

ReliaCOR 44-11 - Edge AI Server

Versatile AI Server for Industrial Applications - 1 GPU, 2-bay Removable Storage, 2x 10GbE



- Versatile Vision and Inference
- Robust cybersecurity: Hardware + software hardening
- Up to 18TFLOPS FP16/ 36TOPS INT8
- Intel Core i7, 10Gb/s Ethernet
- Dual Removable Storage Bays
- Compact and light, Industrial Grade
- Configuration Service

Features

Data Vision and Inference : Designed for data acquisition and processing, with support for AI workload and a range of factory options, such as field buses (Can, etc.), frame grabber, etc.

Designed for Industrial Environments : Meets the most demanding requirements of industrial environments: select components and rigorous testing to ensure reliable operation; DC, industrial grade power supply for seamless deployments

Powerful Data Aggregation and Accelerated AI : With an Intel Core i7 CPU, one NVIDIA® GPU and quad 10GbE interfaces, supports a large variety of workloads, including general purpose computing, data logging, data acquisition, fusion and filtering

Dual Removable Storage : Two storage bays for 2.5" SATA drives that offer the convenience of easy access and removal; RAID 0/1 to provide the speed and reliability required for intensive data ingestion

Simple to Deploy : Extremely compact to fit easily in dense installations; with user accessible filters to protect the system from airborne pollutants; custom mounting options to simplify the development

Configuration Service : Highly modular design, allows for personalized configurations, ranging from personalization (branding, color) to deeper customization, to match complex project requirements

Description

The ReliaCOR 44-11 is a versatile platform that offers a very balanced combination of computational performance, storage capacity and network bandwidth for workloads that include data acquisition and fusion, AI inference and data logging.

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 44-11 can be deployed in dense installation; an optional mounting accessory further increases its versatility. User-serviceable filters offer the convenience of protection from airborne pollutants, such as dust and particulate, which are often found in industrial applications.

The ReliaCOR 44-11 features a top-of-line Intel Core i7 CPU, to deliver power efficient computational crunch, and provides AI acceleration thanks to a high-end NVIDIA® A2 GPU. Connection to the factory floor IP network and sensors is enabled by two 10GbE and two GbE interfaces: use cases requiring fieldbus interfaces towards assets (such as CAN/ CAN-FD, isolated RS-232/422/485) are optionally available as a professional service.

The ReliaCOR 44-11 is also a capable storage server, supporting two removable bays for 2.5" SATA drives in RAID 0/1 configurations to provide high speed data recording and to offer extra protection to valuable information.

The ReliaCOR 44-11 offers best in class Cybersecurity: it leads the market with ANSI/ISA 62443-4-1/-4-2 SL2, IEC 62443-4-1/-4-2 SL2; it is also compliant with California SB-327 password law. 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.

The ReliaCOR 44-11 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.

Eurotech configuration management service allows fine tuning the ReliaCOR 44-11 to meet and exceed your project requirements; Examples of personalized configuration include customer branding (with logo and custom colors) and can go to deep customization with a range of options for project specific requirements (such as frame grabbers, choice of internal components, etc.): call us for more information on configuration management options

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Ordering Code: RECOR-44-11-XX

	XX	-07	-08	-19
PROCESSOR	CPU	Intel Core i3-10100TE	Intel Core i5-10500E	Intel Core i7-10700E
	Cores/ Threads	4 Cores / 8 Threads	6 Cores / 12 Threads	8 Cores / 16 Threads
	Frequency	2.30GHz / 3.60GHz	3.10GHz / 4.20GHz	2.90GHz / 4.50GHz
	TDP CPU	35W	65W	
AI ACCELERATION	GPU	-	-	1x Nvidia® A2
	TP32 Tensor Core	-	-	9 TFLOPS; 18 TFLOPS (Sparsity)
	BFLOAT16 Tensor Core	-	-	18 TFLOPS; 36 TFLOPS (Sparsity)
	FP16 Tensor Core	-	-	18 TFLOPS; 36 TFLOPS (Sparsity)
	INT8 Tensor Core	-	-	36 TOPS; 72 TOPS (Sparsity)
	INT4 Tensor Core	-	-	72 TOPS; 144 TOPS (Sparsity)
MEMORY	RAM	8GB DDR4	16GB DDR4	32GB DDR4
STORAGE	OS Disk	500GB MLC NVME		
	Data Disks	1x 240GB MLC	2x 960GB MLC	2x 1.92TB TLC
	RAID	-	RAID 0/1 Software RAID	
I/O INTERFACES	Ethernet	2x 1GbE (RJ45)		2x 10GbE (RJ45); 2x 1GbE (RJ45)
	Timing Support on Ethernet	-		IEEE 1588 PTP
	USB 2.0	2x USB 2.0 (Type A)		
	USB 3.0	6x USB 3.2 Gen 1 (Type A)		
	Serial	2x RS-232/422/485 (DB9)		
	CANBus	CAN / CAN-FD, FlexRay, LIN, others (Factory Option)		
	Frame Grabber	Factory Option		
	Video Out	1x HDMI v1.4b; 1x DisplayPort v1.2; 1x DVI-D		
	Audio	1x Line-in, 1x Line-Out, 1x Mic-In		
RADIO INTERFACES	Internal Cellular	Factory Option		
	GNSS	Factory Option		
	Wi-Fi/ Bluetooth	Factory Option		
WATCHDOG	Hardware	Yes		
CYBERSECURITY (HARDWARE)	TPM	TPM 2.0 Support		
EXPANSIONS	Internal Expansion	1x M.2 2230 Key E (CNVi), 1x M.2 2280 Key M (NVME), 2x PCIe (x8 G3), 4x SATA III Expansion Availability Depends on Product Configuration		
COOLING	Technology	Air Cooling		
POWER	Input	16 ~ 30VDC (24VDC Nominal) / 400Watt		
ENVIRONMENT	Operating Temp.	0° to +55°C		0° to +50°C
	Storage Temp.	-20° to +70°C		
	Humidity	10 to 90% Relative Humidity (Non-condensing) at +40°C		
CERTIFICATIONS	IoT Platform	Ubuntu Certified (ODM Partner Program), AWS IoT Core, AWS IoT Greengrass, NVIDIA Certified System, NVIDIA NVQual (A2 GPU)		
	Regulatory	EU/UK: CE, UKCA; North America: FCC, ISED; Japan: Factory Option; Other Countries: Factory Option		
	Cybersecurity	Secure Boot, TrustZone Architecture, California SB-327, Always-on Antitamper Monitor, TPM 2.0, ANSI/ISA 62443-4-1/-4-2 SL2, IEC 62443-4-1/-4-2 SL2		
	Cellular	Factory Option		
	Safety	Low voltage safety (2014/35/EU); EN 62368-1, UL 62368 (S)		
	Environment	RoHS3, REACH		

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Ingress	IP20	
MECHANICAL	Enclosure	Material: Metal; Color: Black
	Dimensions	215 x 131 x 300mm (WxHxD), excluding antennas

§ UL, NRTL listing Factory Option.

SOFTWARE

SOFTWARE	OS	Ubuntu 22.04 LTS
	IoT Framework	Everyware Software Framework (Java/OSGi)

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