

**VC0359** is a high performance USB 2.0 camera processor targeting for high quality embedded Notebook webcam and standard-alone webcam. It comes with high quality Image Signal Processing (ISP) unit and a MJPEG compression engine. Its flexible sensor interface can support most common CMOS image sensors in the market. It is also fully compliant with UVC and UAC standard.

## KEY FEATURES

### Standards

- Built-in USB2.0 HS & FS transceiver
- Support ISO IN pipe for video streaming
- Compliant with USB Video Class 1.1
- Compliant with USB Audio Class 1.0

### MCU

- Built-in 8051 micro controller
- Support external serial flash for program code
- Built-in 64KB RAM for program code running
- Built-in 4KB RAM for program data
- Support EEPROM for setting and code

### Sensor Interface

- Support CMOS Image Sensors
- Support sensors with RAW / YUV output
- Support MIPI CSI-2 one data lane
- Programmable sensor clock output
- Support I2C for sensor configuration

### ISP / IPP

- Support 10-bit ISP
- Support AE/AWB/AF
- Gamma / Brightness adjustment
- Contrast / Sharpness adjustment
- Edge Enhancement
- Backlight compensation
- Lens Shading Compensation
- Advance DPD&DPC
- Noise management

### Video capability

Standard	Resolution	YUY2	MJPEG
VGA	640x480	30fps	60fps
HD-720	1280x720	12fps	30fps
SXGA	1280x1024	7fps	30fps
2.0M	1600x1200	4fps	30fps
HD-1080	1920x1080	4fps	30fps

### Audio capability

- Built-in PDM interface for digital audio mic.
- Support up to 2 digital audio microphones

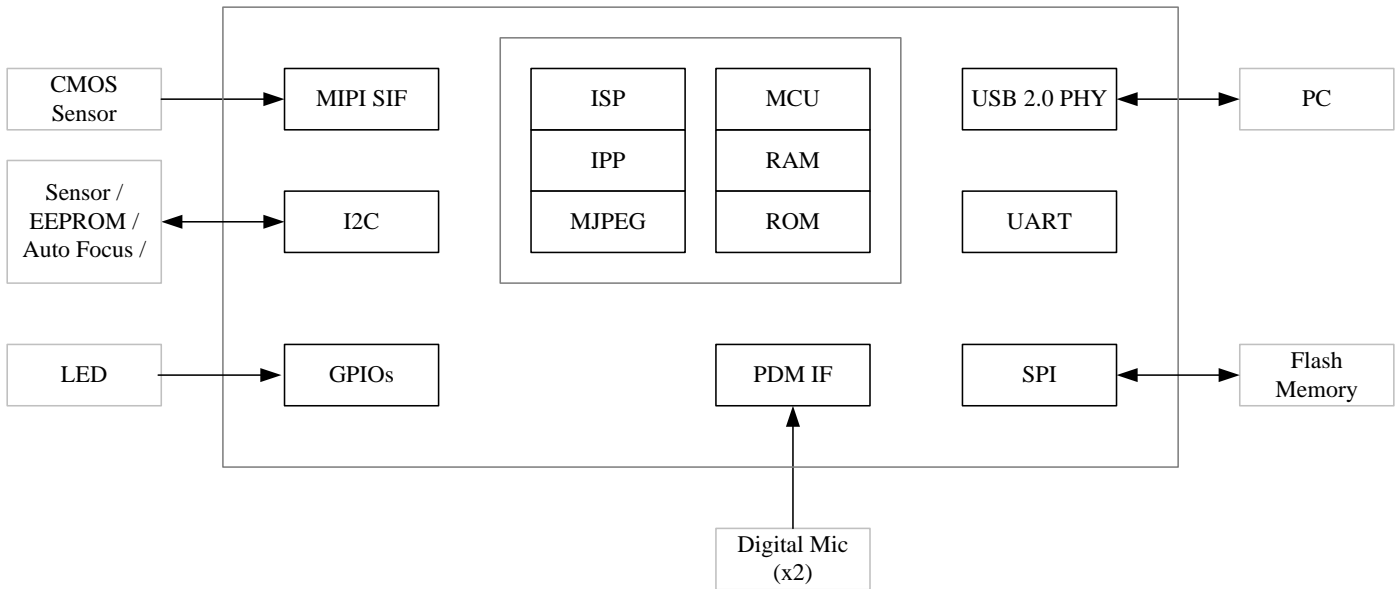
### I/O

- USB 2.0 High Speed (Device)
- GPIO / PWM / UART / I2C / PDM
- SPI (for Flash Memory)

### Package Information

Part Number	VC0359TLNB
Package Type	T-QFN 48pins
Size	6.5 x 5mm

#### Chip Block Diagram



#### Application Diagram

