

Kona Mega IoT Gateway

High Capacity LoRaWAN® for Wide Area Deployments

TEKTELIC's **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.

It is ideal for public and private network operators that require Full Duplex, multiple Rx and Tx Channels, cost effective and reliable LoRaWAN® gateways to maximise their network investment for years to come.



Key Product Differentiators

- » High availability carrier grade design with support of in-service configuration and software updates.
- » Environmentally hardened aluminium enclosure fully tested to withstand extreme temperature conditions.
- » 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 72 Rx / 4 Tx
- » Dual Antenna Support for Rx Diversity
- » Double Simultaneous Tx Channels
- » High Linearity LNA/Receiver
- » Integrated Bandpass Filter
- » Precise Network Synchronization (GPS)
- » Integrated GPS Holdover
- » 1 Watt (30 dBm) Tx Power
- » Geolocation Support
- » Hardened Carrier Grade Enclosure
- » Integrated Cellular 3G/4G Modem
- » Copper and Optical Ethernet Backhaul
- » Rated IP67 Enclosure
- » NA 915 ISM Band

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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 +55°C
Operational Humidity	10% to 100% Condensing
Ingress Protection	IP67
Size	222.2 x 267.6 x 101 mm
Weight	5 kg
Volume	5.5 L

LoRa Radio Parameters

ISM NA Band	902 - 915 MHz (Rx)
	923 - 928 MHz (Tx)
Tx Power	2 x 1W (2 x 30 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 Backhaul	RJ-45
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	-48VDC or PoE++ (802.3bt)

Regulatory Compliance

Safety	UL 60950-1 (US/C)
Environmental	ETSI EN 300 019-2-1, 300 019-2-2 ETSI EN 300 019-2-3, 300 019-2-4
Regulatory	FCC Part 15.247, 109, 209



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