



1250 Peterson Dr., Wheeling, IL 60090

Company: Step n' Shine, LLC  
Model Tested: SNUGTX1  
Report Number: 14399

FCC Rules and Regulations / Intentional Radiators

Periodic operational in the 40.66-40.70 MHz Band and above 70 MHz.

Part 15, Subpart C, Section 15.231

**THE FOLLOWING MEETS THE ABOVE TEST SPECIFICATION**

Formal Name: Snuggle n' Shine  
Kind of Equipment: Plush Bear  
Frequency Range: 433.92 MHz  
Test Configuration: N/A (Tested at 4.5 vdc)  
Model Number(s): SNUGTX1  
Model(s) Tested: SNUGTX1  
Serial Number(s): N/A  
Date of Tests: August 5, 2008  
Test Conducted For: Step n' Shine, LLC  
4727 Yachtsmans Drive  
Amelia Island, Florida 32034

**NOTICE:** "This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government". Please see the "Additional Description of Equipment Under Test" page listed inside of this report.

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Model Tested: SNUGTX1  
Report Number: 14399

#### SIGNATURE PAGE

Report By:

Aron C. Rowe  
Test Engineer  
EMC-001375-NE

Reviewed By:

William Stumpf  
OATS Manager

Approved By:

Brian Mattson  
General Manager



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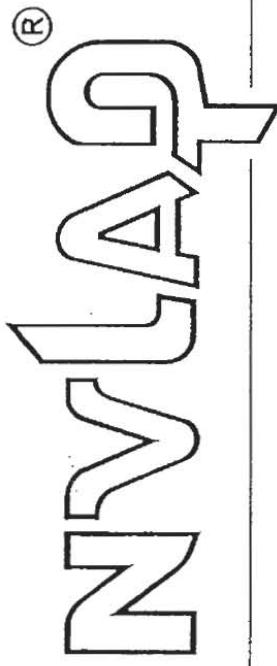
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United States Department of Commerce  
National Institute of Standards and Technology



## Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 100276-0

D.L.S. Electronic Systems, Inc.  
Wheeling, IL

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:

### ELECTROMAGNETIC COMPATIBILITY AND TELECOMMUNICATIONS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO/ILAC-IAF Communique dated 18 June 2005).



2007-10-01 through 2008-09-30

Effective dates

Shelly S. Bruce  
For the National Institute of Standards and Technology

NVLAP-01C (REV 2006-09-13)



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## 1.0 SUMMARY OF TEST REPORT

It was found that the Snuggle n' Shine, Model Number(s) SNUGTX1, **meets** the radio interference radiated emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Section 15.231 for periodic operational in the 40.66-40.70 MHz Band and above 70 MHz. The AC Power Line conducted emissions test was not required because the Snuggle n' Shine is powered from a D.C. power source. It does not have a line cord to plug into the A.C. power line.

## 2.0 INTRODUCTION

On August 5, 2008, a series of radio frequency interference measurements was performed on Snuggle n' Shine, Model Number(s) SNUGTX1, Serial Number: N/A. The tests were performed according to the procedures of the FCC as stated in the "Methods of Measurement of Radio-Noise Emissions for Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz" found in the American National Standards Institute, ANSI C63.4-2003. Tests were performed by personnel of D.L.S. Electronic Systems, Inc. who are responsible to Donald L. Sweeney, Senior EMC Engineer.

D.L.S. Electronic Systems, Inc. is a full service EMC/Safety Testing Laboratory accredited to ISO 17025. NVLAP Certificate and Scope can be viewed at <http://www.dlsemc.com/certificate>. Our facilities are registered with the FCC, Industry Canada, and VCCI.

### **Main Test Facility:**

D.L.S. Electronic Systems, Inc.  
1250 Peterson Drive  
Wheeling, Illinois 60090

### **O.A.T.S. Test Facility:**

D.L.S. Electronic Systems, Inc.  
166 S. Carter Street  
Genoa City, Wisconsin 53128

## 3.0 OBJECT

The purpose of this series of tests was to determine if the test sample could meet the radio frequency interference emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Sections 15.33, 15.35, 15.205, 15.209 & 15.231 for Intentional Radiators operating in the Band 40.66-40.70 and above 70 MHz.



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#### 4.0 TEST SET-UP

All emission tests were performed at D.L.S. Electronic Systems, Inc. and set up according to the ANSI C63.4-2003, Annex H. The conducted tests were performed with the test item placed on a non-conductive table (table top equipment), located in the test room. Equipment normally operated on the floor was tested by placing it on the metal ground plane. The ground plane has an electrical isolation layer over its surface approximately 7mm thick. The power line supplied was connected to a dual line impedance stabilization network electrically bonded to the ground plane, located on the floor. The networks were constructed per the requirements of the ANSI C63.4-2003, Annex H.

All radiated emissions tests were performed with the test item placed on a 80 cm high rotating non-conductive table, located in the test room. Equipment normally operated on the floor was placed on a metal covered turntable which is flush with the surrounding conducting ground plane. The ground plane has an electrical isolation layer over its surface approximately 7 mm thick. The EUT is separated from the turntable ground plane by a non-conductive layer. The equipment under test was set up according to ANSI C63.4-2003, Sections 6 and 8.



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## 5.0 TEST EQUIPMENT (Bandwidths and Detector Function)

All preliminary data below 1000 MHz was automatically plotted using the ESI 26/40 Fixed Tuned Receiver. The data was taken using Peak, Quasi-Peak or the Average Detector Functions as required. This information was then used to determine the frequencies of maximum emissions. Above 1000 MHz, final data was taken using the Average Detector.

Below 1000 MHz, final data was taken using the ESI 26/40 Fixed Tuned Receiver. These plots were made using the Peak or Quasi-Peak Detector functions, with manual measurements performed on the questionable frequencies using the Quasi-Peak or the Average Detector Function of the ESI 26/40 Fixed Tuned Receiver as required. Above 1000 MHz, final data was taken using the Average Detector on the Spectrum Analyzer.

The bandwidths shown below are specified by ANSI C63.4-2003, Section 4.2.

Frequency Range	Bandwidth (-6 dB)
10 to 150 kHz	200 Hz
150 kHz to 30 MHz	9 kHz
30 MHz to 1 GHz	120 kHz
Above 1 GHz	1 MHz

A list of the equipment used can be found in Table 1. All primary equipment was calibrated against known reference standards with a verified traceable path to NIST.



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## 6.0 AMBIENT MEASUREMENTS

For emissions measurements, broadband antennas and an EMI Test Receiver with a panoramic spectrum display are used. First the frequency range is scanned and displayed on the test receiver display. Next the scanned frequency range is divided into smaller ranges, and then it is manually tuned through to determine the emissions from the EUT. A headset or loudspeaker is connected to the test receiver's AM/FM demodulated output as an aid in detecting ambient signals and finding frequencies of significant emission from the EUT. If there is any doubt as to the source of the emission, it is further investigated by rotating the EUT, or by disconnecting the power from the EUT.

The EUT is set up in its typical configuration and operated in its various modes. For tabletop systems, cables are manipulated within the range of likely configurations. For floor-standing equipment, the cables are located in the same manner as the user would install them and no further manipulation is made. If the manner of cable installation is not known, or if it changes with each installation, cables or wires for floor-standing equipment shall be manipulated to the extent possible to produce the maximum level of emissions. For each mode of operation, the frequency spectrum is monitored. Variations in antenna height, antenna polarization, EUT azimuth, and cable or wire placement (each variable within bounds specified elsewhere) are explored to produce the emissions that have the highest amplitude relative to the limit. These methods are performed to the specifications in ANSI C63.4-2003.



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## 7.0 DESCRIPTION OF TEST SAMPLE: (See also Paragraph 8.0)

### 7.1 Description:

The test sample consists of a pressure sensitive switch, embedded in a plush bear. Activating the pressure switch turns on an LED and sends an 'on' command. If the switch is re-activated while the LED is on, the transmitter sends an 'off' command and fades out the LED.

The unit under test is a wirelessly activated night light in the shape of a bear.

### 7.2 PHYSICAL DIMENSIONS OF EQUIPMENT UNDER TEST

Length: 15 in. x Width: 12 in. x Height: 4 in.

### 7.3 LINE FILTER USED:

N/A

### 7.4 INTERNAL CLOCK FREQUENCIES:

Switching Power Supply Frequencies:

N/A

Clock Frequencies:

13.56 MHz & 8 MHz

### 7.5 DESCRIPTION OF ALL CIRCUIT BOARDS:

1. RF transmitter	PN: TX1
2. Controller Board	PN: TX2



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**8.0 ADDITIONAL DESCRIPTION OF TEST SAMPLE:**  
(See also Paragraph 7.0)

Two inductors and one resistor were changed on the transmitter board as follows:

1. Coilcraft 680nH CS Series in an 0805 package (L1 on schematic) – same value, different packing.
2. Coilcraft 82nH CS Series in an 0603 package (L4 on schematic) – same value, different packing.
3. 120 ohm chip resistor (R3 on schematic), replacing 0 Ohm resistor

**NOTE:**

During testing the EUT was set in the "Continuous Transmit Mode".

**9.0 PHOTO INFORMATION AND TEST SET-UP**

Item 0 Snuggle n' Shine  
Model Number: SNUGTX1 Serial Number: N/A



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#### 10.0 RADIATED PHOTOS TAKEN DURING TESTING

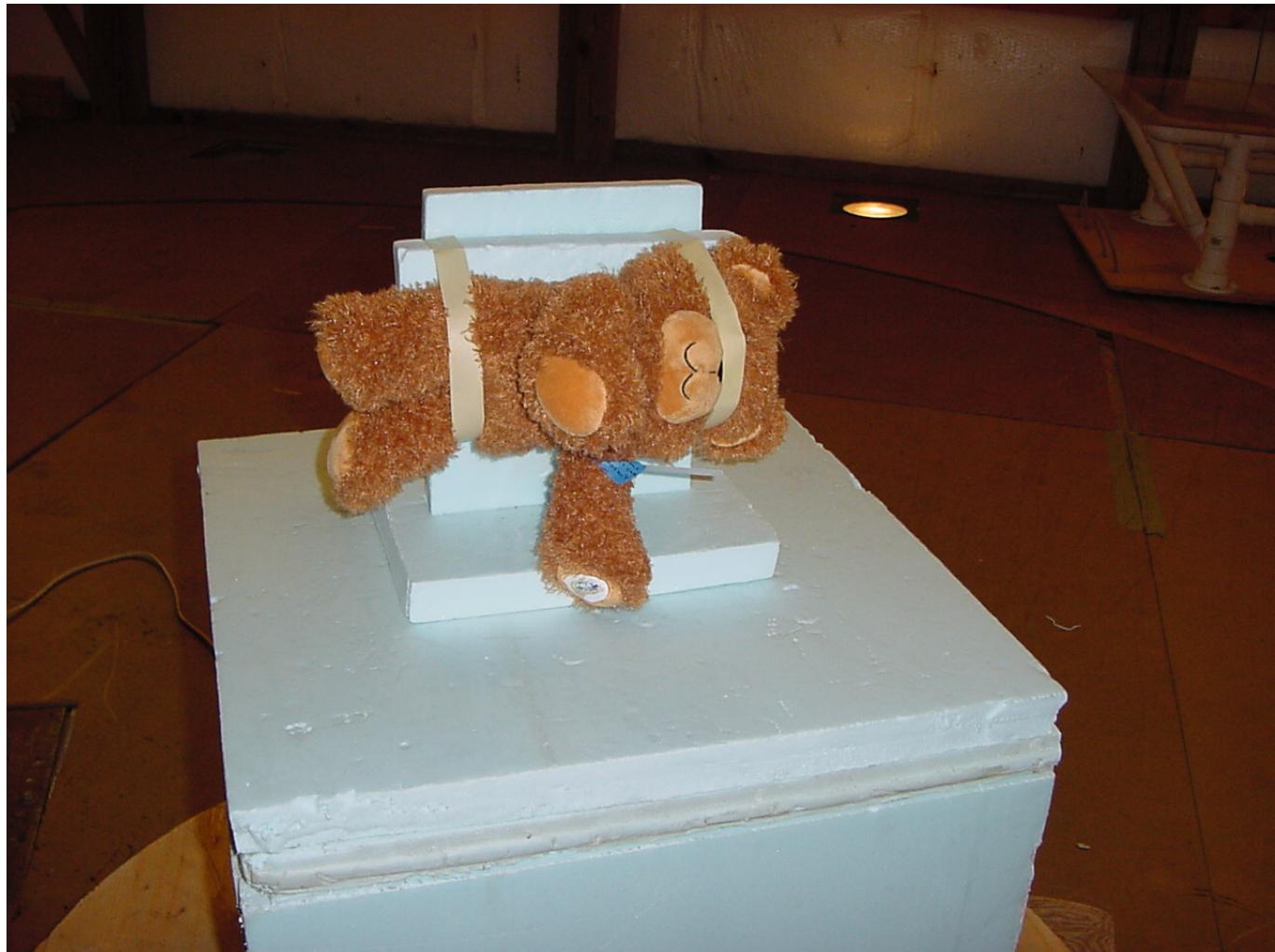




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#### 10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)





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#### 10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)

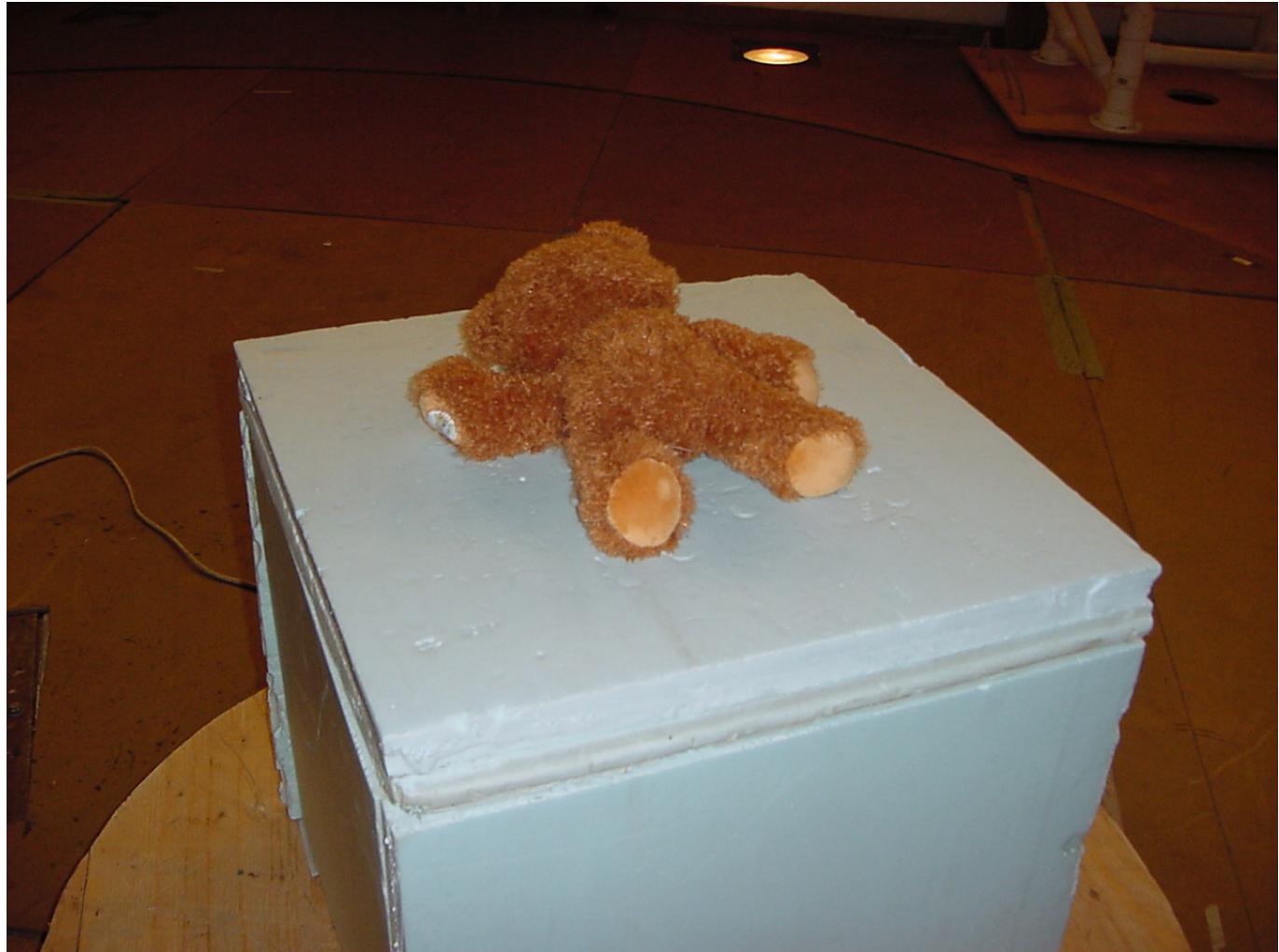




Company: Step n' Shine, LLC  
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#### 10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)





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## 11.0 RESULTS OF TESTS

The radio interference emission charts can be seen on the pages at the end of this report. Data sheets indicating the test measurements taken during testing can also be found at the end of this report.

## 12.0 CONCLUSION

It was found that the Snuggle n' Shine, Model Number(s) SNUGTX1 **meets** the radio interference radiated emission requirements of the FCC "Rules and Regulations", Part 15, Subpart C, Section 15.231 for periodic operational in the 40.66-40.70 MHz Band and above 70 MHz. The conducted emissions test was not required because the Snuggle n' Shine is powered from a D.C. power source. It does not have a line cord to plug into the A.C. power line.



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TABLE 1 – EQUIPMENT LIST

Test Equipment	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Due Dates
Receiver, RF, Tuned	Rohde & Schwarz	ESI 40	837808/006		3/24/2009
Preamp, RF	Rohde & Schwarz	TS-PR10	032001/004		1/9/2009
Antenna, Log Periodic	EMCO	3146	1205	200MHz-1GHz	4/11/2010
Antenna, Biconical	EMCO	3104C	0005-4892	20MHz-200MHz	4/11/2010
Antenna, Horn	EMCO	3115	9502-4451	1GHz-18GHz	5/6/2009
Limiter, Transient, RF	Electro-Metrics	EM7600	706		1/9/2009

All primary equipment is calibrated against known reference standards with a verified traceable path to NIST.



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## APPENDIX A

### TEST PROCEDURE

Part 15, Subpart C, Section 15.231 (a)

### ELECTRIC FIELD RADIATED EMISSIONS TEST



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### TEST PROCEDURE

#### ELECTRIC FIELD RADIATED EMISSIONS TEST

##### 1.0 CONDUCTED EMISSION MEASUREMENTS

Conducted emissions were measured over the frequency range from 150 kHz to 30 MHz in accordance with the power line measurements as specified in FCC Part 15, Subpart C, Section 15.207 & ANSI C63.4-2003. Since the device is operated from the public utility lines, the 120 Vac, 60 Hz power leads, high (hot) and low (neutral) sides, were measured by connecting the measuring equipment to the appropriate meter terminal of the LISN. During the test, the cables were placed and items moved (when appropriate) to maximize emissions. All signals were then recorded. The allowed levels for Intentional Radiators which is designed to connected to the public utility (AC) power line cannot exceed the following:

Frequency of Emissions (MHz)	Conducted Limits (dBuV)	
	Quasi Peak	Average
.15 to .5	66 to 56	56 to 46
.5 to 5	56	46
5 to 30	60	50

**NOTE:**

The AC Power Line conducted emissions test was not required because the Snuggle n' Shine is powered from a D.C. power source. It does not have a line cord to plug into the A.C. power line.



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ELECTRIC FIELD RADIATED EMISSIONS TEST

2.0 PULSED OPERATION (Duty Cycle Correction Factor)

The radiated emission tests made at D.L.S. Electronic Systems, Inc. for the Snuggle n' Shine, Model Number SNUGTX1, are shown by the graphs on the following pages. The actual total "on time" during the 100 msec is 37.33452 msec with a total "off time" of 62.66548 msec resulting in a **8.56 Duty Cycle Correction Factor**.

To find the actual "on time" during the 100 msec period, the data word is multiplied by the number of data words per 100 msec, yielding actual on time. Taking this number and dividing it by the 100 msec period gives us the Duty Cycle. We then take the Log of the Duty Cycle and multiply it by 20. This gives us the Duty Cycle Correction Factor. The following method was used to determine the Duty Cycle Correction Factor:

Total on time during 100 msec.

0.69138 usec/pulse on time \* 54 pulses = 37.33452 usec (data word on time)

37.33452 usec (data on time) = total "on time"

37.33452 msec (total "on time") / 100 msec = 0.3733452 Duty Cycle

20\*LOG10 0.3733452 = **8.56 dB Duty Cycle Correction Factor**

NOTE:

For pulsed operation, the switches were set to generate their maximum "on" time, and measurements were made with the peak detector. As stated in Docket 86-422, the duty cycle of the pulse is determined from the total "on" time for the worst case condition during 100 msec. Using the percentage of the total "on" time over a 100 msec period, the total absolute average value was determined. As stated in Section 3, a maximum of 20 dB can be used.

See the following pages for the graphs of the actual measurements that were made:



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## GRAPH(S) TAKEN OF THE PULSED OPERATION

### PART 15.231

#### GRAPHS TAKEN OF THE PULSE TRAIN SHOWING THE FOLLOWING:

1. Number of Bits per Data Word
2. Number of Pulses per 100 msec
3. Off Time between Data Words
4. Data Word On Time

#### NOTE:

Per the manufacturer this device does not produce a “Rolling Code”.



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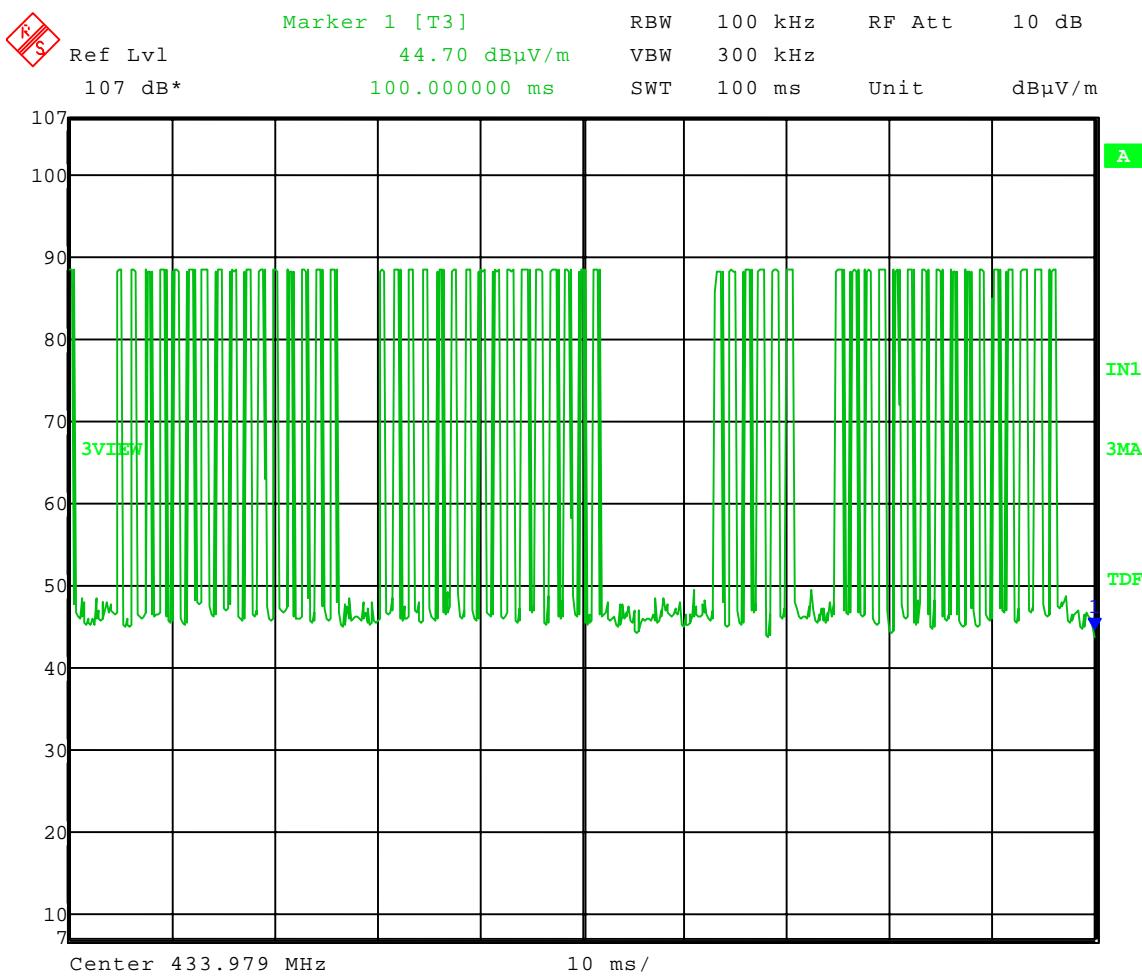
**1250 Peterson Dr., Wheeling, IL 60090**

Test Date: 08-05-2008  
Company: Step N Shine, LLC  
EUT: Snuggle and Shine Transmitter  
Test: Duty Cycle – Radiated  
Rule: FCC Part 15.231 (b)(2)/15.35(c)  
Operator: Adam A  
Comment: 54 pulse at 691.38  $\mu$ s

Total on Time = 37.334669 ms during 100 ms Sweep

$$20 \log (37.334669 \text{ ms} / 100 \text{ ms}) = -8.56$$

**Duty Cycle Correction Factor = 8.56 dB (worst case)**



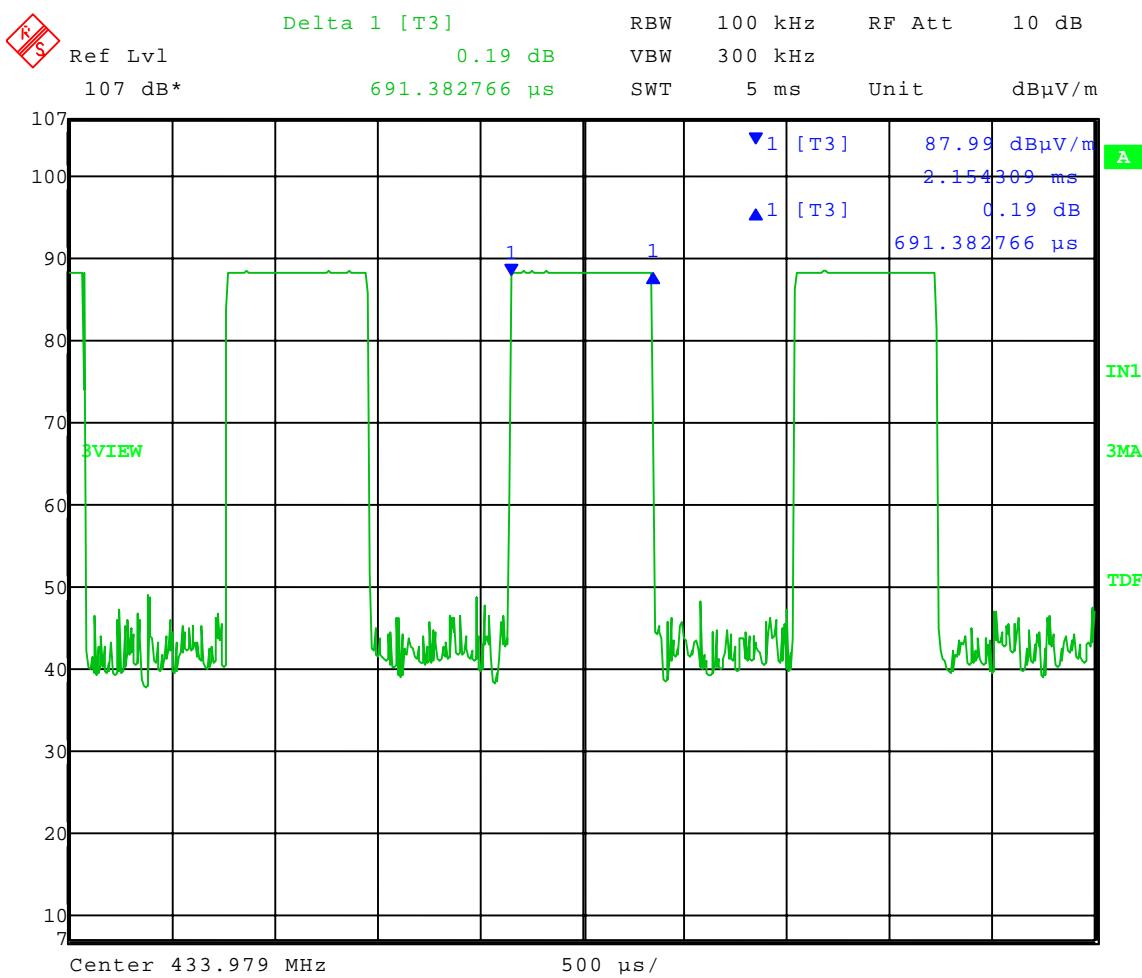
Date: 5.AUG.2008 15:29:09



Company: Step n' Shine, LLC  
Model Tested: SNUGTX1  
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**1250 Peterson Dr., Wheeling, IL 60090**

Test Date: 08-05-2008  
Company: Rise and Shine Ventures LLC  
EUT: Step N Shine, LLC  
Test: Duty Cycle – Radiated  
Rule: FCC Part 15.231 (b)(2)/15.35(c)  
Operator: Adam A  
Comment: 1 Pulse = 691.38  $\mu$ s



Date: 5.AUG.2008 15:20:07



Company: Step n' Shine, LLC  
Model Tested: SNUGTX1  
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## GRAPH(S) TAKEN OF THE CONTINUOUS TRANSMIT MODE

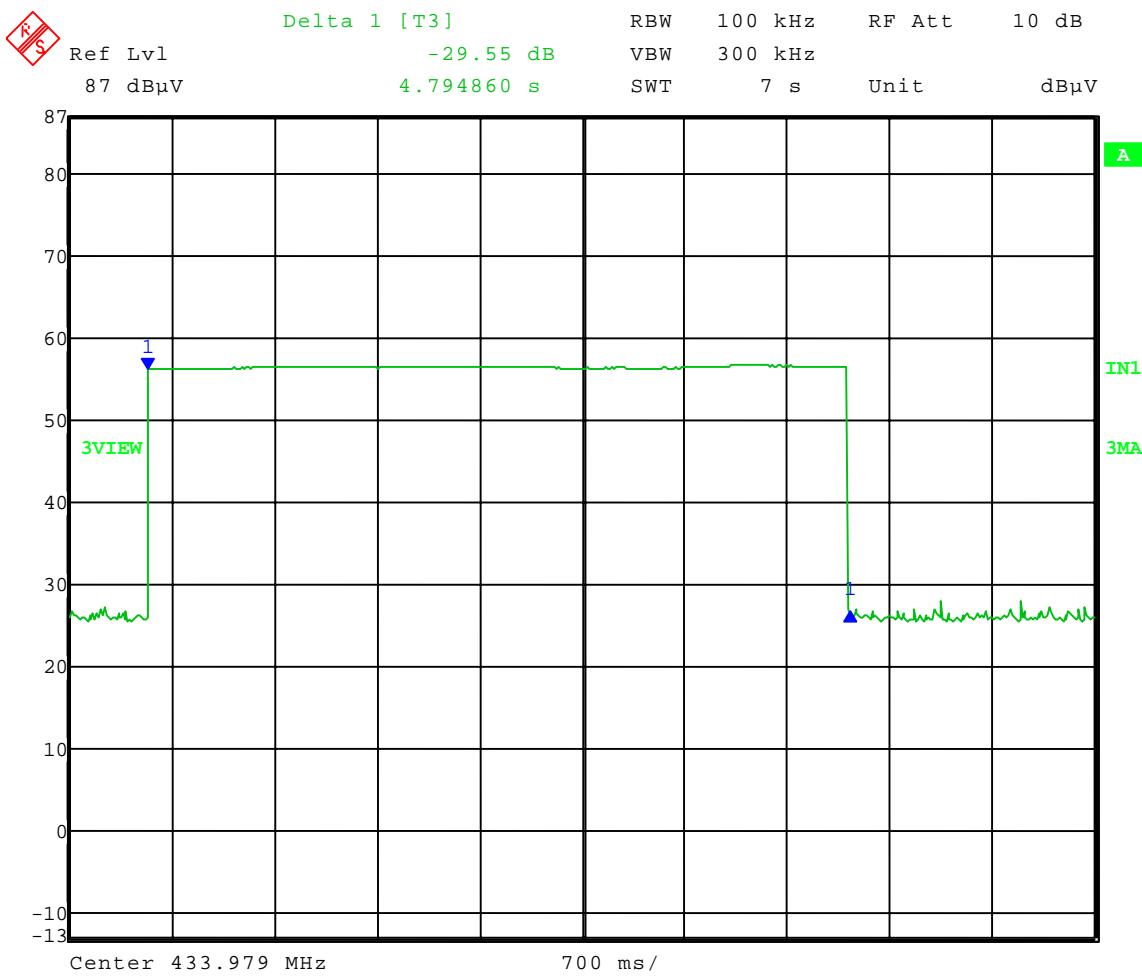


Company: Step n' Shine, LLC  
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Test Date: 7-30-2008  
Company: Step N Shine, LLC  
EUT: Snuggle & Shine Transmitter  
Test: Transmit duration  
Rule: FCC Part 15.231(a)(1)  
Operator: Adam A  
Comment: Frequency: 433.9MHz

Transmission Lasts 4.79 Seconds





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## APPENDIX A

### TEST PROCEDURE

#### ELECTRIC FIELD RADIATED EMISSIONS TEST

#### 4.0 BANDWIDTHS

The bandwidth of the transmitter shall be confined to the following specifications as specified in Section 15.231c & d:

40.66 MHz to 40.7 MHz	$\pm .01\%$ within the band edges
70 MHz to 900 MHz	.25% of the center frequency
Above 900 MHz	.50% of the center frequency

The bandwidth is determined at the points 20 dB down from the modulated carrier.

As shown by the graph(s) on the following page(s), the bandwidth for the Snuggle n' Shine was measured at 16.834 kHz, which meets the above specification. With a fundamental frequency of 433.92 MHz, the FCC Bandwidth limit is 1084.8 kHz when multiplying the fundamental by 0.0025%, with a margin of 1067.97 kHz.



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## GRAPH(S) TAKEN OF THE BANDWIDTH EMISSIONS

PART 15.231c & d

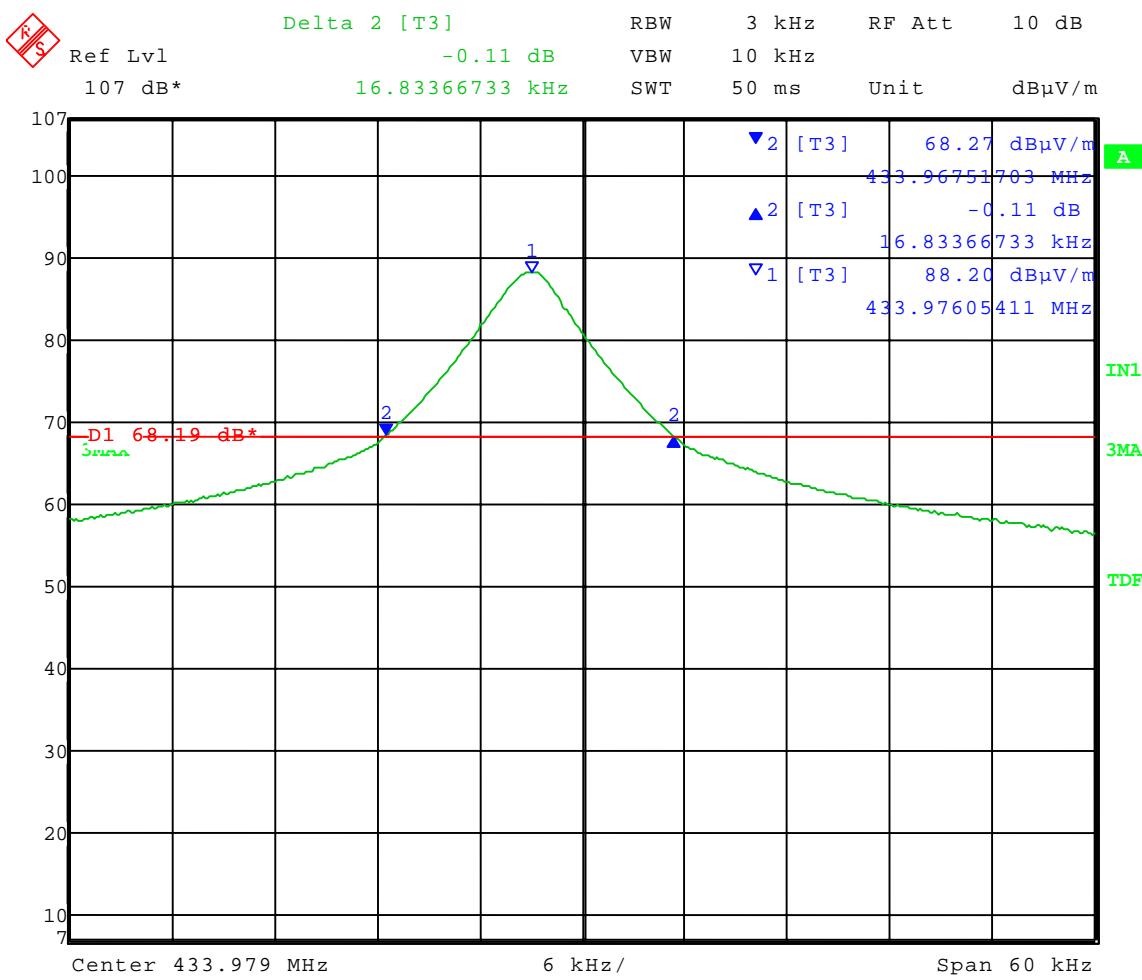


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Test Date: 08-05-2008  
Company: Step N Shine, LLC  
EUT: Snuggle and Shine Transmitter  
Test: 20 dB Bandwidth – Radiated  
Rule: FCC Part 15.231 (b)(3)  
Operator: Adam A  
Comment: Frequency: 433.9 MHz

20 dB Bandwidth = 16.834 kHz



Date: 5.AUG.2008 15:37:56



Company: Step n' Shine, LLC  
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5.0 FIELD STRENGTH OF SPURIOUS EMISSION MEASUREMENTS - SECTION 15.231(b)

For operation in the band 40.66 to 40.70 MHz and above 70 MHz the field strength of any emissions within this band shall not exceed the following table at a distance of 3 meters as specified in FCC, Part 15, Section 15.231(b), based on the average value of the measured emissions. The limits are shown in the following table.

Fundamental Frequency in MHz	Field Strength of Fundamental (uV/m at 3m)	Field Strength of Harmonics (uV/m at 3m)
40.66 to 40.70	2250 (67.04 dBuV)	225 (47.04 dBuV)
70 to 130	1250 (61.94 dBuV)	125 (41.94 dBuV)
130 to 174	1250 (61.94 dBuV) to 3750 (71.48 dBuV)	125 (41.94 dBuV) to 375 (51.48 dBuV)
174 to 260	3750 (71.48 dBuV)	375 (51.48 dBuV)
260 to 470	3750 (71.48 dBuV) to 12500 (81.84 dBuV)	375 (51.48 dBuV) to 1250 (61.94 dBuV)
470 and above	12500 (81.84 dBuV)	1250 (61.94 dBuV)

**NOTE:**

Preliminary radiation measurements may have been performed at a 3 meter or ten meter test distance. The frequency range from 30 MHz to 1000 MHz was scanned at receive antenna heights from one to four meters, and with a 360° rotation of the EUT. Plots were made and the worst-case emissions were recorded.

As stated in 15.35b the 20 dB peak-to-average limit is applicable to all devices measured using an average detector.



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## DATA TAKEN OF FUNDAMENTAL AND SPURIOUS EMISSIONS

### PART 15.231b



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## APPENDIX A

### Radiated Fundamental and Spurious Emissions – 30 MHz to 5 GHz Tested at a 3 Meter Distance

**EUT:** Snuggle & Shine Transmitter  
**Manufacturer:** Step N Shine, LLC  
**Operating Condition:** 75 deg F; 57% R.H.  
**Test Site:** Site 2  
**Operator:** Adam A  
**Test Specification:** FCC Part 15.231(b) and FCC Part 15.205  
**Comment:** Continuous Transmit  
**Date:** 8/5/2008

**Note:** All other emissions at least 20 dB under the limit.

Frequency (MHz)	Measurement	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Height (m)	EUT Angle (deg)	Comment
433.9	Max Peak	Vert	67.82	15.89	4.39	88.10	N/A	88.10	100.8	12.70	1.1	105	Fundamental
433.9	Average	Vert	67.82	15.89	4.39	88.10	-8.56	79.54	80.8	1.26	1.1	105	Fundamental
433.9	Max Peak	Horz	66.98	15.89	4.39	87.26	N/A	87.26	100.8	13.54	1.6	85	Fundamental
433.9	Average	Horz	66.98	15.89	4.39	87.26	-8.56	78.70	80.8	2.10	1.6	85	Fundamental
867.8	Max Peak	Vert	27.87	21.96	6.50	56.33	N/A	56.33	80.8	24.47	1.1	275	Harmonic
867.8	Average	Vert	27.87	21.96	6.50	56.33	-8.56	47.77	60.8	13.03	1.1	275	Harmonic
867.8	Max Peak	Horz	27.76	21.97	6.50	56.23	N/A	56.23	80.8	24.57	1.6	105	Harmonic
867.8	Average	Horz	27.76	21.97	6.50	56.23	-8.56	47.67	60.8	13.13	1.6	105	Harmonic
1301.7	Max Peak	Vert	67.96	24.94	-36.25	56.65	N/A	56.65	74.0	17.35	1.2	355	Res. Band
1301.7	Average	Vert	67.96	24.94	-36.25	56.65	-8.56	48.09	54.0	5.91	1.2	355	Res. Band
1301.7	Max Peak	Horz	65.40	24.94	-36.25	54.09	N/A	54.09	74.0	19.91	1.2	105	Res. Band
1301.7	Average	Horz	65.40	24.94	-36.25	54.09	-8.56	45.53	54.0	8.47	1.2	105	Res. Band
1735.6	Max Peak	Vert	66.89	26.49	-36.18	57.20	N/A	57.20	80.8	23.60	1.2	350	Harmonic
1735.6	Average	Vert	66.89	26.49	-36.18	57.20	-8.56	48.64	60.8	12.16	1.2	350	Harmonic
1735.6	Max Peak	Horz	67.39	26.49	-36.18	57.70	N/A	57.70	80.8	23.10	1.2	200	Harmonic
1735.6	Average	Horz	67.39	26.49	-36.18	57.70	-8.56	49.14	60.8	11.66	1.2	200	Harmonic



Company: Step n' Shine, LLC  
Model Tested: SNUGTX1  
Report Number: 14399

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## APPENDIX A

Frequency (MHz)	Measurement	Ant. Pol.	Level (dBuV)	Antenna Factor (dB/m)	System Loss (dB)	Total Level (dBuV/m)	Duty Cycle Correction (dB)	Final Corrected (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant. Height (m)	EUT Angle (deg)	Comment
2169.5	Max Peak	Vert	62.43	27.97	-35.75	54.65	N/A	54.65	80.8	26.15	1.1	350	Harmonic
2169.5	Average	Vert	62.43	27.97	-35.75	54.65	-8.56	46.09	60.8	14.71	1.1	350	Harmonic
2169.5	Max Peak	Horz	66.50	27.97	-35.75	58.72	N/A	58.72	80.8	22.08	1.1	150	Harmonic
2169.5	Average	Horz	66.50	27.97	-35.75	58.72	-8.56	50.16	60.8	10.64	1.1	150	Harmonic
2603.4	Max Peak	Vert	66.44	28.97	-35.26	60.15	N/A	60.15	80.8	20.65	1	185	Harmonic
2603.4	Average	Vert	66.44	28.97	-35.26	60.15	-8.56	51.59	60.8	9.21	1	185	Harmonic
2603.4	Max Peak	Horz	67.98	28.97	-35.26	61.69	N/A	61.69	80.8	19.11	1.1	15	Harmonic
2603.4	Average	Horz	67.98	28.97	-35.26	61.69	-8.56	53.13	60.8	7.67	1.1	15	Harmonic
3037.3	Max Peak	Vert	71.88	30.11	-34.64	67.35	N/A	67.35	80.8	13.45	1	180	Harmonic
3037.3	Average	Vert	71.88	30.11	-34.64	67.35	-8.56	58.79	60.8	2.01	1	180	Harmonic
3037.3	Max Peak	Horz	70.94	30.11	-34.64	66.41	N/A	66.41	80.8	14.39	1.1	85	Harmonic
3037.3	Average	Horz	70.94	30.11	-34.64	66.41	-8.56	57.85	60.8	2.95	1.1	85	Harmonic
3471.2	Max Peak	Vert	62.26	31.41	-34.13	59.54	N/A	59.54	80.8	21.26	1	180	Harmonic
3471.2	Average	Vert	62.26	31.41	-34.13	59.54	-8.56	50.98	60.8	9.82	1	180	Harmonic
3471.2	Max Peak	Horz	60.08	31.41	-34.13	57.36	N/A	57.36	80.8	23.44	1.1	280	Harmonic
3471.2	Average	Horz	60.08	31.41	-34.13	57.36	-8.56	48.8	60.8	12.00	1.1	280	Harmonic
3905.1	Max Peak	Vert	55.69	32.31	-33.71	54.29	N/A	54.29	74.0	19.71	1.1	350	Res. Band
3905.1	Average	Vert	55.69	32.31	-33.71	54.29	-8.56	45.73	54.0	8.27	1.1	350	Res. Band
3905.1	Max Peak	Horz	56.65	32.31	-33.71	55.25	N/A	55.25	74.0	18.75	1.1	180	Res. Band
3905.1	Average	Horz	56.65	32.31	-33.71	55.25	-8.56	46.69	54.0	7.31	1.1	180	Res. Band
4339	Max Peak	Vert	33.52	32.30	-33.81	32.01	N/A	32.01	74.0	41.99	1.1	350	Res. Band
4339	Average	Vert	33.52	32.30	-33.81	32.01	-8.56	23.45	54.0	30.55	1.1	350	Res. Band
4339	Max Peak	Horz	33.15	32.30	-33.81	31.64	N/A	31.64	74.0	42.36	1.1	180	Res. Band
4339	Average	Horz	33.15	32.30	-33.81	31.64	-8.56	23.08	54.0	30.92	1.1	180	Res. Band



Company: Step n' Shine, LLC  
Model Tested: SNUGTX1  
Report Number: 14399

1250 Peterson Dr., Wheeling, IL 60090

## APPENDIX A

### TEST PROCEDURE

#### ELECTRIC FIELD RADIATED EMISSIONS TEST

#### 6.0 RESTRICTED BANDS

As stated in Section 15.205a, the fundamental emission from the Snuggle n' Shine shall not fall within any of the bands listed below:

Frequency in MHz	Frequency in MHz	Frequency in MHz	Frequency in GHz
.0900 to .1100	162.0125 to 167.17	2310.0 to 2390	9.30 to 9.50
.4900 to .5100	167.7200 to 173.20	2483.5 to 2500	10.60 to 12.70
2.1735 to 2.1905	240.000 to 285.00	2655.0 to 2900	13.25 to 13.40
8.362 to 8.3660	322.200 to 335.40	3260.0 to 3267	14.47 to 14.50
13.36 to 13.410	399.900 to 410.00	3332.0 to 3339	15.35 to 16.20
25.50 to 25.670	608.000 to 614.00	3345.8 to 3358	17.70 to 21.40
37.50 to 38.250	960.000 to 1240.00	3600.0 to 4400	22.01 to 23.13
73.00 to 75.500	1300.000 to 1427.00	4500.0 to 5250	23.60 to 24.00
108.00 to 121.94	1435.000 to 1626.50	5350.0 to 5450	31.20 to 31.80
123.00 to 138.00	1660.000 to 1710.00	7250.0 to 7750	36.43 to 36.50
149.90 to 150.00	1718.800 to 1722.20	8025.0 to 8500	ABOVE 38.60
156.70 to 156.90	2200.000 to 2300.00	9000.0 to 9200	

#### NOTE:

The noise floor within the Restricted Bands for the EMC Receiver and HP Spectrum Analyzer will typically lay 20 dB below the limit.