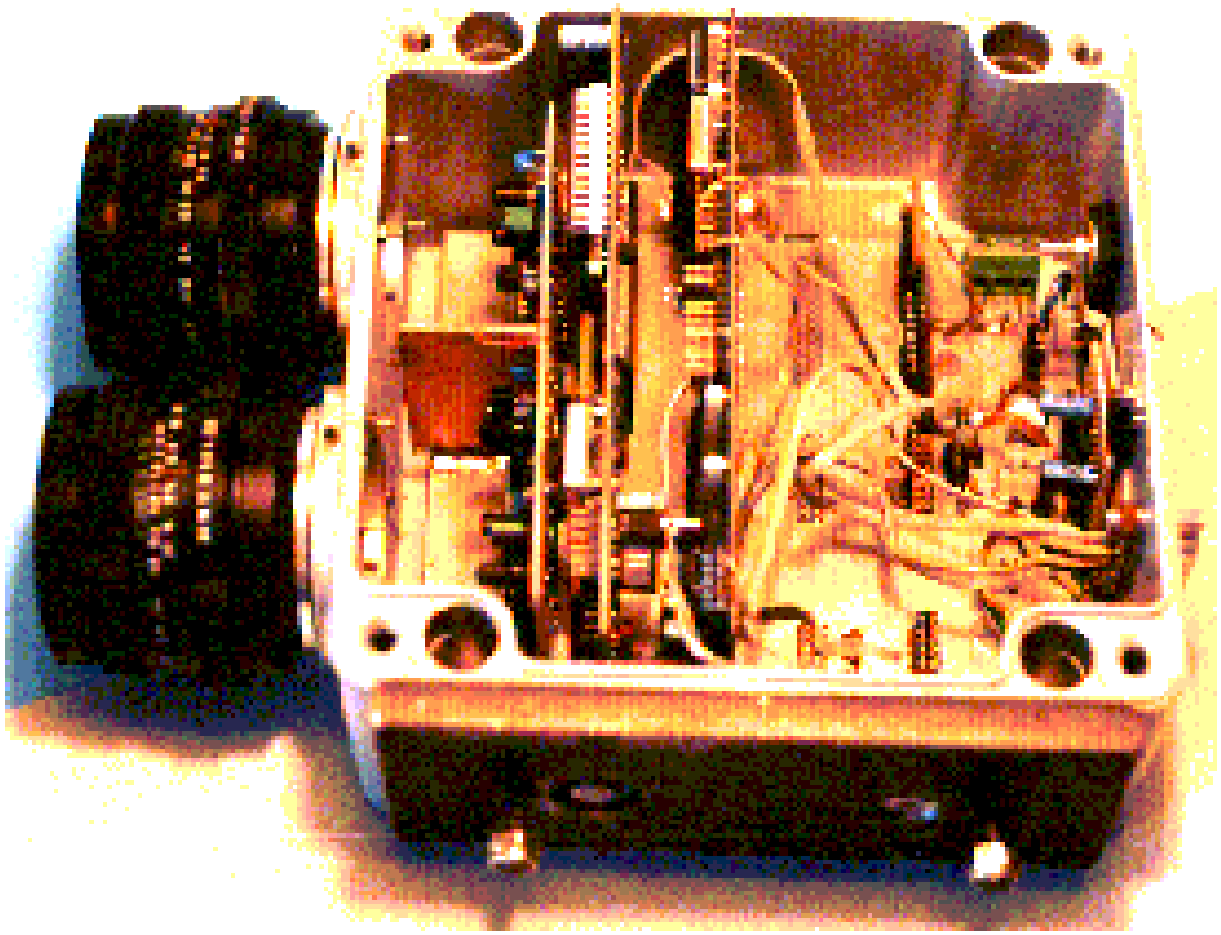
Stereo-line-camera SZK96



Stereo-line-camera with integrated processing units

Technical data:

Pixelcount	:	2x2048 (Optik M42 (Praktika))
Conversion	:	AD-converter 8bit (black/white) normal or double scanning
Exposure	:	350ns...350ms (1/3.000.000 ... 1/3 s) regulation automatically (limits adjustable) type of regulation and speed programmable suppression of spotlights duplicate exposure with different parameters
Trigger impulse	:	free running external, one line
Evaluation	:	2 processors for control and evaluation filtering, compression, summation / subtraction of pictures free programmable image processing
Transmission	:	RS232 only graphic data / only results or combinations of them with his own protocol calculator (8051 or RISC)

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The **SZK96** is a camera with high own processing performance, what makes possible a complexe picture processing and -evaluation. It is also possible to adapt to the users requirements through their very flexibly programmability.

Exposure
By the free Control of the sensors is a exposure time possible from about 350ns up to 350ms. The upper and lower limit is thereby selectable per parameters. The camera requires by the high dynamics no objective with adjustable aperture.
For the Regulation of exposure you can optimize between duration of exposure for the next picture or a integrating duration of exposure over a lot of pictures. Also the exclusion of spot lights from the regulation are possible.
The regulation always refer to the maximal possible signal amplitude at the sensor, by which the noise and sensor error becomes low. By the kind of control the affect of blooming on the pixels is poorly developed.

Image capture
The image capture takes place synchronous for each pixel off both sensors. It is optional a acquisition with the help of Sample-and-hold or multi-scanning possible.

Image editing
The camera processor is usesd for controling the sensors as well as a (first) signal processing. To these functions appertain different filter, like e.g. Median filter, the correction of the picture information with a characteristic (Shading) or a direct preprocessing of the line.
The results of the acquisition and -evaluation will be send to the second processor (SZK972) or directly to a communication controller.

Processing unit
This assembly is a free programmable arithmetic and logic unit, which can handle the picture's data. This unit get the data from the Sensor unit through a quick serial channel. The results transfered via a memory interface to the following communication controller.

Communication controller
The output of the result datas takes place over a separated controller, which using a RS232 interface. The transmission rate lets adapt in a wide range. The data protokol is free definable by the used program.

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