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NTE1263 Integrated Circuit Record/Playback Circuit for VCR

Features:

- Recording/Playback Circuit with Minor Modifications in Peripheral Circuitry
- Wide Application: Capable of Mic. Mixing and Variable Sound Monitoring
- Wide Supply Voltage Range: 3V to 14V
- Built-in AGC Circuit of Wide Control Range and Low Distortion
- High Density Integration, Low Noise

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

| | |
|----------------------------------------------------------------|-------------------------------------|
| Supply Voltage, V_{CC} | 14.4V |
| Circuit Voltage, V_{1-4} | 1V |
| Circuit Voltage, V_{6-4}, V_{7-4} | 3V |
| Circuit Voltage, V_{11-4}, V_{12-4} | 14.4V |
| Circuit Voltage, V_{13-4} | 9V |
| Supply Current, I_{CC} | 38mA |
| Power Dissipation ($T_A \leq 70^\circ\text{C}$), P_D | 550mW |
| Operating Temperature Range, T_{opg} | -20° to $+70^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -40° to $+125^\circ\text{C}$ |

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 12\text{V}$, $f = 1\text{kHz}$ unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|------------------------------------|--------------------|---------------------------------------------------------------------------------------|------|------|------|------------------|
| Output Voltage (Line Amp) | $V_{O(L)}$ | $V_i = 2.5\text{mV}_{\text{const}}$ THD = 3% Output | 2.8 | 3.2 | - | V_{rms} |
| Output Voltage (Rec. Amp) | $V_{O(R)}$ | | 2.8 | 3.2 | - | V_{rms} |
| Total Harmonic Distortion | $\text{THD}_{(1)}$ | $V_i = 2.5\text{mV}_{\text{const}}$ | - | 0.1 | 0.3 | % |
| Closed Circuit Voltage Gain | G_{VC} | | 62 | 66 | 70 | dB |
| Open Circuit Voltage Gain (EQ Amp) | $G_{VO(E)}$ | | 47 | 53 | - | dB |
| Output Voltage (AGC) | $V_{O(1)}$ | $V_i = 0.25\text{mV}_{\text{const}}$ $V_i = 25\text{mV}_{\text{const}}$, AGC 40dB | 0.35 | 0.55 | 0.70 | V |
| | $V_{O(2)}$ | | 0.5 | 0.8 | 1 | V |
| Total Harmonic Distortion (AGC) | $\text{THD}_{(2)}$ | | - | 0.2 | 1 | % |
| Output Noise Voltage | V_{no} | $R_g = 2.2\text{k}\Omega$, $f = 20\text{Hz}$ to 20kHz | - | 3 | 6 | mV |
| Total Circuit Current | I_{tot} | AGC Circuit Off | - | 21 | 30 | mA |
| Input Impedance (EQ Amp) | $Z_{i(E)}$ | | - | 100 | - | $\text{k}\Omega$ |
| Input Impedance (Tone Amp) | $Z_{i(T)}$ | | - | 100 | - | $\text{k}\Omega$ |

Pin Connection Diagram

