Declaración de conformidad

Fecha: 27 de agosto de 2026

Fabricante	Strattec Security Corporation
Dirección	3333 West Good Hope Milwaukee, Wisconsin 53209 United States of America
Sitio web	www.strattec.com

	Información técnica	Página
Tipo de equipo	Módulo KIN (Keyless Ignition Node) / inmovilizador antirrobo del vehículo	4
Marca	Strattec	1
Modelo	KIN [FCC ID: OHT-40821803]	1
Tecnología o modulación	PWM	4
Frecuencias	125 kHz	4, 9
Ganancia de antena (dBi)	n/a	-
P.i.r.e.	-36.8 dBuV/m @ 300m	9
Módulos	n/a	-

Informe de ensayos	417124-595
Normas	FCC Regulations CFR 47 Part 15, IC RSS-210/Gen

En base a los ensayos de laboratorio y la documentación técnica asociada, declaramos que el equipo previamente mencionado cumple con las disposiciones establecidas en la Norma Técnica de Equipos de alcance reducido, declarada en la resolución exenta N° 1.985, de 2017, de la Subsecretaría de Telecomunicaciones.

STRATTEC

Letter of Attestation Requesting
MULTIPLE LISTING / CHANGE OF ID of an FCC / IC Certified Device

I hereby declare and affirm that the following statements are true for the purpose of allowing a ***MULTIPLE LISTING* / CHANGE OF ID** based on an FCC Grant and Industry Canada Technical Acceptance Certificate issued to ***Continental Automotive Systems US Inc.***

		Continental Automotive Systems US Inc. (ORIGINAL APPLICANT)			**Strattec Security Corporation** (APPLICANT)
REG	Identifier Type	EXISTING Identifier	Authorization Date	Certificate Number	NEW Identifier
USA	FCC ID:	M3N-40821803	12/9/2010	-	OHT-40821803
CAN	IC:	7812A-40821803		See Below	5461A-40821803
	Model:	1UL96XR4AA	3/18/2013	ATCB013669	1UL96XR4AA
	Model:	52851662AA	3/18/2013	ATCB013669	5PC97JXWAA
	Model:	68197922AA	3/18/2013	ATCB013669	68197922AA
	Model:	68207000AB	3/18/2013	ATCB013669	68207000AB
	Model:	1UJ62DX9AD	3/30/2012	ATCB011984	68213373AA
	Model:	1KW59DX9AC	12/16/2010	ATCB009973	68207000AA

The equipment design and performance is unchanged from the original equipment as certified. The original test results as shown in *The University of Michigan Radiation Laboratory test report number(s) 417124-595* remain accurate and representative of the equipment.

Submitted with this application are the following supporting documents:

1) Label drawing for the Strattec Security Corporation version of the product,
2) Compliance / user's manual statements provided by Strattec Security Corporation.

Dated: March 26, 2013

By: ______________________ Brian J. Reetz (Print name)

Title: Vice President Security Products

Email: breetz@strattec.com Telephone: 414-247-3333

On behalf of:

Strattec Security Corporation
3333 West Good Hope Road
Milwaukee, Wisconsin 53209

Continental

Interior
Body & Security

Authorization Letter for MULTIPLE LISTING

I hereby declare and affirm that the following statements are true for the purpose of allowing a ***MULTIPLE LISTING*** of product(s) authorized under an Industry Canada Technical Acceptance Certificate issued to ***Continental Automotive Systems US Inc***.

		Continental Automotive Systems US Inc. (ORIGINAL APPLICANT)		
REG	Identifier Type	EXISTING Identifier	Authorization Date	Certificate Number
CAN	IC:	7812A-40821803		See Below
	Model:	1UL96XR4AA	3/18/2013	ATCB013669
	Model:	52851662AA	3/18/2013	ATCB013669
	Model:	68197922AA	3/18/2013	ATCB013669
	Model:	68207000AB	3/18/2013	ATCB013669
	Model:	1UJ62DX9AD	3/30/2012	ATCB011984
	Model:	1KW59DX9AC	12/16/2010	ATCB009973

The equipment design and performance is unchanged from the original equipment as certified. The original test results as shown in *The University of Michigan Radiation Laboratory test report number(s) 417124-595* remain accurate and representative of the equipment.

I hereby *authorize Industry Canada to use information on file to grant a multiple-listing certification.*

Dated: APRIL 30th, 2013

By: [signature] DAVID REIMUS (Print name)

Title: RF MANAGER

Email: DAVIDJAMES.REIMUS@CONTINENTAL-CORPORATION.COM Telephone: +1 (248) 764-6522

On behalf of:

Continental Automotive Systems US Inc.

The University of Michigan
Radiation Laboratory
3228 EECS Building
Ann Arbor, MI 48109-2122
Tel: (734) 764-0500
Fax: (734) 647-2106

Measured Radio Frequency Emissions
From

Continental Automotive Systems Transceiver
FCC ID: M3N-40821803
IC: 7812A-40821803

Test Report No. 417124-595
December 3, 2010

For:
Continental Automotive Systems US Inc.
2400 Executive Hills Drive
Auburn Hills Michigan 48326-2980
Contact: Juan Robledo-Mariscal
Juan.Robledo-Mariscal@continental-corporation.com
Phone: (248) 764-6712
Fax: (248) 764-7226

Measurements made by: Valdis V. Liepa

Testing supervised by:
Report Approved by: Valdis V. Liepa
Valdis V. Liepa
Research Scientist

Test report written by: Joseph D. Brunett

Summary

Tests for compliance with FCC Regulations, CFR 47, Part 15 and with Industry Canada RSS-210/Gen, were performed on a Continental, FCC ID: M3N-40821803, IC: 7812A-40821803. This device under test (DUT) is subject to the rules and regulations as a Transmitter.

In testing completed on November 10, 2010, the DUT tested met the allowed specifications for radiated emissions by 38.4 dB. Conducted emissions are not subject to regulation as the DUT is powered by a 12 VDC battery.

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1. Introduction

This Continental Transceiver was tested for compliance with FCC Regulations, Part 15, adopted under Docket 87-389, April 18, 1989 as subsequently amended, and with Industry Canada RSS-210/Gen, Issue 7, June 2007. Tests were performed at the University of Michigan Radiation Laboratory Willow Run Test Range following the procedures described in ANSI C63.4-2003 "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz". The Site description and attenuation characteristics of the Open Site facility are on file with FCC Laboratory, Columbia, Maryland (FCC Reg. No: 91050) and with Industry Canada, Ottawa, ON (File Ref. No: IC 2057A-1).

2. Equipment Used

The test equipment commonly used in our facility is listed in Table 2.1. Except where indicated as a pre-test, monitoring, or support device; all equipment listed below is a part of the University of Michigan Radiation Laboratory (UMRL) quality system. This quality system has been established to ensure all equipment has a clearly identifiable classification, calibration expiry date, and that all calibrations are traceable to national standards.

Table 2.1 Test Equipment.

Test Instrument	Used	Manufacturer/Model	Q Number
Spectrum Analyzer (9kHz-26GHz)	☒	Hewlett-Packard 8593E, SN: 3412A01131	HP8593E1
Spectrum Analyzer (9kHz-6.5GHz)	☒	Hewlett-Packard 8595E, SN: 3543A01546	JDB8595E
Power Meter	☐	Hewlett-Packard, 432A	HP432A1
Harmonic Mixer (26-40 GHz)	☐	Hewlett-Packard 11970A, SN: 3003A08327	HP11970A1
Harmonic Mixer (40-60 GHz)	☐	Hewlett-Packard 11970U, SN: 2332A00500	HP11970U1
Harmonic Mixer (75-110 GHz)	☐	Hewlett-Packard 11970W, SN: 2521A00179	HP11970W1
Harmonic Mixer (140-220 GHz)	☐	Pacific Millimeter Prod., GMA, SN: 26	PMPGMA1
S-Band Std. Gain Horn	☐	S/A, Model SGH-2.6	SBAND1
C-Band Std. Gain Horn	☐	University of Michigan, NRL design	CBAND1
XN-Band Std. Gain Horn	☐	University of Michigan, NRL design	XNBAND1
X-Band Std. Gain Horn	☐	S/A, Model 12-8.2	XBAND1
X-band horn (8.2- 12.4 GHz)	☐	Narda 640	XBAND2
X-band horn (8.2- 12.4 GHz)	☐	Scientific Atlanta , 12-8.2, SN: 730	XBAND3
K-band horn (18-26.5 GHz)	☐	FXR, Inc., K638KF	KBAND1
Ka-band horn (26.5-40 GHz)	☐	FXR, Inc., U638A	KABAND1
U-band horn (40-60 GHz)	☐	Custom Microwave, HO19	UBAND1
W-band horn(75-110 GHz)	☐	Custom Microwave, HO10	WBAND1
G-band horn (140-220 GHz)	☐	Custom Microwave, HO5R	GBAND1
Bicone Antenna (30-250 MHz)	☒	University of Michigan, RLBC-1	LBBIC1
Bicone Antenna (200-1000 MHz)	☒	University of Michigan, RLBC-2	HBBIC1
Dipole Antenna Set (30-1000 MHz)	☐	University of Michigan, RLDP-1,-2,-3	UMDIP1
Dipole Antenna Set (30-1000 MHz)	☐	EMCO 3121C, SN: 992 (Ref. Antennas)	EMDIP1
Active Rod Antenna (30 Hz-50 MHz)	☐	EMCO 3301B, SN: 3223	EMROD1
Active Loop Antenna (30 Hz-50 MHz)	☒	EMCO 6502, SN:2855	EMLOOP1
Ridge-horn Antenna (300-5000 MHz)	☒	University of Michigan	UMRH1
Amplifier (5-1000 MHz)	☒	Avantek, A11-1, A25-1S	AVAMP1
Amplifier (5-4500 MHz)	☒	Avantek	AVAMP2
Amplifier (4.5-13 GHz)	☐	Avantek, AFT-12665	AVAMP3
Amplifier (6-16 GHz)	☐	Trek	TRAMP1
Amplifier (16-26 GHz)	☐	Avantek	AVAMP4
LISN Box	☐	University of Michigan	UMLISN1
Signal Generator	☐	Hewlett-Packard 8657B	HPSG1

3. Device Under Test

3.1 Description & Block Diagram

The DUT is a 125 kHz Transceiver designed for automotive/vehicular applications, and as such it is powered by a 12 VDC vehicular source. The device is housed in a plastic case approximately 8 x 2.5 x 2.5 cm in dimension. For testing, a generic harness was provided by the manufacturer. The DUT is designed and manufactured by Continental Automotive Guadalajara Mexico S.A. de C.V., Camino a la Tijera # 3, Km 3.5 Carretera Guadalajara-Morelia, C.P. 45640 Mpio. Tlajomulco de Zúñiga, Jalisco Mexico.

Device	**[Make], Model**	**[S/N],P/N**	**EMC Consideration**
DUT	[Continental], 1KW59DX9AC	-	Vehicular
Auxiliary Equipment	[Continental], RFHUB	-	

3.2 Variants and Samples

There is only a single variant of the DUT, as tested. One sample was provided along with an RFHUB auxiliary device that sends data to and from the unit over a LIN bus and powers the unit. The DUT contains within it its own frequency generating circuitry for LF transmission.

3.3 Modes of Operation

The DUT is capable of only a single mode of operation, where it interrogates a keyfob with built in passive LF transponder and receives encoded data back from that transponder through passive coupling.

3.4 Exemptions

The DUT is permanently installed in a transportation vehicle. As such, digital emissions are exempt (per FCC 15.103(a) and IC correspondence on ICES-003) from regulation.

3.5 EMC Relevant Modifications

No EMI Relevant Modifications were performed by this test laboratory.

4. Emissions Limits

4.1 Radiated Emissions Limits

The DUT tested falls under the category of an Intentional Radiator. The applicable testing frequencies and corresponding emission limits set by both the FCC and IC are given in Tables 4.1 and 4.2 below.

Table 4.1. Transmitter Radiated Emission Limits (FCC: 15.205, 15.35; IC: RSS-210, 2.6 Tab. 1,3)

Frequency (MHz)		Fundamental and Spurious* (μV/m)
0.009-0.490 0.490-1.705		2400/F(kHz), 300m 24,000/F(kHz), 30m
0.090-0.110 0.49-0.51 2.1735-2.190 3.020-3.026 (IC) 4.125-4.128 4.17725-4.17775 4.20725-4.20775 5.677-5.683 (IC) 6.215-6.218 6.26775-6.26825 6.31175-6.31225	8.291-8.294 8.37625 - 8.38675 8.41425 - 8.41475 12.29 - 12.293 12.51975 - 12.52025 12.57675 - 12.57725 13.36 - 13.41 16.42 - 16.423 16.69475 - 16.69525 16.80425 - 16.80475 25.5 - 25.67	Restricted Bands

* Harmonics must be below the fundamental. To translate measurements to the 300/30 m distance, we refer to the journal paper: “Extrapolating Near-Field Emissions of Low-Frequency Loop Transmitters,” J. D. Brunett, V. V. Liepa, D. L. Sengupta, IEEE Trans. EMC, Vol. 47, No. 3, August 2005.

Table 4.2. Spurious Emission Limits (FCC: 15.33, .35, .109/209; IC: RSS-210 2.7, T2)

Freq. (MHz)	E_{lim} (3m) μV/m	E_{lim} dB(μV/m)
30-88	100	40.0
88-216	150	43.5
216-960	200	46.0
960-2000	500	54.0

Note: Average readings apply above 1000 MHz (1 MHz BW), Quasi-Peak readings apply to 1000 MHz (120 kHz RBW), PRF of intentional emissions > 20 Hz for QPK to apply.

Power Line Conducted Emissions Limits

Table 4.3 Emission Limits (FCC:15.107 (CISPR); IC: RSS-Gen, 7.2.2 T2).

Frequency (MHz)	Class A (dBμV)		Class B (dBμV)	
	Quasi-peak	Average	Quasi-peak	Average
.150 - 0.50	79	66	66 - 56*	56 - 46*
0.50 - 5	73	60	56	46
5 - 30	73	60	60	50

Notes:
1. The lower limit shall apply at the transition frequency
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15-0.50 MHz:
   *Class B Quasi-peak: dBμV = 50.25 - 19.12*log(f)
   *Class B Average: dBμV = 40.25 - 19.12*log(f)
3. 9 kHz RBW

5. Measurement Procedures

5.1 Semi-Anechoic Chamber Radiated Emissions

To become familiar with the radiated emission behavior of the DUT, the device is first studied and measured in our shielded semi-anechoic chamber. In the chamber there is a set-up similar to that of an outdoor 3-meter site, with a turntable, an antenna mast, and a ground plane. Instrumentation includes spectrum analyzers and other equipment as needed.

The DUT is laid on the test table as shown in the included block diagram and/or photographs. A shielded loop antenna is employed when studying emissions from 9 kHz to 30 MHz. Above 30 MHz and below 250 MHz a biconical antenna is employed. Above 250 MHz a ridge or and standard gain horn antennas are used. The spectrum analyzer resolution and video bandwidths are set so as to measure the DUT emission without decreasing the emission bandwidth (EBW) of the device. Emissions are studied for all orientations (3-axes) of the DUT and all test antenna polarizations. In the chamber, spectrum and modulation characteristics of intentional carriers are recorded. Receiver spurious emissions are measured with an appropriate carrier signal applied. Associated test data is presented in subsequent sections.

5.2 Outdoor Radiated Emissions

After measurements are performed indoors, emissions on our outdoor 3-meter Open Area Test Site (OATS) are made, when applicable. If the DUT connects to auxiliary equipment and is table or floor standing, the configurations prescribed in ANSI C63.4 are employed. Alternatively, an on-table layout more representative of actual use may be employed if the resulting emissions appear to be worst-case in such a configuration. Any intentionally radiating elements are placed on the test table flat, on their side, and on their end (3-axes) and worst case emissions are recorded. For each configuration the DUT is rotated 360 degrees about its azimuth and the receive antenna is raised and lowered between 1 and 4 meters to maximize radiated emissions from the device. Receiver spurious emissions are measured with an appropriate carrier signal applied. For devices with intentional emissions below 30 MHz, our shielded loop antenna at a 1 meter receive height is used. Low frequency field extrapolation to the regulatory limit distance is employed as needed. Emissions between 30 MHz and 1 GHz are measured using tuned dipoles and/or biconical antennas. Care is taken to ensure that the RBW and VBW used meet the regulatory requirements, and that the EBW of the DUT is not reduced. The Photographs included in this report show the Test Setup.

5.3 Radiated Field Computations

To convert the dBm values measured on the spectrum analyzer to dB(μV/m), we use expression

$$E3(dB\mu V/m) = 107 + PR + KA - KG + KE - CF$$

where	PR	=	power recorded on spectrum analyzer, dBm, measured at 3 m
	KA	=	antenna factor, dB/m
	KG	=	pre-amplifier gain, including cable loss, dB
	KE	=	duty correction factor, dB
	CF	=	distance conversion (employed only if limits are specified at alternate distance), dB

When presenting the data at each frequency, the highest measured emission under all of the possible DUT orientations (3-axes) is given.

5.4 Indoor Power Line Conducted Emissions

When applicable, power line conducted emissions are measured in our semi-anechoic chamber. If the DUT connects to auxiliary equipment and is table or floor standing, the configurations prescribed in ANSI C63.4 are employed. Alternatively, an on-table layout more representative of actual use may be employed if the resulting emissions appear to be worst-case in such a configuration.

The conducted emissions measured with the spectrum analyzer and recorded (in dBμV) from 0-2 MHz and 2-30 MHz for both the ungrounded (Hi) and grounded (Lo) conductors. The spectrum analyzer is set to peak-hold mode in order to record the highest peak throughout the course of functional operation. Only when the emission exceeds or is near the limit are quasi-peak and average detection used.

5.5 Supply Voltage Variation

Measurements of the variation in the fundamental radiated emission were performed with the supply voltage varied by no less than 85% and 115% of the nominal rated value. For battery operated equipment, tests were performed using a new battery, and worst case emissions are re-checked employing a new battery.

6. Test Results

6.1 Radiated Emissions

6.1.1 Correction for Pulse Operation

When the transmitter is activated by the user (button press), it can, in the worst case, for more than 100 ms (when transponder is present). Thus, no duty cycle is applied in demonstrating compliance. See Figure 6.1.

6.1.2 Emission Spectrum

The relative DUT emission spectrum is recorded and is shown in Figure 6.2.

6.1.3 Emission Bandwidth

The emission bandwidth of the signal is shown in Figure 6.3. From the plot we see that the 99% bandwidth is 16.13 kHz. The DUT emissions in the 90-110 kHz restricted band is down 25.6 dB from the fundamental. While the FCC requests that the sideband be at least 26 dB down in the restricted band, the emissions from the DUT that fall into that band are outside of the first null in the modulated spectrum, and thus are not considered part of the fundamental emission, per FCC guidelines.

6.1.4 Supply Voltage and Supply Voltage Variation

The DUT has been designed to be powered by a 12 VDC battery. For this test, relative radiated power was measured at the fundamental as the voltage was varied from 6.0 to 18.0 volts. The emission variation is shown in Figure 6.4.

Supply Voltage	V	=	12.0 V
Current	I	=	140 mA (pulse peak)

6.2 Field Behavior at 125 kHz

Because at the specified 300/30 m measurement distance the signal-to-noise (SNR) ratio of the test receiver is insufficient, measurements were made at 3 m (or 10 m). To translate the measurement to the 300/30 m distance, we refer to the journal paper: *Extrapolating Near-Field Emissions of Low-Frequency Loop Transmitters*, J. D. Brunett, V. V. Liepa, D. L. Sengupta, IEEE Trans. EMC, Vol. 47, No. 3, August 2005. The applicable worst-case field conversion tables are included here for reference, and are derived from data measured at the OAT Site used in this filing.

Limit Location:	300 (m)		Limit Location:	30 (m)	
Meas. Distance:	3 (m)	10 (m)	Meas. Distance:	3 (m)	10 (m)
Frequency (kHz)	CF (dB)	CF (dB)	Frequency (MHz)	CF (dB)	CF (dB)
9.0	116.7	81.8	0.490	56.4	9.6
10.6	116.7	81.8	0.582	56.2	11.1
12.6	116.7	81.8	0.690	56.0	12.9
14.8	116.7	81.8	0.820	55.7	15.0
17.5	116.6	81.9	0.973	55.4	17.3
20.7	116.6	81.9	1.155	54.9	19.5
24.4	116.6	81.9	1.371	54.4	20.8
28.9	116.6	82.0	1.627	53.7	21.0
34.1	116.5	82.0	1.931	52.9	20.5
40.3	116.4	82.1	2.292	52.0	19.8
47.6	116.3	82.2	2.721	49.8	19.1
56.2	116.2	82.4	3.230	46.6	15.8
66.4	116.0	82.6	3.834	43.3	12.7
78.4	115.8	82.9	4.551	40.1	10.3
92.7	115.4	83.1	5.402	36.8	9.0
109.4	115.0	83.4	6.412	33.5	8.5
129.3	114.5	83.3	7.612	30.3	8.5
152.7	113.9	82.6	9.035	27.0	8.6
180.4	113.1	81.0	10.725	23.9	8.8
213.1	112.2	78.7	12.730	21.2	9.0
251.7	111.3	76.0	15.111	19.3	9.1
297.3	108.3	73.3	17.937	18.4	9.2
351.2	105.2	70.8	21.292	18.2	9.3
414.8	102.1	68.4	25.274	18.3	9.3
490.0	99.1	66.3	30.000	18.4	9.4

In the data table, Table 6.1, the measured field is decreased by the dB values given above to represent the field at 300m or 30m, whichever is applicable.

6.3 Conducted Emissions

These tests do not apply, since the DUT is powered from a 12 VDC vehicular system.

Table 6.1 Highest Emissions Measured

Radiated Emission - LF												Continental KIN; FCC/IC
#	Freq. kHz	Ant. Used	Ant. Orien.	Pr, 3m dBm	Det. Used	Ka dB/m	Kg dB	Conv.** 3/30/300 m	E* dBµV/m	Elim dBµV/m	Pass dB	Comments
1	125.0	Loop	V/perp	-38.9	Pk	9.9	0.0	114.8	-36.8	25.7	**62.5**	loop perp. (axis in dir. of prop.)
2	125.0	Loop	V/par	-39.3	Pk	9.9	0.0	114.8	-37.2	25.7	62.9	loop paral. (loop in dir. of prop.)
3	125.0	Loop	H	-44.3	Pk	9.9	0.0	114.8	-42.2	25.7	67.9	loop horiz. (loop in horiz. plane)
4	250.0	Loop	V/perp	-63.6	Pk	9.8	0.0	110.4	-57.2	19.6	76.8	background noise
5	250.0	Loop	V/par	-62.3	Pk	9.8	0.0	110.4	-55.9	19.6	75.5	background noise
6	250.0	Loop	H	-63.3	Pk	9.8	0.0	110.4	-56.9	19.6	76.5	background noise
7	375.0	Loop	V/perp	-68.1	Pk	9.8	0.0	104.5	-55.8	16.1	71.9	background noise
8	375.0	Loop	V/par	-66.8	Pk	9.8	0.0	104.5	-54.5	16.1	70.6	background noise
9	375.0	Loop	H	-65.1	Pk	9.8	0.0	104.5	-52.8	16.1	68.9	background noise
10	500.0	Loop	V/perp	-70.5	Pk	9.8	0.0	56.3	-10.0	33.6	43.6	max all, background noise
11	625.0	Loop	V/perp	-71.3	Pk	9.8	0.0	56.1	-10.6	31.7	42.3	max all, background noise
12	750.0	Loop	All	-75.0	Pk	9.8	0.0	55.9	-14.1	30.1	44.2	max all, background noise
13	875.0	Loop	All	-76.3	Pk	9.8	0.0	55.6	-15.1	28.8	43.9	max all, background noise
14	1000.0	Loop	All	-72.2	Pk	9.8	0.0	55.4	-10.8	27.6	**38.4**	max all, background noise
15	1125.0	Loop	All	-74.4	Pk	9.8	0.0	55.1	-12.7	26.6	39.3	max all, background noise
16	1250.0	Loop	All	-76.2	Pk	9.8	0.0	54.8	-14.2	25.7	39.8	max all, background noise
17												
18												
19												
20												
21												
22												
23												
24	* Averaging applies up to 490 kHz, 0.0 dB in this case											
25	Limit at 300m for f<0.490MHz; 30m for f>0.490MHz											
26	Measurements made at 3 m, see Test Report Sec. 6.6 for extrapolation information											
27	9 kHz RBW for f > 150 kHz.											
28	** Represents the worst case conversion factor for all possible orientations and ground materials.											

Digital Radiated Emissions												
#	Freq. kHz	Ant. Used	Ant. Pol.	Pr dBm	Det. Used	Ka dB/m	Kg dB		E3 dBµV/m	E3lim dBµV/m	Pass dB	Comments
1												
2												
3												
4												
5												
6												
7												
8												
9	* For devices used in transportation vehicles, digital emissions are exempt from FCC regulations per FCC 15.103(a)											

Meas. 10/27/2010; U of Mich.

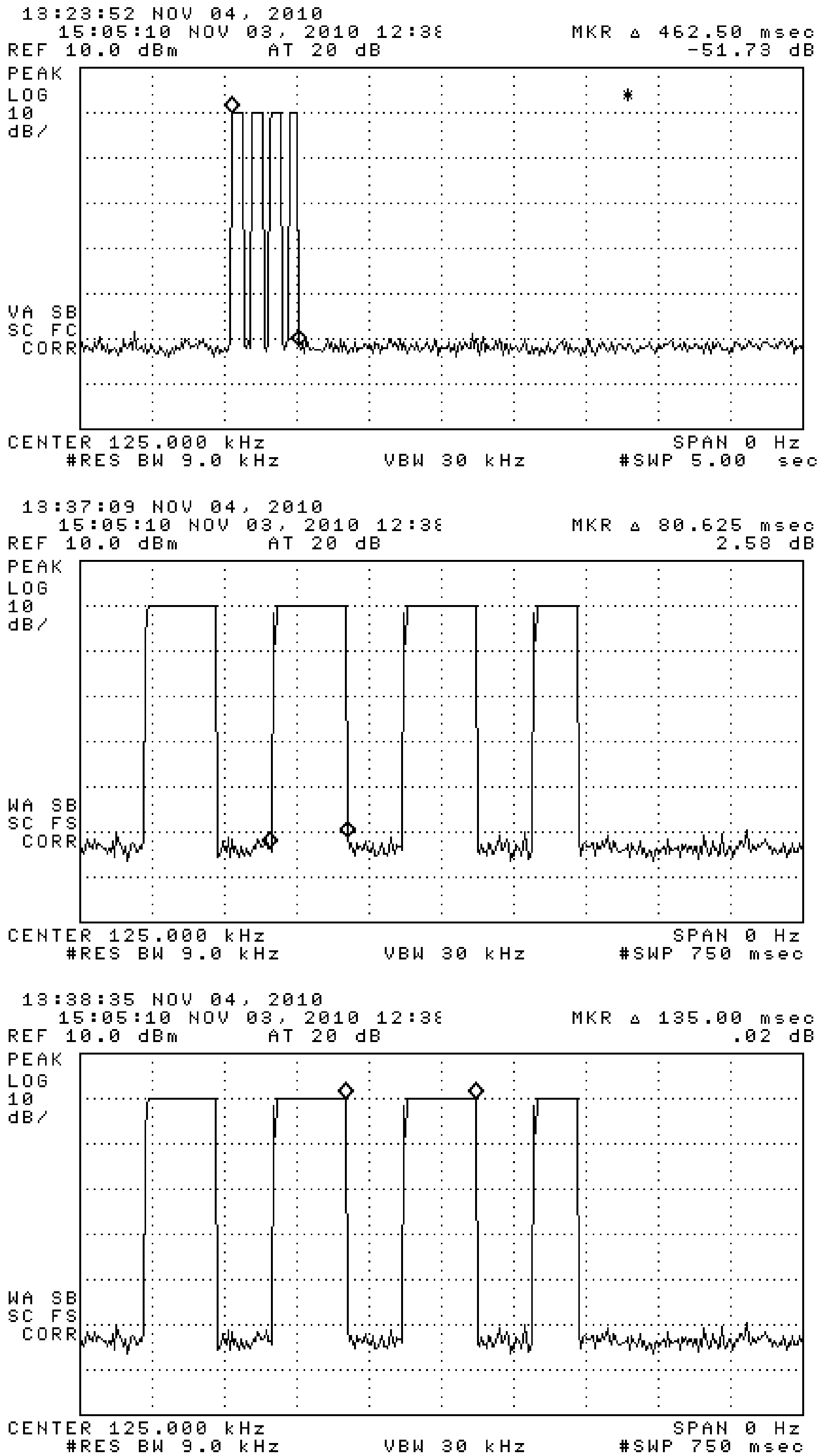


Figure 6.1(a). Button Activation without Transponder Present. (top) transmission retries, (middle) worst-case transmitted frame length, (bottom) frame period.

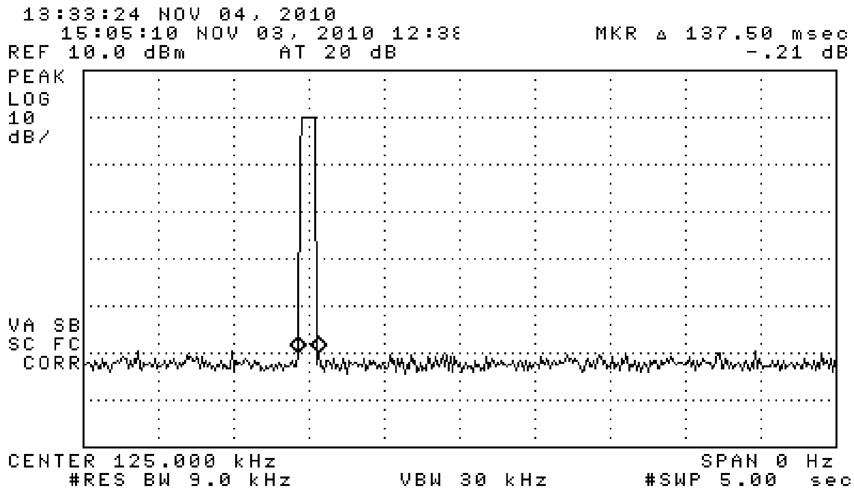


Figure 6.1(b). Button Activation with Transponder Present. (top) single transmission (>100 ms)

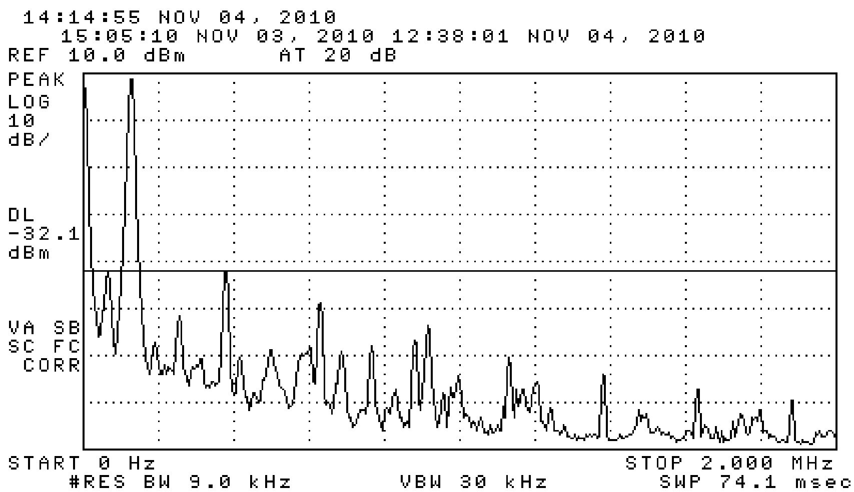


Figure 6.2. Emission spectrum of the DUT (pulsed emission). Amplitudes are only indicative (not calibrated).

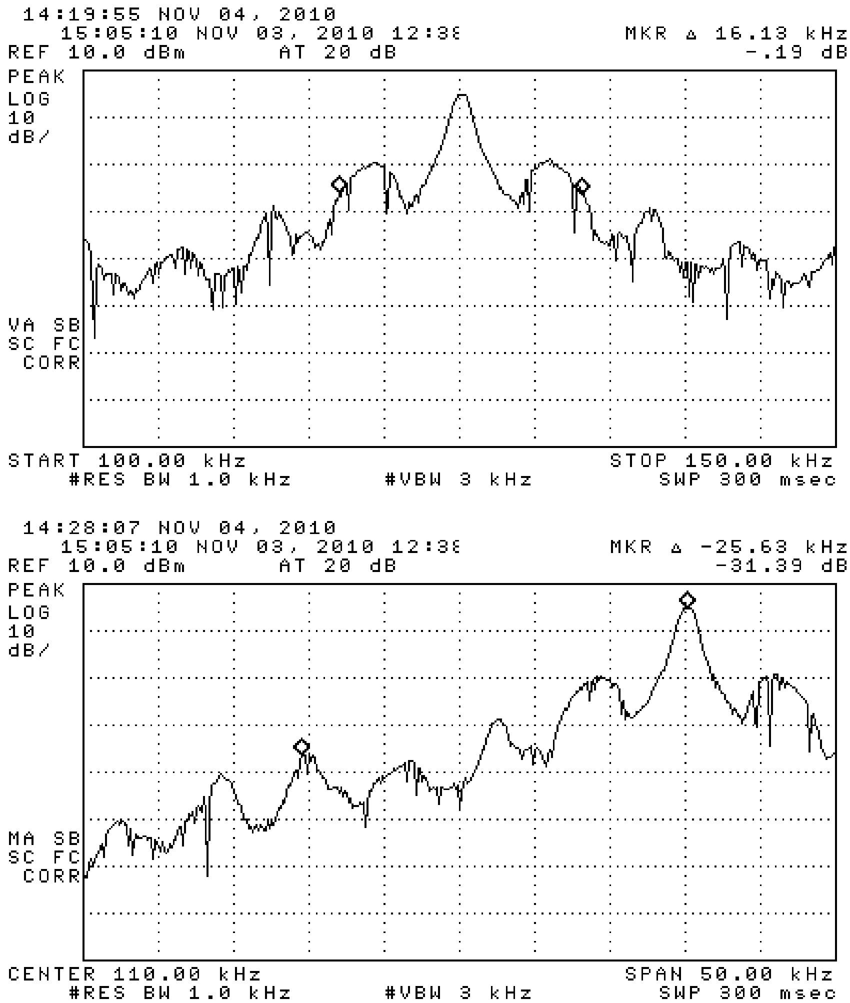


Figure 6.3. Measured emission bandwidth of the DUT (pulsed).

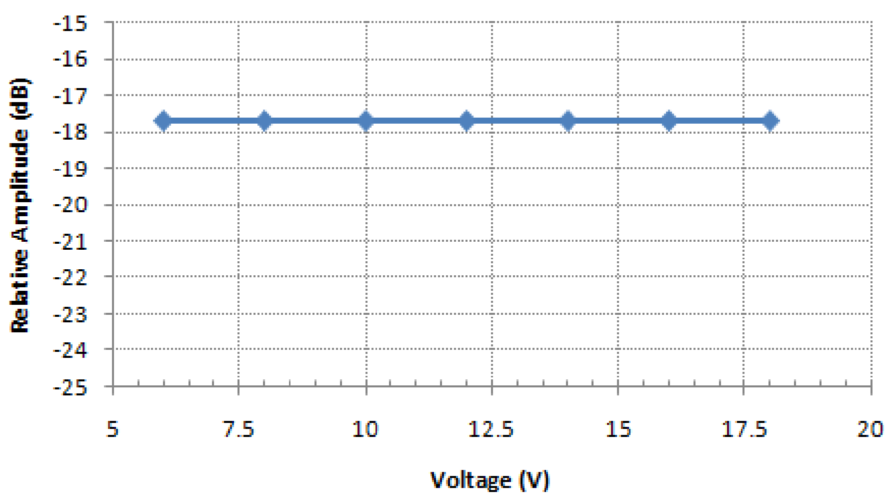
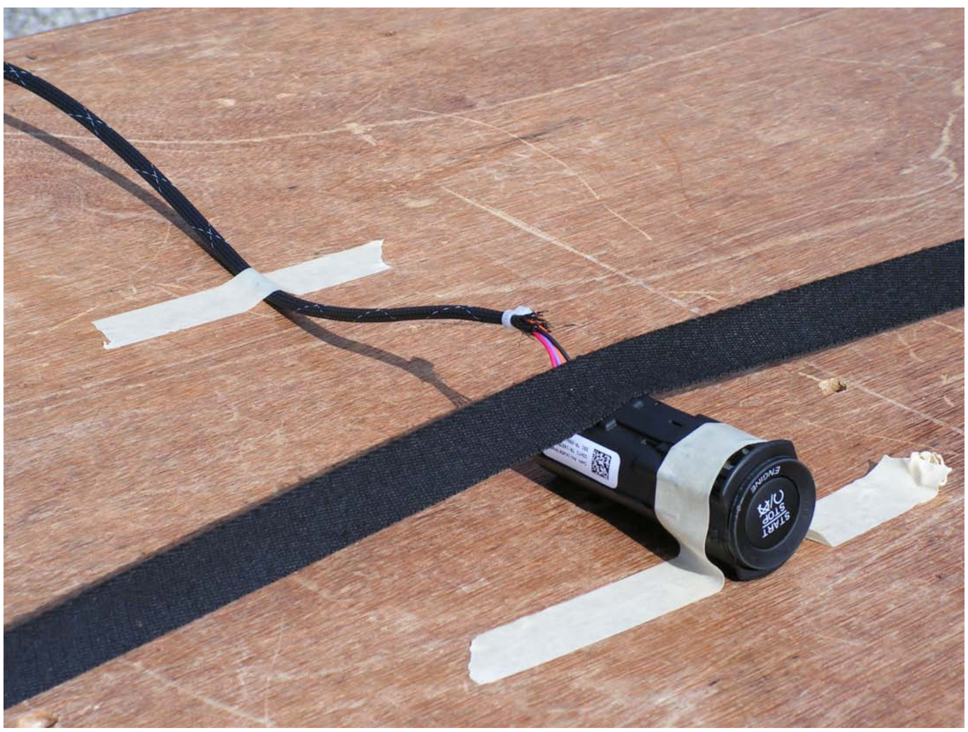


Figure 6.4. Relative emission at fundamental vs. supply voltage (pulsed).

Photograph 6.5. DUT on OATS (one of three axes tested)



Photograph 6.6. Close-up of DUT on OATS (one of three axes tested)