

# RF Exposure Evaluation Report

**Applicant:** Baicells Technologies Co., Ltd.

**Address of Applicant:** 9-10F, 1stBldg., No.81BeiqingRoad, Haidian District, Beijing, China

**Equipment Under Test (EUT)**

Product Name: LTE Base Station

Model No.: pBS3101SE

Trade mark: Baicells

**FCC ID:** 2AG32PBS3101SE

**Applicable standards:** FCC CFR Title 47 Part 2 Subpart J Section 2.1091

**Date of sample receipt:** 20 Jul., 2021

**Date of Test:** 21 Jul., to 12 Aug., 2021

**Date of report issue:** 23 Aug., 2021

**Test Result:** PASS\*

Authorized Signature:



Bruce Zhang  
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the JYT product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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## 2 Version

Version No.	Date	Description
00	13 Aug., 2021	Original
01	23 Aug., 2021	Update page 6

*Tested by:* Mike.ou  
**Test Engineer**

*Date:* 23 Aug., 2021

*Reviewed by:* Winner Zhang  
**Project Engineer**

*Date:* 23 Aug., 2021

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## 4 General Information

### 4.1 Client Information

Applicant:	Baicells Technologies Co., Ltd.
Address:	9-10F, 1stBldg., No.81BeiqingRoad, Haidian District, Beijing, China
Manufacturer:	Baicells Technologies Co., Ltd.
Address:	9-10F, 1stBldg., No.81BeiqingRoad, Haidian District, Beijing, China

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

Product Name:	LTE Base Station
Model No.:	pBS3101SE
Operation Frequency:	Band48: 3550MHz~3700MHz
Modulation technology:	QPSK, 16QAM, 64QAM
Antenna Type:	External antenna
Antenna gain:	LTE Band 48: 17.0dBi
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

### 4.3 Operating Modes

Operating mode	Detail description
LTE Band 48 mode	Keep the EUT in continuously transmitting in LTE Band 48 mode

### 4.4 Additions to, deviations, or exclusions from the method

No
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### 4.5 Laboratory Facility

<p>The test facility is recognized, certified, or accredited by the following organizations:</p> <ul style="list-style-type: none"> <li>● <b>FCC - Designation No.: CN1211</b> JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.</li> <li>● <b>ISED – CAB identifier.: CN0021</b> The 3m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.</li> <li>● <b>A2LA - Registration No.: 4346.01</b> This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <a href="https://portal.a2la.org/scopepdf/4346-01.pdf">https://portal.a2la.org/scopepdf/4346-01.pdf</a></li> </ul>
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### 4.6 Laboratory Location

<p>JianYan Testing Group Shenzhen Co., Ltd. Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China. Tel: +86-755-23118282, Fax: +86-755-23116366 Email: info-JYTee@lets.com, Website: <a href="http://www.ccis-cb.com">http://www.ccis-cb.com</a></p>
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## 5 Technical Requirements Specification in FCC CFR Title 47 Part 2.1091

### 5.1 Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f <sup>2</sup> )	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				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

### 5.2 Test Procedure

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna

### 5.3 Result

Frequency (MHz)	Maximum Output power (dBm)	Maximum Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Result (mW/cm <sup>2</sup> )	Limits for General Population/ Uncontrolled Exposure (mW/cm <sup>2</sup> )
LTE Band 48							
3560.00	27.15	518.80	17.0	50.12	50.00	0.8277	1.0

Note:

1. Output power is refer to the FCC ID: 2AG32PBS3101S, Report No.: JYTSZB-R12-2100634.
2. Just the worst case mode was shown in report.

### 5.4 Conclusion

The device is meets the RF exposure evaluation.

-----End of report-----