



# RF Exposure Evaluation

## FCC ID: 2ART3-S10

Applicant: Shenzhen Lonsdor Technology Co.,Ltd.

Address: No.201-203,Block B3,Fuhai B3 Industrial Zone,Fuhai Ave,FuyongSt.,Bao'an,Shenzhen

Manufacturer: Shenzhen Lonsdor Technology Co.,Ltd.

Address: No.201-203,Block B3,Fuhai B3 Industrial Zone,Fuhai Ave,FuyongSt.,Bao'an,Shenzhen

EUT: LTPSEER

Trade Mark: LONSDOR

Model Number: S10

Date of Receipt: May 12, 2025

Test Date: May 16, 2025 - July 17, 2025

Date of Report: July 17, 2025

Prepared By: Shenzhen DL Testing Technology Co., Ltd.  
101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone,  
Address: Baolong Street, Longgang District, Shenzhen, Guangdong, China  
47CFR§1.1310, 47CFR§1.1307  
FCC CFR 47 part2 2.1091

Applicable Standards: KDB 447498 D01 General RF Exposure Guidance v06

Test Result: Pass

Report Number: DLE-250605001R-1

Prepared (Test Engineer): Ken Tan

Reviewer (Supervisor): Jack Bu

Approved (Manager): Jade Yang



*This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.*



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## 1. Product Information

Product Name:	LTPSEER
Trademark	LONSDOR
Model No.:	S10
Operation Frequency:	433.92MHz 315MHz
Test sample No. :	315 & 433.92 TX:DLE-250605001R-1
Channel numbers:	2 Channels
Modulation technology:	433.92MHz: ASK&FSK 315MHz: ASK&FSK
Antenna Type:	Internal antenna
Antenna gain:	0dBi
Power supply:	DC 3.0V by battery

### Note:

- 1.For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- 2.The EUT's all information provided by client.



## 2. Test laboratory information

Test Lab: Shenzhen DL Testing Technology Co., Ltd.  
101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong  
Address: Industrial Zone, Baolong Street, Longgang District, Shenzhen,  
Guangdong, China  
FCC Test Firm Registration Number: 854456  
Designation Number: CN1307  
IC Registered No.: 27485  
CAB ID.: CN0118

## 3. MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 2.56\text{dB}$
2	RF power,conducted	$\pm 0.42\text{dB}$
3	Spurious emissions,conducted	$\pm 2.76\text{dB}$
4	All emissions,radiated(<1G)	$\pm 3.65\text{dB}$
5	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$
8	20dB Bandwidth	$\pm 0.2\text{MHz}$
9	Time	$\pm 2\%$



## 4. METHOD OF MEASUREMENT

### 4.1 APPLICABLE STANDARD

ANSI C95.1 – 1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

FCC KDB447498 D01 General RF Exposure Guidance v06: Mobile and Portable Device, RF Exposure, Equipment Authorization Procedures.

FCC CFR 47 part1 1.1310: Radio frequency radiation exposure limits

FCC CFR 47 part2 2.1091: Radiofrequency radiation exposure evaluation: mobile devices

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

### 4.2 LIMIT

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	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 <sup>2</sup> )	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 <sup>2</sup> )	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

Friis transmission formula:  $Pd = (Pout \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

**Pd** = power density in mW/cm<sup>2</sup>, **Pout** = output power to antenna in mW;

**G** = gain of antenna in linear scale, **Pi** = 3.1416;

**R** = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.



## 5. EVALUATION RESULTS

$$\text{EIRP} = E_{\text{meas}} + 20\log(d_{\text{meas}}) - 104.7$$

EIRP is the equivalent isotropically radiated power, in dBm

E meas is the field strength of the emission at the measurement distance, in dBuV/m

D meas is the measurement distance.in m

Modulation TYPE	Frequency(MHz)	E-Field Strength (dBuV/m)	Measurement Distance(m)	EIRP(dBm)
ASK	315	67.94	3	-27.22
FSK	315	69.44	3	-25.72
ASK	433.92	72.22	3	-22.92
FSK	433.92	70.72	3	-24.42

Modulation TYPE	Max Power (dBm)	Max Tune-up Power(dBm)	Max Power (mW)	Frequency (MHz)	Power Density at R=20cm (mW/cm <sup>2</sup> )	Limit mW/cm <sup>2</sup>	Result
ASK	-27.22	-27	0.002	315	0.0000004	1	PASS
FSK	-25.72	-25	0.003	315	0.0000005	1	PASS
ASK	-22.92	-22	0.006	433.92	0.0000008	1	PASS
FSK	-24.42	-24	0.004	433.92	0.000001	1	PASS

Remark: antenna gain=0.00dBi

So a SAR test is not required

\*\*\*\*END OF REPORT\*\*\*\*