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NTE1702
Integrated Circuit
Color ACC Circuit for VCR

Description:

The NTE1702 is an integrated circuit in an 18–Lead DIP type package designed for VCR color ACC and constitute a color processing circuit by combining with the NTE1703 and the NTE15010.

Features:

- The Functions Consist of:
  - ACC Circuit
  - Balanced Mulitvibrator
  - Burst 6dB UP/DOWN Circuit
  - Playback Amplifier
- Supply Voltage Either 9V or 12V

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

Supply Voltage, V_{CC} 14.4V
Power Dissipation (T_A = +70°C), P_D 550mW
Operating Ambient Temperature Range, T_{opr} . . . . . –20° to +70°C
Storage Temperature Range, T_{stg} . . . . . –40° to +150°C

Electrical Characteristics: (V_{CC} = 12V, T_A = +25°C ±2°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Circuit Current	I_{13}		20	–	40	mA
Record AGC Output Amplitude (Burst AGC)	V_{17-1}	υ_1 Chroma, 0.2V_{P-P}	0.3	–	0.65	V_{P-P}
Record AGC Control Sensitivity (Burst AGC)	$\Delta\upsilon_{17-1}$	+6dB to –15dB	–	–	3.5	dB
Record AGC Control Sensitivity (Chroma AGC)	$\Delta\upsilon_{17-2}$	CY Signal	2	–	5	dB
Record/Playback Crosstalk	CT_{17}	υ_1 = 3.58MHz, 0.1V_{P-P}	–	–	–40	dB
Record Burst Gate Gain	G_{V16-3}	υ_{16} Chroma Signal, 0.4V_{P-P}	12.9	–	16.1	dB
Playback Burst Gate Gain	G_{V6-3}	υ_6 Chroma Signal, 0.2V_{P-P}	18.4	–	21.6	dB
B.M. Output Amplitude	υ_{O12}		1.0	–	1.5	V_{P-P}
B.M. Carrier Leakage	CL_{12}		–	–	–40	dB
Burst Emphasis Amount	$G_{(Emph)}$		5	–	7	dB
Burst De–Emphasis Amount	$G_{(D-Emph)}$		–7	–	–5	dB

Note 1. Operating Supply Voltage: $V_{CC(opr)}$ = 8.5V to 13V

Electrical Characteristics (Cont'd): (V_{CC} = 12V, T_A = +25°C ±2°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Playback Amp Gain	G_{V10-9}	υ_{10} 0.2V_{P-P}	16	–	20	dB
Record Output Amp Gain	G_{V8-1}	SP Mode	12	–	15	dB
	G_{V8-2}	LP Mode	0.5	–	2.5	dB
Playback Output Amp Gain	G_{V6-7}		7	–	10	dB
Monochrome/Color Crosstalk	CT_7		–	–	–40	dB
Record/Playback Select Sensitivity	S_9	Playback → Record	9	–	–	V
Record Output Amp LP/SP Select Sensitivity	S_{11}	SP → LP	9	–	–	V
Monochrome/Color Select Sensitivity	S_8	Color → Monochorme	–	–	1.5	V

Note 1. Operating Supply Voltage: $V_{CC(opr)}$ = 8.5V to 13V

Pin Connection Diagram