What · Where · When
WWW?
IoT for everything

TEKTELIC
communications
LoRa® Alliance Member

Kona Mega Ex IoT Gateway
Scalable Zone 2/ATEX Rated LoRaWAN® Gateway for Extreme Outdoor Deployments

TEKTELIC's **KONA Mega Ex IoT Gateway** is Rated IP67 and ATEX/Zone 2 certified, the gateway is designed for the most demanding outdoor installations where combustible gasses, vapours 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 maximise their network investment.

- **ATEX Class 1/Div 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/Zone 2 Classified Deployments.

» 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

» ATEX/Zone II Certified

» Double Simultaneous Tx Channels

» High Linearity LNA/Receiver

» Integrated Bandpass Filter

» Precise Newtork Synchronization (GPS)

» Integrated GPS Holdover

» 1 Watt (30 dBm) Tx Power

» Geolocalization Support

» Hardened Carrier Grade Enclosure

» Integrated Cellular 3G/4G Modem

» Ethernet Backhaul

» Rated IP67 Enclosure

» All Global ISM Bands

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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	IP67
Size	222.2 x 267.6 x 101 mm
Weight	5 kg
Volume	5.5 L

Software and Management

Tools	Access Control List managment
	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

LoRa Radio Parameters

ISM Band	All Global Bands
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

Interfaces

Ethernet Backhaul	RJ-45
GPS	N-Type
Cellular Backhaul (3G/4G)	N-Type (Optional)
LoRa Antenna	N-Type
Power	-48V DC or POE ++ (802.3bt)

Regulatory Compliance

Safety	Canada/USA Division Marking Class I Div 2 group A B C D T6 Class II Div 2 Group F G T6	CSA C22.2 No. 213 UL 12.12.01: 2017
	Canada/USA Zone Marking Class I Zone 2 AEx ec (ic) IIC T6 Gc Class I Zone 2 AEx nA (ic) IIC T6 Gc Class II Zone 22 AEx tc (ic) IIIC T85°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
	IECEx Marking Ex ec (ic) IIC T6 Gc Ex tc (ic) IIIC T85°C Dc	IEC 60079-0 IEC 60079-7 IEC 60079-11 IEC 60079-31
	ATEX Marking <Ex> II 3 G Ex ec (ic) IIC T6 Gc <Ex> II 3 D Ex tc (ic) IIIC T85°C Dc	EN 60079-0 EN 60079-7 EN 60079-11 EN 60079-31
	`Temperature Marking -40°C to +60°C	60079-0
Environmental	ETSI EN 300 019-2	
Regulatory	FCC Part 15.247, 109, 209	
	ETSI EN 55022 Class B	
	ETSI EN 55024	
	ETSI EN 300 489-1/-3	

222.2 mm

267.6 mm