



OmniWall™

Display Wall Processor



Flexible, scalable processor for medium and large video walls

Any horizontal or vertical configuration

Multiple walls managed from one processor

HDCP compliant

Dedicated real-time architecture



OmniWall

Display Wall Processor



The OmniWall™ display processor is designed to meet the need for flexible wall sized displays in applications ranging from digital signage to command centers, control rooms, and other mission critical venues.

It's a new kind of video wall processor, which accommodates wall arrays of virtually any configuration. High-resolution graphics and video sources up to 4K (UltraHD) resolution can be displayed at full resolution. Multiple walls can be managed from the same processor. An image can be scaled across any number of displays.

A user simply defines the wall configuration, window layouts, and source routing. The OmniWall processor automatically sends the proper scaling information – including bezel compensation – to each output. Multiple layouts and routings can be saved and recalled using presets.

The processor is available in two chassis sizes. The OmniWall 16 processor has up to 16 inputs and 16 outputs – ideal for 2x2, 3x3, or 3x4 screen arrays, or linear configurations from 1x16 to 16x1. For larger video walls, the OmniWall 32 offers up to 32 inputs and 32 outputs. To control even larger walls, multiple chassis can be connected in parallel.

A wide selection of modular fiber and copper inputs include digital and analog sources – DVI, HDMI, 3G/HD-SDI, RGB and component signals. The system supports DVI resolutions up to 1920x1200, and 4K (UltraHD) up to 4096x2160. HDCP compliance allows OmniWall processors to accommodate content-protected HDMI signals and provide embedded audio passthrough. An HDCP encoded signal can be routed to all outputs simultaneously.

The OmniWall processor supports auxiliary displays that are not part of a video wall. The built-in routing matrix control window allows complete flexibility to route any input to any output not used in the video wall.

System integration is simplified by design. Built-in cable equalization lengthens input cable runs reducing the need for external signal extenders. In addition, each output connector can supply pin power to extenders, eliminating the need for external power supplies.

The OmniWall processor features an embedded architecture that provides RGB Spectrum's industry renowned reliability without PC vulnerability, 24/7 operation, and real-time video processing with no dropped frames.

Multiple control options provide users with a wide range of functionality. Remote control (RS-232 and TCP/IP) allows quick and easy setup, configuration, and preset recall. An embedded Web Control Panel can be accessed through a web browser by virtually any computer. Setup and configuration is a snap. Users can perform many functions, like saving and recalling presets, with the click of a button. RGB Spectrum's BP-16 button panel or a phone/tablet device can also be used to recall presets.



OmniWall Controller

The optional OmniWall Controller is simple to operate and offers a range of user-friendly features:



- Realtime depiction of videowall(s)
- Live thumbnail preview for all sources
- Drag and drop routing of any source to the wall
- Expand or shrink any source displayed in a window
- Adjust aspect ratio of any window
- Save and recall presets

The OmniWall Controller includes a small PC with video capture card and software.

Sample Configurations



One wall: 8 wide x 4 high



One wall: 3 wide x 3 high and two auxiliary monitors



Two walls: each 2 wide x 8 high



Two walls: 4 wide x 4 high and 3 wide x 3 high



Specifications

	OmniWall 16	OmniWall 32
Physical		
Input x output (Max)	16x16	32x32
Size (H x W x D)	7 x 19 x 16 in 17.8 x 48.3 x 40.7 cm	12.25 x 19 x 17.5 in 31.1 x 48.3 x 44.5 cm
Weight	30 lbs / 13.6 kg	57 lbs / 25.9 kg
Air filter	Washable foam filter; Pore density 10 ppi	Washable foam filter; Pore density 10 ppi
Input modules (max)	8 (16 channels)	16 (32 channels)
Output modules (max)	8 (16 channels)	16 (32 channels)
Power		
Power	100-240 VAC; 50/60 Hz	100-240 VAC; 50/60 Hz
Power consumption (average)	230 W	430 W
Including pin power	295 W	555 W
Max with scaler outputs	375 W	715 W
Power supply	User swappable	Dual redundant; hot swappable
Control		
Serial	RS-232, 9600-115,200 baud	
Network	Ethernet TCP/IP 10/100/1000Base-T Command line and graphical user interface	

Audio		
Digital audio passthrough		
Supports stereo audio 5.1 and 7.1 with HDMI sources and sinks		

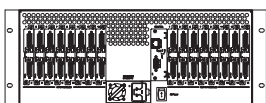
Input Cards	DVI/HDMI	DVI/HDMI/Analog RGB	DVI over Fiber	3G/HD-SDI	HDBaseT
Format	2-channel	2-channel or 1 channel dual-link (DL option)	2-channel	2-channel	2-channel
Signal Type	HDMI1.3 or DVI	Single-link DVI or HDMI 1.3, RGBHV, YPbPr	HDMI 1.3 or DVI	SMPTE 292M and SMPTE 424M	HDMI1.3 or DVI
Pixel Clock Rate	25 MHz to 165 MHz	25 MHz to 165 MHz	25 MHz to 165 MHz	25 MHz to 165 MHz	25 MHz to 165 MHz
HDCP Compliant	Yes	Yes	Yes	No	Yes
Resolutions	Up to 1920x1200 2048x1152 and 1920x1080p/60	Up to 1920x1200 2048x1152 and 1920x1080p/60	Up to 1920x1200 2048x1152 and 1920x1080p/60	Up to 1920x1080p(3G-SDI) Up to 1920x1080i(HD-SDI)	Up to 1920x1200 2048x1152 and 1920x1080p/60
Connectors	DVI-I (2)	DVI-I (2)	SC Fiber (2)	BNC (2)	RJ-45 (2);3.5 mm (2)
Cable Equalization	Manual/Auto to 164 ft / 50 m	Manual/Auto to 164 ft / 50 m		HD: 656 ft / 200 m SD: 393 ft / 120 m	
Max Cable Length	164 ft / 50 m	164 ft / 50 m	1312 ft / 400 m	656 ft / 200 m	328 ft / 100 m*
Power Consumption	6.3 W	9.5 W	8.7 W	8.5 W	25.6 W (w/POH)

4K Inputs OmniWall accommodates 4K signals (3840x2160p, 4096x2160p) via 4x single-link DVI channels

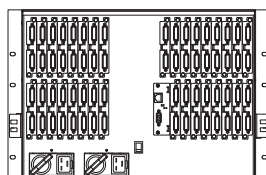
Output Cards	Scaler DVI	DVI/HDMI	DVI over Fiber	HDMI w/Audio	HDBaseT
	<i>For wall outputs</i>	<i>For switched outputs</i>	<i>For switched outputs</i>	<i>For switched outputs</i>	<i>For switched outputs</i>
Format	2 channel	2 channel	2 channel	2 channel	2 channel
Signal Type	HDMI 1.3 or DVI	HDMI 1.3 or DVI	HDMI 1.3 or DVI	HDMI 1.3	HDMI 1.3 or DVI over HDBaseT
Pixel Clock Rate	25 MHz to 165 MHz	25 MHz to 165 MHz	25 MHz to 165 MHz	25 MHz to 165 MHz	25 MHz to 165 MHz
HDCP Compliant	Yes	Yes	Yes	Yes	Yes
Resolutions	Up to 1920x1200 2048x1152 and 1920x1080p/60	Up to 1920x1200 2048x1152 and 1920x1080p/60	Up to 1920x1200 2048x1152 and 1920x1080p/60	Up to 1920x1200 2048x1152 and 1920x1080p/60	Up to 1920x1200 2048x1152 and 1920x1080p/60
Connectors	DVI-I (2)	DVI-I (2)	SC Fiber (2)	HDMI (2), terminal block	RJ-45 (2);3.5 mm (2)
Pin Power	500 mA @ 5VDC		500 mA @ 5VDC	500 mA @ 5VDC	POH 10 watts @ 48VDC
Max Cable Length	15 m no boost	49 ft / 15 m no boost	1312 ft / 400 m	16 ft / 5 m no boost	328 ft / 100 m*
Power Consumption	25 W	6.7 W	10.8 W	8.5 W	25.6 W (w/POH)

*Up to 150 meters with Long Reach mode and compatible endpoints.

OmniWall Chassis



OmniWall 16



OmniWall 32



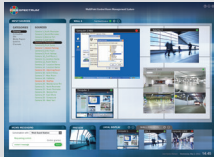
BP-16 Network Button Panel



RGB Spectrum Products

MultiPoint Control Room Management Systems

A collaborative system to display and control shared computer and visual resources, MCMS integrates a state-of-the-art multi-user KVM system with RGB Spectrum hardware, including video walls, multiviewers, codecs and switchers. Better decisions. Faster.



- Customizable work environment
- KVM access of controlled computers without software installed
- Unique operator GUI for both local and shared resource control
- Full bandwidth, uncompressed video
- Integration with shared display walls

Multiviewers

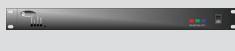
For displaying multiple video and graphics on a single screen, the QuadView[®] and SuperView[®] product lines provide superb multiviewer functionality with the ability to move, resize and overlap images. Options include KVM control of sources, HDCP compliance, and annotation.

SuperView 4100 / 5000



- 4, 8, or 12 windows
- DVI, RGB, HD-SDI, SD/HD video inputs
- Resolutions to 1920x1200
- Smooth scaling, panning, and zooming

QuadView HDx



SuperView 4K



- 8 megapixel multiviewer
- Up to 8 windows
- DVI single-link or dual-link output
- Smooth scaling, panning, and zooming

Codecs and Recorders

For streaming and recording video, graphics and audio with the highest fidelity, RGB Spectrum offers two codec families — the DSx[™] with H.264 *high* profile compression and the DGy[™] with JPEG 2000 compression.

DSx



DGy



- Up to 1920x1200 resolution
- Simultaneous recording and replay
- Event marking
- Variable speed playback
- Multi-unit synchronization
- Concurrent streaming and recording
- Recording to local and network storage devices

Digital Switchers

The Linx[™] Prime and Opto[™] series of DVI and fiber optic switchers enable transmission without signal degradation, providing superb tools for A/D conversion, routing and control, with HDCP compliance.

Linx Prime



- Single-link and dual-link DVI, RGB, 3G/HD-SDI inputs
- Single and dual-link DVI and scaled DVI outputs
- Fiber and copper I/O
- Chassis I/O up to 32x32

Opto

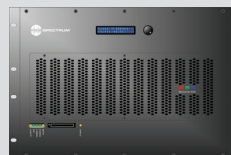


- Industry highest bandwidth - 6.22 GHz
- Chassis I/O up to a giant 320x320
- Simplex or duplex operation
- Single mode or multimode fiber
- Single and dual-link DVI, RGB and 3G/HD-SDI

MediaWall[™] Video Processors

Simultaneously display multiple computer and video signals across an array of high definition monitors or projectors, with the ability to interact with any source via KVM control. Windows can be custom sized, positioned and stretched across any combination of displays.

MediaWall



MediaWall 4200



MediaWall 2900

- Real-time operation, no dropped frames
- RGB/DVI, 3G/HD-SDI and analog inputs
- Smooth scaling, panning, and zooming
- Edge blending support and bezel compensation
- HDCP compliant

Extenders

For secure transmission of DVI signals over long distances, XtendView[®] FiberDVI signal extenders represent the state-of-the-art with the industry's smallest size housing.



- Up to 400M over a single fiber
- Resolutions to 2048x1152
- "All-in-the-headshell" design
- HDCP compliant



Worldwide Offices

Corporate Headquarters

950 Marina Village Parkway
Alameda, California 94501
TEL: (510) 814-7000
FAX: (510) 814-7026
WEB: www.rgb.com
email: sales@rgb.com

European Headquarters

Dragonder 20A
5554 GM Valkenswaard
The Netherlands
TEL: +32 11 515600
FAX: +32 11 515601
CELL: +31 6 51319730
email: europesales@rgb.com

Asian Headquarters

14F Cimic Tower
800 Shang Cheng Rd. Pudong District
200120, Shanghai, China
TEL: +86 10 5905 5776
FAX: +86 10 5905 5900
CELL: +86 1391 6213 594
email: asiasales@rgb.com

USA Offices

Somerset, New Jersey
Baltimore, Maryland
Atlanta, Georgia
Orlando, Florida
Cincinnati, Ohio
Dallas, Texas
Los Angeles, California

Middle Eastern Headquarters

Suite 302, Yes Business Center
14B Street, Al Mafrq Road
Al Barsha 1, Dubai
United Arab Emirates
TEL: +971 (0) 44 46 84 16
CELL: +971 (0) 50 420 3867
email: middleeastsales@rgb.com
africasales@rgb.com

International Offices

Paris, France
Shanghai, China
Seoul, Korea
Mumbai, India
St. Petersburg, Russia
Miami, Florida for Latin America
Beirut, Lebanon
London, UK
Dubai, UAE



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