

# Vi1051VP

## UTP Combiner Transceiver

### Features

- Combines video and power into a single RJ-45 4-pair cable for up to 750 ft. (228 m)
- NTSC, PAL and SECAM video format
- Built-in passive transceiver
- Built-in surge protection for video
- Support for "up-the-coax" type signals
- 60 dB cross talk and noise immunity
- Compact size and easy installation
- Designed for structured wiring applications
- Limited lifetime warranty



### Applications

- Security and surveillance
- Department store security
- Casino security
- Hospitals and airports
- School campuses

### Power Distance Chart

Power Supply Voltage		12 VDC	24 VAC	28 VAC
Voltage at the camera		10.8 VDC	21.6 VAC	21.6 VAC
100 mA Camera	Dual 24 AWG	448 ft. 137 m	896 ft. 273 m	2,388 ft. 728 m
	Dual 23 AWG	564 ft. 172 m	1,130 ft. 345 m	3,010 ft. 918 m
300 mA Camera	Dual 24 AWG	150 ft. 46 m	300 ft. 92 m	796 ft. 243 m
	Dual 23 AWG	190 ft. 58 m	378 ft. 115 m	1,004 ft. 306 m
1 Amp Camera	Dual 24 AWG	46 ft. 14 m	90 ft. 28 m	240 ft. 73 m
	Dual 23 AWG	58 ft. 18 m	114 ft. 35 m	300 ft. 92 m

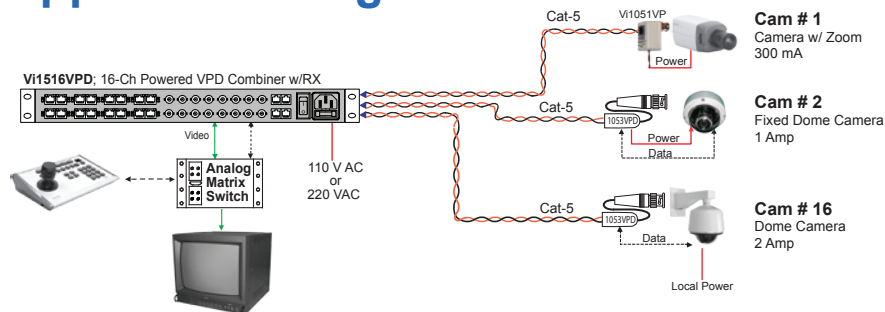
Cat-5 : 24 AWG, Cat-6 : 23 AWG

The Vi1051VP is a passive device that transports video and camera power over a single Category 5 cable for distances up to 750 ft. (228 m). Its extremely compact size makes it possible to be used in a wide variety of applications. It may be used with the Vi1200VPD or Vi1500VPD series for shorter distances and with Vi1300VPD or Vi1400VPD series for longer distances.

It connects to Cat-5 cable via its RJ-45 connector and its 12 VDC power output is available on a 9 in. pigtail wire. For shorter runs, it can be used with Vigitron Vi1200VPD or Vi1500VPD combiner-receiver series. While longer distances can be achieved by using it with Vi1300VPD or Vi1400VPD combiner series and Vigitron active UTP receivers.

The Vi1051VP has built-in surge suppression to protect video equipment against damaging voltage spikes. Its exceptional noise immunity ensures quality video signals. The Vi1051VP is an ideal CCTV component for a structured cabling environment.

### Application Diagram



The Smart Choice for Quality Video

[www.vigitron.com](http://www.vigitron.com)

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# Technical Specification

## Electrical

Video Format	NTSC, PAL, SECAM
Frequency	DC to 10 MHz
Coax	75 Ohm
Twisted Pair	100 Ohms +/- 20%, 24 AWG minimum Category 2-7
CMRR	60 dB
Insertion Loss	0.3 dB
Connectors	UTP: RJ-45 Video: Male BNC Power: 9 in. twisted pair
Transient Immunity	per ANSI / IEEE 587 C62.41

## Environmental

Humidity	0 to 95%, non-condensing
Temperature	Operating: -10°C to +50°C Storage: -30°C to +70°C

## Mechanical

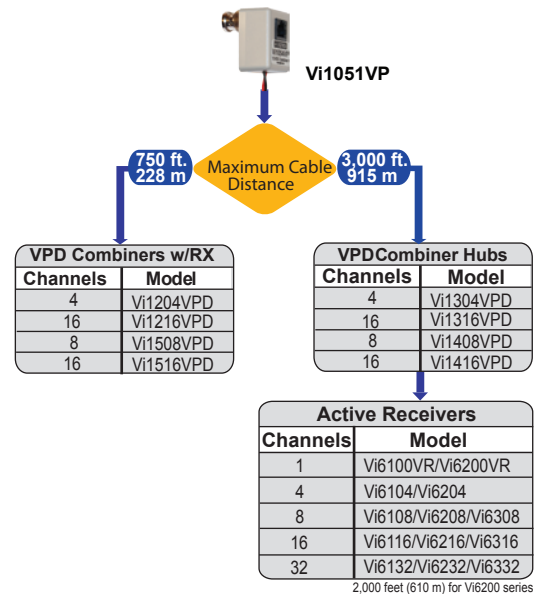
Dimensions	0.88x0.88x0.68 in, 2.3x2.3x1.72 cm (HxWxL)
Weight	0.05 lb (022 g)
Material	Grey ABS plastic, UL rating of 94V-0

\*Specifications subject to change without notice.

## Ordering Information

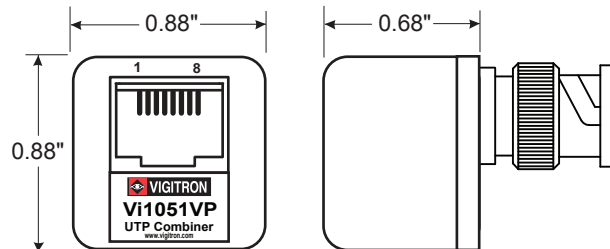
PART No.	Description
Vi1051VP	Video-Power Combiner

## System Configuration



## UTP Connections:

Pin#	Description
1	Video +
2	Video -
3	Data +
4	Power -
5	Power +
6	Data -
7	Power +
8	Power -



## Wire and Cable Recommendations

The Vigitron products are designed to be used with unshielded twisted pair (UTP) wiring. The UTP wire must be 24AWG - 12AWG or Category 2-7 cable. Multi pair cable with an overall shield is acceptable, however individually shielded pairs should be avoided. Multiple UTP video feeds can be operated in the same communication cable along with telephone, computer, control signals and low power voltages. While UTP video may be routed through punch-down block terminals, any resistive, capacitive or inductive devices (such as T-taps or MOV's) must not be used. Please contact Vigitron for more specific information regarding wire types and proper installation techniques.



TEL (+1) 858-484-5209 • FAX (+1) 858-484-1205  
7810 Trade Street, Suite 100, San Diego, CA 92121, USA • support@vigitron.com • www.vigitron.com