

## MPE TEST REPORT

**FCC ID: 2AFDQ-EG25**


**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  
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Guangdong, China  
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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:**



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 <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	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 <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	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 <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	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 <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
3.21	2.09	15.22	33.26594	0.138589	1	Complies

**For LTE Module EG21:**

For LTE-BAND2:

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/cm <sup>2</sup> )	Test Result
3.80	2.40	26.70	467.7351413	0.223218	1	Complies

For LTE-BAND4:

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/cm <sup>2</sup> )	Test Result
3.80	2.40	25.41	467.7351413	0.223218	1	Complies

For LTE-BAND5:

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/cm <sup>2</sup> )	Test Result
3.50	2.24	23.67	232.8091258	0.103688	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 <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
4.60	2.88	25.54	358.0964371	0.205461	1	Complies

For LTE-BAND12:

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/cm <sup>2</sup> )	Test Result
3.50	2.24	23.89	244.9063242	0.109076	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 <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
3.50	2.24	23.05	201.8366364	0.089894	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 <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
4.60	2.88	26.34	430.5266105	0.247019	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 =0.247019 +0.138589=0.385608 < 1

## 4. CONCLUSION

Remark: EUT meets the basic requirements in the standard.