MAX2990EVKIT

Evaluation Kit for the MAX2990 and MAX2991

Industry's First OFDM-Based Powerline Communication Modem Delivering 100kbps in the 10kHz to 490kHz Frequency Bands

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Active: In Production. But some versions of the family are Not Recommended for New Designs.

OVERVIEW

Description

The MAX2990 evaluation kit is a highly integrated chipset including the MAX2990 baseband (BB) and MAX2991 analog front end (AFE). This system transfers data over 120V or 240V AC powerlines, DC, or cold wire. The MAX2990 baseband uses an orthogonal frequency division multiplexing modulation (OFDM) technique that can be configured to operate in the 10kHz to 490kHz frequency band.

The MAX2990 evaluation kit contains two modems and the evaluation software. It is assembled and preconfigured to demonstrate performance under a variety of international regulatory requirements. The part number for the different communication standards are as follows:

Part Number	Description	Freq. Band	Data Rate (Max)
MAX2990EVKITA#	CENELEC A	32kHz to 95kHz	23Kbps
MAX2990EVKITB#	CENELEC B	95kHz to 120kHz	9.5Kbps
MAX2990EVKITC#	CENELEC C	120kHz to 140kHz	7.7Kbps
MAX2990EVKITBC#	CENELEC BC	95kHz to 140kHz	16Kbps
MAX2990EVKITF#	FCC	150kHz to 480kHz	96Kbps
MAX2990EVKITR#	ARIB	130kHz to 450kHz	93Kbps

Key Features

- Optimized to Operate with the MAX2990 PLC Baseband
- Integrated Band Select Filter, AGC, and 10-Bit ADC for Rx Path
- Integrated Wave-Shaping Filter, Programmable Predriver Gain, and 10-Bit DAC for Tx Path
- Variable Sampling Rate Up to 1.2Msps
- Built-In 60dB Dynamic Range AGC and DC Offset Cancellation
- Programmable Filters Operate in the CENELEC, FCC, and ARIB Frequency Bands
- Single 3.3V Power Supply

Applications/Uses

- Automatic Meter Reading
- Building Automation
- Heating Ventilation and Air Conditioning (HVAC)
- Home Automation
- Industrial Automation

- 70mA Typical Supply Current (Half-Duplex Mode)
- Extended Operating Temperature Range

- Lighting Control
- Remote Monitoring and Control
- Security Systems/Keyless Entry
- Sensor Control and Data Acquisition
- Voice-Over-Powerline