Twisted Pair Video Transmission Solutions

Simplifying your CCTV installations

VIGITRON

UTP INNOVATIONS™

Introduction:

Since 1997, Vigitron has specialized in the design and manufacture of twisted pair video solutions. We are proud to have supplied video transmission solutions that have made thousands of CCTV installations easier and simpler to install, saving labour time and money.
Our products are made under a stringent quality manufacturing process which means we are able to supply our partners reliable and quality products that are backed by our lifetime warranty.
We are here to help you achieve reductions in the cost of installing CCTV systems by using our products.
Call Vigitron and join the revolution in CCTV installations.

Benefits of Using Unshielded Twisted Pair Cables (UTP)

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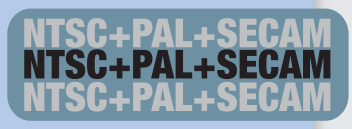
- UTP cables are much easier to run typically saving 25% of installation time, thus reducing cost of labour
- Superior rejection of noise and cross-talk, unlike Coax
- Significantly larger transmission distances capable of 6,000 feet (1,830 m), over 6 times further than Coax
- UTP comes in multiple pair cables, which means that 25, 50 or 100 signals can be transmitted on the same cable and will take up less than an inch of the containment.
- Installing Cat5 "future proofs" the installation. Easily upgrade to IP video technology when it is more practical and cost effective
- A single Cat5 can provide video, power, and data for most CCTV applications

Feature	Vigitron Advantage	Benefit to you	
Noise & Cross-talk Immunity	All Vigitron products have been designed with exceptional noise rejection and immunity to cross-talk.	Your video quality is guaranteed to be clear and clean, even in an electrically noisy environment.	
Uniquely Compatible with all Video Standards	The only UTP line uniquely designed for all worldwide video standards.	Full PAL bandwidth capability provides excllent image quality for PAL systems, while extended bandwidth offers the best NTSC video quality.	
Ground Loop Isolation	All active systems have ground loop isolation designed in.	Eliminates "Humbars" providing clearer and cleaner video.	
Support "Up-the-Coax" Signaling	Our passive transceivers pass through "Up-the-Coax" signaling.	You can easily control PTZ cameras as if they were Coax based.	
Surge & Lightning Protection	Most products uniquely provide both types of surge protection; Line-to-Line suppression and Line-to-Ground suppression.	Your CCTV system is protected against damaging voltage surges and lightning strikes, giving you peace of mind.	
Easy Installation, Simple Adjustment	All adjustable, long range receivers have one simple adjustment, rather than complicated dip switches or dual adjustments.	Making it quicker and easier to set up.	
Compact Design	We offer the smallest video baluns in the world which allows direct mounting on the cameras in the tightest places.	Direct mounting on the camera prevents extra loss due to using jump cables. It is also makes the installation quicker and easier	
Lifetime Warranty	All products are warranted as long as the original end user owns them(see warranty statement).	The customer has greater peace of mind that the products will be replaced free of charge.	

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Video Solutions

Short Range Products (750 Ft./228m)

Model	Ch.	Surge Protection
VB1001F VB1001M	1	No
Vi1003M	1	Differential*
Vi1001F Vi1001M	1	Differential & Common*
Vi1001P	1	Differential*
Vi1004	4	Differential & Common*
Vi1008	8	Differential & Common*
Vi1016	16	Differential & Common*
Vi1032	32	Differential & Common*

Compact Passive Transceiver Baluns for simple installations or shorter cable runs, available as single or multi-channel models

- NTSC, PAL, and SECAM compatible
- Supports "Up-the-Coax" PTZ signals
- Compatible with cameras with integrated UTP transmitters
- No power required
- 60 dB cross-talk and noise immunity
- Low Insertion Loss
- Compact size
- Lifetime warranty

Passive-to-Passive connection can run up to 1,000 feet (305 m) with analogue equipment (monitors & simple switchers), but must be limited to 750 feet (228m) when connecting to digital destinations such as DVRs.

Long Range Products (6,000 Ft./1,830m)

Model	Ch.	Function
Vi6100VT Vi6100VR	1 1	Video Transmitter Video Receiver
Vi6100DT Vi6100DR	1 1	Video & Data Trans. Video & Data Rec.
Vi6104	4	Video Receiver Hub
Vi6108	8	Video Receiver Hub
Vi6116	16	Video Receiver Hub
Vi6132	32	Video Receiver Hub

Active transmitters and receivers are powered products for larger installations or longer cable runs, available as single or multi-channel models.

- NTSC, PAL, and SECAM compatible
- Compatible with cameras with integrated UTP transmitters
- Single distance adjustment for each video channel
- 70 dB cross-talk and noise immunity
- Full ground loop immunity
- Common and Differential Surge Protection*
- Video present LEDs on all multi-channel models
- Lifetime warranty

* Note:
Differential Surge Protection: Line-to-Line suppression,
Common Surge Protection: Line-to-Ground suppression.

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Video, Power & Data Solutions

Short Range Products (750 Ft./228m)

Model	Ch.	Function
Vi1053VPD	1	VPD Combiner with Video Transceiver
Vi1204VPD	4	VPD Combiner with Video Transceiver
Vi1216VPD	16	VPD Combiner with Video Transceiver
Vi1508VPD	8	VPD Combiner with Video Transceiver & AC Power Supply
Vi1516VPD	16	VPD Combiner with Video Transceiver & AC Power Supply

Use Cat5 & RJ45 connectors to carry video, power, and PTZ data. Perfect for simplifying short range installations by centralizing power & reducing installation labour costs.

- VPD transceivers integrate and transport video, power, and data over a single RJ45 4-pair cable for up to 750 feet (228m).
- Used at the control room.
- Built-in passive transceivers with surge protection.
- Power indicator for each camera.
- 60 dB cross-talk and noise immunity.
- High-density, 1U rack-mountable.
- Individual self-resetting or glass power fuse for each channel.
- Models with or without built-in Class-2 power supply.
- Designed for structured wiring applications.
- Lifetime warranty.

Long Range Products (6,000 Ft./1,830m)

Model	Ch.	Function
Vi1304VPD	4	Video/Power/Data Combiner
Vi1316VPD	16	Video/Power/Data Combiner
Vi1408VPD	8	Video/Power/Data Combiner with AC Power Supply
Vi1416VPD	16	Video/Power/Data Combiner with AC Power Supply

They are designed to be installed for long range VPD applications.
They need to be installed midway between the cameras and control room.

- Combiners integrate video, power, and data into a single RJ45 4-pair cable.
- Used midway between camera and the control room
- Power indicator LEDs for each camera.
- Individual self-resetting or glass power fuse for each channel.
- High-density, 1U rack-mountable.
- Models with or without built-in Class-2 power supply.
- Designed for structured wiring applications.
- Lifetime warranty.

Wire Requirements

The wire must be point to point, Unshielded Twisted Pair (UTP) wire, Category 2 or better, 24 AWG or larger diameter, without connection to additional protection devices (i.e., MOVs) or a telephone switching system. Do not run high voltage power in the same conduit.

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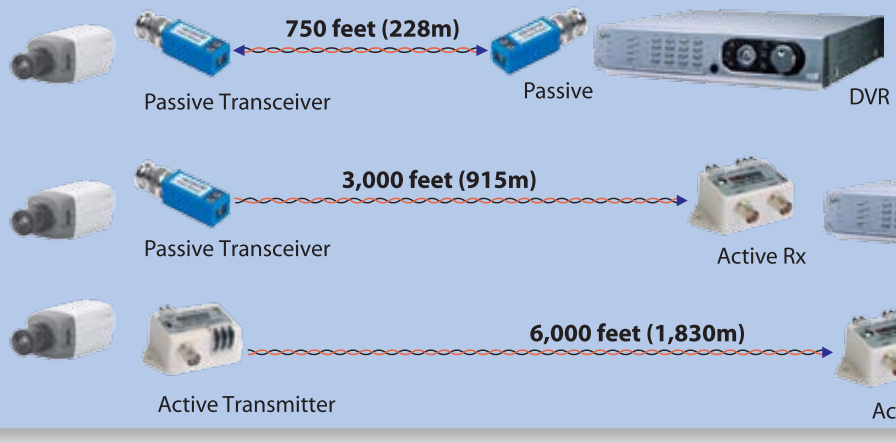
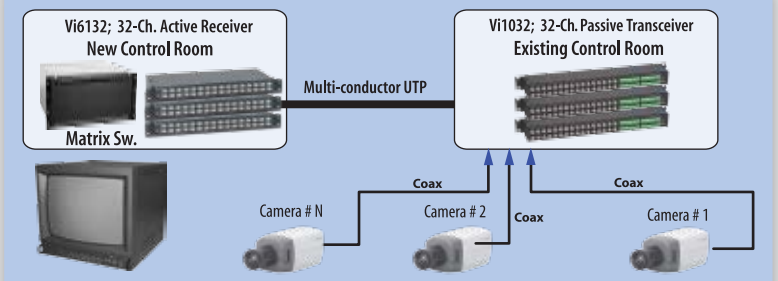
Application Diagrams

Basic Distance Configurations



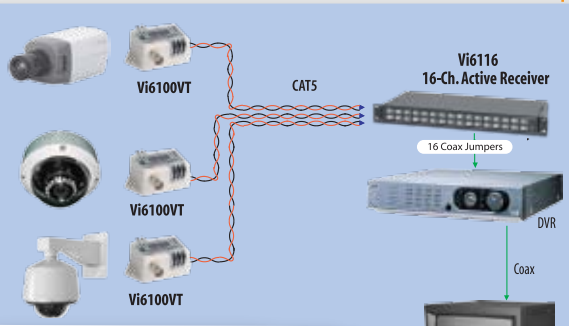
- Passive-to-Passive connections can run up to 750 feet (228m).
- Passive-to-Active solutions can run 3,000 feet (915m).
- Active-to-Active can run 6000 feet (1,830m).

Control Room Relocation



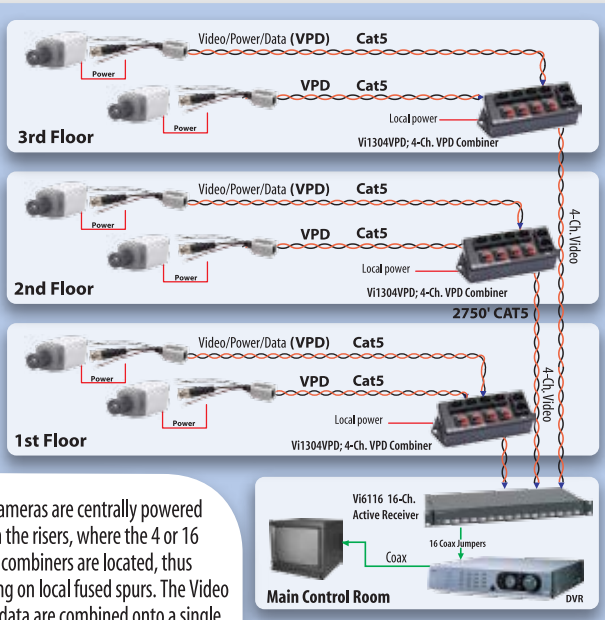
Use passive hubs in the existing control room and active hubs in the new location. Video can be sent over 3,000 feet (915m) with video equalization and ground loop isolation in the new location. This saves installing huge bundles of coax and expensive line drivers. All video signals travel across a small multipair cable.

Active Transmitter-Receiver



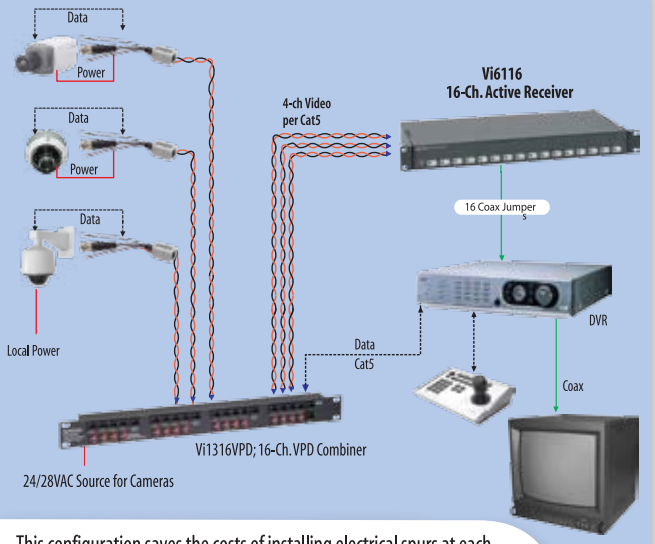
Using the active transmitter you can send quality video up to 6,000 feet (1,830m) on a single cable, into an active receiver. Much further than coax and much lower cost than using fiber.

Multi-Floor Building VPD System



All cameras are centrally powered from the risers, where the 4 or 16 way combiners are located, thus saving on local fused spurs. The Video and data are combined onto a single cable and run back to the control room, thus reducing cabling by 50%.

Long Distance VPD System



This configuration saves the costs of installing electrical spurs at each camera. Cameras are powered centrally through the combiner unit, with the video and data going back to the control room on a single multipair cable. Typically saving over 25% on electrical wiring costs. Total Distances up to 3,000 feet (915m) can be achieved using this method.

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Vigitron Product Selector

Video Solutions up to 6,000 ft. (1,830m)

Passive Transceivers

W/o Surge Prot.	W/ Surge Prot.
VB1001F	Vi1001F
VB1001M	Vi1001M
	Vi1001P
	Vi1003M

Active Transmitter

Vi6100VT

6,000 ft. (1,830m)

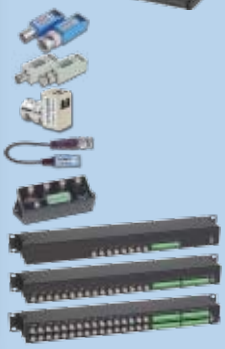
750 ft. (228m) — Maximum Cable Distance — 3,000 ft. (915m)

Active Receivers

Ch.	Model
1	Vi6100VR
4	Vi6104
8	Vi6108
16	Vi6116
32	Vi6132

Passive Transceivers

Ch.	Model
1	VB1001F/VB1001M
	Vi1001F/Vi1001M
	Vi1003M
	Vi1001P
4	Vi1004
8	Vi1008
16	Vi1016
32	Vi1032



Video/Power/Data Solutions up to 3,000 ft. (915m)

Vi1053VPD

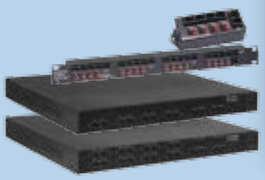
750 ft. (228m) — Maximum Cable Distance (Video) — 3,000 ft. (915m)

VPD Transceivers

Ch.	Model
1	Vi1053VPD
4	Vi1204VPD
16	Vi1216VPD
8	Vi1508VPD
16	Vi1516VPD

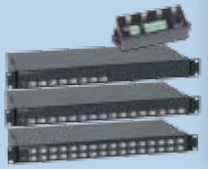
VPD Combiner/Hubs

Ch.	Model
4	Vi1304VPD
16	Vi1316VPD
8	Vi1408VPD
16	Vi1416VPD



Active Receivers

Ch.	Model
4	Vi6104
8	Vi6108
16	Vi6116
32	Vi6132



The Smart Choice for Quality Video™

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