



Washington Laboratories, Ltd.

FCC Certification Test Report
For the
InGrid, Inc.
Siren Detector SDC1000

FCC ID: S9PSDC1000
IC ID: 7083A-SDC1000

WLL JOB# 10243
May 2008

Prepared for:

InGrid, Inc.
1055 Westlakes Drive Suite 300
Berwyn, PA 19312

Prepared By:

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7560 Lindbergh Drive
Gaithersburg, Maryland 20879



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Prepared by: John Repella
EMC Test Engineer

Reviewed by: Michael Violette
President

Abstract

This report has been prepared on behalf of InGrid, Inc. to support the attached Application for Equipment Authorization. The test report and application are submitted for a Periodic Intentional Radiator under Part 15.231 (9/2007) of the FCC Rules and Regulations, and Spectrum Management and Telecommunications Policy RSS-210 of Industry Canada. This Certification Test Report documents the test configuration and test results for a InGrid, Inc. Siren Detector SDC1000.

Testing was performed on an Open Area Test Site (OATS) of Washington Laboratories, Ltd, 7560 Lindbergh Drive, Gaithersburg, MD 20879. Site description and site attenuation data have been placed on file with the FCC's Sampling and Measurements Branch at the FCC laboratory in Columbia, MD. The Industry Canada OATS numbers are 3035A-1 and 3035A-2 for Washington Laboratories, Ltd. Site 1 and Site 2, respectively. Washington Laboratories, Ltd. has been accepted by the FCC and approved by the American Association for Laboratory Accreditation (A2LA) under Certificate 2675.01 as an independent FCC test laboratory.

The InGrid, Inc. Siren Detector SDC1000 complies with the limits for a Periodic Intentional Radiator device under FCC Part 15.231 and Industry Canada RSS-210.

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1 Introduction

1.1 Compliance Statement

The InGrid, Inc. Siren Detector SDC1000 complies with the limits for a Periodic Intentional Radiator device under FCC Part 15.231 (9/2007) and Industry Canada RSS-210.

TX Test Summary (Low Power Transmitter)			
FCC Rule Part	IC Rule Part	Description	Result
15.231 (a)	RSS-210	Transmission Length	Pass
15.231 (b)	RSS-210	Field Strength Limits	Pass
15.231 (c)	RSS-210	20dB Bandwidth	Pass
15.207	RSS-Gen [7.2.2]	AC Conducted Emissions	N/A
RX/Digital Test Summary (Low Power Transmitter)			
FCC Rule Part	IC Rule Part	Description	Result
15.107	RSS-Gen [7.2.2]	AC Conducted Emissions	N/A
15.109	RSS-Gen [7.2.3.2]	General Field Strength Limits (Restricted Bands & RE Limits)	Pass

1.2 Test Scope

Tests for radiated and conducted (at antenna terminal) emissions were performed. All measurements were performed in accordance Knowledge Data Base (KDB) publication number 558074 entitled "Measurement of Digital Transmission Systems operating under Section 15.231". The measurement equipment conforms to ANSI C63.2 Specifications for Electromagnetic Noise and Field Strength Instrumentation.

1.3 Contract Information

Customer: InGrid, Inc.
1055 Westlakes Drive Suite 300
Berwyn, PA 19312

Quotation Number: 64029

1.4 Test Dates

Testing was performed on the following date(s): February 2008

1.5 Test and Support Personnel

Washington Laboratories, LTD John P. Repella
Client Representative Barry Gottlieb

1.6 Abbreviations

A	A mpere
ac	a lternating current
AM	A mplitude Modulation
Amps	A mperes
b/s	b its per second
BW	B and W idth
CE	C onducted E mission
cm	c entimeter
CW	C ontinuous W ave
dB	d eci B el
dc	d irect current
EMI	E lectromagnetic I nterference
EUT	E quipment U nder T est
FM	F requency M odulation
G	g iga - prefix for 10^9 multiplier
Hz	H ertz
IF	I ntermediate F requency
k	k ilo - prefix for 10^3 multiplier
LISN	L ine I mpedance S tabilization N etwork
M	M ega - prefix for 10^6 multiplier
m	m eter
μ	m icro - prefix for 10^{-6} multiplier
NB	N arrow b and
QP	Q uasi- P eak
RE	R adiated E missions
RF	R adio F requency
rms	r oot- m ean- s quare
SN	S erial N umber
S/A	S pectrum A nalyzer
V	V olt

2 Equipment Under Test

2.1 EUT Identification & Description

The InGrid, Inc. Siren Detector SDC1000 is a sensor-like device of the InGrid Wireless Security System. It communicates via radio frequencies with Grid Controller (GC) units in response to a detected audio alarm from a smoke or Carbon Monoxide detector, or at periodic supervisory check-in intervals. It is normally in a low power scan mode, looking for an audio alarm threshold to initiate the detailed processing of said signal. A confirmed, detected alarm (or as a result of the supervisory interval expiring) triggers a transmission at a fixed frequency of 345MHz. The GC receives and processes the transmission, responding with an acknowledgement signal (ACK) to the Sensor at 2.45 GHz. The Siren Detector receives the acknowledgement signal and returns to the idle/scan mode.

Table 1. Device Summary

ITEM	DESCRIPTION
Manufacturer:	InGrid, Inc.
FCC ID:	S9PSDC1000
IC:	7083A-SDC1000
Model:	Siren Detector SDC1000
FCC Rule Parts:	§15.231
Industry Canada:	RSS210
Frequency Range:	345 MHz +/- 82 KHz
Maximum Output Power:	N/A
Modulation:	OOK, bi-phase Manchester, 50% duty cycle
Occupied Bandwidth:	25.4 kHz
Keying:	Manual
Type of Information:	Data @ 3700 bps
Number of Channels:	1
Antenna Type	Integral
Interface Cables:	N/A
Power Source & Voltage:	3Vdc battery

2.2 Test Configuration

The Siren Detector SDC1000 was tested in a stand-alone configuration

2.3 Testing Algorithm

The Siren Detector SDC1000 was configured and tested in a continuous transmit mode.

Worst case emission levels are provided in the test results data.

2.4 Test Location

All measurements herein were performed at Washington Laboratories, Ltd. test center in Gaithersburg, MD. Site description and site attenuation data have been placed on file with the FCC's Sampling and Measurements Branch at the FCC laboratory in Columbia, MD. The Industry Canada OATS numbers are 3035A-1 and 3035A-2 for Washington Laboratories, Ltd. Site 1 and Site 2, respectively. Washington

Laboratories, Ltd. has been accepted by the FCC and approved by the American Association for Laboratory Accreditation (A2LA) under Certificate 2675.01 as an independent FCC test laboratory.

2.5 Measurements

2.5.1 References

ANSI C63.2 Specifications for Electromagnetic Noise and Field Strength Instrumentation

ANSI C63.4 American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

Land Mobile FM or PM Communications Equipment Measurement and Performance Standards (ANSI/TIA/EIA-603-93)

2.6 Measurement Uncertainty

All results reported herein relate only to the equipment tested. For the purposes of the measurements performed by Washington Laboratories, the measurement uncertainty is ± 2.3 dB. This has been calculated for a *worst-case situation* (radiated emissions measurements performed on an open area test site).

The following measurement uncertainty calculation is provided:

$$\text{Total Uncertainty} = (A^2 + B^2 + C^2)^{1/2}/(n-1)$$

where:

A = Antenna calibration uncertainty, in dB = 2 dB

B = Spectrum Analyzer uncertainty, in dB = 1 dB

C = Site uncertainty, in dB = 4 dB

n = number of factors in uncertainty calculation = 3

Thus, Total Uncertainty = $0.5 (2^2 + 1^2 + 4^2)^{1/2} = \pm 2.3$ dB.

3 Test Equipment

Table 2 shows a list of the test equipment used for measurements along with the calibration information.

Table 2: Test Equipment List

Asset #	Manufacturer/Model	Description	Cal. Due
00068	HP, 85650A	ADAPTER, QP	07/06/2008
00070	HP, 85685A	PRESELECTOR, RF W/OPT 8ZE	07/06/2008
00072	HP, 8568B	ANALYZER, SPECTRUM	07/06/2008
00382	SUNOL, JB1	ANTENNA, BICONLOG	01/30/2009
00425	ARA, DRG-118/A	ANTENNA, DRG, 1-18GHZ	08/08/2009
00066	HP, 8449B	PRE-AMPLIFIER, RF. 1-26.5GHZ	08/02/2008
00528	AGILENT, E4446A	ANALYZER, SPECTRUM	02/15/2009
00520	MEGAPHASE, LLC TM40-K1K1-36	CABLE, COAXIAL - 36" LONG	07/10/2008
00605	AGILENT HP - N1911A	POWER METER	04/11/2008
00606	AGILENT HP - N1921A	POWER SENSOR	04/11/2008

4 Test Results

4.1 Duty Cycle Correction

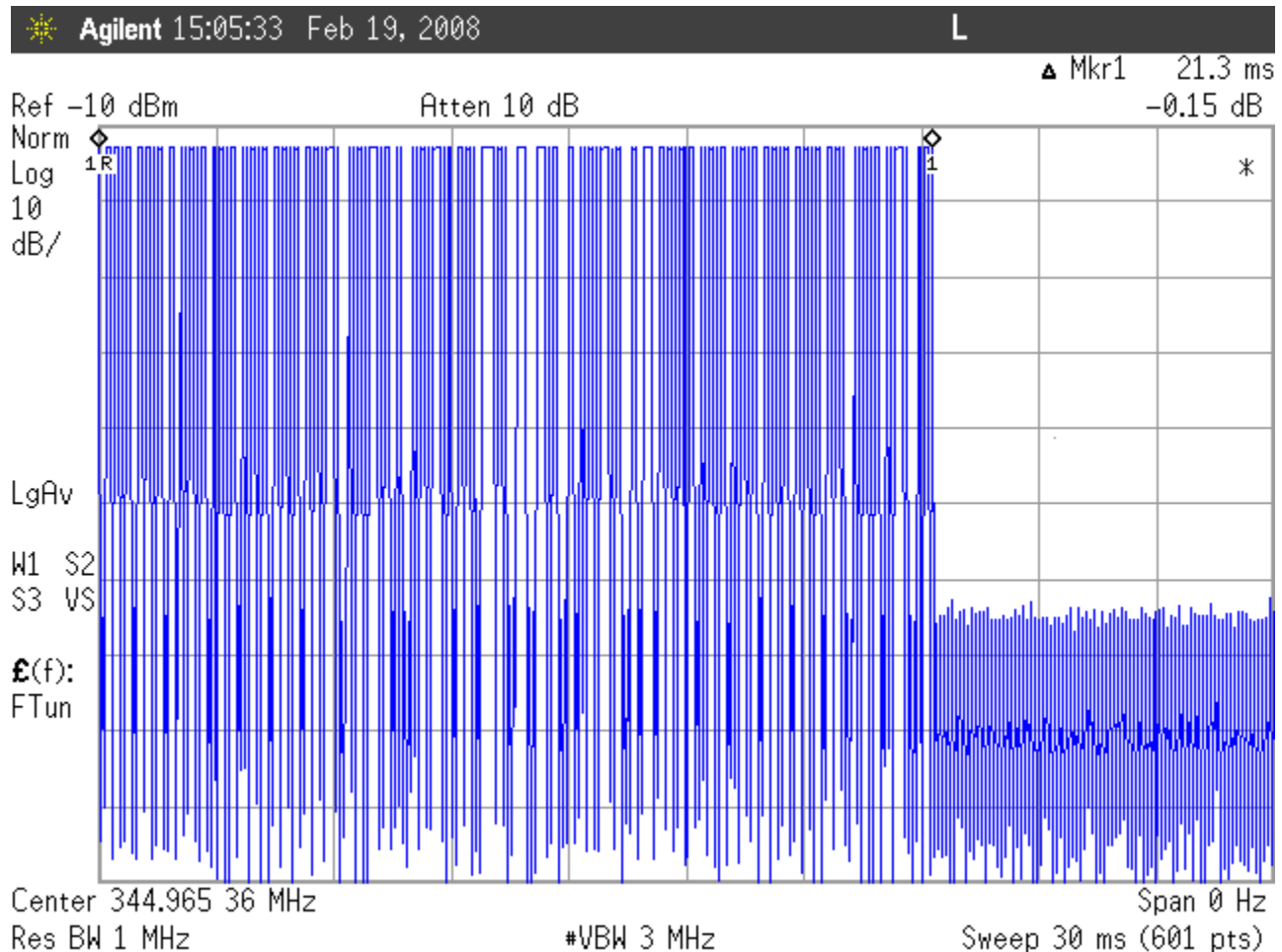


Figure 4-1. Time Period: Single Data Packet

Duty cycle correction calculation:

Correction = $20\log\left(\frac{((1/3700)*0.5)*80}{100}\right) + 20\log\left(\frac{[number\ of\ messages\ per\ 100\ msec]*1000}{100}\right)$ [conversion from seconds to msec]

Correction = $20\log\left(\frac{((2.702e-4)*0.5)*80}{100}\right) + 20\log\left(\frac{1000}{100}\right)$

Correction = $20\log\left(\frac{((1.351e-4)*80)}{100}\right) + 20\log\left(\frac{1000}{100}\right)$

Correction = $20\log(0.010808) + 20\log(1000)$

Correction = $20\log(0.0216216) + 20\log(1000)$

Correction = $20\log(21.621621)$

Correction = $20\log(0.216216)$

Correction = -13.30dB (to be subtracted from max peak reading at 3 meters)

4.2 Transmission Cessation from Time-of-Release

FCC Part 15.231 states that a periodic intentional radiator shall cease transmission within a five second period from release of automatic or manual keying of operation.

Testing was conducted to verify that the InGrid Siren Detector stopped transmitting within the required time period. A 10 second sweep was made, during which the control toggle was activated and released, and the time to transmission end was measured. Figures 2-4 show the indicated time periods for the various states of operation from un-keying the device until cessation of transmission. The EUT complies with the requirements for this section.

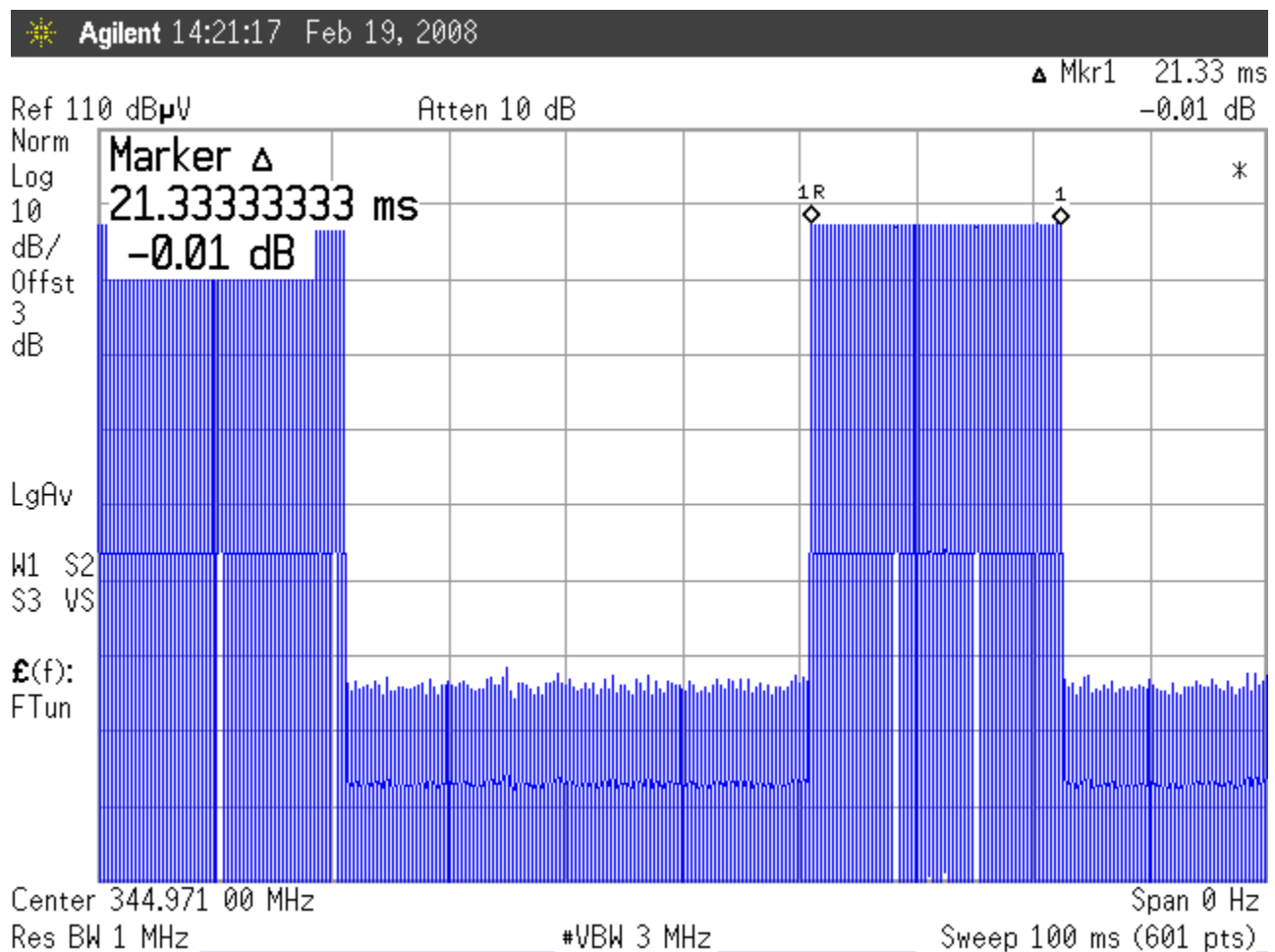


Figure 4-2. Time Period: Pulse Train of Transmission

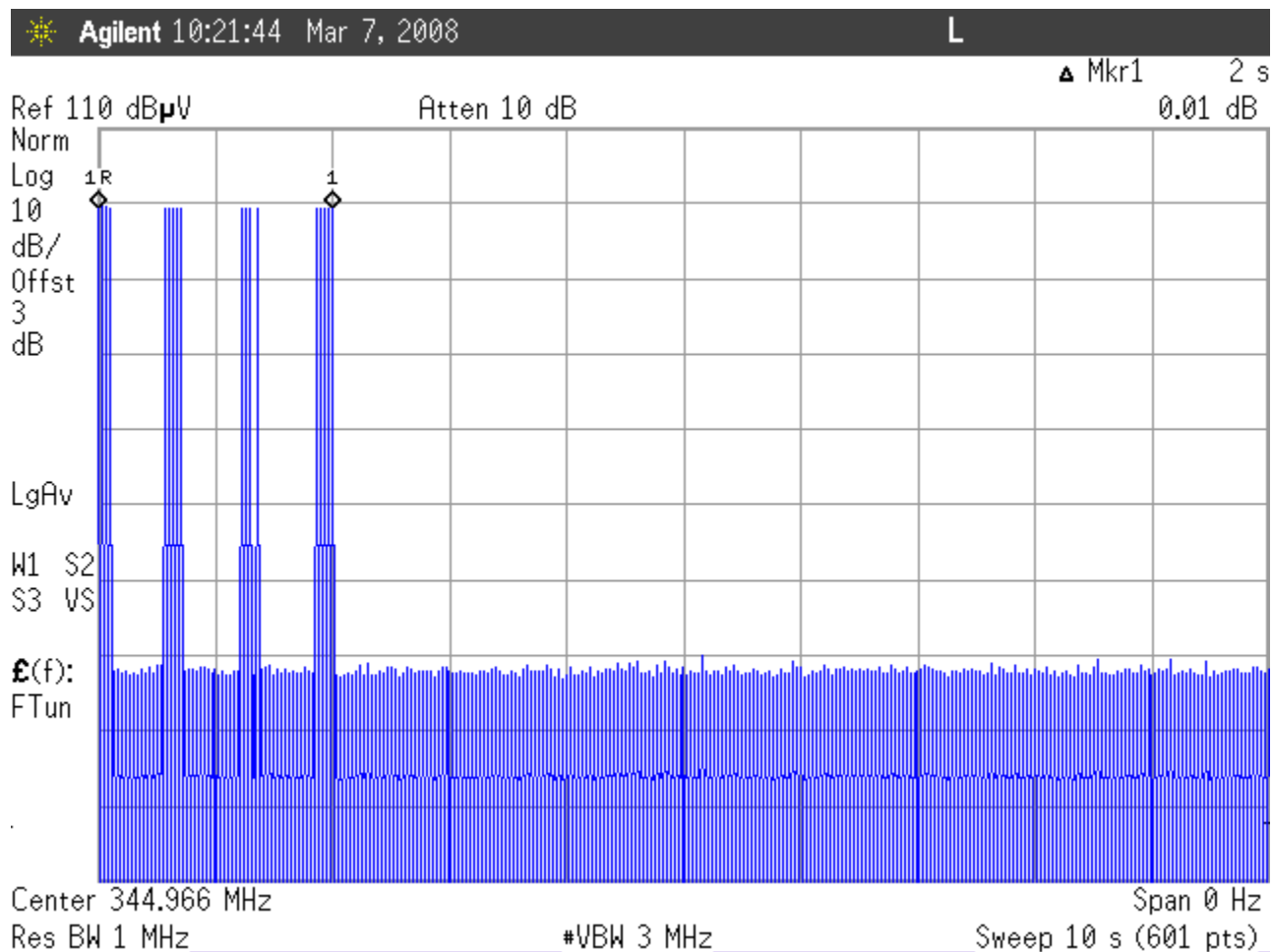


Figure 4-3. Time Period: Supervisory Transmission

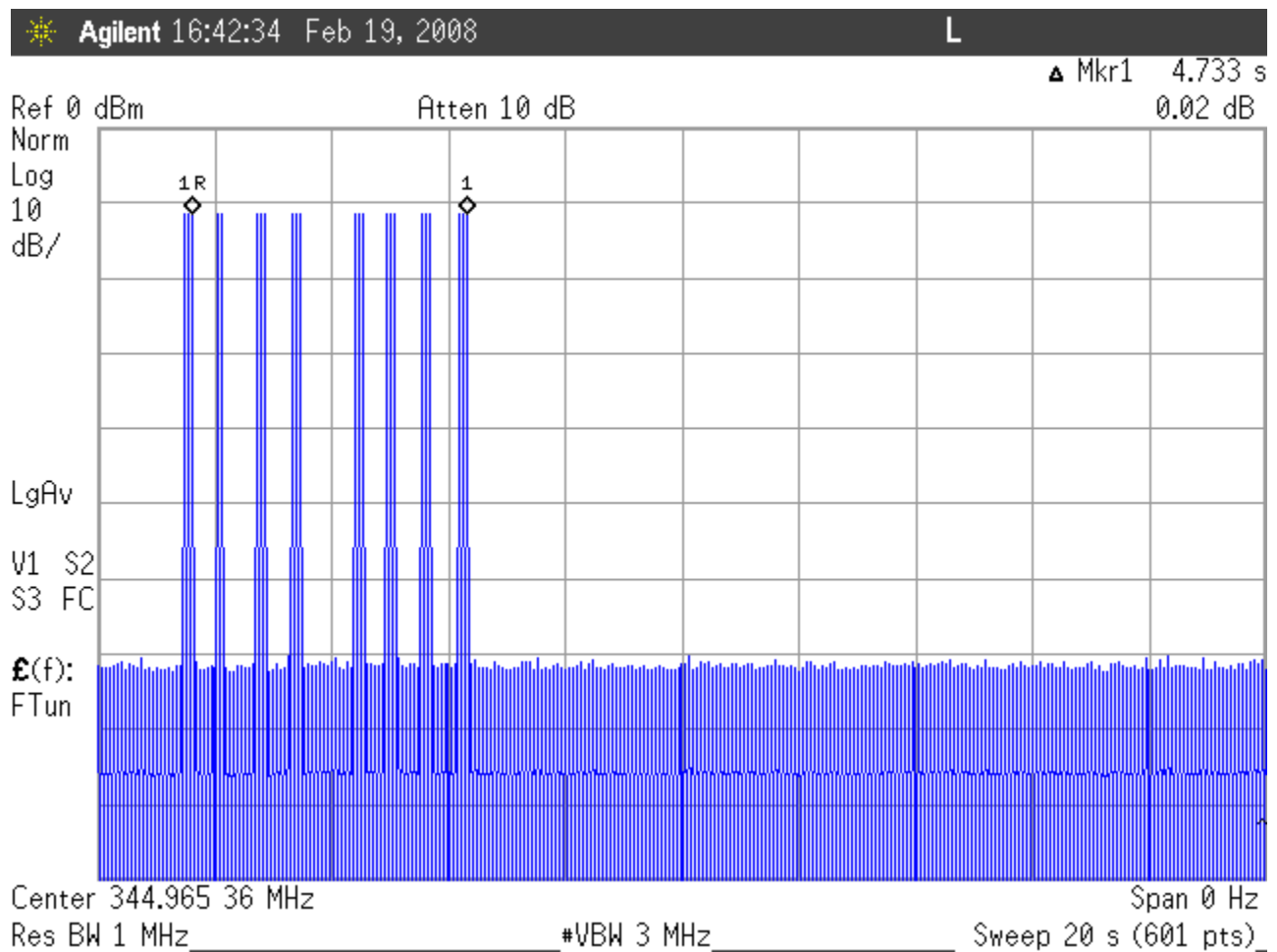


Figure 4-4. Time Period: Alarm State Transmission

4.3 Occupied Bandwidth: (FCC Part §2.1049)

Occupied bandwidth was performed by coupling the output of the EUT to the input of a spectrum analyzer.

FCC Part 15.231 states that the 20 dB bandwidth of the modulated carrier shall be as follows:

Frequency Range (MHz)	Occupied Bandwidth Limit
70-900 MHz	0.25%
>900 MHz	0.5%

At full modulation, the occupied bandwidth was measured as shown:

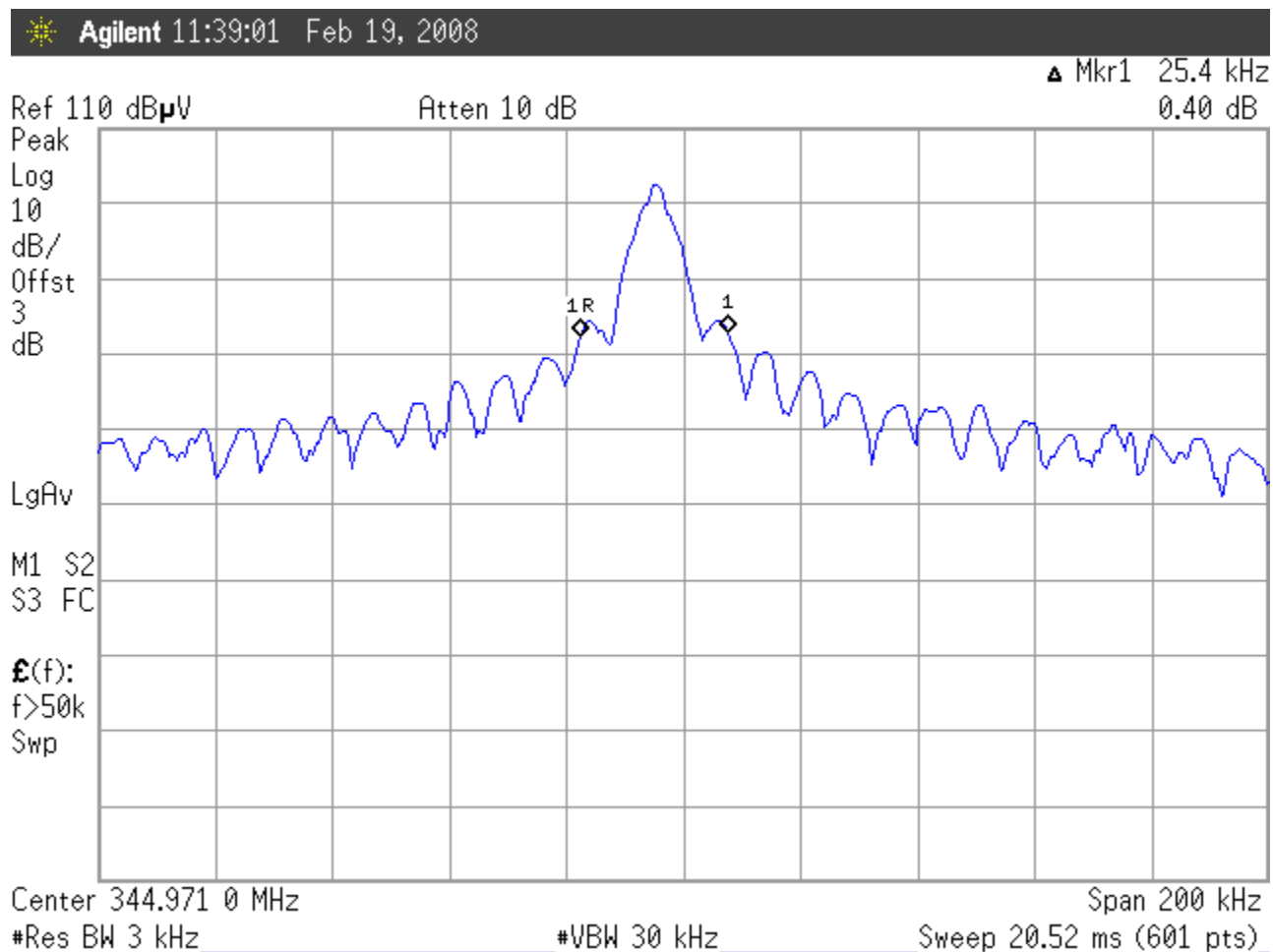


Figure 4-5. Occupied Bandwidth

Table 3 provides a summary of the Occupied Bandwidth Results.

Table 3. Occupied Bandwidth Results

Frequency	Bandwidth	Limit	Pass/Fail
Low Channel: 345MHz	25.4 kHz	862.5 kHz	Pass

4.4 Radiated Spurious Emissions: (FCC Part §2.1053)

The EUT must comply with requirements for radiated spurious emissions per the limits given in §15.231(a). In addition, any emissions appearing in the restricted bands listed in §15.205 must comply with the general emission limits of 15.209.

4.4.1 Test Procedure

The EUT was placed on a motorized turntable for radiated testing on a 3-meter open field test site. The emissions from the EUT were measured continuously at every azimuth by rotating the turntable. Receiving antennas were mounted on an antenna mast to determine the height of maximum emissions. The height of the antenna was varied between 1 and 4 meters. Both the horizontal and vertical field components were measured.

The emissions were measured using the following resolution bandwidths:

Frequency Range	Resolution Bandwidth	Video Bandwidth
30MHz-1000 MHz	100kHz	>100kHz
>1000 MHz	1 MHz	1MHz (peak) 10Hz (Avg)

Emissions were measured to the 10th harmonic of the transmit frequency. The InGrid Siren Detector was tested in three orthogonal planes. Worst case emission levels are reported.

The following is a sample calculation used in the data tables for calculating the final field strength of spurious emissions and comparing these levels to the specified limits.

Sample Calculation:

Spectrum Analyzer Voltage (SA Level): V dBμV (Peak)
 Antenna Factor (Ant Corr): AFdB/m
 Cable Loss Correction (Cable Corr): CCdB
 Amplifier Gain: GdB
 Electric Field (Corr Level): EdBμV/m = VdBμV + AFdB/m + CCdB + DCCdB - GdB

Table 4. Radiated Emissions Data (Peak Data-Harmonics, Unit Upright)

Frequency	Polarity	Az	Ant. Height	SA Level	Ant. Corr.	Cable Corr.	Amp Gain	Duty Cycle Corr	Corr. Level	Corr. Level	Limit	Margin
(MHz)	H/V	Deg	(m)	(dBuV)	(dB/m)	(dB)	(dB)	(dB)	(dBuV/m)	(uV/m)	(uV/m)	dB
344.99	V	180.0	1.6	69.5	14.2	1.5	0.0	-13.3	71.9	3949.2	7291.3	-5.3
689.98	V	180.0	1.7	32.9	19.8	2.7	0.0	-13.3	42.1	127.0	729.1	-15.2
1034.97	V	77.0	1.0	65.4	24.5	2.0	36.0	-13.3	42.6	134.7	500.0	-11.4
1379.96	V	145.0	1.0	70.7	26.2	2.0	35.7	-13.3	50.0	314.4	500.0	-4.0
1724.95	V	150.0	1.0	65.1	27.5	2.0	35.4	-13.3	45.9	196.7	729.1	-11.4
2069.94	V	220.0	1.0	52.0	28.5	2.3	35.3	-13.3	34.3	51.9	729.1	-23.0
2414.93	V	183.0	1.0	50.2	29.2	3.9	35.4	-13.3	34.6	53.4	729.1	-22.7
2759.92	V	180.0	1.0	49.5	29.8	5.2	35.5	-13.3	35.7	60.7	500.0	-18.3
3104.91	V	165.0	1.0	59.2	30.2	6.0	35.5	-13.3	46.6	213.6	729.1	-10.7
3449.90	V	0.0	1.0	53.1	30.4	5.9	35.4	-13.3	40.7	108.8	729.1	-16.5
344.99	H	150.0	2.4	61.3	14.2	1.5	0.0	-13.3	63.7	1536.4	7291.3	-13.5
689.98	H	170.0	1.8	33.0	19.8	2.7	0.0	-13.3	42.2	128.5	729.1	-15.1
1034.97	H	172.0	1.0	61.5	24.5	2.0	36.0	-13.3	38.7	86.0	500.0	-15.3
1379.96	H	180.0	1.0	66.3	26.2	2.0	35.7	-13.3	45.5	189.0	500.0	-8.4
1724.95	H	180.0	1.0	67.9	27.5	2.0	35.4	-13.3	48.7	272.1	729.1	-8.6
2069.94	H	162.0	1.0	57.0	28.5	2.3	35.3	-13.3	39.2	91.7	729.1	-18.0
2414.93	H	183.0	1.0	54.9	29.2	3.9	35.4	-13.3	39.3	92.0	729.1	-18.0
2759.92	H	190.0	1.0	52.8	29.8	5.2	35.5	-13.3	39.0	89.0	500.0	-15.0
3104.91	H	200.0	1.0	56.9	30.2	6.0	35.5	-13.3	44.3	164.3	729.1	-12.9
3449.90	H	190.0	1.0	52.5	30.4	5.9	35.4	-13.3	40.1	101.4	729.1	-17.1

Table 5. Radiated Emissions Data (Full Scan, Unit Upright)

Frequency	Polarity	Az	Ant. Height	SA Level	Ant. Corr.	Cable Corr.	Duty Cycle Corr	Corr. Level	Corr. Level	Limit	Margin
(MHz)	H/V	Deg	(m)	(dBuV)	(dB/m)	(dB)	(dB)	(dBuV/m)	(uV/m)	(uV/m)	dB
49.16	V	180.0	1.0	15.5	8.3	1.1	0.0	24.9	17.5	100.0	-15.1
171.65	V	0.0	1.0	6.7	11.6	1.2	0.0	19.6	9.5	150.0	-24.0
181.28	V	66.0	1.0	10.1	11.3	1.2	0.0	22.6	13.5	150.0	-20.9
314.70	V	347.0	1.9	13.1	13.8	1.4	0.0	28.3	25.9	200.0	-17.8
371.92	V	79.0	1.4	15.0	15.1	1.7	0.0	31.7	38.5	200.0	-14.3
390.99	V	54.0	1.3	12.2	15.1	1.7	0.0	29.0	28.2	200.0	-17.0
49.18	H	44.0	2.5	7.8	8.3	1.1	0.0	17.2	7.2	100.0	-22.8
171.86	H	0.0	2.1	9.1	11.6	1.2	0.0	22.0	12.5	150.0	-21.6
181.28	H	261.0	2.0	9.9	11.3	1.2	0.0	22.4	13.2	150.0	-21.1
314.70	H	134.0	2.0	6.2	13.8	1.4	0.0	21.4	11.7	200.0	-24.7
372.90	H	338.0	1.9	6.9	15.0	1.7	0.0	23.6	15.1	200.0	-22.4
390.99	H	216.0	1.7	10.5	15.1	1.7	0.0	27.3	23.2	200.0	-18.7

Table 6. Radiated Emissions Data (Peak Data-Harmonics, Unit on Side)

Frequency	Polarity	Az	Ant. Height	SA Level	Ant. Corr.	Cable Corr.	Amp Gain	Duty Cycle Corr	Corr. Level	Corr. Level	Limit	Margin
(MHz)	H/V	Deg	(m)	(dBuV)	(dB/m)	(dB)	(dB)	(dB)	(dBuV/m)	(uV/m)	(uV/m)	dB
344.99	V	184.0	1.6	58.7	14.2	1.5	0.0	-13.3	61.1	1139.0	7291.3	-16.1
689.98	V	143.0	1.7	26.6	19.8	2.7	0.0	-13.3	35.8	61.5	729.1	-21.5
1034.97	V	69.0	1.0	61.7	24.5	2.0	36.0	-13.3	38.9	88.1	500.0	-15.1
1379.96	V	136.0	1.0	69.1	26.2	2.0	35.7	-13.3	48.3	259.7	500.0	-5.7
1724.95	V	180.0	1.0	61.1	27.5	2.0	35.4	-13.3	41.9	124.1	729.1	-15.4
2069.94	V	78.0	1.0	55.8	28.5	2.3	35.3	-13.3	38.1	80.3	729.1	-19.2
2414.93	V	131.0	1.0	52.4	29.2	3.9	35.4	-13.3	36.8	69.2	729.1	-20.5
2759.92	V	171.0	1.0	53.7	29.8	5.2	35.5	-13.3	39.8	98.3	500.0	-14.1
3104.91	V	160.0	1.0	54.5	30.2	6.0	35.5	-13.3	41.9	124.3	729.1	-15.4
3449.90	V	122.0	1.0	53.7	30.4	5.9	35.4	-13.3	41.2	115.4	729.1	-16.0
344.99	H	107.0	2.4	68.5	14.2	1.5	0.0	-13.3	70.9	3519.8	7291.3	-6.3
689.98	H	182.0	1.2	37.5	19.8	2.7	0.0	-13.3	46.7	215.7	729.1	-10.6
1034.97	H	252.0	1.0	62.0	24.5	2.0	36.0	-13.3	39.2	91.6	500.0	-14.7
1379.96	H	57.0	1.0	71.3	26.2	2.0	35.7	-13.3	50.5	336.1	500.0	-3.4
1724.95	H	124.0	1.0	65.9	27.5	2.0	35.4	-13.3	46.7	215.4	729.1	-10.6
2069.94	H	295.0	1.0	58.9	28.5	2.3	35.3	-13.3	41.2	114.9	729.1	-16.0
2414.93	H	300.0	1.0	54.1	29.2	3.9	35.4	-13.3	38.5	83.7	729.1	-18.8
2759.92	H	124.0	1.0	55.2	29.8	5.2	35.5	-13.3	41.4	117.1	500.0	-12.6
3104.91	H	286.0	1.0	58.7	30.2	6.0	35.5	-13.3	46.1	201.2	729.1	-11.2
3449.90	H	88.0	1.0	51.6	30.4	5.9	35.4	-13.3	39.2	90.9	729.1	-18.1

Table 7. Radiated Emissions Data (Full Scan, Unit on Side)

Frequency	Polarity	Az	Ant. Height	SA Level	Ant. Corr.	Cable Corr.	Duty Cycle Corr	Corr. Level	Corr. Level	Limit	Margin
(MHz)	H/V	Deg	(m)	(dBuV)	(dB/m)	(dB)	(dB)	(dBuV/m)	(uV/m)	(uV/m)	dB
49.16	V	180.0	1.0	15.5	8.3	1.1	0.0	24.9	17.5	100.0	-15.1
171.65	V	0.0	1.0	6.7	11.6	1.2	0.0	19.6	9.5	150.0	-24.0
181.28	V	66.0	1.0	10.1	11.3	1.2	0.0	22.6	13.5	150.0	-20.9
314.70	V	347.0	1.9	13.1	13.8	1.4	0.0	28.3	25.9	200.0	-17.8
371.92	V	79.0	1.4	15.0	15.1	1.7	0.0	31.7	38.5	200.0	-14.3
390.99	V	54.0	1.3	12.2	15.1	1.7	0.0	29.0	28.2	200.0	-17.0
49.18	H	110.0	2.2	10.7	8.3	1.1	0.0	20.1	10.1	100.0	-19.9
171.86	H	18.0	1.4	9.9	11.6	1.2	0.0	22.8	13.7	150.0	-20.8
181.28	H	310.0	1.5	13.8	11.3	1.2	0.0	26.3	20.7	150.0	-17.2
314.70	H	301.0	2.2	5.8	13.8	1.4	0.0	21.0	11.2	200.0	-25.1
372.90	H	102.0	1.9	10.5	15.0	1.7	0.0	27.2	22.9	200.0	-18.8
390.99	H	216.0	1.7	10.5	15.1	1.7	0.0	27.3	23.2	200.0	-18.7

Table 8. Radiated Emissions Data (Peak Data-Harmonics, Unit on Side, Test Button Right)

Frequency	Polarity	Az	Ant. Height	SA Level	Ant. Corr.	Cable Corr.	Amp Gain	Duty Cycle Corr	Corr. Level	Corr. Level	Limit	Margin
(MHz)	H/V	Deg	(m)	(dBuV)	(dB/m)	(dB)	(dB)	(dB)	(dBuV/m)	(uV/m)	(uV/m)	dB
344.99	V	202.0	1.7	66.2	14.2	1.5	0.0	-13.3	68.6	2700.9	7291.3	-8.6
689.98	V	148.0	1.3	35.9	19.8	2.7	0.0	-13.3	45.1	179.4	729.1	-12.2
1034.97	V	62.0	1.0	60.7	24.5	2.0	36.0	-13.3	37.9	78.6	500.0	-16.1
1379.96	V	130.0	1.0	67.6	26.2	2.0	35.7	-13.3	46.8	219.5	500.0	-7.1
1724.95	V	190.0	1.0	57.1	27.5	2.0	35.4	-13.3	37.9	78.3	729.1	-19.4
2069.94	V	162.0	1.0	58.0	28.5	2.3	35.3	-13.3	40.3	103.1	729.1	-17.0
2414.93	V	138.0	1.0	61.1	29.2	3.9	35.4	-13.3	45.5	187.4	729.1	-11.8
2759.92	V	161.0	1.0	52.2	29.8	5.2	35.5	-13.3	38.4	83.1	500.0	-15.6
3104.91	V	347.0	1.0	58.2	30.2	6.0	35.5	-13.3	45.6	190.8	729.1	-11.6
3449.90	V	298.0	1.0	52.6	30.4	5.9	35.4	-13.3	40.2	102.0	729.1	-17.1
344.99	H	300.0	2.3	64.9	14.2	1.5	0.0	-13.3	67.3	2325.5	7291.3	-9.9
689.98	H	44.0	1.4	25.9	19.8	2.7	0.0	-13.3	35.1	56.7	729.1	-22.2
1034.97	H	88.0	1.0	62.2	24.5	2.0	36.0	-13.3	39.5	94.1	500.0	-14.5
1379.96	H	52.0	1.0	70.3	26.2	2.0	35.7	-13.3	49.6	301.0	500.0	-4.4
1724.95	H	42.0	1.0	61.1	27.5	2.0	35.4	-13.3	41.9	124.1	729.1	-15.4
2069.94	H	167.0	1.0	54.0	28.5	2.3	35.3	-13.3	36.3	65.4	729.1	-20.9
2414.93	H	120.0	1.0	52.5	29.2	3.9	35.4	-13.3	36.9	69.8	729.1	-20.4
2759.92	H	90.0	1.0	55.1	29.8	5.2	35.5	-13.3	41.2	115.2	500.0	-12.8
3104.91	H	28.0	1.0	54.5	30.2	6.0	35.5	-13.3	41.9	124.6	729.1	-15.3
3449.90	H	186.0	1.0	52.3	30.4	5.9	35.4	-13.3	39.8	98.2	729.1	-17.4

Table 9. Radiated Emissions Data (Full Scan, Unit on Side, Test Button Right)

Frequency	Polarity	Az	Ant. Height	SA Level	Ant. Corr.	Cable Corr.	Duty Cycle Corr	Corr. Level	Corr. Level	Limit	Margin
(MHz)	H/V	Deg	(m)	(dBuV)	(dB/m)	(dB)	(dB)	(dBuV/m)	(uV/m)	(uV/m)	dB
49.16	V	180.0	1.0	15.5	8.3	1.1	0.0	24.9	17.5	100.0	-15.1
171.65	V	0.0	1.0	6.7	11.6	1.2	0.0	19.6	9.5	150.0	-24.0
181.28	V	66.0	1.0	10.1	11.3	1.2	0.0	22.6	13.5	150.0	-20.9
314.70	V	347.0	1.9	13.1	13.8	1.4	0.0	28.3	25.9	200.0	-17.8
371.92	V	79.0	1.4	15.0	15.1	1.7	0.0	31.7	38.5	200.0	-14.3
390.99	V	54.0	1.3	12.2	15.1	1.7	0.0	29.0	28.2	200.0	-17.0
49.18	H	110.0	2.2	10.7	8.3	1.1	0.0	20.1	10.1	100.0	-19.9
171.86	H	18.0	1.4	9.9	11.6	1.2	0.0	22.8	13.7	150.0	-20.8
181.28	H	310.0	1.5	13.8	11.3	1.2	0.0	26.3	20.7	150.0	-17.2
314.70	H	301.0	2.2	5.8	13.8	1.4	0.0	21.0	11.2	200.0	-25.1
372.90	H	102.0	1.9	10.5	15.0	1.7	0.0	27.2	22.9	200.0	-18.8
390.99	H	216.0	1.7	10.5	15.1	1.7	0.0	27.3	23.2	200.0	-18.7