Gigabit TAP for the Suite of CodeWarrior Development Tools

Enhanced debugging

Overview

The Gigabit TAP enables Freescale target system debugging via a standard debug port, such as JTAG, while connecting to a developer's workstation via Ethernet, and is designed to work in conjunction with Freescale processors and our suite of CodeWarrior development tools*. Using the Gigabit TAP, developers can debug systems remotely or more effectively share a single system with multiple developers. The Freescale Gigabit TAP is a useful debug tool in all phases of the project, but it is absolutely necessary prior to having a fully debugged operating system running.

The Freescale Gigabit TAP is integrated with the CodeWarrior Development System and offers up to 2.5x faster downloads than the USB TAP

System Requirements

- 10/100/1000 Base-T Ethernet on host computer
- External power supply requires standard wall socket power input

Features

- Supports all available core speeds and voltages for supported Freescale processors*
- Supports debugging via JTAG interface
- Automatically supports system voltage levels from 1.2V to 3.3V
- In conjunction with the CodeWarrior development system, the Gigabit TAP:
  - Programs system flash memory during debug and development phases of the project, including most popular flash memories, but specifically all flash memories used with Freescale development systems



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- Controls the target development system even when the system may have crashed during development
- Offers complete system visibility and control, including:
  - Reading/writing of CPU registers
  - Memory mapped registers
  - Block reading/writing of memories
  - Single step debugging
  - Setting software and hardware breakpoints
  - Monitoring target system status
- Gives control over the target system execution including control of one or all cores, and resets

- Expansion capability allows for the eventual addition of a high-performance daughter card to enable non-obtrusive real-time tracing (when available, this will be detailed in a separate data sheet)
- Gigabit TAP probe can connect to a target system's serial port and allow telnet access to that port. This allows convenient access to a remotely located system via the Gigabit TAP Ethernet connection. This allows for remote control of the u-boot program.

* Visit **freescale.com/GigabitTAP** for the most current information regarding what Freescale parts are compatible with the Gigabit TAP.

Benefits

- First debug probe tested and used with all new QorIQ chips from Freescale
- Ethernet connection allows sharing and remote access of development systems
- Download speed is up to 2.5x faster than the USB TAP—Gigabit TAP has been measured at over 3 Mbps download speeds. These performance metrics will vary based upon type of code and amount of symbolic debug data downloaded.

Kit Contents

- Gigabit TAP Probe
- Gigabit TAP JTAG Probe tip
- Gigabit TAP JTAG Probe tip extension which allows for tight spaces
- Gigabit TAP Probe power supply

Part Numbers		
Gigabit TAP with JTAG Probe TIP	CWH-GTAP-JTAG-HE	[redacted]
Gigabit TAP JTAG Probe TIP only	CWH-GTAP-JTAG-YE	[redacted]

Learn More: To learn more about the Gigabit TAP, the CodeWarrior Development Studio and other Freescale products, please visit **freescale.com/GigabitTAP**.

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