



DS-1500 Series – Rugged Embedded Fanless Expandable System with Intel® Arrow Lake-S Core™ Ultra 200S Series Processor Support

The DS-1500 series is a high-performance, expandable, rugged embedded computer, supporting modular I/O expansion and up to two PCI/PCIe slots. It has international certifications for stable and reliable performance in harsh environments, making it perfect for smart manufacturing, railway, and more.

This system supports Intel® Core™ Ultra 200S Series processors with integrated CPU, GPU, and NPU, delivering up to 36 TOPS of AI performance — 3.5x higher than the previous generation — making it an ideal choice for Edge AI applications.

The DS-1500 series features native I/O and modular I/O expansion, providing high-speed transmission (10 GbE LAN, USB 3.2), industrial I/O (COM, DIO, PS/2), display outputs, and M.2 Key B/M/E slots for wireless communication modules or NVMe SSDs.

The DS-1500 series has industrial-grade protections include wide temperature (-40°C to 60°C) and wide voltage (9 - 48 VDC) support; overvoltage, overcurrent, and ESD protection. Meets US military shock and vibration standard (MIL-STD-810H), as well as rail EMC (EN 50121-3-2) and fire protection (EN 45545-2) standards.

SPECIFICATIONS

CPU	Intel® Core™ Ultra Processors (Arrow Lake-S), up to 65W
CPU Socket	LGA1851
Memory Type	262-pin DDR5 6400MHz (Ultra 9 / 7 Processors) 5600MHz (Ultra 5 Processors), Supports Un-buffered and ECC Type
Memory Slots	2
Maximum Memory Supported	96GB
Chipset	Intel® W880
Integrated Graphics	Intel® Xe LPG Graphics
Watchdog Timer	Software Programmable Supports 256 Levels System Reset

Video	1 x VGA, 1 X HDMI 4k @ 30Hz, 2 x DisplayPort 4k @ 60Hz
LAN Ports	1 x Intel® I225 2.5GbE, 1 x Intel® I219 GbE
Serial ATA (SATA)	1 x 2.5" Front Accessible SATA III SSD/HDD Bay, 1 x 2.5" Internal SSD/HDD SATA III Bay
RAID	Support RAID 0/1/5/10
Extended Interface	1 x M.2 B-Key 3042/3052 PCIe4x2, 2 x M.2 B-Key 3042/3052 PCIe3x2, 1 x M.2 M-Key 2280 PCIe3x4, 2 x SIM, 2 x Hi-Sp. CMI, 2 x Lo-Sp. CMI, 1 x CFM IGN, 1 x CFM-TPM, DS-1501: 1 x PCIe, DS-1502: 2 x PCIe
Rear I/O	2 x LAN, 2 x RS-232/422/485, 4 x USB 3.2 Gen1x1, 2 x USB 2.0, 1 x VGA, 1 x DP, 1 x PS/2, 1 x Line-Out, 1 x Mic-In, 1 x DC-In, 1 x Ext Fan Power, 1 x Remote LED, 1 x Remote Power Switch
Front I/O	2 x USB 3.2 Gen2x1, 1 x HDMI, 1 x DP, 1 x IGN Setting Switch
Audio	Realtek ALC888 HD Audio
Power Requirement	9 ~ 48V DC Input 3-Pin Terminal Block
Dimensions	DS-1500: 8.94" x 10.28" x 3.46" (227mm x 261mm x 88mm), DS-1501: 8.94" x 10.28" x 4.25" (227mm x 261mm x 108mm), DS-1502: 8.94" x 20.28" x 5.04" (227mm x 261mm x 128mm)
Weight	DS-1500: 10.8 lbs (4.9 kg), DS-1501: 11.68 lbs (5.3 kg), DS-1502: 12.57 lbs (5.7 kg)
Construction	Extruded Aluminum with Heavy Duty Metal
Operating Temperature	With extended temperature peripherals, ambient with airflow: 35W TDP Processor: -40 ~ 60°C (-40 ~ 140°F), 65W TDP Processor: -40 ~ 50°C (-40 ~ 122°F) with External Fan Kit
Storage Temperature	-40 ~ 80 °C (-40 ~ 176 °F)
Relative Humidity	95% @ 60°C (Non-Condensing)
Shock	MIL-STD-810H
Vibration	MIL-STD-810H
OS Software Supported	Windows 11, Windows 10, Ubuntu 24.04
Global P/N / SKU	1708639

Ordering Options

DS-1500-R10 (SKU# 1708639A): High performance rugged fanless system with support for Intel® Arrow Lake-S Core™ Ultra 200S Series Processors DS-1501-R10 (SKU# 1708639B): High performance rugged fanless system with support for Intel® Arrow Lake-S Core™ Ultra 200S Series Processors, and support for 1 x PCI/PCIe expansion card maximum dimensions (L x H): 235 x 124mm, Supports GPU card up to 75W DS-1502-R10 (SKU# 1708639C): High performance rugged fanless system with support for Intel® Arrow Lake-S Core™ Ultra 200S Series Processors, and support for 2 x PCI/PCIe expansion card maximum dimensions (L x H): 235 x 124mm, Supports GPU card up to 130W [CMI Module List \(https://globalamericaninc.com/wp-content/uploads/2026/04/CMI-Module-2026.pdf\)](https://globalamericaninc.com/wp-content/uploads/2026/04/CMI-Module-2026.pdf)

Some of our successful brand partners



ECROSSER

ASRock

