

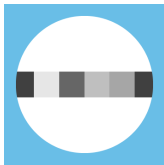
SK2048VJR-4L

Monochrome Line Scan Camera, GigE Vision



FEATURES

- Pixel number: 2048
- Pixel dimensions: $14 \times 14 \mu\text{m}^2$
- Max. line frequency: 4.7 kHz
- Spectral range: 400 - 900 nm
- Shading correction



DESCRIPTION

The monochrome SK2048VJR-4L line scan camera is equipped with a 2048 pixel CCD sensor. The maximum line frequency is 4.7 kHz. The camera operates with 18-36 V DC supply voltage.

Features

All lenses show some vignetting as a function of the field angle. Hence, even with homogeneous object illumination, the signal intensity of the image decreases with increasing image height. Shading correction (or flat field compensation) is used to compensate for lens vignetting as well as for inhomogeneity in the illumination. The integration control / electronic shutter function enables to control the exposure time independently from the line frequency.

Synchronization

Line scan cameras have to be externally synchronized in order to obtain distortion-free images. There are two different synchronization functions that can be applied together or individually:

1. Line Synchronization triggers each individual exposure of the sensor line by line. Several operating modes are available for this: Free run, Line Start, Exposure Active, Exposure Start.
2. Frame Synchronization is the recording of a set of lines (frame) representing a two dimensional image. The trigger is activated either by an external control signal or by exceeding an adjustable signal threshold.

Lenses and Adapters

The lens or tube attachment is M45x0.75. Adapters are available for other dimensions, see Accessories.

Software and SDK

SKLineScan is an operation program with a graphical user interface for system setup and simple scanning tasks. It is free for use and is applicable both for optimal adjustment of the optical system and for parameterization of the camera.

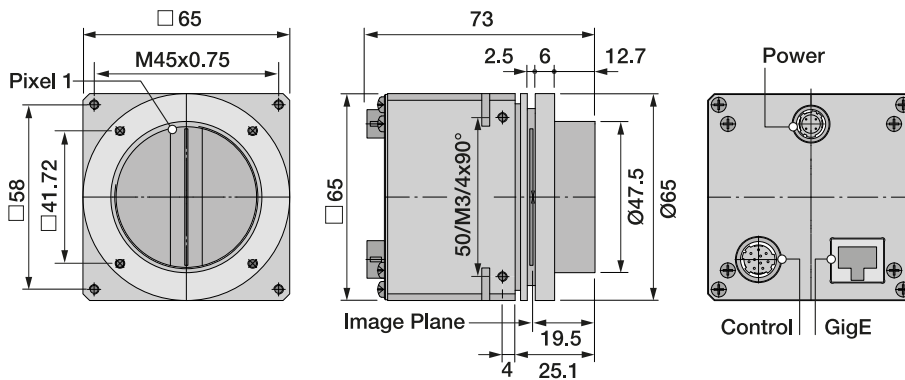
The software development kit (SDK) SK91USB3-WIN is based on C++ and includes examples for C/C++ with Visual Studio. Supported operating systems are Windows 10 (32- or 64-bit), Windows 11.

TECHNICAL DATA

SK2048VJR-4L

Order Code	SK2048VJR-4L
Sensor type	CCD monochrome sensor
Pixels	2048
Pixel size	14 x 14 μm^2
Active sensor length	28.7 mm
Max. pixel frequency	10 MHz
Max. line frequency	4.7 kHz
Integration control	x
Shading correction	x
Spectral range	400 - 900 nm
Dynamic range	1:125 (rms)
Min. exposure time	0.01 ms
Max. exposure time	20 ms
Video signal	monochrome 8/12 Bit
Interface	GigE Vision
Power supply	18 - 36 V DC
Dimension	65 x 65 x 72.4 mm ³

Case type	BG3
Weight	0.3 kg
Lens mount	M45x0.75
Flange diameter	47.5 x 12.7 mm
Flange focal length	19.5 mm
Operating temperature	+5 ... +45 °C
Dimensions (for a complete dimensional drawing please refer to the downloads section)	



DOWNLOADS



[SK2048VJR-4L_DS-E_web.pdf](#)



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[981112091300.pdf](#)



[981112091300_BG3_24V.stp](#)



[981112091300_BG3_5-15V.stp](#)

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