Model: TT101FPTURBOP

Features

Single Channel HD Passive Video Balun

- Real-time transmission over UTP cat5e/6
- No power required
- Compatible with all HD-TVI/CVI/AHD/CVBS analog cameras
- Please refer to “Transmission Distance Chart” Part to find out distance of 720P/960P/1080P/3MP/4MP/5MP/4K cameras
- Male BNC connector
- Built-in solid state TVS (Transient Voltage Suppressor) for surge protection
- Wave Filter Design, Anti-Static Design
- Lightning protection design Grade: lll
- 60 dB crosstalk and noise immunity
- Exceptional interference rejection
- ABS engineering plastic housing



Overview

The TT101FPTURBOP video balun is a passive (non-amplified) device that allows the transmission of real-time CCTV HD video signal via cost-effective Unshielded Twisted Paired (UTP) cable. The TT101FPTURBOP is compatible with all HD-TVI, HD-CVI, AHD and CVBS analog cameras.

Male BNC of the TT101FPTURBOP allows connection directly to the camera and DVR. Push-pin terminal block allows tool-less connection of UTP cable output. Used in pairs, the TT101FPTURBOP eliminates costly and bulky coaxial cable.

The superior interference rejection and low emissions of the TT101FPTURBOP allow video 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 TT101FPTURBOP is built-in surge suppressor to protect video equipment against damaging voltage spikes. Its crosstalk and noise immunity ensure quality video signals.

Transmission Distance Chart

Camera Type	HD-TVI	HD-CVI	HD-AHD
720P camera	250m(820ft)	440m(1443ft)	320m(1049ft)
960P camera	Not tested	Not tested	320m(1049ft)
1080P camera	250m(820ft)	250m(820ft)	250m(820ft)
3MP camera	250m(820ft)	Not tested	250m(820ft)
4MP camera	180m(590ft)	200m(656ft)	200m(656ft)
5MP camera	180m(590ft)	Not tested	180m(590ft)
4K camera	130m(426ft)	200m(656ft)	150m(492ft)
CVBS camera	400m(1312ft)		

Wire and Cable Recommendations

The TT101FPTURBOP 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-voltages 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.

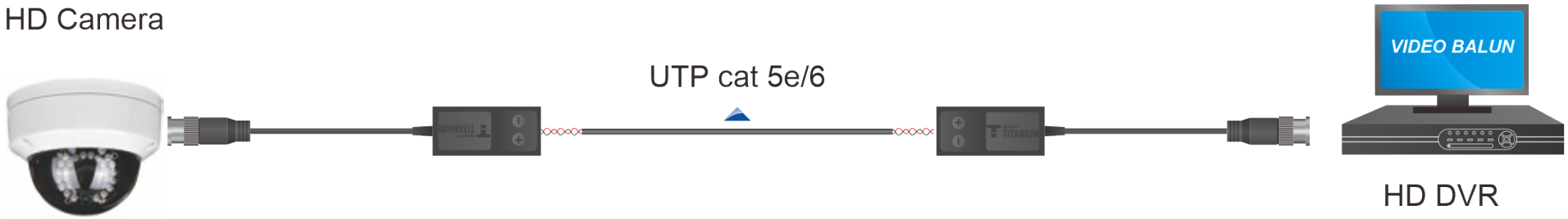
Applications

- 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		TT101FPTURBOP
Product Name		Single Channel HD Passive Video Balun
Applied Devices		CCTV cameras, monitors, DVR, switchers, IP encoders, and other CCTV equipment
Video	Video Format	HD-TVI/CVI/AHD/CVBS
	Operating Frequency	DC to 71MHz
	Common-mode/Differential-mode rejection	15KHz to 71MHz 60 dB typ.
	Impedance	Coax: Male BNC 75Ω unbalanced
		UTP, push-pin terminal block 100Ω balanced
	Attenuation	1.5 dB typ. Max
Wire Type	Network Wiring	One Unshielded Twisted Pair (for each video signal) 24-16 AWG (0.5-1.31mm)
	Category Type	UTP cat 5e/6
	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		No external power required
Connector	Video input/output	Male BNC connector
	Video input/output	Tool-less push-pin terminal block
Protection	Surge Protection	renewable solid state surge protection
	Video Input	2KV(common mode), 10/700us IEC61000-4-5/1955(GB/T 1726, 5-1999)
	Video Output	2KV(differential mode), 10/700us IEC61000-4-5/1955(GB/T 1726, 5-1999)
Mechanical	Housing	ABS engineering plastic
	Body Color	Black
	Dimensions(L*W*H)	35*19.5*21.8mm (BNC connector & cable excluded)
	Net Weight	22g
Environmental	Operating Temperature	-20º ~ 70º C
	Relative Humidity	0~95% (non-condensing)
	Storage Temperature	-40º ~ 150º C

Application Diagram



Note:

1. The actual transmission distance will vary according to the quality of the cable, specific camera, and on-site environment.
2. Please make sure to install transmitter at camera side and receiver at DVR side to achieve the best video quality.
3. If you adjust saturation of DVR, video transmission distance could be farther HD-CVI 720P: max up to 470m(1541ft).
4. If chromatic aberration occurs, please also adjust saturation, the picture will recover perfectly automatically.
5. The device is not waterproof and not to be used at outdoors.