

IMX296 Global Shutter Camera Module



Global Shutter



High-speed
Shooting



1.6MP



IMX296 Sensor



C/CS
Lens Mount

Features at a glance

The **IMX296 Global Camera (A)** is based on the IMX296 sensor with 1.6MP resolution. It is capable of capturing fast moving objects without the Jelly-Effect of rolling shutter, ideal for fast motion photography and machine vision applications. The camera includes a C- to CS-mount adapter, suitable for industrial lenses with C or CS mount. Comes with dual cables, compatible with all Raspberry Pi series boards.

Specifications

Sensor	Model	IMX296
	1.6MP (Color)	1456 × 1088
	CMOS diagonal size	6.3mm

	Pixel size	3.45 × 3.45 (μm)
	Output	RAW10
	Lens Support	C-mount / CS-mount (C-CS adapter included)
	IR cut filter	Integrated

Lens Selection

Product	6mm Wide Angle Lens	16mm Telephoto Lens	25mm Telephoto Lens	35mm Telephoto Lens	8-50mm Zoom Lens	100X Microscope Lens for Pi
Image format	1/2"	1"	2/3"	1"	1/2.3"	1/2"
Focal length	6mm	16mm	25mm	35mm	8-50mm	-
Aperture	F1.2	F1.4-16	F1.4-16	F1.7-16	F1.4	-
OPTICAL MAGNIFICATION						0.12X~1.8X
ZOOM RATIO						15:01
Mount	CS-mount	C-mount				C/CS-mount
Angle of view	63°	1" 44.6° × 33.6° 2/3" 30.0° × 23.2° 1/1.8" 24.7° × 18.6° 1/2" 21.8° × 16.4°	2/3" 20.2° × 15.1° 1/1.8" 16.5° × 12.4° 1/2" 14.5° × 10.5°	1" 20.9° × 15.8° 2/3" 14.4° × 10.8° 1/2" 10.5° × 7.9°	45°-5.35°	-
Back focus	7.53mm	17.53mm				-
Optical length	-	67.53mm	-			
Distortion	-	1" (-0.7%) 1/2" (-0.5%) 1/3" (-0.15%)	0.05%	0.35%	-	< -0.1%
M.O.D.	0.20m	0.20m	0.25m	0.30m	0.20m	2.4mm
Dimensions	Φ30.00 × 34.00mm	Φ39.00 × 50.00mm	Φ34.00 × 34.00mm	Φ35.00 × 34.00mm	Φ40.00 × 68.30mm	Φ39.00 × 112.00mm

	m		m	m		
Operation	Manual aperture adjustment					Fixed aperture
Weight	53g	133.7g	82g	78g	148g	202g

Global shutter, more clear imaging

the global shutter eliminates jello-effect while shooting fast moving objects
more suitable for high-speed motion capturing

* The images above are simulated for reference only, please refer to the actual shooting effect.

with mounted lens

* The [16mm telephoto lens](#) is not included, please purchase separately.

Working with Raspberry Pi

* for reference only, [Raspberry Pi 5](#), [Raspberry Pi Zero 2 W](#), and [16mm Telephoto Lens](#), are NOT included, please purchase separately.

Outline Dimensions

Resources & Services

Wiki: [www.waveshare.com/wiki/IMX296_Global_Camera_\(A\)](http://www.waveshare.com/wiki/IMX296_Global_Camera_(A))

Selection Guide

Part Number	Pixels	Sensor	CMOS Size	IR-CUT Filter	Lens Support	FoV (°)	Aperture (F)	Focal Length (mm)	Dimensions (mm)	For use with
Raspberry Pi HQ Camera	12.3MP	IMX477	7.9mm	integrated	C/CS	-	-	-	38*38	Raspberry Pi, CM3/3+/4/5
IMX477 12.3MP Camera						-	-	-	38*38	Raspberry Pi, CM3/3+/4,

										Jetson series boards
Raspberry Pi HQ Camera M12					M12	-	-	-	38*38	Raspberry Pi, CM3/3+/4/5
IMX477 IR-CUT Camera (A)				90		2.0	3.95	38*38	Raspberry Pi, CM3/3+/4/5, Jetson series boards	
IMX477-160 12.3MP Camera				154		2.7	3.25	26*25	Raspberry Pi, CM3/3+/4/5, Jetson series boards	
Raspberry Pi Global Shutter Camera	1.6MP	IMX296	6.3mm		C/CS	-	-	-	38*38	Raspberry Pi, CM3/3+/4/5
IMX296 Global Camera (A)	1.6MP	IMX296	6.3mm		C/CS	-	-	-	38*38	Raspberry Pi, CM3/3+/4/5
IMX296-130 BW Camera	1.6MP	IMX296	6.3mm		M12	130	1.6	3.0	38*38	Raspberry Pi, CM3/3+/4/5