



**JM Vistec System**

OUR VISION, TOMORROW'S INNOVATION

**MACHINE VISION**



[www.jm-vistec.com](http://www.jm-vistec.com)

# INDUSTRIAL CAMERAS



eco

eco<sup>2</sup>

exo

evo

hr

shr

VGA to 122 Megapixels  
Superior Frame Rates  
Sony, Onsemi and CMOSIS sensors  
Industrial Protection Class up to IP67  
Versatile I/O Concept  
Designed for Optical Precision  
Advanced Temperature Control  
Industrial Standards Compliant SDK Tool Kit



**GiGE**  
VISION

**HI SPEED**  
SERIALIZED  
**USB**

**CAMERA**  
**Link**

**CoaXPress**

**WV**  
MICRO  
FOURTHIRDS

**isvi**

12SCXP

16ACL

18NCXP

25SCXP

25SCL

25NCL

29NCL

50TCXP

12 to 50 Megapixels  
Thermoelectric cooled (TEC)  
High-Speed, High-Resolution  
Excellent Image quality  
Global Shutter 1usec~10sec  
Mounts Available: F / M42 / M58 / M72 / LM  
Compact Version Available  
CXP6 Technology



**CAMERA**  
**Link**

**CoaXPress**



**GiGE**  
VISION

## Iris GTR Smart Camera

VGA to 5 Megapixels  
IP67 Rating  
Embedded Processor  
Real-time Digital I/O  
Integrated Setup with C-Mount  
Deploys with Windows/Linux  
Communicates with Automation Controllers





10GiE Series

BOLT Series

PACE Series

ACCEL Series

Emergent Vision Technologies current cameras range from 2 to 20 megapixels and 338 to 32 frames per second (fps) at full resolution (over 1000 fps at lower resolutions). Providing best-in-class and versatile solutions for a large variety of applications from display or solar panel inspection over pick-and-place machines, vision guided robots and railway inspection to highway monitoring, sport broadcast applications, and golf swing analysis.



3000 Series

5000 Series

7000 Series

Line Scan Series

Dahua's achievement in the field of ISP technology has accumulated over 10 years, ensuring the image quality of their cameras. Professional DFM design and FMEA analysis teams allow them to control the quality of each product at the beginning of the specifications design.



Xenics is a leading provider of advanced infrared cameras ranging from SWIR, MWIR and LWIR. Xenics designs and markets infrared imagers, cores and cameras of best-in-class image quality to support innovative R&D, industrial automation, machine vision, process control and high-end security applications.

Bobcat

Cheetah

Lynx

Gobi





## INDUSTRIAL OPTICS



Schneider Kreuznach has been manufacturing superior quality optics in the market for over 100 years. They are now a worldwide market-leader in high-quality lenses & precision engineering. Schneider manufactures with strict criteria in precision, quality and reliability. These lenses are perfect for metrology & industrial grade imaging.

Cinegon | Xenoplan | Componon | Macro Varon | SWIR  
Topaz | Ruby | Sapphire | Diamond | Zirconia | Emerald



Zeiss is an international leader in the field of optics and optoelectronics for over 170 years. ZEISS lenses are compatible with most industrial cameras. The F-Mount and the M42 Mount are popular standard for high-resolution industrial cameras with large sensor sizes up to 24 x 36mm and for line scan cameras with sensors up to 43mm. ZEISS lenses are widely used in machine vision, automation, quality inspection, optical metrology as well as in research and development.

Milvus | Planar | Biogon | Tessar | Distagon  
Makro-Planar | Interlock | C-Sonnar | Otus

## Tokina

Kenko Tokina was founded as a manufacturer specializing in optical products in September 1957. Based on advanced optics technology, we have been focusing our business on the development and sales of optical products for digitalized photographs, videos and such as binoculars, astronomical telescopes, industrial optics as for security and Machine Vision.

C-Mount Type : 3MP | 5MP | 10MP | 21MP |  
Telecentric Macro



Myutron specializes in manufacturing lenses for machine vision applications. Consisting of long focal zoom, vari focal lenses for day and night and lenses for the large format. All products are designed for mega pixel and are made in Japan. The company's telecentric optical system is an optical design that where the principle ray is parallel to the optical axis. It eliminates distortion problems by collimating the light entering the lens and suitable for imaging 3D objects.





*Patented Technology*  
SafeSense™  
SafePower™



## PP / RT / RC Series

LED current controller  
with up to 16 channels



## Trinitri

LED current controller  
with Intelligent controls



## TR-HT Series

High-Power LED current  
controller with 2 channels



## CC320

Trigger Timing Controller  
with 8 I/O



## TR-CL 180 Industrial Lens Controller

The lens controllers are part of the Gardasoft Trinitri machine vision platform, so users now have seamless access and control of system cameras, lighting and lenses within the same environment (either via conventional image processing software or via a Trinitri SDK).

## smart vision lights

### Compact & Luminous Lighting

Ring lights | Linear lights | Brick lights | Back lights | Dome lights  
Spot lights | Structured lights | Dual-Axis RGB



T-Slot Mounting



Overdriving Capabilities



Washdown IP68  
Corrosion resistant



## VISLIGHT PROFESSIONAL ILLUMINATION

### Professional Custom Lightings

Contact us for more information.



# IMAGE ACQUISITION / IMAGE PROCESSING



## Matrox Rapixo CXP

Supports data rates of either up to 6.25 Gbps (CXP-6) or up to 12.5 Gbps (CXP-12).

## Matrox RadientPro CL

Supports the highest Cameralink acquisition rates with FPGA-based processing

## Matrox Radient eV

Supports Cameralink & CoaXPress image acquisition

## Matrox Solios

Supports Analog signal, Cameralink & GigE Vision

## Matrox Morphis

Dual/Quad decoder for fast camera switching or simultaneous real-time acquisition

## Matrox Vio

PCIe video capture & display board for HD/SD video in SDI or Analog formats

## Matrox Orion HD

Supports High-Definition video inputs and outputs including 1080p/60Hz

## Matrox Clarity UHD

Supports the highest Cameralink acquisition rates with FPGA-based processing



## Image Processing Software

Matrox Imaging Library

Matrox Design Assistant



## Axion

2 Base, Medium, Full or 80-bit cameras w/ PoCL

## Cyton

Quad Channel CoaXPress frame grabber (4 x CXP-6)

## R3

2-channel, 32-bit with scan-reversal

## Karbon

Dual Full for 1 or 2 Base, Medium or Full independent cameras

## Neon

Quad Base for 1, 2, 3, or 4 Base cameras w/ PoCL



## microEnable 5 ironman / marathon

Supports Cameralink & CoaXPress image acquisition



## FPGA Programming Environment

VisualApplets

Smart Vision Development Kit







CoaXPress®

CAMERA  
Link

GiGE  
VISION

## Komodo

4 x SFP+ channels 10 Gbps each  
Up to 8 CLHS links support  
Up to 8 GigE Vision links support  
Multi-stream support

## Predator

PoCXP support on all channels  
Flexible GPIO interface  
On board image processing

## INDUSTRIAL MOUNTING



## Demo kit

THE BEST WAY TO FIGURE OUT HOW TO SWIVELINK YOUR PROCESS



The Swivellink® demo kit is a must have for research and development, maintenance, spare parts, and showing equipment to a first time user.

Add this demo kit to your next order and dive deeper into the wonderful world of Swivellink® mounting solutions.

## EOAT kit



## Conveyors



## IMPERIAL

## METRIC



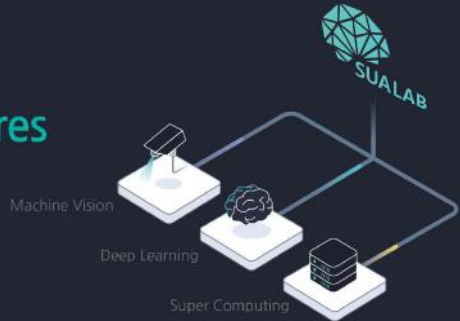
www.jm-vistec.com

## SUALAB Solution

SUALAB, specialized in A.I. (Deep learning) image analysis technology, provides a fast, accurate and user-friendly Deep learning machine vision S/W library for manufacturing industry.

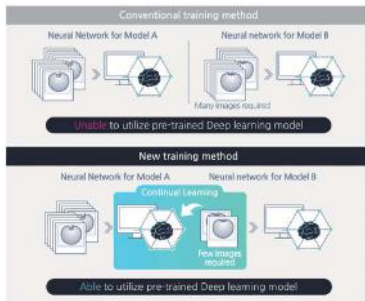
### SuaKIT NEW FEATURES

## SuaKIT's Unique features



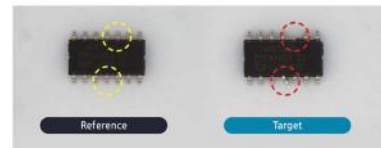
### Continual Learning: Minimize training time and number of training images

By utilizing pre-trained neural network, customers can minimize training time and the number of training images for new product in the same industry.



### Image Comparison: learning the difference

Inspects defects by analyzing the differences between normal and defect images.

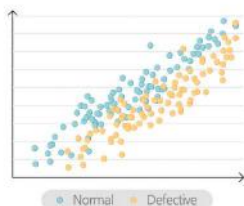


### Multi Image Analysis: Comprehensive single neural network for multi-type images

15 times faster processing time than conventional image-by-image inferring method.



### Uncertainty Data Analysis: The easiest way to review training data



- Possible to analyze and extract uncertainty data that is difficult to classify into OK/NG.
- Easy to find falsely-classified images caused by incorrect labeling.

### Visual Debugger: Efficient way to analyze the result

In the classification model, the user can check whether the actual inspection has been carried out according to the user's intention.







# Sofkore GmbH

www.sofkore.de

## Optical Metrology Library

A 3D image processing powerhouse.

**MU3** has an extended range of 2D & 3D image processing capabilities which allows user to visualize and analyse pixel data. This software is suitable for metrology and various other applications.



### Smart rapid prototyping:

Generate contour/slice of closed mesh objects and generate plate joint, etc

### Diverse input/output formats:

ASCII, binary data, medical DICOM, BMP, JPEG, EPS, DXF, etc

### Basic drawing functions:

Able to create various shapes and types of annotations

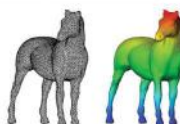
### Flexible visualization:

Vary display scale, user-specified range, true color, pseudo color

### Powerful processing toolbox:

Arithmetic operation, image body operation, color separation and combination, computed tomography (CT), image masking, edge detection, filtering, morphology, computational geometry, statistics, threshold, fitting, object detection, Fourier transform, etc.

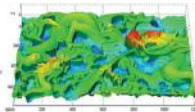
## MODULES



2D CONTOURS OF CLOSED MESH



MODELING & PROTOTYPING



MULTIPLE-FREQUENCY  
FRINGE PROJECTION



FRINGE PROJECTION



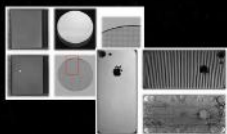
## Hardware / Evaluation Kit

### MU3 DEFLEKTOMETER

Specular Surface Inspection



In today's world, specular surface challenges 3D measurement technology. Based on Phase Measuring Deflectometry, Mu3's specular-surface-inspection function is able to reach nanometer precision. Mu3 technology enables automated optical inspection for glass, metal, wafer and mirror-like surfaces.



### MUNOS

Structured Light Stereo Imaging



UNOS™ is a structured light based 3D scanner that brings physical objects into 3D point cloud. A full-field determination of 3D surface profile can be achieved with large point cloud data, high accuracy, high precision, and high speed. Applications in diverse fields such as aerospace, medical, product inspection, quality control, and reverse engineering are possible.



# Optical Automation

Autofocus // Hyperfocus for industrial vision.



JM Vistec System



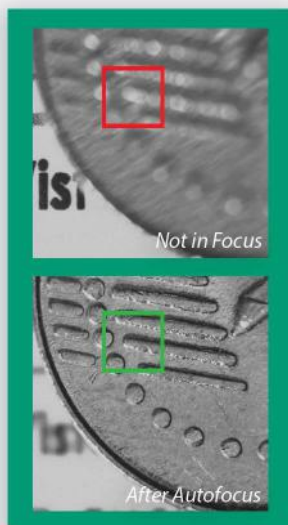
Software Development Kit (SDK)

*Making automation even more automated.*

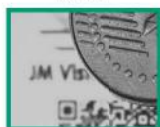
**Autofocus** feature is prevalent in the common DSLR or consumer digital electronics. Contrary to popular belief, automation has yet to be fully automated. We have taken the next step closer to Industrial4.0 or Factory of the Future. This led to our in-house development of autofocus calibration SDK designed exclusively for industrial applications. Harnessing this technology opens up countless new possibilities within industrial machine vision, robotics, traffic management, high-end surveillance and even in the digital broadcast and film industry.

## Hyperfocus

The hyperfocal distance of a lens is the distance from the camera lens to an optimal point of focus that maximizes the depth of field in the image. By focusing on this optimal point—the hyperfocal point—as much of the scene as is possible for that lens and aperture setting will be in acceptable focus from near to far. We are able to achieve hyperfocus by using multiple image stacking process.



Far-Field



Near-Field



Extended Depth-of-field



# OUR VISION, TOMORROW'S INNOVATION

## OUR APPLICATIONS

### Aerospace & Automotive



Automotive subassemblies are often produced in very high volumes making human assembly and verification impractical. Today's assembly lines utilize the latest in automation technology to meet throughput and ensure manufacturing quality. For these demanding applications, machine vision systems are widely used to guide robots, track parts and verify every step of the evolving assembly process.

### Electronics & Semiconductor



In semiconductor manufacturing, yield drives costs, so manufacturers inspect products at many points between bare wafers and packaged ICs, seeking to identify defects as soon as possible. In the highest-performance situations, the features are so small that visible light can no longer resolve them, and inspection systems must use deep ultraviolet(DUV) wavelengths for illumination.

### Research & Development



Non-destructive testing is extremely valuable for evaluation, troubleshooting, research, and quality control in science and industry, and X-ray imaging is an important NDT technique for products including circuit boards, concrete, metal parts and assemblies.

### Pharmaceuticals



The pharmaceutical industry was one of the earliest adopters of machine vision, as the incentives to guarantee product integrity and safety have always been foremost in this industry. By simply applying date and lot codes was not enough, given character quality concerns associated with then existing imprinting processes. Machine vision became the ideal technology to verify codes and validate legibility of the codes.

### Food & Beverage



Food and packaging inspection including measurement, or counting of bottles, cans, containers, labels, foods, pills, and more, offers different challenges than electronics or semiconductor inspection. Colour imaging can become very important in food inspection, as it is often necessary to judge ripeness or "doneness".

### System Integrators



A Vision System Integrator invests time to understand a customer's unique requirements and will design and build a vision solution that meets the customer's specific manufacturing needs in terms of performance, reliability and adaptability. Often this means Vision System Integrators are undertaking one of a kind projects; specifying and configuring systems to a customer's requirements.





JM Vistec System  
For Enquiries: [info@jm-vistec.com](mailto:info@jm-vistec.com)



## WHO WE ARE

JM Vistec System was established in 2004. Since then, we had partnered and collaborated with leading research institutes to develop solutions for various industries. Today, our capabilities has soar into greater heights with strong regional presence in Asia.

As a distributor, the brands we represent are selected based on performance and reliability. Machine vision requires the delicate skills of professionals for the optimal results. Our engineers are regularly trained and updated on the latest technologies and techniques. We take pride in customer satisfaction and deliver only the best performance solutions.



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