



The **MS-500** is a networked classroom amplifier and a central component in the Optimum Classroom System. This amplifier has network-based intercom, paging and emergency notification, providing full-duplex audio. It is easy-to-use, easy-to-install, and has a simple user interface software. The entire unit is Powered over Ethernet (PoE). Intercom and paging functionalities\*\* are built-in. During emergencies, paging can still be heard, even when the power goes out. This unit can be installed as part of the SAFE (Signal Alert For Education) System™.

The MS-500 features the following key benefits:

- PoE Powered!
- Full Duplex SIP Communications
- EPIC Integration
- SAFE System Interface
- Flexible Integration with other building systems (access control, strobes, etc.)



## MS-500 Specifications\*

Line Inputs	For PC, DVD audio, MP3, auxiliary mic, or other multimedia sources <ul style="list-style-type: none"> <li>• 4 Line unbalanced stereo inputs (3.5 mm)</li> <li>• 1 Input connector for XD Receiver</li> <li>• Internal Network Audio</li> </ul>
Line Outputs	1 Unbalanced (3.5 mm) output 2 Unbalanced line outputs (RJ45 connectors)
Equalizer	5-Band Equalizer
Mini USB	Control and configuration via software
Minimum Load Impedance	4 Ohms on each pair of terminals (2 Ohm load overall is nominal)
Amplifier Type	92% Efficient Class D
Continuous Power @ 1% THD	30 Watts powered by PoE†
S/N	>89 dB @ 20 Hz to 20 kHz at maximum output
Protection Circuits	Thermal and short circuit protected
PA Connector	Connects to public address system and mutes amplifier during announcements Input Voltage: 4.0 Volts RMS to 74 Volts RMS
Control Port	RS-232, 3-pin screw terminal block header, RJ45 remote control port <ul style="list-style-type: none"> <li>• (2) RS-232 communication ports: (1) for XD Receiver, and (1) to control another classroom device such as a projector</li> <li>• (2) Remote Control Ports: for integration with LCD wall plate controls</li> <li>• XD Receiver, power out and audio input</li> <li>• Intercom call, emergency alert, room microphone wall plate port (WPA-50x)</li> <li>• Input/output (I/O) aux port for sense, strobe, etc.</li> </ul>
Power Supply	PoE + 802.3af/at‡
Temperature/Humidity	Storage: -40 to 158°F (-40 to +70°C) / 10-90% non-condensing Operating: -32-122°F (0 to +50°C) / 10-90%
Enclosure Type	Metal
Ethernet I/F	10/100 Mbps
Power Input (Network)	PoE 802.3af/at‡
Operating Temperature	14° F to 122° F (-10° C to 50° C)
Protocols	SIP RFC 3261 compatible UDP Directed Broadcast Multi-cast and VoIP enabled
Lineout: Output Signal Amplitudes	2.0 VPP maximum
Output Level	+2 dBm nominal
Total Harmonic Distortion	0.5% maximum
Weight	1.3 lbs (589.67 g)
Dimensions	1.81 (H) x 9.19 (W) x 3.56 (D) in. (45.97 x 233.43 x 90.42 mm)

**SAFE System**  
Signal Alert For Education

Compatible

*SAFE (Signal Alert For Education) System (patent pending) is an alert notification system not intended to be a life-saving device or prevent emergencies. Audio Enhancement, our agents, employees, subsidiaries, affiliates and parent companies are exempt from liability for any loss, damage, injury or other consequence arising directly or indirectly from the application of our equipment. In the event of misuse or malfunction of the SAFE System or any of its components, Audio Enhancement, our agents, employees, subsidiaries, affiliates and parent companies are exempt from liability for any loss, damage, injury or other consequence arising directly or indirectly therefrom.*

\* All specifications subject to change.  
\*\*Third party SIP License required.

† Dependent on PoE switch.

