

## HomePlug AV (500Mbps) > Ethernet Bridge

The GigaFast HomePlug AV 500Mbps Ethernet Bridge operates on the HomePlug Powerline AV Specification standard, providing up to 500Mbps bandwidth over home AC wiring. The PE958-EB uses Atheros AR7400 chipset which is optimized for streaming high definition media applications. The AR7400 includes a faster processor, high speed interfaces and an analog front end (AFE). With these added high performance abilities, PE958-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 AV 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 HomePlug AV products, this PE958-EB is equipped with 128-bit AES security encryption. Combining the private home power grid and the 128-bit AES security encryption, this PE958-EB is extremely secure compared to other technologies such as WiFi network.



### Features

- Atheros AR7400 (4th generation)
- IEEE1901 / HomePlug AV standard
- Extension to 68Mhz spectrum and up to 500Mbps PHY rate
- Gigabit Ethernet capability (IEEE 802.3ab, 1000BASE-T)
- Co-exists with HomePlug 1.0 (14/85mbps)
- Stand-alone unit attaches directly to Broadband device and home power line network for seamless integration
- Security push button for software free configuration
- Power packet utility provides unsophisticated users a way to graphically manage their HomePlug network (optional)

### Specifications

|                       |  |
|-----------------------|--|
| Main Chipset          | Atheros AR7400   |
| Computer Interface    | IEEE802.3 (10BASE-T)<br>IEEE802.3u (100BASE-T)<br>IEEE802.3ab (1000BASE-T)   |
| Standards             | IEEE 1901 / HomePlug AV  |
| Network Interface     | One RJ-45 (10/100/1000Base-T Ethernet)<br>One 500Mbps power line port supporting co-existence with HomePlug 1.0 (14/85Mbps)                        |
| Security              | 128-bit AES link encryption with key management  |
| Data PHY Rate         | 500Mbps over Powerline and 10/100/1000Mbps over Ethernet   |
| Modulation Schemes    | OFDM symbol modulation on line synchronization<br>1024/256/64/16/8 - QAM, QPSK, BPSK, ROBO carrier modulation                                      |
| Frequency Band        | 2 ~ 50 Mhz   |
| Additional Protocols  | Mix of TDMA and CSMA/CA channel access scheme;<br>CO device generates a periodic beacon carrier for channel access scheme                          |
| 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 (98mm x 71mm x 34mm)   |
| Software Utility      | Device detect/diagnostic, NEK password setup for local and remote device Windows 98 SE, ME, 2000, NT, XP, Vista, or 7 for initial setup (optional) |
| Status Lights         | Power: on / off<br>PLC link: red / orange / green / off<br>Ethernet link: solid / blinking / off   |
| Certifications        | HomePlug AV Powerline certification<br>FCC Class B / CE mark   |

### Application

