

TriMedia/Nexperia JTAG

FOR SOFTWARE DEVELOPMENT AND DEBUG OF EMBEDDED TRIMEDIA/
NEXPERIA BASED HARDWARE

The MDS TriMedia/Nexperia JTAG interface card is designed to assist in debugging hardware based on the Philips Nexperia (TriMedia) family of processors. It provides the interface between a PC running the Nexperia debugger software and hardware such as MDS' DVE-2 embedded networked development board or a user's own hardware design.

The JTAG card supports source level debugging over the JTAG port which is built into every TriMedia family member.

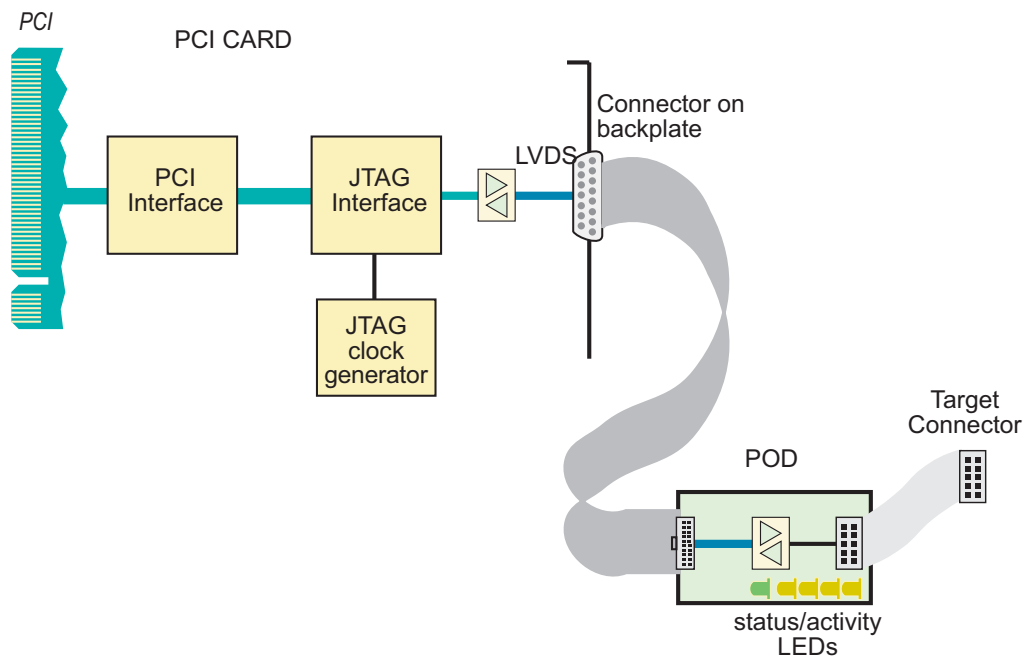
The TM-JTAG card is installed in the PCI bus of a PC. LVDS buffers are used between the PC and a small pod to improve signal fidelity and allow for up to a 2 meter cable. The pod converts the LVDS signals to 3.3V logic compatible signals and is connected to a Nexperia JTAG port over four signal lines.

The pod includes a power and activity LEDs to verify correct operation.

The source level debugger software runs on the PC, communicating with the JTAG interface hardware through a device driver. The TriMedia target system runs a debug monitor which monitors and responds to activity over the JTAG interface.

Features:

- easy to install
- uses standard Nexperia debugger software
- supports source level debugging
- fast downloading
- LVDS buffers for signal integrity
- 15 MHz TCK clock frequency with ability for other clock rates



Nexperia JTAG: source level debugging of embedded Nexperia systems

Ordering information *(order code is in Italics)*

Note that the TM-JTAG-PCI and NDK is included in some MDS product bundles.

TM-JTAG-PCI: PCI TriMedia/Nexperia JTAG hardware.

- PCI card
- Diagnostic software and manual on CD
- Cables: PCI card to pod, pod to target (keyed), pod to target (unkeyed)
- Pod
- 90 day getting started support

NDK: Philips Nexperia Development Kit

- Compiler, linker, assembler
- Debugger
- Core libraries
- pSOS
- Utilities and examples

TM-JTAG-PCI-STD 90 Day Startup Support (inc. with TM-JTAG-PCI)

- Help with installation of hardware/software.
- Problems in installation.
- How to use/run hardware or software that comes with the NDK.

Please see the MDS website for a copy of the Support data sheet, which has full details.

Related items

Please visit <http://www.mds.com> for more information on these and other software products to speed your design to market.

The screenshot shows the tmdbg debugger interface. The main window displays the source code for `2tonegen.c`. The code includes a main function that prints a banner, sets DP buffer size, and invokes `checkArgcv`. The console window at the bottom shows the following output:

```
downloading program ...
preparing downloadable memory image... done
sent load addr: 0x840
sent code size: 0x4c3a4
elapsed seconds: 1
bytes: 312228
microseconds per byte: 3.202788
target started, waiting for it to initialize ...
done.
stopped at addr: 0x00007900, line 124, main() in "2tonegen.c"
$ 124* int
tmdbg>
```

The status bar at the bottom indicates the current position is line 129, column 53.

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Nexperia/TriMedia Data Sheet rev 1a Sep 02 PRELIMINARY

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