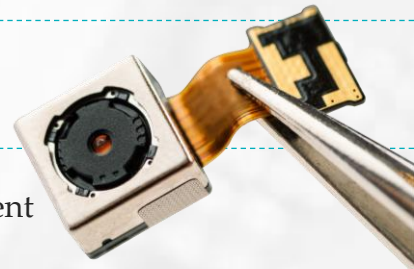
INV-IMX586AF-48MP

48MP High-Resolution Autofocus Camera Module with Sony IMX586 Sensor, MIPI-CSI Interface

The INV-IMX586AF is a 1/2-inch 48MP CMOS digital image sensor featuring Sony's stacked back-illuminated technology. With an 8000 (H) × 6000 (V) active pixel array and 0.8 µm pixels, it delivers highly detailed images while maintaining a compact sensor size.
The sensor uses a Quad Bayer pixel arrangement to provide both high resolution and improved sensitivity in low-light conditions. Its HDR capability helps preserve detail in scenes with strong differences between bright and dark areas, while advanced signal processing provides high-quality real-time image output.
The INV-IMX586AF combines autofocus capability with a 4.74 mm focal length and an 85° diagonal field of view. Its MIPI interface and compact module design make it well suited for AI vision, robotics, smart devices, industrial inspection, security, and other high-resolution imaging applications.

- Ultra-high-resolution 48MP imaging for highly detailed photographs and advanced vision applications.
- Sony stacked back-illuminated technology for improved sensitivity and low-noise image performance.
- Quad Bayer pixel architecture for enhanced sensitivity in low-light conditions while maintaining high resolution.
- HDR imaging capability for improved detail across bright and dark areas of a scene.
- High-speed video capture supporting 4K at up to 90 fps and 1080p at up to 240 fps.
- Autofocus capability for sharp imaging across different working distances.
- MIPI interface and compact module design for integration into AI, robotics, security, and embedded vision platforms.



Resolution	Sensor Vendor	Image Sensor	Interface	Focus	Optical Size	EFL	FOV (degrees)	Focus Range	Optical Distortion	Module Size (mm)	Application
48MP	Sony	IMX586	MIPI	AF	1/2"	4.74mm	85	8CM–∞	< -1.5%	10.8x10.3x6.5mm	Robotics, AI Vision. Security