

Passive Video Balun with Power Connector

Model: VPB110TK = VPB110TM + VPB110TF as a Kit

 $\begin{array}{l} VPB110TM \ = \mbox{Male Only} \\ VPB110TF \ = \mbox{Female Only} \end{array}$ 



VPB110TM - Male For Camera Side



VPB110TF - Female For Using Single Power Adaptor

#### **Features:**

• Use an Unshielded Twisted Pair cable (UTP), like CAT5, to transmit full motion camera video sig color up to 1000ft / 300m, and in B/W up to 2000ft / 600m.

• No power required for video balun

• Surge / Lightning Protection

10/700 μs Pulses: 2kV Standard: IEC61000-4-5

• ESD : Electrostatic Discharge Protection

Contact Discharge: 6kV / Air Discharge: 8kV

Standard: IEC61000-4-2

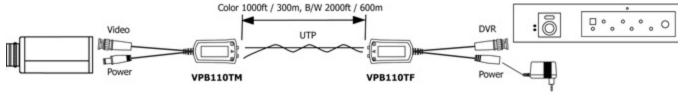
• Wave / Interference Rejection & Noise Filter

Built-in Filter: 0~6HMz with Extra Interference Rejection <60db

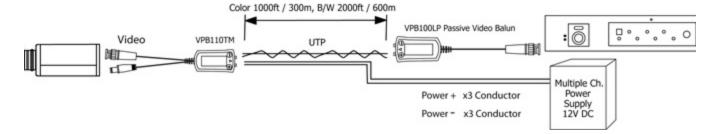
• DC Power Lead: 12V~24V DC

# **Application Diagram:**

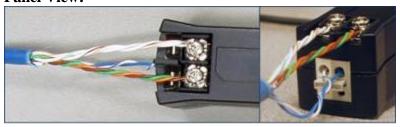
The distance shown is for passive video balun signal only. Refer to the following table for Voltage Drop **VPB110TK** 



VPB110TM



### **Panel View:**



Power + x3 Conductors
Power - x3 Conductors

Video + x1 Conductor
Video - x1 Conductor

CAT5e is 24 Gauge for each Conductor. If you put 3 Conductors together, it will be Similar to 18~20 Gauge. This will be less for the Power Drop.

# Specification:

Model Number		VPB110TK	
Video Input / Output		BNC male cable & DC male/female to RJ45 modular jack	
Surge / Lightning Protections	Video Output Protection	2kV (common mode), 10/700μs IEC61000-4-2	
	Video Input Protection	2kV (different mode), 2kV (common mode) IEC61000-4-2	
	Video Input Protection for Over Current	100mA	
Electrostatic Discharge Protection (ESD)		Contact Discharge: 6kV / Air Discharge: 8kV Standard: IEC61000-4-2	
Wave / Interference Rejection & Noise Filter Protection		Built-in Filter: 0~6HMz with Extra Interference Rejection <60db	
Video Signal		1V p-p, 75 Ohms	
Transmission Distance		Color 1000ft / 300m / B/W 2000ft / 600m	
Cable		UTP / Twisted Pair CAT5 (AWG24)	
DC Power Lead		12V~24V DC	

<sup>\*</sup>Specifications are subject to change without notice.

### **Voltage Drop According to Cable Length (24AWG):**

Transmission Distance	Transmission Voltage (12V DC, 0.5A)	Transmission Voltage (12V DC, 1A)	Transmission Voltage (12V DC, 1.5A)
160ft / 50m	13.5V	15.5V	17.0V
320ft / 100m	15.5V	18.5V	22.0V
500ft / 150m	17.0V	22.0V	27.0V
650ft / 200m	18.5V	25.5V	32.0V



UTP Balun Cabling Systems and Solutions provides an answer for all your cabling needs. Our complete line of baluns allows you to easily extend your current audio/video/data system up to 1200ft and even up to 8000ft, with an active balun.

UTP Baluns are perfectly suited for applications such as these:

CCTV Security Systems – Video Balun, CCTV Balun

CCTV Surveillance Systems – Video Balun, CCTV Balun

CCTV Camera – Video Balun, CCTV Balun

Home Theatre - DVI & HDMI Balun

LCD/CRT Monitors – VGA PC Balun, VGA Extender, and VGA Distributor Televisions – DVI & HDMI

VGA Monitors – CCTV Balun, VGA Balun, VGA PC Balun, VGA Extender, and VGA Distributor

DVD Players – DVI & HDMI Balun

PCs (Personal Computers) – VGA Monitor, Keyboard, & Mouse Long Range CAT5E Extender

Laptops/Notebooks – VGA Monitor, Keyboard, & Mouse Long Range CAT5E Extender

USB and PS/2 Devices – VGA Monitor, Keyboard, & Mouse Long Range CAT5E Extender

UTP (Unshielded Twisted Pair Cable) – Cat5E, Cat6 for Extender Balun BNC (Coaxial Cable) – Video Signal Filter.

How does a balun work?

Baluns are used to convert between "Balanced and Unbalanced" electrical signals.

Baluns work by transforming the original unbalanced (video/power/data/etc.) signal to a balanced frequency used by a different cable, like CAT5 UTP. Not only does this reduce interference, but it also allows you to transmit a signal much longer than the original application would allow. Baluns are always utilized in pairs. One balun is needed to convert the original signal to a new frequency, and another balun is used at the other end to revert to the original frequency.

<sup>&</sup>quot;Passive" Video Baluns do not require power, and can extend a signal up to 2000ft (B/W).

<sup>&</sup>quot;Active" Video Baluns require power, but can extend a signal up to 8000ft (B/W).