

**VC0355** is a high performance USB 2.0 camera processor targeting high quality USB Cameras. It comes with a high quality Image Signal Processing (ISP) unit and an MJPEG compression engine. Its flexible sensor interface can support most common CMOS image sensors in the market. VC0355 is mainly targeted for non-consumer markets which require long production life-time, such as markets for scanners, machine vision, microscopes, medical equipment, etc.

## KEY FEATURES

### Standards

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

### MCU

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

### Sensor Interface

Supports CMOS Image Sensors  
Supports sensors with RAW / YUV output  
Supports 10-bit parallel interface  
Programmable sensor clock output (parallel)  
Supports I2C for sensor configuration

### ISP / IPP

Supports 10-bit ISP  
Supports 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
3.0M	2048x1536	3fps	15fps
5.0M	2592x1944	2fps	-
8.0M	3264x2448	1fps	-
10M	3664x2748	1fps	-

### IR Tracking Function

Support IR point-tracking  
Track up to 4 points  
Output coordinated by UART or USB  
Support HID

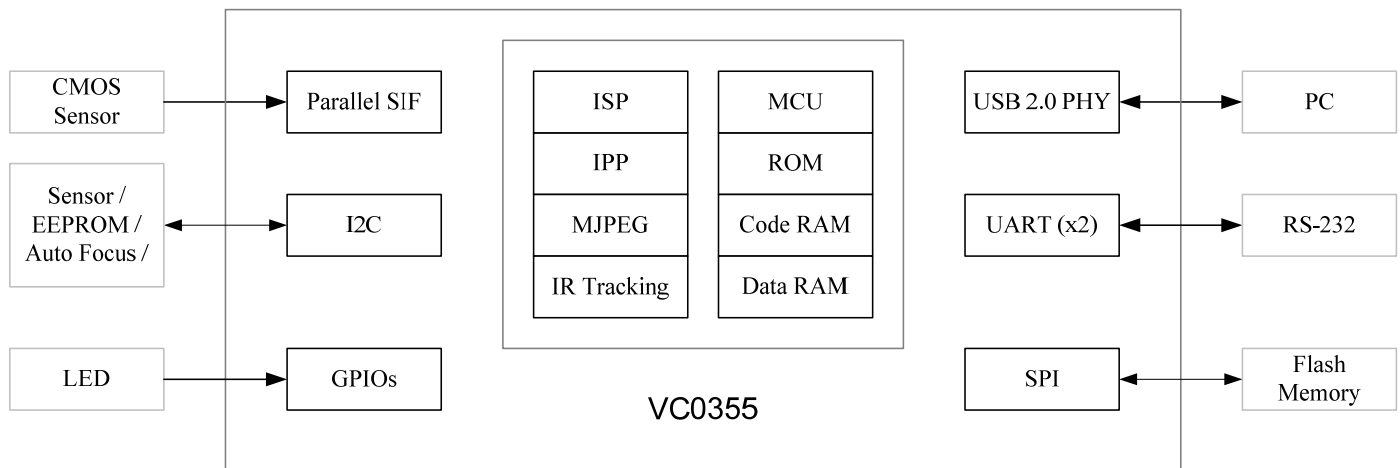
### I/O

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

### Package Information

Part Number	VC0355TLNB
Package Type	T-QFN 48pins
Size	6.5 x 5mm

#### Chip Block Diagram



#### Application Diagram

