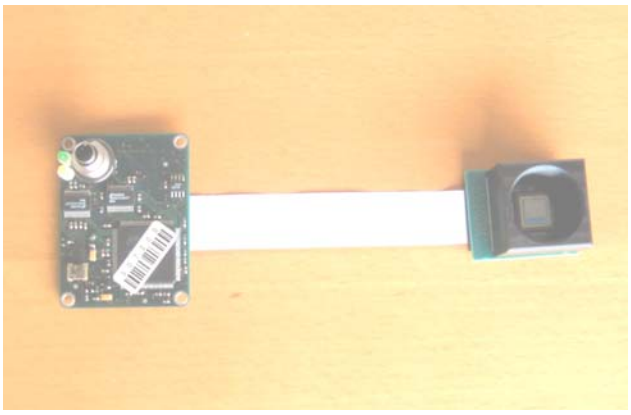
C-Cam Technologies

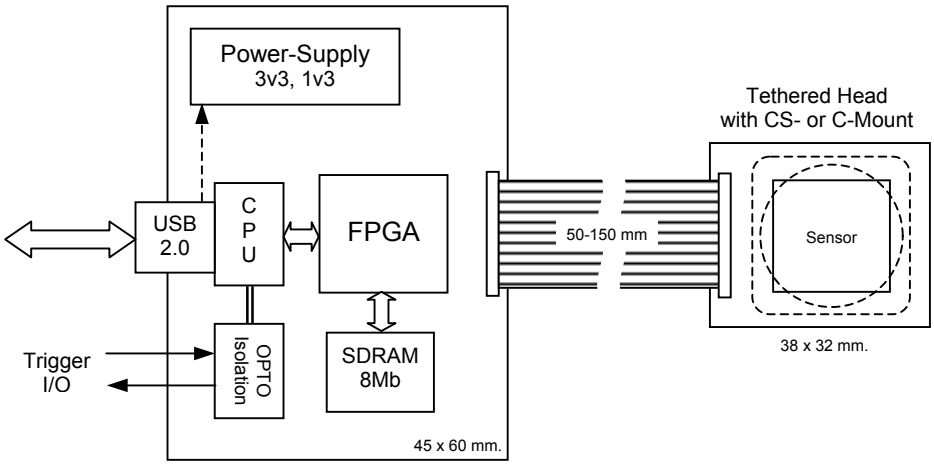
VC OEM Camera

OEM CMOS Camera

Features:

- **Various sensor formats**
- **12, 10, 8-bit pixel resolution**
- **Monochrome or Colour**
- **USB 2.0 interface**
- **Power from USB**
- **Tethered-Head construction**
- **C-Mount or CS-Mount**
- **Option: Trigger I/O**
- **Option: Housing**





The VC camera is conceived for the original equipment manufacturer who wants to integrate the electronics and sensor into a proprietary design. The small size and two-part construction allows for many mechanical solutions.

The base unit provides power, FPGA for sensor control and memory for image buffering. The user enjoys the flexibility provided by a USB 2.0 interface for loading camera logic, sending commands to the camera and acquiring image data.

A sensor PCB connects to this base unit using a flat-cable that can be as long as 150 mm.

Most sensors are available in monochrome or colour versions, the latter with Bayer demosaicing performed in the camera, presenting the user with 24-bit RGB pixel data. (8+8+8)

All VC cameras are supported by the standard C-Cam Application Programming Interface, providing high-level language support for camera control, image acquisition and image processing.

As option, the camera has opto-isolated trigger input and output for synchronisation with external events and control of lighting.

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Specifications

Imager type	CMOS low-power sensors Monochrome or Bayer colour
Window-of-Interest (WOI)	Rectangle or line image format specified by the user

USB Interface

Remote control	Via USB 2.0 interface
Connector type	Standard USB type B
Cable lengths	max 5 meters

Hardware Trigger

Trigger input-output	1 each, opto-isolated
Connector type	Binder 712 series, 3P
Signal	5v. standard Up to 24v with ext. resistor

Mechanical Specifications

Main PCB	60 x 45 x 10mm.
Tethered head	38 x 32 x 25mm (not incl. optics)
Weight	50 grams (as shown in photo)
Housing	(optional) 65 x 50 x 30mm.
Housing weight	approx.150 grams

Environmental Requirements

Operating temperature	-30°C to +70°C
Storage temperature	-30°C to +80°C in non-condensing conditions

Power Requirements

Power supply voltage	via USB cable
Power consumption	(estimated) < 0.5 Watt

Available sensors

Sensor	Pixel Array	Mpix	Pixel size	ADC	Dynamic range	FPS*	Shutter
Micron MT9P031	2592 x 1944	5	2.2 µm	12-bit	70dB	14	Rolling
Micron MT9M032	1472 x 1096	1.6	2.2 µm	12-bit	70dB	30	Rolling
Micron MT9V023	752 x 480	WVGA	6 µm	10-bit	80 – 120dB	60	Global

* The frame rate shown can be achieved by the sensor at full resolution. The acquired rate could be lower, depending on the loading of the host's USB interface, and the number of bits per pixel (e.g. RBG-8:8:8 colour requires 24-bits)

Ordering Information

	Monochrome	*Bayer Colour*
Micron 1.6 Mpix	VC-MT1600-U-M	VC-MT1600-U-B
Micron 5 Mpix	VC-MT5000-U-M	VC-MT5000-U-B
Micron WVGA	VC-MT360-U-M	VC-MT360-U-B

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