

# CCD Camera



## Data Sheet

**UK1131 - M**            **XGA monochrome**  
**UK1131 - C**            **XGA color**

The UK1131 Mini Camera is a compact CCD camera designed for industrial and scientific image processing tasks. The camera is part of the EHD CCD camera family with different features for various applications. Typical fields of application for this XGA camera are high resolution measurement, microscopy, documentation and surveillance.

The color sensor with *Wfine* CCD<sup>®</sup> technology provides high signal-to-noise ratio even at poor lighting conditions. The global shutter allows image capture of fast moving objects. The optional opto-decoupled digital outputs and opto-decoupled digital inputs are advantageous in order to use the camera under rough conditions. The camera can control flashlight illumination. The small body allows assembly flexibility in cases with little space in machines or facilities. The camera is available as color or monochrome version.

If necessary the camera itself can trigger flash lights.

The global shutter of the UK1131 camera is a special feature which provides the capability of capturing images of very fast moving objects.

The fast USB2.0 interface allows the transmission of a maximum of 20 noncompressed live images per second at full sensor resolution. Thus the user has the possibility to implement image processing applications without using an additional frame grabber. With the integrated high performance DSP developers may realize image processing or image pre-processing tasks directly in the camera. Thus the camera can be used as a stand-alone intelligent optical sensor.

The built-in memory is able to save up to 20 images and provides the possibility to decouple image capturing and transmission.

Pixel resolution	1024 × 768 pixel (XGA), (color sensor with <i>Wfine</i> CCD <sup>®</sup> )
CCD sensor	1/3"
Frame rate (sensor)	20 fps
Shutter	global shutter
Exposure time	98 μs to 270 s
Pixel size	4,65 μm × 4,65 μm
A/D resolution	12 bit
Data interface	high-speed USB2.0
Processor	built-in DSP
Image memory	32 MByte
Power supply	USB bus powered
Dimensions	31 mm × 45 mm × 50 mm
Lens mounting	C-mount



*Wfine* CCD is trademark of Sony corporation.

design and specification may change without notice

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## Technical Specifications

Sensor	1/3" CCD progressive scan, monochrome 1/3" CCD progressive scan, color, BAYER pattern
Resolution	1024 × 768 (XGA)
Pixel size	4,65 µm × 4,65 µm
Lens mounting	C-mount
Frame rate	20 fps at 1024 × 768 (within camera) in "Continuous" mode over USB2.0 (dependent on PC)
Electronic shutter	global shutter
Exposure time	98 µs to 270 s
Built-in memory	32 MByte
DSP power	1200 MMAC
External trigger	trigger input, opto-decoupled
Exposure control	strobe output, opto-decoupled
Digital inputs*	2× opto-decoupled input (freely programmable) 1× fast TTL trigger input
Digital outputs*	2× opto-decoupled output (programmable as strobe)
HOST interface	USB2.0 (mini-USB plug)
Power supply (camera)	USB bus powered
Power loss	typically 2,2 W
Temperature range (operational)	0°C to 55°C
Temperature range (store)	-20°C to +70°C
Dimensions	31 mm × 45 mm × 50 mm
Weight	80 g (without lens)

optional

## Dimensions

