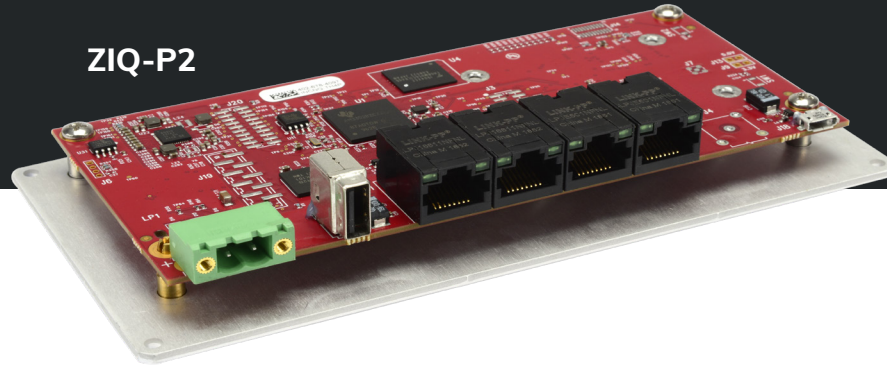# FREEWAVE

ZumIQ™
Edge Computer

ZIQ-PE2

ZIQ-P2

Deploy IIoT Applications at the Industrial Edge

Run applications reliably at the edge and on any network architecture with FreeWave's low-power, C1D2-certified ZumIQ edge computer loaded with the **IQ** Application Environment.

ZumIQ's ruggedized hardware provides a secure home for applications that place analytics and intelligence where remote operational assets reside—maximizing your business capacity and capability by eliminating the expense and delay of moving that data to a central location for processing.

The **IQ** Application Environment onboard ZumIQ provides an open source platform to deploy and run applications in any Linux-compatible language. These applications provide edge computing to improve data visibility without overburdening the network and to enable networking tools such as security and diagnostics. ZumIQ accomplishes this by rapidly modernizing edge equipment and devices.

Loaded with standard serial and Ethernet interfaces, ZumIQ can be flexibly integrated into any wired or wireless network. It has the ability to execute multiple applications simultaneously and with low power consumption, making it ideal for remote edge environments where infrastructure is limited.

Key Features

IQ Application Environment Onboard:
Linux-based platform to deploy and run industrial applications (e.g., those created with Python, Node-RED, C++, Go); flexibility to develop on a maker platform and deploy on ZumIQ

Low Power Consumption: 2.2 W (max @ 12 VDC)

Computing Resources: 1 GHz ARM Cortex-A8 Processor, 1 GB RAM, 1 GB Storage

Solar-Compatible Operating Voltage:
+6 to +30 VDC; can be powered by batteries, fuel cell, solar, wind turbines, or DC

Wide Operating Temperature Range: -40°C to +75°C

Safe for Hazardous Locations:
Class I, Division 2 certified

Flexible Interface Options:
2 Ethernet (10 / 100 / 1000 Mbps) and
2 Serial (RS232 / RS422 / RS485)

ZumIQ comes standard with the **IQ** Developer Edition with packages pre-loaded for Python, Node-RED, and Node.js. Other Editions are available based on strategic partner software. See Edition-specific **IQ** data sheets for further details.

Made in USA

Computing Resources

CPU	ARM Cortex-A8 1 GHz
RAM	1 GB
Storage	1 GB
OS	Debian-based Linux

Power Requirements

Operating Voltage	+6 to +30 VDC
Power Consumption	2.2 W (max @ 12 VDC)

Interfaces

Data Connectors	2 Ethernet: RJ-45, 10 / 100 / 1000 Mbps 2 Serial: RS232 / RS422 / RS485
USB Connectors	Micro USB Type A (Future Expansion)
Power Connector	Phoenix Contact (#1776692)

General Information

Operating Temperature	**ZIQ-P2:** -40°C to +85°C (-40°F to +185°F) **ZIQ-PE2:** -40°C to +75°C (-40°F to +167°F)
Humidity	0 to 95%, non-condensing
Dimensions	**ZIQ-P2:** 170.18 L x 82.55 W x 27.18 H (mm) 6.70 L x 3.25 W x 1.07 H (in) **ZIQ-PE2:** 191.00 L x 95.76 W x 41.91 H (mm) 7.52 L x 3.77 W x 1.65 H (in)
Weight	**ZIQ-P2:** 200.5 g (0.44 lbs) **ZIQ-PE2:** 750 g (1.7 lbs)
Safety	Class I, Division 2, Groups A-D

Information to Order

Model Number	Description
ZIQ-P2	Board Level Unit, Edge Computer
ZIQ-PE2	Enclosed Unit, Edge Computer

Applications Enabled

ZumIQ is ready to support your edge applications to collect and exchange high-fidelity data, monitor and automate the actions of remote assets, and drive better, faster decision-making for significant operational gains. **These could include:**

- Real-time remote monitoring
- Network diagnostic tools
- Predictive analytics
- Network security
- Remote site automation
- Robotics and autonomy
- Smart process optimization
- ...and much more