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NTE1610 Integrated Circuit B/W TV Video Detector Amplifier, IF AGC Circuit

Description:

The NTE1610 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

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

Supply Voltage, V_{CC} 13.2V
 Supply Current, I_{CC} 30mA
 Power Dissipation, P_D 396mW
 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}	$V_{CC} = 11\text{V}$	15	21	27	mA
Circuit Voltage	V_{3-7}	$V_{CC} = 11\text{V}$	2.9	3.3	3.7	V
	V_{1-7}	$V_{CC} = 11\text{V}$	6.95	7.25	7.55	V
Output Voltage, Pin3	V_O	$f_o = 58.75\text{MHz}$, $AM = 75\%$, $f_m = 1\text{kHz}$, $V_i = 60\text{mV}_{rms}$	320	480	640	mV_{rms}
Output Voltage, Pin1			370	560	740	mV_{rms}
Frequency Bandwidth (Det. Out)	B	$f_o = 58.75\text{MHz}$, $AM = 40\%$, $V_i = 20\text{mV}_{rms}$	7	8	–	MHz
Voltage Gain (IF AGC)	G_V		400	550	700	times
Upper Voltage (IF AGC)	$V_{(Upper)}$	$V_{CC} = 11\text{V}$, $V_{6-7} = 6.8\text{V}$	8.8	9.4	10.0	V
Lower Voltage (IF AGC)	$V_{(Lower)}$	$V_{CC} = 11\text{V}$, $V_{6-7} = 8.8\text{V}$	–	–	0.1	V

Pin Connection Diagram
(Front View)

