

VC0358 is a high performance USB 2.0 camera processor targeting for high quality standard-alone PC Cameras. 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 10-bit parallel interface
- Programmable sensor clock output (parallel)
- 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
- Built-in I2S interface for audio codec chip
- Support 2 audio microphones & 2 speakers
- Quantization noise reduction

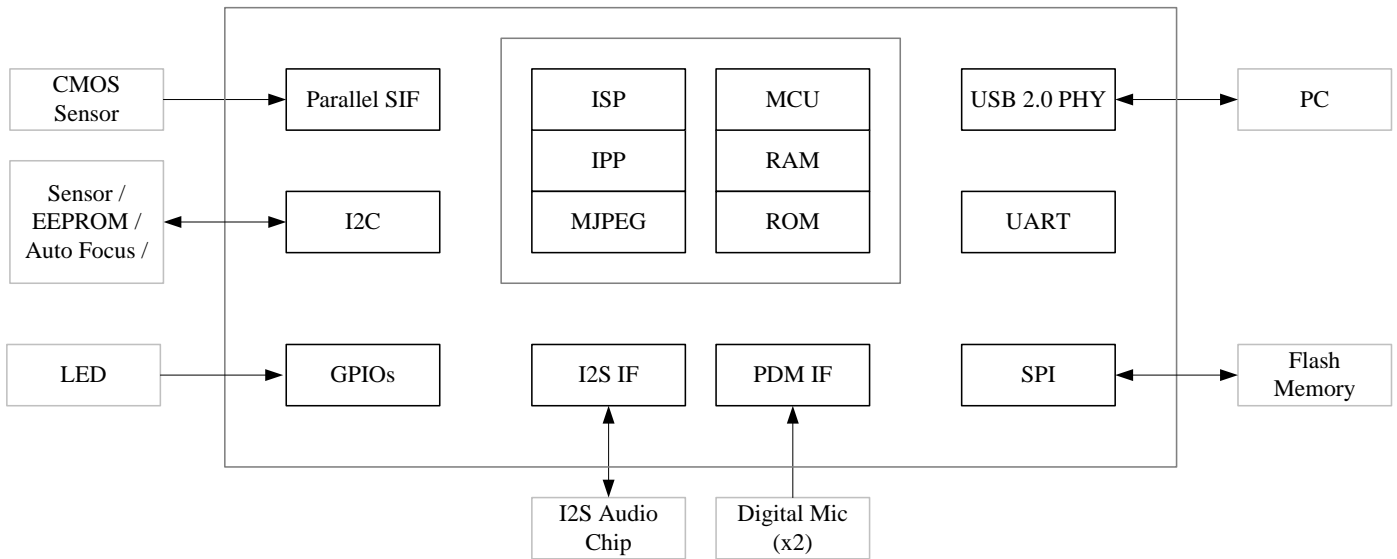
I/O

- USB 2.0 High Speed (Device)
- GPIO / PWM / UART / I2C / PDM
- SPI (for Flash Memory)
- I2S (for Audio Codec)

Package Information

Part Number	VC0358PQNB
Package Type	LQFP-80pins
Size	12x12mm

Chip Block Diagram



Application Diagram

