

UAX300 Data Sheet

MEASURESPHERE GATE

Industrial IoT Gateway & Web Logger

**One industrial edge platform.
Three licensed configurations.**

Measuresphere Gate UAX300 is a software-defined industrial IoT gateway deployed on an industrial-grade ARM computing platform. The underlying hardware platform is sourced from a specialized industrial computer manufacturer and integrated and configured with the Measuresphere Gate application for practical OT-to-IT connectivity.



AT A GLANCE

Built for practical edge connectivity

4

Isolated serial interfaces

2 × RS-485 plus 2 × switchable RS-232/485 serial ports

2

Ethernet Ports

Dual auto-sensing 10/100 Mbps Ethernet ports

4G

Optional GSM connectivity

Optional cellular module, Micro-SIM slot and SMA antenna

HA

OPC UA Historical Access

Designed to buffer up to 1,000 timestamped values per channel for compatible HA clients.

24h

Live web trending

Current values and a rolling 24-hour visual trend for straightforward operational visibility.

-35

Industrial operating range

Specified hardware operating range from -35 °C to +80 °C in a compact IP30 metal enclosure.

One platform. Three ways to deploy.

Functions are enabled by licensed software configuration.

GATEWAY

Protocol Gateway

Acquire Modbus RTU, Modbus TCP and SNMP data; expose mapped values through OPC UA Server and BACnet/IP Server services.

WEB LOGGER

Modbus and SNMP Web Datalogger

Collect, store and publish field values through a browser dashboard with daily files, alarm thresholds and email notification.

DUAL

Combined

Run protocol delivery and lightweight web logging together on the same edge platform, subject to licensed configuration and system load.

SOFTWARE-DEFINED EDGE

Choose the functions the application needs

Protocol Gateway configuration

LICENSED OPTION

FIELD / SOURCE PROTOCOLS

RS-485 Slave



RS-485 Master

Ethernet Server



Ethernet Client

Ethernet Server

SNMP

Supported versions: V2.- V3



OPC UA Server + HA

BACnet Server

CLIENTS

OPC UA Client

BACnet Client

Embedded Web UI

Add channels and configure mappings, polling, network, device, time and communication settings in a browser.

Modbus acquisition

Modbus RTU Client (Master) over isolated RS-485 and Modbus TCP Client over Ethernet.

Validated scale

Successful internal operation has been observed with configurations up to 1,000 data points. Actual capacity varies.

Protocol delivery

Mapped values are published through OPC UA Server and BACnet/IP Server interfaces.

OPC UA Historical Access 1000

Designed buffer capacity of up to 1,000 timestamped values per channel can help bridge temporary interruptions between the gateway and the OPC UA client. Historical recovery requires the receiving client to support and request OPC UA Historical Access; non-HA clients receive live values only.

Web Logger configuration

LICENSED OPTION

Connect. Configure. Monitor.

A practical web data logger for applications such as cold rooms, warehouses, environmental monitoring, utility rooms, basic data-center supervision and SNMP-based UPS monitoring—without building a full SCADA system.

1 Connect field devices

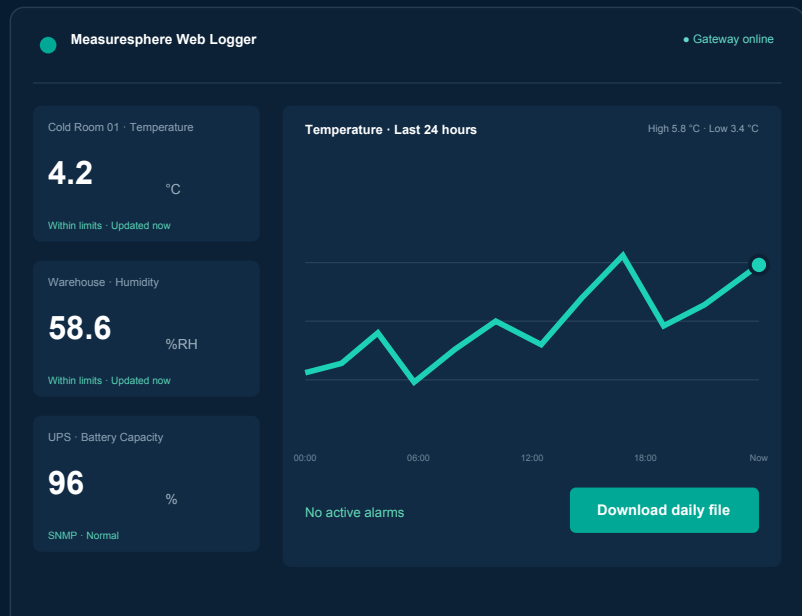
Collect sensor and equipment data over Modbus RTU, Modbus TCP or SNMP.

2 Configure in the Web UI

Add channels, logging intervals, per-channel high/low thresholds, email settings and network parameters.

3 View and retrieve

See current values and rolling 24-hour trends; download Excel-compatible daily files generated automatically at device midnight.



Ethernet

Optional 4G LTE

Modbus / SNMP reads

High / Low alarms

Excel Report

Email notifications

Cellular web access requires a suitable SIM/data plan and network addressing; a static public IP may be required depending on deployment.

Combined configuration

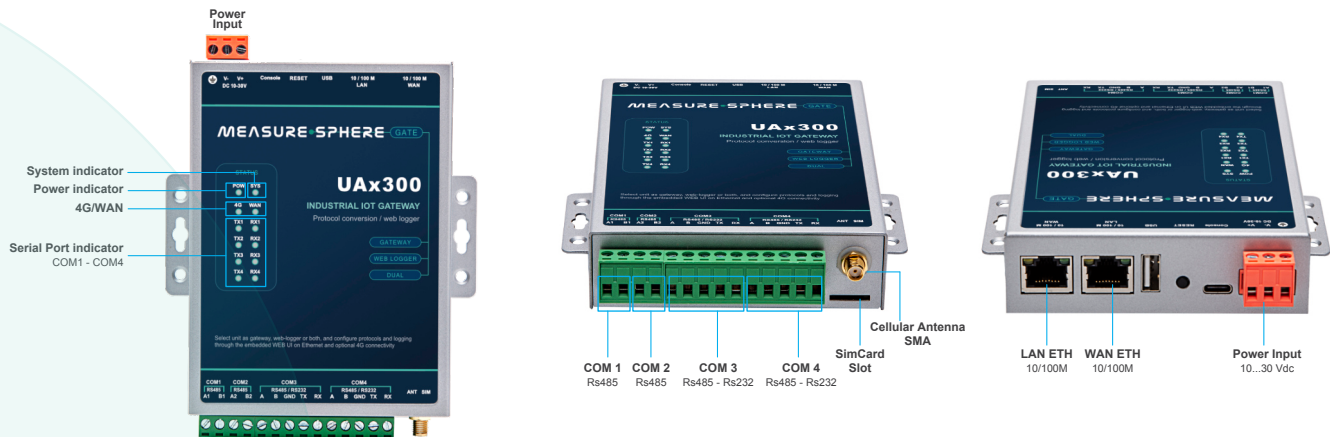
Server Protocol services and Web Logger functions can be enabled together. Final channel count, polling rate and logging performance depend on protocol mix, network conditions, storage use and licensed features.

HARDWARE PLATFORM

Connections and technical specifications

Appearance and interface reference

Connector layout



Hardware Specifications

SYSTEM		POWER	
CPU	Armv7 quad-core Cortex-A9 @ 1.4 GHz	Input	10–30 VDC; 12 VDC / 1.5 A recommended
Memory	512 MB DDR3; (1 GB optional)	Consumption	6 W average; 10 W peak
Internal storage	8 GB eMMC	Protection	Overvoltage and reverse-polarity protection; 4 kV surge; ESD ±15 kV IEC 61000-4-2 air discharge / HBM
Storage expansion	1 × TF / microSD slot, up to 128 GB (*)		
SERIAL INTERFACES		INDICATORS AND RELIABILITY	
Isolated ports	2 × RS-485 + 2 × switchable RS-232/485	LED indicators	Power ×1; programmable system ×1; cellular/WAN ×1; WAN ×1; COM TX/RX ×8
Protection	4 kV surge; ESD ±15 kV IEC 61000-4-2 air discharge; ESD ±15 kV human body model	Buzzer	Built-in programmable warning buzzer (*)
		RTC	Built-in real-time clock with CR2032 backup battery
		Watchdog	Built-in watchdog timer for automatic recovery
ETHERNET		MECHANICAL AND ENVIRONMENTAL	
Ethernet ports	2 × auto-sensing 10/100 Mbps	Dimensions	128.8 × 117 × 28 mm (L × W × H)
Protection	2 kV surge; ESD ±15 kV IEC 61000-4-2 air discharge; ESD ±15 kV human body model	Housing / weight	IP30 metal enclosure; 470 g (1.04 lb)
		Installation	35 mm DIN-rail or wall mounting
		Humidity	5–95% RH, non-condensing
		Operating temp.	–35 to +80 °C
		Storage temp.	–35 to +80 °C, packaged
GSM CONNECTIVITY OPTION		REFERENCE COMPLIANCE · HARDWARE PLATFORM	
Module slot	1 × mini PCIe socket for cellular	CE reference	EN 55032/35; IEC 61000-4-2/3/4/5/6; IEC 62368-1; IEC 62311
SIM / antenna	1 × Micro-SIM; 1 × SMA female connector	FCC	FCC Part 15, Class B, 47 CFR 15.247
Cellular · NA	LTE-FDD B2/B4/B5/B12/B13/B14/B66/B71; WCDMA B2/B4/B5	RoHS	IEC 62321-3/4/5/6/7/8
Cellular · EMEA/APAC	LTE-FDD B1/B3/B7/B8/B20/B28A; LTE-TDD B38/B40/B41; WCDMA B1/B8; GSM B3/B8		
Cellular · ANZ/LATAM	LTE-FDD B1/B2/B3/B4/B5/B7/B8/B28; LTE-TDD B40; WCDMA B1/B2/B4/B5/B8; GSM B2/B3/B5/B8		
GSM Modem	Quectel EC25		
USB AND OTHER INTERFACES		PACKAGE AND SUPPORT	
USB host	1 × USB 2.0; 5 V @ 500 mA, software-controllable (*)	Standard package	1 × UA300 with terminal block and 35 mm DIN-rail kit
Console	1 × UART console via USB Type-C connector (*)	GSM version	1 × Mag-mount antenna, (SMA male, 1 m cable, stated 12 dBi); only with configured cellular
Button	1 × reset / reboot function button	Warranty	1 year
		Support	info@measuresphere.com

UPDATING

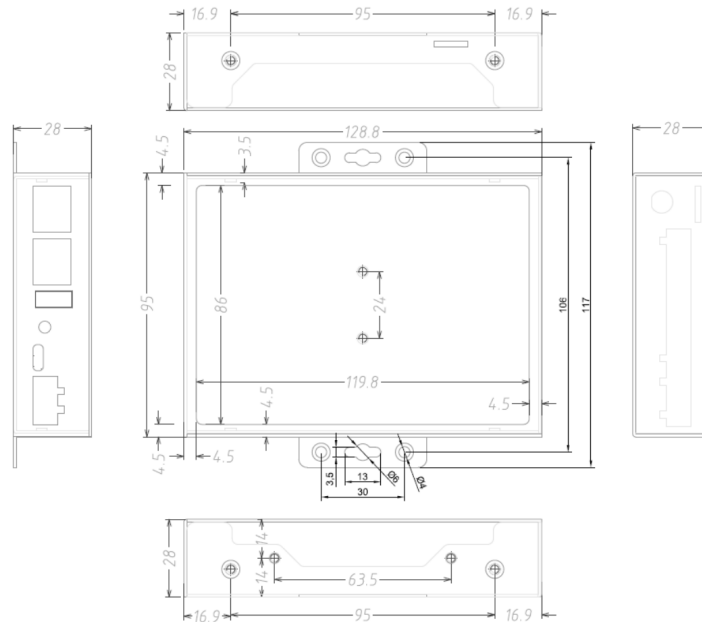
(*) Physically present on the hardware platform but not enabled or accessible in the current Measuresphere Gate or logger software configuration.

HARDWARE PLATFORM

Physical Dimension, Order Codes and Notes

Dimensions

All dimensions in mm



Order Codes

Product Code	P/N	Description
UAx300-0-G	120-1001	Protocol Gateway / 4 x Serial, 2 x ETH Data Collection : Modbus RTU, Modbus TCP, SNMP(v2, v3) Data Delivery : OPC UA Server or BACnet IP
UAx300-0-L	120-1002	Web Logger / 4 x Serial, 2 x ETH Data Collection : Modbus RTU, Modbus TCP, SNMP(v2, v3) Basic Web Visualisation, Daily archiving, Excel Report, Email Alarm alert
UAx300-0-GL	120-1003	Protocol Gateway + Web Logger / 4 x Serial, 2 x ETH Data Collection : Modbus RTU, Modbus TCP, SNMP(v2, v3) Data Delivery : OPC UA Server or BACnet IP, Logger : Basic Web Visualisation, Daily archiving, Excel Report, Email Alarm alert
UAx300-1-G	120-1004	Protocol Gateway / 4 x Serial, 2 x ETH, 1 x GSM LTE Data Collection : Modbus RTU, Modbus TCP, SNMP(v2, v3) Data Delivery : OPC UA Server or BACnet IP
UAx300-1-L	120-1005	Web Logger / 4 x Serial, 2 x ETH, 1 x GSM LTE Data Collection : Modbus RTU, Modbus TCP, SNMP(v2, v3) Basic Web Visualisation, Daily archiving, Excel Report, Email Alarm alert
UAx300-1-GL	120-1006	Protocol Gateway + Web Logger / 4 x Serial, 2 x ETH, 1 x GSM LTE Data Collection : Modbus RTU, Modbus TCP, SNMP(v2, v3) Data Delivery : OPC UA Server or BACnet/IP Logger : Basic Web Visualisation, Daily archiving, Excel Report, Email Alarm alert
UAx300-1-CUSTOM-CEMS	120-1010-01	Protocol Gateway + Data Logger for CEMS application / 4 x Serial, 2 x ETH, 1 x GSM LTE Data Collection : Modbus RTU, Modbus TCP and ELAN (Siemens Gas Analyzers) Data Delivery : OPC UA HA Server (only raw data)
UAx300-1-CUSTOM-xx	120-1010-0x	Custom Engineered Protocol Gateway + Datalogger / 4 x Serial, 2 x ETH, 1 x 4G LTE Data Acquisition : Modbus RTU, Modbus TCP, SNMP(v2, v3), and project-specific protocol integrations Data Delivery : OPC UA Server, BACnet/IP Server, MQTT Client, and project-specific REST API server/client integrations. <i>Final scope and protocol support are subject to technical evaluation.</i>

- Stock availability is subject to confirmation at the time of order.

Specifications are preliminary and may change without notice. Wireless bands, installed modules, accessories and available functions depend on the ordered regional variant and software license. Validate final compliance declarations for the complete Measuresphere-branded configuration before market release.