

CSB17xx MULTIMEDIA SOM'S - PRODUCT MATRIX

	CSB1727-88AP168	CSB1728-88AP618	CSB1730-88AP510	CSB1737-SAM9X35	CSB1741-TEGRA2	CSB1750-AM3517	CSB1751-DM8146
CPU	Marvell 88AP168	Marvell 88AP618	Marvell 88AP510	Atmel AT91SAM9X35	NVIDIA TEGRA250	T.I. AM3517	T.I. TMS320DM8146
CORE	ARMv5TE – Sheeva PJ1	ARMv7 – Sheeva PJ4	ARMv7 – Sheeva PJ4	ARMv5TE - ARM926EJ-S	Dual ARMv7 – Cortex-A9	ARMv7 – Cortex-A8	ARMv7 – Cortex-A8
CORE DMIPS/MHZ	1.49 DMIPS	2.41 DMIPS	2.41 DMIPS	1.1 DMIPS	2.1 DMIPS per core	2.0 DMIPS	2.0 DMIPS
CORE SPEED	1.066Ghz	1.066Ghz	800Mhz	400Mhz	1Ghz per core	600Mhz	1Ghz
I/D-CACHE	32KB/32KB	32KB/32KB	32KB/32KB	16KB/16KB	32KB/32KB per core	16KB/16KB	32KB/32KB
L2 CACHE	128KB	256KB	512KB	-	Shared 1MB	256KB	512KB
EMBEDDED SRAM	-	256KB	-	96KB	256KB	64KB	64KB
FPU	WMMX2	VFPv3, WMMX2	VFPv3, WMMX2	-	VFPv3, NEON	VFPv3, NEON	VFPv3, NEON
ON-BOARD MEMORY							
SDRAM	512MB, 16-Bit DDR3-1066	1GB, 32-bit DDR3-1066	1GB, 32-bit DDR3-800	512MB, 32-Bit DDR2-266	1GB, 32-Bit DDR2-800	512MB, 32-Bit DDR2-800	1GB, 32-Bit DDR3-800
SPI NOR FLASH	-	8MB via SSP1	8MB via SPI0	-	8MByte via SPI	8MByte McSPI1	8MByte via McSPI1
NAND FLASH	512MB SLC	512MB SLC	512MB SLC	512MB SLC	512MB SLC	512MB SLC	512MB SLC
HIGH SPEED SERIAL PORTS							
PCIe PORT 0	PCIe	-	PEX 1	-	PCIe LANE 0	-	PCIe
PCIe PORT 1	-	-	PEX 0	-	PCIe LANE 2	-	-
SATA PORT 0	-	-	SATA	-	-	-	SATA 0
SATA PORT 1	-	-	-	-	-	-	SATA 1
USB HOST 0	USBOTG	OTG via LAN9512 PORT 2	USB0	HSUSBA	USB1	USB0	USB0
USB HOST 1	USBH	OTG via LAN9512 PORT 3	USB1	HSUSBB	USB3 via LAN9512 PORT 2	USB1	USB1
PERIPHERAL PORTS							
UART 0	UART1 @ 3.6Mbps	UART1 @ 3.6Mbps	UART0 @ 5.2Mbps	UART0 @ 1.7Mbps	UART2 @ 4.5Mbps	UART3 @ 3Mbps	UART0 @ 3Mbps
UART 1	UART3 @ 3.6Mbps	UART3 @ 3.6Mbps	UART1 @ 5.2Mbps	UART2 @ 1.7Mbps	UART1 @ 4.5Mbps	UART2 @ 3Mbps	UART1 @ 3Mbps
UART 2/CAN 0	UART2 @ 3.6Mbps	UART2 @ 3.6Mbps	UART 2 @ 5.2Mbps	CAN 0	UART3 @ 4.5Mbps	UART1 (2-wire) @ 3Mbps	CAN0
CAN 1	-	-	-	CAN 1	-	HECC	CAN1
SPI PORT	SSP2 @ 54Mhz	-	SPI1 @ 41.6Mhz	SPIO @ 66Mhz	SPI3 @ 50Mhz	McSPI2 @ 48Mhz	McSPI2 @ 48Mhz
SSP/TDM PORT	SSP4 @ 54Mhz	SSP3 @ 49.56Mhz	SSP/AU1 @ 24.56Mhz	GPIO	DAP2/TWC	McBSP2 @ 48Mhz	McBSP2 @ 48Mhz
I2C PORTS	2	5	2	2	4	3	3
I2S AUDIO PORT	SSP1	I2S/SSPA2	AU0	SSC	DAP1	McBSP1	McBSP1
4-BIT SD/MMC PORT	MMC3 @ 54Mhz	MMC3 @ 54Mhz	SD0 @ 50Mhz	MCI0 @ 54Mhz	SDIO3 @ 52Mhz	MMC1 @ 54Mhz	SD0 @ 54Mhz
802.11b/g WIFI	WFMD481-18 via MMC4	WFMD481-18 via MMC2	WFMD481-18 via SD1	WFMD481-18 via SDIO1	WFMD481-18 via SDIO1	WFMD481-18 via MMC2	WFMD481-18 via SD1
ETHERNET	Internal 10/100	LAN9512 USB 10/100	Internal 10/100/1000	Internal 10/100	LAN9512 USB 10/100	Internal 10/100	Internal 10/100/1000
DISPLAY INPUT/OUTPUT PORTS							
18-BIT LCD OUTPUT	1280 x 800 @16Bpp	1280 x 800 @ 18Bpp	1280 x 800 @ 18Bpp	1280 x 800 @ 18Bpp	1280 x 800 @ 18Bpp	1280 x 800 @ 18Bpp	1280 x 800 @ 18Bpp
ANALOG VGA	-	-	1600 x 1200 @ 24Bpp	-	1600 x 1200 @ 24Bpp	-	-
HDMI	-	1920 x 1080 @ 24Bpp	-	-	1920 x 1080 @ 24Bpp	-	1920 x 1080 @ 24Bpp
MIPI DSI 0	-	DSI1, 1280 x 720 @ 24Bpp	-	-	DSI 1280 x 720 @ 24Bpp	-	-
MIPI DSI 1	-	DSI2, 1280 x 720 @ 24Bpp	-	-	-	-	-
8-BIT VIDEO INPUT	CCIC @ 75Mhz	CCIC1 @ 75Mhz	CAM @ 50Mhz	-	VI @ 75Mhz	CCDC @ 75Mhz	CCDC @ 75Mhz
MIPI CSI 0	-	CSI1, 1920 x 1080 @ 30fps	-	-	CSIA, 1920 x 1080 @ 30fps	-	-
MIPI CSI 1	-	CSI2, 1920 x 1080 @ 30fps	-	-	CSIB, 1920 x 1080 @ 30fps	-	-
GRAPHICS AND MULTIMEDIA							
2D GRAPHICS	2D Draw, Alpha Blending, Hardware Rotation, Color Conversion	2D Draw, Open VG1.1, Alpha Blending, Hardware Rotation, Color Conversion	2D Draw, Open VG1.1, Alpha Blending, Hardware Rotation, Color Conversion	2D Draw, Open VG1.1, Alpha Blending, Hardware Rotation, Color Conversion	Alpha Blending, Hardware Rotation, Color Conversion	2D Draw, Open VG1.1, Alpha Blending, Hardware Rotation, Color Conversion	2D Draw, Open VG1.1, Alpha Blending, Hardware Rotation, Color Conversion
3D GRAPPHICS		OpenGL ES 2.0, 45M Polygons/sec Draw, 250M Pixels/sec Fill	OpenGL ES 2.0, 10M Polygons/sec Draw, 200M Pixels/sec Fill		OpenGL ES 2.0, 71M Polygons/sec Draw, 1200M Pixels/sec Fill	OpenGL ES 2.0, 10M Polygons/sec Draw, 350M Pixels/sec Fill	OpenGL ES 2.0, 18M Polygons/sec Draw, 500M Pixels/sec Fill
HARDWARE VIDEO DECODE		H.264, WMV9, MPEG-2/4, to 1080P @ 30fps	H.264, WMV9, MPEG-2/4, to 1080P @ 30fps		H.264, WMV9, MPEG-2/4, to 1080P @ 30fps		H.264, WMV9, MPEG-2/4, to 1080P @ 30fps
HARDWARE VIDEO ENCODE		H.264, MPEG-2/4, JPEG to 1080p @ 30fps			H.264, MPEG-2/4, JPEG to 1080p @ 30fps		H.264, MPEG-2/4, JPEG to 1080p @ 30fps
MISCELLANEOUS FEATURES							
REAL TIME CLOCK	DS1339	DS1339	INTERNAL	INTERNAL	DS1339	DS1339	DS1339
SECURITY	-	AES, 3DES, SHA, MD5	AES, 3DES, SHA, MD5	-	AES	-	-
OTHER FEATURES	QDEO Color Re-Mapper	Audio Accelerator	XOR DMA	8 INPUT A/D	SPDIF IN/OUT	FIR on UART3, 2 SPI CS	IEEE1588, FIR on UART's