

VGA Video Extender w/Stereo Audio for High Resolution Connectivity to Remote Systems

The RGB-4004 is a single-fiber, laser-based extender offering VGA (RGB H/V) video with stereo audio. It features precision color calibration, uncompressed signal transport, and auto-negotiation, creating an optimal experience.

The RGB-4004 Series is ideal for higher resolution video applications such as digital video editing suites, CAD/CAM graphics workstations, LCD/plasma public display screens, video projectors, military C3/C41 systems, and theaters or stadiums.

This single fiber system simplifies cabling infrastructures and provides visual LED indicators for power, optical link, video activity, signal error, system status, monitor detection and optical signal presence.

System Design

Sync on green, separate HS/VS. All units come as either rack-mount (1RU) or stand-alone versions. The 1RU rack-mount version includes an internal 110/220V universal power supply while the stand-alone version comes with an external 12VDC power supply.

Versions Available

- RGB-4004A 1280 x 1024 @ 75Hz
- RGB-4004B 1600 x 1200 @ 75Hz



Features

- Optical transport of Analog VGA video and Stereo audio
- Requires only one multimode or singlemode optical fiber
- Supports distances up to 2.5 km over multimode and 65 km over singlemode
- Auto-negotiation with precision color calibration
- True DC restoration with AGC
- Flat frequency response
- Complies with RS-170, RS-170A & RS-343 EIA Standards
- No EMI or RFI and no ground loops
- Sync on green, separate HS/VS
- Rack-Mount (1RU) or Stand-Alone versions available

1310	1550	1270-1610 (CWDM)	Type	Mode	Wavelength Suffix	Fiber Type	Output Power	Receiver Sensitivity	Optical Budget Loss	Range*	Conn Type
•			Laser	MM	L1	50/125μ	-8 dBm	-22 dBm	16 dB	1 km	ST
•			Laser	MM	L1	62.5/125μ	-8 dBm	-24 dBm	16 dB	2 km	ST
•			Laser	SM	L2	09/125μ	-4 dBm	-22 dBm	18 dB	25 km	FC
	•		Laser	SM	L3	09/125μ	0 dBm	-20 dBm	20 dB	40 km	FC
		•	Laser	SM	L4	09/125μ	0 dBm	-20 dBm	20 dB	40-65 km	FC

* Chromatic dispersion and additional losses should be taken into account.

Video	Analog VGA
Video in/out impedance	75 Ω
Video in/out level	.7 volt peak to peak, 1 volt with sync
Video bandwidth	10 Hz to 300 MHz @ -3dB
Grayscale linearity distortion	< 1.0 % typical
Pixel intensity distortion	< 2.0 % typical
Linearity	\pm 1.1 % typical
Tilt	< 0.5 % typical
Maximum horizontal frequency	93.8 KHz
Maximum refresh rate	1280 x 1024 (option A), 1600 x 1200 (option B) @ 75 Hz
Signal to noise ratio	>60 dB using RS-250C standards @ 1 km
Connector type	HD15 Pin female

Audio	1 stereo @ 24 bits
Channels	1 stereo @ 24 bits
Audio in/out impedance	600 Ω or 47k Ω - balanced or unbalanced
Audio in/out level	-6 to +6 dBm
Frequency response	10 Hz to 20 KHz @ -3dB
Signal to noise ratio	> 90 dB @ 1 kHz (weighted)
Total harmonic distortion	< 1.0 %, 1 KHz at maximum modulation
Connector type	1/8" stereo jack

General	
Dimensions	1RU Rack Mount: 19" L X 7.25" W X 1.75" H Stand Alone: 6.25" L X 6.13" W X 1.75" H
Material	Aluminum casing
Operating temperature	-20° C to +70° C
Storage temperature	-30° C to +85° C
Humidity	0 to 95% non-condensing
Operating voltage	85-265 VAC 50/60Hz @ 15W

Diagnostics	
Status monitoring	Front panel LED indicators

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



Emissions: FCC Part 15, ICES-003, AS/NZS, 3548, EN55022
 Immunity: ENVS0204, EN61000-4-2,3,4,5,6,11
 Safety: UL1950, CAN/CSA 22.2, NO.950-95

MADE IN THE USA

Sample Configuration

