

CMOS-USB2.0-CAMERA

Productfamily USB2.0-Mini camera

UK1175-C

QXGA / 3 MegaPixel / color



Description

The Mini Camera UK1175 is a compact CMOS camera designed for industrial and scientific image processing tasks. The camera is a part of the ABS CMOS camera family with different features for various applications. Typical fields of application for the 3 megapixel camera are high resolution measurement technique, microscopy, documentation and surveillance.

The camera is available as color and monochrome version. The small body allows assembly flexibility in cases with little space in machines or facilities. For image acquisition of fast moving objects using a flashlight is recommended (rolling shutter). Optional opto-decoupled input and output ports permit camera operation even under harsh environmental conditions.

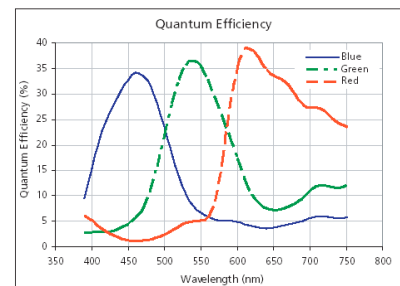
The fast USB2.0 interface allows the transmission of a maximum of 8,5 noncompressed live images per second at full sensor resolution. Thus the user has the possibility to implement image processing applications without using an additional frame grabber. The sensor provides higher frame rates depending on the resolution. With the integrated high performance DSP developers may realize image processing or image pre-processing tasks directly in the camera.

The built-in memory is able to save up to 10 images and provides the possibility to decouple image capturing and transmission.

Application

- high-resolution microscopy and measurement camera
- high-quality documentation camera
- high-quality surveillance camera
- stand-alone intelligent optical sensor

Spectral response of the sensor



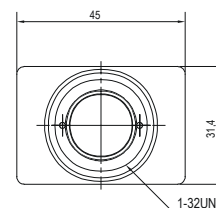
Technical specification

Sensor	1/2", CMOS, progressive scan, color, BAYER-Pattern
Sensor resolution	2048 x 1536 Pixel (QXGA)
Pixelsize	3,2 µm x 3,2 µm
Frame rate sensor (camera internal)	12,6 fps 2048 x 1536 Pixel 42,6 fps 1024 x 768 Pixel 91,6 fps 640 x 480 Pixel
Frame rate camera (depend on PC)	8,5 fps 2048 x 1536 Pixel 32 fps 1024 x 768 Pixel 83 fps 640 x 480 Pixel
Shutter type	rolling shutter
Exposure time	97 µs – 3 s
ADC resolution	8 bit / 10 bit
Gain	1 – 128 x
Dynamic	60 dB
DSP power	1200 MMAC
Image memory	32 MB / 10 images (2048 x 1536 Pixel)
Dat interface	USB2.0 (High Speed)
Power supply	USB bus powered
Power consumption	typ. 1,6 W
Operating temp.	+ 0 °C to + 55 °C
Storage temp.	-20 °C to + 70 °C
Dimensions	31,4 mm x 45 mm x 50 mm
Weight	appr. 80g (without lens)
Lens mounting	C-Mount / adjustable
Optional	<ul style="list-style-type: none"> ▪ digital input ▪ 2x optical-decoupled (free programmable) ▪ 1x TTL trigger input (fast) ▪ digital output ▪ 2x optical-decoupled (programm. as strobe) ▪ temperature sensor near image sensor ▪ RS232-connection

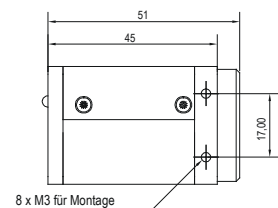
Assembly dimensions



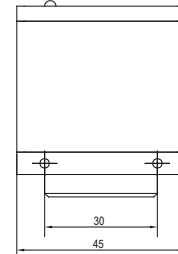
Front view



Side view



Top view



Back view

