

MPE TEST REPORT

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 47 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,
Guangdong,China
Tel.: +86-769-8202 0499 Fax.: +86-769-8202 0495

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.

Note: This report shall not be reproduced except in full, without the written approval of Dongguan Yaxu (AiT) Technology Limited, this document may be altered or revised by Dongguan Yaxu (AiT) Technology Limited, personal only, and shall be noted in the revision of the document. This test report must not be used by the client to claim product endorsement.

Reviewed by:



Simba huang

Approved by:



Seal Chen

Revision History

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

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

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 ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
1.50	1.41	2.11	1.6255	0.0046	1	Complies

For LTE-BAND2:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	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/cm ²)	Limit of Power Density (S) (mW/cm ²)	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/cm ²)	Limit of Power Density (S) (mW/cm ²)	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/cm ²)	Limit of Power Density (S) (mW/cm ²)	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 :

$$\text{LTE-Band13}/0.52 + \text{BLE}/1 = 0.10983/0.52 + 0.00056/1 = 0.211 < 1$$

4. CONCLUSION

Remark: EUT meets the basic requirements in the standard.

-----END OF REPORT-----