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NTE1620
Integrated Circuit
B/W TV Video IF Amplifier, RF AGC Circuit

Description:

The NTE1620 is an integrated circuit in a 9–Lead SIP type package designed for use as a B/W TV video IF amplifier and RF AGC circuit. Typical applications inclued low voltage operation (6V) and small B/W TVs.

Features:

- Low Voltage Operation Video IF Circuit with Minimum Number of Peripheral Components
- A Wide Range of Gain Reduction and IF AGC

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Supply Voltage, V_{CC} 7.2V
Supply Current, I_{CC} 20.5mA
Power Dissipation, P_D 156mW
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	9.5	13.5	17.5	mA
Voltage Gain	G_V	f = 58.75MHz	23	28	32	dB
AGC Range	H_{AGC}	f = 58.75MHz	60	–	–	dB
Input Resistance	R_i	f = 58.75MHz, v_i = 30mV$_{rms}$	–	900	–	Ω
Input Capacitance	C_i		–	5.5	–	pF
Output Capacitance	C_o		–	3.0	–	pF
Transfer Admittance	$\|Y_{21}\|$	f = 58.75MHz	–	545	–	mS
Noise Figure	NF		–	9.5	–	dB
Voltage Gain (RF AGC)	G_V		87	100	113	times
Upper Voltage (RF AGC)	$V_{(Upper)}$	V_{CC} = 5.5V, V_4 = 100mV	4.0	4.4	4.8	V
Lower Voltage (RF AGC)	$V_{(Lower)}$	V_{CC} = 5.5V, V_4 = 100mV	–	–	0.1	V

Pin Connection Diagram
(Front View)