



DM9801E Product Brief

1M Home Phonetline Network Physical Layer Single Chip Transceiver

June 2008 Rev.1.0

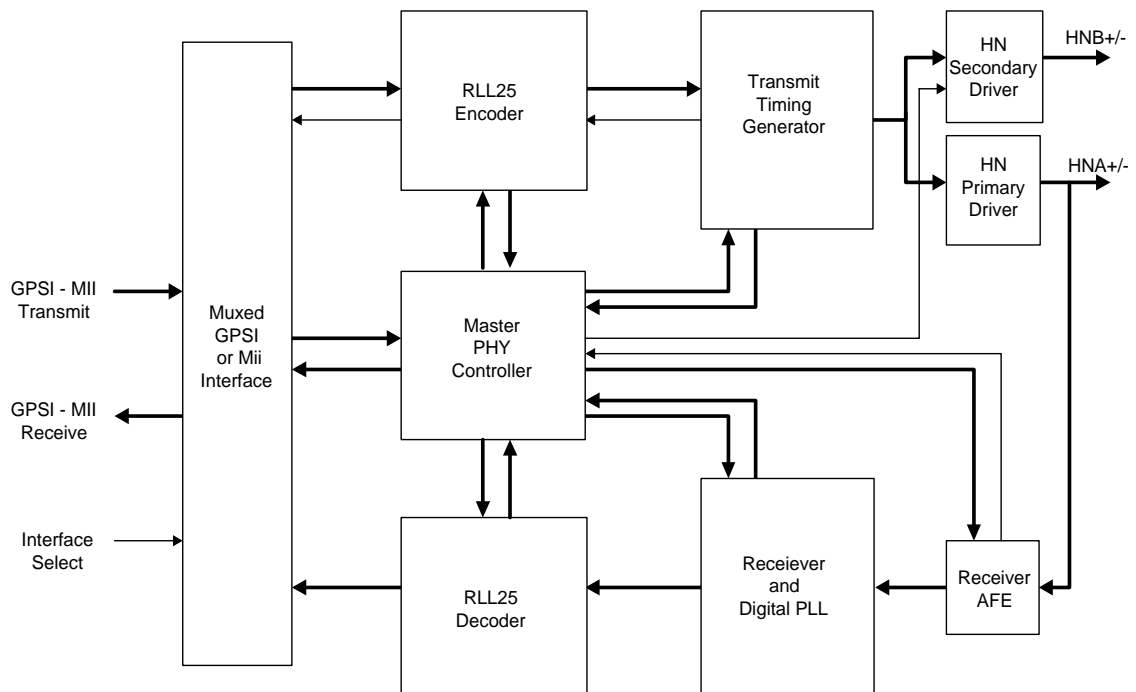
The DM9801 is a physical-layer, single-chip, low-power transceiver for 1M Home Phonetline Network applications. On the media side, it provides an interface to a Home Phonetline wiring system. The reconciliation layer interfaces to the DM9801 either through an IEEE802.3u subset Media Independent Interface (MII) or a pseudo-standard General Purpose Serial Interface (GPSI). A management interface is provided by MDIO/MDC when operating in MII mode, or a Serial Peripheral Interface bus when operating in GPSI mode.

The DM9801 uses a low-power and high-performance CMOS process. It contains the entire physical layer functions of 1M as defined by Home Phonetline Network Alliance, Rev. 1.1, including the Physical Coding Sublayer, (RLL25) Encoder/Decoder (ENC/DEC), 4-wire HN Driver circuit and receiver analog front end (AFE).

Patent-Pending Circuitry Includes:

An enhanced 4-wire Home Network transceiver circuit.

Block Diagram



Specifications

- 1M Home Phonenumber Network physical-layer, single-chip transceiver
 - Supports the MII including the MDIO/MDC serial management interface
 - Supports the GPSP including a SPI serial management interface
 - Supports Link Integrity function
 - Smart equalizer circuit for 1M receiver
 - Supports Patent Pending 4-wire operation
 - Supports hardware or software speed select
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- Supports Interrupt on change, eliminates management polling
 - Flexible built-in LED support for TX Activity, RX Activity and Collision Indication or Activity, Link state and Collision
 - Digital PLL circuit using advanced digital algorithm to reduce jitter
 - Low-power, high-performance CMOS process
 - Available in a small outline 100-pin LQFP
 - 3.3V DC power with 5V DC tolerant I/O

Application

Home PNA VoIP CPE (ATA, IP Phone, Video Phone)

Home network IP STB, IPC, Internet Radio

Home PNA DVR, Router...

Ordering Information

Part Number	Pin Count	Package
DM9801E	100	LQFP

DAVICOM Semiconductor, Inc.

No.6, Li-Hsin Rd.VI, Science Park, Hsin-Chu, Taiwan, R.O.C.

TEL: 886-3-5798797

FAX: 886-3-5646929

E-mail: sales@davicom.com.tw