**TEXAS INSTRUMENTS**

# C5416 DSP Starter Kit (DSK)
**TMDSDSK5416**

## Product Information

### Description

The TMS320C5416 DSP starter kit (DSK) is a low-cost development platform designed to speed the development of power-efficient applications based on TI's TMS320C54x DSPs. The kit, which provides new performance-enhancing features such as USB communications and true plug-and-play functionality, gives both experienced and novice designers an easy way to get started immediately with innovative product designs.

The C5416 DSK offers the ability to detect, diagnose and correct DSK communications issues, download and step through code faster and get a higher throughput with Real Time Data Exchange (RTDX™).

The full contents of the kit include:

- C5416 DSP Development Board -
- C5416 DSK Code Composer Studio™ v2.1 IDE
- Quick Start Guide
- Technical Reference
- Customer Support Guide
- USB Cable
- Universal Power Supply
- AC Power Cord(s)

### *Daughter Cards to supplement your development boards*

Add new functionality to your TI or Third Party DSP development board. Evaluate a wide range of data converters, prototype boards, new I/O interfaces and many other peripheral devices. See DSK Accesories. These compliant cards will allow you to connect with TI DSKs and some TI EVMs seamlessly via common connectors (TMS320 Cross-Platform Daughtercard Specification). Other Cards that are not compliant may require glue logic or special cabling to work with TI DSP development boards.

### Features

The TMS320C5416 features the TMS320C5416 DSP - the designer's choice for applications that require an optimized combination of power performance and area. With 160 MIPS performance, designers can use the 160 MHz device as the

foundation for a range of signal processing applications, including speech compression/decompression, speech recognition, text-to-speech conversion, fax/data conversion and echo cancellation. Other hardware features of the TMS320C5416 DSK board include:

- Embedded JTAG support via USB
- High-quality 16-/20-bit stereo codec
- Four 3.5mm audio jacks for microphone, line in, speaker and line out
- 256K words of Flash and 64K words RAM
- Expansion port connector for plug-in modules
- On-board standard JTAG interface
- +5V universal power supply

Software - Designers can readily target the TMS32C5416 DSP through TI's robust and comprehensive Code Composer Studio development platform. The tools, which run on Windows© 98, Windows 2000 and Windows XP, allow developers to seamlessly manage projects of any complexity. Code Composer Studio features for the TMS320C5416 DSK include:

- A complete Integrated Development Environment (IDE), an efficient optimizing C/C++ compiler assembler, linker, debugger, an a advanced editor with Code Mastro™ technology for faster code creation, data visualization, a profiler and a flexible project manager
- DSP/BIOS™ real-time kernel
- Target error recovery software
- DSK diagnostic tool
- "Plug-in" ability for third-party software for additional functionality

**What's Included**

- CCSTUDIO,Code Composer Studio IDE
- Target board specific Code Composer Studio development tools