

Power Guarantee 12V DC Standard Series



Passive Video Balun & Power Step Down 12V DC Receiver – Camera Side

Model: VBP2412DC Standard Lead 11.4cm
 VBP2412DC-50 Extended Lead 50cm

1-CH Passive Video Balun with Power Guarantee

Model: VBP24DC-01 1-CH

5-CH / 9-CH / 16-CH Passive Video Balun with Power Server

Model: VBP24DC-05 5-CH
 VBP24DC-09 9-CH
 VBP24DC-16 16-CH

Each camera's power is guaranteed to have 12V DC, 500mA up to 1000ft!

No need to worry about power drop for long cable run!

VBP24DC-01 is a passive video balun device capable of transmitting 1 channel of baseband video signal and providing 12 VDC power for 1 channel at the same time using UTP cable. This device is designed to be used with VBP2412DC / VBP2412DC-50 passive video and power guarantee balun. Passive video signal transmission up to 1000ft / 300m and provide the camera with 12V DC @ 300mA maximum. VBP24DC-05, VBP24DC-09, and VBP24DC-16 are passive video balun power hub devices capable of transmitting 5/9/16 channels of baseband video signal and providing 12V DC power for all 5/9/16 channels at the same time using UTP cable. These devices are designed to be used with VBP2412DC / VBP2412DC-50 passive video and power guarantee balun.

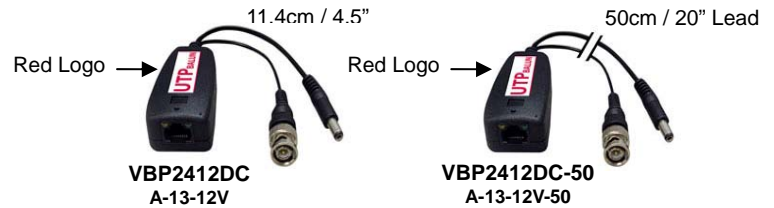
VBP2412DC / VBP2412DC-50 Features – Camera Side:

- Using UTP cable to transmit video signal and deliver power to camera at the same time
- Passive video balun with step down power stabilizer to 12V DC
- Low cost with no additional cabling for power, save time on installation and trouble shooting
- Transmission distance up to 1000ft / 300m
- Support all baseband signal formats including PAL, NTSC and SECAM
- Power input range from 12V~48V DC
- Maximum output power 12V DC with 1.1Amp @ 600ft / 180m
- Over current trouble indicator LED
- RJ45 jack design for easy connection
- RJ45 jack 568A & 568B miss wiring prevention design protect device from damage
- Built-in Static Electricity and Lightning Surge Protection

Components are Made In USA for this product:

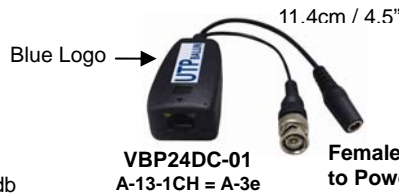
Name of Component	Manufacturer
DCDC Power IC	National Semiconductor

R&D Designed in Taiwan
 Assembled in China



VBP24DC-01 Features – Power Adaptor Side:

- Uses an Unshielded Twisted Pair cable (UTP), to transmit full motion camera video signal in color up to 300m / 1000ft and in B/W up to 2000ft / 600m
- **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



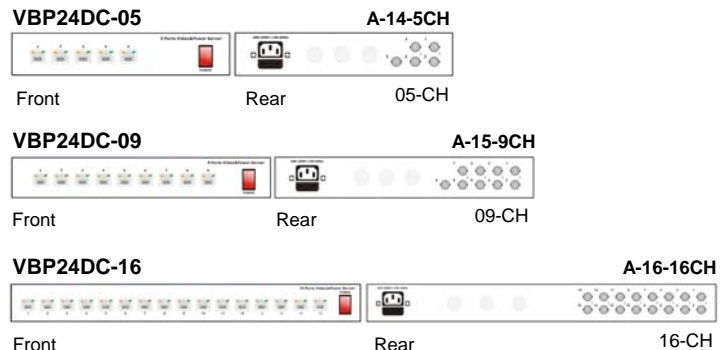
Optional Wall Mount Adaptor
 Input: 100-240V~,50-60Hz,0.8A
 Output: 24.0V DC 1000mA
 USA, Canada – UL Approval
 Europe – CE, GS



P24DC1000
 PIC: P-62

VBP24DC-05 / VBP24DC-09 / VBP24DC-16 Features – Power Side:

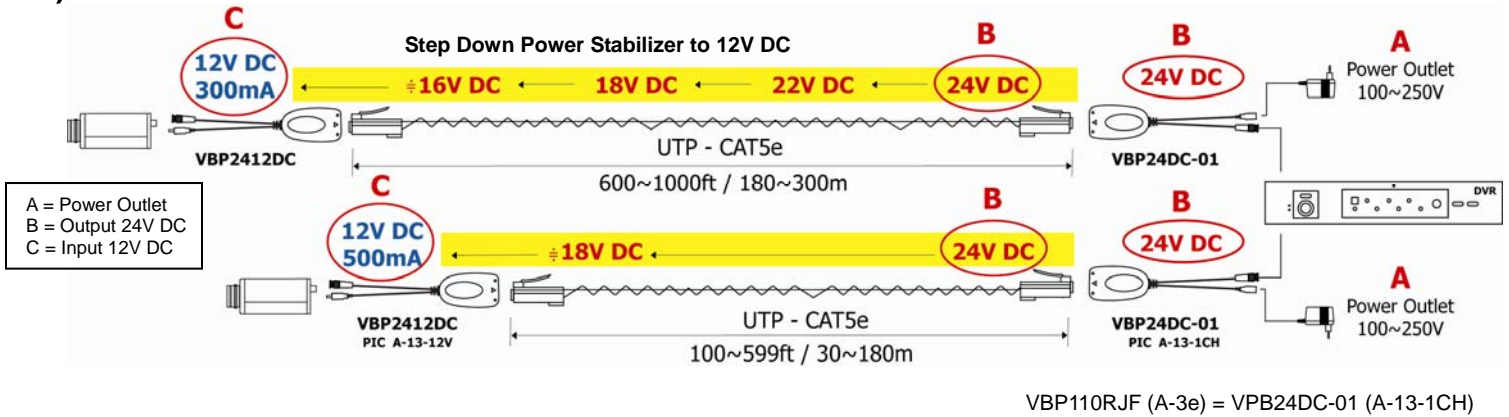
- Using UTP cable to transmit video signal and provide power to camera simultaneously
- Transmission distance up to 1000ft / 300m
- Support all baseband signal formats including PAL, NTSC and SECAM
- Universal power input support 100V~250V
- Regulated 24V DC output power
- Using 3 pairs of UTP cabling to carry more current
- Consistent with EIA/TIA568B & EIA/TIA568A standard cable connections
- These devices have **Over Current Recover IC** instead of **Recover Fuse** for true isolation of each channel
- RJ45 jack design for easy connection
- Connector reverse polarity and short circuits protection design
- Built-in Lightning surge protection and Interference Rejection
- Low noise exhaust fan ensure system stability
- Provide internal installation spare modules
- Main power switch with indicator light & trouble indicator LED
- DC Power: 12V~48V DC
- Rackmount Ear included



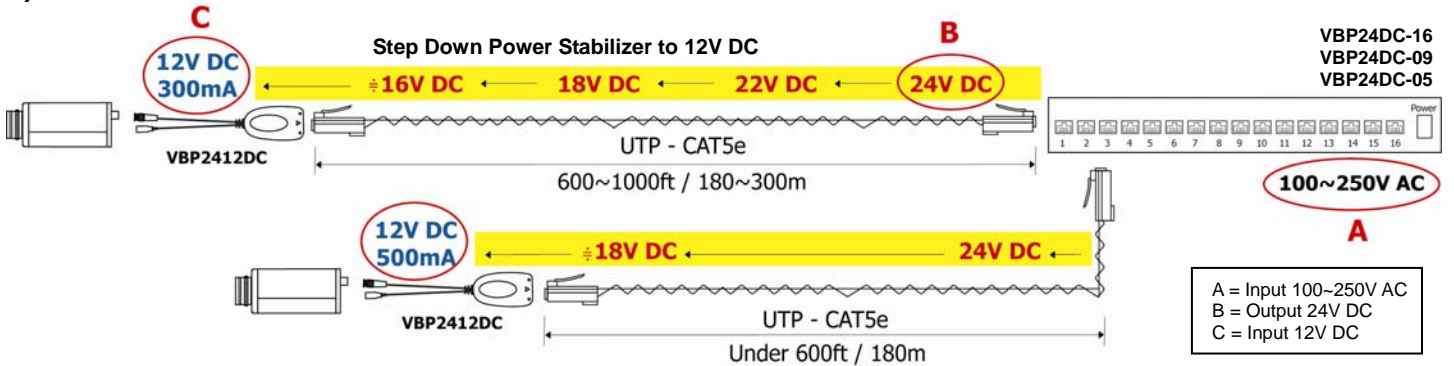
UTP = Unshielded Twisted Pair
 REV022011-V16

Application Diagram:

1) VBP2412DC / VBP2412DC-50 Used With 1-CH Passive Video Balun with Power Guarantee



2) VBP2412DC / VBP2412DC-50 Used With 5-CH / 9-CH / 16-CH Passive Video Balun with Power Server



Note: Not recommended for High Power Infrared Cameras with power consumption over 300mA or 500mA. See diagram above.

Specifications for Camera Side:

*Specifications are subject to change without notice

P.I.C.		A-13-12V	A-13-12V-50
Model Number		VBP2412DC	VBP2412DC-50
Power	Input Voltage	12~48V DC to 20~36V DC	
	Output Voltage	12V DC \pm 5%	
	Output Current	12V DC 1.1Amp @ 0~600ft / 0~200m 12V DC 300 mA @ 600~1000ft / 200~300m	
	Distance	0~1000ft / 0~300m	
	Supported Power Consumption	12W Max.	
	Power Supply Connector	5.5 DC – M Jack	
Video Transmitting Properties	Supporting Video Signals	All Baseband Signals including PAL, NTSC, SECAM	
	Balance Band	0~6MHz, delect (-3db)	
	Maximum Transmission Distance	Color 1000ft / 300m	
	Transmitting Cable	UTP CAT5e	
	Interference Rejection	>60dB	
Connection Properties	Transmission Channel	1	
	Video Connector	1 Male BNC with Cable, Resistance 75 Ohms	
	UTP Video and Power Transmission	1 RJ45 Jack with Indicator light	
Surge Protections	Power Connector	12V DC Jack	
	Lightning Protection	2KV 10/700 μ s IEC6100-4-5 1955 (GB/T 17626.5)	
Indicators	Static Electricity Protection	1a Contact Discharge Level 3 6000V 1b Air Discharge Level 3 8000V IEC6100-4-2 1995	
	Power LED	Green	
Stability	Over Current Protection LED	Yellow	
	MTBF	>10,000 hours	
Physical Properties	Dimensions (L x W x H)	8.66" x 1.41" x 0.86" / 220mm x 36mm x 22mm (with Cable)	
	Power & BNC Lead Length	4.5" / 11.4cm Standard Lead 20" / 50cm Extended Lead	
	Weight	0.11 lbs / 50g	
Environment	Operating Temperature	32°F ~ 131°F / 0°C ~ 50°C	
	Relative Humidity	0~95% (none Condensation)	
	Storage Temperature	-4°F ~ 176°F / -20°C~80°C	

Specification for Power Adaptor Side:

P.I.C.		A-13-1CH = A-3e
Model Number		VBP24DC-01
Power	Output Voltage	12V~24V DC
	Output Current	Depends on Wall Mount Adaptor
	Distance	0~1000ft / 300m
	Supported Power Consumption	1.1Amp @ 0~600ft / 0~200m 300mA @ 600~1000ft / 200~300m
Video Transmitting Properties	Supporting Video Signals	All Baseband Signals including PAL, NTSC, SECAM
	Balance Band	0~6MHz(-3dB)
	Maximum Transmission Distance	Color 1000ft / 300m ; B/W 2000ft / 600m
	Transmitting Cable	UTP CAT5e
	Interference Rejection	>60dB
Connection Properties	Transmission Channel	1
	Video Connector	BNC male cable & DC female, Resistance 75 Ohms
	UTP Video and Power Transmission	RJ45 Jack with Indicator light
Protections	Power Connector	12V DC Jack
	Surge/Lightning Video Output Protection	2KV (common mode), 10/700µs ; IEC6100-4 2/1955 (GB/T 1726, 5-1999)
	Surge/Lightning Video Input Protection	2KV (different mode), 2KV (common mode) ; IEC6100-4 2/1955 (GB/T 1726, 5-1999)
	Surge/Lightning Video Input Protection for Over Current	100mA
	Electrostatic Discharge Protection (ESD)	Contact Discharge: 6KV / Air Discharge: 8KV ; Standard: IEC61000-4-2
Indicators	Wave / Interference Rejection & Noise Filter Protection	Built-in Filter: 0~6HMz with Extra Interference Rejection <60db
	Power LED	Green
Stability	Over Current Protection LED	Yellow
	MTBF	>10,000 hours
Physical Properties	Dimensions (L x W x H)	8.66" x 1.41" x 0.86" / 220mm x 36mm x 22mm (with Cable)
	Power & BNC Lead Length	4.5" / 11.4cm
	Weight	0.11 lbs / 50g
Environment	Operating Temperature	-40°F ~ 302°F / -40°C ~ 150°C
	Relative Humidity	0~95% (none Condensation)

Specification for Power Side:

P.I.C.		A-14-5CH	A-15-9CH	A-16-16CH
Model Number		VBP24DC-05	VBP24DC-09	VBP24DC-16
Power	Input Voltage	100V-250V AC (50Hz/60Hz)		
	Supported Power Consumption	50W Max.	90W Max.	120W Max.
	Current Conversion Efficiency	>75%		
	Output Voltage	24V DC, 2 Amps	24V DC, 3.75 Amps	24V DC, 5 Amps
	Output Current	0~600ft / 0~200m @ 500mA ; 600~1000ft / 200~300m @ 300mA		
	Number of supplied Channel	5	9	16
Video Properties	Supporting Video Signals	All Baseband Signals including PAL, NTSC, SECAM		
	Balance Band	0~6MHz(-3dB)		
	Maximum Transmission Distance	Color 1000ft / 300m		
	Transmitting Cable	UTP CAT5e		
	Interference Rejection	>60dB		
Connection Properties	Number of Receiving Channel	5	9	16
	Video Connector	5 Female BNC Resistance 75 Ohms	9 Female BNC Resistance 75 Ohms	16 Female BNC Resistance 75 Ohms
	Power Connector	1 x AC input plug (black)		
Surge Protections	UTP Video and Power Transmission	5 RJ45 Jack with Indicator light (white)	9 RJ45 Jack with Indicator light (white)	16 RJ45 Jack with Indicator light (white)
	Lightning Protection	2KV IEC6100-4-5 1955 (GB/T 17626.5)		
	Static Electricity Protection	1a Contact Discharge Level 3 ; 1b Air Discharge Level 3 IEC6100-4-2 1955 (GB/T 17626.5)		
Indicators	Main Fuse	250V, 4 A		
	Power LED	Green		
	Over Current Protection LED	Yellow		
Stability	Main Switch On/Off LED	Red		
	MTBF	>10,000 hours		
Physical Properties	Dimensions (L x W x H)	9.05" x 5.90" x 1.75" 230mm x 150mm x 44.5mm	11.65" x 6.3" x 1.75" 296mm x 160mm x 44.5mm	16.92" x 6.89" x 1.75" 430mm x 175mm x 44.5mm
	Weight	3.8 lbs / 1723 g	4.4 lbs / 1995 g	6.4 lbs / 2902 g
Environment	Operating Temperature	32°F ~ 131°F / 0°C ~ 55°C		
	Relative Humidity	0~95% (none Condensation)		
	Storage Temperature	-4°F ~ 176°F / -20°C~80°C		

NOTE: The current supplied to the camera depends on the lengths & quality of the cable.

Troubleshoot:

All VBP2412DC / VBP2412DC-50 products are fully tested. If there are any failures, they may be related to the following:

1. Please check if the product was damaged when it arrived. Was there any debris blocking the RJ45 jack? Are the RJ45 pins inside damaged? Was it damaged when the customer first received the product?
2. Please check if the BNC jumper and RJ45 connectors are good and reliable? Users should pay attention to details. Usually, some errors are very low-level, but we need to fully evaluate the situation then can find the reasons.

To determine the status of the products, methods are:

1. See if the power lights of the VBP2412DC / VBP2412DC-50 are on. If so, the power supply has no problem. If they are not on, then the connection may be unreliable. Check whether any impurities in the RJ45 jack connector. If the LED lights are on, but the camera is not, please check if the connectors are reliable and the wiring heads are correct.
2. The reliability of the BNC connector may also affect the video transmission.

Please gather all failed products and send it to use as soon as possible so that we can test and identify the problem. Please also collect the details of the product's applications to see if other problems are also caused by product failure! In addition, our quality control department will also check this product immediately to see if there are other quality problems.

Rackmount Included for Passive Balun with Power Servers:



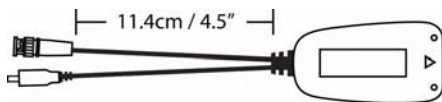
List of Components:

- One (1) VBP24DC-05 or VBP24DC-09 or VBP24DC-16HA Passive Balun with Power Server
- Two (2) Rackmount Ear
- Eight (8) Screws
- Four (4) Rubber Spacers
- One (1) Power Cord
- One (1) Manual

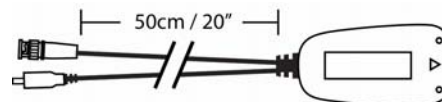


Although the power guarantee device transmits 24V DC, the Passive Balun with Power Stabilizer steps down the voltage at 12V DC when supplying power to the camera.

VBP2412DC

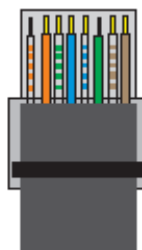


VBP2412DC-50



R&D Designed in Taiwan
 Components are Made in USA:
 DCDC Power IC (National Semiconductor)
 Assembled in China

1 2 3 4 5 6 7 8



Wrongfully mixing the colors may result in burning the camera.

Pin	T568B Pair	T568B	Character
1	2	White/Orange Stripe	Video +
2	2	Orange Solid	Video -
3	3	White/Green Stripe	Power -
4	1	Blue Solid	Power -
5	1	White/Blue Stripe	Power -
6	3	Green Solid	Power +
7	4	White/Brown Stripe	Power +
8	4	Brown Solid	Power +

Caution :

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