



The Miles Technology M44 Multisonic® Imager provides stereo sound with accurate, precisely-detailed spatial imaging to a large audience and a large listening area. It uses our patented Optimum Linear Matrix to convert two-channel stereo to a left-center-right (three-channel) format.

This practically solves the problem of off-center listeners hearing mostly one side of the sound system, and the resulting badly-unbalanced sound.

The M44 is highly effective with LCR systems in auditoriums, sanctuaries, nightclubs, corporate A/V applications, schools, multimedia, exhibits, museums, broadcast facilities, and touring systems.

Left, Center, Right, and Subwoofer output signals are created from the processed stereo inputs (main and three aux stereo inputs), combined with individual discrete center and subwoofer sources.

The M44 is similar to the Miles Technology M86 Multisonic Imager except that the M44 does not have surround inputs and outputs. The M44 is suitable for systems using a left-center-right or left-center-right-subwoofer loudspeaker arrangement.

Multisonic Imaging works equally well with live mixes, recorded material, stereo instruments, or a combination of

those. Since there is no dynamic steering or gain riding (unlike some other surround processors), absolute signal integrity is maintained.

Features

- ▲ Provides True Stereo Sound For An Entire Audience Or Room
- ▲ Works With All Stereo Sources And Mixes
- ▲ Inputs For Stereo, Discrete Center, and Discrete Sub Sources
- ▲ Subwoofer Crossover with Switchable Filters
- ▲ Output Level Controls
- ▲ Balanced XLR Inputs and Outputs
- ▲ Auxiliary Stereo Inputs with Gold RCA's

Listeners who are way off center can hear proper stereo imaging. Typically, three-fourths or more of an audience can hear a Multisonic® mix with excellent stereo perspective. In addition, the clarity of the sound is greatly improved and the overall sound level can be lower for the same impact.

In smaller rooms, the "sweet spot" is enlarged so that excellent stereo imaging can be heard from almost anywhere in the room.

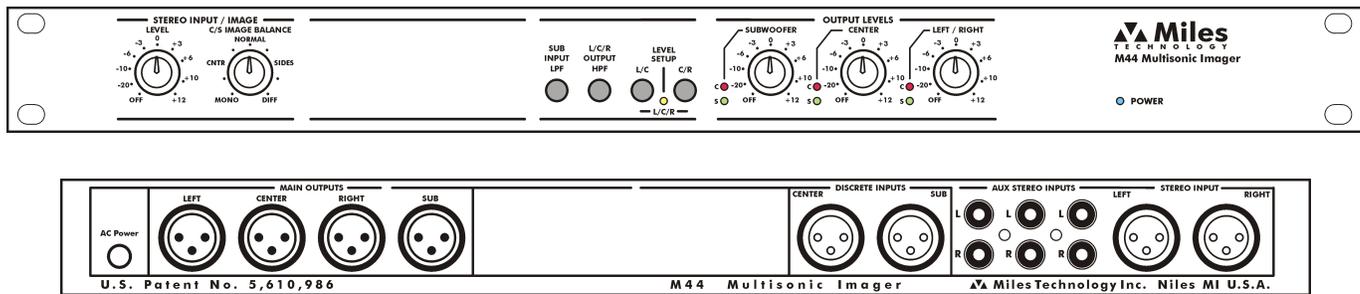
The Multisonic® Imaging system presents any center-panned sounds in the mix (lead vocals, drums, etc.) clearly from the center speaker, while sounds panned toward the sides or back are simultaneously correctly localized. Multisonic® Imaging is based on a precise linear matrix, electroacoustically optimized for maximum spatial separation.

All types of stereo and surround mixes are reproduced with surprising clarity, excellent imaging, and unrivaled dynamics.

For live mixing applications, the M44 enables a stereo console to pan sounds much like an LCR console. The Discrete Center and Discrete Sub Inputs allow direct signal routing for specific elements in the mix, while simultaneously allowing left-center-right imaging from stereo-panned portions of the mix.

Multisonic® Imaging can be used in discrete LCR systems to handle two-channel sources such as recorded music or effects. Thus the benefit of the left/center/right loudspeaker format can be fully realized.

Made with pride in the U.S.A., the Miles Technology M44 is backed with our comprehensive three-year warranty.



M44 Technical Description & Specifications

The M44 Multisonic® Imager features multiple left/right stereo inputs, Multisonic® Imaging circuitry, discrete center and sub inputs, and four outputs for left, center, right, and subwoofer.

Multisonic Imaging is a patented linear-matrix system which provides optimum spatial separation and acoustic presentation of two-channel stereo mixes using three front loudspeakers. The Multisonic Balance control adjusts the width of the stereo soundstage.

The discrete center, and sub inputs route to their respective outputs, and are mixed with the corresponding Multisonic signals (derived from the left/right stereo inputs) to provide optimum imaging from all sources simultaneously.

All inputs also route to the crossover to contribute to the subwoofer output. Level balance of the speakers is easily set by ear using the Setup switches and the output level controls.

The M44 features high-quality op amps for low noise and distortion, and +/- 15-volt rails for maximum dynamic range. Precision resistors and other quality components are used throughout.

Inputs

Main Stereo Left and Right, Discrete Center, and Discrete Sub:

Balanced XLR connectors
Maximum input level: +20 dBu
Input impedance: 22K ohms

Aux Stereo Left and Right (x3):

Gold RCA connectors
Maximum input level: +11 dBu
Input impedance: 8.5K ohms

Outputs

Left, Center, and Right:

Balanced, XLR connectors

Maximum output level:

+26 dBu/1200 ohms

Differential output imp.: 100 ohms

Controls

Input Gain: Stereo Inputs

Multisonic Balance

Output Levels: Sub, Center, Left/Right

Sub Input LPF switch

L/C/R Output HPF switch

L/C and C/R Setup switches

Frequency Response

20 Hz to 20 kHz ±1 dB

Crossover Filters:

4th Order Linkwitz-Riley, 95 Hz

Switchable high-pass for L/C/R outputs

Switchable low-pass for Discrete Sub input

Total harmonic distortion

20 Hz to 20 kHz, at full output: <0.02%

Output noise

20 Hz to 20 kHz, unweighted:

<-90 dBu; <-84 dBu balanced

Power Requirement

Configurable for 120 or 240 Vac.

Dimensions

19 in. x 1.75 in. x 12.0 in.

(48.26 cm x 4.45 cm x 30.5 cm)

1U rack mount

Weight: lbs. (kg)

Note: 0 dBu = 0.775 V rms

Warranty

Three years from date of purchase.

Contact Miles Technology for details.

Multisonic Features/Advantages

- ▲ Greatly Enlarged "Sweet Spot"
- ▲ Highest-Quality Audio Performance
- ▲ Works with All Program Sources
- ▲ LCR Performance From Stereo
- ▲ Discrete Inputs for Live Productions
- ▲ Cleaner, More Dynamic Sound
- ▲ Excellent Center Focus
- ▲ Zero Dynamic Distortion
- ▲ Very Forgiving of Imperfect Setups
- ▲ More Even, Balanced Sound Stage
- ▲ Excellent Clarity with Spatial Separation
- ▲ Adjustable Center/Side Mix Ratio
- ▲ Simple, Quick, and Precise Setup
- ▲ Balanced Inputs and Outputs
- ▲ Cost Effective
- ▲ Solid Warranty

Compared to Discrete L/C/R

- ▲ Identical results at left-center and right-center pan positions.
- ▲ Identical results at center when using discrete center input.
- ▲ Works with standard stereo console for much lower system cost and simplified operation.
- ▲ Better audience coverage with imperfect loudspeaker/room setups.
- ▲ Can be effectively used with discrete LCR systems to handle stereo sources (recordings, effects, stereo instruments or mikes).

Compared to Other Decoders

- ▲ Multisonic Imaging does not use steering or gain riding and thus is sonically and dynamically superior.
- ▲ Unlike steered systems, Multisonic can "image" *all directions at once*.
- ▲ The sound field is totally stable.
- ▲ No mode switching is necessary.
- ▲ Works perfectly with all program sources, including music CD's and surround "encoded" videos.



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