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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°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°C
Storage Temperatuere Range, T_{stg} . . . . . –40° to +150°C

Electrical Characteristics: (T_A = +25°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 = 58.75MHz, AM = 75% f_m = 1kHz, V_i = 30mV_{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 = 58.75MHz, AM = 40%, V_i = 30mV_{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)



