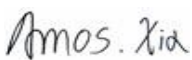




# RF EXPOSURE REPORT



Report No.: 17020065-FCC-H1

Supersede Report No.: N/A

Applicant	SolaX Power Network Technology (Zhe jiang) Co. , Ltd.		
Product Name	Pocket Wifi		
Model No.	Pocket Wifi 2.0		
Serial Model No.	N/A		
Test Standard	FCC 2.1091		
Test Date	May 25 to June 06, 2017		
Issue Date	June 13, 2017		
Test Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail		
Equipment complied with the specification		<input checked="" type="checkbox"/>	
Equipment did not comply with the specification		<input type="checkbox"/>	
			
Amos Xia Test Engineer		Deon Dai Engineer Reviewer	
This test report may be reproduced in full only Test result presented in this test report is applicable to the tested sample only			

Issued by:

**SIEMIC (Nanjing-China) Laboratories**

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## Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

### Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety

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## 1 Report Revision History

Report No.	Report Version	Description	Issue Date
17020065-FCC-H1	NONE	Original	June 13, 2017

## 2 Customer information

Applicant Name	SolaX Power Network Technology (Zhe jiang) Co. , Ltd.
Applicant Add	No.288 Shizhu Road, Tonglu Economic Development Zone,Tonglu City, Zhejiang province, China
Manufacturer	SolaX Power Network Technology (Zhe jiang) Co. , Ltd.
Manufacturer Add	No.288 Shizhu Road, Tonglu Economic Development Zone,Tonglu City, Zhejiang province, China

## 3 Test site information

Lab performing tests	SIEMIC (Nanjing-China) Laboratories
Lab Address	2-1 Longcang Avenue Yuhua Economic and Technology Development Park, Nanjing, China
FCC Test Site No.	986914
IC Test Site No.	4842B-1
Test Software	EZ EMC (Ver.ICP-03A1)

## 4 Equipment under Test (EUT) Information

Description of EUT:	Pocket Wifi
Main Model:	Pocket Wifi 2.0
Serial Model:	N/A
Date EUT received:	May 09, 2017
Test Date(s):	May 25 to June 06, 2017
Output power:	20.01 dBm ( 802.11b )
Antenna Gain:	PCB Antenna: 2 dBi IPEX Antenna:3 dBi
Type of Modulation:	WIFI:802.11b/g/n(20M): DSSS, OFDM
RF Operating Frequency (ies):	WIFI:802.11b/g/n(20M): 2412-2472 MHz
Number of Channels:	WIFI :802.11b/g/n(20M): 13CH
Port:	RS232 Port
Input Power:	DC 2.4-3.6V
Trade Name :	SolaX Power
FCC ID:	2AMEH-POCKETWIFI

## 5 FCC §2.1091 - Maximum Permissible exposure (MPE)

### Applicable Standard

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

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

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz

\* = Plane-wave equivalent power density

### Test Data

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

Where: S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Type	Test mode	CH	Freq (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)
Output power	802.11b	1	2412	19.11	19.5±1
		6	2437	19.31	
		11	2462	19.68	
		12	2467	19.80	
		13	2472	20.01	

For the antenna manufacturer provide only used limited to ERP/EIRP or radiated spurious emission test. The MPE evaluation as below:

### 802.11b

The maximum peak output power (turn-up power) in 2412MHz of WIFI is 20.5dBm

Maximum peak output power (turn-up power) at antenna input terminal: 112.2 (mW)

Prediction distance: >20 (cm)

Predication frequency: 2412(MHz) lowest frequency

Antenna Gain (typical): 3 (dBi)

Antenna Gain (typical): 2.00 (numeric)

The worst case is power density at predication frequency at 20 cm: 0.0445(mW/cm<sup>2</sup>)

MPE limit for general population exposure at prediction frequency: 1 (mW/cm<sup>2</sup>)

0.0445 (mW/cm<sup>2</sup>) < 1(mW/cm<sup>2</sup>)

The maximum peak output power (turn-up power) in 2437MHz of WIFI is 20.5dBm

Maximum peak output power (turn-up power) at antenna input terminal: 112.2 (mW)

Prediction distance: >20 (cm)

Predication frequency: 2437(MHz) lowest frequency

Antenna Gain (typical): 3 (dBi)

Antenna Gain (typical): 2.00 (numeric)

The worst case is power density at predication frequency at 20 cm: 0.0445(mW/cm<sup>2</sup>)

MPE limit for general population exposure at prediction frequency: 1 (mW/cm<sup>2</sup>)

0.0445 (mW/cm<sup>2</sup>) < 1(mW/cm<sup>2</sup>)

The maximum peak output power (turn-up power) in 2462MHz of WIFI is 20.5dBm

Maximum peak output power (turn-up power) at antenna input terminal: 112.2 (mW)

Prediction distance: >20 (cm)

Predication frequency: 2462(MHz) lowest frequency

Antenna Gain (typical): 3 (dBi)

Antenna Gain (typical): 2.00 (numeric)

The worst case is power density at predication frequency at 20 cm: 0.0445(mW/cm<sup>2</sup>)

MPE limit for general population exposure at prediction frequency: 1 (mW/cm<sup>2</sup>)

0.0445 (mW/cm<sup>2</sup>) < 1(mW/cm<sup>2</sup>)



The maximum peak output power (turn-up power) in 2467MHz of WIFI is 20.5dBm  
Maximum peak output power (turn-up power) at antenna input terminal: 112.2 (mW)  
Prediction distance: >20 (cm)  
Predication frequency: 2467(MHz) lowest frequency  
Antenna Gain (typical): 3 (dBi)

Antenna Gain (typical): 2.00 (numeric)  
The worst case is power density at predication frequency at 20 cm: 0.0445(mW/cm2)  
MPE limit for general population exposure at prediction frequency: 1 (mW/cm2)

$0.0445 \text{ (mW/cm}^2\text{)} < 1 \text{ (mW/cm}^2\text{)}$

The maximum peak output power (turn-up power) in 2472MHz of WIFI is 20.5dBm  
Maximum peak output power (turn-up power) at antenna input terminal: 112.2 (mW)  
Prediction distance: >20 (cm)  
Predication frequency: 2472(MHz) lowest frequency  
Antenna Gain (typical): 3 (dBi)

Antenna Gain (typical): 2.00 (numeric)  
The worst case is power density at predication frequency at 20 cm: 0.0445(mW/cm2)  
MPE limit for general population exposure at prediction frequency: 1 (mW/cm2)

$0.0445 \text{ (mW/cm}^2\text{)} < 1 \text{ (mW/cm}^2\text{)}$