

Kona Mega Ex IoT Gateway - EU

Scalable Zone 2/ATEX rated LoRaWAN® Gateway for Explosive Atmosphere Deployments

TEKTELIC's **KONA Mega Ex IoT Gateway** is rated IP67 and ATEX and IECEx Zone 2 and 22 certified. The gateway is designed for Explosive Atmosphere installations where combustible gasses, vapors or liquids may be present. It is ideal for public and private network operators that require, rugged industrial design and reliable LoRaWAN® gateways to maximize their network investment.

- ATEX and IECEx Zone 2 and 22 Deployments
- Pipeline Monitoring
- Mining
- Chemical Production Facilities
- Refineries & Processing Plants
- Commercial Grain Production



Key Product Differentiators

- » High availability carrier grade design with support of in-service configuration and software updates.
- » Certified for ATEX and IECEx Zone 2 and 22 Classified Deployments.
- » Innovative multiple antenna configuration supporting Rx diversity for 32 channels.
- » Excellent isolation between the Tx and Rx bands as well as out of band rejection of Cellular and Paging networks.
- » Day-One scalability with support of up to 12 million received messages per day.
- » Easy to deploy supporting different backhaul and power options.
- » Fully integrated with the broader eco-system of LoRa® network servers and sensors.

Key Features

- » Time Duplex 32 + 4 Rx / 4 Tx
- » ATEX and IECEx Zone 2 and 22
- » Double Simultaneous Tx Channels
- » High Linearity LNA/Receiver
- » Integrated Bandpass Filter
- » Precise Network Synchronization (GPS)
- » Integrated GPS Holdover
- » Up To 14 dBm Tx Power per Antenna
- » Geolocation Support
- » Hardened Carrier Grade Enclosure
- » Integrated Cellular Modem
- » Ethernet Backhaul
- » IP67 Enclosure
- » EU 868 Channel Plan

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Technical and Functional System Specifications

Mechanical Parameters

| | |
|-------------------------|------------------------|
| MTBF | 450,000 hours |
| DC Power Consumption | 20 W (Typical) |
| Operational Temperature | -40°C to +60°C |
| Operational Humidity | 10% to 100% Condensing |
| Ingress Protection | IP67 |
| Size | 222.2 x 267.6 x 101 mm |
| Weight | 5 kg |
| Volume | 6 L |

LoRa Radio Parameters

| | |
|--------------------|-------------------------------|
| Channel Plans | 863 - 870 MHz |
| Tx Power | 2 x 14 dBm |
| Rx Sensitivity | -142 dBm (SF12, 293 bits/sec) |
| Rx Noise Figure | 3.5 dB |
| Rx Linearity | -10 dBm |
| Rx Dynamic Range | 70 dB Analog, 100+ dB Digital |
| Tx to Rx Isolation | 75 dB |

Software and Management

| | |
|------------|-------------------------------------|
| Tools | Access Control List management |
| | Cellular Parameter Configuration |
| | System Health Monitor |
| | Flight Recorder |
| | Radio Configuration and Control |
| | Remote Software Upgrade |
| | Active and Passive image management |
| | Factory image provisioning |
| Networking | DHCPv4 client |
| | TFTP server |
| | HTTP server |
| | Firewall and Access Lists |

Interfaces

| | |
|-------------------|----------------|
| Ethernet Backhaul | RJ-45 |
| GPS | N-Type |
| Cellular Backhaul | N-Type |
| LoRa Antenna | N-Type |
| Power | 48VDC or PoE++ |

Regulatory Compliance

| | | |
|---------------------|---|--|
| Safety | IECEx Marking Ex ec (ic) IIC T5 Gc Ex tc (ic) IIIC T100°C Dc | IEC 60079-0 IEC 60079-7 IEC 60079-11 IEC 60079-31 |
| | ATEX Marking Ⓔ II 3 G Ex ec (ic) IIC T5 Gc Ⓔ II 3 D Ex tc (ic) IIIC T100°C Dc | EN 60079-0 EN 60079-7 EN 60079-11 EN 60079-31 |
| Temperature Marking | -40°C to +60°C | |
| Environmental | ETSI EN 300 019-2 | |
| Regulatory | ETSI EN 55022 Class B | |
| | ETSI EN 55024 | |
| | ETSI EN 300 489-1/-3 | |



TEKTELIC Communications is a premier supplier of best-in-class LoRaWAN® IoT Gateways, Sensors, and custom applications. These elements combined provide a powerful end-to-end solution that can be easily, quickly, and cost effectively deployed to address the most demanding IoT challenges.

For more information please visit www.tektelic.com