

Wireless Power Plug with Power Meter R809A Data Sheet

Wireless Sensor Network Based on LoRa Technology

Socket type selection



Model based on Socket type

R809A: US type B	R809AG: UK type G
R809AF: EURO type F	R809AI: AU type I



Socket Type Selection

R809A

Copyright©Netvox Technology Co., Ltd.

This document contains proprietary technical information which is the property of NETVOX Technology. It shall be maintained in strict confidence and shall not be disclosed to other parties, in whole or in part, without written permission of NETVOX Technology.

The specifications are subject to change without prior notice.



Wireless Power Plug with Power Meter

General Description

The R809A is a wireless power plug converter for indoor use. It can remotely control the output switch and detect the output power. It integrates the LoRa/FSK modulation communication wireless module SX1276, which can realize wireless remote control.

R809A has a 10A/230VAC output load capability and is primarily used to measure electrical power consumption and wireless switch control.

Main Characteristic

- LoRa/FSK modulation communication, long-distance wireless communication
- Built-in memory for storing power consumption data

Example Applications

- Indoor Only
- Others

Features of NETVOX Sensors

- Wireless range of 10km *1
- Frequency Hopping Spread Spectrum (FHSS)
- LoRaWAN™ Class C compatible
- Improved interference immunity
- Encrypt-RF™ Security (Diffie-Hellman Key Exchange + AES-128 CBC for sensor data messages)
- Over-the-air updates (future)
- Third-Party online wireless sensor monitoring and notification system to configure sensors, view data and set alerts via SMS text and email (optional)
- Available third-party platform: Actility/ThingPark, TTN, MyDevices/Cayenne

*1. Actual range may vary depending on environment.

Wireless Power Plug with Power Meter

Technical Specifications

Electric

Rated working power supply	100-240VAC, 50/60Hz
Typical Operating Current	15mA/220VAC/1W
Typical Load Characteristics	Resistive load: 16A/250VAC; P: 4000VA Inductive load: 8A/220VAC; P: 1760VA (COSφ=0.4) Motor load: 1.5HP/240VAC White Lamp, fluorescent lamp, gold halogen lamp: 3000W/220VAC
Relay Switch Life Times	100,000 times
Current Measurement Accuracy Range	100mA~16A
Energy Measurement Error	<+-1%

* Specific electrical characteristics may vary depending on the power supply voltage.

Frequency

TX Power	19dBm±1dBm
Rx Sensitivity	-136dBm (LoRa, Spreading Factor=12, Bit Rate=293bps) -121dBm (FSK, Frequency deviation=5kHz, Bit Rate=1.2kbps)
Antenna Type	Build-in antenna
Communication Range	10 km (line-of-sight, the actual transmission distance depends on the environment)
Data Transfer Rate	0.3kbps ~ 50kbps
Spread Technique	LoRa/FSK
Available Frequency	US915 AU915 AS923 EU868 KR920 CN470 Configured before shipment

Physical

Dimension	95mm*58mm*42.5mm (without plug part)
Environment Temperature Range	-20°C ~ 50°C
Environment Humidity Range	<90% RH (No condensation)
Storage Temperature	-40°C ~ 85°C

Wireless Power Plug with Power Meter

Contact:**NETVOX TECHNOLOGY CO., LTD.****TEL: 886-6-2617641****FAX: 886-6-2656120****E-mail: sales@netvox.com.tw****WEB: www.netvox.com.tw****NETVOX TECHNOLOGY CO., LTD (XIAMEN)****TEL: 86-592-5717188****FAX: 86-592-5717180****E-mail: dyx@netvox.com.cn****WEB: www.netvox.com.cn**