

C AD 3110 MK II

SERIES 3000

MiniModules

12 Bit Analog Video to SDI Converter

Description

Featuring high quality 12 bit A-D conversion with 4 x oversampling and a choice of component video, composite and S-Video input sources, the C AD 3110 MKII provides a flexible cost effective solution for the most demanding high quality broadcast applications. Flexible genlock capability provides high quality VCXO genlock for broadcast quality sources but also has a mode for lower quality consumer grade sources. Auto detecting multi-standard capability (PAL/NTSC), internal test patterns and a powerful 12 bit proc amp with adjustments for Gain, Saturation, Hue and Pedestal adds to the module flexibility. The new CTI feature dramatically improves decoded image quality by improving chrominance transitions. When combined with the 5-line adaptive comb filter, practically all composite cross color artifacts are removed from the conversion. Remote Control, monitoring and error reporting is possible when using one of the LYNX control options

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Key Features

12 bit conversion with 4 x (54MHz) over-sampling.

5-line adaptive comb filter decoder.

CVBS / YC / YUV inputs, with 3 x SDI 10 bit outputs.

Low pass video reconstruction filter

High quality genlock with VCXO.

New CTI mode to improve chrominance transitions.

12 bit digital proc amp with adjustable gain, saturation, pedestal and hue.

Automatic gain control for analog inputs.

Selectable Luminance and Chrominance filters.

Dual standard (PAL/NTSC) with automatic detection.

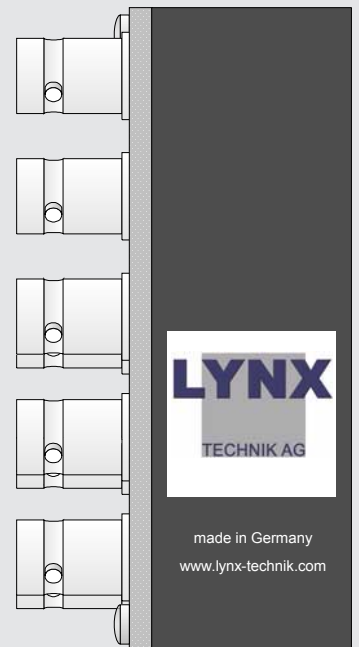
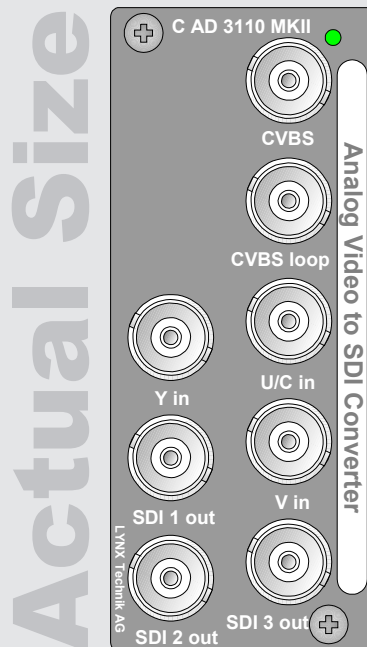
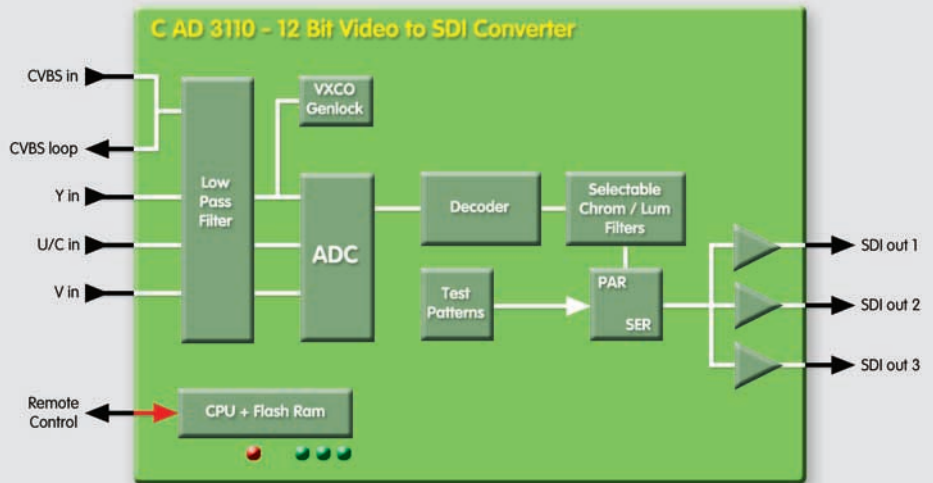
Integrated test signals.

Local DIP-switches and LED's for control and status monitoring.

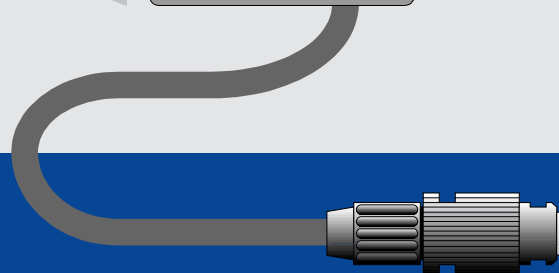
Microprocessor controlled.

Internal flash ram for storing module settings

Remote control interface.



Actual Size



CONVERSION

conversion

12 Bit Analog Video to SDI Converter

This module is part of the 3000 series of MiniModules, which offer high quality and flexibility in a very small form factor ideal for applications where space is at a premium. The modules can be used either stand alone using the optional power supply brick

or as part of a tightly integrated space saving system where up to 10 MiniModules can be mounted using the optional R FR 3005 rack frame, with optional expansion for redundant power and remote control using one of the LYNX controllers and control software.

Specifications

INPUTS

Analog Inputs (selectable)	*NTSC - (M/N), according to SMPTE 170M. PAL (B/D/G/H/I/M/N) according to CCIR624 *YUV component analog *YC (S-VHS 525 / 625)
Sync Input	On Y or CVBS
Connection type	BNC (75 Ohm)
Input Coupling	AC differential
Input Standard Detection	Automatic or Manual
Return Loss	> 35 dB to 5,5 MHz

Outputs

SDI Outputs	3 x Serial Digital Video (270 Mbit) SMPTE 259M-C . 8 bit or 10 bit (selectable)
Connection type	BNC (75 Ohm).
Return Loss	> 15dB (270MHz)
Jitter	< 0.2 ui

Performance

A/D Quantization	12 bits for Luma and Chroma
Sampling	54 MHz (4x oversampling)
Luma Freq Resp.	+/- 0.15 dB to 5 MHz
Chroma Freq Resp.	+/- 0.3dB to 1.3 MHz
Chroma / Luma delay	< 2ns
Y non linearity	1 LSB
Signal to Noise	< -61dB (unweighted to 5.75MHz)
Vertical Blanking	VBI filter mode and VBI chroma decode (Selectable)
Internal Test Signals	Full field color bars, color bars with red, EQ/PLL pathological and black (selectable)
Proc Amp*	Adjustable Hue, Gain, and Pedestal.
Input gain*	Automatic gain control (configurable)
Filters*	Selectable preset filter profiles for luma and chroma
CTI Mode*	Selectable chroma transition improvement filters

Electrical Specifications

Operating Voltage	+ 5VDC
Power Consumption	3,5 VA
Connection	DC input via 5 pin locking bayonet connector
Safety	IEC 950/ EN 60950/VDE 0805/UL1950

Mechanical

Size	85.5mm x 35.3mm x 27 mm + connectors
Weight	150g

Ambient

Temperature	5°C to 35°C Maintaining specifications-20°C to +70°C storage
Humidity	Max 80% non condensing

* To access these features a Service Adapter or LYNX controller option is required.

Options

Power Supply Options

R PS 3001 E	External power brick - wall plug style. (Europe)
R PS 3001 U	External power brick - wall plug style (USA)
R PS 3001-3	In-line power supply - suitable for all regions
R PS 3004	In-line supply for 4 MiniModules - suitable for all regions

Mounting Solutions

R FR 3000	Wall mounting brackets for individual MiniModules (5 sets)
R FR 3004	Wall mount for 4 MiniModules
R FR 3005	19" rear rack mount plate for 10 MiniModules
R FR 3010	Central power supply and control chassis
R PS 5010	Redundant power supply for R FR 3010

Adapter Cables

R PS C 15	DC power and control extension cable (1.5m)
R PS C 25	DC Power and control extension cable (2.5m)

Controllers

R CT 3000	Service Adapter and control software for single modules
R CT 5020	Rack Controller and control software
R CT 5010	Rack Bus Expander
R CT 5030	Master Controller

Note.

Local dip switches allow for basic set up and configuration, which is suitable for most applications. Access to extended feature set s requires the use of a controller option or the RCT 3000 Service Adaptor and control software.