Embedded Solutions
Communication Solutions for Embedded Designs

www.hilscher.com
The Hilscher Platform Strategy provides the whole range of communication solutions to the user – from a standardized PC Card up to the integration of the multi-protocol chip netX. All solutions – whether Master or Slave – have the same interface to the application and use the same tools.

After single integration of the application interface the change to a different hardware format or a different physical host interface is a pure hardware optimization process. This allows the same range of functionality without fundamental changes of the software structure. A change of the communication protocol is mostly done by just loading a different firmware.

Thanks to the common netX core technology you will profit from continuous improvements and functional extensions – and that’s across the entire platform.

Your Benefits

- Once integrated all networks and formats are useable
- One design for Master and Slave applications
- One tool to configure all products
- Always the same proven technology
- Cost optimization during the lifetime via migration paths
- Reduced development effort thanks to consistent interfaces
- One contact for all levels of integration
- One sustainable communication solution for your long-term product strategy
Choose Your Embedded Design

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### Chip Carrier

- **netRAPID**
  - Dimensions: 10 / 52
  - Interfaces:
    - Slave: (FB) + (RE)
    - Master: (FB) + (RE)
    - Physical host interface
    - Logical host interface
    - Ext. diagnostic interface
  - Other specs:
    - Power consumption: 32 x 32 x 4 mm
    - 3.3 V / 330-520 mA
    - Operating temperature: -20 ... +70 °C
    - Mounting: Solderable (SMD or by hand)

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### DIL-32 IC

- **netIC**
  - Dimensions: 10 / 50
  - Interfaces:
    - UART or SPI
    - Modbus RTU (MBR)
    - Ext. diagnostic interface
  - Other specs:
    - Power consumption: 42 x 21 x 17.4 mm (incl. pins and heatsink)
    - 3.3 V / 330-400 mA
    - Operating temperature: -20 ... +65 °C

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### Communication Module

- **comX**
  - Dimensions: 10 / 51 / 100
  - Interfaces:
    - UART or SPI
    - Dual-Port-Memory (DPM)
    - USB
  - Other specs:
    - Power consumption: 70 x 30 x 21.5 mm
    - 3.3 V / 300-700 mA
    - Operating temperature: -20 ... +65 °C

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### Exchangeable Module

- **netJACK**
  - Dimensions: 100 / 51D / 100D / 100DN / 100EN
  - Interfaces:
    - UART or USB
    - Dual-Port-Memory (DPM)
    - USB
  - Other specs:
    - Power consumption: 60 x 50.4 x 19.2 mm (Module)
    - 3.3 V / 300-800 mA
    - Operating temperature: -20 ... +65 °C

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### Embedded PC Card

- **cifX**
  - Dimensions: 90 / 90E
  - Interfaces:
    - PCI or PCI Express
    - Dual-Port-Memory (DPM)
    - USB
  - Other specs:
    - Power consumption: 60 x 45.0 x 9.5 mm
    - 3.3 V / 600-800 mA
    - Operating temperature: -20 ... +70 °C

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**Important Notes:**

- (FB) = Fieldbus
- (RE) = Real-Time-Ethernet
Start Your Communication Solution

1. **Hardware and Surroundings**
   - Interface to the host CPU?
   - Size of the final product?
   - Temperature and Power consumption?
   - Assembling and Mounting?

2. **Software and Functionality**
   - Fieldbus or Real-Time Ethernet?
   - Master or Slave?
   - WebServer?
   - Operating System and Driver?

3. **Level of integration**
   - Own design or standard hardware?
   - Know-how in house?
   - Design complexity and level of integration?
   - Initial costs, cost per unit and volume?

Level of integration & Flexibility
Design Your Own Framework

Loadable Firmware
netRAPID

- Software as loadable Firmware (LFW)
- Support (limited period)
- Simple license contract

More than 4000 customers worldwide trust in Embedded Solutions from Hilscher

Ready-To-Use
netIC / comX / netJACK / cifX

- Loadable Firmware or preloaded Module
- Support
- Product DVD with
  - Firmware
  - Configuration tool
  - Documentation
  - Design Guide
  - Driver
- Comprehensive Accessories

Evaluation Boards

Quick and easy entry into Hilscher's Embedded Solutions thanks to tailored evaluation packages
Possible Applications

**Compact Box PC**
- CFX 90E

**Motion Controller**
- NJ 100EN-RE
- NJ 100EN-DP

**Weighing Technology**
- NIC 50-RE

**Process Controller**
- COMX 100CN-DP
- COMX 100CN-DD

**DCS**
- Autonomous Controller

**Compact Box PC**
- NIFE 3600P2E

**Motion Controller**
- PacDrive LMC 101C

**Weighing Technology**
- Digital weight transmitter with PROFINET I/O

**Process Controller**
- DCS

**DCS**
- Autonomous Controller

"We have chosen netIC because it is a smart and at the same time fast and reliable solution, which saved us plenty of development resources."

"Utilizing Hilscher’s leading-edge Fieldbus technology, NEXCOM prestigious fanless industrial computers give rise to highly reliable advanced SCADA solutions. They can seamlessly integrate most of brand-name control systems in all IP-based smart factories."

"With its consistent PCI Express based API we have been able to extend our motion controller with PROFINET IO, EtherCAT as well as PROFIBUS DP within shortest time. netJACK creates no additional costs in the design and can be mounted directly by our end-user."

"With the easy-to-use Master configurator SYCON.net we have been able to save development time and allowed a fast time to market. Furthermore the identical host interface of both the PROFIBUS and the CANopen module has provided us a big advantage at the STARDOM development."

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