



KPA EtherCAT Slave Stack



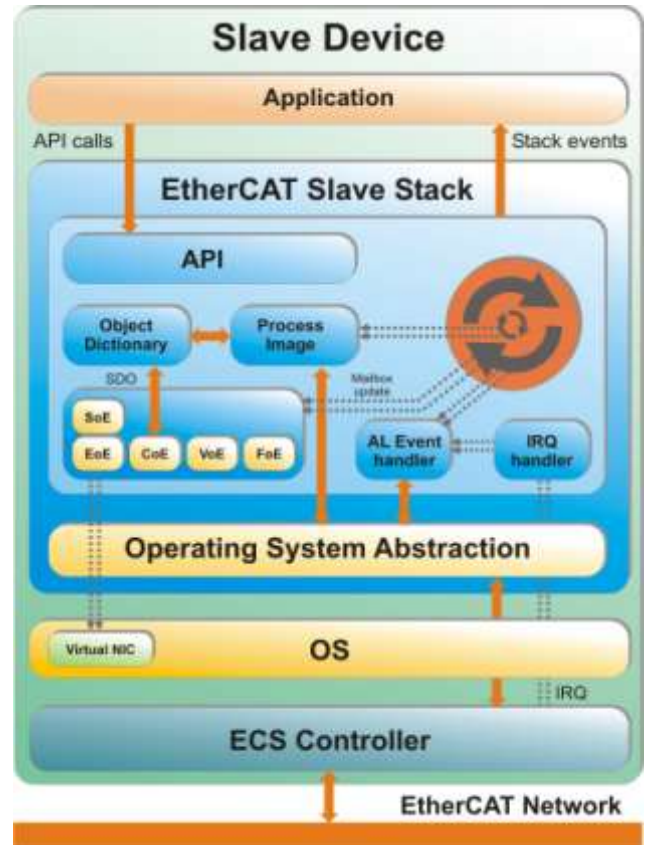
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KPA EtherCAT Slave stack is a software stack designed to run on microcontrollers, CPUs or DSPs with or without any Operating System (OS) and provided as source code or compiled library.

General

- Code written in "ANSI C"
- Approx. **20.000** lines of code
- Based on EtherCAT Norm
- Verified with Conformance Test Tool (CTT)

- Small footprint for 8- and 16 Bit- Microcontrollers e.g.
 - SAB 80x16x (Infineon)
 - ARM 3.9, ATmega128 (Atmel)
 - ppc 52xx, MPC8536 (Freescale)
 - Microblaze (Xilinx)
 - Sitara (TI)
- RAM size depending on size of Object Dictionary (OD)
For static OD >= **3kB Basic (8kB Standard)**
- ROM (flash) >= **55kB Basic (64kB Standard)**
- **Charts** of slave architecture



Interfaces

- Compatible with any Beckhoff's EtherCAT Slave Controllers (ESC) can be ASIC ET 1x00 and IP-Core
- IRQ-handling of hardware events
- Polling of Mailbox (Mbx) and Process Image
- Operating System -based or OS-less
- Hardware Abstraction Layer instead of separate "defines"

Standard Version of Slave Stack

- Mailbox protocols: **CoE, EoE, FoE, SoE VoE**
- Runtime **generation / changing** of Object Dictionary (OD)
 - using standard xml file or
 - customer-specific OD-description data from ROM, flash memory or ECS's EEPROM
- Adapted to operating system by using **Operating System Abstraction Layer (OSAL)**
- **Virtual NIC** support used for EoE (depending on OS)

Basic Version of Slave Stack

- Mailbox protocol: **CoE**
- **Static Object Dictionary** with pointer given from application
- With / without Interrupt Service Routines (ISR)





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Delivery of all Source-Code versions includes

EtherCAT Slave stack

- Source code license after bidirectional contract is signed
- Charts of Slave architecture
- API with description
- Documented sample applications

Support / update package

- One year technical support
- One year update

Ordering information

Product Code	Name
	Slave Source Code Standard
7040 0001	KPA EtherCAT Slave source code Standard for Linux RT-Preempt 2.6.26+
7040 0002	KPA EtherCAT Slave source code Standard no OS
7040 0004	KPA EtherCAT Slave source code Standard for RTX 7.1, 8.1
7040 0005	KPA EtherCAT Slave source code Standard for INtime 3.04, 3.1
7040 0006	KPA EtherCAT Slave source code Standard for Windows XP/Vista
7040 0007	KPA EtherCAT Slave source code Standard for QNX 6.4.0, 6.4.1
7040 0008	KPA EtherCAT Slave source code Standard for VxWorks (upon request)
7040 0011	KPA EtherCAT Slave source code Standard for Xenomai User Space (2/2012)
7040 0013	KPA EtherCAT Slave source code Standard for Xilkernel (available 3/2012)
	Slave Source Code Basic
7040 0101	KPA EtherCAT Slave source code Basic for Linux RT-Preempt 2.6.26+
7040 0102	KPA EtherCAT Slave source code Basic no OS
Upon Request	Extension Packs for Slave Source Code Basic
	File system
	Virtual NIC
	Slave Boards with Compiled Slave Library
4001 0000	KPA EtherCAT Slave PCI for XP, QNX, RTX, INtime, SDK, xPC Target

