Power Line Communications
Master Modem IC

AD88167

FEATURES
Narrow-band power line communications IC
Integrates physical, data link and networking layers
Application layer
Supports DL/T 645-1997 or DL/T 645-2007 data protocol (specific to China), as well as a pass through option
Networking layer
Automatic baud rate negotiation
Dynamic routing
Data link layer
CRC checking
Network key for data security
Physical layer
FSK modulation
Up to 2400 bps on a 3-phase network
Simple serial interface to host microprocessor
Single 3.3 V supply, low power (140 mW typical)
Package and temperature range
40-lead 6 mm × 6 mm LFCSP
Fully specified for −40°C to +85°C operation

APPLICATIONS
Power line modems for AMR/AMI systems

GENERAL DESCRIPTION
In an advanced metering infrastructure (AMI) scenario, the AD88167 IC provides the essential functions for a master modem; maintaining the network configuration and relaying messages between the utility back office and the slave modems associated with the energy meters.

The AD88167 is a complete digital baseband processor IC that includes physical layer, data link layer, and networking layer functionality. The AD88167 includes a receive path 12-bit analog-to-digital converter (ADC) and a transmit path digital demodulator to reduce the external analog front-end component count. The AD88167 UART communicates directly with a host microprocessor. The AD88167 master modem IC is designed to work with the AD88157 slave modem IC for a complete power line communications system.

For more information about the AD88167, including the complete data sheet, contact your local Analog Devices, Inc., sales office at www.analog.com/sales.


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One Technology Way, P.O. Box 9106, Norwood, MA 02062-9106, U.S.A.
Tel: 781.329.4700 www.analog.com
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