RF Exposure Evaluation Report

APPLICANT	:	**Suzhou Aquila Solutions Inc.**
EQUIPMENT	:	**Module**
BRAND NAME	:	**AQUILA**
MODEL NAME	:	**LG750**
FCC ID	:	**2ASRY-LG750**
STANDARD	:	**47 CFR Part 2.1091** **FCC KDB 447498 D01 v06**

We, Sporton International (Kunshan) Inc., would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.

Rose Wang

Reviewed by: Rose Wang / Supervisor

Kat Yin

Approved by: Kat Yin / Manager

ACCREDITED Cert #5145.02

Sporton International (Kunshan) Inc.
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA962102	Rev. 01	Initial issue of report	Aug. 06, 2019

1. Administration Data

1.1. Testing Laboratory

Sporton International (Kunshan) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory		
Test Firm	Sporton International (Kunshan) Inc.	
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958	
Test Site No.	**FCC Designation No.**	**FCC Test Firm Registration No.**
	CN1257	314309

Applicant	
Company Name	Suzhou Aquila Solutions Inc.
Address	Room 201, Building 3, 18 Dongchang Road, Suzhou Industry Park, Suzhou, PRC.

Manufacturer	
Company Name	Suzhou Aquila Solutions Inc.
Address	Room 201, Building 3, 18 Dongchang Road, Suzhou Industry Park, Suzhou, PRC.

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	Module
Brand Name	AQUILA
Model Name	LG750
IMEI	860524031714387
FCC ID	2ASRY-LG750
Wireless Technology and Frequency Range	LTE Band 48: 3552.5 MHz ~ 3697.5MHz
Mode	LTE: QPSK, 16QAM, 64QAM
Antenna Type	PCB Antenna
HW Version	V1.0
SW Version	CAT6_BYPASS_0.3.2.22_V2.4
Antenna Type/gain	PCB Antenna with 2.5dBi
EUT Stage	Identical Prototype
Remark: This device does not support voice function.	

3. Maximum RF average output power among production units

<LTE>

Mode		Maximum Average power(dBm)
LTE	Band 48	19.50+1/-3

4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

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/f2)	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/f2)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:
S = Power Density
P = Output Power at Antenna Terminals
G = Gain of Transmit Antenna (linear gain)
R = Distance from Transmitting Antenna

5. Radio Frequency Radiation Exposure Evaluation

5.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Average EIRP (mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)
LTE Band 48	3552.5	2.50	20.50	23.00	199.53	0.040	1.000

Note: For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.