

picoLink Series

Video ADC

ASD-171p

Guide to Installation
and Operation

M154-9900-202

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Printed in Canada

January 2005



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ASD-171p

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1.0 ASD-171p

1.1 Introduction

The ASD-171p is the industry's smallest component analog video to 4:2:2 serial digital video ADC. This product automatically detects 525-line and 625-line CAV signals and provides a 4:2:2 serial digital output signal conforming to the SMPTE 259M-C standard. Both SMPTE/EBU and Betacam CAV sources are supported. In addition, this feature-packed unit delivers ease-of-use, a simplified design, easy installation and operation.

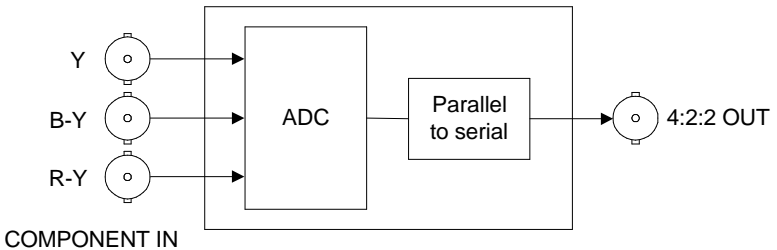


Figure 1: ASD-171p functional block diagram

1.2 Features

- Automatic 525-line and 625-line format input detection
- Input standards supported: SMPTE/EBU and Betacam
- Time-base corrected and VTR-type sources supported
- Bi-color LED providing error status on input 4:2:2 signal
- Very small packaging aluminum extruded body

2.0 Overall View

Figure 2 illustrates the ASD-171p's major parts and their locations. SMPTE/EBU or Betacam sources are connected to the CAV input BNCs and the 4:2:2 serial digital output is provided by the 4:2:2 output BNC. Error status is provided by the status LED and mode settings are configured by two 3-position slide switches. Finally, the power source is connected to the power connector.

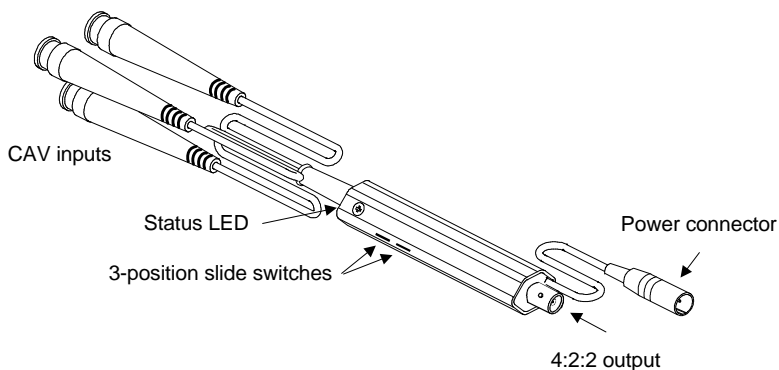


Figure 2: Overall view of the ASD-171p

3.0 Installation

3.1 Power Supply

The power supplies LKS-WSA and LKS-WSE, for 110 V and 220 V operation respectively, are used to power the ASD-171p. Each power supply provides a regulated +5 VDC@750 mA power source. The ASD-171p employs a mini XLR-3 connector for its power needs. Figure 3 provides a detailed pinout of the male connector.

(male connector-facing)

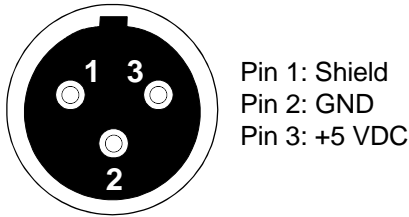


Figure 3: Power connector pinout

3.2 CAV Inputs

The CAV inputs consist of green, blue, and red color coded male BNC connectors. Male connectors are provided so as to connect the ASD-171p directly to source equipment. The supported CAV input standards are SMPTE/EBU and Betacam. The Betacam standard can be set with or without setup. The input Y/B-Y/R-Y signals are to be connected to the green, blue, and red BNCs respectively.

Refer to section 4.0, Operation in order to select the desired input CAV standard.

3.3 4:2:2 Output

The 4:2:2 serial digital output signal is provided by the BNC labeled 4:2:2 OUT. The 4:2:2 output signal conforms to the SMPTE 259M-C standard.

4.0 Operation

4.1 Switch Settings

Figure 4 outlines the slide switch functions.

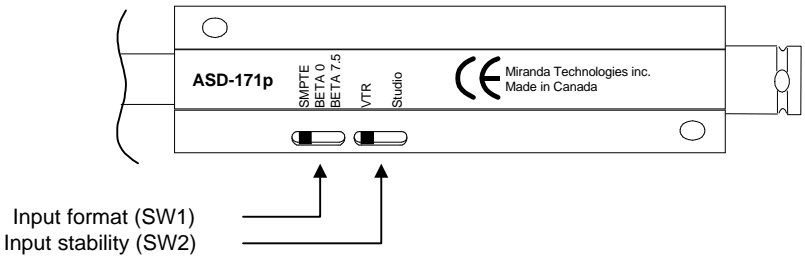


Figure 4: ASD-171p switch settings

Input format switch (SW1)

SMPTE: For SMPTE/EBU CAV inputs, set SW1 to this position. The Y/B-Y/R-Y inputs are to be connected to the green, blue, and red connectors respectively.

BETA 0: For BETA sources with 0 IRE setup, set SW1 to this position.

BETA 7.5: For BETA sources with 7.5 IRE setup, set SW1 to this position.

Input stability switch (SW2)

VTR: Set SW2 to VTR if the CAV inputs are VTR-type or non-time based corrected signals.

Studio: For stable studio CAV sources, set SW2 to this position.

4.2 Status LED

The bi-colored status LED, located next to the CAV input cable, is provided to identify any input errors. The following lists the possible situations.

- Green: Indicates the ASD-171p is powered and has detected a valid CAV input signal.
- Red: Indicates an error with the input signal has been detected or simply, there is no input signal installed.

5.0 Specifications

Input

Signal:	Y, B-Y, R-Y 1 Vp-p nominal with sync
Return loss:	> 35 dB up to 5 MHz
Connector:	3 captive cables with 75 Ω male BNCs

Output

Signal:	4:2:2 SMPTE 259M-C (270 Mbps)
Return loss:	> 15 dB up to 270 MHz
Jitter:	< 10 ns p-p
Connector :	75 Ω BNC

Processing performance

Quantization:	8 bits
Freq. response:	± 0.5 dB to 5 MHz
Processing delay:	4.5 μ s

Electrical

Voltage requirement:	+5 VDC
Power consumption:	3 W
Power connector:	Mini XLR-3

Mechanical

Overall size:	102 mm x 25 mm x 18 mm (4" x 1" x 0.7")
Power cable length:	127 mm (5")
Full spec. temp. range:	0° C (32° F) to 30° C (86° F)