

# PoE over Coaxial Extender Kit – Transmitter / Receiver

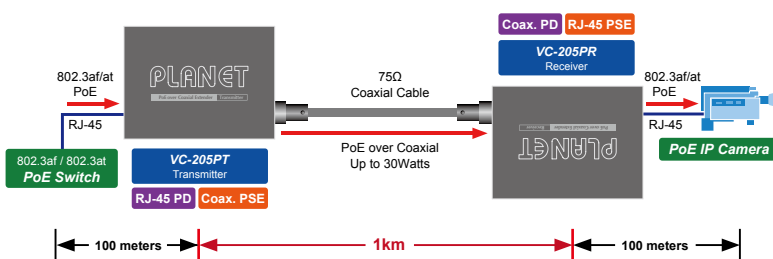


PLANET VC-205-KIT PoE over Coaxial Extender Kit is designed to extend IP Ethernet transmission and inject power over an existing coaxial cable for distance up to 1000m (3280ft) into PoE IP camera, PoE wireless AP and any 802.3af/at complied powered device (PD).

The VC-205-KIT consists of a Transmitter and Receiver set which can work in pair without any power adapter anywhere on your network infrastructure. It is a perfect solution for sending IP video links and power to the remote PoE IP camera installation that is beyond the 100-meter distance limit of Ethernet.

The solution contains two brand-new products:

- VC-205PT : 1-Port 10/100TX PoE PD + 1-Port BNC PoE over Coaxial PSE Extender – Transmitter
- VC-205PR : 1-Port 10/100TX PoE PSE + 1-Port BNC PoE over Coaxial PD Extender – Receiver



Models		VC-205PT	VC-205PR
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	--
Power Output	PoE	BNC: Power over Coaxial Out Coaxial cable, up to 1km	RJ-45: 802.3af/at PoE out UTP cable, up to 100m

## Physical Port

- VC-205PT
  - Copper: 1 x 10/100Base-TX (802.3af/at PoE In)
  - BNC: Power over coaxial transmitter
- VC-205PR
  - Copper: 1x 10/100Base-TX (802.3af/at PoE Out)
  - BNC: Power over coaxial receiver

## Power over Ethernet

- Eliminates power cabling with PoE over Coaxial
- Ethernet over Coaxial up to 1km with 5C2V/RG6 75Ω cable
- Complies with IEEE 802.3af / IEEE 802.3at Power over Ethernet on RJ-45 ports
- Supports PoE Power up to 30.8 watts (vary on Power Source and Coaxial Distance)
- Auto detects powered device (PD) (VC-205PR)

## Layer 2 Features

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

## VDSL2 Features

- Defines 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
- Compact size, DIN rail and wall mount design
- Power Input: external DC or PoE power input (VC-205PT)
- Power Output: PoE power output (VC-205PR)
- Supports EFT protection 2000V DC for power line
- Supports 2000V DC Ethernet ESD protection
- -10 to 60 degrees C operating temperature

**Convenient Installation**

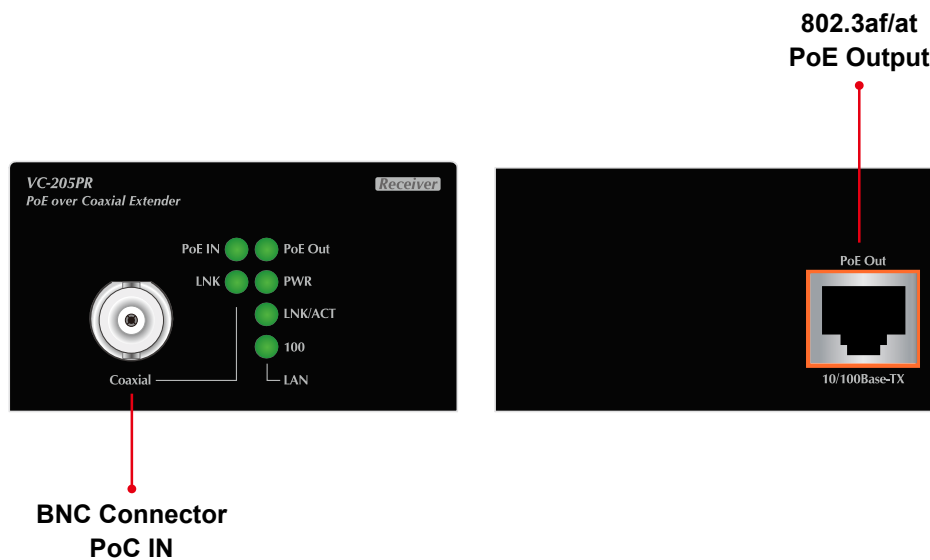
The VC-205-KIT is plug and play devices which can extend the distance of existing application without the need of configuring by software and is also compliant with all kinds of network protocols. Moreover, the rich diagnostic LEDs on the front panel show the operating status of the individual port and the whole system, enabling the administrator to efficiently manage the network.

**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 kit solution eliminates the need for additional remote site power while allowing a single PoE source, such as a PoE switch, to provide power to both transceivers and the camera at long range. This feature eliminates the need for local and remote site power supplies.

**IEEE 802.3at/af PoE Injector and PoE PD in One Box Design**

The VC-205PR is a Single-port, 802.3at High Power over Ethernet Injector providing maximum up to 30 watts of power output over Ethernet cable which allows data and power to transmit simultaneously through the cable to PoE PD (Powered Device). On the contrary, the VC-205PT receives power and transmit it down the coax, where the power is then received by the VC-205PR.



**Stable Operating Performance under Difficult Environments**

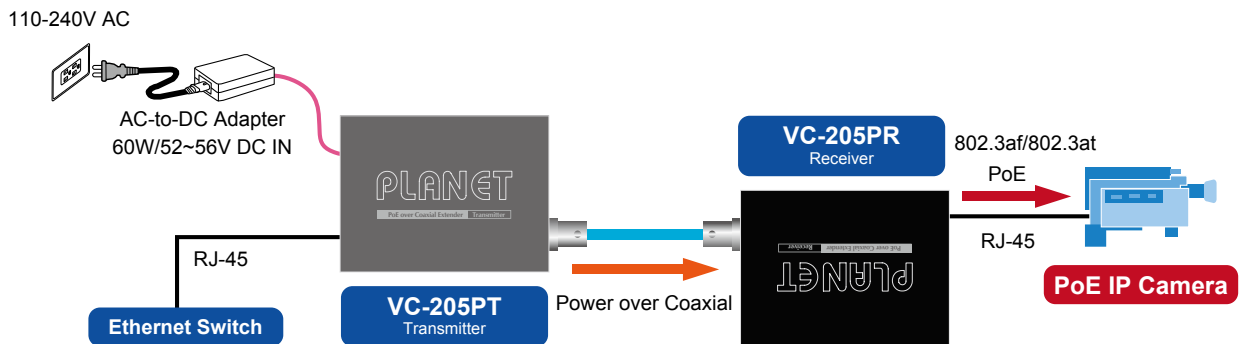
The VC-205PT and VC-205PR extender kit is the perfect solution for extended distance data and power transmission for warehouses, parking lots, campuses, casinos, and many more. They can operate stably under temperature range from -10 to 60 degrees C which enables the users to conveniently apply the device in almost any location of the network.

## Applications

### Applications of VC-205-Kit Power over Coaxial Extender Kit

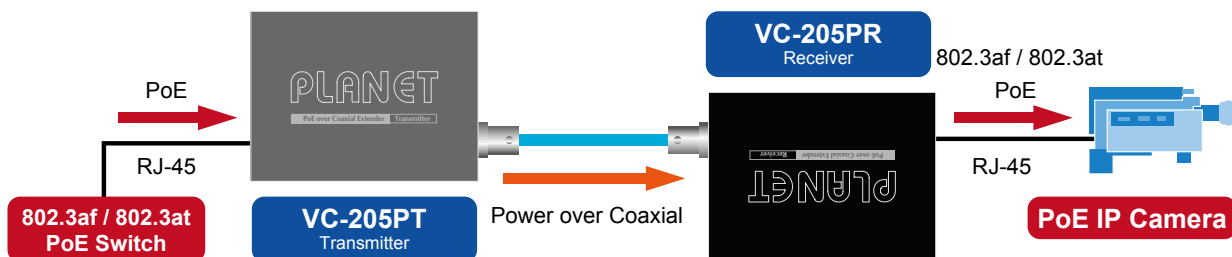
The VC-205-KIT can split into two different kinds of combinations. The VC-205PT can be powered by either external DC power adapter or high power PoE switch. The power output of the VC-205PR is a PoE output to the PoE Power Devices (PD).

#### Type 1 – VC-205PT with 52~56V power adapter and VC-205PR as PoE power output



	VC-205PT	VC-205PR
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-205PT with PoE power input and VC-205PR as PoE power output



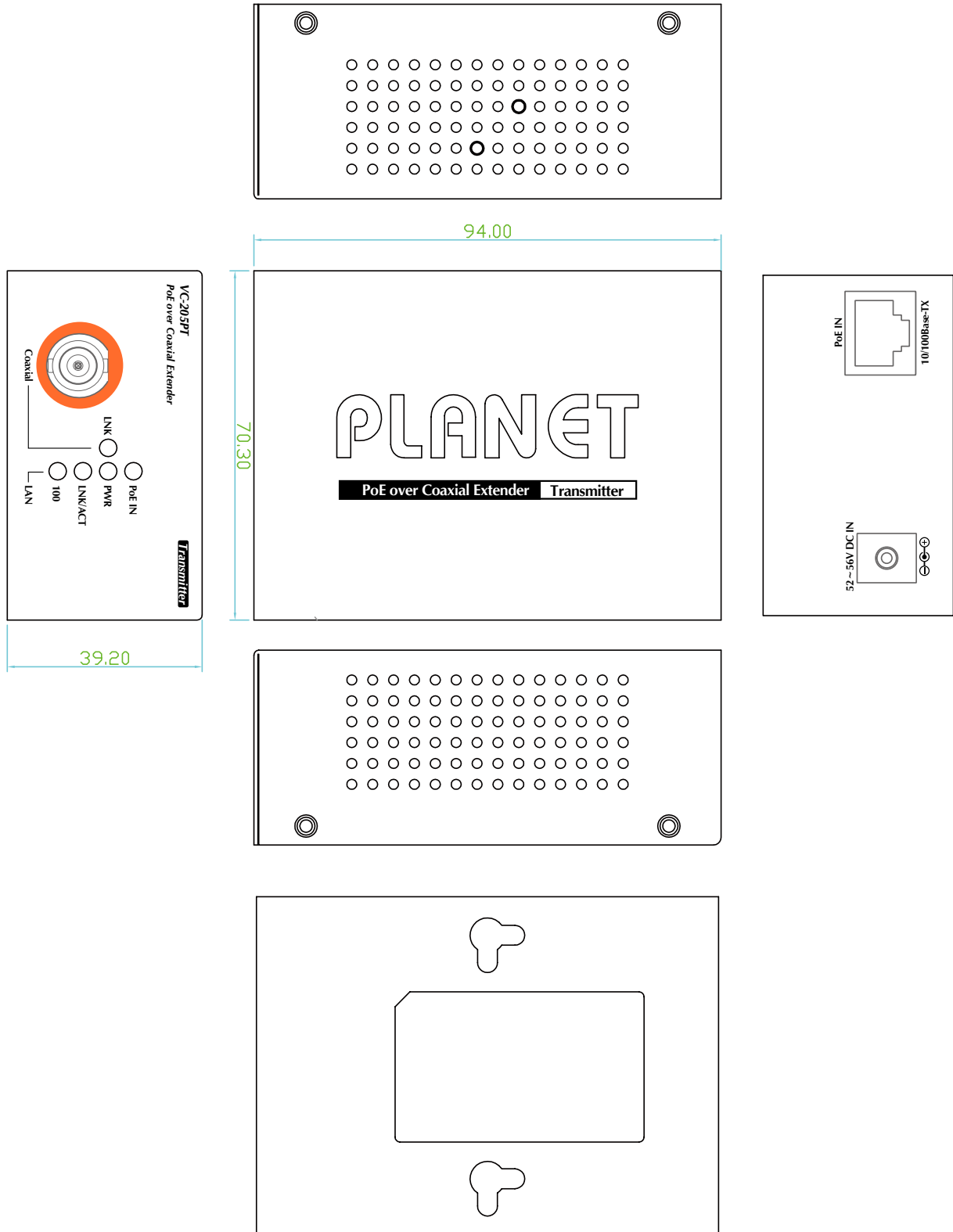
	VC-205PT	VC-205PR
Power Input	RJ-45 with 802.3at/af PoE input	BNC with DC power over coaxial input
Power Output	BNC with DC power over coaxial output	RJ-45 with 802.3at/af PoE output

## Specifications

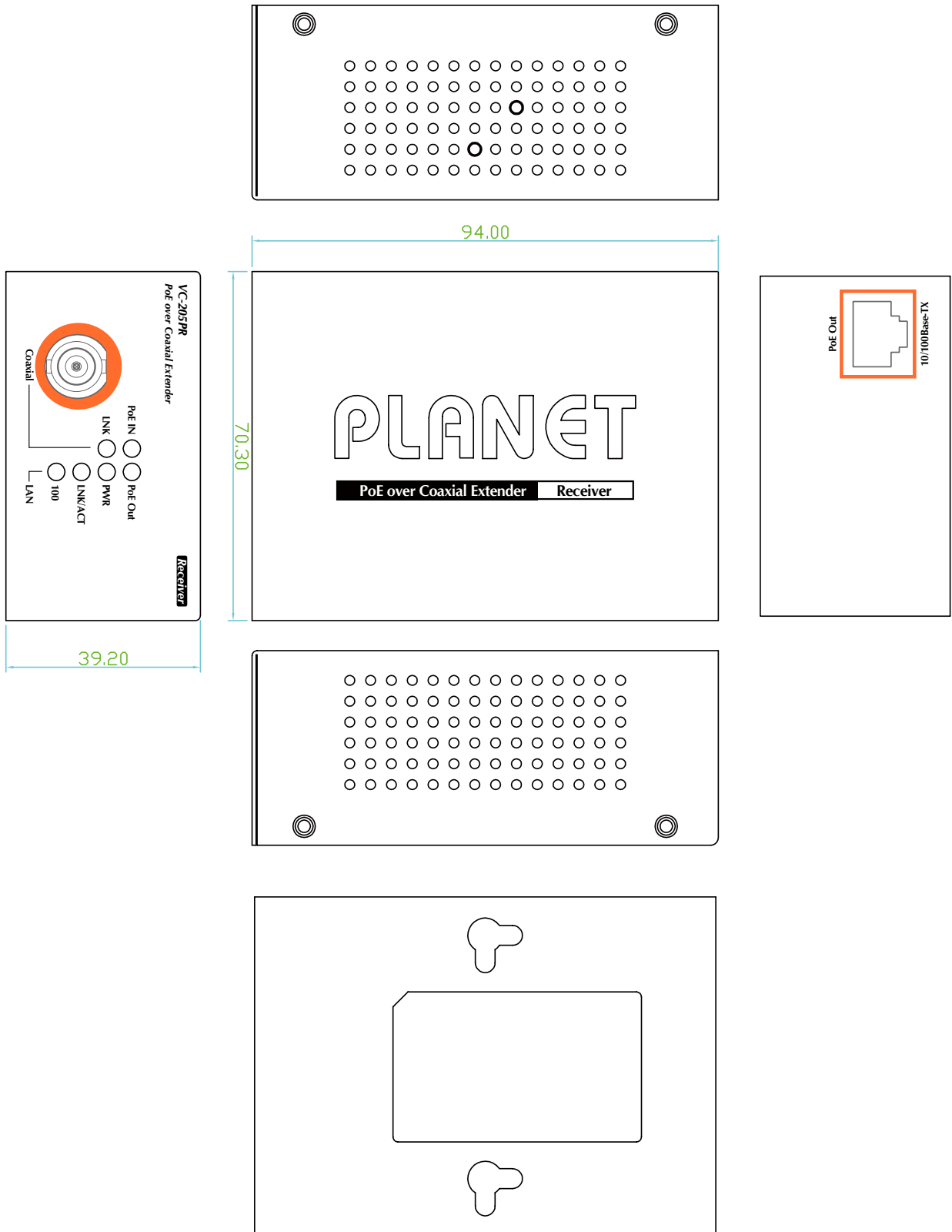
Model		VC-205PT	VC-205PR			
<b>Hardware Specifications</b>						
Interface	Copper	10/100Base-TX RJ-45 Auto-negotiation/ Auto-MDI/MDI-X 802.3at/af PoE Input	10/100Base-TX RJ-45 Auto-negotiation/ Auto-MDI/MDI-X 802.3at/af PoE Output			
	Coaxial	BNC, female Power over Coaxial Output	BNC, female Power over Coaxial Input			
	DC Socket (Optional)	52~56V DC Input	-			
LED Indicators	<b>System</b> <ul style="list-style-type: none"> <li>▪ PWR</li> </ul> <b>Coaxial</b> <ul style="list-style-type: none"> <li>▪ LNK</li> </ul> <b>PoE</b> <ul style="list-style-type: none"> <li>▪ PoE IN</li> </ul>	<b>Ethernet</b> <ul style="list-style-type: none"> <li>▪ LNK/ACT</li> <li>▪ 100</li> </ul>	<b>System</b> <ul style="list-style-type: none"> <li>▪ PWR</li> </ul> <b>Coaxial</b> <ul style="list-style-type: none"> <li>▪ LNK</li> </ul>	<b>PoE</b> <ul style="list-style-type: none"> <li>▪ PoE IN</li> <li>▪ PoE OUT</li> </ul> <b>Ethernet</b> <ul style="list-style-type: none"> <li>▪ LNK/ACT</li> <li>▪ 100</li> </ul>		
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	283g	284g				
Power Requirements	<ul style="list-style-type: none"> <li>▪ RJ-45 PoE Input: 802.3at/af 44~57V DC</li> <li>▪ DC Input: 52~56V DC</li> </ul>		<ul style="list-style-type: none"> <li>▪ BNC Power over Coaxial Input: 44~57V DC</li> </ul>			
<b>Power over Ethernet/Coaxial</b>						
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)		RJ-45 48~56V DC, 600mA max. End-Span, Pin 1/2(+), 3/6(-)			
PD Interface	RJ-45, both mid-span and end-span Input Range: 44~57V DC		BNC Input Range: 44~57V DC			
Max. PoE Budget	Power Input by PoE	BNC : 25 watts				
	Power Input by DC	BNC : 30 watts				
Performance* (PT→PR / PR→PT)	Distance	Data Rate		VC-205PR PoE Output		
		Symmetric Mode		VC-205PT W/DC IN	VC-205PT W/PoE+ IN	
	200m	90/100Mbps		20W	13 W	
	400m	88/100 Mbps		16 W	11 W	
	600m	73/84 Mbps		12 W	10 W	
	800m	67/72 Mbps		7 W	6 W	
1000m	56/57 Mbps		5 W	4 W		
<b>Standards Conformance</b>						
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					
<b>Environment</b>						
Temperature	Operating: -10~60 degrees C Storage: -20~70 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.

Dimensions - VC-205PT



## Dimensions - VC-205PR



## Ordering Information

VC-205-KIT	Power over Coaxial Extender Kit
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## Related PoE Products

VC-203PT	PoE over Coaxial Extender – Transmitter
VC-203PR	PoE over Coaxial Extender – Receiver
ICA-2200	Full HD PoE Box IP Camera
ICA-2500	5 Mega-pixel PoE Box IP Camera
ICA-3250V	Full HD Outdoor IR PoE IP Camera
ICA-3350V	3 Mega-pixel Vari-focal Bullet IR IP Camera
ICA-4200V	Full HD 20M IR Vari-focal Dome IP Camera
ICA-5350V	3 Mega-pixel Vandalproof IR IP Camera
ICA-8350	3 Mega-pixel Vandalproof Fish-eye IP Camera
ICA-HM101	2 Mega-pixel PoE Cube IP Camera
ICA-HM126	H.264 Full HD Box IP Camera
ICA-HM127	3 Mega-pixel H.264 Box IP Camera
ICA-HM132	H.264 2 Mega-pixel 20M IR Vari-focal Dome IP Camera
ICA-HM136	H.264 2 Mega-pixel 20M IR Vandalproof Dome IP Camera
ICA-HM312	2 Mega-pixel 25M IR Outdoor Bullet PoE IP Camera
ICA-HM316	2 Mega-pixel Outdoor IR PoE IP Camera
ICA-HM351	2 Mega-pixel 35M IR Outdoor Box PoE IP Camera
ICA-HM620	2 Mega-pixel PoE Plus Speed Dome Internet Camera
POE-152S	IEEE 802.3af Power over Ethernet Splitter
POE-162S	IEEE 802.3at Gigabit High Power over Ethernet Splitter
POE-E101	IEEE 802.3af Power over Ethernet Extender
POE-E201	IEEE 802.3at Power over Ethernet Extender
WNAP-C3220	802.11n Wireless Ceiling Mount PoE Access Point
WNAP-1120PE	802.11n Wireless Access Point with PoE