



TEST DATA

Test Data Number: 3163122MIN-001

Project Number: 3163122

Testing performed on the
picoBTS_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: 
Norman Shpilsher

Date: November 25, 2008

Reviewed by: 
Simon Khazon

Date: November 25, 2008



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1.0 DESCRIPTION OF THE SAMPLE (EUT)

Model:	picoBTS_PCS
Type of EUT:	Base Transceiver Station
Serial Number:	810075
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 ☐ ☐ EN 55011:2007, Group ☐ , Class ☐ ☐ 47 CFR, Part 15:2007, §15.107 and §15.109, Class ☐ ☒ 47 CFR, Part 24:2007 ☐ 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:

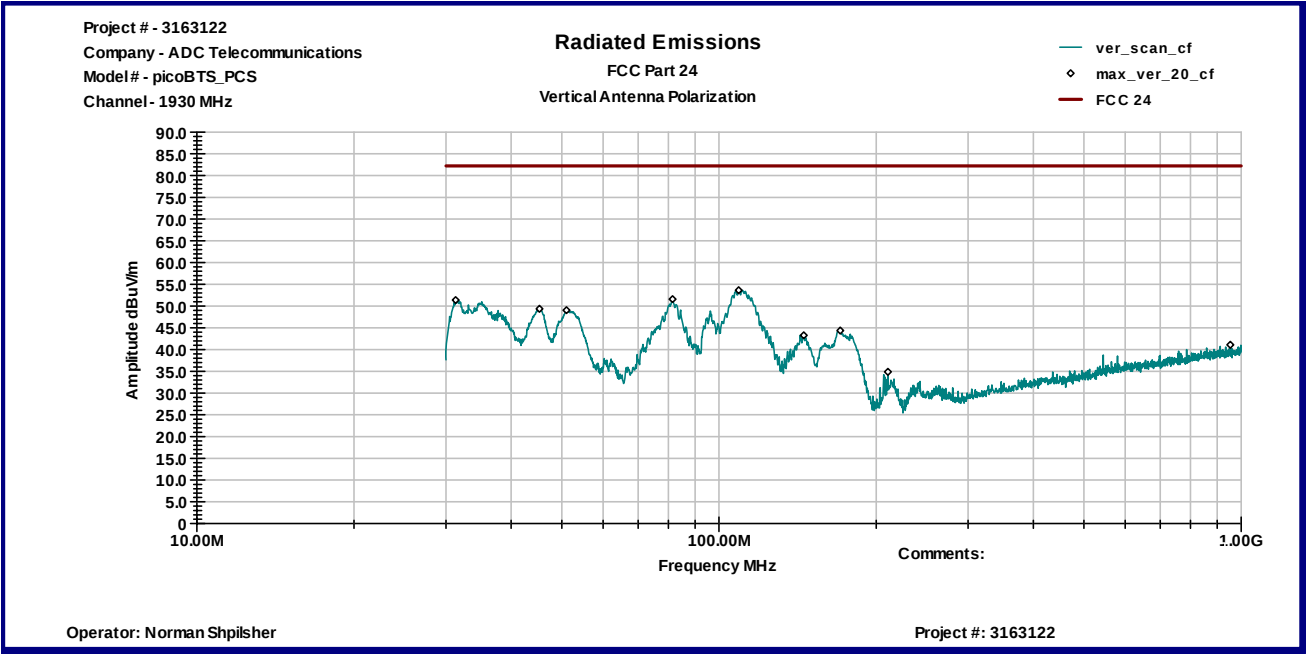
1. Test was performed with the EUT tuned to the low frequency (1930MHz), middle frequency (1960MHz), and upper frequency (1990MHz) of the operating band.
Testing was performed in frequency range from 30MHz to 20GHz.
2. The Spurious Radiated Power limits of -13dBm was correlated with field strength reference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

3.0 TEST RESULTS

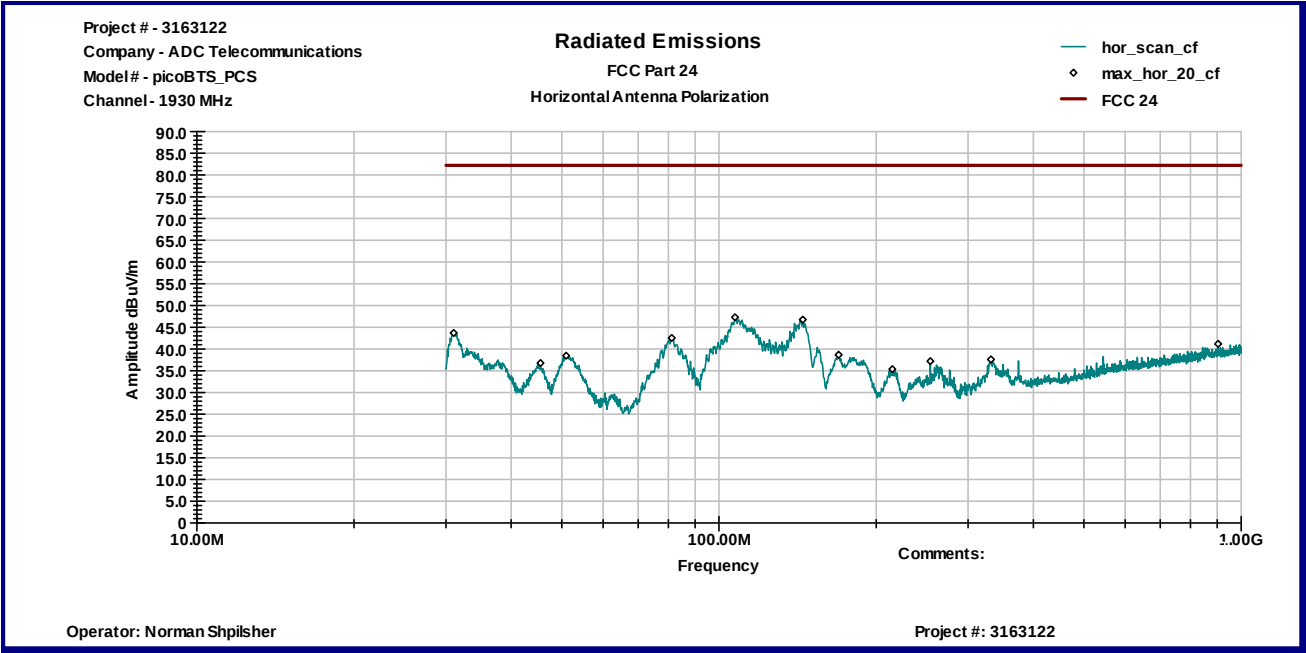
Table 1 and Graphs 1 to 18 show the EUT peak Radiated Emissions.
No emissions with margin less than 20dB below the reference limit were detected, therefore no frequencies were chosen for substitution measurements.

Table # 1

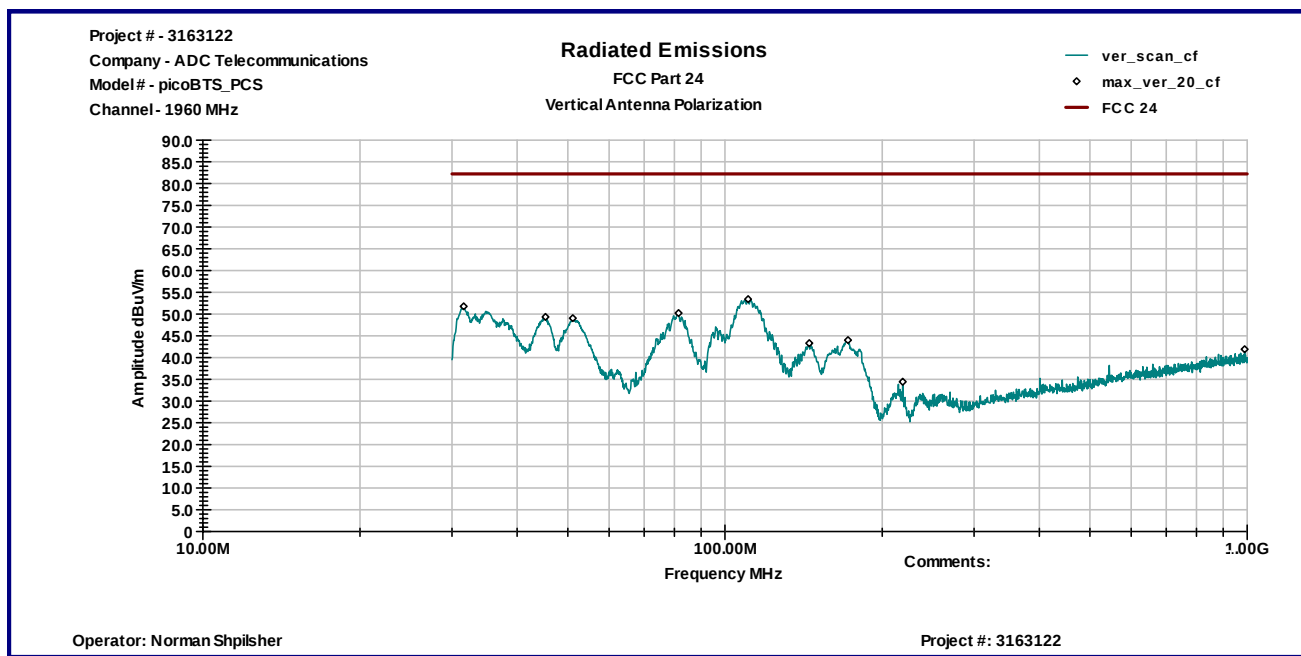
Frequency	Ant. Polarity	Peak Reading dBμV	Ant.Factor dB1/m	Total at 3m dBμV/m	QP Limit dBμV/m	Margin dB
Operating Frequency 1930MHz						
31.316 MHz	V	31.0	20.3	51.4	82.2	-30.8
45.308 MHz	V	36.7	12.6	49.4	82.2	-32.8
81.496 MHz	V	42.4	9.2	51.6	82.2	-30.6
109.1 MHz	V	40.1	13.5	53.6	82.2	-28.6
81.197 MHz	H	33.4	9.1	42.5	82.2	-39.7
107.31 MHz	H	33.9	13.4	47.3	82.2	-34.9
144.71 MHz	H	33.5	13.2	46.7	82.2	-35.5
Operating Frequency 1960MHz						
31.593 MHz	V	31.6	20.2	51.8	82.2	-30.5
45.308 MHz	V	36.7	12.6	49.3	82.2	-32.9
51.126 MHz	V	39.1	10.0	49.0	82.2	-33.2
81.496 MHz	V	41.0	9.2	50.2	82.2	-32.0
110.74 MHz	V	39.7	13.7	53.4	82.2	-28.8
145.03 MHz	V	30.1	13.2	43.3	82.2	-38.9
172.04 MHz	V	32.3	11.7	44.0	82.2	-38.2
31.247 MHz	H	24.4	20.4	44.8	82.2	-37.5
80.899 MHz	H	34.5	9.1	43.6	82.2	-38.6
108.51 MHz	H	33.3	13.5	46.8	82.2	-35.4
142.78 MHz	H	32.3	13.3	45.6	82.2	-36.6
Operating Frequency 1990MHz						
31.455 MHz	V	31.5	20.2	51.7	82.2	-30.5
81.347 MHz	V	41.7	9.2	50.8	82.2	-31.4
108.66 MHz	V	40.1	13.5	53.6	82.2	-28.7
31.108 MHz	H	23.7	20.4	44.2	82.2	-38.0
81.048 MHz	H	33.6	9.1	42.7	82.2	-39.5
107.46 MHz	H	33.3	13.4	46.7	82.2	-35.5
144.39 MHz	H	32.7	13.2	45.9	82.2	-36.3



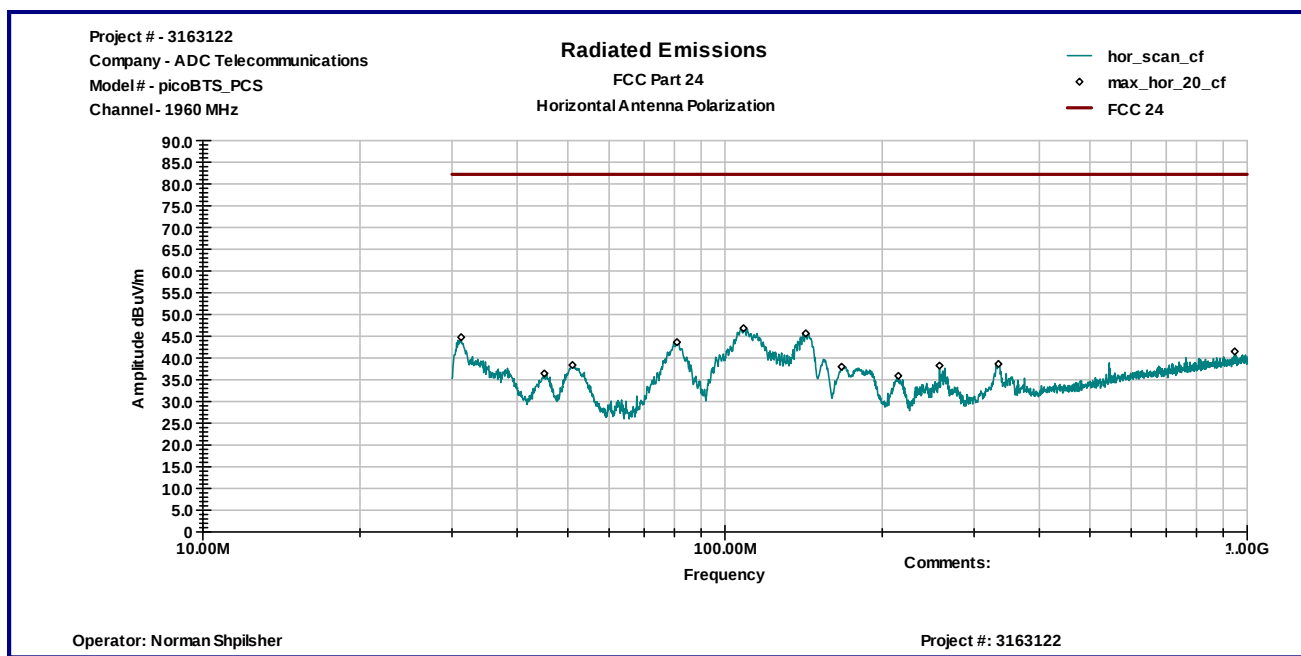
Graph 1



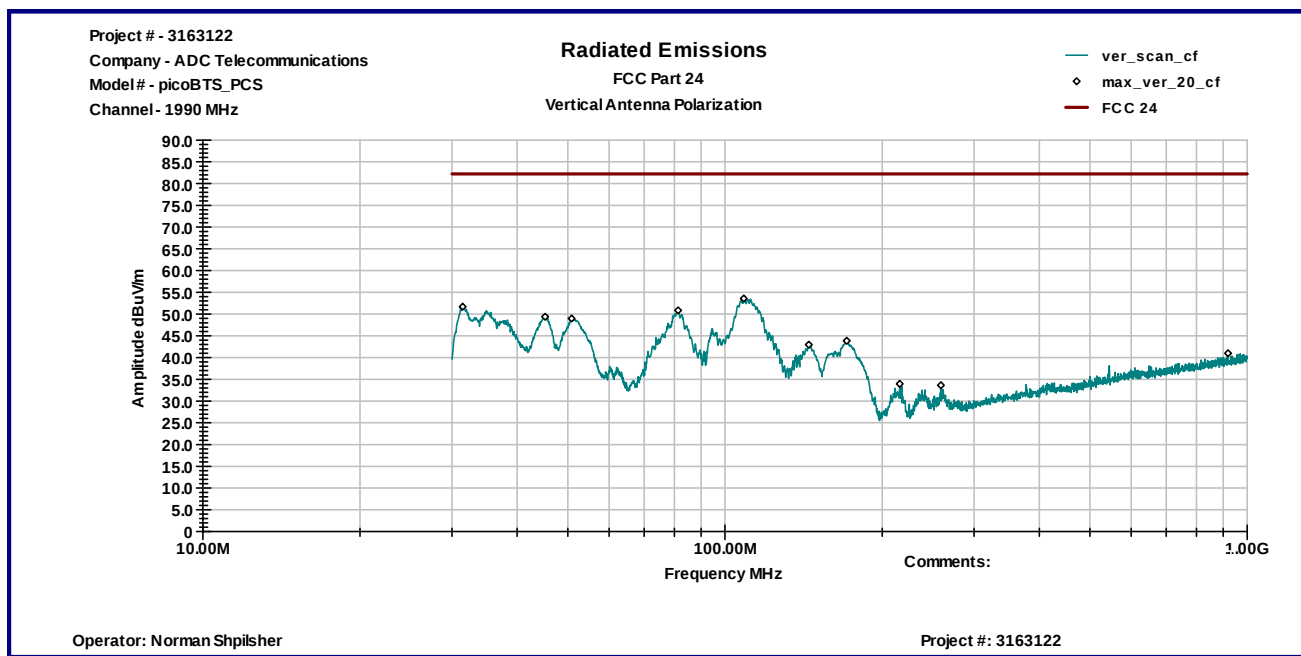
Graph 2



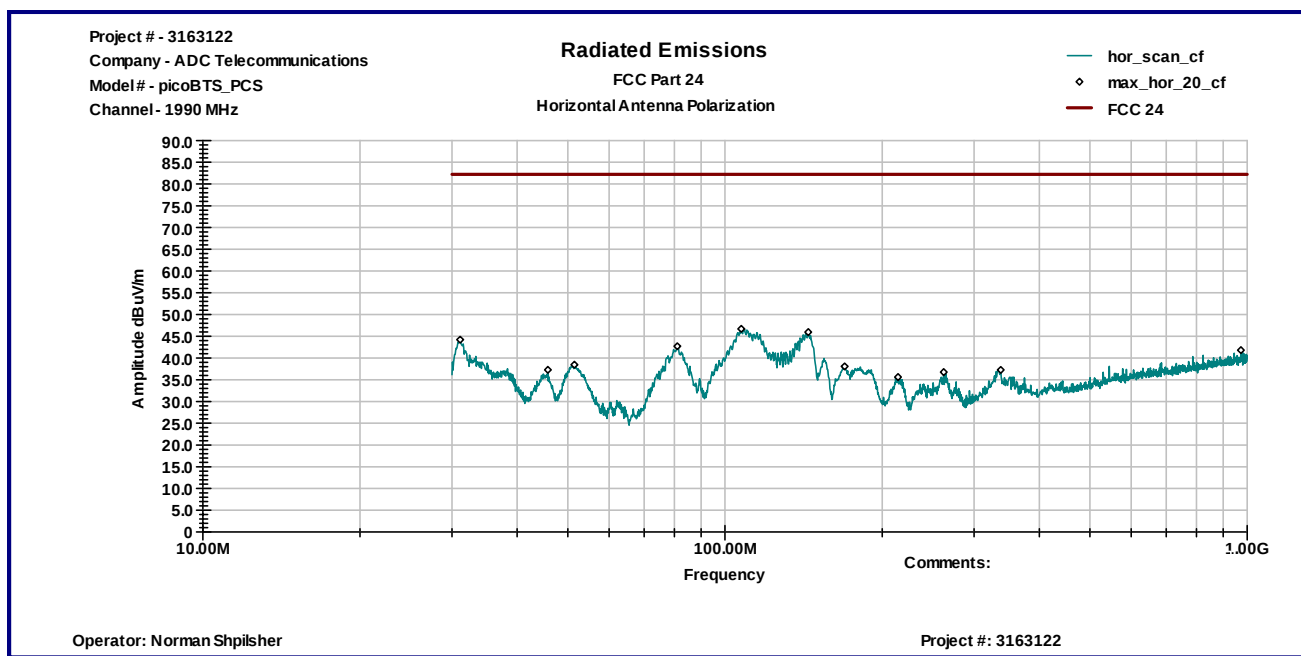
Graph 3



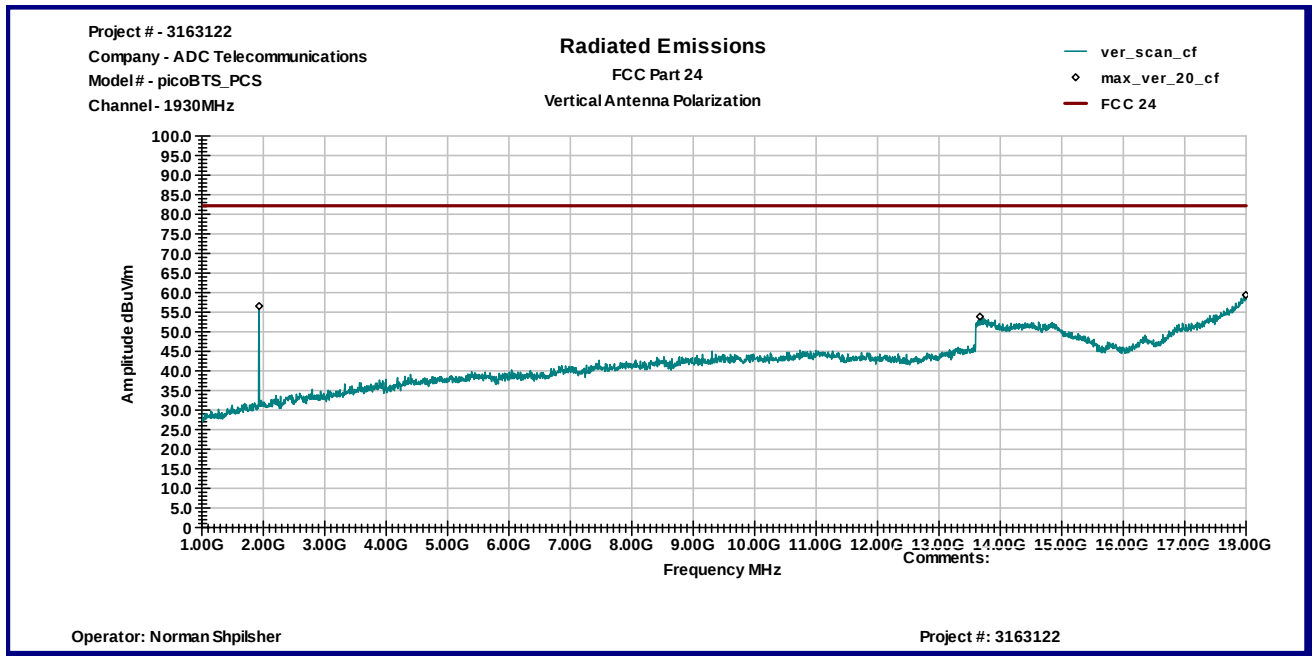
Graph 4



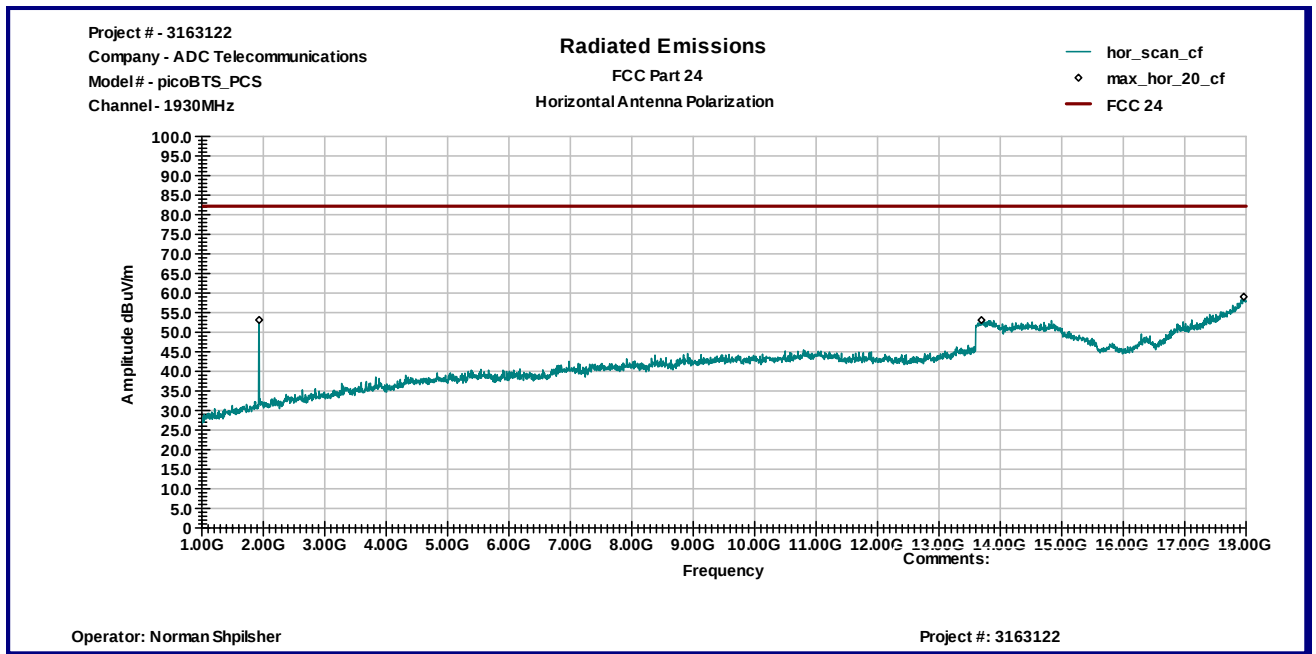
Graph 5



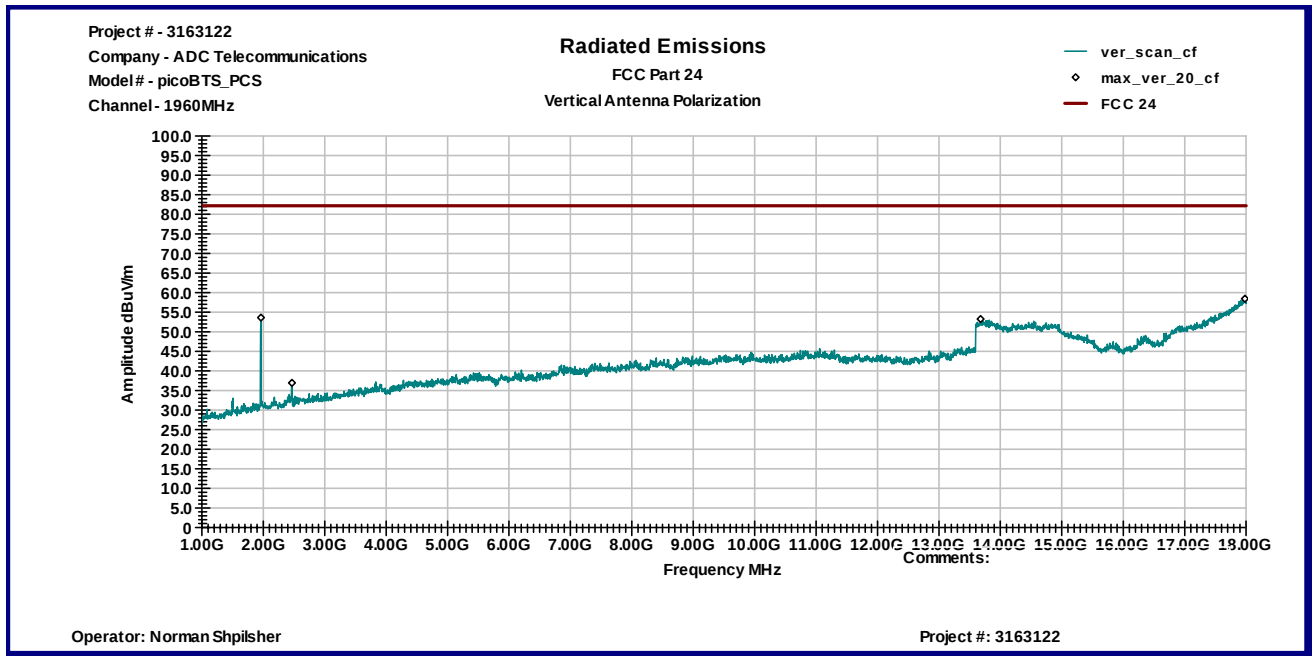
Graph 6



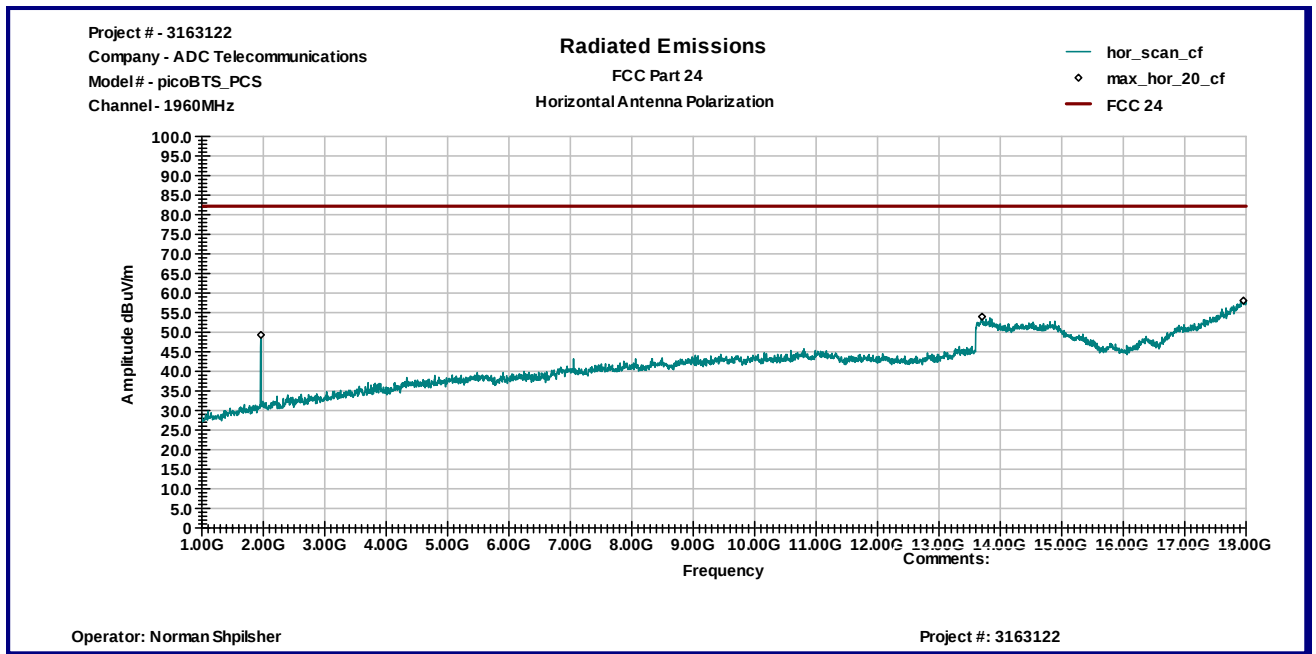
Graph 7



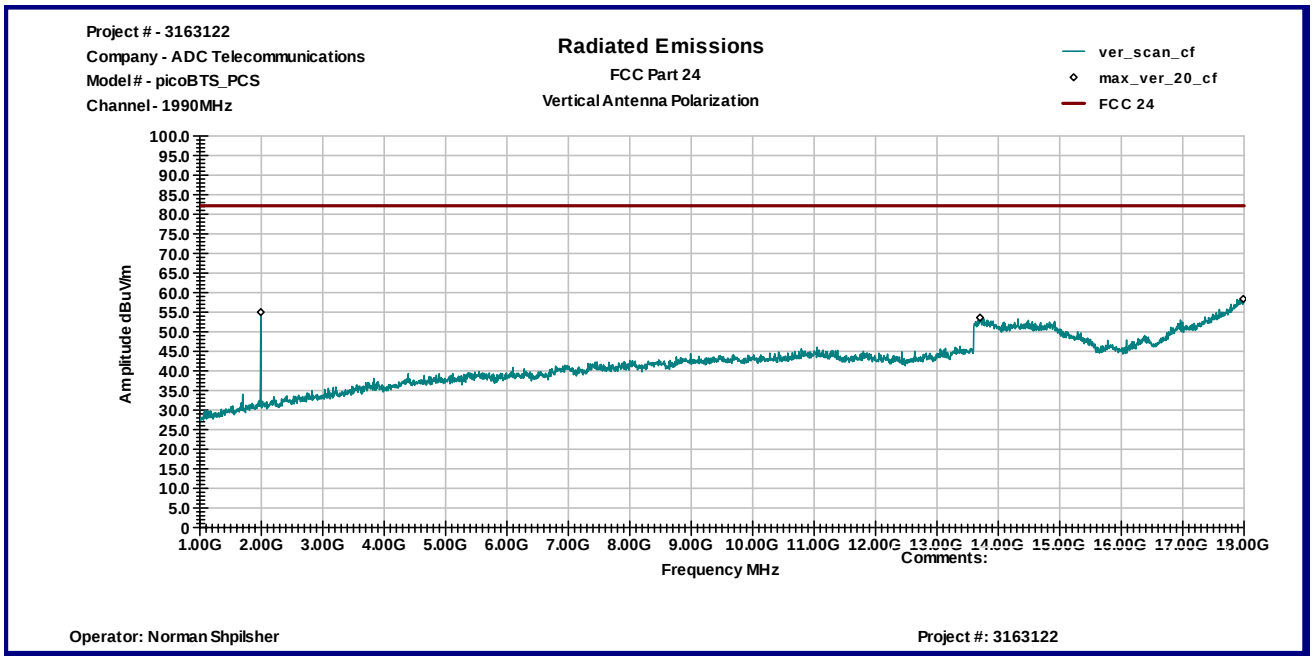
Graph 8



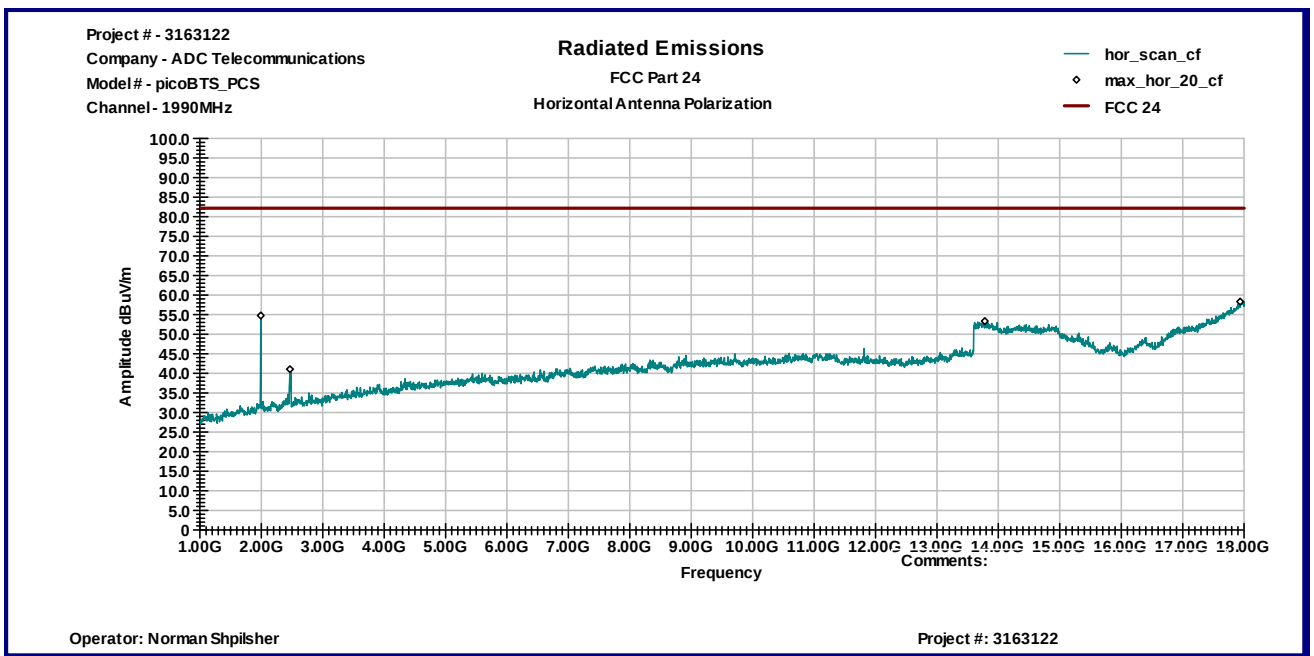
Graph 9



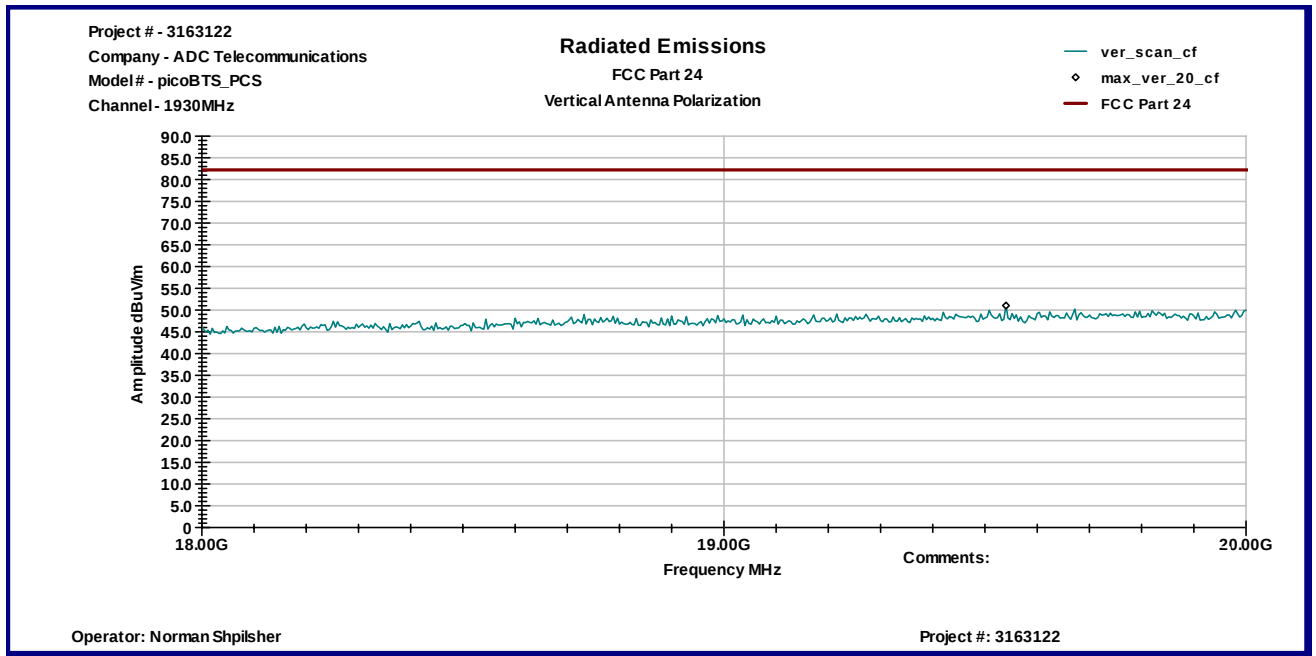
Graph 10



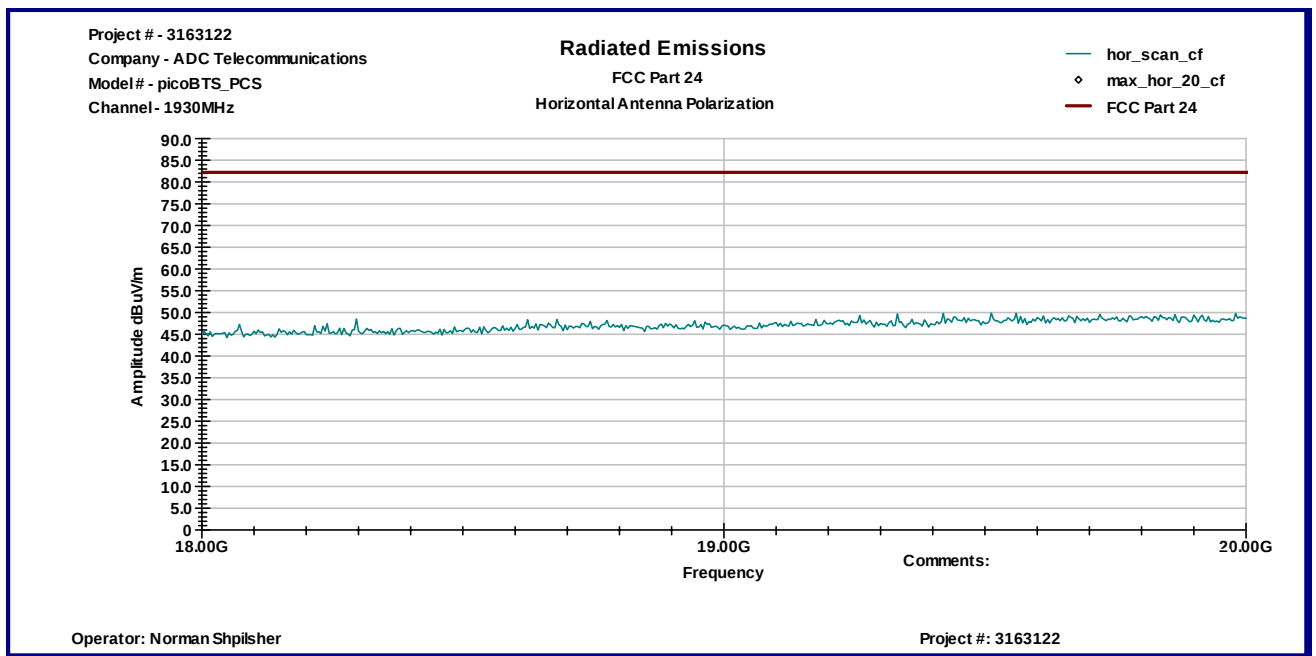
Graph 11



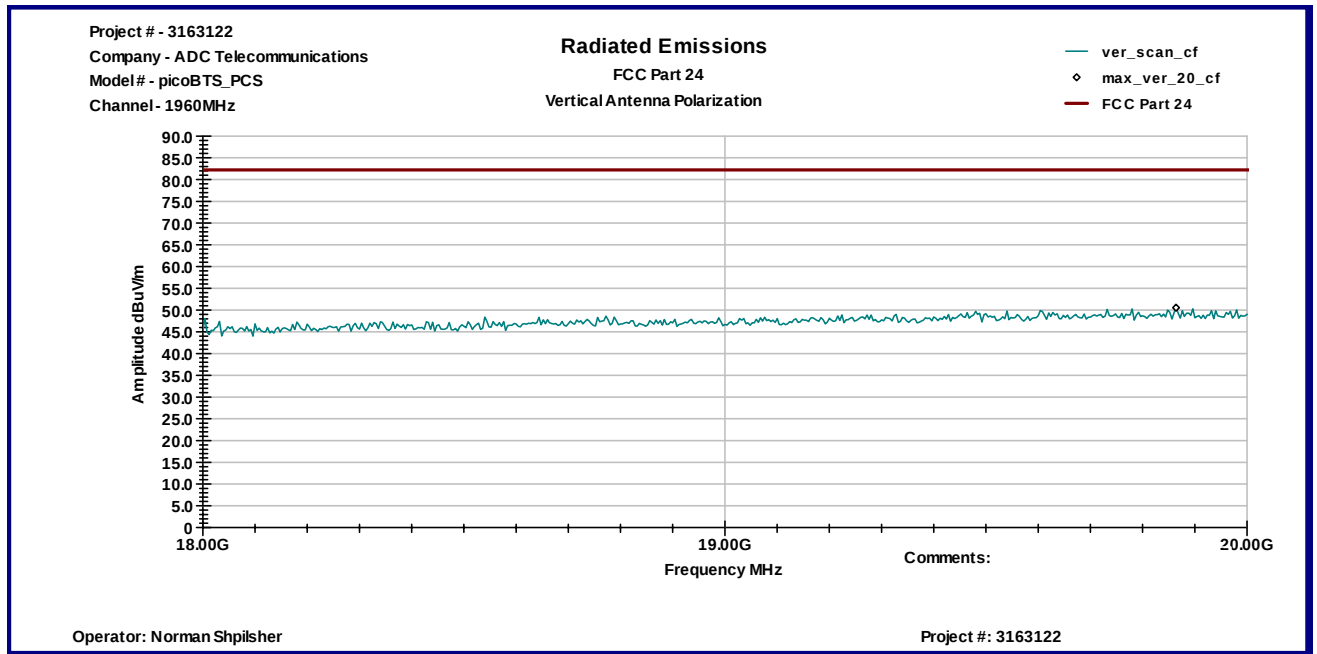
Graph 12



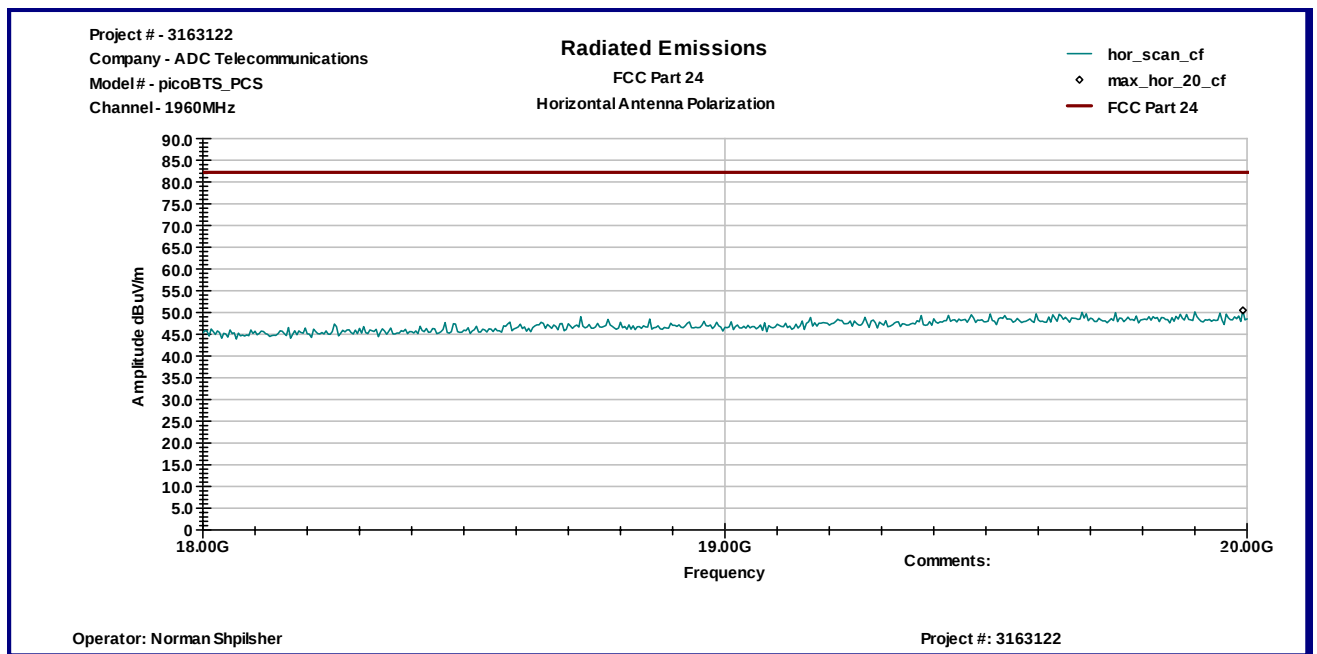
Graph 13



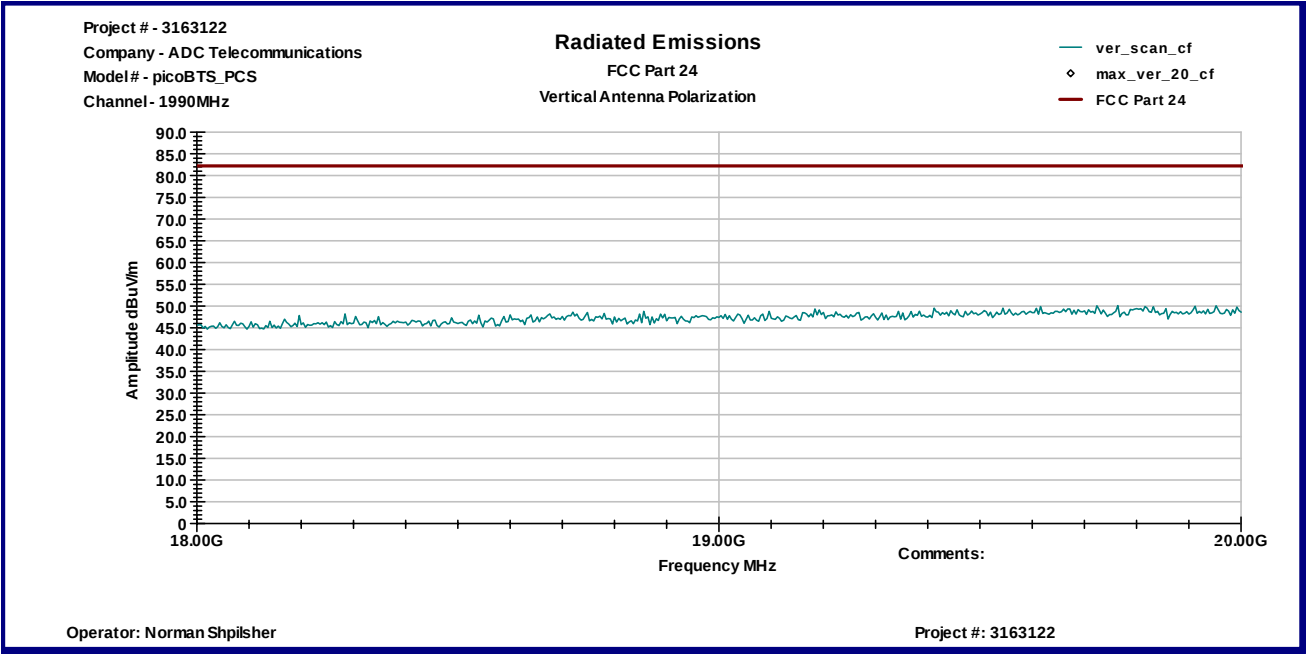
Graph 14



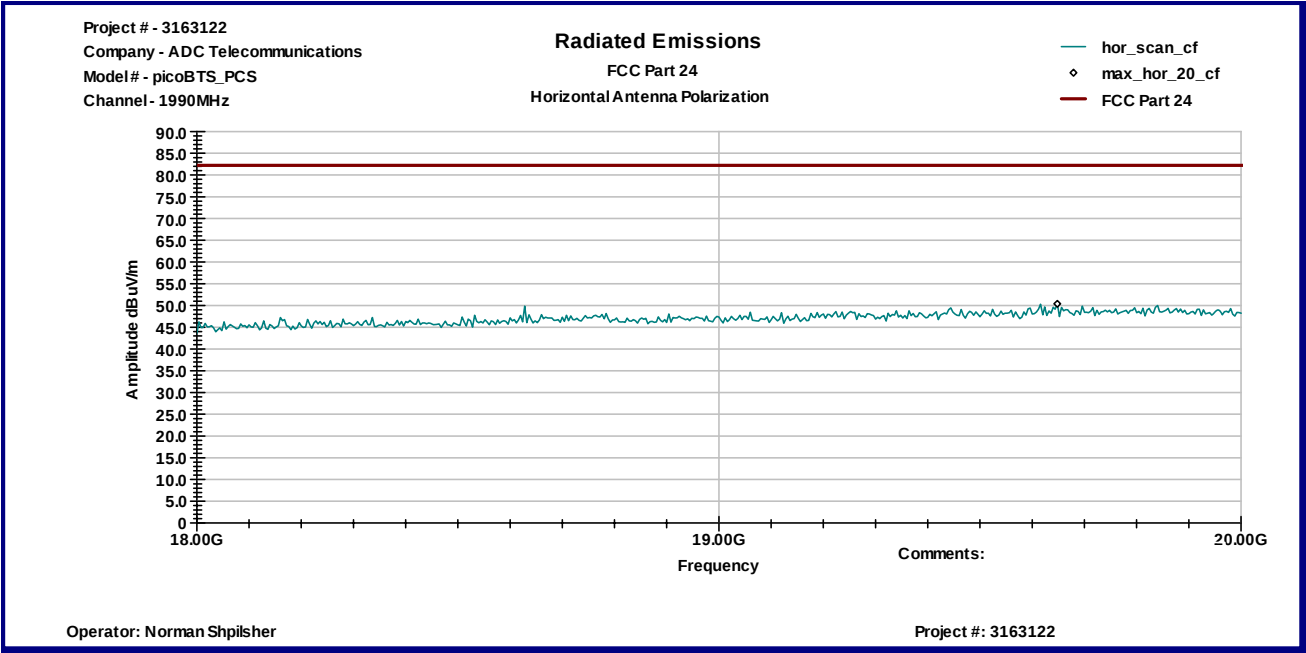
Graph 15



Graph 16



Graph 17



Graph 18

3.1 Environmental conditions

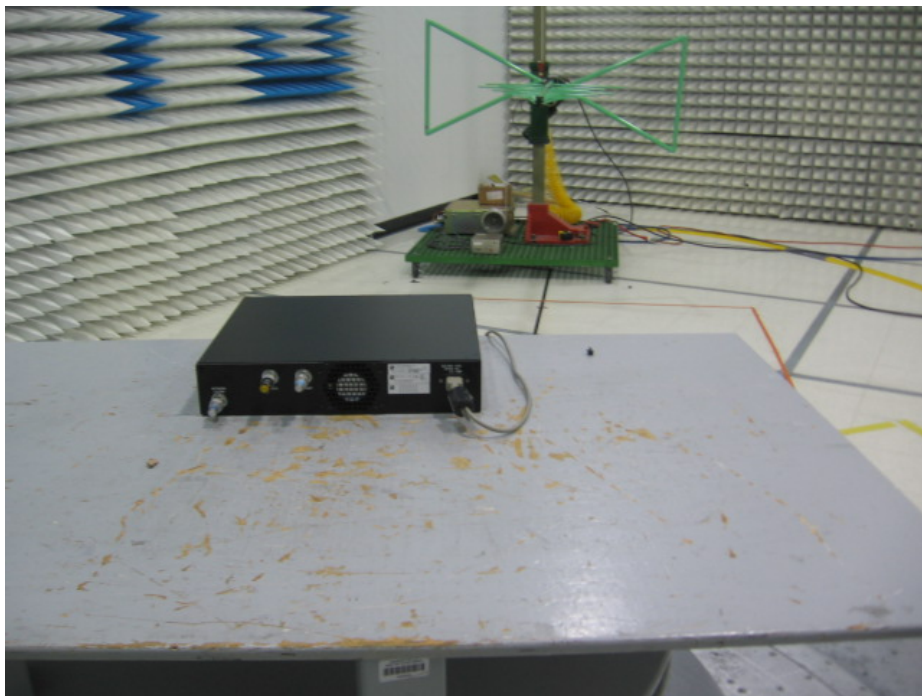
During the measurement the environmental conditions were within the listed ranges:

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
Receiver RF Section	HP	85462A	3325A00106	9962	03/03/2009	☐
RF Filter Section	HP	85460A	3330A00109	9961	03/03/2009	☐
Spectrum Analyzer	R & S	FSP 40	100024	12559	08/22/2009	☒
Spectrum Analyzer	R & S	ESCI	100358	12909	05/07/2009	☒
Spectrum Analyzer	Agilent	E7402A	MY44212200	12660	11/13/2009	☐
Bicono-Log Antenna	Schaffner-Chase	CBL 6112 B	2468	14459	08/27/2009	☒
Bicono-Log Antenna	Schaffner-Chase	CBL 6112 B	2630	14459	09/26/2009	☐
Horn Antenna	EMCO	3115	9507-4513	9936	02/13/2009	☒
Horn Antenna	EMCO	3115	6579	15580	03/20/2009	☐
Waveguide Horn Antenna	EMCO	3116	9904-2423	9705	08/12/2009	☒
Loop Antenna	A.H.Systems	SAS-200/562	215	9817	05/19/2009	☐
Loop Antenna	ETS	6512	00060486	19942	08/05/2009	☐
Monopole Antenna	A.H.Systems	SAS-200/550-1	692	9986	05/10/2009	☐
Monopole Antenna	ETS-Lindgren	3310B	0071915	MIN-0054	11/14/2009	☐
LISN	Fischer Custom Communications	FCC-LISN-2 MOD.SD	316	9945	10/28/2009	☐
LISN	Fischer Custom Communications	FCC-LISN-50-25-2	2014	9665	11/06/2009	☐
LISN	Fischer Custom Communications	FCC-LISN-50-32-2-01	97-01	9835	10/06/2009	☐
LISN	Fischer Custom Communications	FCC-LISN-50-50-4-02	07005	19810	02/18/2009	☐
Pre-Amplifier	MITEQ	AMF-5D-00501800-28-13P	1122951	13475	06/05/2009	☒
Pre-Amplifier	MITEQ	AMF-6F-16002600-25-10P	1222383	MIN-0065	01/17/2009	☒
Pre-Amplifier	MITEQ	AMF-6F-26004000-40-8P	13224444	MIN-0064	11/13/2009	☐
Pre-Amplifier	HP	8447F OPT H64	3113A04974	9934	05/15/2009	☐
System	TILE! Instrument Control		Ver. 3.4.K.29	15259	VBV	☒