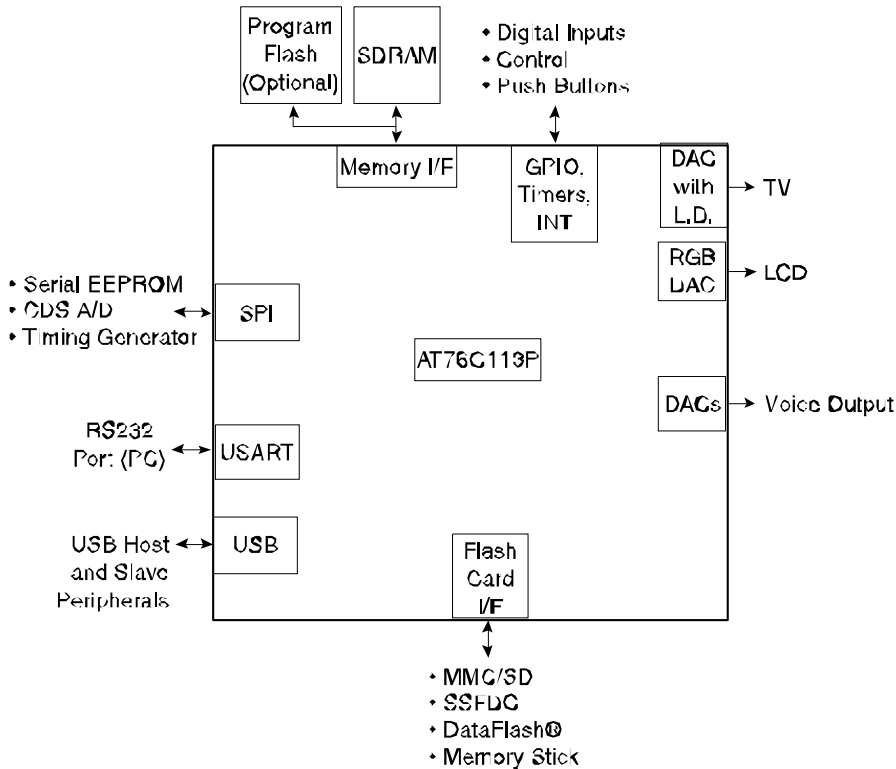


Features

- Baseline JPEG Compression/Decompression
- MPEG-1 Encode/Decode at 24 fps QVGA
- Compatible with Various Types of Display Devices
- Video Encoder Including Line Driver for NTSC/PAL TV Signal
- Digital Outputs Include Composite, 16-bit YC, RGB 565
- SDRAM Interface – Supports from 16M Bits to 256M Bits
- Unified Memory Architecture (All Program and Data Stored in SDRAM)
- Support for Most Flash Card Interfaces (MMC, SD, SSFDC, Memory Stick™, CompactFlash®)
- USB 1.1 Host/Slave Controller and USART Interfaces
- Up to Nine External Interrupts and Wake-up Pin
- Serial Peripheral Interface for Loading Boot Code and Controlling System
- Two DACs for Audio Output
- Audio Data Interface for Connection to External Stereo ADC/DAC
- Three General-Purpose Timers for Waveform Generation (PWM, etc.) and Event Monitoring
- Up to 2M Bytes Program Space
- Support for RTOS
- All Low-level Software, Application Samples are Provided
- 208-ball BGA Package
- 1.8-volt Core and 3.3 V I/O Operation

Figure 1. Typical DSC Application Using AT76C113P



High-Performance Digital Media Processor

AT76C113P Summary

5657AS-IMAGE-01/04



Note: This is a summary datasheet. A complete document is available under NDA. For more information, please contact your local Atmel Sales Office.



Description

The AT76C113P is a highly integrated media processor. It combines a number of required functions listed below:

- Image/Video/Audio decoding
- Image display
- Image processing and image storing
- Control of general-purpose I/O functions
- Data communication
- Control of user functions
- On-screen Display

The device is based on an ARM[®] microprocessor that controls the entire chip. A number of hardware resources, controlled by ARM, perform media functions such as image processing, JPEG coding/decoding, MPEG-1 decoding, DMA access to SDRAM, and video encoding. All these computationally-intensive functions are implemented in hardware which can be programmed according to user specifications, thus allowing ARM to be free for other user-defined functions.

Part Versions

The AT76C113P device comes in two versions, each with slightly different features. These features are summarized in Table 1.

Table 1. AT76C113 Part Versions

Part Number	Maximum Imager Resolution (Pixels)	Maximum SDRAM Size (Mbytes)	USB Functionality
AT76C113-P	> 2M	512	Slave Only
AT76C113-PU	> 2M	512	Slave and Host



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