



No. 24T04Z102605-002

for

Baicells Technologies Co., Ltd.

NeutrinoE224

Model Name: pBS42020

Hardware Version: B01

Software Version: BaiBS_QAFA_2.17.5.7.1

FCC ID: 2AG32PBS42020

Issued Date: 2024-11-21

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

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REPORT HISTORY

Report Number	Revision	Issue Date	Description
24T04Z102605-002	Rev.0	2024-11-21	Initial creation of test report

CONTENTS

1 TEST LABORATORY	4
1.1. INTRODUCTION & ACCREDITATION.....	4
1.2. TESTING LOCATION	4
1.3. TESTING ENVIRONMENT	4
1.4. PROJECT DATA	4
1.5. SIGNATURE	4
2. CLIENT INFORMATION	5
2.1. APPLICANT INFORMATION	5
2.2. MANUFACTURER INFORMATION	5
3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	6
3.1. ABOUT EUT	6
3.2. INTERNAL IDENTIFICATION OF EUT	6
3.3. INTERNAL IDENTIFICATION OF AE	6
4. REFERENCE DOCUMENTS	7
4.1. REFERENCE DOCUMENTS FOR TESTING	7
5. RF EXPOSURE LIMIT	7
6. CLASSIFICATION	7
7. TEST RESULTS	8
7.1. THE MAXIMUM ANTENNA GAIN	8
7.2. THE MAXIMUM RATED POWER LIMITS	8
7.3. OUTPUT POWER INTO ANTENNA & RF EXPOSURE VALUE AT DISTANCE 20CM	8



No. 24T04Z102605-002

1 Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA website.

1.2. Testing Location

Location 1: CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,
P. R. China 100191

1.3. Testing Environment

Normal Temperature: 18-25°C

Relative Humidity: 30-70%

1.4. Project data

Testing Start Date: 2024-11-21

Testing End Date: 2024-11-21

1.5. Signature

Wang Meng
(Prepared this test report)

Qi Dianyuan
(Reviewed this test report)

Lu Bingsong
Deputy Director of the laboratory
(Approved this test report)



No. 24T04Z102605-002

2. Client Information

2.1. Applicant Information

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2.2. Manufacturer Information

Company Name:	Baicells Technologies Co., Ltd.
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Email:	contact@baicells.com
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3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	NeutrinoE224
Model name	pBS42020
Operation mode	LTE Band7

3.2. Internal Identification of EUT

EUT ID*	IMEI	HW Version	SW Version
EUT1	/	B01	BaiBS_QAFA_2.17.5.7.1

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE

AE ID*	Description	SN
AE1	/	/

*AE ID: is used to identify the test sample in the lab internally.

4. Reference Documents

4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

ANSI C95.1–1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

KDB 447498 D01 General RF Exposure Guidance v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies

Standard for uncontrolled environment requires the RF-exposure value in W/m² unit, therefore the MPE limit value determined in mW/cm² unit, should be multiplied by 10 to have the required unit. The MPE limits are the same like on FCC § 1.1301 at table 1.

5. RF Exposure Limit

Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz *Plane-wave equivalent power density

$$\text{Friis transmission formula: } P_d = \frac{P_{out} * G}{4 * \pi * r^2}$$

where

P_d = power density (mW/cm²)

P_{out} = output power to antenna (mW)

G = gain of antenna (linear scale)

r = distance between antenna and observation point (cm)

6. Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as Mobile Device.

7. Test Results

7.1. The maximum antenna gain

The maximum gain for each frequency band is:

Frequency band	Antenna gain
LTE Band7	5

7.2. The maximum rated power limits

Maximum peak output power for antenna:

Frequency band	Maximum Rated Power (dBm)
LTE Band7	25

7.3. Output Power Into Antenna & RF Exposure value at distance 20cm

The worst cases conducted output power for every frequency band is:

Frequency band	Maximum Rated Power (dBm)	Antenna gain	d (cm)	Calculation (mW/cm ²)	Limit (mW/cm ²)
LTE Band7	25	5	20	0.199	1.000

According above test result, the device complies with the exposure requirements.

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