

PAL - PAL M - PAL N - NTSC - SECAM - Y/C to 4:2:2 MULTISTANDARD DIGITAL COMB FILTER DECODER

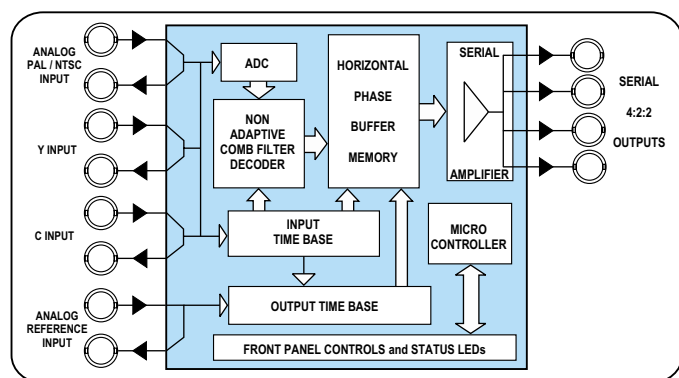
MDD 320

The purpose of the **MDD 320** is to convert analog composite video signals PAL, PAL M, PAL N, NTSC, SECAM and Y/C into serial digital 4:2:2 components.

The **MDD 320** is a fully digital, 8-bit multistandard decoder automatic standard detection utilizing the latest 3 lines non adaptive comb filter capabilities, with leading-edge genlock, for outstanding jitter and signal performance.

Dirty input signals (composite signal with noise, level errors, jitter, fading,....) are automatically corrected.

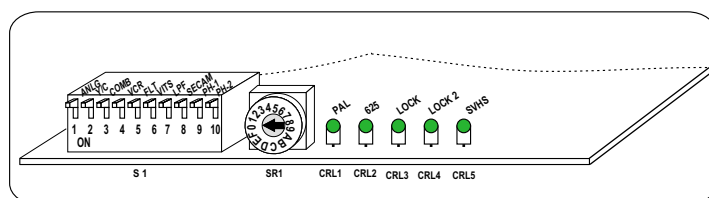
The **MDD 320** is designed on an "Europe" 3U electronic board.



Functional block diagram

Features

- NTSC, PAL, PAL M, PAL N, Y and C analog inputs with passive loop-through
- 4 serial 4:2:2 outputs
- Analog video reference input with loop-through
- Non adaptive comb filter
- Composite input level adjustment
- Automatic standard detection
- Built-in with horizontal phase buffer memory
- Very low jitter
- Genlock on CVS / Y inputs or analog reference input
- All controls and status LEDs on front side of the board



Front edge of the board

User Controls

FRONT PANEL DIP SWITCH - "ON" POSITION

S1-1 : ANLG - Genlock on external Reference	S1-4 : VCR - VHS mode (with DSY 400 synchronizer board)	S1-7 : LPF - fsc filter (normal position "OFF")	S1-9 : PH-1 - Luminance phase
S1-2 : Y/C - Y/C input selection	S1-5 : FLT - Low pass filter (normal position "OFF")	S1-8 : SECAM - forced SECAM Decoding mode (normal position "OFF")	S1-10 : PH-2 - Luminance phase
S1-3 : COMB - Comb filter selection	S1-6 : VITS - Test lines transparency		

FRONT PANEL ADJUSTMENT - SR1

SR1 : PAL- NTSC analog input level control

FRONT PANEL STATUS LEDs

CRL1 : PAL input detected	CRL3 : Genlock decoding on input signal	CRL4 : Horizontal phase buffer memory genlocked	CRL5 : Y/C mode selected
CRL2 : 625 lines input detected			

Technical Specifications

INPUTS	OUTPUTS	PROCESSING PERFORMANCE
SIGNAL : NTSC - PAL - PAL M - PAL N - SECAM - Y/C standards with loop-through	VIDEO SIGNAL : 4 x 4:2:2 SMPTE 259M-C (270 MBit/s)	QUANTIZATION : 8 Bit
REFERENCE : Analog video 1 Vp-p with loop-through	RETURN LOSS : >15 dB up to 270 MHz	SAMPLING : 13,5 MHz
RETURN LOSS : > 40 dB up to 4,4 MHz	JITTER : < 550 ps (p-p) depends on the quality of input signal or reference input signal	FREQUENCY RESPONSE : ± 0,25 dB 100 Hz to 5MHz
		HORIZONTAL PHASE BUFFER MEMORY : 1 ligne
		POWER : < 10 W

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Overall Performances

Analog YUV performances with MDD 320 and DAC 315 (CVS - Y/C to 4:2:2 and 4:2:2 to YUV)

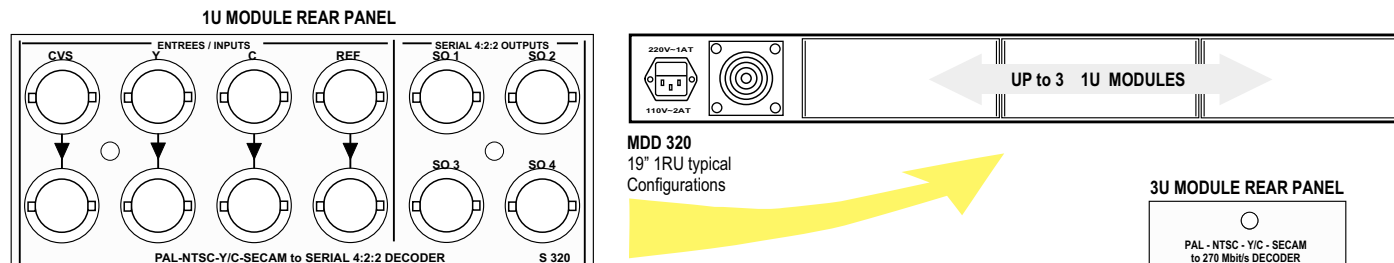
Luminance level :	700 mV ± 1%	K-PB factor :	≤ 0,5%
U level :	525 mV ± 1%	2T / bar ratio :	≥ 98%
V level :	525 mV ± 1%	Unweighted Signal to Noise Ratio :	≥ 52 dB rms, Y channel
Luminance frequency response :	±0,25 dB		≥ 52 dB rms, U channel
Luminance non linearity :	≤ 5%		≥ 52 dB rms, V channel
K-2T factor :	≤ 1%	Luminance Chrominance delay :	≤ 15 ns

Mounting Frames

19" 1RU RACKFRAME

The 19" 1RU rackframe is divided into three identical parts meant to receive the electronic plug-in boards. Each part can hold two 3U Europe plug-in boards with modular rear panel and interconnection. The power supply is incorporated into the mechanical structure. Ventilation of the rack is performed by forced convection. Access is given to electronic plug-in boards by rocking down the front panel.

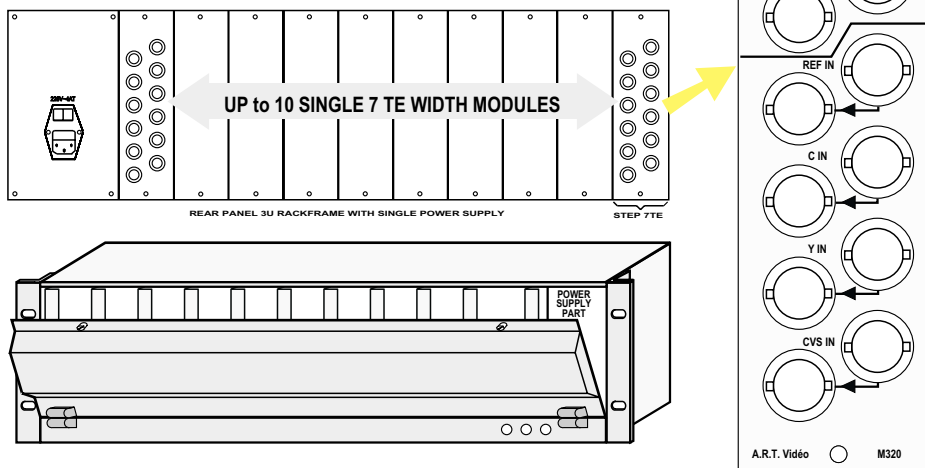
DIMENSIONS :	1RU x 380 mm deep	TEMPERATURE RANGE :	0-40°C	POWER INPUT RANGE :	97-240 V/50-60 Hz
WEIGHT :	< 5kg	ELECTRONIC PLUG-IN BOARDS :	up to 6	POWER :	80 W max



19" 3RU RACKFRAME

The 19" 3RU rackframe holds up to 10 modules with single power supply unit and 9 modules with redundant power supply unit. Access is given to electronic modules by rocking down the front panel. Ventilation of the rack is performed by forced convection. Each module includes : electronic plug-in board, rear interconnection board, and rear mechanical support with the connectors.

DIMENSION :	3RU x 410 mm deep
WEIGHT :	< 15 Kg
TEMPERATURE RANGE :	0 - 40°C
ELECTRONIC MODULES :	10 with single power supply 9 with redundant power supply
POWER INPUT :	88 - 135 V or 185 - 264 V (Switchable) 50 / 60 Hz
POWER :	150 W max



Ordering informations

19" 1RU rackframe

MDD320-S :	19" 1RU rackframe with 1 decoder / converter
MDD320-D :	19" 1RU rackframe with 2 decoders / converters
MDD320-T :	19" 1RU rackframe with 3 decoders / converters

B-MDD320 : decoder / converter electronic plug-in board

19" 3RU rackframe

M-MDD320 :	decoder / converter 3U module for 19" 3RU rackframe (Electronic plug-in board and rear panel)
B-MDD320 :	decoder / converter electronic plug-in board
MOD 3U :	rear panel for 19" 3RU rackframe
RACK3U-1 :	19" 3RU rackframe with single power supply
RACK3U-2 :	19" 3RU rackframe with redundant power supply
BPM-1 :	blank rear panel unit

Specifications and designs are subject to change without notice