

# T e c h n o l o g i e s

## Ceramic-Coated Aluminium/Magnesium (C-CAM®)

Since 1972, Monitor Audio's near fanatical commitment to excellence and innovation has received global recognition and acclaim. When we launched our R352MD loudspeaker - the first model to incorporate a metal dome tweeter - it caused quite a stir. Until that time, most metal domes were single-metal types made from copper or titanium and virtually all sounded unconvincing. The R352 used an aluminium/magnesium alloy dome and sounded significantly better and smoother than all of its single-metal rivals. This radical design formed the blueprint for successive generations of our C-CAM metal domes.

All the radiating surfaces of the Platinum drivers are formed from C-CAM, a material originally developed by the aerospace industry for jet engine components. Its properties are ideal for loudspeaker cones: extremely rigid, yet light enough to yield high overall efficiency. In manufacture, aluminium/magnesium alloy undergoes stress-relieving processes to remove surface deformation and molecular weakness. Once formed, the alloy cone is subjected to a high temperature anodic coating process, in which a layer of pure ceramic alumina is deposited onto its surfaces to give a completely rigid exterior. Conventional cone materials are liable to flex or twist in operation, producing a significant level of audible distortion. C-CAM cones have a much higher resistance to bending stress and therefore exhibit much greater fidelity.



### Platinum C-CAM high frequency ribbon transducer.

A pure ribbon tweeter is highly regarded in the world of high-end audio as being the best way to reproduce ultra-high frequencies and provide the most lifelike transient response. While this belief is well supported by fundamental physics, one listen will tell you that this driver is very special indeed.

Platinum's ribbon tweeter design uses an ultra-thin sandwich of C-CAM alloy suspended in a powerful transverse magnetic field of high energy NeFeB rare earth magnets. The ribbon serves as both voice coil and radiating diaphragm, with every part of the ribbon driven directly and simultaneously without energy storage. Having a mass of just 18mg, its diaphragm is able to start and stop in an instant, producing a transient response capable of defining the leading edge and natural harmonic resonance of complex musical sounds. Specified to reach ultra-high frequencies up to an elusive 100 kHz, Platinum's magical ribbon tweeter will reproduce with ease every last nuance and detail from vinyl, CD, DVD-A and SACD, together with the wider bandwidth of HD-DVD and Blu-ray.



## Rigid Diaphragm Technology (RDT®) mid-range and bass drivers

Bass and mid-range driver cones use RDT, a unique technology developed specifically by Monitor Audio's engineers for the Platinum series of loudspeakers\*. Designed to reduce mass and increase cone stiffness, RDT applies ultra-thin skins of C-CAM to a core of honeycomb Nomex®\*\* material, creating a structure which is extremely light but incredibly rigid. At only 40µm thick, the C-CAM skins are half the thickness of a human hair, yet when bonded to the hexagonal honeycomb core they form an RDT cone, which is 150 times more rigid than a single layer of 200µm C-CAM alloy, but has a fraction of the overall mass. These properties allow the cone to operate as a lightning-fast piston for a clearer more natural sound. The cone's new concave geometry has been refined by FEA analysis to provide a smooth frequency response and eradicate break-up.

To optimise the performance of the RDT cone, Monitor Audio has developed motor systems in which a focused magnetic gap and copper eddy rings work together to produce a higher level of linearity and lower distortion than was previously possible. Magnet plates and poles are CNC machined to very precise standards, ensuring consistency.

The Platinum mid-range driver utilises an 'under hung' voice coil design to further optimise linearity and reduce distortion. High energy NeFeB rare earth magnets are used for high efficiency, and a large 2" (50mm) voice coil is specified to handle powerful dynamic impulses. Its RDT cone is driven directly by the voice coil to provide an extremely articulate mid-range response and seamless integration with the other drivers.

Platinum's bass drivers use long-throw voice coil windings for long excursions at high power levels, giving deeper, more controlled and potent bass. The larger 8" (200mm) drivers employ dual spider arrangements for extra stability. Their direct-drive RDT cones have no dust cap or joints to interfere with the driver response over the working band.

\* PLW-15's driver is C-CAM only

\*\* Nomex® is a registered trademark of E.I DuPont de Nemours and Company



MODEL	<b>PL100</b>
Frequency Response	42Hz - 100kHz
Sensitivity (1W@1m). dB	88
Nominal Impedance. Ohms	4
Maximum S.P.L dBA (per pair)	112.6
Power Handling (RMS) Watts	120
Recommended Amplifier Requirements (RMS) Watts	50-120
Bass Alignment	Ported. HiVe® II technology
Mid/ H.F Crossover Frequency	2800Hz
Bass Low Pass Crossover Frequency	N/A
Drive Unit Complement	1 x 6.5" RDT® Bass/mid-range driver 1 x C-CAM® high frequency ribbon transducer
External Dimensions - Excluding Stand	Height: 370mm (14 9/16 inches) Width: 225mm (8 7/8 inches) Depth: 285mm (11 1/4 inches)
Weight (each)	13 Kg (28.6lbs)
Stand External Dimensions	Height: 615mm (24 3/16 inches) Width: 340mm (13 3/8 inches) Depth: 365mm (14 3/8 inches)
Finishes Available	1. Santos Rosewood veneer with clear gloss piano lacquer 2. Ebony veneer with clear gloss piano lacquer 3. Piano black gloss  All cabinet finishes have hand-upholstered front baffles in Black premium grade leather.



 GENUINE LEATHER



<b>MODEL</b>	<b>PL200</b>
Frequency Response	35Hz - 100kHz
Sensitivity (1W@1m). dB	90
Nominal Impedance. Ohms	4
Maximum S.P.L dBA (per pair)	117.8
Power Handling (RMS) Watts	250
Recommended Amplifier Requirements (RMS) Watts	100-250
Bass Alignment	Twin Ported HiVe® II technology Sealed Mid-range TLE®
Mid/ H.F Crossover Frequency	3600Hz
Bass Low Pass Crossover Frequency	600Hz
Drive Unit Complement	2 x 6.5" long-throw RDT® bass drivers 1 x 4" RDT® mid-range driver 1 x C-CAM® high frequency ribbon transducer
External Dimensions – Including Fixed Plinth & Feet	Height: 998 mm (39 inches) Width: 255 mm (10 inches) Depth: 285 mm (11 1/4 inches)
Weight (each) Including Plinth	33 Kg (72.7 lbs)
Finishes Available	1. Santos Rosewood veneer with clear gloss piano lacquer 2. Ebony veneer with clear gloss piano lacquer 3. Piano black gloss  All cabinet finishes have hand-upholstered front baffles in Black premium grade leather.



 GENUINE LEATHER



<b>MODEL</b>	<b>PL300</b>
Frequency Response	28Hz - 100kHz
Sensitivity (1W@1m). dB	90
Nominal Impedance. Ohms	4
Maximum S.P.L dBA (per pair)	118.6
Power Handling (RMS) Watts	300
Recommended Amplifier Requirements (RMS) Watts	100-300
Bass Alignment	Twin Ported HiVe® II technology Sealed Mid-range TLE®
Mid/ H.F Crossover Frequency	4000Hz
Bass Low Pass Crossover Frequency	550Hz
Drive Unit Complement	2 x 8" long-throw RDT® bass drivers 1 x 4" RDT® mid-range driver 1 x C-CAM® high frequency ribbon transducer
External Dimensions – Including Fixed Plinth & Feet	Height: 1113mm (43 13/16 inches) Width: 410mm (16 1/8 inches) Depth: 470 mm (18 1/2 inches)
Weight (each) Including Plinth	43.8 Kg (96.4 lbs)
Finishes Available	<ol style="list-style-type: none"> <li>1. Santos Rosewood veneer with clear gloss piano lacquer</li> <li>2. Ebony veneer with clear gloss piano lacquer</li> <li>3. Piano black gloss</li> </ol> <p>All cabinet finishes have hand-upholstered front baffles in Black premium grade leather.</p>



 GENUINE LEATHER



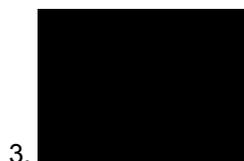
MODEL	<b>PLC150</b>
Frequency Response	45Hz- 100kHz
Sensitivity (1W@1m). dB	89
Nominal Impedance. Ohms	4
Maximum S.P.L dBA (each)	112.8
Power Handling (RMS) Watts	200
Recommended Amplifier Requirements (RMS) Watts	60-200
Bass Alignment	Rear Ported HiVe®II technology
Mid/ H.F Crossover Frequency	1800Hz
Bass Low Pass Crossover Frequency	250Hz
Drive Unit Complement	2 x 6.5" RDT® bass/mid-range driver 1 x C-CAM® high frequency ribbon transducer
External Dimensions - Excluding Stand	Width: 583mm (22 15/16 inches) Height: 225mm (8 7/8 inches) Depth: 291.2mm (11 7/16 inches)
Weight	19Kg (41.8lbs)
Stand External Dimensions – Including Plinth & Feet	Width: 610mm (24 inches) Height: 335mm (13 13/16 inches) Depth: 463mm (18 1/4 inches)
Finishes Available	1. Santos Rosewood veneer with clear gloss piano lacquer 2. Ebony veneer with clear gloss piano lacquer 3. Piano black gloss  All cabinet finishes have hand-upholstered front baffles in Black premium grade leather.



 GENUINE LEATHER



<b>MODEL</b>	<b>PLC350</b>
Frequency Response	32Hz- 100kHz
Sensitivity (1W@1m). dB	90
Nominal Impedance. Ohms	4
Maximum S.P.L dBA (each)	117.8
Power Handling (RMS) Watts	250
Recommended Amplifier Requirements (RMS) Watts	100-250
Bass Alignment	Twin Ported HiVe®II technology Sealed Mid-range TLE®
Mid/ H.F Crossover Frequency	4000Hz
Bass Low Pass Crossover Frequency	550Hz
Drive Unit Complement	2 x 8" long-throw RDT® bass drivers 1 x 4" RDT® mid-range driver 1 x C-CAM® high frequency ribbon transducer
External Dimensions - Excluding Stand	Width: 800mm (31 1/2 inches) Height: 288mm (11 5/16 inches) Depth: 368mm (14 1/2 inches)
Weight	33.5 Kg (73.8 lbs)
Stand External Dimensions – Including Plinth & Feet	Width: 610mm (24 inches) Height: 335mm (13 13/16 inches) Depth: 463mm (18 1/4 inches)
Finishes Available	1. Santos Rosewood veneer with clear gloss piano lacquer 2. Ebony veneer with clear gloss piano lacquer 3. Piano black gloss  All cabinet finishes have hand-upholstered front baffles in Black premium grade leather.



 GENUINE LEATHER



<b>MODEL</b>	<b>PLW-15</b>
Amplifier Output	1000 watts (RMS) 2000 watts (Peak)
Frequency Response	16Hz to 40/160Hz variable.
Crossover (Low Pass)	40Hz - 160Hz Variable slope characteristic from 12 – 36dB/Octave
Sub-Sonic Filter (High Pass)	16Hz - 31Hz
EQ	4 x Presets 1 x User Setting
Equalisation	Graphic 9 Band Equaliser. $\pm$ 6dB in 0.5dB steps
Volume Level	-80 – 0dB (1dB Increments from 0 to -30dB & 2dB Increments from -31 to - 80dB)
Auto Sensing Input Requirements	Line Level >5mV (RMS) Variable delay time; 5, 10, 15, 20, 25 & 30 Minutes.
Variable Phase Control	0, 45, 90, 135, 180, 225, 270 & 315°
Internal Memory	3 Independent memory locations.
Cabinet Specification	Sealed Cabinet with 25mm thick M.D.F construction with critical internal bracing
Amplifier Classification	Class- D amplifier, with DSP control
Driver Complement:	1 x 15" C-CAM® long throw sub-woofer driver featuring triple suspension and 4" long throw voice coil
External Dimensions - Excluding Plinth.	Width: 485mm (19 inches) Height: 455mm (18 Inches) Depth: 475mm (18 3/4 Inches)
Weight (each)	50 Kg (110 lbs)
Mains input Voltage	100 - 240 Vac 50 / 60Hz (Factory Set)
Trigger Input	3.5mm Jack input, +12Vdc = On State
Finishes Available	1. Santos Rosewood veneer with clear gloss piano lacquer 2. Ebony veneer with clear gloss piano lacquer 3. Piano black gloss

