

Industrial Vision Sensor (iViS)



Industrial Vision Sensor (iViS) is a vision processing system equipped with an image (CMOS) sensor and a powerful on-board computing engine to perform the next generation industrial machine vision applications. Industrial Vision Development Tool (IVDT), the Machine Vision Framework provides a graphical programming software to build vision based applications. The system is capable of analyzing images to perform appearance inspections, character inspections, positioning, defect inspections, and much more. The iViS solution comes in 2 variants – iViS-10GigE, an Industrial Camera supporting 10 GigE Vision, the industrial standard protocol to network multiple cameras, and iViS-Smart, a Smart Camera with capability for on-board processing of images.



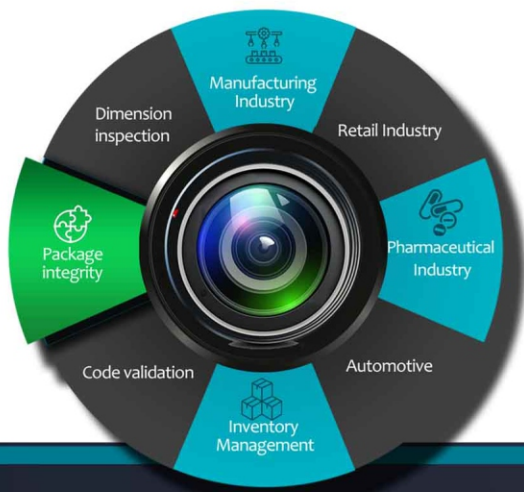
**Increase product
quality & lower
production costs**

iViS-Smart is an all-in-one package vision system, comprising of CMOS image sensor, image processor, application processor and control logic circuits in an IP enclosure to support the machine vision applications. The system is capable of extracting application-specific information from the captured images and make decisions based on the image processing algorithms implemented on the system, to realize stand-alone intelligent and decision-making vision based applications.



Salient Features

- Indigenous Hardware and Software system for automated inspection and identification applications
- 10G GigE Vision compliant configuration
- Scalable and customisable hardware to support high speed and next-generation industrial vision applications
- Supports AI based applications employing Machine Learning (ML) and Deep Learning (DL) techniques



iViS-10GigE model supports real time streaming of images to a host system through the industrial networking protocol GigE Vision at a maximum throughput of 10 Gigabits per second through ethernet interface. The system accepts 12/24V digital inputs and enables control of field parameters through digital output interface module.



Technical Specifications

Power	12 / 24V DC± 20 %
Operating Temperature	-10°C to +60°C
Application Processor	ARM Cortex-A53 MP Dual Core
System Memory (on-board)	RAM: 2 GB Flash: 8 GB
Image Signal Processor	FPGA (Programmable Logic)
CMOS Image Sensor	Resolution : 1920 x 1080 pixels Frame rate: 30 FPS, Global Shutter Pixel Size : 5.86 × 5.86 μm
Display	Mini DisplayPort V1.2
Data Storage	SD Card
Digital Inputs	4 nos. (Isolated)
Digital Outputs	5 nos. (Isolated)
Analog Outputs	2 nos. (4-20mA/1-5V)
Imaging & Optical	C-mount Lens, External Lighting
Compliance	EN 55032 and EN 61000 standards IP65 Housing & Connectors (M12)
PC Software	C-DAC (IVDT Framework)