

Features

APLEX's latest AVS-553 series of embedded edge controllers are designed to deliver high-performance computing and maximum flexibility. This series supports the latest expansion interfaces, including PCIe and SATA for Wi-Fi, 5G systems, and storage, as well as an optional system card for industrial UART applications. APLEX provides a reliable machine-to-intelligence edge control solution to bridge the gap between OT and IT. By installing the AVS-553 series, your system gains video output capabilities that enable information visualization on dashboards and monitors.

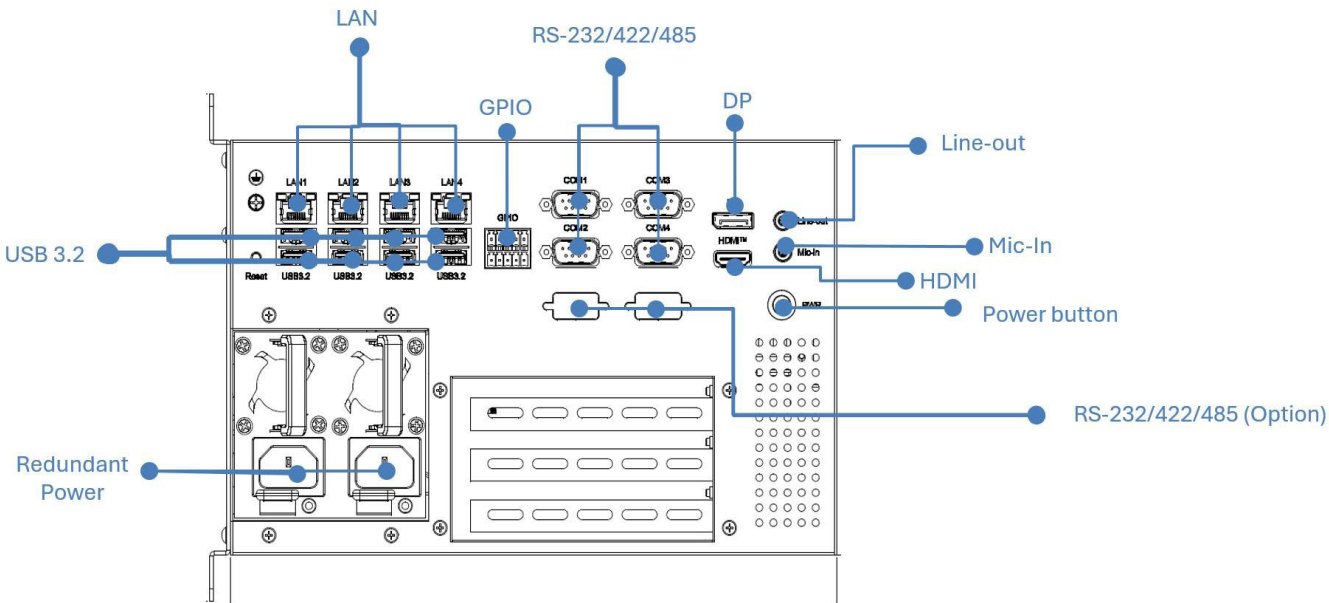
- Intel 13th/14th Core Processors with 32GB DDR5 memory and 512GB storage.
- 2 x M.2 M-Key 2280/2242 for SATA storage.
- Mini PCIe slot (3027/3051) for Wi-Fi expansion.
- 4 x 2.5GbE Ethernet (Intel I226-LM) supporting Time-Sensitive Network technology.
- Dual display output: 1 x HDMI 2.1, 1 x DP 1.4a.
- 8 x GPIOs for industrial control applications.
- 4 x RS-232/422/485 ports for serial communication.
- Supports Windows 11 IoT Enterprise LTSC for industrial applications.

Specifications

System	
Processor	Intel 13th/14th Core Processor (Raptor Lake-S Refresh)
Chipset	Intel R680E
BIOS	AMI UEFI BIOS
Memory	4 x DDR5 4000MT/s or 2 x DDR5 4400MT/s Non-ECC UDIMM, up to 128GB capacity.
Storage	2 x M.2 M-Key 2280/2242 PCIe 2 x SATA 3.0 (6Gb/s) ports
MISC. Function	1 x SMBus Wafer Header
Security	SPI TPM 2.0 onboard

General	
Certification	CE, FCC Class A, UL 61010-2-201
Dimension (WxHxD)	258 x 166 x 368.3 mm
Mounting	Wall Mount
Weight (Net)	10 kg
Available Color	Case Black, Heatsink Silver
Power Input/ Connector	2 x CRPS 550W (Total support 1100W) AC 90V~264V
OS Support	Windows 11 22'H2, Linux Ubuntu 20.04/22.04p

Dimensions



I/O Interface	
USB	8 x USB 3.2 Gen2 Type-A
LAN	4 x 2.5G LAN RJ-45 (i226LM, Support iAMT)
Serial port	6 x RS-232(default)/422/485, BIOS selectable. (4 x rear I/O, 2 Internal header)
Display	1 x DP 1.4a, up to 7680 x 4320 @60Hz 1 x HDMI 2.1, up to 7680 x 4320 @60Hz
GPIO	8 x GPIO (4-IN/4-OUT, 3.3V / 5V hardware-selectable)
Audio	1 x Line-out, 1 x Mic-in
Button	1 x Power Button
Indicator	Power LED
Expansion Slots	1 x Mini PCIe (Half/Full-size Wi-Fi module) 1 x M.2 B-Key 3042/3052 (4G/5G module with nano SIM slot)

Operating Environment	
RoHS	RoHS Compliant
Environmental	Operating Temp.: -20~60°C (-4~140°F) without expansion cards Storage Temp.: -40~85°C (-40~185°F)
Humidity	95% RH @ 40°C/ 104°F
Shock Protection	Operating, IEC 60068-2-27, 50G, half sine, 11ms
Vibration Protection	Operating, IEC 60068-2-64, 2 Grms, random, 5~500 Hz, 1hr/axis

Expansion Card	
Expansion Slots	1 x PCIe x16 (Gen.5) (FHFL, single width) + 1 x PCIe x4 (Gen.4) + 1 x PCIe x4 (Gen.3) 1 x PCIe x16 (Gen.5) (FHFL, dual width) + 1 x PCIe x4 (Gen.3). 1 x PCIe x16 (Gen.5) (FHFL, triple width) only.

Dimensions

