

# CAN Newsletter Online

CANOPEN I/O

## From 40-pin modules to modular devices

CiA member Guangcheng offers a broad range of CANopen I/O modules and devices. They comply with CiA 301 and CiA 401.



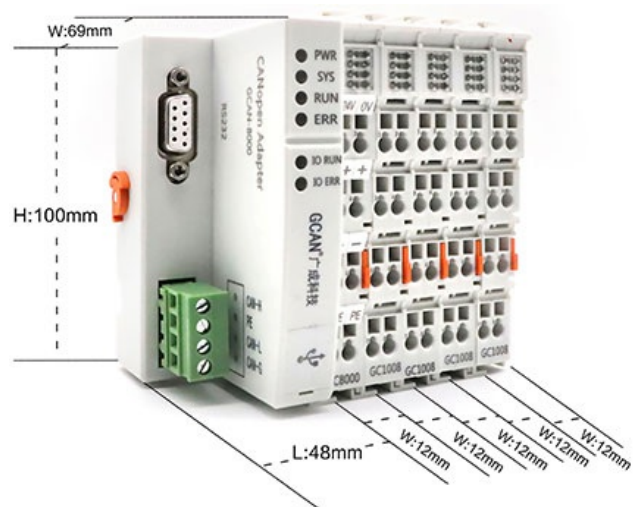
The GCAN-305 is a CANopen-to-EIA232 gateway (Photo: Guangcheng)

The company also offers the shown GCAN-305 module interfacing EIA-232 serial ports to CANopen networks. It can support up to 12 RPDOs and 12 TPDOs. The GCAN-306 is a connector that integrates two CAN interfaces. One interface implements the CANopen application layer. It is suitable for bridging proprietary CAN networks to CANopen networks.

The GCAN-IO-8000 modular I/O devices by Guangcheng comply with CiA 401. The bus-coupler can be configured by an EIA-232 port regarding the bit-rate. The I/O device can be equipped with up to 32 modules.

The Chinese company offers so-called CANopen chips, complying with the CiA 401 CANopen profile for modular I/O devices. They are available with different I/O functions including digital inputs and outputs, analog inputs as well as PWM outputs. Two LEDs indicate the device state according to CiA 303-3. LSS as specified in CiA 305 is supported, too. The module provides four TPDOs and four RPDOs. Other CANopen functions include SDO server, Emergency producer, life/node guarding, and Heartbeat. The optional NMT boot master is manufacturer-specific. The module is based on the MB90F352 16-bit micro-controller from Cypress (formerly Spansion/Fujitsu) and the PCA82C251 transceiver by NXP. The CAN interface supports all bit-rates as specified by CiA. The dimension of the module is 58,7 mm x 24 mm x 11,8 mm, it weighs 10,5 g. The specified temperature ranges from -40 °C to +85 °C.

The company also offers the shown GCAN-305 module interfacing EIA-232 serial



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The GCAN-IO-8000 modular devices can be equipped with up to 256 digital ports and up to 64 analog ports (Photo: Guangcheng)