



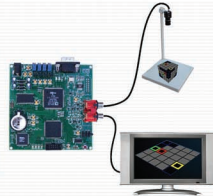
# VSK-532 IMAGING CARD

The ADSP-BF533, ADSP-BF532, and ADSP-BF531 processors are enhanced members of the Blackfin processor family that offer significantly higher performance and lower power than previous Blackfin processors while retaining their ease of use and code compatibility benefits. The three new processors are completely pin compatible, differing only in their performance and on-chip memory, mitigating many risks associated with new product development.

The Blackfin processor core architecture combines a Dual MAC Signal Processing engine, an orthogonal RISC-like Microprocessor instruction set, flexible Single Instruction, Multiple Data (SIMD) capabilities, and multimedia features into a single instruction set architecture. Blackfin products feature dynamic power management. The ability to vary both the Voltage and Frequency of operation optimizes the power consumption profile to the specific task.

## Specifications

<b>Processor</b>	ADSP-BF532 , up to 400 MHz operating Speed.
<b>Memory</b>	16 KBytes of Instruction SRAM/Cache 32 KBytes of Instruction SRAM 32 KBytes of Data SRAM/Cache 4 KBytes of Data Scratchpad SRAM 32 MBytes of External Memory (SDRAM).
<b>Flash</b>	Asynchronous FLASH of 512 Kbytes for Monitor Routine through external memory interface.
<b>Serial Port</b>	Standard RS232 9 pin D type male connector for Code downloading.
<b>Switch</b>	One Reset switch for core RESET.
<b>Output Port</b>	4 numbers of LED for sequential debugging by the user code connected via CPLD.
<b>JTAG</b>	Standard IEEE 1149.1 JTAG port termination for the Blackfin core.
<b>VI Debugger</b>	Communication software for downloading the code and for memory access
<b>Operating System</b>	The compiler support Windows XP and Windows 2000.
<b>Camera (optional)</b>	1/3" inch CCD camera(WAT-202D) with NTSC and PAL support.
<b>Video Port Connector</b>	2 X 2 RCA Jack for both composite video base band signal (CVBS) for input and output.
<b>Power Supply</b>	+5V power adapter for the core and peripherals

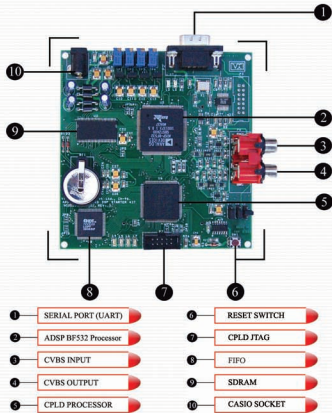


## APPLICATIONS

- Edge detection using Sobel algorithm
- Histogram equalization of grayscale images
- Median filter for grayscale images
- Erosion for binary images
- Negative image analysis using transformation,  $T = [255 - I]$

## ACCESSORIES

- +5 V power adapter
- RS 232 serial cable
- Technical reference and user guide
- Basic utility programs
- Video port cables



BLOCK DIAGRAM OF VSK-532

