Production-Ready Camera Reference Design

/D Digital TV

Imaging

IP Cores

Mobile

ZR83647009 Product Brief Zoran Corporation 1390 Kifer Road Sunnyvale, CA 94086-5305 Tel 408.523.6500 Fax 408.523.6501 www.zoran.com



Description

Zoran's CamMini 9 is a copy-ready reference camera that is based on Zoran's COACH™ 9 (Camera On a CHip) processor. It is offered in two versions; CamMini 9 CCD and CamMini 9 CMOS. Features include TFT LCD, Internal Flash and SD card, IGBT flash, MPEG 4 and WMV capture and playback, direct printing mode, fast click-to-click.

CamMini 9 CMOS comes with either Micron's and OmniVision's 3Mpixel CMOS sensors. CamMini 9 CMOS is a cost effective solution for entry level cameras

CamMini 9 CCD comes with Panasonic's 4Mpixel CCD sensor and Copal's zoom lens. CamMini 9 CCD is a cost-effective high quality mid-range camera solution. It features full zoom camera functionality

with auto focus control and AGC adjustment, providing a high image quality under a variety of conditions.

CamMini 9 is equipped with a highly efficient power module. This module supports a long operating life in all modes and is powered by 2 AA batteries. The built-in voice audio codec of COACH 9 is utilized for audio recording and playback modes including movies.

CamMini 9 software includes: COACH firmware, COACH Host Control Embedded (HCE-9) reference code and production ready, WHQL certified PC drivers. The HCE features an attractive, production-ready GUI and includes a multi-language support core, with a fully implemented English language. The USB connection mode includes PictBridge direct printing, bulk-only mass storage, and video streaming. PC drivers include Twain and WIA.

CamMini 9 CCD Reference Design





CCD CMOS

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Product Brief



Feature List

- MPEG 4 and WMV video capture at 30fps VGA resolution and 20 fps at SVGA resolution
- Enhanced sensor signal processing with:
 - 12 bit processing for high dynamic range CamMini 9 CCD
 - Color Interpolation and Conversion
 - Image scalers
 - Automatic White Balance (AWB)
 - Automatic Exposure (AE)
 - Auto Focus CamMini 9 CCD
 - Edge Enhancement
 - Advanced Color Matching
 - Programmable Lens Shading compensation (Patent Pending)
 - Performance enhancement when using Zoran's CMOS sensor
- Smooth Digital Zoom completes optical zoom in view, capture and clip capture modes
- IGBT flash circuit with support for red-eye reduction
- · Resident NAND flash and SD card
- · USB interface, including on-chip USB line drivers

- Camera power circuit that supports USB/battery switching
- Real-time JPEG compression with advanced bit rate control ensures superior visual quality for the required number of stored images
- · Capture sequence of still images at high rate
- Advanced movie playback mode with pause/continue/fast for ward/slow motion/ backward and zoom capabilities
- VGA movie capture to the flash card at a rate of up to 30fps (depending on card speed)
- NTSC/PAL analog output to a TV monitor
- · Interchangeable LCD; available with Casio
- Host Controller Embedded (HCE-9) reference code
- Production-level user interface supporting English language and multi-language support core, provided as reference code

For more information, contact Zoran's Sunnyvale office or the office nearest you:

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