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REVISION HISTORY

REVISION	DESCRIPTION	DATE
1.0	Original Version	Jan 00
1.1	Block diagram, and Jumper location drawing added	Mar 00
1.2	Specifications updated	Mar 01

1. OVERVIEW

The 7700ADA Analog Distribution Amplifier is a general purpose amplifier for distributing analog signals. The 7700ADA features one balanced input with four outputs. The 7700ADA has been designed to distribute a wide range of analog video signals. It can also distribute other pulses and signals that are less than 2Vp-p.

Features:

- 75 Ohm or high impedance input (jumper selectable)
- Looping feature with external "T" connector
- Consistent input impedance if card power is lost
- High common mode range and common mode rejection ratio (CMMR)
- Gain and DC level control (non clamping)

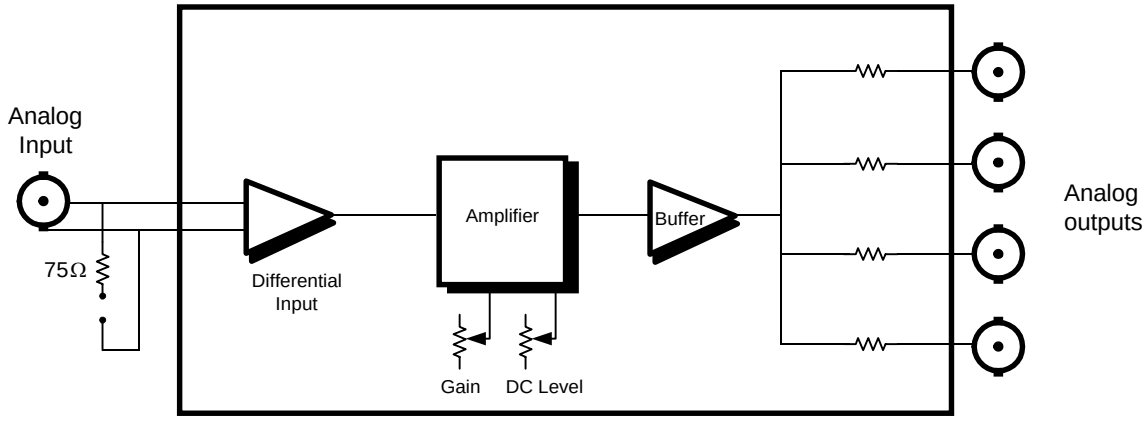

Figure 1: 7700ADA Block Diagram

2. INSTALLATION

The 7700ADA comes with a companion rear plate that has 5 BNC connectors. For information on mounting the rear plate and inserting the module into the frame see the 7700FR chapter section 3.

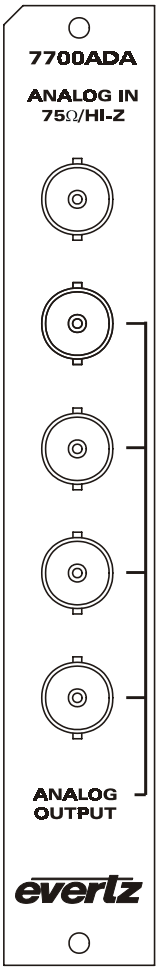

Figure 2: 7700ADA Rear Panel

ANALOG INPUT Input (isolated) BNC connector for analog video signals. The TERM jumper located on the module near this BNC connector determines whether the input signal will be high impedance or terminated with 75 ohms. (See section 5.1)

ANALOG OUTPUT There are four BNC connectors with level and DC adjusted copies of the input signal.

3. SPECIFICATIONS

3.1. ANALOG VIDEO INPUT

Standards: Any analog video format, up to 2Vp-p and 30MHz bandwidth
Connector: 1 BNC input per IEC 169-8
Equalization: None
Return Loss: > 25 dB up to 30MHz
Common mode range: 6Vp-p
CMRR: >75dB at 60Hz
>45dB at 100kHz
Return loss: >30dB up to 30MHz
Signal amplitude: 2.5Vp-p max

3.2. ANALOG VIDEO OUTPUTS

Number of Outputs: 4 Per Card
Connector: BNC per IEC 169-8
Signal Level: 1x gain +3.5dB, -2.5dB
DC Offset: settable ±200mV
Freq. Response: TBD (flat to 30MHz)
Differential Gain: TBD
Differential Phase: TBD

3.3. ELECTRICAL

Voltage: + 12VDC
Power: 1.2 Watts.

3.4. PHYSICAL

Number of slots: 1

4. STATUS LEDs

MODULE OK This Green LED will be On when the module is operating properly.

LOCAL FAULT This Red LED will be On when there is a fault in the module power supply.

D5, D6 These Green LEDs will be On when sufficient positive and negative voltages on the power supply rails is detected.

5. JUMPERS AND USER ADJUSTMENTS

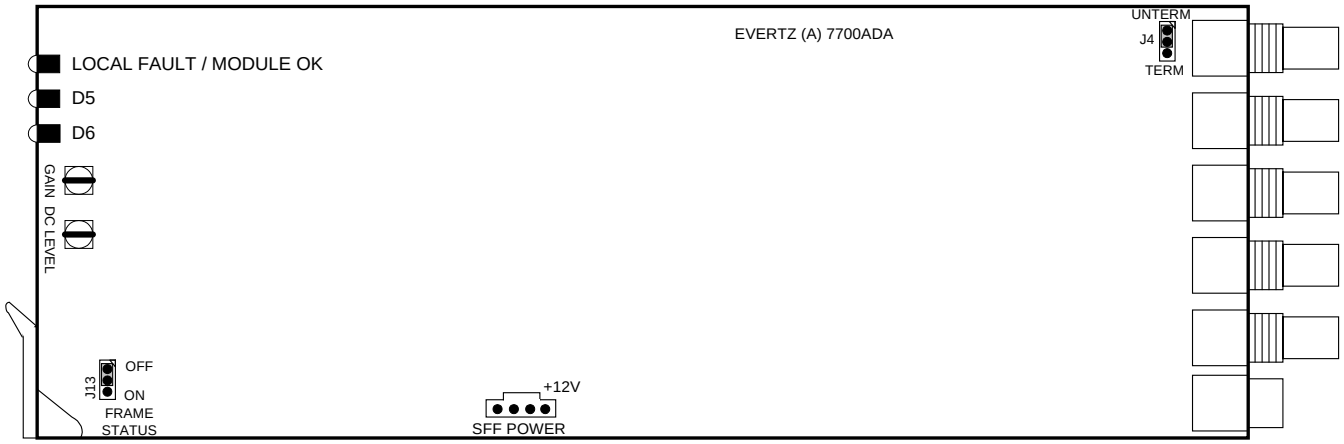

Figure 3: Jumper Locations for Rev A 7700ADA Cards

5.1. TERMINATION JUMPER

The TERMINATION jumper J4, located at the rear of the module near the input BNC determines whether the input signal will be terminated with 75 ohms or not.

When set in the "TERM" position, the input impedance is set to 75Ohm. Use this position when the cable stops at this card. It will provide the proper impedance to eliminate electrical reflections.

If set to "UNTERM", the input will be high impedance. Use this position when the signal does NOT stop at this card. Install a "T" connector on the ANALOG INPUT BNC to "loop" the signal through this card.

WARNING: Make sure that the final destination of the signal is terminated into a 75 Ohm load. Otherwise, reflections will occur affecting the signal throughout the cable.

5.2. SELECTING WHETHER LOCAL FAULTS WILL BE MONITORED BY THE GLOBAL FRAME STATUS

The FRAME STATUS jumper J13, located at the front of the module determines whether local faults (as shown by the Local Fault indicator) will be connected to the 7700FR frame's global status bus.

FRAME STATUS The FRAME STATUS jumper J22 located at the front of the module determines whether local faults (as shown by the Local Fault indicator) will be connected to the 7700FR frame's global status bus.

To monitor faults on this module with the frame status indicators (on the PS FRAME STATUS LED's and on the Frame's Fault Tally output) install this jumper in the On position. (Default)

When this jumper is installed in the Off position, local faults on this module will not be monitored.

5.3. GAIN CONTROL

Turn the multi-turn GAIN control potentiometer clockwise to increase the gain through the card. The GAIN control is set at the factory to maintain unity gain through the amplifier.

5.4. DC LEVEL CONTROL

Turn the multi-turn DC LEVEL control potentiometer clockwise to increase the DC level of the signal through the card. Note that this is NOT a clamping amplifier and thus will handle a wider variety of signals than if it were clamping. However, it will not remove varying DC levels.

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