



## Overview

**SPI Xpress** is a SPI (Serial Peripheral Interface) exerciser and analyser (SPI host adapter). 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

## Applications

- ▶ EEPROM / Flash memory access
- ▶  $\mu$ P /  $\mu$ C / 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 (SPI host adapter)
- ▶ 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 (SPI4)
- ▶ 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 1.8V to 3.3V
- ▶ Anodised aluminium case (WxLxH: 55x80x16 mm)

## Contact

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