

Intelligent camera with microcontroller, FPGA and CAN-interface for demanding image processing in industry, medicine, research and security



CANCam is a very powerful intelligent camera-system for advanced image processing independent from a host-PC.

This product with its proven technology of the previous product Cleopatra, was developed further and optimized, to ensure best image quality, high performance and to allow many fields of application.

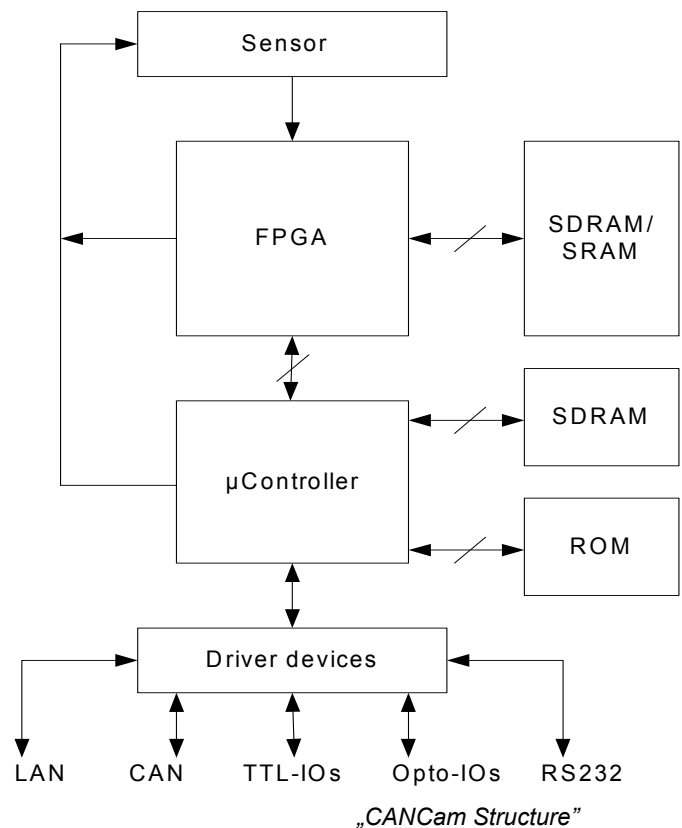
The **CANCam 1318M** is based on the MCF5272 (Motorola „Coldfire“) and the LM9638 sensor (National Semiconductor). In the maximum configuration you get 64MB SDRAM, 8MB FlashROM, a type XC2S400E FPGA (Xilinx „Spartan-IIE“) plus a 10/100Mbit Ethernet. In addition, the **CANCam 1318M** offers as the first

camera in the world a standard CAN interface for direct machine control.

The operating system is embedded Linux (µCLinux). So software development is done the same way as you know it from your desktop PC. You don't lose any time learning new tools. The operating system and applications can be updated via LAN. You may also run applications over the network. The camera is delivered with all tools for software development. Heavy duty video processing can be done in the FPGA.

The **CANCam 1318M** is an intelligent high resolution camera with 1.3 mega pixels. The viewing area is programmable up to 1280 by 1024 pixels. The intended use are most pretentious machine vision and automation applications, i. e. surface control or measurement tasks.

The **CANCam 1318M** is a stand alone control unit. It can be integrated into existing LANs. So you can watch the video stream, processed data etc. by just opening your web browser. Configuration can be done the same way. For secure systems you may prefer configuration by file. You can also load and store pictures, lookup tables or whatever you like in the built in file system.



Technical Facts

Sensor	LM9638 CMOS Progressive Scan Sensor Resolution max 1280 x 1024, 8/10bit monochrome
Pixel Size	6.0 x 6.0 µm
Effective Image Area	6.27mm x 7.81mm
Frame Rate	18 fps (SXGA), 72 fps (VGA)
Dynamic Range	55 dB
Noise	1.5 LSB
Interfaces	10/100 MBit Ethernet CAN 2 RS232 4 Opto-I/Os, 4 TTL-I/Os
Power supply	DC 6V-24V approx. 3W
Operating Conditions	temperature: -10° up to 50°C humidity: 20% to 80%
Lens thread	C-mount (no lens supplied with a standard order)
FPGA	Xilinx Spartan IIE with up to 64MB RAM
CPU	Motorola "Coldfire" MCF5272, 66 MHz, 63 MIPS
Memory	16 - 64 MB RAM 4 - 8 MB FlashROM with failsafe FlashBIOS
Operating System	Embedded Linux (µCLinux)
Services	HTTP, SMB, NFS, Sockets, Telnet, etc.
Software Development	GNU Tools, C/C++, CGI for Web server
Libraries	Image processing library based on SAC COAKE® (not included in standard order)
Weight	approx. 130g (without lens)
Mechanical Dimensions	48mm(W) x 58mm(H) x 70mm(D) (without lens)

Due to the modular design, the camera system can be adapted to your special needs. (i.e. other sensor, mpeg coder, special interface,...).