

# CMOS-Digital-Camera

## Data Sheet Flat Body Camera



**UK1215 - M** monochrome

**UK1215 - C** color

The UK1215 Flat Body 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 Wide-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 10 images and provides the possibility to decouple image capturing and transmission.

Pixel resolution	752 × 480 (Wide-VGA)
CMOS sensor	1/3"
Frame rate (sensor)	60 fps [at 752 × 480]
Shutter	global shutter
Exposure time	50 µs bis 1 s
Pixel size	6,0 µm × 6,0 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	47 mm × 72 mm × 22 mm
Lens mounting	C-mount (adjustable)



## Technical Specifications

Sensor	1/3" CMOS progressive scan, monochrome 1/3" CMOS progressive scan, color, BAYER pattern
Resolution	752 × 480 pixel (Wide-VGA)
Pixel size	6,0 µm × 6,0 µm
Lens mounting	C-mount (flange focal distance adjustable)
Sensor orientation	→ see table below
Frame rate	60 fps at 752 × 480 pixel
Electronic shutter	global shutter
Exposure time	50 µs to 1 s
Gain factors	1 - 15 ×
Dynamic range	> 55 dB ( > 80 dB in HiDy mode *)
Built-in memory	32 MByte
DSP power	1200 MMAC
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	47 mm × 72 mm × 22 mm
Weight	110 g (without lens)

\* optional

### Table: Sensor Orientation

(Note: There are two camera modifications with 0° and 90° sensor orientation.)

Sensor Orientation	View	Remarks
0°		Standard
90°		Sensor mounted with 90° orientation

## Dimensions

