

BW-28 Datasheet



BW-28 is specifically designed for wide angle applications. Designed with a horizontal dispersion of 160° achieved by an Ohm engineered diffraction horn.

Design with two 8" Proprietary bass drivers positioned off axis plus a diffraction horn mounted 1" High frequency driver, achieving 160 degrees dispersion over the full 68 Hz to 26 kHz frequency range of the product while maintaining 130 dB SPL.

The discreet design with reticulated foam front and acrylic textured paint finish and multiple integrated fixing points achieves a high class look suitable for any application.

Sharing voicing characteristics with the rest of the B series allowing them to be used simultaneously, keeping a consistent tone. These cabinets excel where wide coverage is essential from near field applications such as under balcony and front fill deployment.

Mounting options include integrated aluminium top-hat and horizontal cradle fixing points for use with the BWC-28. Other fixings can be used with this cabinet such as the fixed large wall bracket (LWB) and pan and tilt wall bracket (LWB-PT).

The rear cast aluminium connection plate has two 4 pin speakON® connectors fitted as standard, one input and one link. The speakON® connectors are wired on pins +1-1, with pass through of pins +2-2.

Custom RAL colours are available on request to make their appearance even more seamless with the surroundings. The discreet design with reticulated foam front and acrylic textured paint finish and multiple integrated fixing points achieves a high class look suitable for any application.

Weather resistant version is available with gland back plate, Polyurethane plus enamelled paint finish and metal grill front and 100v transformer with 3.75, 7.5, 15, 30 and 60 W tap settings.

Key features:

- Premium Baltic Birch Plywood construction
- Unique proprietary driver components assure quality and lifespan
- Shared voicing allows mix-and-match system configurations
- Designed for fixed install or mobile use
- Use in conjunction with BS Subwoofers for extended bass dynamics
- Available in weather resistant version
- Custom RAL Colours available on request

Technical Specifications

Design

2 x 8" Full Range Cabinet,
Reflex Tuning

Impedance

8 Ohm, Minimum 5.2 @ 260 Hz

Power Handling (AES)

400 Watts (continuous)

Max. Power Handling (AES)

800 Watts (program)
1600 Watts (peak 10 ms)

Sensitivity 2.83V / 1m

97 dB

Max. SPL

123 dB cont
129dB peak

Frequency Response (± 3 dB)

106 Hz - 25 kHz

Usable Frequency Range (-10 dB)

68 Hz - 26 kHz

Dispersion

160° x 40°

SYSTEM OPERATION

Recommended Amplification

400 - 800 Watts

System Controller

Ohm DSP Solutions

Speaker Cables

Min - 2 x 2.5 mm²
Preferred - 2 x 4 mm²

PRODUCT FEATURES

Components

2 x 8" Low Frequency Driver
1 x 1" diffraction horn

Crossover

Passive - 1.7 kHz
Active - * LPF -
HPF - 90 Hz

Connectors

2 x 4 pole Speakon Connectors

Dimensions (H x W x D mm)

344.5 x 460 x 325

Weight (kg)

18.6

Shipping Weight (kg)

20.4 (1 cabinet per carton)

Colour

Black

Options

Available in white or RAL colours on request
Weather resistant version on request

Rigging

2 x M6 mounting points for installation
brackets, omni-mounting point for stand or
truss adaptor,

HARDWARE

Fitted as Standard

Small Cast aluminium top hat.

Optional

BWC-28 cradle vertical, LWB-PT large wall
bracket pan and tilt with 35mm spigot, LWB
Large wall bracket, SS-1 speaker stand, TP-1
adjustable threaded pole.

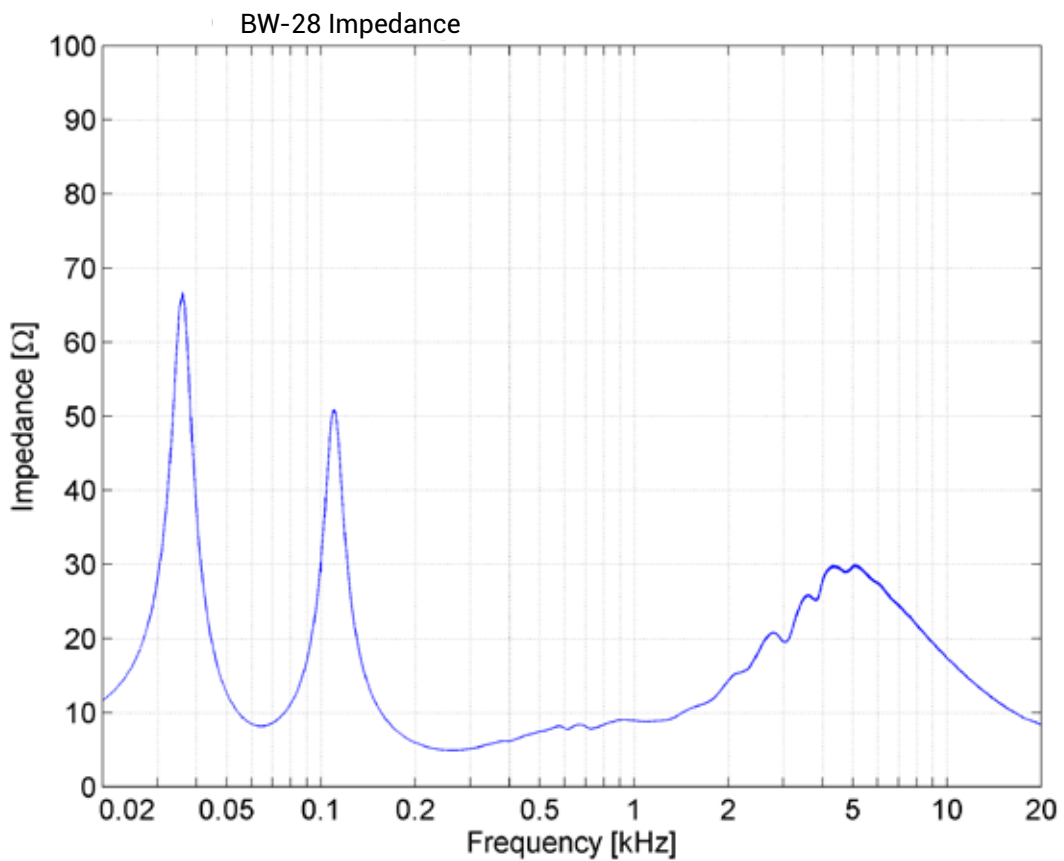
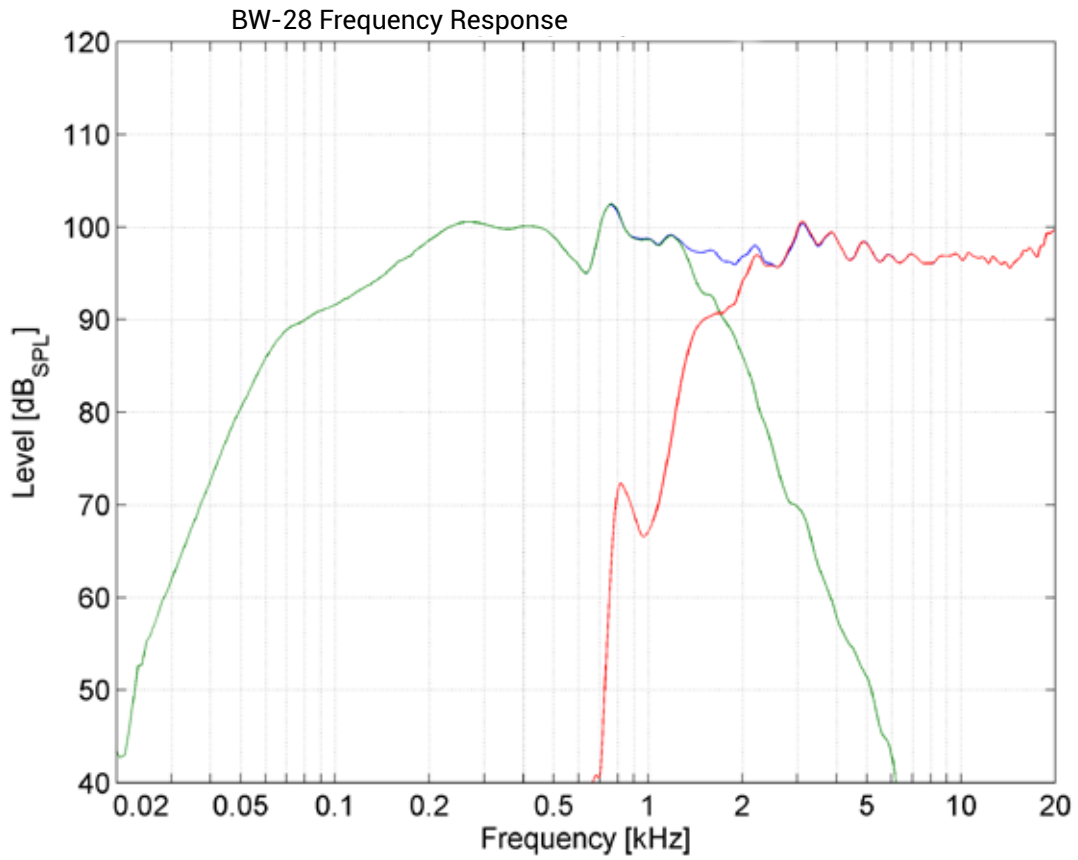
Additional Descriptive Data

Birch plywood construction, with durable
scratch resistant black textured paint finish,
kick-proof steel grill and black foam with
omega logo.

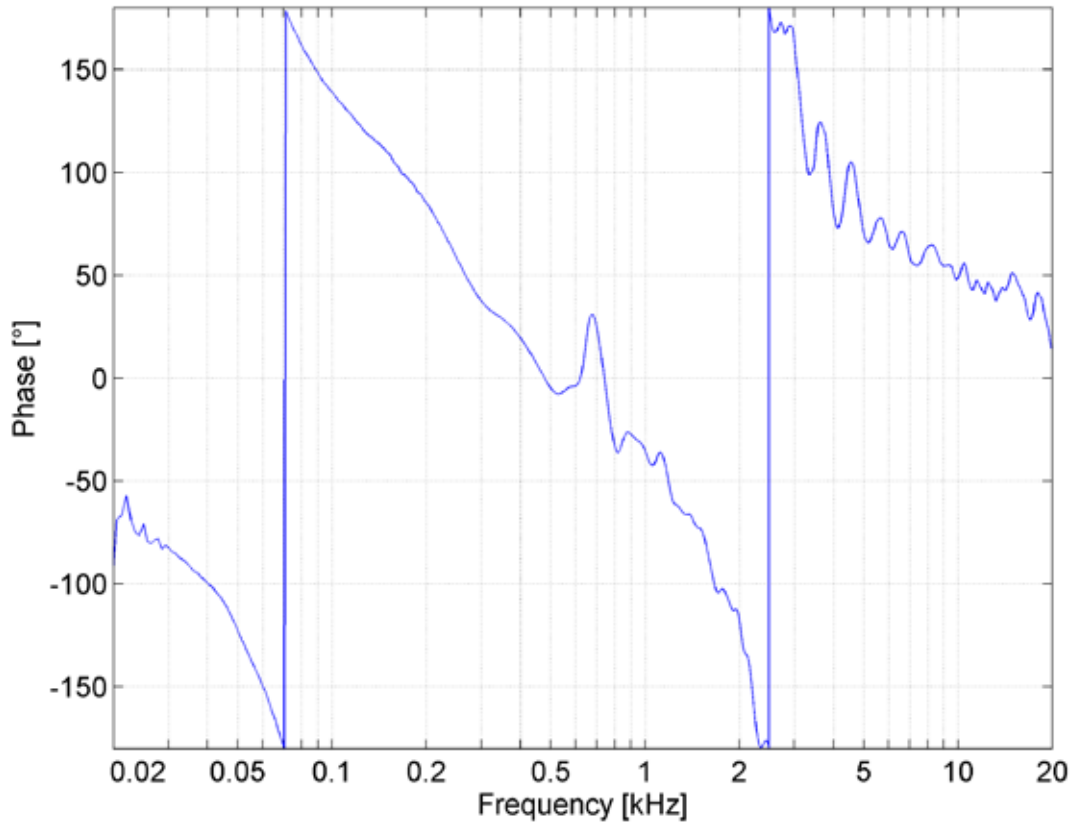
Recommended filter settings are available on
the website ohm.co.uk/downloads

* All presets from the OMEGA library.

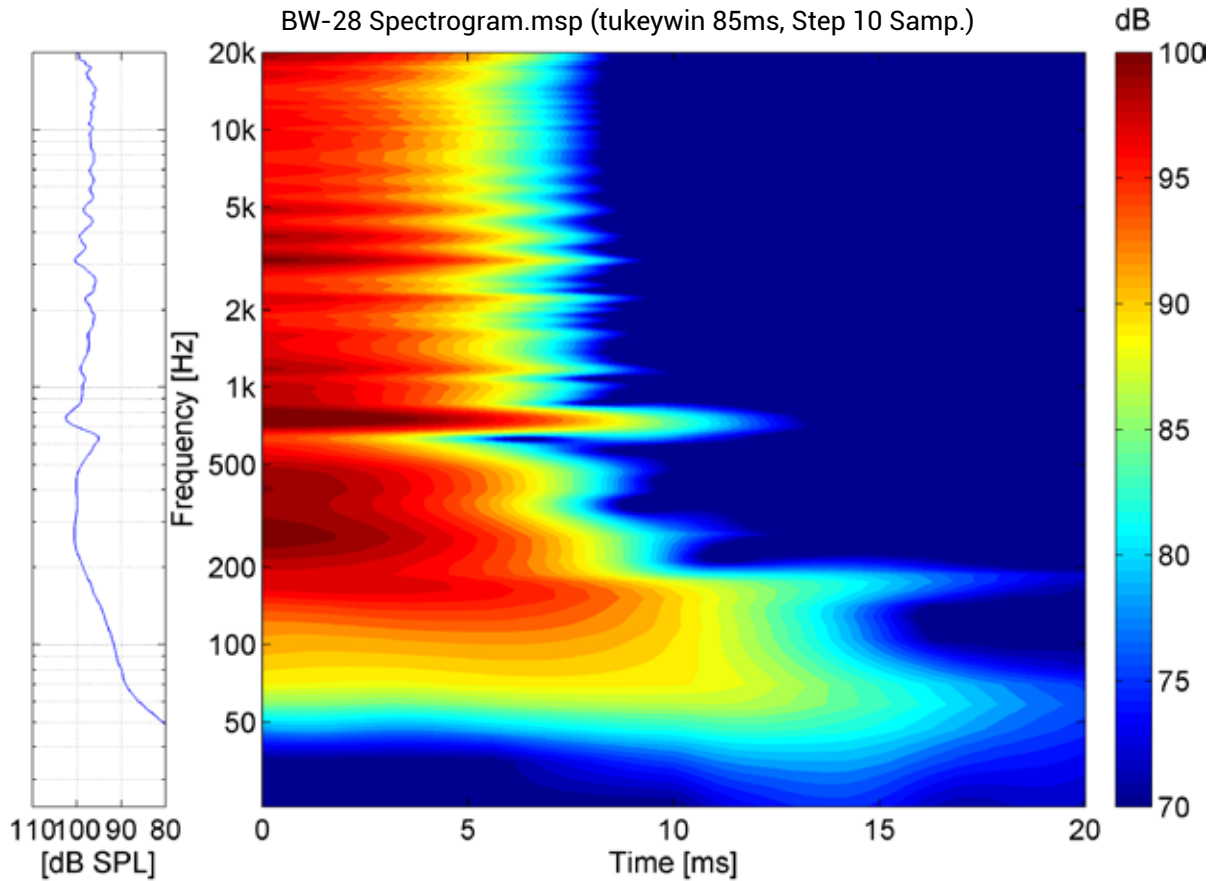
BW-28 Measurements



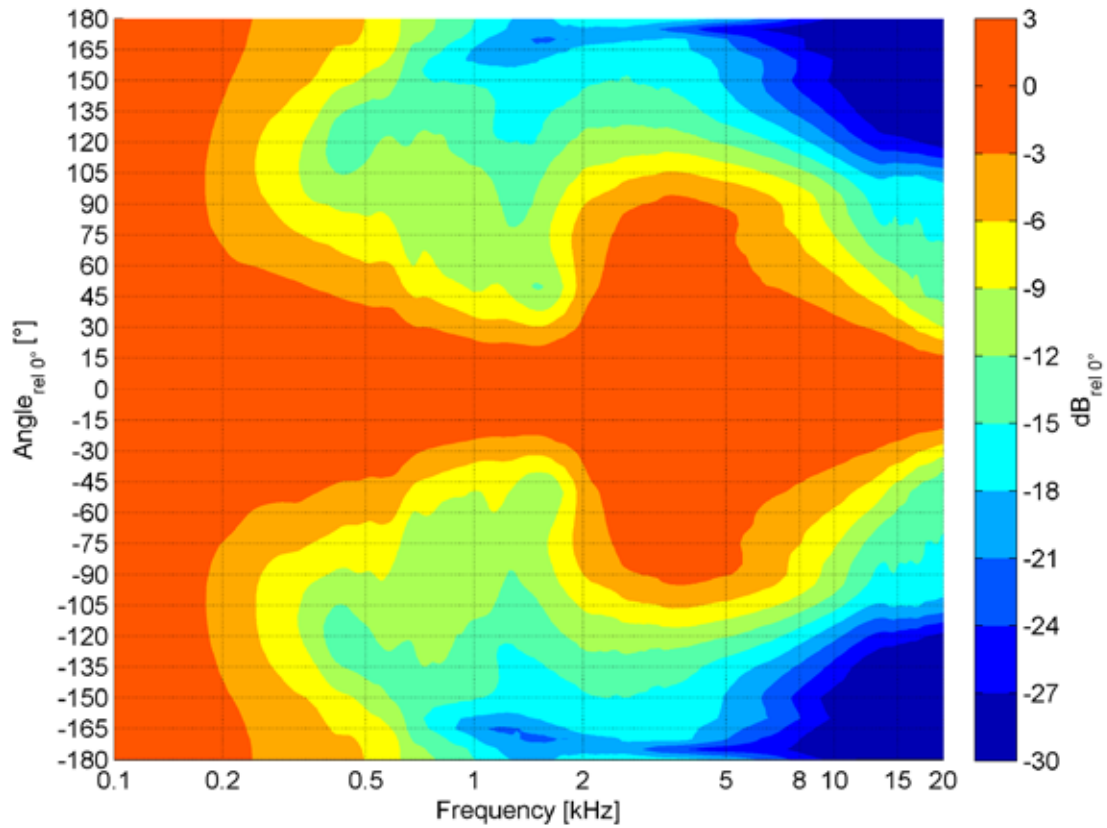
BW-28 Phase response



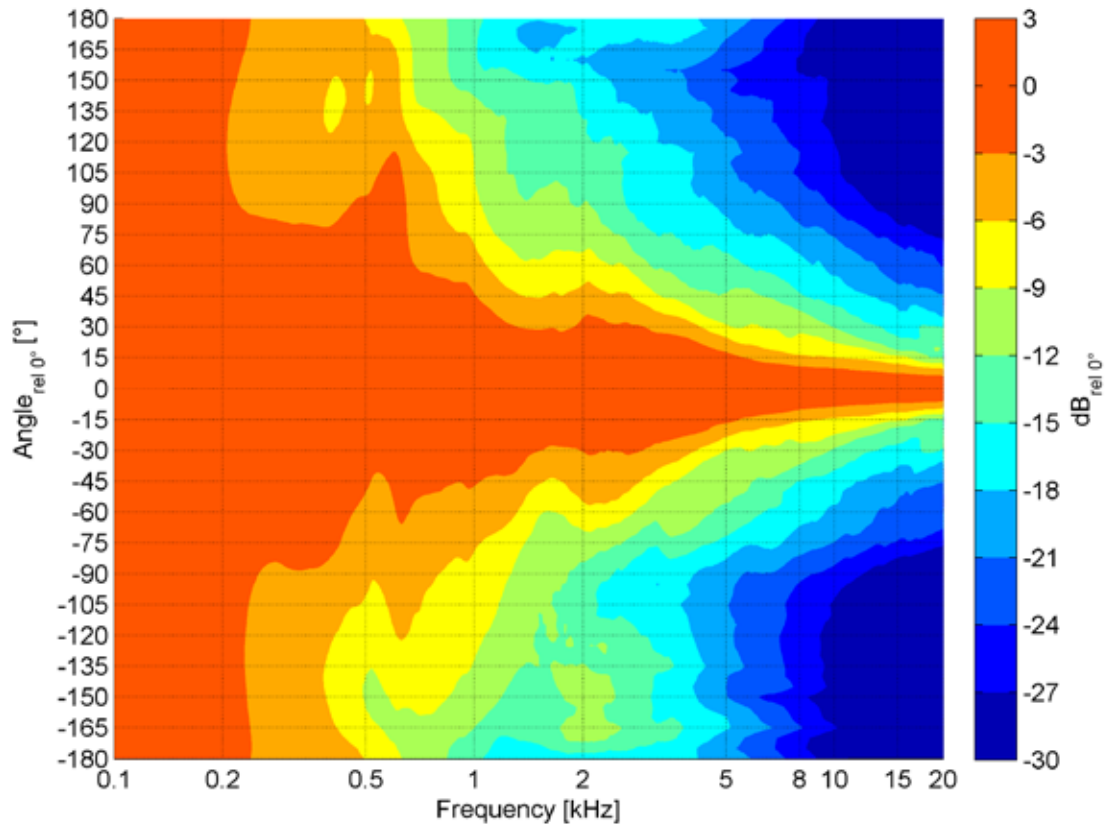
BW-28 Spectrogram.msp (tukeywin 85ms, Step 10 Samp.)



Horizontal isobars: BW-28 Passive



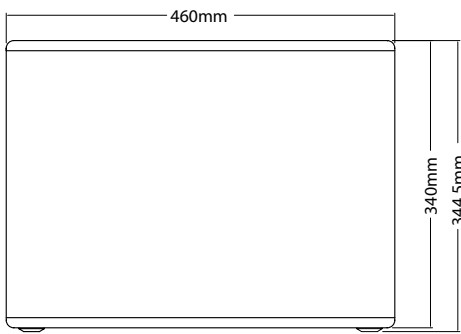
Vertical isobars: BW-28 Passive



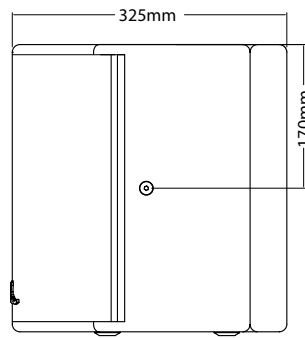
All Measurements are executed by the IFAA Institute for Acoustics in Aachen, Germany
measurement conditions 4PI environment for full range cabinets, 2Pi environment for subwoofers.

BW-28 Dimensions

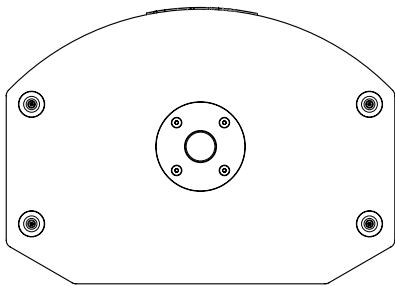
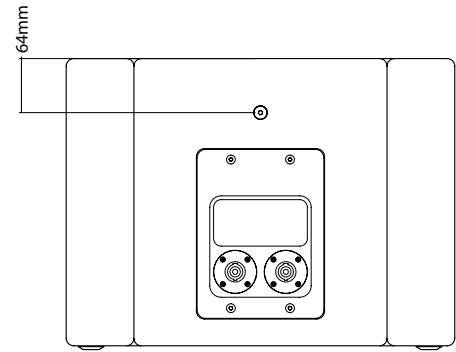
Front



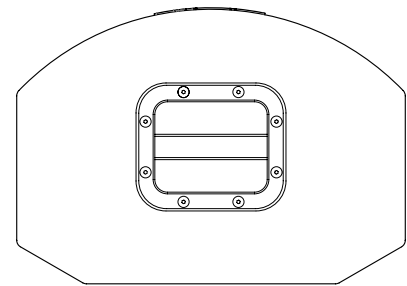
Side



Back



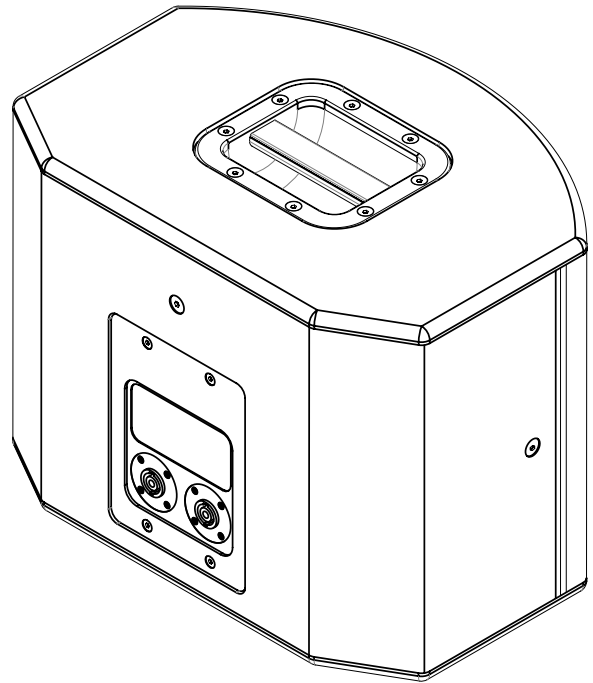
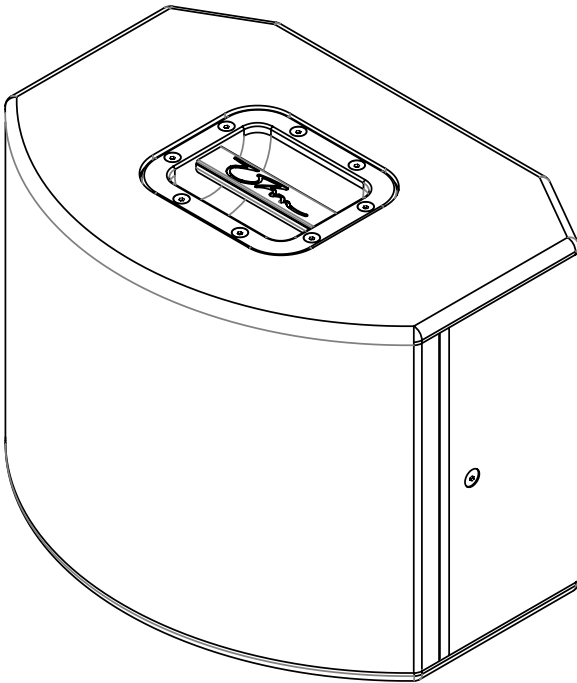
Bottom



Top

Further technical drawings for architectural requirements are available in DXF and DWG format for download on the website.

BW-28 3D View



Accessories and Spare Parts

- Small cast aluminium top hat
- BWC-28 cradle vertical
- LWB-PT large wall bracket pan and tilt with 35mm spigot
- SS-1 speaker stand
- TP-1 adjustable threaded pole
- LWB Large wall bracket
- 2 x 8" low frequency driver
- 1 x 1" diffraction horn
- BW-28 steel grill assembly
- BW-28 backplate and crossover
- Steel Omega Logo

Architects' & Engineers' specifications:

2-Way dynamic full range loudspeaker in a multi purpose enclosure design, housing 2 x 8" proprietary low mid bass driver, internally and externally ventilated double sided high temperature voice coil, 1" exit compression driver on a 160° x 40° diffraction horn. Homogeneous radiating behaviour and linear response from 350 Hz. Integrated passive crossover with phase optimization. Constructed from different multi-laminated wood, eco-friendly scratch resistant paint, 2 x M6 flying points for cradle mount, 1 x M6 Mounting for ohm Proprietary bracket, omni-mounting point for stand or truss adaptor, skid-proof rubber feet, ergonomic carry handle, kick proof steel grill finished with external reticulated foam and Omega logo.

Technical Data:

Frequency Response: 68 Hz - 26 kHz (-10dB), 106 Hz - 25 kHz (± 3 dB), Continuous SPL: 123 dB/1m, Program SPL 126 dB/1m, Peak 129 dB/1 m. Power Handling: 400 Watt cont. IEC268 AES, Maximum Power Handling: 800 Watt prog. / 1600 Watt peak, Impedance Nominal: 8 ohm, Dispersion Nominal: 100° x 40° (hor. x vert.) rotational, Connectors: 2 x Speakon NL4MP (1+/1-, 2+/2- links). Dimensions (H x W x D): 344.5 mm x 460 mm x 325 mm, Weight: 18.6 kg. Options: Durable scratch resistant black textured paint finish. RAL colours available to order.

Safety Instructions

Professional speaker systems are able to produce sound pressure levels that could harm your health.

Never stand directly in front of loudspeakers for long periods. Whilst not immediately apparent to the listener, sound pressure levels in excess of 90dB@1m can be hazardous to the hearing.

Please refer to the following advice when setting up or dismantling OMEGA speaker systems.

1. Be sure to leave adequate distance between speakers and the public. Refer to your local authority for Health and Safety guidance when using loudspeaker systems.
2. Be sure to have safe and stable ground for your speakers, particularly when using speaker stands.
3. When stacking speaker systems, ensure they are secured to prevent individual speakers from falling down or moving around.
4. Only use OMEGA mounting hardware, as this has been specified and approved by KHZ LTD, for use with OMEGA speakers.
5. When flying speakers, appropriate materials and techniques must be employed in order to safely suspend enclosures, taking care to allow for specified enclosure weight.
6. Please observe any special instructions that appear on specific loudspeaker data-sheets.
7. Check your speaker hardware and flying material regularly for any visual or mechanical

Safety Instructions Cont.

failure. Replace damaged or suspect items when necessary.

8. Only use OMEGA DSP Solutions. Only technicians authorised by KHZ LTD are qualified to program digital controllers. Take note of recommended controllers as specified on the datasheets. Do not use OMEGA loudspeaker systems without the correct controller. If a system fails due to incorrect controller use, warranty is void.

9. Protect your speakers and electronics from freezing and do not expose them to humidity, water or rain without protection.

OMEGA loudspeakers and electronics are covered against defects in workmanship or materials for a period of two (2) years from original date of purchase. At the discretion of KHZ LTD, the defective item will be repaired/replaced with no charge for materials or labour. The item is to be adequately packed and dispatched, pre-paid, to an OMEGA authorised distributor/service centre. Unauthorised repair shall void the warranty. The OMEGA warranty does not cover cosmetics or finish and does not apply to any item which in OMEGA's opinion has failed due to user abuse, accident, modifications or any type of misuse.

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