M52770ASP

NTSC/PAL TV SIGNAL PROCESSOR

DESCRIPTION

The M52770ASP 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

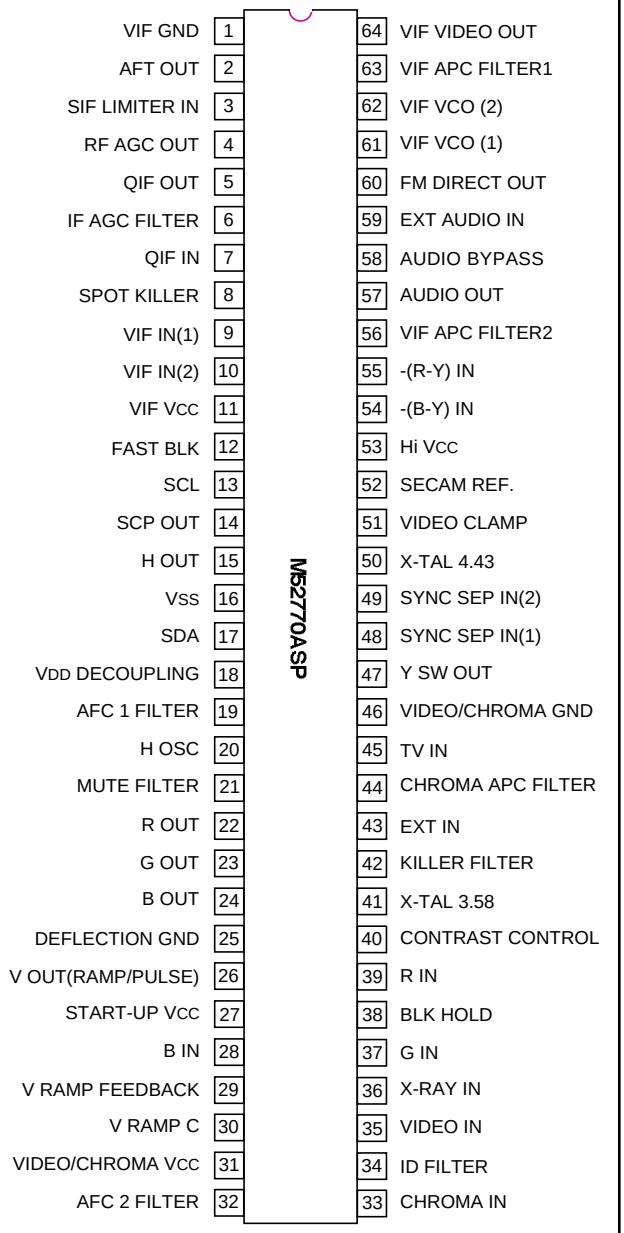
APPLICATION

NTSC/PAL TELEVISION

QUICK REFERENCE DATA

- Supply voltage pin11(VIF), pin31(video/chroma)..... 5.0V
  pin27(Start-up), pin53(Output Stage)..... 9.0V
- Supply current pin11 and pin31..... 107mA
  pin27 and pin53.....56mA
- Input signals VIF input sensitivity.....47dBμ
  SIF limiting sensitivity..... 40dBμ
  External audio input.....1V_{P-P}
  External CVBS/Y inputs..... 1V_{P-P}
  External chroma input (burst amplitude)..0.3V_{P-P}
  External RGB inputs..... 0.7V_{P-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.....1.05V_{P-P}
  -(B-Y) input.....1.33V_{P-P}

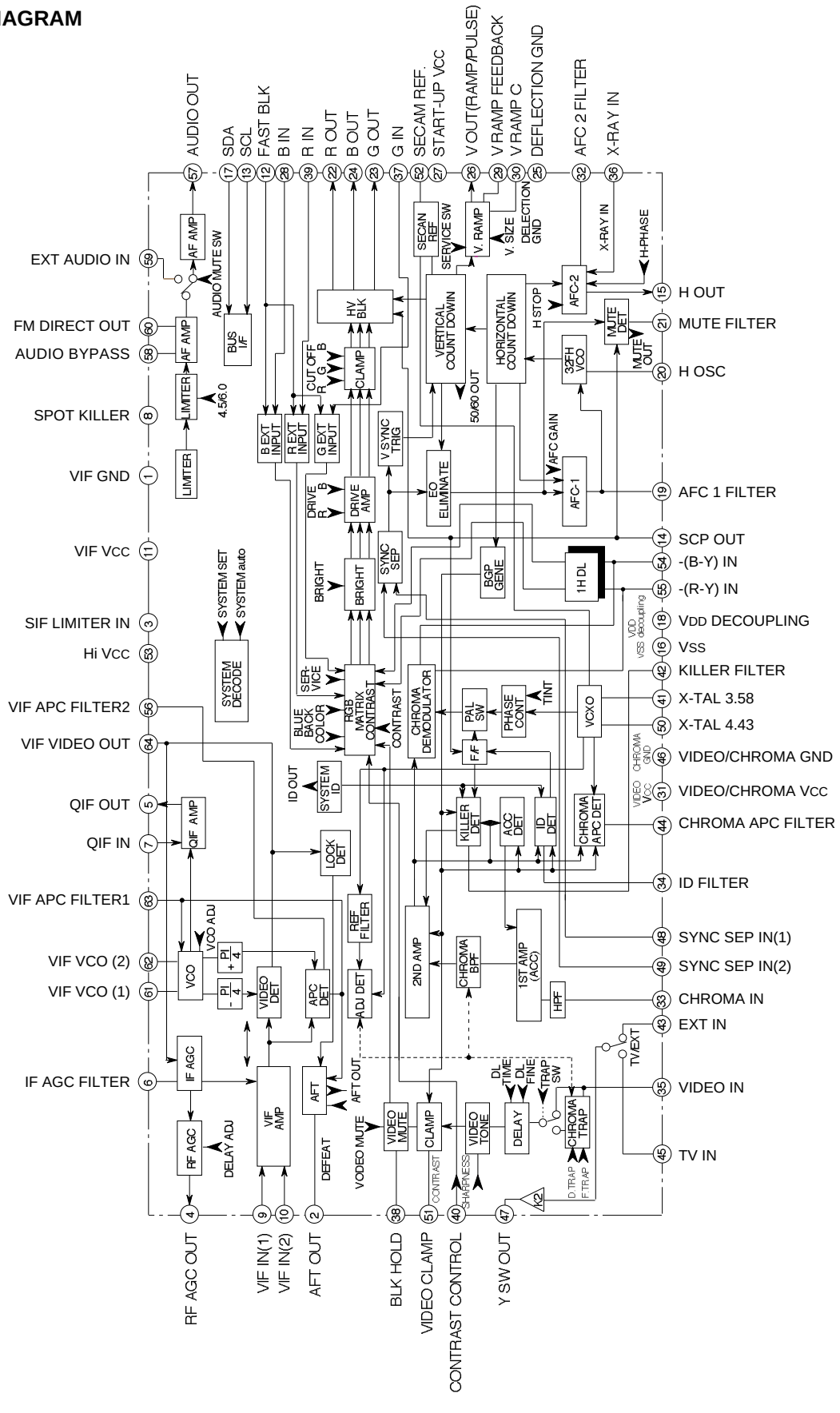
PIN CONFIGURATION (TOP VIEW)



Outline 64P4B

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

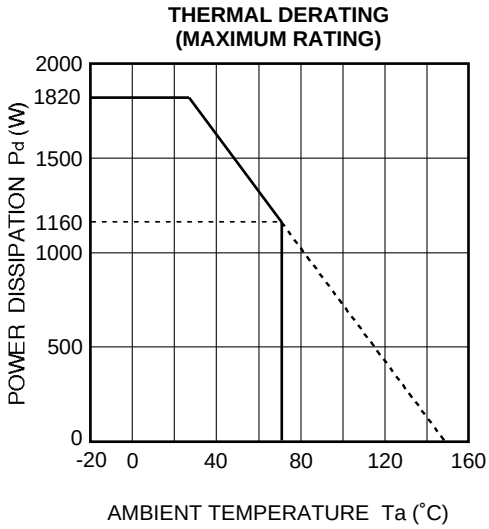
BLOCK DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Ratings	Unit
V_{CC}	Supply voltage	0.0, 10.0	V
P_d	Power dissipation	1815	mW
Kθ	Thermal derating	14.52	mW/˚C
T_{opr}	Operating temperature	-20 to +70	˚C
T_{stg}	Storage temperature	-40 to +125	˚C

TYPICAL CHARACTERISTICS



APPLICATION EXAMPLE

