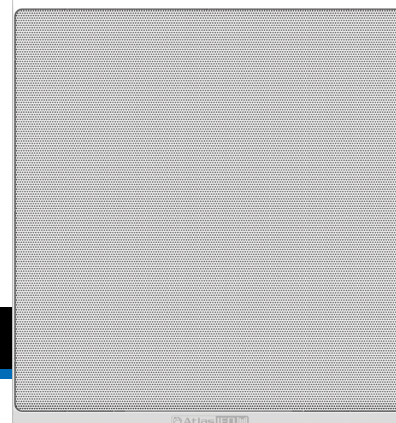


IP-SM-72

PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE AND 25V/70V SWITCH

TECHNICAL DATA SHEET



PRODUCT SUMMARY

AtlasIED IP-SM-72 is an indoor wall / ceiling mount IP endpoint with speaker and integrated talkback microphone. It complements the Unified Communication (VoIP communications) investment including on-premise and hosted infrastructure platforms so that information can be pushed to people and spaces beyond the world of desktop telephony communication, breaking traditional audio-path barriers.

APPLICATIONS

AtlasIED IP-SM-72 registers as a communication endpoint directly within Singlewire®, AtlasIED®, and Syn-Apps® notification applications, supporting audio broadcast to enhance physical security while improving day-to-day communications through advanced alerting, bell schedules and pre-recorded & scheduled announcements, while leveraging the WAN or LAN network architecture.

AtlasIED IP-SM-72 supports Call Manager publisher subscriber SIP Service call processing failover. This service provides remote location call-processing redundancy when access to the centralized Call Manager is interrupted because of a WAN outage. In a Cisco® UMC environment, IPX endpoints can register to either Cisco's basic or advanced 3rd party SIP device service for intercom or paging functionality. IPX must use Cisco's advanced 3rd party SIP device service when registering to a publisher subscriber configuration is required.

Where 3rd party notification applications are not required, the IP-SM-72 endpoint can register as a SIP device directly to a SIP server or VoIP Communications Manager for critical alerts, intercom and public address applications.

Additionally, the IP-SM-72 includes an attached 25V/70V transformer on the rear of the speaker and a switch on the front baffle that allows selection between 25V/70V and network functionality. This enables a facility to install the IP-SM-72 and use it in an existing analog paging system to deliver messages until the controller and software are installed. Once that is complete, the grille can be removed and the switch changed to network causing the endpoint to receive its information from the controller without the need to remove the unit. This is ideal for retrofit applications or for systems where components are being installed in phases and the speakers must continue to function during the rollout.

KEY FEATURES

Network Features

- Dynamic or Static IP Address
- IEEE 802.3 10/100Base-T Ethernet
- IEEE 802.1q Tagging
- IEEE 802.3at Compliant

Audio Codec Support

- G.711 u-law / a-law (16 kbit/s)
- G.722 Wideband Audio (64 kbit/s)

Auto Registration

- SLP for Singlewire Applications
- DNS SRV for Singlewire Applications
- DHCP Option 72 for Syn-Apps' Applications
- IEDNet+ for AtlasIED Applications

Static Configuration

- HTTP GUI for Static Configuration

Audio Features

- Integrated Amplifier with 8Ω output
- Aux Audio Line-In Balanced (2.8Vpp 10K)
- Aux Audio Line-Out Balanced (2.8Vpp 10K)
- Integrated Microphone Allows for Full-Duplex Paging Based on Software Platform Used
- 25V/70.7V Transformer and Switch for Retrofit Applications
- Can send 1 Static Multicast Stream (Line-in or Mic to Multicast Out)
- Can listen up to 10 Static Multicast Streams

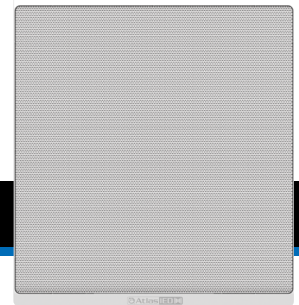
Additional Features

- 2 General Purpose Inputs
- 1 Relay Output (2A @ 30 VDC)
- Phone / Night Loud Ringer
- External Power Supply Option

IP-SM-72

PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE
AND 25V/70V SWITCH

TECHNICAL DATA SHEET



AUDIO SPECIFICATIONS / PERFORMANCE

SYSTEM	
Type	PoE+ Indoor IP Endpoint with Speaker, Microphone and Analog Transformer & Switch
Operation Temp.	-20°C (-4°F) to 55°C (131°F)
Indicators	Network Status (On Back)
Frequency Response (+/- 5dB)	70Hz - 15.5kHz
Vertical Coverage	105° (2kHz Octave Band, -6dB Points)
Horizontal Coverage	105° (2kHz Octave Band, -6dB Points)
Directivity Factor (Q)	17 @ 2 kHz
Max SPL at 1m (Passive)	110dB SPL Continuous
General Purpose Interface	Two Trigger Inputs / One Relay Output (2A @ 30 VDC)
Transformer Taps 70.7V	0.25, 0.5, 1, 2, & 4-Watts
Transformer Taps 25V	0.25, 0.5, 1, 2, & 4-Watts

TRANSDUCERS	
LF Transducer Qty and Size	(1) 8" (203mm)
HF Transducer Qty and Size	(1) 3" (76mm)
HF Crossover Frequency	2,800Hz, First Order
Voice Coil Size	1" (25mm)
Cone Material	Curvilinear, Treated Industrial Paper
Vertical Coverage:	120° 2kHz Octave Band
Horizontal Coverage:	120° 2kHz Octave Band
Directivity Factor (Q)	8 @ 2 kHz
Sensitivity	98dB SPL Average

AMPLIFICATION	
Type	Single-Channel Class D Topology with Primary and Secondary Outputs
AC Power Input	PoE+ and External 24VDC
Power Rating (RMS)	25-Watts Max (802.3AT)
THD	<0.2%
Cooling	Passive / Convection
Driver Protection	Built-In Limiter

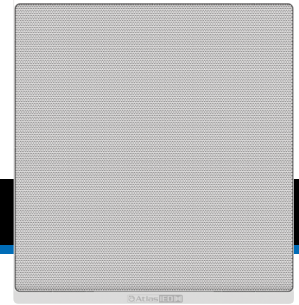
MICROPHONE	
Sensitivity	Minus 35 (±4dB) / (0db = 1V/pa, 1kHz)
Impedance	Less than 2.2kΩ
Directivity	Omnidirectional
Frequency Range	20Hz – 20kHz
Standard Operation Voltage	2V
Max. Operation Voltage	10V
Current Consumption Max.	0.5 mA
Sensitivity Reduction Within	Minus 3dB @ 1.5V
S/N Ratio	More than 62dB

(CONTINUED ON NEXT PAGE)

IP-SM-72

PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE
AND 25V/70V SWITCH

TECHNICAL DATA SHEET



SPECIFICATIONS / PERFORMANCE (CONTINUED)

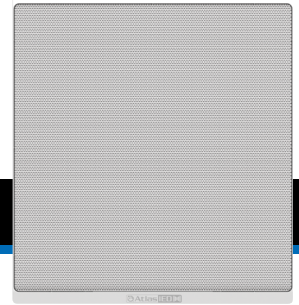
AUDIO INPUTS AND OUTPUTS	
Input: Analog Audio Type(s)	One Balanced Line Level
Input: Analog Connectivity	Secured Screw Terminal Block
Input: Network Audio Type(s)	G.711 U-Law / A-Law and G.722 Capable
Input: Multicast Permanent Stream	Registered Subscriber/s for up to 10 Different Streams
Input: Network Connectivity	RJ-45 Female
Output: Analog Audio Type(s)	One Balanced Line Level
Output: Multicast Permanent Stream	One Broadcast Using Line-In or Integrated Microphone *** Note: Audio Does Not Play out of the Sending Device***
Output: Analog Connectivity	Secured Screw Terminal Block
Output: Digital Audio Type(s)	G.711 U-Law / A-Law and G.722 Capable (Multicast)
Output: Digital Connectivity	N/A
Output: Speaker Level	8Ω, 25-Watts (802.3AT)
Output: Speaker Connectivity	Primary and Slave Secured Screw Terminal Block
SOFTWARE	
AtlasIED GCK® Compatible Version	7.0+
InformaCast Advanced Compatible Version	4.0+
InformaCast Fusion Compatible Version	3.0+
SA-Announce Compatible Versions	9.0.18+
Intrado Revolution Compatible Versions	V2017.3.1+
NETWORK	
Ethernet	IEEE 802.3 10/100Base-T
PoE	IEEE 802.3 AT Compliant
VLAN	IEEE 802.1q Tagging
PROTOCOLS	
IP Addressing	DHCP / Static
LLDP-MED	PoE Power Negotiation
Auto-Registration	HTTP / Service Location Protocol // DNS SRV / IEDNet+ / DHCP Option 72 and Option 150
Time	NTP or Host Server
Telephony	SIP
ENCLOSURE	
Color	White
Grille Material	Powder Coated Steel
Baffle Material	Plastic
Mounting / Rigging Provisions	4 x Screws
Safety Agency Ratings	ETL Listed to Comply with 62368-1, CSA C22.2 #62368-1, IEC 62368-1 CB Scheme and FCC
Ingress Protection	N/A
Logo	One Color Print
Product Dimensions (HxWxD)	14.37" x 12.87" x 3.42" (365mm x 327mm x 87mm)
Shipping Dimensions (HxWxD)	15.5" x 13.9" x 5.5" (394mm x 353mm x 140mm)

(CONTINUED ON NEXT PAGE)

IP-SM-72

PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE
AND 25V/70V SWITCH

TECHNICAL DATA SHEET



SPECIFICATIONS / PERFORMANCE (CONTINUED)

Net Weight - lbs	5.52lb (2.5kg)
Shipping Weight - lbs	6.87lb (3.11kg)
WARRANTY COVERAGE	
Warranty Period	5 Year

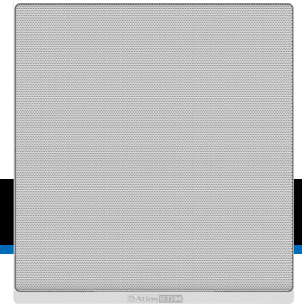
Note:

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.

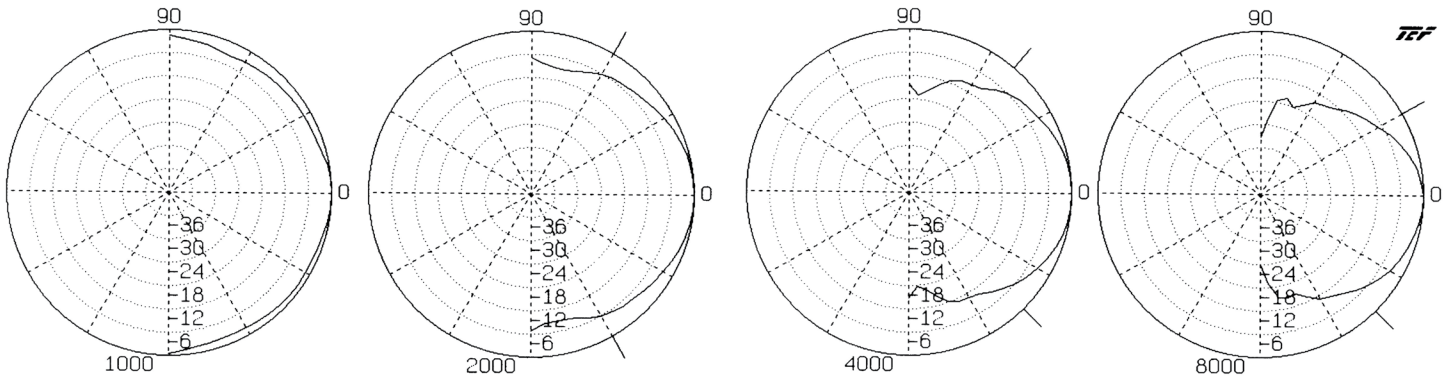
IP-SM-72

PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE AND 25V/70V SWITCH

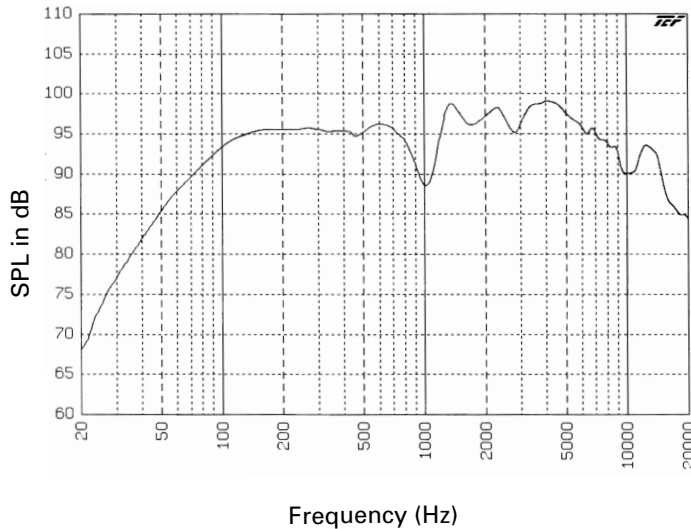
TECHNICAL DATA SHEET



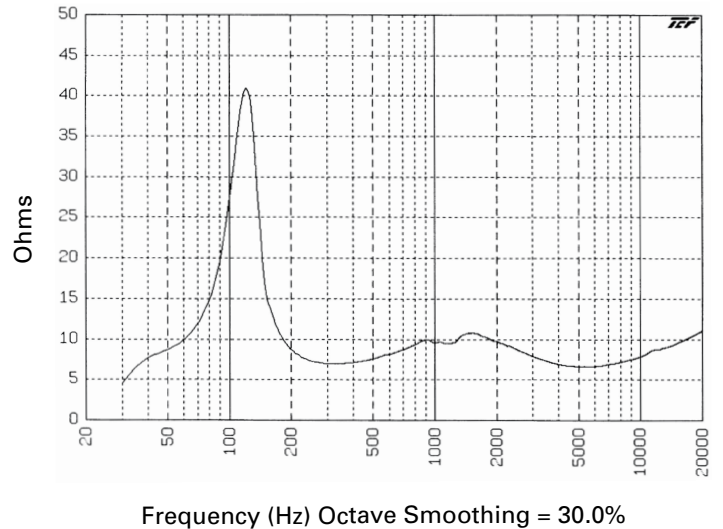
Polars Are Normalized To Zero On Axis (-6dB)



Frequency Response



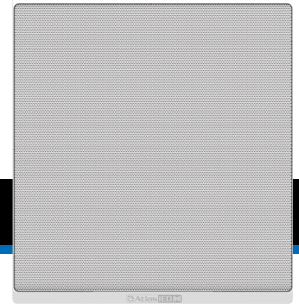
Impedance



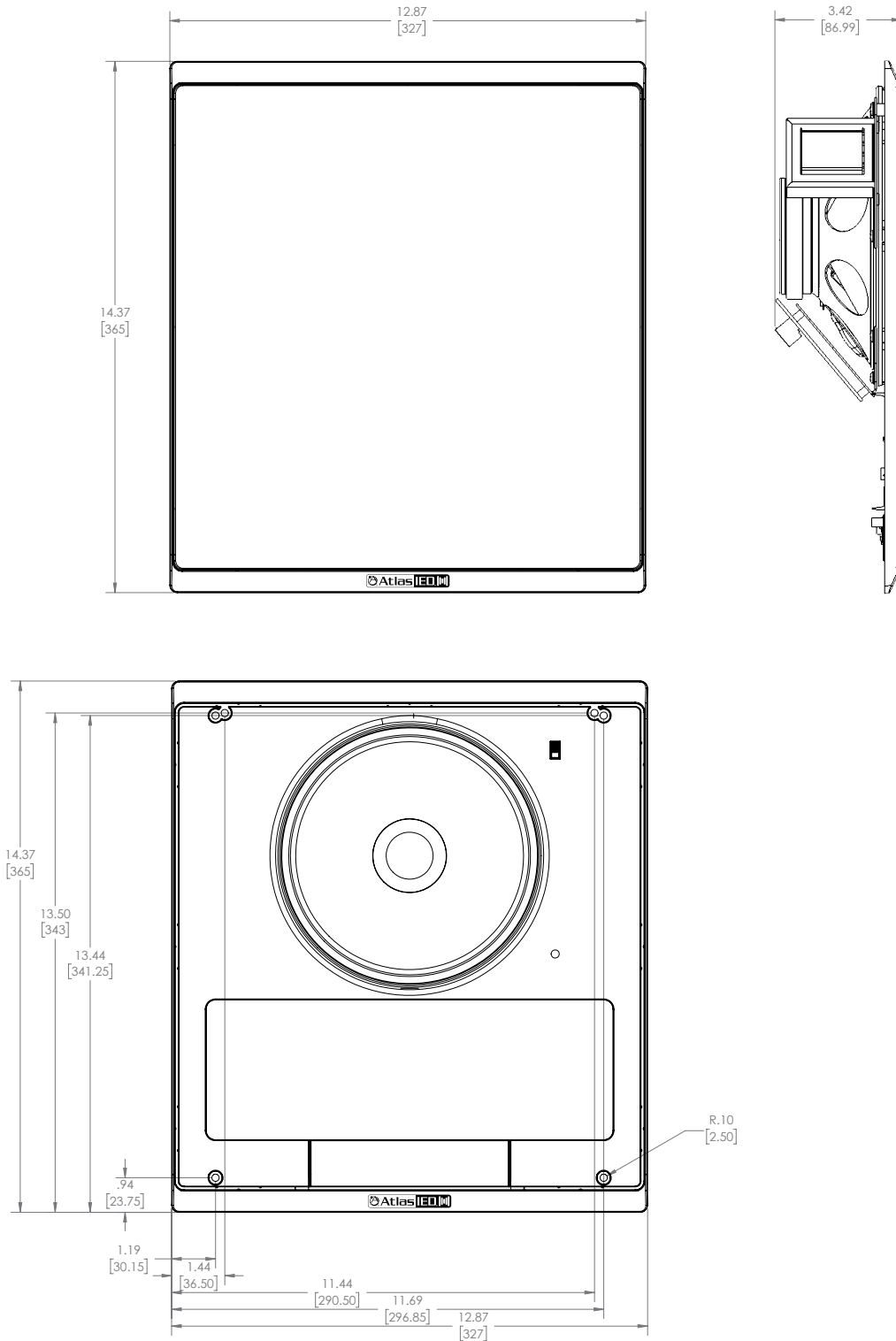
IP-SM-72

PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE AND 25V/70V SWITCH

TECHNICAL DATA SHEET



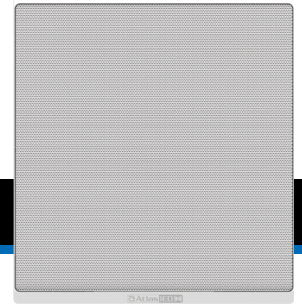
DIMENSIONAL DRAWING



IP-SM-72

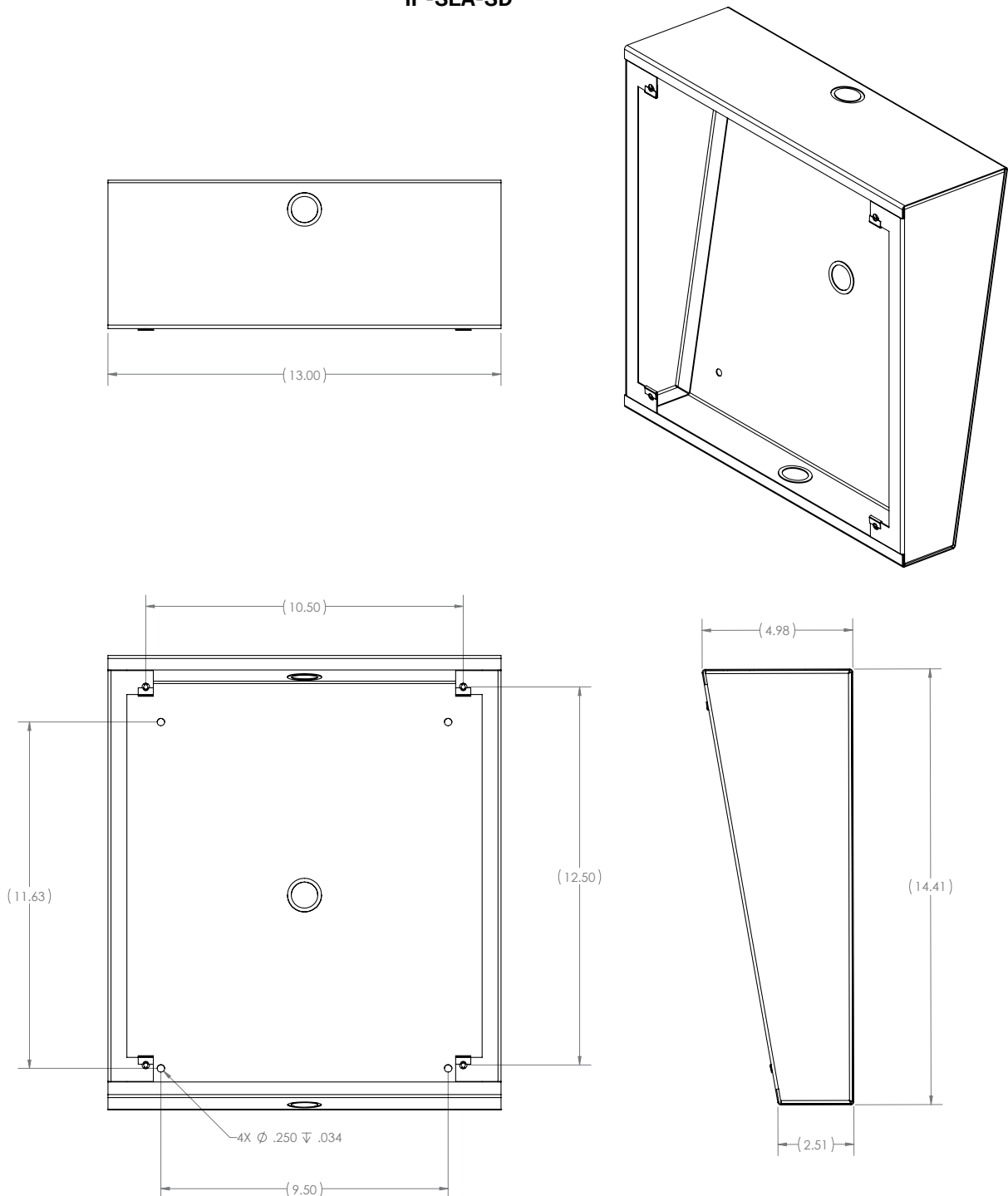
PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE AND 25V/70V SWITCH

TECHNICAL DATA SHEET



DIMENSIONAL DRAWING

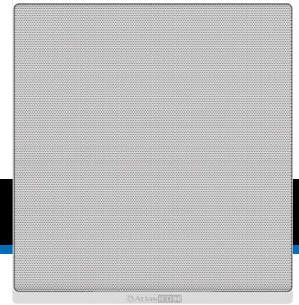
Accessories
IP-SEA-SD



IP-SM-72

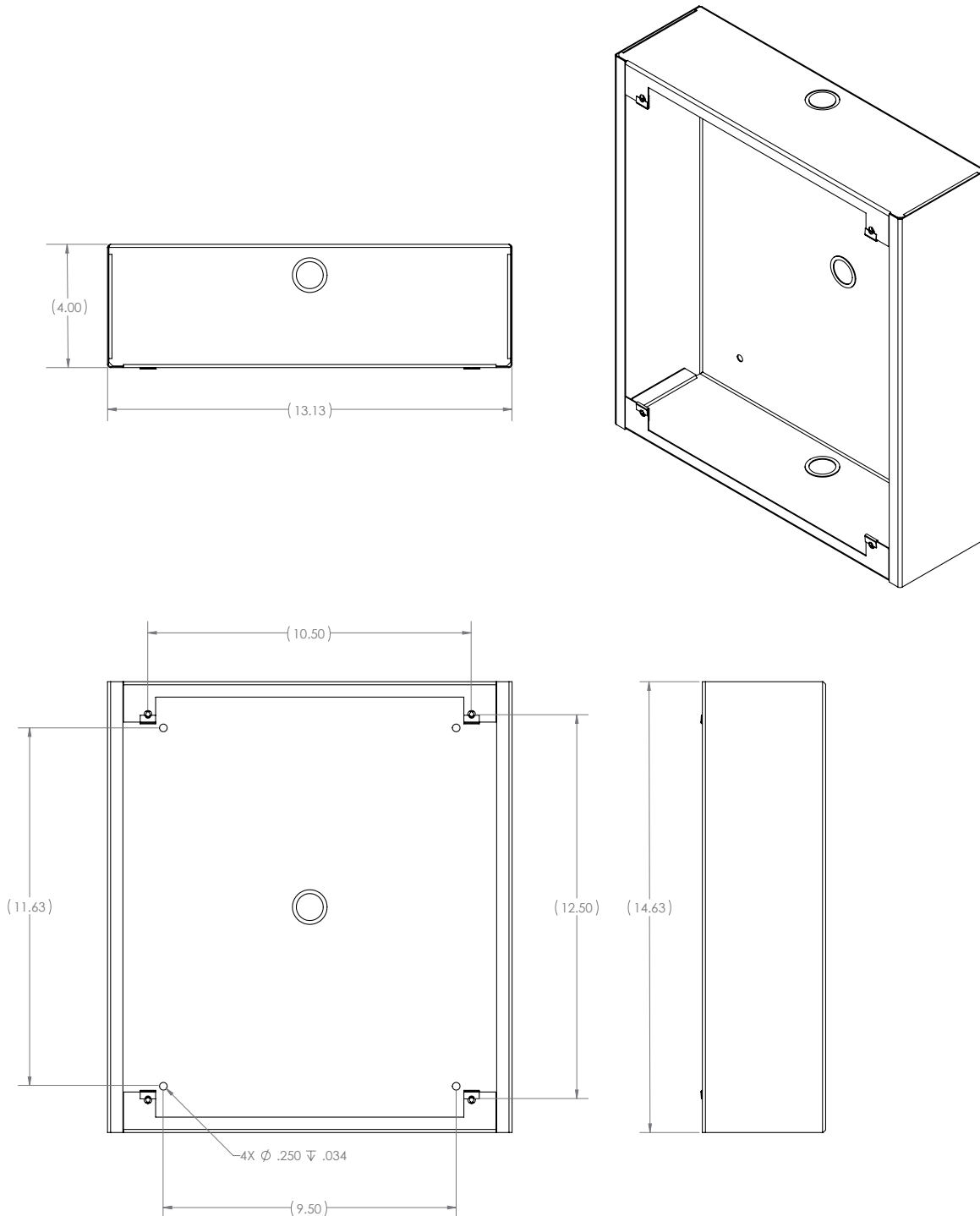
PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE AND 25V/70V SWITCH

TECHNICAL DATA SHEET



DIMENSIONAL DRAWING

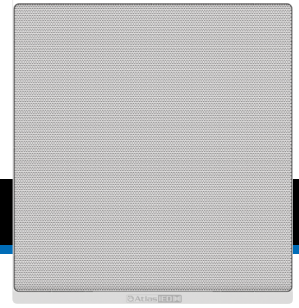
Accessories
IP-SEST-SD



IP-SM-72

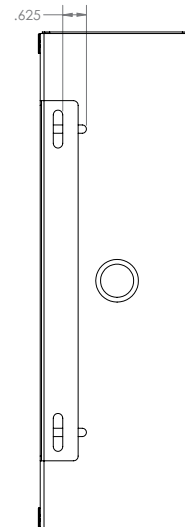
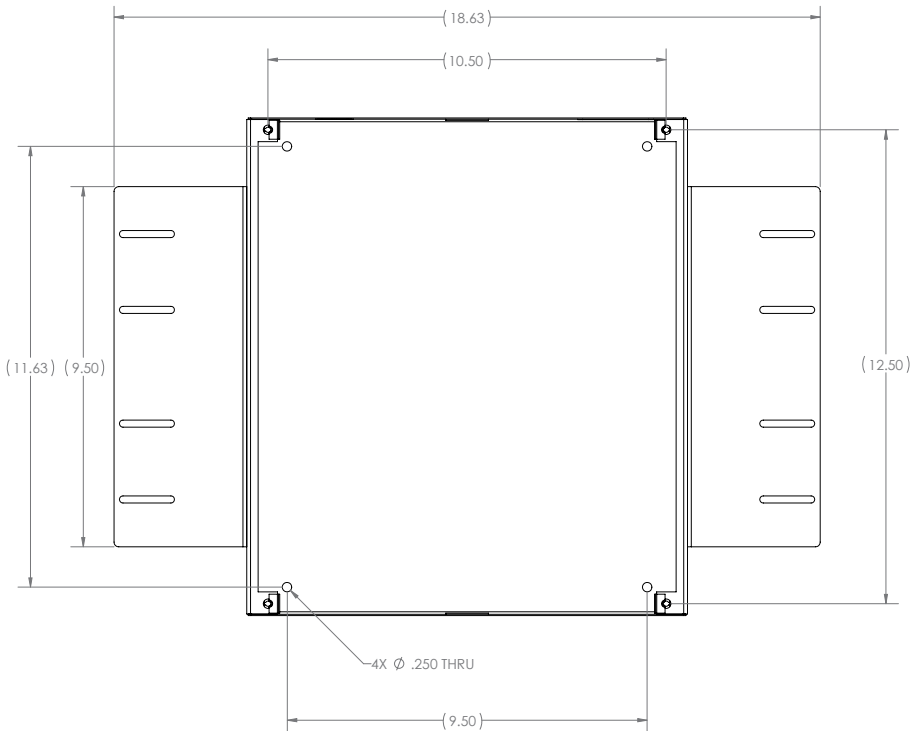
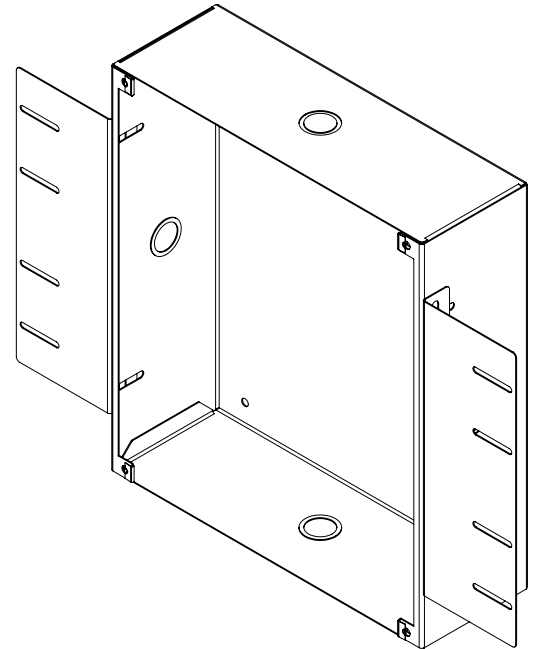
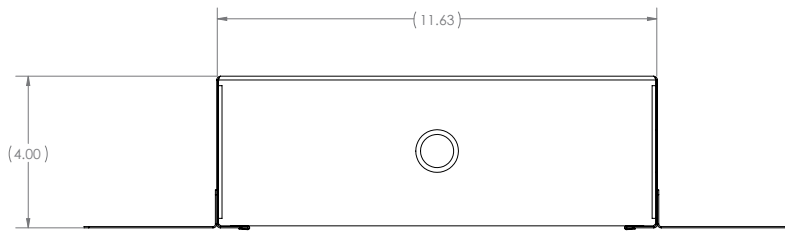
PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE AND 25V/70V SWITCH

TECHNICAL DATA SHEET



DIMENSIONAL DRAWING

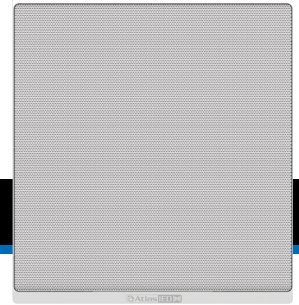
Accessories
IP-FEST-SD



IP-SM-72

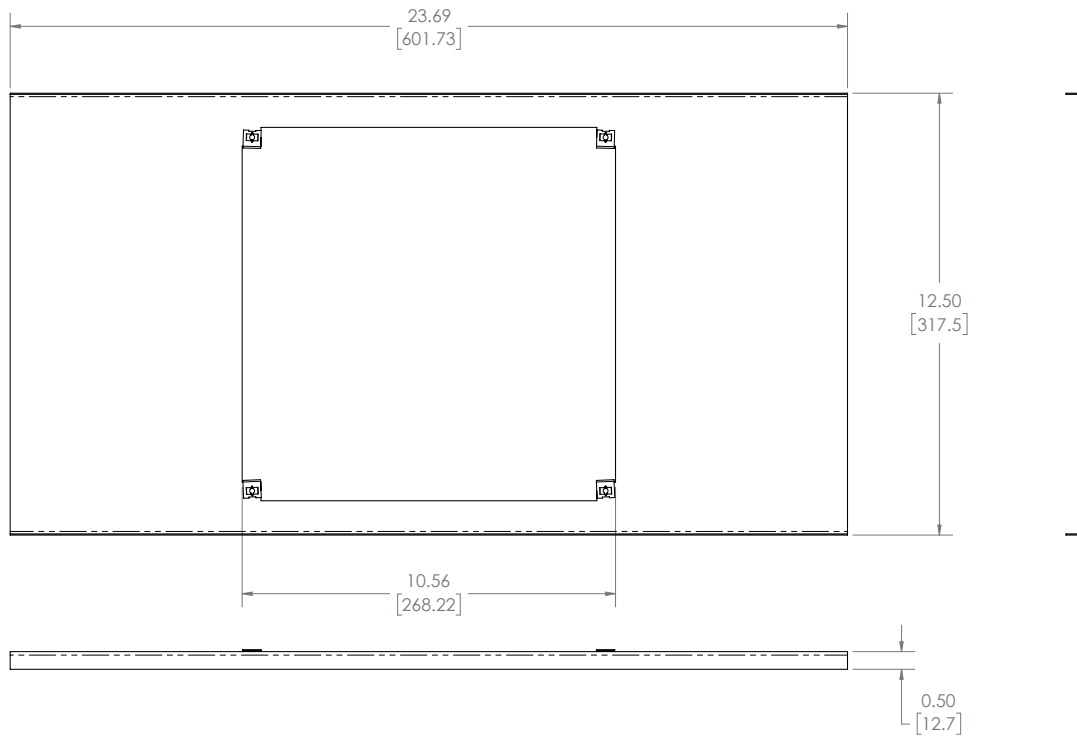
PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE
AND 25V/70V SWITCH

TECHNICAL DATA SHEET



DIMENSIONAL DRAWING

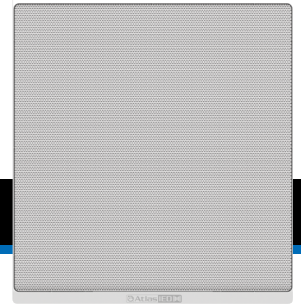
Accessories I8S-TB



IP-SM-72

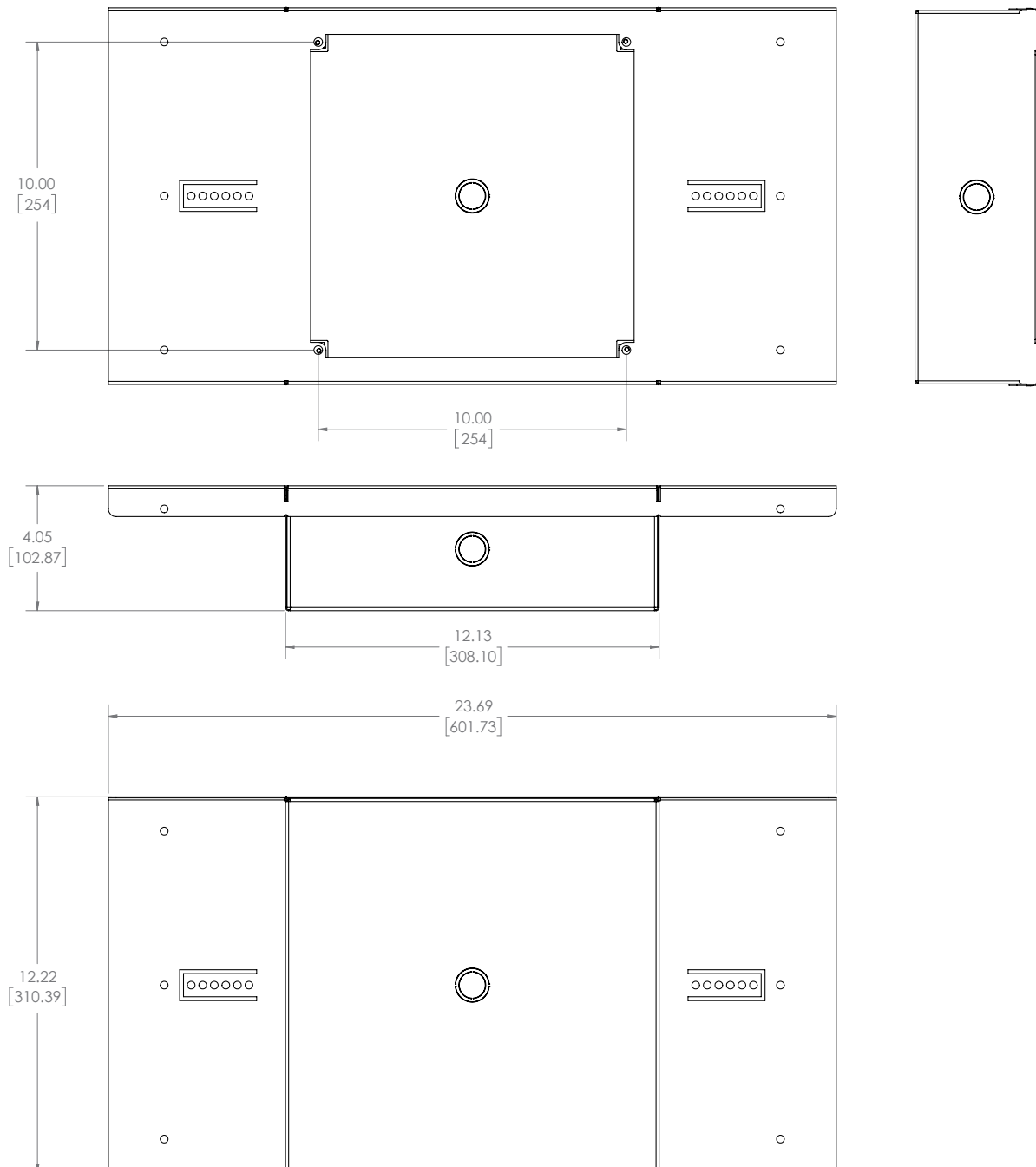
PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE AND 25V/70V SWITCH

TECHNICAL DATA SHEET



DIMENSIONAL DRAWING

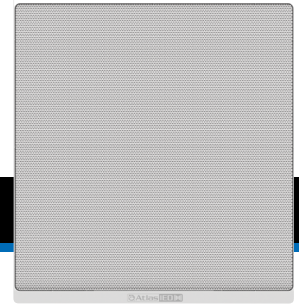
Accessories I8S-TBE



IP-SM-72

PoE+ INDOOR IP ENDPOINT WITH SPEAKER, MICROPHONE AND 25V/70V SWITCH

TECHNICAL DATA SHEET



ARCHITECT AND ENGINEER SPECS

The unit shall be AtlasIED model IP-SM-72. The PoE+ indoor IP endpoint audio system shall include factory assembled speaker, IP addressable PCB amplifier/control, plastic baffle, integrated microphone, and 25/70V analog transformer with switch.

The speaker shall be an 8" coaxial driver with both a woofer and tweeter. The woofer cone shall be a full 8" (203mm) in diameter and the tweeter cone shall be 3" (76mm) in diameter. The woofer shall have a 10oz. (260g) ceramic magnet; the tweeter shall have a 2.35oz. (67g) ceramic magnet. The two reproducer sections shall be coupled through a built-in crossover network.

The crossover frequency shall be set at 2800Hz. The speaker dispersion shall be 105° and the frequency response range shall be 70Hz – 15.5kHz, (±5dB). Sensitivity shall be 98dB at 1-Watt/1 meter. Voice coil impedance shall be 8Ω. Low frequency voice coil diameter shall be 1" (25mm) and operate in a magnet field of at least 10,600 gauss. The maximum depth of the speaker shall not exceed 27/8" (73mm).

The amplifier/control board shall receive announcements and messages using dynamically routed data on a standard Ethernet network. It shall include a single-channel class D topology amplifier with primary and secondary outputs capable of producing 25-watts RMS when using an IEEE 802.3at compatible PoE+ switch or 24VDC local power supply. Interconnect shall be via female RJ-45 connector mounted to the PCB.

The amplifier/control board shall include (2) logic inputs, (1) relay output, (1) auxiliary balanced line level audio input and (1) balanced line level audio output. The auxiliary line level input shall include an auto mute function that is activated when a broadcast is sensed from the control application.

The amplifier/control board shall include a Graphical User Interface (GUI) for SIP configuration. The SIP implementation shall support standards G.711, G.722 and RTP protocols. The GUI shall configure and manage logic inputs, relay outputs, and auxiliary audio input.

The unit shall incorporate an integrated interconnect for simultaneous 25/70V analog headend and network notification appliance connectivity. Operating modes shall be selected by front mount switch to accommodate audio source selection during modernization phase.

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. It shall be compatible with AtlasIED's GCK, Syn-Apps' SA-Announce or Revolution, Singlewire's InformaCast software platforms and SIP standalone operation. The PoE+ indoor IP endpoint audio system overall dimensions shall be 14.37" (365mm) x 12.87" (327mm) x 3.42" (86.99mm). Finish shall be neutral white electrostatic powder coat micro perforated grill with plastic trim ring.

Optional enclosures shall include:

- IP-SEA-SD** Surface mount angled enclosure for IP-SM-72 neutral white finish
- IP-SEST-SD** Surface mount straight enclosure for IP-SM-72 neutral white finish
- IP-FEST-SD** Flush mount straight enclosure for IP-SM-72 reclaimed powder coat finish
- IP-STB** Tile bridge for IP-SM-72 not for use with enclosure
- IP-STBE** Tile bridge for IP-SM-72 includes enclosure