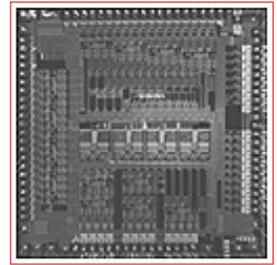




BCM93730 PRODUCT Brief



BCM93730 ADVANCED 3D SET-TOP BOX DEVELOPMENT PLATFORM

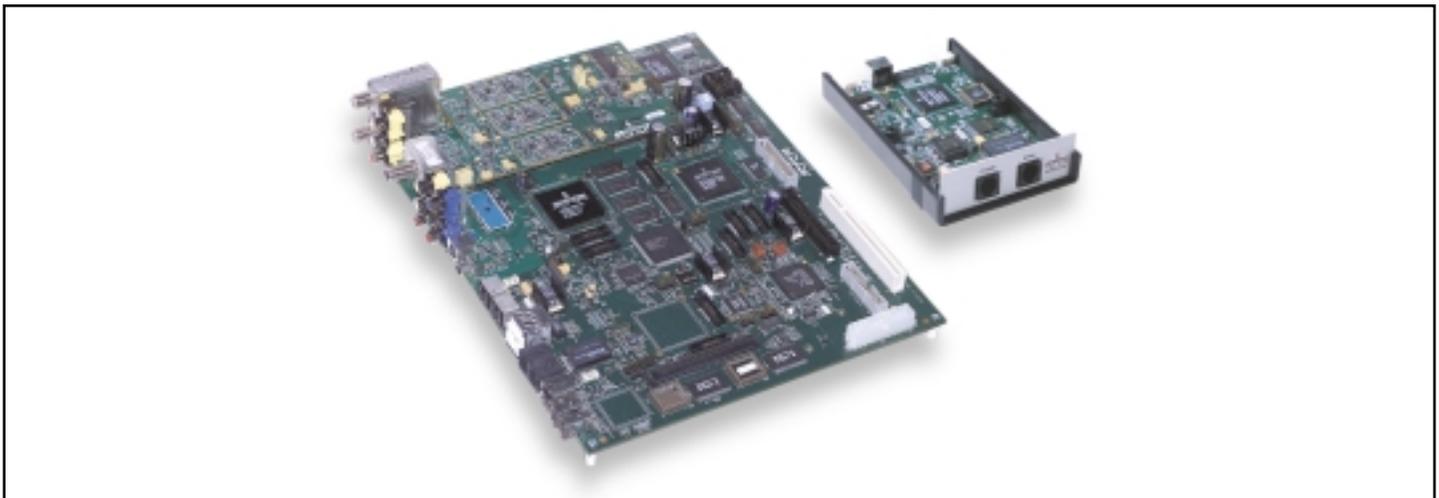
BCM93730 FEATURES

- **BCM3250 Advanced Set-top Box Front-end including DOCSIS/EuroDOCSIS/DAVIC Cable Modems**
 - Dual 256 QAM variable symbol rate receivers supporting ITU-T J.83 Annex A/B/C
 - QPSK Out-of-band Receiver and QPSK/16 QAM Upstream Burst Modulator
 - DOCSIS/EuroDOCSIS 1.1 MAC supporting Quality of Service (QoS)
 - DAVIC 1.2/1.5 MAC
- **BCM7030 Dual Standard Definition/High Definition Video/3D Graphics Subsystem**
 - ATSC-Compliant All Format MP@HL MPEG-2 Video Decoder
 - Broadcom's Advanced 3D Graphics Engine
 - Dolby AC-3/Musicam
 - NTSC Analog Video Decoder
 - NTSC/PAL/HD Video Encoder
 - PCI and Local Bus Interfaces
- **BCM3125 QAMLink® Transceiver**
 - 256 QAM demodulator, upstream burst modulator
- **Triple Broadcom CMOS Tuners**
- **High-performance 300 MIPS RISC R5000 class microprocessor**
- **VoIP module supporting to 2-lines of voice**
- **Peripheral devices include: HPNA 1/2, IEEE1394, POD interface with PCMCIA connector, Ethernet, V.90 Softmodem**
- **Software device drivers supporting multiple operating systems**

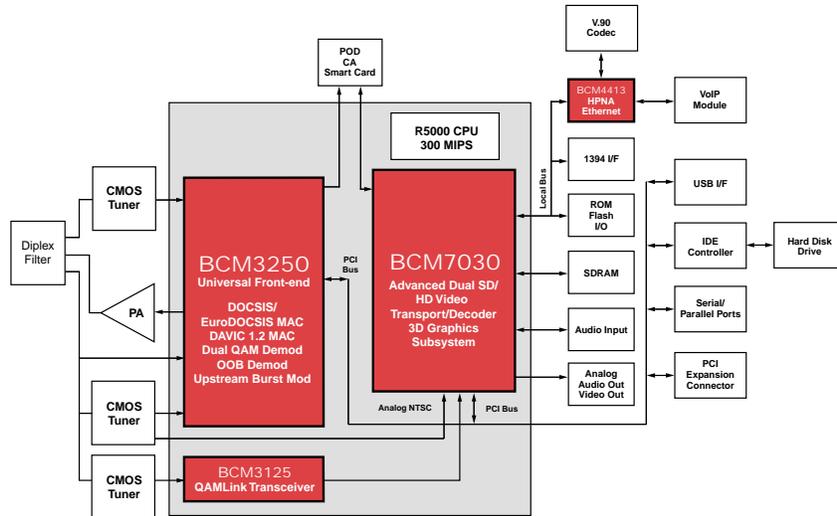
SUMMARY OF BENEFITS

- **Highly integrated front-end and back-end resulting in a cost effective advanced set-top box solution**
- **Triple CMOS tuner architecture allows for simultaneous web browsing, video and Personal Video Recording (PVR)**
- **Supports dual standard definition decoding or HDTV decoding (all formats)**
- **PCI architecture allows the use of low cost PC peripherals**
- **DOCSIS/EuroDOCSIS 1.1 Cable Modem QoS enables applications to support VoIP and video conferencing**
- **Support for DOCSIS/EuroDOCSIS 1.1, DAVIC 1.2/1.5, and DCII enable deployment in virtually all major markets worldwide**
- **Single high-performance RISC processor capable of supporting today's demanding set-top box operating systems, applications, and cable modem traffic**
- **Reference Design includes:**
 - Schematics and Gerber files
 - Bill of Material (BOM)
 - Data Sheets and Users Manual
 - Software Source Code
 - Applications support

BCM93730 Advanced 3D Set-Top Box Development Platform with VoIP Module



BCM93730 OVERVIEW



The Broadcom **BCM93730** is an advanced set-top box development platform supporting high definition television (HDTV), dual standard definition decoding and broadband cable modem internet access. It is a highly integrated, cost effective design built on the latest generation of Broadcom silicon and software offering low risk and quick time to market for the next generation of interactive set-top boxes.

The triple tuner architecture allows for web browsing, video and Personal Video Recording (PVR) on a separate channel. Time shifting is also simultaneously supported on the channel being viewed.

The core chip set on the **BCM93730** includes the BCM3250 QAMLink® Advanced Set-top Box Single-Chip Front-End with DOCSIS/EuroDOCSIS/DAVIC Modems, BCM7030 Advanced High Definition Video/3D Graphics Subsystem, and a high-performance MIPS R5000 class processor. The BCM3125 supplies the additional QAM demodulator and upstream burst modulator.

The BCM3250 is a complete front-end advanced set-top box solution providing dual 256-QAM receivers, an out-of-band QPSK receiver and a QPSK/16-QAM upstream burst modulator. All major physical layer standards are supported allowing set-tops based on the **BCM93730** design to be deployed worldwide. The device includes a complete DOCSIS/EuroDOCSIS 1.1 MAC (including QoS) and DAVIC 1.2/1.5 MAC for broadband interactive services.

The BCM7030 is a device which cost effectively supports the requirements of television and set-top box systems that require

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high-definition, multiple stream standard-definition video decoding with the capability of simultaneous high-definition and standard-definition outputs.

Features also include studio quality text for presenting standard Windows fonts on a SD or HD television and a high-performance 3D graphics engine for applications such as gaming and e-commerce.

The **BCM93730** also includes a high-performance MIPS RISC processor supporting middleware, graphics, applications, and cable modem traffic. The single processor design eliminates the need for multiple processors in the set-top, substantially reducing system cost.

The **BCM93730** contains a number of peripherals required for next generation set-top boxes. Some of these include Home Phone line Networking (HPNA 1/2) for streaming of data and video throughout the home, VoIP module supporting 2 lines of voice, IEEE1394 for connection to digital consumer electronic devices, hard disk drive support for Digital Video Recording (DVR), and a low cost V.90 softmodem has been included for alternative low data rate connections.

The **BCM93730** supports industry-standard operating systems such as WindowCE, Linux, JAVA, OpenTV, PowerTV, pSOSystem, and others. In addition, Broadcom offers device drivers that are compatible with a number of operating systems and APIs.



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