Vi1516VPD

16-Channel Powered VPD Combiner with UTP Receiver

Features

- Supports up to 16 cameras by providing video, class II power and data on a single Category-5 cable per camera for up to 750 ft. (228 m)
- Built-in passive transceivers with surge protection
- 16 isolated camera power individually selectable 24 or 28 VAC at 1 A max per channel, 12 A aggregated
- A glass fuse per channel, accessible from front panel
- Use with the Vi1053VPD transceiver at the camera
- Power present and fault indicator LEDs for each camera
- 60 dB cross talk and noise suppression on video signals
- 1U high wall or rack mountable
- Designed for structured wiring applications
- Limited lifetime warranty

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

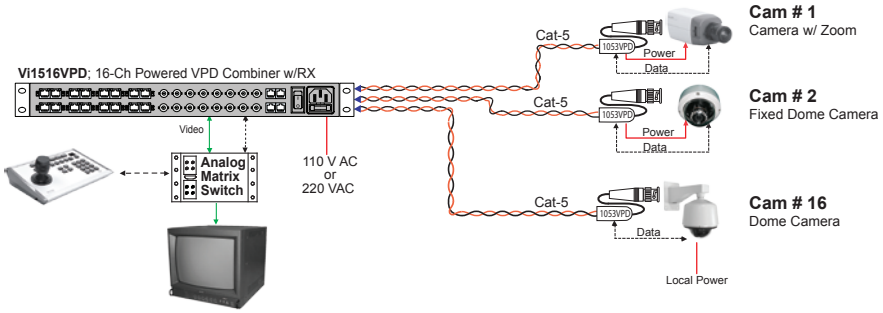
Applications

- Security and surveillance
- Department store and casino security
- Schools, hospitals, airports
- Structured wiring applications

The Vi1516VPD is a passive transceiver device that also 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 at the control room. The Vi1516VPD has a built-in 16-channel fully isolated class II 28/24 VAC power supply. Each camera power output is equipped with a 2 A glass fuse accessible from front panel for extra protection.

At the camera end the Vi1053VPD video balun/combiner provides video, power and data on separate outputs. The video connections are through 16 BNC connectors and to the DVR or matrix switches. The data connections to the DVR are through 4-pair RJ-45 cables. There is a separate data connection for each camera. All equipment follows industry-standard EIA/TIA 568B pinouts. The Vi1516VPD is an ideal CCTV component for structured cabling environments.

Application Diagram



Technical Specification

Electrical

Input Voltage	110 VAC or 220 VAC, externally switch selectable
Input Current	4.8 A (110 VAC) / 2.4 A (220 VAC)
Camera Power	Voltage: Isolated class II, 24 VAC, off, 28 VAC Rear panel switch selectable Current: 1 A maximum per camera, 12 A maximum aggregated Total power: 340 VA
Fault Protection	2 A glass fuse (front access) per camera
Video Format	NTSC, PAL, SECAM
Frequency	20 Hz to 10 MHz
CMRR	60 dB
Twisted Pair (UTP)	100 Ohms +/- 20%, 24 AWG minimum, Category 2-7
Diagnostics LEDs	No load or shut down: 16 red LEDs, one per channel Power present: 16 green LEDs, one per channel
Connectors	Camera connection: RJ-45 connector Data: RJ-45 connector Control room video: BNC
Transient Immunity	per ANSI 587 C62.41

Environmental

Humidity	0 to 95%, non-condensing
Temperature	Operating: -20°C to +50°C Storage: -30°C to +70°C
Minimum Airflow	5 cft./min
Heat	1300 BTU/hour

Mechanical

Dimensions	1.75x17x12 in., 4.3x43x30.5 cm (HxWxL)
Weight	22 lb, 10 kg
Material	Steel 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
Moulded IEC 7-ft. (200 cm) power cord

*Specifications subject to change without notice.

Ordering Information

PART No.	Description
Vi1508VPD	8-Ch Powered VPD Combiner-Receiver
Vi1516VPD	16-Ch Powered VPD Combiner-Receiver

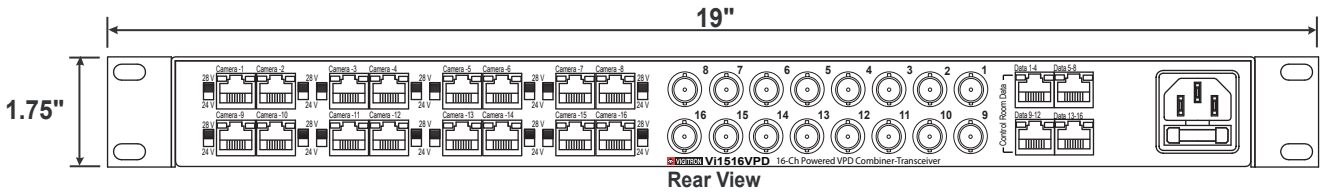
System Configuration

Camera Connections:

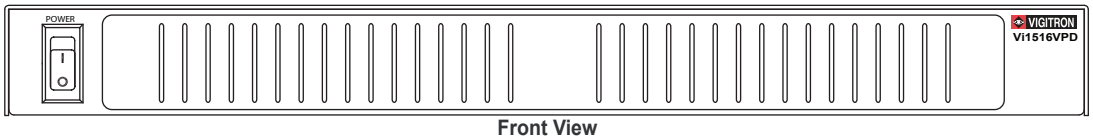
Pin#	VPD
1	Video +
2	Video –
3	Data +
4	Power –
5	Power +
6	Data –
7	Power +
8	Power –

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-3 -	Data-7 -	Data-11 -	Data-15 -
5	Data-3 +	Data-7 +	Data-11+	Data-15+
6	Data-2 -	Data-6 -	Data-10-	Data-14 -
7	Data-4 +	Data-8 +	Data-12+	Data-16 +
8	Data-4 -	Data-8 -	Data-12 -	Data-16 -



Rear View



Front View

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.

VIGITRON
TEL (+1) 858 - 484 - 5209 • FAX (+1) 858 - 484 - 1205
13906 Sparren Ave. San Diego, CA 92129, USA • info@vigitron.com • www.vigitron.com