

PRELIMINARY

Notice: This is not a final specification.
Some parametric limits are subject to change.

MITSUBISHI ICs (TV)

M52771ASP

NTSC/PAL TV SIGNAL PROCESSOR

DESCRIPTION

The M52771ASP is a single chip CTV processor which has VIF/SIF, luminance, chrominance, mono sound, OSD display, RGB interface, and deflection.

And it is possible to control each parameters by I²C bus. A baseband 1H delay line is built-in, and conjunction with SECAM decoder M52325AP simplifies multi system CTV chassis.

FEATURES

- Built-in 1H Delay Line using Bi-CMOS technology
- Multistandard PLL demodulator for IF
- Alignment-free sound demodulator
- Flexible source selection with internal CVBS and external CVBS or Y/C input signal
- Audio switch integrated
- Integrated chroma trap and bandpass filters with auto-calibration
- Luminance delay line integrated
- RGB control circuit with cut-off and drive
- Linear RGB inputs and fast blanking
- Horizontal synchronaization with two control loops and alignment-free H-oscillator
- Vertical count-down circuit
- Vertical saw tooth generator integrated
- I²C Bus control of various functions
- Easy interfacing with SECAM decoder for multistandard applications
- Small amount of peripheral components
- 52 pin shrink DIP

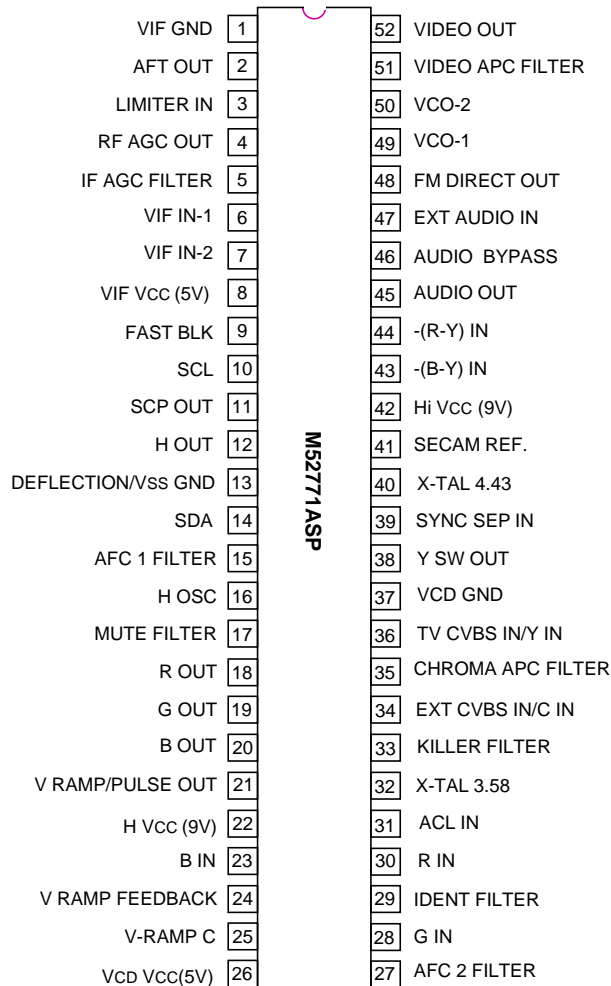
APPLICATION

NTSC/PAL TELEVISION

QUICK REFERENCE DATA

- Supply voltage pin8(VIF), pin26(video/chroma)..... 5.0V
pin22(Start-up), pin42(Output Stage)..... 9.0V
- Supply current pin8 and pin26..... 107mA
pin22 and pin42..... 56mA
- Input signals VIF input sensitivity..... 47dB μ
SIF limiting sensitivity..... 40dB μ
External audio input..... 1VP-P
External CVBS/Y inputs..... 1VP-P
External chroma input (burst amplitude).. 0.3VP-P
External RGB inputs..... 0.7VP-P
Fast blanking Internal TV..... 0 to 0.8V
External RGB..... 1.2 to 3.3V
Harf Tone..... 3.7 to 5V
-(R-Y) input..... 1.05VP-P
-(B-Y) input..... 1.33VP-P

PIN CONFIGURATION (TOP VIEW)



Outline 52P4B

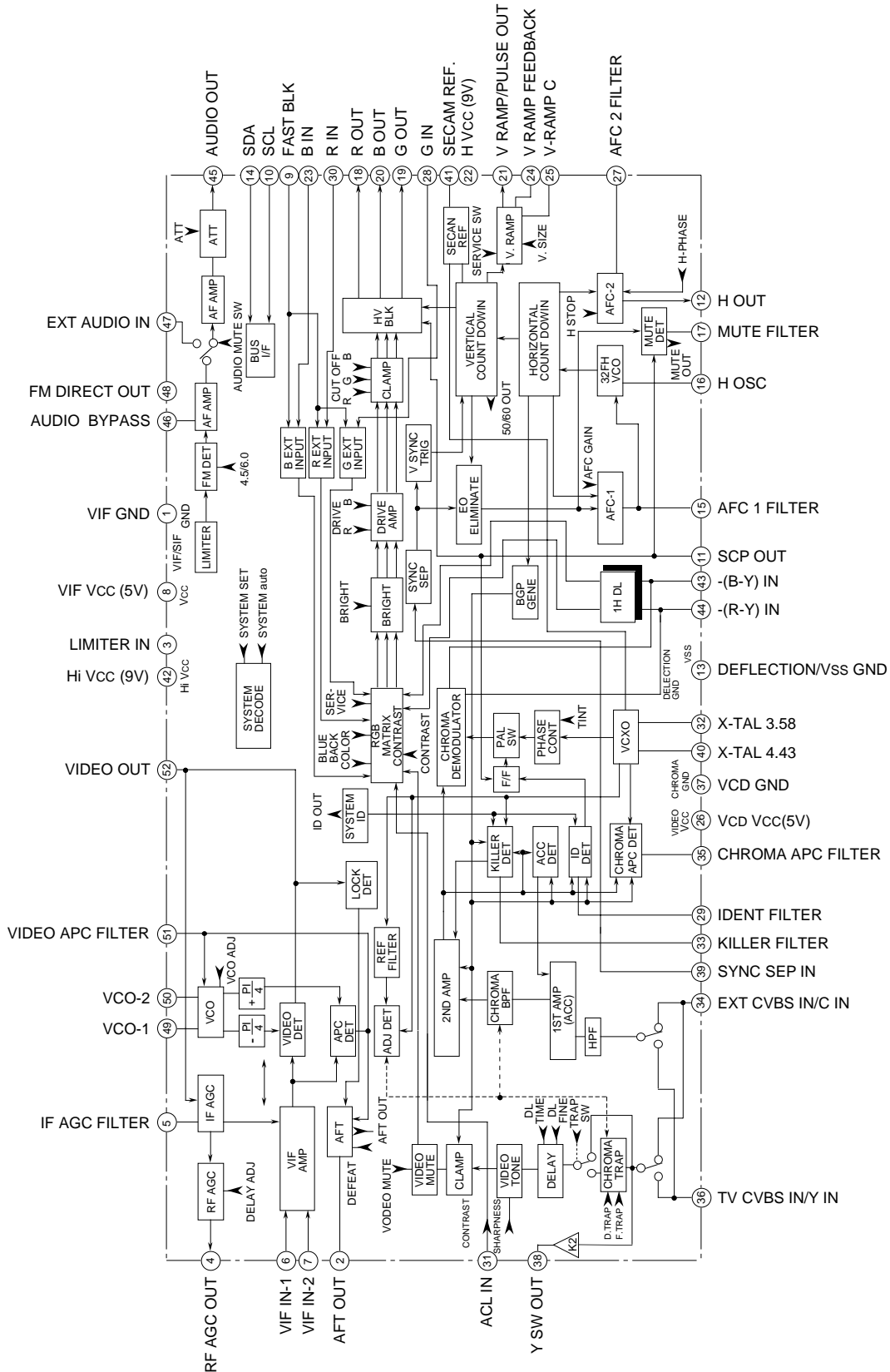
- Output signals VIF CVBS det out..... 2.2VP-P
RF AGC output range..... 0.3 to 8.7V
Video switch out..... 2.1VP-P
RGB output Pedestal voltage..... 2.2V
amplitude..... 4.2VP-P
Horizontal output amplitude..... 4.0VP-P
Vertical ramp amplitude..... 2.0VP-P

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BLOCK DIAGRAM

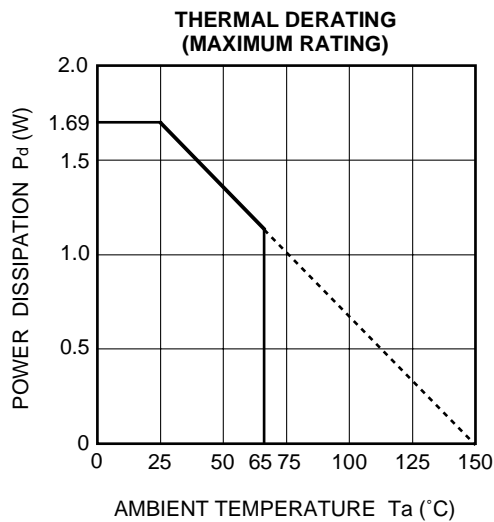


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NTSC/PAL TV SIGNAL PROCESSOR**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Ratings	Unit
V _{cc}	Supply voltage	6.0, 10.0	V
P _d	Power dissipation	1690	mW
K θ	Thermal derating	15	mW/°C
T _{opr}	Operating temperature	-20 to +65	°C
T _{stg}	Storage temperature	-40 to +125	°C

TYPICAL CHARACTERISTICS**SUPPLY VOLTAGE AND GND TERMINALS LIST**

Supply Voltage Terminals	Supplying Blocks
8 (5V)	VIF/SIF/AF
22 (9V)	Start up V _{cc} DEFLECTION / CMOS
42 (9V)	VIF(9V operation part), RGB Drive
26 (5V)	VIDEO / CHROMA RGB 1HDL (analog)

GND Terminals	Blocks
1	VIF/SIF/AF
25	DEFLECTION / CMOS
37	VIDEO/CHROMA RGB 1HDL (analog)

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APPLICATION EXAMPLE

