TECHNICAL SPECIFICATION

ATREYO
SOLUTIONS THAT SIMPLIFY

Customisable IoT Gateway

AG-1115

Features

- LTE and GSM connectivity
- Dual SIM support
- 2 independent NO outputs
- Opto-isolated RS485
- 4 opto-isolated digital inputs
- 230V AC detection input
- Analogue input
- GNSS for accurate time and location
- Battery/superCAP backup option
- Indicators and SIM accessible from the front
- Aluminium compact size casing
- DIN rail or panel mounting (options)

AG-1115 is a gateway designed for a customers who requires low cost gateway with custom software for their application. The gateway has opto-isolated RS485, digital inputs and outputs, one analog input and LTE/GPRS communication with SMS support. Gateway software is created according to specific customer requirements. The gateway is designed to monitor and control the remote energy switches, electricity meters, etc. It can be adapted to control any RS485 / modbus based device. Atreyo offers software development services in accordance with the client's requirement.

Description	Parameter
Main CPU	
Processor	500 MHz Cortex A5
RAM	128 MB
Storage	64 MB
microSD	optional
Serial Interface	
Interface type	RS485
Signals	A and B
Baud-rate	Configurable 2400kbps to 921600kbps
Connector	Pluggable push-in socket
Protection	Opto-isolated 2.5kV RMS per UL 1577
	IEC 61000-4-2 level 4: – 15 kV (air discharge)
	– 8 kV (contact discharge)
LTE/GSM Interface	
Band LTE FTD	B1/B3/B5/B8
Band LTE TDD	B34/B38/B39/B40/B41
Band GSM	900/1800MHz
GPRS slot	Multi-slot class 12/10
Link	GPRS class 12: max. 85.6 kbps (downlink/uplink)
Power	Compliant to GSM phase 2/2+ – Class 4 (2 W 900MHz) – Class 1 (1 W 1800MHz)
SIM card	2x MicroSIM, push-pull type holder
	3V/1.8V

Description	Parameter
Antenna connector	SMA female
GNSS	
GNSS systems	GPS, BAIDOU
Data to Server Protocol	
Protocol type	MQTT, TCP/IP or JSON
Encryption support	SSL (TLS1.2)
Digital Inputs	
Input number	4x 30V DC and 1x 230V AC
Input type	Opto-isolated 2.5kV
Configuration	Separate IN-GND
Connector	Pluggable push-in socket
Analogue Input	
Input type	Analogue up to 30V DC
Connector type	Pluggable push-in socket
Relay Outputs	
Output number	2
Output type	NO (normal open)
$Load_{max}$	3A 230V AC or 3A 30V DC
Connector	Pluggable screw socket
System Functions Indicators	
Indicators	ACT – activity
	NET status
	NET mode
	Digital output indicators
	Digital input active indicator
Configuration and System	
Configuration method	SMS
	UART (isolated)
Power Supply	
Connector	Pluggable push-in socket
Power Voltage range	8-36V DC
Power consumption	3W average
Protection	Reverse polarity
	Over voltage
Battery backup[1]	
Battery type	Li-Ion (18650)
Battery voltage	3.4V
Backup time	24h (approx, with relay off) [2]
Battery protection	Over voltage, over temperature, low battery
Configuration UART	
Interface type	Opto-isolated UART

Description	Parameter
Connector type	RJ11
Physical Characteristics	
Installation	DIN-Rail
Housing	Aluminium
Weight	360g (without battery model)
Dimensions	135×38×75mm
Environmental Specification	
Operating temp.	-25 ~ 75°C (-13 ~ 167°F) (without battery model)
Storage temp.	-40 ~ 85°C (-40 ~ 185°F)
Ambient RH	5% to 95% (non-condensing)

1 Selected BAT model only.
2 In testing condition. Data sending every 5 minutes.

Ordering model selection chart

Models	Hardware Options			
AG-1115	Cellular		Backup	
	GPRS	LTE	Battery	SuperCAP
AG-1115	√	√		
AG-1115-BAT	√	√	√	
AG-1115-SC	√	√		√

DIN rail version

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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