ECS-PCIe/1100 EtherCAT[®] Slave Interface for PCs

EtherCAT for Every PC

Make your PC to an EtherCAT slave node

EtherCAT Slave Featured via Ethernet Physical Layer

- PCIe port designed according to PCI Express® Specification R1.0a
- ET1100 ESC address space is directly mapped to the PCI Express address space

Configuration and Application Development via esd's Tools

- Configuration by esd's EtherCAT master. A sample device description file (ESI file in XML format) is provided.
- esd EtherCAT slave API library and sample code for application development

Simple EtherCAT Slave Interface for PCs

The ECS-PCIe/1100 is a PC board designed for PCI Express slots. It features an EtherCAT slave using the Ethernet physical layer via two RJ45 Ethernet sockets.

The board uses the ET1100 EtherCAT slave controller (ESC) ASIC that comes with 8 kbytes memory and 8 EtherCAT sync managers. The ET1100 ESC address space is directly mapped to the PCI Express address space.

Applications

The ECS-PCIe/1100 integrates any PC into an EtherCAT network and makes it an EtherCAT slave node. The PC can act as I/O node. An EtherCAT master can use several EtherCAT protocols like CoE, FoE and EoE to communicate with this EtherCAT slave node.

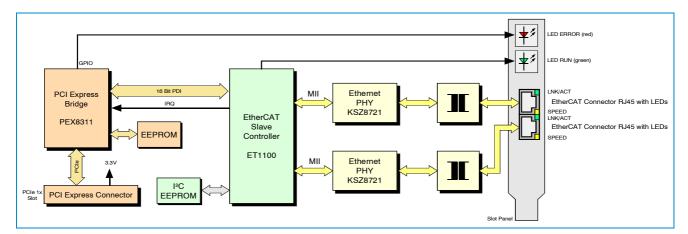


Configuration and protocols

Configuration is done through the esd EtherCAT master. A sample device description file (ESI) is provided.

Software Support

Device drivers for Windows[®] and Linux[®] with documentation and EtherCAT slave examples are included in the scope of delivery. Drivers for other operating systems, especially realtime-OS, are available on request.



Technical Specifications:

PCI Express Int	PCI Express Interface:	
PCIe endpoint	PLX PEX8311	
PCIe port	According to PCI Express Specification R1.0a	
Link width	1x	
Connector	PCIe card edge connector	

EtherCAT Slave	Controller (ESC) :
ESC ASIC	ET1100
ESC interface	2x RJ45, 100BASE-TX, 100 Mbit/s, according to IEEE 802.3, electrically isolated
LEDs	Error, Run, Link/Activity

General:		
Supply voltage	3.3V via PCIe	
Ambient temperature	Operational: 050° C	
Relative humidity	Max. 90 % (non-condensing)	
Dimensions [mm]	96 mm x 70 mm (low profile PCIe)	
Weight	55 g	
Order Information:		
Designation		Order No.
ECS-PCle/1100	PCI Express board with EtherCAT slave controller ET1100, incl. driver, stack binary and documentation for Windows and Linux on CD	E.1100.02

All data are subject to change without prior notice. I:\Texte\Doku\DBL\EtherCAT\Englisch\ECS\ECS-PCle1100_Datasheet_en_18.odt EtherCAT® is registered trademark and patented technology. PCI EXPRESS® is a registered trademark of PCI-SIG All trademarks are reserved by their respective owners.



Phone: +49 (0) 511 3 72 98-0 Fax: +49 (0) 511 3 72 98-68 E-mail: info@esd.eu