



- Quad Core, 64bit ARM
- IoT Building Block
- Secure
- Industrial Grade
- Expandable
- Open Platform
- Customizable



Features

ARM Powered - Powered by NXP i.MX 8M Mini CPU: quad core Cortex A53 performance for intensive workloads

IoT Building Block - Breadth of connectivity options: carrier certified LTE configurations with 2G/3G fallback, Wi-Fi, BLE, Gigabit Ethernet and Fieldbus interfaces, supporting Modbus, S7, OPC UA, and many more protocols

Secure from Cyberattacks - Designed to be secure: hardware anti-tampering, TPM 2.0 and optional IEC 62443-4-1/-4-2 assessment (Professional Service)

Industrial Grade - Extended operating temperature, wide range power supply with transient protection, optoisolated analog in and digital I/Os, protected USB, protected and isolated serial ports, DIN bar and wall mount

Expandable - Allows extra features by adding side expansion modules that provide LoRa, more DI/O, analog inputs, and custom peripherals

Open Platform - Features Everyware Software Framework (ESF), the IoT Java/OSGi based-middleware for IoT gateways that accelerates gateway development and enables remote management

Customizable - Personalization and full customization options are available, ranging from branding ("skins" and color) to deep HW/SW configurations

Description

The ReliaGATE 10-14 is a Multi-service IoT Gateway that has been designed to deliver LTE and 2G/3G connectivity to industrial and lightly rugged applications.

Based on the NXP i.MX 8M Mini Cortex-A53 quad core processor, with up to 4GB of RAM, up to 32GB of eMMC and a user-accessible microSD slot, the ReliaGATE 10-14 is a low power gateway suitable for demanding use cases: it supports a 9 to 30V power supply with transient protection, Display Port video output, two protected and isolated RS-232/422/RS-485 serial ports, two noise and surge protected USB ports, six optoisolated digital and two isolated analog interfaces.

The ReliaGATE 10-14 features a wide range of connectivity capabilities: it integrates a carrier certified LTE Cat 1 cellular modem with dual SIM support, Wi-Fi, Bluetooth 4.2/BLE, and two Gigabit Ethernet ports; an internal GNSS provides precise geolocation capabilities. Expansion options allow 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 10-14 is equipped with TPM 2.0, which provides standard cutting-edge security features that protect the system integrity and authenticity against unauthorized manipulations. It also features hardware antitampering and is designed to meet IEC 62443-4-1/-4-2 cybersecurity (Professional Service).

The ReliaGATE 10-14 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.

PRELIMINARY

Ordering code: REGATE-10-14-xx

XX		-32	-35	-36	-37
PROCESSOR	CPU	i.MX 8M Mini Quad Cortex-A53 1.6 GHz			
	GPU	2D and 3D Acceleration			
	Security	Secure Boot, Cryptographic Acceleration, TrustZone Architecture			
MEMORY	RAM	2GB (Up to 4GB LPDDR4)			
STORAGE	Embedded	16GB (Up to 32GB eMMC)			
	Additional	Micro SD Slot (User Accessible)			
I/O INTERFACES	Ethernet	2x 10/100/1000			
	USB 2.0	2x Host 2.0 (Noise and Surge Protected)			
	Serial	2x RS-232/RS422/RS-485 protected and isolated (5 wires), 1x Serial Console TTL			
	Digital I/O	4x Digital Inputs Optoisolated, 2x Digital Outputs Optoisolated, 2x 11bit Analog Inputs isolated			
	Video Out	1x Video Output (Display Port)			
RADIO INTERFACES	Internal Cellular	No	LTE Cat 1 (NA)	LTE Cat 1 (EU)	LTE Cat 1 (AP)
	GNSS	No	Internal GPS		
	Wi-Fi/BT	802.11 a/b/g/n/ac (2.4GHz, 5GHz) - BLE4.2 (2.4GHz)			
	Ext. Antennas	1x RP-SMA Wi-Fi/BT	2x SMA Cellular, 1x RP-SMA Wi-Fi/Bluetooth, 1x SMA GNSS		
OTHER	RTC	Yes (SuperCAP Backup)			
	Ext. Watchdog	Yes			
	EEPROM	256 Kbit			
	TPM	TPM 2.0			
	Anti-Tamper	Yes (2x Switches: Product Enclosure and Service Panel, Event Logging with Time Stamping)			
	Temp. Sensor	Yes			
	Accelerometer	3D Accelerometer / 3D Gyroscope			
	LED	1x Power Blue, 1x Cellular activity Green, 4x User Configurable (2x Green, 2x Amber)			
MISC	Buttons	Reset and Programmable Button			
	SIM Slot	No	2x miniSIM (User Accessible)		
EXPANSIONS	Connector	Expansion Connector compatible with ReliaIO 10-12 and ReliaWAN 10-12			
POWER	Input	Nominal: 12 or 24 VDC; Range: 9 to 30 VDC with Transient Protection			
	Consumption	5W (Typ.)			
ENVIRONMENT	Operating Temp.	-30°C to +70°C			
	Storage Temp.	-40°C to +85°C			
	Humidity	RH 5...95% Operating Non Condensing (40°C)			
CERTIFICATIONS	Regulatory	CE, FCC, ISED	CE, FCC, ISED	CE	JATE, TELEC
	Safety	EN 62368, UL 60950 (§)			
	Environmental	ROHS3, REACH			
	Wi-Fi/BLE Radio	RED, FCC, ISED	FCC, ISED	RED	JATE, TELEC
	Cellular Radio	No	FCC, ISED, PTCRB, AT&T, Verizon, T-Mobile	RED	JATE, TELEC
CERTIFICATION	Ingress	IP40			
MECHANICAL	Enclosure	Material: Aluminium/Magnesium Alloy - Color: Aluminium			
	Dimensions	107x85x46mm (LxWxH) - Excluding Connectors, DIN Bar Mounting Bracket			

SOFTWARE

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

