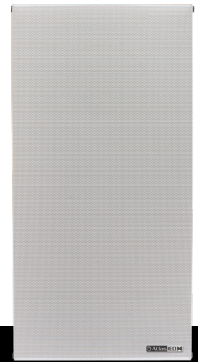


# IP-12SYSM

PoE+ INDOOR 1' X 2' SUSPENDED CEILING MOUNT IP ENDPOINT  
WITH SPEAKER AND MICROPHONE

## TECHNICAL DATA SHEET



### PRODUCT SUMMARY

AtlasIED IP-12SYSM is a 1' x 2' suspended ceiling mount IP endpoint with speaker and integrated 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-12SYSM 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-12SYSM 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-12SYSM endpoint can register as a SIP device directly to a SIP server or VoIP Communications Manager for critical alerts, intercom and public address applications.

### 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 Secondary 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
- Can send 1 Static Multicast Stream (Line-in or Mic to Multicast Out)
- Can listen up to 10 Static Multicast Streams

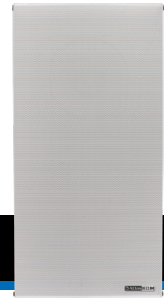
#### Additional Features

- UL1480A / UL2043
- 2 General Purpose Inputs
- 1 General Purpose Output (2A @ 30 VDC)
- Phone / Night Loud Ringer
- External Power Supply Option

# IP-12SYSM

## PoE+ INDOOR 1' X 2' SUSPENDED CEILING MOUNT IP ENDPOINT WITH SPEAKER AND MICROPHONE

### TECHNICAL DATA SHEET



### AUDIO SPECIFICATIONS / PERFORMANCE

SYSTEM	
Type	PoE+ Indoor 1' x 2' Suspended Ceiling Mount IP Endpoint with Speaker and Microphone
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)

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
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	<.02%
Cooling	Passive / Convection
Driver Protection	Built-In Limiter

MICROPHONE	
Sensitivity	Minus 35 (±4dB) / (0db = 1V/pa, 1kHz)
Impedance	Less than 2.2k <sup>Ω</sup>
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 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

(CONTINUED ON NEXT PAGE)

# IP-12SYSM

## PoE+ INDOOR 1' X 2' SUSPENDED CEILING MOUNT IP ENDPOINT WITH SPEAKER AND MICROPHONE

### TECHNICAL DATA SHEET



### SPECIFICATIONS / PERFORMANCE (CONTINUED)

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 / IEDNet
Time	NTP or Host Server
Telephony	SIP

#### ENCLOSURE

Color	White
Grille Material	Powder Coated Steel with 22-Gauge Perforated Steel
Baffle Material	19-Gauge Corrosion-Resistant Zinc Plated Steel
Mounting / Rigging Provisions	Lay-In to a Reflected Ceiling Grid
Safety Agency Ratings	ETL Listed to Comply with 62368-1, CSA C22.2 #62368-1, IEC 62368-1 CB Scheme and FCC; UL2043
Ingress Protection	N/A
Logo	Black and Silver

(CONTINUED ON NEXT PAGE)

# IP-12SYSM

PoE+ INDOOR 1' X 2' SUSPENDED CEILING MOUNT IP ENDPOINT  
WITH SPEAKER AND MICROPHONE

## TECHNICAL DATA SHEET



### SPECIFICATIONS / PERFORMANCE (CONTINUED)

Product Dimensions (HxWxD)	4.89" x 23.67" x 11.94" (124mm x 601mm x 303mm)
Shipping Dimensions (HxWxD)	5" x 24.75" x 12" (127mm x 629mm x 305mm)
Net Weight - lbs	10.71lb (4.86kg)
Shipping Weight - lbs	13.21lb (5.99kg)
<b>WARRANTY COVERAGE</b>	
Warranty Period	5 Year

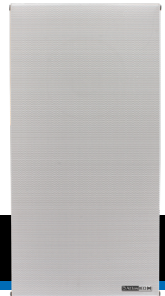
**Note:**

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.

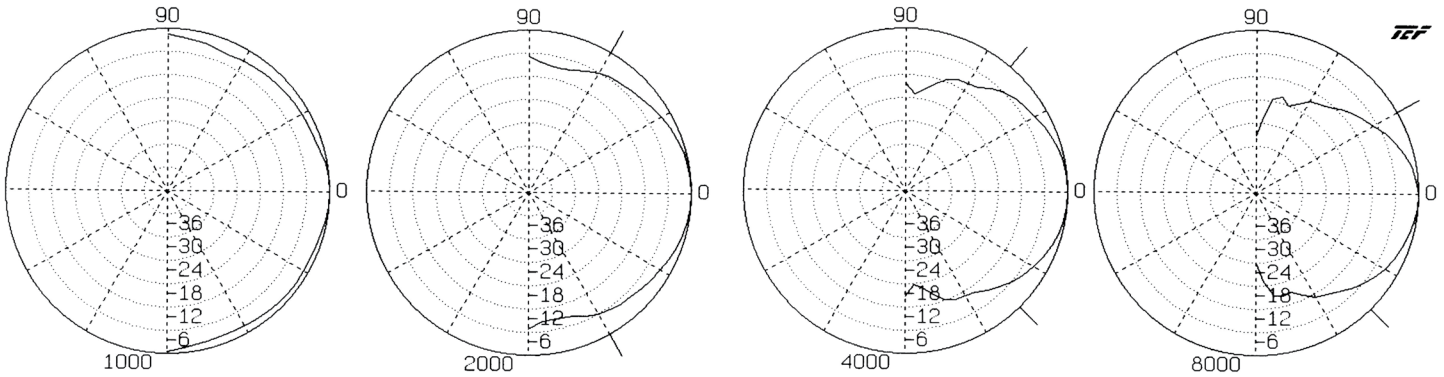
# IP-12SYSM

PoE+ INDOOR 1' X 2' SUSPENDED CEILING MOUNT IP ENDPOINT WITH SPEAKER AND MICROPHONE

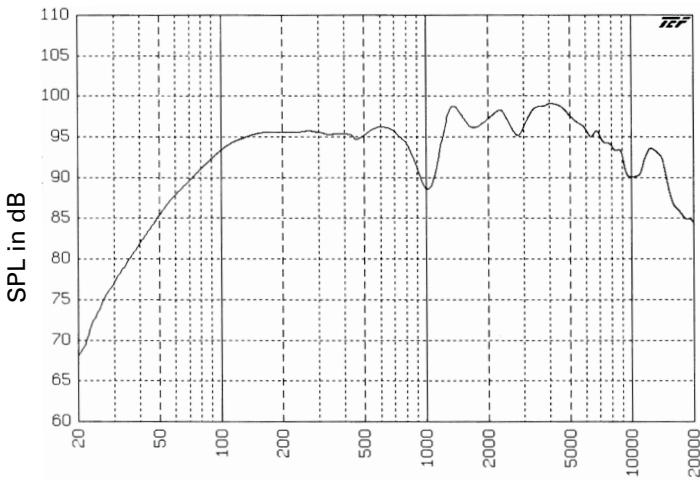
TECHNICAL DATA SHEET



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

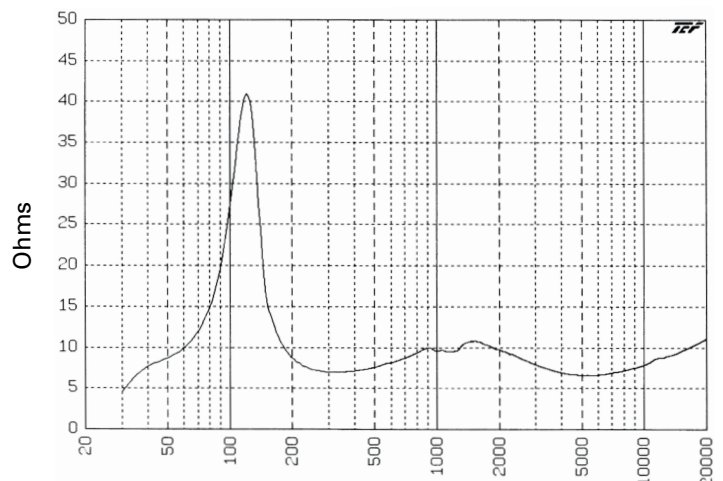


Frequency Response



Frequency (Hz)

Impedance

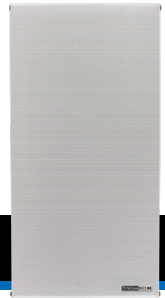


Frequency (Hz) Octave Smoothing = 30.0%

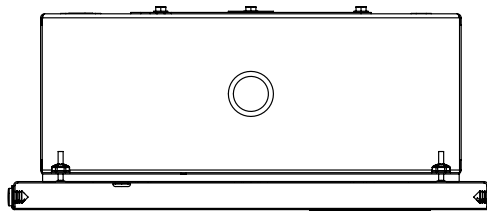
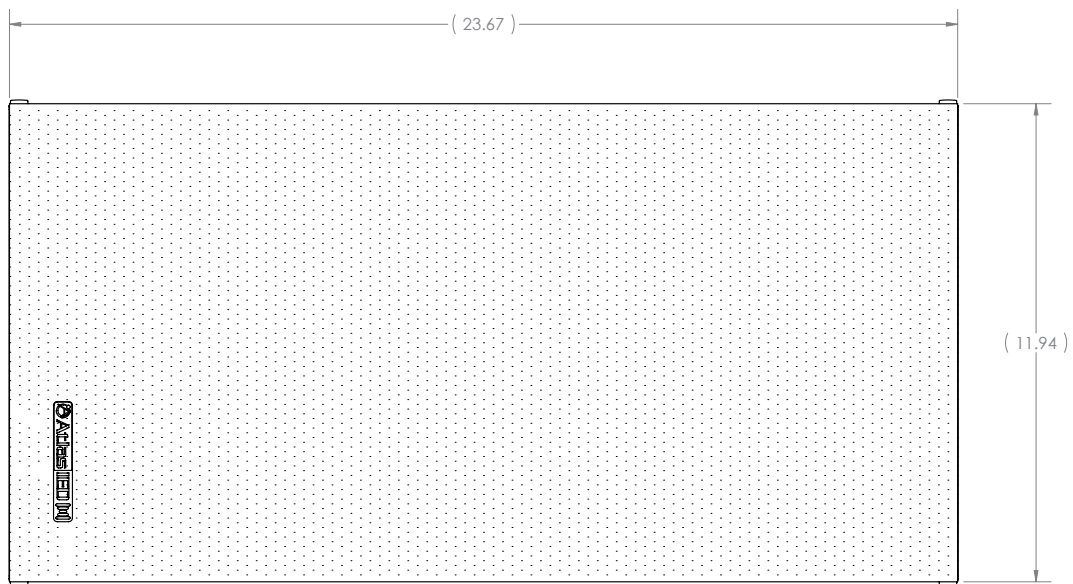
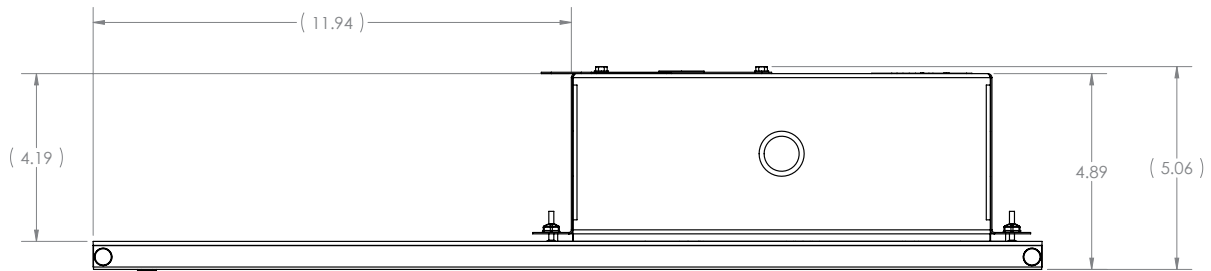
# IP-12SYSM

PoE+ INDOOR 1' X 2' SUSPENDED CEILING MOUNT IP ENDPOINT  
WITH SPEAKER AND MICROPHONE

TECHNICAL DATA SHEET



## DIMENSIONAL DRAWING



# IP-12SYSM

## PoE+ INDOOR 1' X 2' SUSPENDED CEILING MOUNT IP ENDPOINT WITH SPEAKER AND MICROPHONE

### TECHNICAL DATA SHEET



### ARCHITECT AND ENGINEER SPECS

The unit shall be AtlasIED model IP-12SYSM. The PoE+ indoor 1' x 2' suspended ceiling mount IP endpoint audio system shall include factory assembled speaker, IP addressable PCB amplifier/control, steel perf grille, metal enclosure, and integrated microphone.

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. Woofer 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 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 1' x 2' suspended ceiling mount IP endpoint audio system overall dimensions shall be 11.94" (303mm) x 23.67" (601mm) x 5.06" (128mm). Finish shall be neutral white electrostatic powder coat micro perforated grille.