

Kona Mega Ex IoT Gateway - NA

Scalable Class I, Class II Div 2 and Zone 2 and 22 Rated LoRaWAN® Gateway for Outdoor Hazardous Location Deployments

TEKTELIC's **KONA Mega Ex IoT Gateway** is rated Type 6 (IP67) and is certified for Class I, Class II Div 2 and Zone 2 Hazardous areas. The gateway is designed for Hazardous area installations where combustible gasses, vapors or liquids may be present. It is ideal for public and private network operators that require Full Duplex, multiple Rx and Tx Channels, rugged industrial design and reliable LoRaWAN® gateways to maximize their network investment.

- **Class I, Class II Div 2 and 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 Class I, Class II Division 2 and Zone 2 Hazardous Area.
- » Full duplex operation making all receive and transmit channels available simultaneously.
- » 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

- » Frequency Duplex 64 + 8 Rx / 4 Tx
- » Class I, Class II Division 2 and Zone 2 Certified
- » Double Simultaneous Tx Channels
- » High Linearity LNA/Receiver
- » Integrated Bandpass Filter
- » Precise Network Synchronization (GPS)
- » Integrated GPS Holdover
- » 1 Watt (2 x 27 dBm) Tx Power
- » Geolocation Support
- » Hardened Carrier Grade Enclosure
- » Integrated Cellular Modem
- » Ethernet Backhaul
- » Type 6 (IP67) Enclosure
- » US 915 Channel Plan

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Technical and Functional System Specifications

Mechanical Parameters

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

LoRa Radio Parameters

| | |
|--------------------|--|
| Channel Plans | 902 - 915 MHz (Rx) 923 - 928 MHz (Tx) |
| Tx Power | 1W (2 x 27 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 | M12 |
| GPS | N-Type |
| Cellular Backhaul | N-Type |
| LoRa Antenna | N-Type |
| Power | 48VDC or PoE++ |

Regulatory Compliance

| | | |
|---------------------|---|--|
| Safety | Canada/USA Division Marking Class I Div 2 Group A B C D T5 Class II Div 2 Group F G T5 | CSA C22.2 No. 213 UL 121201 |
| | Canada/USA Zone Marking Class I Zone 2 AEx ec [ic] IIC T5 Gc Zone 22 AEx tc [ic] IIIC T100°C Dc | CSA C22.2 No. 60079 0, UL 60079 0 CSA C22.2 No. 60079 7, UL 60079 7 CSA C22.2 No. 60079 11, UL 60079 11 CSA C22.2 No. 31, UL 60079 31 |
| Temperature Marking | | -40°C to +60°C |
| Regulatory | | FCC Part 15.247, 109, 209 |
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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