

**FIBER OPTIC FOUR CHANNEL  
VIDEO & AUDIO SYSTEM  
INSTRUCTION MANUAL  
SERIES VAL4**

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**VAL4-T**

**DESCRIPTION**

The VAL4-T is a fiber optic card transmitter that converts four (4) composite video and 4 audio signals to Frequency Modulated (FM) light for coupling into one optical fiber.

**SYSTEM COMPATIBILITY**

The VAL4-T is compatible with PAL, SECAM, NTSC EIA RS-170 and RS-343A for video, balanced or unbalanced 600, and 10k or 47k Ohm for audio.

The VAL4-T card transmitters are compatible with the VAL4-R receivers.

## INSTALLATION

To install the VAL4-T, it is necessary to allow enough space to accommodate the bend radius of the optical cable connected to it. The transmitter requires short as practical four (4) BNC terminated coaxial cables to input the video signals from 75 Ohm cameras, mini din or RCA for audio, 3 pin terminal block for data.

There is a LED on the top portion of the front panel that will light up once the power supply to the sub-rack/chassis is turned on. The LED is connected to the + and - supply circuitry of the card.

## POWER SUPPLY

The unit is powered by a plugin power supply.

## AUDIO

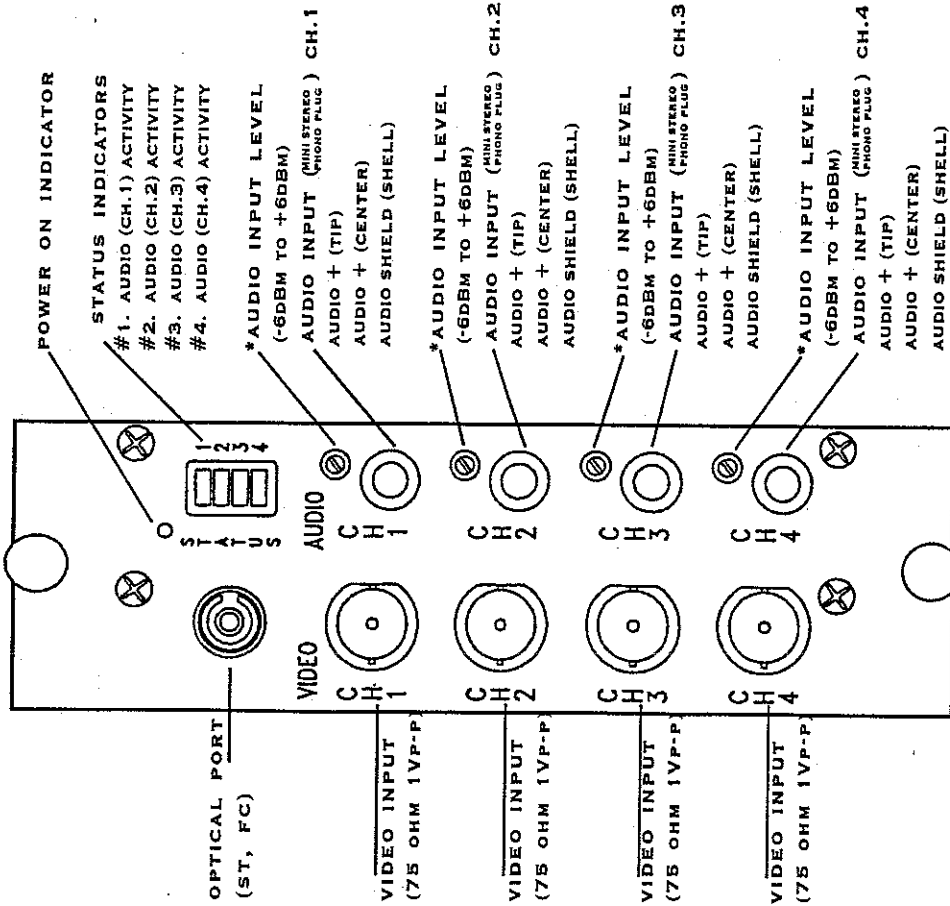
There are adjusting potentiometers for the input of the audio channel. Adjustments can be made from -6 dBm to +6 dBm from left to right.

## PINOUTS

There up to four 3 pin connectors on the front panels of the VAL4-T.

**CAUTION: Do not look into optical ports with power on.**

# VAL4-T PINOUT DIAGRAM



\*INSERT MAX. AUDIO LEVEL, SET PORT FOR STATUS LED ON

# VAL4-R

## DESCRIPTION

The VAL4-R is a fiber optic card receiver that converts Frequency Modulated (FM) light from an optical fiber to four (4) composite video and 4 audio signals.

## SYSTEM COMPATIBILITY

The VAL4-R is compatible with PAL, SECAM, NTSC EIA RS-170 and RS-343A for video, balanced or unbalanced 600, and 10k or 47k Ohm for audio.

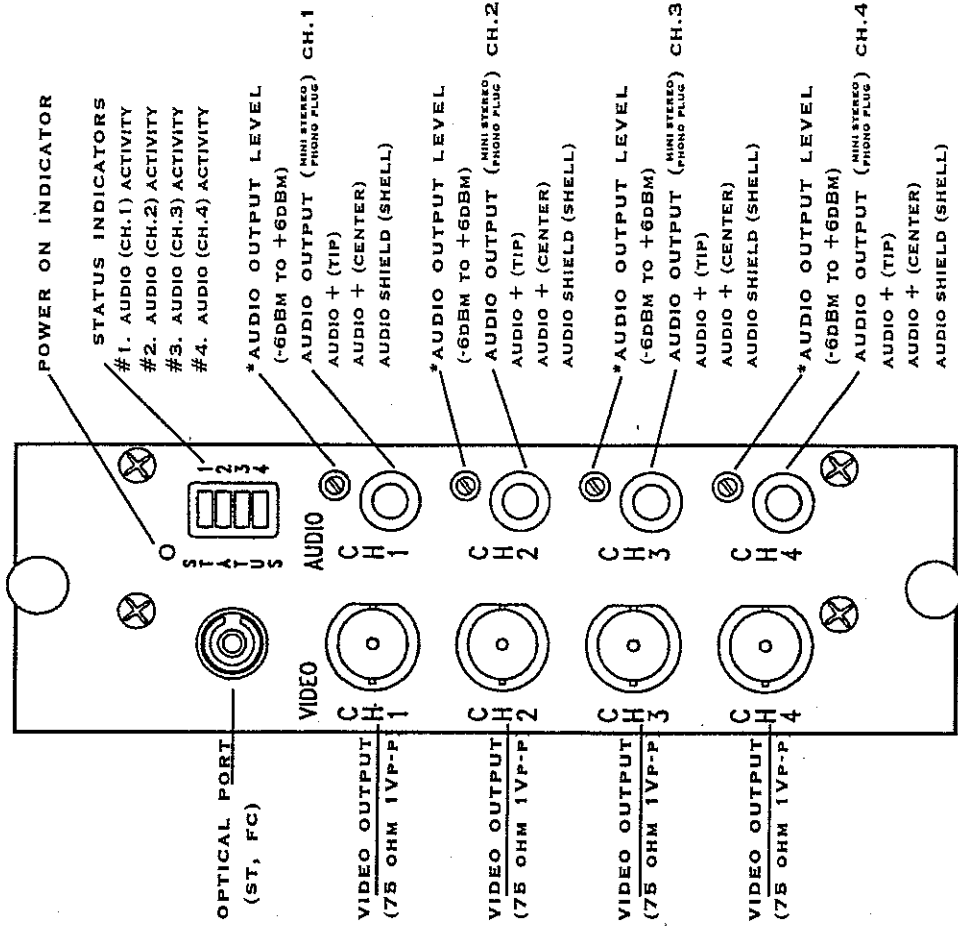
The VAL4-R card receivers are compatible with the VAL4-T transmitters.

## PINOUTS

There up to four 3 pin connectors on the front panels of the VAL4-R.

**CAUTION: Do not look into optical ports with power on.**

## VAL4-R PINOUT DIAGRAM



\*INSERT MAX. AUDIO LEVEL, SET PORT FOR STATUS LED ON

## INSTALLATION

To install the VAL4-R, it is necessary to allow enough space to accommodate the bend radius of the optical cable connected to it. The receiver requires short as practical four (4) BNC terminated coaxial cables to output the video signal to monitors, mini din or RCA for audio, or a 3 pin terminal block for data.

There is a LED on the top portion of the front panel that will light up once the power supply to the sub-rack/chassis is turned on. The LED is connected to the + and - supply circuitry of the card.

## POWER SUPPLY

The unit is powered by a plugin power supply.

## AUDIO

There are adjusting potentiometers for the output of the audio channel. Adjustments can be made from -6 dBm to +6 dBm from left to right.

## IMPORTANT NOTE

Many of our Fiber Optic Electronic Systems are manufactured to transmit signals over the maximum distance possible. This is true for both singlemode and multimode versions. However, it is especially true for singlemode fiber systems, many of which are manufactured to transmit up to 50Km (30 miles).

For short lengths of fiber optic cable, the receiver may saturate - the amount of light intensity may be too high for the receiver to handle. When this occurs, the system will not operate properly. This frequently occurs when singlemode video systems are tested on a bench using a short jumper. But it can also happen when a 50Km singlemode system is used over a 5Km length of cable. For multimode system, a 3Km system may saturate when used over a 1500 foot length of cable.

There is a simple solution to the problem of saturation. If you suspect this is happening, contact the factory. We will be happy to provide you with a fixed attenuator to increase the losses in your fiber optic cable. This extra loss will decrease the light intensity to allow the system to operate properly.

## WARRANTY

Radiant Communications Corporation warrants that at the time of shipment the products manufactured by Radiant Communications Corporation will be free from defects in material and workmanship and will conform to the specifications furnished by or approved by Radiant Communications Corporation.

Should any defects appear within 1 year from date of shipment, Radiant Communications Corporation shall at its sole discretion repair or replace the defective material. Such material shall not be accepted for return or repair without prior notification of Radiant Communications Corporation.

Return shipments to Radiant Communications Corporation shall be at the buyers expense. Radiant Communications Corporation will return said equipment prepaid via best way.

The foregoing warranty is in lieu of and excludes any and all other expressed or implied warranties of merchantability or fitness, or otherwise. Items manufactured by any supplier other than Radiant Communications Corporation assumes no responsibility for the performance or reliability of the product.

Radiant Communications Corporation will not be liable for any special or consequential damages, or for loss, damages, or expense directly or indirectly arising from the use of the products or any inability to use them either separately or in combination with any other equipment or material or from any other cause.

The warranty does not extend to any product manufactured by Radiant Communications Corporation which has been subject to misuse, neglect, accident, improper installation, act of God or in violation of the instructions furnished by Radiant Communications.