

The **Attollo Phoenix SWIR camera** is a VGA format (640x512), uncooled SWIR camera featuring the industry's smallest SWIR VGA 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. Attollo can use its Precog Imaging™ to see multiple lasers in the field of view if paired with our Mantis Laser event detector. The Phoenix miniature 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 ft² 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	640 x 512
Pixel Pitch	5 μm
Operability	> 99.5%
Quantum Efficiency	> 70%
Frame Rate	30 Hz, 60 Hz, 120 Hz, 220 Hz (by request), Windowing
Imaging Mode	Global shutter
Integration Time	Presets and user-defined, minimum = 0.1 μs
Triggering	Sync-In (low-latency for see-spot & range-gating); Sync-Out
On-Board Processing	Non-uniformity correction; bad pixel replacement

Electrical	
Input Voltage	5 V $\pm 10\%$
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	12 cm^3
Weight	32 g
Mounting	0-80, 1/4"-20 adapter and custom options available
Lens Mount	Custom options available
Connector	HIROSE DF40-50

Environmental	
Operating Temperature Range	- 40°C to +71°C

** Personality boards sold separately

