

SIMATIC IPC547J (rack PC, 19", 4 U); interfaces: 2x USB 3.0 on the front; COM1, audio on the rear side; 7 slots: 5x PCI Express, 2x PCI, temperature and fan monitoring; watchdog; card retainer Core i5-10500E (6C/12T, 3.1 (4.2) GHz, 12 MB cache), mainboard (chipset W480E, 3x Gbit Ethernet, 1x DVI-D, 2x DisplayPort, 6x USB 3.1 Gen.2, 2x USB 2.0 internal, AMT), RAID1, 2x 1 TB HDD 3.5 SATA, enclosure with drive support type A (for rack units on the front), painted, 100/240 V AC industrial power supply unit, power supply cable USA, 32 GB DDR4 SDRAM (2x 16 GB), dual channel, COM2 interface, Windows 10 IoT Enterprise 2021 LTSC MUI (en/de/fr/it/es), 64-bit for Core i3/i5, adapter cable DP acc. to VGA for onboard graphic/graphics card,

| General information                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product type designation                   | IPC547J                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Installation type/mounting                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 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                             | Intel Xeon W-1270E (8C/16T, 3.4 (4.8) GHz, 16 MB Cache); Intel Core i9-10900E (10C/20T, 2.8 (4.7) GHz, 20 MB Cache); Intel Core i7-10700E (8C/16T, 2.9 (4.5) GHz, 16 MB Cache); Intel Core i5-10500E (6C/12T, 3.1 (4.2) GHz, 12 MB Cache); Intel Core Core i3-10100E (4C/8T, 3.2 (3.8) GHz, 6 MB Cache)                                                                                                                                                                                                   |
| Chipset                                    | Intel W480E / Intel H410                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Graphic                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Graphics controller                        | Intel® UHD Graphics 630                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Drives                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Hard disk                                  | 1 TB HDD 3.5" SATA, 2x 1 TB HDD 3.5" SATA, 1 TB HDD 3.5" SATA + 960 GB SSD 2.5" SATA, RAID1, 2x 1 TB HDD 3.5" SATA, RAID1, 2x 1 TB HDD [Enterprise] 3.5" SATA, RAID1, 2x 2 TB HDD [Enterprise] 3.5" SATA, RAID1, 2x 2 TB HDD [Enterprise] 3.5" SATA + 2 TB HDD [Enterprise] 3.5" SATA as hot spare, RAID1, 2x 2 TB HDD [Enterprise] 3.5" SATA + 960 GB SSD 2.5" SATA, RAID5, 3x 2 TB HDD [Enterprise] 3.5" SATA, RAID5, 3x 2 TB HDD [Enterprise] 3.5" SATA + 2 TB HDD [Enterprise] 3.5" SATA as hot spare |
| SSD                                        | Yes; 480 GB 2.5" SATA SSD, 1x 960 GB 2.5" SATA SSD, 2x 480 GB 2.5" SATA SSD, RAID1 2x 480 GB 2.5" SATA SSD, RAID1 2x 960 GB 2.5" SATA SSD; 1x 512 GB M.2 NVMe SSD, 1x 1 024 GB M.2 NVMe SSD                                                                                                                                                                                                                                                                                                               |
| Slot for drives                            | Mounting internally in vibration/shock-absorbing drive cage Type B or mounting on the front in removable trays (hot swap in RAID configurations) in drive cage Type A; mounting internally on the fixed drive cage optional                                                                                                                                                                                                                                                                               |
| Memory                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Main memory                                | 4 GB to 128 GB DDR4 2933 SDRAM DIMM                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Capacity of main memory, max.              | 128 Gbyte                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Hardware configuration                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Slots                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| • free slots                               | 7 spare slots for expansions (all long); mainboard with H410 chip set: 1x PCIe (x16) (16 lane) Gen 3, 1x PCIe (x16) (1 lanes) Gen 3, 1x PCIe (x8) (1 lane) Gen 3, 1x PCIe (x4) (1 lane) Gen 3, 1x PCIe (x4) (1 lane) Gen 3, 2x PCI; mainboard with W480E chip set: 1x PCIe (x16) (16 lane) Gen 3, 1x PCIe (x16) (4 lanes) Gen 3, 1x PCIe (x8) (1 lane) Gen 3, 1x PCIe (x4) (4 lane) Gen 3, 1x PCIe (x4) (1 lane) Gen 3, 2x PCI                                                                            |
| Interfaces                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Interfaces/bus type                        | mainboard (H410 chip set): 2x Intel Gigabit Ethernet (RJ45, teaming-capable), USB 3.1 Gen 1: 2x on rear, 2x on front, USB 2.0: 4x on rear, 1x internal e.g. for software dongle with optional interlock, 1x DisplayPort V1.2, 1x DVI-D, 1x COM1, audio: line in, line out, micro; mainboard (W480E chip set): 3x Intel                                                                                                                                                                                    |

|                                                                                 |                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                 | Gigabit Ethernet (RJ45, teaming-capable), USB 3.1 Gen 2: 4x type A, 2x type C, on rear, USB 3.1 Gen 1: 2x on front, USB 2.0: 2x internal e.g. for software dongle with optional interlock, 2x DisplayPort V1.2, 1x DVI-D, 1x COM1, audio: line in, line out, micro                                                                |
| USB port                                                                        | mainboard (H410 chip set): USB 3.1 Gen 1: 2x on rear, 2x on front, USB 2.0: 4x on rear, 1x internal e.g. for software dongle with optional interlock; mainboard (W480E chip set): USB 3.1 Gen 2: 4x type A, 2x type C, on rear, USB 3.1 Gen 1: 2x on front, USB 2.0: 2x internal e.g. for software dongle with optional interlock |
| Connection for keyboard/mouse                                                   | USB                                                                                                                                                                                                                                                                                                                               |
| serial interface                                                                | COM1: 1x RS 232 or RS 485; COM2 (optional) 1x RS 232                                                                                                                                                                                                                                                                              |
| Multimedia                                                                      |                                                                                                                                                                                                                                                                                                                                   |
| • Audio In/Out                                                                  | Yes                                                                                                                                                                                                                                                                                                                               |
| • Microphone In                                                                 | Yes                                                                                                                                                                                                                                                                                                                               |
| Video interfaces                                                                |                                                                                                                                                                                                                                                                                                                                   |
| • Graphics interface                                                            | 2x DisplayPort and 1x DVI-D onboard; 1x VGA via DP-VGA adapter cable (optional); graphics card PCIe (x16), Triple Head (3x mini DisplayPort, 2 GB graphics memory, 3x mini DisplayPort to DisplayPort adapter cable) (optional)                                                                                                   |
| Industrial Ethernet                                                             |                                                                                                                                                                                                                                                                                                                                   |
| • Industrial Ethernet interface                                                 | 2x or 3x Gigabit Ethernet (IE/PN), RJ45                                                                                                                                                                                                                                                                                           |
| — 100 Mbps                                                                      | Yes                                                                                                                                                                                                                                                                                                                               |
| — 1000 Mbps                                                                     | Yes                                                                                                                                                                                                                                                                                                                               |
| <b>Integrated Functions</b>                                                     |                                                                                                                                                                                                                                                                                                                                   |
| Monitoring functions                                                            |                                                                                                                                                                                                                                                                                                                                   |
| • Temperature monitoring                                                        | Yes                                                                                                                                                                                                                                                                                                                               |
| • Watchdog                                                                      | Yes                                                                                                                                                                                                                                                                                                                               |
| • Status LEDs                                                                   | POWER, HDD, ETHERNET 1, ETHERNET 2, ETHERNET 3, WATCHDOG, TEMP, FAN, HDD3 ALARM, HDD2 ALARM, HDD1 ALARM, HDD0 ALARM                                                                                                                                                                                                               |
| • Fan                                                                           | Yes                                                                                                                                                                                                                                                                                                                               |
| • Monitoring function via network                                               | Optional                                                                                                                                                                                                                                                                                                                          |
| <b>EMC</b>                                                                      |                                                                                                                                                                                                                                                                                                                                   |
| Interference immunity against discharge of static electricity                   |                                                                                                                                                                                                                                                                                                                                   |
| • Interference immunity against discharge of static electricity                 | ±4 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 ... 2 700 MHz, 80% AM acc. to IEC 61000-4-3; 3 V/m for 2.7 to 6 GHz, 80% AM acc. to IEC 61000-4-3; 10 V for 10 kHz to 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                                                                                                                                                                                                                                                                                                |
| 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                             | 30 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; EN 61000-6-4, CAN/CSA CISPR 22 Class B, EN 55032 Class B; FCC Class A; KN32 Class B, EN 61000-3-2 Class D; EN 61000-3-3                                                                                                                                                                                             |
| Compliance with line harmonic distortion limits                                 |                                                                                                                                                                                                                                                                                                                                   |
| • Compliance with line harmonic distortion acc. to IEC 61000-3-2, IEC 61000-3-3 | Yes; EN 61000-3-2 Class D; EN 61000-3-3                                                                                                                                                                                                                                                                                           |
| <b>Degree and class of protection</b>                                           |                                                                                                                                                                                                                                                                                                                                   |
| IP (at the front)                                                               | IP30                                                                                                                                                                                                                                                                                                                              |
| IP (rear)                                                                       | IP20                                                                                                                                                                                                                                                                                                                              |
| <b>Standards, approvals, certificates</b>                                       |                                                                                                                                                                                                                                                                                                                                   |
| 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; CAN/CSA-C22.2 No. 61010-2-201 Second Edition                                                                                                                                                                                                                                                                                 |
| UL approval                                                                     | UL 61010-2-201 Second Edition, File E85972                                                                                                                                                                                                                                                                                        |
| cULus                                                                           | Yes; UL 61010-2-201 Second Edition; CAN/CSA-C22.2 No. 61010-2-201 Second Edition                                                                                                                                                                                                                                                  |
| RCM (formerly C-TICK)                                                           | Yes                                                                                                                                                                                                                                                                                                                               |

|                                                                                               |                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| KC approval                                                                                   | Yes                                                                                                                                                                     |
| EAC (formerly Gost-R)                                                                         | Yes                                                                                                                                                                     |
| EMC                                                                                           | EN 61000-6-3; EN 61000-6-4, CAN/CSA CISPR 22 Class B, EN 55032 Class B; FCC Class A; KN32 Class B, EN 61000-3-2 Class D; EN 61000-3-3                                   |
| Dust protection                                                                               | With front door closed: G2 EN 779, 99% of particles > 0.5 mm are filtered                                                                                               |
| <b>Ambient conditions</b>                                                                     |                                                                                                                                                                         |
| Ambient temperature during operation                                                          |                                                                                                                                                                         |
| • min.                                                                                        | 0 °C; Max. 10 °C/h (no condensation)                                                                                                                                    |
| • max.                                                                                        | 40 °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 85 % at 30 °C (no condensation), storage / transport: 5 % to 95 % at 25 / 55 °C (no condensation) |
| Vibrations                                                                                    |                                                                                                                                                                         |
| • Vibration resistance during operation acc. to IEC 60068-2-6                                 | Tested according to IEC 60068-2-6, 10 cycles; 20 to 58 Hz: 0.015 mm; 58 to 200 Hz: 2 m/s <sup>2</sup> (0.2 g)                                                           |
| Shock testing                                                                                 |                                                                                                                                                                         |
| • Shock load during operation                                                                 | Tested according to IEC 60068-2-27; half-sine: 9.8 m/s <sup>2</sup> (1 g), 20 ms, 100 shocks per axis                                                                   |
| <b>Operating systems</b>                                                                      |                                                                                                                                                                         |
| pre-installed operating system                                                                | Windows 10 IoT Enterprise 2019 LTSC, multi-language (64-bit); Windows Server 2019 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                                                                                                                                                                     |
| <b>Software</b>                                                                               |                                                                                                                                                                         |
| SIMATIC Software                                                                              | Optional package with SIMATIC WinCC                                                                                                                                     |
| <b>Dimensions</b>                                                                             |                                                                                                                                                                         |
| Width                                                                                         | 430 mm                                                                                                                                                                  |
| Height                                                                                        | 177 mm; 4U                                                                                                                                                              |
| Depth                                                                                         | 446 mm; Device with short enclosure: 356 mm                                                                                                                             |
| <b>last modified:</b>                                                                         |                                                                                                                                                                         |
| 1/18/2024  |                                                                                                                                                                         |