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DaVinci™ Technology At-A-Glance

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What is DaVinci?

DaVinci technology is the collection of DSP-based system solution components tailored for efficient and compelling digital video. DaVinci technology consists of:

- **DaVinci Software:** interoperable, optimized, production-ready video and audio "standards" codecs leveraging DSP and integrated accelerators, built into configurable frameworks, and presented via published APIs within popular operating systems (Linux) for rapid software implementation
- **DaVinci Development Tools/Kits:** Complete development kits, reference designs and comprehensive ARM®/DSP Integrated Development Environment to speed design and development
- **DaVinci Processors:** Scalable, programmable DSPs and DSP-based SoCs (system on chip) tailored from DSP cores, accelerators, peripherals and ARM processors optimized to match various price, performance and feature requirements in a spectrum of digital-video end equipments
- **DaVinci Support:** System integrators, hardware and software solution providers in the TI third party partner network with DaVinci technology knowledge and video system expertise to help you get to market faster

What Do You Mean by Digital Video?

Digital video refers to a type of video system that works by using a digital, rather than analog, representation of visual data. Digital video end equipments – such as digital still cameras, security cameras, advanced medical imaging devices, portable video players, wireless handsets, automotive infotainment products, set-top boxes and other streaming media applications – use digital video formats to capture, manipulate, store and play back video.

What Are the Primary Benefits of DaVinci™ Technology for OEMs?

DaVinci technology provides OEMs with an easy-to-use, integrated digital video platform that supports the development of virtually all digital video applications. DaVinci technology significantly reduces design cycles, development costs and the amount of customization required to produce innovative digital video end equipments. The standardized codecs and APIs will make it easier for OEMs to develop interoperable code that will work with other DaVinci-based applications, simplifying future development efforts. DaVinci support also includes application specific development tools, such as development platforms and reference designs for OEMs to speed their time to market. The integration of DaVinci processors will also provide significant cost reductions for final products.

How Will Consumers Benefit from DaVinci Technology?

The flexibility of DaVinci technology will benefit consumers in many ways, including fewer individual electronics products in their pocket, equipment with much more interoperability and longevity, hassle-free products with compelling cost and feature options, and products that are easy to upgrade with a longer battery life.

In addition to inclusion in a host of consumer products that we can imagine today, DaVinci technology will also significantly impact consumer lifestyle in the near future. Through the use of DaVinci technology for applications such as machine vision, products can now become a reality in consumer's eyes, helping produce products such as advanced security systems, new automotive vehicle controls and more precise medical diagnostic tools.

What DaVinci Products Are Available?

DaVinci products from Texas Instruments are now available and including multimedia codecs, APIs, frameworks and the following digital media processors, software and development tools:

TMS320DM643x Processors	TMS320DM644x Processors	Software and Development Tools
TMS320DM6437	TMS320DM6446	DM644x Digital Video Evaluation Module (DVEVM)
TMS320DM6435	TMS320DM6443	DM644x Digital Video Software Development Kit (DVSDK)
TMS320DM6433	TMS320DM6441	DM6437 Digital Video Development Platform (DVDP)
TMS320DM6431		

Custom DaVinci solutions are also available for digital still cameras and portable audio applications.

I Already Use TI DSPs to Develop Video Applications. How Can I Benefit From DaVinci Technology?

DaVinci will make it even easier and faster to develop digital video applications with TI technology. DaVinci technology provides a completely integrated platform of processors, software and development tools that are optimized for digital video applications, simplifying design and stimulating innovation in less time. The off-the-shelf codecs, integrated accelerators, published APIs and application specific frameworks enable digital video engineers to focus on value-added development and get to market quickly with new designs. DaVinci™ silicon is based on the new TMS320C64x+™ DSP core and it is code compatible with TI's **TMS320C64x™ DSPs**.

How Does DaVinci Technology Differ From What TI Offers Today or Has Offered in the Past?

The development of DaVinci technology was a result of TI's work with digital video OEMs and enhances previous technology offerings by providing a level of silicon integration and published APIs that is unlike anything being offered in the digital video market today. While DaVinci includes the silicon, software and development tools that TI customers have always required to build applications, the new technology provides an unparalleled level of optimization and integration for ease of development.

How Can I Get Started with DaVinci Technology?

For more information, please visit **www.thedavincieffect.com**. You may also contact a Product Information Center or your TI sales representative.

Who is Using DaVinci Technology?

As highlighted in the initial announcement of DaVinci technology, customers such as *Microsoft* and *Samsung* and others are all planning to leverage DaVinci technology in future product launches. To see the latest product announcements visit **www.ti.com/davinci**

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