

KONA Mega IoT Gateway

High Capacity LoRaWAN® for Wide Area Deployments

The **KONA Mega IoT Gateway** provides network operators with a carrier-grade product for the deployment of LoRaWAN® Internet of Things networks. The Gateway enables massive scalability in a compact form factor by supporting up to 12 million messages per day.

- Region Wide Network Coverage
- High Density Networks
- Smart Utilities
- Smart Cities
- Industrial Oil & Gas
- Commercial Farming
- Remote Monitoring
- Remote Asset Tracking



Key Product Differentiators

- » High availability carrier-grade design with support of in-service configuration and software updates.
- » Environmentally hardened aluminum enclosure fully tested to withstand extreme temperature conditions.
- » Full duplex operation makes 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

- » US915 ISM Band
- » Frequency Duplex 64+8 Rx / 4 Tx
- » Dual Antenna Support for Rx Diversity
- » Double Simultaneous Tx Channels
- » Integrated Cellular 3G/4G Modem
- » Copper and Optical Ethernet Backhaul
- » IP67 Design
- » Hardened Carrier Grade Enclosure
- » 1 Watt (2 x 27 dBm) Tx Power
- » High Linearity LNA/Receiver
- » Integrated Cavity Filter
- » Precise Network Synchronization (GPS)
- » Integrated GPS Holdover
- » Geolocation Support

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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 | 5.9 L |

LoRa Radio Parameters

| | |
|--------------------|-------------------------------|
| ISM US915 Band | 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

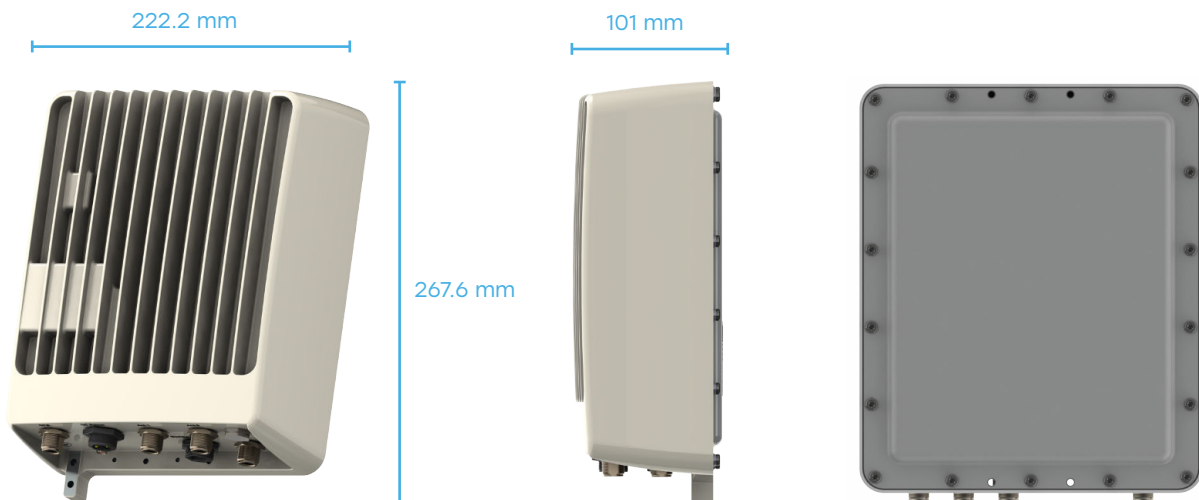
| | |
|------------|-------------------------------------|
| Tools | Access Control List management |
| | 3G/4G Parameter Configuration |
| | System Health Monitor |
| | Flight Recorder |
| | Radio Configuration and Control |
| | Remote Software Upgrade |
| | Active and Passive image management |
| | Factory image provisioning |
| Networking | DHCPv4 client |
| | TFTP server |
| | HTTP server |
| | Firewall and Access Lists |

Interfaces

| | |
|-----------------------------|------------------------------|
| Ethernet | RJ-45 & PoE (802.3bt) |
| GPS | N-Type |
| Cellular Backhaul (3G/4G) | N-Type (Optional) |
| Hybrid Optical and DC Power | Harting Hybrid (Optional) |
| LoRa Antenna (2 ports) | N-Type (2nd Port Optional) |
| Power | 37-57 VDC or PoE++ (802.3bt) |

Regulatory Compliance

| | |
|------------|-----------------------------|
| Safety | UL / CSA / EN / IEC 62368-1 |
| Regulatory | FCC: 15.247, 15.109, 15.209 |
| | ISED: RSS - 247, RSS - Gen |



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