



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

NTE1099 Integrated Circuit Chroma Demodulator

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

| | |
|---|-------------------------------------|
| Supply Voltage, V_{CC} | 28V |
| Power Dissipation, P_D | 700mW |
| Chroma Signal Input Voltage, e_c | $5V_{p-p}$ |
| Reference Signal Input Voltage, E_{B-y} , E_{R-y} | $5V_{p-p}$ |
| Operating Temperature Range, T_{opr} | -20° to $+75^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -40° to $+125^\circ\text{C}$ |

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

| Parameter | Symbol | Test Conditions | | | Min | Typ | Max | Unit | |
|---------------------------------------|------------------|-----------------|-----------|-----------|------------------------------|------|---------|----------|----------------------|
| | | e_c | e_{B-y} | e_{R-y} | | | | | |
| Supply Current | I_{CC} | 0 | 0 | 0 | $R_L = 1M\Omega$ | 6 | 8.7 | 12 | mA |
| | | 0 | 0 | 0 | $R_L = 3.9k\Omega$ | - | 19.2 | - | mA |
| DC Voltage at any output terminal | V_O | 0 | 0 | 0 | Direct Output Config. | 10.0 | 12.7 | 16.0 | V |
| | $V_{O'}$ | 0 | 0 | 0 | Level Shifted Output Config. | - | 6.0 | - | V |
| Differential Output Voltage | ΔV_O | 0 | 0 | 0 | Direct Output Config. | - | ± 1 | - | V |
| | $\Delta V_{O'}$ | 0 | 0 | 0 | Level Shifted Output Config. | - | ± 1 | - | V |
| Supply Voltage Ripple Rejection Ratio | V_O/V_{CC} | 0 | 0 | 0 | Direct Output Config. | - | -20 | - | dB |
| | $V_{O'}/V_{CC'}$ | 0 | 0 | 0 | Level Shifted Output Config. | - | -20 | - | dB |
| Temp. Coefficient of Output Voltage | k | 0 | 0 | 0 | Direct Output Config. | - | -4.5 | - | mV/ $^\circ\text{C}$ |
| | k' | 0 | 0 | 0 | Level Shifted Output Config. | - | -2.3 | - | mV/ $^\circ\text{C}$ |
| B-Y Output Voltage | E_{B-Y} | 2 | 2 | 2 | | 8 | 12 | - | V_{p-p} |
| B-Y Input Voltage | E_{G-Y} | - | 2 | 2 | $E_{B-Y} = 5V_{p-p}$ | - | 0.4 | - | V_{p-p} |
| R-Y Output Voltage | E_{R-Y} | - | 2 | 2 | | - | 3.8 | - | V_{p-p} |
| G-Y Output Voltage | E_{G-Y} | - | 2 | 2 | | - | 1 | - | V_{p-p} |
| Relative Demodulation Angle | θ_{B-R} | | | | | - | 106 | - | $^\circ$ |
| | θ_{B-G} | | | | - | 256 | - | $^\circ$ | |
| AC Unbalanced Voltage | E_u | 0 | 2 | 2 | | - | 0.5 | - | V_{p-p} |

Pin Connection Diagram

