MZ AUDIO

MiniRay3c

Mini Line Array

Single 14" 3-Way Coaxial

The MiniRay series balances compact size with high SPL output. MiniRay, MiniRay10, and MiniRay14 cover most applications. For rental companies, a single versatile system is the smarter choice.

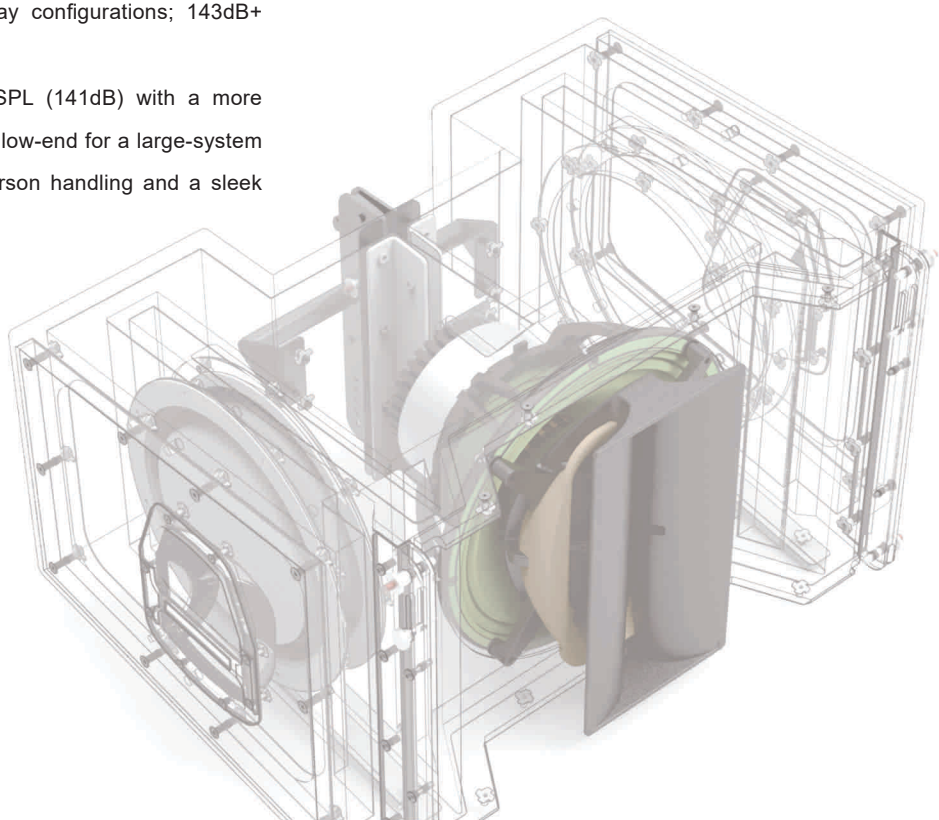
Large-system SPL and bandwidth in a small-system footprint — maximizing utilization, cutting capital, labor, logistics, and storage costs. Built to boost rental competitiveness.

Small Footprint. Massive SPL.

To address these challenges, we designed a new solution. The goal is higher SPL output in a smaller, lighter form factor.Typical 140dB+ systems use dual 12" 3-way configurations; 143dB+ systems use dual 15" 3-way.

Our target is to exceed dual 12" SPL (141dB) with a more compact, lighter design - and deeper low-end for a large-system feel. Dual 10" width enables one-person handling and a sleek profile for indoor use.

This is the design goal of MiniRay3C.



MiniRay3C

Key Features

- Self-Developed 3-Way 14"Coaxial Driver
- Frequency Response 40Hz-18KHz
- MAX SPL 142dB
- Hi-End Crossover
- PreAngle Rigging Hardware

3-Way 14" Coaxial Driver

To minimize cabinet size while maximizing SPL and LF extension, we self developed a single 14" coaxial driver. A 3.5" Voice Coil woofer and 4" mid-compression driver share a large neodymium magnet — reducing acoustic path difference. The HF driver is coaxially mounted with the 4" mid, minimizing phase deviation across all three sections. This provides an ideal foundation for the passive 3-way crossover.

3-Way Single Drive Hi-end Crossover

MiniRay3C uses an internal passive crossover for single-amp 3-way operation — reducing complexity, saving amp/DSP channels, and ensuring cable compatibility across the series.

To minimize insertion loss, a Hi-End crossover employs hybrid aluminum/polypropylene caps for articulate mids and detailed highs, plus OFC foil inductors to eliminate skin effect for smooth HF reproduction.

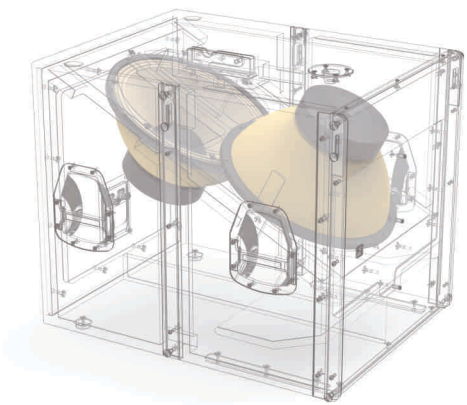
PreAngle 3P Rigging

Patented 3-point rigging from MiniRay10-preset angles for stacking/flying, cuts setup time. Same width as MiniRay10/14 for seamless connection — no adapter needed. Top rigging frame interchangeable across all 3 models.

MiniSub28

Key Features

- Dual 18" Push-Pull Configuration
- Direct Stacking On Sub-No Adapter Required
- Large-Profile Port Reduces Air Noise
- Frequency Extension Down To 30 Hz



Universal Stacking Design

Direct stacking with MiniRay3C, MiniRay14, and MiniRay10 - no adapter needed.

The MiniSub28 is a dual 18" flying sub for MiniRay3C. Same width, integrated hardware for direct stacking. Fly alone or with full-range below via conversion bar.

Clever Design

How to achieve high SPL and deep low end in a compact cabinet? Dual 18" woofers are essential for sufficient output. The challenge is fitting two 18" drivers into a small enclosure without compromising performance.

Push-Pull Configuration

MiniSub28 features a dual 18" push-pull design in a compact cabinet - same footprint as a single 18", but delivers the bandwidth and output of a dual 18" sub. Massive 140dB SPL outperforms any single 18" subwoofer.

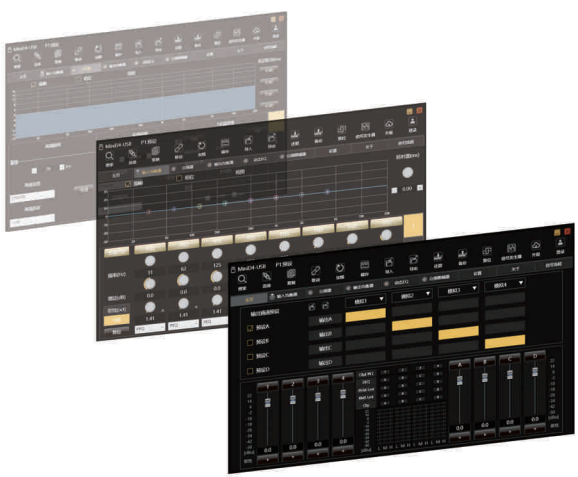
D1600-4V

Key Features

- 4 x 2500W Powerful Power Supply
- 4 x 1600W 8Ω Output
- Built-In DSP Highly Integrated
- Up To +23 dBu Max Input

Ultra-High Power Output

Four independent amplifier modules, each with a dedicated 2500W switching power supply-total 10000W. Delivers 2500W per channel simultaneously at 4Ω. Unlike conventional 4×1300W amps sharing a single 4000-5000W supply. Flexible channel assignment with no power budget constraints.

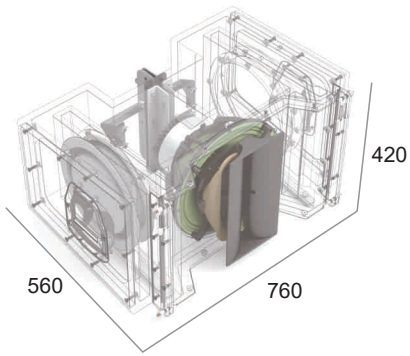


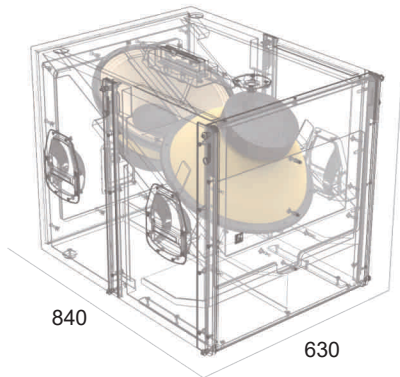
Built-in 4 CH DSP Module

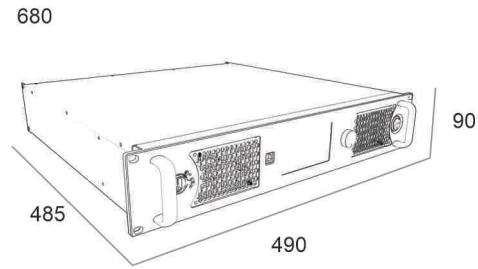
Self-developed by MZ Audio, the integrated DSP module eliminates the need for an external processor-simplifying setup and system integration.

The MiniD4 processor features a +23 dBu maximum input level, exceeding the output of most digital mixers on the market to prevent input clipping distortion. Dynamic EQ, crossover limiting, and other advanced functions provide enhanced loudspeaker protection and system stability.

Parameter







SPECIFICATIONS

	MiniRay3C	MiniSub-28
Frequency Range(-10dB)	40 Hz-18 kHz	25 Hz-180 Hz
MAX SPL	142 dB SPL Peak	140 dB SPL Peak
Coverage	Horizontal100° / Vertical 0-10°Adjustable	Horizontal 360° / Vertical 180°
Transducers	1×14"+100mm+65mm Integrated Coaxial 3-Way Driver	2 × 18" Ferrite Woofer
Nominal Impedance	8Ω	4 Ω
Driving Mode	3-Way Single Drive	One way Single Drive
Power (AES)	800 W	1600W AES
Cabinet	Baltic birch plywood, black polyurea finish	Baltic birch plywood, black polyurea finish
Dimensions (W×H×D)	760×420×530mm 29.7×16.5×21in	680×630×840 mm 26.7×24.8×33.7in
Weight	45kg/99.2 lbs	85.8kg / 189.1nlbs

DI600-4V

Amp Module

Amplifier Output	4 × 1600 W 8Ω
Frequency Response	20 Hz-35 kHz ±1 dB
Rated Voltage	100~240 V AC 50~60Hz
SNR	Typical > 12 0dB
Dimensions	490 × 90 × 485 mm 19.29×3.54×19.09 in
Weight	16.8 kg / 37 lbs

DSP Module

Input Impedance	20 KΩ	SNR	≧113 dB
Output Impedance	100 Ω	Noise Floor	≦-96 dB
A/D Dynamic Range	118 dB	CMRR	74dB
D/A Dynamic Range	118 dB	Dante Input Channels (Optional)	4
Max Input Level	23 dBu	AES Digital Input Channels	2
Max Output Level	17 dBu	Analog Input Channels	4
THD	≦0.004%	USB Control Port	1
Frequency Response	20 Hz~40 kHz	Network Control Port	1
Crosstalk	≦-102 dB		

SYSTEM LIST

MiniRay 3C	x8
MiniSub 28	×4
D1600-4V	×2
2U Amp Cabinet	×2
0.6M Speaker Jumpe	×4
0.6M NL4 Crosswire	×2
2M NL4 Crosswire	×2
10M Nl4 Speaker Cable	×2
20M Nl4 Speaker Cable	×2
Transport Dolly	×4
Transport Cover	×4

OPTIONAL

MiniRay 3C Flying Frame	x2
MiniSub 28 Flying Frame	×2
Full Range Conversion Bar	×2
Amp Flying Frame	×2
Extension Bar	×2
Flying Tent	×2

Accessories

Transport Dolly
MiniSUB28-DL

Full Range Flying Frame
MiniRay10-TG

Sub Flying Frame
MiniRay10-TGS

Transport Cover
MiniRay3C-Cov

Flying Tent
MiniRay3C-FT

Full Range Conversion Bar
MiniRay10-BS

Extension Bar
MiniRay10-RBS

MiniRay Conversion Frame
MiniRay10-TR

MiniRay3C

Mini Line Array

small footprint

SONIC IMPACT

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MZ audio technology development Co.,Ltd.

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