ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

NTE7221
Integrated Circuit
Dual 5W Audio Power Amp
w/Stand–By & Volume Function

Description:
The NTE7221 is an integrated circuit in a 12–Lead SIP type package. This BTL 5W/Ch Power Amplifier has both stand–by and volume functions which make it an excellant choice for lo frequency amplifier applications.

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)
Supply Voltage (At No Signal), V_{CC} 14.4V
Supply Current, I_{CC} 2.0A
Power Dissipation (T_A = +70°C), P_D 1.92W
Operating Ambient Temperature Range, T_{opr} . . . . . –25° to +70°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

Electrical Characteristics: (V_{CC} = 8V, f = 1kHz, R_L = 8Ω, T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Quiescent Circui Current	I_{CQ}	V_{in} = 0V, V_{O1} = 0V	–	45	100	mA
Stand–By Current	I_{STB}	V_{in} = 0V, V_{O1} = 0V	–	1	10	μA
Output Noise Voltage	V_{NO}	R_g = 10kΩ, V_{O1} = 0V, Note 1	–	0.1	0.4	mV_{rms}
Voltage Gain	G_V	P_O = 0.5W, V_{O1} = 1.25V	31	33	35	dB
Total Harmonic Distortion	THD	P_O = 0.5W, V_{O1} = 1.25V	–	0.1	0.5	%
Maximum Power Output	P_O	THD = 10%, V_{O1} = 1.25V	2.4	3.0	–	W
		V_{CC} = 11V, THD = 10%, V_{O1} = 1.25V	4.0	5.0	–	W
Ripple Rejection Ratio	RR	R_g = 10kΩ, V_{O1} = 0V, V_r = 0.5V_{rms}, f = 120Hz, Note 1	30	50	–	dB
Output Offset Voltage	V_{off}	R_g = 10kΩ, V_{O1} = 0V	–250	0	250	mV
Volume Attenuation Ratio	Att	P_O = 0.5W, V_{O1} = 0V, Note 1	70	85	–	dB
Channel Balance	CB	P_O = 0.5W, V_{O1} = 1.25V	–1	0	1	dB
		P_O = 0.5W, V_{O1} = 0.6V	–2	0	2	dB
Middle Voltage Gain	G_{Vm}	P_O = 0.5W, V_{O1} = 0.6V	20.5	23.5	26.5	dB
Channel Crosstalk	CT	P_O = 0.5W, V_{O1} = 1.25V	40	55	–	dB
Stand–By Pin Current	I_{STB2}	V_{in} = 0V, V_{STB} = 3V	–	–	25	μA
Volume Pin Current	I_{VOL}	V_{in} = 0V, V_{O1} = 0V	–12	–	–	μA
Input Impedance	Z_i	V_{in} = ±0.3V_{DC}	24	30	36	kΩ

Note 1. For this measurement, use the BPF = 15Hz to 30kHz (12dB/OCT)

Pin Connection Diagram
(Front View)