

# Emerge® MPX

## Wireless HD Multipoint Extender



### High-definition audio and video

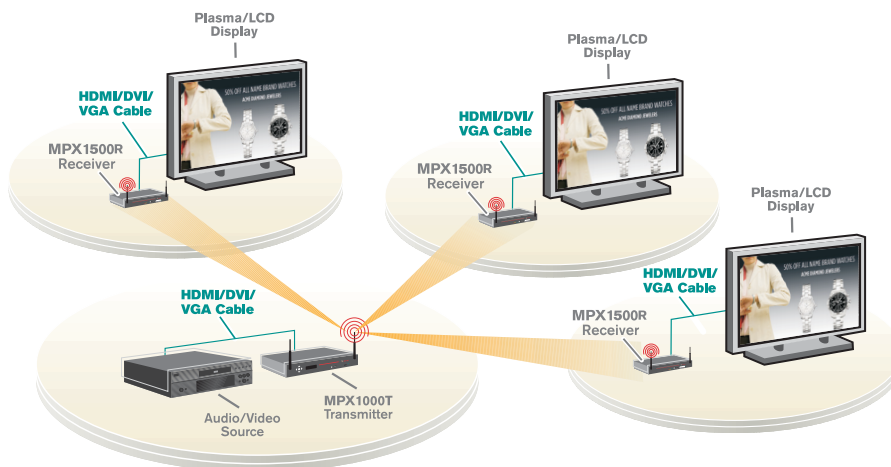
The Avocent Emerge MPX multipoint extender provides wireless or wired connectivity for distribution of high-definition content from a source to one or more destinations. The Emerge MPX transmitters and receivers work in unison to form a managed audio video extension network able to deliver a synchronized stream of high-definition computer graphics or video and associated audio from a source to as many as eight display devices in a wired or wireless manner. Display device control data, content protection and interactive device control signals, including IR and serial are passed from source to sink through the extension network, providing a fully managed solution.

Designed for high-definition media support used in professional A/V applications, the MPX1000T transmitter supports HDMI video and embedded audio, digital and analog computer graphics with analog audio, and component video with analog audio. The MPX1500R receiver offers coaxial and optical audio. All MPX extenders feature web-based diagnostic tools for ease of central management.

For system control and configuration, the Emerge MPX extender solution is accessible through two user interfaces: an on-board web server that allows browser-based unit control and configuration, and a front panel display that provides push-button access to system status. The extenders allow for control of attached audio-visual equipment through RS-232 serial and infrared connections. The Emerge MPX product is field upgradeable to support future functionality.

### FEATURES AND BENEFITS

- **Wireless or Wired Extension.** Provides installation flexibility for wireless or wired high-definition applications.
- **Universal DVI-I Video Port.** The MPX1500R receiver features a single DVI-I media port that supports VGA, component, DVI-A, DVI-D, and HDMI video.
- **Enhanced Audio.** Supported audio standards include stereo analog audio supported via white and red RCA connectors; coaxial digital audio (S/PDIF) supported via RCA connector; and optical digital audio supported via Toslink connector.
- **Point to Multipoint Distribution.** High-definition computer graphics or video and associated audio can be distributed to as many as eight display devices.
- **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.



*The Emerge MPX multipoint extender solution includes a transmitter and receivers for wired or wireless professional audio-visual applications. Interchangeable modules are available for MPX1000T input of analog VGA signals or digital HDMI/DVI signals. The MPX1500R receiver features a universal media input port based upon a DVI-I dual-link connector.*

# EMERGE® MPX EXTENDER

## Technical Specifications

### MPX1000T: Transmitter Mechanical / Power / Environmental

**Size:** 7.54" (192 mm) D, 17.0" (431 mm) W, 1.7" (43 mm) H  
**Weight:** 5.5 lbs (2.5 Kg) with full A/V module  
**Power (AC input/frequency):** 100 - 240 VAC / 50 - 60Hz  
**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)

### MPX1000T/MPX1500R: Transmitter / Receiver Connections (Front)

**IR Receiver:** IR input  
**3.5 Mini:** IR Blaster output, 38KHz +/- 1KHz; the IR Blaster port supports enough drive current to handle 4 IR LEDs  
**SMA Connector (2):** Antenna

### MPX1000T/MPX1500R: Transmitter / Receiver Connections (Rear)

**L1 (RJ-45):** Ethernet 10/100 IEEE 802.3, used for local network control of device; **L2 (RJ-45):** Ethernet 10/100 IEEE 802.3, used for streaming video  
**RS-232 (Female):** Serial control input (Tx, Rx, CTS, and DTS)  
**Power:** IEC  
**Input Module:** Input module slot  
**Radio:** Protocol: IEEE 802.11a; UNII 1 (4 channels) band: 5.15-5.25 GHz, and UNII 3 (4 channels) band: 5.725-5.825 GHz; 2.4 GHz ISM Band (11 channels)

### MPX1000MT-HDMI: Transmitter HDMI Input Module Connections

**RCA Female (2):** Unbalanced audio input  
**HDMI:** Digital audio/video control  
**Video**  
**HDMI A/V Input Port:** Supports 720 x 480p, 720p, 800 x 600 at 60Hz, 640 x 480 at 60Hz, and 1024 x 768 at 60Hz  
**Audio**  
**Line Audio Inputs:** Less than or equal to 10K Ohm with 0-36dB of headroom (Sensitivity)  
**Frequency Response:** The analog audio frequency response: 20 Hz - 20 KHz with a 3dB per octave roll-off beginning at 14KHz

### MPX1000MT-HD15: Transmitter VGA Input Module Connections

**RCA Female (2):** Unbalanced audio input  
**HD15:** Analog video input  
**Video**  
**HD15 A/V Input Port:** Supports 640 x 480 at 60 Hz, 800 x 600 at 60Hz, 1024 x 768 at 60Hz, 1280 x 720 at 60Hz, and 1280 x 768 at 60Hz  
**Audio**  
**Line Audio Inputs:** Less than or equal to 10K Ohm with 0-36dB of headroom (Sensitivity)  
**Frequency Response:** The analog audio frequency response: 20Hz - 20KHz with a 3dB per octave roll-off beginning at 14KHz

### MPX1500R: Receiver Mechanical / Power / Environmental

**Size:** 4.55" (166 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  
**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)

### MPX1500R: Audio

**Line Audio Inputs:** Less than or equal to 10K Ohm with 0-36db of headroom (Sensitivity)  
**Line Audio Outputs:** 600 Ohm with internal resistance of 150 Ohm  
**Frequency Response:** The analog audio frequency response: 20Hz - 20KHz with a 3dB per octave roll-off beginning at 14KHz

### MPX1500R: Radio Bands

**UNII 1: (4 channels)** 5.15-5.25 GHz  
**UNII 3: (4 channels)** 5.725 to 5.825 GHz  
**ISM (11 channels)** 2.412 to 2.462 GHz (supported in USA only)

### MPX1500R: Digital A/V Output Port

#### Supports the following HDMI and DVI-D resolutions

Computer resolutions (at 30 frames per second):

640 x 480 @ 60Hz	1280 x 720p @ 50Hz (720p)
720 x 480i @ 60Hz (480i)	1280 x 720p @ 60Hz (720p)
720 x 480p @ 60 Hz (480p)	1280 x 768 @ 60Hz
720 x 576i @ 50 Hz (576i)	1360 x 768 @ 60Hz
720 x 576p @ 50 Hz (576p)	1920 x 1080i @ 50Hz
800 x 600 @ 60Hz	1920 x 1080i @ 60Hz

### MPX1500R: Analog A/V Output Port

#### Supports the following VGA resolutions

Computer resolutions (at 30 frames per second):

640 x 480 @ 60Hz	1280 x 720p @ 50Hz (720p)
720 x 480p @ 60 Hz (480p)	1280 x 720p @ 60Hz (720p)
720 x 576p @ 50 Hz (576p)	1280 x 768 @ 60Hz
800 x 600 @ 60Hz	1360 x 768 @ 60Hz

### Antennas

Two 2dB omni-directional (included) / 8dB directional antennas (optional) / 2 G-Band antennas

### Extension Distances

Wired Distance: Wired distance limitations conform to Ethernet standards for a single subnet (no routing). Wireless Distance: 150 ft (45 m) wirelessly through walls; up to 1,000 ft (304 m) line-of-sight with optional directional antenna

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

**Warranty:** Two years

## Ordering Details

Part Number	Description
MPX1000T	Transmitter (Supports up to 8 receivers)
MPX1500R	Receiver
MPX1000MT-HDMI	Transmitter Module HDMI
MPX1000MT-HD15	Transmitter Module VGA
HGA51G-DIR30	Optional Directional Antenna
5G-1M	Antenna Extension Kit, 1 Meter Cable
5G-2M	Antenna Extension Kit, 2 Meter Cable
5G-3M	Antenna Extension Kit, 3 Meter Cable
LGA55G-OMN	Antenna Kit, Omni Reverse-SMA 136MM
IGA24G-OMN	Intermediate Gain (3dB) 2.4 - 2.5 GHz Omni-Directional Antenna
LGA24G-OMN	Low Gain (1.46dB) 2.4 - 2.5 GHz Omni-Directional Antenna
<b>Accessories</b>	
RMK-56	Table/Desk Mount Bracket
PBK-01	Optional Power Supply Bracket for MPX1500R
DMK-04	Wall Mount Kit for MPX1500R
HD15-BNC3	Female Adapter Cable for Component Video for MPX1000T
HDMI-1M	Male to Male 1 Meter Cable for MPX1000T
DVI-HDMI	DVI-D (Male) to HDMI (Female) Adapter for MPX1000T
DVI-HDMI/CEC	Adapter for HDMI with CEC for MPX1500R
DB9-DUAL	Dual DB-9 Female Serial Cable for MPX1500R
DVI-BNC3	Adapter for Component Video for MPX1500R
IRB-Y	IR Blaster - Dual Splitter for MPX1500R/MPX1000T
IRB-100	IR Blaster for MPX1500R/MPX1000T
IR-RX	IR Receiver - 2.5mm Connector for MPX1500R



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