

Applications:

- Fiber to the Home Multiple Dwelling Units
- Mid-rise Apartments
- Garden-Style Apartments
- Condos and Townhomes
- Long-term Care Facilities
- Anywhere IP-based Triple Play services are to be delivered over existing coax wiring

Key Highlights:

- Open Standards based
- Fast Installation
- 2 Ethernet SFP LAN/WAN Ports for GigE Networks
- 4 coax ports for Triple Play IP Services - IPTV, Internet and VOIP
- Also works with existing RF CATV Video
- Quality of Service and VLAN Termination
- Remote management of 1410 and attached CEB-512 HPNA clients in Units

The IPcoax 1410 Coax Ethernet Switch enables IP-based Video, Data and VoIP applications over existing coax cabling. The 1410 is an ideal solution for Fiber to the Home deployments in Multiple Dwelling Units.



Flexible Method for Delivering IP-based Services over Existing Coax

Delivery of FTTH IP-based Triple Play services to Mid-rise apartments, Garden-style apartments, Condos, and Townhomes is a key demographic for service providers. These properties present a difficult deployment environment. It is often desirable to use the existing coax infrastructure to deliver FTTH services.

IPcoax 1410 - The Ideal Solution for FTTH MDU Deployments

Easy service delivery to units using existing coax cable means no rewiring:

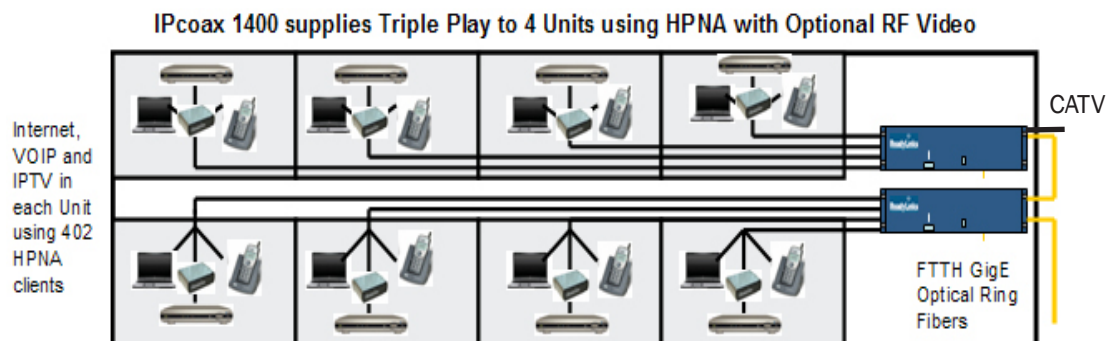
- Fast, secure and reliable Plug and Play solution reduces installation time
- Dynamic bandwidth allocation optimizes throughput based on activity
- Quality of Service and VLAN termination and tagging
- Extends fiber optic data speed onto existing coax wiring

Open Standards Based and Compatible with Existing RF Video

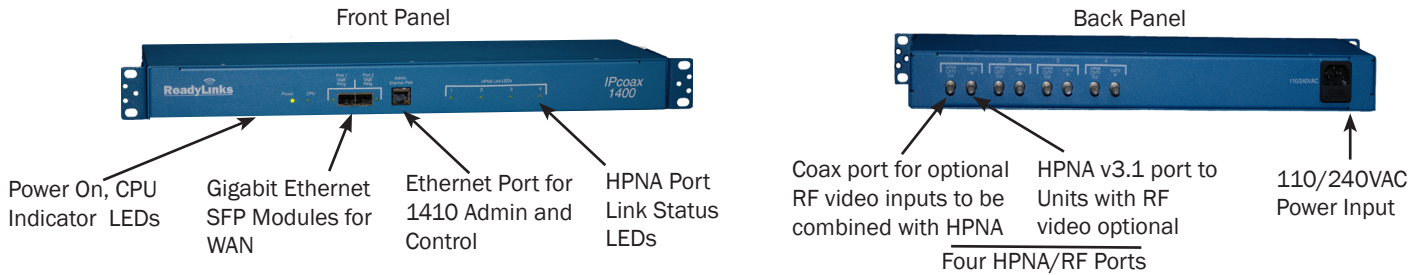
The IPcoax 1410 supports Gigabit Ethernet for optical delivery to the MDU and the HPNA v3.1 standard for Ethernet over coax. Existing RF CATV and HPNA share the same coax cable to be split/combined in the unit.

IPcoax 1410 IP Video Deployment Example

Each IPcoax 1410 supports 4 units with 100Mbps IP Ethernet bandwidth dedicated to each unit. The 1410's can be connected to the main Ethernet Switch in either an Ethernet Ring or Point-to-Point configuration. IPcoax CEB-512-M HPNA clients are used in each Unit to convert the coax to RJ-45 Ethernet connections.



IPcoax 1410 Interfaces



Rapid One Step Provisioning, Multiple Management Options

- Easy Plug and Play installation - connect fibers, connect coax cables and power-on.
- Remote management of 1410 and attached CEB-512 units in the dwelling units reduces maintenance calls
- ReadyLinks BONUS Graphical User Interface shows status of all 1410 and CEB-512 units in the coax network and shows network performance statistics such as packet loss and signal to noise ratio.

Specifications	
Environmental Specifications	
Operating Temperature, Storage Temperature	0 to 50° C, -25° C to 70° C
Input Voltage, Power Consumption	110-240 Volts AC (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 V3.1 Connectivity	Four (4) Coax Connectors. Data rate: 128Mbps Physical Layer with 100 Mbps Effective. Frequency: 12 to 26MHz (Midband)
Ethernet Interface for Administration	One 10/100 Ethernet RJ-45 port, Automatic MDI/MDIX crossover for 100BASE-TX and 10BASE-T ports for local craft access
WAN/LAN Connectivity	Two (2) SFP sockets supporting 1Gbps symmetrical Ethernet resilient ring. Works with dual or single fiber, single mode or multi-mode, short, medium or long reach SFPs. Supports copper SFPs
Ethernet Characteristics Over Ethernet SFP 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 port selectable
Compatibility	All Ethernet Switch/Routers on LAN/WAN ports, HPNA 3 devices on coax
Modulation Type on Coax	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 Client 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
Mechanical Specifications	
Dimensions, Weight	12"(L) x 19"(W) x 1.75"(H), (301mm x 408mm x 44mm), 9 lbs.

Note: specifications are subject to change. v1.0