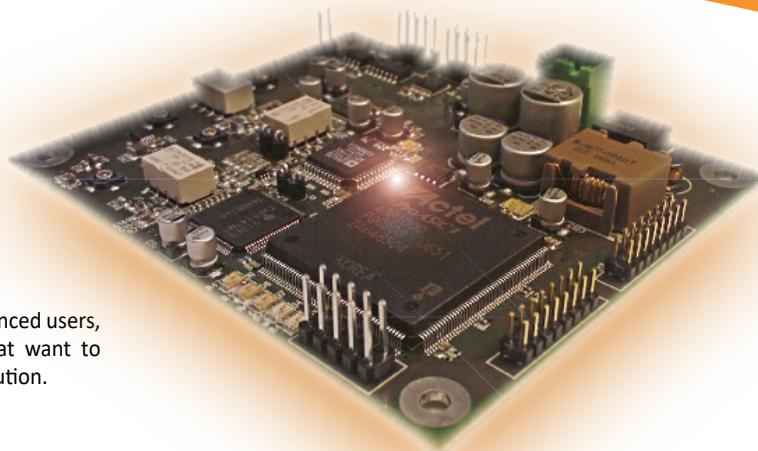


# LYYN HAWK BOARD™ INTEGRATION KIT

## The LYYN Inside™ solution for analog video

### PAL/NTSC integration board



#### LYYN Inside™

The LYYN Hawk Board™ is the ideal solution for advanced users, product manufacturers and system integrators that want to have lynnification fully integrated into their own solution.

#### Simple integration

The kit contains all the necessary parts for simple plug-and-play integration. You connect your video either to the board's micro connectors or to the included standard BNC connector card. The board can be controlled by the manual control panel included or by software over a standard RS232/485 serial interface.

#### Standard control panel for manual control

A thin "membrane" panel is included, which can be mounted and sealed to a flat surface with the adhesive backing. If the application requires a watertight seal LYYN recommends extra mechanical mounting. The panel is connected to the LYYN Hawk Board with a flat cable (included).



#### User controls

on/off  
lynnification:  
- level  
- window position  
- window size

#### Software control

The Hawk Board can be controlled remotely through a standard RS232/485 serial interface over a flat cable connector. A simple standard communications program, like "HyperTerminal" in Windows or "QuickTerm" in Mac OS X, can be used to send ASCII text-based commands. You can also write scripts and software on your own control platform for a more integrated solution.

Communication	Lynnification™	Video
RS232/485 serial protocol ASCII text-based commands Flat cable connector	level window position window size	saturation hue brightness contrast sharpness

#### Video standards

PAL 625-line 25 fps or NTSC 525-line 30 fps, autosensing of format. Standard composite or S-video (separate luminance and chrominance).

*LYYN Hawk Board™ is the real-time lynnification™ solution for integrated applications*

#### Video synchronization

The LYYN Hawk Board has three video synchronization modes. The video output can be synchronized to the video input, an external synchronization signal on a separate micro connector can be used or an Time Based Corrected signal can be obtained by controlling the delay.

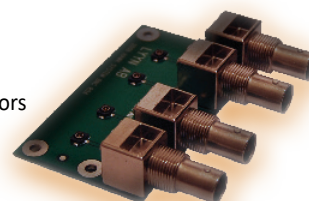
#### Physical connectors

Video I/O: Hirose microconnectors. Separate video connector board with standard BNC connectors and cables included

External sync signal: Hirose microconnector

Two control ports, one for the control panel included and one for software control through an RS interface

Included in the package:  
4 micro BNC connector cables  
1 connector board with 4 BNC connectors



#### Power

Nominal input voltage: 12 V DC, 0.2 A.

#### Operating conditions

Temperature: 0 — 50 °C (32 — 122 °F)  
Humidity: 0 — 80% RH (non-condensing)

#### Dimensions and weight

Hawk Board: 96 mm x 80 mm x 30 mm  
Weight: 150 g  
Mounting holes: 4 x M3  
Control panel: 80 mm x 50 mm x 1 mm

#### More information

For more detailed information please visit our web site:  
[www.lyyn.com](http://www.lyyn.com)

US Patent No. 8,023,730 and equivalent patents and patent applications in other countries.



# Want to see what **we** see?

## Enhancing Visibility in Real-time!



### The technology

It is called LYYN (V.E.T) Visibility Enhancement Technology. Visibility is enhanced in **real-time** in fog, dust, lowlight, snow, smoke, subsea, etc.

LYYN works on images and video from normal color cameras, but can also be used in processing saved material.

### Imagine the possibilities.

The pictures below are just still pictures that we have enhanced. The true power of LYYN is that this can be done in **real-time** in a live video stream, digital or analogue. This could have been the feed from a surveillance camera in a video security system. Air traffic control, for instance, would have a better view of the airfield.

They might even see that a plane is going down the wrong way in the fog...

### It is not magic.

It is mathematics, based on the knowledge of how the human brain interpret information from the eyes.

### Low cost.

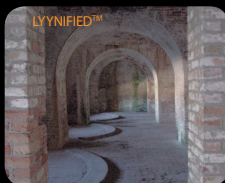
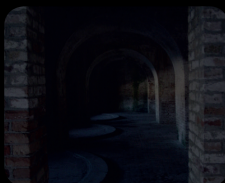
As LYYN can be integrated into existing systems as a "turbo charger", no expensive upgrade of complete systems is required.



FOG & HAZE – LYYN gives you a clearer vision



DUST – LYYN gives you a clearer vision



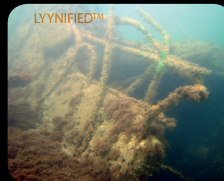
LOW LIGHT – LYYN gives you a clearer vision



SNOW – LYYN gives you a clearer vision



SMOKE – LYYN gives you a clearer vision



SUB SEA – LYYN gives you a clearer vision

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