



# Australian Monitor

## *Opal Series* POWER AMPLIFIERS

Australian opals are among the most beautiful and sought-after iridescent gems in the world. Of all the known precious stones, only opal can show the complete range of spectral hues in a glorious balance.

The Australian Monitor Opal Series is a gem among amplifiers, the culmination of countless hours of dedicated research and development.

Without sacrificing Australian Monitor's legendary quality or design, the new affordable Opal Series

response combined with a high slew rate, and high damping factor for accurate loudspeaker driver control.

### Construction

Built to the highest standards the Opal Series utilises a 2 unit high, module monocoque chassis. Its symmetrical construction features heavy gauge aluminium front and rear panels integrated with a rigid folded steel pan and steel side bracing.



brings within everyone's reach superlative sonic performance, unmatched dynamics and of course our renowned "all terrain" construction techniques.

### Audio Reproduction

The Australian Monitor design team have drawn on a wealth of experience in sophisticated audio circuit designs for CD mastering facilities, music recording studios and other esoteric audio monitoring situations. In the new Opal Series they have created one of the finest high definition audio signal paths available, exhibiting dazzling transients, timbral accuracy and outstanding sonic integrity.

The MOSFET-based circuit design with double-balanced current-mirror drive circuit provides wide bandwidth, ultra low THD / IMD, super fast transient

### Cooling

Four custom aluminium alloy heatsinks, providing a 6.0 metre perimeter with over 500,000 square mm of convection cooling area. Internal airflow is assisted by a signal-dependent, silent axial fan, providing "on demand" cooling.

### Power Supply

At the heart of the Opal 2802 is a high efficiency 800VA toroidal mains transformer, the current source for two massive 15,000 microfarad computer grade reservoir capacitors. While maintaining high power output, this topology minimises ELF emissions to ensure your safety.

## Opal 1202

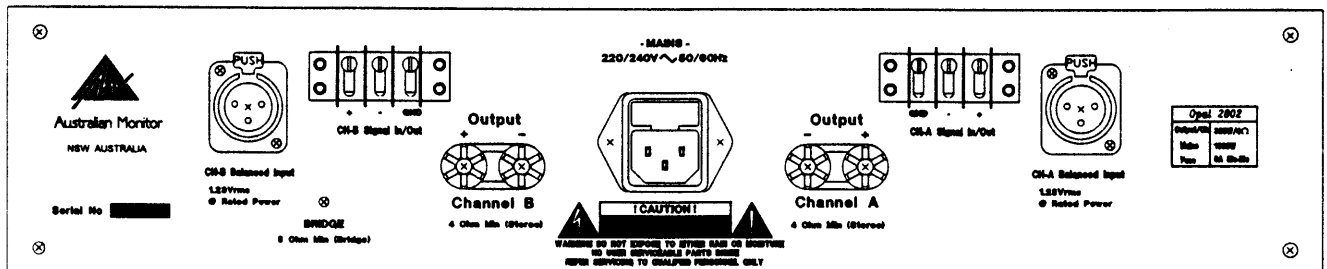
<b>Output Power Test</b> E.I.A. 1kHz, <0.05% THD (pre-stress at rated power for 5 min) single channel driven double channel driven Bridge mode	Power 8 ohm	Power 4 ohm
	150W	220W
	130W	175W
	340W	
<b>Distortion</b> @ 0.5 dB below clipping re 4 ohms THD @ 1 kHz IMD SMPTE (60 Hz / 7 kHz 4:1) IMD CCIF (14 kHz / 15 kHz 1:1)		<0.005% <0.005% <0.008%
<b>Frequency Response</b> -0.35, -0.15dB	20 Hz - 20 kHz	
<b>Damping Factor</b> @ 1 kHz, 8 ohm load		250:1
<b>Input Impedance</b> Line to Line, Balanced		25 kohm
<b>Input Sensitivity</b> 8 ohms, rated power	(+4dB) 1.23Vrms	
<b>Input CMRR</b> @ 1 kHz		>81.5db
<b>Voltage Gain</b> @ 1 kHz		31dB
<b>Output Rise Time</b> 20 kHz square wave 113Vpp (leading edge)		2.4µs
<b>Slew Rate</b> 20 kHz square wave 145Vpp (leading edge)		35V/µs
<b>Signal/Noise Ratio</b> linear (30 kHz) A weighted		102dB 104dB
<b>Crosstalk</b> @ 1 kHz		<-90dB
<b>Weight</b> Net Packed		13 kg 15 kg
<b>Dimensions</b> excluding handles	H x W x D 3.5 x 19 x 14.8 inch 88 x 482 x 375 mm	

(19 inch EIA rack mounting, 2 units high)

## Opal 2802

<b>Output Power Test</b> E.I.A. 1kHz, <0.05% THD (pre-stress at rated power for 5 min) single channel driven double channel driven Bridge mode	Power 8 ohm	Power 4 ohm
	250W	320W
	200W	280W
	560W	
<b>Distortion</b> @ 0.5 dB below clipping re 4 ohms THD @ 1 kHz IMD SMPTE (60 Hz / 7 kHz 4:1) IMD CCIF (14 kHz / 15 kHz 1:1)		<0.005% <0.005% <0.008%
<b>Frequency Response</b> -0.35, -0.15dB	20 Hz - 20 kHz	
<b>Damping Factor</b> @ 1 kHz, 8 ohm load		250:1
<b>Input Impedance</b> Line to Line, Balanced		25 kohm
<b>Input Sensitivity</b> 8 ohms, rated power	(+4dB) 1.23Vrms	
<b>Input CMRR</b> @ 1 kHz		>81.5db
<b>Voltage Gain</b> @ 1 kHz		32dB
<b>Output Rise Time</b> 20 kHz square wave 113Vpp (leading edge)		2.4µs
<b>Slew Rate</b> 20 kHz square wave 145Vpp (leading edge)		35V/µs
<b>Signal/Noise Ratio</b> linear (30 kHz) A weighted		102dB 104dB
<b>Crosstalk</b> @ 1 kHz		<-90dB
<b>Weight</b> Net Packed		15 kg 17 kg
<b>Dimensions</b> excluding handles	H x W x D 3.5 x 19 x 14.8 inch 88 x 482 x 375 mm	

(19 inch EIA rack mounting, 2 units high)



### Features

- Buffered 21 position front-panel stepped attenuators
- Balanced XLR inputs
- Symmetrical construction for even weight distribution
- 1 Watt / Clipping status indicators
- Binding post outputs
- Bridge switch
- Silent convection cooling with fan assist under heavy load

### Options

1. 70 / 100 Volt line transformer
2. HP-1 / LP-1 Filter cards
3. Speakon output connectors

### Protection

- Input overvoltage protection
- Fault protection and indication
- Internal fuses on each supply rail
- Overload protection and indication
- Short circuit protection and indication
- Independent thermal sensing on each channel with safety mute

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