

EtronTech

eSP268



eSP268

USB 2.0 Camera Bridge Controller

BRIEF DATASHEET

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1. Introduction

eSP268 is a USB 2.0 High-speed (HS) and Full-speed (FS) compatible PC camera controller. These built-in LDOs can support power to CIS module and bridge chip itself. That's eSP268 can meet the requirement in lower system BOM and small form factor.

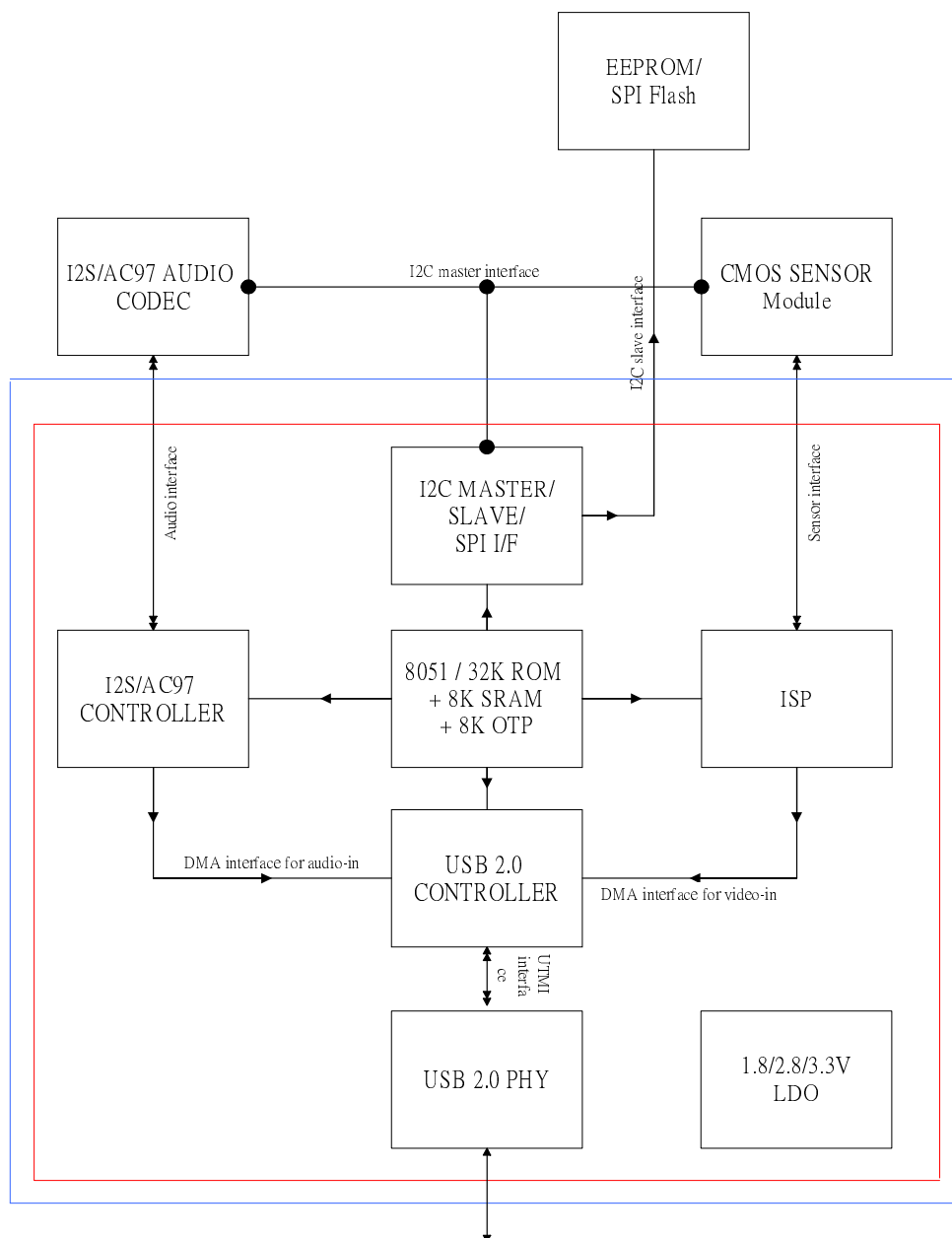


Figure 1 eSP268 Block Diagram

2. Features

- CMOS Sensor Module Interface
 - Input: 8-bit YUV422 Bayer pattern
 - Resolution: VGA (640x480) and 1.3M (1280x1024) in uncompressed format
 - Support encoded JPEG stream via bypass mode
- USB 2.0 high-speed and full-speed compatible
 - UVC 1.1/UAC1.0 compliant
 - Support Isochronous endpoint (video, 24MB/s max.)
 - Support remote wakeup from USB event
- Embedded 8051 with 32KB mask ROM, 8KB SRAM and 8KB OTP
 - Up to 48MHz
 - UART for debug
 - Up to 16 GPIOs (4GPIOs for 46-LQFN)
 - F/W upgrade to OTP/EEPROM/SPI Flash via USB
- Control Interface
 - Support I2C/SPI master for CIS/EEPROM/SPI Flash control
 - Support I2C slave by external HOST
 - Auto load code from EEPROM/SPI Flash via DMA
- Support AC97/I2S audio format
- ISP functions
 - Support AE, AWB, Gamma mapping
 - Brightness, Contrast for luminance
 - Hue, Saturation, Gain and Offset for chroma
 - Window cropping
 - Downsampling
- Single 5V power supply
 - Built-in 1.8V/3.3V LDO for core/peripheral power
 - Built-in 2.8V LDO for CIS
 - Lower power consumption: < 50mA when operation and < 250uA when suspend
- Crystal oscillator 12MHz
- Certified by Microsoft WHQL & USB-IF
- Support platforms: Window XP SP2, Window XP 64, Vista 32, Vista 64, Mac OS X, and Linux with UVC driver
- Package
 - 46-LQFN (4.5mm x 6.5mm)/48-LQFP (7mm x 7mm)/64-LQFP (7mm x 7mm)