

# 501ADA-EQ

## Analog Video Distribution Amplifier with Cable Equalization (1x9)



The 501ADA-EQ Analog Video Distribution Amplifier is a general purpose amplifier for distributing 75Ω analog video signals.

The 501ADA-EQ is housed in the 3RU 500FR **exponent** frame that will hold up to 16 modules

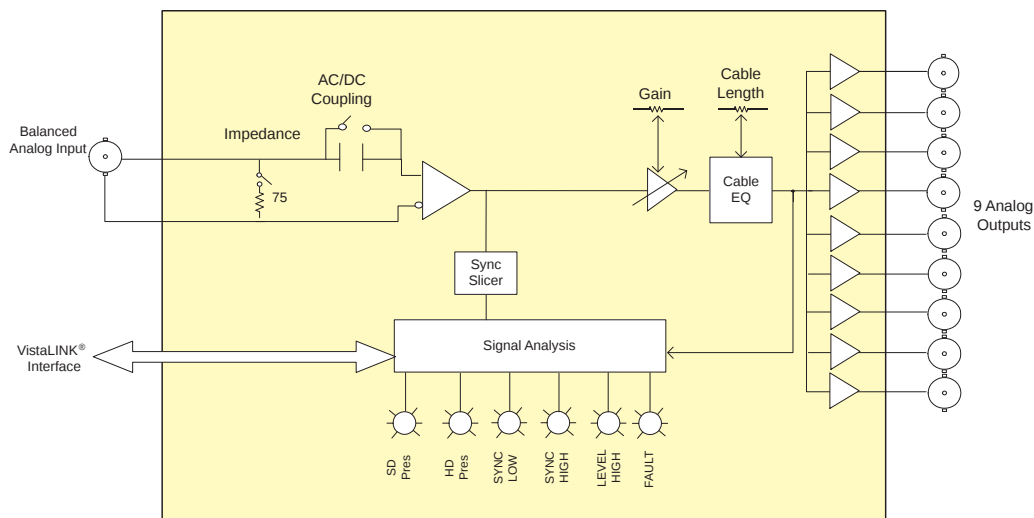
The 501ADA-EQ features one balanced equalized input with nine unbalanced outputs. The 501ADA-EQ amplifier has been designed to distribute a wide range of analog video signals. It can also distribute other pulses and signals that are less than 2V p-p.

### Features & Benefits

- 75Ω or high impedance input (jumper selectable)
- High common mode range and common mode rejection ratio (CMRR)
- Gain control
- Jumper selectable AC or DC coupling
- Cable equalizer adjustment range: 0 to 300m of 8281 or 1694A
- Looping feature with external "T" connector
- Consistent input impedance if card power is lost
- VistaLINK® -capable for remote monitoring via SNMP (using VistaLINK® PRO) when installed in 500FR frame with 500FC VistaLINK® Frame Controller

### Card Edge LEDs

- Module status/Local Fault
- Power supply status
- EQ Warning



### Specifications

|                            |                                                           |                              |                                                                                                                                                     |                                                           |                                                                          |
|----------------------------|-----------------------------------------------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Analog Video Input:</b> |                                                           | <b>Analog Video Outputs:</b> |                                                                                                                                                     | <b>Output isolation:</b> > 42dB to 10MHz, > 32dB to 30MHz |                                                                          |
| Standards:                 | Any analog video format, up to 2V p-p and 30MHz bandwidth | Number of Outputs:           | 9 Per Card                                                                                                                                          | Output return loss:                                       | > 40dB to 30MHz                                                          |
| Connector:                 | 1 BNC per IEC 61169-8 Annex A                             | Connector:                   | BNC per IEC 61169-8 Annex A                                                                                                                         | Noise performance:                                        | < -78dB RMS NTC7 weighting, < -70dB RMS 15kHz to 5.5MHz                  |
| Common mode range:         | > 6V p-p                                                  | Output impedance:            | 75Ω                                                                                                                                                 | <b>Electrical:</b>                                        | +12V DC<br>1.2W<br>Complies with FCC Part 15 Class A<br>EU EMC Directive |
| CMRR:                      | > 70dB to 1kHz                                            | Gain control range:          | ±5dB                                                                                                                                                |                                                           |                                                                          |
| Signal amplitude:          | 2.5V p-p max                                              | DC Level:                    | < ±100mV (with DC Coupling active)                                                                                                                  |                                                           |                                                                          |
| Cable equalizer:           | 0 to 300m of Belden 8281 or 1694A cable                   | Freq. Response:              | < ±0.05dB no equalization<br>< ±0.09dB for 5 to 100m Belden 8281 or 1694A (to 5.5MHz)<br>< ±0.15dB for 100 to 300m Belden 8281 or 1694A (to 5.5MHz) | <b>Power:</b>                                             |                                                                          |
| Impedance:                 | 75Ω terminated, 35kΩ Hi-Z (jumper selectable)             |                              | < 0.17% 0 to 300m                                                                                                                                   | <b>EMI/RFI:</b>                                           |                                                                          |
| Coupling:                  | AC or DC (jumper selectable)                              | Differential Gain:           | < 0.1% 0 to 300m                                                                                                                                    | <b>Physical:</b>                                          |                                                                          |
| Return loss:               | > 40dB to 10MHz, > 30dB to 30MHz                          | Differential Phase:          | < 0.19° 0 to 300m                                                                                                                                   | Number of slots:                                          | 1                                                                        |
|                            |                                                           | C/L gain inequality:         | < ±0.1% for all cable lengths                                                                                                                       |                                                           |                                                                          |
|                            |                                                           | C/L Delay:                   | < ±2ns                                                                                                                                              |                                                           |                                                                          |

### Ordering Information

| 501ADA-EQ | Analog Video Distribution Amplifier with Cable Equalization (1x9) |
|-----------|-------------------------------------------------------------------|
|-----------|-------------------------------------------------------------------|

|              |                             |
|--------------|-----------------------------|
| Accessories: |                             |
| 500FC        | VistaLINK® Frame Controller |
| CP-2116E-H   | Remote Control Panel        |
| CP-2232E     | Remote Control Panel        |

|            |  |
|------------|--|
| Enclosures |  |
| 500FR      |  |
| S501FR     |  |

|                                         |  |
|-----------------------------------------|--|
| <b>exponent</b>                         |  |
| Compact High Density Distribution Frame |  |
| Standalone enclosure                    |  |

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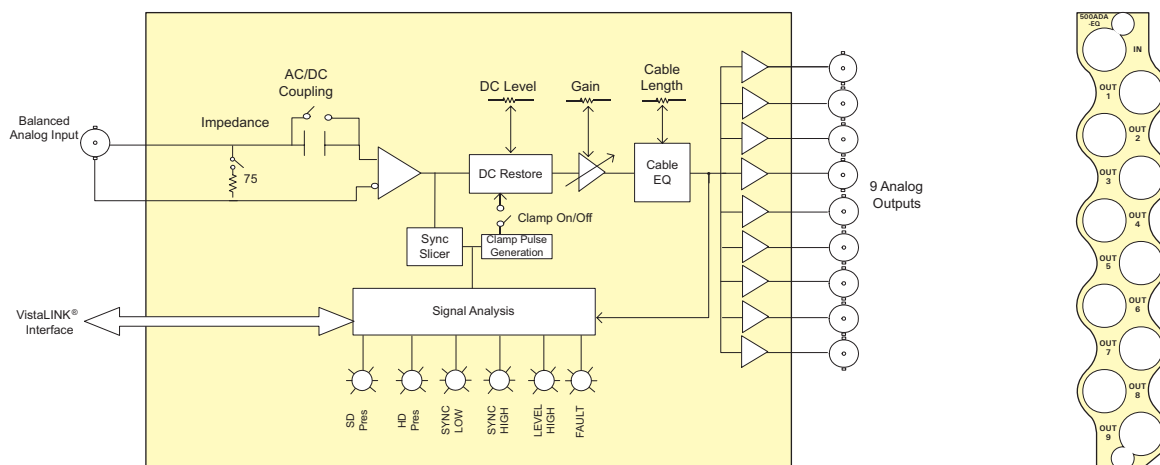
The 501ADA-EQ is housed in the 3RU 500FR **exponent** frame that will hold up to 16 modules.

### ►Features & Benefits

- 75Ω or high impedance input (jumper selectable)
- High common mode range and common mode rejection ratio (CMRR)
- Gain control
- Jumper selectable AC or DC coupling
- Jumper selectable fast or slow back porch clamp
- DC level control when clamp is enabled
- Cable equalizer adjustment range: 0 to 300m of 8281 or 1694A
- Looping feature with external "T" connector
- Consistent input impedance if card power is lost
- VistaLINK® -capable for remote monitoring via SNMP (using VistaLINK® PRO) when installed in 500FR frame with 500FC VistaLINK® Frame Controller

### Card Edge LEDs

- Module status/Local Fault
- Power supply status
- EQ Warning



### ►Specifications

#### Analog Video Input:

Standards: Any analog video format, up to 2V p-p and 30MHz bandwidth  
Connector: 1 BNC per IEC 61169-8 Annex A  
Common mode range: > 6V p-p  
CMRR: > 70dB to 1kHz  
Signal amplitude: 2.5V p-p max  
Cable equalizer: 0 to 300m of Belden 8281 or 1694A cable  
Impedance: 75Ω terminated, 35kΩ Hi-Z (jumper selectable)  
Coupling: AC or DC (jumper selectable)  
Return loss: > 40dB to 10MHz, > 30dB to 30MHz  
Clamp range: > ±600mV  
Fast clamp attenuation of 60Hz: > 36dB

#### Analog Video Outputs:

Number of Outputs: 9 Per Card  
Connector: BNC per IEC 61169-8 Annex A  
Output impedance: 75Ω  
Gain control range: ±5dB  
DC Level: < ±100mV (with DC Coupling active and back porch clamp disabled)  
DC Level Control range: < ±200mV (with back porch clamp enabled)  
Freq. Response: < ±0.05dB no equalization  
< ±0.09dB for 5 to 100m Belden 8281 or 1694A (to 5.5MHz)  
< ±0.15dB for 100 to 300m Belden 8281 or 1694A (to 5.5MHz)  
Differential Gain: < 0.17% 0 to 300m  
Differential Phase: < 0.19° 0 to 300m

C/L gain inequality: < ±0.1% for all cable lengths  
C/L Delay: < ±2ns  
Output isolation: > 42dB to 10MHz, > 32dB to 30MHz  
Output return loss: > 40dB to 30MHz  
Noise performance: < -78dB RMS NTC7 weighting, < -70dB RMS 15kHz to 5.5MHz

#### Electrical:

Voltage: +12V DC  
Power: 1.2W  
EMI/RFI: Complies with FCC Part 15 Class A EU EMC Directive

#### Physical:

Number of slots: 1

### ►Ordering Information

501ADA-EQ Analog Video Distribution Amplifier with Cable Equalization (1x9)

Enclosures  
500FR  
S501FR

**exponent**  
Compact High Density Distribution Frame  
Standalone enclosure