

Edge AI GPU Computing Platform

Flexible and Powerful GPU-aided Computing for Advanced Applications

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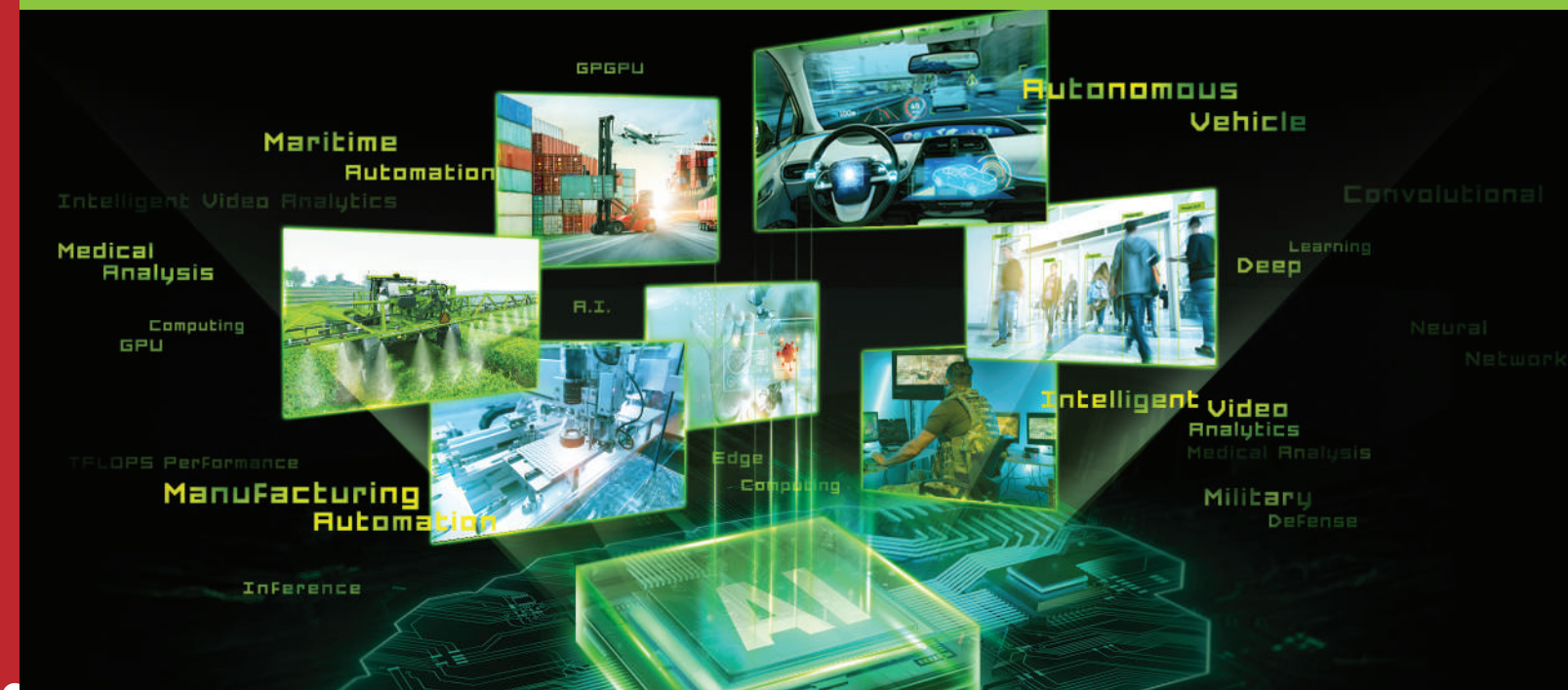
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Ahead of the Curve - Industrial Edge AI GPU Computing Platform

Based in Taiwan, Neosys Technology is a global leading manufacturer and provider of industrial edge AI GPU computing platforms.

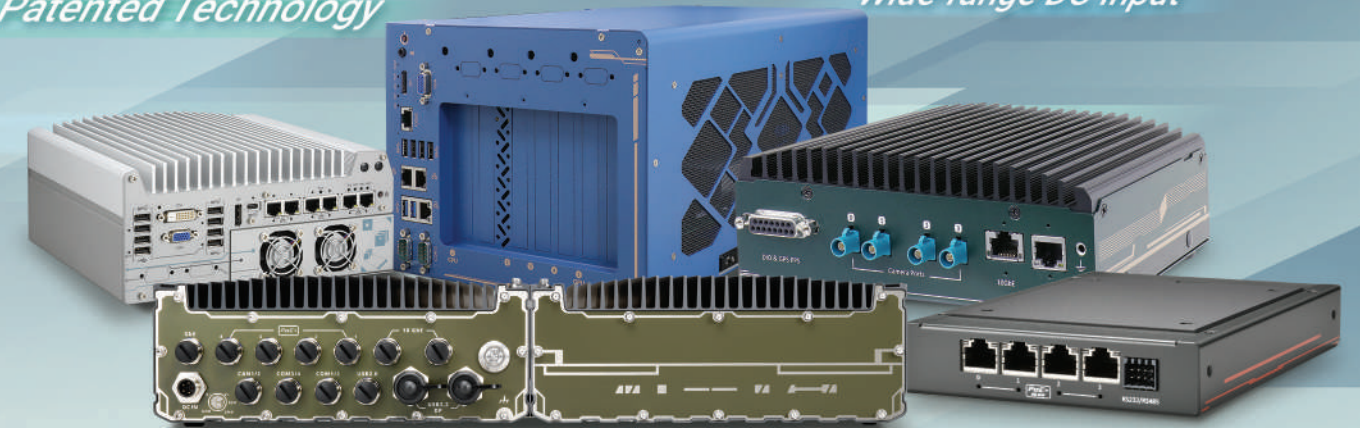
With Expertise in industrial embedded systems and edge AI applications, Neosys continues to innovate and create patented technologies to be incorporated into industrial solutions. Designing and manufacturing industrial-grade rugged embedded systems and modules for over a decade, Neosys offers the most reliable and innovative embedded solutions on the market.

As one of the pioneers in industrial GPU computing, Neosys offers industry-leading edge AI platforms. With support for NVIDIA® Tensor Core GPUs, NVIDIA RTX™ professional series and power-efficient Jetson™ and Google TPUs, Neosys platforms can satisfy a variety of edge AI workloads from volatile environments to demanding factory conditions.

Currently an NVIDIA Jetson™ ecosystem partner, the sole collaborating IPC hardware vendor for Baidu Apollo 2.0 and a trusted partner around the globe in various vertical markets, you can find Neosys Technology industrial edge AI GPU computing platforms in manufacturing, intelligent transportation, marine, medical, agriculture, autonomous aerial, autonomous ground vehicles and more.

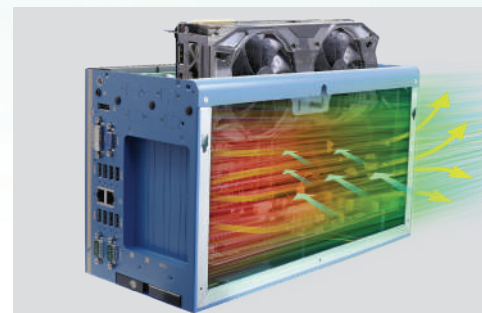
Why Choose Neosys ?

Wide-temperature Operation
I/Os with Screw-lock Mechanism
Shock and Vibration Resistant
Patented Technology
Wide-range DC Input



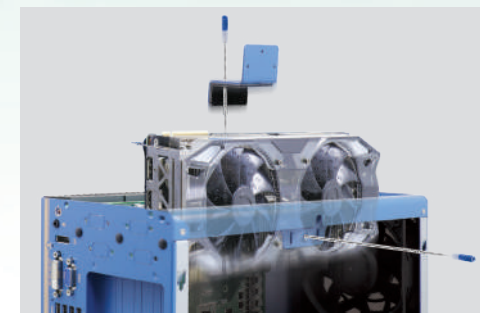
Complete GPU Support

Ranging from NVIDIA Jetson™, Tensor Core GPUs to NVIDIA RTX™ professional graphics cards for power-efficient or high-performance applications.



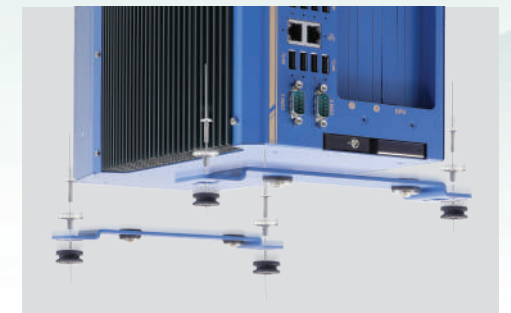
Patented Thermal Design

Offering better heat distribution and dissipation for optimal performance to prevent CPU/ GPU from throttling.



Adaptive GPU Bracket

The patented adaptive GPU bracket ensures installed graphics cards are always secured in position to withstand shock and vibration.



Patented Damping Bracket

The patented damping bracket effectively absorbs shock and vibration up to 3Grms for reliable and stable operations.



Multi-GPUs via Single Wide-range DC Input

Accepting a wide range DC input from 8V to 48V, and requires only a single source of power input to sustain operation for dual high end RTX GPU cards.



Ignition Power Control

Built-in ignition control to safely shutdown and startup the system.



Rich I/Os with Screw-lock Mechanism

Available with an abundance of I/Os and screw-lock mechanism for reinforced connections.



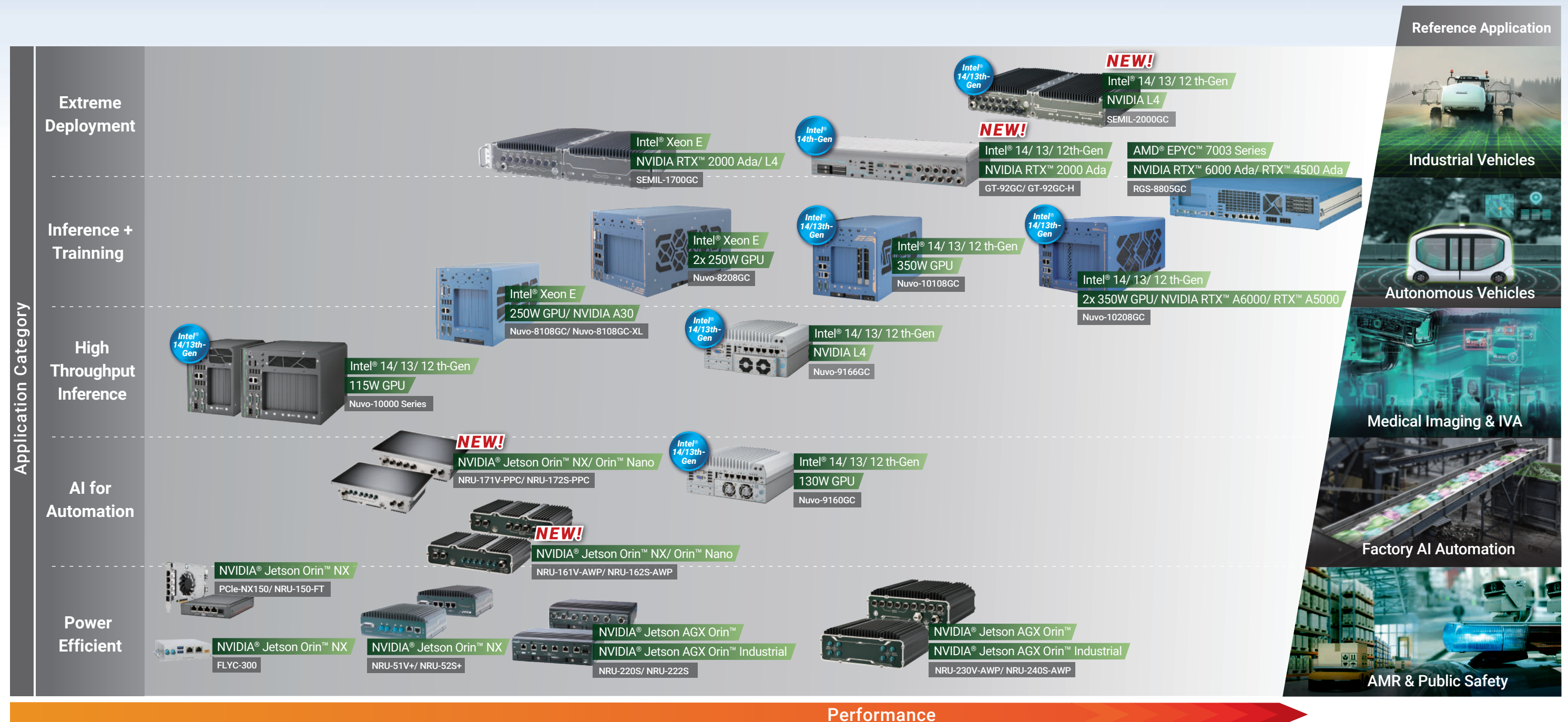
Expansion Capability

PCIe/ PCI add-on slots allow for connectivity or functionality expansion.

Versatile Edge AI GPU Platforms Currently in Service

Addressing requirements for a variety of applications, Neosys offers a complete lineup of embedded edge AI GPU platforms that are powered by NVIDIA GPUs. Utilizing NVIDIA® Tensor Core, Neosys ruggedized edge AI platforms range from the environment demanding NVIDIA® L4/ RTX professional graphics inference accelerators, mainstream cost-effective graphics cards in dual or single configuration to the power-efficient NVIDIA® Jetson™. All Neosys systems are optimized to bring out the efficiency and efficacy in AI training, and precision in complex deep learning computations. Coupled with patented innovative industrial embedded designs, performances are maximized to boost the effectiveness of your edge AI applications.

Supporting up to an AMD® EPYC™, Intel® Xeon® E or 14th/ 13th/ 12th-Gen Core™ CPU, Neosys edge AI computing solutions offer unparalleled performances with true wide-temperature operation capabilities to ensure CPU/ GPU do not thermal-throttle under harsh conditions. With an array of ruggedized solutions, Neosys edge AI GPU computing solutions can be found in image/ video analysis, deep learning machine vision, autonomous machines, and more.



Performance

Reference Application

Industrial Vehicles

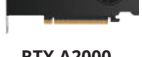
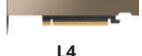
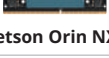
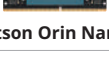
Autonomous Vehicles

Medical Imaging & IVA

Factory AI Automation

AMR & Public Safety

GPU Compatibility List

NVIDIA® GPU	Neosys Model													
	RGS-8805GC	Nuvo-10208GC* Nuvo-10108GC	Nuvo-10000	Nuvo-9166GC	Nuvo-9160GC	NRU-230V-AWP NRU-240S-AWP	NEW! NRU-171V-PPC NRU-172S-PPC	NEW! NRU-161V-AWP NRU-162S-AWP	NRU-220S NRU-222S	NRU-51V+ NRU-52S+	FLYC-300	PCle-NX150 NRU-150-FT	NEW! SEMIL-2000GC	NEW! SEMIL-1700GC GT-92GC
 RTX 6000 Ada														
 RTX 5000 Ada														
 RTX 4500 Ada														
 RTX 2000 Ada														
 RTX A6000														
 RTX A5000														
 RTX A2000														
 L4														
 Jetson AGX Orin														
 Jetson AGX Orin Industrial														
 Jetson Orin NX														
 Jetson Orin Nano														

*Supports dual GPUs

GPU Computing Platform Specification Table



Model Name		Nuvo-10208GC	Nuv o-10108GC	Nuvo-10000	Nuvo-8208GC
Chassis	Dimensions (W x D x H)	268 x 400 x 196 mm	214 x 400 x 196 mm	241 x 280 x 188 mm	235 x 360 x 186 mm
	Weight	6.5 kg	6.2 kg	5.2 kg	8.6 kg
	Chassis Construction	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal
System	Processor	Intel® 14th-Gen Core™ CPU Intel® 13th-Gen Core™ CPU Intel® 12th-Gen Core™, Pentium®, Celeron® CPU	Intel® 14th-Gen Core™ CPU Intel® 13th-Gen Core™ CPU Intel® 12th-Gen Core™, Pentium®, Celeron® CPU	Intel® 14th-Gen Core™ CPU Intel® 13th-Gen Core™ CPU Intel® 12th-Gen Core™, Pentium®, Celeron® CPU	Intel® Xeon® E-2176G/ E-2278GE/ E-2278GEL Intel® Core™ i7-9700E/ i7-9700TE/ i7-8700/ i7-8700T Intel® Core™ i5-9500E/ i5-9500TE/ i5-8500/ i5-8500T Intel® Core™ i3-9100E/ i3-9100TE/ i3-8100/ i3-8100T
	Chipset	Intel® R680E	Intel® R680E	Intel® Q670E	Intel® C246
	Graphics	Intel® HD Graphics 770/ 730	Intel® HD Graphics 770/ 730	Intel® UHD Graphics 770/ 730	x16 PEG port, or Intel® HD Graphics 630
	Acceleration GPU	Dual NVIDIA® RTX™ 4070Ti/ 4080/ A6000/ A5000 GPU	Up to 350W GPU card	Up to 115W GPU Card	Dual 250W GPU card
	Memory	Up to 128 GB DDR5-4800	Up to 128 GB DDR5-4800	Up to 64 GB DDR5 4800	Up to 128 GB DDR4-2133
	PoE	-	-	-	-
I/O Interface	Ethernet	2x 2.5GbE by Intel® I226-IT 1x GbE by Intel® I219LM 1x 10GBASE-T port (Optional)	2x 2.5GbE by Intel® I226-IT 1x GbE by Intel® I219LM 1x 10GBASE-T port (Optional)	1x 2.5GbE by Intel® I226-IT 1x GbE Intel® I219-LM	1x GbE by Intel® I219 1x GbE by Intel® I210
	CAN bus	-	-	-	-
	Video Port	1x VGA 1x DisplayPort	1x VGA 1x DisplayPort	1x HDMI™ 1x DVI-D 1x DisplayPort	1x VGA 1x DVI-D 1x DisplayPort
	Serial Port	2x RS-232/422/485	2x RS-232/422/485	2x RS-232/422/485 3x 3-wire RS-232	2x RS-232/422/485
	USB 2.0	1 (internal)	1 (internal)	1(internal)	1 (internal)
	USB 3.2/ USB 3.1	6	6	8	8
	Audio	1x mic-in and speaker-out	1x mic-in and speaker-out	1x mic-in and speaker-out	1x mic-in and speaker-out
	Digital I/O	-	-	-	-
	SATA HDD	2x hot-swap tray for 2.5" HDD/ SSD	1x hot-swap tray for 2.5" HDD/ SSD	2x 2.5" HDD/ SSD	2x hot-swap tray for 2.5" HDD/ SSD
Storage Interface	mSATA	-	-	-	2 (mux. with mini-PCIe)
	M.2 (M-key)	1x M-key socket (Gen4 x4) 1x M-key tray (Gen4 x4) (Optional)	1x M-key socket (Gen4 x4) 1x M-key tray (Gen4 x4) (Optional)	1	1
	Mini PCI-E	2	2	2	2
Expansion Bus	M.2 (B-key/E-key)	1x M.2 B-key	1x M.2 B-key	-	1x M.2 B-key
	SIM	3	3	2	4
	MezIO®	-	-	-	-
	PCI/PCI Express	2x PCIe x16 slot@Gen4, 8-lanes 3x PCIe x8 slot@Gen3, 4-lanes	1x PCIe x16 slot@Gen4, 16-lanes, supporting NVIDIA® RTX™ A4000, A5000, A6000, 6000 Ada, and selected RTX™ 40 Series GPU cards 3x PCIe x8 slot@Gen3, 4-lanes	2x PCIe x16 slot @ Gen3, 8-lanes 2x PCIe x8 slot @ Gen3, 4-lanes 3x 33MHz/ 32-bit 5V PCI slots	2x PCIe x16 slot @ Gen3, 8-lanes supporting dual 250W GPU card 2x PCIe x8 slots @ Gen3, 4-lanes 1x PCIe x4 slot @ Gen3, 1-lane (Installing a GPU card will obstruct one PCIe slot)
	DC Input	8V to 48V DC	8V to 48V DC	12V to 35V DC	8V to 35V DC
Power Supply	Ignition Control	Built-in	Built-in	-	Built-in
	Operating Temperature	With 35W CPU and 350W GPU -25°C to 60°C with 65W CPU and 350W GPU -25°C to 60°C (with optional fan kit) -25°C to 50°C (without optional fan kit)	With 35W CPU and NVIDIA® 350W GPU -25°C to 60°C with 65W CPU and NVIDIA® 350W GPU -25°C to 60°C (configured as 35W TOP) -25°C to 50°C (configured as 65W TOP)	-25°C to 60°C	With 35W CPU and dual NVIDIA® 250W GPU -25°C to 60°C with ≥65W CPU and dual NVIDIA® 250W GPU -25°C to 60°C (configured as 35W TOP) -25°C to 50°C (configured as 65W TOP)
Environmental	Certification	CE/ FCC, MIL-STD-810H	CE/ FCC, MIL-STD-810H	CE/ FCC	CE/ FCC

Model Name		Nuvo-8108GC	Nuvo-8108GC-XL	Nuvo-9166GC	Nuvo-9160GC
Chassis	Dimensions (W x D x H)	170 x 360 x 198 mm	193 x 388 x 198 mm	240 x 225 x 110.5 mm	240 x 225 x 110.5 mm
	Weight	5 kg	5.2 kg	4.0 kg	3.58 kg
	Chassis Construction	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal
System	Processor	Intel® Xeon® E-2176G/ E-2278GE/ E-2278GEL Intel® Core™ i7-9700E/ i7-9700TE/ i7-8700/ i7-8700T Intel® Core™ i5-9500E/ i5-9500TE/ i5-8500/ i5-8500T Intel® Core™ i3-9100E/ i3-9100TE/ i3-8100/ i3-8100T	Intel® Xeon® E-2176G/ E-2278GE/ E-2278GEL Intel® Core™ i7-9700E/ i7-9700TE/ i7-8700/ i7-8700T Intel® Core™ i5-9500E/ i5-9500TE/ i5-8500/ i5-8500T Intel® Core™ i3-9100E/ i3-9100TE/ i3-8100/ i3-8100T	Intel® 14th-Gen Core™ CPU Intel® 13th-Gen Core™ CPU Intel® 12th-Gen Core™, Pentium®, Celeron® CPU	Intel® 14th-Gen Core™ CPU Intel® 13th-Gen Core™ CPU Intel® 12th-Gen Core™, Pentium®, Celeron® CPU
	Chipset	Intel® C246	Intel® C246	Intel® Q670E	Intel® Q670E
	Graphics	x16 PEG port, or Intel® HD Graphics 630	x16 PEG port, or Intel® HD Graphics 630	Intel® UHD Graphics 770/ 730	Intel® UHD Graphics 770/ 730
	Acceleration GPU	NVIDIA® RTX™ 30 GPU	NVIDIA® RTX™ 3080 GPU	NVIDIA® L4 GPU	Up to 130W GPU card
	Memory	Up to 128 GB DDR4-2133	Up to 128 GB DDR4-2133	Up to 64 GB DDR5 4800	Up to 130W GPU card
	PoE	-	-	Optional (Port 3 to 6, IEEE 802.3at, 25.5W)	Optional (Port 3 to 6, IEEE 802.3at, 25.5W)
I/O Interface	Ethernet	1x GbE by Intel® I219 1x GbE by Intel® I210	1x GbE by Intel® I219 1x GbE by Intel® I210	5x 2.5GbE by Intel® I225-IT 1x GbE by Intel® I219-LM	5x 2.5GbE by Intel® I225-IT 1x GbE by Intel® I219-LM
	CAN bus	-	-	-	-
	Video Port	1x VGA 1x DVI-D 1x DisplayPort	1x VGA 1x DVI-D 1x DisplayPort	1x VGA 1x DVI-D 1x DisplayPort	1x VGA 1x DVI-D 1x DisplayPort
	Serial Port	2x RS-232/422/485	2x RS-232/422/485	2x RS-232/422/485 2x RS-232	2x RS-232/422/485 2x RS-232
	USB 2.0	1 (internal)	1 (internal)	2	2
	USB 3.2/ USB 3.1	8	8	7 (incl. 1x 20Gbps type-C)	7 (incl. 1x 20Gbps type-C)
	Audio	1x mic-in and speaker-out	1x mic-in and speaker-out	1x mic-in and speaker-out	1x mic-in and speaker-out
	Digital I/O	-	-	Optional via MezIO® module	Optional via MezIO® module
	SATA HDD	1x 2.5" HDD/ SSD 1x hot-swap tray for 2.5" HDD/ SSD	1x 2.5" HDD/ SSD 1x hot-swap tray for 2.5" HDD/ SSD	2x 2.5" HDD/ SSD	2x 2.5" HDD/ SSD
Storage Interface	mSATA	2 (mux. with mini-PCIe)	2 (mux. with mini-PCIe)	-	-
	M.2 (M-key)	1	1	1 (Gen4 x4)	1 (Gen4 x4)
	Mini PCI-E	2	2	1	1
Expansion Bus	M.2 (B-key/E-key)	1x M.2 B-key	1x M.2 B-key	1x M.2 B-key	1x M.2 B-key
	SIM	4	4	2	2
	MezIO®	-	-	Yes	Yes
	PCI/PCI Express	1x PCIe x16 slot @ Gen3, 8-lanes supporting NVIDIA® RTX™ 30 series 1x PCIe x16 slot @ Gen3, 8-lanes 2x PCIe x8 slots @ Gen3, 4-lanes (Installing a GPU card will obstruct one PCIe slot)	1x PCIe x16 slot @ Gen3, 8-lanes supporting NVIDIA® RTX™ 3080 1x PCIe x16 slot @ Gen3, 8-lanes 2x PCIe x8 slots @ Gen3, 4-lanes (Installing a GPU card will obstruct one PCIe slot)	2x PCIe x16 slot@Gen3, 8-lanes PCIe signal in Cassette for installing NVIDIA® L4 GPU and one additional PCIe card	1x PCIe x16 slot, supporting up to 130W GPU card
	DC Input	8V to 48V DC	8V to 48V DC	8V to 48V DC	8V to 48V DC
Power Supply	Ignition Control	Built-in	Built-in	Optional via MezIO® module	Optional via MezIO® module
	Operating Temperature	With 35W CPU and one NVIDIA® 250W GPU -25°C to 60°C with ≥65W CPU and one NVIDIA® 250W GPU -25°C to 60°C (configured as 35W TOP) -25°C to 50°C (configured as 65W TOP)	With 35W CPU and NVIDIA® RTX™ 30 GPU -25°C to 60°C with ≥65W CPU and NVIDIA® RTX™ 30 GPU -25°C to 60°C (configured as 35W TOP) -25°C to 50°C (configured as 65W TOP)	with 35W CPU and NVIDIA® L4 GPU -25°C to 60°C with 65W CPU and NVIDIA® L4 GPU -25°C to 60°C (configured as 35W TOP) -25°C to 50°C (configured as 65W TOP)	with 35W CPU and 130W GPU -25°C to 60°C with 65W CPU and 130W GPU -25°C to 60°C (configured as 35W TOP) -25°C to 50°C (configured as 65W TOP)
Environmental	Certification	CE/ FCC	CE/ FCC	CE/ FCC, UL 62368-1	CE/ FCC

GPU Computing Platform Specification Table



Model Name		NRU-171V-PPC	NRU-172S-PPC	NRU-230V-AWP	NRU-240S-AWP
Chassis	Dimensions (W x D x H)	257 x 65 x 176 mm	257 x 65 x 176 mm	225 x 195 x89 mm	230 x 173 x 66 mm
	Weight	3.8 kg	3.8 kg	4.4 kg	2.6 kg
	Chassis Construction	Aluminum alloy with stainless steel / waterproof	Aluminum alloy with stainless steel / waterproof	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal
	IP Rating	IP66	IP66	IP66	IP66
System	Processor	NVIDIA® Jetson Orin™ NX/ NVIDIA® Jetson Orin™ Nano	NVIDIA® Jetson Orin™ NX/ NVIDIA® Jetson Orin™ Nano	NVIDIA® Jetson AGX Orin™	NVIDIA® Jetson AGX Orin™
	Chipset	-	-	-	-
	Graphics	-	-	-	-
	Acceleration GPU	-	-	-	-
	Memory	16GB/ 8GB LPDDR5 @ 3200 MHz 8GB/ 4GB LPDDR5 @ 2133 MHz	16GB/ 8GB LPDDR5 @ 3200 MHz 8GB/ 4GB LPDDR5 @ 2133 MHz	32GB/ 64GB LPDDR5 @ 3200 MHz	32GB/ 64GB LPDDR5 @ 3200 MHz
Panel	Size	10.1" screen, AG (Anti-Glare) and AF (Anti-Fingerprint)	10.1" screen, AG (Anti-Glare) and AF (Anti-Fingerprint)	-	-
	Touch	Single-finger touch functionality when the screen is wet	Single-finger touch functionality when the screen is wet	-	-
I/O Interface	PoE/ GMSL/ GMSL2	6x waterproof GMSL2	IEEE 802.3bt PoE+PSE for 4 GbE ports	4x GbE IEEE 802.3at (25.5W) GbE PoE+ ports	4x GbE IEEE 802.3at (25.5W) GbE PoE+ ports 8x GMSL2 ports
	Ethernet	1x GbE Ethernet via M12 X-coded	1x GbE Ethernet via M12 X-coded 4x GbE by Intel® I350-AM4 via M12 X-coded	1x 10GbE Ethernet via M12 X-coded 4x GbE by Intel® I350 via M12 X-coded	1x 10GbE Ethernet via M12 X-coded 4x GbE by Intel® I350 via M12 X-coded
	CAN bus	1x CAN FD port via M12 A-coded	1x CAN FD port via M12 A-coded	2x isolated CAN 2.0 port and 1x isolated DI via M12 A-coded	2x isolated CAN 2.0 port and 1x isolated DI via M12 A-coded
	Video Port	-	-	1x DisplayPort via USB Type C	1x DisplayPort via USB Type C
	Serial Port	1x RS-232 port via M12 A-coded	1x RS-232 port via M12 A-coded	1x isolated RS-485, 1x isolated RS-232 and 1 isolate DO via M12 A-coded	1x isolated RS-485, 1x isolated RS-232 and 1 isolate DO via M12 A-coded
	USB 2.0	2 via M12 A-coded	2 via M12 A-coded	2	2
	USB 3.2/ USB 3.1	1x waterproof USB Type C	1x waterproof USB Type C	1x waterproof USB Type C	1x waterproof USB Type C
	Audio	-	-	-	-
	Digital I/O	1x isolated GPS PPS input via M12 A-coded	1x isolated GPS PPS input via M12 A-coded	1x isolated DI via M12 A-coded 1x isolated DO via M12 A-coded	1x isolated DI via M12 A-coded 1x isolated DO via M12 A-coded
Storage Interface	SATA HDD	-	-	2x 2.5" SSD	2x 2.5" SSD
	mSATA	-	-	-	-
	M.2 (M-key)	1	1	1	1
Expansion Bus	Mini PCI-E	1	1	2	2
	M.2 (B-key/ E-Key)	1x M.2 B-key	1x M.2 B-key	1x M.2 B-key	1x M.2 B-key
	SIM	2	2	3	3
	MezIO®	-	-	-	-
	PCI/PCI Express	-	-	-	-
Power Supply	DC Input	8V to 35V DC via M12 A-coded	8V to 35V DC via M12 A-coded	8V to 48V DC	8V to 48V DC
	Ignition Control	Built-in	Built-in	Built-in	Built-in
Environmental	Operating Temperature	-25°C to 60°C (MAXN TDP mode)	-25°C to 60°C (MAXN TDP mode)	-25°C to 70°C (30W TDP mode, without 10GbE) -25°C to 60°C (30W TDP mode)	-25°C to 70°C (30W TDP mode, without 10GbE) -25°C to 60°C (30W TDP mode)
	Certification	CE/ FCC	EN 50121-3 CE/ FCC	CE/ FCC	CE/ FCC



Model Name		NRU-161V-AWP	NRU-162S-AWP	NRU-220S/ NRU-222S	FLYC-300
Chassis	Dimensions (W x D x H)	225 x 136 x 55 mm	225 x 136 x 55 mm	230 x 173 x 66 mm	124 x 123 x 29.8 mm
	Weight	3.0 kg	3.0 kg	2.6 kg	0.297 kg
	Chassis Construction	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal
	IP Rating	IP66	IP66	-	-
System	Processor	NVIDIA® Jetson Orin™ NX/ NVIDIA® Jetson Orin™ Nano	NVIDIA® Jetson Orin™ NX/ NVIDIA® Jetson Orin™ Nano	NVIDIA® Jetson AGX Orin™	NVIDIA® Jetson Orin™ NX
	Chipset	-	-	-	-
	Graphics	-	-	-	-
	Acceleration GPU	-	-	-	-
	Memory	16GB/ 8GB LPDDR5 @ 3200 MHz 8GB/ 4GB LPDDR5 @ 2133 MHz	16GB/ 8GB LPDDR5 @ 3200 MHz 8GB/ 4GB LPDDR5 @ 2133 MHz	32GB/ 64GB LPDDR5 @ 3200 MHz	8GB/ 16GB LPDDR5 @ 3200 MHz
I/O Interface	PoE/ GMSL/ GMSL2	6x waterproof GMSL2	IEEE 802.3bt PoE+PSE for 4 GbE ports	IEEE 802.3bt PoE+PSE for 4 GbE ports	2x GMSL2 ports
	Ethernet	1x GbE Ethernet via M12 X-coded	1x GbE Ethernet via M12 X-coded 4x GbE by Intel® I350-AM4 via M12 X-coded	2x 2.5GbE by Intel® I225 4x GbE (NRU-220S: via RJ45) (NRU-222S: via M12)	1x Gb by NVIDIA® 1x 2.5Gb by Intel® I225-IT
	CAN bus	1x CAN FD port via M12 A-coded	1x CAN FD port via M12 A-coded	2x CAN 2.0 port	1x CAN bus 2.0
	Video Port	1x VGA via M12 A-coded	1x VGA via M12 A-coded	1x DisplayPort	1x DisplayPort
	Serial Port	1x RS-232 port via M12 A-coded	1x RS-232 port via M12 A-coded	1x isolated RS-485 2x RS-232	-
	USB 2.0	2 via M12 A-coded	2 via M12 A-coded	2	1
	USB 3.2/ USB 3.1	1x waterproof USB Type C	1x waterproof USB Type C	1	2
	Audio	-	-	-	-
	Digital I/O	1x isolated GPS PPS input via M12 A-coded	1x isolated GPS PPS input via M12 A-coded	4 DI + 4 DO	Isolated 2 DI + 4 DO
Storage Interface	SATA HDD	-	-	2x front-accessible 2.5" 7mm SSD	-
	mSATA	-	-	-	-
	M.2 (M-key)	1	1	1	1 (Gen4 x4)
Expansion Bus	Mini PCI-E	1	1	2	-
	M.2 (B-key/ E-Key)	1x M.2 B-key	1x M.2 B-key	1x M.2 B-key	1x M.2 B-key
	SIM	2	2	2	1
	MezIO®	-	-	-	1
	PCI/PCI Express	-	-	-	-
Power Supply	DC Input	8V to 35V DC via M12 A-coded	8V to 35V DC via M12 A-coded	8V to 48V DC	12V to 60V DC & Supports 4S-14S battery pack
	Ignition Control	Built-in	Built-in	Built-in	-
Environmental	Operating Temperature	-25°C to 70°C (MAXN TDP mode)	-25°C to 70°C (MAXN TDP mode)	-25°C to 70°C (30 W TDP mode)	-25°C to 70°C
	Certification	CE/ FCC	EN 50121-3 CE/ FCC	CE/ FCC	CE/ FCC, EN62368-1

GPU Computing Platform Specification Table



Model Name		NRU-51V+ / NRU-51V	NRU-52S+ / NRU-52S	NRU-150-FT	PCIe-NX150
Chassis	Dimensions (W x D x H)	173 x 144 x 60 mm	173 x 144 x 60 mm	116 x 171 x 27 mm	167.7 x 111 mm
	Weight	1.4 kg	1.4 kg	1.4 kg	0.4 kg
	Chassis Construction	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal
System	Processor	NVIDIA® Jetson Orin™ NX (NRU-51V+) NVIDIA® Jetson Xavier™ NX (NRU-51V)	NVIDIA® Jetson Orin™ NX (NRU-52S+) NVIDIA® Jetson Xavier™ NX (NRU-52S)	NVIDIA® Jetson Orin™ NX	NVIDIA® Jetson Orin™ NX
	Chipset	-	-	-	-
	Graphics	-	-	-	-
	Acceleration GPU	-	-	-	-
	Memory	NRU-51V+: 8GB/ 16GB LPDDR5 @ 3200 MHz NRU-51V: 8GB/ 16GB LPDDR4x @ 1600/ 1866 MHz	NRU-52S+: 8GB/ 16GB LPDDR5 @ 3200 MHz NRU-52S: 8GB/ 16GB LPDDR4x @ 1600/ 1866 MHz	8GB/ 16GB LPDDR5 @ 3200 MHz	-
I/O Interface	PoE/ GMSL/ GMSL2	4x GMSL2 ports	IEEE 802.3bt PoE++ for 4GbE ports	IEEE 802.3at PoE+ PSE for 4 GbE ports	4x PoE+ 2.5GbE, 1x GbE (PCIe-NX154PoE) 1x GbE (PCIe-NX156U3)
	Ethernet	1x 10GBASE-T 10GbE 1x 1GBASE-T 1 GbE	4x GbE ports	1x GbE 4x 2.5GbE ports by Intel® i225 (NRU-154PoE-FT)	-
	CAN bus	1x isolated CAN 2.0 port	1x isolated CAN 2.0 port	-	-
	Video Port	1x DisplayPort	1x DisplayPort	1x DisplayPort	1x DisplayPort
	Serial Port	1x RS-232	1x RS-232/422/485	1x RS-232/422/485	1x RS-232 1x isolated RS-485
	USB 2.0	-	-	2x USB 2.0 ports	2
	USB 3.2/ USB 3.1	2	2	2x USB 3.2 Gen2(NRU-156U3-FT) 4x USB 3.2 Gen1(NRU-156U3-FT)	6 (PCIe-NX156U3)
	Audio	-	-	-	-
	Digital I/O	1x GPS PPS, 3 DI + 4 DO	1x GPS PPS, 3 DI + 4 DO	-	-
Storage Interface	SATA HDD	-	-	-	-
	mSATA	-	-	-	-
	M.2 (M-key)	-	-	-	1x M.2 M-key
Expansion Bus	Mini PCI-E	2	2	2	-
	M.2 (B-key/ E-Key)	1x M.2 B-key	1x M.2 B-key	1x M.2 B-key	-
	SIM	2	2	2	-
	MezIO®	-	-	-	-
Power Supply	DC Input	8V to 35V DC	8V to 35V DC	12V DC	12V DC input
	Ignition Control	Built-in	Built-in	Built-in	-
Environmental	Operating Temperature	-25°C ~ 70°C (15W TOP mode with 50W PoE++) -25°C ~ 70°C with optional fan kit (15W TOP mode with 144W PoE++)	-25°C ~ 70°C (15W TOP mode with 50W PoE++) -25°C ~ 70°C with optional fan kit (15W TOP mode with 144W PoE++)	-25°C ~ 70°C (15W TOP mode with 50W PoE++) -25°C ~ 70°C with optional fan kit (15W TOP mode with 144W PoE++)	-25°C to 60°C
	Certification	CE/ FCC	EN50155, CE/ FCC	CE/ FCC	CE/ FCC



Model Name		RGS-8805GC	GT-92GC	SEMIL-2000GC	SEMIL-1700GC
Chassis	Dimensions (W x D x H)	444 x 350 x 88 mm	440 x 250 x 88 mm	440 x 310 x 90.5 mm	440 x 310 x 90.5 mm
	Weight	8.6 kg	7.7 kg	12 kg	12.2 kg
	Chassis Construction	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal	Aluminum alloy with stainless steel / waterproof	Aluminum alloy with stainless steel / waterproof
	IP Rating	IP66	-	IP69K	IP67
System	Processor	AMD® EPYC™ 7003 Milan series server CPU	Intel® 14th-Gen Core™ CPU Intel® 13th-Gen Core™ CPU Intel® 12th-Gen Core™ CPU	Intel® 14th-Gen Core™ CPU Intel® 13th-Gen Core™ CPU Intel® 12th-Gen Core™, Pentium®, Celeron® CPU	Intel® Xeon® E-2176G/ E-2278GE/ E-2278GEL Intel® Core™ i7-9700E/ i7-9700TE/ i7-8700/ i7-8700T Intel® Core™ i5-9500E/ i5-9500TE/ i5-8500/ i5-8500T Intel® Core™ i3-9100E/ i3-9100TE/ i3-8100/ i3-8100T
	Chipset	-	Intel® R680E	Intel® Q670E	Intel® C246
	Graphics	ASPEED AST2500 BMC	Intel® UHD Graphics 770 (32EU)	Intel® UHD Graphics 770	Intel® UHD Graphics 630
	Acceleration GPU	NVIDIA® RTX™ A6000/ A4500 GPU	NVIDIA® RTX™ 2000 ADA GPU	NVIDIA® L4	NVIDIA® L4
	Memory	Up to 512 GB DDR4-3200	Up to 64 GB DDR5-4800	Up to 64 GB DDR5 4800	Up to 64 GB DDR4-2666/ 2400
I/O Interface	PoE	IEEE 802.3at (25.5W) for 4 GbE ports	IEEE 802.3at (25.5W) for 8 GbE ports	2x 10GbE by X550-AT2 (M12 X-coded)	Optional 1x 10G port (M12 X-coded)
	Ethernet	2x 10GBASE-T by Intel® X550-AT2 4x GbE by Intel® I350-AM4	1x GbE by Intel® I219-LM 8x GbE by Intel® I350-AM4	4x 2.5GbE IEEE 802.3at (25.5W) by Intel® I226-IT (M12 X-coded) 1x GbE by Intel® I219-LM (M12 X-coded)	1x IEEE 802.3at (25.5W) by Intel® I219 (M12 X-coded) 7x IEEE 802.3at (25.5W) by Intel® I210 (M12 X-coded)
	CAN bus	-	2x isolated CAN 2.0 port	2x isolated CAN bus 2.0 port	-
	Video Port	1x VGA	1x HDMI™ 1x DisplayPort	2x Type-C USB supporting DP	1x VGA (M12 A-coded)
	Serial Port	2x RS-232/422/485	2x isolated 3-wire RS-232/422/485	2x 3-wire RS-232 ports 1x 3-wire RS-232 ports 1x RS-422/485	2x RS-232 ports (M12 A-coded)
	USB 2.0	-	-	2x USB 2.0 (M12 A-coded)	4x USB 2.0 (M12 A-coded) 1x USB 2.0 (internal)
	USB 3.2/ USB 3.1	4	4	2x Type-C USB 3.2 Gen1	-
	Audio	-	1x mic-in and speaker-out	-	1x mic-in and speaker-out (M12 A-coded)
	Digital I/O	-	4 DI +4 DO	-	-
Storage Interface	SATA HDD	4x Easy-swap tray for 2.5" HDD/ SSD	2x hot-swap tray for 2.5" HDD/ SSD	2x 2.5 HDD/SSD	2x 2.5 HDD/SSD
	mSATA	-	-	2	2
	M.2 (M-key)	1	1	1(Gen4 x4)	1(Gen3 x4)
Expansion Bus	Mini PCI-E	2	2	3	4 (mux with mSATA)
	M.2 (B-key/E-key)	1x M.2 B-key	-	1x M.2 B-key 1x M.2 E-key	-
	SIM	4	2	5	2
	MezIO®	-	-	-	-
Power Supply	DC Input	8V to 48V DC	8V to 48V DC	8V to 48V DC (M12 L-coded)	8V to 48V DC (M12 S-coded)
	Ignition Control	Built-in	Built-in	Built-in	Built-in
Environmental	Operating Temperature	-25°C to 60°C with 100% CPU/ GPU loading	with 35W CPU -25°C ~ 55°C (without PoE) -25°C ~ 50°C (with PoE 50W) with 65W CPU -25°C ~ 35°C (without PoE)	with 35W CPU -25°C ~ 70°C with >= 65W CPU -40°C~70°C (configured as 35W TDP mode) -40°C~ 60°C (configured as 65W TDP mode)	with 35W CPU -25°C ~ 70°C with >= 65W CPU -25°C~70°C (configured as 35W TDP mode) -25°C~ 50°C (configured as 65W TDP mode)
	Certification	CE/ FCC	CE/ FCC	CE/ FCC, MIL-STD-810H	EN 50155, CE/ FCC, MIL-STD-810G