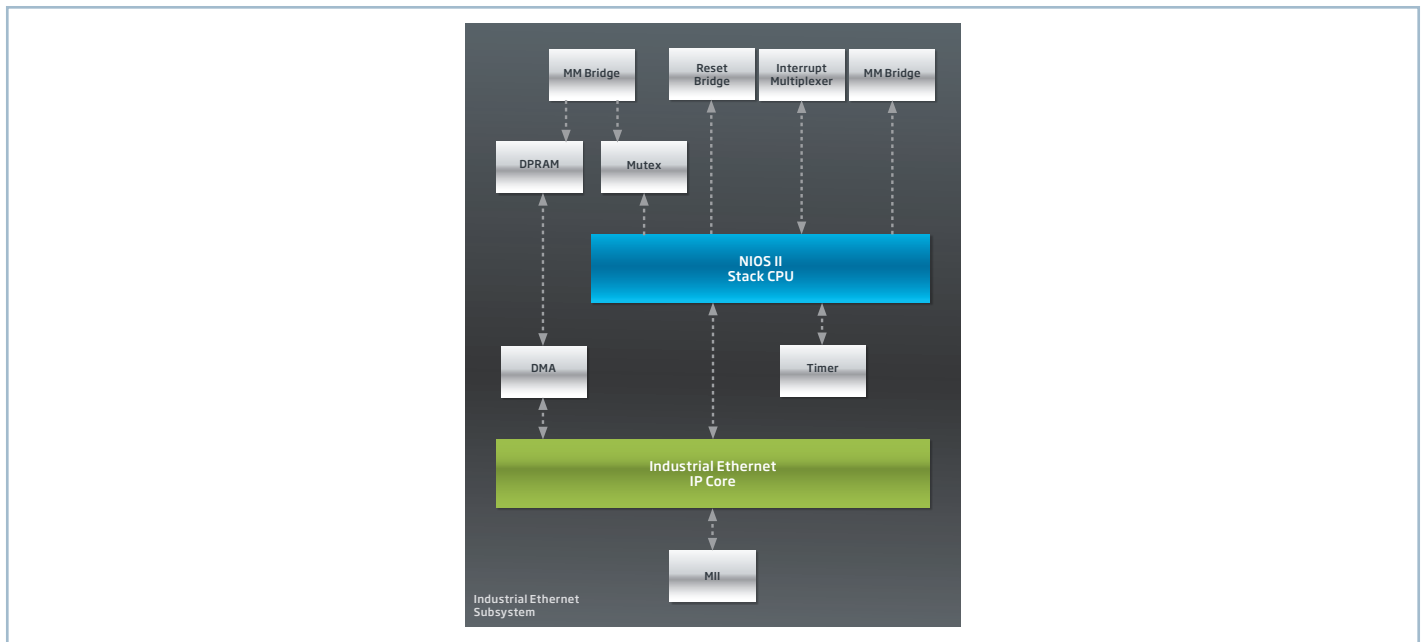


Ethernet POWERLINK Controlled Node for Altera FPGA

Ethernet POWERLINK Integration Into Field Devices

IP Core and protocol software have been designed to implement an Ethernet POWERLINK communication based on hardware supporting an Ethernet interface and an Altera FPGA. This solution provides uniform interfaces for future support of additional Industrial Ethernet protocols.



Future-Proof and Cost-Saving Universal Firmware

- > Ready-to-integrate Ethernet POWERLINK Qsys system
- > Implementation of additional functionality at any time
- > Support of two Ethernet interfaces for implementing different topologies

One API For Quick Integration

- > Simple Device Application Interface (SDAI) designed as efficient protocol abstraction layer to use different protocols with same application
- > PROFINET IRT, EtherCAT, EtherNet/IP, POWERLINK and Modbus TCP using the same API
- > Single and dual processor systems supported

Standard IT Support in Parallel with Industrial Ethernet

- > Direct forwarding of IP packets to application
- > No need to change existing IP structure
- > Socket interface for simple integration

Ongoing Enhancements

- > Continuous Softing maintenance of Qsys components
- > Use in Softing products as well
- > Easy update to future versions

Technical Data

Ethernet POWERLINK Controlled Node Stack	<ul style="list-style-type: none">> Controlled Node, Version 2.0, Ethernet POWERLINK Communication Profile Specification (Version DS301 V1.1.0)> Flexible network topology via two Ethernet ports> Poll response chaining support> Cross traffic support> Dynamic PDO mapping support> Integration into Softing's Simple Device Application Interface (SDAI)> SDO via Powerlink ASnd and via UDP/IP> Implementation of various device profiles supported via SDAI> Low jitter synchronization of device application with Ethernet POWERLINK cycle possible> Support of Standard Objects including parameter storage objects (Store/Reset of configuration parameters)> Integration of Optional TCP/UDP Protocols Via Socket Interface Supported
Cycle Time	≤ 500 µs
I/O Data	255 Bytes
Poll Response Time	≤ 3 µs
Slave-to-Slave Communication	Supported
POWERLINK ASnd	Supported
Conformance Test Certificate	No. 10000108

Scope of Delivery

Software	<ul style="list-style-type: none">> Ethernet POWERLINK IP Core configuration, eCos, protocol stack, SDAI> Sample application for evaluation kit> Device description file (XDD file)> Sample program for B&R PLC
Documentation	SDAI manual, IP Core descriptions

Order Numbers

ISL-YY-013310	Industrial Ethernet Field Device Stack, Per Unit License for FPGA
LRL-YY-013350	Industrial Ethernet Field Device Stack, Product ID License for FPGA

Additional Products and Services

KEL-AB-010001	Altera Cyclone V E FPGA Development Kit and MAX V licensing board
SIA-YY-012501	Integration workshop for implementing field devices based on Altera Cyclone FPGA family
SIA-YY-012503	Integration support provided by e-mail or phone



Softing Industrial Automation GmbH
Richard-Reitzner-Allee 6
85540 Haar / Germany
Tel.: +49 89 456 56-340
Fax: +49 89 456 56-488
info.automation@softing.com
http://industrial.softing.com

Softing North America Inc.
US Headquarter
7209 Chapman Highway
Knoxville, TN 37920 / USA
Tel.: +1 865 251 52 52
Fax: +1 865 579 47 40
info.usa@softing.com
http://softing.us

Softing Industrial Automation GmbH
Äußere Sulzbacher Straße 159-161
90491 Nuremberg / Germany
Tel.: +49 911 544 27-0
Fax: +49 911 544 27-27
info.automation@softing.com
http://industrial.softing.com

Softing North America Inc.
US Sales Office
29 Water Street, Suite 301
Newburyport, MA 01950 / USA
Tel.: +1 978 499 96 50
Fax: +1 978 499 96 54
info.usa@softing.com
http://softing.us

Buxbaum Automation GmbH
Thomas-Alva-Edison-Straße 1
7000 Eisenstadt / Austria
Tel.: +43 2682 704 560
Fax: +43 2682 205 77 00-5610
office@myautomation.at
http://myautomation.at

Softing Italia Srl
Via Padre Massimiliano Kolbe, 6
20090 Cesano Boscone (MI) / Italy
Tel.: +39 02 450 51 71
Fax: +39 02 450 41 41
info@softingitalia.it
http://softingitalia.it

Your local Softing Contact: