

LoRa enabled Smart Energy Meter - Three Phase

Datasheet

Document Version:

SSTPL/ HW/ Smart Energy Meter-3 /1.0

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1. Brief Description

We call these energy meter a “Smart Energy Meter” because we (SSTPL) fixed our LoRa device inside the energy meter and made these energy meters Smart. Our device is responsible for two-way communication. As our device work on LoRaWAN Class C protocol, we can read the energy parameters anytime by sending command to the device through Application. Smart Energy meter can be turned ON, OFF, recharged along with energy parameters by sending commands anytime.

MiniMOD_20 (LoRa node), which is inbuilt in energy meter, is a compact, low cost, low power wide area network (LPWAN) wireless module that supports the Semtech LoRaWAN® long range wireless protocol.

1.1 Features of Energy meter

- EB/DG reading.
- Tariff recharge.
- Overload setting.
- Overload protection upto 2 attempts.
- Relay ON/OFF
- Rechargeable.
- R, Y, B voltage
- R, Y, B current
- Frequency
- Power Factor
- kWh
- kVArh
- kVAh

1.2 Applications

- 3Phase Energy monitoring for domestic and industrial

2. Image of LoRa enabled Energy Meter



3. Specifications of Energy meter

Parameter	Range
Current range	3*(10-60) A
Voltage rating	3*240V
Meter constant	1600imp/kWh
Class	1
Type	AC Static 3Phase ,4Wire
Compliance	IS13779
Frequency	50Hz
Temperature	27°C

LoRa Specification

Parameter	Range
Frequency range	865 to 867 MHz
Modulation	LoRa® Spread-Spectrum
RF output power	Up to 20 dBm
Receiver sensitivity	-137 dBm (SF 12; SB 125 kHz, CR 4/6)
RF data rate	0.24 to 5 kbps
RF range	up to 5000 m (line of sight)
Operating voltage	3 V to 3.7 V, Separate 5V option

4. Important Notice

4.1 Disclaimer

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