PR4048 / PR4148

Intel® Skylake™ based rack IPCs

The 19" Rack IPC PR4048/4148 family is based on the sixth generation Core™ i3, i5, i7 and Xeon processors of the Intel® Skylake™ platform.
The motherboard includes two Ethernet 10/100/1000Mbps ports that support "Jumbo Frame" and "Wake on Lan" functionalities, four USB 3.0 ports, four USB 2.0 ports, one RS232 serial interface, two DisplayPort and a DVI-D video outputs; on the front, two USB 3.0 ports. The motherboard also has an mSATA connector for a SATA III SSD, six SATA III connectors for 2.5" or 3.5" units (also on extractable drawers), the possibility to set the mass storage drives in RAID 0, 1, 5, 10 configuration and up to 64 GB RAM with four DDR4 DIMM modules. PR4048/4148 systems are provided with 110/230 VAC power supply and are available in two versions, PR4048 with up to two 500W redundant power supplies and PR4148, with reduced depth chassis.

Highlights

- → "Heavy-duty" motherboard for 24/7 industrial applications
- → Extractable drawers for 2.5" or 3.5" mass storages
- → Intel® Skylake™ dual and quad core platform
- → Rack IPC with 0-40° operating temperature
- → 110/230 VAC power supply input
- → PR4148 version with compact cabinet

PR4049 / PR4149 [new]

Intel® Kaby Lake™ based rack IPCs

The 19" Rack IPC PR4049/4149 family is based on the seventh generation Core™ i3, i5, i7 and Xeon™ processors of the Intel® Kaby Lake™ platform.
The motherboard includes two Ethernet 10/100/1000Mbps ports that support "Jumbo Frame" and "Wake on Lan" functionalities, four USB 3.0 ports, four USB 2.0 ports, one RS232 serial interface, two DisplayPort and a DVI-D video outputs; on the front, two USB 3.0 ports. The motherboard also has an mSATA connector for a SATA III SSD, six SATA III connectors for 2.5" or 3.5" units (also on extractable drawers), the possibility to set the mass storage drives in RAID 0, 1, 5, 10 configuration and up to 64 GB RAM with four DDR4 DIMM modules. PR4049/4149 systems are provided with 110/230 VAC power supply and are available in two versions, PR4049 with up to two 500W redundant power supplies and PR4149, with reduced depth chassis.

Highlights

- → "Heavy-duty" motherboard for 24/7 industrial applications
- → Extractable drawers for 2.5" or 3.5" mass storages
- → Intel® Kaby Lake™ dual and quad core platform
- → Rack IPC with 0-40° operating temperature
- → 110/230 VAC power supply input
- → PR4149 version with compact cabinet

PR4050 / PR4150 [new]

Intel® Coffee Lake™ based rack IPCs

The 19" rack IPC PR4050/4150 family is based on the eighth generation Core™ i3, i5, i7 and Xeon™ processors of the Intel® Coffee Lake™ platform. The motherboard includes two Ethernet 10/100/1000Mbps ports that support "Jumbo Frame" and "Wake on Lan" functionalities, four USB 3.0 ports, four USB 2.0 ports, one RS232 serial interface, two DisplayPort and a DVI-D video outputs; on the front, two USB 3.0 ports. The motherboard also has an M.2 2280 connector for a SATA III/PCIe x4 SSD, six SATA III connectors for 2.5" or 3.5" units (also on extractable drawers), the possibility to set the mass storage drives in RAID 0, 1, 5, 10 configuration and up to 64 GB RAM with four DDR4 DIMM modules. PR4050/4150 systems are provided with 110/230 VAC power supply and are available in two versions, PR4050 with up to two 500W redundant power supplies and PR4150, with reduced depth chassis.

Highlights

- → "Heavy-duty" motherboard for 24/7 industrial applications
- → Extractable drawers for 2.5" or 3.5" mass storages
- → Intel® Coffee Lake™ dual, quad and exa core platform
- → Rack IPC with 0-40° operating temperature
- → 110/230 VAC power supply input
- → PR4150 version with compact cabinet

Technical Data

	PR4048	PR4148	PR4049	PR4149	PR4050	PR4150
19" RACK CABINET	long	short	long	short	long	short
MOTHERBOARD	ATX format, D3446-S2 (Fujitsu)				ATX format, D3446-S (Fujitsu)	
PROCESSOR	Intel® Core™ i3-6100, 3,7 GHz, 2 cores / 4 threads, 3MB L2, 14nm technology		Intel® Core™ i3-7100, 3,9GHz, 2 cores / 4 threads, 3MB L2, 14nm technology		Intel® Core™ i3-8100 ▪ 3,6 GHz ▪ 4 cores ▪ 4 threads ▪ 6MB cache ▪ 64bit ▪ 14nm technology	
	Intel® Core™ i5-6400 2.7GHz (3.3GHz Turbo), 4 cores / 4 threads, 3MB L2, 14nm technology		Intel® Core™ i5-7500, 3,4GHz (3,8GHz Turbo), 4 cores / 4 threads, 6MB L2, 14nm technology		Intel® Core™ i5-8500 ▪ 3,0 GHz (4,1 GHz Turbo) ▪ 6 cores ▪ 6 threads ▪ 9MB cache ▪ 64bit ▪ 14nm technology	
	Intel® Core™ i5-6600, 3,3 GHz (3,9 GHz Turbo), 4 cores / 4 threads, 6MB L2, 14nm technology		Intel® Core™ i5-7600, 3,5GHz (4,1GHz Turbo), 4 cores / 4 threads, 6MB L2, 14nm technology		Intel® Core™ i7-8700 ▪ 3,2 GHz (4,6 GHz Turbo) ▪ 6 cores ▪ 12 threads ▪ 12MB cache ▪ 64bit ▪ 14nm technology	
	Intel® Core™ i7-6700, 3,4 GHz (4,0 GHz Turbo), 4 cores / 8 threads, 8MB L2, 14nm technology		Intel® Core™ i7-7700, 3,6GHz (4,2GHz Turbo), 4 cores / 8 threads, 8MB L2, 14nm technology		Intel® Xeon™ E-2124G ▪ 3,4 GHz (4,5 GHz Turbo) ▪ 4 cores ▪ 4 threads ▪ 8MB cache ▪ 64bit ▪ 14nm technology	
	Intel® Xeon™ E3-1225 V5, 3,3 GHz (3,7 GHz Turbo), 4 cores / 4 threads, 8MB L2, 14nm technology		Intel® Xeon™ E3-1225 V6, 3,3GHz (3,7GHz Turbo), 4 cores / 4 threads, 8MB L2, 14nm technology		Intel® Xeon™ E-2176G ▪ 3,7 GHz (4,7 GHz Turbo) ▪ 6 cores ▪ 12 threads ▪ 12MB cache ▪ 64bit ▪ 14nm ▪ Socket LGA1151	
	Intel® Xeon™ E3-1275 V5, 3,6 GHz (4,0 GHz Turbo), 4 cores / 8 threads, 8MB L2, 14nm technology		Intel® Xeon™ E3-1275 V6, 3,8GHz (4,2GHz Turbo), 4 cores / 8 threads, 8MB L2, 14nm technology			
CHIPSET	Intel® C236 Express Chipset				Intel® C246 Express Chipset	
O.S. CERTIFIED	Microsoft Windows 10 IoT Enterprise 64 bit, Microsoft Windows 8.1 Industry Pro 32/64 bit, Microsoft Windows 7 32/64 bit, Microsoft Windows Server 2012 R2 64 bit Standard Edition		Microsoft Windows 10 IoT Enterprise 64 bit Microsoft Windows Server 2016 Standard Microsoft Windows Server 2019 Standard			
VIDEO CONTROLLER	Intel® HD Graphics 530 integrated in Core i3-6100 processors, 350MHz/1,05GHz		Intel® HD Graphics 630 integrated in Core i3-7100, i5-7500 processors, 350MHz/1,10GHz		Intel® UHD Graphics 630 integrato nei processori Core i3 e i5▪ 350MHz/1,10GHz	
					Intel® UHD Graphics 630 integrato nel processore Core i7 ▪ 350MHz/1,2GHz	
	Intel® HD Graphics 530 integrated in Core i5-6600, Core i7-6700 processors, 350MHz/1,15GHz		Intel® HD Graphics 630 integrated in Core i5-7600, Core i7-7700 and Xeon processors, 350MHz/1,15GHz		Intel® UHD Graphics P630 integrato nel processore Xeon™ E-2124G ▪ 350MHz/1,15GHz	
	Intel® HD Graphics P530 integrated in Xeon processors, 400MHz/1,15GHz DirextX 12 and OpenGL 4.4 support				Intel® UHD Graphics P630 integrato nel processore Xeon™ E-2176G ▪ 350MHz/1,2 GHz	
VIDEO LIBRARY SUPPORT	DirextX 12 and OpenGL 4.4 support		DirextX 12 and OpenGL 4.5 support			
SYSTEM MEMORY	4GB / 8GB / 16GB / 32GB / 64GB DDR4					
EXPANSION SLOTS	2 x PCI full size (32 bit, 33MHz, Rev.2.3) 2 x PCIe x16 (16 lanes, Gen3, 4 lanes, Gen3) 1 x PCIe x8 (1 lane, Gen3) 2 x PCIe x4 (4 lanes, Gen3, 1 lane, Gen3)				2 x PCI full size (32 bit, 33MHz, Rev.2.3) 1 x PCIe x16 (16 lanes, Gen3) 1 x PCIe x16 (4 lanes, Gen3) 2 x PCIe x8 (1 lane, Gen3) 1 x PCIe x1 (1 lanes, Gen3)	
DRIVE BAY	3 x 5,25" external	3 x 5,25" external	3 x 5,25" external	3 x 5,25" external	3 x 5,25" external	3 x 5,25" external
	1 x 3,5" external + 2 x 3,5" internal	1 x 3,5" external + 3 x 3,5" internal	1 x 3,5" external + 2 x 3,5" internal	1 x 3,5" external + 3 x 3,5" internal	1 x 3,5" external + 2 x 3,5" internal	1 x 3,5" external + 3 x 3,5" internal
SPECIAL FEATURES	24/7 operation					
DRIVE INTERFACES	1 x mSATA III 6Gbit/s - 6 x SATA III 6Gbit/s				1 x M.2 2280 PCIe x4 - 6 x SATA III 6Gbit/s	
MASS STORAGE	up to 4 x HDDs 3,5" SATA III without or with extractable drawer in a 5,25" bay (max 3)					
	up to 4 x SSDs 2,5" SATA III without or with extractable drawer in a 3,5" bay (max 2)					
RAID	RAID 0, 1, 5, 10 on SATA III					
OPTICAL DRIVE	1 x DVD-RW					
LAN	2 x LAN 10/100/1000Mbps (1 x Intel® I210AT, 1 x Intel® I219LM)					
USB	4 x USB 3.0 rear (Type-A) - 4 x USB 2.0 rear (Type-A) - 2 x USB 3.0 front (Type-A)					
SERIAL	1 x DVD-RW					
KEYBOARD & MOUSE	2 x PS/2 (K/M)					
VIDEO OUTPUT	1 x DVI-D 2 x DisplayPort					
AUDIO	Realtek ALC671, 5.1-channel, High Definition Audio Codec, S/PDIF					
ADDITIONAL INTERFACES	2 x RS232 (DB9M)				up to 3x RS232 (DB9M)	
	2 x USB 2.0 for internal dongle				1 x USB 2.0 + 1 x USB 3.0 for internal dongle	
POWER SUPPLY INPUT	230VAC 400/650W	230VAC 400/650W	230VAC 400/650W	230VAC 400/650W	230VAC 400/650W	230VAC 400/650W
	230VAC 2 x 500W		230VAC 2 x 500W		230VAC 2 x 500W	
DIMENSIONS w-h-d	48.3 x 17.8 x 50.3 cm	48.3 x 17.8 x 46.5 cm	48.3 x 17.8 x 50.3 cm	48.3 x 17.8 x 46.5 cm	48.3 x 17.8 x 50.3 cm	48.3 x 17.8 x 46.5 cm
OPERATING TEMPERATURE	0°- 40°C with 24x7 HDD 5°- 40°C with standard HDD					
APPROVALS	CE					

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