

# AVALON DESIGN

PURE CLASS A MUSIC RECORDING SYSTEMS



The AD2022 is Avalon's fourth generation of fully Pure Class A microphone preamplifiers. The dual mono AD2022 includes all the original sonic capabilities and transparency of the M2, M22 and M5 preamplifiers plus several additional features, including selectable microphone source loading for optimized cable/mic matching, improved high-voltage Class A regulated power supplies, two HI-Z instrument inputs, variable-passive high pass filter, silver wiring and doubled plated circuit boards for superior low level signal transfer.

## MICROPHONE INPUT

The AD2022 incorporates the most advanced high-performance microphone transformer available. Split low-ratio primary windings are carefully combined within a custom mu-metal core for extended smooth frequency response and very low distortion. Sealer silver relays are used for minimal signal invasion. The input signal selector, high pass filter, polarity-phase reverse, +48v power and the 20dB input attenuator all utilize local sealed silver relay operation. A variable passive high pass filter provides a minimum phase shift design while eliminating low frequency rumble, wind noise and mechanical vibration at sub sonic frequencies.

## SYMMETRICAL PURE CLASS A DESIGN

Two 100% discrete, high-voltage, symmetrical Pure Class A signal amplifiers are utilized per channel. The first operates in a cascaded-cascode FET configuration while the second stage amplifier is fully bipolar. The twin amplifiers share the total available gain requirement. This shared architecture increases the high level headroom capability, improves transient response and doubles the internal bandwidth of the ultra high performance Pure Class A signal amplifiers.

## OUTPUT and METERING

High-current DC coupled, Class A discrete amplifiers are utilized for the output drive interface with +36dB capability into all known loads. Two large, high-quality analog VU meters indicate accurate signal readings while bi-color LED's offer peak indication at 0dB and +20dB. The M5 will make your recordings musical masterpieces!

# AD2022

## DUAL MONO, PURE CLASS A PREAMPLIFIER

### AD2022 FEATURES

- Symmetrical Pure Class A design, two channels
- Microphone and Hi-Z instrument inputs
- Gain switched 4dB steps plus +/- 3dB fine output trim
- Selectable microphone input impedance matching
- Low noise -126dB EIN
- Very low noise -126dB
- Ultra high quality, low-ratio, balanced input transformer
- Balanced, high-current Class A output to +36dB
- Large illuminated analog VU meters and twin peak LED's
- Regulated phantom power supply +48v
- Input polarity phase reverse
- High headroom +36dB input before overload
- Input -20dB pad for high level signals
- Sealed silver relays for all signal routing
- External AC 150w toroidal power chassis
- Fully discrete Class A regulated audio power supplies
- External 150W toroidal power supply
- Deep, musical sound-stage, transparent amplification



Pure Class A music recording systems since 1985.



## AD2022 PREAMPLIFIER SPECIFICATIONS

<b>Circuit topology</b>	Twin cascode FET and bipolar low level input signal stages. High-voltage, 100% discrete, symmetrical Pure Class A
<b>Input type and load</b>	Transformer balanced low-ratio, 50, 150, 600 and 1k5 ohm input load selection
<b>Maximum mic level</b>	+36dB balanced XLR pin 2 hot (with -20dB passive attenuator)
<b>Maximum instrument level</b>	+18dB at 100k ohms instrument input level, standard mono 1/4 inch jack
<b>Input attenuator</b>	-20dB resistive pre-transformer primary, sealed silver relay
<b>Phantom power</b>	+48v regulated 50mA capability, sealed silver relay
<b>High pass filter</b>	Passive, variable from 30Hz to 185Hz @ 6dB per octave, sealed silver relay
<b>Polarity reverse</b>	Sealed silver relay on microphone input
<b>Gain range input</b>	+20dB to +64dB in 4dB steps
<b>Gain output range</b>	+/- 3dB variable conductive plastic potentiometer
<b>Maximum output level</b>	+36dB balanced 600 ohms, DC coupled, discrete symmetrical Pure Class A
<b>Output type</b>	XLR connector, pin 2 hot
<b>Noise EIN unweighted</b>	-126dB 150 ohm
<b>Noise 20kHz unweighted</b>	-102dB
<b>Distortion THD, IMD</b>	0.05% nominal
<b>Frequency response -3dB</b>	1Hz to 120kHz transformer limit
<b>System bandwidth</b>	DC to 1MHz
<b>Output meter</b>	High quality, illuminated analog VU meter 0dB = +4dB
<b>Peak meter</b>	Bi-color LED's 0dB and +20dB peak detection circuit
<b>AC power supply B2T</b>	External toroidal 100V to 240V, 50-60Hz selectable, 150 watts maximum
<b>Cables</b>	15lbs (6.8kg)
<b>Dimensions-shipping carton</b>	24 x 21.5 x 7.5 in (610 x 546 x 190mm)
<b>Weight-packed</b>	25lbs (11.4kg) includes B2T power supply and cables
<b>AC power supply AD2022</b>	External toroidal 100V to 240V, 50-60Hz selectable, 150 watts maximum
<b>Cables</b>	1 x 8ft 4 pin ac cable, 1 x 8ft standard IEC cable included
<b>Dimensions</b>	5 x 7 x 3.25 in (127 x 177 x 83mm)
<b>Weight</b>	7lbs (3.2kg)
<b>AC power supply AD2022</b>	90V ac, 4 pin male power input connector, B2T required, internal DC regulation
<b>Dimensions</b>	19 x 12 x 3.5 in (482 x 305 x 89mm)
<b>Weight</b>	15lbs (6.8kg)
<b>Dimensions-shipping carton</b>	24 x 21.5 x 7.5 in (610 x 546 x 190mm)
<b>Weight-packed</b>	25lbs (11.4kg)



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Avalon reserves the right to incorporate changes in design and in the specifications of this product without prior notice.