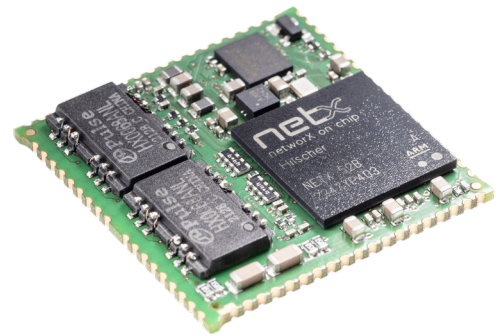


# netRAPID

Ready-to-solder netX-Design in stamp size

- Complete Slave interface  
with smallest footprint
- One hardware for all Real-Time Ethernet slaves
- Firmware-Update via integrated Webserver
- Prototyping or SMD mass production
- Quick access to your netX52 design



## netX Chip-Carrier for Integrated Communication

netRAPID is the rapid and secure alternative to developing your own slave using a communication controller. As stamp-sized netX chip carrier, it is integrated into the customer hardware in the same manner as a QFP part. It is designed for automated SMD series production as well as for rapid prototyping. At the same time netRAPID offers adequate costs per unit as well as reduced risk and fast time-to-market.

netRAPID for Real-Time Ethernet is optimized for minimum space requirements, including magnetics, SQI flash and netX multiprotocol chip.

Its focus is on Real-Time Ethernet communication and the protocol stack will be executed in the internal RAM of the netX.

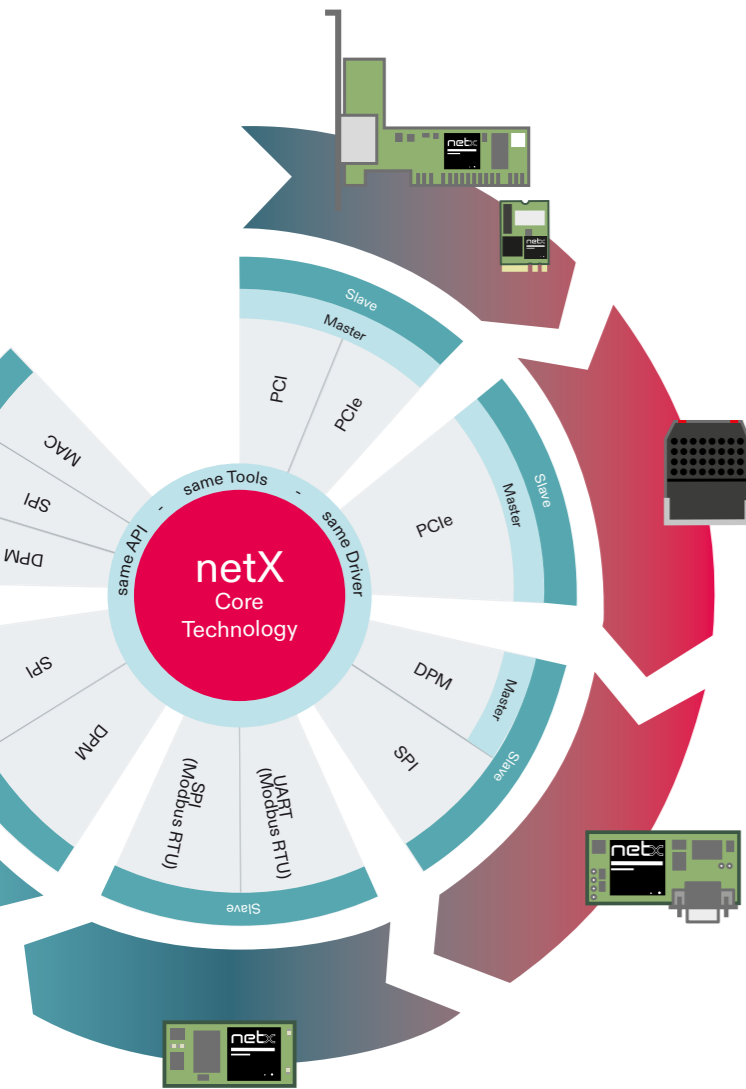
Just add licensed firmware during the manufacturing process to enable full functionality.



→ netRAPID  
Service hotline: +49 (0) 6190 9907-90  
[www.hilscher.com](http://www.hilscher.com)

# netRAPID

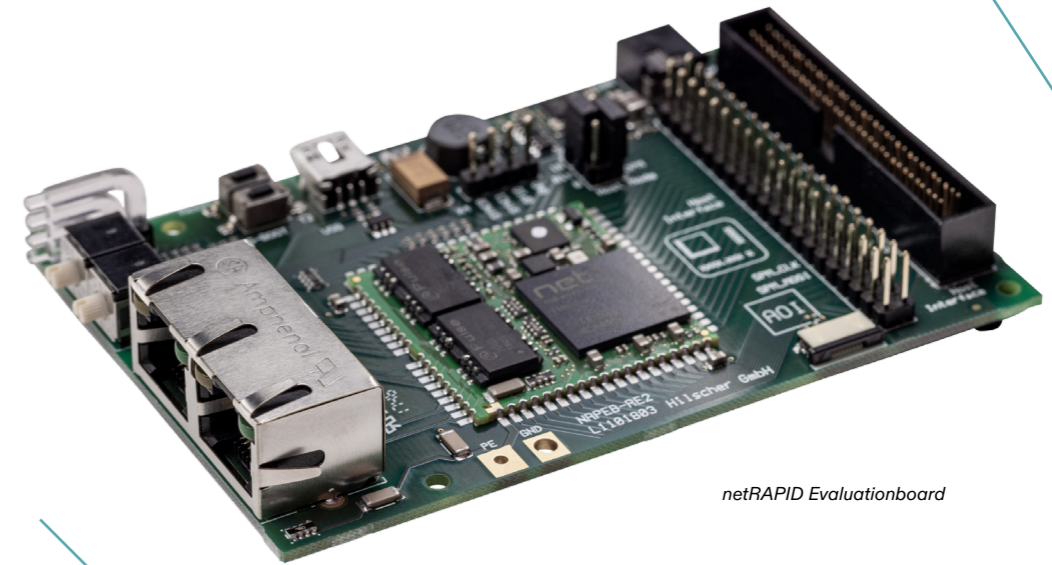
Ready-to-solder netX-Design in stamp size



## Same Function - Same API - Same Tools

The Hilscher Platform Strategy provides the whole range of communication solutions to the user – from standardized PC cards 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 purely hardware optimization process without fundamental changes of the software structure.



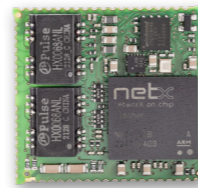
## Rapid prototyping & SMD series production

netRAPID offers a rapid and risk-free entry into netX world. As a ready-to-solder and fully tested netX design you know that it works before you have even started your development. Thus prototypes can be successfully realised within shortest period of time.

Afterwards you use netRAPID right away in your automated SMD production process. The Chip-Carrier will always be delivered in trays and allows a seamless start of your series production.

netX 52 Chip Carrier incl. transformer - Real-Time Ethernet slave

Ready-to-solder netX design in stamp format



netRAPID 52-RE

## Migration path to your netX-Design

netRAPID allows a seamless change to an own netX design at any time. For this migration to a chip solution netRAPID can be fully integrated into the customer design. Means customers can realize the same proven interface, with the same components and thus identical electrical behaviour in their design. A change of the software structure is not needed.

## Real-time communication in stamp size

netRAPID is a top-side mounted circuit board in the compact dimensions of 32x32 mm and will be soldered to the baseboard. As for a QFP part the solder pads are located on the side and enables an easy handling. With its integrated Ethernet transformer and sole usage of the netX internal RAM, netRAPID 52-RE is optimized for minimum footprint. Its focus is purely on Real-Time Ethernet communication.

## Real-Time Ethernet & Fieldbus protocols

As specialist for industrial communication Hilscher offers the largest selection of protocols used in the factory automation. Besides traditional Fieldbus all major Real-Time Ethernet protocols are available.



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# Product Information

## Technical Data

### Technical Data

#### Operating temperature

-20° C ... +70° C

#### Supply voltage

+3,3 V / 330 - 520 mA

#### Dimensions (L x W x H)

32 x 32 x 4 mm

#### Communication Interface

EtherCAT, EtherNet/IP, Modbus TCP, POWERLINK, PROFINET, Sercos, 2x Ethernet 100 BASE-TX

#### Host Interface

8-/16-Bit-Dual-Port-Memory / 50 MHz SPI-Slave

#### Diagnostic Interface

USB Device, UART Rx/D/TxD, alternative SYNC-Signals

#### Certification

CE Sign, RoHS, UKCA

### Technical Data

#### Inputs

- 2x4-Bit coding switch for adress
- 3x4-Bit coding switch for adress/ baud rate

#### Outputs

- SYS-System (RUN/RDY) / Dual-Color-LED yellow/green
- COM-Status 0/1 (COM 0/1) / Dual-Color-LED red/green
- Ethernet-Status Link, Activity (LINK RX/TX)

#### Contacting / Pinout

76 solder contacts 1 mm with 1,5 mm grid

#### Emission

EN 55011

#### Immunity

EN 61000-4-3, DIN EN 61000-4-6, Surge - IEC 61000-4-5, Burst - IEC 61000-4-4, ESD - IEC 61000-4-2

*Note: All technical data may be changed without further notice.*

### Product Overview

<b>NRP 52-RE (TRAY)</b>	7672.100	netRAPID RTE Slave, 24 pieces
<b>NRPEB 52-RE</b>	7600.200	netRAPID RTE Evaluationboard (equipped with NRP 52-RE), incl. 3 pieces NRP 52-RE

Product	CC-Link IE Basic	EtherCAT	EtherNet/IP	ETHERNET POWERLINK	Modbus	PROFINET	sercos the automation bus	DPM	SPI
netRAPID 52 NRP 52	✓	✓	✓	✓	✓	✓	✓	✓	✓
Evaluationboard NRPEB	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ladbare Firmware NRPLFW	✓	✓	✓	✓	✓	✓	✓	N.A.	N.A.



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