Compliance Testing, LLC
Previously Flom Test Lab
EMI, EMC, RF Testing Experts Since 1963

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Test Report

Prepared for: MedHab LLC

Model: Q-100

Description: Wireless Charger

Serial Number: N/A

FCC ID: 2AQ6B-000269
IC: 24341-000269

To

FCC Part 18
And
IC RSS-216

Date of Issue: November 16, 2018

On the behalf of the applicant:	**MedHab LLC** **3501 N US Highway 67** **San Angelo, TX 76905**
Attention of:	**Jesse Ramirez, Compliance manager** **Ph: (325)315-2180** **EMail: jesseramirez@medhab.com**

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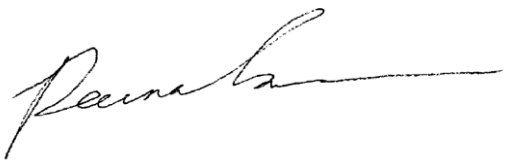
Project ID: p17c0001



Poona Saber
Project Test Engineer

Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	8/13/18	Poona Saber	Original Document
2.0	10/22/18	Poona Saber	Added information for RSS-216 on page 5
3.0	11/5/18	Poona Saber	Changed model and description of device on page 1 and 5

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ILAC / A2LA

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The tests results contained within this test report all fall within our scope of accreditation, unless noted below.

Please refer to http://www.compliancetesting.com/labscope.html for current scope of accreditation.

Testing Certificate Number: **2152.01**

FCC Site Reg. #349717

IC Site Reg. #2044A-2

Non-accredited tests contained in this report:

N/A

Test and Measurement Data
Subpart 2.1033(b)

All tests and measurement data shown were performed in accordance with FCC Rule Part 18

Name of Test	FCC Section
A/C Powerline Conducted Emissions	18.307
Radiated Emissions	18.305

Standard Engineering Practices

Unless otherwise indicated the procedures contained in ANSI C63.4-2014 were observed during testing.

Prior to testing, the EUT was tuned up in accordance with the manufacturer's alignment procedures. All external gain controls were maintained at the position of maximum and/or optimum gain throughout the testing.

Measurement results, unless otherwise noted, are worst case measurement.

Standard Test Conditions and Engineering Practices

Unless otherwise indicated in the specific measurement results, the ambient temperature was maintained within the range of 10º to 40ºC (50º to 104ºF) and the relative humidity levels were in the range of 10% to 90%.

Environmental Conditions	
Temperature (ºC)	**Humidity (%)**
23.3	28.9

EUT Description
Model: Q-100
Description: Wireless Charger
Firmware: N/A
Software: N/A
Serial Number: N/A
Additional Information:
Product is manufactured by Shenzen Powerqi technology and it gets connected to AC power to operate with DC input of 5V. Its rated frequency of operation is 110-205 KHz and it consists of single Coil for charging of electronic devices.

Per RSS 216 for classification of WPT devices since this charger is incapable of transmitting any form of intelligent communication wirelessly (including communication related to power transfer management) and they fall out of scope of RSS-102.

EUT Operation during Tests
The Wireless charger is tested with the MyNotify Bluetooth device located on it and on charging state. Device is put on three different orthogonal axis and the maximum position is reported here.

Accessories:

Qty	Description	Manufacturer	Model	S/N
1	AC adapter	CUI INC	SWM6-5-NH-U	N/A

Cables:

Qty	Description	Length (M)	Shielding Y/N	Shielded Hood Y/N	Termination
1	Usb to mini usb cable	<3	N/A	N/A	N/A

Modifications:

Device is showing passing results for conducted emissions with the specific USB AC adapter with the information above

Test Results Summary

Specification	Test Name	Pass, Fail, N/A	Comments
18.307	Conducted Emissions	PASS	
18.305	Radiated Emissions	PASS	

18.307 Conducted Emissions

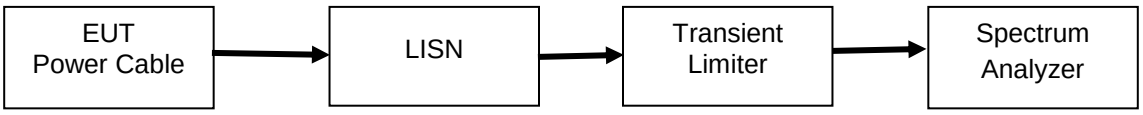
Engineer: Poona Saber

Test Date: 6/1/2018

Test Procedure

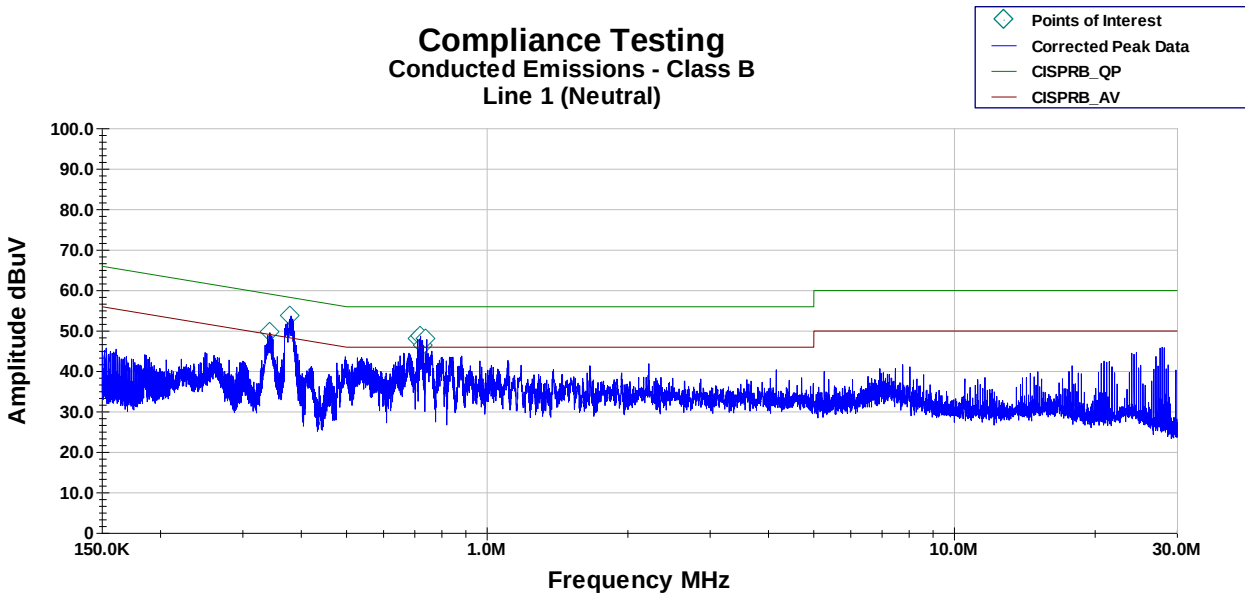
The EUT power cable was connected to a LISN and the monitored output of the LISN was connected to a transient limiter, which then connected directly to a spectrum analyzer. The conducted emissions from 150 kHz to 30 MHz were measured and compared to the specification limits.

Test Setup



Conducted Emissions Test Results

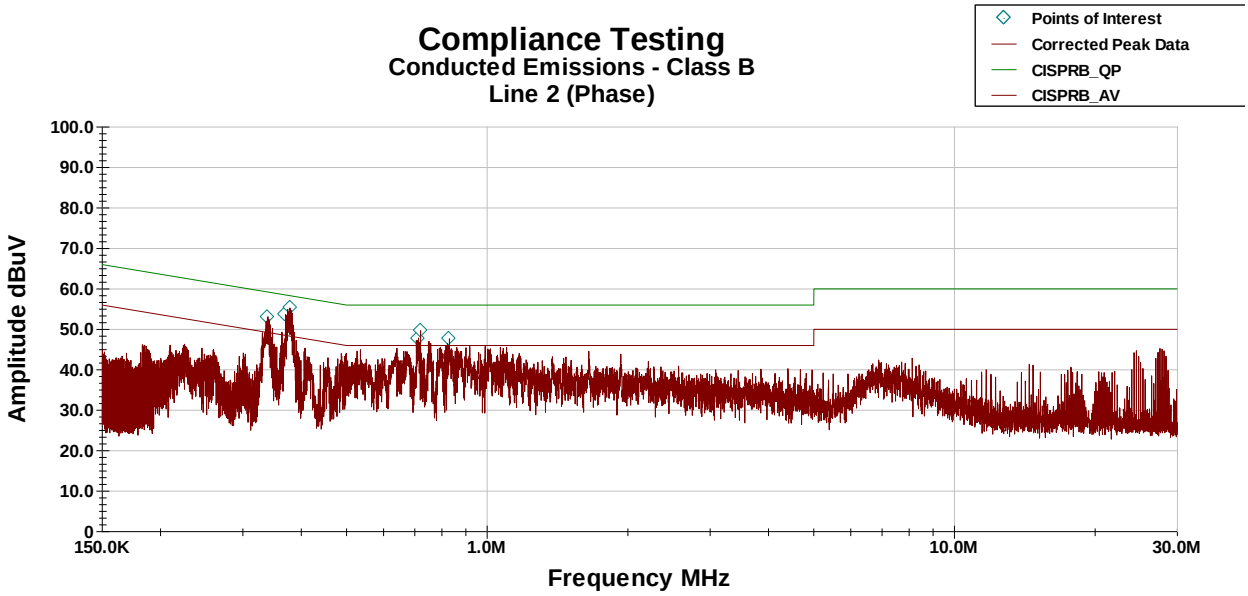
Line 1 Peak Plot



Operator: PS

EN55032 Class B_85462 EMI Rec_V7_ACTIVE.til **Job #:**

Line 2 Peak Plot



Operator: PS

EN55032 Class B_85462 EMI Rec_V7_ACTIVE.til **Job #:**

Line 1 Neutral Avg Detector

Frequency	Measured Value (dBuV)	LISN Correction Factor (dB)	Cable Loss (dB)	Transient Limiter (dB)	Final Data (dBuV)	Limit (dBuV)	Avg Margin (dB)
341.58 KHz	31.73	0.13	0.027	10.1	41.99	50.526	-8.537
380.25 KHz	37.12	0.11	0.029	10.1	47.359	49.421	-2.063
714.87 KHz	18.11	0.04	0.036	10.1	28.288	46	-17.712
717.25 KHz	18.62	0.04	0.036	10.1	28.801	46	-17.199
721.84 KHz	17.71	0.04	0.036	10.1	27.882	46	-18.118
723.17 KHz	13.31	0.04	0.036	10.1	23.485	46	-22.515

Line 2 Phase Avg Detector

Frequency	Measured Value (dBuV)	LISN Correction Factor (dB)	Cable Loss (dB)	Transient Limiter (dB)	Final Data (dBuV)	Limit (dBuV)	Avg Margin (dB)
340.92 KHz	26.56	0.13	0.027	10.1	36.817	50.545	-13.729
369.82 KHz	25.2	0.12	0.028	10.1	35.444	49.719	-14.276
376.88 KHz	32.2	0.11	0.029	10.1	42.44	49.518	-7.077
718.34 KHz	13.79	0.04	0.036	10.1	23.963	46	-22.037
719.43 KHz	12.97	0.04	0.036	10.1	23.15	46	-22.85
821.46 KHz	16.65	0	0.04	10.1	26.793	46	-19.207

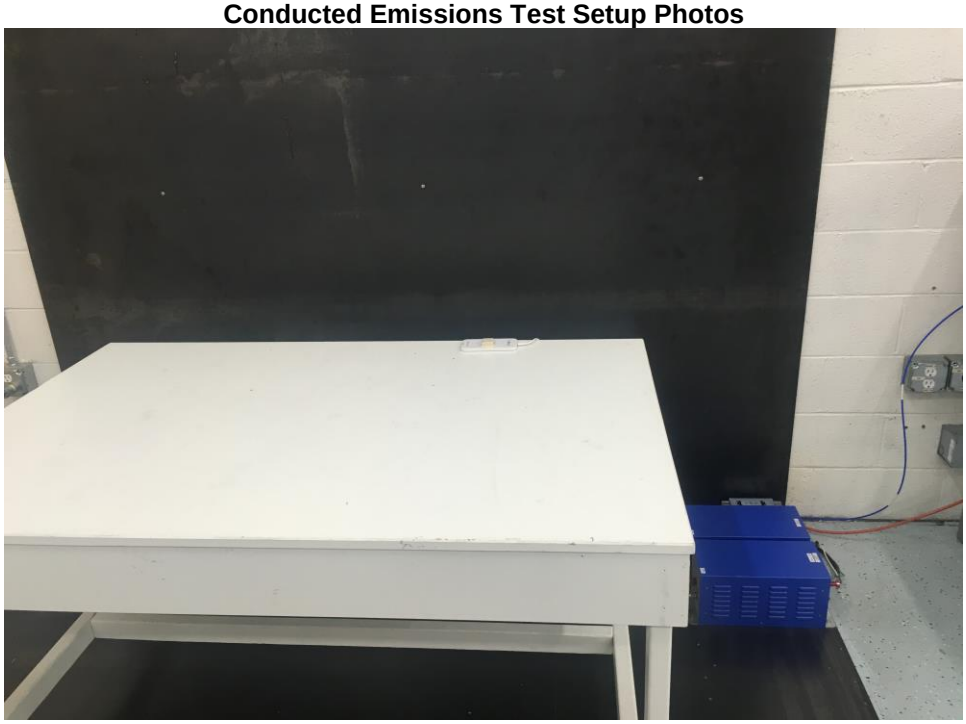
Line 1 Neutral QP Detector

Frequency	Measured Value (dBuV)	LISN Correction Factor (dB)	Cable Loss (dB)	Transient Limiter (dB)	Final Data (dBuV)	Limit (dBuV)	QP Margin (dB)
341.58 KHz	33.72	0.129	0.027	10.1	43.976	60.526	-16.55
380.25 KHz	39.91	0.11	0.029	10.1	50.149	59.421	-9.273
714.87 KHz	32.02	0.043	0.036	10.1	42.198	56	-13.802
717.25 KHz	32.21	0.041	0.036	10.1	42.387	56	-13.613
721.84 KHz	32.47	0.039	0.036	10.1	42.645	56	-13.355
723.17 KHz	31.29	0.038	0.036	10.1	41.465	56	-14.535

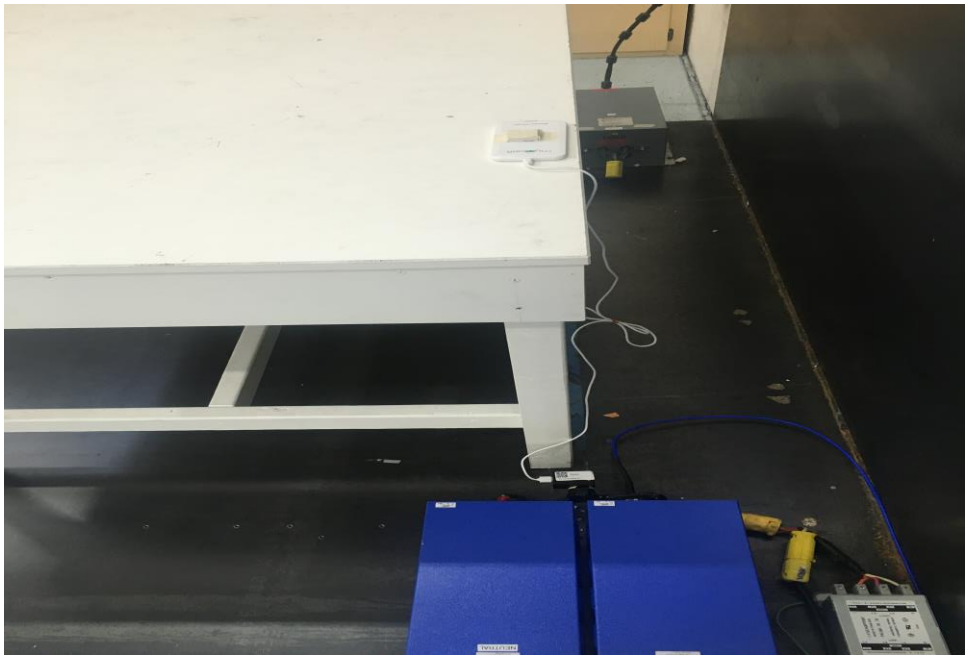
Line 2 Phase QP Detector

Frequency	Measured Value (dBuV)	LISN Correction Factor (dB)	Cable Loss (dB)	Transient Limiter (dB)	Final Data (dBuV)	Limit (dBuV)	QP Margin (dB)
340.92 KHz	38.11	0.13	0.027	10.1	48.367	60.545	-12.179
369.82 KHz	37.85	0.12	0.028	10.1	48.094	59.719	-11.626
376.88 KHz	40.85	0.11	0.029	10.1	51.09	59.518	-8.427
718.34 KHz	32.24	0.04	0.036	10.1	42.417	56	-13.583
719.43 KHz	31.88	0.04	0.036	10.1	42.056	56	-13.944
821.46 KHz	33.53	0	0.04	10.1	43.67	56	-12.33

Conducted Emissions Test Setup Photos



Side View



18.305 Radiated Emissions

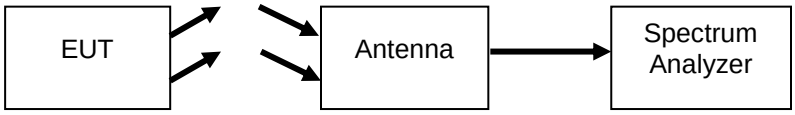
Engineer: Alex Macon

Test Date: 12/16/2017

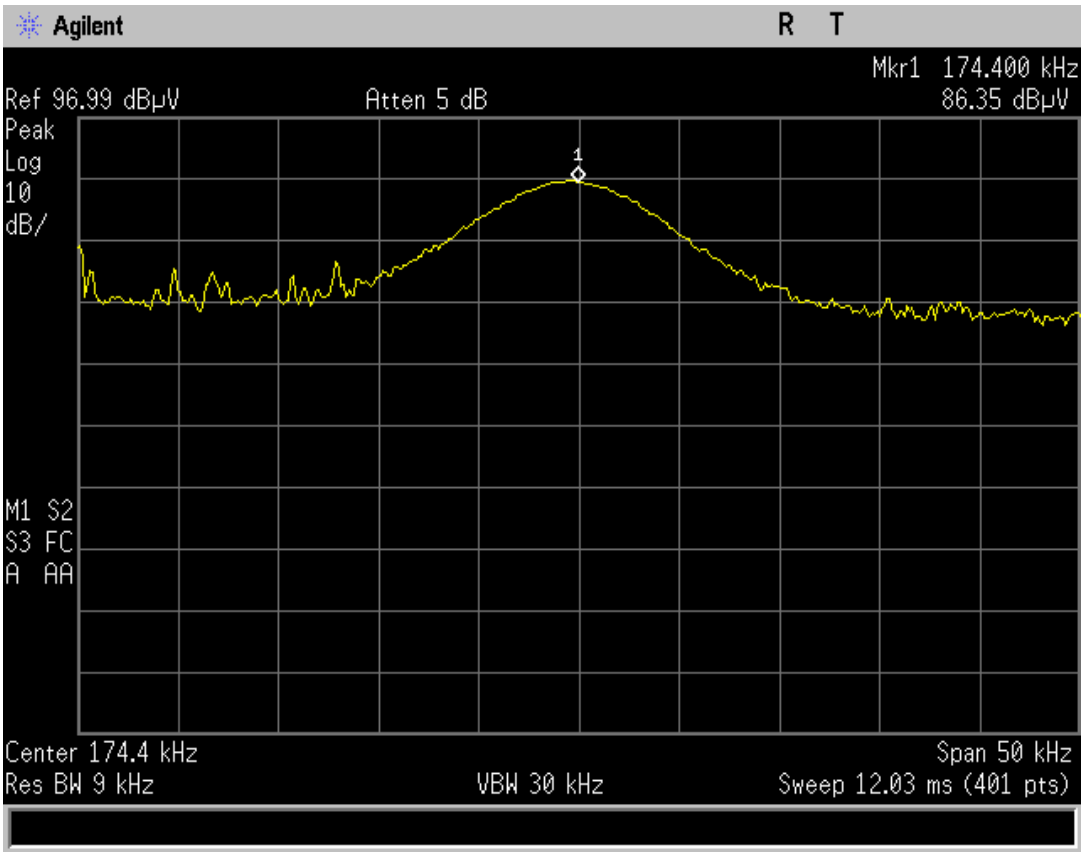
Test Procedure

The EUT was tested in a semi-anechoic chamber with the turntable set 3m from the receiving loop antenna. A spectrum analyzer was used to verify that the EUT met the requirements for Radiated Emissions. The EUT was tested by rotating it 360 degrees with the loop antennas in all three X,Y,Z axes orientation to maximize all emissions from 9 kHz to 30 MHz were examined.

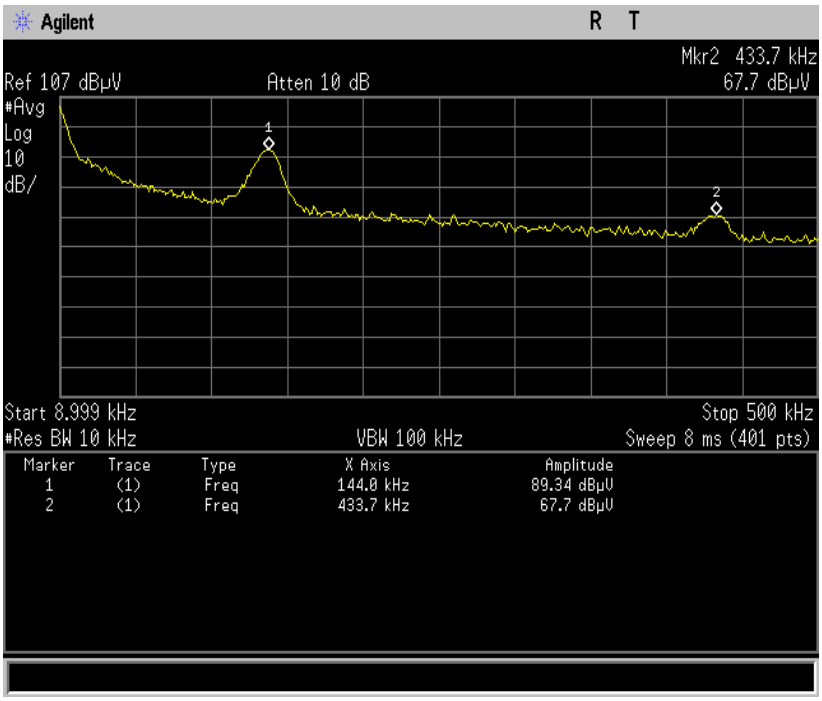
Test Setup



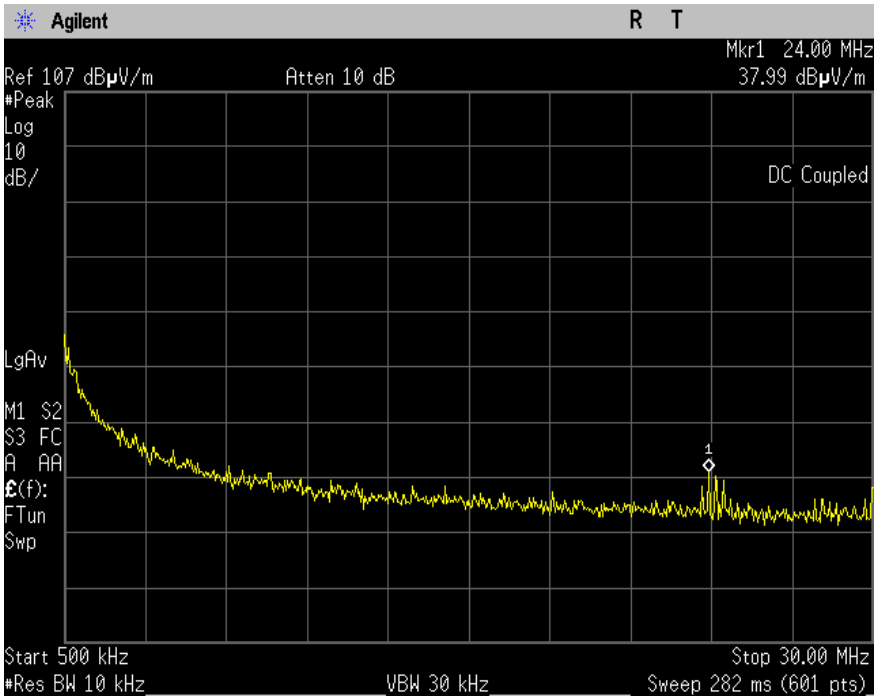
Fundamental at 174.4 KHz



9 KHz - 150 KHz



150 KHz - 30 MHz



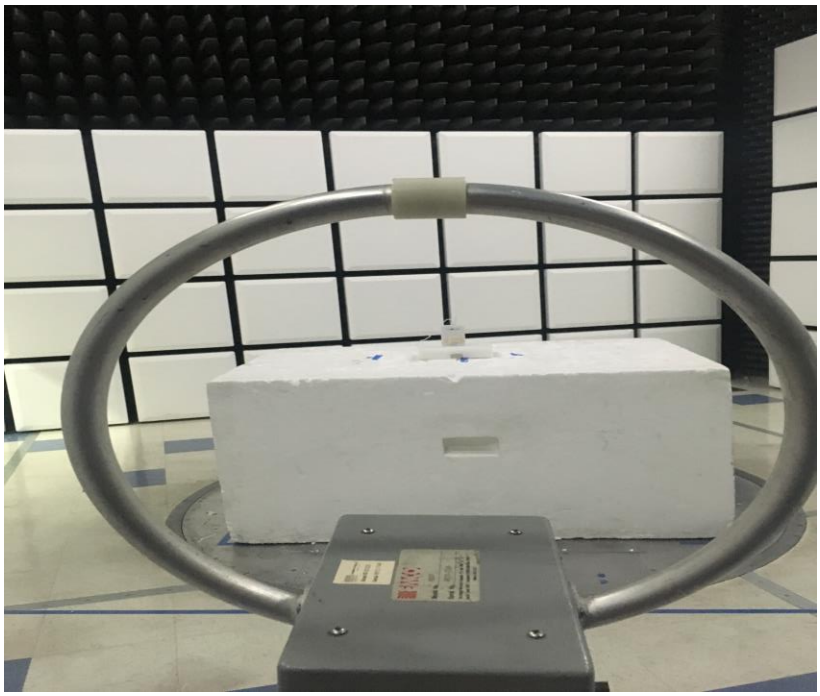
Frequency	Measured Value (dBuV)	Antenna Correction Factor (dB)	RBW Correction	Distance Correction Factor (dB) 3m to 300m	Final Data (dBuV/m)	Limit (dBuV/m)	PK Margin (dB)
9 KHz	102	29.9	-34	-80	17.9	23.5	-5.6
174.4 KHz	86.35	0	0	-80	6.35	23.5	-17.5
144 KHz	89.34	16.5	-34	-80	-8.16	23.5	-31.6
433.7 KHz	56.80	19.9	0	-80	-3.3	23.5	-31.3
24 MHz	37.99	16.8	0	-80	-25.21	23.5	-48.71

$$dB\mu V = 20 \log (\mu V)$$

25uV/m = 28dBm

Distance correction = 40log (d1/d2)

Radiated Emissions Test Setup Photo



Test Equipment Utilized

Description	Manufacturer	Model #	CT Asset #	Last Cal Date	Cal Due Date
Semi-Anechoic Chamber	CT	N/A	i00276	11/1/16	11/1/18
Active loop Antenna	EMCO	6507	i00326	9/25/17	9/25/19
EMI Receiver	HP	8546A	i00033	3/26/18	3/26/19
Transient Limiter	Com-Power	LIT-153	i00123	Verified on: 6/1/16	
LISN	COM-Power	LI-125A	i00447	9/11/17	9/11/19
LISN	COM-Power	LI-125A	i00449	9/11/17	9/11/19
Humidity / Temp Meter	Newport	IBTHX-W-5	i00282	6/29/18	6/29/19
AC Power Source	Behlman	BL 6000	i00362	Verified on: 6/1/16	
Spectrum Analyzer	Agilent	E4407B	i00331	11/21/17	11/21/18

In addition to the above listed equipment standard RF connectors and cables were utilized in the testing of the described equipment. Prior to testing these components were tested to verify proper operation.

END OF TEST REPORT