Product Bulletin

Videophone Development Platform

Key Benefits

- Significantly **improves quality** of videophones with high-quality, real-time H.264 CIF (352 × 288) resolution

- **Lowers system cost** with optimized, single digital media processor system

- **Rapid time-to-market** with easy-to-use, flexible, open development environment

The Videophone Development Platform (VDP) empowers OEMs to bring consumer broadband videophones to market faster with a complete development platform for designing point-to-point IP-based videophone systems. The VDP is an integrated hardware/software development platform reducing both design complexity and total system bill of materials, including everything developers need to begin designing point-to-point videophone systems immediately. All application system software runs on TI's 600-MHz DSP-based TMS320DM643 digital media processor, including audio/video compression, networking stacks and control protocols.

The VDP is a comprehensive development platform including the hardware and software needed to quickly design a differentiated consumer videophone. The solution includes:

Hardware Platform

- Videophone LCD display and CCD camera subsystem
- Videophone processor board subsystem, power supply, connectivity interface and keyboard
- Ethernet network hub box and cables

Application Software

- Application frameworks
- Video CODECs (H.264 baseline profile/H.263)
- Audio CODECs (G.723/G.711)
- Communications stack (H.323)
- Network protocol (TCP/IP, RTP/RTCP)
- User interface and demo applications
- Getting started documents, user guides and software CD-ROM

From a hardware perspective, the modular VDP offers a complete development environment for designing and building videophone systems. Developers can connect the development boards over a live network and/or the Internet to test under real-world operating conditions, and the VDP is also easily configured for different video telephony applications. The hardware platform includes external memory and a variety of peripherals and audio/video interfaces, network connectivity and communication interfaces.

The key to the flexibility of the VDP is the programmable foundation of the DM643 digital media processor, which enables OEMs to customize the entire design, from CODEC to user interface and to create different product lines
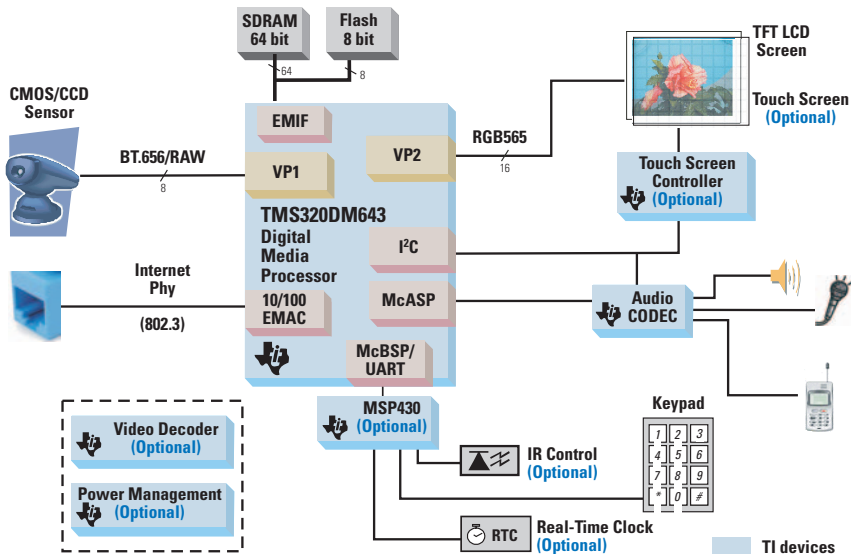

Each VDP is comprised of two DSP-based boards, two CCD cameras, two 5-inch LCD displays, two phone keypads as well as the software and documentation to get started immediately.

based on the same platform. The VDP incorporates industry-standard protocols so products developed with the VDP are able to interoperate with other video-phones and the existing IP infra-structure. Likewise, the VDP uses complementary TI analog technol-ogy, including the TVP5150 video decoder and AIC23 audio CODEC, and power management products to enable the highest video and audio quality possible. The VDP includes all the software neces-sary to evaluate, design and test video telephony endpoints, includ-ing video and voice CODECs, inte-grated reference frameworks, communications stack and net-work protocols.

Availability/Pricing

Available now, the comprehensive VDP includes two TMS320DM643 digital media processor boards,

Typical DM643-Based Block Diagram Consumer Videophones

two five-inch LCDs, two CCD cameras, network switch/hub and complete ready-to-use application software, and it is priced at U.S. $6,950. For purchase information,

please contact your local TI sales representative or an authorized distributor.

For more information, go to **www.ti.com/videophone**

TI Worldwide Technical Support

Internet

TI Semiconductor Product Information Center Home Page
support.ti.com

TI Semiconductor KnowledgeBase Home Page
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