I-CUBE-NETX

netX chip interface software expansion for STM32Cube

Data brief

Features

- Generic API for all protocol stacks from Hilscher
- Application examples for PROFINET®, Ethernet/IP™ and EtherCAT®
- Requires a netX companion chip beside the STM32 microcontroller
- Ready to work with netSHIELD expansion board for STM32 Nucleo-64 and Nucleo-144
- Configured for SPI connection between STM32 MCU and netX companion chip
- Can be adapted to parallel interface

Description

The I-CUBE-NETX software expansion contains a middleware API component, called cifX API. It eases access to a netX companion chip for Real-time Ethernet protocols.

The cifX middleware component API is internally based on a generic cifX toolkit.

The netX system-on-chip (SoC) operates as an independent and flexible communication controller, beside the STM32 host microcontroller. Industrial protocols like PROFINET®, EtherCAT®, Ethernet/IP™, POWERLINK, Sercos® III, and many others are supported by different netX firmware binaries, stored in a serial Flash.

Data exchange between the STM32 application MCU and the netX protocol execution controller is performed via a dual port memory. Both chips are physically connected by a serial (SPI) or flexible parallel interface.

This STM32Cube extension features API functions to exchange cyclic process data between the network and the application, as well as acyclic mailbox packets.

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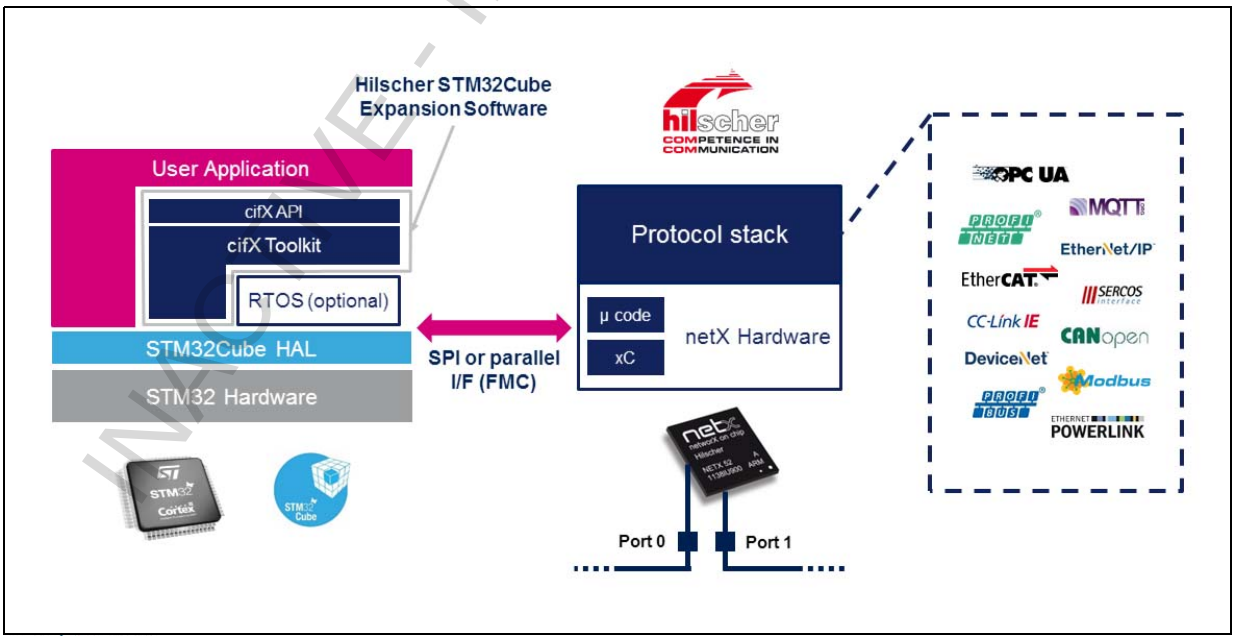

Revision history

Table 1. Document revision history

Date	Revision	Changes
03-Mar-2017	1	Initial release.

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