

THE INDUSTRIAL CAMERA EVOLVED



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LUCID
VISION LABS

Helios™ 2

3D Time-Of-Flight (ToF) Camera

LUCID's Helios2 ToF 3D camera has four 850nm VCSEL laser diodes and integrates Sony's DepthSense™ IMX556PLR back-illuminated ToF image sensor with high NIR sensitivity, 10µm pixel size, and high modulation contrast ratio. This IP67 ToF camera can produce depth data at 30 frames per second with 640×480 resolution over a PoE Gigabit Ethernet interface. It is compliant with the GigE Vision and GenICam 3D standard for ease of integration using LUCID's Arena SDK or third-party machine vision software.



GIG
VISION

GENi>CAM

HeliosTM 2

3D Time-Of-Flight (ToF) Camera



Helios2

Model	MP	Resolution	FPS	Sensor	Format	Pixel Size	Shutter	Max Range	IP Rating	GigE Interface
HLT003S	0.3 MP	640 x 480 px	30 fps	Sony IMX556 CMOS	1/2"	10 μm	Global	0.3 - 8.33 m	IP67	M12

Physical, Interface, and Power Information

Digital Interface	1 Gigabit Ethernet with PoE, MI2 connector IEC 61076-2-109
GPIO Interface	8-pin M8 connector IEC 61076-2-104
I/O ports	1 input, 1 output, 2 bidirectional
Dimension	60 x 60 x 77.5 mm
IP Rating	IP67
Weight	398 g
Power Requirements	PoE+(802.3at), 18-24 V through GPIO

Imaging Properties

Working Range	0.3 - 8.33 m
Distance Modes	<1.5m, <3.0m, <4.0m, <5.0m, <6.0m, <8.33m (All modes run at 30 FPS)
Accuracy	± 3 mm (0.3 m to 1.5 m)
Precision	± 0.7 mm (measured at 1 m)
Lens Field of View	69° x 51° (nominal)
Illumination	4 x VCSEL laser diodes @ 850nm



Helios

Model	MP	Resolution	FPS	Sensor	Format	Pixel Size	Shutter	Lens Mount	GigE Interface
HLS003S	0.3 MP	640 x 480 px	30 fps	Sony IMX556 CMOS	1/2"	10 μm	Global	Integrated Lens	MI2



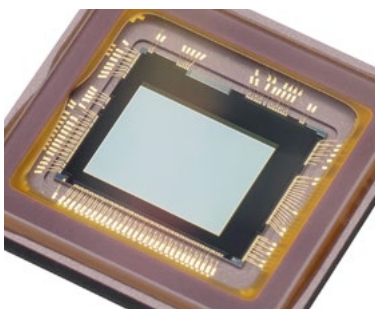
Note: Nvidia Jetson TX2 Developer Kit sold separately. Visit Nvidia for pricing and purchase information

Helios Flex

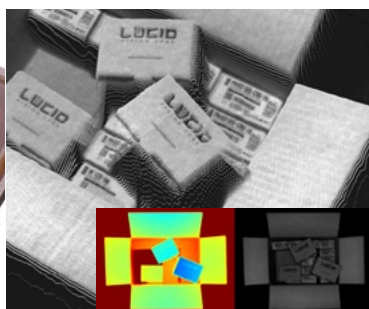
Model	MP	Resolution	FPS	Sensor	Format	Pixel Size	Shutter	Lens Mount	Interface
HLS003S-00ITX2	0.3 MP	640 x 480 px	30 fps	Sony IMX556 CMOS	1/2"	10 μm	Global	Integrated Lens	MIPI D-PHY CSI-2

Superior depth precision increases system reliability and robustness.
 High resolution and high speed data capture reduces system cycle time.
 Excellent price-performance value reduce your overall system cost.

Highlights



Sony IMX556PLR CMOS
 IMX556PLR feature Sony's Back Side Illumination technology with improved light collection efficiency in NIR. Better collection efficiency means pixel and sensor size can be smaller without lowering performance.



3D Point Cloud, Depth Map and Intensity

On camera depth processing lowers host system usage. This speeds up processing time, improves cycle time for robots and eliminates the need for expensive computing hardware.



GenCam 3D

GenCam 3D format enables plug and play compatibility with leading machine vision software. Standardized 3D image format providing X, Y, Z coordinates as well as intensity images.

Accessories



Lenses

Model	Mount	Max Sensor Size	Focal Length	Max Aperture	Weight
Lucid NF120-5M	Nf-Mount	2/3"	12 mm	f/2.0	40 g
Lucid NF120-5M-C	C-Mount	2/3"	12 mm	f/2.0	38 g
Edmund Optics 67-709	C-Mount	1/1.8"	6 mm	f/1.4	102 g
Edmund Optics 58-000	C-Mount	2/3"	8.5 mm	f/1.3	80 g
Edmund Optics 58-001	C-Mount	2/3"	12 mm	f/1.8	54 g
Edmund Optics 59-870	C-Mount	2/3"	16 mm	f/1.6	73 g
Edmund Optics 59-871	C-Mount	2/3"	25 mm	f/1.4	73 g
Edmund Optics 59-872	C-Mount	2/3"	35 mm	f/1.65	72 g
Edmund Optics 59-873	C-Mount	2/3"	50 mm	f/2.0	107 g
Computar V0828-MPY	C-Mount	1.1"	8 mm	f/2.8	155 g
Computar V1228-MPY	C-Mount	1.1"	12 mm	f/2.8	98 g
Computar V1628-MPY	C-Mount	1.1"	16 mm	f/2.8	91 g
Computar V2528-MPY	C-Mount	1.1"	25 mm	f/2.8	78 g
Computar V3528-MPY	C-Mount	1.1"	35 mm	f/2.8	103 g
Edmund Optics 11-320	TFL-Mount	APS-C	50 mm	f/1.8	276 g
Edmund Optics 11-322	TFL-Mount	APS-C	100 mm	f/2.88	597 g

More lens options available online.

Lens Tubes

Model	Length	Outer Diameter	Inner Diameter
IPTC-D270L346	46.5 mm	Ø 33.0mm	Ø 27.0 mm
IPTC-D355L299	40 mm	Ø 41.0mm	Ø 35.5 mm
IPTC-D355L399	50 mm	Ø 41.0mm	Ø 35.5 mm
IPTC-D355L599	70 mm	Ø 41.0mm	Ø 35.5 mm
IPTC-D440L385	49.0 mm	Ø 51.0mm	Ø 44.0 mm
IPTC-D440L685	79.0 mm	Ø 51.0mm	Ø 44.0 mm
IPTC-D590L555	66.0 mm	Ø 68.0mm	Ø 59.0 mm
IPTC-D590L715	82.0 mm	Ø 68.0mm	Ø 59.0 mm

ATL Lens Mount Adapter

ADA-TFL-F TFL-Mount to F-Mount Lens Adapter

ADA-TFL-C TFL-Mount to C-Mount Adapter

PHX Transform Kit

Model	Transform Type	Compatibility
PHX24-TK	90°, 180°	All 24 x 24mm PHX
PHX28-TK	90°, 180°	All 28 x 28mm PHX
FFC-15-JST-RJ45	FFC extension	All PHX FFC models
FFC-15-JST-M12	FFC extension	All PHX FFC 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
LUCID CAB-MR-5M-RA1	M12 X-Coded Right Angle Down, RJ45	CAT6a	5.0 m	248 g	26	Dark Green
LUCID CAB-MR-5M-RA2	M12 X-Coded Right Angle Up, RJ45	CAT6a	5.0 m	248 g	26	Dark Green
LUCID CAB-MR-15M	M12 X-Coded, RJ45	CAT6a	15.0 m	607 g	26	Dark Green
LUCID CAB-MR-15M-RA1	M12 X-Coded Right Angle Down, RJ45	CAT6a	15.0 m	658 g	26	Dark Green
LUCID CAB-MR-15M-RA2	M12 X-Coded Right Angle Up, RJ45	CAT6a	15.0 m	658 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
GPIO-M8-5M	8-pin M8	GPIO	5.0 m	225 g	26	Black
GPIO-M8-5M-RA1	8-pin M8 Right Angle Down	GPIO	5.0 m	205 g	26	Black
GPIO-M8-5M-RA2	8-pin M8 Right Angle Up	GPIO	5.0 m	205 g	26	Black
GPIO-M8-15M-RA1	8-pin M8 Right Angle Down	GPIO	15.0 m	567 g	26	Black
GPIO-M8-15M-RA2	8-pin M8 Right Angle Up	GPIO	15.0 m	567 g	26	Black

Interface Cards

Model	Form Factor	Ports
IOI GE10-PCIE4XG202P	PCI Express x4	1-10G/5G/2.5G/1 GigE PoE
ADLINK PCIe-GIE72	PCI Express x4	2 GigE PoE
ADLINK PCIe-GIE74	PCI Express x4	4 GigE PoE
Intel EXPI9301CTBLK	PCI Express xl	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

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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.



LUCID Headquarters

LUCID Vision Labs, Inc.

130-13200 Delf Place,
Richmond B.C.
Canada, V6V 2A2
EMAIL: sales@thinklucid.com
PHONE: 1-833-465-8243

Europe, Middle East, Africa

LUCID Vision Labs GmbH

Renntalstraße 14, 74360 Ilsfeld
Germany
EMAIL: sales.emea@thinklucid.com
PHONE: +49 (0) 7062 97676 12

Asia Pacific

LUCID Vision Labs G.K

Eishin Bldg. 4F 3-6-1, Kanda-Ogawamachi,
Chiyoda-ku, Tokyo 101-0052 Japan
EMAIL: sales.apac@thinklucid.com
PHONE: +81 3 5577 7915

Greater China

LUCID Vision Labs, China

51F, Raffles City, No 268 Middle Xizang Road,
Huangpu District, Shanghai, China.
EMAIL: sales.gc@thinklucid.com

