# 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.<br>137 m | 896 ft.<br>273 m   | 2,388 ft.<br>728 m |
|                       | Dual 23 AWG | 564 ft.<br>172 m | 1,130 ft.<br>345 m | 3,010 ft.<br>918 m |
| 300 mA Camera         | Dual 24 AWG | 150 ft.<br>46 m  | 300 ft.<br>92 m    | 796 ft.<br>243 m   |
|                       | Dual 23 AWG | 190 ft.<br>58 m  | 378 ft.<br>115 m   | 1,004 ft.<br>306 m |
| 1 Amp Camera          | Dual 24 AWG | 46 ft.<br>14 m   | 90 ft.<br>28 m     | 240 ft.<br>73 m    |
|                       | Dual 23 AWG | 58 ft.<br>18 m   | 114 ft.<br>35 m    | 300 ft.<br>92 m    |

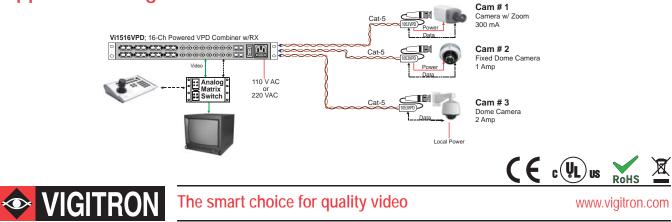
Cat-5 : 24 AWG, Cat-6 : 23 AWG

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 the Vi1200VPD or Vi1500VPD series for shorter distances and with 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 Frequency Coax Twisted Pair

CMRR Insertion Loss Connectors

NTSC, PAL, SECAM DC to 10 MHz 75 Ohm 100 Ohms +/- 20%, 24 AWG minimum Category 2-7 60 dB 0.3 dB UTP: RJ-45 Video: 9 in. coax with male BNC Power: 9 in. twisted pair Data: 9 in. twisted pair Transient Immunity per 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

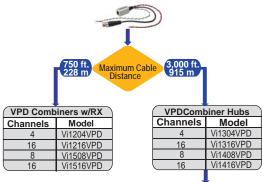
| Dimensions | 2.3x0.72x0.7 in., 5.8x1.8x1.77 cm (HxWxL) |
|------------|---|
| Weight     | 0.05 lb (022 g)                           |
| Material   | Bone ABS plastic, UL rating of 94V-0      |

\*Specifications subject to change without notice.

#### **Ordering Information**

PART No. Description Vi1053VPD **UTP Transceiver with VPD 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 ft. (610 m) for Vi6200 series |                      |  |  |  |

**Power Connection:** Power -Black Power + Red

**Data Connection:** Data -Black Data + White



9.00" 2.30" 0.72" 7111111 Vi1053VPD 0.70" Combiner Balun

# 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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