

Allegro IVD 6MP Smart Camera



Dimensions:
111.52mm(L) x 43.18mm(w) x 33.45mm(h)

Sony Starvis IMX178 6 Megapixel, Full Color, USB/RS-232/Ethernet Smart Camera

The JADAK Allegro In-Vitro Diagnostic 6MP Smart Camera is the intelligent solution for the IVD Original Equipment Manufacturer (OEM). Specifically designed to perform standard pre-analytical IVD tasks on a rack of vials. The Allegro IVD 6MP Smart Camera, along with Clarity 3.0 software, can accurately and precisely detect and screen diagnostic samples in a timely manner, thus eliminating waste by conducting tests on incomplete samples and reducing errors typically caused by manual processes.

The Allegro IVD 6MP Smart Camera includes FPGA capabilities, allowing parallel processing of machine vision tasks and onboard CPU, thus improving the throughput of the IVD analyzer. By capturing a high-quality image and executing multiple algorithms on the FPGA and onboard CPU without an additional processor, it will provide actionable data to the analyzer, improving speed, and reducing the errors and costs associated with manual processes.

Furthermore, by utilizing JADAK's pre-loaded Clarity 3.0 machine vision software, the camera can execute tasks such as liquid level detection, cap classification, barcode decoding on trays or racks and color calibration directly on the camera.

As an added value, JADAK is a MVTec Image Acquisition Partner, allowing customers to use the MVTec suite of software with JADAK's suite of hardware.

Features & Benefits:

- Frame Rate up to 60 fps
- Rolling Shutter
- 1/1.8-inch sensor format
- On-board LED illumination
- Performs pre-analytical tasks on rack on vials/test tubes



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SPECIFICATIONS

Image Sensor Model	Sony Starvis IMX178 Color
Sensor Format	1/1.8 inch
Max Frame Resolution	3072 (H)x 2048 (V), 6.29M Pixel (3:2)
Max Frame Rate	for a full-size image 60fps at 10bits, 30fps at 14bits
Burst Frame Rate	60fps (10-bit)
Pixel Size	2.4 μm x 2.4 μm
Shutter	Rolling Shutter
Standard Outputs	USB2 High-speed, 10/100 Ethernet, RS232 UART
Sensor Video Data	10-bit, 12-bit, 14 digital data
Image Data Formats	YUV, YCbCr422/400, RGB8/565, processed Bayer10/12/14 including packed
FPGA	Altera Cyclone V
On-Board Image Buffer Memory	256 MB
Processor	IMX6ULL
Processor DDR3 Memory	512MB
System Flash memory	eMMC, 4G bytes
Illuminating LED	Neutral white, programmable intensity
Partial Image Modes	2 x 2 Binning is supported. Programmable region of interest capability.
Gain Control	Analog Gain & Digital Gain (programmable)
Shutter Speed	Programmable, integration time as fast as one line
Synchronization	Via external trigger and software trigger
Trigger Latency / Jitter	Latency TBD / Jitter +/- 0.5 micro-second
Interface Port	USB3.0 Micro B and 15-pin Generic port
General Purpose I/O Port	15-pin Generic Port (Ethernet, RS232UART) Programmable Open-Collector Trigger Input 2 Programmable Open-Collector Strobe Outputs
Power / Voltage	USB3 Host Port, 5 V +/- 10% at 0.9 A max, Optional External 5V and 24V
Dimensions (W x H x L)	111.52mm(L) x 43.18mm(w) x 33.45mm(h)
Mass	0.616 lbs
Lens Mount	M12
Adjustable Back Focal Length	Optional
Emissions Compliance	CE, FCC, RoHS
Operating Temperature	-0° to 50° C
Storage Temperature	-30° to 70° C
Vibration Resistance	10 G (14 Hz to 200 Hz)
LED Indicator	Status and power monitoring Dual color
Enclosure	Pre-drilled mounting holes Tripod mount available Heavy duty aluminum Sealed Sensor and LED Cavity

ABOUT JADAK:

JADAK, a business unit of Novanta, is a market leader in machine vision, RFID, barcode, printing, and color and light measurement products and services for original equipment manufacturers. The company designs and manufactures embedded detection and analysis solutions that help customers solve unique inspection, tracking, scanning and documenting. The company is ISO 9001 and ISO 13485 registered.

Novanta is a trusted technology partner to OEMs in the medical and advanced industrial technology markets, with deep proprietary expertise in photonics, vision and precision motion technologies.

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