

ISM-JXK02

MIPI SENSOR MODULE

The iENSO MIPI sensor module ISM-JXK02 is a cornerstone of iENSO's embedded ecosystem of SOMs, camera modules, and wireless connectivity modules.

The iENSO ISM-JXK02 uses Silicon Optronics' JX-K02 sensor, which consists of a 2704x1528 active pixel sensor (APS) array with on-chip 10-bit ADC, programmable gain control (PGA), and correlated double sampling (CDS) to significantly reduce fixed pattern noise (FPN). The sensor also has many standard programmable and automatic black level calibration functions (ABLC).

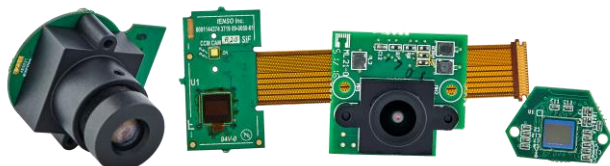
The Silicon Optronics JX-K02 sensor features a type 1/2.7" color CMOS with 4.1M effective pixel to achieve 2704 x 1528 resolution, which performs perfectly with iENSO's multiple types of lenses.

APPLICATIONS

- Specialty Surveillance
- Facial recognition
- After-market automotive
- Precision Farming
- Robotic and drone cameras
- IoT & Embedded vision

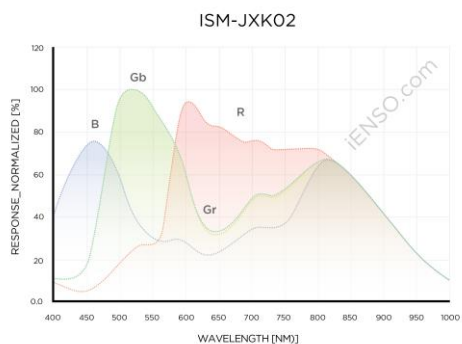
KEY SPECIFICATIONS

- Framerate: 4.1M, 60 fps (30 fps in 2-frame HDR mode) over a 4-lane MIPI CSI-2 10-bit interface.
- Pixel details: 2.2 μm , 2704 x 1528 array (16:9), color, front illuminated, HDR, rolling shutter.
- Package/Environmental: wafer-level CSP.
Junction temp. range -30°C to 85°C (60°C stable image).

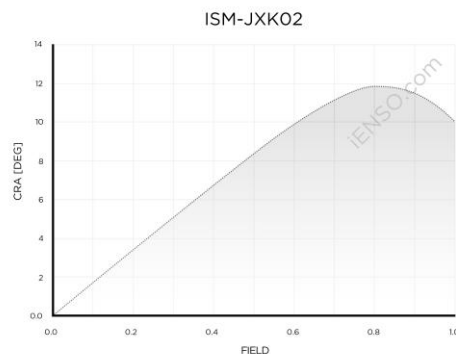


reference

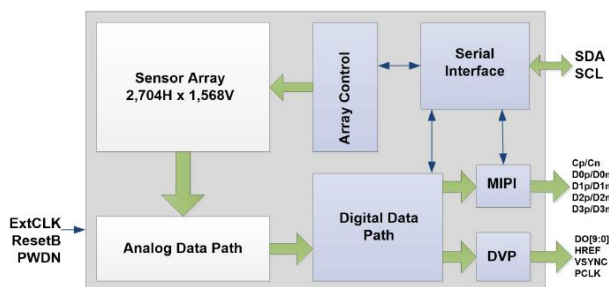
SPECTRAL RESPONSE



CHIEF RAY ANGLE



FUNCTIONAL BLOCK DIAGRAM



Maker	ON Semi	Silicon Optonics		ON Semi	Sony	OmniVision	Sony
Sensor	AR0144	JX-F22	JX-K02	AR0521	IMX326	OV8865	IMX317
Megapixels (MP)	1.0	2.1	4.1	5.0	6.8	8.0	8.5
Frame Rate (fps)	60	60	60	60	30	30	60
Optical Format (inch)	1/4	1/2.7	1/2.7	1/2.5	1/2.9	1/3.2	1/2.5
Pixel size (µm)	3.0	3.0	2.2	2.2	1.62	1.4	1.62
Benefits	<ul style="list-style-type: none"> HDR Low Light Near IR enhanced 	<ul style="list-style-type: none"> HDR Low light 	<ul style="list-style-type: none"> On-chip ISP HDR Low light 	<ul style="list-style-type: none"> HDR BSI Low light 	<ul style="list-style-type: none"> BSI HDR Low light Near IR enhanced 	<ul style="list-style-type: none"> BSI 	<ul style="list-style-type: none"> HDR BSI

THE RIGHT EMBEDDED VISION SYSTEM FOR YOUR APPLICATION

CONSISTENT QUALITY: From six-axis lens alignment to consistently accurate color quality, to AI and ubiquitous connectivity, we guarantee that every iENSO embedded vision system will perform to spec.

SECURE SUPPLY: With iENSO engineers on the floor in all of our manufacturing partner facilities, we guarantee the quality and quantity of supply you need to make your application a success.

COMPELLING ECONOMICS: With our years of experience in the design and development of industrial, machine and consumer vision technologies, we can provide a cost-effective, no compromise embedded vision solution for your application.

ABOUT iENSO

Established in 2003, iENSO provides imaging and wireless solutions that are helping global brands take their products to the next level in the age of embedded systems and AI platforms. iENSO accelerates the deployment of innovative imaging and wireless products in a wide range of verticals such as IoT, home automation, automotive,

drones, professional entertainment, robotics, remote surveillance and security. With offices in Canada and China, iENSO has perfected the engineering ecosystems that exist between initial design and high-volume manufacturing.



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