ReliaGATE 20-25 Development Kit

EC   **ESF**

FEATURES

Ready to Plug - Contains all the hardware needed to get started, including one ReliaGATE 20-25 and a complete set of cables and accessories

Ready to Code - Features Everyware Software Framework (ESF), the Java/OSGi based-middleware for IoT 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

The ReliaGATE 20-25 IoT Development Kit allows quick development and prototyping of IoT applications on an industrial grade platform which is pre-certified for global deployment. The kit targets all aspects of an IoT application from hardware interfacing, to development of on-board software and cloud connectivity.

The ReliaGATE 20-25 is a high-performance, globally certified, IoT gateway for industrial and lightly rugged applications. It features up to four cores, soldered-down ECC RAM and storage, extended operating temperature support, wide range power supply, isolated and protected I/O interfaces, Wi-Fi / Bluetooth and a range of cellular options.

The ReliaGATE 20-25 comes with Everyware Software Framework (ESF), a commercial, enterprise-ready edition of Eclipse Kura, the open source Java/OSGi middleware for IoT gateways. Distributed and supported by Eurotech, ESF adds advanced security, diagnostics, provisioning and remote access. It 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's IoT Integration Platform (separately available), enabling advanced diagnostics, provisioning, and full remote device access and management.

The ReliaGATE 20-25 is Microsoft Azure certified and can also be integrated with 3rd party cloud services such as Amazon Web Services IoT.

EUROTECH
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ReliaGATE 20-25 Development Kit

Specifications

Ordering code: REGTW-D2025-B00☐☐		
HARDWARE CONFIGURATION		☐3	☐5
PROCESSOR	**CPU**	E3827, 1.75GHz, Dual Core	E3845, 1.91GHz, Quad Core
MEMORY	**RAM**	2GB, 1333MHz (DDR3L-ECC)	4GB, 1333MHz (DDR3L-ECC)
STORAGE	**Embedded**	8GB eMMC	
	SATA	1x SATA 2.0 - Internal Connector 1x 32GB mSATA (Included on 4☐ Variants)	
	Other	1x microSD Slot (User Accessible)	
I/O INTERFACES	**Ethernet**	2x 10/100/1000Mbps - RJ45	
	USB	1x Host 3.0, 1x Host 2.0, 1x ReliaCELL (Noise and Surge Protected) - Type A	
	Serial	2x RS-232/RS-422/RS-485 (9 Wires, Noise and Surge Protected) - DB9 1x Serial Console TTL	
	CAN 2.0B	2x CAN Bus With 5V (100mA) Power Out	
	Digital I/O	3x Digital Input 7 - 35VDC, 1KV Optoisolated - 3x Digital Output (40VDC), 20mA Sink	
	Video	1x Mini DisplayPort	
EXPANSION	**miniPCIe Slots**	Up to 3x Full/Half Size Mini PCIe (PCIe/USB/mSATA)	
RADIO INTERFACES	**Cellular**	Eurotech ReliaCELL 10-20 Option (Not Included)	
	GPS	Eurotech ReliaCELL 10-20 Option (Not Included)	
	Wi-Fi / BT	b/g/n, BLE	
OTHER	**Sensors**	Temperature, Accelerometer	
	LEDs	1x Power, 3x miniPCIe Slot, 2x Programmable (Dual Color Green/Amber)	
	Buttons	1x Reset, 1x Programmable	
POWER	**Input**	7 - 35VDC (Nominal 12VDC), Surge and Sag Protection, Vehicle Ignition Input	
	Consumption	10W Idle	12W Idle

For more specifications and certifications, please check the ReliaGATE 20-25 datasheet

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SOFTWARE CONFIGURATION		3☐	4☐
SOFTWARE	**OS**	Yocto Linux	Windows 10 IoT Enterprise
	SDK	Yocto-based Eclipse Tooling, Oracle Java SE	-
	IoT Framework	Everyware Software Framework (Java/OSGi)	-

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INCLUDED ACCESSORIES		3☐	4☐
I/O INTERFACES	**Ethernet**	1x RJ45 Male Cable	
	Serial	2x 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 with DB9 Male Connector wired on a 16 P Terminal Block	-
	Digital I/O	1x Digital I/O Cable (3x Digital IN + 3x Digital OUT) wired on a 16 P Terminal Block	-
RADIO	**Wi-Fi / BT**	1x Dipole Wi-Fi / Bluetooth (2.4/5GHz) Antenna with RP-SMA Connector	
OTHER	**Adapter**	1x DB9 Male to Male Gender Changer 1x DB9 Female to Female Gender Changer 1x Breakaway Male to Male Pin Strip (40P) - Gender Changer for Digital I/O Cable	
	Documentation	1x Quick Start Guide 1x Everyware Cloud Setup Guide	-
POWER	**AC-DC PSU**	1x 24VDC (40W) Power Supply Unit with Terminal Block	
	Blades	3x Power Blades for Wall Mount Adapter (US, JP, EU, UK)	

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