









# MIRAGE-NC2/NP2

Dual-Channel JTAG/MPSD Emulators for TI TMS320 DSP  
for Notebook, Desktop and Industrial PC with PCMCIA PC Card (CardBus) Slot

## Key Features

-  Next generation of JTAG/MPSD emulators for TI TMS320 DSP for mobile, desktop and industrial PC
- Support all TI TMS320 DSP platforms including C2xxx/C5xxx/C6xxx, OMAP, ARM, C30/C31/C32/VC33, C4x, C5x and more...
- Replacement for two universal JTAG/MPSD emulators in a very compact space
-  *MIRAGE-NC2* comprises PCMCIA Type II CardBus dual-channel emulator board and two detachable *UniPods*
-  *MIRAGE-NP2* comprises PCMCIA Type II 16-bit PC Card dual-channel emulator board and two detachable *UniPods*
-  Ultra-compact and ultra-light weight *UniPod* supports both JTAG and TI MPSD ('C3x) specifications
-  2 meter (6.6 ft) long ultra-flexible and light weight cable for connection between PCMCIA plug-in emulator board and *UniPod*
-  Support 0.5V .. 5V target JTAG/MPSD power
-  Programmable 0.5MHz .. 30MHz JTAG clock
-  Accurate measurement of target power 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
- Faster than LPT-port and USB emulators

## Host PC Support

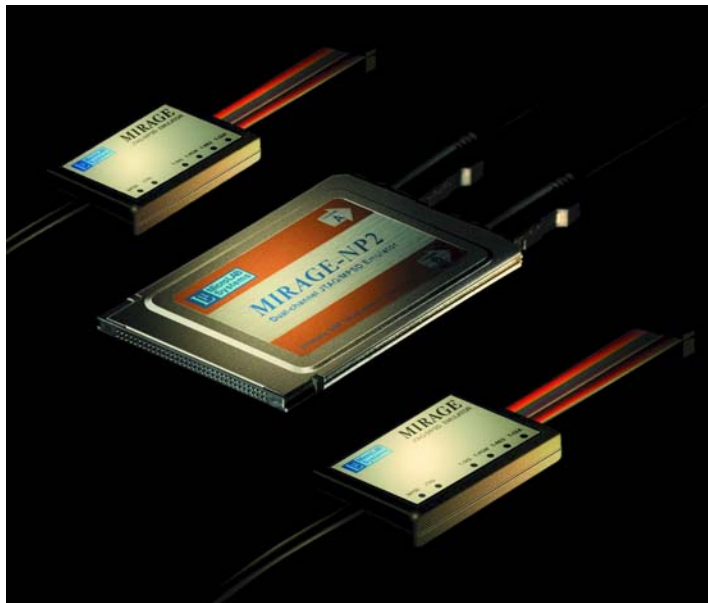
- Plug into the PCMCIA PC Card (CardBus) slot of notebook PC
- Install into the desktop and industrial PC via PCI/cPCI/PMC/VME-to-PCMCIA adapters
- Expand to any number of emulator channels for support of multiple MPSD/JTAG paths

## DSP Software Debugging Tools

- TI Code Composer and Code Composer Studio Debugger tools for TMS320 DSP
- Fast JTAG/MPSD download speed and RTDX

## Application Features

- Ideal for debugging of single- and multi-DSP boards
- A "must have" for debugging of compact and light weight devices
- Ideal for debugging of DSP devices without "main power isolation"
- Field deployable for real time DSP device debugging and diagnostic
- Transportable between mobile, desktop and industrial PC



## Overview

*MIRAGE-NC2* and *MIRAGE-NP2* are a next generation dual-channel universal JTAG/MPSD emulators for all TI TMS320 DSP platforms for mobile, desktop and industrial host PC with PCMCIA PC Card slot.

*MIRAGE-NP2* is compatible with PCMCIA 16-bit PC Card standard, whereas *MIRAGE-NC2* meets PCMCIA 32-bit CardBus specifications and is x2..x4 times faster than *MIRAGE-NP2*.

The industry's longest 2 meter (6.6 feet) connection cable, universal JTAG/MPSD pod (*UniPod*), support for target 0.5v..5v power 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-Nxx* an ultimate 'all-in-one' emulation and diagnostic tools and 'must have' instruments for all DSP hardware and software engineers for both mobile and desktop workstations.

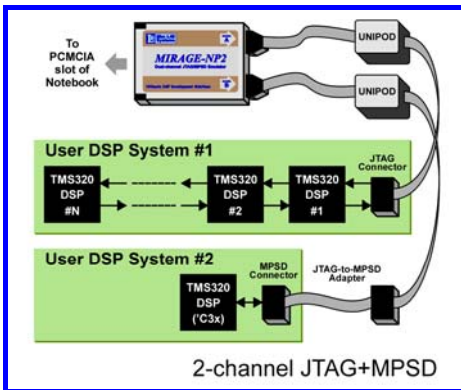
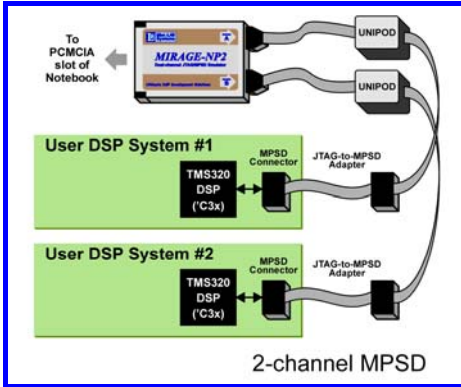
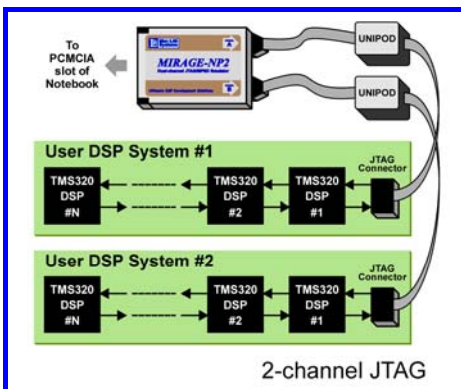
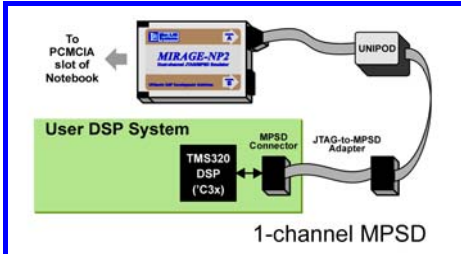
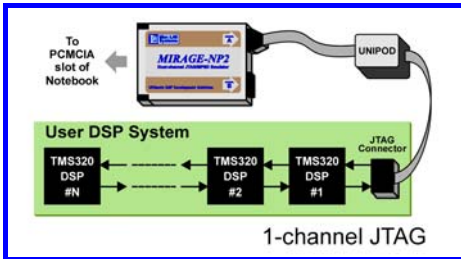
Maintaining a leadership in the industry, *MIRAGE-Nxx* are the first to integrate a universal JTAG/MPSD emulator with target diagnostic features such as measurement of target power voltage and path clock frequency, and the first to introduce ultra-compact and ultra-light weight universal JTAG/MPSD *UniPod*, thus providing an extraordinary comfort in debugging every user TI TMS320 DSP based devices.

*MIRAGE-Nxx* are ideal tools for debugging of the modern DSP devices, which feature a 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* easily expand to any number of emulation channels.

*MIRAGE-Nxx* run under the TI Code Composer and Code Composer Studio software debugging tools.

*MIRAGE-Nxx* plug into a notebook PC with PCMCIA Type II PC Card (CardBus) slot and are installed into desktop and industrial PC using adapter cards available from a variety of vendors

## Target Emulation Configurations



## Installation into the Notebook PC



## Installation into the desktop PC using PCI-to-PCMCIA adapter



## Technical Specifications

### MIRAGE-NC2 and MIRAGE-NP2 PCMCIA plug-in emulator boards

- MIRAGE-NC2 Plugs into the PCMCIA Type II CardBus slot.
- MIRAGE-NP2 Plugs into the PCMCIA Type II 16-bit PC card or CardBus slot.
- Power: sourced from host PC card slot with either 3V or 5V power.
- Available with one (MIRAGE-NC2/1 and MIRAGE-NC2/1) and two- (MIRAGE-NC2 and MIRAGE-NP2) emulator channels installed.
- Operating temperature: 0°C..60°C.

### UniPod

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

### Supported TI TMS320 DSP platforms

JTAG: TMS320C2xxx/C2xx  
 TMS320C55xx/C54xx, OMAP, ARM  
 TMS320C62xx/C67xx/C64xx  
 TMS320VC33, TMS320C4x, TMS320C5x

MPSPD: TMS320C30/C31/C32