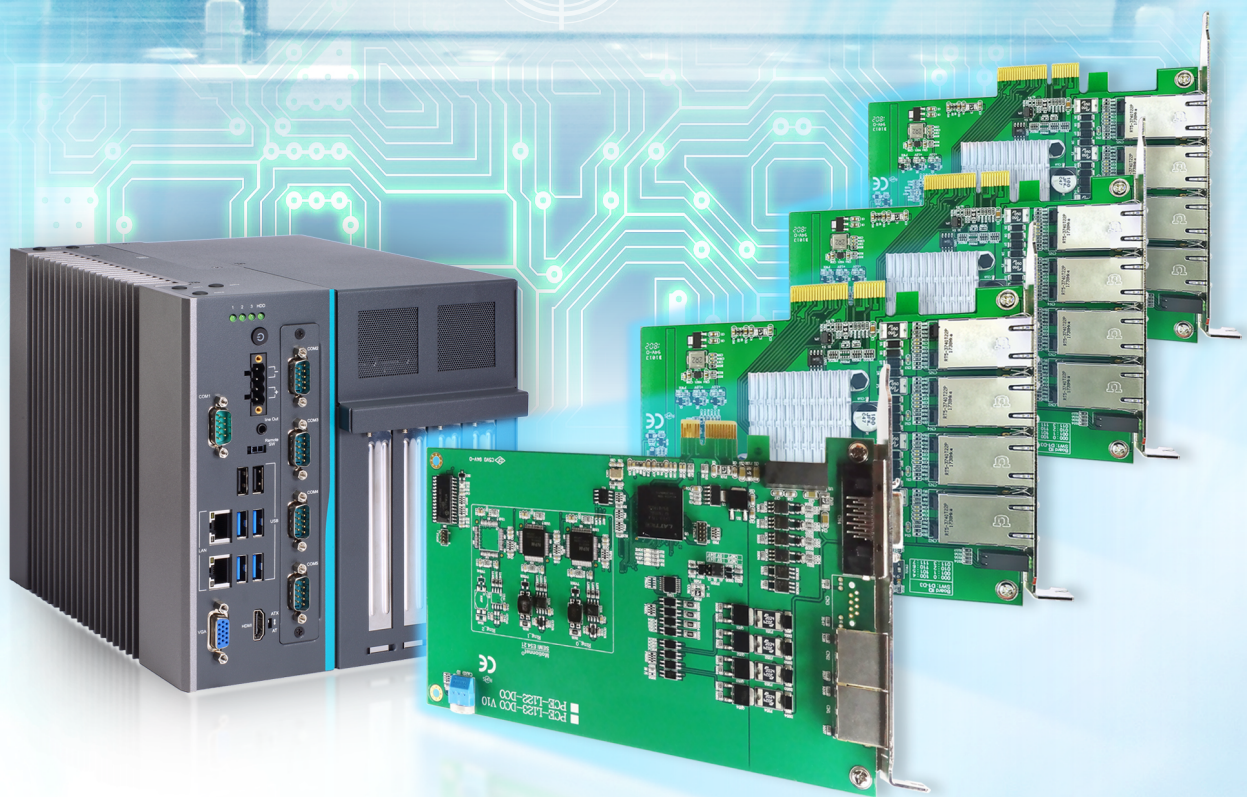


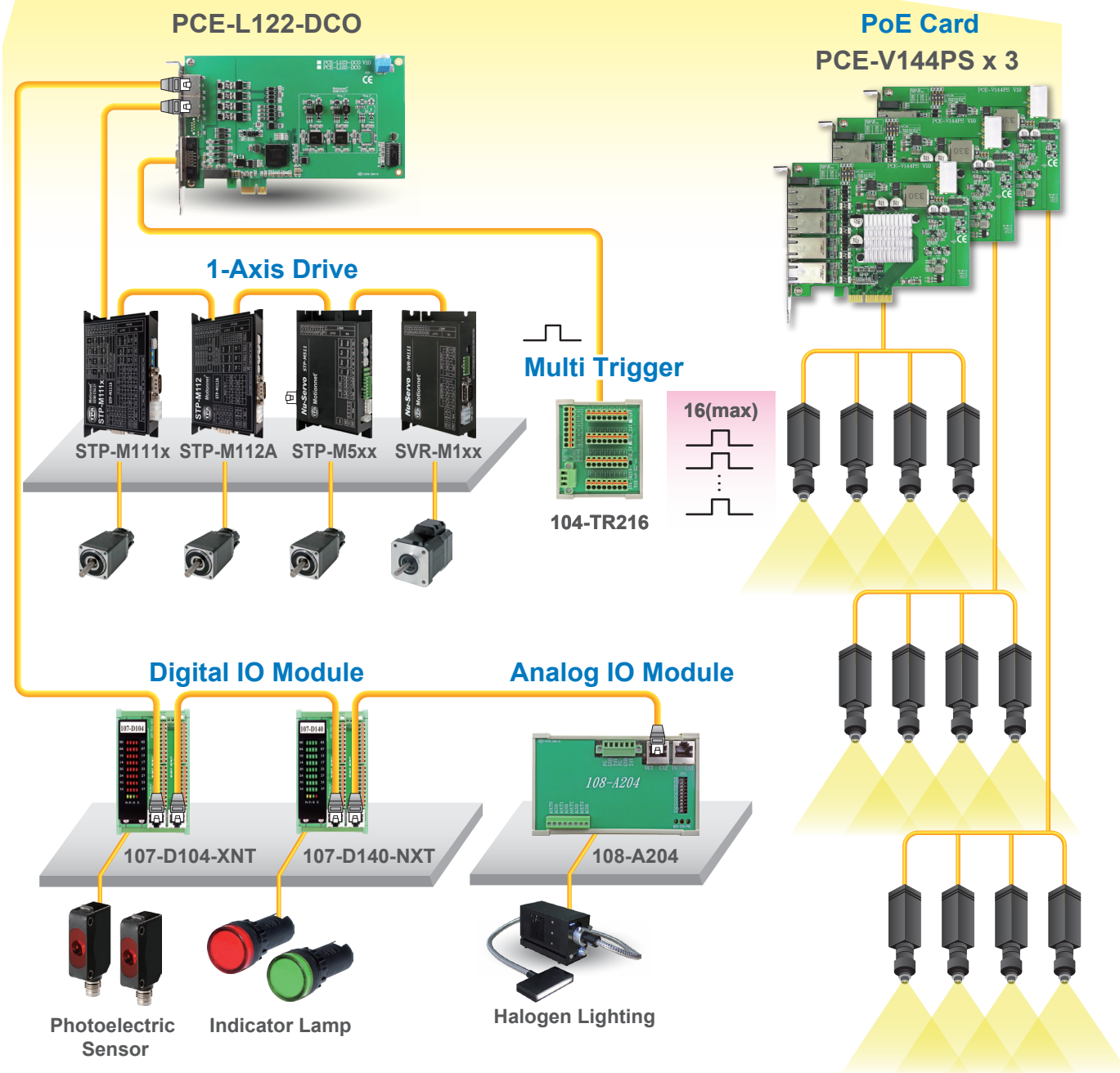
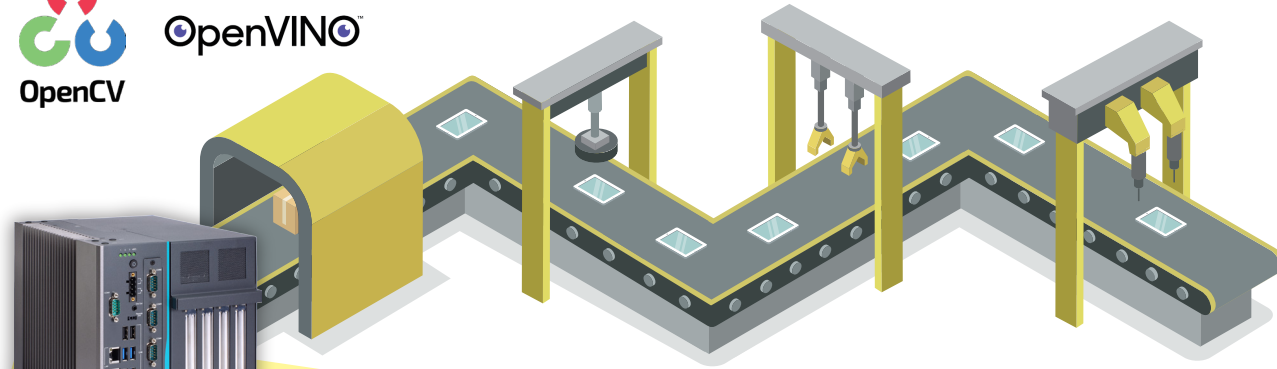
PC-Based Motionnet[®] Solution & Application

SEMI E54.21



Taiwan Pulse Motion
Inspire New Automation
www.tpm-pac.com





Nu-Servo® Drive Motionnet® SEMI E54.21

SVR-M111 / M112 1-Axis Closed-Loop Drive

Features

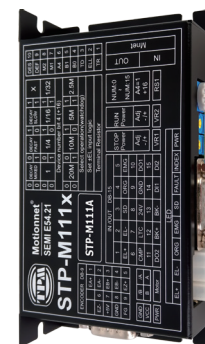
- Max. 20Mbps transfer rate
- 1-axis closed-loop control
- M111: Current 2.8A ; M112: Current 4.2A
- Bi-polar current driving system
- Resolution: 500~50,000 pulse / revolution
- Encoder feedback
- DIP switch for address setting
- Dimensions: L-74 x W-140 x H-31 mm



STP-M111A / M111G 1-Axis Microstep Drive

Features

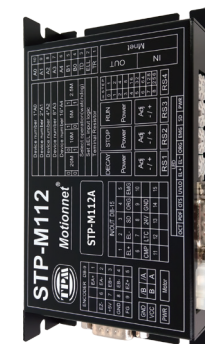
- Max. 20Mbps transfer rate
- 1-axis micro-step control
- M111A / M111G: Current 2.0A
- Bi-polar current driving system
- 1/32 Micro-Step
- Encoder feedback (M111A)
- Dimension: L-68 x W-125 x H-29mm



STP-M112A 1-Axis Microstep Drive

Features

- Max. 20Mbps transfer rate
- 1-axis micro-step control
- M112A: Current 4.2A
- Bi-polar current driving system
- 1/256 Micro-Step
- Encoder feedback
- Dimension: L-74 x W-140 x H-29mm



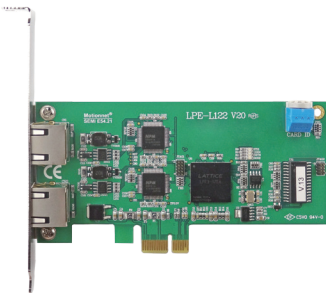
STP-M511 / STP-M512 1-Axis Microstep Drive

Features

- Max. 20Mbps transfer rate
- 5-phase Motionnet® micro-step drive
- M511: Current 1.5A ; M512: Current 3.0A
- Lowest vibration and noise
- High positional accuracy
- Adjustable running current and stop current
- Selectable micro step
- Easy installation with RJ45 phone jack and LED diagnostic
- Dimension : L-75 x W-140 x H-30mm



LPE-L122 Motionnet® Master Card



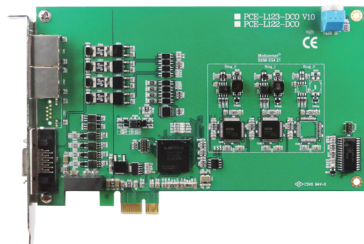
Features

- PCI Express x1 compliant
- Low profile form factor
- Max. 20Mbps transfer rate
- 2 Rings of Motionnet® Master
- Max. 128 Motionnet® slave modules supported

Specifications

Number of ring	2
Serial interface	Half duplex RS-485 with transformer isolation
Cable type	CAT5 UTP / STP Ethernet cable
Surge protection	10KV
Transmission speed	2.5Mbps, 5Mbps, 10Mbps and 20Mbps
Data flow control	Automatic
Communication distance	Max. 100M (20Mbps/32 slave modules)
Communication slave module number	2 Rings with Max. 128 slaves (1 Ring with 64 slaves)
Unique ID	Hardware IC
Form factor	Low profile

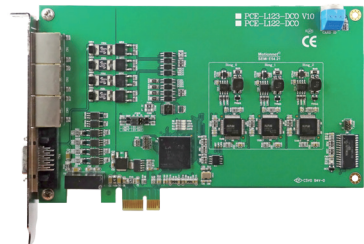
PCE-L122-DCO Motionnet® Master Card



Features

- PCI Express x1 compliant
- Max. 20Mbps transfer rate
- 2 Rings of Motionnet® Master
- Max. 128 Motionnet® slave modules supported
- Compare output FIFO x 2
- Easy installation with RJ45 phone jack and LED diagnostic
- High Speed FIFO LATCH x 4
- General purpose isolated I/O : 4 DI and 4 DO
- Hardware IC with unique ID

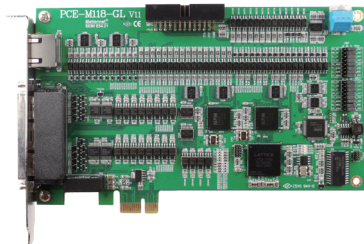
PCE-L123-DCO Motionnet® Master Card



Features

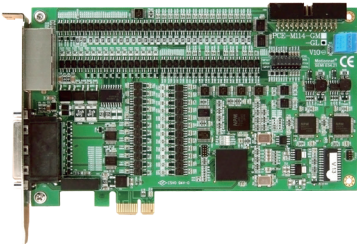
- PCI Express x1 compliant
- Max. 20Mbps transfer rate
- 3 Rings of Motionnet® Master
- Max. 192 Motionnet® slave modules supported
- Compare output FIFO x 2
- Easy installation with RJ45 phone jack and LED diagnostic
- High Speed FIFO LATCH x 4
- General purpose isolated I/O : 4 DI and 4 DO
- Hardware IC with unique ID

PCE-M118-GL Motionnet® Master Card



Features

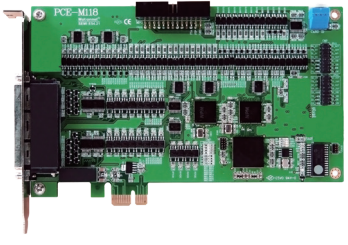
- PCI Express x1 compliant
- On-board 8-axis motion control with Max. 6.5MHz pulse output rate
- 1 Ring of Motionnet® Master
- High speed position latch function
- Max. 64 Motionnet® slave modules support
- Linear, circular, helical and continuous interpolation
- Simultaneously start / stop on multiple axes



Features

- PCI Express x1 compliant
- On-board 4-axis motion control with Max. 6.5MHz pulse output rate
- 1 Rings (GL) / 2 Rings (GM) of Motionnet® Master
- High speed position latch function
- Max. 64 (GL) / Max. 128 (GM) Motionnet® slave modules support
- Linear, circular, helical and continuous interpolation
- Programmable acceleration and deceleration time

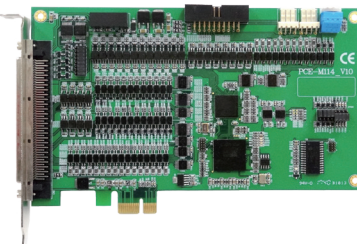
PCE-M118 Motionnet® Master Card



Features

- PCI Express x1 compliant
- On-board 8-axis motion control with Max. 6.5MHz pulse output rate
- Linear, circular, helical and continuous interpolation
- High speed position latch function
- Simultaneously start / stop on multiple axes
- Programmable acceleration and deceleration time
- Programmable pulse output and interrupt

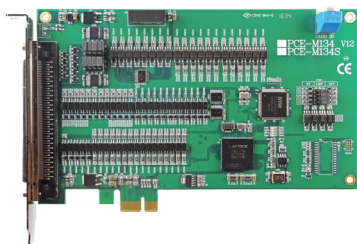
PCE-M114 Motionnet® Master Card



Features

- On-board 4-axis motion control with Max. 6.5MHz pulse output rate
- Linear, circular, helical and continuous interpolation
- High speed position latch function
- Simultaneously start / stop on multiple axes
- Programmable acceleration and deceleration time
- Programmable pulse output and interrupt

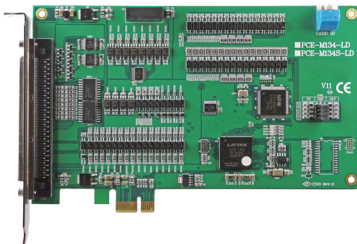
PCE-M134 Motionnet® Master Card



Features

- On-board 4-axis motion control with Max. 2.4MHz pulse output rate
- Programmable acceleration and deceleration time
- Programmable pulse output and interrupt
- Position compare and trigger output
- Compare output FIFO x 4

PCE-M134-LD Motionnet® Master Card

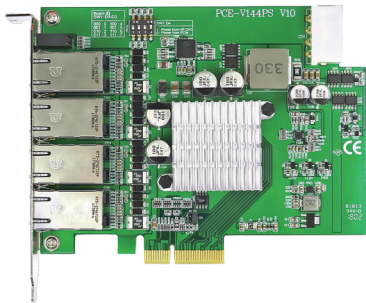


Features

- On-board 4-axis motion control with Max. 2.4MHz pulse output rate
- Programmable acceleration and deceleration time
- Programmable pulse output and interrupt
- Position compare and trigger output
- Compare output FIFO x 4
- General purpose isolated I/O : 16 DI and 16 DO

DAQ Card Motionnet® SEMI E54.21

PCE-V144PS 4-Port GigE Vision PoE Frame Grabber Card



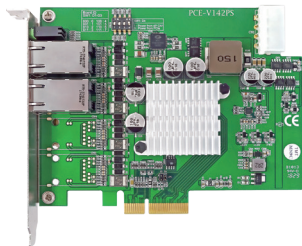
Features

- PCI Express x4 compliant
- Intel Server-grade I350 Ethernet Controller
- 4 independent Gigabit Ethernet Ports
- IEEE 802.3at Power over Ethernet standard

Specifications

Bus interface	PCI Express x4 Gen 2
Ethernet controller	Intel I350 Ethernet controller
Number of port	4
Jumbo frame	Support 9.5KB jumbo frame
Link aggregation(LAG)	Present
Connector	RJ45, CAT-5e or CAT-6 cable
PoE capability	In compliant with IEEE 802.3at. Each port up to 25.4W power Max. 62 Watts output all ports.
PoE standard	Powered Device (PD) Auto-detection and classification
Isolated protection	2.25KV isolation on LAN and power

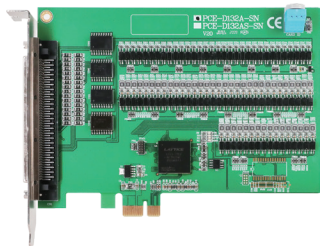
PCE-V142PS 2-Port GigE Vision PoE Frame Grabber Card



Features

- PCI Express x4 compliant
- Intel Server-grade I350 Ethernet Controller
- 2 independent Gigabit Ethernet Ports
- IEEE 802.3at Power over Ethernet standard
- Dimensions: L-150 x W-111.2 mm
- 2-Port PCI Express PoE frame grabber

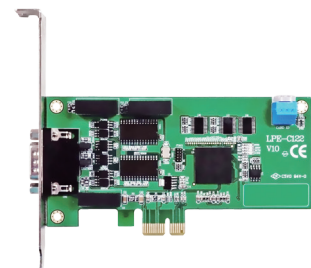
PCE-D132A-SN 48-Ch. Digital Input and 32-Ch. Digital Output



Features

- 48-Ch. Isolated Digital IN
- 32-Ch. Isolated Digital OUT
- PCI Express x1 compliant
- Board ID
- Readable digital output signals
- Surge protection : 10 KV
- I/O isolation voltage : 3750 Vrms
- Input impedance : 5.6KΩ / 0.5W
- Input types : NPN/ PNP
- Output types : NPN open collector darlington transistors

LPE-C122 2-Port Isolated CAN Bus Card

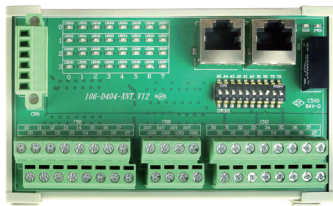


Features

- PCI Express x1 compliant
- Low profile form factor
- CAN 2.0 A,B Protocol
- Two independent CAN communication operation
- Up to 1 Mbit/s programmable transfer rate on each port
- 120 ohm termination resistor selected by jumper

Motionnet® IO Slave Motionnet® SEMI E54.21

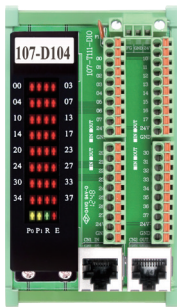
106-D4xx Series 32-Ch. DI/O Slave Module



Features

- 32-Ch. Motionnet® Digital I/O slave modules
- Max. 20Mbps transfer rate
- Easy installation with RJ45 phone jack and LED diagnosis
- DIN rail mounting (L-77 x W-124 x H-41 mm)
- 106-D4xx Series : Screw Terminal Block
- 106-D440-NXT: 32-Ch. Digital input
- 106-D422-NNT: 16-Ch. Digital input and 16-Ch. Digital output
- 106-D404-XNT: 32-Ch. Digital output

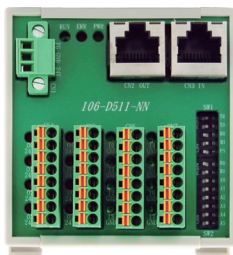
107-D1xx Series (32) 32-Ch. DI/O Slave Module



Features

- 32-Ch. Motionnet® Digital I/O slave modules
- Max. 20Mbps transfer rate
- Easy installation with RJ45 phone jack and LED diagnosis
- Pluggable terminal block with spring plug connectors
- DIN rail mounting (L-122 x W-66 x H-104 mm)
- 107-D140-NXT: 32-Ch. Digital input
- 107-D122-NNT: 16-Ch. Digital input / 16-Ch. Digital output
- 107-D104-XNT: 32 Ch. Digital output

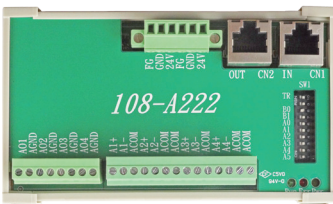
106-D5xx Series 16-Ch. DI/O Slave Module



Features

- 16-Channel Motionnet® Digital I/O slave modules
- Max. 20Mbps transfer rate
- Easy installation with RJ45 phone jack and LED diagnosis
- Pluggable terminal block with spring plug connectors
- DIN rail mounting (L-77 x W-69 x H-41 mm)
- 106-D520-NXT: 16-Ch. Digital input
- 106-D511-NNT: 8-Ch. Digital input / 8-Ch. Digital output
- 106-D502-XNT: 16-Ch. Digital output

108-A222 / A322 8-Ch. Analog Input / 4-Ch. Analog Output



Features

- Max. 20Mbps transfer rate
- Easy installation with RJ45 phone jack and LED diagnosis
- Connectors with screw terminal block
- DIN rail mounting 108-A222: (L-77 x W-124 x H-34 mm) ; 108-A322: (L-77 x W-124 x H-32 mm)
- 8-Ch. Analog input and 4-Ch. Analog output Slave Module

TPC-8000 Series Fanless Box PC

PCIexpress 4-slot Industrial System with LGA1151 Socket 8th/9th Gen Intel® Core™ i7 / i5 / i3 & Celeron® Processor, Intel® Q370, Front-access I/O, PCIe and PCI Slots



Features

- LGA1151 Socket Intel® 9th/8th gen Intel® Core™ processor, up to 65W
- Intel® Q370 chipset
- Supports PCIexpress 4 slots
- Power input: 24 VDC (uMin=19V/uMax=30V)
- -10°C to +60°C operating temperature range
- Supports 2 swappable 2.5" HDD
- Supports Intel® RAID 0,1
- Supports TPM 2.0



Specifications

Standard Color	Silver & black
Construction	Aluminum extrusion heavy-duty cold-rolled steel
Processor System	CPU Level : Intel® 9th/8th gen Intel® Core™ processor, up to 65W* Chipset : Intel® Q370
System Memory	2 x DDR4-2666/2400 MT/s un-buffered SO-DIMM, up to 64GB
System I/O	1 x Switch for power on/off w/LED (ATX) 1 x Remote switch 1 x RS-232/422/485 (default RS-232) 1 x 4-pin terminal block 1 x AT/ATX selectable switch 2 x 10/100/1000 Mbps Ethernet (Intel® i211-AT & i219-LM) 4 x USB 3.1 Gen2 2 x USB 2.0 1 x USB 2.0 (180D type A for license key) 1 x HDMI 1 x VGA 1 x Audio (Line-out)
Extension System I/O Module	AX93511: 4 x RS-232/422/485 (default RS-232) AX93512: 2 x RS-232/422/485 with isolated 1.5 kVDC & 8-in/8-out with isolated 1.5kVDC DIO module AX93516: 4 x RS-232/422/485 with isolated 2kVDC module AX93519: 1 x 10/100/1000 Mbps Ethernet, 2 x RS-232/422/485 and 2 x USB3.1 (1 USB3.1 Gen2 & 1 USB2.0 signal) module
TPM	TPM 2.0

Expansion Interface	AX96410: 1 PCIe x16 + 3 PCIe x4 AX96411: 1 PCIe x16 + 1 PCIe x4 + 2 PCI 1 x Full-size PCI Express Mini Card slot with SIM slot (USB & PCIe interface) or 1 x M.2 Key B 3042/3050 socket w/SIM slot
Storage	2 x 2.5" swappable HDD/SSD (7/9.5 mm height), support RAID 0,1 1 x M.2 Key M 2280 socket (PCIe Gen3 x4) for NVMe SSD
System Indicators	1 x HDD LED 3 x Programmable LED
Power Input	Type: ATX/AT Input: 24 VDC (uMin=19V/uMax=30V)
Operating Temperature	-10°C to +60°C (+14°F to +140°F) with Intel® 9th/8th gen Intel® Core™ and W.T. HDD/SSD*
Storage Temperature	-20°C to +80°C (-4°F to +176°F)
Humidity	10% to 90%, non-condensing
Dimensions	147.5 mm (5.80") (W) x 192 mm (7.54") (H) x 230 mm (9.04") (D)
Weight (net/gross)	TBC
Certifications	CE compliance

Ordering Information

- TPC-8100 i7 CPU
- TPC-8300 i5 CPU
- TPC-8500 i3 CPU

* Please refer to the user's manual for the system CPU support list and the system operating temperature list.

* All specifications and photos are subject to change without notice.