FCC CFR47 PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

RADIO CONTROLLER

MODEL NUMBER: GR-2.4D-FCC

FCC ID: WIF-GR-24D

REPORT NUMBER: 08J11955-1, Revision C

ISSUE DATE: AUGUST 18, 2008

Prepared for
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3948-1 NUNOSHIDA, KOCHI-SHI
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Revision History

Rev.	Issue Date	Revisions	Revised By
--	08/07/08	Initial Issue	F. Ibrahim
A	08/08/08	Revised company name.	A. Zaffar
B	08/15/08	Revised peak output power, and MPE section.	F. Ibrahim
C	08/18/08	Revised AV power	F. Ibrahim

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: GIKEN SEISAKUSHO CO., LTD.
3948-1 NUNOSHIDA
KOCHI-SHI, KOCHI 781-5195, JAPAN

EUT DESCRIPTION: RADIO CONTROLLER

MODEL: GR-2.4D-FCC

SERIAL NUMBER: 02196

DATE TESTED: JULY 15-25, 2008
AUGUST 18, 2008

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	Pass

Compliance Certification Services, Inc. (CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by CCS based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by CCS will constitute fraud and shall nullify the document. No part of this report may be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any government agency.

Approved & Released For CCS By:

FRANK IBRAHIM
EMC SUPERVISOR
COMPLIANCE CERTIFICATION SERVICES

Tested By:

THANH NGUYEN
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2, and FCC CFR 47 Part 15.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Power Line Conducted Emission	+/- 2.3 dB
Radiated Emission	+/- 3.4 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a radio controller that operates under DTS with GFSK modulation 1MHz Bandwidth.

The radio module is manufactured by ITEC corporation.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402-2479	GFSK	16.71	46.88

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an ¼ Ramuda Dipole antenna, with a maximum gain of –2.61 dBi.

5.4. SOFTWARE AND FIRMWARE

Testing SW:
Name; A017_TX version 01-00

5.5. WORST-CASE CONFIGURATION AND MODE

EUT was tested preliminarily in three orthogonal orientations, X orientation was found to be worst-case orientation; therefore all final testing for radiated emission was performed with EUT placed in X orientation, see photos for details about orientations.

Preliminary testing was performed for both groups A and B ports, group A ports were found to be worst-case group, therefore, final testing was performed on group A ports.

For 30-1000 MHz radiated emissions, the channel with highest output power was selected as worst-case; the channel with highest output power was found to be 2462 MHz; therefore, radiated emissions for 30-1000 MHz range was performed with the EUT set to 2462 MHz.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Not applicable; the EUT is battery operated and stand-alone device.

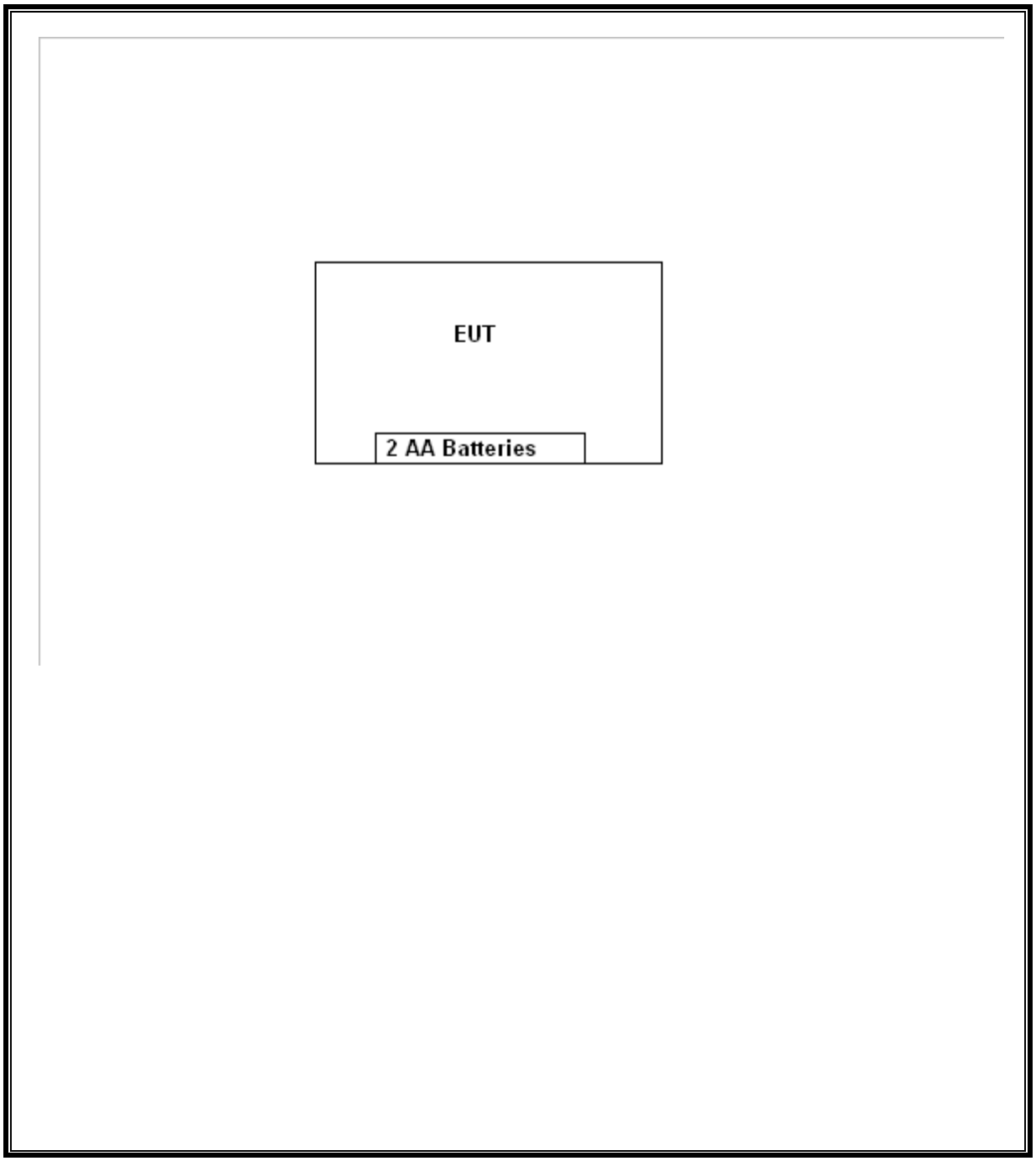
I/O CABLES

Not applicable; the EUT is battery operated and stand-alone device.

TEST SETUP

Not applicable; the EUT is battery operated and stand-alone device.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST					
Description	**Manufacturer**	**Model**	**Asset**	**Cal Date**	**Cal Due**
EMI Receiver, 2.9 GHz	Agilent / HP	8542E	C00957	02/06/08	06/12/09
RF Filter Section, 2.9 GHz	Agilent / HP	85420E	C00958	02/06/08	06/12/09
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00885	05/09/08	05/09/09
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	10/25/07	10/25/08
LISN, 10 kHz ~ 30 MHz	Solar	8012-50-R-24-BNC	N02481	10/25/07	10/25/08
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	10/16/07	01/27/09
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01012	05/02/06	08/07/08
Antenna, Horn, 18 GHz	ETS	3117	C01006	04/15/08	04/15/09
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01052	08/03/07	08/03/08
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01011	10/13/07	10/13/08
Peak Power Meter	Agilent / HP	E4416A	C00963	02/14/07	12/02/08
Peak / Average Power Sensor	Agilent	E9327A	C00964	02/14/07	12/02/08
Antenna, Horn 26 ~ 40 GHz	ARA	MWH-2640/B	C01009	04/13/07	04/13/09
2.4 - 2.5 Reject Filter	Micro Tronics	BRM50702	N/A	N/A	N/A
7.6 GHz High Pass Filter	Micro Tronics	HPM13350	N/A	N/A	N/A
5.75 - 5.8 Reject Filter	Micro Tronics	BRC13192	N/A	N/A	N/A

7. ANTENNA PORT TEST RESULTS

7.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

The minimum 6 dB bandwidth shall be at least 500 kHz.

TEST PROCEDURE

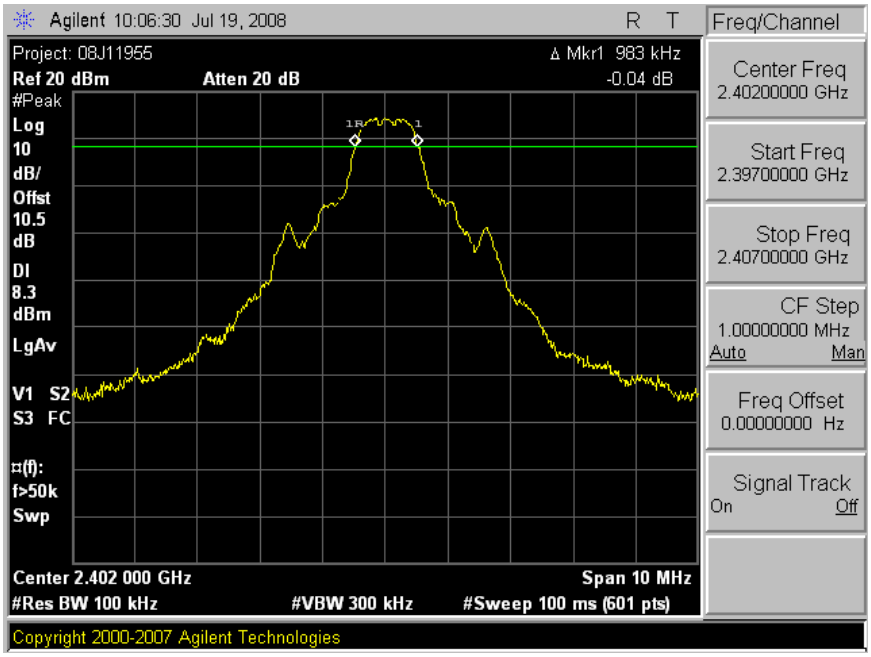
The transmitter output is connected to a spectrum analyzer. The RBW is set to 100 kHz and the VBW is set to 300 kHz. The sweep time is coupled.

RESULTS

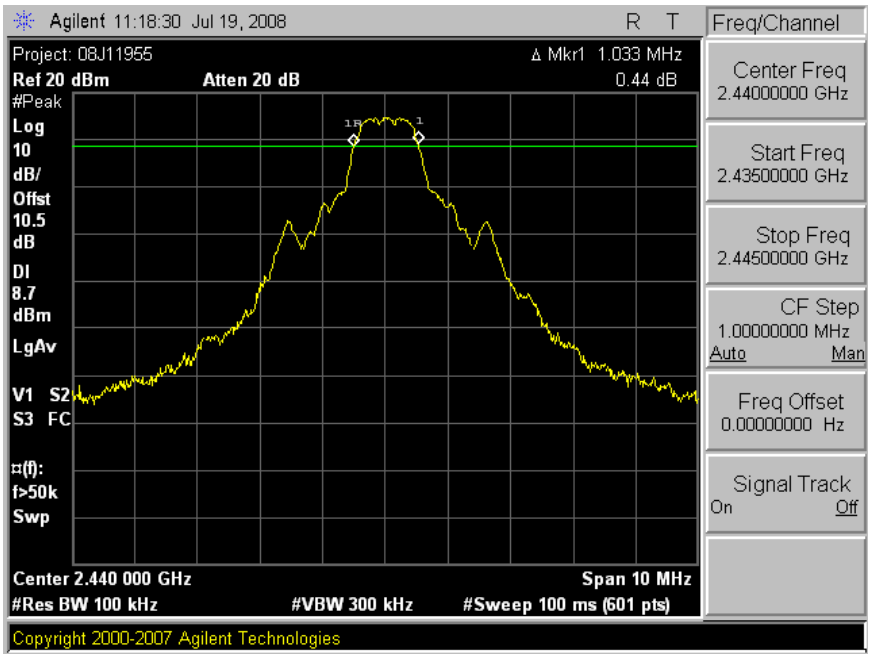
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.983	0.5
Middle	2440	1.033	0.5
High	2479	1.100	0.5

6 dB BANDWIDTH

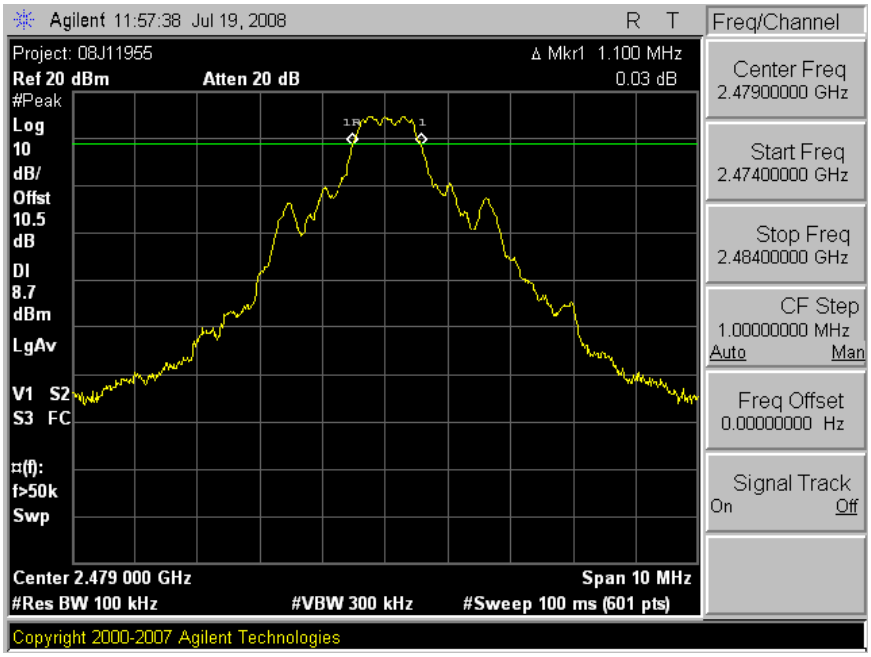
6 dB BANDWIDTH LOW CH



6 dB BANDWIDTH MID CH



6 dB BANDWIDTH HIGH CH



7.2. OUTPUT POWER

LIMITS

FCC §15.247 (b)

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

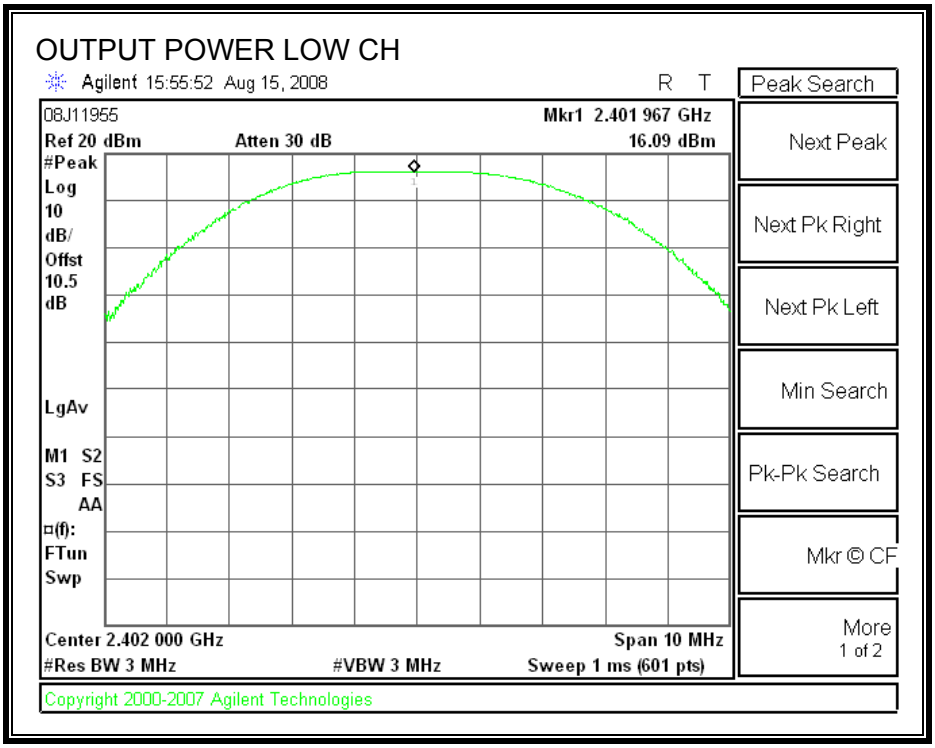
TEST PROCEDURE

RBW is set to 3 MHz, VBW is set to 3 MHz, Peak Detector and Max hold was used.

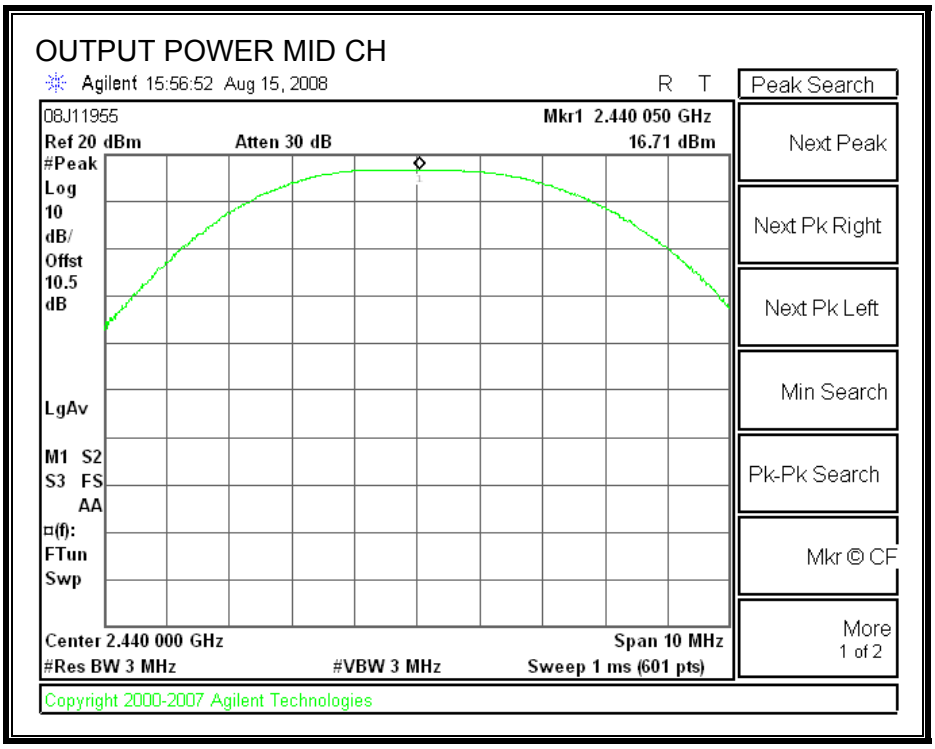
RESULTS

Channel	Frequency (MHz)	Output Power (dBm)	Limit (dBm)	Margin (dB)
Low	2402	16.09	30	-13.91
Middle	2440	16.71	30	-13.29
High	2479	16.66	30	-13.34

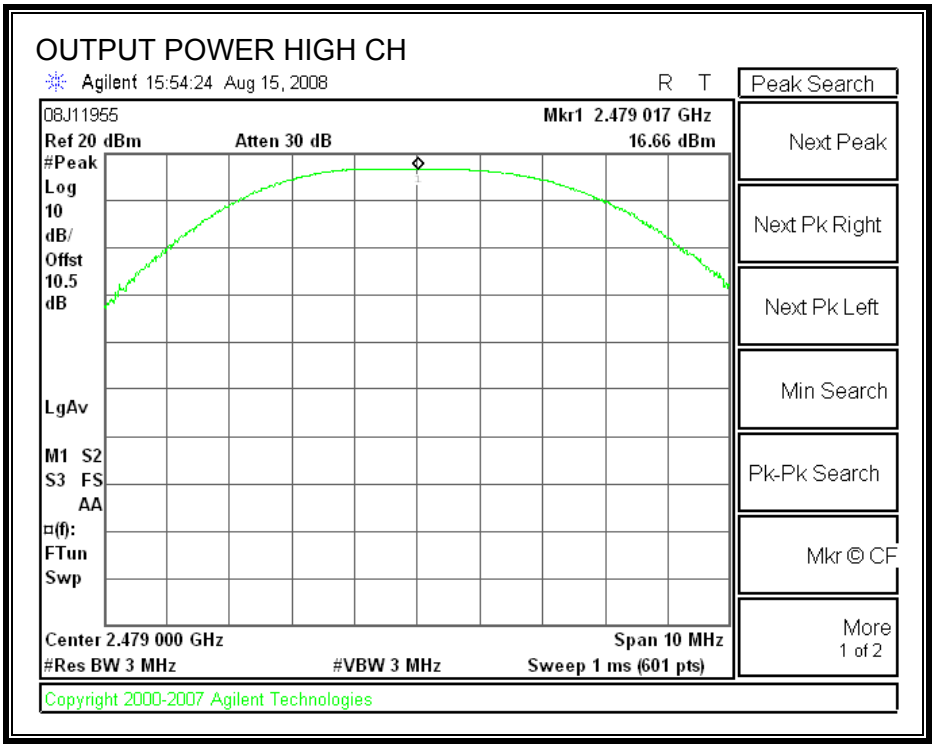
OUTPUT POWER



OUTPUT POWER MID CH



OUTPUT POWER HIGH CH



7.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 10.5 dB (including 10 dB pad and.5 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2402	15.16
Middle	2440	16.19
High	2479	16.42

7.4. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

TEST PROCEDURE

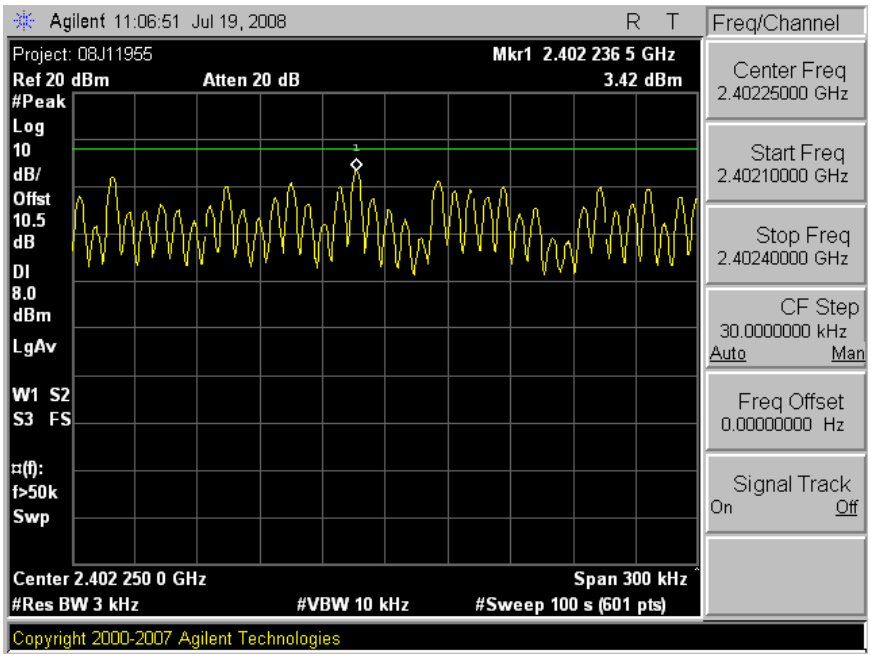
Output power was measured based on the use of a peak measurement, therefore the power spectral density was measured using PSD Option 1 in accordance with FCC document "Measurement of Digital Transmission Systems Operating under Section 15.247", March 23, 2005.

RESULTS

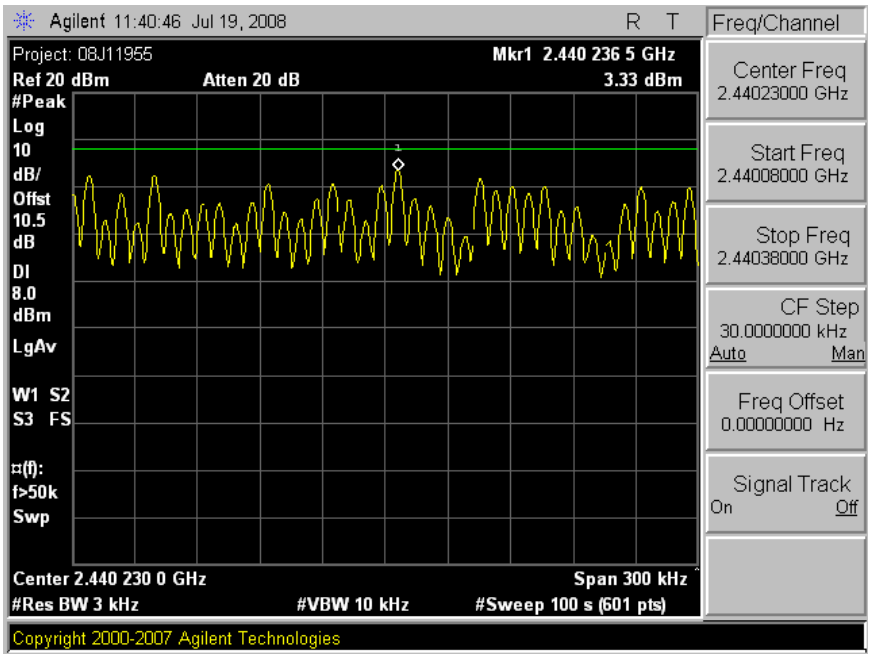
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	3.42	8	-4.58
Middle	2440	3.33	8	-4.67
High	2479	3.63	8	-4.37

POWER SPECTRAL DENSITY

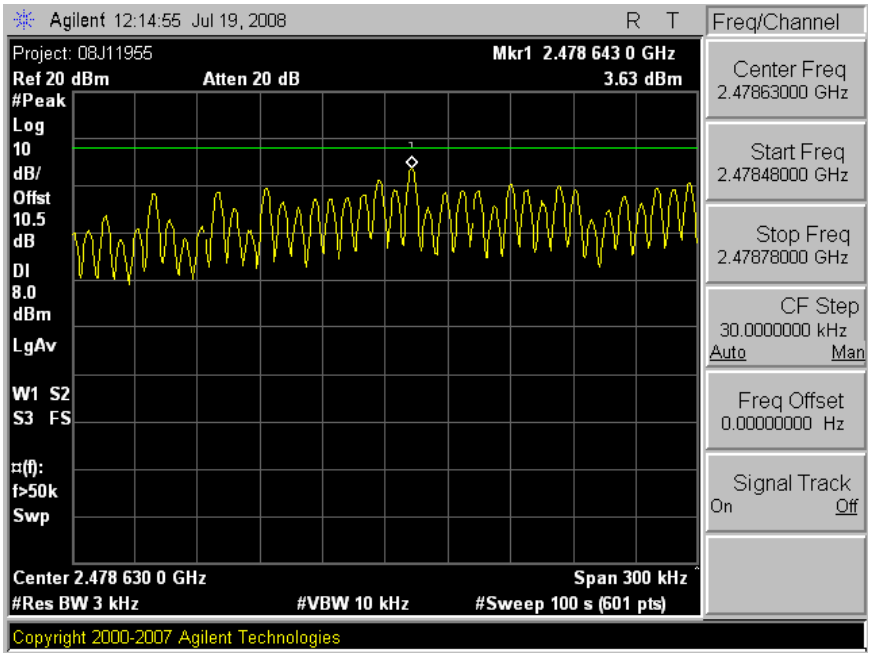
PSD LOW CH



PSD MID CH



PSD HIGH CH



7.5. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

TEST PROCEDURE

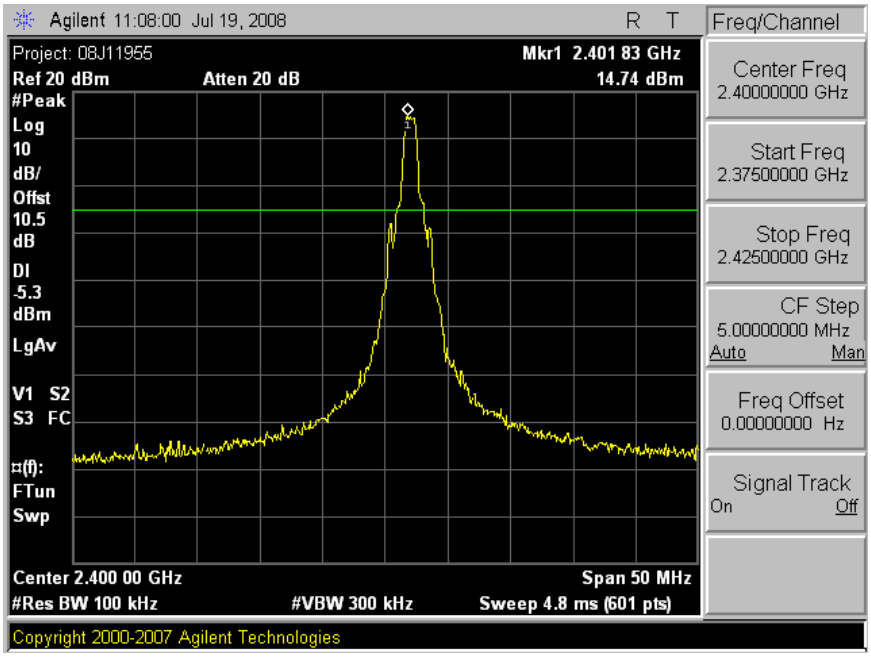
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

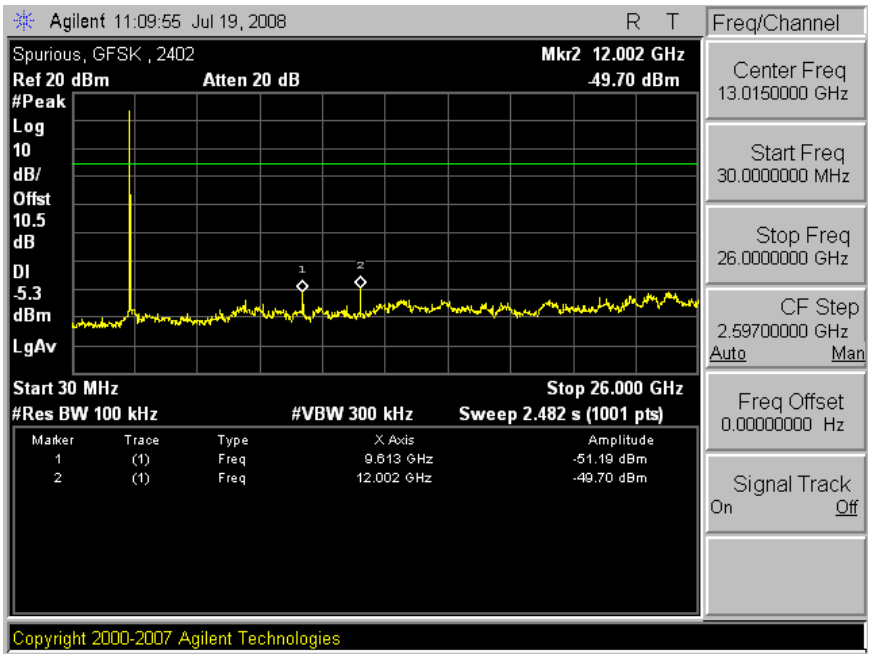
RESULTS

SPURIOUS EMISSIONS, LOW CHANNEL

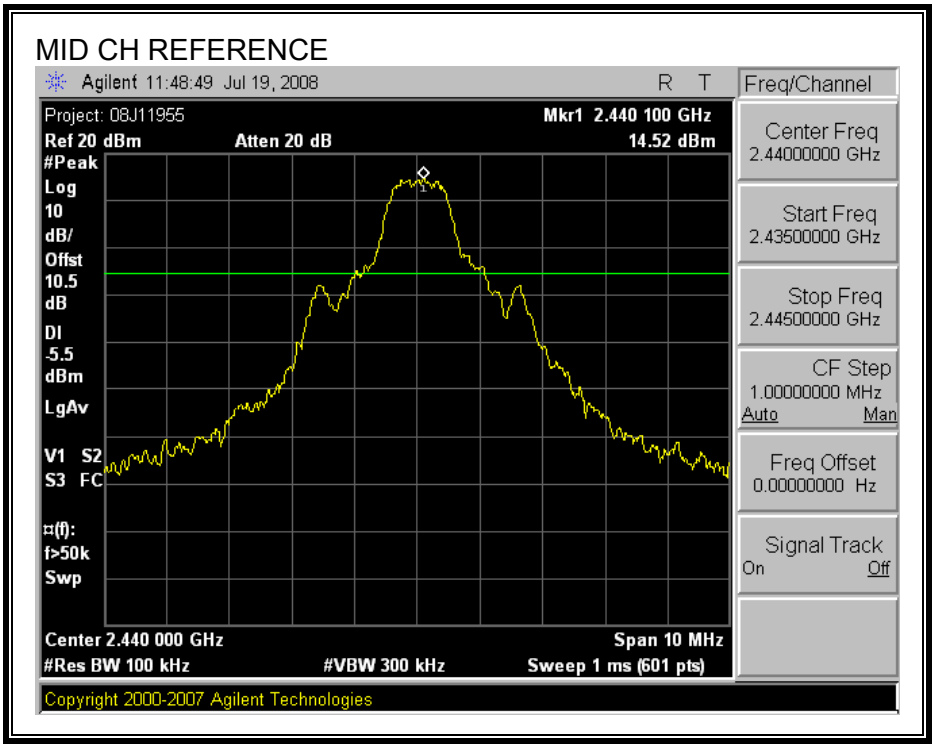
LOW CH BANDEDGE



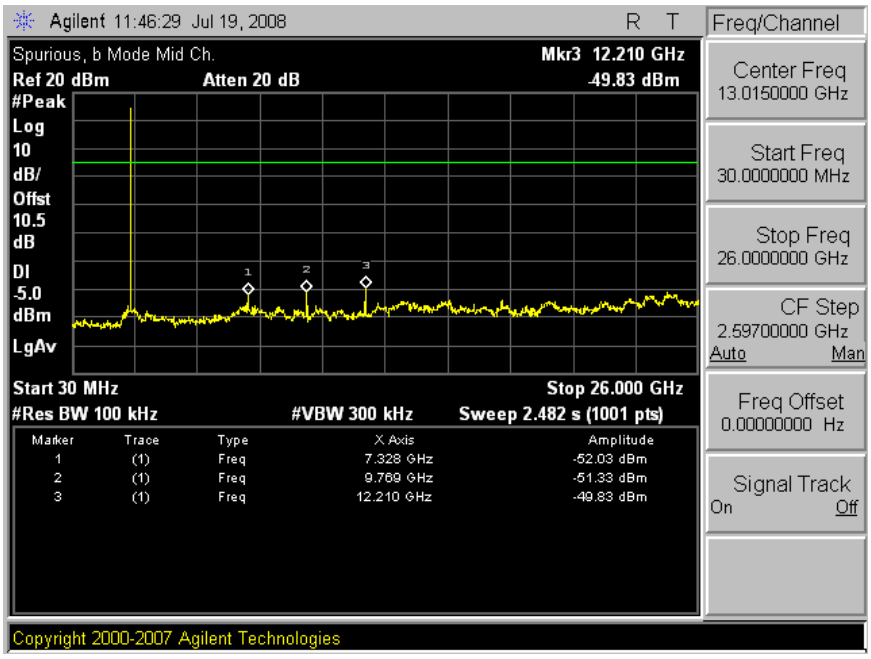
LOW CH SPURIOUS



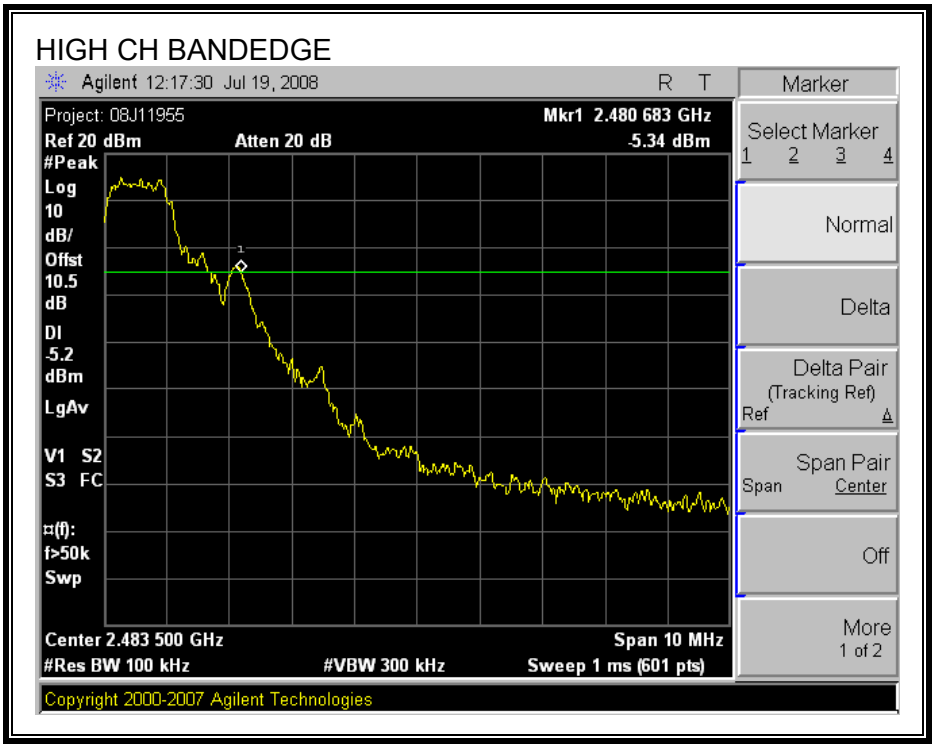
SPURIOUS EMISSIONS, MID CHANNEL



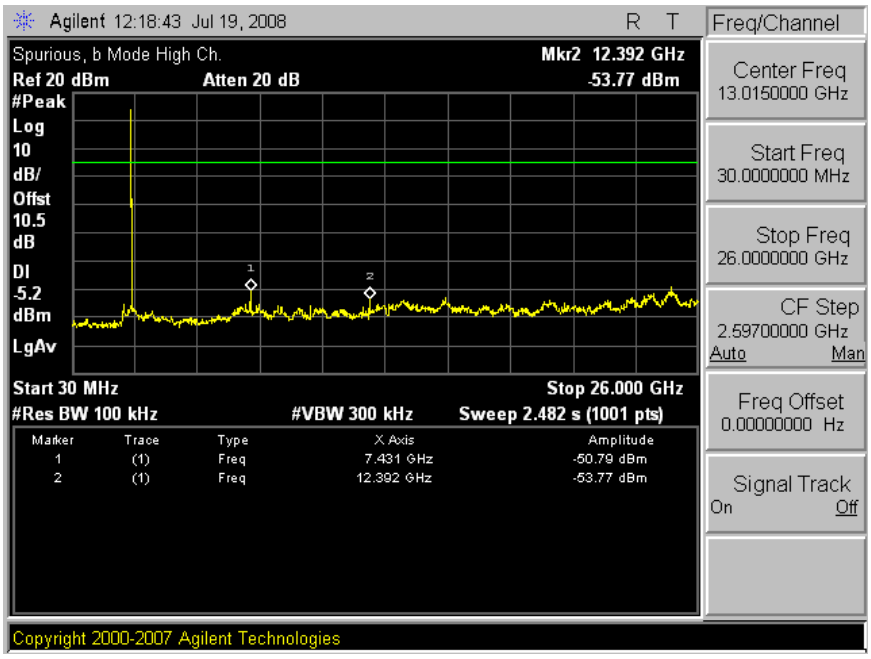
MID CH SPURIOUS



SPURIOUS EMISSIONS, HIGH CHANNEL



HIGH CH SPURIOUS



8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

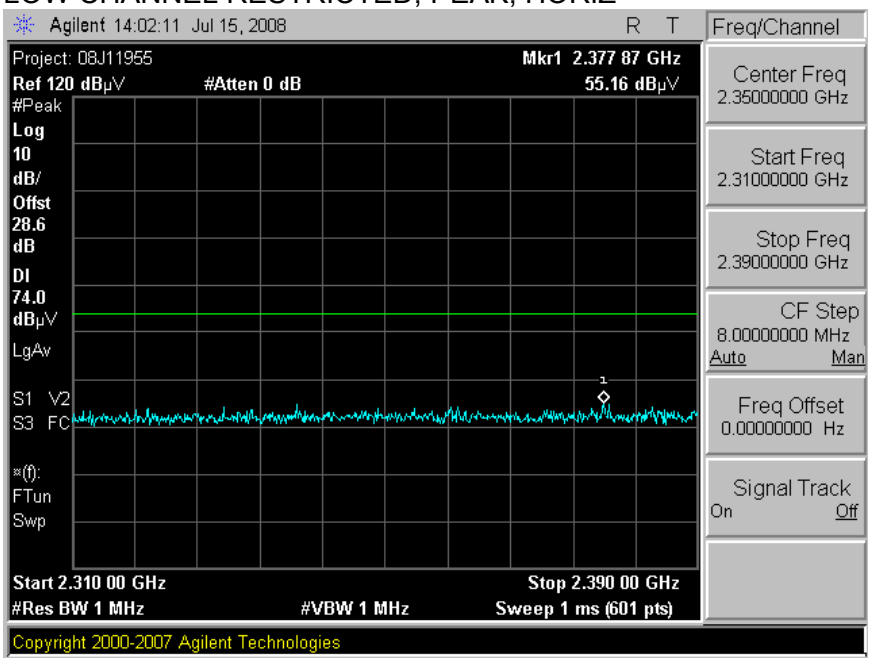
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

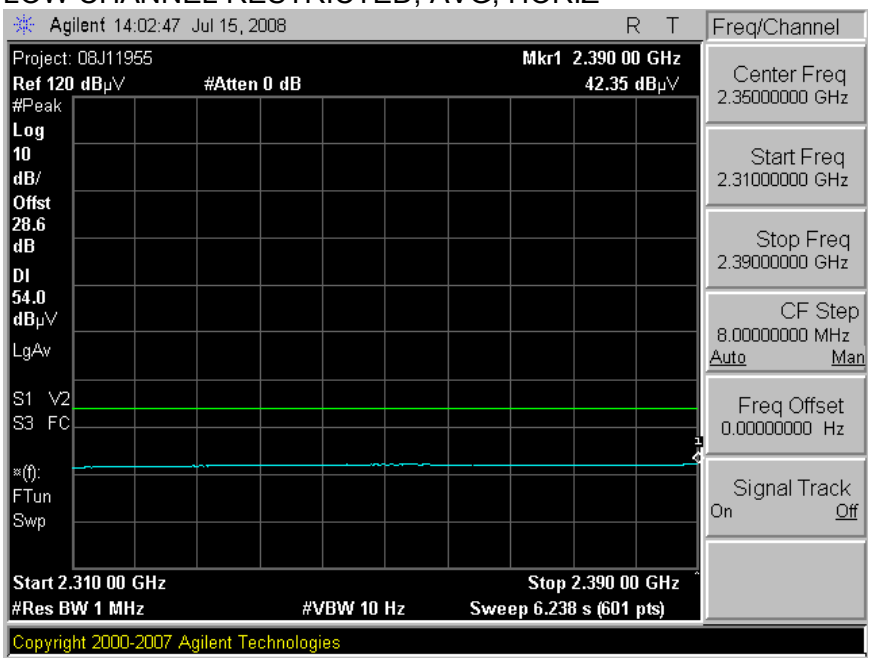
8.2. TX ABOVE 1 GHz

RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)

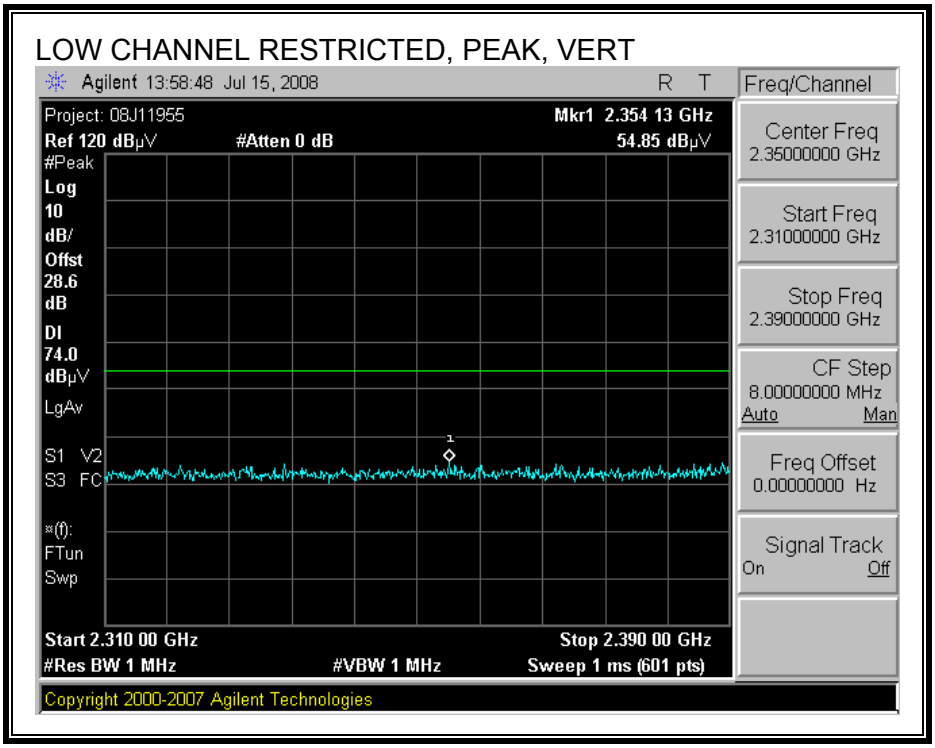
LOW CHANNEL RESTRICTED, PEAK, HORIZ



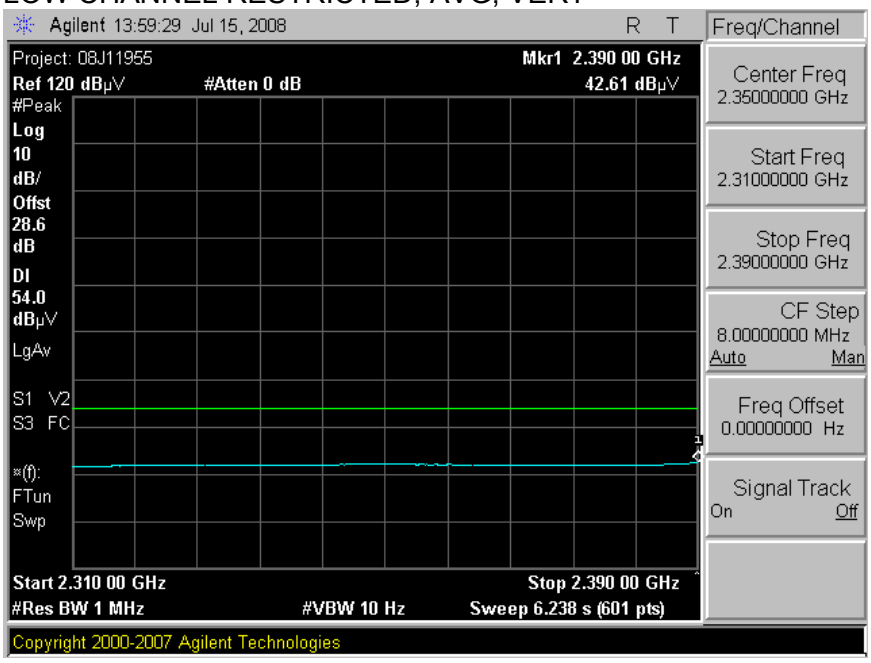
LOW CHANNEL RESTRICTED, AVG, HORIZ



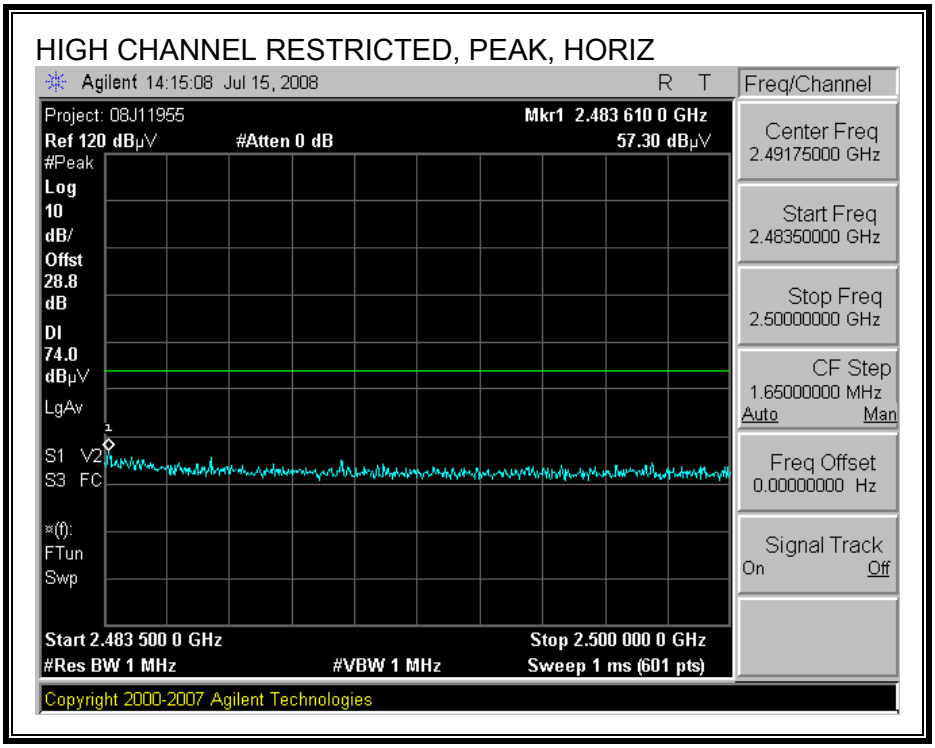
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



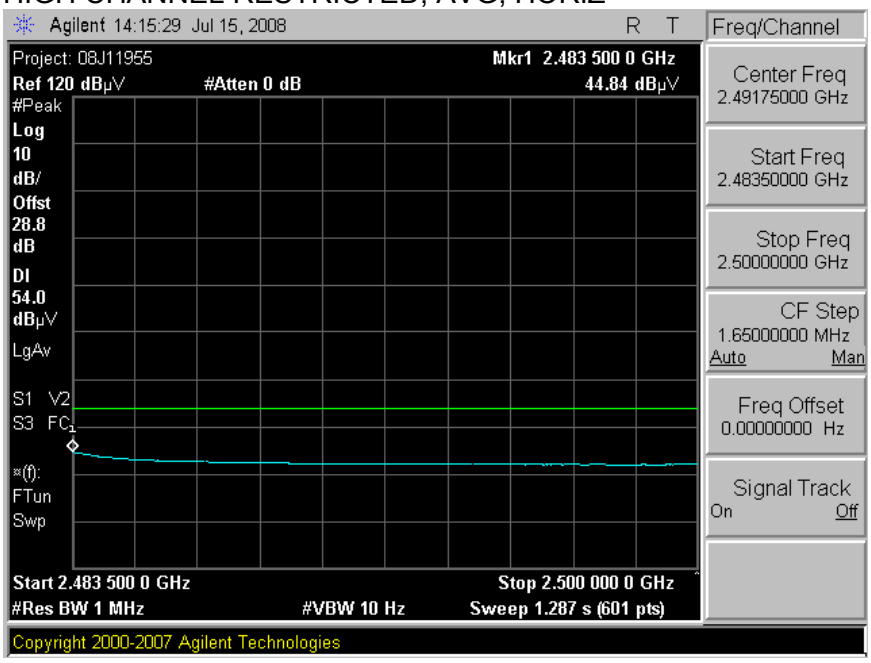
LOW CHANNEL RESTRICTED, AVG, VERT



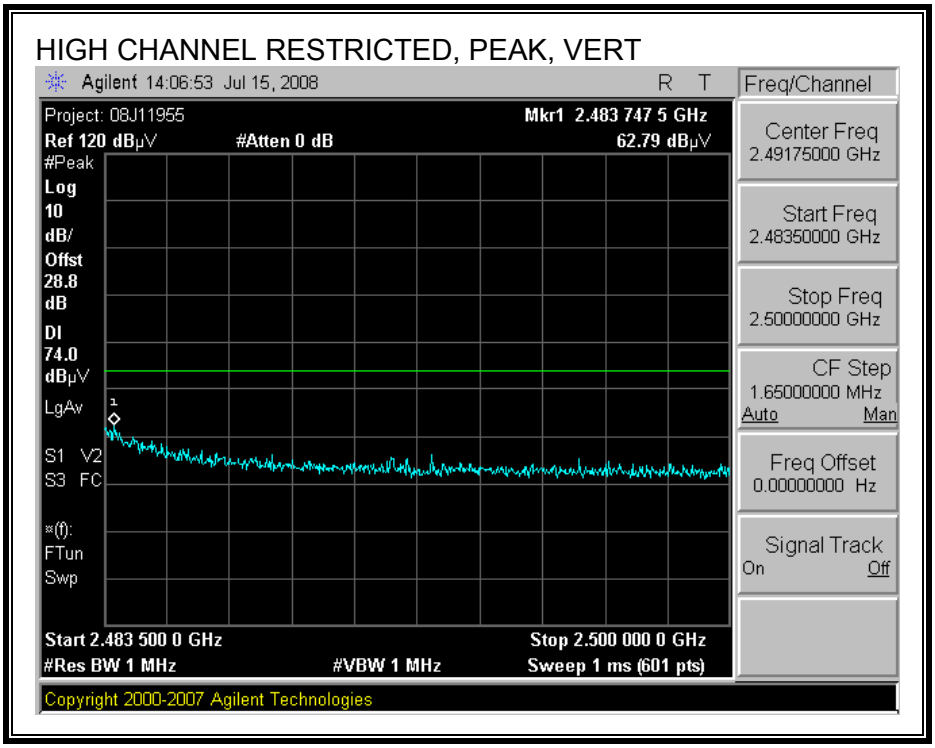
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)



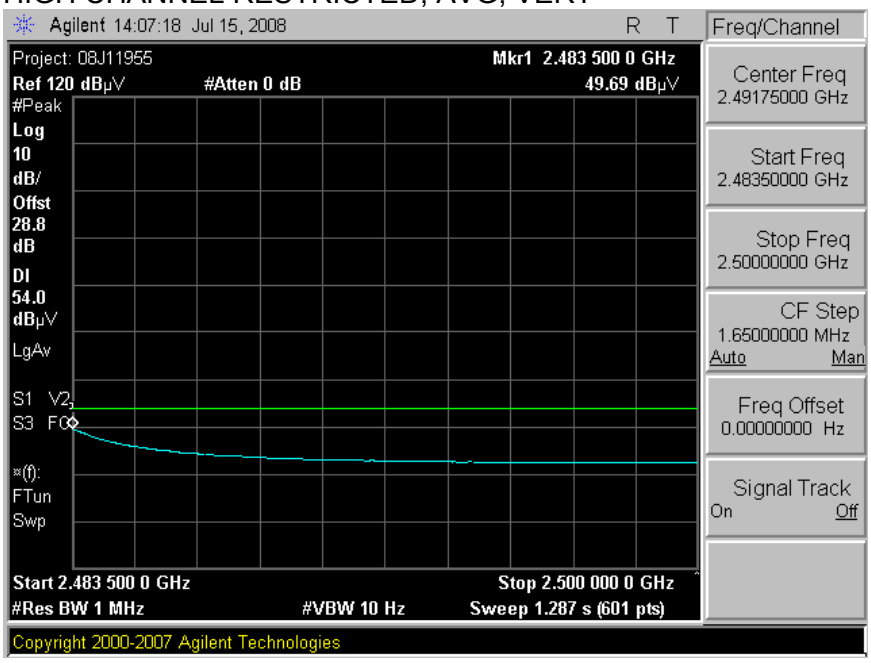
HIGH CHANNEL RESTRICTED, AVG, HORIZ



RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)



HIGH CHANNEL RESTRICTED, AVG, VERT



HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Company: Giken
Project #: 08J11955
Date: 07/15/08
Test Engineer: William Zhuang
Configuration: EUT stand alone
Mode: Tx On, worst-case orientation (X), RF port A active

Test Equipment:

Horn 1-18GHz	Pre-amplifer 1-26GHz	Pre-amplifer 26-40GHz	Horn > 18GHz	Limit
T120; S/N: 29310 @3m	T144 Miteq 3008A00931		T125; ARA 18-26GHz; S/N:1007	FCC 15.205

Hi Frequency Cables

2 foot cable	3 foot cable	12 foot cable	HPF	Reject Filter
		A-5m Chamber		R_001

Peak Measurements
RBW=VBW=1MHz
Average Measurements
RBW=1MHz ; VBW=10Hz

f GHz	Dist (m)	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes (V/H)
Low Channel 2402															
4.802	3.0	46.2	39.3	32.2	6.9	-36.5	0.0	0.0	48.8	41.9	74	54	-25.2	-12.1	V
4.802	3.0	43.7	34.5	32.2	6.9	-36.5	0.0	0.0	46.3	37.1	74	54	-27.7	-16.9	H
12.010	3.0	44.8	33.2	36.5	12.2	-35.4	0.0	0.0	58.0	46.5	74	54	-16.0	-7.5	V
12.010	3.0	52.6	31.3	36.5	12.2	-35.4	0.0	0.0	65.8	44.6	74	54	-8.2	-9.4	H
Mid Channel 2440															
4.880	3.0	46.5	38.3	32.3	6.9	-36.5	0.0	0.0	49.3	41.1	74	54	-24.7	-12.9	V
4.880	3.0	41.7	34.8	32.3	6.9	-36.5	0.0	0.0	44.4	37.6	74	54	-29.6	-16.4	H
12.200	3.0	40.8	29.8	36.7	12.2	-35.4	0.0	0.0	54.2	43.2	74	54	-19.8	-10.8	V
12.200	3.0	46.7	35.9	36.7	12.2	-35.4	0.0	0.0	60.1	49.4	74	54	-13.9	-4.6	H
High Channel 2479															
4.958	3.0	44.6	35.6	32.4	7.0	-36.5	0.0	0.0	47.6	38.6	74	54	-26.4	-15.4	V
4.958	3.0	43.9	32.6	32.4	7.0	-36.5	0.0	0.0	46.8	35.5	74	54	-27.2	-18.5	H
12.395	3.0	40.8	29.7	36.8	12.2	-35.4	0.0	0.0	54.5	43.3	74	54	-19.5	-10.7	V
12.395	3.0	40.8	30.3	36.8	12.2	-35.4	0.0	0.0	54.4	43.9	74	54	-19.6	-10.1	H

Rev. 4.12.7

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

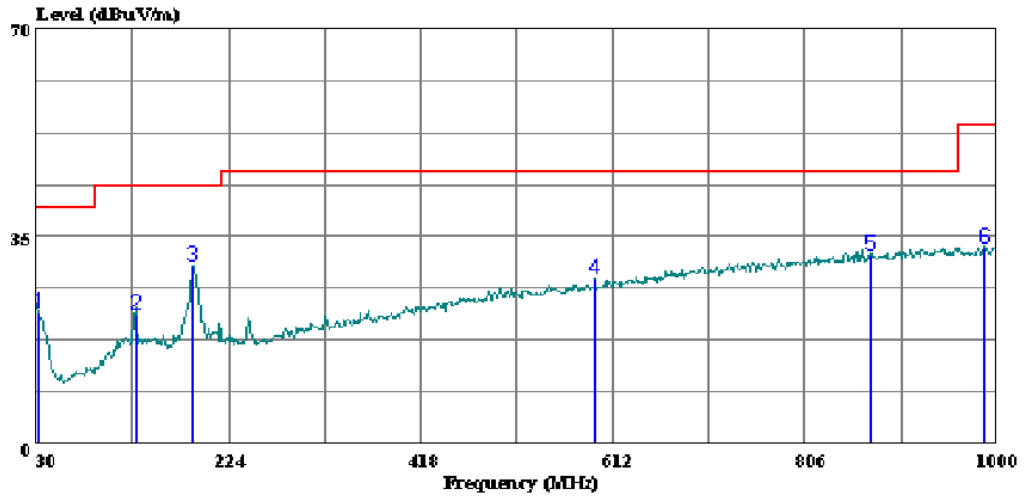
8.3. WORST-CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)

HORIZONTAL PLOT

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 2 File#: 08J11955.EMI Date: 07-22-2008 Time: 22:03:54



Trace: 1 Ref Trace:

Condition: FCC CLASS-B HORIZONTAL
Test Operator:: Can Ming Chung
Project #: : 07J11955
Company: : ITEC Corp
Configuration:: Tx on worst Caonse oreintation
Mode : : Tx Mode
Target: : FCC Class B

HORIZONTAL DATA

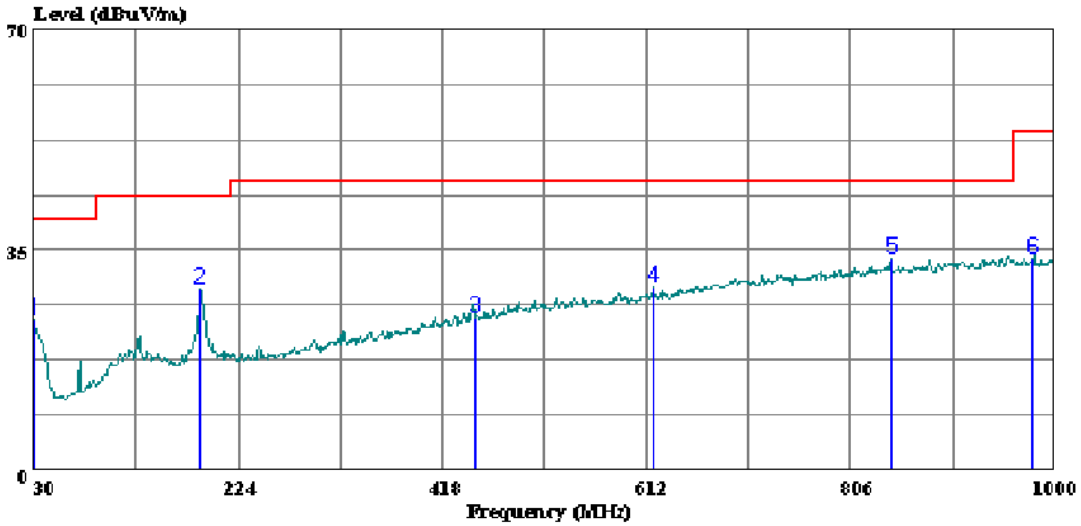
	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	31.940	30.42	-8.29	22.12	40.00	-17.88	Peak
2	129.910	35.33	-13.40	21.94	43.50	-21.56	Peak
3	188.110	44.00	-13.91	30.09	43.50	-13.41	Peak
4	593.570	31.00	-3.00	28.00	46.00	-18.00	Peak
5	871.960	29.67	2.27	31.93	46.00	-14.07	Peak
6	987.390	29.75	3.22	32.97	54.00	-21.03	Peak

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)

VERTICAL PLOT

Compliance Certification Services
47173 Benicia Street
Fremont, CA 94538
Tel: (510) 771-1000
Fax: (510) 661-0888

Data#: 4 File#: 08J11955.EMI Date: 07-22-2008 Time: 22:53:28



Trace: 3 Ref Trace:

Condition: FCC CLASS-B VERTICAL
Test Operator:: Can Ming Chung
Project #: : 07J11955
Company: : ITEC Corp
Configuration:: Tx on worst Caonse oreintation
Mode : : Tx Mode
Target: : FCC Class B

VERTICAL DATA

Page: 1

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV/m	dBuV/m	dB	
1	30.000	31.00	-7.12	23.88	40.00	-16.12	Peak
2	188.110	42.83	-13.91	28.92	43.50	-14.58	Peak
3	449.040	30.75	-6.44	24.31	46.00	-21.69	Peak
4	617.820	31.33	-2.36	28.97	46.00	-17.03	Peak
5	844.800	31.67	1.86	33.52	46.00	-12.48	Peak
6	979.630	30.58	3.15	33.73	54.00	-20.27	Peak

9. MAXIMUM PERMISSIBLE EXPOSURE

FCC RULES

§1.1310 The criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio-frequency (RF) radiation as specified in §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of §2.1093 of this chapter.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*($900/f^2$)	6
30–300	61.4	0.163	1.0	6
300–1500	.....	.....	f/300	6
1500–100,000	.....	.....	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*($180/f^2$)	30

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)—Continued

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
30–300	27.5	0.073	0.2	30
300–1500	.....	.....	f/1500	30
1500–100,000	.....	.....	1.0	30

f = frequency in MHz
* = Plane-wave equivalent power density

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

IC RULES

IC Safety Code 6, Section 2.2.1 (a) A person other than an RF and microwave exposed worker shall not be exposed to electromagnetic radiation in a frequency band listed in Column 1 of Table 5, if the field strength exceeds the value given in Column 2 or 3 of Table 5, when averaged spatially and over time, or if the power density exceeds the value given in Column 4 of Table 5, when averaged spatially and over time.

Table 5
Exposure Limits for Persons Not Classed As RF and Microwave Exposed Workers (Including the General Public)

1 Frequency (MHz)	2 Electric Field Strength; rms (V/m)	3 Magnetic Field Strength; rms (A/m)	4 Power Density (W/m^2)	5 Averaging Time (min)
0.003–1	280	2.19		6
1–10	$280/f$	$2.19/f$		6
10–30	28	$2.19/f$		6
30–300	28	0.073	2*	6
300–1 500	$1.585f^{0.5}$	$0.0042f^{0.5}$	$f/150$	6
1 500–15 000	61.4	0.163	10	6
15 000–150 000	61.4	0.163	10	$616\,000/f^{1.2}$
150 000–300 000	$0.158f^{0.5}$	$4.21 \times 10^{-4}f^{0.5}$	$6.67 \times 10^{-5}f$	$616\,000/f^{1.2}$

* Power density limit is applicable at frequencies greater than 100 MHz.

Notes: 1. Frequency, f, is in MHz.
2. A power density of 10 W/m^2 is equivalent to 1 mW/cm^2.
3. A magnetic field strength of 1 A/m corresponds to 1.257 microtesla (μT) or 12.57 milligauss (mG).

CALCULATIONS

Given

$E = \sqrt{(30 * P * G)} / d$

and

$S = E ^ 2 / 3770$

where

E = Field Strength in Volts/meter
P = Power in Watts
G = Numeric antenna gain
d = Distance in meters
S = Power Density in milliwatts/square centimeter

Combining equations, rearranging the terms to express the distance as a function of the remaining variables, changing to units of Power to mW and Distance to cm, and substituting the logarithmic form of power and gain yields:

$d = 0.282 * 10 ^ ((P + G) / 20) / \sqrt{S}$

where

d = MPE distance in cm
P = Power in dBm
G = Antenna Gain in dBi
S = Power Density Limit in mW/cm^2

Rearranging terms to calculate the power density at a specific distance yields

$S = 0.0795 * 10 ^ ((P + G) / 10) / (d^2)$

The power density in units of mW/cm^2 is converted to units of W/m^2 by multiplying by a factor of 10.

LIMITS

From FCC §1.1310 Table 1 (B), the maximum value of S = 1.0 mW/cm^2

From IC Safety Code 6, Section 2.2 Table 5 Column 4, S = 10 W/m^2

RESULTS

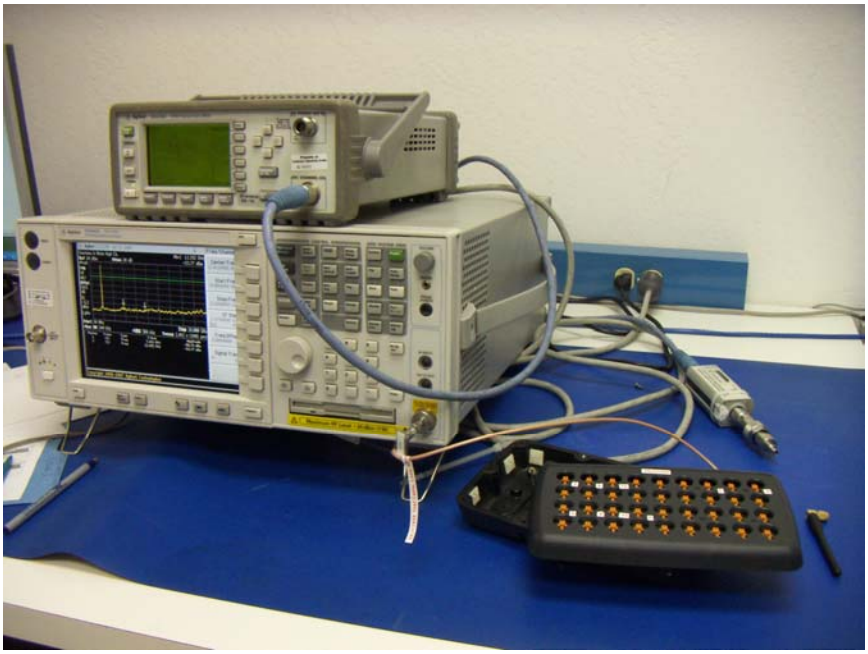
(MPE distance equals 20 cm)

Mode	Band	MPE Distance (cm)	Output Power (dBm)	Antenna Gain (dBi)	FCC Power Density (mW/cm^2)	IC Power Density (W/m^2)
GFSK	2.4 GHz	20.0	16.71	-2.61	0.01	0.05

10. SETUP PHOTOS

ANTENNA PORT CONDUCTED RF MEASUREMENT SETUP

ANTENNA PORT CONDUCTED PHOTO



RADIATED RF MEASUREMENT SETUP FOR PORTABLE CONFIGURATION

X-AXIS FRONT PHOTO

X-AXIS BACK PHOTO

Y-AXIS FRONT PHOTO

Y-AXIS BACK PHOTO

Z-AXIS FRONT PHOTO

Z-AXIS BACK PHOTO

END OF REPORT