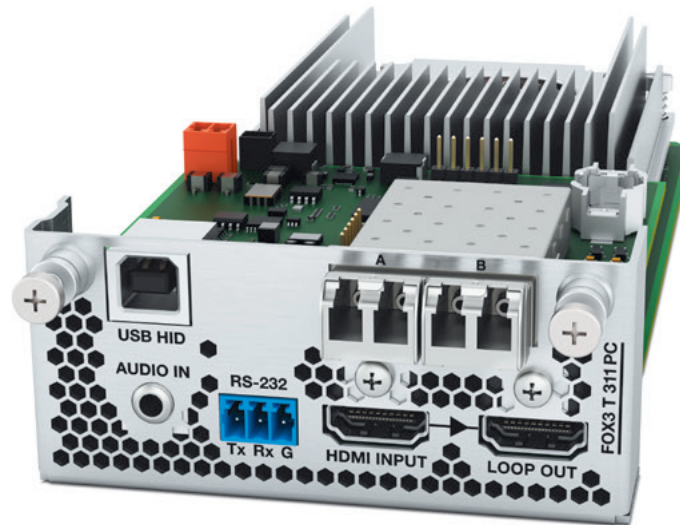


# FOX3 T 311 PC

FIBER OPTIC TRANSMITTER FOR HDMI, USB HID,  
AUDIO, AND CONTROL



**FOX3**  
SYSTEMS

The Extron **FOX3 T 311 PC** Fiber Optic Transmitter is a compact single-slot module designed for the PowerCage 411 enclosure that provides HDMI video, USB HID, stereo audio, and control signal extension over fiber. Engineered for exceptional high resolution image performance, it uses Extron all-digital technology to deliver perfect pixel-for-pixel, uncompressed transmission of images up to 4K/60 @ 4:4:4 over two fibers or mathematically lossless 4K/60 video over one fiber. The USB HID port applies device class filtering to restrict the device types to HID.

- ▶ Extends HDMI video, USB HID, stereo audio, and RS-232 control signals very long distances over fiber optic cabling
- ▶ Supports mathematically lossless 4K video up to 4096x2160 at 60 Hz with a 4:4:4 chroma sampling over one fiber
- ▶ Supports uncompressed 4K video up to 4096x2160 at 60 Hz with a 4:4:4 chroma sampling over two fibers
- ▶ Supported HDMI 2.0 specification features include data rates up to 18 Gbps, Deep Color up to 12-bit, and 3D
- ▶ HDCP 2.3 compliant
- ▶ Hot-swappable modules designed for the PowerCage 411 enclosure, part #60-1492-02

**Extron**

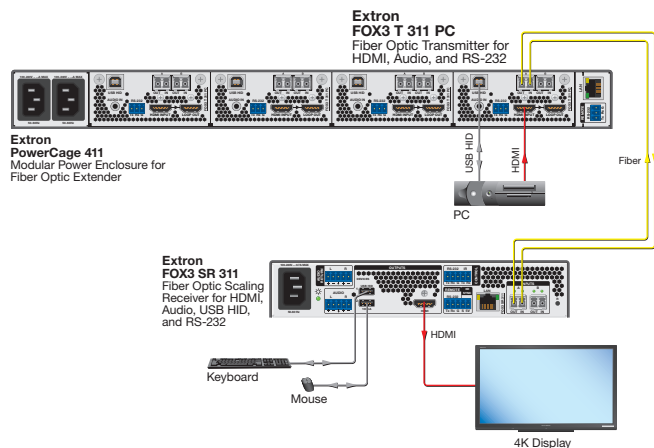
## DESCRIPTION

The Extron **FOX3 Series**, which includes the **FOX3 T 311 PC** for the PowerCage 411, provides system designers and integrators with high performance fiber optic distribution solutions designed, engineered, and manufactured by Extron to meet the most demanding requirements of critical video and audio distribution applications. From point-to-point extension to fully non-blocking matrix applications up to 2000x2000 and beyond, FOX3 Systems securely deliver unrivaled performance and reliability to satisfy even the most discerning users.

## KEY FEATURES

- ▶ Device class filtering on USB HID port restricts the range of device types to HID
- ▶ Buffered HDMI input loop-through
- ▶ User-selectable HDCP authorization
- ▶ Key Minder® continuously verifies HDCP compliance for quick, reliable switching
- ▶ EDID Minder® automatically manages EDID communication between connected devices
- ▶ Audio embedding
- ▶ Bidirectional RS-232 signal transmission over fiber optic cabling for AV device control
- ▶ Peripheral emulation on USB HID port
- ▶ LinkLicense Support
- ▶ RS-232 insertion from the Ethernet port on the PowerCage 411 enclosure

## APPLICATION DIAGRAM



## SPECIFICATIONS

### TRUE 4K SPECIFICATION

Max 4K Capabilities		
Resolution and Refresh Rate	Chroma Sampling	Max Bit Depth per Color
4096 x 2160 at 60 Hz 3840 x 2160 at 60 Hz 4096 x 2160 at 30 Hz 3840 x 2160 at 30 Hz	4:4:4	8 bit
		10 bit
4096 x 2160 at 60 Hz 3840 x 2160 at 60 Hz	4:2:2	12 bit
4096 x 2160 at 30 Hz 3840 x 2160 at 30 Hz	4:4:4	

Frame rate<sup>3</sup> 24, 25, 30, 50, or 60 fps

Chroma sampling<sup>3</sup> 4:4:4, 4:2:2

Color bit depth<sup>2,3</sup> 8, 10, or 12 bits per color

Signal type HDMI 2.0, HDCP 2.2

Max. video data rate 18.0 Gbps

NOTE: Optical data rate is 10 Gbps over one fiber and 20 Gbps over two fibers.

NOTE: These transceivers are class 1 laser products. They meet the safety regulations of IEC-60825.

### OPTICAL FIBER INTERCONNECTION BETWEEN TRANSMITTER AND RECEIVER

Connectors	1, 2, or 3 LC connectors
Nominal peak wavelength	850 nm for multimode, 1310 nm for singlemode
Optical loss budget	
Singlemode	+7.4 dB, maximum
Multimode	+9.7 dB, maximum

### VIDEO INPUT AND LOOP OUT

Number/signal type	1 HDMI input 1 HDMI loop out
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### AUDIO INPUT

Number/signal type	1 digital audio, de-embedded from HDMI (2-CH, PCM only) or 1 analog stereo, unbalanced
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### USB HOST PORTS

<b>FOX3 T 301 PC</b>	
Number/signal type	1 USB HID 1 USB 2.0
<b>FOX3 T 311 PC</b>	
Number/signal type	1 USB HID

### GENERAL

Power supply	Internal Powered by the PowerCage 411 Enclosure
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NOTE: All nominal levels are at ±10%.

Model	Version Description	Part number
FOX3 T 311 PC MM	Lossless 4K/60 Transmitter - Multimode	70-1223-11
FOX3 T 311 PC SM	Lossless 4K/60 Transmitter - Singlemode	70-1223-12
FOX3 T 311 PC MM	Uncompressed 4K/60 Transmitter - Multimode	70-1223-13
FOX3 T 311 PC SM	Uncompressed 4K/60 Transmitter - Multimode	70-1223-14

For complete specifications, please go to [www.extron.com](http://www.extron.com)  
Specifications are subject to change without notice.

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