TECHNICAL SPECIFICATION

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SOLUTIONS THAT SIMPLIFY

Modbus RTU gateway with LTE and GSM	AG-821

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-821 is a Modbus RTU Gateway for remote monitoring and control systems. It support two-way communication with server trough LTE/GSM or Ethernet. Gateway can be use to remote control and data acquisition from Modbus device like: PLC, HMI, energy meter, solar inverter, environmental sensor, irrigation equipment, machine control system etc. It can be configured by: internal website, SMS, string from server and configuration file loaded in predefine URL.

The AG-821 has alert option with predefine mobile number list for SMS alerts and access to configuration of device. In superCap models there is power backup with power loss alert facility.

Description	Parameter
Serial interface	
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
	IEC 61000-4-2 level 4: – 15 kV (air discharge) – 8 kV (contact discharge) MIL STD 883C-Method 3015-6: class 3. (human body model)
	Fail-safe receiver for bus open,

Description	Parameter
Serial interface	
	short and idle
LTE/GSM interface[1]	
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)
Power	Compliant to GSM phase 2/2+ – Class 3 (23dBm±2dB) for LTE

1 LTE/GSM Bands are mentioned for IN version of LTE modem. For EU and GL please contact support.

Description	Parameter
LTE/GSM interface	
	– Class 4 (2 W 900MHz)
	– Class 1 (1 W 1900MHz)
SIM card	MicroSIM, push-pull type holder
	3V/1.8V
Antenna connector	SMA female
Ethernet[2]	
Number	1
Type	10/100M ports
PoE	PoE (spare pare)
Data to server protocol	
Protocol type	TCP/IP and JSON
Authorisation	By authorisation key
Communication type	Dual way by TCP/IP
	One way in JSON (Gateway to server)
Digital inputs	
Input number	2
Input type	Opto-isolated 2.5kV
Voltage range	$30V_{max}$
High level	4.5V to V_{max}
Configuration	Separate IN-GND
Connector	Pluggable screw socket
System Functions indicators	
Indicators	PWR – power indicator
	ACT – activity
	TXD – data indicator
	RXD – data indicator
	LTE – network status
	GSM level indicator in 4 LED
	Digital input active indicator
Software support	
OS support	Any latest internet browser for configuration
Power supply	
Connector	Pluggable screw socket
Power Voltage range	8-36V DC
Power consumption	3W average
Protection	Reverse polarity
	Over Voltage
SuperCAP backup[3]	
Backup time	30 second
Charging time	10 minute (approx)
Physical characteristics	

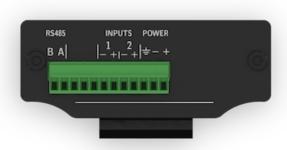| Description	Parameter
Installation	DIN-Rail
Housing	Aluminium
Weight	240g
Dimensions	88mm x 87mm x 35mm
Environmental specification	
Operating temp.	-25 ~ 75°C (-13 ~ 167°F)
Storage temp.	-40 ~ 85°C (-40 ~ 185°F)
Ambient RH	5% to 95% (non-condensing)

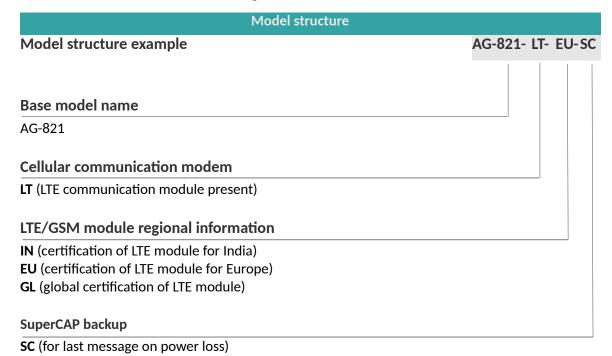2 On Ethernet SSL is not available in current firmware
3 Selected SC models only

Gateway

Selected model list

Models	Hardware Options	
A-821	**Mobile**	**Backup**
	LTE	**SuperCAP**
AG-821-LT-IN	√	
AG-821-LT-EU	√	
AG-821-LT-GL	√	
AG-821-LT-IN-SC	√	√
AG-821-LT-EU-SC	√	√
AG-821-LT-GL-SC	√	√

Table with model structure for ordering

Model structure
Model structure example   **AG-821- LT- EU- SC**

Base model name

AG-821

Cellular communication modem

LT (LTE communication module present)

LTE/GSM module regional information

IN (certification of LTE module for India)
EU (certification of LTE module for Europe)
GL (global certification of LTE module)

SuperCAP backup

SC (for last message on power loss)

For more details scan or clink on QR code

Disclaimer

- All dimensions mentioned in the drawings are not to scale and may vary/differ due to construction contingencies and site conditions which are subject to change as may be decided by the company.
- The specifications and amenities mentioned in this document and promotional documents are only representational and informative. The descriptions in this specification are based on the default configuration of your device.
- Images used in this specification may differ in appearance from the actual product.
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