

IE64_HS Image Processing Board

Technical description:

- Based on the TI TMS32C6414/1GHz DSP
- Two physical camera inputs (Camera Link serial interfaces)
- Up to 2400 MB/s serial interface to camera
- USB 2.0 output interface up to 21 MB/s
- Up to 768 MB SDRAM
- 7x RS-232 interfaces cameras and transport
- Up to 100 MB/s through an expansion slot and BAP/PCI board
- Multistream images (color plus bitonal)
- Output images in YUV 4:4:4, YUV 4:2:2, YUV 4:2:0, or RGB
- Flexible output image format: color/grayscale JPEG, JPEG2000, TIFF grayscale
- USB driver and DLL for MS Windows (32-bit and 64-bit) and Linux.

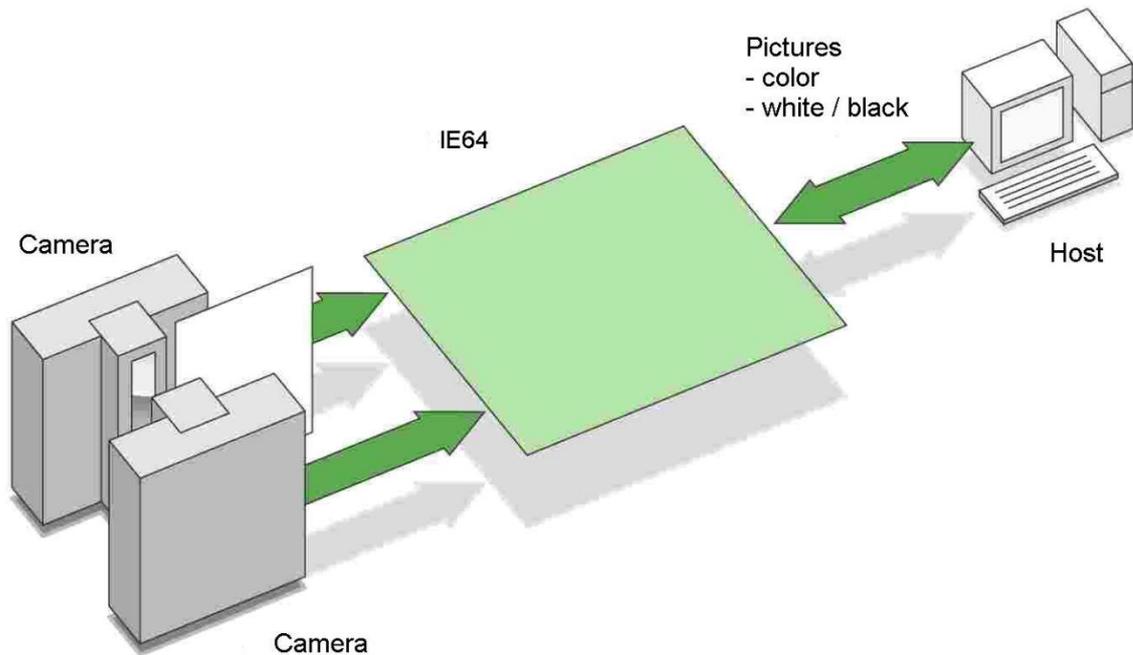


Advantages:

- Suitable for high-speed scanners
- Simplex (one camera) or duplex (two camera) modes
- All image processing functions are embedded in the IE64_HS, making the solution independent from hosts
- Low amount of data to be transferred to the host
- Software customization available
- Up to 600 ppm DIN A4, 200 dpi simplex, multistream (b/w TIFF g4 and color JPEG)
- Up to 280 ppm DIN A4, 300 dpi simplex (b/w TIFF G4 and color JPEG).



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The IE64_HS, based on DSP and FPGA technology has two camera inputs (serial or Camera Link) and is able to acquire many images simultaneously. The customized firmware rotates, crops, binarizes and compresses (according to CCIT Group IV, JPEG and JPEG2000) the acquired images. The processed images are sent to the host through USB 2.0 interfaces. MS Windows drivers are supported. Other drivers can be custom-specified. The IE64_HS can be installed as an embedded system in any device, which has to perform complicated image processing functions in a limited time frame.

The IE64_HS was designed to work with digital color cameras from BAPis and third party cameras (using Camera Link interfaces). The IE64_HS can be used in high-speed duplex color scanners at speeds of up to 600 ppm DIN A4 / 2000 dpi simplex.

BAP Image Systems (BAPis) is a dependable and reliable imaging products and solution provider with highly proven industry experience. BAPis develops and manufactures cameras based not only on high speed CCD and CMOS line sensors, but also on area CMOS/CCD sensors. BAPis cameras are used in the Machine Vision industry as well as in the film industry. Additionally, BAPis develops and produces image grabbers and processing boards based on DSP and FPGA technologies using its own algorithms. Image processing boards are matched with camera performance and, when combined, are able to reach the highest possible throughput.

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