



FCC - TEST REPORT

Report Number : **60.790.19.007.01** Date of Issue: April 3, 2019

Model : **E2002**

Product Type : **My Very Own Solar System**

Applicant : **Brainstorm Limited**

Address : **Unit 1A Mill Lane Gisburn UK BB7 4LN United Kingdom**

Production Facility : **Brainstorm Limited**

Address : **Unit 1A Mill Lane Gisburn UK BB7 4LN United Kingdom**

Test Result : **Positive** **Negative**

Total pages including Appendices : **12**

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2 Details about the Test Laboratory

Details about the Test Laboratory

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
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Fax: 86 755 8828 5299

FCC Registration Number: 514049



3 Description of the Equipment Under Test

Description of the Equipment Under Test

Product: My Very Own Solar System

Model no.: E2002

FCC ID: 2APXPE2002

Options and accessories: IR remote controller

Input Rated Voltage: 4.5V DC (3* AA batteries)

Output Rated Voltage: NIL

Description of the EUT: III

Remark: NIL

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFAC - TURER	MODEL NO. (SHIELD)	S/N (LENGTH)	PARAMETERS
NA	NA	NA	NA	---



4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart B, 10-1-2017 Edition	PART 15 – Radio Frequency Devices Subpart B – Unintentional Radiators

All the tests were performed using the procedures from ANSI C63.4(2014).

5 Summary of Test Results

Emission Tests				
FCC Part 15 Subpart B				
Test Condition Class B	Pages	Test Result		
		Pass	Fail	N/A
Radiated Emission (3m semi-anechoic chamber) 30MHz to 1000MHz	8-11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conducted Emission on AC 150kHz to 30MHz	NIL	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remark:

- 1) Conducted Emission testing is not applicable for battery operated device.

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.91dB; Vertical: 4.89dB;
Conducted Emission 150kHz-30MHz	3.62dB

6 General Remarks

REMARKS:

NIL

SUMMARY:

All tests according to the regulations cited on page 5 were

- Performed

- **Not** Performed

The Equipment Under Test

- **Fulfills** the general approval requirements.

- **Does not** fulfill the general approval requirements.

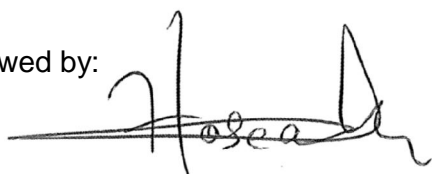
Sample Received Date: March 22, 2019

Testing Start Date: March 31, 2019

Testing End Date: March 31, 2019

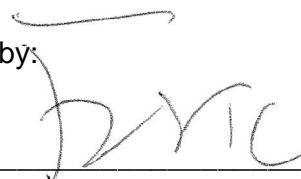
- TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch-

Reviewed by:



Hosea CHAN
EMC Project Engineer

Prepared by:

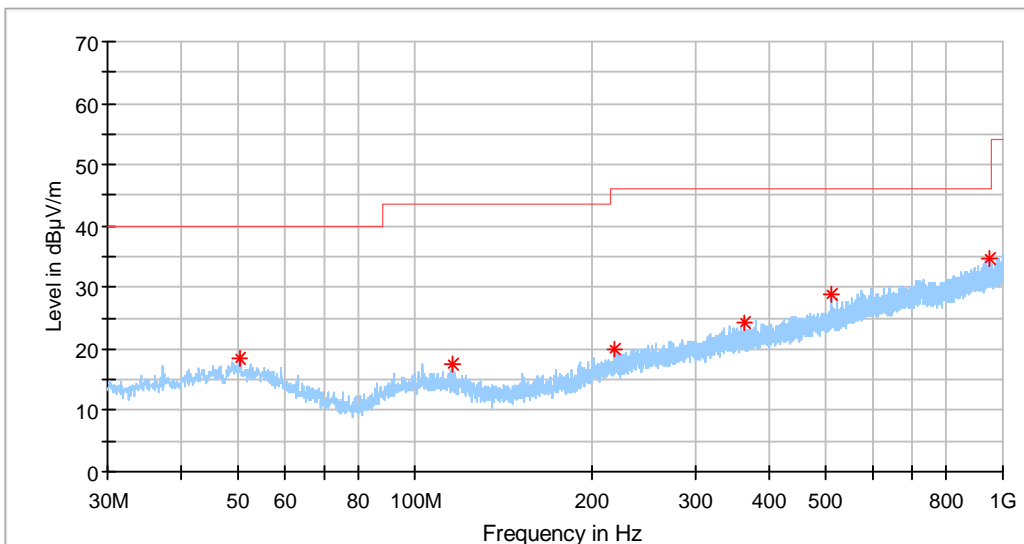


Eric LI
EMC Senior Project Engineer

7 Emission Test Results 30MHz – 1000MHz

7.1 Radiated Emission Test 30MHz – 1000MHz

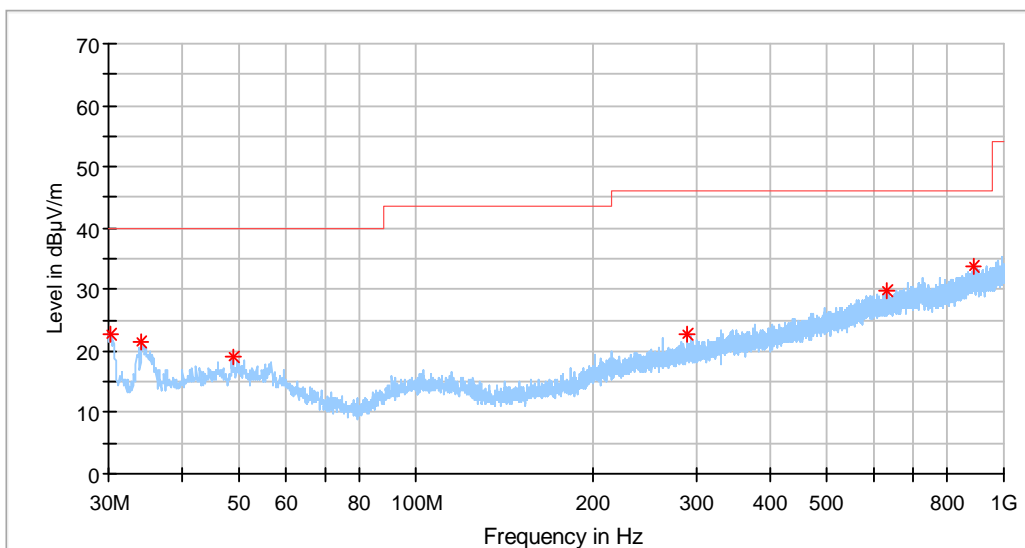
M/N: E2002
 Op Cond.: Light on mode
 Test Spec: Horizontal
 Comment: 30MHz-1GHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Corr. (dB)
50.248750	18.44	40.00	-21.56	18.1
115.602500	17.58	43.50	-25.92	15.2
218.725625	19.95	46.00	-26.05	17.2
362.588750	24.40	46.00	-21.60	21.5
510.756250	28.75	46.00	-17.25	24.2
948.408125	34.69	46.00	-11.31	30.8

Radiated Emission Test 30MHz – 1000MHz

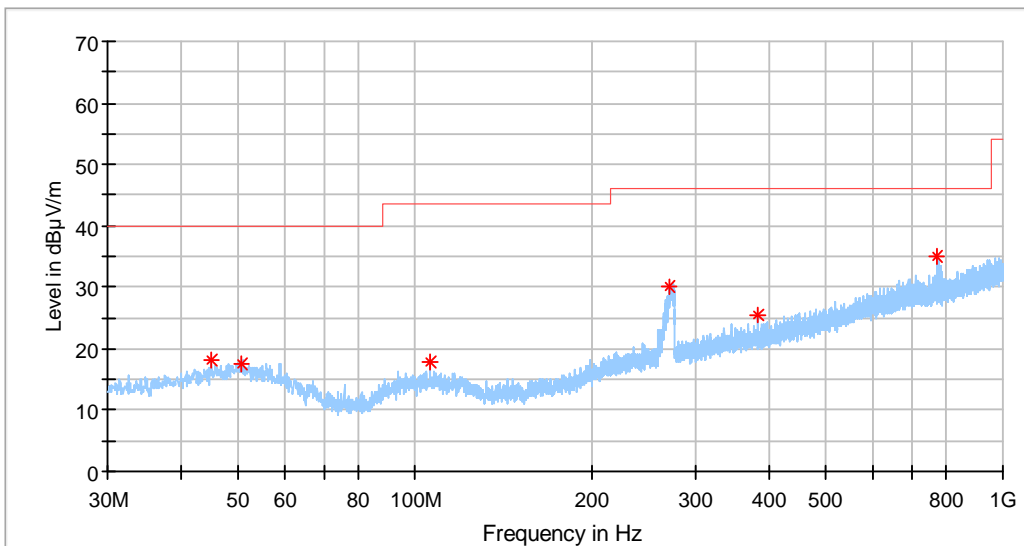
M/N: E2002
 Op Cond.: Light on mode
 Test Spec: Vertical
 Comment: 30MHz-1GHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Corr. (dB)
30.181875	22.86	40.00	-17.14	13.8
34.061875	21.63	40.00	-18.37	14.8
48.733125	18.90	40.00	-21.10	17.9
290.020625	22.87	46.00	-23.13	19.7
634.795000	29.80	46.00	-16.20	26.6
888.753125	33.90	46.00	-12.10	29.8

Radiated Emission Test 30MHz – 1000MHz

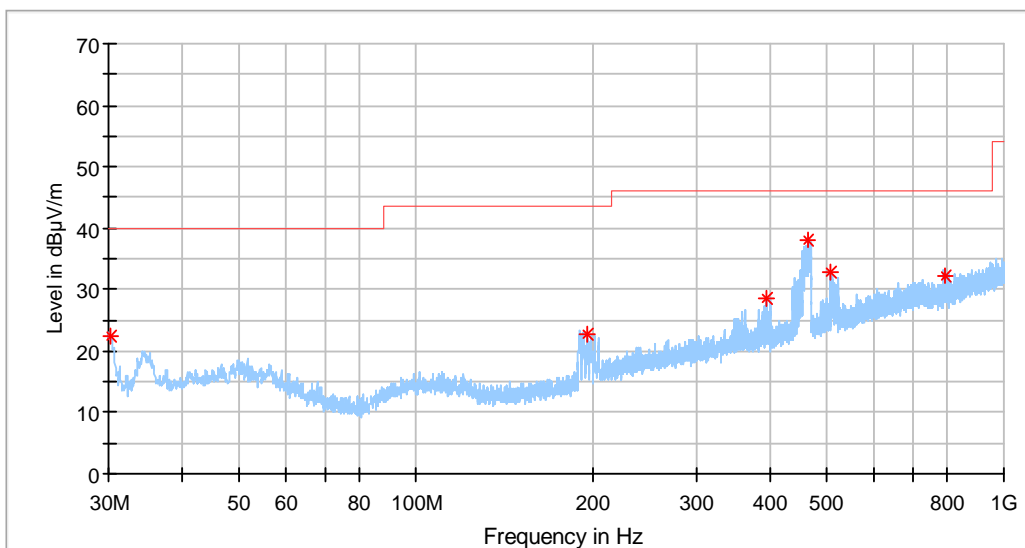
M/N: E2002
 Op Cond.: Motor on mode
 Test Spec: Horizontal
 Comment: 30MHz-1GHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Corr. (dB)
45.095625	18.18	40.00	-21.82	17.3
50.673125	17.44	40.00	-22.56	18.0
106.266250	17.81	43.50	-25.69	15.6
271.408750	30.12	46.00	-15.88	19.1
383.504375	25.48	46.00	-20.52	22.0
772.716875	34.86	46.00	-11.14	28.2

Radiated Emission Test 30MHz – 1000MHz

M/N: E2002
 Op Cond.: Motor on mode
 Test Spec: Vertical
 Comment: 30MHz-1GHz



Frequency (MHz)	MaxPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Corr. (dB)
30.242500	22.54	40.00	-17.46	13.8
195.991250	22.81	43.50	-20.69	15.8
395.023125	28.51	46.00	-17.49	22.1
464.984375	38.01	46.00	-7.99	23.4
506.633750	32.77	46.00	-13.23	24.1
798.179375	32.28	46.00	-13.72	28.4



8 Test Equipment List

Radiated Emission Test

DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
EMI Test Receiver	Rohde & Schwarz	ESR 26	101269	2019-7-6
Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	707	2019-6-28
Horn Antenna	Rohde & Schwarz	HF907	102294	2019-6-28
Pre-amplifier	Rohde & Schwarz	SCU 18	102230	2019-7-6
Signal Generator	Rohde & Schwarz	SMY01	839369/005	2019-7-6
Attenuator	Agilent	8491A	MY39264334	2019-7-6
3m Semi-anechoic chamber	TDK	9X6X6	----	2020-7-7
Test software	Rohde & Schwarz	EMC32	Version 9.15.00	N/A