



Analog to Digital SDI Converter

The Analog Video to Serial Digital Converter accepts all analog video inputs format as Composite PAL/NTSC/SECAM, Component RGB/YUV and converts them to Serial digital component 270Mbit/sec according to BT656-3 standard.

Incipiently the composite signal input, automatic gain & color controlled, separates luminance/chrominance by its adaptive 2D comb filter, shapes color components by transient improvement filter, converted the analog component signals to digital by using 2x F_s Over-sampling and 10 bit resolution converter, raw-sampled VBI data and

inserting in the digital luminance portion, and finally frames the derived video components into the serial digital output 270 Mbit/sec. Analog input format selection is performed via on-board DIP Switches and the vision phase output or component input levels are adjusted via front panel rotary encoder.

BNC connectors for CVBS input with active loop-through, component analog inputs, together with 4 SDI output are located in the rear panel.

Features

- AGC & ACC of the analog composite input with Active Loop-through
- 2D Comb Filter for Luminance / Chrominance Separation
- Transient Improvement Filter for Shaping Color Component
- Raw sample Vertical Blanking Interval Data Utility as (Teletext, VITS...)
- Adjustable Selected Component Level $\pm 10\%$
- Adjustable Vision Phase ± 10 TV line
- 10 Bit Resolution 2x F_s Over-sample A/D Converter
- four serial digital outputs SDI
- Installable in 3RU Digital Studio Subrack



Specifications

Composite Analog Input	
Standard	BT470, PAL or NTSC,
Input	BNC($\times 1$), 75 Ω , 1 Vp-p, Selectable
Correction	AGC ± 3 db, ACC ± 3 db
Output	BNC($\times 1$), 75 Ω , active loop-through
Component Analog Input	
Connector	BNC($\times 3$), 75 Ω , Selectable
G/Y	1Vp-p with sync or 0.7 Vp-p, 75 Ω
R, B/U, V	0.7 Vp-p, 75 Ω
Level Adjust	$\pm 10\%$, R,G,B/Y,U,V
Serial Digital Output	
Standard	BT656-3
Connector	BNC ($\times 4$), 75 Ω
Return loss	> 18 dB @ 270 Mb/s

Overall Performance	
Video Processing	10 bit resolution
VBI Processing	raw sample
Y/C Separation	Adaptive 2D Comb Filter
U,V Shaping	Transient Adaptive Filter
Analog to Digital	10 bit, 2x F_s Over-sample
Output Phase Adjust	$\pm 10\%$,
General	
Power	± 5 VDC , 600 mA
Operating humidity	10 to 85%
Operating temperature	0 to +35°C
Dimensions	234 * 125 * 40

