Product Bulletin

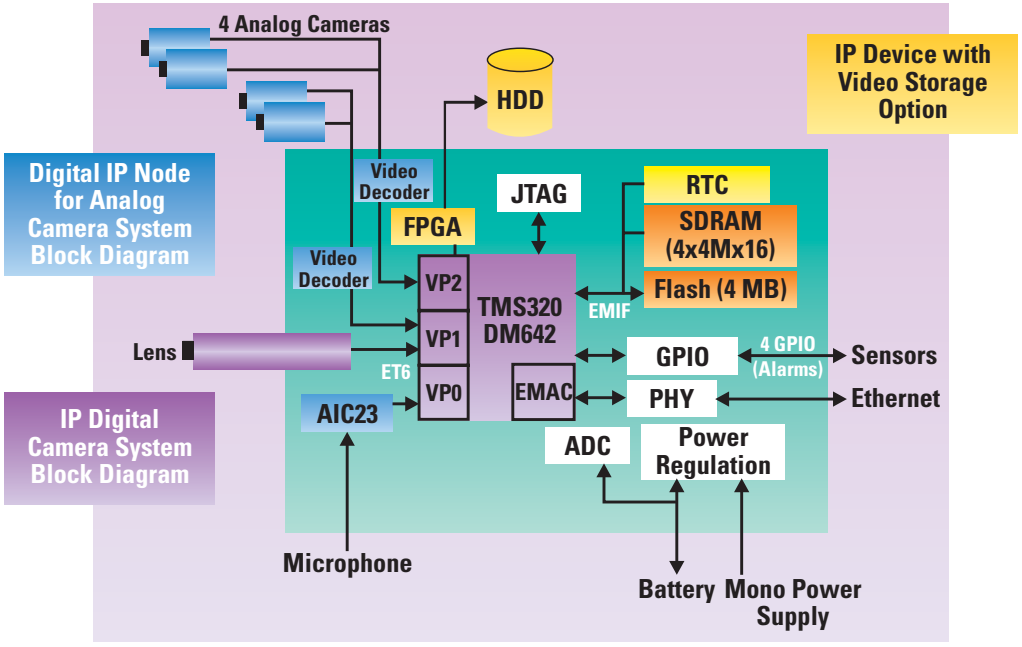
Video Security over Internet Protocol (VSIP) Development Platform

Key Benefits

- Complete hardware and software platform to develop video security applications
- Programmability for highly differentiated, leading-edge features
- Easy-to-use, open development environment for rapid time-to-market
- Simple development environment to ease transition from analog to digital
- High-compression ratio for storage of high-resolution images
- Design flexibility for development of multiple products at different price points
- Low-cost entry into digital market

Video surveillance systems are currently undergoing a transition where more and more analog solutions are being replaced by digital. Digital technology enables audio-video data compression that minimizes transmission bandwidth and storage requirements and permits security cameras to operate on standard data networks without the expense of bulky coaxial cables. To enable this changeover, the new VSIP Development Platform has been created to help developers build intelligent security cameras that take advantage of a digital IP network by leveraging the real-time performance and flexibility inherent in DSP technology.

VSIP Hardware Block Diagram



The easy-to-use VSIP Development Platform provides an open platform with programmable intelligence for highly differentiated features.

Programmable Intelligence for Highly Differentiated Features

With the flexibility of a programmable DSP solution, developers can change compression standards, add specific processing capabilities and develop different products on the same hardware platform – enabling a wide range of products and creating a future proof system.

The VSIP development platform allows developers to leverage advanced digital functionality by incorporating this functionality directly into a standalone IP camera or by incorporating functionality into a network encoder that supplies digital intelligence for multiple standard analog surveillance cameras. In the latter scenario, developers will benefit from the ability to use existing cameras without the expense of replacing them with new ones.

Tools Included in the VSIP Development Platform

The VSIP Development Platform is available today. See www.ti.com/vsippb for more information.

Easy- to-Use, Open Development Environment for Rapid Time-to-Market

The VSIP includes all the hardware, software and tools needed to create a fully digital system for the encoding and transmission of camera surveillance information (see chart below).

The development platform is

Key Features of VSIP Development Platform

Hardware:

- TMS320DM642 digital media processor-based development board
- Video camera sensor daughter board
- 4 analog video inputs
- 2 video cables and adapters
- 1 audio input
- Audio cable and adapter
- 32 MB Flash memory
- Ethernet output and cross over cable
- Hard disk drive for local video storage
- Power supply
- Power cord

Embedded Evaluation Software:

- DM642-based board drivers source code
- Video preprocessing library
- MPEG-4 video compression (encoding and decoding)
- Motion detection library
- Image dating and referencing
- RTP/RTSP streaming
- Access right management
- PTZ control
- Application examples source code

PC Application:

- Video live visualization
- PC application executable code for Windows 2000/XP
- Audio/video parameters management
- MPEG-4 and ADPCM codec for Windows™
- PTZ management
- Audio and video storage
- Full version of TI's Code Composer Studio™ Development Tools

Options:

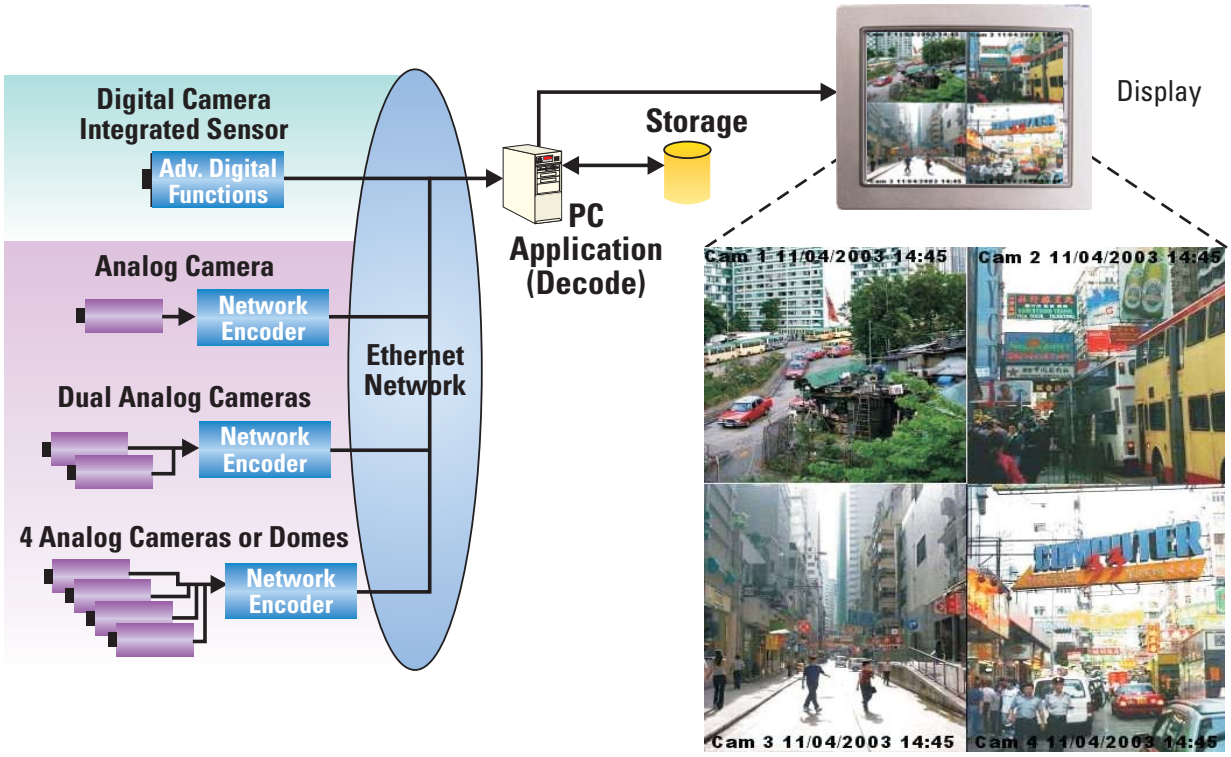
- Video compression: JPEG, MJPEG, MPEG-2 and H263
- Audio compression: AAC, CELP and MP3
- Data watermarking
- PCI emulator

among the first to offer MPEG-4 compression, the latest and most efficient of the MPEG video compression algorithms, designed to minimize bandwidth requirements in network video transmission. Since the VSIP is an application-oriented, open platform, it is not necessary for developers to have a deep understanding of DSP programming techniques. Moreover, application software from developers and third parties is easy to integrate, allowing straightforward customization for market differentiation.

Comprehensive Support and Documentation Available

Developers using the VSIP have access to the industry's most comprehensive support network, including online training, comprehensive documentation, access to experts and hands-on workshops, which shorten learning time and make development easier. Developers can get started today by downloading TI's technical documents such as the white paper "Introduction to Video Surveillance Systems Over the Internet Protocol," datasheet and more at **www.ti.com/vsippb**

VSIP Development Platform Provides Dual Options for Enabling Advanced Digital Functions



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