

NTE1650 Integrated Circuit Color TV Luminance–Chroma System ^w/Auto Flesh

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

Supply Voltage, V_{CC}	15V
Power Dissipation ($T_A = +65^\circ\text{C}$), P_d	850mW
Operating Temperature Range, T_{opr}	-20° to $+65^\circ\text{C}$
Storage Temperature Range, T_{stg}	-55° to $+125^\circ\text{C}$

Electrical Characteristics:

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Maximum Chroma Output	E_{Cmax}	Chroma Input B/C = $1/1$, $100\text{mV}_{P-P} = 0\text{dB}$	0.50	0.65	0.80	V_{P-P}
ACC Range	E_a	Input = -20dB	0.40	0.53	0.76	V_{P-P}
Killer Sensitivity	E_k		-55	-40	-30	dB
Color Recovery Conversion Benefit	G_{R-Y}		6.2	7.8	–	times
	E_{B-Y}/E_{R-Y}		0.70	0.80	0.95	times
	E_{G-Y}/E_{R-Y}		0.22	0.30	0.38	times
Relative Demodulation Angle	$\angle(R-Y) - \angle(B-Y)$		100	115	130	deg.
	$\angle(G-Y) - \angle(B-Y)$		240	255	270	deg.
Color Recovery Output Voltage	$E_{O(DC)}$		6.4	7.0	7.6	V
	$\Delta E_{O(DC)}$		-0.3	–	$+0.3$	V
Video Amplifier Benefit	G_V		9.2	11.0	12.8	times
	G_{VIR}		3.5	4.5	5.2	times
Video Amplifier Frequency Response	f_C		5	–	–	MHz
Direct Current Reproduction Rate			–	75	–	%
Blanking Output Voltage			10.1	11.1	–	V

Pin Connection Diagram

ACC Detector	1	28	Peaking Capacitor
Color Control	2	27	Video Input
Killer Detector	3	26	Contrast/Color Adjust
1 st BPA	4	25	Pedestal Clamp
2 nd BPA	5	24	VIR Output
GND	6	23	Brightness Control
Sync Pulse Input	7	22	Blanking Input
VCO Filter	8	21	Video Output
OSC Input	9	20	V _{CC}
OSC Output	10	19	Color Control Output
APC Control	11	18	B-Y Demod Input
DC Tint	12	17	B-Y Output
Tint Adjust	13	16	R-Y Output
Auto Flesh ON/OFF Switch	14	15	G-Y Output

