



## PRODUCT BRIEF

# CWave™ PL3100 UWB Evaluation Kit

## Whole Home Multimedia Connectivity – UWB over Wireless & Coax Media

The Pulse~LINK® PL3100 EVK is a complete CWave™ Ultra-Wideband (UWB) Evaluation Kit (EVK) containing a high-performance UWB Radio. The UWB Radio utilizes Pulse~LINK's PL3100 CWave UWB Chipset specifically designed to operate over existing coax cable infrastructure or wireless media. The chipset is based on Pulse~LINK's proprietary CWave UWB modulation technology that delivers outstanding performance over various transport media. The EVK Radio with 1.35 Gbps signaling rate supports PHY data rates from 21 Mbps to 675 Mbps, providing the user various operating modes for the performance evaluation of an UWB link over coax or wireless media.

The PL3100 EVK enables an IEEE 802.15.3b compliant Piconet to be easily setup for transport of streaming video, audio and other data. The EVK transceivers can operate as either a Piconet Node Controller (PNC) or as a Device (DEV). The EVK enables bridging to external Consumer Electronics or Media Center PC platforms that source and receive streaming media content through standard Ethernet or 1394 interfaces.

Two types of PL3100 EVK units are available:

- PL3100-EVK00 - Wireless Bridge
- PL3100-EVK01 – Coax Bridge

Included in the PL3100 EVK is a CWave™ UWB chipset on a miniPCI card with embedded Windows-PC controllers, external power supplies, and pre-loaded software utilities. Additional utilities also supplied on CD for use with external PC platforms to generate test data for basic UWB link evaluation

### EVK FEATURE SET

- CWave™ UWB Radio
- Data Rates up to 1.35 Gbps
- Support for GigE over Coax or Wireless Bridging
- Support for 1394 over Coax or Wireless Bridging
- QoS for Isochronous Streams (802.15.3b compliant MAC)
- Piconet PNC & DEV Capable
- Fast Synch Acquisition with Open-Loop Architecture
- Built-in Test Data Transport
- Coexists with CATV Signaling
- Gig Ethernet Interface (RJ-45)
- 1394a Interface (6P)

### EVK Contents

- One UWB Transceivers Unit
- Software Utilities
- Power Supply

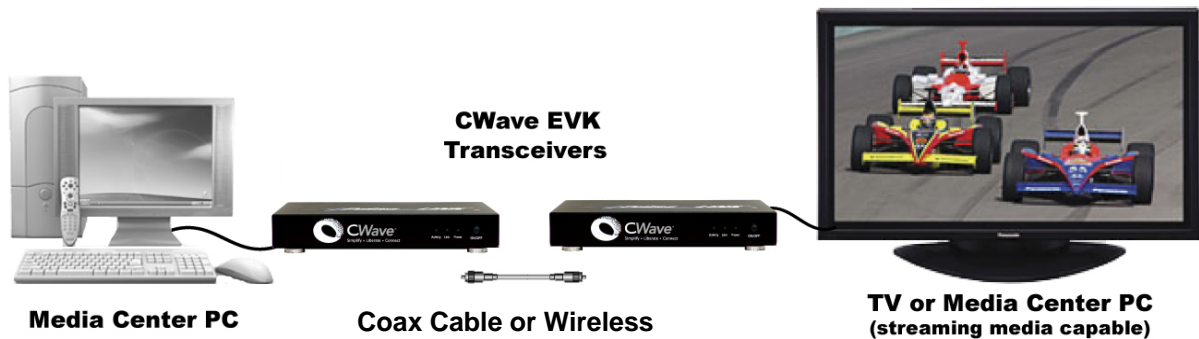


**CWave™**  
SIMPLIFY - LIBERATE - CONNECT

**PL3100 UWB CHIPSET FEATURES**

- Three-chip UWB solution:
  - PL3130 BB+MAC
  - PL3120 Transceiver RFIC
  - PL3110 Low Noise Amplifier
- 802.15.3b compliant MAC
- 32-bit PCI Control Interface
- Mixerless Transmitter and Coherent Receiver Architecture
- FEC (Forward Error Correction) and multipath mitigation methods using LDPC (Low Density Parity Codes)
- Adaptive Channel Filter
- Fast synchronization acquisition and open-loop architecture
- Support for traffic classes with QoS constraints

**PL3100 UWB EVK CONFIGURATION**



PL3100 UWB Chipset EVK – Media Center Configuration

**PL3100 UWB EVK SPECIFICATIONS**

<b>Signaling Rate:</b>	<b>1.35 Gbps</b>
<b>Selectable PHY rates</b>	<b>21 Mbps to 675 Mbps</b>
<b>Modulation:</b>	<b>CWave™ UWB</b>
<b>MAC:</b>	<b>802.15.3b compliant</b>
<b>Connections:</b>	<b>Coax (Type-F) Ethernet (RJ-45) 1394a (6P)</b>

**Ultra Wideband Solutions for the Whole Home Multimedia Experience**

PL3100-EVK00 UWB EVK – Whole Home Connectivity over Wireless  
 PL3100-EVK01 UWB EVK – Whole Room Connectivity over Coax Cable