# SIEMENS

| Data sheet | 6GK1160-4AT01 |
|---|---|

| Product type designation | **CP 1604 EEC**<br>Communications processor CP 1604 EEC PC/104 plus card (32 bit; 33/66M Hz; 3.3/5V) with ASIC ERTEC 400 for connection to PROFINET IO with 4-port real-time switch train-compatible version |
|---|---|



| Transfer rate | |
|---|---|
| Transfer rate | 100 Mbit/s |

| Interfaces | |
|---|---|
| Number of electrical connections | |
| • at the 1st interface / acc. to Industrial Ethernet | 4 |
| • for power supply | 1 |
| Type of electrical connection | |
| • at the 1st interface / acc. to Industrial Ethernet | RJ45 port via connection board |
| • for power supply | 4-pole terminal block through power supply board |

| Supply voltage, current consumption, power loss | |
|---|---|
| Type of voltage / of the supply voltage | DC |
| Type of voltage supply / optional external supply | Yes |
| Supply voltage | |
| • 1 / from backplane bus | 5 V |
| Relative symmetrical tolerance / at DC | |
| • at 5 V | 5 % |
| Consumed current | |

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| | |
|---|---|
| • 1 / from backplane bus / at DC / maximum | 0.8 A |
| Power loss [W] | 4 W |
| Power loss [W] / in switch mode / maximum | 4.1 W |

## Ambient conditions

| | |
|---|---|
| Ambient temperature | |
| • during operation | -40 ... +70 °C |
| • during storage | -20 ... +60 °C |
| • during transport | -20 ... +60 °C |
| Relative humidity / at 25 °C / without condensation / during operation / maximum | 95 % |
| Protection class IP | IP00 |

## Design, dimensions and weights

| | |
|---|---|
| Module format | PC/104-Plus |
| Width | 90 mm |
| Height | 24 mm |
| Depth | 95 mm |
| Net weight | 110 g |
| Mounting type | Screw mounting |

## Product features, product functions, product components / general

| | |
|---|---|
| Number of plug-in cards of same design / plug-in / per PC station | 1 |
| Number of units / Note | - |

## Performance data

## Performance data / PROFINET communication / as PN IO controller

| | |
|---|---|
| Software / for PROFINET IO communication / required | No |
| Number of PN IO devices / on PROFINET IO controller / usable / total | 128 |
| Number of PN IO IRT devices / on PROFINET IO controller / usable | 64 |
| Amount of data | |
| • as user data for input variables / as PROFINET IO controller / maximum | 8192 byte |
| • as user data for input variables / as PROFINET IO controller / maximum | 8192 byte |
| • as user data for input variables per PN IO device / as PROFINET IO controller / maximum | 1430 byte |
| • as user data for output variables per PN IO device / as PROFINET IO controller / maximum | 1430 byte |

## Performance data / PROFINET communication / as PN IO device

| | |
|---|---|
| Amount of data | |

| | |
|---|---|
| ● as user data for input variables / as PROFINET IO device / maximum | 1430 byte |
| ● as user data for input variables / as PROFINET IO device / maximum | 1430 byte |
| ● as user data for input variables / for each sub-module as PROFINET IO device | 254 byte |
| ● as user data for input variables / for each sub-module as PROFINET IO device | 254 byte |
| ● as user data for the consistency area for each sub-module | 254 byte |
| Number of submodules / per PROFINET IO-Device | 64 |

## Product functions / management, configuration, engineering

| | |
|---|---|
| Product function / MIB support | Yes |
| Protocol / is supported | |
| ● SNMP v1 | Yes |
| ● DCP | Yes |
| ● LLDP | Yes |
| Configuration software / required | Included in scope of supply |
| Identification & maintenance function | |
| ● I&M0 - device-specific information | Yes |
| ● I&M1 – higher-level designation/location designation | Yes |
| ● I&M2 - installation date | Yes |
| ● I&M3 - comment | Yes |
| ● I&M4 - signature | Yes |
| ● I&M4 - OEM data | Yes |

## Product functions / Diagnostics

| | |
|---|---|
| Product function | |
| ● Web-based diagnostics | Yes |
| ● Port diagnostics | Yes |

## Product functions / Switch

| | |
|---|---|
| Product feature / Switch | Yes |
| Product function / switch-managed | No |
| Product function / with IRT / PROFINET IO switch | Yes |

## Product functions / redundancy

| | |
|---|---|
| Software / for redundancy function / required | No |
| Product function | |
| ● Ring redundancy | Yes |
| ● Redundancy manager | Yes |
| Protocol / is supported / Media Redundancy Protocol (MRP) | Yes |

## Standards, specifications, approvals

| Standard | |
|---|---|
| • for EMC | 2004/108/EC |
| • for safety / from CSA and UL | CAN/CSA C22.2 & UL 60950-1 |
| • for emitted interference | EN 61000-6-3, EN 61000-6-4 |
| • for interference immunity | EN 61000-6-1, EN 61000-6-2 |
| Certificate of suitability | |
| • CE marking | Yes |
| • C-Tick | Yes |

## accessories

| accessories | optional: Connection board for CP 1604, power supply board for CP 1604, HARDNET-IE DK (development kit) |
|---|---|

## Further information / Internet-Links

| Internet-Link | |
|---|---|
| • to website: Selector SIMATIC NET SELECTION TOOL | http://www.siemens.com/snst |
| • to website: Industrial communication | http://www.siemens.com/simatic-net |
| • to website: Industry Mall | http://www.siemens.com/industrial-controls/mall |
| • to website: Information and Download Center | http://www.siemens.com/industry/infocenter |
| • to website: Image database | http://automation.siemens.com/bilddb |
| • to website: CAx Download Manager | http://www.siemens.com/cax |
| • to website: Industry Online Support | https://support.industry.siemens.com |

## Security information

| Security information | Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept.  With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action (e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept.  Third-party products that may be in use should also be considered.  For more information about industrial security, visit http://www.siemens.com/industrialsecurity. To stay informed about product updates as they occur, sign up for a product-specific newsletter.  For more information, visit http://support.automation.siemens.com. (V3.4) |
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| **last modified:** | 05/08/2020 |