

KONA Mega APAC IoT Gateway

High Capacity LoRaWAN® Gateway for AS923 ISM Bands

TEKTELIC's KONA Mega APAC IoT Gateway provides network operators with a field proven product for the deployment of LoRaWAN® networks in the global AS923 band. The KONA Mega Gateway offers superior RF performance with multiple Rx/Tx antennas which improve the end device SNR resulting in improved link budget and better battery performance. To mitigate real world RF interference the KONA Mega gateway comes with built-in custom High-Q RF Cavity filters that offer high levels of Rx Selectivity and Out-of-Band rejection.

It is ideal for public and private network operators that require cost effective and reliable gateways, with multiple Rx and Tx Channels, 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.
- » Innovative multiple antenna configuration supporting Rx diversity for 16 + 16 channels.
- » Excellent out of band rejection of Interference from other networks such as Cellular and Paging.
- » Day-One scalability supporting millions of Rx messages per day
- » Easy to deploy supporting different backhaul and power options
- » For Japan/Korea market includes carrier sense also called Listen-Before-Talk (LBT) capability.

Key Features

- » Time Duplex 16 + 16 Rx / 2 + 2 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
- » Up To 30 dBm Tx Power per Antenna
- » Geolocalization Support
- » Hardened Carrier Grade Enclosure
- » Integrated Cellular 3G/4G Modem
- » Copper and Optical Ethernet Backhaul
- » Rated IP67 Enclosure
- » AS923 and AU915 ISM Band

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Technical and Functional System Specifications

Mechanical Parameters

MTBF	450,000 hours
DC Power Consumption	< 30 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	6 L

LoRa Radio Parameters

AS923 ISM Band (Japan)	920 - 928 MHz
AS923 ISM Band (New Zealand)	915 - 928 MHz
AS923 ISM Band (Singapore)	920 - 925 MHz
AU915 ISM Band (Australia)	915 - 928 MHz
Tx Max Power	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

Software and Management

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

Interfaces

Ethernet Backhaul	RJ-45 (Supports PoE++)
GPS	N-Type
Cellular Backhaul (3G/4G)	N-Type (Optional)
LoRa Antenna (2 ports)	N-Type (2nd Port Optional)
Power	-48VDC or POE++

Regulatory Compliance

Regulatory	TELEC, RCM
Environmental	ETSI EN 300 019-2



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