

Where Brt Meets Science



MPA-2 PROFESSIONAL MICROPHONE PREAMPLIFIER

High resolution all discrete analog design is paired up with cutting edge digital control. 2 channels of Class A pre-amplification controlled by a full featured front panel microcontroller design.

70 dB of gain in 2 dB steps. Front panel controls include, Mute, 48V Phantom, LoZ, 20dB Pad, Polarity reversal. 10 segment LED VU metering, Dual 7 segment LED for indication of gain setting, Power supply Led indication , +24dB peak LED and Optical encoder for gain setting.

All housed in a 3.5" x 19" rack mount chassis.





Front Panel View



Rear Panel View

Design Topology: Fully discrete Class A design DC coupled output, transformer coupled input. Dual stage input and fully balanced output. Bipolar and MosFet. Biasing, full Class A.

Gain Control: 26 steps at 2dB per step. Micro controlled multiplexer resistive element. 20dB to 70dB range.

Front Panel Controls: Optical encoder for gain setting, 48V phantom, 20dB Pad, LoZ input, Polarity reversal, Mute, All on input side, Mute on output, AC Mains switch. Controlled by 8bit microcontroller.

Rear Panel: Female XLR (Input), Dual male XLR (Output). Phantom enabled LED next to input XLR. AC entry module, Voltage setting switch, AC mains fuse.

Gain: 20dB minimum, 70dB ,maximum.

Gain Step Accuracy: +/-.25dBu

Gain Accuracy Between Channel A - B: +/- .25dBu

Input Impedance: 1.2K ohms.

Output Impedance: 30 ohms.

Maximum Input Level: +10dBu @ 20dB gain.

Maximum Output Level: +32dBu.

Peak LED Indication: +24dBu.

Meter Accuracy: +/- .75dBu

Power Supply Voltages: +/- 24V, +5V, +48V, +/- 18V.

Power On Recall: Gain and front panel push-buttons restored to last settings before loss of power.

Frequency Response: 10Hz to 100kHz +0/-2dB (@100kHz)

THD+N: .002% 20-20Khz

IMD: .002% 20-20kHz (4:1)

SNR: -101dBu @ 20dB 20-22K Awtd.

EIN: -127dBu

Polarity Switch: 180 °, Switched at

input.

LoZ Switch: 68 ohm add in. On Input.

Inter-channel Phase Shift: Less than 5 ° 20-20Khz

Inter-channel crosstalk: Greater than -90 dBu 20-20kHz

Output Offset Voltage: Less than 5mV. Servo controlled.

Mute at power up: 10 seconds.

Mute on Phantom Enable/Disable: 10 seconds. Prevents pops on output.

Mute on 48V, PAD, LoZ, Polarity: 2 seconds. Prevents pops on output.

Power Transformer Type: EI core electromagnetic shield wrapping. Triple output. Dual primary.

Power Consumption: 34 watts.

AC Mains Fuse: 500ma @ 120V , 250ma @ 220V. Time delay.

Cooling: Vented Chassis, Top and sides.

Dimensions: 19"W, 3.5" H, 12.5" D Rack mountable.

Unit Weight: 18 lbs.