THE IMAGINGSOURCE
TECHNOLOGY BASED ON STANDARDS

Industrial Cameras

Asian Office

German Headquarters

> The Imaging Source strives to ensure its customers' competitive advantage by providing the most reliable vision solutions at excellent value.

US Office

About
The Imaging Source

Established in 1988, The Imaging Source is a leading manufacturer of high-performance industrial and board-level cameras for machine vision applications in production automation, quality assurance, logistics, medicine, science and security. The Imaging Source's comprehensive range of industrial cameras includes standard and OEM models as well as embedded vision solutions and zoom and autofocus cameras. Via offices in Germany, the US and Taiwan, The Imaging Source is able to deliver personalized sales and support services for its customers all over the world.

www.theimagingsource.com

Machine Vision

Designed in Germany...

The Imaging Source manufactures a comprehensive range of USB 3.1, USB 3.0, USB 2.0, GigE, GMSL2 and MIPI industrial cameras with an extensive selection of sensors and lenses. With over one million cameras sold, our industrial cameras, embedded vision products, and converters are renowned for their high quality and ability to meet the performance requirements of demanding applications.

Decades of experience in hardware development and image processing allows us to create imaging products and user-friendly tools driven by our practical approach and our customers‘ requirements. Developers and system engineers prefer The Imaging Source cameras because of their competitive pricing, low integration costs and long service life.

With our development and production facilities in Bremen, Germany, we continue to grow, adding production facilities in Chinese Taipei, to best serve our growing markets in the Asia-Pacific region. With our sales and support office in the United States, as well as a strong network of distributors in Europe, USA and Asia, The Imaging Source serves customers across all time zones.

The Imaging Source Support

Industrial cameras consist of two basic components: hardware and software. The Imaging Source guarantees fast and efficient support for both components via our highly skilled support representatives and expert product developers. In addition to technical support for the hardware, we also provide assistance with software implementation.

Windows

The Imaging Source authors and supports device drivers, software development kits (SDKs), programming samples, extensions, end-user software and software tools for Microsoft Windows. All Windows software can be downloaded directly from our website:

www.theimagingsource.com

Linux x86 and Linux ARM

The Imaging Source authors and supports open-source and closed-source device drivers, software development kits (SDKs), programming samples, extensions, end-user software and software tools for Linux x86 and Linux ARM. Linux software can be found and downloaded directly from our website:

www.theimagingsource.com/en-de/product/software/

The Imaging Source Website

Scan here to discover The Imaging Source's latest products, end-of-life announcements, updates, and camera finder.

Machine Vision

Manufactured in Asia

After a successful move into larger facilities in January 2022, the team at The Imaging Source Asia continues their growth trajectory with the addition of a new SMT production line, which helps address the rapidly increasing demand for industrial camera components.

The new line and dedicated SMT personnel enable The Imaging Source to supply high-quality PCBAs to its manufacturing lines, increasing efficiency and productivity, resulting in shorter lead times and better service for customers.

Industrial

Welcome

Office

USB VISION GIGE VISION GEN<i>CAM

Board

Embedded

Zoom

Autofocus

SMT Line

Assembly Line

onsemi Pregius S Pregius STARVIS Polarsens

Embedded Vision

Overview

Affordable processing power, advanced software and reduced system footprint have unlocked new possibilities for embedded vision, expanding its application potential. Discover how The Imaging Source's robust cameras and scalable carrier board solutions for NVIDIA® Jetson Orin™, NXP® i.MX 8M Plus, and Raspberry Pi 5 support lean hardware design, delivering maximum flexibility and efficiency for your embedded vision projects.

Flexible, Application-Ready Embedded Vision for Logistics, Manufacturing and IoT

MIPI CSI-2:

High-speed data transmission with minimal latency - ideal for video streams and image sequences.

Triggers and I/Os:

Hardware and software trigger and I/Os for demanding machine vision applications

GMSL2 and FPD-Link III:

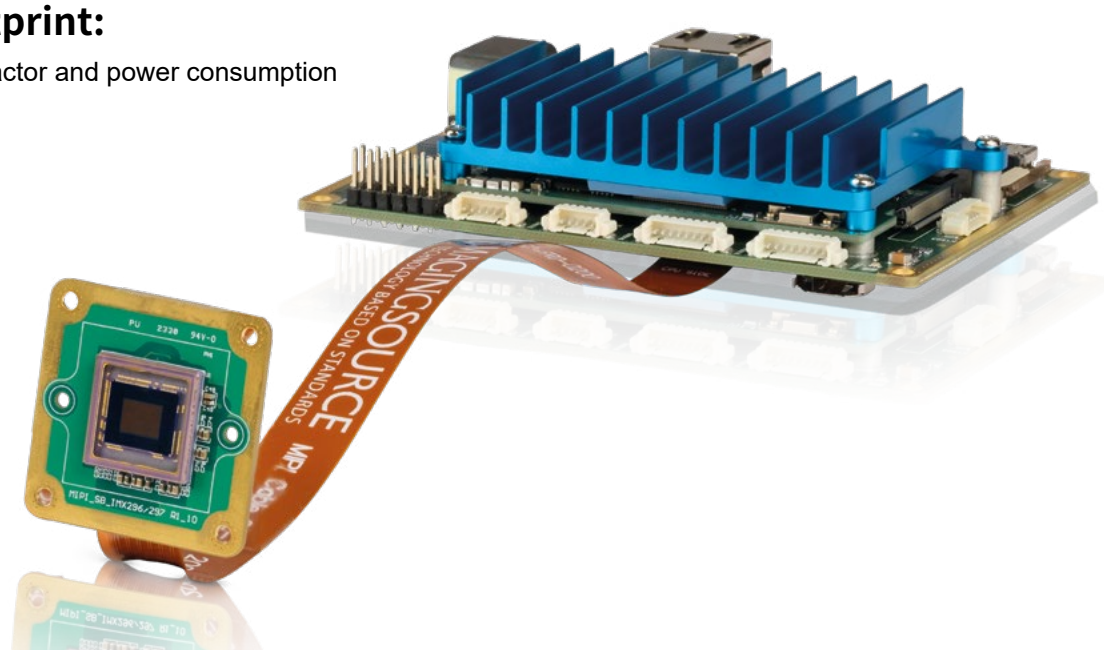
SerDes technology for high-speed data transmission up to 15 m without compromising signal integrity.

Warranty:

3-year warranty with continuous support

Small Footprint:

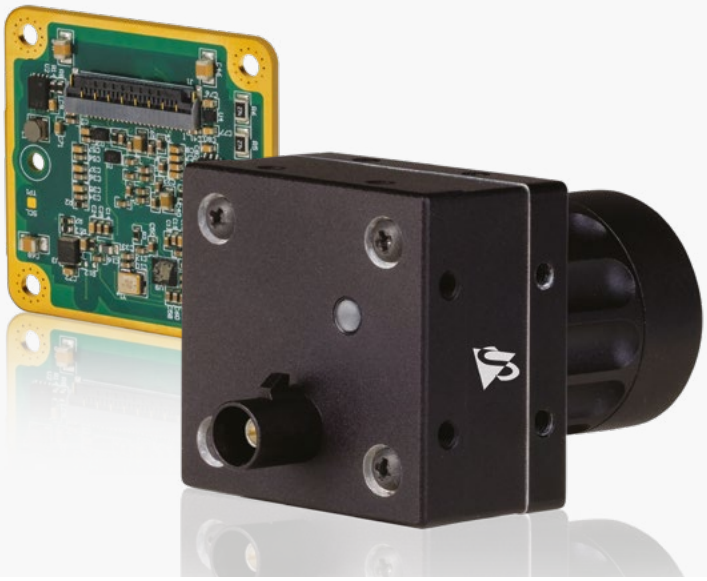
Reduced form factor and power consumption

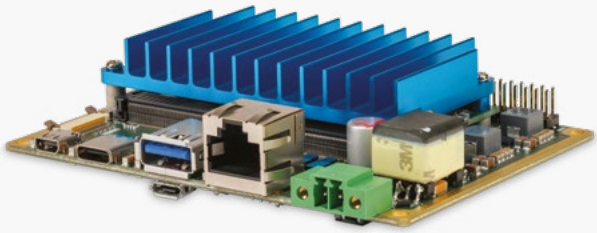


Camera Interfaces

With 35 years in machine vision, The Imaging Source offers an extensive range of embedded cameras designed to meet the demands of diverse modern applications and industries. Offering MIPI CSI-2, GMSL2 and FPD-Link III interfaces with the latest Sony and onsemi sensors, our embedded vision cameras deliver unparalleled image quality and reliability, ensuring robust imaging for your application. Whether you're in manufacturing, logistics, or healthcare, our cameras are engineered to perform in the most demanding environments, providing you with reliable and high-quality imaging solutions.

MIPI CSI-2 , GMSL2, FPD-Link III





Toradex (NXP) SoM Scalable Design

Carrier Board

The Imaging Source's carrier boards and SoM solutions for embedded vision deliver powerful image processing via a scalable board designs integrated with NVIDIA® Jetson Orin™ Nano/ NX and Toradex NXP® i.MX 8M Plus SoMs (System on Module). Powered by NVIDIA's and NXP's ruggedized processors,The Imaging Source's solutions bring industrial grade connectivity, reliability, and product longevity to your embedded vision applications. This combination offers an adaptable and scalable image processing platforms, ensuring lean and efficient hardware that enables OEMs to realize their first-to-market strategies.

Driver Packages and SDKs

Drivers and SDKs

The Imaging Source authors and supports a range of software products for image acquisition and processing. Included in our embedded vision ecosystem are camera drivers, as well as advanced image capture and processing SDKs. The system is Ready for HALCON and compatible with other third-party software and Torizon. This flexibility allows you to develop and deploy powerful vision applications with ease, ensuring your systems are equipped with the latest in image processing technology.

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Visus Series

GigE and IP67 GigE

Modern GigE Camera Platform Optimized for Performance, Size, and Value.

Visus: GigE

The Imaging Source's Visus Series GigE cameras are built to meet the demands of modern machine vision, delivering performance, efficiency, and integration flexibility. Available in both standard and ruggedized IP67 variants, the series combines compact industrial design with streamlined internal architecture to enable high-performance imaging with a reduced hardware footprint.

The series is compatible with existing GigE Vision and GenICam-based workflows, helping reduce engineering overhead and accelerate time to market. Lower power draw, efficient thermal design, and a coordinated ecosystem of compatible accessories help reduce system complexity and simplify integration. Whether you're designing high-throughput inspection systems or scaling industrial automation, Visus Series cameras provide a reliable and future-proof platform for machine vision applications.

Visus: IP67 GigE

Features

- Variety of Sony and onsemi CMOS sensors
- Resolutions up to 19.7 MP
- Available in standard and IP6K6/IP6K7-protected variants
- Validated ecosystem of compatible lenses, lens tubes, and cables
- Free software tools and SDKs for Windows and Linux

Visus Series GigE Cameras

Dimensions: 29 x 29 x 44 mm Mass: 63 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
Vix 43GX900	3.1	2048 x 1536	1/3.1"	2.25 µm	36 fps	IMX900	Sony Pregius S	global	Color | Mono
Vix 43GX568	5.0	2448 x 2048	1/1.8"	2.74 µm	24 fps	IMX568	Sony Pregius S	global	Color | Mono
Vix 43GR0521	5.0	2592 x 1944	1/2.5"	2.2 µm	22 fps	AR0521	onsemi	rolling	Color | Mono
Vix 43GX676	12.5	3536 x 3536	1/1.6"	2.0 µm	9 fps	IMX676	Sony STARVIS 2	rolling	Color | Mono
Vix 43GR2020	19.7	5120 x 3840	1/1.8"	1.4 µm	6 fps	AR2020	onsemi	rolling	Color | Mono

Visus Series IP67 GigE Cameras

Dimensions: 43 x 43 x 34.5 mm Mass: 110 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
Vix 47GX900-I67	3.1	2048 x 1536	1/3.1"	2.25 µm	36 fps	IMX900	Sony Pregius S	global	Color | Mono
Vix 47GX568-I67	5.0	2448 x 2048	1/1.8"	2.74 µm	23 fps	IMX568	Sony Pregius S	global	Color | Mono
Vix 47GR0521-I67	5.0	2592 x 1944	1/2.5"	2.2 µm	22 fps	AR0521	onsemi	rolling	Color | Mono
Vix 47GX676-I67	12.5	3536 x 3536	1/1.6"	2.0 µm	9 fps	IMX676	Sony STARVIS 2	rolling	Color | Mono
Vix 47GR2020-I67	19.7	5120 x 3840	1/1.8"	1.4 µm	6 fps	AR2020	onsemi	rolling	Color | Mono

[1] Vix: x = M (= monochrome) or C (= color)

38 Series

USB 3.1, GigE

This Family of Advanced-Feature Cameras Offers the Latest Sensor Technology for Demanding Machine Vision Applications.

RJ-45 or ix Industrial®
Interface Optional

38 Series cameras feature the newest Sony Pregius and Pregius S CMOS global-shutter sensors - the first Sony sensors specifically designed for machine vision applications.

All 38 Series cameras offer advanced feature sets including external trigger control, advanced readout functions (ROI, subsampling readout, multiple-frame set output) as well as image and color processing.

With resolutions of up to 24.5 MP, 38 Series cameras deliver high resolution and exceptional image quality for applications requiring a large field of view (e.g. intelligent traffic systems) as well as in high-speed machine vision applications such as production and factory automation.

Features

- Sony‘s latest Pregius and Pregius S sensors
- Advanced readout and image processing functions
- Resolutions up to 24.5 MP
- Ideal for applications production, automation, and metrology
- Easy integration via USB3 Vision and GigE Vision standards
- Free software tools and SDKs for Windows and Linux

38U Series USB 3.1 Cameras

Dimensions: 29 x 44 x 60 mm Mass: 110 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK 38UX267	8.8	4096 x 2160	1"	3.45 µm	35 fps	IMX267	Sony Pregius	global	Color | Mono
DxK 38UX255	8.8	4096 x 2160	1"	3.45 µm	42 fps	IMX255	Sony Pregius	global	Color | Mono
DxK 38UX304	12.3	4096 x 3000	1.1"	3.45 µm	26 fps	IMX304	Sony Pregius	global	Color | Mono
DxK 38UX253	12.3	4096 x 3000	1.1"	3.45 µm	30 fps	IMX253	Sony Pregius	global	Color | Mono
DxK 38UX542	16.1	5320 x 3032	1.1"	2.74 µm	23 fps	IMX542	Sony Pregius S	global	Color | Mono
DxK 38UX541	20.3	4504 x 4504	1.1"	2.74 µm	18 fps	IMX541	Sony Pregius S	global	Color | Mono
DxK 38UX540	24.5	5320 x 4600	1.2"	2.74 µm	15 fps	IMX540	Sony Pregius S	global	Color | Mono

38G Series GigE Cameras

Dimensions: 29 x 44 x 73 mm Mass: 165 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK 38GX267-a	8.8	4096 x 2160	1"	3.45 µm	13 fps	IMX267	Sony Pregius	global	Color | Mono
DxK 38GX304-a	12.3	4096 x 3000	1.1"	3.45 µm	9 fps	IMX304	Sony Pregius	global	Color | Mono
DxK 38GX542-a	16.1	5320 x 3032	1.1"	2.74 µm	7 fps	IMX542	Sony Pregius S	global	Color | Mono
DxK 38GX541-a	20.3	4504 x 4504	1.1"	2.74 µm	5 fps	IMX541	Sony Pregius S	global	Color | Mono
DxK 38GX540-a	24.5	5320 x 4600	1.2"	2.74 µm	4 fps	IMX540	Sony Pregius S	global	Color | Mono

[1] DxK: x = M (= monochrome) or F (= color)

37U Series

USB 3.1

Cost-Optimized, Standard-Feature Cameras Provide Flexible Customization Options for Integrators and OEMs.

A Series B Series

These streamlined, standard-feature cameras offer a reduced hardware footprint and are equipped with the latest global and rolling-shutter sensors from Sony and onsemi.

The Imaging Source's cost-optimized, single-board, 37 Series family offers several form factor variants (e.g. optional Hirose hardware trigger and I/Os), providing a flexible customization concept for integrators and OEMs.

With frame rates up to 539 fps and resolutions up to 50.3 MP, the robust and compact 37 Series serves as an adaptable platform for a wide range of imaging applications.

Features

- Variety of Sony and onsemi CMOS sensors
- Compact, standard-feature camera for cost-sensitive applications
- Frame rates of up to 539 fps
- Optional hardware trigger and I/O
- Easy integration via USB3 Vision standard
- Ships with Windows and Linux software

37AU Series Cameras

Dimensions: 36 x 36 x 25 mm Mass: 70 g **Dimensions: 42 x 42 x 25 mm Mass: 76 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK 37AUX287	0.4	720 x 540	1/2.9"	6.9 µm	539 fps	IMX287	Sony Pregius	global	Color | Mono
DxK 37AUX273	1.6	1440 x 1080	1/2.9"	3.45 µm	238 fps	IMX273	Sony Pregius	global	Color | Mono
DFK 37AUX462	2.1	1920 x 1080	1/2.8"	2.9 µm	143 fps	IMX462	Sony STARVIS	rolling	Color | -
DxK 37AUX290	2.1	1920 x 1080	1/2.8"	2.9 µm	143 fps	IMX290	Sony STARVIS	rolling	Color | Mono
DxK 37AUR0234	2.3	1920 x 1200	1/2.6"	3.0 µm	100 fps	AR0234	onsemi	global	Color | Mono
DxK 37AUX252**	3.1	2048 x 1536	1/1.8"	3.45 µm	119 fps	IMX252	Sony Pregius	global	Color | Mono
DxK 37AUX265**	3.1	2048 x 1536	1/1.8"	3.45 µm	60 fps	IMX265	Sony Pregius	global	Color | Mono
DxK 37AUX568	5.0	2448 x 2048	1/1.8"	2.74 µm	74 fps	IMX568	Sony Pregius S	global	Color | Mono
DxK 37AUR0521	5.0	2592 x 1944	1/2.5"	2.2 µm	60 fps	AR0521	onsemi	rolling	Color | Mono
DxK 37AUX250**	5.0	2448 x 2048	2/3"	3.45 µm	75 fps	IMX250	Sony Pregius	global	Color | Mono
DxK 37AUX264**	5.0	2448 x 2048	2/3"	3.45 µm	75 fps	IMX264	Sony Pregius	global	Color | Mono
DxK 37AUX178	6.3	3072 x 2048	1/1.8"	2.4 µm	60 fps	IMX178	Sony STARVIS	rolling	Color | Mono
DxK 37AUX226	12.0	4000 x 3000	1/1.7"	1.85 µm	30 fps	IMX226	Sony STARVIS	rolling	Color | Mono
DxK 37AUR2020	20.0	5120 x 3840	1/1.8"	1.4 µm	19 fps	AR2020	onsemi	rolling	Color | Mono

37BU Series Cameras (with Hardware Trigger)

Dimensions: 36 x 36 x 25 mm Mass: 70 g **Dimensions: 42 x 42 x 25 mm Mass: 76 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK 37BUX287	0.4	720 x 540	1/2.9"	6.9 µm	539 fps	IMX287	Sony Pregius	global	Color | Mono
DxK 37BUX273	1.6	1440 x 1080	1/2.9"	3.45 µm	238 fps	IMX273	Sony Pregius	global	Color | Mono
DFK 37BUX462	2.1	1920 x 1080	1/2.8"	2.9 µm	143 fps	IMX462	Sony STARVIS	rolling	Color | -
DxK 37BUX290	2.1	1920 x 1080	1/2.8"	2.9 µm	143 fps	IMX290	Sony STARVIS	rolling	Color | Mono
DxK 37BUR0234	2.3	1920 x 1200	1/2.6"	3.0 µm	100 fps	AR0234	onsemi	global	Color | Mono
DxK 37BUX252**	3.1	2048 x 1536	1/1.8"	3.45 µm	119 fps	IMX252	Sony Pregius	global	Color | Mono
DxK 37BUX265**	3.1	2048 x 1536	1/1.8"	3.45 µm	60 fps	IMX265	Sony Pregius	global	Color | Mono
DxK 37BUX568	5.0	2448 x 2048	1/1.8"	2.74 µm	74 fps	IMX568	Sony Pregius S	global	Color | Mono
DxK 37BUR0521	5.0	2592 x 1944	1/2.5"	2.2 µm	60 fps	AR0521	onsemi	rolling	Color | Mono
DxK 37BUX250**	5.0	2448 x 2048	2/3"	3.45 µm	75 fps	IMX250	Sony Pregius	global	Color | Mono
DxK 37BUX264**	5.0	2448 x 2048	2/3"	3.45 µm	75 fps	IMX264	Sony Pregius	global	Color | Mono
DxK 37BUX178	6.3	3072 x 2048	1/1.8"	2.4 µm	60 fps	IMX178	Sony STARVIS	rolling	Color | Mono
DxK 37BUX226	12.0	4000 x 3000	1/1.7"	1.85 µm	30 fps	IMX226	Sony STARVIS	rolling	Color | Mono
DxK 37BUR2020	20.0	5120 x 3840	1/1.8"	1.4 µm	19 fps	AR2020	onsemi	rolling	Color | Mono
DxK 37BUX06A	50.3	8192 x 6144	1/0.98"	1.6 µm	7.5 fps	IMX06A	Sony	rolling	Color | Mono

[1] DxK: x = M (= monochrome) or F (= color)

33U Series

USB 3.0

With Our Widest Selection of CMOS Sensors, These Compact, Fully Featured Industrial Cameras Deliver Outstanding Sensitivity and Image Quality.

The Imaging Source's 33 Series portfolio offers the widest selection of global and rolling shutter CMOS sensors from Sony and onsemi.

With resolutions from 0.4 MP to 20 MP (frame rates up to 539 fps - more when using ROIs), this fully featured camera series delivers a value-driven imaging solution for nearly every machine vision application.

Also available with a GigE interface, these area-scan industrial cameras deliver high-performance imaging in a lightweight and compact form factor.

Features

- Broadest portfolio of global and rolling shutter sensors
- High frame rates (up to 539 fps)
- Exceptionally sensitive, low-noise imaging
- Compact form factor: 29 x 29 x 43 mm (65 g)
- ROIs, trigger and I/Os
- Free software tools and SDKs for Windows and Linux

33U Series USB 3.0 Cameras

Dimensions: 29 x 29 x 43 mm Mass: 65 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK 33UX287	0.4	720 x 540	1/2.9"	6.9 µm	539 fps	IMX287	Sony Pregius	global	Color | Mono
DxK 33UP1300	1.3	1280 x 1024	1/2"	4.8 µm	210 fps	P1300	onsemi	global	Color | Mono
DxK 33UX273	1.6	1440 x 1080	1/2.9"	3.45 µm	238 fps	IMX273	Sony Pregius	global	Color | Mono
DFK 33UX462	2.1	1920 x 1080	1/2.8"	2.9 µm	143 fps	IMX462	Sony STARVIS	rolling	Color | -
DxK 33UX290	2.1	1920 x 1080	1/2.8"	2.9 µm	143 fps	IMX290	Sony STARVIS	rolling	Color | Mono
DxK 33UX174	2.3	1920 x 1200	1/1.2"	5.86 µm	162 fps	IMX174	Sony Pregius	global	Color | Mono
DxK 33UX249	2.3	1920 x 1200	1/1.2"	5.86 µm	48 fps	IMX249	Sony Pregius	global	Color | Mono
DxK 33UR0234	2.3	1920 x 1200	1/2.6"	3.0 µm	100 fps	AR0234	onsemi	global	Color | Mono
DxK 33UX265	3.1	2048 x 1536	1/1.8"	3.45 µm	60 fps	IMX265	Sony Pregius	global	Color | Mono
DxK 33UX252	3.1	2048 x 1536	1/1.8"	3.45 µm	120 fps	IMX252	Sony Pregius	global	Color | Mono
DxK 33UX264	5.0	2448 x 2048	2/3"	3.45 µm	38 fps	IMX264	Sony Pregius	global	Color | Mono
DxK 33UR0521	5.0	2592 x 1944	1/2.5"	2.2 µm	60 fps	AR0521	onsemi	rolling	Color | Mono
DYK 33UX250	5.0	2448 x 2048	2/3"	3.45 µm	75 fps	IMX250MYR	Sony Polarsens	global	Color | -
DZK 33UX250	5.0	2448 x 2048	2/3"	3.45 µm	75 fps	IMX250MZR	Sony Polarsens	global	- | Mono
DxK 33UX547	5.0	2448 x 2048	1/1.8"	2.74 µm	74 fps	IMX547	Sony Pregius S	global	Color | Mono
DxK 33UX250	5.0	2448 x 2048	2/3"	3.45 µm	75 fps	IMX250	Sony Pregius	global	Color | Mono
DxK 33UX178	6.3	3072 x 2048	1/1.8"	2.4 µm	60 fps	IMX178	Sony STARVIS	rolling	Color | Mono
DxK 33UX546	8.1	2840 x 2840	2/3"	2.74 µm	46 fps	IMX546	Sony Pregius S	global	Color | Mono
DxK 33UX226	12.0	4000 x 3000	1/1.7"	1.85 µm	30 fps	IMX226	Sony STARVIS	rolling	Color | Mono
DxK 33UX545	12.3	4096 x 3000	1/1.1"	2.74 µm	30 fps	IMX545	Sony Pregius S	global	Color | Mono
DxK 33UX183	20.0	5472 x 3648	1"	2.4 µm	18 fps	IMX183	Sony Exmor	rolling	Color | Mono

[1] DxK: x = M (= monochrome) or F (= color)

33G Series

GigE

With Our Widest Selection of CMOS Sensors, These Compact, Fully Featured Industrial Cameras Deliver Outstanding Sensitivity and Image Quality.

The Imaging Source's 33 Series portfolio offers the widest selection of global and rolling shutter CMOS sensors from Sony and onsemi.

With resolutions from 0.4 MP to 20 MP (frame rates up to 300 fps - more when using ROIs), this fully featured camera series delivers a value-driven imaging solution for nearly every machine vision application.

Also available with a USB 3.0 interface, these area-scan industrial cameras deliver high-performance imaging in a lightweight and compact form factor.

Features

- Broadest portfolio of global and rolling shutter sensors
- High frame rates and excellent image quality
- Compact form factor: 29 x 29 x 57 mm (65 g)
- Cable lengths of up to 100 m
- ROIs, trigger and I/Os
- Free software tools and SDKs for Windows and Linux

33G Series GigE Cameras

Dimensions: 29 x 29 x 57 mm Mass: 65 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK 33GX287	0.4	720 x 540	1/2.9"	6.9 µm	300 fps	IMX287	Sony Pregius	global	Color | Mono
DxK 33GR0134	1.2	1280 x 960	1/3"	3.75 µm	70 fps	AR0134	onsemi	global	Color | Mono
DxK 33GP1300	1.3	1280 x 1024	1/2"	4.8 µm	90 fps	P1300	onsemi	global	Color | Mono
DxK 33GX273	1.6	1440 x 1080	1/2.9"	3.45 µm	75 fps	IMX273	Sony Pregius	global	Color | Mono
DFK 33GX462	2.1	1920 x 1080	1/2.8"	2.9 µm	56 fps	IMX462	Sony STARVIS	rolling	Color | -
DxK 33GX290	2.1	1920 x 1080	1/2.8"	2.9 µm	56 fps	IMX290	Sony STARVIS	rolling	Color | Mono
DxK 33GX174	2.3	1920 x 1200	1/1.2"	5.86 µm	50 fps	IMX174	Sony Pregius	global	Color | Mono
DxK 33GX249	2.3	1920 x 1200	1/1.2"	5.86 µm	30 fps	IMX249	Sony Pregius	global	Color | Mono
DxK 33GR0234	2.3	1920 x 1200	1/2.6"	3.0 µm	50 fps	AR0234	onsemi	global	Color | Mono
DxK 33GX265	3.1	2048 x 1536	1/1.8"	3.45 µm	36 fps	IMX265	Sony Pregius	global	Color | Mono
DxK 33GX547	5.0	2448 x 2048	1/1.8"	2.74 µm	24 fps	IMX547	Sony Pregius S	global	Color | Mono
DxK 33GX264	5.0	2448 x 2048	2/3"	3.45 µm	24 fps	IMX264	Sony Pregius	global	Color | Mono
DxK 33GR0521	5.0	2592 x 1944	1/2.5"	2.2 µm	22 fps	AR0521	onsemi	rolling	Color | Mono
DYK 33GX250	5.0	2448 x 2048	2/3"	3.45 µm	24 fps	IMX250MYR	Sony Polarsens	global	Color | -
DZK 33GX250	5.0	2448 x 2048	2/3"	3.45 µm	24 fps	IMX250MZR	Sony Polarsens	global	- | Mono
DxK 33GX178	6.3	3072 x 2048	1/1.8"	2.4 µm	19 fps	IMX178	Sony STARVIS	rolling	Color | Mono
DxK 33GX546	8.1	2840 x 2840	2/3"	2.74 µm	14 fps	IMX546	Sony Pregius S	global	Color | Mono
DxK 33GX226	12.0	4000 x 3000	1/1.7"	1.85 µm	9 fps	IMX226	Sony STARVIS	rolling	Color | Mono
DxK 33GX545	12.3	4096 x 3000	1/1.1"	2.74 µm	9 fps	IMX545	Sony Pregius S	global	Color | Mono
DxK 33GX183	20.0	5472 x 3648	1"	2.4 µm	6 fps	IMX183	Sony Exmor	rolling	Color | Mono

[1] DxK: x = M (= monochrome) or F (= color)

32U Series

USB 2.0

Robust Industrial Cameras Optimized for Lean Applications

A Series B Series

The Imaging Source's next generation of USB 2.0 industrial cameras, the 32U Series, builds on the foundation of our popular One4All cameras. The cameras' compact, industrial-grade housing is designed for demanding industrial environments. The cameras offer modern camera architecture while preserving the simplicity and affordability of the legacy One4All series and so are ideal replacements for our popular One4All USB 2.0 camera models.

Equipped with onsemi CMOS sensors, 32U Series industrial cameras are designed for cost-sensitive OEM and streamlined image processing tasks. The cameras offer advanced imaging features such as binning, ROI selection, and in-camera AE/AWB, ensuring precise control and adaptability for diverse industrial imaging applications. Specific model variants are available with opto-isolated trigger inputs, and I/O capabilities. For applications with space constraints or specific integration needs, board-level variants with standard and angled connector options are also available.

Features

- Feature-enhanced replacements for popular One4All (2U) series
- Variety of onsemi CMOS sensor: 0.4 to 5 MP
- Trigger and I/O
- Modern camera architecture with USB 2.0 interface
- Free software tools and SDKs for Windows and Linux

32AU Series Cameras

Dimensions: 36 x 36 x 25 mm Mass: 70 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK 32AUVR024	0.4	744 x 480	1/3"	6.0 µm*	89 fps	AR0234	onsemi	global	Color | Mono
DxK 32AUR0234	2.3	1920 x 1200	1/2.6"	3.0 µm	13 fps	AR0234	onsemi	global	Color | Mono
DxK 32AUR0521	5.0	2592 x 1944	1/2.5"	2.2 µm	6 fps	AR0521	onsemi	rolling	Color | Mono

* permanently binned from raw 3.0 µm

32BU Series Cameras (with Hardware Trigger)

Dimensions: 36 x 36 x 25 mm Mass: 70 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK 32BUVR024	0.4	744 x 480	1/3"	6.0 µm*	89 fps	AR0234	onsemi	global	Color | Mono
DxK 32BUR0234	2.3	1920 x 1200	1/2.6"	3.0 µm	13 fps	AR0234	onsemi	global	Color | Mono
DxK 32BUR0521	5.0	2592 x 1944	1/2.5"	2.2 µm	6 fps	AR0521	onsemi	rolling	Color | Mono

* permanently binned from raw 3.0 µm

[1] DxK: x = M (= monochrome) or F (= color)

37U Series

USB 3.1

These Single-Board Cameras Provide Superb Imaging and Maximum Flexibility for Space-Limited Applications.

Angled Connector [2]

As with the 37 Series industrial cameras, these board-level versions feature Sony's STARVIS and Pregius sensors - the first sensors developed by Sony especially for industrial applications.

These USB3-Vision and GenICam-compliant, board-level cameras deliver excellent image quality suitable for demanding machine vision tasks - making them a cost-effective solution for a range of applications such as intelligent traffic systems (ITS), optical inspection, medical engineering, logistics and more.

The cameras' small footprint (with PCB dimensions as small as 30 x 30 x 15 mm) and reversible Type-C port allow for easy integration into space-constrained designs.

Features

- Variety of Sony and onsemi CMOS sensors
- Small footprint: 30 x 30 x 15 mm
- Frame rates of up to 539 fps
- For additional connector options please contact us
- USB3 Vision and GenICam compliant
- Free software tools and SDKs for Windows and Linux

37U Series Board-Level Cameras

Dimensions: 30 x 30 x 15 mm Mass: 7 g
**Dimensions: 36 x 36 x 15 mm Mass: 7 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxM 37UX287-ML	0.4	720 x 540	1/2.9"	6.9 µm	539 fps	IMX287	Sony Pregius	global	Color | Mono
DxM 37UX273-ML	1.6	1440 x 1080	1/2.9"	3.45 µm	238 fps	IMX273	Sony Pregius	global	Color | Mono
DFM 37UX462-ML	2.1	1920 x 1080	1/2.8"	2.9 µm	143 fps	IMX462	Sony STARVIS	rolling	Color | -
DxM 37UX290-ML	2.1	1920 x 1080	1/2.8"	2.9 µm	143 fps	IMX290	Sony STARVIS	rolling	Color | Mono
DxM 37UR0234-ML	2.3	1920 x 1200	1/2.6"	3.0 µm	100 fps	AR0234	onsemi	global	Color | Mono
DxM 37UX265-ML**	3.1	2048 x 1536	1/1.8"	3.45 µm	60 fps	IMX265	Sony Pregius	global	Color | Mono
DxM 37UX252-ML**	3.1	2048 x 1536	1/1.8"	3.45 µm	119 fps	IMX252	Sony Pregius	global	Color | Mono
DxM 37UX568-ML	5.0	2448 x 2048	1/1.8"	2.74 µm	74 fps	IMX568	Sony Pregius S	global	Color | Mono
DxM 37UX264-ML**	5.0	2448 x 2048	2/3"	3.45 µm	38 fps	IMX264	Sony Pregius	global	Color | Mono
DxM 37UR0521-ML	5.0	2592 x 1944	1/2.5"	2.2 µm	60 fps	AR0521	onsemi	rolling	Color | Mono
DxM 37UX250-ML**	5.0	2448 x 2048	2/3"	3.45 µm	75 fps	IMX250	Sony Pregius	global	Color | Mono
DxM 37UX178-ML	6.3	3072 x 2048	1/1.8"	2.4 µm	60 fps	IMX178	Sony STARVIS	rolling	Color | Mono
DxM 37UX226-ML	12.0	4000 x 3000	1/1.7"	1.85 µm	30 fps	IMX226	Sony STARVIS	rolling	Color | Mono
DxM 37UR2020-ML	20.0	5120 x 3840	1/1.8"	1.4 µm	19 fps	AR2020	onsemi	rolling	Color | Mono

[1] DxM: x = M (= monochrome) or F (= color)

[2] Available upon request. Please contact our sales team.

32U Series

USB 2.0

Single-Board Cameras Optimized for Lean Applications and OEM Integration

Angled Connector [2]

Introducing the next generation of USB 2.0 cameras: The 32U Series. These compact, single-board cameras are ideal replacements for our popular One4All USB 2.0 board camera models, offering modern camera architecture while preserving the simplicity and affordability of the legacy One4All series.

Equipped with onsemi CMOS sensors, the 32U Series is designed for cost-sensitive OEM and streamlined image processing tasks. Available with angled connectors, 32U Series board cameras provide maximum flexibility in a wide range of space-constrained applications.

Camera features such as opto-isolated trigger inputs, comprehensive I/O capabilities, and enhanced imaging functions such as binning, ROI selection, and in-camera AE/AWB ensure precise control and high flexibility, making the cameras suitable for a variety of industrial imaging applications. The camera series is also available in a housed form factor.

Features

- Feature-enhanced replacements for One4All (2U) Series
- Variety of onsemi CMOS sensors: 0.4 to 5 MP
- Trigger and I/O
- Modern camera architecture with USB 2.0 interface
- Free software tools and SDKs for Windows and Linux

32U Series Board-Level Cameras

Dimensions: 30 x 30 x 15 mm Mass: 7 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxM 32UVR024-ML	0.4	744 x 480	1/3"	6.0 µm*	89 fps	AR0234	onsemi	global	Color | Mono
DxM 32UR0234-ML	2.3	1920 x 1200	1/2.6"	3.0 µm	13 fps	AR0234	onsemi	global	Color | Mono
DxM 32UR0521-ML	5.0	2592 x 1944	1/2.5"	2.2 µm	6 fps	AR0521	onsemi	rolling	Color | Mono

* permanently binned from raw 3.0 µm

32U Series Board-Level Cameras (Angled Connector)

Dimensions: 30 x 30 x 15 mm Mass: 7 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxM 32UVR024-MLA	0.4	744 x 480	1/3"	6.0 µm*	89 fps	AR0234	onsemi	global	Color | Mono
DxM 32UR0234-MLA	2.3	1920 x 1200	1/2.6"	3.0 µm	13 fps	AR0234	onsemi	global	Color | Mono
DxM 32UR0521-MLA	5.0	2592 x 1944	1/2.5"	2.2 µm	6 fps	AR0521	onsemi	rolling	Color | Mono

* permanently binned from raw 3.0 µm

[1] DxM: x = M (= monochrome) or F (= color)

[2] Available upon request. Please contact our sales team.

47G Series

GigE Board Cameras

Ultra-Compact, GigE Board-Level Cameras for Cost-Sensitive and OEM Applications

The Imaging Source's new GigE board-level cameras feature a single-board design with an angled RJ45 connector, delivering an especially compact form factor, measuring just 36 x 36 x 18 mm. These GigE Vision cameras are easily integrated into a wide variety of industrial automation, quality assurance and surveillance applications.

With robust data transmission and support for cable lengths up to 100 meters, the GigE board-level cameras ensure stable connectivity and flexible positioning in diverse environments. Equipped with the latest onsemi and Sony* CMOS sensors, these cameras also feature performance enhancements such as in-camera image preprocessing, trigger and GPIO.

GigE VISION

Features

- Cost-optimized imaging solution
- Variety of Sony and onsemi CMOS sensors available
- Trigger and I/O
- Compact form factor: Single-board design with angled RJ45 connector
- Free software tools and SDKs for Windows and Linux

47G Series for Mini-Lens Holder

Dimensions: 36 x 36 x 18 mm Mass: 12 g w/o PoE, 20 g w/ PoE

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	PoE	Color | Mono
DxM 47GX900-ML	3.1	2048 x 1536	1/3.1"	2.25 µm	35 fps	IMX900	Sony Pregius S	global	-	Color | Mono
DxM 47GX900-MLP	3.1	2048 x 1536	1/3.1"	2.25 µm	35 fps	IMX900	Sony Pregius S	global	X	Color | Mono
DxM 47GR0521-ML	5.0	2592 x 1944	1/2.5"	2.2 µm	22 fps	AR0521	onsemi	rolling	-	Color | Mono
DxM 47GR0521-MLP	5.0	2592 x 1944	1/2.5"	2.2 µm	22 fps	AR0521	onsemi	rolling	X	Color | Mono
DxM 47GX568-ML	5.0	2448 x 2048	1/1.8"	2.74 µm	24 fps	IMX568	Sony Pregius S	global	-	Color | Mono
DxM 47GX568-MLP	5.0	2448 x 2048	1/1.8"	2.74 µm	24 fps	IMX568	Sony Pregius S	global	X	Color | Mono
DxM 47GX676-ML	12.5	3536 x 3536	1/1.6"	2.0 µm	9 fps	IMX676	Sony STARVIS 2	rolling	-	Color | Mono
DxM 47GX676-MLP	12.5	3536 x 3536	1/1.6"	2.0 µm	9 fps	IMX676	Sony STARVIS 2	rolling	X	Color | Mono
DxM 47GR2020-ML	19.7	5120 x 3840	1/1.8"	1.4 µm	6 fps	AR2020	onsemi	rolling	-	Color | Mono
DxM 47GR2020-MLP	19.7	5120 x 3840	1/1.8"	1.4 µm	6 fps	AR2020	onsemi	rolling	X	Color | Mono

47G Series with C-Mount Front Plate

Dimensions: 39 x 39 x 33 mm Mass: 38 g w/o PoE, 46 g w/ PoE

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	PoE	Color | Mono
DxM 47GX900	3.1	2048 x 1536	1/3.1"	2.25 µm	35 fps	IMX900	Sony Pregius S	global	-	Color | Mono
DxM 47GX900-P	3.1	2048 x 1536	1/3.1"	2.25 µm	35 fps	IMX900	Sony Pregius S	global	X	Color | Mono
DxM 47GR0521	5.0	2592 x 1944	1/2.5"	2.2 µm	22 fps	AR0521	onsemi	rolling	-	Color | Mono
DxM 47GR0521-P	5.0	2592 x 1944	1/2.5"	2.2 µm	22 fps	AR0521	onsemi	rolling	X	Color | Mono
DxM 47GX568	5.0	2448 x 2048	1/1.8"	2.74 µm	24 fps	IMX568	Sony Pregius S	global	-	Color | Mono
DxM 47GX568-P	5.0	2448 x 2048	1/1.8"	2.74 µm	24 fps	IMX568	Sony Pregius S	global	X	Color | Mono
DxM 47GX676	12.5	3536 x 3536	1/1.6"	2.0 µm	9 fps	IMX676	Sony STARVIS 2	rolling	-	Color | Mono
DxM 47GX676-P	12.5	3536 x 3536	1/1.6"	2.0 µm	9 fps	IMX676	Sony STARVIS 2	rolling	X	Color | Mono
DxM 47GR2020	19.7	5120 x 3840	1/1.8"	1.4 µm	6 fps	AR2020	onsemi	rolling	-	Color | Mono
DxM 47GR2020-P	19.7	5120 x 3840	1/1.8"	1.4 µm	6 fps	AR2020	onsemi	rolling	X	Color | Mono

[1] DxM: x = M (= monochrome) or F (= color)

36S Series

MIPI® CSI-2 Single-Board Modules

Direct Camera-to-Processor Connection for Exceptionally Efficient and Compact Embedded Vision Solutions

This compact camera module for embedded vision offers a reliable and efficient sensor-to-ISP connection supporting up to four image data lanes with a total throughput of up to 10 Gb/sec and is compatible with NVIDIA Jetson Orin, NXP and Raspberry Pi 5.

The Imaging Source offers a broad portfolio of rolling and global shutter sensors from Sony and onsemi for the MIPI CSI-2 standard with resolutions from 0.4 MP - 20 MP. Advanced features, triggering and form-factor options provide maximum flexibility for embedded vision projects.

Contact us to discuss your imaging requirements and explore the possibilities of embedded vision in your imaging application.

22-Pin Single-Board Camera Module

Features

- Resolutions: 0.4 - 20 MP; frame rates up to 120 fps
- Sony and onsemi sensors: Global and rolling shutter
- Low latency: Direct sensor-to-processor connection
- 22-pin interface: Compatible with most processor boards
- Low power consumption
- Long-term availability

36S Series MIPI CSI-2: Single-Board Modules

Dimensions: 30 x 30 x 6 mm Mass: 4 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxM 36SX297-ML	0.4	720 x 540	1/2.9"	6.9 µm	120 fps	IMX297	Sony Pregius	global	Color | Mono
DxM 36SX296-ML	1.6	1440 x 1080	1/2.9"	3.45 µm	60 fps	IMX296	Sony Pregius	global	Color | Mono
DxM 36SX462-ML	2.1	1920 x 1080	1/2.8"	2.9 µm	120 fps	IMX462	Sony STARVIS	rolling	Color | Mono
DxM 36SX290-ML	2.1	1920 x 1080	1/2.8"	2.9 µm	120 fps	IMX290	Sony STARVIS	rolling	Color | Mono
DxM 36SR0234-ML*	2.3	1920 x 1200	1/2.6"	3.0 µm	120 fps	AR0234CS	onsemi	global	Color | Mono
DxM 36SX900-ML	3.2	2048 x 1536	1/3.1"	2.25 µm	113 fps	IMX900	Sony Pregius S	global	Color | Mono
DxM 36SX568-ML	5.0	2448 x 2048	1/1.8"	2.74 µm	60 fps	IMX568	Sony Pregius S	global	Color | Mono
DxM 36SR0521-ML**	5.0	2592 x 1944	1/2.5"	2.2 µm	60 fps	AR0521	onsemi	rolling	Color | Mono
DxM 36SR0822-ML*	8.3	3840 x 2160	1/1.8"	2.0 µm	60 fps	AR0822	onsemi	rolling	Color | Mono
DxM 36SX676-ML*	12.5	3536 x 3536	1/1.6"	2.0 µm	60 fps	IMX676	Sony STARVIS 2	rolling	Color | Mono
DxM 36SR2020-ML*	19.7	5120 x 3840	1/1.8"	1.4 µm	30 fps	AR2020	onsemi	rolling	Color | Mono

* Available for NVIDIA Orin Reference Designs

** Available on request for volume projects

[1] DxM: x = M (= monochrome) or F (= color)

Acuva Series

GMSL2

Rugged, High-Speed GMSL2 IP67 Cameras

Acuva, The Imaging Source's first camera series featuring a GMSL2 interface, combines high-speed data transfer, extended cable lengths, IP67-rated housing, and a comprehensive accessory ecosystem to simplify embedded vision integration in demanding industrial environments.

With data rates up to 6 Gbps, the cameras enable reliable, low-latency image transmission and simplified cabling via Power over Coax (PoC) over distances of up to 15 meters.

To minimize development effort and integration risk, TIS offers a complete GMSL2 ecosystem featuring reference designs for NVIDIA Jetson Orin NX/Nano, IP67 coaxial cabling, M12 lenses, and 4-channel deserializer boards. The solution is validated for use with embedded IPC platforms including Neousys NRU and Connect Tech Rudi-N systems.

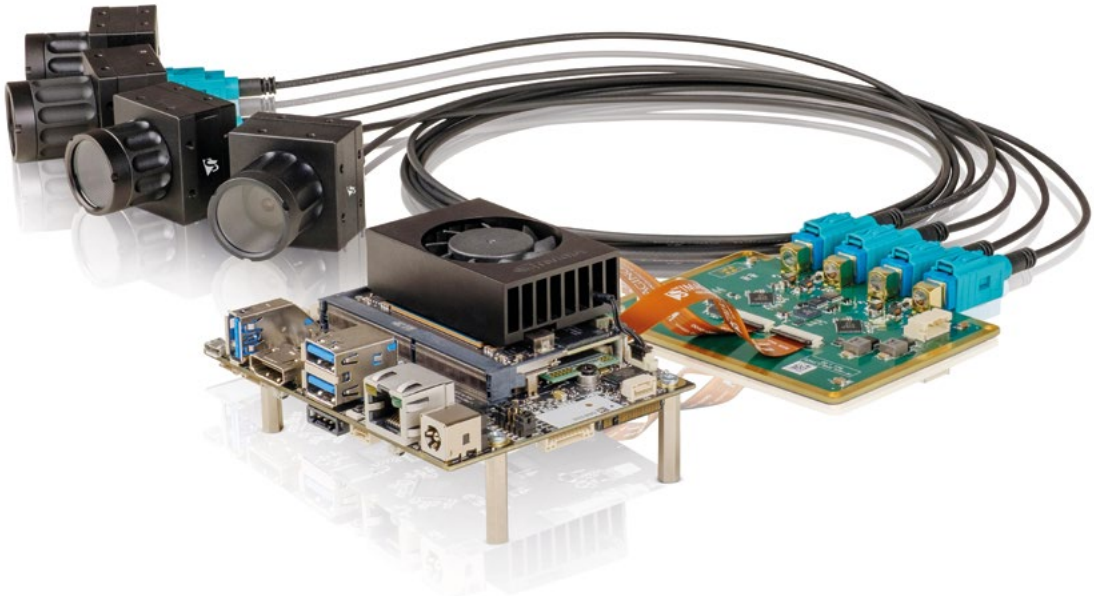
Features

- Resolution up to 19.7 MP; frame rates up to 117 fps
- Sony and onsemi sensors: Global and rolling shutter
- Compatible with The Imaging Source's NVIDIA® Jetson Orin™ Reference Designs via a deserializer board
- Compatible with third-party IPCs from trusted partners Neousys Technology (NRU-230V-AWP, NRU-160-AWP, NRU-51V, FLYC-300), AAEON (BOXER-8645AI), PCB ARTS (Helium), ConnectTech (Rudi-NX) and Qualcomm (Dragonwing RB3 Gen 2)

Acuva Series GMSL2 IP67 Cameras

Dimensions: 36 x 36 x 60.3 mm Mass: 80 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
Acx 36DX900	3.1	2048 x 1536	1/3.1"	2.25 µm	117 fps	IMX900	Sony Pregius S	global	Color | Mono
Acx 36DX568-I67	5.0	2448 x 2048	1/1.8"	2.74 µm	50 fps	IMX568	Sony Pregius S	global	Color | Mono
Acx 36DR2020-I67	19.7	5120 x 3840	1/1.8"	1.4 µm	14 fps	AR2020	onsemi	rolling	Color | Mono



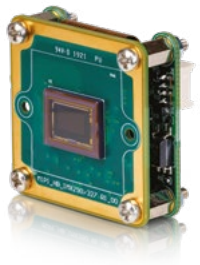
Reference Design (see page 52):
Carrier board with NVIDIA Jetson Orin NX/Nano SoM
and up to four Acuva GMSL2 IP67 cameras

[1] Acx: x = M (= monochrome) or C (= color)

36C Series

FPD-Link® III

FPD-Link III Cameras Offer the Full Functionality of MIPI® CSI-2 Cameras and Allow for Cable Lengths of Up to 15 m.



Board Module

IP67 Camera

For embedded vision applications requiring cable lengths between sensor and computer platform of up to 15m, The Imaging Source offers FPD-Link III cameras (SerDes cameras) in several form factors. Image data, commands for triggers and I/Os as well as power supply are transmitted via a thin coaxial cable. The Imaging Source also offers adapter boards, serializers and deserializers to connect cameras to the desired target platform.

FPD-Link III cameras are suitable for both single and multi-camera applications in automotive, IoT and general machine-vision applications. The Imaging Source‘s FPD-Link III cameras feature the latest CMOS image sensors from onsemi and Sony (global and rolling shutter) and are compatible with a wide range of M12 lenses.

Features

- High bandwidth and long-distance transmission: SerDes technology enables high-speed data transmission over long distances of up to 15 m.
- Low power consumption: SerDes cameras are engineered to operate with low power consumption -ideal for systems with strict power constraints.
- Multi-camera systems: SerDes technology offers scalability, allowing for easy integration of multiple cameras.
- Form factor: Bare-board or IP67 housing cameras.
- Free SDKs and end-user software: Complete driver packages for NVIDIA JetPack and IC Imaging Control 4 SDK

36C Series FPD-Link III Board Modules

Dimensions: 30 x 30 x 27.5 mm Mass: 12 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxM 36CX297-ML	0.4	720 x 540	1/2.9"	6.9 µm	120 fps	IMX297	Sony Pregius	global	Color | Mono
DxM 36CX296-ML	1.6	1140 x 1080	1/2.9"	3.45 µm	60 fps	IMX296	Sony Pregius	global	Color | Mono
DFM 36CX462-ML	2.1	1920 x 1080	1/2.8"	2.9 µm	60 fps	IMX462	Sony STARVIS	rolling	Color | -
DxM 36CX290-ML	2.1	1920 x 1080	1/2.8"	2.9 µm	60 fps	IMX290	Sony STARVIS	rolling	Color | Mono
DxM 36CR0234-ML	2.3	1920 x 1200	1/2.6"	3.0 µm	100 fps	AR0234CS	onsemi	global	Color | Mono
DFM 36CX390-ML	2.3	1920 x 1200	1/2.6"	3.0 µm	50 fps	IMX390	Sony	rolling	Color | -
DxM 36CX335-ML	5.0	2592 x 1944	1/2.8"	2.0 µm	30 fps	IMX335	Sony STARVIS	rolling	Color | Mono

36C Series FPD-Link III IP67 Cameras

Dimensions: 36 x 36 x 60.3 mm Mass: 80 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK 36CX297-I67	0.4	720 x 540	1/2.9"	6.9 µm	120 fps	IMX297	Sony Pregius	global	Color | Mono
DxK 36CX296-I67	1.6	1140 x 1080	1/2.9"	3.45 µm	60 fps	IMX296	Sony Pregius	global	Color | Mono
DFK 36CX462-I67	2.1	1920 x 1080	1/2.8"	2.9 µm	60 fps	IMX462	Sony STARVIS	rolling	Color | -
DxK 36CX290-I67	2.1	1920 x 1080	1/2.8"	2.9 µm	60 fps	IMX290	Sony STARVIS	rolling	Color | Mono
DxK 36CR0234-I67	2.3	1920 x 1200	1/2.6"	3.0 µm	100 fps	AR0234CS	onsemi	global	Color | Mono
DFK 36CX390-I67	2.3	1920 x 1200	1/2.6"	3.0 µm	50 fps	IMX390	Sony	rolling	Color | -
DxK 36CX335-I67	5.0	2592 x 1944	1/2.8"	2.0 µm	30 fps	IMX335	Sony STARVIS	rolling	Color | Mono

[1] DxM / DxK: x = M (= monochrome) or F (= color)

Z Series

GigE Zoom Cameras

Maintain Perfect Resolution Even When Imaging Objects of Varying Sizes and Distances With Z Series Zoom Cameras.

Z Series Z20 Z Series Z12

The Imaging Source's Z Series optical zoom cameras provide a flexible solution ideal for dynamic imaging needs.

Featuring an integrated motorized lens for software-controlled adjustment of focal length (zoom), aperture and focus, the cameras capture consistently sharp images even when object size fluctuates or multiple images at varying magnifications are needed.

The optical zoom cameras are available with a selection of global and rolling shutter sensors, providing a robust imaging solution for machine vision applications in industrial automation, quality assurance, in-line inspection, traffic (ITS), and surveillance.

Features

- Integrated motorized zoom, focus, and iris
- Cable lengths up to 100 m
- ROIs, trigger and I/Os
- Free software tools and SDKs for Windows and Linux
- Average time for doubling/halving focal length:
  39G-Z20: 800ms; 39G-Z12: 600ms
  Focus adjustment times may vary based on focus distance and zoom setting.

Z Series Z12 Cameras

Dimensions: 50 x 50 x 103 mm Mass: 330 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK 39GR0522-Z12	5.0	2592 x 1944	1/2.5"	2.2 µm	22 fps	AR0522	onsemi	rolling	Color | Mono

Z Series Z20 Cameras

Dimensions: 71 x 71 x 147 mm Mass: 691 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK 39GX265-Z20	3.1	2048 x 1536	1/1.8"	3.45 µm	36 fps	IMX265	Sony Pregius	global	Color | Mono
DxK 39GX548-Z20	5.0	2448 x 2048	1/1.8"	2.74 µm	24 fps	IMX548	Sony Pregius S	global	Color | Mono

Zoom Camera With Filter Adapter

With Filter Adapter

With Red Filter

With Close-Up Lens

With Polarizing Filter

Close-Up Lenses

- At working distances of less than 2 meters, close-up lenses are recommended for certain zoom levels to ensure focus.
- Contact us to discuss filters, filter holders, and close-up lens options for your specific application.

[1] DxK: x = M (= monochrome) or F (= color)

Aptiris and AFU Series

Autofocus: USB

Precise Imaging for Computer Vision and Machine Vision.

In dynamic machine vision environments, maintaining a fixed working distance is not always possible, resulting in blurred images. The Imaging Source's USB 3.1 autofocus cameras ensure focus stability despite these variations via software-driven one-push autofocus, ensuring consistently sharp images even when object distances change.

Equipped with the latest CMOS sensors from onsemi and Sony, Aptiris autofocus cameras deliver outstanding image quality and reliable performance even in low light environments. Their compact form factor and compatibility with USB3 Vision and UVC (USB video class) enable straightforward integration into new or existing systems.

Aptiris combines precision and flexibility for demanding applications in medical and life sciences, laboratory automation, warehouse automation, and logistics.

Aptiris: USB 3.1 AFU: USB 3.0

Features

- Sensors: Latest onsemi and Sony CMOS sensors
- Resolutions: 5 MP to 20 MP with highest image quality
- Frame rates: 19 FPS - 60 FPS
- Interface: USB 3.1 Type-C connector
- Compatibility: USB3 Vision and UVC (USB video class)
- Triggers and I/Os: Hardware and software trigger as well as I/Os for demanding machine vision applications
- Autofocus Function: One-push autofocus produces crisp images despite fluctuations in working distance
- Free software tools and SDKs for Windows and Linux

Aptiris Series USB 3.1 Cameras

Dimensions: 36 x 36 x 33.8 mm

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
Apx 39UR0521-F*	5.0	2592 x 1944	1/2.5"	2.2 µm	60 fps	AR0521	onsemi	rolling	Color | Mono
Apx 39UX568-F*	5.0	2448 x 2048	1/1.8"	2.74 µm	74 fps	IMX568	Sony	global	Color | Mono
Apx 39UR0822-F*	8.3	3840 x 2160	1/1.8"	2.0 µm	45 fps	AR0822	onsemi	rolling	Color | Mono
Apx 39UR2020-F*	19.7	5120 x 3840	1/1.8"	1.4 µm	19 fps	AR2020	onsemi	rolling	Color | Mono

* samples available; mass production expected in Q3 2026

AFU Series USB 3.0 Cameras

Dimensions: 36 x 36 x 30 mm

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DxK AFUX236-M12	2.3	1920 x 1200	1/2.8"	2.8 µm	54 fps	IMX236	Sony	rolling	Color | Mono
DxK AFUX178-M12	6.3	3072 x 2048	1/1.8"	2.4 µm	22 fps	IMX178	Sony	rolling	Color | Mono

AFU Series Cameras (with Integrated Lens)

Dimensions: 36 x 36 x 26 mm

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DFK AFU420-L62	41.5	7728 x 5368	2/3"	1.12 µm	7 fps	6.2 mm	USB 3.0	rolling	Color | -

[1] Apx: x = M (= monochrome) or C (= color)

DxK: x = M (= monochrome) or F (= color)

OEM Cameras

Tailored Industrial Cameras for Customer-Specific Applications

Leverage The Imaging Source's 35 years of expertise in machine vision to develop a camera solution that precisely meets your specific application requirements. The Imaging Source offers two distinct customization options:

OEM Cameras: Select a camera from our standard product portfolio and make minor modifications, such as branding, housing color, or connector configurations, to better align with your project needs.

Custom Cameras: For more specialized applications, we offer fully custom solutions. These involve significant design changes, including alterations to the camera board, optical system, or other core components.

The Imaging Source's OEM and customized camera solutions are guaranteed to meet the same high manufacturing standards as our ready-made cameras.

Features

- Mechanical, hardware, and software modifications
- Board-level or housed cameras
- Custom housing
- Free SDK for camera integration and image processing

Lens and Housing Options for Your Application

Board Without Lens

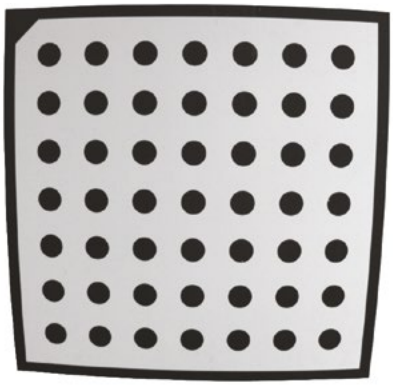
With M12 Mount

With C/CS Mount

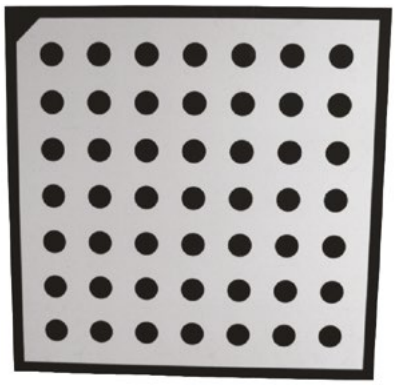
Housed With C/CS Mount

Service: Calibration of Camera Intrinsic Parameters

The Imaging Source offers lens installation, focus adjustment, and camera intrinsic parameter calibration to correct lens distortion, which is common in wide-angle optical systems. These calibrated parameters can be stored on the camera or provided separately, enhancing accuracy in applications like multi-camera stitching, AI, measurement tasks, and robotics.



Unprocessed image: DFK 33GX265 with a 3.5mm lens



After calibration: Same image after processing with intrinsic parameters.

DBK Variant and C-Mount to M12 Adapter (Example)

Color Camera Without IR-Cut-Filter

C-Mount to M12 Adapter

Polarsens and More Cameras

In a Class by Themselves, These Cameras Offer Unique Imaging Solutions to Suit Special Hardware or Imaging Requirements.

Not all visual inspection tasks can be performed with conventional imagers. For such cases, The Imaging Source offers specialized cameras as part of our standard product portfolio.

- USB and GigE cameras with Sony's Polarsens™ sensors to detect stress, reduce glare, and improve image contrast.
- 42 MP imaging for high-resolution quality inspection
- The MKU Ocular Camera is ideal for a wide variety of microscope applications. Product scope includes IC Measure, a user-friendly software that enables archiving, measurement, calibration, and comprehensive camera control.

32U Series USB 2.0

USB 2 board-level cameras with Molex PicoBlade connectors for space-limited applications.

33G Series GigE Cameras With On-Sensor Polarization

Dimensions: 29 x 29 x 57 mm Mass: 65 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DYK 33GX250	5.0	2448 x 2048	2/3"	3.45 µm	24 fps	IMX250MYR	Sony Polarsens	global	Color | -
DZK 33GX250	5.0	2448 x 2048	2/3"	3.45 µm	24 fps	IMX250MZR	Sony Polarsens	global	- | Mono

33U Series USB 3.0 Cameras With On-Sensor Polarization

Dimensions: 29 x 29 x 43 mm Mass: 65 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DYK 33UX250	5.0	2448 x 2048	2/3"	3.45 µm	75 fps	IMX250MYR	Sony Polarsens	global	Color | -
DZK 33UX250	5.0	2448 x 2048	2/3"	3.45 µm	75 fps	IMX250MZR	Sony Polarsens	global	- | Mono

42 Megapixel Camera

Dimensions: 36 x 36 x 26 mm Mass: 70 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DFK AFU420-CCS	41.4	7716 x 5360	2/3"	1.12 µm	7 fps	N/A	N/A	rolling	Color | -

MKU Ocular Camera*

Dimensions: 29 x 29 x 43 mm Mass: 65 g

Product Code [1]	MP	Resolution	Format	Pixel Size	Frame Rate	Sensor	Type	Shutter	Color | Mono
DFK MKU226-10x22	12.0	4000 x 3000	1/2.7"	1.85 µm	30 fps	IMX226CQJ	Sony STARVIS	rolling	Color | -

* Ocular included in product scope.

[1] DxK: x = M (= monochrome) or F (= color)

C-Mount Lenses

High-Performance Lenses for Computer Vision

The Imaging Source's industrial cameras are equipped with either C- or CS-mounts, offering maximum flexibility for a wide range of machine vision applications. We offer an extensive selection of compatible optics that deliver both excellent value and high imaging quality.

The C-Pro Series combines outstanding image quality, a robust mechanical design, and exceptional value for machine vision applications, with resolutions ranging from 6 MP to 25 MP.

For applications demanding top-tier imaging performance, we recommend our C-Ultra Series which are built for ultimate optical performance. It combines advanced optical design and precision manufacturing to achieve the highest image quality in machine vision, with resolutions from 6 MP to 45 MP.

C-Pro Series

C-Ultra Series

Macro Series

Features

- C-Pro Series C-mount lenses offering excellent value and performance
- C-Ultra Series C-mount lenses for ultimate optical performance
- Sensor Size: Up to 1.4"
- Resolutions: 6MP to 45MP
- Focal Length: 4 mm to 75 mm
- Pixel Size: 1.85 µm to 3.45 µm

M12 S-Mount Lenses

Robust, Fixed-Focus Lenses With External Focus Adjustment

Compact and lightweight, M12 (S-mount) lenses are an ideal choice for integration with board-level USB2, USB3, GigE, MIPI CSI2, and GMSL2 cameras, offering reliable and space-saving imaging solutions. Their fixed-aperture design enhances durability, making them highly resistant to mechanical stress, vibration, and shock—well suited for demanding industrial environments.

The combination of a board-level camera and M12 lens results in one of the most compact and lightweight industrial imaging systems available, balancing performance, durability, and affordability in a single, streamlined package.

The S-Pro Series supports resolutions from VGA to 5 MP and offers excellent value with strong imaging performance and a robust mechanical design.

The S-Ultra Series are built for ultimate optical performance, combining advanced optical design and precision manufacturing to deliver the highest image quality, with resolutions from 5 MP to 16 MP.

S-Pro Series

S-Ultra Series

Features

- S-Pro Series M12 (S-mount) lenses offering excellent value and performance
- S-Ultra Series M12 (S-mount) lenses for ultimate optical performance
- Sensor Size: Up to 2/3"
- Resolutions: VGA to 16MP
- Focal Length: 1.1 mm to 50 mm
- Pixel Size: 1.4 µm to 10 µm

Lens Accessories

Tubes, Spacer Rings, Lens Holders and Filters

Accessories to Improve Vision System Performance

The primary task of any vision system's hardware is the production of high-contrast images, allowing for relevant image data extraction and reduced processing time. Optical filters for machine vision applications deliver significant improvements to image contrast. Bandpass filters, for example, greatly improve contrast in monochrome images while polarization filters reduce glare and surface reflections.

We are happy to help you with the selection of optical accessories suitable for your machine vision application.

Lens Holders

Reliable, high-performance mounting solutions for M12 S-Mount lens types - designed to meet the demands of modern machine vision and embedded imaging systems.

IP 67 Tubes, Extension Tubes and Spacer Rings

IP67 Tubes

Extension Tubes and Spacer Rings

Filters

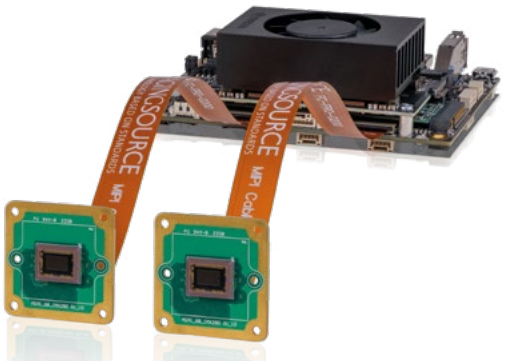
Embedded Vision Reference Design

NVIDIA® Jetson Orin™ with Carrier Board and Cameras

Designed for versatility, The Imaging Source's embedded vision platform for NVIDIA Jetson Orin supports up to 4 cameras per system via our modular board concept and Jetson Orin NX (Nano) SoM.

The integration of our MIPI CSI-2, FPD-Link III(1) and GMSL2(1) camera portfolio with robust industrial-grade computing enables precise application development, ensuring efficient turnaround of application-specific design changes that saves development time and related costs.

(1) FPD-Link III or GMSL2 cameras require an additional deserializer adapter board, which is available upon request.



Reference Design:
Carrier Board With NVIDIA Jetson Orin SoM and MIPI CSI-2 36S Cameras

Advantages and Features

- Single-Source Solution: Complete reference design for prototyping and mass production
- Camera resolutions: 0.4 MP - 20 MP
- Interfaces: MIPI CSI-2, FPD-Link III(1), GMSL2(1)
- Sensors: Latest Sony and onsemi CMOS sensors
- NVIDIA Jetson Orin NX (or Nano) for best image processing and AI performance
- Multi-camera support for up to 4 cameras per system
- Optimized costs with lean hardware design
- Optimized performance with custom configurations
- Scalability via SoM-based design
- Changes to board design with short cycle times
- Efficient first-to-market strategy
- Tailor-made camera drivers and software
- Seamless integration with software frameworks like Gstreamer, Open CV, and others
- MVTec HALCON support for best-in-class image processing

NVIDIA Preferred Partner

NVIDIA® Jetson Orin™ Reference Design

2-Channel MIPI CSI-2 Carrier Board With Toradex Verdin NXP i.MX 8M Plus SoM

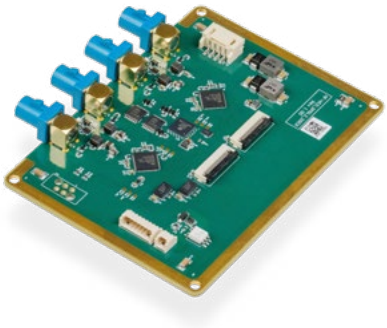
Options for Prototyping and Mass Production:
SoM, Carrier Board, Cameras, Lenses, Cables, Software

Reference Design with Carrier Board, NVIDIA Jetson Orin SoM and MIPI CSI-2 36S Cameras

Deserializer Boards for NVIDIA® Jetson™

The Imaging Source's 4-channel deserializers for NVIDIA® Jetson connect with our GMSL2 and FPD-Link® III board and IP67-certified cameras.

2- or 4-Channel MIPI CSI-2 Carrier Board
With NVIDIA® Jetson Orin NX SoM



4-Channel GMSL2 and FPD-Link III Deserializer for
Reference Design With NVIDIA® Orin

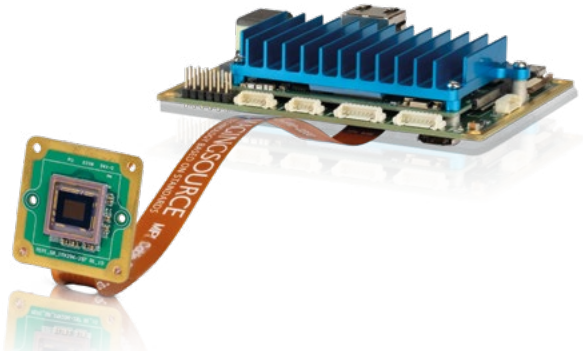
Embedded Vision Reference Design

NXP® i.MX8 SoM with Carrier Board and Cameras

Designed for versatility, The Imaging Source's embedded vision platform for NXP supports single and dual-camera applications via our modular board concept and Toradex Verdin NXP i.MX 8M Plus SoM.

The integration of our MIPI® CSI-2, FPD-Link® III(1) and GMSL2(1) camera portfolio with robust industrial-grade computing enables precise application development, ensuring efficient turnaround of application-specific design changes that saves development time and related costs.

(1) FPD-Link III or GMSL2 cameras require an additional deserializer adapter board, which is available upon request.



Reference Design:
Carrier Board With Toradex Verdin NXP i.MX 8M Plus SoM and MIPI CSI-2 36S Camera

Advantages and Features

- Single-Source Solution: Complete reference design for prototyping and mass production
- Camera resolutions: 0.4 MP - 20 MP
- Interfaces: MIPI CSI-2, FPD-Link III(1), GMSL2(1)
- Sensors: Latest Sony and onsemi CMOS sensors
- Technological partnership: Benefit from The Imaging Source's and Toradex's know-how and experience
- Multi-camera support for up to 2 cameras per system
- Optimized costs with lean hardware design
- Optimized performance with custom configurations
- Scalability via SoM-based design
- Changes to board design with short cycle times
- Efficient first-to-market strategy
- Tailor-made camera drivers and software
- Seamless integration with software frameworks like Gstreamer, Open CV, libcamera and others
- MVTec HALCON support for best-in-class image processing

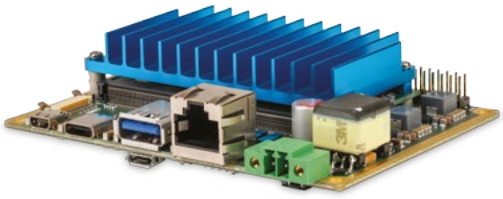
NXP i.MX 8M Plus Reference Design | Camera Interfaces

MIPI CSI-2

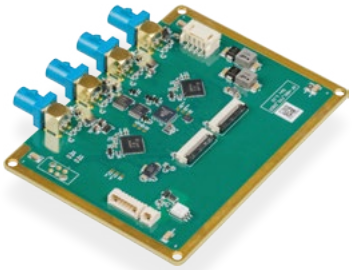
36S

FPD-Link III and GMSL2

36C • 36C IP67



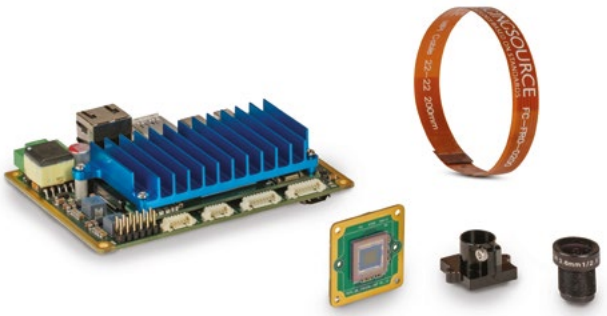
Carrier Board With Toradex Verdin SoM



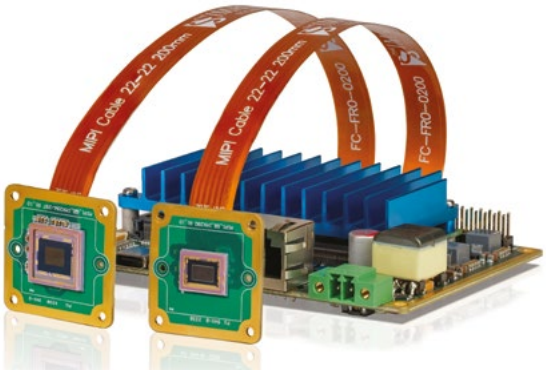
GMSL2 or FPD-Link III Deserializer

NXP i.MX 8M Plus Reference Design

2-Channel MIPI CSI-2 Carrier Board With Toradex Verdin NXP i.MX 8M Plus SoM



Options for Prototyping and Mass Production:
SoM, Carrier Board, Cameras, Lenses, Cables, Software



Reference Design with Carrier Board, NXP i.MX 8M Plus SoM and MIPI CSI-2 36S Cameras

Deserializer Boards

GMSL2 and FPD-Link III

With The Imaging Source's GMSL2 and FPD-Link III deserializer boards you unlock high-speed, long-distance video transmission with robust signal integrity, flexible interfaces, and reliable performance for advanced automotive and industrial vision systems. Designed to perfectly pair with our embedded cameras and reference designs.

Unlock the full potential of The Imaging Source's GMSL2 and FPD-Link III camera technology with our end-to-end solution, designed to work seamlessly from sensor to system.

The Imaging Source offers complete solution for embedded vision systems: high-performance GMSL2 and FPD-LINK III IP67 cameras, robust upcoming deserializer boards, reliable coaxial IP67 cabling, and powerful NVIDIA Jetson Orin Reference Design integrations, all engineered to function together flawlessly.

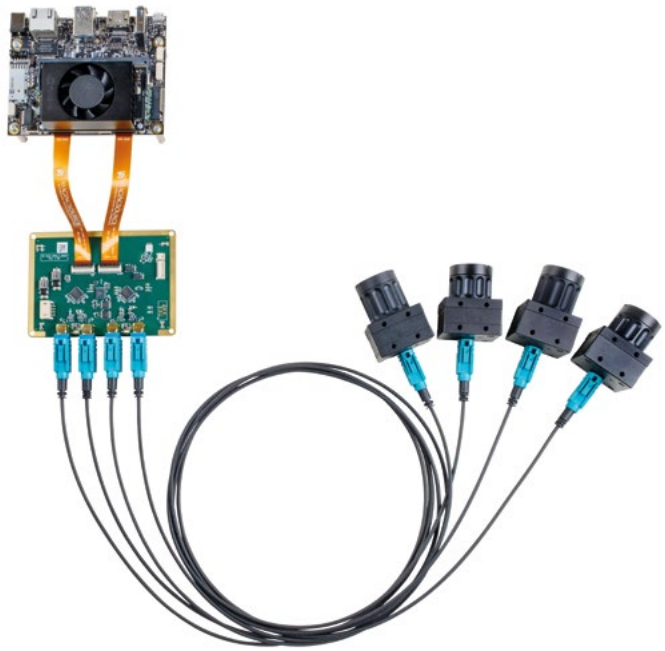
Reference Design:
Carrier Board With NVIDIA Jetson Orin NX/ Nano SoM and up to four Acuva GMSL2 IP67 cameras

Advantages and Features

- Support for up to four Acuva GMSL2 IP67 or 36C FPD-Link III IP67 cameras
- SoM: Compatible with The Imaging Source's NVIDIA Jetson Orin Reference Designs
- Cables: Compatible with The Imaging Source's IP67-rated coaxial cables (PoC) featuring FAKRA connectors and available in lengths of 1-15 m
- Interface: GMSL2 with data transfer speeds of up to 6 Gbps
- Interface: FPD-Link III with data transfer speeds of up to 4.16 Gbps

One Partner. One Solution. Complete Confidence.

Unlock the full potential of The Imaging Source's GMSL2 camera technology with our end-to-end solution, designed to work seamlessly from sensor to system.

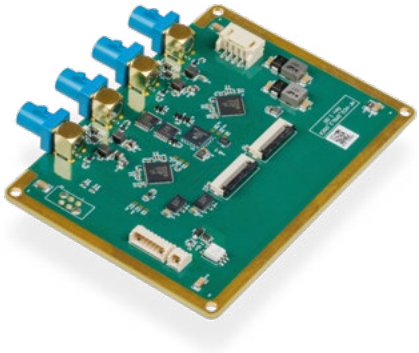


Options for Prototyping and Mass Production:
SoM, Carrier Board, Cameras, Deserializer Boards Cables, Lenses, Software

Deserializer Boards

The Imaging Source's 4-channel deserializers for NVIDIA® Jetson connect with our GMSL2 IP67 and FPD-Link® III board and IP67-certified cameras.

4-Channel GMSL2 (MDSER-GMSL2-4CH)



4-Channel FPD-Link III (MDSER-FPD3-4CH)

Video Signal Converters

Maximize Image Display and Capture Possibilities With Video Signal Converters.

The Imaging Source offers various video signal converters for a wide range of input signals and applications: Convert analog (PAL, NTSC, CCIR, EIA) video signals to digital image data streams; capture video signals from an HDMI source via USB 3.0 interface; reduce system footprint by directly connecting an HDMI display with any of The Imaging Source‘s USB industrial cameras using the USB-to-HDMI Converter.

The Imaging Source‘s free end-user software, IC Capture, IC Measure, and IC Imaging Control SDK, allows users to capture and process image data. The Windows drivers for the video signal converters are compatible with DirectShow.

Features

- Video-to-USB 2.0: Convert analog video sources into data streams
- USB-to-HDMI: Direct camera to monitor imaging
- HDMI-to-USB: Capture HD / 4K HDMI signals via USB 3.0

Video-to-USB 2.0 Converters

DFG/USB2aud

DFG/USB2pro

DFG/USB2propcb

USB-to-HDMI Converter

DFG/USBtoHDMI

HDMI-to-USB Converter

DFG/HDMI

Cables

USB, GigE, FFC/FPC, Coax, Lighting, I/O

Robust, Industrial-Grade Cables for Your Machine Vision Application

There are several considerations that must be taken into account when choosing cables for image processing: Transmission distance, connector, cable type and length—just to name a few.

The Imaging Source offers a selection of standard USB and GigE cables, as well as IP67 and flat band cables for embedded vision solutions.

Features

- USB 3.1: Type-C with locking screws (3 m and 5 m)
- USB 3.0: Type-A with locking screws (3 m and 5 m)
- USB 2.0: Type-A with locking screws (5 m)
- GigE: RJ-45 (PoE) and M12 IP67 (RJ-45)
- Embedded: MIPI (FFC/FPC); IP67 FAKRA (up to 15 m)
- Lighting cables pair perfectly with Smart Vision Lights' advanced lighting solutions
- I/O cables are available for USB and GigE Cameras.

USB 3.1, USB 3.0 and USB 2.0 Cables

USB 3.1 cables

USB 3.0 cables

USB 2.0 cables

GigE (RJ-45 and M12) and Lighting Cables

GigE (RJ-45)

GigE M12 IP67 (RJ-45)

Lighting cables

Coax (FAKRA), I/O and MIPI CSI-2 Cables

IP67 FAKRA cables

I/O cables

MIPI CSI-2 cables

Interface Cards

USB 3

For High-Performance and Reliable Vision Applications

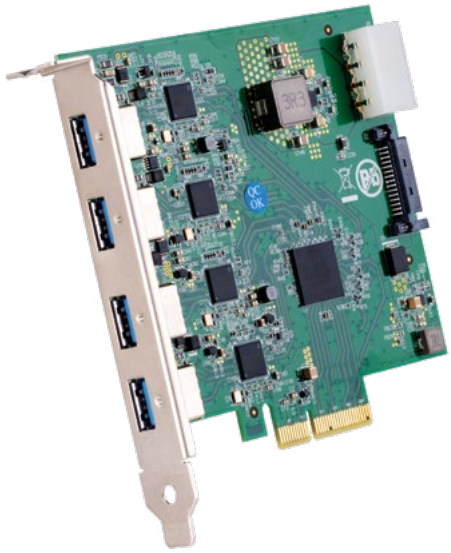
Easy integration of your vision system saves time and effort: via plug-and-play using a PC card for individual project requirements. Thanks to various interfaces and bandwidth options, the cards are ideally suited for multi-camera systems and demanding industrial applications.

Features

- Standard: USB 3.2 Gen1
- Host Controllers: Renesas uPD720202, Fresco FL1100
- Speed: 5 Gbps
- Number of Ports: 2 or 4
- Total Bandwith: 5 Gbps to 20 Gbps
- Power Supply: SATA or IDE
- Operating System: Windows 10/11, Linux Ubuntu 22.04 LTS or
- newer
- Cable Length: up to 5 meters USB 3.1 and USB 3.0 (8 m or longer
- on request)

Interface Cards USB 3.2 Gen1

IC-USB3-5G-1RE-2A



IC-USB3-5G-4FL-4A

IC Imaging Control

Image Acquisition SDK

IC Imaging Control is a modern, universal, platform-independent, and powerful SDK for acquiring images from a video source, such as The Imaging Source's industrial cameras, frame grabbers and video converters.

The SDK automatically recognizes video sources and enables switching between them via program code. Single images, image sequences, and live video streams can be captured from a connected video source.

The SDK's latest version, IC Imaging Control 4, allows for an efficient, straight-forward and future-proof camera integration, compatibility, and application development.

Advantages and Features

- Support for Windows, Linux x86 and Linux ARM
- Unified software environment based on GenICam GenTL
- Easy cross-platform development
- Rapid development with Python, .NET 6 or higher, C++, and C
- Highly-optimized image processing algorithms
- Support for platform-specific frameworks, e.g., GStreamer
- Numerous programming examples and extensive documentation
- Easy-to-use end-user applications to quickly set up cameras and perform common tasks.

Device Drivers

SDKs

- **Universal & Platform-independent SDK** for Windows, Linux x86, Linux ARM: Unlock the full potential of our industrial and embedded cameras with our robust SDK, which provides developers with a comprehensive set of APIs, programming examples, and documentation.
- **Enhanced Compatibility:** The IC4 SDK is fully GenICam GenTL compliant, providing full access to device settings and advanced camera features such as events and chunk data.
- **Performance:** The IC4 SDK has been optimized for high-performance acquisition tasks. This includes a reduction in unnecessary copy operations, ensuring efficiency in your workflow.
- **Versatile Device Drivers:** Generic device drivers allow for seamless integration of The Imaging Source's cameras into customer applications. They are available for use with IC Imaging Control 4 SDK and with third-party libraries supporting the GenICam GenTL standard such as MVTec HALCON, MATLAB, etc.
- **Native Language Support:** The IC4 SDK caters to a diverse range of developers with native support for programming languages such as Python, .NET 4, .NET6 or newer, C++, and C. While the SDK's structure functions identically between the supported languages, the SDK incorporates language-specific idioms where it is possible to maximize developer productivity.

IC Capture

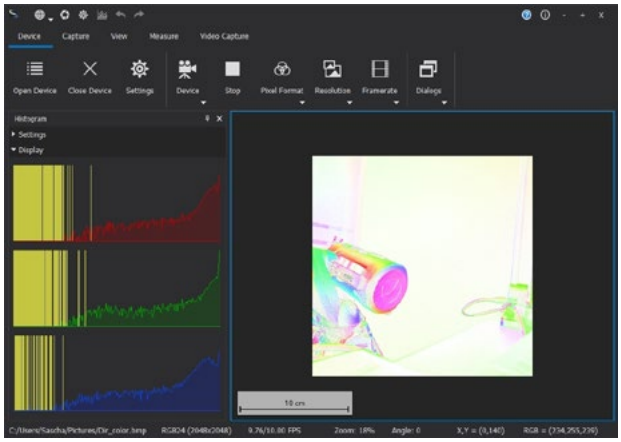
Image Acquisition and On-Screen Measurement for Windows and Linux

IC Capture is a powerful end-user application for image acquisition, image pre-processing and measurement using any video device manufactured by The Imaging Source including industrial cameras, frame grabbers and video converters.

IC Capture harnesses the full power of previous end-user applications, such as IC Measure, by consolidating them into a single, intuitive application. This enables rapid and user-friendly evaluation and integration of The Imaging Source's cameras into a range of applications including computer vision, machine vision, microscopy, and robotics.

Advantages and Features

- Multi-platform compatibility, e.g., for Windows, Linux x86 and Linux ARM
- Calibration with object micrometer, graph paper, or virtually any object of known size
- On-screen measurement of lengths, angles, areas and perimeters
- Saving and restoring the device settings
- Single image capture and automated image sequence export with automatic file name generation
- Saving image data streams to MP4 files, e.g., compressed with H.264 or H.265 codecs
- Flexible live image display with stepless zooming and panning of the image
- Advanced image processing filters, e.g., perspective correction, brightness contrast, invert, sobel
- User-defined live overlays using an integrated script LUA-API
- Histogram visualization
- User-friendly graphical interface available in English, German, Chinese, Korean, and Japanese to ensure seamless operation



- IC Capture offers a wide range of built-in filters such as noise reduction, sharpening, and color correction, providing advanced image optimization.
- The integrated lens correction allows for compensation of distortion and aberrations and for achieving of high-quality images.
- Thanks to the tone mapping function, images with a high dynamic range (HDR) are optimally displayed.
- The histogram feature supports simultaneous display of multiple histograms in multi-camera applications; direct display on the live image; histogram saving in the image; free configuration of size and orientation.
- The calibration tool allows for the definition of image scale. The calibration can be performed with an object micrometer (microscope) or another object of known length.
- On-Screen measurement tools for measurement of lengths, angles, circles and polygons.
- Annotation tools allow for inserting text, graphics, and marker arrows into images. They provide the ability to draw lines, rectangles, ellipses and polygons and support the customization of colors, fonts, and line widths.
- Custom live overlays such as crosshairs, histograms and timestamps can be created to display additional information on the screen in real time. Scripts are dynamically reloaded during processing to enable an optimal workflow.

IC Barcode

Barcode Detection Library

SDK for 1D and 2D Barcode Recognition in IC Imaging Control

IC Barcode is a highly accurate and powerful developer library, which recognizes 1D and 2D barcodes from digital images.

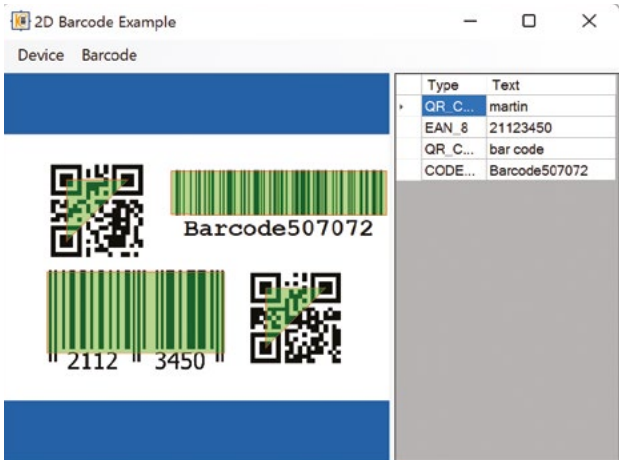
The SDK enables the integration of barcode recognition functionality into document processing systems and Windows applications.

IC Barcode's unique and efficient barcode recognition algorithm searches for barcodes in any position and orientation within an image.

IC Barcode available for Windows and Linux platforms.

Features

- Read multiple 1D and 2D barcodes at any orientation
- Report comprehensive information with 100% confidence for all detected barcodes.
- High-speed barcode recognition: Barcodes are located and reported back in a fraction of a second
- Speed up barcode detection / decoding process: Use custom configurations for barcode orientation, type or region of interest
- IC Barcode: Free software available for download



BARCODE
accurate recognition SDK

Supported 1D Barcodes

- EAN8
- EAN13
- CODE39
- CODE93
- CODE128
- UPC_A
- APC_E
- INTERLEAVED_2_OF_5

Supported 2D Barcodes

- AZTEC
- DATA_MATRIX
- QR CODE
- MAXICODE
- PDF417

MVTec Products

HALCON and MERLIC

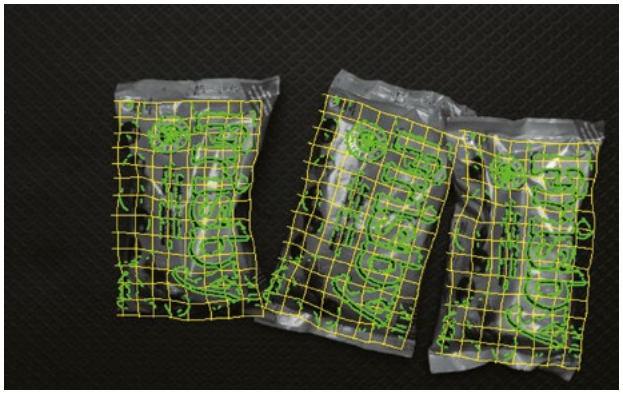
Used in Tens of Thousands of Demanding Applications, MVTec Software Products Set the Standard for Machine Vision Software.

HALCON and MERLIC deliver a full-range of image processing solutions for industrial and commercial machine vison applications. As an MVTec Value Added Reseller and Certified Training Partner, The Imaging Source's dedicated in-house specialists provide efficient and expert technical assistance for MVTec's imaging programs and software libraries.

Because of the variety of tasks and the corresponding breadth of potential solutions in machine vision, system developers must evaluate which solution will deliver the best combination of value and efficiency in a particular application. Not only will we help you in the selection of the right hardware, but we will also actively support you throughout the process - starting from the development of simple user interfaces (via sample programs or support in HDevelop Script) all the way up to prototyping.

Features

- The Imaging Source distributes and supports MVTec products.
- Dedicated sales and support staff provides consulting and technical support.
- As an MVTec Certified Training Partner, TIS offers several online training seminars. (Please see our website for dates and pricing.)



MVTec offers comprehensive software for machine vision including solutions for deep learning and embedded vision applications. Image shows the location of deformable objects in HALCON.
Image courtesy of MVTec Software GmbH

HALCON

HALCON is the comprehensive standard software for machine vision with an integrated development environment (IDE) that is used worldwide. It enables cost savings and improved time to market. HALCON's flexible architecture facilitates rapid development of any kind of machine vision application.

MERLIC

MERLIC is an all-in-one software product for quickly building machine vision applications without programming. Based on MVTec's extensive machine vision expertise, MERLIC combines reliable, fast performance with ease of use.

Embedded Vision

MVTec's machine vision software, HALCON and MERLIC, run perfectly on embedded devices. Available as bundles or standard software products, MVTec enables innovative and high-performing embedded vision products. MVTec software supports all relevant interfaces, such as GigEVision, USB3Vision, Video4Linux, and MIPI CSI for image acquisition.

Deep Learning

With the Deep Learning Tool, developers can easily label data via the intuitive user interface – without any programming expertise. The data can be seamlessly integrated into HALCON and MERLIC to perform deep-learning-based object detection, classification and semantic segmentation.

MVTec Training Partner

As an MVTec Certified Training Partner, The Imaging Source offers online training seminars for MVTec software. With an emphasis on hands-on practical experience with the software, participants can choose from entry-level to advanced courses. Please check our website or contact our sales staff for current courses and dates.

The Imaging Source

Services

35 years of Experience Makes The Imaging Source an Invaluable Partner in Realizing Your Machine Vision Application.

The Imaging Source supports your machine vision projects with precision-engineered components, expert consultation, and tailored solutions. Whether you need integration-ready vision systems, custom branding, pre-configured settings, or specialized advice, our team is here to ensure your success in even the most complex applications.

Integration-Ready Vision Components

The Imaging Source provides a wide range of integration-ready vision components, from MIPI CSI-2 sensors to fully featured industrial cameras and imaging software. We understand that successful integration requires precise control over numerous hardware and software parameters. To streamline this process for our customers, The Imaging Source offers comprehensive hardware assembly and software customization services. This includes the assembly of complex vision systems, such as embedded vision modules, IP-rated components (e.g. IP68), and specialized lens configurations. We also set and secure critical parameters, including focus, aperture, and zoom, ensuring they remain stable in demanding environments. Additionally, we install customer-specific software and calibrate intrinsic parameters, delivering a solution that is ready to integrate, saving you valuable time and resources.

Custom Branding and Firmware

The Imaging Source offers custom branding and firmware options to align our cameras with your company's identity and operational needs. We can label cameras with your company name and custom model numbers, making it easier to distinguish between multiple cameras in a system, especially when software cannot differentiate by serial numbers alone. Moreover, we allow customers to specify the firmware version installed on each camera, ensuring consistency across all units. This service is particularly beneficial in regulated industries like the medical sector, where maintaining a specific firmware version is crucial for compliance and reliability.

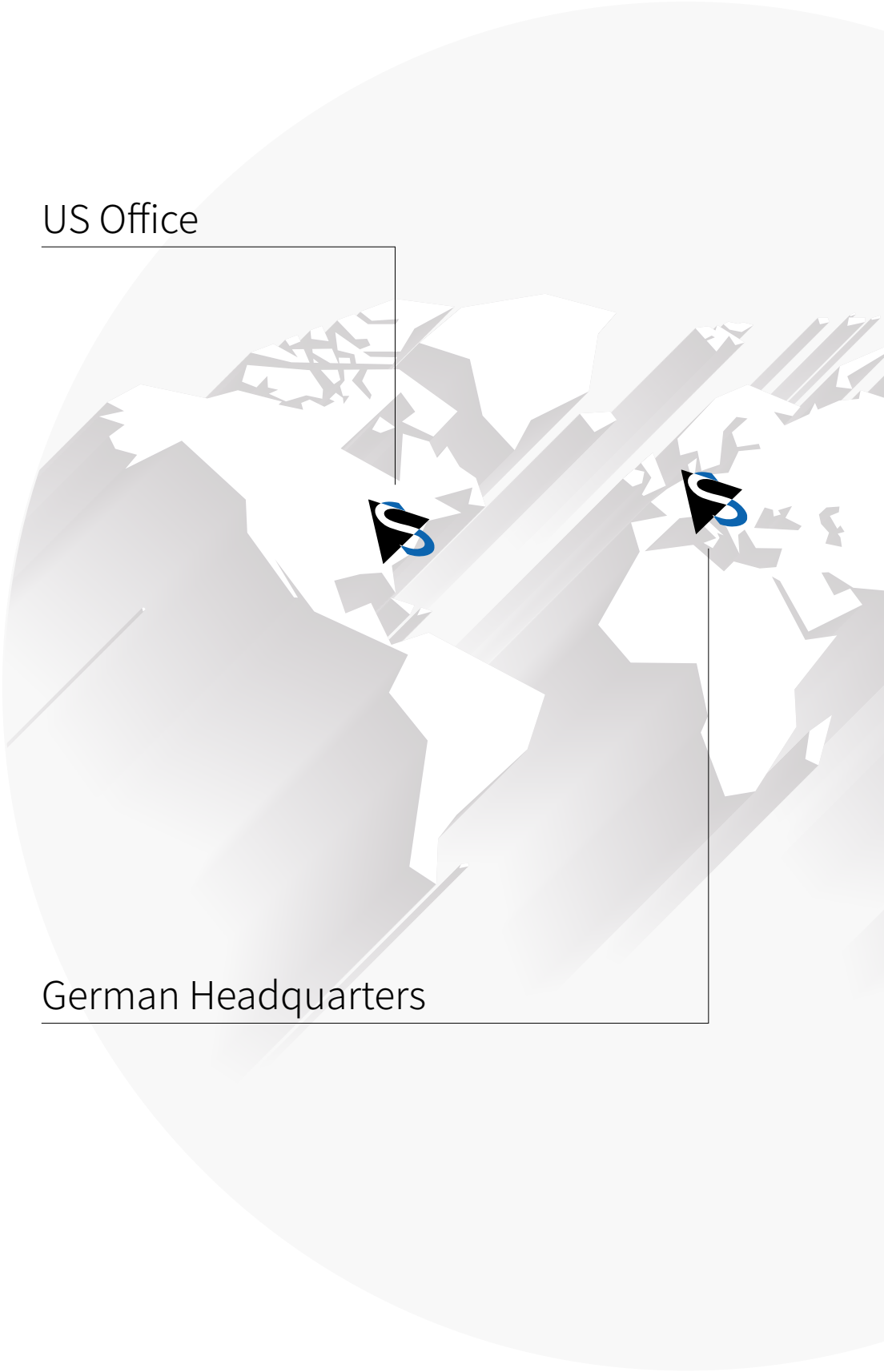
Pre-Configured GigE Camera Settings

To simplify deployment, The Imaging Source offers pre-configuration services for GigE cameras. We can program a fixed IP address, user-defined camera names, and other settings directly into the default user dataset of each camera. This pre-configuration eliminates the need for manual setup, which can be time-consuming, especially when dealing with multiple cameras across several machines. By agreeing on a separate article code, we ensure that every camera arrives with the correct configuration, allowing for quick and efficient integration into your system.

Machine Vision System Consultation

Effective machine vision starts with a well-designed system tailored to your specific application. The Imaging Source's experienced interdisciplinary team offers expert consultation to help you develop a machine vision system that meets your exact requirements, regardless of industry or application. Over 35 years, The Imaging Source has supported thousands of machine vision integrators and automation equipment manufacturers, from basic capture-and-archive setups to high-precision measurement systems. Our guidance ensures that your machine vision system is optimized for performance, reliability, and integration, providing you with the tools to succeed in even the most challenging environments.

Present All Over The World



US Office

The Imaging Source, LLC

4600 Park Road
Suite 470
Charlotte, NC 28209
United States

Phone: +1 (704) 370-0110
+1 (877) 462-4772

German Headquarters

The Imaging Source Europe GmbH

Überseetor 18
28217 Bremen
Germany

Phone: +49 421 335910

Asian Office

The Imaging Source Asia Co., Ltd.

3F., No. 43-7/8, Zhongxing Road
New Taipei City, Xizhi District 221012
Chinese Taipei

Phone: +886 2 2792 3153

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Unless otherwise specified, the lenses shown with the cameras must be purchased separately. All weights and dimensions are approximate.

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Last update: October 1, 2026
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www.theimagingsource.com info@theimagingsource.com

The Imaging Source Europe GmbH

Überseetor 18
28217 Bremen
Germany

+49 421 335910
sales-eu@theimagingsource.com

The Imaging Source Asia Co., Ltd.

3F., No. 43-7/8, Zhongxing Road
New Taipei City, Xizhi District 221012
Chinese Taipei

+886 2 2792 3153
sales-asia@theimagingsource.com

The Imaging Source, LLC

4600 Park Road, Suite 470
Charlotte, NC 28209
United States

+1 (704) 370-0110
+1 (877) 462-4772
sales-us@theimagingsource.com

THE IMAGINGSOURCE
TECHNOLOGY BASED ON STANDARDS

Visit our website for full product details and representatives in your area: theimagingsource.com