DATASHEET

# iQunet Edge Gateway M4

**SKU:** SERV1994xx-IPC-ED1432-[REGION]

**Category:** Edge Gateways

**Description**

## All-in-One Industrial ready-to-use Edge Gateway for Asset & Condition Monitoring (with pre-installed software)

The All-in-One Industrial iQunet Edge Gateway is a fanless Industrial PC (IPC) with eMMC storage, an operating temperature range of -20° to 60°C, a wide input power range, and industrial components with long lifecycles.

The heart of the palm size iQunet Edge Gateway is a QuadCore ARM Cortex-A72 64-bit SoC. It is configured with 4 GB of RAM and eMMC of 32Gb.

The dual 2.4GHz/5GHz Wi-Fi with external antenna provides a large wireless range for easy access to the internal hotspot of the device and for connecting to the available wireless LAN (WLAN).

For connecting to the LAN, the iQunet Edge Gateway is equipped with 1GbE LAN.

The iQunet Edge Gateway is equipped with four channels of RS485 for MODBUS RTU connectivity as well as with MODBUS TCP connectivity over the ethernet port

The iQunet Edge Gateway is standard powered with a barrel type Power Input (8~28V DC, 18W max) and is standard equipped with a DIN rail mount.

The iQunet Data and Sensor Management Edge Gateway runs an embedded webserver that provides direct or via internet access to the web based wireless **Sensor Dashboard** which monitors the sensor network and drives the dynamic sensor parameterization.
The iQunet Edge Gateway has an embedded **OPC UA Server and MQTT client** inside as well, guaranteeing seamless data exchange with the users' SCADA systems or OPC historians where the data can be backed up.
The iQunet Edge Gateway also runs a **GraphQL Server** application that provides modern, easy to use, well documented APIs for seamless integration in customers software developments.

Data is logged on the iQunet Edge Gateway but can be exported as a Google Sheet or a .CSV file with a single click command in the dashboard. By running in the edge and not in the cloud, the iQunet Edge Gateway operates reliably and securely even when being offline or having only intermittent connectivity.

**Used in:**
Used for Edge monitoring of a large number of wireless sensors and for near real time monitoring at high samples rates and large number of samples. Used where frequent (vibration and current) monitoring is required and large amounts of data needs to be stored and where increased service levels are required.

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## Technical specifications

- **IPC:**
  - QuadCore ARM Cortex-A72 64-bit SoC, 1.5Ghz
  - RTC
- **Power supply:**
  - 8~28V DC, 18W max, barrel type connector
  - Status LEDs
- **Ethernet connection:**
  - 1 x adaptive 10/100/1000M ethernet port, RJ45 connector
  - Modbus TCP enabled incl. DHCP server
- **WiFi:**
  - 2.4GHz Wi-Fi: Compatible with IEEE 802.11 b/g/n
  - 5GHz Wi-Fi: Compatible with IEEE 802.11 a/n/ac
  - External Dual Band Antenna (2 dBi ; L=108mm)
- **USB connections:**
  - 2 USB-A connections
  - Network enabled for optional USB 4G-LTE dongle
  - Network enabled over optional TP-Link Gb Ethernet adapter
- **LoRa gateway module:**
  - Build-in internal module, external antenna
  - Wireless connecting to sensors based on:
    - iQunet LoRa-FSK
    - LoRaWAN
  - Frequency plan:
    - **EU868 (SERV199410-IPC-ED1432-EU868),**
    - **US915 (SERV199411-IPC-ED1432-US915),**
    - **AS923 (SERV199413-IPC-ED1432-AS923),**
    - **IN867 (SERV199414-IPC-ED1432-IN867),**
    - **AU915 (SERV199415-IPC-ED1432-AU915),**
    - **KR920 (SERV199416-IPC-ED1432-KR920)**
  - External LoRa antenna ( 2dBi ; L=195mm)
- **RS485 I/O**:
  - 4 x RS485 ports, 4x 3pin 2.5mm pitch terminals
  - Modbus RTU enabled
- **Software:** pre-installed (licenses included)
  - OPC-UA Server, OPC UA browser
  - MQTT client
  - GraphQL API Server
  - Web interface Server
  - iQunet Sensor Monitoring Software
  - iQunet Analytics Software
  - Widget based customizable dashboarding (Studio)
  - VPN Hamachi & VPN Wireguard
  - AI Anomaly Monitor (condition monitoring)
    - Requires optional AI Anomaly Detection Service
- **Memory:** dynamic database autoscaling, 32 Gb eMMC
- **iQunet Edge Gateway features:**
  - Wide range of sensor connectivity
  - Ultra-fast booting process and operation
  - Fast SQL database read and write
  - WebRTC connection procedure: easier to swap server networks
  - Selectable connection via Ethernet, WiFi or WiFi hotspot, Hamachi VPN or Wireguard VPN networks in Sensor Dashboard
  - System Clock functionality for hardware clock synchronization
  - Storage Manager functionality for database analysis and dynamic database autoscaling
  - Data Explorer functionality for the export of .CSV files
  - OPC UA - MQTT communication
- **Compliance:**
  - FCC
    - FCC 47 CFR Part 15 Subpart B
  - CE
    - EN IEC 62368-1
    - EN IEC 62311
    - EN IEC 61000-3-2
    - EN IEC 61000-3-3
    - EN 55032
    - EN 55035
    - EN 301 489-1
    - EN 301 489-3
    - EN 301 489-17
    - EN 301 489-52
    - EN 301 328
    - EN 301 440
    - EN 301 511
    - EN 301 908-1
    - EN 301 908-2
  - KCC
    - Clause 3, Article 58-2 of Radio Waves Act
- **Installation:** on DIN rail (35mm)
- **IP degree (IEC 529):** IP20 (indoor only)
- **Operating temperature & humidity:**
  - -20°C to +60°C
  - 5%-95% humidity – noncondensing

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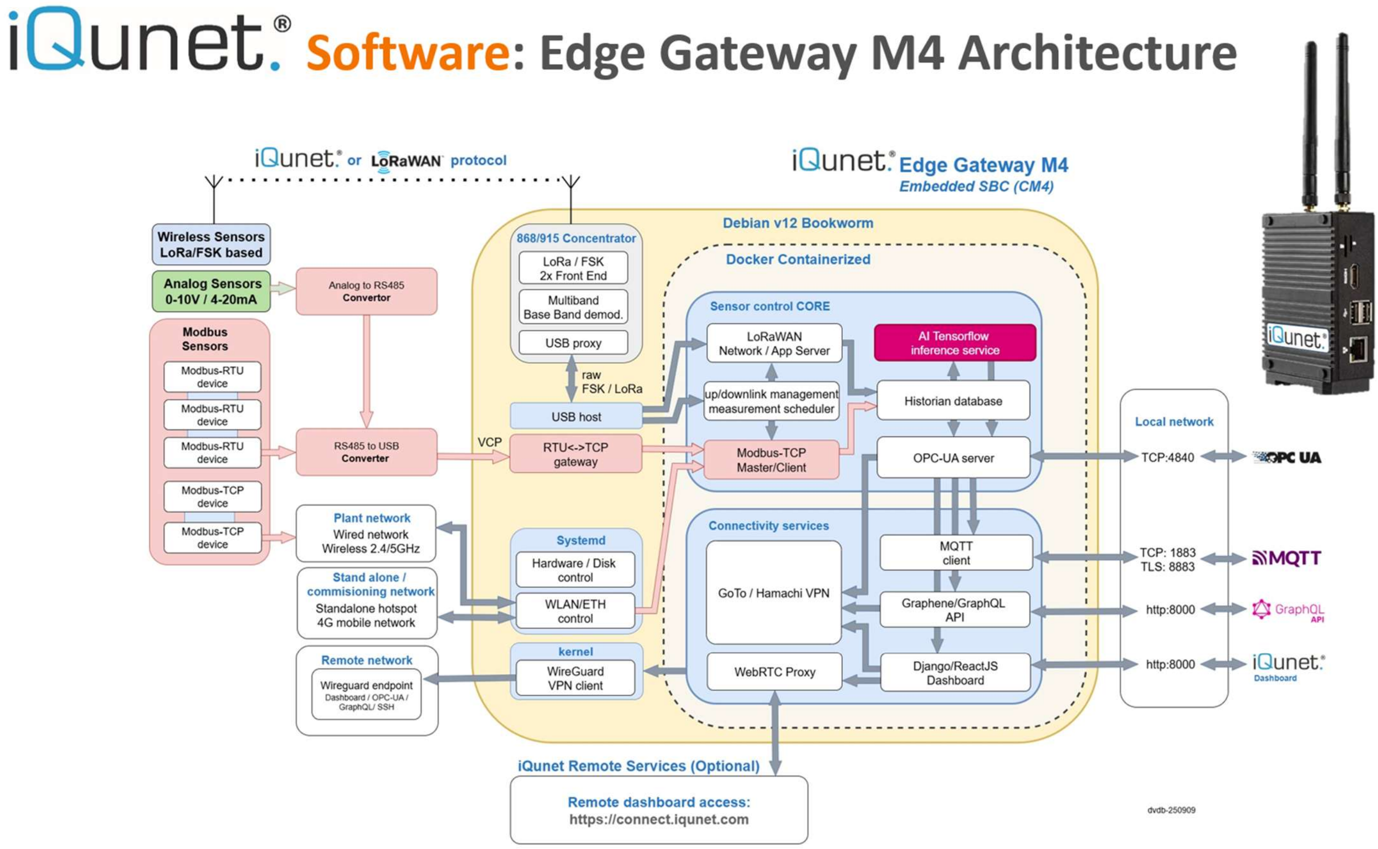
- **Architecture**



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- **Physical:**
  - **Dimensions (mm):** 102 x 73 x 36 mm
    *excl. external WiFi antenna, excl. DIN Rail bracket*
  - **Weight:** 500g
  - **Case:** Aluminum, ABS