

CA16C

HD USB camera module product specification

❖ ❖ PUBLICATION HISTORY ❖ ❖

REV.	MODIFIED DESCRIPTION	DATE	REMARK
0.1	Release	2015/03/23	

Table of Contents

1. GENERAL DESCRIPTION	3
2. MAJOR FEATURES	3
3. KEY SPECIFICATIONS	3
3.1 NORMAL DEFINE	3
3.2 SENSOR SPECIFICATION	3
3.3 LENS SPECIFICATION	3
4. PLATFORM SUPPORTED	4
SUPPORTED OPERATING SYSTEMS	4
4.1 ENVIRONMENTAL TEST	4
5. MECHANICAL DIMENSION	5

1. General Description

The “CA16C” is a high quality 1.0 Megapixel resolution camera module. It is especially designed for IP CAM、Web Cam. “CA16C” has built-in 10b parallel interface. “CA16C” provides high quality video streaming, transferring up 30 frame rate per second (fps) at HD(720P).

2. Major Features

2.1 10bit Parallel interface support

- 10-bit RAW RGB data
- Built-in JPEG encoder to support USB Video Class MJPEG payload
- Built-in H.264 encoder support USB Video Class

2.2 Supported maximum readout

- - HD 720p (1280x720): 30 fps
- - VGA (640x480): 30 fps
- - QVGA (320x240): 30 fps

2.3 Image quality control

- - automatic exposure control (AEC)
- - automatic gain control (AGC)
- - automatic white balance (AWB)
- - automatic black level calibration (ABLC)

3. Key Specifications

3.1 Normal define

Specifications	Description
Module Size (LWH/mm)	45mm × 45mm × 9.85mm(MAX)
Temperature (Operation)	0°C to 45°C
Focus	1Meter~∞
Types of iris control	Fixed iris
Resolution	1.0Mp
Interface	USB
Power	VCC – (3.3V)

3.2 Sensor Specification

Specifications	Description
Sensor Type	SOI_JX-H22 (HD CMOS Image Sensor 1/4” format)
Active Array Size	1296x816
Pixel Size	3μm x 3μm
Maximum Image Transfer Rate	up to 30 fps @720P
AGC/AEC/Whiter balance	Auto
Output Image Formats	10-bit RAW RGB data

3.3 Lens Specification

Specifications	Description
Lens Construction	4P+IR Glass
F/No	2.8 ± 5%
EFL	3.36mm ± 5%
Maximum FOV	67.4°± 3°
TV Distortion	<0.175%
Relative Illumination (Sensor)	>50.31%

4. Platforms Supported

Supported Operating Systems

Microsoft Windows XP 32bit SP2, Microsoft Windows XP 64bit, Microsoft Windows Vista 32/64 bit, Microsoft Window 7 32/64 bit. For Win7, it's fully compatible with system built-in h.264 decoder and Linux support UVC after kernel 2.6.26

No.	Definition
1	USB 3.3V
2	USB_3.3V
3	D-
4	D+
5	GND
6	GND

4.1 Environmental test

Test Item	Specification
Operating Temperature	The device shall perform to specification when exposed to ambient temperatures of 0°C to 45°C.
Storage Temperature	The device shall be able to withstand prolonged exposure to temperatures from 0°C to 60°C encountered during transportation or storage.

