

MAX2980

Powerline Communication Analog Front-End Transceiver

[Overview](#) [Technical Documents](#) [Ordering Info](#) [Related Products](#) [User Comments \(0\)](#) [All](#)

Status

Part Number	Status
MAX2980	Active: In Production. See Ordering Information for details.

Data Sheet

[Request Full Data Sheet](#)
[Custom Order](#)

Description

The MAX2980 powerline communication analog frontend (AFE) integrated circuit (IC) is a state-of-the-art CMOS device that delivers high performance and low cost. This highly integrated design combines an analog-to-digital converter (ADC), digital-to-analog converter (DAC), signal conditioning, and line driver. The MAX2980 substantially reduces previously required system components, while compatible with third-party HomePlug® devices. This device interfaces with the MAX2986 digital transceiver to provide a complete powerline communication solution.

The advanced design of the MAX2980 allows operation without external control, enabling simplified connection to a variety of HomePlug Digital PHY ICs. Additional power-reduction techniques can be employed through the use of various control signals.

The MAX2980 is specified over the 0°C to +70°C commercial temperature range and is offered in a 64-pin TQFP package.

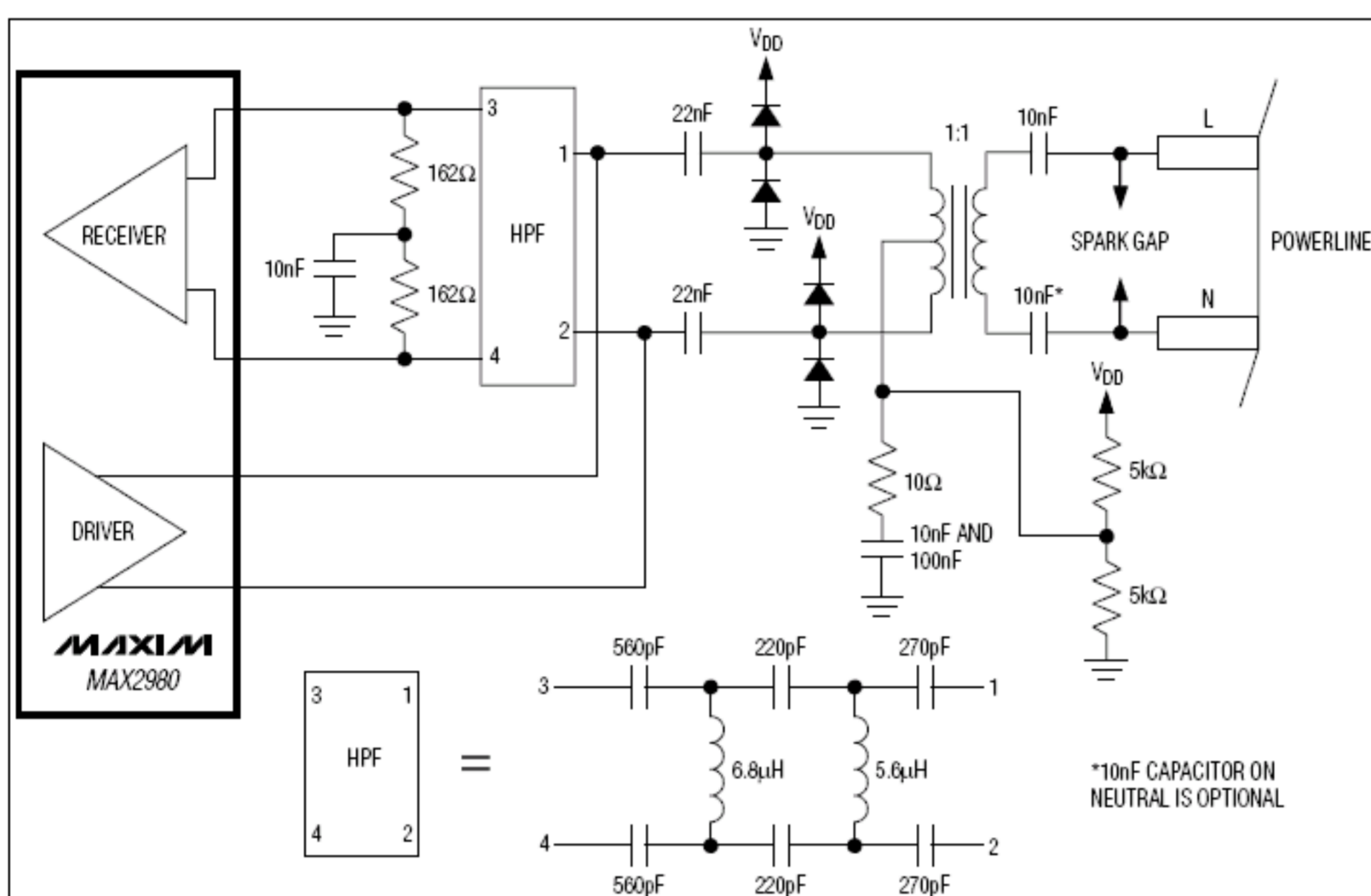
Key Features

- Fully Integrated Line Driver and Receiver
- Seamless Interface to Digital PHY ICs
- Fully Integrated 10-Bit ADC and DAC with 50MHz Sampling
- 54dB Adaptive Gain Control
- Minimum Line Impedance Capability as Low as 10Ω
- 3.0V to 3.6V I/O
- 250mA in Rx Mode and/or 160mA in Tx Mode at 3.3V
- 64-Pin TQFP Package

Applications/Uses

- Audio over Powerline
- Broadband Access (Last-Mile)
- Local Area Networks (LANs)
- Powerline-to-DSL Bridge
- Powerline-to-Ethernet Bridge
- Powerline-to-USB Bridge
- Powerline-to-WiFi Bridge
- Remote Monitoring and Control
- Security
- Voice-Over-Powerline

Diagram



Typical Operating Circuit

Technical Documents

Product Guide 5160 [Communications](#)

Product Guides

[Communications \(PDF\)](#)

Reliability Reports

Reliability Report: [MAX2980.pdf](#)
 Show FIT data for:

Software/Models

none

Ordering Information

Filters: Part Number: Package: Temperature: Tape and Reel Sample

Part Number	Free Sample	Buy	Status	Recommended Replacement	Package: TYPE PINS FOOTPRINT DRAWING CODE/VAR *	Temp	RoHS/Lead-Free? Materials Analysis
MAX2980CCB+	<input type="button" value="Buy"/>	<input type="button" value="Buy"/>	Active: Data sheet on request only	MAX2981GCB/V+	TQFP;64 pin;148.8 mm ² Outline Drawing:21-0083 (PDF) Land Pattern: 90-0141 (PDF) Use pkgcode/variation: C64+1*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX2980CCB+D	<input type="button" value="Buy"/>	<input type="button" value="Buy"/>	Active: Data sheet on request only	MAX2981GCB/V+	TQFP;64 pin;148.8 mm ² Outline Drawing:21-0083 (PDF) Land Pattern: 90-0141 (PDF) Use pkgcode/variation: C64+1*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX2980CCB+T	<input type="button" value="Buy"/>	<input type="button" value="Buy"/>	Active: Data sheet on request only	MAX2981GCB/V+	TQFP;64 pin;148.8 mm ² Outline Drawing:21-0083 (PDF) Land Pattern: 90-0141 (PDF) Use pkgcode/variation: C64+1*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX2980CCB+TD	<input type="button" value="Buy"/>	<input type="button" value="Buy"/>	Active: Data sheet on request only	MAX2981GCB/V+	TQFP;64 pin;148.8 mm ² Outline Drawing:21-0083 (PDF) Land Pattern: 90-0141 (PDF) Use pkgcode/variation: C64+1*	-40°C to +85°C	RoHS/Lead-Free: Lead Free Materials Analysis
MAX2980CCB-D	N/A	N/A	No Longer Available	MAX2981GCB/V+	LQFP; Land Pattern: Not Available	-40°C to +85°C	See data sheet
MAX2980CCB-TD	N/A	N/A	No Longer Available	MAX2981GCB/V+	LQFP; Land Pattern: Not Available	-40°C to +85°C	See data sheet
MAX2980EVKIT	N/A	N/A	No Longer Available	MAX2986EVKIT#	KIT; Land Pattern: Not Available		See data sheet

- Notes:
- Other options and links for purchasing parts are listed at: <http://www.maxim-ic.com/sales>.
 - Didn't Find What You Need? Ask our applications engineers. Expert assistance in finding parts, usually within one business day.
 - Part number suffixes: T or T&R = tape and reel; + = RoHS/lead-free; # = RoHS/lead-exempt; -D = drypack; -U/+U on DS parts = cut tape. More: See [Full Data Sheet](#) or [Maxim Product Naming Conventions](#).
 - * Some packages have variations, listed on the drawing. "PkgCode/Variation" tells which variation the product uses. Note that "+", "#", "-" in the part number suffix describes RoHS status. Package drawings may show a different suffix character.

Similar Products by Function

[MAX2986](#) Integrated Powerline Digital Transceiver

Similar Products by Application

[Powerline Networking](#) > [Powerline networking](#)

More Information

New Product Press Release 2005-03-01

Your Comments

[Login or register](#) to post a comment.

Didn't Find What You Need?

Next Day Product Selection Assistance from Applications Engineers
[Parametric Search](#)
[Applications Help](#)

Information Index

Overview

[Description](#)
[Key Features](#)
[Applications/Uses](#)
[Key Specifications](#)
[Diagram](#)
[Notes and Comments](#)

Technical Documents

[Data Sheet](#)
[Technical Documents](#)
[Evaluation Kits](#)
[Reliability Reports](#)
[Software/Models](#)

Ordering Info

[Price and Availability](#)
[Samples](#)
[Buy Online](#)
[Package Information](#)
[Lead-Free Information](#)

Related Products

[Similar Products by Function](#)
[Similar Products by Application](#)
[Evaluation Kits](#)
[Products with Similar Part Numbers](#)
[Products Used With This](#)