



PRODUCT SPECIFICATION

MODEL: V2712R-1 SERIES

PRODUCT CODE: REFER TO TABLE 1

DESCRIPTION: FIBER-OPTIC VIDEO RECEIVERS

- Superior performance and reliability
- Compact
- Requires no adjustment
- Bicolor LEDs

The V2712R-1 series of fiber-optic receivers provides superior performance and reliability in closed-circuit video systems. The series includes model variations with the numbers V2712R-1, V2712R-R-1, and V2712R-2R-1.

The V2712R-1 series can withstand an optical signal loss of up to 10 dB over 62.5-um cable. All units in this series are set for 62.5-um cable, unless special-ordered otherwise. If another fiber size has been specified, the fiber size will be marked on a small round label attached to the unit. The system requires no adjustments. A complete system requires one transmitter and one receiver, except that the V2712R-2R-1 receiver can accommodate two transmitter inputs. The V2712R-1 receivers are compatible with V2711T-1 and V2710T-R-1 transmitters.

The status LEDs on the V2712R-1 and V2712R-R-1 are green-red bicolor types. The optical signal LED indicates presence of optical signal. Any shade of green indicates the presence of enough optical signal for the system to function. Red indicates a lack of signal, probably due to broken or disconnected optical fiber or lack of video input signal at the transmitter.

The video level LED indicates the strength of the synchronizing component of the composite video signal. Since the sync signal has a constant amplitude, unlike the luminance part of the composite video signal, it provides a better measure of video signal quality. Green indicates adequate signal, red indicates inadequate signal.

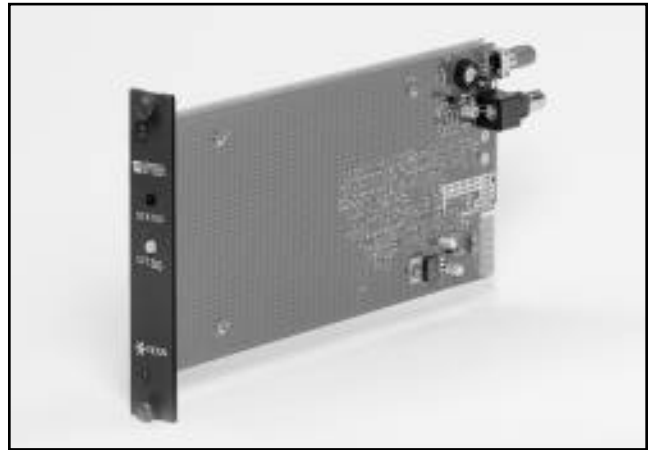
CONTRACTORS' SPECIFICATION

FIBER-OPTIC VIDEO RECEIVER

The fiber-optic receiver shall provide single channel video transmission over a single optical fiber. A dual-channel model shall be available for one-way operation over two fibers. Input video signal shall be 1 V p-p composite video. The video bandwidth shall be 8 MHz. Optical wavelength shall be 850 nm. Maximum optical attenuation with 62.5-um cable shall be 10 dB. Signal-to-noise ratio shall be greater than 50 dB, at maximum optical attenuation. The receivers shall contain bicolor optical indicator LEDs. The receiver shall be available in either standalone surface-mount modules or in rack-mount modules. The surface-mount receiver shall be Vicon model V2712R-1 receiver. The rack-mount receiver shall be Vicon model V2712R-R-1 and V2712R-2R-1 receivers.

Product specifications subject to change without notice.
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NOTES	SPEC NO.	REV.	SEC.
SUPERSEDES PRODUCT SPECIFICATION 816-895	816	699	12



V2712R-R-1 RECEIVER

The receivers are available in compact surface-mount modules and rack-mount modules. Rack-mount modules are designed for use with the VOP15RK and VOP17RK card cage racks. Rack-mount modules are powered by the power supply built into the VOP15RK card cage rack or by the external VOP-RPS-2 external power supply if installed in the VOP17RK card cage rack.

Two models of power supply, VOPPS-120DC and VOPPS-220HDC, are available for use with V2712R-1 receivers.

OPTICAL CABLE RECOMMENDATIONS

Vicon recommends that a professional fiber company install and terminate the optical cable. The cable should meet the application requirements for physical properties, such as strength and weatherproofing. The fiber contractor will provide recommendations for exact cable type based on the details of the installation.

COAXIAL CABLE RECOMMENDATIONS

Using the correct coaxial cable is critical for proper system operation. The cable must meet these requirements: (1) pure copper center conductor; (2) pure copper braid shield with a minimum of 95% coverage; (3) polyethylene dielectric. If the

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**TABLE 1
MODELS AND PRODUCT CODES, AND POWER REQUIREMENTS**

Model Number	Product Code	Description	DC	AC
V2712R-1	4417	Surface-mount receiver with LEDs	12-16 V, 75 mA	12-16 V, 75 mA
V2712R-R-1	4417-02	Rack-mount receiver with LEDs	—	135 mA from rack
V2712R-2R-1	4418-02	2-channel rack-mount receiver with LEDs	—	270 mA from rack

cable is connected to a camera on a pan-and-tilt, use a multi-strand center conductor. Other cable properties, such as outer jacket material, will be determined by the physical requirements of the installation. With RG-59/U type cable made of the materials above, the fiber-optic transmitter or receiver may be located up to 300 feet (about 100 meters) from the video source or video destination.

ASSOCIATED EQUIPMENT AND ACCESSORIES

Model VOP15RK 15-Channel Rack: Rack with built-in power supply can accommodate 15 transmitter or receiver or transceiver modules with a total current requirement of 2.5 A. Modules must be rack-mount version. Product code 2066. Product Specification 740.

Model VOP17RK 17-Channel Rack: Accommodates 17 single-width rack-mount modules or the equivalent in double-and single-width modules. Requires external rack-mount power supply VOP-RPS-2. Product code 2647. Product Specification 740.

Model VOPPS-120DC Power Supply: Converts 120 VAC to 12 VDC. Pins for standard U.S. utility outlet are molded into the power supply case for power input. Power output is via a pendant cable. Product code 5940. Product Specification 743.

Model VOPPS-220HDC Power Supply: Converts 230 VAC to 12 VDC. Pins for continental European utility outlet are molded into the power supply case for power input. Power output is via a pendant cable. Not for use in U.K. Product code 5942. Product Specification 743.

Model VOP-RPS-2 Rack-Mount Power Supply: Can provide power for two fully loaded VOP17RK card cage racks. Mounts in standard 19-inch EIA-type instrument rack. Product code 2649. Product Specification 740.

TECHNICAL INFORMATION

ELECTRICAL

Power Requirements: See Table 1.

Heat Equivalent: 0.07 btu/min (0.02 cal/min).
Note: These figures represent the conversion of 100% of the electrical energy to heat. Actual percentage of heat generated will be less and will vary from product to product. These figures are provided as an aid in determining the extent of cooling required for an installation.

Video Bandwidth: 8 MHz (± 1 dB).

Video Input Signal: 1 V p-p, nominal.

Video Output Signal: 1 V p-p $\pm 10\%$, composite.

Video Input/Output Impedance: 75 ohms.

OPTICAL

Differential Gain: < 5%.

Differential Phase: < 5°.

Tilt: 2%.

Gain Control: Fully automatic (AGC).

Optical Wavelength: 850 nm.

Maximum Optical Attenuation: Greater than 10 dB.

Signal-to-Noise Ratio: Greater than 50 dB, at maximum optical attenuation.

**TABLE 2
DIMENSIONS, WEIGHTS, AND SHIPPING INFORMATION**

Model	Unit Dimensions in. (cm)			Unit Weight lb (kg)	Shipping Dimensions in. (cm)			Shipping Weight lb (kg)	Shipping Volume ft ³ (m ³)
	Height	Width	Length		Height	Width	Length		
V2712R-1	1.0 (2.5)	2.8 (7.1)	3.75 (9.5)*	0.28 (0.13)	1.1 (2.8)	2.75 (7.0)	5.0 (12.7)	0.34 (0.15)	0.009 (0.003)
V2712R-R-1	Single width (1 in.) module occupies one card cage slot.			0.57 (0.26)	1.0 (2.5)	5.25 (13.3)	9.9 (25.2)	0.67 (0.30)	0.03 (0.0008)
V2712R-2R-1	Single width (1 in.) module occupies one card cage slot.			0.66 (0.3)	1.0 (2.5)	5.25 (13.3)	9.9 (25.2)	0.67 (0.30)	0.03 (0.0008)

*Without connectors. V2712R-1, 5.0 in. (12 cm) long with connectors.

CONNECTORS

Power Connector: Surface-mount modules: 3-pin connector; mating connector with screw terminals included.
Rack-mount modules: power connections made via bus bar in card cage rack.

Input/Output Connector: BNC.

Optical Connector: ATT ST connectors are standard. AMP SMA connectors are available on special order.

ENVIRONMENTAL

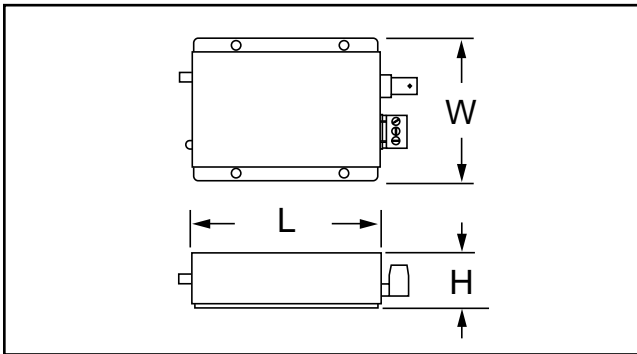
Operating Temperature Range: -4 to 122° F (-20 to 50° C).

Storage Temperature Range: -40 to 185° F (-40 to 85° C).

Storage Humidity: Up to 90% relative, noncondensing.

MECHANICAL

Dimensions: See Table 2.



Weight: See Table 2.

Shipping Information: See Table 2.