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## C2

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INDUSTRIAL USB CAMERAS WITH CS LENS MOUNT AND H.  
264 ON-BOARD ENCODER

## DATASHEET



**KUROKESU**

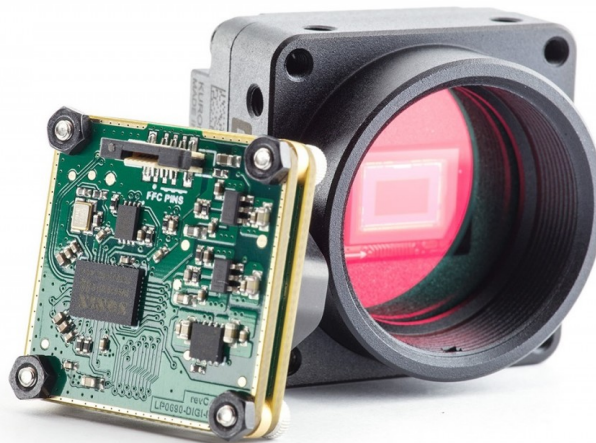
2021-09-07, Rev. #14

## Overview

C2 family cameras are based on with Sony [Exmo R](#) Starvis IMX290 sensor and offers h.264/MHPEG/YUYV compressions over USB interface.

There are few camera versions:

Camera model	Lens mount	Microphones	Connector	Colors	Note
<a href="#">C2_USBC</a>	CS	No	USB-C	RGB	Boxed camera
<a href="#">C2_USBC_MIC</a>	CS	Yes	USB-C	RGB	Boxed camera with stereo microphones
<a href="#">C2_BOARD_FFC_M12_2</a>	M12	No	FFC 0.5mm 6p	RGB	Board camera
<a href="#">C2_BOARD_HS_FFC_M12</a>	M12	No	FFC 0.5mm 6p	RGB	Board camera with heatsink
<a href="#">C2M_USBC</a>	CS	No	USB-C	Mono	Boxed monochrome camera



## Features

- 1"-20TPI CS / M12 lens mount
- Multiple mounting options (all side walls and top has M3 tapped holes) for machine vision or robotics
- Board mount option
- Optional 1/4-20 UNC thread for tripod mounting
- Format: 1/2.8-inch (6.46mm)
- Sensor: Sony IMX290 Color / Mono
- MJPEG/h.264/YUY2 compression
- 1920x1080 @ 30fps
- UVC compatible
- Sensor pixel size: 2.9µm x 2.9µm
- Sensor dynamic range: 66db
- SNR max: 40.5db
- Operation temperature range: -50°C...+85°C
- USB 2.0
- Interchangeable filters (650nm installed by default)
- High quality industrial black anodized aluminum case / lens mount
- Non cropped sensor operation in all resolutions
- Each camera has unique serial number
- RoHS, REACH, CE certified

# Specifications

## Common specifications

Pixels	1920H x 1080V
Sensor size	5.63 x 3.17 mm
Shutter	Electronic Rolling Shutter
Sensor pixel size	2.9µm x 2.9µm
Frame rates	<ul style="list-style-type: none"> <li>• h.264 – 30fps in all modes</li> <li>• MJPG – 30fps in all modes</li> <li>• YUV 4:2:2 (YUYV)               <ul style="list-style-type: none"> <li>◦ 1920x1080 – 5fps</li> <li>◦ 1280x720 – 10fps</li> <li>◦ 640x480 – 30fps</li> </ul> </li> </ul>
Output frame sizes	1920x1080, 1280x720, 640x480, 640x360, 320x240, 320x180
Scan	Progressive
Manual control	<ul style="list-style-type: none"> <li>• Exposure</li> <li>• White balance (2800°K – 9300°K)</li> <li>• Gain</li> <li>• Gamma</li> <li>• Backlight compensation</li> <li>• Sharpnes</li> <li>• Contrast</li> <li>• Saturation</li> <li>• Hue</li> <li>• Brightness</li> <li>• Anti-flicker frequency</li> </ul>
Rated power	<ul style="list-style-type: none"> <li>• 2W max</li> <li>• 350mA @ 5V – h.264</li> <li>• 290mA @ 5V – MJPEG / YUYV</li> </ul>
Supported OS	<ul style="list-style-type: none"> <li>• Windows</li> <li>• OSX</li> <li>• Linux</li> <li>• Android</li> </ul>
Sensor	Sony IMX290

**Boxed camera**

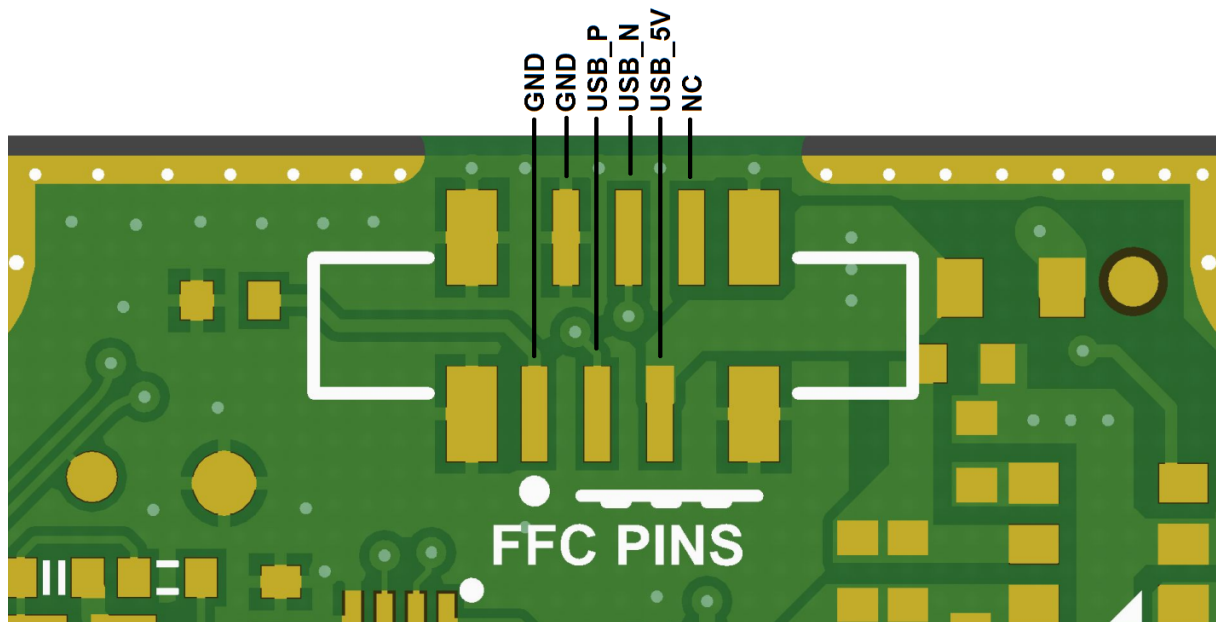
Weight	TBD
Dimensions	33×33×24.5mm
Ingress protection	IP40
Lens mount	CS-mount
Operational temperature	-50 ... 85°C (non condensing)

**Board camera**

Weight	TBD
Dimensions	TBD
Ingress protection	TBD
Lens mount	M12
Operational temperature	-50 ... 65°C (non condensing)

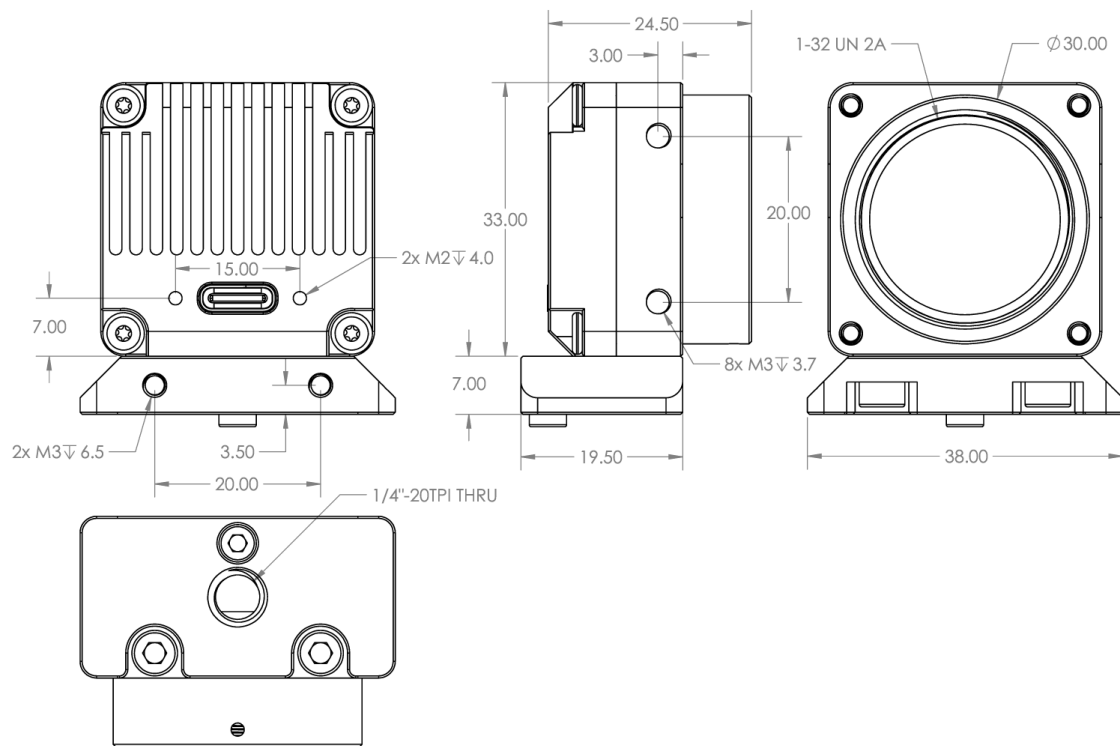
## FFC connector pin-out

C2 FFC board camera should be used with 6 pin 0.5mm pitch FFC cable like 687606050002 from [Würth Elektronik](#)



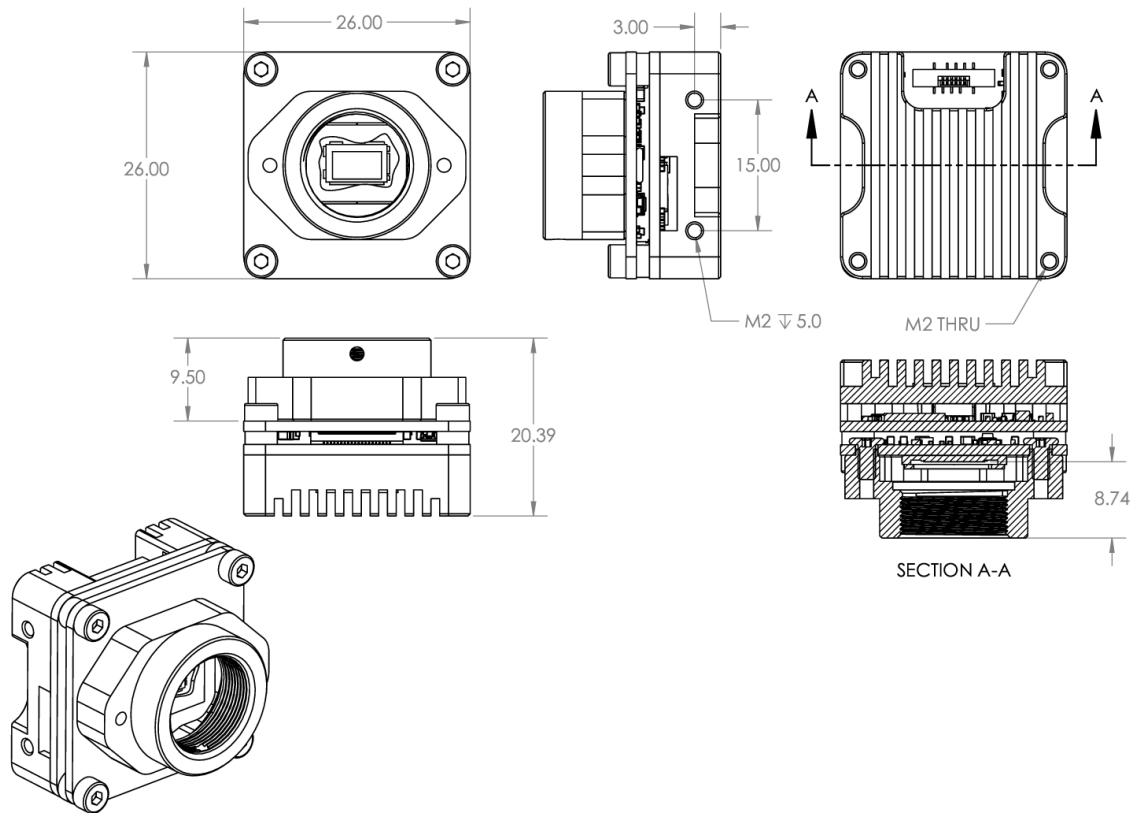
# Dimensions

## Boxed camera



**i** Tripod / Arca Swiss mount plate is optional

## Board camera



**i** Back plate heat-sink is optional