



# **Linx *Prime***

## **Digital Matrix Switchers**



**Ultra-fast Switching**

**Scaling with Pan and Zoom**

**Format Conversion**

**HDCP Management**

**HDBaseT and Fiber Optic I/O**

**HDMI, Single-link and Dual-link DVI,  
RGB, 3G/HD-SDI**





## Power, Versatility, Adaptability



Linx™ *Prime* Matrix Switchers supply the processing power, flexibility and control required for today's complex audiovisual installations. Offering users a mix of modular input and output cards, Linx switchers support a broad range of signal types over a variety of transmission media.

Signals	Transmission
DVI/HDMI	Copper
RGB/YPbPr	Fiber
3G/HD-SDI	HDBaseT

### Chassis

Linx *Prime* switchers are available in three frame sizes to suit different system needs. Choose an 8x8, 16x16 or 32x32 chassis and load it with any mix of modular input and output cards. Because the switchers are customizable and scalable, they have the ability to adapt as systems evolve, allowing the user to add or substitute cards as requirements change.

### HDCP

HDCP performance and encryption key management are primary concerns for many users. Linx switchers provide fast authentication and glitch-free routing from one source to multiple displays. With HDCP Key Caching, source key limits are a thing of the past. Any protected source may authenticate an unlimited number of displays or downstream devices.

### Scaling

Fast switching and routing of sources to a display, without the screen going black, is a critical feature for boardrooms and operations centers alike. Scaler output cards use a continuous sync to provide virtually seamless switching regardless of input signal type or timing. In addition, scaler cards offer pan and zoom for applications that require the ability to view selected portions of an image.

### HDBaseT

CAT-Linx™ HDBaseT input and output cards transmit power along with video, audio and serial signals up to 100m over CAT-6 cables. CAT-Linx cards can power compatible HDBaseT endpoints, eliminating the need for “wall wart” power supplies.

### CrossXFormat

With DVI, HDMI, RGB or component signals available on every CrossXFormat® input, Linx switchers provide a complete solution for environments with both digital and analog sources.



### Dual-link

All Linx switchers support pixel clock rates from 25 MHz to 165 MHz, including 1920x1200, 2048x1152 and 1080p resolution signals. Dual-link DVI is available as an option, supporting resolutions such as 2560x1600 and 4k/UHD with pixel clock rates up to 330 MHz.

### EDID

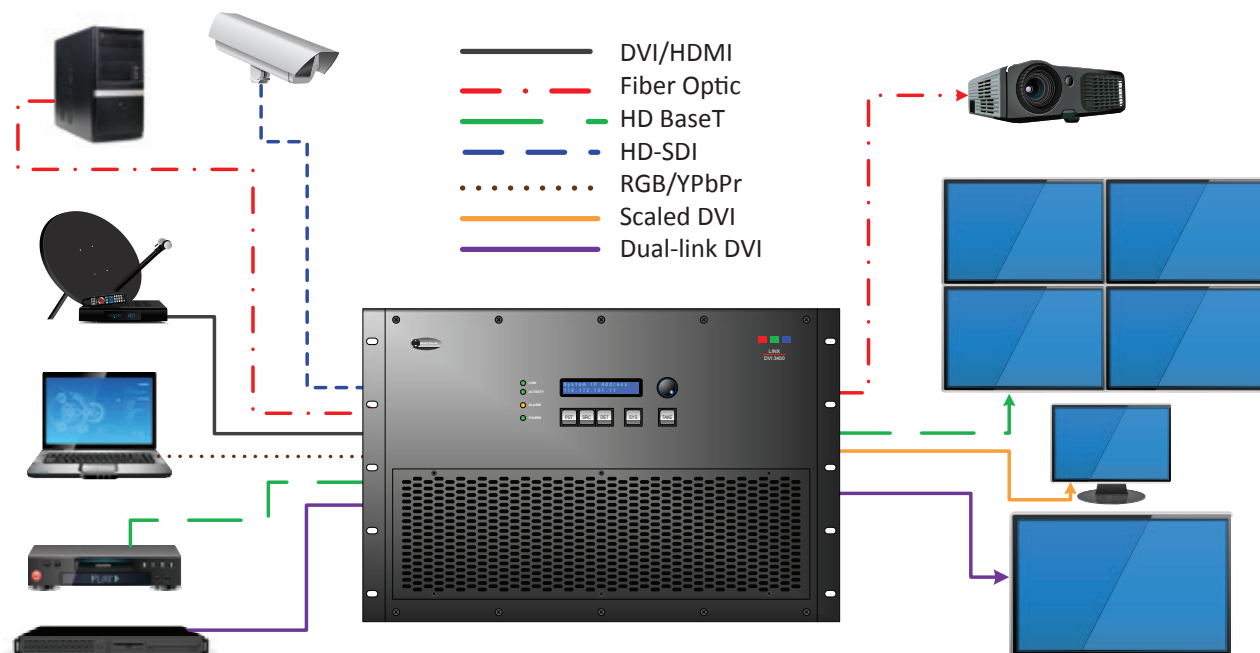
EDID management and control are simplified with RGB Spectrum's *Total EDID Manager™*, which provides the most comprehensive set of EDID management tools available, including fixed, emulated and passthrough of EDID. EDID and configuration files can be exchanged between the switcher and any PC.

### Control

Linx switchers are designed with simplified system integration in mind. Functions are easily controlled using command line interface or graphically using a standard web browser. Front panel controls on models 1800 and 3400 allow users to quickly access presets and create routing assignments. Control options include RGB Spectrum's *Web Control Panel (WCP)™*, the BP-16 remote button panel, iPhones and iPads, and third party touch panel control systems.

### Connectivity

Virtually all modern source types can be connected through Linx switchers to displays over a choice of copper, CAT-X or fiber cables. Sources shown in the diagram include a security camera, PC, satellite receiver, lap top PC, Blu-Ray player and teleconferencing codec. Other sources such as tablet PC's, cable receiver boxes and medical, industrial or military devices are also compatible.



Basic System Diagram



## Input and Output Cards

### Input Cards (two channels per card)

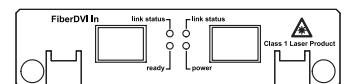
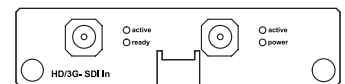
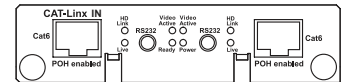
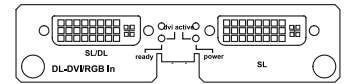
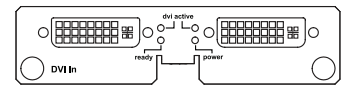
**DVI / HDMI:** DVI / HDMI input cards support a full range of DVI single-link signals up to 165 MHz; HDCP compliant. Supports embedded audio passthrough. Adjustable cable EQ up to 50M with copper cables.

**DVI / HDMI + RGB:** CrossXFormat DVI / HDMI + RGB input cards support digital DVI and analog RGB signals. HDMI compatibility includes embedded audio passthrough. Adjustable cable EQ up to 50M. A DVI dual-link option is available.

**HDBaseT:** CAT-Linx™ HDBaseT input cards support HDMI and DVI with local RS-232 extension. Cards supply power over HDBaseT (POH) for CAT-Linx or approved third party transmit units.

**3G/HD-SDI:** 3G/HD-SDI input cards support video from cameras and other devices. Signals are converted to DVI prior to output, allowing display via economical DVI/HDMI monitors. Automatic cable EQ.

**Fiber DVI / HDMI:** Use Fiber DVI / HDMI input cards with XtendView FiberDVI™ Adapters for the secure optical transmission of DVI and HDMI signals. FiberDVI transmitters are highly miniaturized and fit within the DVI headshell-sized connector.



### Output Cards (two channels per card)

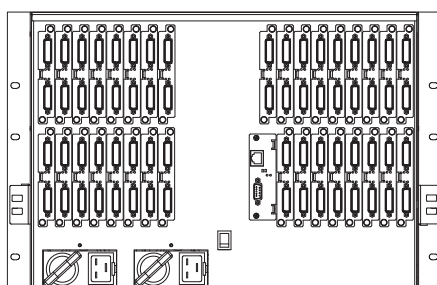
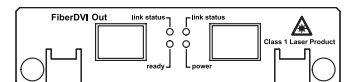
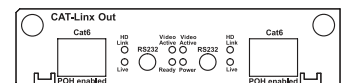
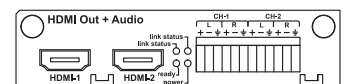
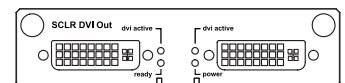
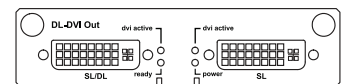
**DVI:** DVI output cards support two single-link or one channel of DVI dual-link video. 500mA of pin power is available for compatible devices.

**DVI with Scaling:** DVI with Scaling output cards can resize images for display on monitors of different sizes and resolutions. They provide seamless switching and useable timings for inputs that would otherwise be too slow for DVI/HDMI displays.

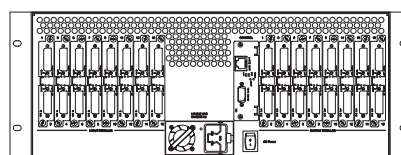
**HDMI + Audio:** HDMI + Audio output cards use HDMI connectors and a terminal block to support de-embedded balanced or unbalanced analog stereo audio. Embedded audio can be routed to an external audio processor or amplifier..

**HDBaseT:** CAT-Linx™ HDBaseT output cards support HDMI and DVI with local RS-232 extension. Cards supply power over HDBaseT (POH) for CAT-Linx or approved third party receive units.

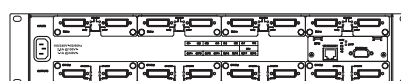
**Fiber DVI / HDMI:** Use Fiber DVI / HDMI output cards with XtendView FiberDVI™ Adapters for the secure optical transmission of DVI and HDMI signals. FiberDVI receivers are highly miniaturized and fit within the DVI headshell-sized connector.



Linx Prime 3400



Linx Prime 1800



Linx Prime 1000



## Specifications

	Linx 1000	Linx 1800	Linx 3400		
Physical					
Input x output (Max)	8x8	16x16	32x32		
Size (H x W x D)	3.5 x 19 x 16 in 8.9 x 48.3 x 40.7 cm	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	20 lbs / 9.1 kg	30 lbs / 13.6 kg	57 lbs / 25.9 kg		
Air Filter	N/A	Washable foam filter; Pore density 10 ppi	Washable foam filter; Pore density 10 ppi		
Power Specifications					
Power	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz		
Power supply	Internal	User swappable	Dual redundant, hot swappable		
Power consumption					
Fully Loaded	100 W	230 W	430 W		
Including pin power	130 W	295 W	555 W		
Max with scaler	170 W	375 W	715 W		
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, and multi-channel audio 5.1 and 7.1 with HDMI sources and sinks					
Audio de-embedding (HDMI + Audio output card)					
Input Cards					
	HDBaseT	DVI / HDMI	DVI / HDMI + RGB	Fiber DVI / HDMI	3G/HD-SDI
Format	2-channel	2-channel	2-channel or 1-channel dual-link (option)	2-channel	2-channel
Signal Type	HDMI1.3 or DVI	HDMI1.3 or DVI	Single-link DVI or HDMI 1.3, Dual-link DVI (option), RGBHV, YPbPr	HDMI 1.3 or DVI	SMPTE 292M and SMPTE 424M
Pixel Clock Rate	25 MHz to 165 MHz	25 MHz to 165 MHz	25 MHz to 165 MHz 165 MHz to 330 MHz (option)	25 MHz to 165 MHz	25 MHz to 165 MHz
HDCP Compliant	Yes	Yes	Yes	Yes	No
Resolutions	Up to 1920x1200 2048x1152 and 1920x1080p/60	Up to 1920x1200 2048x1152 and 1920x1080p/60	Up to 1920x1200 2048x1152 and 1920x1080p/60 Up to 2560x1600 and 3840x2400 (option)	Up to 1920x1200 2048x1152 and 1920x1080p/60	Up to 1920x1080p (3G-SDI) Up to 1920x1080i (HD-SDI)
Connectors	RJ-45 (2);3.5 mm (2)	DVI-I (2)	DVI-I (2)	SC Fiber (2)	BNC (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	328 ft / 100 m*	164 ft / 50 m	164 ft / 50 m	1312 ft / 400 m	656 ft / 200 m
Power Consumption	25.6 W (w/POH)	6.3 W	9.5 W	8.7 W	8.5 W
Output Cards					
	HDBaseT	DVI / HDMI	Fiber DVI / HDMI	HDMI + Audio	DVI with Scaling
Format	2-channel	2-channel	2-channel	2-channel	2-channel
Signal Type	HDMI 1.3 or DVI over HDBaseT	HDMI 1.3 or DVI	HDMI 1.3 or DVI	HDMI 1.3	HDMI 1.3 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	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	RJ-45 (2);3.5 mm (2)	DVI-I (2)	SC Fiber (2)	HDMI (2), terminal block	DVI-I (2)
Pin Power	POH 10 watts @ 48VDC	500 mA @ 5VDC		500 mA @ 5VDC	500 mA @ 5VDC
Max Cable Length	328 ft / 100 m*	49 ft / 15 m no boost	1312 ft / 400 m	16 ft / 5 m no boost	49 ft / 15 m no boost
Power Consumption	25.6 W (w/POH)	6.7 W	10.8 W	8.5 W	25 W

\*Up to 150 meters with Long Reach mode

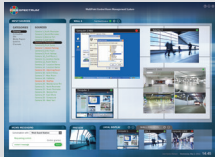
Patents: US 7,893,941, US 8,120,612 and other patents pending



# 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

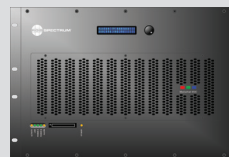


- Industry highest bandwidth - 6.22 GHz
- Chassis I/O up to a giant 320x320
- Simplex or duplex operation
- Single mode or multimode fiber
- Single and dual-link DVI, RGB and 3G/HD-SDI

## 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

1101 Marina Village Parkway  
Suit 101  
Alameda, California 94501  
TEL: (510) 814-7000  
WEB: [www.rgb.com](http://www.rgb.com)  
Email: [sales@rgb.com](mailto: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](mailto: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](mailto:asiasales@rgb.com)

### Middle Eastern Headquarters

Suite 302, Yes Bussiness 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](mailto:middleeastsales@rgb.com)  
[africasales@rgb.com](mailto:africasales@rgb.com)

