



TEST DATA

Test Data Number: 100124687MIN-001
Project Number: G100124687

Testing performed on the
Prism Module, Cellular 40W
to

47 CFR, Part 22:2009

For
LGC Wireless / ADC Telecommunications Inc.

Test Performed by:
Intertek Testing Services NA, Inc.
7250 Hudson Blvd., Suite 100
Oakdale, MN 55128

Test Authorized by:
ADC Telecommunications Inc.
PO. BOX 1101
Minneapolis, MN 55440-1101

Prepared by: U. Spector
Uri Spector

Date: June 8, 2010

Reviewed by: N. Shpilsher
Norman Shpilsher

Date: June 8, 2010



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1.0 DESCRIPTION OF THE SAMPLE (EUT)

Model:	Prism Module, Cellular 40W, FWP-B810100MOD
Type of EUT:	Indoor / Outdoor Repeater
Serial Number:	N/A
Company:	LGC Wireless / ADC Telecommunications Inc.
Customer:	Mr. Joshua Wittman
Address:	ADC Telecommunications Inc. PO. Box 1101 Minneapolis, MN 55440-1101
Phone:	952-403-8322
Fax:	
Test Standards:	<input type="checkbox"/> EN 55022:2006 +A1:2007, Class [REDACTED] <input type="checkbox"/> EN 55011:2007, Group [REDACTED], Class [REDACTED] <input checked="" type="checkbox"/> 47 CFR, Part 22:2009 <input type="checkbox"/> EN 55014-1:2006 <input type="checkbox"/> EN 61326-1:2006 <input type="checkbox"/> Class [REDACTED] for Radiated and Conducted Emissions <input type="checkbox"/> EN 60601-1-2:2001 +A1:2006 <input type="checkbox"/> Class [REDACTED] Radiated and Conducted Emissions <input type="checkbox"/> EN 61000-6-3:2007 <input type="checkbox"/> EN 61000-6-4:2007 <input type="checkbox"/> EN 61000-3-2:2006 <input type="checkbox"/> EN 61000-3-3:1995 +A1:2001 +A2:2006 <input type="checkbox"/> Other [REDACTED]

2.0 TEST SUMMARY

Referring to the performance criteria and the operating mode during the tests specified in this report, the equipment complies with the requirements according to the following standards.

TEST STANDARD	TEST	RESULT
Part 22	Spurious Enclosure Radiated Emissions	Pass

2.1 Statement of the Measurement Uncertainty

Note: The measured result in this report is within the specification limits by more than the measurement uncertainty; the measured result indicates that the product tested complies with the specification limit.

The expanded uncertainty ($k = 2$) for radiated emissions from 30 to 1000 MHz has been determined to be: ± 4 dB at 10m and ± 5.4 dB at 3m

The expanded uncertainty ($k = 2$) for conducted emissions from 150 kHz to 30 MHz has been determined to be: ± 2.6 dB

General notes:

1. Test was performed with the EUT tuned to the low frequency (870MHz), middle frequency (881.5MHz), and upper frequency (893MHz) of the operating band.

2. Testing was performed in frequency range from 30MHz to 10GHz. EUT tuned frequencies 870MHz, 881.5MHz, and 893MHz were excluded from the table 2.

3. The Spurious Radiated Power limits of -13dBm was correlated with field strength reference level of 82.2dB μ V/m during field strength measurements at 3m measurement distance



3.0 TEST RESULTS

Tables 1-2 show detected Radiated Emissions.

Graphs 1 to 12 show the EUT peak Radiated Emissions.

No emissions were chosen for substitution measurements as the maximum emission is more than 20dB below the reference limit.



Radiated Emissions from 30MHz to 1GHz

Date: 06-08-2010

Company: ADC Telecommunications Inc.
Model: Prism Module, Cellular 40W
Test Engineer: Uri Spector
Standard: FCC Part 22
Test Site: 3m Anechoic Chamber, 3m measurement distance
Note: The table shows the worst case radiated emissions
 Measurements were taken using a Peak detector

Table # 1

Frequency	Ant. Polarity	Peak Reading dBµV	Ant.Factor dB1/m	Total at 3m dBµV/m	QP Limit dBµV/m	Margin dB
Operating Frequency 870MHz						
39.974 MHz	V	28.9	14.4	43.3	82.2	-38.9
40.39 MHz	V	29.8	14.1	43.9	82.2	-38.3
337.4 MHz	V	21.7	16.4	38.1	82.2	-44.1
583.99 MHz	V	20.3	21.6	41.9	82.2	-40.3
937.75 MHz	V	21.0	24.1	45.1	82.2	-37.1
Operating Frequency 881.5MHz						
39.974 MHz	H	16.5	15.5	32.0	82.2	-50.2
167.54 MHz	H	31.5	11.5	43.0	82.2	-39.2
500.18 MHz	H	22.4	20.6	43.0	82.2	-39.2
750.31 MHz	H	18.3	23.7	42.0	82.2	-40.2
937.75 MHz	H	17.6	25.3	42.9	82.2	-39.3
Operating Frequency 893MHz						
40.39 MHz	V	27.3	14.1	41.4	82.2	-40.8
276.53 MHz	V	23.8	14.8	38.6	82.2	-43.6
337.4 MHz	V	22.1	16.4	38.5	82.2	-43.7
583.99 MHz	V	21.7	21.6	43.4	82.2	-38.9
937.75 MHz	V	20.5	24.1	44.5	82.2	-37.7
166.9 MHz	H	30.3	11.5	41.8	82.2	-40.4
500.18 MHz	H	21.7	20.6	42.2	82.2	-40.0
750.31 MHz	H	18.5	23.7	42.3	82.2	-40.0
937.75 MHz	H	18.1	25.3	43.4	82.2	-38.8
Operating Frequency 893MHz						
41.114 MHz	V	24.8	13.6	38.4	82.2	-43.8
583.31 MHz	V	21.9	21.6	43.6	82.2	-38.6
644.76 MHz	V	16.9	22.4	39.3	82.2	-42.9
937.89 MHz	V	19.7	24.1	43.8	82.2	-38.4
167.96 MHz	H	29.6	11.5	41.1	82.2	-41.1
312.14 MHz	H	21.8	16.0	37.7	82.2	-44.5
500.33 MHz	H	22.1	20.6	42.7	82.2	-39.5
750.22 MHz	H	19.6	23.7	43.3	82.2	-38.9
937.89 MHz	H	17.9	25.3	43.2	82.2	-39.0



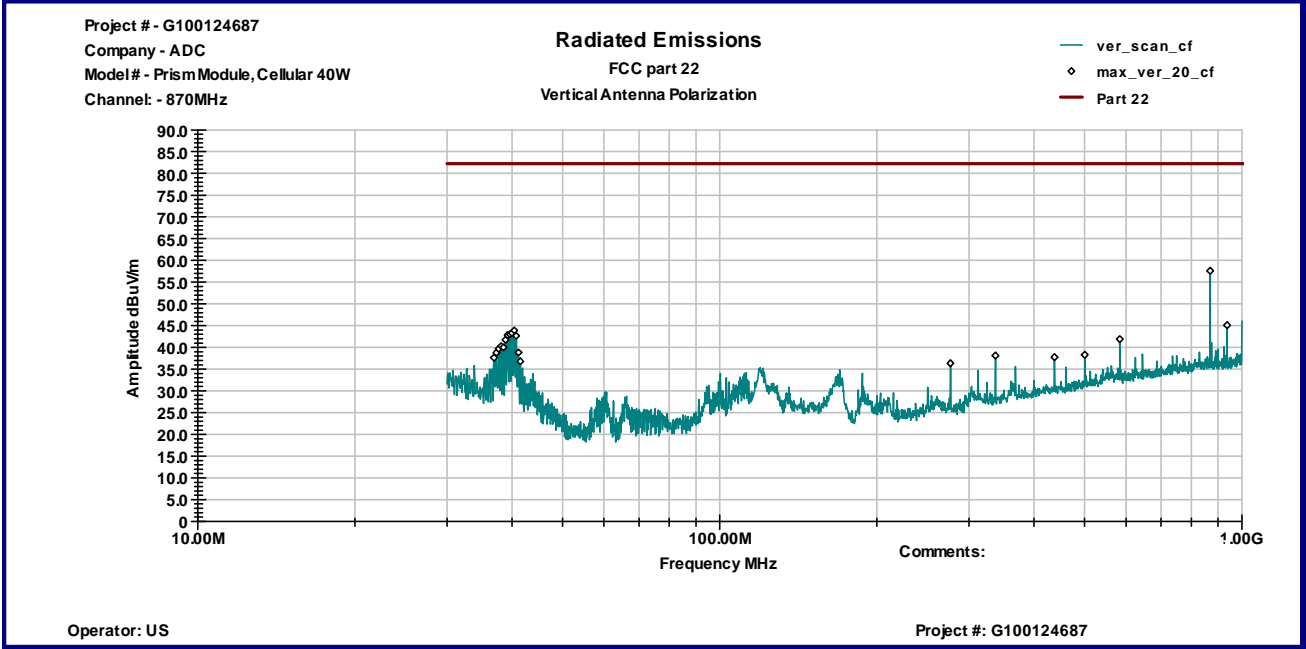
Radiated Emissions from 1GHz to 10GHz

Date: 06-08-2010

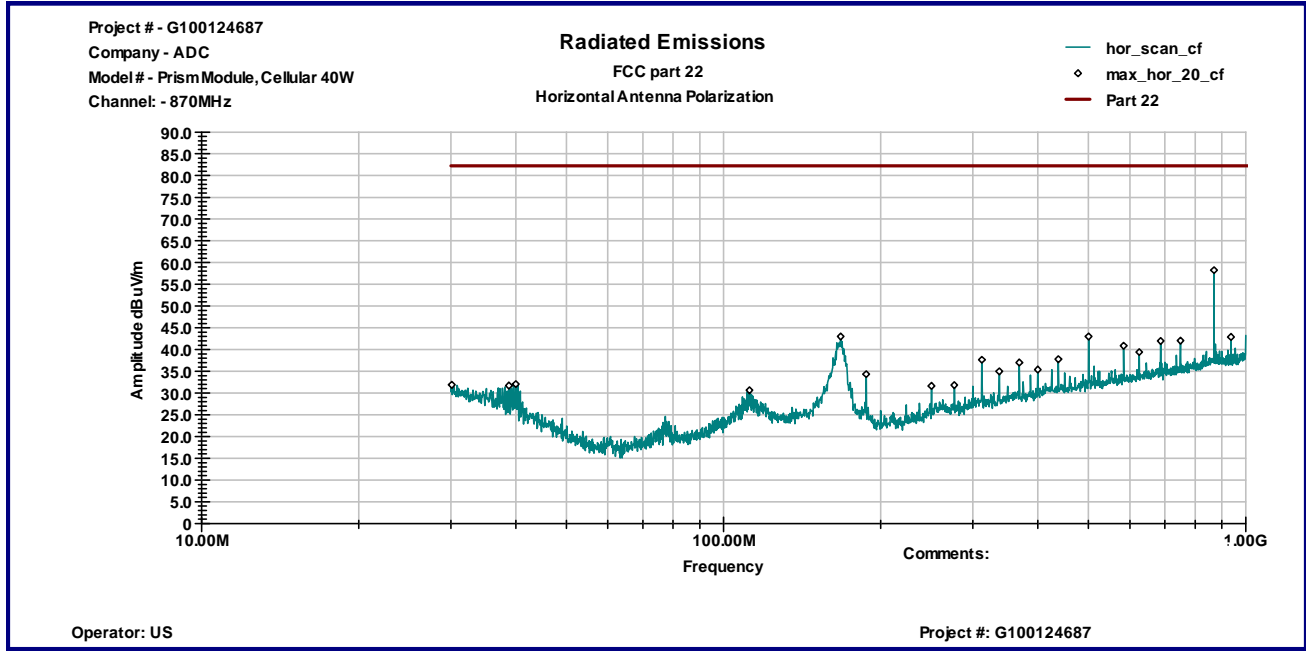
Company: ADC Telecommunications Inc.
Model: Prism Module, Cellular 40W
Test Engineer: Uri Spector
Standard: FCC Part 22
Test Site: 3m Anechoic Chamber, 3m measurement distance
Note: The table shows the worst case radiated emissions
 All measurements were taken using a Peak detector

Table # 2

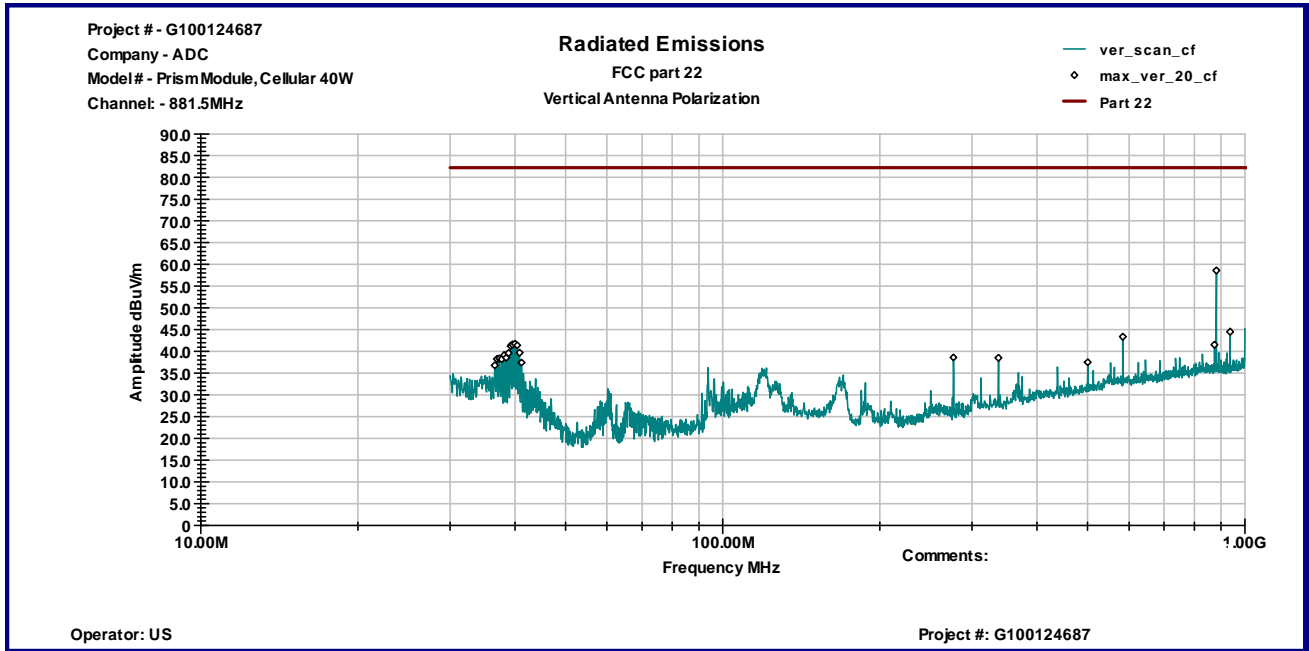
Frequency MHz	Antenna Polarity	Reading dBμV	Total C.F. dB1/m	Pre-Amp. Gain (dB)	Total at 3m dBμV/m	QP Limit dBμV/m	Margin dB
Operating Frequency 870MHz							
1.2475 GHz	V	61.5	27.2	42.6	46.1	82.2	-36.1
1.6615 GHz	V	57.4	28.8	42.9	43.4	82.2	-38.9
2.2105 GHz	V	50.3	31.2	43.2	38.2	82.2	-44.0
3.1375 GHz	V	51.4	34.3	43.4	42.2	82.2	-40.0
3.3175 GHz	V	51.2	34.9	43.4	42.7	82.2	-39.5
1.2475 GHz	H	66.1	27.1	42.6	50.6	82.2	-31.6
1.4725 GHz	H	56.5	28.0	42.7	41.8	82.2	-40.4
1.8415 GHz	H	56.7	30.0	43.1	43.6	82.2	-38.6
3.1375 GHz	H	49.9	34.3	43.4	40.7	82.2	-41.5
3.3175 GHz	H	49.3	35.0	43.4	41.0	82.2	-41.2
8.9605 GHz	H	38.8	44.6	40.1	43.2	82.2	-39.0
Operating Frequency 881.5MHz							
1.2475 GHz	V	60.6	27.2	42.6	45.2	82.2	-37.0
1.6615 GHz	V	55.3	28.8	42.9	41.3	82.2	-40.9
3.1375 GHz	V	49.6	34.3	43.4	40.5	82.2	-41.7
3.3175 GHz	V	51.7	34.9	43.4	43.3	82.2	-39.0
8.497 GHz	V	39.1	44.1	40.2	43.0	82.2	-39.2
1.2475 GHz	H	66.0	27.1	42.6	50.5	82.2	-31.7
1.8415 GHz	H	55.4	30.0	43.1	42.3	82.2	-39.9
2.2105 GHz	H	52.0	31.5	43.2	40.2	82.2	-42.0
3.1375 GHz	H	50.3	34.3	43.4	41.2	82.2	-41.0
3.3175 GHz	H	49.5	35.0	43.4	41.2	82.2	-41.1
8.5375 GHz	H	39.4	44.2	40.2	43.4	82.2	-38.8
Operating Frequency 893MHz							
1.2475 GHz	V	60.8	27.2	42.6	45.4	82.2	-36.8
1.6615 GHz	V	55.8	28.8	42.9	41.7	82.2	-40.5
2.2105 GHz	V	51.6	31.2	43.2	39.5	82.2	-42.7
3.3175 GHz	V	51.9	34.9	43.4	43.4	82.2	-38.8
8.812 GHz	V	38.6	44.4	40.2	42.8	82.2	-39.4
1.2475 GHz	H	65.8	27.1	42.6	50.3	82.2	-31.9
1.4725 GHz	H	56.9	28.0	42.7	42.2	82.2	-40.0
1.6615 GHz	H	54.3	29.0	42.9	40.4	82.2	-41.8
1.8415 GHz	H	56.8	30.0	43.1	43.7	82.2	-38.5
2.953 GHz	H	48.2	33.6	43.4	38.4	82.2	-43.8
3.1375 GHz	H	49.9	34.3	43.4	40.8	82.2	-41.4
8.9425 GHz	H	39.1	44.6	40.1	43.5	82.2	-38.7



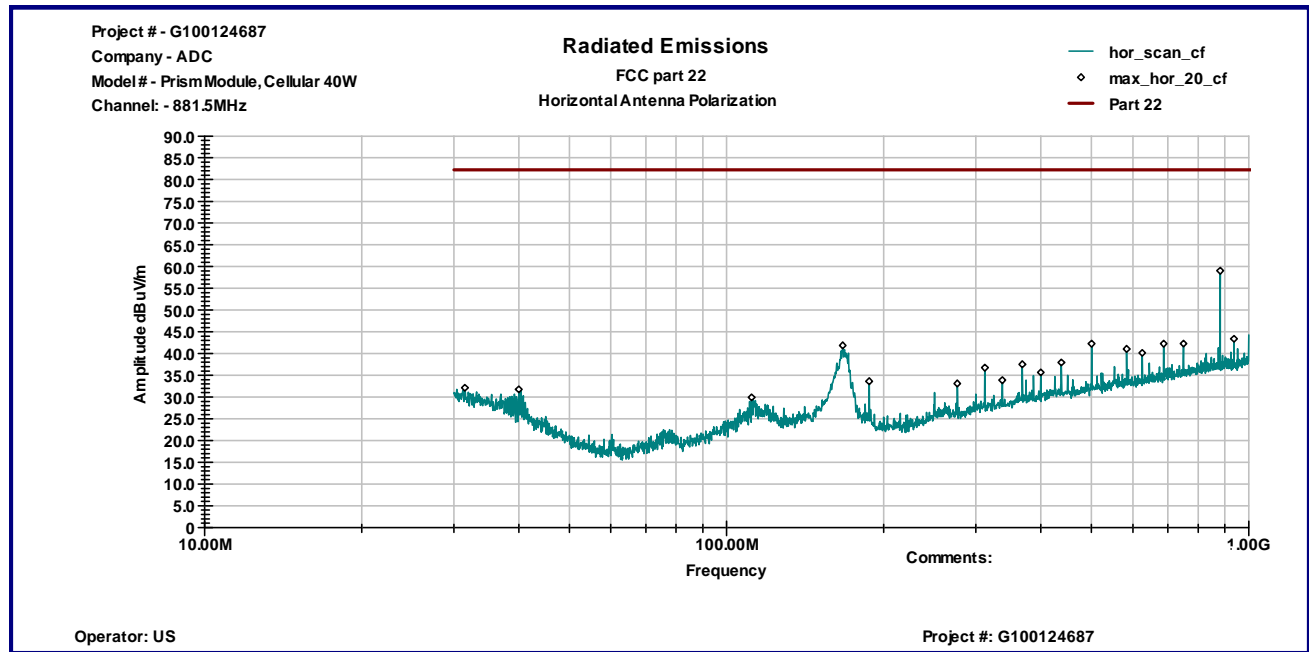
Graph 1



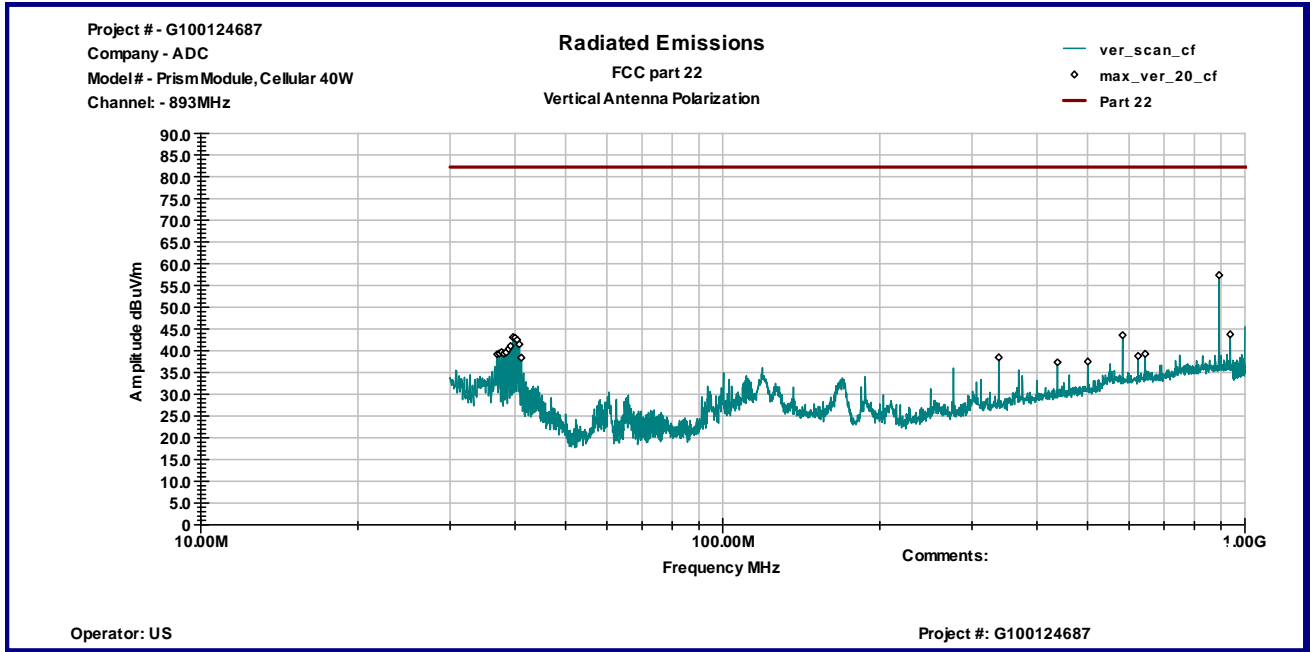
Graph 2



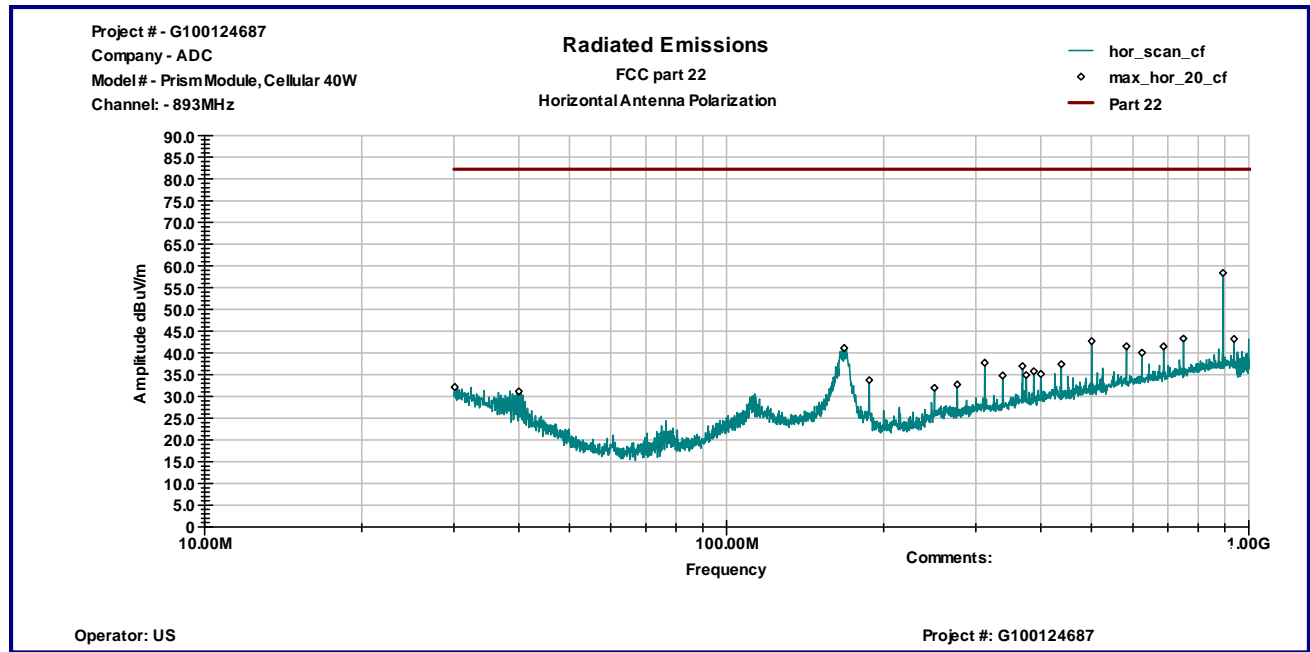
Graph 3



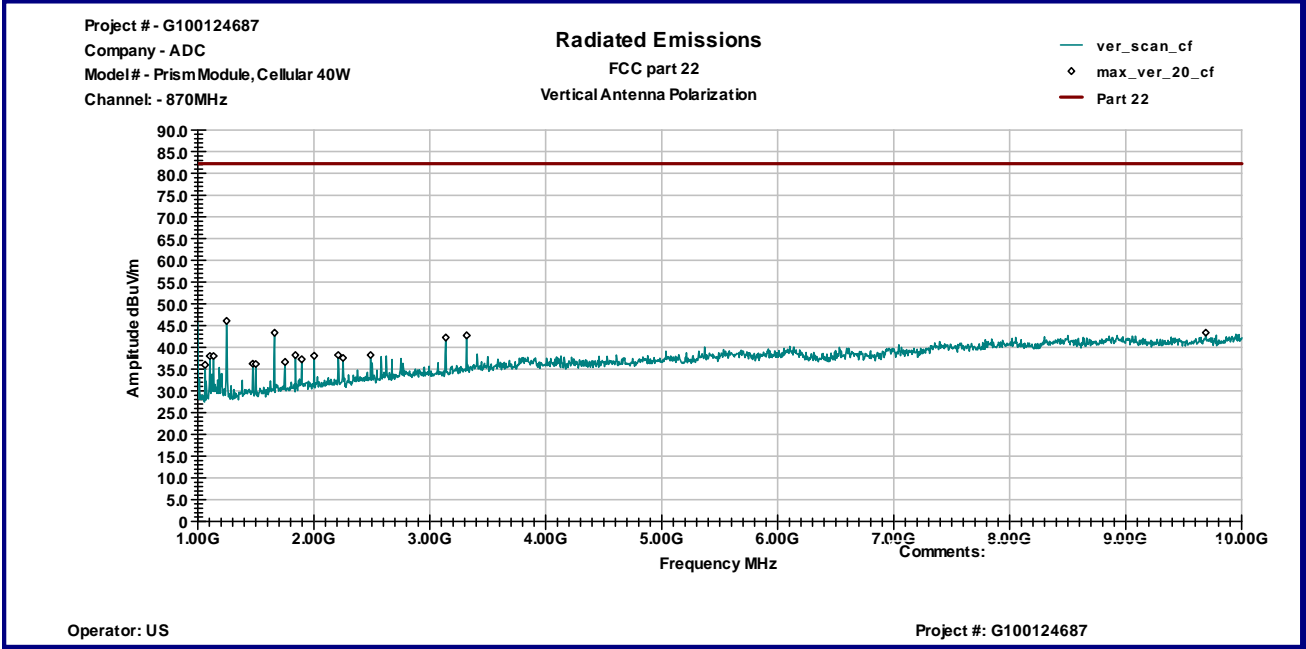
Graph 4



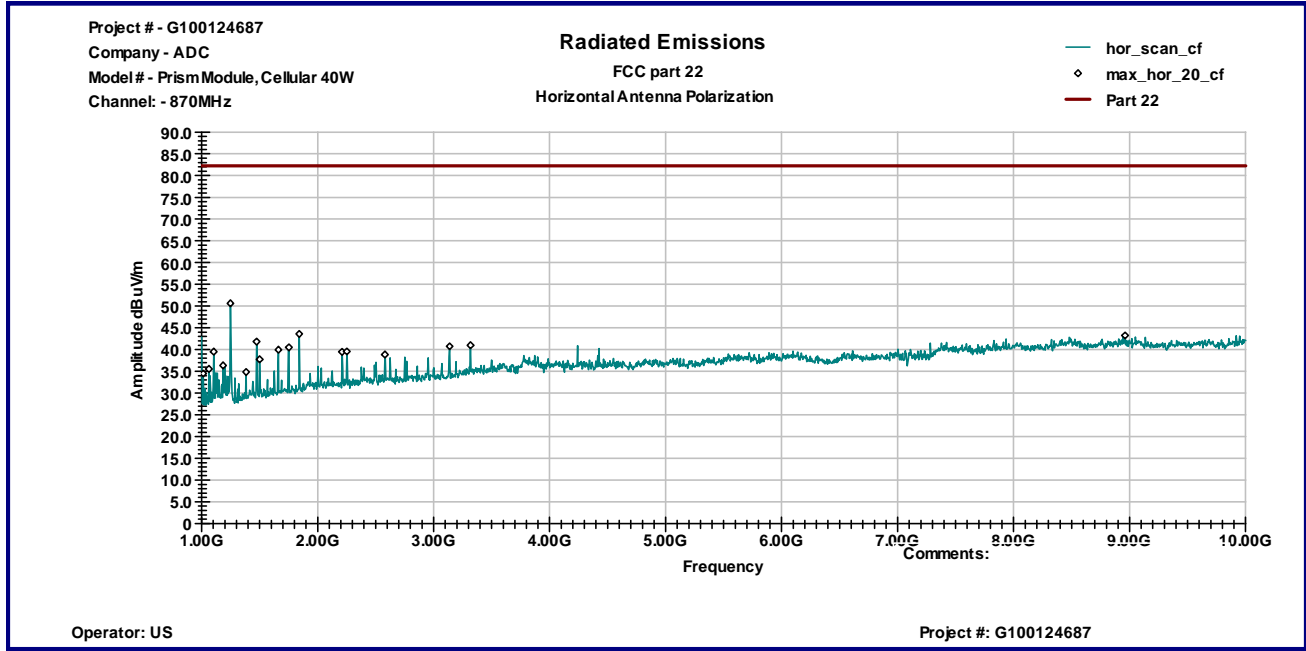
Graph 5



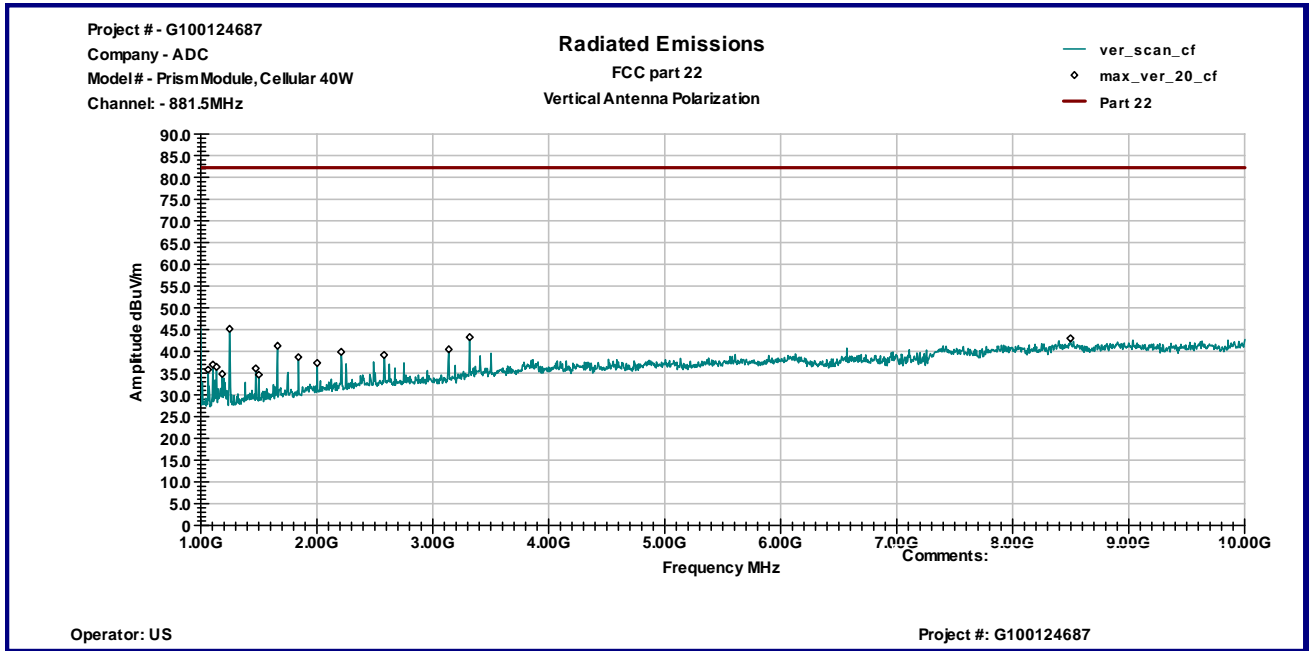
Graph 6



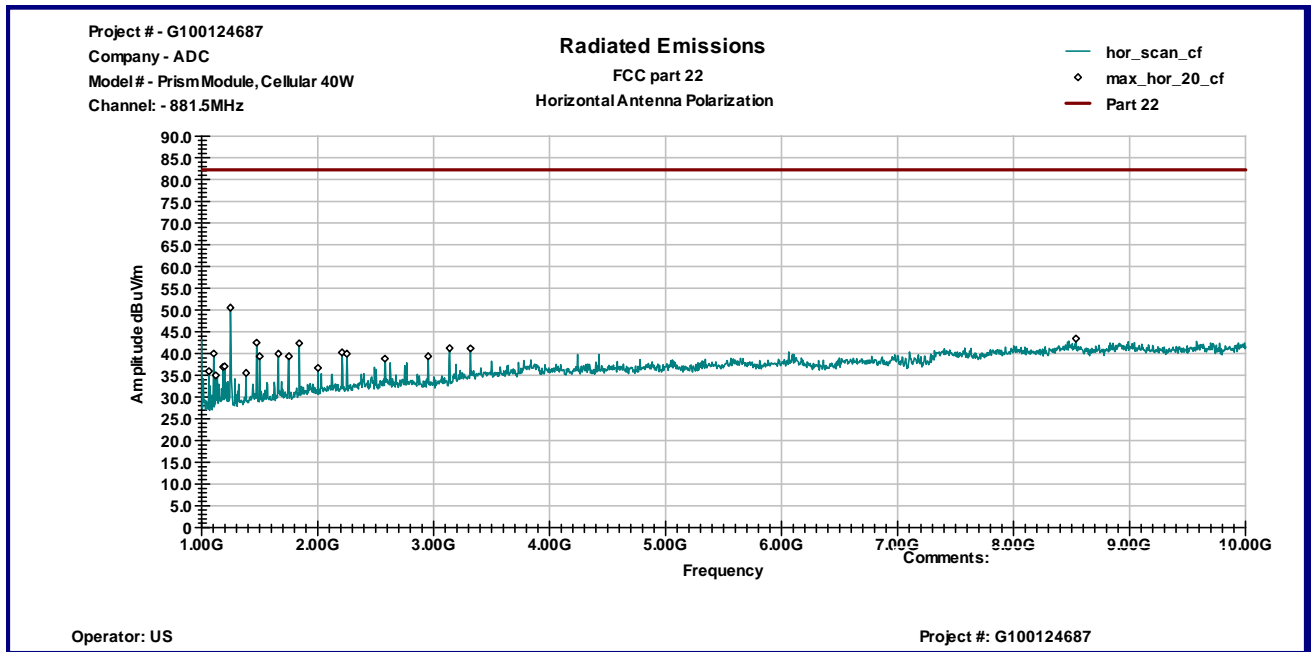
Graph 7



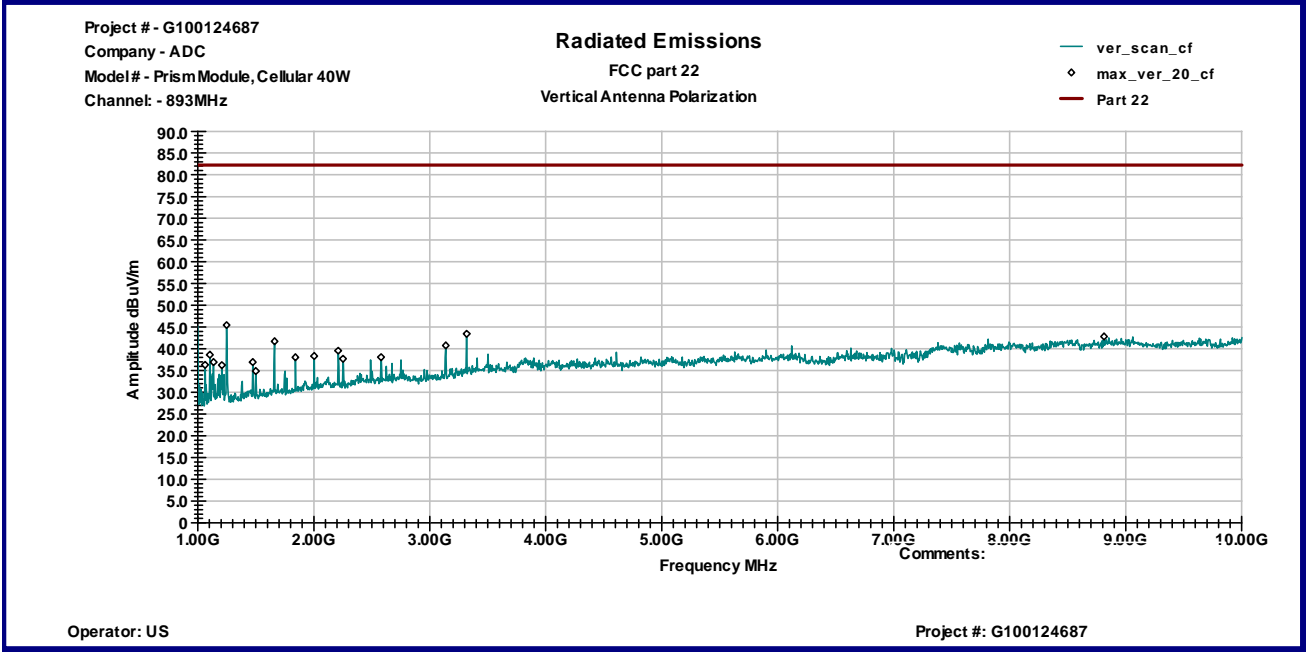
Graph 8



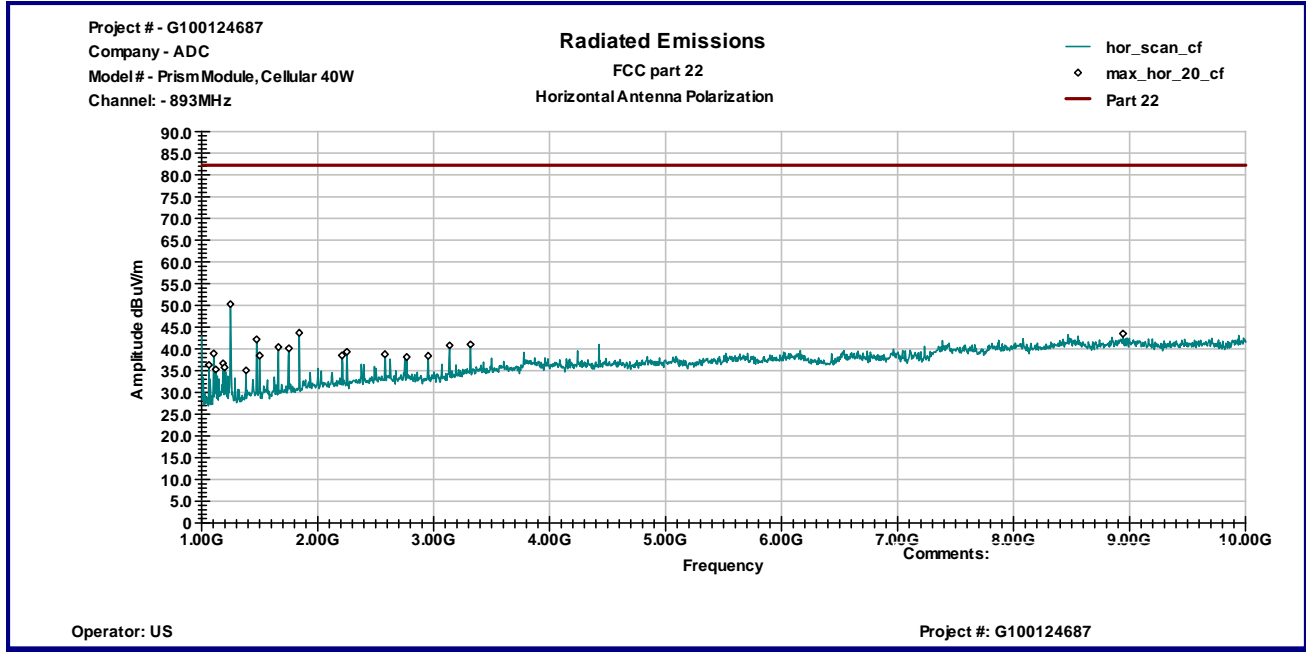
Graph 9



Graph 10



Graph 11



Graph 12

3.1 Environmental conditions

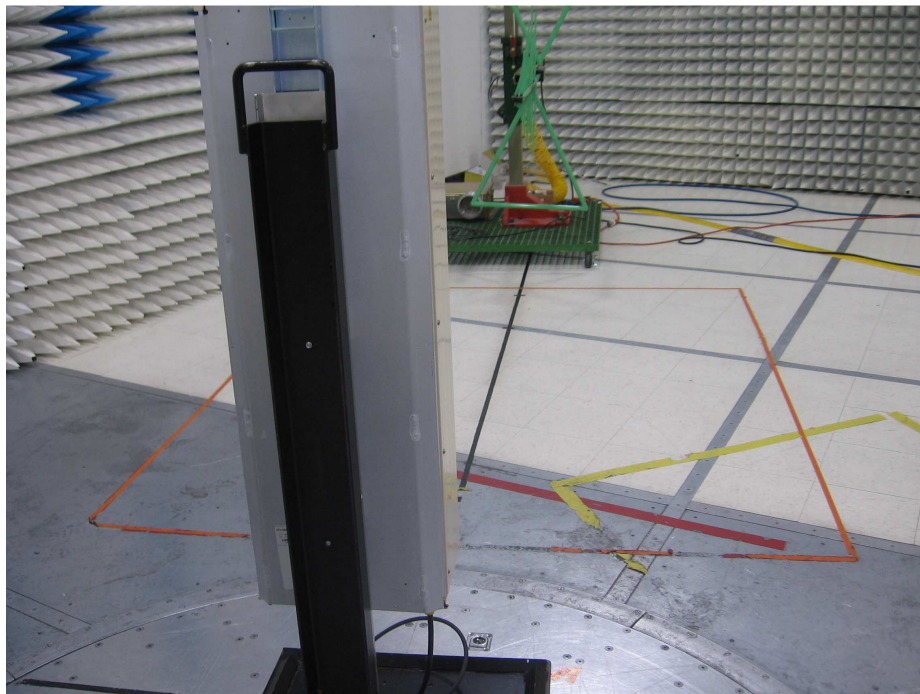
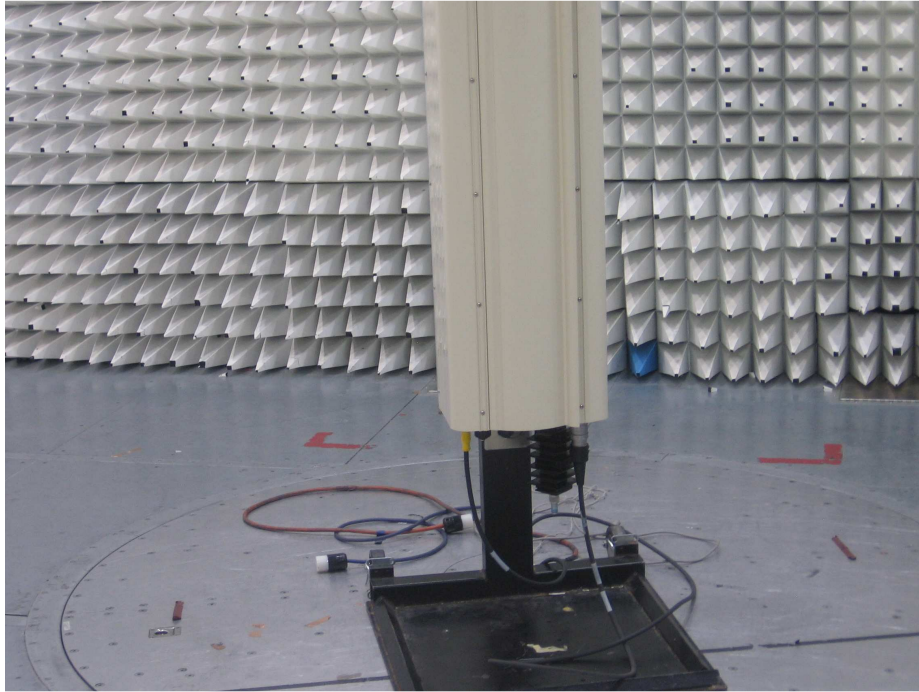
During the measurement the environmental conditions were within the listed ranges:

Temperature: 15-35 °C

Humidity: 30-60 %

Atmospheric pressure: 86-106 kPa

4.0 PHOTOS





5.0 TEST EQUIPMENT

DESCRIPTION	MANUFACTURER	MODEL	SERIAL NO.	INTERTEK ID	CAL DUE	USED
Spectrum Analyzer	R & S	FSP 40	100024	12559	09/10/2010	<input checked="" type="checkbox"/>
Bicono-Log Antenna	Schaffner-Chase	CBL 6112 B	2468	14459	09/22/2010	<input checked="" type="checkbox"/>
Horn Antenna	EMCO	3115	9507-4513	9936	04/13/2011	<input checked="" type="checkbox"/>
Pre-Amplifier	MITEQ	AMF-5D-00501800-28-13P	1402232	172081	08/07/2010	<input checked="" type="checkbox"/>
System	TILE! Instrument Control		Ver. 3.4.K.29	15259	VBU	<input checked="" type="checkbox"/>

