

RGB-2000 Series

500 MHz RGB and VGA Fiber Optic Transport System



- Transport RGB and XVGA signals plus various configurations of H and V sync over **3 fibers**.
- **1600 x 1200 Resolution**.
- Horizontal Frequency 15-130 KHz.
- RGB HV, RGsB, YsUV, YcCrCb, VGA, SVGA and UXGA.
- Enables remoting of a monitor from the video source.
- System **bandwidth of up to 500 MHz, 165 MHz per component**.
- Supports all possible horizontal and vertical synch configurations.
- System has **loop-through BNC and HD15 inputs**.
- System supports sync on green, CS sync and separate HS and VS sync inputs.
- Intensity modulation.
- **Optical budget up to 13 dBm**.
- **AGC** on all colors provides automatic color balance.
- Available in Singlemode ONLY.
- Provides electrical isolation, immune to electrical noise in the transmission path
- Systems available with **Keyboard, Mouse and Audio support**.
- Available in stand-alone and rack-mount configurations.
- **Universal 85-264 VAC power supply**.
- Application include commodity and stock exchanges, medical and MRI displays, advertising and signs, sporting and concert video displays, video walls, digital cinema, radar displays, air traffic control, military information displays plus many more...

DESCRIPTION

The RGB-2000 is ideally suited to sending high quality, high resolution (up to 1600 X 1200) component video over fiber. All component formats are supported including RGB, VGA, SVGA etc. Applications include plasma displays, video walls for advertising, MRI and medical display and radar displays.



With the RGB-2000, synch is transmitted on all components to make set up simple. It supports synch on green, CS sync and separate H and V synch. Loop through and HD15 inputs further simplify operation. AGC on all components provide automatic color balance. On single mode versions, keyboard, mouse and stereo audio can be supported on a 4th fiber.

SPECIFICATIONS

VIDEO SIGNAL

Number of Channels:	3
Standards Supported:	RGB HV, RGsB, YsUV, YcCrCb, VGA, SVGA, UXGA with TTL H & V sync, Sun and Apple Macintosh with TTL, composite sync, Silicon Graphics with sync on-green
Video Signal:	NTSC and PAL, 1.0 V p-p
Input/Output Impedance:	75 Ohms
Scan Rates: Horizontal:	15.75 KHz to 130 KHz
Vertical:	50-150 Hz
Signal-to-Noise Ratio:	>60 dB
Video Bandwidth, Singlemode:	165 MHz (1600 H x 1200 V @ 60 Hz)

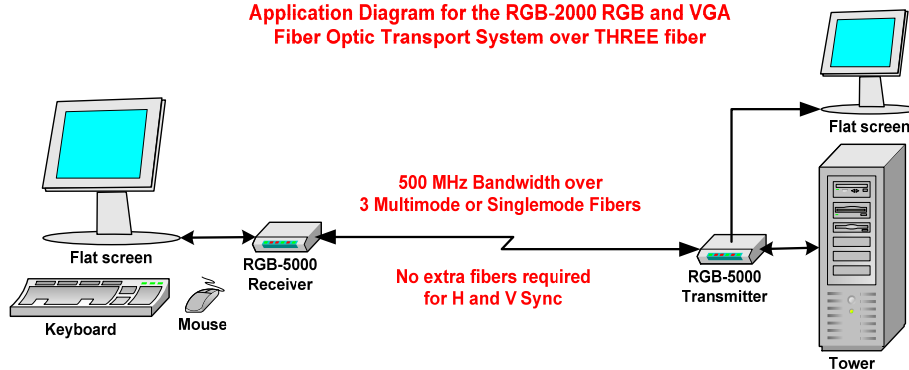
OPTICAL

Wavelength: Singlemode, RGB-2000-FTX-50:	1310 nm
Optical Budget:	13 dB - 8.3/125 µm fiber
Operating Distance:	up to 20 km over 8.3/125 µm
Emitter Type, Singlemode:	Laser
Gain Control:	Electro-optical automatic gain control (AGC)
Receiver Sensitivity:	-28 dBm
Transmitter Power: Singlemode, RGB-2000-FTX-50:	-8 dBm, 8.3/125 (may require attenuators for short distances)
Dimensions: (L x W x H)	5 ½ x 19 x 1 ¾
Power consumption:	15 Watts
Operating temperature.....	0 to +50 °C
Storage temperature.....	-40 to +95 °C

ORDERING INFORMATION:

	RGB-2000 Series 500 MHz RGB and VGA Fiber Optic Transport System, 3 Fibers (SIN 58-6)
RGB-2000-FTX-50-ST	RGB and VGA Fiber Optic Transmitter, Singlemode, 3 fibers, loop-through HD15 and BNC Inputs, 1600 by 1200, supports all sync formats, RGB HV, RGsB, YsUV, YcCrCb, VGA, SVGA and UXGA, Component and Analog HDTV signals. (Requires 3 -ATT15 15 dBm attenuators)
RGB-2000-FRX-50-ST	RGB and VGA Fiber Optic Receiver, Singlemode, 3 fibers, HD15 and BNC outputs, 1600 by 1200, supports all sync formats, RGB HV, RGsB, YsUV, YcCrCb, VGA, SVGA and UXGA, Component and Analog HDTV signals.
	Options and Accessories
-KM	Add PS/2 Keyboard and Serial Mouse support for the RGB-2000, requires a 4th fiber, Singlemode ONLY (option required for both the transmitter and receiver) (PS/2 Mouse Not Supported)
-KMA	Add PS/2 Keyboard, Serial Mouse and Audio support for the RGB-2000, includes Stereo Line level inputs and outputs and Microphone input with AGC, requires a 4th fiber, Singlemode ONLY (option required for both the transmitter and receiver) (PS/2 Mouse Not Supported)
KMA-2000-FMX-35	Stand-alone, PS/2 Keyboard, Serial Mouse and Audio Fiber Link includes Stereo Line level inputs and outputs and Microphone input with AGC, requires a 2nd fiber, Singlemode & Multimode. (PS/2 Mouse Not Supported) (requires KMA-2000-FMX-53)
KMA-2000-FMX-53	Stand-alone, PS/2 Keyboard, Serial Mouse and Audio Fiber Link includes Stereo Line level inputs and outputs and Microphone input with AGC, requires a 2nd fiber, Singlemode & Multimode. (PS/2 Mouse Not Supported) (requires KMA-2000-FMX-35)
-ATT15	15 dBm inline, optical attenuator, ST male to ST female (Requires 3 for each RGB-2000-FTX-50-ST Singlemode systems for Short Distances)
HD15M-CABLE	Male to Male, HD15 Connector, SVGA Monitor Cable, 6 feet (Use to connect the SVGA computer output to the RGB-2000-FTX transmitter)
HD15M-BNC-CABLE	Male HD15 to 5 BNC Connectors, SVGA Monitor Cable, 6 feet (Use to convert an HD15 to 5 BNC connectors. The RGB2000 supports both HD15 and BNC connectors)
13W3M-BNC-CABLE	Male 13W3M to 4 BNC Connectors, SVGA Monitor Cable, 6 feet (Use to convert an 13W3M to 4 BNC connectors. The Composite Sync signal should be connected the RGB-2000-FTX HSYNC input)

Application Diagram for the RGB-2000 RGB and VGA Fiber Optic Transport System over THREE fiber



The RGB-2000 permits the separation of the display from the image source. A common application is the separation of a computer monitor, keyboard and mouse from the large bulky processor unit.