

#### FCC Part 15, Subpart C Test Report

On

13.56 MHz Patient Transmitter FCC ID: KNKID0002

**Customer Name:** Secure Care Products, LLC

**Customer P.O:** 70039823

Date of Report: April 26, 2022

Test Report No: R-6701H-2

Test Start Date: April 7, 2022

Test Finish Date: April 7, 2022

**Test Technician:** M. Seamans

**Approved By:** T. Hannemann

Report Prepared By: P. Harris





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#### 40 YEARS OF TESTING EXCELLENCE

#### **Certification and Signatures**

We certify that this report is a true representation of the results obtained from the tests of the equipment stated. We further certify that the measurements shown in this report were made in accordance with the procedures indicated and vouch for the qualifications of all Retlif Testing Laboratories personnel taking them.

Scott Wentworth Branch Manager

Todd Hannemann EMC Test Engineer iNARTE Certified Technician ATL-0255-T

#### **Non-Warranty Provision**

The testing services have been performed, findings obtained and reports prepared in accordance with generally accepted laboratory principles and practices. This warranty is in lieu of all others, either expressed or implied.

#### Non-Endorsement

This test report contains only findings and results arrived at after employing the specific test procedures and standards listed herein. It is not intended to constitute a recommendation, endorsement or certification of the product or material tested. This test report may not be used by the client to claim product endorsement by ANSI National Accreditation Board (ANAB).



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#### **Technical Information**

**Report Number:** R-6701H-2

**Applicant:** Secure Care Products, LLC

39 Chenell Drive

Concord, NH 03301

Manufacturer: Secure Care Products, LLC

Manufacturer Address: 39 Chenell Drive

Concord, NH 03301

**Test Sample:** 13.56 MHz Patient Transmitter

Model Number: A20280921

Brand Name: Secure Care Products, LLC

**Power Requirements:** 3 VDC

Frequency of Operation: 13.56 MHz

Antenna Type: Ferrite Loop 13.56 MHz Tuned Tank Antenna

**Equipment Use:** Portable transmitter

#### **Test Specification:**

FCC Rules and Regulations Part 15, Subpart C, Section 15.209

#### **Test Procedure:**

ANSI C63.10-2013

#### **Test Facility:**

Retlif Testing Laboratories 101 New Boston Road Goffstown, NH 03045

FCC Designation Number: US5327



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#### **EUT Description:**

The EUT provides awareness of personal security systems.

#### **Tests Performed**

The test methods performed on the EUT are shown below:

FCC Part 15, Subpart C	Test Method
15.209(a)	Field Strength of Fundamental
15.209 (a)	Field Strength of Spurious

#### **General Test Requirements**

- 1. The measurement procedures of ANSI C63.10-2013 were utilized as specified in FCC Part 15, Subpart C, Section 15.31(a)(3).
- 2. All measurements were performed at a 3 meter test distance.
- 3. The EUT was rotated throughout 360 degrees for all radiated emissions measurements as specified in FCC Section 15.31(f)(5).
- 4. All readily accessible EUT controls were adjusted in such a manner as to maximize the level of emissions in accordance with FCC Section 15.31(g).
- 5. Appropriate accessories were attached to all EUT ports during the performance of radiated emissions measurements as required by FCC Section 15.31(i).



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#### **Requirements and Test Results**

Requirement:

**FCC Section 15.209 (a)** 

#### Field Strength of Fundamental

FCC Section 15.209(a) – The field strength of any emission within the band 1.705 MHz – 30 MHz shall not exceed 30 uV/M at 30 meters.

Field Strength Measurement & Calculation:

The following spectrum analyzer settings were used:

RBW = 1 MHz for  $f \ge 1$  GHz, 100 kHz for  $f \le 1$  GHz

VBW ≥ RBW

Detector Function = Peak or Average as applicable

Trace = Max Hold

Sweep = Auto

The maximized field strength of the emission was calculated as follows:

 $F_C = M_R + C_F$ 

Where:

Fc = Corrected Field Strength Reading in dBuV/m

 $M_R$  = Uncorrected Meter Reading in  $dB\mu V$ 

 $C_F$  = Correction Factor in dB (Pre-Amp + Antenna Factor + Cable Loss + Distance Factor)

For frequencies below 30 MHz a distance factor of -40dB/decade was utilized



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#### Requirements and Test Results (con't)

#### 15.209 (a) Field Strength of Fundamental

#### Radiated Emissions Measurement Procedure:

The field strength of the fundamental emission was measured with a spectrum analyzer or EMI Receiver. The EUT was placed on an 80cm high wooden test stand located 3 meters from the test antenna on a FCC listed open area test site. Emissions from the EUT were maximized by re-orientating the test sample, rotating the test sample 360 degrees, changing the orientation of the receive antenna and raising and lowering the test antenna from 1-4 meters. The maximized field strength of each observed emission was measured, recorded and compared to the specified limits of 15.209(a) as appropriate.

• **Results**: The maximized measured field strength of the fundamental emission was below the specified test limit of 15.209(a). See test data.

#### Requirement:

15.209 Radiated Emission Limits; General Requirements

Fundamental Frequency (MHz)	Field Strength of Fundamental microvolts/meter	Measurement Distance
0.009 to 0.490	2400/F(kHz)	300
0.490 to 1.705	24000/F(kHz)	30
1.705 to 30.0	30	30
30.0 to 88.0	100	3
88.0 to 216.0	150	3
216.0 to 960.0	200	3
Above 960.0	500	3



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### **Equipment Lists**

### FCC Section 15.209(a) – Field Strength of Fundamental

EN	Manufacturer	Model No.	Description	Serial No.	Due Date
012	ETS / EMCO	6502	ANTENNA, ACTIVE LOOP, 10 kHz - 30 MHz	8811-2255	10/31/2022
4029B	RETLIF	RNH	OPEN AREA TEST SITE, ATTENUATION, 3 / 10 Meters	001	9/30/2023
5188	Cybertron	TSVQJA2221	COMPUTER, CONTROL, N/A	NSN	No Calibration Required
5242	TELEDYNE MICROWAVE	PR90-195-1275, 106'	CABLE, COAXIAL, 10 kHz - 6 GHz	N/A	9/30/2022
712	ROHDE & SCHWARZ	ESIB26	RECEIVER, EMI, 20 Hz - 26.5 GHz	834000/006	2/28/2023

### FCC Section 15.209(a) – Field Strength of Spurious

EN	Manufacturer	Model No.	Description	Serial No.	Due Date
012	ETS / EMCO	6502	ANTENNA, ACTIVE LOOP, 10 kHz - 30 MHz	8811-2255	10/31/2022
3427B	ETS / EMCO	3104	ANTENNA, BICONICAL, 20 - 200 MHz	2315	4/30/2022
4029B	RETLIF	RNH	OPEN AREA TEST SITE, ATTENUATION, 3 / 10 Meters	001	9/30/2023
443	<b>ELECTRO-METRICS</b>	LPA-25	ANTENNA, LOG PERIODIC, 200 MHz - 1000 MHz	1014	1/31/2023
5188	Cybertron	TSVQJA2221	COMPUTER, CONTROL, N/A	NSN	No Calibration Required
5211	COM-POWER	CGO-501	GENERATOR, COMB, 1 MHz - 1 GHz	271123	5/31/2022
5242	TELEDYNE MICROWAVE	PR90-195-1275, 106'	CABLE, COAXIAL, 10 kHz - 6 GHz	N/A	9/30/2022
712	ROHDE & SCHWARZ	ESIB26	RECEIVER, EMI, 20 Hz - 26.5 GHz	834000/006	2/28/2023



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Test Photograph Field Strength of Fund FCC Part 15, Subpart C, Sec	lamental
FCC Part 15, Subpart C, Sec	ction 15.209(a)
	Retlif Testing Laboratories
■ ■	Report No. R-6701H-2

# Test Photographs Field Strength of Fundamental



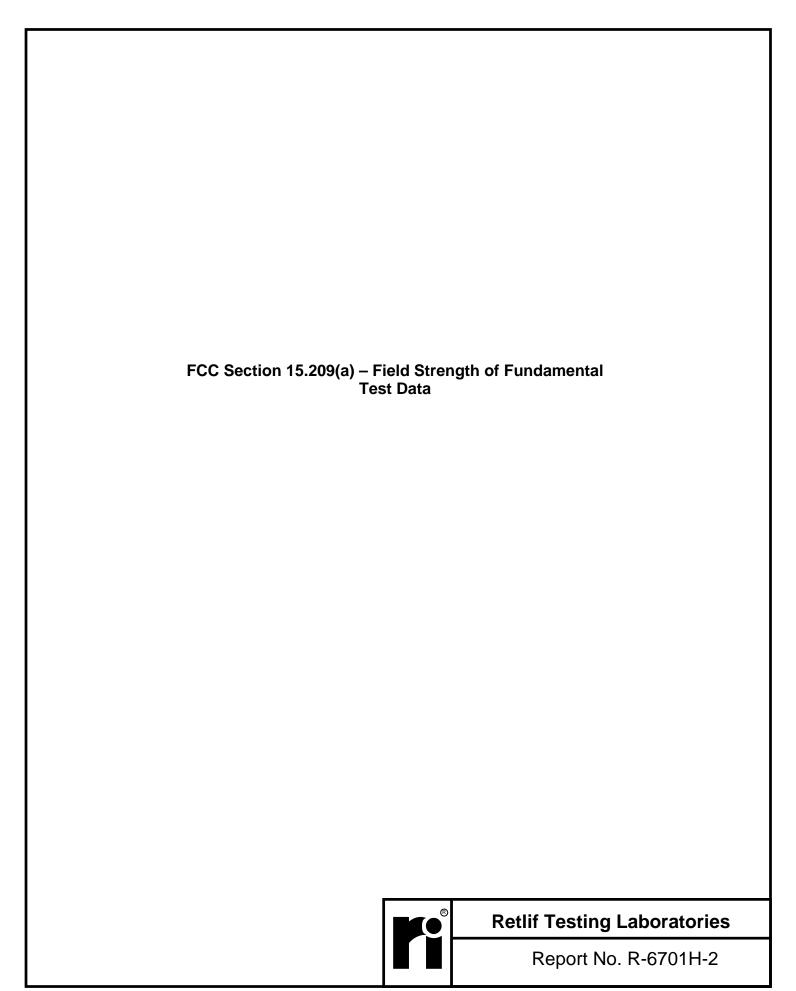
Test Configuration



Test Setup



## **Retlif Testing Laboratories**

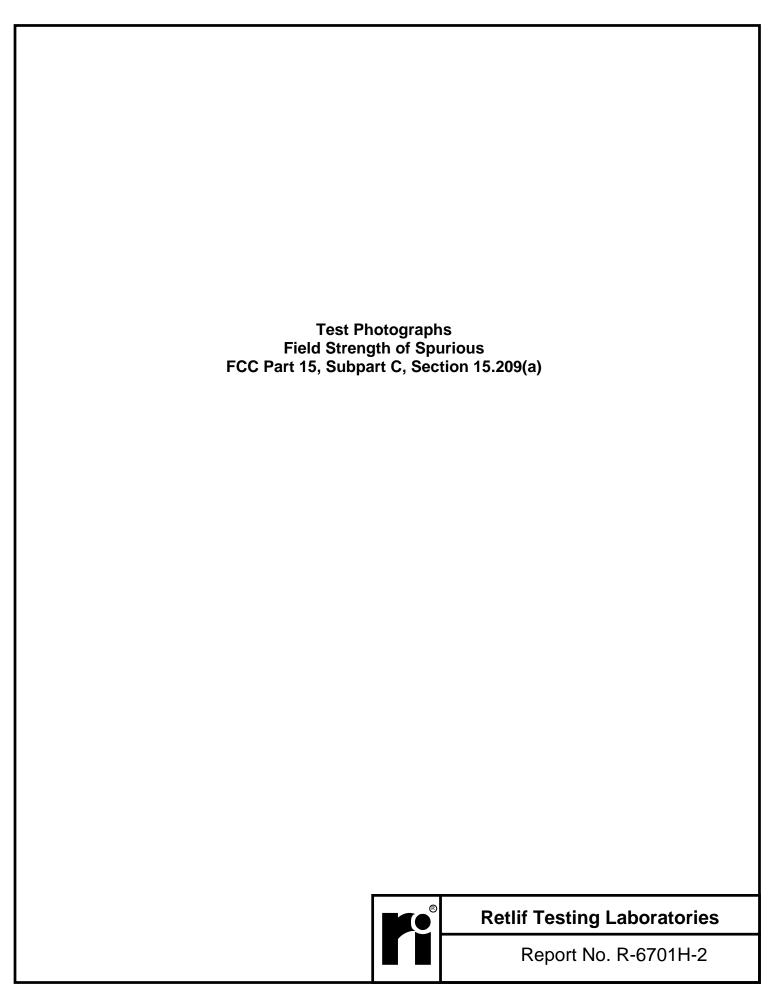


	EMISSIONS TEST DATA SHEET					
Method:	Field Strength of Emissions - Fundamental Field Strength					
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.209(a)					
Job Number:	R-6701H-2					
Customer:	Customer: Secure Care Products, LLC					
Test Sample:	13.56 MHz Patient Transmitter					
Model Number:	A20280921					
Serial Number: N/A						
Operating Mode: Transmitting modulated signal at 13.56 MHz, ID.						
Technician:	Technician: M. Seamans					
Date(s):	April 7 <sup>th</sup> , 2022					
Notes:	Test Distance: 3 meters Detector: Peak Resolution BW: 10 kHz					

Frequency Peak Level Correction Factor Peak Reading Peak Reading Peak Reading MHz dBuV dB dBuV/m dBuV/m dBuV/m uV/m uV		TEST PARAMETERS									
	Frequency		Peak		Peak			Peak	Quasi- Peak Limit at 3m		
12.56 46.09 11.47 57.55 57.55 754.22 200	MHz		dBuV	dB	dBuV/m		dBuV/m	uV/m	uV/m		
15.30 40.08 11.47 37.33 37.33 734.22 300	13.56		46.08	11.47	57.55		57.55	754.22	3000.00		



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# Test Photographs Field Strength of Spurious



EUT Configuration



Test Setup, 9 kHz to 30 MHz



## **Retlif Testing Laboratories**

# Test Photographs Field Strength of Spurious



Test Setup, 30 MHz to 200 MHz, Horizontal Antenna Polarization



Test Setup, 30 MHz to 200 MHz, Vertical Antenna Polarization



## **Retlif Testing Laboratories**

# Test Photographs Field Strength of Spurious



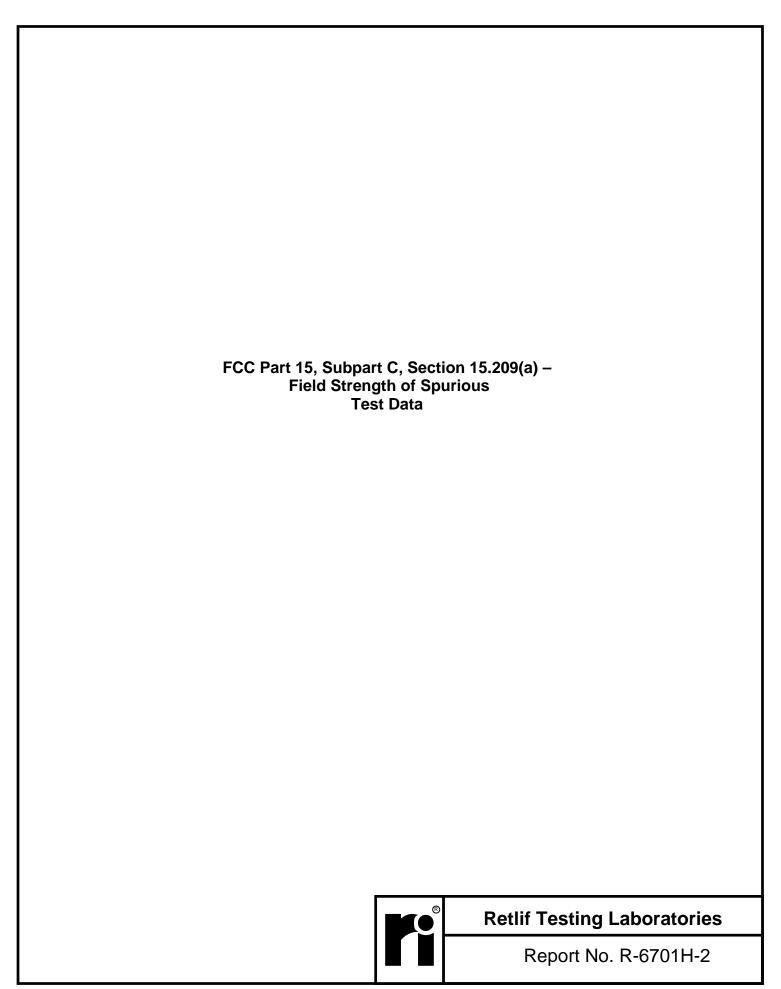
Test Setup, 200 MHz to 1 GHz, Horizontal Antenna Polarization



Test Setup, 200 MHz to 1 GHz, Vertical Antenna Polarization



## **Retlif Testing Laboratories**



	EMISSIONS TEST DATA SHEET				
Method:	Field Strength of Spurious Emissions				
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.209(a)				
Job Number:	R-6701H-2				
Customer:	Customer: Secure Care Products, LLC				
Test Sample:	Test Sample: 13.56 MHz Patient Transmitter				
Model Number:	A20280921				
Serial Number: N/A					
<b>Operating Mode:</b> Transmitting modulated signal at 13.56 MHz, ID.					
Technician: M. Seamans					
<b>Date(s):</b> April 7 <sup>th</sup> , 2022					
Notes:	Test Distance: 3 meters Detector: Peak Limits: Quasi-Peak (Average for the frequency bands 9-90kHz and 110-490kHz)				

			TEST PARAMETERS							
Test Frequency	Antenna Position		Peak Reading	Correction Factor	Corrected Reading		Converted Peak Reading	Limit at 3M		
MHz	(H/V)		dBuV	dB	dBuV/m		uV/m	uV/m		
0.009	-	-	-	-	-	-	-	1769.912		
	-	-	-	-	-	-	-			
0.480*	-	-	40.54	11.66	52.20	-	407.38			
	-	-	-	-	-	-	-			
0.490	-	-	-	-	-	-	-	1769.912		
0.490	-	-	-	-	-	-	-	176.991		
	-	-	-	-	-	-	-			
1.300*	-	-	24.40	11.70	36.10	-	63.83			
	-	-	-	-	-	-	-			
1.705	-	-	-	-	-	-	-	176.991		
1.705	-	-	-	-	-	-	-	3000.000		
	-	-	-	-	-	-	-			
1.720*	-	-	20.19	11.71	31.90	-	39.36			
2.150*	-	-	26.47	11.73	38.20	-	81.28			
5.000*	-	-	9.12	11.78	20.90	-	11.09			
15.000*	-	-	15.76	11.44	27.20	-	22.91			
1	-	-	-	-	-	-	-			
1	-	-	-	-	-	-	-			
30.000	-	-	-	-	-	-	-	3000.00		

No EUT emissions were observed throughout the given frequency spectrum. \* This emission is not from the EUT. It is a measurement of minimum measurement system sensitivity (Noise Floor).



## **Retlif Testing Laboratories**

	EMISSIONS TEST DATA SHEET				
Method:	Field Strength of Spurious Emissions				
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.209(a)				
Job Number:	R-6701H-2				
Customer: Secure Care Products, LLC					
Test Sample:	Test Sample: 13.56 MHz Patient Transmitter				
Model Number:	A20280921				
Serial Number: N/A					
Operating Mode: Transmitting modulated signal at 13.56 MHz, ID.					
Technician: M. Seamans					
<b>Date(s):</b> April 7 <sup>th</sup> , 2022					
Notes:	Test Distance: 3 meters Detector: Peak Limits: Quasi-Peak (Average for the frequency bands 9-90kHz and 110-490kHz)				

TEST PARAMETERS								
Test Frequency	Antenna Position		Peak Reading	Correction Factor	Corrected Reading		Converted Peak Reading	Limit at 3M
MHz	(H/V)		dBuV	dB	dBuV/m		uV/m	uV/m
30.00	-	-	-	-	-	-	-	100.00
	-	-	-	-	-	-	-	
88.00	-	-	-	-	ı	ı	-	100.00
88.00	-	-	-	-	ı	ı	-	150.00
	-	-	-	-	-	-	-	
216.00	-	-	-	-	-	-	-	150.00
216.00	-	-	-	-	-	-	-	200.00
	-	-	-	-	ı	ı	-	
960.00	-	-	-	-	-	-	-	200.00
960.00	-	-	-	-	-	-	-	500.00
	-	-	-	-	-	-	-	
1000.00	-	-	-	-	-	-	-	500.00

No EUT emissions were observed throughout the given frequency spectrum.



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