Successor in interest to International Approval Laboratories

EMC EMISSIONS - TEST REPORT (In-Part)

Test Report No.	**3066148-1**	Issue Date:	**Wed 14/June/2006**
Model / Serial No.	**A0005-A00; A0007-A00/ SNs: 31, E**		
Product Type	**Core; Monitor for Measurement of Speed and Rotation**		
Client	**RevFire Corporation**		
Manufacturer	**RevFire Corporation**		
License holder	**RevFire Corporation**		
Address	**2143 Willow Creek Drive**		
	Boulder, CO 80301		
Test Criteria Applied	**FCC CFR47 Part 15.249/ IC RSS-210**		Title 47 CFR 15: RADIO FREQUENCY DEVICES
Test Result	**PASS**		Radio Standards Specification: Low Power Licence - Exempt Radiocommunication Devices (All Frequency Bands)
Test Project Number	**3099148**		
References			
Total Pages Including Appendices:	33		

Reviewed By : Mike Spataro

Approved By : Bob Cresswell

D I R E C T O R Y

STATEMENT OF MEASUREMENT UNCERTAINTY

The data and results referenced in this document are true and accurate. The measurement uncertainty for Conducted Emissions in the frequency range of 150kHz – 30MHz is calculated to be ±2.30dB and for Radiated Emissions is calculated to be ±3.60dB in the frequency range of 30MHz – 200MHz and ±3.38dB in the frequency range of 200MHz – 1000MHz.

EUT Received Date: 8-June-2006

Testing Start Date: 8-June-2006

Testing End Date: 8-June-2006

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The tests were performed according to following regulations :

1. FCC CFR47 Part 15.205
2. FCC CFR47 Part 15.207
3. FCC CFR47 Part 15.209
4. FCC CFR47 Part 15.249
5. ICES-003
6. RSS-210

Emission Test Results:

Conducted Emissions, Powerline - 15.207 - NA

Test Result

Minimum limit margin	0.0	dB	at	0.0 MHz
Maximum limit exceeding		dB	at	MHz

Remarks: Unit is battery powered.

Radiated Emissions - 15.249(d)/15.209 - PASS

Test Result

Minimum limit margin	-11.8	dB	at	10000.0 MHz
Maximum limit exceeding		dB	at	MHz

Remarks:

Fundamental Field Strength Measurement
Radiated Emissions (Electric Field) - 15.249(a) - PASS

Test Result

Minimum limit margin	-7.3	dB	at	916.54 MHz
Maximum limit exceeding		dB	at	MHz

Remarks:

Radiated Emissions Harmonic Emissions
Radiated Emissions (Electric Field) - 15.249(a)/15.205 - PASS

Test Result

Minimum limit margin	-12.9	dB	at	3666.05 MHz
Maximum limit exceeding		dB	at	MHz

Remarks:

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GENERAL REMARKS:

The following remarks are to be considered as "where applicable" and are taken into account while completing any FCC/IC/ETSI radio tests at Intertek, ETL Semko.

Testing was performed in 3 different orthogonal axis to determine the worst case emissions from the device. The worst case emissions measurements are shown in this report.

FCC CFR47 Part 15.31: Measurement Standards: In any case where the device is powered off a battery, a fresh battery was used during test. In cases where the device is powered off an AC supply, voltage was varied per Part 15.31 to find worst case emissions.

FCC CFR47 Part 15.35: Measurement Detector Functions and Bandwidths: FCC Part 15.35 was utilized when performing the measurements within this report.

Testing on the EUT was started with quote number 19305699, all datasheets except for the photos were changed to project number 3099148 at a later date.

Modifications required to pass: None

Test Specification Deviations: Additions to or Exclusions from: None

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Required Information In Accordance to FCC CFR 47 Part 2.1033:

Rule Part 11, 15 & 18 Devices	*Other Rule Part Devices*	*Description*	*Comments*
2.1033(b)(1)	**2.1033(c)(1)**	*Manu. Contact*	See Page 1 of this report
2.1033(b)(2)	**2.1033(c)(2)**	*FCC Identifier*	
2.1033(b)(3)	**2.1033(c)(3)**	*Users Manual to include Operating, installation*	Attached as Exhibit
	2.1033(c)(4)	*Emissions Designator per 2.*	
	2.1033(c)(5)	*Frequency Range*	Not Applicable to Part 15 Devcies
	2.1033(c)(6)	*Power range and controls*	Not Applicable to Part 15 Devcies
	2.1033(c)(7)	*Maximum power ouput rating*	Not Applicable to Part 15 Devcies
	2.1033(c)(8)	*DC Voltage and Current suplying final RF stages*	Not Applicable to Part 15 Devcies
2.1033(b)(3)	**2.1033(c)(9)**	*Tune –up procedure*	Please refer to the users manual for applicability
2.1033(b)(4&5)	**2.1033(c)(10)**	*Complete Circuit Diagrams and circuit operation description*	Attached as Exhibit
2.1033(b)(7)	**2.1033(c)(11)**	*Photographs/drawings of the identification label & its location on the device*	Attached as Exhibit
2.1033(b)(7)	**2.1033(c)(12)**	*Photographs of the external and internal surfaces, and construction*	Attached as Exhibit
	2.1033(c)(13)	*Digital Modulation*	Not Applicable
2.1033(b)(6)	**2.1033(c)(14)**	*Report of Measurement Data Required by 2.1046 – 2.1057*	See Data Below (This report consists of the testing required under Part 15.231)
2.1033(b)(8)		*Description of publicly available support equipment used during test*	Refer to Exhibit B of this report (Client Test Plan)
2.1033(b)(9)		*Statement of Autorization to Part 15.37 of CFR47*	The equipment herein is being authorized in accordance to 15.37 of the CFR47 Rules.
2.1033(b)(10)		*Direct Sequence Spread Spectrum Devices (DSSS)*	Exhibit of compliance to 15.247(e)
2.1033(b)(10)		*Frequency Hopping Devices*	Exhibit of compliance to 15.247(a)(1)
2.1033(b)(11)		*Scanning receiver construction*	Exhibit stating compliance to construction in accordance to 15.121.
15.31	**15.31**	*Transmitter Supply Voltage*	Testing herein was completed in accordance to FCC CFR47 Part 15.31

Exhibits Including (where applicable):

1. Users Manual
2. Operation Description
3. Block Diagram
4. Report of Measurement
5. External & Internal Photographs
6. Schematic
7. Parts List
8. Tuning Procedure (if applicable)
9. Test Setup Photograph
10. Label Drawings and or Photograpghs
11. Description of Support Equipment (where Applicable)

Required Information in Accordance to Industry Canada Regulations (In addition to the above):

Information Required	*Description*	*Comments*
Modulation Type	(i.e. ASK, NON, FSK, DSSS, FHSS, etc.)	
Emissions Designator	Per TRC-49	
In Country Representative	Contact Information	
99% Bandwidth Measurement	Per RSS-210	

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Test-setup photo(s):
Conducted Emissions

Not Applicable

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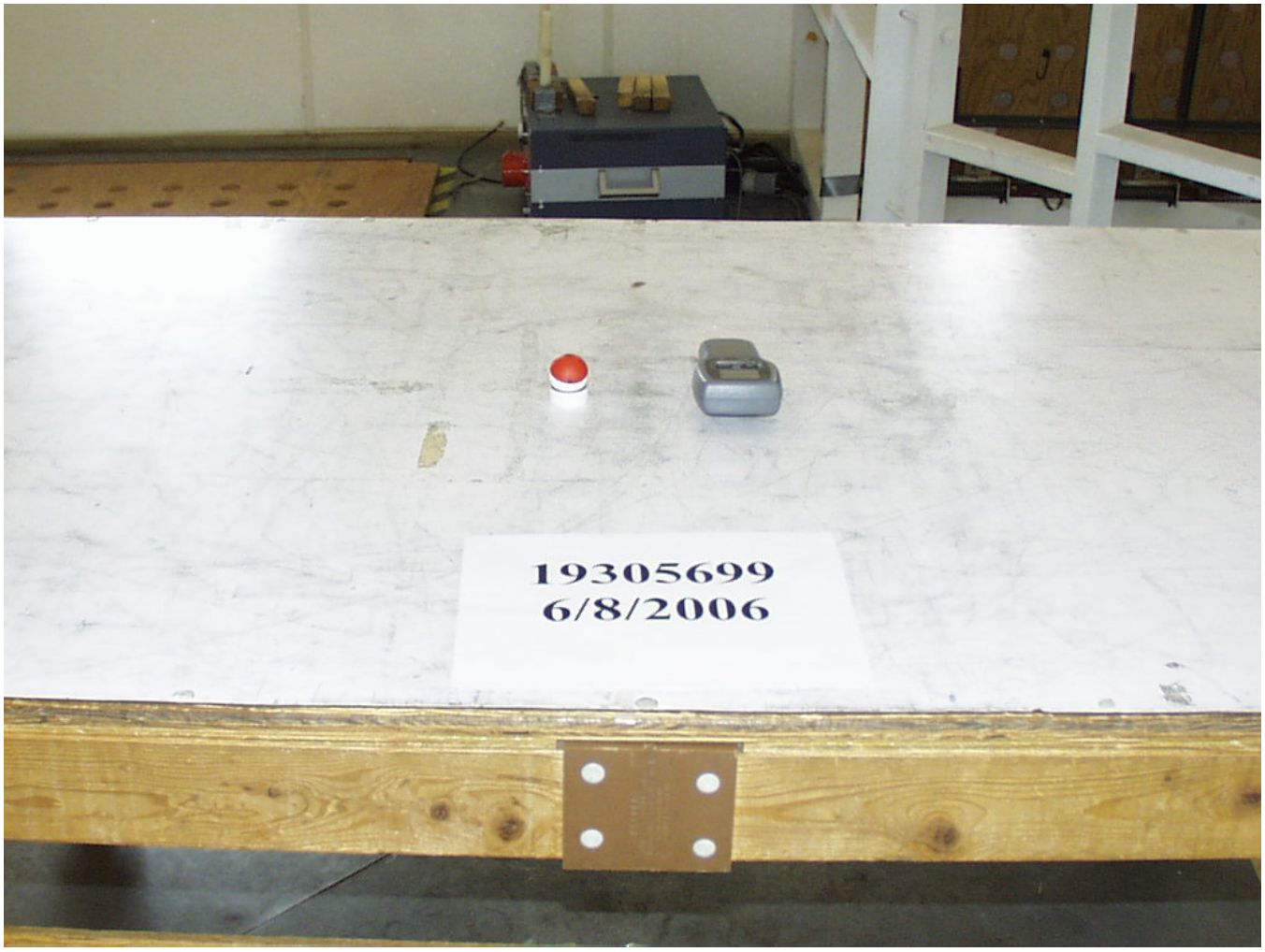
Test-setup photo(s):
Radiated Emissions:



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Test-setup photo(s):
Radiated Emissions:

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Appendix A

Test Data Sheets

and

Test Equipment Used

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15.249(d)/15.209 Test Data

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Radiated Electromagnetic Emissions

Test Report #:	**3099148**	Test Area:	Pinewood Site 1 (3m)	Temperature:	21.4	°C
Test Method:	FCC Part 15.209	Test Date:	08-Jun-2006	Relative Humidity:	27	%
EUT Model #:	A0005-A00; A0007-A00	EUT Power:	3VDC; 3VDC	Air Pressure:	81	kPa
EUT Serial #:	31; E					
Manufacturer:	RevFire					
EUT Description:	Core; Monitor for Measurement of Speed and Rotation.					
Notes:						

Level Key	
Pk – Peak	Nb – Narrow Band
Qp – QuasiPeak	Bb – Broad Band
Av - Average	

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dB\m) (dB)	(dBuV)	(m) (DEG)	15.209 <1GHz	15.209 >1GHz
8 - 10 GHz, No significant emissions detected, the following are noise floor.						
8500.00	42.5 Av	8.5 / 37.8 / 50.9	37.9	H / 1.0 / 0.0	N/A	-16.1
9500.00	43.9 Av	9.4 / 38.8 / 50.4	41.7	H / 1.0 / 0.0	N/A	-12.3
8000.00	37.4 Av	8.3 / 37.2 / 49.4	33.5	V / 1.0 / 0.0	N/A	-20.5
9000.00	42.9 Av	8.5 / 38.5 / 51.1	38.8	V / 1.0 / 0.0	N/A	-15.2
10000.0	44.7 Av	9.5 / 38.5 / 50.5	42.2	V / 1.0 / 0.0	N/A	-11.8
No significant emissions detected between 4 - 8 GHz, the following are noise floor.						
7000.00	32.4 Av	8.1 / 35.7 / 42.5	33.7	V / 1.0 / 0.0	N/A	-20.3
6000.00	32.0 Av	7.7 / 34.6 / 41.2	33.1	V / 1.0 / 0.0	N/A	-20.9
5000.00	33.8 Av	7.6 / 33.6 / 41.1	33.9	V / 1.0 / 0.0	N/A	-20.1
4000.00	33.5 Av	5.7 / 32.7 / 42.1	29.9	V / 1.0 / 0.0	N/A	-24.1
4500.00	34.7 Av	6.6 / 32.5 / 41.2	32.6	H / 1.0 / 0.0	N/A	-21.4
5500.00	32.9 Av	6.7 / 34.5 / 41.1	33.0	H / 1.0 / 0.0	N/A	-21.0
6500.01	32.6 Av	8.5 / 35.2 / 41.5	34.8	H / 1.0 / 0.0	N/A	-19.2
7500.01	32.5 Av	8.2 / 37.0 / 41.3	36.3	H / 1.0 / 0.0	N/A	-17.7
The following were maximized between 1 - 4 GHz, Horizontal.						
1832.65	43.3 Av	3.1 / 26.7 / 37.2	35.9	H / 1.3 / 140.0	N/A	-18.1
1831.43	37.6 Av	3.1 / 26.7 / 37.2	30.2	H / 1.3 / 140.0	N/A	-23.8
1834.26	38.9 Av	3.1 / 26.7 / 37.2	31.5	H / 1.3 / 140.0	N/A	-22.5
2749.15	41.0 Av	4.3 / 29.6 / 37.9	37.0	H / 1.8 / 252.0	N/A	-17.0
2749.97	40.8 Av	4.3 / 29.6 / 37.9	36.7	H / 1.8 / 252.0	N/A	-17.3
2750.78	38.2 Av	4.3 / 29.6 / 37.9	34.3	H / 1.8 / 252.0	N/A	-19.7
2748.16	37.6 Av	4.3 / 29.6 / 37.9	33.6	H / 1.8 / 252.0	N/A	-20.4
3665.65	42.6 Av	5.1 / 31.8 / 38.3	41.2	H / 1.7 / 210.0	N/A	-12.8
3666.47	42.3 Av	5.1 / 31.8 / 38.3	41.0	H / 1.7 / 210.0	N/A	-13.0
3667.27	39.4 Av	5.1 / 31.8 / 38.3	38.0	H / 1.7 / 210.0	N/A	-16.0

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FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dB\m) (dB)	(dBuV)	(m) (DEG)	15.209 <1GHz	15.209 >1GHz
3667.47	39.0 Av	5.1 / 31.8 / 38.3	37.7	H / 1.7 / 210.0	N/A	-16.3
3664.84	39.4 Av	5.1 / 31.8 / 38.3	38.0	H / 1.7 / 210.0	N/A	-16.0
3664.65	39.1 Av	5.1 / 31.8 / 38.3	37.7	H / 1.7 / 210.0	N/A	-16.3
3664.43	38.8 Av	5.1 / 31.8 / 38.3	37.4	H / 1.7 / 210.0	N/A	-16.6
3663.25	36.5 Av	5.1 / 31.8 / 38.3	35.1	H / 1.7 / 210.0	N/A	-18.9
No other significant emissions detected between 1 - 4 GHz, the following are noise floor.						
1500.00	34.6 Av	2.9 / 25.4 / 36.6	26.3	H / 1.7 / 210.0	N/A	-27.7
2500.00	35.6 Av	4.0 / 28.8 / 38.0	30.4	H / 1.7 / 210.0	N/A	-23.6
3500.00	34.6 Av	4.8 / 31.4 / 38.3	32.5	H / 1.7 / 210.0	N/A	-21.5
The following were maximized between 1 - 4 GHz, vertical.						
1832.65	44.1 Av	3.1 / 26.7 / 37.2	36.7	V / 1.0 / 232.0	N/A	-17.3
1831.43	40.2 Av	3.1 / 26.7 / 37.2	32.8	V / 1.0 / 232.0	N/A	-21.2
1831.65	40.7 Av	3.1 / 26.7 / 37.2	33.3	V / 1.0 / 232.0	N/A	-20.7
1834.26	40.8 Av	3.1 / 26.7 / 37.2	33.4	V / 1.0 / 232.0	N/A	-20.6
2748.16	39.1 Av	4.3 / 29.6 / 37.9	35.1	V / 1.0 / 320.0	N/A	-18.9
2749.15	40.6 Av	4.3 / 29.6 / 37.9	36.6	V / 1.0 / 320.0	N/A	-17.4
2749.97	40.4 Av	4.3 / 29.6 / 37.9	36.3	V / 1.0 / 320.0	N/A	-17.7
2750.78	38.7 Av	4.3 / 29.6 / 37.9	34.7	V / 1.0 / 320.0	N/A	-19.3
2750.96	38.6 Av	4.3 / 29.6 / 37.9	34.6	V / 1.0 / 320.0	N/A	-19.4
3665.65	40.8 Av	5.1 / 31.8 / 38.3	39.5	V / 1.3 / 327.0	N/A	-14.5
3663.25	36.2 Av	5.1 / 31.8 / 38.3	34.8	V / 1.3 / 327.0	N/A	-19.2
3664.84	39.5 Av	5.1 / 31.8 / 38.3	38.1	V / 1.3 / 327.0	N/A	-15.9
3664.65	39.4 Av	5.1 / 31.8 / 38.3	38.0	V / 1.3 / 327.0	N/A	-16.0
3666.47	40.4 Av	5.1 / 31.8 / 38.3	39.1	V / 1.3 / 327.0	N/A	-14.9
3667.27	38.9 Av	5.1 / 31.8 / 38.3	37.5	V / 1.3 / 327.0	N/A	-16.5
3667.47	38.8 Av	5.1 / 31.8 / 38.3	37.4	V / 1.3 / 327.0	N/A	-16.6
3668.87	36.8 Av	5.1 / 31.8 / 38.2	35.4	V / 1.3 / 327.0	N/A	-18.6
3670.26	35.6 Av	5.1 / 31.8 / 38.2	34.4	V / 1.3 / 327.0	N/A	-19.6
No other significant emissions detected, the following are noise floor points.						
1000.00	35.0 Av	3.7 / 23.9 / 37.2	25.4	V / 1.0 / 0.0	N/A	-28.6
2000.00	34.5 Av	3.2 / 27.4 / 37.3	27.8	V / 1.0 / 0.0	N/A	-26.2
3000.00	35.8 Av	4.6 / 30.4 / 37.5	33.3	V / 1.0 / 0.0	N/A	-20.7
No significant emissions detected between 200 - 1000 MHz. the following are noise floor points.						
200.00	16.0 Qp	1.5 / 11.5 / 27.2	1.8	V / 1.0 / 0.0	-41.7	N/A
325.00	10.7 Qp	2.0 / 14.9 / 26.9	0.7	V / 1.0 / 0.0	-45.3	N/A
450.00	8.2 Qp	2.4 / 17.2 / 27.8	0.1	V / 1.0 / 0.0	-45.9	N/A
575.00	8.3 Qp	2.8 / 19.4 / 28.2	2.3	V / 1.0 / 0.0	-43.7	N/A
700.00	8.1 Qp	3.3 / 21.6 / 28.1	4.9	V / 1.0 / 0.0	-41.1	N/A
825.00	7.8 Qp	3.3 / 22.0 / 27.6	5.5	V / 1.0 / 0.0	-40.5	N/A
950.00	7.3 Qp	3.7 / 23.5 / 27.2	7.3	V / 1.0 / 0.0	-38.7	N/A
Horizontal						
250.00	13.9 Qp	1.7 / 12.3 / 26.9	1.0	H / 2.0 / 0.0	-45.0	N/A
375.00	12.8 Qp	2.1 / 15.7 / 27.3	3.3	H / 2.0 / 0.0	-42.7	N/A
500.00	8.6 Qp	2.6 / 18.8 / 28.1	1.9	H / 2.0 / 0.0	-44.1	N/A
625.00	8.2 Qp	3.0 / 19.7 / 28.2	2.7	H / 2.0 / 0.0	-43.3	N/A

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(MHz)	(dBuV)	(dB) (dB\m) (dB)	(dBuV)	(m) (DEG)	15.209 <1GHz	15.209 >1GHz
750.00	8.0 Qp	3.2 / 21.3 / 27.8	4.6	H / 2.0 / 0.0	-41.4	N/A
850.00	7.5 Qp	3.4 / 22.4 / 27.5	5.7	H / 2.0 / 0.0	-40.3	N/A
975.00	7.2 Qp	3.7 / 23.8 / 27.1	7.5	H / 2.0 / 0.0	-46.5	N/A
No significant emissions detected between 30 - 200 MHz, Vertical.						
30.00	22.0 Qp	0.5 / 13.1 / 28.0	7.7	V / 1.0 / 0.0	-32.3	N/A
150.00	15.2 Qp	1.3 / 12.3 / 27.5	1.4	V / 1.0 / 0.0	-42.1	N/A
Horizontal						
70.00	15.2 Qp	0.8 / 9.3 / 27.9	-2.6	H / 2.0 / 0.0	-42.6	N/A
195.00	12.0 Qp	1.5 / 13.8 / 27.2	-0.1	H / 2.0 / 0.0	-43.6	N/A
115.00	14.2 Qp	1.1 / 11.2 / 27.7	-1.1	H / 2.0 / 0.0	-44.6	N/A
Loop antenna is perpendicular to EUT. No significant emissions detected between 10 kHz and 30 MHz; The following are noise floor points						
0.0100	21.5 Qp	0.0 / 18.5 / 0.0	40.0	H / 1.0 / 0.0	-87.6	N/A
0.150	14.0 Qp	0.1 / 10.9 / 0.0	24.9	H / 1.0 / 0.0	-79.2	N/A
2.15	16.0 Qp	0.1 / 10.2 / 0.0	26.3	H / 1.0 / 0.0	-43.2	N/A
13.00	4.9 Qp	0.3 / 10.6 / 0.0	15.8	H / 1.0 / 0.0	-53.7	N/A
25.00	4.0 Qp	0.5 / 9.3 / 0.0	13.8	H / 1.0 / 0.0	-55.7	N/A
Loop antenna is parallel to EUT. No significant emissions detected between 10 kHz and 30 MHz; The following are noise floor points						
0.0100	32.8 Qp	0.0 / 18.5 / 0.0	51.3	H / 1.0 / 0.0	-76.3	N/A
0.150	25.9 Qp	0.1 / 10.9 / 0.0	36.8	H / 1.0 / 0.0	-67.3	N/A
2.15	2.6 Qp	0.1 / 10.2 / 0.0	13.0	H / 1.0 / 0.0	-56.5	N/A
13.00	0.5 Qp	0.3 / 10.6 / 0.0	11.3	H / 1.0 / 0.0	-58.2	N/A
20.00	10.2 Qp	0.4 / 10.3 / 0.0	21.0	H / 1.0 / 0.0	-48.5	N/A
29.00	8.8 Qp	0.5 / 8.7 / 0.0	18.0	H / 1.0 / 0.0	-51.5	N/A
End of Run						

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FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dB\m) (dB)	(dBuV)	(m) (DEG)	15.209 <1GHz	15.209 >1GHz
********** Measurement Summary **********						
10000.0	44.7 Av	9.5 / 38.5 / 50.5	42.2	V / 1.0 / 0.0	N/A	-11.8
9500.00	43.9 Av	9.4 / 38.8 / 50.4	41.7	H / 1.0 / 0.0	N/A	-12.3
3665.65	42.6 Av	5.1 / 31.8 / 38.3	41.2	H / 1.7 / 210.0	N/A	-12.8
3666.47	42.3 Av	5.1 / 31.8 / 38.3	41.0	H / 1.7 / 210.0	N/A	-13.0
9000.00	42.9 Av	8.5 / 38.5 / 51.1	38.8	V / 1.0 / 0.0	N/A	-15.2
3664.84	39.5 Av	5.1 / 31.8 / 38.3	38.1	V / 1.3 / 327.0	N/A	-15.9
3667.27	39.4 Av	5.1 / 31.8 / 38.3	38.0	H / 1.7 / 210.0	N/A	-16.0
8500.00	42.5 Av	8.5 / 37.8 / 50.9	37.9	H / 1.0 / 0.0	N/A	-16.1
2749.15	41.0 Av	4.3 / 29.6 / 37.9	37.0	H / 1.8 / 252.0	N/A	-17.0
1832.65	44.1 Av	3.1 / 26.7 / 37.2	36.7	V / 1.0 / 232.0	N/A	-17.3
2749.97	40.8 Av	4.3 / 29.6 / 37.9	36.7	H / 1.8 / 252.0	N/A	-17.3
7500.01	32.5 Av	8.2 / 37.0 / 41.3	36.3	H / 1.0 / 0.0	N/A	-17.7
3668.87	36.8 Av	5.1 / 31.8 / 38.2	35.4	V / 1.3 / 327.0	N/A	-18.6
2748.16	39.1 Av	4.3 / 29.6 / 37.9	35.1	V / 1.0 / 320.0	N/A	-18.9
3663.25	36.5 Av	5.1 / 31.8 / 38.3	35.1	H / 1.7 / 210.0	N/A	-18.9
6500.01	32.6 Av	8.5 / 35.2 / 41.5	34.8	H / 1.0 / 0.0	N/A	-19.2
2750.78	38.7 Av	4.3 / 29.6 / 37.9	34.7	V / 1.0 / 320.0	N/A	-19.3
3670.26	35.6 Av	5.1 / 31.8 / 38.2	34.4	V / 1.3 / 327.0	N/A	-19.6
5000.00	33.8 Av	7.6 / 33.6 / 41.1	33.9	V / 1.0 / 0.0	N/A	-20.1
7000.00	32.4 Av	8.1 / 35.7 / 42.5	33.7	V / 1.0 / 0.0	N/A	-20.3
8000.00	37.4 Av	8.3 / 37.2 / 49.4	33.5	V / 1.0 / 0.0	N/A	-20.5
1834.26	40.8 Av	3.1 / 26.7 / 37.2	33.4	V / 1.0 / 232.0	N/A	-20.6
1831.65	40.7 Av	3.1 / 26.7 / 37.2	33.3	V / 1.0 / 232.0	N/A	-20.7
3000.00	35.8 Av	4.6 / 30.4 / 37.5	33.3	V / 1.0 / 0.0	N/A	-20.7
6000.00	32.0 Av	7.7 / 34.6 / 41.2	33.1	V / 1.0 / 0.0	N/A	-20.9
5500.00	32.9 Av	6.7 / 34.5 / 41.1	33.0	H / 1.0 / 0.0	N/A	-21.0
4500.00	34.7 Av	6.6 / 32.5 / 41.2	32.6	H / 1.0 / 0.0	N/A	-21.4
3500.00	34.6 Av	4.8 / 31.4 / 38.3	32.5	H / 1.7 / 210.0	N/A	-21.5
2500.00	35.6 Av	4.0 / 28.8 / 38.0	30.4	H / 1.7 / 210.0	N/A	-23.6
4000.00	33.5 Av	5.7 / 32.7 / 42.1	29.9	V / 1.0 / 0.0	N/A	-24.1
2000.00	34.5 Av	3.2 / 27.4 / 37.3	27.8	V / 1.0 / 0.0	N/A	-26.2
1500.00	34.6 Av	2.9 / 25.4 / 36.6	26.3	H / 1.7 / 210.0	N/A	-27.7
1000.00	35.0 Av	3.7 / 23.9 / 37.2	25.4	V / 1.0 / 0.0	N/A	-28.6
30.00	22.0 Qp	0.5 / 13.1 / 28.0	7.7	V / 1.0 / 0.0	-32.3	N/A
950.00	7.3 Qp	3.7 / 23.5 / 27.2	7.3	V / 1.0 / 0.0	-38.7	N/A
850.00	7.5 Qp	3.4 / 22.4 / 27.5	5.7	H / 2.0 / 0.0	-40.3	N/A
825.00	7.8 Qp	3.3 / 22.0 / 27.6	5.5	V / 1.0 / 0.0	-40.5	N/A
700.00	8.1 Qp	3.3 / 21.6 / 28.1	4.9	V / 1.0 / 0.0	-41.1	N/A
750.00	8.0 Qp	3.2 / 21.3 / 27.8	4.6	H / 2.0 / 0.0	-41.4	N/A
200.00	16.0 Qp	1.5 / 11.5 / 27.2	1.8	V / 1.0 / 0.0	-41.7	N/A
150.00	15.2 Qp	1.3 / 12.3 / 27.5	1.4	V / 1.0 / 0.0	-42.1	N/A
70.00	15.2 Qp	0.8 / 9.3 / 27.9	-2.6	H / 2.0 / 0.0	-42.6	N/A
375.00	12.8 Qp	2.1 / 15.7 / 27.3	3.3	H / 2.0 / 0.0	-42.7	N/A
2.15	16.0 Qp	0.1 / 10.2 / 0.0	26.3	H / 1.0 / 0.0	-43.2	N/A

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FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	DELTA1 (dB)	DELTA2 (dB)
(MHz)	(dBuV)	(dB) (dB\m) (dB)	(dBuV)	(m) (DEG)	15.209 <1GHz	15.209 >1GHz
625.00	8.2 Qp	3.0 / 19.7 / 28.2	2.7	H / 2.0 / 0.0	-43.3	N/A
195.00	12.0 Qp	1.5 / 13.8 / 27.2	-0.1	H / 2.0 / 0.0	-43.6	N/A
575.00	8.3 Qp	2.8 / 19.4 / 28.2	2.3	V / 1.0 / 0.0	-43.7	N/A
500.00	8.6 Qp	2.6 / 18.8 / 28.1	1.9	H / 2.0 / 0.0	-44.1	N/A
115.00	14.2 Qp	1.1 / 11.2 / 27.7	-1.1	H / 2.0 / 0.0	-44.6	N/A
250.00	13.9 Qp	1.7 / 12.3 / 26.9	1.0	H / 2.0 / 0.0	-45.0	N/A
325.00	10.7 Qp	2.0 / 14.9 / 26.9	0.7	V / 1.0 / 0.0	-45.3	N/A
450.00	8.2 Qp	2.4 / 17.2 / 27.8	0.1	V / 1.0 / 0.0	-45.9	N/A
975.00	7.2 Qp	3.7 / 23.8 / 27.1	7.5	H / 2.0 / 0.0	-46.5	N/A
20.00	10.2 Qp	0.4 / 10.3 / 0.0	21.0	H / 1.0 / 0.0	-48.5	N/A
29.00	8.8 Qp	0.5 / 8.7 / 0.0	18.0	H / 1.0 / 0.0	-51.5	N/A
13.00	4.9 Qp	0.3 / 10.6 / 0.0	15.8	H / 1.0 / 0.0	-53.7	N/A
25.00	4.0 Qp	0.5 / 9.3 / 0.0	13.8	H / 1.0 / 0.0	-55.7	N/A
0.150	25.9 Qp	0.1 / 10.9 / 0.0	36.8	H / 1.0 / 0.0	-67.3	N/A
0.0100	32.8 Qp	0.0 / 18.5 / 0.0	51.3	H / 1.0 / 0.0	-76.3	N/A

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15.249(a)/15.205 Test Data

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Field Strength Measurements
Fundamental and Harmonics of the Transmitter

Test Report #:	**3099148**	Test Area:	Pinewood Site 1 (3m)	Temperature:	21.4	°C
Test Method:	FCC CFR 47 part 15	Test Date:	08-Jun-2006	Relative Humidity:	27	%
EUT Model #:	A0005-A00; A0007-A00	EUT Power:	3VDC; 3VDC	Air Pressure:	81	kPa
EUT Serial #:	31; E					
Manufacturer:	RevFire					
EUT Description:	Core; Monitor for Measurement of Speed and Rotation.					
Notes:						

Level Key	
Pk – Peak	Pk – Peak
Qp – QuasiPeak	Qp – QuasiPeak
Av - Average	

FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	Duty Cycle Correction	Final Corrected	Limit	DELTA
(MHz)	(dBuV)	(dB) (dB\m) (dB)	(dBuV)	(m) (DEG)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
The following duty cycle was declared by the manufacturer.								
"The maximum transmit time in any 100ms window is 17ms."								
Averaging method for pulsed signals and calculation in accordance to FCC CFR47 Part 15.35 utilized to calculate field strength emissions.								
The testing performed in accordance to FCC CFR47 Part 15.205 (restricted bands of operation) and 15.249 emissions and delta limits were calculated as follows:								
Final Corrected Peak Measurement – Duty Cycle Correction Factor* = Final Calculated Emission								
The Final Calculated Emission was then compared to the Limits in CFR47 Part 15.209 and 15.249 and the emission/limit delta was calculated.								
the DTCF is calculated as follows $20*\log_{10}$(duty cycle in 100mS) "not to exceed 20dB"								
Part 15.249 and 15.205 Respectively, the limits specified in 15.205/209 are the same as the harmonics limit specified in 15.249.								
Axis 1, X up and y facing antenna								
916.54	54.4 Pk	3.6 / 23.2 / 0.0	81.2	V / 1.0 / 242.0	0	81.2	93.9	12.7
916.54	57.5 Pk	3.6 / 23.2 / 0.0	84.3	H / 1.0 / 130.0	0	84.3	93.9	9.6
Axis 2, Y up X towards antenna								
916.54	48.2 Pk	3.6 / 23.2 / 0.0	75.0	H / 1.0 / 48.0	0	75.0	93.9	18.9
916.54	46.1 Pk	3.6 / 23.2 / 0.0	72.9	V / 1.0 / 20.0	0	72.9	93.9	21.0
Axis 3, Z up and X towards antenna								
916.54	59.8 Pk	3.6 / 23.2 / 0.0	86.6	V / 1.1 / 239.0	0	86.6	93.9	7.3
916.54	56.2 Pk	3.6 / 23.2 / 0.0	83.0	H / 1.1 / 249.0	0	83.0	93.9	10.9
Axis 3 Determined to be worst case axis. Eut left in that position for harmonics measurements. Harmonics 2 - 4, Vertical.								
1833.05	62.2 Pk	3.1 / 26.7 / 37.2	54.8	V / 1.0 / 278.0	15.3	39.5	53.9	14.4
1833.05	59.3 Pk	3.1 / 26.7 / 37.2	51.9	H / 1.7 / 161.0	15.3	36.6	53.9	17.3
2749.55	56.0 Pk	4.3 / 29.6 / 37.9	51.9	V / 1.0 / 196.0	15.3	36.6	53.9	17.3
2749.55	55.4 Pk	4.3 / 29.6 / 37.9	51.4	H / 2.1 / 28.0	15.3	36.1	53.9	17.8
3666.05	57.2 Pk	5.1 / 31.8 / 38.3	55.9	V / 1.1 / 344.0	15.3	40.6	53.9	13.3
3666.05	57.6 Pk	5.1 / 31.8 / 38.3	56.3	H / 1.8 / 328.0	15.3	41.0	53.9	12.9
4582.55	36.7 Pk	6.8 / 32.7 / 41.2	34.9	H / 1.0 / 0.0	15.3	19.6	53.9	34.3
4582.55	44.0 Pk	6.8 / 32.7 / 41.2	42.2	V / 1.1 / 198.0	15.3	26.9	53.9	27.0
5499.05	33.0 Pk	6.7 / 34.5 / 41.1	33.1	H / 1.0 / 0.0	15.3	17.8	53.9	36.1
5499.05	37.4 Pk	6.7 / 34.5 / 41.1	37.5	V / 1.2 / 212.0	15.3	22.2	53.9	31.7
6415.55	33.2 Pk	8.4 / 35.1 / 41.6	35.1	H / 1.0 / 0.0	15.3	19.8	53.9	34.1
6415.55	32.4 Pk	8.4 / 35.1 / 41.6	34.2	V / 1.0 / 0.0	15.3	18.9	53.9	35.0
7332.05	30.5 Pk	8.2 / 36.6 / 41.7	33.5	H / 1.0 / 0.0	15.3	18.2	53.9	35.7

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FREQ	LEVEL	CABLE / ANT / PREAMP	FINAL	POL / HGT / AZ	Duty Cycle Correction	Final Corrected	Limit	DELTA
(MHz)	(dBuV)	(dB) (dB\m) (dB)	(dBuV)	(m) (DEG)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
7332.05	30.4 Pk	8.2 / 36.6 / 41.7	33.4	V / 1.0 / 0.0	15.3	18.1	53.9	35.8
8248.55	38.6 Pk	8.4 / 37.5 / 50.0	34.6	V / 1.0 / 0.0	15.3	19.3	53.9	34.6
8248.55	37.4 Pk	8.4 / 37.5 / 50.0	33.3	H / 1.0 / 0.0	15.3	18.0	53.9	35.9
9165.05	40.0 Pk	8.8 / 38.6 / 50.4	37.0	V / 1.0 / 0.0	15.3	21.7	53.9	32.2
9165.05	42.9 Pk	8.8 / 38.6 / 50.4	39.9	H / 1.0 / 0.0	15.3	24.6	53.9	29.3

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List of Equipment Utilized for Final Test

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Project Report

Begin Date: 6/8/2006 **End Date:** 6/8/2006

Technician Jordan Bellistion **Project** 3099148

Capital Asset ID	Manufacturer	Model #	Serial #	Description	Test Performed	Service Type	Service Date	Service Due
18880	Hewlett-Packard	85650A	2811A01300	Q.P Adapter	R Radiated Emissions	For Cal	11/8/2005	11/8/2006
18881	Hewlett-Packard	85662A	2403A08749	Display Section	R Radiated Emissions	For Cal	8/8/2005	8/8/2006
18882	Hewlett-Packard	8566B	2410A00154	Spectrum Analyzer (dc-22 GHz)	R Radiated Emissions	For Cal	8/8/2005	8/8/2006
18887	EMCO	3115	9205-3886	Horn Antenna 1-18GHz	R Radiated Emissions	For Cal	3/27/2006	3/27/2007
18888	EMCO	3146	9402-3775	Log Periodic Antenna (200-1000MHz)	R Radiated Emissions	For Cal	9/30/2005	9/30/2006
18889	EMC TEST SYSTEMS	3109	3142	Biconical Antenna 30-300MHz	R Radiated Emissions	For Cal	9/30/2005	9/30/2006
18897	EMCO	6502	9205-2738	Magnetic loop	R Radiated Emissions	For Cal	7/13/2005	7/13/2006
18900	Avantek	AFT97-8434-10F	1007	RF Pre-Amplifier (4-8 GHz)	R Radiated Emissions	For Ver	4/4/2006	4/4/2007
18901	Avantek	AWT-18037	1002	RF Pre-Amplifier (8-18 GHz)	R Radiated Emissions	For Ver	4/4/2006	4/4/2007
18906	Mini-Circuits Lab	ZHL-42	N052792-2	Amplifier	R Radiated Emissions	For Ver	4/4/2006	4/4/2007
18912	Hewlett-Packard	8447F	3113A05545	9 kHz- 1.3GHz Pre Amp	R Radiated Emissions	For Ver	5/8/2006	5/8/2007

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Appendix B

Test Plan

and

Constructional Data Form

Intertek ETL Semko
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Request for Estimate & Test Plan

Laboratory/Agent Information:

Agent/Test Lab:	International Approvals Laboratories, LLC
Contact:	Todd Seeley
Title:	Principal Engineer (Services Development Focus)
Phone Number:	(303) 402-5272
Cell Number:	(303) 503-2491
Fax Number:	(303) 449-6160
Email Address:	todd@ialabs.com

Client Information:

License Holder:	RevFire Corporation
Address:	Boulder, CO 8030
Contact:	Dave Marinelli
Title:	
Phone Number:	720.839.5029
Fax Number:	
Email Address:	dave.marinelli@revfire.com

Please provide all pertinent information below and email this Form to Todd and Amy at todd@ialabs.com and Amy@ialabs.com for a quotation:

Estimates Requested:

EMC Testing	
☐ Requesting Estimate	☐ No Estimate Required
☐ Pre-Compliance Scans	☐ Engineering Test

Radio Device Testing and Certification	
☒ Requesting Estimate	☐ No Estimate Required
☒ FCC Certification	☒ Industry Canada Certification (Receivers required)
☐ Class 2 Notification Under the R&TTED	

Safety Testing and Certification	
☐ Requesting Estimate	☐ No Estimate Required
☐ NRTL Listing	☐ 1 Day Pre-Assessment (conducted at your facility)
☐ Letter of Findings	☐ CB Report Covering all country Deviations
☐ CE Report to Cover the LVD	☐ CB Report Covering - Specify Countries:
Please list all applicable standards that you would like your device certified under:	

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General Product Information:

Product/Model Number(s):	CH100
Description of product(s):	Spherical sensor / transmitter
Intended Use:	☐ Household ☒ Commercial ☐ Industrial ☐ Hospital ☐ Life Supporting
Intended Location:	☒ Dry ☐ Damp ☐ Wet ☐ Hazardous Location
Product Type:	☒ Prototype ☐ Production Sample ☐ Manufacturing Design Change: Please Describe
If there is more than one product what are the differences?	
Is the Product Enclosure:	☐ Metal ☒ Plastic ☐Both

Size:	Length:1.4"	Width:1.4"	Height:1.4"	Weight:1 oz.

What Voltages/Current does the EUT run at?	Rated Voltage:3v internal lithium coin cell CR1632 battery Rated Current:~8mA max # of Phases/Conductors:0/ # of Power Cords:0
Are their multiple suppliers of power supplies?	☐ Yes ☐ No If Yes Please Describe:
Are there Multiple Modes of Operation?	☒ Yes ☐ No If Yes Please Describe: Awake and Asleep
Can all modes of operation be operated simultaneously?	☐ Yes ☒ No Explain:see notes below
In which countries will you be selling the product?	USA

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EMC Information:

What EMC certifications are desired?	☒ FCC/ICES (US & Canada) ☐ CE / EMC / MMD ☐ BSMI (Taiwan) ☐ VCCI (Japan) ☐ SII (Israel) ☐ AS/NZS (Australia/New Zealand) ☐ Other: Please Specify

Highest frequency utilized for device operation:	916.5MHz

List of Clock Frequencies:	32KHz, 300KHz internal to IC

What is the time that it takes for the device to complete a full cycle of operation? (time required to identify any degradation in performance)	

Total Number of I/O Cables: # Greater than 3m (9.75 feet) in Length # Greater than 30m (97.5 feet) in Length # of cables at a longer length (specify)	

Number of Dedicated Earth Equalization Ports	

Number of Ethernet and/or Telecommunications Ports	

When the device is a compilation of subsystems (in separate chassis) how many interconnecting I/O's are greater than 1 meter in length between the Subsystem chassis?	

For medical devices: Are there any coupled or direct patient contact points on the device?	☐ Yes ☐ No Describe:

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Radio Information:

What Radio certifications are desired?	☒ FCC (USA) ☒ Industry Canada ☐ ETSI (R&TTE) ☐ Other: Please Specify
Operating Frequency:	916.5MHz
RF Output Power:	1dBm
Is there an RF Conducted Port?	☐ Yes ☒No Description:
Number of Antennas & Description: (Internal, External, Known Gain, etc.)	internal wire, unknown gain, guess < -6dBi
Modulation Technique:	OOK-Manchester - Duty Cycle:depends on user: 0.5% -> 2%
Number of Channels/Number of Discrete frequencies per Channel:	1/1
Can the device be operated in CW Mode?	☒ Yes ☐ No
What is the lowest utilized frequency within the device?	32kHz

Notes: Please ensure to bring a notch filter covering your fundamental operating frequency.

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Safety Information:

Has the device been tested and certified for product safety before? A. If it has been previously tested, to which standard and by which organization? B. Can you provide the test report?	☐ Yes ☒ No Standard tested to: Organization tested by: ☐ Yes ☒ No

Is the power supply	☐ An approved off the shelf power supply OR ☐ A Custom Model that will need evaluation/ certification

Does the device contain batteries?	☒ Yes ☐ No What Type? lithium coin cell How Many? 1

What technology is used? (i.e., lasers, X Ray, etc.)	none

If Laser:	Class:	Output Power:	Beam Divergence Angle:	Wavelength:

Is the product a Medical Device?	☐ Yes ☒ No
Is it an In Vitro Diagnostic Device?	☐ Yes ☒ No
Testing location: (to be filled in by IALabs)	

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Additional Information:

This information is required to be filled in to act as a test plan and constructional data form required to be supplied as part of the test report in accordance to the required standards. This information is not required to obtain a quote.

Support Equipment:

IALabs requires our customers provide all support equipment necessary to fully operate the EUT. This includes any filters required for testing radio devices.

Item	Description	Manufacturer	Model No.
1			
2			
3			
4			

Cabling Information:

Cable	Function*	Type of Shield	Length	Connectors	Connection**
1					
2					
3					
4					
5					
6					

* Function examples (Ethernet, RS232, USB, Analog, physiological parameter, etc.)
** Connection examples (Outside Plant, Patient Coupled, Ring Voltage, etc.)

Monitoring the EUT:

Please provide instructions below on how to observe the EUT to verify proper operation in all modes. (including software revision)

A receiver can be provide for detection of normal mode transmissions (see below).

Any other information required: (Notes, Photos, Block Diagrams, Drawings, etc.)

A minimum of a block diagram showing the equipment under test and its support equipment.

Three small plastic spherical units will be provided (please specify minimum required durations):

1) one with continuous wave transmission for X? minutes when awaken

2) one with Manchester encoded data transmission for Y? minutes when awaken

3) one with normal ~70ms data transmission, repeated every A? seconds for Z? minutes when awaken

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For International Approvals Laboratories, Use Only.
Please do not fill in the following Information.

Quoting Engineer: todd

Emissions Testing Required

☐**Class A** ☐**Class B** ☐**Radio Device** ☐**Group 1** ☐**Group 2**

☐ FCC Part 15	☐ ICES-003	☐ VCCI
☐ FCC Part 18	☐ BSMI	☐ CISPR 22/EN 55022
☐ CISPR 11/EN 55011	☐ IEC/EN 61326	☐ IEC/EN61000-6-3
☐ IEC/EN61000-6-4	☐ CNS13438	☐ AS/NZS 3548
☐ IEC/EN61000-3-2	☐ IEC/EN61000-3-3	☐ ETSI/EN 301 489
☐ Other:		

OATS Testing Voltages

☐ 100VAC/50 Hz	☐ 120VAC/60Hz	☐ 230VAC/50Hz
☐ 110VAC/60Hz	☐ 220VAC/60Hz	☐ 240VAC/50Hz
☐ Other:		

Immunity Product Family Standard

☐ CISPR24/EN 55024	☐ IEC/EN 61000-6-1	☐ IEC/EN 61000-6-2
☐ IEC/EN 60601-1-2 ☐ Art. Hand.	☐ IEC/EN 61326	☐ CISPR14/ EN 55014-2
☐ ETSI/EN 301 489	☐ Add Israel Frequencies	
☐ Other:		

Immunity Methods

☐ EN61000-4-2	☐ 4kV/8kV ☐ 6kV/8kV	☐ 8kV ☐ 12kV ☐ 15kV	☐ Other:
☐ EN61000-4-3	☐ 3V/m ☐ 10V/m	☐ 1 kHz Modulation ☐ 400 Hz Modulation ☐ 2 Hz Modulation	☐ Other:
☐ EN61000-4-4	☐ 0.5 kV ☐ 1.0 kV	☐ 2.0 kV	☐ Other:
☐ EN61000-4-5	☐ 0.5 kV ☐ 1.0 kV	☐ 2.0 kV ☐ 4.0 kV	☐ Other:
☐ EN61000-4-6	☐ 3Vrms ☐ 10Vrms	☐ 1 kHz Modulation ☐ 400 Hz Modulation ☐ 2 Hz Modulation	☐ Other:
☐ EN61000-4-8	☐ 1A/m ☐ 30A/m	☐ 400A/m	☐ Other:
☐ EN61000-4-11	☐ >95% 0.5 Cycles ☐ 30% 0.5 Cycles ☐ 60% 5 Cycles ☐ 60% 50 Cycles	☐ 30% 25 Cycles ☐ >95% 250 Cycles ☐ >95% 1 Cycle	☐ Other:

Test Reports Requested

☐ Emissions	☐ Engineering Data Only	☐ ETSI “Radio”
☐ Immunity	☒ FCC/Industry Canada “Radio”	☐ Other:

☐ Other/special notes: .

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Appendix C

Measurement Protocol

And

Test Procedures

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MEASUREMENT PROTOCOL

GENERAL INFORMATION

Test Methodology

Conducted and radiated emission testing is performed according to the procedures in ANSI C63.4 & CNS13438.

Justification

The Equipment Under Test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions. A cable is connected to each available port and either terminated with a peripheral into it's characteristic impedance or left unterminated. When appropriate, the cables are manually manipulated with respect to each other to obtain maximum emissions from the unit.

CONDUCTED EMISSIONS

The final level, expressed in dBμV, is arrived at by taking the reading directly from the EMI receiver. This level is compared directly to the applicable limit.

To convert between dBμV and μV, the following conversions apply:

- dBμV = 20(log μV)
- μV = Inverse log(dBμV/20)

RADIATED EMISSIONS

The final level, expressed in dBμV/m, is arrived at by taking the reading from the spectrum analyzer (Level dBμV) and adding the antenna correction factor and cable loss factor (Factor dB) to it. This result then has the applicable limit subtracted from it to provide the Delta which gives the tabular data as shown in the data sheets in Attachment B. The amplifier gain is automatically accounted for by using an analyzer offset.

Example: At a Test Frequency of 30 MHz, with a peak reading on the spectrum analyzer or measuring receiver of 14 dBμV:

Measured Level	+	Transducer & Cable Loss factor	=	Corrected Reading	Specification Limit	-	Corrected Reading	=	Delta Specification
(dBμV)		(dB)		(dBμV/m)	(dBμV/m)		(dBμV/m)		
14.0		**14.9**		**28.9**	**40.0**		**28.9**		**-11.1**

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DETAILS OF TEST PROCEDURES

General Standard Information

The test methods used comply with 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."

Conducted Emissions

Conducted emissions on the 50 Hz and/or 60 Hz power interface of the EUT are measured in the frequency range of 150 kHz to 30 MHz. The measurements are performed using a receiver, which has CISPR characteristic bandwidth and quasi-peak detection, and a Line Impedance Stabilization Network (LISN), with 50 Ω/50 μH (CISPR 16) characteristics. Table top equipment is placed on a non-conducting table 80 centimeters above the floor and is positioned 40 centimeters from the vertical ground plane (wall) of the screen room. In some cases, a pre-scan using a spectrum analyzer is initially performed on the units comprising the system under test to locate the highest emissions. If the minimum passing margin appears to be less than 20 dB with a peak mode measurement, the emissions are re-measured using a tuned receiver or spectrum analyzer with quasi-peak and average detection and recorded on the data sheets.

Radiated Emissions

Radiated emissions from the EUT are measured in the frequency range of 30 to 22GHz using a spectrum analyzer 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 and measurements above 1000 MHz are made with a 1 MHz/6 dB bandwidth and peak detection. Table top equipment is placed on a 1.0 X 1.5 meter non-conducting table 80 centimeters above the ground plane. Floor standing equipment is placed directly on the turntable/ground plane. Interface cables that are closer than 40 centimeters to the ground plane are bundled in the center in a serpentine fashion so they are at least 40 centimeters 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 is 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 polarizations and the EUT are rotated 360 degrees.

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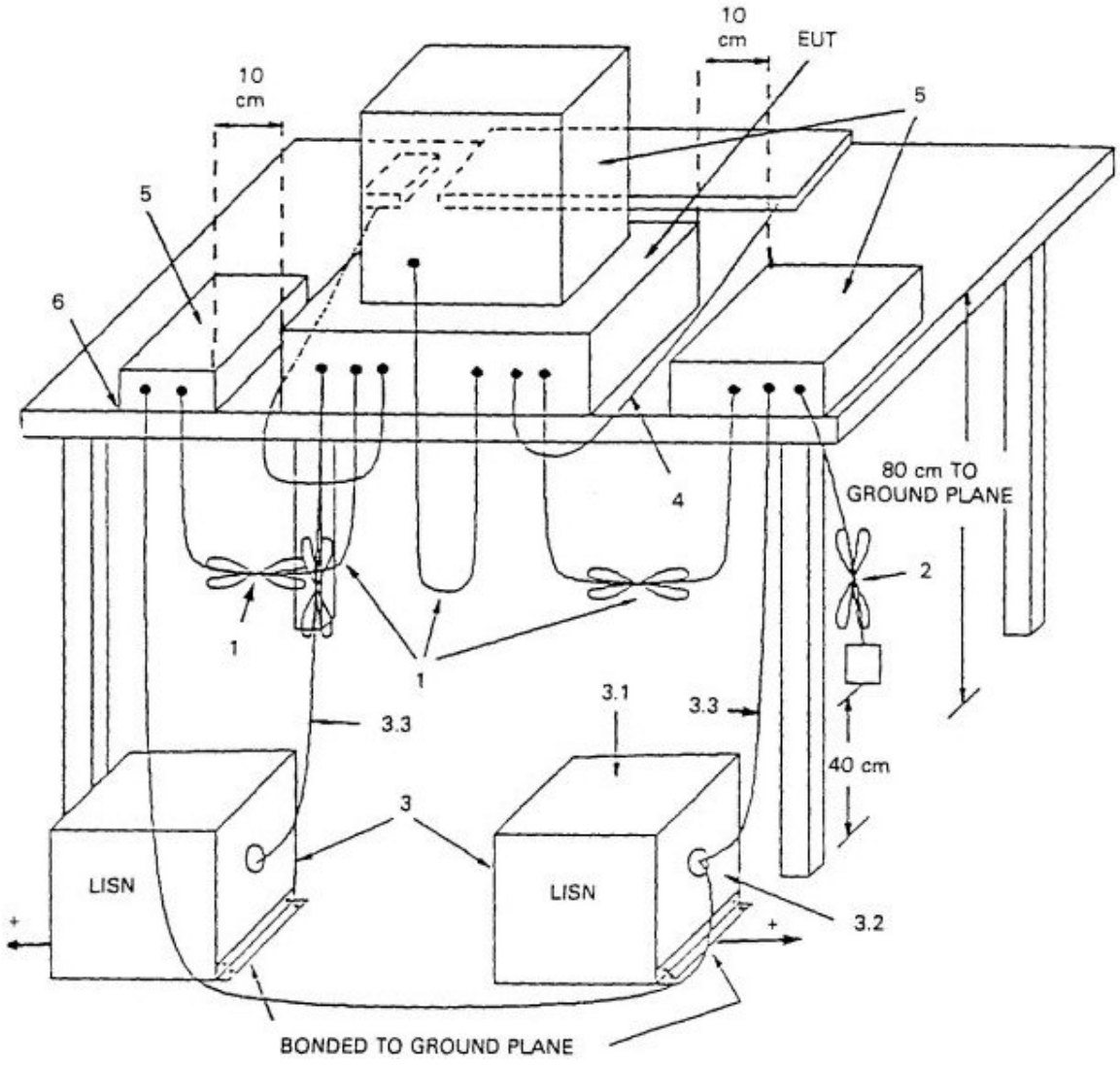
Conducted Emissions Diagram:



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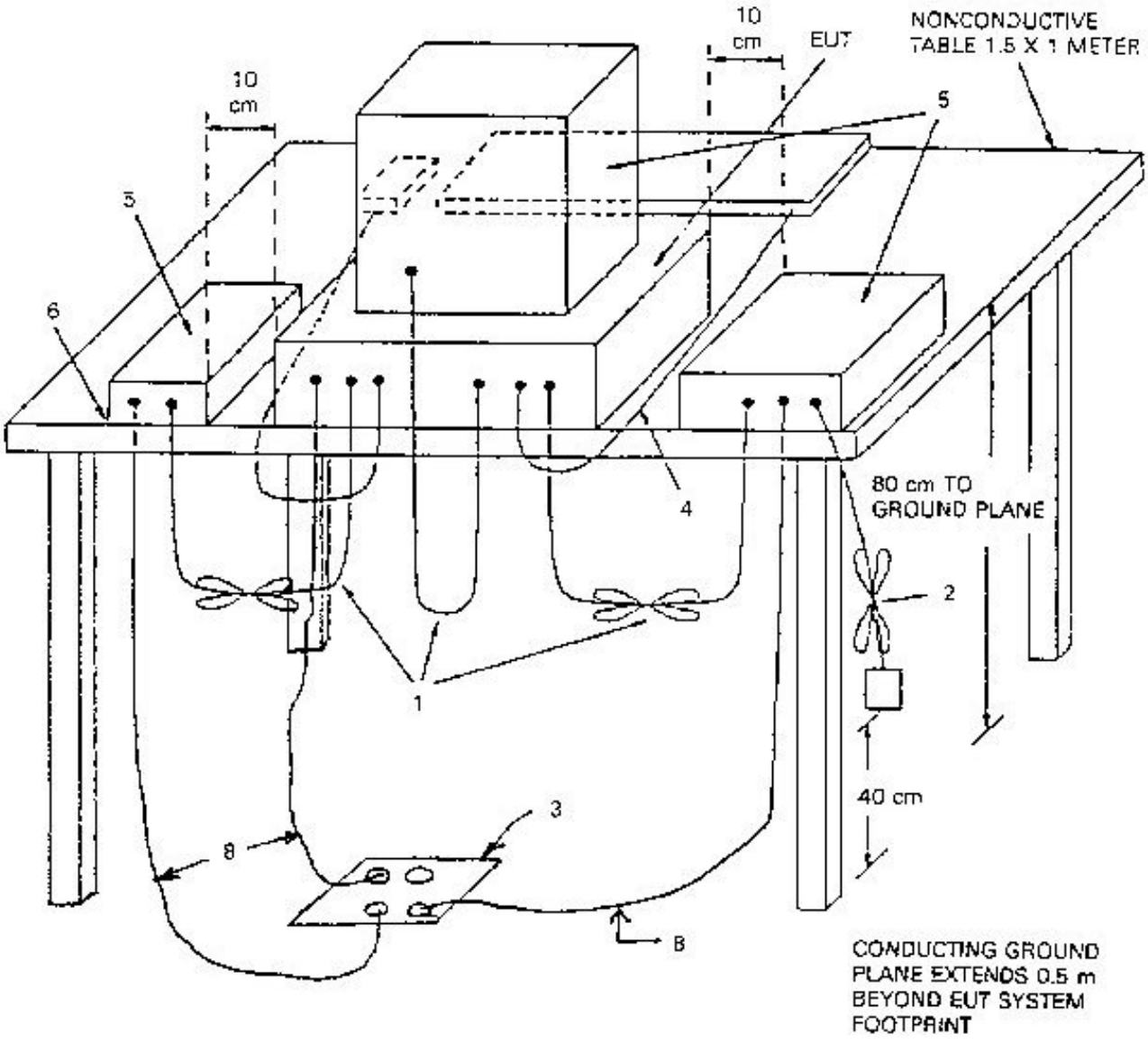
Radiated Emissions Diagram:



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