



Australian Monitor

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## DOUBLE 15

## THE CONCEPT

The Qmx DOUBLE 15 is the first in a new generation of Australian Monitor high power loudspeakers. Qmx is the culmination of many years of research, development and practical 'hands on' experience in high power sound reinforcement systems and their applications. The unique concept of Qmx provides all that is required to achieve the optimum in dynamically accurate high fidelity performance. Qmx provides uniform wavefront coupling, enhanced phase coherence in the cross-over region, constant directivity, stable beamwidth and yet is capable of delivering a maximum on axis peak SPL of 136dB. All achieved without expensive electronic trickery or special equalizers compensating for speaker inadequacies or bad cabinet designs .

## THE SYSTEM

A full range loudspeaker system, the Qmx DOUBLE 15 features a two way, long throw, quasi-bandpass vented enclosure with physical alignment of driver acoustic centres for accurate signal synchronization. Transient response of the low frequency section is designed to have a waveform envelope that is balanced with that of the high frequency section. Vertical dispersion is symmetrical and uniform in the crossover region, the mean front-to-back energy ratio is higher over the entire spectrum than most other systems on the market today. The Qmx DOUBLE 15 is compact and easily manageable allowing high packing densities in confined areas.

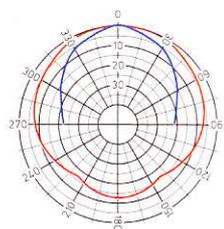


## LOW FREQUENCY SECTION

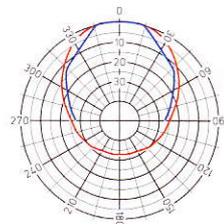
The Low Frequency section comprises two 380mm cast aluminium woofers providing exceptionally smooth, yet deep and 'punchy' bass. Each drive unit has a 6.4Kg magnet assembly, and utilises edge-wound, copper ribbon 62.4mm voice coils resulting in reduced energy-related thermal compression, high efficiency, and low distortion. The constant directivity characteristic of the horn compliments the physical design of the Qmx upper L.F. section, where typically other systems have a restricted beamwidth in this L.F. region.

## HIGH/MID FREQUENCY SECTION

The High/Mid Frequency section incorporates an extended range, 50mm compression driver with an edgewound aluminium voice coil, mounted on a polyimide former and a 1.5Kg ceramic magnet assembly. The driver is coupled to a 90 degree horizontal and 40 degree vertical constant directivity horn. The horn is moulded in high density structural polyurethane to eliminate vibration and resonance.



■ HORIZONTAL 250Hz  
■ VERTICAL 250Hz



■ HORIZONTAL 2000Hz  
■ VERTICAL 2000Hz

## NETWORK MANAGER

The heart of the Qmx system is the Network Manager, a sophisticated proprietary design circuit, and the end product of many hundreds of man hours of intense development and critical listening tests. The Network Manager's primary task is that of a passive filter network; however, within the Qmx design concept all is not as simple as it may appear. Various other special duties are handled by the Qmx Network Manager such as: impedance correction, driver transient/amplitude response control, and horn management. The resulting smooth frequency response and phase coherent acoustical point source provide solid imaging, clarity, detail and definition that has to be experienced to be believed.

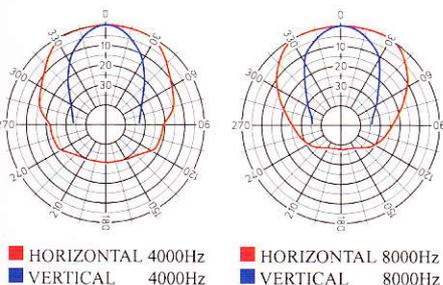
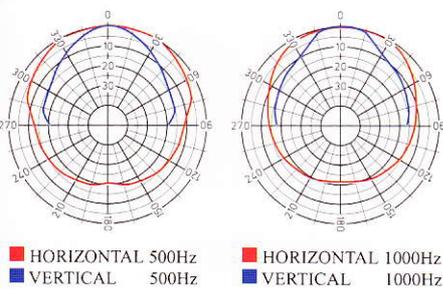


## CONSTRUCTION

The rugged cabinet of the Qmx DOUBLE 15 is constructed in 18mm structural grade, high density ply. Being an essentially modular construction, self bracing is intrinsic to the design. The cabinet is supplied as standard with four large steel bar handles, four 100mm diameter Resilex castors, and the enclosure is encased in heavy duty, dense pile, black carpet. The speaker fronts are protected by an easily removable recessed perforated steel grille, with acoustic foam backing; all corners are protected by steel trim caps.

## APPLICATION

The Qmx DOUBLE 15 is designed primarily as the main F.O.H. sound array for large or small concert touring systems. However due to the systems outstanding dispersion characteristics and stunning sonic performance, it is also suitable for fixed installations in outdoor arenas, concert halls, large churches, theatres, night clubs and in many other applications. Due to its dispersion and intelligibility characteristics the Qmx is suitable for use in highly reverberant environments. Designed to be stacked or flown vertically, the Qmx DOUBLE 15 side by side configuration, increases the horizontal coverage pattern and the on axis SPL by 4 to 5dB. When additional bass is required for more dynamic impact, the matching SL/AM sub woofer can be added to the system.



## POLAR RESPONSE

The polar response charts represent the soundfield in the vertical and horizontal axis. The charts show attenuation in dB from a normalised 0dB on axis reference. The measurements were taken in an anechoic space at a distance of 3 metres with 2.0 volts of octave band-limited pink noise set to ISO centre frequencies.



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## Features

Qmx™ utilizes proprietary alignment techniques and purpose-built design principles which result in the following attributes:

- EXCELLENT TRANSIENT PERFORMANCE
- HIGH EFFICIENCY
- UNIFORM RADIATION PATTERN
- MAINTAINS INTELLIGIBILITY UP TO MAXIMUM SPL
- MULTI-ROLE APPLICATIONS



- UNIFORM WAVEFRONT COUPLING
- FULL RANGE COMPOSITE SYSTEM
- COMPACT PACKAGE
- COST EFFECTIVE

### TECHNICAL

**Frequency Response:** 43Hz - 17kHz +/- 3dB  
35Hz - 20kHz +/- 6dB  
**Sensitivity:** 105dB re 1 Watt/Metre  
**SPL:** 133dB Continuous  
136dB Peak  
**Power Handling:** 600 Watts (Continuous Programme)  
1200 Watts (Peak - unclipped signal)  
**Impedance:** 4ohm (nominal)  
**Enclosure Type:** Vented, Quasi-Bandpass / double ended reactive loading  
**LF Driver:** 2 x 380mm (15") cone type  
**HF/MF Driver:** Compression type, 50mm (2") throat  
**Horn Type:** Constant directivity  
**Dispersion:** 90° Horizontal (60° optional)  
40° Vertical

### SPECIFICATIONS

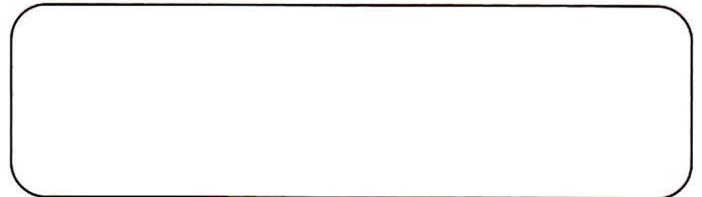
**Crossover:** Passive, compensated second order Linkwitz-Riley  
**Construction:** Premium Grade, high density 18mm ply  
**Net Weight:** 70Kgs (154Lbs)  
**Dimensions:** 550mm Wide (22")  
1060mm High (41.75")  
570mm Deep (22.5")  
685mm Deep (27") including castors  
**Flyware:** 4 point Aero type pan ring fittings, with steel backing plates (optional)  
**Connector:** 3pin XLR (standard), Speakon (optional)  
**Accessories:** 4 x 100mm heavy duty ball bearing castors (standard)  
4 x 11mm recessed steel bar handles (standard)  
Weatherproof canvas padded covers(optional)  
Plain wood or painted finish (optional)



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Qmx is designed by Australian Monitor in conjunction with Richard Priddle Acoustics.  
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