



BIA-100

Bi-Axial Horn With Gimbal-Mount



BIA-100

Features

- High-Efficiency Bi-Axial Horn Provides 130° x 60° Wide-Angle Sound Coverage
- Combine with PD Series Drivers
- Nominal Frequency Response of 350Hz–8kHz for High-Intelligibility Voice, Signaling, and Full-Range Music in Indoor/Outdoor Applications
- Patented 180° Gimbal-Mount for Installation Flexibility
- Accepts All Atlas Sound and 1 3/8" - 18 Thread Compression Drivers with Throat Openings of 0.7" Diameter

Applications

Bi-axial horn model BIA-100 delivers outstanding sound dispersion and audio efficiency when used with medium or high powered compression drivers. Unit features exponentially-flared projectors which eliminate phase cancellation, control low-frequency roll off, and offers maximum results in professionally-applied voice, music, and signaling systems. It can be surface or flange-mounted and is ideal for use as a midrange component for two and three-way, high-fidelity loudspeaker systems. Weather-resistant construction is suitable for permanent or portable installation in house of worship, recreation/sport centers, mass transit terminals, industrial, commercial, educational, and institutional facilities.

General Description

BIA-100 is the original reflex horn featuring a bi-axial design with twin air columns and exponential bell for wide-angle coverage with a linear frequency response. The horn provides excellent acoustic loading maintained to a 350Hz low-frequency roll-off and optimizes delivery of high and midrange signal levels. BIA-100 is designed for use with Atlas Sound PD Series compression drivers and models having 1 3/8" -18 male threads and 0.707" diameter throat openings. Refer to PD Series compression driver specification sheets for high-pass filter requirements. Transformer-equipped drivers are available (power-tap information is outlined on individual compression driver specification sheets). The easily-mounted horn features the labor-saving patented gimbal-mount bracket assembly (U.S. Patent #4,325,529) which allows for directional positioning up to 180° vertically and horizontally. It includes a steel bracket, cast-mounting base, and provisions for flange installation. The weather-resistant, non-glare matte black foam horn is resistant to resonance. Bracket assembly is finished in durable epoxy.

Specifications

Height	21" (533mm)
Width	10 1/4" (260mm)
Depth	19 1/4" (489mm)
Weight	16 lbs

BIA-100 w/ PD-30

Power Rating	30 Watts
Sound Level	
Peak	125dB
*RP / 1M, 1W / 1M	121dB, 107dB, 400Hz–5.2kHz
Dispersion	130° x 60°
Impedance	8Ω

BIA-100 w/ PD-5VH

Power Rating	40 Watts
Sound Level	
Peak	126dB
*RP / 1M, 1W / 1M	121dB, 106dB, 300Hz – 6kHz
Dispersion	130° x 60°
Impedance	16Ω

BIA-100 w/ PD60A

Power Rating	60
Sound Level	
Peak	125dB
*RP / 1M, 1W / 1M	125dB, 112.7dB, 300Hz – 6kHz
Dispersion	130° x 60°
Impedance	16Ω

BIA-100 w/ PD75T

Power Rating	75
Sound Level	
Peak	126dB
*RP / 1M, 1W / 1M	126dB, 109dB, 300Hz – 6kHz
Dispersion	130° x 60°
Impedance	16Ω, 67Ω, 133Ω, 267Ω, 533Ω, 1100Ω, 2100Ω

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Architect and Engineer Specifications

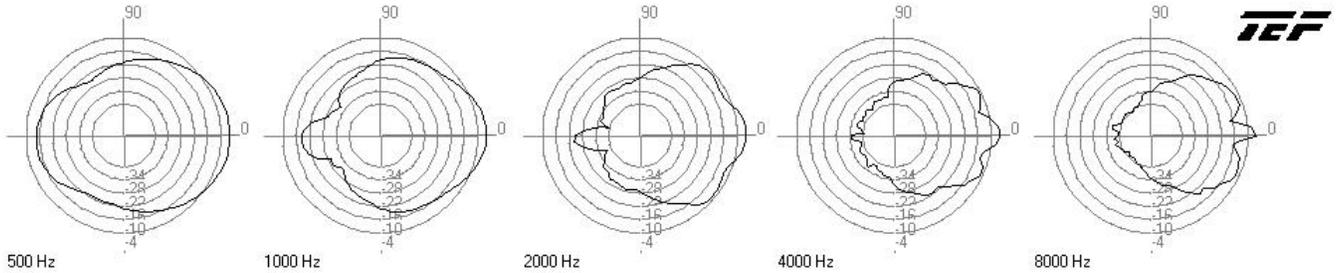
Horn shall be Atlas Sound or approved equal incorporating a unitized, bi-axial, twin-reflex air column assembly for wide-angle coverage pattern. Low-frequency roll off shall be 350Hz, air column length 2¾' (838mm) and sound-dispersion angle 130° in the plane of narrower horn dimension and 60° in the wider dimension. The horn shall accommodate compression driver units with standard 1¾" - 18 thread and measure 21"W x 10¼"H x 19¼"D.

The horn bell shall be weatherproof and constructed of non-resonant molded foam textured in black. A steel mounting bracket and cast installation base shall provide adjustable flexibility in sound focusing up to 180° vertically and horizontally. The gimbal-mount shall include provisions for surface installation, banding, and strapping.

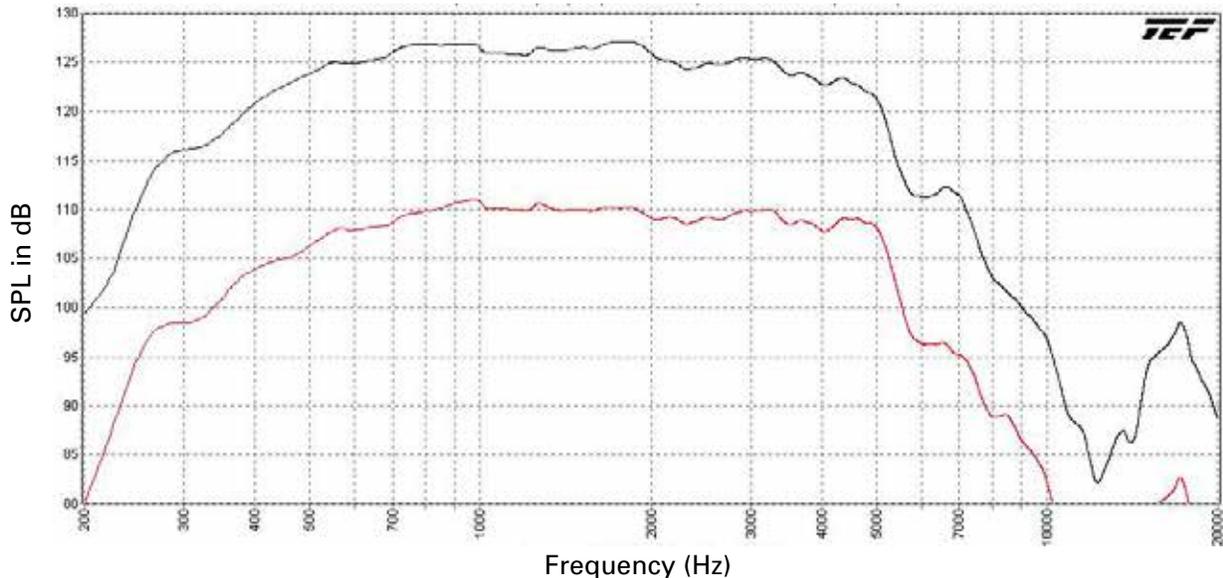
MODEL BIA-100

Frequency	Q	Di	Horizontal Beamwidth	Vertical Beamwidth
500	4	7	95	165
1000	8	9	75	105
2000	14	11	50	55
4000	25	14	25	35
8000	48	17	25	25

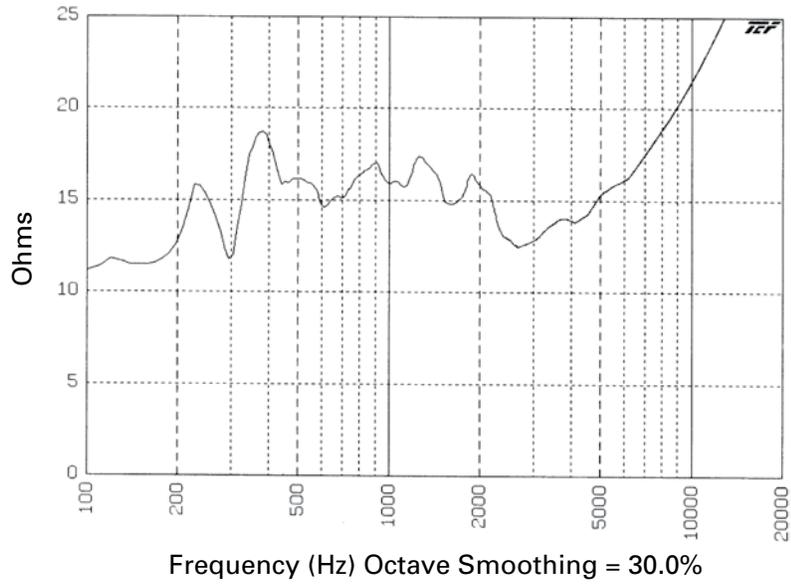
BIA-100 Polars (Normalized to Zero on Axis) (-6dB)



BIA-100 Frequency Response



BIA-100 Impedance



BIA-100 Harmonic Distortion

