

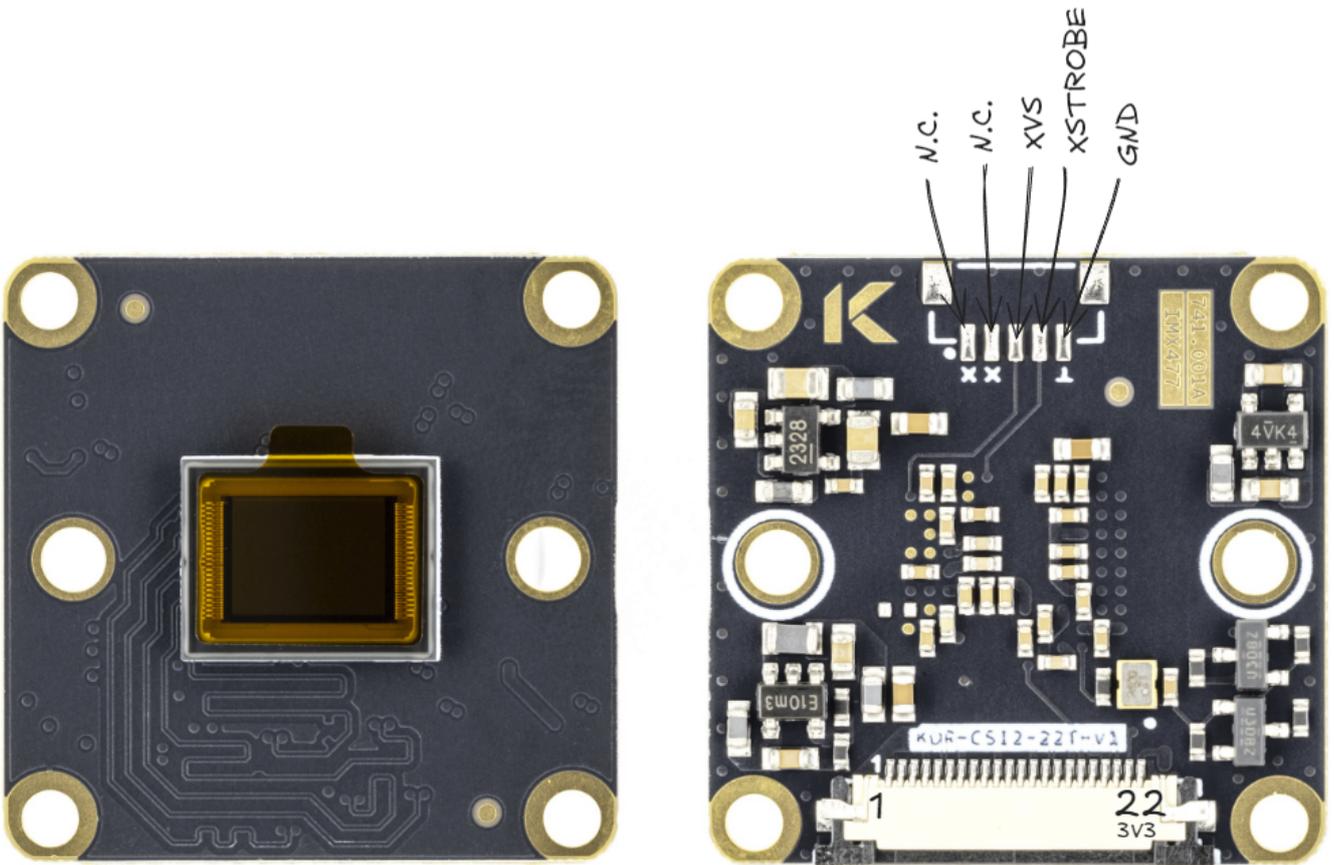
477x-CSI

The IMX477 is a stacked back side illuminated Exmor RS CMOS image sensor with a 7.857 mm (type 1/2.3") optical format and 4056 × 3040 active square pixels at a 1.55µm pitch, giving 12.3-megapixel resolution. It uses an electronic rolling shutter with variable integration time, 10/12-bit ADCs that stream RAW12/10/8 over a 2 or 4-lane MIPI CSI-2 interface running up to 2.1Gb/s per lane. Normal mode delivers the full 4056 x 3040 picture at 60fps in 10-bit format and can stream up to 240fps in 1080 resolution. Auxiliary functions include pixel-binning and V-sub-sampling engines, ambient light and temperature sensors, flash strobe drive, HDR mode, independent image flip/mirror, power save mode and multi camera synchronization. Best suitable for: consumer 4K camcorders and other high speed, multi camera video systems.

Camera variants

SKU	Lens mount	Chroma	Note
477C-CSI-M12	9.5mm for wide angle lenses	RGB Color	Most common use for wide angle and fish-eye lenses.
477C-CSI-M12L	14.7mm for regular and telephoto lenses	RGB Color	Modification for lenses above 6mm (typical)

Pinout



Interface connector 22pin 0.5mm pitch 687122183622 from Würth Elektronik. Top facing pins.

Pin	Signal	Description
1	GND	
2	DO_N	
3	DO_P	
4	GND	
5	D1_N	
6	D1_P	
7	GND	
8	CLK_N	
9	CLK_P	

10	GND	
11	D2_N	
12	D2_P	
13	GND	
14	D3_N	
15	D3_P	
16	GND	
17	ENABLE	Wired to sensor RESET_N
18	N.C.	
19	GND	
20	SCL	
21	SDA	
22	+3.3V	

AUX wiring

Interface connector 5 pin 1mm pitch 665305124022 from Würth Elektronik.

Pin	Signal	Description
1	N.C.	Not connected
2	N.C.	Not connected
3	XVS	
4	XSTROBE	
5	GND	

Revision #5

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