

BCM7038





DUAL HD DIGITAL VIDEO SYSTEM-ON-CHIP SOLUTION FOR CABLE, SATELLITE AND DTV

FEATURES

- Two Complete HD/SD Video/Audio Channels
 - Quad video scalers
- Multi-frame Per Pixel Motion Adaptive De-interlacer Circuit
 - Reverse 3:2 pull-down with automatic scene edit detection
- PEPTM Picture Enhancement Processing for DTV
- 3D Y/C Comb Separation Circuit for Analog Video Decode
- Triple PVR with Copy Protection and Trick Mode Support
- Dual Channel SATA Controller
- Dual Channel USB 2.0 Controller
- Six On-chip Video DACs
- HDMI/DVI MAC and PHY
- RF Modulation with BTSC Encoder
- SPDIF
- Dual I2S
- Dual Flexible Audio Interfaces
- On-chip IF Demodulation Circuit
- On-chip BTSC Decoder
- 10/100 Ethernet MAC and PHY
- 400 MHz 64-bit DDR Interface
- On-chip 300 MHz 64-bit CPU
- HD Digital Output Port for DTV Solutions
- HD Input Port for DTV Solutions

SUMMARY OF BENEFITS

- Dual video/audio channels allow dual TV support, with independent PIP support on main and secondary
- On-chip multi-frame de-interlacing delivers superior scaling and display quality for today's digital display devices
- PEPTM provides advanced video signal processing for in-thebox DTV solutions
- On-chip 3D comb filter delivers superior analog video capture quality
- Triple PVR with dual USB 2.0 and dual SATA provide for flexible recording options
- Six video DACS, on-chip DVI/HDMI MAC and PHY, and RF modulation circuit allow for all format video output
- Dual stereo audio DAC pairs, SPDIF, dual I2S, and dual custom audio interfaces allow for all format audio output
- Comprehensive system integration provides for low system cost
- HD Digital input and output ports combined with on-chip multi-frame motion adaptive de-interlacer and PEPTM facilitate in-the-DTV module solutions



