



## IP SET-TOP BOX REFERENCE DESIGN

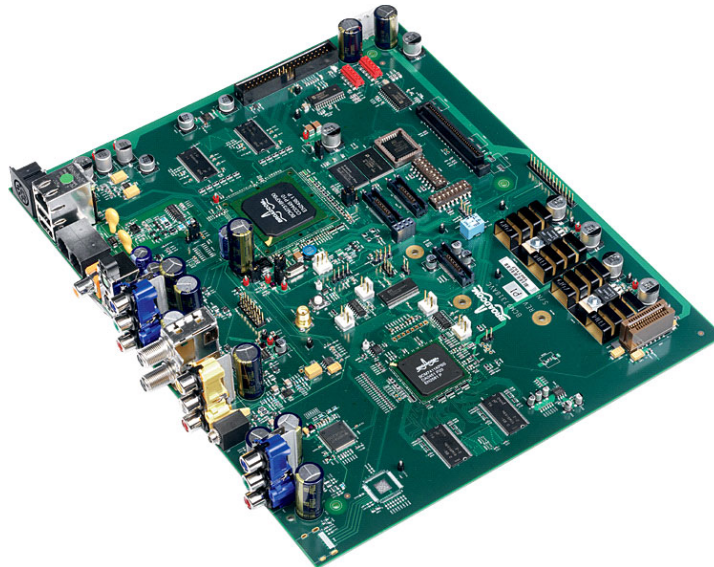
### FEATURES

- Video – MPEG-2/MPEG-4 AVC Standard Definition decode and display
- Audio – Dolby Digital AC-3, Enhanced Dolby Digital AC3+, MPEG-1/2 layer 1/2/3 (MP3), AAC, aacPlus support including stereo, stereo downmix and 5.1 multichannel surround
- 10/100BASE-T Network I/F
- Additional Network Interface Support
- DTCP protected networking support
- Digital video recording record/playback
- Dual channel USB 2.0 support
- Dual smart card support

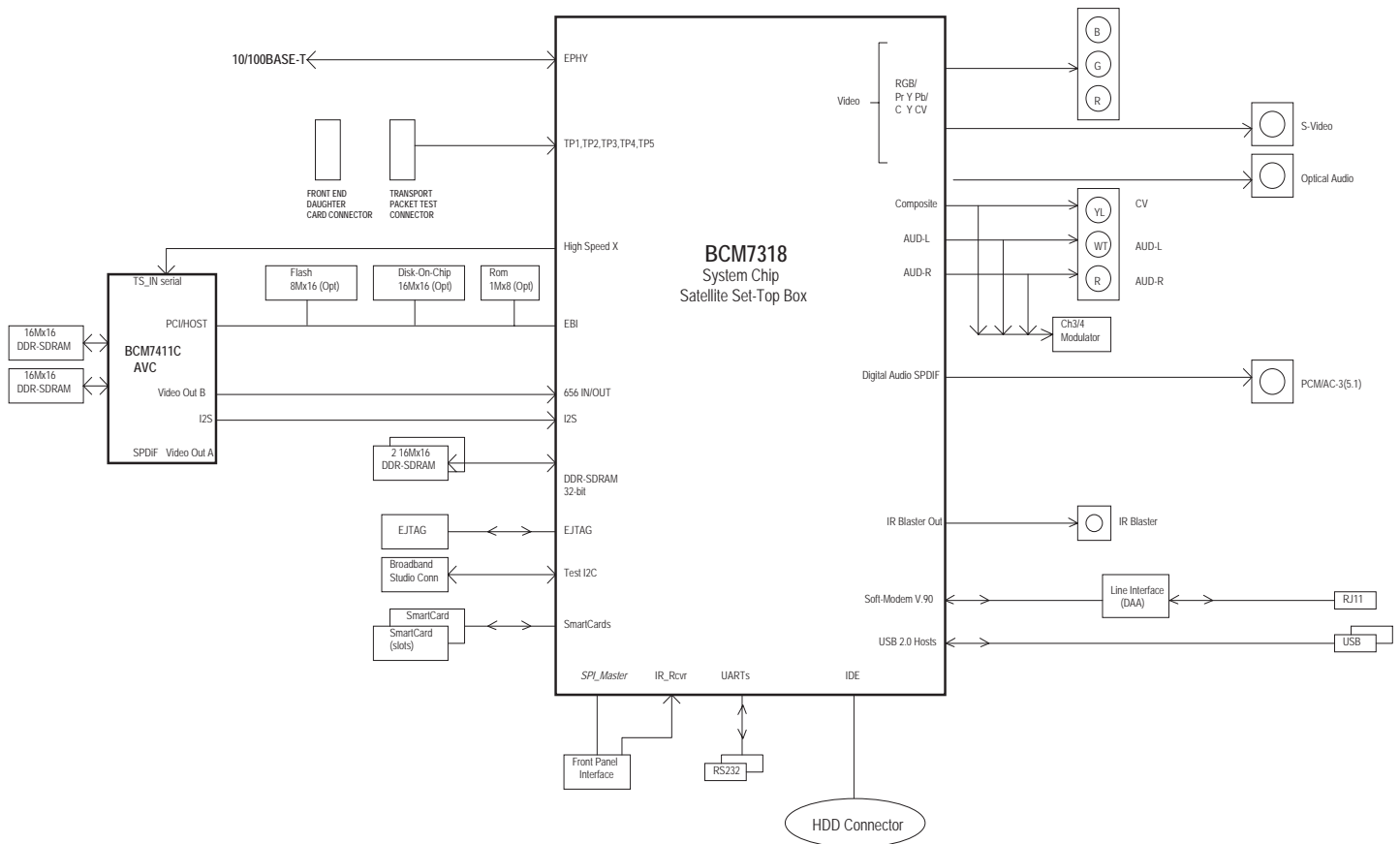
### SUMMARY OF BENEFITS

- Provides a cost effective solution for IP-STB applications that supports high quality MPEG-2/ MPEG-4AVC video and multiformat audio
- Complete time-to-market IP MPEG-4 AVC solution
- Flexible front end NIM support for DSL, Satellite, Cable and Terrestrial applications
- Enables IP STB solutions and in-home networking solutions
- Complete DVR support for network VOD and “Push” applications
- Broadcom’s device drivers enable rapid software development cycles with support of industry standard operating systems
- Complete Reference Design including schematics, gerber, software and documentation

### BCM97318AVC Set-Top Box Software Development Platform



# OVERVIEW



The Broadcom BCM97318AVC IP set-top box reference design is a complete hardware and software design based on the IP-STB-Chipset BCM7318 and BCM7411.

The BCM7318 includes versatile transport demultiplexing, MPEG-2 video decoding, a high-quality 2D graphics engine, a video encoder, and a MIPS32-based microprocessor. The BCM7411 supports high quality MPEG-4 AVC video decoding. Superb multiformat audio decoding quality supports the latest audio standards, including MPEG-1/2 L1/2/3, AAC, aacPlus, Dolby Digital and Enhanced Dolby Digital (AC-3+) with ample headroom for post processing. All system memory and peripheral control is included to complete the IP set-top box system.

The BCM97318AVC includes an extensive software suite that has been developed for the IP set-top box environment. Based around the Broadcom Porting Interface, software developed for the prior generation reference designs is portable to this latest IP set-top box development platform and can be leveraged by Broadcom customers.

This extensive software suite developed for set-top box applications includes software for versatile network front-end interfaces and NIM's, audio and video decoder, graphics subsystem and Internet Protocol delivery schemes. Broadcom supports industry standard operating systems and APIs in this design. By developing with the Broadcom Porting Interface, applications can be easily migrated to next generation devices.

Broadcom's device drivers are compatible with industry standard operating systems and associated APIs that allow applications and content developed for set-top boxes to run on this platform, with minimal effort by our customers.

The BCM97318AVC includes schematics, gerber files, bill of material, data sheet, user manual, "Brutus" software source code and sample application software support.

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97318-PB00-R 01/05/05

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