![Texas Instruments logo]

TMS320C6416 DSP Starter Kit (DSK)

TMDSDSK6416

Description

The TMS320C6416 DSP Starter Kit (DSK) developed jointly with Spectrum Digital is a low-cost development platform designed to speed the development of high performance applications based on TI´s TMS320C64x DSP generation. The kit uses USB communications for true plug-and-play functionality. Both experienced and novice designers can get started immediately with innovative product designs with the DSK´s full featured Code Composer Studio™ IDE and eXpressDSP™ Software which includes DSP/BIOS and Reference Frameworks.

The C6416 DSK tools include the latest fast simulators from TI and access to the Analysis Toolkit via Update Advisor which features the Cache Analysis tool and Multi-Event Profiler. Using Cache Analysis developers improve the performance of their application by optimizing cache usage. By providing a graphical view of the on-chip cache activity over time the user can quickly determine if their code is using the on-chip cache to get peak performance.

The C6416 DSK allows you to download and step through code quickly and uses Real Time Data Exchange (RTDX™) for improved Host and Target communications. The DSK utilities include Flashburn to program flash, Update Advisor to download tools, utilities and software and a power on self test and diagnostic utility to ensure the DSK is operating correctly.

The full contents of the kit include:

- C6416 1 GHz DSP Development Board with 512K Flash and 16MB SDRAM

- C6416 DSK Code Composer Studio™ IDE including the Fast Simulators and access to Analysis Toolkit on Update Advisor

- Quick Start Guide

- Technical Reference

- Customer Support Guide

- USB Cable

- Universal Power Supply

- AC Power Cord(s)

- MATLAB from The Mathworks 30 day free evaluation

Ordering Information: TMDSDSK6416-T includes a standard US power cord, TMDSDSK6416-TE version includes both UK & European power cords.

Features

The DSK features the TMS320C6416 DSP, a 1 GHz device delivering up to 8000 million instructions per second (MIPs) and is designed for products that require the highest performing DSPs. The C6416 is based on the high performing TMS320C6400 DSP platform designed to needs of high-performing memory intensive applications such as networking, video, imaging, and most multi-channel systems. Other hardware features of the TMS320C6416 DSK board include:

- Embedded JTAG support via USB

- High-quality 24-bit stereo codec

- Four 3.5mm audio jacks for microphone, line in, speaker and line out

- 512K words of Flash and 16 MB SDRAM

- Expansion port connector for plug-in modules

- On-board standard IEEE JTAG interface

- +5V universal power supply

Software - Designers can readily target the TMS32C6416 DSP through TI´s robust and comprehensive Code Composer Studio™ DSK development platform. The tools, which run on Windows© 2000 and Windows XP, allow developers to seamlessly manage projects of any complexity. Code Composer Studio features for the TMS320C6416 DSK includes:

- A complete Integrated Development Environment (IDE), an efficient optimizing C/C++ compiler assembler, linker, debugger, data visualization, a profiler, advanced optimization tools, 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

- CCSTUDIO3, Code Composer Studio (CCS) Integrated Development Environment (IDE) v3 - for F24x/C24x devices

- Target board specific Code Composer Studio development tools