HR624 MK2 Specifications

**Enclosure**

**Materials and Construction:**
¾-inch (19 mm) thick MDF cabinet construction with internal bracing to add to cabinet stiffness.

Piano-black gloss finish.

Die-cast aluminum exponential wave guide for controlled, wide dispersion from high-frequency driver and Zero Edge Baffle™ to minimize diffraction around the cabinet edges.

Open cell adiabatic “foam fill” acoustical damping material absorbs internal reflections, preventing delayed sound coloration.

Flush-mount connector system allows monitor to be placed against a wall without need for connector clearance.

**Transducers**

**Low-frequency driver:**
- Diameter: 6.7 inches (170mm)
- Sensitivity (2.83V, 1m): 89 dB SPL
- Nominal Impedance: 4 Ω
- Voice Coil Diameter: 1.25 inches (32mm)
- Power Handling (Long Term/Program): 50/150 watts
- Frequency Range: 45 Hz to 6 kHz
- Frame: Die-cast magnesium
- Magnet: Ferrite
- Fully shielded: Ferrite opposing magnet

**High-frequency driver:**
- Sensitivity (2.83V, 1m): 91 dB SPL
- Nominal Impedance: 6 Ω
- Power Handling (Long Term/Program): 20/50 watts
- Frequency Range: 1.6 kHz to 22 kHz
- Diaphragm/Suspension: Titanium with polymer suspension
- Voice Coil Diameter: 1.0 inch (25.4mm)
- Magnet: Neodymium
- Bucking Magnet: Ferrite opposing magnet

**Passive Radiator:**
- 6-inch x 9-inch (152mm x 228mm) mass-loaded elliptical flat piston with variable thickness filleted edge rubber surround.

**Crossover Section**

**Crossover Type:** Modified Linkwitz-Riley, 24 dB/octave @ 3 kHz

**System Specifications**

**Amplifier Section**

- Low-frequency power amplifier
  - Rated Power (at 1 kHz with 1% THD): 100 watts
  - Rated Load Impedance: 4 ohms
  - Rated THD (1W to –1 dB of rated power): 0.1 %
  - Slew Rate: 15V/µS
  - Distortion (THD, SMPTE IMD, DIM 100): < 0.035%
  - Signal-to-Noise (20Hz-20kHz, unweighted, referenced to 100W into 4Ω): > 101 dB
  - Cooling: Convection
  - Design: Monolithic IC, Class AB, Parametric Servo Feedback

- High-frequency power amplifier
  - Rated Power (at 1 kHz with 1% THD): 40 watts
  - Rated Load Impedance: 6 ohms
  - Rated THD (1W to –1 dB of rated power): 0.1 %
  - Slew Rate: 15V/µS
  - Distortion (THD, SMPTE IMD, DIM 100): < 0.035%
  - Signal-to-Noise (20 Hz-20kHz, unweighted, referenced to 40 W into 8Ω): > 93 dB
  - Cooling: Convection
  - Design: Monolithic IC, Conventional Class AB

**Input Type:** Balanced Differential (XLR and 1/4” TRS)

**Input Impedance:**
- 20 kΩ Balanced
- 10 kΩ Unbalanced

**Input Protection:**
- RFI and Level Protected

**Maximum Input Level:** +20 dBu

**Low Frequency Filter:**
- 80 Hz, 2nd Order, Butterworth

**HF Equalization:** Shelving ±2 dB @ 10 kHz

**Acoustic Space:**
- A position: −4 dB @ 50 Hz, shelving
- B position: −2 dB @ 50 Hz, shelving
- C position: Flat

**Compressor:**
- Independent high and low frequency overload detection

**Enclosure Alignment:** 6th Order

**Over Excursion Prevention:** 2nd Order High-Pass Filter

**Low Line Voltage Shut Down:** 60% of Nominal Line

**Thermal Protection:** Amplifier Shut-Down, Auto Reset

**Muting:** 5 seconds at turn-on

**Signal Sense Threshold:** −74 dBu (0.155 mV)

**Driver Protection:** Independent LF and HF Detection

**Overall Compression**
**Acoustic Section**

Free-Field Frequency Response:

\[ \pm 1.5 \text{ dB, } 49 \text{ Hz to } 20 \text{ kHz} \]

Lower cutoff frequency: \(-3 \text{ dB @ 45 Hz}\)

Upper cutoff frequency: \(-3 \text{ dB @ 22 kHz}\)

Sound Pressure Level at 1 meter,
\(-7.5 \text{ dBA into balanced input: } 100 \text{ dB SPL @ } 1 \text{ m}\)

Maximum peak SPL per pair: \(115 \text{ dB SPL @ 1 m}\)

Maximum short term SPL on axis, half space 80 Hz to 2.5 kHz: \(106 \text{ dB SPL @ 1 m}\)

Residual noise (maximum gain, 600Ω source, 20 Hz-20 kHz bandwidth): \(< 8 \text{ dB SPL @ 1 m}\)

**Rated Line Input Voltage and Power:**

Power consumption:

Standby mode: 12 watts

Quiescent (idle): 20 watts

Musical Program, Loud mix: 105 watts

Both channels driven into resistive loading to 1% clipping

(LF 86W/4Ω, HF 38W/8Ω): 255 watts

US: 120 VAC, 60 Hz

Europe: 240 VAC, 50 Hz

Korea (AC Power Selector at 240 V):

220 VAC, 60 Hz

Japan (AC Power Selector at 120 V):

100 V, 50-60 Hz

Rated Power

(For UL-6500, CSA-E65-94, EN-60065):

130 watts

**Physical Properties**

Height: 13.1 in/33.3 cm

Width: 8.6 in/21.9 cm

Depth Enclosure: 10.3 in/26.2 cm

Depth Overall: 12.6 in/31.9 cm

Internal Volume: 0.29 cubic feet (8.2 liters)

Weight: 23.4 lb/10.6 kg

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HR624 MK2 design protected under the following patent: DES. 387,351

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