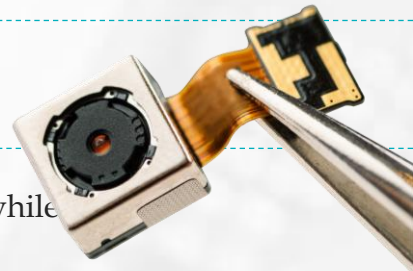
INV-IMX989-50MP

50MP Large-Sensor Autofocus Camera Module with Sony IMX989 Sensor, MIPI-CSI Interface

The INV-IMX989 is a 1-inch 50MP CMOS digital image sensor featuring Sony's back-illuminated and stacked sensor technology. With approximately 50.3 million active pixels and large 1.6 µm pixels, it delivers highly detailed images with excellent sensitivity and low-noise performance.
The large 1-inch sensor provides excellent image quality in challenging lighting conditions, capturing clear and detailed images in both bright and dark environments. Its advanced HDR capabilities help preserve detail across high-contrast scenes while reducing noise and motion artifacts.
The INV-IMX989 combines a 13 mm focal length with a 98° diagonal field of view and autofocus from approximately 10 cm to infinity. Its MIPI interface and 26 mm × 26 mm × 9.4 mm module design make it well suited for AI vision, industrial inspection, intelligent security, robotics, smart devices, and other high-resolution imaging applications.

- Ultra-high-resolution 50MP imaging for highly detailed photographs and advanced vision applications.
- Large 1-inch sensor for increased light capture and excellent image quality in demanding conditions.
- Back-illuminated stacked technology for high sensitivity and low-noise image performance.
- Advanced HDR performance for improved detail across bright and dark areas of a scene.
- Autofocus from 10 cm to infinity for sharp imaging across a broad range of working distances.
- 98° diagonal field of view for broad scene coverage while maintaining detailed image capture.
- MIPI interface and compact module design for integration into AI, robotics, security, and industrial vision systems.



Resolution	Sensor Vendor	Image Sensor	Interface	Focus	Optical Size	EFL	FOV (degrees)	Focus Range	Optical Distortion	Module Size (mm)	Application
50MP	Sony	IMX989	MIPI	AF	1"	8.7 ± 5%	D=87, H=72, V=57	130CM–∞	<1%	22x21mm	Robotics, AI Vision, Industrial