Website: www.cblueasia.com
Tel: +86-755-23059481
Email: marketing@cblueasia.com

Test Report

Applicant	:	Zhenjiang Youpu Technology Co., Ltd.
Address	:	NO. 263 Xiaomishan Road, Jingkou District, Zhenjiang, Jiangsu, China
Product Name	:	BT/Zigbee module
Brand Mark	:	Youpu
Model	:	TRZB16
Series model	:	N/A
Report Number	:	BLA-EMC-202505-A3503
FCC ID	:	2BOSO-TRZB16
Date of Receipt	:	May 12, 2025
Date of Test	:	May 13, 2025 to May 22, 2025
Test Standard	:	47 CFR Part 15, Part1.1307 47 CFR Part 15, Part2.1093 KDB447498D04 General RF Exposure Guidance v01
Test Result	:	Pass

Compiled by: charlie **Review by:** Xavier **Approved by:** Steve Zheng

Issued Date: May 26, 2025

BlueAsia of Technical Services(Shenzhen) Co.,Ltd.

Address: Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China

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Revise Record

Version No.	Date	Description
01	May 26, 2025	Original

1 General information

1.1 General information

Applicant	Zhenjiang Youpu Technology Co., Ltd.
Address	NO.263 Xiaomishan Road,Jingkou District,Zhenjiang,Jiangsu,China
Manufacturer	Zhenjiang Youpu Technology Co., Ltd.
Address	NO.263 Xiaomishan Road,Jingkou District,Zhenjiang,Jiangsu,China
Factory	Zhenjiang Youpu Technology Co., Ltd.
Address	NO.263 Xiaomishan Road,Jingkou District,Zhenjiang,Jiangsu,China

1.2 General description of EUT

Product Name	BT/Zigbee module
Model No.	TRZB16
Series model	N/A
Differences of Series model	N/A
Power supply or adapter information	DC3.3V
Hardware Version	N/A
Software Version	N/A
Engineer sample no	BLA-EMC-202505-A35
Note: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.	

For BLE

Operation Frequency	2402MHz-2480MHz
Modulation Type	GFSK
Rate data	1Mbps; 2Mbps
Channel Spacing	2MHz
Number of Channels	40
Antenna Type	PCB antenna
Antenna Gain	-5.31dBi(Provided by customer)

For zigbee

Operation Frequency	2405MHz-2480MHz
Modulation Type	O-QPSK
Channel Spacing	5MHz
Number of Channels	16
Antenna Type	PCB antenna
Antenna Gain	-5.31dBi(Provided by customer)

2 Laboratory and accreditations

The test facility is recognized, certified, or accredited by the following organizations:

Company name:	BlueAsia of Technical Services(Shenzhen) Co., Ltd.
Address:	Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China
CNAS accredited No.:	L9788
A2LA Cert. No.:	5071.01
FCC Designation No.:	CN1252
ISED CAB identifier No.:	CN0028
Telephone:	+86-755-28682673
FAX:	+86-755-28682673

3 RF Exposure Compliance Requirement

3.1 Standard Requirement

According to 447498 D04 Interim General RF Exposure Guidance v01

Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

3.2 Limits

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

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

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).

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

3.3 Result

Calculated Result and Limit (WORSE CASE IS AS BELOW)

Mode	Frequency (MHz)	Max Output power(dBm)	Max Output power(mW)	Ant gain (dBi)	Evaluation ERP(dBm)	Evaluation ERP(mW)	Limit of Pth(mW)	Result
BLE 2M	2402	3.585	2.28	-5.31	-3.875	0.41	2.79	Pass
ZIGBEE	2405	3.632	2.31	-5.31	-3.828	0.41	2.78	Pass

ERP=Max Output power+Ant gain-2.15

Comply with RF exposure exemption limit.

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