



#safetygoesdigital



HICore[®]

Your Fast Path to Functional Safety

HIMA HICore 1 evaluation kits are designed to evaluate the ease of use and flexibility of this safety-SoC and the included software package. They support all features of HICore 1. These evaluation kits are also an ideal platform for the development of application software while the target hardware is being designed.

Following the idea of HIMA Smart Safety, the evaluation kits include all required components as well as pre-installed reference applications. The Ethernet APL Safety Evaluation Board is the ideal platform for evaluation and design of applications requiring safe communication over Ethernet APL or Single Pair Ethernet (SPE).

HICore-Features

- Energy-efficient, high-performance DP80390 (8-bit) processor cores
- Low power modes for APL Power Class A (540 mW) und C (1100 mW)
- Max. clock: 100 MHz
- Safety platform (SoC with watch-dog, safe operating system and communication modules) certified up to SIL 3 in accordance with IEC 61508 and PLe / Cat. 4 in accordance with ISO 13849-1
- Operating temperature: -40 °C to +85 °C

Scope of Delivery:

- HICore 1 Evaluation Board or Ethernet APL Safety Evaluation Board
 - Software (compliant with IEC 61508 SIL 3, ISO 13849 PLe, and EN 62061)
 - Safe operation system
- Documentation
- 24V switching power supply
- Anti-static protection mat

Development Environment:

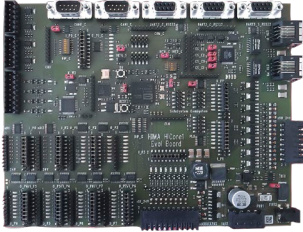
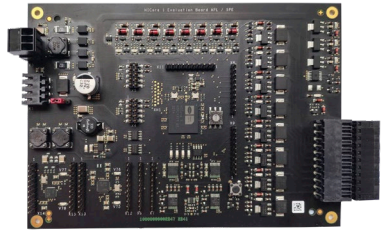
- IAR Embedded Workbench for 8051
- Comprehensive digital documentation, safety manual and hardware design guide
- DCD HAD2 JTAG-Debugger

Accessories:

- License for IAR Embedded Workbench
- DCD HAD2-Kit
- RS232/422/485 USB adapter

HICore 1 Evaluation Kits in Comparison

Start HICore-based product development smartly and efficiently by using the Evaluation Boards by HIMA. Both boards are available with a complete development suite which can be upgraded with optional accessories. Targeting different applications, both boards feature different connectivity.

| | HICore 1 Evaluation Board | Ethernet APL Safety Evaluation Board |
|-------------------------|---|---|
| |  |  |
| Application area | Evaluate and develop your own safe products using all features of HICore 1 | Evaluate and develop your own safe products using Ethernet APL with PROFIsafe and CIP Safety. |
| General | All HICore 1 interfaces and I/Os accessible | Evaluation board with Ethernet APL interface for communication and power supply. Additional interface for integration of your non-safe network controller |
| Certification | HICore 1 safety-SoC and Software Package certified in acc. with IEC 61505 up to SIL 3, suitable for use in line with EN ISO 13849 up to PLe | HICore 1 safety-SoC and Software Package certified in acc. with IEC 61505 up to SIL 3, suitable for use in line with EN ISO 13849 up to PLe |
| Safe OS | Yes, part of Software Package | Yes, part of Software Package |
| Safe Middleware | Yes, part of Software Package | Yes, part of Software Package |
| Safe I/Os | 8/8 | 8/8 |
| I/Os | 24/24 (Configurable as 24 additional safe In- or Outputs) | – |
| Clock out | 2 (Short-circuit proof) | – |
| Safe counters | 8 | 2 (Multiplexed with inputs) |
| Interfaces | 3 UART 2 CAN 2 Ethernet 3 SPI | 1 APL Single Pair Ethernet 1 UART – – |
| Non-safe communications | PROFIsafe CIP Safety FailSafe over EtherCAT (FSoE) CANopen Safety | PROFINet* Ethernet/IP* |
| Safe communications | CANopen Safety | PROFIsafe CIP Safety |
| | | * Communications via your network controller |

Contact

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