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## NTE1330 Integrated Circuit Module – Hybrid, Dual, Audio Power Amplifier, 15W/Ch, 2 Power Supplies Required

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

Maximum Supply Voltage,  $V_{CCmax}$  .....  $\pm 31\text{V}$   
 Operating Case Temperature,  $T_C$  .....  $+105^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-30^\circ$  to  $+105^\circ\text{C}$   
 Allowable Load Shorting Time ( $V_{CC} = \pm 21\text{V}$ ,  $P_O = 15\text{W}$ ,  $R_L = 8\Omega$ ,  $f = 50\text{Hz}$ ),  $t_s$  ..... 2sec

**Recommended Operating Conditions:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Recommended Supply Voltage,  $V_{CC}$  .....  $\pm 21\text{V}$   
 Load Resistance,  $R_L$  .....  $8\Omega$

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = \pm 21\text{V}$ ,  $R_L = 8\Omega$ ,  $R_g = 600\Omega$ ,  $V_G = 40\text{dB}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Current	$I_{CCO}$	$V_{CC} = \pm 24\text{V}$	20	40	120	mA
Output Power	$P_O$	$f = 20\text{Hz}$ to $20\text{kHz}$ , THD = 0.08%	15	–	–	W
		$V_{CC} = \pm 19\text{V}$ , $f = 1\text{kHz}$ , THD = 0.2%, $R_L = 4\Omega$	20	–	–	W
Total Harmonic Distortion	THD	$f = 20\text{Hz}$ to $20\text{kHz}$ , $P_O = 1\text{W}$	–	–	0.08	%
Frequency Response	$f_L, f_H$	+0, -3dB, $P_O = 1\text{W}$ , $f = 1\text{kHz}$	10 to 100k			Hz
Input Resistance	$r_i$	$f = 1\text{kHz}$ , $P_O = 1\text{W}$	–	32	–	k $\Omega$
Output Noise Voltage	$V_{NO}$	$V_{CC} = \pm 24\text{V}$ , $R_g = 10\text{k}\Omega$	–	–	1.2	mV <sub>rms</sub>
Midpoint Voltage	$V_N$	$V_{CC} = \pm 24\text{V}$	-70	–	+70	mV

**Pin Connection Diagram**  
(Front View)

16	Rt Ch Input
15	Rt Ch Feedback
14	GND
13	Rt Ch Bias
12	(-) V <sub>CC</sub> 2
11	Rt Ch Feedback
10	Rt Ch Output
9	(+) V <sub>CC</sub> 2
8	(+) V <sub>CC</sub> 1
7	Lt Ch Output
6	Lt Ch Feedback
5	(-) V <sub>CC</sub> 1
4	Lt Ch Bias
3	GND
2	Lt Ch Feedback
1	Lt Ch Input

