

## TXD SERIES ENGINEERING INFORMATION

The TXD-252 is a switchable passive/biamp full-range loudspeaker enclosure designed for use in a wide variety of live sound, fixed installation and mobile DJ applications as well as in pubs, bars and nightclubs.

It consists of two 15" reflex-loaded low frequency drivers and a 3" diaphragm high frequency driver on a rotatable 80°H x 50°V Converging Elliptical Waveguide™. The loudspeaker components are matched with an internal passive crossover network which can easily be bypassed for bi-amplified operation.

The high frequency horn can be rotated through 90° to allow a swap of the horizontal and vertical coverage patterns. This allows the cabinet to be suspended either horizontally or vertically in permanent installations using the M10 rigging points provided on the sides, top and rear of the cabinet.

The trapezoidal cabinet is constructed from 15mm (5/8") birch plywood, screwed and glued together for maximum rigidity, and is finished in black semi-matt textured paint. Six recessed flush handles are provided for easy lifting and carrying and the rear of the cabinet is pre-drilled for optional T4 wheels. Four rubber feet are fitted to the bottom of the cabinet, and a grey powder-coated perforated steel mesh grille protects the drive units from damage.

Two Neutrik Speakon NL4MP speaker connectors are provided on the rear panel for passive input and parallel connections. An additional switched Speakon NL4 connector allows the TXD-252 to be used in bi-amplified mode.



### FEATURES

- Full range enclosure
- High output
- Passive/bi-amp
- CEW™ waveguide
- Rotatable HF horn
- M10 rigging points
- Trapezoidal cabinet

### APPLICATIONS

- Live sound
- Mobile DJ
- Fixed installations

<b>DIMENSIONS (HxWxD)</b>	1220mm x 540mm x 434mm (48" x 21.3" x 17.1")														
<b>NET WEIGHT</b>	49kg (107.8lbs)														
<b>COMPONENTS</b>	2 x 15" (381mm) LF drivers, 1 x 3" voice coil HF compression driver														
<b>FREQUENCY RESPONSE<sup>1</sup></b>	44Hz - 17kHz ±4dB														
<b>NOMINAL DISPERSION</b>	80°H x 50°V rotatable waveguide allows swap of horizontal and vertical pattern														
<b>POWER HANDLING</b>	passive: 1000 watts r.m.s., 2000 watts program Recommended amplifier power 2000 watts @ 4 ohms bi-amp: LF 1000 watts r.m.s., 2000 watts program @ 4 ohms; HF 160 watts r.m.s., 320 watts program @ 8 ohms														
<b>SENSITIVITY<sup>3</sup></b>	97dB, 1 watt @ 1 metre														
<b>CALC. MAXIMUM SPL</b>	127dB continuous, 133dB peak														
<b>CROSSOVER</b>	Passive: 12dB/octave high-pass and low-pass at 1kHz Active: 24dB/octave Linkwitz-Riley @ 1kHz														
<b>NOMINAL IMPEDANCE</b>	4 ohms passive; HF: 8 ohms, LF: 4 ohms (biamped mode)														
<b>CONSTRUCTION</b>	15mm (5/8") birch plywood enclosure. Finished in black semi-matt textured paint. Six recessed carrying handles. Pre-drilled for T4 wheels.														
<b>GRILLE</b>	Heavy duty powder coated perforated steel mesh														
<b>CONNECTORS</b>	Passive mode: (2) Neutrik Speakon NL4MP, wired pin1+: positive, pin1-: negative, pins2+ and 2- N/C. Biamped mode: (1) Neutrik Speakon NL-4MDVS, wired pin1+: LF positive, pin1-: LF negative, pin2+: HF positive, pin2-: HF negative														
<b>FLYING HARDWARE</b>	(9) M10 internal threaded rigging points														
<b>SPARES AND ACCESSORIES</b>	<table border="0"> <tr> <td>LS-1522</td> <td>15" (381mm) LF loudspeaker</td> </tr> <tr> <td>RC-1522</td> <td>Recone kit for LS-1522</td> </tr> <tr> <td>CD-212</td> <td>3" diaphragm compression driver</td> </tr> <tr> <td>RD-212</td> <td>Replacement diaphragm for CD-212</td> </tr> <tr> <td>T4 wheel kit</td> <td>Heavy duty wheels</td> </tr> <tr> <td>MG-252/X</td> <td>Metal grille</td> </tr> <tr> <td>PX-252/X</td> <td>Passive crossover network</td> </tr> </table>	LS-1522	15" (381mm) LF loudspeaker	RC-1522	Recone kit for LS-1522	CD-212	3" diaphragm compression driver	RD-212	Replacement diaphragm for CD-212	T4 wheel kit	Heavy duty wheels	MG-252/X	Metal grille	PX-252/X	Passive crossover network
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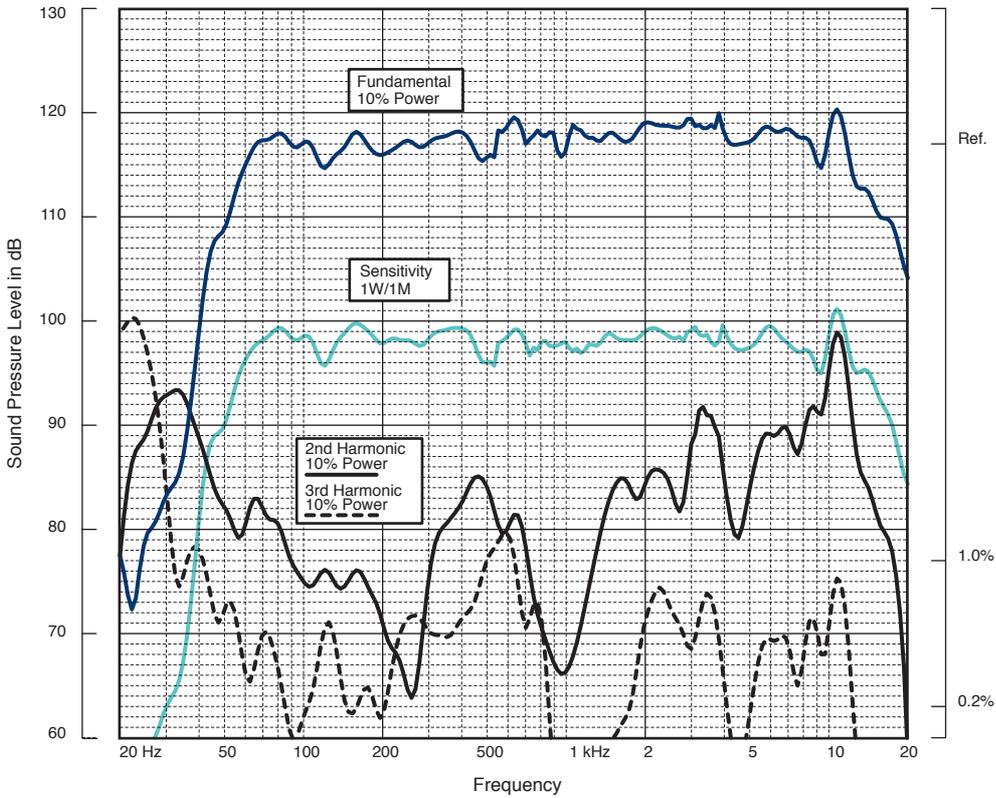
Notes

<sup>1</sup> Measured on axis

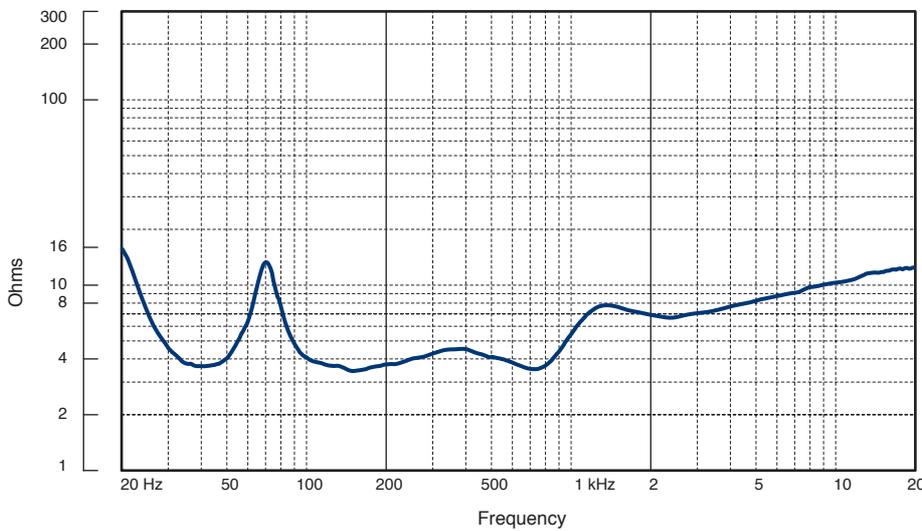
<sup>2</sup> Average over stated bandwidth

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**FREQUENCY RESPONSE**



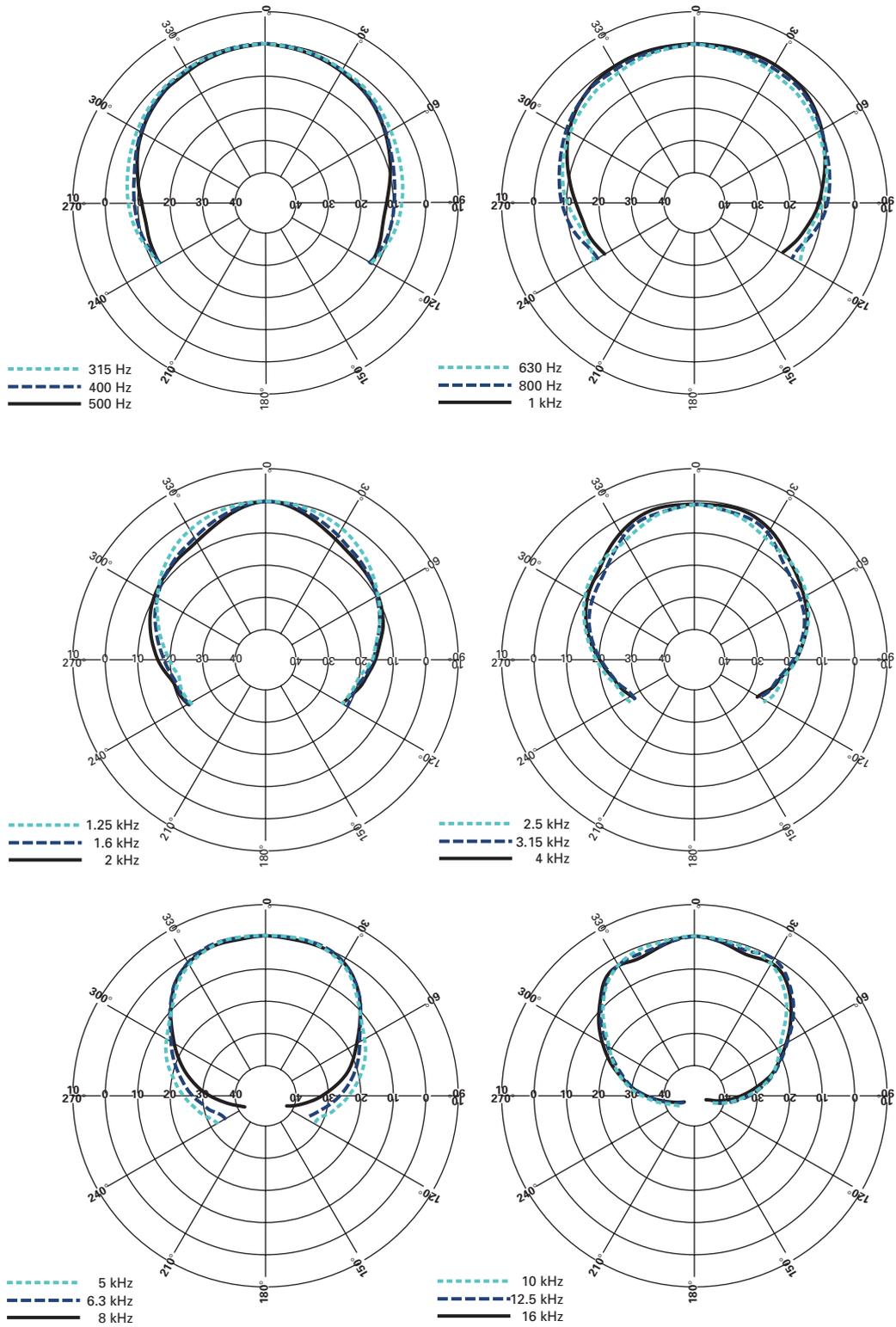
**IMPEDANCE**



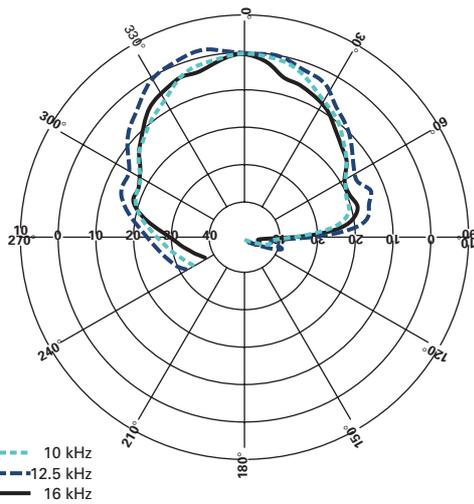
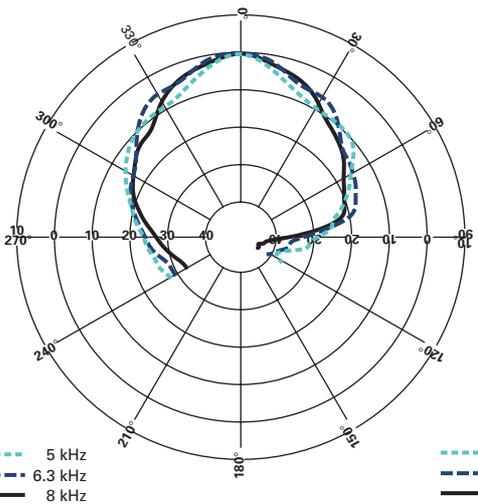
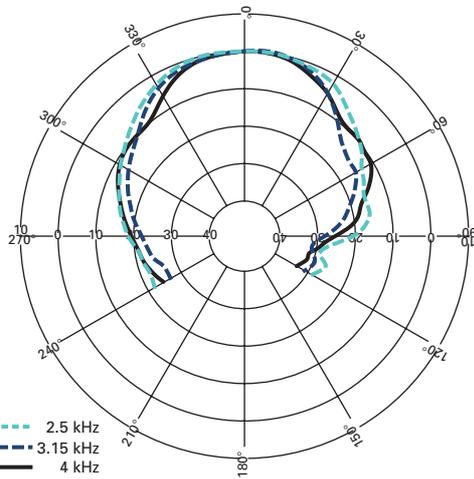
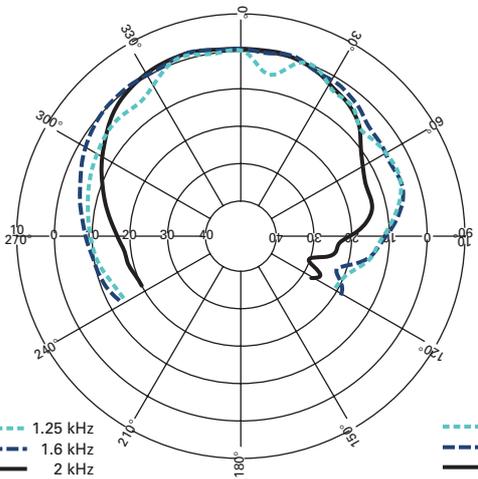
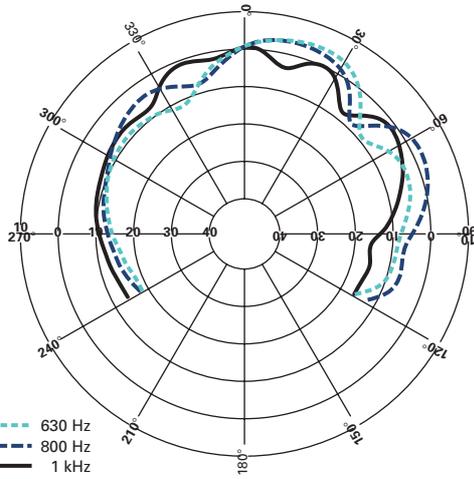
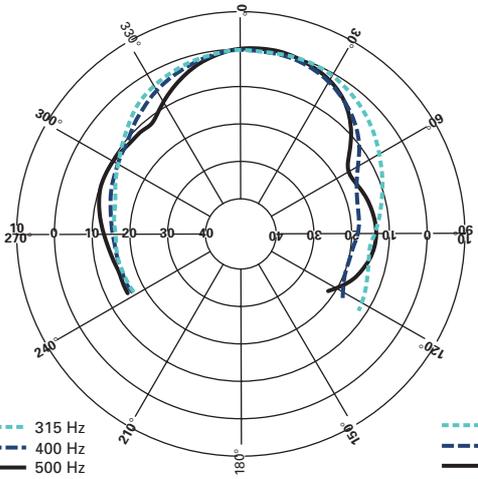
**Impedance** A constant current circuit was used to measure the impedance. **Frequency response** The frequency response shown was obtained by feeding a swept sine wave through the system in a half space environment. The position of the microphone was vertically on-axis at a distance of 1 metre. **2nd & 3rd Harmonic Distortion** Distortion measurements were obtained using an Audio Precision harmonic distortion analysis system and comply with AES recommendations for enclosure measurement (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**

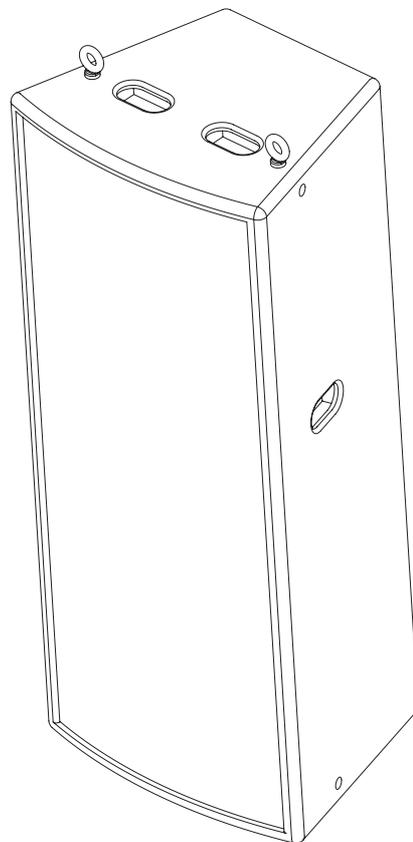


**VERTICAL THIRD  
OCTAVE POLARS**



**INSTALLATION AND  
RIGGING HARDWARE**

The cabinet is fitted with three internal M10 threaded rigging points on the top and rear which enable single enclosures to be permanently installed using M10 shoulder eyebolts with a minimum thread length of 20mm. Downward inclination of the enclosure is achieved by adjustment of the rear rigging point



**M10 Eyebolts**

**ARCHITECTURAL  
& ENGINEER'S  
SPECIFICATIONS**

The speaker shall be of the switchable passive/biamped full range type consisting of two 15" (381mm) low frequency drivers and one 3" diaphragm high frequency compression driver on a rotatable 80° x 50° Converging Elliptical Waveguide™. 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 44Hz - 17kHz. Nominal dispersion, at -6dB points, shall average 80°H x 50°V. Nominal impedance shall be 4 ohms; bi-amp LF 4 ohms; HF 8 ohms. Power handling shall be passive: 1000 watts r.m.s., 2000 watts program; bi-amp LF 1000 watts r.m.s., 2000 watts program; HF 160 watts r.m.s., 320 watts program. 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 at stated amplifier input shall be 133dB. Dimensions: 1220mmH x 540mmW x 434mmD (48"H x 21.3"W x 17.1"D). Weight: 49kg (107.8lbs). The loudspeaker system shall be the Turbosound TXD-252. 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**

