MPE Report

Report No.: STS2502058H01

Issued for

Foxx Development Inc.

3480 Preston Ridge Road Suite 500, Alpharetta, GA 30005, United States

Product Name:	LTE Module
Brand Name:	FOXX
Model Name:	IQ40
Series Model(s):	N/A
FCC ID:	2AQRM-IQ40
Test Standards:	FCC 47CFR §2.1091

TEST REPORT

Applicant's Name	Foxx Development Inc.
Address	3480 Preston Ridge Road Suite 500, Alpharetta, GA 30005, United States
Manufacturer's Name	Foxx Development Inc.
Address	3480 Preston Ridge Road Suite 500, Alpharetta, GA 30005, United States

Product Description

Product Name	LTE Module
Brand	FOXX
Model Number	IQ40
Series Model(s)	N/A
Standards	FCC 47CFR §2.1091 447498 D04 Interim General RF Exposure Guidance v01

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Shenzhen STS Test Services Co., Ltd.

Date of Test	
Date of receipt of test item	19 Feb. 2025
Date (s) of performance of tests	19 Feb. 2025 ~ 14 Mar. 2025
Date of Issue	14 Mar. 2025
Test Result	**Pass**

Testing Engineer : Aaron Bu

(Aaron Bu)

Technical Manager : Tony Liu

(Tony Liu)

Authorized Signatory : Bovey Yang

(Bovey Yang)

SHENZHEN STS TEST SERVICES CO., LTD. TESTING APPROVAL

TABLE OF CONTENTS

Revision History

Rev.	Issue Date	Report No.	Effect Page	Contents
00	14 Mar. 2025	STS2502058H01	ALL	Initial Issue

1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF THE EUT

<table>
<tr><td>Product Name</td><td colspan="2">LTE Module</td></tr>
<tr><td>Brand</td><td colspan="2">FOXX</td></tr>
<tr><td>Model Name</td><td colspan="2">IQ40</td></tr>
<tr><td>Series Model(s)</td><td colspan="2">N/A</td></tr>
<tr><td>Model Difference</td><td colspan="2">N/A</td></tr>
<tr><td rowspan="4">Product Description</td><td colspan="2">The EUT is LTE Module</td></tr>
<tr><td>Operation Frequency:</td><td>GSM850: 824-849 MHz
GSM1900: 1850-1910 MHz
WCDMA B2: 1850-1910 MHz
WCDMA B5: 824-849 MHz
WCDMA B4: 1710-1755 MHz
LTE Band 2:1850~1910MHz
LTE Band 4:1710~1755MHz
LTE Band 5:824~849MHz
LTE Band 7:2500~2570MHz
LTE Band 12:699~716MHz
LTE Band 13:777~787MHz
LTE Band 25:1850~1915MHz
LTE Band 26 Part 90:814~824MHz
LTE Band 26 Part 22:824-849 MHz
LTE Band 38:2570-2620 MHz
LTE Band 41:2496~2690MHz
LTE Band 66:1710~1780MHz</td></tr>
<tr><td>Modulation Type:</td><td>GMSK for GSM/GPRS; GMSK and 8PSK for EDGE
WCDMA: QPSK; HSDPA:QPSK/16QAM; HSUPA:BPSK
LTE: QPSK /16QAM</td></tr>
<tr><td>Antenna gain:</td><td>GSM850:0.47 dBi, PCS1900:1.63 dBi
WCDMA B2:1.63 dBi
WCDMA B4:3.12dBi
WCDMA B5:0.64 dBi
LTE B2:1.63 dBi
LTE B4:3.12 dBi
LTE B5:0.64 dBi
LTE B7:2.9 dBi
LTE B12:0.95 dBi
LTE B13:2.23 dBi
LTE B25:1.87 dBi
LTE B26:0.91 dBi
LTE B38:1.64 dBi
LTE B41: 2.9 dBi
LTE B66:3.12 dBi</td></tr>
<tr><td>Antenna Designation:</td><td>External</td></tr>
<tr><td>Power Rating</td><td colspan="2">Input: DC 3.8V</td></tr>
<tr><td>Adapter</td><td colspan="2">N/A</td></tr>
<tr><td>Battery</td><td colspan="2">N/A</td></tr>
</table>

Hardware Version	V2.02
Software Version	IQ40_V2.02

1.2 TEST FACTORY

SHENZHEN STS TEST SERVICES CO., LTD
Add. : 101, Building B, Zhuoke Science Park, No.190 Chongqing Road, ZhanChengShequ, Fuhai Sub-District, Bao'an District, Shenzhen, Guang Dong, China

FCC test Firm Registration Number: 625569

IC test Firm Registration Number: 12108A

A2LA Certificate No.: 4338.01

2. FCC 47CFR §2.1091 REQUIREMENT

2.1 TEST STANDARDS

Follow the maximum permissible exposure (MPE) limits specified in 447498 D04 Interim General Radio Frequency Exposure Guidelines v01. The gain of the antenna used in the product was extracted from the supplied antenna data sheet and the maximum total power input to the antenna was also measured. Calculate the distance from the product to the MPE limit by the formula.

2.2 LIMIT

For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of Part 1.1307. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);

(B) Or the available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula. This method shall only be used at separation distances (cm) from 0.5 centimeters to 40 centimeters and at frequencies from 0.3 GHz to 6 GHz (inclusive). Pth is given by:

$$P_{th}\ (\text{mW}) = \begin{cases} ERP_{20\ cm}(d/20\ \text{cm})^{x} & d \le 20\ \text{cm} \\ ERP_{20\ cm} & 20\ \text{cm} < d \le 40\ \text{cm} \end{cases}$$

Where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\ cm}\sqrt{f}}\right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20\ cm}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases}$$

d = the separation distance (cm);

(C) Or using below table and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least λ/2π, where λ is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of λ/4 or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

RF Source frequency (MHz)	Threshold ERP(watts)
0.3-1.34	1,920 R^2.
1.34-30	3,450 R^2/f^2.
30-300	3.83 R^2.
300-1,500	0.0128 R^2f.
1,500-100,000	19.2R^2.

For multiple RF sources: Multiple RF sources are exempt if:

(A) The available maximum time-averaged power of each source is no more than 1 mW and there is a separation distance of two centimeters between any portion of a radiating structure operating and the nearest portion of any other radiating structure in the same device, except if the sum of multiple sources is less than 1 mW during the time-averaging period, in which case they may be treated as a single source (separation is not required). This exemption may not be used in conjunction with other exemption criteria other than those is paragraph (b)(3)(i)(A) of Part 1.1307. Medical implant devices may only use this exemption and that in paragraph (b)(3)(i)(A).

(B) in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation.

$$\sum_{i=1}^{a} \frac{P_i}{P_{th,i}} + \sum_{j=1}^{b} \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^{c} \frac{Evaluated_k}{Exposure\ Limit_k} \leq 1$$

Where:

a = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(B) of Part 1.1307 for Pth, including existing exempt transmitters and those being added.

b = number of fixed, mobile, or portable RF sources claiming exemption using paragraph (b)(3)(i)(C) of Part 1.1307 for Threshold ERP, including existing exempt transmitters and those being added.

c = number of existing fixed, mobile, or portable RF sources with known evaluation for the specified minimum distance including existing evaluated transmitters.

Pi = the available maximum time-averaged power or the ERP, whichever is greater, for fixed, mobile, or portable RF source i at a distance between 0.5 cm and 40 cm (inclusive).

Pth,i = the exemption threshold power (Pth) according to paragraph (b)(3)(i)(B) of this section for fixed, mobile, or portable RF source i.

ERPj = the ERP of fixed, mobile, or portable RF source j.

ERPth,j = exemption threshold ERP for fixed, mobile, or portable RF source j, at a distance of at least λ/2π according to the applicable formula of paragraph (b)(3)(i)(C) of Part 1.1307.

Evaluatedk = the maximum reported SAR or MPE of fixed, mobile, or portable RF source k either in the device or at the transmitter site from an existing evaluation at the location of exposure.

Exposure Limitk = either the general population/uncontrolled maximum permissible exposure (MPE) or specific absorption rate (SAR) limit for each fixed, mobile, or portable RF source k, as applicable from § 1.1310.

2.3 TEST RESULT

Turn up

Mode	Detector	Tune up Power
GSM 850	AV	33±1dBm
GSM 1900	AV	30±1dBm
WCDMA Band 2	AV	23±1dBm
WCDMA Band 4	AV	23±1dBm
WCDMA Band 5	AV	23±1dBm
LTE Band 2	AV	23±1dBm
LTE Band 4	AV	24±1dBm
LTE Band 5	AV	24±1dBm
LTE Band 7	AV	23±1dBm
LTE Band 12	AV	24±1dBm
LTE Band 13	AV	24±1dBm
LTE Band 25	AV	24±1dBm
LTE Band 26	AV	24±1dBm
LTE Band 38	AV	23±1dBm
LTE Band 41	AV	23±1dBm
LTE Band 66	AV	23±1dBm

Protocol	Fre. (GHz)	Separation distance (cm)	Max Turn up power (dBm)	ANT Gain (dBi)	Duty Cycle Fator (dB)	Max EIRP (dBm)	Max EIRP (mW)	Power Density (mW/cm^2)	Limit (mW/cm^2)	Ratio	Result
GSM 850	824	20	34.00	0.47	-9.03	25.44	349.87	0.070	0.549	0.1267	Pass
GSM 1900	1850	20	31.00	1.63	-9.03	23.60	229.04	0.046	1	0.0456	Pass
WCDMA B2	1850	20	24.00	1.63	-9.03	25.63	365.6	0.073	1	0.0727	Pass
WCDMA B 4	1710	20	24.00	3.12	-9.03	27.12	515.23	0.103	1	0.1025	Pass
WCDMA B5	824	20	24.00	0.64	0.00	24.64	291.07	0.058	0.549	0.1054	Pass
LTE B2	1850	20	24.00	1.63	0.00	25.63	365.6	0.073	1	0.0727	Pass
LTE B4	1710	20	25.00	3.12	0.00	28.12	648.63	0.129	1	0.1290	Pass
LTE B5	824	20	25.00	0.64	0.00	25.64	366.44	0.073	0.549	0.1327	Pass
LTE B7	2500	20	24.00	2.9	0.00	26.90	489.78	0.097	1	0.0974	Pass
LTE B12	699	20	25.00	0.59	0.00	25.59	362.24	0.072	0.466	0.1546	Pass
LTE B13	777	20	25.00	2.23	0.00	27.23	528.45	0.105	0.518	0.2030	Pass
LTE B 25	1850	20	25.00	1.87	0.00	26.87	486.41	0.097	1	0.0968	Pass
LTE B26	814	20	25.00	0.91	0.00	25.91	389.94	0.078	0.543	0.1430	Pass
LTE B38	2570	20	24.00	1.64	0.00	23.65	231.74	0.046	1	0.0461	Pass
LTE B41	2496	20	24.00	2.9	0.00	24.91	309.74	0.062	1	0.0616	Pass
LTE B66	1710	20	24.00	3.12	-1.99	27.12	515.23	0.103	1	0.1025	Pass

Note: 1. The Maxinum power is less than the limit, complies with the exemption requirements.

2. ERP=EIRP-2.15

※※※※※END OF THE REPORT※※※※※