

VSI403LP Development Kit (DK403)



OVERVIEW

The DK403 integrates a high-performance DSP evaluation board, full-version software development tools, a board support package, example source code, tutorials and complete documentation, making it the most comprehensive DSP development kit available in the industry today. Based on the extremely low power VSI403LP standard product, reference silicon this complete professional ZSP developer's kit is value priced below the cost of competing industry software tools alone.

The DK403 provides a comprehensive package for evaluating the ZSP®400 DSP core, developing software for a product based on the VSI403LP DSP or rapidly prototyping a design that includes the VSI403LP DSP. Saving engineers the difficulty of having to piece together multiple products such as boards, software and libraries, this inclusive kit provides step-by-step instructions, tutorials, and example software. The DK403 also includes real-time, demonstration software that showcases the MASCTM (Managed Audio Sound Compression) codec from Vianix Corporation and an MP3 audio decoder from ESPICO, Ltd. Utilizing the EB403 evaluation board and included full source software support provides extreme flexibility for engineers with a daughter card interface, host port interface and prototyping area. These features enable engineers to rapidly prototype their products with off-the-shelf or custom daughter cards or by interconnecting with other hardware. The DK403 plays a dual role of being a real-time software development platform and a platform that can be integrated with other hardware for system-level prototyping.



Applications:

- Evaluation of ZSP400 DSP core
- Development of software for ZSP400 and VSI403LP
- DSP algorithm benchmarking
- Rapid-prototyping of DSP-based products
- System integration with other hardware

Features

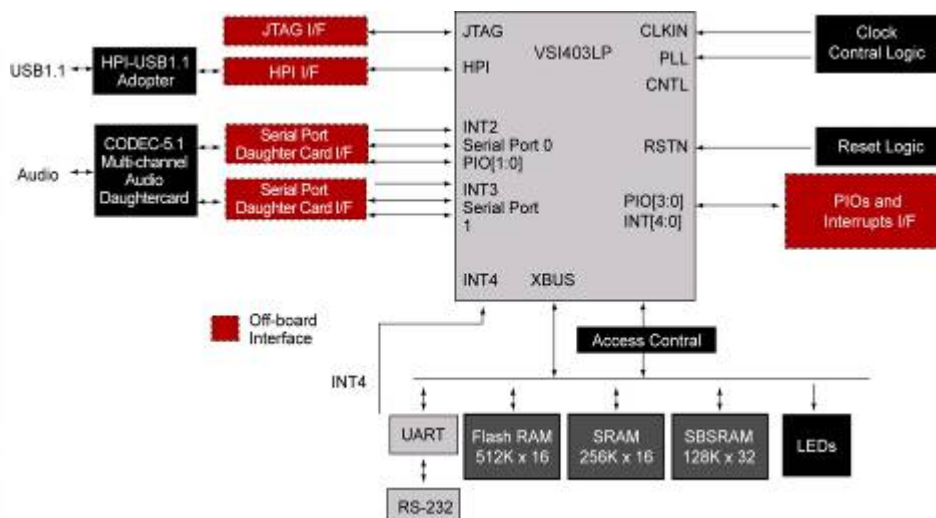
- VSI403LP Evaluation Board (EB403)
- Full-featured, ZSP Software Development Kit (SDK)
- 30-Day Evaluation of GHS MULTI Tools
- EB403 Board Support Package
- Tutorials
- Example Source Code
- MP3 and MASC Codec Demonstrations
- Comprehensive Documentation

Benefits

- All-in-one bundled kit for efficient development
- Value-priced below cost of competitive software tools
- Quick evaluation of ZSP400 core / VSI403LP device
- Enables development before customer hardware available
- Accelerates time-to-market



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EB403 Block Diagram

KIT CONTENTS

EB403 Evaluation Board (See Figure 1)

- 150 MHz (600 MIPS) LSI403LP DSP
- 48K x 16 on-chip memory
- 512K x 16 Flash memory
- 256K x 16 SRAM / 128K x 32 SBSRAM
- Multi-channel (5.1) Audio Daughter card
 - 24-bit, up to 96 kHz sample rate
 - Six D/A channels and Two A/D channels
 - Microphone interface and S/PDIF interface
 - RCA and mini-jacks
- USB 1.1 host adapter interface
- RS-232 console interface
- JTAG debug interface
- Dual daughter card interfaces
- Prototyping area
- LEDs and Programmable I/O
- AC Power Cord and Power Supply
- Serial, audio and USB A-B Cables
- ZSP400 Software Development Kit
- Integrated Development Environment
- Optimizing C Compiler
- Assembler / Linker
- Cycle-accurate Simulator
- Instruction Simulator
- Graphical Debugger / Profiler
- Tutorial with Example Projects
- Support for Windows and Sun Solaris

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VSI403LP Development Kit (DK403)



Green Hills Software MULTI™ Tools

- Advanced IDE for software development
- Support for multiple processors (ARM, MIPS, ZSP...)
- 30-day Evaluation of Full-featured Product

Example Source Code

- Optimized DSP Functions
- Host and Codec Examples

Documentation

- Getting Started Guide
- VSI403LP Data Sheet and User's Guide
- CODEC-5.1 Daughter card User's Guide
- HPI-USB1.1 Adapter User's Guide
- Board Schematics and BOM
- Application Notes

EB403 Board Support Package

- ZSP400 Core and Peripheral Support
- EB403 Hardware Support
- Codec Daughter card Drivers
- Flash Programming Utility

Demonstration Software

- ESPICO Ltd. MP3 Audio Decoder
- Vianix Corporation MASC Codec

System Requirements

- Windows 98/NT/2000/XP or
- Sun Solaris 2.x+
- 32 MB of RAM
- 130 MB of hard disk space
- RS-232 or USB 1.1 port

About ZSP Reference Silicon:

ZSP Reference Silicon is VeriSilicon's range of voice processors based on the ZSP400 DSP core, which support board-level voice products and enable quick prototyping of voice SoCs. These processors are ideal for VoIP customer premises equipment (CPE) for residential, SOHO and enterprise applications. They are also targeted for other voice-related applications such as compression, recognition, noise reduction and echo cancellation. For more information, please visit <http://www.verisilicon.com/Products & Solutions>

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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