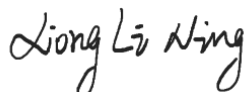


TEST REPORT

Applicant: Shenzhen Honq Technology Co., Ltd
Address: 203, No.10, gongyehou street, Songgang street,
Bao'an District, Shenzhen P.R. China
Equipment Type: LTE module
Model Name: HQ308
Brand Name: baixiaonuanyang
FCC ID: 2BNH282071806220916
Test Standard: 47 CFR Part 2.1091
KDB 447498 D04 v01
Sample Arrival Date: Jan. 02, 2025
Test Date: Jan. 02, 2025 - Jan. 07, 2025
Date of Issue: Feb. 19, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Xiong Lining**Checked by:** Xu Rui**Approved by:** Tolan Tu

(Testing Director)



Revision History

<u>Version</u>	<u>Issue Date</u>	<u>Revisions Content</u>
<u>Rev. 01</u>	<u>Feb. 19, 2025</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☐ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☒ 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Shenzhen Hong Technology Co., Ltd
Address	203, No.10, gongyehou street, Songgang street, Bao'an District, Shenzhen P.R. China

2.2 Manufacturer Information

Manufacturer	N/A
Address	N/A

2.3 General Description for Equipment under Test (EUT)

EUT Name	LTE module
Model Name Under Test	HQ308
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	V1.01
Software Version	V11.0.01
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Technical Information

Network and Wireless connectivity	4G Network FDD LTE Band 2/4/5/12/13/66
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The requirement for the following technical information of the EUT was tested in this report:

Operating Mode	LTE	
Frequency Range	LTE Band 2	TX: 1850 ~ 1910 MHz
	LTE Band 4	TX: 1710 ~ 1755 MHz
	LTE Band 5	TX: 824 ~ 849 MHz
	LTE Band 12	TX: 699 ~ 716 MHz
	LTE Band 13	TX: 777 ~ 787 MHz
	LTE Band 66	TX: 1710 ~ 1780 MHz
Antenna Type	WWAN	External Antenna
Exposure Category	General Population/Uncontrolled Exposure	
Product Type	Mobile Device	

3 SUMMARY OF TEST RESULT

3.1 Test Standards

No.	Identity	Document Title
1	KDB 447498 D04 v01	447498 D04 Interim General RF Exposure Guidance v01

3.2 Limit Standards

No.	Identity	Document Title
1	47 CFR Part 2.1091	Radiofrequency radiation exposure evaluation: mobile devices

4 DEVICE CATEGORY AND LEVELS LIMITS

Mobile Devices:

CFR Title 47 §2.1091(b)

For purposes of this section, a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.

FCC KDB 447498 D04 General RF Exposure Guidance v01 Limit

Evaluation of compliance with the exposure limits in § 1.1310 is necessary if the ERP of the device is greater than ERP_{20cm} in Formula (B.1) [repeated from § 2.1091(c)(1) and § 1.1307(b)(1)(i)(B)].

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

If the ERP is not easily obtained, then the available maximum time-averaged power may be used (i. e., without consideration of ERP only if the physical dimensions of the radiating structure(s) do not exceed the electrical length of $\lambda/4$ or if the antenna gain is less than that of a half-wave dipole.

SAR-based exemptions are constant at separation distances between 20 cm and 40 cm to avoid discontinuities in the threshold when transitioning between SAR-based and MPE-based exemption criteria at 40 cm, considering the importance of reflections.

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold P_{th} (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive). P_{th} is given by Formula (B.2).

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

where

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

and f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).
The example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

Frequency (MHz)	Distance (mm)										
		5	10	15	20	25	30	35	40	45	50
300		39	65	88	110	129	148	166	184	201	217
450		22	44	67	89	112	135	158	180	203	226
835		9	25	44	66	90	116	145	175	207	240
1900		3	12	26	44	66	92	122	157	195	236
2450		3	10	22	38	59	83	111	143	179	219
3600		2	8	18	32	49	71	96	125	158	195
5800		1	6	14	25	40	58	80	106	136	169

5 ASSESSMENT RESULT

5.1 Output Power

LTE						
Mode	Band 2	Band 4	Band 5	Band 12	Band 13	Band 66
Conducted Power (dBm)	23.31	22.98	23.36	22.72	22.61	22.92
Antenna Gain (dBi)	1.87	3.49	0.91	1.57	2.44	3.49
ERP/EIRP (dBm)	25.18	26.47	22.12	22.14	22.90	26.41

Note: This table listed the worst case power value, please refer to BL-SZ24C1239-501 report for more details.

5.2 Tune-up power

Mode	Conducted Power Range (dBm)	EIRP Range (dBm)	ERP Range (dBm)
LTE Band2	[22.00,24.00]	[24.00,26.00]	[21.85,23.85]
LTE Band4	[22.00,24.00]	[25.00,27.00]	[22.85,24.85]
LTE Band5	[22.00,24.00]	/	[20.85,22.85]
LTE Band12	[22.00,24.00]	/	[20.85,22.85]
LTE Band13	[21.00,23.00]	/	[21.85,23.85]
LTE Band66	[22.00,24.00]	[25.00,27.00]	[22.85,24.85]

Note1: ERP= EIRP -2.15dB.
 Note2: According KDB 447498 D04, used the greater of maximum conducted power and ERP to compare with the threshold value Pth.

5.3 RF Exposure Evaluation Result

Evolution mode	Frequency (MHz)	Maximum power (dBm)	Maximum power (mw)	Distance (mm)	Threshold Power (mW)	Verdict
LTE Band2	1910	24.00	251.19	200	3060.00	Pass
LTE Band4	1755	24.85	305.49	200	3060.00	Pass
LTE Band5	849	24.00	251.19	200	1731.96	Pass
LTE Band12	716	24.00	251.19	200	1460.64	Pass
LTE Band13	787	23.85	242.66	200	1605.48	Pass
LTE Band66	1780	24.85	305.49	200	3060.00	Pass

5.4 Conclusion

This EUT is deemed to comply with the reference level limits, therefore the basic restrictions are compliant with human exposure limits.

Statement

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--END OF REPORT--