

NTE1085 Integrated Circuit Low Noise Audio Preamp

Features:

- Low Noise: $V_{NI} = 0.8\mu V_{rms(Typ)}$
- High Open Loop Voltage Gain: $G_{VO} = 92dB$ (Typ)
- Low Distortion: THD = 0.1% (Max) at $V_{OUT} = 7V_{rms}$, $G_V = 40dB$, $f = 1kHz$

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

Supply Voltage, V_{CC}	42V
Power Dissipation, P_D	400mW
Derate Above $25^\circ C$	4mW/ $^\circ C$
Operating Temperature Range, T_{opr}	-30° to $+75^\circ C$
Storage Temperature Range, T_{stg}	-55° to $+125^\circ C$

Electrical Characteristics: ($V_{CC} = 35V$, $T_A = +25^\circ C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	I_{CC}	$V_{IN} = 0$	–	3.5	6.0	mA
Voltage Gain Open Loop	G_{VO}	$V_{IN} = -85dBm$, $f = 1kHz$	87	92	–	dB
Closed Loop	G_V	$V_{OUT} = 7V_{rms}$, $f = 1kHz$	38	40	42	dB
Maximum Output Voltage	V_{OM}	$f = 1kHz$, THD = 0.1%	7.0	9.0	–	V_{rms}
Equivalent Input Noise Voltage	V_{NI}	RIAA Equalizer, $R_g = 2.2k\Omega$, $f = 1kHz$	–	0.8	1.8	μV_{rms}

Pin Connection Diagram
(Front View)

