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## NTE1466 Integrated Circuit Preamp <sup>w</sup>/ALC Transistors

**Features:**

- Pre-Amplifier (Recording or Playback) with ALC Transistors for Tape Recorder
- Low Noise:  $V_{NI} = 1.3\mu V_{rms}$  (Typ)
- Wide ALC Range
- Operates from a Wide Range of Power Supplies:  $V_{CCopr} = 3V$  to  $15V$

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

Supply Voltage, $V_{CC}$ .....	15V
Power Dissipation, $P_D$ .....	200mW
Derate Above $25^\circ C$ .....	2mW/ $^\circ C$
Operating Temperature Range, $T_{opr}$ .....	$-25^\circ$ to $+75^\circ C$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ to $+125^\circ C$

**Electrical Characteristics:** ( $V_{CC} = 5V$ ,  $T_A = +25^\circ C$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Supply Current	$I_{CC}$	$V_{IN} = 0$ , ALC off	–	1.3	1.75	mA
Voltage Gain (Open Loop)	$G_{VO}$	$V_{IN} = -80dBm$ $f = 1kHz$	67	69	–	dB
Voltage Gain (Closed Loop)	$G_V$	$V_{OUT} = 0.7V_{rms}$ $f = 1kHz$ , Note 1	33	35	37	dB
Maximum Output Voltage	$V_{OM}$	$f = 1kHz$ (below), THD = 1% Max	0.7	0.9	–	$V_{rms}$
Equivalent Input Noise Voltage	$V_{NI}$	$R_g = 2.2k\Omega$ , NAB (Compensated), 1kHz Gain Converted with $G_V$ (1kHz)	–	1.3	2.5	$\mu V_{rms}$
Input Resistance	$R_{IN}$	$f = 1kHz$	–	150	–	k $\Omega$
Saturation Voltage, $Q_5$	$V_{6(ON)}$		–	60	100	mV

Note 1. In regard to the voltage gain (closed loop voltage) value, it is possible to be classified.

**Pin Connection Diagram**  
(Front View)

