FIBER OPTIC 160-200 MHZ RGB OR MONOCHROME VIDEO TRANSMISSION SYSTEM FOR ULTRA HIGH RESOLUTION REMOTE DISPLAYS

FEATURES

- Ultra-High Resolution (1792 x 1536)
- Multimode (865 or 1310 nm) Operation Over Three Fibers
- 160 MHz Video Bandwidth
- 200 MHz Video Bandwidth
- Ideal for Radar Applications
- True DC Restoration
- Flat Frequency Response
- Complies with RS-170, RS-170A & RS-343 EIA Video Standards
- No EMI or RFI & No Ground Loops
- Stand Alone or Rack-Mount
- Ideal for CAD/CAM Workstation Extensions

GENERAL

The Opticomm Model RGB-9100 is an Amplitude Modulated (AM), LED or Laser based RGB or monochrome compatible Video transmission system, with sync accepted on green or all three channels. It is ideal for the extension of any high resolution Video signal such as a CAD / CAM graphic workstation. Units come with a built-in Automatic Gain Control (AGC), to maintain constant Video output for each color. Status indicator for Power On. Units transmit over three multimode fibers @ 865 and 1310nm; or singlemode fibers at @ 1310 and 1550nm.

SYSTEM DESIGN

All of our units come as an Insert Card version. The cards can be inserted into our 18 slot, 19" rack-mountable card cage (CC-18), or one of our smaller Desk-Top Card Racks (DTCR series). The Desk-Top 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 87-264 V_{AC}.

**PRODUCTS**

- RGB-9100/XMT  RGB, 160 MHz, 3 fibers
- RGB-9100/RCV  RGB, 160 MHz, 3 fibers
- RAM-9120/XMT  1 channel, 200 MHz, 1 fiber
- RAM-9120/RCV  1 channel, 200 MHz, 1 fiber
- RGB-9130/XMT  RGB, 200 MHz, 3 fibers SM
- RGB-9130/RCV  RGB, 200 MHz, 3 fibers SM

**ADD SUFFIXES**

- **L0** - 865nm LED, MM
- **L2** - 1310nm Laser, SM
- **RM** - Mounting Brackets

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**Specifications**
VIDEO
Video in/out Impedance 75 Ohm
Video in/out level 1 volt peak to peak, .7 volts without sync
Video Bandwidth 10 Hz to 160 MHz @ -3dB and 200 MHz @ -3dB (optional)
Gray scale linearity distortion < 2.0 % typical
Pixel intensity distortion < 2.0 % typical
Linearity ±1.1 % typical
Tilt <= 0.5 % typical
Maximum horizontal frequency 128 KHz
Maximum refresh rate 120 KHz
Signal to noise ratio > 52 dB using RS-250C standards @ 500 meters
Connector type BNC

OPTICAL
Wavelength
LED 865nm(L0)
LED 865nm(L0)
Laser 1310nm(L2)
Fiber type 50/125u 62.5/125u Singlemode
Output power -13 dBm -20 dBm -8 dBm
Receiver sensivity -20 dBm -20 dBm -20 dBm
Optical Loss budget 7 dB 10 dB 12 dB
Optical dynamic range 10 dB 10 dB 12 dB
Connector type ST ST FC

GENERAL
Dimensions & Weight - Stand Alone/DTCR-1 7.16" L x 5.21" W x 0.94" H 39 oz.
Dimensions & Weight- Insert Card 6.3" L x 0.8" W x 4.0" H 16 oz.
Operating temperature range -20°C to +70°C
Storage temperature range -30°C to +85°C
Humidity 0 to 95% non-condensing
Operating voltage 12 VDC or 24 VAC
Vibration Up to 5 g's
Shock Up to 12 g's

DIAGNOSTICS
Status monitoring LED indicator
Opticomm reserves the right to change specifications without prior notice.