PoE over Coaxial Extender – Transmitter

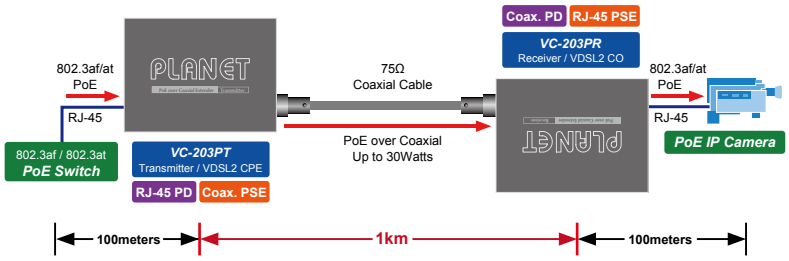
TAIWAN EXCELLENCE 2014



PLANET VC-203Px series of PoE over Coaxial Extender is designed to extend IP Ethernet transmission and inject power over an existing coaxial cable for distance up to 1000m (3280ft) to PoE IP camera, PoE Wireless AP and any 802.3af/at complied powered device (PD).

The VC-203Px consists of a Transmitter and Receiver set which can work in pair without any power adapter and anywhere on your network infrastructure. The solution contains two brand-new products:

- VC-203PT: 1-Port 10/100TX PoE PD + 1-Port BNC PoE over Coaxial PSE Extender – Transmitter
- VC-203PR: 1-Port 10/100TX PoE PSE + 1-Port BNC PoE over Coaxial PD Extender – Receiver



Models		VC-203PT	VC-203PR
PoE over Coax. Extender		Transmitter	Receiver
Power Input (Optional)	PoE	RJ-45: 802.3af/at PoE In UTP cable, up to 100m	BNC: PoE over Coaxial In Coaxial cable, up to 1km
	DC	DC Jack: 52~56V DC In	DC Jack: 52~56V DC In
Power Output	PoE	BNC: PoE over Coaxial In Coaxial cable, up to 1km	RJ-45: 802.3af/at PoE out UTP cable, up to 100m
	DC	-	2-Pin Terminal Block : Selectable 12V/24V DC

It is a perfect solution for sending IP Video links and power to remote PoE IP camera installation that are beyond the 100 meters distance limit of Ethernet.

Physical Port

- 1 x 10/100Base-TX RJ-45 copper interface (PoE IN)
- 1 x BNC connector (Power and data transmitter)

Power over Ethernet

- Eliminates Power cabling with PoE over Coaxial
- Ethernet over coaxial up to 1km with 5C2V/RG6 75Ωcable
- Complies with IEEE 802.3af / IEEE 802.3at Power over Ethernet on RJ-45 port
- Supports PoE Power up to 30.8 watts (Varying with Power Source and Coaxial Distance)

Layer 2 Features

- Supports auto-negotiation and 10/100Mbps half / full duplex
- Prevents packet loss with back pressure (half duplex) and IEEE 802.3x pause frame flow control (full duplex)

VDSL2 Features

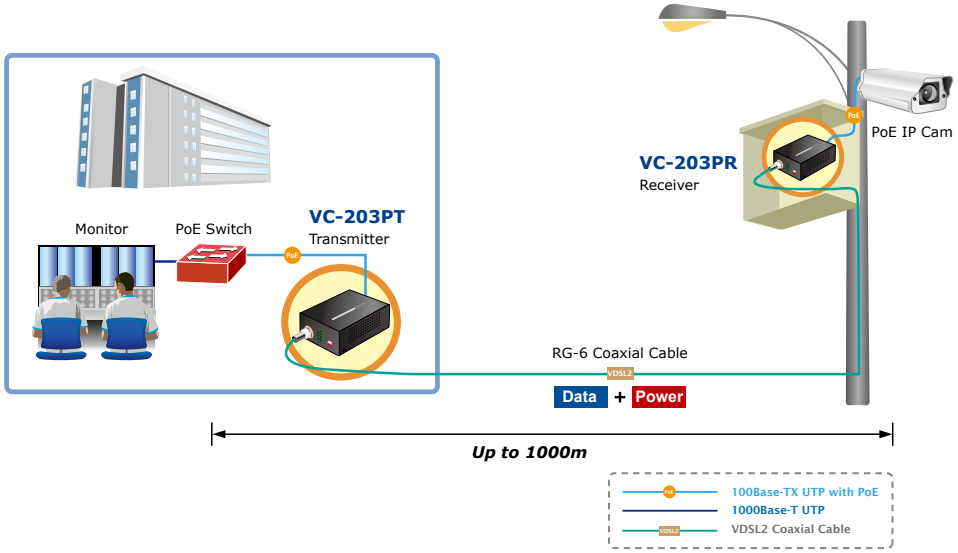
- One box design, Master / Slave selectable via DIP Switch
- Defines asymmetric (Band Plan 998) and symmetric band plans for the transmission of upstream and downstream signals

Industrial Case / Installation

- Supports extensive LED indicators for network diagnostics
- IP30 metal case protection
- Flexible power source either external DC or PoE power input
- Supports EFT protection 2000 VDC for power line
- Supports 2000 VDC Ethernet ESD protection
- -40 to 75 degrees C operating temperature

Power over Coaxial

Based on IEEE 802.3at High Power over Ethernet and up to 25 watts of power output, PLANET PoE over coaxial extender solution eliminates the need for local and additional remote site power supplies while allowing a single PoE source, such as a PoE network switch, to provide power to both transceivers and the camera at long range.



Stable Operating Performance under Difficult Environments

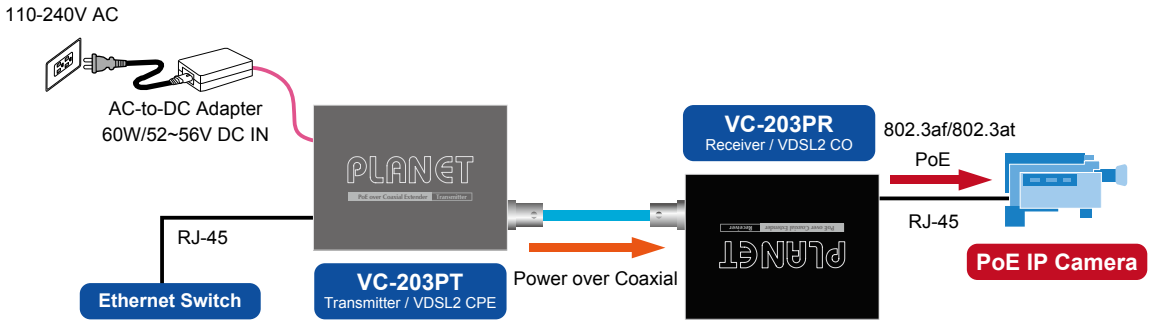
The VC-203PT and VC-203PR extenders are one perfect combined solution for extending data and power transmissions over long distances for places like warehouses, parking lots, campuses, casinos, and many more. They can operate stably under temperature range from -40 to 75 degrees C which enables the users to conveniently apply the device in almost any location of the network.

Applications

Applications of VC-203PT and VC-203PR

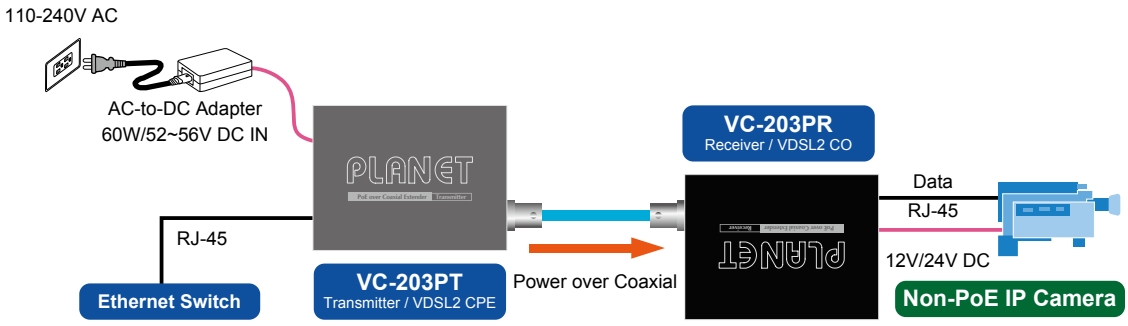
The VC-203PT, which functions with the VC-203PR can split into four different kinds of combinations. The VC-203PT can power by either from external DC power adapter or high power PoE switch. The power output of the VC-203PR is selectable - PoE output to the PoE Power Devices (PD) OR DC power output to the Non-PoE Devices.

Type 1 – VC-203PT with 52~56V power adapter and VC-203PR with PoE power output



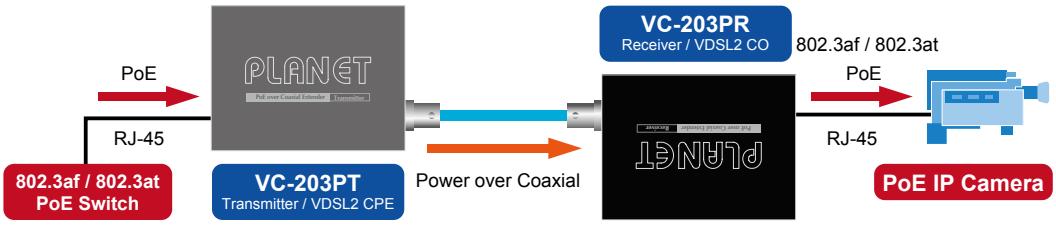
	CPE	CO
	VC-203PT	VC-203PR
Power Input	Power adapter with 52~56V DC in	BNC with DC power over coaxial input
Power Output	BNC with DC power over coaxial output	RJ-45 with 802.3at/af PoE output

Type 2 – VC-203PT with 52~56V power adapter and VC-203PR with DC power output



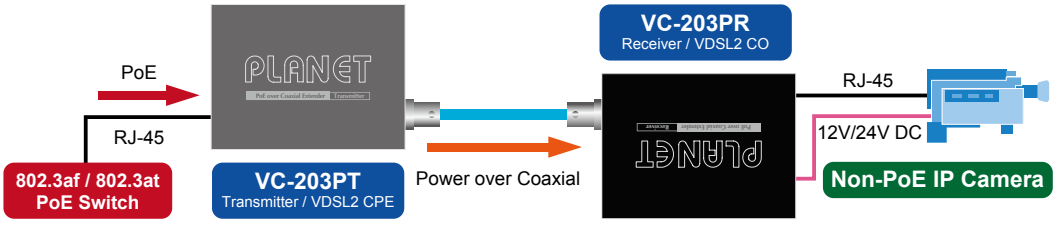
	CPE	CO
	VC-203PT	VC-203PR
Power Input	Power adapter with 52~56V DC in	BNC with DC power over coaxial input
Power Output	BNC with DC power over coaxial output	DC Terminal block with 12V or 24V DC output

Type 3 – VC-203PT with PoE power input and VC-203PR with PoE power output



	CPE	CO
	VC-203PT	VC-203PR
Power Input	RJ-45 with 802.3at/af PoE input	BNC with DC power over coaxial input
Power Output	BNC with DC power over coaxial output	RJ-45 with 802.3at/af PoE output

Type 4 – VC-203PT with PoE power input and VC-203PR with DC power output



	CPE	CO
	VC-203PT	VC-203PR
Power Input	RJ-45 with 802.3at/af PoE input	BNC with DC power over coaxial input
Power Output	BNC with DC power over coaxial output	DC Terminal block with 12V or 24V DC output

Specifications

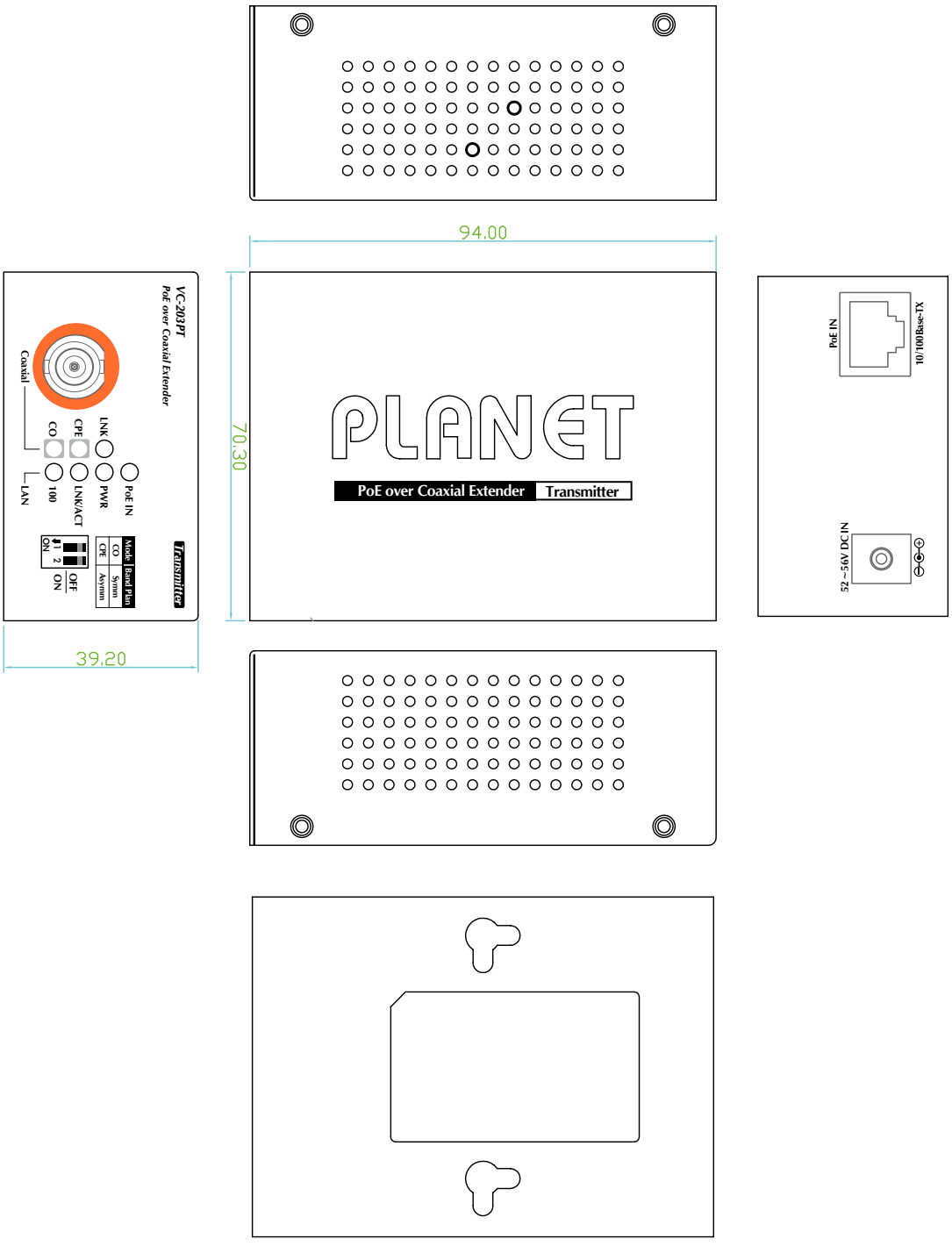
Model		VC-203PT / Transmitter
Hardware Specifications		
Interface	Copper	10/100Base-TX RJ-45 Auto-negotiation/ auto-MDI/MDI-X 802.3at/af PoE Input
	Coaxial	BNC, female Power over Coaxial output
	DC Socket(Optional)	52~56V DC input
	DIP-Switch	2-position DIP Switch ▪ Selectable CO or CPE mode (Default: CPE) ▪ Selectable Band plan: asymmetric or symmetric (Default: asymmetric)
LED Indicators		LED is Green in Color **System:** ▪ PWR **VDSL2:** ▪ LNK ▪ CO ▪ CPE **PoE:** ▪ PoE IN **Ethernet:** ▪ LNK/ACT ▪ 100
ESD Protection		2KV DC
EFT Protection		2KV DC
Enclosure		IP30 metal case
Installation		Wall mount or DIN rail with optional kit
Dimensions (W x D x H)		94 x 70.3x 39.2 mm
Weight		288g
Power Requirements		▪ RJ-45 PoE Input: 802.3at/af 44~57V DC ▪ DC Input: 52~56V DC
Power over Ethernet/Coaxial		
PoE Standard		IEEE 802.3at Type 2 IEEE 802.3af
PSE Interface		BNC 44~57V DC (Depending on what the DC/PoE Power Input is)
PD Interface		RJ-45, both Mid-Span and End-Span Input Range: 44~57V DC
DC Power Output		-
Max. PoE Budget	Power Input by PoE	BNC : 25 watts
	Power Input by DC	BNC : 30 watts

Performance* (Downstream / Upstream)**	Distance	Data Rate		VC-203PR PoE Output	
		Asymmetric Mode	Symmetric Mode	VC-203PT W/DC IN	VC-203PT W/PoE+ IN
	200m	100/60 Mbps	90/100 Mbps	20W	13W
	400m	95/55 Mbps	85/100 Mbps	16W	11W
	600m	90/50 Mbps	70/80 Mbps	12W	10W
	800m	85/45 Mbps	65/70 Mbps	7W	6W
	1000m	70/35 Mbps	55/55 Mbps	5W	4W
	1200m	60/25 Mbps	45/40 Mbps	-	-

Standards Conformance	
Standards Compliance	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3af Power over Ethernet (802.3at Type 1) IEEE 802.3at Power over Ethernet Plus (802.3at Type 2)
Regulation Compliance	FCC Part 15 Class A, CE
Environment	
Temperature	Operating: -40~75 degrees C Storage: -40~75 degrees C
Humidity	Operating: 5~95% (non-condensing) Storage: 5~95% (non-condensing)

* The actual data rate will vary on the quality of the copper wire and environment factors.
** Default Downstream VC-203PR to VC-203PT ; Upstream VC-203PT to VC-203PR

Dimensions:



Ordering Information

VC-203PT	1-Port 10/100TX PoE PD + 1-Port BNC PoE over Coaxial PSE Extender – Transmitter

Related PoE Products

VC-203PR	1-Port 10/100TX PoE PSE + 1-Port BNC PoE over Coaxial PD Extender – Receiver

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