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

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°C unless otherwise specified)

Supply Voltage, V_{CC} 6V
Power Dissipation, P_D 160mW
Operating Ambient Temperature Range, T_{opr} . . . . . –20° to +70°C
Storage Temperature Range, T_{stg} . . . . . –40° to +150°C

Electrical Characteristics: (V_{CC} = 5V, T_A = +25°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 = 1MHz	52.5	–	62.5	dB
Channel 2 Gain	$G_{V8–10}$	f = 1MHz	52.5	–	62.5	dB
AGC Output Amplitude	$v_{o(AGC•12)}$	f = 4MHz	170	–	330	$mV_{P–P}$
AGC Control Sensitivity	$\Delta v_{o(AGC•12)}$	f = 4MHz	–	–	2.5	dB
Output Amplifier Gain	$G_{V13–17}$	f = 4MHz	0.05	–	2.7	dB
DOC Amplifier Gain	$G_{V18–17}$	f = 4MHz	10.5	–	14.0	dB
DOC Sensitivity ON	$S_{13–1}$	f = 4MHz	–	–	–19	dB
DOC Sensitivity OFF	$S_{13–2}$	f = 4MHz	–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_{CC}opr = 4.5V to 5.5V.

Pin Connection Diagram