# RAM Monitor Loudspeakers

# DESIGNED FOR LISTENING

# The Critical Balance Between Music and Measurement

Over recent years RAM Monitor loudspeakers have been widely acknowledged for their contribution to the art of musical reproduction. Today our products, ranging from the diminutive Compact to our much larger Reference System, the RAM 200, are universally acclaimed as setting new standards of excellence for their size and price. In particular, the specialist press has commented time and time again on the uncanny ability of our speakers to reproduce music in such a way as to avoid drawing the listener's attention towards the physical presence of the speaker and away from the music itself.

Surely this is the ultimate accolade for any intended state-of-the-art design and one which quintessentially describes the phrase 'hi-fidelity'.

But while the attainment of perfection is a goal common to many, its achievement belongs only to the very few. How do we at RAM set about trying to realise such a goal?

**Music and Measurement**

In a certain sense a loudspeaker can only be as good as the technology and research embodied in its design. It is for this reason that we are deeply committed to drive-unit development and to the expansion of our research capability . But a loudspeaker designed from a purely abstract point of view under laboratory-conditions guarantees nothing about the final sound quality; equally, we do not share the rather 'fashionable' view that a speaker can be designed on the basis of subjective impressions alone - both schools of thought may lead to inaccuracies of an unacceptable order. At RAM we strive to combine the positive aspects of both approaches which means getting the balance between measurement analysis and critical musical evaluation just right.

Thus each RAM model is exhaustively researched and investigated in our own anechoic chamber with the aid of micro processor technology. Our 1.2 Tesla low/mid frequency unit, as used in the RAM Bookshelf Monitor, RAM 100, RAM 150 and 1.4 Tesla unit, as used in the RAM 200, feature critically profiled 200mm bextrene cones damped by special visco-elastic materials and are arguably two of the most advanced 200mm transducers currently available. Similarly, the high frequency unit employed throughout the range (with the exception of the RAM Compact) is the renowned 25mm Son Audax soft-dome, a unit notable for its extremely stable dispersion characteristics, low order of distortion and generally its exceptionally 'sweet' sound. Even in our least expensive model, the RAM Compact, where the design parameter of higher efficiency calls for the use of a lightweight paper cone, the low/mid-frequency 165mm unit is built to our specifications, once again being damped with plasticising materials, and is fitted with a high power ventilated aluminium voice coil, together with an un-doped open weave fibre dust cap to reduce distortion. The HF unit in the Compact features a 25mm hemispherical soft nylon diaphragm.

The technology which goes into our products and the stringent objective performance parameters which our products must meet is ultimately subordinate to the overall requirement, namely, that of achieving a high degree of musical realism. It is for the reason that every model in our series of domestic monitor loudspeakers has been designed to provide a smooth and neutral tonal balance with respect to music programme content, avoiding undesirable colouration effects and un-natural exaggerations or imbalances in the total amplitude response.

**In the end, a range of loudspeakers designed for those who listen.**

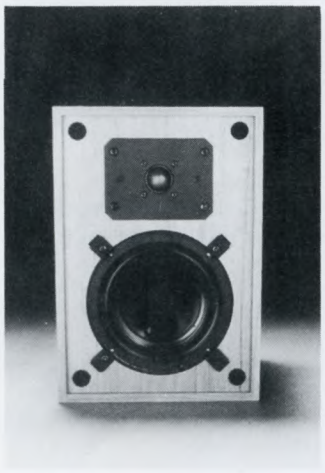
# RAM Compact

Recently introduced to the range, the Compact may be regarded as a higher efficiency, higher power handling version of the Mini. The two specially modified units employed in the Compact are carefully equalised through a close tolerance 6-element dividing network, while the cabinet is internally stress-veneered and lined with anechoic grade foam to ensure low cavity resonances.

# RAM 100

Although of similar design and construction to the BSM mk2 this compact stand-mounted monitor offers a more extended low-frequency performance and improved imaging properties. An unusually resonant-free enclosure is achieved by the use of high-density structural materials, 6mm bitumen lining, internal bracing and sound absorbent damping.

# RAM Mini Bookshelf Monitor



Already established as one of the reference small monitor speakers, the Mini features the Audax HD 12.9 dome tweeter and a 165mm plastiflex-doped bextrene cone. The high density cabinet is heavily damped with bitumen panels and internal standing wave absorption is achieved by the use of polyurethane foam blocks.

# RAM 150

The first of our designs to feature our unique bextrene ABR, the 150 is characterised by its extended and highly controlled low-frequency performance. Bass/midrange unit, tweeter and cabinet construction are as in the RAM 100. Matching stands are available and strongly recommended to avoid the excitation of undesirable room reasonances.

# RAM BSM mk2

Notable for its very large sound image, above average sensitivity and high power handling, the BSM mk2's 1.2 Tesla 200mm damped bextrene LF/MR unit and soft dome tweeter are optimally equalised through a complex precision dividing network providing smooth transition at the critical cross-over point.

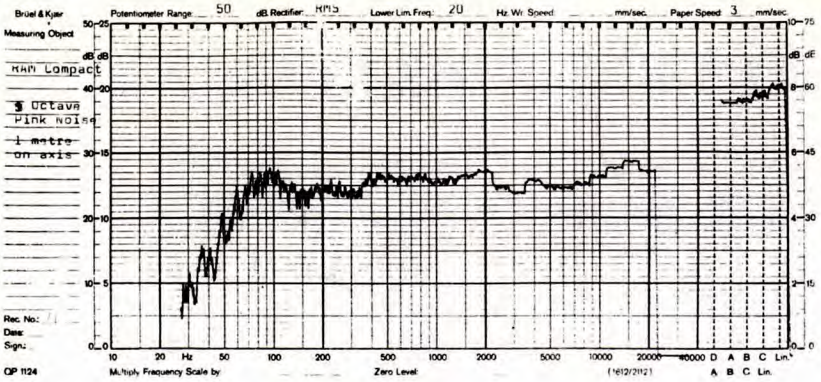
# RAM 200

The largest of our current systems the RAM 200 features our 1.4 Tesla 200mm damped-bextrene LF/MR unit and our 254mm bextrene ABR, together with the Audax soft dome tweeter. Excellent unit integration is accomplished by an 8-element dividing network employing high stability components and low loss capacitors in the high pass filter.

For further information see over leaflet.

## RAM Compact

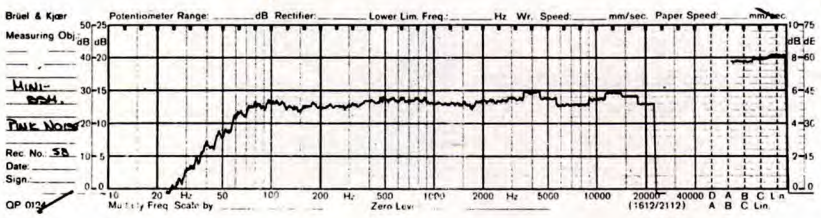
**Drive units:**
1x165mm Pulp Fibre cone, damped with selected visco-elastic materials. High power voice coil wound on ventilated aluminium former. Low Q cast-magnesium chassis 1x26mm soft dome HF unit with special nylon diaphragm.




**System loading:** Acoustic suspension.
**Suggested amplifier matching:** 8-50 watts per channel.
**Nominal impedance:** 4-8ohms.
**Frequency response limits:** ± 3db 70hz-22khz.
**Sensitivity:** 6 watts produces 91db. (measured on axis, 1m distance)
**Dimensions:** 13x7¼ x 9" wide.
**Weight:** 4.2kl.

## RAM Mini BSM

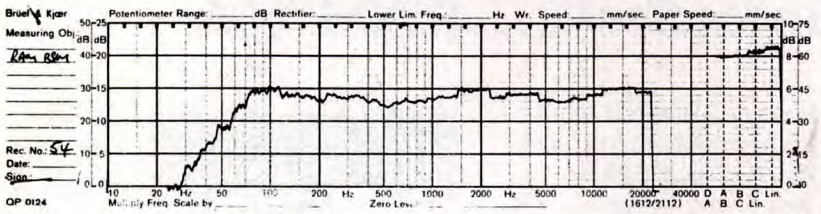
**Drive units:**
1x165mm Bextrene cone, plastiflex doped, ultra-high loss inverted PVC surround 1x25mm soft dome HF radiator. cambric dome critically treated with butyl latex damping.




**System loading:** Acoustic suspension.
**Suggested amplifier matching:** 15-50 watts per channel.
**Nominal impedance:** 4-8 ohms.
**Frequency response limits:** ±2dB 60Hz–22kHz.
**Sensitivity:** 6 watts produces 88dB. (measured on axis, 1m distance)
**Dimensions:** 13"x7"x9" wide.
**Weights:** 5.25KL.

## RAM BSM mkII

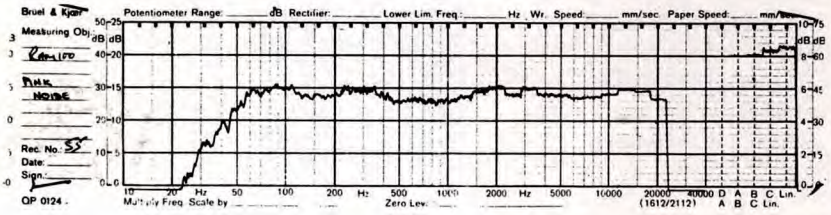
**Drive units:**
1x200mm plastic cone. Plastifex-doped, high loss PVA surround. 1x25mm dome HF radiator.




**System loading:** Tuned open port.
**Suggested amplified matching:** 12-50 watts per channel.
**Nominal impedance:** 4-8 ohm.
**Frequency response limits:** ± 2dB 70Hz - 22kHz.
**Sensitivity:** 6 watts produces 91 dB (Measured on axis, 1m distance)
**Dimensions:** 16" x 9" x 10" wide.
**Weight:** 8.75KL.

## RAM 100

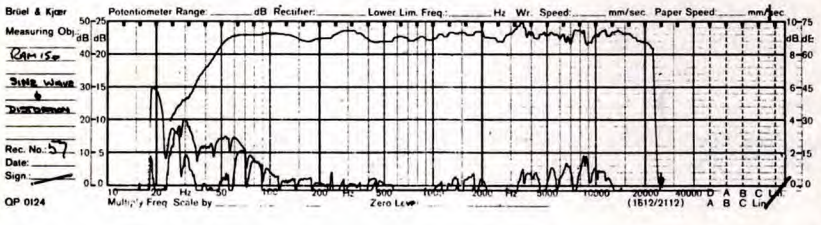
**Drive units:**
1 x 200mm Bextrene cone. plastifex doped. high loss inverted PVA surround: high power former and coil assembly. 1 x HF unit as above.




**System loading:** Tuned open port.
**Suggested amplifier matching:** 15 - 65 watts per channel.
**Nominal impedance:** 4-8 ohms.
**Frequency response limits:** ± 2dB 55Hz - 22kHz.
**Sensitivity:** 6 watts produces 90dB. (measured on axis, 1m distance)
**Dimensions:** 19½" x 10" x 11" wide
**Weight:** 11.3KL.

## RAM 150

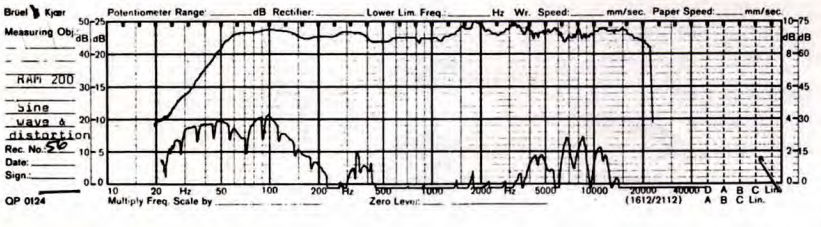
**Drive units:**
As in RAM 100
1 x 200mm passive radiator.




**System loading:** Auxilary Bass Radiator.
**Suggested amplifier matching:** 15 - 70 watts per channel.
**Nominal impedance:** 4-8 ohms.
**Frequency response limits:** ± 2dB 50Hz - 22kHz.
**Sensitivity:** 6 watts produces 90dB. (measured on axis, 1m distance)
**Dimensions:** 23" x 10" x 11½" wide.
**Weight:** 13.3KL.

## RAM 200

**Drive units:**
1 x 25mm cambric dome HF unit.
1 x 200mm Bextrene MR/LF driver.
1 x 254mm Bextrene Passive Radiator.




**System loading:** Auxilary Bass Radiator.
**Suggested amplifier matching:** 15 - 75 watts per channel.
**Nominal impedance:** 4-8 ohms.
**Frequency response limits:** ± 2dB 45Hz - 22kHz.
**Sensitivity:** 6 watts for 92dB. (measured on axis, 1m distance)
**Dimensions:** 26"x10½"x12½" wide.
**Weight:** 16.5KL.

RAM

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