

SIMATIC IPC847D (RACK PC) (RACK PC, 19", 4U); 2X GBIT ETHERNET (IE/PN), RJ45; 1X DVI-I; 2X DISPLAYPORT; 1X COM1; 2X PS/2; AUDIO; 4X USB 3.0 INCL.1X INTERNALLY; 3X USB 2.0; TEMPERATURE AND FAN CONTROL; WATCHDOG; BOARD RETAINER



Figure similar

| Installation type/mounting | |
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| Mounting | For horizontal and vertical installation; prepared for telescopic rails; 19" mounting bracket can be removed externally; tower kit (optional) |
| Design | Rack PC, 19", 4U |
| 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 |
| Line frequency | |
| • Rated value 50 Hz | Yes |
| • Rated value 60 Hz | Yes |
| Mains buffering | |
| • Mains/voltage failure stored energy time | 20 ms |
| Processor | |
| Chipset | Intel DH82C226 PCH |
| Graphic | |

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| 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

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| Optical drives | DVD±R/RW (SlimLine) |
| 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

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| Main memory | 2 GB to 32 GB DDR3 1600 DIMM, ECC optional |
| Capacity of main memory, max. | 32 Gbyte |

Hardware configuration

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| Slots | |
| <ul style="list-style-type: none"> 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

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| 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 |
| PROFIBUS/MPI | Optionally onboard, isolated, max. 12 Mbit/s, no plug-in card necessary, CP 5622-compatible |
| 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 |
| Industrial Ethernet | |
| <ul style="list-style-type: none"> Industrial Ethernet interface | 2 x Ethernet (RJ45) |
| <ul style="list-style-type: none"> <ul style="list-style-type: none"> 100 Mbps | Yes |
| <ul style="list-style-type: none"> <ul style="list-style-type: none"> 1000 Mbps | Yes |

Integrated Functions

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| Monitoring functions | |
| <ul style="list-style-type: none"> Temperature monitoring | Yes |

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| <ul style="list-style-type: none"> • Watchdog • Status LEDs | <p>Yes</p> <p>POWER, ETHERNET 1, ETHERNET 2, PN MPI / DP, WATCHDOG, TEMP, FAN, HDD0 ALARM, HDD1 ALARM, HDD2 ALARM, HDD HDD3 ALARM</p> |
| <ul style="list-style-type: none"> • Fan • Monitoring function via network | <p>Yes</p> <p>Optional</p> |

EMC

Interference immunity against discharge of static electricity

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| <ul style="list-style-type: none"> • Interference immunity against discharge of static electricity | <p>±6 kV contact discharge acc. to IEC 61000-4-2; ±8 kV air discharge acc. to IEC 61000-4-2</p> |
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Interference immunity against high-frequency electromagnetic fields

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| <ul style="list-style-type: none"> • Interference immunity against high frequency radiation | <p>10 V/m for 80 - 1000 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</p> |
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Interference immunity to cable-borne interference

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| <ul style="list-style-type: none"> • Interference immunity on supply cables | <p>±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</p> |
| <ul style="list-style-type: none"> • Interference immunity on signal cables >30m | <p>±2 kV acc. to IEC 61000-4-4, burst; ±2 kV acc. to IEC 61000-4-5, surge</p> |
| <ul style="list-style-type: none"> • Interference immunity on signal cables < 30m | <p>±1 kV acc. to IEC 61000-4-4, Burst</p> |

Interference immunity against voltage surge

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| <ul style="list-style-type: none"> • asymmetric interference | <p>±2 kV acc. to IEC 61000-4-5, surge asymmetric</p> |
| <ul style="list-style-type: none"> • symmetric interference | <p>±1 kV acc. to IEC 61000-4-5, surge symmetric</p> |

Interference immunity to magnetic fields

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| <ul style="list-style-type: none"> • Interference immunity to magnetic fields at 50 Hz | <p>100 A/m; to IEC 61000-4-8</p> |
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Emission of conducted and non-conducted interference

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| <ul style="list-style-type: none"> • Interference emission via line/AC current cables | <p>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</p> |
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Degree and class of protection

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

Standards, approvals, certificates

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| Approval | CE, cULus 60950, KCC |
| 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 |

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| 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
- min. 0 °C
- max. 50 °C

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)

Vibrations

- Vibration resistance during operation acc. to IEC 60068-2-6 Tested according to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.0375 mm, 58 Hz to 500 Hz: 4.9 m/s² (0.5 g)

Shock testing

- Shock load during operation Tested according to IEC 60068-2-27, IEC 60068-2-29: half-sine: 50 m/s² (5 g), 30 ms, 100 shocks per axis

Operating systems

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| pre-installed operating system | Yes |
| Additional info on operating system | Multi-Language User Interface (MUI): 5 languages (English, German, French, Spanish, Italian) |
| without operating system | Yes |

Software

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| SIMATIC Software | Optionally in package with SIMATIC WinCC or WinCC flexible |
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Dimensions

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| Width | 430 mm |
| Height | 177 mm; 4U |
| Depth | 444 mm |

last modified: 11/28/2017