

# Emerge® MPX1550

## Wireless HD Multipoint Extender



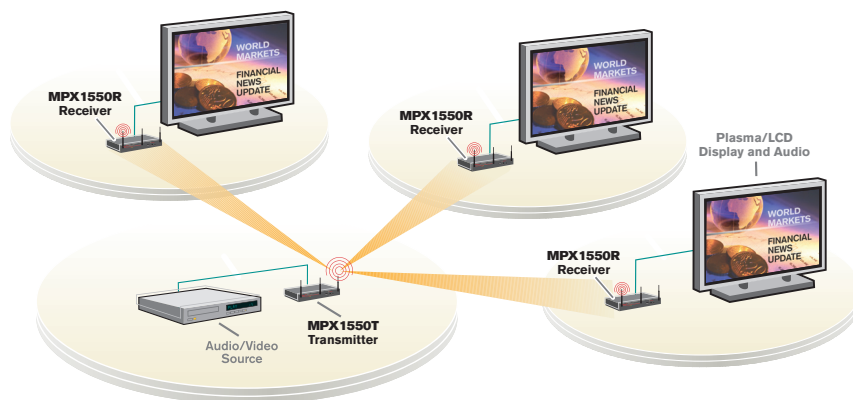
### MPX1550: High-definition audio and video

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 1.2 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  
● 1024 x 768 @ 60Hz  
● 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  
● 480p @ 60Hz  
● 576i @ 50Hz  
● 576p @ 50Hz  
HD video (component) at 30 fps  
● 720p @ 50/60Hz  
● 1080i @ 50/60Hz

### Video Resolutions (HDMI and DVI-D):

Computer resolution at 30 fps  
● 640 x 480 @ 60Hz  
● 800 x 600 @ 60Hz  
● 1024 x 768 @ 60Hz  
● 1280 x 720 @ 60Hz  
● 1280 x 768 @ 60Hz  
● 1360 x 768 @ 60Hz  
SD video at 30 fps  
● 480i @ 60Hz  
● 480p @ 60Hz  
● 576i @ 50Hz  
● 576p @ 50Hz  
HD video at 30 fps  
● 720p @ 50/60Hz  
● 1080i @ 50/60Hz

### 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

### 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-H Male to HD15 Female Adapter with MPX1550 ID Bits
DVI-BNC3	Adapter for Component Video for MPX1550 T/R

#### Cables

Part Number	Description
DB9-UNI	Serial RJ-45 to DB-9 Female Kit Cable, 1 FT
DB9-DUAL	Dual DB-9 Female Cable for MPX T/R, 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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