



VC0702 TV Camera Processor

Key Features

- Low Power Design
- Support CMOS/CCD Sensor
- Interlace and Progressive
- NTSC/PAL Output Support
- Color/BW video conversion
- Motion Detection
- 10-bits ISP/IPP
- Build-in Video DAC

General Description

VC0702 is Vimicro's high performance video camera device designed for all applications requiring small footprint, low voltage, low power consumption, low cost, and color video cameras. It supports CCD/CMOS sensor interface, PAL/NTSC composite video output, RGB/YCbCr component video output, as well as S-Video output. VC0702 can directly interface with a VCR, TV monitor, CRT PC monitor or other 75ohm devices.

VC0702 is designed for very low power operation. It requires only a single 3.3V DC power supply. VC0702 also provides motion-detection and motion-trigger functions for automatic surveillance applications. A minimum set of external components is required to complete a fully functional camera subsystem, such as security monitor, surveillance camera, vision-enabled toy, digital camcorder, medical equipment, video phone, video conference system, etc.

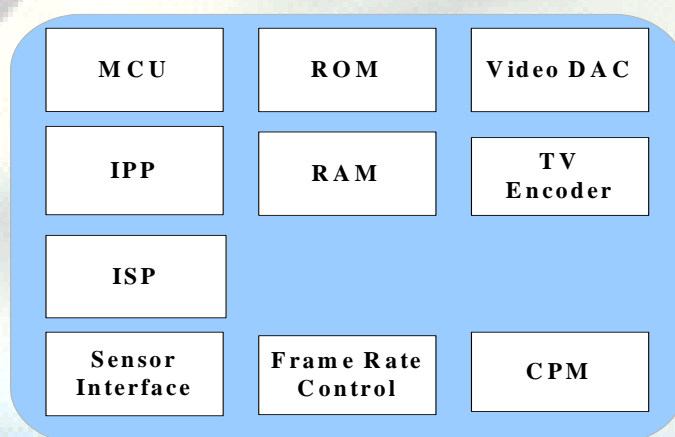
VC0702 General Features

- ✚ Single-chip CCD/CMOS color or Black & White video camera
- ✚ Low power design with single 3.3V power supply
- ✚ Multiplex interlaced or progressive output format
 - ✧ Composite video: NTSC or PAL
 - ✧ Component Video: RGB or YCbCr (VC0702PLDA only)
 - ✧ S-Video (VC0702PLDA only)
- ✚ 10-bit Image Signal Processor
 - ✧ Auto Exposure (AE)
 - ✧ Auto White Balance (AWB)
 - ✧ Auto Gain Control (AGC)
 - ✧ Auto bad pixel detection and cancellation
 - ✧ Auto flicker detection and cancellation
 - ✧ Auto lens shading compensation
 - ✧ Configurable image noise reduction
 - ✧ Configurable image sharpness enhancement
 - ✧ Configurable gamma and color correction
 - ✧ Configurable brightness, color saturation, and hue
 - ✧ Edge-adaptive CFA interpolation
 - ✧ Up to 16 windows for statistical collection, exposure
 - ✧ Color/BW video image auto/manual conversion
 - ✧ Up to 16 windows auto motion detection supply
 - ✧ Image post-processor to support size from VGA/CIF to NTSC/PAL or bypass
- ✚ Built-in 3CH 10bit generic video DAC



- ✚ EEPROM programmable
- ✚ Build-in 8 bit MCU
- ✚ GPIO supply typical control function

Block Diagram



VC0702

Ordering information

Product No.	Package Info
VC0702NJEA	QFN 40-pin 6.5*5.5mm
VC0702PLDA	LQFP 48-pin 7*7mm

Contact Information

For more details, please visit our website <http://www.vimicro.com/> or contact our world wide sales offices.

Vimicro Corporation is a China-based semiconductor company providing chips and solutions that enable multimedia communication and applications. Vimicro is a market leader in imaging processors for PC and Mobile devices. Vimicro is now focused on offering next generation multimedia technologies for PC and mobile phones markets. Our latest multimedia processors will combine all the functionalities of both the imaging/video/graphics and sound/audio/music processors, allowing for future applications such as Multimedia Messaging Services ("MMS"), mobile imaging, mobile ring-tone, mobile music, mobile flash, mobile video and mobile games.

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