

## RGB-HV-2

**Ultra High Resolution  
Video Distribution for  
Mission Critical Applications**

**595MHz  
of  
Bandwidth**

# FSR

**Video Products Group**

RGB-HV-2

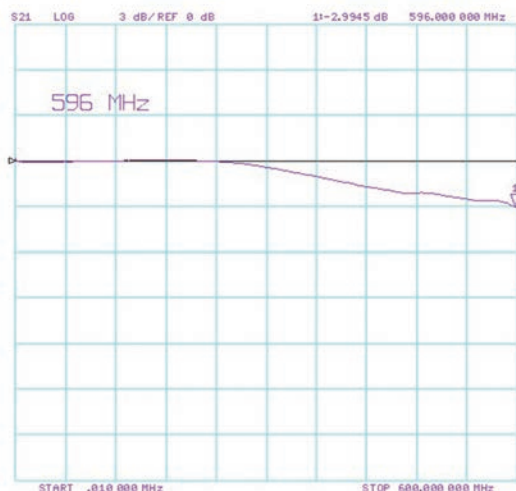


The RGB-HV-2 is an ultra high resolution, ultra high bandwidth 1x2 distribution amplifier for applications requiring the highest possible video quality. Each of the 2 output stages has independent cable equalization to compensate for variations in the cable's response.

To insure the best possible signal reproduction, the RGB-HV-2 has been designed to provide up to 595 MHz of bandwidth, ensuring compatibility with today's and tomorrow's most demanding signal requirements.

### SOME NOTES ON BANDWIDTH

Typically, the bandwidth of a device is measured to its -3dB point, but how you get there is equally important. Frequency response should be as flat as possible throughout the response curve. Some manufacturers will boost a signal through a particular frequency range as much as 6 to 12dB in order to extend the -3dB point. Excessive peaking in competitive products will cause aberrations in the picture such as noise, color blooming and bright banding at the edge of an object in the image. It can also overdrive the input stage of any downstream equipment causing image distortion.



The above graph illustrates the frequency response of the RGB-HV-2. You will notice that the frequency response is flat to 300 MHz and -3dB at 595 MHz.

You spend a significant amount of time generating the best possible image, don't trust that image to a long cable run. The RGBHV-2 will compensate for the cable's shortcomings and deliver your image to its destination with the same color and clarity that you created it with. High bandwidth and flat frequency response - just what you need.

FSR also manufactures the CI-5 family of interfaces which accurately drive your video signals from a source to the rack or from the rack to a display device. Contact FSR or your local reseller for more details.

**At FSR, we have what you need.**

### FEATURES:

- 595 MHz of bandwidth at -3dB
- +/- .5dB to 300 MHz
- (5) 75 Ohm BNC connectors for the input and each output
- Independent cable equalization control for each output
- Locking power supply connector
- Compatible with all RGB-HV and HD TV standards

### APPLICATIONS:

- Boardrooms
- Classrooms
- Houses of Worship
- Staging and Rental
- Control Rooms

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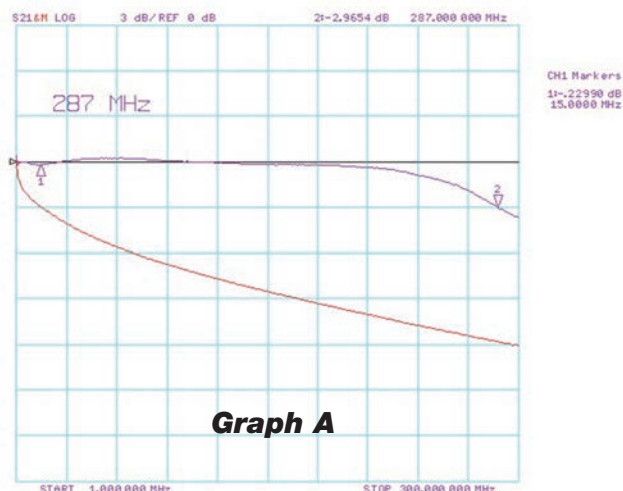
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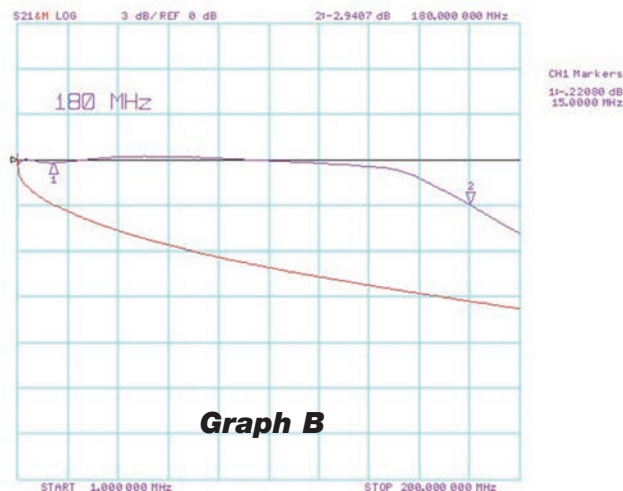
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Graph A shows the response of a 150' section of WP8255 mini-coax with and without the RGB-HV-2, with a half level .350V signal.

Notice that the RGB-HV-2 maintains it's exceptionally flat response characteristics, even with a low level signal. The bandwidth is now extended to 287 MHz.

Notice that the cable drops to -3dB at 17 MHz stand alone but can pass up to 287 MHz when driven by the RGB-HV-2.



Graph B shows the response curves of a 150' section of West Penn 8255 mini-coax cable with and without the RGB-HV-2 being driven by a full .7V signal.

Notice that the cable's bandwidth is only 17 MHz, but when used with the RGB-HV-2, the bandwidth is restored to 180 MHz.

## TECHNICAL SPECIFICATIONS

### Video Input

Number/Type:	1VGA/SVGA/XGA/SXGA/UXGA/RGBHV/RGBS/RGsB/RsGsBs/HDTV(YUV)/SV, or 3 CV
Connectors:	5 BNC Female
Impedance:	75 ohm
RGB Input Level:	1.0V p-p nominal +/-1.8V max
Sync Input Level:	0.5V-5V p-p
Sync Polarity:	Positive or Negative

Specifications are subject to change without notice

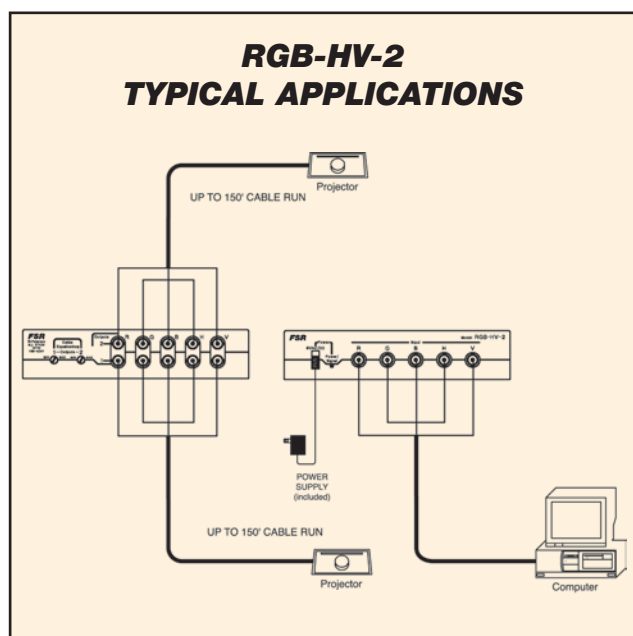
### Video Outputs

Number:	2VGA/SVGA/XGA/SXGA/UXGA/RGBHV/ RGBS/RGsB/RsGsBs/HDTV(YUV)/SV, or 3 CV
Connectors:	5 BNC Female for each of 2 outputs
Impedance:	75 ohm
Bandwidth:	590 MHz typical @ -3dB
Flatness:	300 MHz +/- 0.5dB
Equalization:	(at max setting)

Gain	Frequency
0.6db	1 MHz
2.3dB	10 MHz
5.3dB	50 MHz
7.1dB	100 MHz
10.3dB	200 MHz

Design Cable:	West Penn 8255 or equivalent
Sync Output:	Level - 4.5 volts into Hi-Z 2.2 volts into 75 ohm
	Propagation Delay - 15 nS max
	Rise/Fall Time - 2 nS max
	Impedance - 75 ohm
Power:	9 VAC/DC 0.5 Amps, 120VAC
	Wall mount adapter included.
	Universal input adapter available.

### RGB-HV-2 TYPICAL APPLICATIONS



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