ADC3001
Analog to Digital Converter

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Introduction

The ADC3001 Decoder produces excellent quality, serial digital component video from NTSC and PAL sources.

Features

- Excellent quality 10 bit adaptive comb filter decoding
- Four serial outputs (SMPTE 259M)
- Automatic NTSC/PAL selection
- Configurable pedestal and narrow/wide H/V blanking

Configuration:

Dip Switch Functions:

SW 1 Pedestal: (Disabled in PAL)
ON: For inputs with 7.5 IRE Pedestal (will remove pedestal)
OFF: For inputs without Pedestal
Default: ON

SW 2 Vertical Blanking: (line numbers indicate where video starts)
NAR: line 13, field 1; line 12 field 2 (525 line)
WIDE: line 22, field 1; line 21, field 2 (525 line)
Default: NARROW

SW 3 Standard:

AUTO: Automatically sets to 525 or 625 depending on input.
MAN: Video Standard determined by SW4.
Default: Auto

SW 4 Standard:

525: Configures board for 525 line input
625: Configures board for 625 line input
Default: 525

Jumper Settings:

There are two sets of jumpers (J1) for configuring the Analog input.

One jumper selects Terminated input (J1-3 to J1-2) or Unterminated input (J1-1 to J1-2).
The other jumper selects Differential input (J1-6 to J1-5) or Single ended input (J1-4 to J1-5)

Alignment:

There are two adjustments of the analog input.

Adjust R12 (DC) for Blanking at 0 millivolts (0 units, 0 IRE).
Adjust R24 (GAIN) for White at 700 millivolts (100 units, 100 IRE).

Specifications:

Decoder: Faroudja 5 line aperture adaptive comb

Frequency Response: +/- .2db to 5 MHz, 2x oversampling

Input:

Format:	NTSC, PAL
Level:	1Vp-p
Return Loss:	35 db

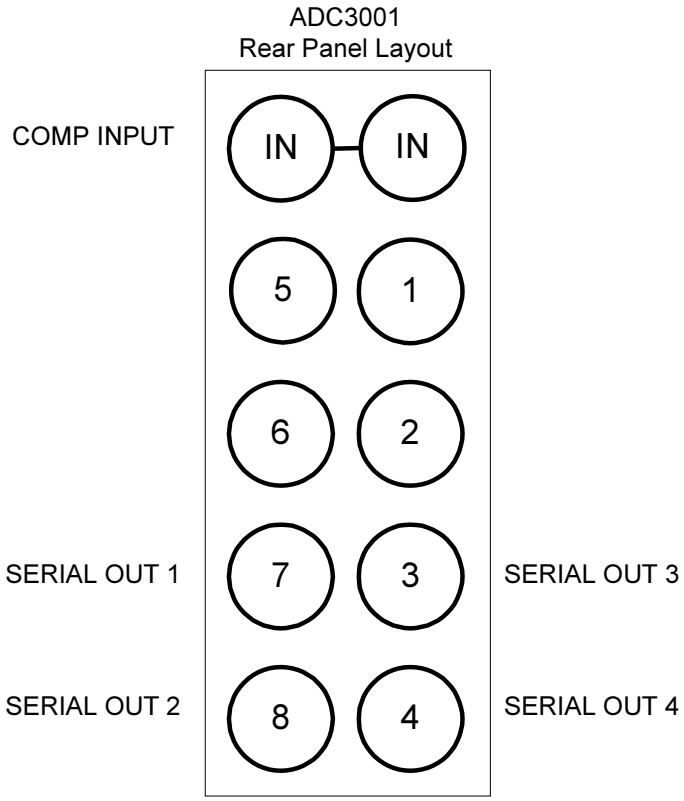
Output:

Format:	SMPTE 259 Serial Digital Component
Outputs:	4
Return Loss	15 db
Delay:	3 Lines + 2.2 uSec (192.8 uSec for NTSC, 194.2 uSec PAL)

Power Consumption

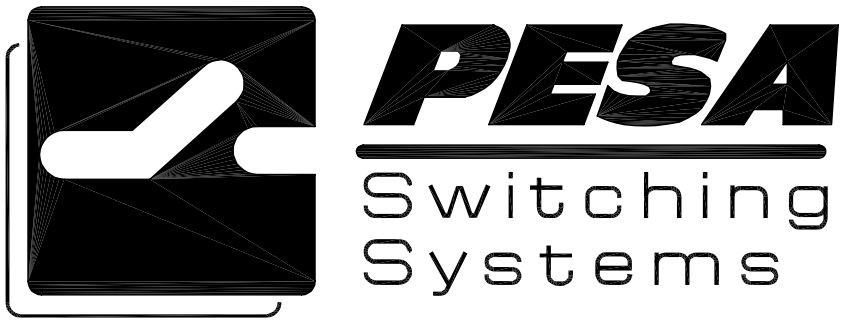
+8.9V 6.5 Watts
-8.9V 0.5 Watts

Input / Output Connections:



Revision History

Rev.	Date	Description	By
A	03-23-00	Initial release per ECO-3612.	J. Jones
B	03-06-01	Deleted Printing Specification per ECO CE00113	G. Tarlton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