

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.

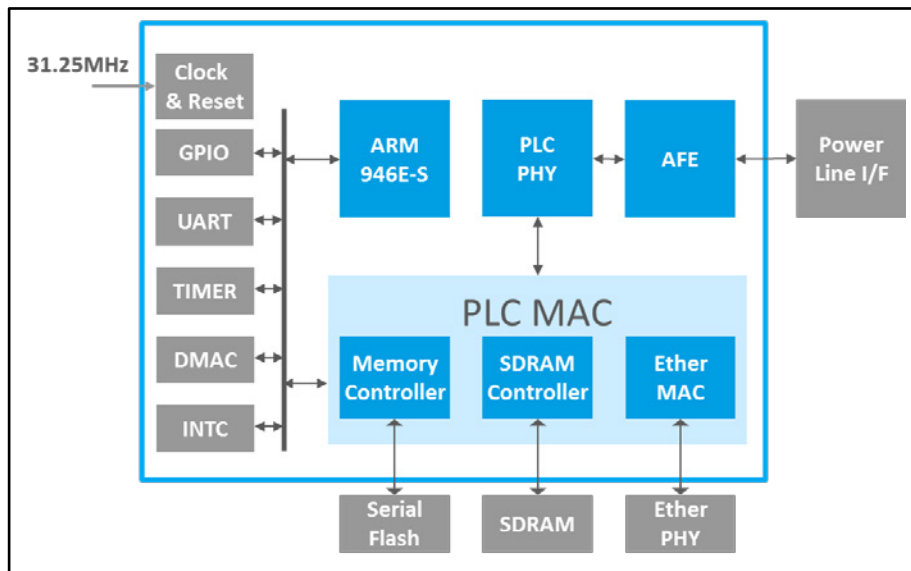
It includes a complete implementation of IEEE 1901 and HD-PLC MAC/PHY and a fully integrated Analog Front End (AFE) with high precision A/D, D/A data converters and programmable gain amplifiers (PGA). KL5BPLC200WMP provides the lowest power consumption under full operation, and also includes a power 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:
 - 0.49W for full operation mode
 - 0.07W for 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



MegaChips Corporation			MegaChips Technology America Corporation
Corporate Headquarters Shin-Osaka Hankyu Building 1-1-1 Miyahara, Yodogawa-ku Osaka 532-0003, Japan	Makuhari Office 1-3, Nakase, Mihama-ku, Chiba 261-8501, Japan	Tokyo Office 17-6 Ichibancho, Chiyoda-ku, Tokyo 102-0082, Japan	2033 Gateway Place, Suite 400, San Jose, CA 95110, USA
Tel +81-6-6399-2884 Fax +81-6-6399-2886	Tel +81-43-296-7414 Fax +81-43-296-3285	Tel: +81-3-3512-5083 Fax: +81-3-3262-3358	Tel: +1 (408) 570-0555 Fax: +1 (408) 570-0567 E-mail: mca_sales@megachips.com
www.megachips.co.jp			http://www.megachips.com/