



# FCC TEST REPORT

## FCC ID: 2BL5O-ZX800-VG

Product	:	LTE module
Model Name	:	ZX800-VG
Brand	:	ZXInfoTek
Report No.	:	PTC25042000101E-FC02

### Prepared for

ZXInfoTek(Shenzhen) Co., Ltd.

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### Prepared by

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## TEST RESULT CERTIFICATION

Applicant's name	:	ZXInfoTek(Shenzhen) Co., Ltd.
Address	:	Room 301, Building 4B, Software Industry Base, No. 17, 18, 19, Haitian First Avenue, Nanshan District, Shenzhen City, Guangdong Province, China
Manufacturer's name	:	ZXInfoTek(Shenzhen) Co., Ltd.
Address	:	Room 301, Building 4B, Software Industry Base, No. 17, 18, 19, Haitian First Avenue, Nanshan District, Shenzhen City, Guangdong Province, China
Product name	:	LTE module
Model name	:	ZX800-VG
Test procedure	:	FCC Guidelines for Human Exposure IEEE C95.1 FCC Title 47 Part 2.1091 KDB 447498 D01 General RF Exposure Guidance v06
Test Date	:	May. 19, 2025 to July. 25, 2025
Date of Issue	:	July. 25, 2025
Test Result	:	PASS

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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## Test Engineer:

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Simon Pu / Manager



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## 2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	FCC Guidelines for Human Exposure IEEE C95.1 FCC Title 47 Part 2.1091 KDB 447498 D01 General RF Exposure Guidance v06	PASS
Remark:		
N/A: Not Applicable		



### 3 General Information

#### 3.1 General Description of E.U.T.

Product Name	:	LTE module
Model Name	:	ZX800-VG
Specification	:	E-UTRA Band 2 E-UTRA Band 4 E-UTRA Band 5 E-UTRA Band 7
Operation Frequency	:	E-UTRA Band 2: Tx:1850 MHZ-1910 MHz;Rx:1930 MHz-1990 MHZ E-UTRA Band 4: Tx:1710 MHz-1755 MHz;Rx:2110 MHz-2155 MHZ E-UTRA Band 5: Tx: 824 MHz-849 MHz;Rx:869 MHz-894 MHZ E-UTRA Band 7: Tx:2500MHz-2570 MHz;Rx:2620 MHz-2690 MHz
Type of Modulation	:	<input checked="" type="checkbox"/> QPSK <input checked="" type="checkbox"/> 16QAM <input checked="" type="checkbox"/> 64QAM(Downlink Only)(LTE)
Antenna installation	:	PIFA antenna
Antenna Gain	:	E-UTRA Band 2: 2.10dBi E-UTRA Band 4: 1.95dBi E-UTRA Band 5: 1.36dBi E-UTRA Band 7: 2.35dBi
Power supply	:	3.3-4.5VDC(Powered by mainboard)
Hardware Version	:	N/A
Software Version	:	N/A



## 4 RF Exposure

Test Requirement : FCC Title 47 Part 2.1091

Evaluation Method : KDB 447498 D01 General RF Exposure Guidance v06

### 4.1 Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

### 4.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	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

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; \*Plane-wave equivalent power density



#### 4.3 MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } P_d \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$P_d = \frac{30 \times P \times G}{377 \times d^2} \theta \varphi$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

#### 4.4 Test Result

Test Mode	Test Frequency(MHz)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm <sup>2</sup> )	Limit of Power Density (mW/cm <sup>2</sup> )	Result
E-UTRA Band 2	1880	1.62	22.12	22.50±1	223.8721	0.072232	1	Pass
E-UTRA Band 4	1732.5	1.57	22.27	22.50±1	223.8721	0.06978	1	Pass
E-UTRA Band 5	836.5	1.37	23.72	24.00±1	316.2278	0.086046	0.55	Pass
E-UTRA Band 7	2535	1.72	22.04	22.04±1	201.3724	0.068822	1	Pass



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## 5 simultaneous MPE Result

Note: 1.The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

2. E-UTRA Band 2,4,5,7 can't transmit simultaneously.

\*\*\*\*\*THE END REPORT\*\*\*\*\*