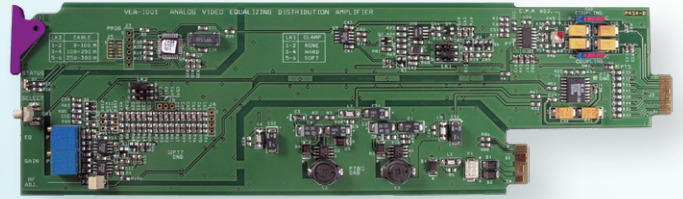


DATASHEET

# VEA-1002 Analog Video Distribution Amplifier with EQ



Space-saving, modular platform for advanced signal processing.

The VEA-1002 from Grass Valley<sup>®</sup> is an analog video distribution amplifier with eight outputs, providing equalization and differential input.

The VEA-1002 will equalize up to 300m (984 ft.) of Belden 8281 cable. Gain and equalization are controlled from the card edge.

Signal status is provided to indicate the input signal presence. The differential input provides rejection of hum and other artifacts on incoming signals.

## Key Features

- Analog video differential input with passive loop-through
- 8x 75Ω outputs
- Supports NTSC and PAL video standards
- 50 MHz analog video bandwidth
- Equalization up to 300m (984 ft.)
- Control of equalization and gain from the card edge
- Status LED and remote reporting

## Specifications

### Input

**Signal:** Any 1 V<sub>p-p</sub> nominal signal  
**Return loss:** >35 dB up to 5.75 MHz  
**Coupling:** DC or AC with clamping  
**Level:** 0.3 to 1.5 V<sub>p-p</sub>  
**Impedance:** 75Ω bridging  
**Max. common mode signal:** 28 V<sub>p-p</sub>  
**Common mode rejection:** >65 dB to 10 kHz

### Output

**Signal (3-8):** 1 V<sub>p-p</sub> nominal signal, adjustable  
**Return loss:** >35 dB up to 5.75 MHz  
**Impedance:** 75Ω  
**Phase match between outputs:** <0.1° at 4.43 MHz  
**Output isolation signal:** >40 dB at 10 MHz  
**Response variation:** <0.1 dB, 1 to 8 loads, to 20 MHz

### Processing Performance

**Gain range:** ±3 dB  
**Freq. response:**  
 ±0.05 dB up to 5 MHz  
 ±0.15 dB up to 10 MHz  
**EQ range:** 0-300m (0-984 ft.) using Belden 8281  
**EQ response:**  
 <±0.05 dB up to 5 MHz  
 ±0.1 dB up to 10 MHz,  
 -3 dB at 30 MHz typically  
**Differential gain:** <0.15%  
**Diff. phase:**  
 <0.15° at 8 loads  
 <0.1° at 2 loads  
**H/V tilt:** <0.1%, DC coupling

**SNR:** >70 dB up to 15 MHz (rms noise/0.714V, unweighted)

**Chrominance/luminance delay error:** <±1 ns

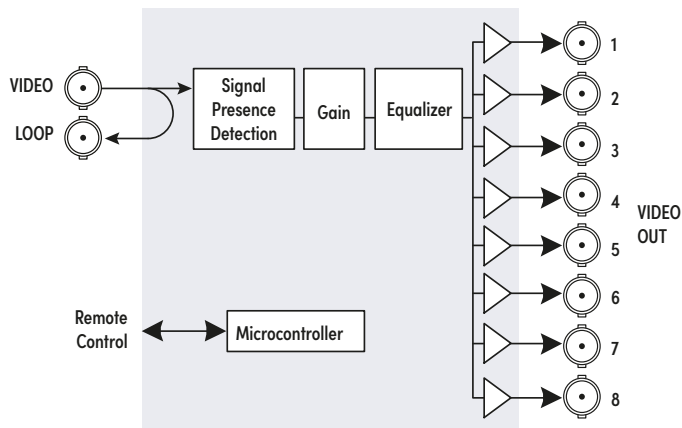
**Chrominance/luminance gain error:** <±0.02 dB

**Hum:** <1 mV

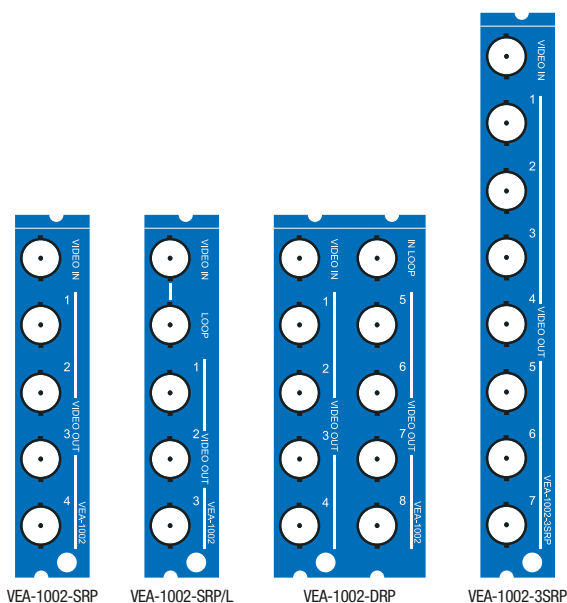
**Latency:** 5 ns

### Electrical

**Power:**  
 2W (SRP)  
 2.5W (DRP, 3SRP)



VEA-1002 Functional Block Diagram



## Ordering

### Densité 2 Frame

VEA-1002  
 VEA-1002-SRP  
 VEA-1002-SRP/L  
 VEA-1002-DRP

### Densité 3 Frame

VEA-1002-3RU  
 VEA-1002-SRP/L-3RU  
 VEA-1002-DRP-3RU  
 VEA-1002-3SRP

### Description

Analog video equalizing DA  
 Single rear connector panel with 4 outs  
 Single rear connector panel  
 Double rear connector panel  
 Single rear connector panel with 7 outs

### Remote Control

GV Orbi<sup>®</sup>, iControl<sup>™</sup>, iControl Solo

This product may be protected by one or more patents. For further information, please visit: [www.grassvalley.com/patents](http://www.grassvalley.com/patents)

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