

**COMPLIANCE WORLDWIDE INC.
TEST REPORT 284-22**

**In Accordance with the Requirements of
Federal Communications Commission CFR Title 47 Part 15.231, Subpart C
Class II Permissive Change
Innovation, Science and Economic Development Canada RSS 210, Issue 10
Low Power License-Exempt Radio Communication Devices
Intentional Radiators**

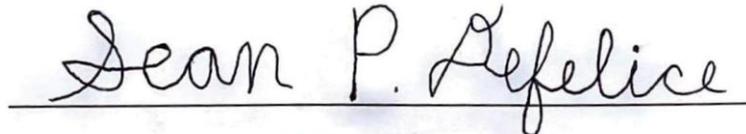
**Issued to
SimpliSafe Inc
294 Washington Street, 9th Floor
Boston, MA 02108**

**for the
Siren
Model: SSWS3
433.92 MHz**

**FCC ID: U9K-WS3000
IC: 20992-WS3000**

Report Issued on August 31, 2022

Tested by



Sean P. Defelice

Reviewed by



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1. Scope

This test report certifies that the Simplisafe, Inc, Siren SSWS3 433.92 MHz Transmitter, as tested, meets the Subpart C, FCC Part 15.231 requirements and the ISED Canada RSS 210 Annex II, Issue 10 Rules. The scope of this test report is limited to the test sample provided by the client, only in as much as that sample represents other production units. If any significant changes are made to the unit, the changes shall be evaluated and a retest may be required.

2. Product Details

- 2.1. Manufacturer:** SimpliSafe
- 2.2. Model Number:** SSWS3
- 2.3 Serial Number:** 02486B11
- 2.4 Description of EUT:** Your Base Station already has a 95dB siren. In case of a break-in, an extra siren can be used to really give intruders a scare—or alert your neighbors to an emergency
- 2.5 Power Source:** Batteries 6 VDC, 4 x 1.5V AA Batteries
- 2.6 Hardware Revision:** Revision E
- 2.7 Software/Firmware Revision:** 1.1.3.12
- 2.8. Modulation Type:** Frequency Shift Keying (2FSK)
- 2.9. Operating Frequency:** 433.92 MHz
- 2.10. EMC Modifications:** None

3. Product Configuration

3.1. Operational Characteristics & Software

3.2. EUT Hardware

Manufacturer	Model/Part # / Options	Serial Number	Volts	Freq (Hz)	Description/Function
SimpliSafe	SSWS3	02486B11	6	VDC	Wireless Siren

3.3. Support Equipment

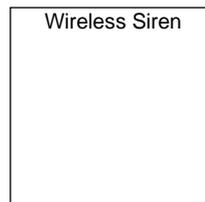
Manufacturer	Model/Part # / Options	Serial Number	Input Voltage	Freq (Hz)	Description/Function
None					

3. Product Configuration (continued)

3.4. Equipment Cables

Cable Type	Length	Shield	From	To
None				

3.5. Block Diagram



4. Measurements Parameters

4.1. Measurement Equipment and Software Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Cal Due	Interval
EMI Test Receiver, 9kHz - 7GHz ¹	Rohde & Schwarz	ESR7	101156	10/26/2023	2 Years
EMI Test Receiver, 10 Hz - 7GHz ¹	Rohde & Schwarz	ESR7	101770	7/23/2023	2 Years
Spectrum Analyzer, 2 Hz to 26.5 GHz ²	Rohde & Schwarz	FSW26	102057	6/24/2023	2 Years
Spectrum Analyzer, 9 kHz to 40 GHz ³	Rohde & Schwarz	FSV40	100899	8/12/2023	3 Years
Spectrum Analyzer 10 Hz – 40 GHz ¹	Rohde & Schwarz	FSVR40	100909	9/18/2023	3 Years
Biconilog Antenna, 30 MHz - 2 GHz	Sunol Sciences	JB1	A050913	7/1/2023	2 Years
Loop Antenna 9 kHz - 30 MHz	EMCO	6512	9309-1139	4/14/2024	2 Years
Dbl Ridged Guide Antenna 1- 18 GHz	ETS-Lindgren	3117	00143292	5/11/2024	2 Years
Dbl Ridged Guide Antenna 1- 18 GHz	ETS-Lindgren	3117	00227631	4/21/2024	2 Years
Preamplifier, 1 GHz to 26.5 GHz	Hewlett Packard	8449B	3008A01323	11/30/2023	2 Years
Preamplifier, 1 GHz to 26.5 GHz	Hewlett Packard	8449B H02	3008A00329	1/20/2024	2 Years
LISN	EMCO	3825/2	9109-1860	1/4/2023	1 Year
Digital Barometer	Control Company	4195	ID236	1/27/2024	2 Years

¹ ESR7 Firmware revision: V3.48 SP3, Date installed: 09/30/2020

² FSW26 Firmware revision: V4.71 SP1, Date installed: 11/16/2020

³ FSV40 Firmware revision: V2.30 SP4, Date installed: 05/04/2016

⁴ FSVR40 Firmware revision: V2.23 SP1, Date installed: 08/19/2016

Previous V3.48 SP2, installed 07/23/2020.

Previous V4.61, installed 08/11/2020.

Previous V2.30 SP1, installed 10/22/2014.

Previous V2.23, installed 10/22/2014.

4. Measurements Parameters (continued)

4.2. Software Used to Perform Test

Manufacturer	Software Description	Title or Model #	Rev.	Report Sections
Compliance Worldwide	Test Report Generation Software	Test Report Generator	1.0	Used to process conducted emissions data

4.3 Measurement & Equipment Setup

Test Dates:	8/24/2022, 8/26/2022, 8/29/2022
Test Engineer:	Sean Defelice
Site Temperature (°C):	19.5
Relative Humidity (%RH):	32
Frequency Range:	30 kHz to 5 GHz
Measurement Distance:	3 Meters and 1 Meter
EMI Receiver IF Bandwidth:	200 Hz (30 kHz – 150 kHz) 9 kHz (150 kHz – 30 MHz) 120 kHz (30 MHz – 1 GHz) 1 MHz (>1 GHz)
EMI Receiver Avg Bandwidth:	≥ 3 * RBW or IF(BW)
Detector Functions:	Peak, Quasi-Peak and Average

4.4 Test Procedure

Test measurements were made in accordance FCC Part 15.231: Periodic operation within the bands 40.66 – 40.70 MHz and above 70 MHz, ISED RSS-210, Issue 10 Annex II and RSS-GEN, Issue 5.

The test methods used to generate the data in this test report are in accordance with ANSI C63.10: 2013, American National Standard for Methods for Unlicensed Wireless Devices.

5. Choice of Equipment for Test Suits

5.1. Choice of Model

This test report is based on the test samples supplied by the manufacturer and are reported by the manufacturer to be equivalent to the production units.

5.2. Presentation

The test sample was tested complete with all required ancillary equipment. Refer to Section 3 of this report for the product equipment configuration.

5.3. Choice of Operating Frequencies

The transmitter in the unit under test utilizes a single operating frequency at approximately 433.92 MHz

Test Mode Mode 1: Transmit mode
Description: Automatic FSK message every 2 seconds
Radio PA Setting: -5 dB
Data Rate: 4.8kbps
Frequency Deviation: 26 kHz
Modulation: 2FSK
Maximum Packet Length (ms): 65.7

Mode 2: Normal mode
Description: Representative of Production FW
Radio PA Setting: -5 dB
Data Rate: 4.8kbps
Frequency Deviation: 26 kHz
Modulation: 2FSK
Typical Packet Length (ms): 55

6. Measurement Summary

Test Requirement	FCC Requirement	ISED Requirement	Test Report Section	Result	Comment
Antenna Requirement	15.203	RSS-GEN 6.8	7.1	Compliant	The antenna is enclosed within the device under test.
Operational Requirements	15.231 (a)(1)	RSS-210 A1.1(a)	7.2.1	N/A	The EUT is not a manually operated transmitter
	15.231 (a)(2)	RSS-210 A1.1(b)	7.2.2	Compliant	
	15.231 (a)(3)	RSS-210 A1.1(c)	7.2.3	Compliant	
	15.231 (a)(4)	RSS-210 A1.1(d)	7.2.4	N/A	Not something that is measured.
	15.231 (a)(5)	N/A	7.2.5	N/A	Not something that is measured
Radiated Field Strength of Fundamental	15.231 (b)	RSS-210 A1.1.2 (a)	7.3	Compliant	
Radiated Field Strength of Harmonics	15.231 (b)(3)	RSS-210 A1.1.2 (b)	7.4	Compliant	
Spurious Radiated Emissions	15.231 (b)(3), 15.209	RSS-GEN 6.13.2	7.5	Compliant	
Emission Bandwidth (20 dB)	15.231 (c)	Not Required	7.6	Compliant	
Bandwidth of Momentary Signals (99% Emission BW)	Not Required	IC RSS-210 A1.3 RSS-GEN 6.7	7.7	Compliant	
Conducted Emissions	15.207	RSS-GEN 8.8	7.8	Compliant	
Determination of Average Factor (Duty Cycle)	15.35 (c)	RSS-GEN 8.2	7.9	N/A	For pulsed transmissions less than 100 mS, PRF <=20 Hz

7. Measurement Data

7.1. Antenna Requirement (Section 15.203 RSS-GEN 6.8)

Requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section.

Status: Compliant - The antenna utilized by the device under test is contained inside a sealed plastic enclosure.

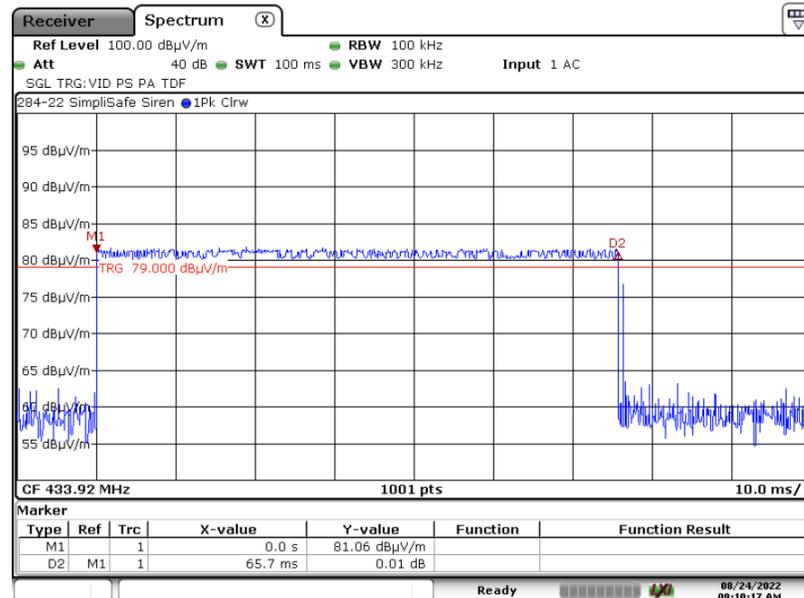
7.2. Operational Requirements (Section 15.231(a), RSS-210 A1.1(a))

7.2.1. Requirement: A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released (Section 15.231(a)(1)).

Status: The transmitter is activated automatically and transmits for 55 mS. Therefore this section does not apply. Refer to section 6.2.2.

7.2.2. Requirement: A transmitter activated automatically shall cease transmission within 5 seconds after activation (Section 15.231(a)(2), RSS-210 A1.1(b)).

Status: Compliant – The device’s longest transmission is for 65.7 mS.



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7.2. Operational Requirements (Section 15.231(a)) RSS-210 A1.1 (continued)

7.2.3. Requirement: Periodic transmissions at regular predetermined intervals are not permitted. However, polling or supervision transmissions, including data, to determine system integrity of transmitters used in security or safety applications are allowed if the total duration of transmissions does not exceed more than two seconds per hour for each transmitter. There is no limit on the number of individual transmissions, provided the total transmission time does not exceed two seconds per hour (Section 15.231(a)(3), RSS-210 A1.1(c)).

Status: Compliant, the device only sends a 55mS "heartbeat" message once every 7 hours.

7.2.4. Requirement: Intentional radiators which are employed for radio control purposes during emergencies involving fire, security, and safety of life, when activated to signal an alarm, may operate during the pendency of the alarm condition. (Section 15.231(a)(4), RSS-210 A1.1(d)).

Status: Noted.

7.2.5. Requirement: Transmission of set-up information for security systems may exceed the transmission duration limits in paragraphs (a)(1) and (a)(2) of this section, provided such transmissions are under the control of a professional installer and do not exceed ten seconds after a manually operated switch is released or a transmitter is activated automatically. Such set-up information may include data.

Status: Noted.

7. Measurement Data (continued)

7.3. Radiated Field Strength of Fundamental (15.231, Section (b), RSS-210 A1.1.2(a))

Requirement: The 3 meter field strength of the fundamental emissions from intentional radiators operating within the 260-470 MHz frequency bands shall comply with the limits specified in FCC Part 15.231, Section (b). The limit is based on a linear interpolation of the following field strength:

Fundamental Frequency (MHz)	Field Strength of Fundamental (µV/m)
260-470	3,750 to 12,500 µV/m

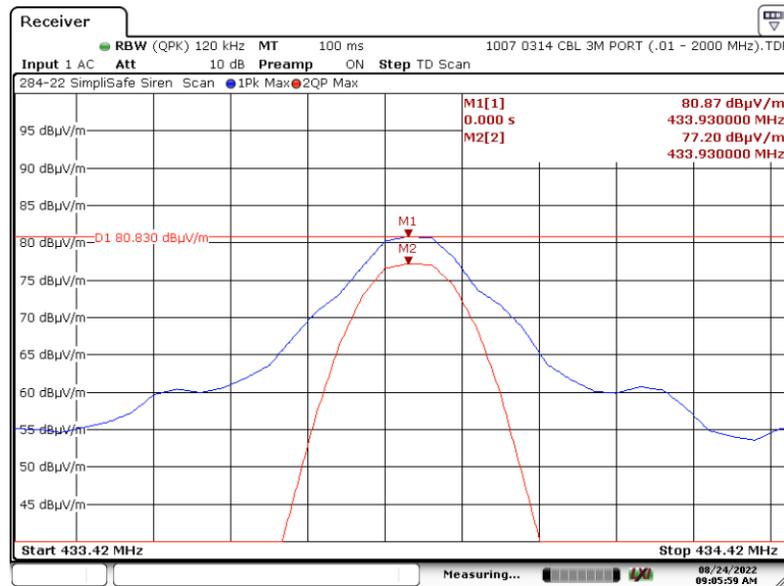
Fundamental Limit at 433.93 MHz = 10,997 µV/m = 80.83 dBµV/m

Test Note: A Quasi Peak Detector was used to compare against the average limits due to the longest duration of a digital transmission.

Conclusion: Compliant - The radiated field strength of the device under test complies with the requirements detailed in FCC Part 15.231, Section (b) and RSS-210 A1.1.2(a).

7.3.1. Worst Case Radiated Field Strength of Fundamental

Frequency (MHz)	Amplitude ¹ (dBµV/m)		Duty Cycle Correction (dB)	Amplitude (dBµV/m)	Limit (dBµV/m)		Margin (dB)		Ant Polarity	Ant Height (cm)	Turntable Azimuth (Deg)	Result
	Peak	QP			Average	Peak	Average	Peak				
433.93	80.87	77.20	-3.649	77.221	100.83	80.83	-19.96	-3.60	V	121	58	Compliant



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7. Measurement Data (continued)

7.4. Radiated Field Strength of Harmonics (15.231, Section (b), RSS-210 A.1.1.2(b))

Requirement: The 3 meter field strength of the harmonic emissions from intentional radiators operating within the 260-470 MHz frequency band shall comply with the limits specified in FCC Part 15.231, Section (b). The limit is based on a linear interpolation of the following field strength:

Fundamental Frequency (MHz)	Field Strength of Spurious Emissions (μV/m)
260–470	375 to 1250

Spurious Emissions Limit = 1,099.71 μV/m = 60.83 dBμV/m

Test Notes: For emissions falling within in the restricted bands of operation (reference FCC Part 15.205), the lower FCC Part 15.209 limits take precedence. The peak field strength may not be greater than 20 dB above the average limit.

Conclusion: Compliant - The device under test complies with the requirements detailed in FCC 15.231, Section B and RSS-210 A1.1.2(b).

7.4.1. Harmonics < 1 GHz

Freq. (MHz)	Measured Peak Field Strength (dBμV/m)		Duty Cycle CF (dB)	Average Field Strength (dBμV/m) ¹	Limit (dBμV/m)		Margin (dBμV/m)		Ant. Pol. (H/V)	Ant. Ht. (cm)	Table Position (Deg)	Result
	Peak	QP			Peak	Avg.	Peak	Avg.				
867.84	36.20	25.95	-3.649	32.55	80.83	60.83	-44.63	-28.28	H	148	350	Compliant
867.84	36.87	28.47	-3.649	33.22	80.83	60.83	-43.96	-27.61	V	112	244	Compliant

¹ Average Field Strength = Peak Field Strength – Duty Cycle Correction Factor

7.4.2. Harmonics > 1 GHz

Freq. (MHz)	Measured Peak Field Strength (dBμV/m)		Duty Cycle CF (dB)	Average Field Strength (dBμV/m) ¹	Limit (dBμV/m)		Margin (dBμV/m) ²		Ant. Pol. (H/V)	Ant. Ht. (cm)	Table Position (Deg)	Result
	Peak	Avg.			Peak	Avg.	Peak	Avg.				
1301.790	40.55		-3.649	36.90	74.00	54.00	-33.45	-17.10	V	150	0	Compliant
1735.720	42.67		-3.649	39.02	80.83	60.83	-38.16	-21.81	V	150	0	Compliant
2169.650	45.10		-3.649	41.45	80.83	60.83	-35.73	-19.38	V	150	0	Compliant
2603.580	52.28		-3.649	48.63	80.83	60.83	-28.55	-12.20	H	150	0	Compliant
3037.510	44.81		-3.649	41.16	80.83	60.83	-36.02	-19.67	V	150	0	Compliant
3471.440	48.11		-3.649	44.46	80.83	60.83	-32.72	-16.37	V	148	69	Compliant
3905.370	46.10		-3.649	42.45	74.00	54.00	-27.90	-11.55	V	150	0	Compliant
4339.300	46.30		-3.649	42.65	74.00	54.00	-27.70	-11.35	H	150	0	Compliant

¹ Average Field Strength = Peak Field Strength – Duty Cycle Correction Factor

7. Measurement Data (continued)

7.5. Spurious Radiated Emissions, 30 kHz to 5 GHz (15.231, Section (b), RSS-GEN 6.13.2)

Requirement: The spurious radiated emissions requirements for intentional radiators shall demonstrate compliance with the field strength limits detailed in Part 15.231, Section B, based on the average value of the measured emissions. As an alternative, compliance with the limits in the above table may be based on the use of measurement instrumentation with a CISPR quasi-peak detector.

Procedure: This test was performed in accordance with the information provided in 47CFR Part 15.231, Section (b).

Test measurements were made in accordance with ANSI C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices.

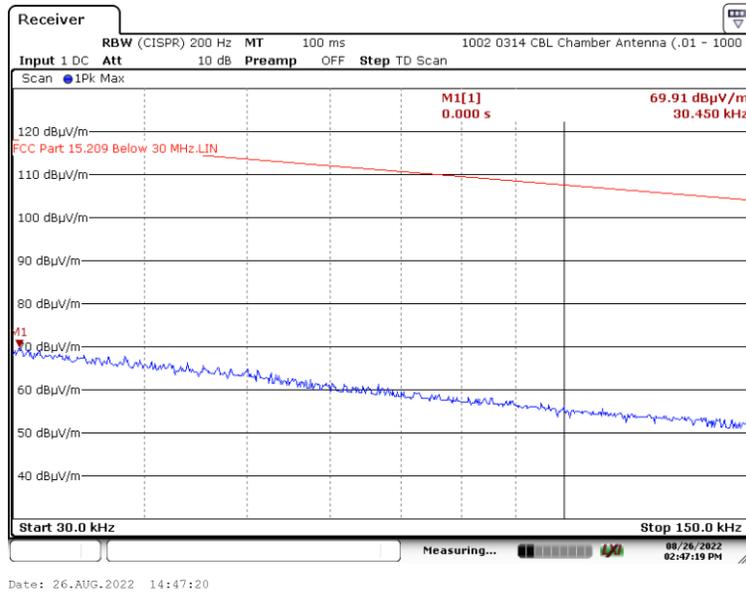
Conclusion: Compliant - The Emissions from the DUT did not exceed the field strength levels specified in Part 15.231, Section B and RSS-GEN 6.13.2.

7. Measurement Data (continued)

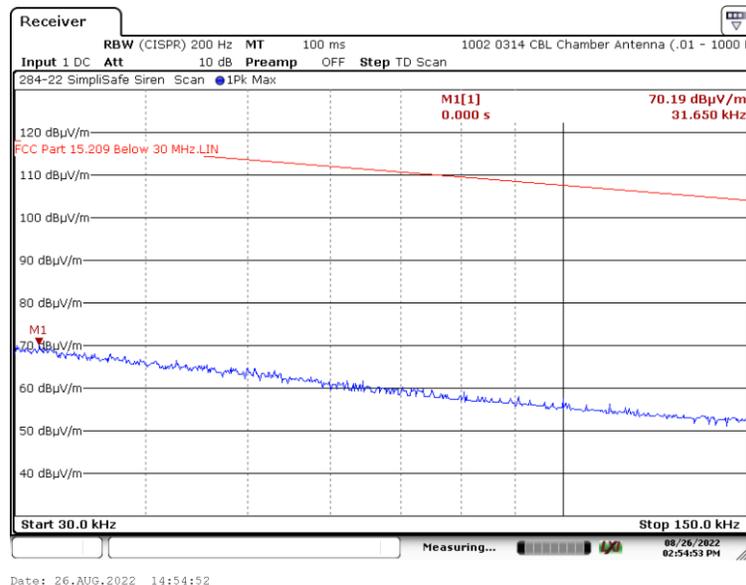
**7.5. Spurious Radiated Emissions, 30 kHz to 5 GHz (15.231(b), RSS-GEN 6.13.2)
(continued)**

7.5.1. Spurious Radiated Emissions, 30 kHz to 150 kHz Test Results

7.5.1.1. Parallel Antenna



7.5.1.2. Perpendicular Antenna

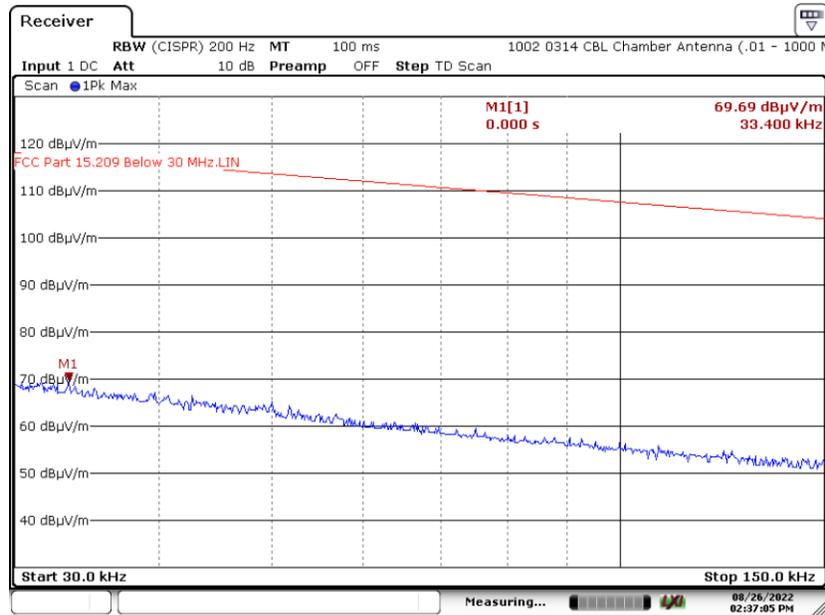


7. Measurement Data (continued)

7.5. Spurious Radiated Emissions, 30 kHz to 5 GHz (15.231(b), RSS-GEN 6.13.2) (continued)

7.5.1. Spurious Radiated Emissions, 30 kHz to 150 kHz Test Results

7.5.1.3. Ground Parallel Antenna



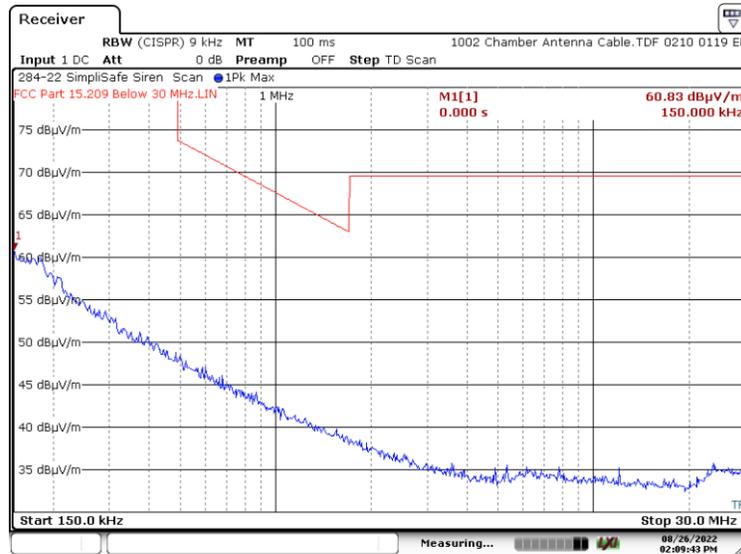
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7. Measurement Data (continued)

**7.5. Spurious Radiated Emissions, 30 kHz to 5 GHz (15.231(b), RSS-GEN 6.13.2)
(continued)**

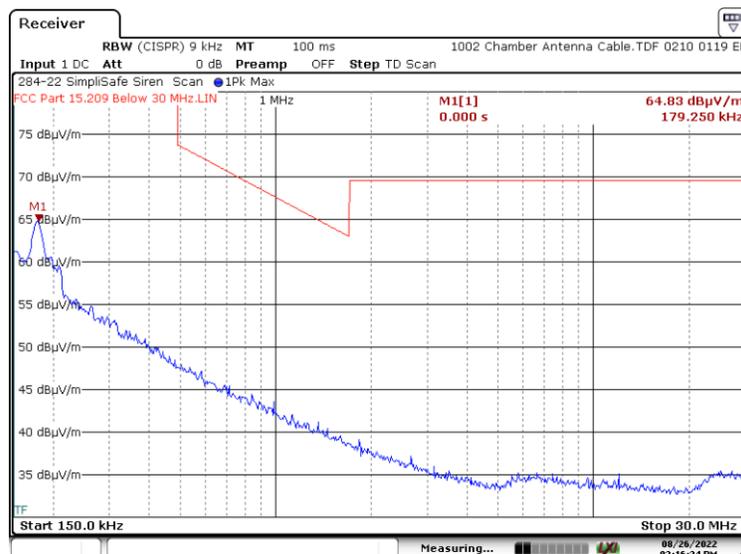
7.5.2. Spurious Radiated Emissions, 150 kHz to 30 MHz Test Results

7.5.2.1. Parallel Antenna



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7.5.2.2. Perpendicular Antenna



Date: 26.AUG.2022 14:16:34

7. Measurement Data (continued)

**7.5. Spurious Radiated Emissions, 30 kHz to 5 GHz (15.231(b), RSS-GEN 6.13.2)
(continued)**

7.5.2. Spurious Radiated Emissions, 150 kHz to 30 MHz Test Results

7.5.2.3. Ground Parallel Antenna



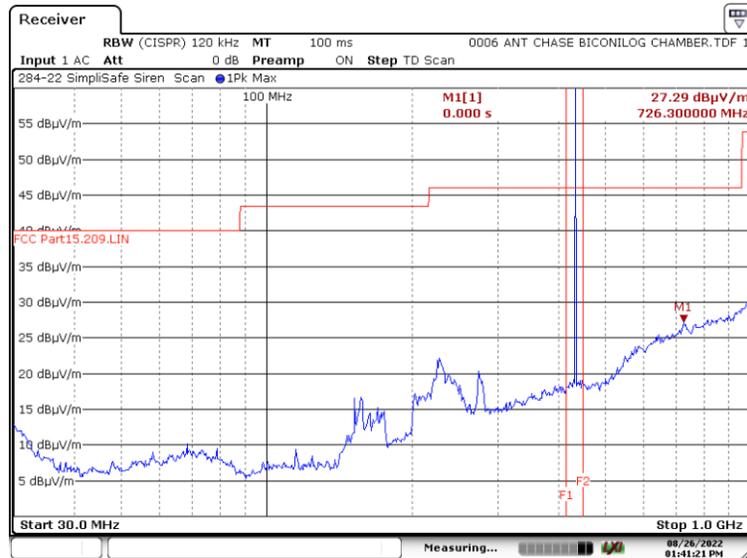
Date: 26.AUG.2022 14:21:16

7. Measurement Data (continued)

7.5. Spurious Radiated Emissions, 30 kHz to 5 GHz (15.231(b), RSS-GEN 6.13.2) (continued)

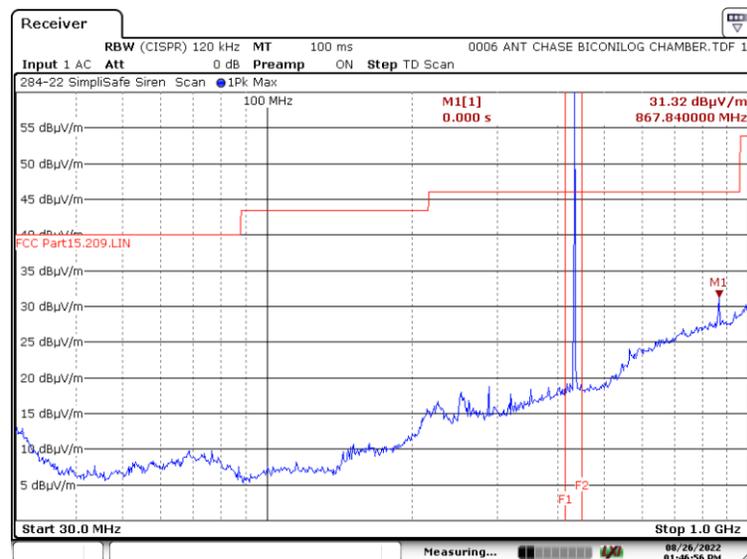
7.5.3. Spurious Radiated Emissions, 30 MHz to 1 GHz Test Results

7.5.3.1. Horizontal Polarity



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7.5.3.2. Vertical Polarity



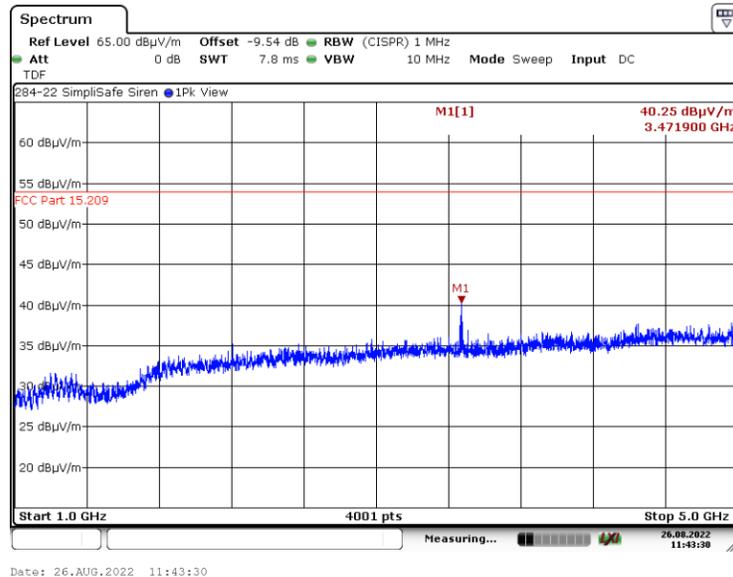
Date: 26.AUG.2022 13:46:56

7. Measurement Data (continued)

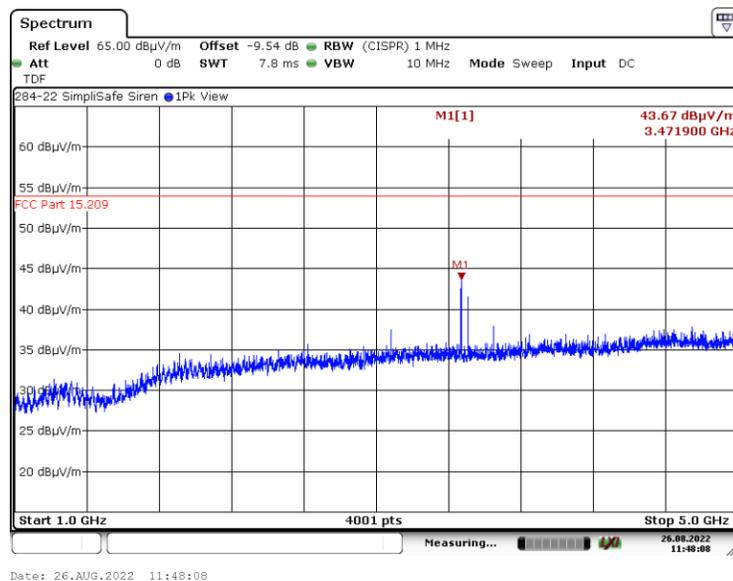
7.5. Spurious Radiated Emissions, 30 kHz to 5 GHz (15.231(b), RSS-GEN 6.13.2) (continued)

7.5.4. Spurious Radiated Emissions, 1 to 5 GHz Test Results

7.5.4.1. Horizontal Polarity



7.5.4.2. Vertical Polarity



7. Measurement Data (continued)

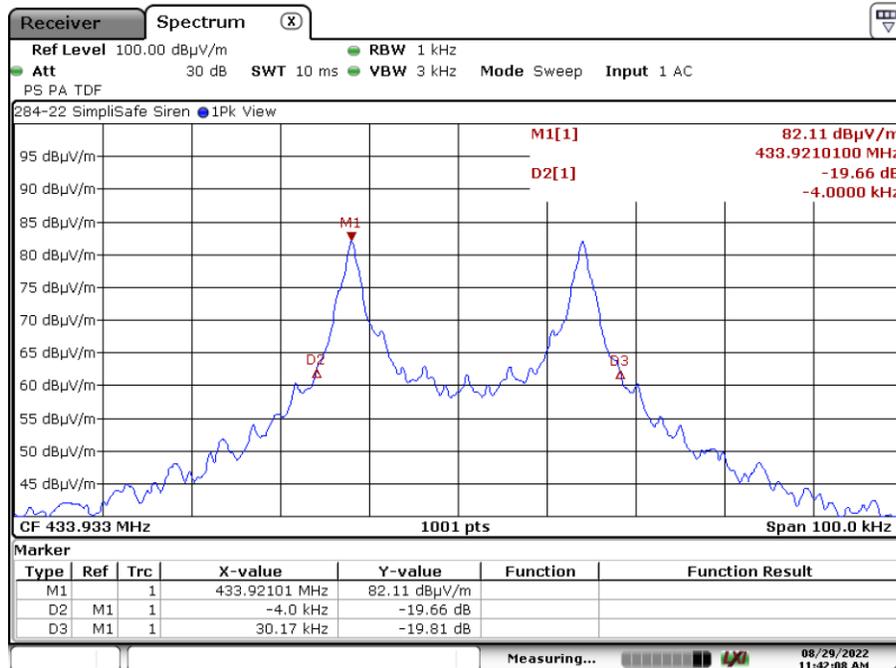
7.6. Emission Bandwidth (FCC P15.231 (c))

Requirement: The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. Bandwidth is determined at the points 20 dB down from the modulated carrier.

Test Note: Reference ANSI C63.10:2013, Section 6.9.2. The span range for the SA display shall be between two times and five times the OBW. The nominal IF filter bandwidth (3 dB RBW) should be approximately 1% to 5% of the OBW, unless otherwise specified, depending on the applicable requirement. The dynamic range of the SA at the selected RBW shall be more than 10 dB below the target “dB down” (attenuation) requirement.

Conclusion: Compliant - The DUT emission bandwidth meets the above requirement.

Fundamental Frequency (MHz)	-20 dB Bandwidth (MHz)	Limit (MHz)	Result
433.92	0.03417	1.0848	Compliant



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7. Measurement Data (continued)

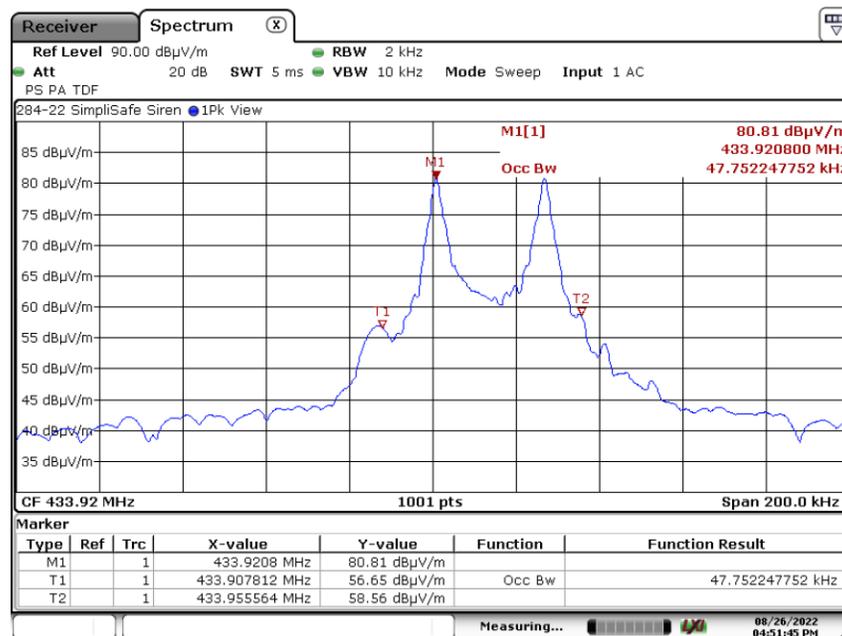
7.7. Bandwidth of Momentary Signals (IC RSS-210 A1.1.3)

Requirement: The 99% bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating between 70 MHz - 900 MHz.

Test Note: Reference RSS-Gen, Section 4.6.1. The transmitter shall be operated at its maximum carrier power measured under normal test conditions. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used given that a peak or peak hold may produce a wider bandwidth than actual.

Conclusion: Compliant - The DUT bandwidth meets the above requirement.

Fundamental Frequency	99% Bandwidth	Limit	Result
(MHz)	(MHz)	(MHz)	
433.92	0.04775	1.0848	Compliant



Date: 26.AUG.2022 16:51:46

7. Measurement Data (continued)

7.8. Conducted Emissions Test Setup

7.8.1. Regulatory Limit: FCC Part 15.207, RSS-GEN 8.8

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-Peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5.0	56	46
5.0 to 30.0	60	50

* Decreases with the logarithm of the frequency.

7.8.2. Measurement Equipment and Software Used to Perform Test

Device	Manufacturer	Model No.	Serial No.	Cal Due
LISN	EMCO	3825/2	9109-1860	1/4/2023
EMI Test Receiver	Rohde & Schwarz	ESR7	101156	10/16/2023
Manufacturer	Software Description		Title/Model #	Rev.
Compliance Worldwide	Test Report Generation Software		Test Report Generator	1.0

7.8.3. Measurement & Equipment Setup

Test Date:	N/A
Test Engineer:	N/A
Site Temperature (°C):	N/A
Relative Humidity (%RH):	N/A
Frequency Range:	0.15 MHz to 30 MHz
EMI Receiver IF Bandwidth:	9 kHz
EMI Receiver Avg Bandwidth:	$\geq 3 * \text{RBW or IF(BW)}$
Detector Functions:	Peak, Quasi-Peak. & Average
Measurement Uncertainty	$\pm 3.56 \text{ dB}$

7.8.4. Test Procedure

Test measurements were made in accordance with ANSI C63.4-2014, Standard Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronics Equipment in the Range of 9 kHz to 40 GHz.

Sample Calculation: Final Result = Measurement Value + LISN Factor + Cable Loss.

Note: All correction factors are loaded into the measurement instrument prior to testing to determine the final result.

7. Measurement Data (continued)

7.9. Duty Cycle Calculations (ANSI C63.10:2013, Section 7.5, RSS-GEN 8.2)

Requirement: When the average value of the pulsed emissions from a DUT must be determined, the average can be found by measuring the peak pulse amplitude and determining the duty cycle correction factor of the pulse modulation. The duty cycle correction factor δ may be expressed in dB as in the following equation:

$$\delta \text{ (dB)} = 20_{\log_{10}}(\delta)$$

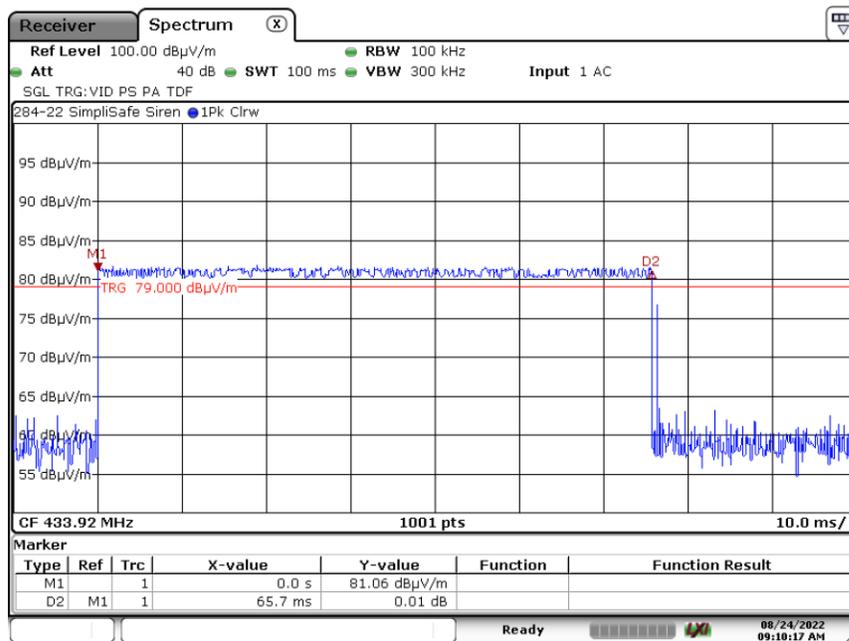
The longest transmitted frame is less than 100 mS, therefore a duty cycle correction factor is applied to the measured peak values.

Note: The DUT was operated at its maximum transmission rate under normal operations to produce the following duty cycle.

7.9.1. Duty Cycle for the Device as Tested

Time of One Full Cycle or 100 (mS)	Time On During One Full Cycle (mS)	Duty Cycle	Duty Cycle Correction Factor	Applied Duty Cycle Correction Factor (dB)
100.00	65.70	65.70%	-3.649	3.649

7.9.1a Duty Cycle Transmission Time (On Time)

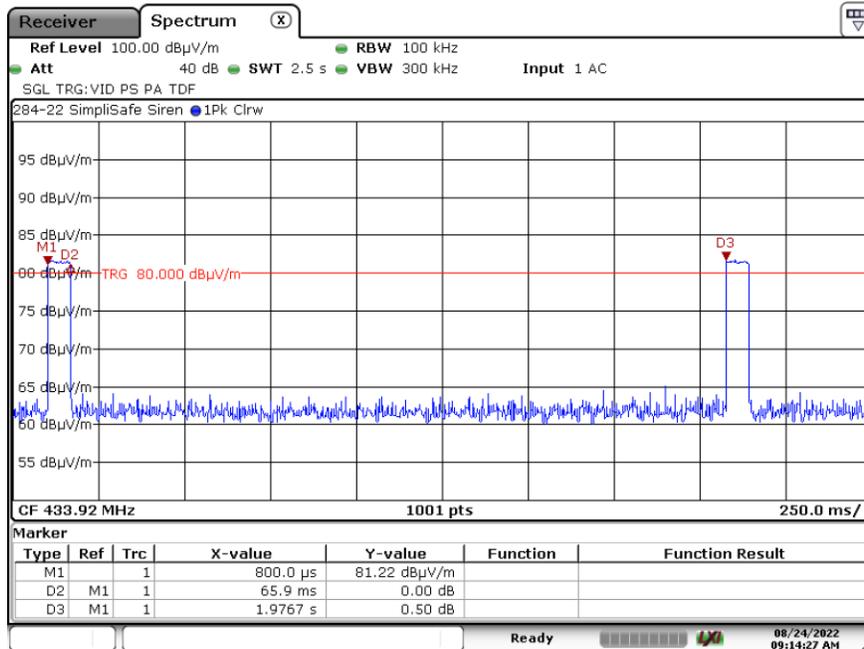


Date: 24.AUG.2022 09:10:17

7. Measurement Data (continued)

7.9. Duty Cycle Calculations (ANSI C63.10:2013, Section 7.5)

7.9.1d Repetition Time (On and Off Times)



Date: 24.AUG.2022 09:14:28

Note: This repetition time was chosen for measurement purposes.

8. Test Site Description

Compliance Worldwide is located at 357 Main Street in Sandown, New Hampshire. The test sites at Compliance Worldwide are used for conducted and radiated emissions testing in accordance with the Federal Communications Commission (FCC) and Innovation Science and Economic Development Canada (ISED) standards. Through our American Association for Laboratory Accreditation (A2LA) ISO Guide 17025 Accreditation our test sites are designated with the FCC (designation number **US1091**), Industry Canada (file number **IC 3023A-1**) and VCCI (Member number 3168) under registration number A-0274.

Compliance Worldwide is also designated as a Phase 1 CAB under APEC-MRA (US0132) for Australia/New Zealand AS/NZS CISPR 22, Chinese-Taipei (Taiwan) BSMI CNS 13438 and Korea (RRA) KN 11, KN 13, KN 14-1, KN 22, KN 32, KN 61000-6-3, KN 61000-6-4.

The radiated emissions test site is a 3 and 10 meter enclosed open area test site (OATS). Personnel, support equipment and test equipment are located in the basement beneath the OATS ground plane.

The conducted emissions site is part of a 16' x 20' x 12' ferrite tile chamber and uses one of the walls for the vertical ground plane required by EN 55022. A second conducted emissions site is also located in the basement of the OATS site with a 2.3 x 2.5 meter ground plane and a 2.4 x 2.4 meter vertical wall.

The radiated emissions test site for measurements above 1GHz is a 3 Meter open area test site (OATS) with a 3.6 by 3.6 meter anechoic absorber floor patch to achieve a quasi-free space measurement environment per ANSI C63.4/C63.10 and CISPR 16-1-4 standards.

The sites are designed to test products or systems 1.5 meters W x 1.5 meters L x 2.0 meters H, floor standing or table top.

9. Test Setup Photographs

9.1. Radiated Emissions Front View (Below 30 MHz)



9. Test Setup Photographs

9.2. Radiated Emissions Rear View < 30 MHz



9. Test Setup Photographs

9.3. Radiated Emissions Rear View 30 MHz – 1 GHz



9. Test Setup Photographs

9.4. Radiated Emissions Front View > 1 GHz



9. Test Setup Photographs

9.5. Radiated Emissions Front View > 1 GHz



9. Test Setup Photographs

9.6. Radiated Emissions Rear View > 1 GHz

