

## XDS560 Class High Speed Emulators Status: ACTIVE

### XDS560



### Description

The **XDS560 emulator** combines state-of-the-art silicon, hardware, and software technology to provide the best hardware debug capabilities. The XDS560 family of JTAG-based emulators support a wide range of TI processors and are designed for high performance applications. The XDS560 family is designed to achieve high download speeds and is ideal for larger applications.

The **XDS560 family** supports the full range of debugging capabilities, including software and real-time hardware breakpoints and watchpoints, single-step execution, loading /

inspecting / modification of registers and memory, benchmarking, and heterogeneous multiprocessor debugging with global running, stepping and breakpoints. The XDS560 supports real-time non-intrusive Advanced Event Triggering capabilities, including event sequence detection, extended benchmarking capabilities, and program range breakpoints. All of these capabilities are fully integrated with the Code Composer Studio™ IDE debugger interface.

### XDS560 Emulator

The XDS560 JTAG emulator products are available with popular host interfaces such as PCI bus and USB. They support voltages ranging from 0.5 to 5V, thus offering excellent support for TI's low-voltage devices. These products have not been replaced by XDS560v2 class products.

### XDS560v2 System Trace

XDS560v2 System Trace Emulators are the latest in the XDS560 family of high-performance debug test controllers (emulators) for TI processors. The XDS560v2 System Trace supports both traditional IEEE 1149.1 (JTAG) emulation and the recently ratified IEEE 1149.7. The XDS560v2 System Trace emulator features a standard 60-pin MIPI HSPT header at the end of a 12.5-inch (31mm) detachable cable. This 60-pin MIPI HSPT header allows the user to either connect to a 60-pin MIPI HSPT target connector, or attach one the included modular target configuration adapters, check the model to see which adapters it includes. Target board JTAG interface levels of +1.2v to +4.1v are supported with this emulator. XDS560v2 emulators are available in both USB (TMDSEMU560v2STM-U) and USB & Ethernet models (TMDSEMU560v2STM-UE).

The XDS560v2 System Trace emulator is the first XDS560 class emulator to provide System Trace (STM) capability. The product provides This state of the art development tool provides a USB 2.0 high speed (480 mbit/sec) and Ethernet(10/100) connection to the host computer for high speed data transfers and debugging. The optional Ethernet connection allows remote debug capability enabling worldwide development teams to share hardware cards without the expense and hassle of a shared computer.

The System Trace capability is compliant to MIPI STP and is available with devices which feature the TI CTools debug capability. The System Trace capability provided by the TI CTools enabled devices facilitates the debugging and optimization of multi-core devices. The System Trace capability aids users in understanding the synchronization and timing between cores and peripherals as well as the performance of cores and key device interfaces. The XDS560v2 System Trace emulator features 128MB of system trace storage and can support 1-4 pins of System Trace capture. More details about TI CTools capability can be found at <http://processors.wiki.ti.com/index.php/CTools>.

The XDS560v2 System Trace unit is fully compatible with TI's Code Composer Studio™ IDE version 4.2 and newer. This combination gives the user a complete robust tool chain for hardware debug and algorithm development. The combination of the XDS560v2 System Trace emulator and Code Composer Studio IDE gives a complete hardware development environment which includes an Integrated Debug Environment, Compiler, and full hardware debugging and system trace capability on selected processors.