GT-92RL-H

EN50155 & EN45545 19" rack mount railway GPU computer including NVIDIA® 2000 ADA, supporting Intel® 14th/ 13th / 12th-Gen Core™ processor, 43V to 160V DC input with isolation

Key Features

- **Compliant with EN 50155 mandatory tests and EN 45545-2**
- **Intel® 14th/ 13th/ 12th-Gen LGA1700 processor (35W/65W)**
- **Fanless GPU computer with NVIDIA® RTX 2000 ADA**
- **2U 19" chassis for rack-mount or wall-mount**
- **43V to 160V wide-range DC input via M12 K-Coded connector**
- **9x GbE ports via M12 X-Coded connectors**
- **1x M.2 2280 M key with PCIe-Gen 4x4 for NVMe storge**
- **2x full-size mPCIe sockets for MVB modules**
- **-40°C to 55°C wide-temperature fanless operation**

CONTACT US GET QUOTE

Introduction

GT-92RL-H is a 19" rack mount, wide-temperature, fanless GPU computer that delivers excellent CPU and GPU performance by leveraging Intel® 14th/ 13th/ 12th-Gen platform and NVIDIA® RTX 2000 ADA. Thanks to its high-performance and flexible camera expansion, GT-92RL-H is ideal for multi-camera applications requiring real time responses, e.g., pantograph and track gauge monitoring, video analytics in train carriages, track object identification, and tunnel inspection, etc.

GT-92RL-H has a proven thermal design to guarantee reliable system operation from -40°C to 55°C. It features a passive-cooling design for the system and 70W GPU card. Supporting eight GigE cameras (or IP cameras) and four USB3 cameras, GT-92RL-H is ideal for various vision-based AI applications on rolling stocks with its 110V DC input design and EN 50155/ EN 45545 certifications. It also provides flexible data storage options, including one M.2 2280 Gen4x4 NVMe providing up to 7000 MB/s extreme read/write speeds and two 2.5" SATA HDD/SSD to expand storage capacity.

With performance enhancements and comprehensive I/Os, GT-92RL-H is the perfect edge AI inference platform for rolling stock applications.

Specifications

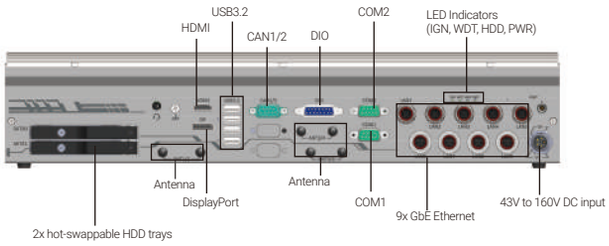
System Core		
Processor	Supporting Intel® 14th-Gen Core™ CPU (LGA1700 socket, 65W/ 35W TDP) - Intel® Core™ i9-14900/ i9-14900T - Intel® Core™ i7-14700/ i7-14700T - Intel® Core™ i5-14500/ i5-14400/ i5-14500T - Intel® Core™ i3-14100/ i3-14100T	
	Supporting Intel® 13th-Gen Core™ CPU (LGA1700 socket, 65W/ 35W TDP) - 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	Supporting Intel® 12th-Gen Core™ CPU (LGA1700 socket, 65W/ 35W TDP) - 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
Chipset	Intel® R680E platform controller hub	
Graphics	Integrated Intel® UHD Graphics 770 (32EU)	
Acceleration GPU	NVIDIA® RTX 2000 ADA	
Memory	Up to 64 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	1x GbE Ethernet by Intel I219-LM via M12 x-coded connector(with WoL) 8x GbE Ethernet by Intel I350-AM4 via M12 x-coded connectors	
PoE+	None	
CAN Bus	2x isolated CAN 2.0 port, supporting SocketCAN in Linux	
USB	4x USB 3.2 Gen2x1 (10 Gbps) ports in type-A connectors	
Video Port	1x HDMI 1.4, supporting 4096×2160 resolution 1x DisplayPort, supporting 4096 x 2304 resolution	
Serial Port	2x isolated 3-wire RS232/ 422/ 485 port (COM1/ COM2)	
Isolated DIO	4-CH isolated DI and 4-CH isolated DO	
Audio	1x 3.5 mm jack for mic-in and speaker-out	

Storage Interface	
SATA HDD	2x hot-swappable HDD trays for 2.5" HDD/ SSD installation, supporting RAID 0/ 1
M.2 NVMe	1x M.2 2280 M key NVMe socket (PCIe Gen4x4) for NVMe SSD
Internal Expansion Bus	
Mini PCI Express	2x full-size mini PCI Express socket with SIM slot
Power Supply	
DC Input	43V to 160V DC input (M12 K-coded)
Mechanical	
Dimension	440mm (W) x 250mm (D) x 88mm (H) (excl. rack-mount bracket)
Weight	8.0 kg
Mounting	Rack-mounting (optional) and wall-mounting (optional)
Environmental	
Operating Temperature	with 35W CPU -40°C ~ 55°C [1] with 65W CPU -40°C ~ 35°C [1]
Storage Temperature	-40°C to 85°C
Humidity	10% to 90% , non-condensing
Vibration	EN 50155:2017/ IEC 61373, Category I, Class B - Body mounted
Shock	EN 50155:2017/ IEC 61373, Category I, Class B - Body mounted
EMC	EN 50121 (EN 50155 EMC) CE/FCC Class A, according to EN 55032 & EN 55035
EN 50155	All mandatory sections of EN 50155:2017 (110V)
EN 45545	EN 45545-2 (Fire protection on railway vehicles)

[1] For sub-zero operating temperature, a wide temperature HDD or Solid State Disk (SSD) is required.

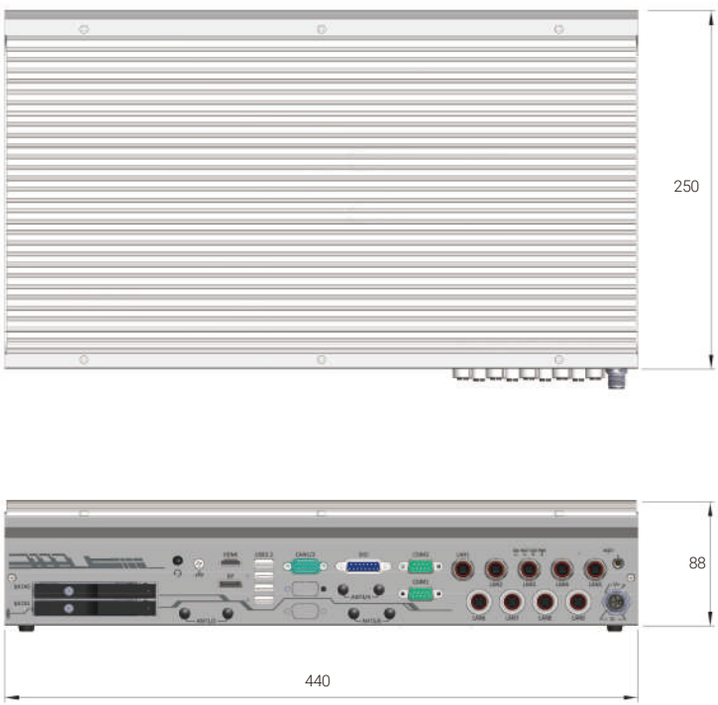
All rights reserved. Copyright© 2024 Neousys Technology Inc.

Appearance



Dimensions

Unit : mm



Ordering Information

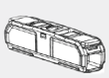
Model No.	Product Description
GT-92RL-H	EN50155 & EN45545 19" rack mount railway GPU computer including NVIDIA® 2000 ADA, supporting Intel® 14th/ 13th / 12th-Gen Core™ processor, 43V to 160V DC input with isolation

Optional Accessories

Cbl-M12K5F-CordEnd4-180CM	M12 K-Code Female 5P to Cord End Terminal 4P, Lenght:180cm
Cbl-M12X8M-RJ45-CAT6A-500CM	M12(8-pole-X-coded) to RJ45, CAT6A, Length: 500CM
Cbl-DB9F-2DB9M-15CM	DB9 (Female) to 2x DB9 (Male), Length: 15CM for CAN1/2
AccsyBx-SplicingConnector	Accessory box kits for Splicing Connector 2-Pole, included 10pcs
Rmkit-GT92	Rack-mount assembly for GT-92 series
Wmkit-GT92	Wall-mount assembly for GT-92 series
mPCIe-M2B	NGFF M.2 key B to mini-PCIe adapter with dual nano-SIM slots
mPCIe-M2E	NGFF M.2 key E to mini-PCIe adapter
mPCIe-M2M	NGFF M.2 key M to mini-PCIe adapter

All specifications and photos are subject to change without prior notice

GT-92RL-H

Type	Model Name	Description
	Cbl-M12K5F-CordEnd4-180CM	M12 K-Code Female 5P to Cord End Terminal 4P, Lenght:180cm
	Cbl-M12X8M-RJ45-CAT6A-500CM	M12(8-pole-X-coded) to RJ45, CAT6A, Length: 500CM
	Cbl-DB9F-2DB9M-15CM	DB9 (Female) to 2x DB9 (Male), Length: 15CM for CAN1/2
	AccsyBx-SplicingConnector	Accessory box kits for Splicing Connector 2-Pole, included 10pcs