

C3

Industrial USB cameras with CS lens mount and h.264 on-board encoder

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Overview

Kurokesu industrial USB cameras with 4K Sony IMX415 sensor and internal MPEG/YUYV codec is suitable for a wide range of target applications and use cases. Stable and reliable web cameras operate on most modern operating systems (Windows, OSX, Linux, Android) designed to solve vision problems.



Target applications and use cases

- Remote operated and autonomous vehicles (low latency, low bandwidth streaming, wide range temperature operation -55°C~+85°C)
- Machine vision applications (full manual or auto controls, interchangeable CS or M12 lenses)
- Teleconferencing and virtual meetings (multicamera setup, interchangeable lenses for different view angles)
- Remote teaching/learning (multicamera setup, interchangeable lenses for wide, tele, or close-up scenes)
- Complex scientific equipment (internal process inspection and tracking)

Customers

- Universities and schools (students and teachers can use as teaching equipment or remote learning tool)
- Machine vision developers and researchers (suitable for RND and final product installation)
- Robot system developers and researchers (suitable for RND and final product installation)
- Vloggers, Gamers (recording video from multiple angles in low light)

Long term availability

We produce our cameras until there is demand and we can buy the components. Even if a product is marked on our web as obsolete, it can be produced on demand when the minimum quantity is met.

Features

- 1"-32TPI 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 (6.4mm)
- Sensor: Sony IMX415 Color
- MJPEG/YUY2 compression
- 3840 x 2160 @ 30fps
- UVC compatible
- Sensor pixel size: 1.45µm x 1.45µm
- Sensor dynamic range: 66db
- SNR max: 40.5db
- Operation temperature range: -50°C...+85°C
- USB-C (High-speed, 480Mbit/s mode)
- 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 (TBD)
- HDR/WDR (High / Wide Dynamic Range) function (optional with dedicated firmware)
- Internal EEPROM memory to store last preset
- RoHS, REACH, CE certified

Specifications

Common specifications

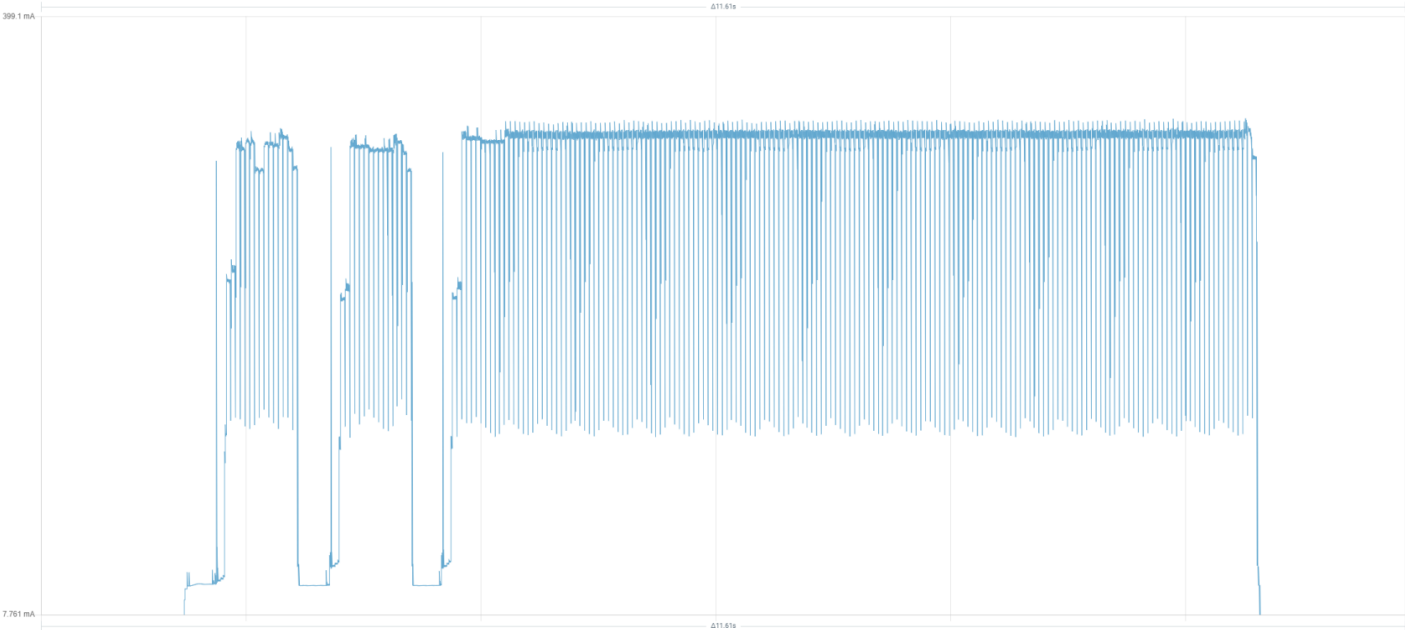
Pixels	3840H x 2160V
Sensor size	5.568 x 3.132 mm
Shutter	Electronic Rolling Shutter
Sensor pixel size	1.45µm x 1.45µm
Frame rates	<ul style="list-style-type: none">• MJPG – 30fps in all modes• YUV 4:2:2 (YUYV)
Output frame sizes	3840×2160, 2592×1944, 2048×1563, 1920×1080, 1600×1200, 1280×720, 1280×960, 800×600, 640×480, 320×240
Scan	Progressive
Manual control	<div><ul style="list-style-type: none">• Exposure• White balance (2000°K – 10000°K)• Gain• Gamma• Backlight compensation• Zoom, Pan, Tilt, Rotation• Low light compensation</div> <div><ul style="list-style-type: none">• Sharpnes• Contrast• Saturation• Hue• Brightness• Anti-flicker frequency</div>
Rated power	<ul style="list-style-type: none">• 2W max• 290mA @ 5V – MJPEG / YUYV
Supported OS	<ul style="list-style-type: none">• Windows• OSX• Linux• Android
Sensor	Sony IMX415

Boxed camera

Weight	36g
Dimensions	33×33×24.5mm
Ingress protection	IP40
Lens mount	CS-mount
Operational temperature	-50 ... 85°C (non condensing)

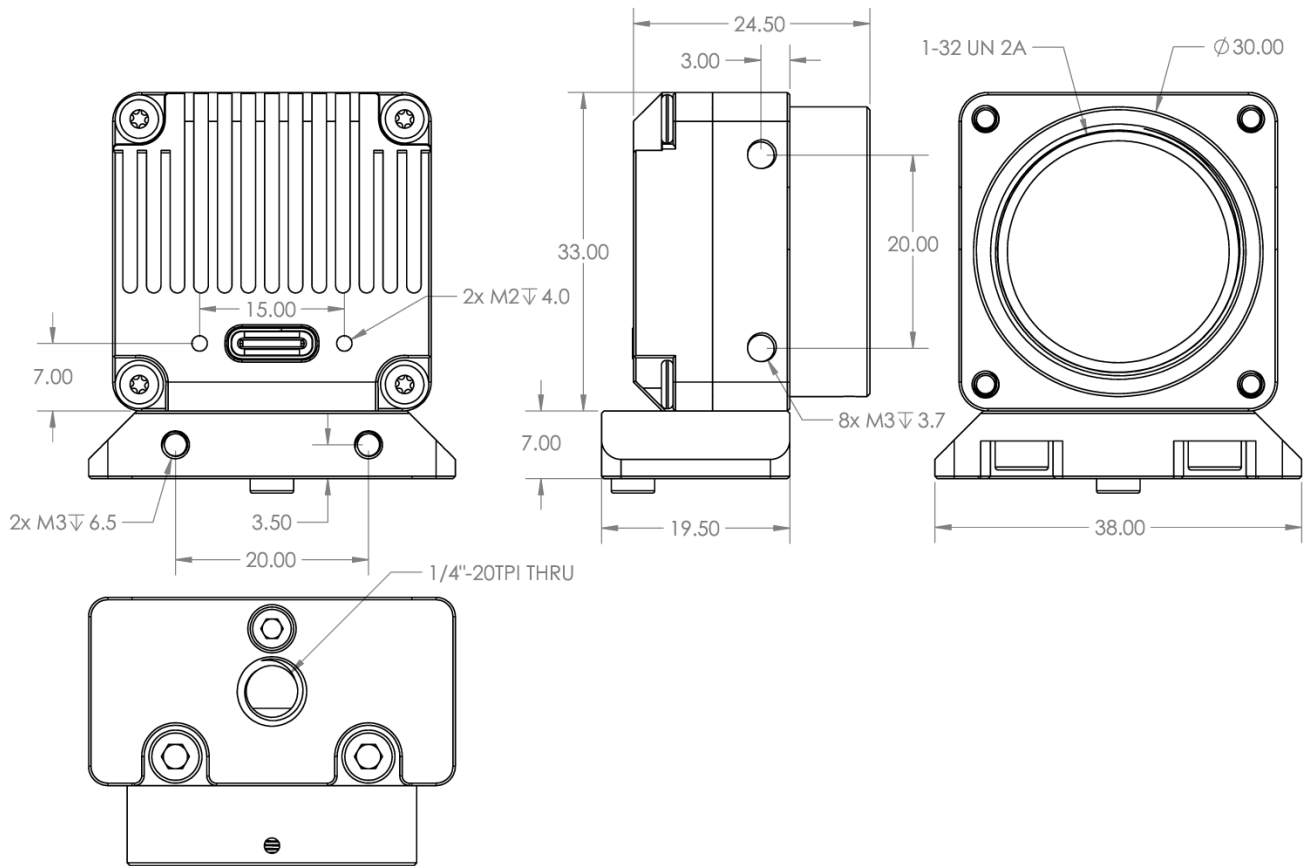
Power profile

Typical power consumption looks like in diagram below (MJPEG mode)



Dimensions

Boxed camera



Tripod / Arca Swiss mount plate is optional

3D model

Most of the Kurokesu product 3D modes uploaded to [Github](#) (See C2 camera 3D model)