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NEOUSYS TECHNOLOGY

Edge AI GPU Computing Platform

Flexible and Powerful GPU-aided Computing for Advanced Applications

www.neousys-tech.com

Ahead of the Curve - Industrial Edge AI GPU Computing Platform

Based in Taiwan, Neousys 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, Neousys 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, Neousys offers the most reliable and innovative embedded solutions on the market.

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

Currently an NVIDIA® Jetson™ ecosystem partner, Tesla-Qualified Server, 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 Neousys Technology industrial edge AI GPU computing platforms in manufacturing, intelligent transportation, marine, medical, agriculture, autonomous aerial, autonomous ground vehicles and more.

intel partner Gold

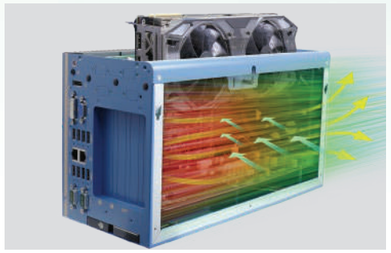
NVIDIA PREFERRED PARTNER

NVIDIA TESLA QUALIFIED SERVER

Why Choose Neousys ?

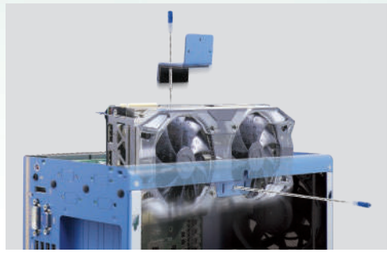
Complete GPU Support

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



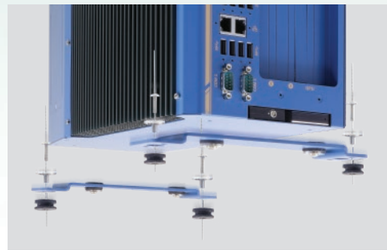
Patented Thermal Design

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.

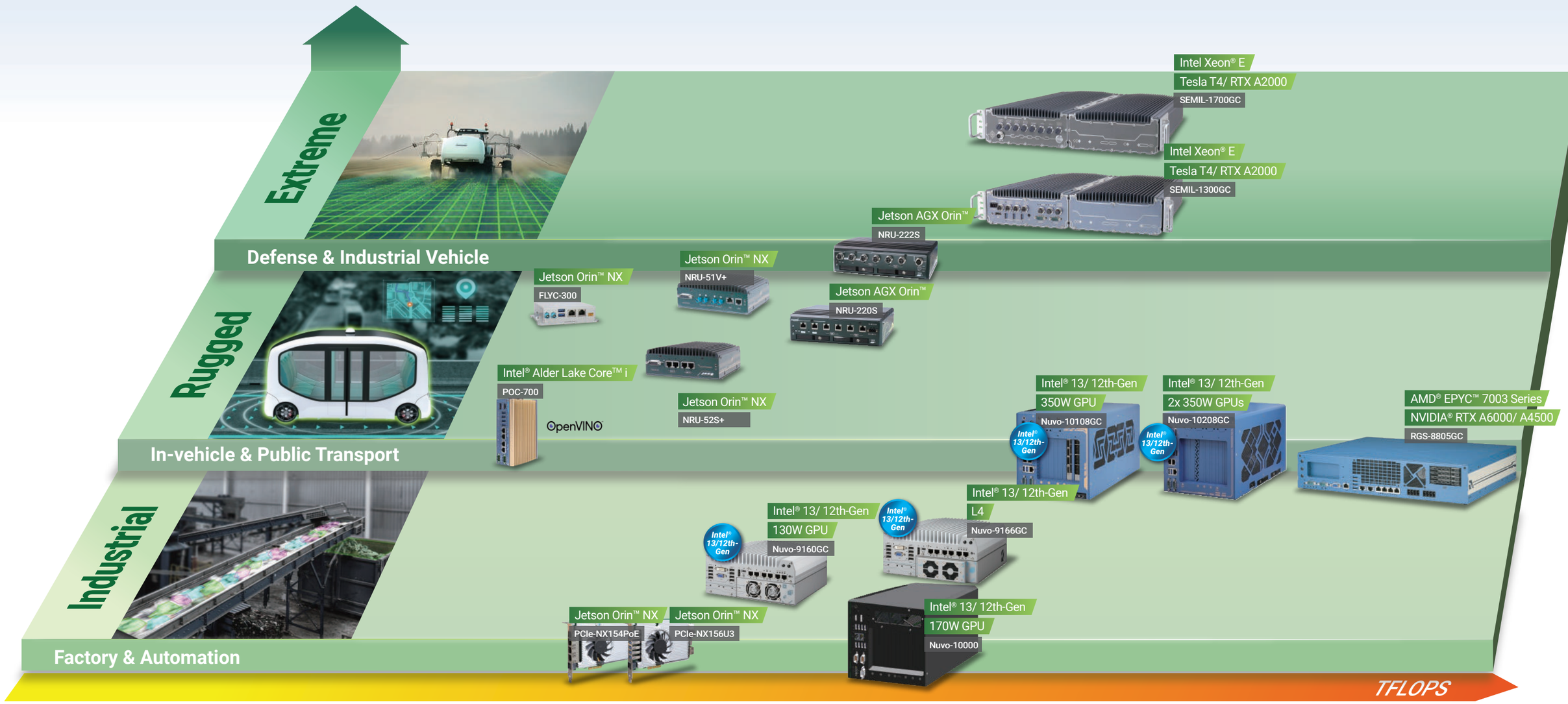
Expansion Capability

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, Neousys offers a complete lineup of embedded edge AI GPU platforms that are powered by NVIDIA GPUs. Utilizing NVIDIA® Tensor cores, Neousys ruggedized edge AI platforms range from the environment demanding Tesla/ L4/ RTX professional graphics inference accelerators, mainstream cost-effective RTX graphics cards in dual or single configuration to the power-efficient Jetson™ Orin. All Neousys 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 13/ 12th-Gen Core™ CPU, Neousys 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, Neousys edge AI GPU computing solutions can be found in image/ video analysis, deep learning machine vision, autonomous machines, and more.



GPU Compatibility List

NVIDIA® GPU \ Neousys Model	SEMIL-1700GC SEMIL-1300GC	Nuvo-9166GC	Nuvo-9160GC	RGS-8805GC	Nuvo-10208GC	Nuvo-10108GC	Nuvo-8108GC-XL	Nuvo-8208GC	Nuvo-10000	NRU-51V+ NRU-52S+	NRU-220S NRU-222S	PCIe-GL26	PCIe-NX154PoE PCIe-NX156U3	FLYC-300	NRU-154PoE-FT NRU-156U3-FT
Tesla T4	✓	✓													
A2		✓													
A30							✓ (A30 Thermal Kit)								
L4		✓													
RTX A2000	✓		✓						✓						
RTX 4000 SFF Ada			✓						✓						
RTX A4500				✓	✓	✓									
RTX A6000				✓	✓	✓									
RTX 3050			✓						✓						
RTX 3070/ 3070Ti							✓	✓							
RTX 3080							✓								
RTX 4060Ti									✓						
RTX 4080					✓	✓									
Jeston Xavier NX										✓		✓			
Jetson AGX Orin											✓				
Jetson Orin NX										✓			✓	✓	✓

GPU Computing Platform Specification Table

Extreme Deployment

	Model Name	RGS-8805GC	SEMIL-1700GC	SEMIL-1300GC
Chassis	Dimensions (W x D x H)	444 x 350 x 88 mm	440 x 310 x 90.5 mm	440 x 310 x 90.5 mm
	Weight	8.6 kg	12.2 kg (SEMIL-1748GC/ SEMIL-1728GC) 12 kg (SEMIL-1744GC/ SEMIL-1724GC)	12 kg
	Chassis Construction	Aluminum alloy with heavy duty metal	Aluminum alloy with stainless steel /waterproof	Aluminum alloy with stainless steel
	IP Rating	-	IP67	IP4X
System	Processor	AMD® EPYC™ 7003 "Milan" series server 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	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
	Acceleration GPU	NVIDIA® RTX A6000/A4500	NVIDIA® Tesla T4 (SEMIL-1744GC/ SEMIL-1748GC) NVIDIA® A2000 (SEMIL-1724GC/ SEMIL-1728GC) NVIDIA® Quadro P2200 (SEMIL-1724GC/ SEMIL-1728GC)	NVIDIA® Tesla T4 (SEMIL-1341GC) NVIDIA® A2000 (SEMIL-1321GC) NVIDIA® Quadro P2200 (SEMIL-1321GC)
	Chipset	-	Intel® C246	Intel® C246
	Graphics	ASPEED AST2500 BMC	Intel® UHD Graphics 630	Intel® UHD Graphics 630
	Memory	Up to 512 GB DDR4-3200	Up to 64 GB DDR4-2666/ 2400	Up to 64 GB DDR4-2666/ 2400
I/O Interface	PoE	IEEE 802.3at (25.5W) for 4 GbE ports	1x IEEE 802.3at (25.5W) by Intel® I219 (M12 X-coded) 7x IEEE 802.3at (25.5W) by Intel® I210 (M12 X-coded) (SEMIL-1748GC/ SEMIL-1728GC) 3x IEEE 802.3at (25.5W) by Intel® I210 (M12 X-coded) (SEMIL-1744GC/ SEMIL-1724GC)	1x IEEE 802.3at (25.5W) by Intel® I219 (M12 X-coded) 3x IEEE 802.3at (25.5W) by Intel® I210 (M12 X-coded)
	10GbE Port	2x 10GBASE-T by Intel® X550-AT2	Optional 1x 10G port (M12 X-coded)	Optional 1x 10G port (M12 X-coded)
	Video Port	1x VGA	1x VGA (M12 A-coded)	1x VGA (M12 A-coded) 1x DisplayPort
	Serial Port	2x RS-232/422/485	2x RS-232 (M12 A-coded)	2x RS-232(M12 A-coded) 1x RS-232/422/485 1x RS-232
	USB 2.0	-	4x USB 2.0 (M12 A-coded) (SEMIL-1748GC/ SEMIL-1728GC) 2x USB 2.0 (M12 A-coded) (SEMIL-1744GC/ SEMIL-1724GC) 1x USB 2.0 (internal)	2x USB 2.0 (M12 A-coded) 1x USB 2.0 (internal)
	USB 3.2/ USB 3.1	4	-	3
	Audio	-	1x mic-in and speaker-out (M12 A-coded)	1x mic-in and speaker-out
	Digital I/O	-	-	-
	SATA HDD	4	2	2
Storage Interface	mSATA	-	2	2
	M.2 (M-key)	1	1	1
	Mini PCI-E	2	4 (mux with mSATA) (SEMIL-1748GC/ SEMIL-1728GC) 2 (mux with mSATA) (SEMIL-1744GC/ SEMIL-1724GC)	2 (mux with mSATA)
Expansion Bus	M.2 (B-key/ E-Key)	1x M.2 B-key	-	1x M.2 B-key 1x M.2 E-key
	SIM	4	2	4
	MezIO™	-	-	-
	PCI/PCI Express	1x PCIe x16 slot @ Gen4, 1 6-lanes supporting NVIDIA® RTX A6000/A4500 2x PCIe x16 slots @ Gen4, 8-lanes	1x PCIe with NVIDIA® Tesla T4 pre-installed (SEMIL-1748GC/ SEMIL-1744GC) 1x PCIe with NVIDIA® RTX A4000/ Quadro P2200 pre-installed (SEMIL-1728GC/ SEMIL-1724GC)	1x PCIe with NVIDIA® Tesla T4 pre-installed (SEMIL-1341GC) 1x PCIe with NVIDIA® RTX A4000/ Quadro P2200 pre-installed (SEMIL-1321GC)
Power Supply	DC Input	8V to 48V DC	8V to 48V DC (M12 S-coded)	8V to 48V DC
	Ignition Control	Built-in	Built-in	Built-in
Environmental	Operating Temperature	-25°C ~ 60°C with 100% CPU/ GPU loading	**with 35W CPU** -40°C~ 70°C **with >= 65W CPU** -40°C to 70°C (configured as 35W TDP mode) -40°C to 50°C (configured as 65W TDP mode)	**with 35W CPU** -40°C~ 70°C **with >= 65W CPU** -40°C to 70°C (configured as 35W TDP mode) -40°C to 50°C (configured as 65W TDP mode)
	Certification	CE/ FCC, MIL-STD-810G	EN 50155, CE/ FCC, MIL-STD-810G	EN 50155, CE/ FCC, MIL-STD-810G

Inference + Training

	Model Name	Nuvo-10208GC	Nuvo-10108GC	Nuvo-8208GC	Nuvo-8108GC-XL	Nuvo-8108GC-QD
Chassis	Dimensions (W x D x H)	268 x 400 x 196 mm	214 x 400 x 196 mm	235 x 360 x 186 mm	193 x 388 x 198 mm	170 x 360 x 202 mm
	Weight	6.2 kg	6.2 kg	8.6 kg	5.2 kg	5.8 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	Aluminum alloy with heavy duty metal
System	Processor	Intel® Core™ i9-13900E/ i9-13900TE i9-12900E/ i9-12900TE Intel® Core™ i7-13700E/ i7-13700TE i7-12700E/ i7-12700TE Intel® Core™ i5-13500E/ i5-13400E/ i5-13500TE i5-12500E/ i5-12500TE Intel® Core™ i3-13100E/ i3-13100TE i3-12100E/ i3-12100TE Intel® Pentium® G7400E/ G7400TE Intel® Celeron® G6900E/ G6900TE	Intel® Core™ i9-13900E/ i9-13900TE Intel® Core™ i7-13700E/ i7-13700TE Intel® Core™ i5-13500E/ i5-13400E/ i5-13500TE Intel® Core™ i3-13100E/ i3-13100TE Intel® Core™ i9-12900E/ i9-12900TE Intel® Core™ i7-12700E/ i7-12700TE Intel® Core™ i5-12500E/ i5-12500TE Intel® Core™ i3-12100E/ i3-12100TE Intel® Pentium® G7400E/ G7400TE Intel® Celeron® G6900E/ G6900TE	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® 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® C246	Intel® C246	Intel® C246
	Graphics	Intel® HD Graphics 770/ 730	Intel® HD Graphics 770/ 730	x16 PEG port, or Intel® HD Graphics 630	x16 PEG port, or Intel® HD Graphics 630	x16 PEG port, or Intel® HD Graphics 630
	Memory	Up to 128GB DDR5 4800 SDRAM	Up to 128GB DDR5 4800 SDRAM	Up to 128 GB DDR4-2133	Up to 128 GB DDR4-2133	Up to 128 GB DDR4-2133
I/O Interface	PoE	-	-	-	-	-
	Ethernet	2x 2.5GbE by Intel® I226-IT 1x GbE by Intel® I219-LM	2x 2.5GbE by Intel® I226-IT 1x GbE by Intel® I219-LM	1x GbE by Intel® I219-LM 1x GbE by Intel® I210-IT	1x GbE by Intel® I219-LM 1x GbE by Intel® I210-IT	1x GbE by Intel® I219-LM 1x GbE by Intel® I210-IT
	10GbE Port	1x 10GBASE-T (Optional)	1x 10GBASE-T (Optional)	-	-	-
	Video Port	1x VGA 1x DisplayPort	1x VGA 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-232/422/485	2x RS-232/422/485
	USB 2.0	1 (internal)	1 (internal)	1 (internal)	1 (internal)	1 (internal)
	USB 3.2/ USB 3.1	6	6	8	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	1x mic-in and speaker-out
	Digital I/O	-	-	-	-	-
Storage Interface	SATA HDD	2x hot-swap tray for 2.5" HDD/ SSD	1x front-accessible, hot-swappable for 2.5" HDD/ SSD	2x Hot-swap tray for 2.5" HDD/ SSD	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
	mSATA	-	-	2 (mux. with mini-PCIe)	2 (mux. with mini-PCIe)	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)	1x M-key socket (Gen4 x4)	1x M-key socket (Gen4 x4)	1x M-key socket (Gen4 x4)
Expansion Bus	Mini PCI-E	2	2	2	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	1x M.2 B-key
	SIM	3	3	4	4	4
	MezIO™	-	-	-	-	-
	PCI/PCI Express	2x PCIe x16 slot@Gen4, 8-lanes supporting NVIDIA® RTX 40 series/ RTX A6000/ A4500 3x PCIe x8 slot@Gen3, 4-lanes	1x PCIe x16 slot @Gen4, 16-lane supporting NVIDIA® RTX 40 series/ RTX A4000/ A5000/ A6000/ 6000 Ada 3x PCIe x8 slots @Gen3, 4-lanes	2x PCIe x16 slot @ Gen3, 8-lanes supporting NVIDIA® RTX 30 series 2x PCIe x8 slots @ Gen3, 4-lanes 1x PCIe x4 slot @ Gen3, 1-lane (Installing a GPU card will obstruct one PCIe slot!)	1x PCIe x16 slot @ Gen3, 8-lanes supporting NVIDIA® RTX A6000/ A4500/3080 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 A6000/ A4500/3080 1x PCIe x16 slot @ Gen3, 8-lanes 2x PCIe x8 slots @ Gen3, 4-lanes (Installing a GPU card will obstruct one PCIe slot!)
Power Supply	DC Input	8V to 48V DC	8V to 48V DC	8V to 35V DC	8V to 48V DC	8V to 48V DC
	Ignition Control	Built-in	Built-in	Built-in	Built-in	Built-in
Environmental	Operating Temperature	**With 35W CPU and 350W GPU** -25°C to 60°C **with 65W CPU and 350W GPU** -25°C ~ 60°C (with optional fan kit) -25°C ~ 50°C (without optional fan kit)	**With 35W CPU and 350W GPU** -25°C to 60°C **with 65W CPU and 350W GPU** -25°C ~ 60°C (with optional fan kit) -25°C ~ 50°C (without optional fan kit)	**With 35W CPU and 250W GPU** -25°C to 60°C **with 65W CPU and 250W GPU** -25°C ~ 60°C (with optional fan kit) -25°C ~ 50°C (without optional fan kit	**With 35W CPU and 250W GPU** -25°C to 60°C **with 65W CPU and 250W GPU** -25°C ~ 60°C (with optional fan kit) -25°C ~ 50°C (without optional fan kit	**With 35W CPU and NVIDIA® RTX A6000/ A4500 GPU** -25°C to 60°C **with 65W CPU and NVIDIA® RTX A6000/ A4500GPU** -25°C ~ 60°C (with optional fan kit) -25°C ~ 50°C (without optional fan kit
	Certification	CE/ FCC, MIL-STD-810H	CE/ FCC, MIL-STD-810H	CE/ FCC, MIL-STD-810H	CE/ FCC, MIL-STD-810H	CE/ FCC, MIL-STD-810H

GPU Computing Platform Specification Table

		High-throughput Inference	AI for Automation		
Model Name		Nuvo-8240GC	Nuvo-9166GC	Nuvo-9160GC	Nuvo-8034
Chassis	Dimensions (W x D x H)	190 x 271 x 198.5 mm	240 x 225 x 110.5 mm	240 x 225 x 110.5 mm	259 x 280 x 198 mm
	Weight	3.5 kg	4 kg	3.6 kg	7 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® Core™ i9-13900E/ i9-13900TE i9-12900E/ i9-12900TE Intel® Core™ i7-13700E/ i7-13700TE i7-12700E/ i7-12700TE Intel® Core™ i5-13500E/ i5-13400E/ i5-13500TE i5-12500E/ i5-12500TE Intel® Core™ i3-13100E/ i3-13100TE i3-12100E/ i3-12100TE Intel® Pentium® G7400E/ G7400TE Intel® Celeron® G6900E/ G6900TE	Intel® Core™ i9-13900E/ i9-13900TE i9-12900E/ i9-12900TE Intel® Core™ i7-13700E/ i7-13700TE i7-12700E/ i7-12700TE Intel® Core™ i5-13500E/ i5-13400E/ i5-13500TE i5-12500E/ i5-12500TE Intel® Core™ i3-13100E/ i3-13100TE i3-12100E/ i3-12100TE Intel® Pentium® G7400E/ G7400TE Intel® Celeron® G6900E/ G6900TE	Intel® Xeon® E-2176G/ E-2124G/ 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® C246	IIntel® Q670E	Intel® Q670E	Intel® C246
	Graphics	Intel® UHD Graphics 630	Intel® UHD Graphics 770/ 730	Intel® UHD Graphics 770/ 730	Intel® HD Graphics 630, or x16 PEG port
	Memory	Up to 128 GB DDR4-2133	Up to 64 GB DDR5 4800	Up to 64 GB DDR5 4800	Up to 128 GB DDR4-2133
I/O Interface	PoE	-	Optional (Port 3 to 6, IEEE 802.3at, 25.5W)	Optional (Port 3 to 6, IEEE 802.3at, 25.5W)	-
	Ethernet	1x GbE by Intel® I219-LM 1x GbE by Intel® I210-IT	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	1x GbE by Intel® I219-LM 1x GbE by Intel® I210-IT
	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	2x RS-232/422/485 2x RS-232	2x RS-232/422/485 2x RS-232 (optional)
	USB 2.0	1 (internal)	2	2	1 (internal)
	USB 3.2/ USB 3.1	8	7 (incl. 1x 20Gbps type-C)	7 (incl. 1x 20Gbps type-C)	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	-	Optional via MezIO™ module	Optional via MezIO™ module	8 DI + 8 DO
Storage Interface	SATA HDD	1x 2.5" HDD/ SSD 1x Hot-swap tray for 2.5" HDD/ SSD	2x 2.5" HDD/ SSD	2x 2.5" HDD/ SSD	2x hot-swap tray for 2.5" HDD/ SSD
	mSATA	2 (mux. with mini-PCIe)	-	-	2 (mux. with mini-PCIe)
	M.2 (M-key)	1	1	1	1
Expansion Bus	Mini PCI-E	2	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	4	2	2	4
	MezIO™	-	Yes	Yes	-
	PCI/PCI Express	2x PCIe x16 slot@ Gen3, 8-lanes, supporting NVIDIA® Tesla T4 GPU 2x PCIe x8 slots@ Gen3, 4-lanes	2x PCIe x16 slot@ Gen3, 8-lanes, for installing NVIDIA® L4 GPU and one additional PCIe Card	1x PCIe x16 slot @Gen3, 16-lanes, supporting NVIDIA® GPU (130W)	2x PCIe x16 slot @ Gen3, 8-lanes, Supports single NVIDIA® GPU(180W) 2x PCIe x8 slots @ Gen3, 4-lanes 3x 33MHz/ 32-bit 5V PCI slots
Power Supply	DC Input	8V to 48V DC	8V to 48V DC	8V to 48V DC	8V to 35V DC
	Ignition Control	Built-in	Optional via MezIO™ module	Optional via MezIO™ module	Built-in
Environmental	Operating Temperature	with 35W CPU -25°C ~ 60°C with 65W CPU -25°C ~ 60°C	with 35W CPU **and 130W GPU** -25°C ~ 60°C with 65W CPU **and 130W GPU** -25°C ~ 60°C	with 35W CPU **and 130W GPU** -25°C ~ 60°C with 65W CPU **and 130W GPU** -25°C ~ 60°C	-25°C ~ 60°C
	Certification	CE/ FCC	CE/ FCC	CE/ FCC	CE/ FCC

		Power Efficient					
Model Name		NRU-222S/NRU-220S	NRU-52S+/ NRU-52S	NRU-51V+/ NRU-51V	PCIe-GL26	PCIe-NX154PoE	PCIe-NX156U3
Chassis	Dimensions (W x D x H)	230 x 173 x 66 mm	173 x 144 x 60 mm	173 x 144 x 60 mm	167.7 x 111 mm	167.7 x 111 mm	167.7 x 111 mm
	Weight	2.6 kg / 2.6 kg	1.4 kg	1.4 kg	0.43 kg	0.4 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	Aluminum alloy with heavy duty metal	Aluminum alloy with heavy duty metal
System	Processor	NVIDIA® Jetson AGX Orin™	NVIDIA® Jetson Orin™ NX (NRU-52S+-JON8/ JON16) NVIDIA® Jetson Xavier™ NX (NRU-52S-NX8/ NX16)	NVIDIA® Jetson Orin™ NX (NRU-51V+-JON8/ JON16) NVIDIA® Jetson Xavier™ NX (NRU-51V-NX8/ NX16)	NVIDIA® Jetson Xavier™ NX	NVIDIA® Jetson Orin™ NX	NVIDIA® Jetson Orin™ NX
	Chipset	-	-	-	-	-	-
	Graphics	-	-	-	-	-	-
	Memory	AGX Orin 32GB/ 64GB @ 3200 MHz	Orin™ NX 8GB/ 16GB (NRU-52S+-JON8/ JON16) Xavier™ NX 8GB/ 16GB @1600/1866 MHz (NRU-52S-NX8/ NX16)	Orin™ NX 8GB/ 16GB (NRU-51V+-JON8/ JON16) Xavier™ NX 8GB/ 16GB @1600/1866 MHz (NRU-51V-NX8/ NX16)	8GB/ 16GB	8GB/ 16GB	8GB/ 16GB
I/O Interface	PoE/GMSL2	IEEE 802.3at PoE+ PSE for Port 3 ~ Port 6	IEEE 802.3bt PoE++ for 4 GbE ports	4x GMSL2 FAKRA Z	6x GMSL2 FAKRA Z	IEEE 802.3at PoE+ for 4 GbE ports	-
	Ethernet	2x 2.5GbE + 4x shared GbE (NRU-220S: via RJ45 / NRU-222S: via M12)	4x GbE	1x 10GBASE-T 1x 1GBASE-T	1x GbE	4x 2.5GBASE-T	1x GbE
	Video Port	1x DisplayPort	1x DisplayPort	1x DisplayPort	1x DisplayPort	1x DisplayPort	1x DisplayPort
	Serial Port	1x isolated RS-485 2x RS-232	1x RS-232/422/485	1x RS-232/422/485	1x RS-232	1x RS-232 1x isolated RS-485	1x RS-232 1x isolated RS-485
	USB 2.0	2	-	-	2	2	2
	USB 3.2/ USB 3.1	1	2	2	-	-	6
	Audio	-	-	-	-	-	-
	Digital I/O	4 DI + 4 DO	1x GPS PPS, 3 DI + 4 DO	1x GPS PPS, 3 DI + 4 DO	1x GPS PPS	-	-
	CAN bus	2x CAN 2.0	1x CAN 2.0	1x CAN 2.0	1x CAN 2.0	-	-
Storage Interface	SATA HDD	2x front-accessible 2.5" 7mm SSD	-	-	-	-	
	mSATA	-	-	-	-	-	-
	M.2 (M-key)	1x M.2 M-key	-	-	1x M.2 M-key	1x 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	3	2	2	-	-	-
	MezIO™	-	-	-	-	-	-
	PCI/PCI Express	-	-	-	-	-	-
Power Supply	DC Input	8V to 48V DC	8V to 35V DC	8V to 35V DC	12V DC or Powered by PCIe connector directly	12V DC or Powered by PCIe connector directly	12V DC or Powered by PCIe connector directly
	Ignition Control	Built-in	Built-in	Built-in	-	-	-
Environmental	Operating Temperature	-25°C ~ 70°C (30W TDP mode)	-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 ~ 60°C (15W TDP mode) -25°C ~ 70°C with optional fan kit (15W TDP mode)	-25°C ~ 60°C (20W TDP mode)	-25°C ~ 60°C (20W TDP mode)	-25°C ~ 60°C (20W TDP mode)
	Certification	CE/ FCC, MIL-STD-810H (NRU-220S) CE/FCC, part of EN 50155 (NRU-222S)	EN50155, CE/ FCC, MIL-STD-810H	CE/ FCC, MIL-STD-810H	CE/ FCC	CE/ FCC	CE/ FCC