

**CSB17xx NETWORK SOM'S - PRODUCT MATRIX**

|                               | CSB1723-MV78230  | CSB1724-88F6282               | CSB1725-MV78200                                 | CSB1726-MV78460  | CSB1781-P1010  | CSB1782-P1022  |
|-------------------------------|--|-------------------------------|---|--|--|--|
| CPU                           | Marvell MV78230  | Marvell 88F6282               | Marvell MV78200                                 | Marvell MV78460  | Freescale P1010                                      | Freescale P1022                                      |
| CORE                          | Dual ARMv7 – Sheeva PJ4  | ARMv5TE – Sheeva PJ1          | Dual ARMv7 – Sheeva PJ1                         | Quad ARMv7 – Sheeva PJ4  | e500v2   | Dual e500v2  |
| CORE DMIPS/MHZ                | 2.41 DMIPS   | 1.49 DMIPS                    | 1.49 DMIPS                                      | 2.41 DMIPS   | 2.4 DMIPS  | 2.4 DMIPS  |
| CORE SPEED                    | 1Ghz   | 1.6Ghz                        | 1Ghz  | 1.33Ghz  | 800Mhz   | 1Ghz   |
| I/D-CACHE                     | 32KB/32KB per core   | 32KB/32KB                     | 32KB/32KB                                       | 32KB/32KB per core   | 32KB/32KB  | 32KB/32KB per core                                   |
| L2 CACHE                      | Shared 1MB   | 128KB                         | 1MB   | Shared 2MB   | 256KB  | Shared 256KB   |
| EMBEDDED SRAM                 | -  | -                             | -   | -  | -  | -  |
| FPU                           | VFPv3  | -                             | VFPv3   | VFPv3  | FPU, SPE   | FPU, SPE   |
| FPU MWIPS                     | 664 MWIPS  | -                             | 664 MWIPS                                       | 664 MWIPS  | 800 MWIPS  | 1000 MWIPS   |
| <b>ON-BOARD MEMORY</b>        |  |                               |   |  |  |  |
| SDRAM                         | 1GB, 32-Bit DDR3-1066  | 512MB, 16-Bit DDR2-800        | 1GB, 64-bit DDR2-533                            | 2GB, 32-bit DDR3-1333  | 1GB, 32-Bit DDR3-800                                 | 1GB, 32-Bit DDR3-667                                 |
| ECC                           | -  | -                             | YES   | YES  | -  | -  |
| NOR FLASH                     | 8MB via SPI  | -                             | 64MB, 16-Bit Spansion                           | 8MB via SPI  | 8MB via SPI  | 8MB via SPI  |
| NAND FLASH                    | 512MB SLC  | 512MB SLC                     | 512MB SLC                                       | 512MB SLC  | 512MB SLC  | 512MB SLC  |
| <b>HIGH SPEED SERDES</b>      |  |                               |   |  |  |  |
| PCIe PORT 0 (x4)              | SERDES LANE 0 (x1)   | PEX 0 (x1)                    | PCIe 1, Lanes 0-3                               | SERDES LANE 8-11 (x1/x4)   | PCIe 1 (x1)  | PCIe 1 (x2)  |
| PCIe PORT 1 (x1)              | SERDES 1   | PEX 1                         | PCIe 0, Lane 0                                  | SERDES 0   | PCIe 2   | PCIe 2   |
| PCIe PORT 2 (x1)              | SERDES 2   | -                             | PCIe 0, Lane 1                                  | SERDES 1   | -  | -  |
| SATA PORT 0                   | SERDES 4   | -                             | SATA0   | SERDES 4   | SATA 1   | SATA 1   |
| SATA PORT 1                   | SERDES 5   | -                             | SATA1   | SERDES 5   | SATA 2   | SATA 2   |
| SGMII 2                       | -  | -                             | -   | SERDES 2   | -  | -  |
| SGMII 3                       | -  | -                             | -   | SERDES 6   | -  | -  |
| SGMII 4                       | -  | -                             | -   | -  | -  | -  |
| SGMII 5                       | -  | -                             | -   | -  | -  | -  |
| <b>ETHERNET PORTS</b>         |  |                               |   |  |  |  |
| COPPER 0                      | SERDES 3 via SGMII PHY   | GiGe 0 via RGMII PHY          | GiGe 0 via RGMII PHY                            | SERDES 3 via SGMII PHY   | eTSEC 2 via SGMII PHY                                | eTSEC 1 via SGMII PHY                                |
| COPPER 1                      | SERDES 6 via SGMII PHY   | GiGe 1 via RGMII PHY          | GiGe 1 via RGMII PHY                            | SERDES 7 via SGMII PHY   | eTSEC 3 via SGMII PHY                                | eTSEC 2 via SGMII PHY                                |
| SGMII 0/FIBER 0               | Auto-Detect via PHY  | -                             | -   | Auto-Detect via PHY  | Auto-Detect via PHY                                  | Auto-Detect via PHY                                  |
| SGMII 1/FIBER 1               | Auto-Detect via PHY  | -                             | -   | Auto-Detect via PHY  | Auto-Detect via PHY                                  | Auto-Detect via PHY                                  |
| IEEE1588                      | ALL PORTS  | -                             | -   | ALL PORTS  | ALL PORTS  | ALL PORTS  |
| <b>SECURITY ACCELERATION</b>  |  |                               |   |  |  |  |
| SUPPORTED PROTOCOLS           | TRNG, AES, DES, 3DES, MD5/SHA  | TRNG, AES, DES, 3DES, MD5/SHA | TRNG, AES, DES, 3DES, MD5/SHA                   | TRNG, AES, DES, 3DES, MD5/SHA  | Public Key, AES, DES, 3DES, MD5/SHA, Snow 3G, Kasumi | Public Key, AES, DES, 3DES, MD5/SHA, Snow 3G, Kasumi |
| XOR DMA                       | XOR & iSCSI CRC32  | XOR & iSCSI CRC32             | XOR & iSCSI CRC32                               | XOR & iSCSI CRC32  | XOR & iSCSI CRC32                                    | XOR & iSCSI CRC32                                    |
| <b>PERIPHERAL PORTS</b>       |  |                               |   |  |  |  |
| UART 0                        | UART2 @ 5.2Mbps  | UART 0 (2wire) @ 5.2Mbps      | UART 0 @ 5.2Mbps                                | UART2 @ 5.2Mbps  | UART 0   | UART 0   |
| UART 1                        | UART1 @ 5.2Mbps  | -                             | UART 1 @ 5.2Mbps                                | UART1 @ 5.2Mbps  | UART 1   | UART 1 (2-wire)                                      |
| UART 2/CAN 0                  | UART3 (2-wire) @ 5.2Mbps   | -                             | UART 2 @ 5.2Mbps                                | UART3 (2-wire) @ 5.2Mbps   | CAN 1  | -  |
| CAN 1                         | -  | -                             | -   | -  | CAN 2  | -  |
| SPI PORT                      | SPI @ 50Mhz  | -                             | -   | SPI @ 50Mhz  | SPI  | SPI  |
| SSP/TDM PORT                  | -  | TDM                           | -   | -  | -  | SSI  |
| I2C PORTS                     | 2  | 2                             | 2   | 2  | 2  | 1  |
| I2S AUDIO PORT                | -  | I2S                           | -   | -  | -  | -  |
| 4-BIT SD PORT                 | SD @ 54Mhz   | SD @ 54Mhz                    | -   | SD @ 54Mhz   | SDHC @ 48Mhz   | SDHC @ 48Mhz   |
| USB HOST 0                    | USB 1  | USB via HUB Port 3            | USB 1   | USB 1  | USB via HUB Port 1                                   | USB 0  |
| USB HOST 1                    | USB 2  | USB via HUB Port 2            | USB 2   | USB 2  | USB via HUB Port 2                                   | USB 1  |
| 18-Bit LVDS                   | YES  | -                             | -   | YES  | -  | YES  |
| <b>MISCELLANEOUS FEATURES</b> |  |                               |   |  |  |  |
| REAL TIME CLOCK               | INTERNAL   | DS1339                        | DS1339  | INTERNAL   | DS1339   | DS1339   |
| OTHER FEATURES                | Dual Security Engines, LCD has overlay, color conversion, HW scaling | -                             | 4th UART on SD/MMC<br>PCIe 0, Lanes 2-3 on LVDS | Dual Security Engines, LCD has overlay, color conversion, HW scaling | PCIe 2 can be configured for eTSEC 1 (SGMII mode)    | SDHC supports 8-Bit mode, LCD supports overlay       |
| SIZE                          | A-SIZE: 50mm X 70mm  | A-SIZE: 50mm X 70mm           | B-SIZE: 75mm X 70mm                             | B-SIZE: 75mm X 70mm  | A-SIZE: 50mm X 70mm                                  | A-SIZE: 50mm X 70mm                                  |