



***Hum Reducing Power Supply System Regarding
Distribution Amplifiers, Ground Loops, and Interference***

Most of VAC's distribution amplifiers take advantage of the properties of individual floating (ungrounded) power sources (AC adapters) to provide some inherent ground loop and interference protection.

By using a floating power source, the VAC distribution amplifier does not provide a direct path to the power line ground and so does not introduce a ground loop, as is the case with traditional distribution amplifiers. The use of individual floating power sources also precludes the possibility of loop currents between distribution amplifiers causing power supply interference.

An additional advantage is that the use of individual floating power sources eliminates power supply paths that allow different signals to interfere with each other through cross talk between distribution amplifiers.

Two Year Limited Warranty

All Video Accessory Corporation (VAC) products have a full two year limited warranty. Exclusion to the warranty include but are not limited to damage to external components, power LED failure where the product continues to functions, electrical damage due to lightning or ESD, and minor cosmetic imperfections in the epoxy that do not affect the unit's performance. The warranty shall be void if any alteration or repair of the VAC product is attempted by anyone not authorized by VAC. This warranty is expressly in lieu of all other warranties expressed or implied, including warranties of merchantability and fitness for use, and of all other obligation or liabilities on the part of VAC, and it neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of this product. This warranty shall not apply to the product or any part thereof subjected to accident, negligence, alteration, abuse or misuse. No warranty whatsoever is made with respect to accessories or parts supplied by anyone other than VAC, and this warranty shall extend only to the original purchaser of the product. The warranty provided in this article is exclusive and in lieu of, and buyer hereby waives, all other remedies, express or implied, arising by law or otherwise, including consequential damages, where or not occasioned by negligence of VAC. This warranty shall not be extended, altered or varied except by written instrument signed by VAC and buyer, and shall only apply within the boundaries of the continental United States. Liability of VAC is limited repair or replacement at the option of VAC. Warranty work is to be sent to VAC. Freight charges will be the responsibility of the purchaser.

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www.vac-brick.com

PN: 20-550-003 Rev A

Balanced Baseband Video Driver/Receiver

FlexPwr, BNC, TB

ProSeries Products

***All VAC products are assembled in Longmont, CO,
USA***

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Balanced Baseband Video Driver/Receiver

PN: 20-550-003

Purpose:

The VAC model 20-550-003 Balanced Line driver/receiver provides protection against ground loops and RF interference for long cable runs. The driver portion converts a standard unbalanced baseband video signal to a balanced video signal that is transmitted over two coax cables. The receiver portion converts a balanced video signal (from two coax cables) into unbalanced baseband video. The 12V AC wall transformer provides isolated power to the Brick to control ground loops.

Power:

The 20-550-003 is designed to function properly with an input power of 10-24V AC (ungrounded supply) or 12-28V DC (grounded or ungrounded supply). The wall transformer provided with the product provides 12V AC. The mating power connector is a Phoenix Contact # 1881325. The power connector is not polarity sensitive. The wall transformer provided with the product (VAC # 20-550-003) provides a floating power source that eliminates any ground loops through the power supply connection.

Driver Input:

The input for this product consists of a single 75 Ohm BNC connector. A video signal with excessive DC component (or offset) will cause the 20-550-003 to malfunction. The video input signal needs to be within -2V to +2V. The input impedance is 75 Ohms.

Driver Output:

The 20-550-003 has two 75 Ohm BNC output connectors. The 20-550-003 provides a unity gain balanced 150 Ohm output (75 Ohms each connector). Care must be taken to insure the positive output signal is connected to the positive input signal of the Balanced receiver. If the cables are reversed the receiver output signal will be inverted.

Receiver Input:

The input for this product consists of two 75 Ohm BNC connectors. The positive and negative balanced inputs must be connected to the corresponding outputs of the 20-550-001 Balanced Driver or 20-550-003.

Receiver Output:

The 20-550-002 consists of a single 75 Ohm BNC. This output provides the converted balanced video as unbalanced baseband video.

Specifications

Frequency Response:	DC-150MHz @ -3dB (1Vpp input signal)
Input Signal Level:	0 - 2.0 Vpp (within -1.0 V to +1.0 V range from ground)
Driver:	
Input Impedance:	75 Ohms
Input Coupling:	DC
Input Connector(s):	BNC (total of 1)
Output Connectors:	BNC (total of 2)
Configuration:	Standard input, two balanced outputs
Gain:	Unity (both balanced lines)
Output Series Impedance:	75 Ohms (per output connector)
Receiver:	
Input Impedance:	75 Ohms (per input connector)
Input Coupling:	DC - Differential
Input Connector(s):	BNC (total of 2)
Output Connector(s):	BNC (total of 1)
Configuration:	Two balanced inputs, one unbalanced output
Gain:	Unity
Output Series Impedance:	75 Ohms
Package:	Solid epoxy block (4.4"W x 2.2"D x 0.65"H; +/-0.030"); Signal connectors all on one side; Gain control and power all on one side; One internal PCB
Mounting:	Two threaded 6-32 inserts
Power:	Internal linear supply 10-24V AC (12 VAC wall transformer included with Brick) 12-28V DC < 200mA input current Power LED indicator
Power Status:	
Power Connector:	2-pin terminal block header(Phoenix Contact #1881448) Mating Plug-Phoenix Contact #1881325
Temperature:	-40 to +80C
Humidity:	0% - 95%
Shipping Weight:	2 lbs