

# CMOS-Digital-Camera

## Data Sheet Flat Body Camera



**UK1215 - M monochrome**  
**UK1215 - C color**

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The UK1215 Flat Body Camera is a compact CMOS camera designed for industrial and scientific image processing tasks. The camera is part of the EHD 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)  |



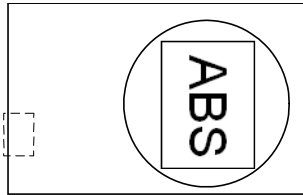
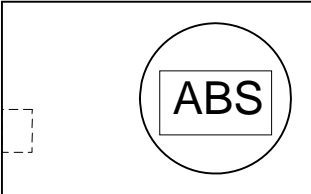
## Technical Specifications

|                                 |  |
|---------------------------------|--|
| Sensor                          | 1/3" CMOS progressive scan, monochrome<br>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

