

I8SM+

PoE+ Indoor IP Loudspeaker System with Microphone



Features

Network Features

- Dynamic or Static IP Address
- IEEE802.3 10/100Base-T Ethernet
- IEEE 802.1q Tagging
- IEEE 802.3AF Compliant

VoIP Standard Audio

- G.711 u-law/a-law (64 kbit/s)
- G.722 Wideband Audio (64 kbit/s)

Auto Provisioning

- DHCP Option 66, 150, or TFTP Server
- DHCP Option 72 for HTTP Server

Auto Registration

- SLP for InformaCast
- DHCP Option 72 for SA-Announce or GCK

Static Configuration

- HTTP GUI for Static Configuration
- Cisco SRST

Audio Features

- Integrated Amplifier
 - 15-Watt Total Power
 - Primary Speaker Output 8Ω
- Aux Audio Line-In Unbalanced (2.8Vpp 10K)
- Aux Audio Line-Out Unbalanced (2.8Vpp 10K)

Additional Features

- 2 General Purpose Inputs
 - 1 Relay Output (2A @ 30 VDC)
 - Phone/Night Loud Ringer
 - External Power Supply Option
 - Integrated Microphone Allows for Half-Duplex or Full-Duplex Paging
- Based on Software Platform Used

General Description

AtlasIED I8SM+ is an indoor wall / ceiling mount IP loudspeaker with integrated talkback microphone. It leverages VoIP communication to extend tele-presence with enhanced audio for environments where network-wide communication is desired and high-output loudspeakers are required to overcome high ambient noise and/or large spaces.

Applications

AtlasIED I8SM+ registers as a communication endpoint directly within InformaCast, GCK, and SA-Announce advanced notification applications, supporting audio broadcast to enhance physical security while improving day-to-day communications through advanced alerting, bell schedules, pre-recorded & scheduled announcements, while leveraging the WAN or LAN network architecture.

When used within a Cisco environment, the I8SM+ loudspeakers can join Cisco's Unified Survivable Remote Site Telephony (SRST) as a supported device. Cisco's SRST provides remote location call-processing redundancy when access to the centralized Cisco Unified Communications Manager is interrupted because of a WAN outage. The ability of LAN communication between any combination of phones and loudspeakers is particularly critical during an emergency (which may be the actual cause of the WAN outage).

Where 3rd party notification applications are not required, the I8SM+ loudspeakers can register as SIP devices directly to a SIP server or VoIP Communications Manager for critical alerts, intercom and public address applications.

System	
Type	PoE+ Indoor IP Loudspeaker System with Microphone
Operation Mode	Self Powered
Indicators	Network Status (On Back)
Operating Range (-10db)	70Hz - 15.5kHz
Frequency Response (+/- 5dB)	86Hz - 15.5kHz
Vertical Coverage	105° 800Hz - 4kHz
Horizontal Coverage	105° 800Hz - 4kHz
Directivity Factor (Q)	4.7 @ 2 kHz
Max SPL at 1 m (passive)	106 dB SPL Continuous / 109 dB SPL Peak
Recommended Signal Processing	Built-In Processing
General Purpose Interface	Two Trigger Inputs / One Relay Output (2A @ 30 VDC)
Transducers	
Transducer Qty and Size	8"
Voice Coil Size	1"
Cone Material	Curvilinear, Treated Industrial Paper
Driver Protection	Built-In Limiter
Amplification	
Type	Single-Channel Class D Topology
AC Power Input	PoE or PoE+ and External 24VDC
Power Rating (RMS)	15 Watts Max (802.3AT)
THD	<.02%
Cooling	Passive/Convection
Microphone	
Sensitivity	Minus 35 (±4dB) / (0db = 1V/pa, 1kHz)
Impedance	Less than 2.2kΩ
Directivity	Omnidirectional
Frequency Range	20Hz – 20kHz
Standard Operation Voltage	2V
Max. Operation Voltage	10V
Current Consumption Max.	0.5 mA
Sensitivity Reduction Within	Minus 3dB @ 1.5V
S/N Ratio	More than 62dB
Audio Inputs and Outputs	
Input: Analog Audio Type(s)	One Unbalanced Analog
Input: Analog Connectivity	Secured Screw Terminal Block
Input: Network Audio Type(s)	G.711 U-Law/A-Law and G.722 Capable
Input: Network Connectivity	RJ-45 Female
Output: Analog Audio Type(s)	One Unbalance Line Level
Output: Analog Connectivity	Secured Screw Terminal Block
Output: Digital Audio Type(s)	N/A
Output: Digital Connectivity	N/A
Output: Loudspeaker Level	8Ω, 9W (802.3AF), 15W (802.3AT)
Output: Loudspeaker Connectivity	Two x Secured Screw Terminal Block
Software	
SA-Announce Compatible Versions	9.0.18+
InformaCast Compatible Version	8.0+
GCK Compatible Version	3.0+
Network	
Ethernet	IEEE802.3 10/100Base-T
PoE	IEEE802.3AF/AT Compliant
VLAN	IEEE802.1q Tagging

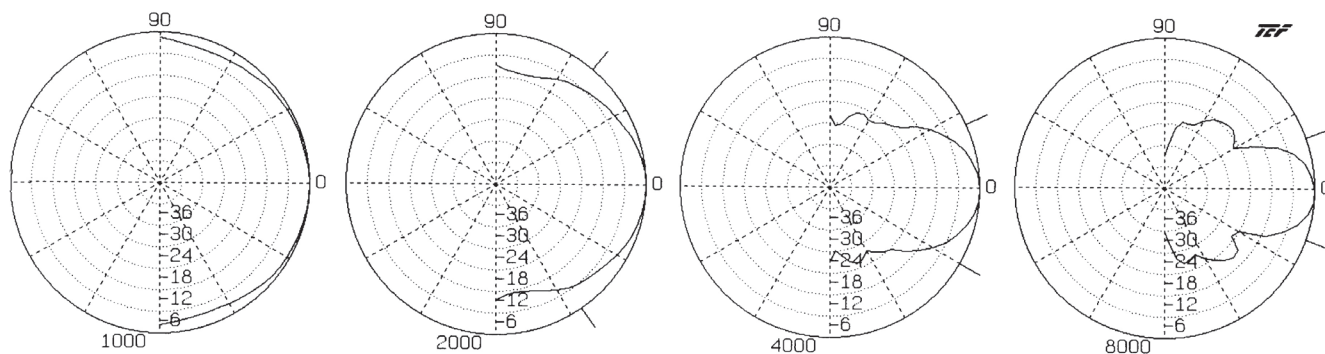
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Protocols	
IP Addressing	DHCP/Static
Auto-Provisioning	HTTP/TFTP
Auto-Registration	HTTP/Service Location Protocol/IEDNet
Time	NTP
Telephony	SIP
Enclosure	
Color	White (RAL 9010)
Grille Material	Powder Coated Steel, White Finish, Paintable
Baffle Material	18-gauge Corrosion-Resistant Zinc Plated Steel
Mounting/Rigging Provisions	Mounting Enclosure is Not Included (See Optional Enclosure)
Safety Agency Ratings	ETL Listed to Comply with UL-60950-1, and CAN/CSA-C22.2 No. 60950-1
Ingress Protection	IP-30
Logo	Blue and Removable
Product Dimensions (HxWxD)	11.5" (292mm) x 11.5" (292mm) x 2.84" (72.14mm)
Shipping Dimensions (HxWxD)	12.37" (314mm) 12.37" (314mm) x 5" (127mm)
Net Weight - lbs	3.6 lbs (1.63kg)
Shipping Weight - lbs	4.8 lbs (2.2kg)
Warranty Coverage	
Warranty Period	1 year

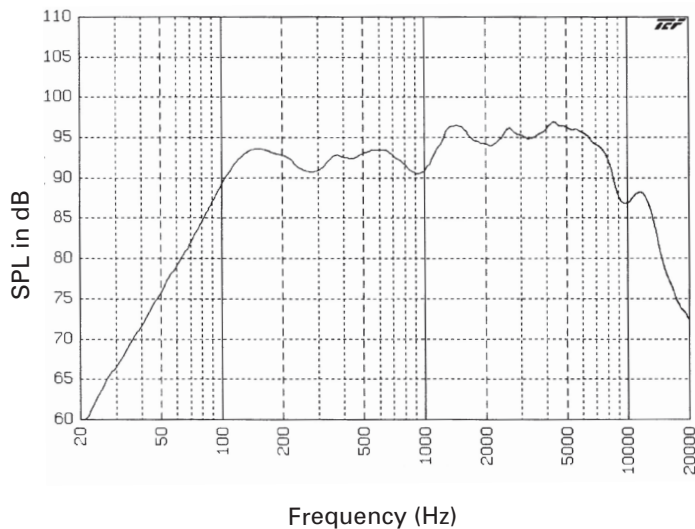
NOTES:

1. Sensitivity: Half space pink noise measurement at 6 ft (1.8 m) at 20% power; extrapolated to 1 meter and an input of 2.83 volts RMS.
2. Watts: All wattage figures are calculated using the rated nominal impedance.
3. Frequency response and sensitivity are half-space measurements.

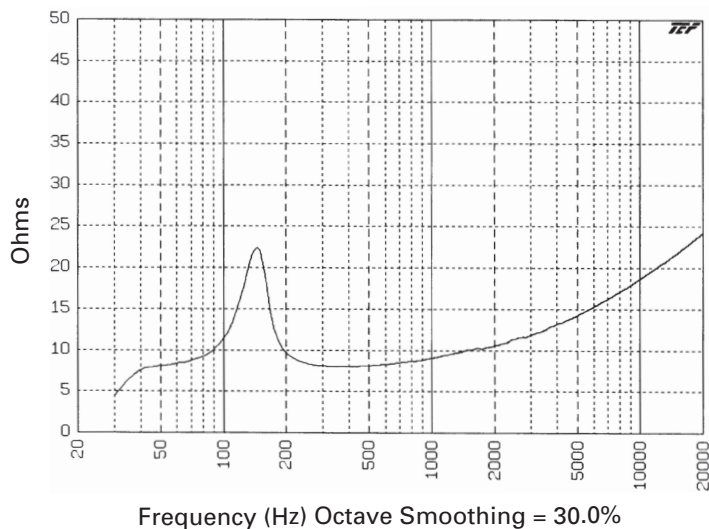
Polars (Normalized to Zero on Axis) (-6dB)



Frequency Response

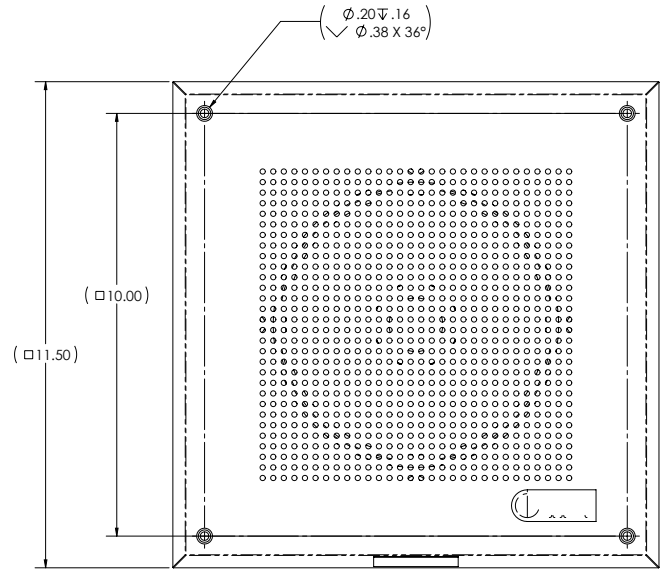
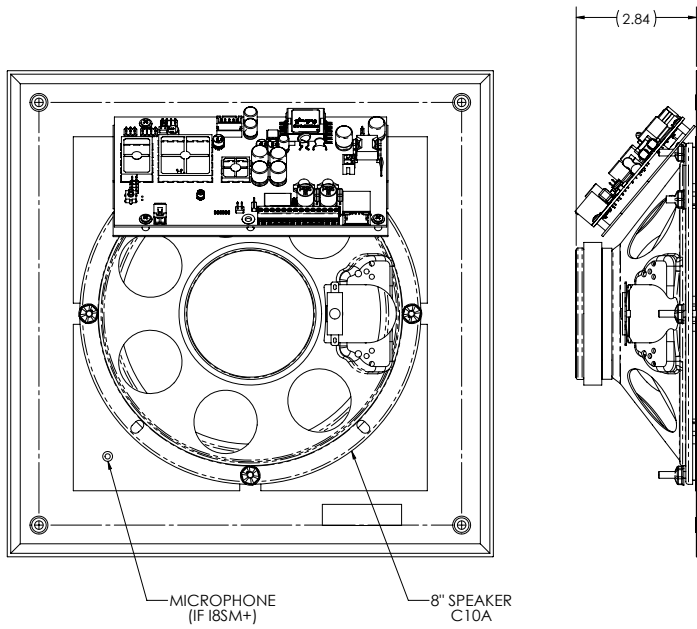


Impedance

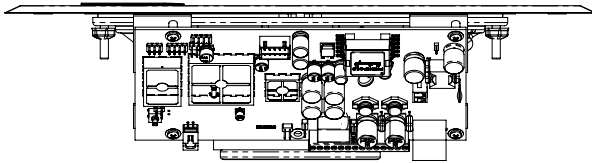
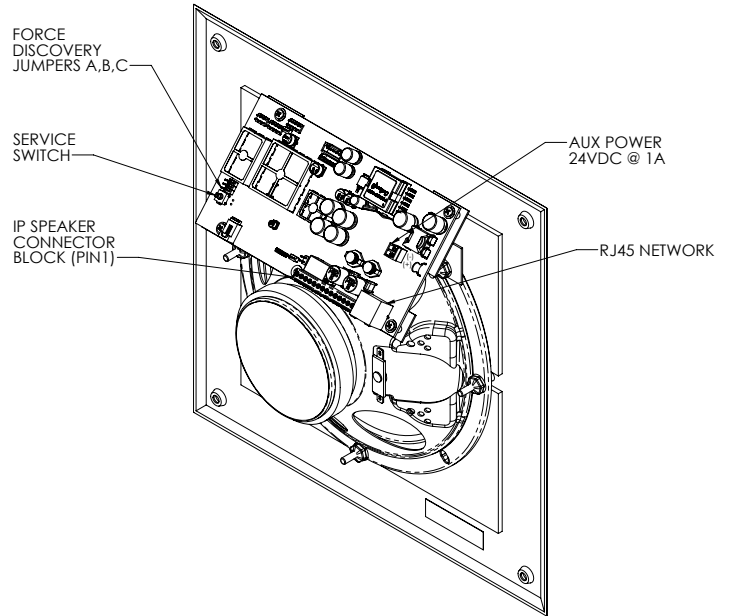


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Dimensional Drawings



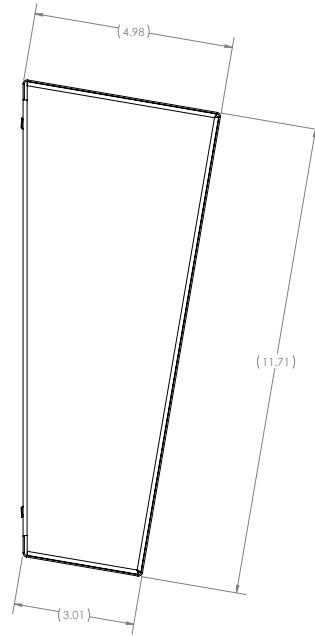
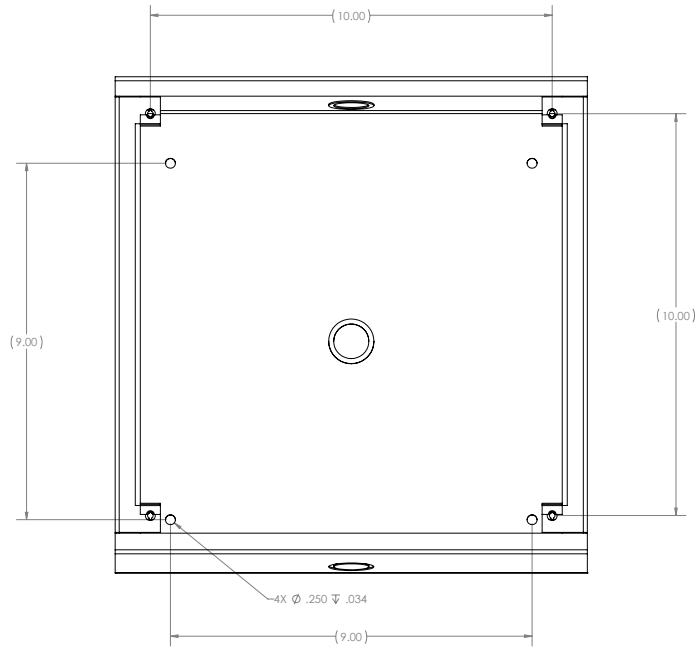
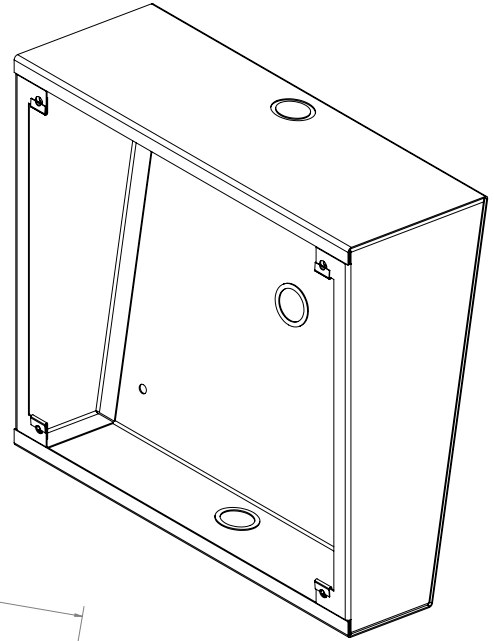
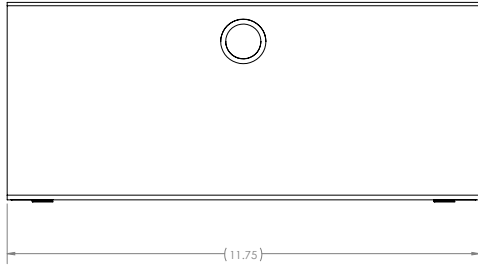
IP SPEAKER CONNECTOR BLOCK	
PIN	FUNCTION
1	REMOTE BUTTON / GPI 2 (+)
2	REMOTE BUTTON / GPI 2 (-)
3	REMOTE BUTTON / GPI 1 (+)
4	REMOTE BUTTON / GPI 1 (-)
5	RELAY (-)
6	RELAY - NORMALLY OPEN (+)
7	LINE-IN (-)
8	LINE-IN (+)
9	LINE-OUT (-)
10	LINE-OUT (+)
11	PRIMARY SPEAKER (-)
12	PRIMARY SPEAKER (+)
13	SECONDARY SPEAKER (-)
14	SECONDARY SPEAKER (+)



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Optional Accessories

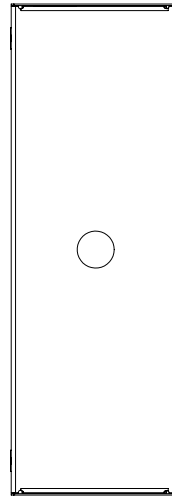
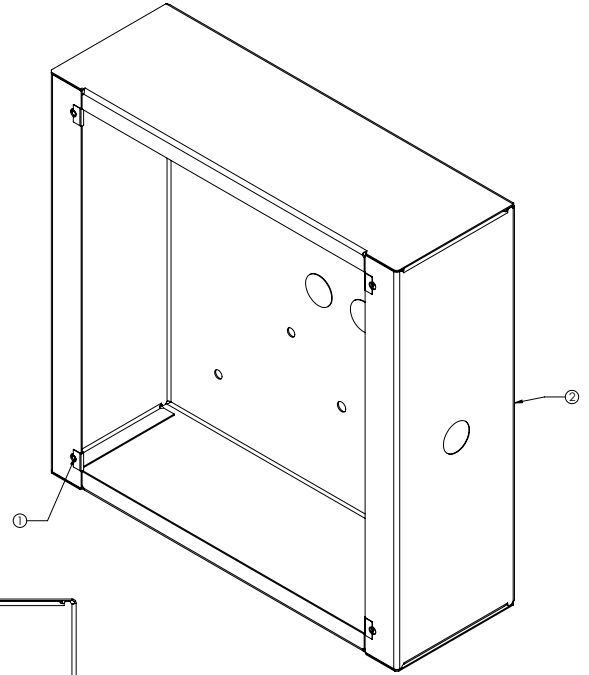
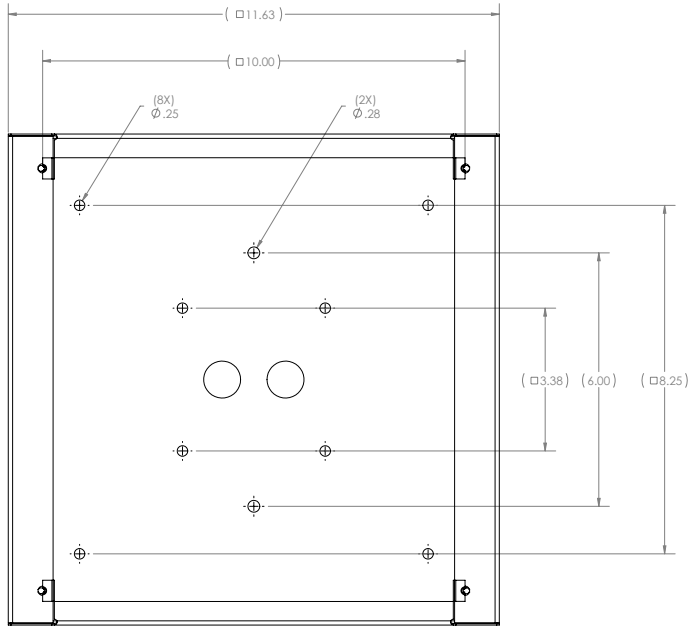
SEA-18S



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Optional Accessories

SEST-18S

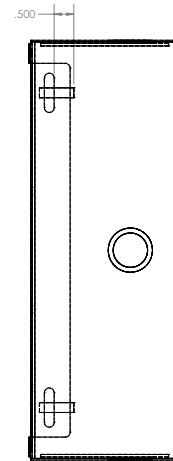
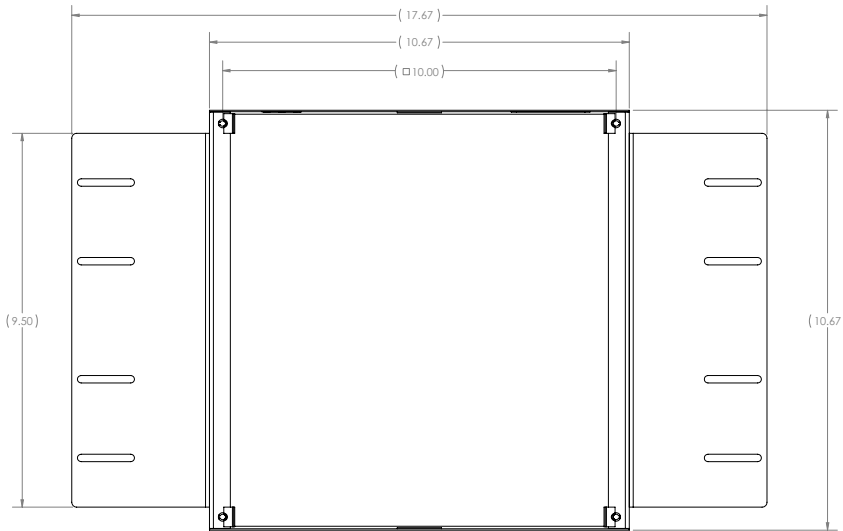
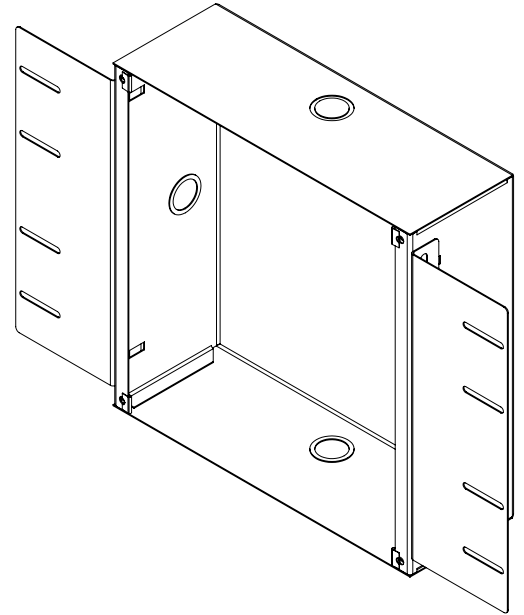
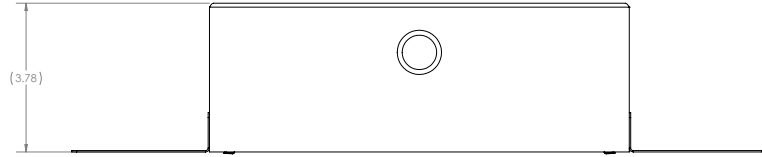


BILL OF MATERIALS				
ITEM NO.	PART NUMBER	REV.	QTY.	DESCRIPTION
1	114853	F	4	NUT, 3-32 X NUT SS
2	387042	E	1	ENCL SQ 11.62 X 11.62 X 4
3	490919		1	LABEL, 1X1 MADE IN USA

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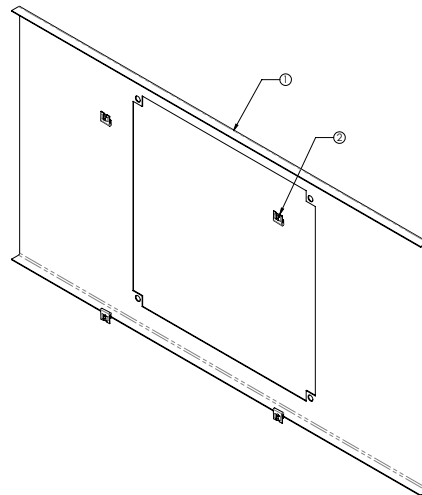
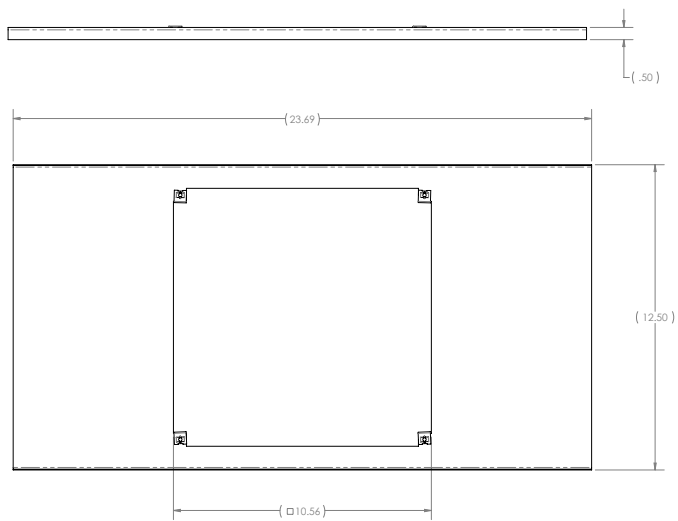
Optional Accessories

FEST-18S



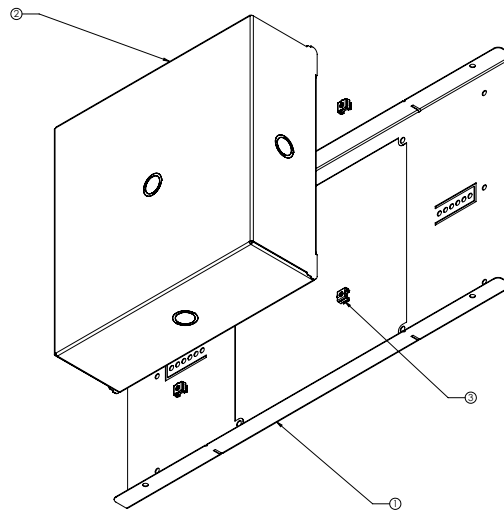
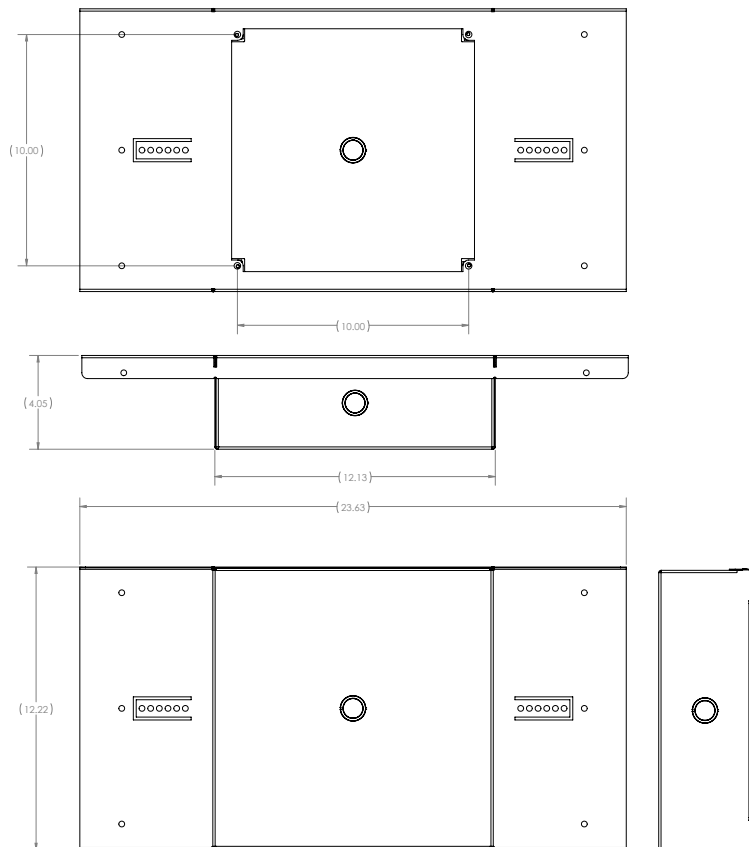
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I8S-TB



ITEM NO.	QTY	DESCRIPTION
1	1	TIL BRG IBS FORMED
2	4	NUT, 8-32 J-NUT SS

I8S-TBE



BILL OF MATERIALS				
REV	PART NUMBER	REV	QTY	DESCRIPTION
1	402702	A	1	TIL BRG IBS-TBE
2	402706	A	1	ENCLOSURE-IBS-TBE
3	113326	A	4	NUT, 8-32 MARKET NUT

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Architect and Engineer Specifications

The unit shall be AtlasIED model I8SM+. The loudspeaker system shall include factory assembled loudspeaker, IP addressable PCB amplifier/control, metal baffle, and integrated microphone. The loudspeaker shall be an 8" driver with a 10oz (260g) ceramic magnet and seamless cone. The impedance shall be 8 ohm and a voice coil diameter of 1" (25mm). The loudspeaker dispersion shall be 105° (800Hz - 4kHz) and frequency response of 86Hz – 15.5kHz (±5dB). The max peak output at 1W/1m shall be 98dB SPL.

The amplifier/control board shall be capable of producing 15-watts RMS when using an IEEE 802.3at compatible PoE+ switch or 24VDC local power supply and 9-watts RMS when used with an IEEE 802.3af compliant PoE switch. Interconnect shall be via female RJ-45 connector mounted to the PCB.

The unit shall incorporate an integrated microphone to allow full duplex talkback communication functionality based upon chosen software platform.

All control functionality shall be determined via software. The metal loudspeaker baffle overall dimensions shall be 11.5" (292mm) x 11.5" (292mm) x 2.84" (72.14mm) HxWxD. Finish shall be neutral white electrostatic powder coat.

Optional enclosures shall include:

- | | |
|----------|--|
| SEA-I8S | surface mount angled enclosure for I8SM+
neutral white finish |
| SEST-I8S | surface mount straight enclosure for I8SM+
neutral white finish |
| FEST-I8S | flush mount straight enclosure for I8SM+
reclaimed powder coat finish |

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