

# Enciris Launches 4K Latency-Free Overlay for AI Applications

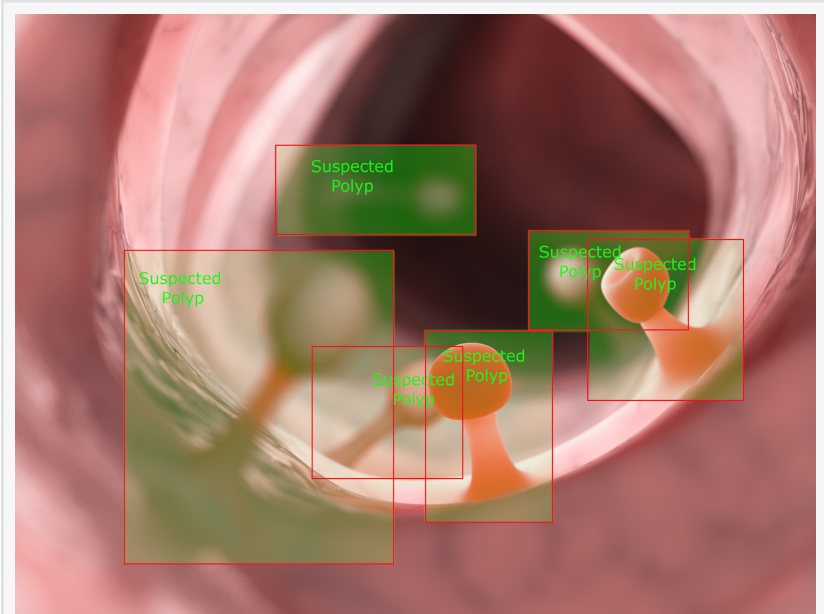
*Overlay features adapted for emerging AI use-cases*

GAILLAC, OCCITANIE, FRANCE, April 18, 2024 /EINPresswire.com/ -- The latest generation of Enciris 4K [capture cards](#) and [camera](#) products all include a set of flexible latency-free overlay features combined with a loop-through HDMI output. This applies to all of the Enciris Lautrec LT-300 capture cards as well as the CV-4X family of camera products.

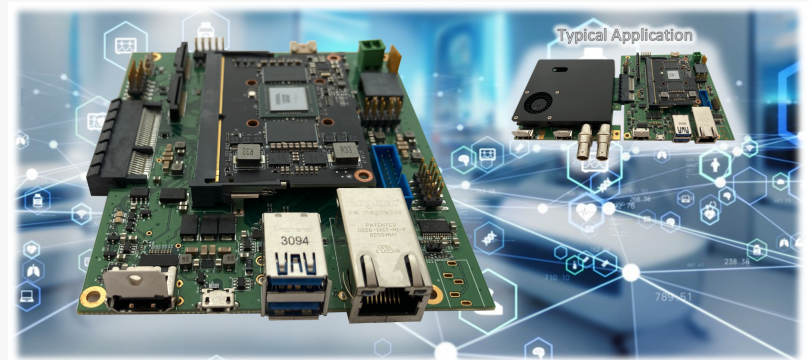
In this article we consider [AI](#) use cases for overlay within the medical domain.

Recap on Overlay and Loop Through Overlay provides the ability to mix and combine video images with drawn shapes and text created within the Enciris API or even with other video streams or images. For Enciris products, this also includes being able to set transparency information dynamically on different parts of the overlaid image as is shown in the polyp image.

Loop-through is a video output that mirrors one of the selected incoming video signals. With all Enciris 4K products there is a loop-through output combined with an overlay function. This output is referred to as latency-free because the delay for both overlay and loop-through functions combined is less than 20 video lines, which is undetectable to the naked eye.



AI Suspected Polyps



Enciris 4K recording and AI processing board, CH-1001

Merging AI information onto incoming video feed data using CH-1001

An emerging application for Overlay is AI. The Enciris CH-1001 is a flexible AI video processor board with many different applications. It has a in-line PCIe connector, that allows it to be directly plugged together with any Enciris capture card or camera product in a low-profile enclosure. The processor board uses a powerful NVIDIA AI processor chip-on-module, to be able to both record the incoming video as well as to provide AI object recognition from the incoming video streams.

We will be discussing in detail the recording functions of the CH-1001 board in forthcoming articles.

AI technology is reaching a point of maturity where object recognition has become a useful tool for both screening and surgery. One practical medical example for AI is its use to recognize polyps. A colon polyp is a small clump of cells that forms on the lining of the digestive tract. Whilst most colon polyps are completely harmless it is possible over time that some colon polyps can develop into colon cancer. After the AI processor has been trained to recognize the desired object; it takes the incoming video feed from an endoscope and immediately starts scanning image by image for visual patterns that resemble the desired object - in this case polyps.

In many AI applications the output from the AI engine is a box drawn around a recognized object, and in the given example this allows the doctor to have an additional check for polyps in the areas indicated by the AI. Within an AI application, there is often the need to be able to blend the output from the AI processor onto the incoming video signals. This is required so that you can see both the original video and also the AI component that is used to highlight an area of interest.

On the CH-1001 there are several methods to be able to merge the video data with the objects recognized by the AI; overlay is one way to achieve this on both LT-300 series Frame Grabbers and the CV-4X Camera products. This allows the AI signal to be merged onto the video feed without any noticeable latency.

### Summary

All Enciris 4K products include an embedded latency-free overlay function on the loop-through output. This can be used to mix different data(s) or video with the incoming video feed(s) which can be useful in a variety of different medical applications including emerging AI use cases, where the recognized AI data needs to be merged with the incoming video feed with minimal latency.

Got question, or want to know more? Reach out to us today.

### About Enciris Technologies

Enciris Products are Engineered and built in France. The Enciris story started in 2006 with a vision to make a range of accessible high performance video capture products using the latest, state-

of-the-art technology.

The company has evolved to become a leading designer and manufacturer of high-performance video processing hardware for OEMs, system integrators, embedded systems, and professional users. Enciris provides solutions for customers to add Ultra HD 4K/Full HD camera technology, video acquisition, hardware compression, video routing, video format conversion, video overlay, video streaming and storage capabilities.

We design both off-the-shelf and customized solutions for Long Term Availability (LTA) and ultra-high reliability.

[www.enciris.com](http://www.enciris.com)

Enciris is an ISO9001:2015 company.

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