

BRT-12A Datasheet



The BRT-12A is a high performance 1 KW self-powered loudspeaker which is ideally suited to both portable use and fixed installation.

Using two high-power 500 w Class D amplifiers with integrated DSP, these self-powered cabinets have dedicated amplification for each component, removing crossover distortion and increasing audio quality. Full FIR filtering achieves further detail and definition with a factory calibrated, pre-set coupled with RMS and Peak limiters ensure the drivers stay within safe parameters.

Designed with an OHM 12" proprietary woofer and 1.5" compression driver, the internal DSP ensures a linear, usable frequency response of 63 Hz to 20.2 kHz across 60°x 40° dispersion with rotatable horn with a maximum SPL of 134 dB.

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 BR series allowing them to be used simultaneously, keeping a consistent tone.

Mounting options include integrated aluminium top-hat and horizontal cradle fixing points for use with the BRC-12H Horizontal, BRC-12V Vertical Yoke and rear mounted pan and tilt bracket PTL. Other fixings can be used with this cabinet such as the fixed large wall bracket (LWB) and pan and tilt wall bracket (LWB-PT). This product is also Powerdrive compatible with the type 100 plate products.

The rear connection plate has two input and two link XLR connectors and a powerCON® TRUE1 input and link fitted as standard.

Key Features:

- World-wide voltage compatibility
- Full input and output protection modes
- Module power efficiency of 89%
- 32 bit floating-point signal processing
- Analog Devices Sharc processor
- Linear phase FIR filters for predictable system response
- Dual band Look-Ahead Peak Limiter
- Dual band RMS Limiter
- Wide dynamic range 128dB(A) input converter
- Genuine Neutrik® Signal and Power connectors

Technical Specifications

Design

12" Active Full Range with integrated FIR-DSP, Reflex Tuning

Internal Power Amps

500 w + 500 w

Internal DSP

Full FIR-DSP with linear phase X-over and linear phase loudspeaker equalization

Sensitivity Chassis 1w/1m

97 dB LF / 113 dB HF

Max. SPL

125 dB cont. / 134 dB peak (frequency dependent)

Frequency Response (± 3 dB)

72 Hz – 21.7 kHz

Usable Frequency Range (-10 dB)

63 Hz - 20.2 kHz

Dispersion

60° x 40° Rotational

SYSTEM OPERATION

System Controller

Ohm DSP Solutions

Input connection

Sym . XLR input, 2 x 10 K ohm Impedance with parallel link out

Protection

Internal multiband Peak and RMS Limiter, thermal limiter and protection on Amplifier

PRODUCT FEATURES

Components

1 x 12" Low Frequency Driver

1 x 1.5" Horn loaded Compression Driver

Crossover

1.16 kHz FIR Filter

Connectors

1 x XLR female, 1 x XLR male and 1 x powerCON® TRUE1 Connector

Dimensions (H x W x D mm)

642.5 x 400 x 350

Weight (kg)

27.3

Shipping Weight (kg)

29.2 (1 cabinet per carton)

Colour

Black

Options

Available in white or RAL colours on request

Rigging

4 x mounting for Powerdrive Bracket. 6 x mounting points for installation brackets, omni-mounting point for stand or truss adaptor, (optional 2 x 3 point adaptor for Horizontal Mounting)

HARDWARE

Fitted as Standard

Standard cast aluminium top hat, Blanking plate

Optional

Horizontal cradle base, BRC-12 cradle vertical, BRC-12 cradle horizontal, LWB-PT large wall bracket pan and tilt with 35mm spigot, PTL large wall bracket pan and tilt, LWB large wall bracket, SS-1 speaker stand, TP-1 adjustable threaded pole.

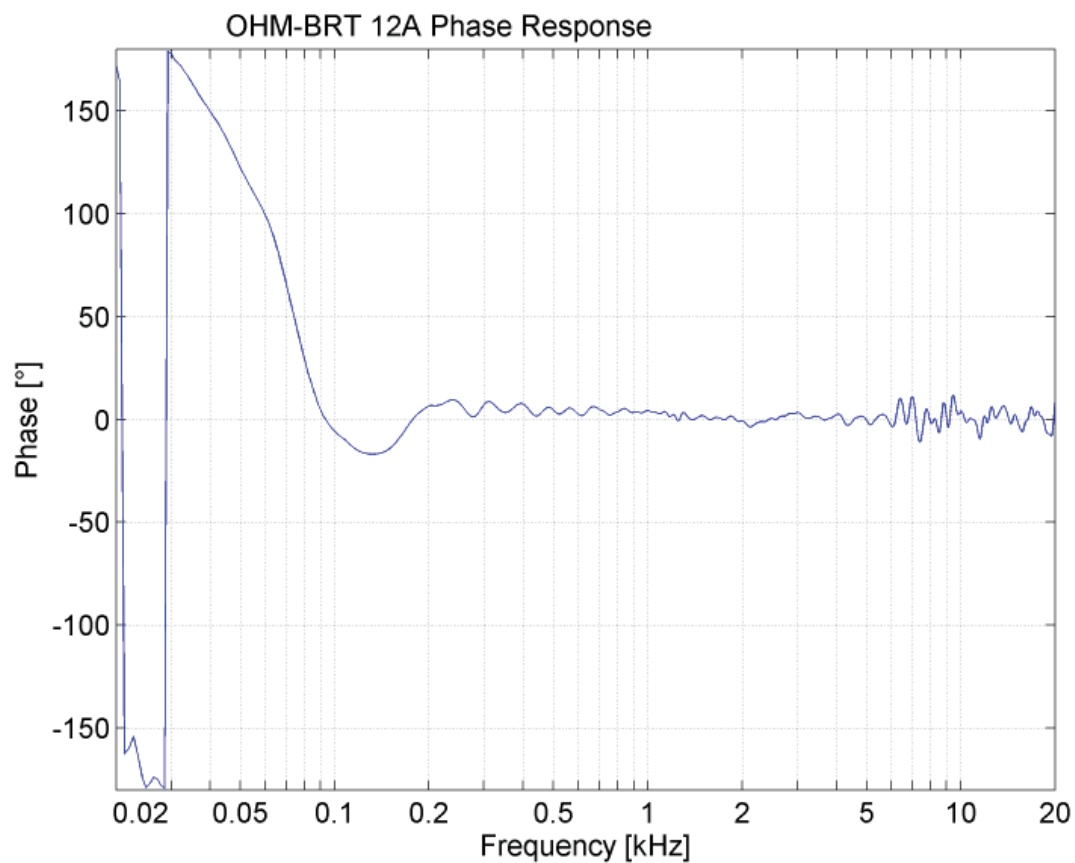
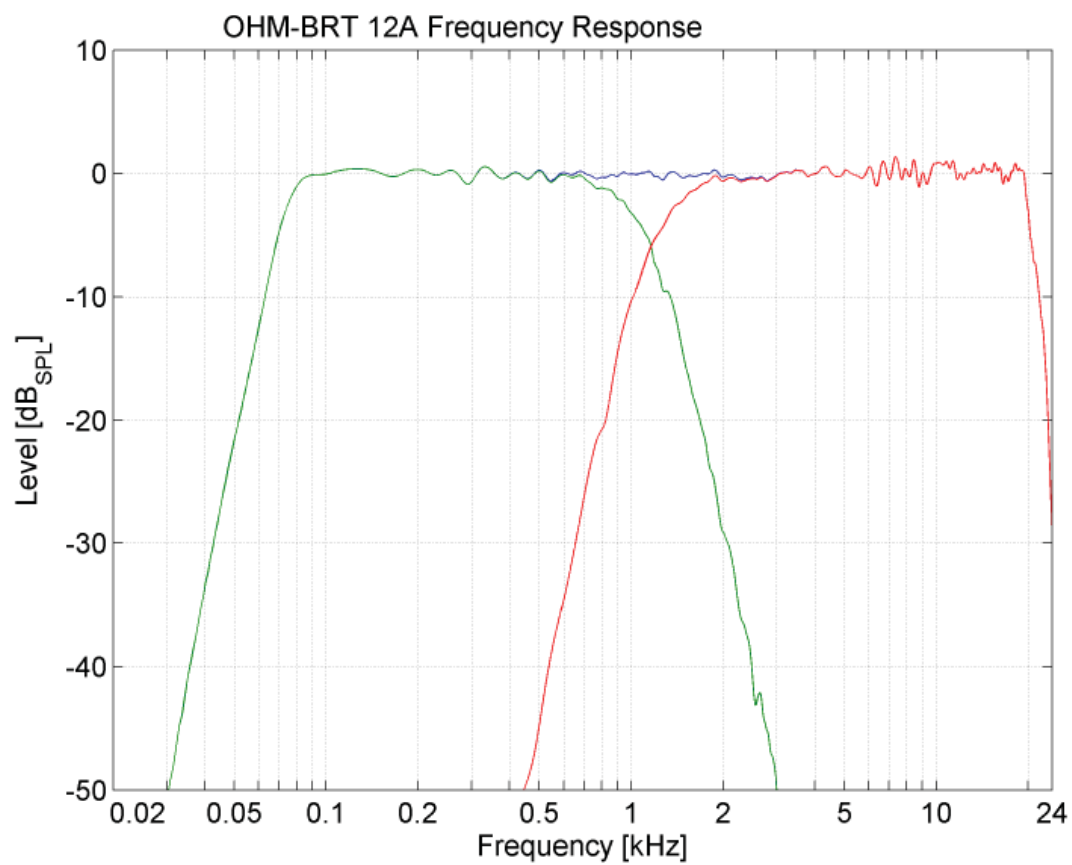
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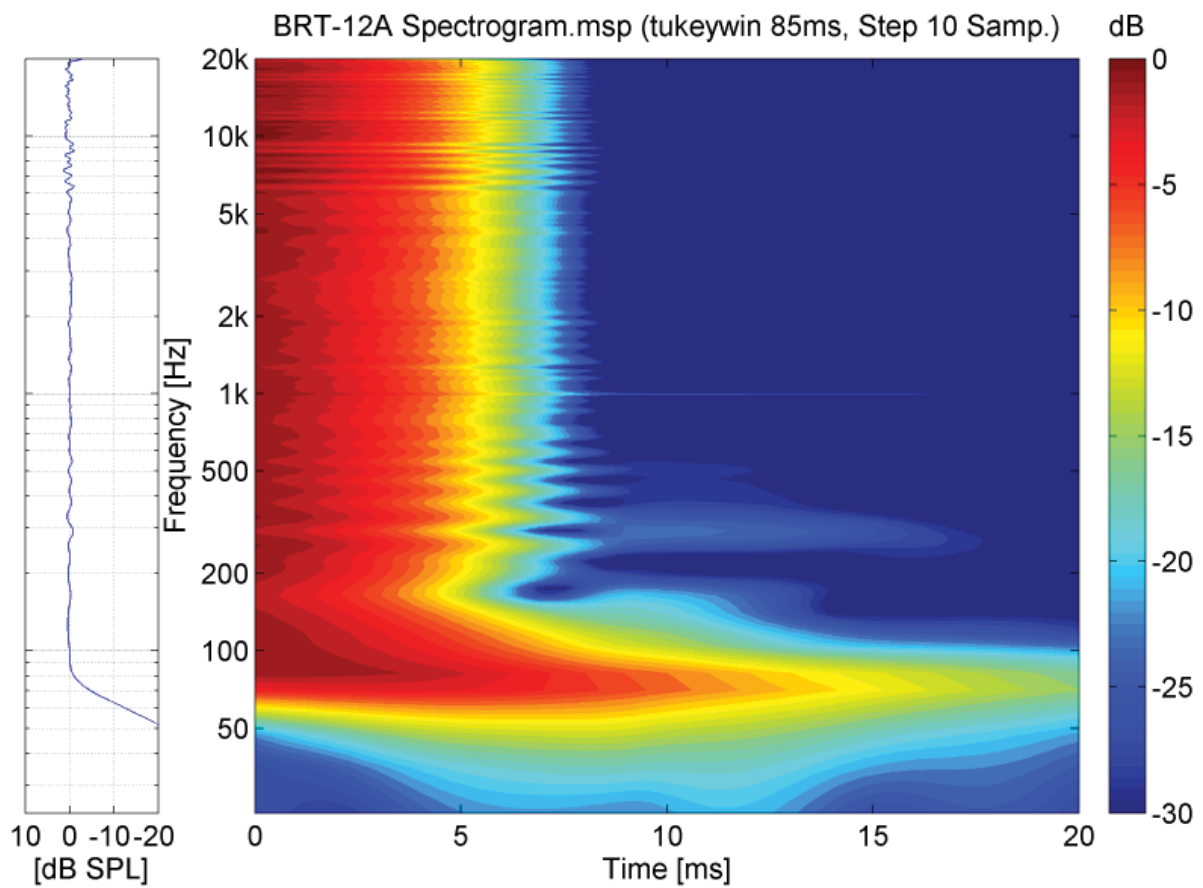
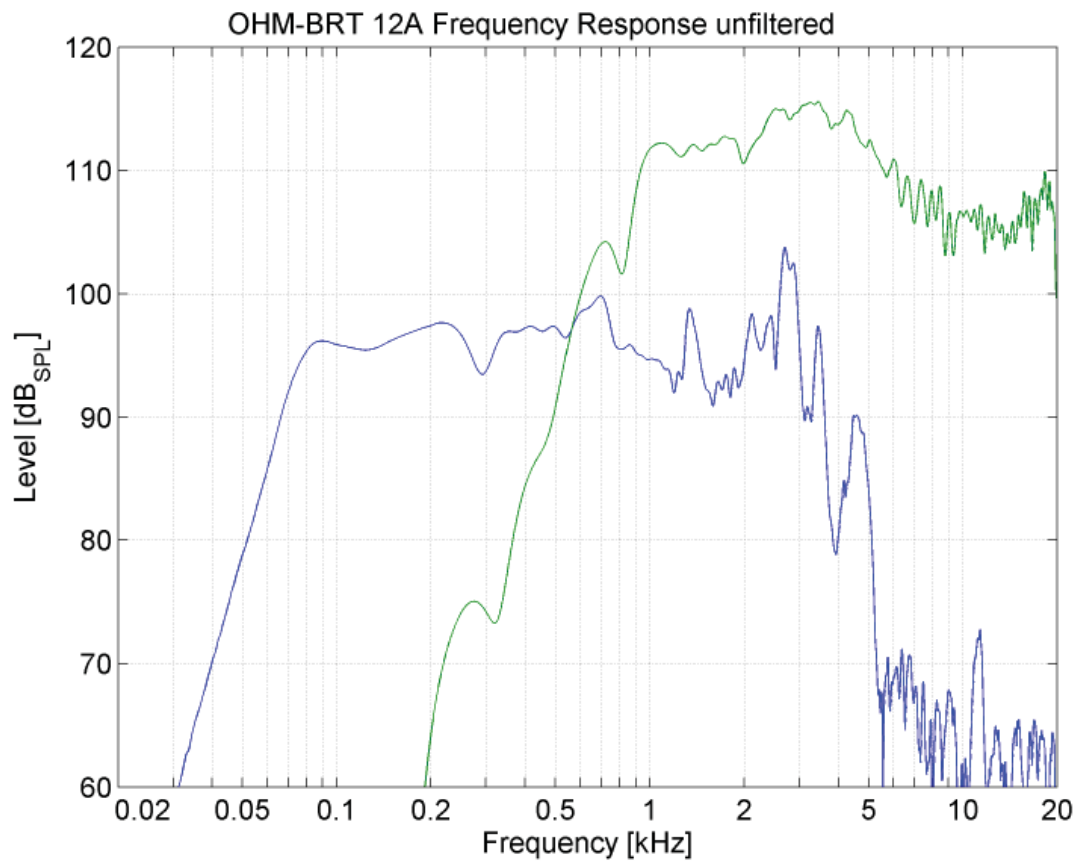
Birch plywood construction, with durable scratch resistant black textured paint finish, kick-proof steel grill and black foam with Ohm logo.

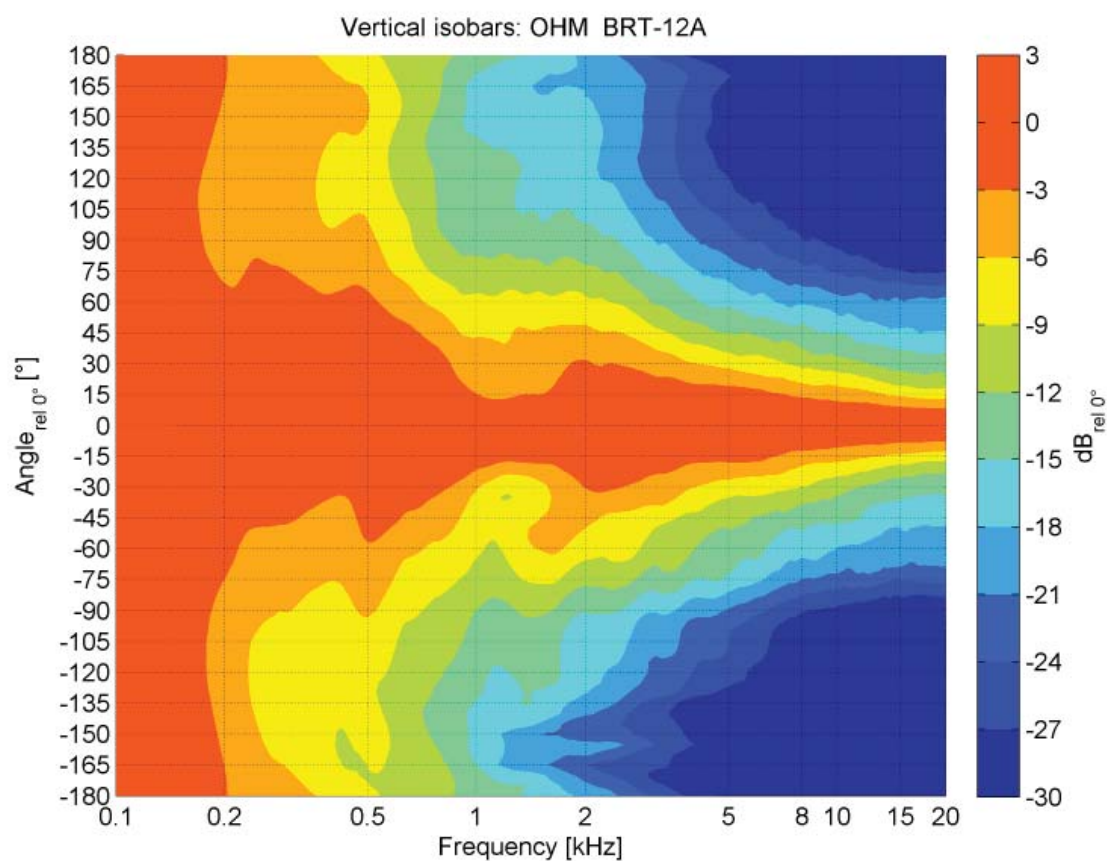
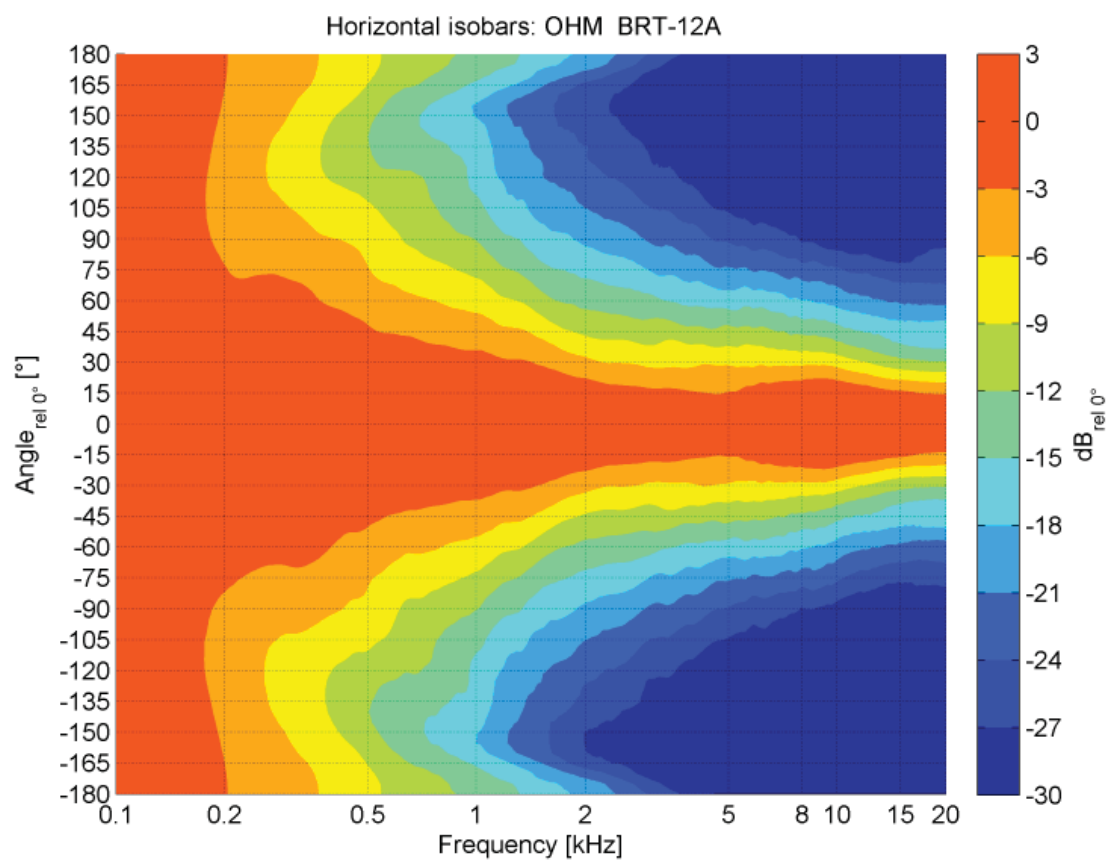
Recommended filter settings are available on the website ohm.co.uk/download

* All presets from the OHM library.

BRT-12A Measurements

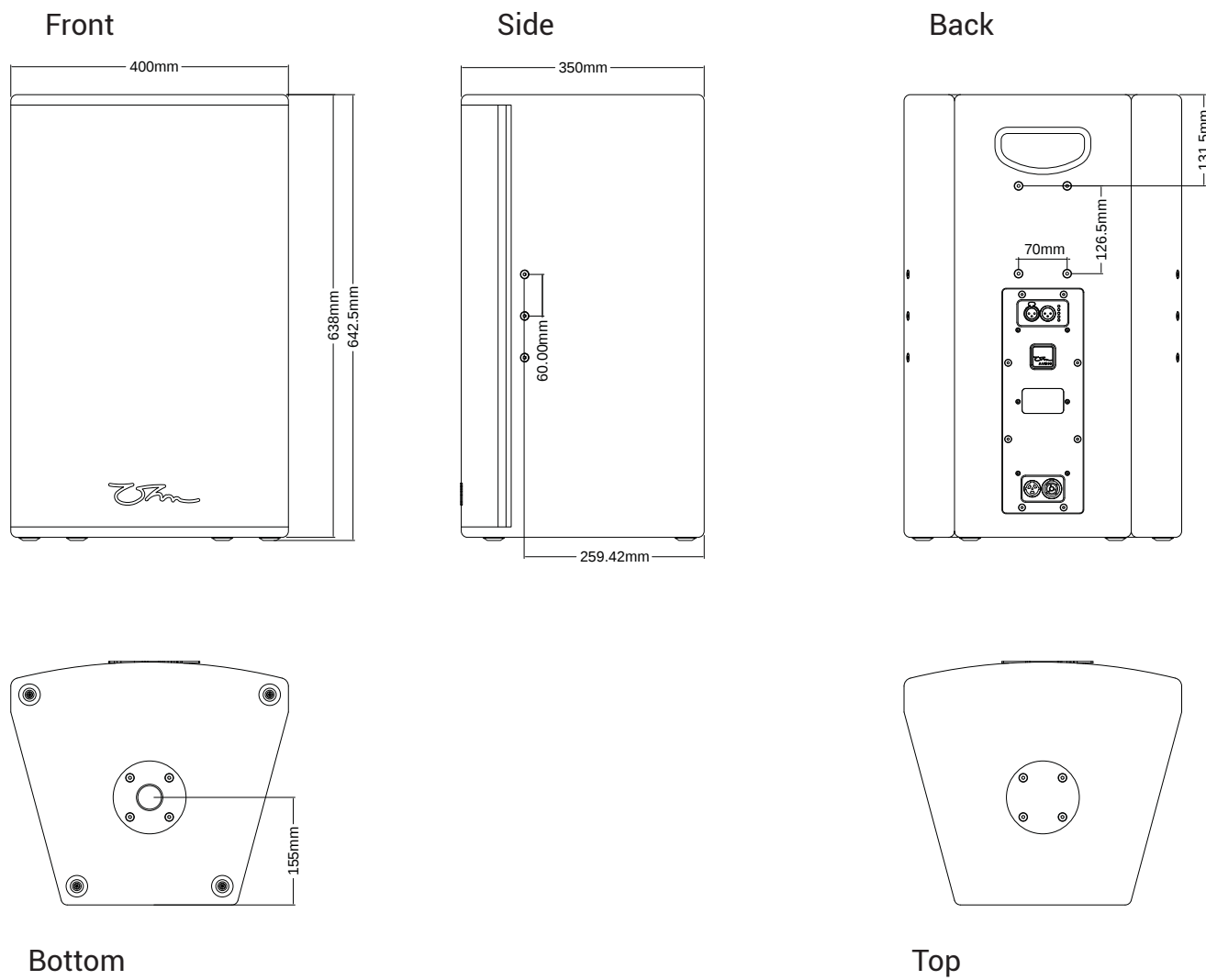






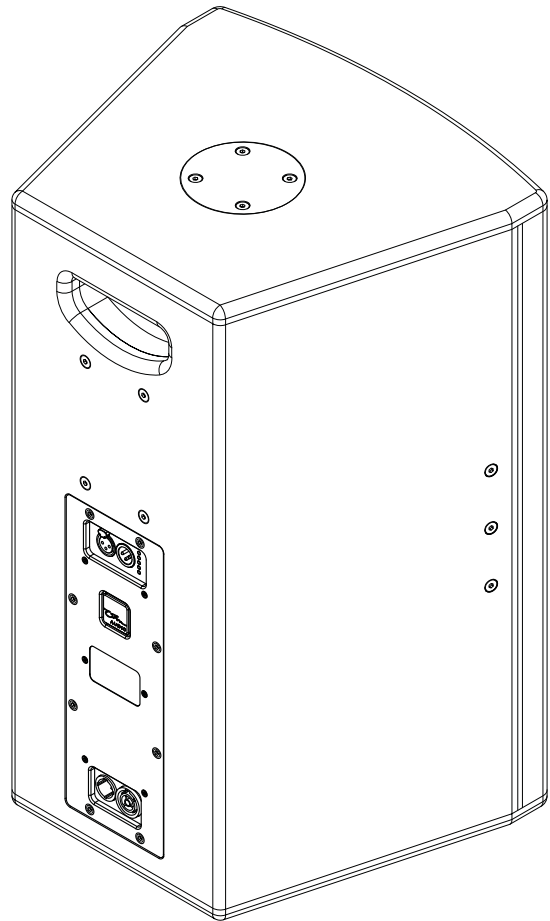
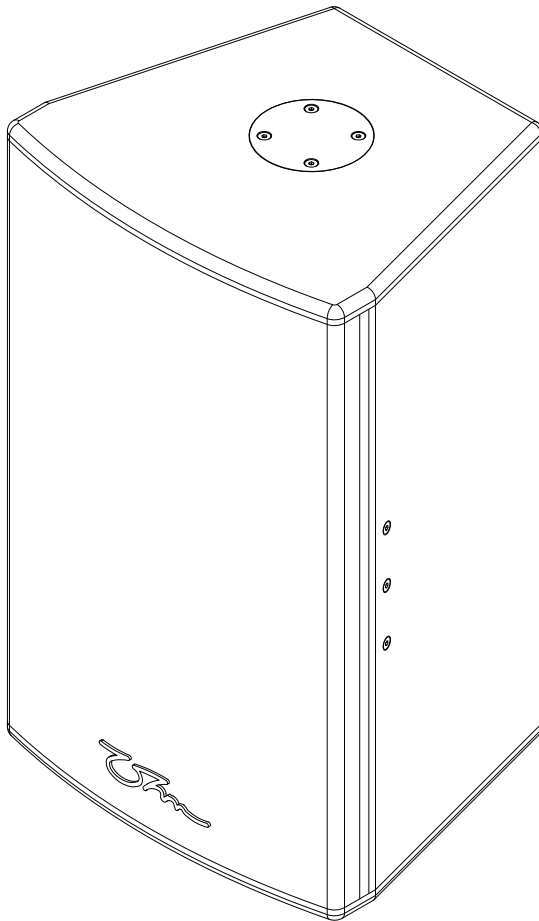
All Measurements are executed by the IFAA Institute for Acoustics in Aachen, Germany
measurement conditions 4Pi environment for full range cabinets, 2Pi environment for subwoofers.

BRT-12A Dimensions



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

BRT-12A 3D View



Accessories and Spare Parts

- Standard cast aluminium top hat
- Blanking plate
- Horizontal cradle base
- BRC-12 cradle vertical
- BRC-12 cradle horizontal
- LWB-PT large wall bracket pan and tilt with 35mm spigot
- PTL large wall bracket pan and tilt
- LWB large wall bracket
- SS-1 speaker stand
- TP-1 adjustable threaded pole
- 1 x 12" low frequency driver
- 1 x 1.5" horn loaded compression driver
- BRT-12 steel grill assembly
- BRT-12A Amplifier
- Steel OHM Logo

Architects' & Engineers' specifications:

2-Way dynamic loudspeaker in a multi-purpose enclosure design, housing 1 x 12" proprietary OHM low mid bass driver, internally and externally ventilated double sided high temperature voice coil, 1.5" compression exit driver on 60° x 40° CD horn. Homogeneous radiating behaviour and linear response from 500 Hz. Integrated active amplifier. Constructed from different multi-laminated wood, eco friendly scratch resistant paint, 6 x flying points for cradle mount, 4 x Mounting for Powerdrive Bracket, omni-mounting point for stand or truss adaptor, optional horizontal cradle base plates to allow horizontal installation. skid-proof rubber feet, ergonomic carry handle, kick proof steel grill finished with external reticulated foam and Ohm logo.

Technical Data:

Frequency Response: 63 Hz - 20.2 kHz (-10dB), 72 Hz - 21.7 kHz (± 3 dB), Continuous SPL: 125 dB/1m, Peak SPL 134 dB/1 m, Maximum Output: 500 Watt RMS LF + 500 Watt HF, Dispersion Nominal: 60° x 40° (hor. x vert.), Connectors: 1 x XLR female, 1 x XLR male and 1 x powerCON® TRUE1 Connector. Dimensions (H x W x D): 642.5 mm x 400 mm x 350 mm Weight: 27.3 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 OHM 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 OHM mounting hardware, as this has been specified and approved by AURAL LTD, OHM (UK) LTD for use with OHM 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 failure. Replace damaged or suspect items when necessary.

Safety Instructions Cont.

8. Only use OHM DSP Solutions. Only technicians authorised by AURAL LTD, OHM (UK) LTD are qualified to program digital controllers. Take note of recommended controllers as specified on the datasheets. Do not use OHM 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.

OHM 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 AURAL LTD, OHM (UK) 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 OHM authorised distributor/service centre. Unauthorised repair shall void the warranty. The OHM warranty does not cover cosmetics or finish and does not apply to any item which in OHM's opinion has failed due to user abuse, accident, modifications or any type of misuse.

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