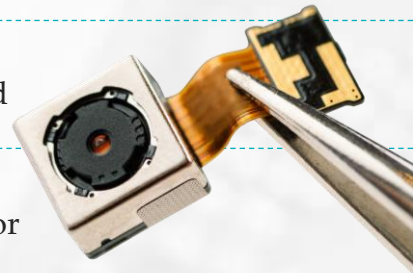
INV-IMX376FF-20MP

20MP RGB Rolling Shutter Camera Module

The IC-IMX376FF-20M is a fixed focus camera module with a diagonal 6.475 mm (Type 1/2.78) 20 Mega pixel IMX376 CMOS active pixel type stacked image sensor with a square pixel array. It adopts Exmor RS™ 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 operates with four power supply: analog 2.8 V, 1.8V, digital 1.05 V and 1.8 V for input/output interface and achieves low power consumption. It is optionally operational with conventional three power supplies by using an analog power supply voltage of 2.8V.

- Optimized for high-sensitivity capture, specifically designed to improve signal-to-noise ratio in low-light conditions.
- Full characterization of shading, distortion, and intrinsic/extrinsic parameters for precision module integration.
- Professional optimization for Black Level Correction (BLC), Lens Shading Correction (LSC), and Color Correction Matrix (CCM).
- High-precision Auto Exposure, Auto White Balance, and rapid focus response for dynamic environments.
- Supports 20MP capture at 30 fps, suitable for detailed machine vision and high-end consumer imaging.
- Capability to combine four adjacent pixels into one for enhanced performance in extremely dark scenes.
- Specialized IQ tuning tailored for facial recognition, high-detail object detection, and edge-based analytics.



Resolution	Sensor Vendor	Image Sensor	Interface	Focus	Optical Size	EFL	FOV (degrees)	Focus Range	Optical Distortion	Module Size (mm)	Application
20MP	Sony	IMX376	MIPI	FF/AF	1/2.78”	Multiple Options	D=117.2	10cm~∞	<9.7%	8.8x8.8x6.96mm	Medical, Security