

75 Ω VIDEO LINE DRIVER

FEATURES

- Fixed Gain (6 dB)
- Internal 75 Ω Drivers
- Very Small Output Capacitor at SAG Function Pin
- Active High ON/OFF Control
- Very Low Standby Current (typ. $I_{CCS} \leq 25 \mu A$)
- Internal Summing Circuit of Y/C Signal.

APPLICATIONS

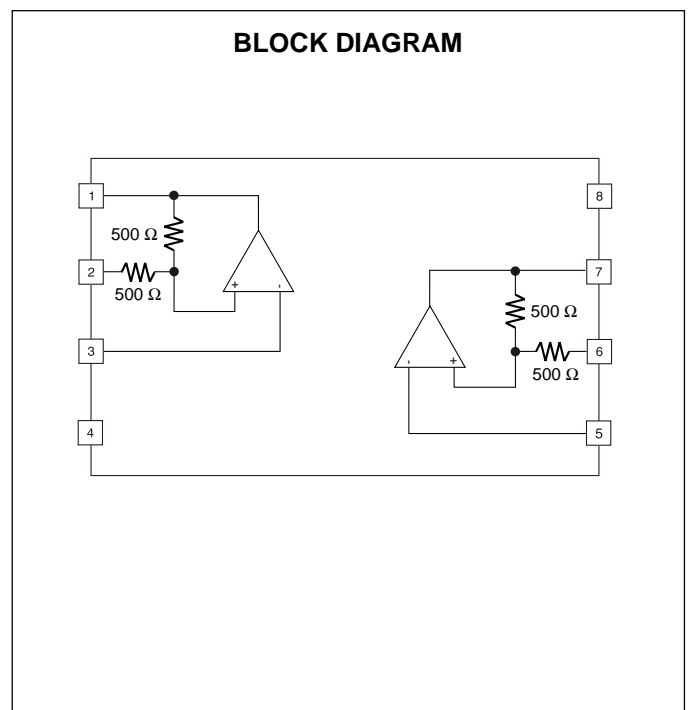
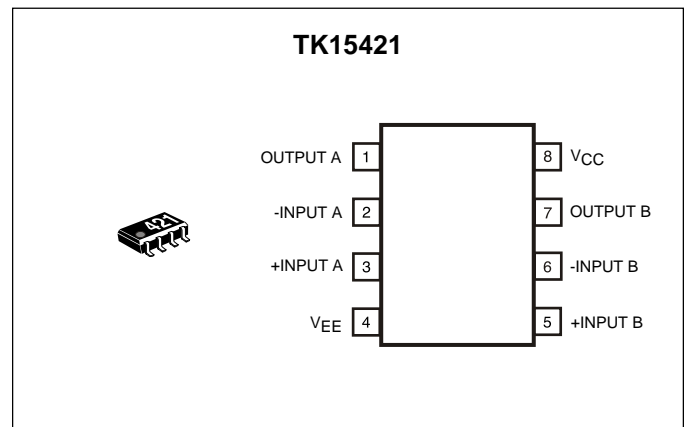
- Video Equipment
- Digital Cameras
- CCD Cameras
- TV Monitors
- Video Tape Recorders
- LCD Televisions

DESCRIPTION

The TK15421M is a 75 Ω video line driver IC which contains 2 channels. The voltage gain is 6 dB.

It is suitable for replacement of Motorola's video line driver IC MC14576CF.

The TK15421M is available in the SOP-8 surface mount package.



ORDERING INFORMATION

TK15421M □□

Tape/Reel Code

TAPE/REEL CODE
TL: Tape Left

TK15421

ABSOLUTE MAXIMUM RATINGS

Supply Voltage 14 V Storage Temperature Range -55 to +150 °C
Operating Voltage Range 4.0 to 12.0 V Operating Temperature Range -25 to +85 °C
Power Dissipation (Note 1) 400 mW Input Frequency 20 MHz

TK15408M ELECTRICAL CHARACTERISTICS

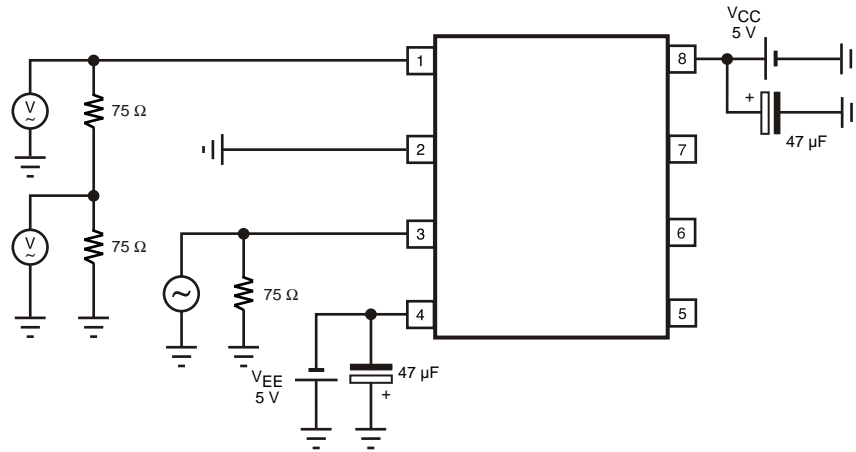
Test conditions: $V_{CC} = 5.0\text{ V}$, $V_{EE} = -5.0\text{ V}$, $T_A = 25\text{ °C}$ unless otherwise specified.

SYMBOL	PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CC}	Supply Current	No signal		18.1	24.0	mA
GVA	Voltage Gain	$f_{in} = 1\text{ MHz}$, $V_{IN} = 1\text{ V}_{P-P}$	5.6	5.9	6.2	dB
fr	Frequency Response	$f_{in} = 1\text{ MHz} / 10\text{ MHz}$		-0.5		dB
V_{OPP}	Maximum Output Voltage Swing	DC voltage	5.0	5.7		V_{P-P}
DG	Differential Gain	$V_{IN} = 1\text{ V}_{P-P}$, Staircase	-3.0	0.3	+3.0	%
DP	Differential Phase	$V_{IN} = 1\text{ V}_{P-P}$, Staircase	-3.0	0.4	+3.0	deg
CT	Cross Talk	$f_{IN} = 4.43\text{ MHz}$, $V_{IN} = 1\text{ V}_{P-P}$	50.0	76.3		dB
SVRR	Supply Voltage Rejection Ratio	$\Delta V = 0.4\text{ V}_{P-P}$, $f_{IN} = 100\text{ kHz}$		46.3		dB
C_{IN}	Input Capacitance			8.6		pF
Z_{IN}	Input Impedance			5.0		$M\Omega$

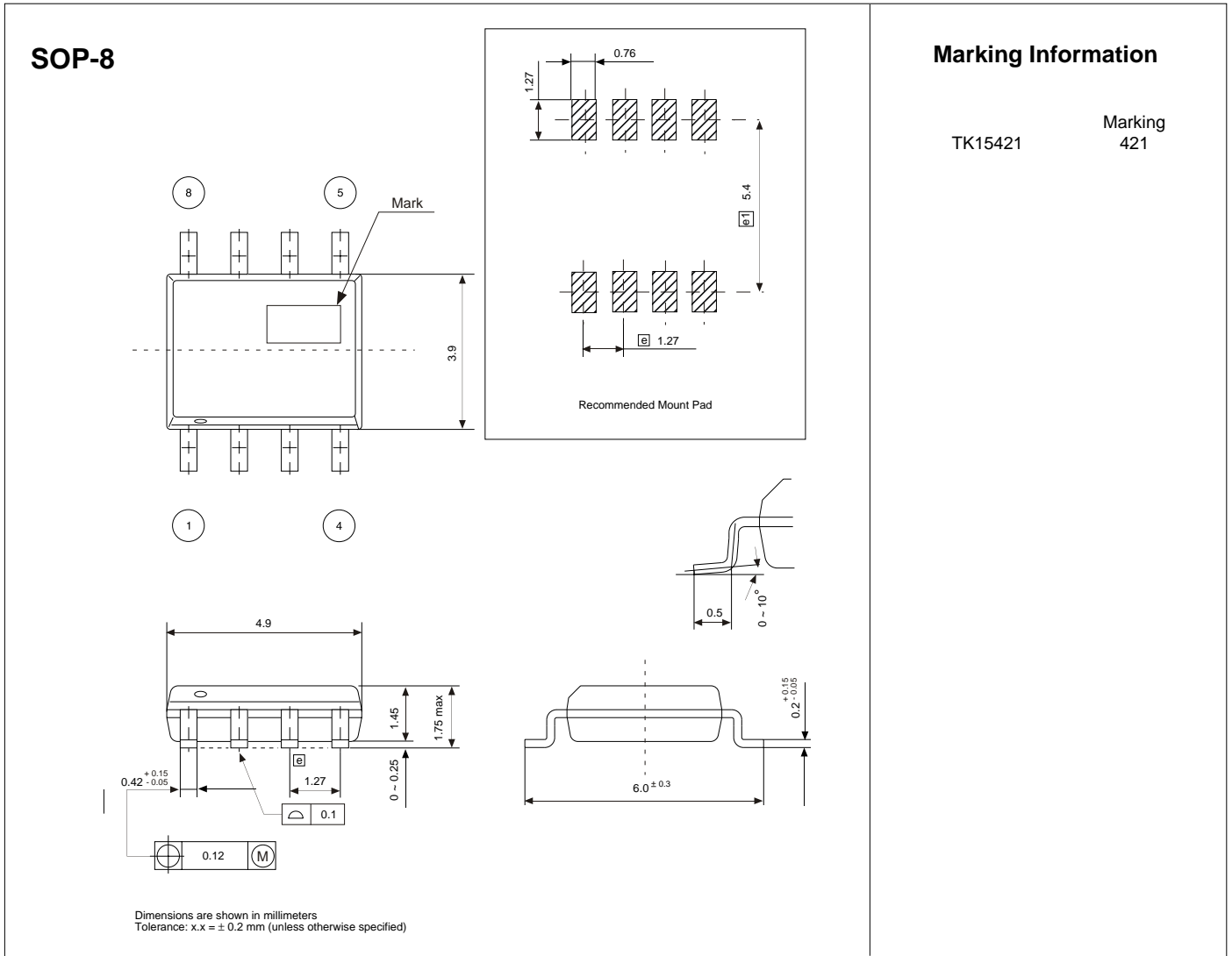
Note 1: Power dissipation is 400 mW when mounted as recommended. Derate at 3.2 mW/°C for operation above 25°C.

Note 2: Turn on in order of V_{EE} and V_{CC} when using this IC with two power supplies.

TEST CIRCUIT



PACKAGE OUTLINE



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