

DVENC-2000x

Digital Video Encoder



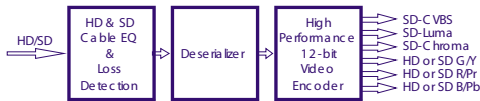
Features

- High performance & low cost
- Supports SD & HD with auto detection & configuration
- Composite (CVBS), S-Video (Y&C) Component (RGB or YPrPb) Outputs
- High performance 12-bit oversampled DACs
- Optional Audio Extractor (Dual AES or 4 channel balanced analog audio)
- High performance 12-bit oversampled DACs
- Internal Test Pattern Generator
- LED indicators
- Contact closure alarm
- Compact & rugged design 142mm(L) x 82mm(W) x 47mm(H)

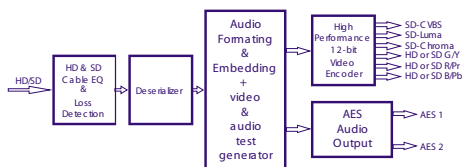
Description

The Digital Video Encoder provides high performance HD or SD to composite or component conversion. SD is converted to composite (CVBS), S-Video (Luma & Chroma) and Component outputs (RGB or YPrPb). HD is converted to Component (RGB or YPrPb). Performance is achieved through full 10-bit processing and the use of 12-bit oversampled noise shaped video DACs. To further improve performance, all outputs are DC corrected and coupled.

DVENC-2000



DVENC-2000D



Specifications

Electrical Inputs

Number of Inputs	1
Data Rate	270 & 1485 Mbps
Return Loss	>15dB (5MHz – 1.5GHz)
Cable Eq. ☑	0 to 100m Belden 1694A (HD) 0 to 250m Belden 8281A (SD)
Impedance	75 ohm
Connectors	75 ohm BNC female

Electrical Outputs

Number of Outputs	6
Signal Level	1V p-p +/- 10mV
Impedance	75 ohm
Connectors	75 ohm BNC female

Test Pattern Generator

- Black
- Multiburst (0.5MHz, 1.0MHz, 2.0MHz, 3.0MHz, 4.0MHz, 5.8MHz)
- 2T, 10T, 20T & Bar
- Bar, 2T, 20T, 5 step staircase (line 17)
- Bar, 2T, modulated 5 step staircase (line 330)
- Full ramp
- Colour Bars 75%
- Colour Bars 100%

Audio Interface

DVENC-2000A	24-bit Balanced Analog Audio (0dBFS = 24dBu)
DVENC-2000D	100ohm Balanced AES audio

Alarm & Control Interface

- HD & SD, SD Only mode
- RGB, RGB+sync, YPrPb, YPrPb+sync component outputs
- NTSC pedestal selection
- Loss & Presence LED indicator
- HD or SD LED indicator
- 50Hz or 60Hz LED indicator
- Solid state alarm relay contacts

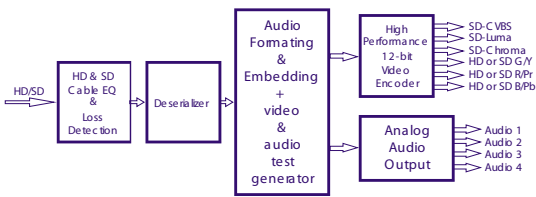
Supported Standards

SMPT E - 259M (270Mbit/s), 292M (1483, 1485Mbit/s)

Ordering Information

DVENC-2000HD/SD Video Encoder	
DVENC-2000A	HD/SD Video Encoder + 4 channel analog audio
DVENC-2000D	HD/SD Video Encoder + 2 channel AES audio

DVENC-2000A



Accessories (extra)

High performance, 110-240V universal input, 12V @1.5A output
Power lead, SAA approved, 2M, IEC320-C14 connector

Compatibility

Compatible with all Darkstar products supporting digital video interfaces
Compatible with third party compliant digital video interface

Typical Performance (PAL composite output)

Differential Gain	0.18% pk-pk
Differential Phase	0.16% pk-pk
Luminance Non-Linearity	0.6% pk-pk
K Factor	K-2T = 0.3%
	K-PB = -0.2%
Chroma Gain	97.4%
Chroma Delay	-2.1nS
Sync Bar Ratio	99.6%
Line Time Distortion	0.2%
Bar Tilt	-0.2%
Frequency Response	0.5MHz -0.02dB
	1.0MHz -0.05dB
	2.0MHz -0.09dB
	3.0MHz -0.12dB
	4.0MHz -0.18dB
	5.8.0MHz -0.40dB
Noise	████dB (black, 5MHz low-pass, unified weighted)
Noise	████dB (full ramp, 5MHz low-pass, unified weighted, tilt null)
Noise	████dB (full ramp, 5MHz low-pass, unified weighted, tilt null, █ 200KHz high pass)