

SIMATIC IPC847D (Rack PC) (Rack PC, 19", 4HU); 2x Gbit Ethernet (IE/PN), RJ45; 1x DVI-I; 2x display ports; 1x COM 1; 2x PS/2; audio; 4x USB 3.0 incl. 1x internal; 3x USB 2.0; Temp. and fan monitoring; Watchdog, Card retainer XEON E3-1268LV3 (4C/8T, 2.3 (3.3) GHz, 8 MB cache VT-D, AMT); mainboard without fieldbus RAID1, 1 TB (2x 1 TB HDD SATA, mirror disks), in removable frame, hot swap; front-side 2 GB DDR3 SD-RAM (1x 2 GB), Single channel Bus module 11 slots: 3x PCI, 3x PCIE X4, 5x PCIE X16; DVD +/-RW (SLIM) without expansion (HW); Graphics onboard without operating system without software 110/240V industrial power supply unit; with NAMUR, without line cable

Installation type/mounting

Design	Rack PC, 19", 4U
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Supply voltage

Type of supply voltage	100/240 V AC (autorange) 50 / 60 Hz; optional redundant 100/240 V AC; optional 100/240 V AC with UPS functionality incl. maintenance-free lead-tin battery
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Line frequency

• Rated value 50 Hz	Yes
• Rated value 60 Hz	Yes

Mains buffering

• Mains/voltage failure stored energy time	20 ms
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Processor

Processor type	Xeon E3-1275 v3 (4C/8T, 3.5 (3.9) GHz, 8 MB cache); Xeon E3-1268L v3 (4C/8T, 2.3 (3.3) GHz, 8 MB cache); Core i5-4570TE (2C/4T, 2.7 (3.3) GHz, 4 MB cache); Core i3-4330TE (2C/4T, 2.4 GHz, 4 MB cache)
Chipset	Intel DH82C226 PCH

Graphic

Graphics controller	Onboard graphics controller Intel HD 4600 Graphics integrated into the processor / PCI-Express graphics card (Dual Head: 2x VGA or 2x DVI-D) in the PCIe (x16) slot (optional)
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Drives

Optical drives	DVD±R/RW (SlimLine)
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Hard disk	500 GB HDD, 1 TB HDD, 2x 1 TB HDD, RAID1 (2x 1 TB HDD, mirror disks), RAID1 (2x 1 TB HDD, mirror disks) + 1x 1 TB HDD as hot spare, RAID5 (3x 1 TB HDD, striping with parity), RAID5 (3x 1 TB HDD, striping with parity) + 1x 1 TB HDD as hot spare; RAID1 (2x 1 TB HDD SAS, mirror disks), RAID5 (3x 1 TB HDD SAS, striping with parity), RAID5 (3x 1 TB HDD SAS, striping with parity) + 1x 1 TB HDD SAS as hot spare incl. PCIe (x8) RAID SAS controller incl. ZMCP module
SSD	Yes; 240 GB SSD; RAID1 (2x 240 GB SSD, mirror disks)
Slot for drives	Mounted internally on the fixed hard disk support, or mounted internally in vibration/shock-absorbing hard disk support, or mounted at the front in the low-profile removable drive bay (hot-swap in RAID configurations)
Memory	
Main memory	2 GB to 32 GB DDR3-1600 DIMM, ECC optional
Capacity of main memory, max.	32 Gbyte
Hardware configuration	
Slots	
free slots	11 slots: 7x PCI, 3x PCIe (x4) (1 lane), 1x PCIe (x16) or 3x PCI, 5x PCIe mech. (x16) (4x 4 lanes, 1x 8 lanes), 3x PCIe (x4); all modules to a length of 312 mm can be used
Interfaces	
Interfaces/bus type	1x COM1, 1x COM2 (optional), 1x LPT (optional), 2x DisplayPort, 1x DVI-I, 2x PS/2, audio (Microphone In, Line Out), 7x USB, 2x Gigabit Ethernet, PROFIBUS or PROFINET optional
USB port	2x USB 3.0, 2x USB 2.0 rear, 1x USB 3.0, 1x USB 2.0 front, 1x USB 3.0 internal
Connection for keyboard/mouse	2x PS/2
serial interface	COM1: 1x RS 232, COM2 (optional): 1x RS 232
parallel interface	optional LPT1
Multimedia	
- Audio In/Out - Microphone In	Yes Yes
Video interfaces	
Graphics interface	2x DisplayPort and 1x DVI-I onboard; 1x VGA via DVI-VGA adapter cable (optional); graphics card PCIe (x16), Dual Head (2x VGA or 2x DVI-D), 1 GB graphics memory (optional)
Industrial Ethernet	
- Industrial Ethernet interface — 100 Mbps — 1000 Mbps	2x Ethernet (RJ45) Yes Yes
Integrated Functions	
Monitoring functions	
Temperature monitoring	Yes

• Watchdog	Yes
• Status LEDs	POWER, ETHERNET 1, ETHERNET 2, PN MPI / DP, WATCHDOG, TEMP, FAN, HDD0 ALARM, HDD1 ALARM, HDD2 ALARM, HDD HDD3 ALARM
• Fan	Yes
• Monitoring function via network	Optional

EMC

Interference immunity against discharge of static electricity	
• Interference immunity against discharge of static electricity	±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2
Interference immunity against high-frequency electromagnetic fields	
• Interference immunity against high frequency radiation	10 V/m for 80 - 1 000 MHz and 1.4 - 2 GHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2 - 2.7 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz - 80 MHz, 80% AM acc. to IEC 61000-4-6
Interference immunity to cable-borne interference	
• Interference immunity on supply cables	±2 kV acc. to IEC 61000-4-4, burst; ±1 kV acc. to IEC 61000-4-5, surge symmetric; ±2 kV acc. to IEC 61000-4-5, surge asymmetric
• Interference immunity on signal cables >30m	±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge
• Interference immunity on signal cables < 30m	±1 kV acc. to IEC 61000-4-4, Burst
Interference immunity against voltage surge	
• asymmetric interference	±2 kV acc. to IEC 61000-4-5, surge asymmetric
• symmetric interference	±1 kV acc. to IEC 61000-4-5, surge symmetric
Interference immunity to magnetic fields	
• Interference immunity to magnetic fields at 50 Hz	100 A/m; to IEC 61000-4-8
Emission of conducted and non-conducted interference	
• Interference emission via line/AC current cables	EN 61000-6-3, FCC Class A, EN 61000-6-4, CISPR 22, EN 55022 Class B, EN 61000-3-2 Class D, EN 61000-3-3

Degree and class of protection

IP (at the front)	IP41
IP (rear)	IP20

Standards, approvals, certificates

CE mark	Yes; For use in industrial areas as well as domestic, business and commercial environments (emitted interference: EN 61000-6-3:2007 +A1:2011, noise immunity: EN 61000-6-2:2005)
CSA approval	Yes; Included in cULus
UL approval	Yes
cULus	Yes; UL 60950-1, file number E115352
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
EMC	CE, EN 61000-6-3:2007 +A1:2011, EN 61000-6-2:2005

Dust protection	With front door closed: G2 EN 779, 99% of particles > 0.5 mm are filtered
Ambient conditions	
Ambient temperature during operation	
• Ambient temperature during operation	0 °C to +45 °C, no burner operation, 0 °C to +50 °C, no operation of optical drive, power dissipation of the expansion cards in total < 30 W, maximum 3 removable drive bays, 0 °C to +40 °C with AC UPS, 0 °C to +35 °C with hardware RAID controller
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
• Relative humidity	Tested according to IEC 60068-2-78, IEC 60068-2-30: Operation: 5% to 80% at 25 °C (no condensation), Storage: 5% to 95% at 25 °C (no condensation)
Shock testing	
• Shock load during operation	Tested according to IEC 60068-2-27, IEC 60068-2-29: half-sine: 50 m/s ² (5 g), 30 ms, 100 shocks per axis
Operating systems	
pre-installed operating system	Windows 7 Ultimate, multi-language (32-bit/64-bit), Windows 10 Enterprise 2015 LTSC, multi-language (64-bit), Windows 10 Enterprise 2016 LTSC, multi-language (64-bit), Windows Server 2008 R2 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2012 R2 Standard Edition incl. 5 clients, multi-language (64-bit); Windows Server 2016 Standard Edition incl. 5 clients, multi-language (64-bit)
Additional info on operating system	Multi-Language User Interface (MUI): 5 languages (English, German, French, Spanish, Italian)
without operating system	Yes
Dimensions	
Width	430 mm
Height	177 mm; 4U
Depth	444 mm
last modified:	05/21/2020