

5.2 Field strength of the fundamental wave

For test instruments and accessories used see section 6 Part CPR 1.

5.2.1 Description of the test location

Test location: OATS1

Test distance: 10 metres

5.2.2 Photo documentation of the test set-up

Evolve G10:



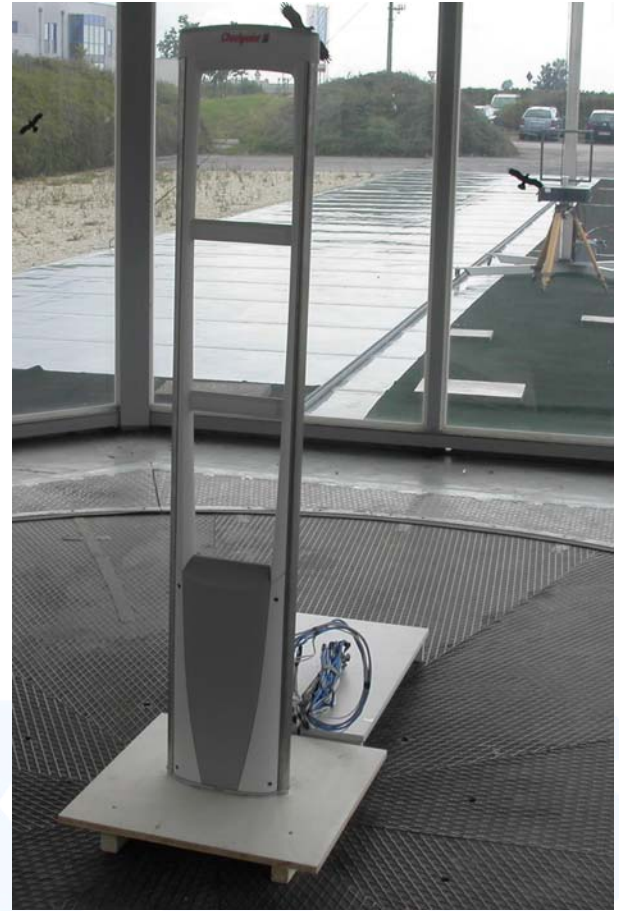
Evolve G20:



Evolve P10:



Evolve P20:



5.2.3 Description of Measurement

The magnetic field strength from the EuT will be measured on an open area test site in the frequency range of 9 kHz to 30 MHz using a tuned receiver and a shielded loop antenna. The set up of the Equipment under test will be in accordance to ANSI C63.4-2003. The antenna was positioned 3, 10 or 30 meters horizontally from the EuT. Measurements have been made in all three orthogonal axes and the shielded loop antenna was rotated to locate the maximum of the emissions. In the case where larger measuring distances are required the results will extrapolated based on the values measured on the closer distances according to Section 15.31 (f) (2) [2]. The final measurement will be performed with an EMI Receiver set to an average and a peak detector.

The final level, expressed in $\text{dB}\mu\text{V}/\text{m}$, is arrived at by taking the reading from the EMI receiver (Level $\text{dB}\mu\text{V}$) and adding the antenna correction factor and cable loss factor (Factor dB) to it. This result then has to be compared with the relevant FCC limit.

The resolution bandwidth during the measurement was 300 kHz.

5.2.4 Test result

Evolve G10:

10m Distance measured:

Frequency [MHz]	L: PK [dBµV]	Correct. [dB]	L: PK [dBµV/m]	Limit [dBµV/m]	Delta [dB]
8.2	58.52	20	78.52	80.0	1.48
9.0	58.24	20	78.24	80.0	1.76
9.5	58.17	20	78.17	80.0	1.83

30m Distance calculated:

Frequency [MHz]	L: PK [dBµV]	Correct. [dB]	L: PK [dBµV/m]	Limit [dBµV/m]	Delta [dB]
8.2	38.52	20	58.52	60.0	1.48
9.0	38.24	20	58.24	60.0	1.76
9.5	38.17	20	58.17	60.0	1.83

Evolve G20:

10m Distance measured:

Frequency [MHz]	L: PK [dBµV]	Correct. [dB]	L: PK [dBµV/m]	Limit [dBµV/m]	Delta [dB]
8.2	57.70	20	77.70	80.0	2.30
9.0	57.48	20	77.48	80.0	2.52
9.5	57.58	20	77.58	80.0	2.42

30m Distance calculated:

Frequency [MHz]	L: PK [dBµV]	Correct. [dB]	L: PK [dBµV/m]	Limit [dBµV/m]	Delta [dB]
8.2	37.70	20	57.70	60.0	2.30
9.0	37.48	20	57.48	60.0	2.52
9.5	37.58	20	57.58	60.0	2.42

Evolve P10:

10m Distance measured

Frequency [MHz]	L: PK [dBµV]	Correct. [dB]	L: PK [dBµV/m]	Limit [dBµV/m]	Delta [dB]
8.2	57.75	20	77.75	80.0	2.25
9.0	58.03	20	78.03	80.0	1.97
9.5	59.12	20	79.12	80.0	0.88

30m Distance calculated:

Frequency [MHz]	L: PK [dBµV]	Correct. [dB]	L: PK [dBµV/m]	Limit [dBµV/m]	Delta [dB]
8.2	37.75	20	57.75	60.0	2.25
9.0	38.03	20	58.03	60.0	1.97
9.5	39.12	20	59.12	60.0	0.88

Evolve P20:

10m Distance measured:

Frequency [MHz]	L: PK [dBµV]	Correct. [dB]	L: PK [dBµV/m]	Limit [dBµV/m]	Delta [dB]
8.2	58.82	20	78.82	80.0	1.18
9.0	57.84	20	77.84	80.0	2.16
9.5	58.99	20	78.99	80.0	1.01

30m Distance calculated:

Frequency [MHz]	L: PK [dBµV]	Correct. [dB]	L: PK [dBµV/m]	Limit [dBµV/m]	Delta [dB]
8.2	38.82	20	58.82	60.0	1.18
9.0	37.84	20	57.84	60.0	2.16
9.5	38.99	20	58.99	60.0	1.01

Limit according to FCC Part 15 Subpart 15.223, 15.35(b)

Frequency (MHz)	Field strength of fundamental – Average Detector	
	(µV/m)	dB (µV/m)
1.705-10.0	100*	40*

Frequency (MHz)	Field strength of fundamental – Peak Detector	
	(µV/m)	dB (µV/m)
1.705-10.0	1000*	60*

* At a test distance of 30 metres

The requirements are **FULFILLED**.

Remarks:

5.3 Spurious emissions (Magnetic field) 9 kHz – 30 MHz

For test instruments and accessories used see section 6 Part SER 1.

5.3.1 Description of the test location

Test location: OATS1

Test distance: 10 metres

5.3.2 Photo documentation of the test set-up

Evolve G10:



Evolve G20:



Evolve P10:



Evolve P20:



5.3.3 Description of Measurement

The spurious emissions from the EuT will be measured on an open area test site in the frequency range of 9 kHz to 30 MHz using a tuned receiver and a shielded loop antenna. The antenna was positioned 3, 10 or 30 meters horizontally from the EuT. Measurements have been made in all three orthogonal axes and the shielded loop antenna was rotated to locate the maximum of the emissions. In the case where larger measuring distances are required the results will extrapolated based on the values measured on the closer distances according to Section 15.31 (f) (2) [2]. The final measurement will be performed with an EMI Receiver set to Quasi Peak detector except for the frequency bands 9 kHz to 90 kHz and 110 to 490 kHz where an average detector will be used according to Section 15.209 (d) [2].

The final level, expressed in dB μ V/m, is arrived at by taking the reading from the EMI receiver (Level dB μ V) and adding the antenna correction factor and cable loss factor (Factor dB) to it. This result then has to be compared with the relevant FCC limit.

The resolution bandwidth during the measurement is as follows:

9 kHz – 150 kHz: ResBW: 200 Hz
150 kHz – 30 MHz: ResBW: 300 kHz

Example:

Frequency (MHz)	Level (dB μ V)	+	Factor (dB)	=	Level (dB μ V/m)	Limit (dB μ V/m)	=	Delta (dB)
1.705	5	+	20	=	25	30	=	5

5.3.4 Test result

Evolve G10

Tx Frequency: 8.2 MHz Band, 9.0 MHz Dual Band and 9.5 MHz Band

Frequency [MHz]	L: PK [dBµV]	L: AV [dBµV]	L: QP [dBµV]	Correct. [dB]	L: PK [dBµV/m]	L: AV [dBµV/m]	L: QP [dBµV/m]	Limit [dBµV/m]	Delta [dB]
0.009 – 30.0				20				40.0	> 20

Evolve G20

Tx Frequency: 8.2 MHz Band, 9.0 MHz Dual Band and 9.5 MHz Band

Frequency [MHz]	L: PK [dBµV]	L: AV [dBµV]	L: QP [dBµV]	Correct. [dB]	L: PK [dBµV/m]	L: AV [dBµV/m]	L: QP [dBµV/m]	Limit [dBµV/m]	Delta [dB]
0.009 – 30.0				20				40.0	> 20

Evolve P10

Tx Frequency: 8.2 MHz Band, 9.0 MHz Dual Band and 9.5 MHz Band

Frequency [MHz]	L: PK [dBµV]	L: AV [dBµV]	L: QP [dBµV]	Correct. [dB]	L: PK [dBµV/m]	L: AV [dBµV/m]	L: QP [dBµV/m]	Limit [dBµV/m]	Delta [dB]
0.009 – 30.0				20				40.0	> 20

Evolve P20

Tx Frequency: 8.2 MHz Band, 9.0 MHz Dual Band and 9.5 MHz Band

Frequency [MHz]	L: PK [dBµV]	L: AV [dBµV]	L: QP [dBµV]	Correct. [dB]	L: PK [dBµV/m]	L: AV [dBµV/m]	L: QP [dBµV/m]	Limit [dBµV/m]	Delta [dB]
0.009 – 30.0				20				40.0	> 20

Limit according to FCC Part 15 Subpart 15.209(a), Subpart 15.223(a)

Frequency (MHz)	Field strength of spurious emissions		Measurement distance (meters)
	(µV/m)	dB (µV/m)	
0.009-0.490	2400/F(kHz)	--	300
0.490-1.705	24000/F (kHz)	--	30
1.705-30.0	100	40	30

The requirements are **FULFILLED**.

Remarks:

5.4 Radiated emissions (electric field) 30 MHz – 1 GHz

For test instruments and accessories used see section 6 Part SER 2.

5.4.1 Description of the test location

Test location: OATS1

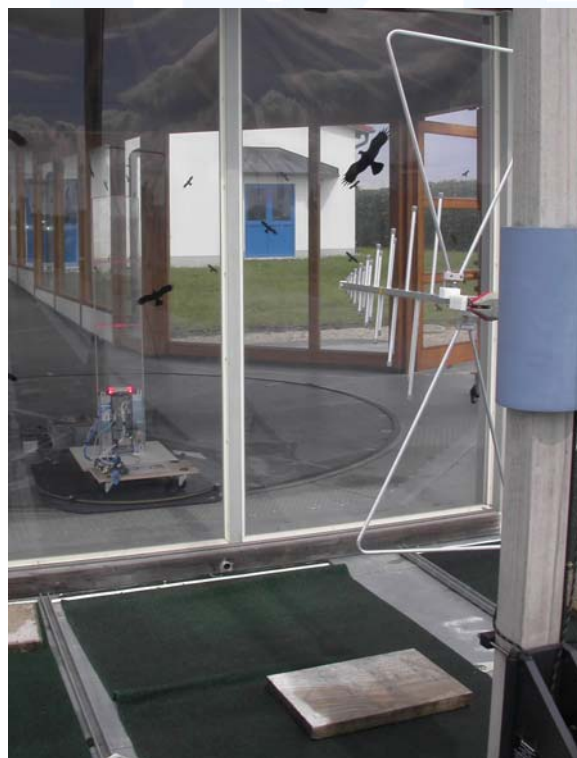
Test distance: 3 metres

5.4.2 Photo documentation of the test set-up

Evolve G10:



Evolve G20:



Evolve P10:



Evolve P20:



5.4.3 Description of Measurement

Spurious emissions from the EuT are measured in the frequency range of 30 MHz to 1000 MHz using a tuned receiver and appropriate broadband linearly polarized antennas. Measurements between 30 MHz and 1000 MHz are made with 120 kHz/6 dB bandwidth and quasi-peak detection. Table top equipment is placed on a 1.0 X 1.5 meter non-conducting table 80 centimetres above the ground plane. Floor standing equipment is placed directly on the turntable/ground plane. The set up of the Equipment under test will be in accordance to ANSI C63.4-2003. The Interface cables that are closer than 40 centimetres to the ground plane are bundled in the center in a serpentine fashion so they are at least 40 centimetres from the ground plane. Cables to simulators/testers (if used in this test) are routed through the center of the table and to a screen room located outside the test area. The antenna was positioned 3, 10 or 30 meters horizontally from the EuT. To locate maximum emissions from the test sample the antenna is varied in height from 1 to 4 meters, measurement scans are made with both horizontal and vertical antenna polarization's and the EuT are rotated 360 degrees.

The final level, expressed in dBµV/m, is arrived by taking the reading from the EMI receiver (Level dBµV) and adding the correction factors and cable loss factor (Factor dB) to it. This is done automatically in the EMI receiver, where the correction factors are stored. This result then has the FCC or CISPR limit subtracted from it to provide the Delta which gives the tabular data as shown in the data sheets at page.

The resolution bandwidth during the measurement is as follows:
30 MHz – 1000 MHz: ResBW: 120 kHz

Example:

Frequency (MHz)	Level (dBµV)	+	Factor (dB)	=	Level (dBµV/m)	Limit (dBµV/m)	=	Delta (dB)
719	75	+	32.6	=	107.6	110	=	-2.4

5.4.4 Test result

Extract of the critical values:

Evolve G10, Tx Frequency: 8.2 MHz

Frequency [MHz]	L: QP [dBµV]	Correct. [dB]	L: QP [dBµV/m]	Limit [dBµV/m]	Delta [dB]
40.10	16.3	15.1	31.4	40.0	8.6
43.01	19.4	14.9	34.3	40.0	5.7
51.01	15.4	14.6	30.0	40.0	10.0
70.12	18.6	12.2	30.8	40.0	9.2
77.02	25.3	11.2	36.5	40.0	3.5
439.28	12.5	19.2	31.7	46.0	14.3

Evolve G20, Tx Frequency: 8.2 MHz

Frequency [MHz]	L: QP [dBµV]	Correct. [dB]	L: QP [dBµV/m]	Limit [dBµV/m]	Delta [dB]
41.42	22.8	15.0	37.8	40.0	2.2
51.04	19.5	14.6	34.1	40.0	5.9
54.53	13.9	14.4	28.3	40.0	11.7
86.30	16.5	10.9	27.4	40.0	12.6
240.19	13.8	14.0	27.8	46.0	18.2
488.62	9.8	20.4	30.2	46.0	15.8

Extract of the critical values:

Evolve P10, Tx Frequency: 8.2 MHz

Frequency [MHz]	L: QP [dB μ V]	Correct. [dB]	L: QP [dB μ V/m]	Limit [dB μ V/m]	Delta [dB]
43.04	16.8	14.9	31.7	40.0	8.3
51.69	23.1	14.6	37.7	40.0	2.3
86.13	22.3	10.9	33.2	40.0	6.8
240.27	19.3	14.0	33.3	46.0	12.7
436.23	13.8	19.2	33.0	46.0	13.0
453.40	14.7	19.6	34.3	46.0	11.7

Evolve P20, Tx Frequency: 8.2 MHz

Frequency [MHz]	L: QP [dB μ V]	Correct. [dB]	L: QP [dB μ V/m]	Limit [dB μ V/m]	Delta [dB]
43.06	19.2	14.9	34.1	40.0	5.9
51.04	21.4	14.6	36.0	40.0	4.0
54.53	16.8	14.4	31.2	40.0	8.8
86.10	20.9	10.9	31.8	40.0	8.2
200.00	19.2	12.2	31.4	43.5	12.1
489.85	9.7	20.4	30.1	46.0	15.9

Limit according to FCC Part 15 Subpart 15.209(a)

Frequency (MHz)	Field strength of spurious emissions		Measurement distance (meters)
	(μ V/m)	dB (μ V/m)	
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
960-1000	500	54	3

The requirements are **FULFILLED**.

Remarks:

5.5 Emission Bandwidth

For test instruments and accessories used see section 6 Part MB.

5.5.1 Description of the test location

Test location: AREA4

5.5.2 Photo documentation of the test set-up



5.5.3 Test result

Tx Frequency: 8.2 MHz Band

Fundamental [MHz] See Plot 1	6dB Bandwidth F1 [MHz]	6dB Bandwidth F2 [MHz]	Measured Bandwidth [MHz]
8.2	7.62	8.85	1.23

Tx Frequency: 9.0 MHz Dual Band

Fundamental [MHz] See Plot 2	6dB Bandwidth F1 [MHz]	6dB Bandwidth F2 [MHz]	Measured Bandwidth [MHz]
8.2 & 9.2	7.707	9.604	1.897

5.5.4 Test protocol

Emission Bandwidth
FCC Part 15 Subpart 15.223(a)

Plot 1:

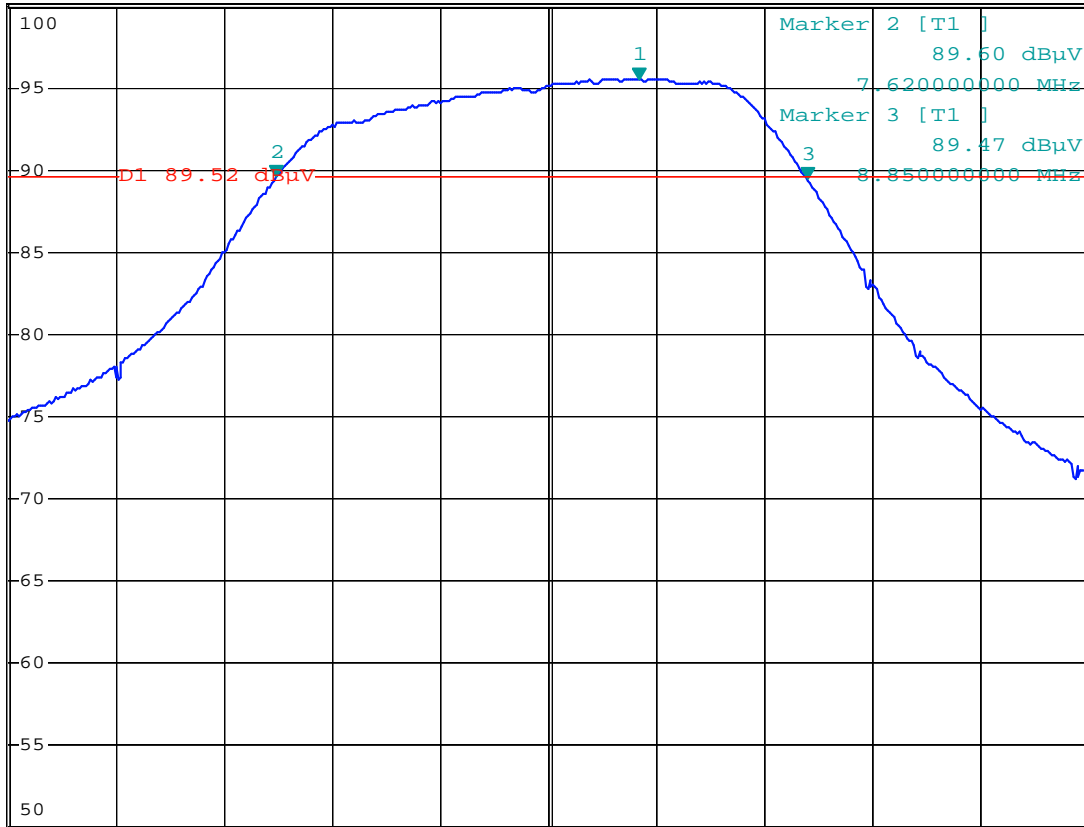


*RBW 300 kHz Marker 1 [T1]
*VBW 300 kHz 95.52 dBμV
SWT 2.5 ms 8.460000000 MHz

Ref 100 dBμV

Att 30 dB

1 PK
VIEW



Start 7 MHz

250 kHz/

Stop 9.5 MHz

Date: 16.JUL.2007 14:26:14

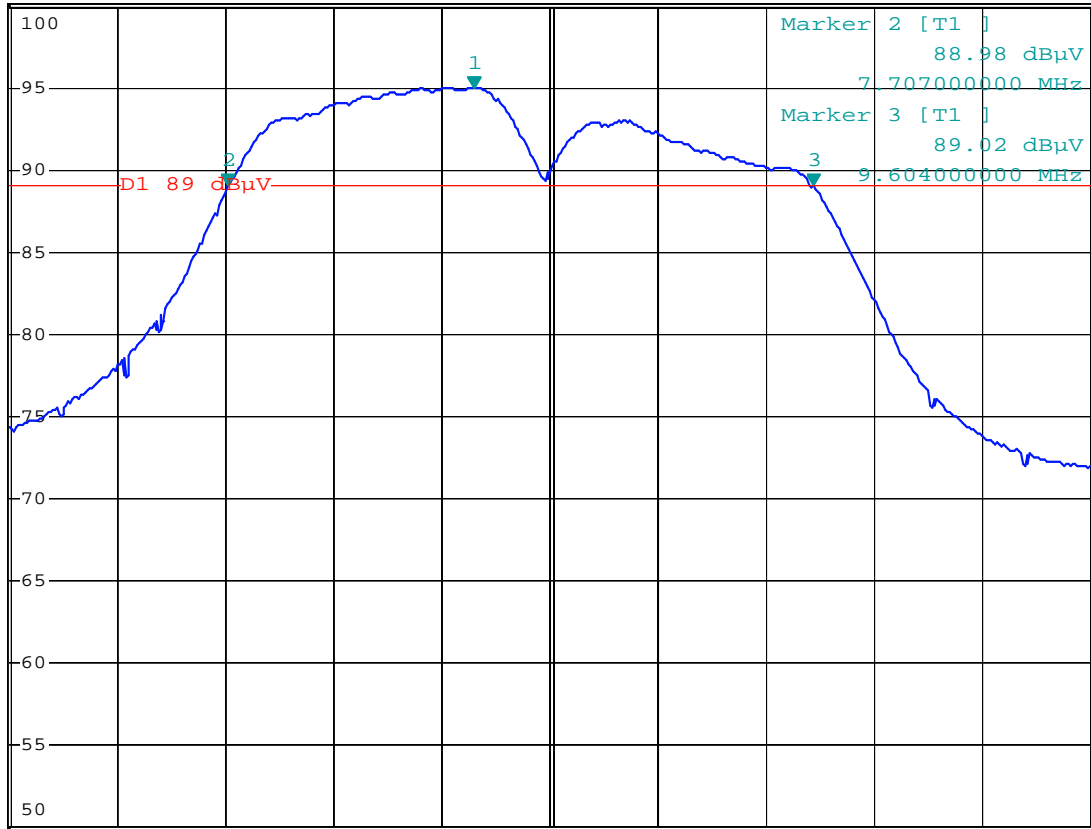
Emission Bandwidth
FCC Part 15 Subpart 15.223(a)

Plot 2:



*RBW 300 kHz Marker 1 [T1] 95.00 dBµV
 *VBW 300 kHz 8.505000000 MHz
 Ref 100 dBµV Att 30 dB SWT 2.5 ms

1 PK
VIEW



Center 8.75 MHz 350 kHz/ Span 3.5 MHz

Date: 16.JUL.2007 14:52:06

5.6 Correction for Pulse Operation (Duty Cycle)

For test instruments and accessories used see section 6 Part DC.

5.6.1 Description of the test location

Test location: AREA4

5.6.2 Photo documentation of the test set-up



5.6.3 Description of Measurement

The Duty cycle factor, expressed in dB, is arrived by taking the following formula:

$$KE = 20 \log [(t_{iB} \cdot p) / T_w]$$

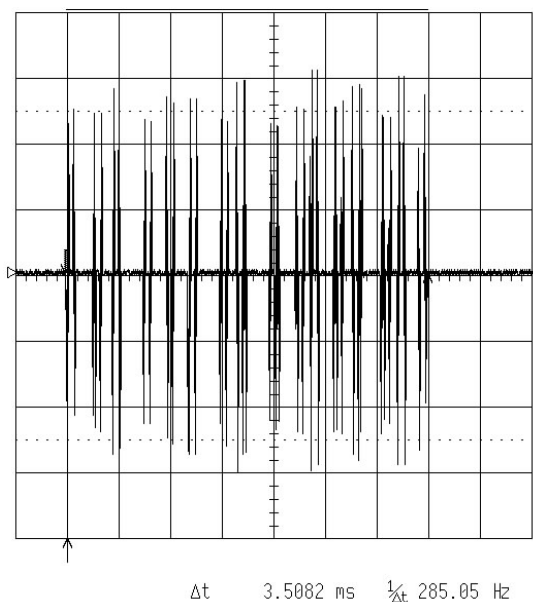
- KE: pulse operation correction factor [dB]
 t_{iw} : pulse duration for one complete pulse track [msec]
 t_{iB} : pulse duration for one pulse [μ sec]
 T_w : a period of the pulse track [msec]
 p : number of pulses in one train

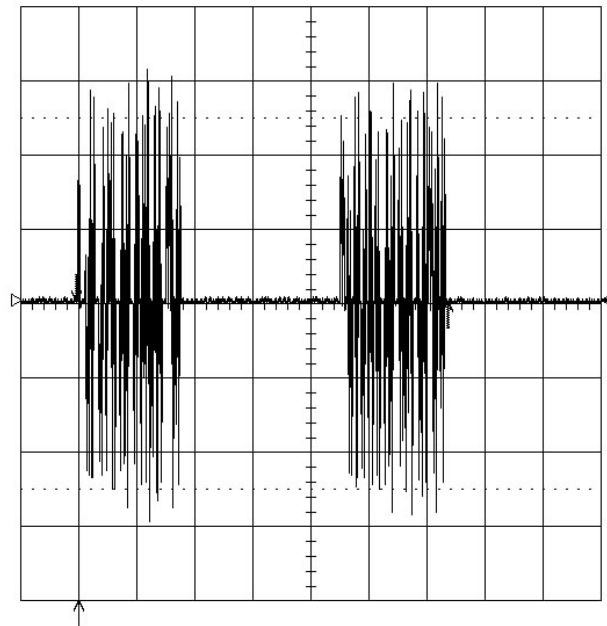
5.6.4 Test result

t_{iw} [msec]	T_w [msec]	t_{ib} [µsec]	p	KE [dB / %]
3.508	12.800	6.781	64	-29.39 / 3.39

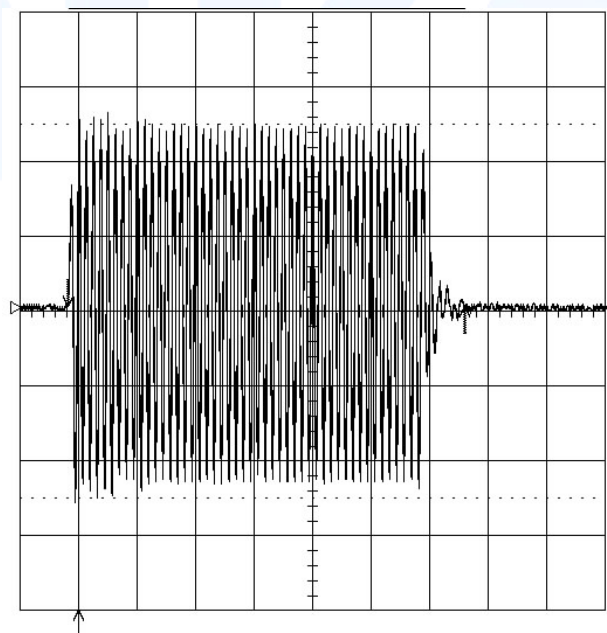
Remarks: For detailed results, please see the test protocol below.

5.6.5 Test protocol





Δt 12.800 ms $\frac{1}{\Delta t}$ 78.125 Hz



Δt 6.781 μ s $\frac{1}{\Delta t}$ 147.47 kHz

6 USED TEST EQUIPMENT AND ACCESSORIES

All test instruments used, in addition to the test accessories, are calibrated and verified regularly.

The calibration intervals and the calibration history will be given out on request.

Test Report No: T31884-00-00HU
 Beginning of Testing: 10 Juli 2007
 End of Testing: 08 August 2007

Test ID	Model Type	Kind of Equipment	Manufacturer	Equipment No.
A 4	ESHS 30	EMI Test Receiver	Rohde & Schwarz München	02-02/03-05-002
	NNLK 8129	LISN	Schwarzbeck Mess-Elektronik	02-02/20-05-001
	ESH 2 - Z 5	LISN	Rohde & Schwarz München	02-02/20-05-004
	N-4000-BNC	RF Cable	mikes-testingpartners gmbh	02-02/50-05-138
	N-1500-N	RF Cable	mikes-testingpartners gmbh	02-02/50-05-140
	ESH 3 - Z 2	Pulse Limiter	Rohde & Schwarz München	02-02/50-05-155
	SP 103 /3.5-60	Convertor 220V / 110V	mikes-testingpartners gmbh	02-02/50-05-182
CPR 1	FMZB 1516	Magnetic Field Antenna	Schwarzbeck Mess-Elektronik	01-02/24-01-018
	ESCI	EMI Test Receiver	Rohde & Schwarz München	02-02/03-05-005
	S10162-B/+11N-50-10-5	RF Cable 33m	Huber + Suhner	02-02/50-05-031
	KK-EF393-21N-16	RF Cable 20m	Huber + Suhner	02-02/50-05-033
	NW-2000-NB	RF Cable	Huber + Suhner	02-02/50-05-113
DC	THS730A	Handheld Scope	Tektronix GmbH	02-02/13-05-001
MB	ESCI	EMI Test Receiver	Rohde & Schwarz München	02-02/03-05-005
	HZ-10	Magnetic Field Antenna	Rohde & Schwarz München	02-02/24-05-012
SER 1	FMZB 1516	Magnetic Field Antenna	Schwarzbeck Mess-Elektronik	01-02/24-01-018
	ESCI	EMI Test Receiver	Rohde & Schwarz München	02-02/03-05-005
	S10162-B/+11N-50-10-5	RF Cable 33m	Huber + Suhner	02-02/50-05-031
	KK-EF393-21N-16	RF Cable 20m	Huber + Suhner	02-02/50-05-033
	NW-2000-NB	RF Cable	Huber + Suhner	02-02/50-05-113
SER 2	ESVS 30	EMI Test Receiver	Rohde & Schwarz München	02-02/03-05-006
	VULB 9168	Trilog-Broadband Antenna	Schwarzbeck Mess-Elektronik	02-02/24-05-005
	S10162-B/+11N-50-10-5	RF Cable 33m	Huber + Suhner	02-02/50-05-031
	KK-EF393-21N-16	RF Cable 20m	Huber + Suhner	02-02/50-05-033
	NW-2000-NB	RF Cable	Huber + Suhner	02-02/50-05-113

7 Constructional dataform for testing

Licence holder:	Checkpoint Systems, Inc.			
Address:	101 Wolf Drive, Thorofare, New Jersey, USA 08086			
Manufacturer:	Pikatron Feinwerktechnik GmbH & Co. KG			
Address:	Raiffeisenstrasse 10, 61250 Usingen			
Type:	Electronic Article Surveillance Detection Systems			
Model Names:	EVOLVE (EMERALD ELECTRONIC) Models: EVOLVE P10, EVOLVE P20, EVOLVE G10, EVOLVE G20			
Serial-No.:	EVOLVE P10 S/N: 7411639C0U01857003	EVOLVE P20 S/N: 7172727C0U01857003	EVOLVE G10 S/N: 7410859C0U01857003	EVOLVE G20 S/N: 7283991C0U01857003

Additional information to the above named model:

Antenna: transmitter-receiver	Type: Loop Antennas			
	EVOLVE P10	EVOLVE P20	EVOLVE G10	EVOLVE G20
Antenna				
Width	460 mm	270 mm	500 mm	300 mm
Height	1430 mm	1550 mm	1390 mm	1640 mm
Power supply of the transmitter:				
Type:	nominal voltage:			24.0 V
	lowest voltage:			18.0 V
	highest voltage:			25.0 V
	current consumption			0.5 A
Power supply of the receiver:	Same as transmitter			
Type:	nominal voltage:			V
	lowest voltage:			V
	highest voltage:			V
	current consumption			A

Ancillary equipment:

Description:	PSU	Type:	GT-2S5024D-R	Serial-no.:	RoHS00983803/06
Description:	PSU	Type:	GT-2S5024D-R-ES	Serial-no.:	Prototype
Description:		Type:		Serial-no.:	
Description:		Type:		Serial-no.:	

Extreme temperature range in which the approval test should be performed:

- Category I: General (-20°C to +55°C)
- Category II: Portable (-10°C to +55°C)
- Category III: Equipment for normal indoor use (0°C to +55°C)

Connectable cables:

Name of the cable	Digital	Length/m	shielded
DC cable from PSU	<input type="radio"/> yes <input checked="" type="radio"/> no	5.0	<input type="radio"/> yes <input checked="" type="radio"/> no
Additional cables listed in the attachment	<input type="radio"/> yes <input type="radio"/> no		<input type="radio"/> yes <input type="radio"/> no
	<input type="radio"/> yes <input type="radio"/> no		<input type="radio"/> yes <input type="radio"/> no

Type designation: EVOLVE (EMERALD ELECTRONIC) Antenna Models: G10, G20, P10 and P20			
Name and type designation of individual units comprising the radio equipment: PSU, GT-2S5024D-R PSU, GT-2S5024D-R-ES			
Type of equipment:			
<input type="checkbox"/> Radiotelephone equipment	<input type="checkbox"/> Remote-control equipment	<input type="checkbox"/> Radiomaritime equipment	<input type="checkbox"/> LPD
<input type="checkbox"/> One-way radiotelephone equipment	<input checked="" type="checkbox"/> Inductive loop system	<input type="checkbox"/> Inland waterways equipment	<input type="checkbox"/> RLAN
<input type="checkbox"/> Personal paging system	<input type="checkbox"/> Radio-relay system	<input type="checkbox"/> Radionavigation equipm.	<input type="checkbox"/>
<input type="checkbox"/> Satellite earth station	<input type="checkbox"/> CB radiotelephone equipment	<input type="checkbox"/> Antenna	<input type="checkbox"/>
<input type="checkbox"/> Data transmission equipment	<input type="checkbox"/> Movement detector	<input type="checkbox"/> Aeronautical equipment	<input type="checkbox"/>
Technical characteristics:			
	Transmitter-receiver	Transmitter	Receiver
Frequency range	7.4 – 10.0 MHz		
Maximum no. of channels	1		
Channel spacing			
Class of emission (type of modulation)	P0N		
Maximum RF output power			
Maximum effective radiated power (ERP)	60 dB uV/m at 30 m		
Output power variable	Yes		
Channel switching frequency range			
Method of frequency generation	<input checked="" type="checkbox"/> Synthesizer	<input type="checkbox"/> Crystal	<input type="checkbox"/> Other
Frequency generation TX			
Frequency generation RX			
IF	1st IF	2nd IF	3rd IF
Integral selective calling			
Audio-frequency interface level at external data socket			
Modes of operation	<input type="checkbox"/> Duplex mode	<input type="checkbox"/> Semi-duplex mode	<input checked="" type="checkbox"/> Simplex mode
Power source	<input checked="" type="checkbox"/> Mains	<input type="checkbox"/> Vehicle-regulated	<input type="checkbox"/> Integral
Antenna socket	<input type="checkbox"/> BNC <input type="checkbox"/> M <input checked="" type="checkbox"/> None	<input type="checkbox"/> TNC <input type="checkbox"/> UHF <input type="checkbox"/>	<input type="checkbox"/> N <input type="checkbox"/> Adapter <input type="checkbox"/>
Test specifications: FCC Part 15 Sub Part C (October, 2006) RSS 210 Issue 7, (June 2007)			

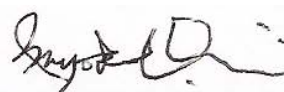
Declarations:

- We declare that the above information are correct and the named model was supplied with the maximum configuration to the accredited test laboratory.

THOROFARE, NJ

place of issue

,date JUL 27, 2007



Seal and signature of applicant

mikes

FCC / IC System Setup				
Antenna Type	Serial Number	Power Supply	Max. Tx Power Setting in DMS (Ant1, Ant2)	Frequency Band in DMS
Evolve G10	7410859C0U01857003	GT-2S5024D-R and GT-2S5024D-R-ES	20	8.2
			20	9.0 (Dual Band)
			20	9.5
Evolve G20	7283991C0U01857003	GT-2S5024D-R and GT-2S5024D-R-ES	19	8.2
			19	9.0 (Dual Band)
			19	9.5
Evolve P10	7411639C0U01857003	GT-2S5024D-R and GT-2S5024D-R-ES	24	8.2
			24	9.0 (Dual Band)
			24	9.5
Evolve P20	7172727C0U01857003	GT-2S5024D-R and GT-2S5024D-R-ES	26	8.2
			26	9.0 (Dual Band)
			26	9.5

Connected Cables							
Connector	Pin #	Wire Color	Termination Resistors	Function	Cable Length	Supplier Part #	Termination Resistor
J72 (MAIN)	1	Green	R1/1	People Counter Sensor	2.4 m	Belden - 82723 plenum rated	100Ohm
	2	Black	R1/2				
	3	White					
	4	Red					
J13	1	Black		R1/1	Metal Point		Belden - 82723 plenum rated
	2	Red	R1/2				
J6/J7/J54	1	Green	R1/1	Deactivator Interlock 4/3/2	2.4 m	Belden - 82723 plenum rated	10KOhm
	2	White	R1/2	Ext. Sounder 4			
	3	Black	R2/1				
	4	Red	R2/2				
J20/J22	1	Red	R1/1		Pedestal Synchronization	2.4 m	Belden - 82723 plenum rated
	2	Black	R1/2				
	3	Ground					
J48				BADGE	0.5 m	Pedestal Integrated	
J18 or J31				Pedestal Main Power	0.3 m	from filter pcb	
J41	1	white-blue	R1/1	External Counter	4.2 m	Olympic - 3804M5-6 plenum rated	10KOhm
	2	blue	R1/2				
	3	ground		External Alarm Lights			
	4	white-orange	R2/1				
	5	orange	R2/2				
J9	1	white-blue	R1/1	Alarm Group	4.2 m	Olympic - 3804M5-6 plenum rated	10KOhm
	2	blue	R1/2	External Alarm Group			
	3	white-green					
	4	green+ground	R2/1				
	5	white-orange	R2/2				
	6	orange					
J44/J45	1	white-blue	R1/1		External Relay 0/1	4.2 m	Olympic - 3804M5-6 plenum rated
	2	blue	R1/2				
	3	white-green					
	4	white-orange	R2/1				
	5	orange	R2/2				
	6	green+ground					
J10/J14	1	red	R1/1	Inter-Pedestal Network Com.	2.4 m	Belden - 82723 plenum rated	100Ohm
	2	white	R2/1				
	3	ground					
	4	black	R1/2				
	5	green	R2/2				
J7				Ethernet /LAN	5 m	Cat5e	