

M1000A35

Self-Contained Active Speech Privacy Masking System



Features

- UL2043 Plenum Rated
- Efficient Wide Range 8" Speaker
- 5-Watt Class D Topology Amplifier to Power Internal Speaker
- 30-Watt Amplifier Secondary Output to Feed Additional Passive Speakers
- Separate Internal Speaker & Additional Secondary Speaker Output Level Controls
- Variable Hi-Cut Filter
- External UL Rated 24VDC In-Line Power Supply
- Remote Level Control GPIO Port
- 2 Removable Hanger Handles for Suspended Mounting
- Energy Efficient

Applications

Enhance workspace acoustical privacy and comfort, and reduce distraction in open and partitioned office areas by installing AtlasIED's self-contained sound masking system. The M1000A35 is a compact assembly that adds low-level sound into an environment to obscure ambient noise, thus achieving conversational privacy in designated areas. The equalized masking sound lowers intelligibility and "masks" disruptive outside sounds, improving workplace acoustics.

This easy-to-install system may be used in general applications to increase privacy and / or productivity in individual cubicle and open work or high traffic areas by making surrounding conversations unintelligible. It is also used in individual office areas, common waiting areas, and professional offices where confidential conversations occur.

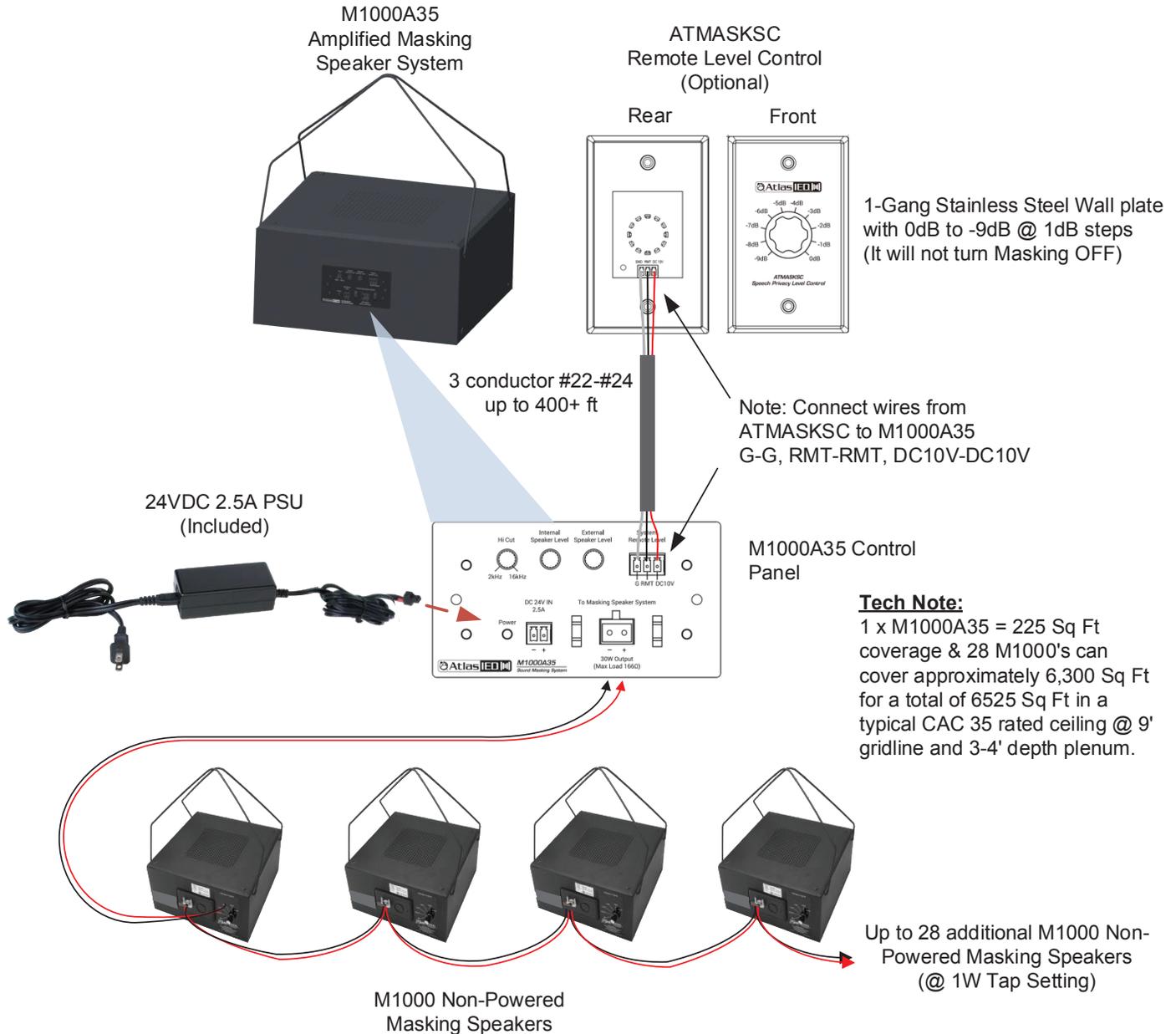
General Description

The AtlasIED M1000A35 is a self-contained sound masking system that increases speech privacy and enhances workplace acoustics. An M1000A35 masking system is ideal for small to medium size installations. Depending on the installation acoustical conditions and the speaker tap settings when the M1000A35 is paired with M1000 passive speakers, masking coverage can be over 12,000 sq ft. Consult with AtlasIED for system design assistance. The M1000A35 features a compact 12"x12"x6" enclosure utilizing an efficient wide range 8" speaker with a frequency response of 80Hz - 16kHz and is powered by an internal 5-Watt amplifier. The M1000A35 also features an additional 30-Watt amplifier output to drive other non-powered masking speakers such as the AtlasIED M1000, M1000R and the M2000 Series. Separate amplifier level controls are incorporated to control the internal speaker and second amplifier output. Both amplifier channels produce an ideal speech privacy / sound masking spectrum by using a non-repeatable pink noise that can be contoured to the environment by utilizing the specialized variable filter. The M1000A35 features a VCA remote level control port that works with external 10k pots to allow for remote level adjustments. The optional AtlasIED ATMASKSC is specially designed to be used with the M1000A35. The ATMASKSC features remote 1dB precision level adjustments and will not allow the masking system to be accidentally turned off. The ATMASKSC is well suited to properly support commissioning a speech privacy system.

The M1000A35 is highly efficient, utilizing a Class D topology amplifier and is UL2043 plenum rated. The included power supply is an external in line UL rated 24VDC power supply. Installation is easy to do by utilizing a single suspension point mounting method. Included are two removable hanger brackets. The M1000A35 is a cost effective self contained system that will achieve very good speech privacy and sound masking in small to medium work places.

Installation Diagram

The illustration below shows how to wire a masking system using the M1000A35. The M1000A35 can be mounted to an open or plenum ceiling. **Note:** The suspension location of the M1000A35 in the ceiling must meet local building codes. Contact a local building inspector prior to installation. It is suggested that the placement of the M1000A35 to be within 6 ft of an approved electrical outlet that meets the local electrical codes. If more distance is needed, the power supply DC output wires can be extended up to 50ft by a qualified technician.



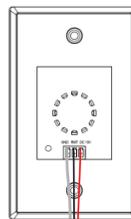
Note: M1000 masking speakers are typically hung about 6" above the ceiling grid, firing upwards. They should be spaced no further than 15ft apart. Optional MCHAIN72 hanging chains are available.

Design Example

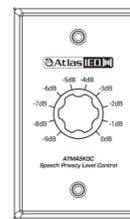
M1000A35 Powered Masking Speaker



Rear

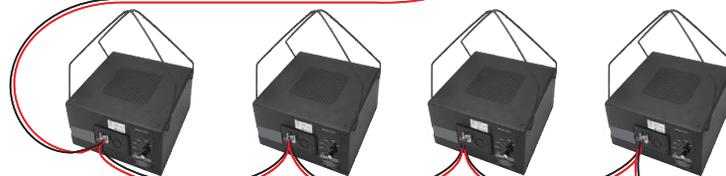
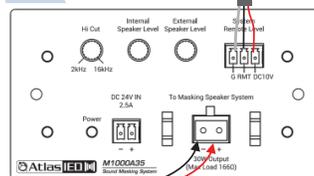


Front



ATMASKSC Remote 1dB Step Commissioning - Level Control (Optional)

1-Gang Stainless Steel Wall plate with 0dB to -9dB @ 1dB steps (It will not turn Masking OFF)

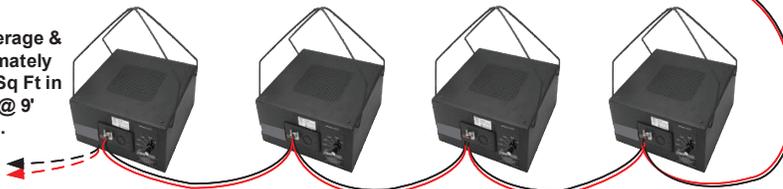


QTY 8 – Passive M1000's @ 1W ea

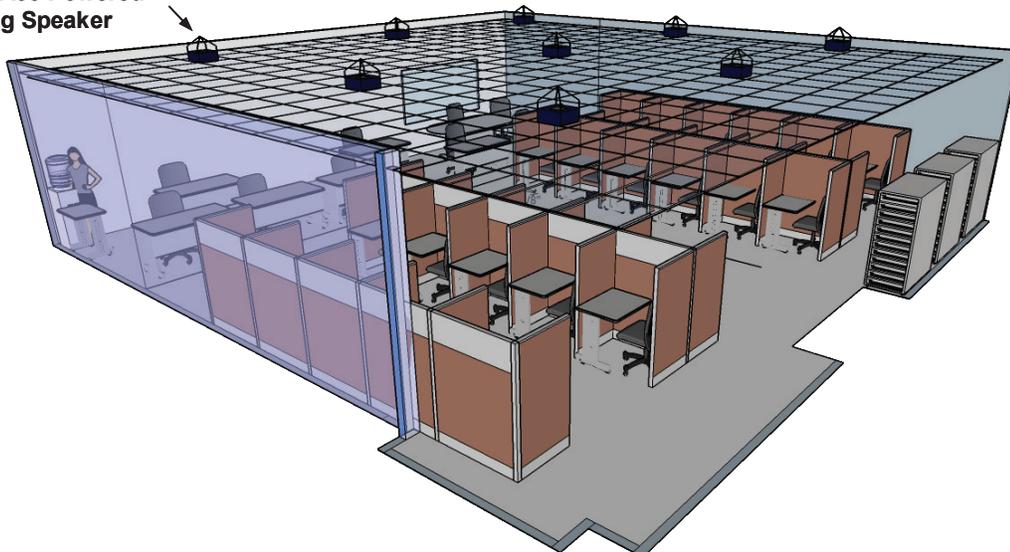
M1000 Masking speakers are typically hung about 6" above the ceiling grid, firing upwards, no further than 15' apart. (Optional MCHAIN72 hanging chain are available on AtlasIED.COM)

Tech Note:

1 x M1000A35 = 225 Sq Ft coverage & 28 M1000's can cover approximately 6,300 Sq Ft for a total of 6525 Sq Ft in a typical CAC 35 rated ceiling @ 9' gridline and 3-4' depth plenum.



1 x M1000A35 Powered Masking Speaker

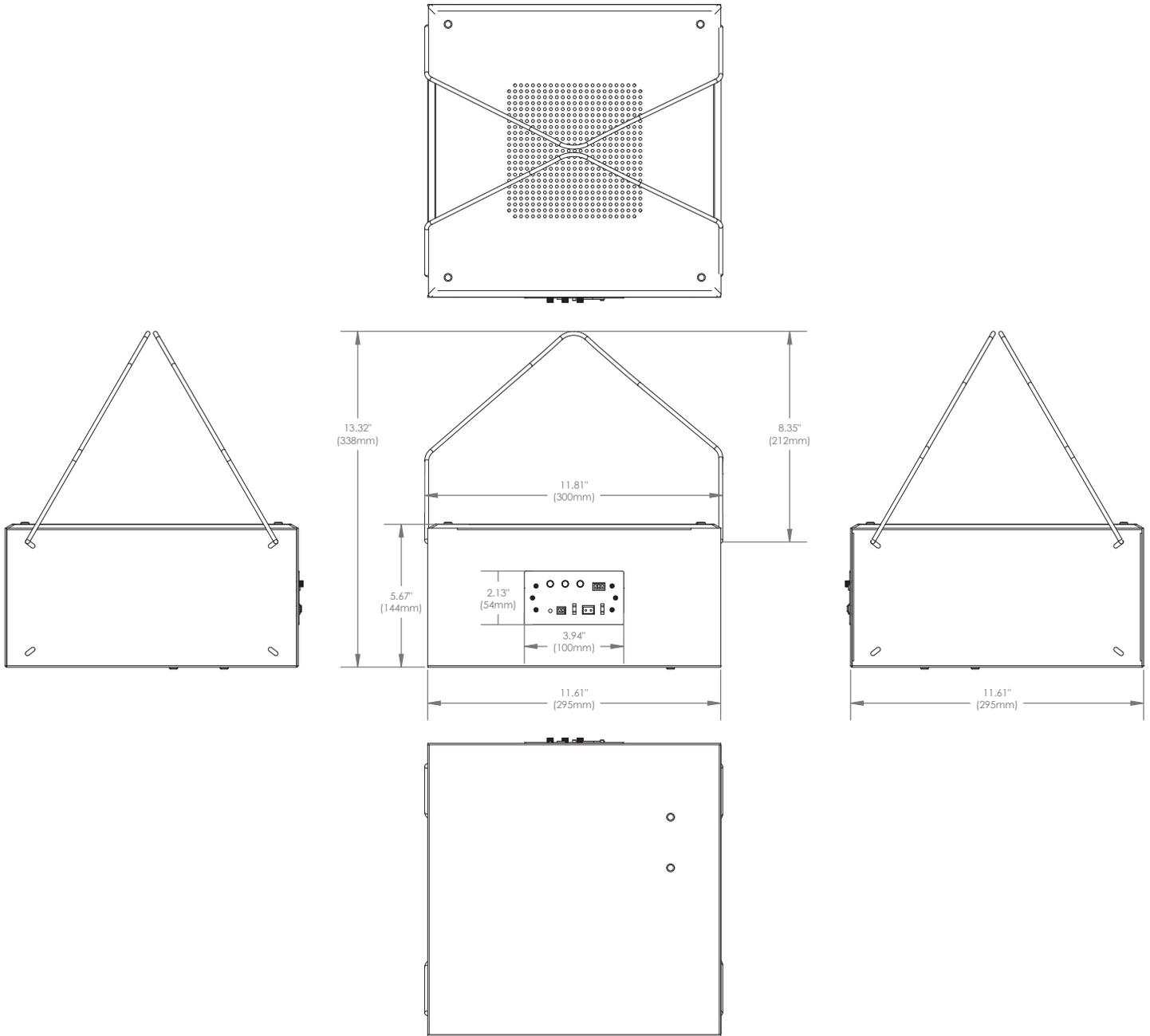


Accessories

ATMASKSC Masking Commissioning Level Control - The AtlasIED ATMASKSC is specially designed to be used with the M1000A35 Self-Contained Active Masking System where precision adjusting of level control is required. It employs a ten-position, non-shorting rotary switch without end-stop. The attenuation rate is 1dB per step from 0dB to -9dB.



Dimensional Drawings



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System	
Type	Self-Contained Active Sound Masking System
Speaker	8" Full Range, Qty 1
Amplified Power	Internal 5-Watt, External Secondary 30W Amplifier Output to Power Additional Passive Speakers (Maximum Load 166Ω)
Masking Coverage	Standalone 225 sq ft (CAC 35 Mineral Fiber Ceiling Type), 30W secondary output, Note 2
Electrical	
Frequency Response	80Hz - 16kHz
Masking Noise Generator	Contoured Pink Noise
Level Control	Internal Speaker, External Amplifier Output
Amplifier Type	Class D
Maximum Output Voltage	70.7V
Hi-Cut Control	Variable 2kHz - 16kHz 6dB per Octave
GPIO Port	VCA Remote Level Control G, Return, +10V, 3 Position Removable Euro Style, 3.5mm Pitch
External Amplifier Output	30-Watts, 2 Position Removable Euro Style, 5.08mm Pitch
Power Supply Input	2 Position Removable Euro Style, 3.5mm Pitch (Power Supply Included)
AC Mains Requirements	
Power Supply & Voltage	External In-line, Input 100 - 240V AC, Output 24VDC 2.5A (Included) Note 1
AC Mains Operating Range	100V - 240V 50 / 60Hz
AC Current Draw Idle 120V	60mA, 7-Watts, 23 BTU
Max Current Draw 120V	370mA, 44-Watts, 150 BTU
AC Current Draw Idle 230V	22mA, 5-Watts, 17 BTU
Max Current Draw 230V	172mA, 40-Watts, 136 BTU
Indicators	
Power LED	Blue LED
Ambient Operating Conditions	
Maximum Temperature	104°F / 40°C
Minimum Operating Temperature	14°F / -10°C
Maximum Humidity	90%
Mechanical	
Finish	Black Semi-Gloss Epoxy
Dimensions (HxWxD)	5.67" x 11.61" x 11.61" (144mm x 295mm x 295mm)
Shipping Dimensions (HxWxD)	27.36" x 16.15" x 16.15" (695mm x 410mm x 410mm)
Unit Weight - lbs	9.7lb (4.4kg), with Power Supply 10.33lb (4.69kg)
Shipping Weight - lbs	11.25lb (5.11kg)
Mount Requirements	Suspension Mount (2 Brackets Supplied)
Safety	
Complete Unit with Power Supply	UL60065, CE
External Power Supply	UL, CE
Package Contents	
M1000A35	Qty 1
Power Supply	Qty 1
Hangers	Qty 2
I/O Connectors	Qty 3
Manual	Qty 1

NOTES:

- Power supply cable length is 8ft. If more distance is needed, the power supply DC output wires are 18 / 2 gauge and can be extended up to 50ft by a qualified technician.
- Masking coverage will vary with installation acoustics, speaker placement and speaker power taps. The M1000A35 secondary output produces 30W into a 70v system. When paired with 28 M1000 passive speakers tapped at 1W, masking coverage can be up to 6,525 sq ft. When paired with 56 M1000 passive speakers tapped at 0.5W masking coverage can be up to 12,825 sq ft. Atlas IED recommends passive speaker taps of 1W per speaker for most applications. Consult with AtlasIED for system design assistance.

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Architect and Engineer Specifications

The active masking speech privacy speaker shall be AtlasIED Model M1000A35. The M1000A35 masking system shall provide speech privacy for small to medium size installations. When paired with additional passive M1000 speakers, masking coverage can be up to 12,825 sq ft. depending on the installation conditions and the speaker tap settings. The M1000A35 shall be a self-contained sound masking system with the ability to power its internal speaker and additional external passive 70V speakers. The M1000A35 can be mounted to an open or plenum ceilings. The M1000A35 shall be UL certified and plenum rated to UL2043. The M1000A35 shall be powered by an UL approved external in-line 24VDC power supply. The M1000A35 shall have one full range 8" speaker with a frequency response of 80Hz – 16kHz. The internal speaker shall be powered by a 5-Watt amplifier with a second amplified output of 30-Watt @ 70.7V to power additional passive 70V speakers. The M1000A35 shall be capable of producing non repeatable Contoured Pink Noise. The customized variable Hi-Cut filter allows for contouring the masking spectrum to the environment. The M1000A35 shall have a VCA remote level control port that works with external 10k pots to allow for remote level adjustments. The optional AtlasIED ATMASKSC is specially designed to be used with the M1000A35 where remote precision 1dB level adjustments are required without accidentally turning the masking system off. Making ATMASKSC ideal for commissioning a sound masking system. The M1000A35 shall have two hanging brackets included and the finish shall be black semi-gloss epoxy. The AtlasIED M1000A35 shall be a unit weight of 10.33 lbs and have a shipping weight of 11.25 lbs.