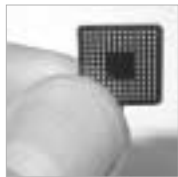


## Digital Imaging Engine Single Chip Imaging Processor

### Advanced ASIC's for OEM's



ViCAM®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®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.

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

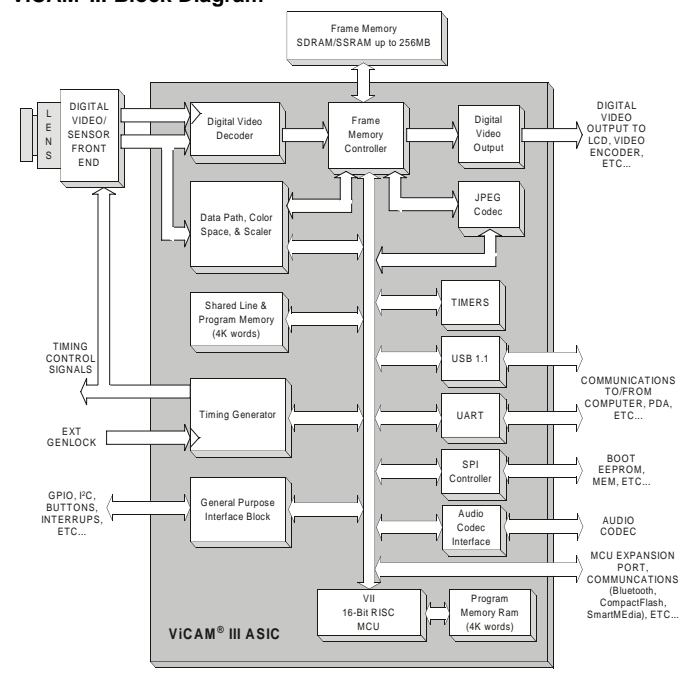
The ViCAM®III contains a programmable RISC micro-controller, high performance data path, multi end-point USB controller, digital video output, and JPEG compression engine. The ViCAM®III can deliver processed (AGC, AWB, etc.) high quality, compressed VGA video at 30 fps over a standard USB 1.1 interface. 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.

ViCAM®III Block Diagram



### Package/Product Applications

**Part# VC3-B144-A** - Small size for tethered USB Camera (Webcam). **Part# VC3-B256-A** - The expandable architecture of this ASIC make it ideal for almost any implementation. 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. **Part# VC3-B208-A** - Most of the features of the BGA256 in a much smaller footprint.

### ViCAM®-III ASIC Specifications (More detailed specifications found in Product Overview)

	VC3-B144-A	VC3-B208-A	VC3-B256-A
Programmable RISC Micro-Processor	Yes	Yes	Yes
Supports CMOS and CCD Sensors	Yes	Yes	Yes
Interlaced or Progressive Scan Sensor Support	Yes	Yes	Yes
Maximum Sensor Resolution Supported	1.3 Million Pixels	4 Million Pixels	16 Million Pixels
Digital Video Input Port	Yes	Yes	Yes
Digital Video Output Port	No	Yes(8bit)	Yes(16bit)
Audio Codec Interface (PCM, AIC, & I2S modes)	Yes	Yes	Yes
Programmable JPEG & MJPEG Compression	Yes	Yes	Yes
Frame Rate w/ compression	30 @ VGA (640x480)	30 @ VGA (640x480)	30 @ VGA (640x480)
Auto White Balance & Auto Gain	Yes	Yes	Yes
Motion Detection	Yes	Yes	Yes
Digital Pan & Zoom (Area of Interest)	Yes	Yes	Yes
Micro-Processor Expansion Port	No	Yes	Yes
Multi End-Point USB Controller	Yes	Yes	Yes
Power Supply Requirements	3.3V/2.5V DC	3.3V/2.5V DC	3.3V/2.5V DC
Package	144 pin BGA (12x12mm)	208 pin BGA (15x15mm)	256 pin BGA (23x23mm)