

TEST REPORT

FCC ID.	2AUCLLD-1002	
Test Report No.	TCT211122E053	
Date of issue	Dec. 21, 2021	
Testing laboratory	SHENZHEN TONGCE TESTING LAB	
Testing location/ address:	TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name	FX Technology Limited	
Address	2 Stone Buildings, Lincoln's Inn, London WC2A 3TH, United Kingdom	
Manufacturer's name	Shenzhen Eternity Technology Co., Ltd	
Address	Building A2, YingZhan Industrial Park, LongTian Street, PingShan, ShenZhen, China	
Standard(s)	FCC CFR Title 47 Part 1.1307	
Test item description	Linxdot Hotspot	
Trade Mark	Linxdot	
Model/Type reference	LD-1002	
Rating(s)	Adapter Information: Model: TPQ-228F120200UW01 Input: AC 100-240V, 50/60Hz, 0.8A Output: DC 12.0V, 2.0A	
Date of receipt of test item	Nov. 22, 2021	
Date (s) of performance of test	Nov. 22, 2021 - Dec. 21, 2021	
Tested by (+signature)	Aaron MO	
Check by (+signature)	Beryl ZHAO	
Approved by (+signature) :	Tomsin	

General disclaimer:

This report shall not be reproduced except in full, without the written approval of SHENZHEN TONGCE TESTING LAB. This document may be altered or revised by SHENZHEN TONGCE TESTING LAB personnel only, and shall be noted in the revision section of the document. The test results in the report only apply to the tested sample.

Table of Contents

1. General Product Information	3
1.1. EUT description	3
1.2. Model(s) list.....	3
1.3. Operation Frequency	3
2. General Information.....	4
2.1. Test environment and mode.....	4
2.2. Description of Support Units.....	4
3. Facilities and Accreditations	5
3.1. Facilities	5
3.2. Location	5
4. Test Results and Measurement Data	6

1. General Product Information

1.1. EUT description

Test item description	Linxdot Hotspot
Model/Type reference	LD-1002
Sample Number	TCT211122E032-0101
Operation Frequency	For BT: 2402MHz~2480MHz For WIFI: 2412MHz~2462MHz (802.11b/802.11g/802.11n(HT20)) For LoRa: 125KHz: 902.3MHz~914.9MHz 500KHz: 923.3MHz~927.5MHz
Modulation Type	For BT: GFSK, π/4-DQPSK, 8DPSK For WIFI: DSSS(802.11b), OFDM (802.11g/802.11n) For LoRa: LoRa
Antenna Type	For BT/WIFI: Chip Antenna For LoRa: External Antenna
Antenna Gain	For BT/WIFI: 3.2dBi For LoRa: 2dBi
Rating(s)	Adapter Information: Model: TPQ-228F120200UW01 Input: AC 100-240V, 50/60Hz, 0.8A Output: DC 12.0V, 2.0A

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

None.

2. General Information

2.1. Test environment and mode

Item	Normal condition	
Temperature	+25°C	
Voltage	AC 120V/60Hz	
Humidity	56%	
Atmospheric Pressure:	1008 mbar	
Test Mode:		
Engineering mode:	Keep the EUT in continuous transmitting by select channel	

2.2. 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.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
/	/	/	/	/

Note:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.
3. For conducted measurements (Output Power, 20dB Occupied Bandwidth, Carrier Frequencies Separation, Hopping Channel Number, Dwell Time, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

3. Facilities and Accreditations

3.1. Facilities

The test facility is recognized, certified, or accredited by the following organizations:

- FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A-1

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

3.2. Location

SHENZHEN TONGCE TESTING LAB

Address: TCT Testing Industrial Park Fugiao 5th Industrial Zone, Fuhai Street, Bao'an District Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

4. Test Results and Measurement Data

According to §1.1307(b), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Remark: 1) **For BT:** The maximum output power for antenna is 4.18dBm (2.62mW) at 2480MHz, 3.2dBi antenna gain(with 2.09 numeric antenna gain.)

For WIFI: The maximum output power for antenna is 18.03dBm (63.53mW) at 2412MHz, 3.2dBi antenna gain(with 2.09 numeric antenna gain.)

For LoRa-DSS: The maximum output power for antenna is 11.59dBm (14.42mW) at 908.7MHz, 2dBi antenna gain(with 1.58 numeric antenna gain.)

For LoRa-DTS: The maximum output power for antenna is 10.65dBm (11.61mW) at 923.3MHz, 2dBi antenna gain(with 1.58 numeric antenna gain.)

2) For mobile or fixed location transmitters, no SAR consideration applied. The minimum separation generally be used is at least 20cm, even if the calculation indicate that the MPE distance would be lesser.

Calculation

$$\text{Given } E = \sqrt{\frac{30 \times P \times G}{d}} \quad \& \quad S = \frac{E^2}{3770}$$

Where E = Field Strength in Volts / meter

P = Power in Watts

G =Numeric antenna gain

d =Distance in meters

S =Power Density in milliwatts / square centimeter

Substituting the MPE safe distance using $d=20\text{cm}$ into above equation.

Yields: $S=0.000199*P*G$

Mode	Power(mW)	numeric antenna gain	Power density (mW/cm ²)	Limit (mW/cm ²)	Result
BT	2.62	2.09	0.001090	1.0	PASS
WIFI	63.53	2.09	0.026423		
LoRa-DTS	14.42	1.58	0.004534		
LoRa-DSS	11.61	1.58	0.003650		

The device contain transmitters (BT & LoRa-DTS BT & LoRa-DSS WIFI & LoRa-DTS WIFI & LoRa-DSS) can transmit multiple transmission modes at the same time.

Maximum Emissions Level			
Mode	Power density (mW/cm ²)	Limit (mW/cm ²)	Result
BT& LoRa-DTS	0.005624	1.0	Pass
BT & LoRa-DSS	0.004740	1.0	Pass
WIFI & LoRa-DTS	0.030957	1.0	Pass
WIFI & LoRa-DSS	0.030073	1.0	Pass

Result:

Base on the calculation value, No SAR measurement is required.

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