ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

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

Pin Connection Diagram
(Front View)