TEKTELIC communications

LoRa Alliance Member

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 16 + 16 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 16 + 16 Rx / 2 + 2 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 3G/4G Modem
- Ethernet Backhaul
- IP67 Enclosure
- EU 868 ISM Band

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Technical and Functional System Specifications

Mechanical Parameters

MTBF	450,000 hours
DC Power Consumption	< 35 W
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 Band	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
	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	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 Ex II 3 G Ex ec (ic) IIC T5 Gc Ex 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