BoltGATE 20-25

- **Rolling Stock Certified**
- **Visual Programming**
- **Fanless Performance**
- **LTE, Wi-Fi/BLE, GPS**
- **Open Platform**
- **Highly Customizable**
- **Long-term Availability**

EN50155

EC   **ESF**

FEATURES

Rolling Stock Certified - Certified for EN50155 (TX Temperature Class, EN50155 Class S2 wide range power supply) and EN45545 (Fire and Smoke). Suitable for any heavy duty, rugged application where long-term availability and support is a must have requirement

Integrated Stack - Visually compose powerful data flows for bus data acquisition, edge analysis and cloud communication

Fanless Performance - Low power performance, with single, dual and quad core Intel Atom E38xx options in a fanless and ventless package

Highly Connected - Carrier pre-certified LTE cellular connectivity, 2.4/5.0GHz Wi-Fi, BLE, and Dead Reckoning GPS

Open Platform - Provides an integrated open IoT Edge Framework to free the developer from proprietary solutions

Highly Customizable - Modular design for application customizations, ranging from factory options to custom front panel connectors and software builds

Long-term Availability - Designed for markets and use cases where long-term availability and support is a must have requirement

By offering integrated hardware and software connectivity towards the Field and the Cloud, the BoltGATE 20-25 is a Multi-service IoT Edge Gateway, EN50155 and IP66 certified, designed to address the challenges of the next-generation applications for smart transportation and connected railway.

The BoltGATE 20-25 is a fanless, compact unit based on the Intel® Atom™ E38xx processor; with up to four cores, 4GB of RAM and 8GB of eMMC it exceeds the requirements of rolling stock in the TX temperature class. Up to two internal or removable SATA disks and a user-accessible microSD slot provide plenty of storage capacity; other features include video, audio, two protected USB 2.0 ports, four isolated serial interfaces and DI/O, and CAN bus interfaces - and a wide range of connectivity capabilities including two Gigabit Ethernet, one LTE Cat 4 cellular modem, Wi-Fi, Bluetooth Low Energy, and a dedicated internal GPS with Dead Reckoning.

Powered by the Eurotech IoT Edge Framework, Everyware Software Framework (ESF), the BoltGATE 20-25 offers a friendly web-based user interface that allows to visually compose powerful data flows to acquire data from its interfaces, analyze it on the Edge, and publish it to the Cloud though the popular MQTT protocol. Everyware Cloud, Eurotech IoT Integration Platform, completes this solution by providing data integration to the applications and by offering complete management of the devices deployed on the field.

For customers requiring more configuration flexibility, Eurotech Professional Services offer an extensive number of options, both for the hardware (e.g. additional features, custom front panel/connectors, branding) and for the software (e.g. customized application images).

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Imagine. Build. Succeed.

General Specifications		
PROCESSOR	CPU	E3845, 1.91GHz, Quad Core - E3827, 1.75GHz, Dual Core - E3815, 1.46GHz, Single Core
MEMORY	RAM	Up to 4GB 1333MHz (DDR3L-ECC)
STORAGE	Embedded	8GB eMMC – Optional mSATA Module
	Drive Bay	1x Removable Drive Bay for up to 2x 2.5" Drives (with Key Lock)
	Other	1x microSD Slot (Service Panel)
I/O INTERFACES	Ethernet	2x 10/100/1000Mbps, M12 X-coded Connector
	USB	2x USB 2.0 Noise and Surge Protected, 1x USB 2.0 (Service Panel)
	Serial	2x RS-232/422/485 (9-wire) Isolated, 2x RS-485/RS-422 (5-wire), 1x TTL Console (Service Panel)
	CAN 2.0B	2x CAN bus 100mA with 5V Power Out, Isolated
	Digital I/O	4x Digital Input, 4x Digital Output, 1x Odometer, 1x Ignition Key (All DI/O Isolated, EN50155), 24V
	Video	1x Micro HDMI (Service Panel) – Optional: 1x HDMI (Circular Connector)
	Audio	1x Line IN, 1x 2W Class D Stereo OUT – Factory Option: 1x Stereo Mic IN 1x Line OUT
EXPANSION	MiniPCIe Slots	3x Full/Half-Size Mini PCIe Slots (USB/mSATA, USB/PCIe, USB)
RADIO INTERFACES	Cellular	1x LTE Cat 4 Modem
	GPS	GPS/QZSS/GLONASS/BeiDou/Galileo with Dead Reckoning
	Wi-Fi / BT	802.11 a/b/g/n, BLE 4.0
	Antennas (External)	2x SMA Cellular, 2x RSMA Wi-Fi/BT, 1x SMA GPS
OTHER	RTC	Yes, with SuperCAP (up up 2 Months Retain)
	Ext. Watchdog	Yes
	EEPROM	32KB
	TPM	Factory Option: TPM 1.2/2.0
	Sensors	Temperature, Accelerometer
	LEDs	1x Power, 3x Activity (MiniPCIe Slots), 2x Programmable
	Buttons	1x Reset, 1x Programmable (Service Panel)
	SIM Slot	2x Single SIM, Switchable for Bandwidth Aggregation and Carrier/Cellular Backup (Service Panel)
POWER	Input	9 - 137.5VDC Wide Input Range, EN50155 Class S2 for 24VDC and 110VDC Nominal Voltage Inputs
	Consumption	15W Typ, 30W Max
ENVIRONMENT	Operating Temp	TX according to EN50155 (-40 to +70°C, -40 to +85°C for 10 Minutes)
	Storage Temp	- 40 to +85 °C
CERTIFICATIONS	Regulatory	CE
	Safety	EN 62368
	Vertical	EN50155, EN45545 (Fire and Smoke)
	Environmental	RoHS2, REACH
	Wi-Fi / BT Radio	CE (RED)
	Cellular Radio	CE (RED)
	Ingress	IP66
MECHANICAL	Enclosure	Material: Aluminium - Color: Black Anodized
	Dimensions	268x141x85mm (LxWxH) - with Connectors
	Weight	3.7Kg

SOFTWARE	
OS	Eurotech Everyware Linux or Windows 10 IoT Enterprise
SDK	Yocto-based Eclipse Tooling, Azul Java
IoT Framework	Everyware Software Framework (Java/OSGi)

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