MicroLAB Systems

Ultimate DSP Development Solutions

MIRAGE-NE1

Universal JTAG/MPSD Emulator for TI TMS320 DSP, ARM and MPC430 Microcontrollers for Notebook and Desktop PC with ExpressCard/34 slot

Features

- Next generation of universal JTAG/MPSD emulators for TI TMS320 DSP, ARM and MPC430 microcontrollers for notebook and desktop PC
- Upward compatible upgrade for previous generation MicroLAB Systems *MIRAGE-NC2* and *MIRAGE-NP2* PCMCIA emulators
- Supports TI JTAG and MPSD interfaces
- Includes ExpressCard/34 emulator board and detachable JTAG/MPSD *UniPod*
- Compact ExpressCard/34 emulator board includes one JTAG/MPSD emulation controller with host PCI-Express interface and is up to x10 times faster than *MIRAGE-NP2* emulator board and x2 times faster than *MIRAGE-NC2* emulator board
- Ultra-compact and ultra-light weight *UniPod* is compatible with all *MIRAGE-Nxx* emulator boards and supports JTAG and MPSD paths
- 2 meter (6.6 ft) long ultra-flexible and light weight cable for connection between ExpressCard/34 emulator board and *UniPod*
- Supports 0.5V .. 5V target JTAG/MPSD power
- Programmable 0.5MHz .. 30MHz JTAG clock
- Measurement of target suplly voltage and JTAG/MPSD path clock frequency for 'all-in-one' target DSP device diagnostic
- LED indicators at *UniPod* for target status
- High noise immunity
- More compact than PCI/PCIe emulators and faster than USB emulators
- Multi-path JTAG/MPSD emulation support
- Fast JTAG/MPSD download speed and RTDX

Host PC Support

- Plugs into ExpressCard slot of notebook PC
- Installs into the desktop and industrial PC via PCIe-to-ExpressCard adapter

DSP Software Debugging Tools

- All TI Code Composer and Code Composer Studio Debugger tools for TMS320 DSP

Application Features

- Ideal for debugging of single- and multi-DSP boards with TI TMS320 DSPs
- A "must have" for development and repair of compact and light weight devices
- Field deployable for real time DSP device debugging and diagnostic
- Transportable between mobile, desktop and industrial PC

Overview

MIRAGE-NE1 is a next generation and industry first universal JTAG/MPSD emulator for all TI TMS320 DSP, ARM and MPC430 microcontrollers for notebook and desktop PC with ExpressCard slot. *MIRAGE-NE1* is upward compatible with previous generation *MIRAGE-NC2* and *MIRAGE-NP2* PCMCIA CardBus/PC-card emulators.

MIRAGE-NE1 emulator comprises ExpressCard/34 plug-in emulator board and detachable universal JTAG/MPSD pod (*UniPod*), which is compatible with all *MIRAGE-Nxx* series emulator boards.

MIRAGE-NE1 plug-in emulator board meets ExpressCard/34 specification and uses host PCIe interface, which makes it up to x10 times faster than all ISA-bus emulators and PCMCIA 16-bit PC Card *MIRAGE-NP2* emulator board, up to x2 times faster than PCMCIA 32-bit CardBus *MIRAGE-NC2* emulator board, and up to 10 times faster than all USB emulators. *MIRAGE-NE1* emulator board can be also installed into desktop PC using PCIe-to-ExpressCard adapter card available from a variety of vendors (available as an option).

Maintaining a leadership in the industry, *MIRAGE-Nxx* series emulators are the first to introduce ultra-compact and ultra-light universal JTAG/MPSD *UniPod* with the industry longest cable and industry widest target voltage range, and are the first to integrate an universal JTAG/MPSD emulator with target diagnostic features such as measurement of target power voltage and target path clock frequency, providing an extraordinary comfort to debug TMS320 DSP.

The industry's longest 2 meter (6.6 feet) connection cable between the emulator board and *UniPod*, support for target 0.5v..5v supply voltage, programmable 0.5MHz..30MHz JTAG clock, fast JTAG/MPSD upload/download speed and RTDX, embedded target diagnostic, ultra-compact and ultra-light weight design, and simple Plug-and-Play installation make *MIRAGE-NE1* an ultimate 'all-in-one' emulation and diagnostic tools and 'must have' instruments for all DSP hardware and software engineers for notebook, desktop and industrial workstations.

MIRAGE-Nxx emulators are an ideal tool for debugging modern TI DSP and MC devices featuring small size, light weight and low supply voltage, and allow to maximize performance of target JTAG path and to comply with low power and low speed targets. *MIRAGE-Nxx* emulators easily expand to any number of emulation channels for support of multiple target JTAG/MPSD emulation paths by just installaing as many emulator boards as required into one PC.

MIRAGE-Nxx emulators run under all TI Code Composer and Code Composer Studio software debugging tools.

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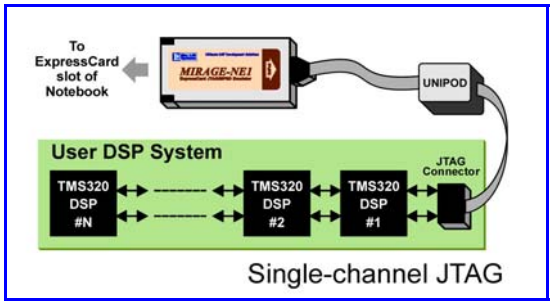
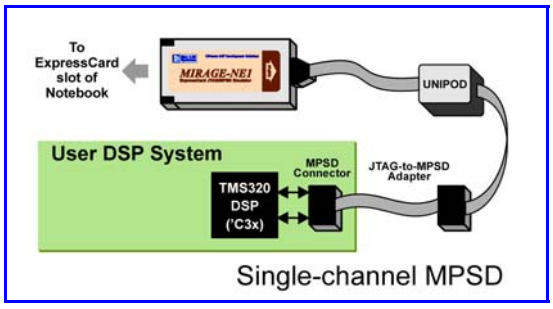
Target Emulation Configurations





Installation into the Notebook PC

Installation into the desktop PC using PCIe-to-ExpressCard adapter

Technical Specifications

MIRAGE-NE1 ExpressCard/34 plug-in emulator boards

- Meets PCMCIA ExpressCard/34 specification.
- One JTAG/MPSD emulation channel.
- Operating temperature: 0°C..60°C.

UniPod

- Supports target JTAG and TI MPSD ('C3x) scan-paths.
- 2 meters (6.6 ft) long light weight ultra-flexible cable for connection to the ExpressCard/CardBus/PC-card plug-in emulator board.
- Weight (with cable): 79 g (0.17 lb).
- Dimensions: 53x33x14mm (2.1"x1.38"x0.6").
- Target supply power voltage: 0.5V .. 5V.
- Programmable JTAG clock frequency: 0.5MHz .. 30 MHz
- Measurement accuracy for target JTAG/MPSD power voltage: ±10mV.
- Measurement accuracy for target JTAG/MPSD path clock frequency: ±0.01MHz.

Supported TI TMS320 DSP platforms

JTAG: TMS320C2xxx/C2xx
TMS320C5xxx, TMS320C6xxx
OMAP, DaVinchi, ARM, Cortex, MPC430
TMS320VC33, TMS320C4x, TMS320C5x

MPSD: TMS320C30/C31/C32

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