

PANORAMA<sup>dtv</sup> the Video Division of Wohler

## HD2SD HD-SDI TO SD-SDI DOWNCONVERTER



**Wohler Solutions:**  
Unsurpassed Quality, Service,  
and Value Delivered by the  
Leader in Broadcast Monitoring  
Applications

The HD2SD downconverter is a low-cost, invaluable solution for converting HD-SDI to SD-SDI and analog video in the modern broadcast studio and HD transition environments.

The HD2SD accepts HD-SDI (SMPTE 292M/274M/296M) signals for conversion to SD-SDI (SMPTE 625i50 or 525i59.94) video. The signal is also converted to the selected analog output type (Component, RGB, or Composite/SVideo). HD to SD down-conversion is 10-bit with over-sampling of 16x for SD-SDI signals.

HD-SDI input format is detected automatically and the various video output options are selectable by setting two external 10-position DIP switches.

Eight channels of audio are passed as 20-bit or 24-bit and the unit can also generate its own embedded AES audio test tones. A range of additional features is available, including 4:3, 16:9, or 14:9 safe action graticule, SD pedestal, vertical blanking, anamorphic or letterbox output, and generation of a wide range of useful video test patterns. Two LEDs on the units rear panel indicate power and HD-SDI signal lock status. Size of the unit is relatively small with dimensions of 4.37" x 3.97" x 1.06". Power may be provided by an optional external 12V power supply with locking connector.

### FEATURES

- CONVERTS HD/SD-SDI TO ANALOG FORMATS
- OUTPUTS RGB, COMPONENT, OR COMPOSITE/S-VIDEO ANALOG VIDEO
- NTSC/PAL AUTO-DETECTED
- EIGHT CHANNEL AUDIO PASS-THROUGH AT 20-BIT OR 24-BIT
- 16X OVER-SAMPLING
- FULL 10-BIT DATA PATH AND MULTI-POINT INTERPOLATION
- GENERATES INDUSTRY STANDARD VIDEO TEST PATTERNS
- GENERATES EMBEDDED AES AUDIO TEST TONES
- SAFE ACTION, TITLE GRATICULE, AND SD PEDESTAL
- ANAMORPHIC OR LETTERBOX OUTPUT
- VERTICAL BLANKING ENABLE AND DISABLE
- SDI SIGNAL LOCK AND POWER LEDS
- PORTABLE SIZE: (4.37 X 3.97 X 1.06") (111 X 101 X 27mm)
- AC OPERATION REQUIRES UNIVERSAL POWER SUPPLY WITH LOCKING CONNECTOR (OPTIONAL PURCHASE)



## BENEFITS

- **Cost Effective** – HD-SDI video down-conversion with audio pass-through
- **Adaptable** – Can also be used for SD-SDI to analog video conversion
- **Rigorous** – Evaluate your signal path with audio and video test signals
- **Pristine** – 10-bit video and 20- or 24-bit audio digital-to-analog conversion and over-sampled video processing
- **Flexible** – Tailor to your system with a wide range of settable parameters

## SPECIFICATIONS

Input	HD-SDI: SMPTE 292M/274M/269M @ 1.485 and 1.435 Gbs (1 x 75 ohm BNC)
Output	SDI video: SMPTE 259M @ 270 Mbs (2 x BNC) Analog video: Y-Pb-Pr, RGB, or Composite/S-Video (3 x BNC) Embedded audio: Four channels AES/EBU
Video Formats	SD input: SMPTE 259M @ 270 Mbs - 625i/50 - 525/59.94  HD output: SMPTE 292M/274M/269M @ 1.485 and 1.435 Gbs - 1080i @ 60/59.94/50 Hz - 1080p/psf @ 30/29.97/25/24/23.98 Hz - 720p @ 60/59.94/50/30/29.97/25/24/23.98 Hz
Audio Test Patterns	Audio OFF Pattern 1: 1 kHz on left channel, 1 kHz broken on right Pattern 2: 1 kHz broken on left channel, 1 kHz on right Pattern 3: 1 kHz on left channel, 1 kHz on right
Video Test Patterns	100% color bars, 75% color bars, 100% color bars and red, check-field matrix, 4:3 square, 16:9 square, 5 step staircase, valid 5 step modulated staircase, limit ramp, shallow ramp, multiburst 60% sweep with markers, full fieldline 17 ITS, convergence, tartan bars, 1 field in 8 white, white, black, red, green, blue, magenta, cyan, static x frequency sweep lo zoneplate, static x frequency sweep hi zoneplate, static y frequency sweep zoneplate, moving x bars zoneplate, moving y bars zoneplate, moving xy bars zoneplate, static circular zoneplate, moving circular zoneplate
Power Requirements	12 VDC optional power supply
Dimensions	4.37 x 3.97 x 1.06 (inch), 111 x 101 x 27 (mm)

\*Specifications and features subject to change. 11/07

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