I2C/SPI Activity Board Part Number: **TP240310**

The I2C/SPI Activity Board is a perfect tool for both the expert and novice embedded systems developer.
This board is a great sanity check for the expert developer. Debugging a system against working slave devices can help differentiate between hardware and software bugs. The activity board is also useful to establish a baseline for software usage.
The target devices on the activity board are also a great way for the novice developer to learn the mechanics of the I2C and SPI bus protocols.

Features

- Provides known working I2C and SPI slave devices for testing and debugging purposes
  - I2C Port Expander with configurable I2C address and a full complement of LEDs.
  - I2C EEPROM with configurable I2C address.
  - SPI EEPROM with jumpered Slave Select.
- Allows an easy connection between two Aardvark I2C/SPI Host Adapters.
- Pass-through pins for connecting an external bus monitor or protocol analyzer.

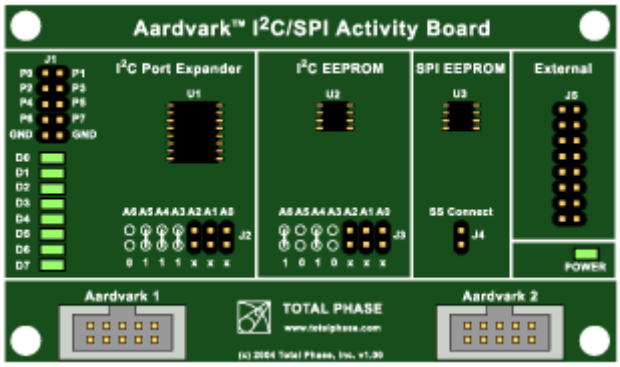

Figure 1: I2C/SPI Activity Board

Targets

- **I2C Port Expander**
  PCA9554AD 8-bit I2C and SMBus I/O port with interrupt (NXP Semiconductors)
- **I2C EEPROM**
  AT24C02 256 Bytes / 2 Kilobit (8 byte pages) 2-Wire Bus Serial EEPROM (Atmel)
- **SPI EEPROM**
  AT25080A 1 Kilobyte / 8 Kilobit (32 byte pages) SPI Bus Serial EEPROM, High Speed, supports SPI Mode 0 and 3 (Atmel)

Example Code

Example code for the I2C/SPI Activity Board is available in the Aardvark Software API and Shared Library package in the Downloads section of www.totalphase.com
Examples are available in C, Visual Basic, Python, and Aardvark XML batch script code. README.txt files are included in the package to explain each of the examples.

DISTRIBUTOR