

**SPECIFICATION FOR APPROVAL**

**CUSTOMER NAME:** 12W Rx Receiver Module

**CUSTOMER ITEM:** \_\_\_\_\_

**PRODUCT MODEL:** PWS-R3-1201 \_Rev.1.00

**APP Date :** \_\_\_\_\_

<b>APPROVAL SIGNATURE</b>

Please return to us one copy of "SPECIFICATION FOR APPROVAL" with you approved signature.

<b>APPROVED</b>	<b>SALES BY</b>	<b>QUALITY ASSURE</b>	<b>ENGINEERING</b>

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## 1. Scope

1.1 The purpose of the document is to specify the functional requirement of a Wireless Power Supply's Rx Receiver Module

1.2 The Wireless Power supply's Tx Module shall meet the ROHS requirement.

## 2. Product Characteristic

PWS-R3-1201 is a 12W wireless power receiver module: Its conversion efficiency is up to 75% and can provide up to DC 12V/1.0A transmission capacity.
System operation frequency from 50KHz to 500KHz. Once the RX Receiver is identified, the Tx Module will output power by automatic adjustment. Provide the protection of power overload and metal sensing. LED light indicates the working activity.
LED indication light: ① LED is OFF – no power; ② Green LED (LED1) is ON flashing –operating mode;

## 3. Output Characteristics

### 3.1. Static Output Characteristics <Vo & R+N>

Output	Rated Load		Peak Load	Output Range	R+N	Remark
	Min Load	Max Load				
12VDC	0A	1A	1.2A	12V±5%	<200mVpp	

Note: Ripple & Noise: Measurement is done by 20MHz bandwidth oscilloscope and the output paralleled a 0.1uF ceramic capacitor and a 10uF electrolysis capacitor.

### 3.2. Line & Load Regulation

Output	Load Condition		Line Regulation	Load Regulation	Remark
	Min Load	Max Load			
12VDC	0A	1A	±5%	±5%	

## 4. Protection Requirement

### 4.1. Short Circuit Protection

The input power shall decrease when the output is short to GND, the power supply shall not damage, and shall be self-recovery when the fault condition is removed.

### 4.2. Over Current Protection

OCP Point Limited: 120%-150% auto restart

The output shall hiccup when the over current applied to the output, and shall be self-recovery when the fault condition is removed.

## 5. Reliability Requirements

### 5.1 Reliability Test

Test Items	Test conditions	Test quantity
Storage at high temperature test	+80°C 16 Hrs	2PCS
Storage at low temperature test	-20°C 16 Hrs	2PCS
Operating at high temperature test	+45°C 8 Hrs	2PCS
Operating at low temperature test	-20°C 8 Hrs	2PCS
Low Temperature turn on test	EUT should start-up normally after storage at 0°C of 2 hours under minimum input voltage and maximum load.	2PCS
High/low Temperature circle test	45°C(2Hrs)→-40°C(2Hrs)→45°C(2Hrs) →-40°C(2Hrs) Continually work 16 Hours	2PCS
Constant Temperature turn on test	+25 °C 80%RH,continually operating 48 hours	2PCS

### 5.2. Burn-in

4 hours at 40°C (+/-5°C), Nominal input voltage, Nominal load.

### 5.3. Vibration

10 to 300Hz sweep at a constant acceleration of 1.0G (Breadth:3.5mm) for 1Hour for each of the perpendicular axes X,Y,Z

## 6. Environment Requirement

### 6.1 . Operating Temperature and Relative Humidity

0°C to 40°C 20%RH to 80%RH @Sea level shall below or no more than 10000 feet.

### 6.2 . Storage Temperature and Relative Humidity

-30°C to + 70°C 10%RH to 90%RH(non-condensing) @Sea level shall below 30000 feet.

## 7. Photo of Product



### Description:

1. The distance between Tx Coil with PCB and other metal components is Min: 5.0mm
2. The surface distance between Tx Coil and Rx Coil is 3 –5mm.

## 8. Exterior Features

### 8.1. Size

L\*W\*H

PCBA : 46\* 46 \* 6 mm

Coil + Shielding : 50\* 50\*3 mm

## 9. Major Test Equipment

- 9.1. DC Supply
- 9.2. Tx\_Module: JY-T3-0701
- 9.3. ELECTRONIC LOAD
- 10.4. OSCILLOSCOPE
- 10.5. Logical Analyzer