



**Nemko USA, Inc.**

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## CERTIFICATION TEST REPORT

Report Number: 2012 03187598 FCC

Project Number: 10213249

Nex Number: 187598

Applicant: MICROPOWER TECHNOLOGIES  
4225 EXECUTIVE SQUARE, SUITE 430  
La Jolla, CA 92037

Equipment Under Test (EUT): WIRELESS MODULE

Model: 370-00012-01

FCC ID: ZHX-370-00012-01

In Accordance With: FCC Part 15 Subpart C, 15.247

Tested By: Nemko USA Inc.

Authorized By: A handwritten signature in blue ink, appearing to read 'Mark Phillips'.  
MARK PHILLIPS, EMC/RF Test Engineer

Date: MARCH 1, 2012

Total Number of Pages: 34

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## Section1: Summary of Test Results

### 1.1 General

All measurements are traceable to national standards

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 15; Subpart C. Radiated tests were conducted in accordance with ANSI C63.4-2003. Radiated emissions are made in a 10 meter semi-anechoic chamber. A description of the test facility is on file with the FCC.

The assessment summary is as follows:

Apparatus Assessed: Wireless Module

Model: 370-00012-01

Specification: FCC Part 15 Subpart C, 15.247

Date Received in Laboratory: November 21, 2011

Compliance Status: Complies

Exclusions: None

Non-compliances: None





## 1.2 Report Release History

Revision	Date	Comments	
-	March 1, 2012	Prepared By:	Mark Phillips
-	March 1, 2012	Initial Release:	Alan Laudani

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025.

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TESTED BY: \_\_\_\_\_ Date: March 1, 2012  
MARK PHILLIPS, EMC Test Engineer



## Section 2: Equipment Under Test

### 2.1 Product Identification

The Equipment Under Test was identified as follows:

DEVICE	MANUFACTURER MODEL # SERIAL #	POWER CABLE
EUT - Wireless Module	MicroPower Technologies Model: 370-00012-01 Serial #: 001	NA
Support – Camera	MicroPower Technologies Model: Camera Serial #: 001	NA

Connection	I/O Cable
No connections	

### 2.2 Theory of Operation

The 370-00012-01 is a Wireless Module. Control commands communicate through the 902 to 928 MHz band radio and the Camera Data communicate through the 2400 to 2483.5 MHz band radio. When installed in a camera, 370-00012-01 is powered by a battery charged by Solar panels.

The EUT's performance during test was evaluated against the performance criterion specified by applicable test standards. Performance results are detailed in the test results section of this report.

This test report is for the MPT-2500 Camera section of the system. The camera's transmitters were set into a test mode for testing.

### 2.3 Technical Specifications of the EUT

Manufacturer: MicroPower Technologies

Operating Frequencies: 904.999 MHz to 921.795 MHz  
in the 902 -928 MHz Band  
and  
2412.0 MHz to 2462.0 MHz  
in the 2400 -2483.5 MHz Band

Rated Power: Low band: 0.034 W  
High band: 0.706 W

Modulation: Low band: GFSK,  
High band: Digital

Antenna Connector: Type N, professionally installed  
Type "Reverse SMA", professionally installed.

Power Source: 3 solar panels, 6 VDC battery



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## Section 3: Test Conditions

### 3.1 Specifications

The apparatus was assessed against the following specifications:

*FCC Part 15 Subpart C, 15.247*

Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5850 MHz and 24.0-24.25 GHz bands.

### 3.3 Test Environment

All tests were performed under the following environmental conditions:

Temperature range	17°C
Humidity range	47-52%
Pressure range	101.4 – 101.7 kPa
Power supply range	6VDC nominal



### 3.4 Test Equipment

Nemko ID	Device	Manufacturer	Model	Serial Number	Cal Date	Cal Due Date
--	DC power supply	GW Instek	GPS-3030DD	na	NCR	NCR
115	Antenna, Bicon	EMCO	3104	3020		
317	Preamplifier	HP	8449A	2749A00167	5/16/2011	5/16/2012
529	Antenna, Dbl Ridge Horn	EMCO	3115	2505	10/18/2010	10/18/2012
755	Antenna, LPA	EMCO	3147	1246		
813	Multimeter	Fluke	111	78130060	9/26/2011	9/26/2012
835	Spectrum Analyser	Rohde & Schwarz	RHDFSEK	829058/005	7/22/2011	7/22/2012
877	Antenna, DRG Horn, .7-18GHz	AH Systems	SAS-571	688	8/16/2010	8/16/2012
911	Spectrum Analyser	Agilent	E4440A	US41421266	10/27/2011	10/27/2012

Registrations of the 10m Semi-anechoic chamber are on file with the Federal Communications Commission and with Industry Canada under Site Number 2040B-3.

## Section 4: Observations

### 4.1 Modifications Performed During Assessment

No modifications were performed during assessment.

### 4.2 Record Of Technical Judgements

No technical judgements were made during the assessment.

### 4.3 EUT Parameters Affecting Compliance

The user of the apparatus could not alter parameters that would affect compliance.

### 4.4 Deviations From Laboratory Test Procedures

No deviations from Laboratory Test Procedure

### 4.5 Test Deleted

No Tests were deleted from this assessment.

### 4.6 Additional Observations

There were no additional observations made during this assessment.



## Section 5: Results Summary

This section contains the following:

### FCC Part 15 Subpart C:

The column headed "Required" indicates whether the associated clauses were invoked for the apparatus under test. The following abbreviations are used:

N No: not applicable / not relevant

Y Yes: Mandatory i.e. the apparatus shall conform to these tests.

N/T Not Tested, mandatory but not assessed. (See section 4.4 Test deleted)

The results contained in this section are representative of the operation of the apparatus as originally submitted.

#### 5.1 Test Results

Part 15C	Test Description	Required	Result
15.207 (a)	Conducted Emission Limit	NA	Pass
15.215(c)	20 dB Bandwidth	Y	Pass
15.247(a)(2)	Minimum 6dB RF Bandwidth	Y	Pass
15.247(b)(3)	Peak Output Power	Y	Pass
15.247(d)	Band-edge Compliance of RF Conducted Emissions	Y	Pass
15.247 (d)	Spurious RF Conducted Emissions	Y	Pass
15.247 (d)	Spurious Radiated Emissions	Y	Pass
15.247(e)	Power Spectral Density for Digitally Modulated Devices	Y	Pass



## Appendix A: Test Results

### Power Line Conducted Emissions

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  $\mu$ H/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 (dB $\mu$ V)	
	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 Conditions:

Sample Number:	370-00012-01	Temperature:	N/A°C
Date:		Humidity:	N/A%
Modification State:	Low, Mid and High Channels	Tester:	Mark Phillips
		Laboratory:	Nemko SR2

Test Results: EUT does not connect to AC mains

**20 dB Bandwidth**

(c) Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth May otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the designated bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that May be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

**Test Conditions:**

Sample Number:	370-00012-01	Temperature:	17°C
Date:	November 21, 28, 2011	Humidity:	52%
Modification State:	Low, Mid and High Channels	Tester:	Mark Phillips
			Laboratory: Nemko

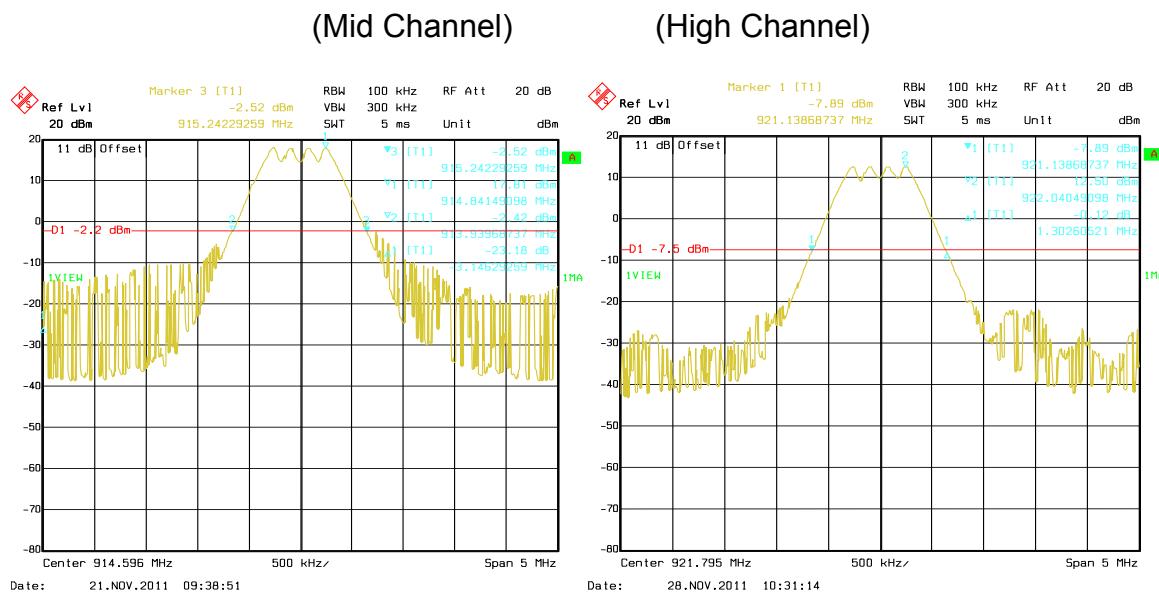
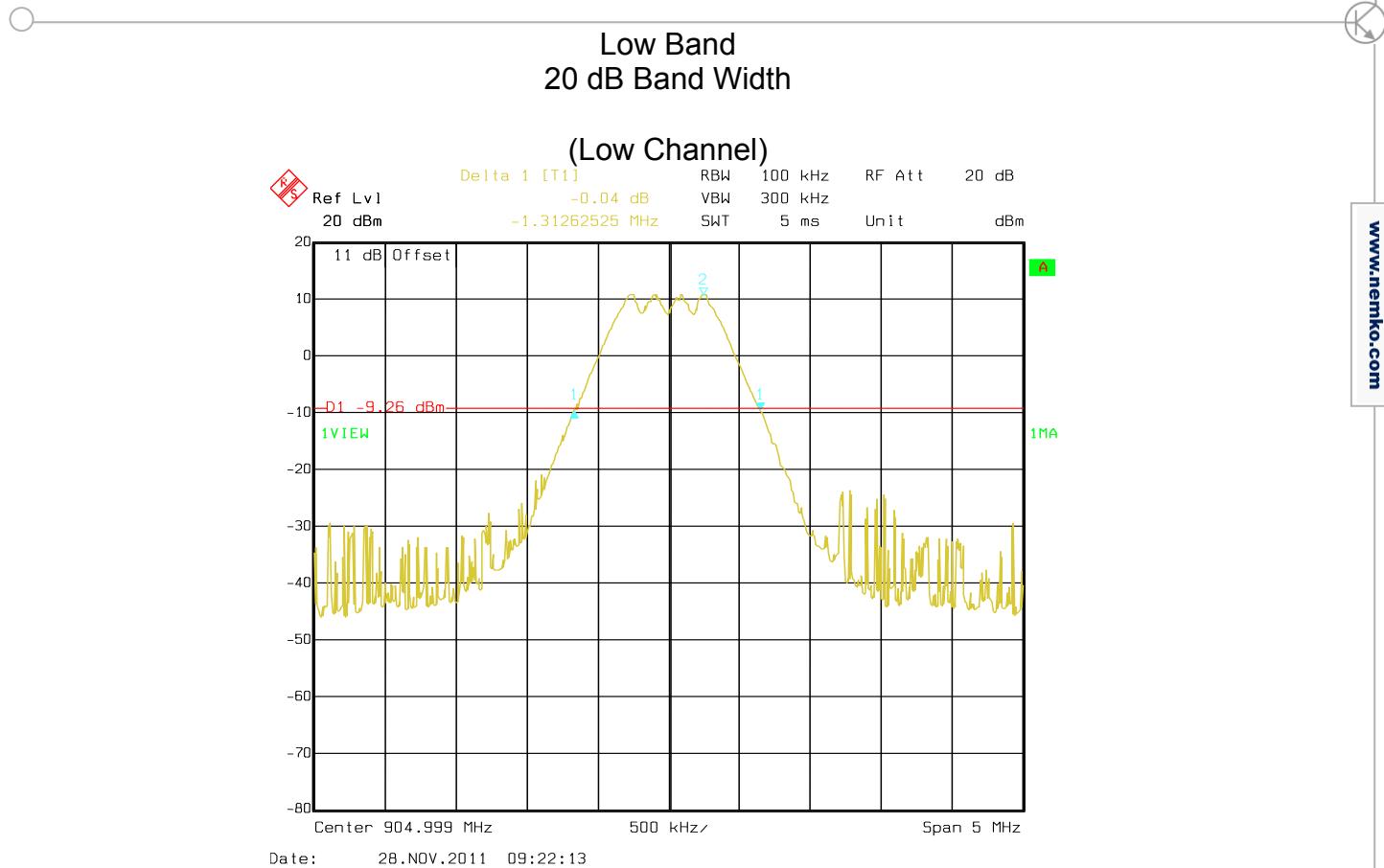
Test Results: See attached plots.

**Additional Observations:**

- This was a conducted test.
- Span is wide enough to capture the channel transmission
- RBW is 1% of the span
- VBW is 3X RBW
- Sweep is auto, Detector is Peak, Trace is Max Hold
- 99% BW: used Spectrum Analyser's programmed function.

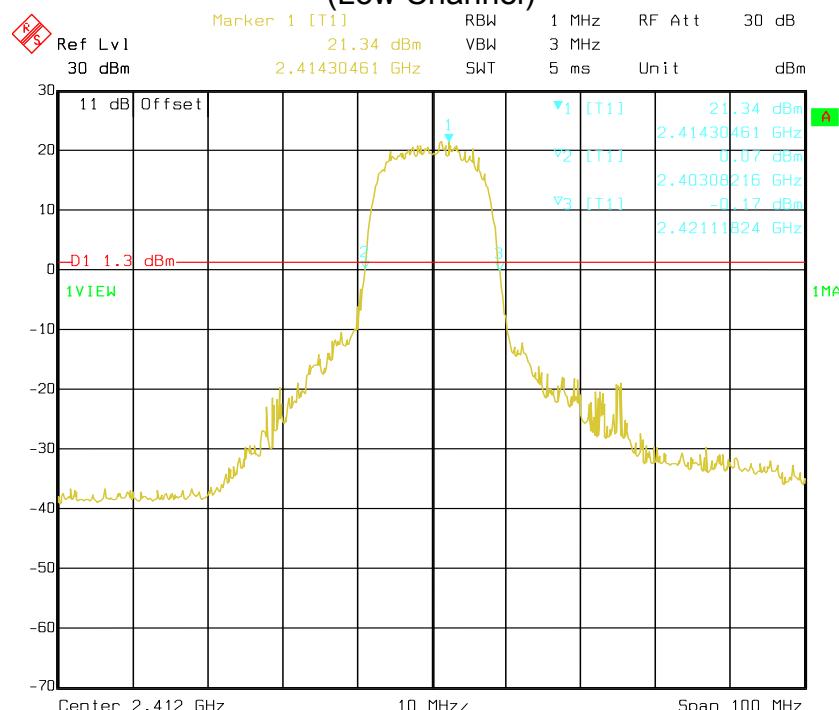
Channel Range	Observed 20 dB bandwidth
Low (904.999 MHz)	1.313 MHz
Mid (914.596 MHz)	1.303 MHz
High (921.795 MHz)	1.303 MHz

Channel Range	Observed 20 dB bandwidth
Low (2412.0 MHz)	18.0 MHz
Mid (2437.0 MHz)	18.6 MHz
High (2462.0 MHz)	18.4 MHz



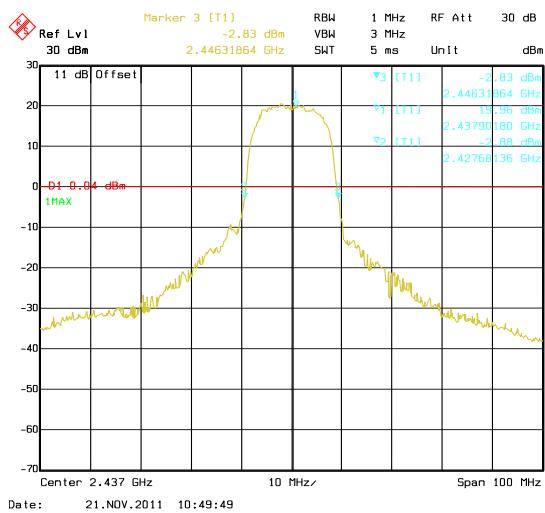
20 dB Band Width

(Low Channel)

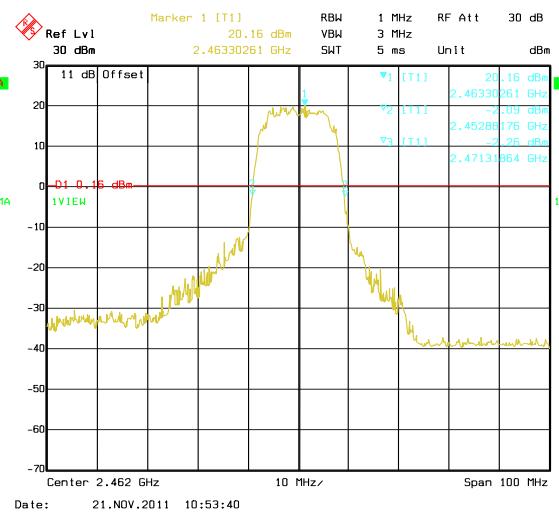


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(Mid Channel)



(High Channel)



**Minimum 6dB RF Bandwidth**

Systems using digital modulation techniques May operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

**Test Conditions:**

Sample Number:	370-00012-01	Temperature:	17°C
Date:	November 23, 2011	Humidity:	43%
Modification State:	Low, Mid and High Channels	Tester:	Mark Phillips
		Laboratory:	Nemko

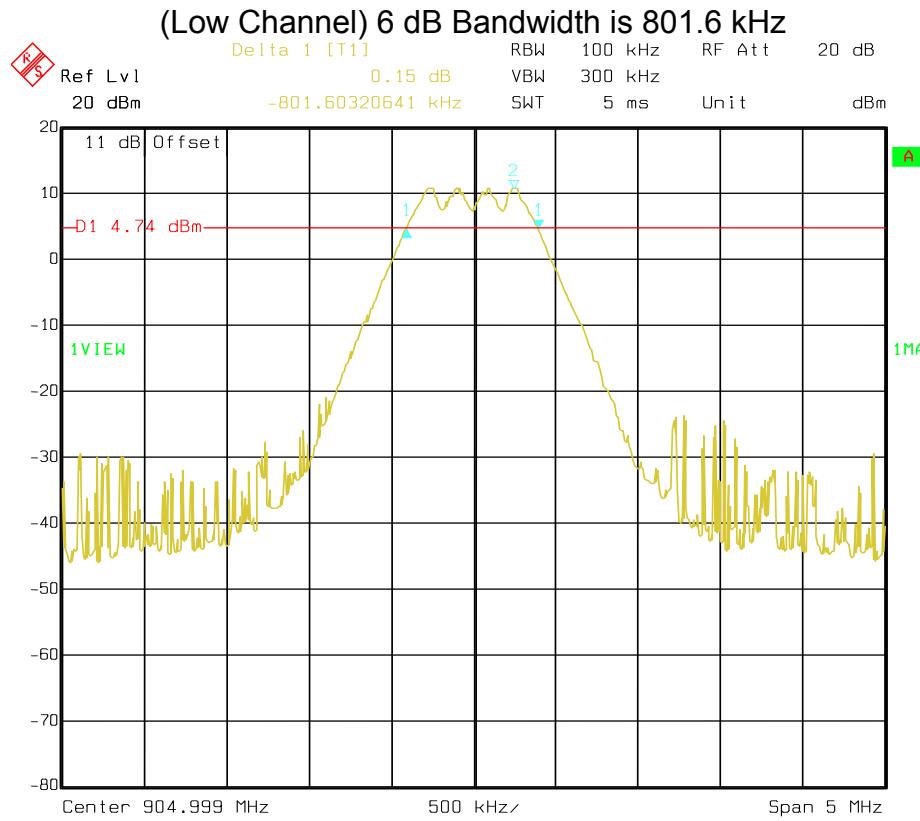
Test Results: EUT complies, See attached plots.

**Additional Observations:**

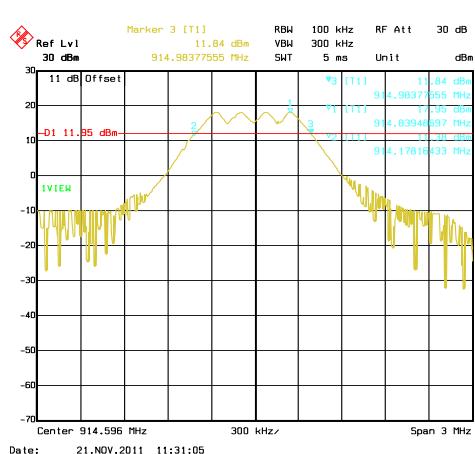
- This is a conducted test
- RBW is set to 100kHz
- VBW is 3X RBW
- Sweep is auto
- Detector is Peak
- Trace is Max Hold
- For each RF channel investigated, the spectrum analyser's center frequency was set to the channel carrier. A PEAK output reading was plotted; a DISPLAY line was drawn 6 dB lower than PEAK level. The 6 dB bandwidth was determined from where the channel output spectrum intersected the display line.
- EUT complies as 6 dB BW > 500 kHz

Channel Range	Observed 6 dB bandwidth
Low (904.999 MHz)	801.6 kHz
Mid (914.596 MHz)	805.6 kHz
High (921.795 MHz)	799.5 kHz

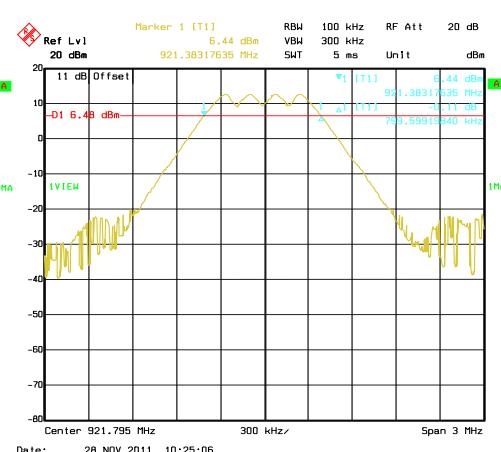
Channel Range	Observed 6 dB bandwidth
Low (2412.0 MHz)	15.03 MHz
Mid (2437.0 MHz)	14.12 MHz
High (2462.0 MHz)	13.80 MHz



**(Mid Channel) 805.6 kHz**

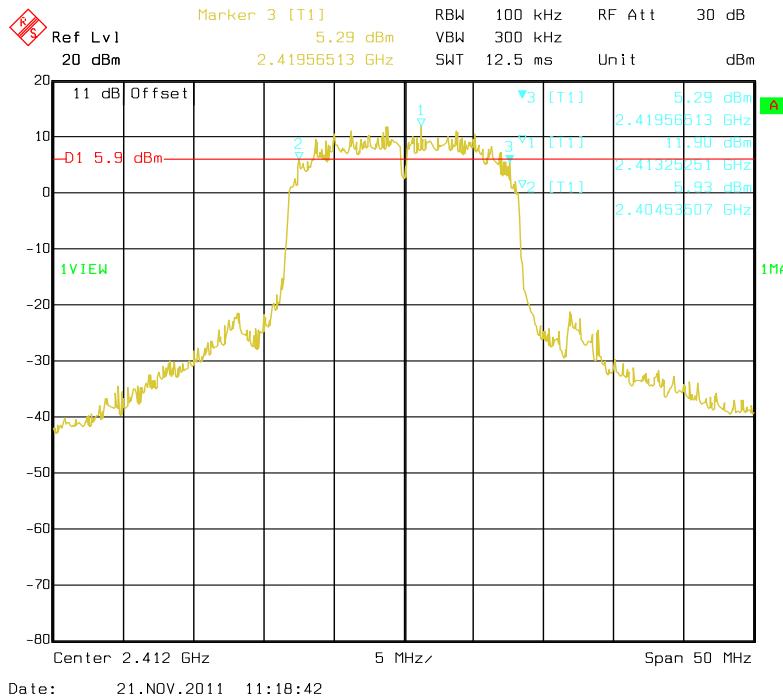


**(High Channel) 799.5 kHz**

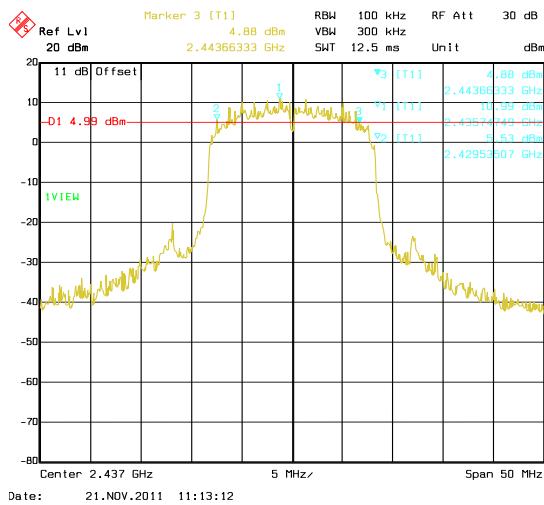




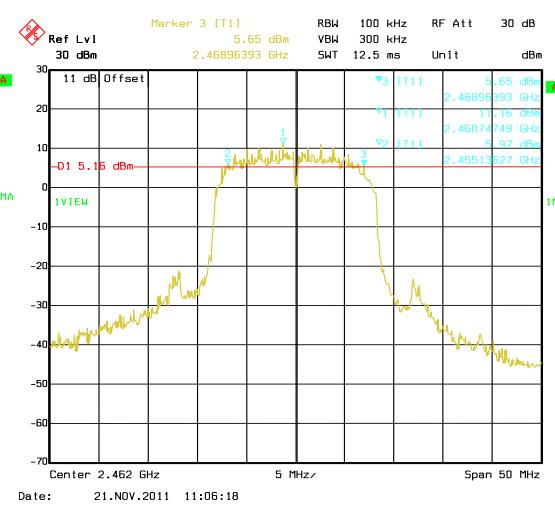
**(Low Channel) 6 dB Bandwidth is 15.03 MHz**



**(Mid Channel) 14.12 MHz**



**(High Channel) 13.80 MHz**



**Peak Output Power**

(3) For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the *maximum conducted output power* is the highest total transmit power occurring in any mode.

**Test Conditions:**

Sample Number:	370-00012-01	Temperature:	17°C
Date:	November 6, 2011	Humidity:	39%
Modification State:	Low, Mid and High Channels	Tester:	Mark Phillips
		Laboratory:	Nemko

**Test Results: Table below****Additional Observations:**

- This is a conducted test. 11 dB was offset for the attenuator and cable used.
- Input voltage to the EUT was varied +/-15%. The solar panel and battery were bypassed and a lab power supply, monitored by a calibrated multimeter, used.
- Spectrum Analyser used at Maximum RBW, VBW of 10 MHz. For the upper band, a correction factor of  $10 \times \log(\text{measured } 6\text{dB BW}/10\text{MHz})$  was added to fully account for the power of the digital modulation.
- Detector, Max Hold Peak.

Channel Range	Voltage	Measured OP (dBm)	Watts
Low (904.999 MHz)	5.1 VDC	10.70	0.011
	6.0 VDC	11.10	0.012
	6.9 VDC	11.00	0.012
Mid (914.596 MHz)	5.1 VDC	15.35	0.034
	6.0 VDC	15.35	0.034
	6.9 VDC	15.35	0.034
High (921.795 MHz)	5.1 VDC	13.30	0.021
	6.0 VDC	13.30	0.021
	6.9 VDC	13.20	0.020

Channel Range	Voltage	Measured OP (dBm)	Calculated OP (dBm)	Watts
Low (2412.0 MHz)	5.1 VDC	24.78	26.55	0.451
	6.0 VDC	25.32	27.09	0.511
	6.9 VDC	25.43	27.20	0.524
Mid (2437.0 MHz)	5.1 VDC	26.75	28.25	0.668
	6.0 VDC	26.96	28.46	0.701
	6.9 VDC	26.99	28.49	0.706
High (2462.0 MHz)	5.1 VDC	25.97	27.37	0.545
	6.0 VDC	25.90	27.30	0.537
	6.9 VDC	25.69	27.09	0.511

## RF Radiated Emissions and Band-edge Compliance

(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 §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

### Test Conditions:

Sample Number:	370-00012-01	Temperature:	18°C
Date:	February 29, 2012	Humidity:	30%
Modification State:	Low and High Channels	Tester:	Mark Phillips
		Laboratory:	Nemko

### Test Results:

See attached plots and radiated emissions table.

### Additional Observations:

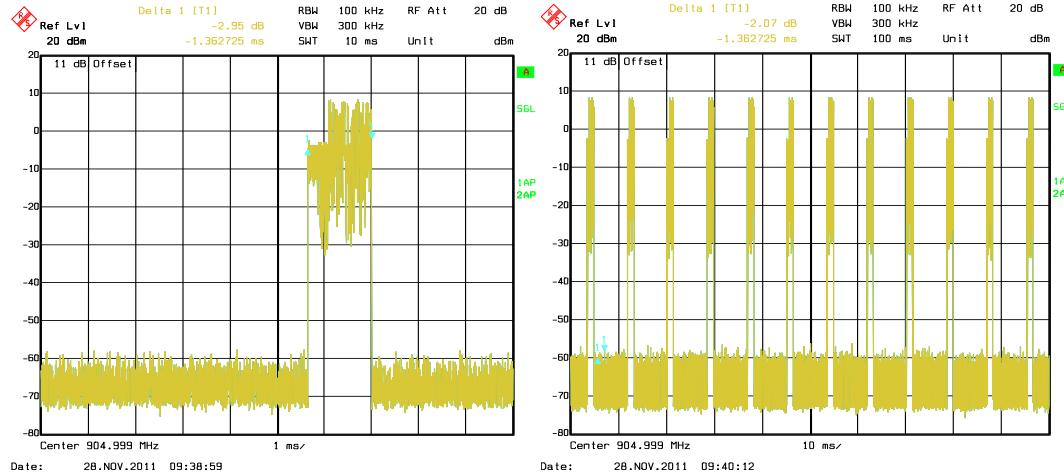
#### Low Band:

- Span is wide enough to capture the peak level of the emission operating on the channel closest to the band edges (Lower and Upper).
- Band edges were measured with quasi-peak detector.
- VBW is 3X RBW
- Sweep is auto.
- Detector is Peak, Trace is Max Hold
- No other emissions were found within 20 dB of the limits.

#### High Band:

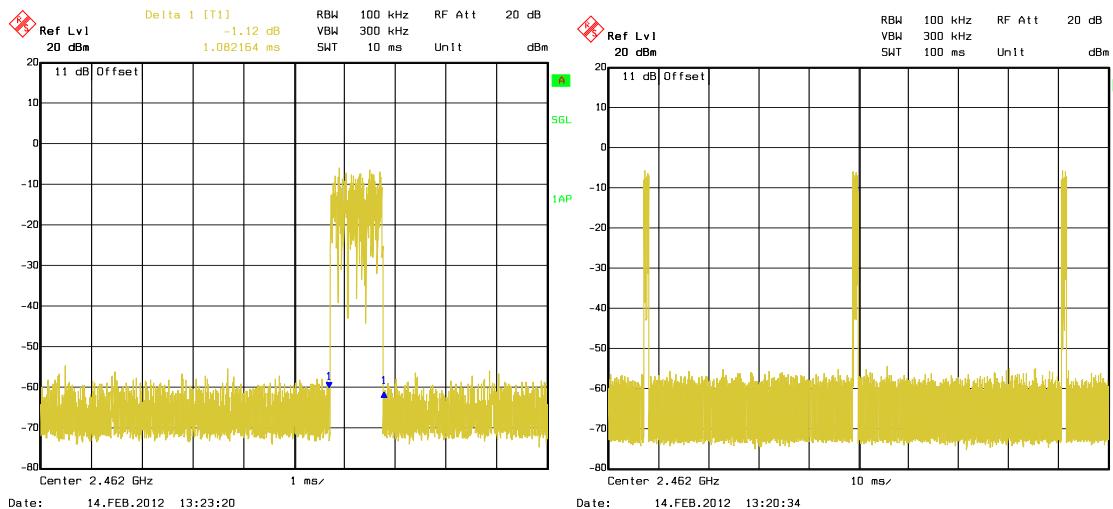
- Span is wide enough to capture the peak level of the emission operating on the channel closest to the band edges (Lower and Upper).
- For Lower bandedge (no restricted zone) RBW is 100kHz
- For Lower bandedge, the peak level reading was taken and a display line was drawn 20 dBc below this level, which will be the limit for this test.
- For Upper bandedge (restricted zone) RBW is 1MHz,
- For Upper bandedge Limit is 74 dBuV/m peak @ 3m
- For Upper bandedge Limit is 54 dBuV/m average @ 3m
- VBW is 3X RBW
- Sweep is auto.
- Detector is Peak, Trace is Max Hold
- Average = Peak + Duty Cycle Factor
- No other emissions were found within 20 dB of the limits.

## Low band Duty Cycle



EUT transmits 1.36 milliseconds x 12 times = 16.32 milliseconds  
DCF =  $20 \times \log(16.32/100)$  = - 15.74dB

## High band Duty Cycle



EUT transmits 1.082 milliseconds x 3 times = 3.246milliseconds  
DCF = 20 x log(3.246/100) = -29.8 dB

FCC ID: ZHX-370-00012-01

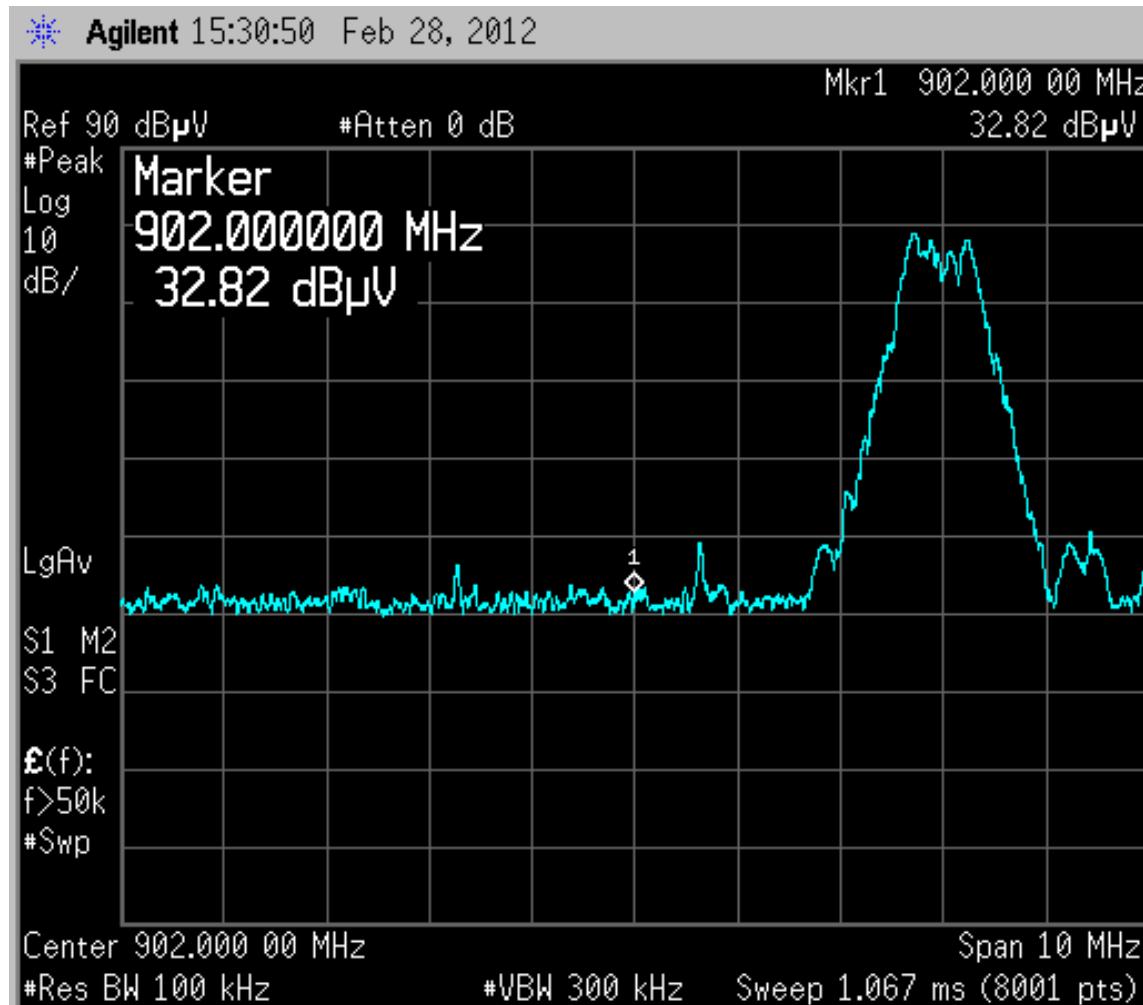
Report Number: 2012 03187598 FCC  
Specification: FCC Part 15 Subpart C, 15.247**Digital Emissions**

<b>Radiated Emissions Data</b>											
Job # :	10213249		Date :	11-23-2011		Page	1	of	1		
NEX#:	187598		Time :	PM							
Staff :	MP										
Client Name :	Micropower Technologies										
EUT Name :	Wireless Digital Camera										
EUT Model # :	MPT-2500										
EUT Serial # :	001										
EUT Config. :	transmit										
Digital emissions regardless of transmit frequency											
Specification :	CFR47 Part 15, Subpart B, Class B										
Loop Ant. #:	NA		Temp. (°C) :	18.0		Quasi-Peak	RBW: 120 kHz				
Bicon Ant.#:	115_3m		Humidity (%) :	44		Video Bandwidth	300 kHz				
Log Ant.#:	755_3m		Spec Analyzer #:	911							
DRG Ant. #	877		Analyzer Display #:	911							
Cable LF#:	chamber10		Quasi-Peak Detector #:	911							
Cable HF#:	wcc		Duty Cycle (%):	16 3							
Preamp LF#:	901					Measurements below 1 GHz are Quasi-Peak values, unless otherwise stated.					
Preamp HF#	317					Measurements above 1 GHz are Average values, unless otherwise stated.					
Meas. Freq. (MHz)	Meter Reading Vertical	Meter Reading Horizontal	Det.	EUT Side F/L/R/B	Ant. Height m	Max. Reading (dB $\mu$ V)	Corrected Reading (dB $\mu$ V/m)	Spec. limit (dB $\mu$ V/m)	CR/SL Diff. (dB)	Pass Fail	Comment
33.5	24.8	24.4	Q	-	1.1	24.8	5.7	40.0	-34.3	Pass	
158.1	23.7	23.9	Q	-	1.1	23.9	9.2	43.5	-34.3	Pass	
210.0	25.2	23.8	Q	-	3.8	25.2	6.9	43.5	-36.7	Pass	
240.0	28.8	23.6	Q	-	3.8	28.8	11.7	46.0	-34.3	Pass	
319.5	23.4	23.5	Q	-	3.8	23.5	9.0	46.0	-37.0	Pass	

**Bandedge and Harmonic Spurious**

<b>Radiated Emissions Data</b>											
Job #:	10213249		Date :	2-28-2012		Page	1	of	1		
NEX#:	187598		Time :	PM							
Staff :	MP										
Client Name :	Micropower Technologies										
EUT Name :	Wireless Module										
EUT Model #:	MPT-2500										
EUT Serial #:	001										
EUT Config. :	transmit										
Specification :	CFR47 Part 15.247, 15.205, 15.209										
Loop Ant. #:	NA										
Bicon Ant.#:	115_3m		Temp. (°C) :	17.0		Quasi-Peak	RBW: 120 kHz				
Log Ant.#:	755_3m		Humidity (%) :	46		Video Bandwidth	300 kHz				
DRG Ant. #	877		Spec Analyzer #:	911		Peak	RBW: 1 MHz				
Cable LF#:	chamber10		Analyzer Display #:	911		Video Bandwidth	3 MHz				
Cable HF#:	wcc		Quasi-Peak Detector #:	911							
Preamp LF#:	901		Duty Cycle (%):	16.32	3.25						
Preamp HF#:	317										
Measurements below 1 GHz are Quasi-Peak values, unless otherwise stated.											
Measurements above 1 GHz are Average values, unless otherwise stated.											
Meas. Freq. (MHz)	Meter Reading Vertical	Meter Reading Horizontal	Det.	EUT Side F/L/R/B	Ant. Height m	Max. Reading (dB $\mu$ V)	Corrected Reading (dB $\mu$ V/m)	Spec. limit (dB $\mu$ V/m)	CR/SL Diff. (dB)	Pass Fail	Comment
904.999	78.4	69.5	P	-	1.0	78.4	107.6				RBW 3MHz, VBW 10 MHz
921.795	79.1	71.2	P	-	1.0	79.1	108.7				RBW 3MHz, VBW 10 MHz
902.0	32.8	32.6	P	-	1.0	32.8	62.0	87.6	-25.6	Pass	band edge limit 20dBc
928.0	32.9	32.7	P	-	1.0	32.9	62.5	88.7	-26.2	Pass	band edge limit 20dBc
2743.79	53.6	52.0	P	-	1.0	53.6	58.3	74.0	-15.7	Pass	3rd Harmonic (Mid Freq)
2743.79	37.9	36.3	A	-	1.0	37.9	26.8	54.0	-27.2	Pass	3rd Harmonic (Mid Freq)
											DCF = -15.74
2390	18.0	17.8	P	-	1.0	18.0	55.4	74.0	-18.6	Pass	band edge restricted
2390	-2.0	-2.2	A	-	1.0	-2.0	19.6	54.0	-34.4	Pass	band edge restricted
											DCF = -20
											band edge
2400	56.0	51.4	P	-	1.0	56.0	94.0				field strength at 100 kHz
2400	32.0	3.0	P	-	1.0	32.0	70.0	74.0	-4.0	Pass	limit = 94 (fs)-20 dBc
2483.5	25.1	24.8	P	-	1.0	25.1	63.1	74.0	-10.8	Pass	band edge restricted
2483.5	5.1	4.8	A	-	1.0	5.1	27.4	54.0	-26.6	Pass	band edge restricted
											DCF = -20

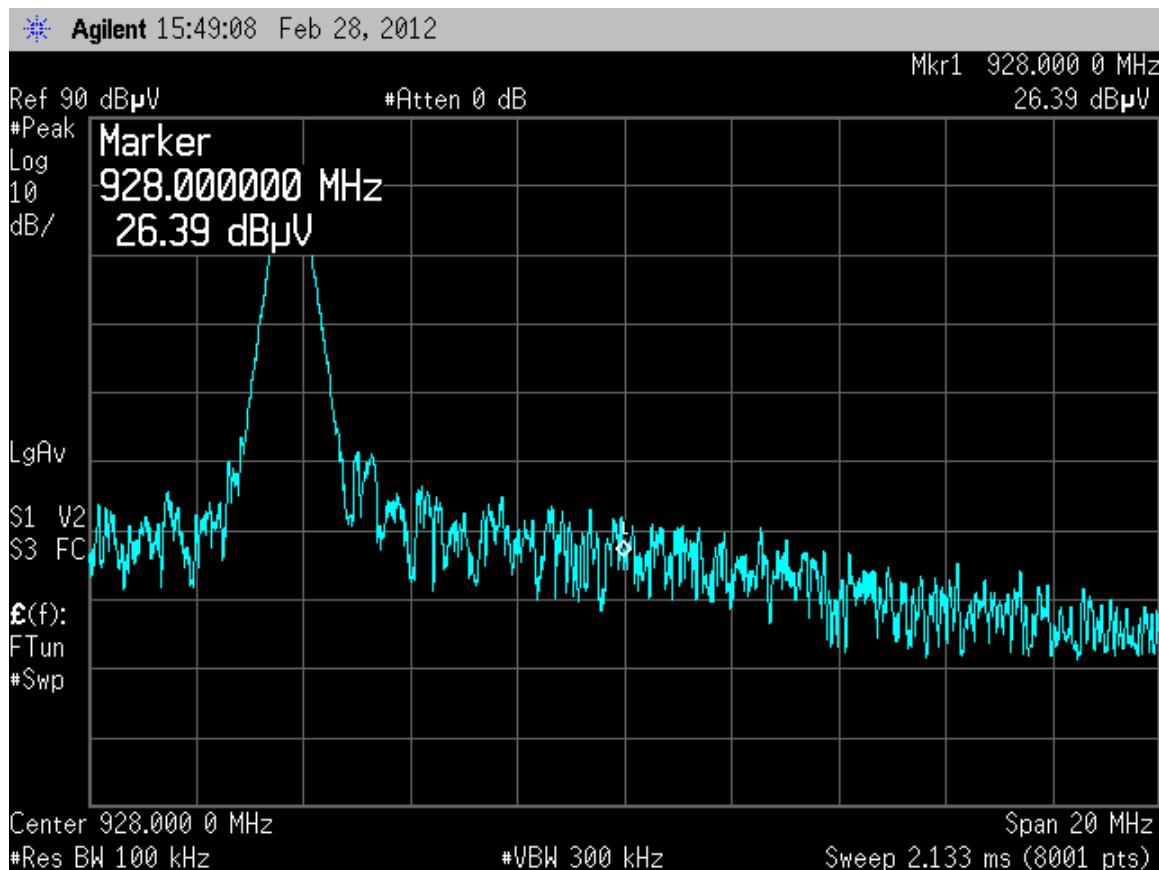
Low Range  
Lower band edge peak hold



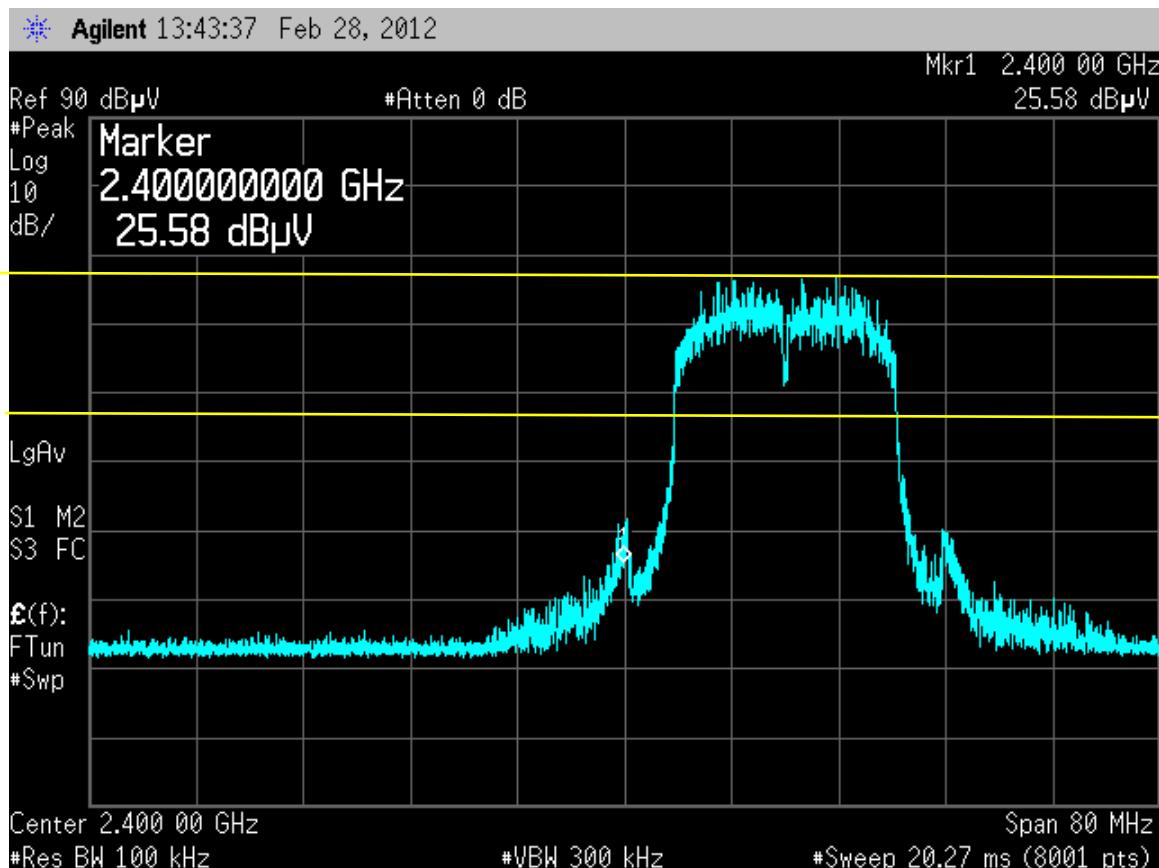
FCC ID: ZHX-370-00012-01

Report Number: 2012 03187598 FCC  
Specification: FCC Part 15 Subpart C, 15.247

Upper band edge peak hold



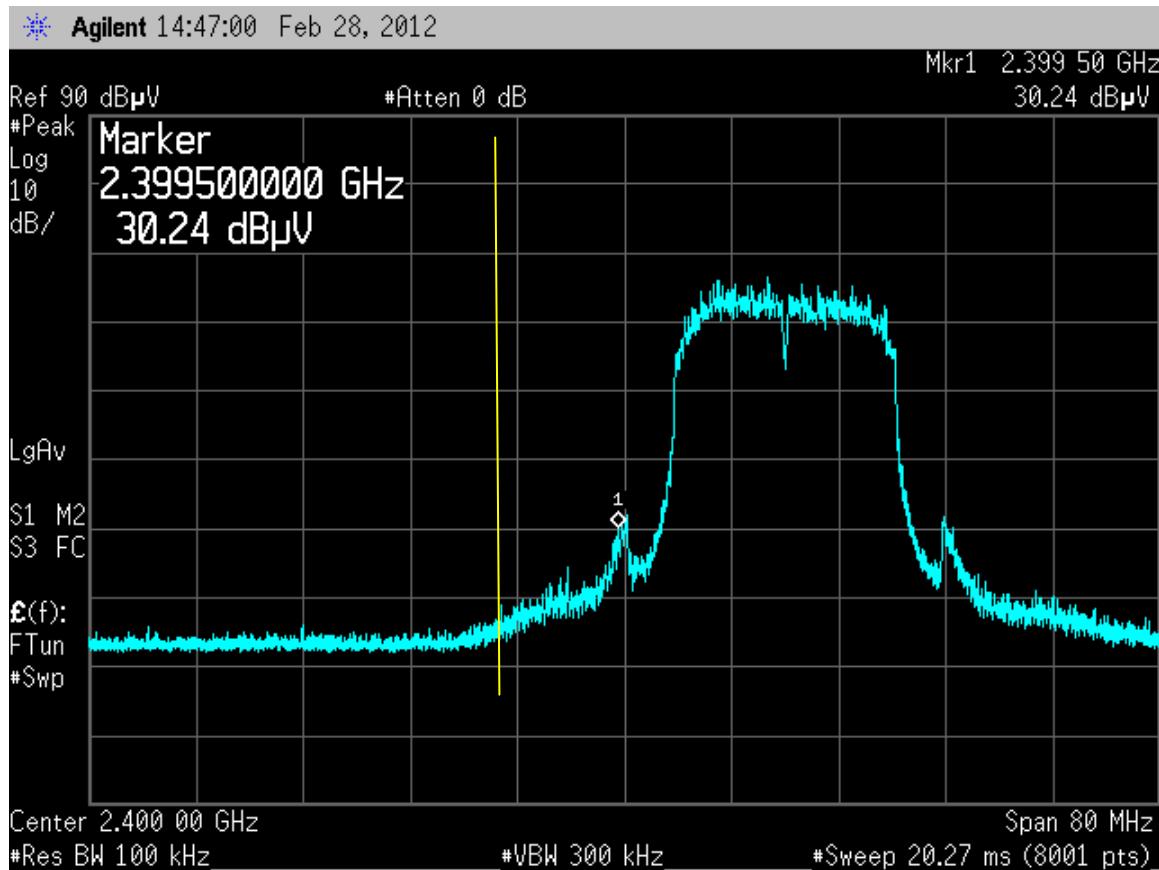
High range  
Lower band edge peak hold, Limit is 20 dBc



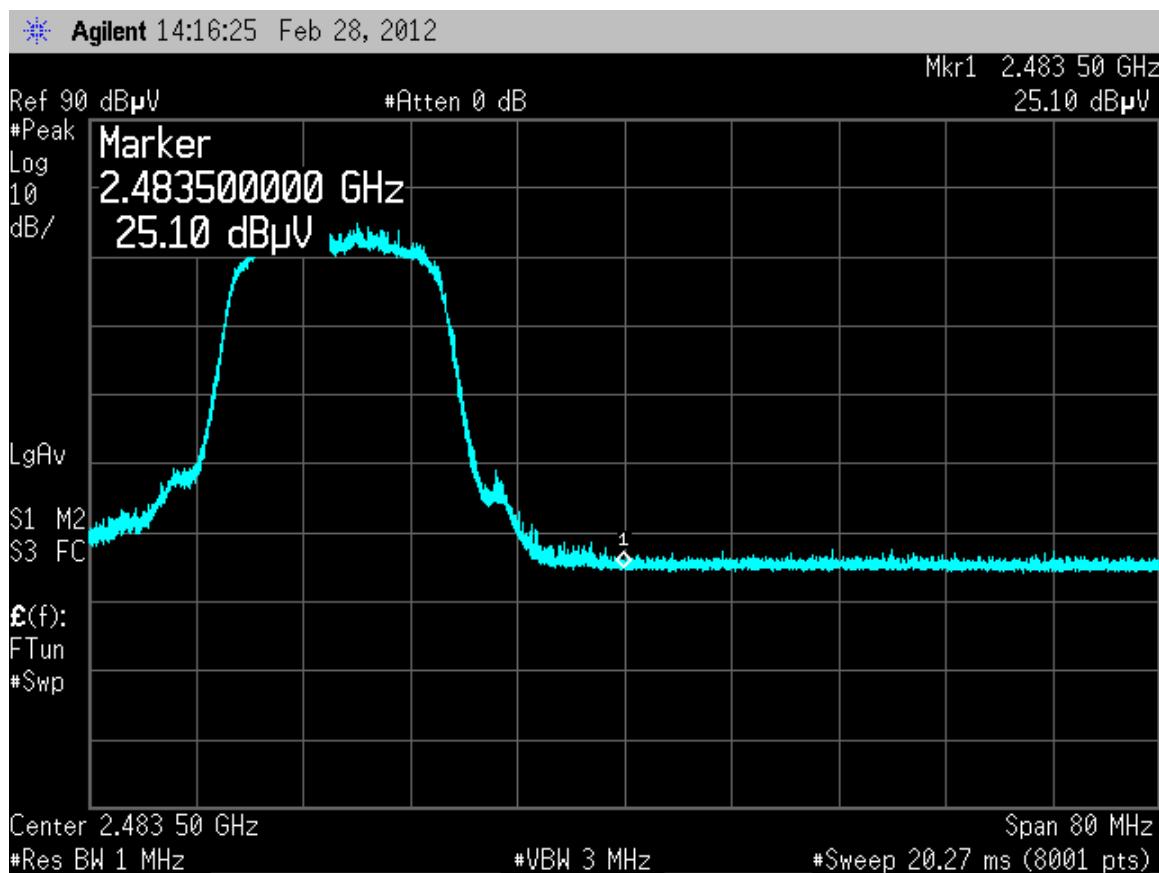
FCC ID: ZHX-370-00012-01

Report Number: 2012 03187598 FCC  
Specification: FCC Part 15 Subpart C, 15.247

Lower band edge peak hold, restricted band at 2390 MHz  
Yellow line at 2390 MHz, peak emission is 18.0 dB $\mu$ V/m



Upper band edge peak hold, restricted band at 2483.5 MHz  
Marker at 2483.5 MHz, peak emission is 25.1 dB<sub>u</sub>V/m



## Spurious RF Conducted Emissions

(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 §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

### Test Conditions:

Sample Number:	370-00012-01	Temperature:	17°C
Date:	November 6, 2011	Humidity:	44%
Modification State:	Low, Mid and High Channels	Tester:	Mark Phillips
			Laboratory: Nemko

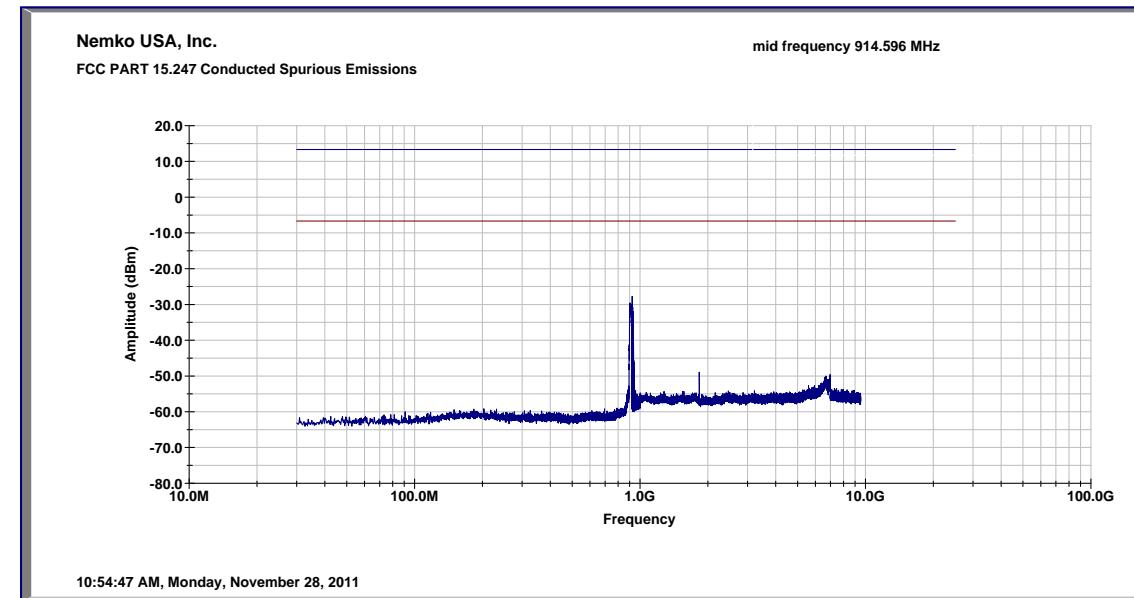
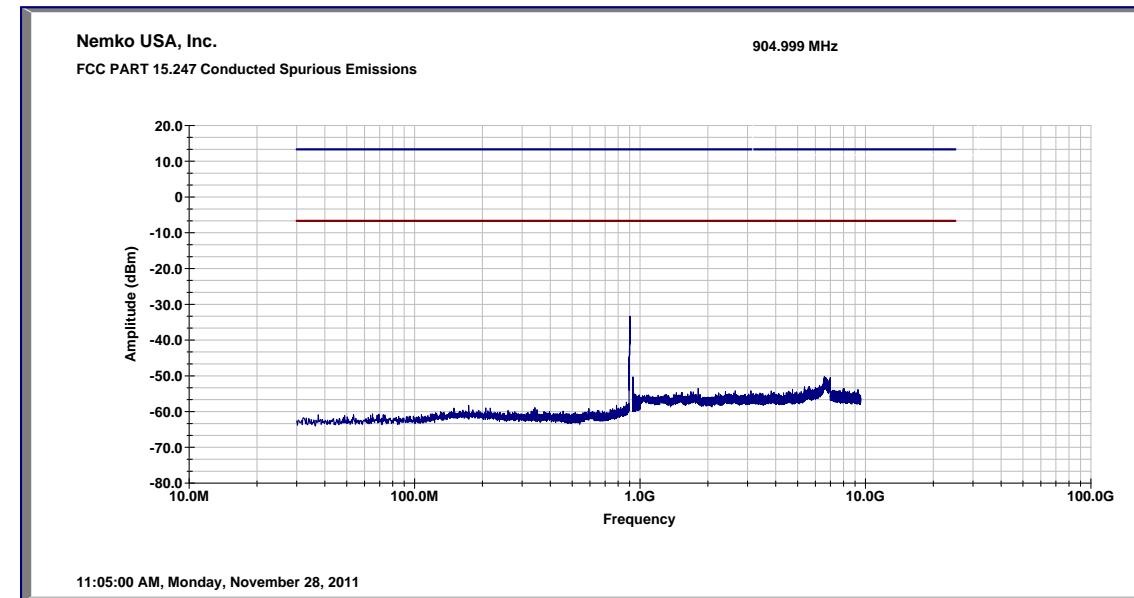
### Test Results:

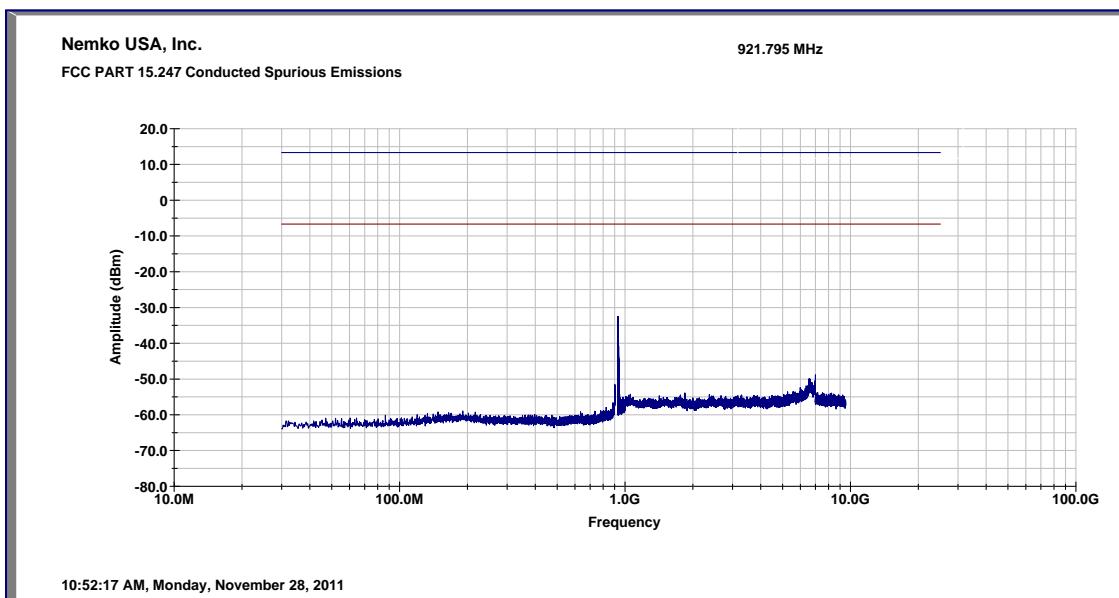
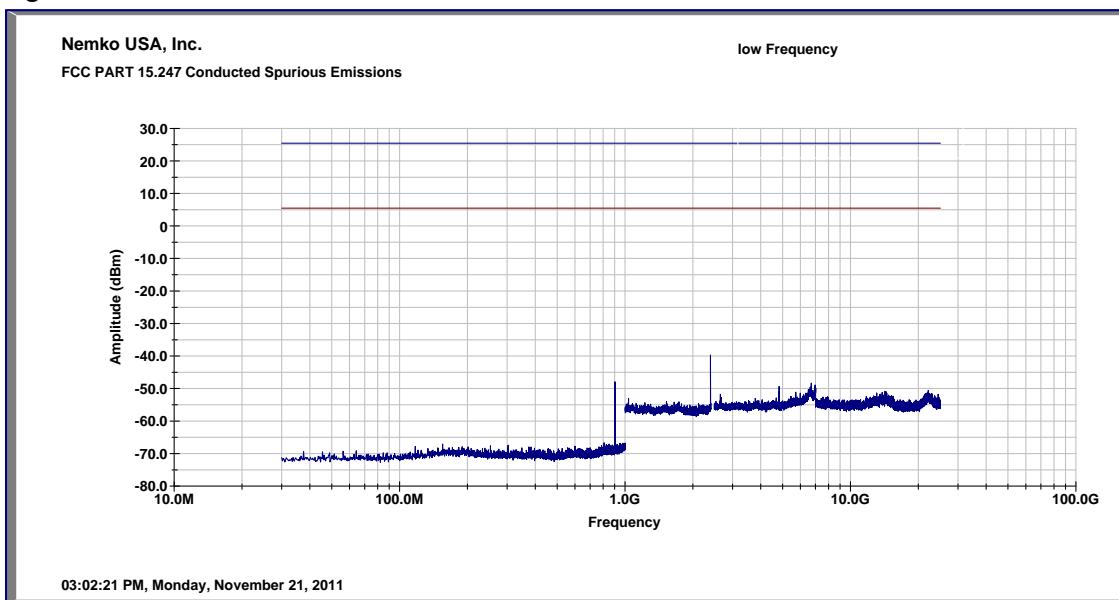
See attached plots.

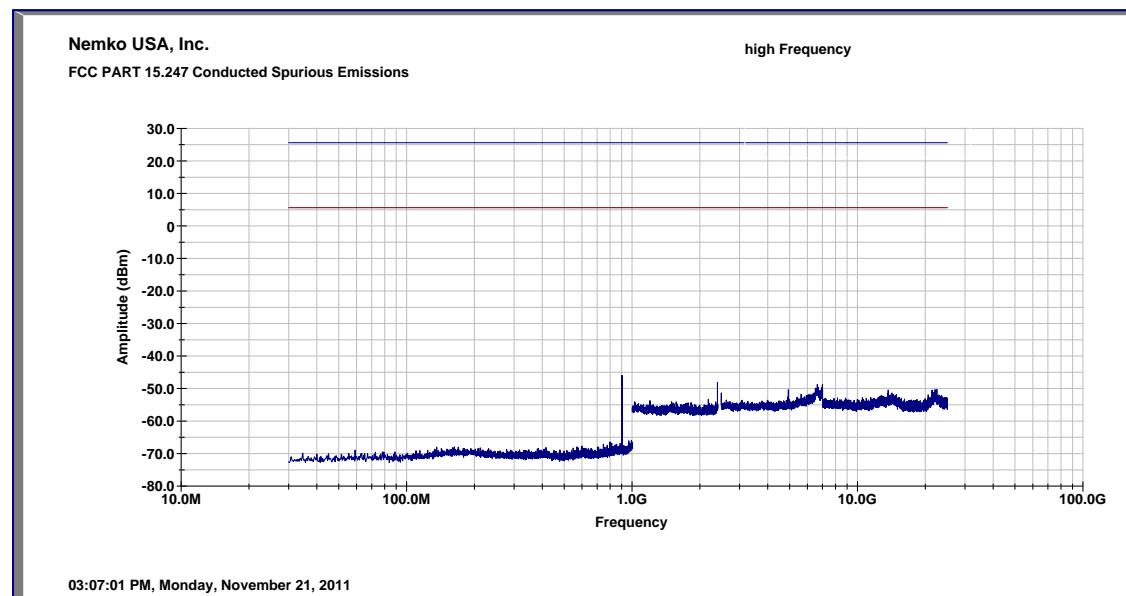
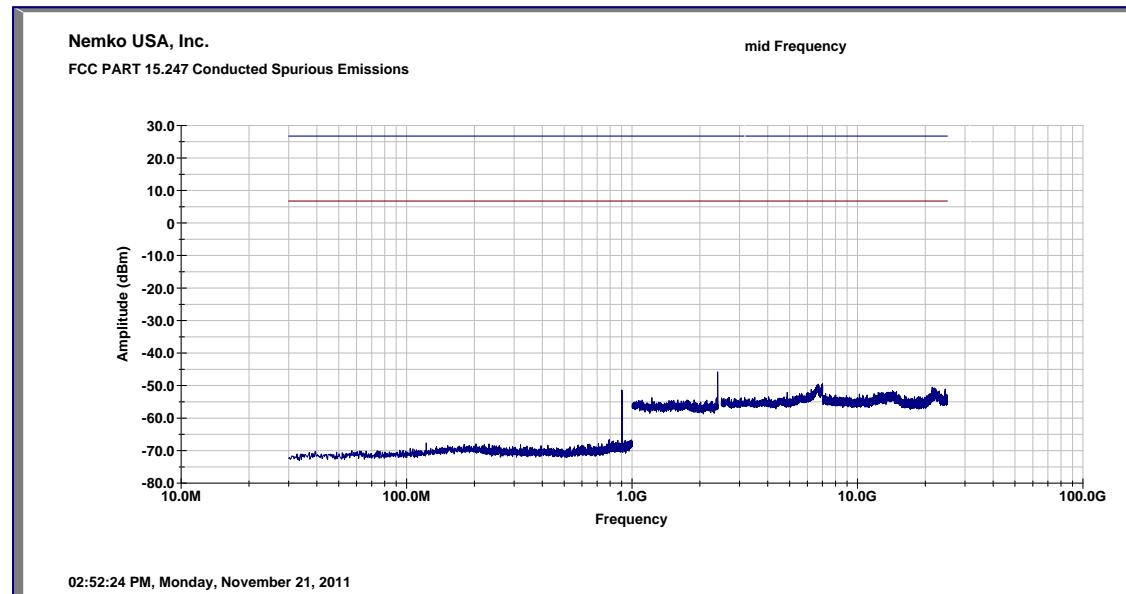
### Additional Observations:

- This is a conducted test. 11.0 dB was offset for the cable used.
- The peak level reading was taken at the carrier frequency with the peak power meter (blue line), then a display line was drawn 20 dBc below this level (red line) which will be the limit for this test.
- RBW is 100 kHz
- VBW is 3X RBW
- Sweep is auto.
- Detector is Peak, Trace is Max Hold
- Emissions were searched from 30 MHz to 902 MHz and 928 MHz to 9,500 MHz.
- Emissions were searched from 30 MHz to 2400 MHz and from 2483.5 MHz to 25000 MHz.
- EUT complies.

Low band:



**High Band:**





## Power Spectral Density for Digitally Modulated Devices

(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. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

### Test Conditions:

Sample Number:	370-00012-01	Temperature:	17°C
Date:	November 9, 2011	Humidity:	44%
Modification State:	Low, Mid and High Channels	Tester:	Mark Phillips
Laboratory:			Nemko

### Test Results:

See attached plots.

### Additional Observations:

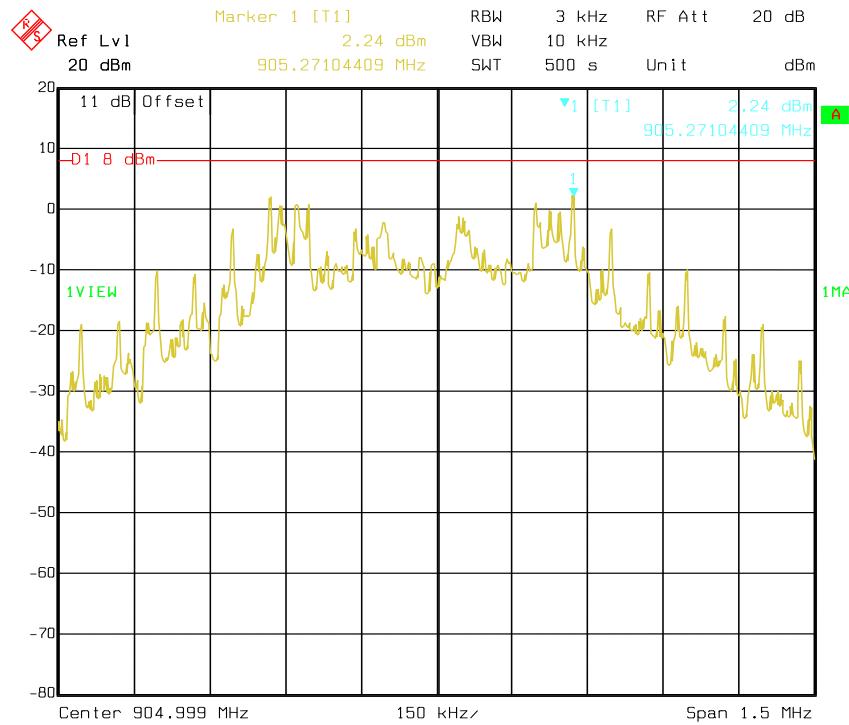
- This is a conducted test. 11.0 dB was offset for the attenuator and cable used.
- RBW is 3kHz
- VBW is 10kHz
- Span is set to 1.5 MHz
- Sweep is set to 1.5MHz/3kHz or 500 seconds
- Trace is set to Peak, Max hold.
- Limit is 8 dBm
- EUT complies

Frequency	PSD (dBm)
905.2710440 MHz	2.24
914.8680982 MHz	6.56
922.0640380 MHz	4.13

Frequency	PSD (dBm)
2411.41834 MHz	-9.53
2437.30812 MHz	-9.01
2462.28106 MHz	-9.61

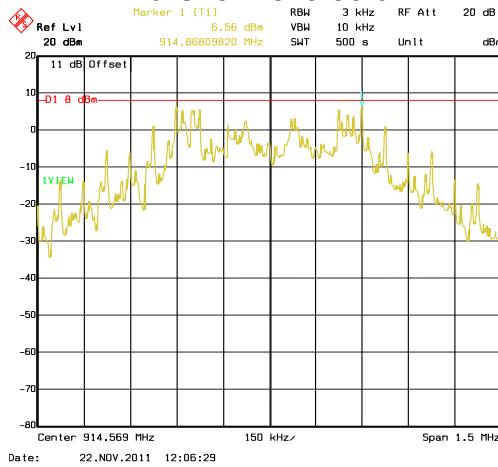


**Low Band, Low Channel – Max level is 2.24 dBm**



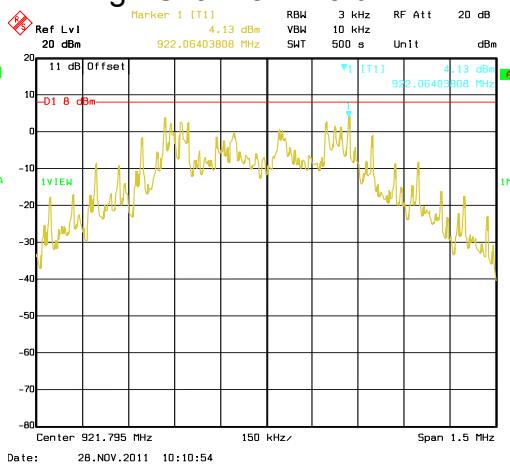
Date: 28.NOV.2011 09:55:49

**Mid Channel 6.56 dBm**



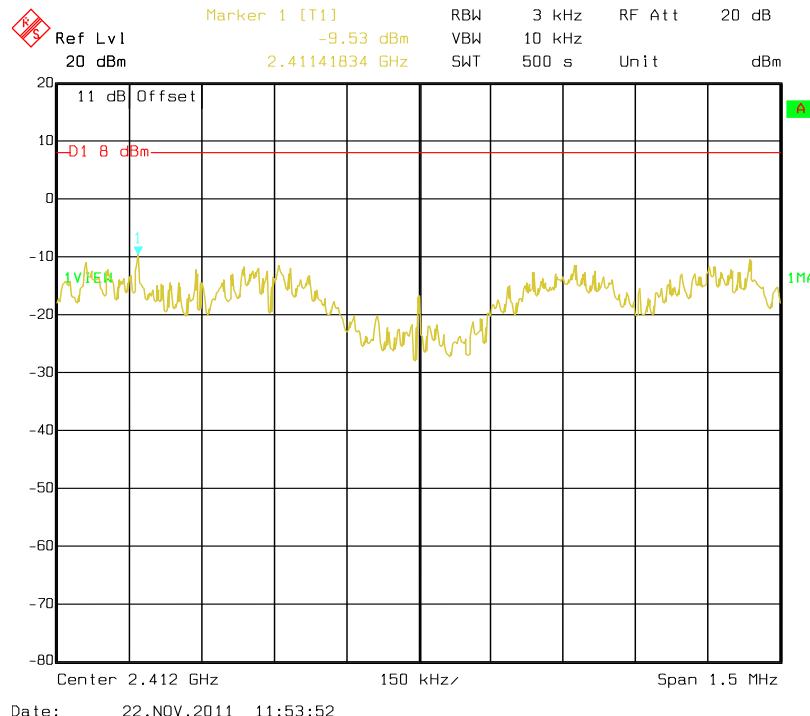
Date: 22.NOV.2011 12:06:29

**High Channel 4.13 dBm**

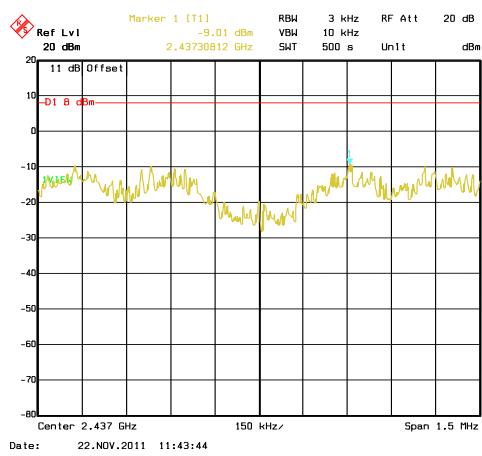


Date: 28.NOV.2011 10:10:54

High Band, Low Channel – Max level is  $-9.53$  dBm



Mid Channel  $-9.01$  dBm



High Channel  $-9.61$  dBm

