

NTE1135 Integrated Circuit High Gain Audio Preamp

Features:

- Power Supply with Wide Working Voltage Range
- High Open-Loop Gain
- Extremely Low Distortion
- Low Noise
- High Input Impedance and Low Output Impedance
- Low Current Dissipation

Applications:

- Car Stereos
- Tape Recorders

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

Power Supply Voltage, V_{CC}	20V
Power Dissipation, P_D	500mW
Derate Above 25°C	5.0mW/ $^\circ\text{C}$
Operating Temperature Range, T_{opr}	-25° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+125^\circ\text{C}$

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 12\text{V}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_Q		0.9	1.5	2.3	mA
Open Loop Voltage Gain	G_{VO}	$V_{IN} = -80\text{dBm}$, $f = 1\text{kHz}$	70	79	–	dB
Maximum Output Voltage	V_{OM}	$f = 1\text{kHz}$, $\text{THD} = 1\%$	2.0	2.6	–	V
Total Harmonic Distortion	THD	$f = 1\text{kHz}$, $V_{OUT} = 0.5V_{rms}$	–	0.06	0.15	%
Output Noise Voltage	V_{NO}	BW: 30Hz to 20kHz	–	60	100	μV_{rms}
Input Resistance	R_{IN}		–	120	–	$\text{k}\Omega$
Output Resistance	R_{OUT}		–	5	–	Ω

Pin Connection Diagram
(Front View)

