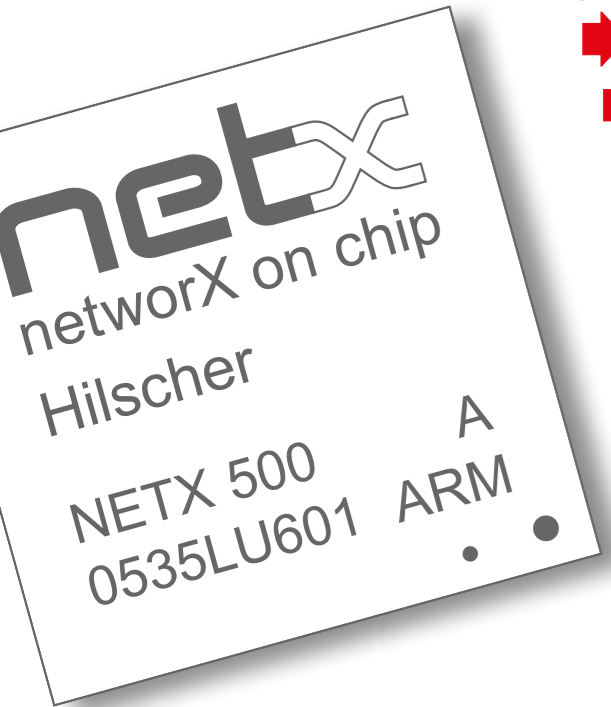net**x**

networX on chip

Hilscher

netX

The future for your communication

netX – networX on chip

The universal communications platform

As slave or master for all Fieldbuses and Real-Time Ethernet systems

Consistent, continuous interfaces across all systems

Open technology for your own applications

One stop shop for hardware and software

Various performance classes for all use cases

High flexibility when selecting the communications system

The netX network controller family is the intelligent solution for implementing all proven Fieldbus and Real-Time Ethernet systems in a minimum of space. The diversity and flexibility of this controller enable you to implement any type of use case needed in factory automation, thereby opening the doors to all industrial automation markets.

Regardless of whether drive controls with high demands on synchronization and very low cycle times, traditional I/O systems for the field or complex controllers with visualization and communication, the different netX controllers available in various performance classes offer the appropriate platform for any case of application.

Independent of how the netX controllers are applied, they sustainably ensure your company's market position and in the long-term, assist you in staying on top of state-of-the-art industrial communication.

netx
networX on chip
Hilscher
NETX 500   A
0535LU601 ARM

netx
networX on chip
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DeviceNet
PROFIBUS
PROFINET
EtherCAT
Modbus
CC-Link
CANopen
EtherNet/IP
sercos
AS-Interface
VARAN
IO-Link
ETHERNET POWERLINK
SmartWire-DT

Your Benefits

Connection to all networks with only one controller

One contact person – One stop

Reduced development effort thanks to consistent interfaces for hardware and software across all systems

Reduced product, storage and administration costs

Space requirements of the interface is reduced to a minimum

Only a single platform for control, communications and visualization

Access to all markets of factory automation

Flexibility in view of future product generations

Select Your Maximum

Controller	netX 6	netX 10	netX 52	netX 50	netX 51	netX 100	netX 500
CPU	xPIC*	ARM 966 / xPIC*	ARM 966 / xPIC*	ARM 966	ARM 966 / xPIC*	ARM 926	ARM 926
RAM / ROM (KByte)	208 / 32	296 / 64	672 / 64	96 / 64	672 / 64	144 / 32	144 / 32
Dual-Port-Memory (bit data bus)	8 / 16 / 32	8 / 16 / 32	8 / 16 / 32	8 / 16 / 32	8 / 16 / 32	8 / 16	8 / 16
External Memory Bus	No	Yes	No	Yes	Yes	Yes	Yes
Communication channels	2	1	2	2	2	3	4
I²C / SPI / SQI	2 / 1 / 1	1 / 1 / 1	2 / 1 / 1	2 / 2 / -	2 / 1 / 1	1 / 1 / -	1 / 1 / -
UART	3	2	3	3	3	3	3
USB (Device / Host)	D / -	D / -	D / -	D / H	D / -	D / H	D / H
IEEE 1588 / PHYs (Quantity)	Yes / Yes (2)	Yes / Yes (1)	Yes / Yes (2)	Yes / Yes (2)	Yes / Yes (2)	Yes / Yes (2)	Yes / Yes (2)
Dimensions (mm) / Housing (Pins)	15 x 15 / PBGA (244)	13 x 13 / FBGA (197)	15 x 15 / PBGA (244)	19 x 19 / PBGA (324)	19 x 19 / PBGA (324)	22 x 22 / PBGA (345)	22 x 22 / PBGA (345)

* Peripheral Interface Controller

Further information simply click boxes
on the right or here: www.net-x.net/en

Your Access to the netX World

1 Select Controller

▶ Fieldbus or Real-Time Ethernet?

▶ Slave or Master?

▶ Which range of functions?

2 Defining the level of Development

▶ netX implementation or netX plug-in module?

▶ Which development platform?

3 Perform Design-In

▶ Integration in the customer's hardware

IO Block

HMI Terminal

PLC

Drive

Barcode Scanner

Typical Applications

Slave Interface
netX 6 / 10 / 50 / 51 / 52

Master Interface
netX 100 / 500

Complete Systems Solutions
(Control + Visualization + Communication)
netX 500

Design Your Own Framework

License Model A
LFW: Loadable Firmware

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

Worldwide, more than 150 renowned device manufacturer use the netX as a basis for the implementation of own communications interfaces

License Model B
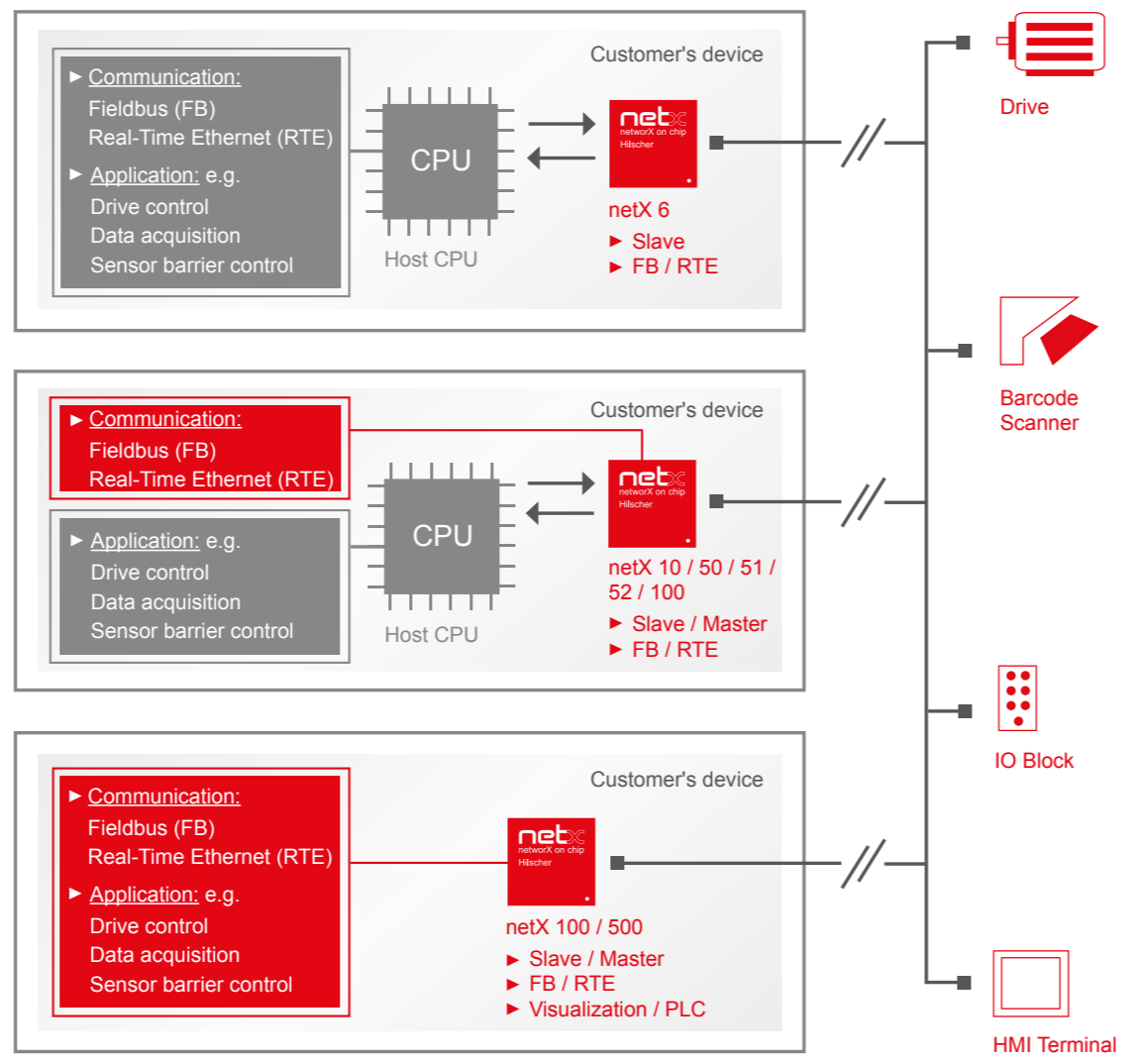### TUA: Technology User Agreement

- Software as a Linkable Object Module (LOM) (linkable object library)
- Support (unlimited)
- Slave software in source code
- ESCROW insurance
- Participation in regular netX Technology Meetings
- Extended license contract (Software and maintenance contract)

Options & Accessories

- Driver library
- Board Support Package
- Configuration software
- Soft PLC and visualization
- Design Guide
- Automated manufacturing tests

Supported Systems

Your Flexibility at a Glance

Application Cases

(A) Communication and Application: Host Controller Network Access: netX

netX 6: Slave

(B) Application: Host Controller Communication and Network Access: netX

netX 10 / 50 / 51 / 52: Slave
netX 100: Slave + Master

(C) Communication, Application and Network Access: netX

netX 100 / 500: Slave + Master

Customer's device

▶ Communication:
  Fieldbus (FB)
  Real-Time Ethernet (RTE)
▶ Application: e.g.
  Drive control
  Data acquisition
  Sensor barrier control

CPU — Host CPU

netX 6
▶ Slave
▶ FB / RTE

Customer's device

▶ Communication:
  Fieldbus (FB)
  Real-Time Ethernet (RTE)
▶ Application: e.g.
  Drive control
  Data acquisition
  Sensor barrier control

CPU — Host CPU

netX 10 / 50 / 51 / 52 / 100
▶ Slave / Master
▶ FB / RTE

Customer's device

▶ Communication:
  Fieldbus (FB)
  Real-Time Ethernet (RTE)
▶ Application: e.g.
  Drive control
  Data acquisition
  Sensor barrier control

netX 100 / 500
▶ Slave / Master
▶ FB / RTE
▶ Visualization / PLC

Drive

Barcode Scanner

IO Block

HMI Terminal

Hilscher's Range of Services	You design - We support	You specify - We develop
Support in selecting the appropriate system (hardware/software)	✓	✓
Providing consultancy and support in selecting the appropriate firmware	✓	⊖
Providing consultancy and support in selecting the appropriate evaluation components	✓	⊖
Trainings and workshops adapted to your application and netX	✓	⊖
Preparation of functional specification documents	⊖	✓
Hardware and software development of interfaces / devices / systems	⊖	✓
Pre certification tests	✓	✓
Providing support during certification procedures	✓	✓
Prototype construction and pilot lot production	⊖	✓
Production services	⊖	✓
Providing support and consultancy during your development phase	✓	⊖
Developer forum www.industrialNETworX.com for exchanging experiences	✓	⊖

✓ = Hilscher Service   ⊖ = Inapplicable

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