

MPE TEST REPORT

FCC ID: 2AFDQ-T715

Equipment : Comms Gateway
Brand Name : Acorn Stairlifts
Test Model : T715 Comms Gateway
Series Model : T715
Applicant : Acorn Mobility Service Ltd
Address : Telecom House, Millennium Business Park, Steeton West Yorkshire,
BD20 6RB UK
Manufacturer : Sixfab, Inc.
Address : 1185 Campbell Ave Unit K12 San Jose, CA 95126 USA.
Date of Receipt : 2022.11.01
Date of Test : 2022.11.01-2022.11.25
Issued Date : 2022.11.29
Report Version : V1.0
Test Sample : Engineering Sample No.: AIT22103108-1
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.

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Reviewed by:



Simba huang

Approved by:



Seal Chen

Revision History

Revision	Issue Date	Revisions	Revised By
V1.0	2022.11.29	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 L14158
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 BR-EDR :

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	3.21

For BLE :

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	3.21

For 2.4GHz WIFI :

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	3.21

For 5GHz WIFI :

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	3.21

For LTE-BAND2&Band4:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	3.80

For LTE-BAND7&Band41:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	4.60

For LTE-BAND5&BAND12&band13:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	N/A	N/A	3.50

Note: The antenna gain is provided by the manufacturer.

3. TEST RESULTS

For BR-EDR:

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
3.21	2.09	4.42	2.7669	0.011527	1	Complies

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
3.21	2.09	2.30	1.69824	0.007075	1	Complies

For 2.4GHz WIFI:

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
3.21	2.09	9.96	9.9083	0.041279	1	Complies

For 5GHz WIFI:

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
3.21	2.09	15.22	33.26594	0.138589	1	Complies

For LTE Module EG25:

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
3.80	2.40	25.44	349.945167	0.167005	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
3.80	2.40	25.69	370.6807218	0.176901	1	Complies

For LTE-BAND5:

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
3.50	2.24	23.47	222.3309891	0.099022	0.56	Complies

For LTE-BAND7:

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
4.60	2.88	25.92	390.8408958	0.224249	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
3.50	2.24	23.62	230.1441817	0.102501	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
3.50	2.24	23.35	216.2718524	0.096323	0.52	Complies

For LTE-BAND41:

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
4.60	2.88	25.97	395.3666201	0.226845	1	Complies

Note:

1. Only the worst case recorded.
2. The BT, 2.4G WIFI and 5GHz WIFI band can not transmit simultaneously.
3. Output power including tune up tolerance.
4. The calculated distance is 20 cm.

Transmit Simultaneously (Worst):

Power Density :

LTE-Band41 +5GHz WIFI =0.2268 +0.138589=0.365389 < 1

4. CONCLUSION

Remark: EUT meets the basic requirements in the standard.

End of Test Report