No. 25T04Z100437-002

for

Baicells Technologies Co., Ltd.

Product Name: Aurora454

Model Name: BSQ7041A454

FCC ID: 2AG32BSQ7041A454

with

Hardware Version: Ver.B

Software Version: BaiBNQ_2.7.2

Issued Date: 2025-04-03

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.

Test Laboratory:

CTTL, Telecommunication Technology Labs, Academy of Telecommunication Research, MIIT

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

Tel:+86(0)10-62304633-2512,Fax:+86(0)10-62304633-2504

Email: cttl_terminals@caict.ac.cn, website: www.caict.ac.cn

REPORT HISTORY

Report Number	Revision	Issue Date	Description
25T04Z100437-002	Rev.0	2025-04-03	Initial creation of test report

CONTENTS

1. Test Laboratory

1.1. Testing Location

Company Name:	CTTL
Address:	No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191.
Postal Code:	100191
Telephone:	00861062304633
Fax:	00861062304793

1.2. Testing Environment

Normal Temperature:	15-35℃
Relative Humidity:	20-75%

1.3. Project data

Project Leader:	Lin Jun
Testing Start Date:	2025-04-01
Testing End Date:	2025-04-01

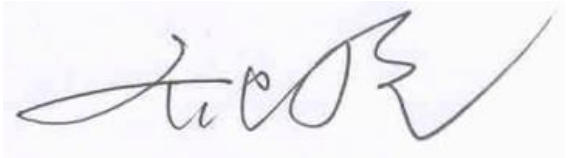
1.4. Signature

Yao Juming

(Prepared this test report)

Lin Jun

(Reviewed this test report)



Qi Dianyuan

Deputy Director of the laboratory

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	Baicells Technologies Co., Ltd.
Address /Post:	9-10F,1stBldg.,No.81BeiqingRoad,Haidian District,Beijing,China
Contact:	Back Huang
Email:	contact@Baicells.com
Telephone:	010 6260 7100
Fax:	/

2.2. Manufacturer Information

Company Name:	Baicells Technologies Co., Ltd.
Address /Post:	9-10F,1stBldg.,No.81BeiqingRoad,Haidian District,Beijing,China
Contact:	Back Huang
Email:	contact@Baicells.com
Telephone:	010 6260 7100
Fax:	/

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Aurora454
Model name	BSQ7041A454
Operation mode	n41 2496MHz-2690MHz

3.2. Internal Identification of EUT

EUT ID*	IMEI	HW Version	SW Version
EUT1	/	Ver.B	BaiBNQ_2.7.2

*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

Canadian RSS-102: Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)

Standard for uncontrolled environment requires the RF-exposure value in W/m2 unit, therefore the MPE limit value determined in mW/cm^2 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/f^2)***	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

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

where

P_d =power density (mW/cm^2)
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 1100cm 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
n41	17.9

7.2. The maximum rated power limits

Maximum peak output power for antenna:

Frequency band	Maximum Rated Power (W)
n41	240

7.3. Output Power Into Antenna & RF Exposure value at distance 1100cm

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

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

Frequency Band	Maximum Rated Power (mW)	Antenna gain (dBi)	d (cm)	Calculation (mW/cm^2)	Limit (mW/cm^2)
n41	240000	17.9	1100	0.974	1.000

8. Simultaneous Transmission

N/A

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