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NTE1781 Integrated Circuit Electronic Switch for VCR

Features:

- Wide Input Dynamic Range
- Low Distortion
- Good Frequency Characteristics

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

Maximum Supply Voltage, V_{CCmax} 15V
 Allowable Power Dissipation ($T_A \leq +65^\circ\text{C}$), P_{dmax} 300mW
 Operating Temperature Range, T_{opr} -20° to $+65^\circ\text{C}$
 Storage Temperature Range, T_{stg} -40° to $+125^\circ\text{C}$

Operation Characteristics: ($T_A = +25^\circ\text{C}$, $V_{CC} = 12\text{V}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Circuit Current	I_D		–	–	12.5	mA
Total Harmonic Distortion	THD	$R_g = 600\Omega$, $4.5V_{P-P}$, $f = 1\text{kHz}$, $R_L = \infty$, Note 1	–	0.007	0.1	%
Noise	en	$R_g = 600\Omega$, $f = 20\text{Hz}$ to 20kHz , $R_L = \infty$, Note 1	–	–93	–80	dBs
Crosstalk	I_{s1}	Input A: $R_g = 50\Omega$, $f = 3.58\text{MHz}$, $2V_{P-P}$, Input B: $R_g = 1\text{k}\Omega$, Note 1	50	68	–	dB
Pedestal	ΔV_{ped}	$V_3 = 2.2\text{V}$ to 3.0V	–100	–	+100	mV
Second Harmonic		$R_g = 50\Omega$, $f = 1\text{Mhz}$, $4V_{P-P}$, $R_L = \infty$	46	55	–	dB
Third Harmonic		$R_g = 50\Omega$, $f = 1\text{Mhz}$, $4V_{P-P}$, $R_L = \infty$	46	52	–	dB
Control, Threshold Voltage	V_{3s}		2.2	2.6	3.0	V
Pin Voltage (Pin4)	V_4		–	6.9	6.9	V
Pin Voltage (Pin7)	V_7	$V_3 = 2.2\text{V}$	–	7.6	–	V
		$V_3 = 3.0\text{V}$	–	7.6	–	V
Pin Voltage (Pin2)	V_2	$V_3 = 2.2\text{V}$	–	7.6	–	V
		$V_3 = 3.0\text{V}$	–	7.6	–	V

Note 1. Test for Input 1 and Input 2:
 Input 1 Test: V_{cont} (Pin3 voltage) is 2.0V
 Input 2 Test: V_{cont} is 3.0V

Pin Connection Diagram
(Front View)

