



- ARM Powered
- IoT Ready
- Rolling Stock & Automotive, Marine Certified
- Cloud Certified
- Open Platform
- Customizable



Features

ARM Powered : Powered by TI AM335x CPU: optimum performance for intensive workloads at just 2.6W

IoT Ready : Breadth of connectivity options: carrier certified LTE Cat 1 EU cellular modems for multiple geographies, Wi-Fi, BLE, Fast Ethernet, including CAN bus ports, optoisolated digital I/Os, protected serial ports

Rolling Stock & Automotive and Marine Certified : Suitable for rugged Rolling Stock and Automotive and Marine applications is certified for EN50155, EN45545 (Fire and Smoke), E-Mark (Automotive) and Marine (EN60946)

Cloud Certified : Seamless integration with Eurotech Everyware Cloud, Microsoft Azure, AWS IoT Core and other Cloud Services

Open Platform : Provides a Java/OSGi gateway middleware, to free the developer from proprietary solutions

Customizable : Flexible: personalization and full customization options are available, ranging from branding ("skin" and color) to deep HW/SW configurations

Description

The BoltGATE 10-12 is a Multi-service IoT Edge Gateway designed to deliver LTE connectivity to Rolling Stock, Automotive and lightly rugged applications.

Based on the TI AM335x Cortex-A8 (Sitara) processor family, with 1GB of RAM, 8GB of eMMC and a user-accessible microSD slot, the BoltGATE 10-12 is a low power gateway suitable for demanding use cases: it supports a 9 to 36V power supply with transient protection and vehicle ignition sense, protected serial ports, CAN bus and isolated digital interfaces.

The BoltGATE 10-12 features a wide range of connectivity capabilities: it integrates an internal LTE Cat 1 cellular modem with dual Micro-SIM support, Wi-Fi, Bluetooth Low energy, Fast Ethernet ports, and an internal GNSS with Untethered Dead Reckoning.

The BoltGATE 10-12 is equipped with a TPM 2.0 technology which provides cutting-edge security features that protect the system integrity and authenticity against unauthorized manipulations.

The BoltGATE 10-12 is enriched with [Everyware Software Framework \(ESF\)](#), Eurotech's IoT Edge Framework, that supports ready-to-use field protocols (including Modbus, OPC-UA, S7), MQTT connectivity, a web-based visual data flow programming (ESF Wires) and deep configuration. ESF is a commercial, enterprise-ready edition of Eclipse Kura. ESF is also integrated with [Everyware Cloud \(EC\)](#), Eurotech's IoT Edge Management Platform (separately available), enabling advanced diagnostics, provisioning, and full remote device access and management.

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Ordering Code: BTGATE-10-12-XX		
	XX	-66
PROCESSOR	CPU	TI AM3352 1GHz, 1 Core
MEMORY	RAM	1GB DDR3
STORAGE	Embedded	8GB eMMC
	Other	1x microSD Slot (Service Panel)
I/O INTERFACES	Ethernet	2x 10/100Mbps on M12 D-coded
	USB	2x Host 2.0 (Noise and Surge Protected) - Type A (Service Panel)
	Serial	1x RS-422/485 (Protected and Isolated); 1x RS-232/RS-485 (Surge Protected); RS-485 Termination and Fail-safe Resistors; 1x Serial Console TTL (Service Panel)
	CAN 2.0B	2x CAN bus with 5V (100mA) Power Out
	Digital I/O	2x Digital Input 36V, 1KV Optoisolated - 2x Digital Output (40VAC/DC), 500mA Sink, 1KHz Max Switching
RADIO INTERFACES	Internal Cellular	LTE Cat 1 (EU) with 2G/3G Fallback
	GNSS	Internal (72 channels GPS, Galileo, GLONASS, BeiDou) - Untethered Dead Reckoning
	Wi-Fi / BT	802.11a/b/g/n, BLE 4.2
	Antennas (External)	1x SMA GPS, up to 2x SMA Cellular, up to 2x RP-SMA Wi-Fi/BT
OTHER	RTC	Yes (Supercap Backup)
	Ext. Watchdog	Yes
	TPM	TPM 2.0
	Sensors	Temperature, 3-axis Digital Accelerometer, 3-axis Digital Gyroscope
	LEDs	1x Power, 5x Programmable
	Buttons	1x System Reset, 1x Programmable (Service Panel)
	SIM Slot	2x Micro-SIM (Service Panel)
POWER	UPS Function	Factory Option
	Input	Nominal: 24 VDC (Railways: EN50155 Class S1); Nominal: 12 or 24 VDC (Automotive); Vehicle Ignition Sense; Range: 9 to 36 VDC with Transient Protection; Vehicle Ignition Sense
	Consumption	2.6W Idle, 15W Max
ENVIRONMENT	Operating Temp	EN 50155 OT4 (-40 to +70°C)
	Storage Temp	-40 to +85°C
CERTIFICATIONS	Regulatory	CE
	Safety	EN 62368-1
	Vertical	E-Mark, EN50155, EN45545 (Fire and Smoke), EN60946 (Marine)
	Environmental	RoHS3, REACH
	Wi-Fi / BT Radio	RED
	Cellular Radio	RED
	IoT Platform	Microsoft Azure Certified, AWS IoT Core Qualified, Everyware Cloud Native
	Ingress	IP67
MECHANICAL	Enclosure	Material: Aluminium - Color: Black Anodized
	Dimensions	150x224x62mm (LxWxH) - With SMA Connectors, Including Integrated Mounting Bracket

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Software		
SOFTWARE	OS	Eurotech Everyware Linux
	SDK	Yocto-based Eclipse Tooling, Azul Java
	IoT Framework	Everyware Software Framework (Java/OSGi)