

8,192 Pixels, 80kHz Scan rate, Camera Link compliant

DIGITAL LINESCAN CAMERA

TL-8K7ACL



(Lens optional)

Applications

- LCD panel inspection equipment applications
- Image processing device for image inspection
- Measuring equipment such as appearance inspection device or dimensional measurement device
- Surface inspection device for sheet-like object
- High-resolution pattern inspection instrument
- Data entry device for image processing unit employing computer

Specifications

Image sensor	Global shutter CMOS
Number of pixels	8192
Pixel size	7μm×7μm
Photo array length	57.344mm
Scan rate (Data rate)	Full 80kHz (85MHz×8TAP) Full 35kHz (40MHz×8TAP) Medium 35kHz (80MHz×4TAP)
Video output (Digital output)	8bit Full Configuration 8bit/10bit Medium Configuration
Line transfer pulse input	12.5μsec (Min.)
Sensitivity	gain1=1.2, gain2= 4.8 DN/nJ/cm
Saturation exposure	46 ke-(typical value)
Dynamic range	60dB (on the element)
Output nonuniformity	10% standard at 50% of saturation output
Power supply	+12 V ± 0.5 V (0.5A or less)
Operational ambient temperature	0~+40°C (with no icing or condensation)
Operational humidity range	85% Max
Storage temperature range	-10°C~+65°C(with no icing or condensation)
Weight	720g or less
External dimension	100(W)×100(H)×34(D)
Lens mount	M72, P=0.75mm
Additional function	FFC compensation Base / Full config. switchable Horizontal / vertical binning, horizontal/ vertical averaging Switchable clock speed

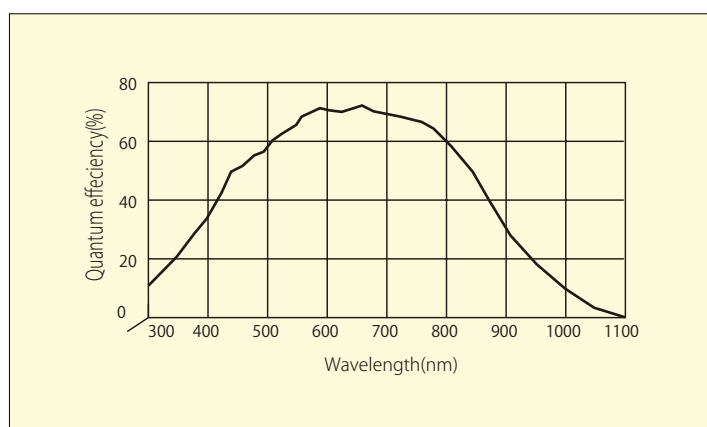
Overview

- The TL-8K7ACL inherits the specifications of the conventional model TL-8500CL, and has additional specifications the binning mode and the switching function of clock speed.
- Approximately twice the sensitivity is achieved by the vertical binning function.
- Since the configuration of the Camera Link (Base /Medium/ Full Configuration) and clock speed (85/80/40MHz) are selectable, this camera can be set to a suitable video output format for the system. Since this model inherits the external dimensions and other specifications of the conventional model, it is easy to replace.
- Industrial digital Line scan camera equipped with a CMOS image sensor which has linearly arranged 8,192 photodiodes.
- CMOS line scan camera with 8,192 pixel resolution, 80/35kHz scan rate and 680/320MHz data rate.

Features

- Since various models of capture boards from board manufacturers can be connected, it is easy to get high-precision images from the camera.
- 7μm square pixel size provides high-definition images.
- Equipped with Global shutter function and FFC function.
- Anti-blooming function is incorporated.
- Clear image data is obtained by the small difference of the characteristics of the odd and even-numbered pixels.
- Dark current correction circuit helps to obtain stable images even when the ambient temperature changes.
- DC 12V single power operation.
- Reduced size and weight by original design.

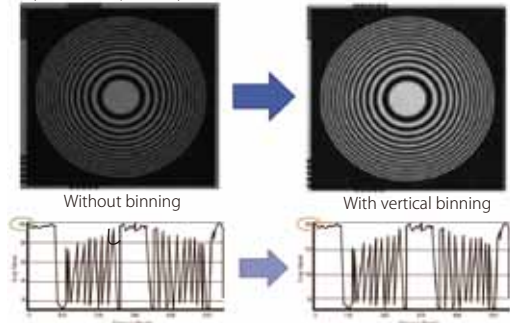
Spectral Sensitivity



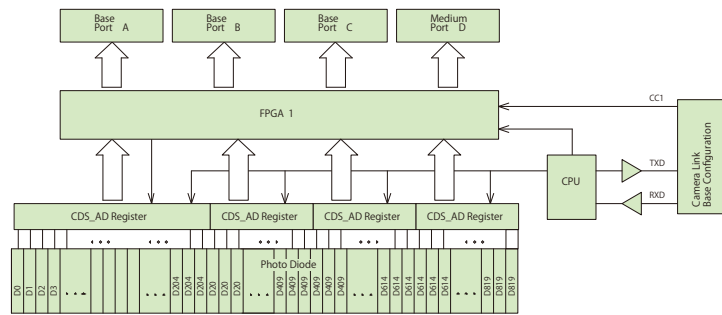
Bining

Although the resolution is sacrificed, virtually increased light-receiving area improves sensitivity by adding the signal of pixels. Since the sensitivity is proportional to the pixel area, the sensitivity becomes two times higher in the horizontal binning, and four times higher in the horizontal and vertical simultaneous binning.

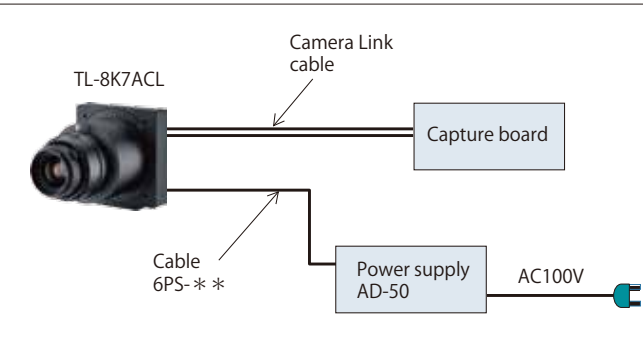
An example at F4/30 μsec exposure



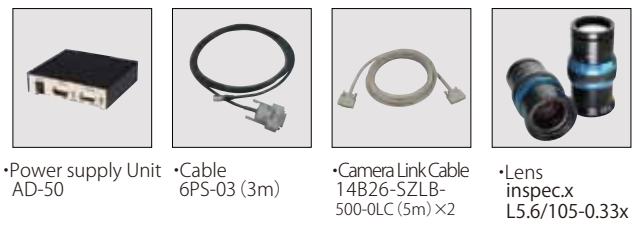
CCD Image sensor



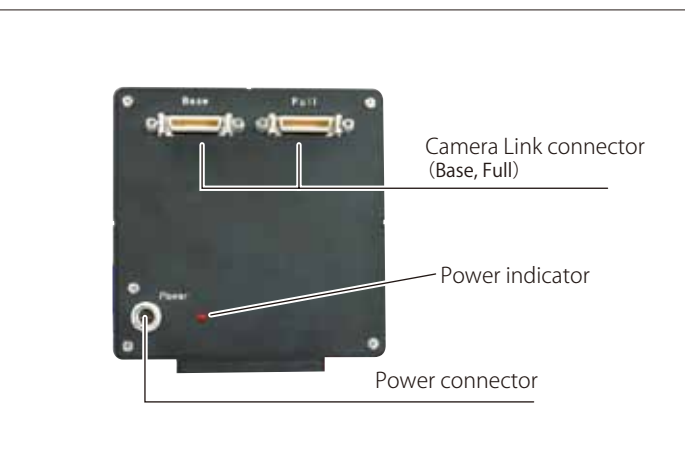
Configuration Diagram



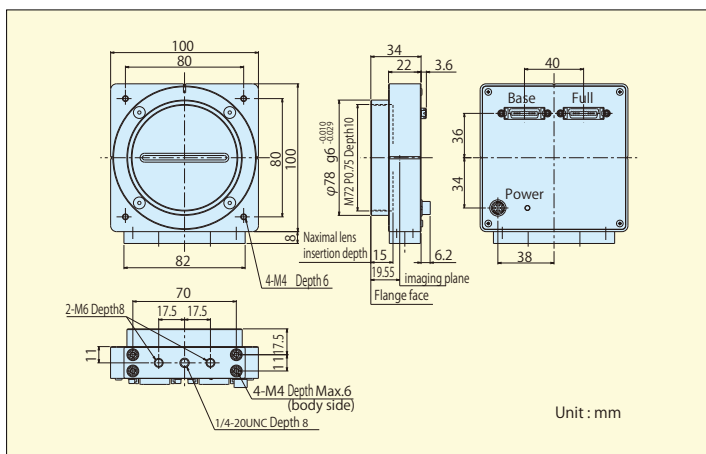
Example of option Items (Sold separately)



Back panel



Dimensional Outline Drawing



● It may be changed without a notice about all items (product name, a model, specifications, external form dimensions, materials, the price) explained by this catalogue.
 ● We do not take responsibility about any accident damage by an error in the use of deficiency in the construction and deficiency of the maintenance check and this product, the natural disaster (surge, including lightning-induced).

TAKEX TAKENAKA SYSTEM CO., LTD.

Head Office: 86-66, Nomizo-cho, Ohtsuka, Yamashina-ku,
 Kyoto City, 607-8135, JAPAN
 TEL: +81-75-593-9300 FAX: +81-75-593-9790
 E-mail: sales@takex-system.co.jp
 TAKENAKA SYSTEM URL: <http://www.takex-system.co.jp>
 TAKENAKA SENSOR GROUP URL: <http://www.takex.co.jp>