The Attollo Phoenix HD5 SWIR camera is a HD format (1280x1024), uncooled SWIR camera featuring the industry's smallest SWIR HD sensor. The Phoenix captures snapshot SWIR imagery using Attollo Engineering's high-performance InGaAs detector material and the extremely small pixel pitch enables more pixels on target with a short focal length optic. The Phoenix's sensor is designed specifically to support broadband imaging along with day and night laser see-spot and range-gated imaging capabilities. The Phoenix HD SWIR camera is built for low SWaP applications and offers a significant opportunity for cost-savings at the system level compared to competing SWIR cameras. This new miniature camera is ideal for small gimbal integration as well as use in low-SWaP handheld and soldier-mounted systems.

The Phoenix is designed and manufactured in Attollo's 34,000 ft^2 facility in Camarillo, California. Attollo specializes in sensors that combine IR and laser imaging.

Applications

- Small gimbals and SUAS
- SWIR see-spot
- Machine vision
- Precision agriculture

- Driver Vision Enhancement (DVE)
- Range-gated imaging
- Covert illuminated imaging
- Laser designator imaging and decode*
  *with separate Attollo laser event detector module

Attollo Engineering is a merchant supplier of standard and custom format InGaAs detector arrays, hybridized focal plane arrays, and camera assemblies.

Specifications

Camera

Detector Material	InGaAs
Spectral Response	1.0 µm - 1.65 µm
Array Format	1280 x 1024
Pixel Pitch	5 µm
Operability	> 99.5%
Quantum Efficiency	> 65%
Frame Rate	30 Hz, 60 Hz, 120Hz*, Windowing
Imaging Mode	Global shutter, Integrate While Read (IWR), Integrate Then Read (ITR)
Integration Time	Presets and user-defined, minimum = 100 ns
Triggering	Sync-In (low-latency for see-spot & range-gating); Sync-Out
On-Board Processing	Sharpening, Gaussian blur, region of interest (ROI), AGC, AEC

Electrical

Input Voltage	5 V ±10%
Power Consumption	1.6 W at 30 Hz, 1.8 W at 60 Hz
Video Output	Parallel CMOS, Camera Link**, USB3**
Command and Control	UART, I2C, SPI

Mechanical

Volume	13 cm^3 (without lens or personality board)
Weight	23 g (core, no lens)
Mounting	0-80, 1/4"-20 adapter and custom options available
Lens Mount	Custom options available
Connector	HIROSE DF40-50

Environmental

Operating Temperature Range	- 20°C to +65°C

*available on separate product - Phoenix HD5 HS

** available as options