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NTE1607 Integrated Circuit B/W TV Video Detector Amplifier, IF AGC Circuit

Description:

The NTE1607 is an integrated circuit in a 9-Lead SIP type package designed for use as a B/W TV video detector amplifier and IF AGC circuit.

Features:

- High Gain IF Signal to Video Signal Conversion (Detection) and Operates with Low Input Signal Level
- No Adjustment for IF AGC Detection Output Level Setting
- Provided with Video SIF, Sync Separation Output Pin for Easy Set Design

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

Supply Voltage, V_{CC}	7.2V
Supply Current, I_{CC}	31mA
Power Dissipation, P_D	223mW
Operating Ambient Temperature Range, T_{opr}	-20° to $+70^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+150^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Circuit Current	I_{tot}	$V_{CC} = 5.5V$	14.5	18.5	22.5	mA
Circuit Voltage	V_{3-7}	$V_{CC} = 5.5V$	2.4	2.7	3.0	V
	V_{1-7}	$V_{CC} = 5.5V$	2.45	2.75	3.05	V
Output Voltage, Pin4	V_O	$f_o = 58.75\text{MHz}$, $AM = 75\%$ $f_m = 1\text{kHz}$, $V_i = 30\text{mV}_{rms}$	300	400	500	mV_{rms}
Output Voltage, Pin3			300	400	500	mV_{rms}
Output Voltage, Pin1			300	400	500	mV_{rms}
Frequency Bandwidth (Det. Out)	B	$f_o = 58.75\text{MHz}$, $AM = 40\%$, $V_i = 30\text{mV}_{rms}$	–	4.5	–	MHz
Voltage Gain (IF AGC)	G_V		100	112	125	times
Upper Voltage (IF AGC)	$V_{(Upper)}$	$V_{CC} = 5.5V$, $V_{5-7} = 3.9V$	5.05	5.23	5.35	V
Lower Voltage (IF AGC)	$V_{(Lower)}$	$V_{CC} = 5.5V$, $V_{5-7} = 2.9V$	–	–	0.03	V

Pin Connection Diagram
(Front View)

