

Media Processor

PureVu® CNW8311L Full-HD Media Processor SoC

Preliminary Product Brief



OVERVIEW

The PureVu® CNW8311L is a highly integrated media SoC optimized for wireless display and home media streaming applications. Wirelessly stream video, pictures, and music from handheld devices to an external display. Mirror handheld devices on to external display while playing interactive games on the handheld. Stream movies and other content from the internet to TV display. With the highly integrated CNW8311L, these applications and more are possible. With its high performance 1080p60 multi-format decoder and advanced audio processor; high quality, full-HD video and audio can be decoded and displayed via the integrated HDMI1.4 interface with 3D support. Add to that MHL support, SDIO 3.0 or USB interface for WiFi; for a simple, efficient, and seamless connected device solution. The high level of integration in the SoC enables designers to build low power, small form factor devices at very low system cost, allowing for cost competitive products.

With its wide range of A/V formats and CODECs, networking and internal crypto capabilities, as well as low latency specific architecture make the SoC perfectly suited for high quality interactive video applications such as; stand-alone wireless media adapters, wireless monitors and TV modules, and media streaming receivers. Further enhancing the SoC's capabilities is support for industry standard wireless display and media streaming protocols such as Cavium's WiVu™, WiFi Alliance's Miracast™, Intel®'s WiDi, DLNA®, Microsoft's Smooth Streaming™, and HLS. A dedicated 2D and 3D graphics engine is also available, providing an engaging and sophisticated GUI experience to the user.

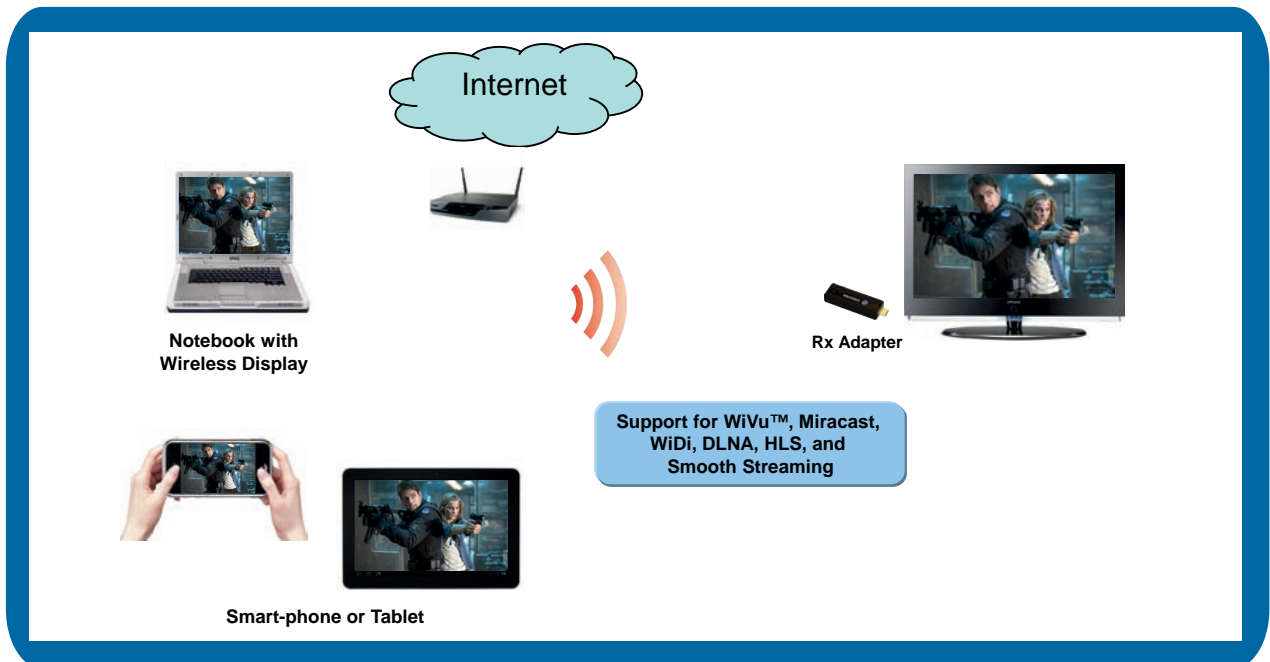


KEY FEATURES

- High performance 1080p60 multi-format decoder
- Support for stereoscopic 3D
- Support for H.264, MPEG2, MPEG4, VC-1, AVS, etc.
- Audio DSP with support for AC3, AAC, MP3, etc.
- High performance ARM sub-system
- Crypto engine for HDCP 2.x and DTCP-IP
- Integrated HDMI 1.4
- MHL interface support
- Display processor with scaling, 5 layer programmable views
- 2D and 3D graphics

APPLICATIONS

- Wireless display TV stick
- Home media streaming receiver
- Wireless monitors and TV module



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FEATURES

Application CPU

- ARM Cortex-A9, 1GHz, 32K/32K Cache

External Memory

- DDR3 - 800/1066/1333
- 16-bit DDR3 SDRAM
- 8-bit NAND Flash

Video Processor

- H.264 BP/MP/HP Decoding
- VC-1 SP/MP/AP Decoding
- MPEG-4 SP, ASP/ H.263 Baseline Profile/DivX/XviD Decoding
- MPEG2 Main Profile Decoding
- AVS Jizhun profile level 6.2 Decoding
- RV-8/9/10 Decoding
- VP8 Decoding
- Theora Decoding

Audio Processor

- 32-bit RISC CPU providing future standards upgradability
- Hardware FFT accelerators

Video & Audio Interface

- Video DAC for CVBS output
- Integrated HDMI 1.4a transmitter
- MHL 2.0
- Upto 24bits 1080P 50/60
- I2S, S/PDIF digital audio output

2D & 3D Graphics Engine

- OpenGL ES 2.0 compliance
- Color keying
- Alpha Blending
- Raster Operation (ROP) and/or blending at the outputs

Display Processor

- Multi-layers Alpha compositor
- High performance sharpness filters with noise coring(peaking & Coring)
- Non-linear chroma and luma enhancements

Video Post Processor

- Motion adaptive De-interlacer
- Down/Up Video Scaler
- High Quality Poly-phase FIR Video Scaler

Security

- CA & security processor
- HDCP 2.x
- DTCP-IP

High Speed I/O

- SDIO 3.0
- USB 2.0

Peripherals

- UART, I2C, SPI, GPIO

PureVu® CNW8311L - Product Family

Part Number	Description
CNW8311L-800BG277-G	PureVu Full-HD Media Processor SoC