TEST DATA

Test Data Number: 3163126MIN-001
Project Number: 3163126

Testing performed on the
FlexWave Prism PCS

To
47 CFR, Part 24

For
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.
1187 Park Place
Shakopee, MN 55379

Prepared by: _____ Date: November 13, 2008
Simon Khazon

Reviewed by: _____ Date: November 13, 2008
Uri Spector

TABLE OF CONTENTS

1.0 DESCRIPTION OF THE SAMPLE (EUT)

Model:	FlexWave Prism PCS
Type of EUT:	Outdoor Repeater
Serial Number:	N/A
Company:	ADC Telecommunications Inc.
Customer:	Mr. Mark Miska
Address:	1187 Park Place Shakopee, MN 55379
Phone:	952-403-8340
Fax:	952-403-8858
Test Standards:	☐ EN 55022:2006, Class A ☐ EN 55011:1998 + A1:1999 + A2:2002, Group , Class ☐ 47 CFR, Part 15:2007, §15.107 and §15.109, Class A ☐ 47 CFR, Part 22:2007 ☒ 47 CFR, Part 24:2007 ☐ 47 CFR, Part 90:2007 ☐ EN 55014-1:2000 + A1:2001 + A2:2002 ☐ EN 61326-1:2006 ☐ Class for Radiated and Conducted Emissions ☐ EN 60601-1-2:2001 +A1:2006 ☐ Class Radiated and Conducted Emissions ☐ EN 61000-6-3:2007 ☐ EN 61000-6-4:2007 ☐ EN 61000-3-2:2006 ☐ EN 61000-3-3:1995 +A1:2001 +A2:2006 ☐ Other

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 24	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 (1930MHz), middle frequency (1960MHz), and upper frequency (1990MHz) of the operating band.
Testing was performed in frequency range from 30MHz to 20GHz. EUT tuned frequencies 1930MHz, 1960MHz, and 1990MHz were excluded form the table.
2. The Spurious Radiated Power limits of -13dBm was correlated with field strength reference level of 82.2dBµV/m during field strength measurements at 3m measurement distance

3.0 TEST RESULTS

3.1 Spurious Radiated Emissions

Tables 1 and 2 show detected Radiated Emissions. Table 3 shows substitution measurement.
Graphs 1 to 12 show the EUT peak Radiated Emissions.
No emissions with margin more than 20dB below the reference limit were chosen for substitution measurements.

Radiated Emissions from 30MHz to 1GHz **Date:** 11-10-11-2008

Company: ADC Telecommunications Inc.
Model: FlexWave Prism PCS
Test Engineer: Simon Khazon
Standard: FCC Part 24
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 1930MHz					
30.9 MHz	V	16.2	18.5	34.7	82.2	-47.5
118.06 MHz	V	23.7	13.7	37.4	82.2	-44.8
437.84 MHz	V	21.6	19.5	41.1	82.2	-41.1
399.05 MHz	H	23.5	18.9	42.4	82.2	-39.8
437.84 MHz	H	27.1	19.5	46.6	82.2	-35.6
625.55 MHz	H	19.5	22.7	42.2	82.2	-40.0
	Operating Frequency 1960MHz					
33.325 MHz	V	31.3	17.1	48.4	82.2	-33.8
68.513 MHz	V	45.7	7.1	52.8	82.2	-29.4
142.14 MHz	V	31.9	12.8	44.7	82.2	-37.5
437.84 MHz	V	20.8	19.5	40.3	82.2	-41.9
437.84 MHz	H	28.6	19.5	48.1	82.2	-34.1
450.31 MHz	H	21.4	19.6	41.0	82.2	-41.2
829.53 MHz	H	20.3	24.6	44.9	82.2	-37.3
	Operating Frequency 1990MHz					
31.178 MHz	V	16.0	18.3	34.3	82.2	-47.9
112.68 MHz	V	23.0	13.7	36.7	82.2	-45.5
437.84 MHz	V	21.1	19.5	40.6	82.2	-41.6
42.468 MHz	H	38.9	11.9	50.8	82.2	-31.4
437.84 MHz	H	28.5	19.5	48.0	82.2	-34.2
450.31 MHz	H	20.7	19.6	40.3	82.2	-41.9
829.53 MHz	H	19.7	24.6	44.3	82.2	-37.9

Radiated Emissions from 1GHz to 20GHz **Date:** 11-10-11-2008

Company: ADC Telecommunications Inc.
Model: FlexWave Prism PCS
Test Engineer: Simon Khazon
Special Info:
Standard: FCC Part 24
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

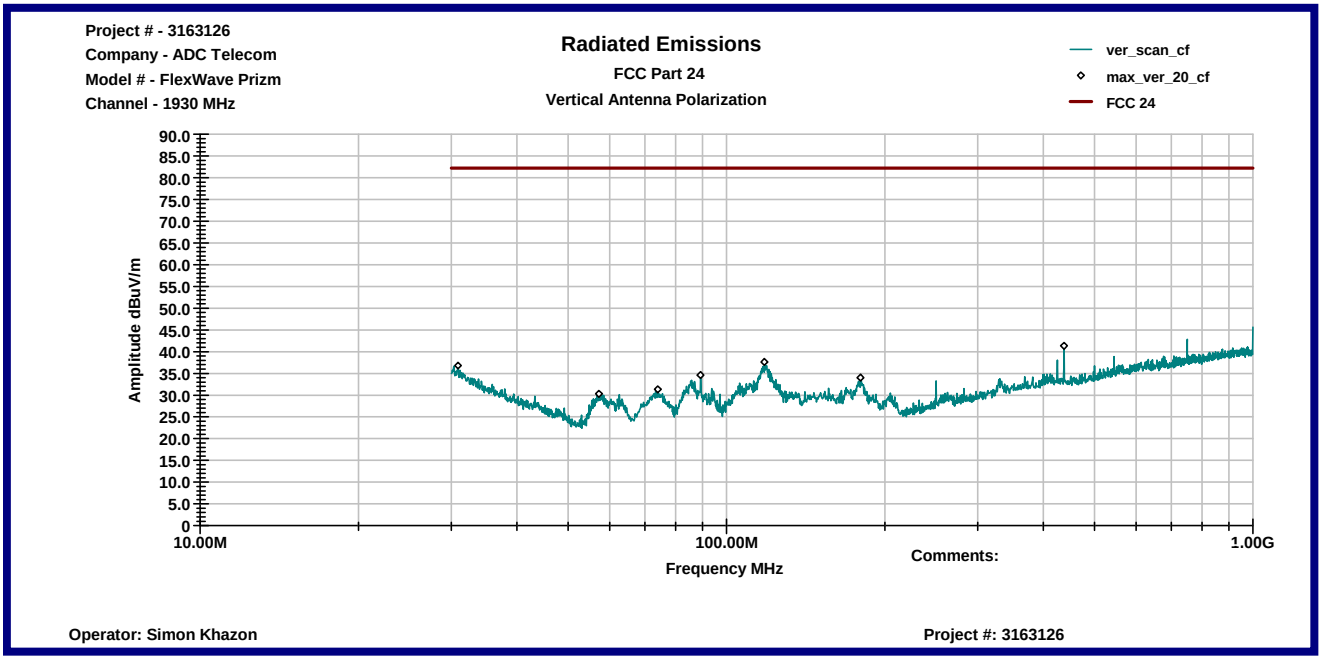
Frequency MHz	Antenna Polarity	Reading dBµV	Total C.F. dB1/m	Pre-Amp. Gain (dB)	Total at 3m dBµV/m	QP Limit dBµV/m	Margin dB
		Operating Frequency 1930 MHz					
3.8588 GHz	V	71.8	35.7	37.7	69.9	82.2	-12.3
5.7912 GHz	V	55.8	38.6	36.8	57.6	82.2	-24.6
13.838 GHz	V	43.3	48.7	35.3	56.7	82.2	-25.5
17.952 GHz	V	41.6	54.7	35.5	60.8	82.2	-21.4
3.8588 GHz	H	62.2	35.7	37.7	60.3	82.2	-21.9
13.713 GHz	H	43.5	48.4	35.1	56.8	82.2	-25.4
17.983 GHz	H	41.8	54.9	35.5	61.2	82.2	-21.0
		Operating Frequency 1960 MHz					
1.9917 GHz	V	63.1	30.0	38.6	54.5	82.2	-27.7
13.883 GHz	V	43.0	48.8	35.4	56.4	82.2	-25.8
17.952 GHz	V	42.3	54.7	35.5	61.5	82.2	-20.7
1.2493 GHz	H	57.8	26.9	39.6	45.2	82.2	-37.0
1.8443 GHz	H	56.4	29.3	38.8	46.9	82.2	-35.3
1.9888 GHz	H	63.0	30.0	38.6	54.4	82.2	-27.8
13.877 GHz	H	43.1	48.8	35.4	56.5	82.2	-25.7
18.0 GHz	H	41.4	55.0	35.5	60.9	82.2	-21.3
		Operating Frequency 1990 MHz					
1.2465 GHz	V	60.96	26.907	39.603	48.3	82.2	-33.9
3.9807 GHz	V	68.26	36.137	37.696	66.7	82.2	-15.5
14.849 GHz	V	43.99	48.766	36.035	56.7	82.2	-25.5
17.991 GHz	V	42.01	54.958	35.5	61.5	82.2	-20.7
1.8443 GHz	H	56.6	29.3	38.8	47.1	82.2	-35.1
3.9807 GHz	H	67.4	36.1	37.7	65.8	82.2	-16.4
5.9697 GHz	H	50.0	38.7	36.6	52.1	82.2	-30.1
14.518 GHz	H	42.1	50.3	35.7	56.7	82.2	-25.5
17.918 GHz	H	42.4	54.5	35.5	61.4	82.2	-20.8

Spurious Enclosure Emissions **Date:** 11-13-2008

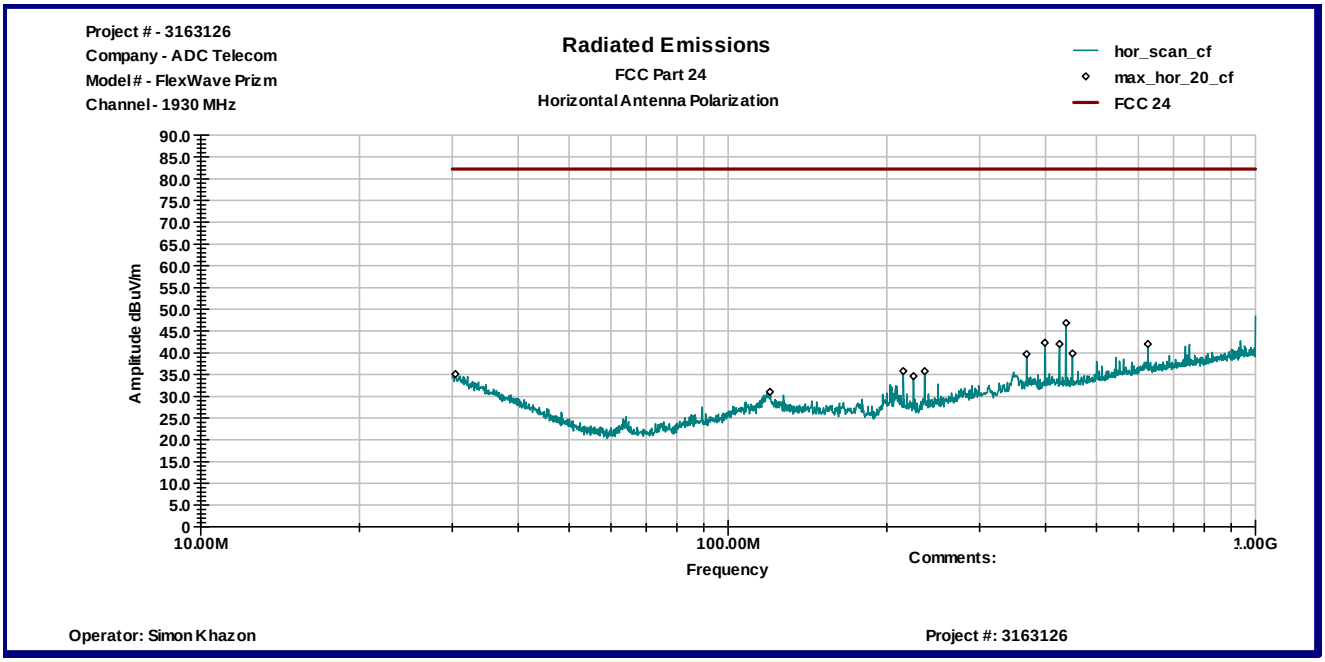
Company: ADC Telecommunications Inc.
Model: FlexWave Prism PCS
Test Engineer: Simon Khazon
Special Config. Info: 1930 MHz; 1990 MHz
Substitution Measurements
Limits FCC Part 27
Frequency Range: 30MHz - 20GHz
Test Site: 3m Anechoic Chamber
Note: The table shows radiated emissions with margin less than 20dB below straight measurements limits

Table # 3

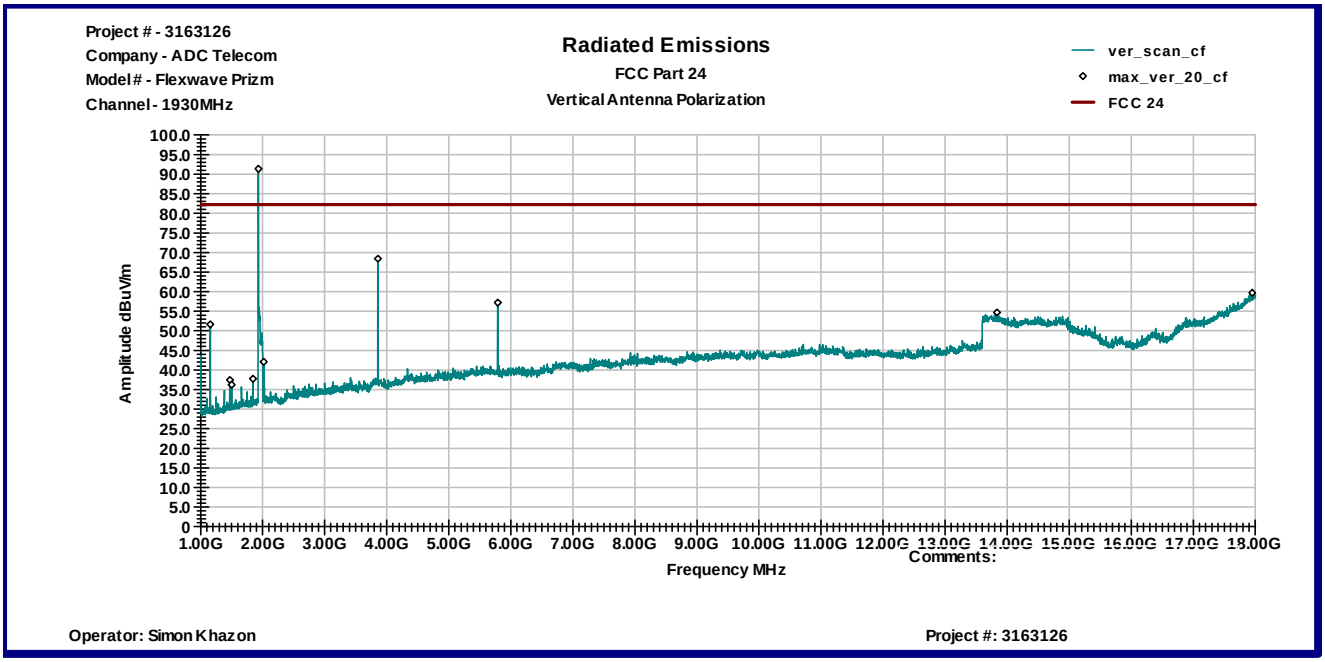
Frequency MHz	Antenna Polarity	Measured Emissions dBµV	Substitution Antenna Power dBm	Substitution Antenna Gain dBi	Cable Loss dB	ERP Spur. Emissions dBm	Limit dBm	Margin dB
	Operating frequency 1930MHz							
3.8588 GHz	V	71.8	-34.1	9.7	0.1	-24.5	-13.0	-11.5
	Operating frequency 1990MHz							
3.9807 GHz	V	68.26	-35.9	9.7	0.1	-26.3	-13.0	-13.3
3.9807 GHz	H	67.4	-37.3	9.7	0.1	-27.7	-13.0	-14.7



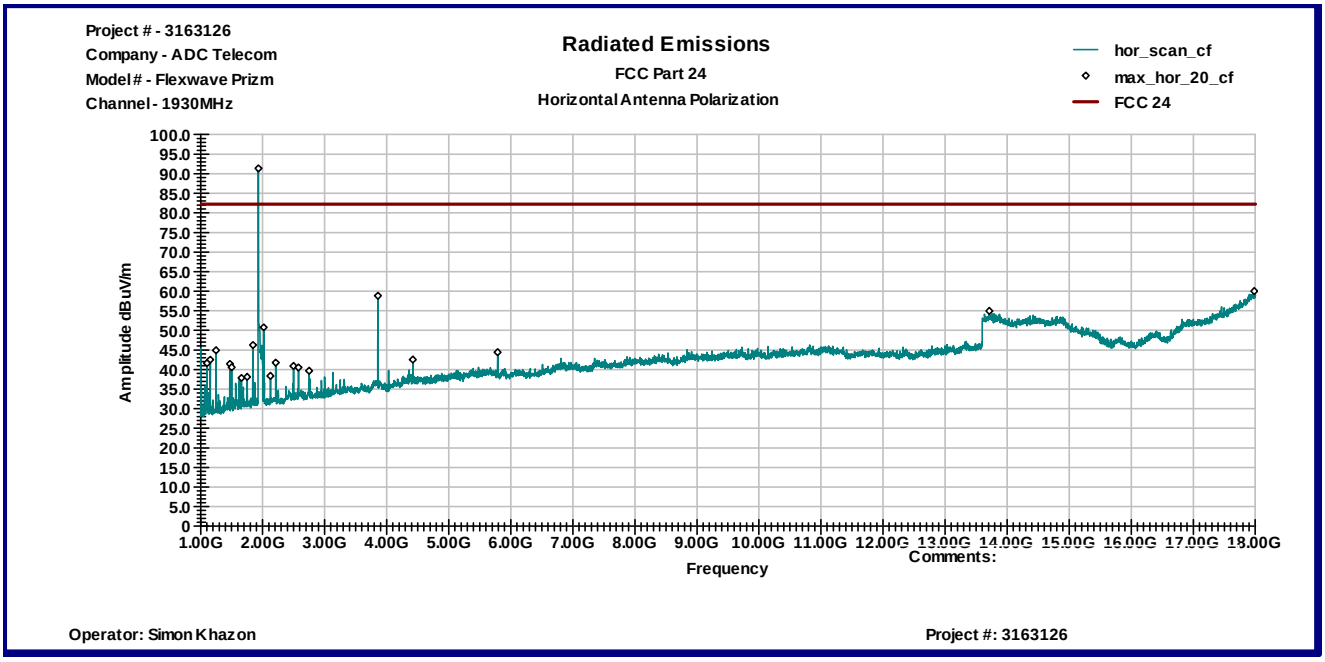
Graph 1



Graph 2



Graph 3



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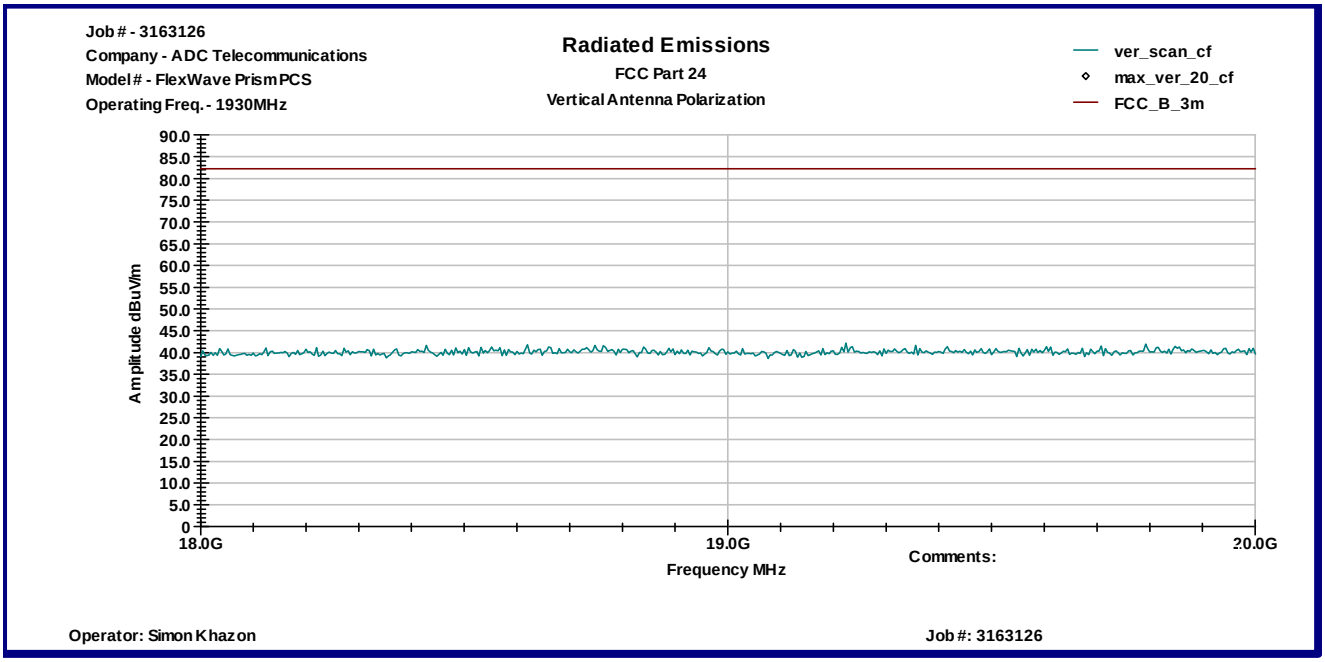
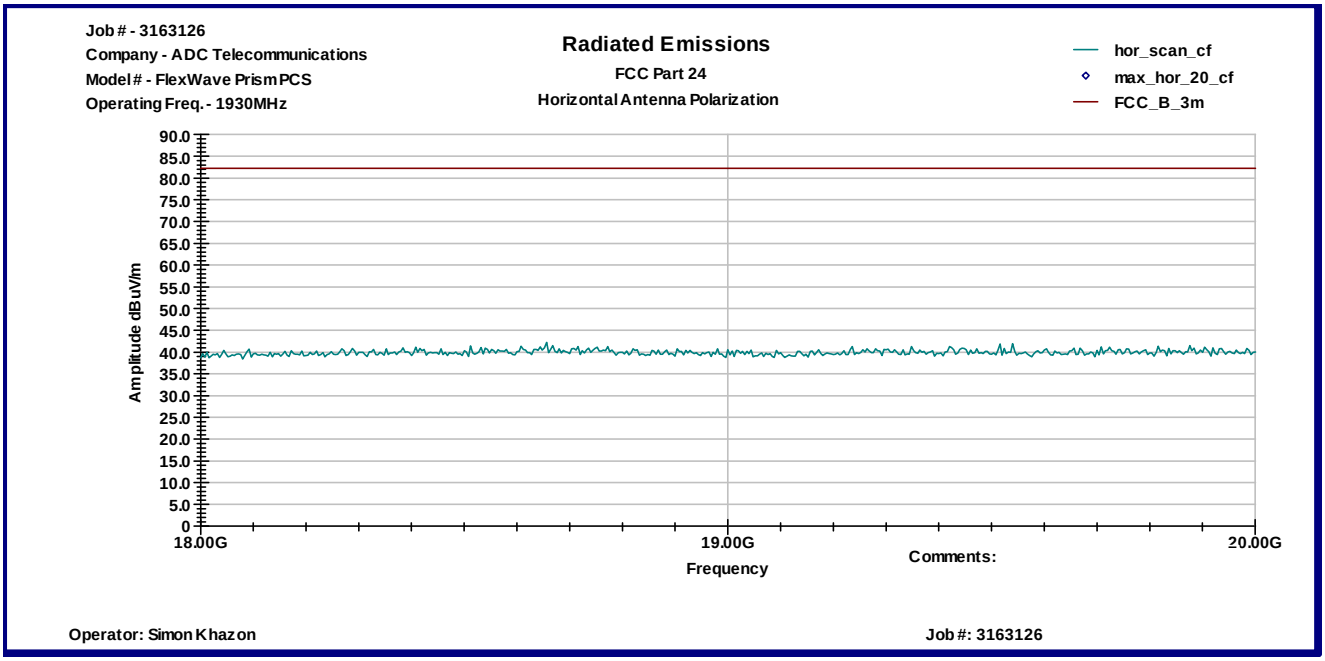
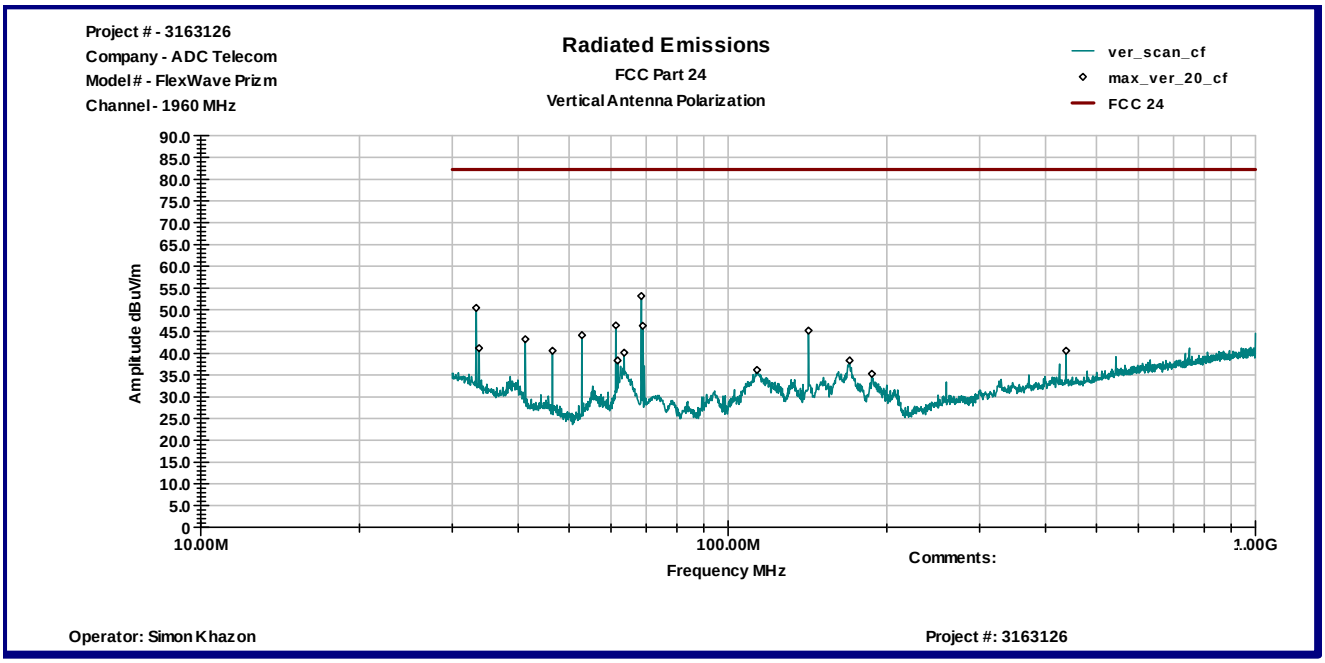


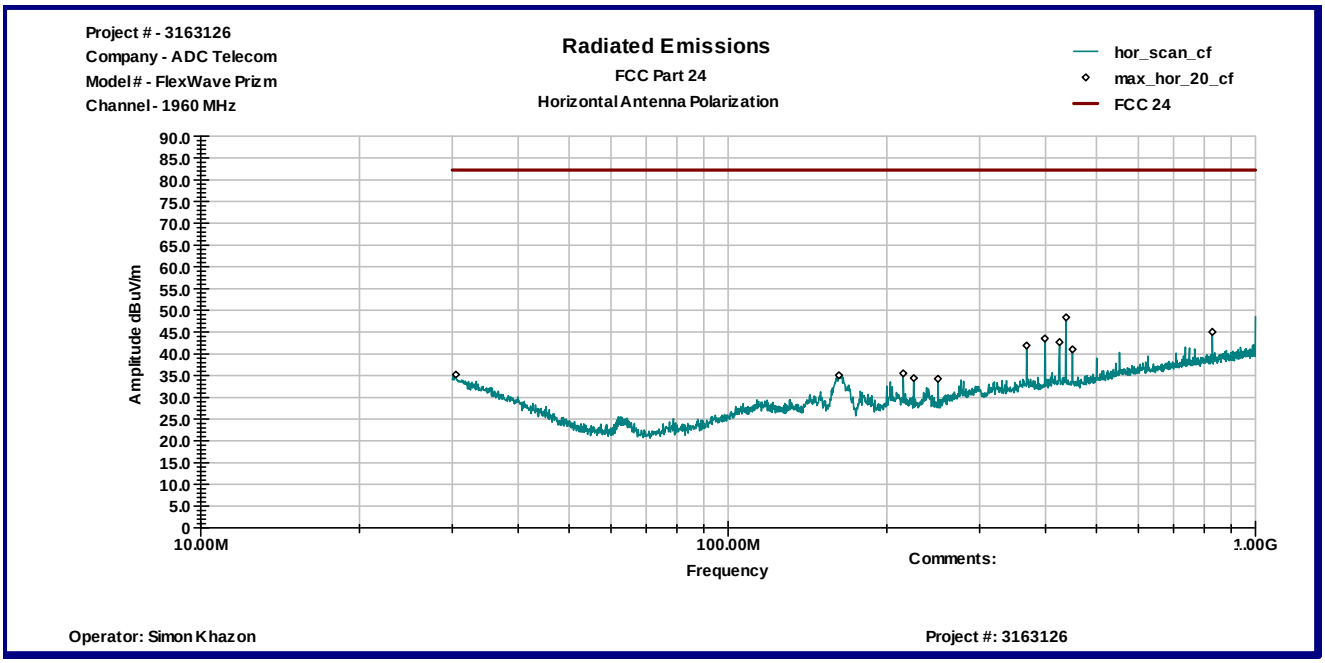
Graph 5



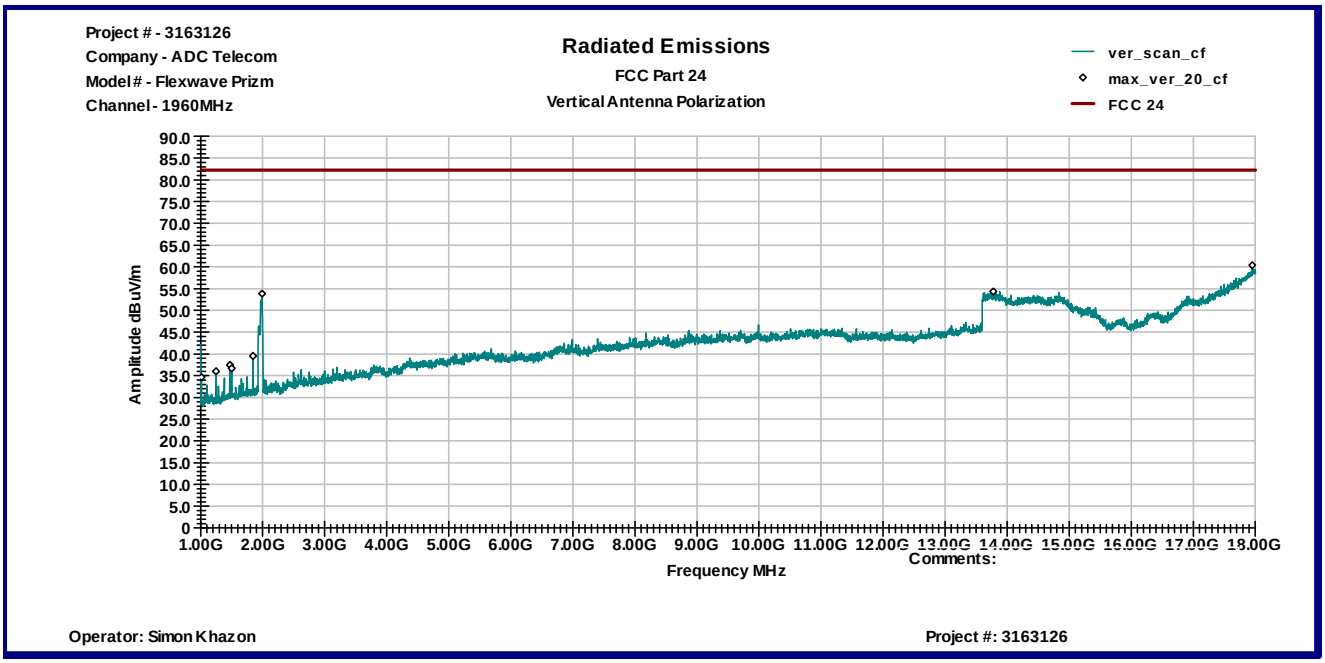
Graph 6



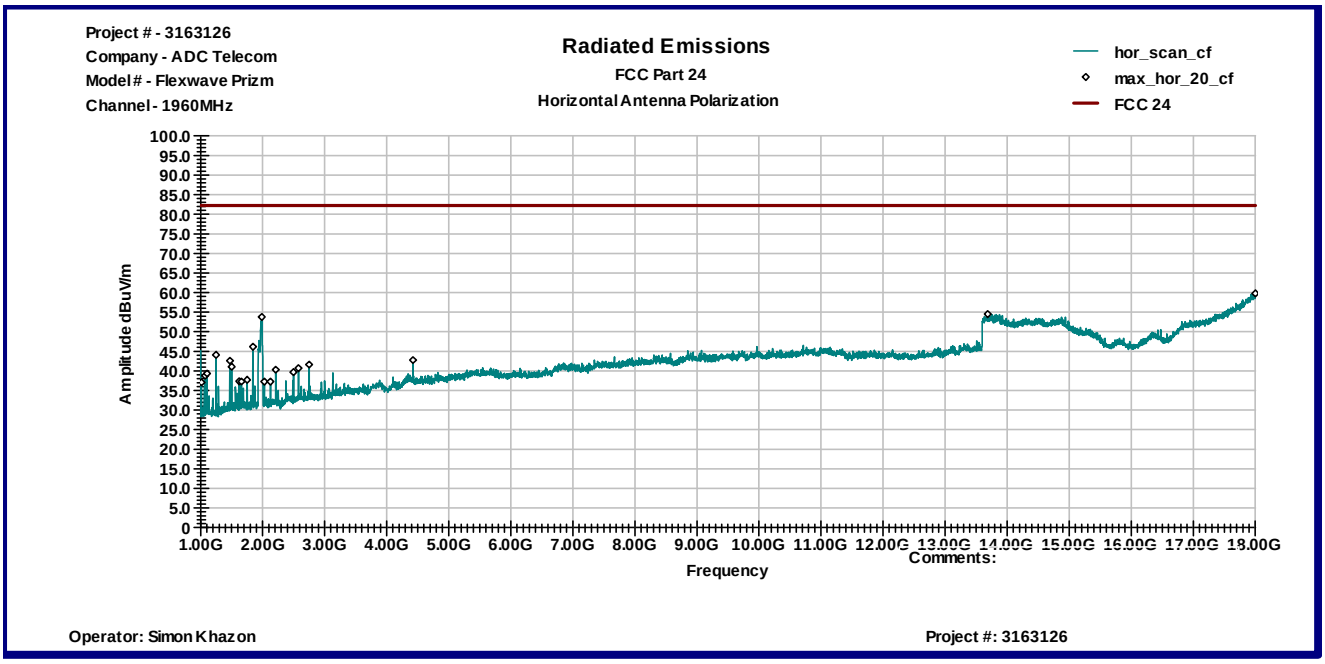
Graph 7



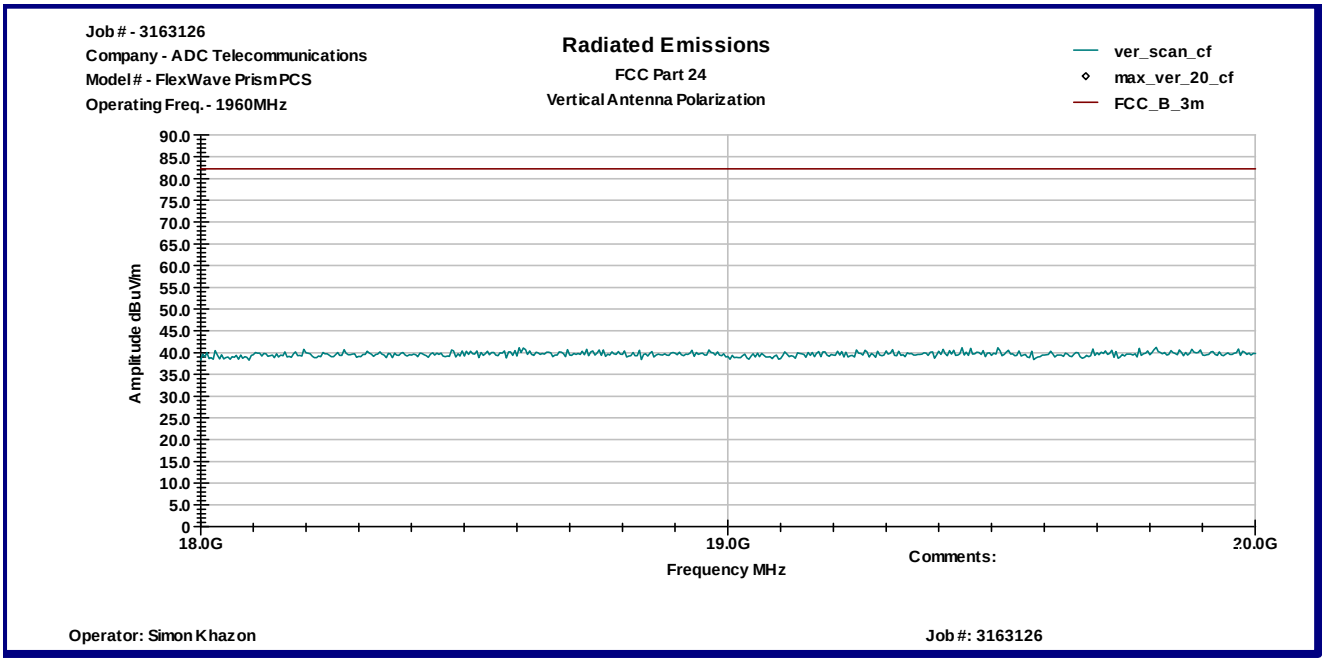
Graph 8



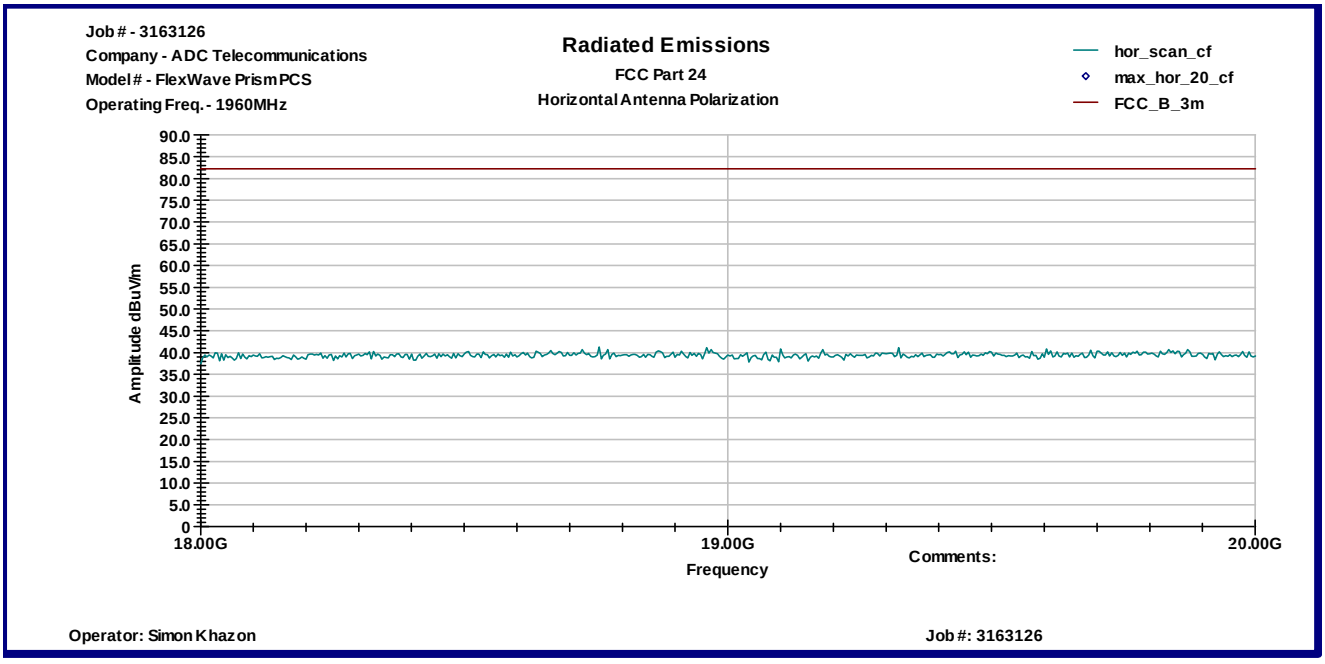
Graph 9



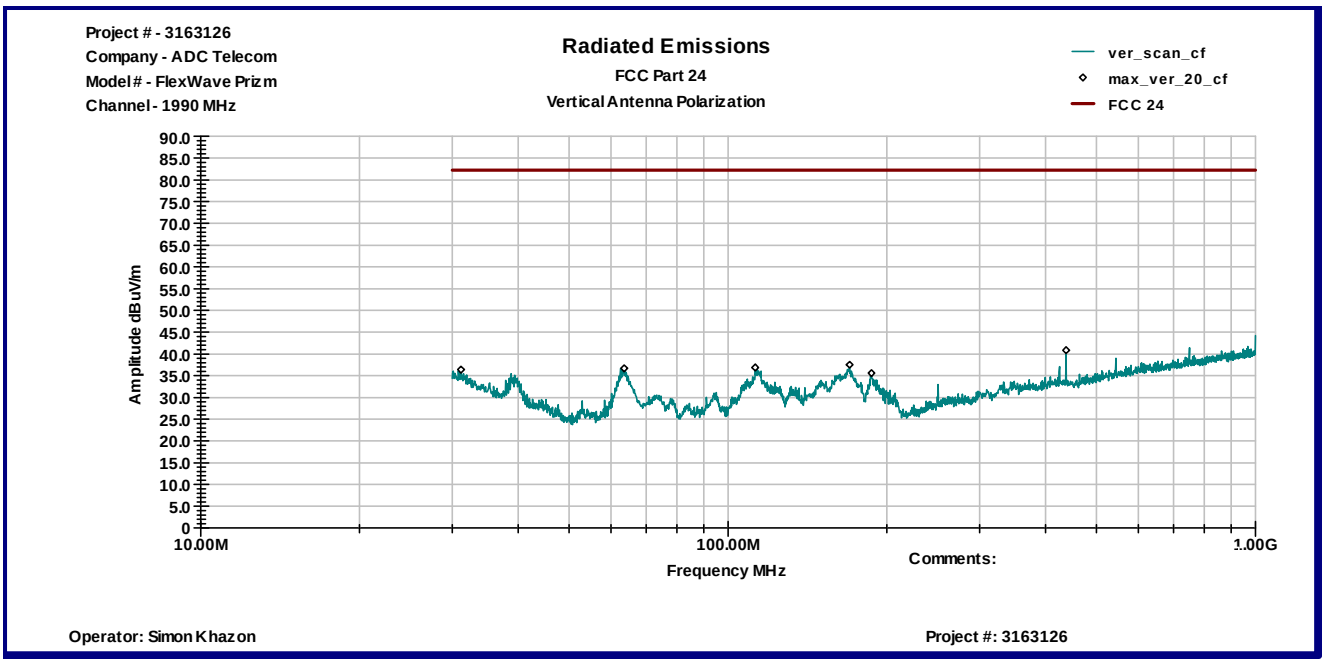
Graph 10



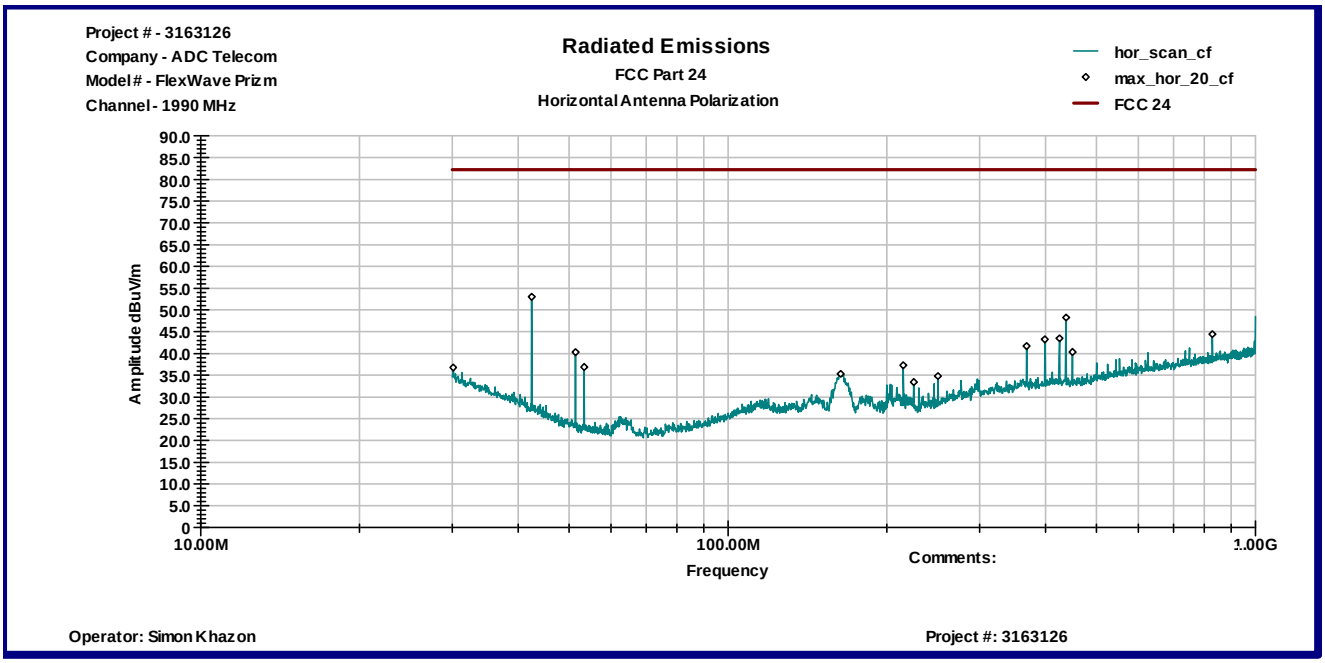
Graph 11



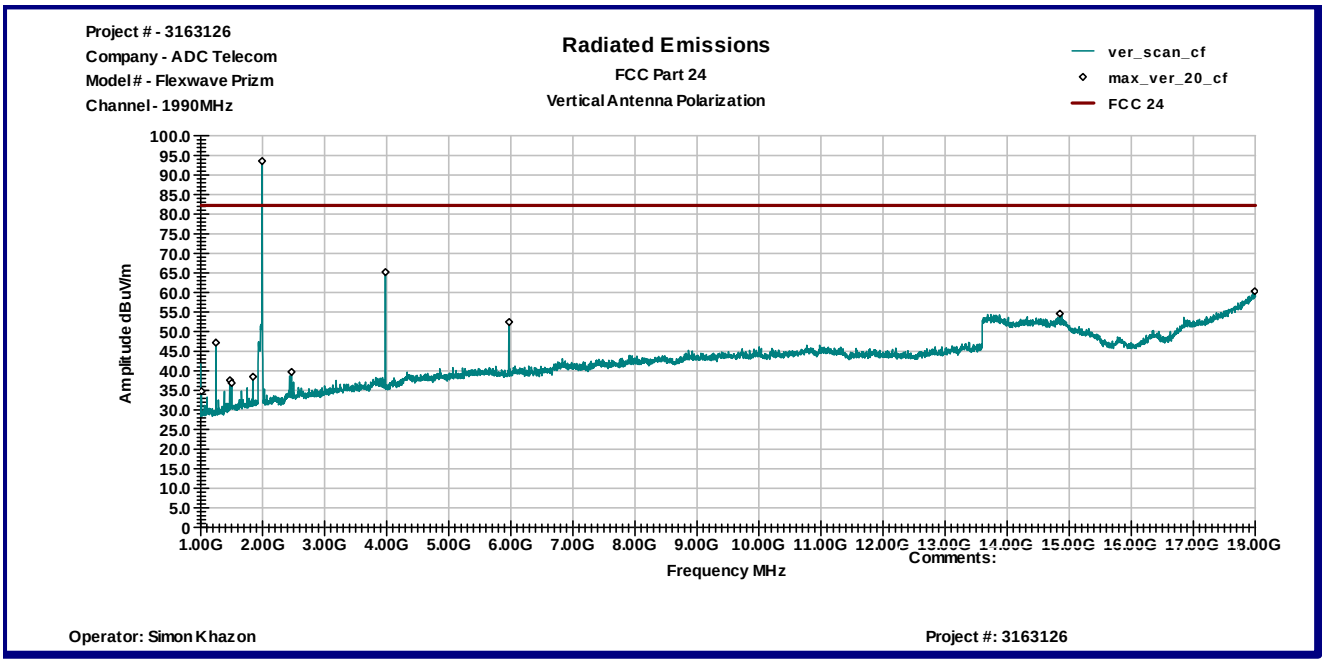
Graph 12



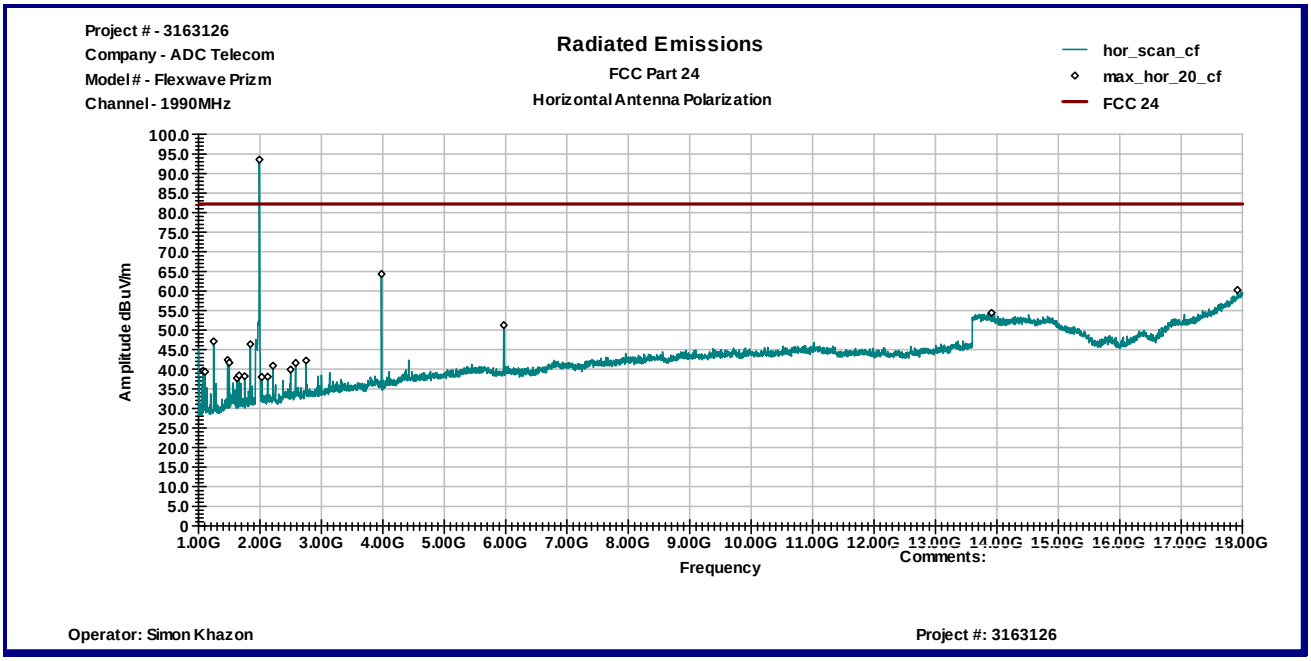
Graph 13



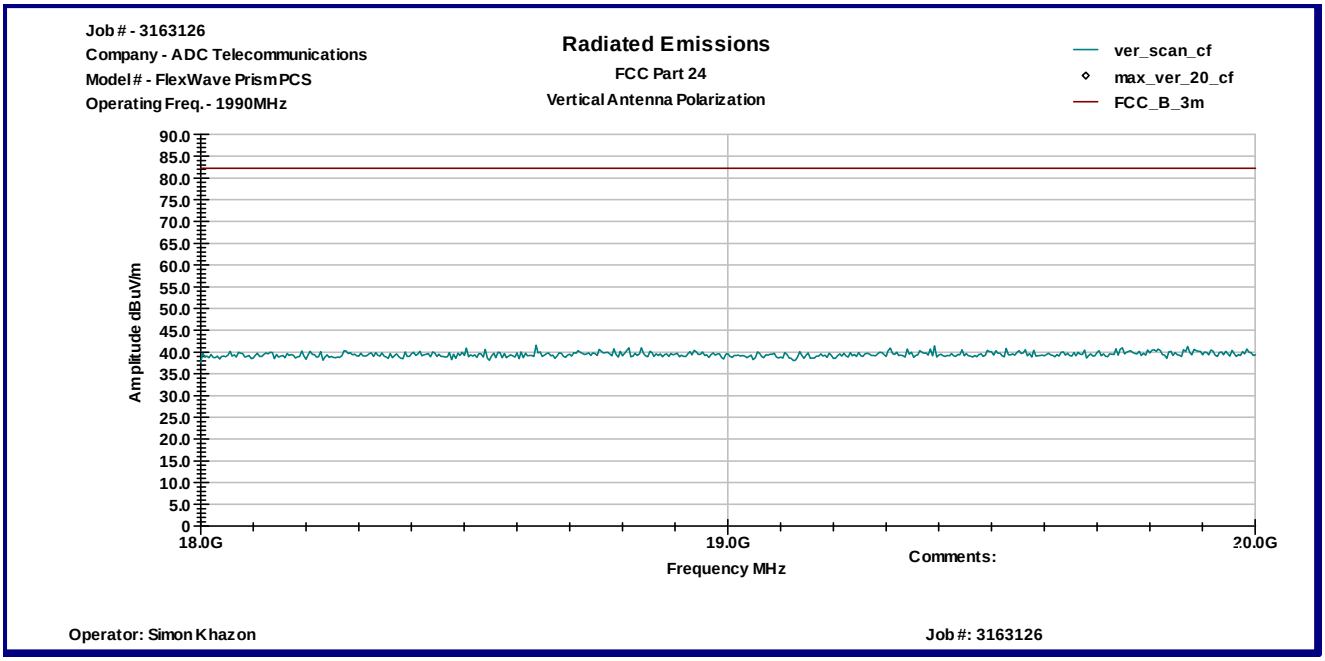
Graph 14



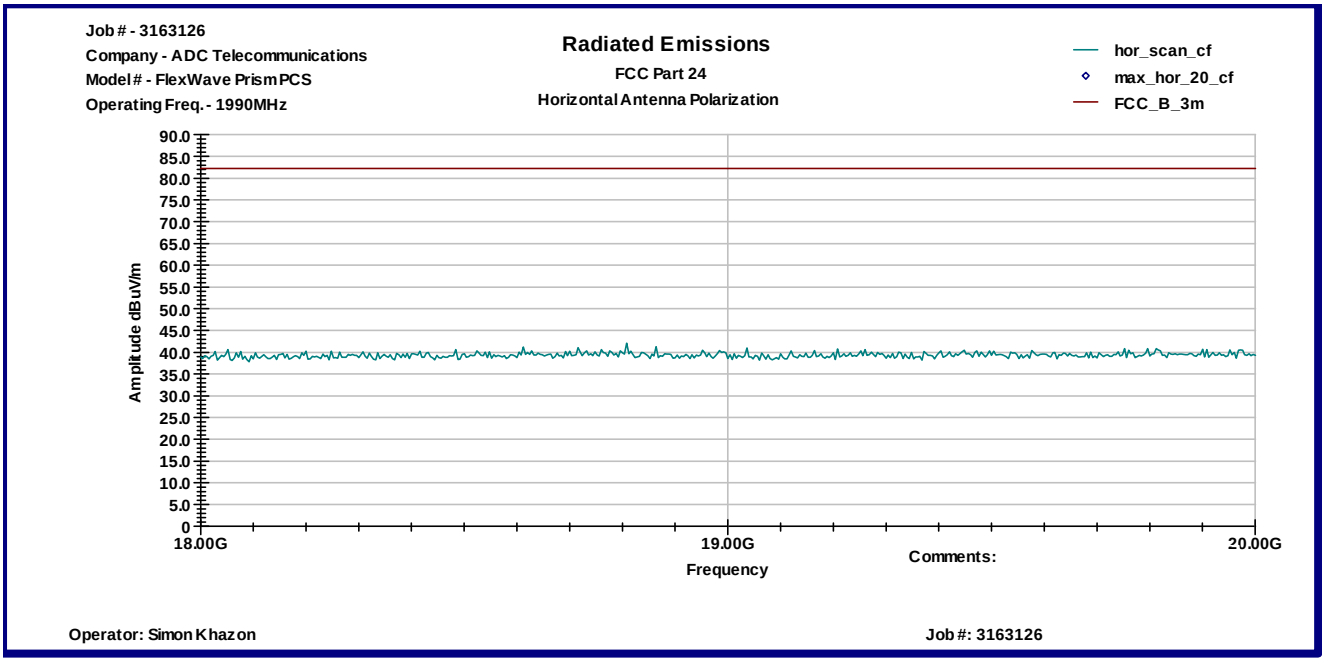
Graph 15



Graph 16



Graph 17



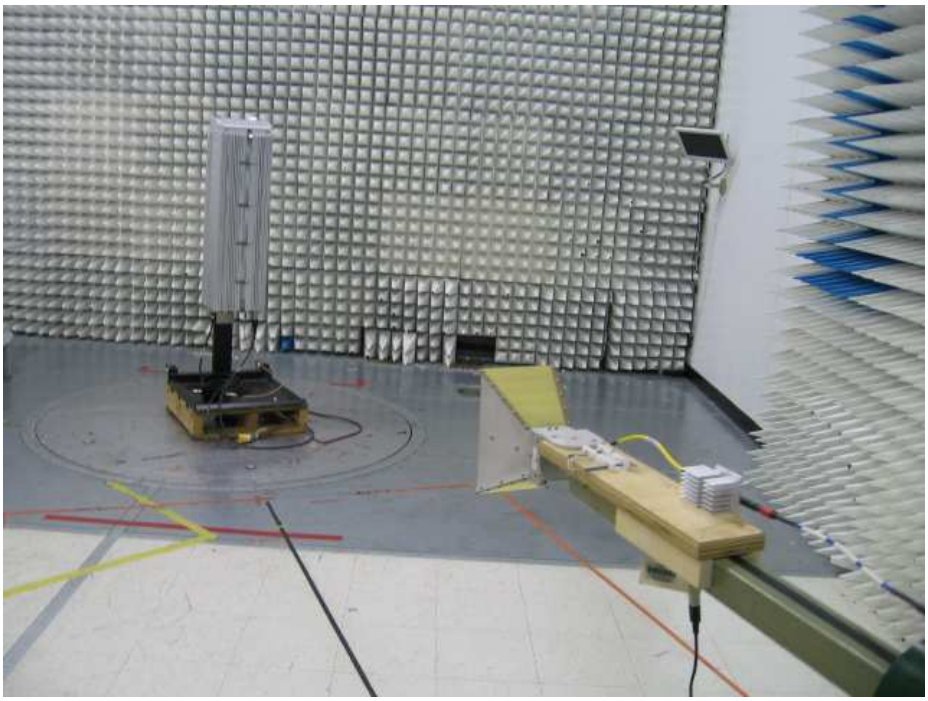
Graph 18

3.2 Environmental conditions

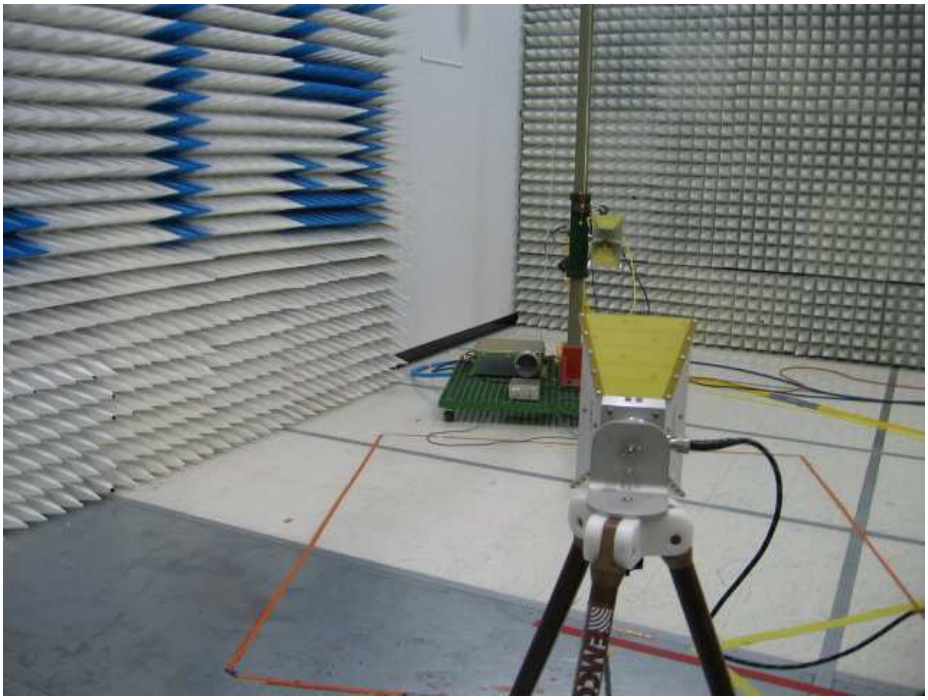
During the measurement the environmental conditions were within the listed ranges:

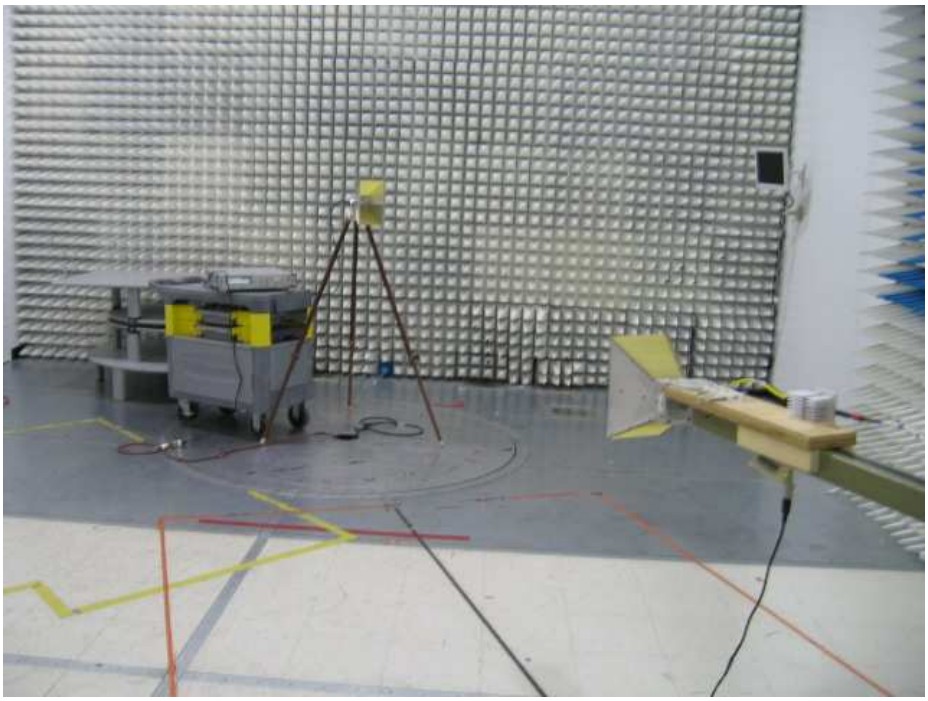
Temperature:	15-35 °C
Humidity:	30-60 %
Atmospheric pressure:	86-106 kPa

4.0 PHOTOS



Test Setup Photos





Test Setup Photos

5.0 TEST EQUIPMENT

DESCRIPTION	MANUFACTURER	MODEL	SERIAL NO.	CAL DUE	USED
Spectrum Analyzer	R & S	FSP 40	100024	08/22/2009	☒
Spectrum Analyzer	R & S	ESCI	100358	05/07/2009	☒
Bicono-Log Antenna	Schaffner-Chase	CBL 6112 B	2630	09/26/2009	☒
Horn Antenna	EMCO	3115	9507-4513	02/13/2009	☒
Waveguide Horn Antenna	EMCO	3116	9904-2423	07/20/2009	☒
Horn Antenna	EMCO	3115	6579	03/20/2009	☒
Signal Generator	R & S	SMR20	101469	06/30/2009	☒
Pre-Amplifier	MITEQ	AMF-5D-00501800-28-13P	1122951	04/28/2009	☒
Pre-Amplifier	MITEQ	AMF-6F-16002600-25-10P	1222383	01/17/2009	☒
System	TILE! Instrument Control		Ver. 3.4.K.29	VBU	☒