



# MK100A

self powered compact loudspeaker ▼

A radical new way of thinking about compact sound systems





# MK100A

▼ **Modern sound refinement**

The MK100A is the first in a new generation of compact active loudspeaker systems from Acoustic Technologies.

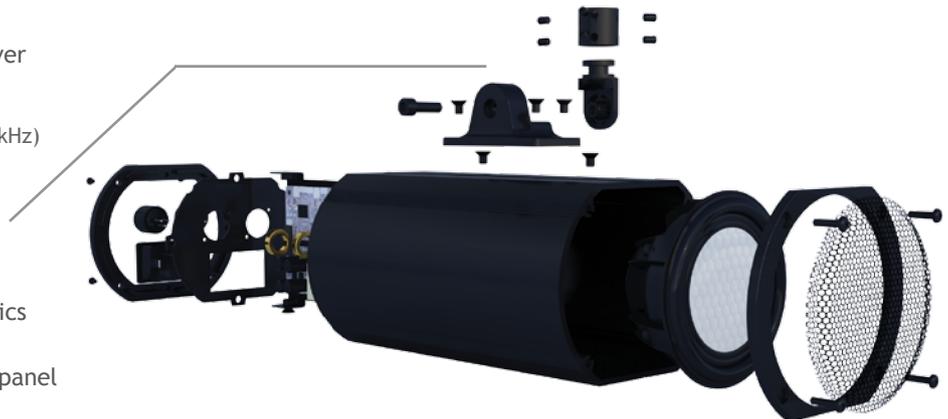
With its on-board 150 Watt ultra-reliable Class D power amplifier, the MK100A offers exceptional audio performance with a smooth, flat response extending from **90Hz** to **19kHz**.

With its integrated power module, balanced XLR input with link output and simple yet flexible mounting bracket, the MK100A is presented as a convenient solution to a wide variety of applications.

The MK100A's ultra-wide dispersion characteristics are what really set it apart from its competitors. With a nominal dispersion angle of 120°, the MK100A redefines the meaning of "Wide Dispersion". Even at 7kHz, the MK100A still offers a remarkable 120° (horizontal and vertical) dispersion - resulting in an unprecedented level of superior coverage.

## Key Features ▼

- ▶ 100mm Flat Aluminium Planar Driver
- ▶ Fully integrated power module (150W at 6  $\Omega$  THD+N 0.002%, 20Hz - 20kHz)
- ▶ Rugged aluminium construction
- ▶ **360° flexible mounting bracket**
- ▶ Ultra-wide dispersion characteristics
- ▶ XLR input and link output on rear panel



# 150W POWER MODULE

## A fully integrated audio power conversion solution

The natural choice for coherent sound from a compact package

### Key Specifications:

150W at 6  $\Omega$  THD+N 0.002%, 20Hz - 20kHz  
125dBA dynamic range  
CE & FCC approved design  
Thermal Protection  
Over Current Protection  
Sound Optimised Soft Clipping



# ALUMINIUM PLANAR TECHNOLOGY

**The newly developed 100mm Aluminium Planar Transducer**  
A radical departure from conventional compact loudspeaker systems

**Revolutionary design:**

The MK100A features a single 100mm full range neodymium transducer eliminating the need for any frequency dividing network. This eradicates any frequency or phase anomalies found in conventional loudspeaker design. The transducer utilises Aluminium Planar Technology (APT) and delivers unparalleled levels of uniform, ultra-wide dispersion.



# HOW WIDE IS WIDE?

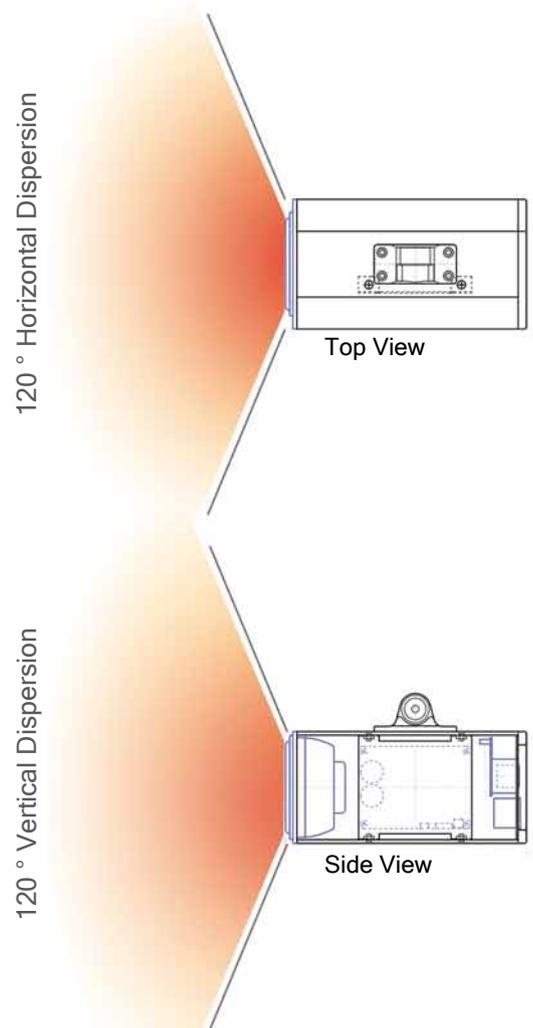
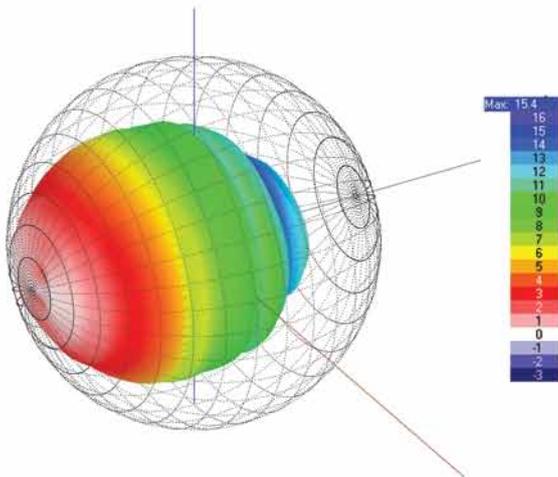
## And what it means for you ▼

The MK100A provides the widest possible dispersion in a compact, unobtrusive design. Perfect for difficult spacial or acoustic environments when pristine, transparent audio is required.

The MK100A now makes it possible to provide clear, accurate sound with superior coverage from an ultra-compact, self-powered speaker system.

## Balloon Plot ▼

Measured at 2.5 kHz, this plot is a perfect example of the unprecedented level of uniform dispersion provided by the aluminium planar driver in the MK100A. This uniform pattern is consistent from 90 Hz right up to 7kHz where the physical size of the driver begins to focus the dispersion.



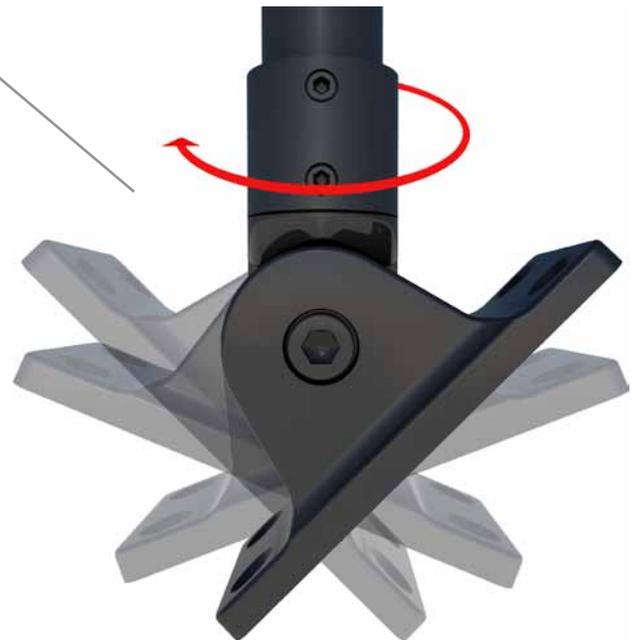
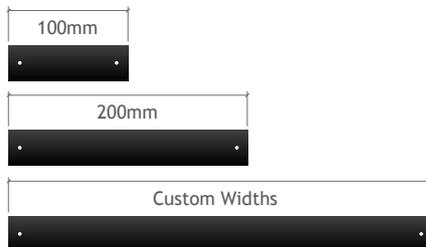
# FLEXIBLE MOUNTING

▼ For ease in achieving optimal placement

## 360° Flexibility:

The MK100A features an ultra-flexible 360° mounting bracket with a simple swivelling interface. It has never been easier to position and angle your sound to best suit the greater acoustic environment.

The bracket can be lengthened via the option of three Vari-Shaft extension tubes. These tubes provide the extra reach that is sometimes necessary to drop or hang the device to the most appropriate position. ▼



# APPLICATIONS

Equally suited to music reproduction and speech reinforcement, the variety of applications for the MK100A is virtually unlimited. Its compact dimensions and performance characteristics also make it an ideal compact active monitor for any sound reinforcement application where space is at a premium.



## Corporate Environments ▼

Physically unobtrusive. Ideal for office or lobby ambience and demanding board room or conference applications



## Hospitality Environments ▼

When the combination of discreet visual subtlety, superb audio clarity and wide dispersion is required to enhance the overall environment



## Retail Spaces ▼

Achieve clear sound and smooth even coverage with a smaller number of speakers enabling seamless sonic integration with the surrounding visual and physical environment

### ▼ **Parliaments & Courts of Law**

In environments where the spoken word is of the utmost importance, speech intelligibility is crucial, the MK100A provides complete, articulate coverage



### ▼ **Sound Masking**

Perfectly suited to waiting rooms, open conference offices and consultation environments. When acoustic privacy is crucial, the MK100A's uniform wide dispersion enables effective sound masking



### ▼ **Trade Shows & Exhibitions**

The unique characteristics of the MK100A enable a widely dispersed sound to be contained within shared environments and spaces without disturbing the surrounding areas



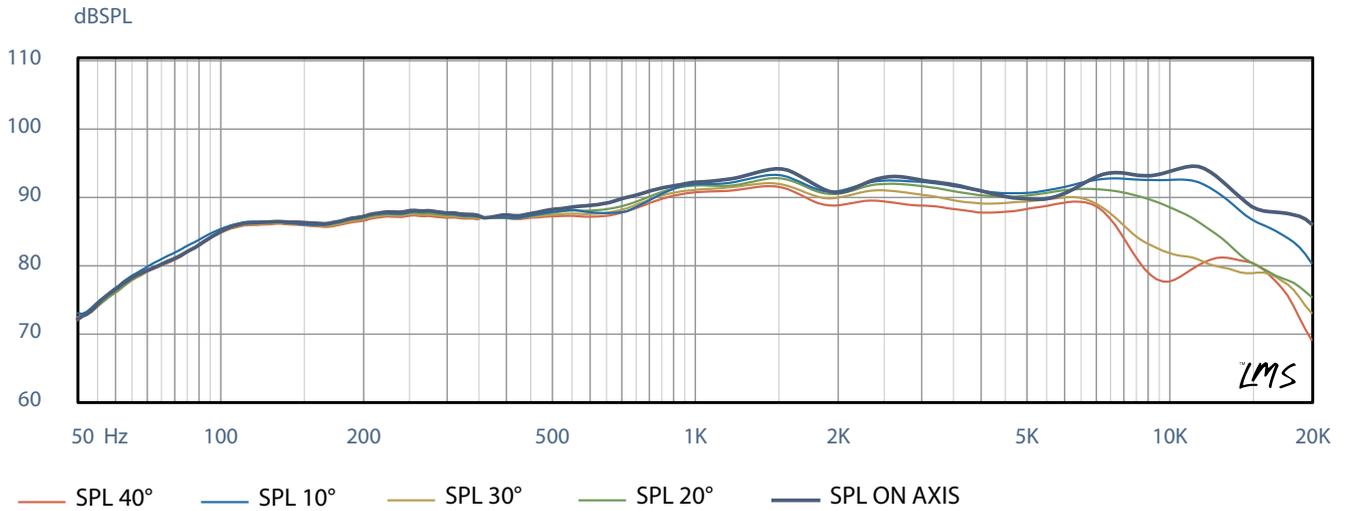
### ▼ **Education**

With its ultra-wide dispersion, the MK100A is the perfect solution for speech augmentation in educational facilities to ensure the teacher's message reaches every set of ears

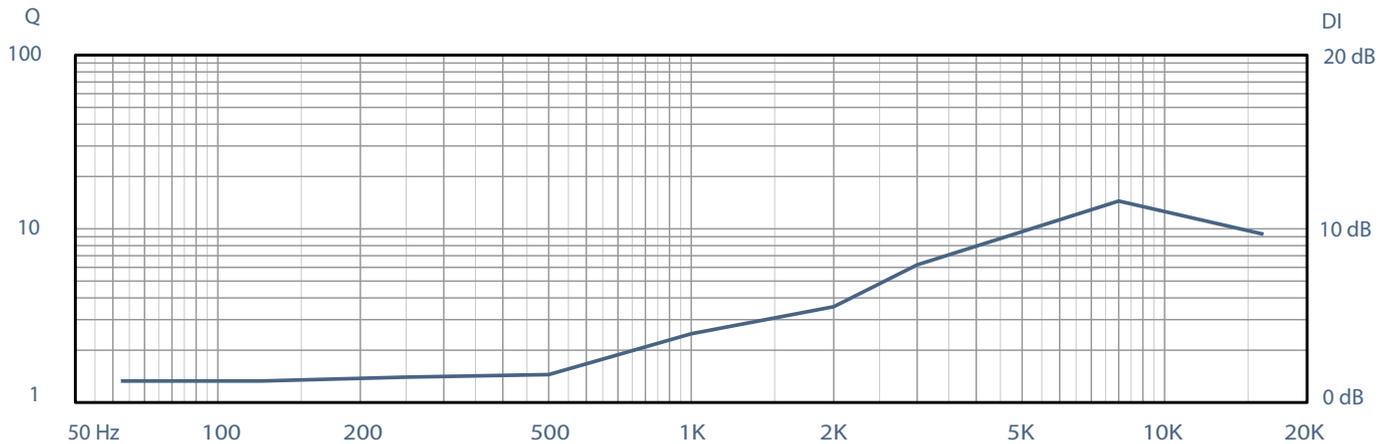


# ACOUSTIC DATA

## SPL Graph ▾

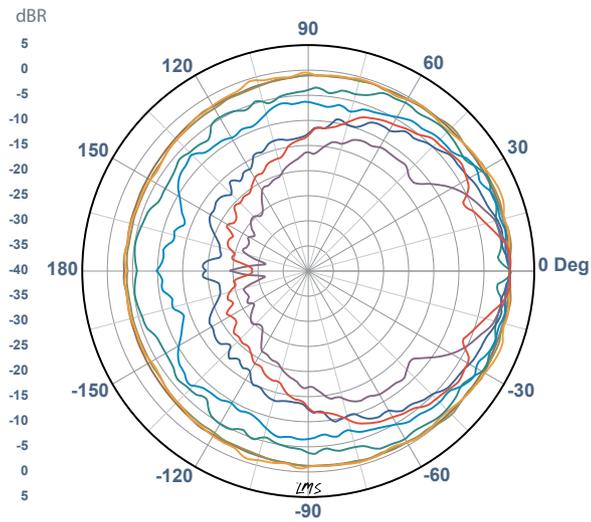


## Octave band Q & DI ▾



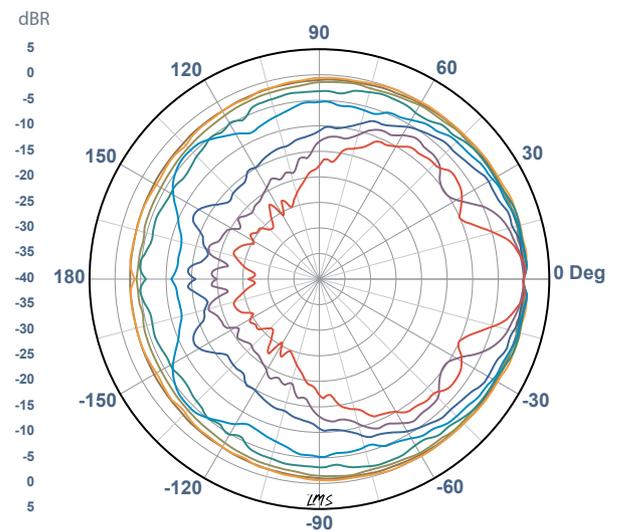
# POLAR DATA

## Vertical Polar Plot ▾



Curve	Freq	BW
	125.00	360
	250.00	360
	500.00	360
	1.00K	249
	2.00K	134
	4.00K	108
	8.00K	54
	16.00K	47

## Horizontal Polar Plot ▾



Curve	Freq	BW
	125.00	360
	250.00	360
	500.00	360
	1.00K	230
	2.00K	170
	4.00K	126
	8.00K	53
	16.00K	32

# THE MK ADVANTAGE

## Key Benefits ▼

- ▶ Less speakers needed to achieve coverage due to ultra-wide dispersion
- ▶ Ease and flexibility of installation
- ▶ Self contained solution (no external amplification needed)
- ▶ Long-term, reliable operation
- ▶ Convection Cooling - no fan noise or moving parts
- ▶ Aesthetically pleasing & discreet



## Australian innovation for a world market ▼

Acoustic Technologies and its team of dedicated engineering, audio and manufacturing specialists are at the forefront of developing solutions for the ever-changing and complex sound reinforcement industry. This passion has been evident from the initial conception and design right through to final manufacturing processes and is key to the success of this innovative, flexible and reliable product.

*The MK100A is Designed, Engineered and Manufactured in Brisbane, Australia.*

# SUPPORT & CUSTOMISATION

## ▼ Design & Engineering Support

Acoustic Technologies continues to support the greater audio community by working first hand with acoustic engineers, designers and installation contractors to ensure that each unique project is completed with total confidence in the audio system.

The MK100A has been developed in direct association with some of Australia's most respected installation contractors and audio engineers and represents a collaborative approach to finding a quality solution when clean, crisp audio is required with ultra-wide dispersion characteristics.

## ▼ Customisation

Acoustic Technologies offers customised manufacturing and design services for larger installation requirements and bulk orders of the MK100A. We'll assist with the acoustic implementation of the unit from the ground up and ensure that the device perfectly caters for the installed environment both acoustically and visually.

Custom colour matching is available on specialist or bulk quantity orders to ensure a seamless transition between the visual and acoustic elements of an installation.



# SPECIFICATIONS

## Acoustic Performance

Frequency Response  
Maximum SPL  
(Calculated)

Program  
Peak

90 Hz - 19 kHz  
104 dB @ 1 metre  
108 dB @ 1 metre

High Frequency Dispersion

Horizontal  
Vertical

120° ± 10° (below 8.0 kHz)  
120° ± 10° (below 8.0 kHz)

## Enclosure Specifications

Physical Size  
Weight  
Enclosure Finish

108mm (H) x 126mm (W) x 234mm (D)  
2.1 Kg  
Satin Black Powder Coat Finish  
Custom Finishes available on application  
Versatile Dual Swivel Bracket supplied

Mounting Hardware

## Transducer

Transducer Complement  
Transducer Power Handling  
Transducer Nominal Impedance

1 x 4" Aluminium Planar Technology Neodymium  
Perfectly suited to power module output  
6 Ohms

## Amplifier

Amplifier Type  
Amplifier Output Power  
Amplifier Cooling

Class D  
150 Watts into 6 Ohms THD+N 0.002%  
Convection Cooled

## Switch Mode Power Supply

SMPS Requirements  
Power Connector

220 - 240 Volts AC @ 2 Amps  
IEC Mains Lead with integrated  
Fuse Holder and Mains Switch  
Red LED on Rear Panel

Power On Indication

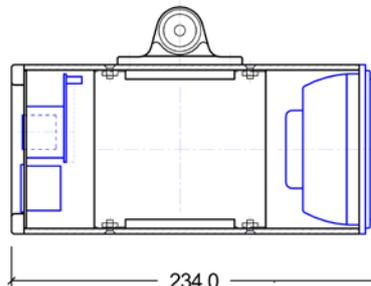
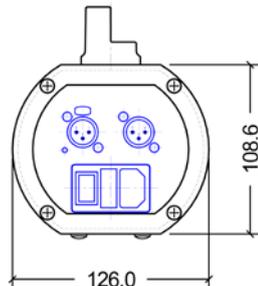
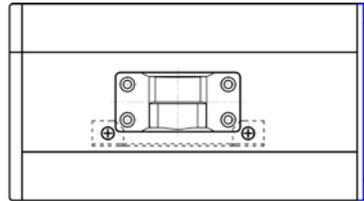
## Audio Input

Input Connector  
Input Impedance  
Input Sensitivity

Neutrik 3 Pin XLR with Signal Link Connector  
10 kOhm Electronically Balanced  
0.755 V RMS (-2.5dBV) for onset of clipping

## Data

EASE & CLF Data is available for  
download from our website at:  
[www.atprofessional.com.au](http://www.atprofessional.com.au)







## Acoustic Technologies

8 - 10 Staple Street  
Seventeen Mile Rocks  
Qld, 4073  
Australia

P: +61 7 3376 4122  
F: +61 7 3376 5793

E: [info@atprofessional.com.au](mailto:info@atprofessional.com.au)  
W: [www.atprofessional.com.au](http://www.atprofessional.com.au)



Proudly designed, engineered and manufactured in Australia.