

TEST REPORT

Product Name : Adapter Box
Model Number : Adapter Box G2

Prepared for : SolaX Power Network Technology (Zhejiang) Co. ,Ltd.
Address : No.288,Shizhu Road, Tonglu Economic Development Zone,
Tonglu City, Zhejiang Province, 310000 P.R. China

Prepared by : EMTEK (NINGBO) CO., LTD.
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Report Number : ENB2209290149W00503R
Date(s) of Tests : September 29, 2022 to March 15, 2023
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1. TEST RESULT CERTIFICATION

Applicant : SolaX Power Network Technology (Zhejiang) Co. ,Ltd.
 Address : No.288,Shizhu Road, Tonglu Economic Development Zone, Tonglu City, Zhejiang Province, 310000 P.R. China
 Manufacturer : SolaX Power Network Technology (Zhejiang) Co. ,Ltd.
 Address : No.288,Shizhu Road, Tonglu Economic Development Zone, Tonglu City, Zhejiang Province, 310000 P.R. China
 EUT : Adapter Box
 Model Name : Adapter Box G2
 Trademark : SolaX Power

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
EN IEC 62311:2020 EN 50665:2017	PASS

The device described above is tested by EMTEK (NINGBO) CO., LTD. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. This report shows the EUT to be technically compliant with the EN IEC 62311:2020 and EN 50665:2017 requirements. The test results are contained in this report and EMTEK (NINGBO) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests.

This report applies to above tested sample only and shall not be reproduced in part without written approval of EMTEK (NINGBO) CO., LTD.

Date of Test : September 29, 2022 to March 15, 2023

Prepared by : *June Gao*
 June Gao/Engineer

Reviewer : *Vinay*
 Vinay/Supervisor

Approved & Authorized Signer : *Tony Wei*
 Tony Wei/Manager



2. EUT DESCRIPTION

Product:	Adapter Box
Model Number:	Adapter Box G2
Sample Number:	1#
WIFI	
WLAN Supported:	<input checked="" type="checkbox"/> 802.11b <input checked="" type="checkbox"/> 802.11g <input checked="" type="checkbox"/> 802.11n(20MHz channel bandwidth) <input type="checkbox"/> 802.11n(40MHz channel bandwidth)
Modulation:	<input checked="" type="checkbox"/> DSSS with DBPSK/DQPSK/CCK for 802.11b <input checked="" type="checkbox"/> OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n
Frequency Range:	<input checked="" type="checkbox"/> 2412-2472MHz for 802.11b/g/n(HT20) <input type="checkbox"/> 2422-2462MHz for 802.11n(HT40)
Number of Channels:	<input checked="" type="checkbox"/> 13 Channels for 802.11b/g/n(HT20) <input type="checkbox"/> 9 Channels for 802.11n(HT40)
Max Transmit Power:	17.94 dBm
Antenna:	PCB Antenna
Antenna Gain:	3.42 dBi
Test Voltage:	AC 100-240V, 50/60Hz
Adapter:	M/N: ABT020120A Input: AC 100-240V, 50/60Hz, 1.5A Output: DC 12V, 2A, 24W
Date of Received:	September 29, 2022
Temperature Range:	-40°C ~ +65°C

Note: for more details, please refer to the User's manual of the EUT.

Modified Information

Version	Report No.	Revision Date	Summary
/	ENB2209290149W00503R	/	Original Report



3. FACILITIES AND ACCREDITATIONS

3.1 FACILITIES

All measurement facilities used to collect the measurement data are located at EMTEK (NINGBO) CO., LTD.

No. 8, Building 8, Lane 216, Qingyi Road, Ningbo Hi-Tech Zone, Ningbo, Zhejiang, China

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 32.

3.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with preselectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

3.3 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description
EMC Lab.

: Accredited by CNAS

The Certificate Registration Number is L6666.

The Laboratory has been assessed and proved to be in compliance with CNAS-CL01:2018 (identical to ISO/IEC 17025:2017)

Accredited by FCC

Designation Number: CN1302

Test Firm Registration Number: 436491

Accredited by A2LA

The certificate is valid until May 31, 2023

Accredited by Industry Canada

The Conformity Assessment Body Identifier is CN0114

Name of Firm
Site Location

: EMTEK (NINGBO) CO., LTD.

: No. 8, Building 8, Lane 216, Qingyi Road, Ningbo Hi-Tech Zone, Ningbo, Zhejiang, China

4. GENERAL PRODUCT INFORMATION

4.1 BASIC RESTRICTION

Reference Levels

Council Recommendation 99/519/EC Annex III

Reference levels for electric, magnetic and electromagnetic fields (0 Hz to 300GHz)

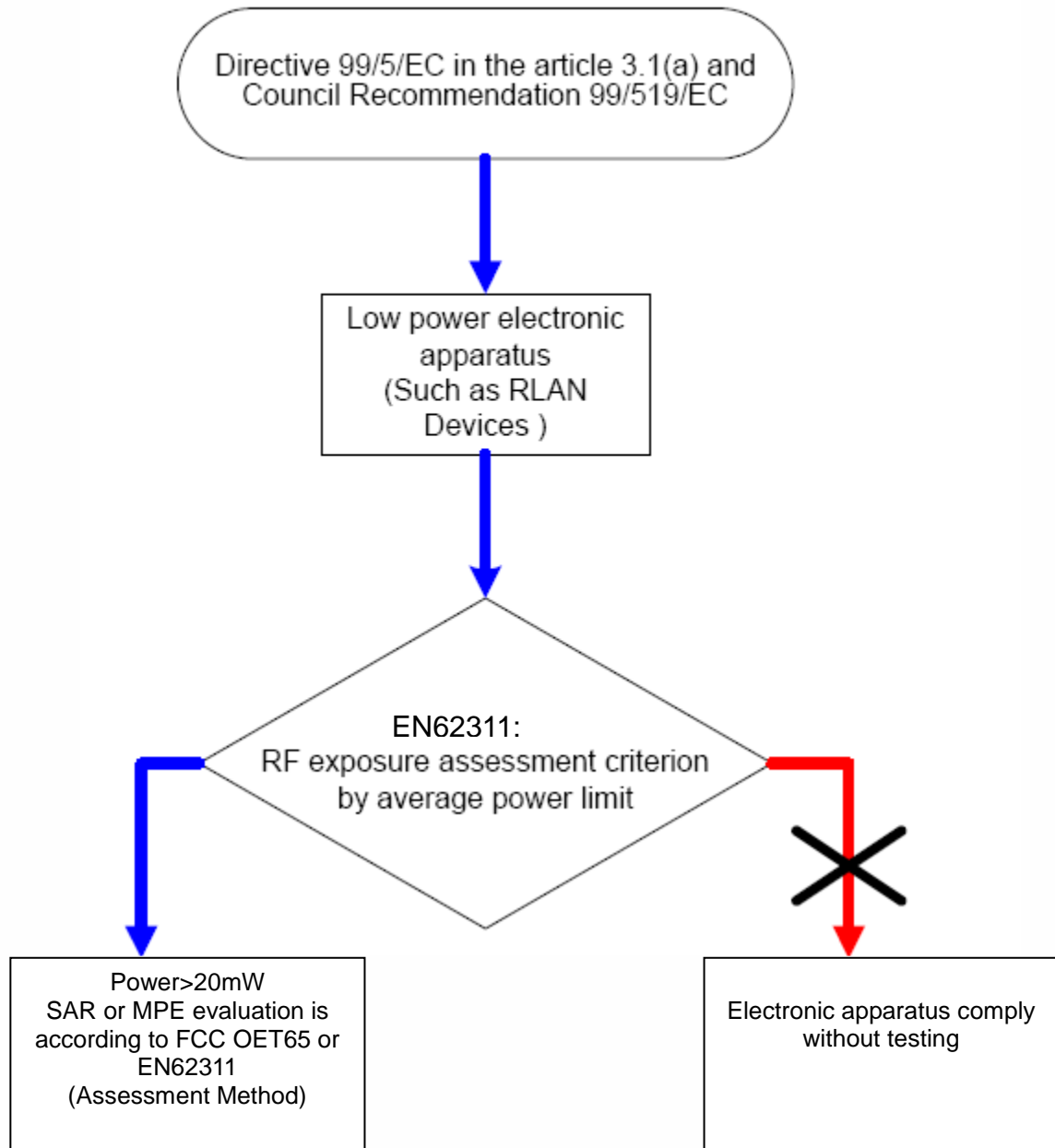
Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μ T)	Equivalent plane wave power density Seq (W/m ²)
0-1 Hz	-	3.2×10^4	4×10^4	-
1-8 Hz	10000	$3.2 \times 10^4 / f^2$	$4 \times 10^4 / f^2$	-
8-25 Hz	10000	$4000 / f$	$5000 / f$	-
0.025-0.8 kHz	$250 / f$	$4 / f$	$5 / f$	-
0.8-3 kHz	$250 / f$	5	6.25	-
3-150 kHz	87	5	6.25	-
0.15-1 MHz	87	$0.73 / f$	$0.92 / f$	-
1-10 MHz	$87 f^{1/2}$	$0.73 / f$	$0.92 / f$	-
10-400 MHz	28	0.073	0.095	2
400-2000 MHz	$1.375 f^{1/2}$	$0.0037 f^{1/2}$	$0.0046 f^{1/2}$	$f / 200$
2-300 GHz	61	0.16	0.2	10

Notes:

- As indicated in the frequency range column.
- For frequencies between 100kHz and 10 GHz, Seq, E2, H2 and B2 are to averaged over any six-minute period.
- For frequencies exceeding 10 GHz, Seq, E2, H2, and B2 are averaged over any 68/1.05-minute period(in GHz).
- No E-field value is provided for frequencies < 1 Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 25 kV/m. Spark discharges causing stress or annoyance should be avoided.

4.2 EVALUATION ROUTINE

Low Power Electronic Apparatus for RF exposure evaluation routine



5. TEST RESULT

5.1 DETAILED RESULTS

5.1.1 Measurement of RF conducted Power

Band WiFi 2.4G	EIRP Power 17.94 dBm
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5.1.2 MPE Evaluation

$$S = \text{EIRP} / 4\pi R^2$$

R = distance to the center of radiation of antenna (in meter) = 0.20 m

Note:

- 1) $\text{EIRP} = P * G * \text{Duty factor}$
- 2) $P \text{ (Watts)} = (10^{(\text{dBm} / 10)}) / 1000$
- 3) $G \text{ (Antenna gain in numeric)} = 10^{(\text{Antenna gain in dBi} / 10)}$
- 4) Duty factor
- 5) $\pi = 3.142$

Mode WIFI	Duty factor 1
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5.1.3 Summary of Results

The maximum power density at a distance of 0.2 m for WIFI is shown as below:

Mode	EIRP Power (dBm)	EIRP Power (W)	Duty factor	Calculated RF Exposure (W/m ²)	Limit (W/m ²)
WIFI 2.4GHz	17.94	0.062	1	0.123	10

5.1.4 Measurement Uncertainty

Extended Uncertainty (k=2) 95% 0.5dB

*** End of Report ***

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