

INV-IMX415-8MP

8MP (4K) RGB Rolling Shutter Camera Module

The INV-IMX415-8.3MP camera module is based on the Sony IMX415 back-illuminated CMOS image sensor, typically paired with high-resolution M12 (S-Mount) optics.

It utilizes Sony's Back-Illuminated (BSI) technology to capture clear, detailed images in low-light conditions, making it well suited for surveillance and AI-driven analytics. The sensor operates with an Electronic Rolling Shutter and supports high-speed performance, delivering 60.3 fps @12-bit and 90.9 fps @10-bit.

Integrated with the STM32MP2 platform, the module provides seamless MIPI CSI-2 connectivity and optimized embedded image processing. InnoWave's camera and ISP tuning further optimizes image quality, exposure, color, and low-light performance for the STM32MP2, delivering a reliable imaging solution for security, robotics, medical, and edge AI applications.



Back-illuminated pixel architecture optimized for ultra-high sensitivity in security and industrial use.



Full characterization of shading, distortion, and intrinsic/extrinsic parameters.



Professional optimization for BLC, LSC, CCM, and custom noise reduction.



High-speed Auto Exposure, Auto White Balance, and precision Auto Focus response.



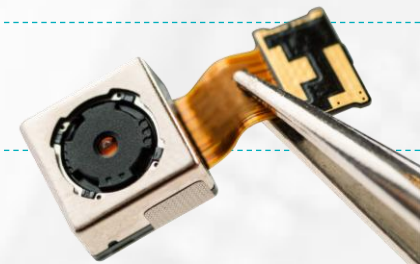
60.3 fps @12-bit; 90.9 fps @10-bit



Exceptional signal-to-noise ratio for clear imaging in low-illumination environments.



Specialized IQ tuning for facial recognition, license plate reading, and edge analytics.



Resolution	Sensor Vendor	Image Sensor	Interface	Focus	Optical Size	EFL	FOV (degrees)	Focus Range	Optical Distortion	Module Size (mm)	Application
8MP	Sony	IMX415	MIPI	FF	1/2.8"	2.6	129	1.13m~3.45m	<-20%	16.3x16.3mm	Surveillance, FA cameras, Industrial