

**COGENT**

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## **Cogent Computer Systems, Inc.**

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### **CSB726 - 520Mhz PXA270 SODIMM SOM**

The CSB726, designed, developed and manufactured by Cogent Computer Systems, Inc., is a highly integrated XScale SODIMM System On a Module (SOM). The CSB726 provides an ultra small, powerful, flexible engine for embedded control systems of all kinds.

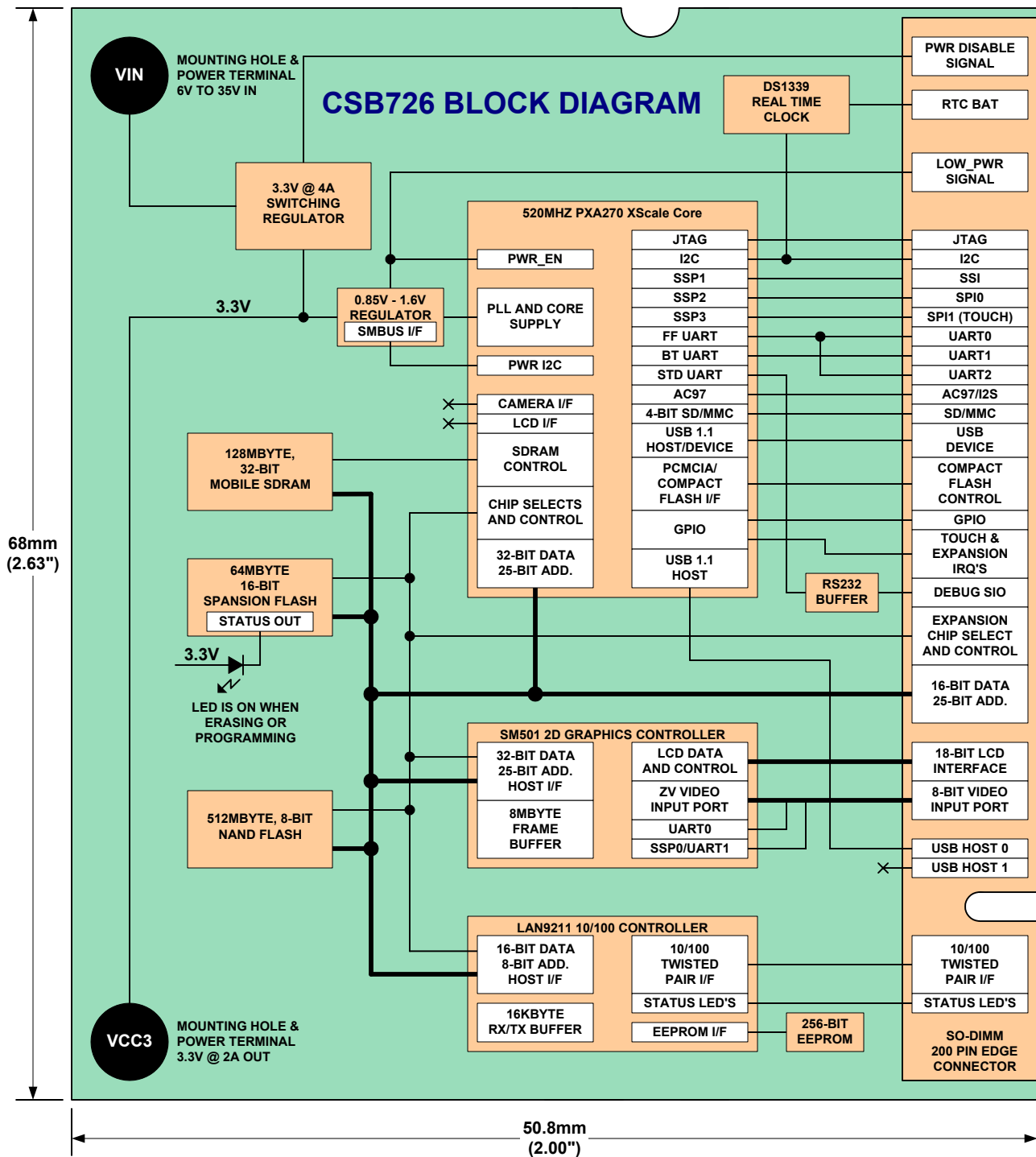
### **Specifications**

- 520Mhz PXA270 XScale CPU with 32K I-Cache and 32K D-Cache
- 128Mbyte Mobile SDRAM (<5mw Power Consumption in Sleep Mode)
- 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
- SM501 2D LCD Controller (up to 1280 x 1024, 18-Bit) with on-chip 8Mbyte Frame Buffer and 8-Bit Video Input supporting YUV4:2:2/CCIR656 and RGB Modes
- 12Mbit USB 1.1 Host port and 12Mbit USB 1.1 Host/Device Port
- Low Power LAN9211 10/100Mbit Ethernet Controller
- DS1339 Real Time Clock with dedicated Battery Backup Input
- RS-232 Buffer for 2-Wire Debug Serial Port (PXA270 STDUART)
- Four TTL UART's: One 8-Wire (PXA270 FFUART), One 4-wire (PXA270 BTUART) and Two SM501 4-wire (shared with SM501 ZV port)
- SSI/SPI (x3), AC97 and I2C buses for I/O Expansion such as Audio, A/D, D/A, etc.
- PXA270 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
- Programmable Core Regulator (0.85V to 1.6V) for Dynamic Frequency Scaling (DFS)
- <750mw typical, 1,500mw maximum, <15mw sleep to RAM

### **Introduction and Overview**

All GPIO and peripherals (except PXA270 LCD and Camera I/F) are available via the low cost 200-pin SODIMM Edge Connector. Ultra small size, powerful 520Mhz Xscale Core, multiple serial interfaces, generous memory, 10/100 Ethernet and on-board 3.3V Regulator all combine to make the CSB726 the ideal engine for any size restricted, low power embedded system. In addition, the SM501 Graphics Coprocessor provides advanced 2D acceleration, panel resolutions up to 1280 x 1024, plus YUV to RGB conversion for Video Streaming applications.

The CSB726 is constructed using state of the art PCB packaging technology such as fine pitch BGA's, micro-vias and fine line geometry. The CSB726 gives you access to this technology without the risk. You can integrate the CSB726 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 CSB726 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 CSB726, CSB703, CSB908 I/O Modules and CSB909 LCD Displays.