

TEST REPORT

FCC ID. :	2AUCL-LD1001
Test Report No..... :	TCT220222E910
Date of issue..... :	Mar. 04, 2022
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-1001
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	Feb. 22, 2022
Date (s) of performance of test..... :	Oct. 18, 2021 - Mar. 04, 2022
Tested by (+signature) ... :	Aaron MO 
Check by (+signature).... :	Beryl ZHAO 
Approved by (+signature):	Tomsin 
Remark	This test report was based on TCT220207E908; Only change internal photographs of EUT.

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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-1001
Sample Number.....	TCT220222E901-0101
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, $\pi/4$ -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 Fuqiao 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 5.14dBm (3.27mW) at 2480MHz, 3.2dBi antenna gain(with 2.09 numeric antenna gain.)

For WIFI: The maximum output power for antenna is 14.23dBm (26.49mW) at 2462MHz, 3.2dBi antenna gain(with 2.09 numeric antenna gain.)

For LoRa-DSS: The maximum output power for antenna is 21.95dBm (156.68mW) at 908.7MHz, 2dBi antenna gain(with 1.58 numeric antenna gain.)

For LoRa-DTS: The maximum output power for antenna is 27.46dBm (557.19mW) 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

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

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: $S=0.000199 \times P \times G$

Mode	Power(mW)	numeric antenna gain	Power density (mW/cm ²)	Limit (mW/cm ²)	Result
BT	3.27	2.09	0.001360	1.0	PASS
WIFI	26.49	2.09	0.011017		
LoRa-DSS	156.68	1.58	0.049263		
LoRa-DTS	557.19	1.58	0.175192		

The device contain transmitters (BT & LoRa-DSS BT & LoRa-DTS WIFI & LoRa-DSS WIFI & LoRa-DTS) 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-DSS	0.050623	1.0	Pass
BT & LoRa-DTS	0.176552	1.0	Pass
WIFI & LoRa-DSS	0.060280	1.0	Pass
WIFI & LoRa-DTS	0.186209	1.0	Pass

Result:

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

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