

CMOS Digital Camera

Data Sheet



UK1101-M VGA monochrome

UK1101-C VGA color

The UK1101 Mini Camera is a compact CMOS camera designed for industrial and scientific image processing tasks. The camera is part of the ABS CMOS camera family with different features for various applications. Typical fields of application for the VGA cameras are high resolution measurement, microscopy, documentation and surveillance. The global shutter allows to capture images of fast moving objects. The camera is available as color and monochrome version. The small body allows assembly flexibility in cases with little space in machines or facilities.

The fast USB2.0 interface allows the transmission of a maximum of 60 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. Thus the camera can be used as a stand-alone intelligent optical sensor.

The built-in memory is able to save up to 16 images and provides the possibility to decouple image capturing and transmission.

Pixel resolution	640 × 480
CMOS-sensor	1/2"
Frame rate (sensor)	160 fps [at 640 × 480]
Shutter	global shutter
Exposure time	34 µs bis 4 s
Pixel size	9.9 µm × 9.9 µm
A/D-resolution	10 bit
Data interface	USB 2.0
Processor	built-in DSP
Image memory	32 Mbyte
Power supply	USB bus powered
Dimensions	31 mm × 45 mm × 50 mm
Lens mounting	C-mount



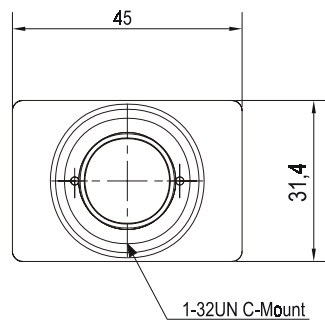
Technical Specifications

Sensor	1/2" CMOS progressive scan, monochrome 1/2" CMOS progressive scan, color, BAYER pattern
Resolution	640 × 480 (VGA)
Pixel size	9.9 μm × 9.9 μm
Lens mounting	C-mount
Frame rate	- 160 fps at 640 × 480 (within camera) - typically 60 fps in "Continuous" mode at 640 × 480 over USB2.0 (dependent on PC) - higher frame rates at lower resolutions
Electronic shutter	global shutter
Exposure time	34 μs bis 4 s
Gain	1 - 18 ×
Dynamic range	60 dB
Built-in memory	32 MByte
DSP power	1200 MMAC
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 1,6 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)

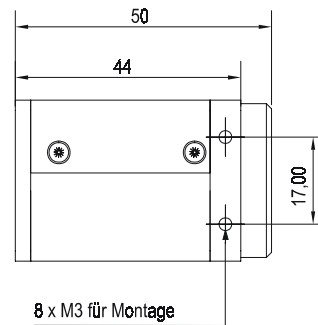
optional

Dimensions

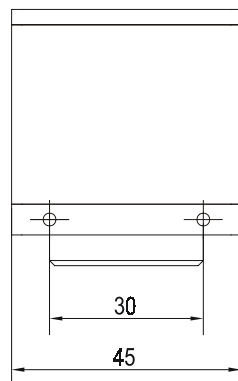
Frontansicht



Seitenansicht



Oben



Rückansicht

