

Single Channel HD Passive Video Balun



Overview

The S-PVB-1P-100 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 S-PVB-1P-100 is compatible with all HD-TVI, HD-CVI, AHD and CVBS analog cameras.

The S-PVB-1P-100 has a mini-coax pigtail lead which allows quick mounting onto fixed cameras, allows in-camera mounting in most dome cameras and allows flexible connection with DVR. Push-pin terminal block allows tool-less connection of UTP cable output. Used in pairs, the S-PVB-1P-100 eliminates costly and bulky coaxial cable.

The superior interference rejection and low emissions of the S-PVB-1P-100 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 S-PVB-1P-100 is built-in surge suppressor to protect video equipment against damaging voltage spikes. Its crosstalk and noise immunity ensure quality video signals.

Key Features

- Real-time transmission over UTP cat5e / cat-6
- No power required
- Stackable for neat installation
- Compatible with all HD-TVI/CVI/AHD/CVBS analog cameras
- Color video max up to 190m (623ft) for HD-TVI 720P camera
Color video max up to 190m (623ft) for HD-TVI 1080P camera
Color video max up to 200m (656ft) for HD-TVI 3MPX camera
- 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 230m (754ft) for HD-CVI 4MPX camera
- Color video max up to 320m (1049ft) for HD-AHD 720P camera
Color video max up to 320m (1049ft) for HD-AHD 960P camera
Color video max up to 250m (820ft) for HD-AHD 1080P camera
- Color video max up to 180m (590ft) for HD-AHD 3MPX camera
Color video max up to 200m (656ft) for HD-AHD 4MPX camera
Color video max up to 200m (656ft) for HD-AHD 5MPX camera
- Color video max up to 400m (1312ft) for CVBS camera
- Male BNC with extended 5.9inch (150mm) mini-coax pigtail
- Reliable push-pin terminal block connection for UTP cat5e/6
- Built-in solid state 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



Specification

Specification

S-PVB-1P

Applied Devices CCTV cameras, monitors, DVR, switchers, IP encoders, and other CCTV equipment

Video Format HD-TVI/CVI/AHD/CVBS

Operating Frequency DC to 42MHz

Video

Max Distance	HD-CVI 720P 440m(1443ft)	HD-CVI 1080P 230m(754ft)	HD-CVI 4MPX 230m(754ft)			
	HD-TVI 720P 190m(623ft)	HD-TVI 1080P 190m(623ft)	HD-TVI 3MPX 200m(656ft)			
	HD-AHD 720P 320m(1049ft)	HD-AHD 960P 320m(1049ft)	HD-AHD 1080P 250m(820ft)	HD-AHD 3MPX 180m(590ft)	HD-AHD 4MPX 200m(656ft)	HD-AHD 5MPX 200m(656ft)
Common-mode/Differential-mode rejection			15KHz to 42MHz 60 dB typ			
Impedance	Coax: Male BNC 75Ω unbalanced					
	UTP: push-pin terminal block 100Ω balanced					
Attenuation			1.5 dB typ Max			

WireType

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

Power	No external power required
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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(different mode), 10/700us IEC61000-4-5/1955(GB/T 1726, 5-1999)

Mechanical

Housing	ABS engineering plastic
Body Color	Black

Environmental

Operating Temperature	-10° ~ 60° C
Relative Humidity	0~95% (non-condensing)
Storage Temperature	-40° ~ 70° C

Application Diagram

