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## NTE739 Integrated Circuit Dual Doubly Balanced Chroma Demodulator with RGB Matrix and Chroma Driver Stages

**Features:**

- Luminance Input Provided
- Good Chroma Sensitivity— $0.36V_{p-p}$  Input for  $5V_{p-p}$  Output
- Low Differential Output DC Offset Voltage— $0.6V$  Max
- DC Temperature Stability— $3mV/^\circ C$  Typ
- Negligible Change in Output Voltage Swing and Varying  $3.58MHz$  Reference Input Signal
- High Ripple Rejection Achieved with MOS Filter Capacitors
- High Blue Output Voltage Swing— $10V_{(p-p)}$  Typ
- Blanking Input Provided
- Short-Circuit Protected Outputs

**Absolute Maximum Ratings:**

Power Supply Voltage	30V
Chroma Signal Input Voltage	$5.0V_{(pk)}$
Reference Signal Input Voltage	$5.0V_{(pk)}$
Minimum Load Resistance	$2.2k\Omega$
Luminance Input Voltage	$12V_{(p-p)}$
Blanking Input Voltage	$7.0V_{(p-p)}$
Power Dissipation (Package Limitation), $P_D$	$625mW$
Derate Above $T_A = +25^\circ C$	$5.0mW/^\circ C$
Operating Temperature Range (Ambient), $T_{opr}$	$0^\circ$ to $+75^\circ C$
Storage Temperature Range, $T_{stg}$	$-65^\circ$ to $+150^\circ C$

**Electrical Characteristics:** ( $V_{CC} = 24V$ ,  $V_{ref} = 1.0V_{(p-p)}$ ,  $R_L = 3.3k\Omega$ ,  $T_A = +25^\circ C$  unless otherwise specified)

Parameter	Test Conditions	Min	Typ	Max	Unit
<b>Static Characteristics</b>					
Quiescent Output Voltage		14.3	15.0	16.3	V
Quiescent Output Current	$R_L = \infty$	—	6.0	—	mA
	$R_L = 3.3k\Omega$	19.0	25.5	—	mA
Reference Input DC Voltage		—	6.8	—	V
Chroma Input DC Voltage		—	3.6	—	V
Differential Output Voltage		—	0.3	0.6	V
Output Temperature Coefficient		—	3.0	—	$mV/^\circ C$



