Overview

The XJLink-PF40 is a portable and robust USB-C to JTAG controller that provides a high-speed JTAG interface to your device under test. The four ports provide 40 I/O pins and allow you to run eight separate JTAG chains at different frequencies.

The compact design means the XJLink-PF40 can easily be moved to the Unit Under Test (UUT), while a number of advanced features make it easy to connect to a wide range of circuit boards.

Your test system where you want it

The XJLink contains the licence for your XJTAG system. This allows you to easily move your licences around on and off site to give you maximum flexibility. This also means you aren't tied to one PC to do your XJTAG testing.

Robust & portable

The XJLink-PF40 can work with any laptop or desktop PC with a USB port which, combined with its small size, allows for easy testing in the field or in a busy lab. The extruded aluminium housing provides both protection against physical damage and easy attachment points to mount the unit inside industrial test systems using mounting hardware available from XJTAG.

Electrical robustness is included as all pins are hardened against input voltages between ±30 V, giving protection against shorts to power nets, reverse polarity protection and ensuring that a faulty UUT or connection won't damage the test system.

Configurable JTAG interface

Because there is no industry-standard JTAG header or pin-out, the JTAG connectors on the XJLink-PF40 are configurable in software to allow you to select the pin-out that best suits the board being tested.

Each connector has the bottom row of pins connected to ground to help ensure high frequency signal integrity across longer ribbon cables, and the JTAG signals for up to eight chains can be distributed across the other 40 pins as needed, with any spare pins assignable as digital I/O.

Advanced connectivity

With XJTAG, each chain can run at a different frequency, whilst still synchronising the tests, helping to prevent slower chains from restricting faster ones. Coupled with this, the advanced auto-skew control enables you to get the maximum frequency out of each of the JTAG chains and the connecting cable. Finally, the configurable voltage levels allow you to connect directly to most TAPs.

Key Benefits

- Compact, portable design: ideal for lab and field work
- Electrically and physically robust
- 8 JTAG TAPs with configurable frequency per TAP
- Self-contained licence allowing you to use the XJTAG system on multiple machines
- Unit can be used for many different models of UUT, allowing for cost savings

Features

- 40 user-definable I/O connections can be used for:
  - Up to 8 TAP connections to UUT
  - General purpose I/O during testing
  - Fast Flash programming
  - Triggering a test
  - Outputting test status
- Configurable JTAG connector pin-out to suit any UUT
- Four different individually programmable I/O voltages can be configured, from 1.2 V to 3.3 V in 0.1 V steps
- Protection against voltage input from −30 to +30 V
- Visual indication of test status
- USB bus-powered (no external PSU)
- USB 2.0 interface with screw locking type C connector
- Automatic signal skew control
- Built in voltmeter on all I/O pins Measurable voltage input: Min 0, Max 3.3 V
- TCK clock frequencies up to 166 MHz Different frequencies for different chains
- Frequency counter on all I/O pins Frequency input: Min 1 Hz, Max 200 MHz Selectable measurement period of 1 ms, 10 ms, 100 ms, 1 s, 10 s
- Robust aluminium casing
- Easy mounting options