EISC
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eos (adc32A312)

Product Information

EFT / POS & PINPAD Apliance

Advanced 32bit EISC Microcontroller

Description

ADC's eos(adc32A312) 32bit EISC microcontroller is designed to provide a cost effective and high performance microcontroller solution as a EFT/POS & Pinpad appliance and general application. The eos integrated microprocessor combines a 32bit Advanced EISC (AE32000) processor core with several peripheral functions such as Timer, Serial Interface, Flash Memory Controller etc.

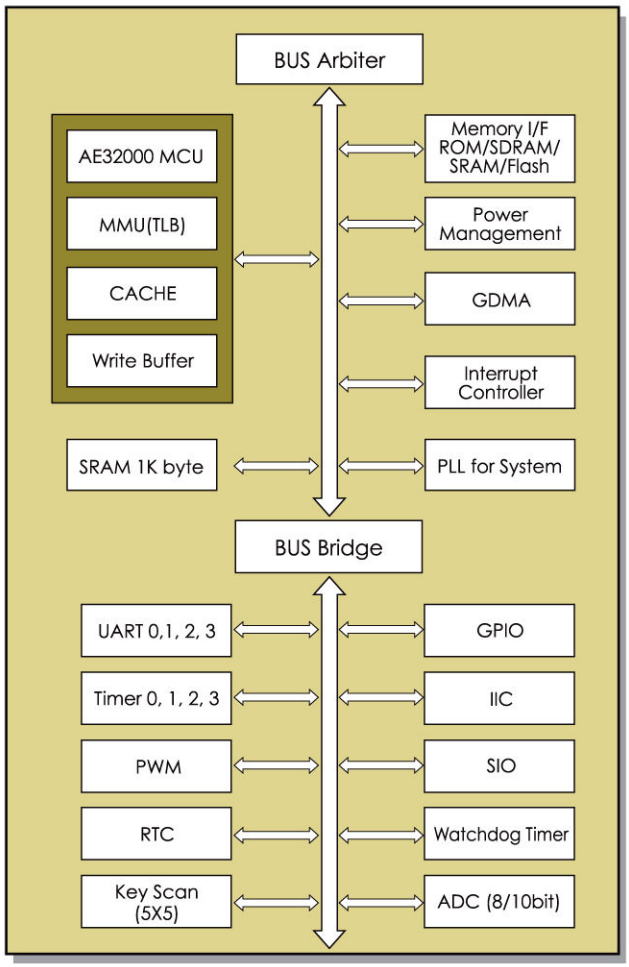
The On-chip Cache SRAM provides one-cycle access to code and data to speed program execution. AE32000 core family is a high performance range of 32bit EISC CPU core, with excellent code density from the 16bit instruction set, low power consumption for use in many type of applications.

Features

- Built in 32bit CPU, Cache and MMU (TLB)
  - Maximum 50Mhz CPU Operation
  - High Performance EISC Core AE32000
  - 2 Way Set Associative Harvard Cache with 2K byte Instruction and 2K byte Data Cache
  - LRU (Least Recently Used) Replacement Algorithm
  - Write Through / Write Back cache operation
  - Write Buffer has 4 word data buffer
  - Supports MMU with 128 entry, 4 way set associative TLB
  - Supports Correcting misalignment by software or hardware
  - Supports Little / Big Endian

- Memory Management
  - 32M byte Address Space per each bank
  - Support 8 Memory banks.
  - Supports External Wait Signal to Expand the bus cycle
  - Supports Self-refresh mode in SDRAM for Power down

- Clock Power Management
  - On-chip PLL makes the clock for operating MCU
  - Clock and be fed selectively to each function block by software
  - Supports Power Down Mode
  - Normal mode : Normal operation mode
  - Slow mode : Low frequency clock without PLL



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Features

- Peripheral functions
  - On Chip Clock gernerator with PLL
  - Flash memory controller (NAND Type & Auto Loading)
  - General DMA
  - 29 Ch. Priority Interrupt controllers with programmable priority set and rotation
  - 10 External Interrupt
  - 4 Ch. Timer
  - Watch Dog Timer
  - 4 Ch. UART with 16 X 8bit FIFO
  - 64 GPIO (Peripheral Input Output)
  - IIC Controller
  - SIO (Synchronous IO)
  - Real Time Clock
  - PWM
  - 25 Key Scan
  - 4 input 8/10bit ADC
- Embedded PLL
- Built in Boot SRAM (1K byte) for Boot Loader
- Test Method
  - Support JTAG Boundary Scan
- Process
  - 0.35㎛ CMOS VLSI
  - Operating Voltage 3.3V(+/- 10%)
  - 144 Pin LQFP package

Application Areas

EFT/POS Terminal, Pinpad Termial, General Purpose MCU

Available Documents

Data Book, Software Development Guide

For More Information Contact:

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