Dear readers,

this newsletter as well as the following issues are dedicated to the implementation of POWERLINK. The EPSG will showcase the possibilities that allow manufacturers to easily and quickly equip their devices with POWERLINK interfaces. They have the choice between choosing existing products for the interface, or to implement it by themselves – a very simple task thanks to complete reference designs with no extra charge for license fees. In any case, manufacturers can receive support from various service providers whose solutions we will present in detail in the upcoming newsletter issues. Complete interface solutions and/or POWERLINK-related services are provided by renowned companies such as:

- Hilscher
- Port
- SYS TEC electronic
- Kalycito
- Deutschmann
- IXXAT
- B&R

POWERLINK Slaves can be implemented as various models which differ with regard to cost and flexibility. Customers can thus choose the optimal solution for their requirements, combining maximum functionality with minimal costs. POWERLINK interface connections can be realized as multi-protocol solutions and as POWERLINK-only interfaces. The first option allows for high flexibility: the component manufacturer must decide on a specific hardware platform and yet need not choose the Industrial
Ethernet bus of the module until it is delivered. In the second option, all electronics can be optimized for the resource-saving POWERLINK technology, allowing users to implement a high-performance, very cost-efficient Industrial Ethernet interface. Since both options are based on standard hardware components (FPGAs or system-on-a-chip solutions), customers can freely choose their hardware supplier. No matter which option is chosen: POWERLINK is always a future-proof investment.

Price comparison of proprietary ASIC-based Slave interfaces and open Slave solutions based on FPGA
POWERLINK Slave Implementation Overview

Hardware technology:
- FPGA
- CPU (ARM, etc.)

Hardware type:
- Cyclone II, Cyclone V, Stratix II, Stratix V, etc.

Hardware manufacturer:
- Altera
- Xilinx

Solution provider:
- port
- www.port.de

Supported POWERLINK Version:
- DS 301 V1.10

Multi-protocol support:
- POWERLINK, SERCOS II, EtherCAT, Modbus TCP (Table)

Fastest supported Cycle time:
- Application depending (typical): 400 µs

I/O Interface:
- SPI, CAN

Direct I/O support:
- Optional

Product highlights (max):
- Data rates up to 100 Mbit/s
- Application depending (typical): 400 µs

License Model:
- ANSIC Source Code, Buyout, no royalties

Company description:
- port-a leading Industrial Communication Specialist offers highly adaptable and portable protocol stacks for CAN and Industrial Ethernet, that are best suited for Multi-protocol Solutions on FPGA and CPU/MDU. Port has high-performance DP-RAmp Interface DPUM0 offers outstanding flexibility for multi-protocol solutions as well as single protocol applications. Port offers Hardware and Software Engineering Services.

Solution provider:
- port GmbH
- www.port.de

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