CANopen Core

CANOPEN CHIP F40

Order Information
Order number: MM-217-Y
Contact:
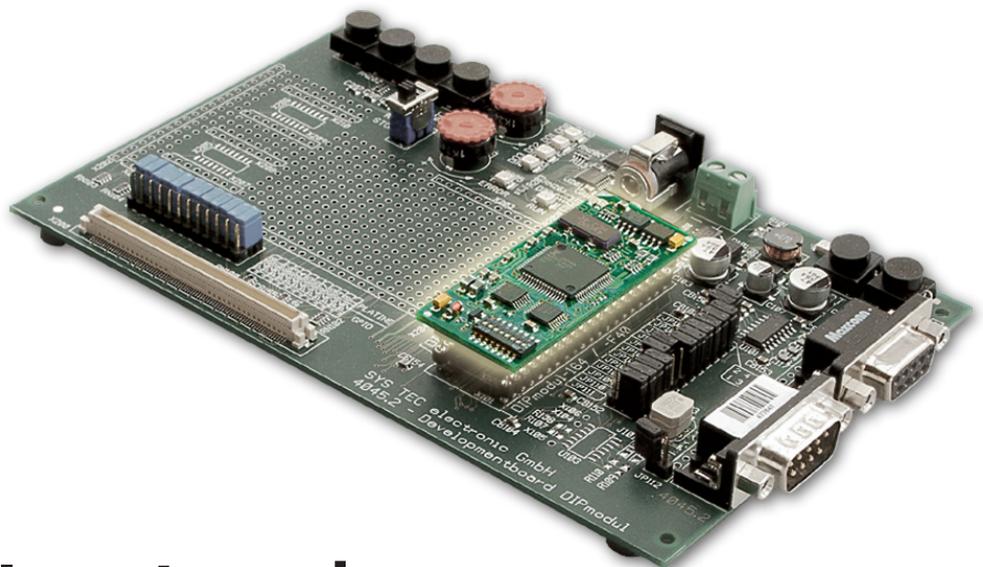
Insert-ready
CANopen solution

The easy way to integrate CANopen into your application.

The CANopen Chip is an insert-ready, yet highly cost-effective single board computer subassembly with latest CANopen firmware pre-programmed. A standardized DIP40 connector forms the interface to the target peripherals and transforms the CANopen Chip into a versatile utilizable communications interface. Up to seven user-selectable I/O configurations provide a variation of digital inputs and outputs, analog inputs as well as PWM outputs. On-board switches enable the configuration of node-ID and I/Os at deployment time.

Customizable
Do you require manufacturer-specific functions or do you need vendor-specific object dictionary entries? We support you with customized firmware adaptations to make the CANopen Chip suitable for your application!

For more information please visit:

Highlights
- **Cost-effective insert-ready core module**
- **Pre-programmed CANopen firmware**
- **No software development required**
- **Simplified board pinout - easy to integrate into own schematics**
- **Standard compliant CANopen I/O device according to CiA 401**
- **<1ms cycle time**
- **Completely remote configurable**
- **Error control via heartbeat and emergency messages; error history**
- **Parameter storage to on-board EEPROM**

Made for:
Sensor applications

Embedded I/O extensions

Laboratory applications

Educational

Flexible I/O configurations

The CANopen Chip provides 7 different I/O configurations, selectable via on-board DIP-switch or remotely via SDO access.

	DI	DO	AI	PWM
0	14	8	2	4
1	8	8	8	4
2	16	8	-	4
3	8	16	-	4
4	16	-	8	4
5	24	-	-	4
6	16	4	4	4

Ready for OEM Deployment

The CANopen Chip has been optimized for insertion as an OEM subassembly into an end product. OEM implementation of the CANopen Chip frees engineers from the routine design of a microcontroller core and enables him or her to focus on the specific target application. Purchase of the CANopen Chip jump-starts your development cycle. By sparing yourself the task of developing your own CANopen firmware, you can instead concentrate on your target peripherals, thereby reducing the time-to-market of your product. No orientation into the CANopen protocol internal workings is necessary.

Rapid Development

We offer a Development Kit for the CANopen Chip to facilitate fast and efficient orientation to the CANopen Chip. In addition to a base board and an USB-CAN interface, the kit also includes all necessary software components for getting started immediately. Of course we are pleased to discuss with you the possibilities of custom specific adaptions. Call us to discuss!

Technical Specification

CANOPEN FEATURES

- Communication profile according to CiA 301
- CANopen device profile according to CiA 401
- State indicators according CiA 303-3
- Layer Setting Service (LSS) CiA 305
- 4 TPDO and 4 RPDO
- Dynamic PDO linking and mapping
- 2 SDO server
- Life guarding, node guarding, heartbeat
- 5 heartbeat consumers
- Emergency producer

DEVICE SPECIFICATION

- Operating voltage: 5V ±10%
- Current consumption(I/O inactive): typ. 70mA
- Non-volatile memory for storage of configuration data
- On-board CAN transceiver supports up to 110 CAN-nodes on the same bus segment
- DIP switches for configuration of node-ID, baud rate and I/Os
- CAN-bus signals (TTL level) separately available on socket connector for easy implementation of galvanic isolated CAN-bus connection
- Seven different I/O configurations on 28 I/O pins, selectable via DIP-switch and via SDO
- Digital inputs/outputs TTL level
- Analog inputs, 0...5 V, 10-bit resolution
- PWM outputs, TTL level, max. frequency 15kHz, 16-bit resolution
- Operating temperature: -40°C to +85°C
- Dimensions (LxWxH): 58.7mm x 24.0 mm x 11,8 ±0.3mm
- Weight: ca. 10,5g
- Socket connector: 40-pin Dual-Inline-IC socket, grid dimension 2,54 x 15,24