

## 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 1" ferrofluid-cooled neodymium soft dome HF tweeter, matched with an internal second 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 TSB-110 compact sub-bass enclosures to extend low frequency response in certain applications requiring wide bandwidth

response. The TSB-110 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.

The Impact 50 is supplied with a mounting bracket to enable it to be fixed to walls. 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.



### FEATURES

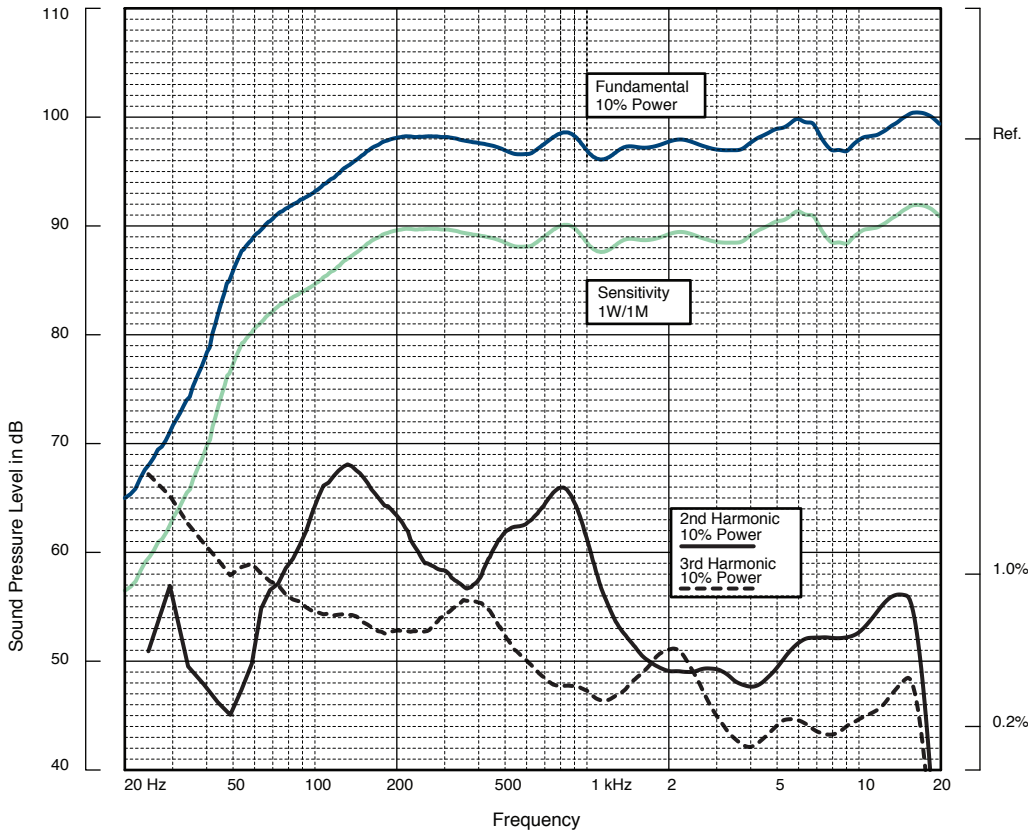
- Attractive injection moulded enclosure**
- 150 watt program power**
- Full range response**
- 70/100 volt line option**

### APPLICATIONS

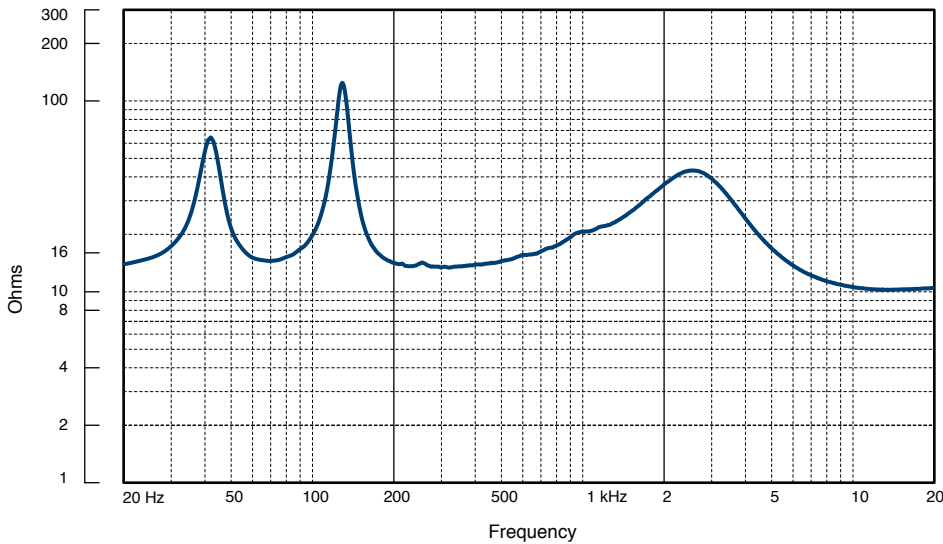
- Theatre and nightclubs**
- Themed environments**
- Retail shops**
- Restaurants and cafés**

|                               |  |
|-------------------------------|--|
| <b>DIMENSIONS (HxWxD)</b>     | 288mm x 167mm x 148mm (11.3" x 6.6" x 5.8")  |
| <b>NET WEIGHT</b>             | 2.2kg (4.8lbs)   |
| <b>COMPONENTS</b>             | 1 x 5" (127mm) LF driver, 1 x 1" (25mm) soft dome neodymium HF tweeter   |
| <b>FREQUENCY RESPONSE</b>     | 90Hz to 22kHz @±4dB  |
| <b>NOMINAL DISPERSION</b>     | 100°H x 100°V at -6dB points   |
| <b>POWER HANDLING</b>         | 75 watts r.m.s., 150 watts program   |
| <b>SENSITIVITY</b>            | 88dB SPL, 1 watt @ 1metre  |
| <b>CALC. MAXIMUM SPL</b>      | 110dB continuous, 116dB peak   |
| <b>NOMINAL IMPEDANCE</b>      | 16 ohms  |
| <b>CROSSOVER</b>              | Built in 2nd order passive crossover network at 4kHz   |
| <b>CONSTRUCTION</b>           | Injection moulded enclosure finished in TurboBlue™   |
| <b>GRILLE</b>                 | Black powder-coated perforated steel grille  |
| <b>CONNECTORS</b>             | Spring-loaded push terminals   |
| <b>OPTIONS</b>                | Optional colours available: White, Black<br>Internal 70/100 volt line transformer (Impact 50T)   |
| <b>SPARES AND ACCESSORIES</b> | <p>LS-50 LF driver for Impact 50</p> <p>RC-50 Recone kit for LS-50</p> <p>TW-51 HF tweeter for Impact 50</p> <p>PX-50 Passive crossover for Impact 50</p> <p>MG-50 Metal grille for Impact 50</p> <p>TX-50 70 volt line transformer</p> <p>SM-50 Single point mount</p> <p>SB-50 Horizontal swivel bracket</p> <p>CB-10 Ceiling bracket</p> <p>WB-10 Wall bracket</p> <p>WB-50 Wall bracket (supplied)</p> |

**FREQUENCY RESPONSE**



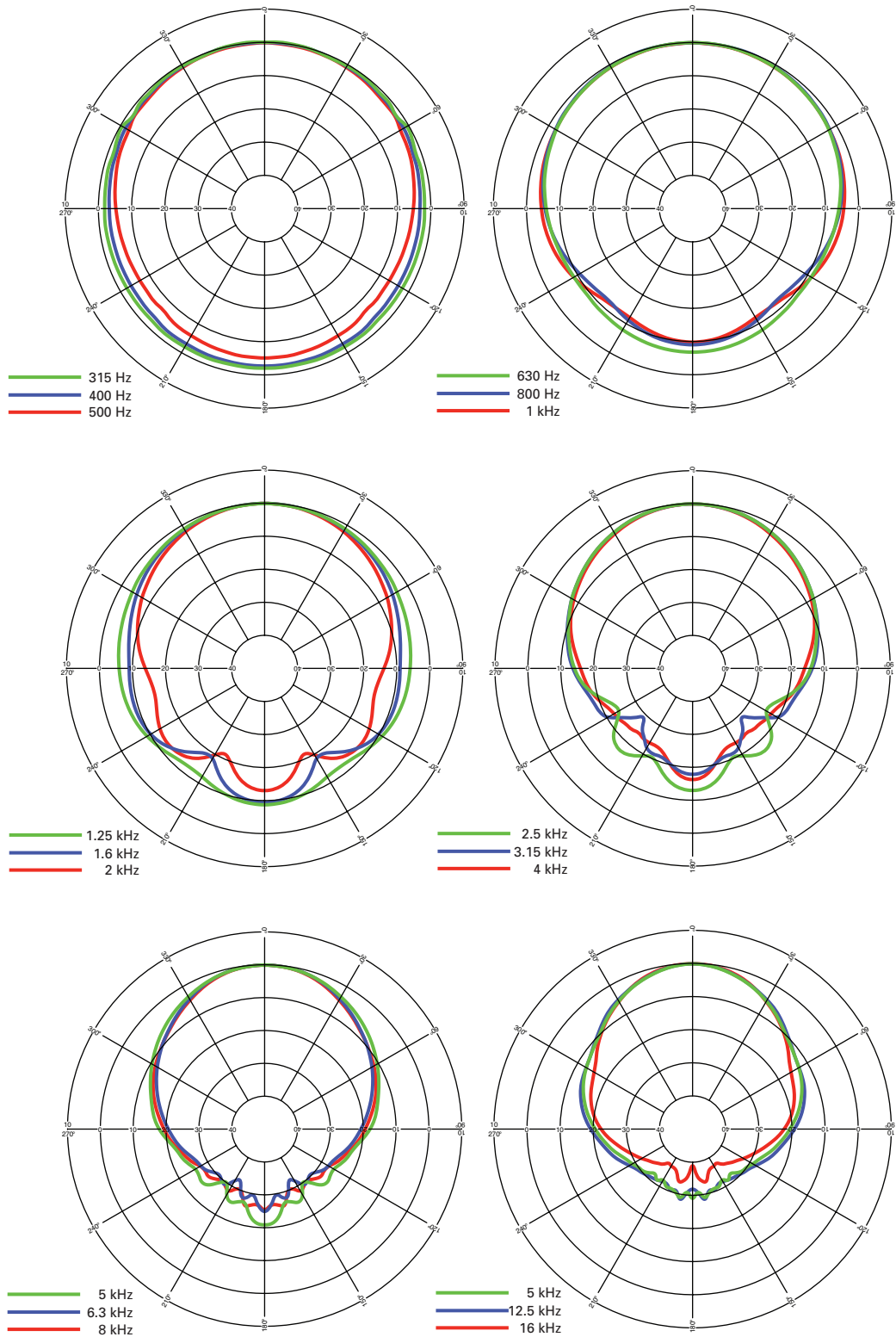
**IMPEDANCE**



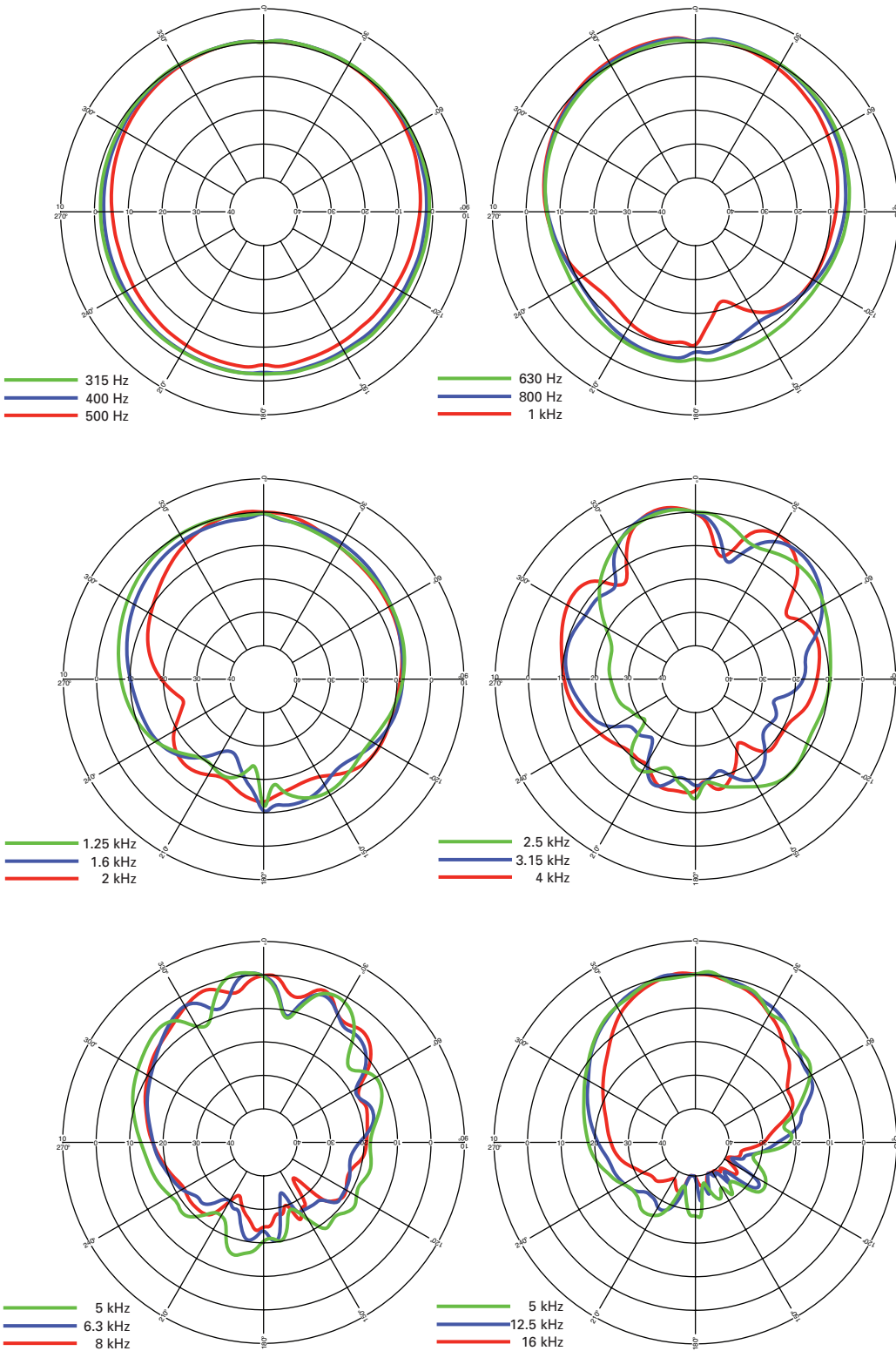
**Impedance** A constant current circuit was used to measure the impedance. **Frequency response** The frequency response shown was obtained by feeding a swept sine wave through the system in a half space environment. The position of the microphone was vertically on-axis at a distance of 2 metres, then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

**NOTES ON MEASUREMENT CONDITIONS**

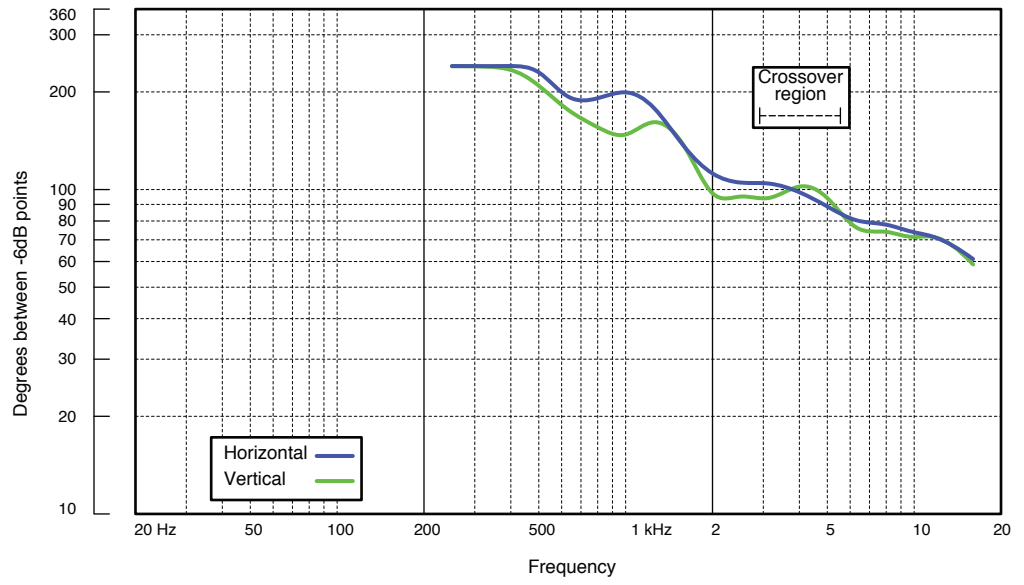
**HORIZONTAL THIRD  
OCTAVE POLARS**



**VERTICAL THIRD  
OCTAVE POLARS**



**BEAMWIDTH**

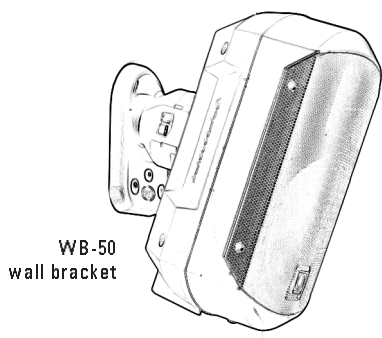


**IMPACT SERIES ENGINEERING INFORMATION**

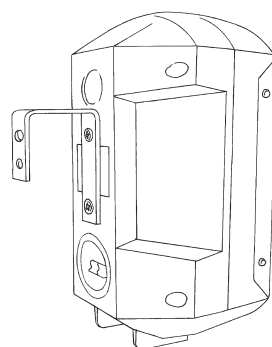
The Impact 50 is fitted with two integral M6 fittings on the rear of the cabinet which enable it to be permanently installed using the supplied WB-50 wall bracket, giving variable horizontal and vertical adjustment. CB-10 and WB-10 wall and ceiling brackets offer a wider range of mounting possibilities.

**INSTALLATION  
HARDWARE**

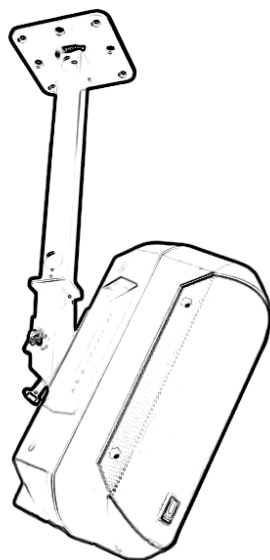
The optional SB-50 swivel bracket can be attached via the same M6 fittings, and allows nearly 180° of horizontal rotation. The optional SM-50 single point mount enables the Impact 50 to be attached to a scaffold bar or truss, and also adapts for use with a microphone stand.



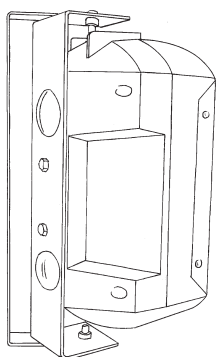
WB-50  
wall bracket



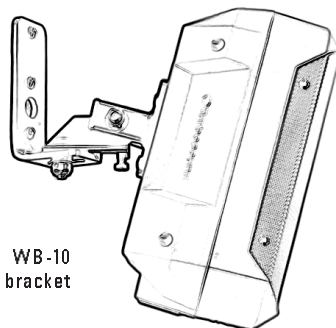
SM-50  
single point mount



CB-10  
ceiling bracket



SB-50  
swivel bracket



WB-10  
wall bracket

**ARCHITECTURAL  
& ENGINEER'S  
SPECIFICATIONS**

The system shall be of the two-way passive type consisting of one 5" (127mm) low frequency loudspeaker and one 1" (25mm) 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  $\pm 4\text{dB}$  from 90Hz - 22kHz. Nominal impedance shall be 16 ohms. Nominal dispersion shall be  $100^\circ\text{H} \times 100^\circ\text{V}$  at -6dB points. Power handling shall be 75 watts r.m.s., 150 watts program. 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 116dB. 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**

