



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



## 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 cellular modems for multiple geographies, Wi-Fi, BLE, Fast Ethernet and Fieldbus interfaces, including CAN bus ports, optoisolated digital I/Os, protected USB and serial ports

**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

**Cloud Certified** - Seamless integration with Eurotech Everywhere Cloud, Microsoft Azure, Amazon Web Services IoT 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 ReliaGATE 10-12 is a Multi-service IoT Edge Gateway that has been designed to deliver LTE connectivity (with 3G fallback) to industrial and lightly rugged 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 6 to 36V power supply with transient protection and ignition sense, two protected RS-232/RS-485 serial ports, 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 GPS 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 ReliaLORA 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 comes with Everywhere Software Framework (ESF), a commercial, enterprise-ready edition of Eclipse Kura, the open source Java/OSGi middleware for IoT Edge Gateways. Distributed and supported by Eurotech, ESF supports ready-to-use field protocols (including Modbus, OPC-UA, S7), MQTT connectivity, web-based visual data flow programming and deep configuration. 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 Microsoft Azure certified and can be integrated with 3rd party cloud services such as Amazon Web Services IoT.

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

<b>XX</b>		- 62	- 63	- 64	- 65	- 66	- 67	
<b>PROCESSOR</b>	CPU	TI AM3352 1GHz, 1 Core						
<b>MEMORY</b>	RAM	1GB DDR3						
<b>STORAGE</b>	Embedded	8GB eMMC						
	Other	1x microSD Slot (User Accessible)						
<b>I/O INTERFACES</b>	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, ReliaLORA 10-12)						
<b>RADIO INTERFACES</b>	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 (JP)	
	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	a/b/g/n, BLE 4.2	No			a/b/g/n, BLE 4.2		
	Antennas (Ext.)	2x RSMA Wi-Fi/BT	2x SMA Cellular		2x SMA Cellular, 2x RSMA Wi-Fi/BT			
<b>OTHER</b>	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)					
<b>POWER</b>	Input	Nominal: 12 or 24 VDC; Range: 9 to 30 VDC with transient protection						
	Consumption	2W Idle (15W Max)						
<b>ENVIRONMENT</b>	Operating Temp	- 30 to +70°C						
	Storage Temp	- 40 to +85°C						
	Humidity	5 to 95% Relative Humidity (non condensing) at +40°C						
<b>CERTIFICATIONS</b>	Regulatory	CE, FCC, ISED	FCC, ISED	CE	FCC, ISED	CE	JATE, TELEC	
	Safety	EN 62368-1, UL 60950 (S)						
	Environmental	RoHS2, 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, NTT DoCoMo	
	IoT Platform	Microsoft Azure Certified						
	Ingress	IP40						
<b>MECHANICAL</b>	Enclosure	Material: ABS - Color: Aluminum						
	Dimensions	139x98x44mm (LxWxH) - with SMA Connectors, Excluding Mounting Bracket						

**Software**

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

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# ReliaGATE 10-12

Multi-service IoT Edge Gateway - TI AM335x, LTE Cat 1

§ UL, NRTL listing Factory Option.