

**TMS320C6416 DSP STARTER KIT****PART NO: TMDSDSK6416**

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 Tuning Edition v3.0 IDE .

**Hardware Features**

- Texas Instruments TMS3206416 DSP operating at 720 Mhz.
- Embedded USB JTAG controller with plug and play, USB cable included
- TLV320AIC23 codec
- 2M x 64 on board SDRAM
- 512K bytes of on board Flash ROM
- 3 expansion connectors (Memory Interface, Peripheral Interface, and Host Port Interface)
- On board IEEE 1149.1 JTAG connection for optional emulator debug
- Four 3.5 mm. audio jacks (microphone, line-in, speaker, line-out)
- 4 user definable LEDs
- 4 position dip switch, user definable
- +5 Volt operation only, power supply included
- Size: 8.25" x 4.5" (210 x 115 mm), 0.062" thick, 6 layers
- Compatible with Spectrum Digital's DSK Wire Wrap Prototype Card

**PRODUCT INCLUDES:**

- C6416 1 GHz DSP Development Board with 512K Flash and 16MB SDRAM
- C6416 DSK Code Composer Studio™ v3.0 IDE
- Quick Start Guide
- Customer Support Guide
- USB Cable
- Universal Power Supply
- AC Power Cord(s)

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MB RAM OR ABOVE
- LOCAL CD DRIVE
- USB PORT

**TMS320C6713 DSP STARTER KIT****PART NO: TMDSDSK6713**

The TMS320C6713 DSP Starter Kit (DSK) developed jointly with Spectrum Digital is a low-cost development platform designed to speed the development of high precision applications based on TI's TMS320C6000 floating point 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 v3 IDE .

**HARDWARE FEATURES**

- Texas Instrument's TMS320C6713 DSP operating at 225 Mhz.
- Embedded USB JTAG controller with plug and play drivers, USB cable included
- TLV320AIC codec
- 2M x 32 on board SDRAM
- 512K bytes of on board Flash ROM
- 3 expansion connectors (Memory Interface, Peripheral Interface, and Host Port Interface)
- On board IEEE 1149.1 JTAG connection for optional emulator debug
- Four 3.5 mm. audio jacks (microphone, line-in, speaker, and line out)
- 4 user definable LEDs
- 4 position dip switch, user definable
- +5 Volt operation only, power supply included
- Size: 8.25" x 4.5" (210 x 115 mm), 0.062" thick, 6 layers
- Compatible with Spectrum Digital's DSK Wire Wrap Prototype Card

**PRODUCT INCLUDES:**

- C6713 DSP Development Board with 512K Flash and 8MB SDRAM
- C6713 DSK Code Composer Studio™ v3.0 IDE
- Quick Start Guide
- Technical Reference
- Customer Support Guide
- USB Cable
- Universal Power Supply
- AC Power Cord(s)

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MB RAM OR ABOVE
- LOCAL CD DRIVE
- USB PORT

**TMS320C5416 DSP STARTER KIT****PART NO: TMDSDSK5416**

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

**HARDWARE FEATURES**

- Texas Instrument's TMS320VC5416 DSP operating at 16-160 Mhz
- Embedded USB JTAG controller with plug and play and play, USB cable included
- Burr Brown PCM3002 stereo codec
- 64K words of on board RAM
- 256K words of on board Flash ROM
- 3 Expansion connectors (Memory Interface, Peripheral Interface, and Host Port Interface)
- On board IEEE 1149.1 JTAG connection for optional emulator debug
- 4 user definable LEDs
- 4 position dip switch, user definable
- +5 Volt operation only, power supply included
- Size: 8.25" x 4.5" (210 x 115) mm), 0.062" thick, 6 layers
- Compatible with Spectrum Digital's DSK Wire Wrap Prototype Card

**PRODUCT INCLUDES:**

- C5416 DSP Development Board
- C5416 DSK Code Composer Studio™ v3.0 IDE
- Quick Start Guide
- Technical Reference
- Customer Support Guide
- USB Cable
- Universal Power Supply
- AC Power Cord(s)

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MB RAM OR ABOVE
- LOCAL CD DRIVE
- USB PORT

**TMS320C5510 DSP STARTER KIT****PART NO: TMDSDSK5510**

The TMS320C5510™ DSP Starter Kit (DSK) developed by Spectrum Digital is a low-cost development platform designed to speed the development of power-efficient applications based on TI's TMS320C55x DSP generation. The kit, which provides new performance-enhancing features such as power analysis tools and USB communications for true plug-and-play functionality.

- Texas Instrument's TMS320VC5510 DSP operating at 200 Mhz.
- Embedded USB JTAG controller with plug and play drivers, USB cable included
- TLV320AIC23 codec
- 8 Megabytes of on board SDRAM
- 512K bytes of on board Flash ROM
- 3 Expansion connectors (Memory Interface, Peripheral Interface, and Host Port Interface)
- On board IEEE 1149.1 JTAG connection for optional emulator debug
- Four 3.5 mm. audio jacks (microphone, line-in, speaker, line-out)
- 4 user definable LEDs
- 4 position disp switch, user definable
- +5 Volt operation only, power supply included
- Size: 8.25" x 4.5" (210 x 115 mm), 0.062" thick, 6 layers

**PRODUCT INCLUDES:**

- C5510 DSP Development Board
- C5510 DSK Code Composer Studio™ v3.0 IDE
- Quick Start Guide
- Technical Reference
- USB Cable
- Universal Power Supply
- AC Power Cord(s)

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MB RAM OR ABOVE
- LOCAL CD DRIVE
- USB PORT

The F2812 eZdsp™ is a stand alone module that lets evaluators examine certain characteristics of the F2812 digital signal processor (DSP) to determine if this DSP meets their application requirements. This module has a single chip parallel port to JTAG scan controller. Therefore the module can be operated without additional development tools such as an emulator. Furthermore, the module is an excellent platform to develop, demonstrate, and run software for the F2812 processor

**HARDWARE FEATURES**

- TMS320F2812 Digital Signal Processor
- 18K words RAM
- 128K words on chip Flash ROM
- 64K words on board RAM
- Expansion connectors
- Onboard embedded IEEE 1149.1 JTAG controller
- 5 Volt only operation with supplied adapter
- Onboard IEEE 1149.q JTAG emulation

Note: F2812 DSK Socket version also available. Part No.TMDSEZDS2812

**PRODUCT INCLUDES:**

- F2812 DSP Development Board
- C2812DSK Code Composer Studio™
- Quick Start Guide
- Technical Reference
- Customer Support Guide
- Parallel Port Cable
- Universal Power Supply
- AC Power Cord(s)

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:****HARDWARE FEATURES**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MD RAM OR ABOVE
- LOCAL CD DRIVE
- PARALLEL PORT

**TMS320C2407 DSP STARTER KIT****PART NO: TMDSEZD2407**

The LF2407 eZdsp is a self contained, standalone development platform for the TMS320LF2407 Fixed Point DSP. This unit has an embedded parallel port/IEEE 1149.1 scan controller enabling the user to perform true JTAG emulation. Because the eZdsp operates off the parallel printer port no internal adapter card is required. The eZdsp has 32K words of external program and 32K words of external data memory operating a zero wait states for easy debugging. Power is provided via a supplied AC adapter.

**HARDWARE FEATURES**

- 510PP-Plus emulation via FPGA
- 32K words program, 32K words data zero wait state RAM
- C Compiler/Assembler/Linker
- Code Composer IDE, v4.12 (eZdsp specific). Not eligible for upgrades.
- AC adapter
- Parallel port communication cable
- Standalone capability
- Standard JTAG interface on board
- Users manual and documentation
- Direct interface to Spectrum Digital's Digital Motor Controller system

**PRODUCT INCLUDES:**

- LF2407 DSP Development Board
- LF2407 DSK Code Composer Studio™
- Quick Start Guide
- Technical Reference
- Customer Support Guide
- Parallel Port Cable
- Universal Power Supply
- AC Power Cord(s)

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MD RAM OR ABOVE
- LOCAL CD DRIVE
- PARALLEL PORT

The OMAP5912 Starter Kit (OSK) for Portable Data Terminals (PDT) is a low cost, easy to use, convenient way of evaluating the features of the OMAP5912 Processor in next generation PDT devices. The kit includes a development board, and a collection of board and chip specific libraries as well as a suite of development tools for Linux with an OMAP5912 specific Linux kernel. The kit allows users to get started on a portable data terminal-based application and device development.

**HARDWARE FEATURES**

- ARM9 core operating at 192 Mhz.
- DSP core operating at 192 Mhz.
- TLV320AIC23 Stereo Codec
- 32 Mbyte DDR SDRAM
- 32 Mbyte Flash ROM
- 4 Expansion connectors (bottom side)
- RS-232 Serial Port
- 10 MBPS Ethernet port
- USB Host Port
- Compact flash connector
- On board IEEE 1149.1 JTAG connector for optional emulation
- +5 Volt operation

**Software Features**

MontaVista Linux™ operating system and Linux Preview Kit for the Texas Instruments OMAP5912 processor - The Preview Kit reduces the amount of time you might otherwise spend "test-driving" the operating system / hardware solution by providing simple yet powerful demonstrations. With the MontaVista Linux Preview Kit, developers are provided the opportunity to explore the building and debugging process and evaluate real-world hardware performance. In providing you this opportunity to validate the performance and functionality of MontaVista Linux Professional Edition on your target hardware, we will show you how MontaVista can empower and quicken your development experience.

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MB RAM OR ABOVE
- LOCAL CD DRIVE
- PARALLEL PORT

**PRODUCT DESCRIPTION:**

Immediately start developing multi-channel, multi-format digital media applications or other future-ready high-performance video & imaging applications using the DM64x Digital Media Developer's Kit (DMDK). Loaded with starterware, supported by award winning eXpressDSP™ host tools and target software and offered at an exceptional price/performance ratio, the DMDK is a comprehensive fully integrated development platform and an easy-to-use, robust tool suite. Leveraging the high performance TMS320C64x DSP core, this development platform supports TI's TMS320DM642, DM641 & DM640 digital media processors.

Two types of users are targeted to jump-start your application development:

- Experienced with programmable DSP (either TI or other) and want to add multimedia functionality

to an existing or new product/system

- Experienced in video with a background in analog or fixed function hardwired chipsets/ASIC/SOC

with minimum experience in writing target DSP software, and who want to use a fully software

programmable DSP to increase the performance, flexibility and functionality of a video & imaging system.

**PRODUCT INCLUDES:**

- DM642 EVM Baseboard
- Code Composer Studio v3.0 for the DM64x generation of processors only
- DSP/BIOS Real Time Kernel
- Advanced PCI Emulator: XDS560 PCI
- DM642 EVM CD (contents described above)
- NTSC or PAL Camera
- Video Cables (2 RCA & 1 S-Video)
- DM642 EVM Quick Start Guide
- DM642 EVM Technical Reference
- 5V/5A Power Supply
- Multilingual Regulatory Compliance Statement

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MB RAM OR ABOVE
- LOCAL CD DRIVE
- PCI EMULATOR & USB PORT



**PRODUCT DESCRIPTION:**

The Fingerprint Authentication Development Tool (FADT) provides developers with an easy-to-use, cost-effective way to evaluate and develop fingerprint authentication systems and products based on TI digital signal processors (DSP).

**HARDWARE FEATURES**

- FPC1010 fingerprint sensor from Fingerprint Cards AB
- Compatible with TMS320C5510, TMS320C6711 and TMS320C6713 DSP Starter Kits and TMS320C5509 EVM from Spectrum Digital (attaches via expansion connector)
- LEDs to display enrollment and verification function status
- Sensor guide to help in correct fingerprint placement on the sensor
- Slide switch to allow control of enroll and verify functions in a completely embedded environment  
(without GUI on PC)

**Software Features**

Standard

- Sensor drivers for fingerprint image capture on both TMS320C55x and TMS320C67x DSP
- Sensor drivers image capture demo for Code Composer Studio™ Development Tool (CCStudio)  
Special evaluation software (for TMS320C5510 and TMS320C6713 DSP Starter Kits)
- Evaluation copy of Fingerprint Cards AB "Distinct Area Detection" fingerprint verification algorithm  
for TMS320C5510 and TMS320C6713 DSP Starter Kits
- Fingerprint Cards FPCore demo (GUI for PC) for host side user interface using the Real Time Data Exchange2 (RTDX) communication protocol

**PRODUCT INCLUDES:**

- Daughter Card (expansion board) with Fingerprint Cards FPC1010 sensor
- "Fingerprint development support for TI DSPs" software CD
- FPC1010 Sensor driver source code for C55x and C67x DSP generations
- Sensor driver image capture demo
- FPCore fingerprint verification demo
- Copies of license agreements
- Hardware and software user guides
- Quick Start Guide

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MB RAM OR ABOVE
- LOCAL CD DRIVE
- PARALLEL PORT OR USB PORT

**PRODUCT DESCRIPTION:**

The DM642 Evaluation Module (EVM) is a low-cost high performance video & imaging development platform designed to jump-start application development and evaluation of multi-channel, multi-format digital and other future proof applications. Leveraging the high performance TMS320C64x DSP core, this development platform supports TI's TMS320DM642, DM641 & DM640 digital media processors.

Developed in conjunction with Spectrum Digital, this PCI form factor EVM includes the necessary components to enable you to:

- Start application software development immediately
- Understand DSP functionality for video experts
- Build video, audio & internet streaming functionality into existing designs
- Simplify overall system design
- Differentiate your product with cutting edge software
- Design for flexibility to respond to evolving standards

**PRODUCT INCLUDES:**

- DM642 EVM Baseboard
- DM642 EVM CD (contents described above)
- DM642 EVM Quick Start Guide
- DM642 EVM technical reference
- 5V/5A Power Supply

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MD RAM OR ABOVE
- LOCAL CD DRIVE
- USB PORT

**PRODUCT DESCRIPTION:**

The TMS320LF2407A Evaluation Module kit gives designers a complete and cost effective way to take their designs from concept to production. The kit is the easiest way to fully evaluate and begin developing code for embedded applications. The LF2407A EVM builds on TI's industry-leading array of development tools that allow designers to take full advantage of the benefits of DSP-based systems.

**HARDWARE FEATURES**

- Texas Instruments TMS320LF2407 Digital Signal Processor
- 64K words program memory, zero wait states
- 64K words data memory, zero wait states
- 32K words Flash ROM in program space
- DAC7625 DAC, (4 channels, 12 bits)
- Standard JTAG interface onboard
- Stand-alone operation for easy debug access
- Expansion connectors for add-on accessories
- On board UART and CAN interface for boot loading

**Software Features**

- Compatible with TI's Code Composer Studio IDE
- Supports TI 'C' compiler/assembler/linker
- Compatible with Spectrum Digital's emulation tools:
- XDS510PP Plus JTAG Emulator
- Compatible with Spectrum Digital and TI flash programming utility

**PRODUCT INCLUDES:**

- LF2407 EVM Baseboard
- Code Composer Studio
- LF2407 EVM Quick Start Guide
- XDS 510PP+ Emulator
- 5V/5A Power Supply

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MB RAM OR ABOVE
- LOCAL CD DRIVE
- PARALLEL PORT

**PRODUCT DESCRIPTION:**

The F2812 Development Bundle gives designers a complete and cost effective way to take their design from concept to production. The bundle provides capabilities to evaluate characteristics of the TMS320F2812 DSP and develop, demonstrate, and run software for the processor.

The XDS510 emulator is tightly integrated with the Code Composer Studio™ debugger interface, making all of TI's real time emulation control and visualization capabilities available to the developer. These range from single-stepping, and register visibility, to software and hardware breakpoints, and cycle-accurate benchmarking. All of this is supported without requiring a debug monitor. Custom target boards for all TI DSPs can be debugged using the XDS510 PP+ emulator included in this development bundle, through a standard 14-pin JTAG header

**PRODUCT INCLUDES:**

- F2812 DSP Starter Kit
- Code Composer Studio
- F2812 DSK Quick Start Guide
- XDS 510PP+ Emulator
- 5V/5A Power Supply

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MB RAM OR ABOVE
- LOCAL CD DRIVE
- PARALLEL PORT

**PRODUCT DESCRIPTION:****HARDWARE FEATURES**

- Supports Texas Instruments Digital Signal Processors and Microcontrollers with JTAG interface
- Compatible with XDS510 from Texas Instruments
- Operates with parallel port on PC or laptop, no internal adapter required
- Supports bi-directional, ECP, and EPP transfers
- Compatible with +3.3V or +5V processors
- Powered by target or supplied adapter
- Compatible with SPI110 Opto Pod
- Compatible with 4 Channel JTAG Expander

**Software Features**

- Compatible with Code Composer Studio from Texas Instruments
- Compatible with Win 98 ME, NT, 2000, XP
- Operates with "SDFlash" Programming Utility from Spectrum Digital
- Compatible with Programming utilities developed by Texas Instruments

**PRODUCT INCLUDES:**

- XDS510PP PLUS JTAG Emulator
- +5 Volt power supply
- Parallel port cable
- CD-ROM with drivers
- Installation Instructions

**COMPATIBLE PRODUCTS**

- C2xx, C24x, F240x, F2812, VC33, C4x, C5x, C54xx, C55xx, C6xxx, C64xx, TMS470, OMAP

**PRODUCT DESCRIPTION:****HARDWARE FEATURES**

- Supports Texas Instruments Digital Signal Processors and Microcontrollers
- Compatible with XDS510 from Texas Instruments
- Operates off PC/laptop USB port, no internal adapter required
- USB bus powered, no power supply required
- Supports USB 1.x and USB 2.0 (full speed)
- Advanced emulation controller provides high performance
- Compatible with +3.3V or +5V processors
- One LED provides operational status

**Software Features**

- Compatible with Code Composer Studio from Texas Instruments
- Compatible with Win 98 ME, NT, 2000, XP
- Operates with "SDFlash" Programming Utility from Spectrum Digital
- Compatible with Programming utilities developed by Texas Instruments

**PRODUCT INCLUDES:**

- XDS510PP PLUS JTAG Emulator
- +5 Volt power supply
- Parallel port cable
- CD-ROM with drivers
- Installation Instructions

**COMPATIBLE PRODUCTS**

- F240x, F28xx, C54xx, C55xx, C6xxx, TMS470 ARM9, OMAP

**PRODUCT DESCRIPTION:**

The XDS560 emulator is a PCI-based next-generation emulation controller that supports high-speed RTDX on an enabled processor for real-time data rates of over 2 MB/second. It provides an unparalleled level of real-time visibility into an executing application to assist developers in debugging real-time systems. The XDS560 can achieve code download speeds of up to 500 Kbytes per second improving start-up times for larger applications and thus speeding development. The XDS560 also enables real-time non-intrusive Advanced Event Triggering capabilities, including event sequence detection, extended benchmarking capabilities, and program range breakpoints. The XDS560 is compatible with existing XDS510-class emulators, and uses the identical 14-pin JTAG header connector used by the XDS510 to preserve investments made in software and target boards

**PRODUCT INCLUDES:**

- XDS560 JTAG Emulator
- CD-ROM with drivers
- Installation Instructions

**COMPATIBLE PRODUCTS**

- F240x, F28xx, C54xx, C55xx, C6xxx, TMS470 ARM9, OMAP

**PRODUCTS NOT SUPPORTED**

- 'C2x, 'C20x, 'C3x, 'C4x, 'C5x, 'C8x

These processor families will not be supported by the XDS560 JTAG emulator

**PRODUCT DESCRIPTION:**

The TMS320VC33 DSK is built using a state of the art low power and low cost 150 MegaFlop TMS320VC33. The board is further supported by a 48Khz stereo 20 bit codec with 2 on-board microphones, external SRAM, external FeRAM boot flash and CPLD logic. The new software applications and demos run under all Windows platforms (older C31 DSK applications are supported but Win9x only). Applications can also now be created in less time using the included TI-COFF optimizing C compiler.

**HARDWARE FEATURES**

- TMS320VC33 Digital Signal Processor (DSP) operating at 60 MHz from Texas Instruments
- Embedded IEEE 1149.1 JTAG scan controller
- Interface to host PC via parallel port for debug and communications
- TLC320AD50C Sigma-Delta Codec with input and output jacks
- 2 expansion connectors for custom user logic (data, address, I/O, McBSPs)
- Stand alone capability
- +5 volt only power, AC adapter included
- Communication cable included

**Software Features**

- eZdsp VC33 Code Composer (includes C3x 'C' Compiler, Assembler, Linker, and debugger)  
from Texas Instruments

**PRODUCT INCLUDES:**

- eZdsp VC33 target board
- Parallel port cable
- CR-ROM with eZdsp VC33 Code Composer
- CD-ROM with Code Composer driver
- CD with documentation including reference manual

**OPERATING SYSTEM :**

- WINDOWS NT® 4.0 SERVICE PACK 4 OR HIGHER
- WINDOWS® 2000 SERVICE PACK 1
- WINDOWS® ME
- WINDOWS® XP

**HOST SYSTEM REQUIREMENT:**

- PENTIUM PC
- 630 MB HARD DISK FREE SPACE
- 128 MB RAM OR ABOVE
- LOCAL CD DRIVE
- USB PORT



**Description**

The DSKeye is a low cost Image developer kit for Texas Instruments DSK boards including a hardware TCP/IP interface and configurable expansion using the Santa Cruz interface. At the heart of the DSKeye is a Cyclone II FPGA, the latest device from ALTERA. This device bridges the camera to the DSP's external bus allowing efficient image transfers to main memory with little DSP overhead. It is also used to implement user-defined interfaces through the ALTERA, Santa Cruz connectors.

A growing number of Santa Cruz boards are available covering VGA, USB etc and there is also a prototyping board allowing true user definable interfaces. Visit the ALTERA website for more information on the Santa Cruz specification. The embedded TCP/IP Ethernet adapter is based on the WizNET W3100A device. The interface contains a hardware TCP/IP stack removing any DSP processing overhead and comes royalty free. The device handles TCP, UDP, IP, ICMP, ARP/RARP and raw MAC and DLC protocols with extended protocols such as DHCP and SMTP, etc easily accommodate in software. The Wiznet API has been integrated into the DSP/BIOS operating system to ease development. Inclusion of TCP/IP enables the DSKeye to be used as the basis of net attached smart camera and VOIP projects.

The FLASH programming functionality of the DSK board allows stand-alone applications to be implemented at a fraction of the cost currently available on the smart camera market. By using the DSK's onboard digital and analogue i/o a complete high-performance, comprehensive machine vision controller can be built and installed. Many customer applications exploit the power of the 750Mhz, 64Bit C6416DSK producing 6,000MIPS at approximately 1.5Watts (The Pentium 4 yields approximately 1,700MIPS while consuming approx 85 Watts). The DSKs are bundled with the complete TI optimizing compiler, IDE and DSP/BIOS real-time operating system.

The camera head can be mounted horizontally, vertically or remotely on a short ribbon cable. The card is easily programmed and is shipped with software examples and all FPGA programming files

**Applications**

- Machine vision
- Video phone
- Remote image sensing
- Surveillance systems
- Biometrics
- Image recognition, filtering and compression
- Video streaming
- Stand-alone vision systems
- Net-connect smart camera
- VOIP projects.

deal solution for educational/research and prototype, stand-alone image processing and machine vision applications.

**Features**

- 5.2 Megapixel Omnivision CMOS sensor
- Selectable frame size and rate
- Latest ALTERA Cyclone II FPGA
- Embedded TCP/IP interface port based on WizNET W3100A
- Santa Cruz prototyping socket for custom interfaces.
- Example frame grabbing routines supplied.
- Fully compatible with the TI Image Processing Library for high performance processing

**Description**

Low cost embedded TCP/IP Ethernet adapter. Ideal solution for educational/research and prototype, stand-alone network development.

DSKinet is an embedded TCP/IP Ethernet daughter card based on the W3100A. Compatible with C6416DSK, C6713DSK, C6211DSK, C6711DSK, C5510DSK and C5416DSK Boards. The interface contains a hardware TCP/IP stack removing any DSP processing overhead and comes royalty free. The device handles TCP, UDP, IP, ICMP, ARP/RARP and raw MAC and DLC protocols with extended protocols such as DHCP and SMTP, etc easily accommodate in software. The Wiznet API has been integrated into the DSP/BIOS operating system to ease development. Inclusion of TCP/IP enables the DSKinet to be used as the basis of net attached DSP and VOIP projects.

**Features.**

- Embedded TCP/IP Ethernet adapter based on WizNET W3100A .
- TCP, UDP, IP, ICMP, ARP/RARP and raw MAC and DLC protocols.

**Applications**

- Net-connect DSP processing
- Network development
- VOIP projects.