



**FCC CFR47 PART 15 SUBPART C  
INDUSTRY CANADA RSS-210 ISSUE 8**

**CERTIFICATION TEST REPORT**

**FOR 902-928 MHz Transceiver**

**MODEL NUMBER: A1101L09A and A1101L09C**

**FCC ID: X7J-A10091602**

**IC: 8975A-A10091602**

**REPORT NUMBER: 11U13981**

**REVISION ISSUE DATE: 2011-11-01**

*Prepared for*  
**Anaren Microwave Inc.**  
**6635 Kirkville Road**  
**East Syracuse, New York, 13057**

*Prepared by*  
**UNDERWRITERS LABORATORIES INC.**  
**1285 WALT WHITMAN RD.**  
**MELVILLE, NY 11747, U.S.A.**  
**TEL: (631) 271-6200**  
**FAX: (877) 854-3577**



**NVLAP LAB CODE 100255-0**

Revision History

<u>Rev.</u>	<u>Issue Date</u>	<u>Revisions</u>	<u>Revised By</u>
--	9/22/2011	Initial Issue	Joseph Danisi
1	11/01/2011	Change description, correct typographical errors, and change low, mid, high frequency to measurement actual frequency, C63.4 change to 2009, correct IC ID number, and correct block diagram.	Joseph Danisi

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# 1. ATTESTATION OF TEST RESULTS

**COMPANY NAME:** Anaren Microwave Inc.  
6635 Kirkville Road  
East Syracuse, New York, 13057

**EUT DESCRIPTION:** MODULE TRANCEIVER

**MODEL:** A1101L09A and A1101L09C

**SERIAL NUMBER:** PROTOTYPE

**DATE TESTED:** 2011-09-06 to 2011-09-21

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 3	Pass

Underwriters Laboratories Inc. tested of the above equipment in accordance with the requirements set forth in the above standards, using test results reported in the test report documents referenced below and/or documentation furnished by the applicant. All indications of Pass/Fail in this report are opinions expressed by Underwriters Laboratories Inc. based on interpretations of these calculations. The results show that the equipment is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation, as described by the referenced documents. This document may not be altered or revised in any way unless done so by Underwriters Laboratories Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Underwriters Laboratories Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL By:

Tested By:



Name: Robert DeLisi  
Title: Senior Staff Engineer  
UL

Name: Joseph Danisi  
Title: Lead Engineering Associate  
UL

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2009, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 3, and RSS-210 Issue 8.

## 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 1285 Walt Whitman Rd. Melville, NY 11747, USA.

UL Melville is accredited by NVLAP, Laboratory Code 100255-0. The full scope of accreditation can be viewed at <http://ts.nist.gov/standards/scopes/1002550.htm>.

## 4. CALIBRATION AND UNCERTAINTY

### 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

### 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamplifier Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

### 4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	± 3.3 dB
Radiated Disturbance, 30 to 1000 MHz	± 4.00 dB

Uncertainty figures are valid to a confidence level of 95%.

## 5. EQUIPMENT UNDER TEST

### 5.1. DESCRIPTION OF EUT

The EUT is a Radio Transceiver Module intended high-performance connectorized radio module that incorporates a CC1101 transceiver chip in the industry's smallest package (11 x 14 x 2.5mm) it has an LGA pad footprint and industry-standard U.FL button connector receptacle, this module is designed to effortlessly integrate into a wide range of applications, including: industrial control, building automation, low-power wireless sensor networks, lighting control, and automated meter reading.

The radio module is manufactured by Texas Instruments

### 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Channel	Frequency (MHz)	Spectrum Analyzer Reading (dBm)	Attenuator and Cable Offset (dB)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	902.6	10.52	0	10.52	30	-19.48
Middle	914.9	10.38	0	10.38	30	-19.62
High	927.2	10.19	0	10.19	30	-19.81

### 5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The EUT's are Identical except A1101L09A has an integral printed antenna and A1101L09C has a U.FL connector monopole has 3dBi and PCB has 2dBi. The Radio circuits are identical in both model numbers

### 5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was AIR FCC TEST, Ver. 0.7.

The EUT driver software installed during testing was AIR FCC TEST, Ver. 3.3.0.0.

The test utility software used during testing was AIR FCC TEST, Ver. 4.2.0.0.

## 5.5. WORST-CASE CONFIGURATION AND MODE

The worst-case orientation was determined by setting the operating frequency and the orientation positioned in the X, Y, and Z Axis results were maximized to determine the worst case orientation, which was deemed the X-Axis. Therefore, this was the orientation that the module was evaluated.

In receive mode only one channel was evaluated to show compliance

## 5.6 MODIFICATIONS

No modifications were made during testing.

## 5.7 DESCRIPTION OF TEST SETUP

### SUPPORT EQUIPMENT

C h a n n e l	F r e q u e n c y ( M H z )	P o w e r ( d B m )
L o w	9 0 2 . 6	1 0 . 4 3
M i d d l e	9 1 4 . 9	1 0 . 2 8
H i g h	9 2 7 . 2	1 0 . 1 0

### I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	MAIN	1	CABLE	Unshielded	<3M	None
2	USB	1	USB	Shielded	42 inches	None

**TEST SETUP:**

The EUT was external to the host laptop computer during the tests. Test software exercised the radio card.

The device output power levels were set as follows in the software:

FSK 1.2kb, FSK 38.4kb set for 7.0  
FSK 100kb, FSK 250kb and MSK 500kb set for 11.0

The low, mid and high channels were set as follows:

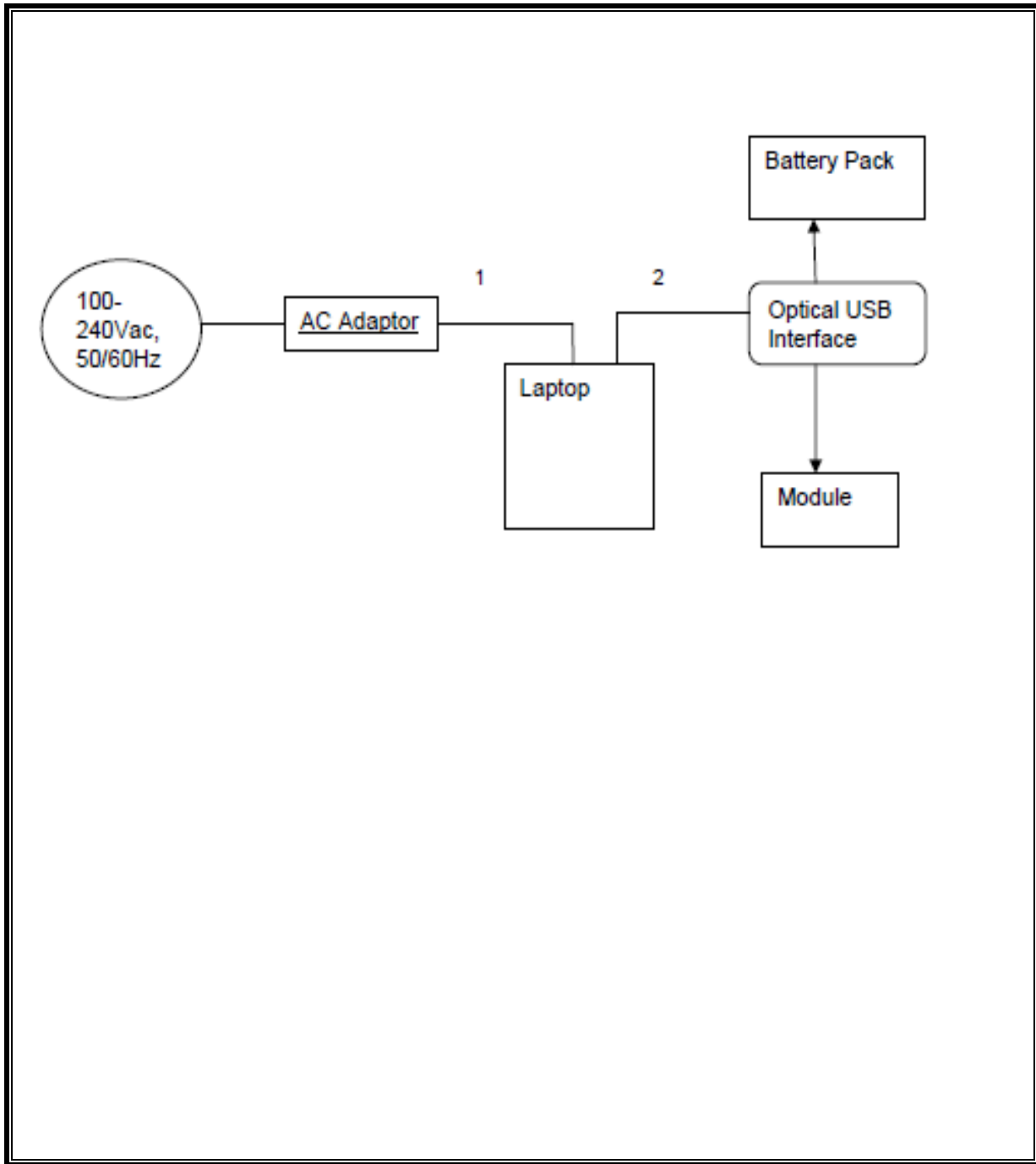
Low channel set to 4  
Mid channel set to 127  
High channel set to 250

The conducted bandedge for MSK 500kb required to set channel low and high channel as follows:

Low set to 5  
High set to 249



**SETUP DIAGRAM FOR TESTS**



## 6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

### Radiated Emissions - 10 Meter Chamber

Test Equipment Used					
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due Date
30-1000MHz					
EMI Receiver	Rohde & Schwarz	ESIB40	34968	2011-03-01	2012-03-01
Log-P Antenna	Schaffner	UPA6109	44068	2011-04-05	2012-04-05
Bicon Antenna	Schaffner	VBA6106A	54	2011-04-05	2012-04-05
Bias Tee	Miteq	AM-1523-7687	44392	N/A	N/A
Bias Tee	Miteq	AM-1523-7687	44393	N/A	N/A
Preamp	Miteq	AM-3A-000110-7687	44391	N/A	N/A
Preamp	Miteq	AM-3A-000110-7687	44394	N/A	N/A
Switch Driver	HP	11713A	ME7A-627	N/A	N/A
System Controller	Sunol Sciences	SC99V	44396	N/A	N/A
Camera Controller	Panasonic	WV-CU254	44395	N/A	N/A
RF Switch Box	UL	1	44398	N/A	N/A
Measurement Software	UL	Version 9.3	44740	N/A	N/A
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268	2010-07-12	2012-07-10
Multimeter	Fluke	83III	ME5B-305	2011-02-01	2012-02-29
Above 1GHz (Band Optimized System)					
EMI Receiver	Rohde & Schwarz	ESIB40	34968	2011-03-01	2012-03-01
Horn Antenna (1-2 GHz)	ETS	3161-01	51442	2008-03-28	See * below
Horn Antenna (2-4 GHz)	ETS	3161-02	48107	2007-09-27	See * below
Horn Antenna (4-8 GHz)	ETS	3161-03	48106	2007-09-27	See * below
Horn Antenna (8-12 GHz)	ETS	3160-07	8933	2007-09-27	See * below
Signal Path Controller	HP	11713A	50250	N/A	N/A
Gain Controller	HP	11713A	50251	N/A	N/A
RF Switch / Preamp Fixture	UL	BOMS1	50249	N/A	N/A
System Controller	UL	BOMS2	50252	N/A	N/A
Measurement Software	UL	Version 9.3	44740	N/A	N/A
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268	2010-07-12	2012-07-10
Multimeter	Fluke	83III	ME5B-305	2011-02-01	2012-02-29

Test Equipment Used					
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due Date
* - Note: As allowed by the calibration standard ANSI C63.4 Section 4.4.2, standard gain horns need only a one-time calibration. Only if physical damage occurs will the horn antenna require re-calibration. * Gain standard horn antennas (sometimes called standard gain horn antennas) need not be calibrated beyond that which is provided by the manufacturer unless they are damaged or deterioration is suspected, or they are used at a distance closer than $2D^2/\lambda$ . Gain standard horn antennas have gains that are fixed by their dimensions and dimensional tolerances.					

Test Equipment Used					
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due Date
Conducted Emissions – GP 1					
EMI Receiver	Rohde & Schwarz	ESIB26	ME5B-081	2011-01-27	2012-0131
LISN	Solar	9252-50-R-24-BNC	ME5A-636	2011-02-04	2012-02-04
Switch Driver	HP	11713A	44397	N/A	N/A
RF Switch Box	UL	4	44404	N/A	N/A
Measurement Software	UL	Version 9.3	44736	N/A	N/A
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	43734	2010-03-08	2012-03-08

Antenna Ports

Test Equipment Used					
Description	Manufacturer	Model	Identifier	Cal Date	Cal Due Date
PSA Series Spectrum Analyzer	Aiglent	E4446A	70728	2011-02-04	2013-02-04
Power Meter	HP	437B	71769	2011-05-17	2012-05-17
Power Sensor	HP	8481A	71770	2011-05-17	2012-05-17
Temp/Humidity/Pressure Meter	Cole Parmer	99760-00	4268	2010-07-12	2012-07-10

## 7. ANTENNA PORT TEST RESULTS

## 7.1. 6 dB BANDWIDTH

### LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

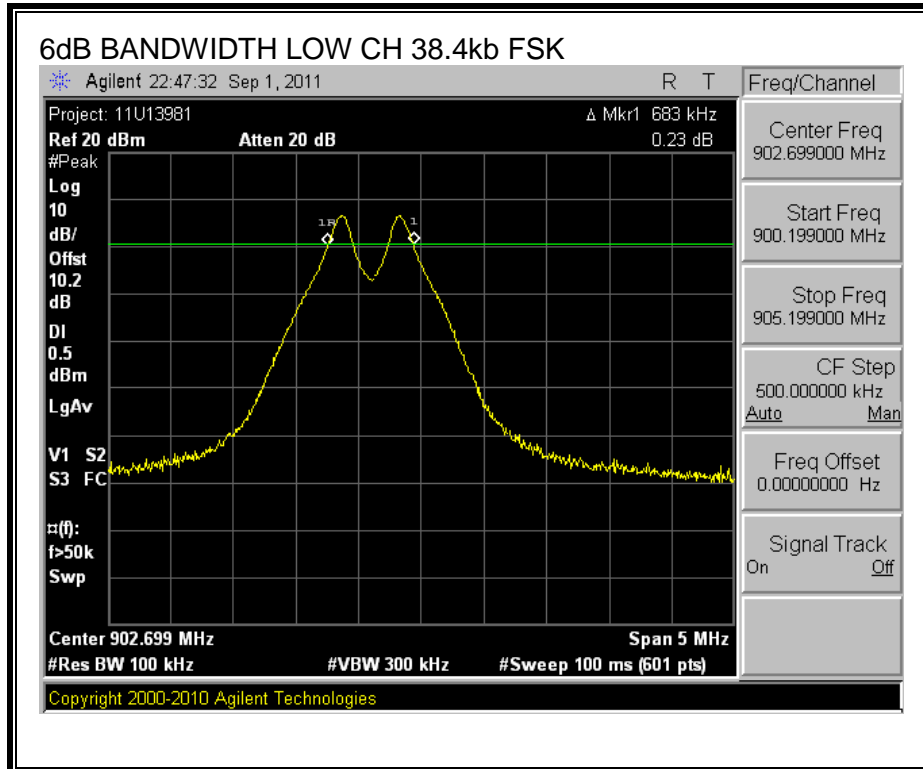
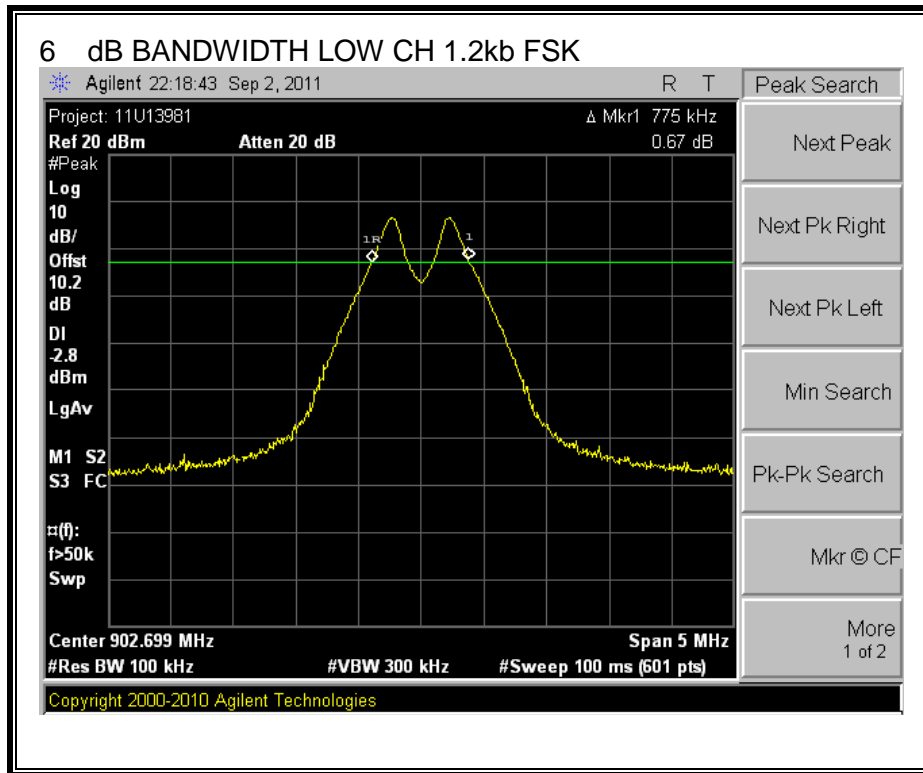
### TEST PROCEDURE

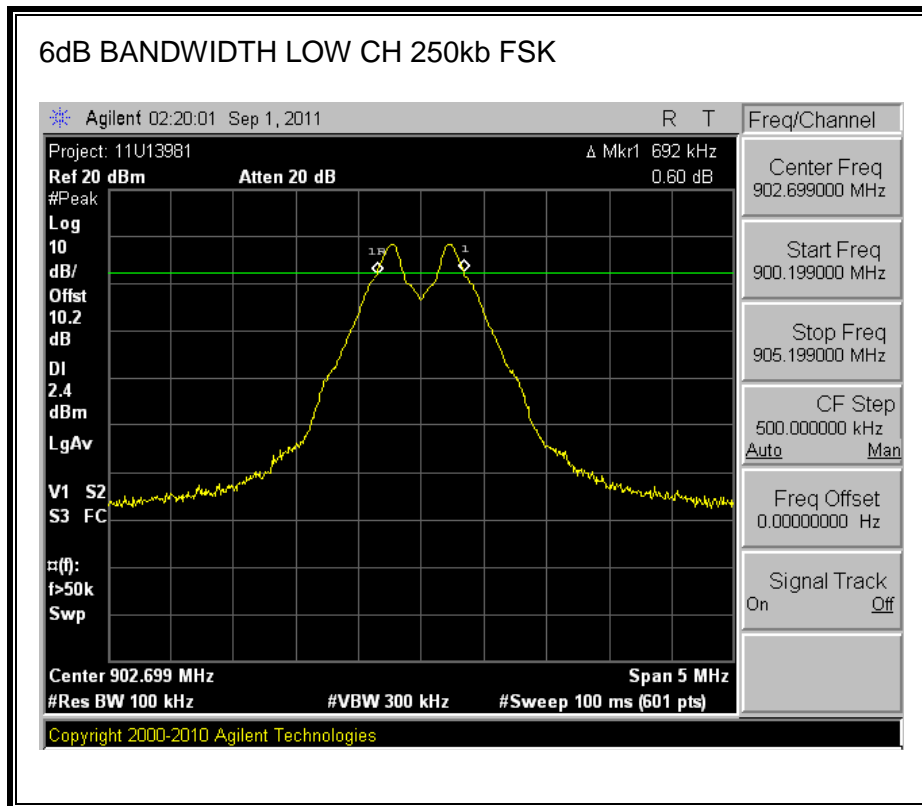
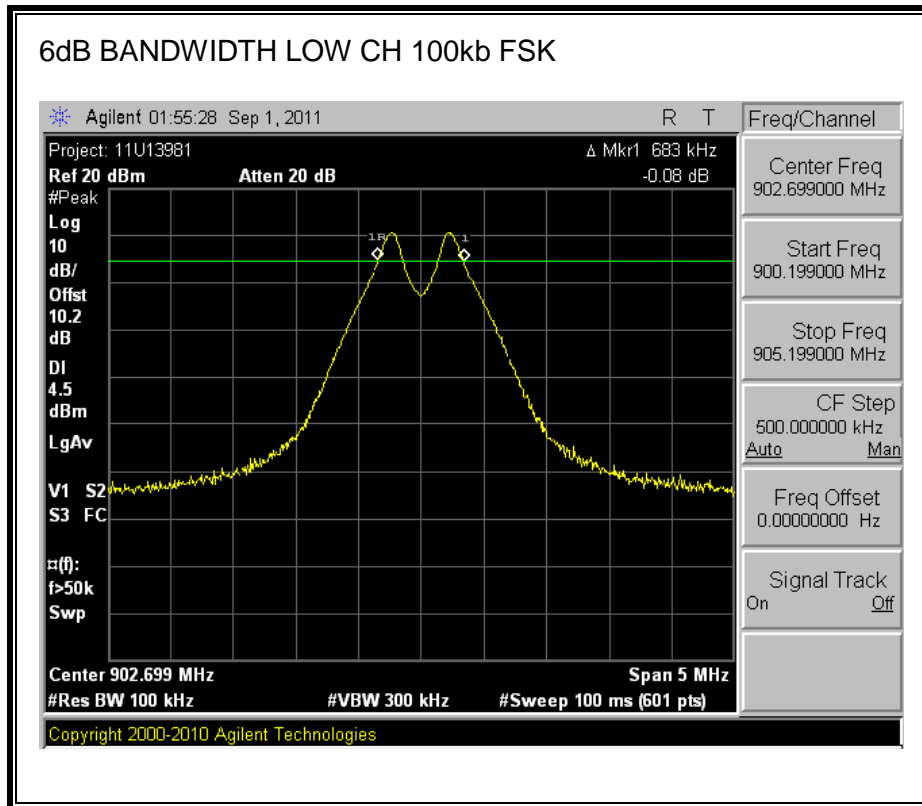
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

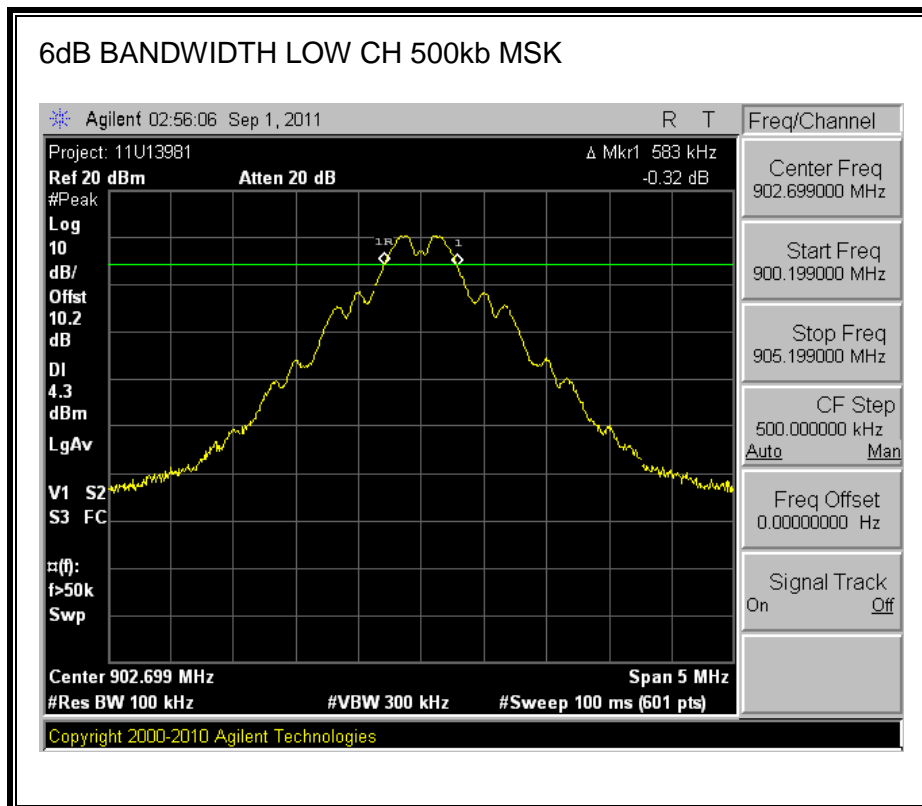
**RESULTS: Results in below table are worst case measurements**

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	902.6	0.583	0.5
Middle	914.9	0.575	0.5
High	927.2	0.583	0.5

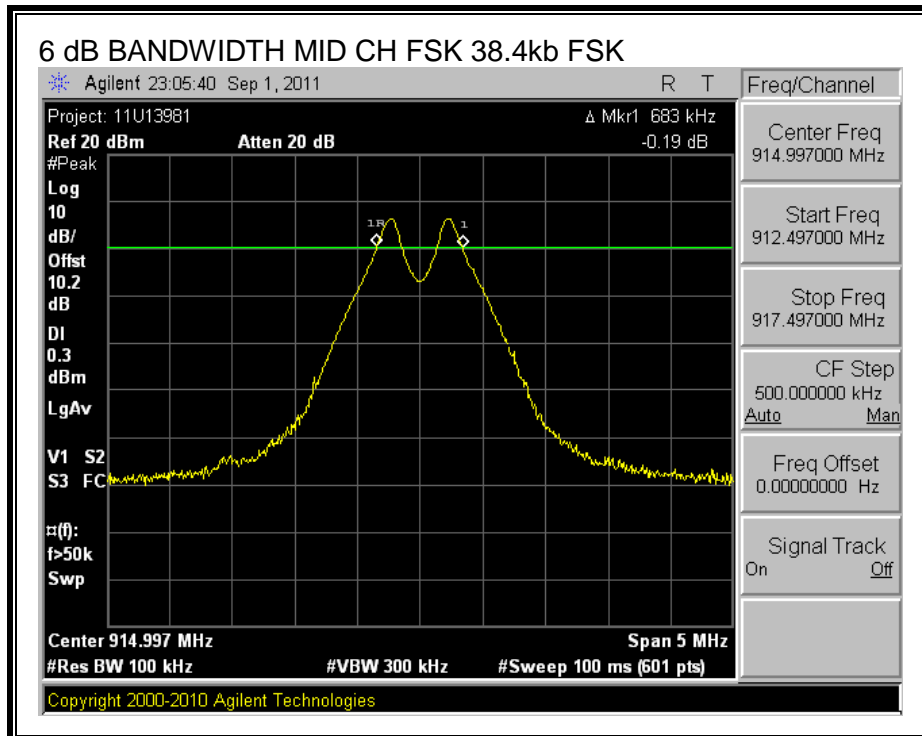
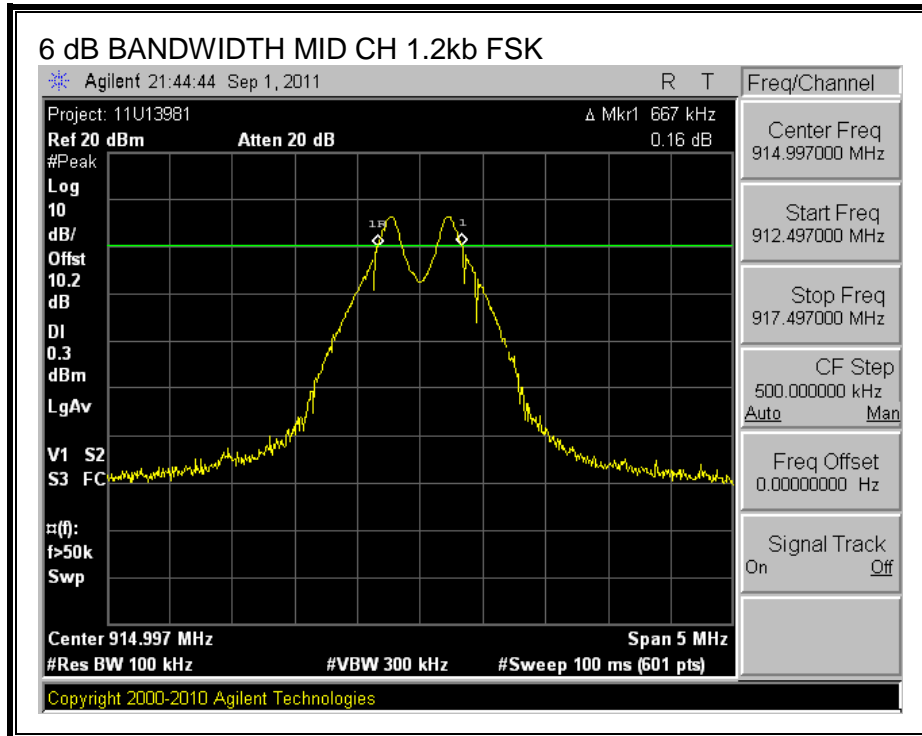
**6 dB BANDWIDTH**

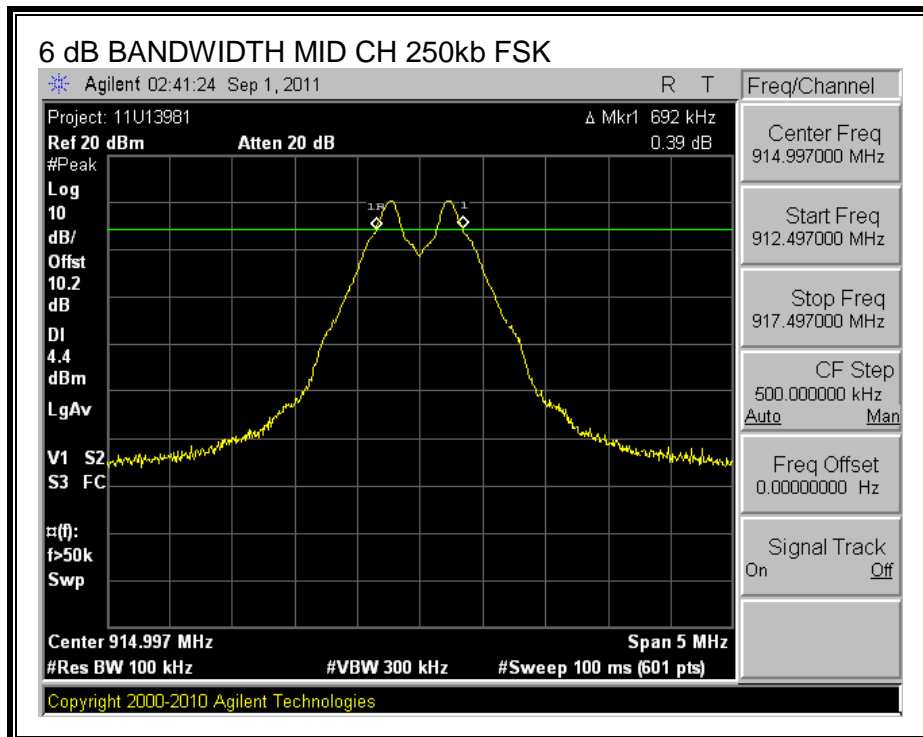
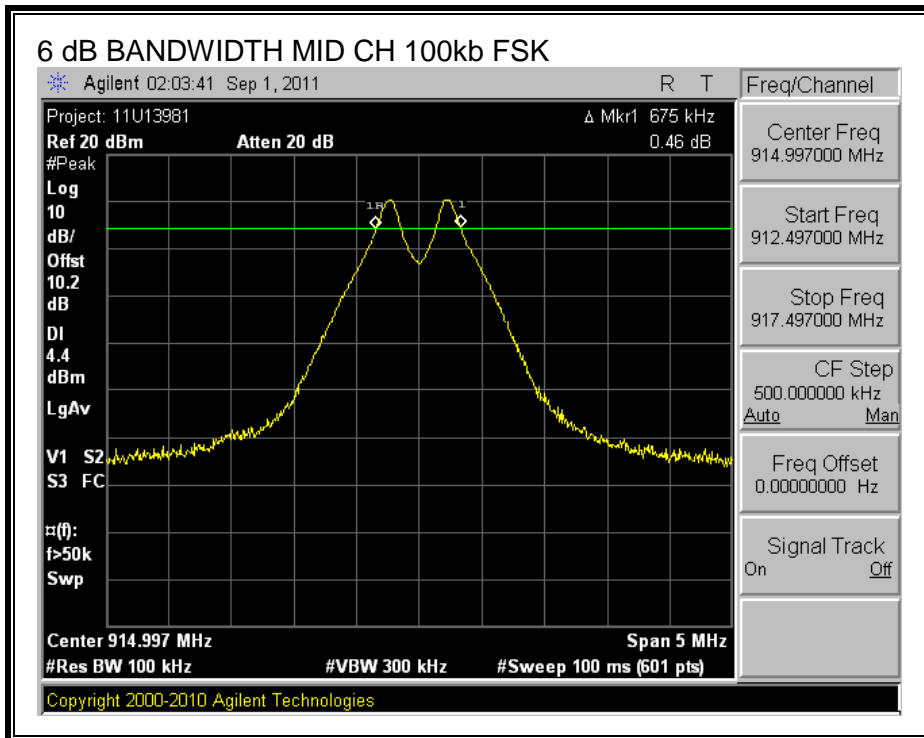


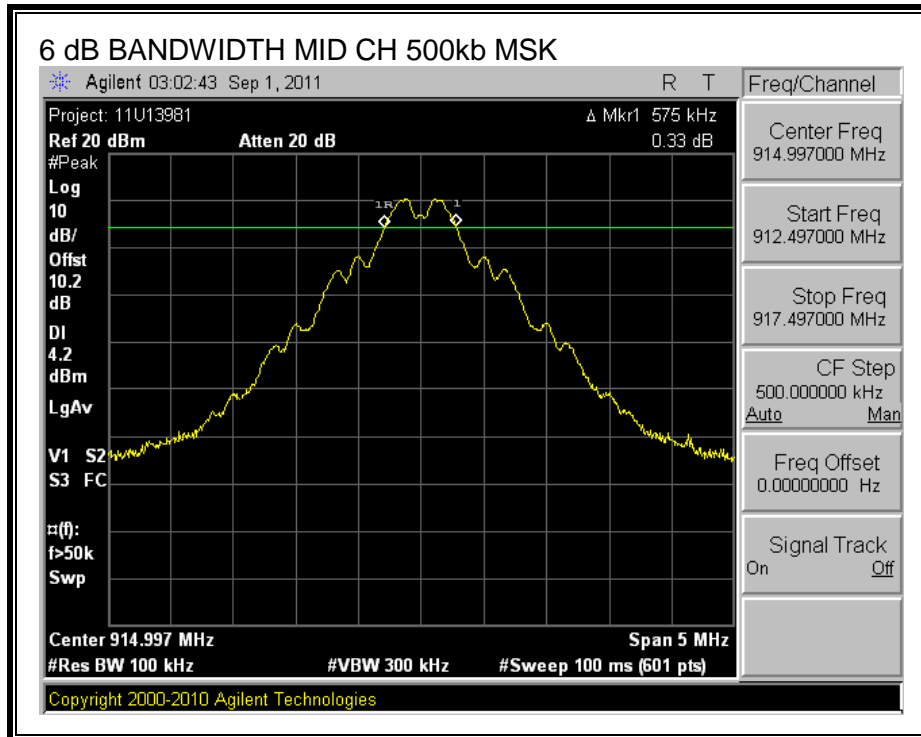


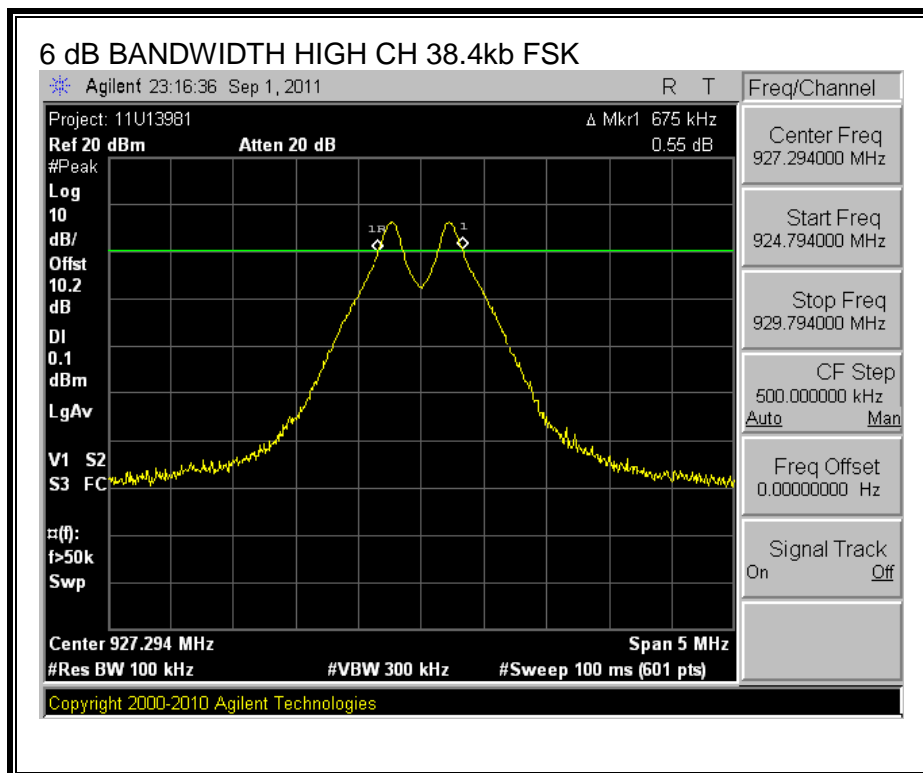
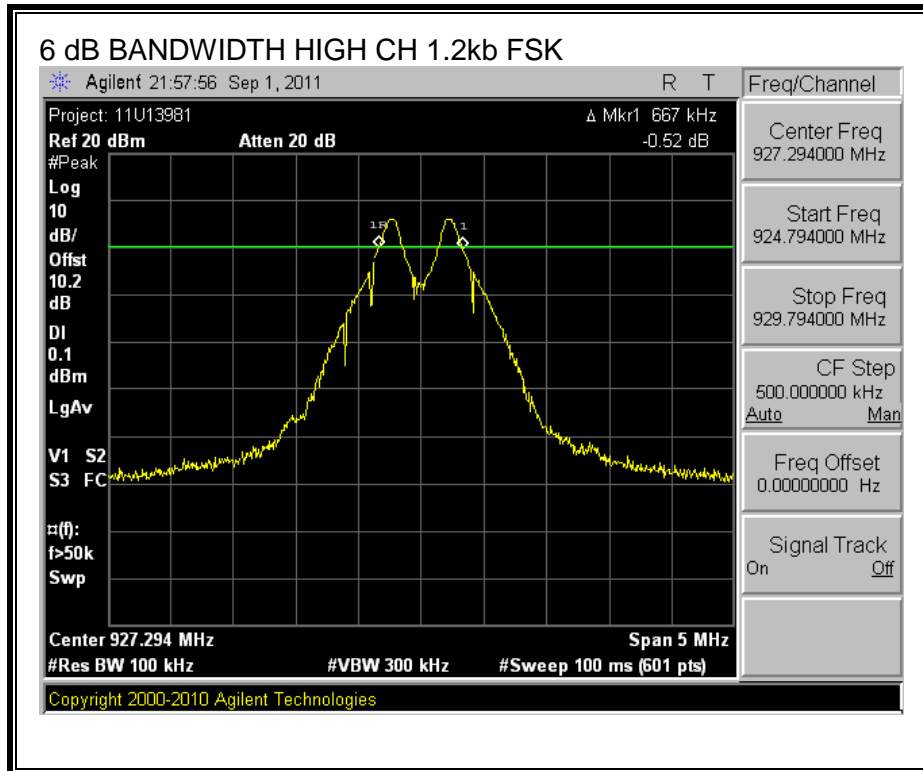


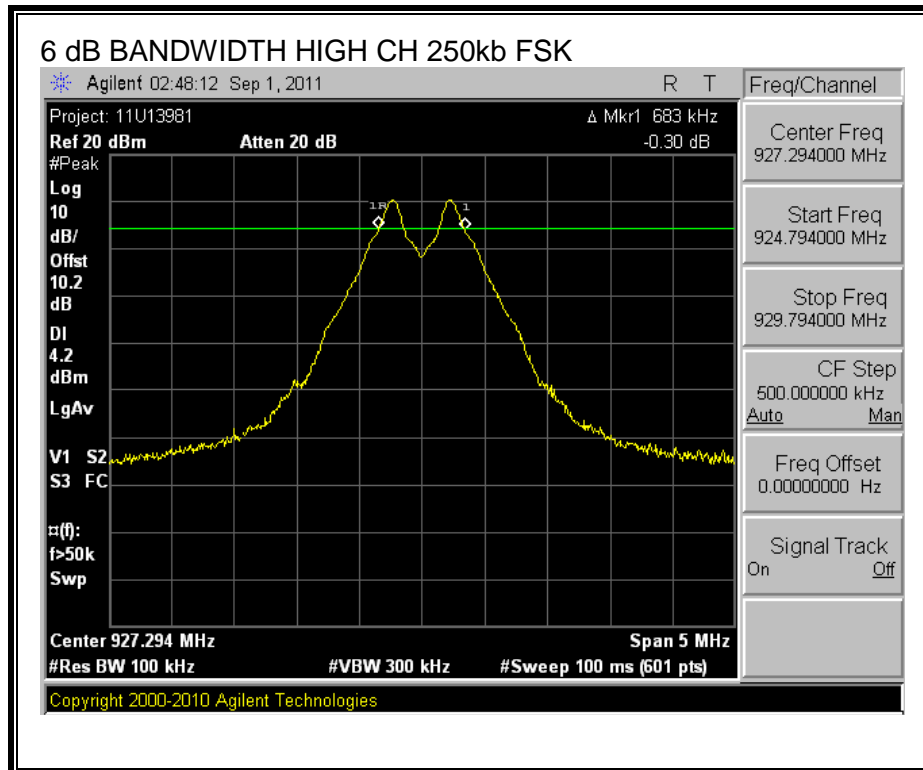
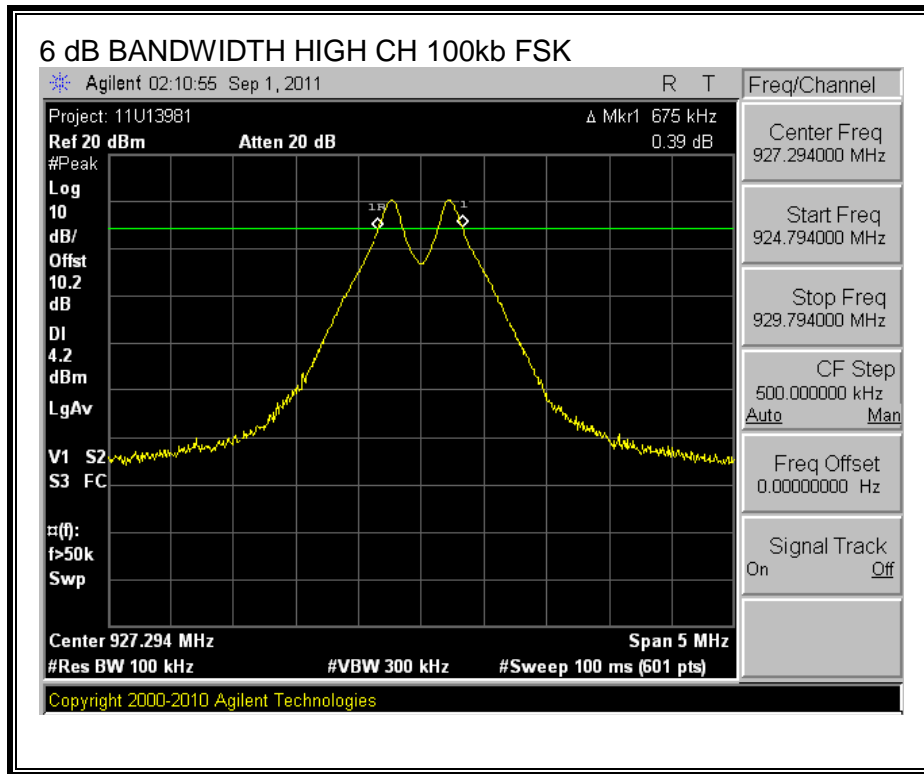


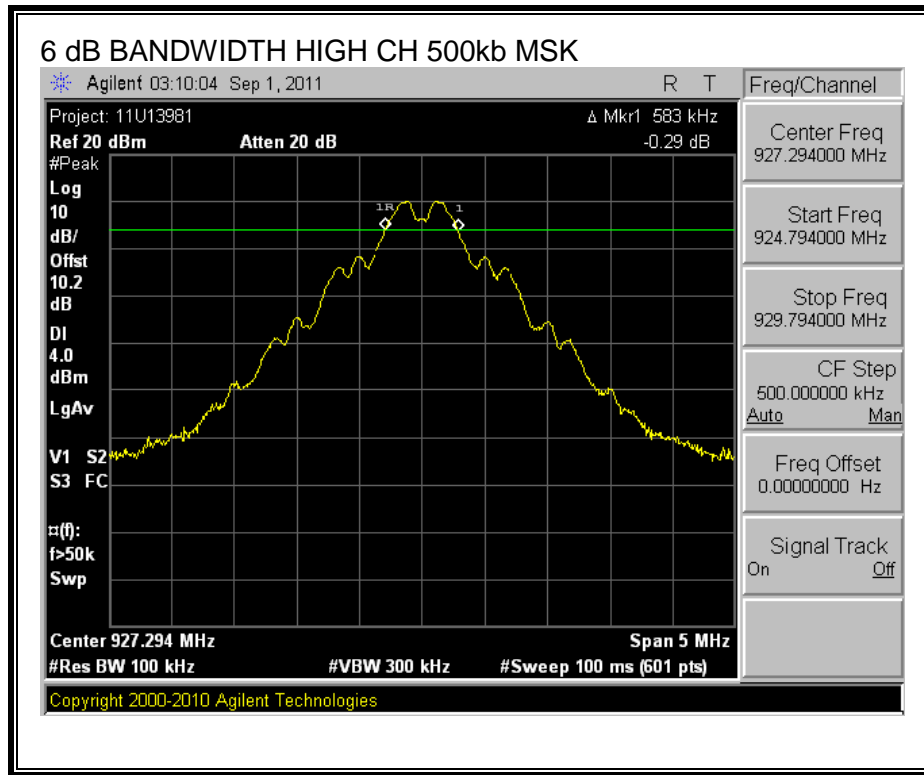












## 7.2 99% BANDWIDTH

### LIMITS

None; for reporting purposes only.

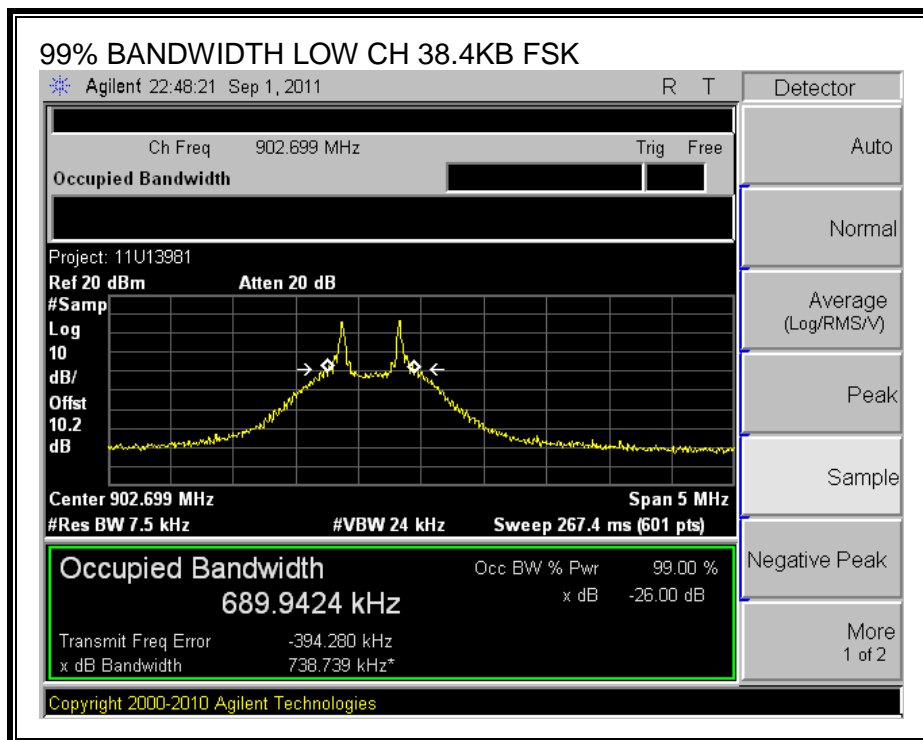
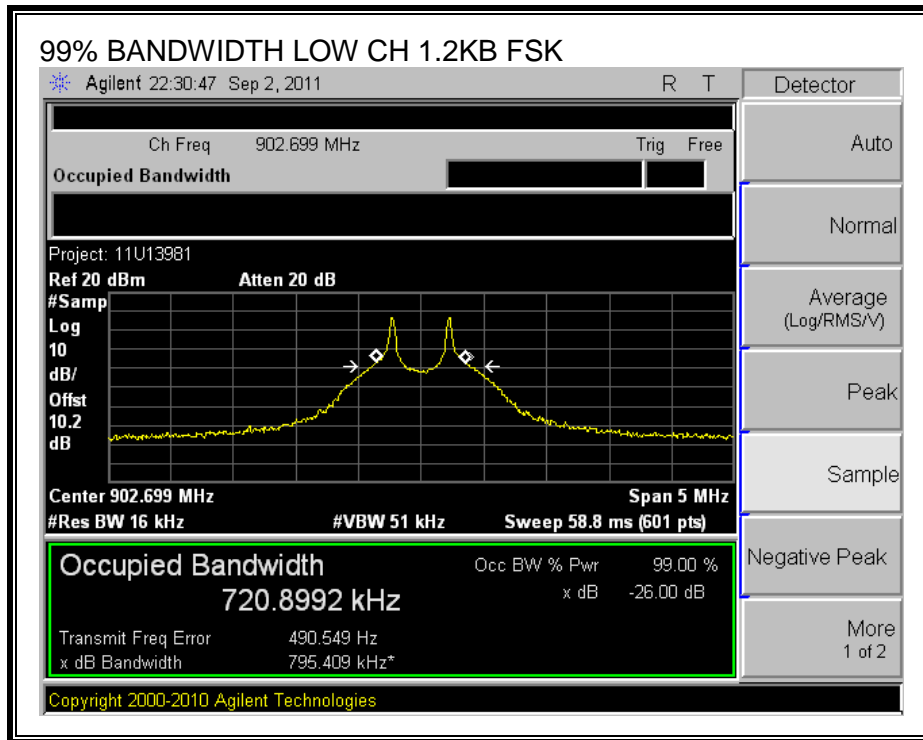
### TEST PROCEDURE

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 99% bandwidth function is utilized.

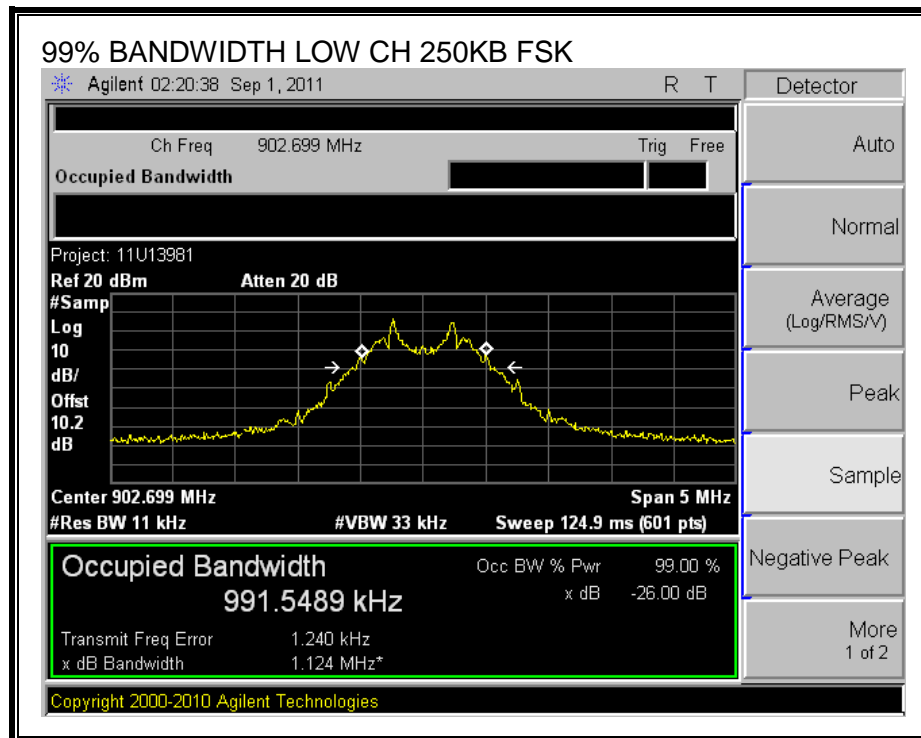
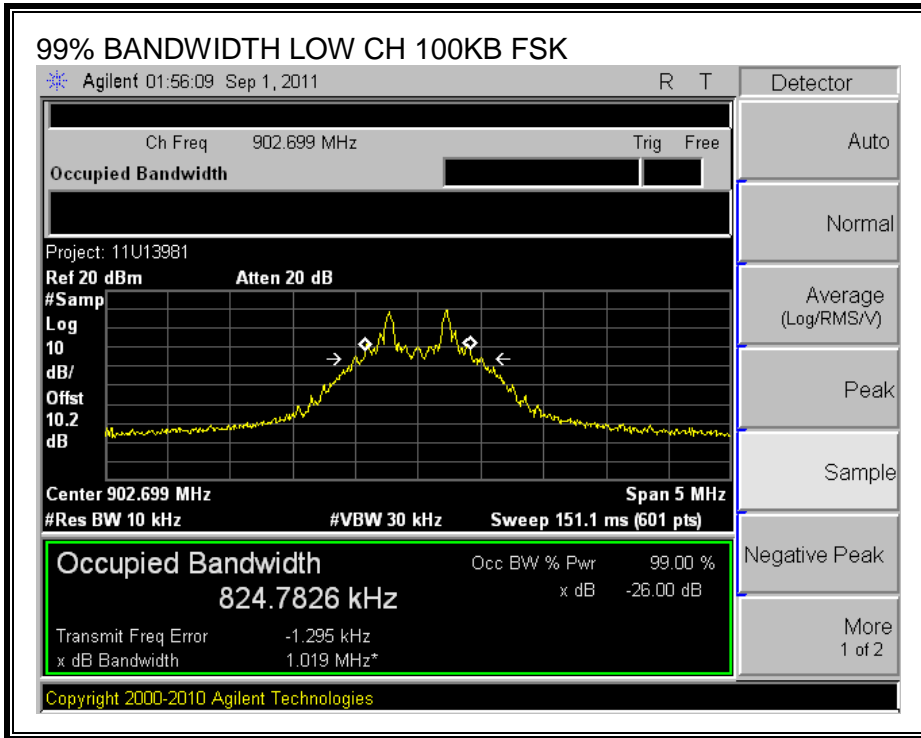
**RESULTS:** The results in table below are worst case

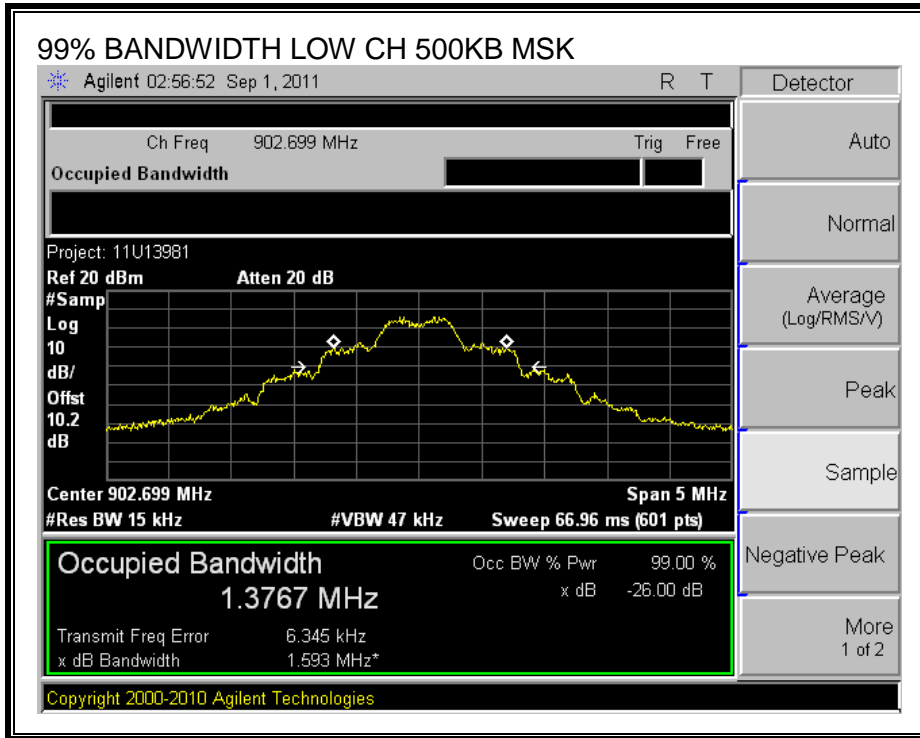
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	902.6	1.376
Middle	914.9	1.382
High	927.2	1.41

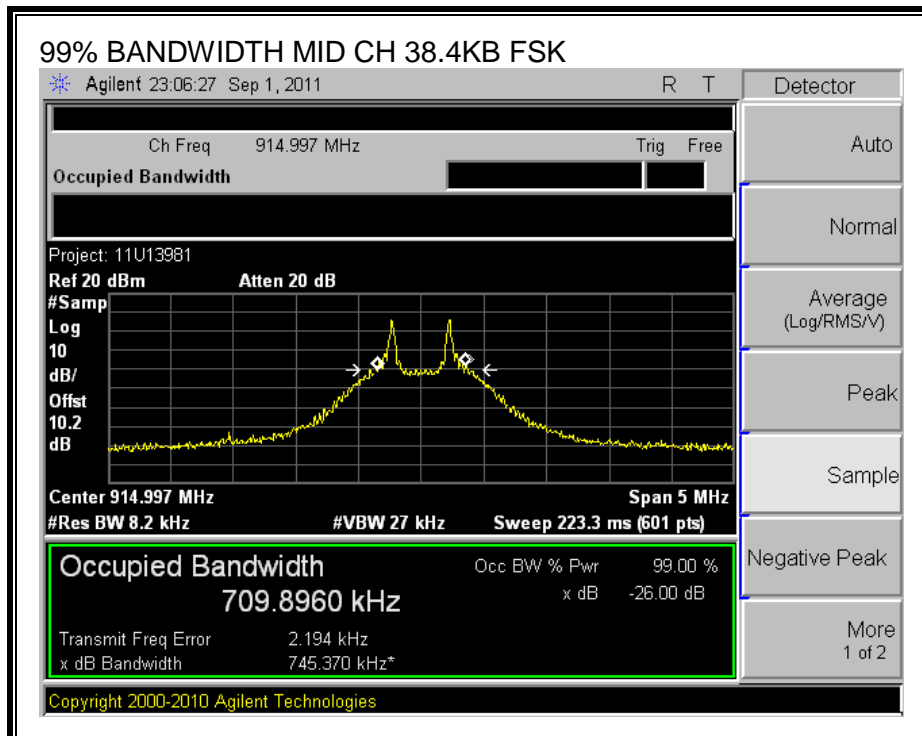
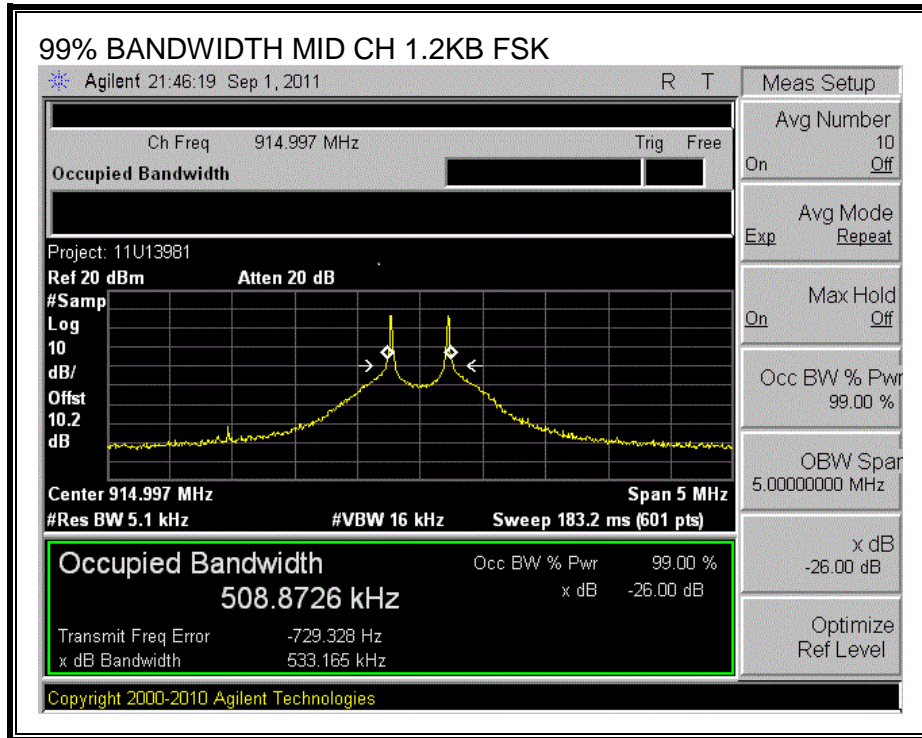
**99% BANDWIDTH**

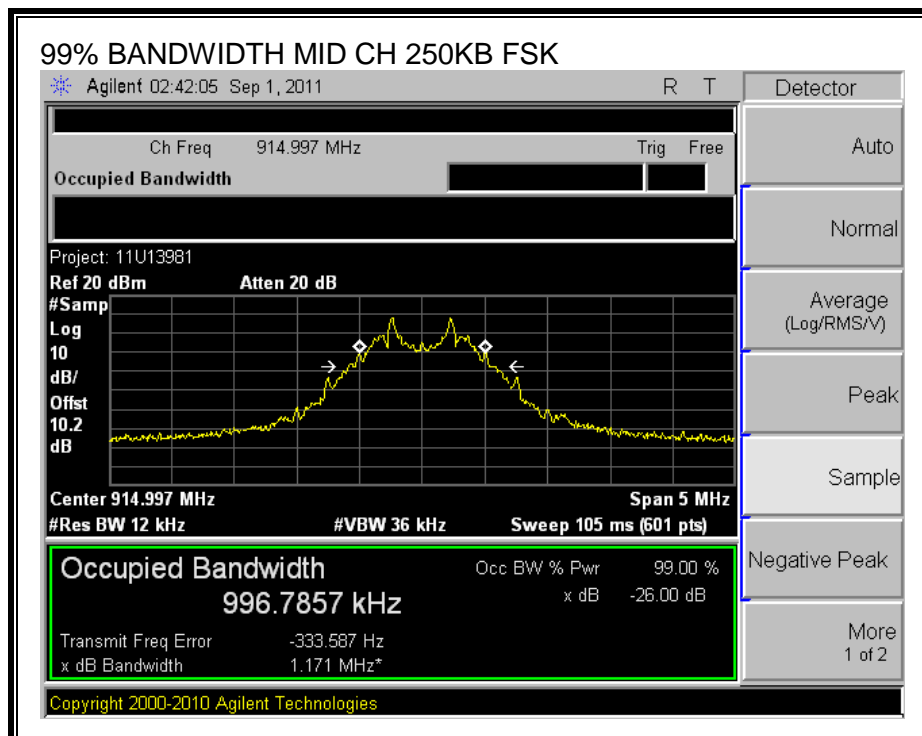
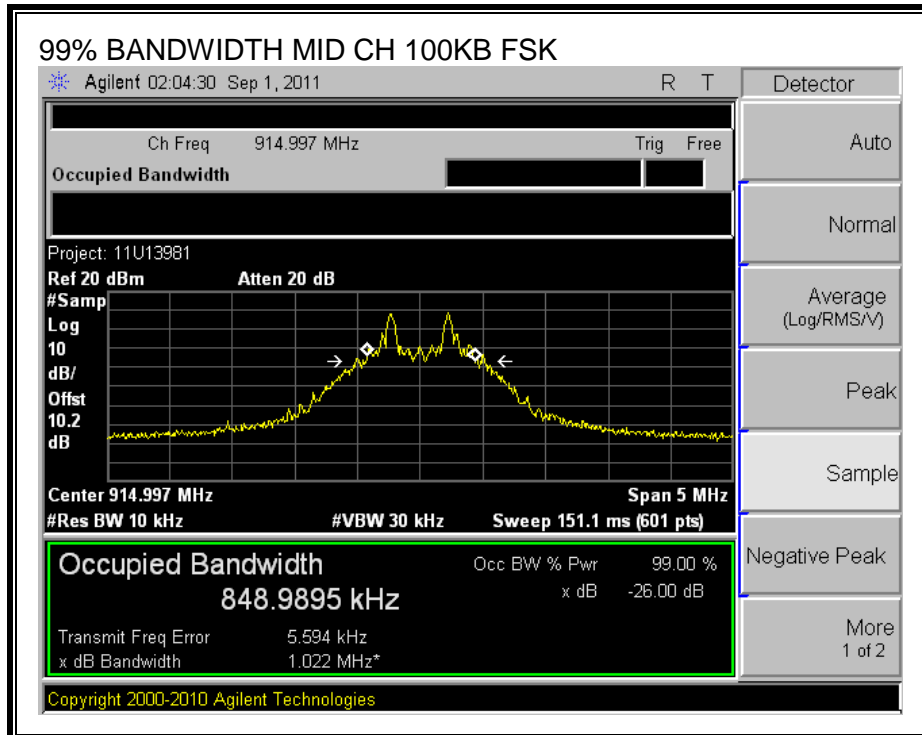


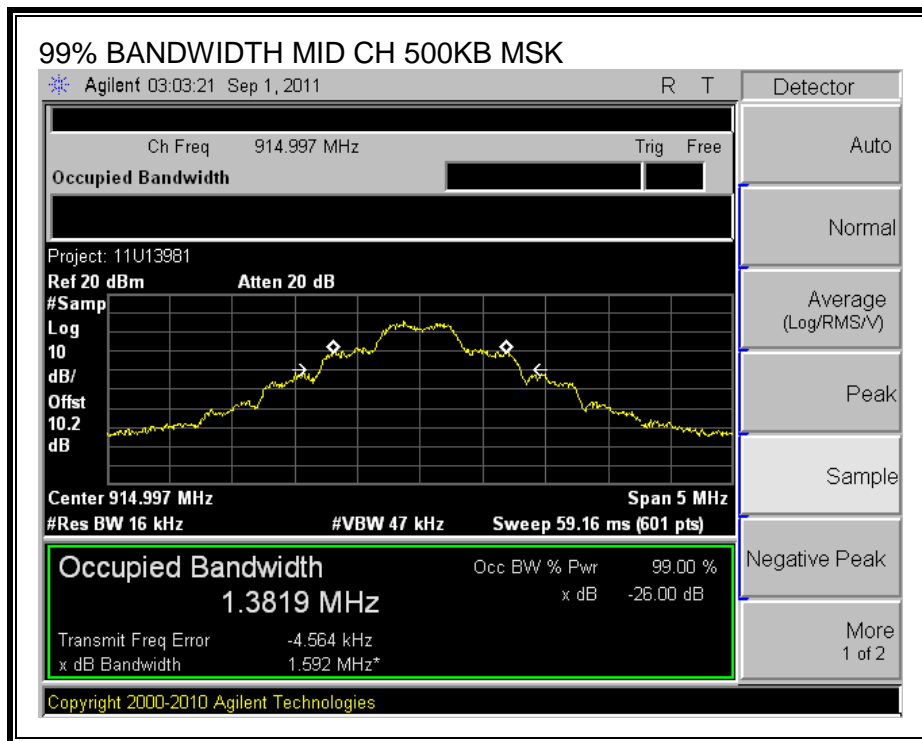


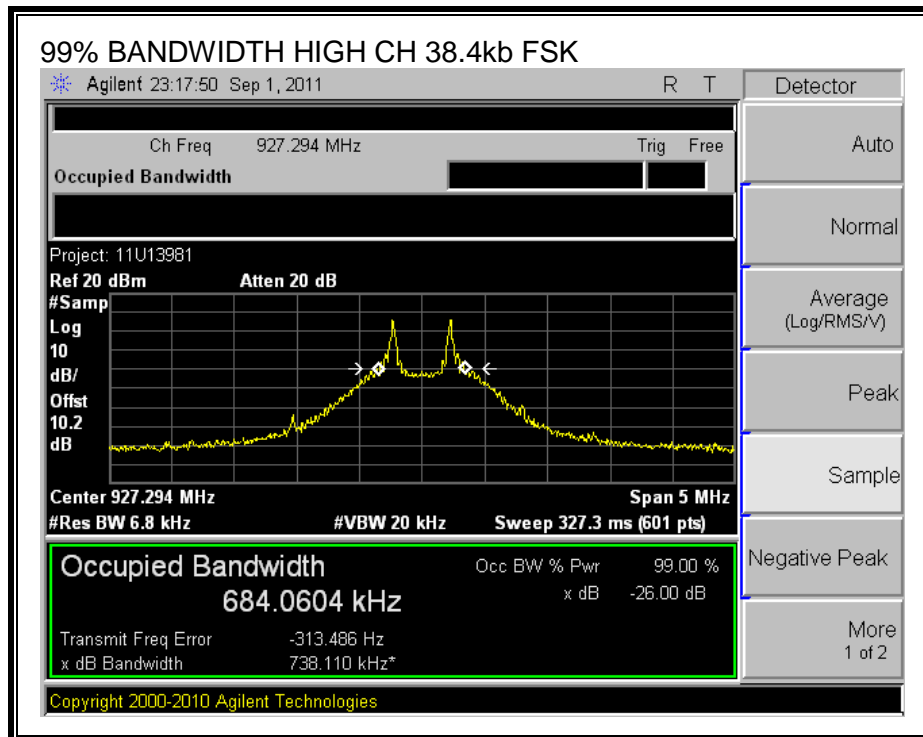
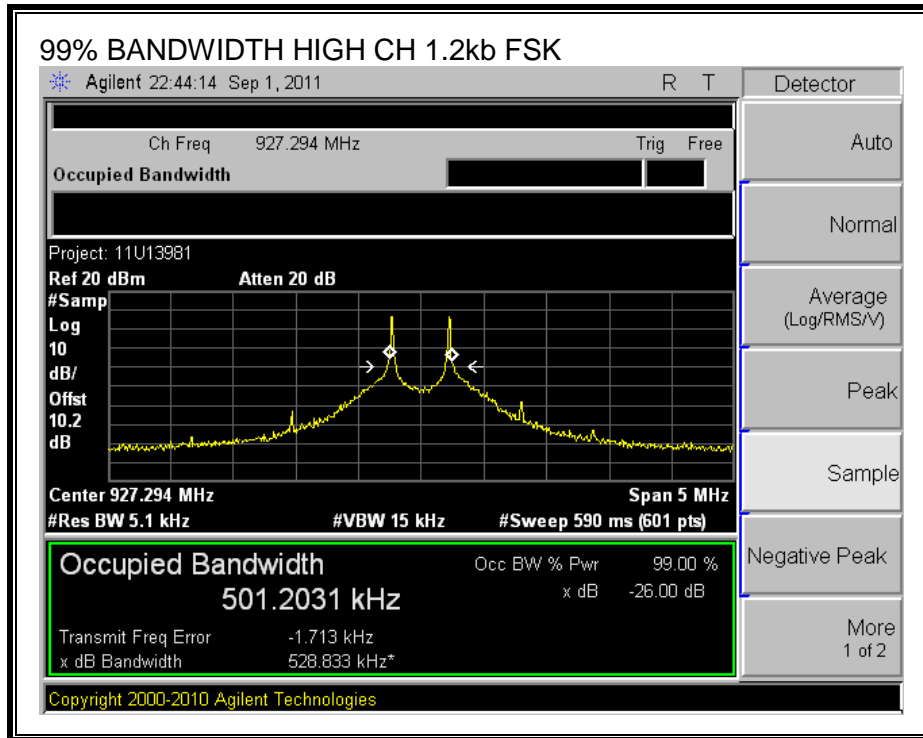


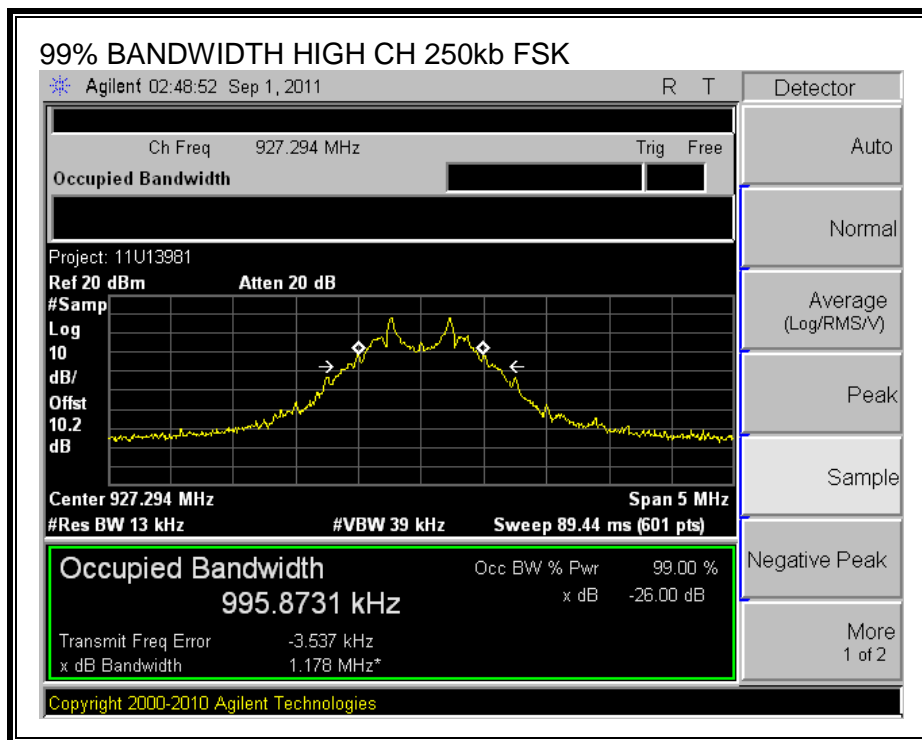
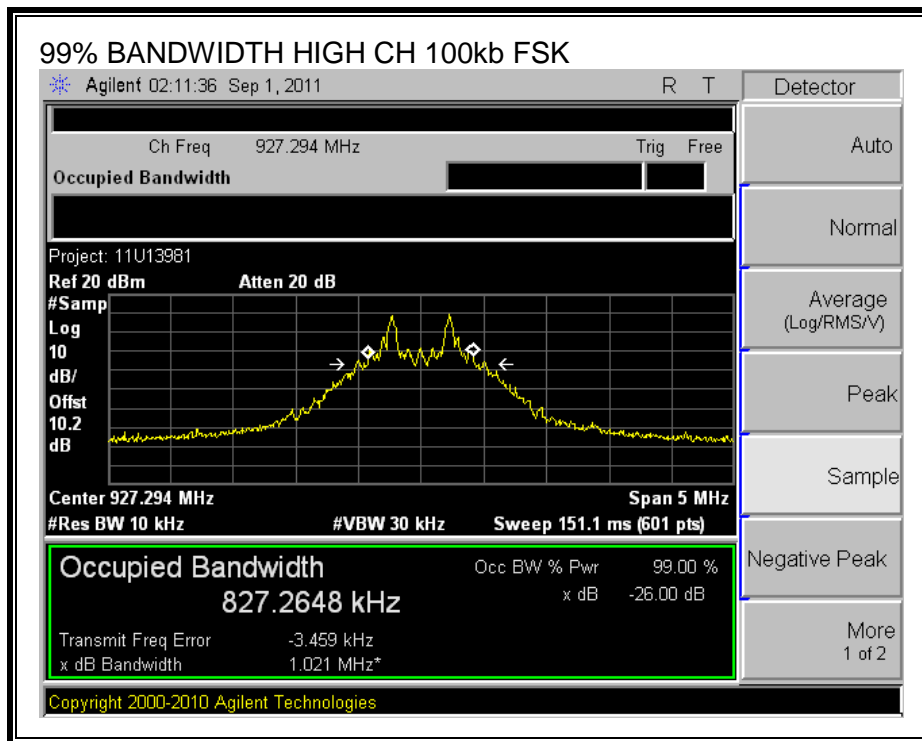


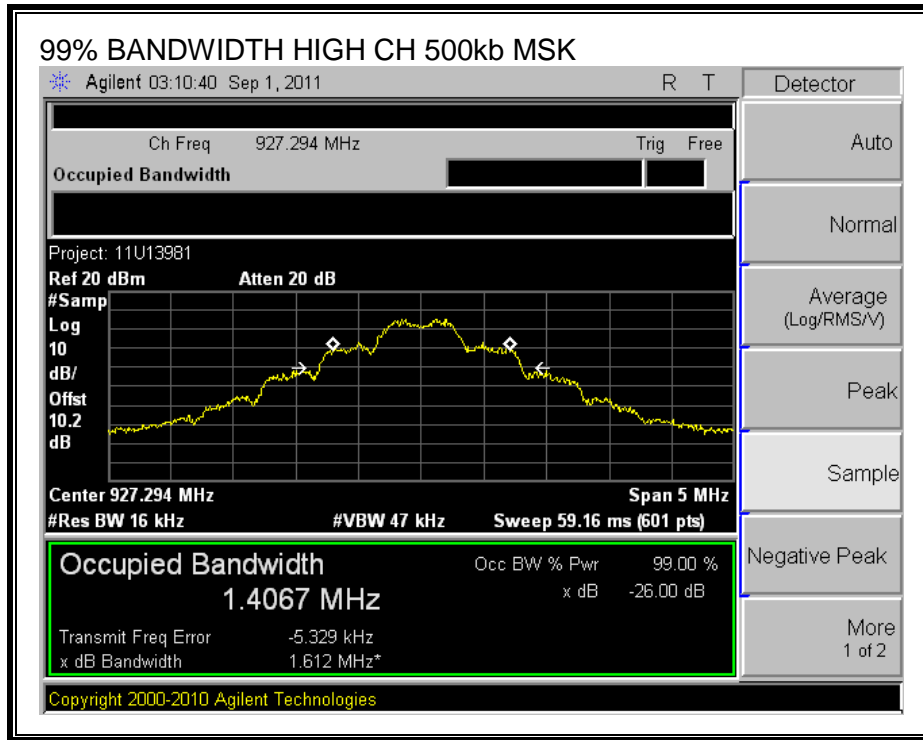














### 7.3 OUTPUT POWER

#### LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

The maximum antenna gain is 3 dBi for other than fixed, point-to-point operations, therefore the limit is 30 dBm.

#### TEST PROCEDURE

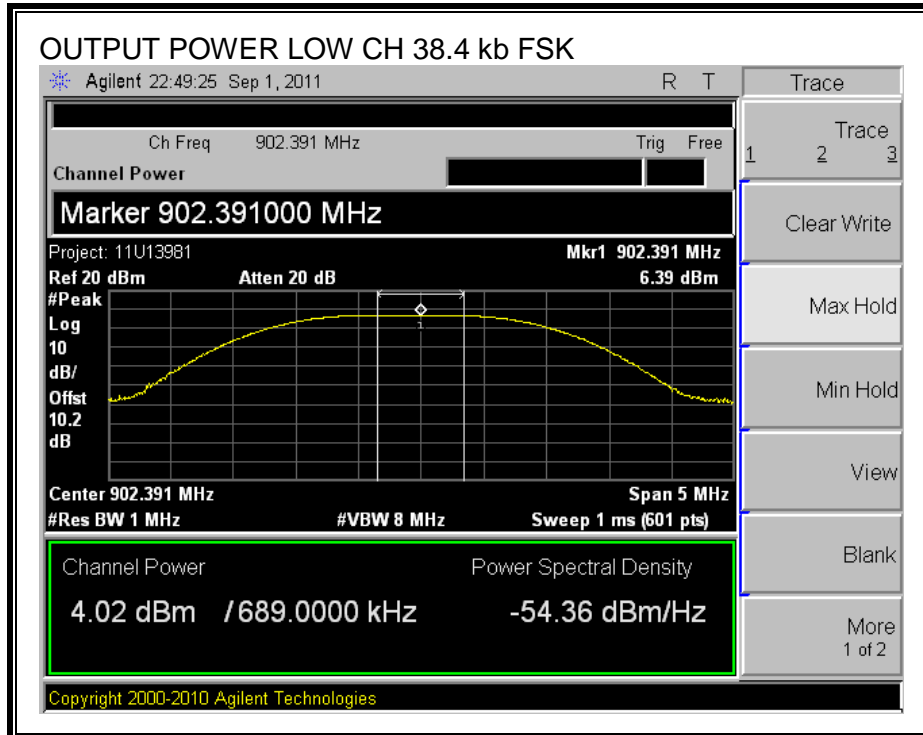
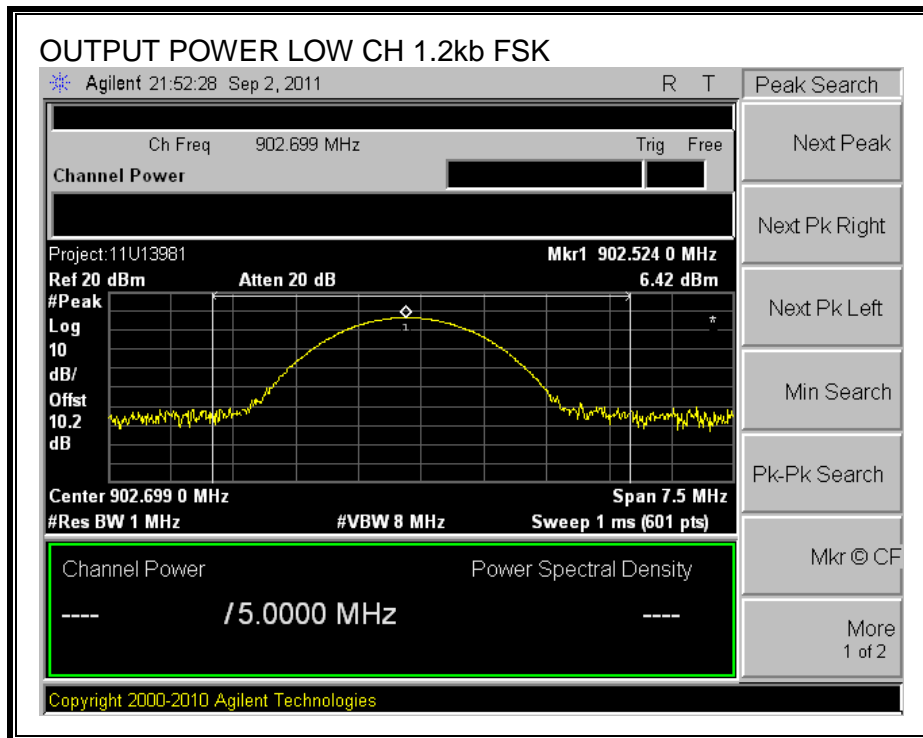
Peak power is measured using the Channel bandwidth Alternative peak output power procedure specified in "TCB Training for Devices covered under Scopes A1 - A4" by Joe Dichoso, May 2003.

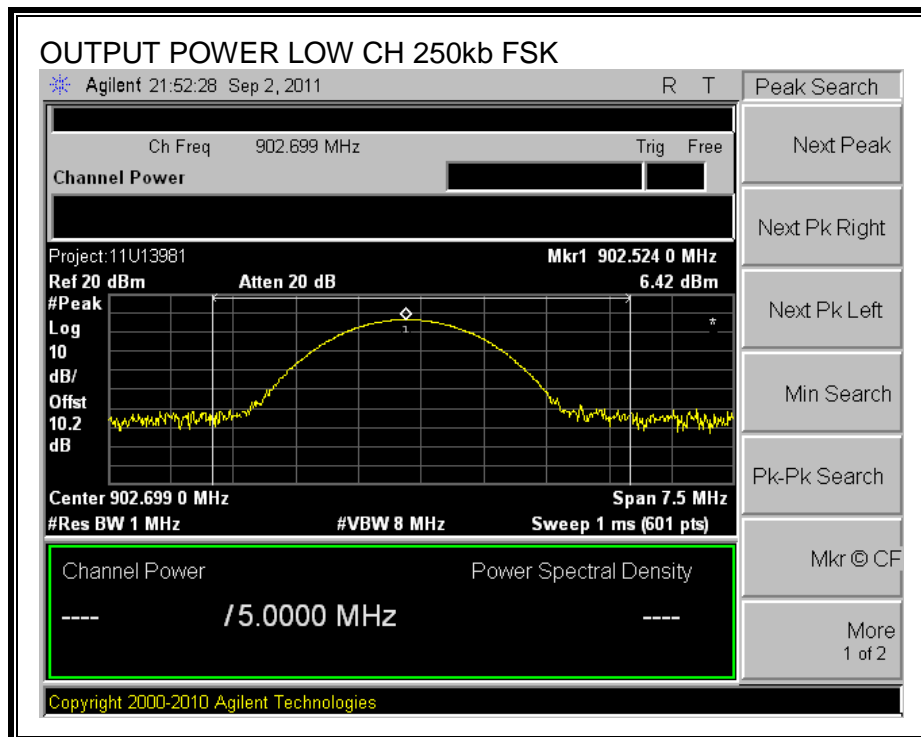
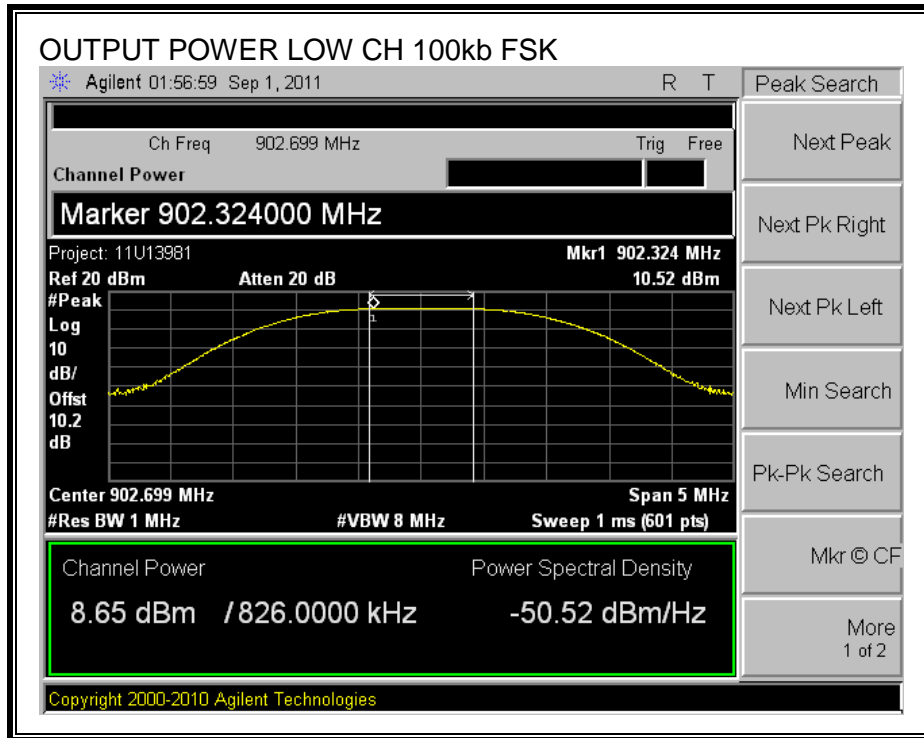
**RESULTS:** The results in table below are worst case.

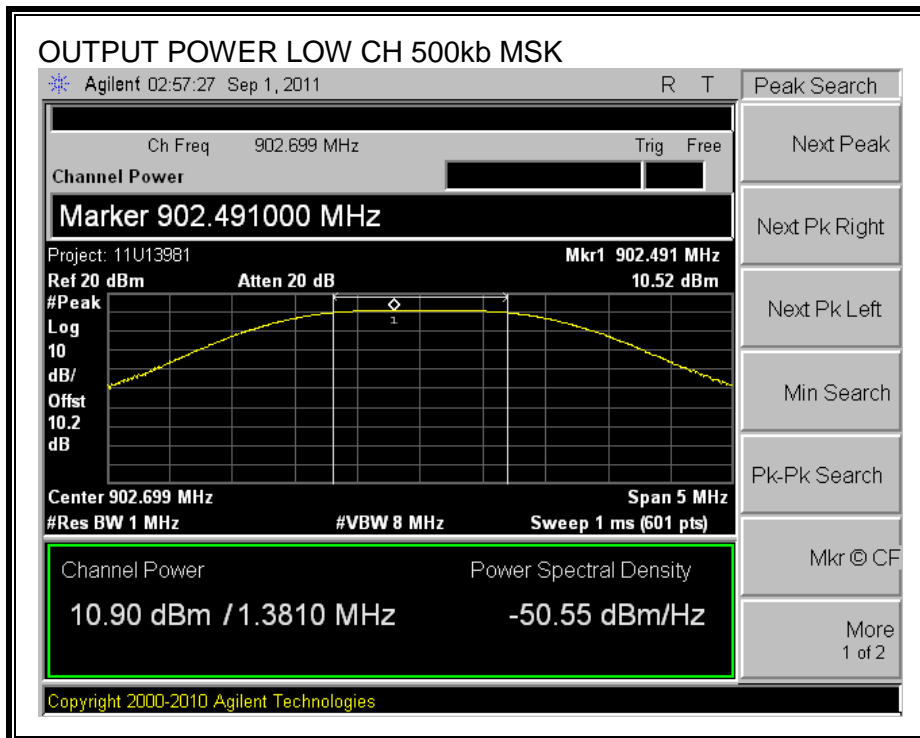
Channel	Frequency (MHz)	Spectrum Analyzer Reading (dBm)	Attenuator and Cable Offset (dB)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	902.6	10.52	0	10.52	30	-19.48
Middle	914.9	10.38	0	10.38	30	-19.62
High	927.2	10.19	0	10.19	30	-19.81

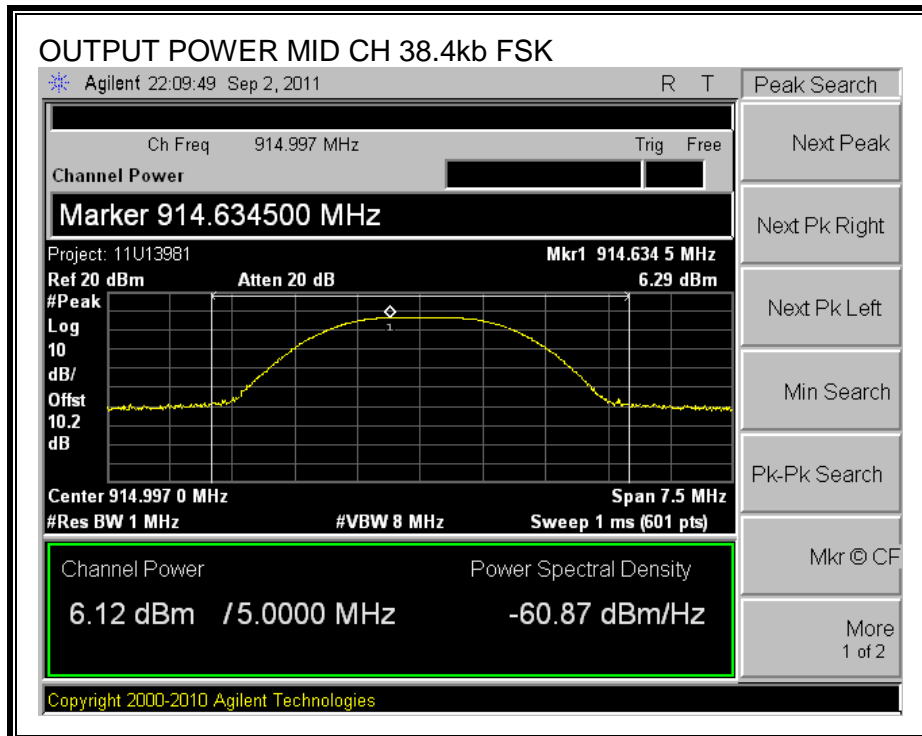
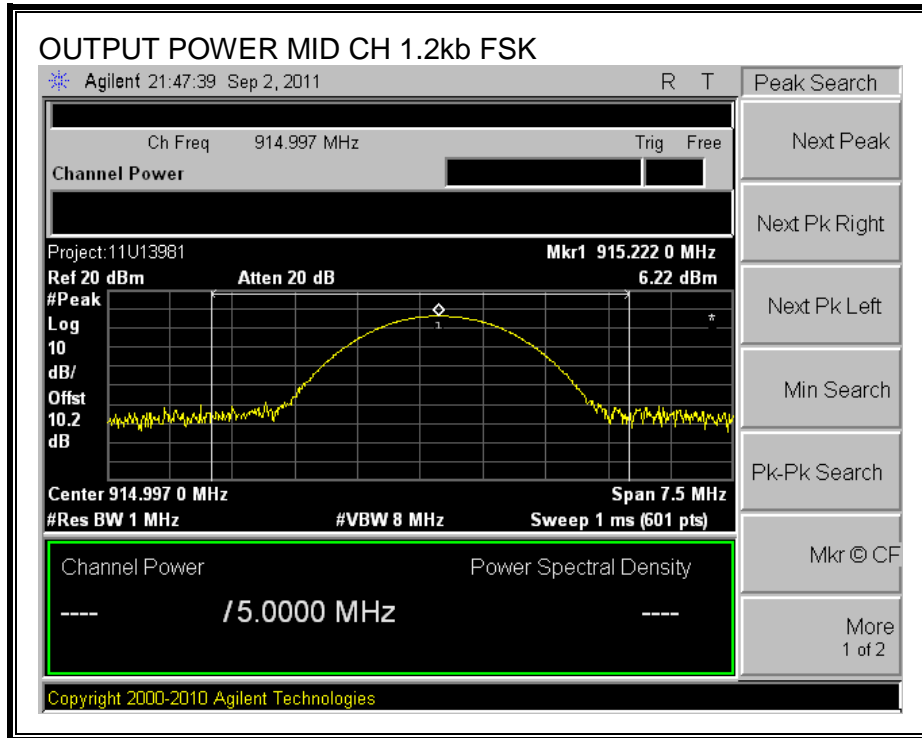
Note: Attenuator and cable offset were included in the Spectrum Analyzer Reading.

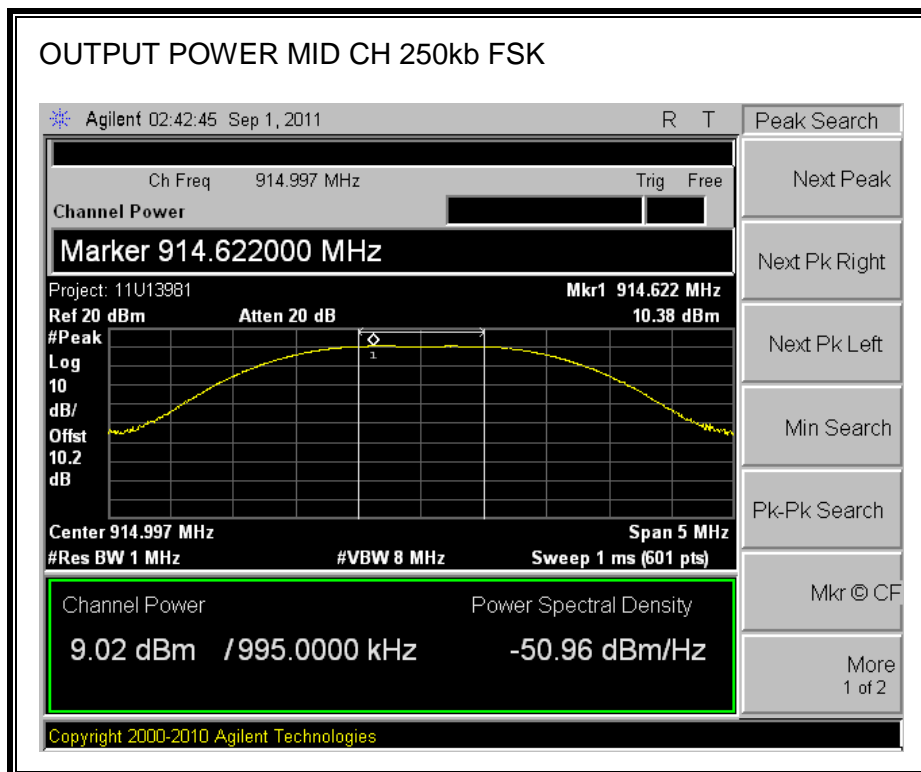
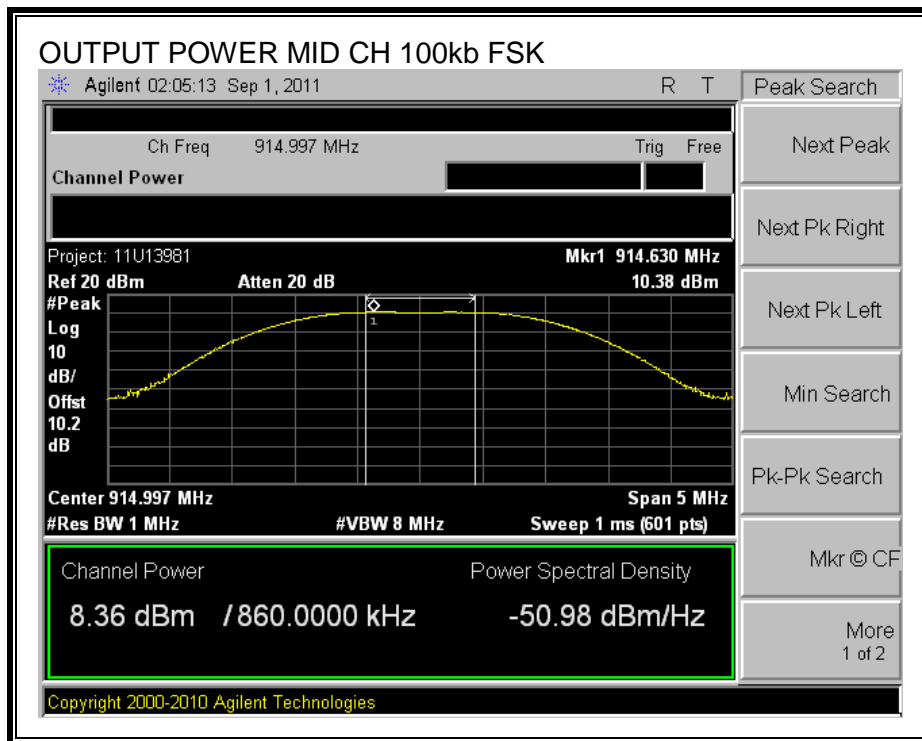
**OUTPUT POWER**

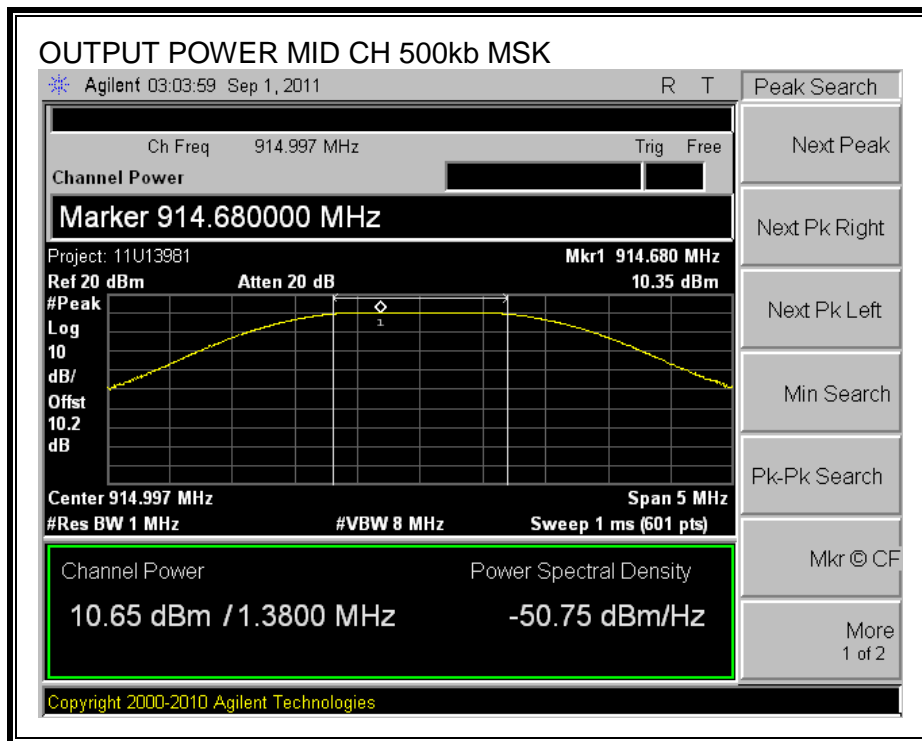


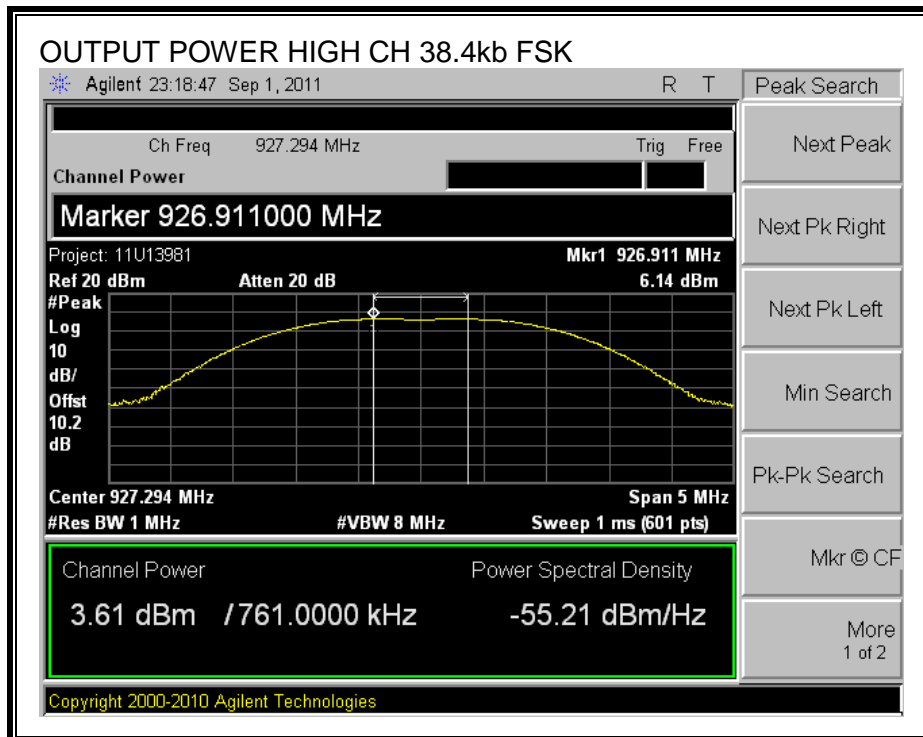
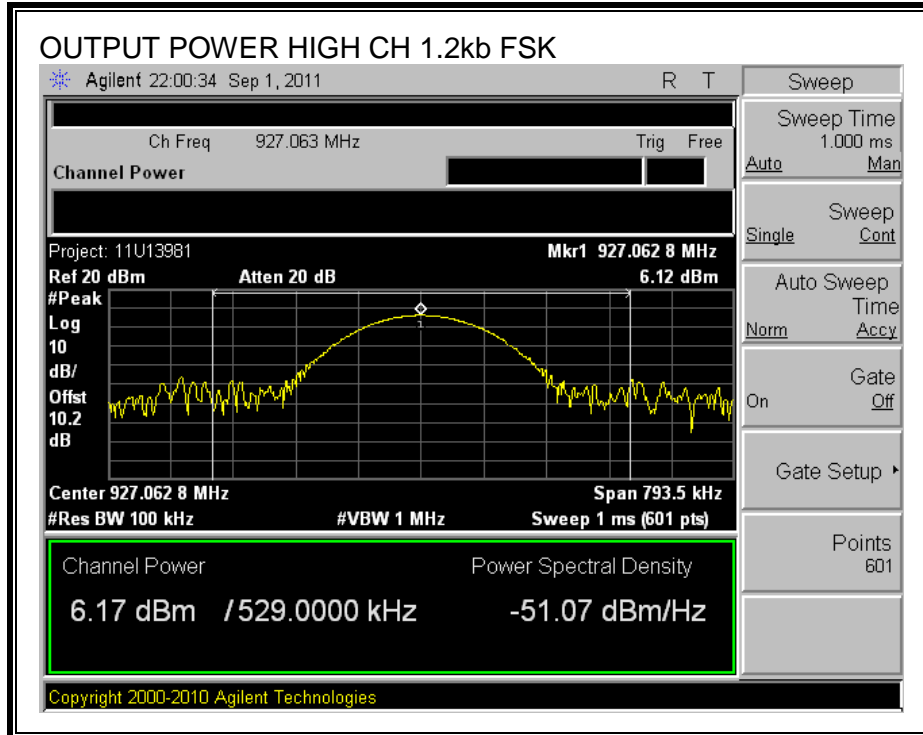




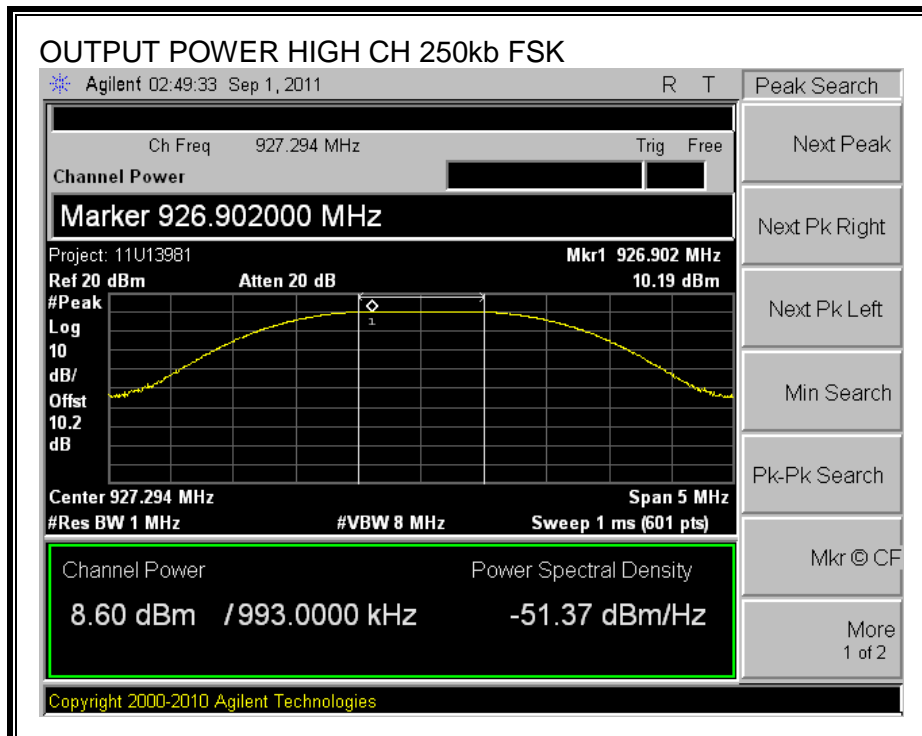
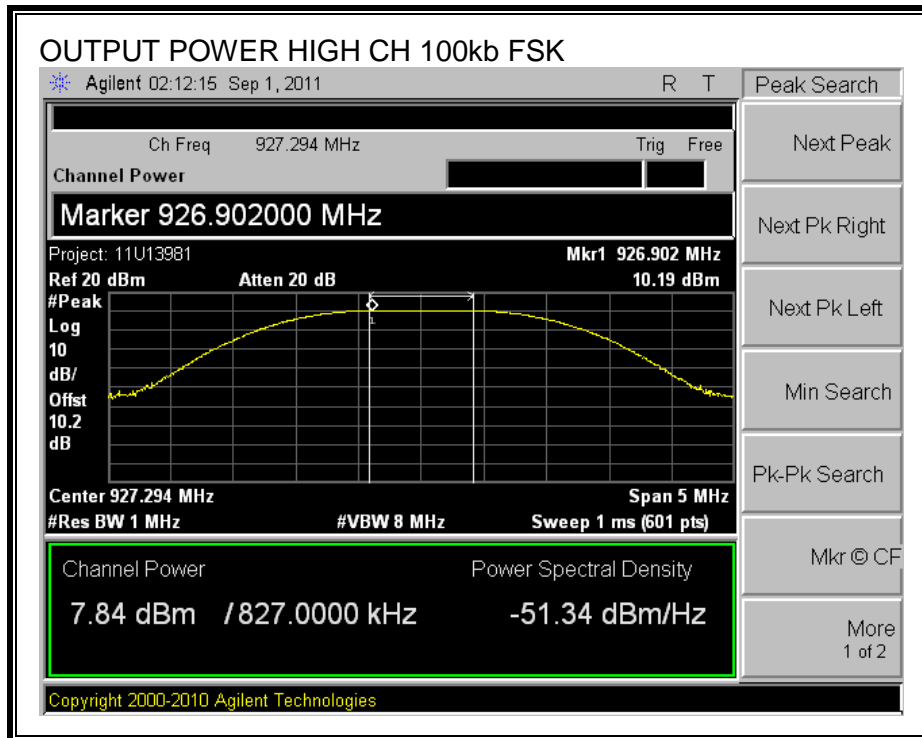


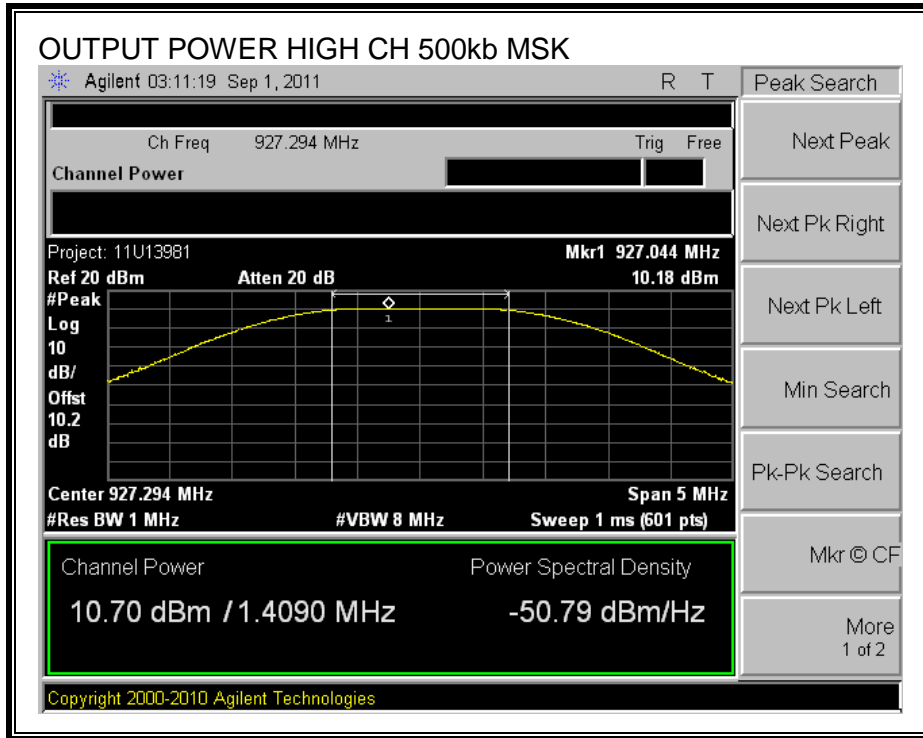












## 7.4 AVERAGE POWER

### LIMITS

None; for reporting purposes only.

### TEST PROCEDURE

The transmitter output is connected to a power meter.

**RESULTS:** The results in table below are worst case.

The cable assembly insertion loss of 10.2 dB (including 10 dB pad and 0.2 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	902.6	10.43
Middle	914.9	10.28
High	927.2	10.10

## 7.5 POWER SPECTRAL DENSITY

### LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

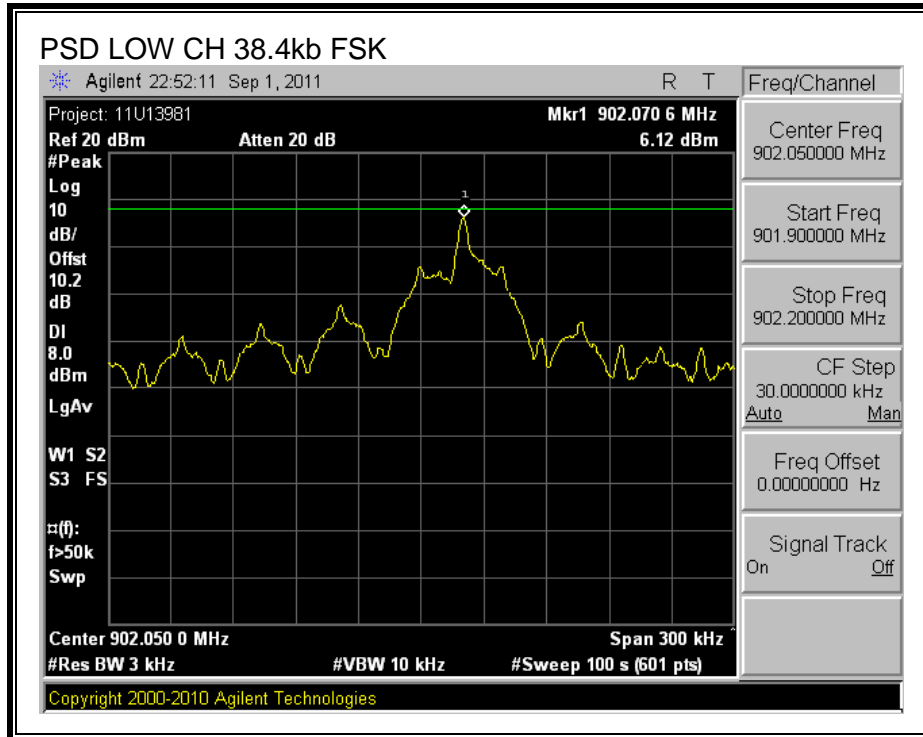
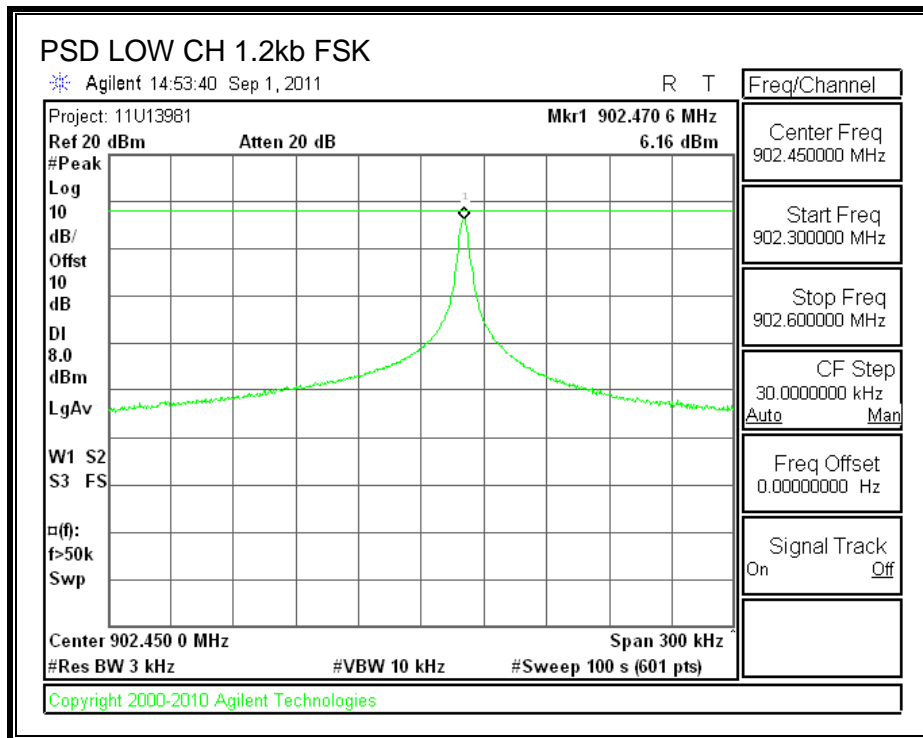
### TEST PROCEDURE

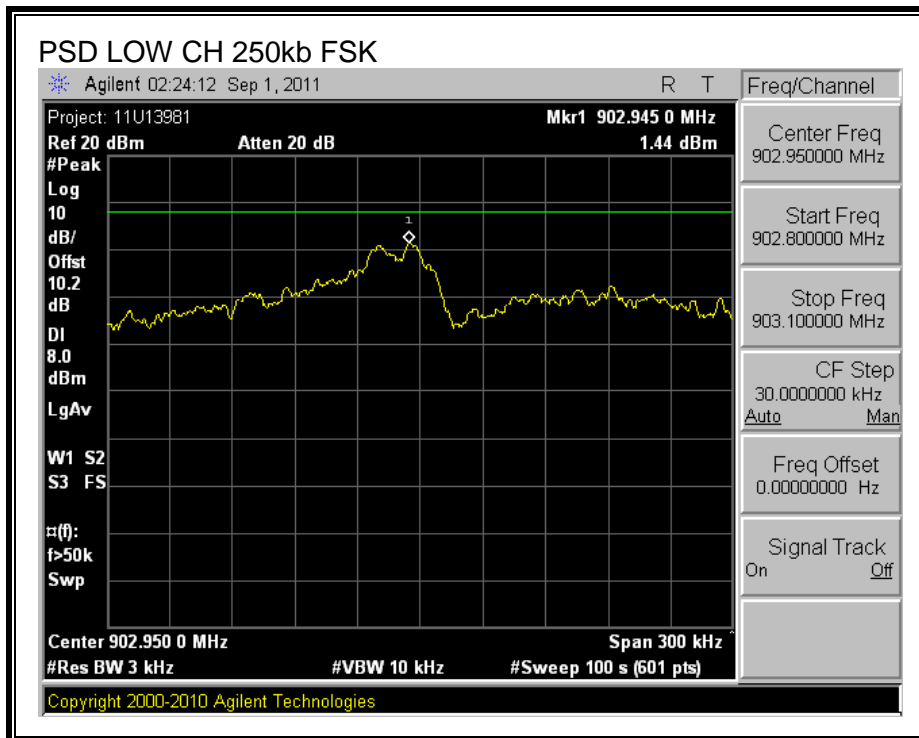
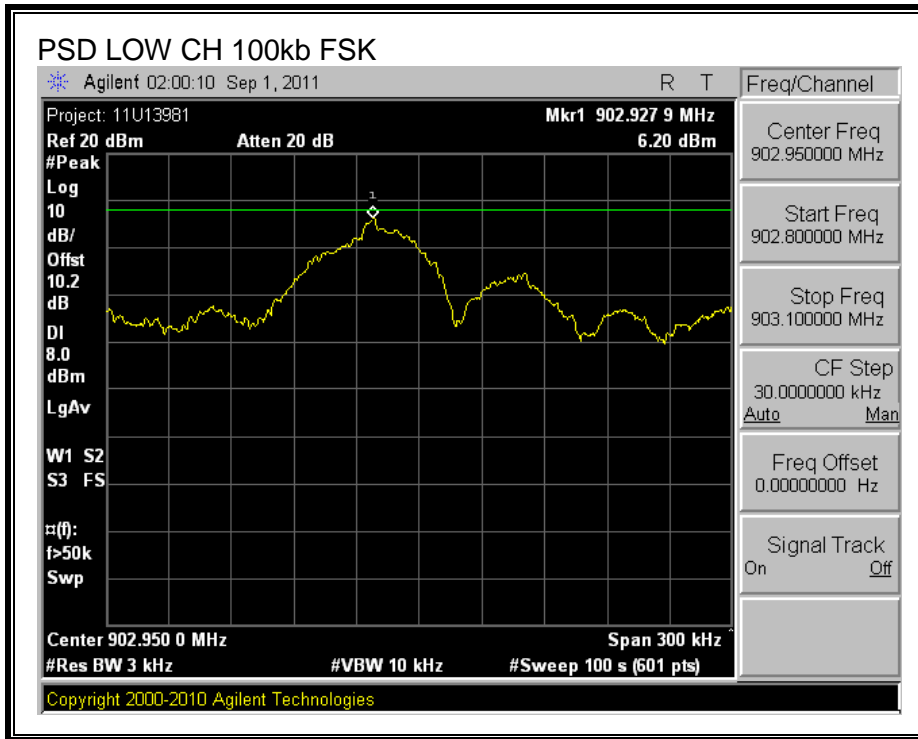
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

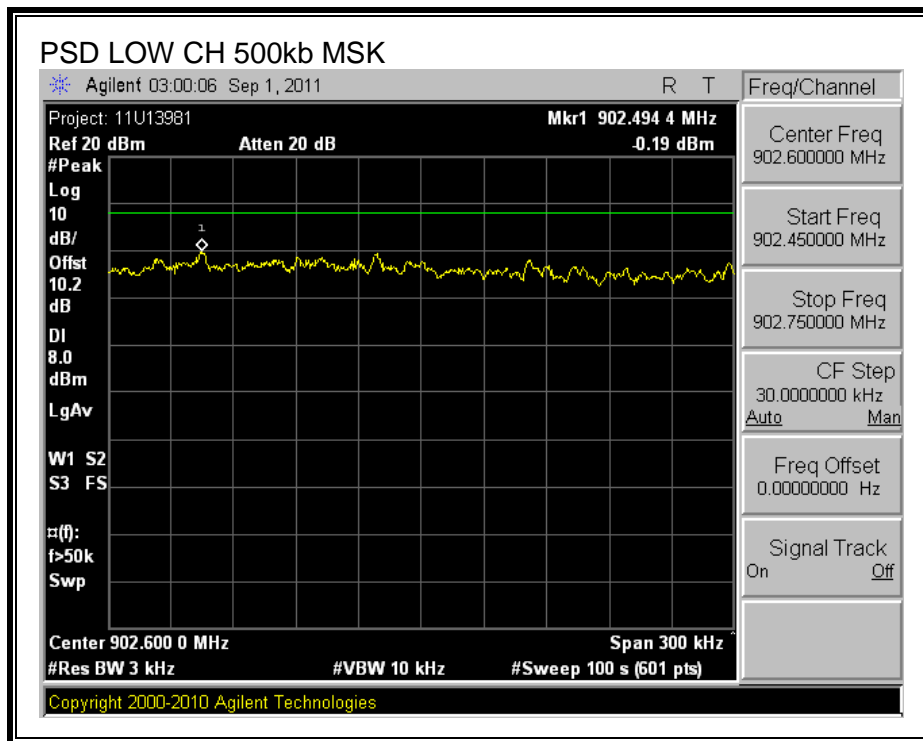
**RESULTS:** The results in table below are worst case.

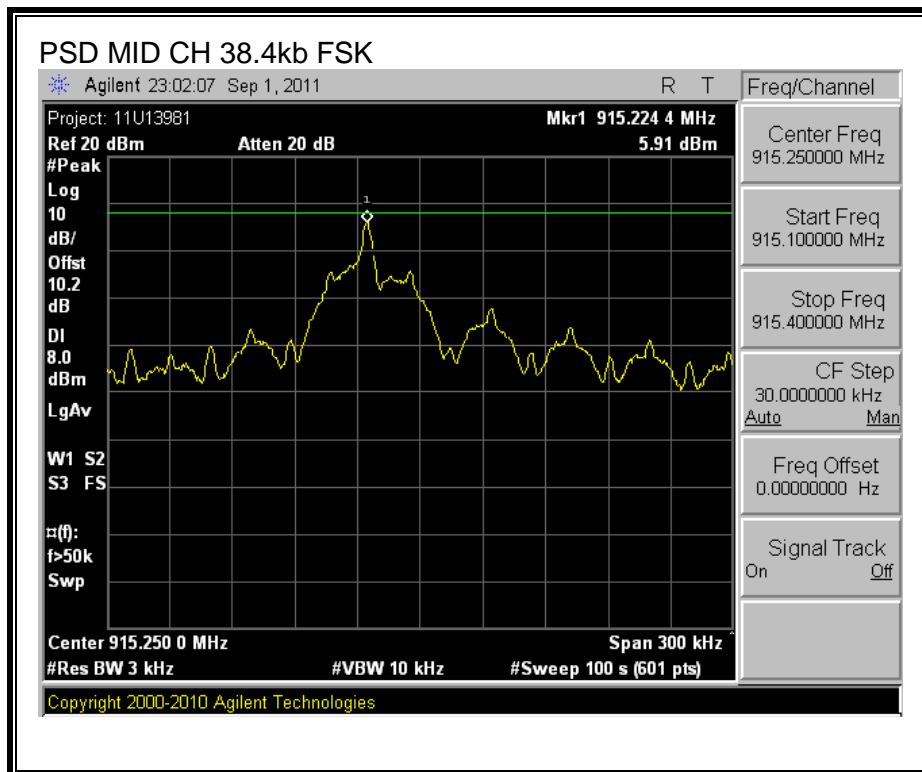
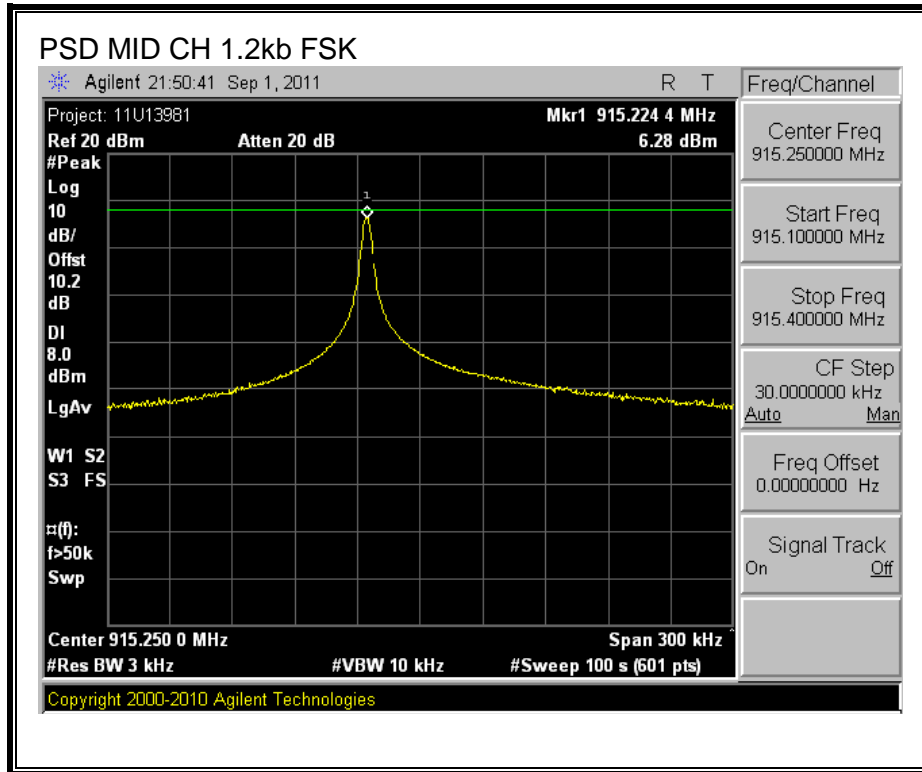
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	902.6	6.20	8	-1.80
Middle	914.9	6.28	8	-1.72
High	927.2	6.11	8	-1.89

**POWER SPECTRAL DENSITY**

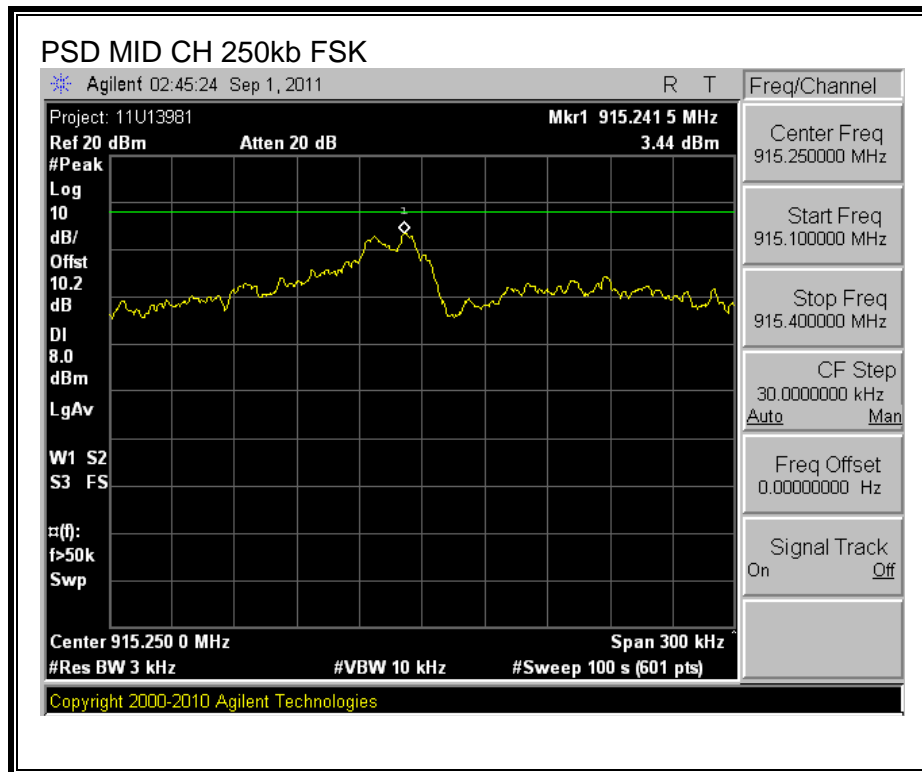
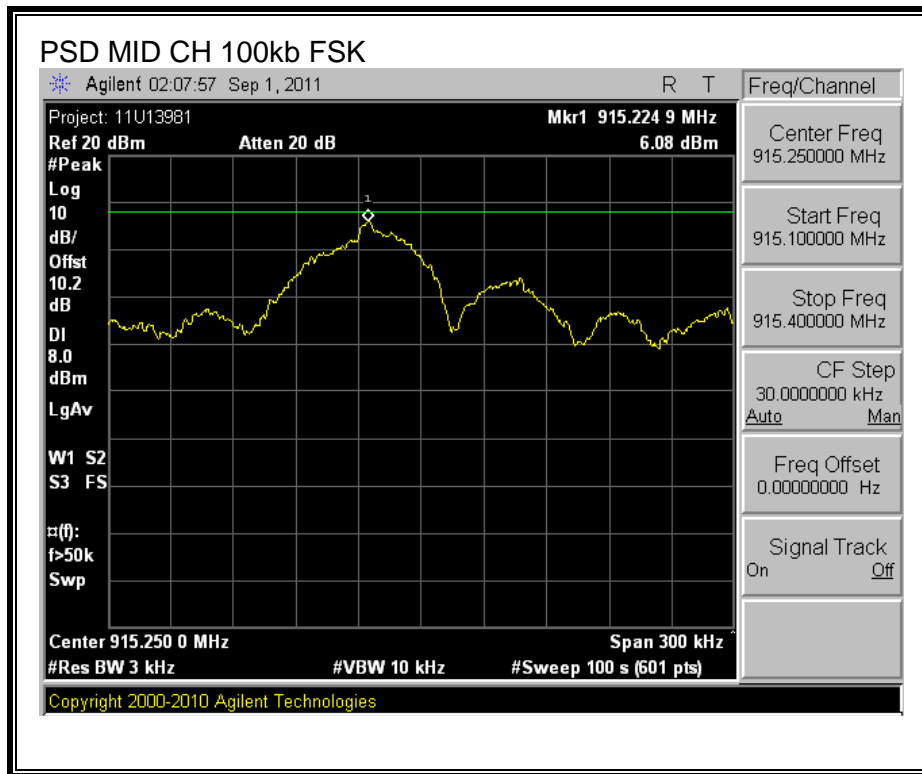


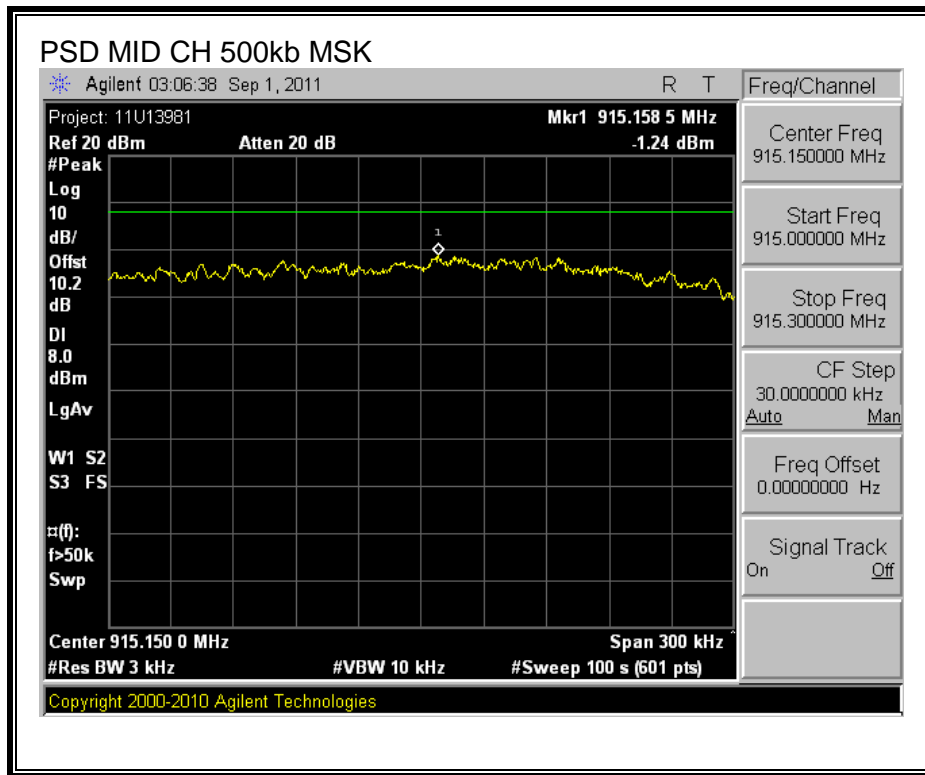


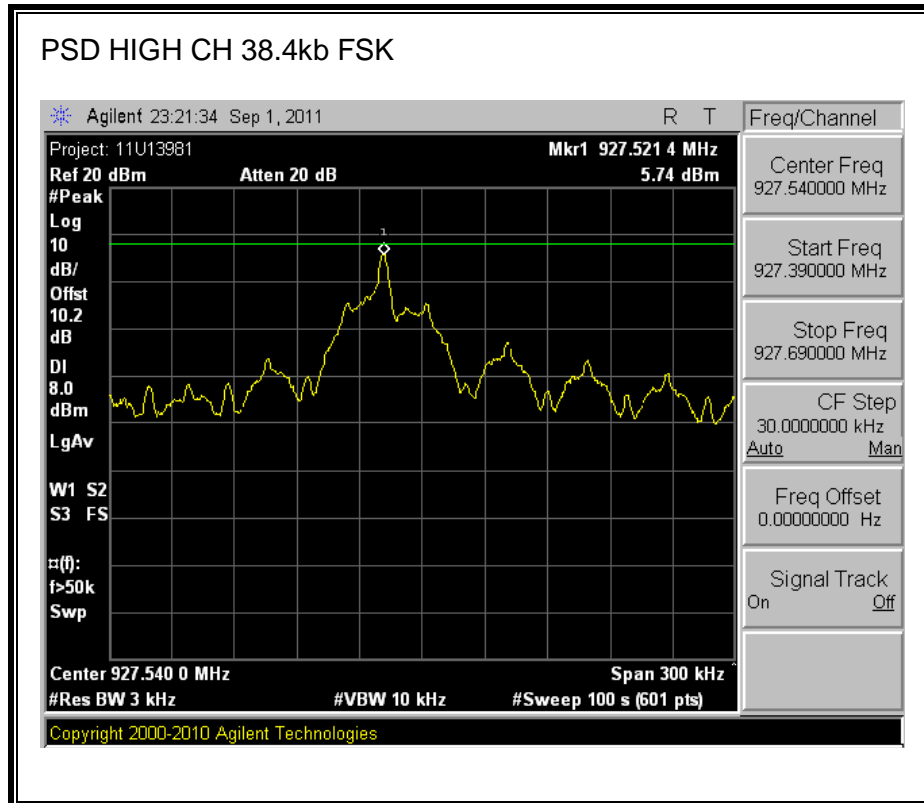
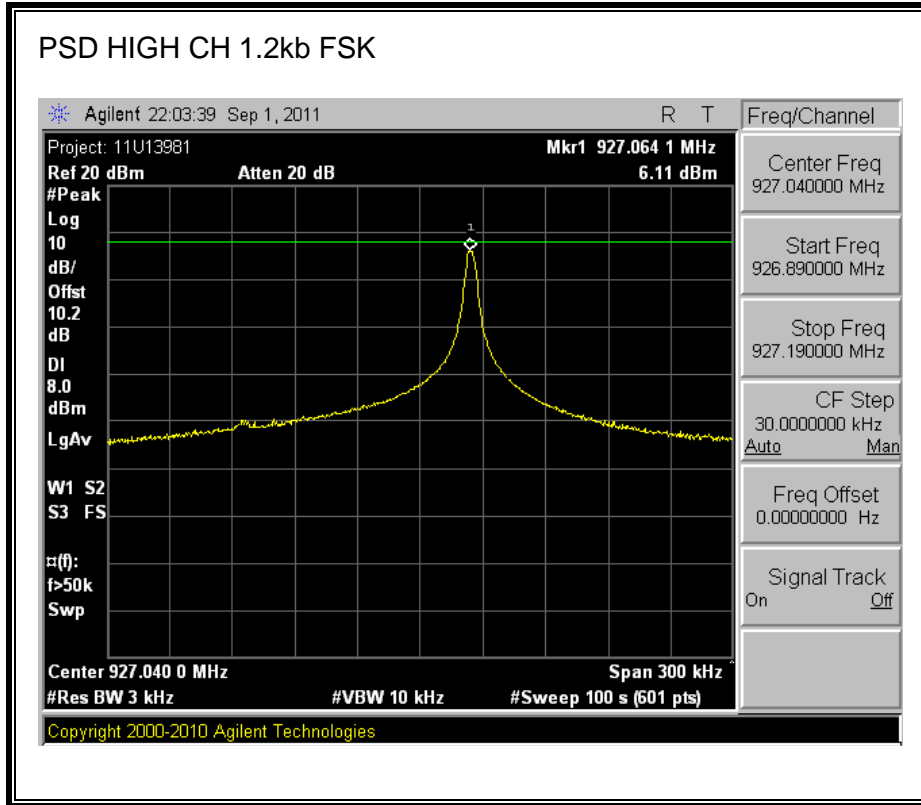


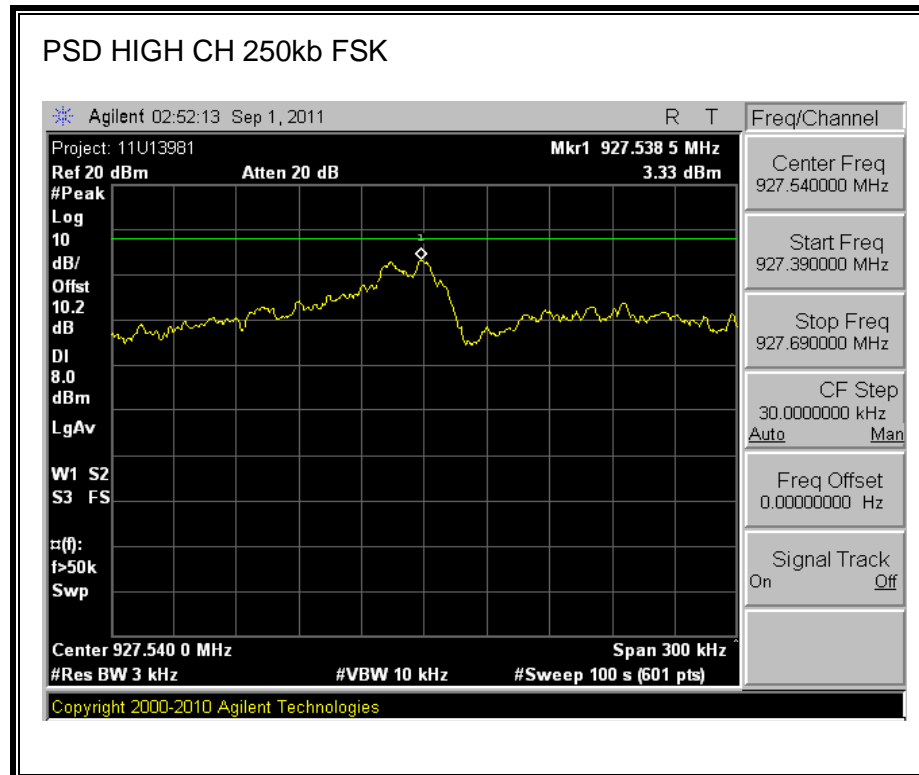
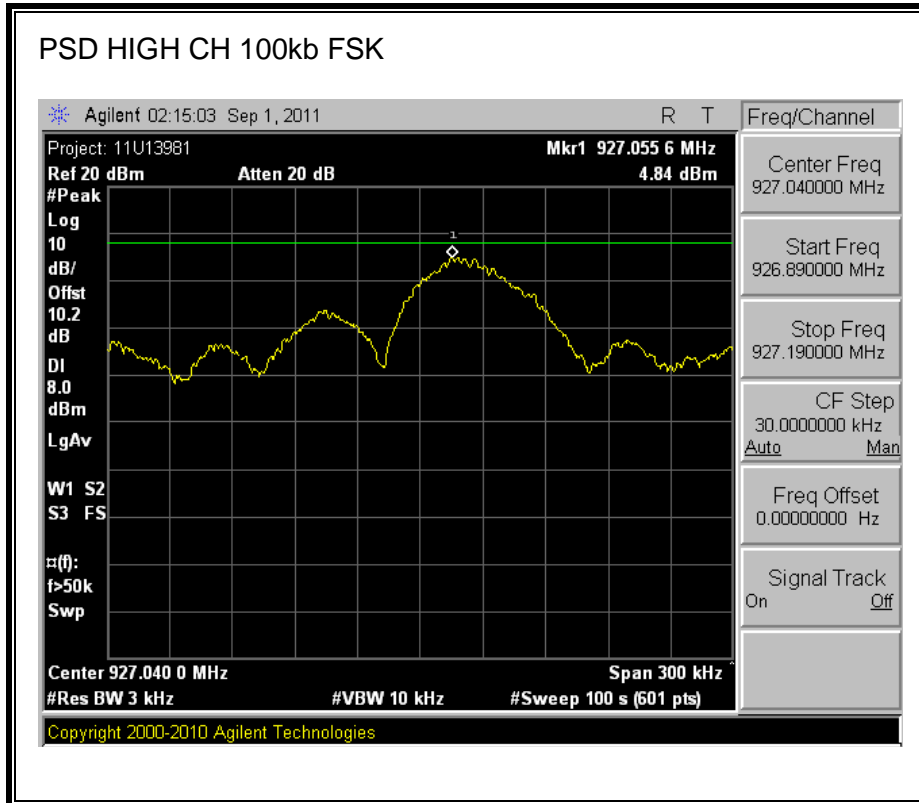


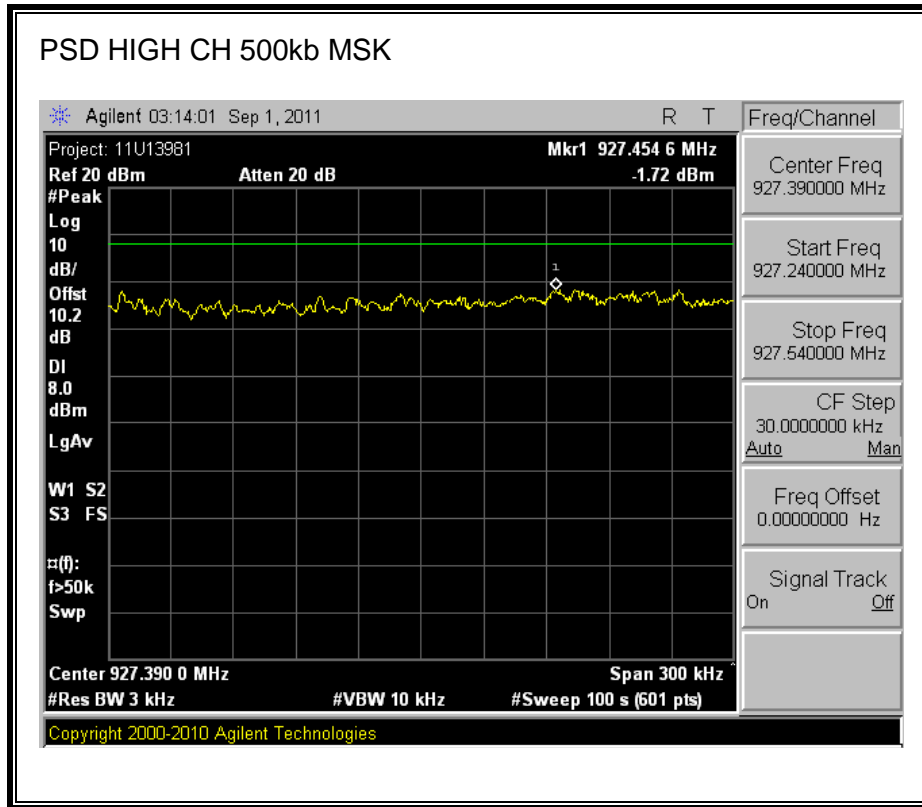












## 7.6 CONDUCTED SPURIOUS EMISSIONS

### LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

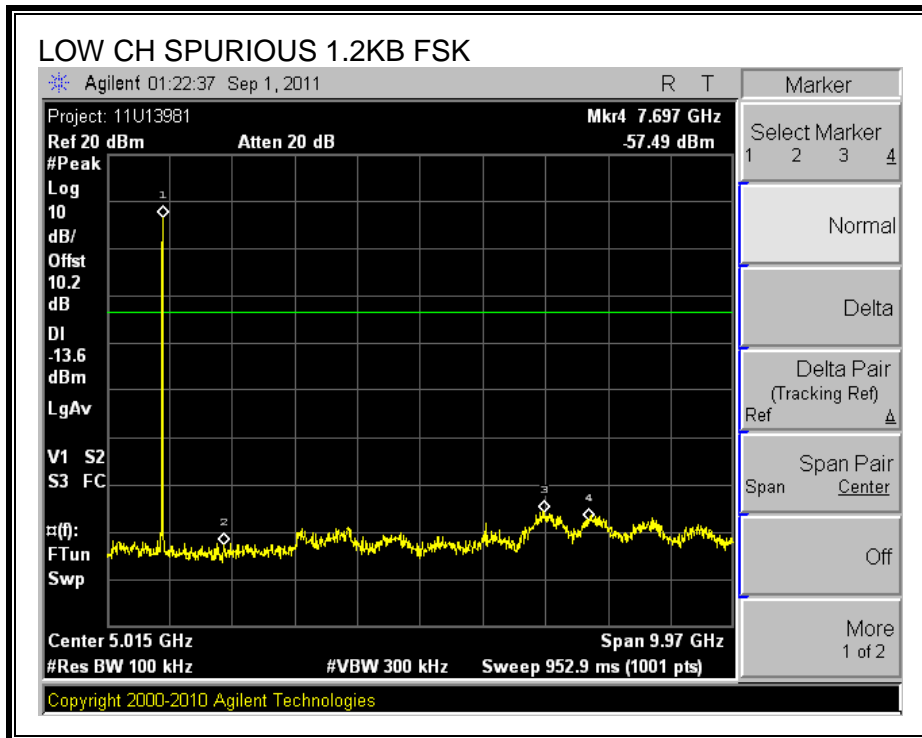
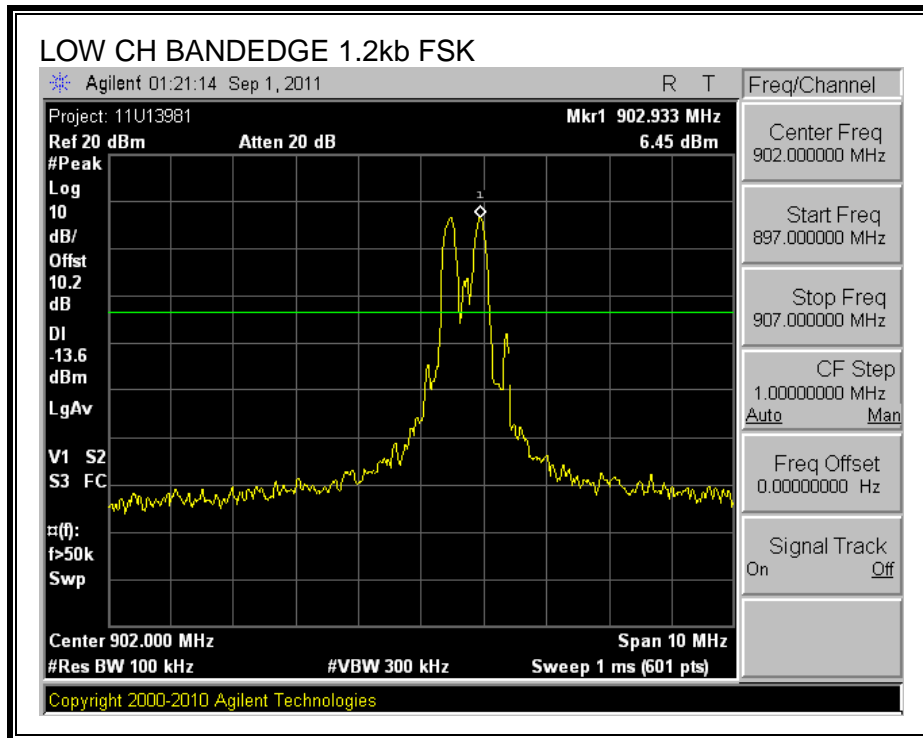
### TEST PROCEDURE

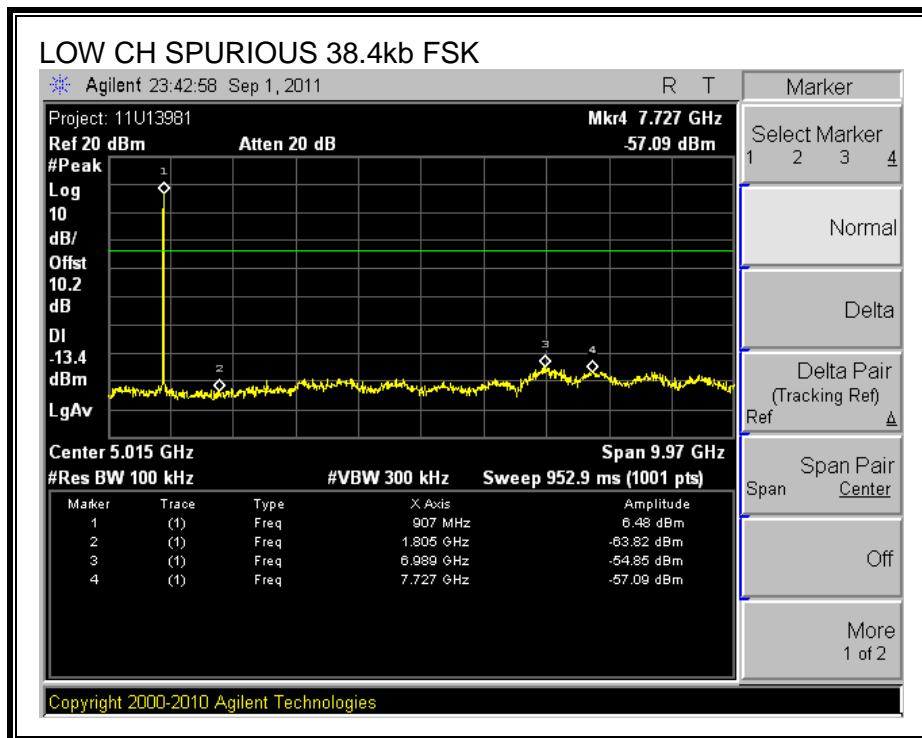
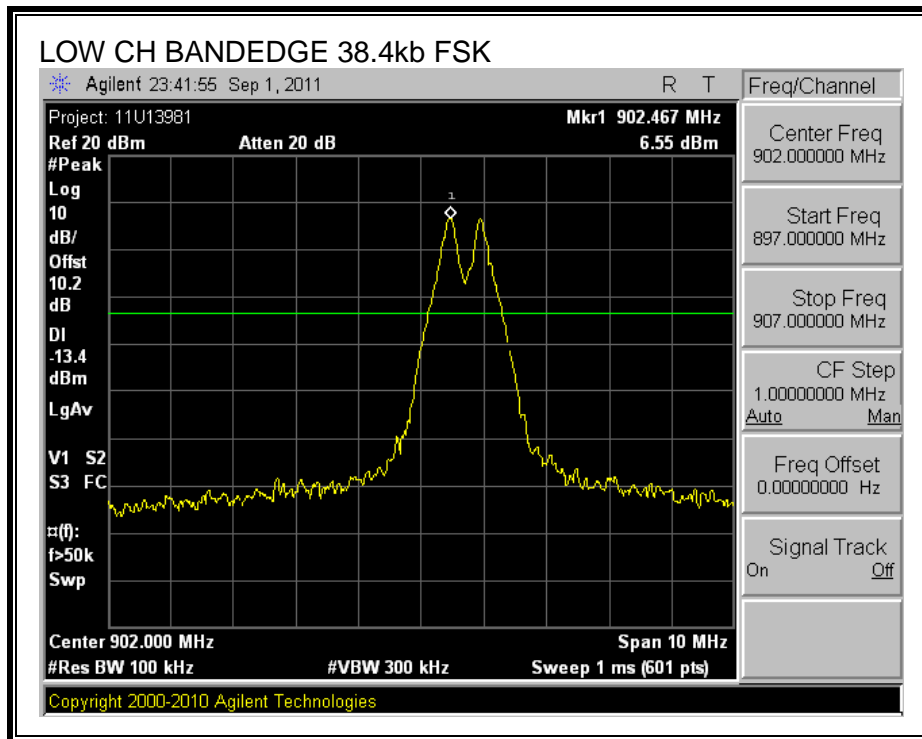
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 10 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

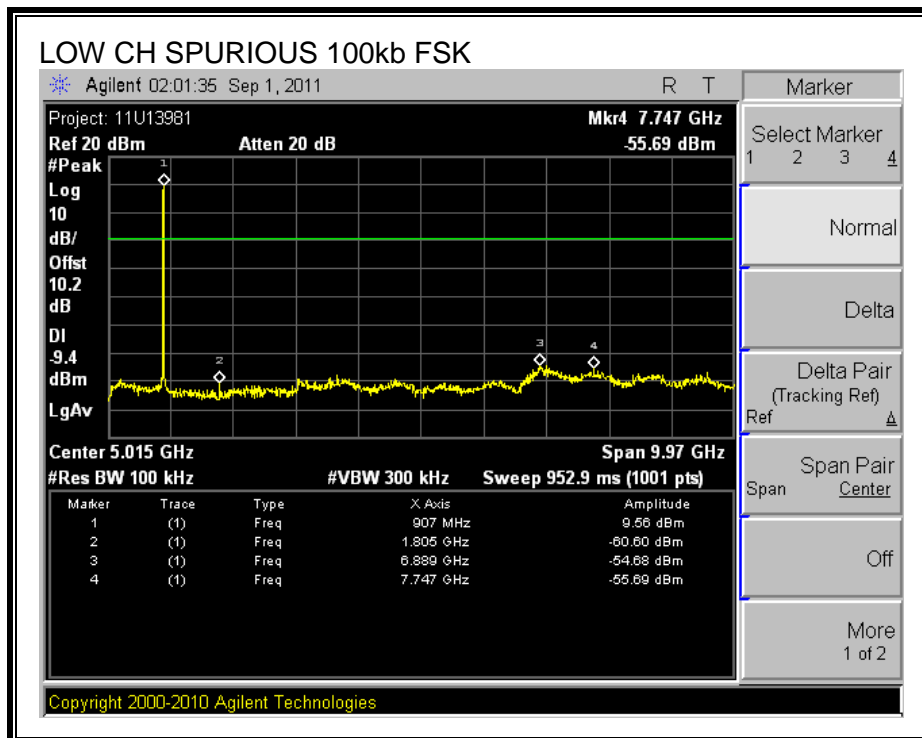
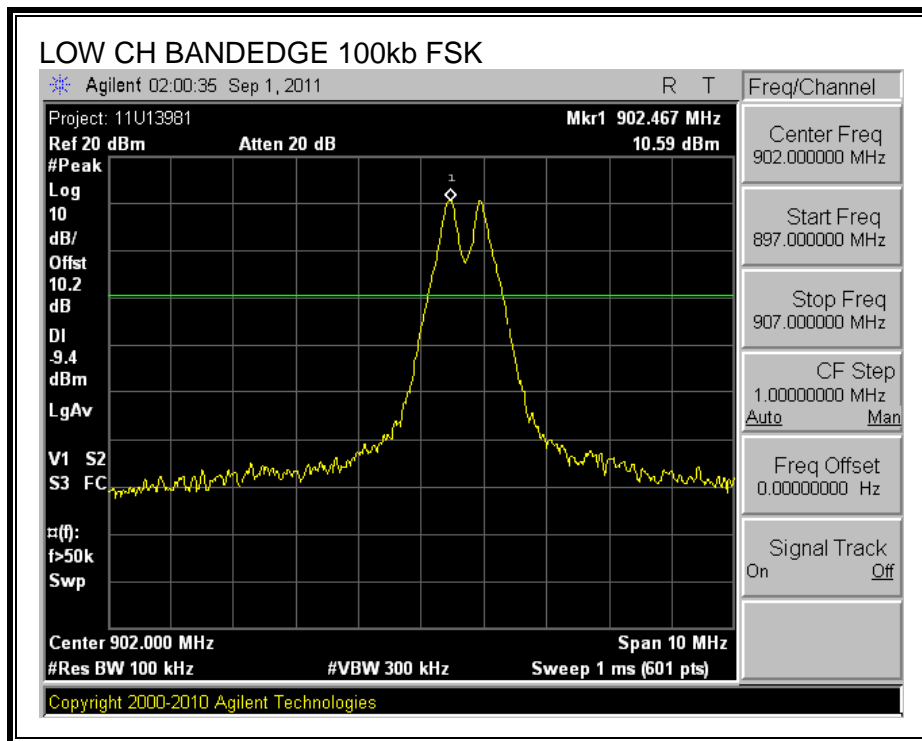
**RESULTS**

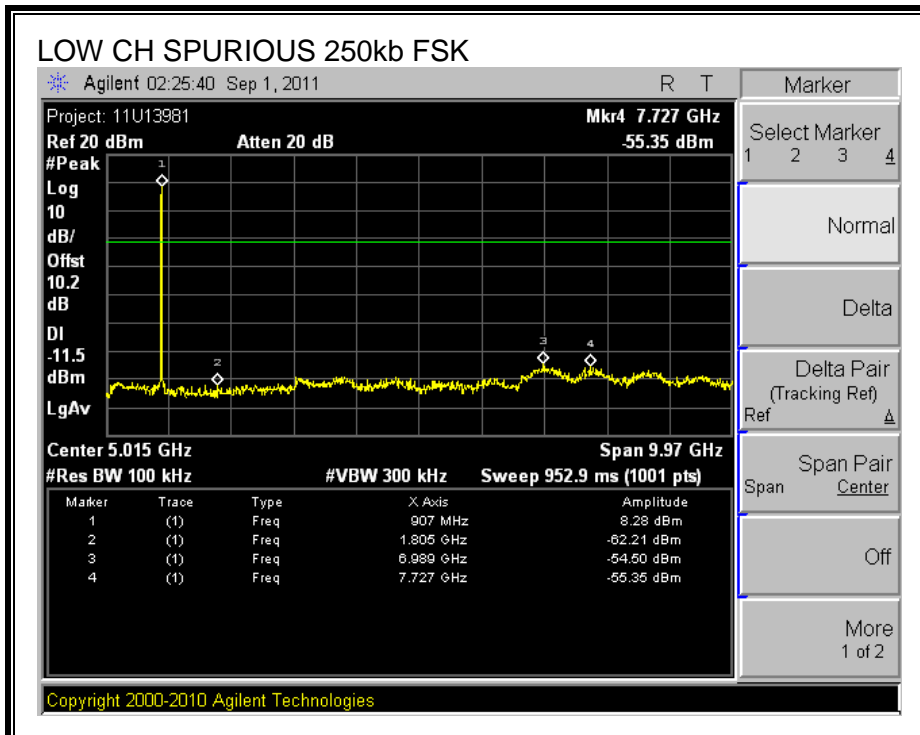
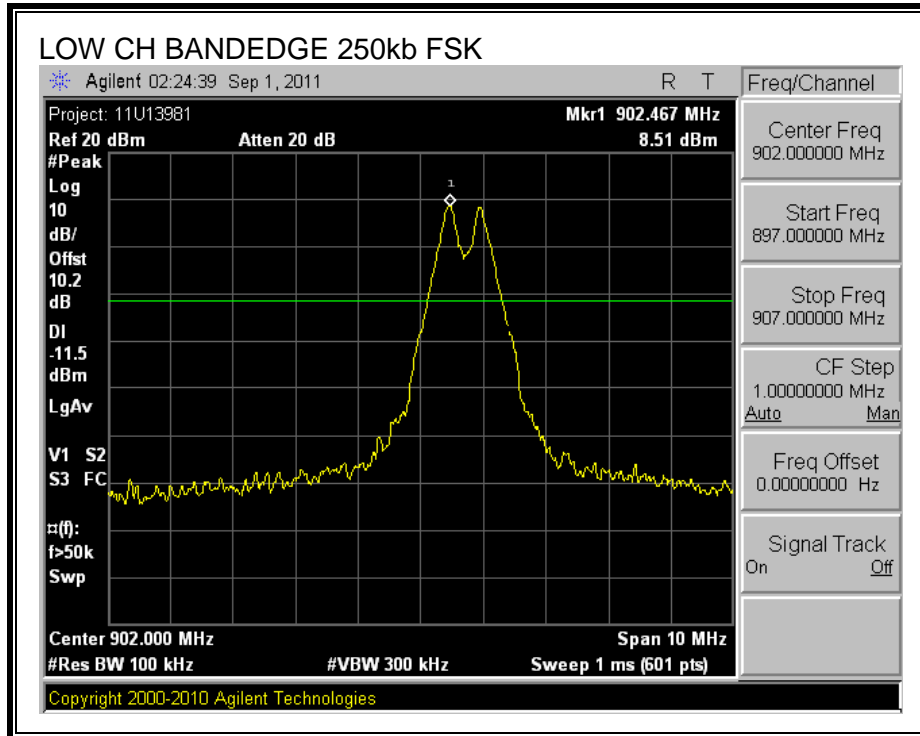
**SPURIOUS EMISSIONS, LOW CHANNEL**

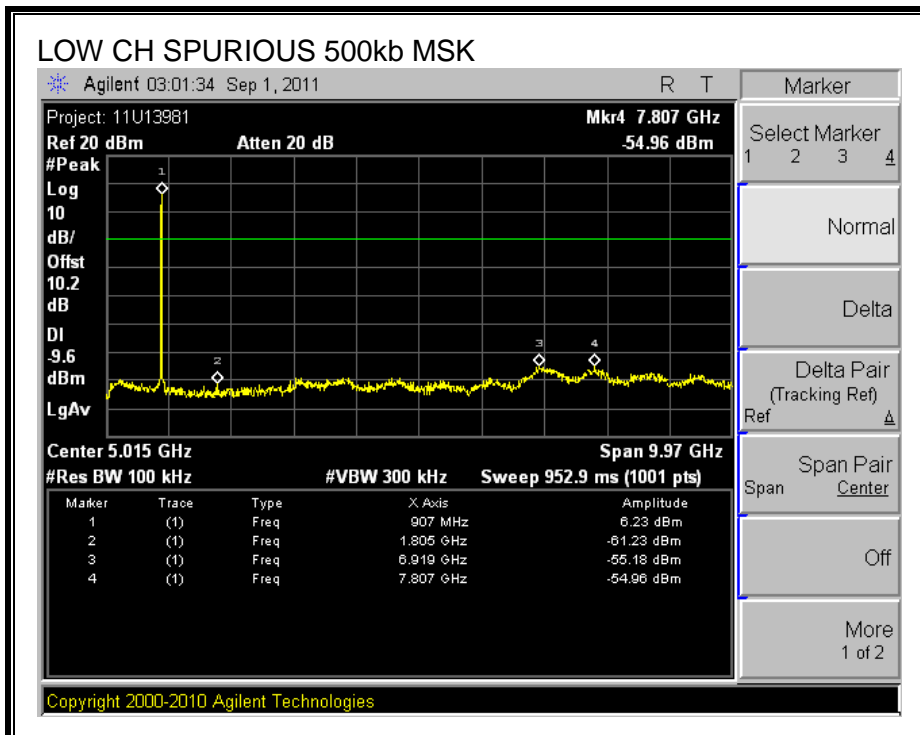
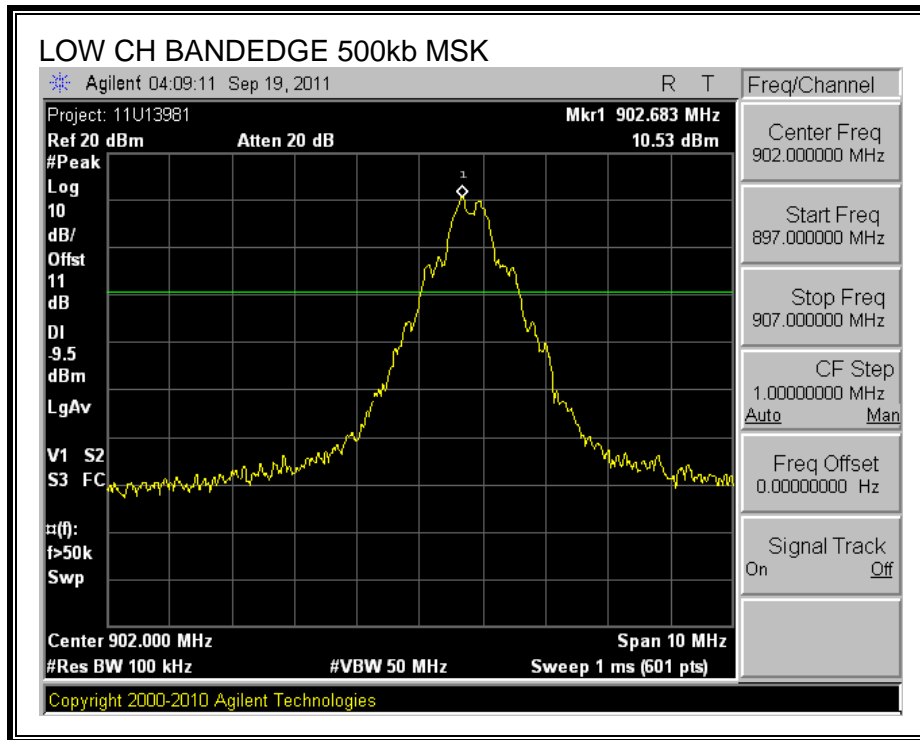




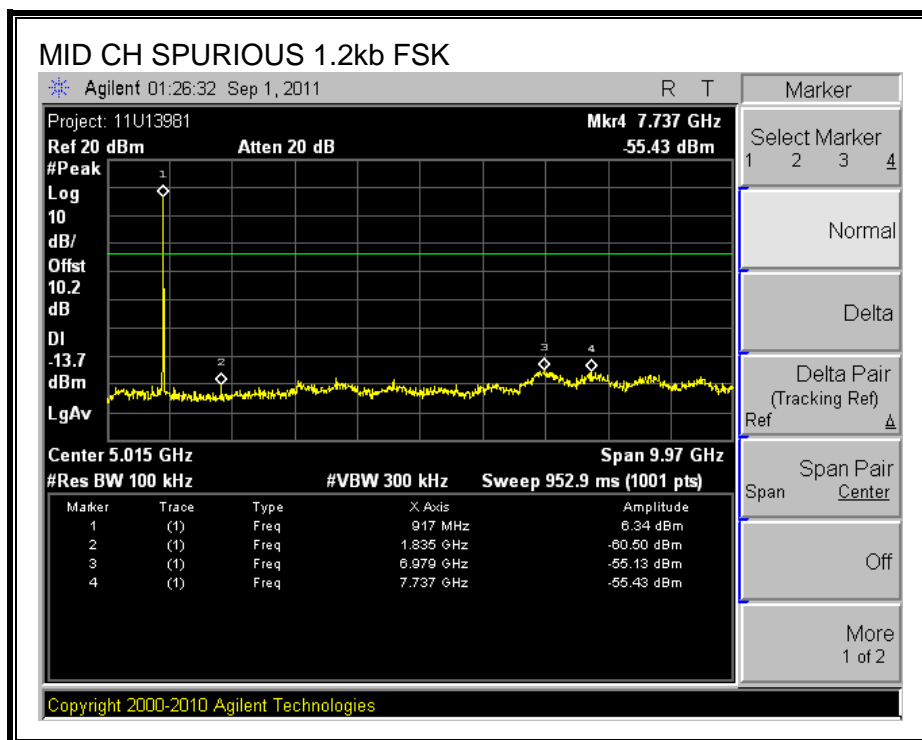
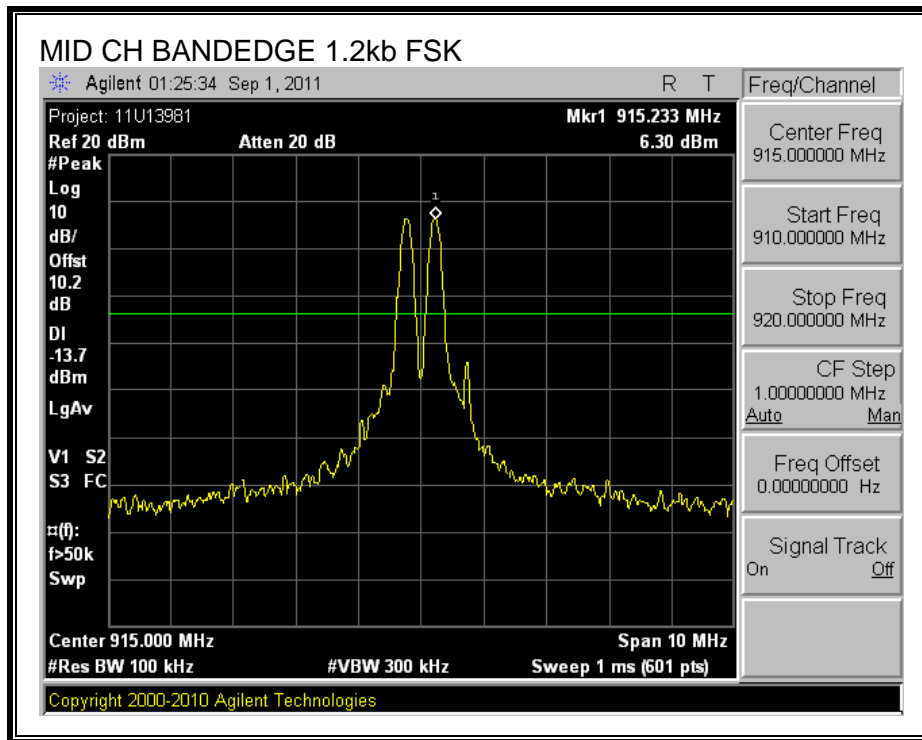


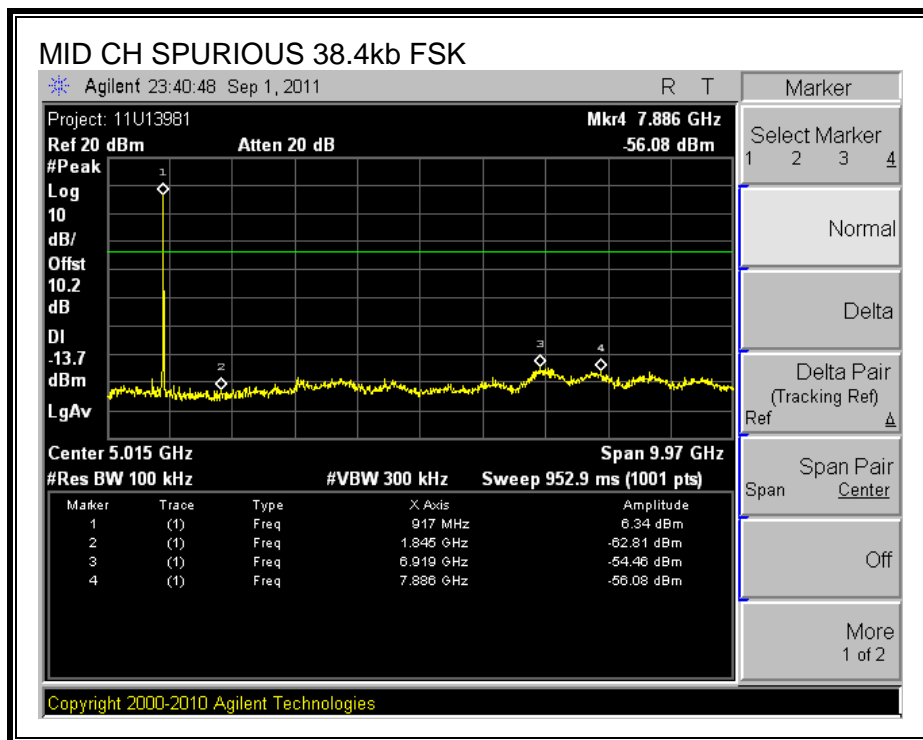
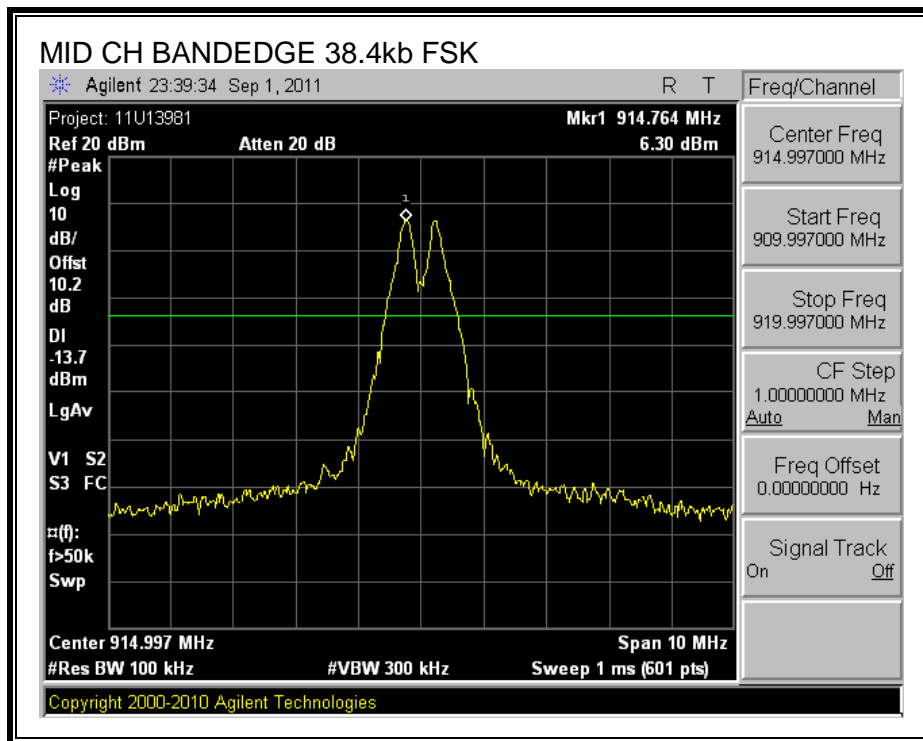


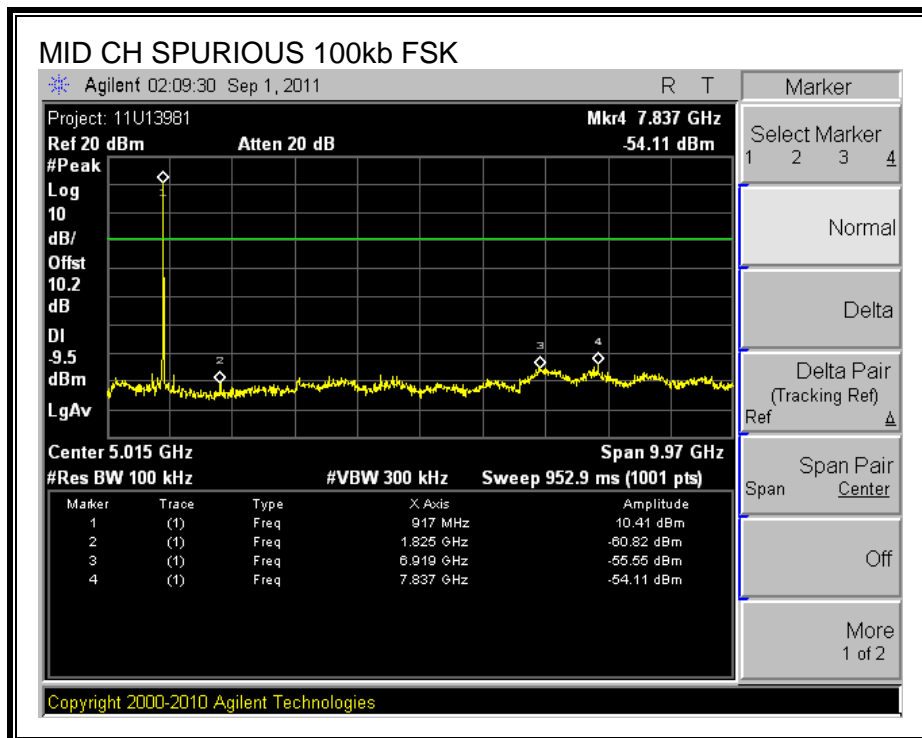
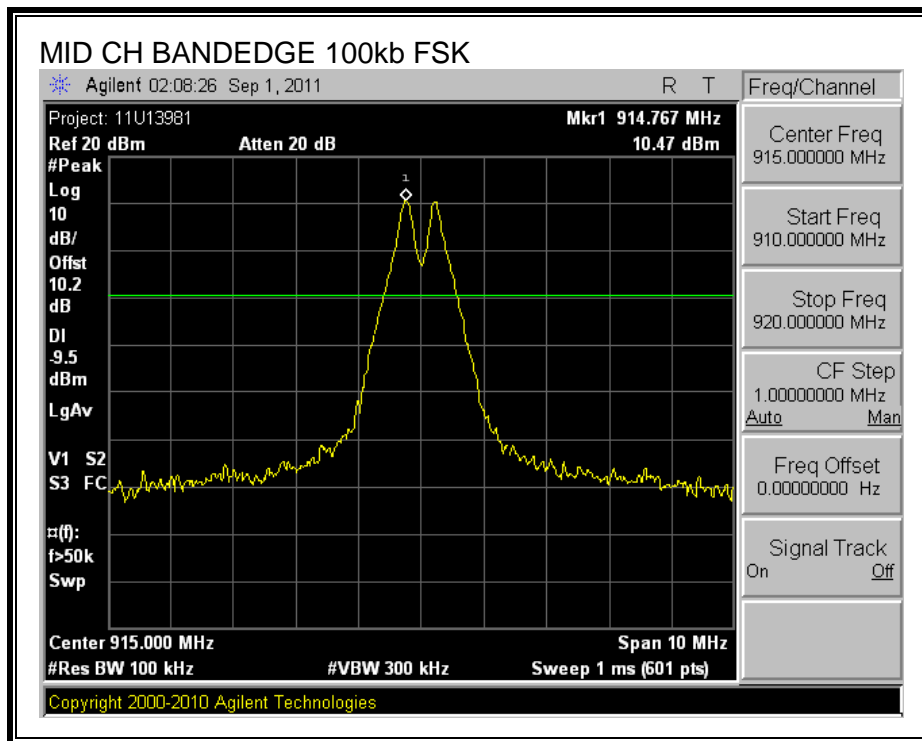


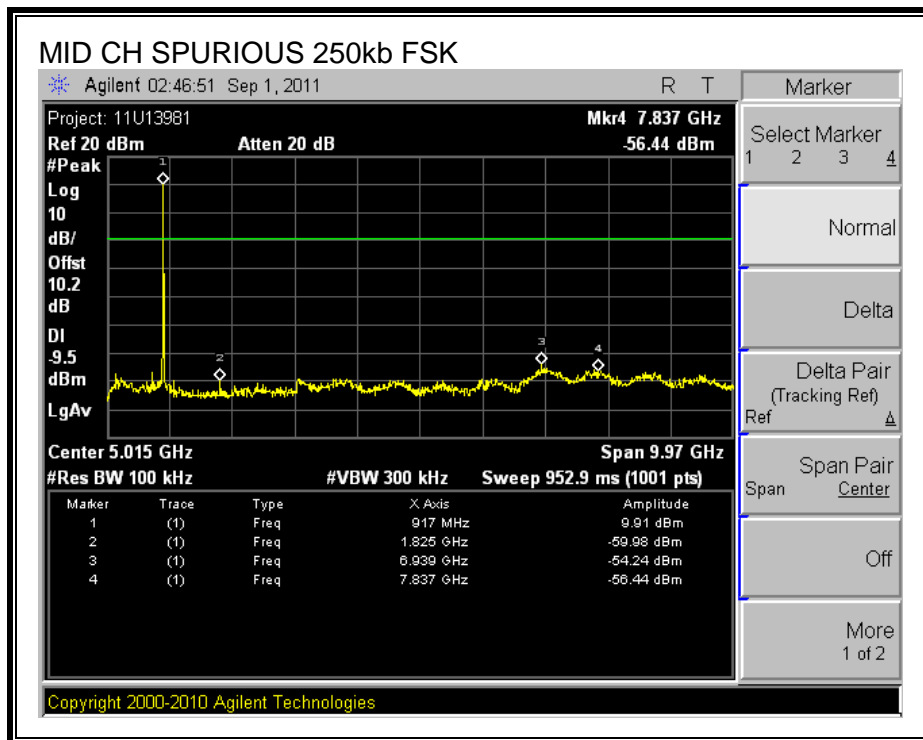
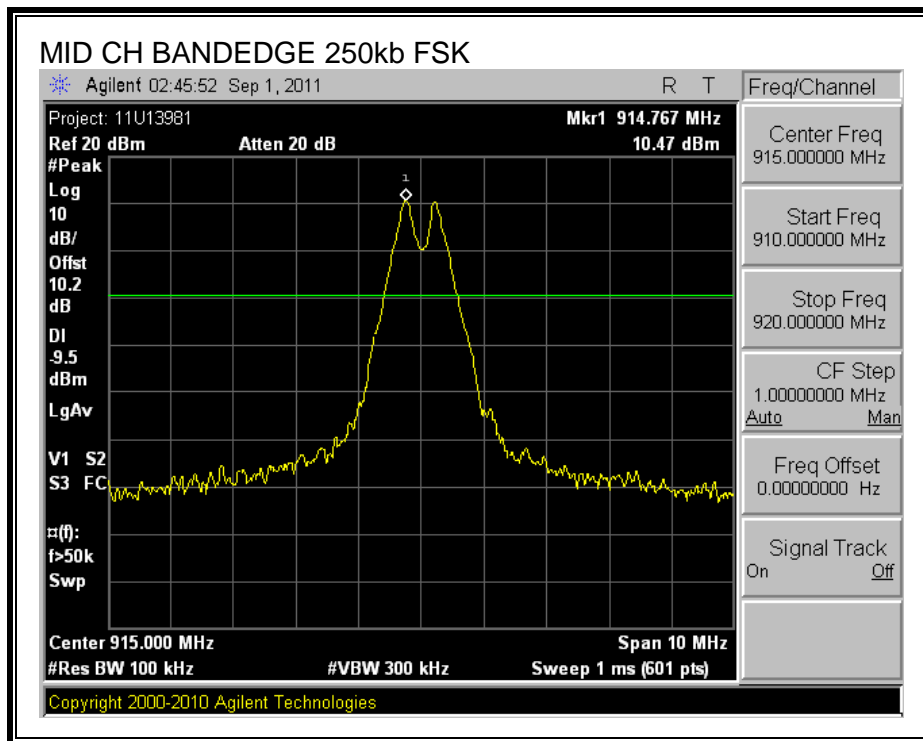


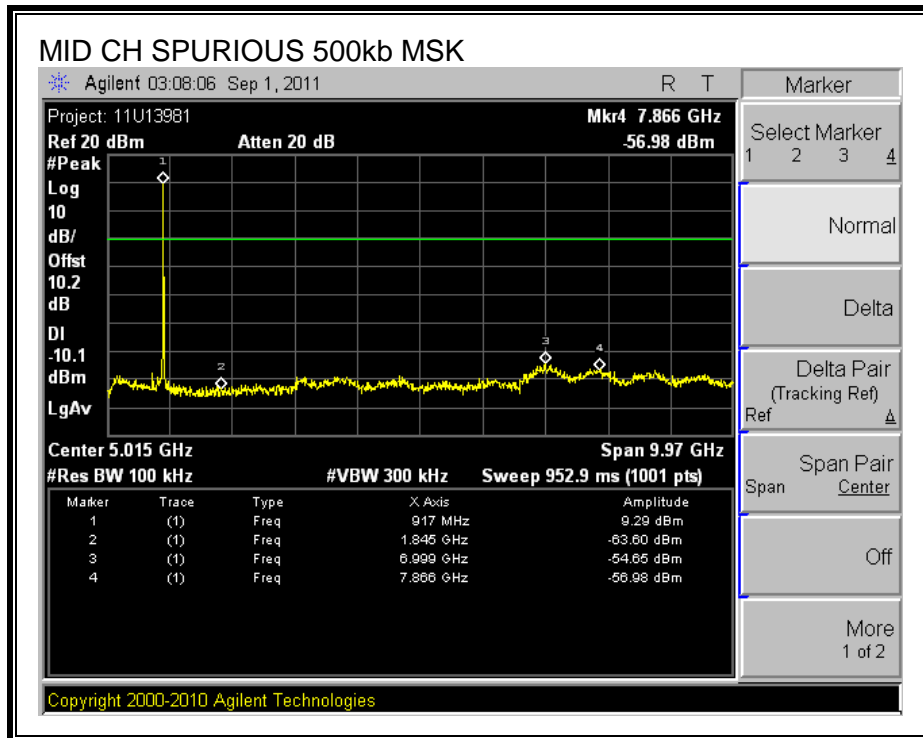
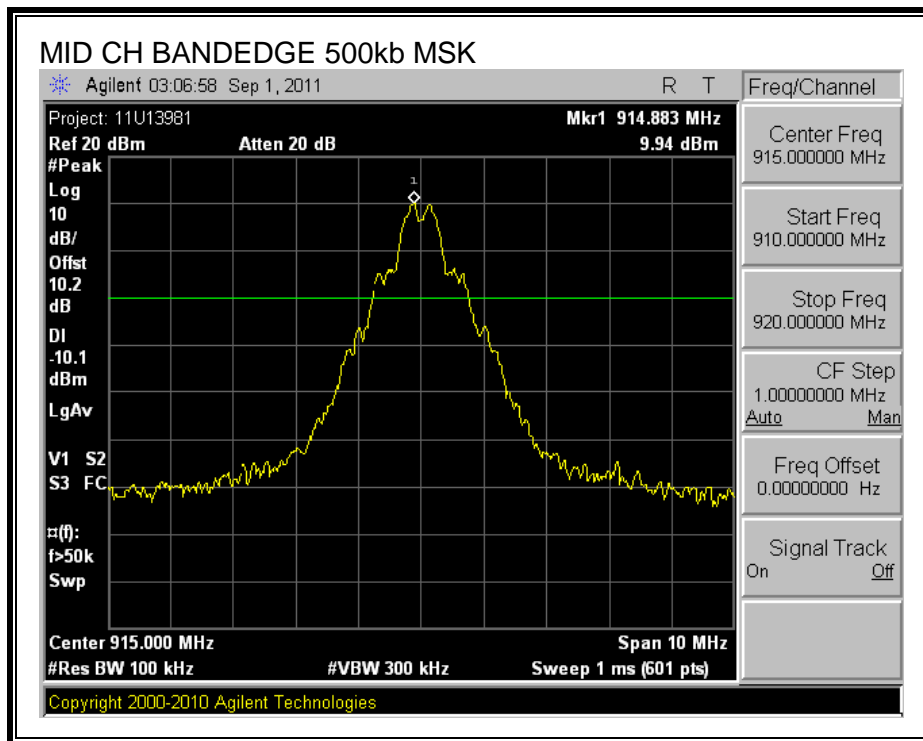
**SPURIOUS EMISSIONS, MID CHANNEL**





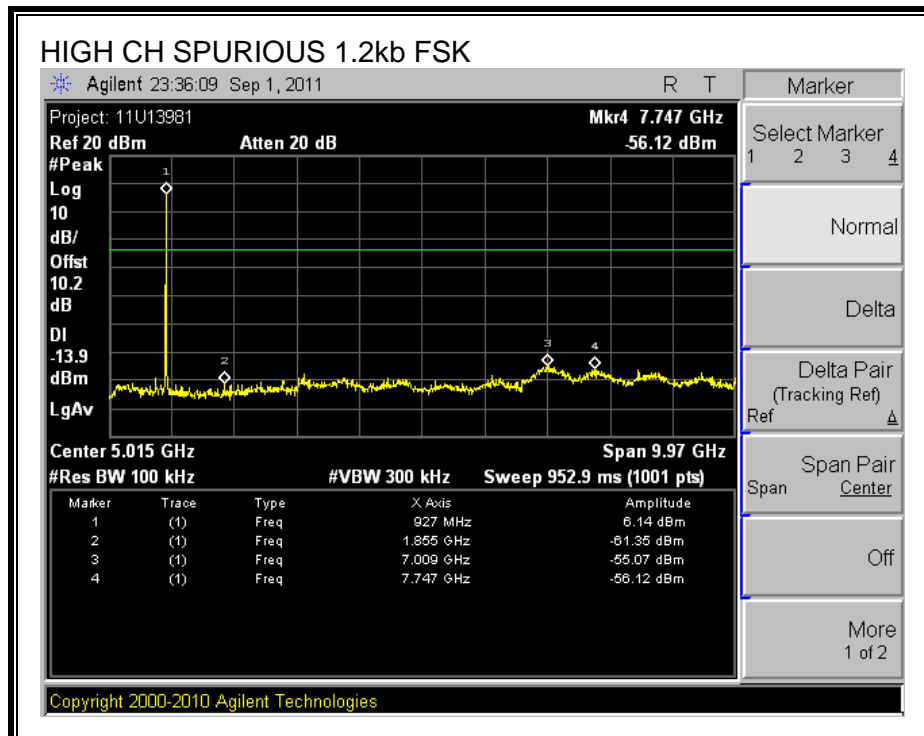
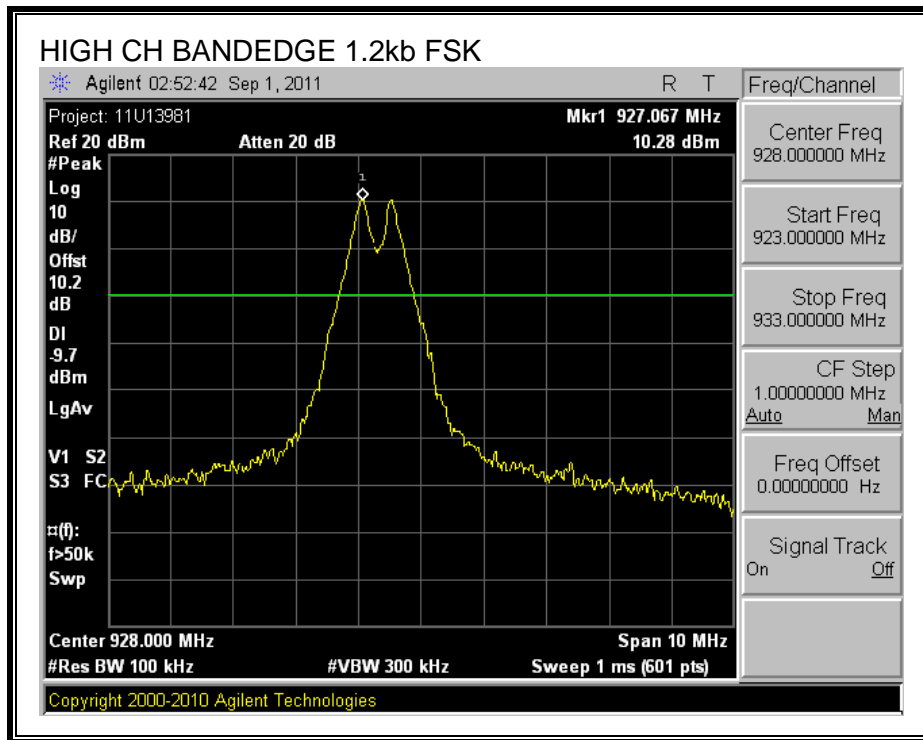


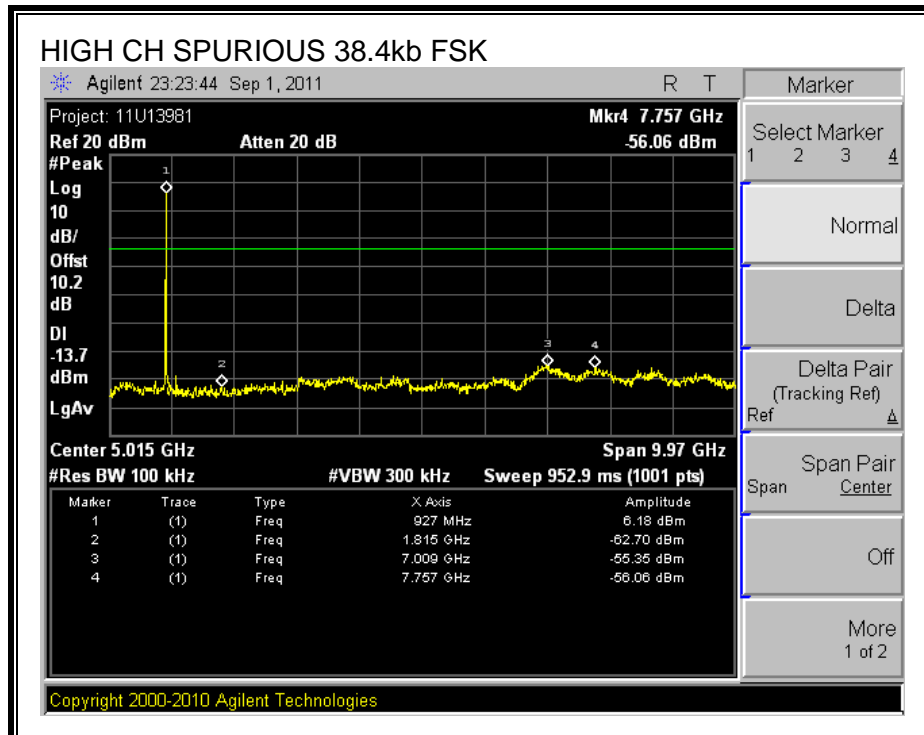
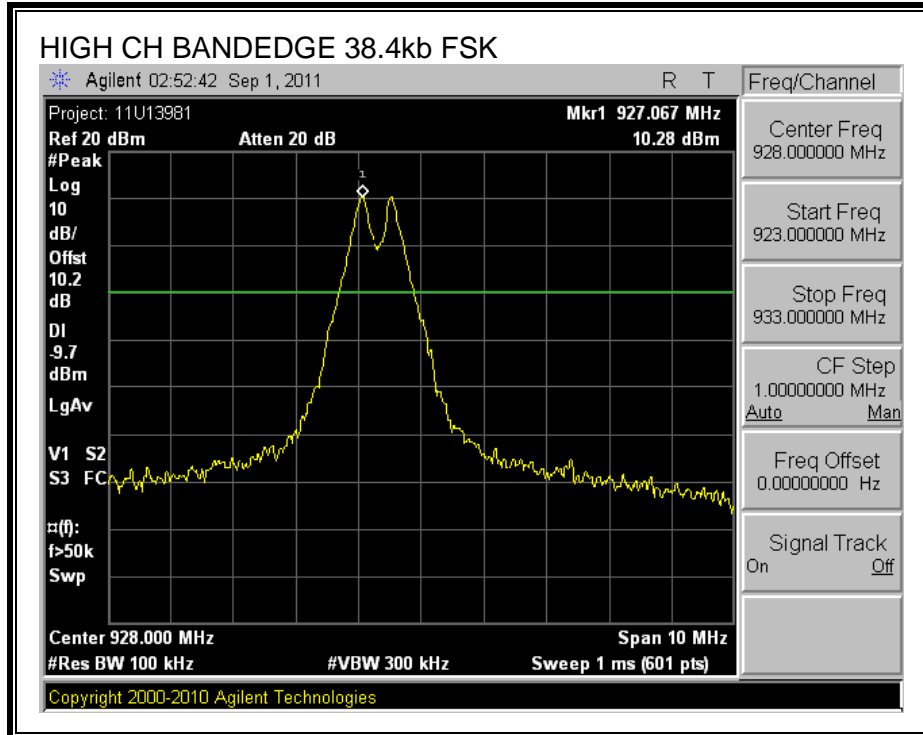


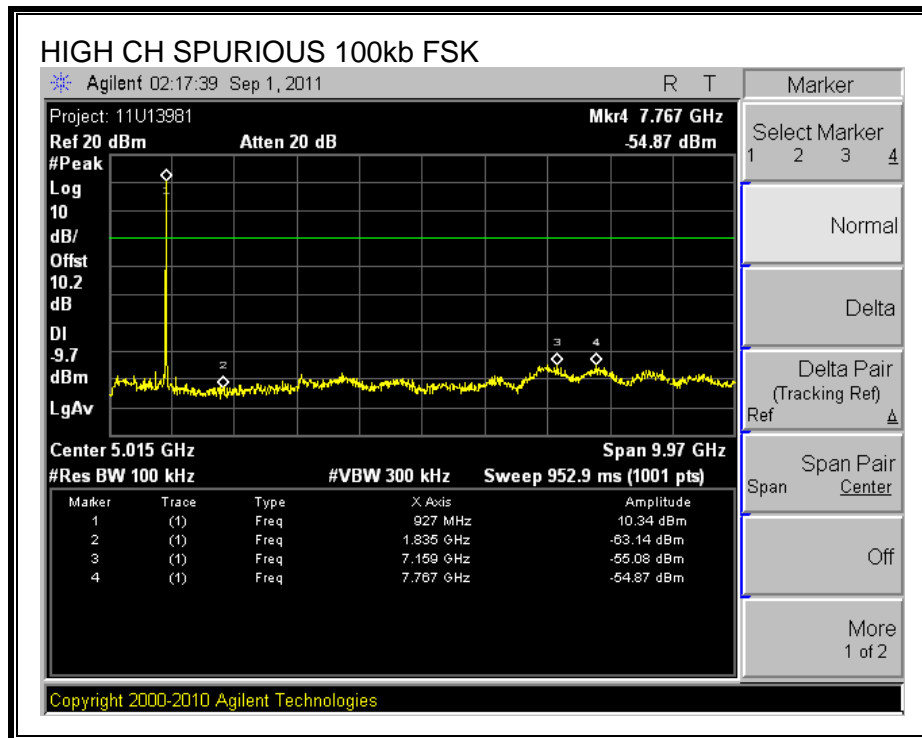
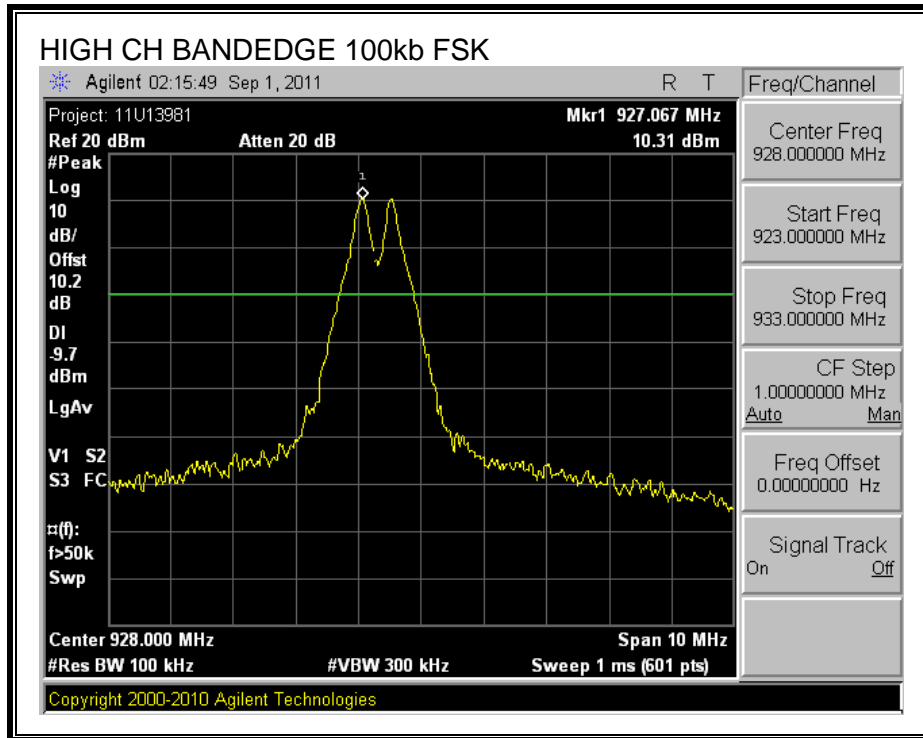


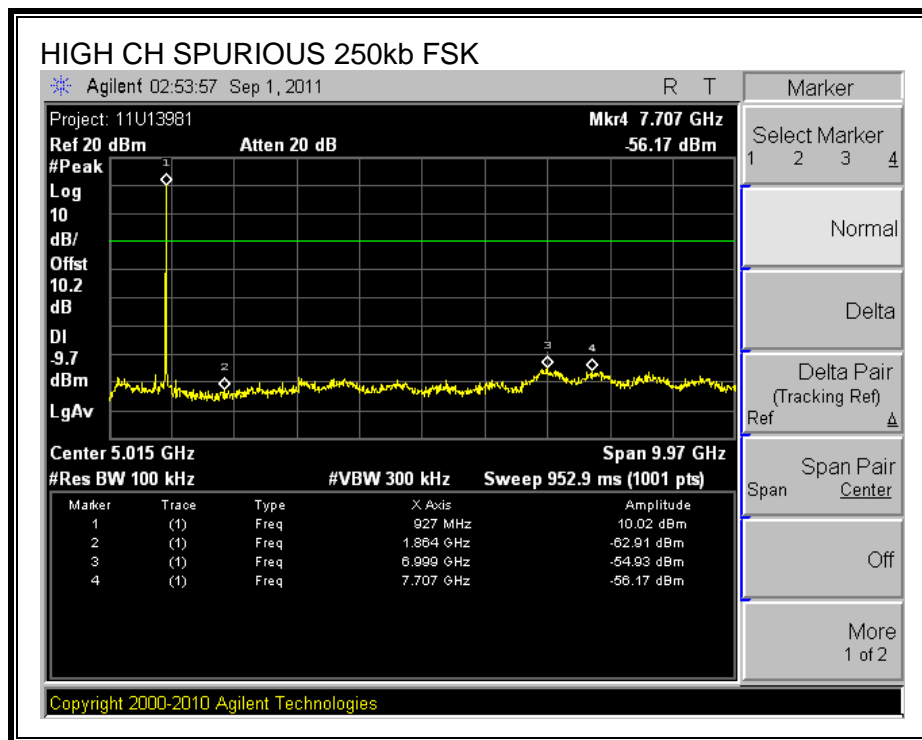
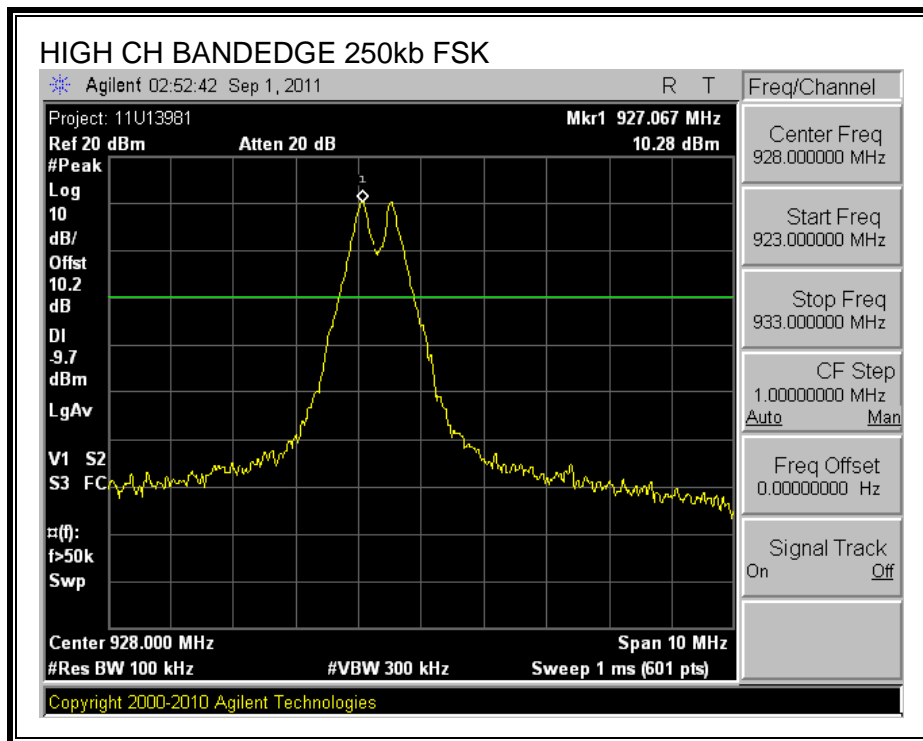


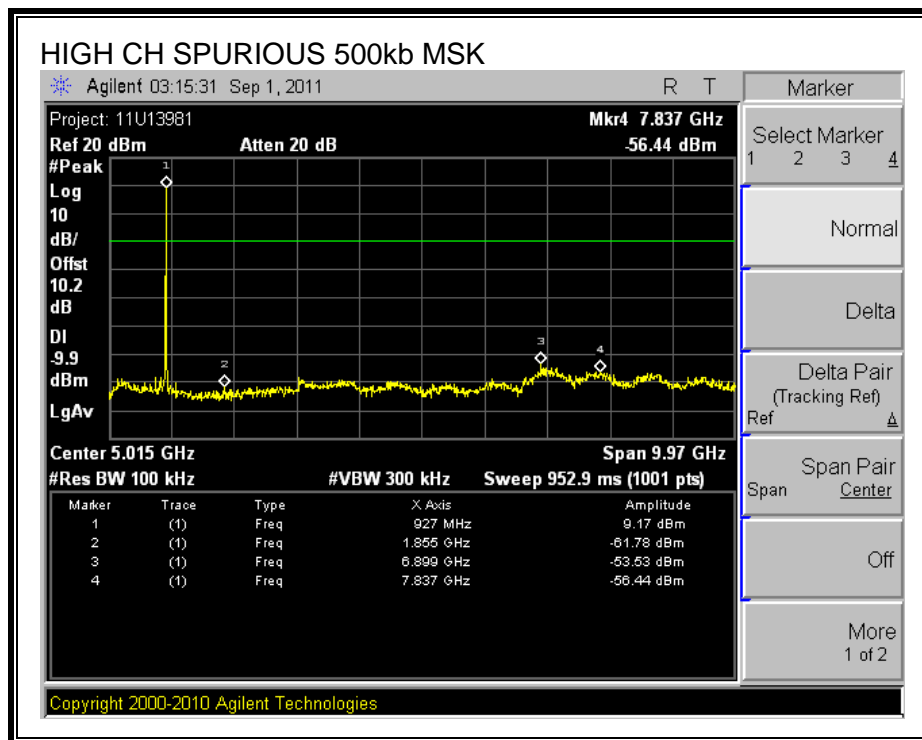
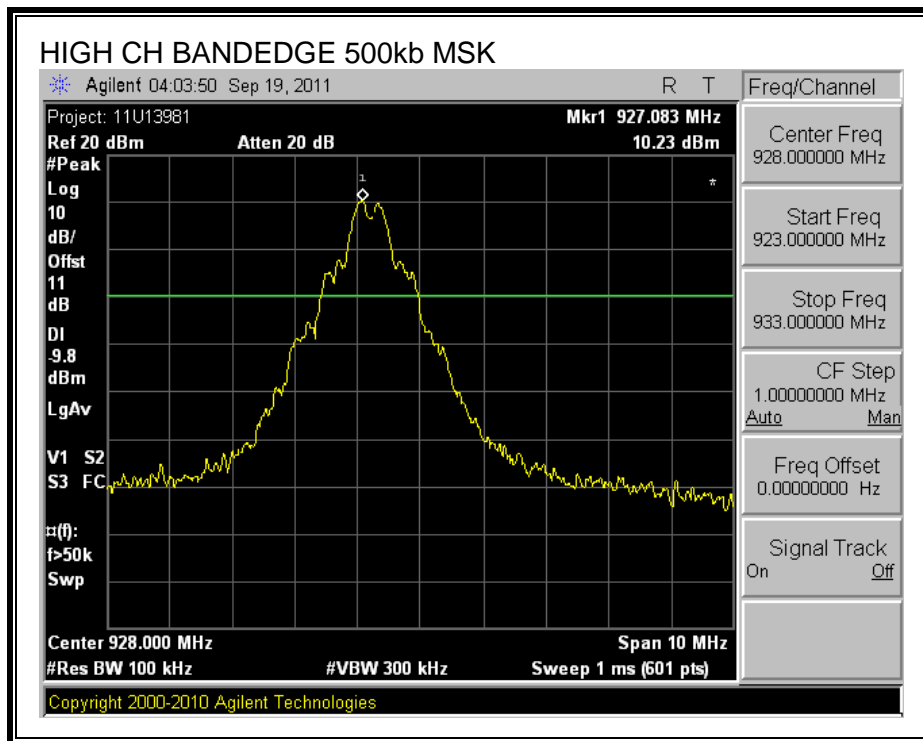
**SPURIOUS EMISSIONS, HIGH CHANNEL**











## 8. RADIATED TEST RESULTS

### 8.1. LIMITS AND PROCEDURE

#### LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

#### TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4:2003. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

The spectrum from 30 MHz to 10 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 902-928MHz band.

The spectrum from 30 MHz to 10 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

## 8.2 TRANSMITTER ABOVE 1 GHz

Anaren												
Module Transceiver XMT Mode												
Model: A1101L09C 902MHz												
Job: 11U13981 USB Power												
Tested By: JD Low Channel												
Horizontal 4000 - 8000MHz												
Test Frequency	Meter Reading	Detector	3161-03_Horz_27Sept08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
6886.32	37.24	LgAv	27.8	-51.75	13.29	54	-40.71	74	-60.71	72	180	Horz
7747	36.54	LgAv	28.5	-51.32	13.72	54	-40.28	74	-60.28	284	109	Horz
Vertical 4000 - 8000MHz												
Test Frequency	Meter Reading	Detector	3161-03_Vert_27Sept08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
6889	37.27	LgAv	27.8	-51.8	13.27	54	-40.73	74	-60.73	215	132	Vert
PK - Peak detector												
QP - Quasi-Peak detector												
LnAv - Linear Average detector												
LgAv - Log Average detector												
Av - Average detector												
CAV - CISPR Average detector												
RMS - RMS detection												
CRMS - CISPR RMS detection												

Anaren												
Module Transceiver XMT Mode												
Model: A1101L09C 915MHz												
Job: 11U13981 USB Power												
Tested By: JD Mid Channel												
Horizontal 4000 - 8000MHz												
Test Frequency	Meter Reading	Detector	3161-03_Horz_27Sept08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
4576.3	51.72	LgAv	27.3	-52.46	26.56	54	-27.44	74	-47.44	154	257	Horz
6919	45.78	LgAv	27.8	-51.94	21.64	54	-32.36	74	-52.36	230	200	Horz
7837	44.77	LgAv	28.7	-50.44	23.03	54	-30.97	74	-50.97	201	313	Horz
7321.79	56.46	LgAv	28	-51.87	32.59	54	-21.41	74	-41.41	98	268	Horz
Horizontal 8000 - 10000MHz												
Test Frequency	Meter Reading	Detector	3160-07_Horz_8-12_4GHz [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
8236.96	55.78	LgAv	33.2	-50.82	38.16	54	-15.84	74	-35.84	112	176	Horz
9147.56	52.99	LgAv	33.3	-49.98	36.31	54	-17.69	74	-37.69	253	163	Horz

PK - Peak detector	
QP - Quasi-Peak detector	
LnAv - Linear Average detector	
LgAv - Log Average detector	
Av - Average detector	
CAV - CISPR Average detector	
RMS - RMS detection	
CRMS - CISPR RMS detection	



Vertical 2000 - 4000MHz												
Test Frequency	Meter Reading	Detector	3161-02_Vert_27Sept08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
2744.32	51.5	LgAv	21.3	-42.48	30.32	54	-23.68	74	-43.68	206	149	Vert
Vertical 4000 - 8000MHz												
Test Frequency	Meter Reading	Detector	3161-03_Vert_27Sept08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
4573.86	51.76	LgAv	27.1	-52.51	26.35	54	-27.65	74	-47.65	194	188	Vert
7318.17	56.05	LgAv	27.9	-51.91	32.04	54	-21.96	74	-41.96	166	392	Vert
6919	45.59	LgAv	27.8	-51.94	21.45	54	-32.55	74	-52.55	172	177	Vert
7837	45.46	LgAv	29.1	-50.44	24.12	54	-29.88	74	-49.88	290	163	Vert
Vertical 8000 - 10000MHz												
Test Frequency	Meter Reading	Detector	8-12_4GHz_3160-07_Vert [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
8236.95	49.74	LgAv	33.3	-50.82	32.22	54	-21.78	74	-41.78	349	144	Vert
9147.68	53.21	LgAv	33.3	-49.99	36.52	54	-17.48	74	-37.48	138	113	Vert
PK - Peak detector												
QP - Quasi-Peak detector												
LnAv - Linear Average detector												
LgAv - Log Average detector												
Av - Average detector												
CAV - CISPR Average detector												
RMS - RMS detection												
CRMS - CISPR RMS detection												

Anaren												
Module Transceiver XMT Mode												
Model: A1101L09C 927MHz												
Job: 11U13981 USB Power												
Tested By: JD High Channel												
Horizontal 4000 - 8000MHz												
Test Frequency	Meter Reading	Detector	3161-03_Horz_27Sept08 [dB]	BOM S Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
4637.57	49.1	LgAv	27.3	-52.17	24.23	54	-29.77	74	-49.77	238	195	Horz
7416.49	55.65	LgAv	28.1	-51.14	32.61	54	-21.39	74	-41.39	91	335	Horz
7159	45.51	LgAv	27.9	-51.45	21.96	54	-32.04	74	-52.04	53	111	Horz
7767	44.96	LgAv	28.5	-50.9	22.56	54	-31.44	74	-51.44	138	130	Horz
Horizontal 8000 - 10000MHz												
Test Frequency	Meter Reading	Detector	3160-07_Horz_8-12_4GHz [dB]	BOM S Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
8343.585	53.66	LgAv	33.2	-51.55	35.31	54	-18.69	74	-38.69	142	112	Horz
Vertical 2000 - 4000MHz												
Test Frequency	Meter Reading	Detector	3161-02_Vert_27Sept08 [dB]	BOM S Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
2782.63	51.78	LgAv	21.6	-42.43	30.95	54	-23.05	74	-43.05	184	168	Vert
Vertical 4000 - 8000MHz												
Test Frequency	Meter Reading	Detector	3161-03_Vert_27Sept08 [dB]	BOM S Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
4635.37	51.59	LgAv	27	-52.21	26.38	54	-27.62	74	-47.62	183	242	Vert
7416.56	57.79	LgAv	28	-51.14	34.65	54	-19.35	74	-39.35	153	400	Vert
7159	45.26	LgAv	27.9	-51.45	21.71	54	-32.29	74	-52.29	4	179	Vert
7767	44.97	LgAv	28.9	-50.9	22.97	54	-31.03	74	-51.03	110	163	Vert
Vertical 8000 - 10000MHz												
Test Frequency	Meter Reading	Detector	8-12_4GHz_3160-07_Vert [dB]	BOM S Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
8343.63	50.79	LgAv	33.3	-51.54	32.55	54	-21.45	74	-41.45	276	314	Vert
PK - Peak detector												
QP - Quasi-Peak detector												
LnAv - Linear Average detector												
LgAv - Log Average detector												
Av - Average detector												
CAV - CISPR Average detector												
RMS - RMS detection												

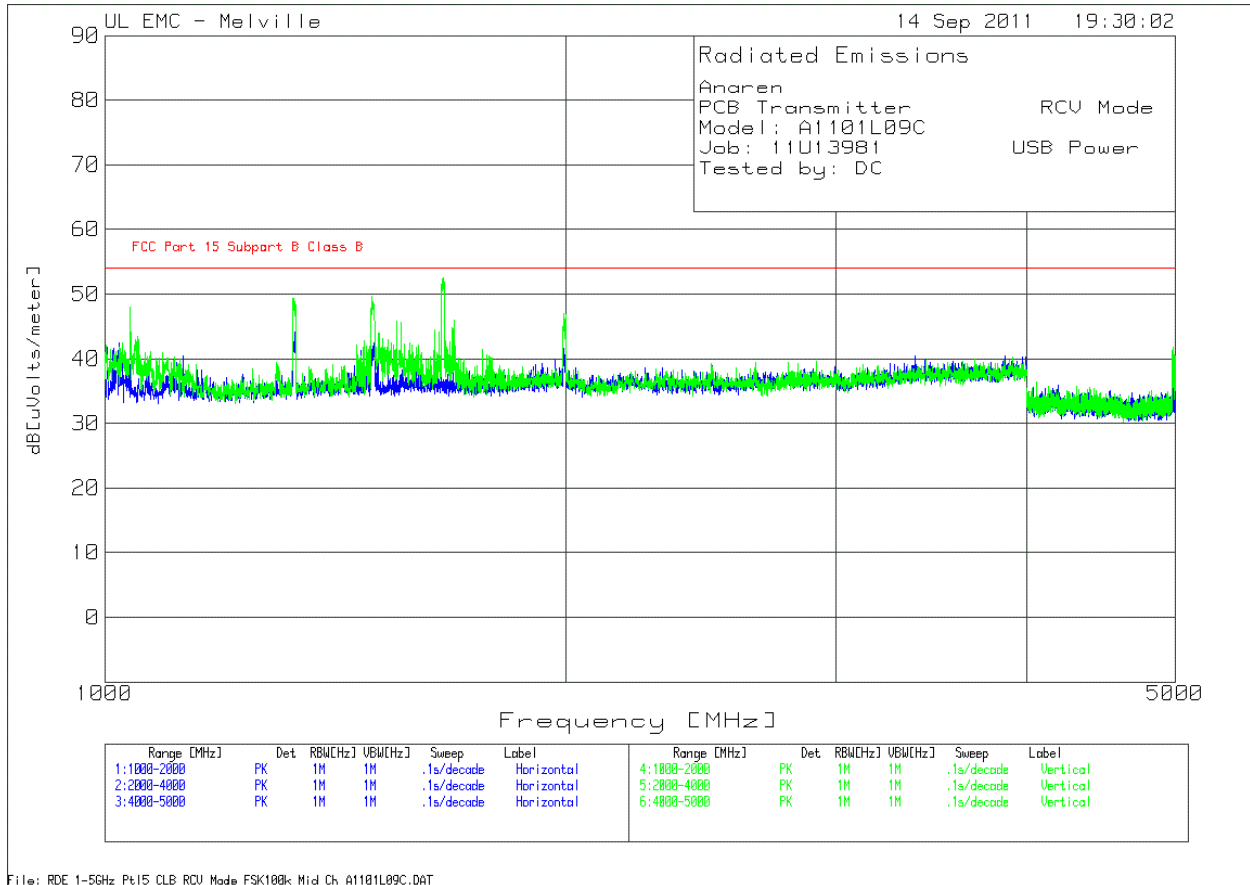
Anaren												
PCB Transmitter XMT Mode												
Model: A1101L09A PCB 902MHz												
Job: 11U13981 USB Power												
Tested By: AA FSK 100kB Low												
Horizontal 4000 - 8000MHz												
Test Frequency	Meter Reading	Detector	3161-03_Horz_27Sept08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
5417.52	58.74	LgAv	27.3	-52.65	33.39	54	-20.61	74	-40.61	288	376	Horz
6886.32	45.76	LgAv	27.8	-51.75	21.81	54	-32.19	74	-52.19	218	181	Horz
7747	44.51	LgAv	28.5	-51.32	21.69	54	-32.31	74	-52.31	114	315	Horz
Horizontal 8000 - 10000MHz												
Test Frequency	Meter Reading	Detector	3160-07_Horz_8-12_4GHz [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
8122.167	56.73	LgAv	33.1	-50.46	39.37	54	-14.63	74	-34.63	284	236	Horz
Vertical 4000 - 8000MHz												
Test Frequency	Meter Reading	Detector	3161-03_Vert_27Sept08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
5414.752	50.66	LgAv	27.5	-52.63	25.53	54	-28.47	74	-48.47	286	184	Horz
6889	45.84	LgAv	27.8	-51.8	21.84	54	-32.16	74	-52.16	157	121	Vert
7747	44.79	LgAv	28.7	-51.32	22.17	54	-31.83	74	-51.83	321	332	Vert
Vertical 8000 - 10000MHz												
Test Frequency	Meter Reading	Detector	8-12_4GHz_3160-07_Vert [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
8126.24	52.09	LgAv	33.2	-50.55	34.74	54	-19.26	74	-39.26	281	164	Vert
PK - Peak detector												
QP - Quasi-Peak detector												
LnAv - Linear Average detector												
LgAv - Log Average detector												
Av - Average detector												
CAV - CISPR Average detector												
RMS - RMS detection												
CRMS - CISPR RMS detection												

Anaren												
PCB Transmitter XMT Mode												
Model: A1101L09A PCB 915MHz												
Job: 11U13981 USB Power												
Tested By: AA FSK 100kB Mid												
Horizontal 4000 - 8000MHz												
Test Frequency	Meter Reading	Detector	3161-03_Horz_27 Sept08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
4576.07	51.02	LgAv	27.3	-52.47	25.85	54	-28.15	74	-48.15	212	149	Horz
5417.52	58.74	LgAv	27.3	-52.65	33.39	54	-20.61	74	-40.61	288	376	Horz
5488.563	58.74	LgAv	27.5	-52.65	33.59	54	-20.41	74	-40.41	301	186	Horz
6886.32	45.76	LgAv	27.8	-51.75	21.81	54	-32.19	74	-52.19	218	181	Horz
6919	46.06	LgAv	27.8	-51.94	21.92	54	-32.08	74	-52.08	274	131	Horz
7321.75	55.66	LgAv	28	-51.88	31.78	54	-22.22	74	-42.22	241	383	Horz
7747	44.51	LgAv	28.5	-51.32	21.69	54	-32.31	74	-52.31	114	315	Horz
7837	45.67	LgAv	28.7	-50.44	23.93	54	-30.07	74	-50.07	61	100	Horz
Horizontal 8000 - 10000MHz												
Test Frequency	Meter Reading	Detector	3160-07_Horz_8-12_4GHz [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
8122.167	56.73	LgAv	33.1	-50.46	39.37	54	-14.63	74	-34.63	284	236	Horz
8126.887	44.72	LgAv	33.1	-50.56	27.26	54	-26.74	74	-46.74	173	274	Horz
8236.96	55.93	LgAv	33.2	-50.82	38.31	54	-15.69	74	-35.69	281	192	Horz
9147.56	47.84	LgAv	33.3	-49.98	31.16	54	-22.84	74	-42.84	62	175	Horz
PK - Peak detector												
QP - Quasi-Peak detector												
LnAv - Linear Average detector												
LgAv - Log Average detector												
Av - Average detector												
CAV - CISPR Average detector												
RMS - RMS detection												
CRMS - CISPR RMS detection												

Anaren		
PCB Transmitter XMT Mode		
Model: A1101L09A PCB 915MHz		
Job: 11U13981 USB Power		
Tested By: AA FSK 100kB Mid		

Vertical 4000 - 8000MHz												
Test Frequency	Meter Reading	Detector	3161-03_Vert_27 Sept08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
4576	53.53	LgAv	27.1	-52.47	28.16	54	-25.84	74	-45.84	142	143	Vert
5414.752	50.66	LgAv	27.5	-52.63	25.53	54	-28.47	74	-48.47	286	184	Horz
5491.359	60.84	LgAv	27.4	-52.64	35.6	54	-18.4	74	-38.4	180	176	Vert
6889	45.84	LgAv	27.8	-51.8	21.84	54	-32.16	74	-52.16	157	121	Vert
6919	46	LgAv	27.8	-51.94	21.86	54	-32.14	74	-52.14	242	108	Vert
7318.122	60.38	LgAv	27.9	-51.91	36.37	54	-17.63	74	-37.63	188	102	Vert
7747	44.79	LgAv	28.7	-51.32	22.17	54	-31.83	74	-51.83	321	332	Vert
7837	45.5	LgAv	29.1	-50.44	24.16	54	-29.84	74	-49.84	169	115	Vert
Vertical 8000 - 10000MHz												
Test Frequency	Meter Reading	Detector	8-12_4GHz_3160-07_Vert [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	FCC Part 15 Subpart C Peak	Margin	Azimuth [Degs]	Height [cm]	Polarity
8125.9	45.13	LgAv	33.2	-50.54	27.79	54	-26.21	74	-46.21	225	184	Vert
8126.24	52.09	LgAv	33.2	-50.55	34.74	54	-19.26	74	-39.26	281	164	Vert
8236.916	52.32	LgAv	33.3	-50.81	34.81	54	-19.19	74	-39.19	41	124	Vert
9147.68	47.48	LgAv	33.3	-49.99	30.79	54	-23.21	74	-43.21	323	127	Vert
PK - Peak detector												
QP - Quasi-Peak detector												
LnAv - Linear Average detector												
LgAv - Log Average detector												
Av - Average detector												
CAV - CISPR Average detector												
RMS - RMS detection												
CRMS - CISPR RMS detection												

**RECEIVE ABOVE 1 GHz**

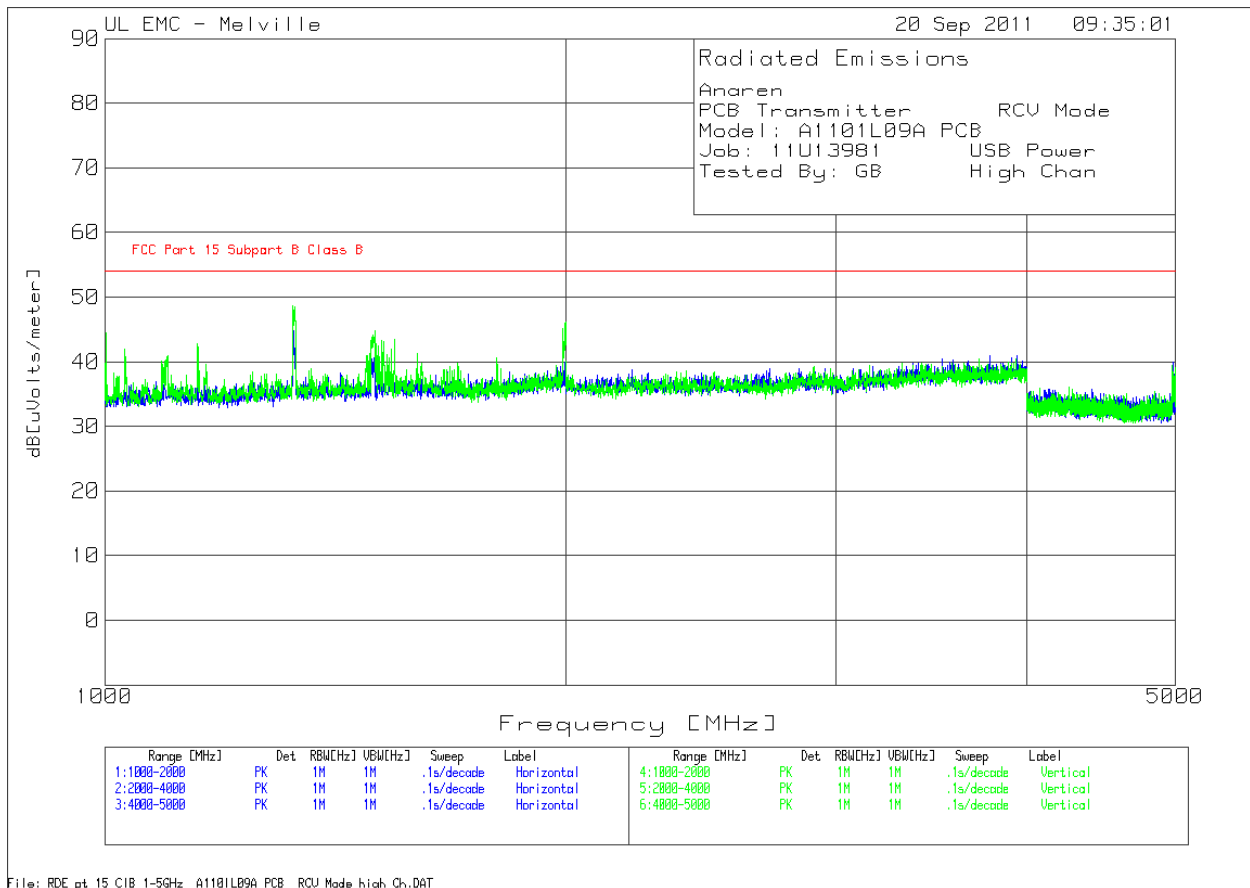


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Anaren										
PCB Transmitter RCV Mode										
Model: A1101L09C										
Job: 11U13981 USB Power										
Tested by: DC										
Horizontal 1000 - 2000MHz										
Test Frequency	Meter Reading	Detector	51442 1-2GHz [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart B Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
1330.835	67.98	PK	20.6	-44.43	44.15	54	-9.85	28	214	Horz
1499.75	66	PK	20.8	-44.33	42.47	54	-11.53	104	214	Horz
1990.505	64.02	PK	22.1	-43.7	42.42	54	-11.58	308	214	Horz
Horizontal 2000 - 4000MHz										
Test Frequency	Meter Reading	Detector	3161-02_Horz_27Sept08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart B Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
3382.309	60.11	PK	22.1	-41.79	40.42	54	-13.58	6	99	Horz
Vertical 1000 - 2000MHz										
Test Frequency	Meter Reading	Detector	51442 1-2GHz [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart B Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
1038.981	73.02	PK	19.6	-44.6	48.02	54	-5.98	284	214	Vert
1328.836	73.18	PK	20.6	-44.41	49.37	54	-4.63	232	99	Vert
1493.753	73.18	PK	20.8	-44.32	49.66	54	-4.34	309	214	Vert
1561.719	68.78	PK	21	-44.18	45.6	54	-8.4	284	214	Vert
1664.168	75.85	PK	20.9	-44.18	52.57	54	-1.43	284	214	Vert
1690.655	69.44	PK	20.7	-44.24	45.9	54	-8.1	309	214	Vert
1994.503	68.42	PK	22.2	-43.65	46.97	54	-7.03	309	214	Vert
Vertical 4000 - 5000MHz										
Test Frequency	Meter Reading	Detector	3161-03_Vert_27Sept08 [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart B Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
4980.013	66.66	PK	27.4	-52.33	41.73	54	-12.27	306	214	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										

Anaren										
PCB Transmitter		RCV Mode								
Model: A1101L09C										
Job: 11U13981		USB Power								
Tested by: DC		FSK 100k								
Vertical 1000 - 2000MHz										
Test Frequency	Meter Reading	Detector	51442 1-2GHz [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart B Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
1039.341	50.67	LgAv	19.6	-44.59	25.68	54	-28.32	306	236	Vert
1328.456	50.81	LgAv	20.6	-44.41	27	54	-27	306	236	Vert
1495.108	51.07	LgAv	20.8	-44.32	27.55	54	-26.45	306	236	Vert
1663.588	50.39	LgAv	20.9	-44.17	27.12	54	-26.88	288	333	Vert
1328.081	51.14	LgAv	20.6	-44.42	27.32	54	-26.68	288	333	Vert
1494.225	54	LgAv	20.8	-44.32	30.48	54	-23.52	269	207	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										



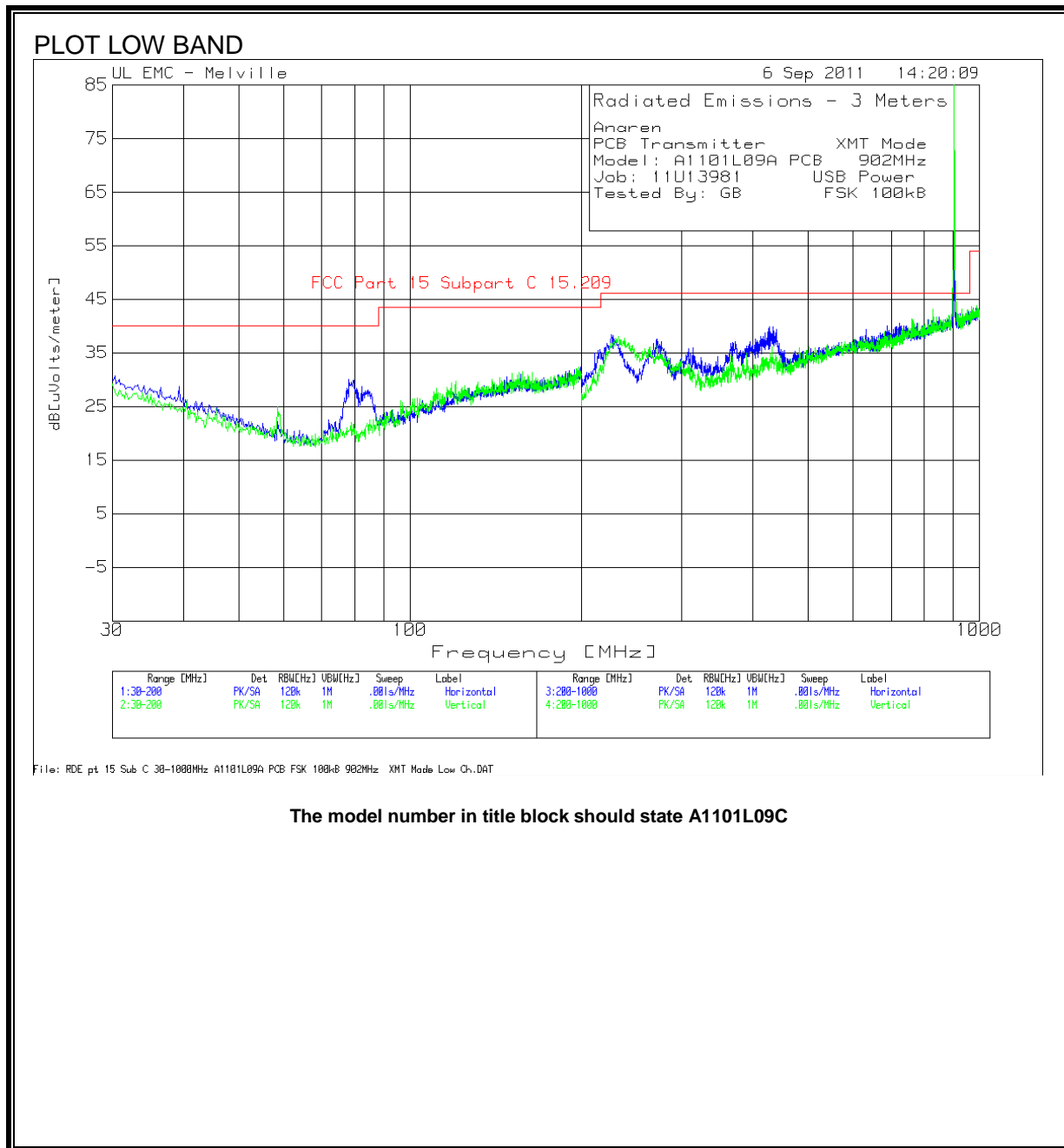


Anaren										
PCB Transmitter RCV Mode										
Model: A1101L09A PCB										
Job: 11U13981 USB Power										
Tested By: GB High Chan										
Vertical 1000 - 2000MHz										
Test Frequency	Meter Reading	Detector	51442 1-2GHz [dB]	BOMS Factor [dB]	dB[uVolts/meter]	FCC Part 15 Subpart B Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
1001.499	69.77	PK	19.3	-44.66	44.41	54	-9.59	179	99	Vert
1149.425	67.24	PK	19.9	-44.42	42.72	54	-11.28	127	215	Vert
1327.336	72.55	PK	20.6	-44.43	48.72	54	-5.28	332	99	Vert
1500.25	68.26	PK	20.8	-44.32	44.74	54	-9.26	279	99	Vert
1545.727	66.62	PK	21	-44.23	43.39	54	-10.61	305	215	Vert
2000	67.61	PK	22.2	-43.6	46.21	54	-7.79	279	215	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

Anaren										
PCB Transmitter RCV Mode										
Model: A1101L09A PCB										
Job: 11U13981 USB Power										
Tested By: GB High Chan										
Vertical 1000 - 2000MHz										
Test Frequency	Meter Reading	Detector	51442 1- 2GHz [dB]	BOMS Factor [dB]	[dB][uVolts/meter]	FCC Part 15 Subpart B Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
1330.4	54.21	LgAv	20.6	-44.43	30.38	54	-23.62	225	106	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

**WORST-CASE BELOW 1 GHz**

**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)**

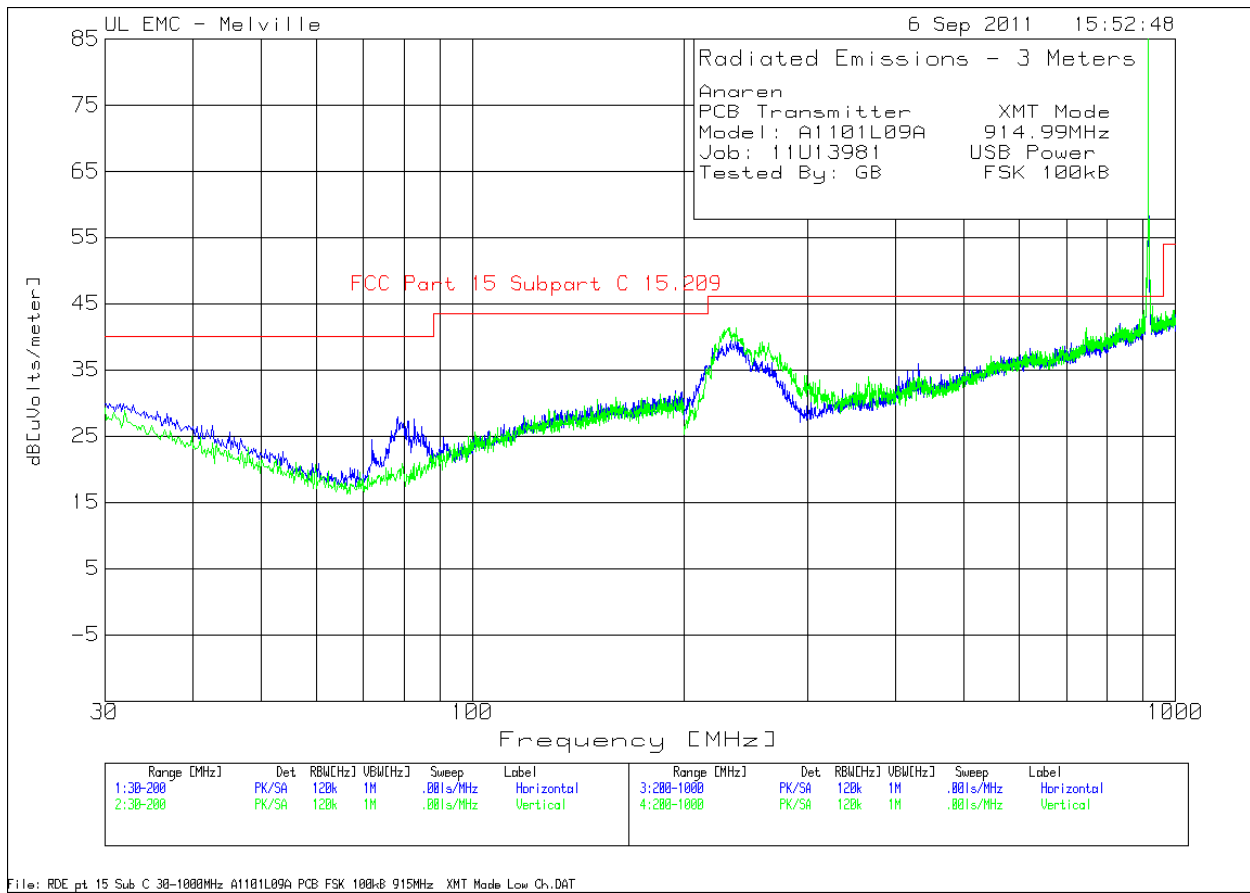


**DATA LOW BAND**

Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09C Monopole 902MHz										
Job: 11U13981 USB Power										
Tested By: GB										
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Horz 05Apr12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
78.1582	22.23	PK	6.9	0.9	30.03	40	-9.97	17	400	Horz
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
225.6128	24.94	PK	11.8	1.6	38.34	46	-7.66	180	100	Horz
271.6358	22.3	PK	13.5	1.7	37.5	46	-8.5	249	100	Horz
372.4862	19.21	PK	15.7	2.1	37.01	46	-8.99	282	100	Horz
847.924	14.98	PK	23.2	3.4	41.58	46	-4.42	358	200	Horz
925.1626	15.28	PK	23.5	3.5	42.28	46	-3.72	358	300	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
829.5148	16.77	PK	23.1	3.3	43.17	46	-2.83	359	100	Vert
933.1666	14.34	PK	23.5	3.5	41.34	46	-4.66	11	400	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09C Monopole 902MHz										
Job: 11U13981 USB Power										
Tested By: GB										
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
847	8.99	QP	23.3	3.4	35.69	46	-10.31	0	125	Horz
925	9.54	QP	23.5	3.5	36.54	46	-9.46	33	182	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
829.5	8.89	QP	23.1	3.3	35.29	46	-10.71	111	384	Vert
933.1	9.82	QP	23.5	3.5	36.82	46	-9.18	0	100	Vert

PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										



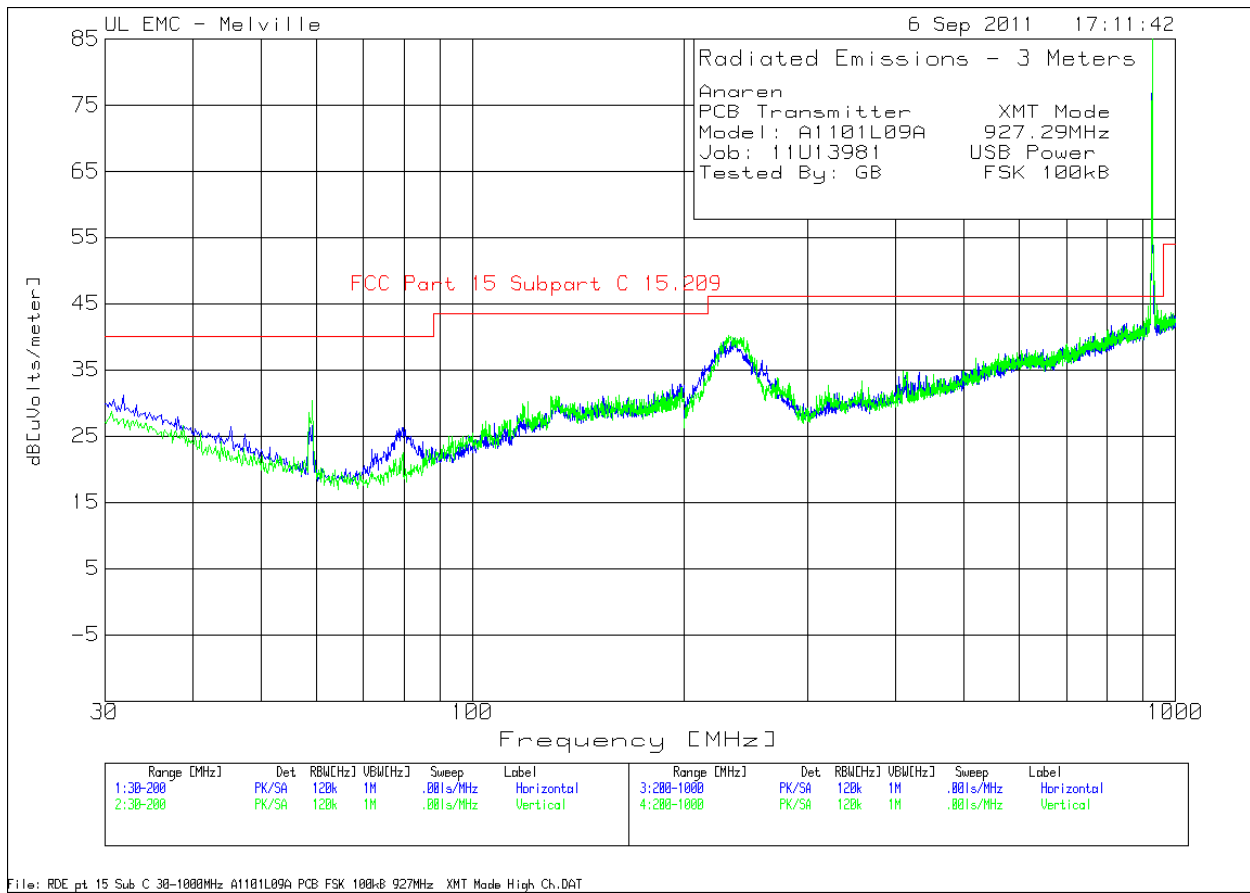
The model number in the title block should state a1101L09C

Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09C Monopole 914.99MHz										
Job: 11U13981 USB Power										
Tested By: GB FSK 100kB										
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Horz 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
78.3283	20.15	PK	6.9	0.9	27.95	40	-12.05	343	200	Horz
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
238.4192	25.98	PK	12.2	1.6	39.78	46	-6.22	292	100	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
231.6158	28.05	PK	11.7	1.6	41.35	46	-4.65	17	200	Vert

PK - Peak detector
QP - Quasi-Peak detector
LnAv - Linear Average detector
LgAv - Log Average detector
Av - Average detector
CAV - CISPR Average detector
RMS - RMS detection



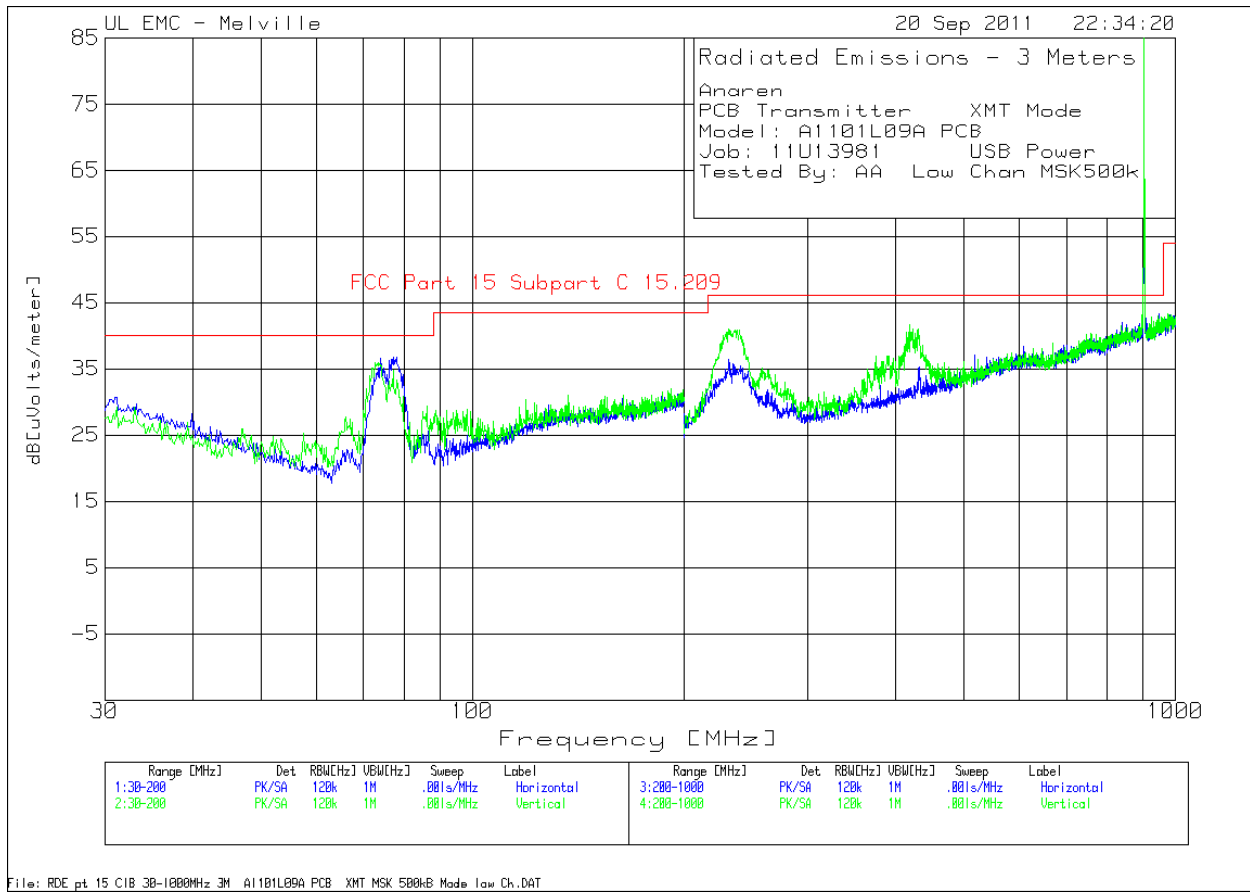
Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09C Monopole 914.99MHz										
Job: 11U13981 USB Power										
Tested By: GB FSK 100kB										
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
238.41	18.36	QP	12.2	1.6	32.16	46	-13.84	86	222	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
231.61	25.13	QP	11.7	1.6	38.43	46	-7.57	314	277	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										



The model number in the title block should state a1101L09C

Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09C Monopole 927.29MHz										
Job: 11U13981 USB Power										
Tested By: GB FSK 100kB										
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Horz 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
59.2693	18.92	PK	6.9	0.7	26.52	40	-13.48	272	400	Horz
79.6897	18.31	PK	7.1	0.9	26.31	40	-13.69	242	400	Horz
Vertical 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Vert 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
59.2693	22.78	PK	6.9	0.7	30.38	40	-9.62	298	100	Vert
132.4424	15.57	PK	14.2	1.2	30.97	43.5	-12.53	176	100	Vert
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
235.6178	25.95	PK	12.1	1.7	39.75	46	-6.25	192	100	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
231.6158	26.87	PK	11.7	1.6	40.17	46	-5.83	359	200	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

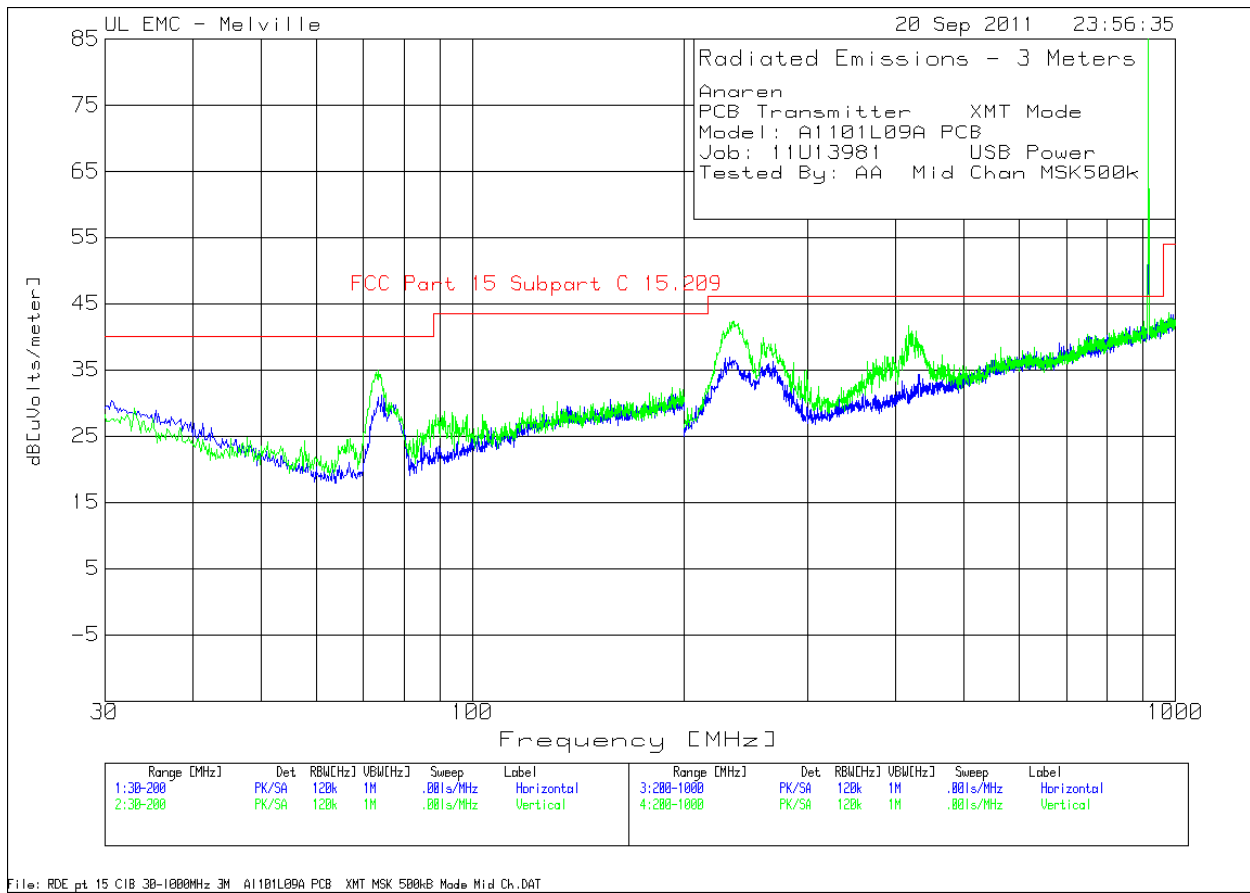
Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09C Monopole 927.29MHz										
Job: 11U13981 USB Power										
Tested By: GB FSK 100kB										
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
235.62	26.44	QP	12.1	1.7	40.24	46	-5.76	268	100	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
231.62	24.46	QP	11.7	1.6	37.76	46	-8.24	320	191	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										



Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09A PCB										
Job: 11U13981 USB Power										
Tested By: AA Low Chan										
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Horz 05Apr12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
78.1582	28.35	PK	6.9	0.9	36.15	40	-3.85	272	200	Horz
Test Frequency	Meter Reading	Detector	3M Bicon 54 Vert 05Apr12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
73.3934	28.67	PK	6.3	0.9	35.87	40	-4.13	121	100	Vert
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
236.4182	27.4	PK	11.8	1.7	40.9	46	-5.1	18	100	Vert
418.5093	22.93	PK	16.5	2.2	41.63	46	-4.37	300	100	Vert

PK - Peak detector
QP - Quasi-Peak detector
LnAv - Linear Average detector
LgAv - Log Average detector
Av - Average detector
CAV - CISPR Average detector
RMS - RMS detection
CRMS - CISPR RMS detection

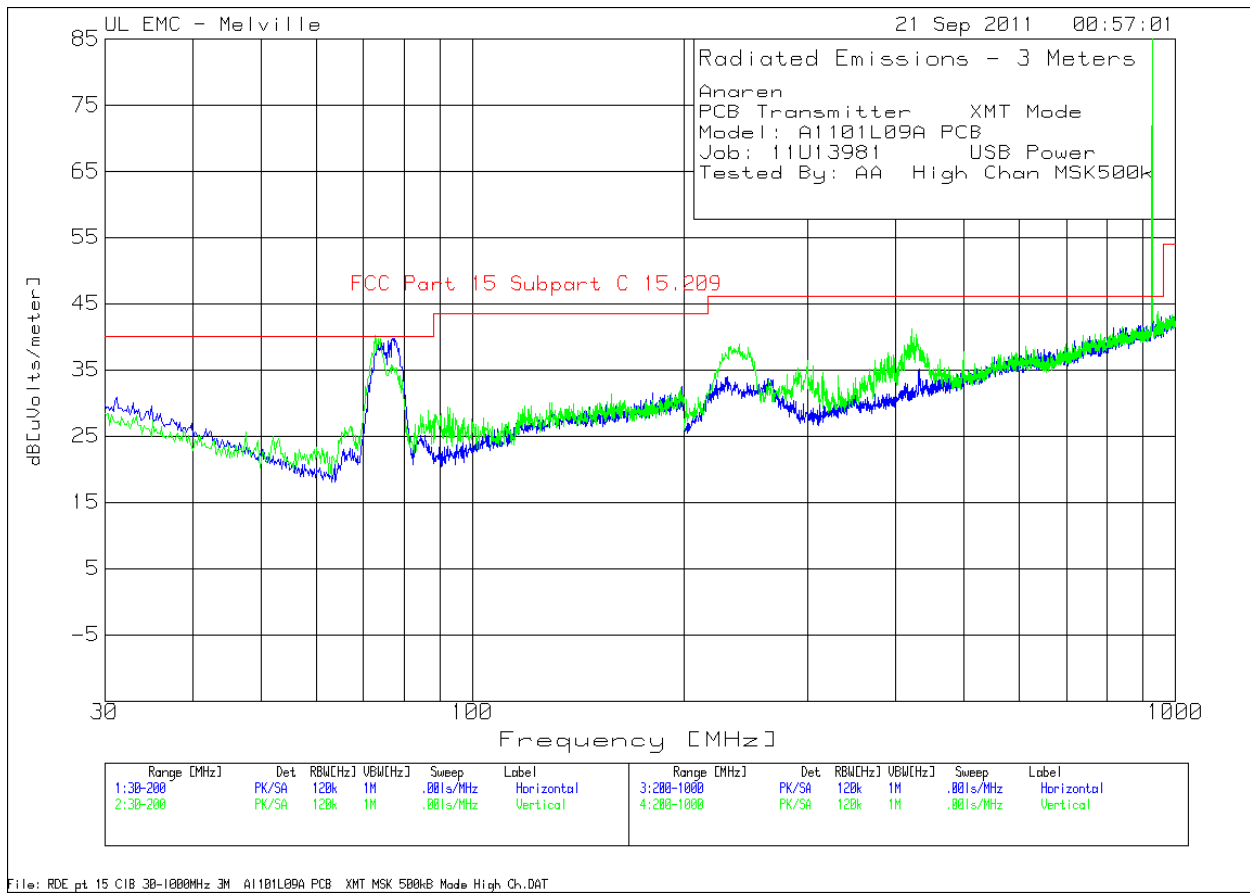
Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09A PCB										
Job: 11U13981 USB Power										
Tested By: AA Low Chan MSK500k										
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Horz 05Apr12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
74.4489	19.15	QP	6.1	0.9	26.15	40	-13.85	357	240	Horz
Test Frequency	Meter Reading	Detector	3M Bicon 54 Vert 05Apr12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
73.3265	15.89	QP	6.3	0.9	23.09	40	-16.91	83	299	Vert
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
230.7888	22.93	QP	11.7	1.6	36.23	46	-9.77	335	176	Vert
428.7204	17.9	QP	16.5	2.3	36.7	46	-9.3	191	131	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										





Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09A PCB										
Job: 11U13981 USB Power										
Tested By: AA Mid Chan										
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Horz 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
74.9249	24.96	PK	6.2	0.9	32.06	40	-7.94	207	400	Horz
Vertical 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Vert 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
73.3934	27.7	PK	6.3	0.9	34.9	40	-5.1	242	100	Vert
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
234.8174	28.97	PK	11.7	1.7	42.37	46	-3.63	2	100	Vert
417.3087	23.05	PK	16.4	2.2	41.65	46	-4.35	134	100	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09A PCB										
Job: 11U13981 USB Power										
Tested By: AA Mid Chan										
Vertical 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Vert 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
73.1996	26.65	QP	6.2	0.9	33.75	40	-6.25	306	101	Vert
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
235.1006	21.35	QP	11.7	1.7	34.75	46	-11.25	352	111	Vert
422.9112	18.33	QP	16.5	2.3	37.13	46	-8.87	246	101	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

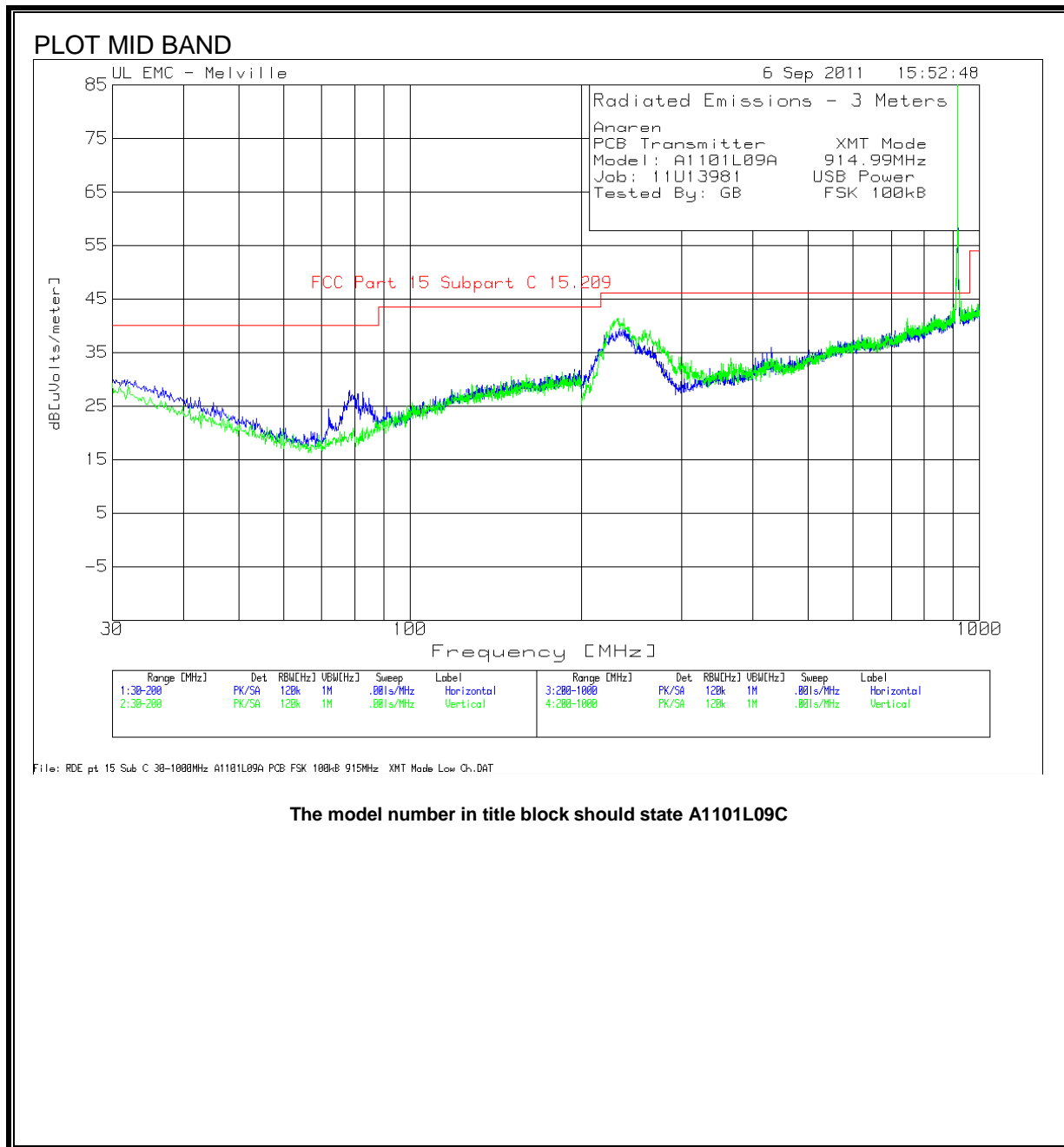


Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09A PCB										
Job: 11U13981 USB Power										
Tested By: AA High Chan										
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Horz 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
77.3073	32.15	PK	6.7	0.9	39.75	40	-0.25	263	400	Horz
Vertical 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Vert 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
72.7127	33.16	PK	6.1	0.9	40.16	40	0.16	241	100	Vert
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
239.6198	25.29	PK	11.9	1.6	38.79	46	-7.21	206	100	Vert
421.3107	22.37	PK	16.5	2.2	41.07	46	-4.93	12	100	Vert

PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09A PCB										
Job: 11U13981 USB Power										
Tested By: AA High Chan										
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Horz 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
73.6928	26.52	QP	6	0.9	33.42	40	-6.58	233	228	Horz
Vertical 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Vert 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
73.702	23.28	QP	6.3	0.9	30.48	40	-9.52	99	179	Vert
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
421.3	16.52	QP	16.5	2.2	35.22	46	-10.78	261	120	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)**



**DATA MID BAND**

Anaren										
PCB Transmitter XMT Mode										
Model: A1101L09C 914.99MHz										
Job: 11U13981 USB Power										
Tested By: GB										
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Horz 05Apr12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
78.3283	20.15	PK	6.9	0.9	27.95	40	-12.05	343	200	Horz
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
238.4192	25.98	PK	12.2	1.6	39.78	46	-6.22	292	100	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
231.6158	28.05	PK	11.7	1.6	41.35	46	-4.65	17	200	Vert

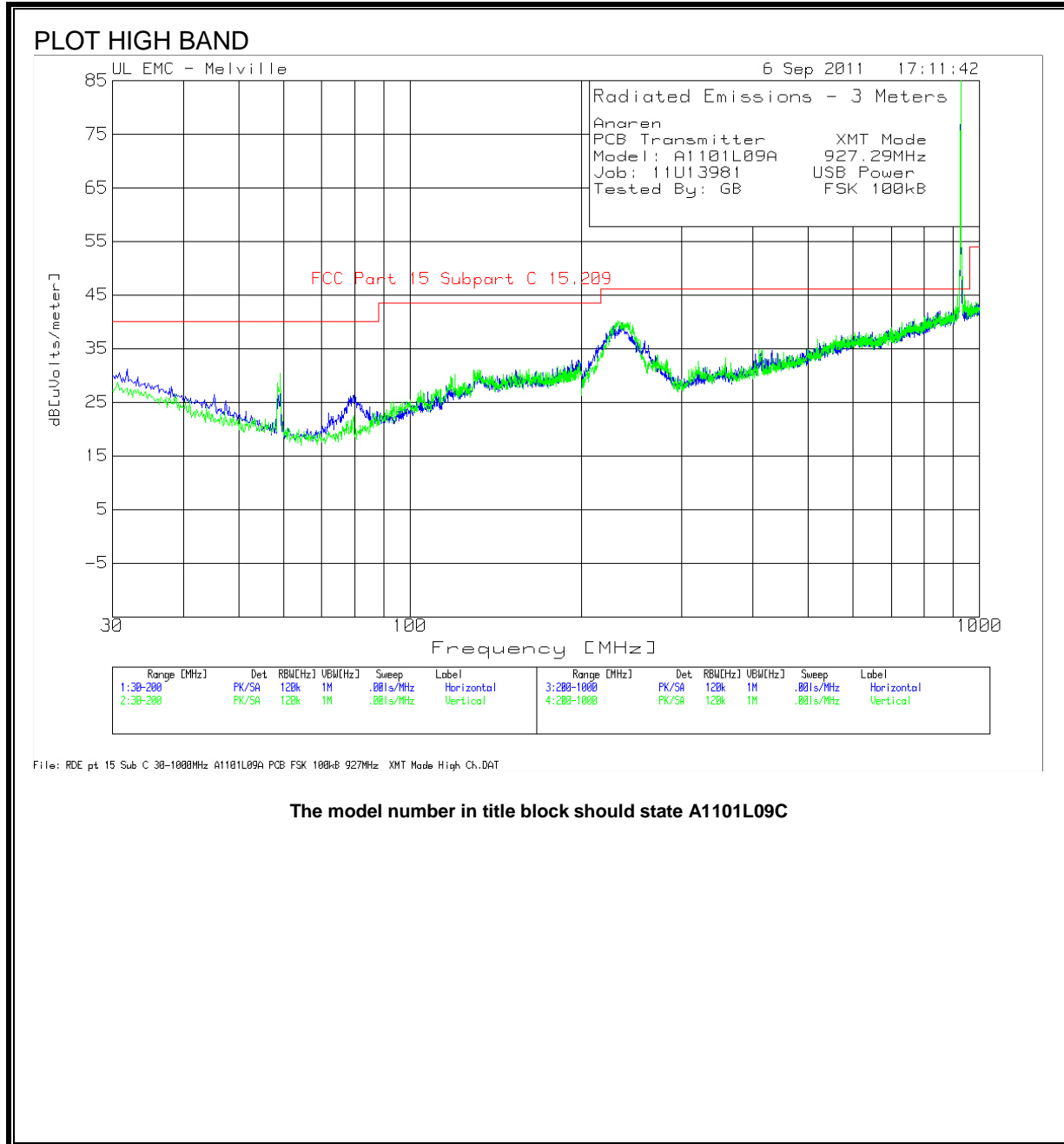
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

Anaren										
PCB Transmitter	XMT Mode									
Model: A1101L09A		914.99MHz								
Job: 11U13981	USB Power									
Tested By: GB	FSK 100kB									

Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
238.41	18.36	QP	12.2	1.6	32.16	46	-13.84	86	222	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
231.61	25.13	QP	11.7	1.6	38.43	46	-7.57	314	277	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										



**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)**

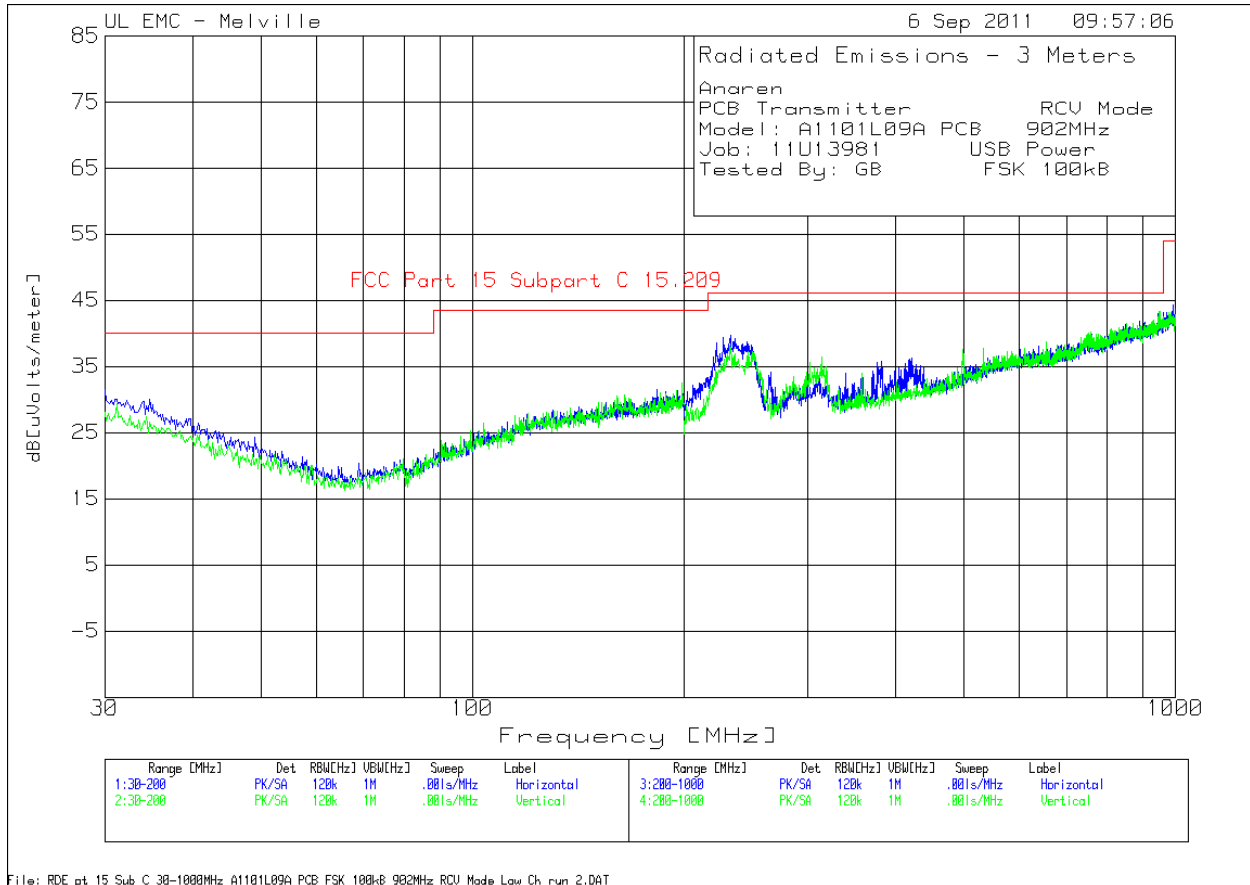


**DATA HIGH BAND**

Anaren										
PCB Transmitter		XMT Mode								
Model: A1101L09C 927.29MHz										
Job: 11U13981		USB Power								
Tested By: GB										
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Horz 05Apr12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
59.2693	18.92	PK	6.9	0.7	26.52	40	-13.48	272	400	Horz
79.6897	18.31	PK	7.1	0.9	26.31	40	-13.69	242	400	Horz
Vertical 30 - 200MHz										
Test Frequency	Meter Reading	Detector	3M Bicon 54 Vert 05Apr12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
59.2693	22.78	PK	6.9	0.7	30.38	40	-9.62	298	100	Vert
132.4424	15.57	PK	14.2	1.2	30.97	43.5	-12.53	176	100	Vert
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
235.6178	25.95	PK	12.1	1.7	39.75	46	-6.25	192	100	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30- 1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
231.6158	26.87	PK	11.7	1.6	40.17	46	-5.83	359	200	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

Anaren										
PCB Transmitter		XMT Mode								
Model: A1101L09C 927.29MHz										
Job: 11U13981		USB Power								
Tested By: GB										
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
235.62	26.44	QP	12.1	1.7	40.24	46	-5.76	268	100	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
231.62	24.46	QP	11.7	1.6	37.76	46	-8.24	320	191	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

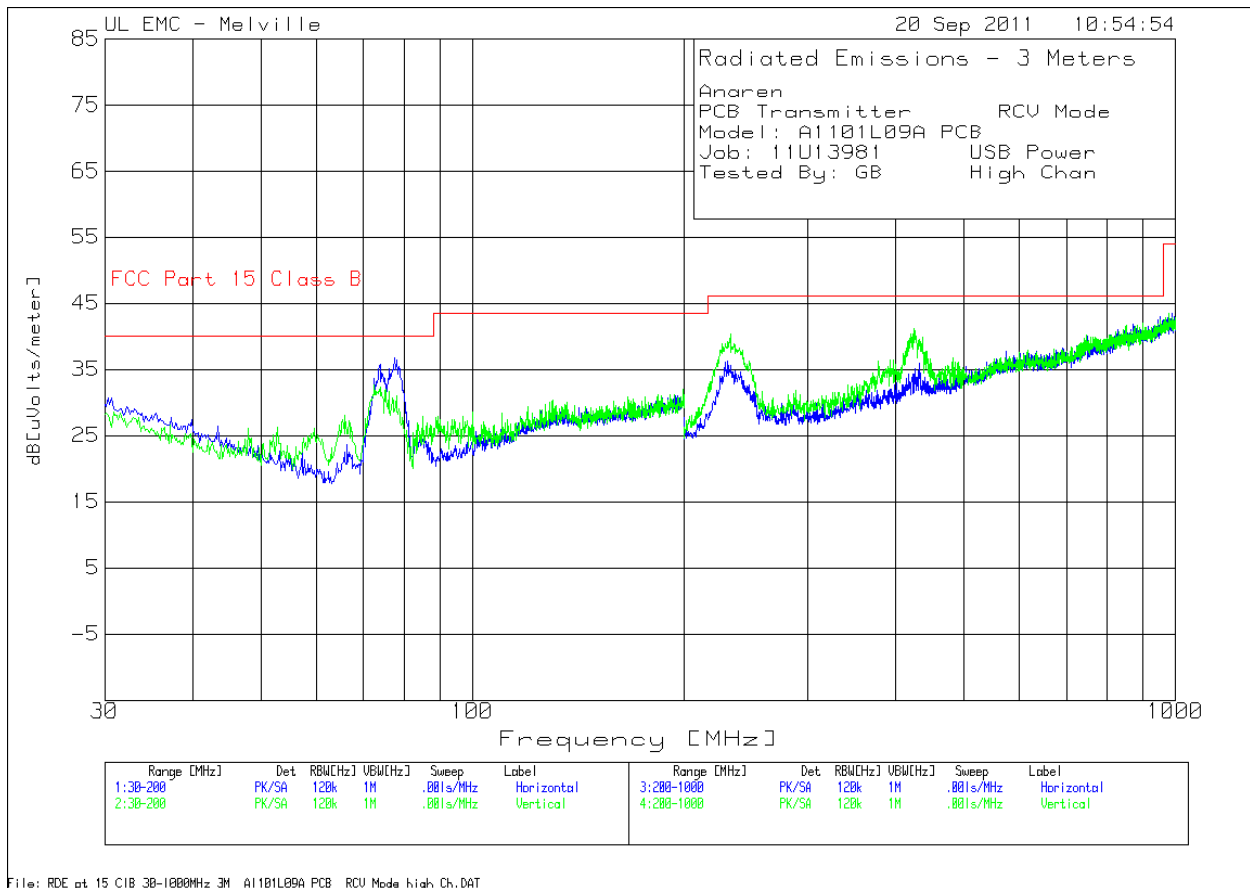
**Receive mode below 1GHz PCB type antenna**



**Model in title block should state A1101L09C**

Anaren												
PCB Transmitter RCV Mode												
Model: A1101L09C Monopole												
Job: 11U13981 USB Power												
Tested By: GB FSK 100kB												
Horizontal 200 - 1000MHz												
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity		
222.4112	25.23	PK	11.7	1.6	38.53	46	-7.47	98	100	Horz		
228.014	23.91	PK	11.9	1.6	37.41	46	-8.59	17	100	Horz		
233.2166	24.31	PK	12.1	1.6	38.01	46	-7.99	197	100	Horz		
890.7454	15.23	PK	23.1	3.5	41.83	46	-4.17	17	200	Horz		
946.3732	13.92	PK	23.8	3.6	41.32	46	-4.68	324	200	Horz		
Vertical 200 - 1000MHz												
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity		
929.965	15.01	PK	23.5	3.5	42.01	46	-3.99	221	400	Vert		
949.1746	14.02	PK	24.2	3.6	41.82	46	-4.18	256	400	Vert		
PK - Peak detector												
QP - Quasi-Peak detector												
LnAv - Linear Average detector												
LgAv - Log Average detector												
Av - Average detector												
CAV - CISPR Average detector												
RMS - RMS detection												
CRMS - CISPR RMS detection												

Anaren										
PCB Transmitter RCV Mode										
Model: A1101L09C										
Job: 11U13981 USB Power										
Tested By: GB FSK 100kB										
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Horz 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
893.23	9.04	QP	23.2	3.5	35.74	46	-10.26	257	258	Horz
946.4	9.2	QP	23.8	3.6	36.6	46	-9.4	0	100	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	LogP 3M Vert 44067 02May12 [dB]	3MLoc 30-1000MHz 02Feb12 [dB]	dB[uVolts/meter]	FCC Part 15 Subpart C 15.209	Margin	Azimuth [Degs]	Height [cm]	Polarity
929.2098	9.15	QP	23.5	3.5	36.15	46	-9.85	55	160	Vert
949.0647	9.15	QP	24.2	3.6	36.95	46	-9.05	112	263	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										



Anaren										
PCB Transmitter		RCV Mode								
Model: A1101L09A PCB										
Job: 11U13981		USB Power								
Tested By: GB		High Chan								
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	AF-54 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
73.9039	28.73	PK	6.1	0.9	35.73	40	-4.27	99	200	Horz
77.6476	29.1	PK	6.8	0.9	36.8	40	-3.2	129	200	Horz
Vertical 30 - 200MHz										
Test Frequency	Meter Reading	Detector	AF-54 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
73.9039	25.08	PK	6.4	0.9	32.38	40	-7.62	344	100	Vert
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	AF-44067 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
880.3402	14.53	PK	23.2	3.5	41.23	46	-4.77	207	400	Horz
934.7674	14.55	PK	23.5	3.5	41.55	46	-4.45	2	300	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	AF-44067 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
232.8164	26.99	PK	11.7	1.6	40.29	46	-5.71	9	200	Vert
424.9125	22.3	PK	16.5	2.3	41.1	46	-4.9	354	100	Vert
898.3492	15.4	PK	23.1	3.5	42	46	-4	167	300	Vert
952.3762	14.61	PK	24.2	3.6	42.41	46	-3.59	167	300	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										



Anaren										
PCB Transmitter		RCV Mode								
Model: A1101L09A PCB										
Job: 11U13981		USB Power								
Tested By: GB		High Chan								
Horizontal 30 - 200MHz										
Test Frequency	Meter Reading	Detector	AF-54 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
74	22.56	QP	6.1	0.9	29.56	40	-10.44	219	295	Horz
77.6	23.1	QP	6.8	0.9	30.8	40	-9.2	220	216	Horz
Vertical 30 - 200MHz										
Test Frequency	Meter Reading	Detector	AF-54 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
74	17.32	QP	6.4	0.9	24.62	40	-15.38	67	160	Vert
Horizontal 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	AF-44067 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
880.3902	9.04	QP	23.2	3.5	35.74	46	-10.26	321	216	Horz
934.76	9.15	QP	23.5	3.5	36.15	46	-9.85	185	130	Horz
Vertical 200 - 1000MHz										
Test Frequency	Meter Reading	Detector	AF-44067 [dB]	GL-3M [dB]	dB[uVolts/meter]	FCC Part 15 Class B	Margin	Azimuth [Degs]	Height [cm]	Polarity
232.8	24.86	QP	11.7	1.6	38.16	46	-7.84	331	189	Vert
424.9	15.63	QP	16.5	2.3	34.43	46	-11.57	287	207	Vert
898.2731	9.15	QP	23.1	3.5	35.75	46	-10.25	350	345	Vert
952.4	9.09	QP	24.2	3.6	36.89	46	-9.11	295	175	Vert
PK - Peak detector										
QP - Quasi-Peak detector										
LnAv - Linear Average detector										
LgAv - Log Average detector										
Av - Average detector										
CAV - CISPR Average detector										
RMS - RMS detection										
CRMS - CISPR RMS detection										

## 9. AC POWER LINE CONDUCTED EMISSIONS

### LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

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.

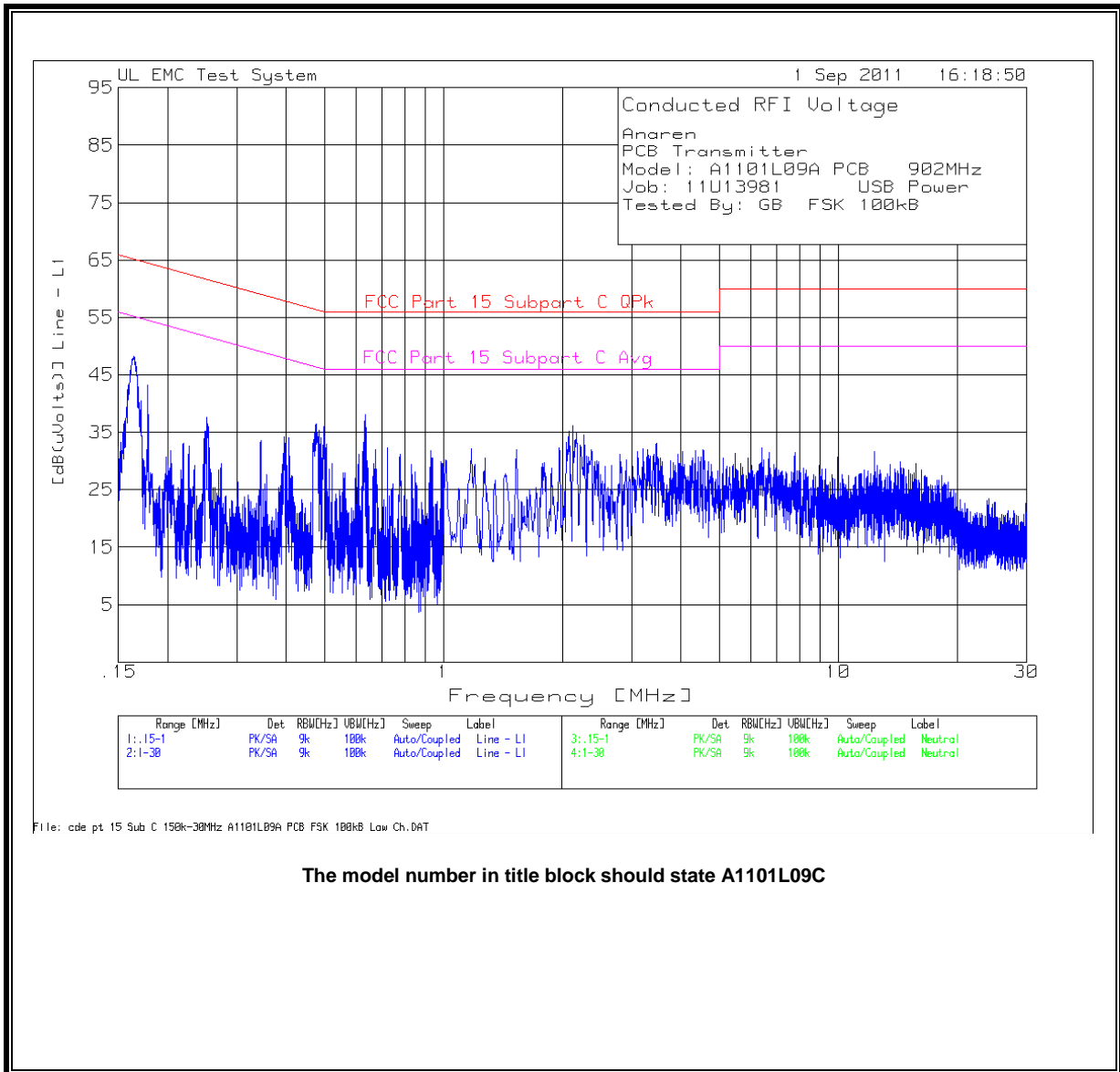
### TEST PROCEDURE

ANSI C63.4

**RESULTS: Pass**

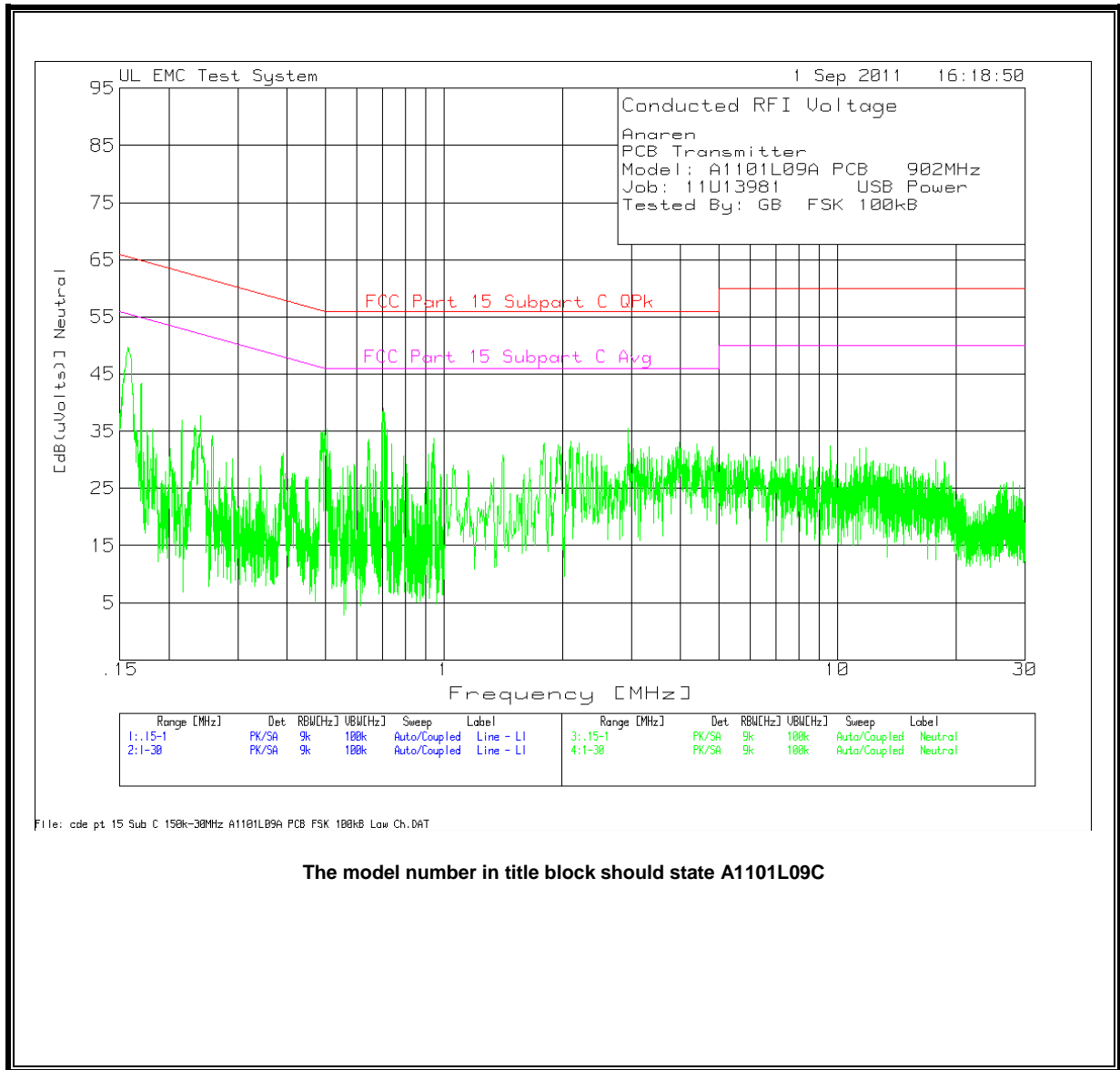
**6 WORST EMISSIONS**

**LINE 1 RESULTS**



**The model number in title block should state A1101L09C**

**LINE 2 RESULTS**



Anaren  
 PCB Transmitter  
 Model: A1101L09C PCB 902MHz  
 Job: 11U13981 USB  
 Power  
 Tested By: GB FSK 100kB

Line - L1 .15 -  
 1MHz

Test Frequency	Meter Reading	Detector	5A636 with TI and Sw Line 1 [dB]	[dB(uVolts)]	FCC Part 15 Subpart C QPk Margin	FCC Part 15 Subpart C Avg Margin
0.16445	36.86	PK	11.4	48.26	65.2 -16.94	55.2 -6.94
0.17806	31.94	PK	11.3	43.24	64.6 -21.36	54.6 -11.36
0.25151	26.63	PK	10.9	37.53	61.7 -24.17	51.7 -14.17
0.47545	25.92	PK	10.5	36.42	56.4 -19.98	46.4 -9.98
0.63443	27.76	PK	10.4	38.16	56 -17.84	46 -7.84

Line - L1 1 -  
 30MHz

Test Frequency	Meter Reading	Detector	5A636 with TI and Sw Line 1 [dB]	[dB(uVolts)]	FCC Part 15 Subpart C QPk Margin	FCC Part 15 Subpart C Avg Margin
2.12543	25.68	PK	10.4	36.08	56 -19.92	46 -9.92

Neutral .15 - 1MHz

Test Frequency	Meter Reading	Detector	5A636 with TI and Sw Line 2 [dB]	[dB(uVolts)]	FCC Part 15 Subpart C QPk Margin	FCC Part 15 Subpart C Avg Margin
0.15748	38.12	PK	11.5	49.62	65.6 -15.98	55.6 -5.98
0.2158	25.93	PK	11	36.93	63 -26.07	53 -16.07
0.2408	26.92	PK	10.9	37.82	62.1 -24.28	52.1 -14.28
0.49194	24.2	PK	10.5	34.7	56.1 -21.4	46.1 -11.4
0.69921	28.07	PK	10.4	38.47	56 -17.53	46 -7.53

Neutral .15 - 1MHz

Test Frequency	Meter Reading	Detector	5A636 with TI and Sw Line 2 [dB]	[dB(uVolts)]	FCC Part 15 Subpart C QPk Margin	FCC Part 15 Subpart C Avg Margin
0.15705	35.53	Av	11.5	47.03	65.62 -18.59	55.62 -8.59