

# RL78 Ecosystem Partner Solution

## 3-PHASE SMART METER based on Renesas RL78/I1C-512K MCU



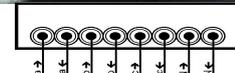
### Solution Summary

JNE's 3-Phase Smart Meter is a ready-to-use solution for smart metering using the onboard RL78/I1C-512K/100Pin MCU chip. 3-Phase meter is designed with low current consumption, low cost meter and high-performance solution for 3 phase metering applications. This would be an ideal solution for advanced metering infrastructure (AMI), Peak Load Management (PLM) including meter demand response. The meter will communicate with HES through GPRS connectivity. This product is built on Renesas RL78 Group MCU which is a fully integrated system with 16bit RL78 CPU core, ultra-low power technology with high speed on chip oscillator correction function, 24-bit A/D converter, reset and supply management, battery chip data transfer controller (DTC), event link controller (ELC), 32 bit multiple-accumulator and backup function, AES function over multiple communication interface.

### Features/Benefits

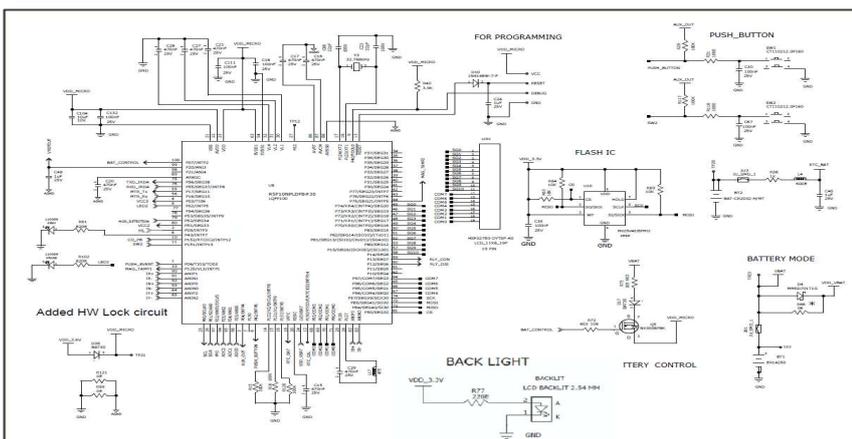
#### 3 Phase 4 Wire Meter Class 1 / Class 0.5S

- Operating Voltage 110-300V (at any Channel)
- Basic current 5A / 10A ,Maximum current 60 / 120A
- Operating Frequency 50 Hz  $\pm$  10%
- LCD display with 7 digits
- RTC accuracy of  $\pm$  5 PPM at 25 $^{\circ}$
- Power consumption as per IS- 16444 (3W/8VA)
- Kwh—impulse output as per IEC 52053-31
- Comms Port protocol as per IEC 52056-21
- Complying IS 15959 part-2 standard for DLMS
- Fundamental to 31st Harmonic measurement
- Bidirectional measurement & Data logging
- Tamper events detection, recording and reporting
- Event logging with active energy, voltage and current snap shots
- Load connection/disconnection through latching relays



(Terminal Connection)

### Diagrams/Graphics



### Target Markets and Applications

- Smart Meter
- Net Metering
- Energy Monitoring
- EV Charger/Station

## JNE Profile

**JN Enterprise( Now New registration JNE Smart technologies Pvt. Ltd.)** is an engineering services & technology solutions provider with core expertise in the *Smart product development like Smart Meter, Embedded Systems, Health product ,EV charger, Smart plug and Cloud Software Services ,Android Apps and help to setup manufacture plant.*

## A Smart Partner for Smart Product & Metering Market Enablers

### JNE Product & Services offering



1P & 3P Smart Meter



Meter Installation App



Head End System



Meter Data Management

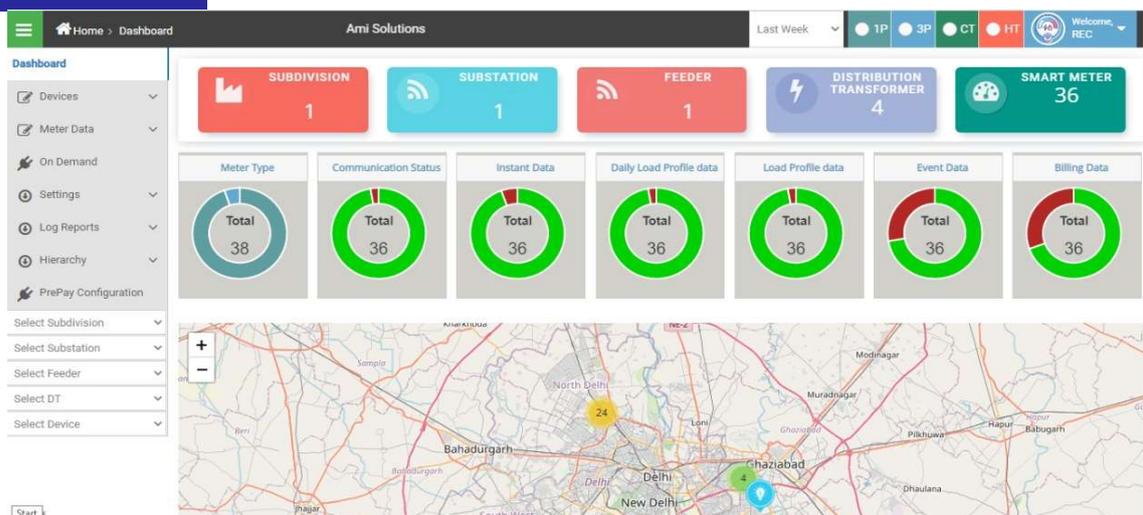


AC Charger



Health Kiosk

### JNE HES Dashboard



## Contact US

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