

# MPE TEST REPORT

Report No.: AIT22122704FH

FCC ID: 2AJYL-AB23

**Product Name**: AIRBOLT CELLULAR GPS

Brand Name : AIRBOLT

Test Model : ABGPS-23

Series Model : N/A

Applicant : AirBolt Pty Ltd

Address : PO Box 192, Bulleen, Victoria, Australia 3105

Manufacturer : BOTERLAN TECHNOLOGY CO., LIMITED

Address : 4F,Buliding B2,Guangshen high and new science and technology park

Youmagang, Jiangshi, Gongming, Guangming new zone, Shenzhen,

Guangdong, China

**Date of Receipt** : 2022.12.27

Date of Test : 2022.12.27-2023.01.06

Issued Date : 2023.01.06

Report Version : V1.0

Test Sample : Engineering Sample No.: AIT22122704-1

Standard(s) : FCC Title 4 7 Part 2. 1091

KDB 447498 001 General RF exposure guidance v06

Lab:Dongguan Yaxu (AiT) Technology Limited

Add:No.22, Jinqianling 3rd Street, Jitigang, Huangjiang, Dongguan,

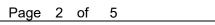
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This device described above has been tested by Dongguan Yaxu (AiT) Technology Limited and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Reviewed by:	Gimba Huang	Approved by:	Seal-Cheir
•	Simba huang	,	Seal Chen





**Revision History** 

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Revision	Issue Date	Revisions	Revised By
V1.0	2023.01.06	Initial Issue	Seal Chen



## 1. TEST FACILITY

Company:	Dongguan Yaxu (AiT) Technology Limited
Address:	No.22, Jinqianling 3rd Street, Jitigang, Huangjiang, Dongguan, Guangdong, China
CNAS Registration Number:	CNAS L6177
A2LA Registration Number:	6317.01
FCC Accredited Lab. Designation Number:	CN1313
FCC Test Firm Registration Number:	703111

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### 2. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi r^2} = \frac{EIRP}{4\pi r^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator R = distance to the center of radiation of the antenna



## Antenna Specification:

#### For BLE:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	1.50

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## For LTE-BAND2:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	1.39

### For LTE-BAND4:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	0.76

#### For LTE-BAND12:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	-0.49

#### For LTE-band13:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	2.42

Note: The antenna gain is provided by the manufacturer.



#### 3. TEST RESULTS

#### For BLE:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm²)	Test Result
1.50	1.41	2.11	1.6255	0.0046	1	Complies

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### For LTE-BAND2:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
1.39	1.38	24.00	251.189	0.0688	1	Complies

#### For LTE-BAND4:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
0.76	1.19	23.89	244.906	0.0580	1	Complies

#### For LTE-BAND12:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
-0.49	0.89	21.74	149.279	0.0265	0.47	Complies

#### For LTE-BAND13:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm²)	Limit of Power Density (S) (mW/cm²)	Test Result
2.42	1.75	24.72	296.483	0.1030	0.52	Complies

#### Note:

- 1.Only the worst case recorded.
- 2. The BT, LTE band can transmit simultaneously.
- 3. Output power including tune up tolerance.
- 4. The calculated distance is 20 cm.

## **Transmit Simultaneously (Worst):**

Power Density:

LTE-Band13/0.52 +BLE/1 =0.10983/0.52 +0.00056/1=0.211<1

## 4. CONCLUSION

Remark: EUT meets the basic requirements in the standard.

----END OF REPORT----