



FCC RF EXPOSURE REPORT

For

Data Concentrator Unit

MODEL NUMBER: AJ102

FCC ID: 2AQPUAJ102

REPORT NUMBER: 4788510969.1-5

ISSUE DATE: July 31, 2018

Prepared for

**Lin Man Power Technology Inc.,
No.6 3rd street, Meridian Industrial Complex Balibago, Sta. Rosa City , Laguna ,
Philippine.**

Prepared by

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Revision History

Rev.	Issue Date	Revisions	Revised By
--	07/31/2018	Initial Issue	



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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Lin Man Power Technology Inc.,
Address: No.6 3rd street, Meridian Industrial Complex Balibago, Sta. Rosa City , Laguna , Philippine.

Manufacturer Information

Company Name: Lin Man Power Technology Inc.,
Address: No.6 3rd street, Meridian Industrial Complex Balibago, Sta. Rosa City , Laguna , Philippine.

EUT Description

Product Name Data Concentrator Unit
Brand Name ENERTEK
Model Name AJ102
FCC ID 2AQPUAJ102
Date Tested July 9, 2018~ July 25, 2018

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47CFR§2.1091	Complies

Tested By:

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Laboratory Manager



2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	A2LA (Certificate No.: 4102.01) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1187) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. Has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules IC(Company No.: 21320) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been registered and fully described in a report filed with ISED. The Company Number is 21320. VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011) UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. has been assessed and proved to be in compliance with VCCI, the Membership No. is 3793. <u>Facility Name:</u> Chamber D, the VCCI registration No. is G-20019 and R-20004 Shielding Room B , the VCCI registration No. is C-20012 and T-20011
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Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.



4. REQUIREMENT

LIMIT AND CALCULATION METHOD

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

Limits for General Population/Uncontrolled Exposure

RF EXPOSURE LIMIT

Frequency Range (MHz)	E-field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (Minutes)
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

CALCULATION METHOD

$$S = PG / 4\pi R^2$$

Where:

S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna



CALCULATED RESULTS

UMTS Mode					
Frequency	Output Power	Output Power	Power Density	Limit	Test Result
MHz	dBm	mW	mW/cm ²	mW/cm ²	--
824-849	25	316.23	0.099	0.567	Complies

Lora Mode					
Frequency	Output Power	Output Power	Power Density	Limit	Test Result
MHz	dBm	mW	mW/cm ²	mW/cm ²	--
915.25-917.75	15	31.62	0.0099	0.612	Complies

- Note: 1. Antenna Gain=2.0dBi (Numeric 1.58), $\pi=3.141$.
2. The Power comes from turn up power which declared by customer.
3. The minimum separation distance of the device is greater than 20 cm.
4. Calculate by WORST-CASE mode.
5. The UMTS antenna and Lora antenna can't work simultaneously.

END OF REPORT

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