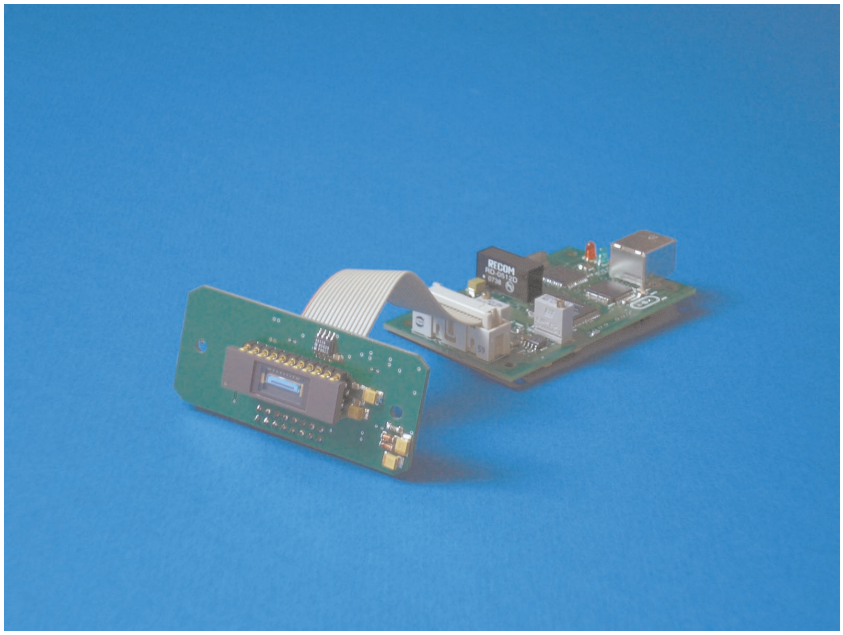
USB2 - NMOS 256 - OEM

Complete hispeed, low noise nmos linescan camera system



Key Features:

- NMOS-line scan camera system.
- 256 Pixels.
- Dark current compensation.
- 12 Bit ADC.
- 2.000:1 rms dynamic range.
- Up to 2 000 lps (external trigger).
- USB 2.0 Interface, bus powered.
- Drivers for Win 98 / XP / Labview.

Overview:

The USB2-NMOS 256 OEM is an easy to use, complete NMOS linescan camera system. It includes a low noise NMOS linescan camera with USB 2.0 interface. Additional components are not required.

The USB2-NMOS was designed for hispeed applications with the need for low noise precision light measurements. The light shielded pixels of the NMOS sensor are used für dark current compensation.

Applications:

- Spectroscopy.
- Portable applications.
- Precision light measurements.

Hardware:

The USB2-NMOS camera head includes the complete sensor timing with signal conditioning (CDS), a precision 12 Bit ADC and an USB 2.0 interface.

The camera head is powered by the USB-bus. Additional power-supplies are not required. The USB2-NMOS provides an input for external triggering up to 2000 lps.

khs instruments

Software

The USB2-NMOS linescan camera system is shipped with a software and drivers for Windows 98 and Windows XP.

The software includes a DLL to provide an interface to other software and the user software. Drivers for Labview are available upon request.

The DLL configures the USB2-NMOS by reading internal stored EEPROM data, so in most cases there is no need to configure the camera.

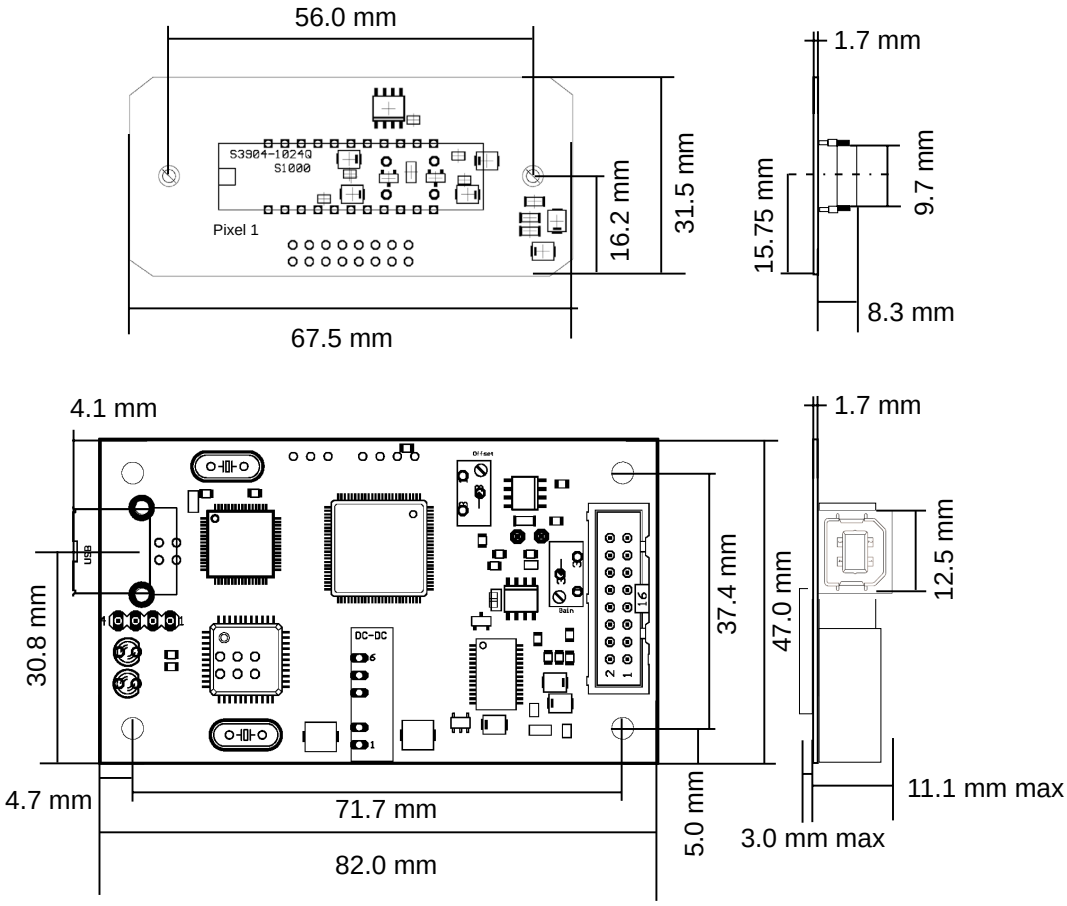
One single DLL supports all and up to 127 (different) khs-instruments cameras connected to the USB-bus.

The user software supports all cameras from khs-instruments. It provides following and more functions:

- X/Y Scaling
- X/Y Zoom
- Two Cursors
- Averaging
- Binning
- Subtract a Reference Scan

It provides functions to read, write and print stored (ASCII) files.

Mechanical Dimension



Specifications

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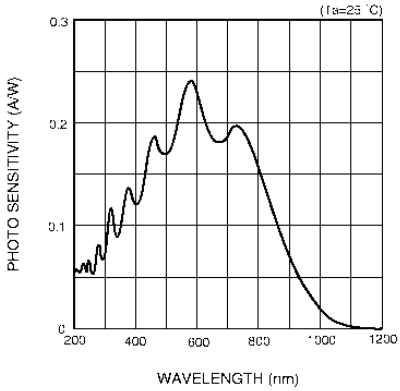
Detector Aarray:

Sensor:	Hamamatsu S3902 or compatible.
Number of pixels:	256, optional up to 1024.
Spectral range:	200 nm..1000 nm.
Sensitivity nonuniformity:	3%.
Saturation exposure:	0.18 lx sec.

Figure 5 Spectral response (typical example)



System & Detector:

ADC resolution:	12 bits.
Dark noise:	typ. 2 counts rms.
Exposure time:	0.7 ms to > 100 s.
Linerate (256 pixel):	Up to 2 000 lps extern triggered.

System Requirements:

Operating system:	Win 98 / XP.
Disk:	300 KB free.

USB Interface:

USB:	2.0.
Required Current:	500 mA.
Trigger:	Input TTL.

Software:

Software includes:	User software, DLL interface, Driver for Labview upon request.

User Software:

X scale edit:	Enter start and stop. Enter the values at two cursor positions.
Y scale edit:	Enter start and stop. Enter the values at two cursor positions.
X / Y unit edit:	Enter units.
Averaging:	Integration of several scans (up to 15). Running mean of n consecutive scans.
Binning:	Up to 64 pixels.
Display options:	Display actual scan. Load reference from actual scan and display scan minus reference. Set refernce to zero.
Data operations:	Write to disk. Write consecutive scans to disk. Read from disk. Print scan.