# Compact CMOS USB camera module –
## customization welcome

Jenoptik offers a compact CMOS USB camera module with basic configurations. Any project-related modification based on these preconfigued camera modules can be made according to your demands. All the attributes of the imaging modules are customizable for specific projects and allow to cover the requirements of any application, any kind of product development projects, any device production or system integration.
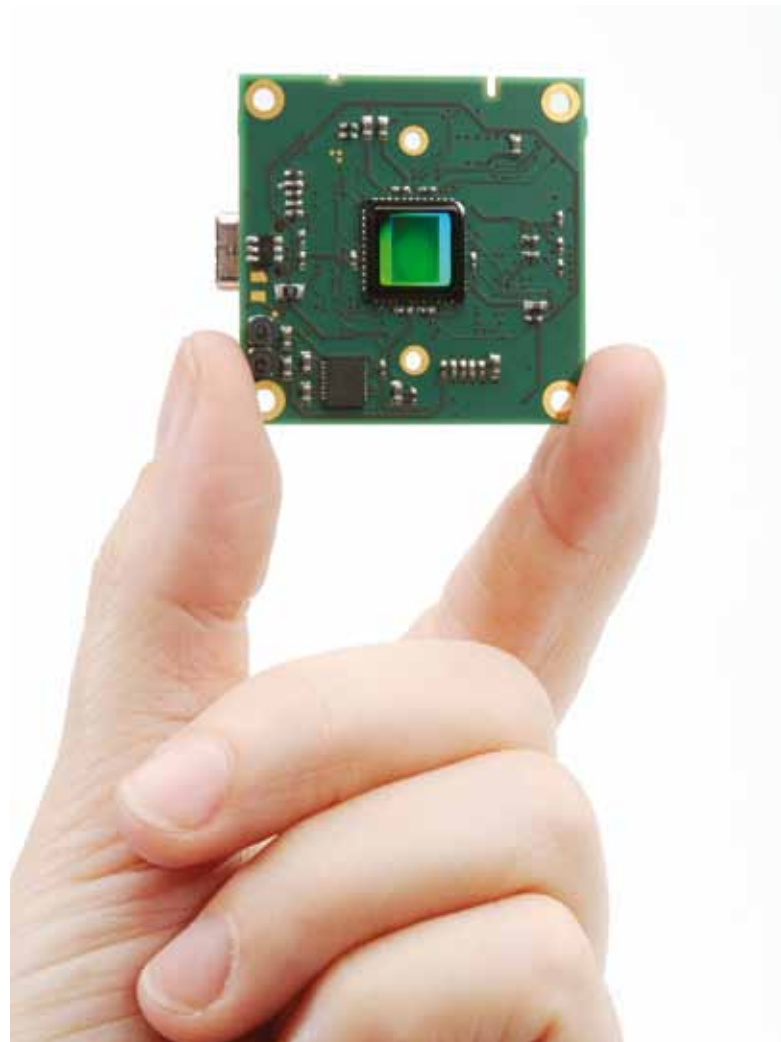
## Customizable attributes can relate to

• form factor

• resolution (1 MP, 3 MP, 5 MP, 10 MP, 14 MP, ...)

• sensor type (CCD / CMOS)

• digital interface (USB 2.0, USB 3.0)

• optical interface (c-mount, s-mount, cs-mount)

• adapted optics & filters, etc.

With our hard- and software development expertise we can fulfil special custom requirements and find best-in-class imaging solutions.

Our competencies comprise high-performance imaging, integration of polymer based optics and illumination as well as interfacing.

Make „Jenoptik Inside" working for you – offer your customers a valuable benefit while integrating Jenoptik imaging into your products.

## Optoelectronic Systems

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## Basic configuration

| Imaging Module | |
|---|---|
| Image sensor | 1/2.5" CMOS color |
| Sensor type: | Aptina |
| Active pixels [H x V] | 2592 x 1944 pixel |
| Digitization | 12 bit |
| Color / Monochrome | Color / Monochrome |
| Sensor resolution [max] | 2592 x 1944 [5 Mpix] |
| Pixel size | 2.2 x 2.2 μm |
| Dynamic range | 66 dB |
| Max. frame rate [image size] | 6 fps [2592 x 1944 pixel] |
| Digital interface | USB 2.0 |
| Optical connection | with or without c-mount/ s-mount |
| Trigger In / Out | software |
| Software requirements | Windows XP/ Windows 7 |
| Power consumption | 2,5 Watt (via USB 2.0) |
| Dimensions | 35 x 35 mm |
| Housing | optional deliverable in a robust metal housing |

| SDK included with basic functions (extendable) | |
|---|---|
| camera Set Parameter | |
| Image mode | resolution skipping binning trigger |
| Acquisition parameter | gain exposure time |
| Color interpolation | white balance matrix interpolation low light mode |
| Output format | 24bit RGB / 10 bit compressed-RAW / 8 bit RAW |
| Sensor resolution [max] | 2592 x 1944 [5 Mpix] |
| start Live | |
| | starts live image |
| get Image | |
| | fetches the last captured image |

## Benefits

- Compact single-board construction
- Most widespread digital interface USB 2.0
- High resolution of 5 megapixel
- High frame rates
- Cost-effective (high-volume) solutions
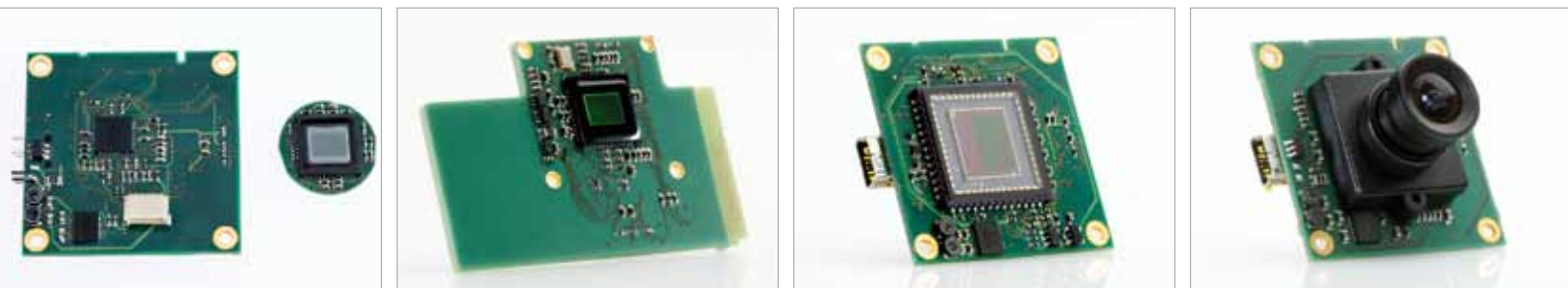- Including software development kit

## Customer value

- Miniaturization & light-weight
- Easy plug & play
- Sharp high-quality images
- Fast live image & quick focussing
- Saving of costs
- Easy to integrate

## Application fields

- Health care & life science
- Industrial inspection & machine vision
- Automotive
- Digital Imaging

## Customization examples



It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.