INV-IMX577-12MP

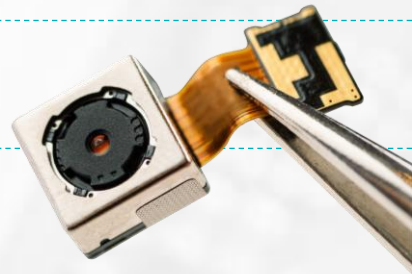
12MP RGB Color Rolling Shutter Camera Module, MIPI-CSI Interface for SMARC QCS6490 Vision AI Dev Kit

The INV-IMX577-12MP camera module is based on the Sony IMX577 color CMOS 12-megapixel image sensor with M12 mount lens.

The IMX577 image sensor is a diagonal 7.857mm (Type 1/2.3) 12.3MP CMOS active pixel Type stacked image sensor with a square pixel array.

The IMX577 adopts Sony's Stacked CMOS Image Sensor technology to achieve high speed image capturing by column parallel A/D converter circuits and high sensitivity and low noise image (comparing with conventional CMOS image sensor) through the backside illuminated imaging pixel structure. R, G, and B pigment primary color mosaic filter is employed. It equips an electronic shutter with variable integration time.

- Camera characterization (shading, distortion) and calibration for both intrinsic and extrinsic parameters
- ISP Tuning – Black Level Correction (BLC), Color Correction Metrix(CCM), Lens Shading Correction (LSC), Denoising, Demosaicing, LTM, GTM, etc.
- 3A tuning algorithms: Auto exposure, Auto white balance, Auto focus.
- Other algorithms: Sharpness, CCM, LTM, GTM, HDR, etc.
- IQ tuning for human vs machine vision
- Low light image / video enhancement.
- Custom noise removal, EIS, array camera and other algorithms.



Resolution	Sensor Vendor	Image Sensor	Interface	Focus	Optical Size	EFL	FOV (degrees)	Focus Range	Optical Distortion	Module Size (mm)	Application
12MP	Sony	IMX577	MIPI	FF	1/2.3"	2.8	75	50cm~∞	<-14%	25x25mm	Robotics, Security