



## Features

- LTE + GSM and Ethernet connectivity
- Opto-isolated Modbus RTU interface
- 2 digital inputs with SMS alert option
- Inbuilt website for configuration
- Configuration by SMS, website or server
- Support PoE
- Wide power supply range
- GSM signal strength level indicator
- RX/TX indicators
- TCP/IP and JSON string format
- Modbus data archive in internal memory
- DIN rail mounting

The AG-801 is a Modbus RTU Gateway dedicated to work with remote monitoring systems. It supports two-way communication with server through LTE/GSM or Ethernet. Gateway has isolated Modbus RTU interface to communicate with energy meters, PLCs and other Modbus devices. Can be configured by: internal website, SMS, string from server and configuration file loaded in predefined URL.

Gateway can be used for data acquisition from any Modbus RTU device – parameter measurement, energy meters, consumption measurements, PLC, and remote control of any device like: PLC's, remote pumping system, irrigation equipment, agricultural controls etc.

The AG-801 has an advanced alert option with 10 mobile number list for SMS alerts. In superCap models there is power backup with power loss alert facility.

| Description             | Parameter                                                                                                                                             |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Serial Interface</b> |                                                                                                                                                       |
| Interface Type          | RS485                                                                                                                                                 |
| Data Rate               | 1200bps ~ 460800bps                                                                                                                                   |
| Signals                 | A and B                                                                                                                                               |
| Data Length             | 7, 8 bits                                                                                                                                             |
| Parity                  | Odd, Even, None                                                                                                                                       |
| Stop Bits               | 1, 1.5, 2                                                                                                                                             |
| Flow Control            | None                                                                                                                                                  |
| Connector               | Pluggable screw socket                                                                                                                                |
| Protection              | Opto-isolated 2.5kV RMS per UL 1577<br>IEC 61000-4-2 level 4:<br>– 15 kV (air discharge)<br>– 8 kV (contact discharge)<br>MIL STD 883C-Method 3015-6: |

| Description              | Parameter                                                                      |
|--------------------------|--------------------------------------------------------------------------------|
| <b>Serial Interface</b>  |                                                                                |
|                          | class 3. (human body model)<br>Fail-safe receiver for bus open, short and idle |
| <b>LTE/GSM Interface</b> |                                                                                |
| LTE band FDD             | B1/ B3/ B5/ B7/ B8                                                             |
| LTE band TDD             | B34/B38/B39/B40/B41                                                            |
| GSM band                 | Dual-band 900/1800MHz                                                          |
| Slot                     | GPRS multi-slot class 12/10                                                    |
| Link                     | LTE FDD: Max 10Mbps/5Mbps                                                      |
|                          | LTE-TDD: Max. 8.96Mbps/3.1 Mbps                                                |
|                          | GPRS: Max 107Kbps/85.6Kbps (downlink/uplink max)                               |

| Description                        | Parameter                                                                                                         |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Power                              | Compliant to GSM phase 2/2+<br>- Class 3 (23dBm±2dB) for LTE<br>- Class 4 (2 W 900MHz)<br>- Class 1 (1 W 1900MHz) |
|                                    | MicroSIM, push-pull type holder                                                                                   |
|                                    | 3V/1.8V                                                                                                           |
| Antenna Connector                  | SMA female                                                                                                        |
| <b>Ethernet<sup>1</sup></b>        |                                                                                                                   |
| Number                             | 1                                                                                                                 |
| Type                               | 10/100M ports                                                                                                     |
| PoE                                | PoE (spare pare)                                                                                                  |
| <b>Data to Server Protocol</b>     |                                                                                                                   |
| Protocol type                      | TCP/IP and JSON                                                                                                   |
| Authorisation                      | By authorisation key                                                                                              |
| Communication type                 | Dual way by TCP/IP                                                                                                |
|                                    | One way in JSON (Gateway to server)                                                                               |
| <b>Digital Inputs</b>              |                                                                                                                   |
| Input number                       | 2                                                                                                                 |
| Input type                         | Opto-isolated 2.5kV                                                                                               |
| Voltage range                      | 30V <sub>max</sub>                                                                                                |
| High level                         | 4.5V to V <sub>max</sub>                                                                                          |
| Configuration                      | Separate IN-GND                                                                                                   |
| Connector                          | Pluggable screw socket                                                                                            |
| <b>System Functions Indicators</b> |                                                                                                                   |
| Indicators                         | PWR – power indicator                                                                                             |
|                                    | ACT – activity                                                                                                    |
|                                    | TXD – data indicator                                                                                              |
|                                    | RXD – data indicator                                                                                              |
|                                    | GSM level indicator in 4 LED                                                                                      |
|                                    | Digital input active indicator                                                                                    |
| <b>Software</b>                    |                                                                                                                   |
| OS support                         | Any latest internet browser                                                                                       |
| <b>Power supply</b>                |                                                                                                                   |
| Connector                          | 3 pin (+, -, earthing)<br>Pluggable screw socket                                                                  |
| Power Voltage range                | 8-36V DC                                                                                                          |
| Power consumption                  | 3W average                                                                                                        |
| Protection                         | Reverse polarity                                                                                                  |
|                                    | Over voltage                                                                                                      |
| <b>SuperCAP backup<sup>2</sup></b> |                                                                                                                   |
| Backup time                        | 30 second                                                                                                         |
| Charging time                      | 10 minute (approx)                                                                                                |
| <b>Physical Characteristics</b>    |                                                                                                                   |
| Installation                       | DIN-Rail                                                                                                          |

1 On Ethernet SSL is not available

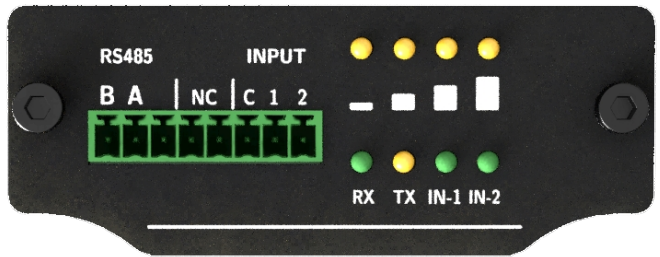
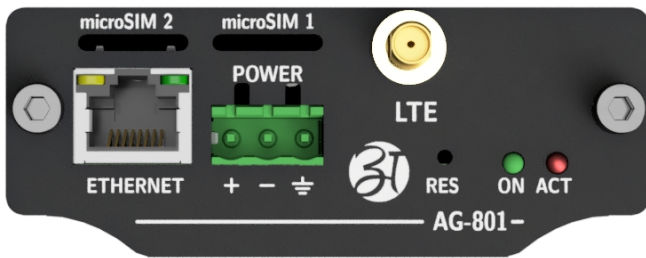
2 Selected SC models only

| Description                        | Parameter                  |
|------------------------------------|----------------------------|
| Housing                            | Aluminium                  |
| Weight                             | 260g                       |
| Dimensions (W x H x D)             | 88mm x 35mm x 87mm         |
| <b>Environmental Specification</b> |                            |
| Operating Temp.                    | -25 ~ 75°C (-13 ~ 167°F)   |
| Storage Temp.                      | -40 ~ 85°C (-40 ~ 185°F)   |
| Ambient RH                         | 5% to 95% (non-condensing) |

Model selection chart

Ordering model selection chart

| Models       | Hardware Options |     |          |
|--------------|------------------|-----|----------|
| Model        | Mobile           |     | Backup   |
| AG-801       | GPRS             | LTE | SuperCAP |
| AG-801-GS    | ✓                |     |          |
| AG-801-LT    |                  | ✓   |          |
| AG-801-LT-SC |                  | ✓   | ✓        |



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