datasheet

IMPACT 50

IMPACT SERIES ENGINEERING INFORMATION

The Impact series of full range, passive loudspeakers has been designed to be used in a variety of installed sound system applications ranging from discotheques, clubs and wine bars to theatres, themed environments and places of worship. In addition, thanks for its elegant styling and practical durability, Impact is ideal for many mobile sound system applications.

The Impact 50 is an ultra-compact 2-way passive enclosure featuring a custom reflex-loaded 5" LF driver and a 0.5" liquid-cooled HF tweeter, matched with an internal fourth order passive crossover network, for use in background music applications from bars and restaurants to retail shopping malls. It provides high quality sound reproduction from a compact and attractively styled injection-moulded enclosure.

The Impact 50 can also be used with the Impact 110.2 compact sub-bass enclosure to extend low frequency response in certain applications requiring wide bandwidth response. The Impact 110.2 provides left and right stereo inputs and outputs in a single sub-bass unit by utilising a dual-coil low frequency driver. An internal passive crossover network routes mid and high frequencies to the Impact 50 satellite loudspeakers. Connection to the Impact 50 is via spring-loaded push terminals for simple and reliable hook-up.

The Impact 50 is also optionally available with a high quality internal line input transformer (Impact 50T) with multiple power taps, allowing the unit to be used in 70 volt line and 100 volt line multiple-speaker distributed sound systems.

A universal mounting bracket is supplied to enable the Impact 50 loudspeaker to be fixed to walls and ceilings. In addition, a range of cost effective hardware is available to enable the Impact 50 to be installed in a variety of permanently installed sound reinforcement system applications.

Recommended complementary products:

Impact 110.2 sub-bass enclosure

FEATURES

Attractive injection moulded enclosure

100 watt power rating

Full range response

Range of colours

APPLICATIONS

Theatre and nightclubs

Themed environments

Retail shops

Restaurants and cafés

Turbosound

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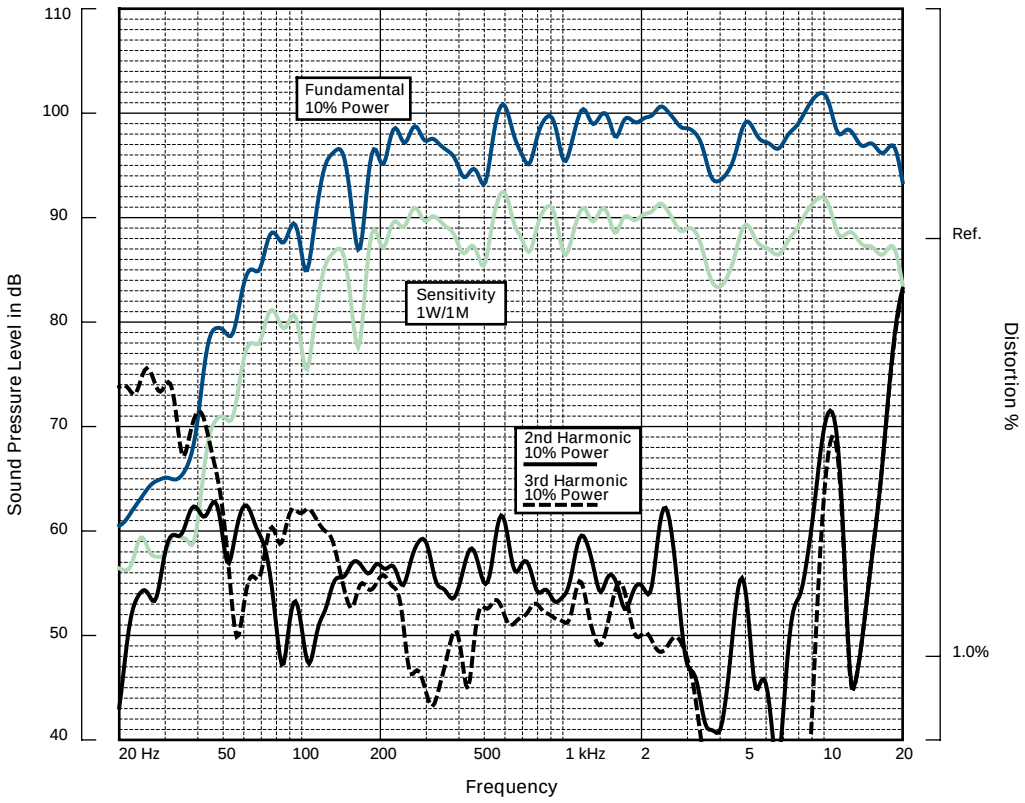
IMPACT 50

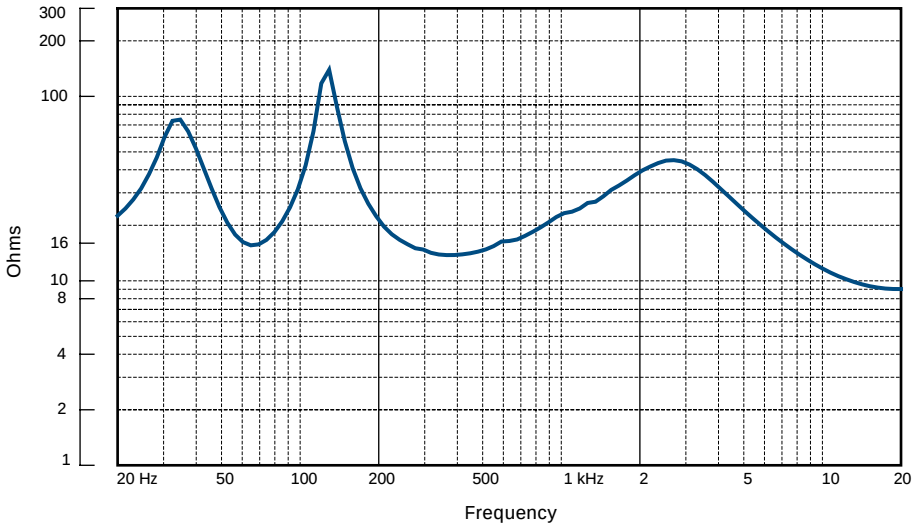
IMPACT SERIES ENGINEERING INFORMATION

DIMENSIONS (HxWxD)	288mm x 167mm x 148mm (11.3” x 6.6” x 5.8”)
NET WEIGHT	2.2kg (4.8lbs)
COMPONENTS	1 x 5” (127mm) LF driver, 1 x 0.5” (14mm) liquid-cooled HF tweeter
FREQUENCY RESPONSE	80Hz to 20kHz @±4dB
POWER HANDLING	100 watts r.m.s., 200 watts program, 250 watts peak
SENSITIVITY	88dB SPL, 1 watt @ 1metre
MAXIMUM SPL	111dB continuous, 117dB peak
NOMINAL IMPEDANCE	16 ohms
CROSSOVER	Built in passive crossover network at 4kHz
CONSTRUCTION	Injection moulded enclosure finished in TurboBlue™
GRILLE	Black powder-coated perforated steel grille
CONNECTORS	Spring-loaded push terminals
OPTIONS	Optional colours available: White, Mid Grey, Black Internal 70/100 volt line transformer (Impact 50T), magnetically shielded (Impact 50S)
SPARES AND ACCESSORIES	WB-50 Universal wall and ceiling bracket (supplied) LS-50 LF driver for Impact 50 RC-50 Recone kit for LS-50 TW-50 HF tweeter for Impact 50 RD-50 Replacement diaphragm for TW-50 PX-50 Passive crossover for Impact 50 MG-50 Metal grille for Impact 50 TX-50 70 volt line transformer SM-50 Single point mount SB-50 Horizontal swivel bracket

FREQUENCY RESPONSE



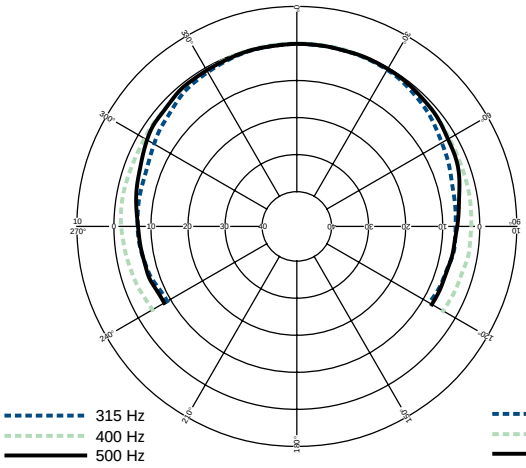
IMPEDANCE

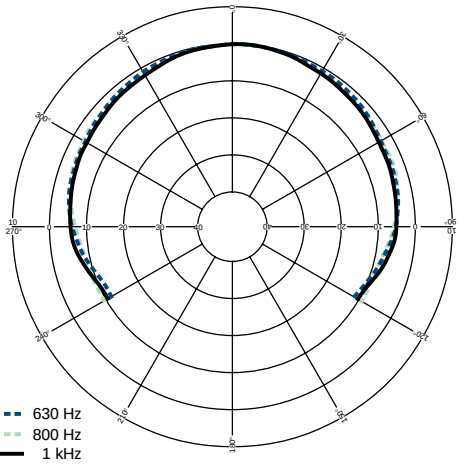


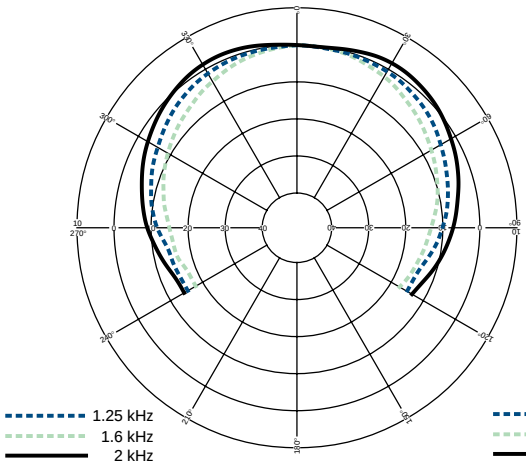
NOTES ON MEASUREMENT CONDITIONS

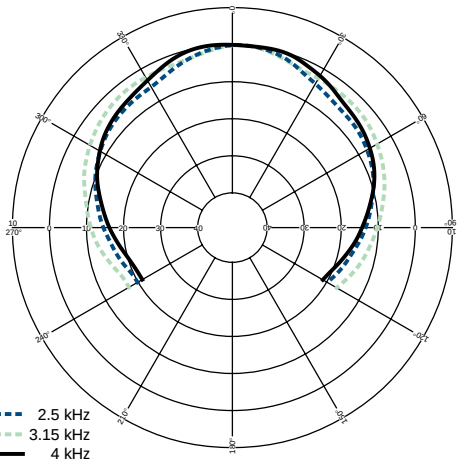
Impedance A constant current circuit was used to measure the impedance. **Frequency response** The frequency response shown was obtained by feeding a swept sine wave through the system in a half space environment. The position of the microphone was vertically on-axis at a distance of 2 metres, then scaled to represent 1 metre. **2nd & 3rd Harmonic Distortion** Distortion measurements were obtained using an Audio Precision harmonic distortion analysis system and comply with AES recommendations for enclosure measurement (AES paper ANSI S4-26-1984). **Data Conversion** All graphs were digitally generated using the APEX custom software system, designed to translate data derived from Audio Precision 'System One' test equipment into AutoCAD™. This program enables graphical information to be plotted to a high degree of accuracy.

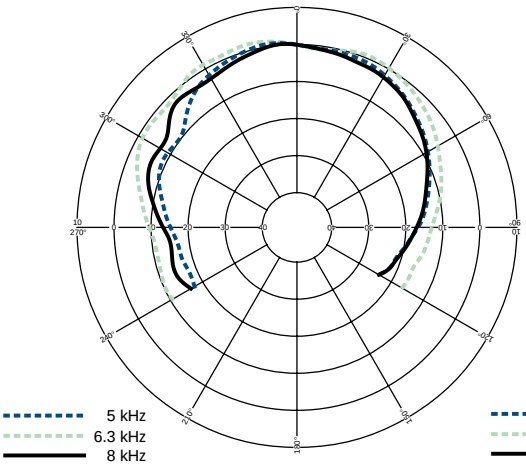
HORIZONTAL THIRD OCTAVE POLARS

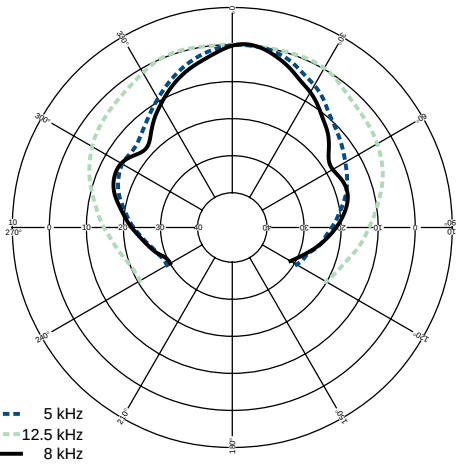




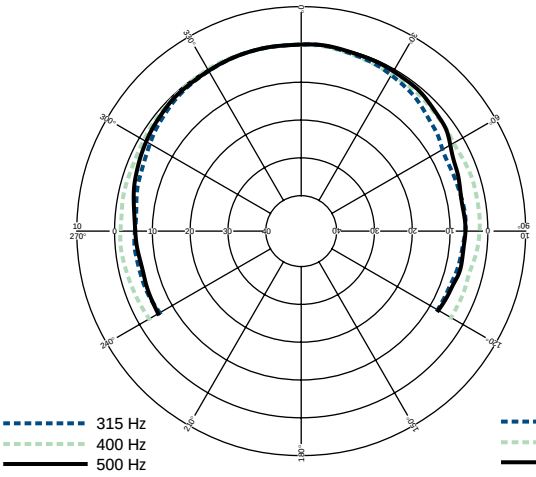


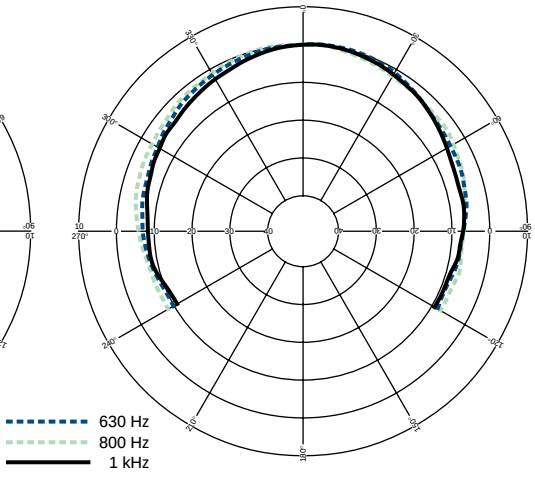


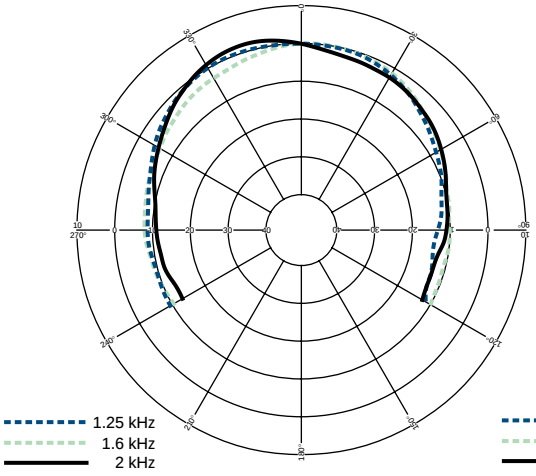


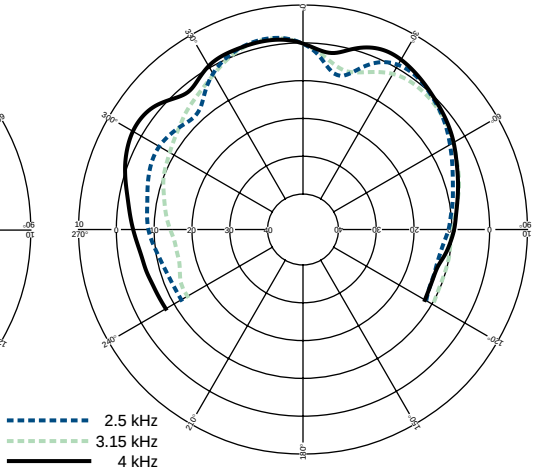


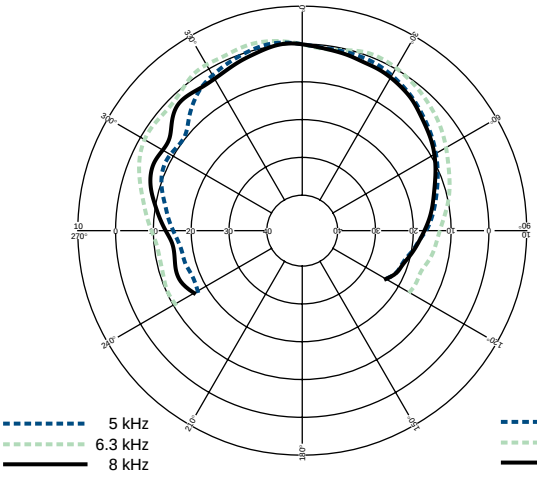
VERTICAL THIRD OCTAVE POLARS

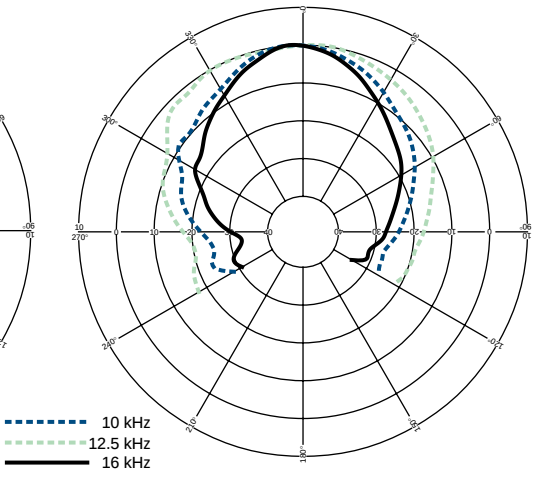




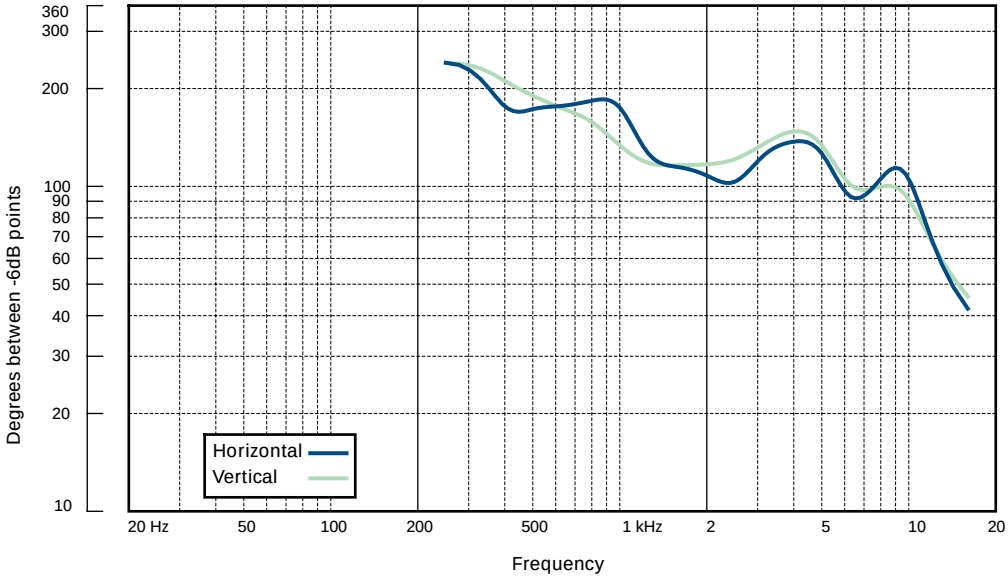






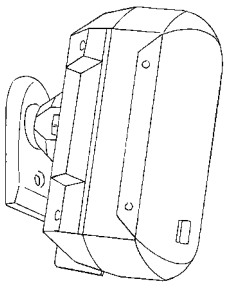


BEAMWIDTH


360
300
200
100
90
80
70
60
50
40
30
20
10
Degrees between -6dB points
Horizontal
Vertical
20 Hz
50
100
200
500
1 kHz
2
5
10
20
Frequency

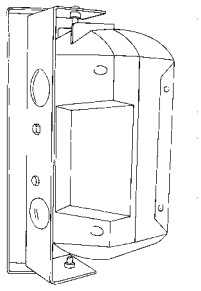
INSTALLATION HARDWARE

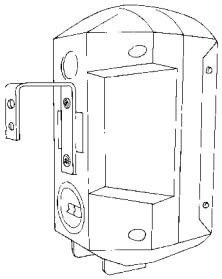
The Impact 50 is fitted with two integral M6 fittings on the rear of the cabinet which enable it to be permanently installed using the supplied WB-50 wall bracket, giving variable horizontal and vertical adjustment. The optional SB-50 swivel bracket can be attached via the same M6 fittings, and allows nearly 180° of horizontal rotation. The optional SM-50 single point mount enables the Impact 50 to be attached securely to a scaffold bar or truss, and also adapts for use with a microphone stand.



WB-50

SB-50





SM-50

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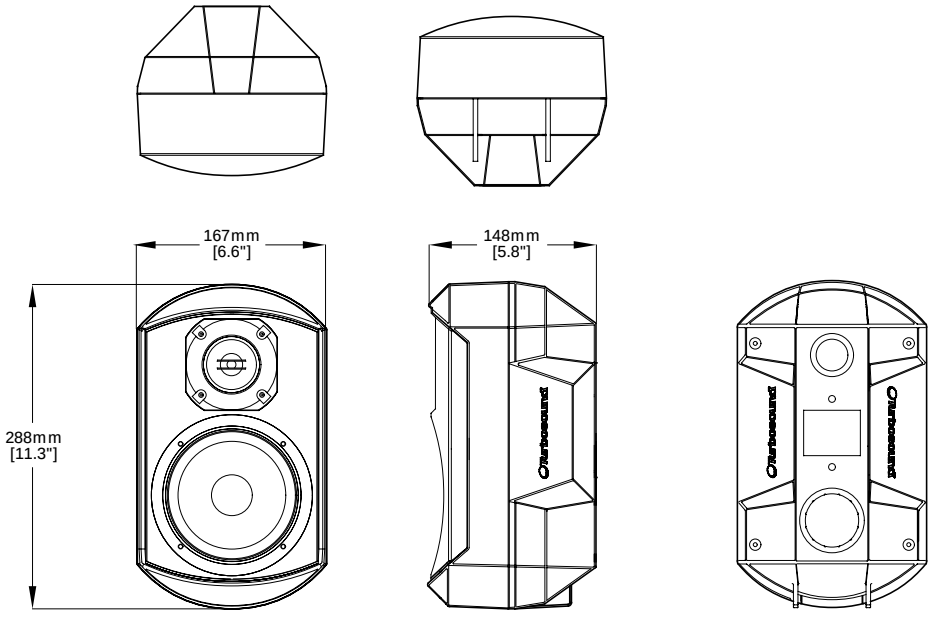
IMPACT 50

IMPACT SERIES ENGINEERING INFORMATION

ARCHITECTURAL & ENGINEER'S SPECIFICATIONS

The system shall be of the two-way passive type consisting of one 5" (127mm) low frequency loudspeaker and one 0.5" (14mm) high frequency tweeter. Performance specifications of a typical production unit shall meet or exceed the following: Frequency response, measured with swept sine wave input, shall be flat within ±4dB from 80Hz - 20kHz. Nominal impedance shall be 16 ohms. Power handling shall be 100 watts r.m.s., 200 watts program, 250 watts peak. Sensitivity, measured with 1 watt input at 1 metre distance on axis, mean averaged over stated bandwidth shall be 88dB. Maximum SPL (peak) measured with music program input at stated amplifier power shall be 117dB. Dimensions: 288mm x 167mm x 148mm (11.3" x 6.6" x 5.8"). Net weight: 2.2kg (4.8lbs). The loudspeaker system shall be the Turbosound Impact 50. No other loudspeaker shall be acceptable unless submitted data from an independent test laboratory verify that the above combined performance / size specifications are equalled or exceeded.

DIMENSIONS



TURBOSOUND Ltd Star Road Partridge Green West Sussex RH13 8RY England
tel: +44 (0) 1403 711447 fax: +44 (0) 1403 710155 • www.turbosound.com • e-mail: sales@turbosound.com