

TMDSEVM642

DM642 Evaluation Module



Features

DM642 EVM hardware features:

DSP & Memory

- 720 Mhz DM642 DSP
- 4 MBytes Flash, 32 MB of 133 MHz SDRAM and 256 kbit I2C EEPROM

Video Capture

- 3 Female RCA connectors for composite video input (NTSC, PAL)
- 1 Female S-Video connector for component (Y-C) video input (NTSC, PAL)

Video Display

- TVP5150/5146 Video Decoder
- 3 Female RCA connectors (1 for composite video output, and 3 for RGB output or HDTV)
- 1 Female S-Video connector for RGB monitor output
- 1 Female 15-pin VGA connector for RGB monitor output
- On-Screen Display support (OSD FPGA)

Audio

- 2 Channel Line In (stereo), 8kHz to 96 kHz sampling rate
- 2 Channel Line Out (stereo)
- 1 Microphone Input (mono)

Connectivity

- Can be used as a PCI plug-in card or stand-alone with an external power supply brick (+5V)
- 10BASE-T or 100 Base-TX using single RJ-45 connector
- Dual UART interface
- Daughter card interface for video port and memory bus expansion

Emulation, Power, Miscellaneous

- 14-pin JTAG for external emulation hardware support
- 60-pin next generation emulation header for advanced emulation features such as Trace and High Speed Real-Time Data Exchange
- Boot mode selection via switches
- Push button reset
- 8 User defined LEDs and GPIOs
- On-board switching voltage regulators for adjustable DSP core voltage (+1.2 to +1.4) and fixed +1.8V (OSD FPGA) and +3.3V

DM642 EVM Software:

- Installation support for CCStudio v2.2 and v3.0.
- DM642 Chip Support Package, DSP/BIOS kernel support for the new peripherals (Video Port, VIC, EMAC, MDIO)
- Device Driver Kit (DDK), which includes drivers for DM642 video capture and display drivers for the DM642 EVM card, AIC23 audio codec driver, Dual UART driver, Generic McASP data mover driver for C64x DSPs, and PCI target-side driver from Valley Technologies.
- eXpressDSP Reference Framework 5
- Video Application Demos including source code for: Capture/Display Pass-thru Demos (Composite/S-Video In/Out), On-Screen Display (OSD), Audio Loopback
- Streaming Media Executable Demos (with object code libraries) Video Loopback demos
- (H.263, MPEG-2 video and JPEG), TCP/IP Networking stack (Client/Configuration), Network Camera Demo and Audio Loopback (G.729)

What's Included

The full contents of the kit include:

- DM642 EVM Baseboard
- DM642 EVM CD (contents described above)
- DM642 EVM Quick Start Guide
- DM642 EVM technical reference

- 5V/5A Power Supply
- Multilingual Regulatory Compliance Statement

Texas Instruments TMDSEVM642

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

Source code is available for Video Application demos for Composite/S-Video In/Out, Capture/Display pass-thru, On-Screen Display (OSD) and Audio Loopback, while object code libraries are included for Streaming Media executable demos such as Video Loopback (H.263, MPEG-2 video and JPEG), TCP/IP Networking stack (Client Configuration), Network camera and Audio Loopback (G.729).

TMDSEVM642 includes a standard US power cord

TMDSEVM642-0E version includes a European power cord