

# SHS-3T2

## Strategically Hidden Speaker



### Features

- 70.7V Operation with 0.5, 1, 2, & 4-Watt Taps
- 100V Operation with 1, 2, 4 & 8-Watt Taps
- 2.25" Full Range Speaker
- Multiple Mounting Options
  - In-Ceiling
  - Wall / Surface Mount
  - Pendant Mount
- Flange, Diffuser, and Lens Kits Included
- AtlasIED's Optional DesignLab™ Color Match Process Available
- Packaged and Sold in Pairs
- Cat5e Connectivity to AtlasIED Z-Series Acoustical Systems

### Applications

Modern designers and architects balance form and function. Loudspeaker aesthetics and minimal visual intrusiveness are just as important as high quality, high fidelity, and high intelligibility. AtlasIED's SHS-3T2 Strategically Hidden Loudspeaker, offers a compact design that can blend into any environment wherever it is installed, while still delivering exceptional sound quality. The SHS can be deployed in paging, background music, or sound masking applications and in a number of configurations to suit the space.

### General Description

The SHS-3T2 includes a single full-ranger driver housed in a multifunction enclosure providing high-definition sound. The transducer is attached to the SHS's tunnel waveguide to take the sound performance to the next level. As the sound exits the waveguide, it travels through the patented adaptive dispersion lens that acts as a phase plug. The acoustic result is all frequencies are radiated evenly and annoying "hot spots" found directly below the speakers are minimized. This makes the SHS not only a great solution for sound and music reinforcement, but also a great sound masking speaker as well.

The SHS-3T2 can be mounted in one of three ways: wall mounted, pendant mounted or in-ceiling mounted. The included wall mount offers up to 90° variable angle to ensure optimum position and performance no matter where it is installed. For open ceiling applications, the SHS-3T2 can utilize the included steel mounting cable. The top of the mounting bracket is also threaded so standard ceiling fan mount down pipe hardware can also be used where required.

The mounting bracket can be removed when in-ceiling installation is required to minimize its height in the ceiling. An optional tile bridge, model SHS-3T2-TB, is available for drop tile ceiling installations. Once installed in the ceiling, the speaker is concealed using a patented 3" diameter dispersion lens with a micro trim ring. Once installed, the visual appearance is reduced to the size of a high-end ceiling sprinkler head. The SHS-3T2 can become a true chameleon through AtlasIED's DesignLab. AtlasIED offers custom color matching via UV printer that enables an integrator to submit an image or sample of the ceiling. Then, using a state-of-the-art print service, a custom lens and trim ring that matches the submitted sample will be shipped to the customer. For more information about the custom DesignLab process, visit [www.atlasied.com/shs-cust](http://www.atlasied.com/shs-cust).

The SHS-3T2 ships with the ability to utilize the Adaptive Dispersion Lens in three different configurations for various applications. Sound masking installations and installations with low ceilings (less than 10') should use the 4mm dispersion lens with solid panel attached. Installations with ceilings between 10' and 14' should use the 8mm dispersion lens with the solid panel attached. Installations with ceiling heights above 14' or in applications that require maximum intelligibility, the 4mm direct fire lens should be used with the perforated panel attached.

The SHS-3T2 can be connected to any 70V / 100V amplifier using standard 2-conductor commercial speaker wire with the included removable 4-pole euro style connector. Additionally, when used with an AtlasIED Z-Series High-Definition Acoustical System the speakers can be connected using Cat5e cable. Each SHS-3T2 features "in" and "out" Cat5e terminals making it easy to daisy chain speakers to the Z-Series source unit.

System	
Type	2.25" Full range
Operation Mode	Non-Powered Passive
Operating Range (-10db)	140 Hz - 20 kHz
Frequency Response (+/- 5dB)	180 Hz - 10 kHz
Vertical Coverage	130°, 2 kHz Octave Band
Horizontal Coverage	130°, 2 kHz Octave Band
Max Input Ratings (4 )	8W Continuous @ 100V
Transformer Taps - 70V	4W, 2W, 1W, and 0.5W
Transformer Taps - 100V	8W, 4W, 2W, and 1W
Directivity Factor (Q)	2.5 @ 2 kHz (4mm & 8mm Standard Lens and Lens Cover) 1.6 @ 2 kHz (Direct Fire Lens and Direct Fire Grille)
Directivity Factor (DI)	4dB @ 2 kHz (4 mm & 8 mm Standard Lens and Lens Cover) 2.0 dB @ 2 kHz (Direct Fire Lens and Direct Fire Grille)
Input Sensitivity at 1W/1m	81.6dB SPL
Max SPL at 1m (Passive)	90.6dB
Peak SPL at 1m (Passive)	99.1dB
Recommended Signal Processing	7 Band Peq Correction
Recommended Power Amplification	8 W @ 100 Volts / 4 W @ 70 Volts
Transducers	
LF Transducer Qty and Size	2.25"
LF Voice Coil Size	1"
MF Transducer Qty and Size	N/A
MF Voice Coil Size	N/A
HF Transducer Qty and Size	N/A
HF Voice Coil Size	N/A
Nominal Impedance	8 Ohms
Minimum Impedance	6.9 Ohms
Crossover Frequency	N/A
Driver Protection	N/A
Enclosure	
Color	White (RAL9016) or Black (RAL9011)
Enclosure Material	ABS
Grille Material	ABS
Baffle Material	ABS
Mount Material	ABS
Input Connection	4 Pole Euro Block, RJ45
Controls	Switch
Mounting / Rigging Provisions	Included Safety Wire Kit, Wall / Pole Mount Bracket
Safety Features	1 Safety Hangpoint
Safety Agency Ratings	UL1480A & UL2043
Ingress Protection	N/A
Environmental Testing	N/A
Cutout Diameter	2.75" Hole
Logo	AtlasIED Label
Product Dimensions (HxWxD)	4.3" x 3.62" (109.3mm x 91.8mm) (Without Wall Mount) and 6.2" x 3.62" (157.5mm x 91.8mm) (With Wall Mount)
Shipping Dimensions (HxWxD)	4.37" x 13.66" x 12.72" (111mm x 347mm x 323mm)
Net Weight - lbs	4.6 lbs / 2.09 kg
Shipping Weight - lbs	1.15 lbs / 0.52 kg With Mounting Bracket and 4mm Solid Lens

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### Warranty Coverage

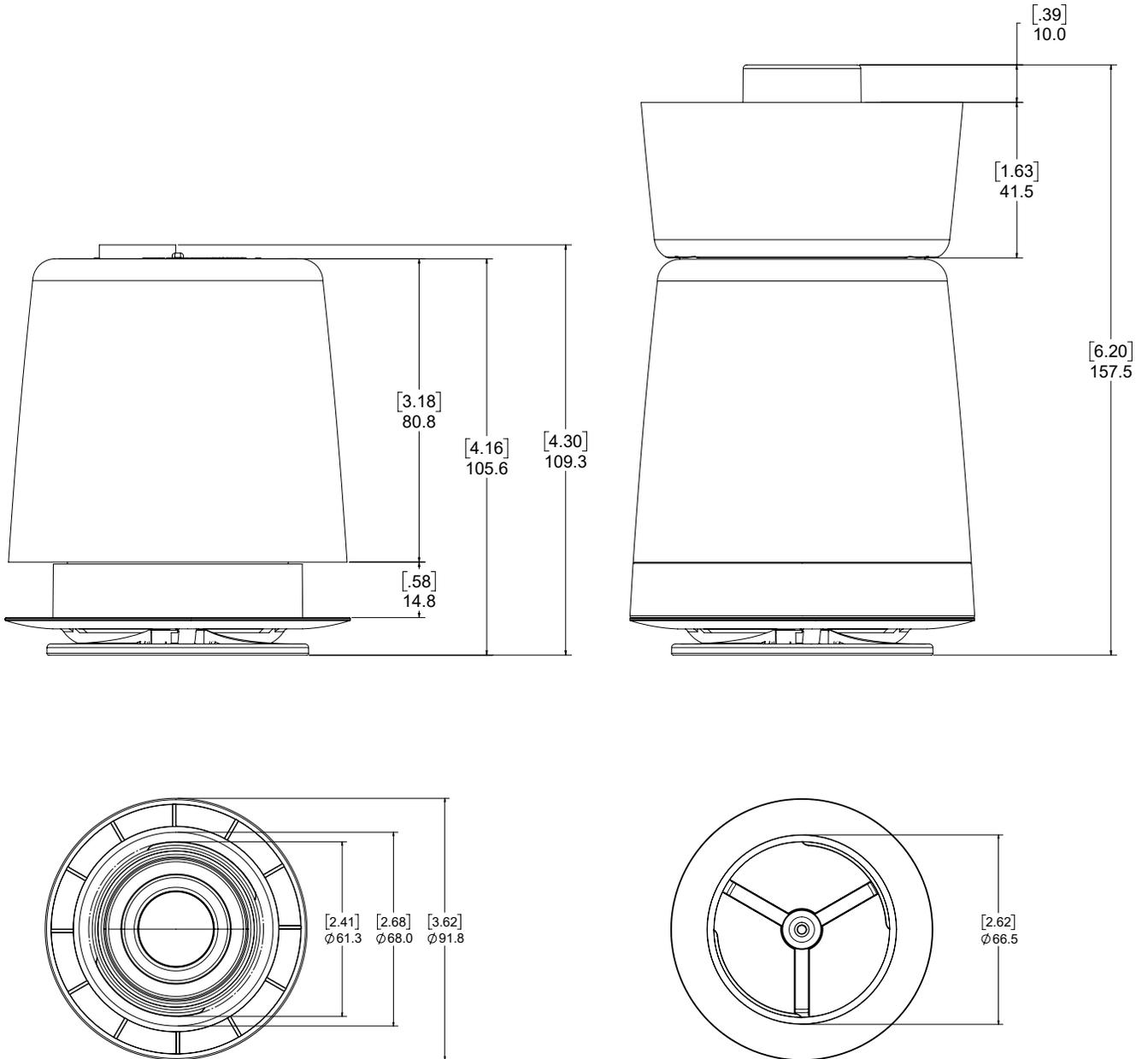
Warranty Period	5 Years
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**NOTES:**

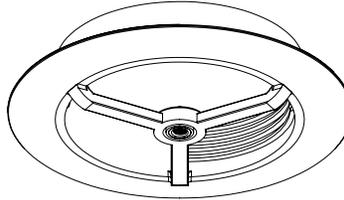
1. Sensitivity: Half space, 1 meter, 2.83 volts RMS.
2. Power: All power figures are calculated using the rated nominal impedance.
3. Frequency response and sensitivity are half-space measurements.
4. Unless otherwise noted, all measurements are taken with the Direct Fire Lens and Direct Fire Lens Cover.

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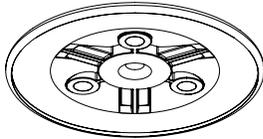
## Dimensional Drawings



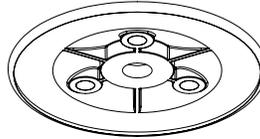
## Included Accessories



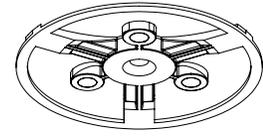
Flange



Standard Lens (4mm)



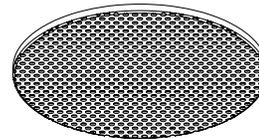
Standard Lens (8mm)



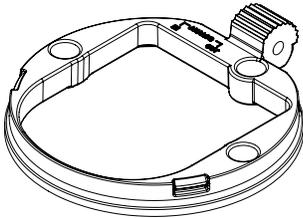
Direct Fire Lens (4mm)



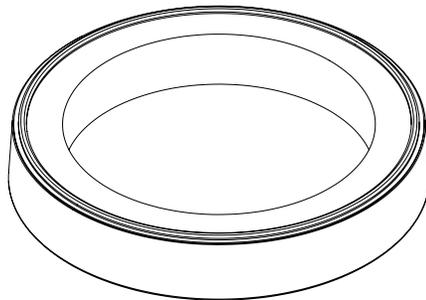
Lens Cover



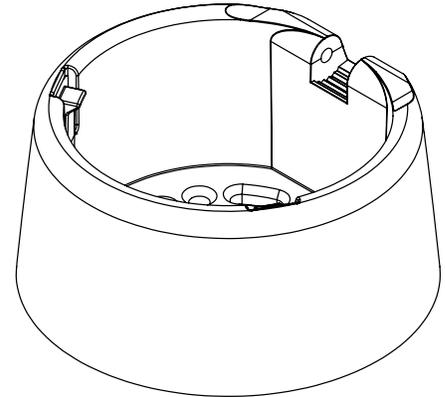
Direct Fire Grille



Wall Mount Bracket Adapter Ring



Spacer



Wall Mount Bracket

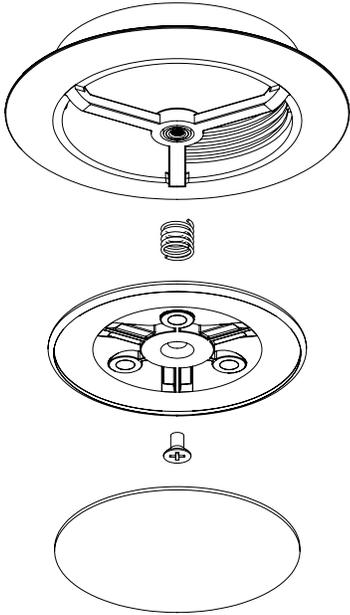
## Additional Included Accessories

- 20' Cat5e Plenum Cable (2)
- Pendant Mount Steel Cable (2)
- Safety Wire Accessory Pack (2)
- Hardware

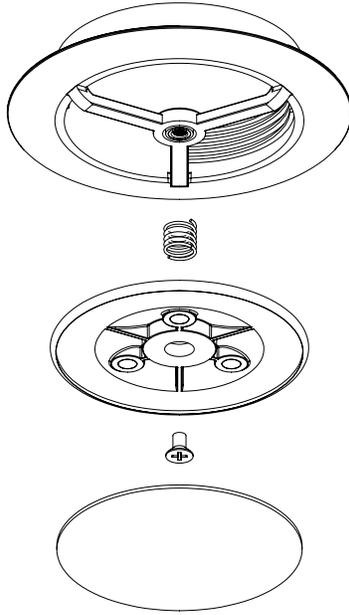
## Optional Accessories

- Tile Bridge - Model SHS-3T2-TB

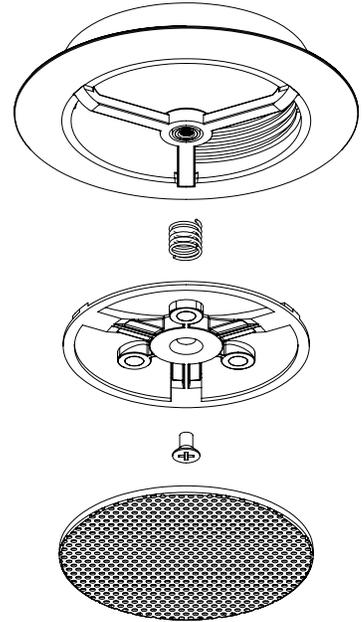
## Installation Configurations



Standard Lens (4mm) with Solid Lens Cover  
Ideal for Low Ceiling Installations (<10')  
and Sound Masking Applications



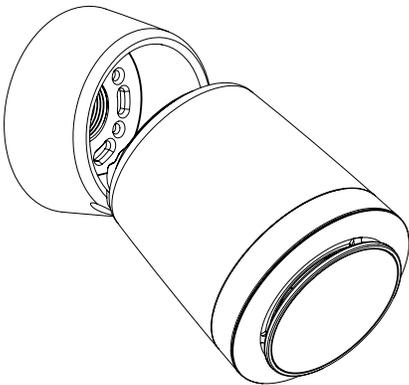
Standard Lens (8mm) with Solid Lens Cover  
Ideal for Medium Ceiling Installations  
(10' - 14')



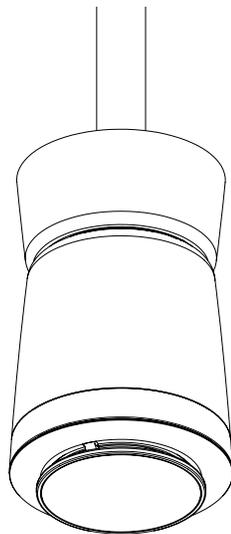
Direct Fire Lens (4mm) with Direct Fire Grille  
Ideal for Installations with High Ceilings (>14')  
or Applications Where Extreme Intelligibility  
is Required

Use the included spring to increase the diffuser open area.

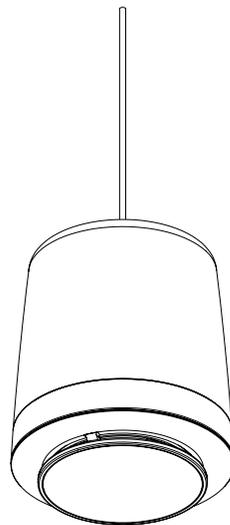
## Mounting Options



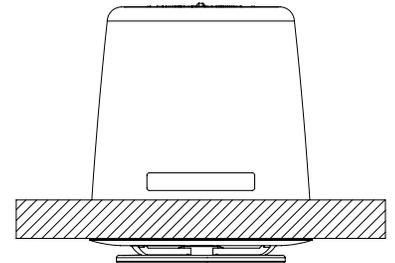
Surface Mount



Pole Mount



Pendant Mount



Ceiling Mount

## Architect and Engineer Specifications

The speaker system shall be AtlasIED SHS-3T2. The passive, non-powered speaker system shall include a high performance full range driver inside a concealed enclosure providing high-definition sound. The sealed enclosure shall be tuned for bass performance while maintaining an installed visual presence similar to a sprinkler head. The transducer shall be attached to a tunnel waveguide and patented 3" adaptive dispersion lens that acts as a phase plug. The acoustic result shall produce frequencies evenly, significantly reducing hot spots directly below the loudspeaker. Frequency response for the system shall be 180Hz – 10kHz. Sensitivity shall be 81.6dB average (1W @ 1m). Vertical and Horizontal Coverage shall be 130 degrees @ 2kHz Octave Band using the 4mm dispersion lens and solid disc attached.

Speaker shall be comprised of a single 2.25" full-range driver. The voice coil diameter shall be 1" (25mm). Transformer shall be a 70.7V/100V type with 0.5, 1, 2, and 4 watt primary taps (@ 70.7V) with a selector switch. Unit shall also include terminals for connection of Cat5e wiring for use with source units capable of transmitting analog audio signal via Cat5e cable.

External wiring shall be accomplished via a removable lockable wiring connector with screw-down terminals to provide both secure wire termination and pre-wiring capability before speaker installation. The 4-pole locking connector shall facilitate in/out connections and shall be located in the top of the unit's enclosure.

For safety, the assembly shall have one hang point. Installation shall require a 2.75" cutout in the ceiling tile to accommodate the SHS through hole and then the adaptive lens is snapped into place on the front of the tile. The speaker shall be safety listed to UL1480A & UL2043.

The speaker shall be the AtlasIED SHS-3T2.