datasheet

IMPACT 121

IMPACT SERIES ENGINEERING INFORMATION

The IMPACT series of 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 to its elegant styling and practical durability, IMPACT is ideal for many mobile sound reinforcement system applications.

The Impact 121 is a passive full range 2-way loudspeaker comprising a 12" reflex loaded low frequency driver and a 1" high frequency compression driver on a custom horn flare, matched with a second order passive crossover network.

It is designed for live sound applications that need a bright HF response, particularly in pubs and clubs where good vocal projection is required.

The Impact 121 has a wide (70° x 40°) horizontal coverage pattern, making it ideal for many types of small venue, while at the same time restricting the vertical coverage to minimise unwanted reflections from ceilings and floors.

The Impact 121 enclosure is manufactured using a unique 'foam-in-place' rotational moulding technique, giving an attractive and extremely durable finish. As a result the enclosure is light yet very strong, while the process gives the additional benefit of eliminating undesirable internal resonances in the cabinet walls. The moulded enclosure also provides integral features including a comfortable carrying handle, recessed connector panel, standard 35mm pole mount socket and hardware fixing panel. Two Neutrik Speakon NL4MP provide input and parallel speaker connections.

A range of cost-effective wall and ceiling mounting hardware is optionally available for all IMPACT series loudspeakers.

FEATURES

Full range system response

1" HF compression driver

Rotationally moulded enclosure

APPLICATIONS

Live sound reinforcement

Audio visual

Discotheques and clubs

Turbosound

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DIMENSIONS (HxWxD)	700mm x 410mm x 356mm (27.5" x 16.1" x 14")
WEIGHT	17kg (37.4lbs)
COMPONENTS	1 x 12" (305mm) LF driver, 1 x 1" (25mm) HF compression driver
FREQUENCY RESPONSE[1]	60Hz to 20kHz @±4dB
NOMINAL DISPERSION	70°H x 40°V @-6dB points
POWER HANDLING	200 watts r.m.s., 400 watts program, 500 watts peak
SENSITIVITY[2]	97dB, 1W @ 1metre
MAXIMUM SPL	123dB continuous[3], 129dB peak4
CROSSOVER	Internal passive hi-pass crossover network at 3k6Hz, second order passive crossover utilising polypropylene capacitors and air cored inductors
NOMINAL IMPEDANCE	8 ohms
CONSTRUCTION	Foam-in-place rotationally moulded enclosure, finished in TurboBlue5 Integral pole mount socket and carrying handle
GRILLE	Black powder-coated perforated steel grille
CONNECTORS	(2) Speakon NL4MP connectors, wired pin 1+ positive pin 1- negative

OPTIONS

Optional colours available to order:

Postbox red (346)	Turquoise (55455)	Charcoal grey
Mid grey (88273)	White	Lime green (269)
Crimson red (079)	Avocado green (383)	Racing green (384)
Orange (365A)	Sky blue (018)D	Yellow (320)

SPARES AND ACCESSORIES

07B500	WB-100	Adjustable telescopic wall bracket
07B502	SM-100	Single point mount
07B506	CB-100	Adjustable telescopic ceiling bracket
07B504	SX-100	Single point mount extension bracket
07B508	PA-100	Pole mount assembly
04B058	LS-1210	LF driver for IMPACT 121
05B058	RC-1210	Recone kit for LS-1210
04A234	CD-106	HF driver for IMPACT 121
05B234	RD-106	Replacement diaphragm
10G790	PX-121	Passive crossover for IMPACT 121
07A942	MG-IMP120	Metal grille for IMPACT 120 and IMPACT 121

All measurements are actual figures taken from real-time testing using stated inputs, free from any filtering or weighting. Therefore actual figures may significantly exceed that of other manufacturers with higher published weighted ratings.

Notes

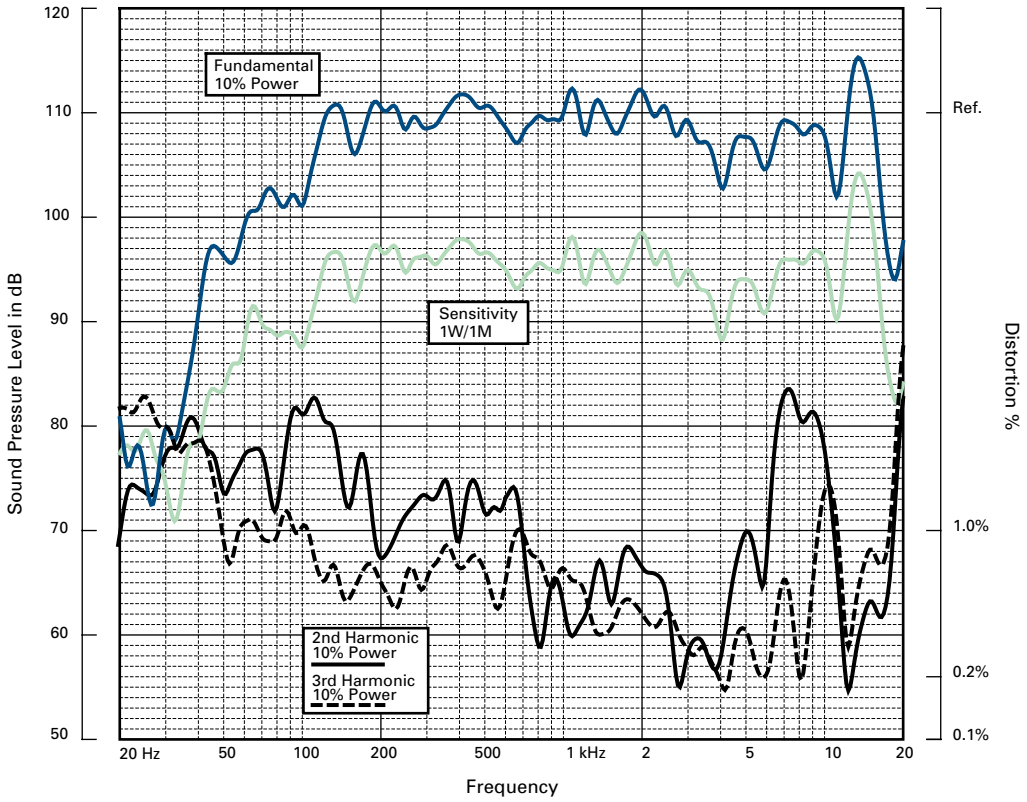
[1] Measured on axis

[2] Average over stated bandwidth

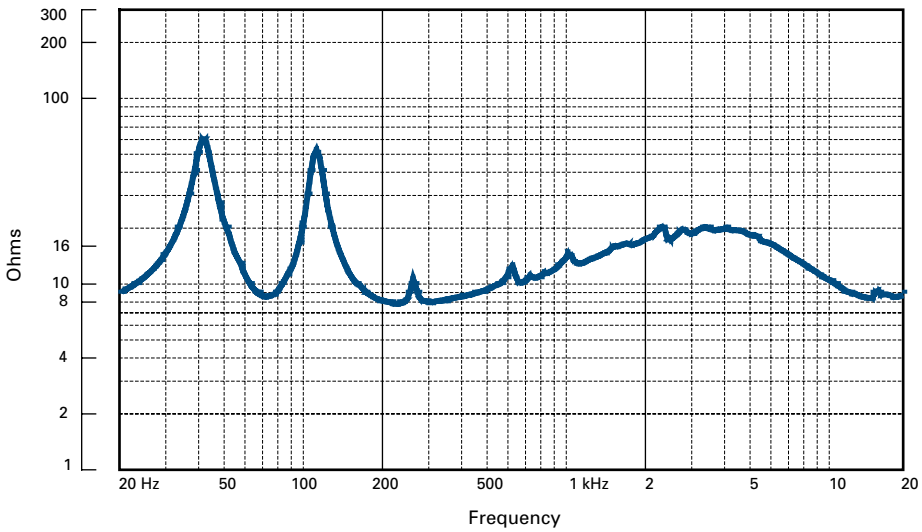
[3] Measured at 1 metre

[4] Verified by subjective listening tests of familiar program material, before the onset of perceived signal degradation

FREQUENCY RESPONSE



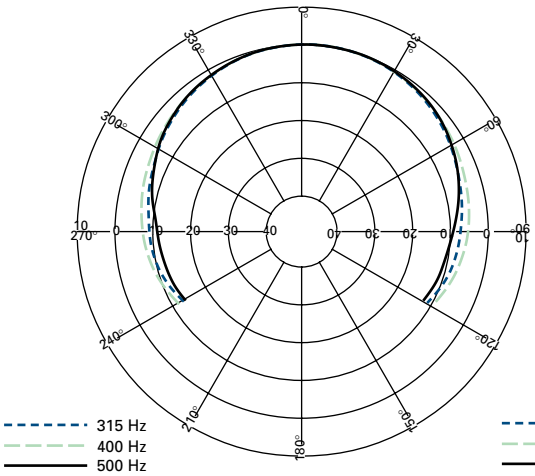
IMPEDANCE

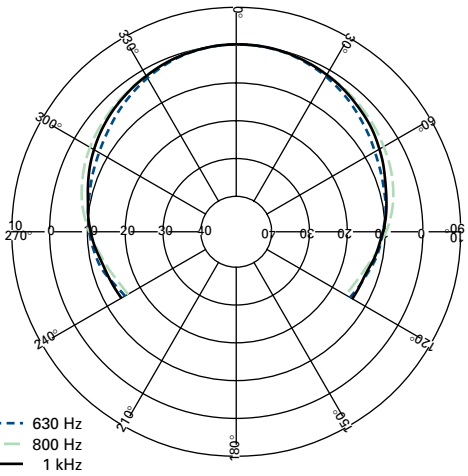


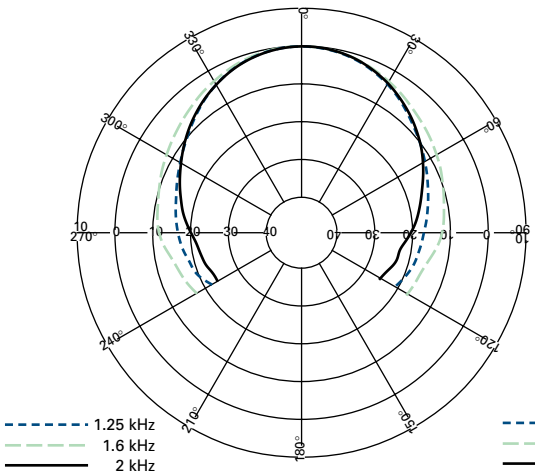
NOTES ON MEASUREMENT CONDITIONS

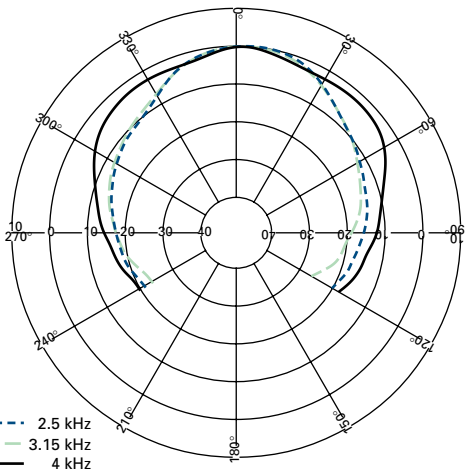
Impedance A constant current circuit was used to measure the impedance. **Frequency response** The frequency response shown was obtained by feeding a swept sine wave through the system in a half space environment. The position of the microphone was vertically on-axis at a distance of 2 metres, then scaled 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.

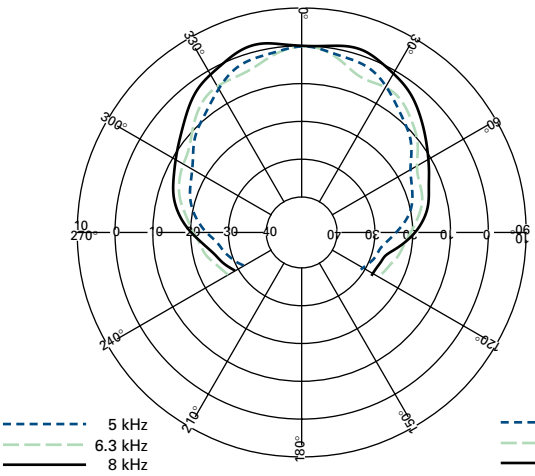
HORIZONTAL THIRD OCTAVE POLARS

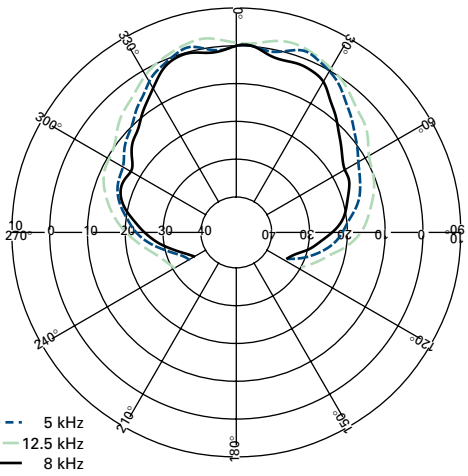




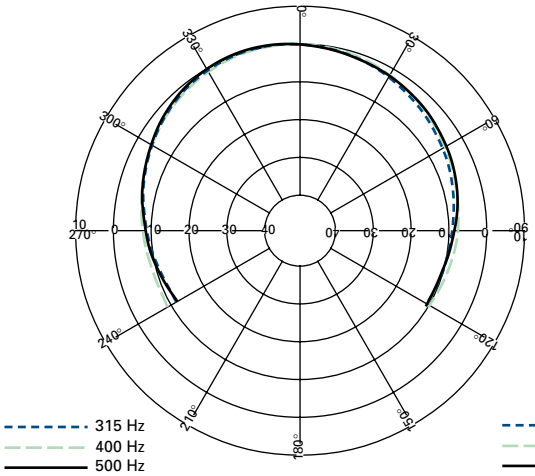


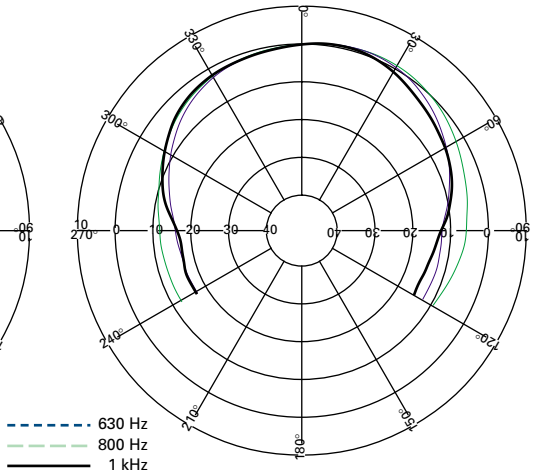


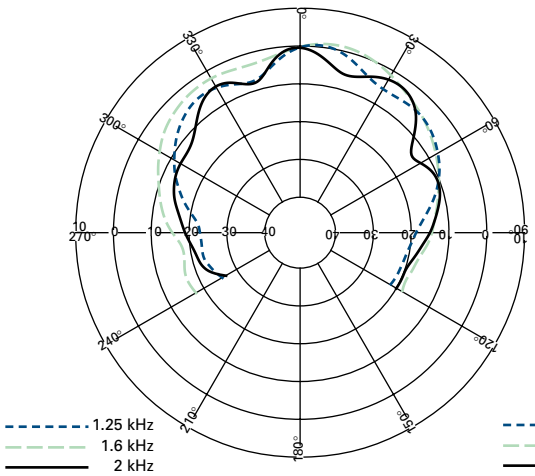


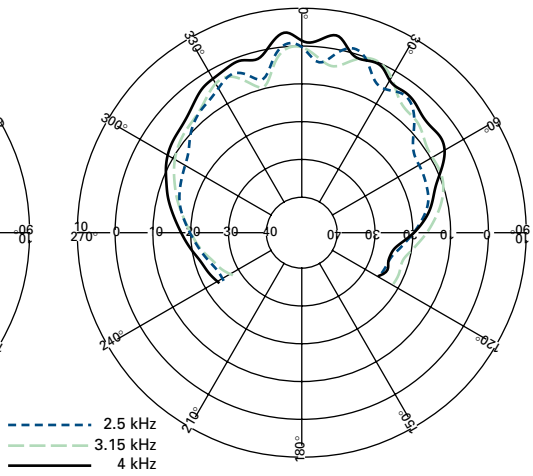


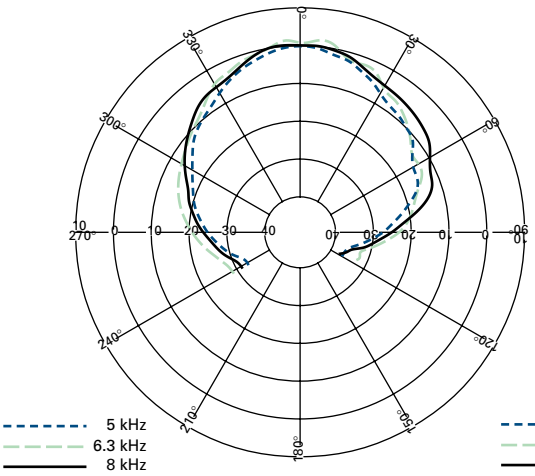
VERTICAL THIRD OCTAVE POLARS

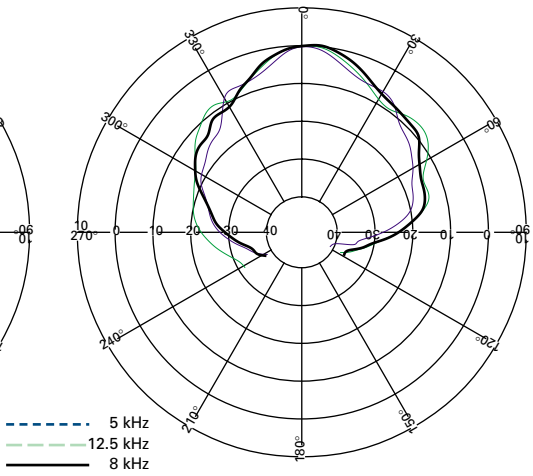






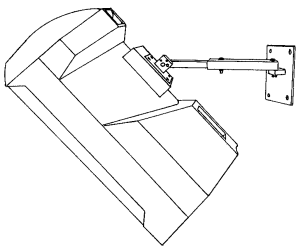






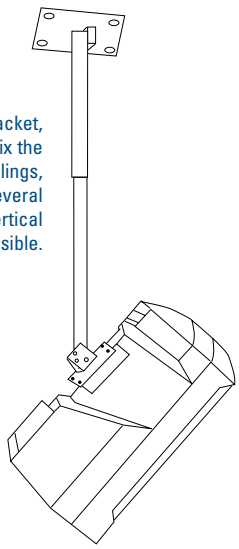
INSTALLATION HARDWARE

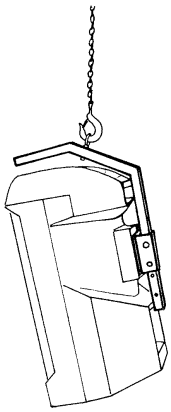
A range of fixing and mounting hardware is optionally available to implement safe and effective installations in a variety of differing situations. An integral moulded pole mount fitting is incorporated into the base of the IMPACT 121 enclosure, allowing it to be used with standard 35mm diameter loudspeaker stands or mounted on top of bass enclosures from the Turbosound range.



An adjustable telescopic wall bracket, **WB-100**, allows the IMPACT 121 to be fixed to walls in a variety of possible horizontal and vertical orientations. The vertical orientation of the loudspeaker can be adjusted in 15° increments as shown from 0° (vertical) to 45° of downward inclination.

A telescopic ceiling bracket, **CB-100**, is used to fix the IMPACT 121 to ceilings, including false ceilings. Several horizontal and vertical orientations are possible.





A single point mount, **SM-100**, is used for attaching the IMPACT 121 to single point suspension systems such as TV spigots or scaffolding tube. A range of adjustments allows the loudspeaker to be flown upside down if required.

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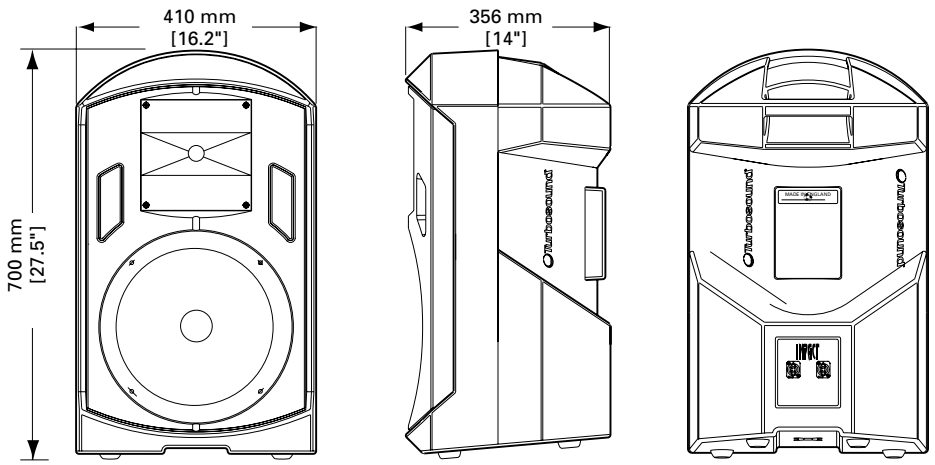
ARCHITECTURAL & ENGINEER'S SPECIFICATIONS

The loudspeaker shall be of the two-way passive type consisting of one 12" reflex-loaded low frequency loudspeaker, and one 1" (305mm) HF compression driver. Performance specifications of a typical production unit shall meet or exceed the following: Frequency response, measured with a swept sine-wave input, shall be flat within ±4dB from 60Hz to 20kHz. Nominal impedance shall be: 8 Ohms. Power handling shall be 200 watts r.m.s., 400 watts program, 500 watts peak. Sensitivity, measured with 1 watt input at 1 metre distance on axis, mean averaged over stated bandwidth, shall be 97dB. Maximum SPL (peak) measured with music program input at stated amplifier power shall be 129dB. Dimensions: 700mmH x 410mmW x 356mmD (27.5" x 16.2" x 14") Weight: 17 kg (37.4 lbs) The loudspeaker system shall be the Turbosound Impact 121. 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



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