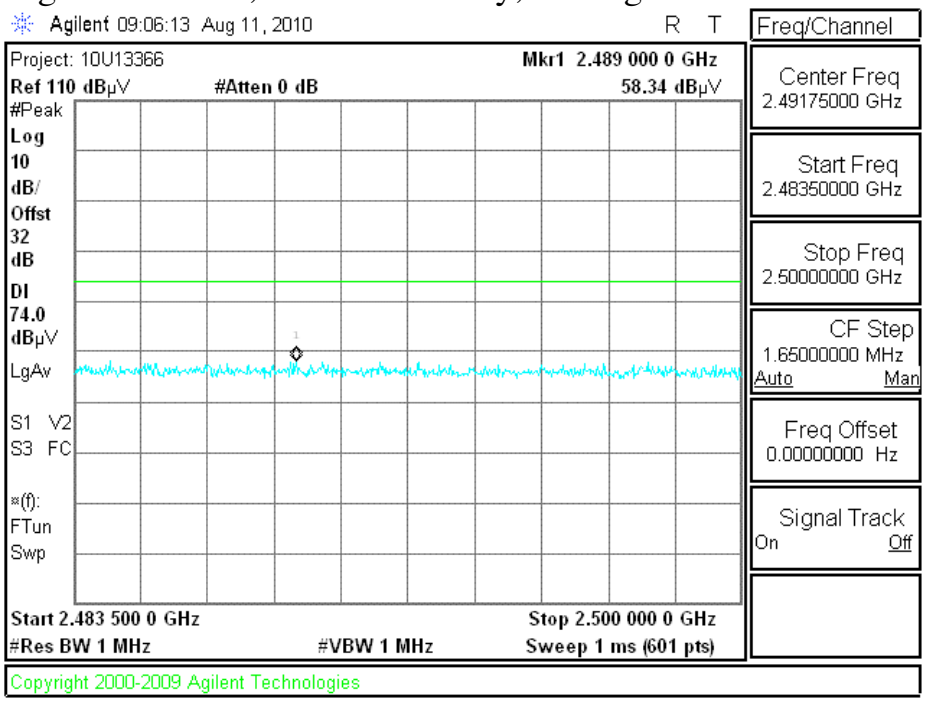
High channel 26, Vertical Polarity, Peak detector



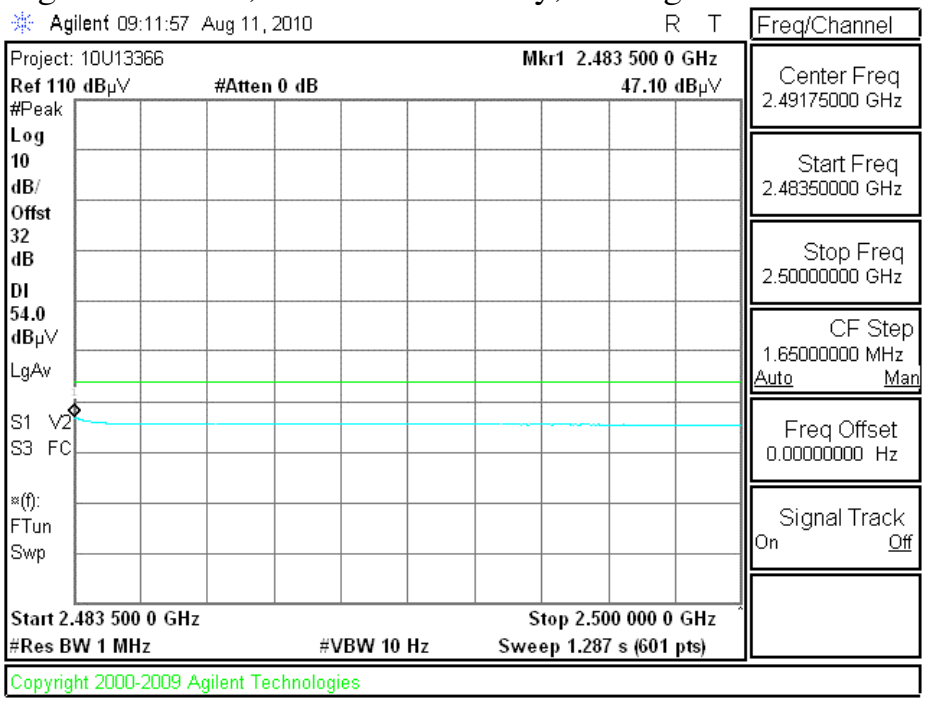
High channel 26, Horizontal Polarity, Peak detector



High channel 26, Vertical Polarity, Average detector



High channel 26, Horizontal Polarity, Average detector



1-25 GHz TX Radiated Spurious

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Zelphy
Project #: 10U13366
Date: 8/11/10
Test Engineer: Thanh Nguyen
Configuration: Node only
Mode: Transmit Normal

Test Equipment:

Horn 1-18GHz: T73; S/N: 6717 @3m
Pre-amplifer 1-26GHz: T144 Miteq 3008A00931
Pre-amplifer 26-40GHz:
Horn > 18GHz:
FCC 15.209

Hi Frequency Cables
3' cable 22807700: 3' cable 22807700
12' cable 22807600: 12' cable 22807600
20' cable 22807500: 20' cable 22807500
HPF:
Reject Filter:

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Ch 11, 2405MHz															
4.810	3.0	47.5	38.3	33.0	5.8	-36.5	0.0	0.0	49.8	40.6	74	54	-24.2	-13.4	V
4.810	3.0	43.1	34.9	33.0	5.8	-36.5	0.0	0.0	45.4	37.2	74	54	-28.6	-16.8	H
7.215	3.0	47.2	34.7	35.2	7.2	-36.2	0.0	0.0	53.3	40.9	74	54	-20.7	-13.1	H
7.215	3.0	43.5	32.0	35.2	7.2	-36.2	0.0	0.0	49.6	38.1	74	54	-24.4	-15.9	H
Mid ch 18, 2440MHz															
4.880	3.0	46.5	40.3	33.1	5.8	-36.5	0.0	0.0	49.0	42.8	74	54	-25.0	-11.2	V
4.880	3.0	44.3	34.8	33.1	5.8	-36.5	0.0	0.0	46.8	37.3	74	54	-27.2	-16.7	H
High Ch 26, 2480MHz															
4.960	3.0	46.1	37.2	33.2	5.9	-36.5	0.0	0.0	48.7	39.8	74	54	-25.3	-14.2	V
4.960	3.0	45.7	35.8	33.2	5.9	-36.5	0.0	0.0	48.3	38.4	74	54	-25.7	-15.6	H
No other emissions above noise floor															

Rev. 07.22.09

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

RX Emissions

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company:	**Zelphy**
Project #:	**10U13366**
Date:	**8/11/10**
Test Engineer:	**Thanh Nguyen**
Configuration:	**Node only**
Mode:	**Receive mode**

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz
T73; S/N: 6717 @3m	T144 Miteq 3008A00931		

RX RSS 210

Hi Frequency Cables

3' cable 22807700	12' cable 22807600	20' cable 22807500	HPF	Reject Filter
3' cable 22807700	12' cable 22807600	20' cable 22807500		

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
1.050	3.0	46.0	36.8	24.0	2.4	-39.4	0.0	0.0	33.0	23.9	74	54	-41.0	-30.1	V
1.350	3.0	45.2	35.3	25.0	2.8	-39.0	0.0	0.0	34.0	24.1	74	54	-40.0	-29.9	V
2.407	3.0	47.2	36.8	28.2	3.8	-37.5	0.0	0.0	41.8	31.4	74	54	-32.2	-22.6	V
3.210	3.0	39.9	33.2	30.5	4.5	-37.2	0.0	0.0	37.7	31.0	74	54	-36.3	-23.0	V
7.780	3.0	38.1	29.2	36.0	7.5	-36.2	0.0	0.0	45.5	36.6	74	54	-28.5	-17.4	H

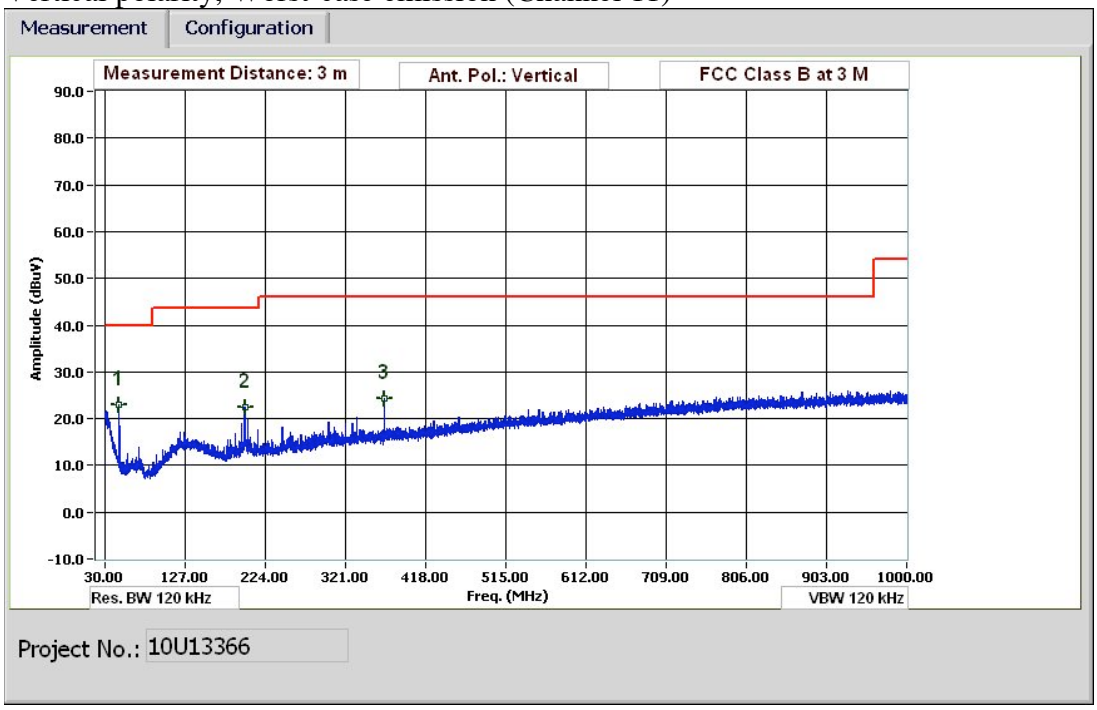
No other emissions above noise floor

Rev. 07.22.09

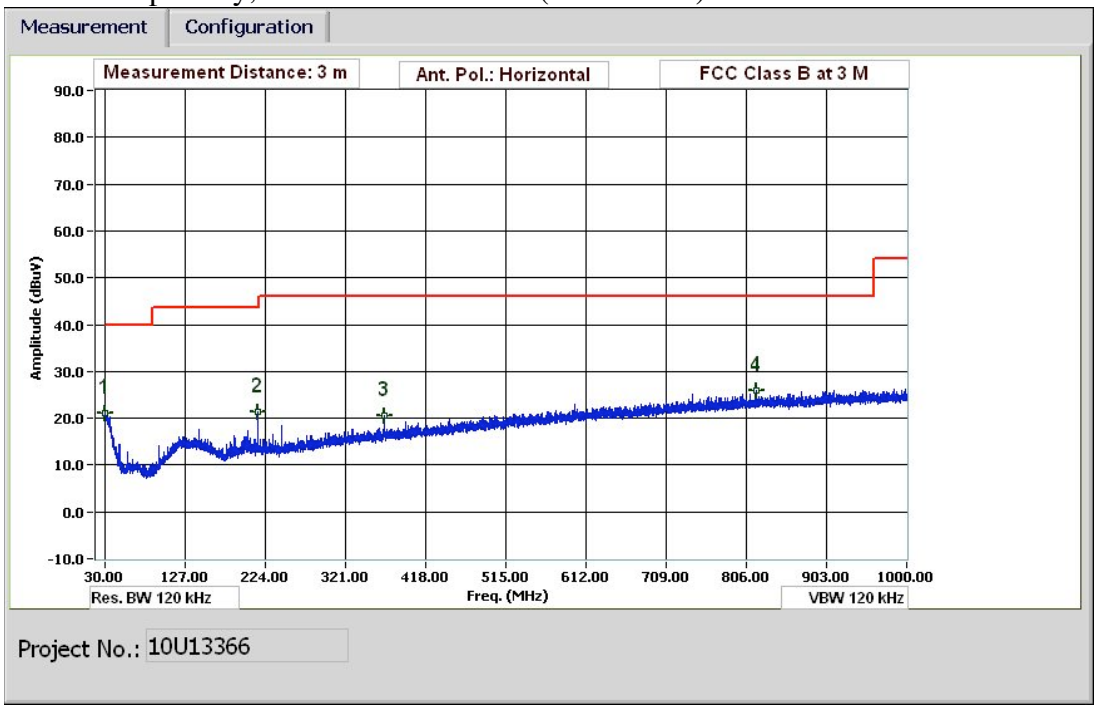
f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

TX and RX Radiated Emissions 30-1000 MHz

Note: No difference detected between TX and RX emissions below 1 GHz
Vertical polarity, Worst-case emission (Channel 11)



Horizontal polarity, Worst-case emission (Channel 11)



30-1000MHz Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: **Thanh Nguyen**
Date: **08/11/10**
Project #: **10U13366**
Company: **Zelphy**
EUT Description: **Node**
EUT M/N:
Test Target:
Mode Oper:

f	Measurement Frequency	Amp	Preamp Gain	Margin	Margin vs. Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		
Read	Analyzer Reading	Filter	Filter Insert Loss		
AF	Antenna Factor	Corr.	Calculated Field Strength		
CL	Cable Loss	Limit	Field Strength Limit		

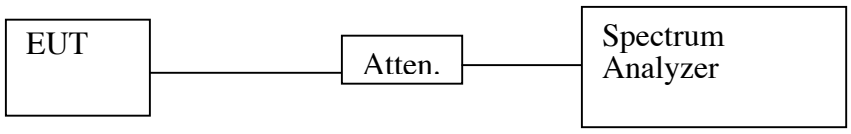
f MHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Filter dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Notes
Worst case													
47.281	3.0	40.9	9.7	0.6	28.4	0.0	0.0	22.9	40.0	-17.1	V	P	
199.087	3.0	37.5	11.9	1.2	28.2	0.0	0.0	22.5	43.5	-21.0	V	P	
367.574	3.0	36.3	14.4	1.7	28.1	0.0	0.0	24.3	46.0	-21.7	V	P	
30.000	3.0	28.9	20.1	0.5	28.4	0.0	0.0	21.1	40.0	-18.9	H	P	
214.808	3.0	36.5	11.9	1.3	28.2	0.0	0.0	21.5	43.5	-22.0	H	P	
367.454	3.0	32.5	14.4	1.7	28.1	0.0	0.0	20.5	46.0	-25.5	H	P	
817.712	3.0	29.6	21.1	2.7	27.5	0.0	0.0	25.8	46.0	-20.2	H	P	

Rev. 1.27.09
Note: No other emissions were detected above the system noise floor.

6dB Bandwidth for DTS

Test Requirement: FCC: 15.247 (a) 2
IC: RSS-210 Sec. 6.2.2(o)(iv)

Test Set-up



Test Procedures

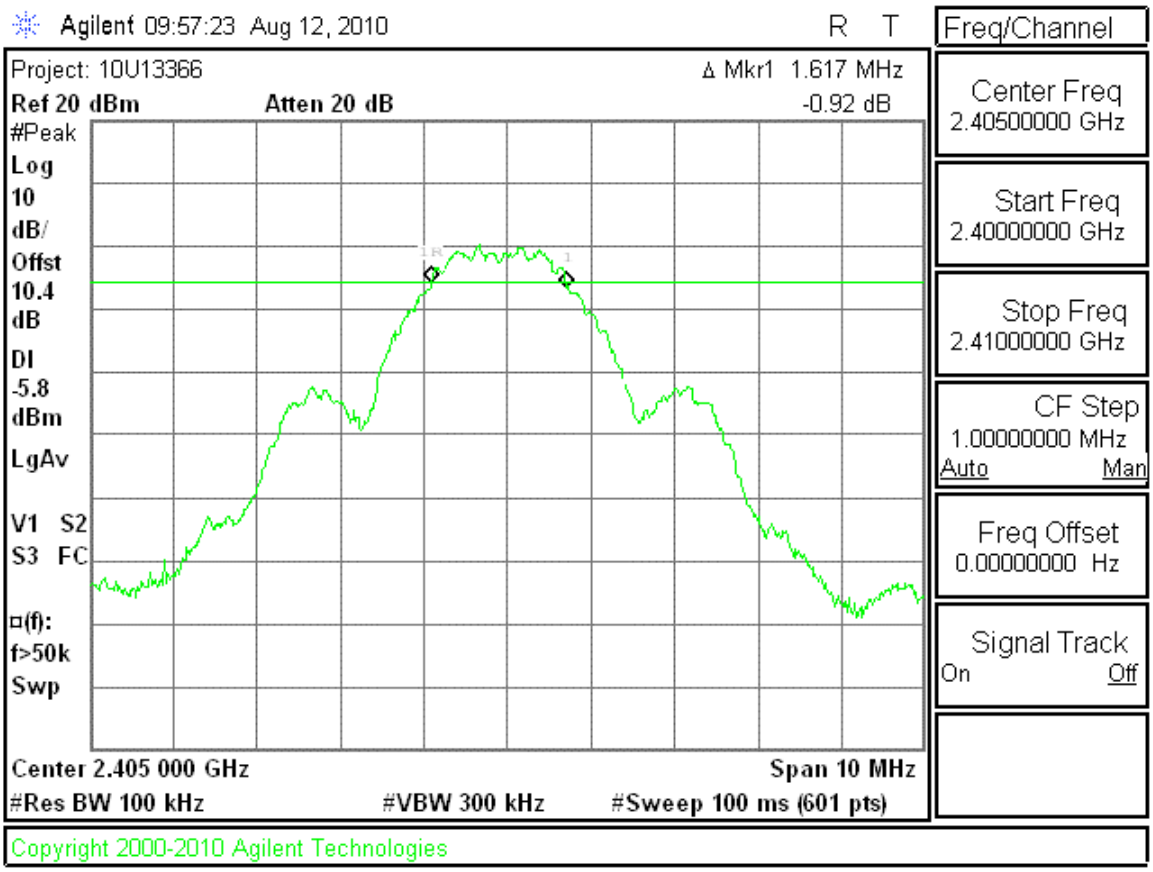
A modified EUT with a coaxial cable attached to the radio antenna port was configured on a test bench. The cable's SMA connector was connected to the spectrum analyzer. The EUT transmission was continuous at the LOW channel. While the transmitter broadcast a steady stream of digital data, the analyzer OCCUPIED BW function was activated to measure 6 dB BW and 99% BW.

Test was repeated for MID and HIGH channels.

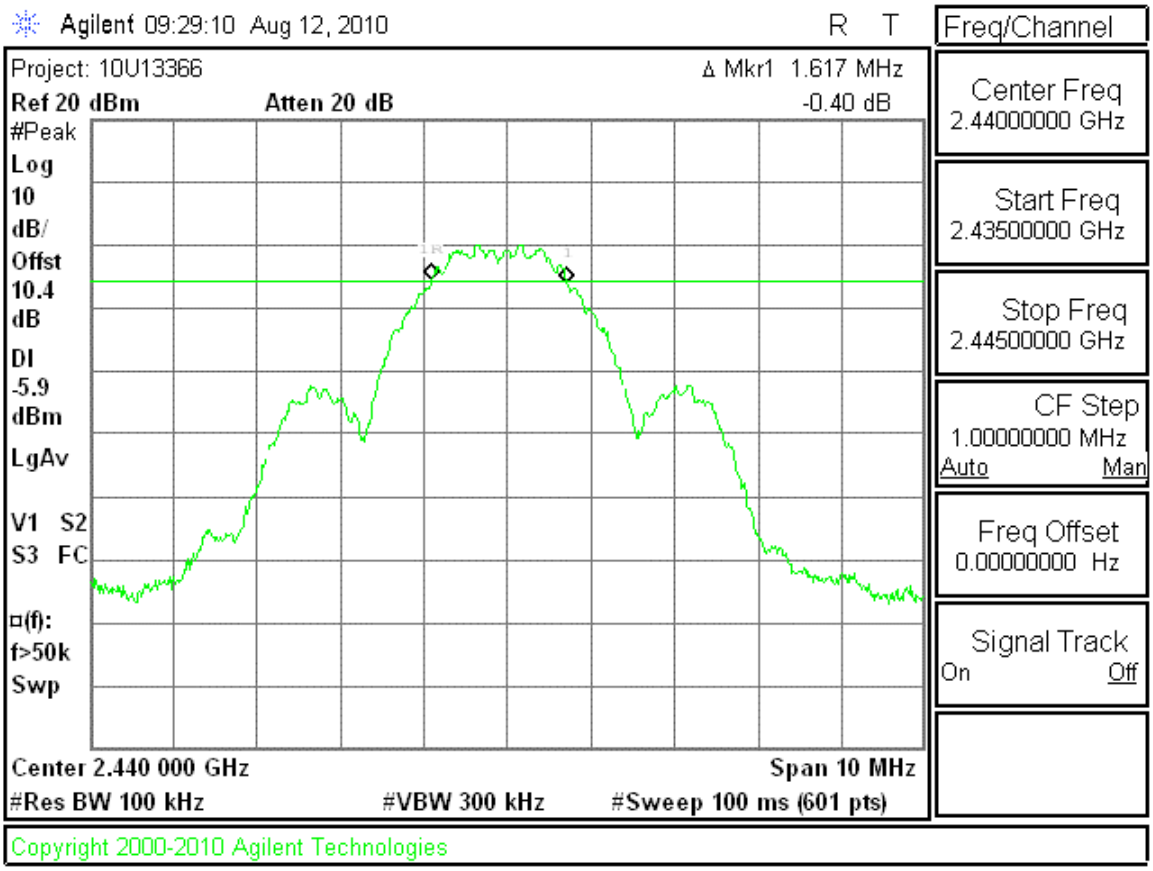
Test Results. No non-compliance noted. Refer to data sheets below.

Minimum 6 dB BW: 1.617 MHz
Minimum Required: 500 kHz

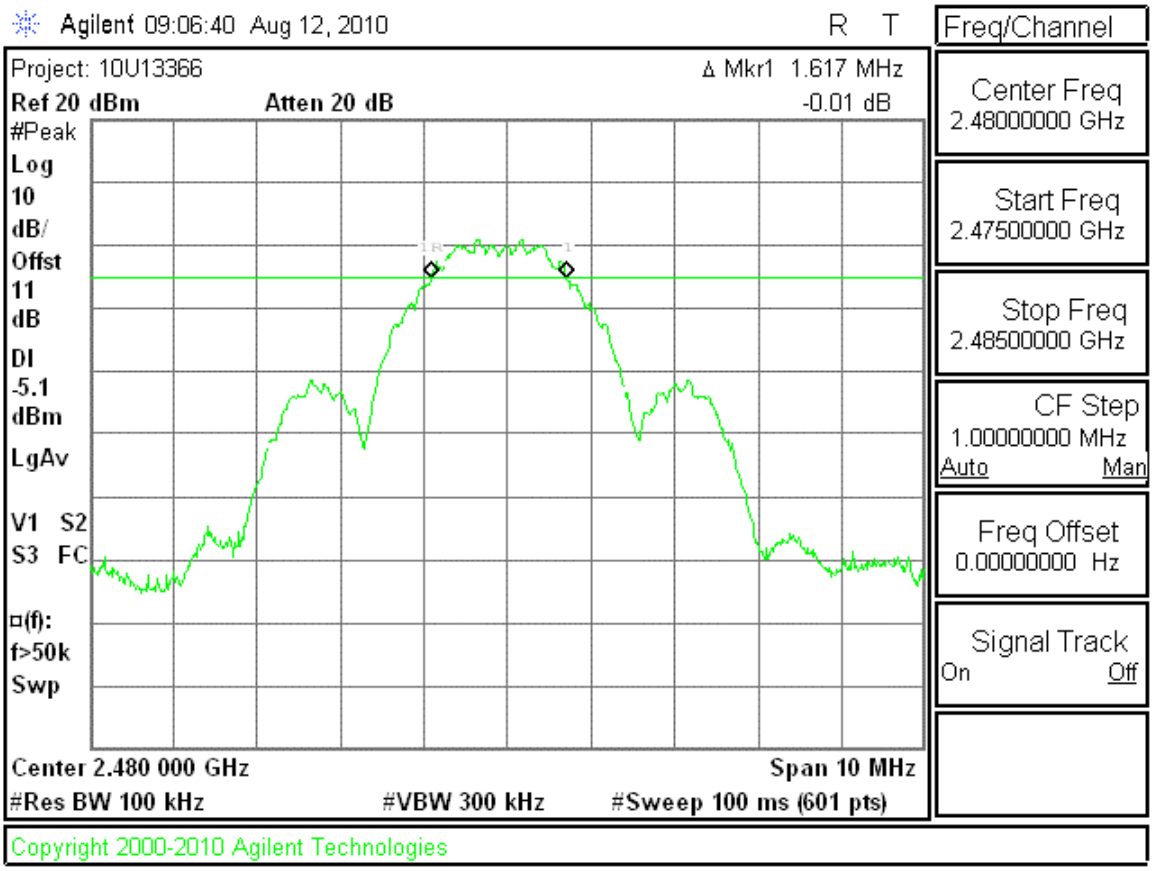
6dB Bandwidth LOW Channel 18



6 dB BW, MID Channel 18

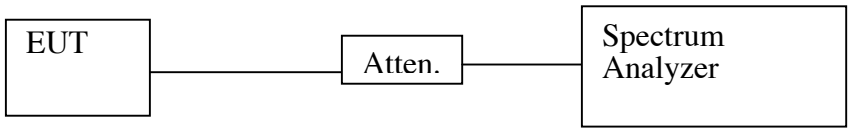


6 dB BW, HIGH Channel 26



99% Bandwidth

Test Setup



Limit

None: for reporting purposes only.

Test Procedure

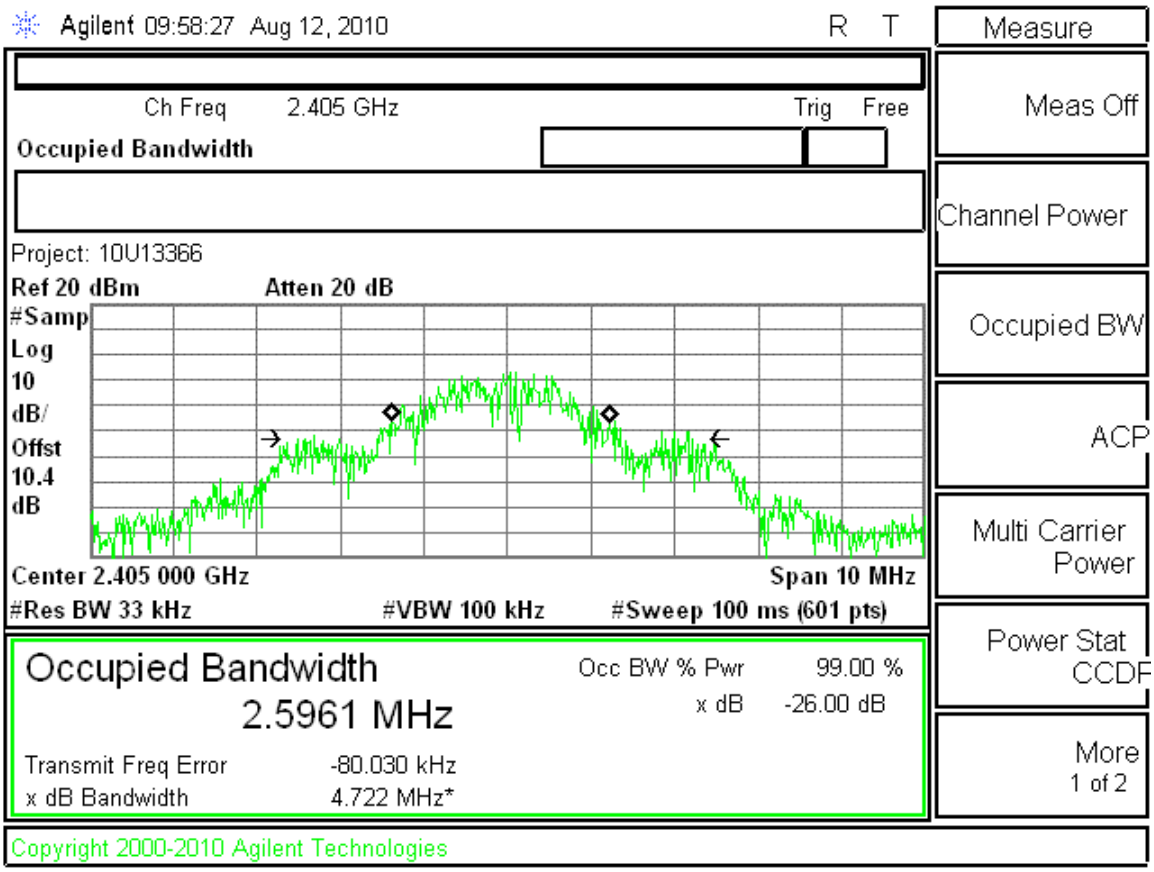
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal OCCUPIED BW function was utilized.

Test Results

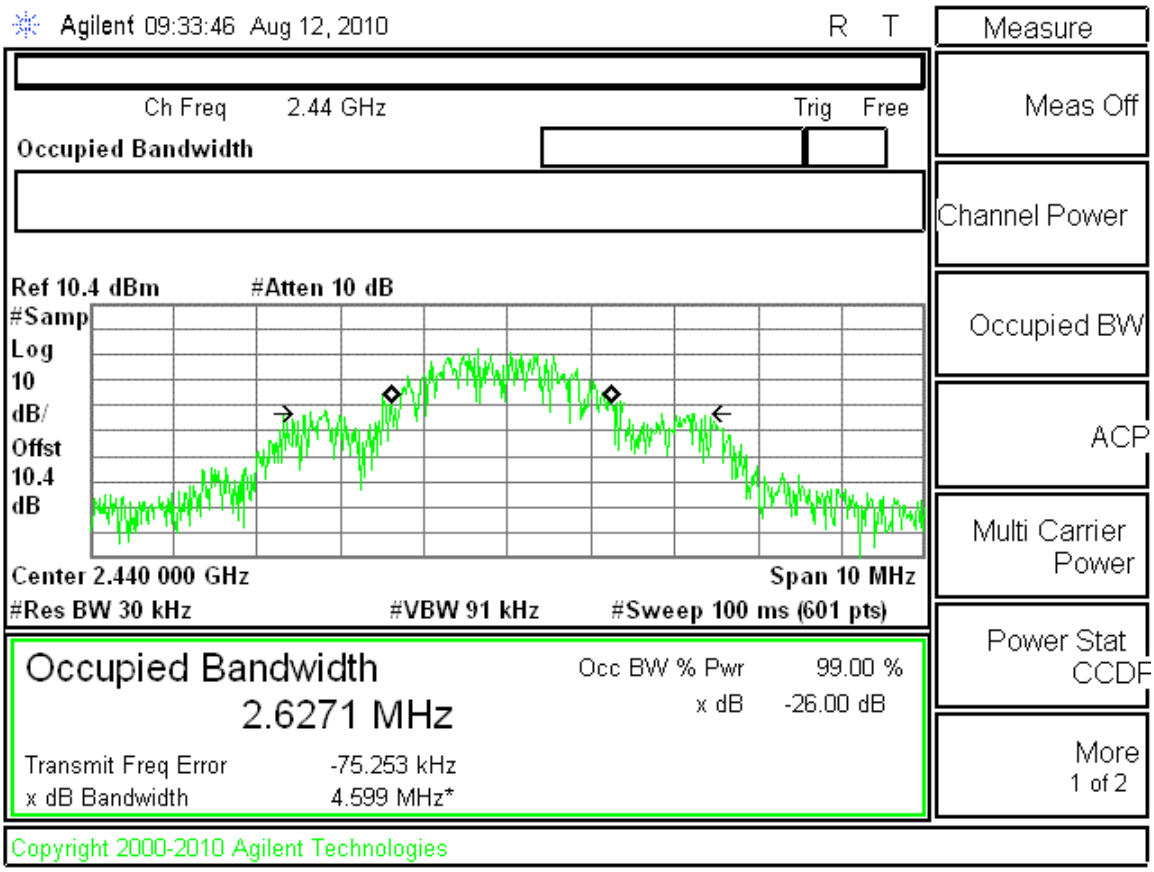
Refer to spectrum analyzer charts below. 99% bandwidth is approximately 2.63 MHz.

Emission Designator: 2M63G1D

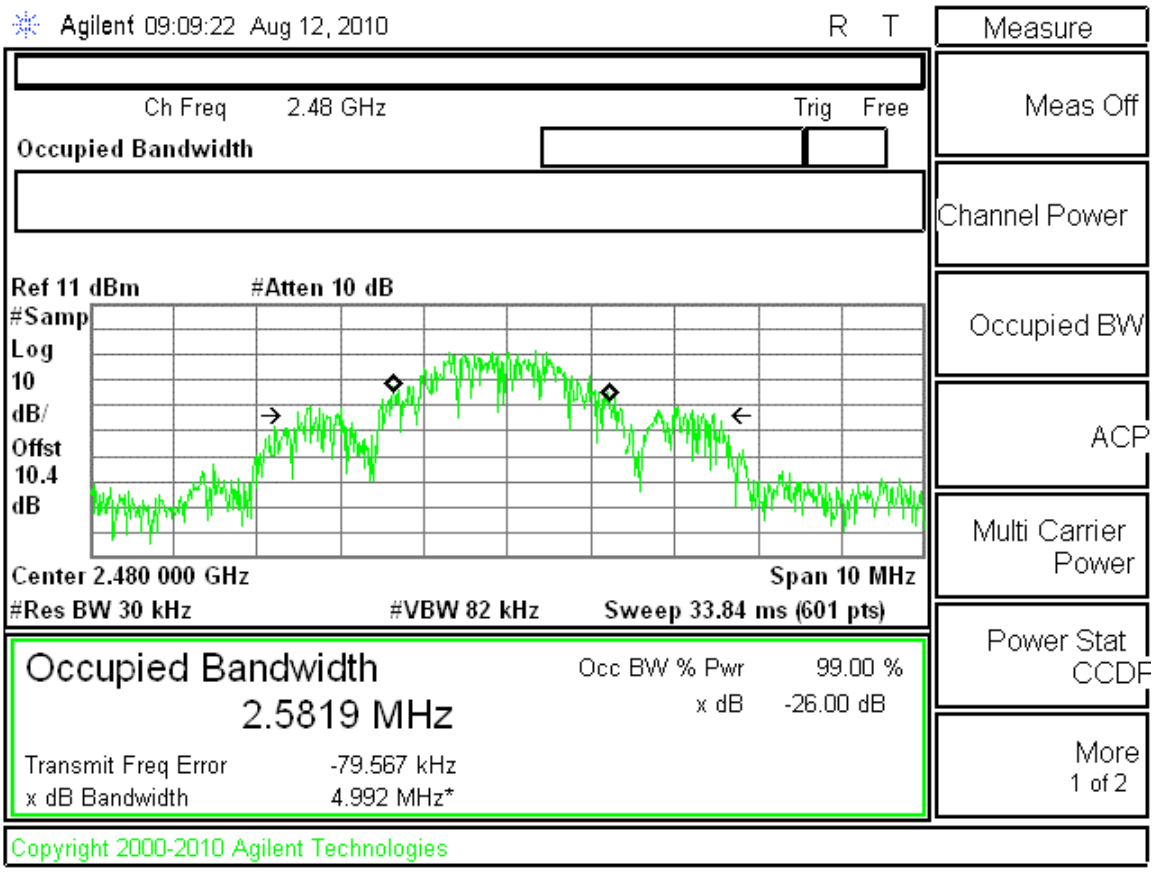
99% Bandwidth LOW Channel 11



99% Bandwidth MID Channel 18



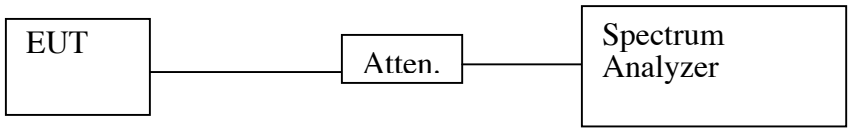
99% Bandwidth HIGH Channel 26



RF Power Output

Test Requirement: FCC: 15.247(b)
IC: RSS-210 Sec. 6.2.2(o)(iv)

Test Setup



Test Procedures

1.The EUT was configured on a test bench. RBW was set to a value higher than the 2.7 MHz 99% band width: RBW=3 MHz, VBW=5 MHz

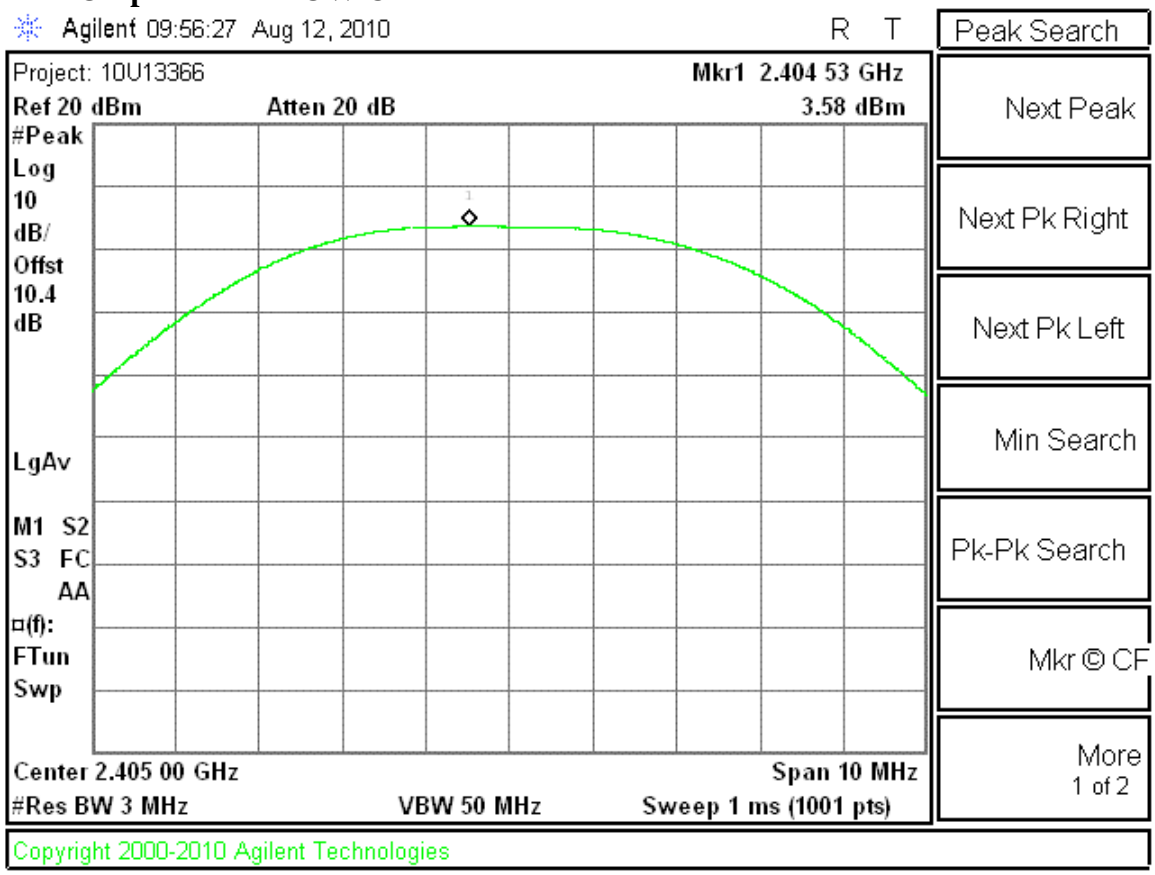
2. The spectrum analyzer detector was set to PEAK and the highest value was recorded using the analyzer PEAK SEARCH function.

Test Results

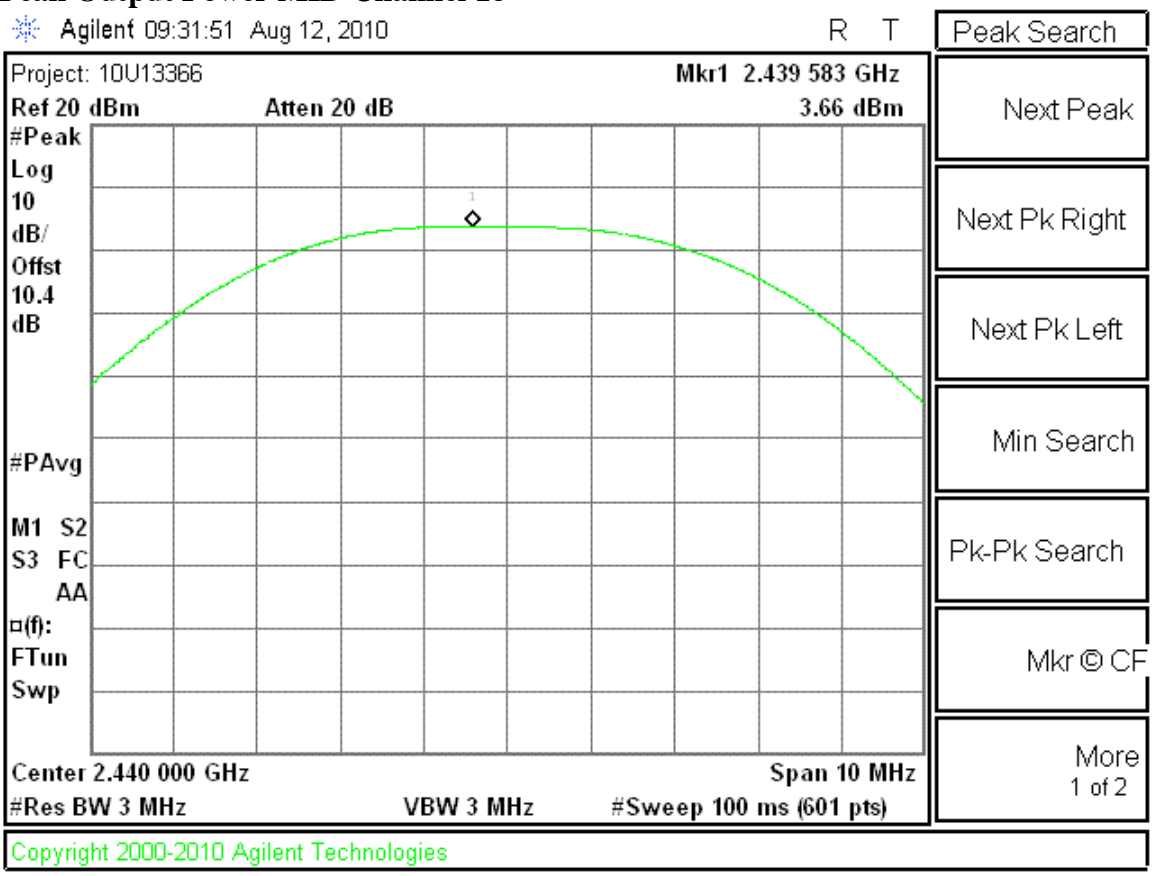
Refer to spectrum analyzer graphs. Reference level offset corrects for external attenuation and cable loss.

Channel	Frequency, MHz	Output Power, dBm
Low	2405.8	3.58
Mid	2440.8	3.68
High	2480.9	3.73

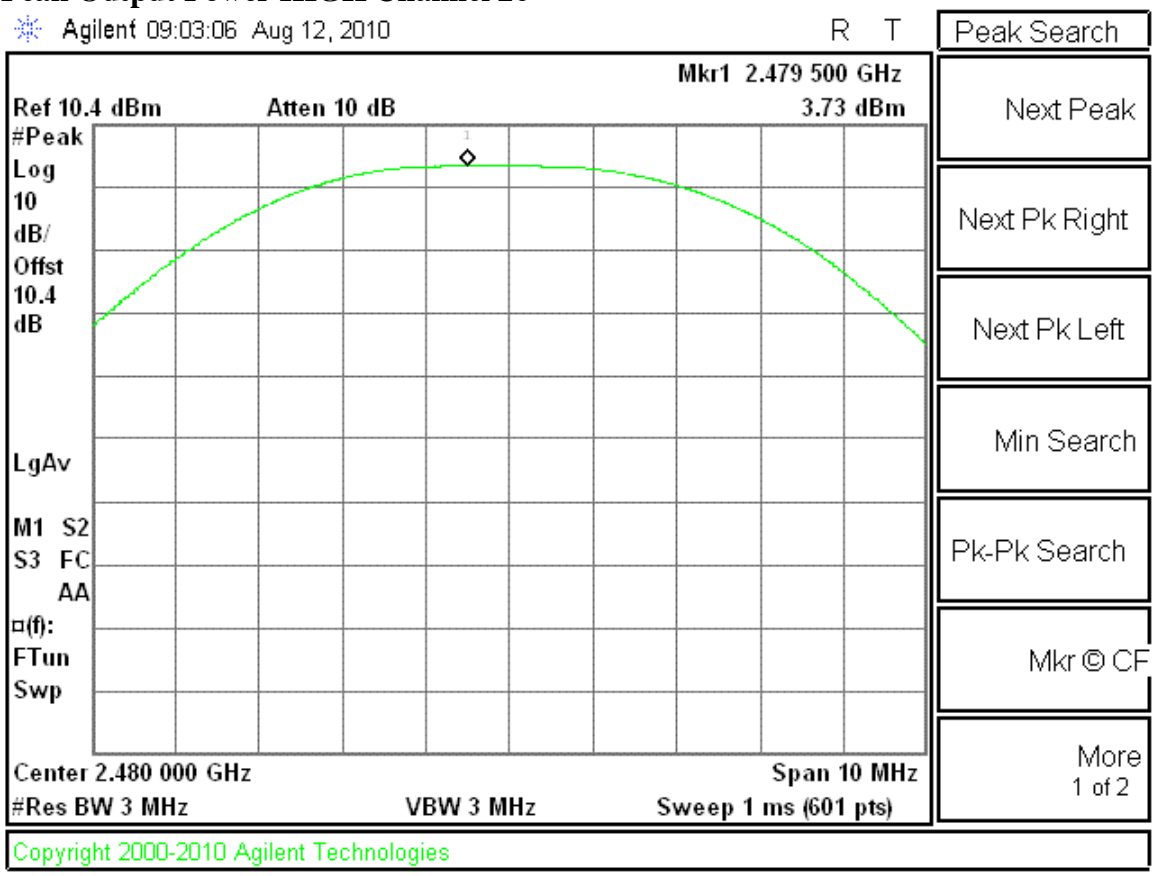
Peak Output Power LOW Channel 11



Peak Output Power MID Channel 18



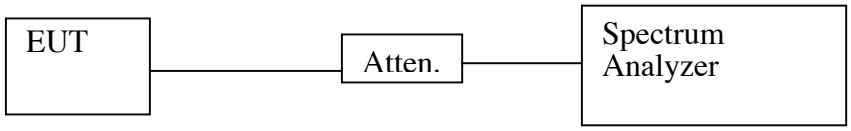
Peak Output Power HIGH Channel 26



Spurious Emissions, Conducted

Test Requirement: FCC: 15.247(d)
IC: RSS-210 Sec. 6.2.2(o)(e1)

Test Setup



Test Procedure

1. The EUT was configured on a test bench. The cable was connected between the EUT antenna port and the spectrum analyzer input port.

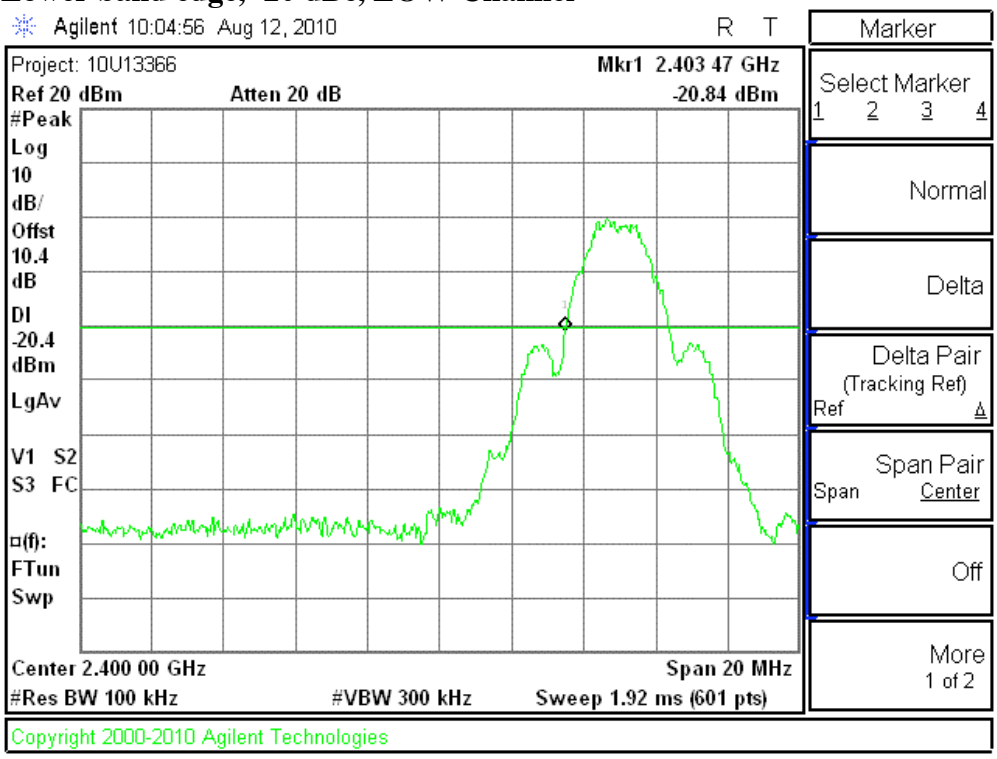
Spectrum analyzer RES BW was set to 100 kHz. While the transmitter broadcast a steady stream of digital data, the analyzer MAX HOLD function was used to capture the envelope of the transmission.

Readings were taken out to 10fo.

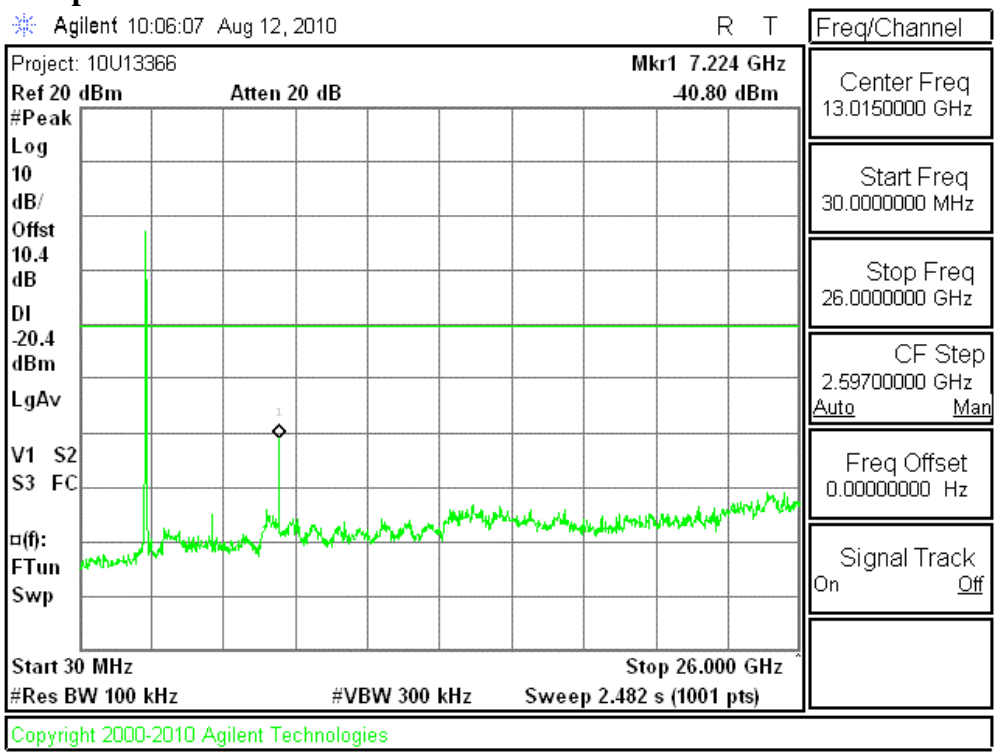
Test Results

Refer to spectrum analyzer plots. Data shows out of band emissions are suppressed well below the -20 dBc minimum required by the Rules.

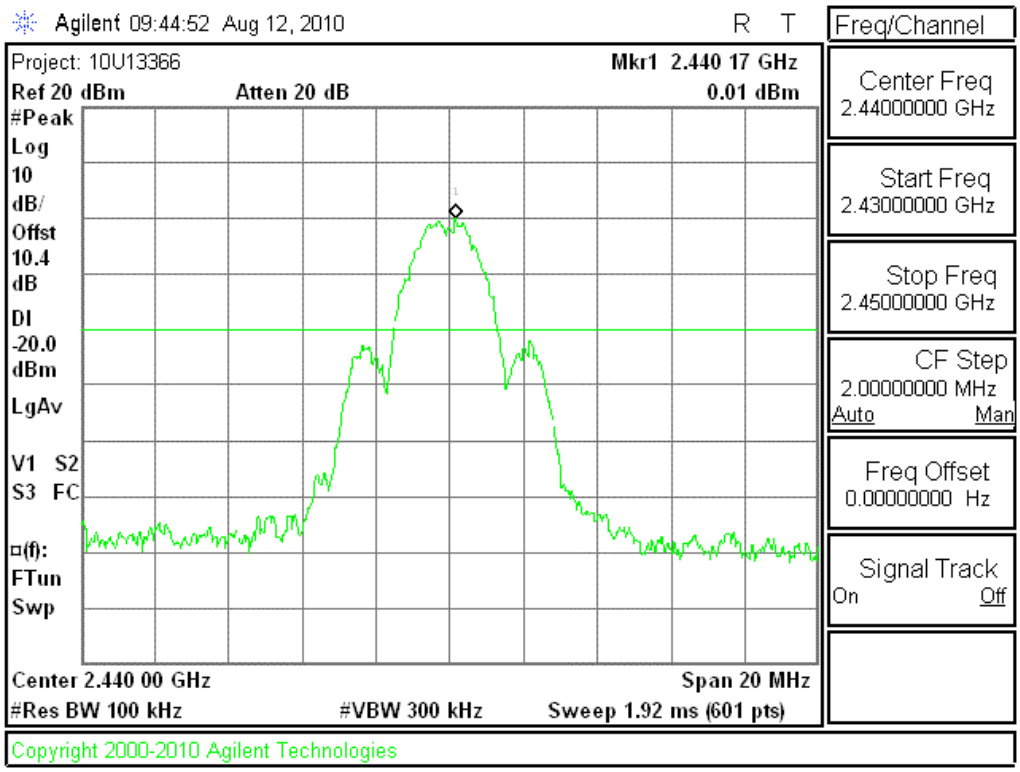
Lower band edge, -20 dBc, LOW Channel



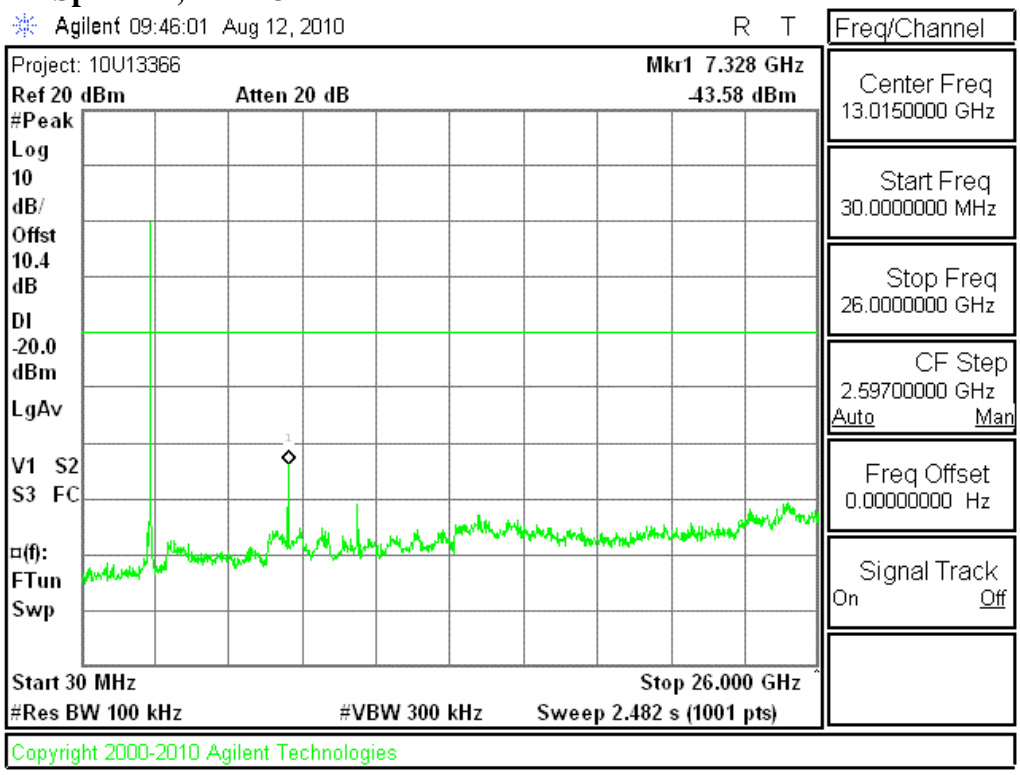
TX Spurious Emissions LOW Channel



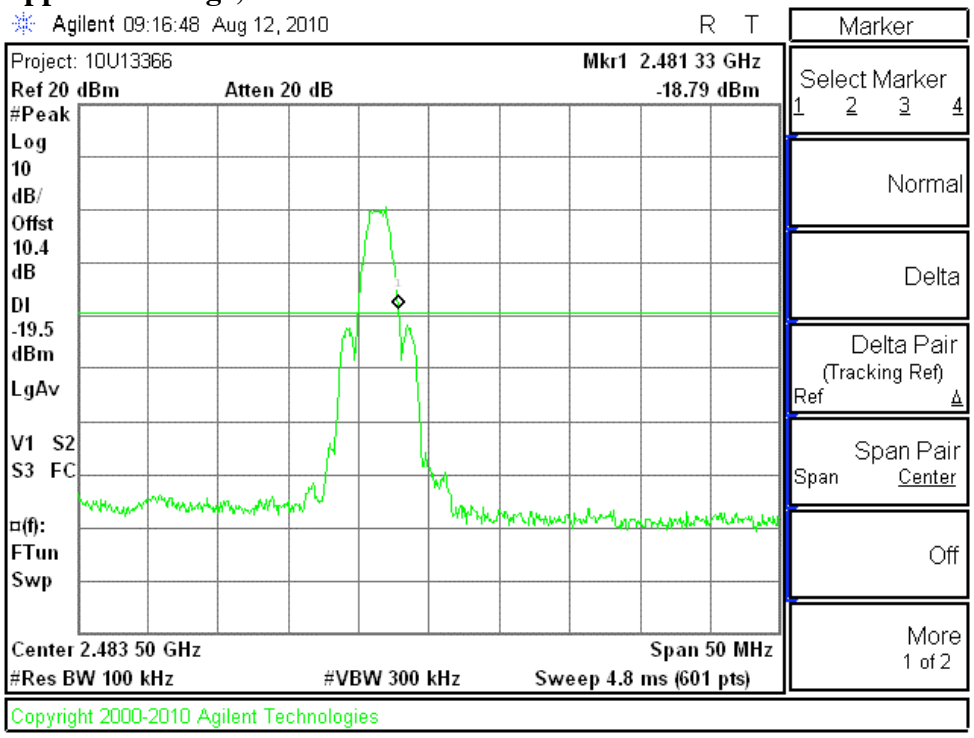
-20 dBc MID Channel Reference



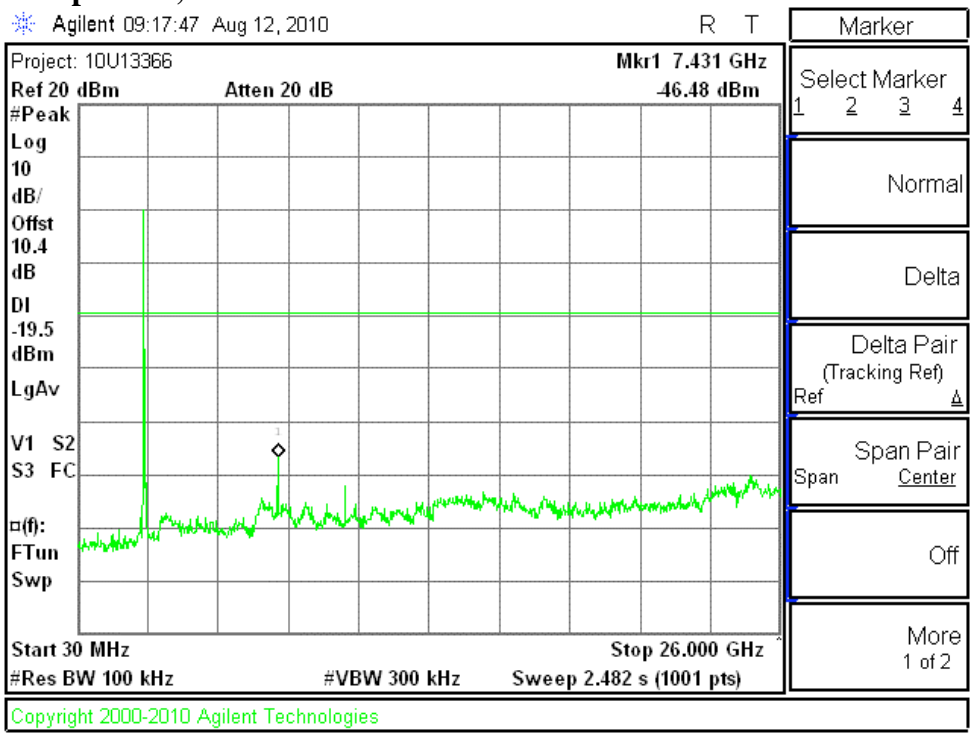
TX Spurious, MID Channel



Upper band edge, -20 dBc HIGH Channel



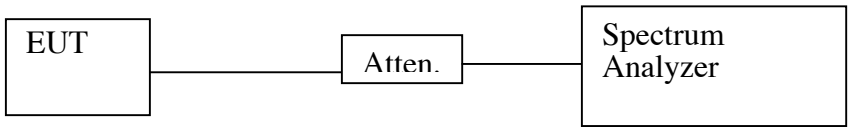
TX Spurious, HIGH Channel



Power Spectral Density

Test Requirement: 15.247(e)
RSS-210 Sec. 6.2.2(o)(iv)

Test Setup



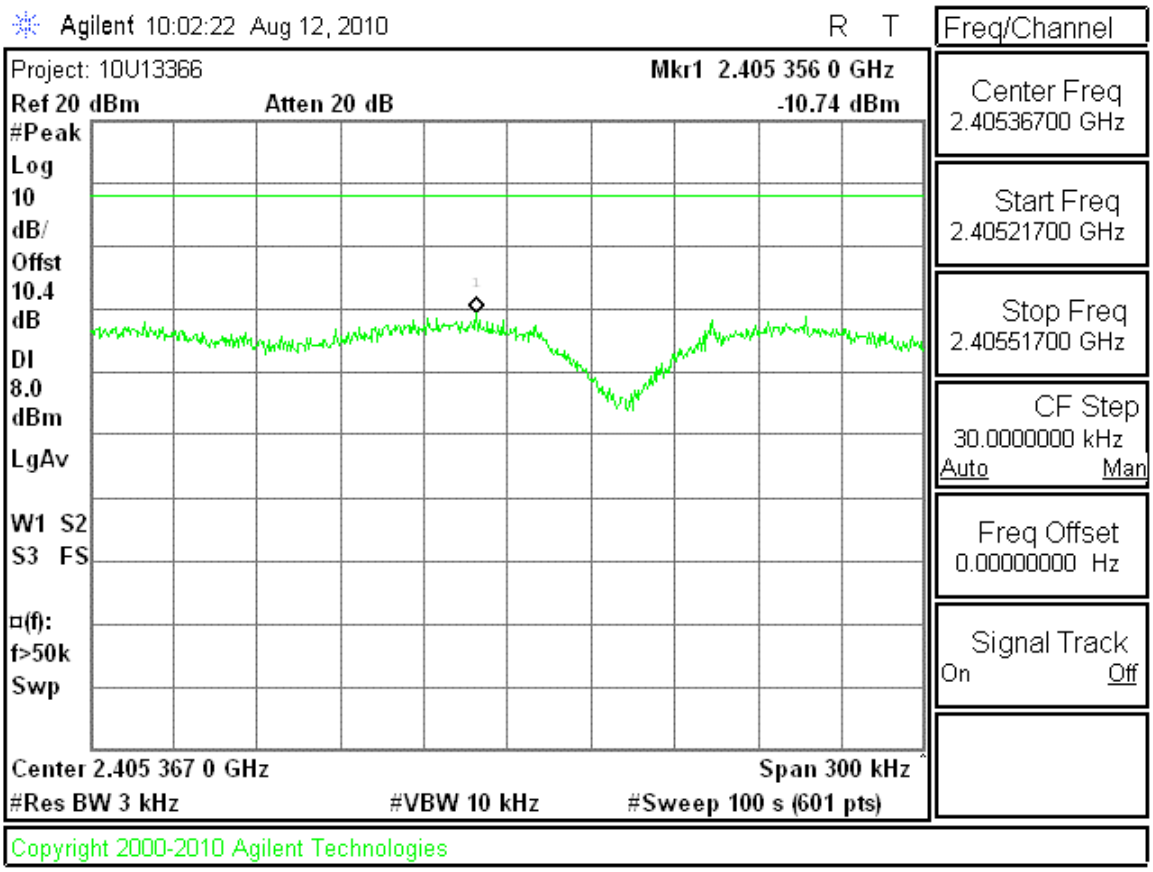
Test Procedure

1. Determine frequency at which maximum emission occurs during pre-scan.
2. Reduce SPAN to 300 kHz, while adjusting tuning frequency so that peak remains at center of screen.
3. Set RES BW =3 kHz, VID BW = 10 kHz, SWEEP = 100 sec.
4. Record highest reading and compare to 8 dBm limit.

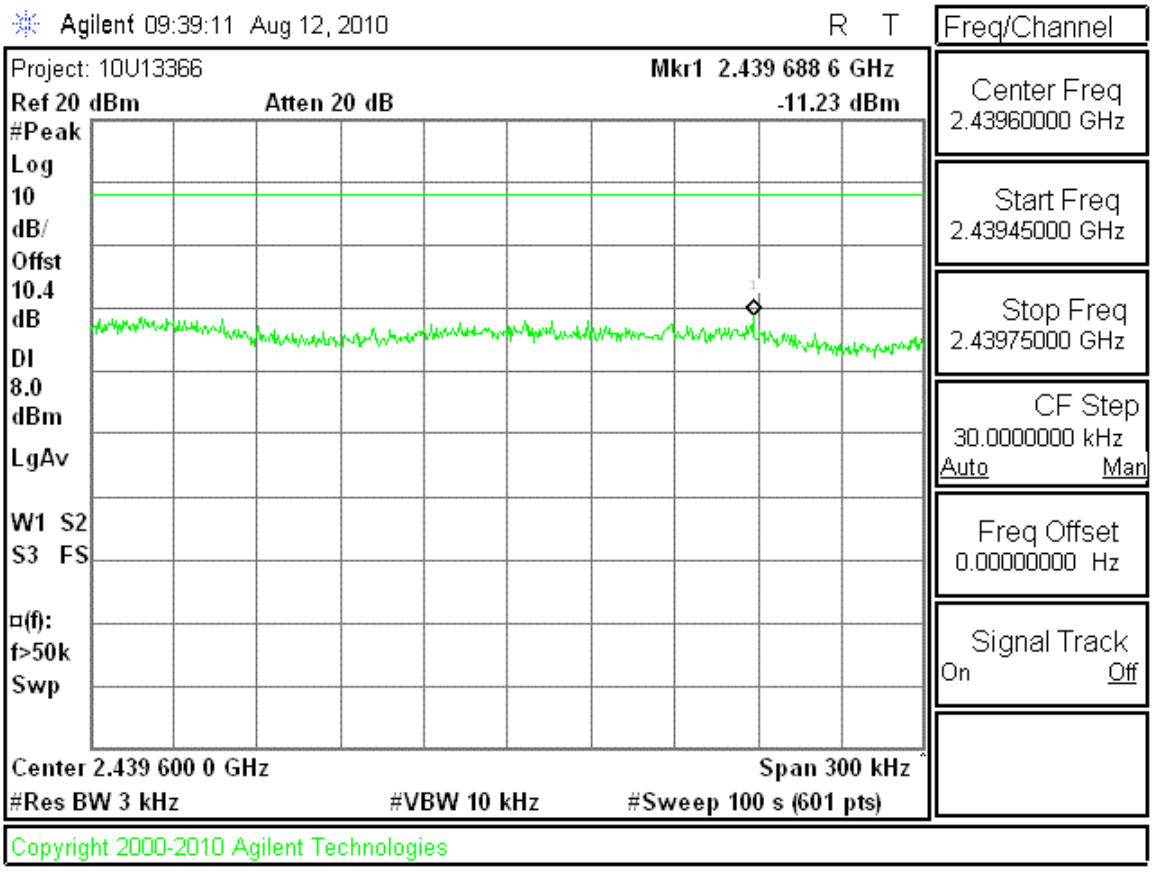
Test Results

Maximum PSD was -10.6 dBm. Refer to attached spectrum analyzer chart.

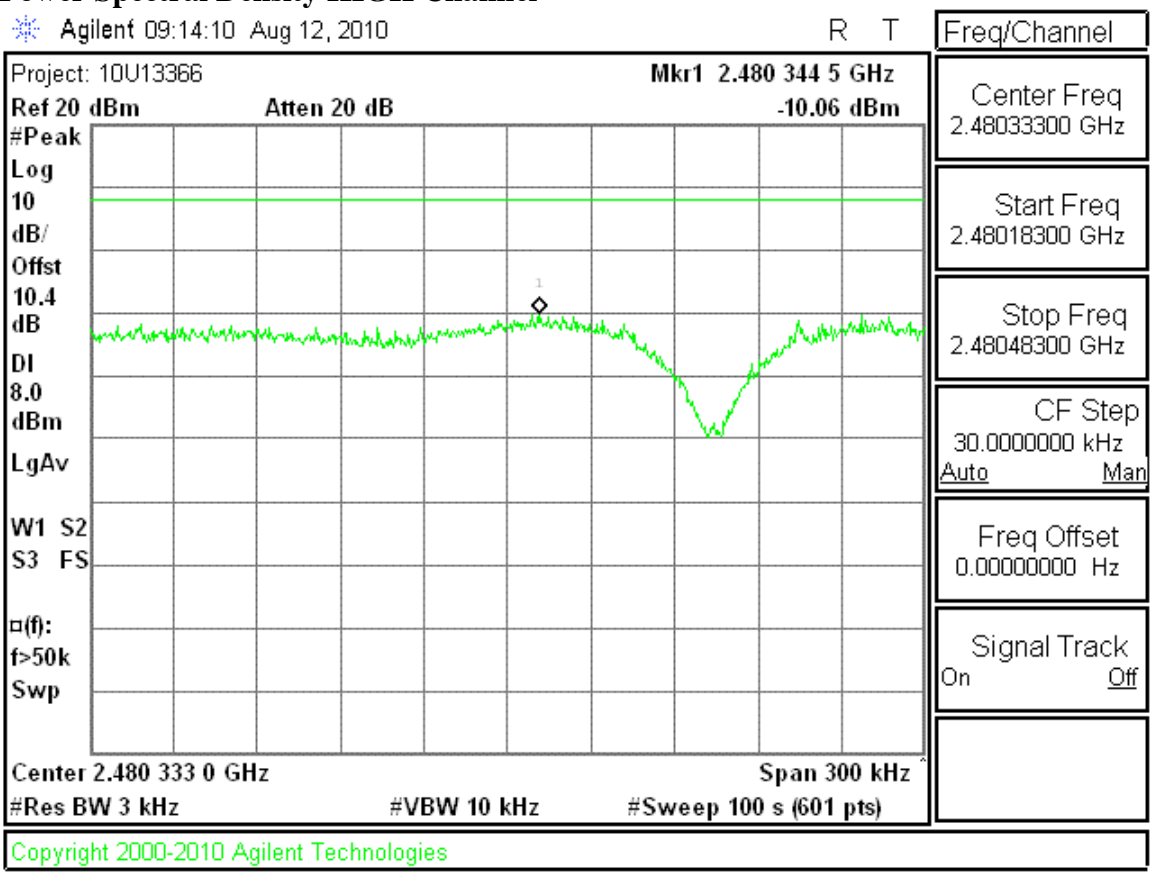
Power Spectral Density LOW Channel



Power Spectral Density MID Channel



Power Spectral Density HIGH Channel



RF Exposure (MPE) Calculations

Zelfy										
FCC ID: YHWPLF01										
IC: 9041A - PLF01										
Node Product			2.4 GHz			**Calculate mW/cm2 here. Enter frequency in MHz:**				
RF Hazard Distance Calculation						Calculation of Limits from 1.1310 Table 1				
									Controlled	Uncontrolled
									Ave 6 min	Ave 30 min
mW/cm2 from Table1:		1.00	(E: 61 V/m)			F(MHz)	**Actual F, MHz**		Occ, mW/c2	Gen, mW/cm2
						0.3-3	0.5		100.0	100.0
Max RF Power	TX Antenna	MPE distance	S, mW/cm@	Comment		*3.0 - 30.0*	*5*		*180.0*	*36.0*
P, dBm	G, dBi	cm	at 20 cm			**30.0-300**	**55**		**1.0**	**0.2**
						300-1500	*902*		*3.0*	*0.60*
3.7	**0.0**	**0.4**	**0.00**			1500-100000	5555		5.0	1.0
						Enter P(mW)	Equivalent dBm	**Enter dBm**	Equivalent Watts	
Basis of Calculations:						***64***	**18.1**	***18.1***	64.6	
E^2/3770 = S, mW/cm2										
E, V/m = (Pwatts*Ggain*30)^.5/d, meters										
d = ((Pwatts*G*30)/3770*S))^0.5			Pwatts*Ggain = 10^(PdBm-30+GdBi)/10)							
S@20cm = 20 log (MPE dist/20cm)										
NOTE: For mobile or fixed location transmitters, minimum separation distance is for FCC compliance is 20 cm,										
even if calculations indicate MPE distance is less										

POWERLINE CONDUCTED EMISSIONS

LIMIT: **FCC 15.207(a), IC RSS-Gen 7.7.2**

§15.207 (a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal.

The lower limit applies at the boundary between the frequency ranges.

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The resolution bandwidth is set to 9 kHz for both peak detection and quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

TEST NOT PERFORMED. EUT BATTERY OPERATED ONLY.

END OF REPORT

Report Revision History

Revision No.	Revision Description	Pages Revised	Revised by	Date
-	Original Issue		T. Cokenias	08/15/10
1 Sept	Correct grantee code references to YRI	All	T. Cokenias	09/01/10