



- Versatile Vision and Inference
- Industrial Grade
- Up to 18TFLOPS FP16/ 36TOPS INT8
- Up to 12th Gen Intel Core i7
- Removable Storage Bay
- Many Expansion Options
- Compact and light
- Configuration Service

Features

Data Vision and Inference : Designed for data acquisition and processing, with support for AI workloads and a range of factory options, such as Field buses (CAN, etc.), frame grabbers, 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 deployment

Powerful Data Aggregation and Accelerated AI : With an Intel Core 12th Gen CPU, one NVIDIA A2 GPU and many expansion options, supports a large variety of workloads, including general purpose computing, data logging, data acquisition, fusion and filtering

Removable Storage : One storage bay for 2.5" SATA drives that offer the convenience of easy access and removal

Many Expansion Options : Provides support for up to 3 PCIe cards and comes with two Universal I/O Bays that allow multiport GbE/10GbE/PoE/USB3.0 and more

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 54-12 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 54-12 can be deployed in dense installations; an optional mounting accessory further increases its versatility.

The ReliaCOR 54-12 features a 12th Generation 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 2.5 GbE interfaces that support TSN for deterministic Ethernet; use cases requiring Fieldbus interfaces towards assets (such as CAN/CAN-FD, isolated RS-232/422/485) are optionally available as a Professional Service.

With three PCIe slots (availability depends on starting configuration), the ReliaCOR 54-12 allows great flexibility in adding features to meet any use case.

Two Universal I/O bays provide each additional interfaces, such as 4x GbE on RJ45/M12 (optionally PoE), 2x 10GbE, 4x USB3 and more.

The ReliaCOR 54-12 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.

Eurotech configuration management service allows fine tuning the ReliaCOR 54-12 to meet and exceed your project requirements; examples of personalized configurations 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-54-12-XX

XX		-01	-02	-03
PROCESSOR	CPU	Intel Core™ i3-12100TE	Intel Core™ i5-12500E	Intel Core™ i7-12700E
	Cores/ Threads	4 Cores / 8 Threads	6 Cores / 12 Threads	8 P-cores / 4 E-cores / 20 Threads
	Frequency	2.10GHz / 4.00GHz	2.90GHz / 4.50GHz	1.60GHz / 3.60GHz (E-cores); 2.10GHz / 4.80GHz (P-cores)
	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 DDR5	16GB DDR5	32GB DDR5
STORAGE	OS Disk	500GB		
	Data Disks	1x Removable 240GB MLC, (2.5" SATA) RAW	1x Removable 960GB MLC, (2.5" SATA) RAW	1x Removable 1.92TB TLC, (2.5" SATA) RAW
I/O INTERFACES	Ethernet	2x 2.5GbE (RJ45) – with TSN		
	USB 2.0	2x USB 2.0 - Internal		
	USB 3.0	4x USB 3.2 Gen 2 (10Gbps) - Type A; 5x USB 3.2 Gen 1 (5Gbps) – Internal		
	Serial	2x RS-232/422/485 (DB9); 4x RS-232/422/485 (internal)		
	FieldBus	CAN / CAN-FD, FlexRay, LIN, Others (Factory Option)		
	Digital I/O	8x Digital IN / 8x Digital OUT (isolated)		
	Video Out	2x DisplayPort, 1x DVI-I		
CYBERSECURITY (HARDWARE)	TPM	TPM 2.0 Support		
EXPANSIONS	Internal Expansion	1x M.2 2230 Key E (PCIe x1, USB 2.0, CNVi), 1x mSATA/miniPCIe, 2x Universal I/O Bays, 2x PCIe x16 (8-lane) G4, 1x PCIe x4 (1-lane) G3 Expansion Availability Depends on Product Configuration		
COOLING	Technology	Active Air Cooling		
POWER	Input	9 ~ 48VDC (24VDC Nominal), Ignition Key		
ENVIRONMENT	Operating Temp.	-25° ~ 70°C	-25° ~ 60°C	
	Storage Temp.	-30° ~ 85°C		
	Humidity	10 to 95% Relative Humidity (Non-condensing)		
CERTIFICATIONS	Regulatory	EU/UK: CE, UKCA, North America: FCC Class A, Japan: Factory Option, Other Countries (Factory Option)		
	Cellular	Factory Option		
	Environment	RoHS3, REACH		
	Ingress	IP20		
MECHANICAL	Enclosure	Material: Extruded Aluminum; Color: Black		
	Dimensions	177x240x340mm (WxHxD), excluding antennas		

SOFTWARE

SOFTWARE	OS	Windows 10/11, Linux (Ubuntu LTS)
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