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ProSeries RGBHV DA's

Three DC-440 Mhz Video Channels

Two DC-250KHz Sync Channels

AC or DC Power

This manual covers the following VAC products:

Function	TTL(0-5V) Sync	1Vpp, 75 Ohm Sync	Dual Mode Sync
1X2 DA, Standard Input	12-515-132-B	12-517-132-A	12-516-132-C
1X4 DA, Standard Input	12-515-134-B	12-517-134-A	12-516-134-B
1X2 DA, Loop-thru Input	12-535-132-A	12-537-132-B	12-536-132-A
1X4 DA, Loop-thru Input	12-535-134-A	12-537-134-A	12-536-134-B

The ProSeries RGBHV product group provides 12 different distribution amplifiers for component video and horizontal/vertical sync. Two formats for the sync signals are supported, TTL level sync and video level sync. These products are fully encapsulated and sealed in a two part epoxy using a proprietary molding process developed by VAC.

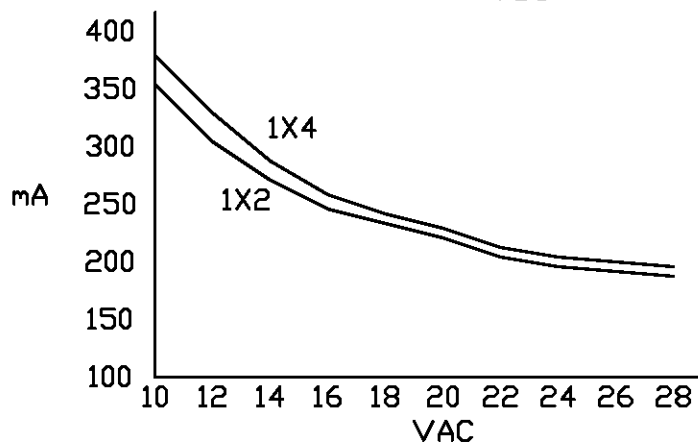
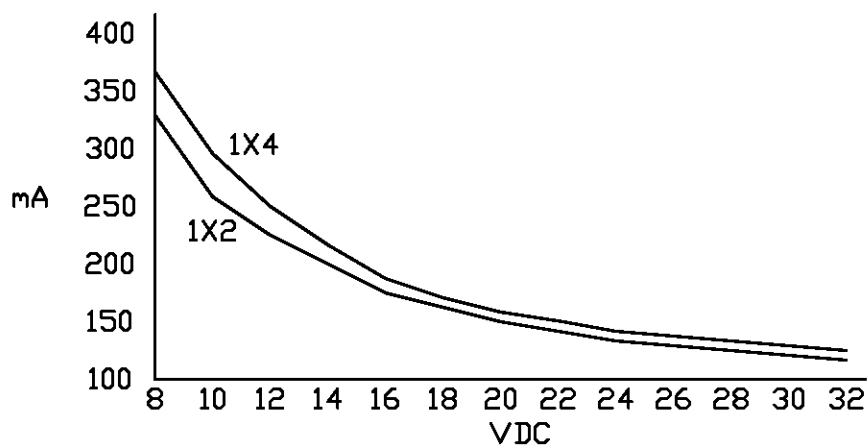
The following sections define the operation and specifications for each of the 12 products.

All VAC products are assembled in Longmont, Colorado (USA)

Power Requirements:

The ProSeries RGBHV DA's have internal switcher power supplies that permit a wide range of input power voltages to be used. The units have diode protection on the power input so the units are not damaged if power is applied incorrectly. The power input connector is a Phoenix Contact 2.5mm 2 pin header (#1881448). The mating plug is the Phoenix Contact 2 pin spring cage terminal block plug #1881325.

The power input is polarity sensitive. If grounded AC power is used, the grounded side of the AC must be connected to the negative power terminal. The Bricks will operate correctly on 8-32 VDC or 10-28 VAC. A green power status LED is provided on each of the five PCBs. The following charts show the typical current draw for the 1X2 and 1X4 configurations.



Signal Input Configurations:

The user can select between two different input configurations, standard single connector inputs and two connector loop-thru inputs. The standard video channel input is a single 75 Ohm BNC connector with 75 Ohm termination to ground. The video channel loop-thru input has two 75 Ohm BNC connectors with an input termination of 10K Ohms to ground. The loop-thru video input must be terminated by connecting to another video input on another device or by installing a local 75 Ohm terminator on the second video input (75 Ohm terminators are supplied with units that have loop-thru video inputs)

The H/V channels have four possible input configurations. The standard one BNC input has two configurations, TTL level H/V (0-5VDC) and video level H/V (+/- 1Vpp). The input termination for the TTL configuration is 10K Ohms and the input termination for the video level is 75 Ohms. The loop-thru input configuration also has two configurations, both the TTL level and video level have an input termination of 10K Ohms. For the loop-thru input, the TTL mode does not need to be terminated but the video level loop-thru input needs to be terminated with 75 Ohm termination. The dual sync mode units permit the user to select between TTL or video level sync signals.

Signal Output Configurations:

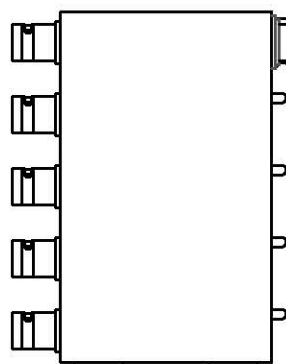
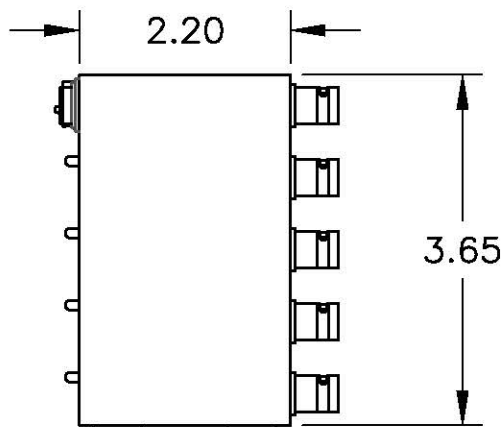
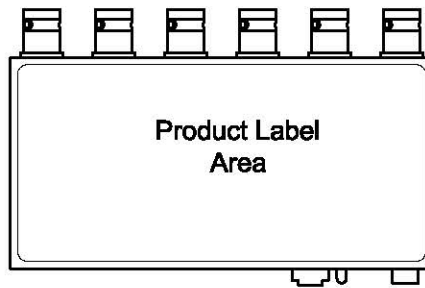
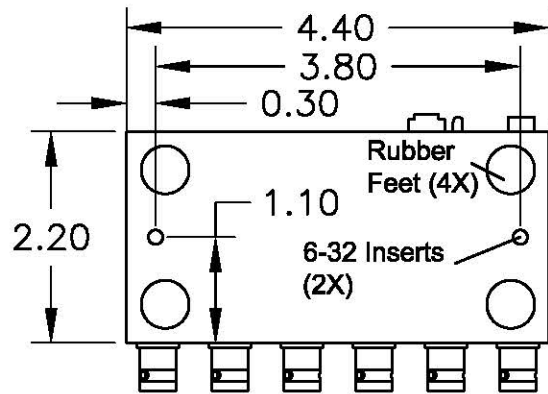
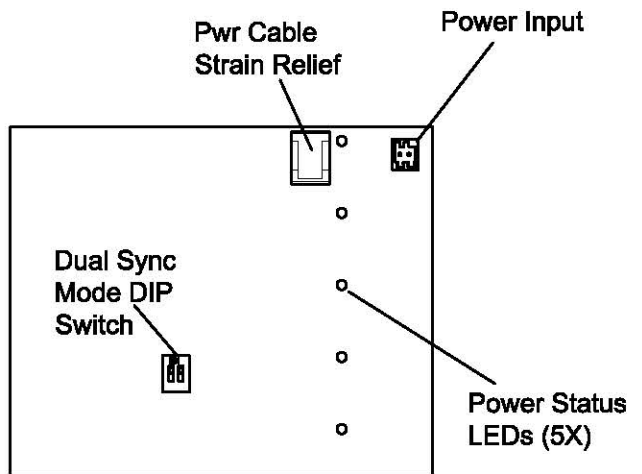
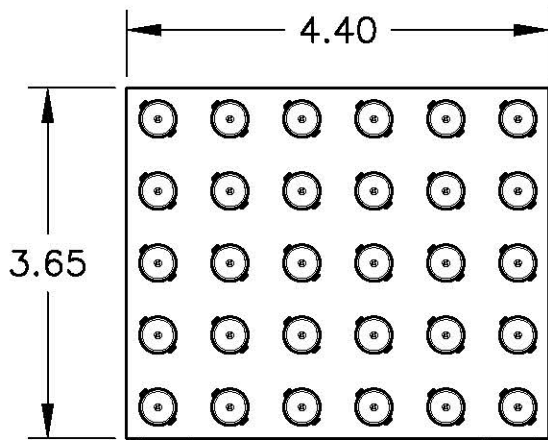
The user can select between two different output configurations, two outputs or 4 outputs. All of the output connectors are 75 Ohm BNC connectors. Unused outputs do not need to be terminated for correct operation. Installing terminators does provide additional protection from ESD. The output series termination is 75 Ohms for both the video channels and the H/V channels.

Dual Sync Mode:

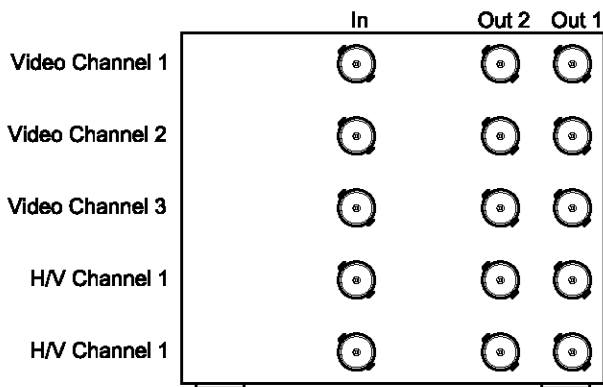
The dual sync mode units permit the user to select between TTL level H/V and video level H/V. A DIP switch is used to select between the two modes. The DIP switch controls RF relays that change the input termination and gain parameters for the two H/V signal configurations. When switch 1 is OFF the unit is in TTL level mode and when switch 1 is ON the unit is in video level mode. Switch 2 does not affect the operation of the unit. If the user knows the type of H/V signals that the system uses, selecting the correct product configuration and not using the dual sync mode units provide a more reliable product because the DIP switch and relays are eliminated.

Physical Size:

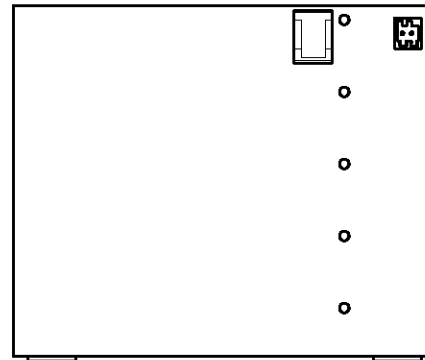
The following drawings show the physical size, connector locations, and DIP switch locations for the 12 products covered by this manual. Each Brick has two 6-32 threaded inserts molded into the bottom of the Brick. These inserts have been tested to greater than 100 lb. pull-out force each.



Overall Brick Views

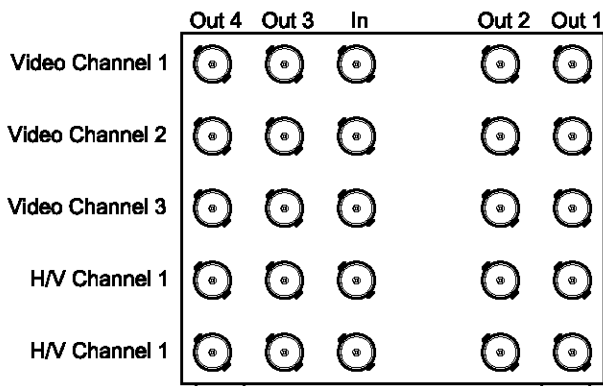


Back View

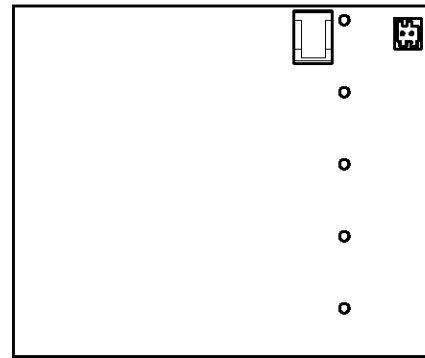


Front View

12-515-132 and 12-517-132

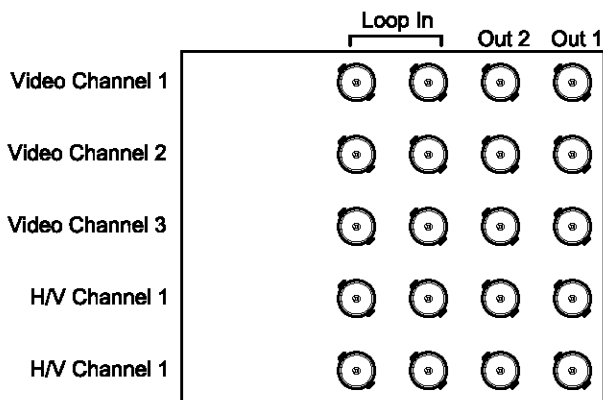


Back View

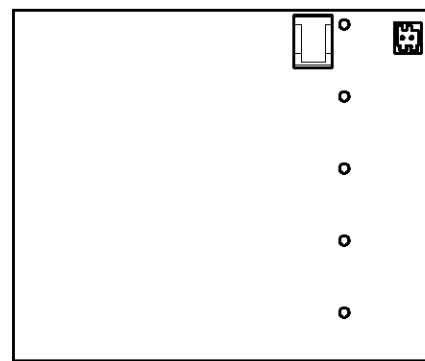


Front View

12-515-134 and 12-517-134

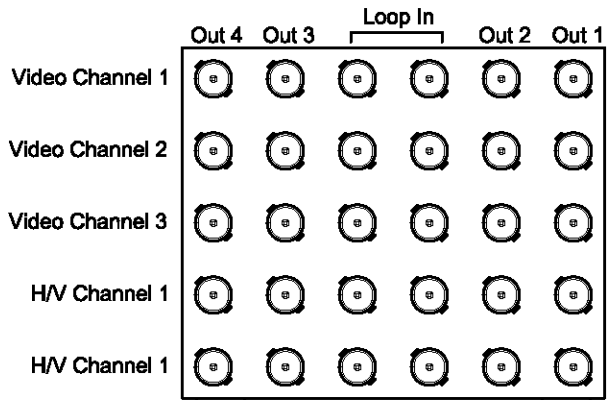


Back View

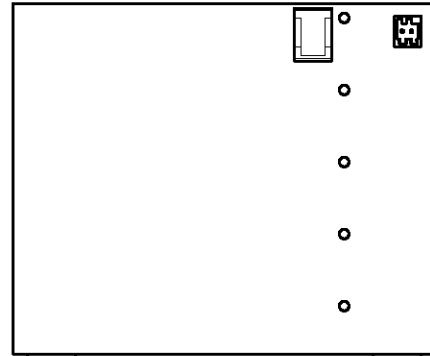


Front View

12-535-132 and 12-537-132

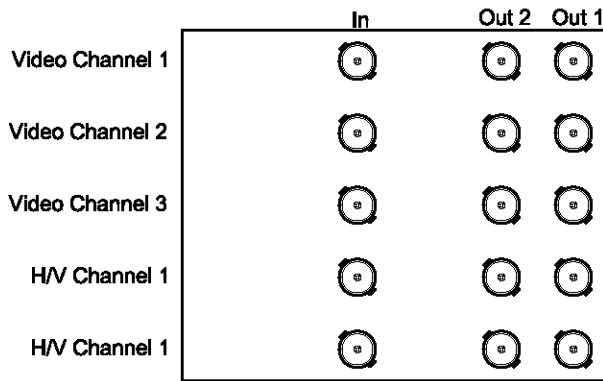


Back View

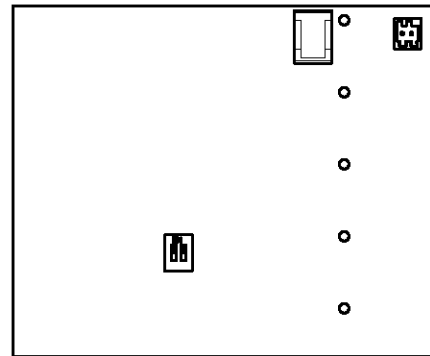


Front View

12-535-134 and 12-537-134

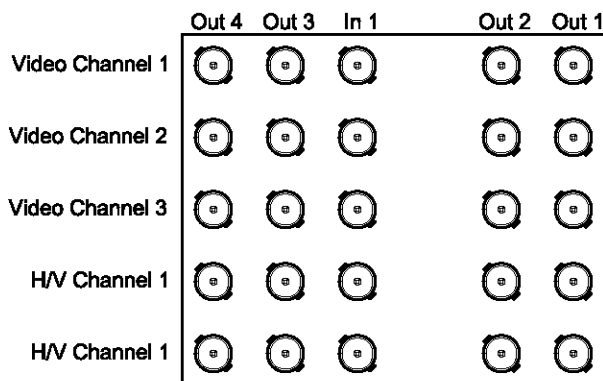


Back View

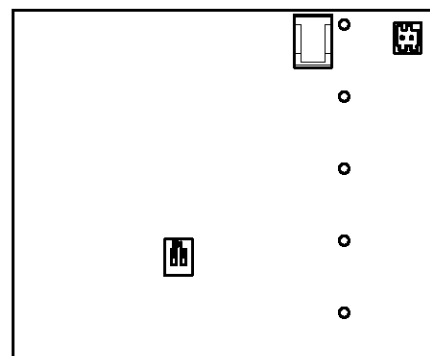


Front View

12-516-132

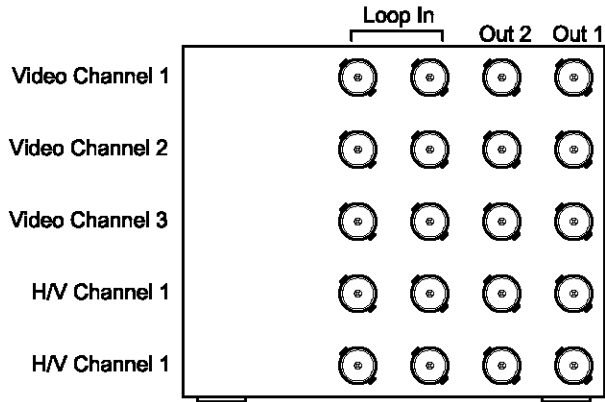


Back View

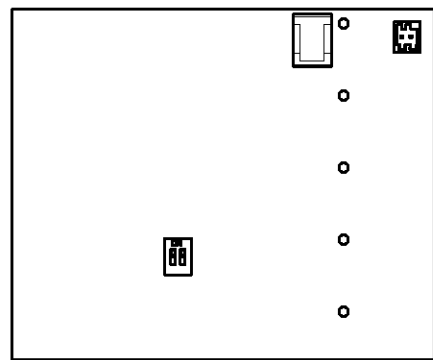


Front View

12-516-134

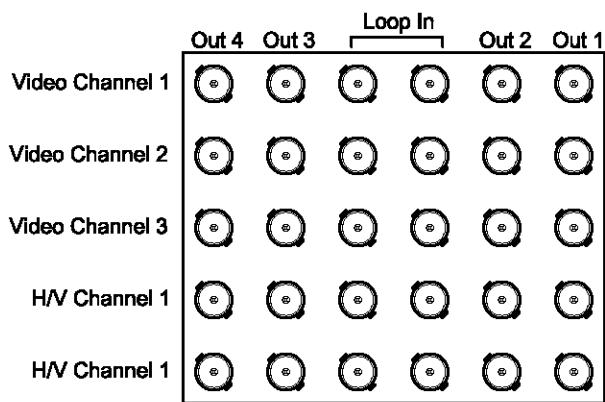


Back View

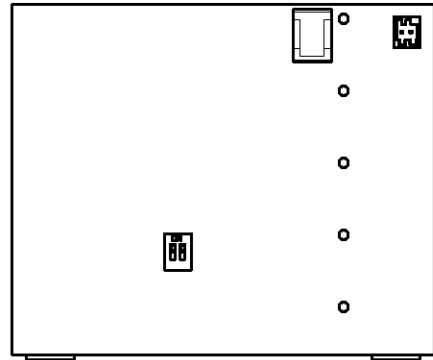


Front View

12-536-132

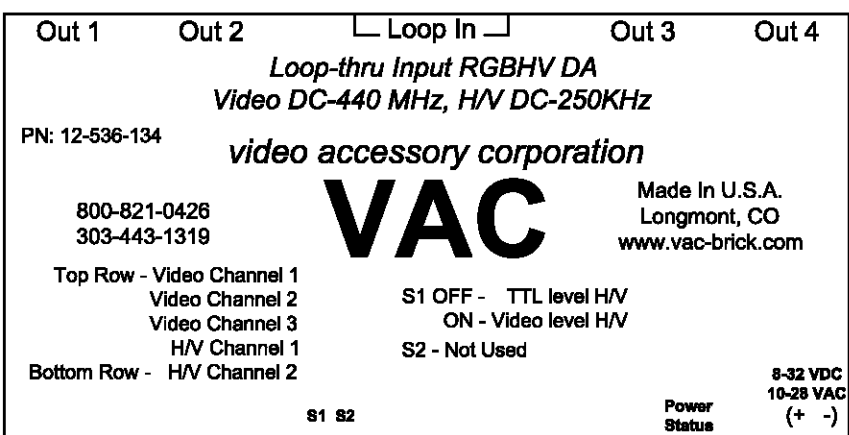


Back View



Front View

12-536-134



Example Top Label

Overall Specifications

Video Channels

Signal Format	Component Video (RGB)
Input Impedance	Standard Input - 75 Ohms Loop-thru Input - >5K Ohms
Output Impedance	75 Ohms
Bandwidth	DC-440 MHz (1Vpp input)
Input Signal Range	0.5 - 2.0 Vpp (within +/- 1V range)
Input Connectors	75 Ohm BNC
Output Connectors	75 Ohm BNC

H/V Channels

Signal Format	Horizontal and Vertical Sync
Input Impedance	Standard Input - >5K Ohms Loop-thru Input - >5K Ohms
Output Impedance	75 Ohms
Bandwidth	DC- 250KHz (120V/usec slew rate)
Input Signal Range	TTL level -5 to +5 V Video level -1 to +1 V
Input Connectors	75 Ohm BNC
Output Connectors	75 Ohm BNC

General Specs

Power	8-32 VDC 10-28 VAC	Weight	2.3 lb.
Power Status	Green LED	Included Accessories	12 VAC wall transformer (VAC #55564) For Loop-thru units-
Current	375mA		75 Ohm BNC terminators (VAC #78099)
Temperature	-40C to +80C		5 each
Humidity	2-98%		

Warranty Information

All Video Accessory Corporation (VAC) products have a full two year limited warranty (excluding power LED failure where the product continues to function). The warranty shall be void if any alteration or repair of a VAC product is attempted by anyone not authorized by VAC.

This warranty is expressly in lieu of all other warranties express or implied, including warranties of merchantability and fitness for use, and of all other obligations 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 this 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, whether 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 to 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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