



"ALWAYS COMPLETE"

## Cogent Computer Systems, Inc.

---

17 Industrial Drive, Smithfield RI 02917

tel: 401-349-3999, fax: 401-349-3998, web: [www.cogcomp.com](http://www.cogcomp.com)

### CSB750 - 500Mhz Au1250 SODIMM SOM

The CSB750, designed, developed and manufactured by Cogent Computer Systems, Inc., is a highly integrated MIPS32 SODIMM System On a Module (SOM). The CSB750 provides an ultra small, powerful, flexible engine for embedded control systems of all kinds.

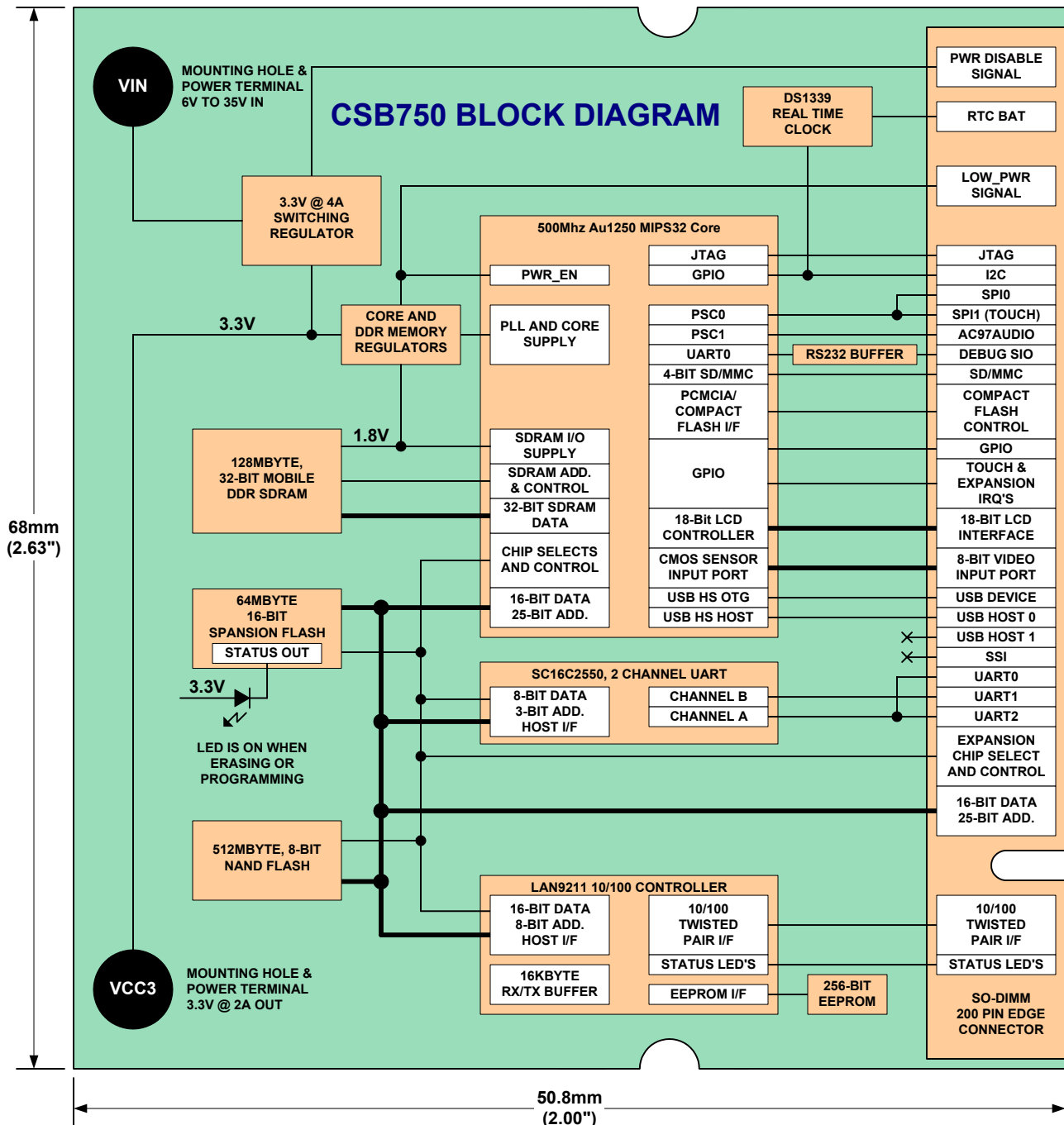
### Specifications

- 500Mhz Au1250 MIPS32 CPU with 16K I-Cache/16K D-Cache and HW Multiply-Accumulate
- 128Mbyte Mobile DDR SDRAM
- 64Mbyte S29GL512N FLASH, with Secure 256 Byte Sector and 128-Bit Unique ID
- 512MByte 8-Bit NAND Flash for On-Board OS and Applications Storage
- On-Chip LCD Controller up to 800 x 600 with MPEG/H.263 Acceleration HW optimized for D1 Resolution (720x480) @30 fps
- 8-Bit Video Input Port supporting YUV4:2:2, CCIR656 and Standard CMOS Sensors
- High Speed (480MBit) USB 2.0 Host and Device Ports
- Low Power LAN9211 10/100Mbit Ethernet Controller
- On-Chip 128-Bit Advanced Encryption Engine (AES)
- DS1339 Real Time Clock with dedicated Battery Backup Input
- RS-232 Buffer for Debug Serial Port (Au1250 UART4)
- One 8-Wire and one 4-Wire TTL UARTS via SC16C2550 DUART
- SPI, AC97 and I2C (via GPIO) buses for I/O Expansion such as Audio, A/D, D/A, etc.
- SD/MMC Controller (4-Bit, SDIO Compliant)
- 25-Bit Address/16-Bit Data bus for Compact Flash and Generic Expansion
- 10 Dedicated GPIO lines (many peripherals can also be defined as GPIO)
- On-Board, Wide Input (6V to 35V) 3.3V Regulator provides 2A to the Target Board
- <750mw typical, 1200mw maximum, <20mw sleep to RAM

### Introduction and Overview

All GPIO and peripherals are available via the low cost 200-pin SODIMM Edge Connector. Ultra small size, high performance 500Mhz MIPS32 Core, HW MAC, multiple serial interfaces, generous memory, 10/100 Ethernet and on-board 3.3V Regulator all combine to make the CSB750 an excellent choice for any size restricted, low power embedded system. In addition, the on-chip Media Acceleration Engine (MAE) and CMOS Sensor Input with YUV to RGB conversion, allow the CSB750 to target sophisticated multimedia and video streaming applications.

The CSB750 is constructed using state of the art PCB packaging technology such as fine pitch BGA's, micro-vias and fine line geometry. The CSB750 gives you access to this technology without the risk. You can integrate the CSB750 using a low cost, 4 layer PCB in just weeks, not months! We can even do it for you through our custom design services group.



## Low Cost LCD Development Kit and I/O Expansion

The CSB750 is fully compatible with the CSB703 Base Development Platform providing 4.3" LCD w/ Touch, SD/MMC, Compact Flash, Dual SJA1000 CAN and Audio I/O. The CSB703 provides three I/O Sites allowing access to the complete line of CSB908 I/O modules including: Two-Cell Lithium-ION Battery Charger; Dual RS-232; Dual Isolated RS-485; S-Video/Composite Video Input; 24Watt Power over Ethernet; I2S Audio with Touch and more. Additionally, the CSB703 interfaces the CSB781 to the CSB909 series of Display Adapters. Currently these include: 6.5" 640x480 VGA; 7" 800x480 WVGA; DVI Interface for PC monitors up to 1280x1024; and LVDS up to 1024x768 XGA. Contact us today for more information regarding the CSB750, CSB703, CSB908 I/O Modules and CSB909 LCD Displays.