LT-300 Series Video Platform

4K/HD Capture Card, Frame Grabber and Video Processor

LT-313

2 x SDI's In, 1 x HDMI In and 1 x HDMI out

LT-311

LT-312

- Hardware:
  - FPGA based for minimum PC host load
  - Resolution up to 4K (4096x2160) at up to 60fps
  - Fully compatible with FULL HD
  - Full 10-bit video processing
  - PCIe Gen2 x4 bus
- Up to **four channels of simultaneous** multi-channel audio and Video Capture, Recording and Frame Grabbing (4 channels on LT-311, 3 channels on LT-313, 2-channels on LT-312)
- Flexible video compositing:
  - 3D
  - Or multiple singles
- Loop-though HDMI output provided with state-of-the-art **Dynamic Overlay** capabilities allows users to add moving text, titles and other real-time data-driven infographics to the incoming video signals. Designed for such use cases as broadcast, professional-grade video production, live streaming, as well as medical applications
- Extreme low latency, adapted for Professional, Industrial, Medical, Aerospace, Military and other high-performance applications
- Enciris-Empowered API**, Provides easy integration compatible with Windows, Linux, Direct Show, Python, C++, C# and Go
- Command Line Interface is also provided allowing instant access to the boards API
- Optimized for high reliability, designed for continuous 24/7 loaded operation
- Board dimensions, 94 x 100 mm
- Power consumption, typically 12W
- CE Certified, CE Tested to 60601 ESD and EMI
- Designed and built in France and Engineered for Long Term Availability (LTA)
- Coming soon: Picture-in-Picture (Click the Link)

*Although the product is designed for long term availability Enciris, like all OEM manufacturers, is reliant on component supply

**A typical customer application is less than 100 lines of code and Enciris provides example applications that allow cut and paste

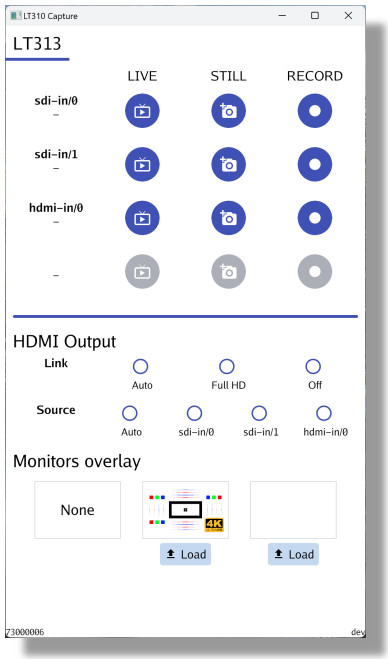
LT-300 Series Video Platform

Designed for years of 24/7 operation the Enciris LT-300 product family is ideally suited to Professional, Industrial, Medical, Aerospace, Military and other high-reliability applications. Providing extreme low-latency 4K multi-channel capture with recording and frame grabbing these products have also been designed for Long-Term Availability (LTA).

Compositing of captured video: Any number of the applied input signals to be displayed at the same time and formatted as required. This allows 3D, as well as other use cases. Note: Picture-in-Picture features are coming soon, see the demo here and reach out to us if you would like to get more details.

Dynamic Overlay: Image-injection capabilities are provided on-board that allow users to combine and mix live incoming captured video with a combination of text, titles and other static or moving real-time data-driven infographics. Dynamic overlay adds the ability for these text and graphics to be moving, i.e., dynamically rendered on screen to provide moving titles, embedded content and real-time infographics. The resulting blended overlayed images are provided on the HDMI loop-through output.

All Enciris 4K products are supported by the Enciris-Empowered API with simultaneous multi-channel capture for Windows, Linux, Direct Show, Python, C++, C#, .NET and Go. The API runs as a service and reduces time to market due to typical customer use-cases being less than 100 lines of code.
Get started immediately using the demo application or the Command Line Interface (CLI), which allows evaluation of all the functions without writing a single line of code.

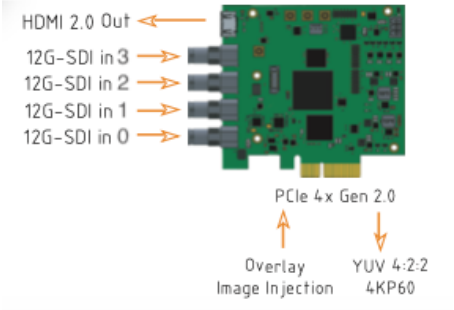


Software Recording Solution
Enciris-Empowered API** provides easy integration support for:
- Multichannel capture
- H.264, H.265, MP4, JPEG, PNG…
- Nvidia, Intel Quick Sync, AMD VCN and FFMPEG

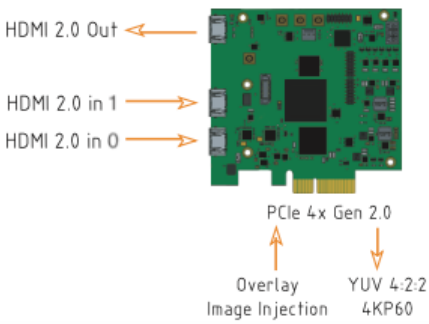
Outputs
All versions feature a HDMI 2.0 direct output with **Real time overlay** with text, blending (transparency control) via HDMI 2.0 zero delay monitor output

Versions
LT-311: Four SDI's for SMPTE standard UHD/4Kp60 quad or single link
LT-312: Two standard HDMI 2.0 up to 4K60 (no HDCP)
LT-313: One standard HDMI 2.0 (no HDCP) + TWO SDI's for SMPTE standard HD/3G/12G-SDI

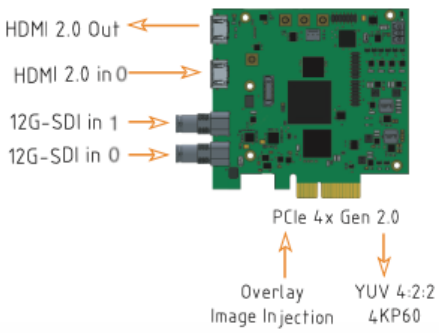
LT-311



LT-312



LT-313



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Document: LT-310 Series Product Brief, Version: 3.7, Date: 07/08/25, All information subject to change and update
Enciris is an ISO 9001:2015 Company

LT-300 Resolutions Supported

SDI			
Resolution	**Framerate**	**Colorspace**	**Link**
1280 x 720 progressive	60 / 59,94 / 50	YUV422 10-Bit	1 x HD-SDI
1920 x 1080 progressive	60 / 59,94 / 50	YUV422 10-Bit	1 x 3G-SDI level-A
	30 / 29,97 / 25 / 24 / 23,98	YUV422 10-Bit	1 x HD-SDI
3840 x 2160 progressive	60 / 59,94 / 50 / 48	YUV422 10-Bit	1 x 12G-SDI
	30 / 29,97 / 25 / 24 / 23,98	YUV422 10-Bit	1 x 6G-SDI
4096 x 2160 progressive	60 / 59,94 / 50 / 48	YUV422 10-Bit	1 x 12G-SDI
	30 / 29,97 / 25 / 24 / 23,98	YUV422 10-Bit	1 x 6G-SDI

HDMI		
Resolution	**Framerate**	**Colorspace**
1280 x 720 progressive	60 / 59,94 / 50	RGB444 8-Bit / YUV444 8-Bit / YUV422 12-Bit
1920 x 1080 progressive	60 / 59,94 / 50	RGB444 8-Bit / YUV444 8-Bit / YUV422 12-Bit
	30 / 29,97 / 25	RGB444 8-Bit / YUV444 8-Bit / YUV422 12-Bit
3840 x 2160 progressive	60 / 59,94 / 50	RGB444 8-Bit / YUV444 8-Bit / YUV422 12-Bit
	30 / 29,97 / 25	RGB444 8-Bit / YUV444 8-Bit / YUV422 12-Bit

SDI-Standards

SMPTE ST 292	HD-SDI at 1,485 Gb/s
SMPTE ST 424	3G-SDI at 2,97 Gb/s
SMPTE ST 2081	6G-SDI at 5.94 Gb/s
SMPTE ST 2082	12G-SDI at 11.88 Gb/s

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