

PRODUCT
BRIEF

ScanWorks® Remote Instrumentation Controller - 1400 (RIC-1400)

Key Benefits:

- Deployment Convenience
- No Host PC modifications required
- Multi-user hardware access - increased resource utilization
- Fast programming of large MB images
- Reduced complexity and cost for SPI programming
- Increased manufacturing throughput with parallel test

Key Features:

- One TAP and ten software controllable bi-directional signals
- Expanded internal memory to 4GB
- Increased TCK frequency up to 80 MHz
- Configurable UUT logic levels from 0.8V to 3.3V
- Choice of host interface
- Ethernet – 10/100/1000 Mbps; IP address assigned by user
- USB 3.0 – Low/Full/Hi/SuperSpeed (up to 5 Gbps)
- Supports ASSET's Dispatcher® Parallel Test Platform

Overview

The new Remote Instrumentation Controller-1400 (RIC-1400) provides an extremely flexible interface for communication between your ScanWorks® platform and your unit under test (UUT). The RIC-1400 is an upgrade and a direct replacement for ASSET's RIC-1000. The RIC-1400 connects to your network through an Ethernet connection and has a configurable IP address of your choice.

This Ethernet connection could be to a Local Area Network (LAN) or Wide Area Network (WAN). A supplied Unit Under Test (UUT) cable connects the RIC-1400 to the UUT. With the proper network connections and permissions, you can sit at your desk and control operations on a UUT anywhere in the world.

The RIC-1400 can also connect directly to a ScanWorks PC via an Ethernet peer-to-peer configuration that does not access your network. Alternatively, ScanWorks supports connecting the RIC-1400 to the host PC by USB 3.0 interface.

Expanded Internal Memory

The RIC-1400 features an expanded internal memory, with a 16-fold increase from 256MB to 4GB over the RIC-1000. The RIC-1400's expanded memory allows fast processor operations to occur, and the RIC-1400 can hold large image files for use with ScanWorks programming actions.

Faster Test Clock

The maximum Test Clock (TCK) frequency of the RIC-1400 has also been increased, and now has a sustained TCK frequency of up to 80MHz. Increasing TCK reduces Boundary-Scan test and programming time. Combined with the expanded internal memory, these enhancements provide the RIC-1400 significant advantages over the RIC-1000 for testing large designs and programming large images.



Figure 1. RIC-1400 Host Connections

SPI Direct Programming Interface

The RIC-1400 supports a new ScanWorks action type, the SPI (Serial Peripheral Interface) Direct programming action. This ScanWorks action allows for fast programming of an image file into an SPI memory device on a UUT that has external signal access. Improved programming times may be realized by using the SPI Direct action versus programming SPI memory devices through the boundary-scan chain.



Figure 2. RIC-1400 UUT Connections

Parallel Test and Programming

ASSET's RIC technology, together with Dispatcher, enables up to 128 UUTs to be tested and programmed independently and individually. At test completion, each UUT result is diagnosed individually.

RIC-1400 Options

ScanWorks supports connecting the RIC-1400 directly to a ScanWorks PC by USB 3.0 interface, enhancing the host interface flexibility of this powerful controller. Personality pods and cables will also be made available to enable RIC-1400 compatibility with Intel® and other processor families.

ScanWorks Platform for Embedded Instruments

ScanWorks Platform for Embedded Instruments is a seamless software environment to access, run and collect data from any instrument in your chips, circuit boards or systems. The ScanWorks Platform includes products for Boundary-Scan Test (BST), Processor-Controlled Test (PCT), FPGA-based Fast Programming (FFP), FPGA-Controlled Test (FCT), and Processor-based Functional Test (PFx).

ASSET Contacts:

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