# DATA SHEET

## Intelligent Programmable Camera*

*available in Q1/2009



With a combination of Linux-based 300 MHz ARM processor and 600 MHz DSP (TI DaVinci), VRmagic offers fully autonomous intelligent components. Image processing tasks - such as decisions on position, completeness or quality - are performed directly in the camera. Developers can transfer their own algorithms to the camera conveniently by means of a cross-compiler. The component is equipped with 128 MB RAM and a 128 MB flash module. A FPGA-Chip for preprocessing of image data can optionally be integrated. Intelligent Components are available with several CMOS sensors, in monochrome and colour, with rolling or global shutter and resolutions from VGA (640x480) to three megapixels (2048x1536).  Framerates are ranging from 13 to 132 frames per second.

## Supported Interfaces:

- 10/100 Mbit Ethernet
- USB 2.0 Host
- Analog Video Output
- General Purpose I/O (2 Input/ 3 Output)
- RS232
- CAN-Bus (optional)
- PROFIBUS (optional)

## Physical Characteristics:

- Board dimensions 42 x 38 x 33 mm

- Stack of 3 boards

- Housing dimensions 46 x 46 x 54 mm

- LED illumination optional


## Camera Features:

- Internal 128 MB RAM and 128 MB Flash

- Same API on Host and Camera

- Gnu Cross Compiler for ARM, TI Code Composer Studio for DSP

- Free control of exposure time, pixelclock and blanking interval

- Unlimited access to uncompressed sensor data

- Operation with external hardware (eg. strobes, light barriers)
- Optimized for parallel operation of multiple cameras

- Soft-trigger/ timestamps/ framecounter

- Multiple standard formats plus one free definable ROI (region of interest)

- Optimized image conversion (1-pass) to RGB32, RGB24, RGB565, Gray and YUYV

- (HQ-)Bayer Converter

- Optional horizontal or vertical image flip

- Correction of gamma, luminance and contrast via Look-Up-Table