Overview

XJExtender is XJTAG's recommended solution to overcome signal integrity issues when connecting an XJLink or XJLink2 JTAG controller to a remote Device Under Test (DUT). By using differential signalling, XJExtender allows you to work with a DUT up to 10 meters from the XJLink, even in electrically noisy environments.

Extending performance

Poor signal integrity between an XJLink controller and DUT may force you to reduce TCK frequencies, or even stop you running tests.

The high levels of electrical noise that often exist in test environments can cause signal integrity problems when running JTAG tests; problems that can be made worse if a DUT has to be placed away from the XJLink, in a fixture or an environmental chamber.

XJExtender overcomes these issues by supporting cables up to 10 metres long without compromising signal integrity.
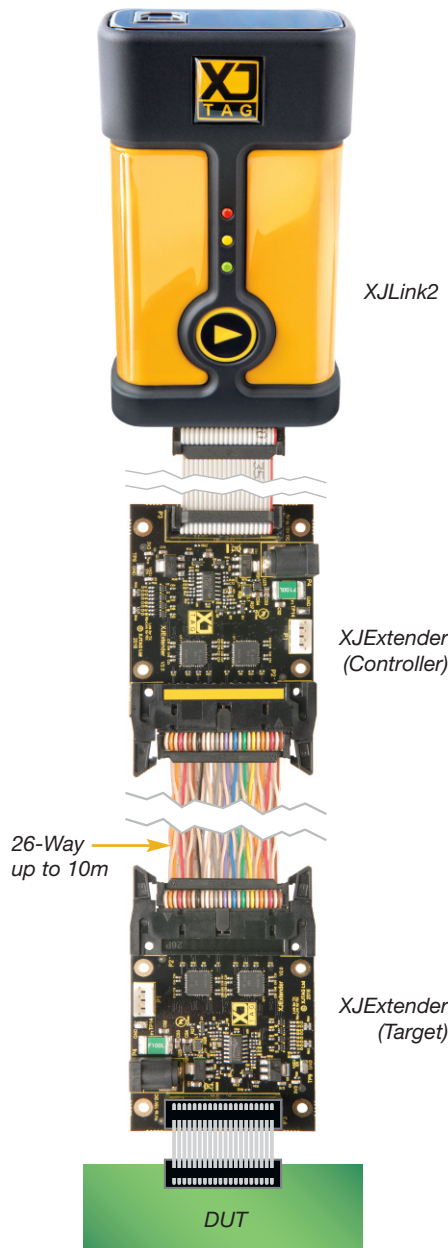
Flexible configuration

XJExtender comprises a Controller unit connected directly to an XJLink controller, and a Target unit connected to the DUT. Target units can be purchased separately to support workflows that require Target units to be permanently located within test fixtures.

Each unit offers 8 channels with a default configuration of 6 downlink (Controller to Target) and 2 uplink (Target to Controller). This can be reconfigured using on-board solder links to any combination of uplink/downlink channels.

Extending signal integrity

Using the Low Voltage Differential Signaling (LVDS) standard as the physical layer between the Controller and Target, XJExtender allows high speed communications over flat or twisted-pair ribbon cables.

As each channel uses differential signalling, the cable generates low levels of Electromagnetic Radiation (EMR); important when testing sensitive electronic assemblies. It also exhibits very high immunity to Electromagnetic Interference (EMI), which enables the use of longer cables without loss of signal integrity.

XJLink2

XJExtender (Controller)

26-Way up to 10m

XJExtender (Target)

DUT

Key Benefits

- Reliably extends the distance between XJLink/XJLink2 Controller and DUT
- Allows DUT testing in larger installations or environmental chambers
- Provides superior EMI immunity to preserve signal integrity
- Improves the overall performance of test systems
- Can be used with other XJTAG hardware including XJIsolator and XJXDP

Features

- Standard 26-way IDC connectors support cost-effective ribbon cable for board-to-board connection (twisted-pair ribbon cable recommended for best performance)
- TCK clock frequencies up to 50 MHz
- Flexible power supply voltage: 5 V to 15 V (2 required, not included)
- Variable I/O voltage from 1.8 V to 3.3 V (when used with XJLink2)
- Provides 8 channels configurable as uplink or downlink (default configuration: 6 downlink/2 uplink)
- Controller unit plugs directly into XJLink2 though standard 20-way IDC interface
- Target unit connects directly to DUT using standard 20-way IDC socket

Extended temperature range

The XJExtender units support an extended temperature range of -40 °C to +85 °C. This makes XJExtender the ideal solution for testing a DUT in an environmental chamber.

Order codes

Controller + Target pair: XJTAG-XEX-0010
XJExtender Controller: XJTAG-ETX-0010
XJExtender Target: XJTAG-ERX-0010
Contact your local distributor for prices.