

ISIT_COSAFE

ISIT CANopen Safety protocol Stack

Adds Safety Ext. to meet the Safety req. of CANopen apps



ISIT offers a software CANopen protocol stack (**ISIT_COSAFE**) compliant with the CiA-301 and CiA-304 standard.

Developed in ANSI-C and independent of the hardware (except for CAN driver), it eases the rapid development of master and slave devices, including the necessary services like SDO, PDO, NMT (network management), LSS (layer setting services) and Safety communication messages (SRDO).

The **Safety extension** CiA-304 provides all the services and functionalities for designing CANopen devices with safety communication constraints and has already proven itself in many industrial applications.

In some application cases, the use of the Safety protocol is not sufficient, in particular if the final application must receive certification for an official operating safety standard (e.g. IEC 61508, ISO 13849, ISO 25119 or DO178). ISIT therefore offers a certified version of its CANopen Safety stack.



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ISIT CANopen Safety protocol Stack - Features and Benefits:

- ▶ Compliant with CANopen Protocol CiA-301 (EN50325-4) and the safety extension CiA-304 (EN50325-5)
- ▶ Master/Slave version only
- ▶ Delivery of protocol stack as source code
- ▶ Generic easy-to-use API, compatible with standard/certified versions
- ▶ EDS Editor provided
- ▶ Same code as certified version
- ▶ Can be “upgraded” to certified version

ISIT CANopen Safety protocol Stack - Functions overview:

- ▶ SDO expedited, segmented and block modes
- ▶ PDO synchronous/asynchronous modes
- ▶ PDO static/dynamic mapping
- ▶ NMT Error control : Heartbeat consumer/producer
- ▶ EMCY producer (Consumer in Master version only)
- ▶ NMT commands (Master version only)
- ▶ Any slave profile can be created by providing EDS file
- ▶ SRDO producer / consumer – Static Mapping
- ▶ EDS Editor provided

ISIT CANopen Safety protocol Stack - Content of the delivery:

- ▶ CANopen Safety stack : Software provided as source code for the stack and the CAN driver
- ▶ Usage documentation (User manual)
- ▶ Sample application programs for the stack implementation
- ▶ Support and maintenance included for the first year

ISIT CANopen Safety protocol Stack - Additional services:

- ▶ Trainings on CAN/CANopen
- ▶ Operating System and CPU porting
- ▶ Integration with customer hardware/application
- ▶ Application development