

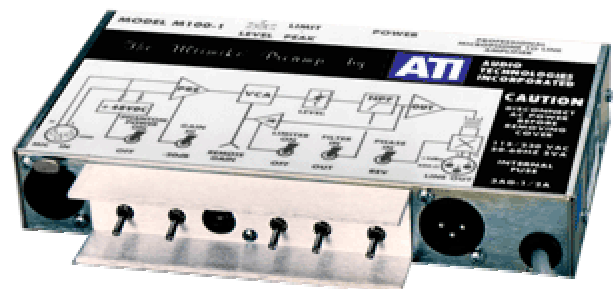
# ULTIMIKE Microphone Amplifier

## M100

Eliminate noise, pickup, RF, hum and rolloffs from long low level microphone cables with the ULTIMIKE Microphone Amplifier. Ruggedly designed for up close operation, impressive input headroom specs and smooth output limiting allow trouble-free unattended operation from remote or inaccessible locations. A unique distortion-free transformer coupled output provides total isolation of ground loops and ground voltage differentials with a low line driving impedance for extended high frequency response when driving long lines.

The direct, instrumentation amplifier input stage yields superior noise performance and prevents the ringing, response and distortion problems of high ratio input transformers. High gain for low output microphones is combined with excellent input and headroom for complete freedom from overload. The maximum input level of 0dBu is increased to +20dBu in the low gain switch position. A screwdriver adjust audio taper full range gain control can be augmented with a convenient plug-in remote DC operated gain trimmer located up to 50 feet away. Other outstanding features include a clean output limiter, full 48 VDC phantom power, a two pole 150Hz low cut filter and switchable output phasing.

- **RUGGED CONNECTORS**
- **PROTECTED SWITCHES**
- **HIGH GAIN and HEADROOM**
- **SHIELDED POWER SUPPLY**
- **TRANSFORMER OUTPUT**
- **SWITCHABLE OUTPUT LIMITER**
- **PHANTOM POWER**
- **REMOTE GAIN CONTROL**
- **LOW CUT FILTER**
- **PHASE REVERSE SWITCH**



# ULTIMIKE Microphone Amplifier

## Technical Specifications

# M100

<b>GAIN</b>	54dB nominal, adjustable 0 to 74dB
<b>MAXIMUM INPUT</b>	0dBu--HI Gain Switch, +20dBu--LO Gain Switch
<b>MAXIMUM OUTPUT</b>	+22dBm, transformer balanced, 600 ohms.
<b>NOISE OUTPUT</b>	-70dBm, 20 to 20,000 Hz measurement bandwidth
<b>HUM OUTPUT</b>	-80dBm, 60 120 and 180 Hz.
<b>DYNAMIC RANGE</b>	92dB, Maximum output to noise
<b>HARMONIC DISTORTION</b>	20 to 20,000 Hz, .10% THD maximum at max level, .03% THD maximum at nominal level
<b>INTERMODE DISTORTION</b>	.005% maximum, SMPTE 7k/60Hz 4:1
<b>FREQUENCY RESPONSE</b>	+ 0,-.25dB, 20-20kHz, -3dB at 1Hz and 65kHz.
<b>HIGH PASS FILTER</b>	-3dB at 150Hz nominal, -40dB at 15Hz
<b>INPUT HUM REJECTION</b>	90dB minimum CMR, internal adjustment.
<b>LIMITER THRESHOLD</b>	+ 14dBm out +/- 1dB.
<b>LIMITER SLOPE</b>	4:1 maximum
<b>LIMITER TIMING</b>	100mSec attack and recovery
<b>LIMITER RANGE</b>	20dB Gain Reduction minimum
<b>REMOTE GAIN TRIMMER</b>	10kohm linear external pot, user supplied. DC Control, 0 to-15dB range
<b>PHANTOM POWER</b>	+48VDC at 4ma. through paralleled 6.8kohm
<b>AC POWER</b>	115 - 230VAC +/- 10%, 47 TO 63Hz, 4VA.
<b>DIMENSIONS</b>	1.5"H by 8.5"W by 5.5"D (9.75"W with mounting brackets). 3lbs. net, 5 lbs shipping weight.
<b>MOUNTING</b>	Keyhole slot #8 screws on 9 1/8" centers. Accessory rack panel P/N 20273-501 mounts 1 or 2 units in 1 3/4" by 19" E.I.A. rack space.
<b>CONNECTORS</b>	Mic Input, XLR type, three terminal female. Line Output, XLR type, three terminal male. Remote Gain Trimmer, RCA type Phono Jack.
<b>NOTE</b>	Distortion, Noise, Dynamic Range and Response measurements all made at nominal gain settings. Reference Levels: 0dBm = .775V/600 oms, 0dBu = .775V
<b>WARRANTY</b>	Limited, One Year Warranty