

Figure 1. The Photo of ATMC102U Camera Head



Figure 2. The Photo of USB Converter AUSBC1

### MAIN FEATURES

- Small Installation Pin Hole: 2.2mm
- Miniature Size: 11×11×7 (mm)
- Plug & Play: no driver is needed
- High Sensitivity: 0.6 lux/F1.2
- Progressive Scan
- High S/N Ration: > 50dB
- Low Current: < 100mA@5V camera head
- High Resolution: 640×480
- Analog Video/Audio Output Available
- Digital Output Through USB port

### APPLICATIONS

Medical care, microscope, video conferencing, video phones, video email, PC multimedia, toys, industry pipe & well inspection, CCTV security surveillances, etc.

### DESCRIPTIONS

This camera has 2 units: a camera head and a USB video converter. The former has analog video/audio output signals, the latter converts the analog signals into digital ones with a USB protocol which allows interfacing to a computer conveniently.

#### I. CAMERA HEAD

The camera head comes with all the circuits for generating the standard NTSC or PAL video/audio signals. The image sensor has a built-in color filter array, for generating the color signal. Figure 3 shows the connection instruction.

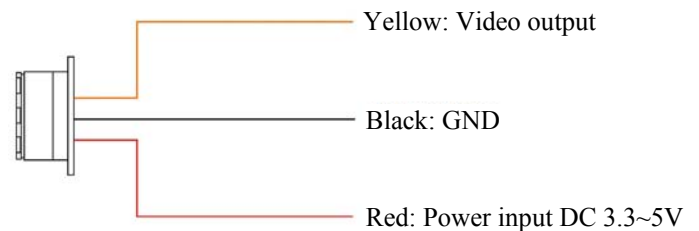


Figure 3. Connection Instruction

Note: Users may need to apply some materials on the PCB at the back of the camera to prevent light-pass through.

#### II. USB CONVERTER

This USB converter AUSBC1 is able to capture videos at resolution up to 720 × 480 (NTSC) or 720 × 576 (PAL/SECAM), and the video can be directly captured in the format of .AVI, MPEG-1 or window media video. Also the video can be burnt to disc in video CD format. The captured video can be transferred from the camera to the computer hard drive. It has integrated input connections with mini 4 pin. Compact size is perfect for travel and portable use.

In order to use this USB converter AUSBC1, the PC shall meet the following requirements:

1. Driver free (USB Video Class) for any operation system (Windows XP, Vista, Win7, Linux of any version, MAC OS)
2. A/V CVBS NTSC/ PAL input
3. Play & plug with USB Video Class
4. Live video calls with MSN Messenger, Skype, Youtube and JoinNet
5. Build in 3D comb filter and 3D de-interlace
6. Over 4 GB of hard disk for videos captured

There are 4 wires between the camera head and the USB converter AUSBC1, see Figure 4.

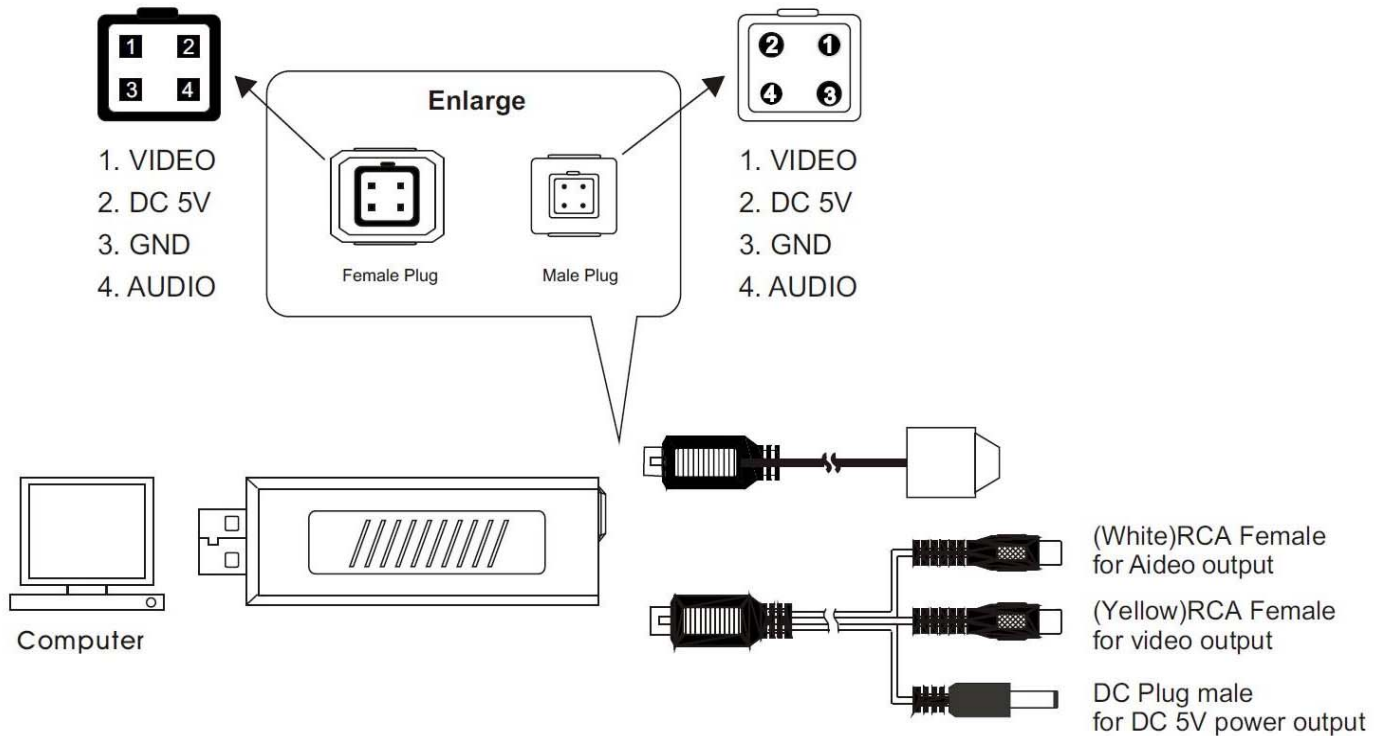


Figure 4. Interconnection Instruction Drawing

## SPECIFICATIONS

Table 1. Specifications of Camera Head

Video System	NTSC/PAL
Number of Effective Pixels	648×488 (NTSC & PAL)
Image Sensor	1/4" Color CCIQ II Camera
Resolution	400 TV lines
S/N Ratio	> 50dB
Scan Mode	Progressive
Scanning System	2:1 Interlace
Synchronization	Internal
Minimum Illumination	0.6 Lux @ F1.2
Image Transfer Rate	60 field/sec (NTSC), 50 field/sec (PAL)
Horizontal Sync Frequency	15.734KHz (NTSC)/15.625KHz (PAL)
Vertical Sync Frequency	60Hz (NTSC)/50Hz (PAL)
Video Output	1V <sub>P-P</sub> @75Ω composite
Storage Temperature	-30°C to 60°C
Working Temperature	-10°C to 45°C

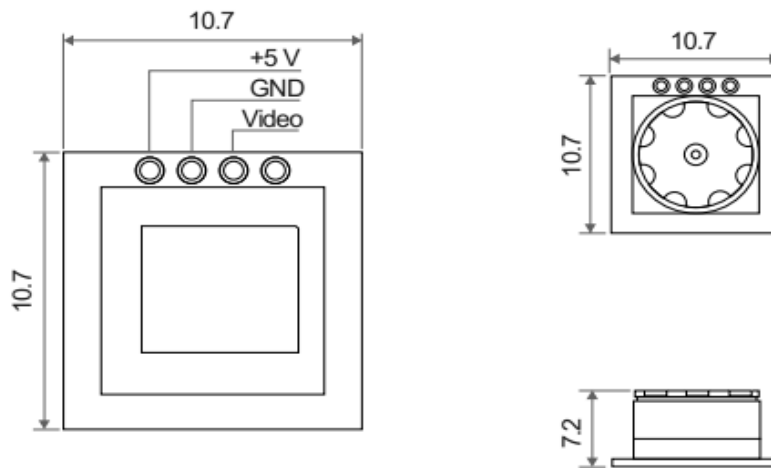


Audio Output	20-1600Hz, S/N more than 58dB (Optional)
Built-in lens	3.9mm/F2.8
Power Supply	DC 3.3V ~ 5V (standard)
Power Current	100mA-max. (DC 5V)
Gamma Consumption	0.45
Sensor Board Dimension	10.7×10.7 (mm)

Table 2. Specifications of USB Converter AUSBC1

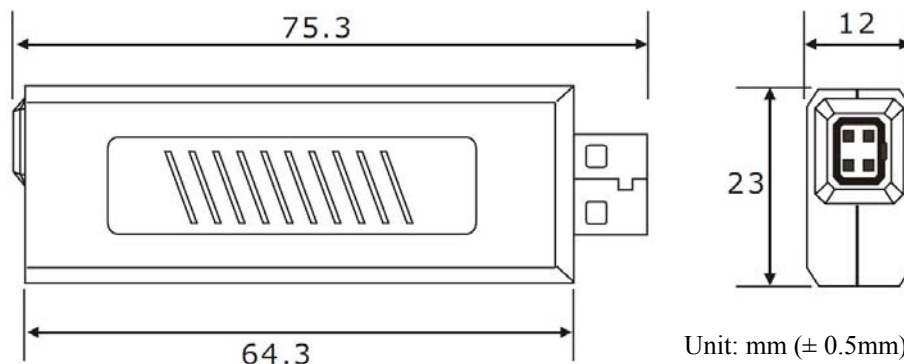
Frame Rate	30fps@NTSC or 25fps@PAL
Resolution	640×480@NTSC/PAL
Interface	USB 2.0 port
OS Support	Windows XP, Vista, Win 7, Linux any version, MAC OS
Power Input	240mA@5V
Dimension	64.5×23×75.3 (mm)

**DIMENSIONS**



Unit: mm (± 0.2mm)

Figure 5. The Dimensions of Camera Head



Unit: mm (± 0.5mm)

Figure 6. The Dimensions of USB Converter AUSBC1



**ORDERING INFORMATION**

Table 3. Unit Price for the whole camera system ATMC102U

Quantity	1-4	5-24	25-99	≥100
ATMC102U	\$142	\$136	\$128	\$118

The USB converter AUSBC1 can also be sold separately.

Table 4. Unit Price for the USB converter AUSBC1

Quantity	1-4	5-24	25-99	≥100
AUSBC1	\$95.77	\$92.77	\$88.77	\$83.77

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