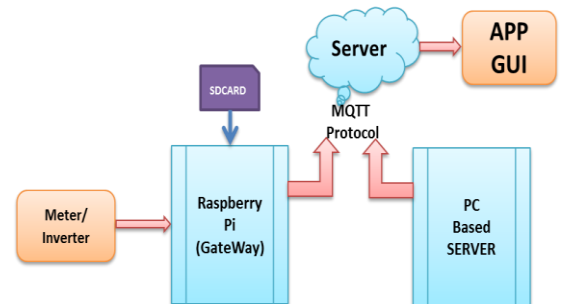


## IoT GATEWAY

### FEATURES

- ☐ IoT Gateway based on Raspberry Pi 3
- ☐ Device Interface - RS232, RS422, RS485, USB
- ☐ Device Protocols - MODBUS, AURORA
- ☐ MQTT protocol based data transmission
- ☐ Supports up to 10 Sensors/Devices
- ☐ Fully Configurable Device Parameters
- ☐ Data Backup & Restoration upon Network outage
- ☐ Webserver & Mobile application for device monitoring and control
- ☐ Modular, customizable and scalable system

### GT-IOT-GW



### APPLICATIONS

- ☐ Remote Energy Monitoring
- ☐ Remote Security monitoring
- ☐ Remote HVAC Monitoring

### DESCRIPTION

This product has been developed as a “generic” sensor data collector and logger using Raspberry Pi 3 B+ which connects to a variety of sensors using Modbus/Aurora/USB/Serial and sends data to a central server for access by various devices.

The system is fully configurable to read the messages from the sensors/smart meters via RS 232, RS 485 interfaces using Modbus/Aurora protocols at predetermined intervals. The device can read up to 4 devices simultaneously. The system uses MQTT protocol for data communication to the cloud server.

Data Analytics of the sensor is performed based on configurable threshold of critical parameters, events raised and customer notified accordingly.

In case of network unavailability, the system stores the information collected from the sensors as backup and transmits upon restoration of network connectivity. This feature is specifically useful when the system has to be installed at remote locations and often have loss of network for few hours/days.

The system comes with webserver to monitor and configure the system parameters securely. Over the Air software upgrade is configured in the system.

The gateway is tested and proven system for devices such as

- ✓ Premier300 Energy Meter (Make: Secure)
- ✓ Elite440 Energy Meter (Make: Secure)
- ✓ Aurora Inverter

Datasheet Ver. 1.0

## TECHNICAL SPECIFICATIONS

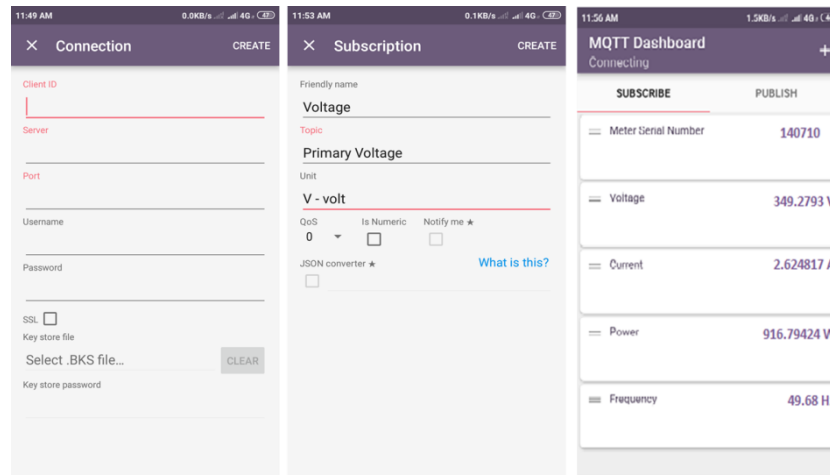
Parameter Name	Parameter Value
Micro-processor	Broadcom BCM2837B0, quad-core A53 (ARMv8) 64-bit SoC @1.4GHz
Display	Graphic LCD Display(As per Requirement)
LED Indicators	Power, Network Health, MODBUS Communication
Date & Time	RTC with backup battery (replaceable) Accuracy: 10 ppm / °C RTC with backup battery (replaceable)
<b>Parameters</b>	
Simultaneous Parameters	up to 200 parameters - including sensor and calculated parameters
Data Rate	1 minute (min) to 24 hours (max)
<b>Communication</b>	
Connectivity	2.4GHz and 5GHz IEEE 802.11 b/g/n/ac wireless LAN, Bluetooth 4.2, BLE
Output Comm	MQTT
Input Interfaces	RS232 Serial RS485 MODBUS RTU & USB Aurora
Devices tested	Premier300 Energy Meter (Make: Secure) Elite440 Energy Meter (Make: Secure) Aurora Inverter
Maximum devices	10
Device Configuration	YAML
<b>STORAGE</b>	
Memory	1GB LPDDR2 SDRAM
External Flash	microSD (upto 32 GB)
<b>ELECTRICAL</b>	
Input Power	5V/2.5A DC via microUSB connector, 5V DC via GPIO header
<b>ENVIRONMENT</b>	
Operating Temperature	0°C - 50°C

## Web Portal and Android Application

A web portal application and a user friendly Android Application is available to allow configuration settings and data retrieval. The Android app allows data viewing only.

Note: The Android app is available ONLY for customers who use Gimbal Technologies Web Services.

Android Application



Web Portal

