



FiberLink Beamer-V™



**Fiber optic transmission of composite
video in a simple, low-cost system**

**Installation and Operations
Manual**

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Welcome

Thank you for purchasing Artel Video Systems' FiberLink Beamer-V Composite Video over Fiber Series. Beamer-V is a high-quality, cost-effective fiber optic video transmission system designed to transmit color and black and white signals over distances of more than a mile. The system is easily installed and designed for long, troublefree operation in most indoor or outdoor-protected environments. Beamer-V is compatible with all analog video standards, including NTSC, PAL and SECAM, and will operate with all standard 62.5 micron fiber optic cables and industry standard ST type connectors.

Features

- Transmits up to three kilometers over multimode fiber at 850 nm
- May be purchased as a complete, low cost system including transmitter, receiver and two power supplies
- Card version supports dual video channels
- Card version fills one slot in 6000A card cage
- Fiber is immune to the effects of electrical interference, ground loops, explosive and hazardous environments, moisture and high voltage

Package Contents

If you purchased part number 3100 or 3101, your product is supplied with:

- 1 Beamer-V Transmitter or Receiver unit
- This User's Manual

If you purchased part number 3105, your product is supplied with:

- 1 Beamer-V Transmitter unit
- 1 Beamer-V Receiver unit
- 2 12 Vdc Power Supplies
- This User's Manual

Video Specifications

Number of Channels	1
Number of Outputs per Channel	Box: 1; Card: 2
Bandwidth	8 MHz
Input/Output Impedance	75 Ohms
Signal-to-Noise Ratio (per RS-250)	52 dB minimum
Differential Gain (per RS-250)	2% typical
Differential Phase (per RS-250)	1° typical
Input/Output Voltage	1 volt p-p (user adjustable at receiver)

General Specifications

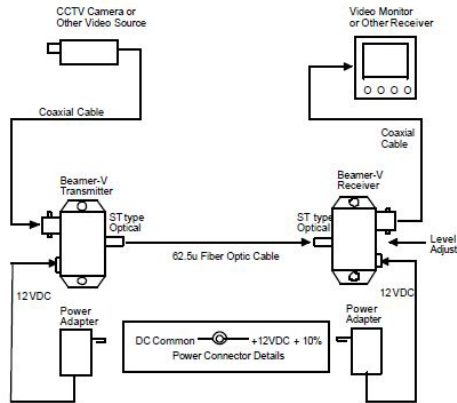
Number of Fibers	Box: 1; Card: 2 (1 per channel)
Operating Temperature	-35 to +75° C
Relative Humidity	10 to 90%, non-condensing
Operating Power (per unit)	9-12 V \pm 10% DC @ 100 ma max.
Dimensions	3.25 L x 2.38 W x 1 H (inches) 83 L x 60 W x 25.4 (mm)
Weight	3.0 oz. (85.04 grams)
Optical Connectors	ST
Optical Wavelength	850 nm
Optical Fiber	62.5 micron multimode fiber

Certifications



Installation Instructions

See the diagram on the following page for assistance during installation. Please note that Beamer-V Box units (transmitter P/N 3100 and receiver P/N 3101) may be used in conjunction with 2-channel card versions of Beamer-V (transmitter P/N 3108A and receiver P/N 3109A). If you are connecting one or more box units to a card unit, please refer to the manual that came with your card unit for installation instructions regarding that portion of your system.



Installation of Beamer-V Fiber Optic Transmission System

The following instructions describe the typical installation procedure:

1. Mount the Beamer-V transmitter at the camera or source of video to be transmitted. Use the mounting tabs on the housing or the enclosed selfadhesive mounting pad.
2. Connect one of the plug-in power supplies to the input connector on the Beamer-V transmitter. If an external power source is to be used, be certain it provides regulated 12 volts DC+10%. Current from this source will not exceed 250 ma. When power is applied, the red PWR indicator LED will glow. Note that the (-) side of the power input is connected to the enclosure.
3. On the Beamer-V transmitter, connect the video signal to be transmitted to the BNC connector and the ST fiber optic cable plug to the optical connector.
4. Mount the Beamer-V receiver at the monitor or device where the video will be received.
5. Connect the remaining plug-in power supply to the Beamer-V receiver's input connector. If an external power source is to be used, be certain it provides regulated 12 volts DC +10%. Current from this source will not exceed 250 ma. When power is applied, the red PWR indicator LED will glow. Note that the (-) side of the power input is connected to the enclosure.
6. Connect the video monitor or other video receiving device to the BNC connector on the Beamer-V's receiver and the fiber optic cable plug to the Beamer-V receiver's optical connector.
7. For a pleasing picture, slowly adjust the LEVEL control on the Beamer-V's receiver. If high accuracy is required, set this level to 1 volt pp with a 75 ohm load.
8. Your Beamer-V video transmission system is now installed.

Interface Troubleshooting

In rare instances, where the Beamer-V transmission system does not immediately operate, the following “checklist” should be used:

1. Is the correct operating power present and connected to the proper pins on the power connector? If so, the red PWR LED should glow.
2. If an external power source is being used, does it matter that the signal and power ground are connected to the enclosure?
3. Is a video signal present at the Beamer-V transmitter input?
4. Is the proper 62.5 micron fiber optic cable being used?
5. Is the length of fiber optic cable longer than 1.5 miles? If so, a weak snowy picture may result.
6. Are the fiber optic connector ends free of any minute dust or dirt particles? If there is any doubt, the use of a lint-free cloth moistened with a drop of alcohol should be used to gently clean the optical surface.

If the above is correct and the system will still not operate properly, call our customer service department for further assistance.

WARNING

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart B of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

CE Information

Standards to which conformity is declared:

EMC EN 55022: 1994, CISPR 22: 1993, Class B Limit

EN 50082-1: 1992

IEC 801-2: 1991; IEC 801-3: 1984; IEC 801-4: 1988

FCC User Information

