



NASOC™ NETWORK ATTACHED STORAGE PROCESSOR

FEATURES

- **Advanced 400 DMIPS / 300 MHz MIPS32™ CPU core**
 - 16 KB I-cache, 16 KB D-cache, and 1 KB prefetch cache
 - MMU/TLB Support for Linux®
- **10/100 Ethernet MAC with MII for LAN connectivity**
- **PCI 2.3 host interface (32 bit / 33 MHz)**
- **12 Mbps USB 1.1 host and device interface**
- **GPIO interface**
- **SDRAM controller**
 - 32 bit / 133 MHz SDRAM controller
 - SDR and DDR support
 - 8 MB to 512 MB capacity
- **Encryption/Decryption block**
 - 3DES-CBC, DES-CBC
 - AES-CBC, AES-CTR with 128, 192, and 256 bit keys
 - MD5, SHA1, HMAC-MD5, HMAC-SHA1
 - SSL-MAC-MD5, SSL-MAC-SHA1, TLS-MAC-MD5, TLS-MAC-SHA1
- **16-bit external interface bus**
- **Dual 16550 compatible UART**
- **0.13 μ low-power 1/2/3.3V design**

SUMMARY OF BENEFITS

- **Turnkey software and hardware provide the following benefits**
 - Plug-and-Play
 - Auto-discovery
 - User-transparent TwinCopy™ RAID1 technology
 - Stressless Hot-Swap, Online-Build, Online-Merge, Online-Repair
 - Real-time encryption ensures data confidentiality
 - Simultaneous NFS/CIFS support
 - Simultaneous Wired & Wireless LAN accesses
 - Advanced QoS supports media playback/record
 - High-level RAID0,1,10 independent of drive types
 - Powerful volume management features
 - Simple yet advanced File Access Control (ACL)
 - Advanced journaling file system
 - S.M.A.R.T. monitoring and report
 - 12 Mbps USB 1.1 compliant host/device interface enables expansion for Print Server, USB drives for seamless upgrade of hard disks & backup, UPS

BCM4780P System Diagram

