

VC0338 is a high performance USB 2.0 camera processor targeting for high quality standard-alone PC Camera. 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
Built-in 64KB OTP ROM for program code
Built-in 6KB RAM for program data
Support external flash memory for DFU
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
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-720P	1280x720	10fps	30fps
SXGA	1280x1024	7fps	30fps
UXGA	1600x1200	5fps	N/A
QXGA	2048x1536	3fps	N/A
QSXGA	2560x2048	2fps	N/A

Audio capability

Built-in PDM interface for digital MIC.
Support up to 2 digital microphones
Built-in I2S interface for codec chip
Support 1 microphone & 1 speaker
Quantization noise reduction

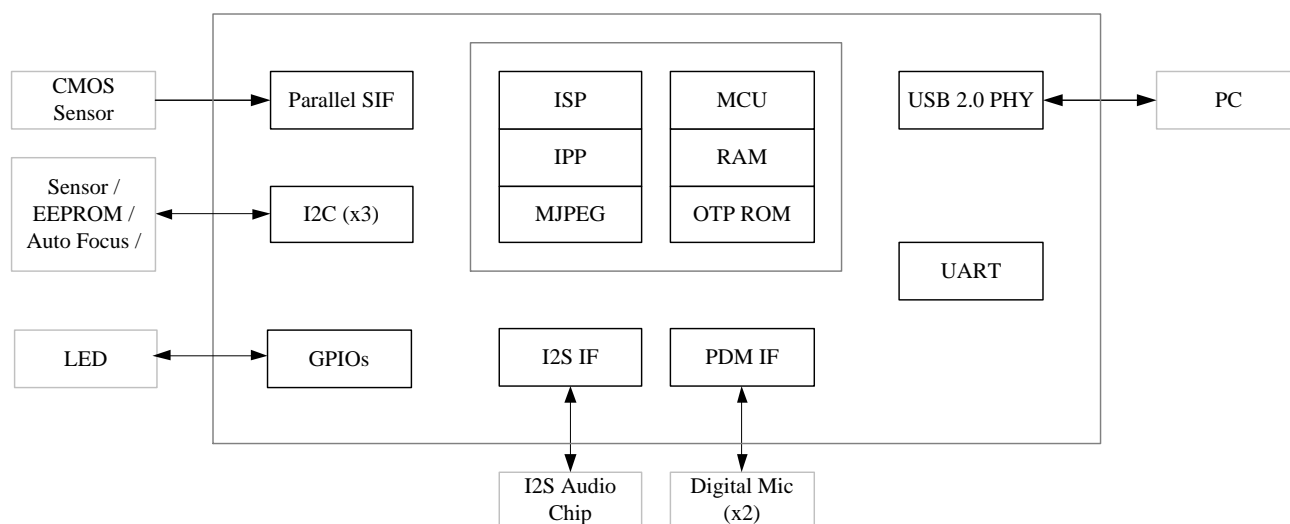
I/O

USB 2.0 High Speed (Device)
GPIO / PWM /I2C/UART/PDM

Package Information

Part Number	VC0338PQNCC
Package Type	LQFP-80pins
Size	12x12x1.4mm

Chip Block Diagram



Application Diagram

