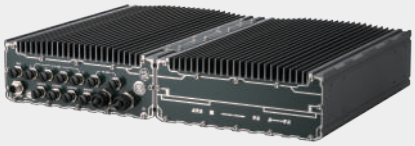
SEMIL-2200GC Series

2U 19" rack mount IP69K mission-critical GPU computer including NVIDIA® L4, supporting Intel® 14th/ 13th/ 12th-Gen Core™ processor



Key Features

- **2U IP69K mission critical GPU computer with NVIDIA® L4 GPU**
- **Up to 128 GB ECC/ non-ECC DDR5 4800 SDRAM**
- **-40°C to 70°C wide-temperature fanless operation**
- **2x 10GbE, 4x 2.5GbE, 1x GbE via M12 X-coded connectors**
- **2x SocketCAN and 2x USB3.2 Gen1 Type-C w/ DP alternative mode**
- **9V to 36V wide-range DC input with built-in ignition power control**
- **MIL-STD-810H, MIL-STD-461G, MIL-STD-1275D compliant**

CONTACT US GET QUOTE

R.O.C Patent No. I697759
CN Patent Pending

Introduction

SEMIL-2200GC is a cutting-edge, AI-enabled mission-critical computer engineered for demanding environments. Housed in a 2U 19-inch rack-mount chassis, this IP69K-rated system is impervious to dust, water, and capable of flawless operations in -40°C to 70°C environments. The SEMIL-2200GC can sustain GPU performance up to its 58°C throttling point. At its core lies an NVIDIA® L4 GPU, and coupled with Intel's 14th, 13th, or 12th generation processors to offer exceptional computing power and efficiency.

The SEMIL-2200GC employs a corrosion-resistant stainless steel and aluminum chassis to safeguard against moisture and salinity. Its ruggedized M12 connectors can withstand shock and vibration, making it ideal for harsh industrial and field applications. Its comprehensive connectivity options include dual CAN bus 2.0, multiple USB 3.2, and seven Ethernet ports including two 10GbE to connected high-speed devices.

The SEMIL-2200GC is MIL-STD-810H compliant, proven to withstand extreme temperatures, humidity, vibration, and shock. Additionally, it complies with MIL-STD-461G standards, ensuring immunity to electromagnetic interference. For applications in mobile or vehicular environments, this platform meets the requirements of MIL-STD-1275D. With its exceptional performance, rugged construction, and adherence to stringent military standards, the SEMIL-2200GC is the ideal solution for critical applications demanding reliability, durability, and advanced AI capabilities.

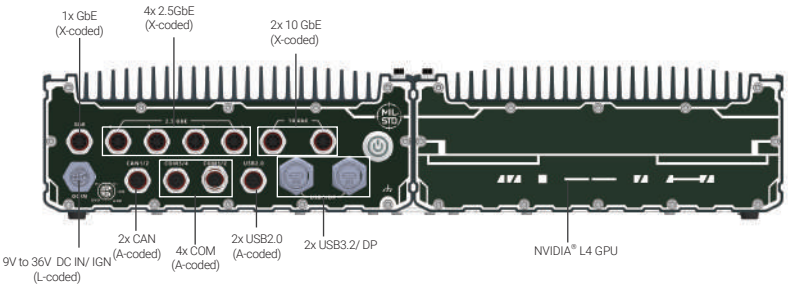
Specifications

System Core	
Processor	Supporting Intel® 14th-Gen Core™ CPU (LGA1700 socket, 35W TDP) - Intel® Core™ i9-14900T - Intel® Core™ i7-14700T - Intel® Core™ i5-14500T - Intel® Core™ i3-14100T
	Supporting Intel® 13th-Gen Core™ CPU (LGA1700 socket, 35W TDP) - Intel® Core™ i9-13900TE - Intel® Core™ i7-13700TE - Intel® Core™ i5-13500TE - Intel® Core™ i3-13100TE
	Supporting Intel® 12th-Gen Core™ CPU (LGA1700 socket, 35W TDP) - Intel® Core™ i9-12900TE - Intel® Core™ i7-12700TE - Intel® Core™ i5-12500TE - Intel® Core™ i3-12100TE
Chipset	Intel® R680E platform controller hub
Graphics	Integrated Intel® UHD Graphics 770 (32EU)
Acceleration GPU	NVIDIA® L4 GPU
Memory	Up to 128 GB ECC/ non-ECC DDR5 4800 SDRAM (two SODIMM slots)
AMT	Supports Intel vPro/ AMT 16.0
TPM	Supports dTPM 2.0
I/O Interface	
Ethernet Port	2x 10GbE Ethernet by X550-AT2 (with WoL) (M12 X-coded) 4x 2.5GbE Ethernet by Intel I226-IT (M12 X-coded) 1x GbE Ethernet by Intel I219-LM (with WoL) (M12 X-coded)
CAN Bus	2x isolated CAN 2.0 port, supporting SocketCAN in Linux
USB	2x Type-C USB 3.2 Gen1x1 (5Gbps) ports (shared DisplayPort) 2x USB 2.0 ports (M12 A-coded)
Video Port	2x Type-C USB connector supporting DP output (shared USB3.2 Gen1x1)
Serial Port	2x isolated 3-wire RS-232 ports (COM1/ COM2) 1x isolated 3-wire RS232 (COM3) & 1x RS-422/ 485 port (COM4)

Storage Interface	
SATA HDD	2x Internal SATA port for 2.5" HDD/ SSD installation, supporting RAID 0/ 1
M.2	1x M.2 2280 M key NVMe socket (PCIe Gen4x4) for NVMe SSD
Expansion Bus	
Mini PCI-E	3x full-size mini PCI Express socket with SIM slot
M.2	1x M.2 2242/3052 B key socket with dual SIM slot for M.2 5G/ 4G module 1x M.2 2230 E key socket for Wi-Fi
Power Supply	
DC Input	9V to 36V DC input with reverse polarity protection (M12 L-coded)
Ignition Control	Built-in ignition power control (IGN/ GND signal via M12 L-coded connector)
Mechanical	
Dimension	440mm (W) x 310mm (D) x 90.5mm (H) (excl. rack-mount bracket)
Weight	12.2 kg
Mounting	Rack-mounting (standard) and wall-mounting (standard)
Environmental	
Operating Temperature	-40°C to 70°C
Storage Temperature	-40°C ~85°C
Humidity	10%~90% , non-condensing
Vibration	MIL-STD-810H: 514.8C-VII. Category 4
Shock	MIL-STD-810H: 516.8 Procedure I
EMC	MIL-STD-461G: - CE102 (10kHz~10MHz) - RE102 (2MHz~18GHz) - RS103 (2MHz~18GHz, 50V/m)
Electrical Systems	MIL-STD-1275D: Normal operating mode (ripples, surges, spikes)
IP Rating	IP69K

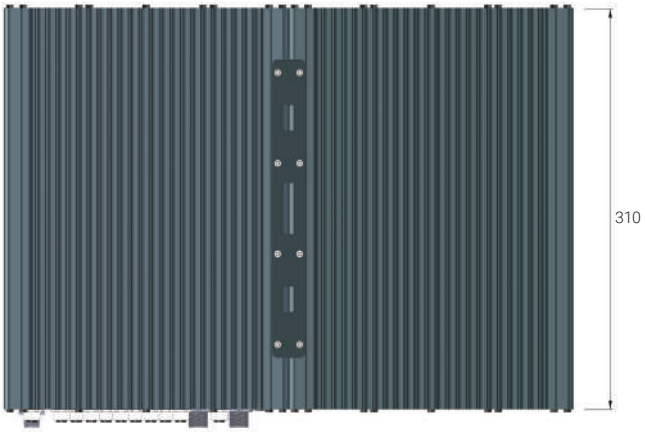
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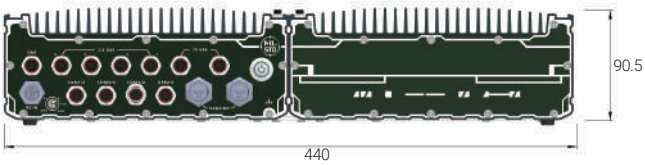
Appearance



Dimensions

Unit : mm





Mounting Configuration



▲ SEMIL 19" rack-monut



▲ SEMIL wall-mount

Ordering Information

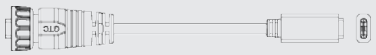
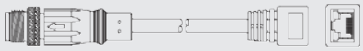
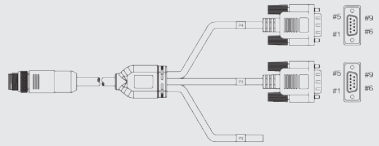
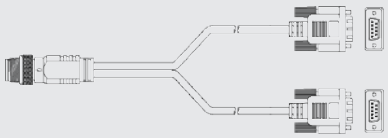
Model No.	Product Description
SEMIL-2247GC	2U 19" rack mount IP69K mission critical GPU computer including NVIDIA® L4, supporting Intel® 14th/ 13th/ 12th-Gen Core™ processor with 2x M12 10GbE and 4x M12 2.5GbE ports

Optional Accessories

PA-280W-CW6P-2P	280W AC-DC power adapter 24V 11.67A, 85~264VAC, -30~+70°C w/ Wafer FML6P to 2P End Terminal cable for AWP/SEMIL

All specifications and photos are subject to change without prior notice

SEMIL-2000 Series

Type	Model Name	Description
	Cbl-TpCPlug-DPM-1M	TypeC Male Plug to DP Male Cable, Length : 1M
	Cbl-TpCPlug-U3TA-50CM	TypeC Male Plug to USB3.0 Type-A FML, Length: 50CM
	Cbl-TpCPlug-UTpCF-50CM	TypeC Male Plug to USB Type-C FML Cable, Length : 50CM
	Cbl-M12X8M-RJ45-500CM	M12(8-pole-X-coded) to RJ45, CAT6, Length : 500CM
	Cbl-M12A8M-2U2TA-180CM1	M12 (8-pole-A-coded) to 2xUSB 2.0 type A (female), Length: 180CM
	Cbl-M12A8M-2DB9M_OW2-180CM1	M12 A-Code Male 8P to x2 DB9 Male+2P, Length: 180CM
	Cbl-M12A8M-2DB9M-180CM	M12 (8-pole-A-coded male) to 2x DB9 male, Length: 180CM
	Cbl-M12L5F-CordEnd5-180CM	M12 L-Code 5P(FML) to Cord End Terminal 5P, Length: 1.8M

Cable Kit

SEMIL-2000 M12 cable kit		
Cblkit-M12-SEMIL2007	7x Cbl-M12X8M-RJ45-500CM	1x Cbl-M12A8M-2U2TA-180CM1
	2x Cbl-M12A8M-2DB9M_OW2-180CM1 (COM1/2 & CAN1/2)	1x Cbl-M12A8M-2DB9M-180CM (COM3/4)
	1x Cbl-M12L5F-CordEnd5-180CM	

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