



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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LogicTile Express for Cortex-R5

For the Versatile Express Family

ARM®

The Versatile™ Express family development boards provide an excellent environment for prototyping the next generation system-on-chip designs. Through a range of plug-in options, hardware and software applications can be developed and debugged.

The Soft Macro Model (SMM) for the ARM® Cortex™-R5 processor is an encrypted FPGA image for use on the LTE 3MG. It offers:

- Early access to the Cortex-R5 processor
- Benchmarking capability
- Early device driver and software development
- User IP provided via second FPGA board
- ARM JTAG and Trace connectors for debug support



LogicTile Express 3MG with ARM Cortex-R5 SMM

The implementation uses standard ARM CoreLink™ System IP components to implement a basic SoC design to mimic the test chip developments of our CoreTile Express products.

A simple click through EULA is available to access the latest processor technology from ARM.

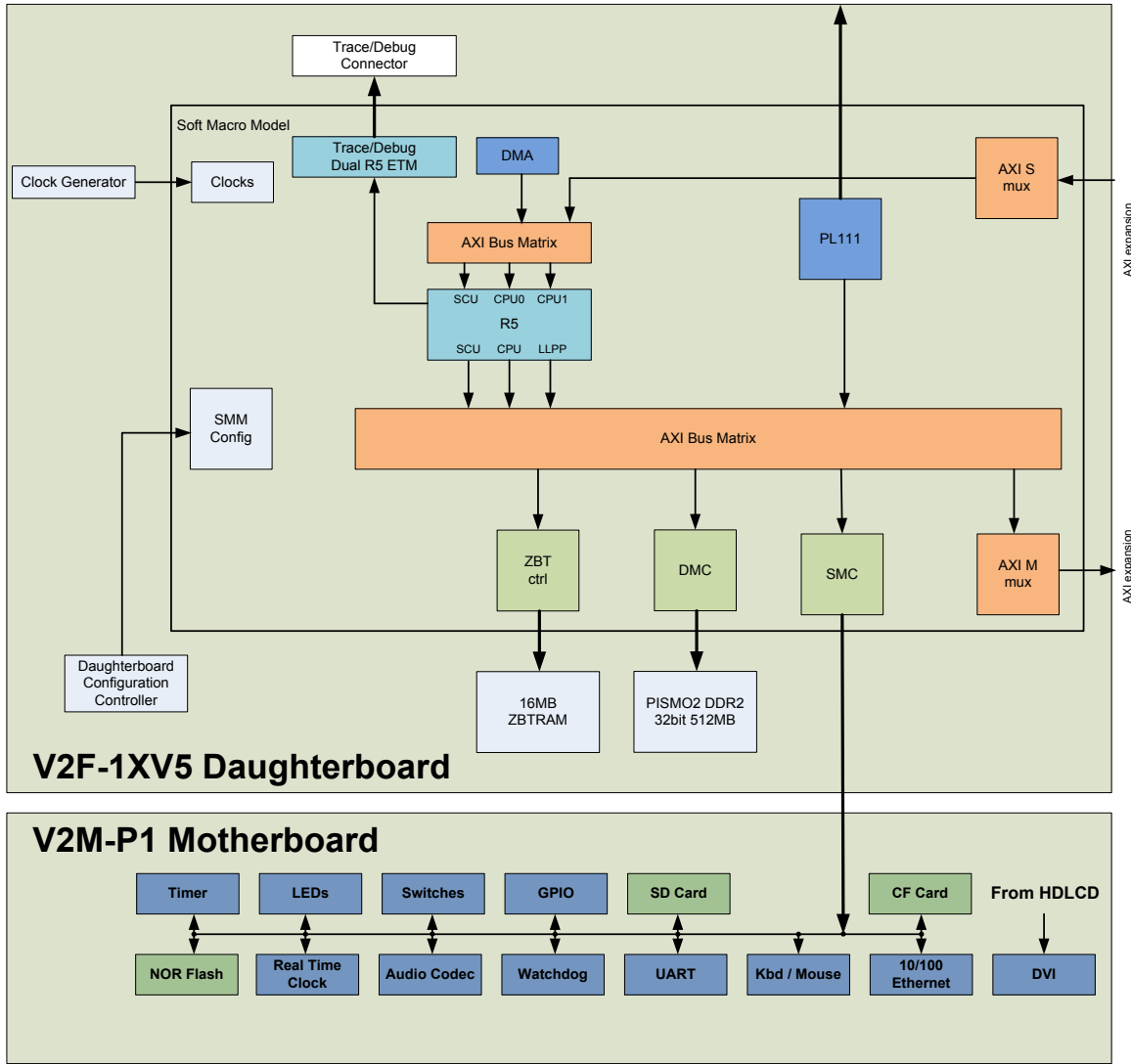
Features

- Processor Subsystem
 - Dual-core ARM Cortex-R5 with FPU r1p2
 - L1 Cache 64KB Instruction and Data
 - TCM 64kB
 - 50MHz operation speed
 - Debug support: CoreSight™ support ETM
- AMBA® AXI™ Subsystem
 - Internal AMBA AXI: 50MHz
 - External AMBA AXI: Master port 25MHz
 - External AMBA AXI: Slave port 35MHz
 - PL341 DDR2 Memory Interface
 - PISMO2 512MB 32-bit @ 110MHz
 - PL354 Static Memory Bus Interface
 - 32-bit 40MHz to motherboard
 - Boot from NOR Flash on motherboard
 - HDCLD video controller
- Expansion support
 - AMBA AXI: Master and slave links to expansion FPGA daughterboard
- Peripheral set compatible with the Versatile family
- Debug
 - ARM JTAG: 20-way DIL box header
 - ARM 32-bit parallel trace: dual 38-pin Micotors
- Simplified configuration via motherboard
 - System appears as a USB flash drive on a PC
 - Fast programming and configuration
 - Configuration text files for system settings
 - Remote power control via RS232

Deliverables

- LTE 3MG with encryption key
- Encrypted SMM image for LTE 3MG
- 512MB DDR2 PISMO2 module
- Versatile Express SMM support CD/DVD
- Example AMBA AXI design
 - Additional LTE 3MG required
- SelfTest software

LogicTile Express for Cortex-R5 Architecture



LogicTile Express for Cortex-R5 architecture diagram

When connected to a Versatile Express motherboard the configuration system enables programming and updating of the SMM Express R5x2. Configuration and operation parameters of the daughterboard are defined in a configuration file stored on the motherboard.

The exported AMBA AXI interfaces have dedicated routing for an optimal prototyping solution.

PART NUMBER: V2S-CR5-I000A

The daughterboard communicates to the motherboard via the static memory interface for all peripheral and flash memory access.

www.arm.com/ve

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