

# LORA LONG SWITCH

## OVERVIEW:

The Wireless Lora Switch is an innovative solution that allows you to effortlessly control your AC appliances using Lora wireless technology. This device operates on a 5V DC power supply and offers seamless and convenient control over your devices. With the power of Lora wireless technology, you can now control your AC appliances from anywhere within 1KM. Whether you're at distant location, the Wireless Lora Switch enables you to conveniently turn on or off your devices with a Switch.

## FEATURES :

1. **Wireless Communication:** The switch supports wireless communication with a range of up to 1KM using LoRa technology.
2. **Battery Operated:** It can be operated on a rechargeable battery, making it fully battery-operated. The board includes a battery charger to charge the battery. Battery life is 6 to 8 hrs.
3. **User Interface:** The switch has three user-friendly touch sensors for control. There are three LED's for status indication for switch and one LED for battery voltage indication.
4. **AC Device Control:** The switch is designed to control AC devices such as bulbs, motors, pumps etc. It can be used as a single-phase or 3-phase AC device switch.
5. **Power Path Management:** The system has power path management to optimize charging from weak adapters while powering the system.
6. **Frequency range:** 868 MHz
7. **Power Supply:** Lora Driver operates on AC supply. Lora Switch operates on battery which takes 5v dc for charging through USB type C cable.
8. **Switch Outputs:** It provides three-channel switch outputs for controlling appliances. The rated output voltage for AC is 220 to 250v at 50/60Hz.
9. **Connection Blocks:** The output terminals are connected with Push-in termination blocks, providing convenience for connecting and disconnecting appliances.
10. **Easy Communication:** LoRa technology provides long-range communication without requiring cellular or Wi-Fi networks
11. **Operation:** The switch is designed to operate three appliances simultaneously.

## DESCRIPTION:

This product offers a reliable and cost-effective solution for various applications. It can be deployed in sectors such as smart cities, industrial monitoring, agricultural systems and more, where long-range connectivity is essential.

This product uses LoRa which is a wireless modulation technique derived from Chirp Spread Spectrum (CSS) technology. It encodes information on radio waves using chirp pulses .LoRa modulated transmission is robust against disturbances. Data can be transmitted at a longer range compared to technologies like Wi-Fi, Bluetooth or ZigBee.

LoRa, a low-power, wide-area networking (LPWAN) technology, is particularly suitable for long-distance communication in rural areas with limited infrastructure. It enables devices to transmit data over several kilometers while consuming minimal power, making it ideal for remote monitoring and control applications.

## SAFETY PRECAUTIONS:

1. **Electrical Safety:** Exercise caution when working with AC circuits to prevent electric shock or other hazards. Always disconnect and switch off the power supply before working on AC circuitry.
2. **Battery Charging:** When the device is charging, do not remove the battery.
3. **Button Operation:** Do not press the buttons while the operation is ongoing.
4. **Load capacity:** The load capacity is rated at 220-250 volts AC and 5 ampere (5A) for one channel(single phase) and 3 phase 415 volt AC 8 A.

## ORDER PACKAGE LIST:

- LoRa switch Nos1
- LoRa driver Nos1
- Antenna Nos2



Fig 1: Lora Switch.

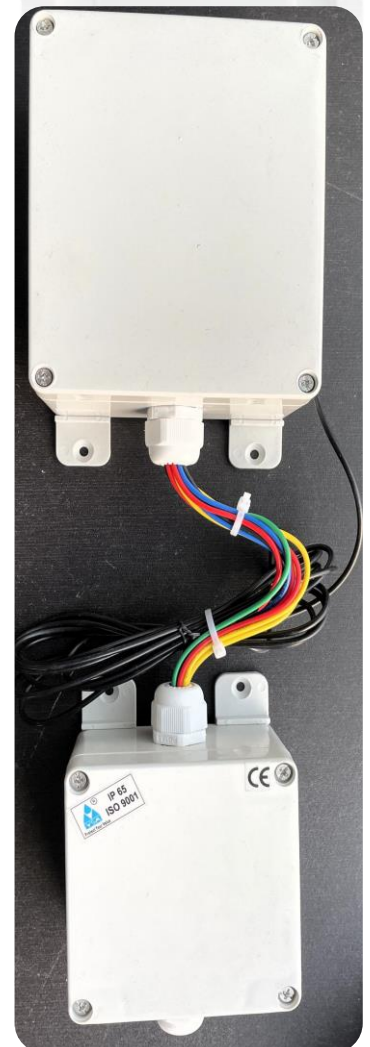


Fig 2: Lora Driver.