

**OVERVIEW**

The Wireless for HDMI RDK (PL3304-RDK), based on Pulse-LINK's CWave® UWB PL3100 chipset, is a low cost, small form factor, ready to manufacture reference design enabling customers to get to market quickly. CWave® Wireless for HDMI eliminates the complex rat's-nest of cables found in home entertainment centers by wirelessly networking source devices such as Blu-Ray DVD players, Set Top Boxes, and Video Game consoles in the media center to a High Definition Television (HDTV). Pulse-LINK's Wireless for HDMI RDK is capable of simultaneous delivery of high quality, visually loss-less video along with multi-channel digital audio. (CWave® HDMI Over Coax RDK (PL3305) is also available.)

The Wireless for HDMI RDK consists of a transmitter and receiver pair. The CWave® transmitter module receives video information in HDMI or Component video format plus audio information in either HDMI or two channel analog format. The video

data is encoded using the same standard JPEG2000 video codec used by movie theaters for "Digital Cinema". The encoded video and digital audio data is then encrypted for transmission to the receiver.

The CWave® receiver processes the received video and audio data from the CWave® transmitter, decrypting and decoding the audio and video. Video is then routed to the associated HDMI or Component video



connectors, and the audio is output in either HDMI or two channel analog format.

**KEY FEATURES**

- Support for 480i, 480p, 576i, 720p & 1080i formats
- Auto-detects incoming format and displays the appropriate format on HDTV
- Supports wireless range of up to 10m between transmitter and receiver
- Support Consumer Electronic Control (CEC)
- HDMI v1.1 compliant on both Transmitter/Receiver
- IR Blaster for remote control of entertainment devices
- Up to 4 HDMI inputs on the transmitter
- Support for 128-bit AES encryption between transmitter and receiver
- HDCP compliant HDMI inputs.

**REFERENCE DESIGN KIT INCLUDES**

- PCB design files (schematic, layout and mechanical)
- Bill of Materials
- Firmware and PL3100 Drivers
- Production utilities and test procedures
- User's Manual
- Datasheet.



## **SPECIFICATIONS**

### **UWB**

- Scalable link rates up to 675 Mbps, providing over 450 Mbps application throughput
- 3.3 – 4.7 GHz Frequency range
- Wireless range up to ten meters at data rates of 100 MB/sec.

### **Audio/Video**

- Compatible with following NTSC video resolutions: 480i, 480p, 576i, 720p, 1080i
- JPEG2000 compression
- 2 channel/DD5.1
- Visually loss-less
- Scalable compression based on ADI JPEG2000 chipset.

### **Data Encryption**

- All audio and video data transmitted is encrypted using 128-bit AES-CBC standard.

### **Power Supply**

- Receiver and transmitter units are powered by external 5V DC supply.

### **LED Indicators**

- Transmitter: Active Input, UWB Active Link, UWB Link Activity
- Receiver: UWB Active Link, UWB Link Activity, Quality of Link.

## **ORDERING INFORMATION**

sales@pulselink.net 760.607.0844 www.pulselink.net  
1969 Kellogg Avenue Carlsbad, California 92008 USA

PL3304-H-RDK	Wireless for HDMI Tx/Rx pair
PL3304-D-RDK	Wireless for HDMI RDK Design Files

### **About Pulse-LINK**

*Pulse-LINK, Inc. is a fabless semiconductor company offering CWave® Ultra Wideband (UWB) technology for both wireless and wired connectivity of multimedia devices. Pulse-LINK pioneered the commercialization of UWB technology and now holds nearly three-hundred issued and pending UWB patents.*