

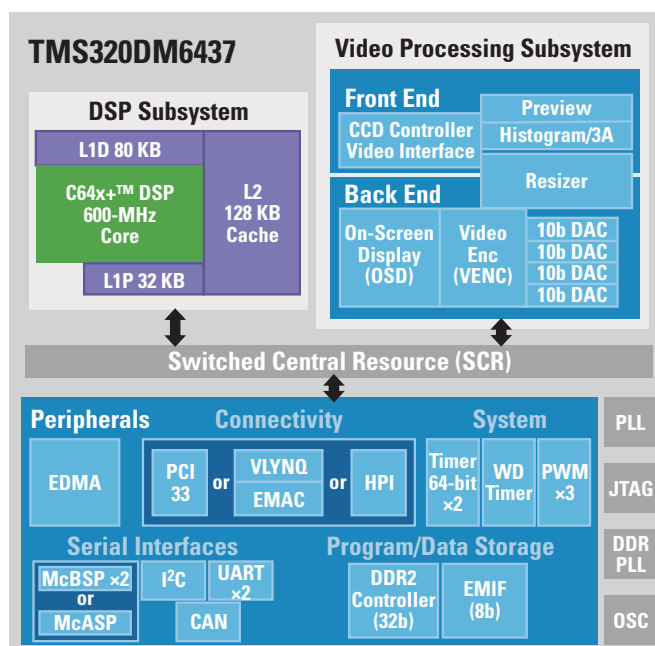
TMS320DM643x Digital Media Processors

Updated 1007

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.



TMS320DM6437 Digital Media Processor Block Diagram



DaVinci™ Digital Media Processors

Device ¹	CPU	Frequency (MHz)	L1/ SRAM (Bytes)	L2/ SRAM (Bytes)	ROM (Bytes)	External Memory I/F	EDMA	Video Ports (Configurable)	Parallel I/F	Serial I/F	Connectivity I/F	Program/ Data Storage	Voltage (V) Core	Voltage (V) I/O	Packaging	Price ²
TMX320DM6431	C64x+, DaVinci Video	300	64 K	64 K	64 K	1 8-Bit EMIFA, 1 16-Bit DDR2	64 Ch	1 Input	-	McASP, I ² C, 1 UART, 1 McBSP, 1 HECC	10/100 EMAC	Async SRAM, DDR2 SDRAM, NAND Flash	1.05	1.8/ 3.3	361 BGA, 16 × 16 mm, 376 BGA, 23 × 23 mm	11.25
TMX320DM6433	C64x+, DaVinci Video	400, 500, 600	112 K	128 K	64 K	1 8-Bit EMIFA, 1 16-/32-Bit DDR2	64 Ch	1 Output	16-Bit HPI	McASP, I ² C, 1 UART	32-Bit PCI, VLYNQ, 10/100 EMAC	Async SRAM, DDR2 SDRAM, NAND Flash	1.05/ 1.2	1.8/ 3.3	361 BGA, 16 × 16 mm, 376 BGA, 23 × 23 mm	15.75, 16.65, 18.50
TMX320DM6435	C64x+, DaVinci Video	400, 500, 600	112 K	128 K	64 K	1 8-Bit EMIFA, 1 16-/32-Bit DDR2	64 Ch	1 Input	16-Bit HPI	McASP, I ² C, 1 McBSP, 2 UARTs, 1 HECC	VLYNQ, 10/100 EMAC	Async SRAM, DDR2 SDRAM, NAND Flash	1.05/ 1.2	1.8/ 3.3	361 BGA, 16 × 16 mm, 376 BGA, 23 × 23 mm	16.30, 17.25, 19.15
TMX320DM6437	C64x+, DaVinci Video	400, 500, 600	112K	128 K	64 K	1 8-Bit EMIFA, 1 16-/32-Bit DDR2	64 Ch	1 Input, 1 Output	16-Bit HPI	McASP, I ² C, 1 HECC, 2 McBSPs ³ , 2 UARTs	32-Bit PCI, VLYNQ, 10/100 EMAC	Async SRAM, DDR2 SDRAM, NAND Flash	1.05/ 1.2	1.8/ 3.3	361 BGA, 16 × 16 mm, 376 BGA, 23 × 23 mm	22.05, 23.35, 25.93

¹ All devices will be available in the ZDU (376-pin plastic BGA) and ZWT (361-pin Pb-free PBGA) packages.

² Prices are quoted in U.S. dollars and represent year 2007 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.

³ McBSP can be configured as an SPI peripheral.

New devices are listed in red.

DaVinci™ Hardware and Software Development Tools

TMS320DM6437 Digital Video Development Platform (DVDP) –

Rapidly accelerate the development time of your low-cost digital video application with the new DaVinci TMS320DM6437 Digital Video Development Platform.

Available today for U.S. \$495, the DVDP includes both hardware and software and enables immediate evaluation of the DM6437 digital media processors.



TMS320DM6437 Digital Video Development Platform (DVDP)

DaVinci Hardware and Software Development Tools

Description	Part Number	U.S. ¹
Development Platform		
TMS320DM6437 Digital Video Development Platform (DVDP)	TMDXVDP6437 (U.S. part number)	495

¹ Prices are quoted in U.S. dollars and represent year 2007 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.

New tools are listed in red.

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eXpressDSP™ Digital Media Software is production tested and optimized for a portfolio of DSP and SoC platforms. Instead of investing time and effort in standardized media software, manufacturers are able to save years of development time to differentiate their digital media products. eXpressDSP digital media software is available for free evaluation and numerous flexible pricing options exist to fit any development need. Visit www.ti.com/digitalmediasoftware to:

- Evaluate digital media software at no charge for 60 days with a simple click-wrap license.
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Unlike example software or freeware, all digital media software components have been developed by following stringent coding guidelines. Accompanying each module is a re-targetable production library featuring reentrant code. Each module is fully documented with a datasheet, release notes, user guide and usage examples.

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Current Listing of eXpressDSP Digital Media Software

e = encode d = decode

Currently Available	Available 1H 2007
H.264 MP d D1	WMV9 MP / VC1 d D1
H.264 BP e/d D1	WMV9 MP / VC1 e D1
MPEG-4 SP e/d D1	WMA8 e
MPEG-2 MP d D1	AAC HE e
JPEG e/d D1	AAC LC e
AAC LC d	G.729 AB e/d
MP3 d	G.726 e/d
G.711 e/d	G.723.1 e/d
HE-AAC d	
AC3 d	
WMA9 d	

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eSOL					X		
Ingenient	X	X	X	X	X	X	
Ittiam	X	X		X	X	X	X
Logic	X						
MPC Data		X					
Wintech Digital			X	X			X

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Japan

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Asia

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Domestic Toll-Free Number
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Mailing Address: Texas Instruments
Post Office Box 655303 Dallas, Texas 75265