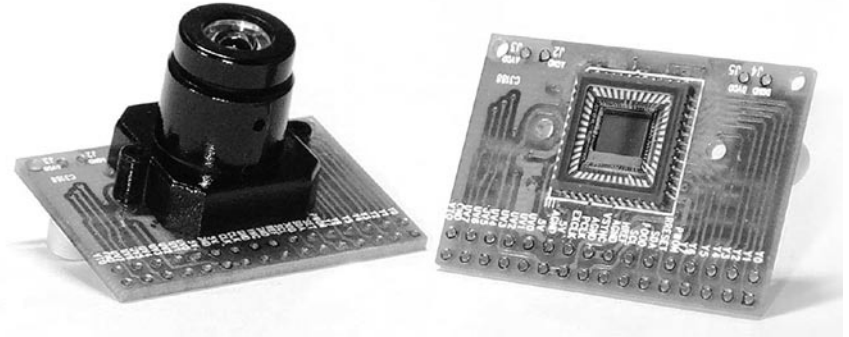




ITM-C-B3

1/4" Color Camera Module with Digital Output



General Description

The ITM-C-B3 is a 1/4" color camera module with digital output. It uses OmniVision's CMOS image sensor OV6630. Combining CMOS technology together with an easy to use digital interface makes ITM-C-B3 a low cost solution for higher quality video image application. The digital video port supplies a continuous 8/16 bit-wide image data stream. All camera functions, such as exposure, gamma, gain, white balance, color matrix, windowing, are programmable through I²C interface. In combine with OV511+, USB controller chip, it will easily form a USB camera for PC application.

Application Example

Video conferencing · PC multimedia · Video Phone · Video Mail
Still Image · Machine Vision · Process control

Specification

Imager	OV6630, 1/4" CMOS imager sensor
Array Size	356 × 292 pixels
Scanning	Progressive
Pixel size	9.0 × 8.2 μm
Effective image area	3.1mm × 2.5mm
Electronic exposure	500:1
Gamma correction	0.45/0.55/1.0
S/N Ratio	> 48dB
Shutter	1/50 to 1/5000 sec
Video Output	1. Digital : 8bit 2. Analog :1V p-p composite video (75Ω)
Min Illumination	3 Lux at f1.2
FPN	< 0.03% Vp-p
Dark current	< 0.2 nA/cm ²
Dynamic range	72dB
Operation current	80mW active, 30μW stand-by
Operation Voltage	3.3 VDC
Lens (optional)	f4.9mm, F2.8 with IR cut

Features

- Small size 40 × 28 mm
- Lens..... f4.9mm (Option) with IR cut
- 101,376 pixel, CIF/QCIF format
- 8/16 bit video data: CCIR601, CCIR656, ZV port
- Data format..... YCrCb 4:2:2, GRB 4:2:2, RGB
- Read out – progressive, I²C interface
- Wide dynamic range, anti-blooming, zero smearing, white balance control, image enhancement – brightness, contrast, gamma, saturation, sharpness, window, etc.
- Low power consumption..... <100mW
- Frame exposure/line exposure option
- Monochrome composite video signal output (50Hz)
- Auto gain control..... 0 – 18dB
- External frame sync capability

Pin Description

1 – 8	Y0 – Y7	Digital output Y Bus
9	PWDN	Power down mode
10	RST	Reset
11	SDA	I ² C Serial data
12	FODD	Odd Field flag
13	SCL	I ² C Serial clock input
14	HREF	Horizontal window reference output
15	AGND	Analog Ground
16	VSYN	Vertical Sync output
17	AGND	Analog Ground
18	PCLK	Pixel clock output
19	EXCLK	external clock input (remove crystal)
20	VCC	Power Supply 3.3 VDC
21	AGND	Analog Ground
22	VCC	Power Supply 3.3 VDC
23 – 30	UV0 – UV7	Digital output UV bus
31	GND	Common Ground
32	VTO	Video Analog Output (75Ω monochrome)

