

CCD Camera

UK3058 - M
UK3058 - C

SXGA+ monochrome
SXGA+ color



Data Sheet

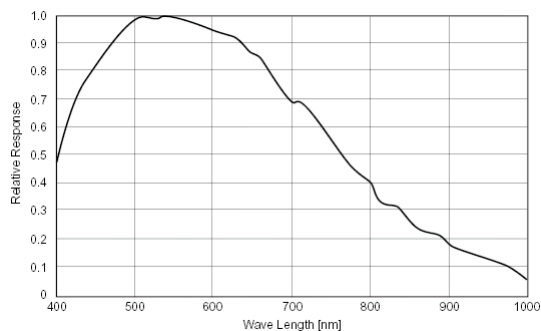
The UK3058 Camera is a compact CCD camera designed for industrial and scientific image processing tasks. The camera is part of the ABS CCD camera family with different features for various applications. Typical fields of application for the 1,4 megapixel cameras are high resolution measurement, microscopy, documentation and surveillance.

The *ExView HAD CCD™* technology sensor provides high signal-to-noise ratio even at poor lighting conditions. The global shutter allows image capture of fast moving objects. The short-circuit-proof 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.

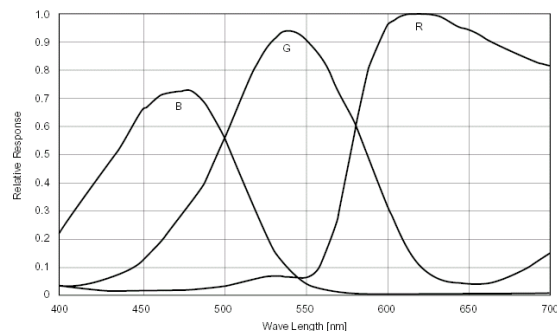
The fast USB2.0 interface allows the transmission of a maximum of 15 noncompressed live images per second at full sensor resolution. Thus the user has the possibility to implement image processing applications without using an additional frame grabber. With the integrated high performance DSP developers 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	1360 × 1024 Pixel (SXGA+), <i>ExView HAD CCD™</i>
CCD sensor	1/2"
Frame rate (sensor)	15 fps
Shutter	global shutter
Exposure time	30 μs to ∞
Pixel size	6,45 μm × 6,45 μm
A/D resolution	12 bit
Data interface	high-speed USB2.0
Processor	built-in DSP
Image memory	32 MByte
Power supply	12 V DC oder 24 V DC ± 20 %
Dimensions	51 mm × 51 mm × 92 mm
Lens mounting	C-mount (adjustable)



Picture 1: spectral sensitivity of UK3058-M



Picture 2: spectral sensitivity of UK3058-C

Technical Specifications

Sensor	1/2" CCD progressive scan, monochrome 1/2" CCD progressive scan, color, BAYER pattern
Resolution	1360 × 1024 (SXGA+, 1.4 megapixel)
Pixel size	6,45 µm × 6,45 µm
Lens mounting	C-mount
Frame rate	- 15 fps at 1360 × 1024 (within camera) - typically 12 fps in "Continuous" mode over USB2.0 (dependent on PC)
Electronic shutter	global shutter
Exposure time	30 µs to ∞
Gain	1 - 15×
Built-in memory	32 Mbyte
DSP power	1200 MMAC
External trigger	trigger input, opto-decoupled
Exposure control	strobe output, opto-decoupled
Digital inputs (opto-decoupled)	Snapshot 1× input freely programmable 1× or 3×* input (according to camera type)
Digital outputs (opto-decoupled, short-circuit proof)	Extsync (for flashlight) 1× output freely programmable 1× or 3×* output (according to camera type), max. 150 mA
HOST interface	USB2.0
Power supply (camera)	12 V DC or 24 V DC ± 20 %
Power supply (I/O)	12 V DC or 24 V DC ± 20 %
Power loss	camera: < 3 W (typically 200 mA at 12 V DC; 2,4 W) I/O: < 0,5 W (typically 10 mA within 9 V to 28 V)
Temperature range (operational)	0°C to 55°C
Temperature range (store)	-20°C to +70°C
Dimensions	51 mm × 51 mm × 92 mm
Weight	300 g (without lens)

optional



Picture 3: Back side of the camera

Pin	Signal
1	PLC power (12 V DC / 24 V DC)
2	Power camera (12 V DC / 24 V DC)
3	GND camera
4	Input 2 (freely programmable)
5	Output4 (freely programmable)*
6	Output3 (freely programmable)*
7	Output2 (freely programmable)
8	Output1 (Extsync)
9	GND PLC
10	Input4 (freely programmable)*
11	Input3 (freely programmable)*
12	Input1 (Snapshot)

Abb. 1 Pin assignment of the 12-pin HIROSE plug socket (type HR10A-10R-12P)
* Input/Output 3 and 4 are optional