

M52771ASP

NTSC/PAL TV Signal Processor

REJ03F0183-0201
Rev.2.01
Mar 31, 2008

Description

The M52771ASP is a single chip CTV processor with 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 synchronization 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

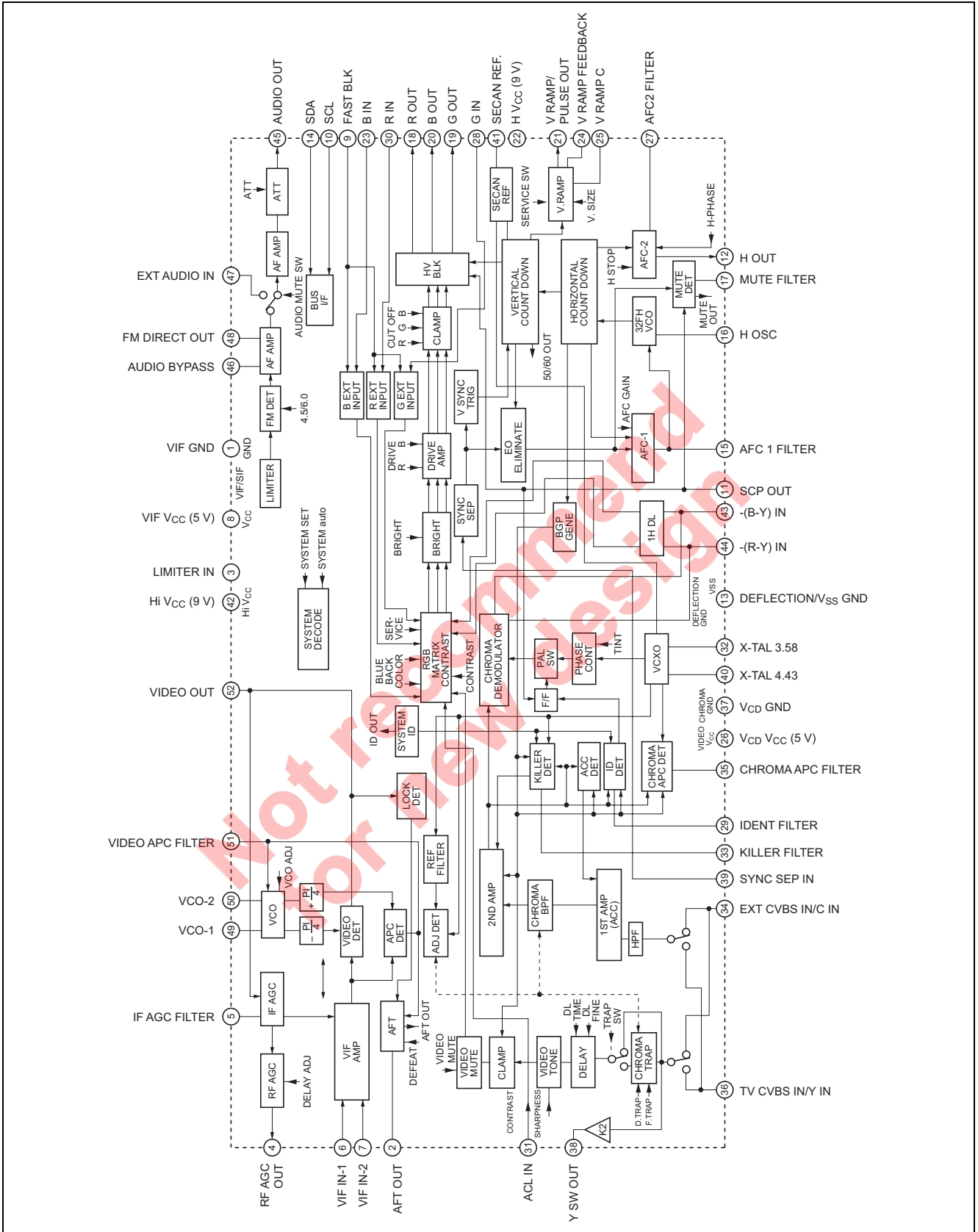
NTSC/PAL Television

Quick Reference Data

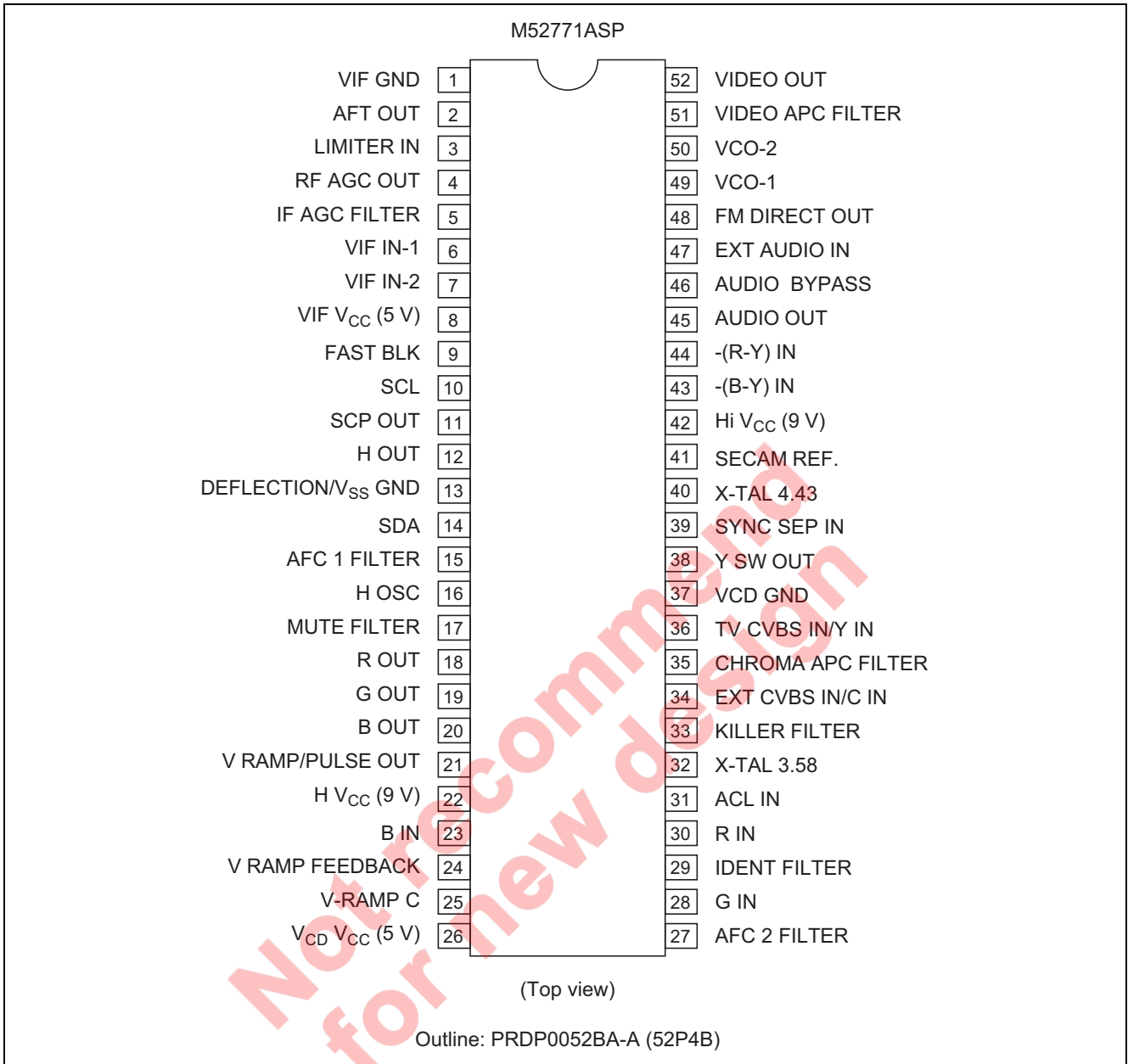
• Supply voltage	pin8 (VIF), pin26 (video/chroma)	5.0 V	
	pin22 (Start-up), pin42 (Output Stage)	9.0 V	
• Supply current	pin8 and pin26	107 mA	
	pin22 and pin42	56 mA	
• Input signals	VIF input sensitivity	47 dB μ	
	SIF limiting sensitivity	40 dB μ	
	External audio input	1 Vp-p	
	External CVBS/Y inputs	1 Vp-p	
	External chroma input (burst amplitude)	0.3 Vp-p	
	External RGB inputs	0.7 Vp-p	
	Fast blanking	Internal TV	0 to 0.8 V
		External RGB	1.2 to 3.3 V
		Half Tone	3.7 to 5 V
	-(R-Y) input	1.05 Vp-p	
	-(B-Y) input	1.33 Vp-p	
	• Output signals	VIF CVBS det out	2.2 Vp-p
		RF AGC output range	0.3 to 8.7 V
		Video switch out	2.1 Vp-p
RGB output		Pedestal voltage	2.2 V
		amplitude	4.2 Vp-p
Horizontal output amplitude		4.0 Vp-p	
Vertical ramp amplitude		2.0 Vp-p	

Not recommended
for new design

Block Diagram

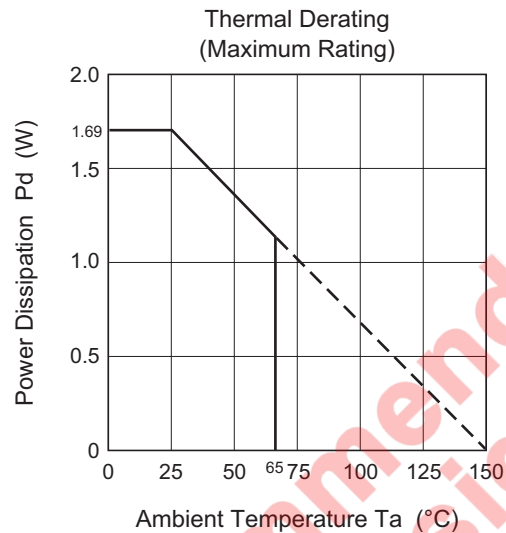


Pin Arrangement



Absolute Maximum Ratings

Item	Symbol	Ratings	Unit
Supply voltage	V_{CC}	6.0, 10.0	V
Power dissipation	P_d	1690	mW
Thermal derating	$K\theta$	15	mW/°C
Operating temperature	T_{opr}	-20 to +65	°C
Storage temperature	T_{stg}	-40 to +125	°C

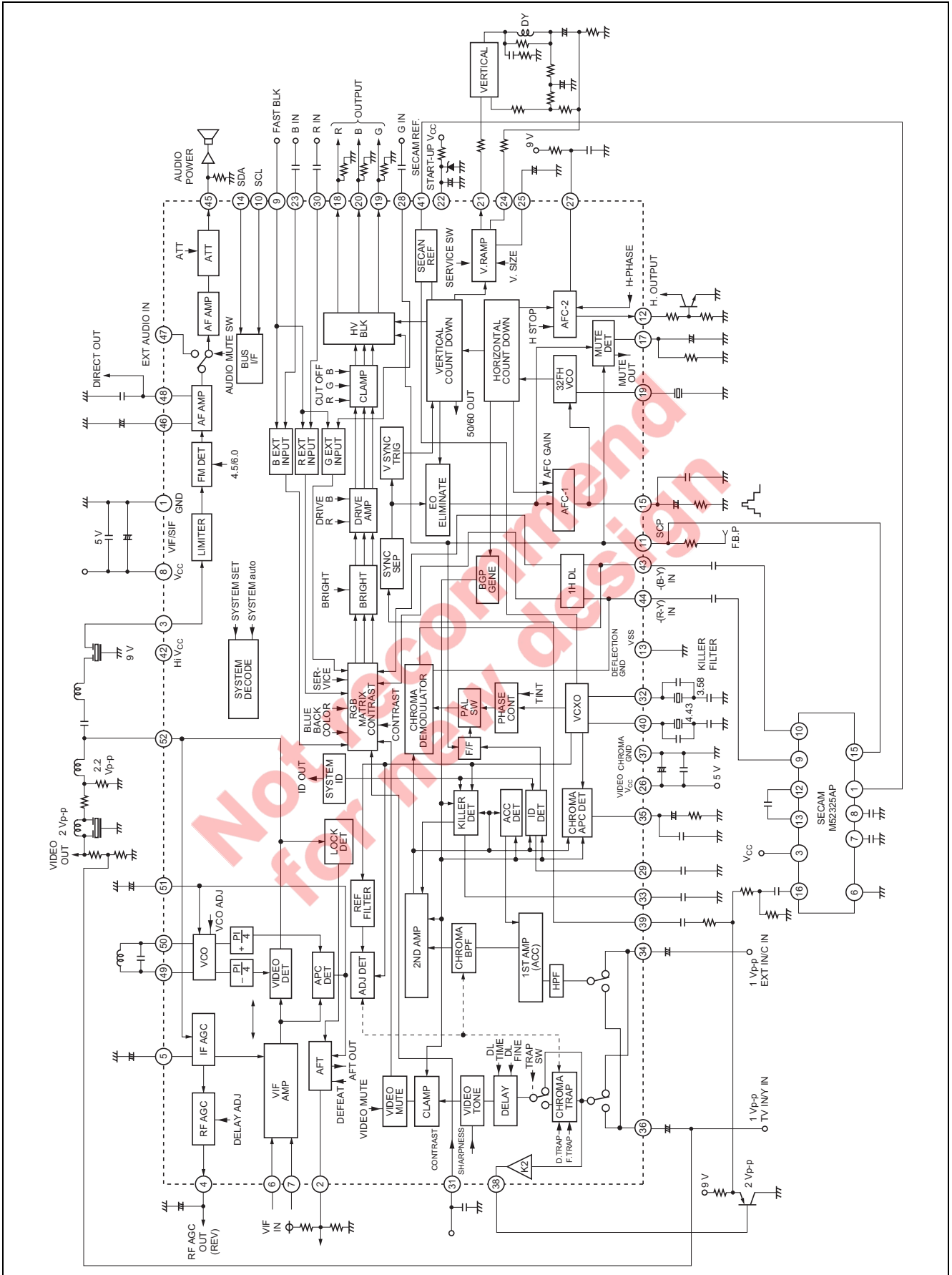


Supply Voltage and GND Terminals List

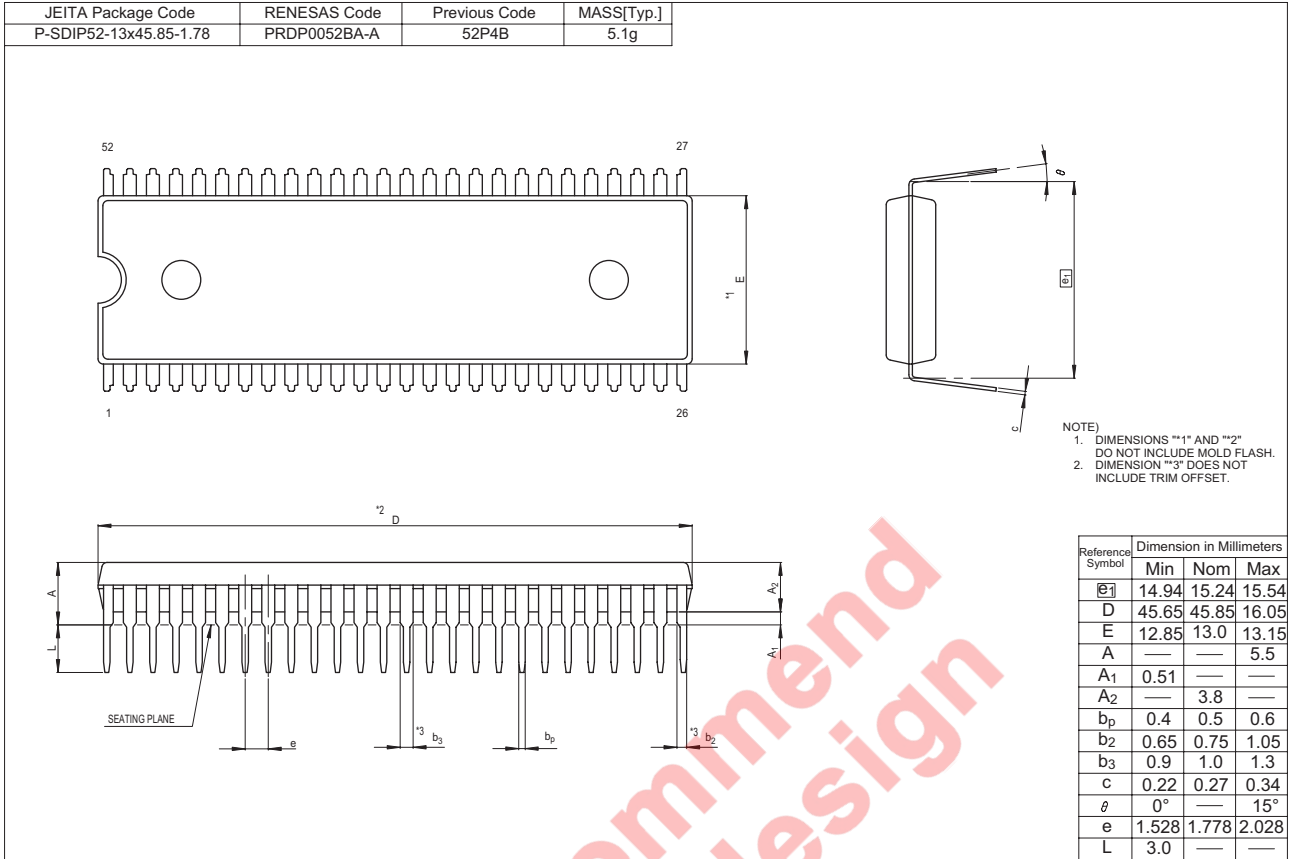
Supply Voltage Terminals	Supplying Blocks
8 (5 V)	VIF/SIF/AF
22 (9 V)	Start up V_{CC} DEFLECTION/CMOS
42 (9 V)	VIF (9 V operation part), RGB Drive
26 (5 V)	VIDEO/CHROMA RGB 1HDL (analog)

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

Application Example



Package Dimensions



Not recommend for new design

Notes:

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