

KONA Photon Gen2 IoT Gateway

Solar LoRaWAN Gateway for Autonomous Remote Deployments

The KONA Photon Gen2 LoRaWAN® Gateway is a Zero Footprint single module solution. The solar panel charges the built-in batteries to provide enough power for all practical deployments across the globe and all environmental conditions. It comes with cellular modem and GPS built in, and support for external LoRa and Cellular antennas for better coverage. Like all TEKTELIC Carrier Grade Gateways, the KONA Photon Gen2 Gateway features high availability and dependability to ensure operator lowest Total Cost of Ownership.

- Urban/Suburban
- Smart Cities
- Smart Agriculture
- Oil & Gas
- Industrial
- Asset Tracking



Key Software Features

- » Radio Remote Configuration, Monitoring and Control
- » Cellular Backhaul Configuration
- » Remote Software Upgrades
- » KONA Link Web-based Configuration
- » Firewall and Access Lists
- » Integration with Third-Party Network Servers

Key Hardware Features

- » US915, EU868, AU915, AS923 Channel Plans
- » Time Division Duplex 8 Rx & 1 Tx
- » Integrated Cellular Modem
- » Integrated Satellite Backhaul¹
- » Built-in GPS with Internal Antenna
- » Internal Cellular Antennas with option for External
- » External LoRa Antenna
- » IP67 Design
- » Power consumption 2.5 W
- » 90 Hour Internal Battery
- » 5000 Charge Cycles
- » -40 to +60°C Ambient Operating Temperature²
- » Pole, Wall, Tower/Building Mounting Options
- » Built to withstand 150km/h winds
- » Integrated Surge and Lightning Protection



¹ Satellite backhaul via Swarm Direct-to-Cell IoT Service. Planned availability 2025.

² Continuous system availability is dependent on solar irradiance levels and ambient temperature. Contact TEKTELIC for an availability estimate for your geographic area.

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Technical and Functional System Specifications

Mechanical Parameters

Operating Temperature	-30 to +50°C Charge -40 to +60°C Discharge
Operational Humidity	10% to 100% Condensing
Ingress Protection	IP67
Weight	95W: 19 kg, 50W: 16 kg
Size	95W: 970 x 540 x 90 mm 50W: 550 x 540 x 90 mm (Excluding Mount)

Interfaces

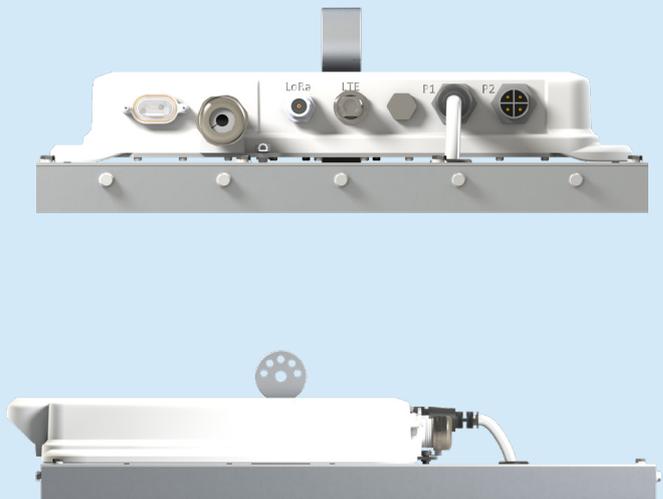
Cellular Backhaul	Switched N-Type with Integrated Surge Protection
LoRa Antenna	N-Type with Integrated Surge Protection
Power	Solar with Internal Battery
Power Consumption	2.5 W

LoRa Radio Parameters

ISM Bands	All Global Bands
Tx Power	14 dBm to 27 dBm
Rx Sensitivity	-141 dBm (SF12, 293 bits/sec)
Rx Noise Figure	2.5 dB
Rx Linearity	-5 dBm
Rx Dynamic Range	70 dB Analog, 100+ dB Digital

Regulatory Compliance

Safety	UL / CSA / EN / IEC 62368-1
Regulatory	FCC: 15.247, 15.109, 15.209
	ISED: RSS - 247, RSS - Gen
	CE: RED 2014/53/EU



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