

Item no.: 385244

AIG-301-AZU-LX - Extended IIoT gateway with 2 ports for Modbus to Azure

from **782,48 EUR**

Item no.: 385244
shipping weight: 0.60 kg
Manufacturer: MOXA



Product Description

2-Port Modbus to Azure advanced IIoT Gateways with Arm® Cortex™-A7 Dual-Core 1 GHz processor, Azure IoT Edge, -20 to 70°C operating temperature

Computer CPU: Armv7 Cortex-A7 Dual-Core 1 GHz
DRAM: 2 GB DDR3L
Memory Pre-installed: 16 GB eMMC
Pre-installed operating system: Moxa Industrial Linux (Debian 9, Kernel 4.4)
Number of supported tags: 2048
Computer interface TPM: TPM v2.0
USB 2.0: USB 2.0 hosts x 1, Type-A connectors
Cellular antenna connector: SMA x 2 (except AIG-301-AZU-LX/T-AZU-LX models)
GPS antenna connector: SMA x 1 (except AIG-301-AZU-LX/T-AZU-LX models)
Expansion slots: AIG-301-CN-AZU-LX/T-CN-AZU-LX: mPCIe slot x 2; All other models: mPCIe slot x 1
Buttons: reset button; reset to factory settings
Digital input: DI x 4
Digital output: DO x 4
Number of SIMs: 2
SIM format: Nano (except AIG-301-AZU-LX/T-AZU-LX models)
Ethernet interface
Magnetic isolation protection: 1.5 kV (built-in)
10/100/1000BaseT(X) ports (RJ45 connector): 2
Ethernet software functions
Industry protocols: Modbus TCP Client (Master); Generic MQTT; Azure IoT Device; AWS IoT Core; Azure IoT Edge; OPC UA Server; Sparkplug B Client
Configuration options: Web console (HTTP/HTTPS); ThingsPro proxy utility
Time management: NTP server/client; GPSSerial interface
Console connection: 1 x 4-pin header
Number of ports: 2
Connection: DB9 connector
Baud rate: 300 bps to 921.6 kbps
Data bits: 7, 8
Flow control: ADDC (automatic data direction control) for RS 485, RTS/CTS, XON/XOFF
Parity: None, Even, Odd, Space, Mark
Stop bits: 1, 2
Serial signals RS-232: Tx+, Tx-, Rx+, Rx-, GND
RS-422: Tx+, Tx-, Rx+, Rx-, GND
RS-485-2w: Data+, Data-, GND
RS-485-4w: Tx+, Tx-, Rx+, Rx-, GND
Serial software functions
Industry protocols: Modbus RTU/ASCII Master
CAN interface
Number of ports: 1
Connector: DB9 connector
Baud rate: 10 to 1000 kbps
Industrial protocols: CAN 2.0A; CAN 2.0B
Signals: CAN_H, CAN_L, CAN_GND, CAN_SHLD, CAN_V+, GND
Insulation: 2 kV (built-in)
Digital inputs
Plug: Spring-loaded Euroblock terminal
Sensor type: Wet contact (NPN); dry contact
Dry contact: Off: open; On: short circuit to GND
Wet contact (DI to COM): On: 10 to 30 VDC; Off: 0 to 3 VDC
Isolation: 3K VDC
Digital outputs
Connector: Spring-loaded Euroblock terminal
Rated current: 200 mA per channel
O type: Sink
Voltage: 24 VDC nominal, open collector up to 30 VDC
Cellular interface
Cellular standards: LTE Cat. 4
Band options (US): LTE Band 2 (1900 MHz) / LTE Band 4 (1700 MHz) / LTE Band 5 (850 MHz) / LTE Band 12 (700 MHz) / LTE Band 13 (700 MHz) / LTE Band 14 (700 MHz) / LTE Band 66 (1700 MHz) / LTE Band 71 (600 MHz)
UMTS/HSPA 850 MHz / 1900 MHz
Carrier Approval: Verizon, AT&T
Band options (EU): LTE Band 1 (2100 MHz) / LTE Band 3 (1800 MHz) / LTE Band 7 (2600 MHz) / LTE Band 8 (900 MHz) / LTE Band 20 (800 MHz)
UMTS/HSPA 900 MHz / 1800 MHz / 2100 MHz
Band options (APAC): LTE Band 1 (2100 MHz) / LTE Band 3 (1800 MHz) / LTE Band 5 (850 MHz) / LTE Band 8 (900 MHz) / LTE Band 28 (700 MHz)
UMTS/HSPA 850 MHz / 900 MHz / 2100 MHz
GPS interface
Receiver types: GPS/GLONASS/BeiDou/Galileo/QZSS
Accuracy: 0.8 m
Acquisition: -147 dBm
Sensitivity: Cold start: -145 dBm; Tracking: -160 dBm
LED indicators
System: Power x 2; User x 1; SIM card indicator x 1
LAN: 2 per port (10/100/1000 Mbps)
Wireless signal strength: Cellular/Wi-Fi x 6
Azure IoT Edge
Supported versions: v1.4.10
Authentication methods: Manual / Connection string; DPS / TPM; DPS / Symmetric encryption; DPS / X.509-Certificate
Azure Direct Methods: Reboot; Software Upgrade; Remote API Invocation
Azure Module Twin: Device Configuration
Moxa Functions: Custom Payload; Message Group
Sparkplug B Client
Supported Versions: v2.2
Node Commands (NCMD): Next Broker; Reboot; Rebirth
Moxa Functions: Store and Forward; Custom Payload
OPC UA Server
Number of client connections: 10
Security: Signing and encryption with the Basic128Rsa15, Basic256 and Basic256Sha256 guidelines
User authentication and authorisation: User name/password
Supported profiles: OPC UA v1.02
Number of supported tags: 1024
Generic MQTT client
Supported versions: v3.1.1; v3.1
QoS levels: 0, 1, 2
Authentication methods: Username and password
Secure transmission: TLS 1.0; TLS 1.1; TLS 1.2
Native capabilities: Keep Alive; Retain Message; Clean Session; Will and Testament
Moxa functions: Store and Forward; Custom Payload; Remote API Call
Azure IoT Device
Supported Connection Protocols: MQTT; MQTT over WebSockets; AMQP; AMQP over WebSockets
Authentication Methods: Symmetric Key; X.509 Certificate
Azure Direct Methods: Reboot; Software Upgrade; Remote API Invocation
AWS IoT Core
QoS Levels: 0, 1
Authentication Methods: X.509 Certificate; Private Key; Trusted Root CA
Native Capabilities: Keep Alive
Moxa features: Store and Forward; Custom Payload
Commands callable via jobs: Restart; Software upgrade; Remote API call
Modbus RTU/ASCII
Mode: Master
Supported functions: 1, 2, 3, 4, 5, 6, 15, 16, 23
Max. number of commands: 256 per connection
Max. number of connected devices: 62
Modbus TCP
Mode: Client (Master)
Supported functions: 1, 2, 3, 4, 5, 6, 15, 16, 23
Max. number of server connections: 64
Max. number of commands: 2048
Max. number of commands: 2048
Performance parameters
Number of power inputs: Redundant dual inputs
Input voltage: 12 to 48 VDC
Power connection: 4-pin terminal strip
Power consumption: AIG-301-AZU-LX/T-AZU-LX: 4.8 W
AIG-301-CN-AZU-LX/T-CN-AZU-LX: 6.0 W
All other models: 8.4 W
Input current: AIG-301-AZU-LX/T-AZU-LX: 0.4 A @ 12 VDC
AIG-301-CN-AZU-LX/T-CN-AZU-LX: 0.5 A @ 12 VDC
All other models: 0.7 A @ 12 VDC
Reliability
Automatic reboot trigger: External WDT (watchdog timer)
Physical characteristics
Housing: Metal; SECC
Installation: DIN rail mounting; wall mounting (with optional kit)
IP rating: IP30
Weight: AIG-301-AZU-LX/T-AZU-LX: 560 g (1.23 lb)
AIG-301-CN-AZU-LX/T-CN-AZU-LX: 745 g (1.64 lb)
All other models: 750 g (1.65 lb)
Dimensions: AIG-301-AZU-LX/T-AZU-LX: 141.5 x 120 x 27 mm (5.7 x 4.72 x 1.06 in.)
All other models: 141.5 x 120 x 39 mm (5.7 x 4.72 x 1.54 in.)
Environmental limits
Operating temperature: Standard Temp. Models: AIG-301-US-AZU-LX, AIG-301-EU-AZU-LX, AIG-301-APAZULX, AIG-301-CN-AZU-LX: -20 to 70°C (-4 to 158°F)
AIG-301-AZU-LX: -20 to 85°C (-4 to 185°F)
Wide Temp. Models: AIG-301-T-US-AZU-LX, AIG-301-T-EU-AZU-LX, AIG-301-T-APAZU-LX, AIG-301-T-CN-AZU-LX: -40 to 70°C (-40 to 158°F)
AIG-301-T-AZU-LX: -40 to 85°C (-40 to 185°F)
Storage temperature (including packaging): -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)
Shock: IEC 60068-2-27
Vibration: 2 Grms @ IEC 60068-2-64, random wave, 5 to 500 Hz, 1 hr. per axis (without USB devices connected)
Standards and certifications
EMC: EN 55032/35; EN 61000-6-2/-6-4
EMI: CISPR 32, FCC Part 15B Class A
EMS: IEC 61000-4-2 ESD; Contact: 4 kV; Air: 8 kV
IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m
IEC 61000-4-4 EFT; Power: 2 kV; Signal: 1 kV
IEC 61000-4-5 Surge; Power: 1 kV; Signal: 1 kV
IEC 61000-4-6 CS: 10 VIEC 61000-4-8 PFMFSafety: UL 62368-1; EN 62368-1
Radio: NCC; KC; RCM
Carrier approvals: AT&T; Verizon; PTC
BRED: EN 301 489-1/17/19/52; EN 301 908-1; EN 303 413; EN 62311
Green product: RoHS, CRoHS, WEEE
Hazardous areas: Class I Division 2, ATEX
MTBF Time: AIG-301-AZU-LX/T-AZU-LX: 794,092 hours
AIG-301-US-AZU-LX/T-US-AZU-LX, AIG-301-EU-AZU-LX/T-EU-AZU-LX, AIG-301-AP-AZU-LX/T-AP-AZU-LX: 683,818 hours
Standards: Telcordia (Bellcore) Standard TR/SR

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