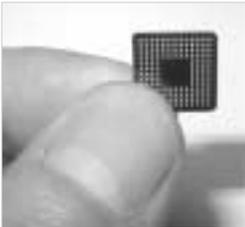


### Product Overview



ViCAM<sup>®</sup>-III is a highly programmable digital imaging engine on a chip, ideally suited for any digital imaging product that processes video, still images and audio. In addition to superior quality and

features, the ViCAM<sup>®</sup>-III offers competitive advantages by incorporating advanced imaging functions on a single chip. The flexible design capability allows for multiple product developments all with a single core, reducing both time to market and product cost.



### Proven Market Success

The ViCAM<sup>®</sup> technology is a proven market success and continues to be rated "Best of Class" by most industry publications. The professional quality has made the ViCAM<sup>®</sup> the preferred solution in the consumer, biometric, security, banking, health, dental, governmental and military markets. With unmatched image quality, extreme low-light capabilities and advanced features, products built using the ViCAM<sup>®</sup> technology are consistently award winning designs.

### Advanced Features

The ViCAM<sup>®</sup>-III features provide advanced functions for basic webcams to the most advanced imaging system designs. The ViCAM<sup>®</sup>-III supports CCD or CMOS image sensors with RGB or CMYK color filters, up to 16M pixel resolution. In addition, it also supports a digital video input mode.

The ViCAM<sup>®</sup>-III contains a programmable RISC micro-controller, high performance data path, multi end-point USB controller, digital video output, JPEG compression engine, and audio codec interface. The ViCAM<sup>®</sup>-III can deliver processed (AGC, AWB, etc.) high quality, compressed VGA video at 30 fps over a standard USB 1.1 interface. The on-chip image scaler and compression engine allow slower interfaces to support full speed video.

Hardware based features include digital pan and zoom (providing for area of interest read-out), motion sensing, temporal noise filtering, and more.

It's highly expandable architecture provides support for external hardware such as pan, tilt, zoom, electronic iris, flash, auto focus, audio, LCD display, memory cards and more.

The ViCAM<sup>®</sup>-III offers advanced power management to reduce power consumption for portable applications.

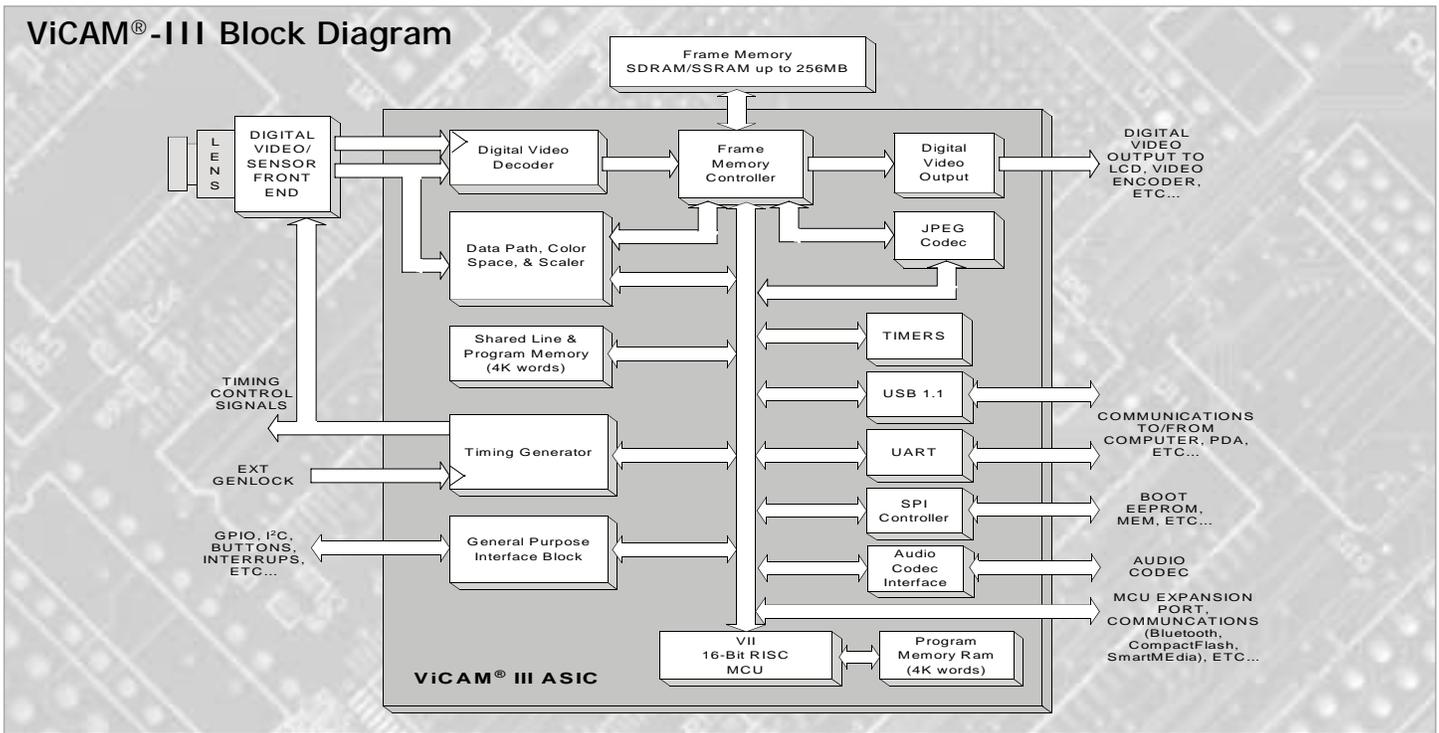
#### SUITABLE PRODUCT DESIGNS

- USB PC Camera (WebCam)
- Dual Mode Cameras
- Digital Still Cameras
- Wireless Cameras (802.11x & Bluetooth)
- Ethernet Camera (LanCam)
- PDA Camera
- Smart Toys and more
- Microscopy and Scientific Cameras

#### FEATURES

- **Supports CCD or CMOS Sensors**  
Interlaced or Progressive Scan, up to 16 million pixels
- **Built-in Programmable JPEG Compression**  
30 FPS @ 640x480 over USB 1.1
- **On-Chip Multi End-Point USB1.1 Controller**  
Eliminates cost & space of separate controller
- **Scan Rates of Several Minutes**  
Astronomy, Security and IR Applications
- **Advanced On-Chip Features**  
Digital Pan & Zoom, area of interest read-out, motion detection, AGC, AWB, and more...
- **Professional Quality**  
Rated "Best of Class" by most industry publications
- **Advanced Power Management**  
Reduced power consumption

## ViCAM®-III Block Diagram



## Product Applications

The ViCAM®-III is ideally suited for any digital imaging peripheral or appliance. From a high-quality, low-cost PC camera to very high end digital still cameras, to embedded applications in PDA's, Wireless, Internet appliances, cell phones, toy's, and more.

For rapid time to market, we have existing reference designs for tethered USB cameras, and future reference designs scheduled that include Wireless, TCP/IP, Ethernet, and more.

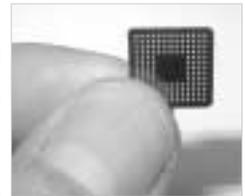
## Development Kits

To develop with the performance of the ViCAM®-III, we offer qualified customers a development board working as a USB camera with Windows and Linux drivers, bill of materials, hardware and software reference designs, schematics, development tools and access to our developers website. The development kits are for customers who wish to develop in-house, which allows for interfacing to related components and development verification. Please contact us for further details regarding these kits.



## Product Specifications

The ViCAM®-III is available in three packages, a 144 pin BGA for most PC camera type products, and for more advanced designs and embedded applications, a



208 pin BGA, and the highly expandable 256 pin BGA. Please contact us for further product details and information.

## About Vista Imaging

Vista Imaging was founded in 1994 and is a leader in advanced digital imaging technologies and high quality product solutions. Vista Imaging's ViCAM® technology is incorporated in multiple consumer and professional products around the globe. We are committed to providing future innovative imaging products including

USB 2.0, Firewire, wireless, SDIO and more.



521 Taylor Way, San Carlos, CA 94070 USA  
 Tel: 650-802-9685, Fax: 650-802-0322  
[www.vistaimaging.com](http://www.vistaimaging.com)