

- ▶ 100BASE-T1 (NXP TJA1101)
- ▶ 10BASE-T1L (ADI ADIN1100)
- ▶ 100BASE-TX RJ45 Network connector
- ▶ Standard network device for Windows and Linux

Overview

The FC440 SPE Media Converter is a compact hardware interface that connects a standard 100BASE-TX LAN network with automotive SPE 100BASE-T1 and industrial SPE 10BASE-T1L Ethernet devices and switches.

The FC440 SPE Media Converter features a pre-configured switch that enables seamless Ethernet traffic transmission across all three ports.

The connected PC can use Wireshark to monitor and verify all network traffic on all ports.

Features

Hardware

- ▶ 100BASE-T1 and 10BASE-T1L interface with UTP connector
- ▶ 100BASE-TX interface with RJ45 connector
- ▶ NXP TJA1101 100BASE-T1 PHY
- ▶ Analog Devices ADIN1100 10BASE-T1L PHY
- ▶ 12V Power-Input
- ▶ 4 DIP-Switches to configure Phy-Modes of 100BASE-T1/10BASE-T1L
- ▶ RP2040 controller for internal switch and PHY-Configuration

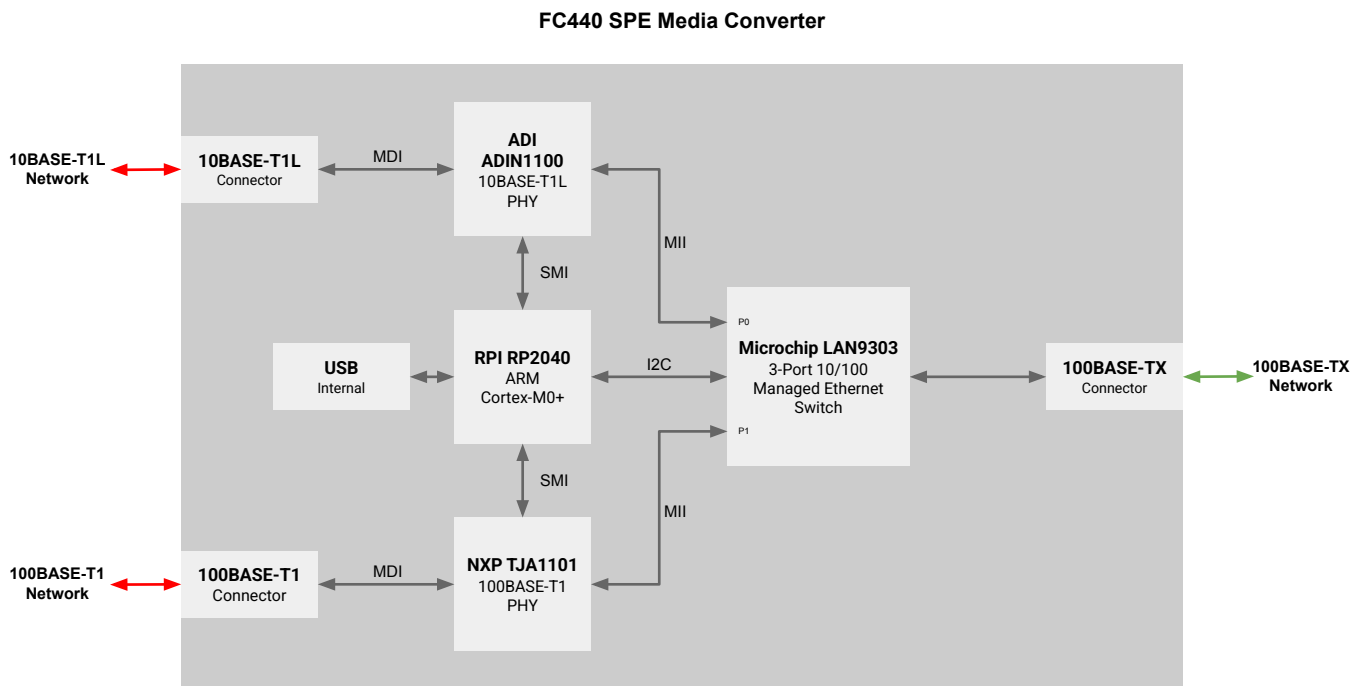
Software

- ▶ Supports all standard network adapters (100BASE-TX RJ45 or USB-LAN-Adapters in case no LAN/RJ45 available)

Applications

- ▶ Media Converter from SPE 10BASE-T1L to LAN 100BASE-TX
- ▶ Media Converter from SPE 100BASE-T1 to LAN 100BASE-TX
- ▶ Extender from SPE 10BASE-T1L to second FC440 via 100BASE-TX point-to-point to achieve 10BASE-T1L with up to 1000 m
- ▶ Extender from SPE 100BASE-T1 to second FC440 via 100BASE-TX point-to-point to achieve 100BASE-T1 with up to 15 m
- ▶ Multi-Port SPE connectors using central LAN 100BASE-TX switch
- ▶ Control 10BASE-T1L devices from PC incl. Wireshark traces
- ▶ Control 100BASE-T1 devices from PC incl. Wireshark traces

Block Diagram



Technical Data

Dimensions:	88.0 x 50.5 x 18 mm
Power Supply:	9..16 V
Temperature range:	0°C to +75°C
100BASE-TX Network Connector:	RJ45 Connector
100BASE-T1 Connector:	Pluggable terminal block (WR-TBL)
10BASE-T1L Connector:	Pluggable terminal block (WR-TBL)

Ordering Information

Order Number:	FC440
Product Name:	SPE Media Converter
Deliverables:	FC440 SPE Media Converter incl. green sub-shell