

Human Exposure Report

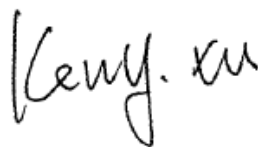
Application No.: SZEM1908017734CR
Applicant: HandStandsPromo LLC
Address of Applicant: 1420 S. 4800 W. Suite A Salt Lake City Utah United States 84104
Manufacturer: HandStandsPromo LLC
Address of Manufacturer: 1420 S. 4800 W. Suite A Salt Lake City Utah United States 84104
Factory: Amitec Industrial Limited
Address of Factory: Unit 1706, Rongchao Building A, HaixiuRoad 2021, Bao'an District, Shenzhen City, Guangdong Province, China

Equipment Under Test (EUT):

EUT Name: AirCore
Model No.: K00110
Trade mark: Numi
FCC ID: 2AMZYAIRCORE0
Standards: 47 CFR PART 1, Subpart I, Section 1.1310
Date of Receipt: 2019-08-21
Date of Test: 2019-08-23 to 2019-08-27
Date of Issue: 2019-08-29

Test Result :	Pass*
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* In the configuration tested, the EUT complied with the standards specified above



Keny Xu
 EMC Laboratory Manager



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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2019-08-29		Original

Authorized for issue by:			
			
		<hr/> Bill Chen /Project Engineer	
			
		<hr/> Eric Fu /Reviewer	



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3 General Information

3.1 Details of E.U.T.

Power supply: Input: DC 5V/2A 9V/1.67A
Output: 5W/7.5W/10W

Antenna Type: Loop Antenna

Modulation Type: Load Modulation

Operation Frequency: 113.3kHz to 188.6kHz

Antenna Gain: 0dBi

Antenna Type: Loop Antenna

Remark: This device has been tested the worst status of full load and the device has been tested with load at 5W, 7.5W and 10W, the worst case 10W is reported only.

3.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
DC power	ZHAOXIN	RXN-305D	REF. No.SEA2700
Car charging	SGS Supply	N/A	N/A
Load	SGS Supply	N/A	N/A
SAMSUNG Galaxy S8	SAMSUNG	SM-G9500	R28J9140LPB



3.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch E&E Lab,

No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

3.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• **CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 3816.01.

• **VCCI**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

• **FCC –Designation Number: CN1178**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

• **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.



4 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Due date
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2020-06-10
2	Electric and Magnetic Field Analyzer	Narda	EHP-50F	EMC092	2020-05-06



5 Test Results

5.1 RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310

Measurement Distance: 0/2/4/6/8/10/15cm

Limit:

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz
 *=Plane-wave equivalent power density
 RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

5.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 52 % RH Atmospheric Pressure: 1015 mbar

EUT Operation:

This device has been tested the worst status of full load and the device has been tested with mobile phone at zero charge, intermediate charge, and full charge.



5.1.2 Measurement Data

Test is for reference TCB Workshop November 2019 in page 11 to 13

Output Voltage=DC 9V; The max output power =10W;

Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	10% Limit (A/m)
133 kHz	0	Side 1	0.5631	0.163
		Side 2	0.4805	0.163
		Side 3	0.5066	0.163
		Side 4	0.4553	0.163
		Top	0.3419	0.163

Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	10% Limit (A/m)
133 kHz	2	Side 1	0.4786	0.163
		Side 2	0.3988	0.163
		Side 3	0.4357	0.163
		Side 4	0.3597	0.163
		Top	0.2804	0.163

Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	10% Limit (A/m)
133 kHz	4	Side 1	0.3973	0.163
		Side 2	0.3191	0.163
		Side 3	0.3747	0.163



		Side 4	0.3021	0.163
		Top	0.2383	0.163

Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	10% Limit (A/m)
133 kHz	6	Side 1	0.3297	0.163
		Side 2	0.2712	0.163
		Side 3	0.3035	0.163
		Side 4	0.2478	0.163
		Top	0.2026	0.163

Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	10% Limit (A/m)
133 kHz	8	Side 1	0.2605	0.163
		Side 2	0.2251	0.163
		Side 3	0.2367	0.163
		Side 4	0.2007	0.163
		Top	0.1560	0.163

Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	10% Limit (A/m)
133 kHz	10	Side 1	0.1980	0.163
		Side 2	0.1778	0.163
		Side 3	0.1799	0.163
		Side 4	0.1545	0.163



		Top	0.1232	0.163
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Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	10% Limit (A/m)
133 kHz	15	Side 1	0.0968	0.163
		Side 2	0.0893	0.163
		Side 3	0.0891	0.163
		Side 4	0.0790	0.163
		Top	0.0607	0.163

Mobile phone has been charge at zero charge, intermediate charge, and full charge.

Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			10%Limit (A/m)
			10% charge	50% charge	90% charge	
133 kHz	0	Side 1	0.5719	0.5575	0.5539	0.163
		Side 2	0.4912	0.4776	0.4734	0.163
		Side 3	0.5161	0.5001	0.4958	0.163
		Side 4	0.4647	0.4532	0.4483	0.163
		Top	0.3522	0.3382	0.3330	0.163



Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			10%Limit (A/m)
			10% charge	50% charge	90% charge	
133 kHz	2	Side 1	0.4902	0.4754	0.4702	0.163
		Side 2	0.4085	0.3951	0.3900	0.163
		Side 3	0.4480	0.4376	0.4325	0.163
		Side 4	0.3725	0.3591	0.3555	0.163
		Top	0.2928	0.2785	0.2737	0.163

Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			10%Limit (A/m)
			10% charge	50% charge	90% charge	
133 kHz	4	Side 1	0.4080	0.3924	0.3876	0.163
		Side 2	0.3312	0.3209	0.3173	0.163
		Side 3	0.3862	0.3704	0.3669	0.163
		Side 4	0.3112	0.2998	0.2964	0.163
		Top	0.2499	0.2344	0.2299	0.163

Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			10%Limit (A/m)
			10% charge	50% charge	90% charge	
133 kHz	6	Side 1	0.3404	0.3244	0.3197	0.163
		Side 2	0.2819	0.2706	0.2665	0.163
		Side 3	0.3162	0.3003	0.2967	0.163



		Side 4	0.2571	0.2446	0.2400	0.163
		Top	0.2156	0.2023	0.1974	0.163

Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			10%Limit (A/m)
			10% charge	50% charge	90% charge	
133 kHz	8	Side 1	0.2729	0.2601	0.2553	0.163
		Side 2	0.2379	0.2233	0.2195	0.163
		Side 3	0.2490	0.2379	0.2329	0.163
		Side 4	0.2105	0.1996	0.1957	0.163
		Top	0.1672	0.1524	0.1475	0.163

Magnetic Field Emissions

The tested value is greater than 10% limit

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			10%Limit (A/m)
			10% charge	50% charge	90% charge	
133 kHz	10	Side 1	0.2106	0.1986	0.1945	0.163
		Side 2	0.1900	0.1772	0.1734	0.163
		Side 3	0.1923	0.1784	0.1750	0.163
		Side 4	0.1677	0.1564	0.1522	0.163
		Top	0.1328	0.1172	0.1132	0.163

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			10%Limit (A/m)
			10% charge	50% charge	90% charge	



133 kHz	15	Side 1	0.1082	0.0965	0.0922	0.163
		Side 2	0.1019	0.0897	0.0849	0.163
		Side 3	0.0983	0.0870	0.0836	0.163
		Side 4	0.0917	0.0811	0.0764	0.163
		Top	0.0715	0.0569	0.0529	0.163

6 Photographs- RF exposure setup

Please refer to RF Exposure setup photo.

- End of the Report -

