

DIGIWAVE DSC-165

Four Field Standards Converter, Time Base Corrector,
Frame Synchronizer, Noise Reducer and Transcoder

*Processing of SDI embedded, AES/EBU and analog audio
and of closed caption signal*



- TV Standards conversion PAL, PAL N, PAL M, NTSC, NTSC 4.43 and SECAM (*). 525/60 to 625/50 and 625/50 to 525/60.
- Enhanced 16 point interpolator, 4-field, 4-line aperture, with conversion aperture selection.
- Four-line adaptive comb filter.
- 10 bit A/D, 12 bit D/A conversion and 10 bit processing.
- Digital adaptive noise reducer for luminance and chrominance, with frame recursive selectable filter.
- Composite video, analog components, genlock and SD-SDI with 4 channels embedded audio processing inputs and outputs (*).
- Synchronization and audio delay with automatic tracking plus variable manual delay. AES/EBU and analog inputs and outputs (*).
- Closed caption signal processing, with input decoder and output coder, with line selection.
- Complete controls menu, including horizontal and vertical enhancers.
- Selection of output signal in the event of input signal loss: last valid field, color bars, black, switch to alternative video input or to stored image.
- Audio (*) and video test signal generator.

TECHNICAL SPECIFICATIONS

GENERAL

A/D Conversion	10 bit
D/A Conversion	12 bit
Processing	10 bit, 4:2:2
Analog Input TV Standard	PAL, PAL N, PAL M, NTSC M / J / 4.43, SECAM, B&W
Analog Output TV Standard	PAL, PAL N, PAL M, NTSC M / 4.43
Conversion	Bidirectional: 525/60 to 625/50; 625/50 to 525/60 selectable
Conversion delay	70 ms
Interpolation	16 point, 4-field, 4-line, with conversion aperture selection
Comb filter	Four-line adaptive, for PAL, PAL N, PAL M y NTSC M / J
Noise Reducer	Frame recursive adaptive for luminance and chrominance
Frame Synchronizer	Infinite window
Display	LCD, with backlight

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TECHNICAL SPECIFICATIONS

PERFORMANCE

Luminance bandwidth	5.5 MHz
Differential gain	< 1 %
Differential phase	< 1 %
Signal to noise ratio	> 61 dB, weighted, ramp signal

CONTROLS AND ADJUSTMENTS

Direct Selection

Luma, Black, Chroma, NTSC Hue (Tint), Non volatile memory, Store, Recall, Preset.
Freeze with Interpolated frame freeze, By-Pass bypasses CVBS1 input with CVBS1 output.

Menu Selection

Input selection, Input and Output standard.
Horizontal enhancer, Vertical enhancer, Noise reduction Auto - Manual.
Genlock selection and controls, Decoder controls, Encoder controls.
Test signals, No signal output selection, Image frame capture and display.
VBI blanking selection, Line 23 blanking, Analog H blanking.
Conversion aperture selection.
Closed Caption input and output selection.

INPUT AND OUTPUT FORMATS

CVBS In1 / In2 / Out1 / Out2	1 Vpp / 75 ohms, BNC
Components Y, Pb, Pr	1 Vpp Luma, 0.7 Vpp Pb, 0.7 Vpp Pr / 75 ohms, BNC
Genlock	1 Vpp / 75 ohms, loop-through BNC
SDI In / Out	270 Mb/s, SMPTE 259M, EBU Tech 3267, BNC (SDI opt.)

AUDIO PROCESSING (DAD option)

Analog audio

Resolution A/D and D/A	24 bit
S/THD+N	> 85 dB
Input and output level	+24 dBu max.
Inputs / outputs	2 pairs, 24 kohm / 50 ohm, balanced, terminal block

AES/EBU Digital Audio

Inputs	2 inputs (AES3id), AES/EBU 32 - 96 kHz, BNC.
Outputs	2 outputs (AES3id), AES/EBU 48 kHz, BNC.

SDI embedded audio

Demultiplexer	2 pairs selection between 8 input pairs
Multiplexer	1 group selection between 4 output groups

General Controls and Selections

Source signal selection, Stereo mode, Master mute, Pair routing, Audio follows video.

Audio delay

Delay: 0 - 40 ms tracking delay; 1 - 990 ms manual offset. Auto track, Manual.

PHYSICAL AND POWER

Power Supply	100 to 240V, 50/60 Hz, 30 W
Dimensions	1RU, rack mounting, 483 mm (W) x 44 mm (H) x 300 mm (D)
Cooling	Forced air
Weight	3.7 kg

VERSIONS

DSC-165	Standards Converter, TBC, Frame Synchronizer and Noise Reducer.
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OPTIONS

DAD	4 ch. SDI embedded audio. Tracking audio delay. AES/EBU and analog I/O.
SDI	Serial digital SD-SDI input and output.

Specifications are subject to change without notice due to continuous product development and improvement.

(*) Secam only for input standard. (*) See versions and options.

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