1250 Peterson Dr., Wheeling, IL 60090

Company: CompX Timberline
Model Tested: TP-100 and RL-100
Report Number: 15797

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:	StealthLock
FCC ID:	VCRTP-100
Kind of Equipment:	Wireless lock
Frequency Range:	315 MHz
Test Configuration:	Receiver is mounted inside the cabinet to be locked, transmitter is mounted outside. (Tested at 3 Vdc)
Model Number(s):	TP-100
Model(s) Tested:	TP-100
Serial Number(s):	TP-100 - 000001
Date of Tests:	December 11 & 14, 2009
Test Conducted For:	CompX Timberline 715 Center Street Grayslake, Illinois 60030

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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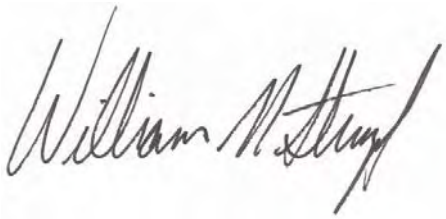
SIGNATURE PAGE

Report By:

Arnom C. Rowe
Test Engineer
EMC-001375-NE

Reviewed By:



William Stumpf
OATS Manager

Approved By:

Brian Mattson
General Manager

1250 Peterson Dr., Wheeling, IL 60090

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United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

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 January 2009).

2009-10-01 through 2010-09-30
Effective dates

For the National Institute of Standards and Technology

NVLAP-01C (REV. 2009-01-28)

1250 Peterson Dr., Wheeling, IL 60090

1.0 SUMMARY OF TEST REPORT

It was found that the StealthLock, Model Number(s) TP-100 **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 StealthLock 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 December 11 & 14, 2009, a series of radio frequency interference measurements was performed on StealthLock, Model Number(s) TP-100, Serial Number: TP-100 - 000001. 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
FCC Registration Number: 334127

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.

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 CompX Timberline StealthLock is a keyless, invisible lock for use with all wood furniture and cabinet applications. Using radio frequency technology the StealthLock allows use of a single transmitter pad to operate multiple receiver latches and has an operational range of 15 feet. This allows the case to be designed without hardware or signs of needing to be secured. The programmable receiver latch has three modes of operation allowing StealthLock to be used in office furniture, lockers, healthcare and almost any style of millwork cabinetry.

7.2 PHYSICAL DIMENSIONS OF EQUIPMENT UNDER TEST

TP-100 Length: 3 in x Width: 1 in x Height: 1 in

7.3 LINE FILTER USED:

N/A

7.4 INTERNAL CLOCK FREQUENCIES:

Switching Power Supply Frequencies:

N/A

Clock Frequencies:

TP-100 - 315 MHz, 9.84375 MHz, 4 MHz

7.5 DESCRIPTION OF ALL CIRCUIT BOARDS:

1. Wireless Lock Transmitter (TP-100) PN: 10-3121-00001 Rev B
2. Wireless Lock Receiver (RL-100) PN: 10-3121-00002 Rev B

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

1: There were no additional descriptions noted at the time of test.

NOTE:

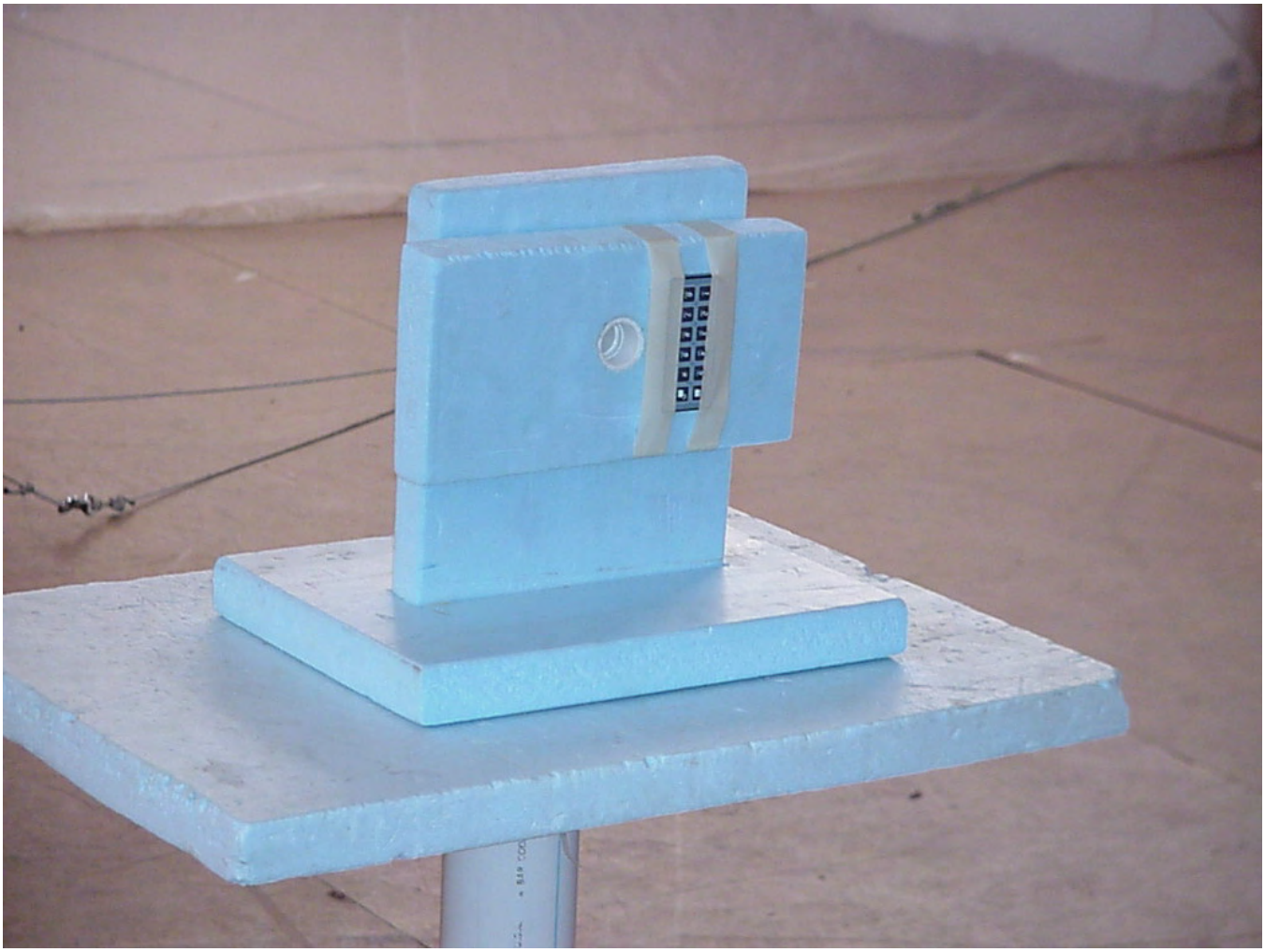
Device transmits at 315 MHz. Continuous transmit used for testing purpose.

9.0 PHOTO INFORMATION AND TEST SET-UP

Item 0 StealthLock
Model Number: TP-100; Serial Number: TP-100 - 000001

1250 Peterson Dr., Wheeling, IL 60090

10.0 RADIATED PHOTOS TAKEN DURING TESTING



Radiated 'X' Axis

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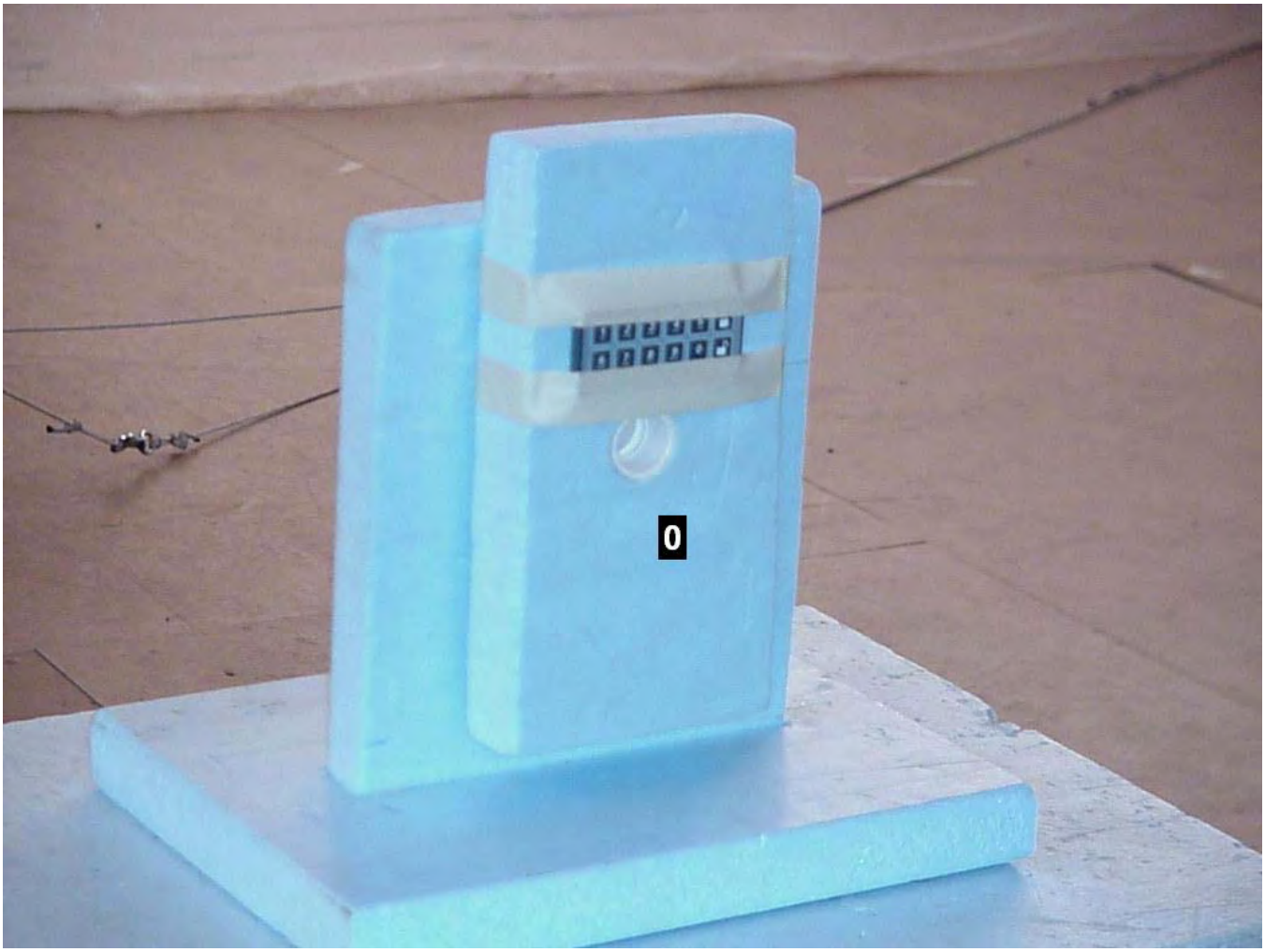
10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)



Radiated 'Y' Axis

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10.0 RADIATED PHOTOS TAKEN DURING TESTING (CON'T)

Radiated 'Z' Axis

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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 StealthLock, Model Number(s) TP-100 **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 StealthLock is powered from a D.C. power source. It does not have a line cord to plug into the A.C. power line.

1250 Peterson Dr., Wheeling, IL 60090

TABLE 1 – EQUIPMENT LIST

Description	Manufacturer	Model Number	Serial Number	Frequency Range	Cal Due Dates
Receiver	Rohde & Schwarz	ESI 40	837808/005	20 Hz – 40 GHz	7/10
Preamplifier	Rohde & Schwarz	TS-PR10	032001/005	9 kHz – 1 GHz	3/10
Antenna	EMCO	3104C	97014785	20 MHz – 200 MHz	5/10
Antenna	EMCO	3146	97024895	200 MHz – 1 GHz	5/10
Preamp	Miteq	AMF-6D-100200-50	313936	1GHz-10GHz	5/10
Horn Antenna	EMCO	3115	9903-5731	1-18GHz	6/11

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-b)

ELECTRIC FIELD RADIATED EMISSIONS TEST

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APPENDIX A

TEST PROCEDURE

ELECTRIC FIELD RADIATED EMISSIONS TEST

1.0 PULSED OPERATION (Duty Cycle Correction Factor)

The radiated emission tests made at D.L.S. Electronic Systems, Inc. for the StealthLock, Model Number TP-100, are shown by the graphs on the following pages. The actual total "on time" during the 100 msec is 59.3387 msec with a total "off time" of 40.66 msec resulting in a **4.53 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 than 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.

.8216433 msec/pulse on time * 63 pulses = 51.76353 msec (data word on time)

.4208417 msec/pulse on time * 18 pulses = 7.57515 msec (data word on time)

51.76353 msec (data on time) + 7.57515 msec (data on time) = 59.33868 msec total "on time"

59.33868 msec (total "on time") / 100 msec = .593387 Duty Cycle

$20*LOG_{10}$ (.593387) = -**4.53 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(b)

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

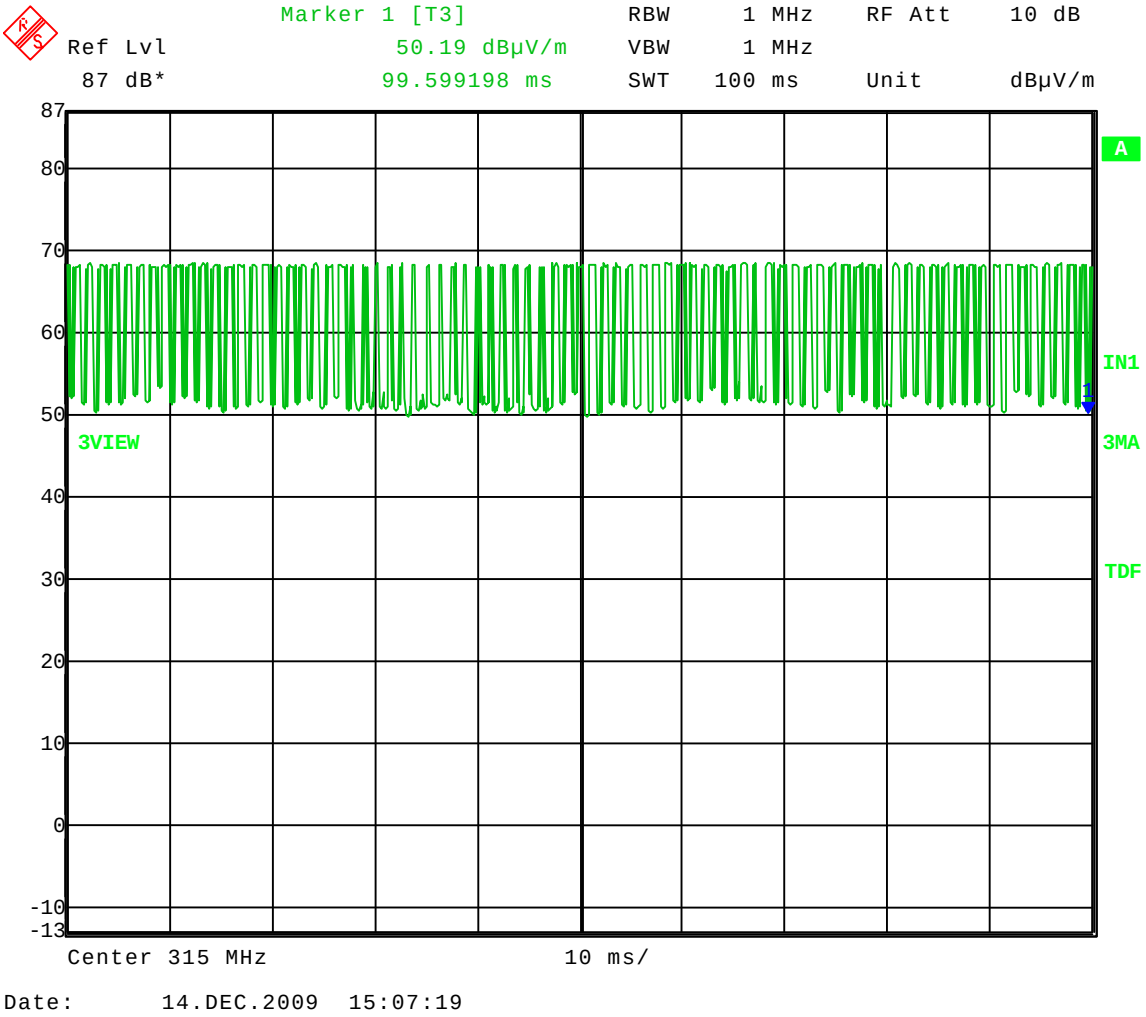
1250 Peterson Dr., Wheeling, IL 60090

Company: CompX Timberline
Model Tested: TP-100 and RL-100
Report Number: 15797

Test Date: 12-14-2009
Company: CompX Security Products
EUT: StealthLock Model: TP-100 transmitter
Test: Duty Cycle –during normal operation – 47CFR Part 15.35 (c)
Operator: Adam A

Comment: 63 wide pulses at 0.821643287 ms each = 51.7635 ms
18 narrow pulses at 0.420841683 ms each = 7.5751 ms

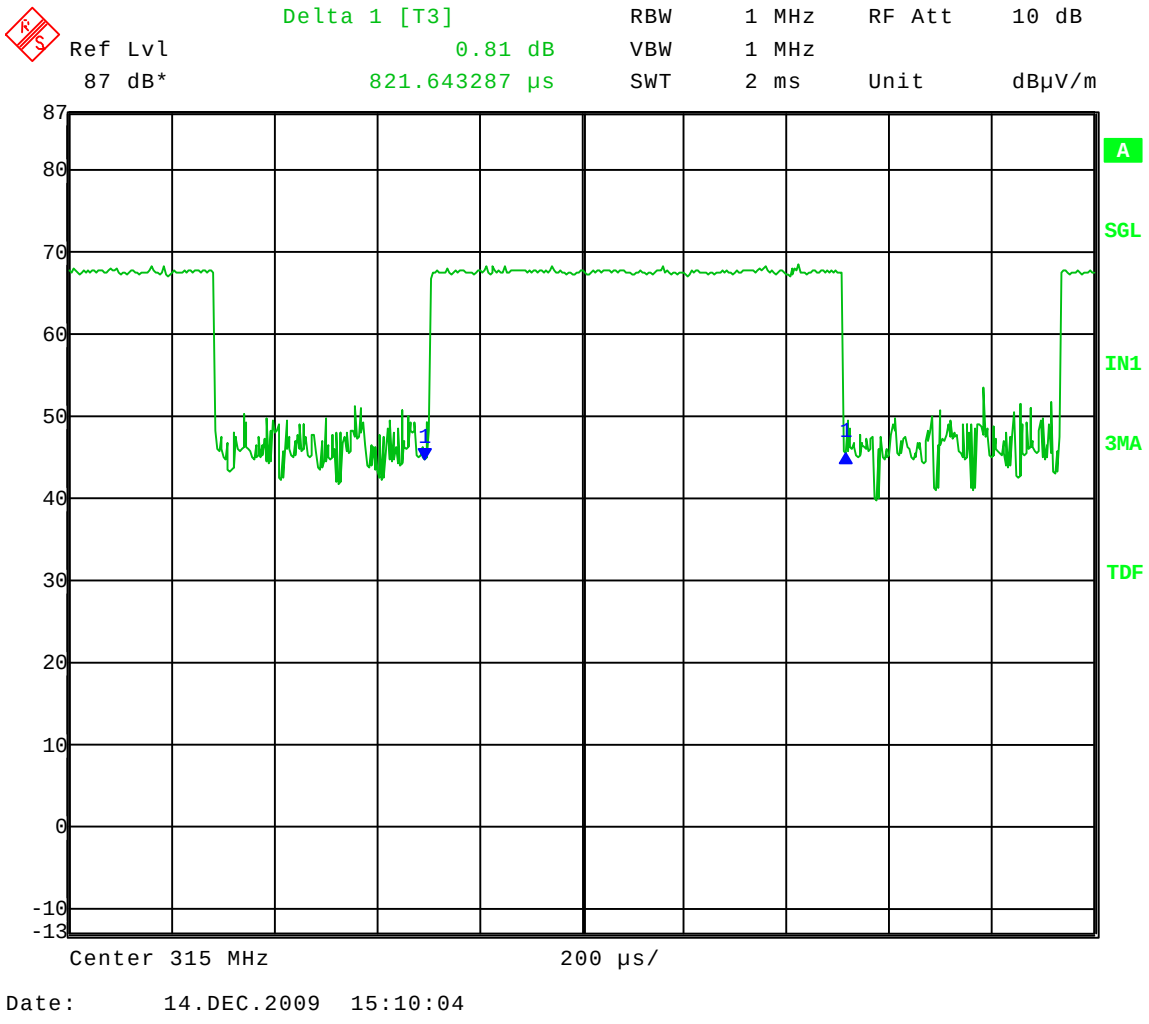
Total on Time = 59.3387 ms during 100 ms Sweep
20 log (59.3387 / 100) = -4.53
Duty Cycle Correction Factor = 4.53 dB



1250 Peterson Dr., Wheeling, IL 60090

Test Date: 12-14-2009
Company: CompX Security Products
EUT: StealthLock Model: TP-100 transmitter
Test: Duty Cycle – during normal operation– 47CFR Part 15.35 (c)
Operator: Adam A

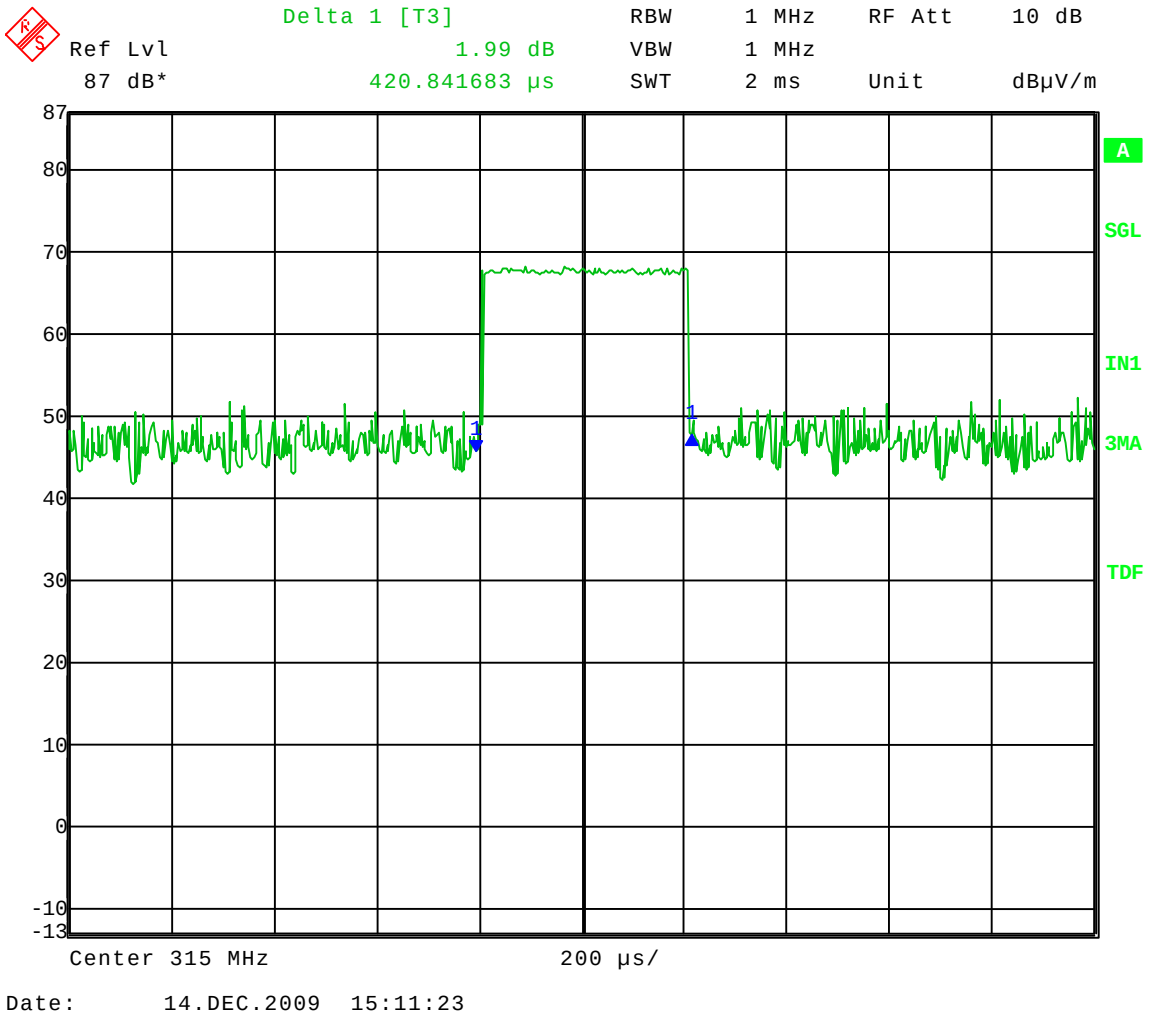
Comment: ON time of one wide pulse = 821.643287 µs = 0.821643287 ms



1250 Peterson Dr., Wheeling, IL 60090

Test Date: 12-14-2009
Company: CompX Security Products
EUT: StealthLock Model: TP-100 transmitter
Test: Duty Cycle – during normal operation – 47CFR Part 15.35 (c)
Operator: Adam A

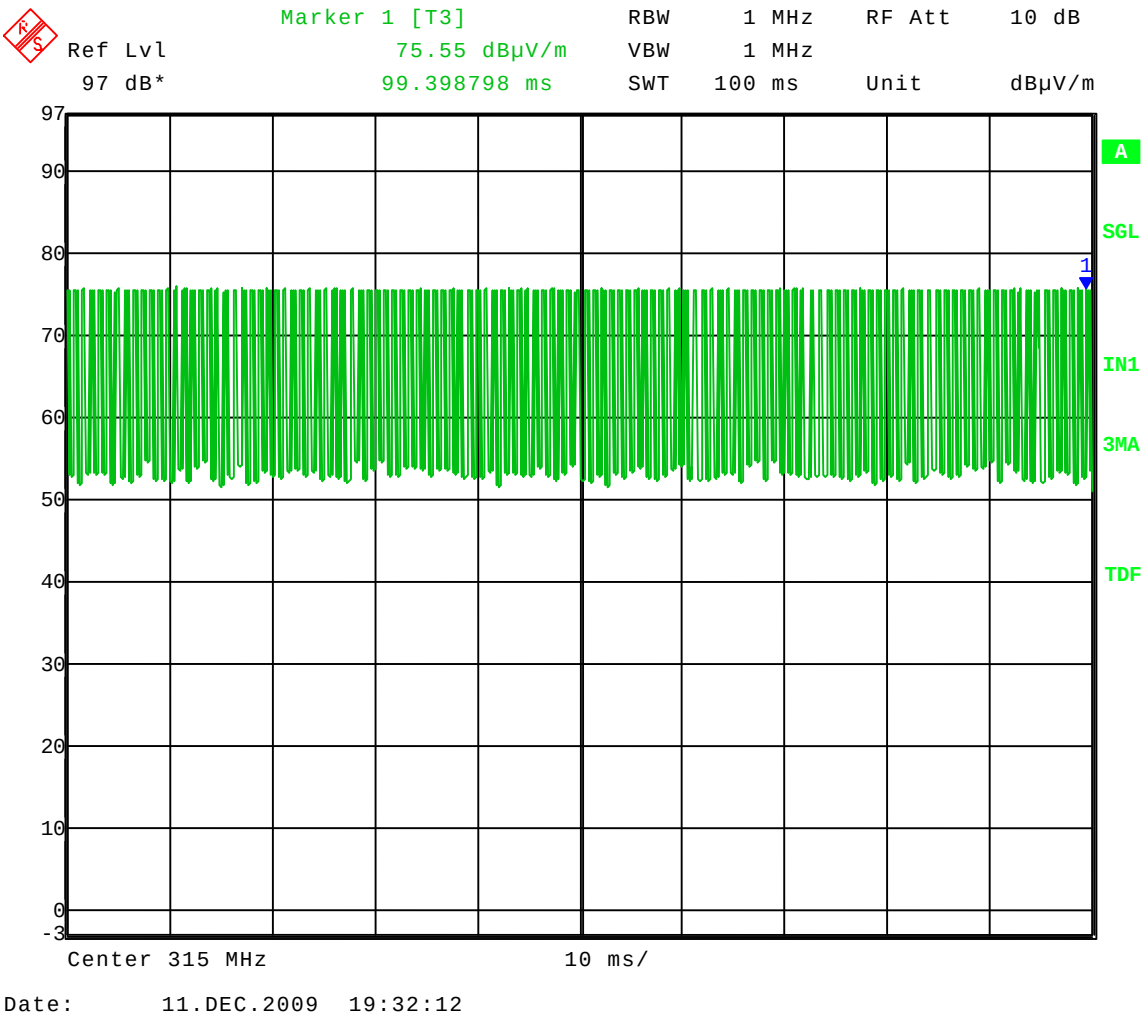
Comment: ON time of one narrow pulse = 420.841683µs = 0.420841683 ms



1250 Peterson Dr., Wheeling, IL 60090

Test Date: 12-11-2009
Company: CompX Security Products
EUT: StealthLock Model: TP-100 transmitter
Test: Duty Cycle –used during testing
Operator: Adam A

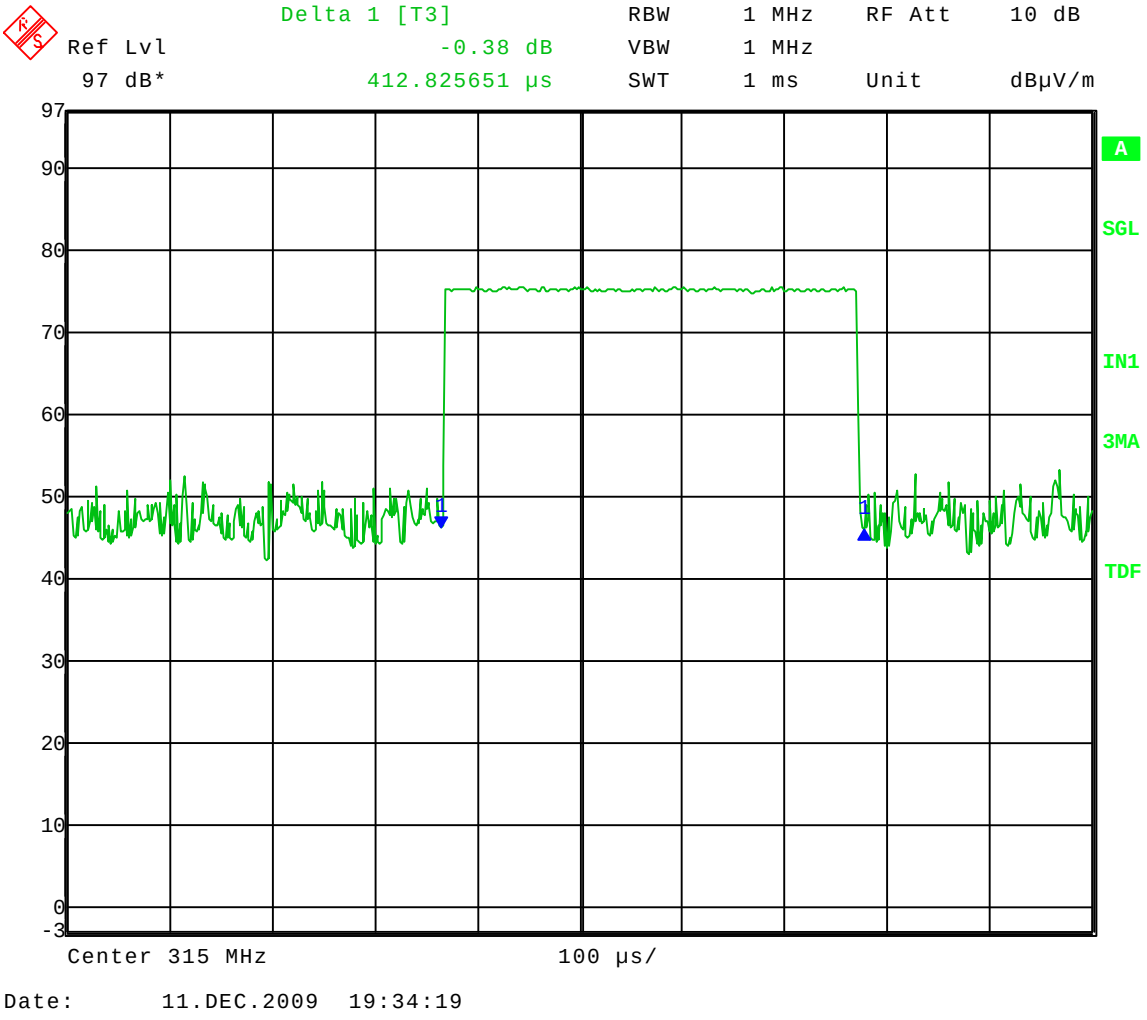
Comment: Continuous Transmit
122 Pulses



1250 Peterson Dr., Wheeling, IL 60090

Test Date: 12-11-2009
Company: CompX Security Products
EUT: StealthLock Model: TP-100 transmitter
Test: Duty Cycle –used during testing
Operator: Adam A

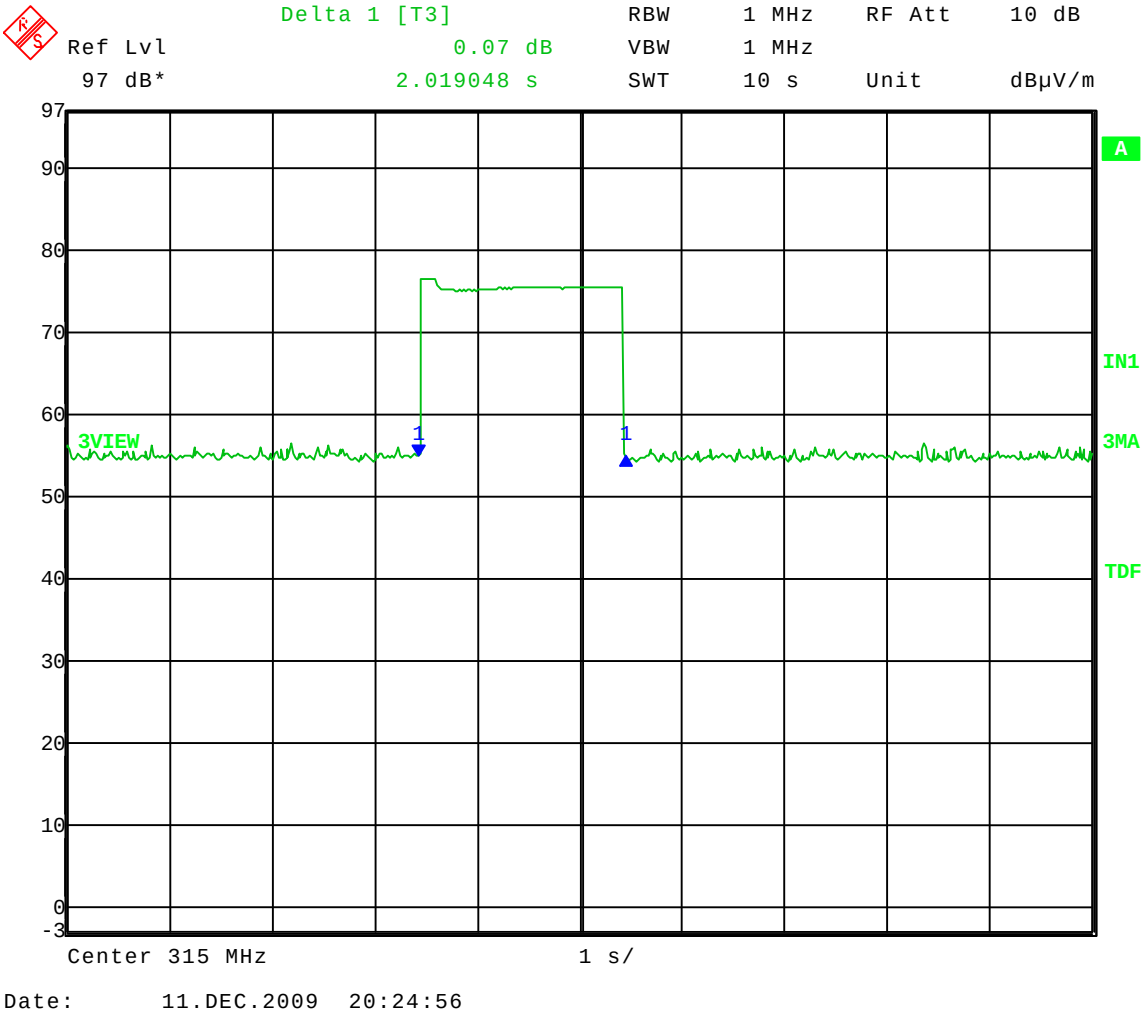
Comment: Continuous Transmit
122 pulses



1250 Peterson Dr., Wheeling, IL 60090

Test Date: 12-11-2009
Company: CompX Security Products
EUT: StealthLock Model TP-100
Test: Transmit Duration – Radiated - 47CFR Part 15.231 (a) (1) & (2)
Operator: Adam A
Comment: Transmit frequency 315 MHz

Transmission lasts: 2.02 seconds



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APPENDIX A

TEST PROCEDURE

ELECTRIC FIELD RADIATED EMISSIONS TEST

2.0 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	±.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 StealthLock was measured at 214.428 kHz, which meets the above specification. With a fundamental frequency of 315 MHz, the FCC Bandwidth limit is 787.5 kHz when multiplying the fundamental by 0.0025%, with a margin of 573.1 kHz.

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GRAPH(S) TAKEN OF THE

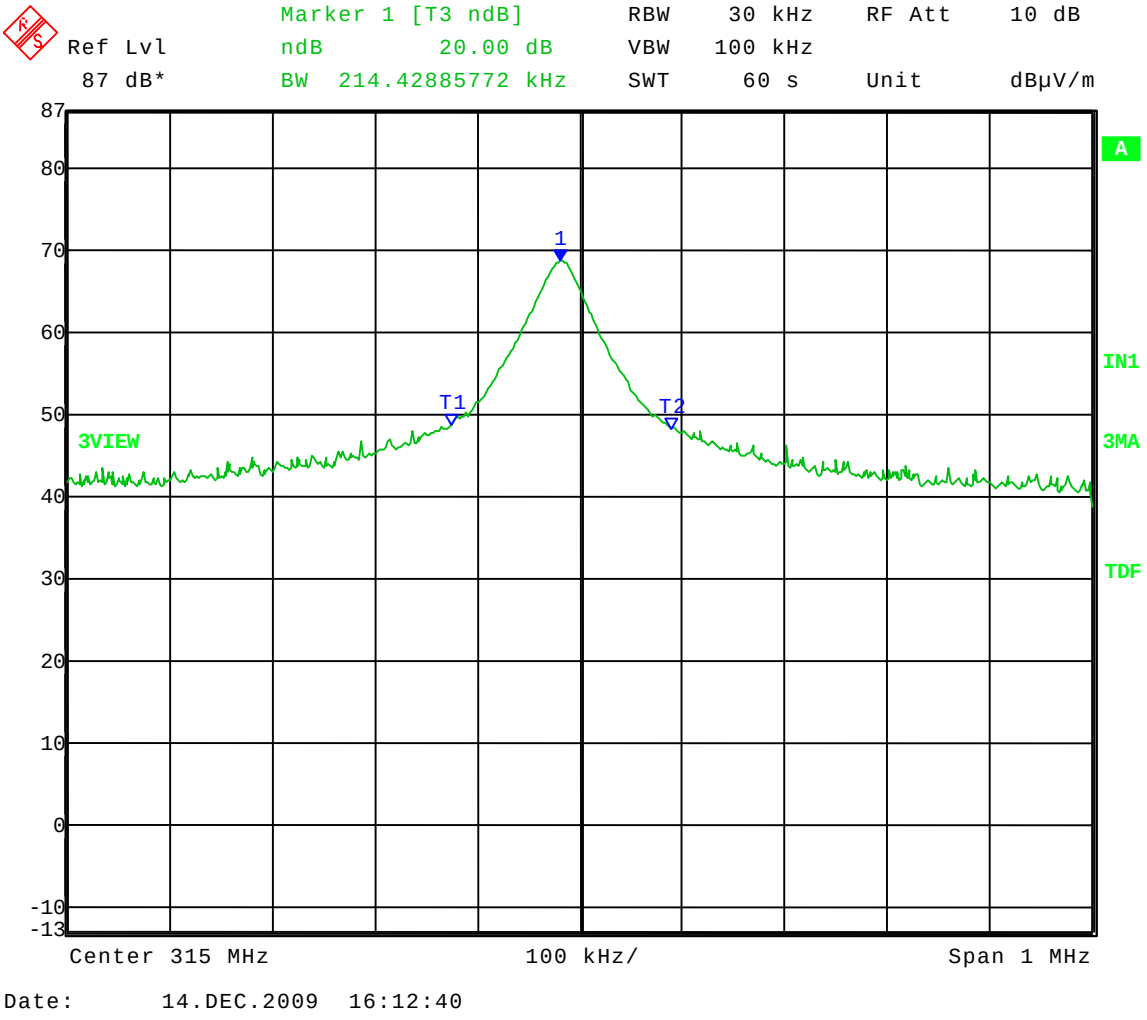
20 dB BANDWIDTH EMISSIONS

PART 15.231c & d

1250 Peterson Dr., Wheeling, IL 60090

Test Date: 12-14-2009
Company: CompX Security Products
EUT: StealthLock Model TP-100
Test: 20 dB Bandwidth – Radiated - 47CFR Part 15.231 (c)
Operator: Adam A
Comment: Transmit frequency 315 MHz

20 dB Bandwidth = 214.428 kHz



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APPENDIX A

TEST PROCEDURE

ELECTRIC FIELD RADIATED EMISSIONS TEST

3.0 ANTENNA CONNECTOR – 15.203

As stated in 15.203 the StealthLock was designed to ensure that no antenna other than that furnished by CompX Timberline will be used with the EUT. The use of a permanently attached antenna or antenna that uses an unique coupling to the intentional radiator was considered to comply with section 15.203.

4.0 FIELD STRENGTH OF SPURIOUS EMISSION MEASUREMENTS - SECTION 15.231b

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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APPENDIX A

TEST PROCEDURE

ELECTRIC FIELD RADIATED EMISSIONS TEST

5.0 RESTRICTED BANDS

As stated in Section 15.205a, the fundamental emission from the StealthLock 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	167.72 to 173.20	2483.5 to 2500	10.60 to 12.70
2.1735 to 2.1905	240.00 to 285.00	2655.0 to 2900	13.25 to 13.40
8.362 to 8.3660	322.20 to 335.40	3260.0 to 3267	14.47 to 14.50
13.36 to 13.410	399.90 to 410.00	3332.0 to 3339	15.35 to 16.20
25.50 to 25.670	608.00 to 614.00	3345.8 to 3358	17.70 to 21.40
37.50 to 38.250	960.00 to 1240.00	3600.0 to 4400	22.01 to 23.13
73.00 to 75.500	1300.00 to 1427.00	4500.0 to 5250	23.60 to 24.00
108.00 to 121.94	1435.00 to 1626.50	5350.0 to 5450	31.20 to 31.80
123.00 to 138.00	1660.00 to 1710.00	7250.0 to 7750	36.43 to 36.50
149.90 to 150.00	1718.80 to 1722.20	8025.0 to 8500	ABOVE 38.60
156.70 to 156.90	2200.00 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.

See data taken on pages __ of this test repor

1250 Peterson Dr., Wheeling, IL 60090

GRAPH(S) TAKEN OF FUNDAMENTAL, SPURIOUS EMISSIONS AND RESTRICTED BANDS

PART 15.231b

SAMPLE CALCULATION

Level = Total Level - System Loss - Antenna Factor
Final Corrected = Total Level - Duty Cycle Correction
Margin = Limit - Final Corrected

1250 Peterson Dr., Wheeling, IL 60090

Company: CompX Timberline
Model Tested: TP-100 and RL-100
Report Number: 15797

Radiated Fundamental and Spurious Emissions – 30 MHz to 4 GHz
Tested at a 3 Meter Distance

EUT: Model: StealthLock TP-100 Date: 12-14-2009
Manufacturer: CompX Security Products
Operating Condition: 70 deg F; 32% R.H.
Test Site: Site 3
Operator: Adam A Comment: Continuous transmit – 315 MHz
Test Specification: FCC Part 15.231(b)

Notes: All other emissions at least 20 dB under the limit.
Since unit was not able to transmit continuously, compliance is shown by comparing Peak data against the Average limits.

Frequency (MHz)	Measurement Type	Antenna Polarization	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)	Antenna Height (m)	Comment
314.988	Max Peak	Vert	47.9	15.91	3.7	67.51	0	67.51	95.62	28.1	1.6	F
314.988	Average	Vert	47.9	15.91	3.7	67.51	4.53	62.98	75.62	12.6	1.6	F
314.988	Max Peak	Horz	49.14	15.91	3.7	68.75	0	68.75	95.62	26.9	2.1	F
314.988	Average	Horz	49.14	15.91	3.7	68.75	4.53	64.22	75.62	11.4	2.1	F
629.976	Max Peak	Vert	16.86	19.35	5.4	41.61	0	41.61	75.62	34.0	1.0	H
629.976	Average	Vert	16.86	19.35	5.4	41.61	4.53	37.08	55.62	18.5	1.0	H
629.976	Max Peak	Horz	23.35	19.35	5.4	48.1	0	48.1	75.62	27.5	1.4	H
629.976	Average	Horz	23.35	19.35	5.4	48.1	4.53	43.57	55.62	12.1	1.4	H
944.964	Max Peak	Vert	20.37	22.99	6.8	50.16	0	50.16	75.62	25.5	1.0	H
944.964	Average	Vert	20.37	22.99	6.8	50.16	4.53	45.63	55.62	10.0	1.0	H
944.964	Max Peak	Horz	20.33	22.99	6.8	50.12	0	50.12	75.62	25.5	1.5	H
944.964	Average	Horz	20.33	22.99	6.8	50.12	4.53	45.59	55.62	10.0	1.5	H
1259.952	Max Peak	Vert	60.3	24.38	-34.8	49.88	0	49.88	75.62	25.7	1.1	H
1259.952	Average	Vert	60.3	24.38	-34.8	49.88	4.53	45.35	55.62	10.3	1.1	H
1259.952	Max Peak	Horz	60.88	24.38	-34.8	50.46	0	50.46	75.62	25.2	1.0	H
1259.952	Average	Horz	60.88	24.38	-34.8	50.46	4.53	45.93	55.62	9.7	1.0	H
1574.940	Max Peak	Vert	61.74	25.43	-33.9	53.27	0	53.27	74	20.7	1.1	H / RB
1574.940	Average	Vert	61.74	25.43	-33.9	53.27	4.53	48.74	54	5.3	1.1	H / RB
1574.940	Max Peak	Horz	62	25.43	-33.9	53.53	0	53.53	74	20.5	1.1	H / RB
1574.940	Average	Horz	62	25.43	-33.9	53.53	4.53	49	54	5.0	1.1	H / RB

Legend: H=Harmonic ; RB=Restricted Band ; F=Fundamental

1250 Peterson Dr., Wheeling, IL 60090

Company: CompX Timberline
Model Tested: TP-100 and RL-100
Report Number: 15797

Radiated Fundamental and Spurious Emissions – 30 MHz to 4 GHz
Tested at a 3 Meter Distance

EUT: Model: StealthLock TP-100 Date: Continuous transmit – 315 MHz
Manufacturer: CompX Security Products
Operating Condition: 70 deg F; 32% R.H.
Test Site: Site 3 Comment: Continuous transmit – 315 MHz
Operator: Adam A
Test Specification: FCC Part 15.231(b)

Notes: All other emissions at least 20 dB under the limit.
Since unit was not able to transmit continuously, compliance is shown by comparing Peak data against the Average limits.

Frequency (MHz)	Measurement Type	Antenna Polarization	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)	Antenna Height (m)	Comment
1889.928	Max Peak	Vert	60.66	26.85	-33.5	54.01	0	54.01	75.62	21.6	1.2	H
1889.928	Average	Vert	60.66	26.85	-33.5	54.01	4.53	49.48	55.62	6.1	1.2	H
1889.928	Max Peak	Horz	60.14	26.85	-33.5	53.49	0	53.49	75.62	22.1	1.1	H
1889.928	Average	Horz	60.14	26.85	-33.5	53.49	4.53	48.96	55.62	6.7	1.1	H
2204.916	Max Peak	Vert	54.06	27.94	-33.3	48.7	0	48.7	74	25.3	1.1	H / RB
2204.916	Average	Vert	54.06	27.94	-33.3	48.7	4.53	44.17	54	9.8	1.1	H / RB
2204.916	Max Peak	Horz	51.16	27.94	-33.3	45.8	0	45.8	74	28.2	1.2	H / RB
2204.916	Average	Horz	51.16	27.94	-33.3	45.8	4.53	41.27	54	12.7	1.2	H / RB
2519.904	Max Peak	Vert	52.39	28.84	-33.1	48.13	0	48.13	75.62	27.5	1.0	H
2519.904	Average	Vert	52.39	28.84	-33.1	48.13	4.53	43.6	55.62	12.0	1.0	H
2519.904	Max Peak	Horz	50.33	28.84	-33.1	46.07	0	46.07	75.62	29.6	1.2	H
2519.904	Average	Horz	50.33	28.84	-33.1	46.07	4.53	41.54	55.62	14.1	1.2	H
2834.892	Max Peak	Vert	50.85	29.75	-32.5	48.1	0	48.1	74	25.9	1.0	H / RB
2834.892	Average	Vert	50.85	29.75	-32.5	48.1	4.53	43.57	54	10.4	1.0	H / RB
2834.892	Max Peak	Horz	51.5	29.75	-32.5	48.75	0	48.75	74	25.3	1.3	H / RB
2834.892	Average	Horz	51.5	29.75	-32.5	48.75	4.53	44.22	54	9.8	1.3	H / RB
3149.880	Max Peak	Vert	48.77	30.52	-32.2	47.09	0	47.09	75.62	28.5	1.0	H
3149.880	Average	Vert	48.77	30.52	-32.2	47.09	4.53	42.56	55.62	13.1	1.0	H
3149.880	Max Peak	Horz	48.64	30.52	-32.2	46.96	0	46.96	75.62	28.7	1.0	H
3149.880	Average	Horz	48.64	30.52	-32.2	46.96	4.53	42.43	55.62	13.2	1.0	H

Legend: H=Harmonic ; RB=Restricted Band ; F=Fundamental