

# XJInvestigator

# Overview

XJInvestigator allows you to diagnose manufacturing problems. Combining the test capabilities of XJRunner and XJAnalyser with additional diagnostic functionality, XJInvestigator is the boundary scan tool to use at your repair or rework station.

# Simple, powerful and flexible diagnostic testing

XJInvestigator extracts all the information required to test and debug your boards from the same encrypted XJPack file that is used by XJRunner. To ensure consistency in the testing process the predefined test functions cannot be modified however XJInvestigator offers the extra flexibility and configuration options needed to help you to track down faults.

When a problem has been identified with a board you can select individual tests, sets of tests or additional functions not included in production testing to run. The tests can also be run continuously to help diagnose particularly tricky or intermittent problems.

#### Layout & Schematic Viewers

By showing both the physical and logical organisation of a board, the Layout Viewer and Schematic Viewer\* can be used to help understand and locate faults.

\* The viewers are only available if you opt to include the required information in the XJPack file.

### Direct control of JTAG devices

Simple ad-hoc tests can be implemented very quickly by using the JTAG-enabled devices on your board to control and monitor signals, even on BGAs. On the Analyser screen, pin values can be driven high or low or to be set to toggle simply by clicking on the pins in the graphic. The values of pins read from the board are shown in a simple colour-coded display.



# Find problems with your JTAG Chain

If the production line tests cannot be run on a board due to problems with the JTAG chain then the built in Chain Debugger helps you quickly identify and fix faults so that the board can be re-tested.

## Flexible interface

By keeping the test results visible while you are using Analyser and the other debugging features such as the Layout and Schematic viewers, XJInvestigator's user interface helps further streamline and simplify the debugging process.

## **Key Benefits**

- Increase production yields repair boards that would otherwise become waste
- Reduce board debug time work from a single integrated environment
- Retain control on how boards are tested
- Reduce training costs

   intuitive, user-friendly interface.

#### **Features**

- Repair-focused environment for XJDeveloper / XJRunner tests
- Full Connection test
- RAM, flash and other non-JTAG device tests
- Flash, FPGA, CPLD and EEPROM programming
- Layout Viewer\* to show the physical location of faulty nets, pins and components.
- Schematic Viewer\* to show the circuit design around faults
- Direct control of the pins/balls of JTAG devices
- Trace signals to identify shorts, opens and other faults

## Pin Watch

You can put pins into a watch window allowing you to easily establish the relationships between them, even when they are from different JTAG devices. You can also build groups of pins into busses and then write values to the busses and monitor their values for more efficient testing.

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