ReliaGATE 15A-14

MODULAR GATEWAY - i.MX 8M Plus - LTE - Carrier Certified - Wi-Fi/BT - LoRa - IEC 62443-4-2

- **Modular Gateway, with a wide range of configuration options**
- **ARM NXP i.MX8M Plus QuadLite**
- **Cybersecurity: Hardware plus Software, certified**
- **Intuitive Cloud Provisioning and Device Management**
- **Global cellular deployment for worldwide connectivity, 5G ready**
- **Open Platform and Cloud certified**
- **Compact, Fanless, DIN Rail Optimized**

Features

EXPANDABLE MODULAR GATEWAY : Offers a wide range of solutions for various use case and markets. Add LoRa, SFP ports, digital I/O, and more, including custom peripherals from a library of expansion modules

ARM POWERED : Powered by NXP i.MX8M Plus QuadLite: quad core Cortex A53 performance for intensive workloads

EVERYWARE GREENEDGE : With Everyware GreenEdge, the ReliaGATE 15A-14 acquires additional capabilities, evolving into the industry's first fully integrated gateway with Zero-Touch provisioning, AWS IoT Greengrass v2, Eurotech's Everyware Software Framework for IIoT equipment configuration and edge computing, and Everyware Cloud for full edge (and asset) lifecycle management.

BEST IN CLASS CYBERSECURITY : ISA/IEC 62443-4-1/-4-2 SL2 (Hardware plus Software), California SB-327 compliant, always on and power independent antitampering monitor and logger, TPM 2.0 and full hardware hardening

GLOBAL CELLULAR DEPLOYMENTS : Carrier certified LTE and ready to deploy in most countries, Wi-Fi, BLE, GNSS and 5G ready

EASY TO PROGRAM : Build your first pilot IIoT project in a snap: from when you get the Everyware GreenEdge gateway on your desk, you need 30 minutes to get onboard on Everyware Cloud and easily provision your gateway on your AWS IoT environment. Starting building your first edge applications like a store-and-forward datalogger in 10 minutes.

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

CLOUD CERTIFIED : Seamless integration with Eurotech Everyware Cloud, AWS IoT Core and other Cloud services

Description

The ReliaGATE 15A-14 supports internal modularity, to conveniently enable deep personalization options. Drawing feature sets from a library of standard modules, it is possible to add as many extra capabilities as needed; examples of modules include a LoRa Concentrator, a LoRa Node, Digital

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and Analog I/O expansions, extra Ethernet ports (SFP, RJ-45, SPE), a RedCap 5G cellular module, a precision GNSS module, and much more. For customers that require even more specific capabilities, Eurotech offers customization services that can meet any demand.

The ReliaGATE 15A-14 takes a novel approach at helping developers, devops and Infosec Officers in creating, securing, and administrating projects and fleets of devices throughout the entire lifecycle:

- Hardware developers can leverage on a platform that is feature rich, with a wide range of radio and wired interfaces, deeply certified and fully hardened against physical cyber-attacks. An additional benefits is the internal modularity of the product, which enables a high degree of configurations that can be created by combining a library of standard and custom modules at a fraction of the cost and time usually needed for a custom design.
- Application developers can accelerate dramatically the creation of their applications by exploiting the APIs and services provided by Everyware Software Framework (ESF), Eurotech's Java/OSGi middleware for IoT Edge Gateways. ESF supports ready-to-use field protocols (including Modbus, OPC-UA, S7), MQTT connectivity, and web-based visual data flow programming.
- Developers of containerized solutions can exploit the native Docker support.
- CISOs find the best-in-class Cybersecurity: a secure platform that has been certified to ISASecure/IEC 62443-4-2 SL2 with an always-on physical antitampering monitor/logger that is active even when the system is removed from power. An optional service ensures that security updates are timely delivered and easily applied to ensure constant protection throughout the product's lifecycle.
- Cloud developers benefit from native connectors to Eurotech Everyware Cloud, AWS and other third-party Cloud services.
- Devops can speed up and simplify most tasks thanks to advanced diagnostics, Zero Touch Provisioning, full remote device access and management

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Ordering Code: REGATE-15A-14-xx-yy				
Hardware Configuration (-xx)		-03	-06	-08
PROCESSOR	CPU	i.MX 8M Plus QuadLite Quad Cortex-A53 @1.6 GHz, 1x M7 Cortex-M7 @800MHz		
MEMORY	RAM	4GB LPDDR4		
STORAGE	Embedded	32GB eMMC		
I/O INTERFACES	Ethernet	2x 10/100/1000 Mbps - RJ-45		
	USB	2x 3.0 (5Gbps) Host (Noise and Surge Protected) - Type A		
	Serial	1x RS-232/422/485 (Not Isolated, SW Termination Resistor & Mode Selection)	1x RS-232/422/485 (Not Isolated, SW Termination Resistor & Mode Selection), 1x RS-232/422/485 (1 kV Isolated, SW Termination Resistor & Mode Selection)	
	CANBus	1x CAN-FD, Protected and Isolated, with SW Termination and Fail-safe Resistors	2x CAN-FD, Protected and Isolated, with SW Termination and Fail-safe Resistors	
	Digital Input	2x Digital Input 0-36V Input Range, 1kV Isolated	2x Digital Input 0-36V Input Range, 1kV; 4x Digital IN – 0-36V Input Range, 5kV (2.7kV RMS) Optoisolated	
	Digital Output	2x Digital Output (40VAC/DC), 500mA Sink, 1KHz Max Switching Isolated	2x Digital Output (40VAC/DC), 500mA Sink, 1KHz Max Switching; 3x Digital Out – 5kV (2.7kV RMS) Optoisolated	
	Analog In	-	4x Single-ended, 0-36V, 12-bit, Isolated; Factory Option: 4-20mA Current Loop Compatibility	
	Video Out	1x HDMI Video Output (v1.4/v2.0 spec; supports 4Kp30 video resolution)		
RADIO INTERFACES	Cellular	4G LTE Cat 4 Global	-	4G LTE Cat 4 Global
	SIM/eSIM	1x microSIM (User Accessible); Option: 1x eSIM (§)	-	1x microSIM (User Accessible); Option: 1x eSIM (§)
	GNSS	GPS, GLONASS, BeiDou, Galileo, QZSS	-	GPS, GLONASS, BeiDou, Galileo, QZSS
	Wi-Fi/BT	-	802.11 a/b/g/n/ac (2.4GHz, 5GHz) - BLE5 (2.4GHz)	
	Antennas	2x SMA Cellular, 1x SMA GNSS	1x RP-SMA Wi-Fi/BT	2x SMA Cellular, 1x RP-SMA Wi-Fi/BT, 1x SMA GNSS
OTHER	RTC	Yes (SuperCAP Backup)		
	Ext. Watchdog	Yes (Independent Watchdog)		
	EEPROM	256 Kbit		
	Sensors	Temperature		
	LED	1x Power, 1x Cellular, 4x User Configurable	1x Power, 4x User Configurable	1x Power, 1x Cellular, 4x User Configurable
	Buttons	1x Reset Button and 1x Programmable Button		
CYBER (HW)	TPM	TPM 2.0		
	Anti-Tamper	Yes, Always-on Physical Tampering Monitoring, Reporting and Event Logging with Time Stamping; TrustZone Architecture		
POWER	Input	Nominal: 12 or 24 VDC; Range: 9 to 30 VDC with Transient Protection, Ignition Key Sense		
	Consumption	3.5W Idle (7.5W Typ.)		
ENVIRONMENT	Operating Temp.	-25 to +70°C, Fanless		
	Storage Temp.	-40 to +85°C		
	Humidity	RH 5...95% Operating Non Condensing (40°C)		

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CERTIFICATIONS	Regulatory	CE, FCC, ISED, JATE/TELEC		
	Safety	CB, IEC 62368-1, cULus Mark, Designed to be Compliant with ANSI-UL 62368-1		
	Cybersecurity	EN 18031-1 (RED-DA) - Off-the-shelf Compliance		
	Radio	RED		
	Cellular Carriers	PTCRB, AT&T, Verizon, T-Mobile (§), Rogers (§), Telus (§), SoftBank (§), KDDI (§), NTT DoCoMo (§)	-	PTCRB, AT&T, Verizon, T-Mobile (§), Rogers (§), Telus (§), SoftBank (§), KDDI (§), NTT DoCoMo (§)
	Environmental	ROHS3, REACH		
	Ingress	IP40		
MECHANICAL	Enclosure	Material: Aluminium - Color: Dark Grey/Purple		
	Dimensions	117x60x132mm (LxWxH) - Excluding Connectors, DIN Bar Mounting Bracket		
	Weight	< 0.7 kg (depending on configuration)		

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Software Configuration (-yy)		-02	-03	-04	-09	-10
OS	Eurotech Everyware Linux	Yes				
IOT FRAMEWORK	Everyware Software Framework (Includes Zero-Touch-Provisioning)(*)	-	Yes			
SUITE and SERVICES	Everyware GreenEdge (EGE)	-		Yes	-	Yes
SOFTWARE HARDENING	Hardening	-			Yes	
CERTIFICATIONS	Cybersecurity	-			ISASecure/IEC 62443-4-1/-4-2 SL2 Host†	
	IoT Platform	-		AWS IoT Core, AWS IoT GreenGrass	-	AWS IoT Core, AWS IoT GreenGrass

* Requires Everyware Cloud

† additional Professional Service might be required depending on customer requirements

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