VIDEO*FLOW** Video Compression/Decompression Evaluation Kit

- High-Performance:
  – Over 8.0 BOPS
  – Real-Time (30 fps)
    Video Codec Capabilities
- MPEG 352 x 240 Encoding or Decoding (30 fps)
- JPEG 720 x 480 Encoding or Decoding (30 fps)
- Video Conferencing (30 fps):
  – H.261 352 x 288 Codec
  – 176 x 144 Multiway Codec
  – Up to 768 kbps Full-Duplex
- Efficient Motion Estimation:
  – RISC-based ME Algorithms
  – Programmable ME Ranges
- Windows* Graphical User Interface
- Run-Time i960 Microprocessor Control of Compression Algorithms Composite NTSC Video Input and Output

Array Microsystems a77500 VIDEO*FLOW** Hardware Evaluation Kit provides an excellent vehicle for designers to explore the real-time performance and versatility of the a77100 Image Compression Coprocessor (ICC) and the a77300 Motion Estimation Coprocessor (MEC) chip set.

The Evaluation Kit consists of a circuit board, DOS and Windows compatible application software, and a User's Guide. The User's Guide includes circuit board schematics, detailed theory of operation, and ICC/MEC algorithm source code for real-time implementations of video compression and decompression applications. These items are useful to designers wishing to create their own boards based on the ICC/MEC chip set.

The Evaluation Board implements complete video capture, compression/ decompression, and display sub-systems for multi-media applications. It plugs into a single ISA or VESA local (VL) bus in your PC. The board accepts analog composite video for compression and produces analog composite video from decompressed bitstreams.

The heart of the compression/decompression engine consists of an ICC, an MEC, and an Intel i960® CA microprocessor. Compressed video bitstreams are transferred to and from the host PC under direct supervision of the i960 microprocessor. The i960 microprocessor is also responsible for video bitstream syntax handling and Huffman coding for the ICC chip.

Real-time (30 fps) JPEG, H.261, and MPEG-1 encoding, decoding, and codec applications are selected using a Windows-based Graphical User Interface (GUI). The GUI controls bitstream recording and playback using familiar VCR-like controls and pull-down menus allow the user to experiment with algorithm parameters and observe the results immediately.

The VIDEO*FLOW* Hardware Evaluation Kit provides a complete multimedia video compression solution.

HOST PROCESSOR SYSTEMS SUPPORTED:
DOS and Windows on IBM PC or compatible ISA/VL platforms.

PROCESSORS SUPPORTED:
i960 CA/CF Microprocessors

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