

# FAP43TUC-W

*FAP Strategy III Series 4.5" Full Range Ceiling Loudspeaker*



## Features

- 70.7V/100V
- Patented **Safety First Mounting System** Enables Installation without Drill or Screwdriver
- Improved Waveguide Provides up to 130° Dispersion
- Ported Enclosure Provides Enhanced Low-Frequency Response
- 4-Pole Detachable "Phoenix" Style Connector Allows Easy Pre-Wiring and Is Convenient for Daisy Chaining Additional Strategy Series Full Range Loudspeakers or Subwoofers

## General Description

The FAP43TUC-W's 130° dispersion angle can reduce the number of loudspeakers necessary to achieve coverage in distributed systems with low ceilings. The loudspeaker component matches the performance of the legendary AtlasIED FA134 driver. High quality construction 4.5" coaxial cone type driver includes a 1" voice coil and high efficiency composite cone with polymer coated cloth surround. The 20mm coaxially mounted silk dome tweeter. A high sensitivity of 90dB average means less power may be required to achieve the desired SPL.

This loudspeaker is factory assembled in an optimally tuned and ported deep drawn enclosure and includes a specially designed 32-watt low saturation 70.7V / 100V transformer. A convenient front mounted selector switch allows tap selection without the need to remove the loudspeaker from the ceiling.

Three years of development has produced the most innovative, easily installed, and safety-secure ceiling loudspeakers in the professional audio market. Patented **Safety First Mounting System** protects from over-torquing the mounting doglegs during installation and potentially cracking or breaking the mounting system. The results are NO install tools required, NO over-torqued doglegs, NO rusted screws and QUICK installation.

- Speakers for Fire Alarm and Signaling Systems
- Front Mounted Tap Selector Switch for Easy System Tuning Adjustments
- Easy Installation in Drop Tile or Sheetrock Ceilings Via C-Ring / V-Rail Tile Bridge (Included)
- Safety Listed to UL1480, UL2043, and CAN/ULC-S541:2016
- Equipped with 22 uF, 200 Volt Mylar Capacitor

## Applications

AtlasIED's FAP43TUC-W combines superior coaxial loudspeaker performance with even dispersion and easy installation. A low profile enclosure and wide coverage make the FAP43TUC-W a perfect choice for low ceilings.

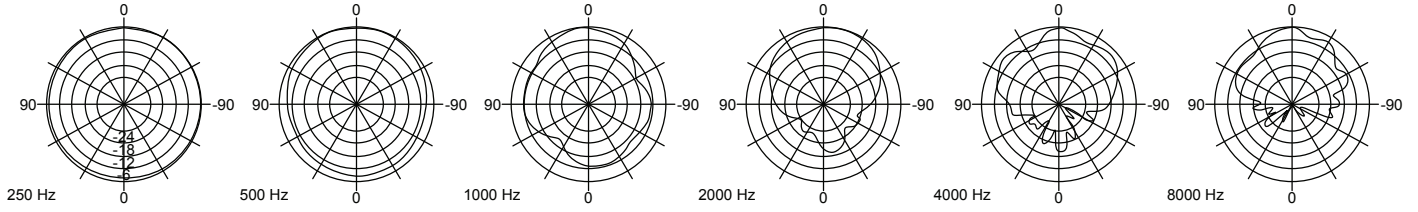
The FAP43TUC-W will satisfy the needs of owners, architects, contractors, and consultants by delivering true, high fidelity sound reproduction in an attractive and easy-to-install system. The FAP43TUC-W is ideal for high-intelligibility voice, music, and signal reproduction in commercial, industrial, and institutional applications.

System	
Type	Two Way, Full Range, Coaxial Ceiling Loudspeaker
Operation Mode	Non-Powered Passive
Operating Range (-10db)	82Hz
Frequency Response (+/- 5dB)	90Hz - 20kHz
Vertical Coverage	130° 800Hz - 4kHz
Horizontal Coverage	130° 800Hz - 4kHz
Max Input Ratings	50W Continuous, 100W Program 20 Volts RMS, 40 Volts Momentary Peak
Transformer Taps - 70V	32W, 16W, 8W, 4W
Transformer Taps - 100V	32W, 16W, 8W
Directivity Factor (Q)	9.57 @ 2kHz
Directivity Factor (DI)	9.81 @ 2kHz
Input Sensitivity at 1W/1m	90dB
Max SPL at 1m (Passive)	90.6dB
Peak SPL at 1m (Passive)	107 dB Continuous / 113 dB Peak
Recommended Signal Processing	80Hz HPF
Recommended Power Amplification	120W
Transducers	
LF Transducer Qty and Size	1 x 4.5"
LF Voice Coil Size	1"
MF Transducer Qty and Size	N/A
MF Voice Coil Size	N/A
HF Transducer Qty and Size	1 x 20mm Treated Silk Dome Tweeter
Maximum Output	107 dB Continuous / 113 dB Peak
Crossover Frequency	3kHz
Driver Protection	N/A
Enclosure	
Color	White (RAL 9016)
Enclosure Material	Powder Painted CRS
Grille Material	Powder Coated CRS, White Finish (RAL9016)
Baffle Material	UL94V-0 PC
Mount Material	Zinc Plated CRS
Input Connection	4-Position PHX Type Connector
Controls	Front-Face Power Taps / Low Impedance Selector Switch
Mounting / Rigging Provisions	Patented Safety First Mounting System
Safety Features	1 Safety Hangpoint
Safety Agency Ratings	UL Listed to Comply with UL1480, UL2043 and CAN/ULC-S541:2016, Speakers for Fire Alarm and Signaling Systems, Including Accessories. Suitable for Use in Air Handling Spaces per NFPA 70 and NFPA 90.
Ingress Protection	IP-21
Environmental Testing	Humidity: MIL-STD-810G / High and Low Temperature: -20° and 70° C
Cutout Diameter	8.19" (208 mm)
Logo	White Removable
Product Dimensions (HxWxD)	9.57" (243 mm) x 9.57" (243 mm) x 7.27" (184.7 mm)
Shipping Dimensions (HxWxD)	13.7" (348 mm) x 28" (711 mm) x 7.27" (184.7 mm)
Net Weight - lbs	Unit w/ C-Ring = 6.23 lbs (2.85 kg) 2V-rails = 2.1 lbs (.95 kg)
Shipping Weight - lbs	22.83 lbs (10.36 kg) Shipped in Pairs
Warranty Coverage	
Warranty Period	5 Years

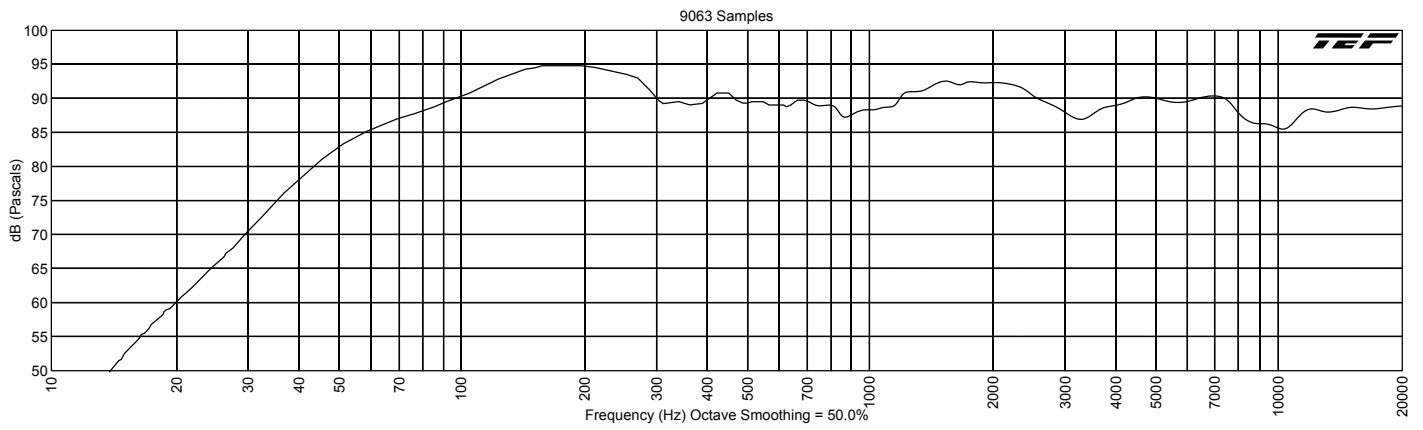
**NOTES:**

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.

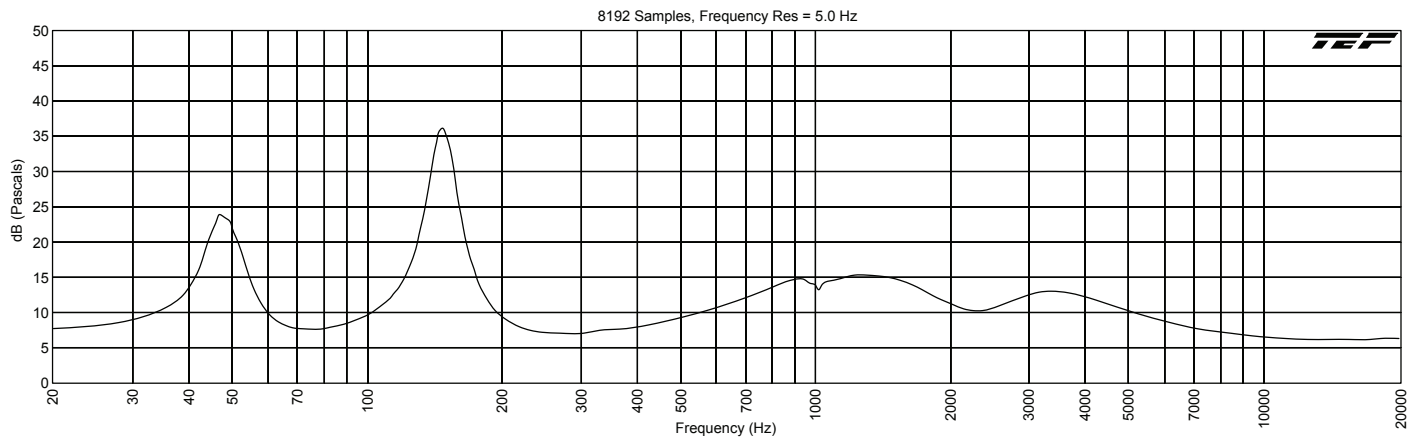
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### Frequency Response

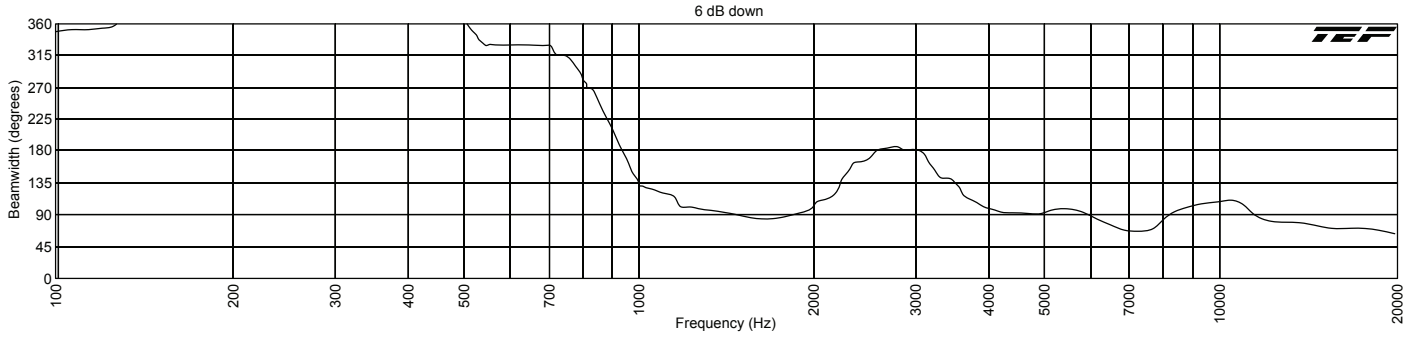


### Impedance vs. Frequency Response

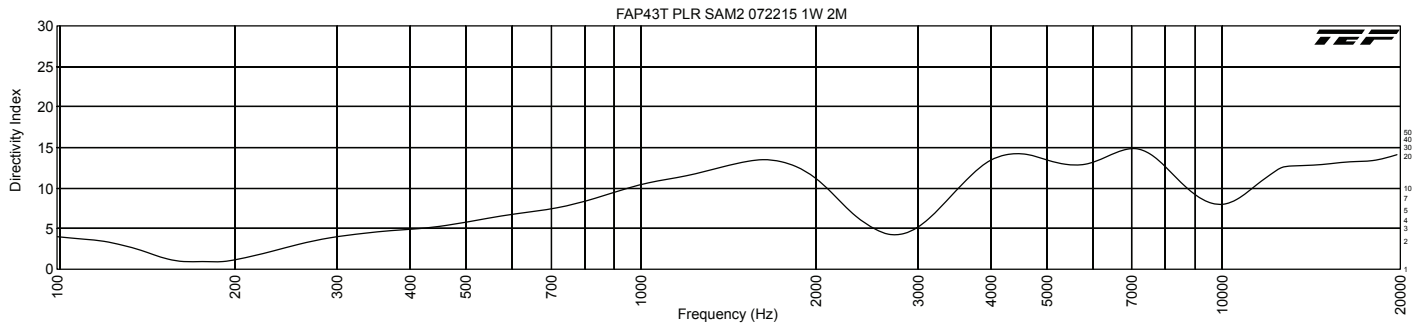


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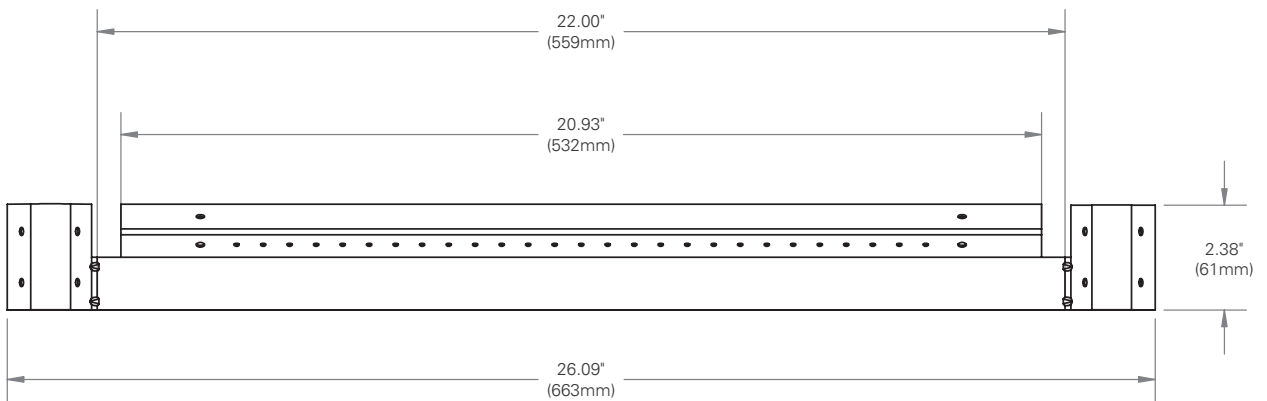
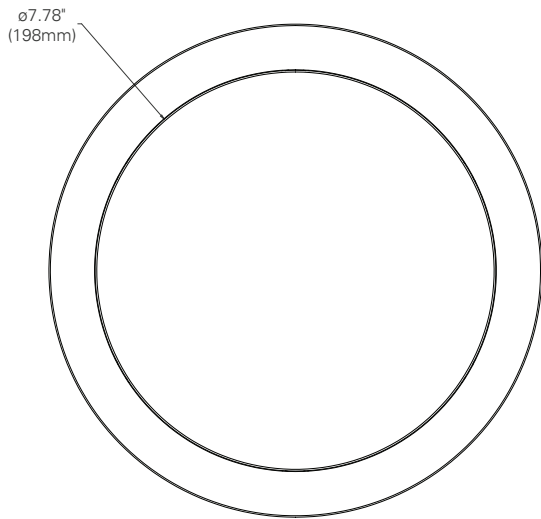
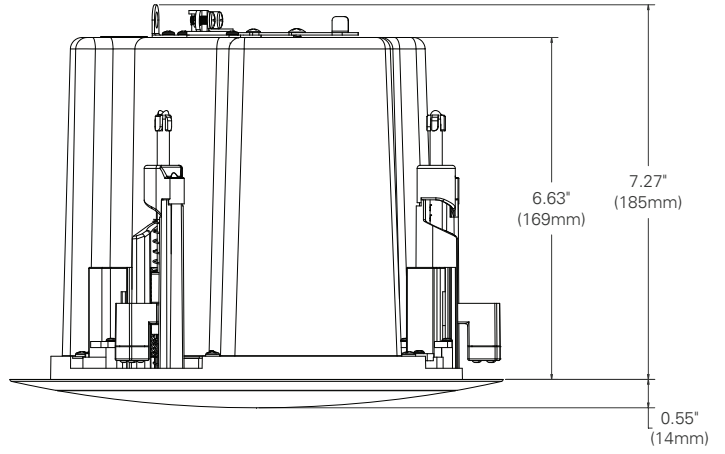
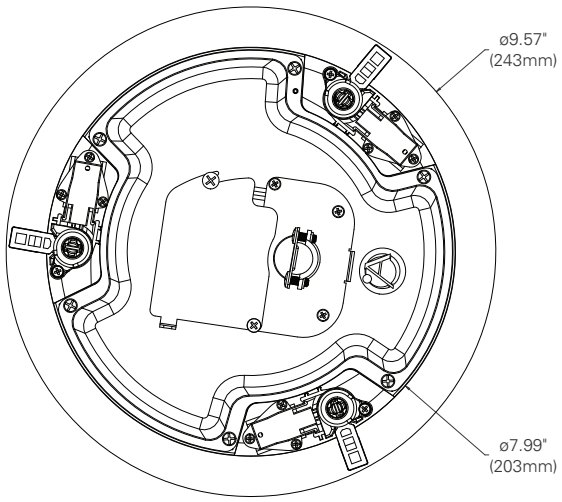
### Beamwidth vs. Frequency Response



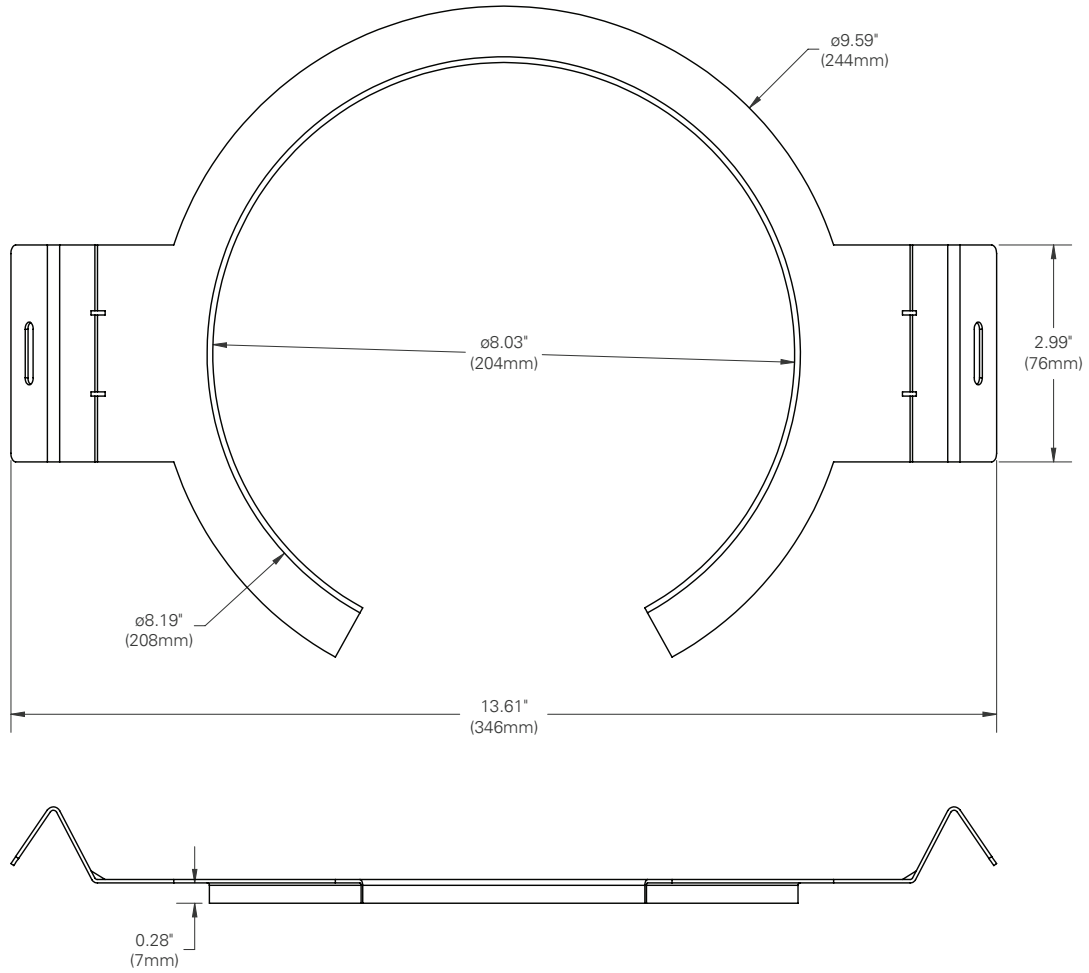
### Directivity Index/Q vs. Frequency



## Dimensional Drawings



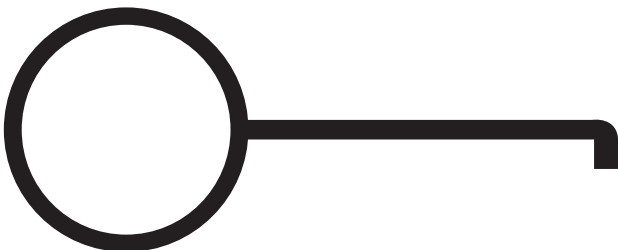
## Included Accessories



### Quick Release Tool

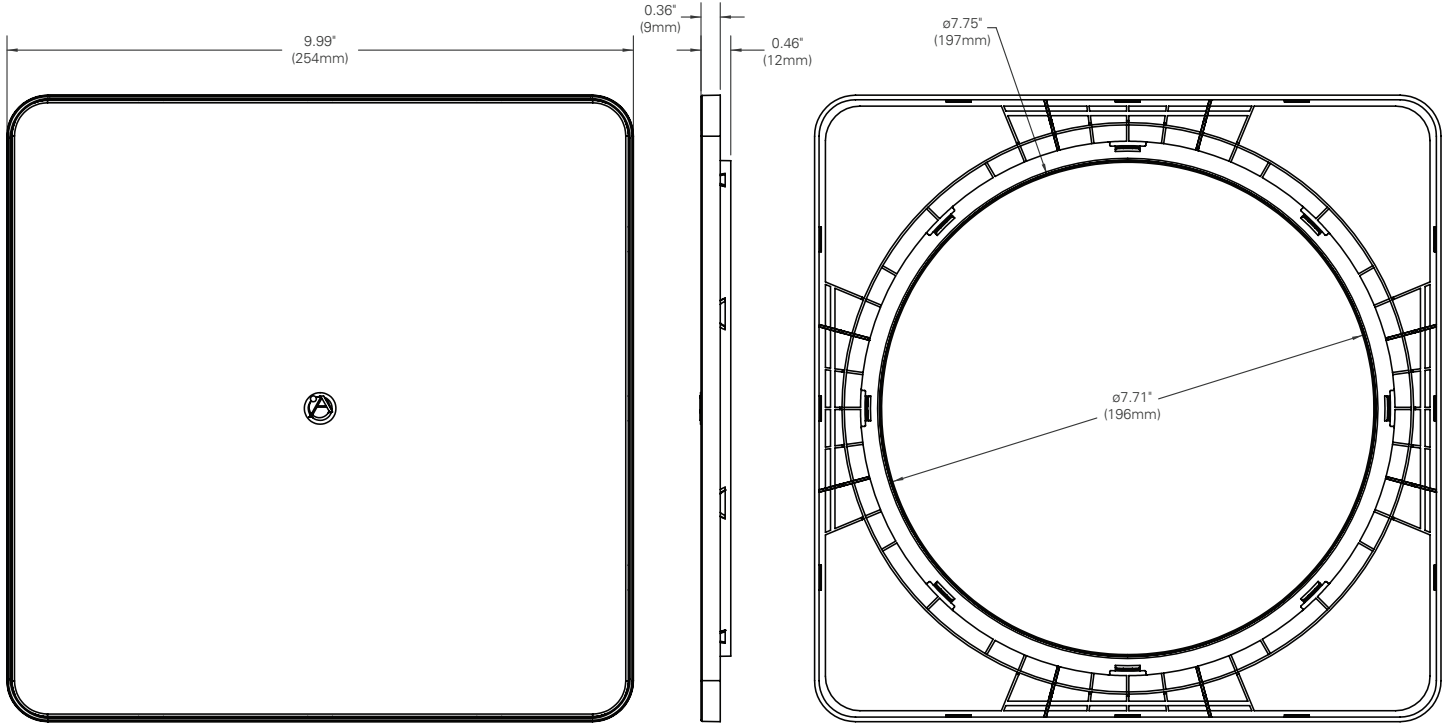


### Grille Puller

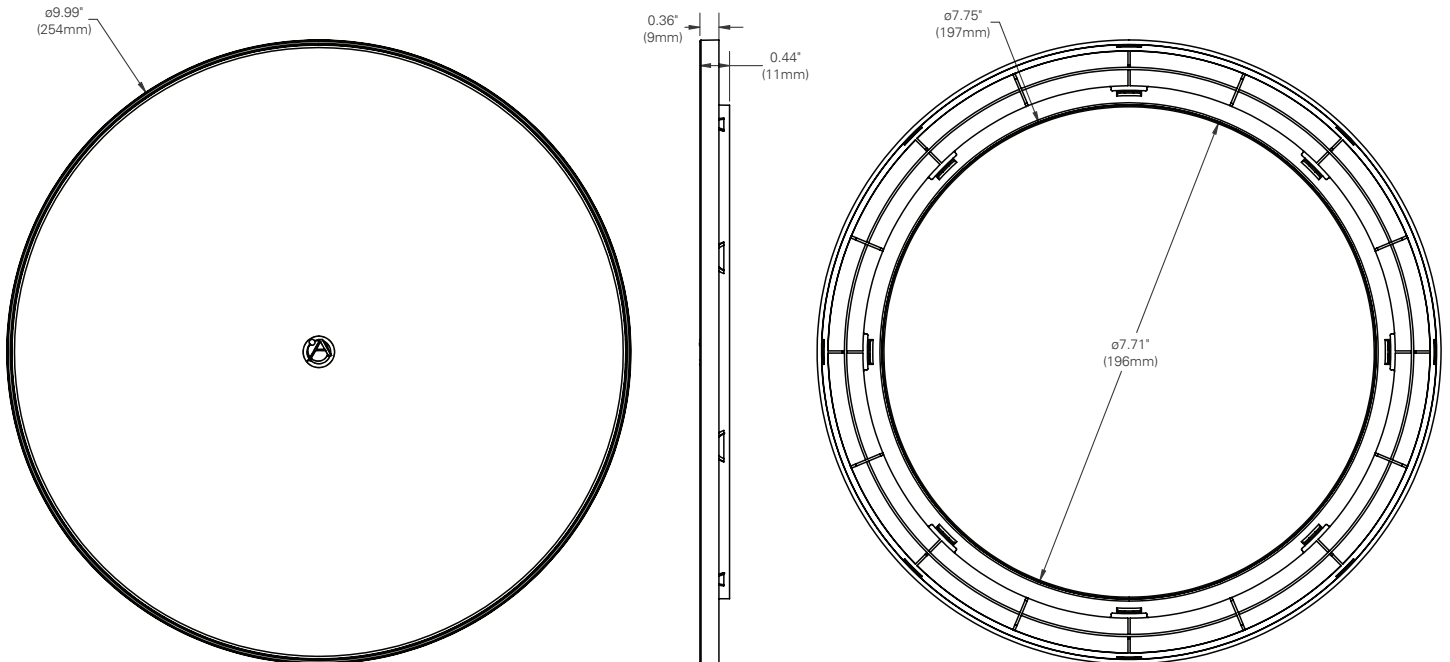


## Optional Accessories

### EGS43W / EGS43B Edgeless Square Grille



### EGS43W / EGS43B Edgeless Round Grille



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## Architect and Engineer Specifications

The loudspeaker system shall be AtlasIED FAP43TUC-W. System shall include a high performance 4.5" coaxial loudspeaker, ported bass reflex enclosure and press-fit grille for conventional ceiling installation. Frequency response for the system shall be 60Hz – 20kHz. Sensitivity shall be 90dB average.

Loudspeaker shall be comprised of a 4.5" coaxial cone type driver. Cone shall be constructed of composite cone with polymer coated cloth surround. The 20mm tweeter shall be a silk dome. Magnet shall be a minimum of 10oz (264g) and the voice coil diameter shall be 1" (25mm). Transformer shall be a 70.7V / 100V type with 2, 4, 8, 16, and 32 watt primary taps (@70.7V) with a front mounted tap selector switch. Equipped with a 22 uF, 200 Volt mylar capacitor.

Enclosure shall be a deep drawn steel enclosure design. Internal volume shall be 195.75 in<sup>3</sup>. To facilitate connection in conduit systems, enclosure shall be equipped with an access panel covering a recessed terminal cup. This cover shall provide a top access compression fitting / strain relief to facilitate flexible 1/2" conduit when the compression fitting is removed.

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 loudspeaker installation. The 4 pole locking connector shall facilitate in / out connections and shall be located in the recessed area behind the conduit access panel.

Seismic support eye shall be provided on top of enclosure for additional suspension point when used in drop tile ceilings. Construction of enclosure shall be a minimum of 18-gauge deep drawn painted metal. Loudspeaker shall include **Safety First Mounting System** to eliminate the potential for steel screws to rust and break causing the dogleg to fail, resulting in the loudspeaker falling out of the ceiling.

The system shall include a support backing plate to reinforce the ceiling material and tile support rails for use on either 2' x 4' (609mm x 1219mm) or 2' x 2' (609mm x 609mm) suspended ceiling tiles. This assembly can all be installed from beneath the ceiling tile. Overall front face diameter shall not exceed 9.57" (243mm); overall depth from the bottom of the ceiling shall not exceed 7.27" (184.66mm). Grilles shall be press-fit, manufactured from 24-gauge perforated steel mesh and finished in white epoxy. Round grille shall be 7.78" (197.6mm) diameter.

Loudspeaker shall be safety listed to UL1480, UL2043, and CAN/ULC-S541:2016 standards, and shall be a speaker for fire alarm and signaling systems, including accessories.

The loudspeaker shall be the AtlasIED FAP43TUC-W.