ELECTRONICS, INC.
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NTE1806
Integrated Circuit
Head Amplifier Circuit for 4 Head VCR

Features:

- Built–in Enveloped Comparing Circuit
- Built–in Peaking Amplifier Circuit
- Less Noise Voltage Referred to Input: $1\mu V_{rms}$

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

Supply Voltage, V_C 6V
Power Dissipation (T_A = +70°C), P_D 250mW
Operating Ambient Temperature, T_{opr} . . . . . –20° to +70°C
Storage Temperature Range, T_{stg} . . . . . –55° to +150°C

Electrical Characteristics: (T_A = +25°C, V_{CC} = 5V unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Circuit Current	I_{16}		16	–	40	mA
Channel I Gain	$G_{3–15}$	f = 1MHz	50.5	–	60.5	dB
Channel II Gain	$G_{4–15}$	f = 1MHz	50.5	–	60.5	dB
Channel III Gain	$G_{8–15}$	f = 1MHz	50.5	–	60.5	dB
Channel IV Gain	$G_{9–15}$	f = 1MHz	50.5	–	60.5	dB
AGC Output Amplitude	υ_{20}	f = 4MHz	100	–	190	$m\upsilon_{P–P}$
AGC Control Sensitivity	υ_{20}	f = 4MHz	–	–	3	dB
Head Switch Changeover Sensitivity	S_1		–	–	1	V
Head Amp Switch Changeover Sensitivity	S_{11}		–	–	1	V
Noise Voltage Referred to Input (I)	$V_{ni3–15}$	1MHz BFP	–	–	1	μV_{rms}
Noise Voltage Referred to Input (II)	$V_{ni4–15}$	1MHz BFP	–	–	1	μV_{rms}
Noise Voltage Referred to Input (III)	$V_{ni8–15}$	1MHz BFP	–	–	1	μV_{rms}
Noise Voltage Referred to Input (IV)	$V_{ni9–15}$	1MHz BFP	–	–	1	μV_{rms}
Envelope Comparative Output Amplitude	υ_{14}		4.3	–	–	$V_{P–P}$
Envelope Comparative Output Stop Sensitivity	S_{17}		–	–	1.2	V

Note 1. Operating Supply Voltage Range: $V_{CC(opr)}$ = 4.5 to 5.5V

Pin Connection Diagram