

APPLICATION
FOR
GRANT of CERTIFICATION
REPORT
FOR

MODEL: 011-01419-00

GPN 011-01419-00

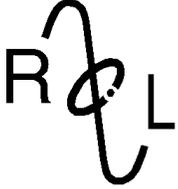
FOR

GARMIN INTERNATIONAL, INC.

1200 East 151st Street

Olathe, KS 66062

Test Report Number 061213



Rogers Labs, Inc.

4405 West 259th Terrace

Louisburg, KS 66053

Telephone / Fax (913) 837-3214

TEST REPORT

For

APPLICATION of CERTIFICATION

For

GARMIN INTERNATIONAL, INC.

1200 East 151st Street

Olathe, KS 66062

Phone: (913) 397-8200

Mr. Doug Kealey

Compliance Engineer

Model: 011-01419-00

Low Power Transmitter

Frequency: 2,400-2,483.5 MHz

FCC ID: IPH-01097

Test Date: December 13, 2006

Certifying Engineer: *Scot D. Rogers*

Scot D. Rogers

ROGERS LABS, INC.

4405 West 259th Terrace

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FORWARD

In accordance with the Federal Communications Code of Federal Regulations, dated October 1, 2005, Part 2 Subpart J, Paragraphs 2.907, 2.911, 2.913, 2.915, 2.925, 2.926, and applicable paragraphs of Part 15C, the following report is submitted. Test procedures used are the established Methods of Measurement of Radio-Noise Emissions as described in the ANSI 63.4-2003 Document, CFR47, and FCC documents DA00-1407 and DA00-705.

Applicant Gamin International, Inc.
 1200 East 151st Street
 Olathe, KS 66062

Model 011-01419-00

FCC ID IPH-01097

Equipment Tested

Equipment	Serial Number	FCC ID
011-01419-00	ENG 1	IPH-01097
Dell Computer	2574199639	DoC
Printer	B94C2121X	N/A

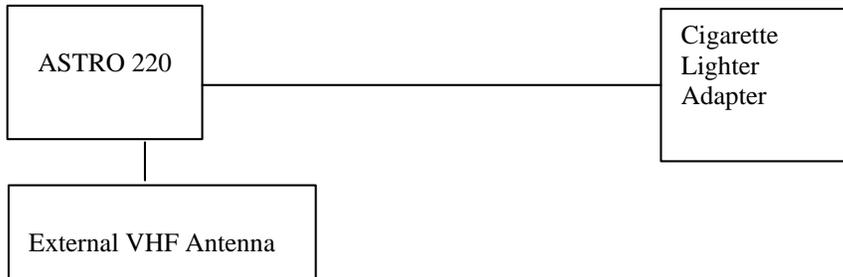
Equipment Function and Configuration

Equipment Function

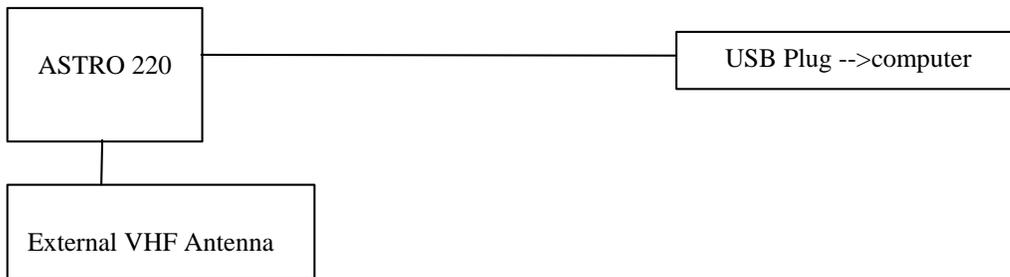
The EUT incorporates a low power transceiver allowing communications to a remote device for control functions of the other devices. The equipment is a handheld GPS receiver allowing location and direction monitoring. The equipment may interface to a computer allowing for software updating of the GPS map system. The transmitter is fully enclosed in a sealed case. The unit does not offer modification or adjustment by the end user. The rear of the case opens to allow for battery replacement and view of the FCC ID label. The transmit antenna is incorporated on the printed circuit board and does not allow for modification or alteration. The transmitter operates as a low power license exempt intentional radiator operating between 2.4-2.4835 GHz governed by CFR47 15.249. The design incorporates a VHF receiver allowing reception of transmitted data from a remote MURS transmitter. The transmissions are received on the synchronized receiver carried by the sports enthusiast allowing them to monitor the location of the MURS transmitter.

Equipment Configuration

1. Handheld (GPN: 011-01419-00) connected to car cigarette lighter adapter (GPN: 010-10563-00), and external VHF receive antenna (GPN: 700-00021-00).



2. Handheld connected to external VHF receive antenna, and to computer through USB cable (GPN: 010-10477-03).



List of Test Equipment

A Hewlett Packard 8591EM and or 8562A Spectrum Analyzer was used as the measuring device for the emissions testing. The analyzer settings used are described in the following table. Refer to the Appendix for a complete list of Test Equipment.

HP 8591EM SPECTRUM ANALYZER SETTINGS		
CONDUCTED EMISSIONS		
RBW	AVG. BW	DETECTOR FUNCTION
9 kHz	30 kHz	Peak/Quasi Peak
RADIATED EMISSIONS (30 – 1000 MHz)		
RBW	AVG. BW	DETECTOR FUNCTION
120 kHz	300 kHz	Peak/Quasi Peak
HP 8562A SPECTRUM ANALYZER SETTINGS		
RADIATED EMISSIONS (1 – 40 GHz)		
RBW	AVG. BW	DETECTOR FUNCTION
1 MHz	1 MHz	Peak/Average
ANTENNA CONDUCTED EMISSIONS:		
RBW	AVG. BW	DETECTOR FUNCTION
120 kHz	300 kHz	Peak

CFR47 2.1033(b) Application for Certification

- (1) Manufacturer: GARMIN INTERNATIONAL, INC.
1200 East 151st Street
Olathe, KS 66062
Phone: (913) 397-8200
- (2) FCC Identification: Model: 011-01419-00
FCC ID: IPH-01097 S/N: ENG 1
- (3) Copy of the installation and operating manual:
Refer to exhibit for Draft Instruction Manual.
- (4) Description of Circuit Functions, Device Operation: The EUT is a low power licensed exempt transmitter.
- (5) Block Diagram with Frequencies: Refer to exhibit for the Block Diagram
- (6) Report of measurements showing compliance with the pertinent FCC technical requires are provided in this report.
- (7) Photographs of equipment are provided in this report and exhibits.
- (8) Peripheral equipment or accessories for the equipment. Optional equipment available for the EUT include, AC and DC power adapter, external GPS antenna, GXM 30, GTM 10, and USB cable for computer interface. The available configuration options were investigated for this report with worst-case data presented.
- (9) Transition Provisions of 15.37 are not being requested.
- (10) The equipment is not a scanning receiver.
- (11) The equipment is not a transmitter operating in the 59-64 GHz frequency range.
- (12) The equipment is not a software-defined radio.

The device is governed by CFR47 rule 15.249 for operation of the low power licensed exempt transmitter.

CFR47 15 Subpart C - Intentional Radiators

As per CFR47 Part 15, Subpart C the following information is submitted for consideration in obtaining a grant of certification for unlicensed low power intentional radiators.

CFR47 15.203 Antenna Requirements

The unit is produced with a permanently attached antenna (for part 15C transmitter) inside the sealed plastic case. No provisions for modification or alterations of the antenna configuration are available to the end user. The requirements of 15.203 are met there are no deviations or exceptions to the specification.

CFR47 15.205 Restricted Bands of Operation

Spurious emissions falling in the restricted frequency bands of operation were measured at the OATS. The EUT utilizes frequency, determining circuitry, which generates harmonics falling in the restricted bands. Emissions were checked at the OATS, using appropriate antennas or pyramidal horns, amplification stages, and a spectrum analyzer. Peak and average amplitudes of frequencies above 1000 MHz were compared to the required limits with worst-case data presented below. No other significant emission was observed which fell into the restricted bands of operation. Computed emission values take into account the measured radiated field strength, receive antenna correction factor, amplifier gain stage, and test system cable losses.

Sample Calculations:

$$\begin{aligned} \text{Computed Peak (dB}\mu\text{V/m @ 3m)} &= \text{FSM (dB}\mu\text{V)} + \text{A.F. (dB)} - \text{Gain (dB)} \\ &= 48.8 + 8.4 - 30 \\ &= 27.2 \end{aligned}$$

CFR47 15.205 Emissions Data in Restricted Bands

Emission Frequency (MHz)	FSM Horz. (dBμV)	FSM Vert. (dBμV)	Ant. Factor (dB)	Amp. Gain (dB)	RFS Horz. @ 3m (dBμV/m)	RFS Vert. @ 3m (dBμV/m)	Limit @ 3m (dBμV/m)
133.3	48.8	49.3	8.4	30	27.2	27.7	43.5

Other emissions present presented amplitudes at least 20 dB below the required limits.

CFR47 15.205 Summary of Results for Radiated Emissions in Restricted Bands

The radiated emissions for the EUT meet the requirements for FCC CFR47 Part 15.205 restricted bands of operation. The EUT had a 15.8 dB minimum margin below the limits. No other emissions found in the restricted bands.

CFR47 15.207 Conducted emissions limits; general requirements

CFR47 15.207 AC Line Conducted EMI

The EUT was arranged in a typical equipment configuration (configuration #2) for AC line conducted emissions testing. The EUT receives power from internal DC batteries, and offers no connection to the AC utility power system. Testing was performed with the EUT and support system placed on a 1 x 1.5-meter wooden bench 80 cm above the conducting ground plane, floor of a screen room. The bench was positioned 40 cm away from the wall of the screen room. The LISN was positioned on the floor of the screen room 80-cm from the rear of the EUT. Testing for the line-conducted emissions was as follows. The ac adapter for the CPU was connected to the LISN for line-conducted emissions testing. A second LISN was positioned on the floor of the screen room 80-cm from the rear of the supporting equipment of the EUT. All power cords except the CPU were then powered from the second LISN. EMI was coupled to the spectrum analyzer through a 0.1 µF capacitor, internal to the LISN. Power line conducted emissions testing was carried out individually for each current carrying conductor of the CPU. The excess length of lead between the system and the LISN receptacle was folded back and forth to form a bundle not exceeding 40 cm in length. The screen room, conducting ground plane, analyzer, and LISN were bonded together to the protective earth ground. Preliminary testing was performed to identify the frequencies of each of the emissions, which had the highest amplitudes. The cables were repositioned to obtain maximum amplitude of measured EMI level. Once the worst-case configuration was identified, plots were made of the EMI from 0.15 MHz to 30 MHz then data was recorded with maximum conducted emissions levels. Refer to Figures one and two for plots of the CPU conducted emissions frequency spectrum taken in the screen room.

CFR47 15.207 Data Conducted Emissions (7 Highest Emissions)

Frequency band (MHz)	L1 Level (dBµV)			L2 Level (dBµV)			CISPR 22 Limit Q.P. Ave(dBµV)
	Peak	Q.P.	AVE	Peak	Q.P.	AVE	
0.15 – 0.5	50.1	48.3	25.4	52.6	46.7	29.6	66-56 / 56-46
0.5 – 5	47.1	42.5	27.1	46.7	43.5	23.5	56 / 46
5 – 10	29.2	25.1	16.4	32.2	21.9	10.5	60 / 50
10 – 15	25.0	18.6	11.5	27.4	19.47	11.6	60 / 50
15 – 20	22.7	16.9	9.6	25.9	19.1	10.6	60 / 50
20 – 25	26.3	18.2	10.2	24.2	17.8	10.2	60 / 50
25 – 30	22.9	17.2	10.1	22.5	17.5	9.9	60 / 50

Other emissions present had amplitudes at least 20 dB below the limit.

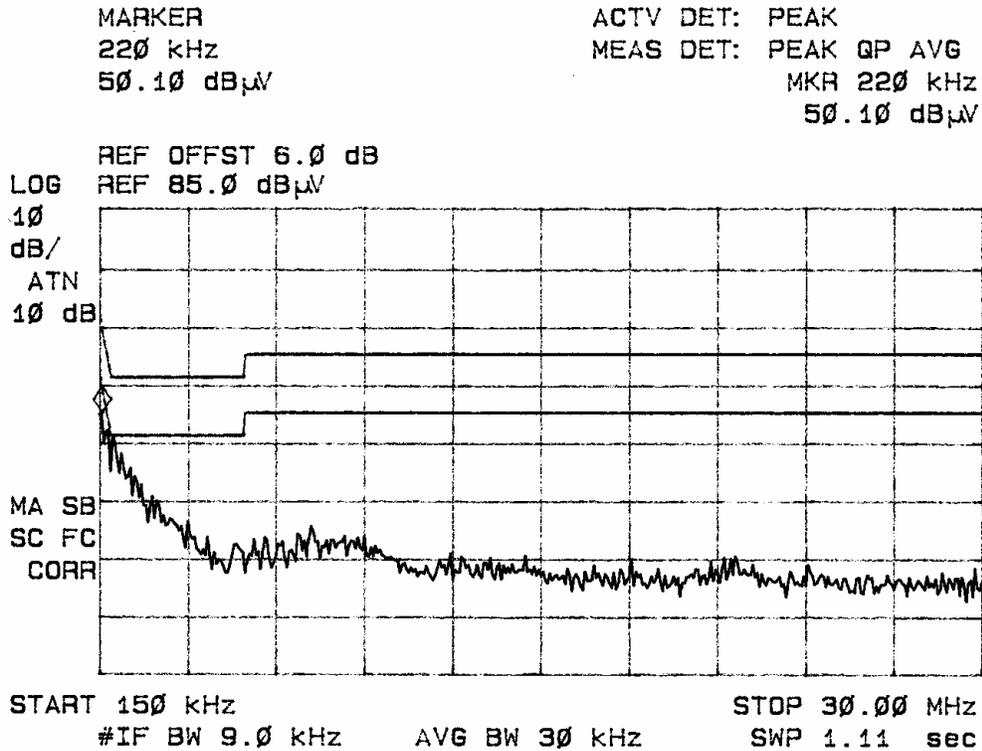


Figure one Conducted emissions of EUT line 1 (configuration #2)

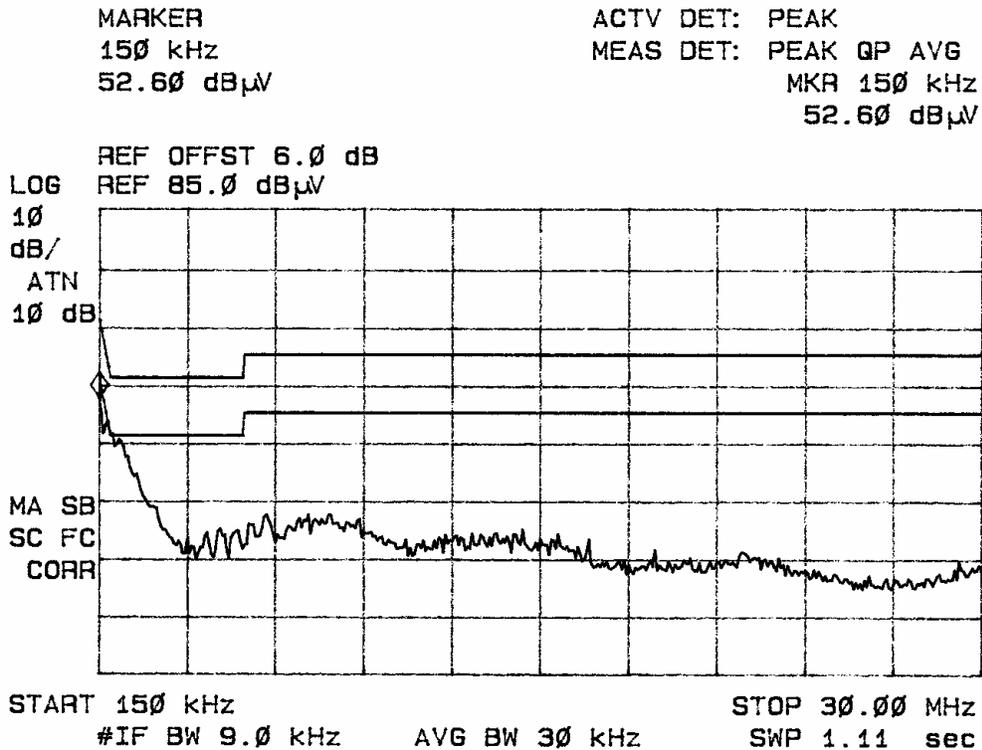


Figure two Conducted emissions of EUT line 2 (configuration #2)

CFR47 15.207 Summary of Results for AC Line Conducted General Emissions

The conducted emissions for the EUT meet the requirements for FCC Part 15C Intentional Radiators. The EUT worst-case had a 12.5 dB minimum margin below the FCC/CISPR quasi peak limit, and an 18.9 dB minimum margin below the FCC/CISPR average limit. Other emissions were present with recorded data representing the worst-case amplitudes.

CFR47 15.209 Radiated emissions limits; general requirements

CFR47 15.209 General Radiated EMI

The EUT was arranged in a typical equipment configuration and operated through all of its various modes. Preliminary testing was performed in a screen room with the EUT positioned 1 meter from the FSM. Radiated emissions investigations were performed to identify the frequencies, which produced the highest emissions. Plots were made of the radiated emission frequency spectrum from 30 MHz to 2,900 MHz for the preliminary testing. Refer to figures three through five displaying plots of the radiated emission spectrum displayed on the analyzer taken in a screen room of configuration #2. The highest radiated emission was then re-maximized at the OATS site before final radiated emissions measurements were performed. Final data was taken with the EUT located at the open field test site at a distance of 3 meters between the EUT and the receiving antenna. The frequency spectrum from 30 MHz to 25,000 MHz was searched for radiated emissions. Peak and average amplitudes of frequencies above 1000 MHz were compared to the required limits with worst-case data presented below. Measured emission levels were maximized by EUT placement on the table, changing cable location, rotating the turntable through 360 degrees, varying the antenna height between 1 and 4 meters above the ground plane and changing antenna polarization between horizontal and vertical. Antennas used were Broadband Biconical from 30 MHz to 200 MHz, Log Periodic from 200 MHz to 5 GHz, and/or Biconilog from 30 MHz to 1000 MHz, Pyramidal Horns from 5 GHz to 25 GHz, and amplification stages.

Sample Calculations:

$$\begin{aligned}
 \text{RFS} &= \text{Radiated Field Strength} \\
 \text{dB}\mu\text{V/m @ 3m} &= \text{dB}\mu\text{V} + \text{A.F.} - \text{Amplifier Gain} \\
 \text{dB}\mu\text{V/m @ 3m} &= 34.5 + 5.8 - 30 \\
 &= 10.3
 \end{aligned}$$

CFR47 15.209 General Radiated Emissions Data Configuration #2 @ 10meters

Emission Freq. (MHz)	FSM Horz. (dBµV)	FSM Vert. (dBµV)	Ant. Factor (dB)	Amp Gain (dB)	RFS Horz. @ 10m (dBµV/m)	RFS Vert. @ 10m (dBµV/m)	Limit @ 10m (dBµV/m)
63.8	34.5	38.9	5.8	30	10.3	14.7	30.0
66.8	39.7	43.7	5.8	30	15.5	19.5	30.0
82.6	37.9	36.5	7.4	30	15.3	13.9	30.0
96.0	43.0	42.5	6.2	30	19.2	18.7	30.0
133.3	38.3	38.8	8.0	30	16.3	16.8	30.0
144.0	38.2	36.4	12.7	30	20.9	19.1	30.0

Other emissions present presented amplitudes at least 20 dB below limits.

CFR47 15.209 General Radiated Emissions Data @ 3meters

Emission Freq. (MHz)	FSM Horz. (dBµV)	FSM Vert. (dBµV)	Ant. Factor (dB)	Amp Gain (dB)	RFS Horz. @ 3m (dBµV/m)	RFS Vert. @ 3m (dBµV/m)	Limit @ 3m (dBµV/m)
173.2	43.2	47.9	9.1	30	22.3	27.0	43.5
346.4	32.2	30.7	15.1	30	17.3	15.8	46.0
519.7	32.8	36.3	18.2	30	21.0	24.5	46.0
692.9	40.3	36.0	20.9	30	31.2	26.9	46.0
866.1	25.6	37.0	23.0	30	18.6	30.0	46.0
1039.3	23.7	23.5	24.5	30	18.2	18.0	46.0

Other emissions present presented amplitudes at least 20 dB below limits.

MARKER ACTV DET: PEAK
 96.0 MHz MEAS DET: PEAK QP
 31.66 dB μ V MKR 96.0 MHz
 31.66 dB μ V

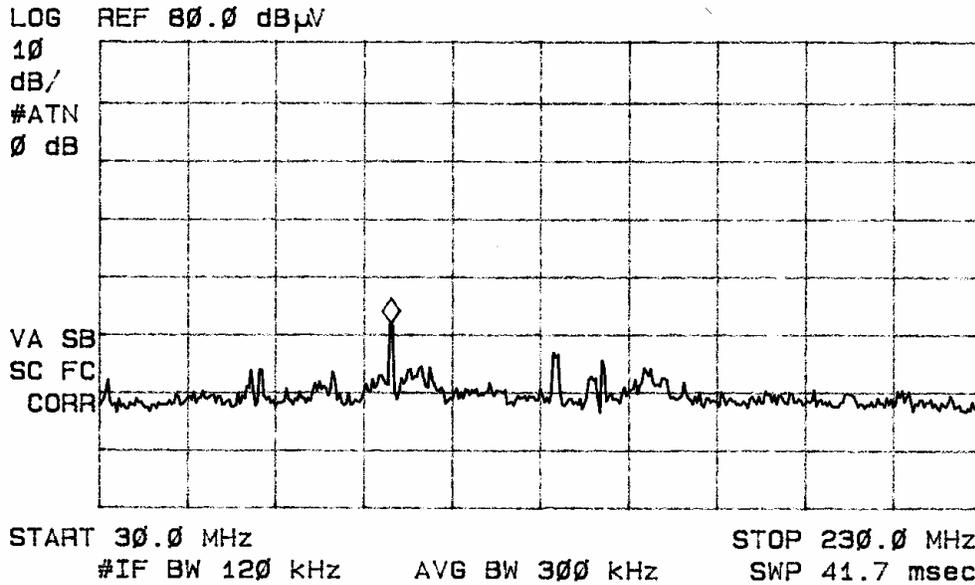


Figure three Radiated Emissions taken at 1 meter in screen room configuration #2.

MARKER ACTV DET: PEAK
 408 MHz MEAS DET: PEAK QP
 21.44 dB μ V MKR 408 MHz
 21.44 dB μ V

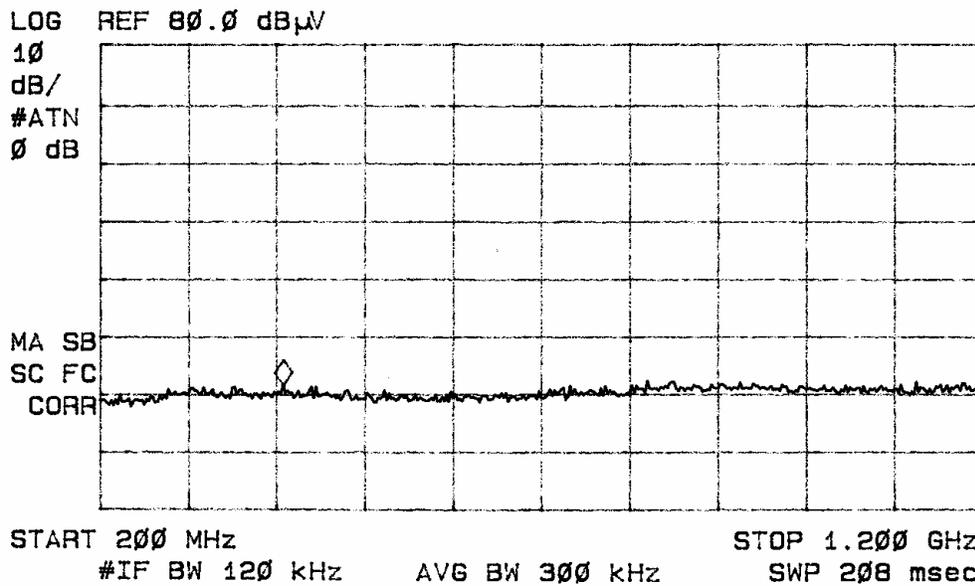


Figure four Radiated Emissions taken at 1 meter in screen room configuration #2.

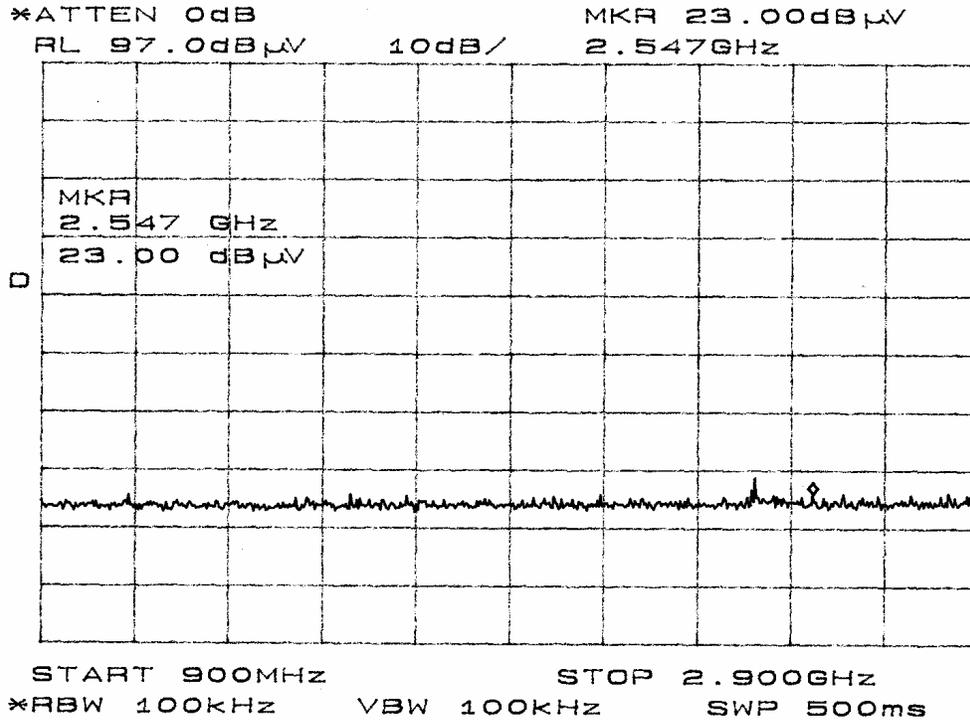


Figure five Radiated Emissions taken at 1 meter in screen room configuration #2.

CFR47 15.209 Summary of Results for General Radiated Emissions

The radiated emissions for the EUT meet the requirements for FCC Part 15C Intentional Radiators. Configuration #2 had a 9.1 dB minimum margin below the limits demonstrating the worst-case operational condition. Other emissions were present with amplitudes at least 20 dB below the FCC Limits.

CFR47 15.249 Operation in the Band 2,400-2,483.5 MHz

Preliminary testing was performed in a screen room with the EUT positioned 1 meter from the FSM. Radiated emissions investigations were performed to identify the frequencies, which produced the highest emissions. Plots were made of the radiated emission frequency spectrum from 30 MHz to 18,000 MHz for the preliminary testing. Refer to figures six through thirteen displaying plots of the radiated emission spectrum displayed on the analyzer taken in a screen room of the EUT. The highest radiated emission was then re-maximized at the OATS site before final radiated emissions measurements were performed. Final data was taken with the EUT located at the open field test site at a distance of 3 meters between the EUT and the receiving antenna. The frequency spectrum from 30 MHz to 25,000 MHz was searched for radiated emissions. The power output was measured on an open field test site @ 3 meters.

- (a) The EUT was placed on a wooden turntable 0.8 meters above the ground plane and at a distance of 3 meters from the FSM antenna. The peak and average amplitude of the carrier frequency was measured using a spectrum analyzer. The peak and average emission amplitude of the emission was then recorded from the analyzer display.
- (b) Emissions radiated outside of the specified bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in 15.209, whichever is the lesser attenuation. The amplitudes of each spurious emission were measured at the OATS at a distance of 3 meters from the FSM antenna. The amplitude of each spurious emission was maximized by varying the FSM antenna height, polarization, and by rotating the turntable. A Biconilog Antenna was used for measuring emissions from 30 to 1000 MHz, a Log Periodic Antenna for 200 to 5000 MHz, and Pyramidal Horn Antennas from 4 GHz to 25 GHz. Emissions were measured in dB μ V/m @ 3 meters.

Sample calculation

$$\begin{aligned} \text{dB}\mu\text{V/m@ 3m} &= \text{FSM} + \text{A.F.} + \text{cable loss} - \text{amplifier Gain} \\ &= 73.7 + 28.1 - 30 \\ &= 71.8 \end{aligned}$$

CFR47 15.249 Transmitter Radiated Emissions Data

Emission Frequency (MHz) (polarization)	FSM Peak (dB μ V)	FSM Average (dB μ V)	Ant. Factor (dB)	Amp. Gain (dB)	RFS Peak @ 3m (dB μ V/m)	RFS Average @ 3m (dB μ V/m)	Limit @ 3m (ave) (dB μ V/m)
2401.8 (H)	73.3	55.5	28.1	30	71.8	53.6	94.0
2401.8 (V)	74.4	54.6	28.1	30	72.8	52.7	94.0
4803.6 (H)	34.7	31.5	32.9	30	37.6	34.3	54.0
4803.6 (V)	33.7	27.0	32.9	30	36.6	29.9	54.0
7205.4 (H)	28.3	19.5	36.0	30	34.3	25.5	54.0
7205.4 (V)	29.3	17.5	36.0	30	35.3	23.5	54.0
2439.8 (H)	74.8	55.8	28.1	30	72.9	53.9	94.0
2439.8 (V)	75.0	57.7	28.1	30	73.1	55.8	94.0
4879.6 (H)	42.1	32.0	32.9	30	45.0	34.9	54.0
4879.6 (V)	33.0	27.3	32.9	30	35.9	30.2	54.0
7319.4 (H)	29.2	13.0	36.0	30	35.2	19.0	54.0
7319.4 (V)	28.7	20.0	36.0	30	34.7	26.0	54.0
2480.3 (H)	74.5	53.8	28.1	30	72.6	51.8	94.0
2480.3 (V)	74.3	54.5	28.1	30	72.4	52.6	94.0
4960.6 (H)	40.7	36.7	32.9	30	43.6	39.6	54.0
4960.6 (V)	38.2	28.3	32.9	30	41.1	31.2	54.0
7440.9 (H)	24.8	18.8	36.0	30	30.8	24.8	54.0
7440.9 (V)	28.0	20.0	36.0	30	34.0	26.0	54.0

Note: Levels measured @ 3-meter OATS site.

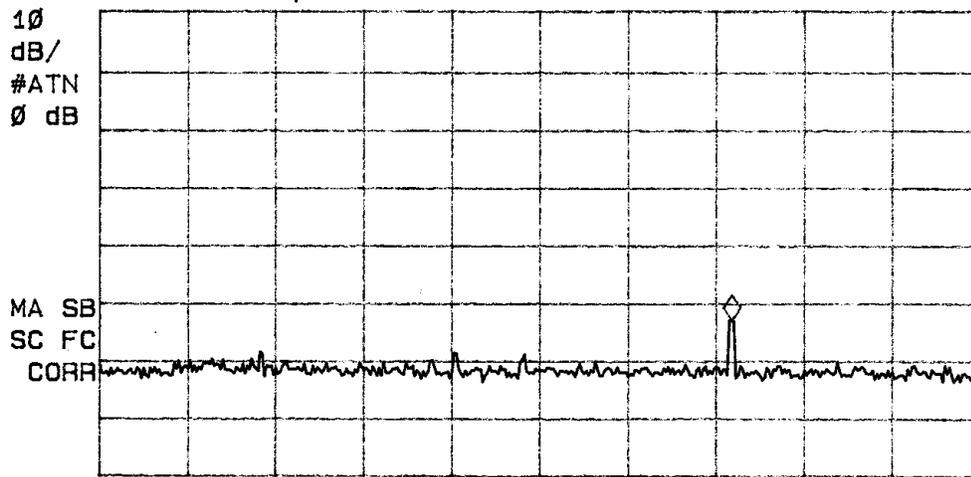
CFR47 15.249 Power from Antenna Substitution Method Data

Frequency of Emission (MHz)	Measured Peak Amplitude of EUT emission		Signal level to substitution antenna required to reproduce	
	Horizontal dB μ V	Vertical dB μ V	Horizontal dBm	Vertical dBm
2401.8	73.7	74.7	-23.4	-22.4
2439.8	74.8	75.0	-22.3	-22.1
2480.3	74.5	74.3	-22.6	-22.8

MARKER
173.5 MHz
26.89 dB μ V

ACTV DET: PEAK
MEAS DET: PEAK QP
MKR 173.5 MHz
26.89 dB μ V

LOG REF 80.0 dB μ V



START 30.0 MHz STOP 230.0 MHz
#IF BW 120 kHz AVG BW 300 kHz SWP 41.7 msec

Figure six Radiated Emissions taken at 1 meter in screen room.

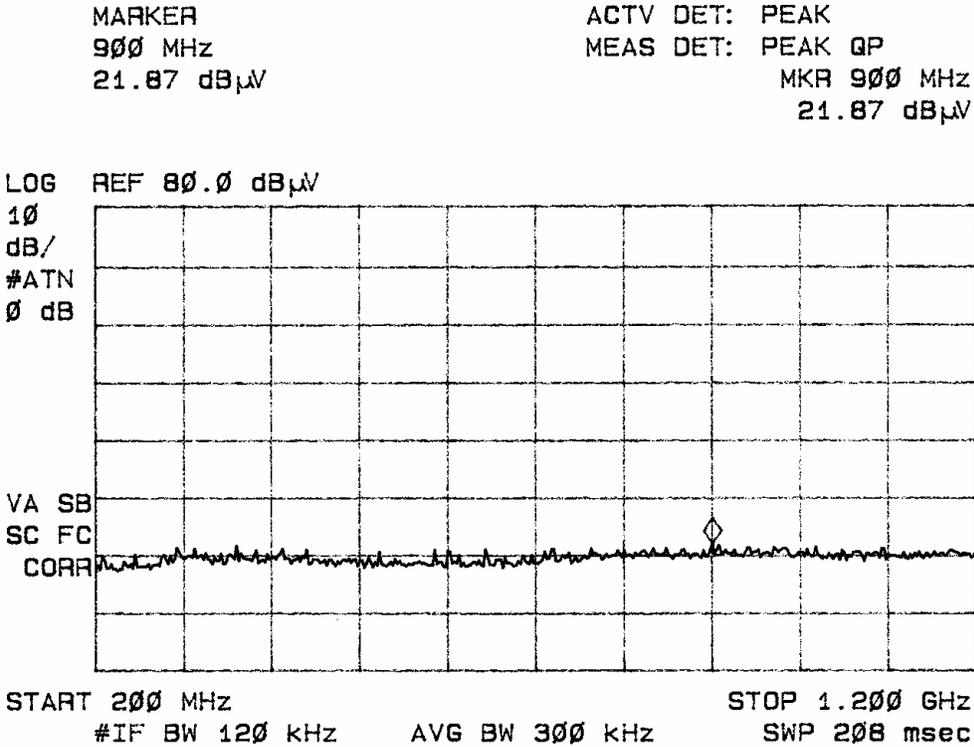


Figure seven Radiated Emissions taken at 1 meter in screen room.

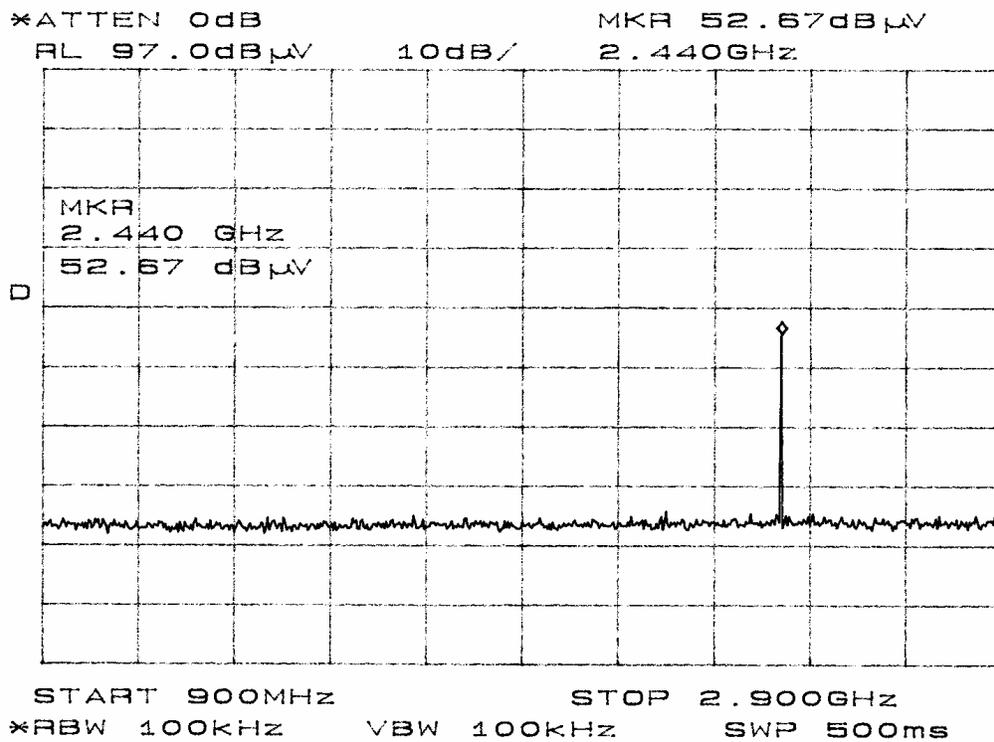


Figure eight Radiated Emissions taken at 1 meter in screen room.

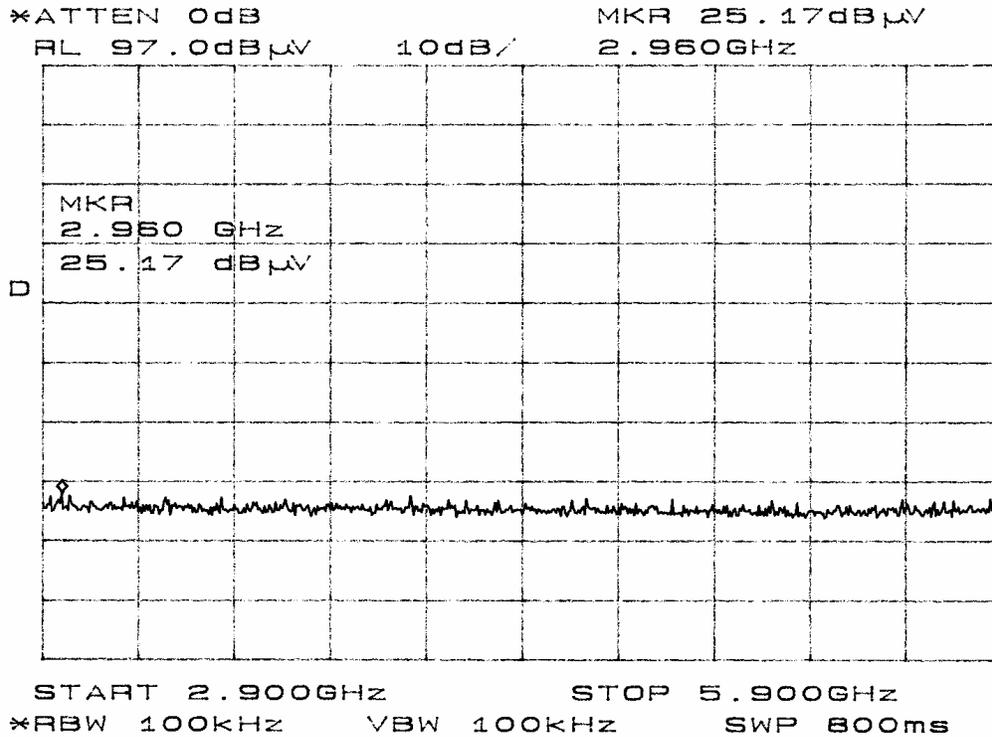


Figure nine Radiated Emissions taken at 1 meter in screen room.

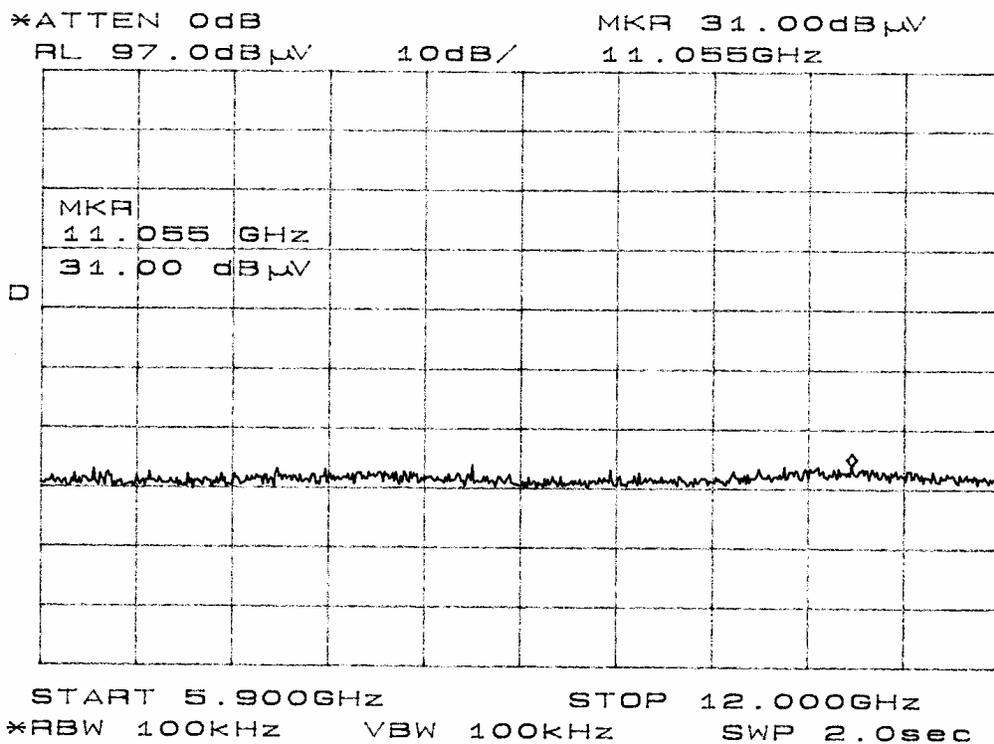


Figure ten Radiated Emissions taken at 1 meter in screen room.

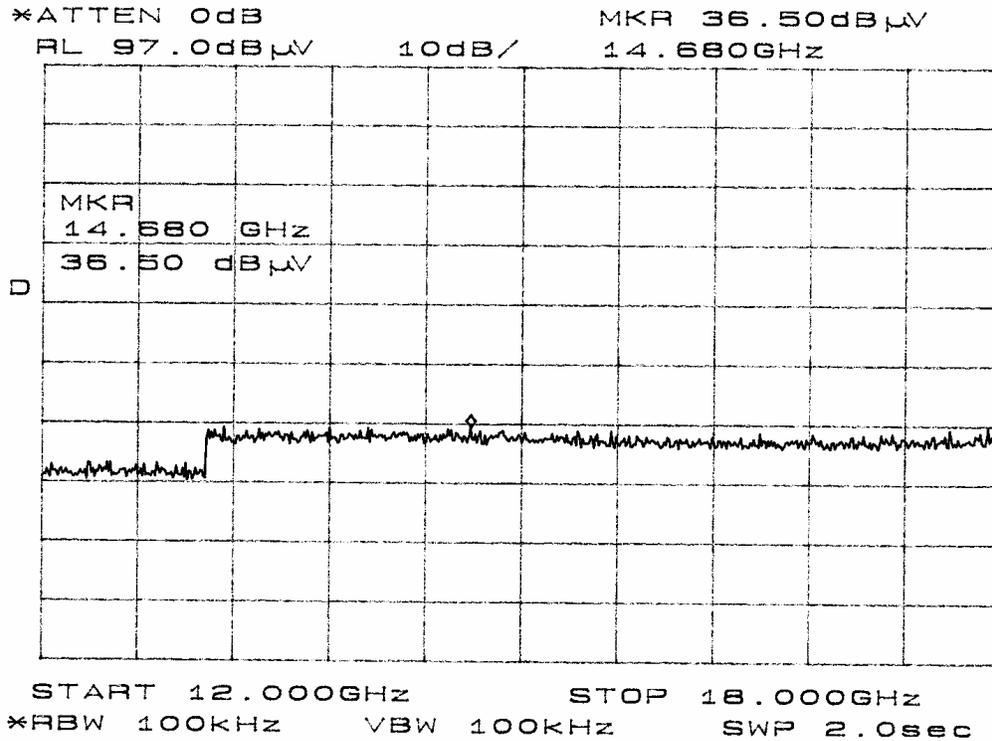


Figure eleven Radiated Emissions taken at 1 meter in screen room.

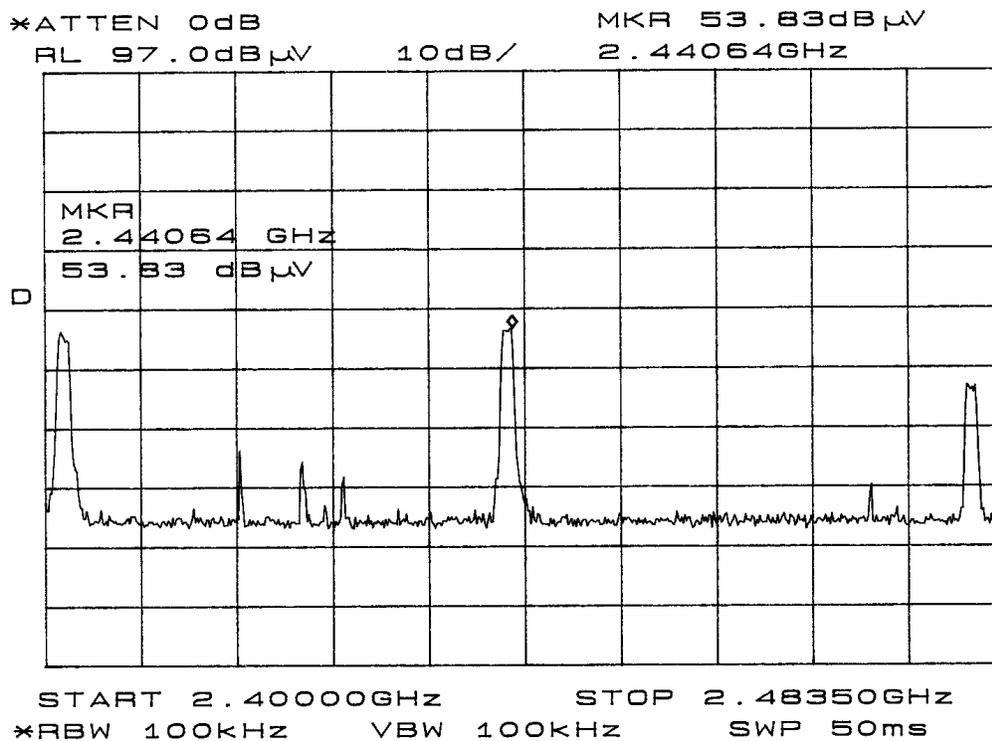


Figure twelve Radiated Emissions taken at 1 meter in screen room.

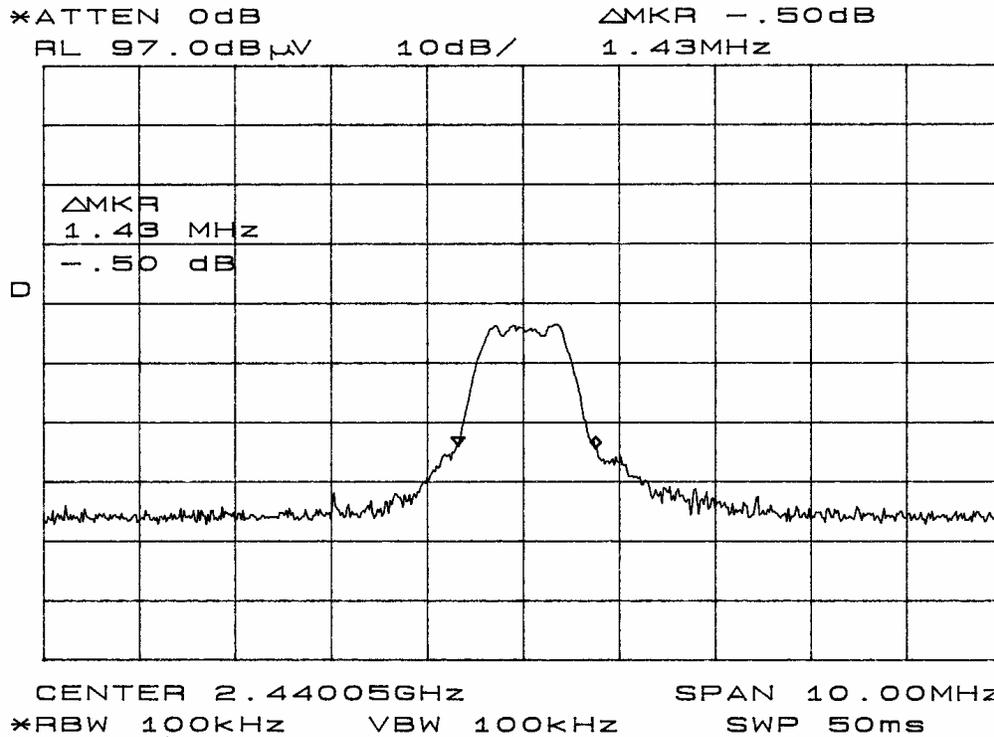


Figure thirteen Radiated Emissions taken at 1 meter in screen room.

CFR47 15.249 Summary of Results for Transmitter Radiated Emissions

The EUT had peak amplitude of the transmitter emission of 16.6 dB margin below the average limit of 15.249. The EUT had an average amplitude of harmonic emissions of 14.4 dB margin below the average limit of 15.209 and 15.249. The radiated emissions for the EUT meet the requirements for FCC CFR47 Part 15.249 Intentional Radiators. There are no measurable emissions in the restricted bands other than those recorded in this report. Other emissions were present with amplitudes at least 20 dB below the FCC Limits.

APPENDIX

Model: 011-01419-00

Test Equipment List.

Rogers Qualifications.

FCC Site Approval Letter.

TEST EQUIPMENT LIST FOR ROGERS LABS, INC.

The test equipment used is maintained in calibration and good operating condition. Use of this calibrated equipment ensures measurements are traceable to national standards.

List of Test Equipment	Calibration Date
Oscilloscope Scope: Tektronix 2230	2/06
Wattmeter: Bird 43 with Load Bird 8085	2/06
Power Supplies: Sorensen SRL 20-25, SRL 40-25, DCR 150, DCR 140	2/06
H/V Power Supply: Fluke Model: 408B (SN: 573)	2/06
R.F. Generator: HP 606A	2/06
R.F. Generator: HP 8614A	2/06
R.F. Generator: HP 8640B	2/06
Spectrum Analyzer: HP 8562A,	2/06
Mixers: 11517A, 11970A, 11970K, 11970U, 11970V, 11970W	
HP Adapters: 11518, 11519, 11520	
Spectrum Analyzer: HP 8591EM	5/06
Frequency Counter: Leader LDC825	2/06
Antenna: EMCO Biconilog Model: 3143	5/06
Antenna: EMCO Log Periodic Model: 3147	10/06
Antenna: Antenna Research Biconical Model: BCD 235	10/06
Antenna: EMCO Dipole Set 3121C	2/06
Antenna: C.D. B-101	2/06
Antenna: Solar 9229-1 & 9230-1	2/06
Antenna: EMCO 6509	2/06
Audio Oscillator: H.P. 201CD	2/06
R.F. Power Amp 65W Model: 470-A-1010	2/06
R.F. Power Amp 50W M185- 10-501	2/06
R.F. PreAmp CPPA-102	2/06
LISN 50 µHy/50 ohm/0.1 µf	10/06
LISN Compliance Eng. 240/20	2/06
LISN Fischer Custom Communications FCC-LISN-50-16-2-08	6/05
Peavey Power Amp Model: IPS 801	2/06
Power Amp A.R. Model: 10W 1010M7	2/06
Power Amp EIN Model: A301	2/06
ELGAR Model: 1751	2/06
ELGAR Model: TG 704A-3D	2/06
ESD Test Set 2010i	2/06
Fast Transient Burst Generator Model: EFT/B-101	2/06
Current Probe: Singer CP-105	2/06
Current Probe: Solar 9108-1N	2/06
Field Intensity Meter: EFM-018	2/06
KEYTEK Ecat Surge Generator	2/06
Shielded Room 5 M x 3 M x 3.0 M	
10/18/2006	

ROGERS LABS, INC.
 4405 West 259th Terrace
 Louisburg, KS 66053
 Phone/Fax: (913) 837-3214

Garmin International, Inc.
 Model: 011-01419-00
 Test #: 061213
 Test to: FCC Parts 2 and 15C

2.4 GHz Transmitter
 FCC ID: IPH-01097
 SN: #ENG 1
 Page 24 of 27

QUALIFICATIONS

Of

SCOT D. ROGERS, ENGINEER**ROGERS LABS, INC.**

Mr. Rogers has approximately 16 years experience in the field of electronics. Six years working in the automated controls industry and 6 years working with the design, development and testing of radio communications and electronic equipment.

POSITIONS HELD

Systems Engineer: A/C Controls Mfg. Co., Inc. 6 Years

Electrical Engineer: Rogers Consulting Labs, Inc. 5 Years

Electrical Engineer: Rogers Labs, Inc. Current

EDUCATIONAL BACKGROUND

- 1) Bachelor of Science Degree in Electrical Engineering from Kansas State University
- 2) Bachelor of Science Degree in Business Administration Kansas State University
- 3) Several Specialized Training courses and seminars pertaining to Microprocessors and Software programming



Scot D. Rogers
December 13, 2006
Date

FEDERAL COMMUNICATIONS COMMISSION

**Laboratory Division
7435 Oakland Mills Road
Columbia, MD 21046**

May 16, 2006

Registration Number: 90910

Rogers Labs, Inc.
4405 West 259th Terrace
Louisburg, KS 66053

Attention: Scot Rogers

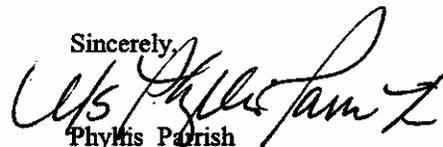
Re: Measurement facility located at Louisburg
3 & 10 meter site
Date of Renewal: May 16, 2006

Dear Sir or Madam:

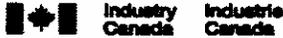
Your request for renewal of the registration of the subject measurement facility has been received. The information submitted has been placed in your file and the registration has been renewed. The name of your organization will remain on the list of facilities whose measurement data will be accepted in conjunction with applications for Certification under Parts 15 or 18 of the Commission's Rules. Please note that the file must be updated for any changes made to the facility and the registration must be renewed at least every three years.

Measurement facilities that have indicated that they are available to the public to perform measurement services on a fee basis may be found on the FCC website www.fcc.gov under E-Filing, OET Equipment Authorization Electronic Filing, Test Firms.

Sincerely,



Phyllis Parrish
Information Technician



May 23rd, 2006

OUR FILE: 46405-3041
Submission No: 115252

Rogers Labs Inc.
4405 West 259th Terrace
Louisburg, KY
USA 66053

Dear Sir/Madame:

The Bureau has received your application for the Alternate Test Site or OATS and the filing is satisfactory to Industry Canada.

Please reference to the file number (3041-1) in the body of all test reports containing measurements performed on the site.

In the future, to obtain or renew a unique registration number, you may demonstrate that the site has been accredited to ANSI C63.4-2003 or later.

If the site is not accredited to ANSI C63.4-2003 or later, the test facility shall submit test data demonstrating conformance with the ANSI standard. The Department will evaluate the filing to determine if recognition shall be granted.

The frequency for re-validation of the test site and the information that is required to be filed or retained by the testing party shall comply with the requirements established by the accrediting organization. However, in all cases, test site re-validation shall occur on an interval not to exceed two years.

If you have any questions, you may contact the Bureau by e-mail at certification.bureau@ic.gc.ca
Please reference our file number above for all correspondence.

Yours sincerely,

A handwritten signature in black ink, appearing to read "R Corey".

Robert Corey
Manager Certification
Certification and Engineering Bureau
3701 Carling Ave., Building 94
Ottawa, Ontario K2H 8S2

Canada