



## SB3500<sup>®</sup> Feature List

### High Performance, Low-Power Design

- 1.2 V +/- 10% Core Voltage
- 65-nm Technology
- 2.5 / 1.8 V +/- 10% Input/Output Voltage

### Three SandBlaster<sup>®</sup> Extended (SBX) DSP Cores

- Four Hardware Threads per Core
- 32K-Bytes Instruction Cache per Core
- 256K-Bytes Data Memory per Core
- 9.6 Billion MACs per Core @ 600MHz operation

### Integrated ARM926EJ-S Processor<sup>1</sup>

- 16K-Bytes, each Instruction & Data Cache
- 32K-Bytes/16K-Bytes Instruction & Data TCM

### Timers

- 4 32-Bit Timers per Sandblaster<sup>®</sup> Core
- 3 24-Bit, Timers/Pulse Generators Per Sandblaster<sup>®</sup> Core, cascade-able and configurable for external system clock operation
- 2 Global 32-Bit general purpose Timers
- Real-Time Clock (RTC)
- SoC Watchdog Timer
- Power Management control timers, for event processing

### DMA Controllers

- 12 SBX DMAs, one Per Thread
- ARM Bus DMA, multi-channel

### Programmable Interrupt Controller

### Configurable Dynamic and Static Memory Controllers

- Supports Synchronous: MDDR, SRAM
- Supports Asynchronous: SRAM, ROM, NOR/NAND Flash

### Configurable I/O

- 2 GB External Address Space
- 32 Dedicated GPIOs, plus 64 multifunction I/Os

### Two UARTs, one configurable for IRDA (115 Kbps)

### Serial Peripherals

- Five SPI<sup>TM2</sup>, each with multi-address selects
- Five I2C<sup>TM3</sup> interfaces

### Memory Card Interfaces

- Secure Digital Input/Output
- Smart Card

### PS2 Interface (Mouse, Keyboard)

### Keypad Interface

### Camera Interface

- 10-bit interface with internal queue

### LCD Controller

- Up to 1024 x 768 Resolution
- Supports STN, Color STN, HR-TFT, TFT
- Up to 64K-Colors and 15 Gray Shades
- Pointer overlay

### USB OTG Interface

### AC '97 / I2S Codec Interface with S/PDIF Support

### Dedicated RF Data Interfaces

- Four 16-bit Parallel Ports (Programmable for UL or DL data)
- DigRF baseband interface

### External Communications Interface

- 4K x 16-bit DP memory interface for communications with optional Applications Processor

### Integrated Device Power Management Unit

<sup>1</sup>ARM926EJ-S is a trademark of ARM Limited.

<sup>2</sup>SPI is a trademark of Motorola, Inc.

<sup>3</sup>I2C is a trademark of Phillips Semiconductors Corporation