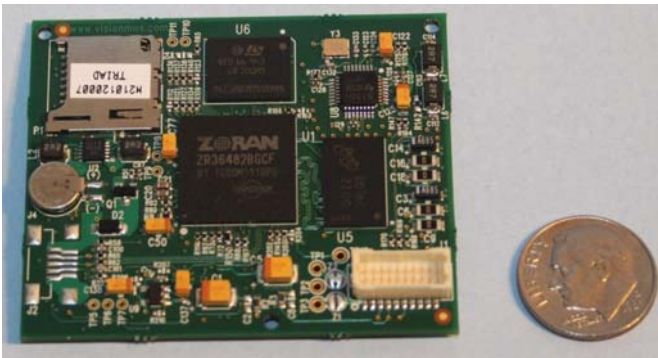


VisionMOS mDVR3 System

Overview

The VM-A013 advanced micro Digital Video Recorder (mDVR3) is one of the world's smallest single-board multimedia recorders. It has a fully reengineered system that uses the best features of our mDVR product line, while reducing the size, power and cost and increasing capability. It is capable of fully stand alone operation or as a subsystem in an embedded system. The recording can be captured from analog composite (NTSC or PAL) video, and recordings played back in the same format. A rich set of interfaces enable a number of configurations for image processing features, power, system control, media storage and display.

One primary feature of the mDVR3 is the MPEG4 CODEC. The recording is typically stored on an integrated SD card with up to a 32 Gbyte capacity. The system can record in high resolution D1 or standard VGA at 30 frames per second. Multimedia playback is enabled on board with a integrated composite analog outputs video and audio driver outputs.



As a subsystem, the mDVR3 has an extensive set of commands that can operate the system remotely from a microcontroller. This machine interface is capable of controlling all functions of the system, in addition they can generate key feedback that is useful for system interaction. Smart power and media storage controls also allow a microcontroller options on how to manage system resources.

As a stand-alone system, external buttons maybe used with and graphical user interface. These functions include video and still image recording, color management, media and port control, and image playback functions.

Features

- Video input features
 - Analog NTSC
 - Analog PAL
 - Adjustable frame rate and processing
- Encode / Decode
 - 30 fps up to D1 (720x480)
 - Xvid AVI video format with AAC audio
 - MOV and WMV file options
 - JPEG, TIFF still and multiple image capture
 - User controls for compression setting
- Multiple power options
 - USB or external power operation
 - Single 4.5v to 5.5v power source
 - Power on boot up or smart power control options
 - Can be configured for lower voltage supplies or battery control
- System Controls
 - Multi-button external user interface
 - GUI menu, multi mode operation
 - Full remote processor command set
- Other Interfaces
 - USB 2.0 HS, mass storage device class
 - Micro SD Card port
 - UART interface for system control
 - External audio input and output
 - Built in real time clock w/ battery
- Mechanical
 - Highly integrated single-board design
 - May be mounted in housing
 - May be embedded into larger systems
 - Wired interfaces with custom cabling
 - 1.98" x 2.15" board size

Architecture

The mDVR3 is a highly integrated single-board media computer. It has all of the flexibility in configurations and control that exists with other products in the mDVR family. It combines an advanced multimedia processor, high performance DDR2 memory, and removable media storage. The system has a large number of advanced software features that make its use as embedded or stand alone elegant.

The system may optionally use analog NTSC (D1 or standard definition) or PAL video as an input source. Video recording with AAC audio is done in H.263 AVI format.

Typical video capture is done efficiently with memory filling at a typical rate of about 1GB / hour. A variety of command features enable the user or embedded system to throttle I/P/B frames, compression and frame rate to modify the storage capacity requirements. SD or SDHC media cards up to 32G bytes may be used to store media.

The system has many interface features, designed to accomplish a wide range of potential systems tasks. Commands to control record, playback, user options and power modes are available in button form or via remote control interfaces. User text for GUI or recorded data is supported via user commands. Some customization of GUI, user buttons, and remote commands is also available through VisionMOS consulting services.

System Use

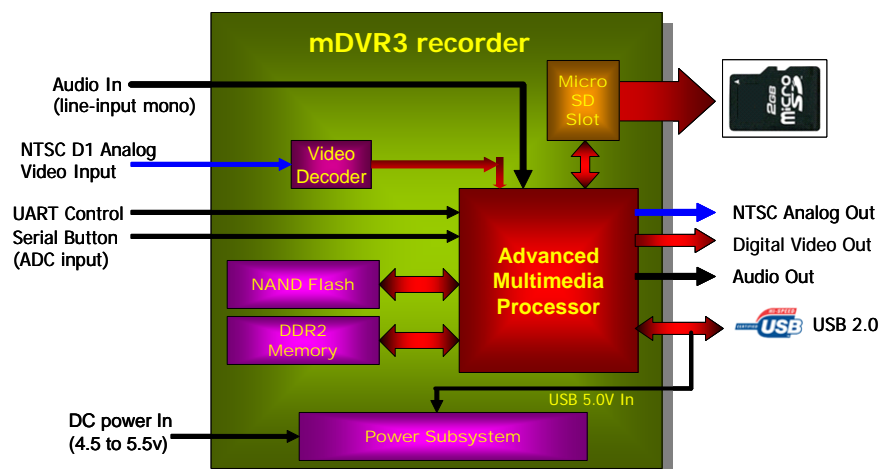
Ideal use of the mDVR3 is as a portable consumer electronic media recorder. This very lightweight (< 0.7 oz) system is ideal for integration into compact, mobile, and concealed devices. The system could easily be adapted as an in-line recording system of live video, or as a playback source for pre-recorded material. Typically the system is used as a subsystem in an existing platform, and may be controlled via a microcontroller through a standard UART command set.

Unique features include integrated motion detection to enable the start of capture, and ability to stream output via USB.

Output from the system is via the integrated analog video encoder. This can be formatted in NTSC or PAL format.

The mDVR family has been adapted by customers into existing camera functions including digital binoculars, security systems, vehicle control and other military COTS and industrial systems. The mDVR3 can be used to enhance an existing platform, be the basis of a new development, or act as a stand alone platform.

The mDVR3 platform can be customized by VisionMOS to meet your needs, or is available off the shelf in a number of standard configurations. The mDVR3 is in production now.



Ordering Information

The VisionMOS advanced micro Digital Video Recorder is available at: <http://www.VisionMOS.com>

For custom and/or upgraded features contact our sales team at 480-730-7800 or email Sales@visionmos.com

Copyright © 2011 VisionMOS International Inc. All rights reserved

This document may only be reproduced in whole including header information.

VisionMOS, the VisionMOS logo and combinations thereof are trademarks of VisionMOS International Inc. VisionMOS International Inc. has made best efforts to ensure that the information contained herein is accurate and reliable. However, VisionMOS International Inc. makes no warranties, express or implied, as to the accuracy or completeness of the contents of this publication. VisionMOS International Inc. reserves the right to make changes to specifications and product descriptions at any time, and to discontinue or make changes to its products at any time without notice. VisionMOS International Inc. does not assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential, or incidental damages.