

FS-4D

DANTE® POE SURFACE MOUNT LOUDSPEAKER

TECHNICAL DATA SHEET



PRODUCT SUMMARY

The Atlas+Fyne FS-4D is a wide bandwidth 4" surface mount loudspeaker designed for the ultimate in fidelity, coverage, and aesthetics.

For the first time, the combination of IsoFlare™ transducer technology, the flexibility of the Audinate Dante® digital audio transport platform, optimal power (POE++), and loudspeaker management is incorporated in a premium package.

A single CAT cable connects the FS-4D to the flexibility and convenience of networked audio, allowing designers, integrators, and installers access to advanced features like system configuration, supervision, and calibration tools.

Powered by PoE+ or POE++ and compatible with both Dante and AES67 IP audio streams, the IsoFlare™ FS-D range is flexible, scalable and powerful. A second amplifier output is incorporated to allow local connection to a passive Atlas+Fyne loudspeaker.

IsoFlare™ is the new benchmark in point source technology for prestigious commercial environments. Decades of experience from acoustic and mechanical engineers specializing in this technology have honed existing skills complemented with the very latest in design & engineering techniques to bring IsoFlare™ to the premium commercial space in an integrated package.

Unlike discreet and 'coax' offerings, the IsoFlare™ driver exhibits excellent harmonic alignment between HF and LF sources, delivering accurate and natural reproduction with superb tonal balance. Propagating a spherical wavefront, homogeneously aligned on all axes, the IsoFlare™ point source driver yields an even response throughout the listening area, while a constant time delay over the entire frequency spectrum provides exceptional off-axis performance.

Safe and effective installation is made simple by way of the included slip free yoke mount, optional universal mount, or compatibility with third party VESA® mounts.

The FS-4D is designed for applications requiring a combination of premium sonic quality for music and speech reinforcement with exceptional reliability, in an architect/designer/installer friendly solution.

KEY FEATURES

- Minimalistic industrial design for sensitive architectural constraints
- Consistent voicing and measured performance across all IsoFlare™ Series products whether ceiling-, surface- or pendant-mount
- IP55 rated, high impact ABS enclosure with UV inhibitor
- Integrated DSP and Amplifiers, Power-over-Ethernet (POE+ or POE++)
- AtlasIED Discover — software-based configuration, control, and telemetry
- Multiple configuration options
- Visual and Audible locator
- Dante and AES67 compatible
- Dante Domain Manager compatible
- Full control and monitoring of individual and multi-zones
- Secondary output for powering a passive Atlas+Fyne loudspeaker
- Ferrofluid-cooled titanium HF driver with neodymium magnet system
- Weather treated multi-fiber cone — stiffness combined with a controlled top end roll-off for an accurate midrange.
- Slip-free yoke mount supplied. Optional pan and tilt bracket. Compatible with VESA® mounts.

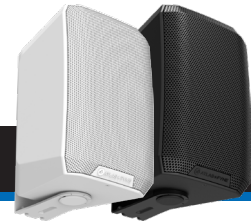
APPLICATIONS

- Boardrooms & Corporate Offices
- Airports, Convention Centers, Hotels
- Casinos
- Houses of Worship
- Retail Outlets, Shopping Malls
- Museums
- Lounges/Bars
- Sports Facilities
- Health Clubs
- Performing Arts Centers
- Education Facilities
- Cruise Ships
- Courtrooms
- Multizone Foreground Music & Paging Systems

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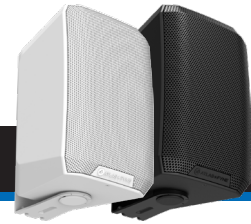
AUDIO SPECIFICATIONS/PERFORMANCE

SYSTEM		FS-4D
Type		Active two-way, full-range surface mount loudspeaker
Frequency Range (-10 dB) ¹		63 Hz-30 kHz
Frequency Response (+/- 3 dB) ¹		83 Hz-22 kHz
Nominal Coverage Angle		115° Conical
Directivity Index (dB) ⁴		6.1
AMPLIFICATION²		
Type		Two-Channel, Class D
Power Source - Supported PoE Standards		PoE++ Type 4, PoE++ Type 3, PoE+ Type 2
Secondary Amplifier Output Power		
PoE++ Type 4		46 W Burst (20 ms) ² 36 W RMS ²
PoE++ Type 3		37 W Burst (20 ms) ² 30 W RMS ²
PoE+ Type 2		16 W Burst (20 ms) ² 10 W RMS ²
Secondary Amplifier Output Supported Impedance		8 Ω
Current Consumption		
Idle		28 mA / 3.6 Btu
PoE+ Type 2, 30 W		248 mA / 32.1 Btu
PoE++ Type 3, 60 W		505 mA / 65.5 Btu
PoE++ Type 4, 90 W		757 mA / 98.2 Btu
Rated Maximum SPL@1m ⁽³⁾		
PoE++ (802.3bt Type 4)		105 dB ⁵ (Average) / 111 dB (Peak)
PoE++ (802.3bt Type 3)		105 dB (Average) / 111 dB (Peak)
PoE+ (802.3at Type 2)		102 dB (Average) / 108 dB (Peak)
TRANSDUCERS		
IsoFlare™ Point Source Driver		
Low Frequency		4" (100 mm) Bass/Mid, multi-fiber treated paper
High Frequency		0.75" (19 mm) titanium dome with neodymium magnet system, ferrofluid cooled
SOFTWARE		
AtlasIED Discover Software		Network Status, Configuration, Telemetry, DSP Control, Locate
NETWORK		
IP Mode		Static or DHCP (default)
Ethernet Connection		IEEE 802.3/100Base-TX
Audio-over-IP streaming formats		Dante, AES67
PoE+/PoE++		Type 2, Type 3, Type 4 Compliant
CAT Cable Specification		5, 5e, 6
Maximum CAT Cable Length		100 m (333 ft)
Minimum Delay from Input to Acoustic Output		2.18 ms

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AUDIO SPECIFICATIONS/PERFORMANCE

PHYSICAL

Enclosure	High Impact ABS UL-V0
Colors	Black, White
Grille Material	Aluminum, Powder Coated
Connectors	(1) RJ45 (input), (1) Euroblock with screw terminal (second amplifier output)
Safety Agency Ratings	Safety: Conforms to UL62368-1, Certified to CSA STD 22.2 No. 62368-1 EMC: FCC Part 15, Subpart B; EN 55032; EN 55035; EN IEC 6100; EN 6100
Ingress Protection	IP55
Operating Temperature	10°F to 120°F (-12°C to 49°C)
Environmental Testing	Conforms to MIL-STD-810 for salt spray and humidity
Included Accessories	Slip-Free U-Bracket
Optional Accessories	Pan & Tilt Bracket (AS-U-B/AS-U-W)
Packed Quantity	2
Product Dimensions (H × W × D)	10.90" × 6.68" × 8.07" (277 mm × 175 mm × 205 mm)
Shipping Dimensions (H × W × D)	19.3" × 19.3" × 10.2" (490 mm × 490 mm × 259 mm)
Net Weight (per unit)	7.19 lbs (3.26 kg)
Shipping Weight	22.93 lbs (10.42 kg)

WARRANTY COVERAGE

Warranty Period	5 Years
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Notes:

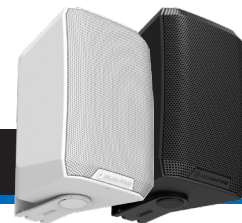
- 1 - Average over stated bandwidth, full space
- 2 - Power Level - Test is defined as follows: 1kHz sine wave signal burst of 20 cycles (20mS) at 1% THD+N, followed by 480 cycles of a 1kHz sine wave at 10% of the max power.
- 3 - Calculated from rated noise power and sensitivity
- 4 - 1k-10 k Hz average
- 5 - DSP limited

A full range of measurements, performance data, Ease™ and CLF data can be downloaded from www.atlasied.com.

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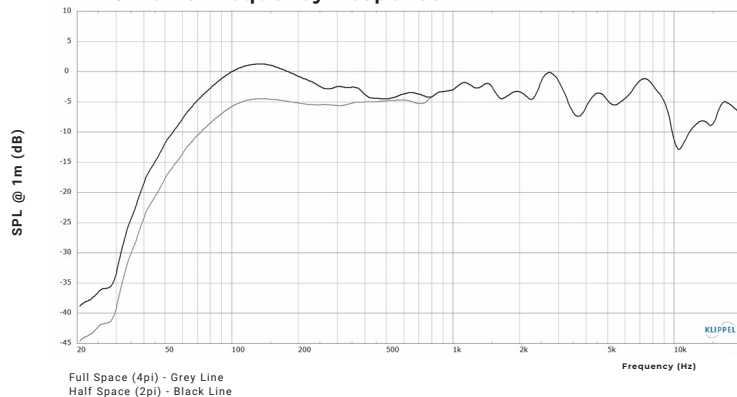
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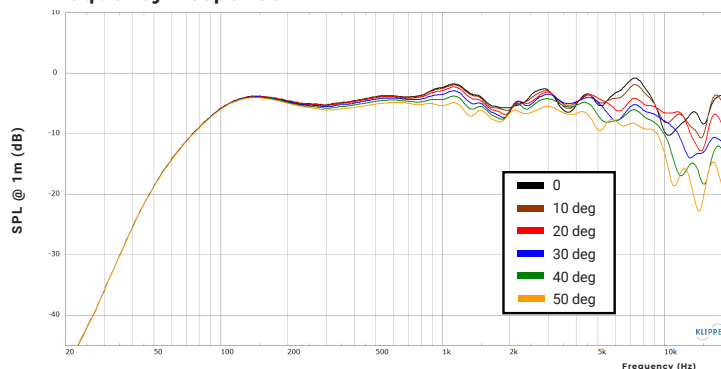


PERFORMANCE MEASUREMENTS

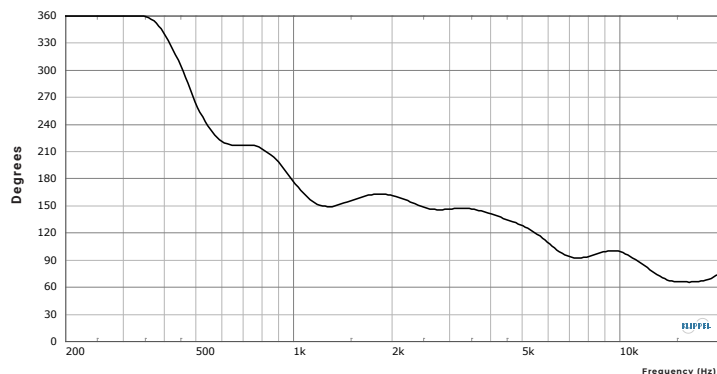
1m On-axis Frequency Response



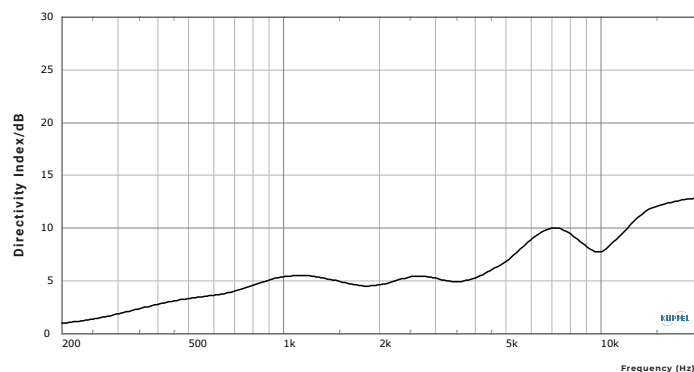
Frequency Response



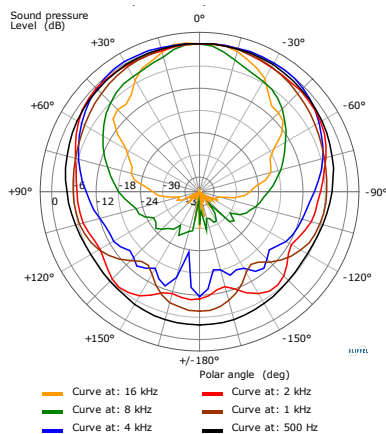
Beamwidth



Directivity Index



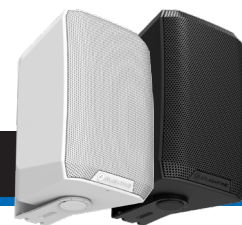
Polar Plots (Octave)



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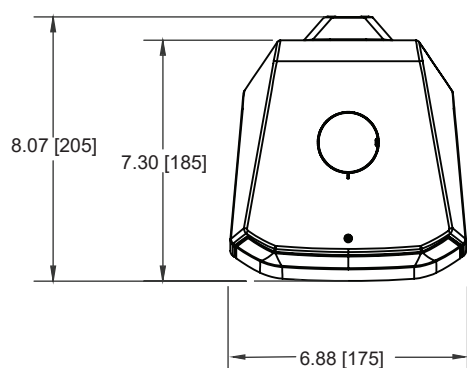
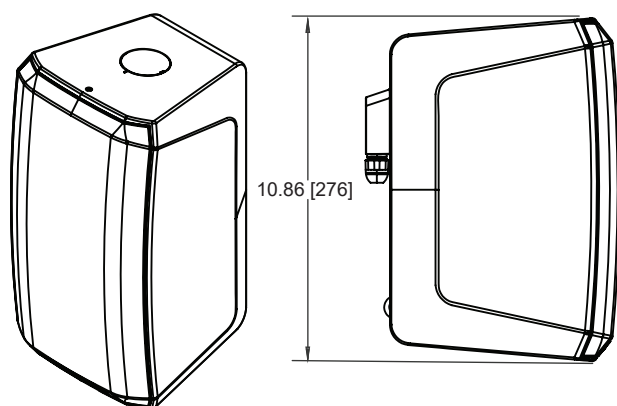


DIMENSIONAL DRAWINGS

PRODUCT DIMENSIONS

Without Bracket

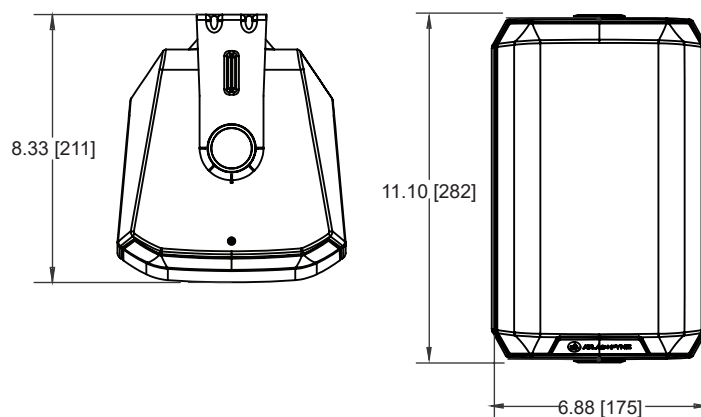
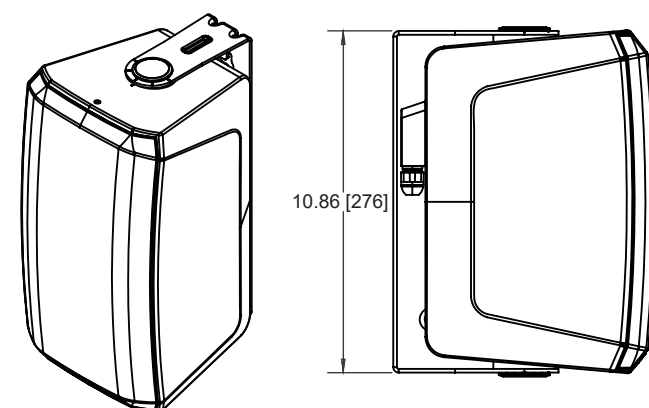
Height	10.86" (277 mm)
Width	6.88" (175 mm)
Depth	8.07" (205 mm)



PRODUCT DIMENSIONS

With Bracket

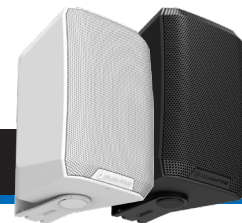
Height	11.10" (282 mm)
Width	6.88" (175 mm)
Depth	8.33" (211 mm)



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ARCHITECT & ENGINEER SPECIFICATIONS

The loudspeaker shall be of a two-way surface-mount design. A 4" (100 mm) multi-fiber treated paper woofer with butyl rubber surround and 0.75" (19 mm) titanium dome with a ferrofluid-cooled neodymium magnet system shall be housed in a proprietary injection molded ABS, UV fade resistant enclosure. The enclosure shall exceed IEC 60529 IP55 ratings for dust and splash resistance, and MIL-STD-810 for salt and humidity. Incorporated is a sealed input panel cover, and powder-coated aluminum grille.

The loudspeaker color shall be either RAL 9016 (white) or RAL 9017 (black). The unit shall ship with a slip-free U-bracket that is powder coated in the same color as the enclosure. The loudspeaker shall have an optional knurled ball-joint pan and tilt mounting system with a quick attach/detach mechanism.

The loudspeaker shall comply with the following standards: UL62368-1; CSA STD 22.2 No. 62368-1; FCC Part 15, Subpart B; EN 55032; EN 55035; EN IEC 6100; EN 6100.

The loudspeaker shall meet the following performance specifications: On-axis system frequency range shall be 63 Hz to 30 kHz (-10 dB). The maximum continuous output shall be 105 dB SPL and the maximum peak output shall be 111 dB SPL (Poe++ Type 4). The nominal coverage pattern shall be 115 degrees conical.

The loudspeaker Euroblock screw terminal connections shall allow for direct connection to low impedance loudspeakers.

The loudspeaker outer dimensions shall be 10.86" x 6.88" x 8.07" (277 mm x 175 mm x 205 mm), and the unit net weight shall be 7.19 lbs (3.26 kg).

The warranty shall be 5 years.

The loudspeaker shall be the Atlas+Fyne FS-4D surface mounted loudspeaker.