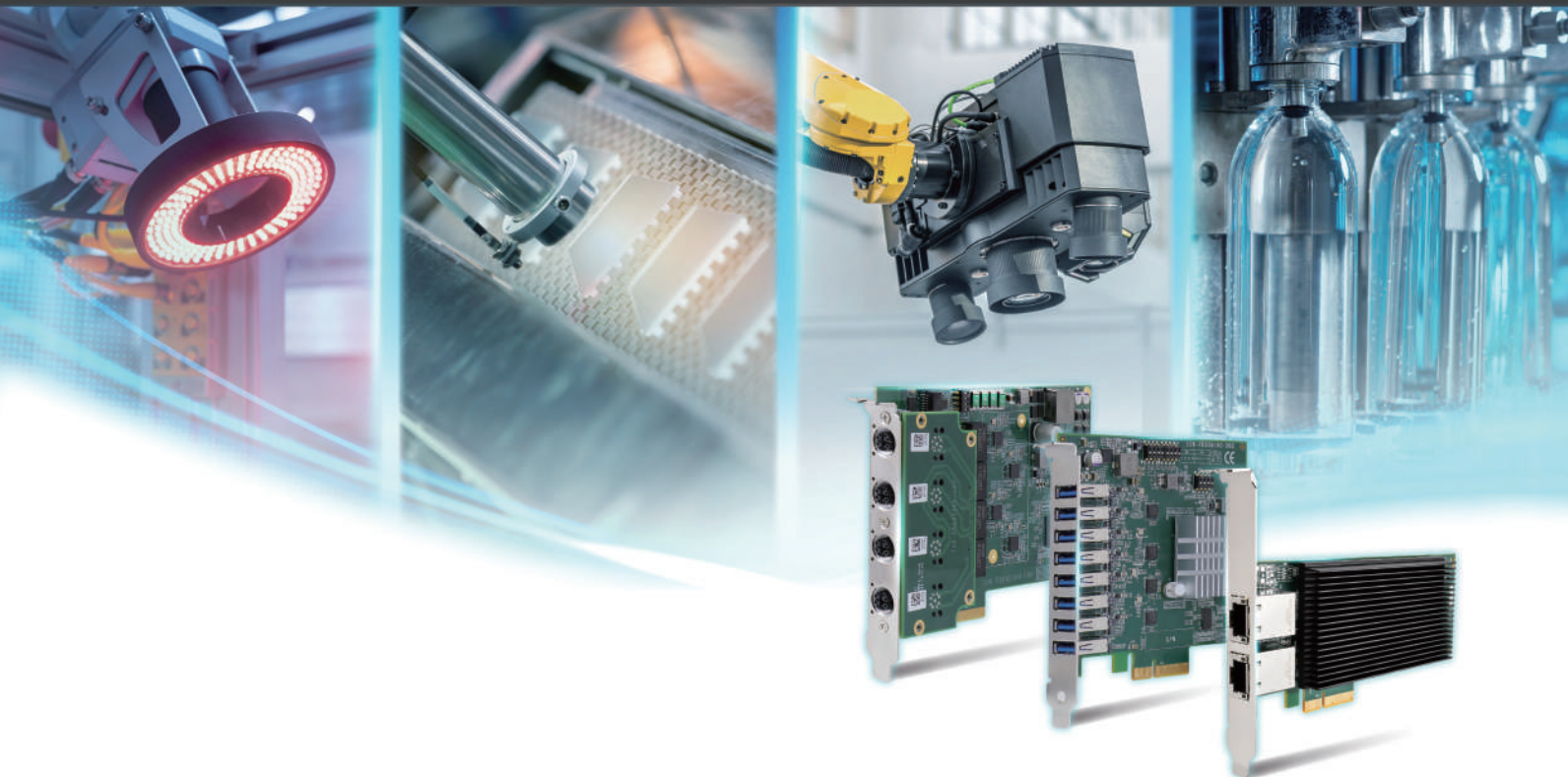# NEOUSYS TECHNOLOGY

High-Performance Frame Grabber Cards

for Vision Applications

www.neousys-tech.com

Precision in Motion: Elevate Your Vision Applications

Neousys frame grabber cards support high-definition resolution and rapid frame rates for high-speed vision applications. Offering excellent operating compatibility and reliability, they are available in 1G, 2.5G, 5G, and 10G variants while supporting GigE, 5GigE, 10GigE, and USB3 cameras. With independent controllers for smooth data transfer, PoE+ support, and rugged RJ45 and M12 connectors, these cards excel in machine vision and surveillance, delivering precision and speed in demanding industrial environments.

- High bandwidth
- Wide-temp operation (70°C / -25°C)
- PoE+ support
- M12 connectors

Machine Vision

Vision Guided Robot

Surveillance & Security

Product Portfolio

PoE Capability		1 Gbps	2.5 Gbps	5 Gbps	10 Gbps
IEEE802.3bt (PoE++)				PCIe-PoE425bt	PCIe-PoE572bt
IEEE802.3at (PoE+)	PCIe-PoE312M	PCIe-PoE352at/ PCIe-PoE354at	PCIe-PoE334LP	PCIe-PoE454at	PCIe-PoE550X
Non PoE			PCIe-USB381F	PCIe-N452	PCIe-10G550X PCIe-N572

Bandwidth

Embedded Solutions for Enhanced Compatibility

Neousys PCIe Frame Grabber

Video Capture → Data Transmit → Host Computer

High Bandwidth Support
- Available in 1G, 2.5G, 5G, and 10G variants
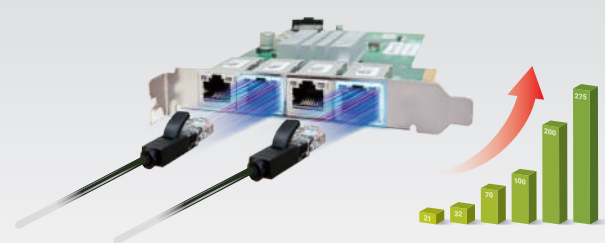- Support high-resolution and high-speed cameras

1G · 2.5G · 5G · 10G
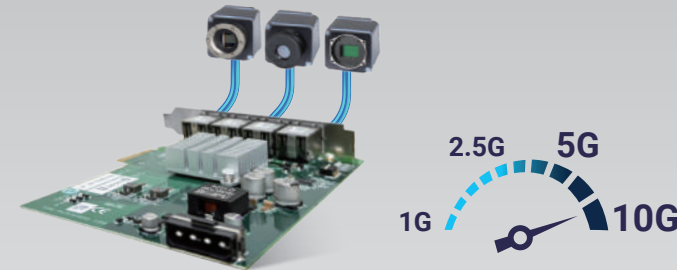
Robust Connector
- Industrial RJ45 connectors ensure flexible and efficient connectivity in conventional setups
- Rugged M12 X-coded connectors provide robust stability for high-demand environments

M12 · RJ45
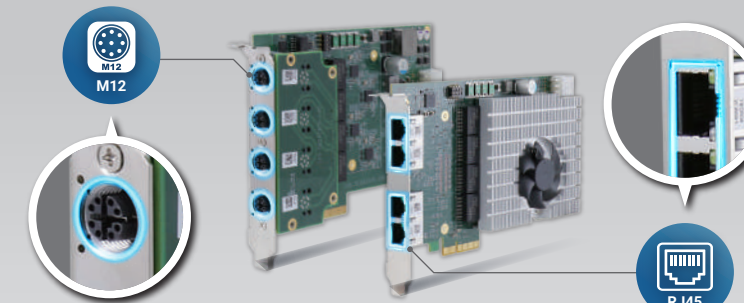
Low Latency & High Throughput
- Independent controller ensure maximum per-port performance
- Sustaining data transfer even with multiple devices connected

Add-on Connectivity
- Leverage PCIe slots to effortlessly expand system connectivity and enhance functionality
- Designed to fit diverse systems, ensuring reliable performance for industrial and specialized environments
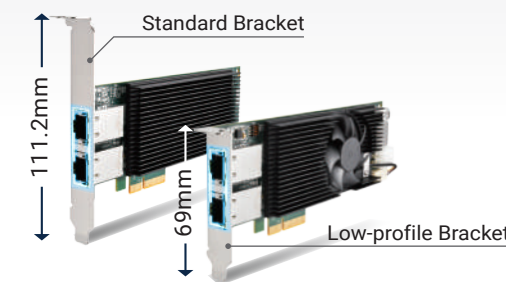
PoE+ Capability
- Feature programmable API software for power on/off control
- Powers devices via Ethernet, eliminating the need for separate power supplies
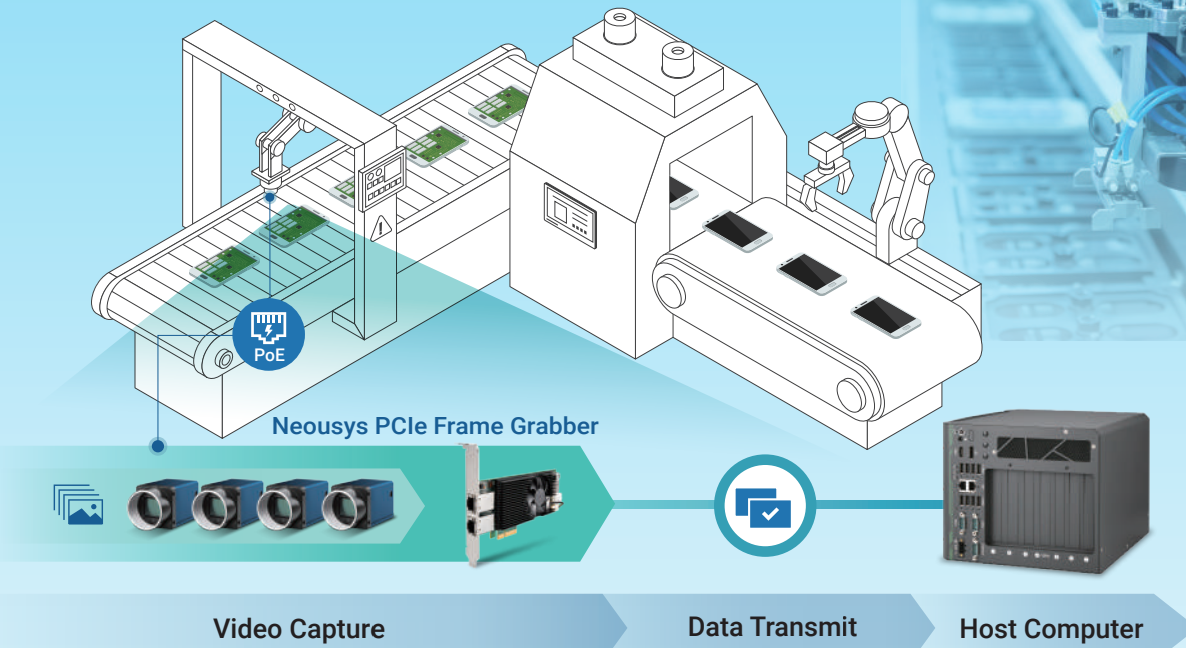
PoE+ Capability
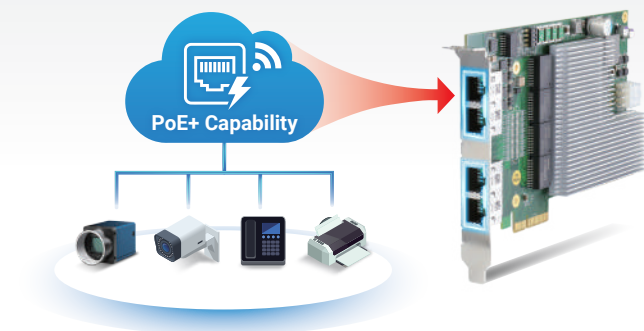
Seamless Integration and Innovative Design
- Low-profile PCIe x4 slots for flexibility in compact systems
- Ensure reliable and continuous operation with original platform

Standard Bracket
111.2mm
69mm
Low-profile Bracket

Related Expansion Box PCs

Nuvo-10000 Series
Intel® 14th/ 13th/ 12th-Gen Core™ i9/ i7/ i5/ i3 Expansion Box-PC with up to 7 PCIe/ PCI Slots

Nuvo-10208GC Series
Industrial Edge AI Computer Supporting NVIDIA® GPU, Intel 14th/ 13th/ 12th Processor with Additional PCIe Slots
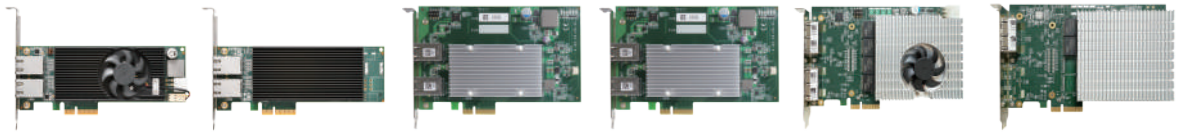
Nuvo-9000 Series
Intel® 14th/ 13th/ 12th-Gen Core™ Fanless Industrial PC with Patented Cassette for PCI/ PCIe Expansion

Nuvo-2822
Intel® Alder Lake N Compact Expansion Box-PC with 2x PCIe and 2x PCI Slots

Specification Table

Model Name	RJ-45					
Model Name	**PCIe-PoE572bt**	**PCIe-PoE572**	**PCIe-PoE550X**	**PCIe-PoE10G550X**	**PCIe-PoE454at**	**PCIe-N452**
Dimensions (W x H)	Low-Profile bracket: 168mm x 69mm Standard-Height bracket: 168mm x 111mm		168mm x 111mm			
Bus Interface	x4, Gen3 PCI Express					
Number of Ports	2x 10GbE ports by Broadcom BCM57416 controller		2x 10 GbE ports by Intel® X550-AT2 controller		4x 5GbE ports by four Marvel AQC111C 5G controllers	2x 5GbE ports by four Marvel AQC111C 5G controllers
Ethernet Bandwidth	10 Gb/s				5 Gb/s	
PoE Capability	Yes (max 90W per PoE++ port, total 180W)	-	Yes (up to 25.5W per port, total 51W)	-	Yes (up to 25.5W per port, total 100W)	-
EMC*	CE/FCC Class B, according to EN 55032 & EN 55035		CE/FCC Class A, according to EN 55032 & EN 55035			
Operating Temperature	-25°C to 70°C with air flow	-25°C to 70°C with air flow	0°C to 60°C with air flow		0°C to 55°C with airflow	

	RJ45				M12	USB
Model Name	**PCIe-PoE425bt**	**PCIe-PoE334LP**	**PCIe-PoE354at**	**PCIe-PoE352at**	**PCIe-PoE312M**	**PCIe-USB381F**
Dimensions (W x H)	168mm x 111mm	168 mm x 69 mm	168 mm x 111 mm		168mm x 111mm	117.7 mm x 111.2 mm
Bus Interface	x4, Gen2 PCI Express					
Number of Ports	4x 2.5GbE ports by Intel® I226-IT	4x GigE ports by Intel® I350-AM4	4x GigE ports by Intel® I350-AM4	2x GigE ports by Intel® I350-AM2	4x ports by Intel® I350-AM4 NIC	8x USB 3.1 Gen1 ports
Bandwidth	2.5 Gb/s	1 Gb/s			1 Gb/s	5 Gb/s
PoE Capability	Yes (max 90W per PoE++ port, total 144W)	Yes (up to 25.5W of power per port, total 74W)	Yes (up to 25.5W of power per port, total 66W)	Yes (up to 25.5W of power per port, total 51W)	Yes (up to 25.5W of power per port, total 66W)	-
USB3 Host Controller	-				-	4x Fresco FL1100SX host controllers, compliant with Intel® xHCI Specification Revision 1.0
Per-Port Current Limit	-				-	User-configurable 900mA/ 1800mA per-port current limit
EMC*	CE/FCC Class A, according to EN 55032 & EN 55035					
Operating Temperature	0°C to 50°C with airflow (802.3bt mode) 0°C to 55°C with airflow (802.3at mode)	0°C to 55°C with air flow			0°C to 55°C with air flow	0 to 60°C with airflow

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