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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 Multivibrator
 - Burst 6dB UP/DOWN Circuit
 - Playback Amplifier
- Supply Voltage Either 9V or 12V

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

Supply Voltage, V_{CC} 14.4V
 Power Dissipation ($T_A = +70^\circ\text{C}$), P_D 550mW
 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: ($V_{CC} = 12\text{V}$, $T_A = +25^\circ\text{C} \pm 2^\circ\text{C}$ 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}	v_1 Chroma, $0.2V_{P-P}$	0.3	–	0.65	V_{P-P}
Record AGC Control Sensitivity (Burst AGC)	Δv_{17-1}	+6dB to -15dB	–	–	3.5	dB
Record AGC Control Sensitivity (Chroma AGC)	Δv_{17-2}	CY Signal	2	–	5	dB
Record/Playback Crosstalk	CT_{17}	$v_1 = 3.58\text{MHz}$, $0.1V_{P-P}$	–	–	-40	dB
Record Burst Gate Gain	G_{V16-3}	v_{16} Chroma Signal, $0.4V_{P-P}$	12.9	–	16.1	dB
Playback Burst Gate Gain	G_{V6-3}	v_6 Chroma Signal, $0.2V_{P-P}$	18.4	–	21.6	dB
B.M. Output Amplitude	v_{012}		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: $V_{CC(opr)} = 8.5\text{V}$ to 13V

Electrical Characteristics (Cont'd): ($V_{CC} = 12V$, $T_A = +25^{\circ}C \pm 2^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Playback Amp Gain	G_{V10-9}	$v_{10} 0.2V_{P-P}$	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 → Monochrome	–	–	1.5	V

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

Pin Connection Diagram

