TEKTELIC communications

LoRa Alliance Member

Kona Mega Ex IoT Gateway - NA

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

TEKTELIC's **KONA Mega Ex IoT Gateway** is rated 4X (IP67) and is Zone 2 certified. 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 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 and 22 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 72 Rx / 4 Tx
- Class I, Class II Division 2 and Zone 2/22 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
- Geolocalization Support
- Hardened Carrier Grade Enclosure
- Integrated Cellular 3G/4G Modem
- Ethernet Backhaul
- 4X (IP67) Enclosure
- US 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 +60°C
Operational Humidity	10% to 100% Condensing
Ingress Protection	4X (IP67)
Size	222.2 x 267.6 x 101 mm
Weight	5 kg
Volume	5.9 L

LoRa Radio Parameters

ISM 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 Backhaul	RJ-45
GPS	N-Type
Cellular Backhaul (3G/4G)	N-Type
LoRa Antenna	N-Type
Power	48V DC or IEEE 802.3bt 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	

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