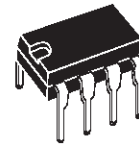




TEA2114

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



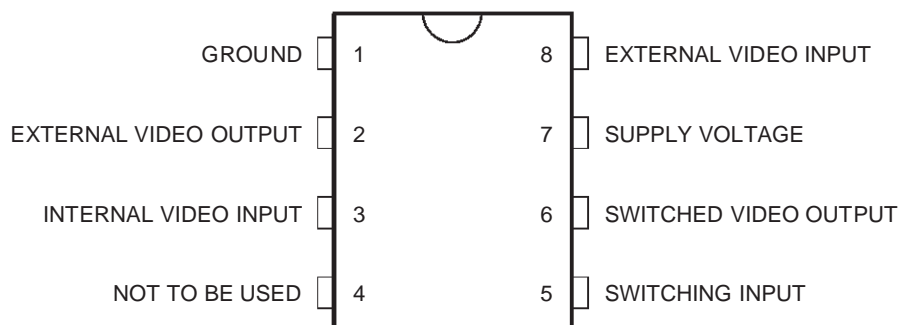
DIP8
(Plastic Package)

ORDER CODE : TEA2114

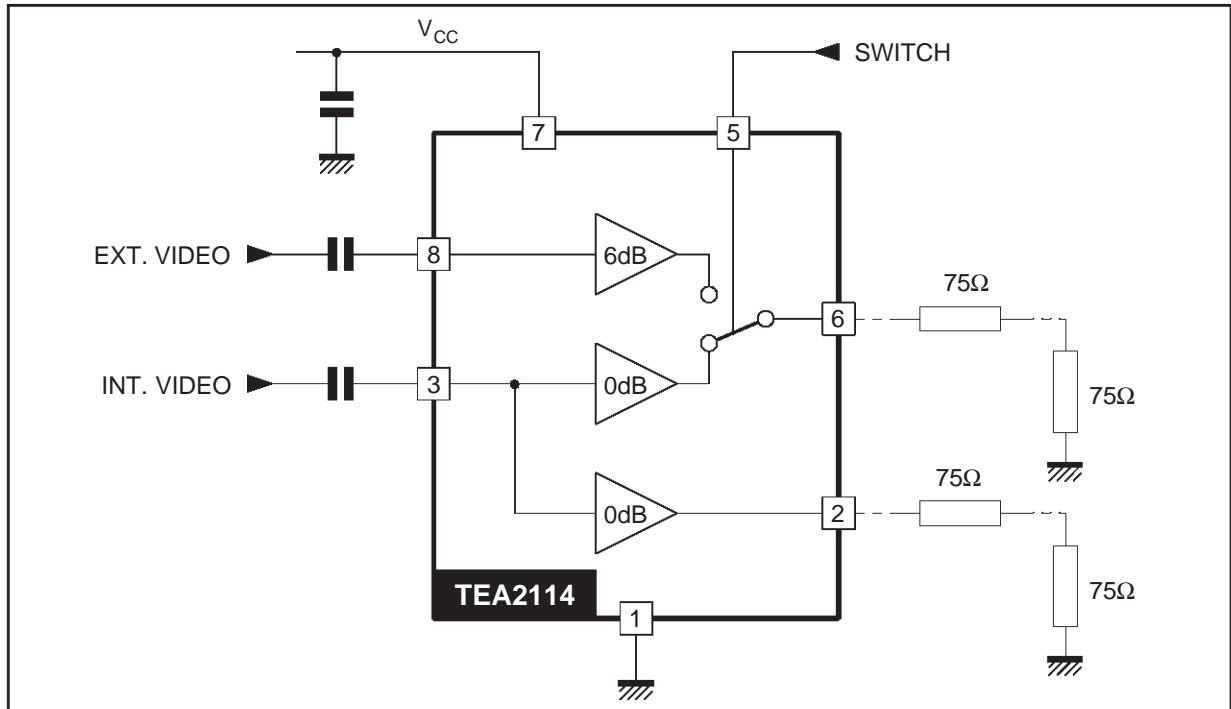
DESCRIPTION

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



BLOCK DIAGRAM



2114-02.EPS

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CC}	Supply Voltage	14	V
T_j	Junction Temperature	- 40, + 150	°C
T_{stg}	Storage Temperature	- 40, + 150	°C

2114-01.TBL

ELECTRICAL CHARACTERISTICS

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

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

INPUTS (Pin 3 and Pin 8)

Symbol	Parameter	Min.	Typ.	Max.	Unit
	Video Input Swing		4 2		V_{PP} V_{PP}
V_{DCIN}	DC Level Input	1.6	1.9	2.2	V
I_{IN}	Input Bias Current ($V_{DC} = V_{DCIN} + 1.5 V_{DC}$)		2	5	μA

2114-02.TBL

ELECTRICAL CHARACTERISTICS (continued)T_A = 25°C, V_{CC} = 8V (unless otherwise specified)

Symbol	Parameter	Min.	Typ.	Max.	Unit
--------	-----------	------	------	------	------

SWITCHED OUTPUT (Pin 6) (R_{LOAD} = 150Ω)

	Video Output Swing	3	4		V _{PP}
	DC Level Output	0.7	1.1	1.4	V
	Video Gain	-0.8	-0.3	0.2	dB
	Pin 6 versus Pin 3, measured at 100kHz, 1 V _{PP} input signal	5.5	6	6.5	dB
	Video Bandwidth	18	27		MHz
	Pin 6 versus Pin 3, 1V _{PP} input signal	12	18		MHz
	Pin 6 versus Pin 8, 1V _{PP} input signal				
	Output Impedance (measured Pin 6)		1		Ω

EXTERNAL OUTPUT (Pin 2) (R_{LOAD} = 150Ω)

	Video Output Swing	3	4		V _{PP}
	DC Level Output	0.7	1.1	1.4	V
	Video Gain (Pin 2 versus Pin 3, measured at 100kHz, 1 V _{PP} input signal)	-0.8	-0.3	0.2	dB
	Video Bandwidth (Pin 2 versus Pin 3, 1V _{PP} input signal)	18	27		MHz
	Output Impedance (measured Pin 2)		1		Ω

SWITCHING INPUT (Pin 5)

	Output Current Selection Pin (V ₅ = 0V)			10	μA
	Threshold Voltage	2.5	3.7	5	V
	Max DC Level			V _{CC}	V

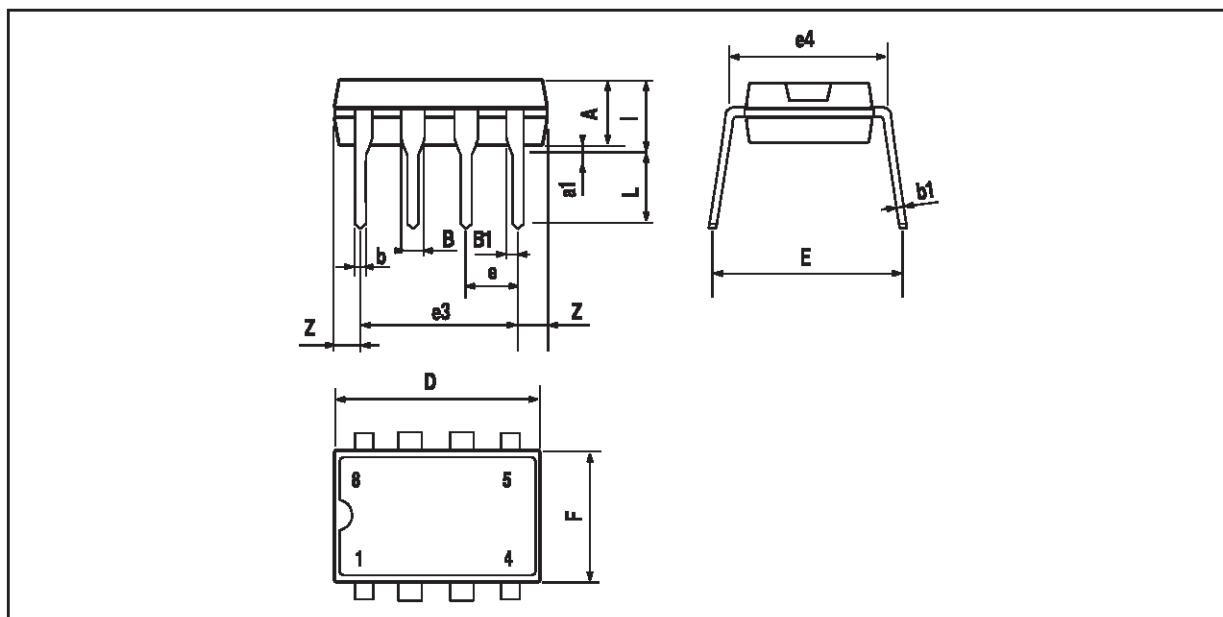
OTHER DYNAMIC FEATURES (R_{LOAD} = 150Ω on Pin 2 and Pin 6)

	Crosstalk (between any input, measured at 5MHz)		- 50		dB
--	---	--	------	--	----

2114-03.TBL

PACKAGE MECHANICAL DATA

8 PINS - PLASTIC DIP



PM-DIP8.EPS

Dimensions	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A		3.32			0.131	
a1	0.51			0.020		
B	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
e		2.54			0.100	
e3		7.62			0.300	
e4		7.62			0.300	
F			6.6			0.260
l			5.08			0.200
L	3.18		3.81	0.125		0.150
Z			1.52			0.060

DIP8.TBL

Information furnished is believed to be accurate and reliable. However, STMicroelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No licence is granted by implication or otherwise under any patent or patent rights of STMicroelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. STMicroelectronics products are not authorized for use as critical components in lifesupport devices or systems without express written approval of STMicroelectronics.

The ST logo is a registered trademark of STMicroelectronics

© 1998 STMicroelectronics - All Rights Reserved

Purchase of I²C Components of STMicroelectronics, conveys a license under the Philips I²C Patent. Rights to use these components in a I²C system, is granted provided that the system conforms to the I²C Standard Specifications as defined by Philips.

STMicroelectronics GROUP OF COMPANIES

Australia - Brazil - Canada - China - France - Germany - Italy - Japan - Korea - Malaysia - Malta - Mexico - Morocco - The Netherlands
Singapore - Spain - Sweden - Switzerland - Taiwan - Thailand - United Kingdom - U.S.A.