



ASC12

Component (near CCIR601) or RGB to SDI converter

A Synapse® product

Synapse



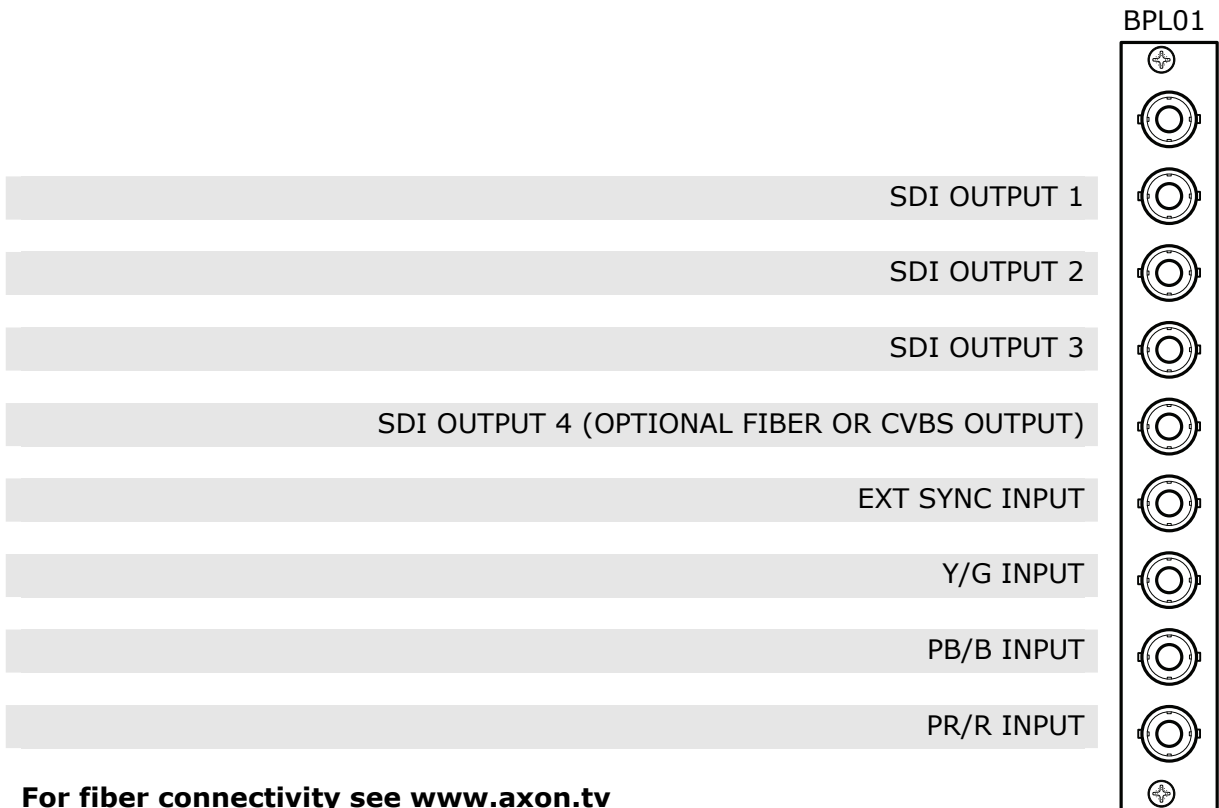
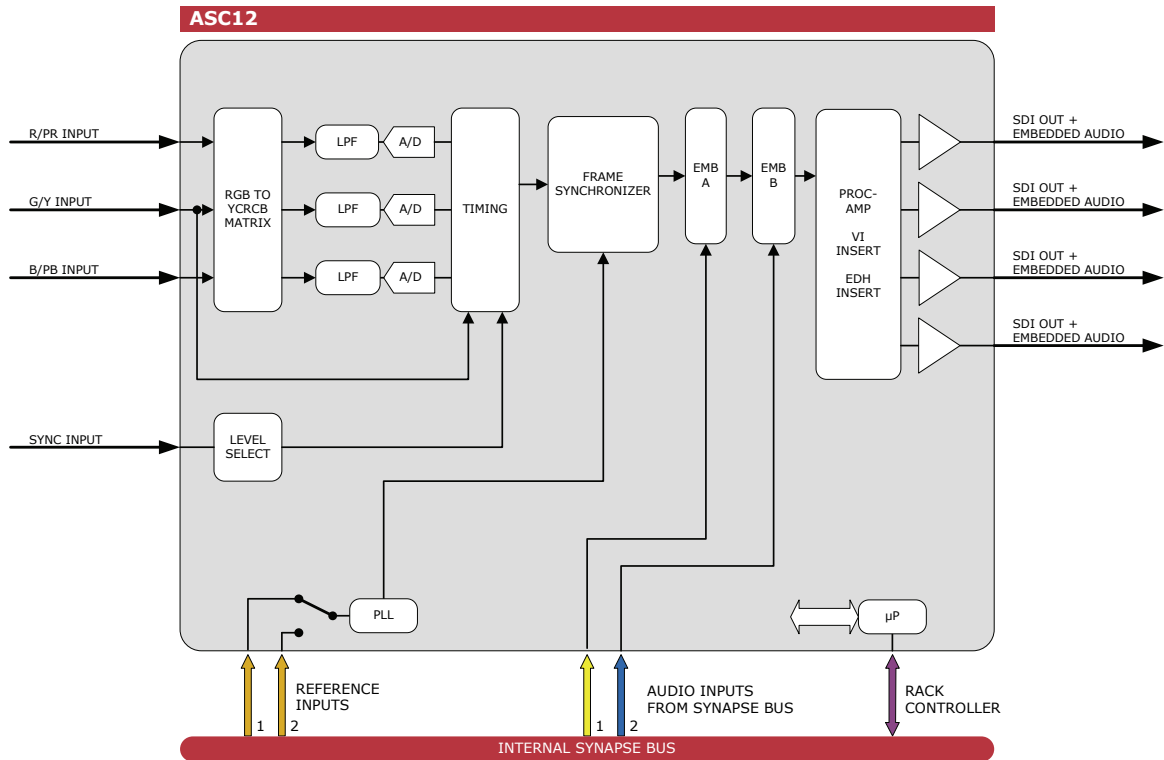
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VIDEO A/D CONVERSION

Block schematic & I/O panel



For fiber connectivity see www.axon.tv

Features

The ASC12 is the ideal solution for component video or RGB to SDI conversion. It features near CCIR601 input filtering for benchmark flat frequency response and uses 12-bit A/D conversion and processing, to obtain high quality 10-bit operation. Digital 12-bit feedback clamps with noise filtering provides accurate clamping of the input signals. The unit has an industry leading jitter performance, resulting in a high degree of output signal stability. The ASC12 accepts analog component signals in YCrCb format or RGB format. Betacam level selection allows the level of the component color difference signal to be set in accordance with Betacam levels and EBU/SMPTE levels.

The module has the unique ADD-ON embedding function by adding a Synapse A/D converter or AES/EBU input card that allows 2 group embedding. Four SDI outputs are available with embedded audio, reducing the need for distribution amplifiers and external embedders.

- 12-bit A/D
- Reference on Y/G
- Compatible with Betacam and EBU levels
- 2 group embedding with ADD-ON card
- Auto format detection
- VI insertion
- EDH insertion
- Compatible with fiber connector panels
- Frame synchronization
- Video Proc amp
- Locks to bi-level sync
- Full control and status monitoring through the front panel of the SFR04/SFR08/SFR18
- Optional 1 fiber input (replacing 1 SDI input) or 1 fiber output (replacing 1 SDI output) on I/O panel
- Optional 1 CVBS output (replacing 1 SDI output) on I/O panel

Complementary cards:

- ADC20, ADC24, ADL24, DIO24, DIO48, DLA44, DLA43

Applications

- Analog camera A/D converter
- Analog VTR A/D converter

Ordering information

Module:

- **ASC12:** Component (near CCIR601) or RGB to SDI converter

Standard I/O:

- **BPL01_ASC12:** I/O panel for ASC12

Fiber outputs:

- **BPL01T_FC/PC_ASC12:** I/O panel for ASC12 fiber transmitter on FC/PC
- **BPL01T_SC_ASC12:** I/O panel for ASC12 fiber transmitter on SC

CVBS output:

- **BPL01C_ASC12:** I/O panel for ASC12 with CVBS output

Specifications

Video Input

Standard	625/50 and 525/59.94
Number of Inputs	3
Impedance	75 Ohms
Return Loss	> 32dB up to 5MHz
Luminance Freq. Resp.	Near CCIR601/656
Stability	1%
Propagation delay	3.81 μ s
Noise Floor	< -57dB (Unified Weighted)
Internal operation	12 Bit
Differential delay	< 5ns

Reference Input through RRC

Number of Inputs	2 on SFR18, 2 on SFR08 and 1 on SFR04
Bi-level	PAL Black Burst ITU624-4/SMPTE318, Composite NTSC SMPTE 170M 1Vp-p nominal, 75 Ohms terminated through loop

Serial Video Output

Standard	SMPTE 259M 525/59.95 or 625/50
Number of Outputs	4
Connector	BNC
Signal Level	800mV nominal
DC Offset	0V \pm 0.5V
Rise/Fall Time	900ps nominal
Overshoot	< 10% of amplitude
Return Loss	> 15dB to 270MHz
Jitter	< 0.1UI

Miscellaneous

Weight	Approx. 250g
Operating Temperature	0 °C to +50 °C
Dimensions	137 x 296 x 20 mm (HxWxD)

Electrical

Voltage	+24V to +30V
Power	<7 Watts