

EM2770/2775



USB2.0 PC Camera Controller

EM277X USB2.0 PC Camera Controller is a mature solution for USB2.0 PC Camera application.

EM277X support up to 3M pixels sensors, with digital Microphone function, final video data would be transferred to the USB host via isochronous or bulk mode. Application of such a system can be video conference, external web camera video mail and embedded note book Camera.



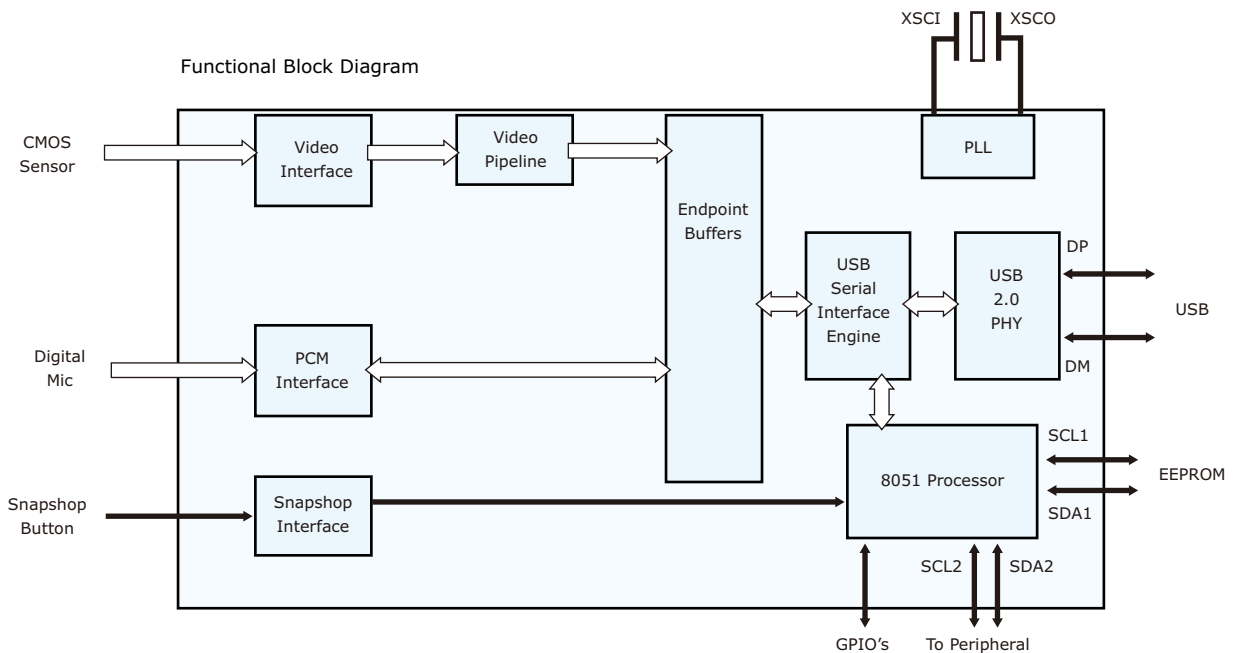
www.eeti.com

11F., No.302, Rueiguang Rd.,
Neihu District, Taipei City 114,
Taiwan (R.O.C.)

TEL : +886-2-8751-5191
FAX : +886-2-2797-8808

USB2.0 PC Camera Controller

EM2770/2775



Features

Video In

- Compliant to USB Video Class
- Support snapshot button and still image capture
- Flexible Video Input Port supports various CMOS sensors
- Provide clock to CMOS sensor
- Support CCIR-656 YUV with embedded sync
- Convert Bayer RGB to YUV color space
- Black Clamping
- Gamma Correction
- Gain and offset adjustment in RGB space
- 9-window image statistics collection for AE and AWB
- Defect pixel compensation
- Gain and offset adjustment in YUV space
- Sharpness enhancement
- Random ratio down scaler
- Anti-noise filter to reduce video noise

Audio In

- Compliant to USB Audio Class
- Support in (microphone) streaming
- Interface with Digital Microphone CODEC
- Support Linear PCM-16 format
- Support stereo and mono audio
- Support audio sample rate from 8 KHz to 48 KHz

General

- USB 2.0 compliant
- Support serial and I2C EEPROM interface
- Embedded turbo 8051 microcontroller runs 2 to 4 clocks per instruction

- Many general I/O ports controlled by the 8051
- Support 2 timers in the 8051
- Support basic and extended interrupts in the 8051
- Support UART with baud rates upto 3Mbit/sec in the 8051
- Fully customizable microcode in external EEPROM, sized 12 KB
- Customizable Vendor ID, Product ID, Vendor String, Product String
- 2 sets of 2-wire command serial bus to peripheral devices
- USB suspend output to peripheral devices
- Built-in 1.8V regulator for single supply voltage
- 0.18 micron, 1.8V core, 3.3V I/O CMOS process
- 46 pin LQFN (6.5*4.5) & BGA (4*4) packages

EM27XX Series Selection Guide

	Support VGA 30 FPS	Support 1.3M Pixel	Support 2.0M Pixel	Support Mic Type	Video class
EM2750	RGB/YUV	RGB/YUV	YUV	Analog	N
EM2760	RGB/YUV	RGB/YUV	YUV	N.A.	Y
EM2765	RGB/YUV	RGB/YUV	YUV	Analog	Y
EM2770	RGB/YUV	RGB/YUV	YUV	N.A.	Y
EM2775	RGB/YUV	RGB/YUV	YUV	Digital	Y
Supporting Sensors	OV 7725/7670/60/48. MI360/370/380... Samsung 83A	OV 9650/53/55 MI1310/20/30	MI2010/2020 Samsung 3BAF OV 2640		

