

Item no.: 385243

## **AIG-301-AP-AZU-LX - Advanced IIoT gateways with 2 ports for Modbus to Azure**

**from 1.139,29 EUR**

Item no.: 385243  
shipping weight: 0.80 kg  
Manufacturer: MOXA



 [Product Description](#)

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Moxa's advanced IIoT gateways are designed for distributed and unmanned sites in harsh operating environments. The IIoT gateways offer seamless integration with various cloud applications such as Azure, making it easy to collect and analyse data from industrial devices. The IIoT gateways are programmable and offer versatile, customised solutions that meet the specific requirements of different industrial applications. 2-Port Modbus to Azure advanced IIoT gateways with Arm® Cortex™-A7 dual-core 1 GHz processor, Azure IoT Edge, LTE Cat. 4 module for the Asia-Pacific region, -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 tags supported: 2048 Computer interface- TPM: TPM v2.0- USB 2.0: USB 2.0 hosts x 1, Type-A connectors- Wi-Fi antenna connector: RP-SMA x 2- 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- Industrial 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- Connector: 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- I/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 Basic128Rsa15, Basic256 and Basic256Sha256 policies- User authentication and authorisation: Username/password- Supported profiles: OPC UA v1.02- Number of tags supported: 1024 Generic MQTT Client- Versions supported: 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 features: 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: Reboot; Software Upgrade; Remote API Invocation Modbus RTU/ASCII- Mode: Master- Functions Supported: 1, 2, 3, 4, 5, 6, 15, 16, 23- Max. No. of Commands: 256 per port Modbus TCP- Mode: Server (Slave), Client (Master)- Functions Supported: 1, 2, 3, 4, 5, 6, 15, 16, 23- Max. No. of Client Connections: 4- Max. No. of Server Connections: 64- Max. No. of Commands: 1500 Power Parameters- No. of Power Inputs: Redundant Dual Inputs- Input Voltage: 12 to 48 VDC- Power Connection: 4-pin terminal block- Power consumption: AIG-301-AZU-LX/T-AZU-LX: 4.8 W- All other models: 8.4 W- Input current: AIG-301-AZU-LX/T-AZU-LX: 0.4 A @ 12 VDC- All other models: 0.7 A @ 12 VDC Reliability- Automatic reboot trigger: external WDT (watchdog timer) Physical properties- Housing: metal; SECC- Installation: DIN rail mounting; wall mounting (with optional kit)- IP protection class: 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.) Ambient limits 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-APAZULX, 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 V IEC 61000-4-8 PFMF- Safety: UL 62368-1; EN 62368-1- Radio: NCC; KC; RCM- Carrier approvals: AT&T; Verizon; PTCRB- RED: 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 M TBF- 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/TAP-AZU-LX: 683,818 hrs- Standards: Telcordia (Bellcore) Standard TR/SR

## Specifications

Scan this QR code to view the product  
All details, up-to-date prices and availability

