

Modules and chips by Embedded Systems Solutions that provide instant access to digital and analog CANopen input or output signals.

CANopenIA is a concept developed by ESAcademy that helps you to easily build CANopen devices. Quickly develop devices or nodes connected to a CANopen network. Build sensors, actuators or other devices with access to CANopen systems. The main benefits of CANopenIA are:

Decreased complexity level

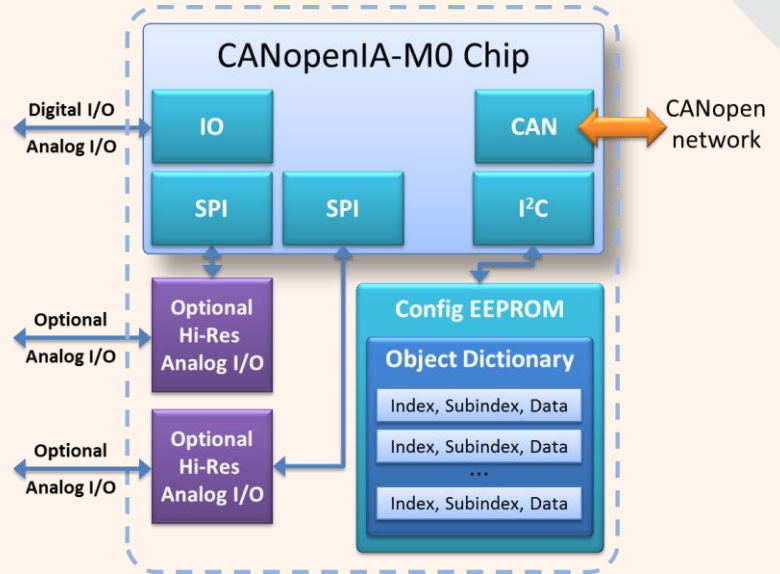
- Simple setup through CANopen Architect or dedicated setup software
- Only minimal CANopen knowledge required
- No software development

Increased security level

- Fewer attack points for intruders

Faster time-to-market

- No software development
- Faster test cycles

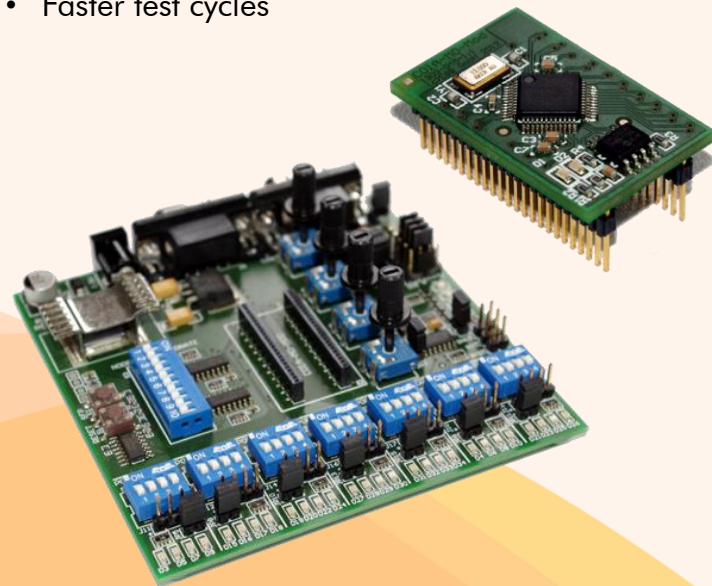


Configurations can be generated and loaded using the provided CANopenIA-M0 setup utility. The chip's configuration gets stored in an EEPROM. Configurable parameters include:

- Port configurations for a total of 28 signals
 - 4 signals per port
 - any port can be digital input or output
 - one port can be analog output (10bit ADC)
 - one port can be SPI analog input (12bit ADC)
 - one port can be SPI analog output (12bit DAC)
- Port to Object Dictionary assignment
 - which signal is where in Object Dictionary
- CANopen PDO (Process Data Object) configuration
 - communication and mapping parameters

The CANopen standards implemented by CANopenIA-M0 include

- CiA301 version 4.2 CANopen Application layer and communication profile
- CiA305 version 2.2.14 LSS, node ID assignment using Layer Setting Services and protocols
- CiA401 version 3.0 Device Profile for generic I/O modules



Available Products from Embedded Systems Solutions GmbH

- CANopenIA-M0 Chip
48-pin LQFP (9x9mm)
- CANopenIA-M0 Module
48-pin 1.27mm grid
- CANopenIA-M0 Starter Kit