

## Model TT4816PVTURBOTX

### Features

Single Channel HD Video & Power Transmitter & Receiver (Convert 36VDC to regulated 12VDC)

- Real-time transmission over UTP cat5e/6
- NTSC, PAL & SECAM video format compatible
- Compatible with all HD-TVI, HD-CVI, AHD & CVBS analog cameras
- Color video max up to 440m(1443ft) for HD-CVI 720P camera  
If you adjust saturation of DVR, max up to 470m(1541ft)  
Color video max up to 230m(754ft) for HD-CVI 1080P camera
- Color video max up to 190m(623ft) for HIKVISION TVI 720P camera  
Color video max up to 190m(623ft) for HIKVISION TVI 1080P camera
- Color video max up to 210m(688ft) for TVT HD-TVI 720P camera  
Color video max up to 230m(754ft) for TVT HD-TVI 1080P camera
- Color video max up to 320m(1049ft) for AHD 720P camera  
Color video max up to 320m(1049ft) for AHD 960P camera  
Color video max up to 250m(820ft) for AHD 1080P camera
- Color video max up to 400m(1312ft) for CVBS camera
- Power max up to 305m(1000ft) for 12VDC cameras over 3pairs of UTP cat 5e6
- Male BNC with extended 5.9inch(150mm)mini-coax pigtail
- RJ45 Jack for UTP cable
- Built-in TVS (Transient Voltage Suppressor) for surge protection
- Wave Filter Design, Anti-Static Design
- Lightning protection design Grade: III
- 60 dB crosstalk and noise immunity
- Exceptional interference rejection
- ABS engineering plastic housing



## Overview

The TT4816PVTURBO is video & power transmitter and receiver that allows the transmission of real-time CCTV HD video and power signal via cost-effective unshielded Twisted Paired (UTP) cable. Baseband (composite) signals of any type are supported.

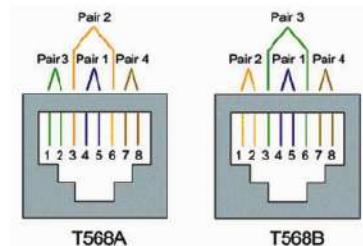
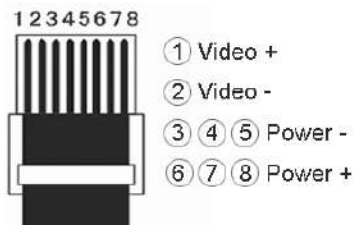
The TT4816PVTURBO is compatible with all HD-TVI, HD-CVI, AHD & CVBS analog cameras. The TT4816PVTURBO is able to convert 36VDC into regulated 12VDC which allows power transmission max up to 305m(1000ft). Used in pairs, TT4816PVTURBO eliminates costly and bulky coaxial cable.

The superior interference rejection and low emissions of the TT4816PVTURBO allow video & power signals to coexist in the same wire bundle as telephone, datacom, or low-voltage power circuits. This allows the use of a shared or existing cable plant. The TT4816PVTURBO is built-in surge suppressor to protect video equipment against damaging voltage spikes. Its crosstalk and noise immunity ensure quality video signals.

## Wire and Cable Recommendations

The TT4816PVTURBO is recommended to use with Unshielded Twisted Paired (UTP) wiring from 24AWG through 22AWG. Individually shielded pairs should be avoided, as they reduce the operating range of the systems drastically. Multi-pair cable (25-pair or more) with an overall shield are acceptable. Video signals can coexist in the same wire bundle as telephone, datacom, or low-voltage power circuits. While video may be routed through telephone punch-down block terminals, any bridge-taps, also called T-taps and any resistive, capacitive or inductive devices **MUST BE** removed from the pair.

For more specific information regarding wire types, gauges and proper installation techniques, please contact us for technical assistance.



## EIA/TIA-568A Wiring Specifications

Wire	Pin #	Configuration
Green White	1	Video (+)
Green	2	Video (-)
Orange White	3	Power (-)
Blue	4	Power (-)
Blue White	5	Power (-)
Orange	6	Power (+)
Brown White	7	Power (+)
Brown	8	Power (+)

## EIA/TIA T-568B Wiring Specifications

Wire	Pin #	Configuration
Orange White	1	Video (+)
Orange	2	Video (-)
Green White	3	Power (-)
Blue	4	Power (-)
Blue White	5	Power (-)
Green	6	Power (+)
Brown White	7	Power (+)
Brown	8	Power (+)

### Note:

1. The transmitter and receiver must use the same wiring.
2. If you adjust saturation of DVR, video transmission distance could be farther. (HD-CVI 720P: max up to 470m(1541ft))
3. If chromatic aberration occurs, please also adjust saturation, the picture will recover perfectly automatically.
4. The above data is only the result of laboratory test; actual distance will depend on the camera's inrush and operating current, minimum operating voltage, the wire's quality and environmental factors.



## Applications

- Security Monitoring System
- Multimedia Network Teaching System
- Medical Monitoring Display System
- Industrial Automation Control System
- Banking, securities, financial information display system
- Remote Network Server Monitoring
- Department Store Security
- Casino Security
- Hospitals, Airports and banks
- School Campuses

## Technical Specifications

Model		TT4816PVTURBOTX		
Product Name		Single Channel HD Video & Power Transmitter & Receiver		
Applied Devices		CCTV cameras, monitors, DVR, switchers, IP encoders, and other CCTV equipment		
Video	Video Format	PAL, NTSC, SECAM		
	Operating Frequency	DC to 42MHz		
	Max Distance	HD-TVI 720P: 190m	HD-CVI 720P: 440m	AHD 720P: 320m
		HD-TVI 1080P: 190m	HD-CVI 1080P: 230m	AHD 960P: 320m AHD 1080P: 250m
	Common-mode/Differential-mode rejection	15KHz to 42MHz	60 dB typ	
	Impedance	Coax, Male BNC 75Ω unbalanced	UTP, RJ45	100Ω balanced
	Attenuation	1.5 dB typ Max		

# HD Video & Power Balun

Wire Type	Network Wiring	One Unshielded Twisted Pair (for each video signal) 24-16 AWG (0.5-1.31mm)
	Category Type	2 or better
	Impedance	100 ± 20 ohms
	DC Loop Resistance	52 ohms per 1,000ft (18 ohms per 100m)
	Differential Capacitance	19 pF/ft max (62 pF/m max)
Power	Power Input	No external power required
	Power Transmission	Power distance max up to 305m(1000ft) over 3pairs of UTP cat 5e6
Connector	Video Input/Output	Male BNC connector
	Video Input/Output	RJ45 Jack
Protection	Surge Protection	renewable solid state surge protection
	Video Input	2KV(common mode), 10/700us IEC6100-4-5/1955(GB/T 1726, 5-1999)
	Video Output	2KV(different mode), 10/700us IEC6100-4-5/1955(GB/T 1726, 5-1999)
Mechanical	Housing	ABS engineering plastic
	Body Color	Black
	Dimensions(L*W*H)	60.4*29*20.4mm (BNC connector & cable excluded)
	Net Weight	60g
Environmental	Operating Temperature	-20° ~ 70° C
	Relative Humidity	0~95% (non-condensing)
	Storage Temperature	-40° ~ 150° C

## Application Diagram

