



The HI*DEF™ Video Splitter is an extremely high performance 1-input, 2-output analog video distribution amplifier designed to split a single RGBHV signal to two paths. The HI*DEF Video Splitter is intended for applications that require absolutely no signal degradation when one video source must be sent to two destinations. This device has separate amplification circuitry for each output, avoiding a signal degradation problem commonly encountered when splitting a video signal. The amplifier circuitry within the HI*DEF Video Splitter provides 75 Ohm termination to avoid reflections and a fast slewing amplifier to maintain a quick settling time. Both of these are imperative for maintaining proper video signal integrity.

A typical application for the HI*DEF Video Splitter is for the testing and verification of VGA-based computer systems. Users may require the video source to be simultaneously input to a Foresight Imaging board for acquisition and to another monitor for display. Additionally, any time that a video signal has to travel a considerable distance and be split, the HI*DEF Video Splitter may be necessary to maintain signal quality. With the HI*DEF Video Splitter, the signal is buffered and then amplified back to the proper video level without altering the signal integrity to either of the two target devices.

Specifications

RGB Inputs/Outputs

● Maximum input voltage	+/-5 volts
● Input/Output Impedance	75 Ohms +/- 1%
● Gain	0 dB with 75 ohm termination at the load
● Amplifier Settling Time	12 ns, maximum to 0.1% with a 2 volt step when driving 5 ft. of RG-59U cable
● Overshoot	5% typical with a 2-volt step
● Differential Gain	<0.06% maximum
● Differential Phase	<0.02 degrees maximum
● Output short to ground	Indefinite period of time without damage
● 3 dB Cable Length	400 ft. using RG59
● fmax	350 MHz (3 dB point)

H-Sync, V-Sync Inputs/Outputs

● Maximum input voltage	-0.5 to 5.5 volts
● Type	LS TTL Schmitt Trigger
● HIGH-level input voltage (VIH) min	2.0 volts @ 20 uA
● LOW-level input voltage (VIL) max	0.8 volts @ 0.4 mA
● Output series termination	33 Ohms
● HIGH-level output voltage (VOH) min	2.7 volts @ 0.4 mA
● LOW-level output voltage (VOL) max	0.35 volts @ 8 mA
● Output short to ground	Indefinite period of time without damage
● fmax	2 MHz

Miscellaneous Specifications

● Connectors	BNC Female
● Power Requirements	12 VDC, 250 mA max