

Emerge® MPX1550

Wireless HD Multipoint Extender



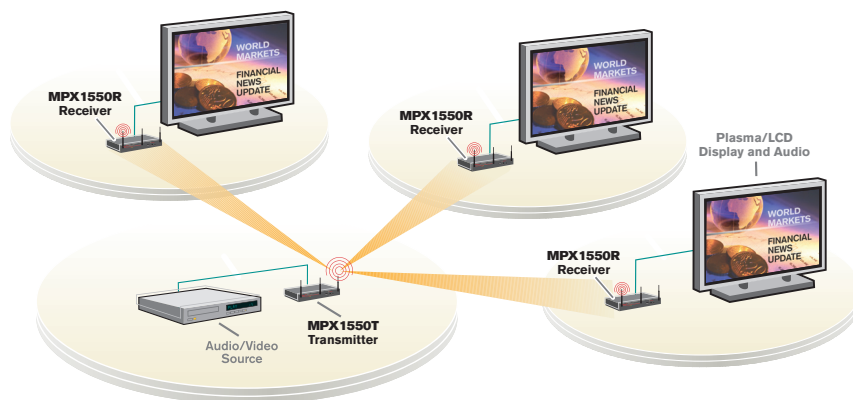
MPX1550: High-definition audio and video

The Avocent EmERGE MPX1550 multipoint extender provides wireless or wired connectivity for distribution of high-definition content from a source to one or more destinations. The MPX1550 extender combines Avocent's field-proven MPX technology with IEEE 802.11n MIMO-based radios, thereby setting the highest standard for wireless HD video distribution in terms of visual acuity, transmission distance, and noise immunity.

With the MPX1550 system, deployment of a single stream of media to many displays can be accomplished in minutes, even under the most challenging of conditions, with a degree of reliability and quality that rivals a dedicated source device at each and every display. Unlike multiple source devices, however, video and audio remain in perfect lockstep across all displays and failure-prone moving parts are kept to a minimum.

Designed for professional A/V applications involving both motion video and computer graphics, EmERGE MPX1550 extenders feature an integrated digital video interface (DVI-I) connector that offers supports direct connection to HDMI, DVI-D, DVI-A, RGB and component source and display devices.

For ease of installation and configuration, EmERGE MPX1550 extenders feature an on-board web server. The web interface also offers powerful diagnostic tools for remote or local management. All EmERGE MPX1550 products are field upgradeable to support future functionality.



EmERGE MPX1550 extenders integrate Avocent's field-proven MPX video extension and distribution engine with 802.11n radio technology and MIMO-based smart antennas. The result is a video and audio distribution solution that delivers unparalleled performance, range, and reliability. MPX1550 products are ideally-suited for use in a wide range of critical viewing applications that require one-to-many distribution, such as: informational displays, corporate signage, boardrooms, courtrooms, medical, military, and education.

FEATURES AND BENEFITS

- **Wireless or Wired Extension.** Provides installation flexibility for wireless or wired high-definition applications.
- **Universal DVI-I Video Port.** The MPX1550 T/R features a single DVI-I media port that supports RGB, component, DVI-A, DVI-D, and HDMI video.
- **Enhanced Audio.** Supported audio standards include stereo analog audio supported via white and red RCA connectors.
- **Point to Multipoint Distribution.** High-definition computer graphics or video and associated audio can be distributed to as many as eight display devices.
- **Serial Control.** MPX1550 extenders support broadcast and bi-directional serial data transfers for management of attached display devices.
- **IR Control.** MPX 1550 extenders support broadcast and bi-directional IR data transfers for session control from the point of display or for display control from the location of the source device. Mini-jack cables allow IR blasters and receivers to be optimally placed.
- **Web Control Interface.** Allows local or remote control and configuration of the system without special software tools.
- **Serial Interface.** Allows integration with third party control systems.
- **AES 128 Bit Encryption.** Audio-visual information is encrypted with built-in Advanced Encryption Standard (AES) for secure transmission.
- **Small Form Factor.** Small footprint allows convenient installation and saves space where it's needed the most.

EMERGE® MPX1550 MULTIPOINT EXTENDERS

Technical Specifications

Mechanical / Power / Environmental

Size: 4.55" (116 mm) D, 6.92" (176 mm) W, 1.00" (25.4 mm) H
Weight: 1.4 lbs (0.64 Kg)
Power (AC input/frequency): 100 - 240 VAC / 50 - 60Hz
Inrush Current: 14.2 Amps (AC/DC adapter)
Operating Temperature: 32°F (0°C) to 118.4°F (48°C)
Storage Temperature: -4°F (-20°C) to 140°F (60°C)
Humidity: 20% to 80% (Non-condensing)
Altitude: Altitude 10,000 ft across the operating temperature range, 35,000 ft across storage temperature range
Shock: 140G - 3 axis

Connections (Front)

2.5mm Mini-Jack: IR input
3.5mm Mini-Jack: IR blaster output, 38KHz +/- 2KHz; the IR blaster port supports enough drive current to handle 4 IR LEDs
RP-SMA Connector (2): Antenna connectors
USB: USB 1.1 (not used at this time)

Connections (Rear)

DC Power: DC barrel connector: 12VDC @ 1.5Amps
Serial (RJ-45): RJ45 serial port for control of attached display devices. Requires optional DB9-UNI female serial cable. Baud rates up to 38.4K
L1 LAN (RJ-45): IEEE 802.3 10/100 Ethernet, used for web access
Note: MPX receivers offer combined web/video functionality on a single port
L2 LAN (RJ-45): IEEE 802.3 10/100 Ethernet, used for streaming video
Note: MPX receivers offer combined web/video functionality on a single port
DVI-I: AV media port that supports a wide range of digital and analog video modes
RCA Jacks (2): Left and right jacks for unbalanced analog audio
S/PDIF: Digital audio output. Operation of this port may require a firmware upgrade

Video Details

Video Gain: Unity ±1DB
Digital Video Standards: HDCP compliant, HDMI 1.3 compliant, DVI-D DDC2B
Maximum Wired Video Bit Rate: 80 Mbps
Maximum Wireless Video Bit Rate (Topology Mode):
1-to-1 mode (110 Mbps); 1-to-Many mode (50 Mbps)

Video Resolutions (RGB):

Computer (RGB) at 30fps
● 640 x 480 @ 60Hz ● 480p @ 60Hz
● 800 x 600 @ 60Hz ● 576p @ 50Hz
● 1280 x 720 @ 60Hz
● 1280 x 768 @ 60Hz
● 1360 x 768 @ 60Hz

SD video (RGB) at 30 fps
● 480p @ 60Hz
● 576p @ 50Hz

HD video (RGB) at 30 fps
● 720p @ 50/60Hz

Video Resolutions (component video):

SD video (component) at 30 fps
● 480i @ 60Hz ● 720p @ 50/60Hz
● 480p @ 60Hz ● 1080i @ 50/60Hz
● 576i @ 50Hz
● 576p @ 50Hz

Video Resolutions (HDMI and DVI-D):

Computer resolution at 30 fps
● 640 x 480 @ 60Hz ● 480p @ 60Hz
● 800 x 600 @ 60Hz ● 576i @ 50Hz
● 1280 x 720 @ 60Hz ● 576p @ 50Hz
● 1280 x 768 @ 60Hz
● 1360 x 768 @ 60Hz

HD video at 30 fps
● 720p @ 50/60Hz
● 1080i @ 50/60Hz

SD video at 30 fps
● 480i @ 60Hz

Audio Details

Line Audio Outputs: Line audio inputs less than or equal to 10K Ohm with 0-36dB of headroom

Frequency Response: Analog audio frequency response: 20Hz-20KHz with a 3dB per octave roll-off beginning at 14 kHz

Radio Bands

UNII 1: (4 channels) 5.15-5.25 GHz: These are available as 2 bonded channels
UNII 3: (4 channels) 5.725 to 5.825 GHz: These are available as 2 bonded channels
ISM (11 channels) 2.412 to 2.462 GHz (requires firmware upgrade)

Extension Distances

Wired Distance: Wired distance limitations conform to Ethernet standards for a single subnet (no routing)
Wireless Distance: Up to 300 ft (90 m) line of sight and 150 ft (45 m) through interior (gypsum) walls

Regulatory Compliance (CMN: 2003 Series)

Standards: FCC Class B, UL, cUL, RoHS, CE, ICES-003, WEEE

Warranty

MPX1550 T/R: Two years



Ordering Details

MPX1550 Transmitter and Receiver

Part Number	Description
MPX1550T	Transmitter (Supports up to 8 receivers)
MPX1550R	Receiver

Optional Accessories

Antenna Extension Kits

Part Number	Description
5G-1M/3	Antenna Extension Kit, 1 Meter Cable
5G-2M/3	Antenna Extension Kit, 2 Meter Cable
5G-3M/3	Antenna Extension Kit, 3 Meter Cable

Mounting Options

Part Number	Description
RMK-56	Table/Desk Mount Bracket
PBK-01	Optional Power Supply Bracket for MPX1550R
DMK-04	Wall Mount Kit for MPX1550R
DMK-07	Desk Mount Kit for MPX1550T

Adapters

Part Number	Description
DVI-HDMI/CEC	Adapter for HDMI with CEC for MPX1550R
DVI-HD15F	DVI-D Male to HD15 Female Adapter with MPX1550 ID Bits
DVI-BNC3	Adapter for Component Video for MPX1550R

Cables

Part Number	Description
DB9-UNI	Serial RJ-45 to DB-9 Female Kit Cable, 1 FT
HDMI-1M	Male to Male 1 Meter Cable for MPX T/R

IR Blasters

Part Number	Description
IRB-100	Dual IR Blaster With 3.5mm Mini-Jack Cable
IRB-Y	3.5mm Mini-Jack Splitter for Two IRB-100 Blasters

IR Receivers

Part Number	Description
IR-RX	IR Receiver - 2.5mm With Connector



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