

NTE1217 Integrated Circuit Phase Lock Loop (PLL) FM Multiplex Stereo Demodulator

Features:

- Low Level of Pilot Signal Sensitivity: 7mV
- Gain: 0dB ($R_L = 3.3k\Omega$)
- Separation Adjustable
- Low Level of Pop Noise
- Excellent SCA Rejection Ratio

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

| | |
|--|-------------------------------------|
| Supply Voltage, V_{CC} | |
| V_{6-7} | 18V |
| V_{1-7} | 16V |
| Lamp Current, I_L | 100mA |
| Power Dissipation, P_d | 400mW |
| Operating Temperature Range, T_{opr} | -20° to $+70^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -40° to $+125^\circ\text{C}$ |

Recommended Operating Conditions: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

| | |
|-----------------------------------|----------------|
| DC Supply Voltage, V_{CC} | 8V to 12V |
| Input Signal, V_{IN} | 200mV to 300mV |

Electrical Characteristics: ($T_A = +25^\circ\text{C}$, unless otherwise specified)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|------------------------------------|-----------|--------------------------------------|---------|------|-----|-----------|
| Total Current | I_{CCO} | | – | 16 | 25 | mA |
| Input Resistance | r_i | | 15 | 20 | – | $k\Omega$ |
| Channel Separation | Sep | | 35 | 42 | – | dB |
| Total Harmonic Distortion (Stereo) | THD | SUB, $V_{IN} = 100\text{mV}$ (L + R) | – | 0.25 | 0.5 | % |
| Output Voltage | V_O | $V_{IN} = 100\text{mV}$ | 69 | 100 | 137 | mV |
| Channel Balance | CB | | – | 0.5 | 1.5 | dB |
| Lamp Sensitivity | V_L | L + R = 90%, Pilot = 10% | – | 65 | – | mV |
| Hysteresis | V_H | | – | – | 6 | dB |
| Capture Range | CR | Pilot = 10mV | ± 1 | – | – | % |
| SCA Rejection | SCA Rej | L + R = 80%, Pilot = 10%, SCA = 10% | – | 80 | – | dB |

Pin Connection Diagram

