

160 MHz 3-Fiber Transmission System For Ultra High Resolution Remote Displays

The RGB-9100 is a Amplitude Modulated (AM), LED- or Laser-based RGB Video transmission system, with Sync accepted on all on three channels.

It is ideal for the extension of any high resolution Video signal such as a CAD / CAM graphics workstation. Units come with a built-in Automatic Gain Control (AGC) to maintain constant Video output for each color, and a status indicator for Power On.

System Design

All units come in a small module or Insert Card version. The cards can be inserted into our 18 slot, 19" rack-mountable card cage (CC-18), or one of our smaller Desktop Card Racks (DTCR series). The Desktop Card Racks can handle one, two, four, or seven cards, allowing for greater flexibility and future expansion. They can sit on a flat surface as a larger Stand Alone unit, or can be surface mounted with the flanges provided. Each one of our card housings operates with an appropriate power supply. The regulated switching power supply has short circuit protection, and an input operating voltage of 85-265 V_{AC}.



Features

- Ultra-high resolution (1792 x 1536)
- Multimode operation over three fibers
- 160 MHz video bandwidth
- Ideal for radar applications
- True DC restoration
- Flat frequency Response
- Complies with RS-170, RS-170A & 343 EIA standards
- No EMI or RFI and no ground loops
- Stand Alone or Rack Mount
- Ideal for CAD/CAM workstation extensions

865	1310	1550	Type	Mode	Wavelength Suffix	Fiber Type	Output Power	Receiver Sensitivity	Optical Loss Budget	Range*	Conn Type
•			LED	MM	L0	50/125μ	-13 dBm	-20 dBm	7 dB	1 km	ST
•						62.5/125μ	-10 dBm	-20 dBm	10 dB	2 km	ST
	•		LED	MM	L1	50/125μ	-8 dBm	-20 dBm	12 dB	5 km	ST

* Chromatic dispersion and additional losses should be taken into account

Video

Video in/out impedance	75 Ω
Video in/out level	1 volt peak to peak, 0.7 volts without sync
Video bandwidth	10 Hz to 160 MHz @ -3dB
Grayscale linearity distortion	< 2.0 % typical
Pixel intensity distortion	< 2.0° typical
Linearity	\pm 1.1 % typical
Tilt	\leq 0.5 % typical
Maximum horizontal frequency	128 KHz
Maximum refresh rate	120 KHz
Signal to noise ratio	>52 dB using RS-250C standards @ 1 km
Connector type	BNC

General

Dimensions & Weight	Stand Alone (SA): 7.16" L x 5.21" W x 0.94" H	30 oz
	Insert Card (IC): 6.3" L x 0.8" W x 4.0" H	16 oz
Operating temperature	-20° C to +70° C	
Storage temperature	-30° C to +85° C	
Humidity	0 to 95% non-condensing	
Operating voltage	12 V _{DC} (200 mA) or 24 V _{AC} (300mA) or 110/220 V _{AC}	
Vibration	Up to 5 g's	
Shock	Up to 12 g's	

Diagnostics

Status monitoring	LED indication
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Optiva™ Configurable Communication Platform
Network Management
SDI & HD-SDI
Composite Video, Audio & Data
RGB/VGA/DVI
Audio/FSK/Intercom
Data (Ethernet/Serial/USB)
CATV/RF & L-Band
Optical Switching, Routing & Redundancy
Passive Multiplexing Solutions
Enclosures, Racks & Frames
Power Supplies & Accessories



Sample Configuration

