

SIMATIC IPC427E (Microbox PC), HD graphic onboard, 4x USB V3.0 (high current), PCIE (optional), Core i5-6442EQ; 3x Gbit Ethernet (IE/PN); Wall mounting; 16 GB and NVRAM; Without RS232/485, without PCIe; Windows 7 Ultimate SP1, 64-bit, MUI (de, en, es, fr, it); Without replaceable mass storage; 256 GB Eco SSD; Without SIMATIC software; 24 V DC industrial power supply

| General information  |  |
|--|--|
| Product type designation   | IPC427E  |
| Installation type/mounting   |  |
| Mounting   | DIN rail, wall mounting, portrait mounting   |
| Design   | Box PC, built-in unit  |
| Supply voltage   |  |
| Type of supply voltage   | 24 V DC  |
| Mains buffering  |  |
| <ul style="list-style-type: none"> <li>Mains/voltage failure stored energy time</li> </ul> | 20 ms  |
| Processor  |  |
| Processor type   | Celeron G3902 (2C/2T, 1.6 GHz, 2 MB Cache); Core i3-6102E (2C/4T, 1.9 GHz, 3 MB Cache); Core i5-6442EQ (4C/4T, 1.9 (2.7) GHz, 6 MB Cache, iAMT); Xeon E3-1505L v5 (4C/8T, 2.0 (2.8) GHz, 8 MB Cache, iAMT) |
| Chipset  | Intel C236 / Intel H110  |
| Graphic  |  |
| Graphics controller  | Intel HD graphics controller   |
| Drives   |  |
| Optical drives   | possible as external drive via USB   |
| Hard disk  | 2.5" SATA ≥ 320 GB   |
| SSD  | Yes; 128 / 240 / 480 GB  |
| Memory   |  |
| Type of memory   | DDR4-2400 SO-DIMM  |
| Main memory  | 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.                                  | 512 kbyte; 128 KB can be stored in the buffer time; optional   |
| Hardware configuration   |  |
| Slots  |  |

|                                 |   |
|---------------------------------|---|
| • free slots                    | 2x PCIe; optional: 1x PCIe (x4); 2x PCIe (x1, x4), with card retainer |
| • Number of PCI slots           | 2; Optional   |
| • Number of compact flash slots | 1; CFAST  |

## Interfaces

|  |   |
|--|---|
| Number of industrial Ethernet interfaces | 3; Ethernet (2x RJ45, optional 3x RJ45)           |
| USB port                                 | 4x USB 3.0  |
| Connection for keyboard/mouse            | USB / USB   |
| serial interface                         | Without / 2x COM (RS 232 / 485 / 422; switchable) |

## Video interfaces

|                      |                |
|----------------------|----------------|
| • Graphics interface | 2x DisplayPort |
|----------------------|----------------|

## Industrial Ethernet

|                                 |                    |
|---------------------------------|--------------------|
| • Industrial Ethernet interface | 3x Ethernet (RJ45) |
| — 100 Mbps                      | Yes                |
| — 1000 Mbps                     | Yes                |

## Interrupts/diagnostics/status information

|                 |     |
|-----------------|-----|
| Bus diagnostics | Yes |
|-----------------|-----|

## Integrated Functions

### Monitoring functions

|                                   |                   |
|-----------------------------------|-------------------|
| • Temperature monitoring          | Yes               |
| • Watchdog                        | Yes               |
| • Status LEDs                     | 1x power, 3x user |
| • Fan                             | No                |
| • 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 61000-4-5, 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                              |

### 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

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li>Interference immunity to magnetic fields at 50 Hz</li> </ul>           | 100 A/m; to IEC 61000-4-8  |
| <b>Emission of conducted and non-conducted interference</b>   |  |
| <ul style="list-style-type: none"> <li>Interference emission via line/AC current cables</li> </ul>            | 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   |
| <b>Standards, approvals, certificates</b>   |  |
| CE mark   | Yes  |
| UL approval   | Yes  |
| <ul style="list-style-type: none"> <li>UL 508</li> </ul>  | Yes  |
| cULus   | Yes  |
| RCM (formerly C-TICK)   | Yes  |
| KC approval   | Yes  |
| EAC (formerly Gost-R)   | Yes  |
| FCC   | Yes  |
| EMC   | CE, EN 55022A, EN 61000-6-4, EN 61000-6-2  |
| <b>Use in hazardous areas</b>   |  |
| <ul style="list-style-type: none"> <li>ATEX Zone 2</li> </ul>   | Yes; Optional  |
| <ul style="list-style-type: none"> <li>IECEX Zone 2</li> </ul>  | Yes; Optional  |
| <ul style="list-style-type: none"> <li>cULus Class I Zone 2, Division 2</li> </ul>                            | Yes; Optional  |
| <b>Marine approval</b>  |  |
| <ul style="list-style-type: none"> <li>Germanischer Lloyd (GL)</li> </ul>                                     | Yes  |
| <ul style="list-style-type: none"> <li>American Bureau of Shipping (ABS)</li> </ul>                           | Yes  |
| <ul style="list-style-type: none"> <li>Bureau Veritas (BV)</li> </ul>   | Yes  |
| <ul style="list-style-type: none"> <li>Det Norske Veritas (DNV)</li> </ul>                                    | Yes  |
| <ul style="list-style-type: none"> <li>Korean Register of Shipping (KRS)</li> </ul>                           | Yes  |
| <ul style="list-style-type: none"> <li>Lloyds Register of Shipping (LRS)</li> </ul>                           | Yes  |
| <ul style="list-style-type: none"> <li>Nippon Kaiji Kyokai (Class NK)</li> </ul>                              | Yes  |
| <b>Ambient conditions</b>   |  |
| <b>Ambient temperature during operation</b>   |  |
| <ul style="list-style-type: none"> <li>Ambient temperature during operation</li> </ul>                        | 0 °C to 55 °C  |
| <b>Ambient temperature during storage/transportation</b>  |  |
| <ul style="list-style-type: none"> <li>min.</li> </ul>  | -40 °C   |
| <ul style="list-style-type: none"> <li>max.</li> </ul>  | 70 °C  |
| <b>Relative humidity</b>  |  |
| <ul style="list-style-type: none"> <li>Relative humidity</li> </ul>   | 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) |
| <b>Vibrations</b>   |  |
| <ul style="list-style-type: none"> <li>Vibration resistance during operation acc. to IEC 60068-2-6</li> </ul> | tested to DIN IEC 60068-2-6: 10 Hz to 58 Hz: 0.075 mm, 58 Hz to 200 Hz: 9.8 m/s <sup>2</sup> (1 g)   |

| Shock testing                  |   |
|--------------------------------|---|
| • Shock load during operation  | Tested to DIN IEC 60068-2-29: 50 m/s <sup>2</sup> (5 g), 30 ms, 100 shocks                              |
| Operating systems              |   |
| pre-installed operating system | Windows 7 Ultimate (Multi-Language) 64-bit, Windows Embedded Standard 7 E/P 32-bit / 64-bit, Windows 10 |
| without operating system       | Yes; Optional   |
| pre-installed operating system |   |
| • Windows 7                    | Yes; Ultimate 32 bit or 64 bit  |
| • Windows 10 Enterprise        | Yes; Windows 10 Enterprise 2016 LTSC, 64 bit, MUI   |
| Software                       |   |
| SIMATIC Software               | Optionally with pre-installed SIMATIC WinCC RT Advanced / Software Controller CPU 1500S software bundle |
| Dimensions                     |   |
| Width                          | 262 mm  |
| Height                         | 139.7 mm  |
| Depth                          | 55.5 mm   |
| <b>last modified:</b>          | 10/29/2020  |