THE INDUSTRIAL CAMERA EVOLVED

Be Inspired. Think LUCID.

PHOENIX™

The World's Smallest GigE PoE Camera

The Phoenix is a micro compact camera with a versatile board design, measuring only 24 x 24 mm and 28 x 28 mm. Its default shape resembles a traditional camera but can easily be transformed to best fit your application. It further advances industrial miniaturization with the compact NF-mount lens and the ix Industrial® Ethernet connector.

24 x 24 mm NF-Mount with ix Industrial Connector

24 x 24 mm C-Mount with RJ45

28 x 28 mm C-Mount with RJ45

PHOENIX™

The World's Smallest GigE PoE Camera

24 x 24 mm Models

C-mount with RJ45 NF-mount with RJ45 C-mount with ix Connector NF-mount with ix Connector

Model	MP	Resolution	FPS	Sensor	Format	Pixel Size	Shutter	Lens Mount	GigE Interface
PHX122S	12.2 MP	4024 x 3036 px	9.7 fps	Sony IMX226 CMOS	1/1.7"	1.85 μm	Rolling	C	RJ45 / ix
PHX050S-P PHX050S-Q	5.0 MP	2448 x 2048 px	24 fps	Sony IMX250MZR CMOS Sony IMX250MYR CMOS	2/3"	3.45 μm	Global	C / NF	RJ45 / ix
PHX050S	5.0 MP	2448 x 2048 px	24 fps	Sony IMX264 CMOS	2/3"	3.45 μm	Global	C / NF	RJ45 / ix
PHX032S	3.2 MP	2048 x 1536 px	38 fps	Sony IMX265 CMOS	1/1.8"	3.45 μm	Global	C / NF / S	RJ45 / ix
PHX023S	2.3 MP	1920 x 1200 px	52 fps	Sony IMX392 CMOS	1/2.3"	3.45 μm	Global	C / NF	RJ45 / ix
PHX016S	1.6 MP	1440 x 1080 px	77 fps	Sony IMX273 CMOS	1/2.9"	3.45 μm	Global	C / NF / S	RJ45 / ix
PHX004S	0.4 MP	728 x 544 px	291 fps	Sony IMX287 CMOS	1/2.9"	6.9 μm	Global	C / NF / S	RJ45 / ix

28 x 28 mm Models

C-mount with RJ45

Model	MP	Resolution	FPS	Sensor	Format	Pixel Size	Shutter	Lens Mount	GigE Interface
PHX200S	20.0 MP	5472 x 3648 px	6 fps	Sony IMX183 CMOS	1"	2.40 μm	Rolling	C	RJ45
PHX120S	12.3 MP	4096 x 3000 px	10 fps	Sony IMX304 CMOS	1.1"	3.45 μm	Global	C	RJ45
PHX089S	8.9 MP	4096 x 2160 px	13.7 fps	Sony IMX267 CMOS	1"	3.45 μm	Global	C	RJ45

For the latest Phoenix models and machine vision accessories, including NF-mount lenses and ix Industrial cables please visit www.thinklucid.com

Highlights

NF-Mount Lens
The 5 MP lens is 40% smaller and up to 50% lighter while maintaining the same imaging performance as a standard C-mount lens.
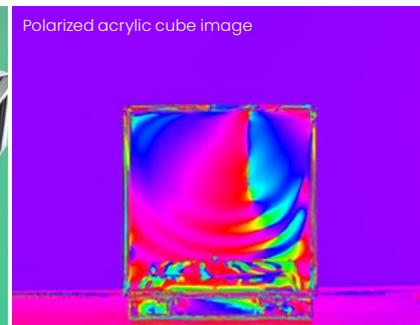
Transformable
Transform any Phoenix camera. Get everything you need with our Phoenix Transform Kit for 90° and 180° shape configurations.

ix Industrial® Connector
70% smaller than a RJ45 socket. High EMC and vibration protection, positive locking hooks, locking force over 98 n, and guaranteed 5,000 mating cycles.

Polarization Models
Polarized acrylic cube image

See beyond visible light with the Phoenix camera featuring Sony's IMX250MZR/MYR CMOS polarized sensors. Models PHX050S-P/Q.

≡ TRITON™

The Industrial Camera Evolved

The Triton camera sets a new price performance standard in the industrial camera market. Active Sensor Alignment for superior optical performance, a lightweight, compact 29 x 29 mm size, and IP67 protection with a sealed lens tube make the Triton camera suitable for harsh industrial environments. The M12 Ethernet and M8 I/O connectors provide a robust and sturdy connection resistant to shock and vibration.


M12 GigE PoE M8 I/O

29 x 29 x 45 mm

LUCID

Active Sensor Alignment

TRITON™
The Industrial Camera Evolved

Triton Models

Model	MP	Resolution	FPS	Sensor	Format	Pixel Size	Shutter	Lens Mount	GigE Interface
TRI200S	20.0 MP	5472 x 3648 px	6 fps	Sony IMX183 CMOS	1"	2.40 µm	Rolling	C	M12
TRI120S	12.3 MP	4096 x 3000 px	10 fps	Sony IMX304 CMOS	1.1"	3.45 µm	Global	C	M12
TRI122S	12.2 MP	4024 x 3036 px	9.7 fps	Sony IMX226 CMOS	1/1.7"	1.85 µm	Rolling	C	M12
TRI089S	8.9 MP	4096 x 2160 px	13.7 fps	Sony IMX267 CMOS	1"	3.45 µm	Global	C	M12
TRI050S-P TRI050S-Q	5.0 MP	2448 x 2048 px	24 fps	Sony IMX250MZR CMOS Sony IMX250MYR CMOS	2/3"	3.45 µm	Global	C	M12
TRI050S	5.0 MP	2448 x 2048 px	24 fps	Sony IMX264 CMOS	2/3"	3.45 µm	Global	C	M12
TRI032S	3.2 MP	2048 x 1536 px	38 fps	Sony IMX265 CMOS	1/1.8"	3.45 µm	Global	C	M12
TRI023S	2.3 MP	1920 x 1200 px	52 fps	Sony IMX392 CMOS	1/2.3"	3.45 µm	Global	C	M12
TRI016S	1.6 MP	1440 x 1080 px	77 fps	Sony IMX273 CMOS	1/2.9"	3.45 µm	Global	C	M12
TRI004S	0.4 MP	728 x 544 px	291 fps	Sony IMX287 CMOS	1/2.9"	6.9 µm	Global	C	M12

For the latest Triton models and machine vision accessories, including IP67 lens tubes and M12 / M8 cables please visit www.thinklucid.com
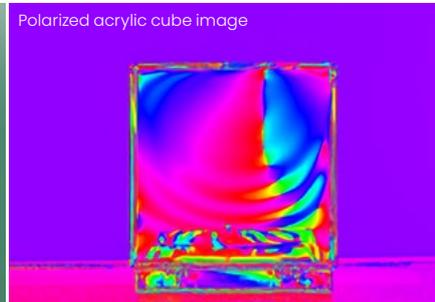
Highlights
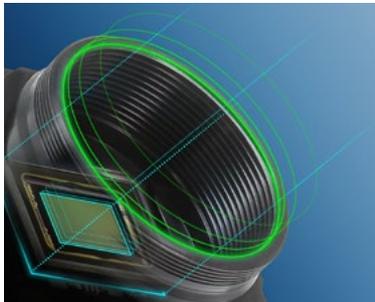
Active Sensor Alignment
All Triton cameras are actively aligned to minimize sensor tilt and rotation, and to place the center of the sensor at the lens optical axis.

M12 and M8 Connectors
Designed to provide a sealed connection resistant to shock and vibration. Shielded against electrical interference.

Polarization Models
See beyond visible light with the Triton camera featuring Sony's IMX250MZR/MYR CMOS polarized sensors.

Polarized acrylic cube image

IP67 Protection
By adding LUCID's IP67 lens tube, the camera can be protected from both dust and water particles.

Beyond Small and Light
The camera has a wide operating temperature range from -20ºC to 55ºC ambient. At only 67 grams and 29 x 29 mm, the Triton is an easy and reliable fit in any environment.

≡ATLAS™

Up to 31 MP Sony Pregius Sensors over 5GBASE-T PoE

Atlas is a 5GBASE-T PoE camera capable of data transfer rates of over 600 MB per second. Its large format allows for higher resolutions and higher frame rates over standard Ethernet cables up to 100 meters. Measuring only 55 x 55 mm, the Atlas is equipped with a M35 lens mount which can easily be adapted to F-mount. Featuring Active Sensor Alignment for superior optical performance with large image sensors.

M12 5GBASE-T PoE

Active Sensor Alignment

55 x 55 x 70 mm for APS-C and 4/3" sensors

GiGE VISION   GEN‹i›CAM

ATLAS™

Up to 31 MP Sony Pregius Sensors over 5GBASE-T PoE

Atlas Models

Model	MP	Resolution	FPS	Sensor	Format	Pixel Size	Shutter	Lens Mount	GigE Interface
ATL314S	31.4 MP	**6464 x 4852 px**	17.9 fps	**Sony IMX342 CMOS**	APS-C	**3.45 μm**	Global	**TFL (M35 x 0.75)**	5GBASE-T, M12
ATL196S	19.6 MP	**4416 x 4428 px**	28 fps	**Sony IMX367 CMOS**	4/3"	**3.45 μm**	Global	**TFL (M35 x 0.75)**	5GBASE-T, M12
ATL168S	16.8 MP	**5456 x 3076 px**	33 fps	**Sony IMX387 CMOS**	4/3"	**3.45 μm**	Global	**TFL (M35 x 0.75)**	5GBASE-T, M12

More models coming. Visit www.thinklucid.com for the latest Atlas sensors.

Highlights
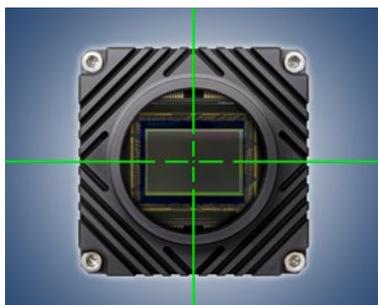
Active Sensor Alignment
All Atlas cameras are actively aligned to minimize sensor tilt and rotation, and to place the center of the sensor at the lens optical axis.

High Resolution Sensors
Sony Pregius sensors, up to 31 MP, at fast frame rates. Best in class imaging and global shutter CMOS performance.
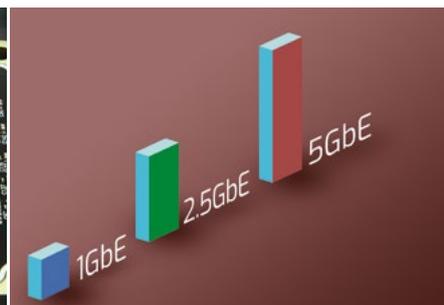
600 MB/s Bandwidth
Streams high resolution images at fast frame rates over regular CAT5e or CAT6 Ethernet cabling over 600 MB/s bandwidth.

M12 and M8 Connectors
Designed for error free operation in environments with high vibration, dust and water. Shielded against electrical interference.
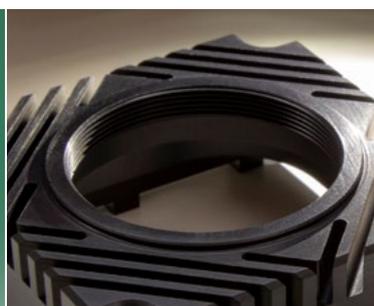
TFL (M35) Lens Mount
Take full advantage of large APS-C and 4/3" sensor sizes with smaller and lighter TFL lenses. F-mount compatible.

NBASE-T IEEE P802.3bz
Compatible with interface cards and switches that support 5GBASE-T (625 MB/s) and 2.5GBASE-T (312.5 MB/s) standards.

ARENA™ SDK

Connect, Control, and Create

The Arena Software Development Kit (SDK) is designed from the ground up to provide customers with access to the latest in industry standards and computer technology. The SDK supports LUCID GigE Vision cameras on both ⊞ Windows and 🐧 Linux platforms.
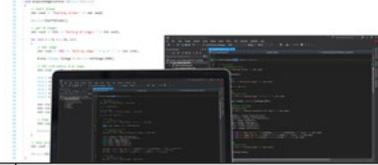
ARENA™ SDK

Connect, Control, and Create

DEVELOP AND DEPLOY

Comprehensive API Toolkit

The Arena SDK provides API access to a variety of camera feature sets. Image chunk data provides meta-data on captured images. Events and triggers can be used to create deterministic camera operations. Save and load streamable camera settings for quicker setup across multiple cameras.

Our SDK allows you to build and scale custom solutions quickly and easily.
- **Arena C++ library**
- **Arena C Library**
- **Arena .NET library**
- **Python library**

LEARN AND IMPLEMENT

Code Examples

Check out our code examples to learn how to use features on your camera. Each example project provides a buildable, executable demonstration of how to accomplish a particular task using an available technology.

Examples available in:
- **C++**
- **C**
- **C#**

CONNECT AND VALIDATE

ArenaView GUI

The Arena SDK includes an easy to use GUI called ArenaView. Based on the GenICam standard, ArenaView allows you to access and validate camera features quickly and easily through the GenICam XML based feature tree. Improved readability for todays diverse range of screen resolutions and optional workspace color schemes.

- **GenICam compliant**
- **Instant feature search**
- **Optimized for UHD resolutions**
- **Dark and light color schemes**
- **Dockable panels**

HTML 5, CSS3, JAVASCRIPT

Arena UI

Arena UI is our user interface (UI) framework. Based on HTML 5, CSS3, and JavaScript, it allows users to rapidly create client applications. This flexible UI framework modernizes the approach, look, and maintenance of client applications. For example, build responsive applications that dynamically adjust layout for different screen resolutions or easily change application styles by switching CSS style sheets

FAMILIAR AND CONSISTENT

GenICam 3 Compliant

GenICam™ is an interface agnostic, programming standard for machine vision cameras. The Arena SDK supports the latest GenICam 3 standard enabling faster camera enumeration and a smaller memory footprint.

- **Consistent GenICam experience**
- **Modernized XML structure for fast loads**
- **Reduced code size and memory usage**
- **Optimized for more efficient embedded system operations**

≣ ACCESORIES

Maximize Camera Performance

Get the most out of your LUCID camera with tested and qualified lenses, cables, interface cards, and more. Take advantage of innovative space-saving accessories such as NF-mount lenses and ix Industrial® connectors.

Accessories

Lenses

Model	Mount	MP	Max Sensor Size	Focal Length	Max Aperture	Weight
Lucid NF120-5M	NF-Mount	5 MP	2/3"	12 mm	f/2.0	40 g
Lucid NF120-5M-C	C-Mount	5 MP	2/3"	12 mm	f/2.0	38 g
Fujinon HF6XA-5M	C-Mount	5 MP	2/3"	6 mm	f/1.9	100 g
Fujinon HF8XA-5M	C-Mount	5 MP	2/3"	8 mm	f/1.6	79 g
Fujinon HF12XA-5M	C-Mount	5 MP	2/3"	12 mm	f/1.6	79 g
Fujinon HF16XA-5M	C-Mount	5 MP	2/3"	16 mm	f/1.6	71 g
Fujinon HF25XA-5M	C-Mount	5 MP	2/3"	25 mm	f/1.6	72 g
Computar V0828-MPY	C-Mount	12 MP	1.1"	8 mm	f/2.8	155 g
Computar V1228-MPY	C-Mount	12 MP	1.1"	12 mm	f/2.8	98 g
Computar V1628-MPY	C-Mount	12 MP	1.1"	16 mm	f/2.8	91 g
Computar V2528-MPY	C-Mount	12 MP	1.1"	25 mm	f/2.8	78 g
Computar V3528-MPY	C-Mount	12 MP	1.1"	35 mm	f/2.8	103 g

Lens Tubes

Model	Length	Outer Diameter	Inner Diameter
IPT-C40	40 mm	Ø 41.0mm	Ø 35.5 mm
IPT-C50	50 mm	Ø 41.0mm	Ø 35.5 mm
IPT-C70	70 mm	Ø 41.0mm	Ø 35.5 mm
IPT-NFC46	46.5 mm	Ø 33.0mm	Ø 27.0 mm

PHX Transform Kit

Model	Degree Change	Compatibility
PHX24-TK	90°, 180°	All 24 x 24mm PHX models

Cables

Model	Type	Rating	Length	Weight	AWG	Color
StarTech C6ASPAT7BK	RJ45 (Both)	CAT6a	2.1 m	89 g	26	Black
StarTech C6ASPAT15BK	RJ45 (Both)	CAT6a	4.6 m	190 g	26	Black
LUCID CAB-IR-2M	ix Industrial, RJ45	CAT6a	2.0 m	90 g	26	Black
LUCID CAB-IR-5M	ix Industrial, RJ45	CAT6a	5.0 m	204 g	26	Black
LUCID CAB-MR-2M	M12 X-Coded, RJ45	CAT6a	2.0 m	110 g	26	Dark Green
LUCID CAB-MR-5M	M12 X-Coded, RJ45	CAT6a	5.0 m	224 g	26	Dark Green
GPIO-8P20	8-pin JST	GPIO	20 cm	3 g	28	Multi-colored
GPIO-M8	8-pin M8	GPIO	1.0 m	86 g	26	Black

Interface Cards

Model	Form Factor	Ports
ADLINK PCIe-GIE72	PCI Express x4	2 GigE PoE
ADLINK PCIe-GIE74	PCI Express x4	4 GigE PoE
Intel EXPI9301CTBLK	PCI Express x1	1 GigE

PoE Injectors

Model	Form Factor	Ports
TP-Link TL-POE150S	External	1 GigE in 1 GigE PoE out
PHIHONG POE21U-1AF	External	1 GigE in 1 GigE PoE out

Be Inspired. Think LUCID.

LUCID Vision Labs™, Inc. designs and manufactures innovative machine vision cameras and components that utilize the latest technologies to deliver exceptional value to customers. Our compact, high-performance GigE Vision cameras are suited for a wide range of industries such as factory automation, medical, life sciences and logistics. Our expertise combines deep industry experience with a passion for product quality, technology innovation and customer service excellence. LUCID Vision Labs, Inc. was founded in January 2017 and is located in Richmond, BC, Canada.

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VISION LABS