Factsheet

JTAG TECHNOLOGIES SYMPHONY FOR TERADYNE TESTSTATION™

Universal boundary-scan upgrade for TestStation in Circuit Testers

Teradyne Symphony Highlights

- Integration solution for Teradyne In-Circuit Testers
- Easy retrofit to existing fixtures and programs
- Integrete boundary-scan hardware direct in the system
- Simple test program generation using JTAG ProVision™
- Utilise existing Teradyne TestStation hardware (DSM card) - no need for additional equipment
- High-speed JTAG controller option using JTAG Technologies JT 37x7 DataBlaster family
- Familiar Teradyne user interface includes test diagnostics
- Increases test coverage while reducing adapter costs

The total solution approach

The Symphony series of tester integration solutions offered by JTAG Technologies make it possible for engineers to get the most out of their existing ICT/FTP systems, even as technologies and device packaging change. Adding JTAG/boundary-scan to these systems provides increased error coverage and improved diagnostics, and additional device programming options while reducing costs for highly complex designs.

Using the DSM card

For Teradyne TestStation and legacy 228x systems there are two possibilities to add a JTAG Technologies solution. One option uses Teradyne's own DSM (Deep Serial Memory) card as the JTAG interface (TAP controller) allowing boundary-scan capabilities onto the 228x and TestStation systems.
Users that already have this option card can add the boundary-scan capabilities by simply adding software. This integration option not only allows the user to execute boundary-scan tests, but also allows these tests to be combined with the test pins/nails of the Teradyne system. This method offers a 'best of both worlds' solution, optimizing fault coverage at a minimal cost.

Using the JT 2147/CFM

Supported Systems:
ICT: GR228x and TS12x

Overview Symphony Teradyne Package:
Hardware
- JTAG Controller (depending on the requirements), or
- Teradyne Deep Serial Memory (DSM) card
Software
- JTAG Technologies test execution software for JT 37xx boundary-scan controllers, or
- JTAG Technologies software for compiling boundary-scan tests into Teradyne System format
- Boundary-scan diagnostics for error analysis at pin level and transfer to the ICT/FTP system.
- Inclusion of the JTAG error/status notifications using Teradyne software.
- Permanent node locked License incl. Sentinel USB Key

Please request the Teradyne system requirements with indication of the serial number.

The alternative option utilises a high-performance JTAG Technologies 'DataBlaster' boundary-scan controller that is embedded into the Teradyne system. This unit can be used with a generic JT 2147 'QuadPod' interface or the dedicated JT 2147/CFM in Teradyne's custom function module pod format, allowing an even more streamlined integration. The JT 2147/CFM fits

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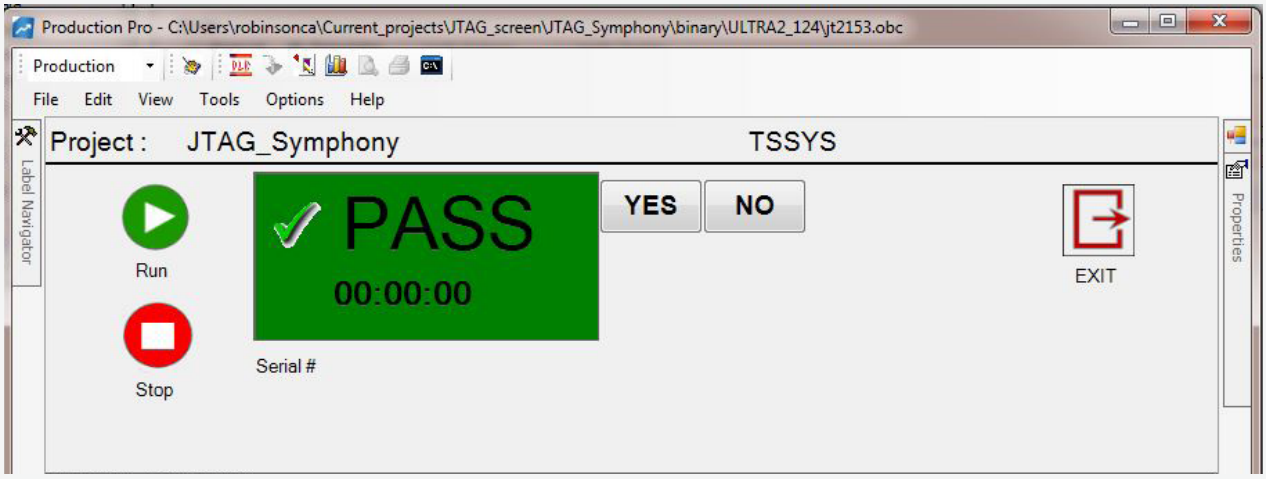
onto the Teradyne Custom Function Board (CFB) to allow the most direct signal path from the boundary-scan controller to the fixture. Each JT 2147/CFM supports one TAP and a total four JT 2147/CFM cards can be fitted in the Teradyne ICT system. While this option does not allow combined tests with ICT pins it does benefit from high-speed programming capabilities for flash memories, serial PROMs etc.. due to its advanced architecture plus the capability to support interfaces other than JTAG (IEEE 1149.1) such as SWD

Data exchange during test generation

When developing test patterns and programs for a board that connects to the ICT through a fixture, it is necessary to know which tester resources connect to what test points on the board. This information is known within the Teradyne software as the Nail Assignment Report (NAR). The NAR data can now be used by JTAG's ProVision developer tool to automatically generate a series of tests incorporating the tester IO pins including scan path infrastructure, net interconnect, logic-, cluster- and memory connection. This enables fast and simple test program implementation even for mixed signal architectures where the resources of both systems are required.
Following debug, the test and programming routines are integrated in Teradyne run-time software, allowing boundary-scan diagnostics to be fully implemented in the final test reports.

Teradyne GUI



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