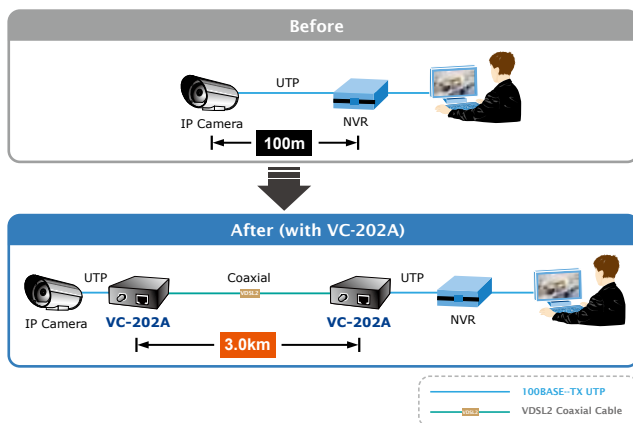


# 1-Port 10/100Base-TX + 1-Port BNC Ethernet over Coaxial Extender



## Ethernet Distance extension via Coaxial

PLANET VC-202A is the high-performance Ethernet-over-Coaxial extender that converts between twisted pair (UTP) and coaxial cable for every kind of IP Ethernet application. It offers the absolutely fastest data transmission speed over existing coaxial cable without the need of rewiring. On the UTP side, the VC-202A uses a modular EIA / TIA 568 RJ-45 connector that supports CAT-5/5e or above wiring with the distance up to 100 meters (328 feet). On the coaxial cable side, the VC-202A utilizes a BNC connector that supports 50ohm or 75ohm coaxial cable with the distance up to 3km. It is ideal for extending the distance and signal conversion by transmitting the Ethernet data from the coaxial cable for any type of IP network device such as IP camera, wireless access point, NVR and digital signage.



## Cost-effective / Quick Upgrade Legacy Devices to All-IP network

PLANET VC-202A Ethernet extender provides a quick replacement and smooth migration solution from existing analog system to full digital system. For example:

- Upgrade analog camera to digital IP Camera
- IP Digital Signage deployment
- Cable TV to IPTV

The VC-202A equips one RJ-45 and one BNC Port to transmit the Ethernet data over the most widespread coaxial cable. Therefore, it is very suitable and costless for upgrading legacy devices to new digital devices of IP-based network because almost every house or block on the street could use the existing coaxial cable to transmit data to the Internet and the whole building could share the Internet line in the wide network area with minimum cost. Reuse the existing cable instead of new wire can save extra wiring cost as the coaxial cable and Ethernet line are already available.

## Easy Installation

There are two selectable models of the VC-202A, one is used for client side (CPE) and the other is for central side (CO). The VC-202A converter is a plug and play device without the need of configuring by software and is also compliant with all kinds of network protocols. Moreover, the rich diagnostic LEDs on the front-panel show the operating status of individual port and the whole system.

## Provides Superior Upstream and Downstream Transmission

The VC-202A defines asymmetric (Plan 998) and symmetric mode for the transmission of upstream and downstream signals. The symmetric mode provides similar transmission rate on both downstream and upstream. On the other hand, the asymmetric mode performs higher transmission quality in short range for central side (CO). In all, when the VC-202A is in symmetric mode, it provides better upstream performance, and when it is in asymmetric mode, it gives better downstream performance.

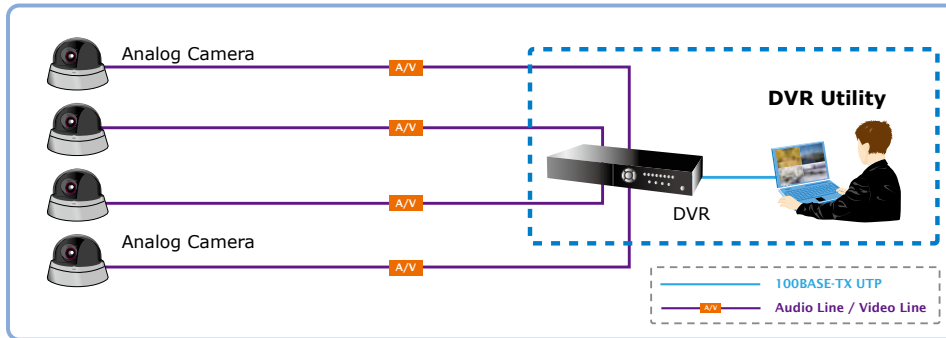
## KEY FEATURES

- Defines Asymmetric (Plan 998) and Symmetric for the transmission of upstream and downstream signals
- Cost-effective Profile 17a CO / CPE bridge solution
- One box design, CO / CPE selectable via DIP Switch
- Complies with IEEE 802.3, IEEE 802.3u and IEEE 802.3x standards
- DMT (Discrete Multi-Tone) line coding
- Half Duplex Back-Pressure and IEEE 802.3x Full Duplex Pause Frame Flow-Control
- Supports up to 1,536 bytes packet size, IEEE 802.1Q VLAN tag transparent
- Standalone transceiver for simple bridge modem application
- Advantage of minimum installation time (Simply as Plug-and-Play)
- Selectable target band plan and target SNR margin
- Supports extensive LED indicators for network diagnostics
- Co-work with PLANET MC family Media Chassis (MC-700 / 1500 / 1500R / 1500R48)
- Compact in size, easy installation

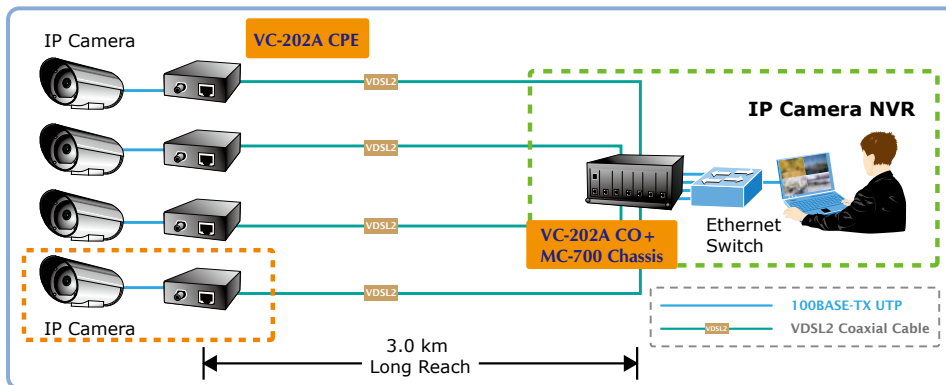
**APPLICATIONS**

*Community / Campus Surveillance and Security over IP*

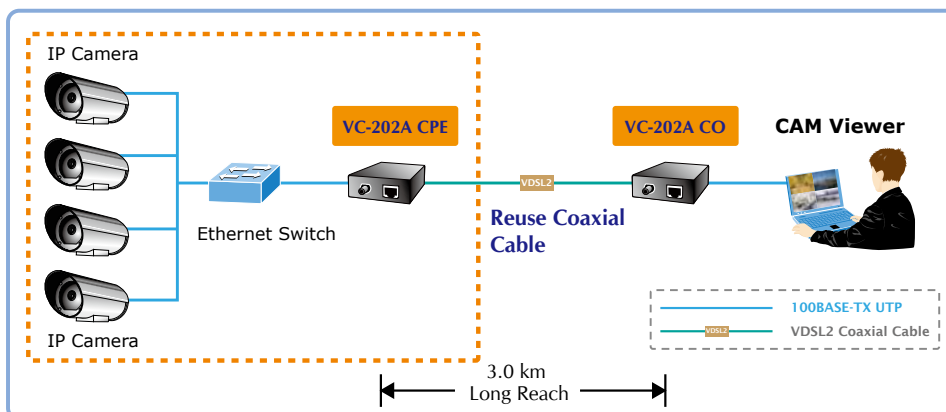
To take advantage of digital surveillance system and keep the benefits of coaxial cable, the VC-202A helps the community, campus and enterprises to upgrade analog camera system to IP camera surveillance without using additional new wires. The Extender is a switching architecture with one RJ-45 10/100Mbps Fast Ethernet port and one BNC Ethernet over Coaxial port. Just plug-in the UTP cable of IP camera to Ethernet port and the existing coaxial cable to the BNC connector. It is easy to deploy and extend the distance with signal conversion by transmitting the Ethernet data from the standard coaxial cable. Furthermore, with high transmit data rate, the VC-202A solution supports multiple IP cameras input for sharing in one coaxial cable to reduce the cost of cabling.



Reuse Coaxial Cable, Digitalized IP Surveillance



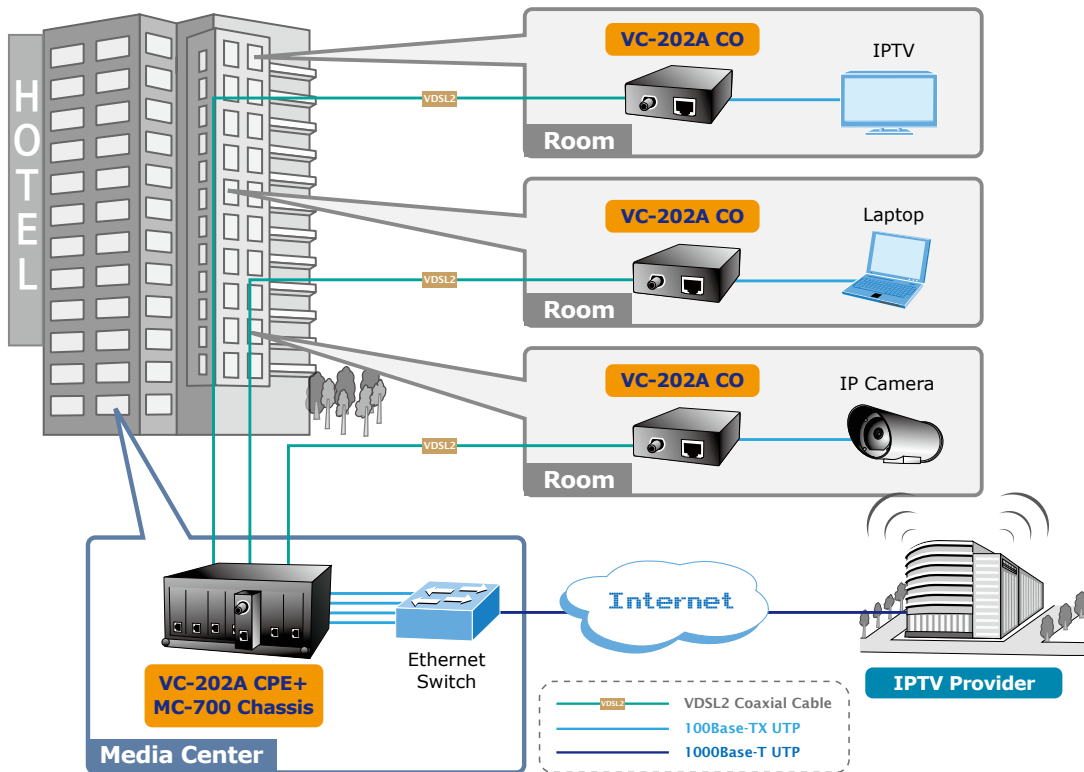
IP Cameras Quick Expansion



**APPLICATIONS**

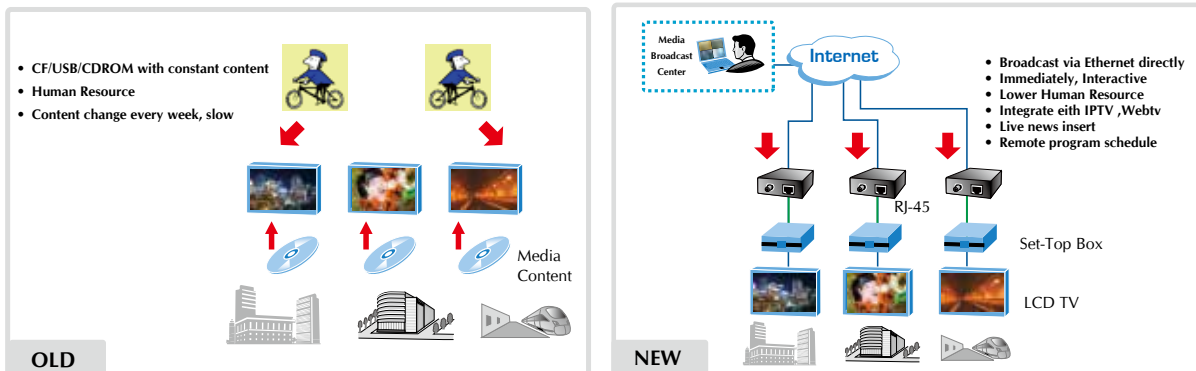
*MTU / MDU / Hospitality Solution*

IPTV, VOD and digital message broadcasting services are the worldwide hot trends, and more and more service providers have upgraded the client side devices from analog system to digital system gradually. The VC-202A will be the best solution because it provides cost-effective and high speed network services by utilizing the existing coaxial cable infrastructure. IP network installation is straightforward. With enough bandwidth, the 100/100Mbps symmetric capability of VC-202A makes many Multi-Media services on local Internet come true, such as VOD (Video on Demand), Voice over IP, Video phone, IPTV, distance education, and so on. It satisfies most of entertainment and communication layer. Meanwhile, this kind of infrastructure also minimizes the burden on the Internet.



*Commercial Location Media Network and Electronic Billboards*

More and more media network and electronic billboards are built in commercial locations to deliver information over office buildings, shopping centers and stations in the cities. Integrating with Set-Top Box and LCD TV, the VC-202A provides an immediate and interactive broadcasting system over direct Ethernet connection instead of constant content and data exchange by human resource. It can also be integrated with IPTV and Web TV. Through the remote management function, administrators can interrupt the TV program for the News and the commercials. It saves labor and gets better commercial effect.



**SPECIFICATION**

<b>Product</b>	<b>1-Port 10/100Base-TX + 1-Port BNC Ethernet over Coaxial Extender</b>	
<b>Model</b>	<b>VC-202A</b>	
<b>Hardware Specification</b>		
<b>Ports</b>	10/100Base-TX: 1 RJ-45, Auto-negotiation and Auto-MDI / MDI-X Coaxial: 1 BNC, female connector	
<b>DIP Switch</b>	4 position DIP switch	
<b>Functionality</b>	CO / CPE mode select Selectable fast and interleaved mode Selectable target Band Plan Selectable target SNR mode	
<b>Encoding</b>	DMT (Discrete Multi-Tone) line coding - ITU-T G.997.1 - ITU-T G.993.1 - ITU-T G.993.2 (Profile 17a Support)	
<b>LED Indicators</b>	One Power 3 for Coaxial (BNC): - Green, LNK - Green, CO mode - Green, CPE mode 2 for per RJ-45 10/100Base-TX port - Green, LNK / ACT - Green, Speed	
<b>Cabling</b>	Ethernet : 10Base-T: 2-pair UTP Cat.3, 4 and 5 up to 100m (328ft) Ethernet : 100Base-TX: 2-pair UTP Cat.5, 5e and 6 up to 100m (328ft) Coaxial Cable: 50ohm, RG58A / U, RG58C / U, RG58 / U or equivalent; 75ohm, RG-6(Distance up to 3.0km)	
<b>Performance</b>	Asymmetric	Symmetric
	200m ->100/65Mbps	200m ->99.7/100Mbps
	400m ->100/64Mbps	400m ->100/100Mbps
	600m ->100/59Mbps	600m -> 86/91Mbps
	800m ->100/53Mbps	800m -> 79/80Mbps
	1000m -> 94/44Mbps	1000m -> 69/66Mbps
	1200m -> 84/36Mbps	1200m -> 60/52Mbps
	1400m -> 74/28Mbps	1400m -> 51/41Mbps
	1600m -> 66/19Mbps	1600m -> 45/36Mbps
	1800m -> 60/14Mbps	1800m -> 40/29Mbps
	2000m -> 44/15Mbps	2000m -> 27/26Mbps
	2200m -> 35/12Mbps	2200m -> 23/24Mbps
	2400m -> 32/10Mbps	2400m -> 22/21Mbps
	2600m -> 29/8Mbps	2600m -> 20/18Mbps
2800m -> 27/6Mbps	2800m -> 18/15Mbps	
3000m -> 25/5Mbps	3000m -> 17/13Mbps	
<b>Dimension (W x D x H)</b>	97 x 70 x 26 mm	
<b>Weight</b>	0.2 kg	
<b>Power Requirement</b>	5V DC 2A	
<b>Power Consumption</b>	6.3Watts / 21BTU (maximum)	
<b>Standard Conformance</b>		
<b>Regulation Compliance</b>	FCC Part 15 Class A, CE	
<b>Standards Compliance</b>	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX IEEE 802.3x Full Duplex Pause Frame Flow-Control ITU-T - G.993.1 - G.997.1 - G.993.2 (Profile 17a Support)	
<b>Environment</b>		
<b>Networking Protocol</b>	Temperature: 0 ~ 50 Degree C Humidity: 5~90%, relative humidity (non-condensing)	
<b>Storage</b>	Temperature: -10~70 Degree C Humidity: 5~90%, relative humidity (non-condensing)	

\* The actual data rate will vary on the quality of the copper wire or coaxial cable and environment

**ORDERING INFORMATION**

VC-202A	1-Port 10/100Base-TX + 1-Port BNC Ethernet over Coaxial Extender
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**RELATIVE PRODUCT**

IVC-2002	Industrial Ethernet Extender ( 1 BNC / RJ-11 + 4-Port 10/100TX-17a Profile, -40~75 Degree C)
MC-700	7-Slot 10" Media Converter Chassis
MC-1500	15-Slot 19" Media Converter Chassis
MC-1500R	15-Slot 19" Media Converter Chassis (AC Power) with Redundant Power System