Ethernet over VDSL2 Converter – Coaxial

Easy Installation

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

High-Performance of Ethernet over VDSL Solution

Ethernet Distance extension via Coaxial

The VC-202 has high-performance Ethernet-over-VDSL2 product that converts between twisted pair (UTP) and coaxial. It is based on two core networking technology: Ethernet and VDSL2 (Very-high-data-rate Digital Subscriber Line 2). This technology offers the absolutely fastest data transmission speeds over existing coaxial cable without the need of rewiring.

When using a pair of VC-202 converters back to back, they connect between two Fast Ethernet LANs via coaxial cable. On the UTP side, the VC-202 uses a modular EIA / TIA 568 RJ45 connector that supports categories 3, 4, 5 or above wiring and connects to distance up to 100 meters (328 feet). On the coaxial cable side, the VC-202 utilizes a BNC connector and supports a 50ohm cable and distance up to 1.6km. It is ideal for extending the distance and signal conversion by transmitting the Ethernet data from the coaxial cable.

Cost-Effective / Quick Upgrade Legacy Devices to All-IP network

PLANET's VC-202 converter provides a quick replacement and smooth migration solution from existing analog system to full digital system. For example:

- Cable TV to IPTV
- Analog Camera to IP Camera

The VC-202 combines the well proven Ethernet and VDSL technology to transmit the Ethernet format data by using VDSL signaling over the most widespread coaxial cable. Therefore, it is very good 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 exist cable instead of new wire, it saves wiring cost made by people and makes coaxial cable and Ethernet line which cover anywhere.

Key Feature

- Cost-effect VDSL2 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
- Support up to 1536 bytes packet size, IEEE 802.1Q VLAN tag transparent
- VDSL2 stand-alone transceiver for simple bridge modem application
- Advantage of minimum installation time (Simply as Plug-and-Play)
- Selectable target data rate and target SNR margin
- Support extensive LED indicators for network diagnostics
- Co-work with PLANET MC family Media Chassis (MC-700/1000R/1500)
- Compact in size, easy installation

SPECIFICATION

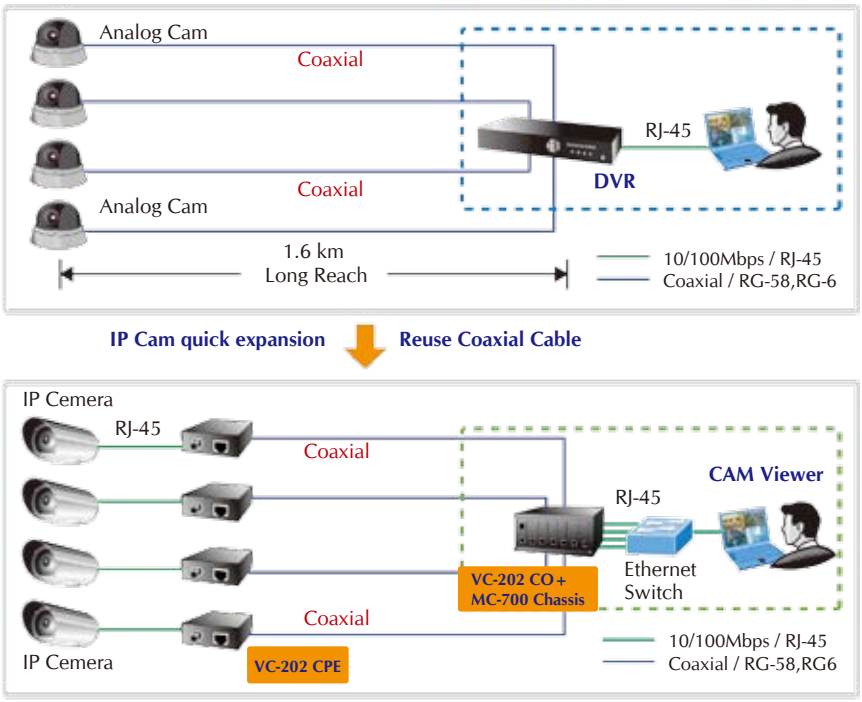
Product		Ethernet over VDSL2 Converter – Coaxial
Model		VC-202
Hardware Specification		
Ports	10/100Base-TX	1 RJ-45, Auto-negotiation and Auto-MDI/MDI-X
	Coaxial	1 BNC, female connector
DIP Switch		4 position DIP switch
Functionality		CO / CPE mode select
		Selectable fast and interleaved mode
		Selectable target data rate
Encoding		Selectable target SNR mode VDSL-DMT ◦ ITU-T G.993.1 VDSL ◦ ITU-T G.997.1 ◦ ITU-T G.993.2 VDSL2 (Profile 12a Support)
LED Indicators		One Power 3 for RJ-11/VDSL2 WAN : ◦ Green, LNK ◦ Green, CO mode ◦ Green, CPE mode 2 for per RJ-45 10/100Base-TX port ◦ Green, LNK/ACT. ◦ Green, Speed
Cabling	Ethernet	10Base-T: 2-pair UTP Cat.3,4,5 up to 100m (328ft) 100Base-TX: 2-pair UTP Cat.5, up to 100m (328ft)
	VDSL	50ohm, RG58A/U, RG58C/U, RG58/U; 75ohm, RG6 or equivalent, up to 1.6km
Performance		◦ 200m -> 100/65Mbps ◦ 400m -> 100/65Mbps ◦ 600m ->100/58Mbps ◦ 800m ->100/52Mbps ◦ 1000m -> 100/42Mbps ◦ 1200m ->90/36Mbps ◦ 1400m -> 80/27Mbps ◦ 1600m-> 70/10Mbps
Dimension (H x W x D)		26 x 70 x 97mm
Weight		0.4 kg
Power Requirement		5V DC 2A
Operating Temperature		0~50 degree C
Storage Temperature		-25~70 degree C
Operating Humidity		10% to 90% , relative humidity, non-condensing
Storage Humidity		10% to 90% , relative humidity, non-condensing
Standard Conformance		
Regulation Compliance		FCC Part 15 Class A, CE
Standards Compliance		IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX ITU-T ◦ G.993.1 (VDSL) ◦ G.997.1 ◦ G.993.2 VDSL2 (Profile 12a Support)

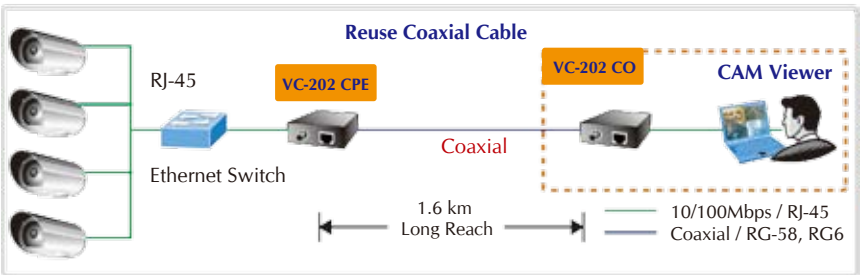
* The actual data rate will vary on the quality of the coaxial cable and environment factors.

Applications

Community / Campus Surveillance and Security over IP

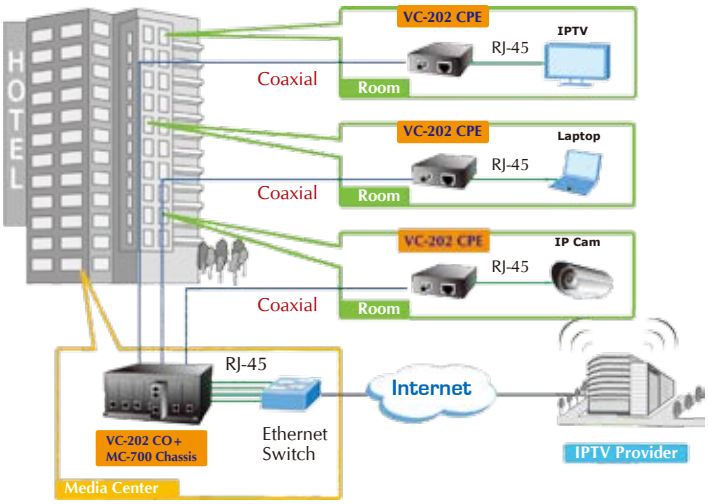
To take advantage of digital surveillance system and keep the benefits of coaxial cable that can be used outdoor and long distance, the VC-202 helps community, campus and enterprises to quickly upgrade the analog camera to IP camera without new wire. The Converter is a switching architecture with one RJ45 10/100Mbps Fast Ethernet ports and one BNC symmetric Ethernet over VDSL port. Just plug-in the UTP cable from IP camera to Ethernet port and the exist coaxial cable to the BNC connector. It is easily deployed and is ideal for extending the distance and signal conversion by transmitting the Ethernet data from the standard coaxial cable.. Furthermore, with high transmit data rate, the solution supports multiple IP Cameras input for sharing in one coaxial cable to reduce the cost of cabling.





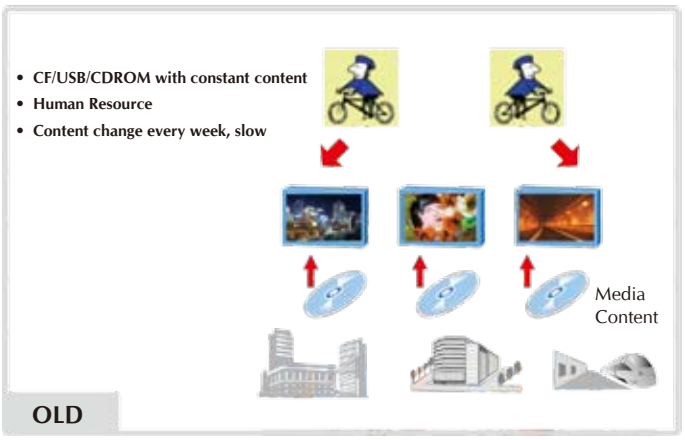
MTU/MDU/Hospitality Solution

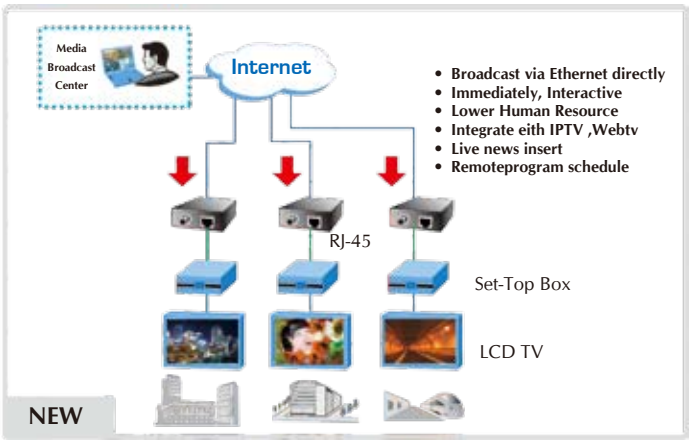
IPTV, VOD and digital message broadcasting services are the worldwide hot trends, and more and more service providers have upgraded the client side devices from analog system to digital system gradually. The VC-202 is the best solution to quickly provide cost-effective, high speed network services by utilizing the existing coaxial cable infrastructure. IP network installation is straightforward and requires no new wiring. With enough bandwidth, the 100/65Mbps symmetric capability of VC-202 enables many Multi-Media services on local Internet to come true, such as VOD (Video on Demand), Voice over IP, Video phone, IPTV, distance education, and so on. The VC-202 provides excellent bandwidth to satisfy the triple play devices for entertainment and communication. Meanwhile, this kind of infrastructure will minimize the burden on the Internet.



Commercial Location Media Network and Electronic Billboards

Commercial Location built Media Network and Electronic Billboards to cover office buildings, shopping centers and stations in the cities. Integrating with Set-Top Box and LCD TV, the VC-202 provides an immediately 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 ability of management, administrators can interrupt the TV program for the News and the commercials. It saves labor and gets better commercial effect.





Ordering Information

VC-202	Ethernet over VDSL 2 Converter (1 x BNC, 1 x RJ-45)

Relative Product - Media Converter Chassis

MC-700	10" Media Converter Chassis / 7Slots / 100~240V AC
MC-1000R	19" Media Converter Chassis with Redundant Power capability / 10 Slots / 100~240V AC
MC-1500	19" Media Converter Chassis / 15 Slots / 100~240V AC
RPS-120W	120W Redundant Power Supply (100~240V AC) for MC-1000R

PLANET Technology Corporation
11F, No. 96, Min Chuan Road, Hsin Tien, Taipei, Taiwan R.O.C.
Tel: 886-2-2219-9518 Fax: 886-2-2219-9528
Email: sales@planet.com.tw www.planet.com.tw
VoIP Gateway: vip.planet.com.tw