

KL5BPLC200WMP

Single Chip IEEE1901 HD-PLC

■ GENERAL DESCRIPTION

KL5BPLC200WMP is the world's first fully compliant IEEE 1901 single chip HD-PLC Powerline Communications (PLC) IC. It provides the smallest form factor, highest performance and lowest power of any available PLC solution. The KL5BPLC200WMP reliably delivers robust communications, superb noise immunity, and high quality of service (QoS) over both AC and DC power lines. The KL5BPLC200WMP has implemented the ISP Coexistence mechanism that enables coexistence with other PLC devices as mandated by IEEE 1901, ITU-T G.9972 (G.hn) Standards and new CENELEC EMC standard EN50561-1.

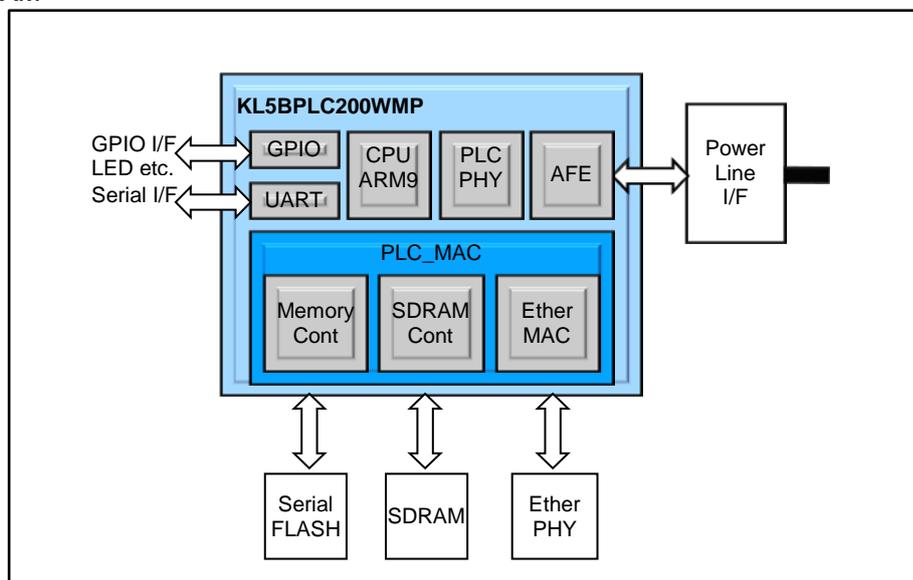
It includes a complete implementation of IEEE 1901 and HD-PLC MAC/PHY and a fully integrated Analog Front End (AFE) with high precision A/D, D/A data converters and programmable gain amplifiers (PGA). KL5BPLC200WMP provides the lowest power consumption under full operation, and also includes a power save mode. The Power Spectral Density (PSD) is fully programmable to enable the KL5BPLC200WMP to comply with regional requirements.

Evaluation boards, reference design, Software Development Kits (SDK) and Hardware Development Kits (HDK) are available to speed up the development of HD-PLC products.

■ FEATURES

- CENELEC EMC standard EN50561-1 compliant
- Maximum PHY rate: 240Mbps
- Power consumption:
 - 0.4W @full operation
 - 0.07W @power save mode
- 128-bit AES for secure communications
- Software development Kit (SDK) and reference design are available
- Wide operating temperature range: -40°C to 85°
- QoS Support for high definition AV

■ BLOCK DIAGRAM



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