



speco technologies[®]

Twisted Pair Passive

User Manual

Model : TVIUTPPTP

HD-TVI Video & Power Balun with Pigtail
(Transmitter and Receiver)



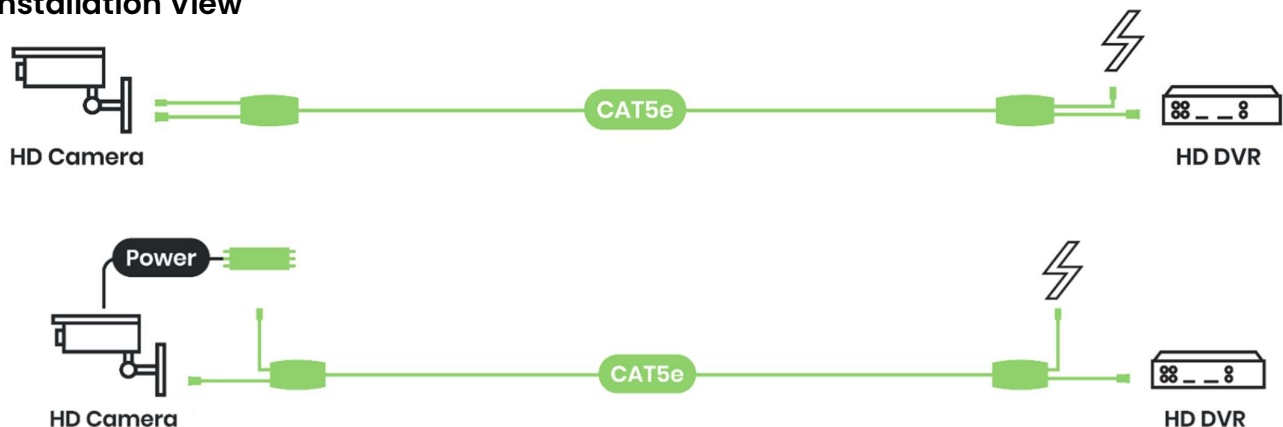
Introduction

TVIUTPPTP are video balun that can use a single cost-effective Ethernet cable to extend HD-TVI/ AHD/ HDCVI/ CVBS signal and power, with HD-TVI transmission distance of up to 656' (200M)@5MP. The equipped power plug can also provide power from a local power supply to a remote CCTV camera and the pigtail design allows you to have an easier, faster connection experience. Also, the balun has built-in ESD, EFT, and surge protection components, allowing the unit to have a longer lifespan.

Features

- Resolution up to 5MP HD-TVI
- Video transmission distance up to 820' (250M) and power transmission distance up to 328' (100M) over CAT5e (or greater) cable.
- Built with DC jack for power transmission.
- Male BNC to RJ45 connector with pigtail design.
- Built-in ESD, EFT (impulse noise) and transient protection.

Installation View



- We recommend using our 12VDC PSW5 power supply (sold separately) for most cameras. (Please check your camera specs). If you are using DC24V as your remote power source, please use our VID24I2CONV power converter (AC to DC for regulated DC12V) at camera side to send regulated DC12V for camera use.

Transmission Distance

Video ONLY Transmission Distance

HD-TVI	AHD	HDCVI	CVBS
1080P 820' (250M)	1080P 820' (250M)	1080P 984' (300M)	1312' (400M)
5MP 656' (200M)	4MP 656' (200M)	4K 656' (200M)	

The distance may be affected by the quality of cable, camera, or recorder. This installation should be made by a qualified technician and should conform to all local codes.

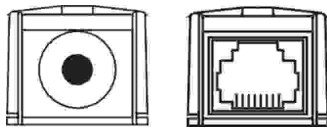
Power Transmission Distance

Voltage Drop According to Cable Length (24AWG)

Voltage	DC12V		
Distance	164' 50M	328' 100M	984' 300M
Camera Power Consumption	2 PAIRS	2PAIR	2 PAIR
50mA	11.8	11.5	10.8
100mA	11.5	10.9	9.6
150mA	11.2	10.4	8.4
200mA	11	9.9	7.2
250mA	10.7	9.4	5.9
300mA	10.4	8.9	4.7
350mA	10.2	8.4	3.5
400mA	9.9	7.9	2.3
450mA	9.6	7.5	1.1
500mA	9.3	7	1.2
1A	6.8	2.7	X
1.5A	4.1	X	X

Voltage	DC24V		
Distance	164' 50M	328' 100M	984' 300M
Camera Power Consumption	2 PAIR	2 PAIR	2 PAIR
50mA	23.6	23.3	22.8
100mA	23.3	22.7	21.6
150mA	23	22.3	20.4
200mA	22.8	21.8	19.1
250mA	22.5	21.3	17.9
300mA	22.2	20.8	16.7
350mA	21.9	20.3	15.5
400mA	21.7	19.8	14.2
450mA	21.4	19.4	13
500mA	21.1	18.9	11.8
1Amp	18.7	14.7	0.8
1.5Amp	16.1	10	X

Panel View



Front

Rear

RJ-45 Jack Pin Definition

RJ45 Jack		
PIN	Color	Function
1	W-O	X
2	O	X
3	W-G	Power -
4	BL	Power +
5	W-BL	Power -
6	G	Power +
7	W-BR	Video +
8	BR	Video -

Recommend Cable

Use high quality CAT5e UTP or CAT6 UTP cable. The max operating distance is 984' (300M) for AHD/CVI cameras, & HD-TVI maximum distance is 820' (250M). Distance may be affected by the quality of cable, camera, or recorder.

Caution

1. The cabling must be kept away from any equipment with electromagnetic wave, i.e.: microwave, mobile phone, radio equipment, high voltage power cable, etc..
2. For Remote Power by DC24V please use our model no: VID24I2CONV power converter (AC to DC for regulated DC12V) at camera side to send regulated DC12V for camera use.

Specifications

ITEM NO.	Transmitter	Receiver
Support		
HD-TVI Max. Video Resolution	5MP	
HD-TVI Max. Transmission Distance	HD-TVI up to 820' (250M)@2MP. See chart above for power transmission.	
Signal Bandwidth	50Hz to 60MHz (-3dB)	
Ports & Interfaces		
Video Input/ Output	1 x BNC (1 Vp-p, 75 Ohm)	
Link Interface	1 x RJ45 (100 Ohm)	
Power Interface	1 x DC Plug (ø2.1 x 5.5mm)	1 x DC Jack
Protection		
ESD Protection	30kV(Air), 15kV (Contact), IEC 61000-4-2	
EFT Protection	40A(5/50ns), IEC 61000-4-4	
Lightning Protection	2A (8/20µs), IEC 61000-4-5	
Response Time	< 1 ns	
Ambient Temperature		
Operation	32 to 131°F (0 to 55°C)	
Storage	-4 to 185°F (-20 to 85°C)	
Humidity	Up to 95%	
Physical Characteristics		
Dimensions	2 x 1 x 0.8" (52.6 x 25 x 20.7mm) & 4.7" (120mm) pigtail cable	
Weight	0.1 Lbs (45g)	

RoHS 

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We reserve the right to modify product design and specifications without notice and without incurring any obligation.

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