

SIMATIC IPC827D (Box PC) HD graphic onboard, 2x Gigabit Ethernet (IE/PN) 4xUSB V3.0; 1x serial (COM 1); RAID controller onboard; Watchdog, temp./fan monitoring Celeron G1820TE (2C/2T, 2.2 GHz, 2 MB cache); PROFIBUS/MPI (CP 5622-compatible); 2 MB buffered SRAM 1 TB HDD SATA 8 GB DDR3 1600 DIMM; ECC; 1x PCIe (X16); 1x PCIe (X4); 3x PCI 2x USB additive (1 slot occupied) Windows Embedded Standard 7 P, 32 bit SP1 MUI (de,en,fr,es,it) With SSD 240 GB options without RAID; without expansion (software) AC 110/230V industrial power supply unit with NAMUR; Power supply cable Europe

| Installation type/mounting                                |                                                                                                                                                                                                                                        |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mounting                                                  | Wall mounting, portrait mounting                                                                                                                                                                                                       |
| Design                                                    | Box PC, built-in unit                                                                                                                                                                                                                  |
| Supply voltage                                            |                                                                                                                                                                                                                                        |
| Type of supply voltage                                    | 100/240 V AC (autorange); 24 V DC                                                                                                                                                                                                      |
| Line frequency                                            |                                                                                                                                                                                                                                        |
| • Rated value 50 Hz                                       | Yes                                                                                                                                                                                                                                    |
| • Rated value 60 Hz                                       | Yes                                                                                                                                                                                                                                    |
| Mains buffering                                           |                                                                                                                                                                                                                                        |
| • Mains/voltage failure stored energy time                | 20 ms                                                                                                                                                                                                                                  |
| Processor                                                 |                                                                                                                                                                                                                                        |
| Processor type                                            | Celeron G1820TE (2C/2T, 2.2 GHz, 2 MB Cache); Core i3-4330TE (2C/4T, 2.4 GHz, 4 MB Cache); Xeon E3-1268L v3 (4C/8T, 2.3 (3.3) GHz, 8 MB Cache, AMT)                                                                                    |
| Chipset                                                   | Intel DH82C226 PCH                                                                                                                                                                                                                     |
| Graphic                                                   |                                                                                                                                                                                                                                        |
| Graphics controller                                       | Intel HD graphics controller P4600 GT2 (Xeon, Core i3); Intel HD graphics controller (Celeron)                                                                                                                                         |
| Drives                                                    |                                                                                                                                                                                                                                        |
| Optical drives                                            | DVD±R±RW combi-drive, optional                                                                                                                                                                                                         |
| Hard disk                                                 | 3.5" SATA ≥ 500 GB, optional: 3.5" SATA ≥ 1 TB; RAID1 2x 2.5" SATA ≥ 320 GB; solid-state drive (SSD) ≥ 240 GB; all hard disk drives within the enclosure are vibration-damped; RAID1 2x 2.5" SATA ≥ 320 GB byte in removable drive bay |
| SSD                                                       | Yes; ≥ 240 GB optional                                                                                                                                                                                                                 |
| Memory                                                    |                                                                                                                                                                                                                                        |
| Type of memory                                            | DDR3-1600 DIMM                                                                                                                                                                                                                         |
| Main memory                                               | 2 / 4 / 8 / 16 GB; ECC optional                                                                                                                                                                                                        |
| Capacity of main memory, max.                             | 16 Gbyte                                                                                                                                                                                                                               |
| Data areas and their retentivity                          |                                                                                                                                                                                                                                        |
| Retentive data area (incl. timers, counters, flags), max. | 2 Mbyte; 128 KB can be stored in the buffer time; optional                                                                                                                                                                             |
| Hardware configuration                                    |                                                                                                                                                                                                                                        |
| Slots                                                     |                                                                                                                                                                                                                                        |
| • free slots                                              | 3x PCI, 1x PCIe (x4), 1x PCIe (x16); with card retainer                                                                                                                                                                                |
| • Number of PCI slots                                     | 3                                                                                                                                                                                                                                      |
| • Number of PCI slots                                     | 2                                                                                                                                                                                                                                      |
| Interfaces                                                |                                                                                                                                                                                                                                        |
| PROFIBUS/MPI                                              | Optionally onboard, isolated, max. 12 Mbit/s, compatible with CP 5622                                                                                                                                                                  |
| Number of industrial Ethernet interfaces                  | 2; 2x RJ45 (independent)                                                                                                                                                                                                               |
| Number of PROFINET interfaces                             | 3; Optional                                                                                                                                                                                                                            |
| USB port                                                  | 4x USB 3.0                                                                                                                                                                                                                             |
| Connection for keyboard/mouse                             | USB / USB                                                                                                                                                                                                                              |
| serial interface                                          | 1x COM1 (RS 232), optional: 1x COM2 (RS 232)                                                                                                                                                                                           |
| parallel interface                                        | optional LPT1                                                                                                                                                                                                                          |
| Video interfaces                                          |                                                                                                                                                                                                                                        |
| • Graphics interface                                      | 1x DisplayPort and 1x DVI-I; 1x VGA via adapter cable (optional)                                                                                                                                                                       |
| Industrial Ethernet                                       |                                                                                                                                                                                                                                        |
| • Industrial Ethernet interface                           | onboard, 2x 10 / 100 / 1 000 Mbit, RJ45                                                                                                                                                                                                |

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|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| — 100 Mbps                                                                 | Yes                                                                                                                                                                                  |
| — 1000 Mbps                                                                | Yes                                                                                                                                                                                  |
| <b>Interrupts/diagnostics/status information</b>                           |                                                                                                                                                                                      |
| Bus diagnostics                                                            | Yes                                                                                                                                                                                  |
| <b>Integrated Functions</b>                                                |                                                                                                                                                                                      |
| <b>Monitoring functions</b>                                                |                                                                                                                                                                                      |
| • Temperature monitoring                                                   | Yes                                                                                                                                                                                  |
| • Watchdog                                                                 | Yes                                                                                                                                                                                  |
| • Status LEDs                                                              | Yes                                                                                                                                                                                  |
| • Fan                                                                      | Yes                                                                                                                                                                                  |
| • Monitoring function via network                                          | Optional                                                                                                                                                                             |
| <b>EMC</b>                                                                 |                                                                                                                                                                                      |
| <b>Interference immunity against discharge of static electricity</b>       |                                                                                                                                                                                      |
| • 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                                                                                             |
| <b>Interference immunity against high-frequency electromagnetic fields</b> |                                                                                                                                                                                      |
| • 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 |
| <b>Interference immunity to cable-borne interference</b>                   |                                                                                                                                                                                      |
| • 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 61000-4-5, surge, length > 30 m                                                                                                                                    |
| • Interference immunity on signal cables < 30m                             | ±1 kV acc. to IEC 61000-4-4; burst; length < 3 m; ±2 kV acc. to IEC 61000-4-4; burst; length > 3 m                                                                                   |
| <b>Interference immunity against voltage surge</b>                         |                                                                                                                                                                                      |
| • asymmetric interference                                                  | ±2 kV acc. to IEC 61000-4-5, surge asymmetric                                                                                                                                        |
| • symmetric interference                                                   | ±1 kV acc. to IEC 61000-4-5, surge symmetric                                                                                                                                         |
| <b>Interference immunity to magnetic fields</b>                            |                                                                                                                                                                                      |
| • Interference immunity to magnetic fields at 50 Hz                        | 100 A/m; to IEC 61000-4-8                                                                                                                                                            |
| <b>Emission of conducted and non-conducted interference</b>                |                                                                                                                                                                                      |
| • Interference emission via line/AC current cables                         | EN 61000-6-3, EN 61000-6-4, CISPR 22 Class B, FCC Class A                                                                                                                            |
| <b>Degree and class of protection</b>                                      |                                                                                                                                                                                      |
| IP degree of protection                                                    | IP20                                                                                                                                                                                 |
| IP (at the front)                                                          | IP20                                                                                                                                                                                 |
| IP (rear)                                                                  | IP20                                                                                                                                                                                 |
| <b>Standards, approvals, certificates</b>                                  |                                                                                                                                                                                      |
| CE mark                                                                    | Yes                                                                                                                                                                                  |
| UL approval                                                                | Yes                                                                                                                                                                                  |
| • UL 508                                                                   | Yes                                                                                                                                                                                  |
| cULus                                                                      | Yes                                                                                                                                                                                  |
| RCM (formerly C-TICK)                                                      | Yes                                                                                                                                                                                  |
| KC approval                                                                | Yes                                                                                                                                                                                  |
| FCC                                                                        | Yes                                                                                                                                                                                  |
| EMC                                                                        | CE, EN 61000-6-3:2007 +A1:2011, EN 61000-6-2:2005                                                                                                                                    |
| <b>Marine approval</b>                                                     |                                                                                                                                                                                      |
| • Germanischer Lloyd (GL)                                                  | Yes                                                                                                                                                                                  |
| • American Bureau of Shipping (ABS)                                        | Yes                                                                                                                                                                                  |
| • Bureau Veritas (BV)                                                      | Yes                                                                                                                                                                                  |
| • Det Norske Veritas (DNV)                                                 | Yes                                                                                                                                                                                  |
| • Lloyds Register of Shipping (LRS)                                        | Yes                                                                                                                                                                                  |
| • Nippon Kaiji Kyokai (Class NK)                                           | Yes                                                                                                                                                                                  |
| <b>Ambient conditions</b>                                                  |                                                                                                                                                                                      |
| <b>Ambient temperature during operation</b>                                |                                                                                                                                                                                      |
| • min.                                                                     | 5 °C                                                                                                                                                                                 |
| • max.                                                                     | 55 °C                                                                                                                                                                                |
| <b>Ambient temperature during storage/transportation</b>                   |                                                                                                                                                                                      |
| • min.                                                                     | -20 °C                                                                                                                                                                               |
| • max.                                                                     | 60 °C                                                                                                                                                                                |
| <b>Relative humidity</b>                                                   |                                                                                                                                                                                      |
| • 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)                                   |

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| <b>Vibrations</b>                                                                                             |                                                                                                                                          |
| <ul style="list-style-type: none"> <li>Vibration resistance during operation acc. to IEC 60068-2-6</li> </ul> | tested according to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm; 58 Hz to 500 Hz 9.8 m/s <sup>2</sup> (1 g)                              |
| <b>Shock testing</b>                                                                                          |                                                                                                                                          |
| <ul style="list-style-type: none"> <li>Shock load during operation</li> </ul>                                 | Tested to DIN IEC 60068-2-29: 50 m/s <sup>2</sup> (5 g), 30 ms, 100 shocks                                                               |
| <b>Operating systems</b>                                                                                      |                                                                                                                                          |
| pre-installed operating system                                                                                | Windows 7 Ultimate, 32-bit/64-bit, MUI; Windows Embedded Standard 7 P, 32-bit, MUI; Windows 10 Enterprise 2015 or 2016 LTSP, 64-bit, MUI |
| without operating system                                                                                      | Yes                                                                                                                                      |
| pre-installed operating system                                                                                |                                                                                                                                          |
| <ul style="list-style-type: none"> <li>Windows 7</li> </ul>                                                   | Yes; Ultimate 32 bit or 64 bit                                                                                                           |
| <ul style="list-style-type: none"> <li>Windows 10 Enterprise</li> </ul>                                       | Yes; Windows 10 Enterprise 2015 or 2016 LTSP, 64-bit, MUI                                                                                |
| <b>Software</b>                                                                                               |                                                                                                                                          |
| SIMATIC Software                                                                                              | Optional package with SIMATIC WinCC or WinAC RTX                                                                                         |
| <b>Dimensions</b>                                                                                             |                                                                                                                                          |
| Width                                                                                                         | 312 mm                                                                                                                                   |
| Height                                                                                                        | 155 mm; With DVD drive: 179 mm                                                                                                           |
| Depth                                                                                                         | 301 mm; incl. mounting rail                                                                                                              |
| <b>last modified:</b>                                                                                         | 11/16/2022                                              |