DaVinci™ Technology Overview

www.thedavincieffect.com

September 2008

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DaVinci™ Processors: Tuned for Digital Video End Equipments

DaVinci Processor	CPU	MHz	Capture/ Display
DM335*	ARM926	135, 216, 270	Capture/Display
DM355*	ARM926**	135, 216, 270	Capture/Display
DM6467	C64x+™/ARM926†	594/297	Capture/Display
DM648	C64x+	720, 900	Capture/Display
DM647	C64x+	720, 900	Capture/Display
DM6446*	C64x+/ARM926	600/300	Capture/Display
DM6443	C64x+/ARM926	600/300	Display
DM6441*	C64x+/ARM926	512/256	Capture/Display
DM6437	C64x+	400, 500, 600	Capture/Display
DM6435	C64x+	400, 500, 600	Capture
DM6433	C64x+	400, 500, 600	Display
DM6431	C64x+	300	Capture

*Includes video imaging co-processor **Includes MPEG-4/JPEG co-processor
†Includes DaVinci High-Definition video/imaging co-processors

Targeted Applications/End Equipments

- Automotive infotainment
- Automotive vision
- Digital cameras
- Digital media adaptor
- Digital photo frames
- Digital telescope
- Digital video recorders
- E-books
- Internet radio
- IP network cameras
- IP set-top boxes
- Machine vision
- Media gateways
- Medical imaging
- Multi-conferencing units
- Portable media players
- Robotics
- Video broadcast transcoding
- Video conferencing
- Video door bells
- Video-enabled universal remote controls
- Video infrastructure
- Video phones
- Video surveillance DVRs/DVS

and many more

Getting started is easy! See available development tools and software beginning on page 2.

DaVinci™ Technology Overview

DaVinci technology is a signal processing-based solution tailored for digital video applications that provides video equipment manufacturers with integrated processors, software, tools and support to simplify the design process and accelerate innovation.

DaVinci Processors Reduce System Cost

The portfolio of DaVinci processors consists of scalable, programmable signal processing system on chips (SoCs), accelerators and peripherals, optimized to match the price, performance and feature requirements for a broad spectrum of video end equipments. The DaVinci technology portfolio includes:

- **TMS320DM644x digital media processors** – Highly integrated SoCs based on an ARM926 processor and the TMS320C64x+™ DSP core. The TMS320DM6446, TMS320DM6443 and TMS320DM6441 processors are ideal for applications and end equipments such as video phones, automotive infotainment and IP set-top boxes (STB).
- **TMS320DM643x digital media processors** – Based on the C64x+™ DSP core, the TMS320DM6437, TMS320DM6435, TMS320DM6433 and TMS320DM6431 processors are ideal for cost-sensitive applications and include special features that make them suitable for automotive market applications such as lane departure and collision avoidance, as well as machine-vision systems, robotics and video security.
- **TMS320DM647/TMS320DM648 digital media processors** – Optimized for multi-channel video security and infrastructure applications, including digital video recorders (DVRs), IP video servers, machine-vision systems and high-performance imaging applications. The DM647 and DM648 digital media processors are fully programmable and offer industry-leading performance for the most demanding streaming multimedia applications.
- **TMS320DM6467 digital media processors** – DSP-based system-on-chips (SoCs) specifically tuned for real-time, multi-format, HD video transcoding at 10× the performance and 1/10th the price. The DM6467 consists of an integrated ARM926EJ-S core, C64x+ DSP core, High-Definition Video/Imaging Co-Processors (HD-VICP), video data conversion engine and targeted video port interfaces. The DM6467 is specifically designed to address the HD transcoding challenge for commercial and consumer markets, such as media gateways, multi-point control units, digital media adaptors, digital video servers and recorders for the security market and IP set-top boxes.
- **TMS320DM335 digital media processors** – Include an integrated video processing subsystem and an ARM926 processor at clock speeds of 135, 216 or 270 MHz. The DM335 processor is optimized for targeted end equipments such as video-enabled universal remote controls, Internet radio, e-books, video doorbells and digital telescopes. The DM335 processor is a low-cost, low-power processor providing advanced graphical user interface for display applications that do not require video compression and decompression.
- **TMS320DM355 digital media processors** – Include an integrated video processing subsystem, an MPEG-4/JPEG co-processor plus an ARM926 processor and is available in clock speeds of 135, 216 or 270 MHz. The DM355 is optimized for targeted end equipments such as video doorbells, baby monitors, digital cameras and wireless IP network cameras. Driving the market growth for next-generation, portable, high-definition (HD) video products, this digital media processor provides HD video performance and double the battery life of today's comparable portable products.

Complete System Tools Get You to Market Faster

Developers can get started today with DaVinci™ technology-based software and development tools tailored to simplify design in video applications, including:

- **Digital Video Evaluation Module (DVEVM)** – DVEVMs are comprised of both hardware and software, and enable developers to start instantaneous evaluation of DaVinci processors. DVEVMs come complete with a demo version of MontaVista Linux Pro 4.0, drivers, Codec Engine, evaluation codecs and an evaluation board. While customers developing on an ARM926 processor can go into production with a DVEVM, it is not recommended or supported by TI. Customers developing on a DSP will require a DVSPB (see description below) in order to go into production. Available DVEVMs:
  - TMS320DM6446 DVEVM (TMDSEVM6446)
  - TMS320DM355 DVEVM (TMDXEVM355)
  - TMS320DM6467 DVEVM (TMDXEVM6467)
- **Digital Video Software Production Bundle (DVSPB)** – DVSPBs come complete with drivers, Codec Engine, evaluation codecs and a production license for MontaVista Linux Pro 4.0, plus one year of MontaVista Zone access with updates. DVSPBs do not contain a hardware board. A DVSPB is recommended, coupled with a DVEVM, as a must-have for TI-supported ARM926 processor production design.

  Available DVSPBs:
  - Linux System DVSPB (TMDSDVSPBA9-L) – includes everything listed above
  - DSP + Linux System DVSPB (TMDSDVSPBA9-3L) – includes everything listed above, plus Code Composer Studio™ (CCStudio) integrated development environment (IDE) version 3.3 and Spectrum Digital XDS560™ emulator
- **Digital Video Development Platform (DVDP)** – A DVDP enables immediate evaluation of DSP-based DaVinci technology digital media processors. DVDPs include DSP/BIOS™ production-ready kernel, drivers, Codec Engine, evaluation codecs, Code Composer Studio IDE and an evaluation board. A DVDP provides developers with a comprehensive platform that can be used throughout the entire design process. A DVDP is recommended for TMS320DM6437 and TMS320DM648 customers only.

  Available DVDPs:
  - TMS320DM6437 DVDP (TMDXVDP6437)
  - TMS320DM648 DVDP (TMDSDVP648)

For more information on DaVinci technology DVEVMs, DVSPBs and DVDPs, please visit **www.ti.com/davincitools**.

Code Composer Studio Integrated Development Environment

The Code Composer Studio IDE offers robust, mature core functions with easy-to-use configuration and graphical visualization tools for faster system design.

- The CCStudio IDE integrates everything programmers need for application development from start to finish. The CCStudio Platinum Edition (version 3.3) simplifies this process by offering a fully merged IDE that supports the DaVinci processor platform, TMS320C6000™ DSP platform, TMS320C5000™ DSP platform, TMS320C2000™ DSP platform and OMAP™ platform. Free 120-day evaluation tools that include the CCStudio IDE are available.

For more information on the Code Composer Studio IDE, visit **www.ti.com/ccstudio**.

eXpressDSP™ Digital Media Software Simplifies Development and Reduces Design Time

eXpressDSP Digital Media Software

eXpressDSP™

To simplify development and reduce cost in your digital media application, a complete portfolio of eXpressDSP-compliant digital media software is now widely available. TI digital media software is:

- Production tested for easy integration into audio, video and voice applications
- Optimized to support DaVinci™ technology-based digital media processors, TMS320C6000™ and TMS320C5000™ DSP platforms
- Designed to meet the needs of engineers by allowing them to focus on product differentiation instead of codec development
- Available via free 60-day evaluation with multiple licensing options
- Fully supported by Authorized Software Providers (ASPs) that give customized technical support

Available Codecs

H.263	H.264	MPEG-4	MPEG-2	JPEG
AAC+	AC3	G.723.1	G.729ab	G.726
G.711	MP3	WMV9/VC1	WMA9	

Customized Technical Support for eXpressDSP Digital Media Software Provided by Authorized Software Providers

DSP™ TEXAS INSTRUMENTS TECHNOLOGY
Authorized Software Provider

To ensure extensive and qualified support, TI has established a worldwide network of Authorized Software Providers (ASPs) that offer support for TI-enabled IP and customized software and engineering services. ASPs provide four hours of free support during the free 60-day evaluation stage and up to 40 hours during application development.

For more information on ASPs, please visit **www.ti.com/asp**.

Authorized Software Providers by Region

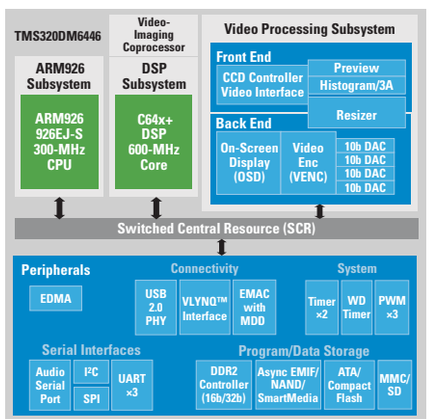
	Regions						
ASPs	Americas	Europe	China	Asia – Other	Japan	Korea	India
ATEME	✔	✔	✔	✔	✔	✔	
eInfochips	✔	✔					✔
eSOL					✔		
Ingenient	✔	✔	✔	✔	✔	✔	
Ittiam	✔	✔		✔	✔	✔	✔
Logic	✔						
MPC Data		✔					
SEED Electronic Tech.			✔				
Wintech Digital			✔	✔			✔

TMS320DM644x Digital Media Processors

TMS320DM644x digital media processors are highly integrated SoCs based on an ARM926 processor and the TMS320C64x+™ DSP core. They are ideal for applications such as video phones, automotive infotainment and IP STBs.

Device	CPU	Frequency (MHz)	L1/ SRAM (Bytes)	L2/ SRAM (Bytes)	ROM (Bytes)	External Memory I/F	EDMA	Video Ports (Configurable)	Serial I/F	Connectivity I/F	Program/ Data Storage	Voltage (V) Core	Voltage (V) I/O	Packaging	100-U Price[1]
TMS320**DM6446**ZWT	C64x+, ARM9, DaVinci Video	594 (DSP) 297 (ARM)	112 K (DSP) 40 K (ARM)	64 K (DSP)	16 K (ARM)	1 16-/8-Bit EMIFA 1 32-/16-Bit DDR2	64 Ch	1 Input, 1 Output	ASP, I^2C, SPI, 3 UARTs	USB 2.0, VLYNQ™, 10/100 EMAC	Async SRAM, DDR2 SDRAM, NAND Flash, SmartMedia/xD	1.2	1.8/ 3.3	361 BGA, 16 × 16 mm	43.60
TMS320**DM6443**ZWT	C64x+, ARM9, DaVinci Video	594 (DSP) 297 (ARM)	112 K (DSP) 40 K (ARM)	64 K (DSP)	16 K (ARM)	1 16-/8-Bit EMIFA 1 32-/16-Bit DDR2	64 Ch	1 Output	ASP, I^2C, SPI, 3 UARTs	USB 2.0, VLYNQ, 10/100 EMAC	Async SRAM, DDR2 SDRAM, NAND Flash, SmartMedia/xD	1.2	1.8/ 3.3	361 BGA, 16 × 16 mm	37.40
TMS320**DM6441**ZWT	C64x+, ARM9, DaVinci Video	513/405 (DSP) 256/202 (ARM)	112 K (DSP) 40 K (ARM)	64 K (DSP)	16 K (ARM)	1 16-/8-Bit EMIFA 1 32-/16-Bit DDR2	64 Ch	1 Input, 1 Output	ASP, I^2C, SPI, 3 UARTs	USB 2.0, VLYNQ, 10/100 EMAC	Async SRAM, DDR2 SDRAM, NAND Flash, SmartMedia/xD	1.2/ 1.05	1.8/ 3.3	361 BGA, 16 × 16 mm	35.85

[1] *Prices are quoted in U.S. dollars and represent year 2008 suggested resale pricing. All prices are subject to change. Customers are advised to obtain the most current and complete pricing information from TI prior to placing orders. TI may verify final pricing prior to accepting any order.*



TMS320DM6446 digital media processor block diagram

For more information, visit ***www.ti.com/dm644x***

Development Tools for TMS320DM644x Processors

For Evaluation:

Description	Part Number	$U.S.[1]
TMS320DM644x Digital Video Evaluation Module (DVEVM)*	TMDSEVM6446 (U.S. part number)	2,495
Code Composer Studio™ IDE*	TMDSCCSALL-1	3,595[2]
Blackhawk XDS560™ JTAG PCI Emulator (optional)	TMDSEMU560PCI	2,995
Blackhawk XDS560 JTAG USB Emulator (optional)	TMDSEMU560U	2,999

For Production:

Digital Video Software Production Bundle (DVSPB)[3]* MontaVista Pro Software and TI DVSDK	TMDSDVSPBA9-L	6,995
DVSPB MontaVista Pro Software and TI DVSDK, CCStudio IDE, + XDS560R Emulator	TMDSDVSPBA9-3L	10,995
Code Composer Studio IDE*	TMDSCCSALL-1	3,595[2]
Blackhawk XDS560 JTAG PCI Emulator (optional)	TMDSEMU560PCI	2,995
Blackhawk XDS560 JTAG USB Emulator (optional)	TMDSEMU560U	2,999

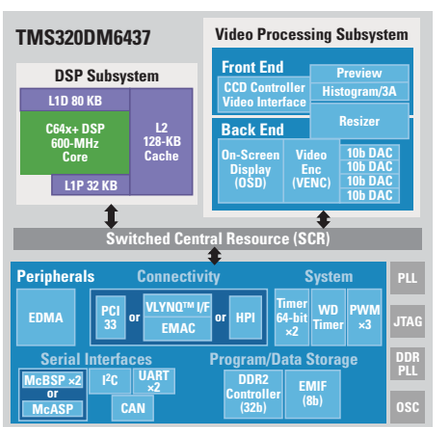
[1] *Prices are quoted in U.S. dollars and represent year 2008 suggested resale pricing. All prices are subject to change. Customers are advised to obtain the most current and complete pricing information from TI prior to placing orders. TI may verify final pricing prior to accepting any order.*
[2] *Free trial version of Code Composer Studio IDE available as part of the free evaluation tools found at* ***www.ti.com/ccstudiofet***
[3] *Requires prior purchase of DVEVM*
** Required for digital media software evaluation and/or production*

TMS320DM643x Digital Media Processors

TMS320DM643x digital media processors are based on the TMS320C64x+™ DSP core. They are ideal for cost-sensitive digital media applications such as machine-vision systems, robotics, video security, video telephony and automotive vision applications such as lane departure and collision avoidance.

Device	CPU	Frequency (MHz)	L1/ SRAM (Bytes)	L2/ SRAM (Bytes)	ROM (Bytes)	External Memory I/F	EDMA	Video Ports (Configurable)	Serial I/F	Connectivity I/F	Program/ Data Storage	Voltage (V) Core	Voltage (V) I/O	Packaging	100-U Price[1]
TMS320**DM6431**[2]	C64x+, DaVinci Video	300	64 K	64 K	64 K	1 8-Bit EMIFA, 1 16-Bit DDR2	64 Ch	1 Input	McASP, I^2C, 1 UART, 1 McBSP, 1 HECC	10/100 EMAC	Async SRAM, DDR2 SDRAM, NAND Flash	1.2	1.8/ 3.3	361 PBGA 16 × 16 mm, 376 BGA 23 × 23 mm	13.10
TMS320**DM6433**[2]	C64x+, DaVinci Video	400 500 600 700	112 K	128 K	64 K	1 8-Bit EMIFA, 1 16-/32-Bit DDR2	64 Ch	1 Output	McASP, 1 McBSP, I^2C, 1 UART	32-Bit PCI, VLYNQ, 10/100 EMAC, 16-Bit HPI	Async SRAM, DDR2 SDRAM, NAND Flash	1.05/ 1.2	1.8/ 3.3	361 PBGA 16 × 16 mm, 376 BGA 23 × 23 mm	18.35 19.40 21.60 26.00
TMS320**DM6435**[2]	C64x+, DaVinci Video	400 500 600 700	112 K	128 K	64 K	1 8-Bit EMIFA, 1 16-/32-Bit DDR2	64 Ch	1 Input	McASP, I^2C, 1 McBSP, 2 UARTs, 1 HECC	VLYNQ, 10/100 EMAC, 16-Bit HPI	Async SRAM, DDR2 SDRAM, NAND Flash	1.05/ 1.2	1.8/ 3.3	361 PBGA 16 × 16 mm, 376 BGA 23 × 23 mm	18.95 20.10 22.35 26.90
TMS320**DM6437**[2]	C64x+, DaVinci Video	400 500 600 700	112K	128 K	64 K	1 8-Bit EMIFA, 1 16-/32-Bit DDR2	64 Ch	1 Input, 1 Output	McASP, I^2C, 1 HECC 2 McBSPs[3], 2 UARTs	32-Bit PCI, VLYNQ, 10/100 EMAC, 16-Bit HPI	Async SRAM, DDR2 SDRAM, NAND Flash	1.05/ 1.2	1.8/ 3.3	361 PBGA 16 × 16 mm, 376 BGA 23 × 23 mm	24.35 25.85 28.75 34.60

[1] *Prices are quoted in U.S. dollars and represent year 2008 suggested resale pricing. All prices are subject to change. Customers are advised to obtain the most current and complete pricing information from TI prior to placing orders. TI may verify final pricing prior to accepting any order.*
[2] *Available in the ZDU (376-pin plastic BGA) and ZWT (361-pin Pb-free PBGA) packages. Also available with Q100 automotive reliability.*
[3] *McBSP can be configured as an SPI peripheral.*



TMS320DM6437 digital media processor block diagram

For more information, visit ***www.ti.com/dm643x***

Development Tools for TMS320DM643x Processors

For Evaluation and Production:

Description	Part Number	$U.S.[1]
TMS320DM6437 Digital Video Development Platform (DVDP)*	TMDXVDP6437	495
Code Composer Studio™ IDE*	TMDSCCSALL-1	3,595[2]
Blackhawk XDS560™ JTAG PCI Emulator (optional)	TMDSEMU560PCI	2,995
Blackhawk XDS560 JTAG USB Emulator (optional)	TMDSEMU560U	2,999

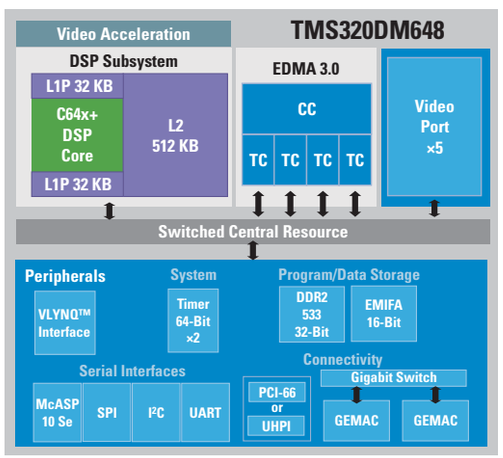
[1] *Prices are quoted in U.S. dollars and represent year 2008 suggested resale pricing. All prices are subject to change. Customers are advised to obtain the most current and complete pricing information from TI prior to placing orders. TI may verify final pricing prior to accepting any order.*
[2] *Free trial version of Code Composer Studio IDE available as part of the free evaluation tools found at* ***www.ti.com/ccstudiofet***
** Required for digital media software evaluation and/or production*

TMS320DM647/TMS320DM648 Digital Media Processors

TMS320DM647/TMS320DM648 digital media processors are based on the TMS320C64x+™ DSP core and are optimized for multi-channel video security and infrastructure applications, including digital video recorders (DVRs), IP video servers, machine-vision systems and high-performance imaging applications.

Device	CPU	Frequency (MHz)	L1/ SRAM (Bytes)	L2/ SRAM (Bytes)	ROM (Bytes)	External Memory I/F	EDMA	Video Ports (Configurable)	Serial I/F	Connectivity I/F	Program/ Data Storage	Voltage (V) Core	Voltage (V) I/O	Packaging	100-U Price[1]
TMS320**DM647**ZUT7 TMS320**DM647**ZUT9	C64x+, DaVinci Video	720 900	32 K/32 K	256 K	64 K	1 16-/8-Bit EMIFA[2] 1 32-/16-Bit DDR2	64 Ch	5 Video Ports (Each configurable as dual capture, single capture, display, TSI capture)	1 I2C, 1 SPI, 1 UART, 1 McASP	PCI/HPI, VLYNQ, 10/100/1000 3-pt Ethernet Switch Subsys w/ 1 SGMII Pt	Async SRAM, DDR2 SDRAM, NAND Flash, NOR Flash	1.2/ 1.2	1.8/ 3.3	529 nFBGA 19 × 19 mm	52.50 73.50
TMS320**DM648**ZUT7 TMS320**DM648**ZUT9	C64x+, DaVinci Video	720 900	32 K/32 K	512 K	64 K	1 16-/8-Bit EMIFA[2] 1 32-/16-Bit DDR2	64 Ch	5 Video Ports (Each configurable as dual capture, single capture, display, TSI capture)	2 I2C, 1 SPI, 1 UART, 1 McASP 2 TSIP	PCI/HPI, VLYNQ, 10/100/1000 3-pt Ethernet Switch Subsys w/ 2 SGMII Pts	Async SRAM, DDR2 SDRAM, NAND Flash, NOR Flash	1.2/ 1.2	1.8/ 3.3	530 nFBGA 19 × 19 mm	65.60 86.60

[1] *Prices are quoted in U.S. dollars and represent year 2008 suggested resale pricing. All prices are subject to change. Customers are advised to obtain the most current and complete pricing information from TI prior to placing orders. TI may verify final pricing prior to accepting any order.*
[2] *EMIFA does not support SDRAM.*



TMS320DM648 digital media processor block diagram

For more information, visit ***www.ti.com/dm64x***

Development Tools for TMS320DM647/DM648 Processors

For Evaluation and Production:

Description	Part Number	$U.S.[1]
TMS320DM648 Digital Video Development Platform (DVDP)*	TMDXDVP648	1,295
Code Composer Studio™ IDE*	TMDSCCSALL-1	3,595[2]
Blackhawk XDS560™ JTAG PCI Emulator (optional)	TMDSEMU560PCI	2,995
Blackhawk XDS560 JTAG USB Emulator (optional)	TMDSEMU560U	2,999
XDS560 USB Trace Emulator[3]	TMDSEMU560	9,995

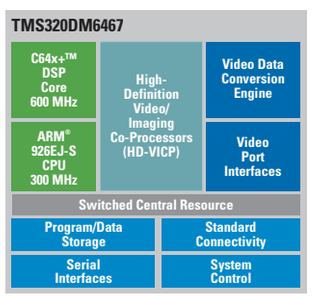
[1] *Prices are quoted in U.S. dollars and represent year 2008 suggested resale pricing. All prices are subject to change. Customers are advised to obtain the most current and complete pricing information from TI prior to placing orders. TI may verify final pricing prior to accepting any order.*
[2] *Free trial version of Code Composer Studio IDE available as part of the free evaluation tools found at* ***www.ti.com/ccstudiofet***
[3] *The XDS560 Trace is designed for use with trace-enabled DSPs. Currently the DM647 and DM648 processors are fully supported by trace.*
** Required for digital media software evaluation and/or production*

TMS320DM6467 Digital Media Processor

The DM6467 DaVinci processor is a DSP-based SoC specifically tuned for real-time, multi-format, high-definition (HD) video transcoding delivering a 10× performance improvement over previous-generation processors to perform simultaneous, multi-format HD encode, decode and transcoding up to H.264 HP@L4 (1080p 30 fps, 1080i 60 fps, 720p 60 fps). Key application areas include media gateways, multi-point control units, digital media adaptors, digital video servers and recorders for the security market, IP set-top boxes.

Device	CPU	Frequency (MHz)	L1/ SRAM (Bytes)	L2/ SRAM (Bytes)	ROM (Bytes)	External Memory I/F	EDMA	Video Ports (Configurable)	Serial I/F	Connectivity I/F	Program/ Data Storage	Voltage (V) Core	Voltage (V) I/O	Packaging	100-U Price[1]
TMX320**DM6467**	C64x+, ARM9 DaVinci HD Video	594 (DSP) 297 (ARM)	64 K (DSP) 56 K (ARM)	128 K (DSP)	8 K (ARM)	1 16-/8-Bit EMIFA, 1 32-/16-Bit DDR2	64 Ch	1 Video Port [config. for dual 8-bit SD (BT.565), single 16-bit HD (BT.1120), or single 8-/10-/12-bit raw capture chs]. 1 Video Port [config. for dual 8-bit SD (BT.565) or single 16-bit HD (BT.1120) display chs]. 2 Transport Stream I/F for MPEG Transport Stream. 1 VDCE for Horz/Vert Downscaling, Chroma Conversion, Edge Padding, Anti-Alias Filtering	2 McASPs, I2C, SPI, 3 UARTs (with IrDA and CIR support)	32-Bit PCI (33 MHz), USB 2.0 PHY, VLYNQ, 10/100/1000 EMAC, (w/ MII, GMII, & MDIO support), 32-/16-Bit HPI	Async SRAM, DDR2 SDRAM, Smart Media/ SSFDC/xD, NAND Flash, NOR Flash	1.2	1.8/ 3.3	529 BGA 19 × 19 mm	87.65

[1] *Prices are quoted in U.S. dollars and represent year 2008 suggested resale pricing. All prices are subject to change. Customers are advised to obtain the most current and complete pricing information from TI prior to placing orders. TI may verify final pricing prior to accepting any order.*



TMS320DM6467 digital media processor block diagram

For more information, visit ***www.ti.com/dm6467***

Development Tools for the TMS320DM6467 Processor

For Evaluation:

Description	Part Number	$U.S.[1]
TMS320DM6467 Digital Video Evaluation Module (DVEVM)*	TMDXEVM6467	1,995
Code Composer Studio™ Integrated Development Environment (IDE)*	TMDSCCSALL-1	3,595[2]
Blackhawk XDS560™ JTAG PCI Emulator (optional)	TMDSEMU560PCI	2,995
Blackhawk XDS560 JTAG USB Emulator (optional)	TMDSEMU560U	2,999

For Production:

Digital Video Software Production Bundle (DVSPB)[3]* MontaVista Pro Software and TI DVSDK	TMDSDVSPBA9-L	6,995
DVSPB MontaVista Pro Software and TI DVSDK, CCStudio IDE, + XDS560R Emulator	TMDSDVSPBA9-3L	10,995
Code Composer Studio IDE*	TMDSCCSALL-1	3,595[2]
Blackhawk XDS560 JTAG PCI Emulator (optional)	TMDSEMU560PCI	2,995
Blackhawk XDS560 JTAG USB Emulator (optional)	TMDSEMU560U	2,999

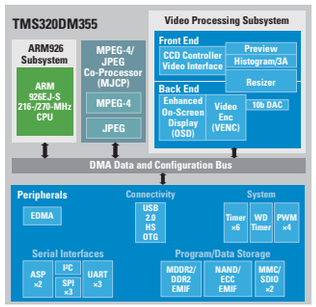
[1] *Prices are quoted in U.S. dollars and represent year 2008 suggested resale pricing. All prices are subject to change. Customers are advised to obtain the most current and complete pricing information from TI prior to placing orders. TI may verify final pricing prior to accepting any order.*
[2] *Free trial version of Code Composer Studio IDE available as part of the free evaluation tools found at* ***www.ti.com/ccstudiofet***
[3] *Requires prior purchase of DVEVM* ** Required for digital media software evaluation and/or production*

TMS320DM3x Digital Media Processors

The DM335 processor is a low-cost, low-power processor providing advanced graphical user interface for display applications that do not require video compression and decompression. Coupled with a video processing subsystem (VPSS) that provides 720p display, the DM335 processor is powered by an ARM9 S core so developers can create feature-rich graphical user interfaces. Optimized for HD video, the TMS320DM355 digital media processor integrates a video/imaging co-processor to enable ultra-low power consumption. The DM355 processor comprises an integrated video processing subsystem, an MPEG-4/JPEG coprocessor (MJCP), an ARM926 processor and peripherals.

Device	CPU	Frequency (MHz)	L1/ SRAM (Bytes)	L2/ SRAM (Bytes)	ROM (Bytes)	External Memory I/F	EDMA	Video Ports (Configurable)	Serial I/F	Connectivity I/F	Program/ Data Storage	Voltage (V) Core	Voltage (V) I/O	Packaging	100-U Price[1]
TMX320**DM335**ZCE135	ARM9,	135	32	–	8 K	1 16-/8-Bit	64 Ch	1 Input,	3 SPI,	USB 2.0 HS	Async SRAM,	1.3	1.8/	337 BGA	10.50
TMX320**DM335**ZCE216	DaVinci	216				EMIFA,		1 Output	2 ASP,		mDDR/DDR2		3.3	13 × 13 mm	11.90
TMX320**DM335**ZCE270	Video	270				1 16-Bit			3 UARTs,		SDRAM,				13.65
						mDDR/DDR2			I^2C		OneNAND,				
											NAND Flash,				
											SmartMedia/xD				
TMX320**DM355**ZCE135	ARM9,	135	–	–	8 K	1 16-/8-Bit	64 Ch	1 Input,	3 SPI,	USB 2.0 HS	Async SRAM,	1.3	1.8/	337 BGA	13.75
TMX320**DM355**ZCE216	DaVinci	216				EMIFA,		1 Output	2 ASP,		mDDR/DDR2		3.3	13 × 13 mm	16.55
TMX320**DM355**ZCE270	Video	270				1 16-Bit			3 UARTs,		SDRAM,				19.50
						mDDR/DDR2			I^2C		NAND Flash,				
											SmartMedia/xD				

[1] *Prices are quoted in U.S. dollars and represent year 2008 suggested resale pricing. All prices are subject to change. Customers are advised to obtain the most current and complete pricing information from TI prior to placing orders. TI may verify final pricing prior to accepting any order.*



TMS320DM355 digital media processor block diagram

For more information, visit ***www.ti.com/dm355***

Development Tools for the TMS320DM335 and TMS320DM355 Processors

For Evaluation:

Description	Part Number	$U.S.[1]
TMS320DM355 Digital Video Evaluation Module (DVEVM)*	TMDXEVM355	495
Code Composer Studio™ IDE*	TMDSCCSALL-1	3,595[2]
Blackhawk XDS560™ JTAG PCI Emulator (optional)	TMDSEMU560PCI	2,995
Blackhawk XDS560 JTAG USB Emulator (optional)	TMDSEMU560U	2,999

For Production:

Digital Video Software Production Bundle (DVSPB)[3]* MontaVista Pro Software and TI DVSDK	TMDSDVSPBA9-L	6,995
DVSPB MontaVista Pro Software and TI DVSDK, CCStudio IDE, + XDS560R Emulator	TMDSDVSPBA9-3L	10,995
Code Composer Studio IDE*	TMDSCCSALL-1	3,595[2]
Blackhawk XDS560 JTAG PCI Emulator (optional)	TMDSEMU560PCI	2,995
Blackhawk XDS560 JTAG USB Emulator (optional)	TMDSEMU560U	2,999

[1] *Prices are quoted in U.S. dollars and represent year 2008 suggested resale pricing. All prices are subject to change. Customers are advised to obtain the most current and complete pricing information from TI prior to placing orders. TI may verify final pricing prior to accepting any order.*
[2] *Free trial version of Code Composer Studio IDE available as part of the free evaluation tools found at* ***www.ti.com/ccstudiofet***
[3] *Requires prior purchase of DVEVM*
** Required for digital media software evaluation and/or production*

TI's DaVinci™ Developer Network Makes DaVinci Technology Easy to Implement

TI DaVinci Developer Network Network Support

Texas Instruments DaVinci Developer Network

Valued members of TI's DaVinci Developer Network provide integral components and tools that complement DaVinci technology. Developer Network members offer various levels of video system integration, optimization and system expertise on DaVinci products worldwide.

For a complete list of Developer Network members supporting DaVinci technology, please visit the TI DaVinci Developer Network Catalog at **www.ti.com/www.ti.com/dspdevnetwork**.

A Variety of Resources Keep You in the Know

DaVinci™ Technology Webcasts

View the archive of TI on-demand DaVinci webcasts to learn how to accelerate and simplify your video system design. Designed for 24/7 access, these webcasts typically last one hour.

Visit **www.ti.com/davinciwebcasts**.

DaVinci Video Casts: Engineering in Front of the Camera

Whether you have two minutes or two hours, a variety of DaVinci technology videos are available for on-demand viewing. These four-minute videos provide engineers the technical meat on the TMS320DM355 and TMS320DM6467 DaVinci processor products, tools and software. Check out the line-up at **www.ti.com/davincivideocasts**.

DaVinci Technology Training

Get hands-on experience on DaVinci technology through one-day and multi-day workshops and online training. Check **www.ti.com/davincitraining** for the next workshop near you, as well as 24/7 online training and webcasts.

- Introduction to DaVinci Technology Online Training – **www.ti.com/davinciolt**
- DaVinci Technical Seminar – **www.ti.com/davinciseminar**
- DM6467 DaVinci Processor for HD Transcoding – **www.ti.com/dm6467olt**
- TMS320DM644x Multi-Day Workshop – **www.ti.com/dm644xmdw**
- TMS320DM6437 One-Day Workshop – **www.ti.com/dm6437odw**

DaVinci White Papers and Articles

View the wide variety of DaVinci white papers and articles to see the possibilities for designing and developing digital video and audio end equipment devices and applications using DaVinci technology. Visit **www.ti.com/davinciwhitepaper**.

DaVinci Technology FAQs

Have questions about DaVinci technology? Browse the DaVinci questions and answers to find out everything you need to know about DaVinci processors, development tools, applications frameworks, training and support at **www.ti.com/davincifaq**.

Delve Into Digital Video with Video360 Podcasts

The Video360 podcasts feature industry news, technology updates and practical tips regarding the latest innovations in digital video. Check out the archive at **www.ti.com/davincipodcast**.

CD Provides Comprehensive View of DaVinci Technology

This highly informative CD includes numerous white papers, FAQs, technical specifications, product bulletins, benchmarks, information about third-party support, podcasts, important Web links and more. Get your free copy now at **www.ti.com/davincicd**.

Compatible Analog Products for DaVinci Technology-Based Digital Video Applications

TI provides engineers with high-performance signal chain, interface, clocking and power-management solutions to complete digital video applications based on DaVinci technology, as well as a variety of high-performance analog and logic products that help maximize the performance and functionality of your application. **www.ti.com/davincianalog**

Video360 Blog Provides Valuable Perspective

Check out the latest posts by TI's Gene Frantz, a recognized leader in DSP technology, and other TI industry leaders. Interesting, enlightening and opinionated, they'll give you insight into trends at TI and throughout the industry. See what they're saying at **www.ti.com/davinciblog**.

Additional Web Links and Community Resources

- **linux.davincidsp.com** – Here engineers can find open source files related to DaVinci and join the DaVinci Linux Open Source mailing list for discussions.
- **wiki.davincidsp.com** – The DaVinci Technology Developers Wiki was established to assist developers taking advantage of DaVinci processors to get started, help each other innovate and to foster the growth of general knowledge about the hardware and software surrounding these devices.
- **www.ti.com/dspdesignsupport** – DSP Design Support provides quick access to all technical documentation, tools and software details – all from one page.
- **www.ti.com/quality** – Find information regarding the quality, reliability and Lead (Pb)-Free compliance of TI semiconductor products.

DaVinci™ Technology Technical Documentation

Application Notes	Web Search Literature #
Basic Application Loading over the Serial Interface for the DaVinci TMS320DM644x	SPRAAI0
Motion JPEG Demo on TMS320DM6446	SPRAAH9
Implementing DDR2 PCB Layout on the DM644x DMSoC	SPRAAC5
DaVinci System Level Benchmarking Measurements	SPRAAF6
Booting DaVinci EVM from NAND Flash	SPRAAA0
Fast Development with DaVinci On-Screen Display (OSD)	SPRAAD7
TMS320DM644x Power Consumption Summary	SPRAAD6
EDMA v3.0 (EDMA3) Migration Guide for TMS320DM644x DMSoC	SPRAAA6
TMS320C64x™ to TMS320C64x+ CPU Migration Guide	SPRAA84
TMS320DM644x Thermal Considerations	SPRAAE4
Migrating from TMS320DM642/3/1/0 to the TMS320DM647/DM648 Device	SPRAAM5
Thermal Considerations for the DM64xx, DM64x, and C6000 Devices	SPRAAL9
Implementing DDR2 PCB Layout on the TMS320DM647/DM648 DMSoC	SPRAAK9
TMS320DM6467 SoC Architecture and Throughput Overview	SPRAAW4
TMS320DM6467 Univ. Serial Bus Downstream Host Compliance Testing	SPRAAV9
Building a Small Embedded Linux Kernel Example	SPRAAH2
Implementing DDR2/mDDR PCB Layout on the TMS320DM335 DMSoC	SPRAAL2
Implementing DDR2/mDDR PCB Layout on the TMS320DM35x DMSoC	SPRAAR3
TMS320DM355 DSP Power Reference Design PR742	SLVA288
Understanding TI's PCB Routing Rule-Based DDR Timing Specification	SPRAAV0
Building a Small Embedded Linux Kernel Example	SPRAAH2
USB 2.0 Board Design and Layout Guidelines	SPRAAR7
EDMA v2.0 to EDMA v3.0 (EDMA3) Migration Guide	SPRAAP4
TMS320DM64xx USB Compliance Checklist	SPRAAT5
User's Guides	
TMS320DM643x DMP 64-Bit Timer User's Guide	SPRU989
TMS320DM643x DMP Pulse-Width Modulator (PWM) User's Guide	SPRU995
TMS320DM643x DMP DDR2 Memory Controller User's Guide	SPRU986
TMS320DM643x DMP DSP Subsystem Reference Guide	SPRU978
TMS320DM643x DMP Inter-Integrated Circuit (I^2C) Module User's Guide	SPRU991
TMS320DM643x DMP General-Purpose Input/Output (GPIO) User's Guide	SPRU988
TMS320DM643x DMP Asynchronous EMIF UG	SPRU984
TMS320DM643x DMP Peripherals Overview Reference Guide	SPRU983
TMS320DM643x DMP EMAC/MDIO User's Guide	SPRU941
TMS320C64x+ DSP Cache User's Guide	SPRU862
TMS320C64x+ Megamodule Reference Guide	SPRU871
TMS320C64x/C64x+ DSP CPU and Instruction Set Reference Guide	SPRU732
TMS320DM644x DMSoC Enhanced Direct Memory Access (EDMA) Controller User's Guide	SPRUE23
TMS320C64x+ DSP Little-Endian Library Programmer's Reference Guide	SPRUEB8
TMS320DM643x DMP Peripherals Overview Reference Guide	SPRU983
TMS320DM643x DMP Inter-Integrated Circuit (I^2C) Module User's Guide	SPRU991
TMS320DM643x DMP General-Purpose Input/Output (GPIO) User's Guide	SPRU988
TMS320DM643x DMP EMAC/MDIO User's Guide	SPRU941
TMS320DM643x DMP Asynchronous External Memory Interface (EMIF) UG	SPRU984
TMS320DM644x DMSoC VLYNQ™ Port User's Guide	SPRUE36
TMS320DM644x DMSoC Peripherals Overview Reference Guide	SPRUE19
TMS320C64x+ Image/Video Processing Library Programmer's Reference	SPRUEB9
TMS320C64x+ DSP Big-Endian Library Programmer's Reference	SPRUEC5
TMS320DM644x DMSoC Inter-Integrated Circuit (I^2C) Peripheral UG	SPRUE27
TMS320DM644x DMSoC DDR2 Memory Controller User's Guide	SPRUE22

User's Guides (Cont'd)	Web Search Literature #
TMS320DM644x DMSoC Video Processing Front End (VPFE) User's Guide	SPRUE38
TMS320DM644x DMSoC Video Processing Back End (VPBE) User's Guide	SPRUE37
TMS320DM644x DMSoC USB Controller User's Guide	SPRUE35
TMS320DM644x DMSoC Universal Asynchronous Receiver/Transmitter (UART) User's Guide	SPRUE33
TMS320DM644x DMSoC Serial Peripheral Interface (SPI) User's Guide	SPRUE32
TMS320DM644x DMSoC Pulse-Width Modulator (PWM) User's Guide	SPRUE31
TMS320DM644x DMSoC Multimedia Card (MMC)/Secure Digital (SD) Card Controller User's Guide	SPRUE30
TMS320DM644x DMSoC Audio Serial Port (ASP) User's Guide	SPRUE29
TMS320DM644x DMSoC 64-Bit Timer User's Guide	SPRUE26
TMS320DM644x DMSoC General-Purpose Input/Output User's Guide	SPRUE25
TMS320DM644x DMSoC EMAC/MDIO Module User's Guide	SPRUE24
TMS320DM644x DMSoC ATA Controller User's Guide	SPRUE21
TMS320DM644x DMSoC Enhanced Direct Memory Access (EDMA) Controller User's Guide	SPRUE23
TMS320DM644x DMSoC Asynchronous External Memory Interface (EMIF) User's Guide	SPRUE20
TMS320DM644x DMSoC DSP Subsystem Reference Guide	SPRUE15
TMS320DM644x DMSoC ARM Subsystem Reference Guide	SPRUE14
TMS320C64x+ Megamodule Reference Guide	SPRU871
TMS320DM644x DMSoC Peripherals Overview Reference Guide	SPRUE19
TMS320C6000™ DSP Peripherals Overview Reference Guide	SPRU190
TMS320DM647/DM648 DSP VLYNQ Port User's Guide	SPRUEL9
TMS320DM647/DM648 DSP External Memory Interface (EMIF-PSI) User's Guide	SPRUEK6
TMS320DM647/DM648 DSP Inter-Integrated Circuit (I^2C) Module User's Guide	SPRUEK8
TMS320DM647/DM648 Video Port User's Guide	SPRUEM1
TMS320DM647/DM648 DSP (UART) User's Guide	SPRUEL8
TMS320DM647/DM648 PCI User's Guide	SPRUEL4
TMS320DM647/DM648 DSP Enhanced DMA Controller User's Guide	SPRUEL2
TMS320DM647/DM648 DSP Multichannel Audio Serial Port (McASP) User's Guide	SPRUEL1
TMS320DM647/DM648 DSP General-Purpose Input/Output (GPIO) User's Guide	SPRUEK7
TMS320DM647/DM648 DSP DDR2 Memory Controller User's Guide	SPRUEK5
TMS320DM647/DM648 DSP Host Port Interface (UHPI) User's Guide	SPRUEL5
TMS320DM647DM648 DSP 64-Bit Timer User's Guide	SPRUEL0
TMS320DM646x DMSoC DSP Subsystem Reference Guide	SPRUEP8
TMS320DM646x DMSoC ARM Subsystem Reference Guide	SPRUEP9
TMS320DM646x DMSoC Peripherals Overview Reference Guide	SPRUEQ0
TMS320DM646x DMSoC ATA Controller User's Guide	SPRUEQ3
TMS320DM646x DMSoC Clock Reference Generator (CRGEN) UG	SPRUEQ1
TMS320DM646x DMSoC DDR2 Memory Controller User's Guide	SPRUEQ4
TMS320DM646x DMSoC Enhanced Direct Memory Access (EDMA) Controller User's Guide	SPRUEQ5
TMS320DM646x DMSoC Ethernet Media Access Controller (EMAC)/ Management Data Input/Output (MDIO) Module User's Guide	SPRUEQ6
TMS320DM646x DMSoC Asynchronous External Memory Interface UG	SPRUEQ7
TMS320DM646x DMSoC General-Purpose Input/Output (GPIO) UG	SPRUEQ8
TMS320DM646x DMSoC Host Port Interface (HPI) User's Guide	SPRUES1
TMS320DM646x DMSoC Inter-Integrated Circuit (I2C) Module UG	SPRUER0

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DaVinci™ Technology Technical Documentation (Continued)

User's Guides (Cont'd)	Web Search Literature #
TMS320DM646x DMSoC Multichannel Audio Serial Port (McASP) UG	SPRUER1
TMS320DM646x DMSoC Peripheral Component Interconnect (PCI) UG	SPRUER2
TMS320DM646x DMSoC Pulse-Width Modulator (PWM) User's Guide	SPRUER3
TMS320DM646x DMSoC Serial Peripheral Interface (SPI) User's Guide	SPRUER4
TMS320DM646x DMSoC 64-Bit Timer User's Guide	SPRUER5
TMS320DM646x DMSoC Transport Stream Interface (TSIF) User's Guide	SPRUEQ2
TMS320DM646x DMSoC Universal Asynchronous Receiver/Transmitter UG	SPRUER6
TMS320DM646x DMSoC Universal Serial Bus (USB) Controller UG	SPRUER7
TMS320DM646x DMSoC Video Data Conversion Engine (VDCE) UG	SPRUEQ9
TMS320DM646x DMSoC VLYNQ Port User's Guide	SPRUER8
TMS320DM646x DMSoC Video Port Interface (VPIF) User's Guide	SPRUER9
TMS320DM335 DMSoC Audio Serial Port	SPRUFZ3
TMS320DM335 DMSoC DDR2/mDDR Memory Controller Ref Guide	SPRUFZ2
TMS320DM335 DMSoC Asynchronous External Memory Interface (EMIF)	SPRUFZ1
TMS320DM335 DMSoC Enhanced Direct Memory Access Controller UG	SPRUFZ0
TMS320DM335 DMSoC Universal Serial Bus (USB) User's Guide	SPRUFY9
TMS320DM335 DMSoC General-Purpose Input/Output (GPIO) UG	SPRUFY8
TMS320DM335 DMSoC Real Time Out (RTO) User's Guide	SPRUFY7
TMS320DM335 DMSoC Pulse-Width Modulator User's Guide	SPRUFY6
TMS320DM335 DMSoC MMC/SD Reference Guide	SPRUFY5
TMS320DM335 DMSoC Peripheral Overview Reference Guide	SPRUFY4
TMS320DM335 DMSoC Inter-Integrated Circuit (I^2C) UG	SPRUFY3
TMS320DM335 DMSoC Universal Asynchronous Receiver/Transmitter UG	SPRUFY2
TMS320DM335 DMSoC Serial Peripheral Interface (SPI) UG	SPRUFY1
TMS320DM335 DMSoC Timer/Watchdog Timer User's Guide	SPRUFY0
TMS320DM335 DMSoC Video Processing Back-End User's Guide	SPRUFX9
TMS320DM335 DMSoC Video Processing Front-End User's Guide	SPRUFX8
TMS320DM335 DMSoC ARM Subsystem Reference Guide	SPRUFX7
TMS320DM35x Digital Media System-on-Chip Video Processing Front End (VPFE) RG	SPRUF71
TMS320DM35x Digital Media System-on-Chip Video Processing Back End (VPBE) RG	SPRUF72
TMS320DM35x DMSoC General-Purpose Input/Output (GPIO) UG	SPRUEE6
TMS320DM35x DMSoC Universal Serial Bus (USB) User's Guide	SPRUED2
TMS320DM355 DMSoC Peripherals Overview Reference Guide	SPRUFC8
TMS320DM35x DMSoC Multimedia Card/Secure Digital Card Controller	SPRUEE2
TMS320DM35x DMSoC DDR2/mDDR Memory Controller Reference Guide	SPRUEH7
TMS320DM35x DMSoC Enhanced DMA (EDMA) User's Guide	SPRUEE4
TMS320DM35x DMSoC Asynchronous External Memory Interface UG	SPRUED1
TMS320DM35x DMSoC Serial Peripheral Interface (SPI) User's Guide	SPRUED4
TMS320DM355 Digital Media System-on-Chip ARM Subsystem Ref Gd	SPRUFB3
TMS320DM35x DMSoC Pulse-Width Modulator (PWM) User's Guide	SPRUEE7
TMS320DM35x DMSoC Timer/Watchdog Timer User's Guide	SPRUEE5
TMS320DM35x DMSoC Inter-Integrated Circuit (I^2C) Module UG	SPRUEE0
TMS320DM35x DMSoC Universal Asynchronous Receiver/Transmitter UG	SPRUED9
TMS320DM35x Audio Serial Port (ASP) Reference Guide	SPRUED3
TMS320DM35x Digital Media System-on-Chip Real-Time Out (RTO) Ref Gd	SPRUF74
TMS320DM646x DMSoC Peripherals Overview Reference Guide	SPRUEQ0
TMS320DM646x DMSoC UART User's Guide	SPRUER6
TMS320DM646x DMSoC ARM Subsystem Reference Guide	SPRUEP9
TMS320DM646x DMSoC Universal Serial Bus (USB) Controller UG	SPRUER7

White Papers	Web Search Literature #
Getting the Most Out of Your Image-Processing Pipeline White Paper	SPRY105
Optimizing Video Encoders with TI DSPs White Paper	SPRY106
HD Video Encoding with DSP and FPGA Partitioning White Paper	SPRY103
Reaping the Benefits of SoC Processors for Video Applications White Paper	SPRY096
HD Transcoding Connects Home Video Applications White Paper	SPRY097
BDTi Analysis of TI Digital Video Evaluation Module	SPRY095
DaVinci Technology Background and Specifications	SPRT401
Transforming Performance to Safety in Automotive Applications	SPRY093
Transcoding FAQ	SPRV058
Transcoding Backgrounder	SPRV059
Programming Details of Codec Engine for DaVinci Technology	SPRY091
Video Compression: System Trade-Offs with H.264, VC-1 and Other Advanced CODECs	SPRY088
The DaVinci Effect: Achieving Digital Video Without Complexity	SPRY079
DaVinci Technology for Digital Video	SPRY067
The Future of Digital Video	SPRY066
Product Bulletins	
DaVinci-Based 3P Reference Design Simplifies Media Player Development	SPRT414
Universal IP Player Solution from ATEME	SPRT383
Digital Media Software Product Bulletin	SPRT390
Portable Media Player Based on DaVinci Technology	SPRT394
TMS320DM644x Digital Media Processors	SPRT411
DaVinci Technology – Digital Video Innovation Product Bulletin	SPRT378
DaVinci Benchmarks Product Bulletin	SPRT379
Digital Media Software Product Bulletin	SPRT390
DaVinci Software Product Bulletin	SPRT389
Data Sheets	
TMS320DM6446 Digital Media System-on-Chip	SPRS283
TMS320DM6446 Digital Media System-on-Chip Errata	SPRZ241
TMS320DM6443 Digital Media System-on-Chip	SPRS282
TMS320DM6443 Digital Media System-on-Chip Errata	SPRZ240
TMS320DM6431 Digital Media Processor	SPRS342
TMS320DM6433 Digital Media Processor	SPRS343
TMS320DM6435 Digital Media Processor	SPRS344
TMS320DM6437 Digital Media Processor	SPRS345
TMS320DM647/TMS320DM648 Digital Media Processors	SPRS372
TMS320DM335 Digital Media System-on-Chip	SPRS528
TMS320DM355 Digital Media Processor	SPRS463
TMS320DM6467 Digital Media Processor	SPRS403

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Select Customer Products

Take a glance at the breadth of companies using DaVinci™ technology for cost-effective, high-quality video output in a variety of applications, including video phones, video surveillance and more. Visit **www.ti.com/davincicustomers** to see the full list of customers.

Aethra

www.aethra.com

Maia XC from Aethra

Aethra leveraged TI's DaVinci technology-based integrated solution to provide their compact, new generation video phones for personal IP and ISDN video conferencing, with better processing power and framework software. Using a single DaVinci digital media processor, Aethra was able to integrate a complete H.264-based IP videophone, providing full software programmability and codec flexibility and leveraging TI Code Composer Studio™ Integrated Development Environment (IDE), thereby reducing their time to market and achieving optimum system cost.

Amino Communications

www.aminocom.com

AmiNET from Amino

Amino found an answer to their high-performance and low-cost standard definition (SD) SoC needs with TI's DaVinci technology. By choosing DaVinci technology, Amino was able to create a multi-codec IP STB supporting MPEG-2, MPEG-4pt2, H.264 and Windows Media Video. The programmable DSP and high-speed USB interface allowed for the rapid addition of SIP/H.263 video telephony and an AVS codec to meet key regional requirements. The combination of TI hardware and Amino software has created a highly flexible IP STB that can be upgraded in the field to deliver additional revenue services.

AVM
www.avm.de/en

AVM FRITZ! Media 8020

For AVM, DaVinci™ technology enabled the design of a high-perfomance IP STB SoC solution. This solution met all of their customer's requirements for quick video on demand (VoD) navigation and enabled the use of high-efficient video codecs. Since its launch, AVM's FRITZ!Box family has grown to not only network computers and ADSL lines, but also to enable Internet access over cable-free WLAN links while providing the advantages of Internet telephony over existing telephones.

The AVM FRITZ! Media 8020 streams digital content to users' televisions from a wireless connection, and is compatible with Universal Plug & Play standards. This means that users can easily play local content from media servers and hard drives. FRITZ! Media also features integrated WM DRM 10 support for VoD.

GE Security
www.gesecurity.com

VisioWave IVP Digital Video Platform by GE Security

With a more than five-year relationship with TI, GE Security leveraged TI's DaVinci technology to meet their hardware objective of a multi-generational platform for future codec enhancement. TI's DaVinci technology provided the power to handle GE Security's processing needs for compression and still leave room for expansion and extension. GE Security cites DaVinci technology's support of Ethernet and USB interfaces and TI's familiarity with GE Security's working environment as further examples of why TI was integral to their design.

Hikvision
www.hikvision.com/en

Hikvision DS-2CDXXX

Hikvision's digital surveillance products feature TI's DaVinci™ technology and Hikvision's own patented H.264 video compression algorithm. Hikvision was established in 2001 and began cooperation with TI beginning in 2003 by releasing a PCI add-on card and DVR based on the TMS320DM642 digital media processor. In 2006, they released a digital video server, IP module and IP camera all based on DaVinci technology. Their decision to utilize DaVinci technology facilitated their ability to quickly complete designs for a variety of products from one technology. TI's testing technology has allowed Hikvision to leverage its relationship and cooperation with Texas Instruments to guarantee the stability and quality of its products.

Hikvision DS-2CDXXX series IP cameras are designed especially for remote surveillance. DaVinci technology enabled the use of an embedded Linux OS, creating a more steady and reliable solution.

Image Sensing Systems (ISS)
www.imagesensing.com

Autoscope Solo* Terra *by Image Sensing Systems

Image Sensing Systems, Inc. has created a new generation of advanced, intelligent Autoscope products. The Autoscope *Terra* family of products, which includes the Autoscope Solo *Terra* and Autoscope RackVision *Terra* systems, targets Intelligent Transportation Systems markets that include intersection control, highway monitoring and tunnel safety. Autoscope *Terra* products instantly generate high-quality video output made possible by TI's DaVinci processors and associated development tools.

KEDACOM

www.kedacom.com

TrueSens 6000 Video Conferencing Terminal from KEDACOM

Keda Communications Ltd., a video communication solutions provider based in China, delivers the TrueSens video conferencing system for small- to medium-sized enterprises. Based on DaVinci™ digital media processor and software technology, the TrueSens video conferencing system aims to provide enterprises with secure, low-cost and easy-to-use video communication solutions by solving issues in enterprise video system deployment and applications. DaVinci technology enabled KEDACOM's full software programmability and feature enhancement and upgrade abilities via software. Leveraging TI digital media codec software technology, KEDACOM was also able to achieve D1(SD) resolution video conferencing.

Konka

www.konka.com

IPB5310 STB from Konka

Konka, one of the world's largest consumer electronics enterprises, offers the IPB5310 STB. The IPB5310 is ideal for home video and audio entertainment and delivers a low-cost solution offering easy implementation, boosting the adoption of IPTV services in China and worldwide. The programmable processors at the foundation of TI's DaVinci technology enabled Konka to develop an IP STB product, which is cost effective and easy to upgrade—both vital characteristics in this growing market. The IPB5310 can be applied for IPTV services, live TV, video on demand (VoD), time-shifted TV, Web browsing service, SMS and MMS informing services, information broadcast service and local and online gaming service. It can also be used as a portable audio player or electronic album, supporting MP3 audio playback and photo display through a USB interface. The IP STB supports multiple codecs including MPEG-2, MPEG-4, WMV9/VC-1, AVS and H.264.

Lumenera

www.lumenera.com

Li045 Intelligent Camera by Lumenera

Available at unique price points and performance levels to meet a broad range of applications and custom designs, the Li series from Lumenera Corporation enables analysis at the camera head, relieving the network of loading real-time video to backroom servers. For a fraction of the cost of a dedicated server, TI's DaVinci™ technology allows the camera itself to run the full suite of analytics from ObjectVideo OnBoard. The Li045, Lumenera's initial intelligent camera utilizing TI's DaVinci technology, is the first to make use of an ultra-wide dynamic range (120+ dB) sensor, which overcomes the issue of washed-out images in challenging lighting environments. This enables quality images in all situations to ensure that critical video is captured.

NexVision

www.nexvision.fr

Nexdome Dragonfly IP

NexVision, a manufacturer of IP network video security solutions, offers the Nexdome Dragonfly IP video security camera. Leveraging the DaVinci TMS320DM644x processor, the Nexdome Dragonfly creates a versatile plug-and-play video security solution that can be tailored to meet specific customer demands, benefiting from the implementation of open industry standards such as Linux, MPEG-4 and real-time streaming network protocols to offer seamless integration of the camera into global surveillance systems. The Dragonfly provides an open camera platform that is highly suited to large area surveillance applications such as public transportation, utility plants and medical centers.

Red Embedded
www.redembedded.com

[RED EMBEDDED] DESIGN

VPHS 400 Videophone from Red Embedded

Red Embedded Design, a provider of embedded video technology for videophone, IPTV and mobile devices, selected Texas Instruments' DaVinci™ digital media processors for their product range, including the VPHS400, VPHS300 and VPTV200.

Red Core technology running on TI DaVinci processors enables a range of broadband appliances with exceptional videophone quality, video streaming, browsing and a host of other applications for screens from seven inches to large-screen televisions. By utilizing DaVinci technology, Red Embedded is able to spin multiple variants of their products (IP STB- and desktop-type) while leveraging the same core technology.

Yuxing
www.yuxingsoft.com

YUXING

YX-5821A STB by Yuxing

Since 2003, Yuxing has been successfully cooperating with PCCW-HK for years, as its IP STB provider. The "NOW" broadband services from PCCW through ADSL network provide subscribers with colorful TV frequency choices. After years of development, Yuxing provides IP STBs worldwide. The YX-5821A is the latest Yuxing-developed broadband IP STB based on TI DaVinci technology. Yuxing's decision to leverage DaVinci technology allowed them to provide a simple and compact shape and to support the decoding and playing of such code streams as H.264 and MPEG-2. Additionally, this also enabled Yuxing to take advantage of software that is easily expanded and can be used by a variety of users to provide many value-added services such as video-on-demand, TV and broadcasting, and network games.

TI Worldwide Technical Support

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TI Semiconductor Product Information Center Home Page
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