

NTE1022 Integrated Circuit 4-Channel Stereo Decoder

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

Supply Voltage, V_{CC}	25V
Power Dissipation, P_D	750mW
Derate Above 25°C	6mW/ $^\circ\text{C}$
Operating Temperature Range, T_{opr}	-30° to $+75^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+150^\circ\text{C}$

Electrical Characteristics: ($V_{CC} = 15\text{V}$, $f = 1\text{kHz}$, R_a to $R_d = \infty$, $T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions			Typ	Max	Unit
Supply Current	I _{CC}	V _{CC} = 15V		—	16	20	mA
		V _{CC} = 8V		—	10	—	mA
Recommended Bias Resistance	R _B			47	—	680	kΩ
Input Impedance	Z _i			—	3	—	MΩ
Output Impedance	Z _o			—	7.2	9.0	kΩ
Voltage Gain	G _V	V _{CC} = 8V to 18V		8.5	10.0	11.5	dB
Total Harmonic Distortion	THD	V _{IN} = 100mV _{rms}	V _{CC} = 15V	—	—	0.1	%
		V _{IN} = 300mV _{rms}		—	—	0.3	%
			V _{CC} = 8V	—	—	1.0	%
		R _a = R _b = 18kΩ, R _c = R _d = 3kΩ, V _{IN} = 300mV		—	—	0.5	%
Input Noise Voltage	V _{IN} (Max)	V _{CC} = 15V	THD = 1%	0.8	1.0	—	V _{rms}
		V _{CC} = 8V		—	0.5	—	V _{rms}
Output Noise Voltage	V _{NO}	R _S = 220kΩ, R _B = 180kΩ, BW = 30kHz		—	—	0.1	mV _{rms}

Pin Connection Diagram

Bias	1	16	V _{CC}
Control Resistance (To Pin10)	2	15	Control Resistance (To Pin7)
Left Input	3	14	Right Input
Control Resistance (To Pin10)	4	13	Control Resistance (To Pin7)
Right Back Output	5	12	Left Back Output
Left Front Output	6	11	Right Front Output
Control Resistance (Common)	7	10	Control Resistance (Common)
GND	8	9	N.C.

