

NTE1689 Integrated Circuit Head Amp Circuit for VCR

Features:

- The Function Consist of:
 - Video Signal Pre-Amplifier Circuit
 - Head Switchover Circuit
 - Drop-Out Compensation Circuit
 - RF AGC Circuit
- Low-Noise Head Amplifier
- Supply Voltage: 5V

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

Supply Voltage, V_{CC} 6V
 Power Dissipation, P_D 160mW
 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: ($V_{CC} = 5V$, $T_A = +25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Circuit Current	I_1		8	–	20	mA
Channel 1 Gain	G_{V4-10}	$f = 1\text{MHz}$	52.5	–	62.5	dB
Channel 2 Gain	G_{V8-10}	$f = 1\text{MHz}$	52.5	–	62.5	dB
AGC Output Amplitude	$V_{o(AGC\bullet 12)}$	$f = 4\text{MHz}$	170	–	330	mV _{p-p}
AGC Control Sensitivity	$\Delta V_{o(AGC\bullet 12)}$	$f = 4\text{MHz}$	–	–	2.5	dB
Output Amplifier Gain	G_{V13-17}	$f = 4\text{MHz}$	0.05	–	2.7	dB
DOC Amplifier Gain	G_{V18-17}	$f = 4\text{MHz}$	10.5	–	14.0	dB
DOC Sensitivity ON	S_{13-1}	$f = 4\text{MHz}$	–	–	–19	dB
DOC Sensitivity OFF	S_{13-2}	$f = 4\text{MHz}$	–10.8	–	–	dB
PG Input Sensitivity	S_2		–	–	3	V
Noise Voltage Referred to Input	V_{ni1}	1MHz BPF	–	–	1	μV_{rms}
	V_{ni2}	1MHz BPF	–	–	1	μV_{rms}

Note 1. Operating supply voltage range: $V_{CCopr} = 4.5V$ to $5.5V$.

Pin Connection Diagram

