

Applications:

- IP-based IPTV, Internet, VoIP over home coax
- Extends FTTH data speed into home using existing home wiring
- 402 HPNA bridges interface easily with RHINO or Generic FTTH Service Gateways or DSL Modems

Key Highlights:

- IPTV access to any coax outlet in home
- Fast Installation
- Dynamic Bandwidth Allocation
- 2 RJ-45 Ethernet Jacks
- Quality of Service and VLAN Termination
- HPNA 3 port on coax connection
- Status Indicator LEDs
- Remote management of in-house HPNA units

The CEB-402 Coax Ethernet Bridge enables voice, video and data applications over existing home wiring.



Flexible Method for Delivery of FTTH and DSL Services

Fiber to the Home and DSL services are delivered to the home over a broadband network terminating on a Network Terminal, Gateway or Modem mounted outside or inside the home. To distribute IP-based services in the home the Ethernet signals must be distributed to TV Set-top boxes, PCs and VoIP-enabled phones. Most homes are not wired with Cat5/6 Ethernet cables and the best alternative is to use the existing coax cabling in the home.

CEB-402 - The Ideal Solution for Utilizing Existing Home Wiring

- Instant IPTV access to any coax outlet without rewiring
- Fast, secure and reliable solution reduces installation time
- Dynamic bandwidth allocation optimizes throughput based on activity
- Quality of Service and VLAN termination and tagging
- Extends fiber optic data speed onto existing home wiring
- Compatible with existing RF off-air and CATV based systems
- Compatible with home entertainment systems such as Windows Media Center and Windows Media Center Extender

Open Standards Based

The CEB-402 supports the HPNA 3 and ITU-T G9954 standards for Ethernet over coax.

Rapid One Step Provisioning, Multiple Management Options

- Easy Plug and Play installation
- Remote management of 402 units in the home network reduces truck rolls
- ReadyLinks BONUS Graphical User Interface shows status of all 402 units in the home and shows network performance statistics.

CEB-402 Interfaces

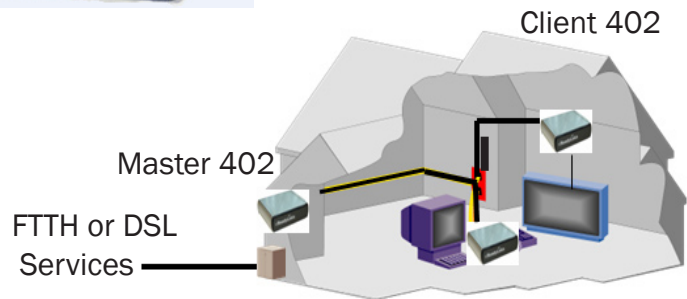
HPNA 3 Coax Interface
Master/Client Switch



Ethernet Port 2
Ethernet Port 1
DC Power Input

CEB-402 Deployment Example:

A Master 402 Coax Ethernet Bridge is connected to the home coax near the FTTH Gateway or DSL Modem. Client 402 bridges are connected to the home coax cabling near TV Set-top boxes and PCs.



Specifications	
Environmental Specifications	
Operating Temperature, Storage Temperature	0 to 40° C, -25° C to 70° C
Input Voltage, Power Consumption	5 VDC @ 2 A, AC transformer 100-240V (50-60 Hz)
Humidity	10 to 90% non-condensing
Certifications	UL, CE, CUL, FCC Part 15 Class B, EMC 89/336/EEC, ICES-003
WAN and Service Ports	
HPNA 3 Connectivity	One (1) Coax Connector. Data rate: 110 Mbps Physical Layer with 90+ Mbps Effective. Frequency: 4 to 26 MHz
Ethernet Interface	Two 10/100 Ethernet RJ-45 ports, Automatic MDI/MDIX crossover for 100BASE-TX and 10BASE-T ports, High performance look-up engine with support for up to 2048 MAC address entries with automatic learning and aging. Full IEEE 802.1Q VLAN ID processing, dynamic VLAN membership and VLAN tagging selectable per port. Port-based VLANs supported in any combinations or 802.1Q VLAN support for up to 16 VLANs.
Compatibility	Standard CATV (Ch 2-130), VOD entertainment systems, Compatible with DOCSIS, Passive cable architecture
Modulation Type	Adaptive FDQAM and QAM, 2 to 16 Mbaud with 2-8 bit constellations
Robustness	High immunity to RF and impulse noise. Adapts to varying line conditions
Protocol Layer Features	Master-controlled and peer-to-peer, MAC protocol, Link-layer Control Protocol, Convergence Sublayer Bridging External Networks and Protocols, Local and Remote Management
Quality of Service	Negotiated QoS flow parameters between devices at the endpoints of a flow in order to establish buffering and channel (BER/PER) constraints. Contract between flow source device and Master constrains bandwidth, latency and jitter. Traffic classification - management, voice video and data
Standards Compliance	IEEE802.3, IEEE802.3u, IEEE802.x, IEEE802.1D, IEEE802.1Q VLAN ID, HPNA 3, ITU-T G.9954
Mechanical Specifications	
Dimensions, Weight	3.25"(L) x 4.25"(W) x 1.25"(H), (82.5mm x 108mm x 31.75mm), 0.5 lbs.

Note: specifications are subject to change. v1.4