

TEA2124

VIDEO SWITCH

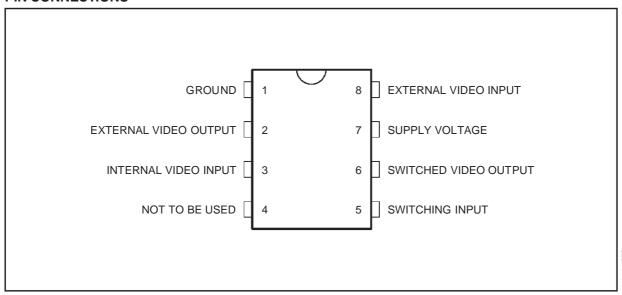
- 2 VIDEO OUTPUTS WITH 150Ω LOAD DRIVE CAPABILITY
- DYNAMIC OUTPUT AMPLITUDE 4 V_{PP} ON EACH OUTPUT
- BANDWIDTH 18MHz TYP
- CLAMPED VIDEO INPUTS
- FULL PROTECTION AGAINST ESD



DESCRIPTION

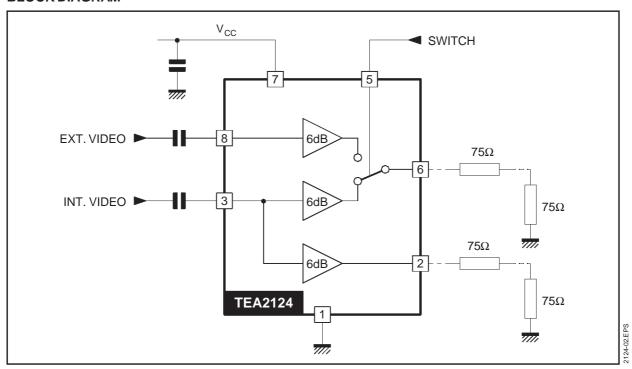
This integrated circuit provides general video switches. It is particularly intended for switching between the peri TV plug and video section of the sets. Its electrical performances make it suitable for wide bandwidth applications (Teletext, D2MAC).

PIN CONNECTIONS



September 1998

BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V _{CC}	Supply Voltage	14	V
Tj	Junction Temperature	- 40, + 150	°C
T _{stg}	Storage Temperature	- 40, + 150	°C

ELECTRICAL CHARACTERISTICS

 $T_A = 25^{\circ}C$, $V_{CC} = 8V$ (unless otherwise specified)

Symbol	Parameter	Min.	Тур.	Max.	Unit
V _{CC}	Supply Voltage	6.5		13.2	V
Icc	Supply Current (no load Pin 2 and Pin 6)		10	15	mA
Icc	Supply Current (with load 150 Ω on Pin 2 and Pin 6, no video on inputs)		25		mA

INPUTS (Pin 3 and Pin 8)

	Video Input Swing		2		V_{PP}
V _{DCIN}	DC Level Input	1.6	1.9	2.2	V
I _{IN}	Input Bias Current (V _{DC} = V _{DCIN} + 1.5 V _{DC})		1	5	μΑ

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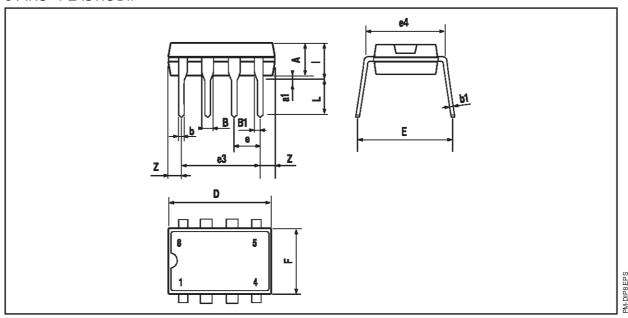
ELECTRICAL CHARACTERISTICS (continued) $T_A = 25^{\circ}C$, $V_{CC} = 8V$ (unless otherwise specified)

Symbol	Parameter	Min.	Тур.	Max.	Unit
SWITCHE	D OUTPUT (Pin 6) ($R_{LOAD} = 150\Omega$)		•	•	
	Video Output Swing	3	4		V _{PP}
	DC Level Output	0.7	1	1.3	V
	Video Gain (Pin 6 versus Pin 3 or Pin 8, measured at 100kHz, 1 V _{PP} input signal)	5.5	6	6.5	dB
	Video Bandwidth (Pin 6 versus Pin 3 or Pin 8, 1V _{PP} input signal)	12	18		MHz
	Output Impedance (measured Pin 6)		1		Ω
EXTERNA	LOUTPUT (Pin 2) ($R_{LOAD} = 150\Omega$)				
	Video Output Swing	3	4		V_{PP}
	DC Level Output	0.7	1	1.3	V
	Video Gain (Pin 2 versus Pin 3, measured at 100kHz, 1 V _{PP} input signal)	5.5	6	6.5	dB
	Video Bandwidth (Pin 2 versus Pin 3, 1V _{PP} input signal)	12	18		MHz
	Output Impedance (measured Pin 2)		1		Ω
SWITCHI	NG INPUT (Pin 5)				
	Output Current Selection Pin (V ₅ = 0V)			10	μΑ
	Threshold Voltage	2.5	3.7	5	V
	Max DC Level			Vcc	V
OTHER D	YNAMIC FEATURES				
	Crosstalk (between any input, measured at 5MHz) $R_{LOAD} = 150\Omega \text{ on Pins 2 and 6} \\ R_{LOAD} = 1k\Omega \text{ on Pins 2 and 6}$		- 50 -55		dB dB

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PACKAGE MECHANICAL DATA

8 PINS - PLASTIC DIP



Dimensions		Millimeters			Inches	
Dilliensions	Min.	Тур.	Max.	Min.	Тур.	Max.
Α		3.32			0.131	
a1	0.51			0.020		
В	1.15		1.65	0.045		0.065
b	0.356		0.55	0.014		0.022
b1	0.204		0.304	0.008		0.012
D			10.92			0.430
E	7.95		9.75	0.313		0.384
е		2.54			0.100	
e3		7.62			0.300	
e4		7.62			0.300	
F			6.6			0260
I			5.08			0.200
L	3.18		3.81	0.125		0.150
Z			1.52			0.060

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