Fanless Embedded Edge AI - NVIDIA Jetson Orin™ NX





- NVIDIA® Jetson Orin™ NX, Up to 100 TOPS
- Best in Class Cybersecurity
- PoE Camera Support
- Certified Radios
- Compact and Fanless
- Easy to Program
- Cloud Certified







Features

GPU ACCELERATED: Powered by NVIDIA® Jetson Orin™ NX with up to 100 TOPS of GPU accelerated computing

BEST IN CLASS CYBERSECURITY: ISA/ IEC 62443-4-1/-4-2 SL2 (Hardware plus Software) certified, always on and power independent

antitampering monitor and logger, TPM 2.0 and full hardware hardening

CAMERA SUPPORT: Support to 4x PoE cameras plus 4x USB 3.1 cameras

CERTIFIED RADIOS: Breadth of connectivity: LTE Cat 4 Global cellular for multiple geographies (RED Certified), Wi-Fi 6E and Bluetooth 5.3 **EVERYWARE GREENEDGE:** With Everyware GreenEdge, the ReliaCOR 31-11 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.

COMPACT AND FANLESS: Offering great reliability thanks to no moving parts; no ventilation grids to prevent dust accumulation inside the unit **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 gen 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

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

Description

The ReliaCOR 31-11 is a compact fanless and ventless embedded Edge AI system based on NVIDIA® Jetson Orin™ NX platform, delivering up to 100 TOPS of AI performance.

Designed for industrial use cases, it offers reliable operation thanks to industrial grade ruggedization and a robust power supply. Very compact and power efficient, the ReliaCOR 31-11 can be deployed in dense installations.

The ReliaCOR 31-11 is powered by the NVIDIA® Jetson Orin™ NX platform featuring a 1024-core NVIDIA Ampere™ architecture GPU with 32 Tensor cores and an 8-core Arm® Cortex®-A78AE CPU, delivering up to 100 TOPS of AI performance. It supports rich I/O interfaces: 4x 1GbE with PoE, 4x USB 3.1 Gen 1 (5Gbps), two serial ports, 1x CAN interface and isolated Digital I/O. The ReliaCOR 31-11 features with a wide range of wireless connectivity capabilities: it integrates a certified LTE Cat 4 Global cellular modem with GNSS, Wi-Fi 6E and Bluetooth 5.3.

The ReliaCOR 31-11 offers best in class Cybersecurity: it leads the market with ISASecure/IEC 62443-4-1/-4-2 SL2. Protection starts at the hardware level, with full support for TPM 2.0, Secure Boot and an always-on physical antitampering monitor/logger that is active even when the system is removed from power. For most demanding customers, special production-only images can be configured with full hardware hardening (interface disabling) to further reduce the attack surface.

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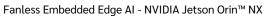


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The ReliaCOR 31-11 comes with Everyware Software Framework (ESF), a commercial, enterprise-ready edition of Eclipse Kura, the open source Java/OSGivmiddleware for IoT Edge Gateways. Distributed and supported by Eurotech, ESF offers ready-to-use field protocols, MQTT connectivity, webbased 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 ReliaCOR 31-11 can be come with Everyware GreenEdge, the ReliaGATE 31-11 transforms into the first industrial Embedded Edge AI fully integrated with Zero-Touch provisioning and full trusted chain from manufacturing to deployment, AWS IoT Greengrass v2, and ESF+EC, providing a few-clicks onboarding experience and immediate deployment in most countries, eliminating the need for extensive coding and transforming the device management and IoT operations into a smooth workflow. In addition to its technical advantages, Everyware GreenEdge comes with a unified billing system for all software and services related costs through the Amazon Marketplace. This simplifies the procurement process, making it easier for customers to access and manage the solution while also benefiting from AWS's trusted billing infrastructure.

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	0	rdering Code: RECOR-31-11-3	xx-yy			
Hardware Configuration (-xx)		-01	-11	-21		
	Core	NVIDIA® Jetson Orin™ NX 8GB	NVIDIA® Jetson Orin™ NX 16GB			
NVIDIA MODULE	CPU	6-core NVIDIA Arm® Cortex A78AE v8.2 64-bit CPU (1.5MB L2 + 4MB L3)	8-core NVIDIA Arm® Cortex A78AF v8.2 64-bit CPU (2MB I 2 +			
	GPU	1024-core	1024-core NVIDIA Ampere GPU with 32 Tensor Cores			
	Memory	8GB LPDDR5 16GB LPDDR5				
	Al Performance	70 TOPS 100 TOPS		TOPS		
TORAGE	NVME	120GB, M.2 Key M, PCle x4, TLC	240GB, M.2 Key M, PCle x4, TL0	480GB, M.2 Key M, PCle x4, T		
I/O INTERFACES	Ethernet	4x 1GbE (RJ-45)				
	PoE	- PoE+				
	USB	4x USB 3.1 Gen 1 (Type A, 5Gbps); 1x USB OTG (Micro-B)				
	Serial	2x RS-232/485; DB9				
	CANBus	1x CANBus 2.0 (DB9)				
	Digital IN	8x Isolated; Terminal Block				
	Digital OUT	8x Isolated; Terminal Block				
	Video		1x HDMI 2K (2560*1440) 60Hz			
RADIO INTERFACES	Cellular	- 1x HDMI 2K (2360 1440) 60H2				
	SIM			1x External Micro SIM sock		
	GNSS	,	-	GPS, Glonass, Beidou, Galile QZSS		
	Wi-Fi/BT	-	Wi-Fi 6E / BT 5.3	-		
CYBER (HW)	TPM	TPM 2.0				
	Antitampering	Antitampering Switches				
COOLING	Technology	Fanless and Ventless				
OWER	Power Input	9 to 36	9 to 36V (12VDC Nominal); 3-pin Terminal Block			
INTERNAL EXPANSIONS ENVIRONMENTAL	M.2 Key B	1x M.2 Key B (3042/3052, USB 3.2 Gen1)				
	M.2 Key E	1x M.2 Key E (3042/3032, 03B 3.2 Gen1) 1x M.2 Key E (2230, PCIe x1, USB 2.0)				
	M.2 Key M	1x M.2 Key L (2230, PCIe x1, 03B 2.0)				
	Operating Temperature	-20°C to +55 °C				
	Storage Temperature	-30° to 85°C				
	Relative Humidity (Non-condensing)	10 to 95% non Condensing				
CERTIFICATIONS	Regulatory	CE, FCC, ISED				
	Safety	IEC 62368-1, UL62368-1 (UL Listed)				
	Radios	_	- RED (EU)*			
	Environmental	ROHS3, REACH				
	Cybersecurity	ISA/IEC 62443-4-1/-4-2 SL2*				
	Vibration	IEC60068-2-64:2008;Designed to comply with MIL-STD-810G Method 514.7 Procedure I				
	Shock	IEC60068-2-27:2008;Designed to comply with MIL-STD-810G Method 514.7 Procedure I				
	IoT Platform	GreenEdge*, AWS IoT GreenGrass qualified*, AWS IoT Core qualified*, NVIDIA Qualified*				
MECHANICAL	Enclosure	Extruded Aluminum with Heavy Duty Metal				
	Weights	Extre	2.8 ~ 3.6 kg			
	Dimensions	192x140x58mm (WxHxD)				
	Mounting Options	Wall Mounting/DIN rail (Optional)				

^{*} Planned or Ongoing

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Ordering Code: RECOR-31-11-xx-yy						
Software Configuration (-yy)		-04	-10			
os	Linux Ubuntu with JetPack	Yes				
SUITE AND SERVICES	Everyware GreenEdge (EGE)	Yes				
SOFTWARE HARDENING	Hardening	-	Yes			



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