

## Marvell G.hn (800Mbps) > Ethernet Bridge with MIMO

The GigaFast Marvell based G.hn 800Mbps Ethernet Bridge operates on the ITU Powerline G.hn standard, providing up to 800Mbps bandwidth over home AC wiring. PGM89-EB is one of the smallest Marvell G.hn 800Mbps Ethernet Bridge designs on the market. The PGM89-EB uses Marvell's G.hn 88LX3142 chipset which is optimized for streaming high definition media applications. The 88LX3142 includes a faster processor, high speed interfaces and is paired with the 88LX2718 analog front end (AFE). With these added high performance abilities, PGM89-EB is perfect for ultra-high speed HD entertainment networks in homes and is perfect for areas that are hard to reach by wireless connections. 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 electrical power outlets will have easy access to high-speed Internet connection.

Like all of our Marvell G.hn products, this PGM89-EB is equipped with 128-bit AES security encryption. Combining the private home power grid and the 128-bit AES security encryption, this PGM89-EB is extremely secure compared to other technologies.



### Features

- Marvell 88LX3142 / 88LX2718 chipset
- ITU G.hn Powerline standard
- Up to 800Mbps PHY rate
- MIMO based on G.9963 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

### Specifications

Main Chipset	Marvell 88LX3142 / 88LX2718
Computer Interface	IEEE802.3 (10BASE-T) IEEE802.3u (100BASE-T) IEEE802.3ab (1000BASE-T)
Standards	ITU Powerline G.hn
Network Interface	One RJ-45 (10/100/1000Base-T Ethernet) One 800Mbps power line port with MIMO
Security	128-bit AES link encryption with key management
Data PHY Rate	800Mbps over Powerline and 10/100/1000Mbps over Ethernet
Modulation Schemes	OFDM, FEC, Flexible frequency configuration
Frequency Band	2 ~ 50Mhz
Additional Protocols	802.1Q VLAN, QoS, IGMP(IPv4) Snooping, MLD (IPv6) 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 Optional TR-069 Support Firmware upgrade via TFTP
Status Lights	Power: on / off PLC link: red / orange / green / off Ethernet link: solid / blinking / off
Certifications	FCC Class B / CE mark

### Application

