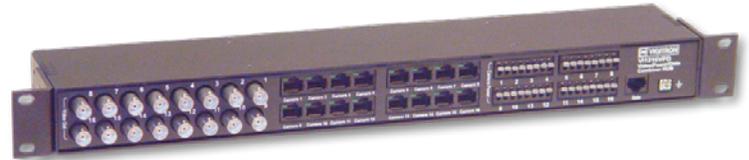


## 16-Channel UTP Transceiver with VPD Combiner

### Features

- Combines video, power, and data into a single RJ-45 4-pair cable for up to 750 ft. (228 m)
- Supports up to 16 cameras
- Built-in passive transceivers with surge protection
- Power present indicator for each camera
- 60 dB cross talk and noise immunity
- 1U high wall or rack mountable
- Individual 1.5 A self-resetting power fuse for each channel
- Can use any third party class II power supply
- 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

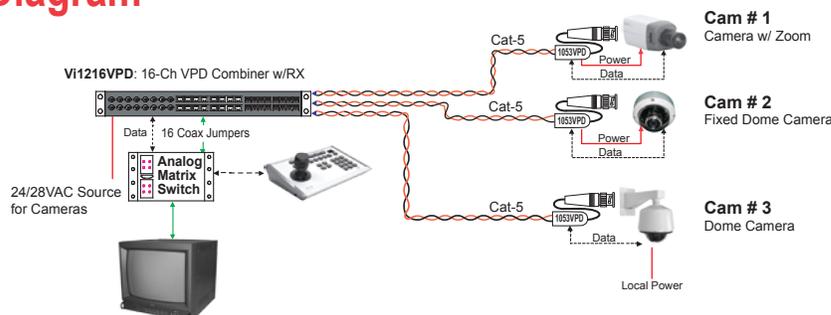
Power Supply Voltage		12 VDC	24 VAC	28 VAC
Voltage at the camera		10.8 VDC	21.6 VAC	21.6 VAC
100 mA Camera	Dual 24 AWG	448 ft. 137 m	896 ft. 273 m	2,388 ft. 728 m
	Dual 23 AWG	564 ft. 172 m	1,130 ft. 345 m	3,010 ft. 918 m
300 mA Camera	Dual 24 AWG	150 ft. 46 m	300 ft. 92 m	796 ft. 243 m
	Dual 23 AWG	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 Vi1216VPD is a passive transceiver device that combines video, PTZ data, and camera power over a single 4-pair UTP cable to simplify CCTV installations in a structured wiring environment. It supports up to 16 cameras for up to 750 ft. (228 m) and is designed to be installed in the control room. The Vi1216VPD receives low-voltage camera power from any third party multi output Class 2 power supply. Each camera power output is equipped with a self-resetting fuse for extra protection.

At the camera end the Vi1053VPD video balun/combiner provides video, power and data on separate outputs. The Vi1216VPD should be installed at the "head-end". The video connections are through 16 BNC connectors and Coax cables to the DVR. The data connections to the DVR are through 4-pair RJ-45 cables. All equipment follows industry-standard EIA/TIA 568B pinouts. The Vi1216VPD is an ideal CCTV component for a structured cabling environment.

### Application Diagram



# Technical Specification\*\*

## Electrical

Video Format	NTSC, PAL, SECAM
Frequency	20 Hz to 6 MHz
Coax	75 Ohm
Twisted Pair	100 Ohms +/- 20%, 24 AWG minimum up to 1,000 ft. (305 m)* unshielded, Category 2-7
CMRR	60 dB
Power Indicator	16 green LEDs, one per channel
Connectors	UTP and data: RJ-45 connector Video outputs: BNC connector Power: Screw-less connectors
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	1.75x17.0x3.0 in., 4.3x43x7.5 cm (HxWxL)
Weight	3.5 lb, 1.6 kg
Material	Aluminum sheet metal

## Included Accessories

- Mounting brackets for front, rear, or wall installations
- Rubber feet for desk applications
- 16 2-ft. (60 cm) coax jumper cables

\*It is recommended not to exceed 750 feet (250 m) when using with digital equipment.  
\*\*Specifications subject to change without notice.

## Ordering Information

PART No.	Description
Vi1216VPD	16-Ch VPD Combiner/w Receiver
Vi1204VPD	4-Ch VPD Combiner/w Receiver

## System Configuration

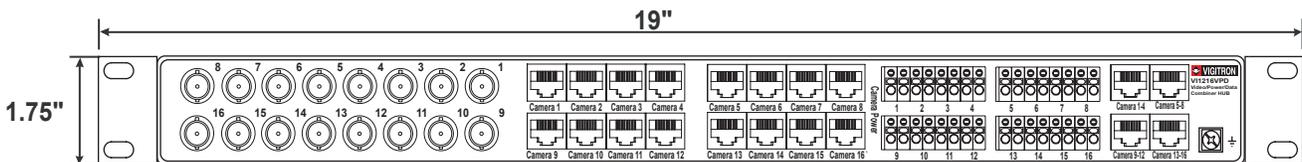


### Camera Connections:

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

### Control Room Data Connections:

Pin#	Camera 1-4	Camera 5-8	Camera 9-12	Camera 13-16
1	Data-1 +	Data-5 +	Data-9 +	Data-13+
2	Data-1 -	Data-5 -	Data-9 -	Data-13-
3	Data-2 +	Data-6 +	Data-10+	Data-14+
4	Data-2 -	Data-6 -	Data-10-	Data-14-
5	Data-3 +	Data-7 +	Data-11+	Data-15+
6	Data-3 -	Data-7 -	Data-11-	Data-15-
7	Data-4 +	Data-8 +	Data-12+	Data-16+
8	Data-4 -	Data-8 -	Data-12-	Data-16-



## 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 297 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. For more specific information regarding wire types and proper installation techniques, please contact Vigitron for technical assistance.



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