MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6GK1562-1AA00

CP 5621 PCI EXPRESS INTERFACE CARD

Used with the applicable SIMATIC NET CP 5621 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens 6GK1562-1AA00 official product data; applicable specification pages.

SIEMENS

SIMATIC NET

CP 5621

Operating Instructions (Compact)



This document contains information in English.

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MPI/DP network

The physical link of the MPI/DP interface to the MPI/DP network is via a floating RS-485 interface that is part of the module. Depending on the network configuration, data transmission rates of 9.6 Kbps to a maximum of 12 Mbps are possible in the MPI/DP network.

Note

For information on setting up an MPI network, refer to the manual "S7-300 Installation", order no. 6ES7030-0AA01-8BA0.

Status LED

The status LED is located on the front panel of the CP 5621. The following table describes the operating states:

Appearance	Description
off	Idle, the module is not currently in use.
on	An application is using the module.
flashing	The module has been addressed, for example by the "Station Configuration Editor" using the "Ring on" function.

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3.1 Installing the driver

Requirements

The following requirements must be met:

- The plug-and-play manager is enabled in the BIOS.

Installing the CP 5621 driver

The driver is installed automatically when you install the "SIMATIC NET PC Software" CD or the STEP 7 program.

The CP 5621 has been tested and released as of the "SIMATIC NET, PC Software, Edition 2006" CD.

For the STEP 7 version released for the CP 5621, refer to the STEP 7 readme file.

3.2 Uninstalling the driver

Uninstalling the CP 5621 driver

The driver is uninstalled automatically when you uninstall the "SIMATIC NET PC Software" CD or the STEP 7 program.

Note

When you uninstall STEP 7, keep to the following instructions in German or English:
http://support.automation.siemens.com/ww/view/de/189025
http://support.automation.siemens.com/ww/view/en/189025

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Note

Maximum number of CP 5621 modules in one computer

A maximum of two CP 5621 modules can be installed in one PG/PC.

Procedure

To install and connect up the CP 5621 follow the steps outlined below:

NOTICE
When handling the module, make sure that you do not touch the connectors or the electronic components.
When installing the module make sure that you avoid electrostatic discharge (ESD)

1. Turn off your computer and pull out the power cable connector from the socket.
2. Open the computer housing as described in the manual accompanying your PG/PC.
3. Insert the CP 5621 in a PCI Express slot.
   Make sure that the CP 5621 sits firmly and uniformly in the slot.
4. Close the computer housing as described in the manual accompanying your PG/PC.
5. Plug the power supply connector into the socket again and turn on your computer.
6. After you have installed the CP 5621 communications processor, the Windows plug-and-play mechanism searches for a driver.

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Prior to commissioning

Before putting the product into operation, note the following warning:

CAUTION
Prior to startup read the relevant current documentation. For ordering data of the documentation please refer to the catalogs or contact your local Siemens office.

Configuration

The CP 5621 is configured in STEP 7 or NCM PC as a CP 5611.

Reaction

For reasons of compatibility, the CP 5621 is displayed **as a CP 5611** on the PC.

This is intentional and not an error.

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CP 5621

The following technical specifications apply to the CP 5621 communications processor:

Construction	
Module format	PCI Express card - standard height and half length
Dimensions (H x D) in mm	111 x 129
Weight	Approx. 100 g
Card connector principle	PCI Express connector
Bus interface	PCI Express V1.0a, plug and play
Voltage	
Operating voltage	Safety extra low voltage (SELV) to EN 60950
Rated voltage (limit values)	12 V and 3.3 V DC
Current consumption at rated voltage	
At 12 V DC	max. 180 mA
At 3,3 V DC	max. 400 mA
Data transmission	
Transmission speed	9.6 Kbps to 12 Mbps
Interfaces	
Connection to PG/PC	PCI Express x1; can also be operated in x4, x8 or x16 slots.
Plug-in connector	9-pin D-sub socket strip with screw lock
Transmission method	RS-485 floating within SELV limits
Mode of the MPI/DP interface	Floating (interface signals), non-floating (cable shield)

Electromagnetic compatibility (EMC)	
Emission	Class B to EN 55022 FCC class B
Immunity on signal cables	+/- 2 kV to IEC 61000-4-5, surge +/- 1 kV to IEC 61000-4-3, burst
Immunity to discharge of static electricity	+/- 6 kV, contact discharge to IEC 61000-4-2
Immunity to radiated RF	• 10 V/m at 80 MHz – 2 GHz to IEC 61000-4-3 • 10 V/m with 80 % amplitude modulation at 1 kHz • 10 kHz – 80 MHz to IEC 61000-4-6
Safety	
UL/CSA approval	The CP 5621 meets all requirements for add-on modules according to the cULus approval.
Mechanical environmental conditions	
Vibration	Tested to IEC 60068 2 6: 10 ... 58 Hz, Amplitude: 0.075 mm, 58 ... 500 Hz; Acceleration: 10 m/s2, 10 cycles/axis
Shock	Tested to IEC 60068 2 27; Half sine: 50 m/s2 (5 g), 30 ms, 100 shocks/axis
Climatic conditions	
Temperature (operation)	Tested to IEC 60068 2 1, 60068-2-2: +5 ... +55 °C, Temperature change: max. 10 K/h
Transport and storage temperature	-20 … +60 °C, Temperature change: max. 20 K/h
Humidity (operation)	Tested to EN/IEC 60068-2-78: 5 ... 85% at 30 °C (no condensation)
Fast temperature change in operation	Tested to IEC 60068-2-14: +5 ... +55 °C, 5 cycles
Fast temperature change during storage/transport	Tested to IEC 60068-2-14: -20 ... +60 °C, 2 cycles
Damp heat, cyclic during storage/transport	Tested to EN/IEC 60068-2-30: 25 ... 55 °C at 95 % (no condensation)

Assignment of the PROFIBUS interface

The pinning of the D-sub socket is as follows:

Pin no.	Abbreviation	Meaning	Input/output
1	NC	Socket pin 1 is not connected.	-
2	NC (M24)	Socket pin 2 is not connected. With other MPI/DP components, the return line of the floating 24 V power supply may be connected to this pin.	-
3	LTG_B	Signal line B of the CP 5621 module	Input/output
4	RTSAS	RTSAS, input signal for MPI/DP bus. The control signal is "1" active when the AS is sending.	Input
5	M5EXT	M5EXT return line (GND) of the 5 V power supply. The current load caused by an external consumer connected between P5EXT and M5EXT must not exceed a maximum of 90 mA.	Output
6	P5EXT	P5EXT power supply (+5 V) of the 5 V supply. The current load caused by an external consumer connected between P5EXT and M5EXT must not exceed a maximum of 90 mA (short-circuit proof).	-
7	NC (P24V)	Socket pin 7 is not connected. With other MPI/DP components, the P24V supply of the floating 24 V power supply may be connected to this pin.	-
8	LTG_A	Signal line A of the CP 5621 module	Input/output
9	RTS	RTS output signal of the CP 5621 module. The control signal is "1" active when the device (PG or PC) is sending.	Output
Shield		on connector casing	