DESCRIPTION

The VX7011 provides a low-cost, high performance chip solution to the audio/video compression & capture application on USB1.1 / 2.0. VX7011 can accept NTSC/PAL video in 8-bit YUV 4:2:2 format (CCIR656). Built-in high performance compression algorithm provides good quality 30 frames per second in 704x480 (NTSC) or 25 frames per second in 704x576 (PAL) resolution. VX7011 provides AC' 97 serial interface for audio sampling & capture function. On-chip memory controller is used to interface to 16 bits data bus SDRAM, which provides frame memory and bit stream buffer. VX7011 provides a spilt DMA bus for USB data access.

FEATURES

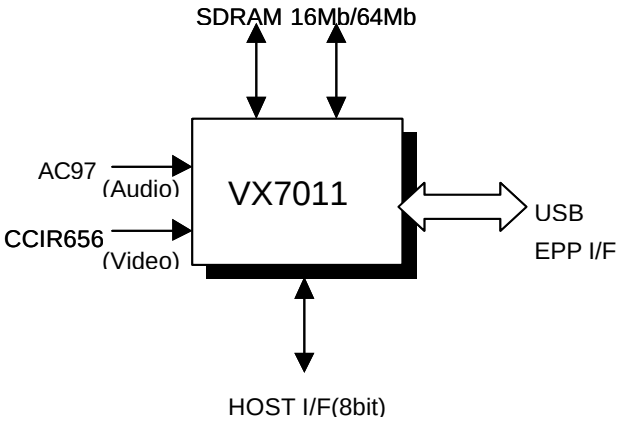
- Support CCIR656 YUV 4:2:2 image inputs from video decoder chips.
- High speed compression support real time image output.
- Encodes in 704x480(NTSC) / 704x576(PAL) picture format at 30 / 25fps.
- Support AC' 97 serial interface using audio codec.
- Professional snapshot mode: Programmable frames, 24bits true color BMP files, resolution up to 704x480(NTSC) / 704x576(PAL),
- SDRAM interface: 16Mb or 64Mb, 16 bits data bus.
- Host interface: X86 8 bit local bus (ISA).
- Provides DMA/EPP interface to access USB 1.1/2.0 chip directly.
- 3.3V power supply.

APPLICATIONS

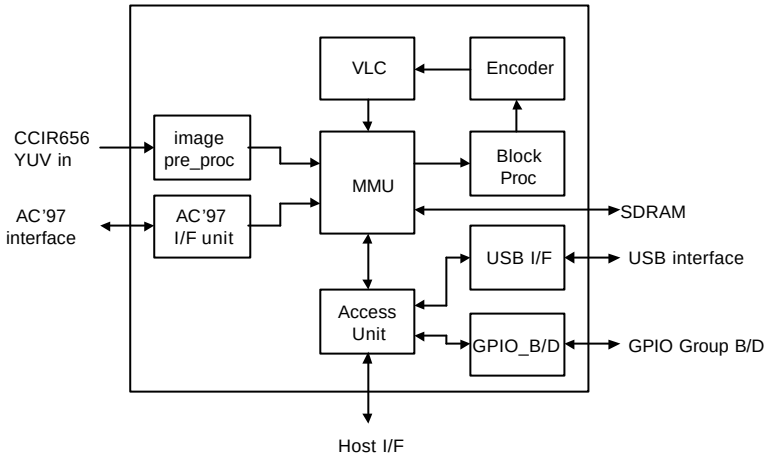
- High Quality PC Theater
- PC Based DVR
- Transfer VHS/V8/Hi8/D8 tapes to VCD/DVD

PACKAGE

- 128 pin PQFP



FUNCTIONAL BLOCK DIAGRAM



BLOCK DESCRIPTION

- AC 97 Interface Unit: Provides AC 97 digital access interface.
- Image Pre-Process Unit: Transfer line based image to block based image; built in video filter provides two modes setting for quality adjustment.
- MMU: Memory management unit, handle SDRAM access.
- Block Proc Unit: Analysis characteristic of image block , motion detection and configurable quantization function.
- Encoder Unit: Provides image compression function.
- VLC Unit: Provides variable length coding function.
- Access Unit: Handle host and access interface for registers setting & bit stream access.
- USB Unit: Provides USB/EPP interface and DMA function for USB access.
- GPIO Unit: Provides GPIO function for extra device control.

VXIS Technology Corp., http://www.vxis.com 020729
5F-1, NO. 9, Prosperity Road I, Science Based Industrial Park, Hsinchu City, Taiwan 300, R. O. C., Tel:886-3-5630888, Fax:886-3-5630889