A 1GHz Power Efficient Single Chip Multiprocessor System for Broadband Networking Applications

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The Broadcom BCM12500 is a high performance System On a Chip (SOC) targeted at network centric tasks. The chip consists of two high performance SB-1 MIPS64 CPU's, a shared 512KB L2 cache, a DDR memory controller, three Ethernet MAC's and integrated I/O, including LDT™ high speed I/O and implements fully coherent memory transactions. The die measures 14.2mm by 13.3mm in a 0.15µm CMOS technology and has a power dissipation of 13W at 1.2V and 1GHz.