

1Gbps G.hn Powerline to Ethernet Wall-Plug Bridges



G.hn is a set of ITU-T standards defining the next generation home network for multimedia and data distribution across existing coax cables, phone wires, and AC power wires in the home.

The Sigma Designs G.hn CG5200HEP series includes the CG5220HEPM and the CG5230HEPS G.hn Powerline to Ethernet reference designs. The CG5200HEP bridges are standalone, installable adaptors for tests and evaluation of Sigma's 2nd generation CG5200 G.hn chipset's features and performance in real-life environment. The CG5200HEP turnkey reference designs are provided with a full development package to enable fast time-to-market.

The CG5220HEPM and CG5230HEPS support MIMO (multiple input, multiple output) and SISO (single input, single output) G.hn modes respectively. The CG5200HEP can operate over 85 - 265 VAC, 50/60 Hz and are available with different AC plugs and sockets to enable operation in different regions.

FEATURES

- Every in-home power outlet is part of the home network
- Optimized for IPTV and multicast systems for video and audio traffic
- PHY rate up to 1 Gbps
- Plug & Play solution - self-install
- Support ITU-T G.hn standards (G.9960/1/2/3/4)
- Coexistence with HomePlug® AV/ IEEE P1901
- G.hn MIMO over power line - enables usage of power line as a multiple input multiple output (MIMO) channel, thus extending coverage, improving the network's immunity to noise and delivering higher throughput

APPLICATIONS

- 3D, high definition (HD) and standard definition (SD) in-home video distribution, multi-room DVR
- IPTV applications
- Voice over IP (VoIP)
- Shared broadband internet access
- PC file and application sharing
- Security and surveillance (home monitoring)
- Home health care
- Gaming
- WiFi and Z-Wave® coverage extender

CG5200HEP Series

1Gbps G.hn Powerline to Ethernet Wall-Plug Bridges

BENEFITS OF G.HN

- Self installable even by a novice user, no need for professional installation
- Guaranteed reliable whole home coverage even in homes with thick walls and multiple floors
- Consistent user experience and improved immunity to interference for reliable HD picture quality
- Enables all consumer electronics products in a home can be part of the same mesh network
- Fast integration and time-to-market enabled by full development package and turnkey reference.

CG5200HEP CONTENT

The reference designs include design files and documentation for fast product integration, quick production, and short time to market. The hardware development kit includes design and production files for the CG5200 chipsets platform. The package includes schematics, layout, assembly, bill of materials and design guidelines documentation.

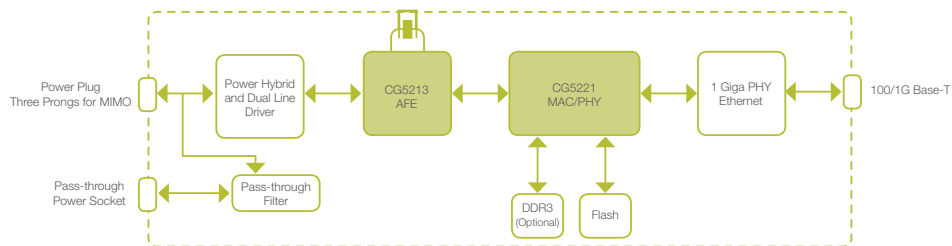
The software development kit enables rapid integration of Sigma Designs's development and diagnostic software into equipment vendor designs.

ORDERING INFORMATION

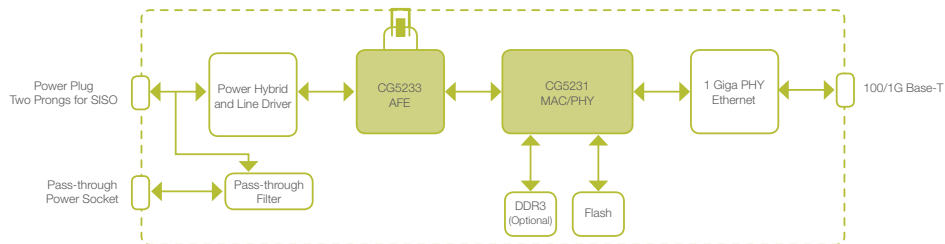
- Reference designs
 - CG5220HEPM Ethernet-over-Power Line MIMO Bridge
 - CG5230HEPS Ethernet-over-Power Line SISO Bridge
 - The bridges are available with AC plugs and sockets for US, Europe Types E and F and ISR regions
- Development package
 - CG5200-HDK Hardware Development Kits
 - CG5200-SDK Software Development Kits
 - CG5200-PTS Production Test Setup

CG5200HEP BLOCK DIAGRAMS

Ethernet Over G.hn Power Line MIMO (CG5220 Based)



Ethernet Over G.hn Power Line SISO Bridge (CG5230 Based)



ABOUT SIGMA DESIGNS

Sigma Designs is a leading provider of system-on-chip (SoC) solutions used to deliver entertainment and control throughout the home:

Media Processing, Smart TV, Video Encoding, Home AV Networking, Video Processing, Home Control

These SoCs are supported with board-level reference designs, sophisticated system software, and technical documentation to form a complete solution for a variety of set-top boxes, smart TVs, consumer electronics, AV network devices, and home control systems.

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