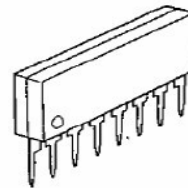


3-Input Video Switch With 75 Ω Driver

FEATURES

- Operating Voltage 4.75~13V
- 3 Input-1 Output
- Internal Driver Circuit for 75 Ω Impedance
- Muting Function available
- Internal Clamp Function
- Low power Dissipation 16.5mA
- Cross-talk 70dB(at 4.43MHz)
- Wide Frequency Range 10MHz(2Vp-p Input)
- Package Outline DIP8,DMP8,SIP8.



GENERAL DESCRIPTION

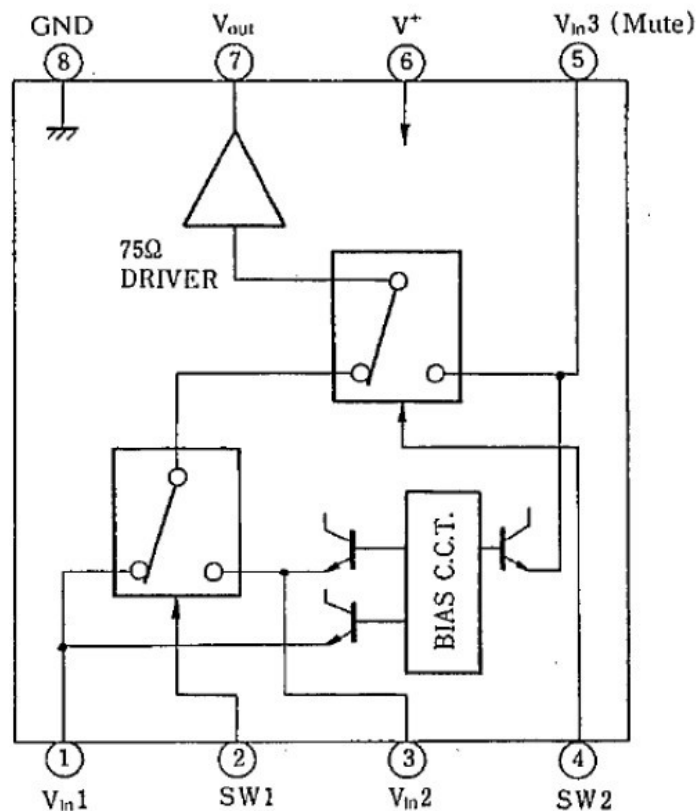
The ZL2244 is a three input integrated video switch which selects one video or audio signal from three input signals.

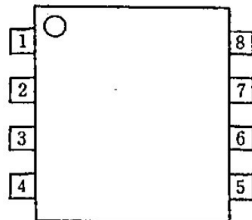
It contains driver circuit for 75 Ω load and is able to connect to TV monitor.

Its operating supply voltage range is 5 to 12V and bandwidth is 10MHz, Crosstalk is 70dB(at 4.43MHz).

ZL2244 contains clamp function and it can be operated while setting DC level fixed in position of the video signal.

BLOCK DIAGRAM



3-Input Video Switch With 75 Ω Driver
PIN CONFIGURATION

PIN FUNCTION

1. V_{in1}
2. SW1
3. V_{in2}
4. SW2
5. V_{in3}
6. V^+
7. V_{out}
8. GND

INPUT CONTROL SIGNAL-OUTPUT SIGNAL

SW1	SW2	OUTPUT SIGNAL
L	L	V_{in1}
H	L	V_{in2}
L/H	H	V_{in3}

Note: Input clamp voltage is about 2/5 of supply voltage

ABSOLUTE MAXIMUM RATINGS($V^+=5V$, $T_a=25^\circ C$)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V^+	15	V
Power Dissipation	P_D	700	mW
Operating Temperature Range	T_{opr}	-20~+75	$^\circ C$
Storage Temperature Range	T_{stg}	-40~+125	$^\circ C$

Electrical Characteristics($V^+=5V$, $T_a=25^\circ C$)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Recommended supply Voltage	V^+		4.75	-	13.0	V
Operating Current	I_{CC}	$S1=S2=S3=S4=S5=2$	11.5	16.5	22.0	mA
Voltage Gain	G_v	$V_{in} = 2V_{pp}$, $V_o(10MHz)/V_o(100kHz)$, $R_L=150$	-0.8	-0.3	+0.2	dB
Frequency Characteristic	G_f	$V_{in} = 2V_{pp}$ $V_o(10MHz)/V_o(100kHz)$, $R_L=150$	-1.0	-	+1.0	dB
Differential Gain	DG	$V_{in}=2.0V_{pp}$ staircase, $R_L=150$	-	0.3	-	%
Differential Phase	D_p	$V_{in}=2.0V_{pp}$ staircase, $R_L=150$	-	0.3	-	dcg
Output Offset Voltage	V_{off}	$S1=S2=S3=2, S5=1\sim 2$ V_o :voltage change	-	0	± 30	mV
Crosstalk	CT	$V_{in}=2V_{pp}, 4.43MHz, V_o/V_i$	-	-70	-	dB
Switch Change Voltage	V_{CH}	All inside SW:ON	2.4	-	-	V
	V_{CL}	All inside SW:OFF	-	-	0.8	V

3-Input Video Switch With 75 Ω Driver

Application

Oscillation Prevention on light loading conditions

Recommended under circuit

This IC requires $1M\ \Omega$ resistance between INPUT and GND pin for clamp type input since the minute current causes an unstable pin voltage

TEST CIRCUIT

