Vi1053VPD

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)
- NTSC, PAL and SECAM video format
- · Built-in passive transceiver with surge protection
- 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

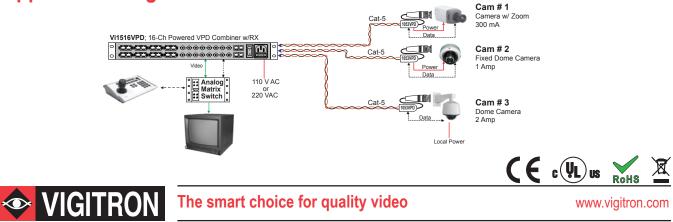
Cat-5 : 24 AWG, Cat-6 : 23 AWG

The Vi1053VPD is a passive device that transports a single channel of video, RS-422/RS-485 data, and camera power over 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 any Vi1200VPD or Vi1500VPD series for shorter distances and any Vi1300VPD or Vi1400VPD series for longer distances.

The Category 5 cable connects to a compact module/balun via RJ-45. The module has a set of break-out cables; one pair each for power and data and a coax cable with BNC for video. For longer distance runs, it can be used with Vigitron Multi-Channel VPD Combiners and Active UTP Receivers to centralize power and extend video up to 3,000 ft. (915 m).

The Vi1053VPD has built-in surge suppression to protect video equipment against damaging voltage spikes. Its exceptional noise immunity ensures quality video signals. The Vi1053VPD is an ideal CCTV component for a structured cabling environment.

Application Diagram



Technical Specification*

Electrical

Video Format	NTSC, PAL, SECAM	
Frequency	DC to 10 MHz	
Coax	75 Ohm	
Twisted Pair	100 Ohms +/- 20%, 24 AWG minimum	
	up to 3,000 ft. (930 m) unshielded	
	Category 2-7	
CMRR	60 dB	
Insertion Loss	0.3 dB	
Input Voltage	30 -16 VAC/DC, Class II SELV	
Output Voltage	12 VDC, regulated, 30 mV ripple maximum	
Output Power	600 mA maximum	
Connectors	UTP: RJ-45	
	Video: Male BNC	
	Power: 9 in. twisted pair	
Transient Immunity	ANSI / IEEE 587 C62.41	

Environmental

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

Mechanical

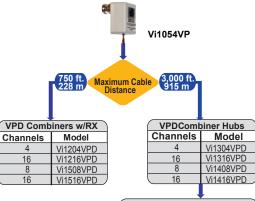
Dimensions	1.5x1.25x0.8 in., 3.8x7.1x2 cm (HxWxL)
Weight	0.06 lb (25 g)
Material	Grey ABS plastic, UL rating of 94V-0

*Specifications subject to change without notice.

Ordering Information

PART No.	Description
Vi1054VP	12 VDC Video-Power Combiner

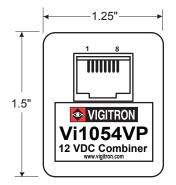
System Configuration

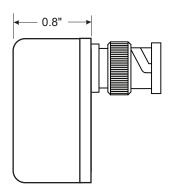


Active Receivers			
Channels	Model		
1	Vi6100VR/Vi6200VR		
4	Vi6104/Vi6204		
8	Vi6108/Vi6208/Vi6308		
16	Vi6116/Vi6216/Vi6316		
32	Vi6132/Vi6232/Vi6332		
2,000 feet (610 m) for Vi6200 series			

Camera 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.



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