



**ELECTRONICS, INC.**  
 44 FARRAND STREET  
 BLOOMFIELD, NJ 07003  
 (973) 748-5089

## NTE1634 Integrated Circuit Dual Preamp <sup>w</sup>/ALC

**Description:**

The NTE1634 is a monolithic integrated circuit in a 14-Lead DIP type package consisting of a dual equalizer amplifier with automatic level control (ALC) and is suitable for stereo radio cassette applications.

**Features:**

- Dual Equalizer Amplifier with Built-In ALC Circuit.
- Recording Amp Available Because of High Gain Characteristic (Variable Monitor Possible).
- Good Channel Separation (Sep = 50dB Typ)
- Capable of Direct Meter Driving and ALS Transistor.
- Good ALC Response Balance Between Channels.
- Wider Operating Supply Voltage Range (4V to 13V)

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

Supply Voltage,  $V_{CC}$  ..... 14V  
 Power Dissipation, PD ..... 600mW  
 Operating Temperature Range,  $T_{opr}$  .....  $-20^\circ$  to  $+70^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-40^\circ$  to  $+125^\circ\text{C}$   
 ALC TR Maximum Current ..... 3.5mA

**Electrical Characteristic:** ( $T_A = +25^\circ\text{C}$ ,  $V_{CC} = 5V$ ,  $R_L = 10k\Omega$ : Playback,  $R_L = 680\Omega$ : Recording unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Circuit Current	$I_{CC}$	$V_i = 0$	–	4.5	10	mA
Voltage Gain (Open Loop)	$A_{VO}$		–	85	–	dB
Voltage Gain (Closed Loop)	$A_{V1}$	Play	–	40	–	dB
	$A_{V2}$	Record	–	58	–	dB
Output Voltage	$V_O$	THD = 1%, Play	0.9	1.2	–	V
Total Harmonic Distortion	THD	$V_O = 0.5V$ , Play	–	0.1	1.0	%
Input Resistance	$R_i$		21	30	–	k $\Omega$
Equivalent Input Noise Voltage	$V_{NI}$	BW(–3dB)=20Hz to 20kHz	–	1.0	2.0	$\mu V$
Cross Talk	CT	$R_g = 2.2K\Omega$	40	50	–	dB
ALC Range		$V_i = -60\text{dBm}$ , Record	35	45	–	dB
ALC Balance		$V_i = -20\text{dBm}$ , Record	–	0	2.0	dB
ALC Distortion		$V_i = -20\text{dBm}$ , Record	–	0.5	2.0	%

### Pin Connection Diagram

