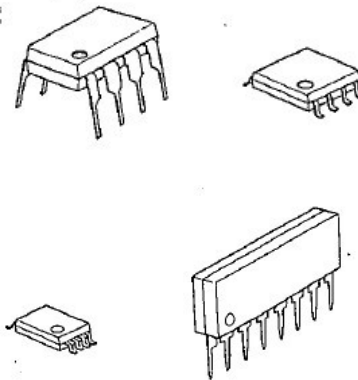


FEATURES

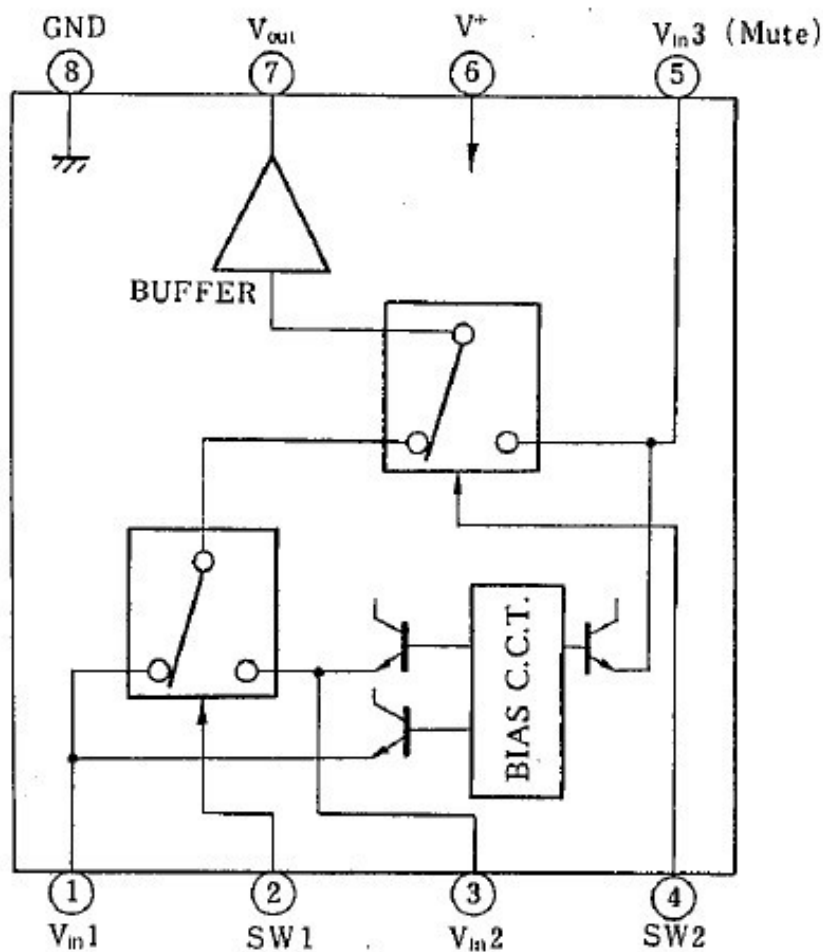
- Operating Voltage 4.75~13V
- 3 Input-1 Output
- Internal Clamp Function
- Muting Function available
- Cross-talk 70dB(at 4.43MHz)
- Wide Frequency Range 10MHz
- Bipolar Technology
- Package Outline DIP8,DMP8,SIP8.SSOP8

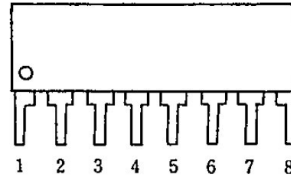
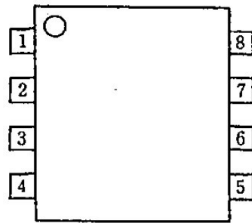


GENERAL DESCRIPTION

The ZL2235 is 3-input video switch for video and audio signal. It has clamp function and so is applied to fixed DC level of video signal. Its operating supply voltage range is 5 to 12V and bandwidth is 10MHz. Crosstalk is 70dB(at 4.43MHz)

BLOCK DIAGRAM



3-Input Video Switch
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}

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}	$S1=S2=S3=S4=S5=1$	-	10.5	14.0	mA
Voltage Gain	G_v	$V_{in} = 2.5V_{pp}$, V_o/V_o (100kHz),	-0.5	-	+0.5	dB
Frequency Characteristic	G_f	$V_{in} = 2.0V_{pp}$ $V_o(10MHz)/V_o(100kHz)$,	-1.0	-	+1.0	dB
Differential Gain	DG	$V_{in}=2.0V_{pp}$ staircase,	-	0	-	%
Differential Phase	D_p	$V_{in}=2.0V_{pp}$ staircase	-	0	-	dcg
Input Clamp Voltage	V_{ic}	(note 5)	-	2.0	-	B
Output Offset Voltage	V_{off}	(note 2)	-30	0	± 30	mV
Crosstalk(1)	CT1	$V_{in}=2V_{pp}, 4.43MHz, V_o/V_i$ (note3)	-	-70	-	dB
Crosstalk	CT	$V_{in}=2V_{pp}, 4.43MHz, V_o/V_i$ (note4)	-	-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

Output Impedance	Ro	-	10	-	
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(note1): If it is not shown about switch condition. It is tested on three conditions below

a) S1=2 S2=S3=S4=S5=1 b) S2=S4=2, S1=S3=S5=1 c) S1=S2=1, S3=S5=2, S4=1 or 2

(note2): S1=S2=S3=1, Output DC voltage difference of three mode below

a) S4=S5=1 b) S4=2, S5=1 c) S4=1 or 2 S5=1

(note3): S5=1, Tested on all combination of S1~S4 except two below.

a) S1=2, S4=1 b) S2=S4=2

(note4): Tested on all combination of S1~S4 except one.

a) S5=2, S3=2

(note5): Input clamp voltage is about 2/5 of supply voltage.

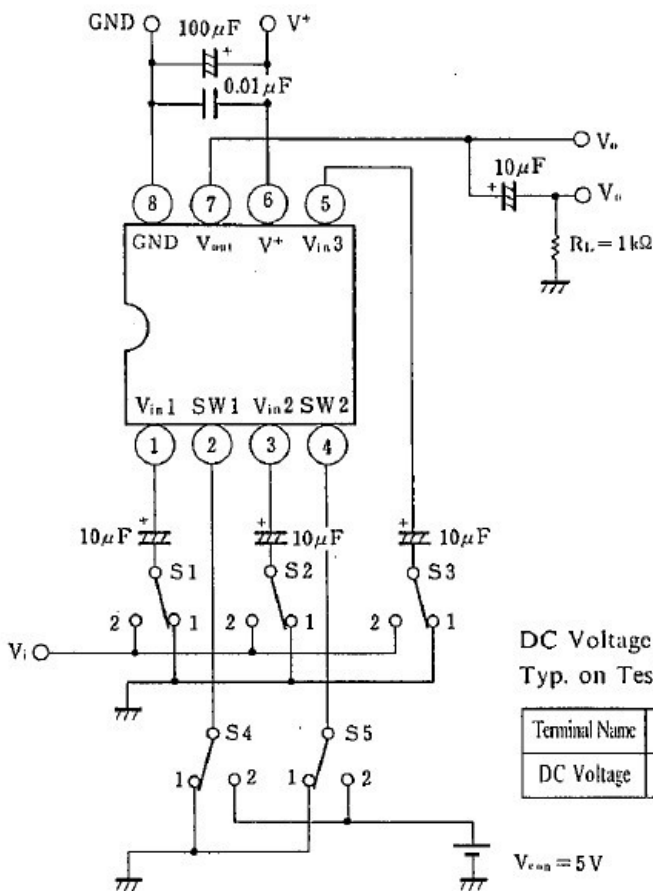
Application

Oscillation Prevention on light loading conditions

Recommended under circuit

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

TEST CIRCUIT



DC Voltage Each Terminal
Typ. on Test Circuit $T_a = 25^\circ\text{C}$

Terminal Name	V _{IN1}	SW1	V _{IN2}	SW2	V _{IN3}	V ⁺	V _{OUT}	GND
DC Voltage	$\frac{2}{5} V^+$	—	$\frac{2}{5} V^+$	—	$\frac{2}{5} V^+$	—	$\frac{2}{5} V^+ - 0.7$	—