RF Exposure Report

Report No.:	SA171110C14
FCC ID:	2AAEF-AQWC1702
Received Date:	Nov. 10, 2017
Test Date:	Nov. 29, 2017
Issued Date:	Dec. 04, 2017
Applicant:	Molu Technology Industrial Co., LTD.
Address:	No.21, Lane 427, Fuxing North Road, Taipei City
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.
Test Location:	No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.
FCC Registration / Designation Number:	788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
SA171110C14	Original Release	Dec. 04, 2017

1 Certificate of Conformity

Product: Charging Pad

Brand: NEXUM

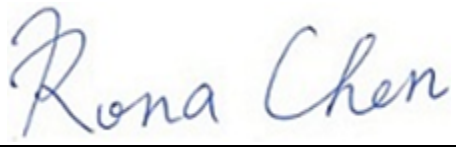
Sample Status: Identical Prototype

Applicant: Molu Technology Industrial Co., LTD.

Test Date: Nov. 29, 2017

Standards: FCC Part 1 (Section 1.1307(b), 1.1310)

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by :  , **Date:** Dec. 04, 2017

Rona Chen / Specialist

Approved by :  , **Date:** Dec. 04, 2017

Dylan Chiou / Project Engineer

2 RF Exposure

2.1 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID
A.	Wireless Headphone Amp	N/A	N/A	N/A	N/A

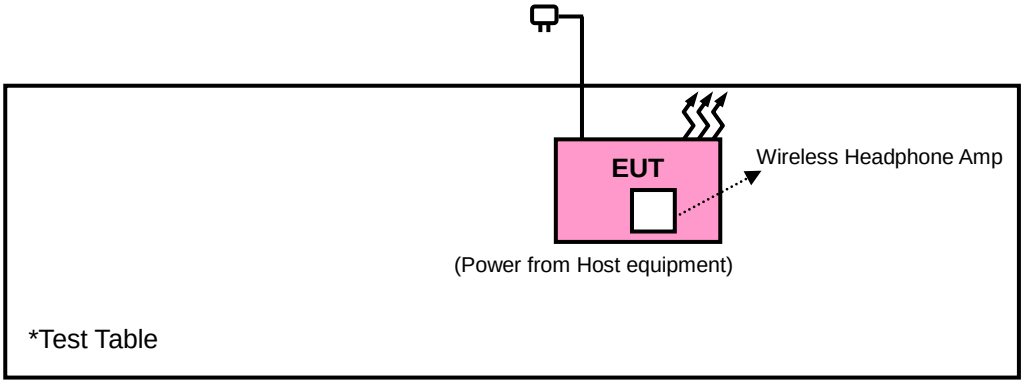
No.	Signal Cable Description Of The Above Support Units
1.	N/A

Note:

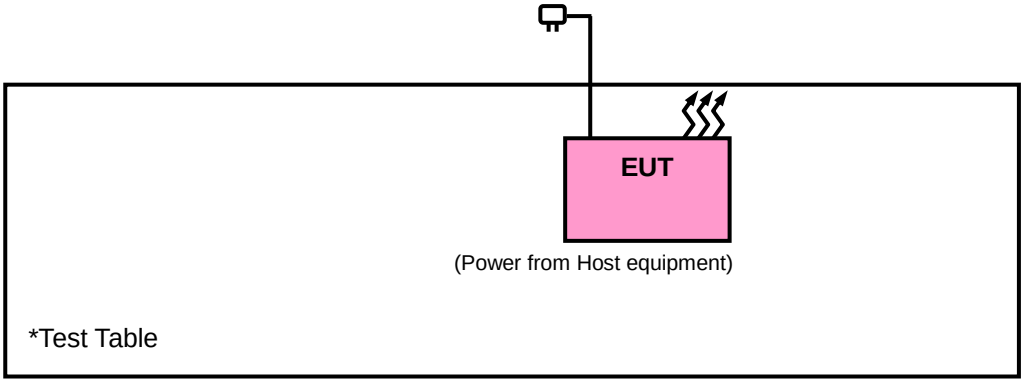
1. All power cords of the above support units are non-shielded (1.8m).
2. Item A was provided by client.

2.1.1 Configuration of System under Test

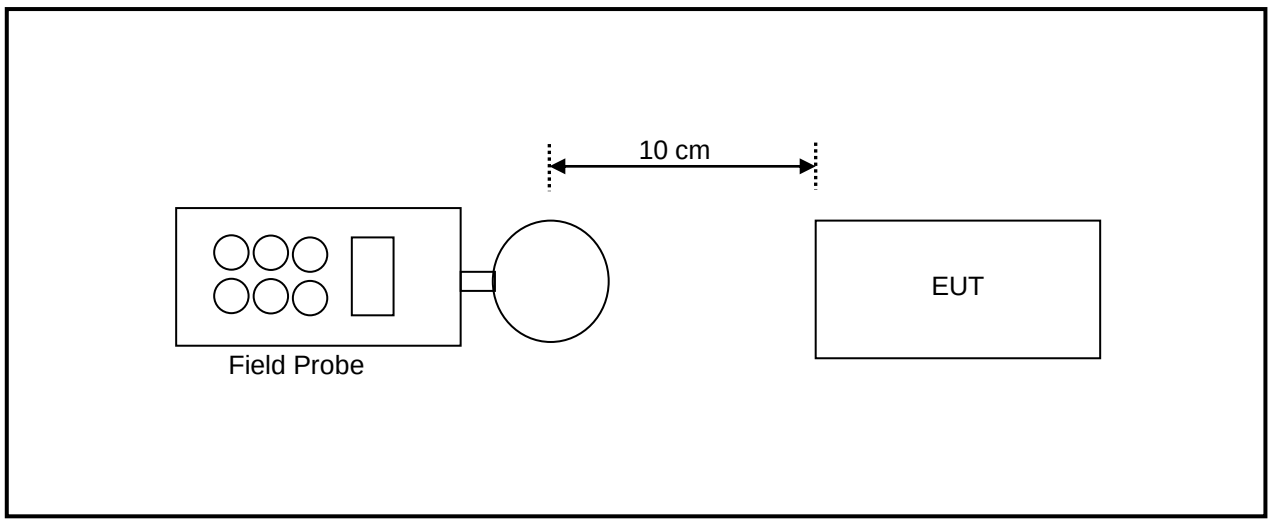
Charging Mode



Standby Mode



2.2 Test Setup



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device.

2.3 Test Instruments

Description	Brand	Model No.	Frequency Range	Calibrated Date	Calibrated Until
Broadband Field Meter	NARDA	NBM-550	-	Feb. 9, 2016	Feb. 8, 2018
Magnetic Field Meter	NARDA	ELT-400	1 – 400kHz	Feb. 11, 2016	Feb. 10, 2018
Magnetic Probe	NARDA	HF 3061	300kHz – 30MHz	Feb. 9, 2016	Feb. 8, 2018
Magnetic Probe	NARDA	HF-0191	27 – 1000MHz	Feb. 9, 2016	Feb. 8, 2018
Broadband Field Meter	NARDA	NBM-550	-	Feb. 9, 2016	Feb. 8, 2018
Electric Field Meter	COMBINOVA	EFM 200	5Hz – 400kHz	Oct. 16, 2017	Oct. 15, 2018
E-Field Probe	NARDA	EF 0391	100kHz – 3GHz	Feb. 9, 2016	Feb. 8, 2018
E-Field Probe	NARDA	EF6091	100MHz – 60GHz	Feb. 9, 2016	Feb. 8, 2018

Note: 1. The calibration interval of the above test instruments is 12/24 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa RF Chamber

2.4 Limits for Maximum Permissible Exposure (MPE)

§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radiofrequency(RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

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

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

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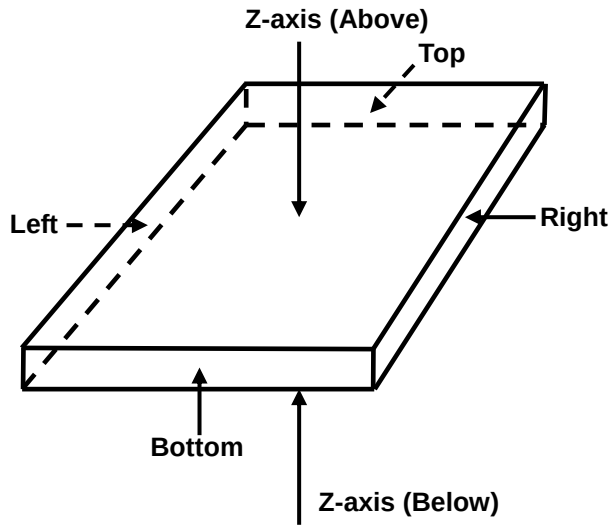
Aggregate leakage fields at 10 cm surrounding the device from all simultaneous transmitting coils are demonstrated to be less than 30% of the MPE limit.

2.5 Test Point Description



3 Calculation Result of Maximum Conducted Power

Charging Mode with Wireless Headphone Amp 10%

E-Field Measurement (10cm)						
EUT Side	**Left**	**Right**	**Top**	**Bottom**	**Z-axis (Above)**	**Z-axis (Below)**
Max E-field (V/m)	1.01	0.97	0.94	1.31	0.88	0.8
Limit (V/m)	614	614	614	614	614	614
Margin (V/m)	-612.99	-613.03	-613.06	-612.69	-613.12	-613.2
70 % Limit (V/m)	429.8	429.8	429.8	429.8	429.8	429.8
70 % Margin (V/m)	-429.093	-429.121	-429.142	-428.883	-429.184	-429.24

H-Field Measurement (10cm)						
EUT Side	**Left**	**Right**	**Top**	**Bottom**	**Z-axis (Above)**	**Z-axis (Below)**
Max H-field (uT)	0.367	0.338	0.465	0.533	0.451	0.43
Max H-field (A/m)	0.2936	0.2704	0.372	0.4264	0.3608	0.344
Limit (A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.3364	-1.3596	-1.258	-1.2036	-1.2692	-1.286
70 % Limit (A/m)	1.141	1.141	1.141	1.141	1.141	1.141
70 % Margin (A/m)	-0.93548	-0.95172	-0.8806	-0.84252	-0.88844	-0.9002

Measurements were made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode with Wireless Headphone Amp 50%

E-Field Measurement (10cm)						
EUT Side	**Left**	**Right**	**Top**	**Bottom**	**Z-axis (Above)**	**Z-axis (Below)**
Max E-field (V/m)	0.96	0.98	0.92	1.27	0.89	0.82
Limit (V/m)	614	614	614	614	614	614
Margin (V/m)	-613.04	-613.02	-613.08	-612.73	-613.11	-613.18
70 % Limit (V/m)	429.8	429.8	429.8	429.8	429.8	429.8
70 % Margin (V/m)	-429.128	-429.114	-429.156	-428.911	-429.177	-429.226

H-Field Measurement (10cm)						
EUT Side	**Left**	**Right**	**Top**	**Bottom**	**Z-axis (Above)**	**Z-axis (Below)**
Max H-field (uT)	0.353	0.399	0.475	0.493	0.414	0.421
Max H-field (A/m)	0.2824	0.3192	0.38	0.3944	0.3312	0.3368
Limit (A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.3476	-1.3108	-1.25	-1.2356	-1.2988	-1.2932
70 % Limit (A/m)	1.141	1.141	1.141	1.141	1.141	1.141
70 % Margin (A/m)	-0.94332	-0.91756	-0.875	-0.86492	-0.90916	-0.90524

Measurements were made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Charging Mode with Wireless Headphone Amp 90%

E-Field Measurement (10cm)						
EUT Side	**Left**	**Right**	**Top**	**Bottom**	**Z-axis (Above)**	**Z-axis (Below)**
Max E-field (V/m)	0.95	0.96	0.91	1.22	0.83	0.81
Limit (V/m)	614	614	614	614	614	614
Margin (V/m)	-613.05	-613.04	-613.09	-612.78	-613.17	-613.19
70 % Limit (V/m)	429.8	429.8	429.8	429.8	429.8	429.8
70 % Margin (V/m)	-429.135	-429.128	-429.163	-428.946	-429.219	-429.233

H-Field Measurement (10cm)						
EUT Side	**Left**	**Right**	**Top**	**Bottom**	**Z-axis (Above)**	**Z-axis (Below)**
Max H-field (uT)	0.356	0.365	0.496	0.463	0.551	0.421
Max H-field (A/m)	0.2848	0.292	0.3968	0.3704	0.4408	0.3368
Limit (A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.3452	-1.338	-1.2332	-1.2596	-1.1892	-1.2932
70 % Limit (A/m)	1.141	1.141	1.141	1.141	1.141	1.141
70 % Margin (A/m)	-0.94164	-0.9366	-0.86324	-0.88172	-0.83244	-0.90524

Measurements were made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

Standby Mode

E-Field Measurement (10cm)						
EUT Side	**Left**	**Right**	**Top**	**Bottom**	**Z-axis (Above)**	**Z-axis (Below)**
Max E-field (V/m)	0.73	0.78	0.74	1.28	0.85	0.73
Limit (V/m)	614	614	614	614	614	614
Margin (V/m)	-613.27	-613.22	-613.26	-612.72	-613.15	-613.27
70 % Limit (V/m)	429.8	429.8	429.8	429.8	429.8	429.8
70 % Margin (V/m)	-429.289	-429.254	-429.282	-428.904	-429.205	-429.289

H-Field Measurement (10cm)						
EUT Side	**Left**	**Right**	**Top**	**Bottom**	**Z-axis (Above)**	**Z-axis (Below)**
Max H-field (uT)	0.248	0.248	0.247	0.249	0.362	0.313
Max H-field (A/m)	0.1984	0.1984	0.1976	0.1992	0.2896	0.2504
Limit (A/m)	1.63	1.63	1.63	1.63	1.63	1.63
Margin (A/m)	-1.4316	-1.4316	-1.4324	-1.4308	-1.3404	-1.3796
70 % Limit (A/m)	1.141	1.141	1.141	1.141	1.141	1.141
70 % Margin (A/m)	-1.00212	-1.00212	-1.00268	-1.00156	-0.93828	-0.96572

Measurements were made from all sides and the top of the primary/client pair, with the 10 cm measured from the center of the probe(s) to the edge of the device. The highest emission level was recorded.

4 Photographs of the Test Configuration

Please refer to the attached file (Test Setup Photo).

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