eLink 100

PROFESSIONAL GRADE WIRELESS EXTENDER FOR HDMI

Real-time wireless transmission of HDMI signals for applications where cable installation is not an option

- Reliable, professional-grade wireless extension of HDMI video and multi-channel audio signals up to 100 feet (30 meters)
- Capable of transmitting through multiple walls and furniture
- Supports computer video up to 1920x1080, including HDTV 1080p/60
- HDCP Compliant
- Ultra-low latency transmission of video and audio signals
- Professional-grade technology enables simultaneous transmission from one transmitter to as many as four receivers
- Actively monitors RF spectrum to select the ideal transmission channels

Extron Electronics
INTERFACING, SWITCHING AND CONTROL

Introduction

The eLink 100 eliminates wires for a clean installation.

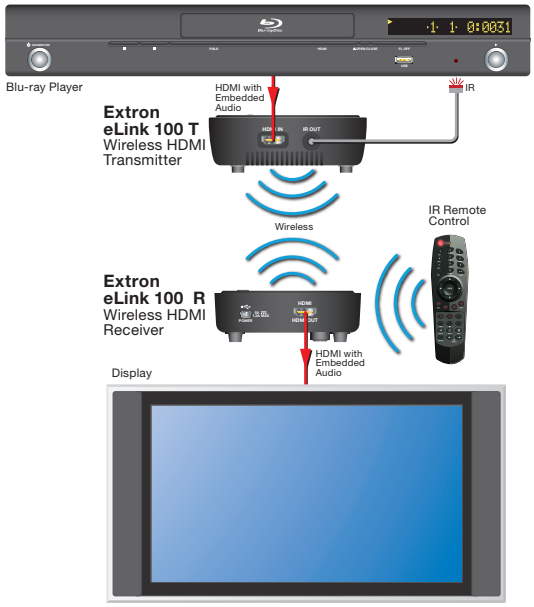
The Extron **eLink 100** is a professional-grade wireless transmitter and receiver set for extension of HDMI video and multi-channel audio up to 100 feet (30 meters). This HDCP-compliant extender features a robust wireless communication technology to ensure high reliability and real-time performance with exceptional image quality for resolutions up to 1920x1080, including HDTV 1080p/60. It includes features designed specifically for professional AV systems such as AES-128 encryption to ensure a secure link and use of the 5 GHz spectrum for transmission through multiple walls. Extron eLink™ technology ensures reliable operation of up to four eLink extender sets in the presence of the facility's other wireless systems. In addition to point-to-point designs, one transmitter can support four receivers to create a wireless distribution system.

The eLink 100 Professional Wireless Extender for HDMI is ideal for use in AV applications that benefit from wireless connection between a source and a display device. For example, the eLink 100 can provide signal extension from a media server or Blu-ray Disc player to a display positioned at the front of a presentation room without having unsightly cables stretched between source and display. In divisible spaces, a wireless connection enables a portable lectern to be moved anywhere within the room regardless of the location of floor boxes. For historic buildings, a wireless connection from the source or equipment room to the display can reduce or eliminate expensive and time-consuming structural modifications such as the need to core or trench concrete for cable runs. Wireless connections also simplify the setup and teardown in rental and staging applications.

For connection stability within environments with multipath signals, the eLink 100 uses a robust multi-input and multi-output - MIMO communication technology that reliably delivers high quality video and audio with real-time performance. MIMO technology provides maximum throughput to enable precise image transmission of high resolution video with ultra-low latency, which makes the extender suitable for live presentations. Use of the 5 GHz spectrum allows omnidirectional transmission through walls and furniture.

The included professional-grade technologies enable up to four eLink 100 transmitter and receiver sets to operate within the same space and without disrupting other wireless systems. Also, one transmitter can support multiple receivers, creating a virtual wireless distribution system. A single eLink 100 T transmitter can support up to four eLink 100 R receivers, allowing a single source such as a digital signage player to support multiple displays. The eLink 100 is also compatible with a broad range of multi-channel audio signals, providing reliable operation with HDMI devices, DSP mixers, and professional sound systems. This design flexibility further reduces costs and simplifies the upgrade or installation and setup of a professional AV system.

The eLink 100 wireless extender is backed by Extron's award-winning service and support. The compact transmitter and receiver enclosures may be concealed or mounted in adjacent areas to maintain the aesthetics of the facility.



Transmit HDMI signals up to 100 feet (30 meters)

Features

Reliable, professional-grade wireless extension of HDMI video and multi-channel audio signals up to 100 feet (30 meters)

Capable of transmitting through multiple walls and furniture

The eLink 100 wireless extender works in the 5 GHz spectrum to allow for broad coverage and transmission through walls and similar materials, overcoming limitations of other technologies that are more directional or limited to line-of-sight.

Supports computer video up to 1920x1080, including HDTV 1080p/60

Supported HDMI specification features include data rates up to 6.75 Gbps, Deep Color up to 12-bit, 3D, and multi-channel audio formats

HDCP Compliant

Professional-grade technology enables simultaneous transmission from one transmitter to as many as four receivers

One transmitter can support multiple receivers, allowing an AV signal to be distributed to as many as four displays.

Ultra-low latency transmission of video and audio signals

Latency of less than one millisecond ensures high quality wireless operation with real-time performance.

Actively monitors RF spectrum to select the ideal transmission channels

Provides Automatic Frequency Selection
– AFS and Dynamic Frequency Selection
– DFS, using the most appropriate frequencies to avoid interference from other devices operating in the same spectrum.

Supports multiple embedded audio formats

The eLink 100 is compatible with a broad range of multi-channel audio signals, providing reliable operation with HDMI devices and surround sound systems.

eLink™ wireless technologies allow as many as four extenders to operate within the same space

Enables point-to-point signal extension between up to four eLink 100 transmitter and receiver pairs without risk of interference or signal loss.

Multi-input and multi-output, or MIMO, wireless technology provides robust connection

Ensures wireless connections are stable and function in environments with multipath signals.

Cost-effective alternative to cable installation

Reduces installation time and costs associated with signal extension by eliminating the need to install cables in challenging environments, such as within historic buildings, rooms with mobile lecterns, as well as rental and staging applications.

On-screen display

The eLink 100 features an on-screen display for simplified setup and configuration.

IR remote control

The included IR remote control provides easy control for configuration and setup.

IR output control port

The eLink 100 R receiver accepts IR signals from a remote control and sends the signal to the transmitter for control of source equipment, such as a Blu-ray Disc player.

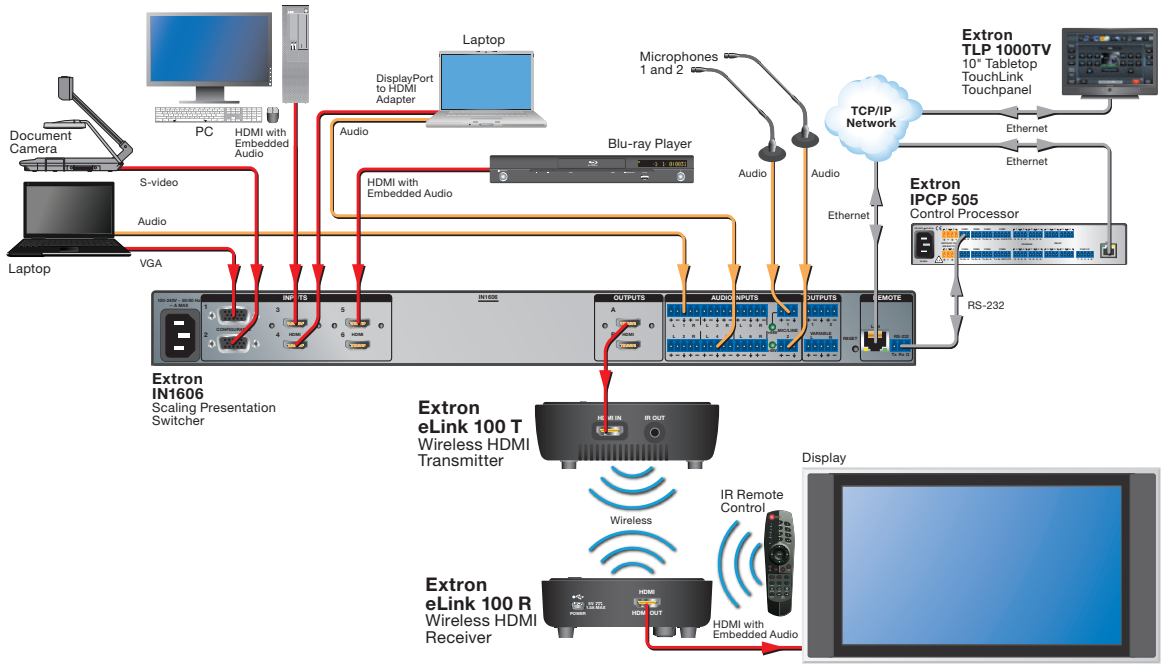
Compact design for easy installation into small spaces or behind equipment

Energy-efficient, external universal power supply included

Provides worldwide power compatibility.

Extron three-year parts and labor warranty

APPLICATION DIAGRAM



Specifications

NOTE: *Appropriate DVI-D to HDMI cables or adapters are required for DVI signal input/output.

VIDEO	
Maximum data rate	6.75 Gbps (2.25 Gbps per color)
Maximum pixel clock	148.5 MHz
Resolution range	Up to 1080p @ 60 Hz; 8, 10, or 12 bit color depth and VESA up to 1920x1080 @ 60 Hz
Supported resolutions	720(1440)x480[1], 640x480[1], 720x480[1], 720(1440) x576[2], 720x576[2], 1280x720[3], 1920x1080[3,4], 1366x768[5], 1440x900[5], 1400x1050[5], 1600x900[5], 1680x1050[5], 640x480[6], 800x600[7], 1024x768[8], 1280x720[9], 1920x1080[3,9] [1] = 60 Hz, and 59.94 Hz, [2] = 50 Hz, [3] = 50 Hz, 60 Hz, and 59.94 Hz, [4] = 50 Hz, 60 Hz, 23.98 Hz, 24 Hz, 25 Hz, 59.94 Hz, 29.97 Hz, and 30 Hz, [5] = 60 Hz, [6] = 72 Hz, and 59.94 Hz, [7] = 60 Hz, and 72 Hz, [8] = 60 Hz, and 70 Hz [9] = 50 Hz, 60 Hz, 23.98 Hz, 24 Hz, 59.94 Hz, 29.97 Hz, and 30 Hz
Formats	RGB and YCbCr digital video
Standards	DVI 1.0, HDMI, HDCP 2.0
VIDEO INPUT — TRANSMITTER	
Number/signal type	1 single link HDMI (or DVI-D*)
VIDEO OUTPUT — RECEIVER	
Number/signal type	1 single link HDMI (or DVI-D*)
AUDIO	
Supported formats	PCM, Dolby Digital 2/0, Dolby Digital 2/0 Surround, Dolby Digital 5.1, Dolby Digital Surround EX, DTS 2-channel, DTS Digital Surround 5.1, DTS 96/24
COMMUNICATIONS	
IR control port (Rx)	Included IR remote control
IR pass-through control port (Rx to Tx)	Unidirectional, 38 KHz
SIGNAL CHARACTERISTICS	
HDCP compliant	Yes
Bandwidth	40 MHz
Transmission distance	100 ft (30 m)
Operating frequency	
Non-DFS center frequencies	USA/Canada: 5.19 ~ 5.23, 5.755 ~ 5.795 GHz EU: 5.19 ~ 5.23 GHz Australia: 5.19 ~ 5.23 GHz
DFS center frequencies	USA/Canada: 5.27 ~ 5.59, 5.67 GHz EU: 5.27 ~ 5.67 GHz Australia: 5.27 ~ 5.55 GHz, 5.67 GHz
System latency	<1 ms
GENERAL	
Power supply	External Input: 100-240 VAC, 50-60 Hz Output: 5 VDC, 2.6 A, 13 watts

Power consumption	
Transmitter	
Device and power supply	8.8 watts, 100-240 VAC, 50-60 Hz
Receiver	
Device and power supply	9.0 watts, 100-240 VAC, 50-60 Hz
Cooling	Convection
Thermal dissipation	
Transmitter	
Device	24.4 BTU/hr
Device and power supply	28.9 BTU/hr
Receiver	
Device	24.4 BTU/hr
Device and power supply	29.6 BTU/hr
Mounting	
Wall mount	Yes
Enclosure type	Plastic
Enclosure dimensions	
Transmitter	1.4" H x 3.2" W x 4.0" D (3.6 cm H x 8.0 cm W x 10.2 cm D)
Receiver	1.3" H x 3.7" W x 3.7" D (3.4 cm H x 9.5 cm W x 9.5 cm D)
Product weight	
Transmitter	0.3 lbs (0.1 kg)
Receiver	0.3 lbs (0.1 kg)
Regulatory compliance	
Safety	CE, c-UL, UL
EMI/EMC	CE, C-tick, FCC Class B, ICES, VCCI, KC
Warranty	3 years parts and labor

Model	Version Description	Part number
eLink 100 T US	Transmitter - US/Canada version	60-1490-02
eLink 100 R US	Receiver - US/Canada version	60-1490-03
eLink 100 T EU	Transmitter - EU version	60-1490-12
eLink 100 R EU	Receiver - EU version	60-1490-13
eLink 100 T AUS	Transmitter - AUS version	60-1490-22
eLink 100 R AUS	Receiver - AUS version	60-1490-23

For complete specifications, please go to www.extron.com
Specifications are subject to change without notice.

The eLink 100 is certified for use in the following countries:

Australia	Hungary	Romania
Austria	Iceland	Saudi Arabia
Belgium	Ireland	Slovakia
Bulgaria	Italy	Slovenia
Canada	Latvia	Spain
Croatia	Liechtenstein	Sweden
Cyprus	Lithuania	Singapore
Czech Republic	Luxembourg	Switzerland
Denmark	Malta	Turkey
Estonia	Netherlands	UAE
Finland	New Zealand	United Kingdom
France	Norway	United States
Germany	Poland	Qatar
Greece	Portugal	

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