

GV7013-MOD

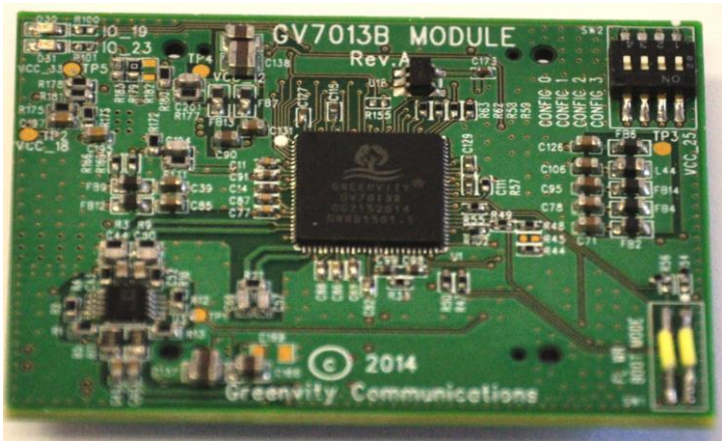
Greenvity's GV7013-MOD is a board featuring the GV7013 HomePlug Green PHY Powerline Communications SoC meant for use with the GV-Controller (IoT Hub).

PRODUCT DESCRIPTION

The GV7013-MOD is a HomePlug Green PHY (HPGP) powerline communications (PLC) board powered by Greenvity's GV7013 Hybrii-Mini SoC. The GV7013-MOD delivers half-duplex, asynchronous data communication over (50/60 Hz) AC and DC power lines at PHY data rates up to 9.8 Mbps while featuring SPI and UART communications. The GV7013-MOD is part of Greenvity's family of products meant to operate with the GV-Controller (IoT Hub) and is aimed at smart LED applications.

GV7013-MOD FEATURES

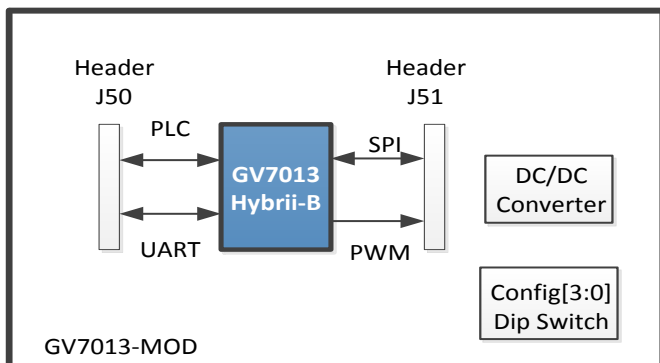
- GV7013 Hybrii-Mini HomePlug PLC SoC
- Operates with the GV-Controller (IoT Hub)
- SPI and UART communications
- Small size



GV7013 FEATURES

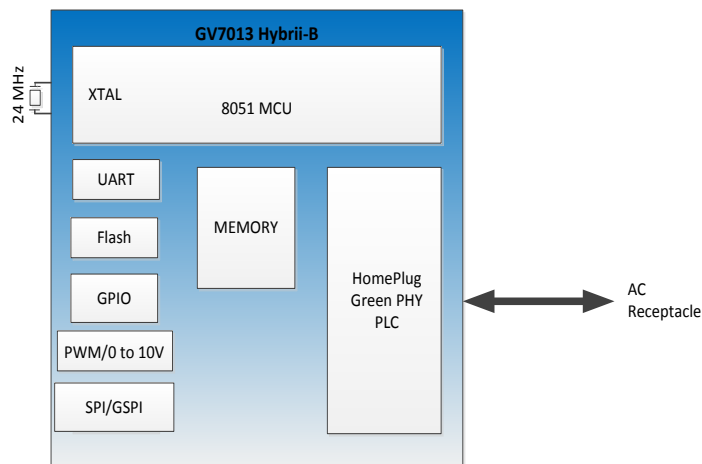
1. Integrated HomePlug Green PHY PLC, 8051 MCU, AE-128 Encryption/Decryption Co-Processor and 256 Kbytes (code) /48 Kbytes (data) RAM
2. Compliant with HomePlug Green PHY and operable with HomePlug AV and IEEE-1901
3. Functions on up to 240 VAC and on DC lines
4. Supports OFDM Mini/Standard/High-Speed ROBO mode's and PHY rates to 9.8 Mbps
5. Wideband frequencies from 2 to 30 MHz
6. Features HPGP power modes plus Active, Standby, Sleep, and Deep Sleep
7. Boots from an external 256 kB to 1 MB serial flash
8. Utilizes a single low cost 24 MHz crystal
9. Supports multiple host interfaces including SPI, UART, and includes GPIO pins
10. Includes G-SPI for LED lighting driver and PWM and 0 to 10V outputs which eliminates the need for an external LED drivers
11. Digital (1.2/2.5 V), Analog (1.8/2.5 V)
12. Industrial temperature range from -40 to +85°C

GV7013-MOD BLOCK DIAGRAM



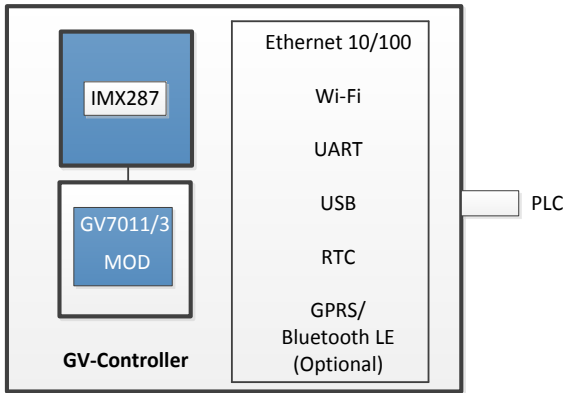
44.45 x 50 mm²

GV7013-MOD Block Diagram



GV7013B Block Diagram

GV7013-MOD and GV-Controller

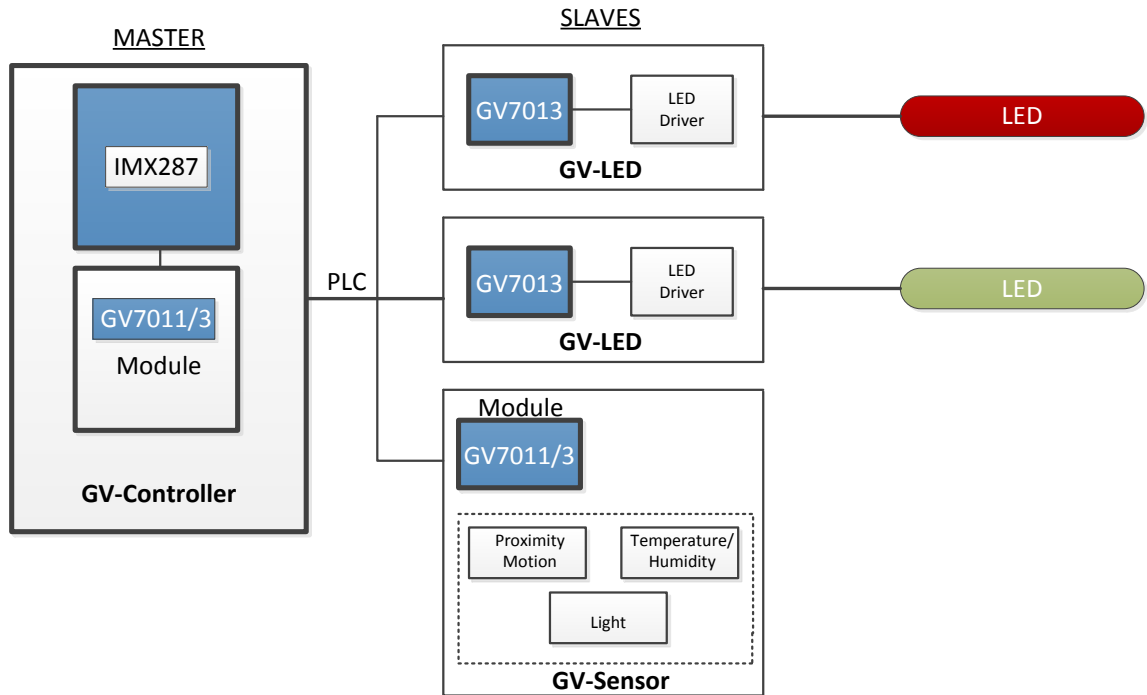


GV-Controller with GV7013-MOD Block Diagram



GV-Controller

The GV7013-MOD is meant to operate with the GV-Controller through header pins (J50 and J51) and physically docks to the top side of the GV-Controller board. When the GV7013-MOD is paired with a processor it can be used as a Master within a Smart LED system. In order to complete a LED system, Greenity offers the GV-LED and the GV-Sensor to form a Smart LED system.



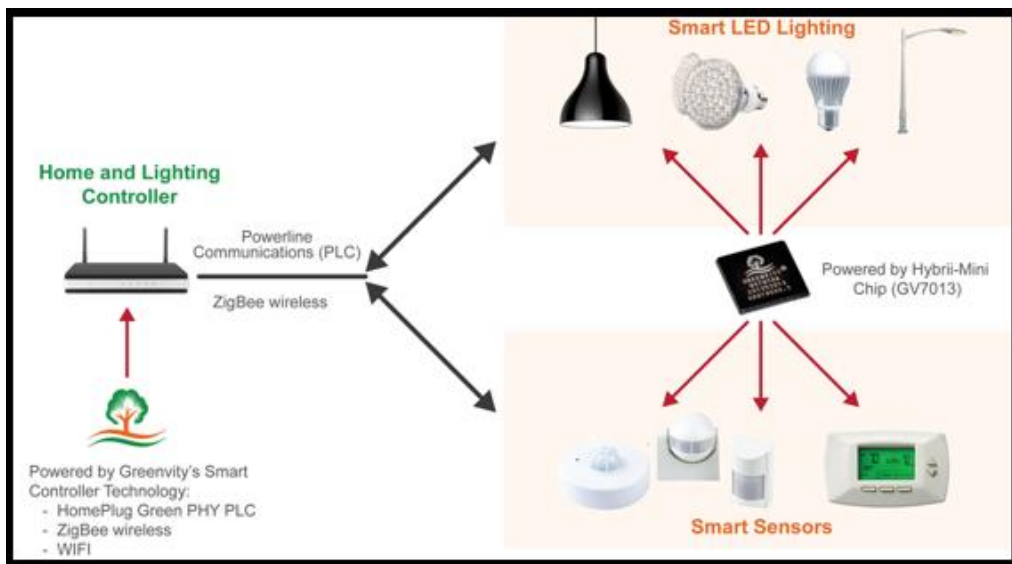
Smart LED System featuring the GV-Controller, GV-LED and GV-Sensor

TARGET APPLICATIONS

- LED Lighting Control for commercial buildings, streets, parking lots and factories
- Controlled LED lighting, signage and display
- Home/Building Energy Management System

ORDERING CODE

Ordering Code	Description
GV7013-MOD	Smart LED board (Master)
GV7013-LED	Smart LED board (Slave)
GV-LED-DP	Complete LED Lighting Control Development Platform
GV-Controller IoT Hub	Home Gateway and LED Lighting Controller
GV-Sensor	All-in-One Sensor module
GV7011/3	Hybrii-XL chip (HPGP & ZigBee) or Hybrii-Mini chip (HPGP)



Smart LED Lighting Control with Sensor Network

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