JT 2127/DMU High-density, High-pin-count DIOS

Compact multi-channel digital I/O scan module for extended JTAG testing

Key features:

- High-density IO module for connector & DIMM Socket testing
- JT 2127/DMU (Digital Master Unit) features 340 DIOS channels
- Measures power rails and tests continuity between sockets, connectors, test pads and PCBA
- Easy connection to UUT via ribbon cables or custom adapters
- Compact size fits easily into test fixtures
- Low cost per channel

Introduction
The JT 2127/DMU is part of a new family of high channel density test adapters designed for the testing of IO points (including a variety of PCB-mounted DIMM & SODIMM sockets) using a JTAG/boundary-scan controller and supporting software.

Extending test coverage
A proven method to extend the test coverage of JTAG/ boundary-scan test systems is to deploy auxiliary IO that is also controlled via JTAG/boundary-scan and can be synchronised to the activity of the target UUT (Unit Under Test). Typically such IO systems, often referred to as DIOS (Digital IO Scan), have only been available in 64 or 128 channel blocks. The new JT 2127/DMU however provides a massive 340 digital channels plus 32 analog measurement channels in a unit measuring just 150 x 70 x 30 mm.

Analog Measurements
The JT 2127/DMU system is equipped with a large number of analog measurement channels grouped in the following ranges - 22 channels for 0-4V, 6 channels for 0-8V and 4 channels of 0-16V.

Build Extended Systems
The JT 2127/DMU features two TAP connections ‘In’ and ‘Out’. For single module applications, where only the JT 2127/DMU is connected to a JTAG controller, TAP ‘In’ only is used and the TDO line is returned to the controller. For applications where more than one module is needed or the user wishes to ‘daisy-chain’ the module with the UUT the TAP ‘Out’ can be used. Connecting a cable to TAP ‘Out’ automatically re-routes the TDO line accordingly.

DMU for DIMM Socket Testing - see next page.

Ordering Information
JT 2147/DMU: Digital IO Master Unit

We are boundary-scan.®
DIMM Sockets
As well as bench-top and fixture embedded IO applications the JT2127/DMU can be used to address the problem of testing memory sockets. This has always been troublesome for test and production engineers using JTAG/boundary-scan systems. Even when it is possible to create memory writes/reads from a boundary-scan compliant access device on the UUT (Unit Under Test), the initialisation process may fail leaving you with little diagnostic information. What’s more it can still be uncertain whether fault lays with the DIMM module itself or the socket. Using the new JT2127 Flex system from JTAG Technologies you get pin-point diagnostics from a known-good test interface so you can be certain if your socket is soldered correctly. For more details check out the brochure on JT 2127/Flex.

Software
The unit is fully supported by JTAG Technologies application development tools [ProVision and JTAG Live] and run-time software options such as PIP/LV [drivers for NI LabView], PIP/TS [drivers for TestStand], etc.

Representative set-up

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