

EX10 Technical Data Sheet

Introduction

The EX10 is a very compact 2-way, high-output, full range active speaker system. Despite its 10" woofer and remarkably small footprint it successfully takes on many larger 12" models and is favored by audio visual and rental companies all over the world for its sheer quality and tremendous output. On-board electronics ensure fast, easy set up and complete control with electronic crossovers, phase alignment, equalization and speaker protection integrated into the EX10's amplifier module.

Features

- Professional, Baltic birch construction with wear resistant polymer coating
- 126dB sustained output, 129dB peak with very high dynamic range and low noise floor
- 500W of total power with complete on-board speaker management system
- 450W high efficiency, current enhancing, switching low frequency amplifier
- Very high quality 50W, low IM distortion, Class AB, high frequency amplifier with transformer balanced output
- Compact, asymmetrical, trapezoidal cabinet design allows for use in stage monitor or under balcony applications with high pass filter to adjust equalization and phase response
- Wide dispersion, 100° H x 80° V rotatable horn
- 1.75" (44 mm) Titanium diaphragm compression driver with complex geometry phase plug for higher output, exceptionally low distortion, extended frequency response and neodymium magnet structure
- 10" woofer with revolutionary Active Impedance Control (AIC) voice coil technology and neodymium magnetic motor structure dramatically increases force, lowers distortion and provides increased frequency response linearity
- Proprietary top handle design for simplified handling and carrying, integrates one M10 suspension point, OmniMount™ bracket point and four M6 bracket points
- Four additional M10 suspension points for flexible rigging and installation options
- Top hat for pole mounting applications
- LED indicators for signal present, limiter, thermal condition and power ON status



Application

Specifically designed for high quality, high output multi-tasking, portable music playback and live performance in small applications

- Full range stand-alone solution or scalable to larger capabilities with subwoofers for large conference, meetings and small to medium performance venues
- Multi-purpose fixed installations
- Personal monitoring
- Infill for larger main KV2 Audio systems

System Acoustic Performance

Max SPL Long-term	126dB
Max SPL Peak	129dB
-3dB Response	65Hz to 20kHz
-10dB Response	55Hz to 28kHz
Crossover Point	1.6kHz

High Frequency Section

Acoustic Design	Horn Loaded
High Horn Coverage Horizontal / Vertical	100° x 80°
Rotatable Horn	YES
Throat Exit Diameter / Diaphragm Size	1" / 1.75"
Diaphragm Material	Titanium
Magnet Type	Neodymium

High Frequency Amplifier Specification

Type	Class AB Push-Pull
Rated Continuous Power	50W
Distortion	<0.05%
Operating Bandwidth	1.6kHz to 28kHz

Low Frequency Section

Acoustic Design	Front Loaded, Bass Reflex
Woofer Size / Voice Coil Diameter / Design	10" / 2.5" / Trans Coil
Diaphragm Material	Epoxy Reinforced Cellulose
Magnet Type	Neodymium

Low Frequency Amplifier Specification

Type	High efficiency, Current-enhancing switch mode
Rated Continuous Power	450W
Distortion	<0.05%
Operating Bandwidth	55Hz to 1.6kHz

Signal Input

Input Sensitivity	0.775V RMS
Input Impedance	20 kΩ

Power

Power Connector	Neutrik PowerCon®
Operating Voltage Range	100 to 120V@60Hz 205 to 240V@50Hz 225 to 260V@50Hz
Recommended Amperage	6A 115V 3A 230V 3A 250V

Cabinet

Cabinet Material	Baltic birch
Handles	1
Pole Mount	35 mm
Color	"Orange peeled" Matt Black or any RAL

Physical Dimensions

Height	514 mm (20.23")
Width	310 mm (12.20")
Depth	326 mm (12.83")
Weight	22 kg (48.4lbs)

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Architectural Specifications

The Loudspeaker shall be a 2-way Active driven design, using SLA Technology - (Super Live Audio). Amplifier power, electronic crossovers, phase alignment, equalisation and speaker protection are integrated into the EX10's amplifier module.

The Loudspeaker enclosure shall consist of one 10" Neodymium magnet structure Mid Bass driver featuring Active impedance control technology and one 1" Titanium Compression high frequency driver mounted to a low compression, constant directivity horn assembly.

The cabinet enclosure shall be made from re-enforced Baltic Birch Ply, with toughened impact and wear resistant paint finish. The Loudspeaker woofer components shall be protected by an acoustically full size transparent rigid metal grille. The enclosure is a very compact asymmetrical design. The enclosure shall incorporate one ergonomically designed recessed handle on the top of the enclosure. The handle provides a M10 hang point as well as four additional M6 bracket points a similar M10 point is on the bottom of the enclosure when utilising an EX10 Horizontal Bracket. There are two side-mounted M10 hang points that can be used with the EX10 Vertical Bracket or eyebolts.

For pole mount application, use integral Stand Adapter.

The EX10 Amplifier provides a 450W, high efficiency amplifier for low-mid and a 50W low distortion amplifier for high frequency.

The EX10 Amplifier features a control panel featuring AC power in, XLR connector audio input and output, level control potentiometer +/- 6dB, LED status light (power, limit/thermal signal input indicator) and a 90Hz high pass filter switch. The EX10 amplifier shall have an input Impedance of 20Kohm. The input sensitivity shall be 1.0V RMS.

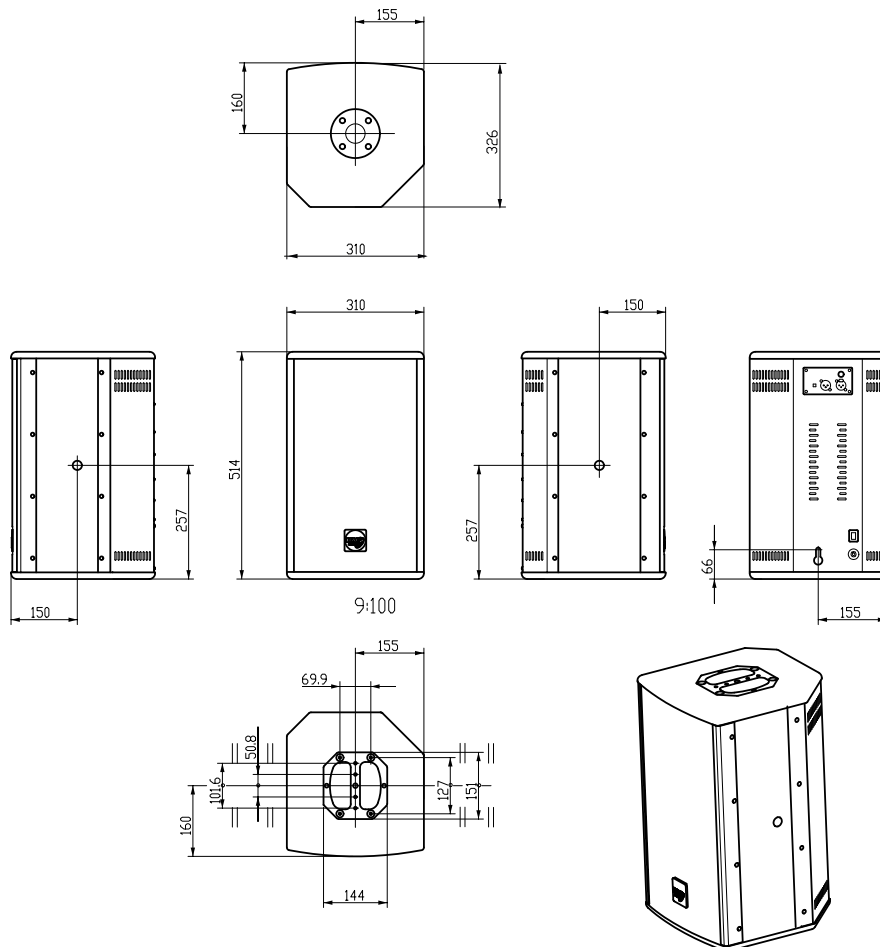
The EX10 Amplifier shall have a Neutrik PowerCon connector for mains supply, with an operating voltage range of 100 to 120V @ 60Hz or 230 to 250V @ 50Hz. The power amplifier shall have recommended amperage of 6A @ 115V, 3A @ 230V.

Temperature controlled variable speed fan will assist internal convection cooling systems.

The system acoustic performance shall be -3dB 65Hz - 20kHz. The system maximal long term SPL shall be 126dB.

The Speaker shall have dimensions of: Height 514 mm / 20.23", Width 310 mm / 12.20", Depth 326 mm / 12.83", The weight shall not exceed 22 kg / 48.4lbs, The Speaker shall be the EX10.

Dimensional Drawings



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