

**DATE: 03 November 2008**

**I.T.L. (PRODUCT TESTING) LTD.**

**FCC Radio Test Report**

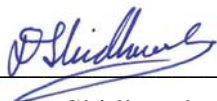
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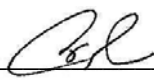
**Risco Ltd.**


**Equipment under test:**

**Two Way Keyfob**

**RW132KF2000H**

Written by:   
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Approved by:   
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Approved by:   
I. Raz, EMC Laboratory Manager

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This report relates only to items tested.



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# 1. General Information

## 1.1 Administrative Information

Manufacturer:	Risco Ltd.
Manufacturer's Address:	14 Hachoma St. Rishon Le T'zion 75655 Israel Tel: +972-3-963-7742 Fax: +972-3-961-6584
Manufacturer's Representative:	Efi Goren
Equipment Under Test (E.U.T):	Two Way Keyfob
Equipment Model No.:	RW132KF2000H
Equipment Serial No.:	Not Designated
Date of Receipt of E.U.T:	01.09.08
Start of Test:	01.09.08
End of Test:	01.10.08
Test Laboratory Location:	I.T.L (Product Testing) Ltd. Kfar Bin Nun, ISRAEL 99780
Test Specifications:	FCC Part 15 Sub-part C

## **1.2 List of Accreditations**

The EMC laboratory of I.T.L. is accredited by the following bodies:

1. The American Association for Laboratory Accreditation (A2LA) (U.S.A.), Certificate No. 1152.01.
2. The Federal Communications Commission (FCC) (U.S.A.), Registration No. 90715.
3. The Israel Ministry of the Environment (Israel), Registration No. 1104/01.
4. The Voluntary Control Council for Interference by Information Technology Equipment (VCCI) (Japan), Registration Numbers: C-1350, R-1285.
5. Industry Canada (Canada), File No. IC 4025.
6. TUV Product Services, England, ASLLAS No. 97201.
7. Nemko (Norway), Authorization No. ELA 207.

I.T.L. Product Testing Ltd. is accredited by the American Association for Laboratory Accreditation (A2LA) and the results shown in this test report have been determined in accordance with I.T.L.'s terms of accreditation unless stated otherwise in the report.

### **1.3 Product Description**

The EUT is a wireless 433.92MHz 8 button rolling code wireless transmitter.

The unit includes a small PCB, with an integral PCB printed antenna, powered by a 3V CR-1/3N lithium battery, inside a plastic enclosure.

The E.U.T. is used to arm, disarm, and get system status.

### **1.4 Test Methodology**

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4: 2003. Radiated testing was performed at an antenna to EUT distance of 3 meters.

### **1.5 Test Facility**

The radiated emissions tests were performed at I.T.L.'s testing facility at Kfar Bin-Nun, Israel. This site is a FCC listed test laboratory (FCC Registration No. 90715, date of listing August 22, 2006).

I.T.L.'s EMC Laboratory is also accredited by A2LA, certificate No. 1152.01.

### **1.6 Measurement Uncertainty**

Radiated Emission

The Open Site complies with the  $\pm 4$  dB Normalized Site Attenuation requirements of ANSI C63.4-2003. In accordance with Paragraph 5.4.6.1 of this standard, this tolerance includes instrumentation calibration errors, measurement technique errors, and errors due to site anomalies.

## 2. Product Labeling



Figure 1. FCC Label (26.5 mm x 11.5 mm)



Figure 2. Location of Label on EUT

## 3. System Test Configuration

### 3.1 *Justification*

Radiated emission screening was performed in 3 orthogonal orientations. The worst case orientation was the vertical position.

### 3.2 *EUT Exercise Software*

Manufacturing software was used for all the tests.

### 3.3 *Special Accessories*

A test jig was used to support the unit.

### 3.4 *Equipment Modifications*

No modifications were needed in order to achieve compliance

### 3.5 *Configuration of Tested System*

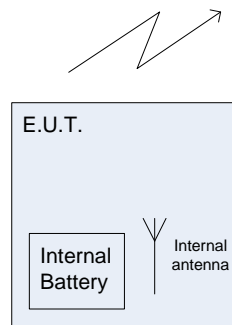


Figure 3. Configuration of Tested System



## 4. Radiated Measurement Test Set-up Photo



Figure 4. Radiated Emission Test

## 5. Average Factor Calculation

1. Transmission pulse duration = 225usec
2. Transmission pulse period = 413usec
3. Burst duration = 54.5msec
4. Time between bursts = 775msec , >100ms
5. Average Factor =  $20 \log \left[ \frac{\text{Pulse duration}}{\text{Pulse period}} \times \frac{\text{burst duration}}{100\text{msec}} \times \text{Num of burst within 100msec} \right]$

$$\text{Average Factor} = 20 \log \left[ \frac{0.225}{0.413} \times \frac{54.5}{100} \times 1 \right] = -10.54\text{dB}$$

09:44:18 SEP 08, 2008

ACTV DET: PEAK  
MEAS DET: PEAK QP AVG  
MKRΔ 225.00 μsec  
-5.44 dB

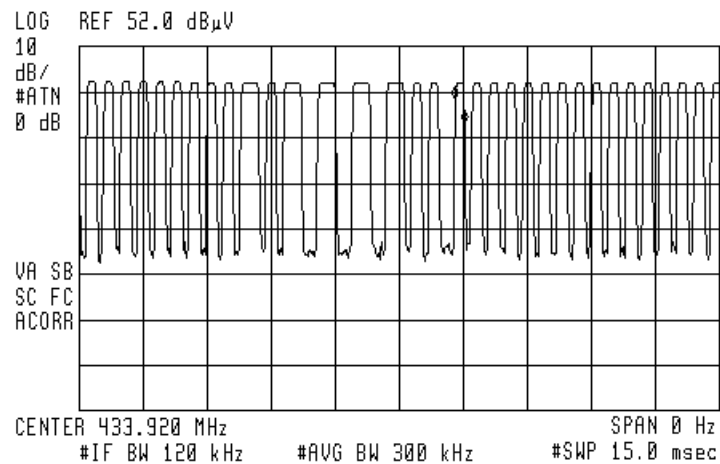


Figure 5. Transmission pulse duration = 225usec

09:45:10 SEP 08, 2008

ACTV DET: PEAK  
 MEAS DET: PEAK QP AVG  
 MKRΔ 413.00 μsec  
 1.73 dB

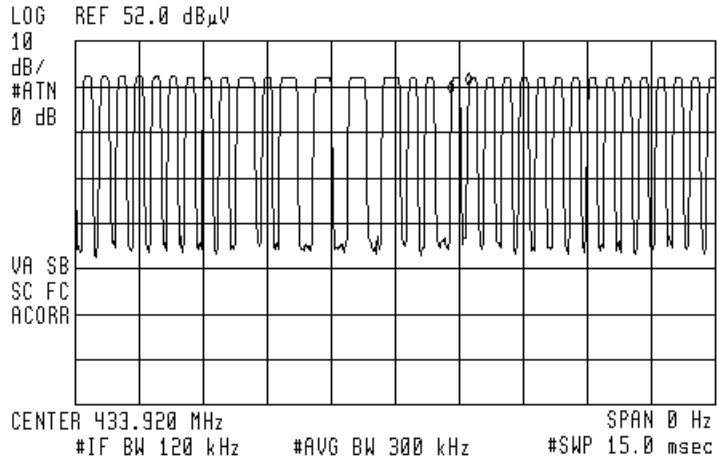


Figure 6. Transmission pulse period = 413usec

09:39:27 SEP 08, 2008

ACTV DET: PEAK  
 MEAS DET: PEAK QP AVG  
 MKRΔ 54.500 msec  
 1.47 dB

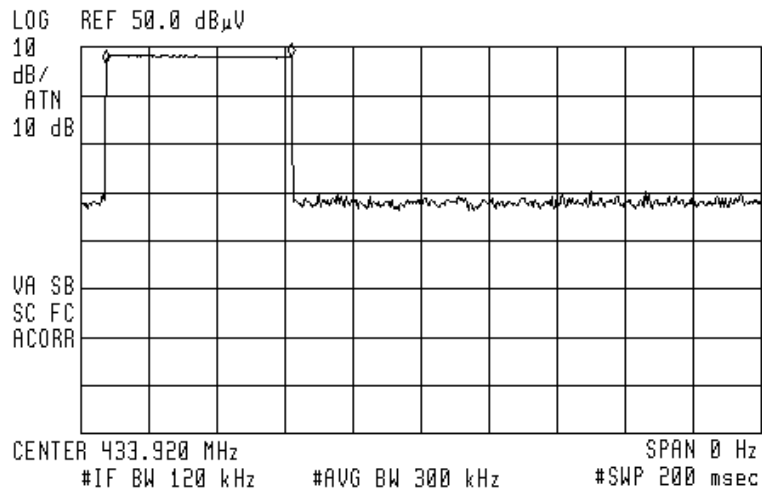


Figure 7. Burst duration = 54.5msec

09:37:31 SEP 08, 2008

ACTV DET: PEAK  
 MEAS DET: PEAK QP AVG  
 MKRΔ 775.00 msec  
 -.10 dB

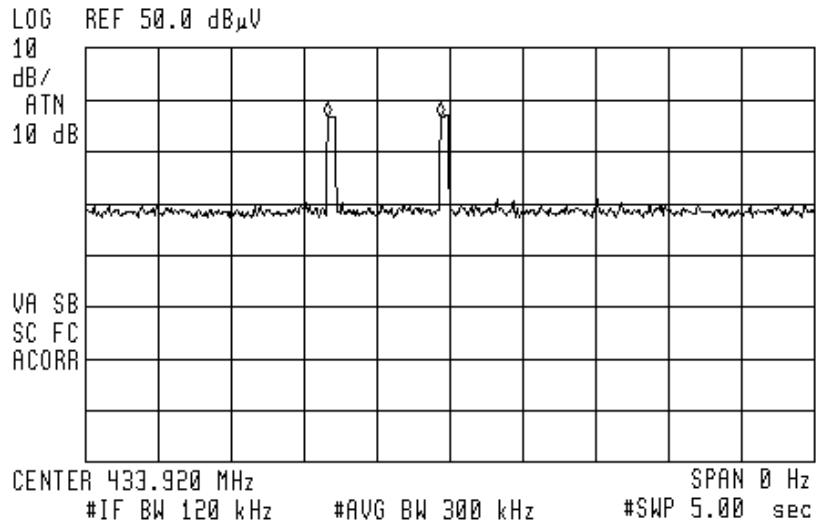


Figure 8. Time between bursts = 775msec , >100msec

### 5.1 Test Instrumentation Used

Instrument	Manufacturer	Model	Serial Number	Calibration	Period
Spectrum Analyzer	HP	8592L	3826A01204	March 5, 2008	1 Year
Antenna Bioconical	ARA	BCD 235/B	1041	March 23, 2008	1 year
Antenna Log Periodic	ARA	LPD-2010/A	1038	November 22, 2007	1 year
Antenna-Log Periodic	A.H.System	SAS-200/511	253	February 4, 2007	2 year
Antenna Mast	ARA	AAM-4A	1001	N/A	N/A
Turntable	ARA	ART-1001/4	1001	N/A	N/A
Mast & Table Controller	ARA	ACU-2/5	1001	N/A	N/A

## 6. Periodic Operation

### 6.1 Specification

F.C.C., Part 15, Subpart C, Section 15.231(a)

### 6.2 Requirements

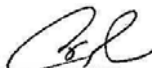
Requirement	Rationale	Verdict
Continuous transmissions are not permitted.	N/A	Complies
A manually operated transmitter shall be deactivated within not more than 5 seconds after releasing the switch.	See plots in Figure 9.	Complies
An automatically operated transmitter shall cease operation within 5 seconds after activation.	See plots in Figure 10.	Complies
Periodic transmissions at regular predetermined intervals are not permitted.	N/A	Complies
Polling or supervised transmissions to determine system integrity of transmitter used in security or safety applications shall not exceed more than 2 seconds per hour.	N/A	Complies

### 6.3 Results

JUDGEMENT: Passed

The EUT met the FCC Part 15, Subpart C, Section 15.231(a) specification requirements.

TEST PERSONNEL:

Tester Signature:  \_\_\_\_\_

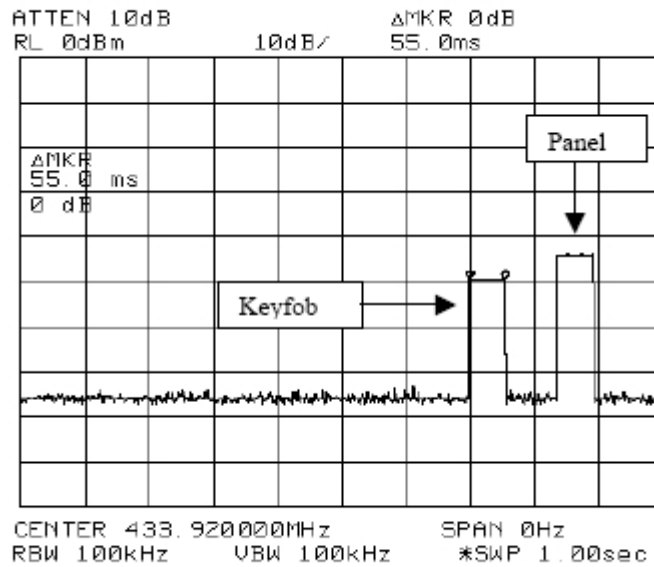
Date: 04.11.08

Typed/Printed Name: A. Sharabi

# Periodic Operation

E.U.T Description Two Way Keyfob  
 Type RW132KF2000H  
 Serial Number: Not Designated

Specification: F.C.C., Part 15, Subpart C, 15.231(a)



**Figure 9. A manually operated transmission by the Keyfob (55msec) And a response from the Panel**





## 7. Field Strength of Fundamental

### 7.1 Test Specification

F.C.C., Part 15, Subpart C, Section 15.231(b)

### 7.2 Test Procedure

The E.U.T. operation mode and test set-up are as described in Section 3.

The E.U.T. was placed on a non-conductive table, 0.8 meters above the O.A.T.S. ground plane.

The EMI receiver was set to the E.U.T. Fundamental Frequency (433.92MHz) and Peak Detection.

The turntable and antenna mast were adjusted for maximum level reading on the EMI receiver.

The measurement was performed for vertical and horizontal polarizations of the test antenna.

The average result is:

Peak Level(dB $\mu$ V/m) + E.U.T. Duty Cycle Factor, in 100msec time window (dB)

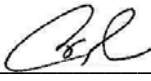
### 7.3 Measured Data

JUDGEMENT: Passed by 42.06 dB

The EUT met the FCC Part 15, Subpart C, Section 15.231(b) specification requirements.

The details of the highest emissions are given in Figure 11 to Figure 13.

TEST PERSONNEL:

Tester Signature: 

Date: 04.11.08

Typed/Printed Name: A. Sharabi

## Field Strength of Fundamental

E.U.T Description Two Way Keyfob  
 Type RW132KF2000H  
 Serial Number: Not Designated

Specification: F.C.C., Part 15, Subpart C, 15.231(b)

Antenna Polarization: Horizontal/Vertical

Test Distance: 3 meters

Detector: Peak

Freq.	Pol.	Peak Reading	Average Factor	AVG Result	AVG Specification	Margin
(MHz)	V/H	(dB $\mu$ V/m)	(dB)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	(dB)
433.92	H	43.62	-10.54	33.08	80.8	-47.42
433.92	V	49.28	-10.54	38.74	80.8	-42.06

**Figure 11. Field Strength of Fundamental. Antenna Polarization: HORIZONTAL/VERTICAL. Detector: Peak**

Notes:

1. Margin refers to the test results obtained minus specified requirement; thus a positive number indicates failure, and a negative result indicates that the product passes the test.
2. "Peak Reading" (dB $\mu$ V/m) included the "Correction Factors".
3. "Correction Factors" (dB) = Test Antenna Correction Factor(dB) + Cable Loss.
4. "Average Factor =  $20 \log [(Pulse\ Duration/Pulse\ period)*(Burst\ duration/100msec)] = 20 \log [ (0.225/0.413)*(54.5/100)*1] = -10.54$
5. "Average Result" (dB $\mu$ V/m)=Peak Reading (dB $\mu$ V/m)+D.C.F. (dB)

# Field Strength of Fundamental

E.U.T Description Two Way Keyfob  
 Type RW132KF2000H  
 Serial Number: Not Designated

Specification: F.C.C., Part 15, Subpart C, 15.231(b)

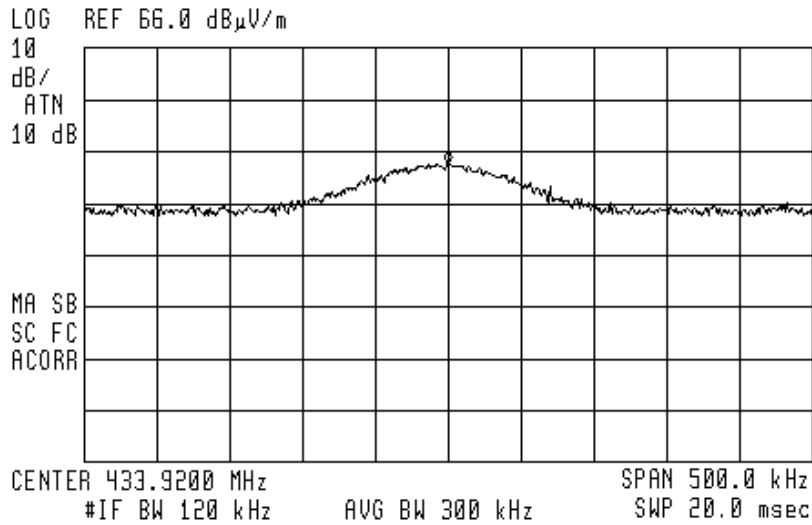
Antenna Polarization: Horizontal

Test Distance: 3 meters

Detectors: Peak, Quasi-peak, Average

09:05:29 SEP 08, 2008

ACTV DET: PEAK  
 MEAS DET: PEAK QP AVG  
 MKR 433.9200 MHz  
 43.62 dB $\mu$ V/m



**Figure 12. Field Strength of Fundamental. Antenna Polarization: HORIZONTAL. Detectors: Peak, Quasi-peak, Average**

# Field Strength of Fundamental

E.U.T Description Two Way Keyfob  
 Type RW132KF2000H  
 Serial Number: Not Designated

Specification: F.C.C., Part 15, Subpart C, 15.231(b)

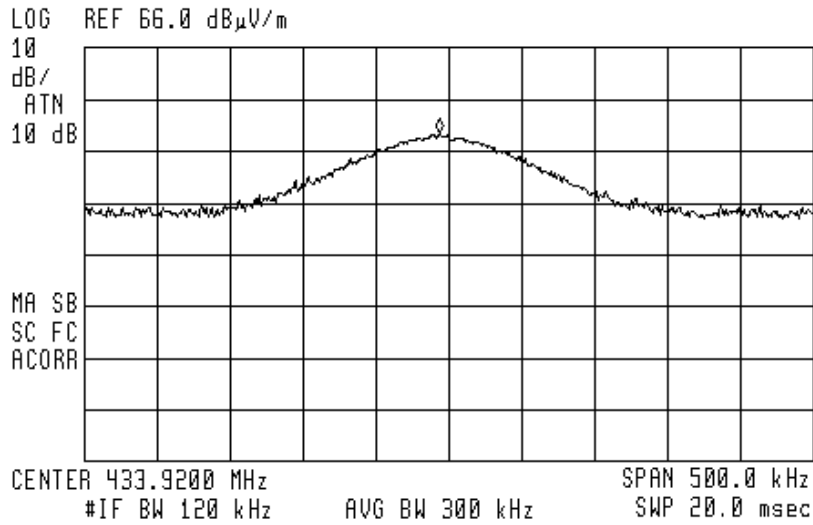
Antenna Polarization: Vertical

Test Distance: 3 meters

Detectors: Peak, Quasi-peak, Average

09:01:38 SEP 08, 2008

ACTV DET: PEAK  
 MEAS DET: PEAK QP AVG  
 MKR 433.9138 MHz  
 49.28 dB $\mu$ V/m



**Figure 13. Field Strength of Fundamental. Antenna Polarization: VERTICAL. Detectors: Peak, Quasi-peak, Average**

#### 7.4 Test Instrumentation Used, Field Strength of Fundamental

Instrument	Manufacturer	Model	Serial Number	Calibration	Period
EMI Receiver	HP	85422E	3906A00276	November 12, 2007	1 year
RF Section	HP	85420E	3705A00248	November 12, 2007	1 year
Antenna Log Periodic	ARA	LPD-2010/A	1038	November 22, 2007	1 year
Antenna Mast	ARA	AAM-4A	1001	N/A	N/A
Turntable	ARA	ART-1001/4	1001	N/A	N/A
Mast & Table Controller	ARA	ACU-2/5	1001	N/A	N/A
Printer	HP	LaserJet 2200	JPKG19982	N/A	N/A

## 8. Spurious Radiated Emission

### 8.1 Test Specification

9 kHz - 4500 MHz, F.C.C., Part 15, Subpart C

### 8.2 Test Procedure

The E.U.T. operation mode and test set-up are as described in Section 3. See Section 3.1 Justification of the System Test Configuration concerning the E.U.T. orientation for this test.

A preliminary measurement to characterize the E.U.T was performed inside the shielded room at a distance of 3 meters, using peak detection mode and broadband antennas. The preliminary measurements produced a list of the highest emissions. The E.U.T was then transferred to the open site, and placed on a remote-controlled turntable. The E.U.T was placed on a non-metallic table, 0.8 meters above the ground. The configuration tested is shown in Figure 3. The signals from the list of the highest emissions were verified and the list was updated accordingly.

The levels of the emissions within the frequency ranges of the restricted bands (Section 15.205 of FCC Part 15) were compared to the limits of the table in Section 15.209 (a), General Requirements.

The frequency range 9 kHz-4500 MHz was scanned.

The emissions were measured using a computerized EMI receiver complying to CISPR 16 requirements. The specification limits and applicable correction factors are loaded to the receiver via a 3.5" floppy disk.

In the frequency range 9 kHz-30MHz, the loop antenna was rotated on its vertical axis. The antenna height (center of loop) was 1 meter at a distance of 3 meters.

In the frequency range 2.9-4.5 GHz, a spectrum analyzer including a low noise amplifier was used. During peak measurements, the I.F. bandwidth was 1 MHz, and video bandwidth 3 MHz. During average measurements, the I.F. bandwidth was 1 MHz and video bandwidth was 100 Hz.

The readings were maximized by adjusting the antenna height between 1-4 meters, the turntable azimuth between 0-360°, and the antenna polarization. Verification of the E.U.T emissions was based on the following methods: turning the E.U.T on and off; using a frequency span less than 10 MHz; observation of the signal level during turntable rotation. (Background noise is not affected by the rotation of the E.U.T.)

The emissions were measured at a distance of 3 meters.

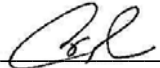
### 8.3 Test Data

JUDGEMENT: Passed by 17.0 dB

The EUT met the requirements of the F.C.C. Part 15, Subpart C, specification.  
The margin between the emission level and the specification limit is 17.0 dB in the worst case at the frequency of 1301.76 MHz, vertical polarization.

The details of the highest emissions are given in Figure 14 to Figure 15.

TEST PERSONNEL:

Tester Signature:  \_\_\_\_\_

Date: 04.11.08

Typed/Printed Name: A. Sharabi

## Radiated Emission

E.U.T Description    Two Way Keyfob  
 Type                    RW132KF2000H  
 Serial Number:        Not Designated

Specification: FCC Part 15, Subpart C

Antenna Polarization: Horizontal/Vertical      Frequency range: 9 kHz to 4500 MHz  
 Antenna: 3 meters distance                      Detectors: Peak

Frequency (MHz)	Peak Reading (dBμV/m)	Antenna Polarity (H/V)	Peak Specification (dBμV/m)	Margin (dB)
867.83	36.7	H	80.8	-44.1
867.83	42.3	V	80.8	-38.5
1301.76	42.5	H	74.0	-31.5
1301.76	47.4	V	74.0	-26.6

**Figure 14. Radiated Emission. Antenna Polarization: HORIZONTAL/VERTICAL.  
 Detectors: Peak**

*Note: Margin refers to the test results obtained minus specified requirement; thus a positive number indicates failure, and a negative result indicates that the product passes the test.*



## Radiated Emission

E.U.T Description    Two Way Keyfob  
 Type                    RW132KF2000H  
 Serial Number:        Not Designated

Specification: FCC Part 15, Subpart C

Antenna Polarization: Horizontal/Vertical      Frequency range: 9 kHz to 4500 MHz  
 Antenna: 3 meters distance                      Detectors: Average

Frequency (MHz)	Average Reading (dBμV/m)	Antenna Polarity (H/V)	Average Specification (dBμV/m)	Margin (dB)
867.83	26.3	H	60.8	-34.5
867.83	31.9	V	60.8	-28.9
1301.76	32.1	H	54.0	-21.9
1301.76	37.0	V	54.0	-17.0

**Figure 15. Radiated Emission. Antenna Polarization: VERTICAL.  
 Detectors: Average**

*Note: Margin refers to the test results obtained minus specified requirement; thus a positive number indicates failure, and a negative result indicates that the product passes the test.*

#### 8.4 Test Instrumentation Used, Radiated Measurements

Instrument	Manufacturer	Model	Serial Number	Calibration	Period
EMI Receiver	HP	85422E	3906A00276	November 12, 2007	1 year
RF Section	HP	85420E	3705A00248	November 12, 2007	1 year
Low Noise Amplifier	DBS MICROWAVE	LNA-DBS- 0411N313	013	November 2, 2007	1 Year
Spectrum Analyzer	HP	8592L	3826A01204	March 5, 2008	1 Year
Active Loop Antenna	EMCO	6502	9506-2950	October 15, 2008	1 year
Antenna Bioconical	ARA	BCD 235/B	1041	March 23, 2008	1 year
Antenna Log Periodic	ARA	LPD-2010/A	1038	November 22, 2007	1 year
Antenna-Log Periodic	A.H.System	SAS-200/511	253	February 4, 2007	2 year
Antenna Mast	ARA	AAM-4A	1001	N/A	N/A
Turntable	ARA	ART-1001/4	1001	N/A	N/A
Mast & Table Controller	ARA	ACU-2/5	1001	N/A	N/A
Printer	HP	LaserJet 2200	JPKG19982	N/A	N/A

## 9. Bandwidth

### 9.1 Test procedure

The transmitter unit operated with normal modulation. The spectrum analyzer was set to 30 kHz resolution BW and center frequency of the transmitter fundamental. The spectrum bandwidth of the transmitter unit was measured and recorded. The test was performed to measure the transmitter occupied bandwidth. The EUT was set up as shown in Figure 3, and its proper operation was checked. The transmitter occupied bandwidth was measured with the spectrum analyzer as frequency delta between reference points on modulation envelope.

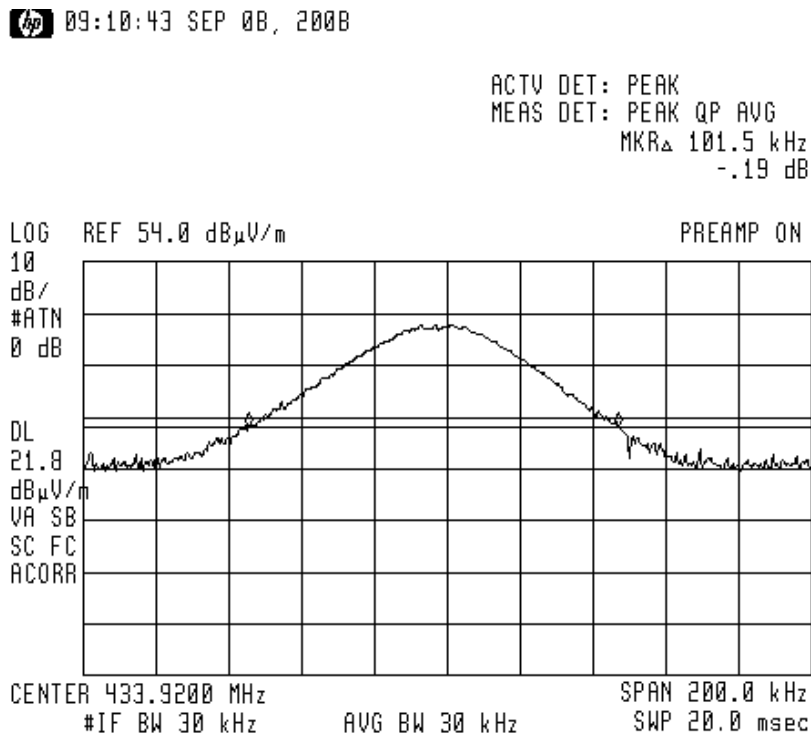


Figure 16 433.92 Center Frequency

**9.2 Results table**

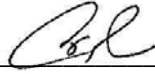
E.U.T Description: Two Way Keyfob  
Model: RW132KF2000H  
Serial Number: Not Designated  
Specification: F.C.C. Part 15, Subpart C: (15.231(c))

Bandwidth Reading (kHz)	Specification (1) (kHz)	Margin (kHz)
101.5	<1084.80	-978.5

**Figure 17 Bandwidth**

JUDGEMENT: Passed by 978.5 kHz

TEST PERSONNEL:

Tester Signature: 

Date: 04.11.08

Typed/Printed Name: A. Sharabi

(1) 0.25% of the E.U.T. fundamental frequency, Section 15.231(c).

### 9.3 Test Equipment Used.

Bandwidth

Instrument	Manufacturer	Model	Serial Number	Calibration	Period
EMI Receiver	HP	85422E	3906A00276	November 12, 2007	1 year
RF Section	HP	85420E	3705A00248	November 12, 2007	1 year
Antenna Log Periodic	ARA	LPD-2010/A	1038	November 22, 2007	1 year
Antenna Mast	ARA	AAM-4A	1001	N/A	N/A
Turntable	ARA	ART-1001/4	1001	N/A	N/A
Mast & Table Controller	ARA	ACU-2/5	1001	N/A	N/A
Printer	HP	LaserJet 2200	JPKG19982	N/A	N/A

**Figure 18 Test Equipment Used**

## 10. 11. APPENDIX A - CORRECTION FACTORS

**10.1 Correction factors for CABLE from EMI receiver to test antenna at 3 meter range.**

FREQUENCY (MHz)	CORRECTION FACTOR (dB)	FREQUENCY (MHz)	CORRECTION FACTOR (dB)
10.0	0.3	1200.0	7.3
20.0	0.6	1400.0	7.8
30.0	0.8	1600.0	8.4
40.0	0.9	1800.0	9.1
50.0	1.1	2000.0	9.9
60.0	1.2	2300.0	11.2
70.0	1.3	2600.0	12.2
80.0	1.4	2900.0	13.0
90.0	1.6		
100.0	1.7		
150.0	2.0		
200.0	2.3		
250.0	2.7		
300.0	3.1		
350.0	3.4		
400.0	3.7		
450.0	4.0		
500.0	4.3		
600.0	4.7		
700.0	5.3		
800.0	5.9		
900.0	6.3		
1000.0	6.7		

**NOTES:**

1. The cable type is RG-214.
2. The overall length of the cable is 27 meters.
3. The above data is located in file 27MO3MO.CBL on the disk marked "Radiated Emission Tests EMI Receiver".

**10.2 Correction factors for CABLE**  
**from EMI receiver**  
**to test antenna**  
**at 3 meter range.**

<b>FREQUENCY</b> <b>(GHz)</b>	<b>CORRECTION</b> <b>FACTOR</b> <b>(dB)</b>
1.0	1.2
2.0	1.6
3.0	2.0
4.0	2.4
5.0	3.0
6.0	3.4
7.0	3.8
8.0	4.2
9.0	4.6
10.0	5.0
12.0	5.8

*NOTES:*

- 1. The cable type is RG-8.*
- 2. The overall length of the cable is 10 meters.*

**10.3 Correction factors for CABLE**  
**from spectrum analyzer**  
**to test antenna above 2.9 GHz**

FREQUENCY (GHz)	CORRECTION FACTOR (dB)	FREQUENCY (GHz)	CORRECTION FACTOR (dB)
1.0	1.9	14.0	9.1
2.0	2.7	15.0	9.5
3.0	3.5	16.0	9.9
4.0	4.2	17.0	10.2
5.0	4.9	18.0	10.4
6.0	5.5	19.0	10.7
7.0	6.0	20.0	10.9
8.0	6.5	21.0	11.2
9.0	7.0	22.0	11.6
10.0	7.5	23.0	11.9
11.0	7.9	24.0	12.3
12.0	8.3	25.0	12.6
13.0	8.7	26.0	13.0

*NOTES:*

- 1. The cable type is SUCOFLEX 104 E manufactured by SUHNER.*
- 2. The cable is used for measurements above 2.9 GHz.*
- 3. The overall length of the cable is 10 meters.*



**12.6 Correction factors for LOG PERIODIC ANTENNA**

**Type LPD 2010/A  
at 3 and 10 meter ranges.**

**Distance of 3 meters**

<b>FREQUENCY (MHz)</b>	<b>AFE (dB/m)</b>
200.0	9.1
250.0	10.2
300.0	12.5
400.0	15.4
500.0	16.1
600.0	19.2
700.0	19.4
800.0	19.9
900.0	21.2
1000.0	23.5

**Distance of 10 meters**

<b>FREQUENCY (MHz)</b>	<b>AFE (dB/m)</b>
200.0	9.0
250.0	10.1
300.0	11.8
400.0	15.3
500.0	15.6
600.0	18.7
700.0	19.1
800.0	20.2
900.0	21.1
1000.0	23.2

*NOTES:*

1. Antenna serial number is 1038.
2. The above lists are located in file number 38M30.ANT for a 3 meter range,  
and file number 38M100.ANT for a 10 meter range.
3. The files mentioned above are located on the disk marked "Radiated Emission  
Test EMI Receiver".

**10.4 Correction factors for**

**LOG PERIODIC ANTENNA**

**Type SAS-200/511  
at 3 meter range.**

<b>FREQUENCY</b> (GHz)	<b>ANTENNA FACTOR</b> (dB)
1.0	24.9
1.5	27.8
2.0	29.9
2.5	31.2
3.0	32.8
3.5	33.6
4.0	34.3
4.5	35.2
5.0	36.2
5.5	36.7
6.0	37.2
6.5	38.1

<b>FREQUENCY</b> (GHz)	<b>ANTENNA FACTOR</b> (dB)
7.0	38.6
7.5	39.2
8.0	39.9
8.5	40.4
9.0	40.8
9.5	41.1
10.0	41.7
10.5	42.4
11.0	42.5
11.5	43.1
12.0	43.4
12.5	44.4
13.0	44.6

**NOTES:**

1. Antenna serial number is 253.
2. The above lists are located in file number SAS3M0.ANT for a 3 meter range.
3. The files mentioned above are located on the disk marked "Antenna Factors".

**10.5 Correction factors for BICONICAL ANTENNA  
Type BCD-235/B,  
at 3 meter range**

<b>FREQUENCY (MHz)</b>	<b>AFE (dB/m)</b>
20.0	19.4
30.0	14.8
40.0	11.9
50.0	10.2
60.0	9.1
70.0	8.5
80.0	8.9
90.0	9.6
100.0	10.3
110.0	11.0
120.0	11.5
130.0	11.7
140.0	12.1
150.0	12.6
160.0	12.8
170.0	13.0
180.0	13.5
190.0	14.0
200.0	14.8
210.0	15.3
220.0	15.8
230.0	16.2
240.0	16.6
250.0	17.6
260.0	18.2
270.0	18.4
280.0	18.7
290.0	19.2
300.0	19.9
310	20.7
320	21.9
330	23.4
340	25.1
350	27.0

**NOTES:**

1. Antenna serial number is 1041.
2. The above list is located in file 19BC10M1.ANT on the disk marked "Radiated Emissions Tests EMI Receiver".

**10.6 Correction factors for ACTIVE LOOP ANTENNA**  
**Model 6502**  
**S/N 9506-2950**

<b>FREQUENCY</b> (MHz)	<b>Magnetic Antenna Factor</b> (dB)	<b>Electric Antenna Factor</b> (dB)
.009	-35.1	16.4
.010	-35.7	15.8
.020	-38.5	13.0
.050	-39.6	11.9
.075	-39.8	11.8
.100	-40.0	11.6
.150	-40.0	11.5
.250	-40.0	11.6
.500	-40.0	11.5
.750	-40.1	11.5
1.000	-39.9	11.7
2.000	-39.5	12.0
3.000	-39.4	12.1
4.000	-39.7	11.9
5.000	-39.7	11.8
10.000	40.2	11.3
15.000	-40.7	10.8
20.000	-40.5	11.0
25.000	-41.3	10.2
30.000	42.3	9.2

## 11. APPENDIX B – Comparison of Industry Canada Requirements With FCC Requirements

FCC Specification	FCC Standard	IC Standard
Spurious Emissions Transmission Mode	47CFR15.231(b)	RSS-210 Section 2.6 Annex 1 A1.1.2
Maximum Transmitting Power	47CFR15.231(b)	RSS-210 Section 2.6 Annex 1 A1.1.2
Periodic Operation Requirement	47CFR15.231(a)(1-5)	RSS-210 Section 2.6 Annex 1 A1.1.1
Occupied Bandwidth	47CFR15.231(c)	RSS-210 Section 2.6 Annex 1 A1.1.3