# SPI Xpress

## Fact sheet




## Overview

**SPI Xpress** is a SPI (Serial Peripheral Interface) exerciser and analyser. It allows communicating with test chips and electronic boards that use SPI for chip-to-chip communications.

**SPI Xpress** operates on standard SPI and many other serial protocol that slightly differ from the standard SPI protocol, including 3-wires interfaces with bi-directional data line, up to 50 Mbps data rate.

**SPI Xpress** is controlled from a PC using a USB 2.0 high speed connection. It is delivered with the **8PI Control Panel / SPI mode of operation** that includes: a graphical user interface (GUI), a TCL/tk scripting interface and a free access to a C/C++ API, enabling the control of the SPI Xpress from custom applications and third party environments.

## SPI Xpress Package

The SPI Xpress package contains:

- SPI Xpress USB 2.0 device
- USB cable mini-B to USB type A (2m)
- 34 coloured flying lead wires
- CD-ROM with 8PI Control Panel software and documentation

## Applications

- EEProm / Flash memory access
- µP / µC / DSP communication
- ADC/DAC control
- Hardware, firmware and BIOS programming
- Debug, analysis and testing of chips and electronic boards
- Chip communication
- Custom 4- and 3- wires protocols access

## Features

- SPI / SPI-like Master / Analyser
- All SPI modes supported
- Up to 5 slaves
- Zero-latency operation between accesses
- Selectable control signals polarity
- Continuous / non-continuous clock generation
- Integrated recorder / player operation
- 3-wires protocol support (bi-directional data bus)
- Selectable SS# edge positioning within clock period
- SPI analyser optional external trigger, up to 6 bits, edge or level
- Up to 32.000 data bit depth / run
- 8PI Control Panel host software:
  - Operating system: Windows® 2000, Windows® XP, Windows® Vista
  - Multi-threaded software
  - Integrated waveform viewer for SPI analyser
  - SPI mode of operation including 3 user interfaces: GUI, TCL/tk, API (C/C++)
  - Use C/C++ function calls to control the SPI Xpress from VB, Python, LabView® and more
- USB interface:
  - USB 2.0 High speed 480 Mbit/s
  - Continuous streaming over USB
  - Mini-B USB receptacle connector
- User interface connector:
  - 34 leads dual row 2.54mm pitch (0.1 inch) standard header
  - SCLK / MOSI / MISO / SS(1:5) signals
  - Operating frequency range: 800 Hz to 50MHz
  - Max. data rate: 50 Mbps
- Selectable I/O voltage from 1.2V to 3.3V
- Anodised aluminium case (WxLxH: 55x80x16 mm)

## Contact

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