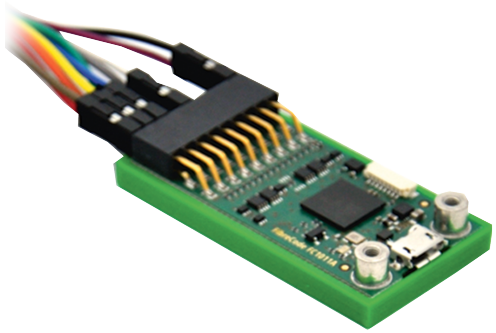
FC401 USB SMI/SPI Adapter



- SMI/SPI Access using Standard Pin-Connector
- USB Micro-B connector
- Phy-Transceiver access using SMI (C22/C45)
- Eth-Switch access using SPI
- Modular Software APIs for all components

Overview

The FC401 USB SMI/SPI Adapter represents a compact hardware module connecting MS-Windows and Linux based host PCs with NXP automotive Ethernet evaluation boards as well as custom boards featuring NXP Automotive Ethernet products and ADI Industrial single-pair Ethernet products.
This adapter provides an USB 2.0 interface and a SMI as well as SPI port. The USB interface is used for connectivity to a MS-Windows or Linux host PC. The SMI and SPI ports are used to realize a connection to Eval-Boards and customer applications where SMI/SPI is accessible via test-points or pins.

Features

Hardware

- High-Speed USB 2.0 device interface
- USB 2.0 Micro-AB connector
- SMI and SPI connectivity via standard 2,54 mm 18-pin header
- SMI Clause-22/Clause-45 on 3-wires
- SPI connections using MISO/MOSI and Clock/VDD_REF

Software/Firmware

- Common C-API and python wrapper
- Software API to access external NXP devices TJA110x/SJA11xx
- Software API to access external ADI devices like ADIN1100 or others
- Python 3.x wrapper and auto-detect included in broadway2-API
- Easy firmware update via USB
- Windows 10, Raspberry Pi and Ubuntu

Applications

- Get direct SMI and SPI access to custom ECU-designs, Evaluation Boards, ...
- Connect SMI to custom designs to setup/control Phy via notebook e.g. test-modes, loopback-modes, ...
- Configure and verify Automotive Ethernet Switches via SPI

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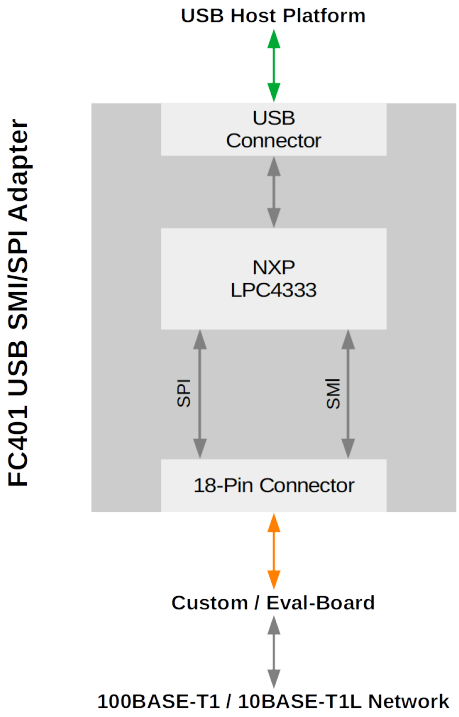
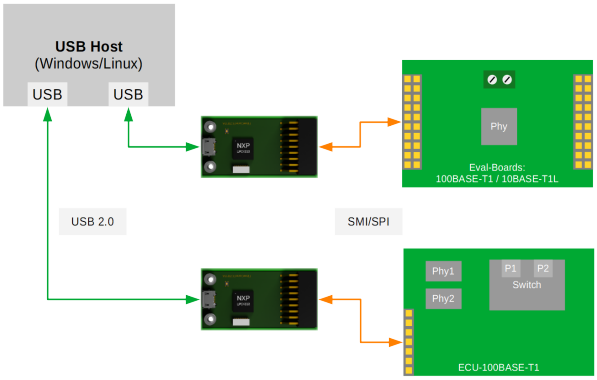
Block Diagram



Typical Application



Technical Data

Dimensions:	52 x 27 x 11 mm
Power Supply:	5 V (USB powered)
Temperature range:	0°C to +85°C
USB Connector:	USB 2.0 Micro-AB Receptacle

Ordering Information

Order Number:	FC401
Product Name:	USB SMI/SPI Adapter
Deliverables:	USB SMI/SPI Adapter incl. 10x colored fly-wires, USB cable (USB 2.0 Type-A to Micro-B, black, 2 m) and green sub-shell

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