FIBER OPTIC 200 MHZ VGA/RGB VIDEO/DATA/AUDIO TRANSMISSION SYSTEM FOR ULTRA HIGH RESOLUTION REMOTE DISPLAYS

FEATURES

- Ultra-High-Resolution (1840 x 1634)
- Multimode (865 or 1310nm) Operation Over 3-6 Fibers
- 200 MHz Video Bandwidth @ -3dB
- True DC Restoration with AGC
- Flat Frequency Response
- Complies with RS-170, RS-170A, & RS-343EIA Video Standards
- VGA/SVGA Keyboard/Mouse & Audio
- No EMI or RFI & No Ground Loops
- Stand Alone or Mounting Brackets
- Ideal for CAD/CAM Workstation Extensions

GENERAL

The Opticomm Model RGB-3000 is a Amplitude Intense Modulated (AM), LED or Laser based RGB Video transmission system with a 15 Pin VGA interface port, which provides H/V Sync or Composite External Sync or Sync 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.

The RGB-3000 comes with various options:

- VGA-RGB/Video with Sync only.
- VGA-RGB/Video with Keyboard/Mouse PS/2 6 Pin Din type Data and one RS-232 Auxiliary.
VGA-RGB/Video with Digital Audio Unbalanced Phoenix 5 Pin for RCA (L/R) stereo jack.
VGA-RGB/Video with 2 Digital Audio Mono Balanced Phoenix 5 Pin for XLR(L/R) jack.
VGA-RGB/Video with Keyboard/Mouse PS/2, 1 RS-232 Aux/Data and 2 Audio ports.

SYSTEM DESIGN

Status indicators for: Power On, VGA H/V Synch present. Units transmit over 3-6 multimode fibers @ 865nm or 1310nm; or singlemode fibers @ 1310nm or 1550nm. All units come as a Stand Alone version. Units can be Rack-Mountable with optionally provided brackets for a flat surface such as a desktop in a cabinet, or mounted in a 19" Rack. RGB-3000 unit comes with internal 87-264VAC power supply that operates with a selectable power supply. The regulated switching power supply has short circuit protection, and an input operating voltage of 87-264VAC.

PRODUCTS

- RGB-3003/XMT VGA/RGB, 3 fibers
- RGB-3003/RCV VGA/RGB, 3 fibers
- RGB-3004/XMT VGA/RGB, Audio 4 fibers
- RGB-3004/RCV VGA/RGB, Audio 4 fibers
- RGB-3005/XMT VGA/RGB, K/M Aux 5f
- RGB-3005/RCV VGA/RGB, K/M Aux 5f
- RGB-3006/XMT VGA/RGB, K/M, Aux/A 6f
- RGB-3006/RCV VGA/RGB, K/M, Aux/A 6f

ADD SUFFIXES

- L0 - 865nm LED, MM
- L2 - 1310nm Laser, SM
- SA - Stand Alone
- RM - Mounting Brackets

Specifications
RGB-3000/XMT & RGB-3000/RCV 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 200 MHz @ -3dB
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 VGA 15 Pin HD female

AUDIO
Audio in/out impedance 600 ohms balanced or unbalanced
Audio in/out level -6 to +6 dBm
Frequency response 10 Hz to 20 KHz
Signal to Noise Ratio > 60 dB
Total harmonic distortion < 1.0 %, 1 KHz at maximum modulation
Connector type Phoenix 5 Pin UnBalanced 1(L/R) to RCA
Phoenix 5 Pin Balanced to 2 Mono (L/R) to XLR

DATA
Data Rate DC to 19.2 Kb/s
Bit Error Rate 10^-9
Data formats available Keyboard/Mouse PS/2 6 Pin Din type
Connector type Auxiliary RS-232 port DB9 Pin

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

GENERAL
Dimensions & Weight - Stand Alone 13.75" L x 8.50" W x 1.65" H 39 oz.
Material Aluminum casing
Operating temperature range -20°C to +70°C
Storage temperature range -30°C to +85°C
Humidity 0 to 95% non-condensing
Operating voltage
115V$_{AC}$ or 230V$_{AC}$ Selector switch
Up to 5 g's
Up to 12 g's

DIAGNOSTICS
Status monitoring

LED indicator

Opticomm reserves the right to change specifications without prior notice.