



**ELECTRONICS, INC.**  
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## NTE1458 Integrated Circuit Dual Audio Preamp

**Absolute Maximum Ratings:**

Supply Voltage,  $V_{CC}$  ..... 18V  
 Supply Current,  $I_{CC}$  ..... 15mA  
 Power Dissipation ( $T_A = +75^\circ\text{C}$ ),  $P_D$  ..... 270mW  
 Operating Temperature Range,  $T_{opt}$  .....  $-30^\circ$  to  $+75^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-40$  to  $+125^\circ\text{C}$

**Recommended Operating Condition:**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Voltage	$V_{CC}$		6.0	13.2	17.0	V

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 13.2\text{V}$ ,  $f = 1\text{kHz}$ ,  $R_L = 10\text{k}\Omega$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_{CC}$	$v_i = 0$	2.5	3.3	5.5	mA
Open Loop Voltage Gain	$A_{vo}$	$v_o = 0.3\text{V}$	78	88	–	dB
Voltage Gain	$A_v$	$v_o = 0.3\text{V}$ , NAB = 45dB	–	45	–	dB
Maximum Output Voltage	$V_{OM}$	THD = 1%, NAB = 45dB	1.0	1.6	–	$V_{rms}$
Total Harmonic Distortion	THD	$v_o = 0.3\text{V}$ , NAB = 45dB	–	0.13	0.3	%
Input Impedance	$Z_{in}$		50	100	–	$\text{k}\Omega$
Equivalent Input Noise Voltage	$v_{nin}$	$R_G = 2.2\text{k}\Omega$ , NAB = 45dB, BPF (15Hz to 30kHz)	–	1.2	2.0	$\mu\text{V}_{rms}$
Crosstalk		$v_o = 1\text{V}$ , NAB = 45dB, $R_G = 2.2\text{k}\Omega$	–	–65	–	dB
Channel Balance		$v_o = 0.3\text{V}$	–0.5	0	+0.5	dB

**Pin Connection Diagram**  
(Front View)

