

NTE1703 Integrated Circuit Color APC (BM/Record/Playback Switching Circuit)

Description:

The NTE1703 is an integrated circuit in an 16-Lead DIP type package designed for VCR color APC and constitutes a color processing circuit by combining with the NTE1702 and the NTE15010.

Features:

- The Functions Consist of:
APC Circuit
Color-Killer Circuit
Balanced Modulator
ID Detector
- 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: ($V_{CC} = V_{14-1} = 12\text{V}$, $T_A = +25^\circ\text{C} \pm 2^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Circuit Current	I_5		20	—	40	mA
X'tal VCO Frequency Control Sensitivity	β_8		7.2	—	17.3	Hz/mW
APC P-COM Discrimination Sensitivity	μ_1	Burst $1V_{P-P}$	9.5	—	26.0	mV/deg
Color Killer Sensitivity ON	$S_{(BM)}$	H $\rightarrow$ L	-8.0	—	—	dB
Color Killer Sensitivity OFF	$S_{(Color)}$	L $\rightarrow$ H	—	—	-2.8	dB
Color Killer Output, High	V_{10-H}		9	—	—	V
Color Killer Output, Low	V_{10-L}		—	—	0.5	V
180° ID Detection Phase	$S_{(ID13)}$	Burst $1V_{P-P}$	150	—	230	deg
BM Output Amplitude	v_{O8}		1.4	—	2.0	V_{P-P}
Carrier Leakage	CL_8		—	—	-30	dB
Record/Playback Select Sensitivity	S_7		3	—	—	V

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

Pin Connection Diagram

APC Filter	1	16	N.C.
X'tal OSC	2	15	GND
X'tal OSC	3	14	APC Burst Input
X'tal OSC	4	13	Killer Burst Input
V _{CC}	5	12	Killer Detector
3.58MHz Input	6	11	ID Detector
Record/Playback Select	7	10	Killer Output
4.2MHz Output	8	9	630kHz Input

