HERMON LABORATORIES

ELECTRICAL TESTING
0839.01

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TEST REPORT

ACCORDING TO: FCC 47CFR part 15 subpart C § 15.209 and RSS-210 issue 8 section 2.5.1

FOR:

Visonic Ltd.

RFID tag reader of touch screen keyprox

Model: MKP-160

FCC ID:WP3MKP160

Table of contents

1 Applicant information

Client name:	Visonic Ltd.
Address:	24 Habarzel street, Tel Aviv 61920, Israel
Telephone:	+972 3645 6714
Fax:	+972 3645 6788
E-mail:	aelshtein@tycoint.com
Contact name:	Mr. Arick Elshtein

2 Equipment under test attributes

Product name:	RFID tag reader of touch screen keyprox
Product type:	Transmitter
Model(s):	MKP-160
Hardware version:	8-301316
Software release:	JS-702111
Receipt date	2/6/2012

3 Manufacturer information

Manufacturer name:	Visonic Ltd.
Address:	24 Habarzel street, Tel Aviv 61920, Israel
Telephone:	+972 3645 6714
Fax:	+972 3645 6788
E-Mail:	aelshtein@tycoint.com
Contact name:	Mr. Arick Elshtein

4 Test details

Project ID:	22805
Location:	Hermon Laboratories Ltd. Harakevet Industrial Zone, Binyamina 30500, Israel
Test started:	2/6/2012
Test completed:	3/27/2012
Test specification(s):	FCC 47CFR part 15, subpart C, §15.209; RSS-210 issue 8 section 2.5.1, RSS-Gen issue 3 Table 6

5 Tests summary

Test	Status
Transmitter characteristics	
FCC section 15.209, RSS-Gen section 7.2.5, Field strength of emissions	Pass
FCC section 15.203, RSS-Gen section 7.1.2, Antenna requirement	Pass
RSS-Gen, Section 4.6.1, Occupied bandwidth	Tested

Testing was completed against all relevant requirements of the test standard. The results obtained indicate that the product under test complies in full with the requirements tested.
The test results relate only to the items tested. Pass/ fail decision was based on nominal values.

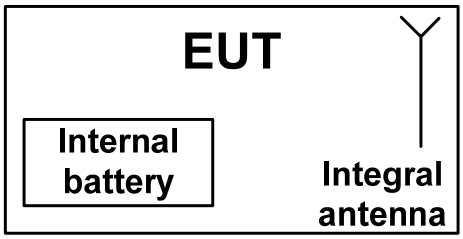
	Name and Title	Date	Signature
Tested by:	Mr. Troupiansky, test engineer	March 27, 2012	
Reviewed by:	Mrs. M. Cherniavsky, certification engineer	March 28, 2012	
Approved by:	Mr. M. Nikishin, EMC and radio group manager	March 29, 2012	

6 EUT description

6.1 General information

The EUT, RFID tag reader, operating at 125 kHz with ASK modulation, is included in MKP-160 PG2 touch screen keyprox.

6.2 Test configuration



6.3 Changes made in EUT

No changes were implemented in the EUT.

Test specification:	Section 15.209 / RSS-210, Tables 2, 3, Field strength of emissions		
Test procedure:	ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS
Date(s):	3/8/2012 - 3/27/2012		
Temperature: 23ºC	Air Pressure: 1015 hPa	Relative Humidity: 41 %	Power Supply: 6 V battery
Remarks:			

7 Transmitter tests according to 47CFR part 15 subpart C and RSS-210 requirements

7.1 Field strength of emissions

7.1.1 General

This test was performed to measure field strength of fundamental and spurious emissions from the EUT. Specification test limits are given Table 7.1.1 and Table 7.1.2.

Table 7.1.1 Radiated fundamental emission limits

Fundamental frequency, kHz	Field strength at 3 m, dB(μV/m)
	Average
125.000	105.7

Table 7.1.2 Radiated spurious emissions limits

Frequency, MHz	Field strength at 3 m, dB(μV/m)		
	Within restricted bands		
	Peak	Quasi Peak	Average
0.009 – 0.090	148.5 – 128.5	NA	128.5 – 108.5**
0.090 – 0.110	NA	108.5 – 106.8**	NA
0.110 – 0.490	126.8 – 113.8	NA	106.8 – 93.8**
0.490 – 1.705	NA	73.8 – 63.0**	NA
1.705 – 30.0*		69.5	
30 – 88		40.0	
88 – 216		43.5	
216 – 960		46.0	
960 - 1000		54.0	
1000 – 10th harmonic	74.0	NA	54.0

*- The limit for 3 m test distance was calculated using the inverse square distance extrapolation factor as follows:

$$Lim_{S2} = Lim_{S1} + 40 \log (S_1/S_2),$$

where S_1 and S_2 – standard defined and test distance respectively in meters.

**- The limit decreases linearly with the logarithm of frequency.

7.1.2 Test procedure for fundamental and spurious emission field strength measurements in 9 kHz to 30 MHz

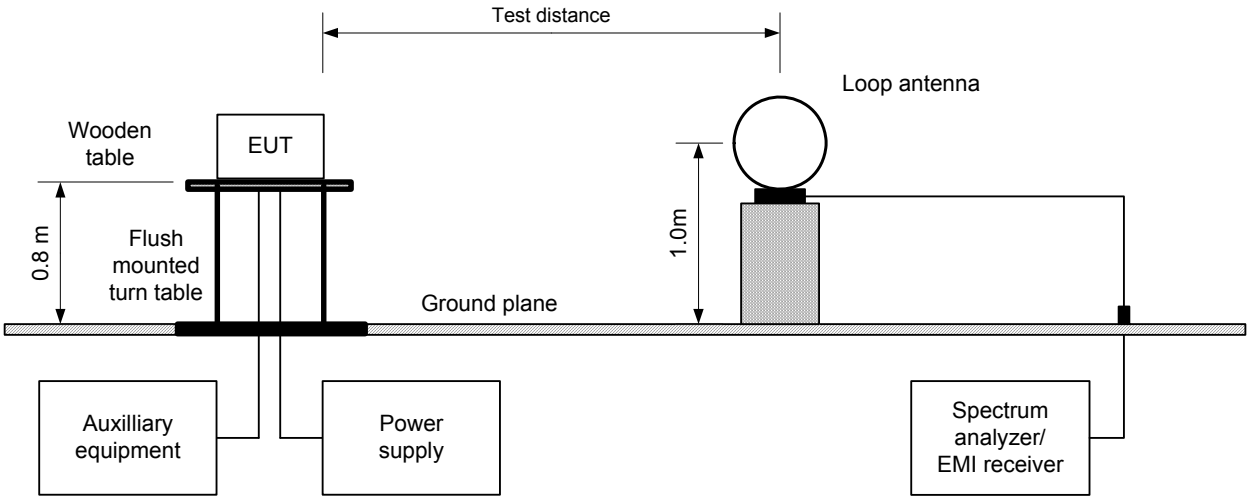
7.1.2.1 The EUT was set up as shown in Figure 7.1.1, energized and the performance check was conducted.

7.1.2.2 The specified frequency range was investigated with a loop antenna connected to spectrum analyzer/ EMI receiver. To find maximum radiation the turntable was rotated 360^0, the measuring antenna was rotated around its vertical axis. The measuring antenna polarization was switched from vertical to horizontal.

7.1.2.3 The worst test results (the lowest margins) were recorded in Table 7.1.3, Table 7.1.4 and shown in the associated plots.

Test specification:	Section 15.209 / RSS-210, Tables 2, 3, Field strength of emissions		
Test procedure:	ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS
Date(s):	3/8/2012 - 3/27/2012		
Temperature: 23ºC	Air Pressure: 1015 hPa	Relative Humidity: 41 %	Power Supply: 6 V battery
Remarks:			

Figure 7.1.1 Setup for spurious emission field strength measurements below 30 MHz



Test specification:	**Section 15.209 / RSS-210, Tables 2, 3, Field strength of emissions**		
Test procedure:	ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	3/8/2012 - 3/27/2012		
Temperature: 23ºC	**Air Pressure:** 1015 hPa	**Relative Humidity:** 41 %	**Power Supply:** 6 V battery
Remarks:			

Table 7.1.3 Field strength of fundamental emission

TEST DISTANCE: 3 m
TEST SITE: Anechoic chamber
EUT POSITION: Typical (Vertical)
TRANSMITTER OUTPUT POWER SETTINGS: Maximum
INVESTIGATED FREQUENCY RANGE: 0.009 – 30 MHz
DETECTOR USED: Peak
RESOLUTION BANDWIDTH: 1 kHz (9 kHz – 150 kHz)
9 kHz (150 kHz – 30 MHz)
VIDEO BANDWIDTH: ≥ Resolution bandwidth
TEST ANTENNA TYPE: Active loop (9 kHz – 30 MHz)

F, kHz	Antenna		Azimuth, degrees*	Peak field strength			Average field strength			Verdict
	Pol.	Height, m		Measured, dB(μV/m)	Limit, dB(μV/m)	Margin, dB**	Measured, dB(μV/m)	Limit, dB(μV/m)	Margin, dB**	
125.030	V	1.0	123	47.2	125.7	-78.5	47.2	105.7	-58.5	Pass

*****- EUT front panel refers to 0 degrees position of turntable.
******- Margin (dB) = measured result - specification limit.

Reference numbers of test equipment used

HL 0446	HL 2780	HL 2883	HL 3389				

Full description is given in Appendix A.

Test specification:	**Section 15.209 / RSS-210, Tables 2, 3, Field strength of emissions**		
Test procedure:	ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	3/8/2012 - 3/27/2012		
Temperature: 23ºC	**Air Pressure:** 1015 hPa	**Relative Humidity:** 41 %	**Power Supply:** 6 V battery
Remarks:			

Table 7.1.4 Field strength of spurious emissions

TEST DISTANCE:	3 m
TEST SITE:	Anechoic chamber
EUT POSITION:	Typical (Vertical)
TRANSMITTER OUTPUT POWER SETTINGS:	Maximum
INVESTIGATED FREQUENCY RANGE:	0.009 – 30 MHz
DETECTOR USED:	Peak
RESOLUTION BANDWIDTH:	1 kHz (9 kHz – 150 kHz) 9 kHz (150 kHz – 30 MHz)
VIDEO BANDWIDTH:	≥ Resolution bandwidth
TEST ANTENNA TYPE:	Active loop (9 kHz – 30 MHz) Biconilog (30 MHz – 1000 MHz)

F, MHz	Antenna		Azimuth, degrees*	Peak field strength			Average field strength			Verdict
	Pol.	Height, m		Measured, dB(μV/m)	Limit, dB(μV/m)	Margin, dB**	Measured, dB(μV/m)	Limit, dB(μV/m)	Margin, dB**	
No emissions were found										Pass

*****- Margin = Measured emission - specification limit.
******- EUT front panel refer to 0 degrees position of turntable.

Table 7.1.5 Restricted bands

MHz	MHz	MHz	MHz	MHz	GHz
0.09 - 0.11	8.37625 - 8.38675	73 - 74.6	399.9 - 410	2690 - 2900	10.6 - 12.7
0.495 - 0.505	8.41425 - 8.41475	74.8 - 75.2	608 - 614	3260 - 3267	13.25 - 13.4
2.1735 - 2.1905	12.29 - 12.293	108 - 121.94	960 - 1240	3332 - 3339	14.47 - 14.5
4.125 - 4.128	12.51975 - 12.52025	123 - 138	1300 - 1427	3345.8 - 3358	15.35 - 16.2
4.17725 - 4.17775	12.57675 - 12.57725	149.9 - 150.05	1435 - 1626.5	3600 - 4400	17.7 - 21.4
4.20725 - 4.20775	13.36 - 13.41	156.52475 - 156.52525	1645.5 - 1646.5	4500 - 5150	22.01 - 23.12
6.215 - 6.218	16.42 - 16.423	156.7 - 156.9	1660 - 1710	5350 – 5460	23.6 - 24
6.26775 - 6.26825	16.69475 - 16.69525	162.0125 - 167.17	1718.8 - 1722.2	7250 - 7750	31.2 - 31.8
6.31175 - 6.31225	16.80425 - 16.80475	167.72 - 173.2	2200 - 2300	8025 – 8500	36.43 - 36.5
8.291 - 8.294	25.5 - 25.67	240 - 285	2310 - 2390	9000 - 9200	Above 38.6
8.362 - 8.366	37.5 - 38.25	322 - 335.4	2483.5 - 2500	9300 - 9500	

Reference numbers of test equipment used

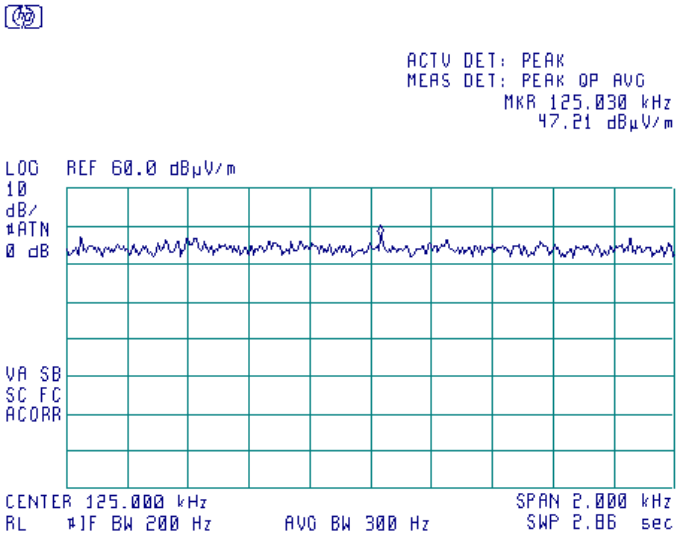
HL 0446	HL 2780	HL 2883	HL 3389				

Full description is given in Appendix A.

Test specification:	**Section 15.209 / RSS-210, Tables 2, 3, Field strength of emissions**		
Test procedure:	ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	**Verdict:**	PASS
Date(s):	3/8/2012 - 3/27/2012		
Temperature: 23ºC	**Air Pressure:** 1015 hPa	**Relative Humidity:** 41 %	**Power Supply:** 6 V battery
Remarks:			

Plot 7.1.1 Radiated emission measurements at the fundamental frequency

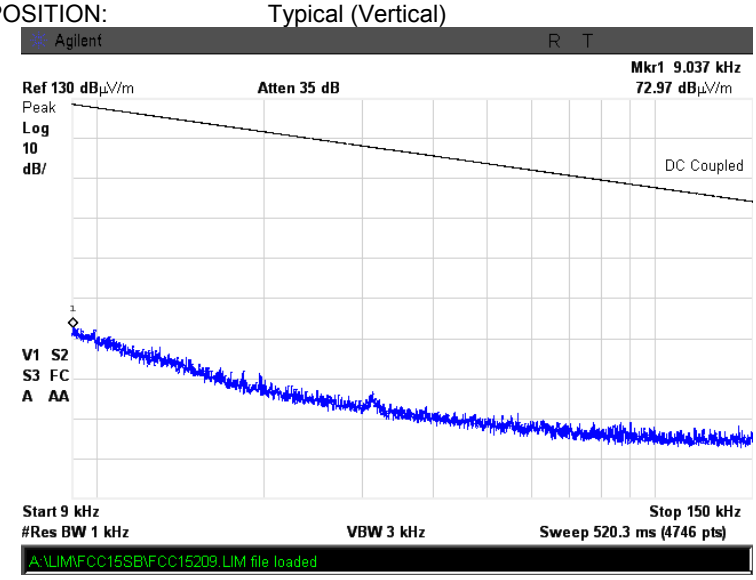
TEST SITE: Semi anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical and Horizontal
EUT POSITION: Typical (Vertical)



Test specification:	Section 15.209 / RSS-210, Tables 2, 3, Field strength of emissions		
Test procedure:	ANSI C63.4, Section 13.1.4		
Test mode:	Compliance	Verdict:	PASS
Date(s):	3/8/2012 - 3/27/2012		
Temperature: 23ºC	Air Pressure: 1015 hPa	Relative Humidity: 41 %	Power Supply: 6 V battery
Remarks:			

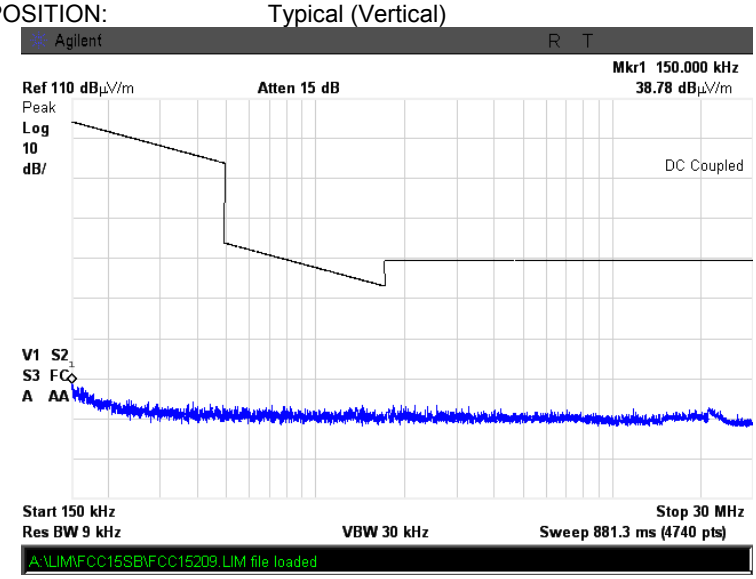
Plot 7.1.2 Radiated emission measurements from 9 to 150 kHz

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)



Plot 7.1.3 Radiated emission measurements from 0.15 to 30 MHz

TEST SITE: Anechoic chamber
TEST DISTANCE: 3 m
ANTENNA POLARIZATION: Vertical
EUT POSITION: Typical (Vertical)



Test specification:	Section 15.203, RSS-Gen section 7.1.2, Antenna requirement		
Test procedure:	Visual inspection / supplier declaration		
Test mode:	Compliance	Verdict:	PASS
Date:	3/27/2012		
Temperature: 21 ºC	Air Pressure: 1012 hPa	Relative Humidity: 51 %	Power Supply: 6 V battery
Remarks:			

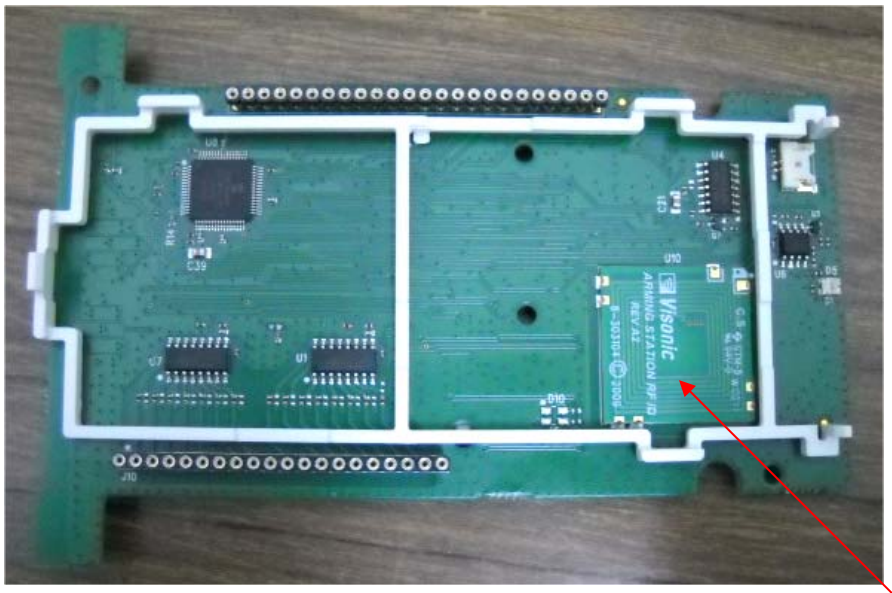
7.2 Antenna requirements

The EUT was verified for compliance with antenna requirements. A transmitter shall be designed to ensure that no antenna other than that furnished by the responsible party will be used with the device. It may be either permanently attached or employs a unique antenna connector for every antenna proposed for use with the EUT. This requirement does not apply to professionally installed transmitters.
The rationale for compliance with the above requirements was either visual inspection results or supplier declaration. The summary of results is provided in Table 7.2.1.

Table 7.2.1 Antenna requirements

Requirement	Rationale	Verdict
The transmitter antenna is permanently attached	Visual inspection	Comply
The transmitter employs a unique antenna connector	NA	
The transmitter requires professional installation	NA	

Photograph 7.2.1 Antenna assembly



RFID reader antenna

Test specification:	RSS-Gen, Section 4.6.1, Occupied bandwidth		
Test procedure:	ANSI C63.4, Section 13.1.7		
Test mode:	Compliance	Verdict:	PASS
Date:	3/27/2012		
Temperature: 21 ºC	Air Pressure: 1012 hPa	Relative Humidity: 51 %	Power Supply: 6 V battery
Remarks:			

7.3 Occupied bandwidth test

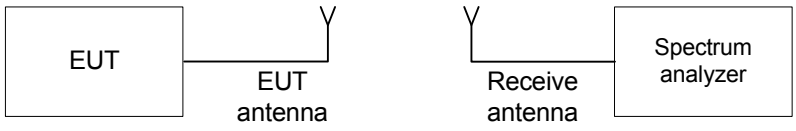
7.3.1 General

This test was performed to measure transmitter occupied bandwidth not specified by the standard.

7.3.2 Test procedure

7.3.2.1 The EUT was set up as shown in Figure 7.3.1, energized and its proper operation was checked.
7.3.2.2 The EUT was set to transmit modulated carrier at maximum data rate.
7.3.2.3 The transmitter bandwidth was measured with spectrum analyzer as frequency delta between reference points on modulation envelope and provided in Table 7.3.1 and the associated plot.

Figure 7.3.1 Occupied bandwidth test setup



Test specification:	**RSS-Gen, Section 4.6.1, Occupied bandwidth**		
Test procedure:	ANSI C63.4, Section 13.1.7		
Test mode:	Compliance	**Verdict:**	PASS
Date:	3/27/2012		
Temperature: 21 ºC	**Air Pressure:** 1012 hPa	**Relative Humidity:** 51 %	**Power Supply:** 6 V battery
Remarks:			

Table 7.3.1 Occupied bandwidth test results

DETECTOR USED:	Peak
SWEEP TIME:	Auto
RESOLUTION BANDWIDTH:	≥ 1% of the 20 dB bandwidth
VIDEO BANDWIDTH:	≥ RBW
SIGNAL:	MODULATED
MODULATION ENVELOPE REFERENCE POINTS:	20.0 dBc

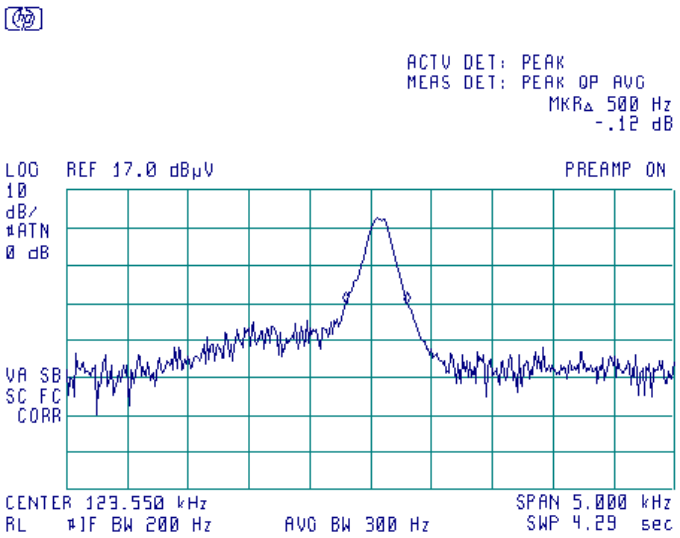
Carrier frequency, MHz	Occupied bandwidth, kHz	Limit, kHz	Margin, kHz	Verdict
123.55	0.5	NA	NA	Tested

Reference numbers of test equipment used

HL 0446	HL 2780	HL 2883	HL 3389					

Full description is given in Appendix A.

Plot 7.3.1 Occupied bandwidth test result



8 APPENDIX A Test equipment and ancillaries used for tests

HL No	Description	Manufacturer	Model	Ser. No.	Last Cal./ Check	Due Cal./ Check
0446	Antenna, Loop, Active, 10 kHz - 30 MHz	EMCO	6502	2857	03-Jul-11	03-Jul-12
2780	EMC analyzer, 100 Hz to 26.5 GHz	Agilent Technologies	E7405A	MY45102462	07-Jul-11	07-Jul-12
2883	Cable, 18 GHz N-type, M-F, 3 m	Bird Electronic Corp.	TC-MNFN-3.0	211539003	04-Dec-11	04-Dec-12
3389	Microwave Cable Assembly, 26.5 GHz, 1.0 m, N type/N type	Suhner Sucoflex	104EA	3389	07-Feb-12	07-Feb-13

9 APPENDIX B Measurement uncertainties

Expanded uncertainty at 95% confidence in Hermon Labs EMC measurements

Test description	Expanded uncertainty
Radiated emissions at 3 m measuring distance	
Horizontal polarization	Biconilog antenna: ± 5.3 dB Biconical antenna: ± 5.0 dB Log periodic antenna: ± 5.3 dB Double ridged horn antenna: ± 5.3 dB
Vertical polarization	Biconilog antenna: ± 6.0 dB Biconical antenna: ± 5.7 dB Log periodic antenna: ± 6.0 dB Double ridged horn antenna: ± 6.0 dB

Hermon Laboratories is accredited by A2LA for calibration according to present requirements of ISO/IEC 17025 and NCSL Z540-1. The accreditation is granted to perform calibration of parameters that are listed in the Scope of Hermon Laboratories Accreditation.

Hermon Laboratories calibrates its reference and transfer standards by calibration laboratories accredited to ISO/IEC 17025 by a mutually recognized Accreditation Body or by a recognized national metrology institute. All reference and transfer standards used in the calibration system are traceable to national or international standards.

In-house calibration of all test and measurement equipment is performed on a regular basis according to Hermon Laboratories calibration procedures, manufacturer calibration/verification procedures or procedures defined in the relevant standards. The Hermon Laboratories test and measurement equipment is calibrated within the tolerances specified by the manufacturers and/or by the relevant standards.

10 APPENDIX C Test laboratory description

Tests were performed at Hermon Laboratories Ltd., which is a fully independent, private, EMC, safety, environmental and telecommunication testing facility.
Hermon Laboratories is listed by the Federal Communications Commission (USA) for all parts of Code of Federal Regulations 47 (CFR 47), Registration Numbers 90624 for OATS and 90623 for the anechoic chamber; by Industry Canada for electromagnetic emissions (file numbers IC 2186A-1 for OATS, IC 2186A-2 for anechoic chamber, IC 2186A-3 for full-anechoic chamber for RE measurements above 1 GHz), certified by VCCI, Japan (the registration numbers are R-808 for OATS, R-1082 for anechoic chamber, G-27 for full-anechoic chamber for RE measurements above 1 GHz, C-845 for conducted emissions site, T-1606 for conducted emissions at telecommunication ports), has a status of a Telefication - Listed Testing Laboratory, Certificate No. L138/00. The laboratory is accredited by American Association for Laboratory Accreditation (USA) according to ISO/IEC 17025 for electromagnetic compatibility, product safety, telecommunications testing and environmental simulation (for exact scope please refer to Certificate No. 839.01). The FCC Designation Number is US1003.

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Person for contact: Mr. Alex Usoskin, CEO.

11 APPENDIX D Specification references

FCC 47CFR part 15: 2011	Radio Frequency Devices
ANSI C63.2: 1996	American National Standard for Instrumentation-Electromagnetic Noise and Field Strength, 10 kHz to 40 GHz-Specifications
ANSI C63.4: 2003	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
RSS-210 Issue 8: 2010	Low Power Licence- Exempt Radiocommunication Devices
RSS-Gen Issue 3: 2010	General Requirements and Information for the Certification of Radiocommunication Equipment

12 APPENDIX E Test equipment correction factors

Antenna factor
Active loop antenna
Model 6502, S/N 2857, HL 0446

Frequency, MHz	Magnetic antenna factor, dB	Electric antenna factor, dB
0.009	-32.8	18.7
0.010	-33.8	17.7
0.020	-38.3	13.2
0.050	-41.1	10.4
0.075	-41.3	10.2
0.100	-41.6	9.9
0.150	-41.7	9.8
0.250	-41.6	9.9
0.500	-41.8	9.8
0.750	-41.9	9.7
1.000	-41.4	10.1
2.000	-41.5	10.0
3.000	-41.4	10.2
4.000	-41.4	10.1
5.000	-41.5	10.1
10.000	-41.9	9.6
15.000	-41.9	9.6
20.000	-42.2	9.3
25.000	-42.8	8.7
30.000	-44.0	7.5

Antenna factor in dB(1/m) is to be added to receiver meter reading in dB(μV) to convert it into field intensity in dB(μV/m).

Cable loss
Cable coaxial, Bird, 18 GHz, N-type, M-F, model TC-MNFN-3.0, S/N 211539 003
HL 2883

Frequency, MHz	Cable loss, dB	Frequency, MHz	Cable loss, dB	Frequency, MHz	Cable loss, dB
10	0.06	5750	1.70	12000	2.46
30	0.12	6000	1.75	12250	2.48
100	0.21	6250	1.80	12500	2.52
250	0.34	6500	1.81	12750	2.50
500	0.47	6750	1.86	13000	2.54
750	0.59	7000	1.86	13250	2.48
1000	0.67	7250	1.92	13500	2.63
1250	0.76	7500	1.96	13750	2.65
1500	0.84	7750	1.98	14000	2.72
1750	0.92	8000	2.02	14250	2.67
2000	0.98	8250	2.03	14500	2.70
2250	1.05	8500	2.05	14750	2.72
2500	1.12	8750	2.11	15000	2.79
2750	1.17	9000	2.17	15250	2.80
3000	1.22	9250	2.17	15500	2.83
3250	1.27	9500	2.20	15750	2.75
3500	1.33	9750	2.19	16000	2.82
3750	1.38	10000	2.22	16250	2.85
4000	1.42	10250	2.25	16500	2.90
4250	1.46	10500	2.30	16750	2.89
4500	1.51	10750	2.28	17000	2.88
4750	1.54	11000	2.32	17250	2.85
5000	1.59	11250	2.34	17500	2.96
5250	1.62	11500	2.39	17750	3.04
5500	1.65	11750	2.42	18000	3.04

Cable loss
Cable coaxial, Microwave Cable Assembly, 104EA, 18 GHz, 1.0 m
Suhner Sucoflex, HL 3389

Frequency, MHz	Cable loss, dB	Frequency, MHz	Cable loss, dB	Frequency, MHz	Cable loss, dB	Frequency, MHz	Cable loss, dB
10	-0.16	4000	0.67	9000	1.03	14000	1.35
15	-0.02	4100	0.68	9100	1.03	14100	1.36
20	0.01	4200	0.70	9200	1.03	14200	1.35
30	0.04	4300	0.71	9300	1.03	14300	1.36
40	0.05	4400	0.71	9400	1.03	14400	1.34
50	0.06	4500	0.72	9500	1.02	14500	1.34
60	0.07	4600	0.73	9600	1.03	14600	1.35
70	0.08	4700	0.73	9700	1.03	14700	1.35
80	0.09	4800	0.73	9800	1.02	14800	1.32
90	0.10	4900	0.74	9900	1.00	14900	1.30
100	0.10	5000	0.73	10000	0.99	15000	1.31
150	0.13	5100	0.72	10100	0.99	15100	1.30
200	0.15	5200	0.73	10200	0.98	15200	1.30
300	0.18	5300	0.73	10300	0.98	15300	1.31
400	0.21	5400	0.75	10400	0.96	15400	1.31
500	0.23	5500	0.77	10500	0.95	15500	1.31
600	0.25	5600	0.80	10600	0.93	15600	1.31
700	0.27	5700	0.79	10700	0.91	15700	1.32
800	0.29	5800	0.79	10800	0.92	15800	1.33
900	0.30	5900	0.79	10900	0.95	15900	1.34
1000	0.32	6000	0.79	11000	0.97	16000	1.34
1100	0.33	6100	0.79	11100	0.99	16100	1.34
1200	0.35	6200	0.82	11200	0.98	16200	1.33
1300	0.37	6300	0.82	11300	0.98	16300	1.33
1400	0.38	6400	0.85	11400	0.97	16400	1.33
1500	0.40	6500	0.84	11500	0.96	16500	1.31
1600	0.40	6600	0.84	11600	0.95	16600	1.29
1700	0.41	6700	0.85	11700	0.95	16700	1.27
1800	0.42	6800	0.85	11800	0.97	16800	1.28
1900	0.44	6900	0.84	11900	0.99	16900	1.29
2000	0.48	7000	0.85	12000	0.99	17000	1.32
2100	0.49	7100	0.87	12100	1.01	17100	1.35
2200	0.50	7200	0.89	12200	1.04	17200	1.36
2300	0.51	7300	0.91	12300	1.06	17300	1.40
2400	0.52	7400	0.95	12400	1.07	17400	1.42
2500	0.53	7500	0.97	12500	1.08	17500	1.40
2600	0.54	7600	0.98	12600	1.11	17600	1.39
2700	0.55	7700	1.01	12700	1.13	17700	1.36
2800	0.57	7800	1.00	12800	1.13	17800	1.35
2900	0.58	7900	1.01	12900	1.15	17900	1.35
3000	0.59	8000	1.02	13000	1.16	18000	1.35
3100	0.59	8100	1.04	13100	1.18		
3200	0.60	8200	1.05	13200	1.21		
3300	0.61	8300	1.05	13300	1.23		
3400	0.61	8400	1.05	13400	1.26		
3500	0.62	8500	1.05	13500	1.26		
3600	0.62	8600	1.05	13600	1.30		
3700	0.62	8700	1.04	13700	1.29		
3800	0.63	8800	1.03	13800	1.31		
3900	0.65	8900	1.03	13900	1.33		

13 APPENDIX F Abbreviations and acronyms

A	ampere
AC	alternating current
A/m	ampere per meter
AM	amplitude modulation
AVRG	average (detector)
cm	centimeter
dB	decibel
dBm	decibel referred to one milliwatt
dB(μV)	decibel referred to one microvolt
dB(μV/m)	decibel referred to one microvolt per meter
dB(μA)	decibel referred to one microampere
DC	direct current
EIRP	equivalent isotropically radiated power
ERP	effective radiated power
EUT	equipment under test
F	frequency
GHz	gigahertz
GND	ground
H	height
HL	Hermon laboratories
Hz	hertz
k	kilo
kHz	kilohertz
LO	local oscillator
m	meter
MHz	megahertz
min	minute
mm	millimeter
ms	millisecond
μs	microsecond
NA	not applicable
NB	narrow band
OATS	open area test site
Ω	Ohm
PM	pulse modulation
PS	power supply
ppm	part per million (10^{-6})
QP	quasi-peak
RE	radiated emission
RF	radio frequency
rms	root mean square
Rx	receive
s	second
T	temperature
Tx	transmit
V	volt
WB	wideband

END OF DOCUMENT