intelligent components!

Intelligent Camera • Freely programmable • 300MHz ARM • 600MHz DSP with 4800 MIPs • Standard Debian Linux

Cameras | Made in Germany

VRmagic

Think
outside the box!

Intelligent Cameras

- Rolling or global shutter
- Resolutions from VGA to three megapixels
- Monochrome or color with Bayer RGB matrix

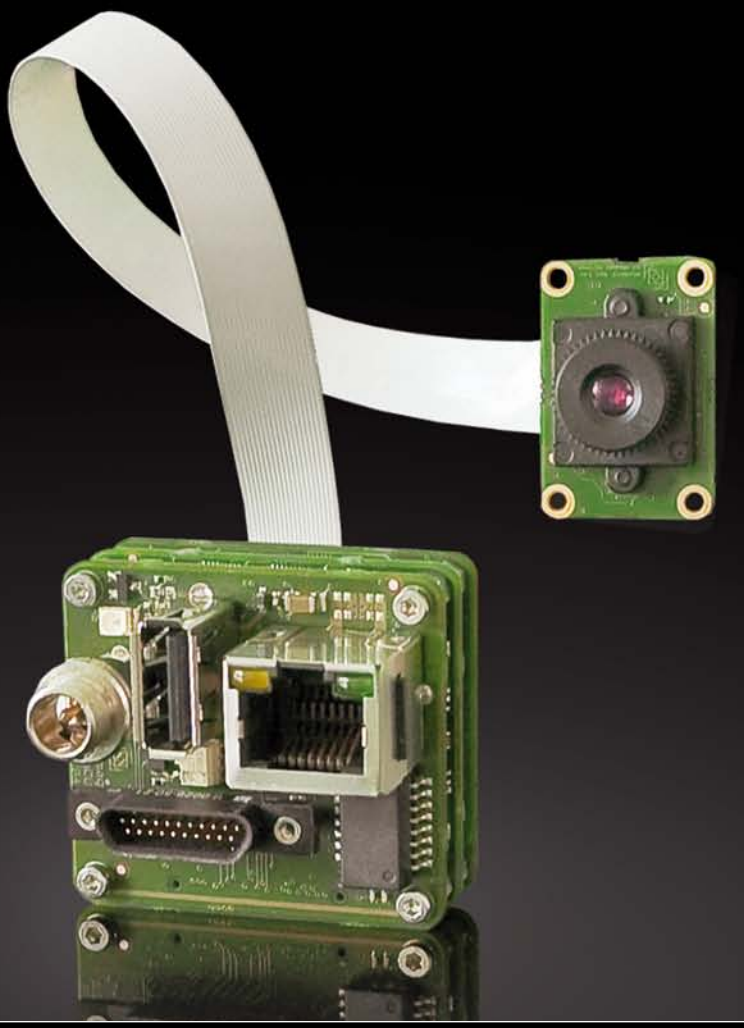
- 300 MHZ ARM9 processor
- 600 MHz Texas Instruments C64x+ DSP with 4800 MIPs
- 256 MB RAM
- 512 MB flash memory
- Standard Debian Linux
- UBIFS file system
- Same API on camera and host
- Cross compiler
- Trigger and strobe
- IR cut filter

Supported Interfaces

- 100 Mbit Ethernet
- USB host and RS232
- General purpose I/O (2in / 3out)
- Analog video output

Available Designs

- High quality aluminium housing, standard C-Mount lens (lens not included)
- Board with or without lens holder
- Board with remote sensor
- Custom-built form factor



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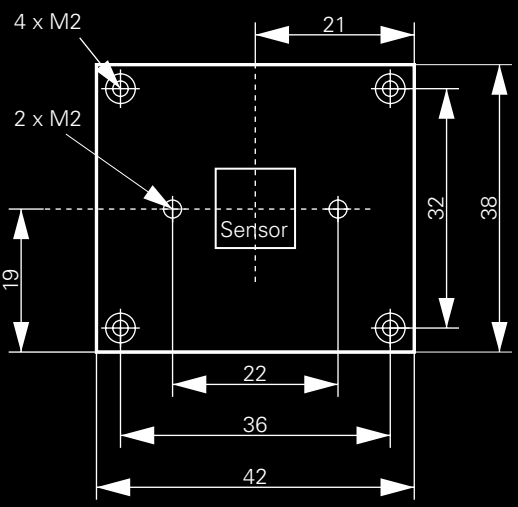
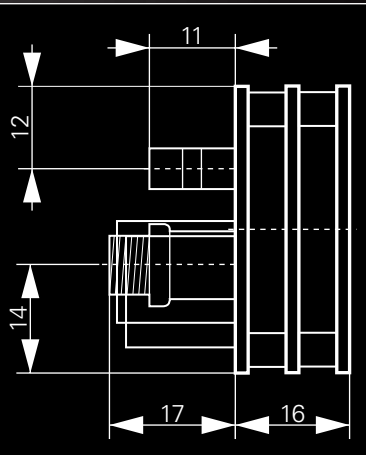




Software Development Kit

Convenient development

- Development on Windows or Linux Host
- IDE, e.g. Microsoft Visual Studio or Eclipse
- Integration of ARM and DSP C/C++ cross-compiler via makefiles

Fast compiling

- Complete pre-configured ARM tool chain for Windows and Linux on CD *free of charge*
- Downloadable TI DSP compiler and tools
  120 days trial version available

Easy debugging

- Same API on host and intelligent camera – testing of camera application on host possible (ARM only)
- Remote-debugging via Ethernet, for example with-Eclipse and gdbserver (ARM only)
- TI TraceUtil enables printf-debugging of DSP Code
- JTAG port for connection with real-time emulators (XDS510 or XDS560)

Application development

- VRmagic image library (ARM and DSP)
- From Texas Instruments (DSP): C64x+IMGLIB, C64x+DSPLIB, JPEG, H.264 encoder and decoder, OpenCV (ARM, DSP version under development)
- ImageMagick (ARM)

Easy data transfer between camera and host

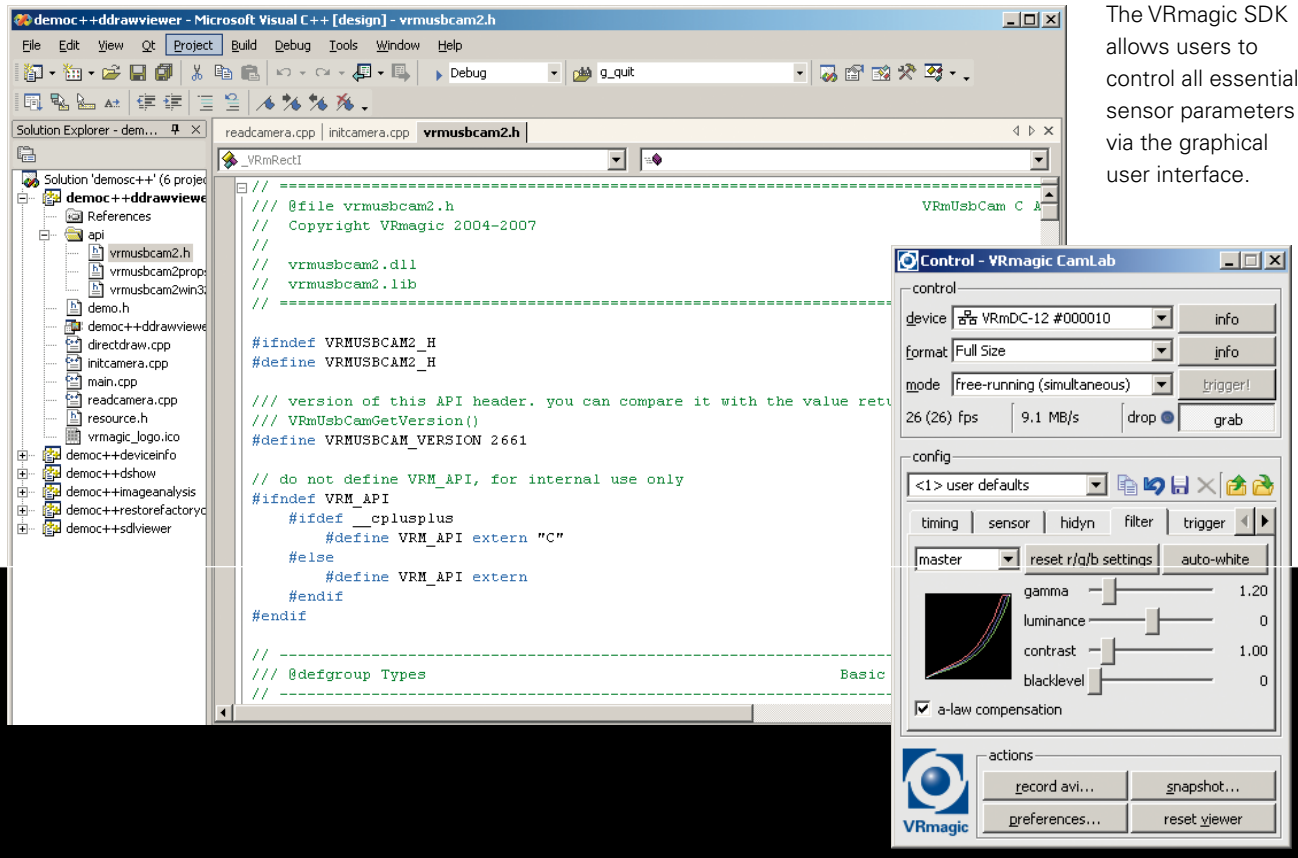
- Windows/Samba-share
- NFS or FTP server/client
- USB-stick etc.

Demo source codes on CD

- Bayer/Grey to RGB565 converter on ARM or DSP
- Demo for integration of customer specific DSP codecs
- Viewer for S-Video output (DirectFB and SDL)
- Control of general purpose I/O's

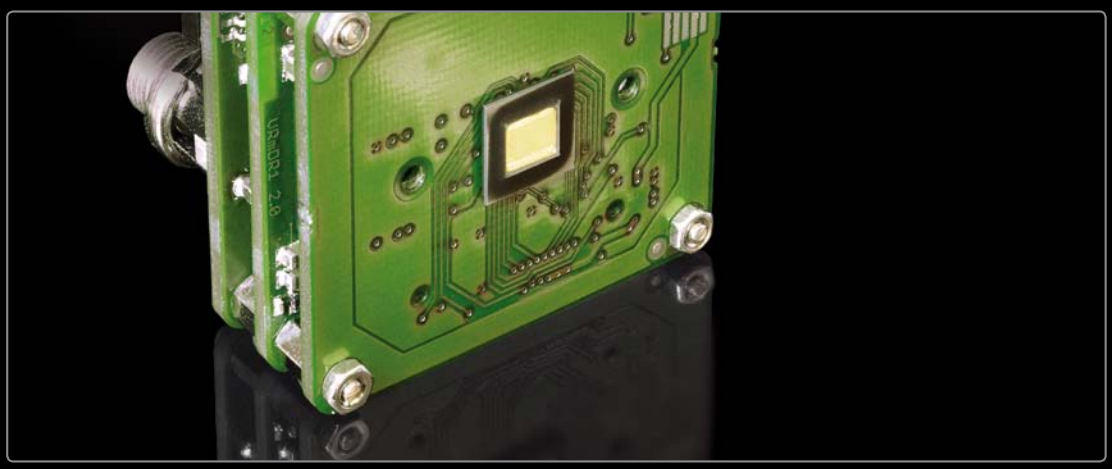
Easy Maintainance

Rescue-USB-Stick allows to optionally restore a camera's internal operating system to its factory state or to update the application software.



The VRmagic SDK allows users to control all essential sensor parameters via the graphical user interface.

VRmagic GmbH
Augustaanlage 32
68165 Mannheim
Germany
Phone +49 621 400 416 - 20
Fax +49 621 400 416 - 99
info.imaging@vrmagic.com
www.vrmagic-imaging.com



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