

Volterra Industrial Gateway

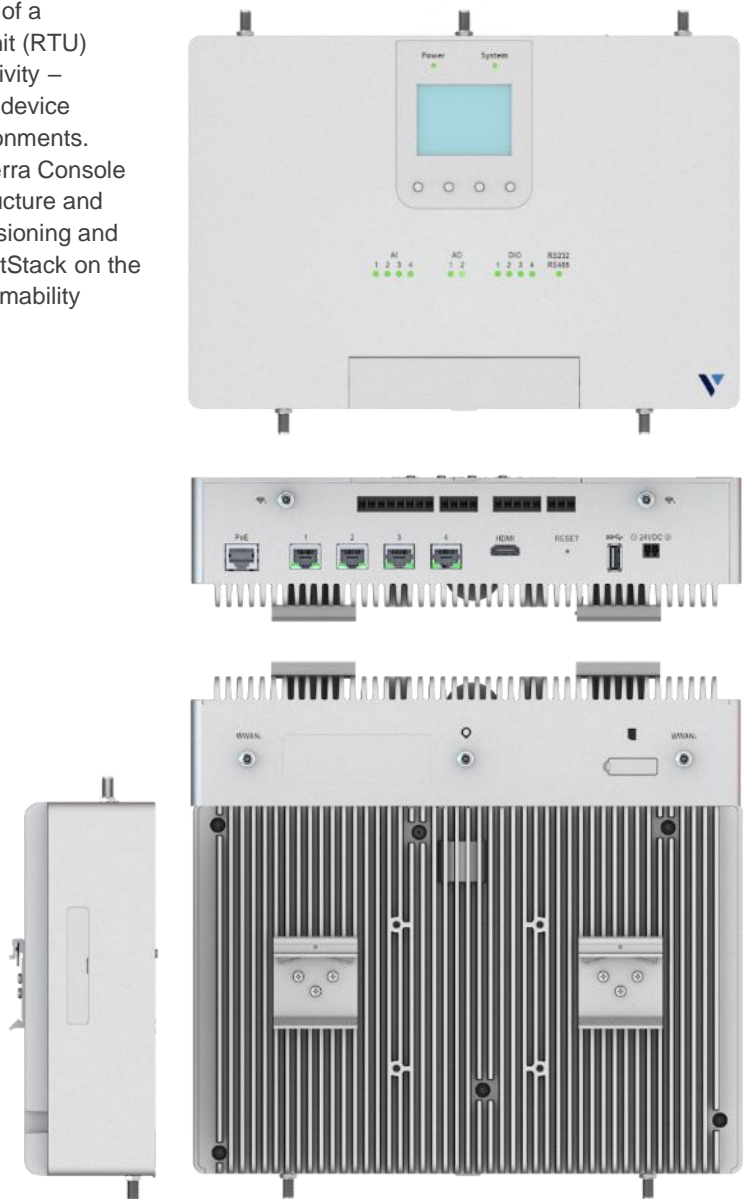
Overview

The Volterra Industrial Gateway is a series of ruggedized edge computing devices providing hyper-converged compute, storage, and networking. They can run inference, containerized, and legacy (VM) workloads in an easy-to-deploy and operate model on the factory floor, in retail stores and small branch offices and more.

The Volterra Industrial Gateway combines the capabilities of a programmable logic controller (PLC) or remote terminal unit (RTU) with hyper-converged infrastructure and gateway connectivity – 4G LTE / GPS / Wi-Fi / Bluetooth – in a single ruggedized device designed to meet the rigorous demands of industrial environments. Each device is managed through the cloud using the Volterra Console and runs the Volterra VoltStack service to provide infrastructure and application software upgrades along with zero-touch provisioning and decommissioning. For industries requiring automation, VoltStack on the Industrial Gateway facilitates PLC/RTU controller programmability directly from CI/CD pipeline.

Highlights

- Intel Atom Denverton C3000 series processor
- Industrialized, fanless, with a wide operating temperature range of 0°C to 55°C
- Flexible M.2 slot for NVME SSD storage or an M.2 based Neural Network processor
- Industrial analog and digital IOs to drive industrial sensors and motors - drive 0-24V and/or 4-24mA
- Multiple connectivity options - Ethernet, 11ac Wi-Fi, Bluetooth, BLE, LTE with Field replaceable SIM
- Power over Ethernet (PoE) on all Ethernet ports to support IP cameras & phones
- Location services via GNSS
- Includes TPM 2.0 and integrated quick assist technology for crypto security
- HDMI for HMI/digital signage use cases. LCD display for quick status



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Specifications

	Volterra IGW5508	Volterra IGW5504	Volterra IGW5008	Volterra IGW5004
Dimensions	287 mm (width) x 195 mm (height) x 67.6 mm (depth)			
Chassis	Fanless / external heatsink on back side / DIN rail and VESA mounting / IP20 rated			
Processor	Intel Atom® C3708	Intel Atom® C3538	Intel Atom® C3708	Intel Atom® C3538
Cores	8 core	4 core	8 core	4 core
Speed	1.7 Ghz	2.1 Ghz	1.7 Ghz	2.1 Ghz
Cache	2 MB/Core	2 MB/Core	2 MB/Core	2 MB/Core
Memory	2x DDR4 ECC SODIMM 2133 Mhz, Max of 2x32 GB			
Protocol support	Modbus Master & Slave (RS232/RS485) Profinet (Ethernet) HART (Analog IO)			
Storage (SSD)	1x M.2 2280 NVMe 1x M.2 2280 SATA	1x M.2 2280 SATA	1x M.2 2280 NVMe 1x M.2 2280 SATA	1x M.2 2280 SATA
I/O	1x USB3.0		1x USB3.0	
Industrial I/O - Analog	4x analog inputs, 2x analog outputs 500 K samples per second rate, 16 bit accuracy Voltage range [±10 V, ±5 V, ±2.5 V, 0 to 10V and 0 to 5V] Current range [0 to 20mA and 4 to 20mA] HART supported			
Industrial I/O Digital	4x digital input/output Voltage range: 24VDC HSC and PTO supported 100 KHz max IEC 61131-2 Type 1-3 Input			
Serial Bus	1x RS232 or RS485 RS485: Up to 10 Mbps, 2-wire, half-duplex RS232: Up to 1 Mbps, 2-wire, full-duplex Modbus master & slave			
Weight	5 kg (11 lb)		4 kg (8.8 lb)	
LAN	4x 1000Base-T with PoE 802.3 af supported on each port			
Wireless	Wi-Fi 11ac 2x2 MIMO Bluetooth 4.2 HS, BLE, ANT+ LTE Cat 4 (150 Mbps max DL / 50 Mbps max UL) coverage: worldwide (Supported Frequency Bands B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28, B38, B39, B40 and B41) 3G fallback GNSS (GPS, GLONASS, BeiDou and Galileo) Field replaceable SIM			
Display	2.4" color graphics 240x320 LCD display with associated 4 buttons HDMI			
Timers	Battery-backed RTC, hardware watchdog timer			
System Power	24VDC input Typical - 100W Max - 200W	24VDC input Typical - 90W Max - 180W	24VDC input Typical - 60W Max - 120W	24VDC input Typical - 50W Max - 100W
POE Power	48VDC input, 65W			
Security Accelerator	TPM 2.0 Integrated Intel® QuickAssist technology			
Operating Temp.	0°C to 55°C			
AC Power Adapters	PWR24V - AC to 24VDC, PWR48V - AC to 48VDC (PoE)			