

VideoExcel75HD

High Definition Scan Converter & Frame Synchronizer

VXL75HD is a true broadcast grade computer graphics to video scan converter. VXL75HD uses best in class image processing with broadcast-grade algorithms hosted on the award-winning Realta chip, optimized and especially configured by Calibre.

Best possible image quality is ensured with powerful scaling using up to 1024-tap filters. Flicker reduction for interlaced outputs is provided via an adjustable flicker filter which operates independently of the scaling filters.

RGB/VGA graphics inputs are supported via 12-bit ADCs. HDMI and DVI inputs provide compatibility with HDMI deep-color and DVI sources.

Proc-amp controls include luma gain/contrast, luma cutoff/black level, saturation, hue, R-Y, B-Y gains and cut-offs. Y, R-Y and B-Y adjustments have 10-bit granularity.

Pan, Zoom and Tilt functions allow display of a particular area of interest. Pre-defined aspect ratio conversion is provided including a progressive stretch for pseudo 16:9 from 4:3 source material.

Genlock capability is provided with genlock to 3G-SDI, HD-SDI, SD-SDI, tri-level or bi-level sync or black & burst.

Audio delay is automatically corrected for video processing delays and further delay can be added, or video can be further delayed to advance audio.

Audio connectivity is provided as standard, with support for analog, SPDIF digital or audio over HDMI in 48KHz broadcast-compatible formats. Audio can be output as AES 48KHz or embedded in the 3G/HD/SD-SDI output.



- Converts VESA, CEA or SMPTE computer digital or analog input formats
- Outputs HD or SD SMPTE formats
- Superb scaling performance with 1024-tap scaling filter
- Frame Synchronizer
- Flicker Reduction Filter for interlaced output formats
- Digital and Analog outputs: 3G-SDI, HDMI/DVI and YPbPr
- Flexible Proc-Amp Controls
- Audio Delay Correction to match video processing delay
- 2D Detail Enhancement & Sharpness controls
- Logo Insertion
- Post Production/Broadcast Grade processing
- Genlock to Digital or Analog house sync
- Aspect Ratio Conversion
- Pan/Zoom/Tilt to select area for broadcast
- Dual-Redundant PSUs for live broadcast use
- Remote control with inbuilt webserver

- Outputs are available in 3G-SDI and DVI/HDMI digital formats, both of which can support up to 10-bit signal depth. Component analog YPbPr is also provided as standard.
- System control is via a front-panel LCD menu controlled using rugged front panel keys with inbuilt status indication. Four user-programmable fast select keys are provided together with "live feed" indication via the Input status key.
- An integral webserver provides remote control via TCP/IP, or integration with third-part control systems is possible via TCP/IP or RS232 using the inbuilt API.
- A dual-redundant power supply is incorporated as standard to allow provision of two power feeds for critical applications.

Calibre UK Ltd,
Cornwall House, Cornwall Terrace,
Bradford, West Yorkshire
BD8 7JS, England

T. +44 (0)1274 394125
F. +44 (0)1274 730960
E. broadcastsales@calibreuk.com
W. www.calibreuk.com

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Inputs

- 1x HDMI with audio & deep color, HDCP compatible
- 1x DVI-D, HDCP compatible
- 1x VGA Analog graphics via 5 BNCs, RGBHV & RGSB
- 1x SPDIF coaxial digital audio via RCA
- 1x Stereo analog audio pair via 2 RCAs

Genlock

- 2x Dedicated genlock inputs:
- 1x 3G-SDI (HD/SD compatible) with active loop-through
- 1x Analog tri-level or bi-level sync or black & burst

Outputs

- 1x 3G-SDI (HD-SDI and SD-SDI compatible) with embedded audio capability for 3G, HD & SD.
- 1x DVI-D, HDCP compatible, HDMI1.3 deep color capable, dual-function output automatically switches between DVI or HDMI depending on device connected to output
- 1x Component Analog YPbPr
- 4x AES 48KHz digital audio pairs via BNCs

NB: For non-HDCP input signals all outputs can be used simultaneously but if the input signal is HDCP encrypted then only the DVI/HDMI output is available due to HDCP licensing rules.

Input Formats

640x480, 800x600, 852x480, 853x480, 1024x600, 1024x768, 1280x720, 1280x768, 1280x800, 1360x768, 1365x768, 1366x768, 1368x768, 1400x768, 1440x900, 1600x900, 1366x1024, 1400x1050, 1680x1050, 1600x1200, 1920x1080, 1920x1200

Output Formats

480i, 576i, 720p50/59.94/60, 1080i50/59.94/60, 1080p23.97/24/25/30/50/59.94/60, 1080sfp23.97/24/25, 2Kp50/59.94/60

Control

- Front panel controls with character LCD display
- 4 user configurable presets
- Programmable soft keys
- Webserver for remote control via TCP/IP
- API-based remote control via RS232 serial port or TCP/IP
- USB port for firmware update

Signal Paths

- 10-bit 3G/HD/SD-SDI
- 12-bit ADCs for VGA/RGB video
- 8/10/12-bit HDMI, 8-bit DVI support
- All video buses are 10 bit, with internal processing up to 16 bit as required by each process

Power

- Dual Redundant integral PSUs, 100-240VAC 50/60Hz, power via 2x IEC connectors. Product can run on one or both PSUs. Fan cooled for installation into equipment racks. Separate PSU cooling fan for high reliability
- Front standby/on control key with switch-off time delay.

Mounting Information

- Extremely rugged, professional 19" (2U) Rack case with carrying handles. All connectivity via industry standard connectors, no requirement for breakout cables.

Warranty

- 3-year return to base warranty covers parts and labor, shipping excluded.

Part Code

VXL75HD



Specifications List	FoveaHD	VXL75HD	VXL100HD	VXL150HD
MEMC Motion Compensated content adaptive FRC	x			
3G-SDI Inputs, 2x, SD/HD/3G compatible	x		x	x
DVI/HDMI Inputs, 1xHDMI, 1xDVI	x	x	x	x
YPbPr/RGBS Input, 1x	x		x	x
Composite/YC Inputs, 1x with 3D Comb	x		x	x
VGA Analog/RGB Input, 1x via 5 BNCs	x	x		x
3G-SDI Genlock, with relocked loop through	x	x	x	x
Bi/Tri-level Genlock, with active loop through	x	x	x	x
3G-SDI Output, 1x, SD/HD/3G compatible	x	x	x	x
DVI/HDMI Output, 1x	x	x	x	x
YPbPr Analog Output, 1x	x	x	x	x
Broadcast Grade Realta Processing	x	x	x	x
Flicker Reduction Filter for Graphics inputs when outputting interlaced formats	x	x		x
Low Latency Mode	x	x	x	x
Aspect Ratio Conversion	x	x	x	x
Trim	x		x	x
Pan/Zoom/Tilt	x	x	x	x
Logo Insertion	x	x	x	x
Closed Caption Support, HD CEA708 & SD CEA608	x			x
VITC Timecode Support with automatic delay	x			x
Dual-Redundant Power Supplies	x	x	x	x

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