RF EXPOSURE EVALUATION REPORT

FCC ID	:	T4522084
Equipment	:	TCU 2.2
Brand Name	:	LID Technologies
Model Name	:	22084
Marketing Name	:	22084
Applicant	:	LID Technologies S.A.S. 3 rue GIOTTO Parc Technologique du canal, Ramonville-Saint-Agne, France 31520
Manufacturer	:	LID Technologies S.A.S. 3 rue GIOTTO Parc Technologique du canal, Ramonville-Saint-Agne, France 31520
Standard	:	47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full.

Approved by: Cona Huang / Deputy Manager

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History of this test report

Report No.	Version	Description	Issued Date
FA430602	Rev. 01	Initial issue of report	Oct. 08, 2024

1. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	TCU 2.2
Brand Name	LID Technologies
Model Name	22084
Marketing Name	22084
FCC ID	T4522084
Wireless Technology and Frequency Range	Bluetooth: 2400 MHz ~ 2483.5 MHz 433M: 433.8 MHz ~ 434.01 MHz 125kHz
Mode	Bluetooth LE 433M: FSK 125kHz: OOK
EUT Stage	Production Unit

Reviewed by: Jason Wang

Report Producer: Daisy Peng

2. Maximum RF average output power among production units

Mode	Maximum Output Power (dBm)
Bluetooth LE_1Mbps	4
Bluetooth LE_2Mbps	4.5
433MHz	4.5
125KHz	-73

3. 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

4. Radio Frequency Radiation Exposure Evaluation

4.1. Standalone Power Density Calculation

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum PG (mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)
Bluetooth	4.08	4.50	7.21	0.00144	1.000
433MHz	-3.00	4.50	1.41	0.00028	0.289
125KHz	0.00	-73	0.00	0.00000000001	100.000

Conclusion:

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