

SH46

3 Way Full Range Loudspeaker



The SH46 is a 3-way, bi-amp/passive-selectable loudspeaker design that has the benefit of true modular array-ability. The SH46 includes (2) x 12" LF drivers, (4) x 4" MF drivers and (1) x 1.4" exit HF compression driver, all mounted within a single 40° x 60° horn. Utilizing our patented Synergy Horn™ technology, we uniquely place drivers within the horn in unison with a Synergy crossover network to allow for proper phase alignment between frequency bands. This permits the physically separated bands to combine and emerge from the horn as a single source, greatly reducing off axis distortions in frequency response and allowing for greater clarity at long distances. Furthermore, out of band harmonic distortion is reduced by the use of acoustic low pass filters on the low and mid frequency drivers.

The 13-ply Baltic Birch used throughout the enclosure is encased in PolyUrea for protection from impact and atmospheric conditions. Install and touring versions are both equipped with multiple M10 rig points. Our EW (Extreme Weather) variant offers the ultimate in protection from the elements due to the use of high-density polyurethane panels impregnated with fiberglass fibers in the place of standard plywood.

As an added layer of protection we include our Sentinel™ high frequency driver protection circuitry which is a multistage limiter that protects the high freq driver in the event of overloads (peaks or long term). It is inaudible during normal operation, so dynamic range is not compromised. Utilize our DNA amplifiers or processor for maximum performance and protection with industry leading DSP capabilities.

Performance Specifications

Operating Mode

Three-way single or two channel amplified

Operating Range

71 Hz - 14.5 KHz +/-3dB

58 Hz -16 KHz - 10dB

Coverage Pattern

40 x 60

Transducers

Low 2x12", Mid 4x 4", High 1x1.4"

Power Handling

1400 W Cont. | 5600 W Peak

Sensitivity measured as 2.83V @1m distance

106 dB

Maximum SPL (continuous | peak)

135 dB | 141 dB

M Noise

142.4 dB SPL Z-Peak

Impedance

4 Ohm

Recommended Power Amplifier

2,800 Watts

Physical Specifications

Connections (SH46-I/SH46-T)

(2) Neutrik NL4 Speakon wired in Parallel

PASSIVE

Pin 1+/- | Full Range

Pin 2+/- | Pass Through

BI-AMP

Pin 1+/- | Low

Pin 2+/- | Mid/High

Connections (SH46-I-EW)

1x 2 or 2x 2 Conductor Lead-in Wire

Mounting / Suspension Points

(2) M12 yoke points (SH46-I/SH46-I-EW)

M10 rigging points

Dimensions / Weight

29 x 22.3 x 22.7 in. | 737 x 567 x 577 mm.

118 lbs | 53.52 Kg

Finish

Black polyurea coated enclosure w/ matte black grille, or

White polyurea coated enclosure w/ matte white grille

Gray UV resistant painted enclosure w/ matte grey grille

Enclosure Material

18mm Baltic Birch, polyurea coated

Options

SH46-I-EW Extreme Weatherized Version

SH46-I Install Version

SH46-T Touring Version

Accessories

COVER-SH46 Protective Cover

BRKT-FSKIT Connects 2 Units w/ central pic point bar

BRKT-MBAKIT Connects 2 Units

Rev. 202209301458

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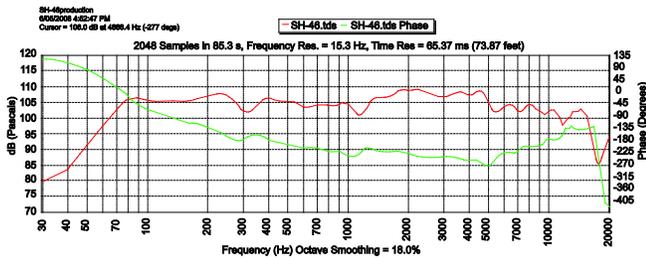


ARCHITECT/ENGINEERS SPECS

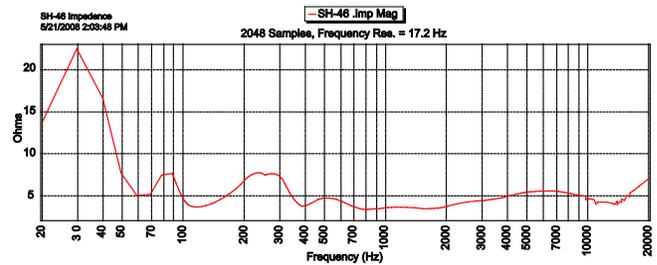
The loudspeaker shall utilize the synergy Horn/Tapped Horn patent-pending enclosure covering three pass bands. The coverage pattern shall be 40° horizontal x 60° vertical. The loudspeaker shall have an operating range of +/- 3 dB 71 Hz – 14.5 kHz. Sensitivity of 106 dB SPL @ 1m. Output of 135 dB SPL/141 dB SPL Peak. Power handling shall be 1400 Watts continuous, 2800 Watts program. The impedance shall be nominal 4 ohms.

The loudspeaker shall be constructed of 13 ply Baltic birch, water resistant Polyurea coated, properly braced for the intended use and a rugged steel grill. The connectors shall be Neutrik NL4. The Loudspeaker shall be the Danley Sound Labs SH46

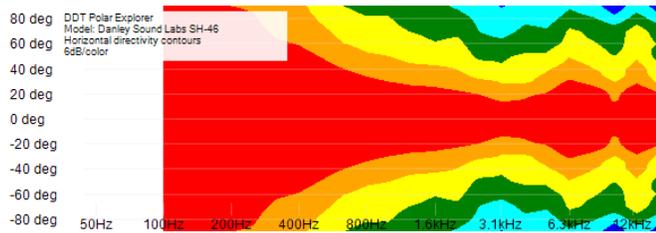
Sensitivity



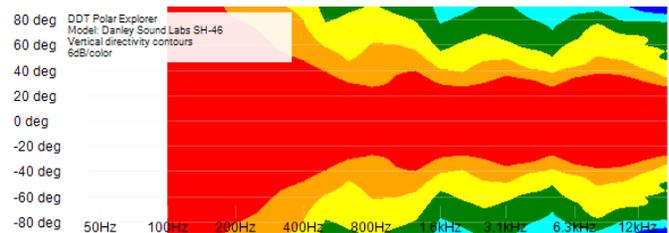
Impedance



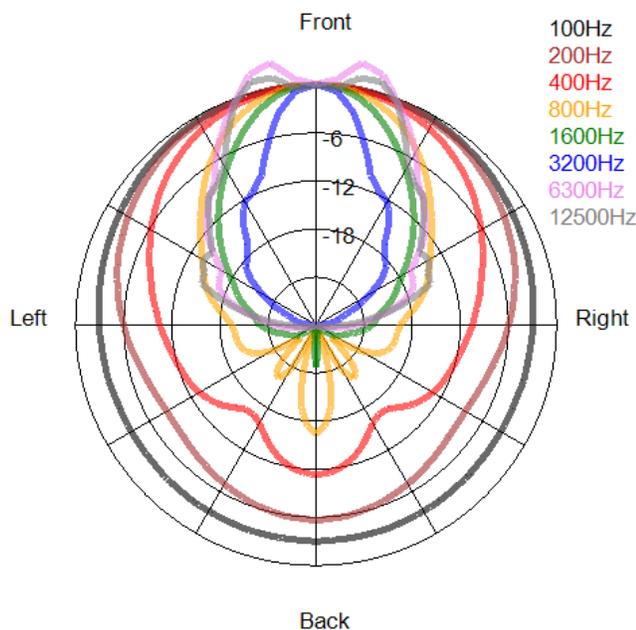
Horizontal Directivity Contour



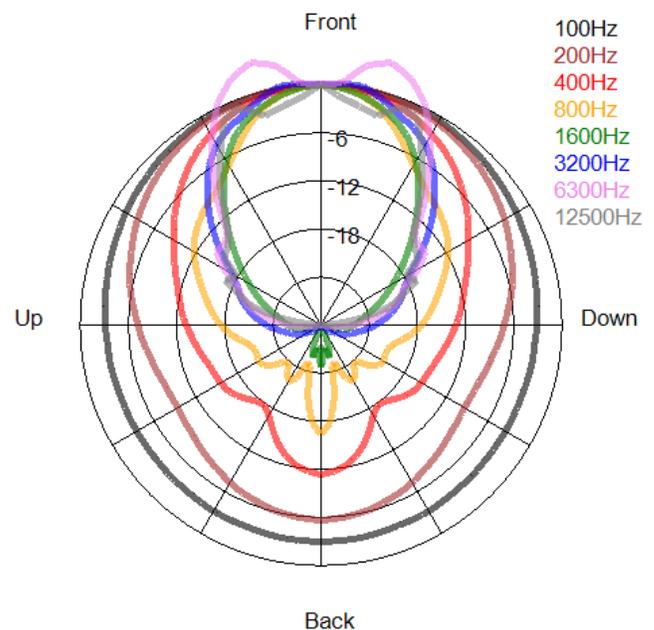
Vertical Directivity Contour



Horizontal Polar Response



Vertical Polar Response



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