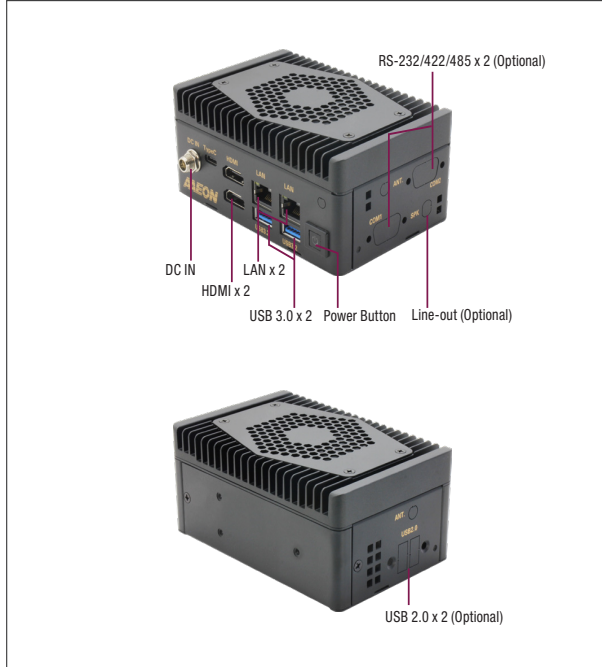


# PICO-V2K4-SEMI

PICO-SEMI with AMD RYZEN™ V2000 embedded Processor Family

PICO-SEMI



## Features

- AMD RYZEN™ V2000 embedded Processor Family (V2718/V2516)
- Onboard NVME SSD 64GB
- LPDDR4x onboard memory, up to 32 GB
- Intel® i226, 10/100/2500Base x 1
- Intel® i210, 10/100/1000Base x 1
- HDMI x 2 (4Kx2K, 2.0b x 1, 1.4 x 1), Type C to DP x 1
- M.2 2280 M key (PCIe x4 GEN3/SATA) x 1
- Full size mPCIe/mSATA x 1
- USB 3.2 Gen 2 x 2, USB 3.2 Gen 2 Type C x 1, USB 2.0 x 2(Optional)
- RS-232/422/485 x 2 (Optional)



SERIAL PORT	COM1, COM2 (RS232/422/485, supports 5V/12V/RI)(Optional)
VIDEO	Type C to DP x 1 HDMI 2.0b x 1, 4K x 2K 60Hz HDMI 1.4 x 1, 4K x 2K 30Hz (3840 x 2160)
<b>INTERNAL I/O</b>	
USB	—
SERIAL PORT	—
VIDEO	—
SATA	Onboard NVME SSD 64GB
AUDIO	Audio Header x 1 (Optional)
DIO/GPIO	8-bit (Optional)
SMBus/I2C	SMBUS/I2C x 1 (SMBUS as default, I2C selected by HW BOM)
Touch	—
FAN	4pins Smart Fan x1
SIM	—
Front Panel	HDD LED, PWR LED, Power Button, Buzzer, Reset
Others	—
<b>EXPANSION</b>	
Mini PCI-E/mSATA	mini-PCIe(Full) x 1 (PCIe [x1] x 1/USB2.0 as default, mSATA selected by HW BOM)
M.2	M.2 2280 M-key x 1 (PCIe Gen3 x 4 as default, SATA selected by BIOS)
Others	—
<b>ENVIRONMENT &amp; CERTIFICATION</b>	
OPERATING TEMP	32°F ~ 122°F (0°C ~ 50°C) with 0.2 m/s airflow
STORAGE TEMP	-40°F ~ 185°F (-40°C ~ 85°C)
OPERATING HUMIDITY	0% ~ 90% relative humidity, non-condensing
MTBF (HOURS)	407,784
EMC	CE/FCC Class A

## Specifications

<b>SYSTEM</b>	
FORM FACTOR	PICO-SEMI
CPU	AMD RYZEN™ V2000 embedded Processor Family V2718 (8C/16T, 1.7~4.15 GHz,TDP 10-25W) V2516 (6C/12T, 2.1~3.95 GHz,TDP 10-25W)
CHIPSET	AMD RYZEN™ V2000 embedded Processor Family
MEMORY TYPE	LPDDR4x 3733 MHz onboard memory
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	TPM2.0
RTC Battery	Lithium Battery 3V/240mAh
DIMENSION	4.80" x 3.18" x 2.13" (122mm x 80.8mm x 54 mm)
Gross Weight	0.84 lbs (0.38 kg)
OS Support	Windows 10 (64 bit), Linux Ubuntu 20.04.3/Kernel 5.11
<b>POWER</b>	
POWER REQUIREMENT	+12V
POWER SUPPLY TYPE	ATX
CONNECTOR	DC Jack Connector
POWER CONSUMPTION	V2718, LPDDR4x onboard 32GB, 4.24A @ +12V(TYPICAL) V2718, LPDDR4x onboard 32GB, 4.82A @ +12V(MAX)
<b>DISPLAY</b>	
CONTROLLER	AMD Radeon 6, 7 Graphics (Renoir)
LVDS/eDP	—
Display Interface	Type C to DP x 1 HDMI 2.0b x 1, 4K x 2K 60Hz HDMI 1.4 x 1, 4K x 2K 30Hz (3840 x 2160)
Multiple Display	Up to 3 Simultaneous Displays
<b>AUDIO</b>	
CODEC	Realtek ALC269 (Optional)
AUDIO INTERFACE	Line-out (Optional)
Speaker	—
<b>EXTERNAL I/O</b>	
ETHERNET	Intel® i226, 10/100/2500Base x 1 Intel® i210, 10/100/1000Base x 1
USB	USB3.2 Gen2 Type C x 1 USB3.2 Gen2 x 2 USB2.0 x 2 (Optional)

## Packing List

- PICO-V2K4-SEMI

## Optional Accessories

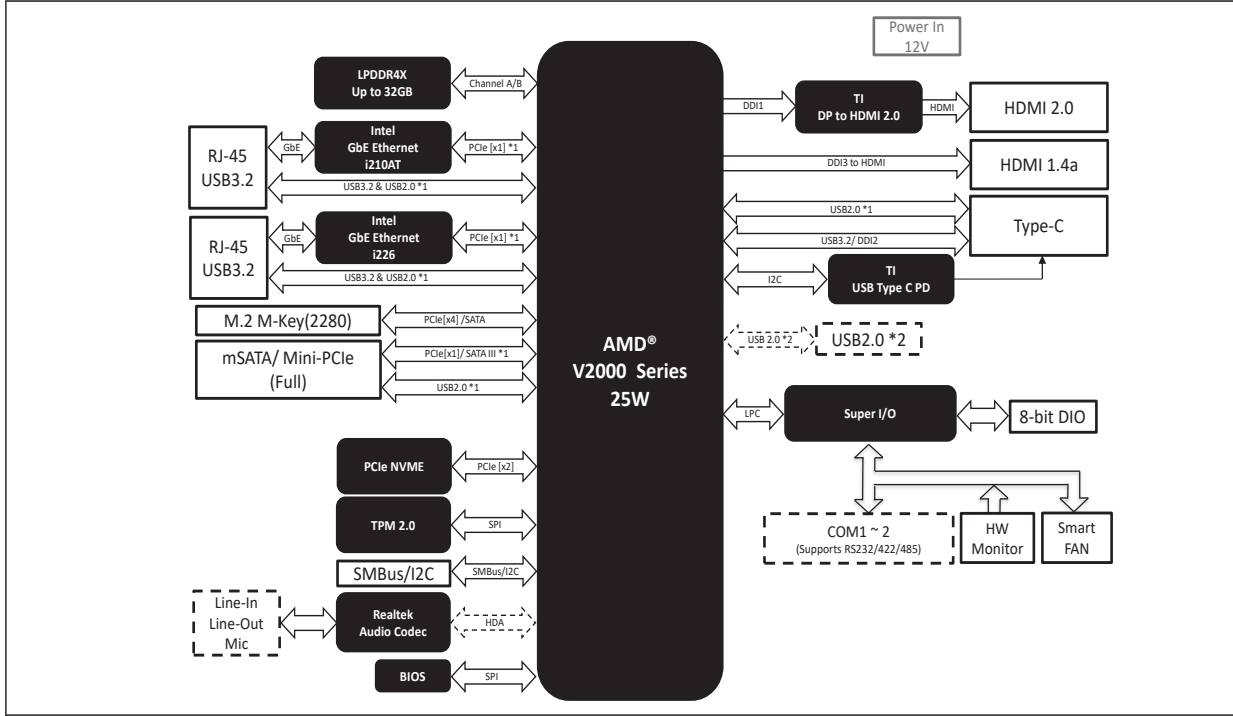
Part Number	Description	Qty.
1702031802	Power Cord (US Type)	1
1702031803	Power Cord (Europe Type)	1
170203180E	Power Cord (Japan)	1
1255201200	Power Adapter 12V/10A 120W FSP120-AHAN3 w/o Lock	1
1255X00063	Power Adapter 12V/12.5A 150W DPS-150AB-15 w/Lock	1
170X000568	Dual COM port cable	1
170X000576	Dual USB2.0 port cable	1
170X000482	Audio cable	1
PICO-V2K4-SEMI-VESA1	PICO-V2K4-SEMI VESA bracket kit	1
PICO-V2K4-SEMI-WMT1	PICO-V2K4-SEMI Wallmount bracket kit	1
PICO-V2K4-SEMI-DIN1	Din rail kit	1

# PICO-V2K4-SEMI

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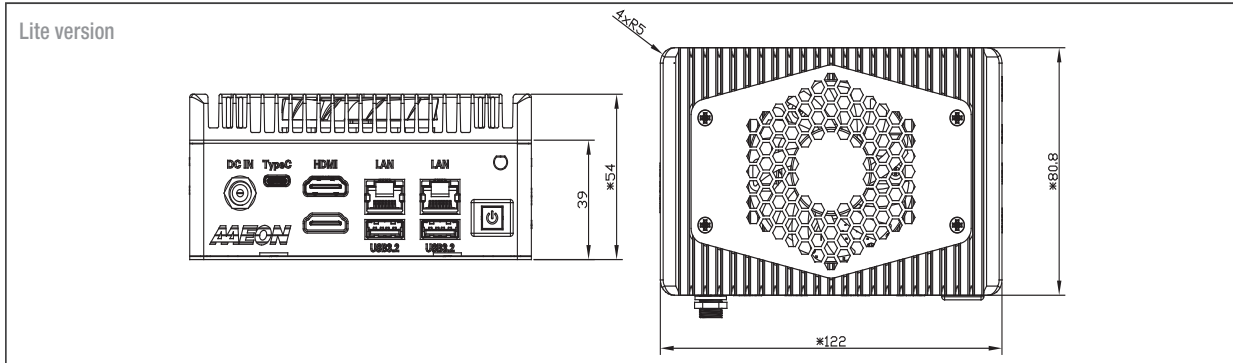
PICO-SEMI

## Block Diagram



## Dimension

Unit: mm



## Ordering Information

Part number	CPU	Memory	Display	Storage	LAN	USB	RS-232/422/485	Expansion slot	Power	Operating Temp	Audio	Others
PICO-V2K4-SEMI-A11-S001	V2516	8GB	Type C to DP x 1 HDMI x 2	Onboard NVME SSD 64GB x 1	GbE x 2	USB 3.2 Gen 2 x 2 USB 3.2 Gen 2 Type C x 1	—	M.2 2280 M-key x 1 mini-PCle(Full) x 1	+12V (ATX)	0~50°C	—	SMBUS x 1 (I2C Optional) TPM2.0
PICO-V2K4-SEMI-A11-S002	V2718	16GB	Type C to DP x 1 HDMI x 2	Onboard NVME SSD 64GB x 1	GbE x 2	USB 3.2 Gen 2 x 2 USB 3.2 Gen 2 Type C x 1	—	M.2 2280 M-key x 1 mini-PCle(Full) x 1	+12V (ATX)	0~50°C	—	SMBUS x 1 (I2C Optional) TPM2.0
PICO-V2K4-SEMI-A11-S003	V2718	32GB	Type C to DP x 1 HDMI x 2	Onboard NVME SSD 64GB x 1	GbE x 2	USB 3.2 Gen 2 x 2 USB 3.2 Gen 2 Type C x 1	—	M.2 2280 M-key x 1 mini-PCle(Full) x 1	+12V (ATX)	0~50°C	—	SMBUS x 1 (I2C Optional) TPM2.0

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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