

Passive Video Balun with Power Connector

Model: VPB110TK = VPB110TM + VPB110TF as a Kit

VPB110TM = Male Only

VPB110TF = Female Only

Features:

- Uses an Unshielded Twisted Pair cable (UTP), like CAT5, to transmit full motion camera video signal in Color up to 300 m / 1000 ft and in B/W up to 600 m / 2000 ft.
- No power required for video balun.
- Surge / Lightning Protection
10/700 μ s 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: 0~6MHz with Extra Interference
Rejection <60db
- DC Power Lead: 12V~24V DC



VPB110TM - Male
For Camera Side
A-3a

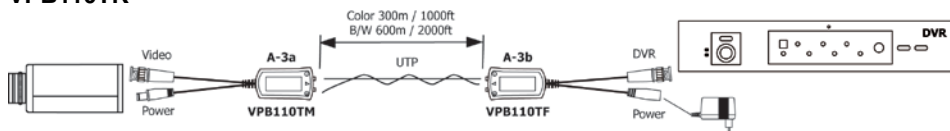


VPB110TF - Female
For Using Single Power Adaptor
A-3b

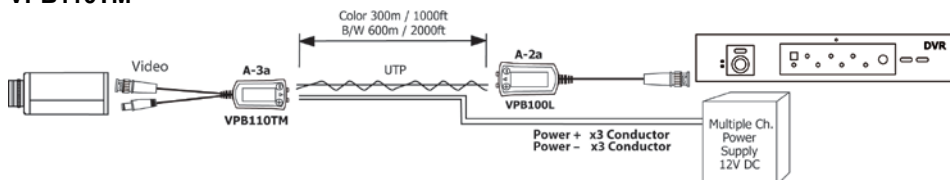
Application Diagram

The distance shown is for video signal only. Refer to back page for Voltage Drop List.

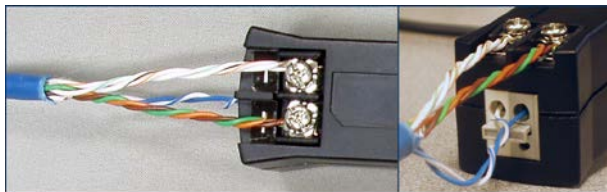
VPB110TK



VPB110TM



Wiring Diagram

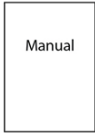
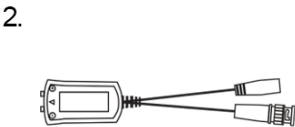
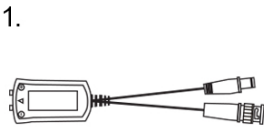


Power +	x3 Conductors
Power -	x3 Conductors
Video +	x1 Conductor
Video -	x1 Conductor

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.

Package Contents

1. One (1) Passive Video Balun with Power Lead – Male Power Connector
2. One (1) Passive Video Balun with Power Lead with – Female Power Connector
3. One (1) User Manual



Caution:

- Do not handle the unit with wet hands.
- The unit is not waterproof and should not be used outdoors.

Specification

Model		VPB110TK - Kit	
		VPB110TM - Male	VPB110TF - Female
Video Input / Output		BNC male cable & DC male/female to RJ45 modular jack	
Surge / Lightning Protections	Video Output Protection	2kV (common mode), 10/700µs Standard: IEC61000-4-2	
	Video Input Protection	2kV (different mode), 2kV (common mode) Standard: 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 300 m / 1000 ft ; B/W 600 m / 2000 ft	
Cable		UTP / Twisted Pair CAT5 (AWG24)	
DC Power Lead		12V~24V DC	
Physical Properties	Dimensions L x W x H	214 x 25 x 24 mm / 8.43 x 0.98 x 0.94 inches	
	Weight	42.5 g / 1.5 oz	42.5 g / 1.5 oz

*Specifications are subject to change without notice

Voltage Drop According to Cable Length (24AWG):

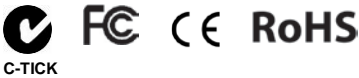
Transmission Distance	Transmission Voltage (12V DC, 0.5A)	Transmission Voltage (12V DC, 1A)	Transmission Voltage (12V DC, 1.5A)
50 m / 160 ft	13.5V	15.5V	17.0V
100 m / 320 ft	15.5V	18.5V	22.0V
150 m / 500 ft	17.0V	22.0V	27.0V
200 m / 650 ft	18.5V	25.5V	32.0V

Limited Warranty

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LIMITED ONE (1) YEAR WARRANTY AND EXCLUSIONS

Manufacturer warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Manufacturer is free of defects in materials and workmanship under normal and proper use for one (1) year from the purchase date. Manufacturer's only obligation is to correct such defects by repair or replacement, at its option, if within such one (1) year period the product is returned prepaid, with proof of purchase date, and a description of the problem. This warrant excludes and there is disclaimed liability for labor for removal of this product or reinstallation. **This warranty is voided if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other implied warranties of any kind, including merchantability and fitness or a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warrant, including merchantability and fitness of or a particular purpose, is limited to one (1) year. Manufacturer is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, loss sales or profits or delay or failure to perform this warranty obligation.** The remedies, provided therein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.



Why Us? Quality

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A. Passive Video Balun Comparison with Our Competitors

OURS

UTP Balun

* Lifetime warranty

A. PCB Placement welding
Fewer welding points
machinery production
High Reliability
Vibration Proof

B. Jumper welding
Many welding points
Easy to be broken by vibration
Complicated production
procedure

YES	Surge / Lightning Protection	NO	NO	NO
YES	ESD Protection	NO	NO	NO
YES	Built-in Filter	YES	YES	NO

Standard for Us

Other Competitors'

Taiwan	China	China
NO	NO	NO
NO	NO	NO
YES	YES	NO

Options for others

Most of our competitors do not have all multiple protections with Lifetime Warranty

We build all our CCTV video baluns through technologies to protect them with:

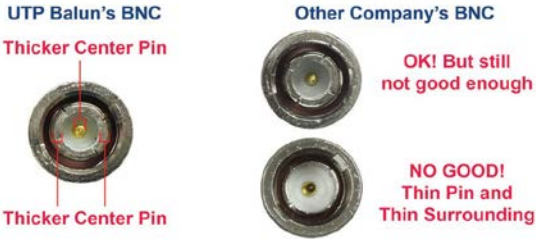
- Surge/Lightning Protection**
10/700 us Pulses: 2KV
Standard E06100-4-5
- ESD: Electrostatic Discharge Protection**
Contact Discharge: Up to 6KV
Air Discharge: Up to 8KV Standard: IE061000-4-2
- Wave/Interference Rejection & Noise Filter**
Built-in Filter: 0~6MHz with Extra Interference
Rejection <60db

B. Even a Small Part Makes a Big Difference!

We care for every small part & we learn from the mistakes we make!

Even a BNC connector can make a BIG difference.
All our BNC connectors have passed the Shaking Test without video loss.

UTP Balun's BNC Connector has a thicker center pin & thicker surrounding. This will avoid video loss while the balun is shaking.



C. On-going Testing for Quality Control

Comparison with other Name Brand

Test Instruments



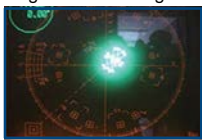
Multiburst Waveform Test



Full Field Color Bar Test:
Waveform



Full Field Color Bar Test:
Signal Phase Diagram



Related Products

Passive Video Filter Balun

VPB100P – Pair

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A-1



BNC Passive Video Transceiver – K1

VPBB-100

A-1b



Passive Video Filter Balun with Pigtail

VPB100LP – Pair

A-2_A-2a



Passive Video Balun with Power Connector

VPB110TK = VPB110TM + VPB110TF as a Kit

A-3_A-3a_A-3b



VPB110TM - Male
For Camera Side
A-3a



VPB110TF - Female
For Using Single Power Adaptor
A-3b

Passive Video/Power Lead Balun – RJ45

VPB110RJ = VPB110RJM + VPB110RJF as a Kit

A-3C_A-3d_A-3e



VPB110RJM - Male
For Camera Side
A-3d



VPB110RJF - Female
For Using Single Power Adaptor
A-3e

Passive Video Balun with Video, Power Connector & Data

VPB111RJ

A-4



Data

Power-F

Power-M

Video

UTP = Unshielded Twisted Pair