

ZSP® Multimedia Platform



MARKET OVERVIEW

The Home Entertainment and "Entertainment on the Go" market is evolving rapidly, creating multiple standards, new features and improved audio/video/imaging quality and resolution. To address the increasing demand for multi-format, multimedia solutions, VeriSilicon has introduced the ZSP® Multimedia Platform, a DSP-based, licensable, and fully certified software and hardware platform for the rapid design of next-generation digital audio/video devices. The Multimedia Platform supports popular audio and video encoding and decoding standards for use in portable devices such as cell phones, PDAs, digital still cameras and digital radio/multimedia broadcast receivers.

THE ZSP MULTIMEDIA PLATFORM MEETS MARKET DEMANDS

The ZSP Multimedia Platform includes licensable and fully certified software and hardware. It supplies superb quality, reduces time-to-market and provides cost-effective System-on-Chip (SoC) development in order to fuel the exploding demand for solutions for these new breeds of consumer products.

High-End Audio/Video Quality: The industry and customers have driven the high-end audio DSP requirement to 32-bit processing during a single cycle with parallel multi-issue execution of other tasks. The ZSP Multimedia Platform and cores fulfill this requirement. Additionally, the platform supports all deployed multimedia standards and will continue to evolve as new standards are introduced in the marketplace.



Programmable: Audio and video compression technologies are constantly being refined and upgraded. To keep up with these new, improved standards, the Multimedia Platform offers full programmability while maintaining optimal cost and power efficiency.

Scalable: Hardware, Software and Development Platform Solutions are completely scalable and re-useable from MP3 to HDTV, including hardware/software customization.

Low Cost and Low Power: The issue of cost-efficiency so critical in the consumer electronics marketplace is addressed by the cost and power-saving architecture and code density of the ZSP Multimedia subsystem results in the smallest footprints in SoC implementations while leaving headroom for future requirements.

Low Risk and Time-to-Market: The ZSP DSP technology is proven and mature. It's in high-volume production in a variety of process geometries at foundries worldwide. The VeriSilicon Solution Partner network provides optimized, fully tested and verified/certified multimedia modules. An extensive off-the-shelf library of application modules is available.

APPLICATIONS

- Home entertainment system
- Set-top-box/DTV
- DVD player/recorder
- Portable multimedia player
- Portable broadcast receiver
- Smartphone/PDA
- Wireless display
- Car entertainment
- Game console

FEATURES

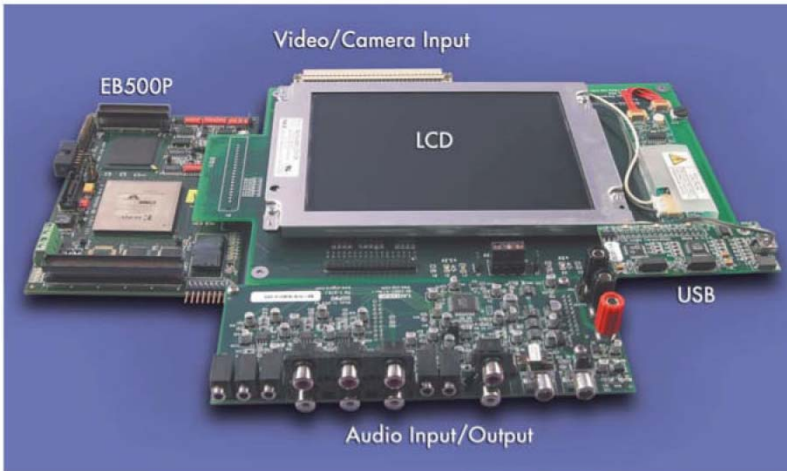
- Available for licensing:
 - 1-stop-shop core and applications
- Software/hardware scalable
- 32-bit audio precision
- Proven technology
- Low MCPS and memory requirements
- Extensive dev. tools support
- Easy system integration
- Extensive VeriSilicon Solution Partner network
- Compliance tested and certified multimedia software suites
- EB500P+AV500 hardware test and development platform available
- ZOpen™ compliant

BENEFITS

- High-end audio/video/imaging quality
- High performance
- Low risk
- Low cost - low power
- Easy-to-use and hassle free system integration
- Scalable for future demands



ZSP[®] Multimedia Platform



Complete Development Environment:

The platform includes an ARM[®] compatible VeriSilicon EB500P_CM, which features an entire silicon subsystem implementation of the ZSP500 processor, including memory controller; 512 Kbytes of SRAM; JTAG controller; embedded trace; clock controller co-processor interfaces; master/slave AMBA AHB bus interface; multimedia and associated subsystem logic.

Easy to Use:

The ZOpen[™] Software Framework with its standard API interface enables fast and easy application

integration and dramatically reduces test and verification time.

Cores	ZSP400	ZSP500	ZSP600
Audio Applications			
Set-top Audio Basic	X		
Set-top Audio Advanced + PVR	X	X	
DTV Audio	X	X	
DVD Audio	X	X	
MP3 Player/Recorder	X		
Digital Radio Receiver	X		
Video/Imaging Applications			
Set-top Video		X	X
DTV Video		X	X
DVD Video		X	X
Portable Video Player/Recorder		X	
PDA		X	
Wireless Handset		X	
DSC (Digital Camera)		X	
DVC (Digital Camcorder)		X	X
DMB (Digital Multimedia Broadcast) Receiver		X	
Gaming		X	
Scanner/Copier/Fax		X	X

VERISILICON SOLUTIONS PARTNERS

VeriSilicon has partnered with leading software companies, specializing in multimedia implementations, to provide optimized standard libraries as well as customized multimedia functions upon request. Additionally, VeriSilicon provides software integration support and SoC design services and ASIC turnkey services.

About VeriSilicon

VeriSilicon Holdings Co., Ltd ("VeriSilicon") is a fast growing silicon solutions company providing products and services that enable customers to meet their chip design objectives, accelerate development programs and deliver market proven silicon products - on time and at lower cost. VeriSilicon specializes in providing expert design services, market leading ZSP[®] licensable cores and platforms, industry standard semiconductor IP and scalable ASIC turnkey services across a broad range of application markets, including multimedia, voice and wireless communications. VeriSilicon has design, operation and sales and support offices in Santa Clara, California, Dallas, Texas, Shanghai and Beijing, China, Taipei, Taiwan, Tokyo, Japan, Nice, France and Seoul, Korea. For more information, visit www.verisilicon.com.

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