



## EMISSIONS TEST REPORT

Report Number: 3139325BOX-012a

Project Number: 3139325

Testing performed on the

VCA100 Radio

Model: BAEVCA100-81PCGX-LF

To

FCC Part 15 Subpart B "Unintentional Radiators"

FCC Part 15 Subpart C "Intentional Radiators"

FCC Part 74 Subpart H "Experimental Radio, Auxiliary, Special Broadcast And Other  
Program Distributional Services – Low Power Auxiliary Stations"

FCC Part 90 Subpart I

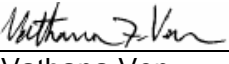
"Private Land Mobile Radio Services – General Technical Requirements"

For

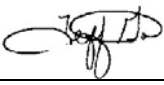
BAE Systems – Homeland Security Solutions

Test Performed by:  
Intertek – ETL SEMKO  
70 Codman Hill Road  
Boxborough, MA 01719

Test Authorized by:  
BAE Systems – Homeland Security Solutions  
2 Forbes Road  
Lexington, MA 02420

Prepared by:   
Vathana Ven

Date: 03/12/09

Reviewed by:   
Jeff Goulet

Date: 03/12/09

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## 1.0 Job Description

### 1.1 Client Information

This EUT has been tested at the request of:

**Company:** BAE Systems – Homeland Security Solutions  
2 Forbes Road  
Lexington, MA 02420  
**Contact:** Mr. Ralph Lombardo  
**Telephone:** 603-885-7172  
**Fax:** N/A  
**Email:** [Ralph.lombardo@baesystems.com](mailto:Ralph.lombardo@baesystems.com)

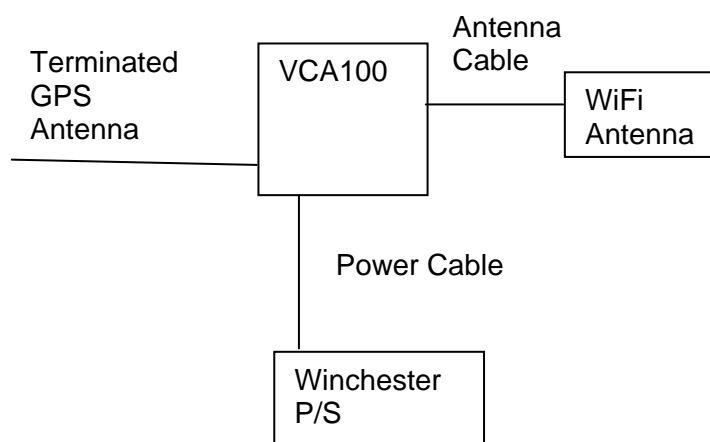
### 1.2 Equipment Under Test

**Equipment Type:** VCA100 Radio  
**Model Number(s):** BAEVCA100-81PCGX-LF  
**Serial number(s):** 0716HNNH000092  
**Manufacturer:** BAE Systems – Homeland Security Solutions  
**EUT receive date:** 11/05/2008  
**EUT received condition:** Prototype in Good Condition  
**Test start date:** 02/02/2009  
**Test end date:** 02/05/2009

**1.3 Test Plan Reference:** Tested according to the standards listed, ANSI C63.4:2003, and ANSI/TIA-603-C-2004.

### 1.4 Test Configuration

#### 1.4.1 Block Diagram





#### 1.4.2. Cables:

Cable	Shielding	Connector	Length (m)	Qty.
WiFi Antenna Cable	Braid	SMA	4.2	1
GPS Antenna Cable	Braid	SMA	5.5	1
Power Cable	None	Plastic/Wire	3.25	1

#### 1.4.3. Support Equipment:

Name: Antenex WiFi Antenna 2.4-2.5 GHz  
Model No.: A10245  
Serial No.: N/L

Name: All-Start Winchester Portable Power Generator  
Model No.: WPG103  
Serial No.: N/L

#### 1.5 Mode(s) of Operation:

During testing, the EUT was powered from a nominal 12V DC power supply. During the FCC Part 15 Subpart B testing, the EUT was fully powered but no transmissions were occurring. During the FCC Part 15 Subpart C testing, the EUT was fully powered but only the WiFi transmitter was transmitting at maximum duty cycle. For the FCC Part 90 testing, the EUT was fully powered and was transmitting an unmodulated one second burst with one second intervals.

1.6 Floor Standing Equipment:                      Applicable:\_\_\_\_                      Not Applicable: X

## 2.0 Test Summary

TEST STANDARD	RESULTS	
FCC Part 15 Subpart B FCC Part 15 Subpart C FCC Part 74 Subpart H FCC Part 90 Subpart I		
SUB-TEST	TEST PARAMETER	COMMENT
<b>FCC Part 15 Subpart B</b>		
Radiated Emissions Receiver Verification FCC §15.109	Spurious emissions must not exceed the FCC Part 15 Subpart B Class B limits.	Pass
<b>FCC Part 74 Subpart H, FCC Part 90 Subpart I</b>		
RF Output Power FCC §74.861(d)(1), FCC §90.205(d)	FCC Part 74: Licensees may not operate at higher than 1 Watt ERP. FCC Part 90: Power limitation is dependant on the device antenna's height above average terrain (HAAT) and on the required service area, and will be authorized according to the HAAT table found in FCC §90.205(d) Table 1.	Pass
Radiated Emissions FCC §22.359(a), FCC §74.861(d)(3), FCC §90.210	Spurious emissions must not exceed -13 dBm ERP.	Pass
<b>FCC Part 15 Subpart C</b>		
RF Output Power FCC §15.247(b)(3)	Conducted RF Output Power must not exceed 1 Watt (30 dBm). EIRP must not exceed 4 Watts (36 dBm).	Pass
Radiated Emissions FCC §15.205, §15.209, §15.247(d)	Spurious emissions must be at least 20 dB lower than the fundamental field strength when measured with a 100 kHz bandwidth. Emissions which fall in the restricted bands of 15.205 must meet the general limits of 15.209.	Pass

Notes:

REVISION SUMMARY – The following changes have been made to this Report:

<u>Date</u>	<u>Project</u> <u>No.</u>	<u>Project</u> <u>Handler</u>	<u>Page(s)</u>	<u>Item</u>	<u>Description of Change</u>
03/12/09	3139325	Vathana Ven			Removed reference to FCC Part 22

### 3.0 Sample Calculations

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CF - AG$$

Where

- FS = Field Strength in dB $\mu$ V/m
- RA = Receiver Amplitude (including preamplifier) in dB $\mu$ V
- CF = Cable Attenuation Factor in dB
- AF = Antenna Factor in dB
- AG = Amplifier Gain in dB

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows.

Assume a receiver reading of 52.0 dB $\mu$ V is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted, giving a field strength of 32 dB $\mu$ V/m. This value in dB $\mu$ V/m was converted to its corresponding level in  $\mu$ V/m.

$$\begin{aligned} RA &= 52.0 \text{ dB}\mu\text{V} \\ AF &= 7.4 \text{ dB/m} \\ CF &= 1.6 \text{ dB} \\ AG &= 29.0 \text{ dB} \\ FS &= 32 \text{ dB}\mu\text{V/m} \end{aligned}$$

$$\text{Level in } \mu\text{V/m} = [10(32 \text{ dB}\mu\text{V/m})/20] = 39.8 \mu\text{V/m}$$

The following is how net line-conducted readings were determined:

$$NF = RF + LF + CF + AF$$

Where NF = Net Reading in dB $\mu$ V

- RF = Reading from receiver in dB $\mu$ V
- LF = LISN Correction Factor in dB
- CF = Cable Correction Factor in dB
- AF = Attenuator Loss Factor in dB

To convert from dB $\mu$ V to  $\mu$ V or mV the following was used:

$$UF = 10^{(NF / 20)} \text{ where UF = Net Reading in } \mu\text{V}$$

#### Example:

$$\begin{aligned} NF &= RF + LF + CF + AF = 28.5 + 0.2 + 0.4 + 20.0 = 49.1 \text{ dB}\mu\text{V} \\ UF &= 10^{(49.1 \text{ dB}\mu\text{V} / 20)} = 254 \mu\text{V/m} \end{aligned}$$



### 3.1 Measurement Uncertainty

Compliance of the product is based on the measured value. However, the measurement uncertainty is included for informational purposes.

The expanded uncertainty ( $k = 2$ ) for radiated emissions from 30 to 1000 MHz has been determined to be:

$\pm 3.5$  dB at 10m,  $\pm 3.8$  dB at 3m

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

$\pm 2.6$  dB

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

$\pm 3.2$  for ISN and voltage probe measurements

$\pm 3.1$  for current probe measurements

### 3.2 Site Description

#### Test Site(s): 2

Our OATS are 3m and 10m sheltered emissions measurement ranges located in a light commercial environment in Boxborough, Massachusetts. They meet the technical requirements of ANSI C63.4-2003 and CISPR 22:1993/EN 55022:1994 for radiated and conducted emission measurements. The shelter structure is entirely fiberglass and plastic, with outside dimensions of 33 ft x 57 ft. The structure resembles a quonset hut with a center ceiling height of 16.5 ft.

The testing floor is covered by a galvanized sheet metal groundplane that is earth-grounded via copper rods around the perimeter of the site. The joints between individual metal sheets are bridged with a 2 inch wide metal strips to provide low RF impedance contact throughout. The sheets are screwed in place with stainless steel, round-head screws every three inches. Site illumination and HVAC are provided from beneath the ground reference plane through flush entry ports, the port covers are electrically bonded to the ground plane.

A flush metal turntable with 12 ft. diameter and 5000 lb. load capacity (12,000 lb. in Site 3) is provided for floor-standing equipment. A wooden table 80 cm high is used for table-top equipment. The turntable is electrically connected to the ground plane with three copper straps. The straps are connected to the turntable at the center of it with ground braid. The copper strap is directly connected to the groundplane at the edges of the turntable. The turntable is located on the south end of the structure and the antennas are mounted 3 and 10 meters away to the north. The antenna mast is a non-conductive with remote control of antenna height and polarization. The antenna height is adjustable from 1 to 4 meters.

All final radiated emission measurements are performed with the testing personnel and measurement equipment located below the ground reference plane. The site has a full basement underneath the turntable where support equipment may be remotely located. Operation of the antenna, turntable and equipment under test is controlled by remote controls that manipulate the antenna height and polarization and with a turntable control. Test personnel are located below the ellipse when measurements are performed, however the site maintains the ability of having personnel manipulate cables while monitoring test equipment. Ambient radiated emissions are 6 dB or more below the relevant FCC emission limits.

AC mains power is brought to the equipment under test through a power line filter, to remove ambient conducted noise. 50 Hz (240 VAC single phase), 60 Hz power (120 VAC single phase, 208 VAC three phase), and 60 Hz (480 VAC three phase) are available. Conducted emission measurements are performed with a Line Impedance Stabilization Network (LISN) or Artificial Mains Network (AMN) bonded to the ground reference plane. A removable vertical groundplane (2 meter X 2 meter area) is used for line-conducted measurements for table top equipment. The vertical groundplane is electrically connected to the reference groundplane.



**Test Results:** Pass

**Test Standard:** FCC Part 15 Subpart B

**Test:** Radiated Emissions Receiver Verification, FCC §15.109

**Performance Criterion:** Spurious emissions must not exceed the FCC Part 15 Subpart B Class B limits.

**Test Environment:**

Environmental Conditions During Testing:	Ambient (°C):	23	Humidity (%):	43	Pressure (hPa):	1004
Pretest Verification Performed	Yes		Equipment under Test:	BAEVCA100-81PCGX-LF		
Test Engineer(s):	Vathana Ven		EUT Serial Number:	0716HNNH000092		

**Test Equipment Used:**

TEST EQUIPMENT LIST					
Item	Equipment Type	Make	Model No.	Serial No.	Next Cal. Due
1	Digital 4 Line Barometer	Mannix	0ABA116	BAR1	06/01/2009
2	10 Meter in floor cable for site 2	ITS	RG214B/U	S2 10M FLR	09/23/2009
3	ANTENNA	EMCO	3142	9711-1223	02/22/2009
4	Spectrum Analyzer	Agilent	E7405A	US40240205	08/21/2009

**Software Utilized:**

Name	Manufacturer	Version
EXCEL 2000	Microsoft Corporation	9.0.6926 SP-3
EMI BOXBOROUGH	Intertek	3/07/07 Revision



## Test Details:

### Special Radiated Emissions

Company: BAE Systems  
 Model #: BAEVCA100-81PCGX-LF  
 Serial #: 0716HNNH000092  
 Engineers: Vathana Ven  
 Project #: 3139325  
 Standard: FCC Part 15 Subpart B Class B  
 Receiver: Agilent E7405A (AGL001)  
 PreAmp: NONE

Antenna & Cables: N Bands: N, LF, HF, SHF  
 Antenna: LOG2 2-22-09 V10m.txt LOG2 2-22-09 H10m.txt  
 Cable(s): S2 10M FLR 09-23-09.txt NONE.  
 Barometer: BAR1

Location: Site 2  
 Date(s): 02/05/09  
 Temp/Humidity/Pressure: 23 deg. C 43% 1004 mB

Limit Distance (m): 3  
 Test Distance (m): 10

Note: **Radio on (not transmitting), wireless on (transmitting a beacon, but not packets)**

PreAmp Used? (Y or N): N Voltage/Frequency: Fresh 12VDC Battery Frequency Range: 30-1000 MHz

Net = Reading (dBuV/m) + Antenna Factor (dB1/m) + Cable Loss (dB) - Preamp Factor (dB) - Distance Factor (dB)

Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	FCC
QP	V	112.257	9.9	8.5	2.0	0.0	-10.5	30.9	43.5	-12.6	120/300 kHz	RB
QP	V	115.233	9.0	8.4	2.1	0.0	-10.5	30.0	43.5	-13.5	120/300 kHz	RB
QP	V	124.508	9.1	8.2	2.2	0.0	-10.5	30.0	43.5	-13.5	120/300 kHz	RB
QP	V	133.158	14.5	8.4	2.3	0.0	-10.5	35.6	43.5	-7.9	120/300 kHz	RB
QP	V	166.688	8.6	11.4	2.5	0.0	-10.5	32.9	43.5	-10.6	120/300 kHz	RB
QP	V	228.870	8.0	12.7	2.4	0.0	-10.5	33.5	46.0	-12.5	120/300 kHz	
QP	V	266.640	9.0	13.6	2.7	0.0	-10.5	35.7	46.0	-10.3	120/300 kHz	RB
QP	V	299.650	12.0	13.9	2.8	0.0	-10.5	39.2	46.0	-6.8	120/300 kHz	
QP	V	326.880	15.3	15.2	2.9	0.0	-10.5	43.9	46.0	-2.1	120/300 kHz	RB
QP	V	332.880	14.7	15.4	3.0	0.0	-10.5	43.5	46.0	-2.5	120/300 kHz	RB
QP	H	392.810	13.0	17.8	3.3	0.0	-10.5	44.5	46.0	-1.5	120/300 kHz	
QP	H	400.035	11.0	18.9	3.3	0.0	-10.5	43.6	46.0	-2.4	120/300 kHz	RB
QP	V	424.900	11.4	17.6	3.4	0.0	-10.5	42.8	46.0	-3.2	120/300 kHz	

IC

Harmonic?

**Setup Photos**



30-1000 MHz Radiated Emissions



**Test Results:** Pass

**Test Standard:** FCC Part 74, FCC Part 90

**Test:** RF Output Power, FCC §74.861(d)(1), FCC §90.205(d)

**Performance Criterion:** Power must not exceed the following values:

FCC Part 74: Licensees may not operate at higher than 1 Watt ERP.

FCC Part 90: Power limitation is dependant on the device antenna's height above average terrain (HAAT) and on the required service area, and will be authorized according to the HAAT table found in FCC §90.205(d) Table 1.

**Test Environment:**

Environmental Conditions During Testing:	Ambient (°C):	23	Humidity (%):	43	Pressure (hPa):	1004
Pretest Verification Performed	Yes		Equipment under Test:	BAEVCA100-81PCGX-LF		
Test Engineer(s):	Vathana Ven		EUT Serial Number:	0716HNNH000092		

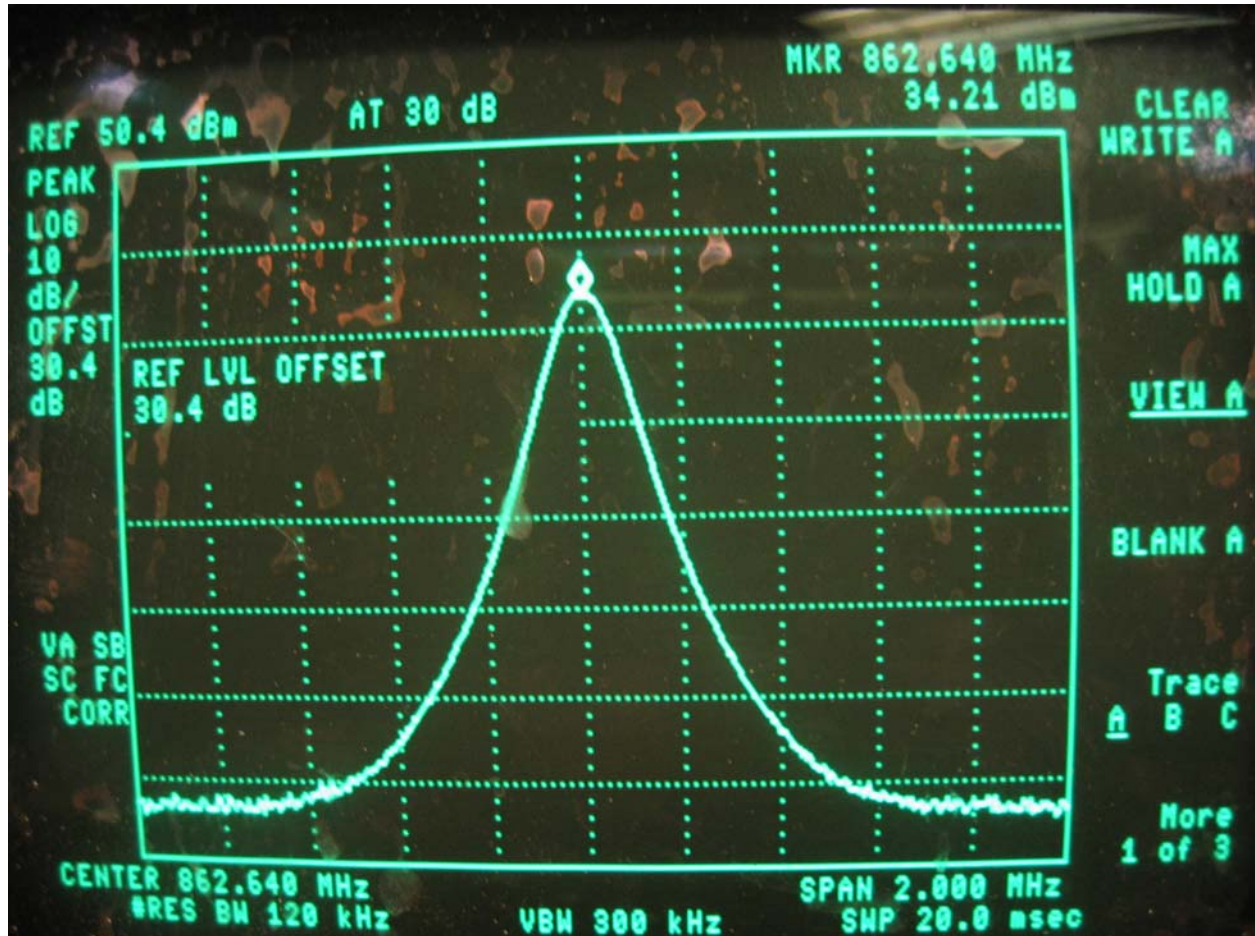
**Test Equipment Used:**

TEST EQUIPMENT LIST					
Item	Equipment Type	Make	Model No.	Serial No.	Next Cal. Due
1	Digital 4 Line Barometer	Mannix	0ABA116	BAR1	06/01/2009
2	40 GHz Cable	Megaphase	TM40-K1K1-80	7030802 002	06/05/2009
3	Attenuator, 30dB	Weinschel Corp	47-30-34	BD4327	10/15/2009
4	Spectrum Analyzer	Hewlett Packard	8591E	3346A02319	05/06/2009

**Software Utilized:**

Name	Manufacturer	Version
EXCEL 2000	Microsoft Corporation	9.0.6926 SP-3
EMI BOXBOROUGH	Intertek	3/07/07 Revision

## Test Details:



RF Output Power, 464.425 MHz, 34.21 dBm



**Test Results:** Pass

**Test Standard:** FCC Part 74, FCC Part 90

**Test:** Radiated Emissions, FCC §74.861(d)(3), FCC §90.210

**Performance Criterion:** Spurious emissions must not exceed -13 dBm ERP.

**Test Environment:**

Environmental Conditions During Testing:	Ambient (°C):	18	Humidity (%):	35	Pressure (hPa):	1007
Pretest Verification Performed	Yes		Equipment under Test:	BAEVCA100-81PCGX-LF		
Test Engineer(s):	Vathana Ven		EUT Serial Number:	0716HNNH000092		

**Test Equipment Used:**

TEST EQUIPMENT LIST					
Item	Equipment Type	Make	Model No.	Serial No.	Next Cal. Due
1	Digital 4 Line Barometer	Mannix	0ABA116	BAR1	06/01/2009
2	ANTENNA	EMCO	3142	9711-1223	02/22/2009
3	HORN ANTENNA	EMCO	3115	9602-4675	10/13/2009
4	HORN ANTENNA	EMCO	3115	9610-4980	03/03/2009
5	3 Meter In floor cable for site 2	ITS	RG214B/U	S2 3M FLR	09/23/2009
6	High Frequency Cable 40GHz	Megaphase	TM40 K1K1 197	CBL028	12/10/2009
7	40GHz Cable	Megaphase	TM40-K1K1-197	7030801 001	06/05/2009
8	Spectrum Analyzer	Agilent	E7405A	US40240205	08/21/2009
9	100MHz-40GHz Preamplifier	MITEQ	NSP4000-NFG	1260417	03/27/2009
10	BROADBAND ANTENNA	Compliance Design	B100	1649	10/14/2009
11	BROADBAND ANTENNA	Compliance Design	B200	1650	10/02/2009
12	BROADBAND ANTENNA	Compliance Design	B300	00668	10/02/2009
13	40 GHz Cable	Megaphase	TM40-K1K1-80	7030802 002	06/05/2009
14	Synthesized Sweep Generator	Hewlett Packard	83620A	3213A01244	02/06/2009

**Software Utilized:**

Name	Manufacturer	Version
EXCEL 2000	Microsoft Corporation	9.0.6926 SP-3
EMI BOXBOROUGH	Intertek	3/07/07 Revision

## Test Details:

### Radiated Emissions, Substitution

Company: BAE Systems  
 Model #: BAEVCA100-81PCGX-LF  
 Serial #: 0716HNNH000092  
 Engineer(s): Vathana Ven  
 Project #: 3139325  
 Standard: FCC Part 90  
 Location: Site 2  
 Date(s): 02/02/09  
 Rx Antenna: LOG2 HORN3  
 Rx Cable(s): S2 3M FLR CBL028 MEG001  
 Rx Preamp: NONE Receiver: AGL001  
 Tx Antenna: ANT1A ANT1B ANT1B HORN2  
 Tx Cable(s): MEG004  
 Tx Signal Generator: HEW62  
 ERP or EIRP?: ERP  
 Barometer: BAR1 Temp/Humidity/Pressure: 18 deg. C 35% 1007 mB  
 Test Distance (m): 3 Voltage/Frequency: Fresh 12VDC Battery Frequency Range: 30 MHz - 9 GHz  
 Net = Generator Level (0.00 dBm) + (EUT reading - Generator reading) - Cable Loss + Antenna Gain (dBi or dBd)  
 Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor RB = Restricted Band; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	EUT Reading dB(uV)	Generator Reading dB(uV)	Transmit Cable Loss dB	Transmit Antenna dBi	Generator Level dBm	Net dBm	Limit dBm	Margin dB	Bandwidth
PK	V	48.150	11.0	61.0	-7.3	0.2	-20.0	-64.7	-13.0	-51.7	120/300 kHz
PK	V	85.250	13.0	67.8	0.0	0.2	-20.0	-76.7	-13.0	-63.7	120/300 kHz
PK	V	113.060	19.0	67.2	-1.2	0.2	-20.0	-68.9	-13.0	-55.9	120/300 kHz
PK	V	115.325	21.6	67.3	-0.9	0.2	-20.0	-66.7	-13.0	-53.7	120/300 kHz
PK	V	123.359	19.7	68.8	0.2	0.2	-20.0	-71.3	-13.0	-58.3	120/300 kHz
PK	V	130.896	22.9	70.2	1.3	0.2	-20.0	-70.5	-13.0	-57.5	120/300 kHz
PK	V	133.384	21.7	69.9	1.4	0.3	-20.0	-71.5	-13.0	-58.5	120/300 kHz
PK	V	141.240	17.0	68.3	1.0	0.3	-20.0	-74.1	-13.0	-61.1	120/300 kHz
PK	V	163.540	18.4	63.5	-1.6	0.3	-20.0	-65.4	-13.0	-52.4	120/300 kHz
PK	V	166.590	17.5	63.8	-2.0	0.3	-20.0	-66.2	-13.0	-53.2	120/300 kHz
PK	V	194.836	13.0	61.0	0.3	0.3	-20.0	-70.2	-13.0	-57.2	120/300 kHz
PK	V	233.240	17.9	57.3	-0.4	0.3	-20.0	-60.8	-13.0	-47.8	120/300 kHz
PK	V	250.000	23.3	53.5	-1.4	0.4	-20.0	-50.6	-13.0	-37.6	120/300 kHz
PK	H	266.600	24.2	63.2	-0.5	0.4	-20.0	-60.3	-13.0	-47.3	120/300 kHz
PK	H	294.246	17.0	61.0	-0.8	0.4	-20.0	-64.9	-13.0	-51.9	120/300 kHz
PK	H	299.996	14.0	60.3	-1.4	0.4	-20.0	-66.7	-13.0	-53.7	120/300 kHz
PK	H	326.900	27.0	61.6	-1.2	0.4	-20.0	-55.2	-13.0	-42.2	120/300 kHz
PK	H	333.250	27.6	60.0	-1.0	0.4	-20.0	-53.2	-13.0	-40.2	120/300 kHz
PK	H	392.250	27.0	58.3	-1.2	0.4	-20.0	-51.8	-13.0	-38.8	120/300 kHz
PK	H	400.000	26.0	56.0	0.0	0.5	-20.0	-51.7	-13.0	-38.7	120/300 kHz
PK	H	424.800	25.0	49.0	-0.3	0.5	-20.0	-45.4	-13.0	-32.4	120/300 kHz
PK	H	1076.400	39.0	72.3	6.6	0.8	-20.0	-61.3	-13.0	-48.3	1/3 MHz
PK	V	1199.900	42.0	72.0	7.0	0.8	-20.0	-58.3	-13.0	-45.3	1/3 MHz
PK	V	1347.400	37.0	74.2	7.5	0.9	-20.0	-66.0	-13.0	-53.0	1/3 MHz
PK	V	1568.000	33.3	82.2	8.2	0.9	-20.0	-78.3	-13.0	-65.3	1/3 MHz
PK	V	1702.800	38.0	77.0	8.3	1.0	-20.0	-68.5	-13.0	-55.5	1/3 MHz
PK	V	1865.000	32.0	75.4	8.5	1.0	-20.0	-73.1	-13.0	-60.1	1/3 MHz



## Setup Photos



30-1000 MHz Radiated Emissions

## Setup Photos



30-1000 MHz Radiated Emissions



## Setup Photos



1-9 GHz Radiated Emissions

## Setup Photos



1-9 GHz Radiated Emissions



**Test Results:** Pass

**Test Standard:** FCC Part 15 Subpart C

**Test:** RF Output Power, FCC §15.247(b)(3)

**Performance Criterion:** Conducted RF Output Power must not exceed 1 Watt (30 dBm). EIRP must not exceed 4 Watts (36 dBm).

**Test Environment:**

Environmental Conditions During Testing:	Ambient (°C):	18	Humidity (%):	35	Pressure (hPa):	1007
Pretest Verification Performed	Yes		Equipment under Test:	BAEVCA100-81PCGX-LF		
Test Engineer(s):	Vathana Ven		EUT Serial Number:	0716HNNH000092		

**Test Equipment Used:**

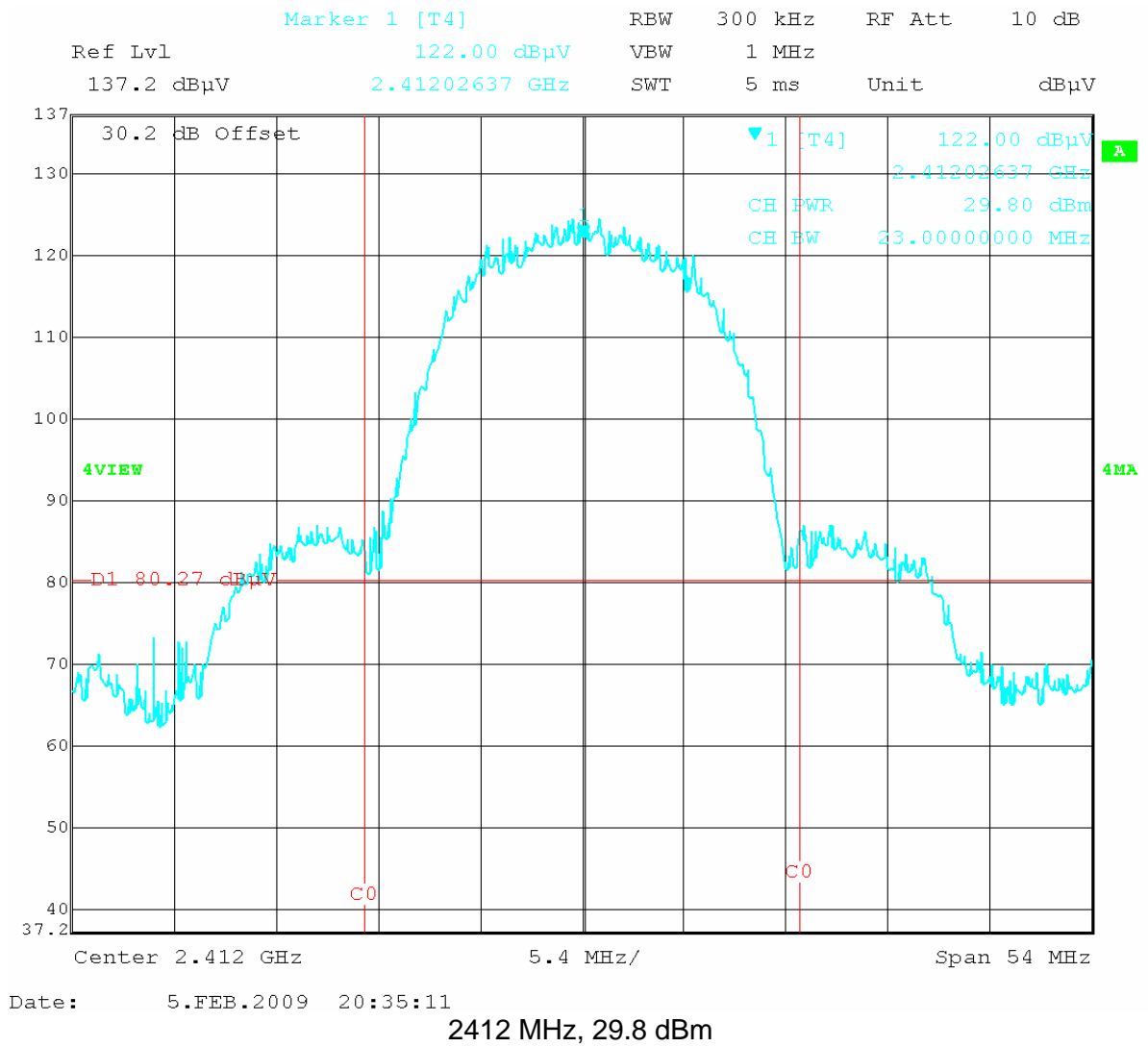
TEST EQUIPMENT LIST					
Item	Equipment Type	Make	Model No.	Serial No.	Next Cal. Due
1	Spectrum Analyzer 20Hz - 40 GHz	Rohde & Schwartz	FSEK-30	100225	12/01/2009
2	40 GHz Cable	Megaphase	TM40-K1K1-80	7030802 002	06/05/2009
3	Attenuator, 30dB	Weinschel Corp	47-30-34	BD4327	10/15/2009

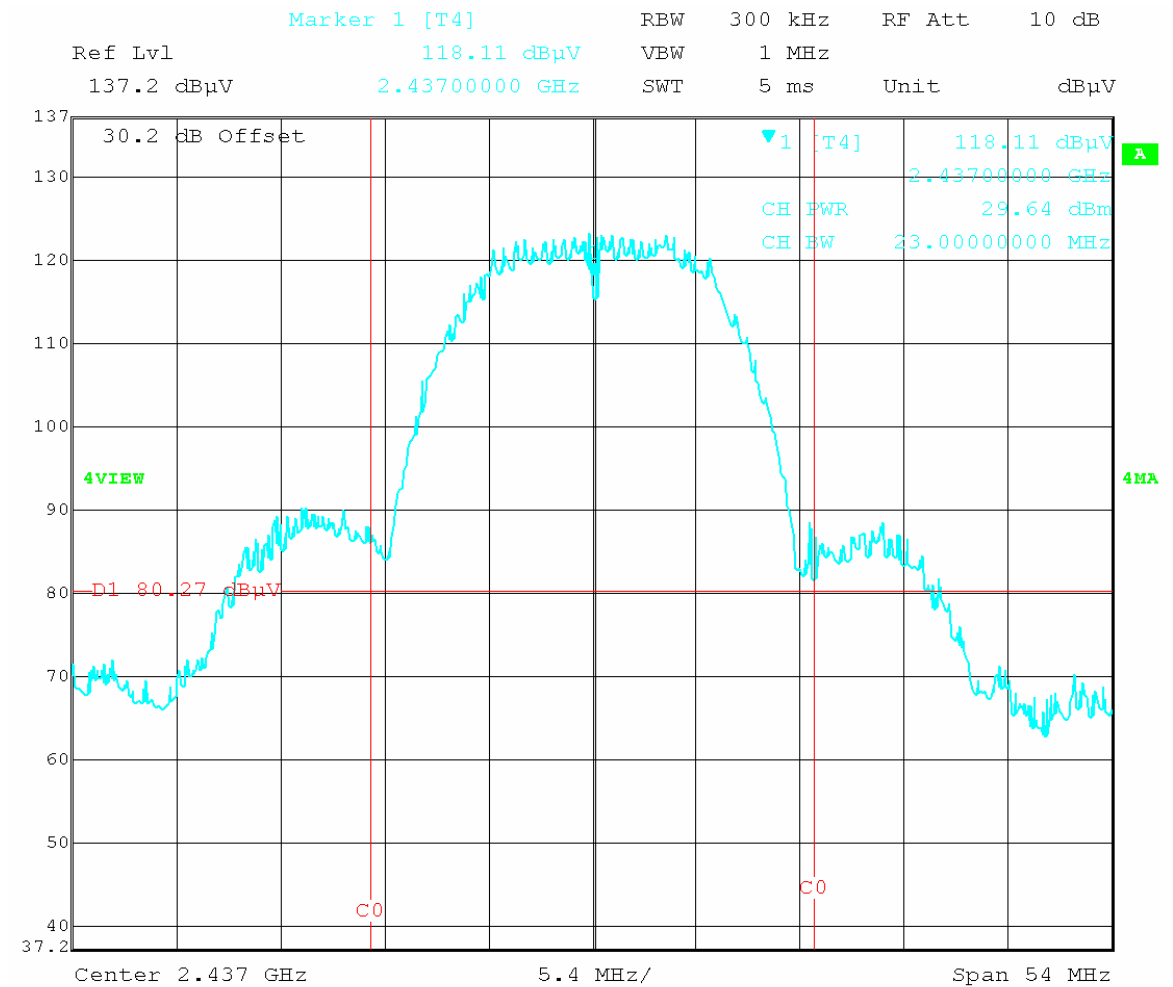
**Software Utilized:**

Name	Manufacturer	Version
EXCEL 2000	Microsoft Corporation	9.0.6926 SP-3
EMI BOXBOROUGH	Intertek	3/07/07 Revision

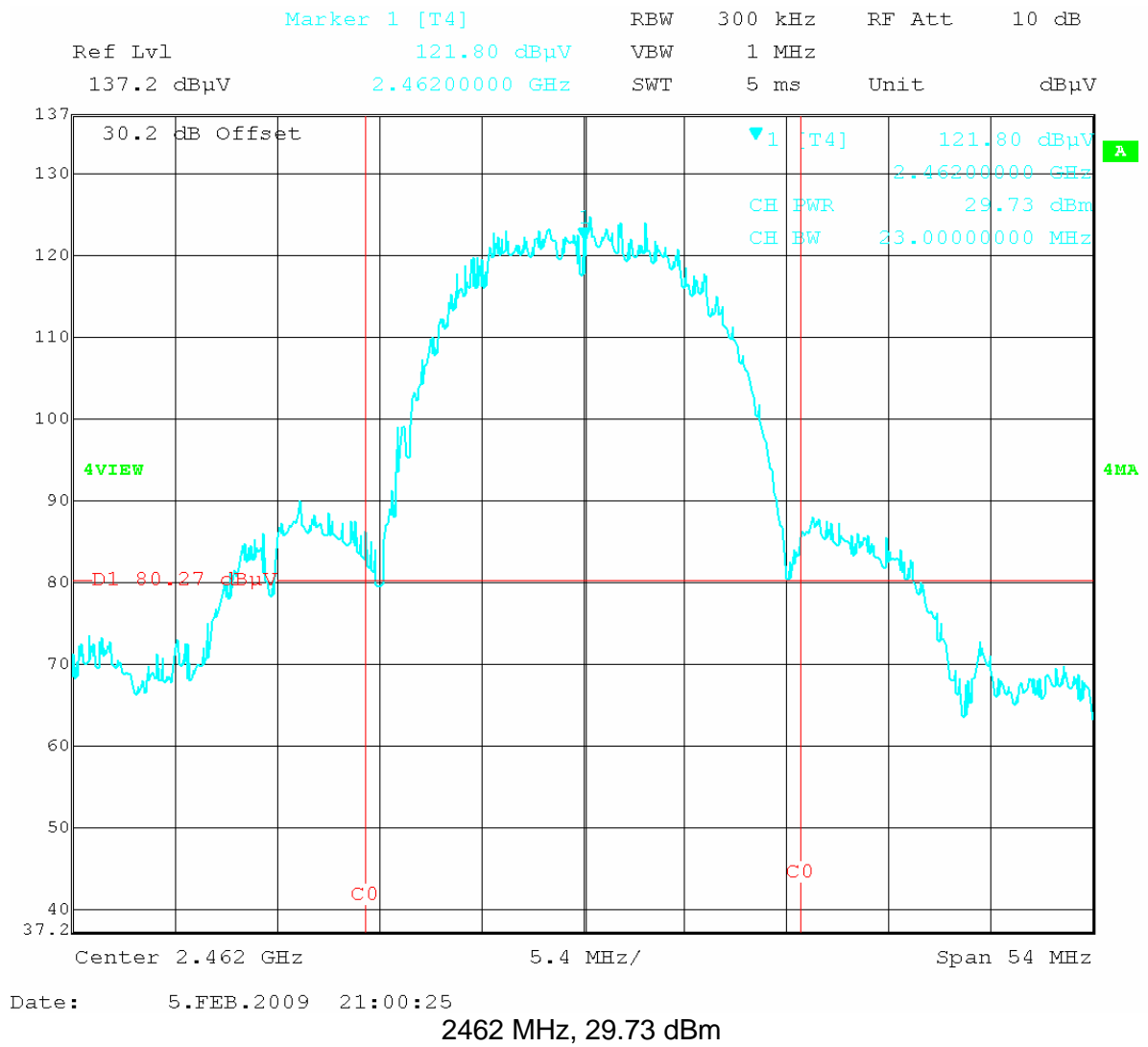
**Test Details:**

Channel 1 (2412 MHz): 29.8 dBm  
Channel 6 (2437 MHz): 29.64 dBm  
Channel 11 (2462 MHz): 29.73 dBm





Date: 5.FEB.2009 20:50:40  
2437 MHz, 29.64 dBm





**Test Results:** Pass

**Test Standard:** FCC Part 15 Subpart C

**Test:** Radiated Emissions, FCC §15.205, §15.209, §15.247(d)

**Performance Criterion:** Spurious emissions must be at least 20 dB lower than the fundamental field strength when measured with a 100 kHz bandwidth. Emissions which fall in the restricted bands of 15.205 must meet the general limits of 15.209.

**Test Environment:**

Environmental Conditions During Testing:	Ambient (°C):	18	Humidity (%):	35	Pressure (hPa):	1007
Pretest Verification Performed	Yes		Equipment under Test:	BAEVCA100-81PCGX-LF		
Test Engineer(s):	Vathana Ven		EUT Serial Number:	0716HNNH000092		

**Test Equipment Used:**

TEST EQUIPMENT LIST					
Item	Equipment Type	Make	Model No.	Serial No.	Next Cal. Due
1	Digital 4 Line Barometer	Mannix	0ABA116	BAR1	06/01/2009
2	ANTENNA	EMCO	3142	9711-1223	02/22/2009
3	3 Meter In floor cable for site 2	ITS	RG214B/U	S2 3M FLR	09/23/2009
4	Spectrum Analyzer	Agilent	E7405A	US40240205	08/21/2009
5	40GHz Cable	Megaphase	TM40-K1K1-197	7030801 001	06/05/2009
6	HORN ANTENNA	EMCO	3115	9602-4675	10/13/2009
7	Spectrum Analyzer 20Hz - 40 GHz	Rohde & Schwartz	FSEK-30	100225	12/01/2009
8	40 GHz Cable	Megaphase	TM40-K1K1-80	7030802 002	06/05/2009
9	High Frequency Cable 40GHz	Megaphase	TM40 K1K1 80	CBL030	12/10/2009
10	ANTENNA, RIDGED GUIDE, 18-40 GHZ	EMCO	3116	2090	01/27/2010
11	1GHz High Pass Filter	Reactel, Inc	7HS-1G/10G-S11	RCA002	10/15/2009
12	3GHz High Pass Filter	Reactel, Inc	7HSX-3G/18G-S11	RCA004	10/15/2009

**Software Utilized:**

Name	Manufacturer	Version
EXCEL 2000	Microsoft Corporation	9.0.6926 SP-3
EMI BOXBOROUGH	Intertek	3/07/07 Revision



## Test Details:

### Radiated Emissions

Company: BAE Systems  
 Model #: BAEVCA100-81PCGX-LF  
 Serial #: 0716HNNH000092  
 Engineers: Vathana Ven  
 Project #: 3139325  
 Standard: FCC Part 15 Subpart C 15.247  
 Receiver: Agilent E7405A (AGL001)  
 PreAmp: PRE9 03-27-09.txt  
 Note: **Channel 1 (2412 MHz)**  
 PreAmp Used? (Y or N): N  
 Net = Reading (dBuV/m) + Antenna Factor (dB1/m) + Cable Loss (dB) - Preamp Factor (dB) - Distance Factor (dB)  
 Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

Antenna & Cables: N Bands: N, LF, HF, SHF  
 Antenna: LOG2 2-22-09 V3m.txt LOG2 2-22-09 H3m.txt  
 Cable(s): S2 3M FLR 09-23-09.txt NONE  
 Barometer: BAR1  
 Location: Site 2  
 Date(s): 02/03/09  
 Temp/Humidity/Pressure: 19 deg.C 33% 998 mB  
 Limit Distance (m): 3  
 Test Distance (m): 3  
 Voltage/Frequency: Fresh 12VDC Battery Frequency Range: 30-1000 MHz

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth
QP	V	112.760	21.7	10.3	1.5	0.0	0.0	33.5	43.5	-10.0	120/300 kHz
QP	V	113.748	22.4	10.4	1.5	0.0	0.0	34.2	43.5	-9.3	120/300 kHz
QP	V	123.573	21.0	10.5	1.6	0.0	0.0	33.1	43.5	-10.4	120/300 kHz
PK	V	132.873	23.5	10.2	1.4	0.0	0.0	35.1	43.5	-8.4	120/300 kHz
PK	V	144.998	18.0	10.9	1.5	0.0	0.0	30.4	90.1	-59.7	120/300 kHz
PK	V	166.650	16.0	11.7	1.6	0.0	0.0	29.3	43.5	-14.2	120/300 kHz
PK	V	233.248	16.0	13.6	1.8	0.0	0.0	31.4	90.1	-58.7	120/300 kHz
QP	V	266.250	21.0	14.7	2.1	0.0	0.0	37.7	46.0	-8.3	120/300 kHz
QP	V	333.250	16.0	16.3	2.2	0.0	0.0	34.5	46.0	-11.5	120/300 kHz
PK	V	392.300	23.6	17.9	2.6	0.0	0.0	44.1	90.1	-46.0	120/300 kHz
QP	V	399.900	20.0	18.7	2.6	0.0	0.0	41.3	46.0	-4.7	120/300 kHz
PK	V	414.100	25.9	17.8	2.6	0.0	0.0	46.2	90.1	-43.9	120/300 kHz
PK	V	421.800	20.0	17.9	2.6	0.0	0.0	40.5	90.1	-49.6	120/300 kHz
PK	V	436.650	19.0	18.1	2.7	0.0	0.0	39.8	90.1	-50.3	120/300 kHz
PK	V	444.550	18.0	18.4	2.7	0.0	0.0	39.1	90.1	-51.0	120/300 kHz
PK	V	791.000	13.0	22.8	4.0	0.0	0.0	39.8	90.1	-50.3	120/300 kHz

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### Radiated Emissions

Company: BAE Systems  
Model #: BAEVCA100-81PCGX-LF  
Serial #: 0716HNNH000092  
Engineers: Vathana Ven  
Project #: 3139325  
Standard: FCC Part 15 Subpart C 15.247  
Receiver: Agilent E7405A (AGL001)  
PreAmp: PRE9 03-27-09.txt  
Note: **Channel 6 (2437 MHz)**  
PreAmp Used? (Y or N): N  
Voltage/Frequency: Fresh 12VDC Battery  
Frequency Range: 30-1000 MHz  
Net = Reading (dBuV/m) + Antenna Factor (dB1/m) + Cable Loss (dB) - Preamp Factor (dB) - Distance Factor (dB)  
Antenna & Cables: N Bands: N, LF, HF, SHF  
Antenna: LOG2 2-22-09 V3m.txt LOG2 2-22-09 H3m.txt  
Cable(s): S2 3M FLR 09-23-09.txt NONE.  
Barometer: BAR1  
Location: Site 2  
Temp/Humidity/Pressure: 19 deg.C 33% 998 mB  
Limit Distance (m): 3  
Test Distance (m): 3  
Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	FCC	IC	Harmonic?
QP	V	112.760	22.8	10.3	1.5	0.0	0.0	34.6	43.5	-8.9	120/300 kHz	RB	RB	
QP	V	113.748	22.5	10.4	1.5	0.0	0.0	34.3	43.5	-9.2	120/300 kHz	RB	RB	
QP	V	123.573	22.0	10.5	1.6	0.0	0.0	34.1	43.5	-9.4	120/300 kHz	RB	RB	
QP	V	132.873	23.2	10.2	1.4	0.0	0.0	34.8	43.5	-8.7	120/300 kHz	RB	RB	
PK	V	144.998	21.0	10.9	1.5	0.0	0.0	33.4	90.1	-56.7	120/300 kHz			
PK	V	166.650	17.0	11.7	1.6	0.0	0.0	30.3	43.5	-13.2	120/300 kHz	RB		
PK	V	233.248	18.1	13.6	1.8	0.0	0.0	33.5	90.1	-56.6	120/300 kHz			
QP	V	266.250	21.0	14.7	2.1	0.0	0.0	37.7	46.0	-8.3	120/300 kHz	RB	RB	
QP	V	333.250	16.0	16.3	2.2	0.0	0.0	34.5	46.0	-11.5	120/300 kHz	RB	RB	
PK	V	392.300	24.3	17.9	2.6	0.0	0.0	44.8	90.1	-45.3	120/300 kHz			
QP	V	399.900	20.0	18.7	2.6	0.0	0.0	41.3	46.0	-4.7	120/300 kHz	RB	RB	
PK	V	414.100	26.0	17.8	2.6	0.0	0.0	46.3	90.1	-43.8	120/300 kHz			
PK	V	421.800	21.5	17.9	2.6	0.0	0.0	42.0	90.1	-48.1	120/300 kHz			
PK	V	436.650	19.0	18.1	2.7	0.0	0.0	39.8	90.1	-50.3	120/300 kHz			
PK	V	444.550	18.0	18.4	2.7	0.0	0.0	39.1	90.1	-51.0	120/300 kHz			
PK	V	791.000	13.0	22.8	4.0	0.0	0.0	39.8	46.0	-6.2	120/300 kHz			





### Special Radiated Emissions

Company: BAE Systems  
Model #: BAEVCA100-81PCGX-LF  
Serial #: 0716HNNH000092  
Engineers: Vathana Ven  
Project #: 3139325  
Standard: FCC Part 15 Subpart C 15.247  
Receiver: R&S FSEK-30 (ROS001)  
PreAmp: PRE9 03-27-09.txt  
PreAmp Used? (Y or N): N  
Voltage/Frequency: Fresh 12VDC Battery  
Frequency Range: 1- 4GHz  
Net = Reading (dBuV/m) + Antenna Factor (dB1/m) + Cable Loss (dB) - Preamp Factor (dB) - Distance Factor (dB)  
Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

Antenna & Cables: HF Bands: N, LF, HF, SHF  
Antenna: Horn2 V3m 10-13-09.txt Horn2 H3m 10-13-09.txt  
Cable(s): MEG001 06-05-09.txt NONE.  
Barometer: BAR1  
Location: Site 2  
Temp/Humidity/Pressure: 19 deg.C 33% 998 mB

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	FCC	IC	Harmonic?
Note: Fundamental Power Reference														
PK	V	2412.484	79.8	28.1	3.1	0.0	0.0	110.9	-	-	100/300 kHz			
PK	V	2437.526	78.0	28.1	3.1	0.0	0.0	109.2	-	-	100/300 kHz			
PK	V	2461.180	78.0	28.1	3.1	0.0	0.0	109.2	-	-	100/300 kHz			
Note: WiFi Channel 11 (2462 MHz)														
PK	V	1075.993	25.6	24.2	1.9	0.0	0.0	51.7	74.0	-22.3	1/3 MHz	RB	RB	
AVG	V	1075.993	15.5	24.2	1.9	0.0	0.0	41.6	54.0	-12.4	1/3 MHz	RB	RB	
PK	V	2163.000	24.6	27.7	2.8	0.0	0.0	55.1	90.5	-35.4	100/300 kHz			
PK	V	2696.000	27.0	28.9	3.2	0.0	0.0	59.0	74.0	-15.0	1/3 MHz	RB	RB	
AVG	V	2696.000	16.5	28.9	3.2	0.0	0.0	48.5	54.0	-5.5	1/3 MHz	RB	RB	
Note: WiFi Channel 6 (2437 MHz)														
PK	V	1183.400	25.0	24.6	2.0	0.0	0.0	51.6	74.0	-22.4	1/3 MHz	RB	RB	
AVG	V	1183.400	14.5	24.6	2.0	0.0	0.0	41.1	54.0	-12.9	1/3 MHz	RB	RB	
PK	V	2136.200	17.3	27.7	2.8	0.0	0.0	47.8	90.5	-42.7	100/300 kHz			
PK	V	2698.400	29.4	28.9	3.2	0.0	0.0	61.5	74.0	-12.5	1/3 MHz	RB	RB	
AVG	V	2698.000	15.5	28.9	3.2	0.0	0.0	47.6	54.0	-6.4	1/3 MHz	RB	RB	
Note: WiFi Channel 1 (2412 MHz)														
PK	V	1090.180	39.7	24.3	1.9	0.0	0.0	65.9	74.0	-8.1	1/3 MHz	RB	RB	
AVG	V	1090.180	15.0	24.3	1.9	0.0	0.0	41.2	54.0	-12.8	1/3 MHz	RB	RB	
PK	V	2111.423	28.7	27.7	2.8	0.0	0.0	59.1	90.5	-31.4	100/300 kHz			
PK	V	2696.993	31.2	28.9	3.2	0.0	0.0	63.3	74.0	-10.7	1/3 MHz	RB	RB	
AVG	V	2696.993	16.3	28.9	3.2	0.0	0.0	48.4	54.0	-5.6	1/3 MHz	RB	RB	



### Special Radiated Emissions

Company: BAE Systems  
Model #: BAEVCA100-81PCGX-LF  
Serial #: 0716HNNH000092  
Engineers: Vathana Ven  
Project #: 3139325  
Standard: FCC Part 15 Subpart C 15.247  
Receiver: R&S FSEK-30 (ROS001)  
PreAmp: PRE9 03-27-09.txt  
PreAmp Used? (Y or N): Y  
Antenna & Cables: HF Bands: N, LF, HF, SHF  
Antenna: Horn2 V3m 10-13-09.txt  
Cable(s): MEG001 06-05-09.txt  
Barometer: BAR1  
Location: Site 2  
Date(s): 02/04/09  
Limit Distance (m): 3  
Test Distance (m): 3  
Voltage/Frequency: Fresh 12VDC Battery  
Frequency Range: 4- 18GHz  
Temp/Humidity/Pressure: 19 deg.C 33% 998 mB  
Net = Reading (dBuV/m) + Antenna Factor (dB1/m) + Cable Loss (dB) - Preamp Factor (dB) - Distance Factor (dB)  
Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	FCC	IC	Harmonic?
Note: WiFi Channel 1 (2412 MHz)														
PK	V	4824.000	37.4	32.7	6.3	29.3	0.0	47.1	74.0	-26.9	1/3 MHz	RB	RB	
AVG	V	4824.000	25.5	32.7	6.3	29.3	0.0	35.2	54.0	-18.8	1/3 MHz	RB	RB	
PK	V	7236.000	24.4	35.7	8.0	28.4	0.0	39.6	90.5	-50.9	100/300 kHz			
PK	V	9648.000	23.6	38.0	9.4	27.4	0.0	43.6	90.5	-46.9	100/300 kHz			
PK	V	12060.000	33.8	39.2	10.9	27.4	0.0	56.5	74.0	-17.5	1/3 MHz	RB	RB	
AVG	V	12060.000	23.5	39.2	10.9	27.4	0.0	46.2	54.0	-7.8	1/3 MHz	RB	RB	
PK	V	14472.000	35.3	42.0	12.1	27.6	0.0	61.9	74.0	-12.1	1/3 MHz	RB	RB	
AVG	V	14472.000	23.2	42.0	12.1	27.6	0.0	49.8	54.0	-4.2	1/3 MHz	RB	RB	
PK	V	16884.000	24.7	40.0	13.5	28.1	0.0	50.1	90.5	-40.4	100/300 kHz			
Note: WiFi Channel 6 (2437 MHz)														
PK	V	4874.000	36.0	32.8	6.3	29.3	0.0	45.9	74.0	-28.1	1/3 MHz	RB	RB	
AVG	V	4874.000	25.0	32.8	6.3	29.3	0.0	34.9	54.0	-19.1	1/3 MHz	RB	RB	
PK	V	7311.000	36.4	35.9	8.0	28.4	0.0	51.9	74.0	-22.1	1/3 MHz	RB	RB	
AVG	V	7311.000	24.5	35.9	8.0	28.4	0.0	40.0	54.0	-14.0	1/3 MHz	RB	RB	
PK	V	9748.000	25.0	38.1	9.5	27.4	0.0	45.2	90.5	-45.3	100/300 kHz			
PK	V	12185.000	34.0	39.1	10.9	27.4	0.0	56.6	74.0	-17.4	1/3 MHz	RB	RB	
AVG	V	12185.000	23.0	39.1	10.9	27.4	0.0	45.6	54.0	-8.4	1/3 MHz	RB	RB	
PK	V	14622.000	23.6	41.5	12.2	27.6	0.0	49.7	90.5	-40.8	100/300 kHz			
PK	V	17059.000	22.9	40.8	13.5	28.1	0.0	49.1	90.5	-41.4	100/300 kHz			
Note: WiFi Channel 11 (2462 MHz)														
PK	V	4924.000	36.0	32.9	6.4	29.3	0.0	46.0	74.0	-28.0	1/3 MHz	RB	RB	
AVG	V	4924.000	25.0	32.9	6.4	29.3	0.0	35.0	54.0	-19.0	1/3 MHz	RB	RB	
PK	V	7386.000	35.0	36.1	8.1	28.3	0.0	50.8	74.0	-23.2	1/3 MHz	RB	RB	
AVG	V	7386.000	25.0	36.1	8.1	28.3	0.0	40.8	54.0	-13.2	1/3 MHz	RB	RB	
PK	V	9848.000	23.0	38.2	9.6	27.4	0.0	43.4	90.5	-47.1	100/300 kHz			
PK	V	12310.000	33.0	39.0	11.0	27.4	0.0	55.6	74.0	-18.4	1/3 MHz	RB	RB	
AVG	V	12310.000	23.0	39.0	11.0	27.4	0.0	45.6	54.0	-8.4	1/3 MHz	RB	RB	
PK	V	14772.000	25.0	40.9	12.3	27.6	0.0	50.6	74.0	-23.4	100/300 kHz			
PK	V	17234.000	23.0	41.7	13.6	28.2	0.0	50.1	54.0	-3.9	100/300 kHz			



### Special Radiated Emissions

Company: BAE Systems  
Model #: BAEVCA100-81PCGX-LF  
Serial #: 0716HNH000092

Engineers: Vathana Ven

Project #: 3139325

Standard: FCC Part 15 Subpart C 15.247

Receiver: R&amp;S FSEK-30 (ROS001)

PreAmp: PRE9 03-27-09.txt

PreAmp Used? (Y or N):

Limit Distance (m): 3

Test Distance (m): 3

Voltage/Frequency: Fresh 12VDC Battery

Cables: SHF Bands: N, LF, HF, SHF

Antenna: EMC04 V1m 01-27-2010.txt EMC04 H1m 01-27-2010.txt

Cable(s): CBL030 12-10-09.txt MEG004 06-05-09.txt

Barometer: BAR1

Temp/Humidity/Pressure: 19 deg.C 33% 998 mB

PreAmp Used? (Y or N): Y Voltage/Frequency: Fresh 12VDC Battery Frequency Range: 18 - 25GHz

$$\text{Net} = \text{Reading (dBuV/m)} + \text{Antenna Factor (dB1/m)} + \text{Cable Loss (dB)} - \text{Preamplifier Factor (dB)} - \text{Distance Factor (dB)}$$

Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(μV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(μV/m)	Limit dB(μV/m)	Margin dB	Bandwidth
Note: WiFi Channel 1 (2412 MHz)											
PK	V	19296.000	35.0	45.5	8.4	28.7	0.0	60.2	74.0	-13.8	1/3 MHz
AVG	V	19296.000	23.6	45.5	8.4	28.7	0.0	48.8	54.0	-5.2	1/3 MHz
PK	V	21708.000	25.3	45.8	9.0	28.0	0.0	52.1	90.5	-38.4	100/300 kHz
PK	V	24120.000	22.6	45.8	9.7	26.7	0.0	51.4	90.5	-39.1	100/300 kHz
Note: WiFi Channel 6 (2437 MHz)											
PK	V	19496.000	36.0	45.7	8.4	28.8	0.0	61.4	74.0	-12.6	1/3 MHz
AVG	V	19496.000	23.5	45.7	8.4	28.8	0.0	48.9	54.0	-5.1	1/3 MHz
PK	V	21933.000	24.1	45.7	9.1	27.9	0.0	51.0	90.5	-39.5	100/300 kHz
PK	V	24370.000	22.5	46.0	9.8	26.6	0.0	51.8	90.5	-38.7	100/300 kHz
Note: WiFi Channel 11 (2462 MHz)											
PK	V	19696.000	34.0	45.7	8.5	28.8	0.0	59.3	74.0	-14.7	1/3 MHz
AVG	V	19696.000	23.0	45.7	8.5	28.8	0.0	48.3	54.0	-5.7	1/3 MHz
PK	V	22158.000	32.0	45.7	9.2	27.7	0.0	59.1	74.0	-14.9	1/3 MHz
AVG	V	22158.000	23.5	45.7	9.2	27.7	0.0	50.6	54.0	-3.4	1/3 MHz
PK	V	24620.000	23.0	46.2	9.9	26.4	0.0	52.7	90.5	-37.8	100/300 kHz

FCC

IC

Harmonic?

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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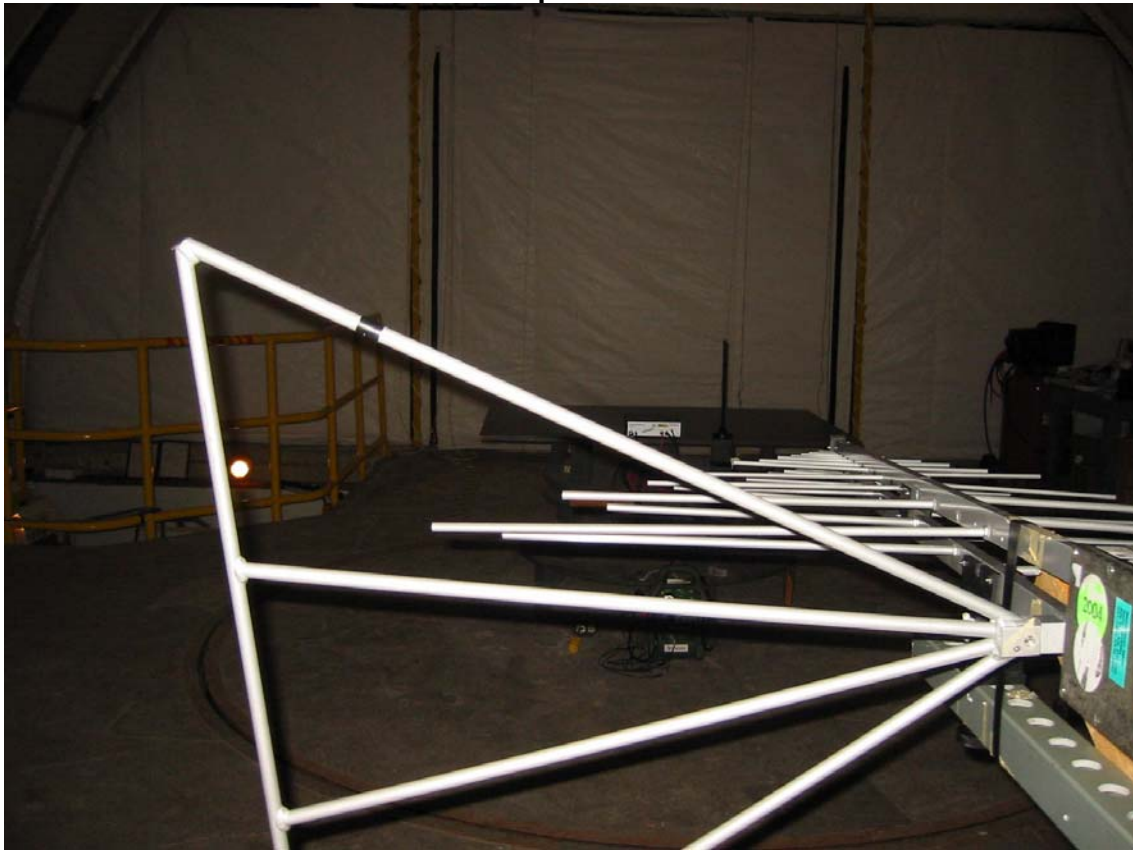
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## Setup Photos



30-1000 MHz Radiated Emissions



30-1000 MHz Radiated Emissions

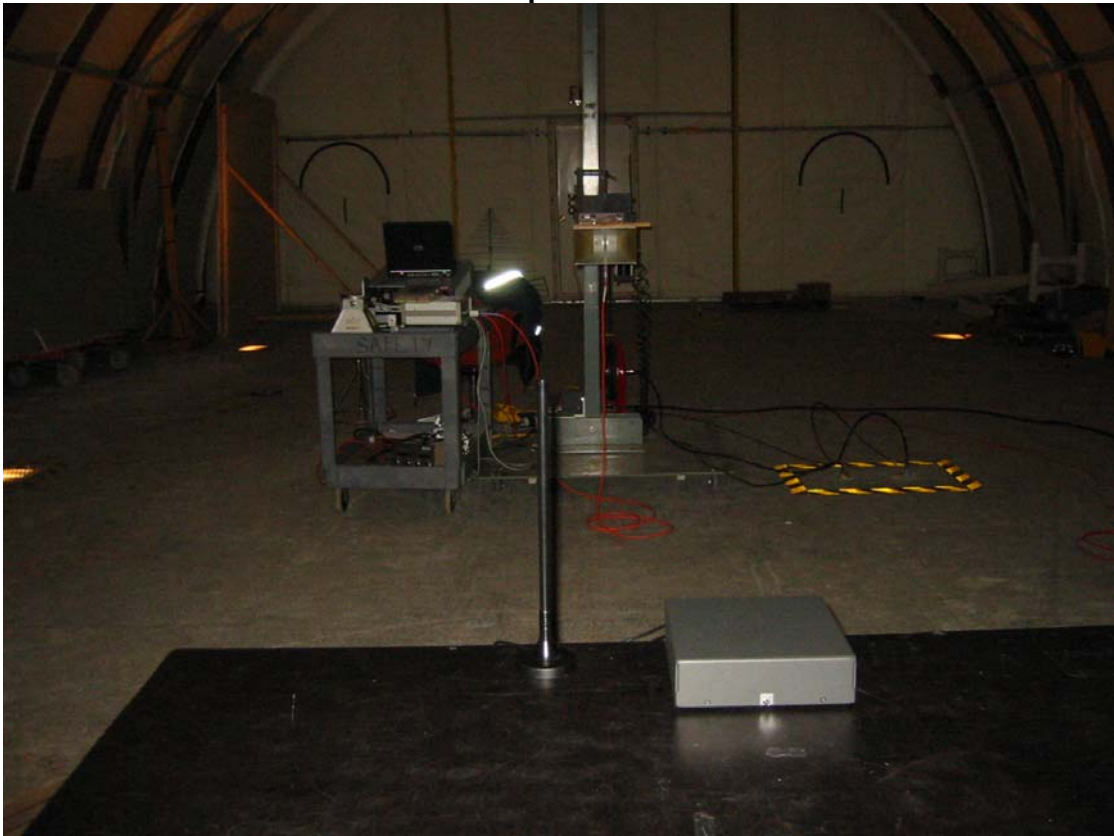




1-4 GHz Radiated Emissions



1-4 GHz Radiated Emissions



4-18 GHz Radiated Emissions

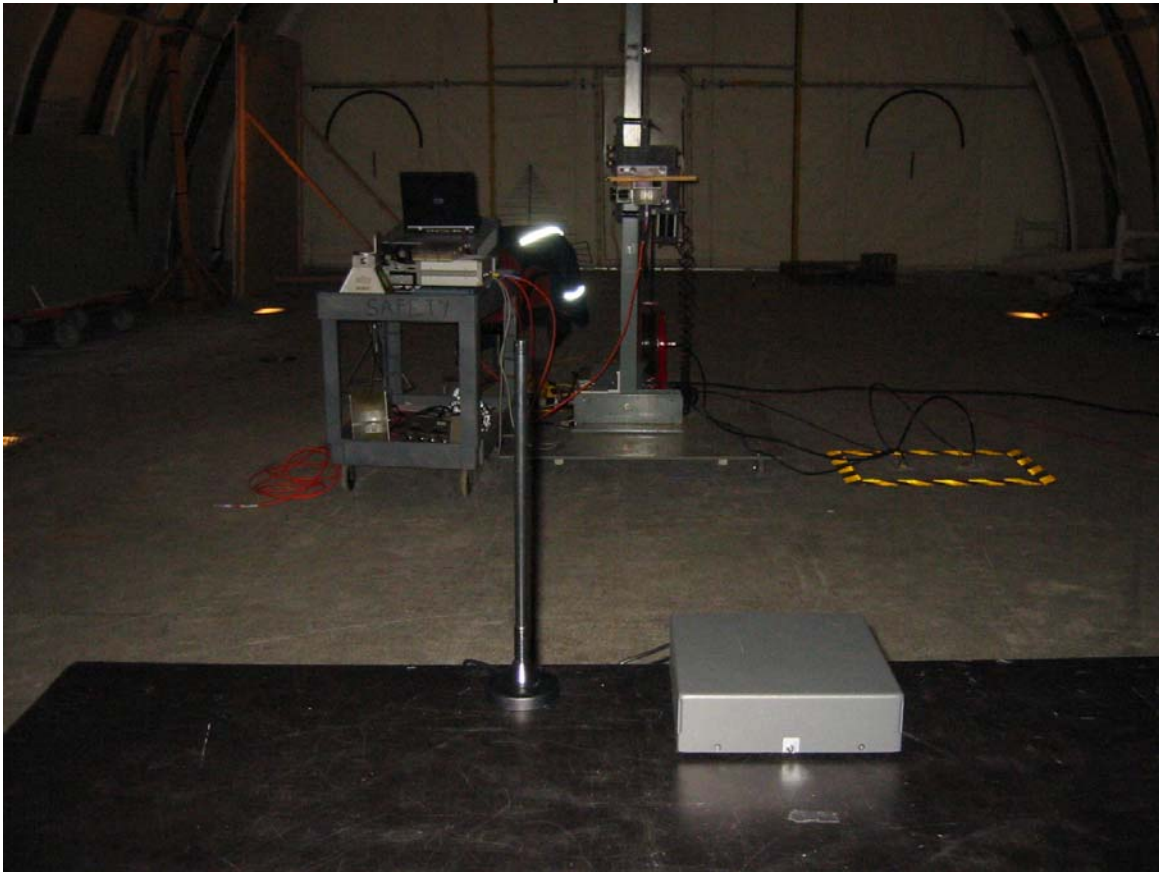


4-18 GHz Radiated Emissions



18-26 GHz Radiated Emissions





18-26 GHz Radiated Emissions