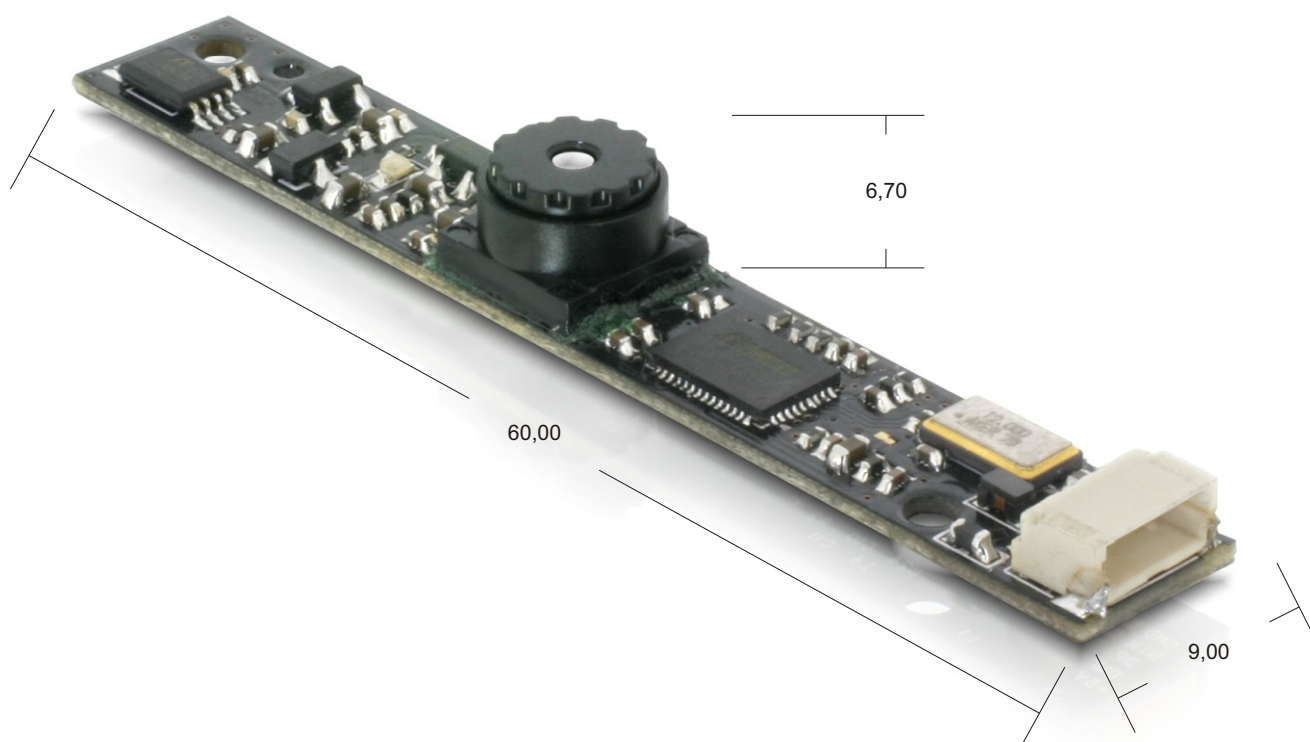


Specification

95852

Delock industry USB 2.0 CMOS camera 1.3 megapixel module



date: 19.02.2009

Specification

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Specification

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Delock industry USB 2.0 CMOS camera 1.3 megapixel module

1. Description of Camera Module

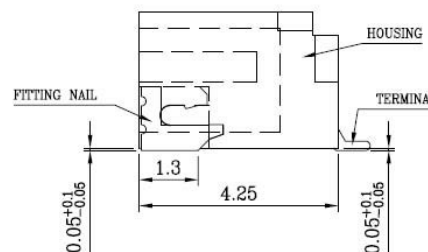
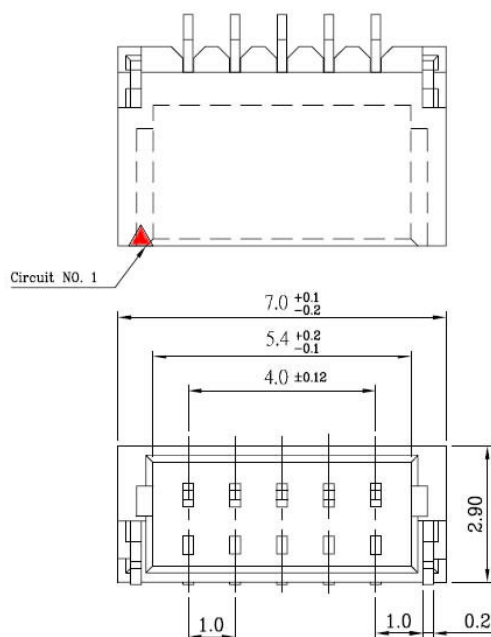
Delock 95852 is a USB 2.0 CMOS sensor camera module that supports SXGA resolution(1280 x 1024). This module integrates Omni Vision OV9655 CMOS sensor, Aveo AV301V high-integrate SOC controller and Largan 903Y Lens assembly. It is of very low power consumption and miniature size, therefore ideally to be used on PC, Notebook or PDA device.

2. Physical Specification

Connector Type: 1.0mm Pitch Connector
SMT to connect to
<http://www.acesconn.com>

Aces: 87213-0500

Aces: 87214-0500



Specification

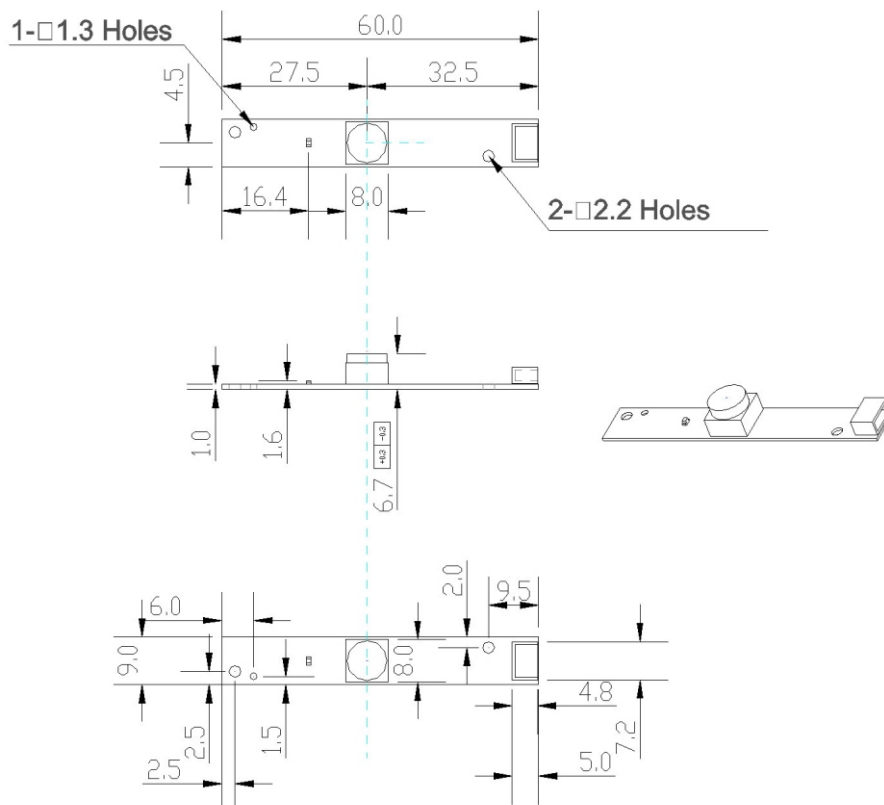
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2. Physical Specification

The enclosure has the following physical dimensions:

Length: 60.0 mm
Width: 9.00 mm
Height: 5.5 mm +/- 0.3mm
A hole Φ : 2,2 mm



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3. Features

Omni Vision OV9655

High sensitivity for low-light operation
Low operating voltage for embedded portable apps
Standard SCCB interface
Output support for Raw RGB, RGB (GRB 4:2:2, RGB565/555), YUV (4:2:2) and YCbCr (4:2:2) formats
Supports image sizes: SXGA, VGA, CIF, and any size scaling down from VGA to 40x30
VanoPixel® method for sub-sampling
Automatic image control functions including Automatic Exposure Control (AEC), Automatic Gain Control (AGC), Automatic White Balance (AWB), Automatic Band Filter (ABF) and Automatic Black-Level Calibration (ABLC)
Image quality controls including color saturation, gamma, sharpness (edge enhancement), lens correction, white pixel canceling, noise canceling, and 50/60 Hz luminance detection
Supports LED and flash strobe mode
Supports scaling
Package Types: CSP28

Aveo AV301W

Image data input

Support VGA/1.3M/2M/3M CCD and CMOS image sensor.
Support Samsung, MagnaChip, Pixelplus, Micron, OmniVision, Hynix, SET etc.
Bayer pattern / YUV data format.
Frame rate: VGA 30 fps; Mega pixel 12 fps (UVC uncompressed); 15fps (Raw).
External DSP Jpeg bypass mode.

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USB Interface

- Up to 480Mb/s High speed USB 2.0 compliant device.
- ISO video high-speed high bandwidth endpoint for 24MB/s transfer.
- Support video and audio stream synchronization.
- USB video class 1.1 Compliance. (For YUV sensor input only, N/A for sensor raw inputs).

Image Processing

- Auto light exposure control.
- Auto white balance control.
- Automatic Focus adjustment.
- Automatic Facial tracking.
- Auto anti-flicker control.
- Color enhancement (U/V offset/Hue adjustment).
- 16 segments gamma correction.
- 256 Windows RGB average
- Automatic Focus adjustment.
- Automatic Facial tracking.
- Contrast enhancement.

Miscellaneous

- Turbo 8051 interface for video data control.
- Programmable Vendor and Product ID through EEPROM.
- 8K byte 8051 code loadable from USB port or EEPROM.
- Clock up to 30MHz.
- 1K data memory
- 40K ROM and 8K SRAM

Packages

- AV3O1W: 46 Pins LQFN package (6.5x4.5 mm).

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Largan 903Y

composition:	4 elements, 3 plastic + 1 filter
sensor:	1/4" CMOS (417 x 3,29, diagonal= 5,3)
F=	2,8
EFL=	4 06 (paraxial)
FB=	4,88 +- 0,2 (air, infinity)
	5,05 +- 0,2 (infinity, with 0,5 mm cover glass)
field of view:	
vertical:	43,8°
horizontal:	54,1°
diagonal:	65,9°
entrance pupil:	
	P= 0,56 richts to front surface
	D= Φ 1,45
TV-distortion	< 1%
relative illuminance:	50%
chief ray angle	< 25
IR-cut coating filter:	T50%= 635+-10nm
barrel material:	PC (black)
holder material:	PC (black)

4. Software requirement

Windows VISTA, 32/64 bit
Windows XP Service pack 2

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5. Operating Range

Voltage Range	5V +/- 0.5V
Operating Temperature Range	0°C ~ 50°C
Storage Temperature Range	-20°C ~ 85°C
Relative Humidity during Operating	95%
Relative Humidity during Storage	95%

6. Power Dissipation

Active (typical) 0.550 W (5V, 110mA)
Standby 0,325 W (5V, 65mA)

7. Pin definition

Pin#	Signal name	Description
1	+5V	Positive supply for whole module
2	USB_D-	USB data minus
3	USB_D+	USB data plus
4	BTN	optional capture button
5	GND	

cable optional Delock A 95843



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8. USB PC Camera System Block Diagram

