

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

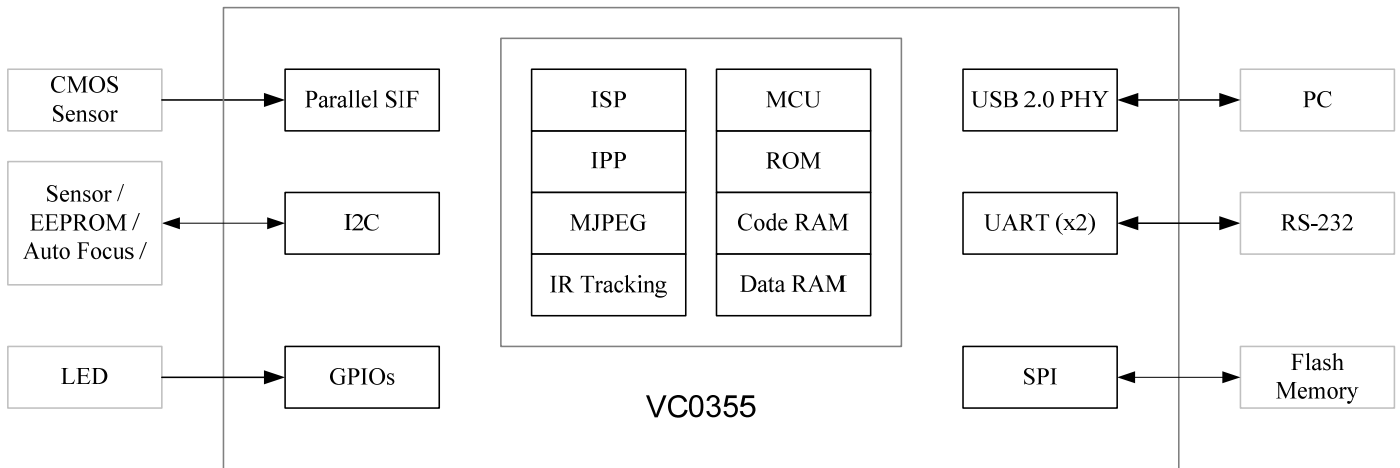
I/O

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

