

## Marvell G.hn (2Gbps) > Ethernet Bridge with MIMO

The GigaFast Marvell based G.hn 2Gbps Ethernet Bridge operates on the ITU Powerline G.hn standard, providing up to 2Gbps bandwidth over home AC wiring. PGM99-EB is one of the smallest Marvel G.hn 2Gbps Ethernet Bridge designs on the market. The PGM99-EB uses Marvell's 88LX5152 chipset which is optimized for streaming high definition media applications. The 88LX5152 includes a faster processor, high speed interfaces and is paired with the 88LX2720 analog front end (AFE). With these added high performance Wave 2 based abilities, the PGM99-EB is perfect for ultra-high speed HD entertainment networks in homes and is perfect for areas that are hard to reach via wireless connection. With a plug and play installation, you can easily combine all of your G.hn electronics together and instantly enjoy your Entertainment Center from virtually any room in your home. Combined with a broadband DSL/Cable connection, every room with an electrical power outlet will have easy access to high-speed Internet.

Like all of our G.hn products, this PGM99-EB is equipped with 128-bit AES security encryption. Combining the private home power grid and 128-bit AES security encryption, this PGM99-EB is extremely secure compared to other technologies.



### Features

- Marvell 88LX5152 / 88LX2720 chipset
- ITU G.hn Powerline standard
- Up to 2Gbps PHY rate
- First MIMO based on G.9977 boosting PLC throughput
- State of the art LDPC Forward Error Correction as adopted by ITU G.hn
- Integrated Power saving
- Neighboring Networks Multi-Network interference mitigation
- 8 priority level QoS
- Embedded IPv4/IPv6 dual TCP/IP stacks, TR-069, IEEE1905.1a

### Specifications

|                       |                                                                                                       |
|-----------------------|-------------------------------------------------------------------------------------------------------|
| Main Chipset          | Marvell 88LX5152 / 88LX2720                                                                           |
| Computer Interface    | IEEE802.3 (10BASE-T)<br>IEEE802.3u (100BASE-T)<br>IEEE802.3ab (1000BASE-T)                            |
| Standards             | ITU Powerline G.hn                                                                                    |
| Network Interface     | One RJ-45 (10/100/1000Base-T Ethernet)<br>One 2Gbps power line port with MIMO                         |
| Security              | 128-bit AES link encryption with key management                                                       |
| Data PHY Rate         | 2Gbps over Powerline and 10/100/1000 Mbps over Ethernet                                               |
| Modulation Schemes    | OFDM, FEC, Flexible frequency configuration                                                           |
| Frequency Band        | 2 ~ 100Mhz                                                                                            |
| Additional Protocols  | 802.1Q VLAN, QoS, IGMP(IPv4) Snooping, MLD (IPv6)<br>Snooping, Built-in dual TCP/IP stack (IPv4/IPv6) |
| Operation Range       | Estimated range of 300 meters in wall power lines                                                     |
| Cabling               | Cat. 5 UTP cable                                                                                      |
| Operating Temperature | 0°C to 40°C ambient temperature                                                                       |
| Storage Temperature   | -20°C to 70°C ambient temperature                                                                     |
| Humidity              | 10 to 90% maximum (non-condensing)                                                                    |
| Power Input           | 100 ~ 240V @ 50/60Hz internal                                                                         |
| Power Connector       | Embedded US / EU / UK / AU specifications                                                             |
| Housing               | Plastic (79mmx64mmx38mm)                                                                              |
| Management            | HTTP Web Based Management<br>Optional TR-069 Support<br>Firmware upgrade via TFTP                     |
| Status Lights         | Power: on / off<br>PLC link: red / orange / green / off<br>Ethernet link: solid / blinking / off      |
| Certifications        | FCC Class B / CE mark                                                                                 |

### Application

