The Complete Signal Extension System

CAT-Linx 3

Transmit & Receive Units
Power Distribution Unit
Rackmount Shelf

RGB SPECTRUM

CAT-Linx™ 3 Signal Extenders

Rated for 4K UltraHD 60

RGB Spectrum offers a completely integrated solution for extending signals, at up to 4K UHD resolution, using convenient CATx transmission. Our turnkey CATx extension solution streamlines AV system integration by simplifying system component sourcing while providing assured compatibility, top-level performance & 24/7 reliability.

Everything you need for a complete end-to-end CATx signal extension solution

- *CAT-Linx* 3 extenders - stand-alone models
- PDU 400-12 power distribution unit
- CAT RAK rackmount kit

CAT-Linx 3 TX & RX Transmitter & Receiver

CAT-Linx 3 extenders transmit 4K UltraHD (60Hz) and HD signals over long distances using conventional CAT 5e/6/6a/7 cable. The units can transmit HD signals up to 100 meters (330 feet) and 4K UltraHD signals up to 70 meters (230 feet). Transmit (TX) and Receive (RX) endpoints are compatible with all RGB Spectrum products as well as AV devices from other manufacturers.

For installation ease and convenience, *CAT-Linx* 3 extenders have integrated power to supply endpoints over the same CATx cable that carries the video and data signals. This eliminates the need for external power connections. A *CAT-Linx* 3 pair needs only one power supply connected to the transmitter end to power both devices. The *CAT-Linx* 3 TX also offers embedded HDMI audio and analog stereo audio.

CAT-Linx 3 extenders offer a bevy of advanced features, including HDCP 2.2 compatibility, Dolby and DTS HD audio support and serial and IR control of display devices. The extenders can control a source from a display's location or control a display from a source's location.

CAT-Linx 3 Plus extenders also offer integrated KVM control via built-in USB ports for KVM control of remote devices.

CAT-Linx 3 CATx extenders are a high-performance, feature-rich, and cost effective solution for 4K UHD and HD signal extension.

- 4K Ultra HD (60Hz) signals over conventional CAT 5e/6 cable
- 4K/60Hz output up to 100 m (330 ft) 1080P up to 140 m (460 ft) over Cat6a/7 cable
- 4K/60Hz output up to 70 m (230 ft) 1080P up to 100 m (330 ft) over Cat5e/6 cable
- IR and serial control of displays and other AV devices
- Integrated Power-over-CATx
- HDCP 2.2
- *CAT-Linx* 3 Plus units offer Ethernet control and KVM control of remote devices

PDU 400-12 12-Channel Power Distribution Unit

RGB Spectrum's Power Distribution Unit streamlines AV project integration, making it simpler, easier and faster to power up a variety of devices. Say goodbye to rack cable clutter and wall warts.

The convenient PDU 400-12 400-watt Power Distribution Unit provides 12 channels of 12-VDC power in a rugged, 1RU rack mountable enclosure. It is designed for 24/7 reliability, allowing system designers and facility managers to optimize power management.

The PDU 400-12 integrates with RGB Spectrum's *Zio*® networked AV products, *CAT-Linx* 3 CATx extenders, and AV devices from other manufacturers. Versatile and reliable Phoenix connectors allow for ease of use with a wide variety of devices that require 12-VDC power.

The PDU 400-12 is an ideal power distribution solution for all professional AV applications.

- Up to 25W per channel
- 12-ports with 12V DC per port
- 400W total load
- Phoenix connectors
- Auto-senses and accepts line voltages from 88 to 264 volts AC
- Overload, over-voltage, and over-temperature protection
- Unique Power Factor Correction (PFC) circuit to minimize input current harmonics
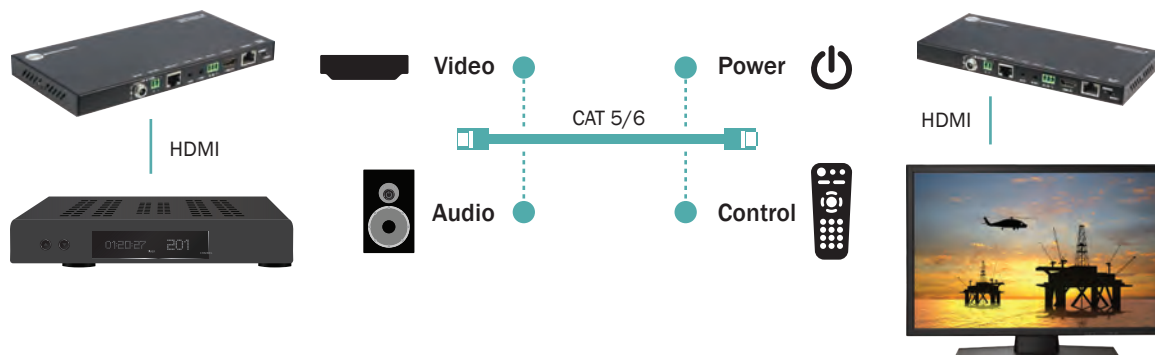
CAT RAK Rackmount Kit

The CAT RAK is a 6 RU rackmount shelf for up to 10 *CAT-Linx* 3 units or a 7 RU rackmount shelf for up to 8 *CAT-Linx* 3 Plus units. These convenient shelves allow each endpoint to be securely mounted in a vertical orientation.

The PDU 400-12 Power Distribution Unit mounts above or below to provide power directly to all endpoints mounted in the rack.

- Holds up to 10 *CAT-Linx* 3 TX or RX units or up to 8 *CAT-LInx* 3 Plus TX or RX units
- Made from sturdy 18-gauge steel
- Use with PDU 400-12 Power Distribution Unit

Why CATx? Video, Audio, Power and Control Over a Single Line

CAT-Linx 3 Specifications

Video
Input Signal Type	HDMI 1.4 with HDCP 2.2
Maximum Signal Resolution	4096x2160@60Hz, 3840x2160@60Hz
Color Space & Sampling	4:4:4 (4096x2160@30Hz, 3840x2160@30Hz, 2K@60Hz, HD@60Hz)
	4:2:0 (4096x2160@60Hz, 3840x2160@60Hz)
Input Video Level	0.5~1.0V V p-p
Maximum Pixel Clock Rate	297 MHz
Transport Signal Type	CAT 5e/6/6a/7
Video Impedance	100 ohms
Transmission Distance	Cat 6a/7 cable: 3840x2160 to 100 m (330 ft); 1080P to 140 m (460 ft)
	Cat 5e/6 cable: 3840x2160 to 70 m (230 ft); 1080P to 100 m (330 ft)

Audio
Audio Formats	HDMI Embedded Audio: Stereo, LPCM 5.1, LPCM 7.1;
	Dolby True HD, DTS-HD Master Audio

Control
Control Method	RS-232
External Device Control	Via IR (IR Emitter & Receivers included) & RS-232

General
Operating Temperature	0 to +45 °C (+32 to +113 °F)
Storage Temperature	-20 to +70 °C (-4 to +158 °F)
Humidity	10% to 90%, non-condensing
Power Supply	12V, 1.5A DC / Power-over-CATx
Dimensions (W x H x D)	7.75 x 3.75 x 0.7 inches (197 x 95.25 x 18 mm)
Weight	1.0 lbs (0.45 kg)
Safety	CE
EMI/EMC CE	FCC Class A
ESD Protection	Human-body Model: ±8kV(Air-gap discharge)/±4kV(Contact discharge)

CAT-Linx 3 Plus Specifications

Video
Input Signal Type	HDMI 2.0with HDCP 2.2
Maximum Signal Resolution	4096x2160@60Hz, 3840x2160@60Hz
Color Space & Sampling	4:4:4 (4096x2160@30Hz, 3840x2160@30Hz, 2K@60Hz, HD@60Hz)
	4:2:0 (4096x2160@60Hz, 3840x2160@60Hz)
Input Video Level	0.5~1.0V V p-p
Maximum Pixel Clock Rate	297 MHz
Transport Signal Type	CAT 5e/6/6a/7
Video Impedance	100 ohms
Transmission Distance	Cat 6a/7 cable: 3840x2160 to 100 m (330 ft); 1080P to 140 m (460 ft)
	Cat 5e/6 cable: 3840x2160 to 70 m (230 ft); 1080P to 100 m (330 ft)

Audio
Audio Formats	HDMI Embedded Audio: Stereo, LPCM 5.1, LPCM 7.1;
	Dolby True HD, DTS-HD Master Audio

USB
Connections: TX & RX	One USB Host and four USB Device ports for remote KVM control
USB	2.0

Control
Control Method	RS-232
External Device Control	Via IR (IR Emitter & Receivers included) & RS-232

General
Operating Temperature	0 to +45 °C (+32 to +113 °F)
Storage Temperature	-20 to +70 °C (-4 to +158 °F)
Humidity	10% to 90%, non-condensing
Power Supply	12V, 3A DC / Power-over-CATx
Dimensions (W x H x D)	9.6 x 3.55 x 1.0 inches (245 x 90.2 x 25 mm)
Weight	1.45 lbs (0.66 kg)
Safety	CE
EMI/EMC CE	FCC Class A

PDU 400-12 Specifications

General

DC Power Outputs	12x
Output Voltage	12 VDC
Total Output Power	400 watts
Maximum Power per Output	25 watts
Maximum Current per Output	2.0A
Maximum AC Current	(115/230 VAC) 2.5A / 1.3A
AC Line Input Voltage Range	88 - 264 VAC
AC Line Input Frequency Range	47 - 63 Hz
AC Power Input Connector	IEC C14 power connector
DC Power Output Connectors	2-pin, 3.5 mm pitch Phoenix connectors
Rack Height	1U, 1/2 rack width
Product Dimensions (W x H x D)	17.25 x 1.75 x 12.25 inches (438 x 44 x 311 mm)
Product Weight	9.7 lbs. (4.4 kg.)
Compliance	FCC, CE, RoHS, UL

Protection

Overload	105 - 135% rated output power
Over Temperature	Shut down output voltage, recovers automatically after temperature goes down

Environmental

Working Temperature	-22° to +113° F (-30° to +45° C)
Humidity	20 - 90% relative humidity (non-condensing)

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