



## BCM7110 SINGLE-CHIP SET-TOP BOX WITH DOCSIS 1.1 AND PVR

### BCM7110 FEATURES

- Dual 1024/256/64-QAM variable symbol rate receivers supporting ITU-T J.83 Annex A/B/C
- QPSK out-of-band receiver and a QPSK to 256-QAM upstream burst modulator
- DOCSIS™ 1.1 MAC supporting quality of service (QoS)
- DAVIC 1.2/1.5 MAC
- Dolby AC-3/Musicam audio decoding
- Advanced 2D/3D graphics engine
- Dual NTSC/PAL video decoders
- NTSC/PAL video encoder
- BTSC decoder
- External bus interface (EBI) serving as local bus
- High-performance 250-MHz RISC MIPS32™ processor with 16-KB Icache and 16-KB Dcache
- USB host and device (OHCI)
- Ethernet 10/100 MAC
- Personal video recording (PVR) with IDE controller, 3DES, and dedicated DMA engines
- On-board DES/DVB decryption
- Single unified memory architecture
- Software device drivers supporting multiple operating systems and middlewares
- BCM7041 dual-MPEG encoder interface
- Other peripheral devices include IEEE 1394 interface, POD interface, V.90 Softmodem support, LED and UARTs

### SUMMARY OF BENEFITS

- Integrated front-end and back-end results in the most cost-effective single-chip set-top box solution with personal video recording (PVR) and DOCSIS 1.1.
- PVR engine supports time shifting on a program being viewed and recording of another program simultaneously (watch and record).
- Dual tuner architecture allows for simultaneous viewing of internet and video or two independent program streams for watch and record PVR.
- DOCSIS 1.1 quality of service (QoS) enables applications requiring minimum bandwidths, such as VoIP and video conferencing.
- Support for DOCSIS 1.1, DAVIC 1.2/1.5, and DCII enable deployment in virtually all major markets worldwide.
- Single high-performance RISC processor is capable of supporting today's demanding set-top box operating systems, applications, and cable modem traffic.
- External QAM demodulator support for simultaneous DOCSIS and PVR watch and record.

### BCM7110 Single-Chip Set-top Box with DOCSIS™ 1.1 and PVR System Block Diagram

