

NTE1210 Integrated Circuit Preamp ^w/ALC

Description:

The NTE1210 is a low-noise, high-gain preamplifier with a built-in ALC (automatic level control) circuit in a 9-Lead SIP type package designed for use as a record/playback preamp in cassette tape recorders.

Features:

- Wide ALC Range
- Wide Range of Working Power Supply Voltage: 3V to 12V
- High Gain, Low Distortion, and Low Noise

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

Power Supply Voltage, V_{CC} 15V
 Power Dissipation, P_D 55mW
 Derate Above 25°C 5.5mW/ $^\circ\text{C}$
 Operating Temperature Range, T_{opr} -25° to $+75^\circ\text{C}$
 Storage Temperature Range, T_{stg} -55° to $+125^\circ\text{C}$

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 5\text{V}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	I_{CC}	$S_1 = 2, S_2 = 1, S_3 = 1$	0.5	1.1	2.2	mA
Voltage Gain (Open Loop)	G_{VO}	$f = 1\text{kHz}, S_1 = 2, S_2 = 2, S_3 = 1$	—	70	—	dB
Output Noise Voltage	V_{NO}	$BW = 30\text{Hz to } 20\text{kHz}, S_1 = 2, S_2 = 2, S_3 = 1$	—	70	100	μV_{rms}
Total Harmonic Distortion	THD	$f = 1\text{kHz}, S_1 = 1, S_2 = 2, S_3 = 1$	—	0.12	0.3	%
Maximum Output Voltage	V_{OM}	$f = 1\text{kHz}, S_1 = 1, S_2 = 2, S_3 = 1$	0.7	1.0	—	V_{rms}
ALC Voltage	V_C	$S_1 = 1, S_2 = 2, S_3 = 2$	—	0.2	1.0	V

Pin Connection Diagram
(Front View)

