



unleash the  
**power** of **XJTAG**



“You have done in 5 days what it took  
the VHDL group a few months to test”

Apply today for your 30-day **FREE** trial

Boundary scan solution for debugging complex digital circuit boards

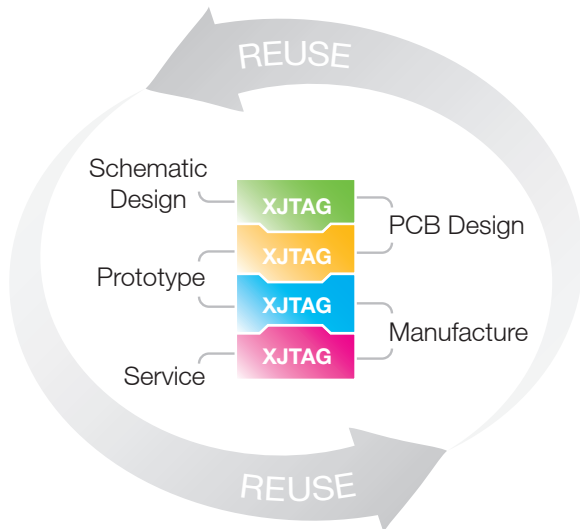


# Unleash the Power of XJTAG...

Locating hardware faults in dense, multi-layer boards can be expensive, time consuming and unreliable.

XJTAG allows you to drastically shorten turnaround time and reduce costs during new product introduction and prototype verification.

Easily transfer tests to manufacture, reuse them in service and for future products.



*Create your own reusable IP Test Library*

## What is XJTAG?

XJTAG is a boundary scan solution for controlling devices from the inside, using a simple 4-wire interface to the board. It is particularly useful for device packages such as BGA, where the individual balls are inaccessible to conventional probes.

Boundary scan (or JTAG) has existed for over a decade and is already implemented in most FPGAs, CPLDs, DSPs,  $\mu$ Ps, etc. However, its potential as a testing and programming tool is only just beginning to be fully realised.

Connection testing and In System Programming (ISP) are the two applications most commonly associated with boundary scan. However the technology has far more to offer, thanks to XJTAG.

If you design, manufacture or support electronic circuits, XJTAG can provide you with a competitive advantage. Contact XJTAG today to find out more.

## Design

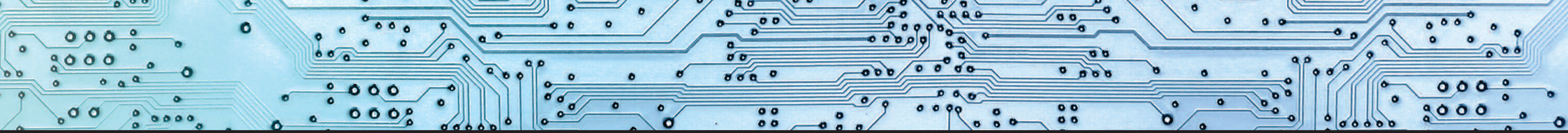
Starting from the very beginning of the design process, XJTAG can help you to improve your designs and reduce re-spins.

Learn how to integrate XJTAG into your designs, using our design-for-test (DFT) guidelines. Refine your design using XJTAG's analysis utilities, giving you superior test coverage when your design moves into prototyping, manufacturing and service.

XJTAG can handle circuit changes automatically as your design develops.

With our DFT report, you can verify that your design has all the access needed to allow the maximum test coverage — for the JTAG devices in your design and through them to the non-JTAG devices as well.

[www.xjtag.com](http://www.xjtag.com)



## Prototype

Have confidence in your prototype boards with XJTAG.

Once you have enough components fitted to create a JTAG chain, you can quickly use the XJTAG Chain Debugger to verify its integrity.

Interact with your board in real time with a graphical view of your JTAG devices.

Re-use your files from the design phase to test the board more thoroughly, including the built-in advanced connection test.

Add in more tests as you build up your board, letting XJTAG instantly adapt to your changes.

## Manufacture

When your board goes into manufacture, you'll be pleased with the advantages that XJTAG can give you.

Accessibility problems with fine-pitch or BGA devices? You can now move on from inconclusive X-ray inspections and can test that the devices are free from opens and shorts.

Via the JTAG test access port (TAP), you can program not only the JTAG devices on the board, but Flash memory and configuration ROMs as well.

Need to track down intermittent faults? With XJTAG you can repeatedly loop tests until the failure occurs.

Your licence is held in the compact XJLink (USB-JTAG connector), allowing you to move from PC to laptop with ease.

## Service

Whether you're servicing boards on-site or back at base, XJTAG can help you trace the fault quickly and verify the integrity of your repair.

With just a laptop and the XJLink, you'll have all the power of a full testing and programming environment wherever you go.

Upgrading firmware is easy with XJTAG's range of in-system programming techniques for both JTAG devices (e.g. CPLDs, FPGAs) and non-JTAG devices (e.g. Flash).

You can run the full set of interconnect and functional tests developed for the system, along with XJTAG's visualisation and control of pin states.

- Reduce your time & cost of board development and manufacturing test
- Create your own reusable test library and preserve your test IP
- Regain visibility of BGA interconnects hidden under the component
- Debug and test complex PCBs using our 'out-of-the-box' boundary scan solution



# Why are market-leading companies choosing XJTAG?

“XJTAG has reduced the amount of time required to bring new boards to market, due to the ability to re-use existing device-centric tests.”

ARM Development Manager – Hardware Platforms

“XJTAG provides the speed and accuracy of diagnosis that we need when testing complex, densely populated boards with multiple BGAs and limited test points.”

Chris Merricks, Test Development Engineer, SMS Electronics

“Using the XJTAG system, we can now isolate a faulty device immediately and rework or reflow the failed component to rectify the problem. This saves us time and increases our yields.”

Simon Naylor, Manufacturing Director, Briton EMS

“Using XJTAG we can now test and debug our boards in days as opposed to weeks and we don't need dedicated people.”

Alistair Massarella, co-founder and Head of Product Integration  
Cambridge Broadband

“XJTAG has exceeded our expectations. Its unparalleled speed, accuracy and ease-of-use have enabled us to shave days, if not weeks, off the development phase.”

Jonathan Healy, Design Engineer, TTPCom

“XJTAG is a fast, extremely versatile and cost-effective tool for generating high test coverage on PCBs containing both JTAG and non-JTAG devices.”

Simon Holder, Hardware Design Manager, Thales UK

Apply now for your  
FREE board setup &  
FREE 30-day trial

[www.xjtag.com](http://www.xjtag.com)

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## company background

XJTAG is a leading supplier of IEEE Std. 1149.1 compliant boundary scan development tools. Its JTAG (Joint Test Action Group) development system offers a highly competitive solution for designers and developers of electronic circuits. Utilising XJTAG allows the circuit development and prototyping process to be shortened significantly by facilitating early test development, early design validation, fast development of functional tests and test re-use across circuits that use the same devices. XJTAG is based in Cambridge, UK, and is part of the Cambridge Technology Group.