

RETLIF TESTING LABORATORIES
TEST REPORT R-4381N
January 21, 2005

FCC COMPLIANCE TEST REPORT
ON

Secure Care Products, Inc.
13.56MHz Escort Pendant Transmitter
Part #: A27010900
FCC ID: KNKEP0001

Customer Name: Secure Care Products, Inc.

Customer P.O.: 714541

Test Report Number: R-4381N

Test Report Date: January 21, 2005

Test Technician: Tim Firkowski

Supervisor: Scott Wentworth

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APPLICANT Secure Care Products, Inc. 39 Chenell Drive Concord, NH 03301	MANUFACTURER SAME
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TEST SPECIFICATION: FCC Rules and Regulations Part 15, Subpart C, Para. 15.209

TEST PROCEDURE: ANSI C63.4:2003

TEST SAMPLE DESCRIPTION

BRANDNAME: Escort

Part #: A27010900

TYPE: 13.56MHz Transmitter

POWER REQUIREMENTS: 3VDC

FREQUENCY OF OPERATION: 13.56MHz

FCC ID: KNKEP0001

The EUT is a 13.56MHz battery powered transmitter used with Secure Care Systems to allow nurses to escort a resident through a protected door without having to enter a code into the exit panel.

TESTS PERFORMED

15.209/15.205 Fundamental & Spurious Emissions

ANTENNA DESCRIPTION

The EUT has an integral antenna with no external antenna/antenna ports.

TEST SAMPLE / TEST RESULTS SUMMARY

15.205 RESTRICTED BANDS OF OPERATION

The fundamental emission from the EUT does not fall into a restricted band.

15.209 RADIATED EMISSIONS

Fundamental Frequency

13.56MHz

Unwanted Spurious/Harmonics

9kHz - 1000MHz

Field Strength Limits:

Fundamental Frequency: 13.56MHz

The maximum permitted fundamental field strength at 30 meters is $30\mu\text{V}/\text{M} = 29.5\text{dBuV}$:

Unwanted emissions must not exceed the limits specified in 15.209 and cannot exceed the level of the fundamental emission.

RADIATED EMISSIONS TEST RESULTS

The maximized peak field strength at 13.56MHz was below the limit specified in 15.209. The test sample was tested in 3 orientations (X, Y & Z). The worst case fundamental emission at 13.56MHz was found to occur in the X axis. Test data is included for this worst case operating condition. All unwanted emissions were below the specified limits and in no case exceeded the level of the fundamental.

MEASUREMENT PROCEDURES

15.209 Field Strength of Fundamental, Harmonic/Spurious Emissions

The field strength of the fundamental & harmonic/spurious emissions were measured. The EUT and support equipment were placed on a 80cm high wooden test stand which was located 3 meters from the test antenna on an FCC listed open area test site. Emissions from the EUT were maximized by rotating the test sample and adjusting the test sample orientation and antenna polarization. The maximized field strength of each observed emission was measured, recorded and compared to the specified limits of 15.209.

RETLIF TESTING LABORATORIES

TABULAR DATA SHEET

Test Method:	Field Strength of Fundamental		
Customer:	Secure Care Products, Inc.		Job No: R-4381N
	Test Sample: 13.56 MHz Escort Pendant Transmitter		
Part No:	A27010900	Serial No:	n/a
Test Specification:	FCC Part 15, Subpart C		Paragraph: 15.209
	Operating Mode: Continuously Transmitting		
Technician:	T. Firkowski	Date:	1/5/2005
Notes:	Detector Function: Peak @ 3m		

Transmit Frequency	Test Frequency	Antenna/EUT Position	Uncorrected Reading	Correction Factor	Corrected Reading	Converted to 30m		Converted Reading	Limit at 30 Meters
MHz	MHz	Polarization/ Axis	dBuV	dB	dBuV/m	dBuV/m		uV/m	uV/m
13.56	13.560	V/X	43.48	9.00	52.48	12.48		4.21	30.00

RETLIF TESTING LABORATORIES

TABULAR DATA SHEET

Test Method:	Spurious & Harmonic Emissions 9kHz to 30MHz		
Customer:	Secure Care Products, Inc.	Job No:	R-4381N
Test Sample:	13.56 MHz Escort Pendant Transmitter		
Part No:	A27010900	Serial No:	n/a
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.209		
Operating Mode:	Continuously Transmitting		
Technician:	T. Firkowski	Date:	1/5/2005
Notes:	Detector Function: Peak @ 3m		

Transmit Frequency	Frequency Range	Antenna/EUT Position	Meter Reading	Correction Factor	Corrected Reading	Converted to 300m	Converted Reading	Limit at 300 Meters
MHz	MHz	Polarization/Axis	dBuV	dB	dBuV/m	dBuV/m	uV/m	uV/m
13.56	0.009	-	-	-	-	-	-	2400/F(kHz)
		-	-	-	-	-	-	
13.56	0.490	-	-	-	-	-	-	2400/F(kHz)
Transmit Frequency	Test Frequency	Antenna/EUT Position	Meter Reading	Correction Factor	Corrected Reading	Converted to 30m	Converted Reading	Limit at 30 Meters
MHz	MHz	Polarization/Axis	dBuV	dB	dBuV/m	dBuV/m	uV/m	uV/m
13.56	0.490	-	-	-	-	-	-	24000/F(kHz)
		-	-	-	-	-	-	
	1.705	-	-	-	-	-	-	24000/F(kHz)
	1.705	-	-	-	-	-	-	30.00
		-	-	-	-	-	-	
		-	-	-	-	-	-	
		-	-	-	-	-	-	
13.56	30.000	-	-	-	-	-	-	30.00

No EUT Spurious Emissions were observed in the 9kHz to 30MHz frequency range.

RETLIF TESTING LABORATORIES

TABULAR DATA SHEET

Test Method:	Spurious & Harmonic Emissions 30MHz to 1 GHz		
Customer:	Secure Care Products, Inc.	Job No.:	R-4381N
Test Sample:	13.56 MHz Escort Pendant Transmitter		
Part No.:	A27010900	Serial No.:	n/a
Test Specification:	FCC Part 15, Subpart C Paragraph: 15.209		
Operating Mode:	Continuously Transmitting		
Technician:	T. Firkowski	Date:	1/5/2005
Notes:	Detector Function: Peak @ 3m		

Transmit Frequency	Test Frequency	Antenna/EUT Position	Meter Reading	Correction Factor	Corrected Reading				Converted Reading	Limit at 3 Meters
MHz	MHz	Polarization/ Axis	dBuV	dB	dBuV/m				uV/m	uV/m
13.56	30.0	-	-	-	-				-	100.00
		-	-	-	-				-	
	54.24	V/X	22.67	-8.11	14.56				5.35	
	67.80	V/X	19.83	-7.14	12.69				4.31	
	81.36	V/X	21.36	-7.95	13.41				4.68	
		-	-	-	-				-	
	88.0	-	-	-	-				-	100.00
	88.0	-	-	-	-				-	150.00
		-	-	-	-				-	
	108.48	V/Z	28.90	-8.96	19.94				9.93	
	122.04	V/Z	29.30	-8.06	21.24				11.53	
		-	-	-	-				-	
	216.0	-	-	-	-				-	150.00
	216.0	-	-	-	-				-	200.00
		-	-	-	-				-	
	960.0	-	-	-	-				-	200.00
	960.0	-	-	-	-				-	500.00
		-	-	-	-				-	
13.56	1000.0	-	-	-	-				-	500.00

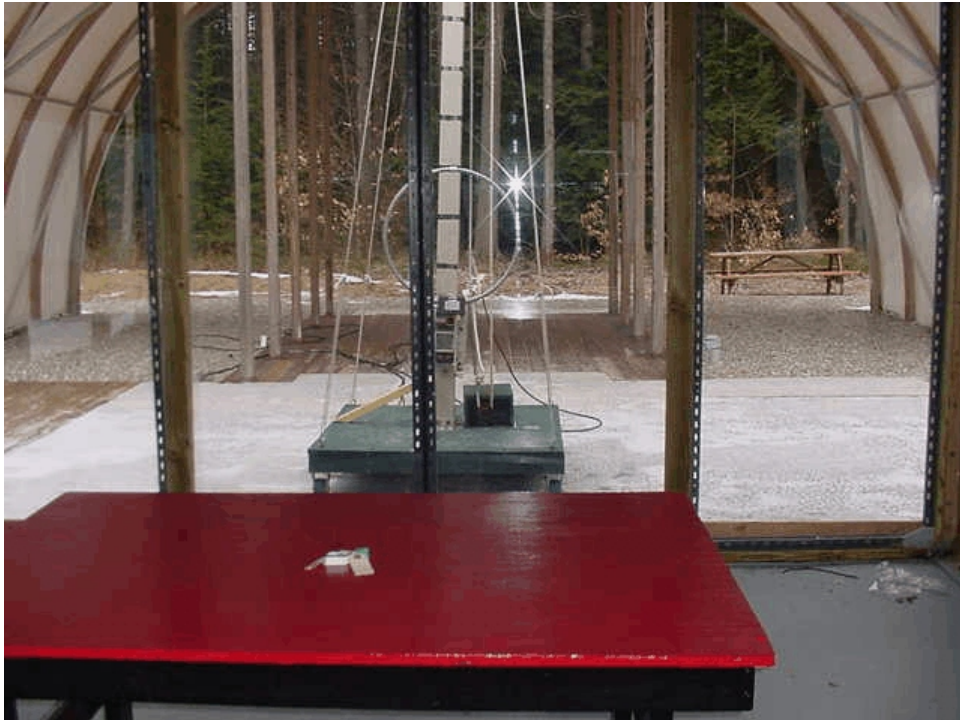
EUT Emissions observed throughout the given frequency spectrum were recorded & evaluated.

TEST EQUIPMENT LIST

FUNDAMENTAL & SPURIOUS EMISSIONS

EN	Type	Manufacturer	Description	Model No.	Cal Date	Due
3207	Loop Antenna, Active	EMCO	10 KHz - 30 MHz	6502	6/1/2004	6/1/2005
4029B	Test Site Attenuation	Retlif	3 / 10 Meters	RNH	12/3/2004	12/3/2005
4202	Biconilog	EMCO	26 MHz - 2 GHz	3142	12/13/2004	12/13/2005
4895	Spectrum Analyzer	Hewlett Packard	9kHz - 22GHz	8593EM	4/22/2004	4/22/2005

RADIATED EMISSIONS TEST SETUP PHOTOGRAPH
9kHz to 30MHz



RADIATED EMISSIONS TEST SETUP PHOTOGRAPH
30MHz to 1GHz

