



## Industrial Automation - Products & Configurations

### PR4048 BASIC SYSTEM

Basic configuration	Intel® Pentium™ G5420 3,60 GHz dual core • 8 GB RAM • Power supply 230V AC 400W • 50cm depth • Slot 2 x PCI • 2 x PCIe x16 • 1 x PCIe x8 • 2 x PCIe x4 • 12 months warranty
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### PR4148 BASIC SYSTEM

Basic configuration	Intel® Pentium™ G5420 3,60 GHz dual core • 8 GB RAM • Power supply 230V AC 400W • 46,5cm depth • Slot 2 x PCI • 2 x PCIe x16 • 1 x PCIe x8 • 2 x PCIe x4 • 12 months warranty
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PROCESSOR	Intel® Pentium™ G5420 • 3,60 GHz • 2 cores • 2 threads • 3MB cache • 64bit • 14nm • Socket LGA1151 Intel® Core™ i3-6100 • 3,7 GHz • 2 cores • 4 threads • 3MB cache • 64bit • 14nm • Socket LGA1151 Intel® Core™ i3-6300 • 3,8 GHz • 2 cores • 4 threads • 3MB cache • 64bit • 14nm • Socket LGA1151 Intel® Core™ i5-6420P • 2,8 GHz (3,4 GHz Turbo) • 4 cores • 4 threads • 6MB cache • 64bit • 14nm • Socket LGA1151 Intel® Core™ i5-6600 • 3,3 GHz (3,9 GHz Turbo) • 4 cores • 4 threads • 6MB cache • 64bit • 14nm • Socket LGA1151 Intel® Core™ i7-6700 • 3,4 GHz (4,0 GHz Turbo) • 4 cores • 8 threads • 8MB cache • 64bit • 14nm • Socket LGA1151 Intel® Xeon™ E3-1225 V5 • 3,3 GHz (3,7 GHz Turbo) • 4 cores • 4 threads • 8MB cache • 64bit • 14nm • Socket LGA1151 Intel® Xeon™ E3-1275 V5 • 3,6 GHz (4,0 GHz Turbo) • 4 cores • 8 threads • 8MB cache • 64bit • 14nm • Socket LGA1151
RAM MEMORY	4GB • DDR4, 1 x 4GB DIMM module PC4-17000 8GB • DDR4, 2 x 4GB DIMM modules PC4-17000 16GB • DDR4, 2 x 8GB DIMM modules PC4-17000 32GB • DDR4, 2 x 16GB DIMM modules PC4-17000 64GB • DDR4, 4 x 16GB DIMM modules PC4-17000
POWER SUPPLY	Input voltage 110÷230V AC • 400W, autoranging Input voltage 110÷230V AC • 650W, autoranging Input voltage 110÷230V AC • 2 x 500W, autoranging • redundant <b>ONLY FOR 4048</b>

### OPTIONS

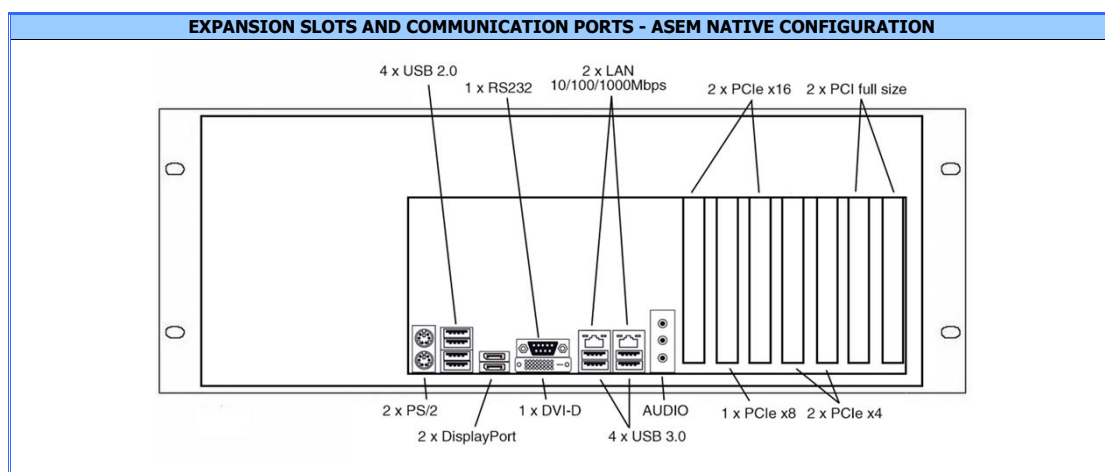
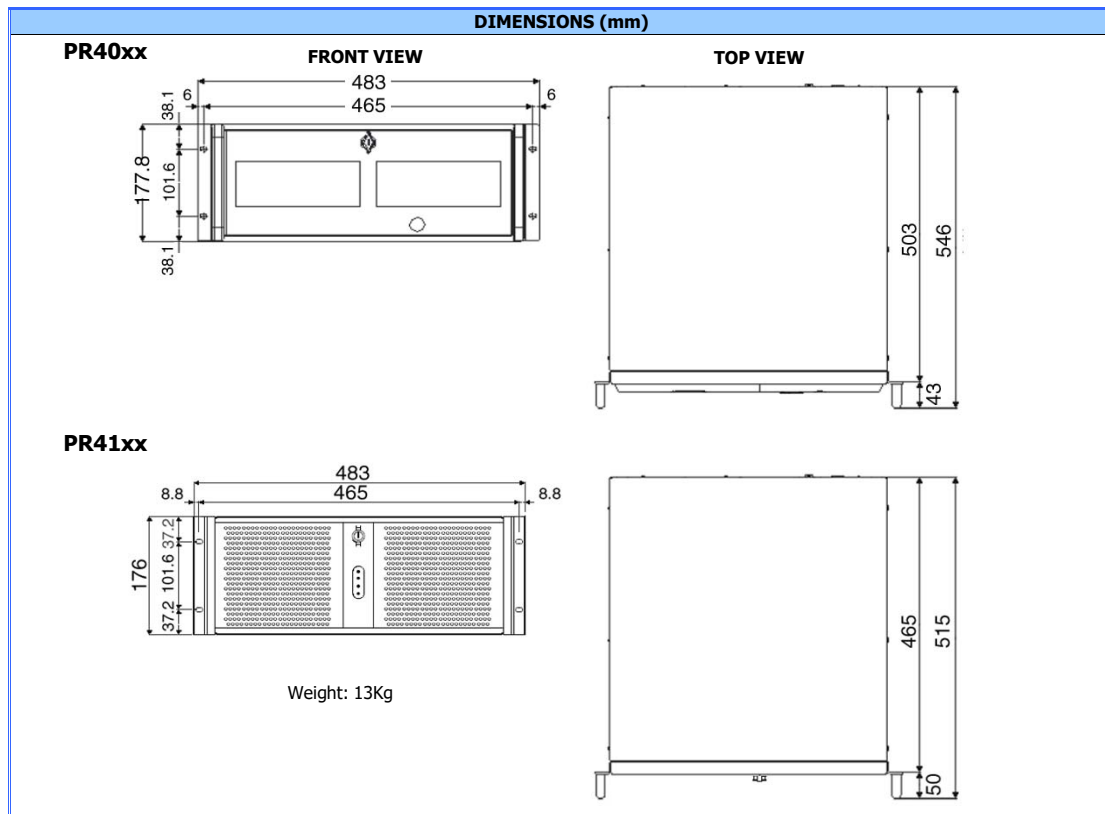
TPM	TPM - Trusted Platform Module
SSD mSATA	SSD mSATA (Solid State Disk) • max 1
SSD 2,5" > note 1	Installation kit for 2 x SSD 2,5" SATA in a 3,5" bay (SSD not included) Extractable drawers for 2 x SSD 2,5" SATA in a 3,5" bay (SSD not included) SSD 2,5" (Solid State Disk)
HDD 3,5" > note 1	HDD 3,5" SATA Installation kit for 1 x HDD 3,5" SATA in a 5,25" bay (HDD not included) Extractable drawer for 1 x HDD 3,5" SATA in a 5,25" bay • Hot-Swap function supported (HDD not included)
DVD DRIVES	DVD-RW SATA 22x16x48x40x • H=1,65" • black bezel
WARRANTY EXTENSION	Warranty extension to 18 months on basic system and its variants Warranty extension to 24 months on basic system and its variants Warranty extension to 36 months on basic system and its variants

### NOTES

- 1:** For configurations see dedicated section in the next page.  
 RAID 0, 1: min 2 x HDD 3,5" or 2 x SSD 2,5".  
 RAID 5: min 3 x HDD 3,5" (no SSD).  
 RAID 10: 4 x HDD 3, 5" (no SSD).

### TECHNICAL SPECIFICATIONS

Case	4U 19" rack mount
Overall dimensions & weight	See details on the related section
Drive bays	3 x 5,25" h=1,65" • 1 x 3,5" h=1"
Motherboard	ATX format • D3446-S (Fujitsu)
Intel platform	Processor Intel® Pentium™ and Intel® Skylake™ sixth generation processors Chipset Intel® C236 Express Chipset
Operating System	Microsoft Windows 10 IoT Enterprise 64bit • Microsoft Windows 8.1 Industry Pro 32/64bit • Microsoft Windows 7 32/64bit • Microsoft Windows Server 2012 R2 64bit Standard Edition O.S. certified by ASEM Other operating systems, such as Linux, VxWorks, QNX, etc., have not been certified by ASEM but they are reasonably supported by the Intel platform after verification of compatibility O.S. not supported by Intel platform Microsoft Windows XP • Windows 2000 • Windows 98
Graphic accelerator engine	Intel® HD Graphics 510 integrated in Core i5-6402P processor • 350MHz/950MHz • DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 530 integrated in Pentium G3240, Core i3-6100 processors • 350MHz/1,05GHz • DirectX 12 and OpenGL 4.4 support Intel® HD Graphics 530 integrated in Core i3-6300, Core i5-6600, Core i7-6700 processors • 350MHz/1,15GHz • DirectX 12 and OpenGL 4.4 support Intel® HD Graphics P530 integrated in Xeon processors • 400MHz/1,15GHz • DirectX 12 and OpenGL 4.4 support
Video controller	Integrated into processor with independent external digital I/F and into chipset with analog I/F • Multi display support (max 3)
Video RAM	Up to 256 MB fixed and 1,5 GB dynamically managed
System memory	DDR4 type 1866/2133 • 4 DIMM 260 pin modules • max 64GB
Mass storage interfaces	1 x mSATA 3 6Gbit/s • 6 x SATA 3 6Gbit/s
RAID controller	Integrated in Intel® C236 chipset with RAID 0, 1, 10, 5 support on SATA 3
Audio	Realtek ALC671, 5.1-channel, High Definition Audio Codec
Ethernet controller	Intel® I210AT, Intel® I219LM with support iAPT 11, WoL and Magic Packet™
Bus expansions slots	2 x PCI full size (32bit, 33MHz, Rev.2.3) • 1 x PCIe x16 (16 Lanes, Gen3) • 1 x PCIe x16 (4 Lanes, Gen2) • 1 x PCIe x8 (1 Lane, Gen3) • 1 x PCIe x4 (4 Lanes, Gen3) • 1 x PCIe x4 (1 Lane, Gen3)
Front access interfaces	2 x USB 3.0
Rear Interfaces on MB	2 x PS/2 (K&M) • 2 x Ethernet 10/100/1000Mbps (RJ45) • 1 x DVI-D (max resolution 1920x1200), 2 x DisplayPort (max resolution 3840x2160 with 2m cable; 1920x1080 with 15m cable) • 1 x RS-232 (DB9M) • 4 x USB 3.0 • 4 x USB 2.0 • Audio Mic In / Line in / Line out
Internal interfaces on MB	1 x USB 2.0 for internal dongle
Rear interfaces (not on MB)	1 x RS232
Environmental specifications	24x7 operation • Operating temperature: 0° ÷ +40°C • Storage temperature: -20° ÷ +60°C • humidity: 80% (non-condensing)
Approvals	CE (EN 55022, EN 61000-3-2/3, EN 55024, EN 60950-1)
Standard warranty	12 months • Warranty management by ASEM headquarters



**HDD/SSD/DVD CONFIGURATIONS IN 5,25" and 3,5" BAYS**

FRONT ACCESS	INTERNAL - PR40xx	INTERNAL - PR41xx
5,25" DVD / HDD+KH / HDD+BH	3,5" HDD	3,5" HDD / 2xSSD+KS
5,25" DVD / HDD+KH / HDD+BH	3,5" HDD	3,5" HDD / 2xSSD+KS
5,25" DVD / HDD+KH		3,5" HDD / 2xSSD+KS
3,5" HDD / 2xSSD+KS / 2xSSD+ BS		

**Legenda**

- DVD DVD-RW SATA
- HDD HDD 3,5" SATA
- KH Installation kit 1 x HDD 3,5" in 5,25" bay
- BH Extractable drawer for 1 x HDD 3,5" in 5,25" bay
- SSD SSD 2,5" SATA
- KS Installation kit 2 x SSD 2,5" in 3,5" bay
- BS Extractable drawer for 2 x SSD 2,5" in 3,5" bay