Reference Platform Accelerates Cable Gateway Solution Development

OVERVIEW

Development Kit	
Puma7 Dev Kit	Puma 7 Reference Platform

FEATURES

- Reference design incorporates:
  - Full-Spectrum Capture™ Cable Front-end with MoCA Transceiver
  - Advanced Wi-Fi (Wi-Fi 6)
    - WiFi Alliance Certified a/b/g/n/ac/ax
  - 2.5 Gigabit Ethernet PHY
  - Ethernet switch with 4x1 Gigabit port
- Designed to meet:
  - DOCSIS 3.1
  - PacketCable 1.5
  - MoCA 2.5 Profile C
- PacketCable 2.0 and eRouter compatible
- 2x2 OFDM/OFDMA and 32x8 single carrier channels

BENEFITS

- Enables simplified implementation and accelerated time-to-market
- Supports tri-band Wi-Fi using up to 4x PCIe
- Supports various usage models including:
  - IoT
  - Multiple Wi-Fi configurations
  - Co-existence with Wi-Fi and IoT
- Meets thermal and power regulatory requirements (ErP, CoC, and Energy Star)
- Aligned to the latest RDK-B-LLC release for a complete gateway solution
- Source code available for ease of development
- Encrypted file system on flash
- USB 3.0 Type-A and Type-C for easy debugging and bios/image updates

DEVELOPMENT KIT INCLUDES:

- Reference board
- Cables and power supply
- Schematics and layout, BOM
- Ready-to-use software image
- Calibration tools

Complete Cable Gateway Solution

Optimized Platform for Cable Gateway Development

The MaxLinear Puma™ 7 development kit is a reference platform that helps accelerate development of cable gateway solutions. It integrates a powerful host SoC, full-spectrum capture cable tuner and the latest Wi-Fi 6 and Ethernet technologies to deliver high-performance connectivity for applications such as online gaming and VR/AR where very large files are being moved between the PC and the cloud. The platform is optimized at the system level for easier, faster, and more cost-effective development, and offers flexibility for OEMs to customize the solution for their unique requirements.

Access

Puma 7 Development Kit Integrates Multiple MaxLinear Products

- **Host SoC:** The Puma™ 7 SoC is a DOCSIS® 3.1 solution that offers advantages in computing and networking performance, RF noise rejection and packet processor flexibility, and is architected for a wide range of WAN and LAN use cases.

- **Frontend Cable Tuner with MOCA Transceiver:** The MxL278 is a full-spectrum capture cable tuner that is capable of receiving 2 OFDM and 32 QAM channels from 44MHz to 1218MHz and transmitting 2 OFDMA and 8 QAM channels covering 5MHz to 204MHz. It also provides all MoCA 2.5 Profile C front-end transceiver functions

- **Advanced Wi-Fi:** The Home Wi-Fi Chipset WAV600 Series is a portfolio of Wi-Fi 6 solutions. It includes 4x4 160MHz configurations that are designed for both fast and consistent Wi-Fi connectivity, supports Gigabit Wi-Fi, and provides the ability to connect up to 256 clients per band simultaneously. The Wi-Fi chipsets are optimized for the Puma 7 SoC to fully offload the wireless traffic with zero CPU utilization, freeing up the CPU performance for advanced services.

- **2.5 Gigabit Ethernet:** The Ethernet Connection GPY211 and GPY212 are cost effective, low-power Ethernet PHYs that are optimized for 2.5G Ethernet solutions for PCs and provide great interoperability for the IEEE 802.3bz standard. The GPY212 also supports Media Access Control Security (MAC sec).