

TEST REPORT

of

FCC MPE REQUIREMENT

Product : **3D Tour Kit / Pano Kit**
Brand Name: **Asteroom**
Model: **R01**
Model Difference: **N/A**
Applicant: **PENPOWER TECHNOLOGY LTD.**
Address: **7F, No. 47, Lane 2, Sec. 2, Guangfu Rd., Hsinchu City
300, Taiwan, R.O.C.**

Test Performed by:

International Standards Laboratory Corp. LT Lab.



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Taiwan

Report No.: **ISL-21LR260FMPE**
Issue Date :**2021/11/15**



Test results given in this report apply only to the specific sample(s) tested and are traceable to national or international standard through calibration of the equipment and evaluating measurement uncertainty herein.

The uncertainty of the measurement does not include in consideration of the test result unless the customer required the determination of uncertainty via the agreement, regulation or standard document specification.

This test report shall not be reproduced except in full, without the written approval of International Standards Laboratory Corp.

VERIFICATION OF COMPLIANCE

Applicant: PENPOWER TECHNOLOGY LTD.
Product Description: 3D Tour Kit / Pano Kit
Brand Name: Asteroom
Model No.: R01
Model Difference: N/A
Date of test: 2021/10/21 ~ 2021/11/12
Date of EUT Received: 2021/10/21

We hereby certify that:

All the tests in this report have been performed and recorded in accordance with the standards described above and performed by an independent electromagnetic compatibility consultant, International Standards Laboratory Corp.

The test results contained in this report accurately represent the measurements of the characteristics and the energy generated by sample equipment under test at the time of the test. The sample equipment tested as described in this report is in compliance with the limits of above standards.

Test By:



Date:

2021/11/15

Barry Lee / Senior Engineer

Prepared By:

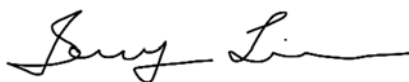


Date:

2021/11/15

Elisa Chen / Senior Engineer

Approved By:



Date:

2021/11/15

Jerry Liu / Technical Manager

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1. Description of Equipment under Test (EUT)

General:

Product Name:	3D Tour Kit / Pano Kit
Brand Name:	Asteroom
Model Name:	R01
Model Difference:	N/A
Power Supply:	5V form USB or 3.7V battery

BLE:

Bluetooth Version	BLE
Frequency Range	2402MHz-2480MHz
Tune-up Power	0.97 dBm Peak
Modulation Type	GFSK
Channel Number	40 channels, 2MHz step
Antenna Designation	PCB Antenna, 0 dBi

2. Maximum Permissible Exposure (MPE)

2.1 Standard Applicable

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

This is a Mobile device, the MPE is required.

FCC: According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for Maximum Permissive Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	F/1500	30
1500-15000	/	/	1.0	30

F = frequency in MHz

* = Plane-wave equipment power density

3. Evaluation Result:

20 cm

Frequency band	Conducted power (dBm)	Antenna gain (dBi)	Tune-Up Tolerance (dB)	EIRP (dBm)	MPE (W/m ²)	LIMIT (W/m ²)
2402-2480	0.97	0	1	1.970	0.00031	1

Max Power(mW) = $10^{((\text{Max Power(dBm)} + \text{Tune-up tolerance(dB)})/10)}$

Result = Max Power (mW) / min. distance(mm) * $\sqrt{f(\text{GHz})}$

~ End ~