

# FOX3 T 111 & FOX3 R 111

FIBER OPTIC EXTENDERS FOR HDMI



The **FOX3 T 111** and **FOX3 R 111** are compact fiber optic transmitters and receivers designed for long-haul transmission of HDCP-compliant HDMI video with embedded audio over fiber optic cabling. Designed specifically for AV systems, FOX3 111 extenders include many integrator-friendly features such as Key Minder®, EDID Minder®, internal test patterns, a USB-C configuration port, remote configuration, and Ethernet monitoring and control.

- ▶ Extends HDMI video and embedded audio signals over fiber optic cabling
- ▶ Supports mathematically lossless 4K video up to 4096x2160 at 60 Hz with 4:4:4 chroma sampling over one fiber
- ▶ Supported HDMI 2.0 specification features include data rates up to 18 Gbps, Deep Color up to 10-bit, and two-channel PCM audio
- ▶ HDCP 2.3 compliant
- ▶ Buffered HDMI input loop-through
- ▶ User-selectable HDCP authorization
- ▶ Ethernet monitoring and control

## DESCRIPTION

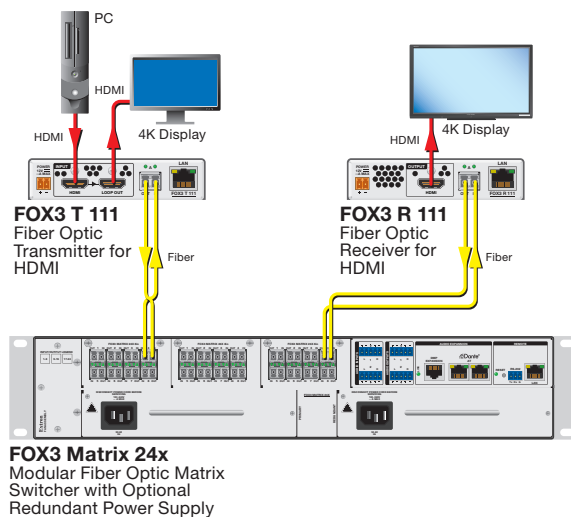
Engineered for exceptional high-resolution image performance, the **FOX3 T 111** and **FOX3 R 111** transmitter and receiver use Extron all-digital technology to deliver mathematically lossless transmission of images up to 4K/60 @ 4:4:4 over a fiber optic cable. A compact, low profile enclosure allows for discreet installation.

Supporting data rates up to 18 Gbps, the FOX3 101 is designed to extend mathematically lossless video images over one fiber, making it ideal for mission-critical applications or any environment that requires the transmission of very high-resolution imagery. Maintaining a 60 Hz frame rate with a 4:4:4 color space provides smooth frame transitions in full-motion video and ensures the details of high-quality computer images, such as CAD drawings, are preserved.

## KEY FEATURES

- ▶ Transmit HDMI video and embedded audio signals over fiber optic cabling
- ▶ Key Minder® continuously verifies HDCP compliance for quick, reliable switching
- ▶ EDID Minder® automatically manages EDID communication between connected devices
- ▶ HDCP Visual Confirmation
- ▶ Front panel USB-C configuration port
- ▶ Real-time status LED indicators for troubleshooting and monitoring
- ▶ Compatible with all Extron FOX3 Series matrix switchers and extenders
- ▶ Ethernet monitoring and control enables control and proactive monitoring over a LAN, WAN, or the Internet

## 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<br>3840 x 2160 at 60 Hz<br>4096 x 2160 at 30 Hz<br>3840 x 2160 at 30 Hz | 4:4:4           | 8 bit                   |
| 4096 x 2160 at 60 Hz<br>3840 x 2160 at 60 Hz                                                 | 4:2:0           | 12 bit                  |

Frame rate<sup>2</sup> 24, 25, 30, 50, or 60 fps

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

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

Signal Type HDMI 2.0, HDCP 2.3

Max. video data rate 18.0 Gbps

NOTE: <sup>1</sup>Supports lossless 4K video over one fiber.

<sup>2</sup>Subject to the maximum data rate limit. Use our calculator at [www.extron.com/8Kdata](http://www.extron.com/8Kdata) to determine video parameters supported by this data rate.

NOTE: These devices are class 1 laser products. They meet the safety regulations of IEC-60825, FDA 21 CFR 1040.10, and FDA 21 CFR 1040.11

### OPTICAL FIBER INTERCONNECTION BETWEEN TRANSMITTER AND RECEIVER

|                           |                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------|
| Number/type               | 1 SFP                                                                                       |
| Connectors                | 2 LC connectors                                                                             |
| Operating distance        |                                                                                             |
| Singlemode                | 20 km (12.4 miles) with singlemode (SM) cables                                              |
| Multimode                 | 500 m (1640 feet) with 50 µm OM4, 4700 MHz bandwidth, laser-optimized multimode (MM) cables |
| Maximum channel data rate | 10.0 Gbps                                                                                   |
| Optical loss budget       |                                                                                             |
| Singlemode                | +7.4 dBm, maximum                                                                           |
| Multimode                 | +9.7 dBm, maximum                                                                           |

### COMMUNICATIONS

|                        |                                                                               |
|------------------------|-------------------------------------------------------------------------------|
| USB configuration port |                                                                               |
| Number/type            | 1 front panel USB-C, female                                                   |
| Standard               | Ethernet over USB                                                             |
| Ethernet control       |                                                                               |
| Ethernet port          | 1 RJ-45 connector, female                                                     |
| Ethernet data rate     | 10/100/1000Base-T, half/full duplex with autotdetect                          |
| Program control        | Extron Product Configuration Software<br>Extron Simple Instruction Set (SIS®) |

### GENERAL

|                                |                                                                                                                    |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Enclosure dimensions           | 1.0" H x 4.3" W x 6.0" D (quarter rack wide)<br>(2.5 cm H x 10.9 cm W x 15.2 cm D)<br>(Depth excludes connectors.) |
| Regulatory compliance          | CE, C-UL, C-tick, FCC Class A, ICES, KCC, RoHS, UL, VCCI, WEEE                                                     |
| Product warranty               | 3 years parts and labor                                                                                            |
| Everlast power supply warranty | 7 years parts and labor                                                                                            |

| Model         | Version Description                     | Part number |
|---------------|-----------------------------------------|-------------|
| FOX3 T 111 MM | Lossless 4K/60 Transmitter - Multimode  | 60-1957-31  |
| FOX3 T 111 SM | Lossless 4K/60 Transmitter - Singlemode | 60-1957-32  |
| FOX3 R 111 MM | Lossless 4K/60 Receiver - Multimode     | 60-1957-41  |
| FOX3 R 111 SM | Lossless 4K/60 Receiver - Singlemode    | 60-1957-42  |

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

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