ReliaGATE 10-12 Development Kit

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



- **Ready to Plug**
- **Ready to Code**
- **Ready to Connect**
- **Ready to Deploy**

Features

Ready to Plug - Contains all the hardware needed to get started, including one ReliaGATE 10-12 and a complete set of cables and accessories
Ready to Code - Features Everyware Software Framework (ESF), the Java/OSGi based-middleware for IoT Edge Gateways that accelerates gateway application development
Ready to Connect - Includes a free trial account for Everyware Cloud (EC), the Eurotech IoT Integration Platform for device connectivity, data collection, and remote device management
Ready to Deploy - Designed to comply with global certification requirements and to quickly move IoT applications solutions from prototype to global deployment

Description

The ReliaGATE 10-12 Development Kit allows for quick development and prototyping of IoT applications on an industrial grade platform which is precertified for global deployment. The kit targets all aspects of an IoT application from hardware interfacing, to development of on-board software and cloud connectivity.
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, and two Fast Ethernet ports.
The ReliaGATE 10-12 comes with Everyware 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 AWS IoT Core Qualified, Microsoft Azure Certified and can be integrated with 3rd party cloud services.

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Ordering code: REGATE-10-12-XX-DK01				
XX		- 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	LTE Cat 1 (NA), 3G Fallback	LTE Cat 1 (EU), 2G/3G Fallback	LTE Cat 1 (JP)
	Wi-Fi / BT	a/b/g/n, BLE 4.2		
	Antennas (External)	2x SMA Cellular, 2x RSMA Wi-Fi/BT		
OTHER	RTC	Yes (User Accessible Battery)		
	Sensors	Temperature, 3-axis digital Accelerometer, 3-axis digital Gyroscope		
	LEDs	1x Power, 1x Cellular, 4x Programmable		
	Buttons	1x Reset, 1x Programmable		
	SIM Slot	2x microSIM (User Accessible)		
POWER	Input	Nominal: 12 or 24 VDC; Range: 9 to 30 VDC with transient protection		
	Consumption	2W Idle (15W Max)		

For more specifications and certifications, please check the ReliaGATE 10-12 datasheet.

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

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Included Accessories		
I/O INTERFACES	Ethernet	1x RJ45 Male Cable
	Serial	1x Serial Cable (2x RS-232/RS-485 Interfaces - 3 Wires Each - RS-232 Default Pinout) with 2x DB9 Screw Terminal Male Connectors (for Fast Pinout Switching: RS-232/RS-485) Wired on a 10P Terminal Block with 2P for Each Cable Reserved for the Termination Resistors – 1x Serial Cable (RS-232/RS-422/RS-485 - 9 Wires - RS-232 Null Modem Default Pinout) with DB9 Screw Terminal Female Connector (for Fast Pinout Switching: RS-232/RS-422/RS-485) – 1x USB to Serial TTL Cable Converter (Debug Port)
	CAN 2.0B	1x CAN bus Cable (2x CAN bus Interfaces - 4 Wires Each) with DB9 Male Connector wired on a 8P Terminal Block
	Digital I/O	1x Digital I/O Cable (2x Digital IN + 2x Digital OUT - 8 Wires) wired on a 8P Terminal Block
RADIO	Antennas	1x 5in1 Adhesive Mount Antenna providing: 2*LTE MIMO (Main + Diversity, on SMA connectors), 2*Wi-Fi/Bluetooth (2.4GHz Wi-Fi/BT + 5GHz Wi-Fi, on RP-SMA connectors), 1*GNSS (on SMA connector)
OTHER	Adapter	1x DB9 Female to Female Gender Changer – 1x DB9 Male to Male Gender Changer – 1x Breakaway Male to Male Pin Strip (40P), Gender Changer for Digital I/O Cable
	Resistor	2x 120 Ohm Termination Resistors for RS-485 Interface
	Documentation	1x Quick Start Guide, 1x Everyware Cloud Setup Guide
POWER	AC-DC PSU	1x 24VDC (24W) Power Supply Unit with Terminal Block (Only for -65, -66 versions)
	Blades	3x Power Blades for Wall Mount Adapter (US, JP, EU, UK) (Only for -65, -66 versions)
MECHANICAL	Mounting	1x Aluminum Wall Mount Bracket, 1x Nylon DIN Bar Mount Adapter

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