



- **ARM® Powered**
- **Internal LTE Cat 1 (NA, EU, JP)**
- **Industrial Grade**
- **Field Protocol Support**
- **Open Platform**
- **Customizable**
- **Cloud Certified**



## Features

**ARM Powered** - Powered by TI AM335x CPU: optimum performance for intensive workloads at just 2W

**IoT Ready** - Breadth of connectivity options: carrier certified LTE Cat 1 (NA, EU, JP) cellular modems for multiple geographies, Wi-Fi, BLE, Fast Ethernet and Fieldbus interfaces, including CAN bus ports, optoisolated digital I/Os, protected USB

**Industrial Grade** - Wide operating temperature, wide range power supply with transient protection

**Field Protocol Support** - Native support for Modbus, S7 and OPC UA, the extensible, secure, and platform-independent industrial interoperability standard

**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

**Cloud Certified** - Seamless integration with Eurotech Everywhere Cloud, Microsoft Azure, AWS IoT Core and other Cloud services

## Description

The ReliaGATE 10-12 is a Multi-service IoT Edge Gateway designed to deliver LTE connectivity (with 3G fallback) to industrial applications.

Based on the TI AM335x Cortex-A8 (Sitara) processor family, with 1GB of RAM, 8GB of eMMC and user-accessible MicroSD and dual Micro-SIM slots, the ReliaGATE 10-12 is a low power gateway suitable for demanding use cases: it supports a 9 to 30V power supply with transient protection and ignition sense, two protected serial ports: one RS-422/RS-485 and one RS-232/RS-485, two CAN bus interfaces, three noise and surge protected USB ports, and four isolated digital interfaces.

The ReliaGATE 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, two Fast Ethernet ports and three Sensors: Temperature, 3-axis Gyroscope and a 3-axis Accelerometer; an optional internal GNSS provides precise geolocation capabilities.

Expansion options include the ReliaCELL 10-20 family, consisting of external, rugged cellular modules for global use that are certified by leading carriers. An expansion connector allows adding extra features with side modules, such as the ReliaWAN 10-12, a LoRa Gateway unit, or the ReliaIO 10-12, which provides analog input and more DI/O ports.

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

The ReliaGATE 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 IoT Integration Platform](#) (separately available), enabling advanced diagnostics, provisioning, and full remote device access and management

The ReliaGATE 10-12 is AWS IoT Core Qualified, Microsoft Azure Certified and can be integrated with 3rd party cloud services.

### Ordering code: REGATE-10-12-XX

XX		- 62	- 63	- 64	- 65	- 66	- 67
PROCESSOR	CPU	TI AM3352 1GHz, 1 Core					
MEMORY	RAM	1GB DDR3					
STORAGE	Embedded	8GB eMMC					
	Other	1x microSD Slot (User Accessible)					
I/O INTERFACES	Ethernet	2x 10/100Mbps - RJ45					
	USB	3x Host 2.0 (Noise and Surge Protected) - Type A					
	Serial	1x RS-422/RS-485 Protected and Isolated, 1x RS-232/RS-485 (Surge Protected, RS-485 Termination and Fail-safe Resistors), 1x TTL Serial Console					
	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					
	Exp. Connector	Yes, for Eurotech Side Expansion Modules (ReliaIO 10-12, ReliaWAN 10-12)					
RADIO INTERFACES	Internal Cellular	No	LTE Cat 1 (NA), 3G Fallback	LTE Cat 1 (EU), 2G/3G Fallback	LTE Cat 1 (NA), 3G Fallback	LTE Cat 1 (EU), 2G/3G Fallback	LTE Cat 1 (AP)
	External Cellular	Optional Accessory: ReliaCELL 10-20 (3G/4G)					
	GPS	Factory Option: Internal (72 Channels GPS, Galileo, GLONASS, BeiDou) – Optional Accessory: ReliaCELL 10-20 3G					
	Wi-Fi / BT	802.11a/b/g/n, BLE 4.2	No		802.11a/b/g/n, BLE 4.2		
	Antennas (Ext.)	2x RSMA Wi-Fi/BT	2x SMA Cellular		2x SMA Cellular, 2x RSMA Wi-Fi/BT		
OTHER	RTC	Yes (User Accessible Battery)					
	Ext. Watchdog	Yes					
	TPM	TPM 2.0					
	Sensors	Temperature, 3-axis Digital Accelerometer, 3-axis Digital Gyroscope					
	LEDs	1x Power, 1x Cellular, 4x Programmable					
	Buttons	1x Reset, 1x Programmable					
	SIM Slot	No	2x microSIM (User Accessible)				
POWER	Input	Nominal: 12 or 24 VDC; Range: 9 to 30 VDC with Transient Protection					
	Consumption	2W Idle (15W Max)					
ENVIRONMENT	Operating Temp	- 40 to +70°C					
	Storage Temp	- 40 to +85°C					
	Humidity	5 to 95% Relative Humidity (non Condensing) at +40°C					
CERTIFICATIONS	Regulatory	CE, FCC, ISED	FCC, ISED	CE	FCC, ISED	CE	JATE, TELEC
	Medical	Designed to be Compliant with IEC60601-1-2					
	Safety	EN 62368-1, UL 60950 (§)					
	Environmental	RoHS3, REACH					
	Wi-Fi / BT Radio	RED, FCC, ISED	FCC, ISED	RED	FCC, ISED	RED	JATE, TELEC
	Cellular Radio	No	FCC, ISED, PTCRB, AT&T, Verizon	RED	FCC, ISED, PTCRB, AT&T, Verizon	RED	JATE, TELEC
	Ingress	IP40					
MECHANICAL	Enclosure	Material: ABS - Color: Aluminum					
	Dimensions	139x115x46 (LxWxH) - with SMA Connectors and Mounting Bracket					

### Software

SOFTWARE	OS	Eurotech Everyware Linux					
	SDK	Yocto-based Eclipse Tooling, Azul Java					
	IoT Framework	Everyware Software Framework (Java/OSGi)					
	IoT Platform	AWS IoT Core Qualified, Microsoft Azure Certified, Everyware Cloud Native					

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§ UL, NRTL listing Factory Option.